WKE

DEC 2013

PROJECT ID: 1090-15-72

COUNTY: WALWORTH/WAUKESHA

ORDER OF SHEETS

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

TOTAL SHEETS = 386

07

DESIGN DESIGNATION

A.D.T.	2014	=	25,200
A.D.T.	2034	=	30,000
D.H.V.	2034	=	3,600
D.D.	2034	=	60/40
T.	2034	=	18.6%
DESIGN SPEED		=	70 MPH
ESALS		=	14,527,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.56
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	
EXISTING PIPE UNDERDRAIN			

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

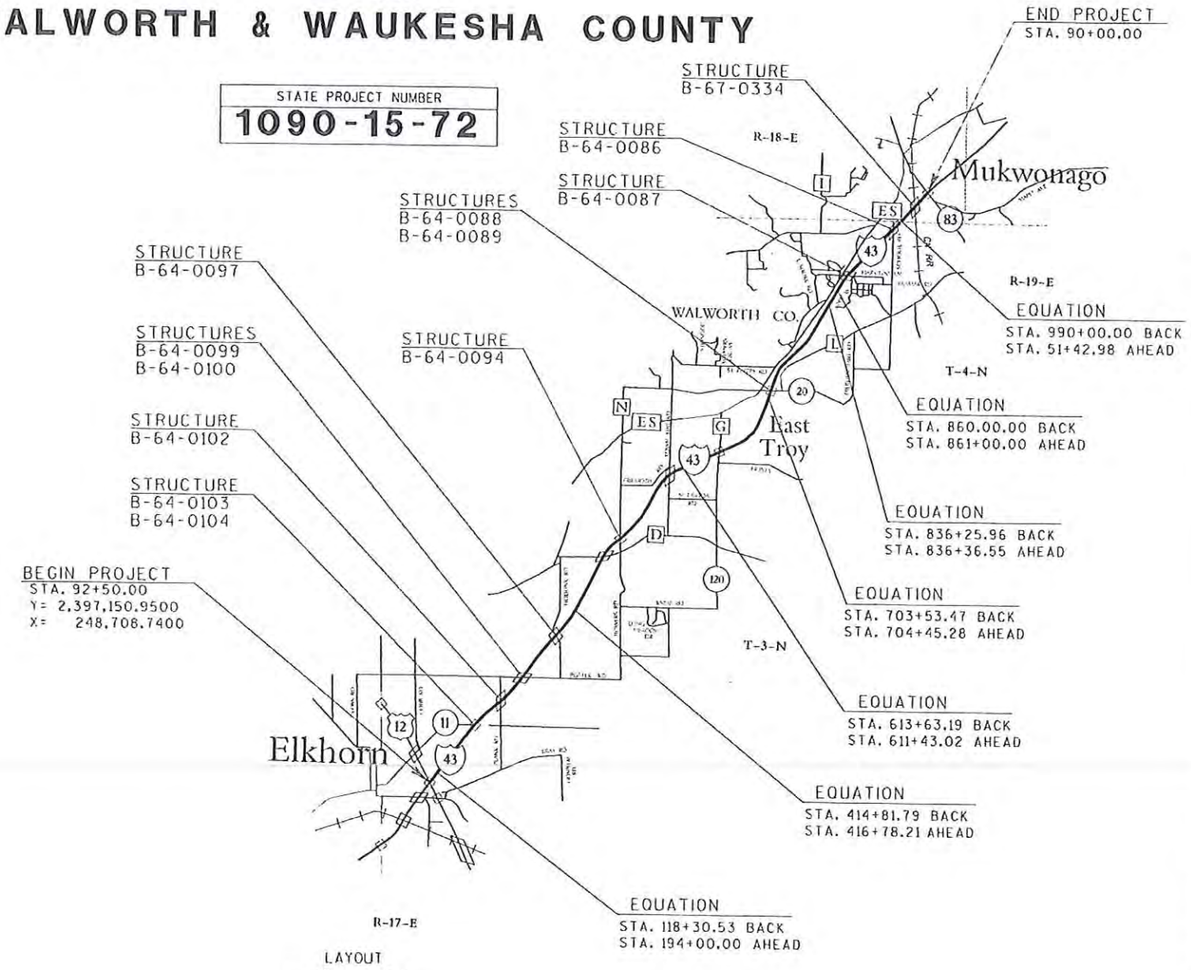
ROCK FREEWAY SB

USH 12 TO STH 83

IH-43
WALWORTH & WAUKESHA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1090-15-72	WISC 2013512	1

STATE PROJECT NUMBER
1090-15-72



LAYOUT
SCALE 0 1.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 16.261 MI. (RURAL)

EXCEPTIONS TO NET CENTERLINE LENGTH:
STA 249+67.70 TO STA 260+01.20
STA 802+83.24 TO STA 612+24.32

Coordinates on this plan are referenced to the Wisconsin State Plane Coordinate System (WSPCS), NAD 27, South Zone.

Elevations shown on this plan are referenced to the National Geodetic VertialDatum of 1929 (NGVD 29)

ORIGINAL PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

WISCONSIN
ROY T STOLLENWERK
E-29041
HALES CORNERS WI
PROFESSIONAL ENGINEER

8/1/13 (Date)
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	ONEIDA TOTAL INTEGRATED ENTERPRISES
Designer	ONEIDA TOTAL INTEGRATED ENTERPRISES
Project Manager	GARY METZER
District Examiner	
District Supervisor	ANITA PUSCH
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE
DATE: 1/16/2013 (Signature)

E

2

MISCELLANEOUS

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN. THE CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING DIGGERS HOTLINE AND ANY UTILITIES ON THE PROJECT NOT PART OF DIGGERS HOTLINE TO LOCATE ALL UNDERGROUND AND ABOVE GROUND STRUCTURES, FACILITIES, AND UTILITIES.

CURVE DATA SHOWN ON THE PLAN IS BASED ON ARC DEFINITION.

BEARINGS ON THE PLAN ARE GRID BEARINGS TO THE NEAREST SECOND. DISTANCES SHOWN ON THE PLAN ARE GROUND DISTANCES.

DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE AND MEASURED IN THE FIELD FOR MATCHING PURPOSES.

REMOVALS

WHEN PORTIONS OF THE EXISTING ASPHALT ROADWAY ARE REMOVED TO ACCOMMODATE THE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT THROUGH THE ASPHALT PAVEMENT SUCH THAT REMOVAL OF THE PAVEMENT WILL BE ACCOMPLISHED WITHOUT DAMAGE TO THE REMAINING PORTIONS, OR AS DIRECTED BY THE ENGINEER.

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

EROSION CONTROL

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

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

STORM SEWER

SEWER REHABILITATION WORK IS BASED ON A "LOOK THROUGH THE GRATE" SURVEY. THE ACTUAL WORK TO BE DONE MAY BE CHANGED IN THE FIELD AS DIRECTED BY THE ENGINEER.

APRON END WALL IS ABBREVIATED "AEW."

GENERAL NOTES

HMA PAVING

MAINLINE IH-43 HMA PAVING, 2 LANES				
	THICKNESS	HMA TYPE	ASPHALTIC MATERIAL	GRADATION
UPPER LAYER	2 INCH	E-30	PG70-28P	12.5 mm
LOWER LAYER	4 1/4 INCH (NOMINAL)*	E-30	PG64-22	25.0 mm

* THICKNESS VARIES. REFER TO CROWN CORRECTION PAVING DETAIL.

MAINLINE IH-43 HMA PAVING, 3 LANES				
	THICKNESS	HMA TYPE	ASPHALTIC MATERIAL	GRADATION
UPPER LAYER	2 INCH	E-30	PG70-28P	12.5 mm
LOWER LAYER	4 1/4 INCH (NOMINAL)*	E-30	PG64-22	25.0 mm
WEDGING LAYER	2 1/4 INCH (NOMINAL)*	E-30	PG64-22	12.5 mm

* THICKNESS VARIES. REFER TO CROWN CORRECTION PAVING DETAIL.

ON & OFF-RAMP HMA PAVING				
	THICKNESS	HMA TYPE	ASPHALTIC MATERIAL	GRADATION
UPPER LAYER	1 3/4 INCH	E-30	PG70-28P	12.5 mm
LOWER LAYER	2 1/4 INCH (MINIMUM)#	E-30	PG64-22	19.0 mm

THICKNESS VARIES FROM 2 1/4"-3" IN ORDER TO CORRECT THE CROSS-SLOPE TO 1.5%

TEMPORARY CROSSOVER HMA PAVING (ASPHALTIC SURFACE TEMPORARY)		
	THICKNESS	GRADATION
SINGLE LAYER	5 INCH	25 mm

DENSITY TESTING OF 25.0 mm HMA PAVEMENT IS TO BE DONE SIMILARLY TO SMA DENSITY TESTING. REFER TO THE CONSTRUCTION AND MATERIALS MANUAL, CHAPTER 8, SECTION 15 FOR THE PROCEDURE.

THE LOCATION OF LONGITUDINAL JOINTS IN THE ASPHALTIC OVERLAY ARE TO BE APPROVED BY THE ENGINEER.

BASE PATCHING CONCRETE

LIMITS OF BASE PATCHING SHOWN IN THE MISCELLANEOUS QUANTITIES ARE TO BE VERIFIED AND MARKED IN THE FIELD BY THE ENGINEER.

TRAFFIC CONTROL

THE TOTAL LENGTH OF THE CONSTRUCTION ZONE MAY NOT EXCEED 4-MILES AT ANY TIME.

WHEN TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IS REQUIRED, IT SHALL BE CUT THROUGH ITS FULL WIDTH AND THICKNESS AT 25-FOOT INTERVALS TO CONTROL RAVELING.

WHEN RAMPS ARE CLOSED, THOSE SIGNS WHICH ARE NOT APPLICABLE SHALL BE COVERED AS DIRECTED BY THE ENGINEER IN THE FIELD.

THE CONTRACTOR SHALL REMAIN IN CONTACT WITH THE WAUKESHA AND WALWORTH COUNTY SHERIFF'S DEPARTMENTS TO COORDINATE ADDITIONAL TRAFFIC GENERATED BY ALPINE VALLEY AND TO COOPERATE WITH INCIDENT MANAGEMENT.

CONSULTANT CONTACT

ONEIDA TOTAL INTEGRATED ENTERPRISES
MR. ROY STOLLENWERK, P.E.
PROJECT MANAGER
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MILWAUKEE, WI 53226
(414) 607-6795
RSTOLLENWERK@OTIE.COM

WISDOT DESIGN CONTACT

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141 N.W. BARSTOW
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WAUKESHA, WI 53187
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GARY.METZER@DOT.WI.GOV

RAILROAD CONTACT

CANADIAN NATIONAL - MIDWEST DIVISION
MS. JACKIE MACEWICZ, MGR PUBLIC WORKS
1625 DEPOT STREET
STEVENS POINT, WI 54481
(715) 345-2503
JACKIE.MACEWICZ@CN.CA

DNR CONTACT

DNR - SOUTHEAST REGION
MR. CRAIG WEBSTER
141 NW BARSTOW, ROOM 180
WAUKESHA, WI 53187
(262) 574-2141
CRAIG.WEBSTER@WISCONSIN.GOV

WALWORTH COUNTY CONTACT

WALWORTH COUNTY PUBLIC WORKS DEPT.
MR. LARRY PRICE, OPERATIONS DIRECTOR
W4097 HWY NN
ELKHORN, WI 53121
(262) 741-3799
LPRICE@CO.WALWORTH.WI.US

WAUKESHA COUNTY CONTACT

WAUKESHA COUNTY DPW
MR. GARY EVANS
1320 PEWAUKEE RD., ROOM 220
WAUKESHA, WI 53188
(262) 548-7740
GEVANS@WAUKESHACOUNTY.GOV

ADDITIONAL CONTACTS

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MR. JOHN ALEXANDER
PO BOX 166
EAST TROY, WI 53120
(414) 423-3300
JA-ET@WI.RR.COM

ALPINE VALLEY MUSIC THEATER
(262) 642-4400

WALWORTH COUNTY SHERIFF'S DEPT.
SERGEANT ROUM
(262) 741-4444

WAUKESHA COUNTY SHERIFF'S DEPT.
(262) 548-7126

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

UTILITIES

WE ENERGIES (ELECTRIC)
DAN SANDE
333 W. EVERETT ST. - A299
MILWAUKEE, WI 53203
(414) 221-4578
DAN.SANDE@WE-ENERGIES.COM

WE ENERGIES (GAS)
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333 W. EVERETT ST. - A299
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DAN.SANDE@WE-ENERGIES.COM

AT&T CORP.
MR. CARL DONAHUE
866 ROCK CREEK RD.
PLANO, IL 60545
(847) 420-9115
CD8729@ATT.COM

WINDSTREAM KDL, INC.
MR. JIM KOSTUCH
13935 BISHOPS DR.
BROOKFIELD, WI 53005
(262) 792-7938
JAMES.KOSTUCH@WINDSTREAM.COM

CENTURYLINK
MR. DENNIS HAAG
144 N. PEARL ST.
BERLIN, WI 54923
(920) 361-0040
DENNIS.HAAG@CENTURYTEL.COM

WISDOT ATR PULL BOXES
MR. CLIFF SEROWSKI
935 S. 60TH ST.
WEST ALLIS, WI 53214
(414) 266-1157
CLIFFORD.SEROWSKI@DOT.STATE.WI.US

TDS TELECOM CORP.
MR. MICHAEL JOHNSON
20875 CROSSROADS CIRCLE, SUITE 800
WAUKESHA, WI 53186
(262) 754-3052
MICHAEL.JOHNSON@TDSTELECOM.COM

WISDOT STOC
MR. JEFF MADSON
433 W. ST. PAUL AVE. - STE 300
MILWAUKEE, WI 53203
(414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

TIME WARNER CABLE
TW CABLE ENGINEERING
1320 N. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
(414) 277-4045
WIS.ENGINEERING@TWCABLE.COM

EAST TROY, TOWN OF
MR. GREG TWELMEYER
PO BOX 872
EAST TROY, WI 53120
(262) 642-5386

WALWORTH COUNTY METRO SEWAGE DIST.
MS. KARLA ROSE EGGINK
975 WEST WALWORTH AVE.
DELAVAN, WI 53115
(262) 728-4140
KEGGINK@WALCOMET.COM

WISDOT SIGN SHOP
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935 S. 60TH ST.
WEST ALLIS, WI 53214
(414) 266-1157
MICHAEL.STATEZNY@DOT.STATE.WI.US

ATC MANAGEMENT, INC.
EMER# (800) 937-3762
MR. MIKE OLSEN
801 O'KEEFE RD.
PO BOX 6113
DEPERE, WI 54115
(920) 338-6582
MOLSEN@ATCLLC.COM

WISDOT OH SIGNING
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935 S. 60TH ST.
PO BOX 798
WEST ALLIS, WI 53214
(414) 266-1165
DENNIS.NEWTON@DOT.WI.US

EAST TROY, VILLAGE OF
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2104 YOUNG ST.
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(262) 642-6253
MMILLER@EASTTROY-WI.COM

EAST TROY SANITARY DISTRICT #3
PO BOX 872
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MUKWONAGO, VILLAGE OF
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440 RIVER CREST CT.
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MUKWONAGO, WI 53149
(262) 363-6420
PMODERACKI@VILLAGEOFMUKWONAGO.COM

TROY, TOWN OF
MS. RUTH POLINSKI
N8713 BRIGGS ST
EAST TROY, WI 53120
(262) 642-5292

WISDOT REST AREA
MR. THOMAS VANBEEK
4802 SHEBOYGAN AVE 501
MADISON, WI 53705
608-261-8183
THOMAS.VANBEEK@DOT.WI.GOV

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	GENERAL NOTES	SHEET NO: 2	E

2

IH-43 OVER PLANK RD.
B-64-0102
BEARING REPLACEMENT

IH-43 OVER POTTER RD.
B-64-0099, B-64-0100
BEARING REPLACEMENT

BOWERS RD OVER IH-43
B-64-0094
CONCRETE SURFACE REPAIR,
PAINTING, BEARING REPLACEMENT,
RE-SEALING SLOPES

EQUATION
AHEAD 416+78.21
BACK 414+81.79

IH-43 OVER HODUNK RD.
B-64-0097
BEARING REPLACEMENT

HODUNK ROAD

BOWERS RD

MATCHLINE

BEGIN PROJECT
STA. 92+50

USH 12

USH 11

IH-43

CTH D

500+00

550+00

450+00

400+00

350+00

300+00

250+00

200+00

PLANK ROAD

POTTERS ROAD

SUGAR CREEK

BAKER CREEK

BACK P.118+30.53
AHEAD P.194+00.00

EQUATION

IH-43 OVER STH 11
B-64-0103, B-64-0104
CONCRETE SURFACE REPAIR,
PAINTING, BEARING REPLACEMENT,
RE-SEALING SLOPES

MIRAMAR ROAD OVER IH-43
B-64-0087
PAINTING,
BEARING REPLACEMENT,
RE-SEALING SLOPES

IH-43 SB OVER CNRR
REMOVE STRUCTURE B-67-131
NEW STRUCTURE B-67-334

EQUATION
BACK 990+00.00
AHEAD 51N+42.98

CANADIAN NATIONAL RR

STH 83

END CONSTRUCTION
NB IH-43, STA. 97+85

BEGIN CONSTRUCTION
NB IH-43, STA. 93+00

IH-43 OVER USH 20
B-64-0088, B-64-0089
CONCRETE SURFACE REPAIR,
PAINTING, BEARING REPLACEMENT,
RE-SEALING SLOPES

EQUATION
AHEAD 704+45.28
BACK 703+53.47

MIRAMAR ROAD

950+00

ROAD

STONE SCHOOL

980+00

N.09

N.08

TOWN LINE ROAD

USH 20

IH-43

900+00

850+00

800+00

750+00

700+00

650+00

600+00

STH 120

MATCHLINE

BACK 613+63.19
AHEAD 611+43.02

EQUATION

EQUATION
AHEAD 836+36.55
BACK 836+25.96

EQUATION
AHEAD 861+00.00
BACK 860+00.00

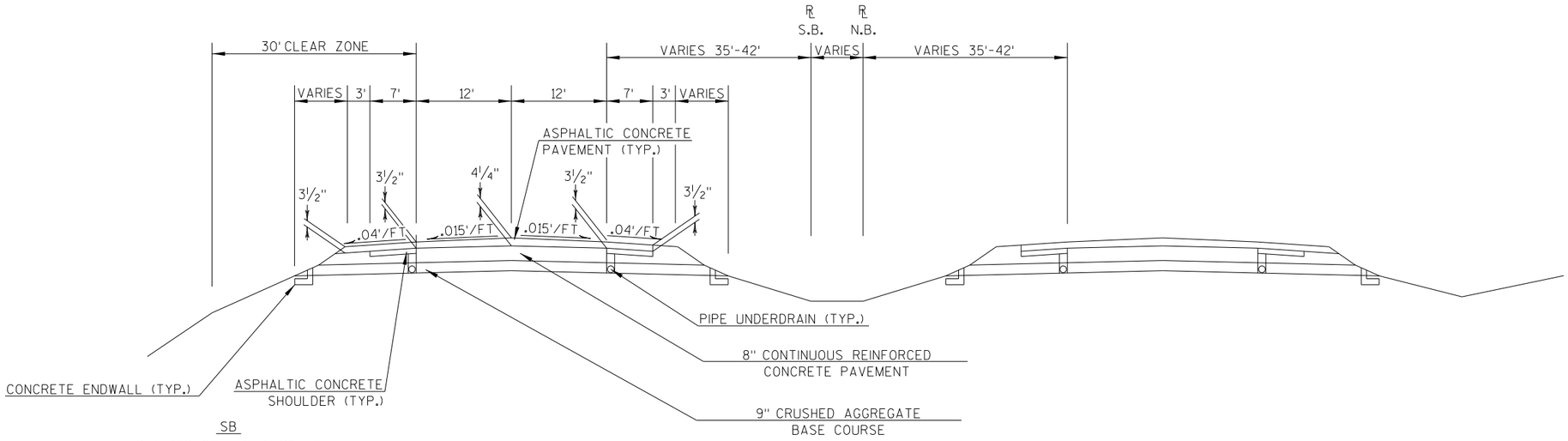
END PROJECT
STA. 90+00'N'

STONE SCHOOL ROAD OVER IH-43
B-64-0086
PAINTING,
BEARING REPLACEMENT,
RE-SEALING SLOPES

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PROJECT OVERVIEW	SCALE, FEET 0 100 200	SHEET NO: 3	E

FILE NAME : Q:\2011 Projects\2011020 - I43 Resurface\MicroStation\Planset\1090-15-72\020201_po.DGN PLOT DATE : 7/29/2013 PLOT BY : OTIE Originator : Dist PLOT SCALE : _PLOTSCALE_

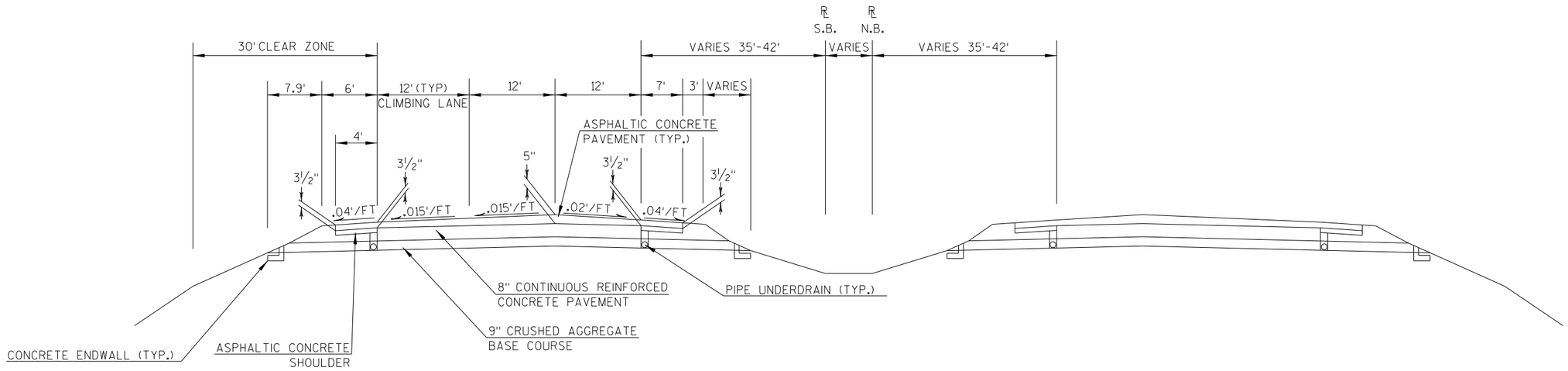
WISDOT/CADDS SHEET 42



SB

STA. 100+00 - STA. 118+30
STA. 194+00 - STA. 256+95
STA. 268+69 - STA. 300+43
STA. 402+40 - STA. 492+33
STA. 510+88 - STA. 518+20
STA. 565+90 - STA. 585+00
STA. 728+99 - STA. 773+09
STA. 792+97 - STA. 811+78
STA. 836+26 - STA. 901+93
STA. 916+21 - STA. 990+00
STA. 990+00 - STA. 90+00

EXISTING TYPICAL SECTION IH-43



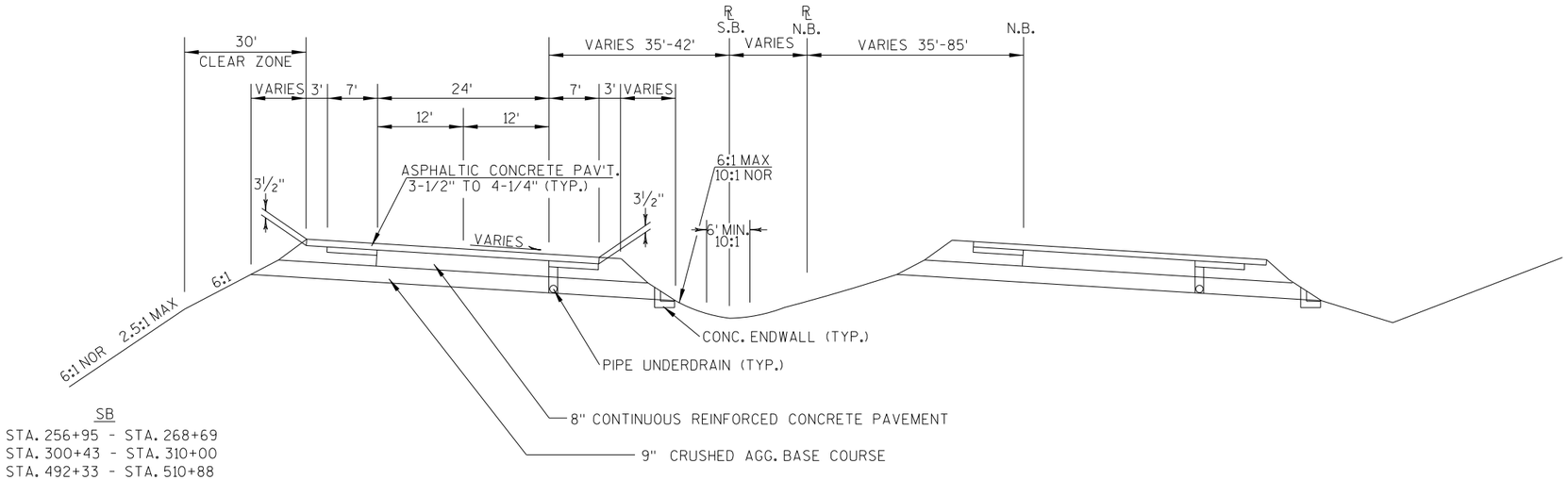
SB

STA. 327+88 - STA. 353+96
STA. 353+96 - STA. 402+40
STA. 585+00 - STA. 585+93
STA. 613+63 - STA. 679+10

EXISTING TYPICAL SECTION WITH CLIMBING LANE IH-43

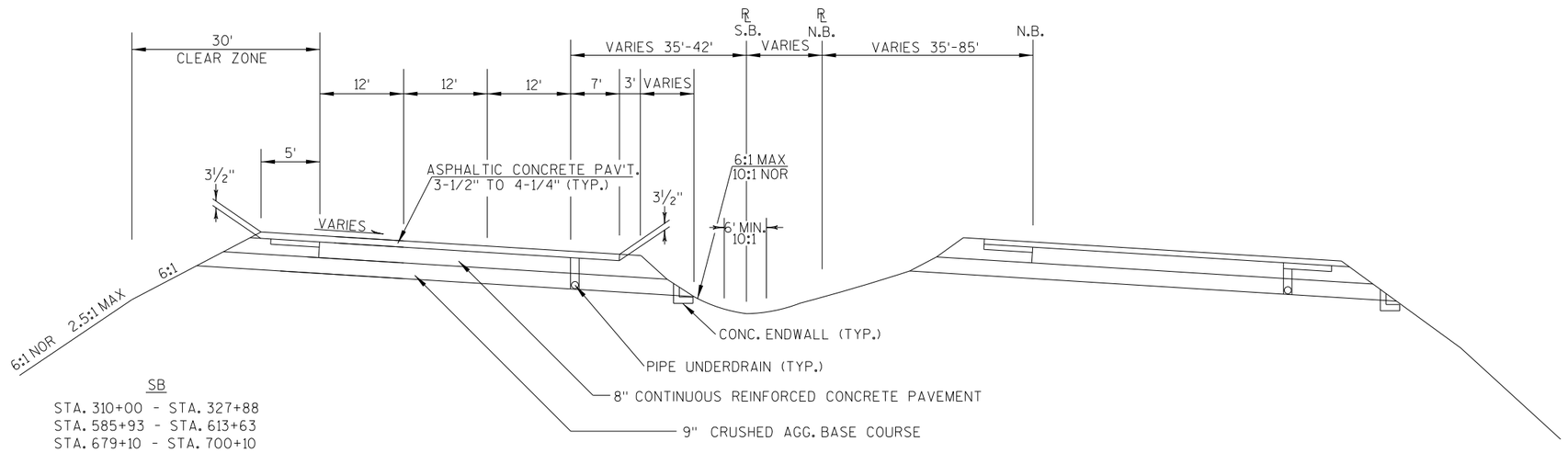
STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	EXISTING TYPICAL SECTIONS	SHEET NO: 4	E

2



SB
STA. 256+95 - STA. 268+69
STA. 300+43 - STA. 310+00
STA. 492+33 - STA. 510+88
STA. 518+20 - STA. 565+95
STA. 700+10 - STA. 728+99
STA. 773+09 - STA. 792+97
STA. 811+78 - STA. 836+26
STA. 901+93 - STA. 916+21

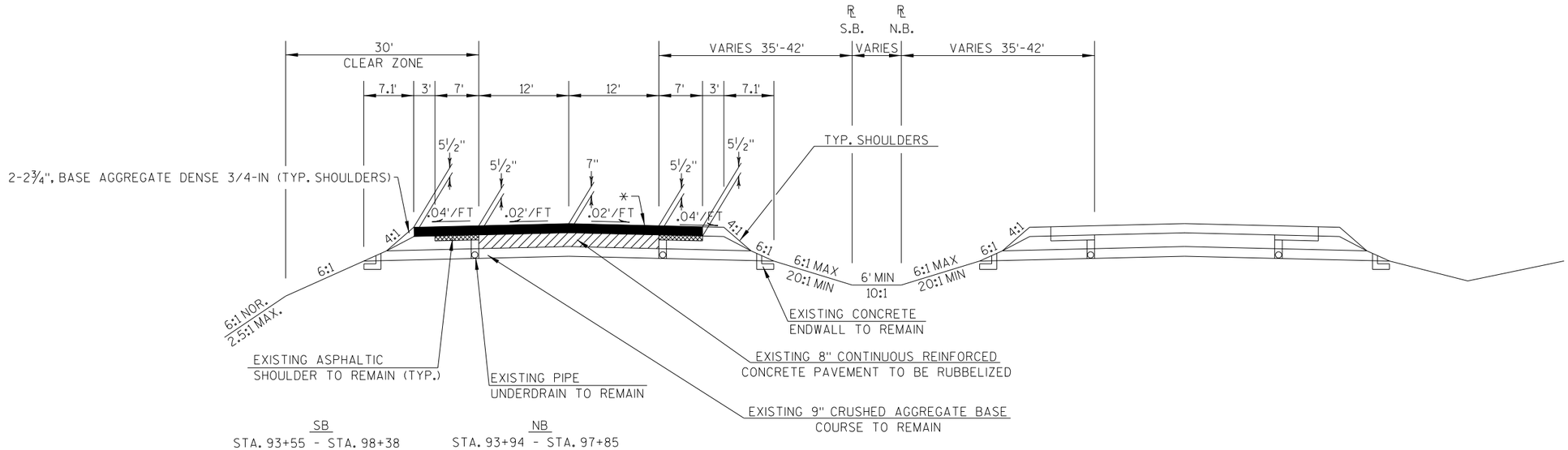
EXISTING TYPICAL SUPERELEVATED SECTION IH-43



SB
STA. 310+00 - STA. 327+88
STA. 585+93 - STA. 613+63
STA. 679+10 - STA. 700+10

EXISTING TYPICAL SUPERELEVATED SECTION WITH CLIMBING LANE IH-43

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	EXISTING TYPICAL SECTIONS	SHEET NO: 5	E



SB

STA. 93+55 - STA. 98+38
STA. 100+00 - STA. 118+30
STA. 194+00 - STA. 256+95
STA. 268+69 - STA. 300+43
STA. 402+40 - STA. 492+33
STA. 510+88 - STA. 518+20
STA. 565+95 - STA. 585+00
STA. 728+99 - STA. 773+09
STA. 792+97 - STA. 811+78
STA. 836+26 - STA. 901+93
STA. 916+21 - STA. 990+00
STA. 990+00 - STA. 68+50
STA. 85+25 - STA. 90+00

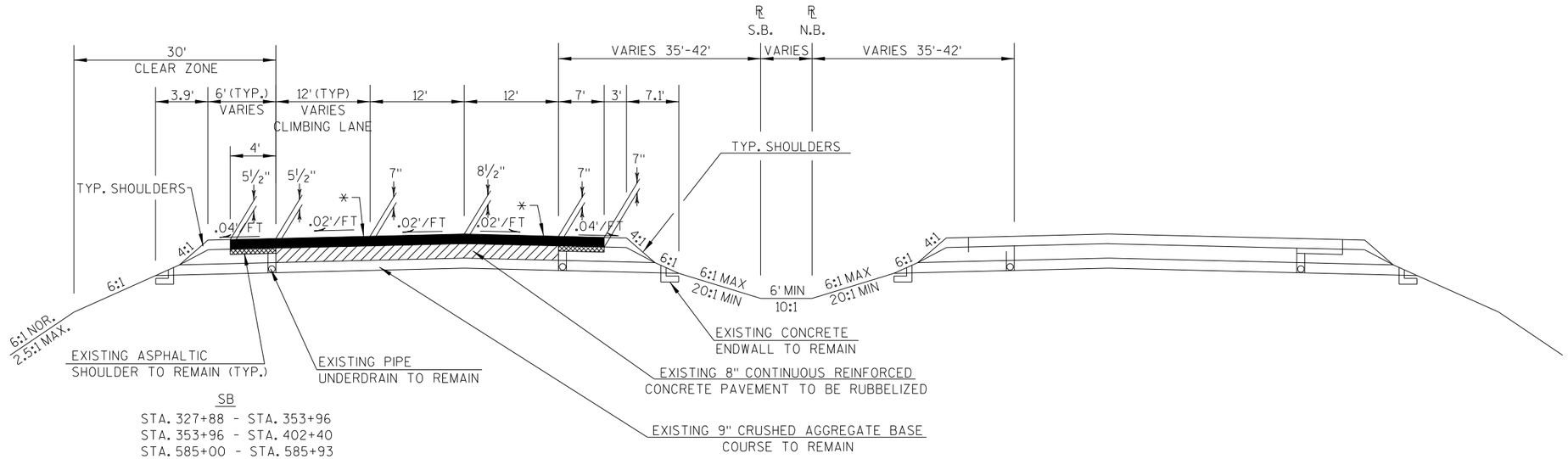
NB

STA. 93+94 - STA. 97+85

FINISHED TYPICAL SECTION IH-43

* MILL EXISTING ASPHALTIC CONCRETE OVERLAY FULL DEPTH AND OVERLAY WITH 5½"-8½" OF ASPHALTIC CONCRETE PAVEMENT. SEE THE CONSTRUCTION DETAILS.

** UTILITY NOTE: ADJACENT TO CLIMBING LANES, THE MAXIMUM GRADING EXTENT WILL BE 30' FROM THE OUTSIDE EDGE OF THE SHOULDER.

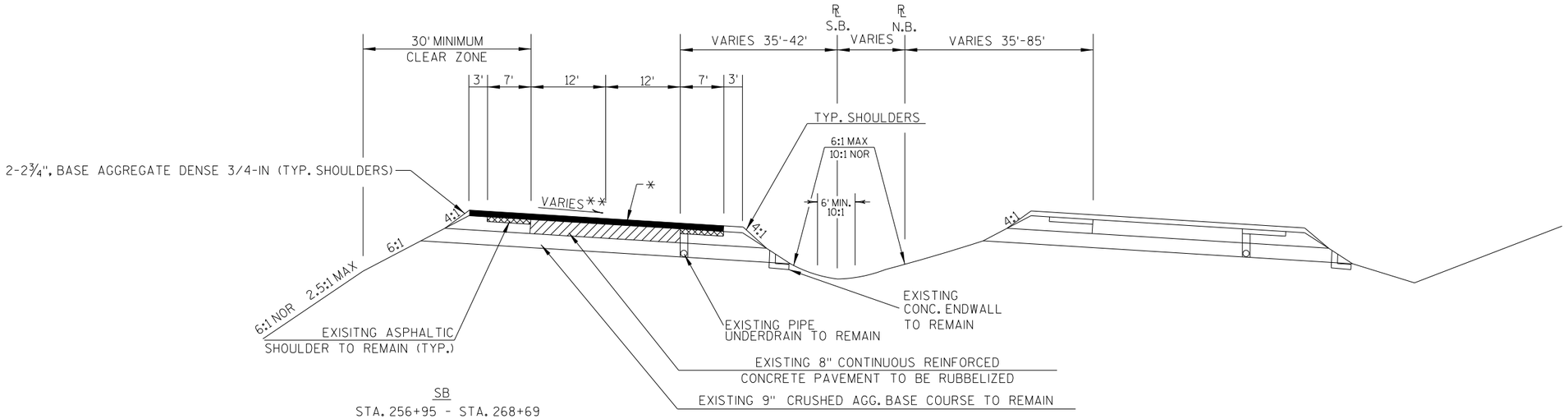


SB

STA. 327+88 - STA. 353+96
STA. 353+96 - STA. 402+40
STA. 585+00 - STA. 585+93
STA. 613+63 - STA. 679+10

FINISHED TYPICAL SECTION WITH CLIMBING LANE IH-43

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PROPOSED TYPICAL SECTIONS	SHEET NO: 6	E



SB

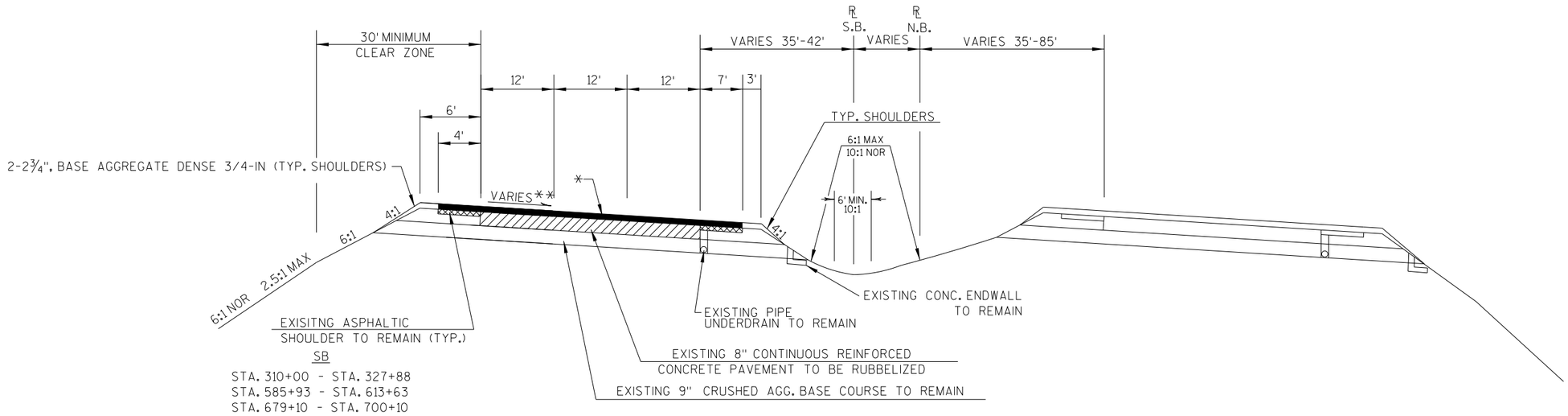
STA. 256+95 - STA. 268+69
STA. 300+43 - STA. 310+00
STA. 492+33 - STA. 510+88
STA. 518+20 - STA. 565+95
STA. 700+10 - STA. 728+99
STA. 773+09 - STA. 792+97
STA. 811+78 - STA. 836+26
STA. 901+93 - STA. 916+21

FINISHED TYPICAL SUPERELEVATED SECTION IH-43

* MILL EXISTING ASPHALTIC CONCRETE OVERLAY FULL DEPTH AND OVERLAY WITH 6¼" OF ASPHALTIC CONCRETE PAVEMENT.

** REFER TO PLAN SHEETS FOR DETAILS OF SUPERELEVATION.

UTILITY NOTE: ADJACENT TO CLIMBING LANES, THE MAXIMUM GRADING EXTENT WILL BE 30' FROM THE OUTSIDE EDGE OF THE SHOULDER.

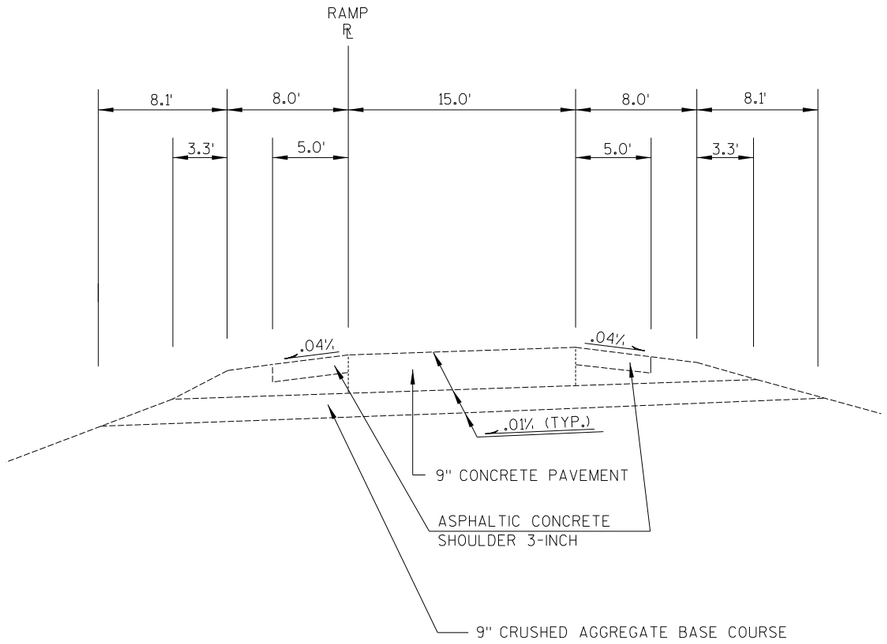


SB

STA. 310+00 - STA. 327+88
STA. 585+93 - STA. 613+63
STA. 679+10 - STA. 700+10

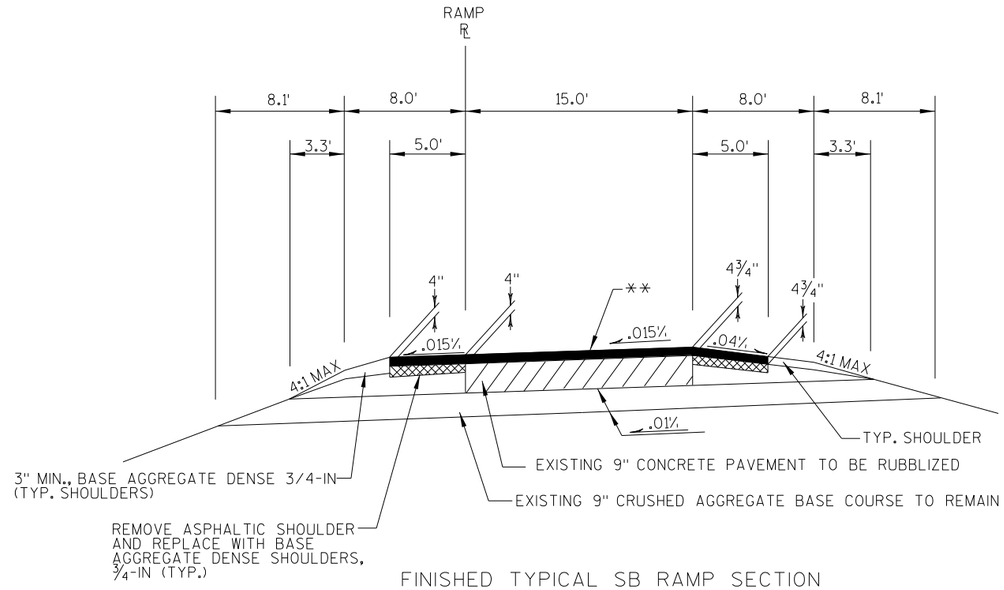
FINISHED TYPICAL SUPERELEVATED SECTION WITH CLIMBING LANE IH-43

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PROPOSED TYPICAL SECTIONS	SHEET NO: 7	E



EXISTING TYPICAL SB RAMP SECTION

STH 11
BOWERS ROAD (CTH N)
STH 120
STH 20
STH 83



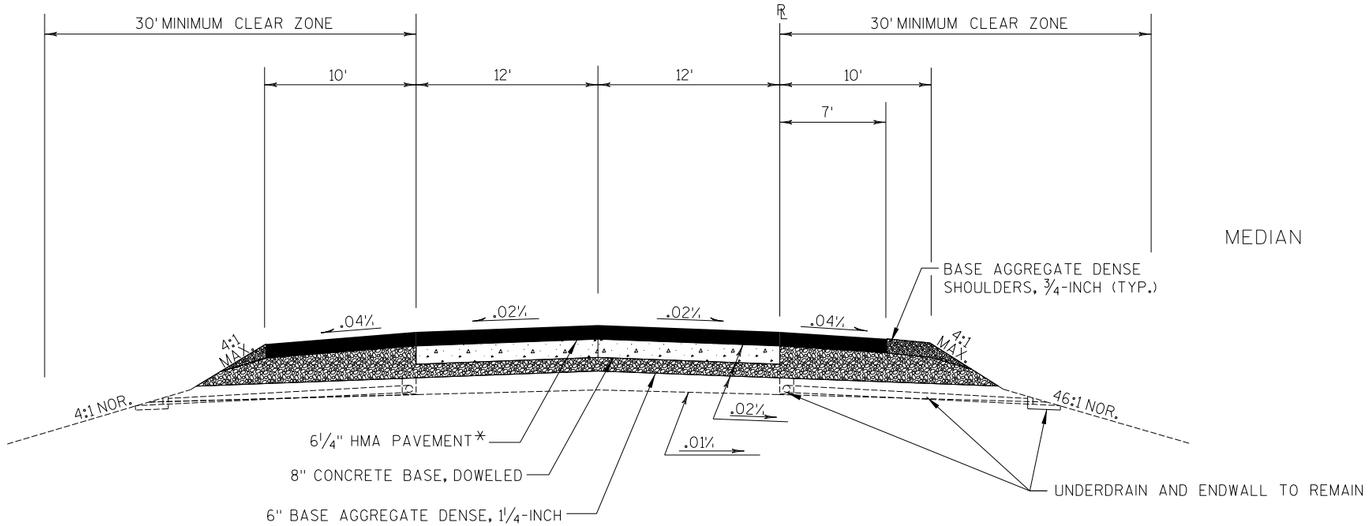
FINISHED TYPICAL SB RAMP SECTION

STH 11
BOWERS ROAD (CTH N)
STH 120
STH 20
STH 83

** OVERLAY WITH 4-4¾" OF ASPHALTIC CONCRETE.

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	RAMP TYPICAL SECTIONS	SHEET NO: 8	E

2

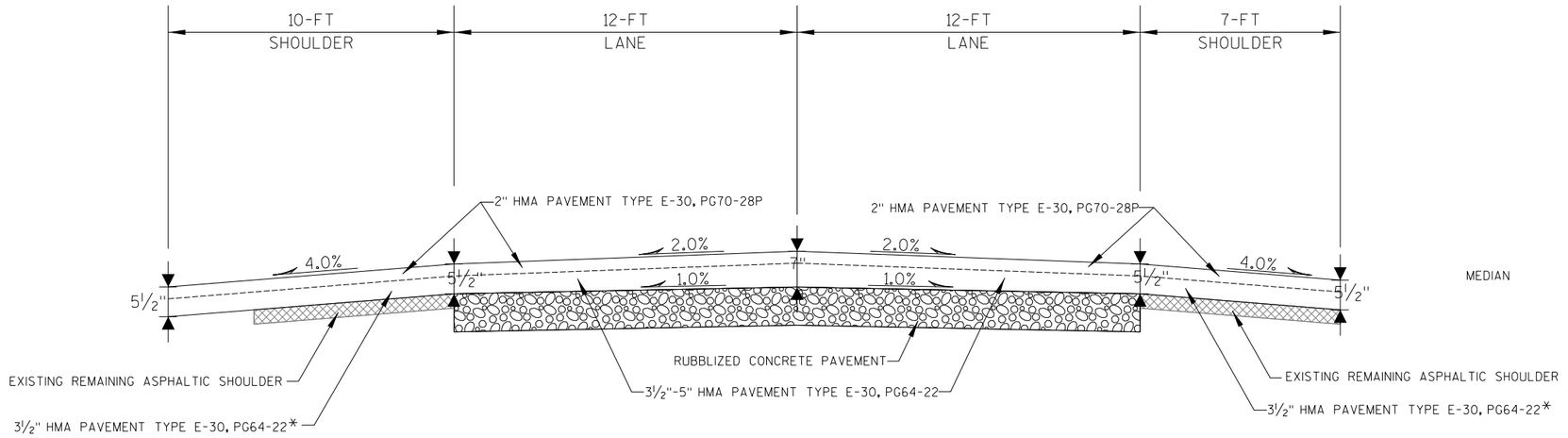


FINISHED TYPICAL SECTION (IH-43 RECONSTRUCTION)

STA. 68+50 - STA. 74+38
STA. 76+36 - STA. 85+25

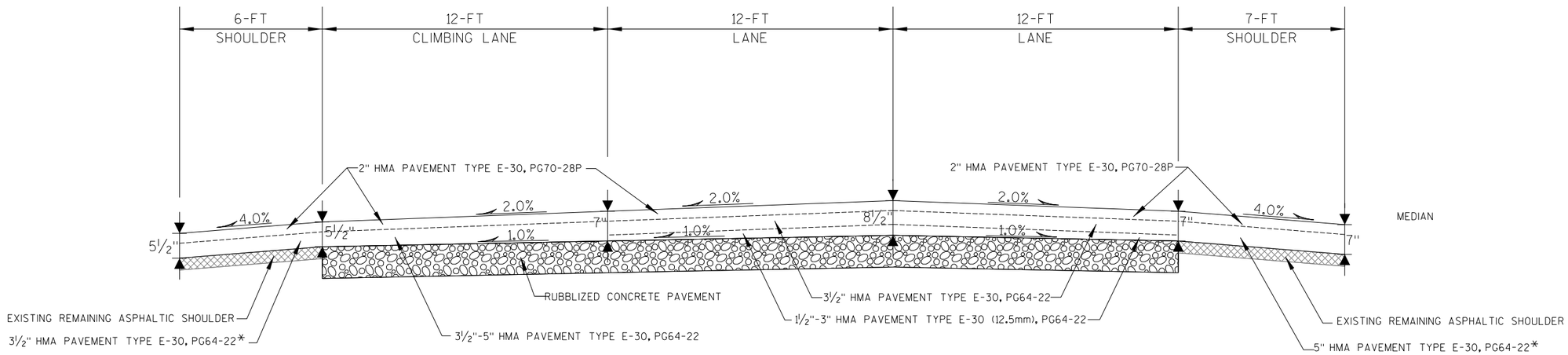
* 6 1/4" HMA PAVEMENT SHALL BE CONSTRUCTED WITH TWO LAYERS.
-LOWER LAYER - 4 1/4" OF 25.0 mm HMA PAVEMENT, TYPE E-30 WITH ASPHALTIC MATERIAL PG64-22
-UPPER LAYER - 2" OF 12.5 mm HMA PAVEMENT, TYPE E-30 WITH ASPHALTIC MATERIAL PG70-28P.

STATE PROJECT NUMBER:1090-15-70	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PROPOSED TYPICAL SECTIONS	SHEET NO: 9	E



CROWN CORRECTION PAVING DETAIL

* CERTAIN SHOULDER AREAS AS SHOWN ON THE PLANS WERE MILLED AND OVERLAYED WITH 3½" HMA PAVEMENT TYPE E-30 IN 2009 AS PART OF PROJECT 1090-15-70 AND IN 2011 AS PART OF PROJECT 1090-15-73. THESE AREAS WILL NOT BE MILLED AS PART OF THIS PROJECT AND DO NOT REQUIRE THE 3½" HMA PAVEMENT LOWER LAYER. THE 2" HMA PAVEMENT UPPER LAYER IS STILL REQUIRED.

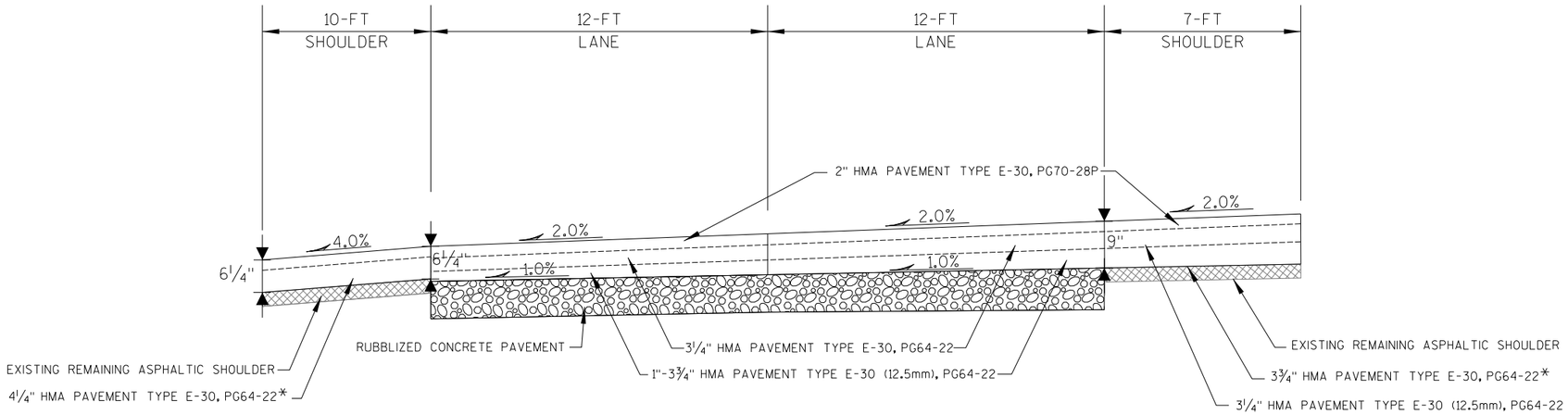


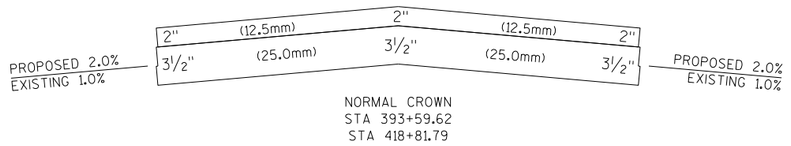
* CERTAIN SHOULDER AREAS AS SHOWN ON THE PLANS WERE MILLED AND OVERLAYED WITH 3½" HMA PAVEMENT TYPE E-30 IN 2009 AS PART OF PROJECT 1090-15-70 AND IN 2011 AS PART OF PROJECT 1090-15-73. THESE AREAS WILL NOT BE MILLED AS PART OF THIS PROJECT AND DO NOT REQUIRE THE 3½" HMA PAVEMENT LOWER LAYER. THE 2" HMA PAVEMENT UPPER LAYER IS STILL REQUIRED. THIS UPPER LAYER MAY NEED TO BE INCREASED IN THE MEDIAN SHOULDER TO OBTAIN THE REQUIRED OVERALL THICKNESS.

CROWN CORRECTION PAVING DETAIL
IN CLIMBING LANE SECTION

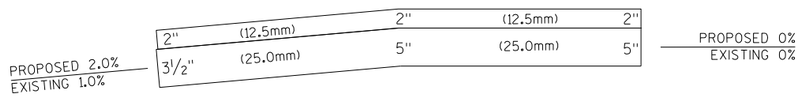
NOTE: HMA PAVEMENT GRADATION SHALL BE 25.0 MM NOMINAL FOR HMA PAVEMENT TYPE E-30, PG64-22 EXCEPT AS NOTED.

HMA PAVEMENT GRADATION SHALL BE 12.5 MM NOMINAL FOR HMA PAVEMENT TYPE SMA, PG70-28P.

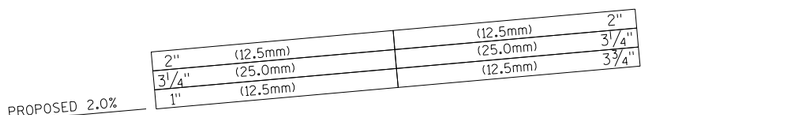




NORMAL CROWN
STA 393+59.62
STA 418+81.79



ZERO SUPER
STA 395+59.62
STA 416+41.79



FULL SUPER
STA 398+39.62 TO STA 414+01.79

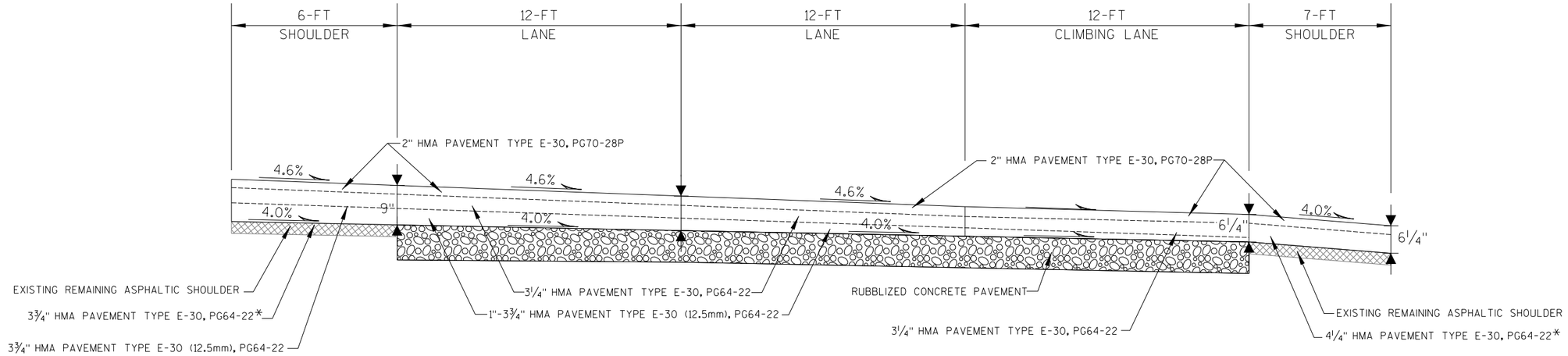
SUPER ELEVATION CORRECTION PAVING DETAIL

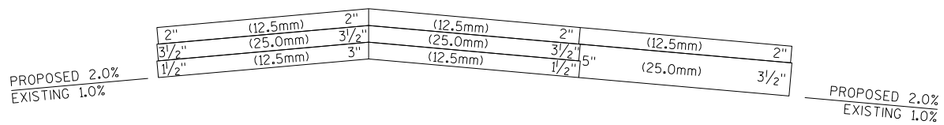
CURVE P.I. STATION 406+21.11

* CERTAIN SHOULDER AREAS AS SHOWN ON THE PLANS WERE MILLED AND OVERLAYED WITH 3½" HMA PAVEMENT TYPE E-30 IN 2009 AS PART OF PROJECT 1090-15-70 AND IN 2011 AS PART OF PROJECT 1090-15-73. THESE AREAS WILL NOT BE MILLED AS PART OF THIS PROJECT AND DO NOT REQUIRE THE 3½" HMA PAVEMENT LOWER LAYER. THE 2" HMA PAVEMENT UPPER LAYER IS STILL REQUIRED. THIS UPPER LAYER MAY NEED TO BE INCREASED IN THE MEDIAN SHOULDER TO OBTAIN THE REQUIRED OVERALL THICKNESS.

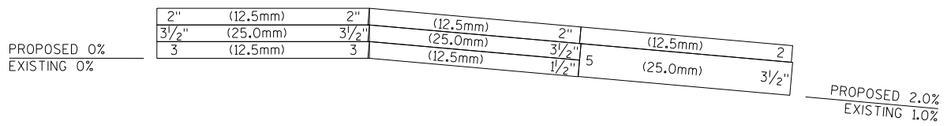
NOTE: HMA PAVEMENT GRADATION SHALL BE 25.0 MM NOMINAL FOR HMA PAVEMENT TYPE E-30, PG64-22 EXCEPT AS NOTED.

HMA PAVEMENT GRADATION SHALL BE 12.5 MM NOMINAL FOR HMA PAVEMENT TYPE SMA, PG70-28P.

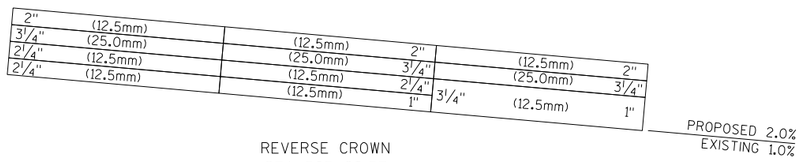




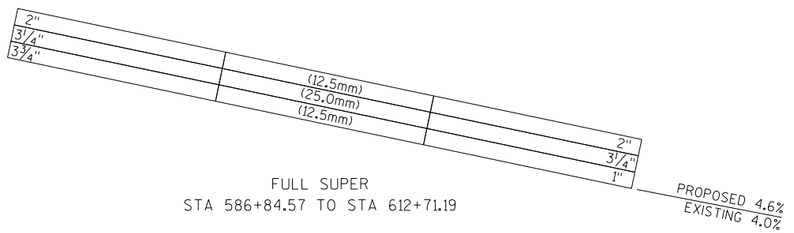
NORMAL CROWN
STA 582+88.57
STA 616+67.19



ZERO SUPER
STA 584+08.57
STA 615+47.19



REVERSE CROWN
STA 585+28.57
STA 614+27.19



FULL SUPER
STA 586+84.57 TO STA 612+71.19

SUPER ELEVATION CORRECTION PAVING DETAIL

IN CLIMBING LANE SECTION
CURVE P.I. STATION 600+41.99

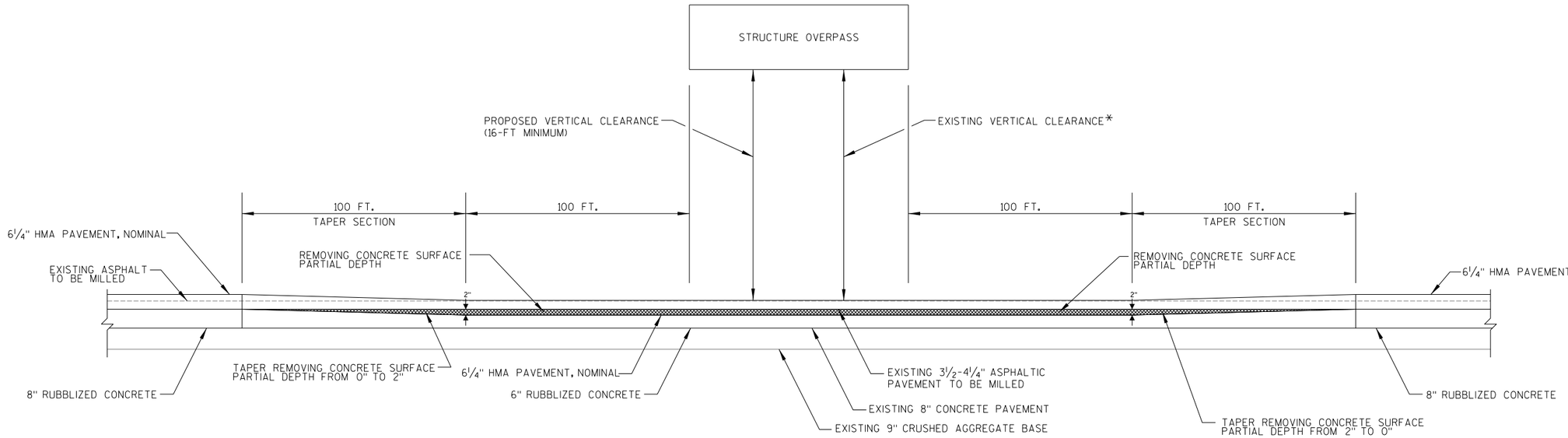
* CERTAIN SHOULDER AREAS AS SHOWN ON THE PLANS WERE MILLED AND OVERLAYED WITH 3½" HMA PAVEMENT TYPE E-30 IN 2009 AS PART OF PROJECT 1090-15-70 AND IN 2011 AS PART OF PROJECT 1090-15-73. THESE AREAS WILL NOT BE MILLED AS PART OF THIS PROJECT AND DO NOT REQUIRE THE 3½" HMA PAVEMENT LOWER LAYER. THE 2" HMA PAVEMENT UPPER LAYER IS STILL REQUIRED. THIS UPPER LAYER MAY NEED TO BE INCREASED IN THE MEDIAN SHOULDER TO OBTAIN THE REQUIRED OVERALL THICKNESS.

NOTE: HMA PAVEMENT GRADATION SHALL BE 25.0 MM NOMINAL FOR HMA PAVEMENT TYPE E-30, PG64-22 EXCEPT AS NOTED.

HMA PAVEMENT GRADATION SHALL BE 12.5 MM NOMINAL FOR HMA PAVEMENT TYPE SMA, PG70-28P.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION DETAILS	SHEET NO: 12	E

2



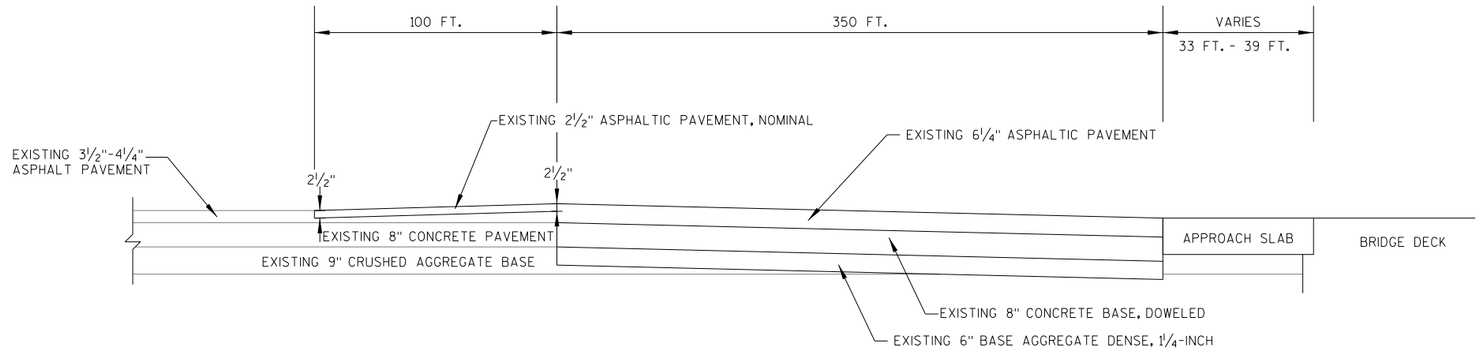
IH-43 UNDERPASS CLEARANCE CORRECTION

I-43 SB AT CTH D

NOTE: THE VERTICAL CLEARANCE AT ALL UNDERPASS STRUCTURES MUST BE 16-FEET AT A MINIMUM.

IN ORDER TO MAINTAIN AT LEAST A 16-FT VERTICAL CLEARANCE, REMOVING CONCRETE SURFACE PARTIAL DEPTH, ITEM 204.0109.S (2-INCHES) IS REQUIRED AT THE LISTED STRUCTURE.

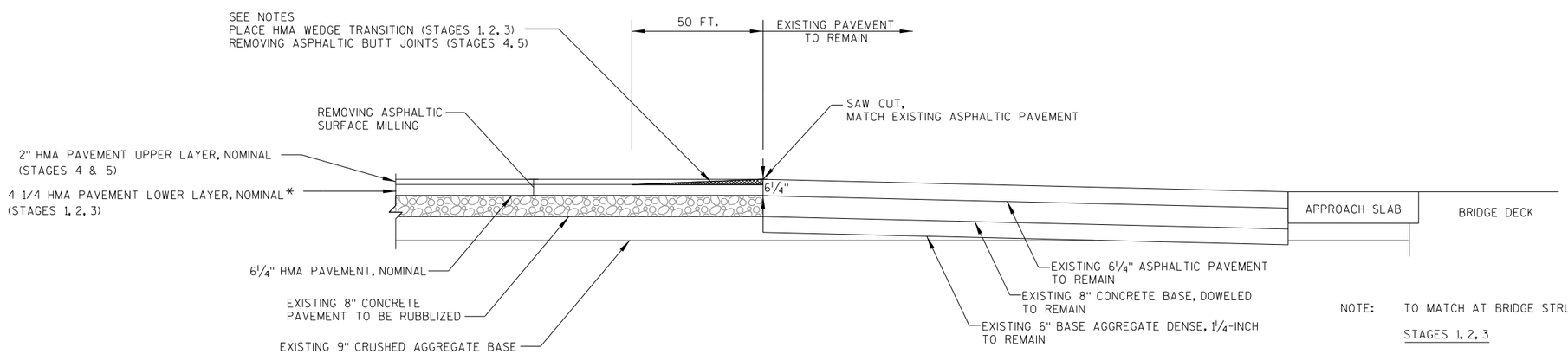
ROADWAY	OVERPASS	* EXISTING VERTICAL CLEARANCE
I-43 SB	CTH D	16.10'



EXISTING BRIDGE APPROACH

NOTE: THIS BRIDGE APPROACH WORK AT THE LISTED STRUCTURES WAS COMPLETED IN 2009 UNDER PROJECT ID 1090-15-70.

STRUCTURE
B-64-93
B-64-103



MATCH EXISTING BRIDGE APPROACH

STRUCTURE
B-64-93
B-64-103

NOTE: TO MATCH AT BRIDGE STRUCTURES:

STAGES 1, 2, 3

- REMOVE EXISTING ASPHALT OVERLAY (REMOVING ASPHALTIC SURFACE MILLING)
- RUBBLIZE EXISTING CONCRETE.
- PLACE HMA LOWER LAYER
- PLACE HMA WEDGE TRANSITION

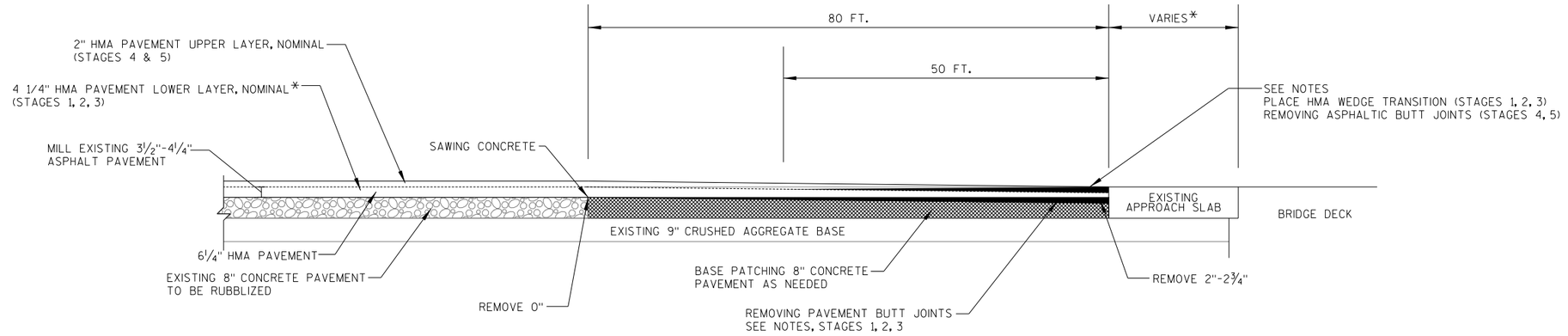
STAGES 4, 5

- REMOVE HMA WEDGE TRANSITION (REMOVING ASPHALTIC SURFACE BUTT JOINTS)
- PAVE HMA UPPER LAYER

MAINTAIN A CONSTANT HMA UPPER LAYER THICKNESS

THIS DETAIL DESCRIBES THE WORK REQUIRED TO MATCH THE EXISTING BRIDGE APPROACH WORK THAT WAS COMPLETED IN 2009 UNDER PROJECT ID 1090-15-70.

* THICKNESS VARIES, REFER TO CROWN SLOPE CORRECTION PAVING DETAIL



NOTE: TO MATCH AT BRIDGE STRUCTURES:

STAGES 1, 2, 3

- REMOVE EXISTING ASPHALT OVERLAY (REMOVING ASPHALTIC SURFACE MILLING)
- BASE PATCH THE EXISTING CONCRETE AS NEEDED WITHIN 80-FEET OF THE STRUCTURE.
- REMOVE PAVEMENT BUTT JOINT TO OBTAIN MINIMUM LOWER LAYER HMA THICKNESS.
- PLACE HMA LOWER LAYER
- PLACE HMA WEDGE TRANSITION

STAGES 4, 5

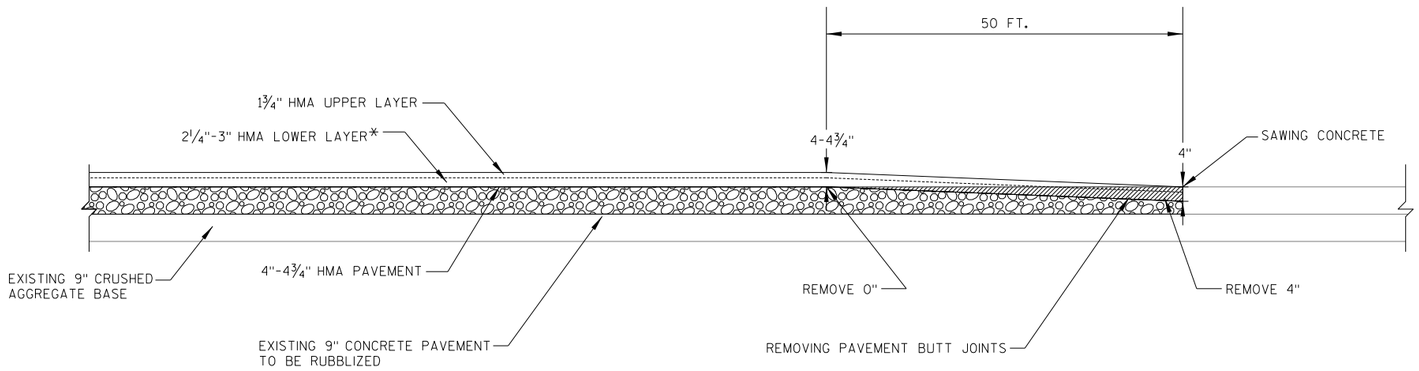
- REMOVE HMA WEDGE TRANSITION (REMOVING ASPHALTIC SURFACE BUTT JOINTS)
- PAVE HMA UPPER LAYER

THIS BRIDGE APPROACH WORK IS TO BE DONE ONLY AT THE LISTED STRUCTURES.
SEE ADDITIONAL CONSTRUCTION DETAILS FOR APPROACH WORK AT STRUCTURES
B-64-93, B-64-103, AND B-67-131.

BRIDGE APPROACH WORK, BASE PATCHING

STRUCTURE
B-64-89
B-64-91
B-64-97
B-64-99
B-64-101

* THICKNESS VARIES, REFER TO CROWN SLOPE CORRECTION PAVING DETAIL



BUTT JOINT AT RAMPS

USH 12
STH 11
BOWERS ROAD (CTH N)
STH 120
STH 20
STH 83

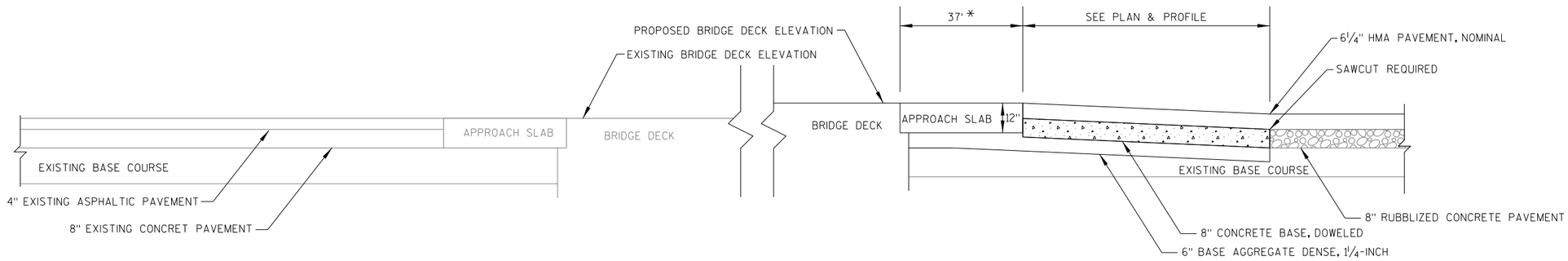
* THICKNESS VARIES, REFER TO FINISHED TYPICAL RAMP SECTION, SHEET 8

NOTE: THE REST AREA RAMPS WILL NOT BE BASE PATCHED AND OVERLAYED. A 2-INCH BUTT JOINT WILL BE REQUIRED AT THE BEGINING OF THE RAMPS AS SHOWN ON THE PLANS.

2

EXISTING APPROACH
STRUCTURE B-67-131

PROPOSED APPROACH
STRUCTURE B-67-131

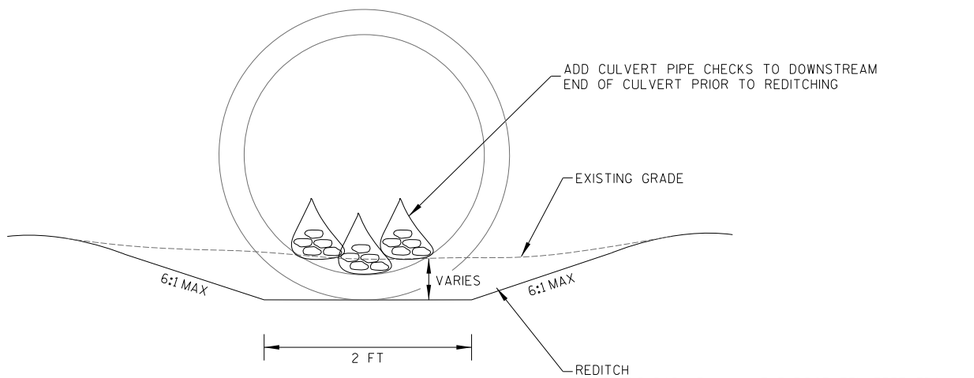


NOTE: REFER TO SDD "CONCRETE PAVEMENT APPROACH SLAB" FOR DETAILS OF APPROACH SLAB CONSTRUCTION. SEE BRIDGE PLANS FOR SKEW ANGLE OF STRUCTURE.

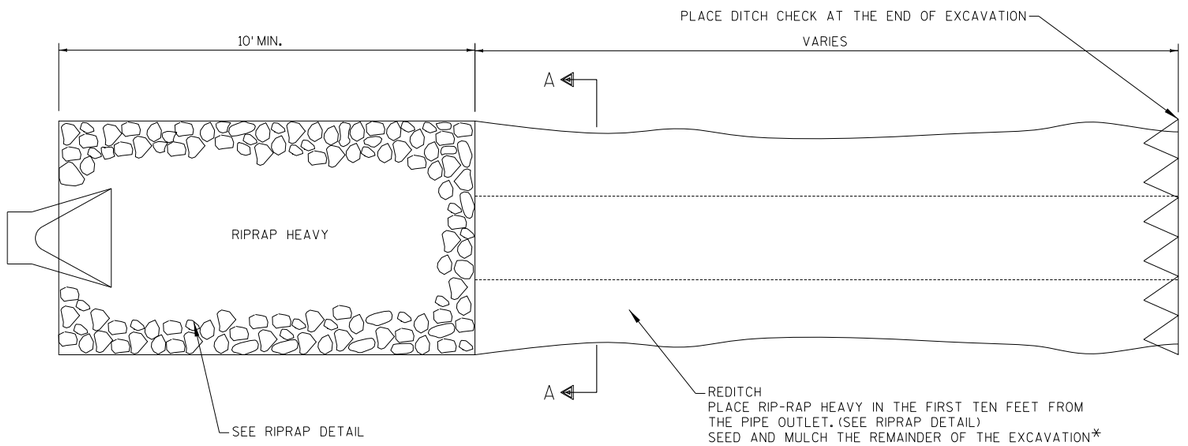
REFER TO PLAN & PROFILE SHEET FOR ELEVATIONS ALONG THE CENTERLINE OF IH 43 SOUTHBOUND.

* APPROACH SLAB LENGTH VARIES DUE TO THE SKEW ANGLE OF THE STRUCTURE.

BRIDGE APPROACH WORK, RECONSTUCTION
STRUCTURE B-67-131

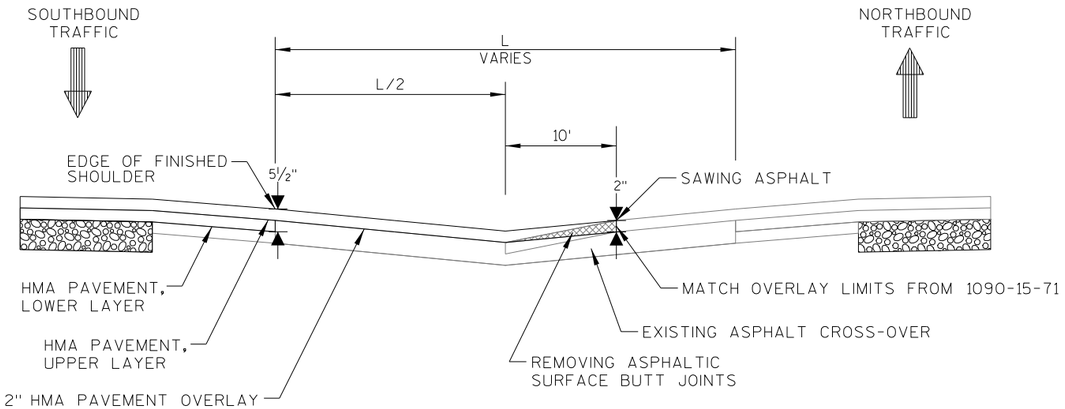


SECTION A-A



RE-DITCH CROSS-SECTION (TYP)

* USE SEED AND MULCH IF THE PIPE AND EXCAVATION AREA ARE DRY. IF THE PIPE AND EXCAVATION AREA ARE WET USE EROSION MAT. CLASS I, TYPE B INSTEAD OF MULCH. QUANTITIES ASSUME THE USE OF EROSION MAT.

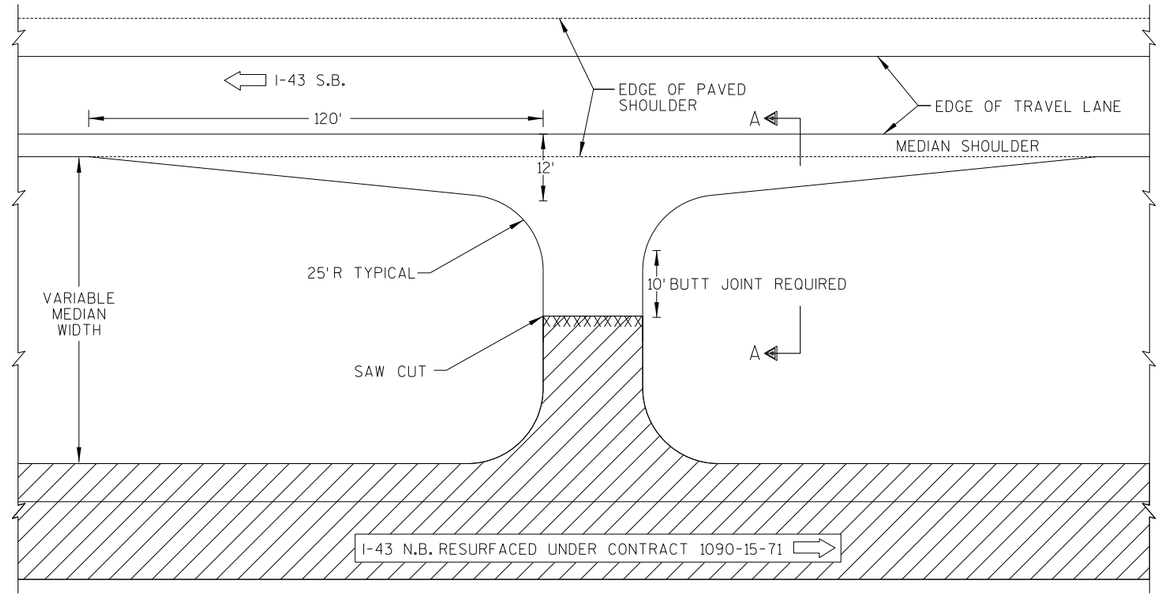


MAINTENANCE CROSS-OVERS

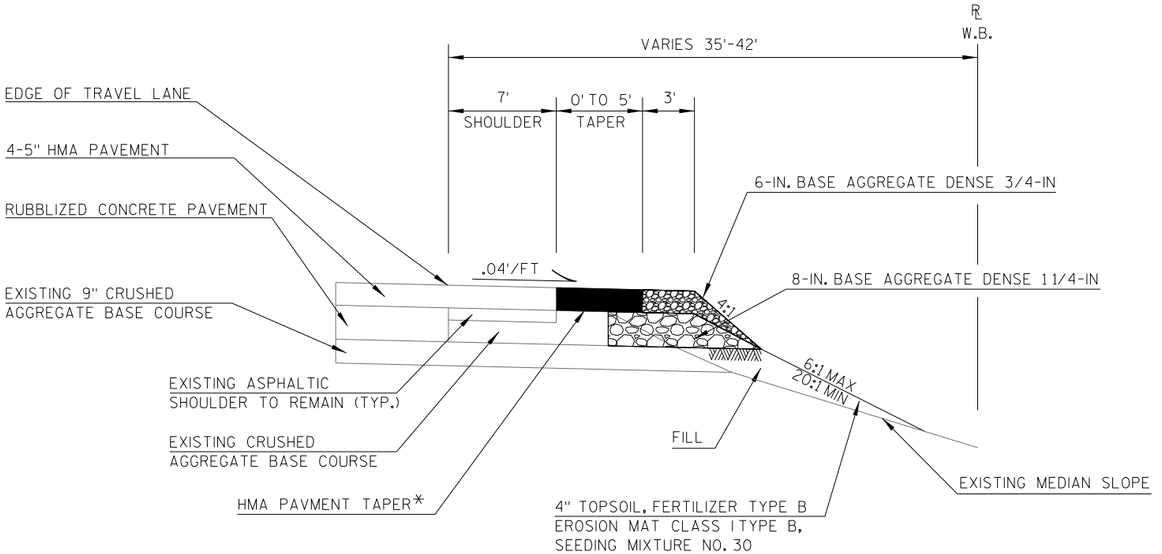
NOTES: THE MAINTENANCE CROSSOVER DIMENSIONS VARY. MATCH EXISTING DIMENSIONS.

REFER TO STANDARD DETAIL DRAWINGS FOR MORE DETAILS: MAINTENANCE CROSSOVER FOR FREEWAYS

THE HMA OVERLAY SHALL BE HMA PAVEMENT TYPE E-30, PG70-28P, UNLESS OTHERWISE APROVED BY THE ENGINEER.



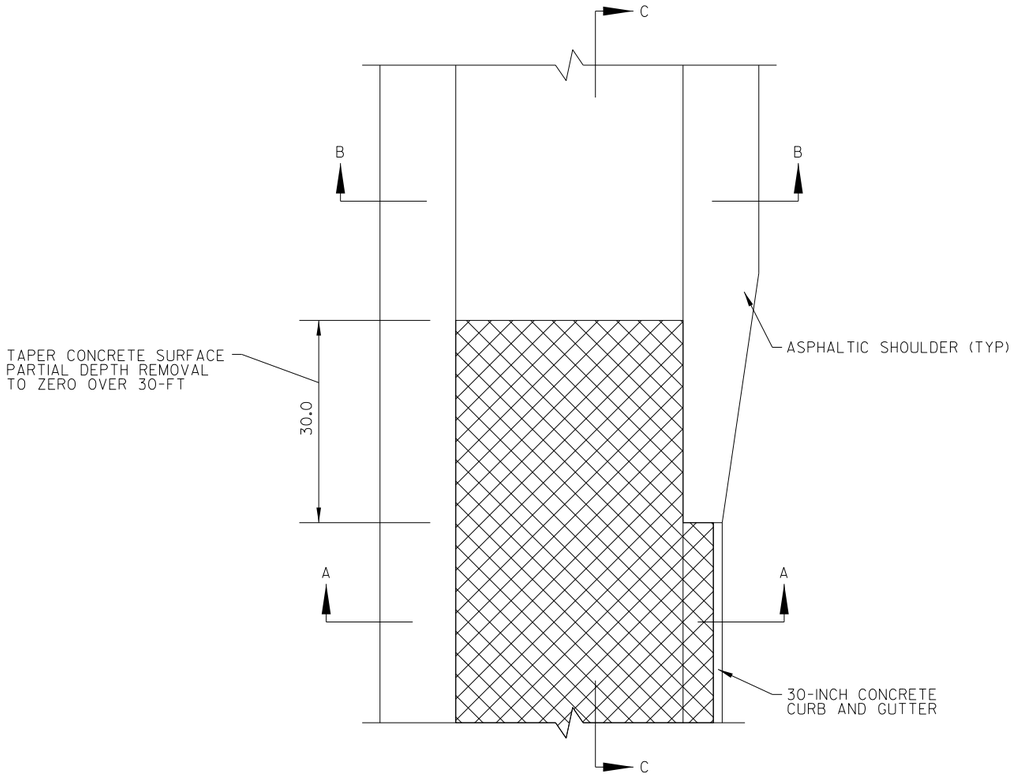
PLAN VIEW



SECTION A-A

DETAIL FOR ASPHALTIC TAPER AT MAINTENANCE CROSSOVER

*PAVE TAPER AND SHOULDER AT THE SAME TIME



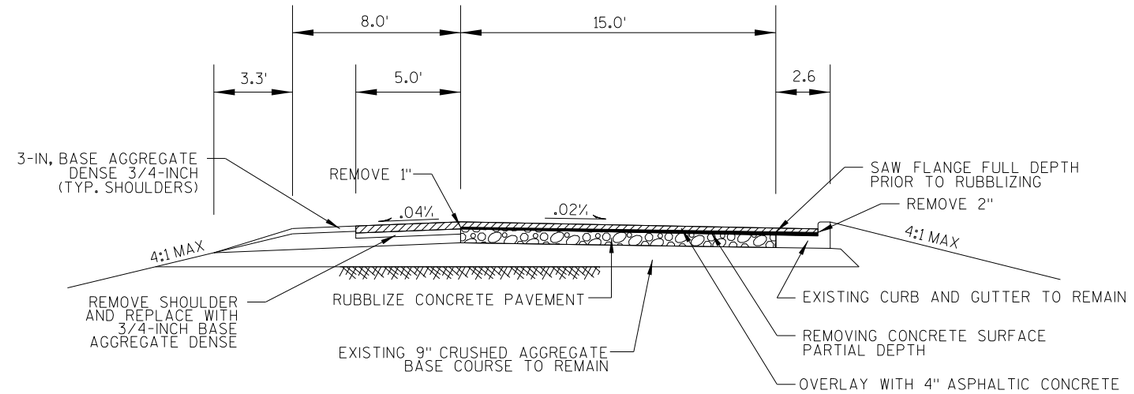
PLAN VIEW

STH 12 RAMPS WITH CURB AND GUTTER AND ASHPALT SHOULDER

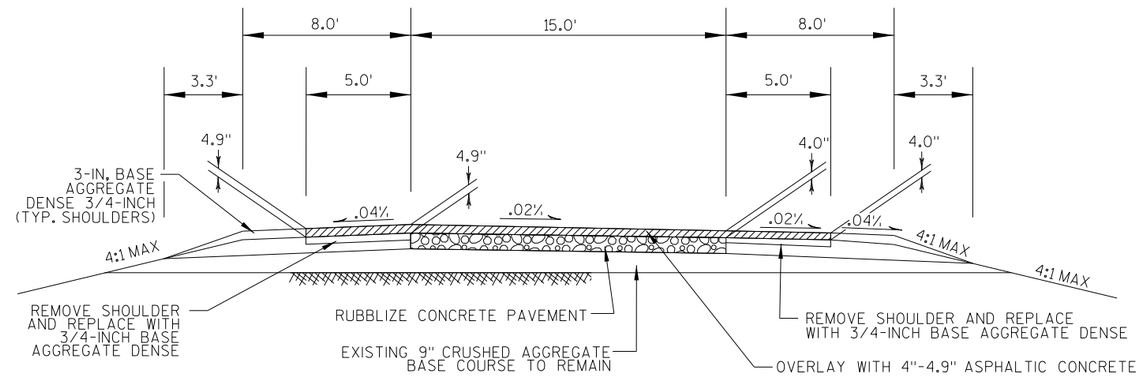
GENERAL NOTES

DETAIL FOR OVERLAYING CONCRETE FLUME SHOWN ELSEWHERE

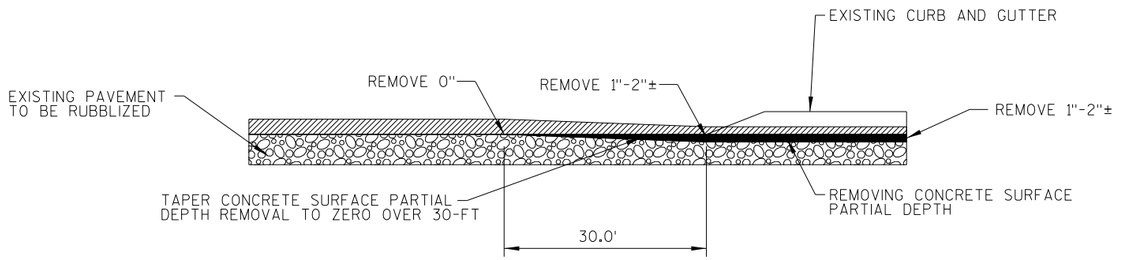
REMOVING CONCRETE SURFACE PARTIAL DEPTH



SECTION A-A

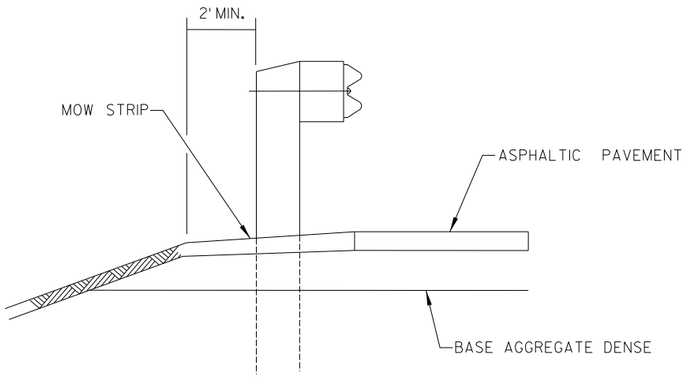


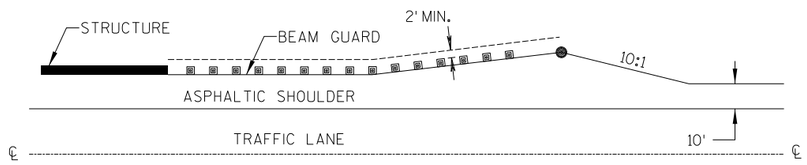
SECTION B-B



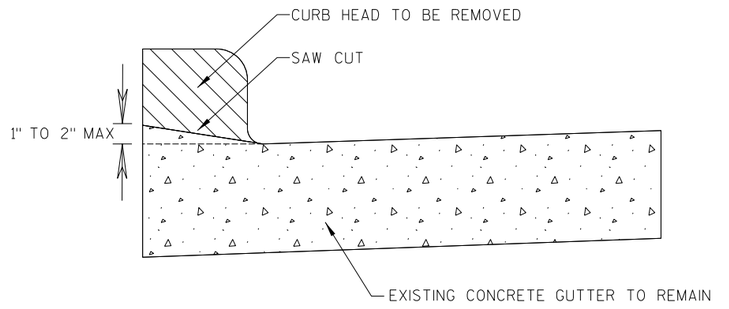
SECTION C-C

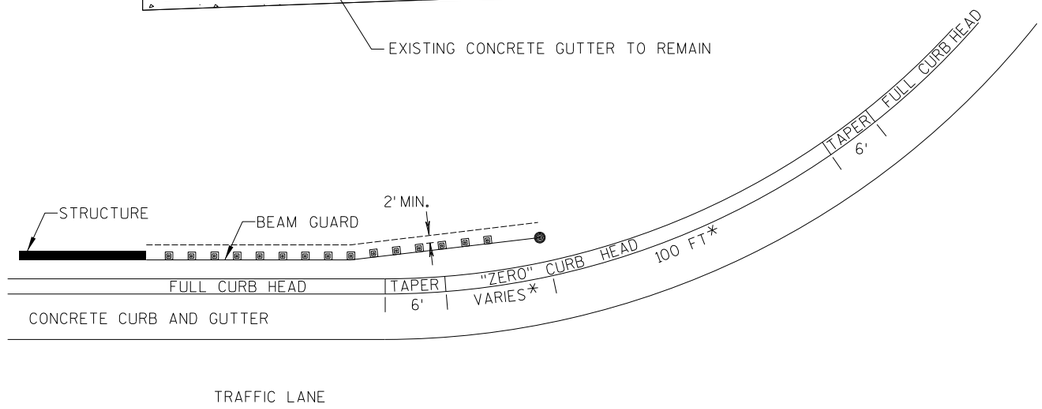
STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION DETAILS	SHEET NO: 18	E





DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

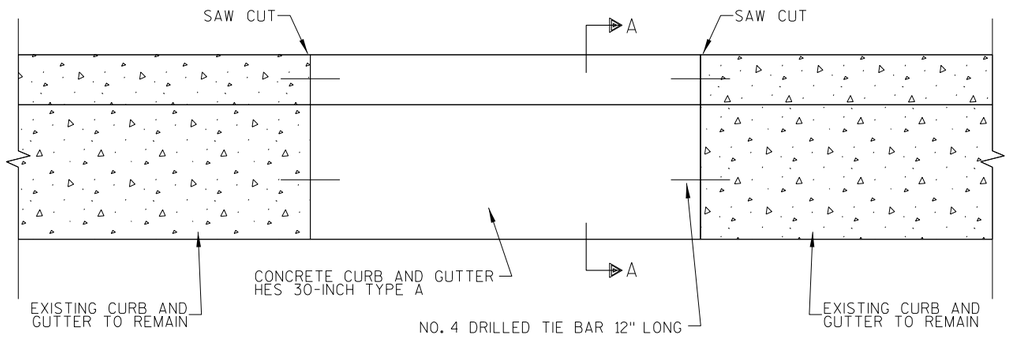




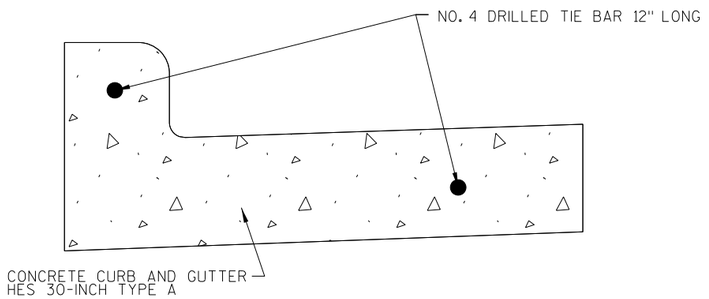
DETAIL FOR REMOVING CURB HEAD

STA 105+30 TO 106+05 LT

* PROVIDE A DRIVEWAY CURB CUT OUT IN FRONT OF THE BEAM GUARD TERMINAL. THE DRIVEWAY CURB CUT SHOULD EXTEND FROM THE THIRD POST, OR LENGTH OF NEED POST, TO 100 FEET OUT IN ADVANCE OF THE ENERGY ABSORBING TERMINAL EXTRUDER HEAD. IN RESTRICTED AREAS WHERE IT MAY BE DIFFICULT TO PROVIDE 100 FEET OF DRIVEWAY CURB CUT, A MINIMUM OF 30 FEET IS REQUIRED OUT IN FRONT OF THE EXTRUDER HEAD TO PREVENT LAUNCHING OF THE VEHICLE.



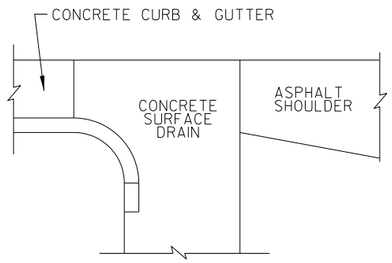
PLAN VIEW



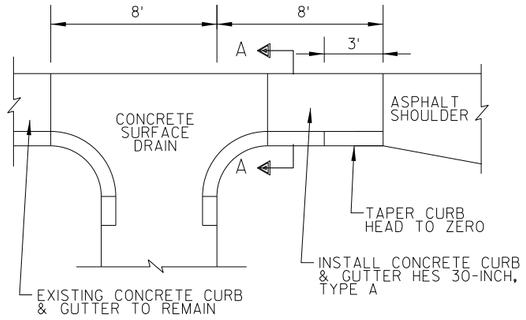
SECTION A-A

DETAIL FOR CONCRETE CURB AND GUTTER REPLACEMENT

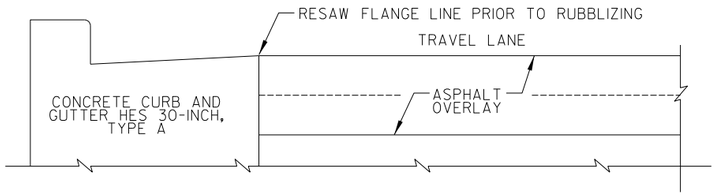
USH 12 RAMPS



EXISTING CONCRETE SURFACE DRAIN (TYP.)



PROPOSED SURFACE DRAIN

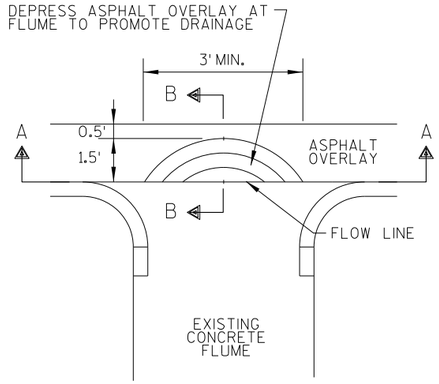


SECTION A-A

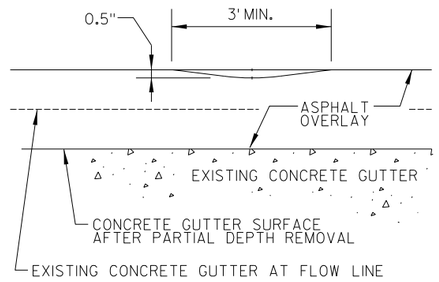
DETAIL FOR LIMITS OF CONCRETE SURFACE DRAIN REPLACEMENT

NOTES:

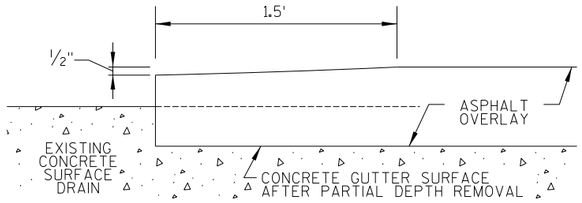
THIS DETAIL SHOWS THE LIMITS OF CONCRETE SURFACE DRAIN REPLACEMENT. REFER TO S.D.D. "CONCRETE SURFACE DRAIN AND ASPHALTIC FLUMES" AND "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR ADDITIONAL DETAILS



PLAN VIEW

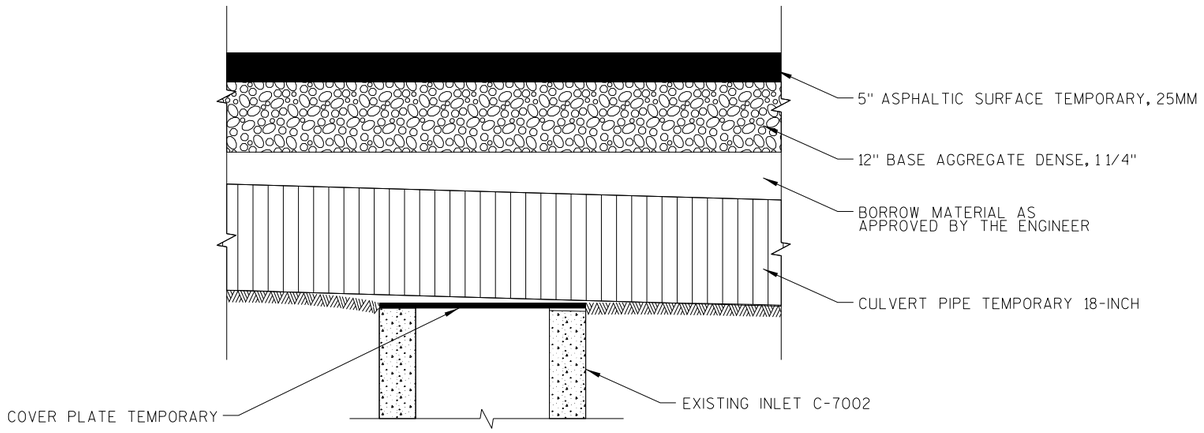


SECTION A-A



SECTION B-B

DETAIL FOR ASPHALTIC OVERLAY AT CONCRETE SURFACE DRAIN

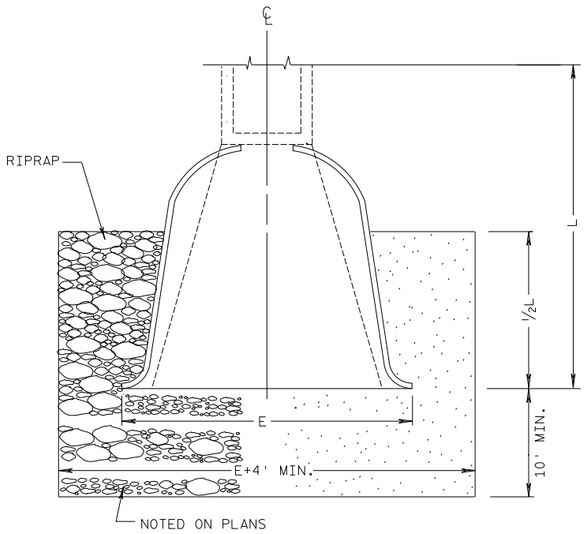


DETAIL FOR CULVERT PIPE TEMPORARY

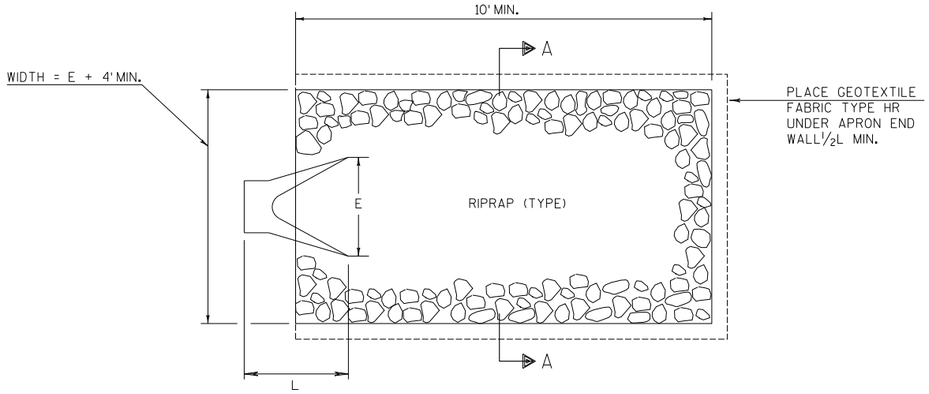
STA 63'N+20 TO 68'N+20

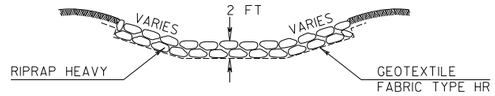
NOTES:

REMOVE GRATE AND INSTALL COVER PLATE TEMPORARY PRIOR TO CULVERT AND CROSSOVER CONSTRUCTION.
WHEN CROSSOVER IS REMOVED, REMOVE CULVERT, COVER PLATE AND REPLACE INLET GRATE.
REPLACING INLET GRATE SHALL BE PAID AS SALVAGE INLET COVER.
REMOVING CULVERT AND COVER PLATE ARE INCIDENTAL TO THEIR RESPECTIVE ITEMS.



RIPRAP AT PIPE END





SECTION A-A

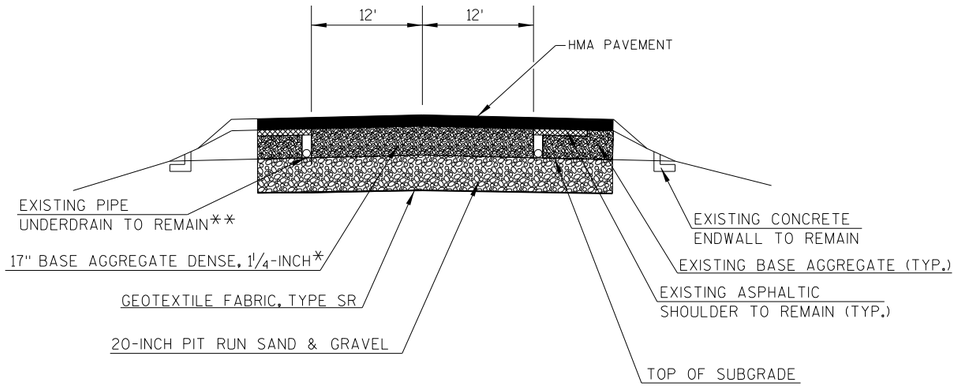
TYPICAL PLACEMENT OF RIPRAP AT CULVERT ENDS

NOTE:

USE RIPRAP HEAVY AND GEOTEXTILE FABRIC TYPE HR

PLACE RIPRAP AT THE END OF ALL CULVERT PIPES RECEIVING THE FOLLOWING TREATMENT:

- CULVERT PIPE CLEANING
- RESET APRON ENDWALL
- REPLACE APRON ENDWALL
- CULVERT PIPE EXPLORATION
- REDITCHING
- RESETTING CULVERT PIPES

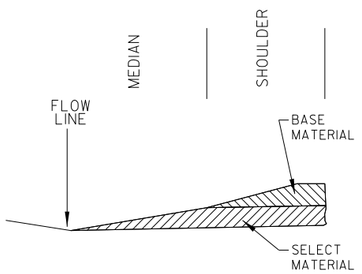


* TOP OF BASE AGGREGATE DENSE, 1¼" IS TO BE LEVEL WITH TOP OF ADJACENT RUBBLIZED CONCRETE PAVEMENT.

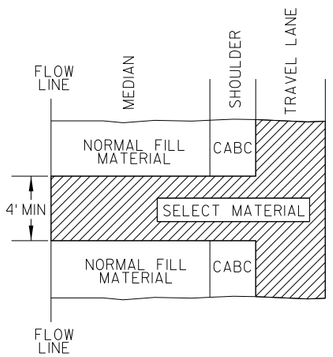
LOCATIONS OF EBS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD ON AN AS-NEEDED BASIS.

** ADDITIONAL UNDERDRAIN AND APRON ENDWALLS FOR UNDERDRAIN MAY BE NEEDED IN EBS AREAS. LOCATION OF UNDERDRAIN AND ENDWALLS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

*** CONSTRUCT RELIEF TRENCH IN EBS AREAS AT SAG POINTS OR EVERY 250FT



RELIEF TRENCH DETAIL*** PROFILE VIEW



RELIEF TRENCH DETAIL PLAN VIEW

EXCAVATION BELOW SUBGRADE

CROSSOVER ALIGNMENT DATA		
POINT	X	Y
PC-1	2,447,234.50	311,974.56
PI-1	2,447,498.54	312,255.80
PT-1	2,447,788.42	312,510.33
PC-2	2,447,884.96	312,595.10
PI-2	2,448,174.84	312,849.63
PT-2	2,448,438.88	313,130.87

PI-1		PI-2	
Δ.	= 5°31'17"	Δ.	= -5°31'17"
D.	= 0°42'58"	D.	= 0°42'58"
T.	= 385.76'	T.	= 385.76'
L.	= 770.93'	L.	= 770.93'
R.	= 8000.00'	R.	= 8000.00'

AREA TO BE RESTORED.
GRADE TO MATCH EXISTING AND RE-ESTABLISH PRECONSTRUCTION DRAINAGE
THEN PROVIDE SALVAGED TOPSOIL, FERTILIZE, SEED NO 30, AND EROSION MAT.

RECONSTRUCTION AREA

INSTALL COVER PLATE TEMPORARY OVER INLET THEN
INSTALL CULVERT PIPE TEMPORARY 18-INCH PRIOR
TO INSTALLATION OF PAVED CROSSOVER (SEE DETAIL)

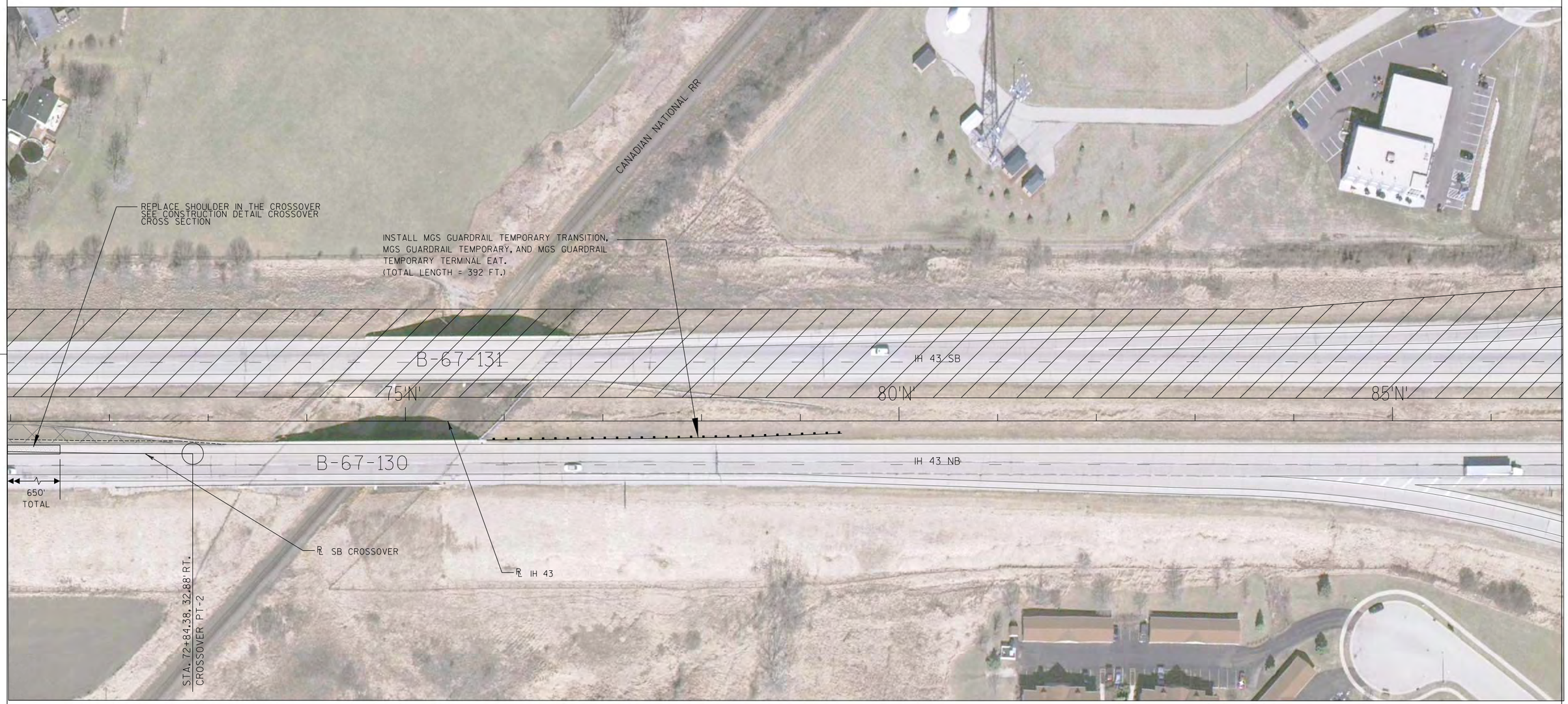
NOTES:

1) THIS CROSSOVER AND THE CROSSOVER CONSTRUCTED UNDER CONTRACT 1090-19-72 (SEE TRAFFIC CONTROL PLAN FOR LIMITS OF 1090-19-72 CROSSOVER) ARE TO BE REMOVED AND THE AREA RESTORED PRIOR TO COMPLETION OF PROJECT.

2) MILL AND PLACE 2" HMA (TYPE E-30) SHOULDERS PRIOR TO USING CROSSOVER. REPLACE RUMBLE STRIPS PRIOR TO REOPENING NB IH-43 TO FULL TRAFFIC. REFER TO TRAFFIC CONTROL SHEETS

PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	CONSTRUCTION DETAIL - IH-43 SB CROSSOVER	SHEET 22	E

2



AREA TO BE RESTORED.
GRADE TO MATCH EXISTING AND RE-ESTABLISH PRECONSTRUCTION DRAINAGE THEN PROVIDE SALVAGED TOPSOIL, FERTILIZE, SEED NO 30, AND EROSION MAT.

RECONSTRUCTION AREA

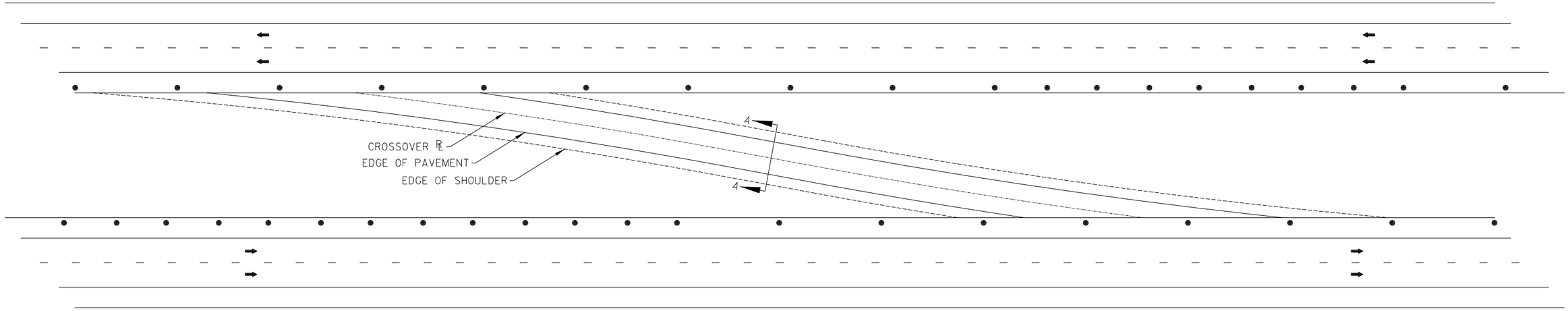
NOTES:

1) THIS CROSSOVER AND THE CROSSOVER CONSTRUCTED UNDER CONTRACT 1090-19-72 (SEE TRAFFIC CONTROL PLAN FOR LIMITS OF 1090-19-72 CROSSOVER) ARE TO BE REMOVED AND THE AREA RESTORED PRIOR TO COMPLETION OF PROJECT.

2) MILL AND PLACE 2" HMA (TYPE E-30) SHOULDERS PRIOR TO USING CROSSOVER. REPLACE RUMBLE STRIPS PRIOR TO REOPENING NB IH-43 TO FULL TRAFFIC. REFER TO TRAFFIC CONTROL SHEETS

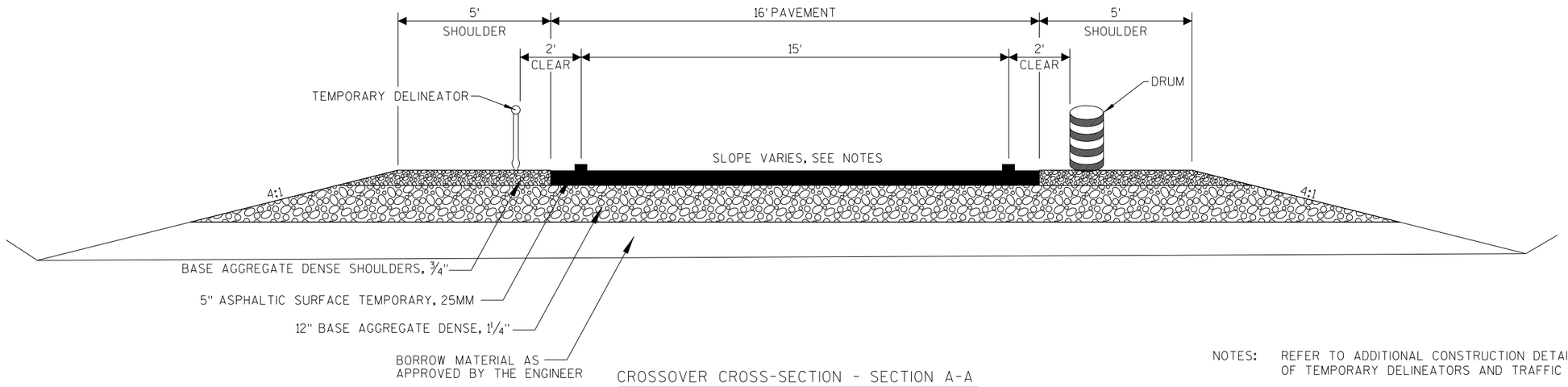
PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	CONSTRUCTION DETAILS - IH-43 SB CROSSOVER	SHEET 23	E

2



TYPICAL CROSSOVER CONSTRUCTION DETAIL

NOTES: REFER TO ADDITIONAL CONSTRUCTION DETAILS FOR LAYOUT OF CROSSOVER ALIGNMENT.



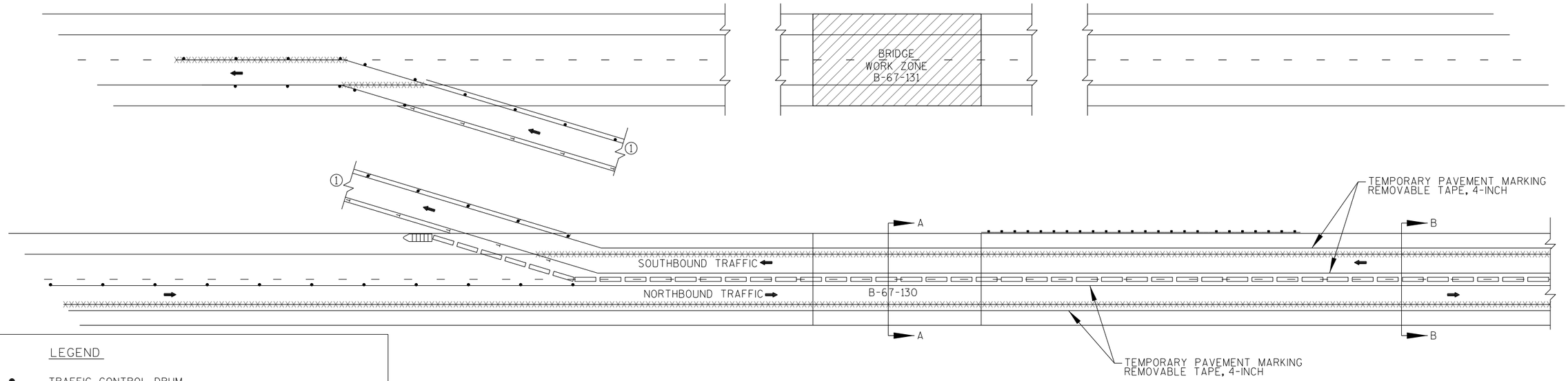
CROSSOVER CROSS-SECTION - SECTION A-A

NOTES: REFER TO ADDITIONAL CONSTRUCTION DETAILS FOR PLACEMENT OF TEMPORARY DELINEATORS AND TRAFFIC CONTROL DRUMS.

THE CROSSOVER PAVEMENT IS SUPERELEVATED AT 2.0% ALONG THE CURVES, TRANSITIONING FROM +2.0% TO -2.0% ALONG THE TANGENT.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION DETAILS - I-43 SOUTHBOUND CROSSOVER	SHEET NO: 24	E

2



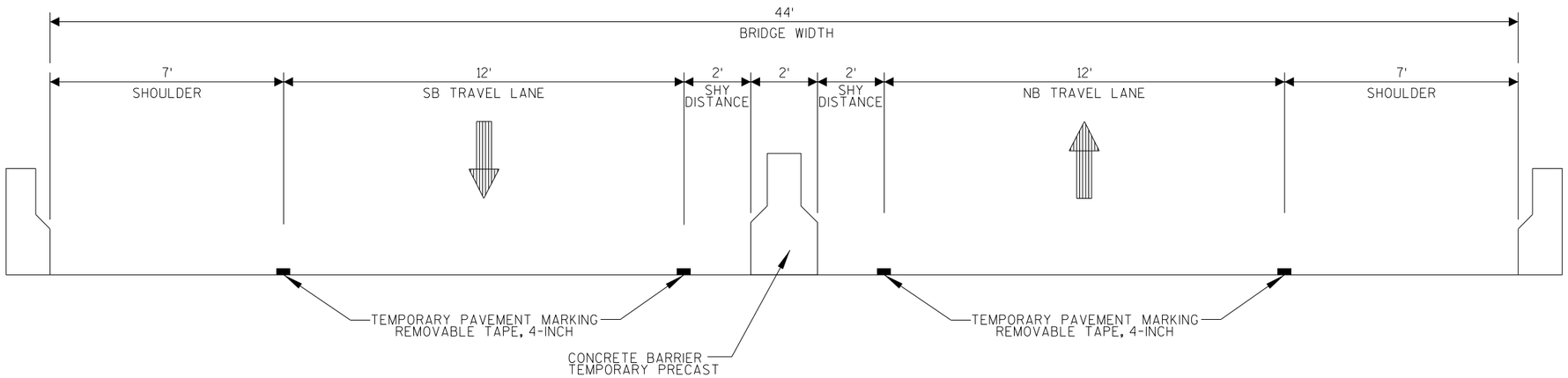
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- TEMPORARY DELINEATOR
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA

* SEE ADDITIONAL DETAILS FOR LAYOUT OF CROSSOVER.

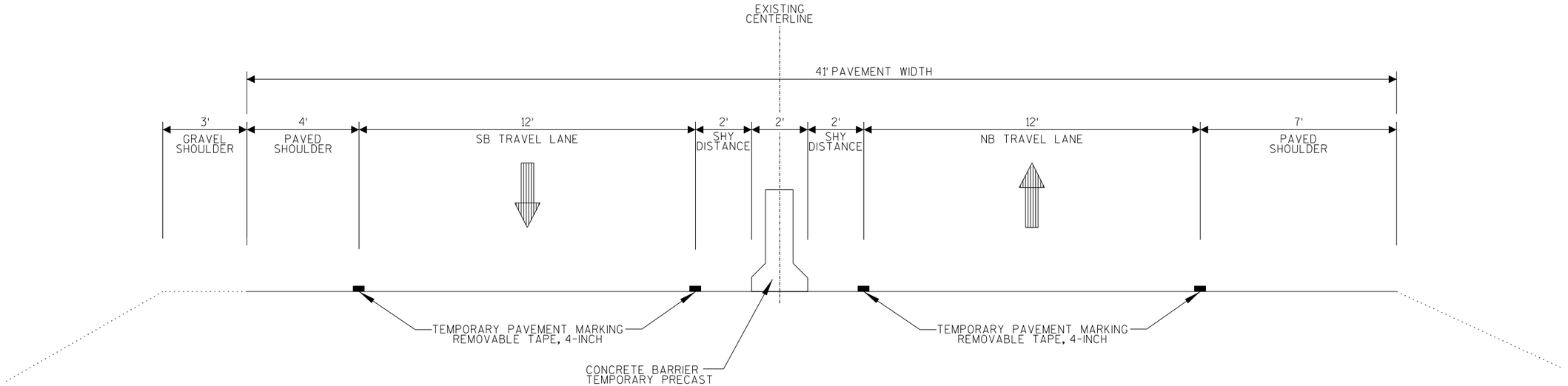
SEE TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DETAILS.

NOTES: ASPHALT SHOULDERS WERE MILLED AND OVERLAID AS PART OF PROJECT 1090-15-70 IN 2009.



SECTION A-A

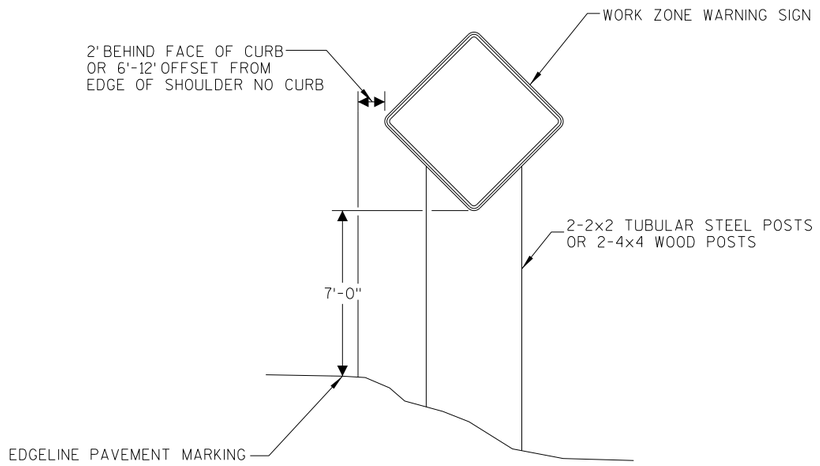
2



SECTION B-B

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION DETAILS - I-43 SOUTHBOUND CROSSOVER	SHEET NO: 26	E

2

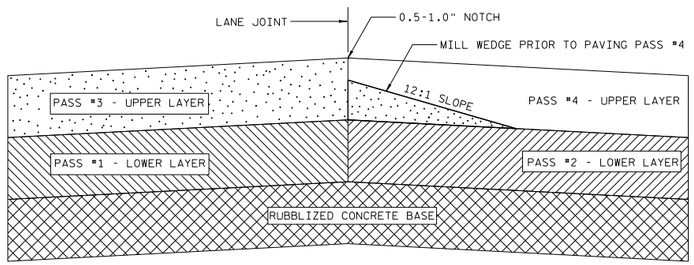


TYPICAL TEMPORARY TRAFFIC CONTROL SIGN DETAIL

MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

W8-11
48" X 48"



(LOWER AND UPPER LAYERS)

W8-11
48" X 48"

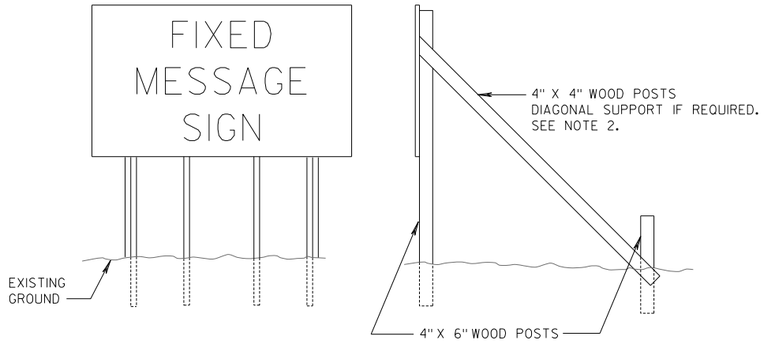
TYPICAL PAVEMENT CROSS SECTIONS OF

TAPERED AND NOTCHED LONGITUDINAL JOINTS

THIS DETAIL IS TO BE APPLIED TO THE NIGHT WORK ON IH-43 NEAR USH 12.

* SIGNS TO BE PAID FOR AS TRAFFIC CONTROL SIGNS AND PLACED AT THE BEGINNING OF LONGITUDINAL JOINTS WHEN THE TWO LANES ARE AT DIFFERENT ELEVATIONS (AFTER PASS #1 & PRIOR TO PASS #2, AFTER PASS #3 & PRIOR TO PASS #4).

2



FRONT VIEW SIDE VIEW

NOTES

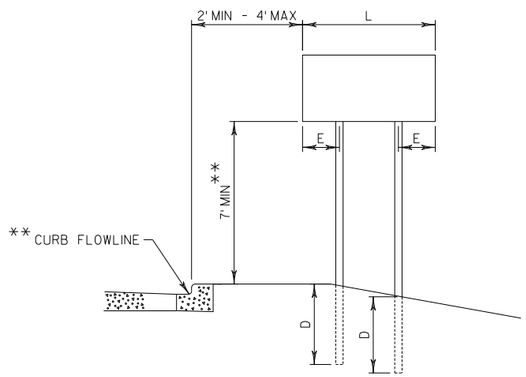
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.

2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.

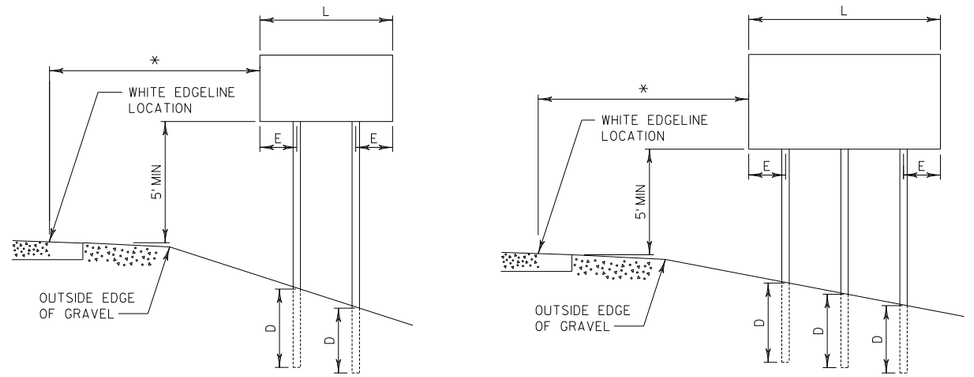
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA



RURAL 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"

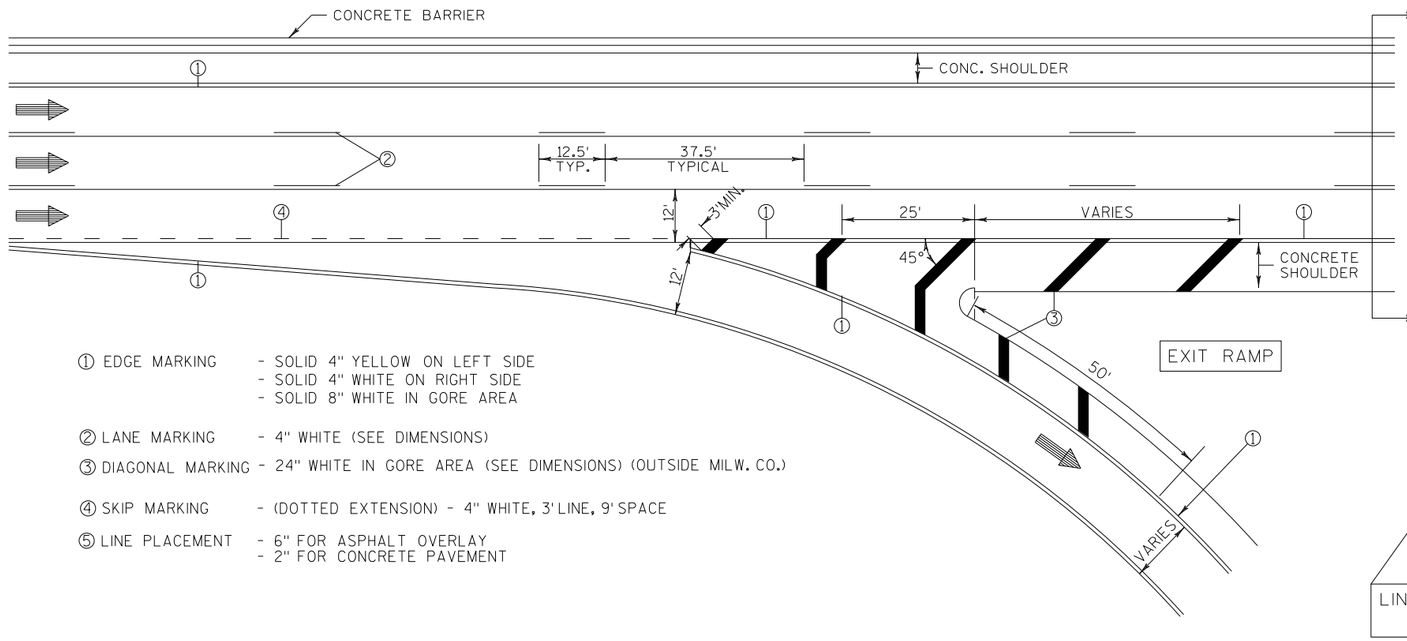
SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

NOTE TO DESIGNERS: SHOW POSTS ON FMS SIGN DETAILS.

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS



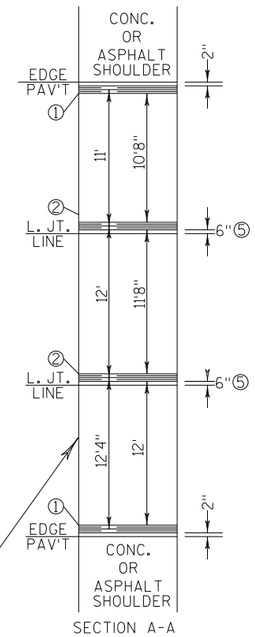
① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- SOLID 8" WHITE IN GORE AREA

② LANE MARKING - 4" WHITE (SEE DIMENSIONS)

③ DIAGONAL MARKING - 24" WHITE IN GORE AREA (SEE DIMENSIONS) (OUTSIDE MILW. CO.)

④ SKIP MARKING - (DOTTED EXTENSION) - 4" WHITE, 3' LINE, 9' SPACE

⑤ LINE PLACEMENT - 6" FOR ASPHALT OVERLAY
- 2" FOR CONCRETE PAVEMENT

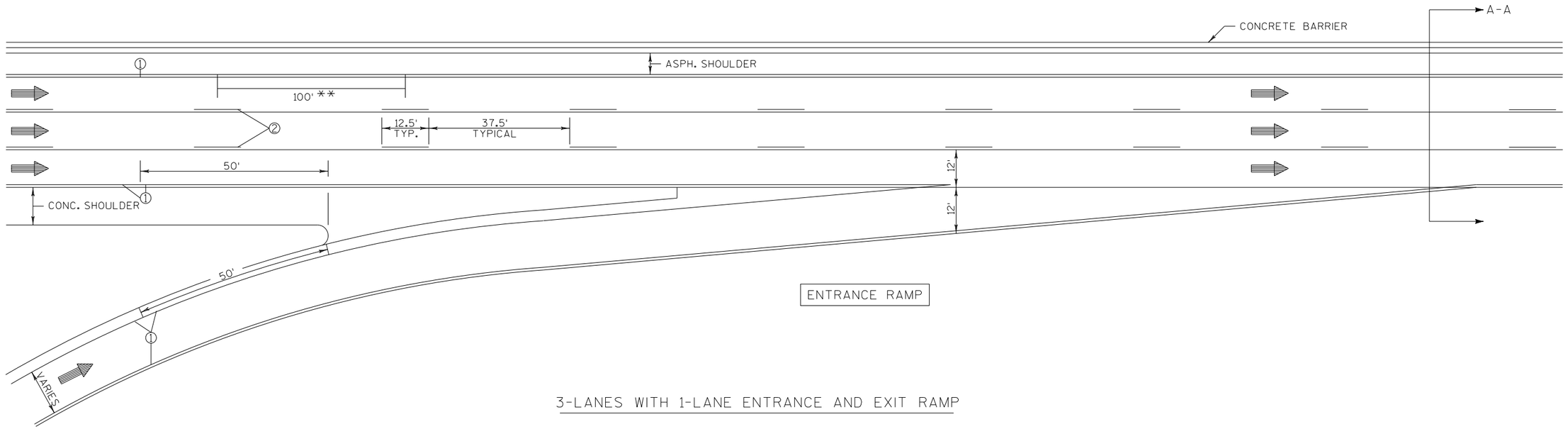


SECTION A-A

LINE PLACEMENT DETAILS

NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.
5. SEE STANDARD DETAIL DRAWING FOR RAISED PAVEMENT MARKERS IN GORE AND LINE WIDTH TOLERANCES.



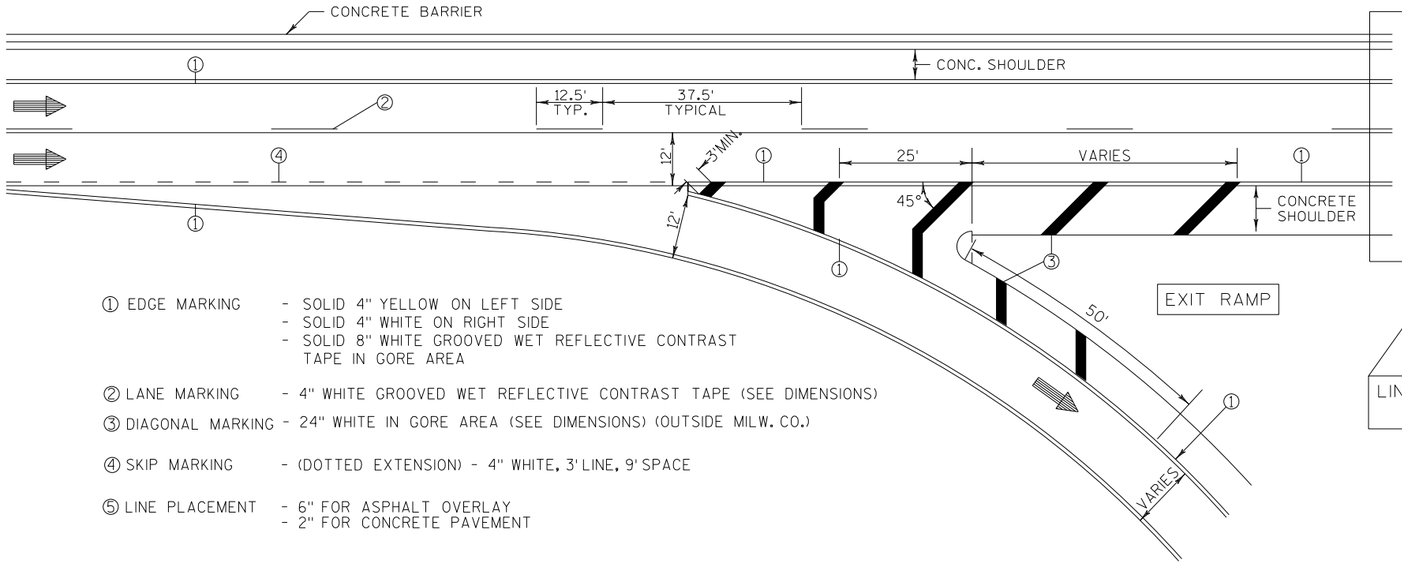
ENTRANCE RAMP

3-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

STH 120

GORES, FREEWAYS, & EXPRESSWAYS

PROJECT NO:	HWY:	COUNTY: OUTSIDE MILWAUKEE CO.	EPOXY PAVEMENT MARKING, RAMPS	SHEET 29	E



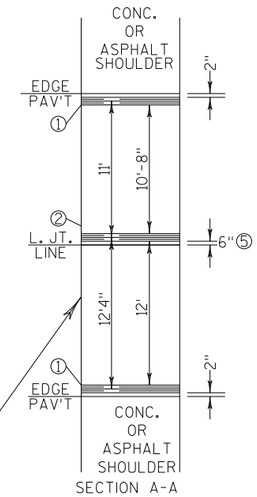
① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- SOLID 8" WHITE GROOVED WET REFLECTIVE CONTRAST TAPE IN GORE AREA

② LANE MARKING - 4" WHITE GROOVED WET REFLECTIVE CONTRAST TAPE (SEE DIMENSIONS)

③ DIAGONAL MARKING - 24" WHITE IN GORE AREA (SEE DIMENSIONS) (OUTSIDE MILW. CO.)

④ SKIP MARKING - (DOTTED EXTENSION) - 4" WHITE, 3' LINE, 9' SPACE

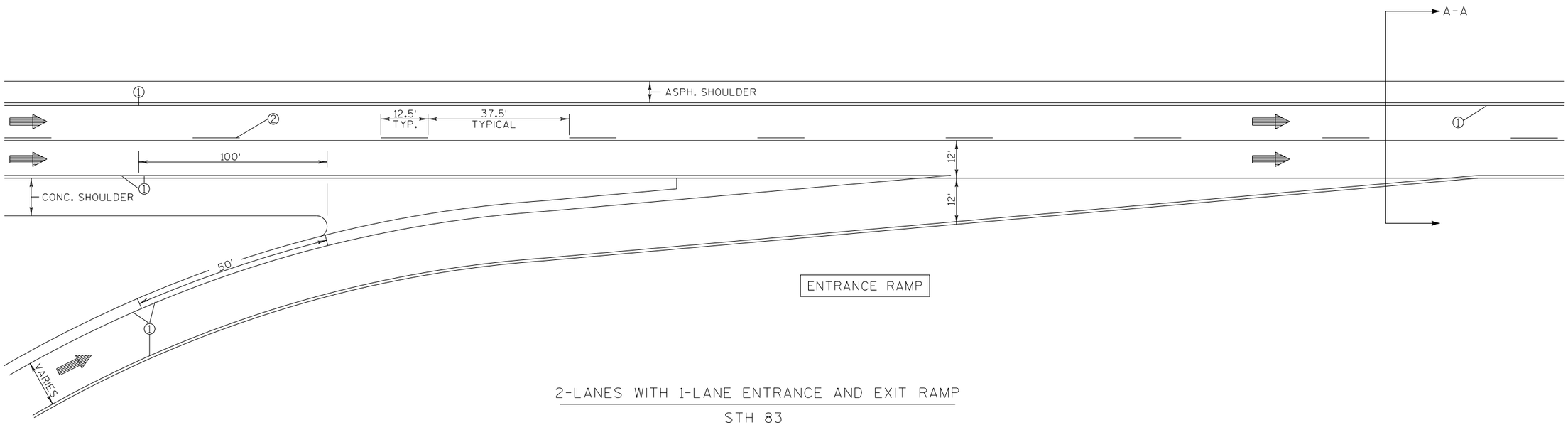
⑤ LINE PLACEMENT - 6" FOR ASPHALT OVERLAY
- 2" FOR CONCRETE PAVEMENT



LINE PLACEMENT DETAILS

NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.
5. SEE STANDARD DETAIL DRAWING FOR RAISED PAVEMENT MARKERS IN GORE AND LINE WIDTH TOLERANCES.

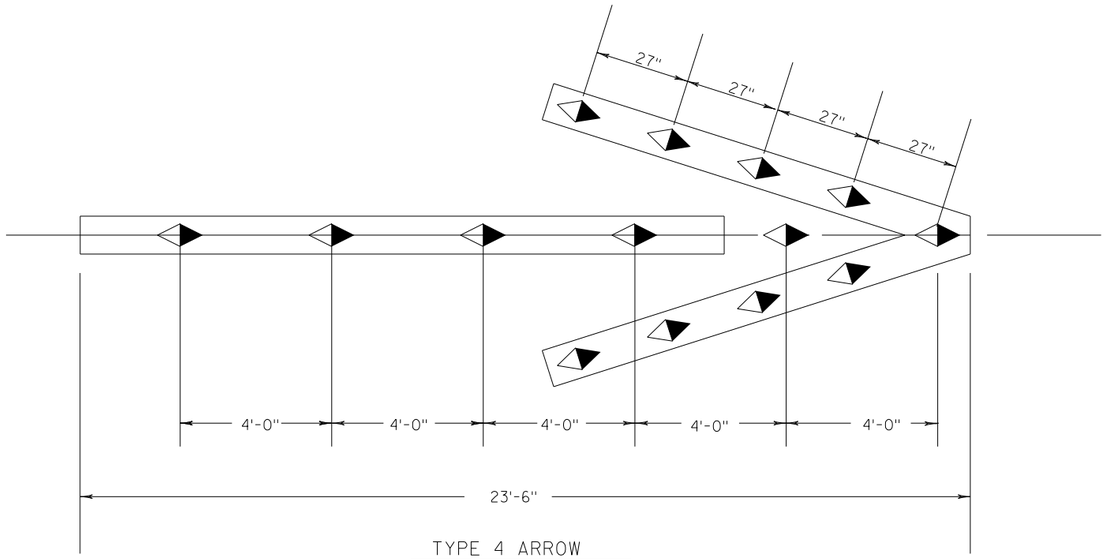


2-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

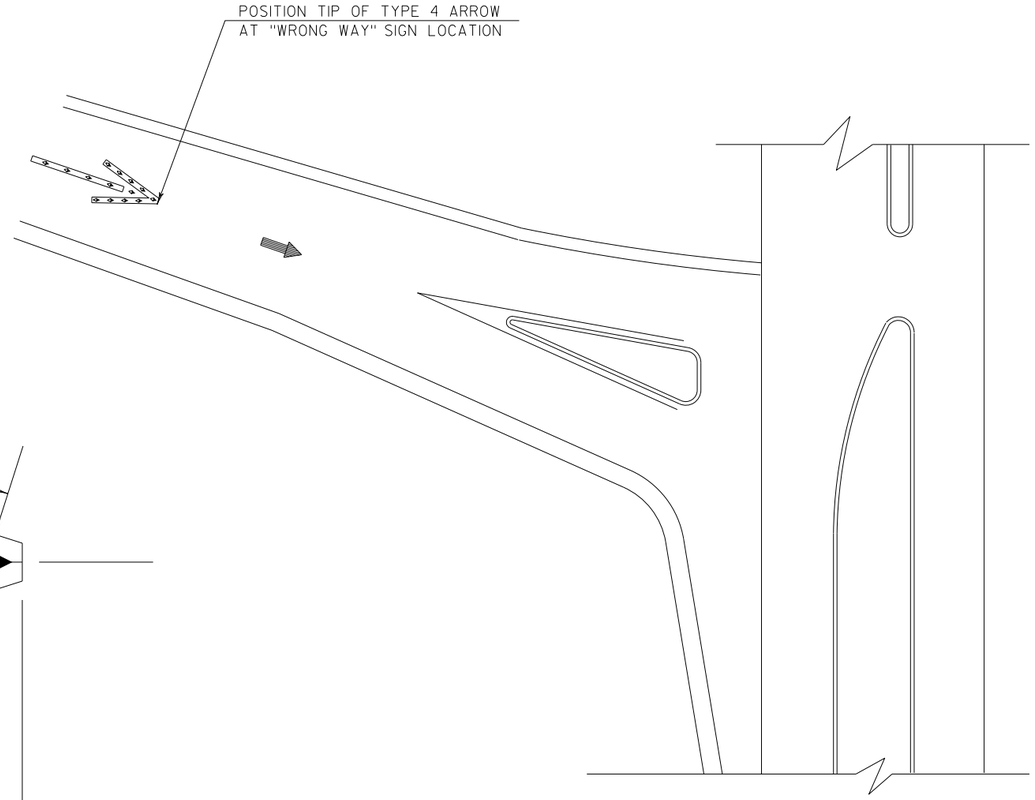
STH 83
STH 20
CTH N
STH 11

PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PAVEMENT MARKING, RAMPS	SHEET 30 E

2



TYPE 4 ARROW
NEW INSTALLATION



EXIT RAMP
PLAN VIEW

GENERAL NOTES

MARKER REFLECTORS INSTALLED IN TYPE 4 ARROWS BEFORE APPLICATION OF THE ARROW MARKING MATERIAL SHALL BE MASKED TO PREVENT COATING.

MARKERS SHALL NOT BE LOCATED DIRECTLY OVER LONGITUDNAL JOINTS. PLACE MARKERS ADJACENT TO THE JOINT LINE TO AVOID TEMPERATURE AND SHRINKAGE AND / OR BREAKAGE OF CONCRETE.

LEGEND

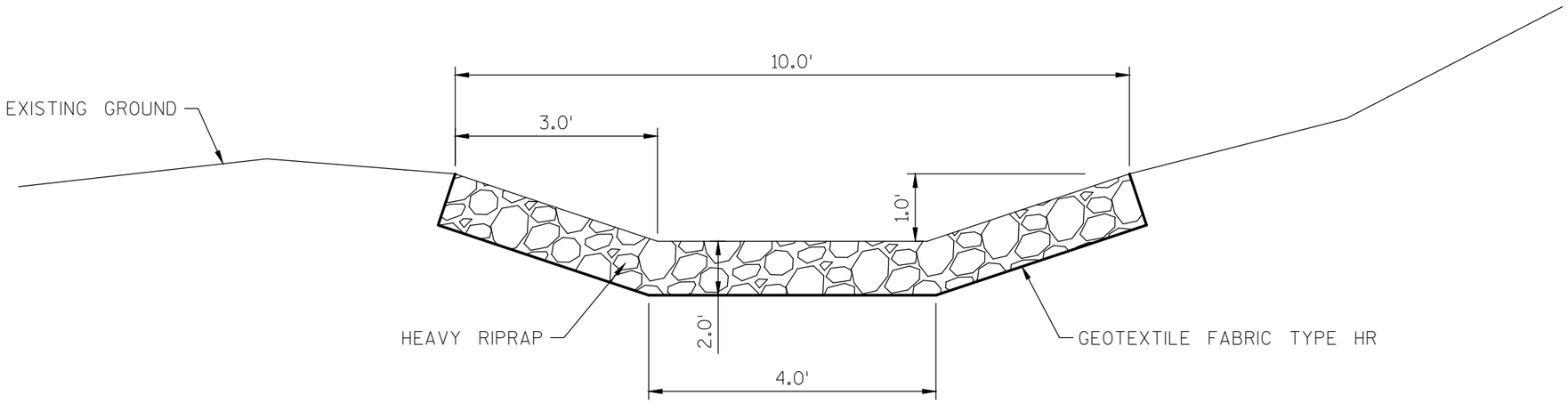
TWO WAY REFLECTOR (OPAQUE WHITE / REFLECTIVE RED REFLECTOR)

DIRECTION OF TRAVEL

(RAMPS & ARROWS)

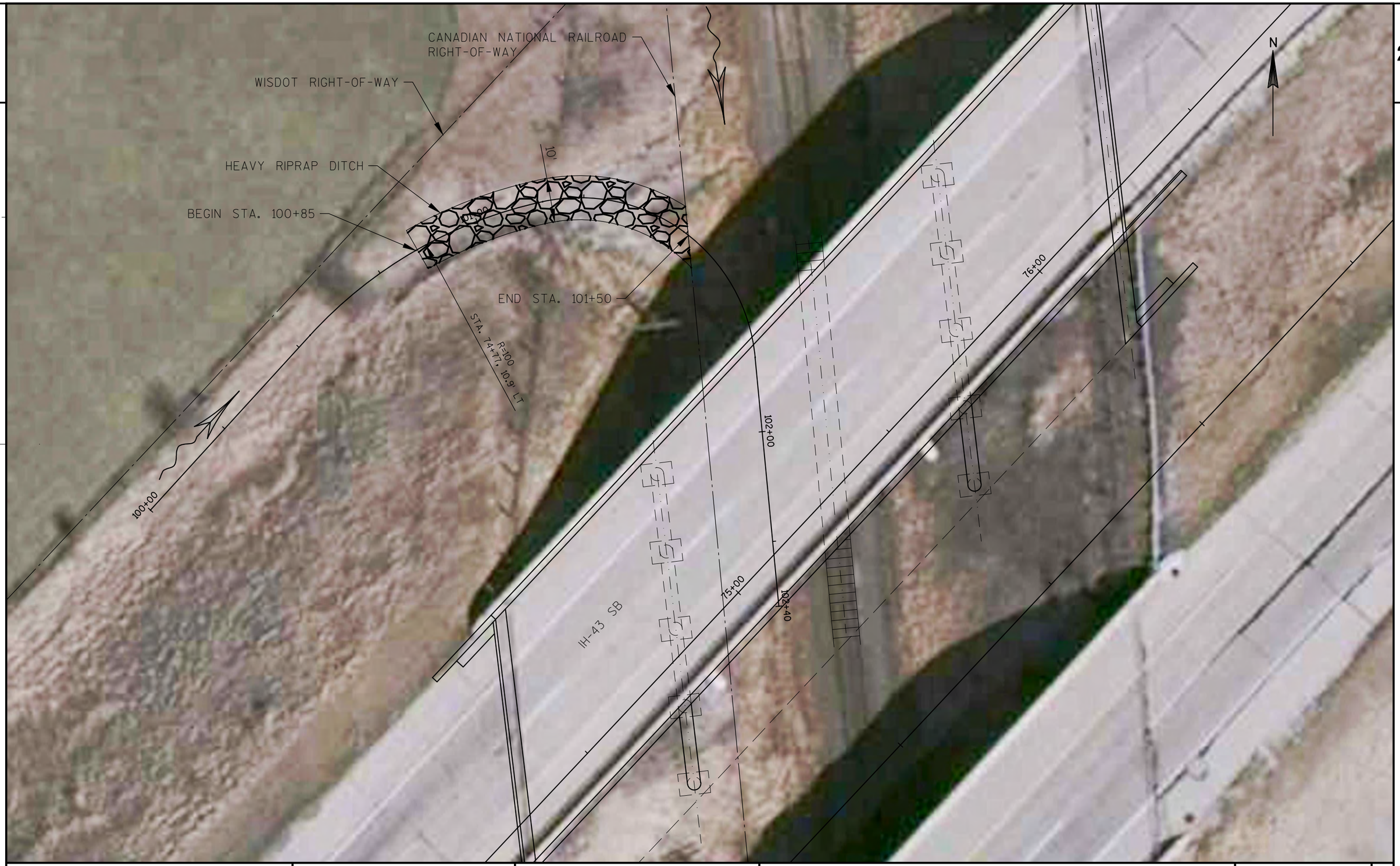
2

N



DETAIL FOR HEAVY RIPRAP DITCH AT CANADIAN NATIONAL RAILROAD

2



PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION DETAILS	SHEET 33	E

* NOTE:

HAVE PORTABLE CHANGEABLE MESSAGE SIGNS (CMS) IN PLACE AT THE BEGINNING OF THE CONSTRUCTION ZONE TEN CALENDAR DAYS PRIOR TO THE START OF ROAD WORK.

THE SECOND MESSAGE ON THE CMS SHALL STATE "BEGINS (DAY) (DATE)" TEN CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION.

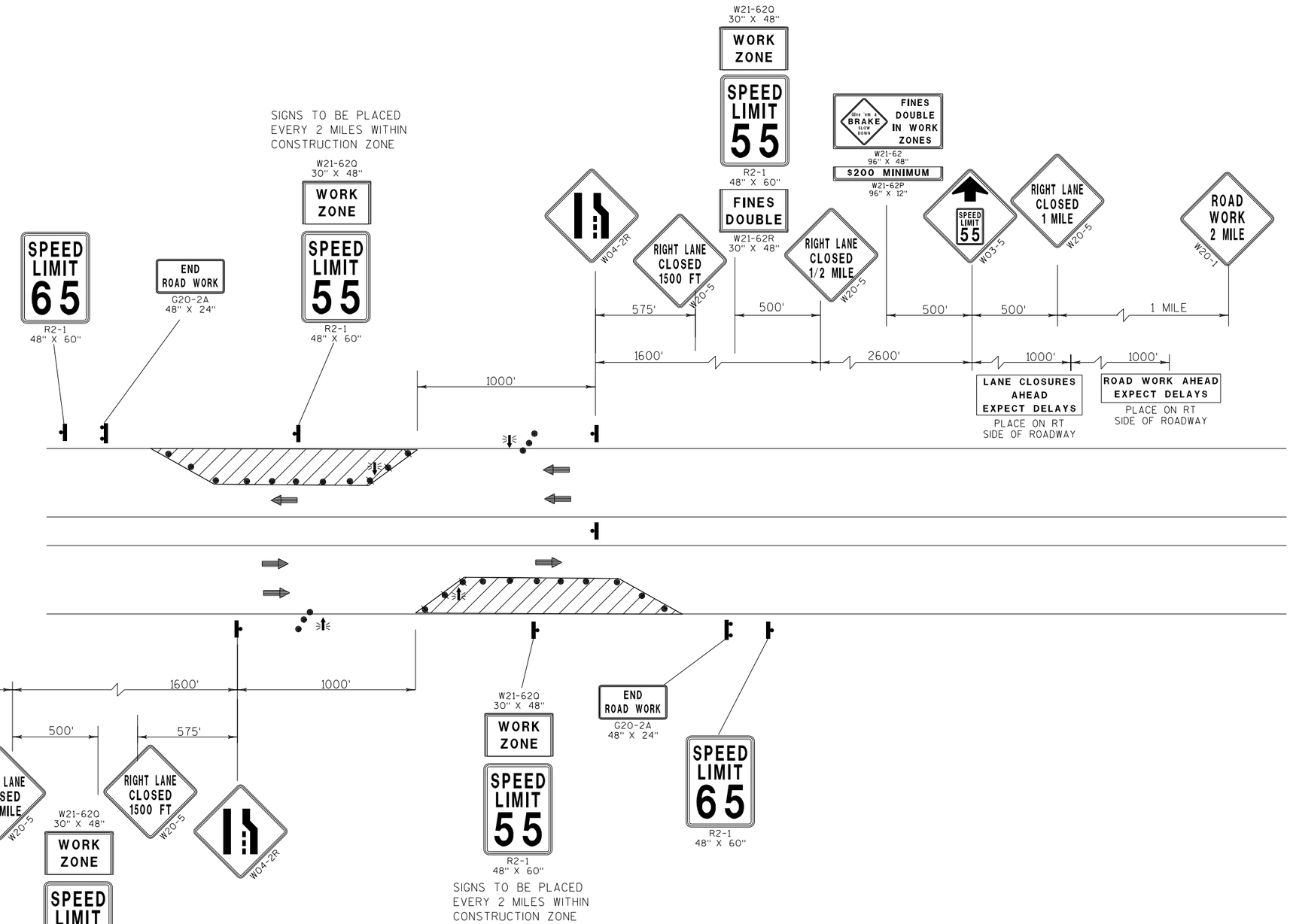
ELIMINATE SECOND MESSAGE ON THE CMS INDICATING THE START OF ROAD WORK DATE AFTER WORK HAS BEGUN AND REPLACE WITH "EXPECT LANE CLOSURES."

MOVE THE SIGNS SHOWN ON THIS DETAIL WITH THE LIMITS OF CONSTRUCTION AS WORK PROGRESSES.

REFER TO ADDITIONAL CONSTRUCTION DETAILS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL TRAFFIC CONTROL SIGNING AND DETAILS.

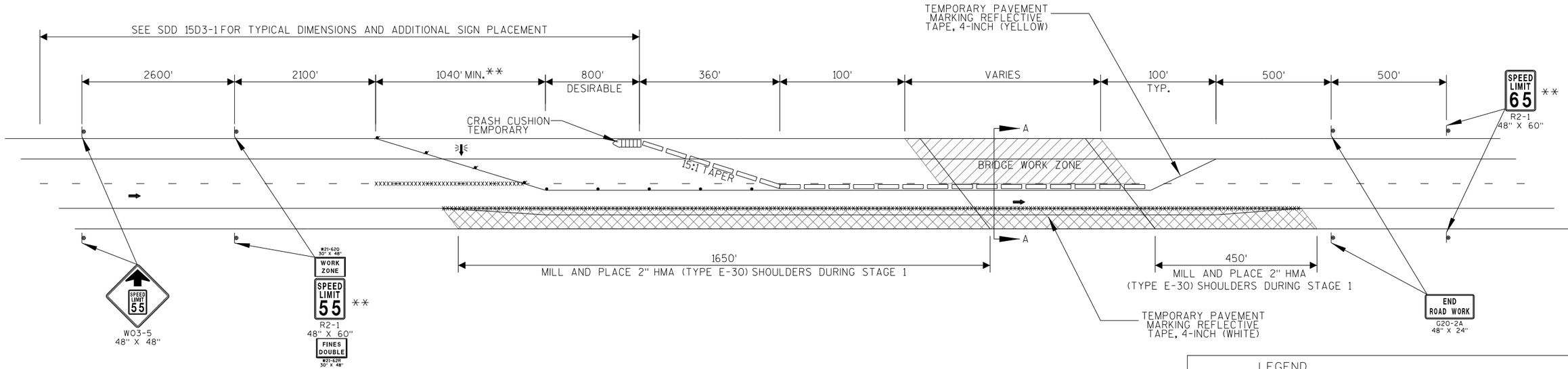
COVER EXISTING 65 MPH SPEED LIMIT SIGNS WITHIN THE CONSTRUCTION ZONE WITH 55 MPH SPEED LIMITS SIGNS (R2-1).

ALL 55 MPH SPEED LIMIT SIGNS MUST BE RETURNED TO 65 MPH LIMIT SIGNS ON WEEKENDS WHEN ALL TRAVEL LANES ARE REOPENED, AND LANE CLOSURE SIGNS SHALL BE COVERED.



1. TYPICAL FREEWAY / EXPRESSWAY TEMPORARY SPEED LIMIT REDUCTION SIGNING
2. SEE LANE CLOSURE DETAIL FOR MORE ON LANE CLOSURE REQUIREMENTS
3. OBTAIN APPROVAL FROM TRAFFIC OPERATIONS FOR ANY TEMPORARY REDUCTIONS IN SPEED LIMIT

PROJECT NO:	HWY:	COUNTY:	TEMPORARY SPEED LIMITS	SHEET 34	E



TRAFFIC CONTROL DETAIL*

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 2 (NB & SB AND EB & WB)
(NOT TO SCALE)

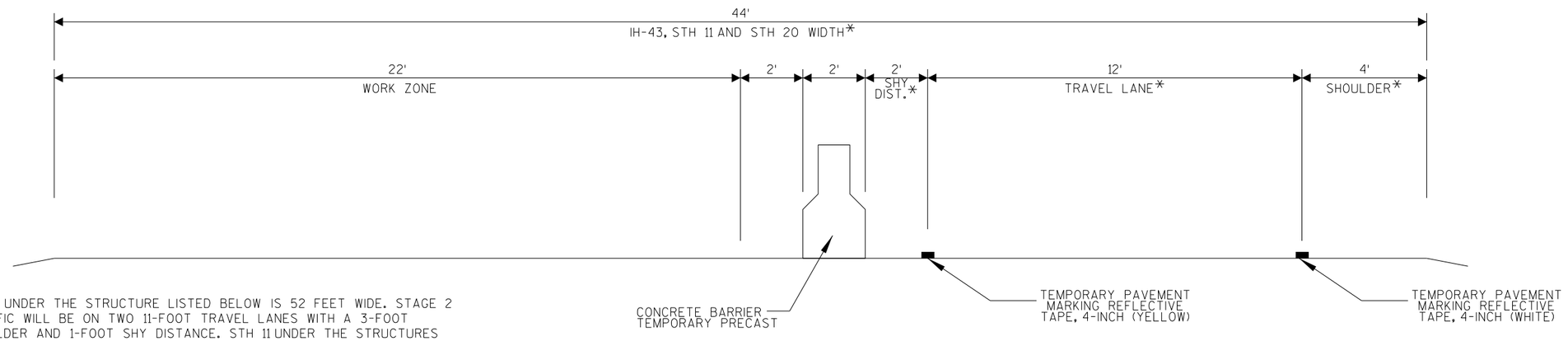
** FOR TRAFFIC CONTROL ON STH 11 AND STH 20 REDUCE SPEED FROM TO 35 MPH AND ADJUST DISTANCES OF TRAFFIC CONTROL DEVICES ACCORDINGLY.

* DO NOT OPEN TRAFFIC TO TWO LANES IF THE NEXT CONSTRUCTION ZONE IS LESS THAN 2 MILES AWAY.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40MPH WITH BARRIER" FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA



* IH-43 UNDER THE STRUCTURE LISTED BELOW IS 52 FEET WIDE. STAGE 2 TRAFFIC WILL BE ON TWO 11-FOOT TRAVEL LANES WITH A 3-FOOT SHOULDER AND 1-FOOT SHY DISTANCE. STH 11 UNDER THE STRUCTURES LISTED BELOW IS 40 FEET WIDE. TRAFFIC WILL BE ON ONE 12-FOOT LANE WITH A 3-FOOT SHOULDER AND 1-FOOT SHY DISTANCE.

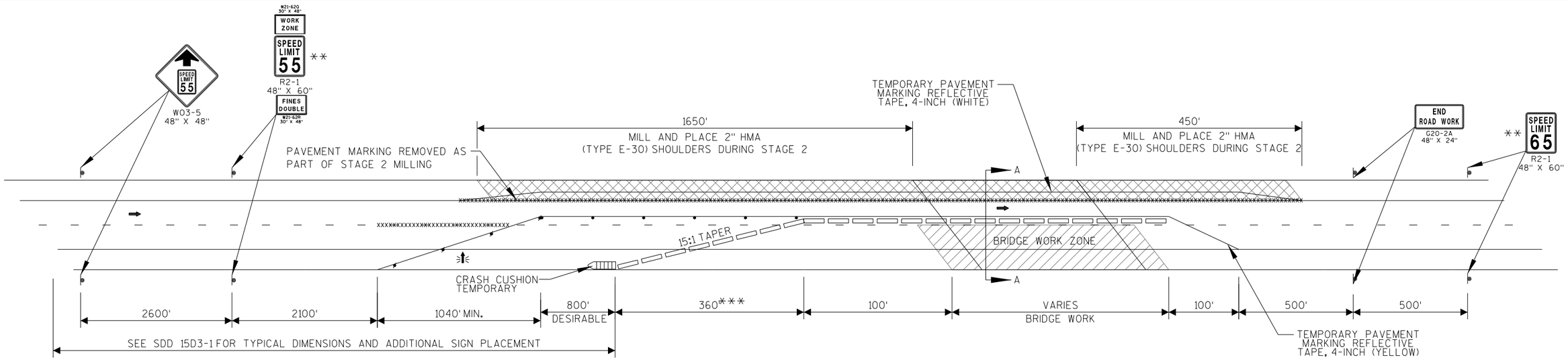
STRUCTURE B-64-94	BOWERS ROAD OVER IH-43 (NB-SIDE)
STRUCTURE B-64-103	IH-43 SB OVER STH 11
STRUCTURE B-64-104	IH-43 NB OVER STH 11

TRAFFIC CONTROL DETAIL - SECTION A-A

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 2 (NB & SB AND EB & WB)
(NOT TO SCALE)

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA	CONSTRUCTION DETAILS - I-43 BRIDGES - STAGE 2	SHEET NO: 35	E

2



TRAFFIC CONTROL DETAIL*

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 3 (NB & SB AND EB & WB)
(NOT TO SCALE)

LEGEND

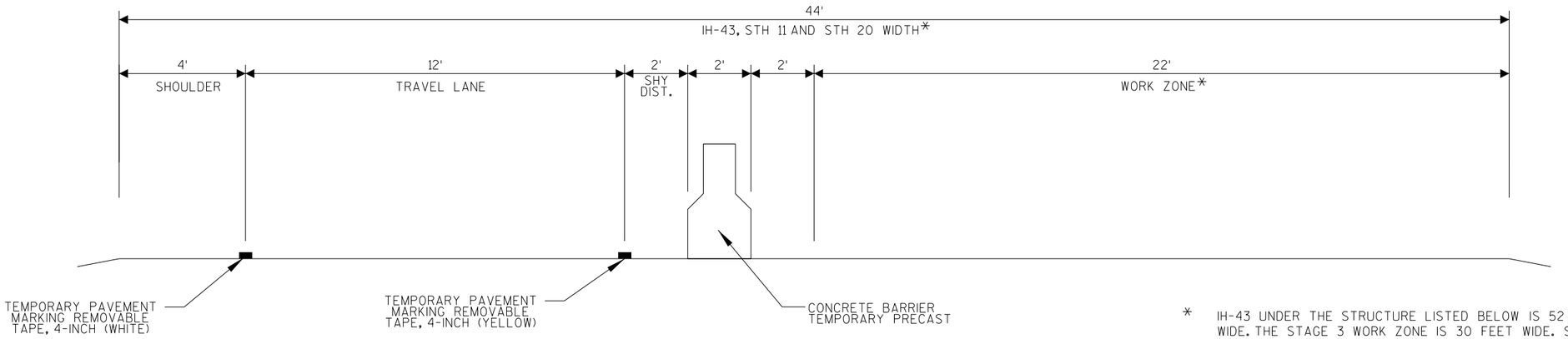
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

* DO NOT OPEN TRAFFIC TO TWO LANES IF THE NEXT CONSTRUCTION ZONE IS LESS THAN 2 MILES AWAY.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40MPH WITH BARRIER" FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

** FOR TRAFFIC CONTROL ON STH 11 AND STH 20 REDUCE SPEED TO 35 MPH AND ADJUST DISTANCES OF TRAFFIC CONTROL DEVICES ACCORDINGLY.

*** THE CONCRETE BARRIER TAPER IS 450' AT STRUCTURES THAT ARE 52' WIDE TO ACCOUNT FOR THE ADDED DISTANCE ACROSS THE CLIMBING LANE.



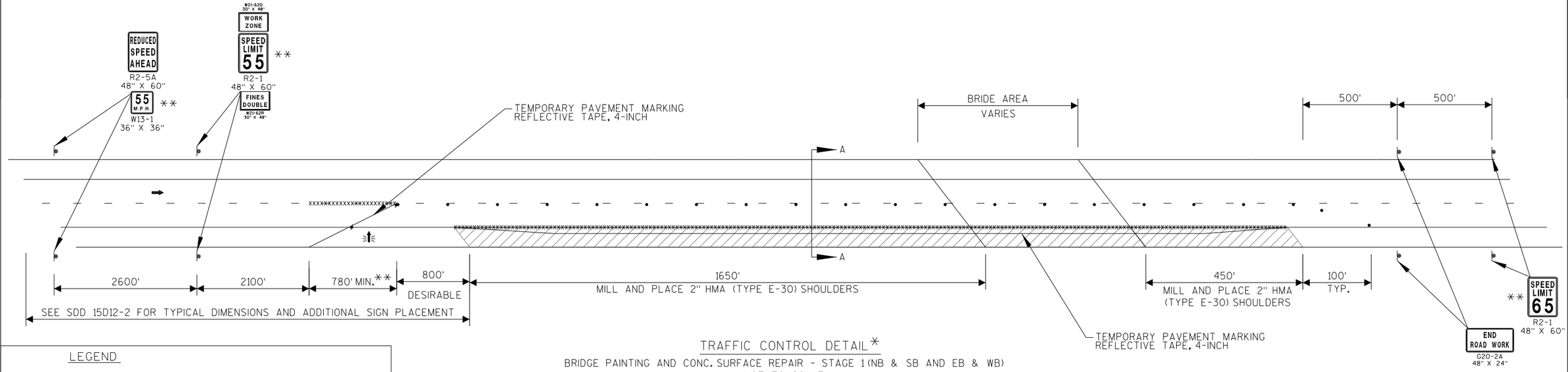
TRAFFIC CONTROL DETAIL - SECTION A-A

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 3 (NB & SB AND EB & WB)
(NOT TO SCALE)

* IH-43 UNDER THE STRUCTURE LISTED BELOW IS 52 FEET WIDE. THE STAGE 3 WORK ZONE IS 30 FEET WIDE. STH 11 UNDER THE STRUCTURES LISTED BELOW IS 40 FEET WIDE. TRAFFIC WILL BE ON ONE 12-FOOT LANE WITH A 3-FOOT SHOULDER AND 1-FOOT SHY DISTANCE.

STRUCTURE B-64-94	BOWERS ROAD OVER IH-43 (NB-SIDE)
STRUCTURE B-64-103	IH-43 SB OVER STH 11
STRUCTURE B-64-104	IH-43 NB OVER STH 11

2



TRAFFIC CONTROL DETAIL*

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 1 (NB & SB AND EB & WB)
(NOT TO SCALE)

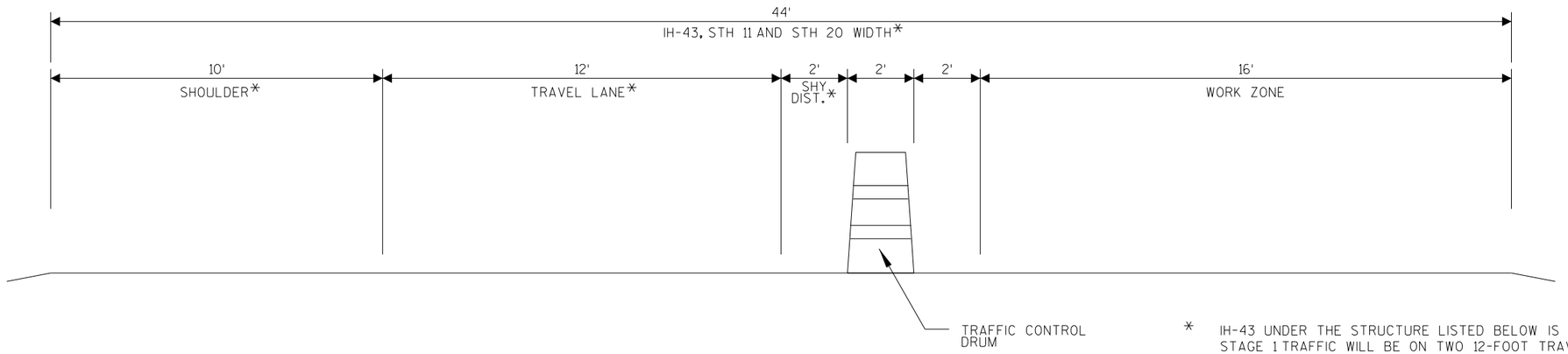
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

* DO NOT OPEN TRAFFIC TO TWO LANES IF THE NEXT CONSTRUCTION ZONE IS LESS THAN 2 MILES AWAY.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40MPH" FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

** FOR TRAFFIC CONTROL ON STH 11 AND STH 20 REDUCE SPEED TO 35 MPH AND ADJUST DISTANCES OF TRAFFIC CONTROL DEVICES ACCORDINGLY.



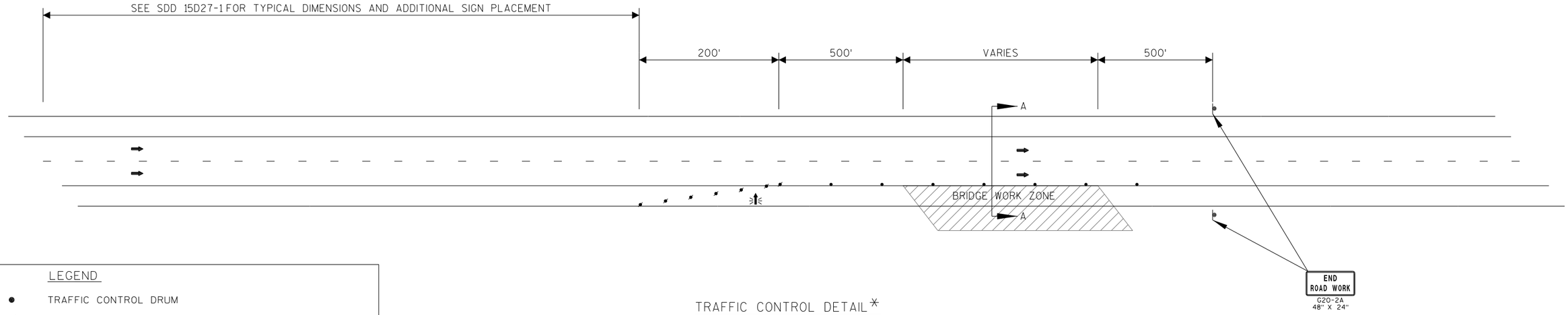
TRAFFIC CONTROL DETAIL - SECTION A-A

BRIDGE PAINTING AND CONC. SURFACE REPAIR - STAGE 1 (NB & SB AND EB & WB)
(NOT TO SCALE)

* IH-43 UNDER THE STRUCTURE LISTED BELOW IS 52 FETT WIDE. STAGE 1 STAGE 1 TRAFFIC WILL BE ON TWO 12-FOOT TRAVEL LANES WITH A 10-FOOT SHOULDER AND 2-FOOT SHY DISTANCE. STH 11 UNDER THE STRUCTURES LISED BELOW IS 40 FEET WIDE. TRAFFIC WILL BE ON ONE 12-FOOT LANE WITH A 6-FOOT SHOULDER AND 2-FOOT SHY DISTANCE.

STRUCTURE B-64-94	BOWERS ROAD OVER IH-43 (NB-SIDE)
STRUCTURE B-64-103	IH-43 SB OVER STH 11
STRUCTURE B-64-104	IH-43 NB OVER STH 11

2



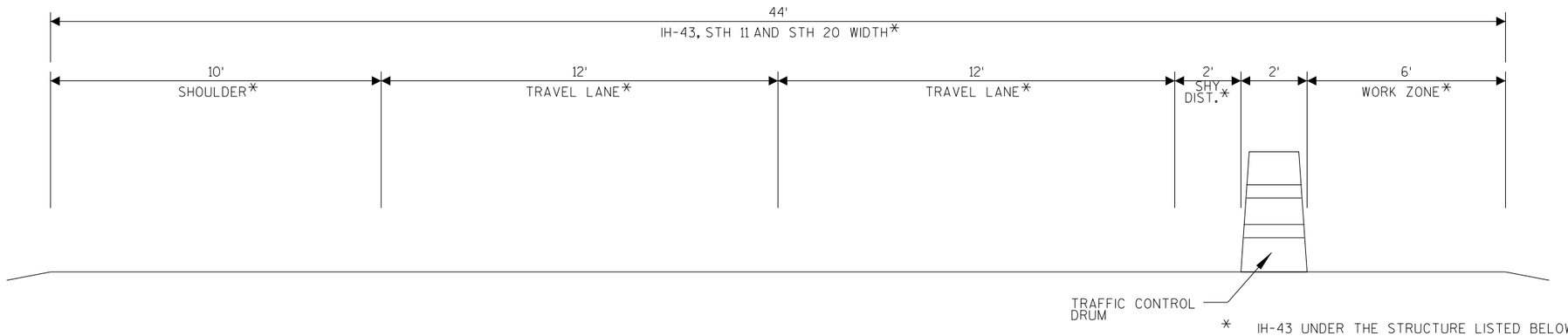
TRAFFIC CONTROL DETAIL *

BEARING REPLACEMENTS, SLOPE RE-SEALING AND CONC. SURFACE REPAIR
(NOT TO SCALE)

* SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40MPH" FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA



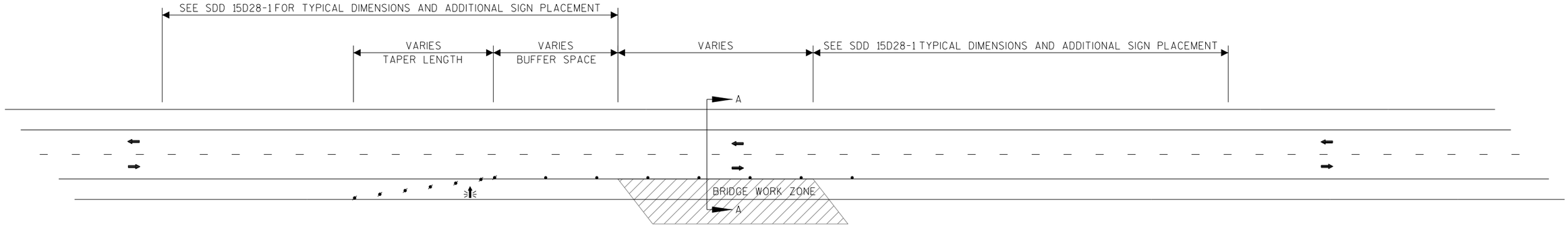
TRAFFIC CONTROL DETAIL - SECTION A-A

BEARING REPLACEMENTS, SLOPE RE-SEALING AND CONC. SURFACE REPAIR
(NOT TO SCALE)

* IH-43 UNDER THE STRUCTURE LISTED BELOW IS 52 FEET WIDE. TRAFFIC WILL BE ON THREE 12-FOOT TRAVEL LANES WITH A 10-FOOT SHOULDER AND 1-FOOT SHY DISTANCE. STH 11 UNDER THE STRUCTURES LISTED BELOW IS 40 FEET WIDE. TRAFFIC WILL BE ON TWO 12-FOOT LANES WITH 6-FOOT SHOULDER. WORK ZONE EXTENDS OUT BEYOND SHOULDER TOWARDS BEARING BEING REPLACED.

STRUCTURE B-64-94	BOWERS ROAD OVER IH-43 (NB-SIDE)
STRUCTURE B-64-103	IH-43 SB OVER STH 11
STRUCTURE B-64-104	IH-43 NB OVER STH 11

2



LEGEND

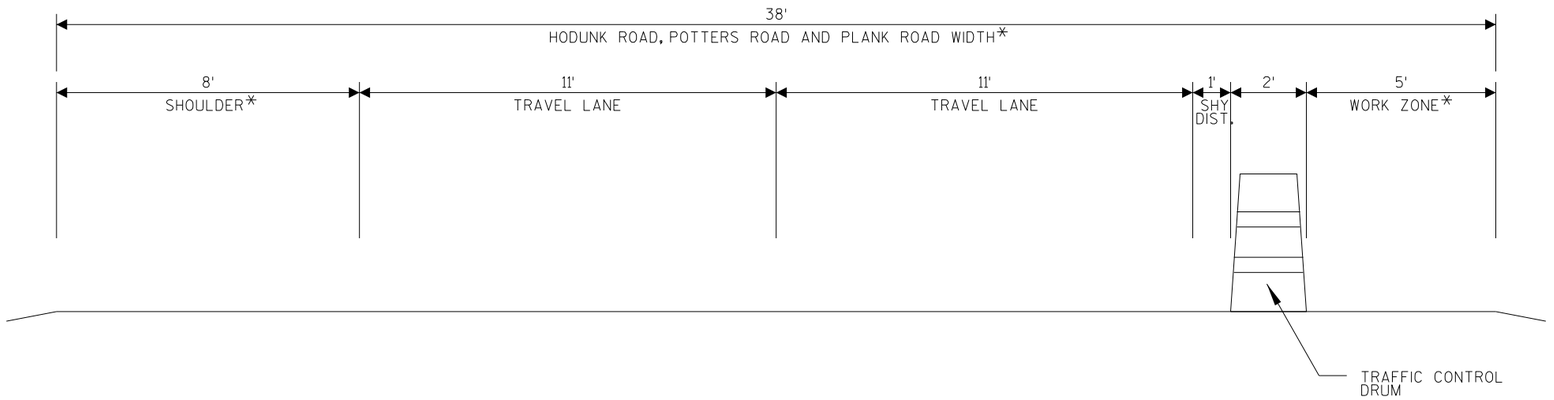
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

TRAFFIC CONTROL DETAIL *

BEARING REPLACEMENTS
(NOT TO SCALE)

* SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

MAY REQUEST LANE CLOSURE WHICH WILL INVOLVE USING FLAGGERS AND SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".



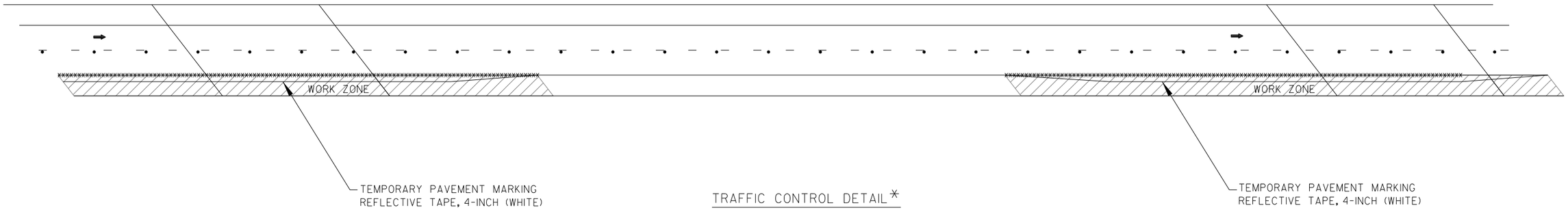
TRAFFIC CONTROL DETAIL - SECTION A-A

BEARING REPLACEMENTS
(NOT TO SCALE)

* PLANK ROAD UNDER THE STRUCTRUE LISTED BELOW IS 34 FEET WIDE. TRAFFIC WILL BE ON TWO 11-FOOT TRAVEL LANES WITH A 6-FOOT SHOULDER AND 1-FOOT SHY DISTANCE. WORK ZONE EXTENDS OUT BEYOND SHOULDER TOWARDS BEARING BEING REPLACED.

STRUCTURE B-64-102 IH-43 NB OVER PLANK ROAD

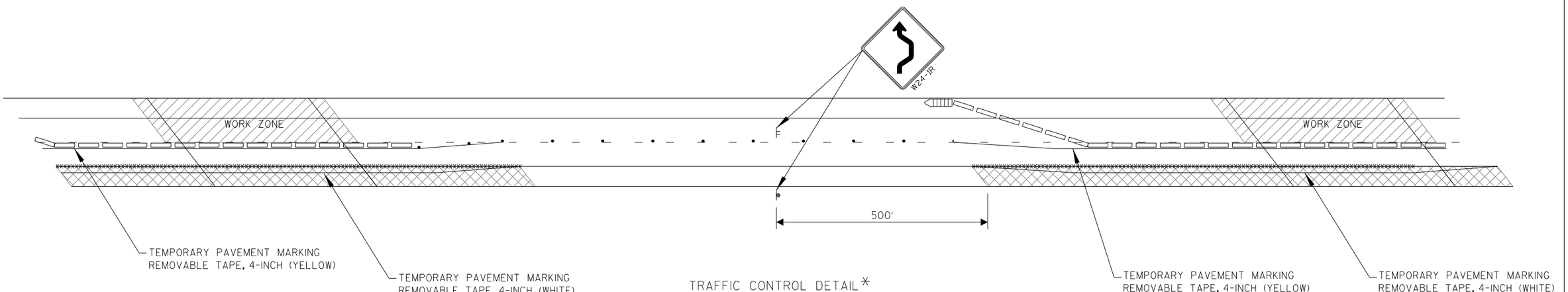
2



TRAFFIC CONTROL DETAIL*

LANE CLOSURE BETWEEN CONSTRUCTION ZONES (NB & SB)
(NOT TO SCALE)

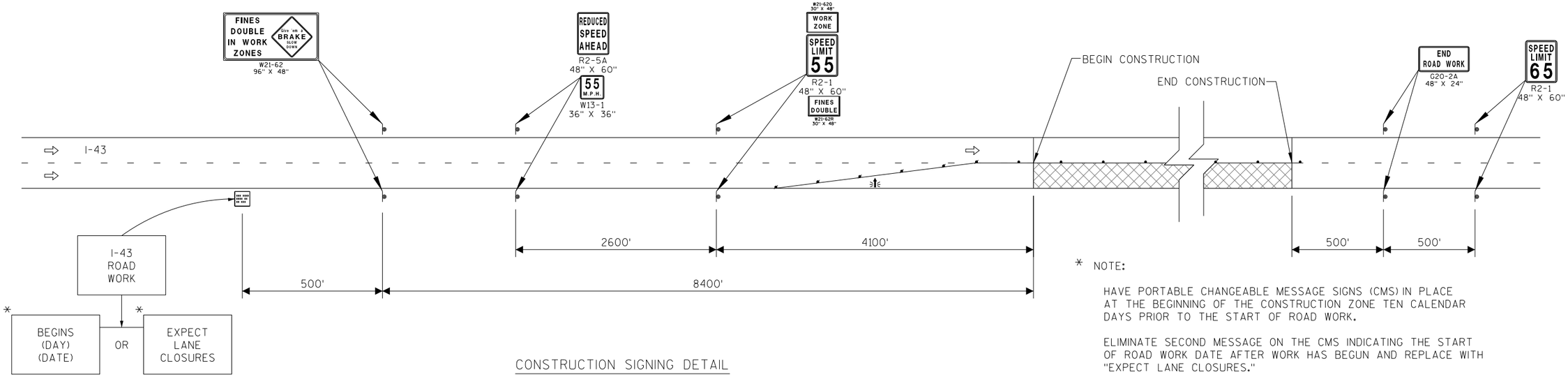
* DO NOT OPEN TRAFFIC TO TWO LANES IF THE NEXT CONSTRUCTION ZONE IS LESS THAN 2 MILES AWAY.



TRAFFIC CONTROL DETAIL*

LANE SHIFT BETWEEN CONSTRUCTION ZONES (NB & SB)
(NOT TO SCALE)

* DO NOT OPEN TRAFFIC TO TWO LANES IF THE NEXT CONSTRUCTION ZONE IS LESS THAN 2 MILES AWAY. SHIFT TRAFFIC BACK ONTO THE NORMAL TRAVEL LANE BETWEEN CONSTRUCTION ZONES N ORDER TO MINIMIZE THE REPLACEMENT OF SHOULDERS. SEE PLAN SHEETS FOR LIMITS OF SHOULDER REPLACEMENT.



CONSTRUCTION SIGNING DETAIL

* NOTE:

HAVE PORTABLE CHANGEABLE MESSAGE SIGNS (CMS) IN PLACE AT THE BEGINNING OF THE CONSTRUCTION ZONE TEN CALENDAR DAYS PRIOR TO THE START OF ROAD WORK.

ELIMINATE SECOND MESSAGE ON THE CMS INDICATING THE START OF ROAD WORK DATE AFTER WORK HAS BEGUN AND REPLACE WITH "EXPECT LANE CLOSURES."

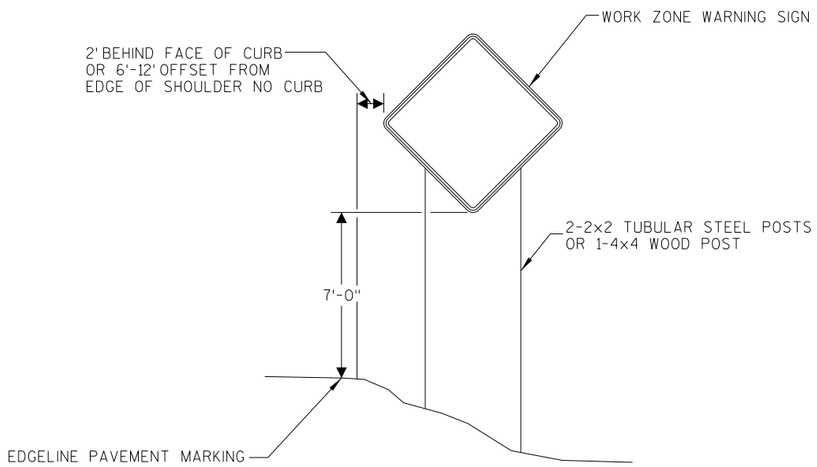
THE CMS AND "FINES DOUBLE IN WORK ZONES" SIGNS ARE ONLY REQUIRED AT THE SOUTHERN MOST (FOR NORTHBOUND TRAFFIC) AND NORTHERN MOST (FOR SOUTHBOUND TRAFFIC) STRUCTURES THAT ARE UNDER CONSTRUCTION. MOVE THESE SIGNS AS THE CONSTRUCTION ZONE MOVES.

REFER TO ADDITIONAL CONSTRUCTION DETAILS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL TRAFFIC CONTROL SIGNING AND DETAILS.

COVER EXISTING 65 MPH SPEED LIMIT SIGNS WITHIN THE CONSTRUCTION ZONE WITH 55 MPH SPEED LIMITS SIGNS (R2-1).

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA



TYPICAL TEMPORARY TRAFFIC CONTROL SIGN DETAIL

MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

BORING #	STATION	LOCATION	OVERLAY	PAVEMENT	BASE	SUBBASE	SUBBASE
84	95+50	INSIDE LANE	3" ASPHALT	8" PCC	12" F-M SAND	SILT TO EOB	
86	195+00	INSIDE LANE	3" ASPHALT	7" PCC	12" F-M SAND	SILT TO EOB	
88	215+00	INSIDE LANE	3" ASPHALT	7" PCC	12" F-M SAND	SILT TO EOB	
90	235+00	INSIDE LANE	4" ASPHALT	8" PCC	17" SILT	19" F-M SAND	SILT TO EOB
92	252+00	INSIDE LANE	4" ASPHALT	4" PCC	26" F-M SAND	SILT TO EOB	
94	275+00	INSIDE LANE	4" ASPHALT	7" PCC	31" F-M SAND	SILT TO EOB	
96	293+00	INSIDE LANE	4" ASPHALT	6" PCC	F-M SAND TO EOB		
98	315+00	INSIDE LANE	4" ASPHALT	8" PCC	F-M SAND TO EOB		
100	335+00	INSIDE LANE	3.5" ASPHALT	7" PCC	F-M SAND TO EOB		
102	355+00	INSIDE LANE	4" ASPHALT	6" PCC	32" F-M SAND	SILT TO EOB	
104	375+00	INSIDE LANE	4" ASPHALT	7" PCC	F-M SAND TO EOB		
106	396+00	INSIDE LANE	4" ASPHALT	6" PCC	F-M SAND TO EOB		
108	414+81.79	INSIDE LANE	5" ASPHALT	6" PCC	F-M SAND TO EOB		
110	437+00	INSIDE LANE	4" ASPHALT	6" PCC	29" F-M SAND	SILT TO EOB	
112	455+00	INSIDE LANE	4" ASPHALT	7" PCC	25" F-M SAND	SILT TO EOB	
114	475+00	INSIDE LANE	4" ASPHALT	8" PCC	F-M SAND TO EOB		
116	495+00	INSIDE LANE	4" ASPHALT	7" PCC	F-M SAND TO EOB		
118	515+00	INSIDE LANE	4.5" ASPHALT	6.5" PCC	19" F-M SAND	SILT TO EOB	
120	535+00	INSIDE LANE	4" ASPHALT	7" PCC	31" F-M SAND	SILT TO EOB	
122	555+00	INSIDE LANE	4" ASPHALT	7" PCC	11" F-M SAND	SILT TO EOB	
124	575+00	INSIDE LANE	4" ASPHALT	8" PCC	F-M SAND TO EOB		
126	595+00	INSIDE LANE	4" ASPHALT	8" PCC	F-M SAND TO EOB		
128	615+00	INSIDE LANE	5" ASPHALT	7" PCC	F-M SAND TO EOB		
130	633+00	INSIDE LANE	5" ASPHALT	7" PCC	F-M SAND TO EOB		
132	653+00	INSIDE LANE	4" ASPHALT	6" PCC	F-M SAND TO EOB		
134	673+00	INSIDE LANE	4" ASPHALT	6" PCC	F-M SAND TO EOB		
136	693+00	INSIDE LANE	4" ASPHALT	9" PCC	F-M SAND TO EOB		
138	714+00	INSIDE LANE	3" ASPHALT	9" PCC	F-M SAND TO EOB		
140	734+00	INSIDE LANE	3" ASPHALT	9" PCC	F-M SAND TO EOB		
142	753+00	INSIDE LANE	3" ASPHALT	7" PCC	F-M SAND TO EOB		
144	774+00	INSIDE LANE	4" ASPHALT	7" PCC	10" F-M SAND	12" SILT	F-M SAND TO EOB
146	794+00	INSIDE LANE	4" ASPHALT	8" PCC	10" F-M SAND	F-M SILTY SAND TO EOB	
148	814+00	INSIDE LANE	5" ASPHALT	8" PCC	6" F-M SAND	29" FINE SILTY SAND	F-M SAND TO EOB
150	834+00	INSIDE LANE	4" ASPHALT	6" PCC	12" F-M SAND	SILT TO EOB	
152	854+00	INSIDE LANE	4" ASPHALT	7" PCC	FINE SILTY SAND TO EOB		
154	874+00	INSIDE LANE	6" ASPHALT	7" PCC	F-M SAND TO EOB		
156	894+00	INSIDE LANE	6" ASPHALT	7.5" PCC	28.5" SILTY SAND	F-M SAND TO EOB	
158	914+00	INSIDE LANE	6" ASPHALT	7" PCC	17" F-M SAND	SILT TO EOB	
160	934+00	INSIDE LANE	6" ASPHALT	10" PCC	32" SILT	F-M SAND TO EOB	
162	954+00	INSIDE LANE	5" ASPHALT	5" PCC	F-M SAND TO EOB		
164	974+00	INSIDE LANE	3.5" ASPHALT	6" PCC	21.5" F-M SANDY GRAVEL	SILT TO EOB	
166	55+00	INSIDE LANE	3" ASPHALT	9.5" PCC	F-M SAND TO EOB		
168	78+50	INSIDE LANE	3" ASPHALT	75" PCC	SILTY SAND TO EOB		
170	95+00	INSIDE LANE	3" ASPHALT	7" PCC	26" F-C SAND & GRAVEL	SILT TO EOB	

- EOB = END OF BORE
- TYPICAL BORING DEPTH IS 5.0 FT
- FOR A COPY OF BORING LOGS CONTACT GARY METZER, WISDOT PROJECT MANAGER AT 262-548-5685

2

NOTES:

TOTAL LENGTH OF BEAM GUARD REPLACEMENT INCLUDES MGS THRIE BEAM TRANSITION, MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT (OR TYPE 2, WHERE APPLICABLE).

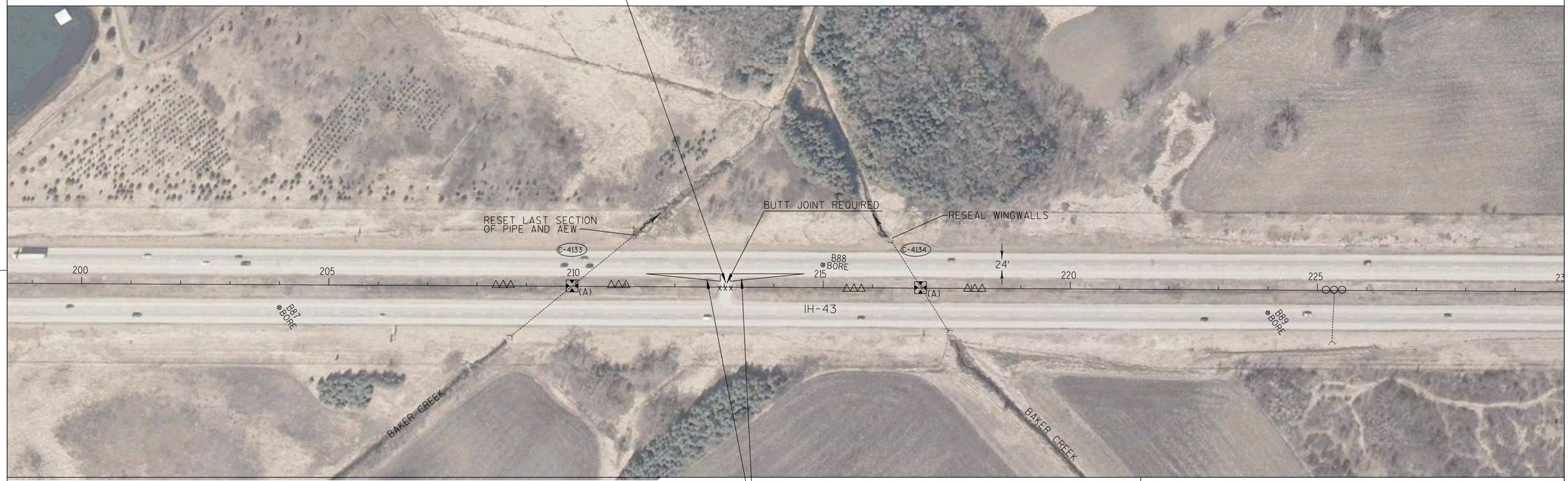
MILLING AND PLACING ASPHALT SHOULDERS BEYOND THE PROJECT LIMITS IS BEING DONE TO REMOVE THE ASPHALT RUMBLE STRIPS TO ACCOMMODATE THE TRAFFIC LANE SHIFT. DO NOT MILL ASPHALT IN AREAS WHERE RUMBLE STRIPS DO NOT EXIST, SUCH AS ALONG EXIT RAMPS.

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 43	E

2

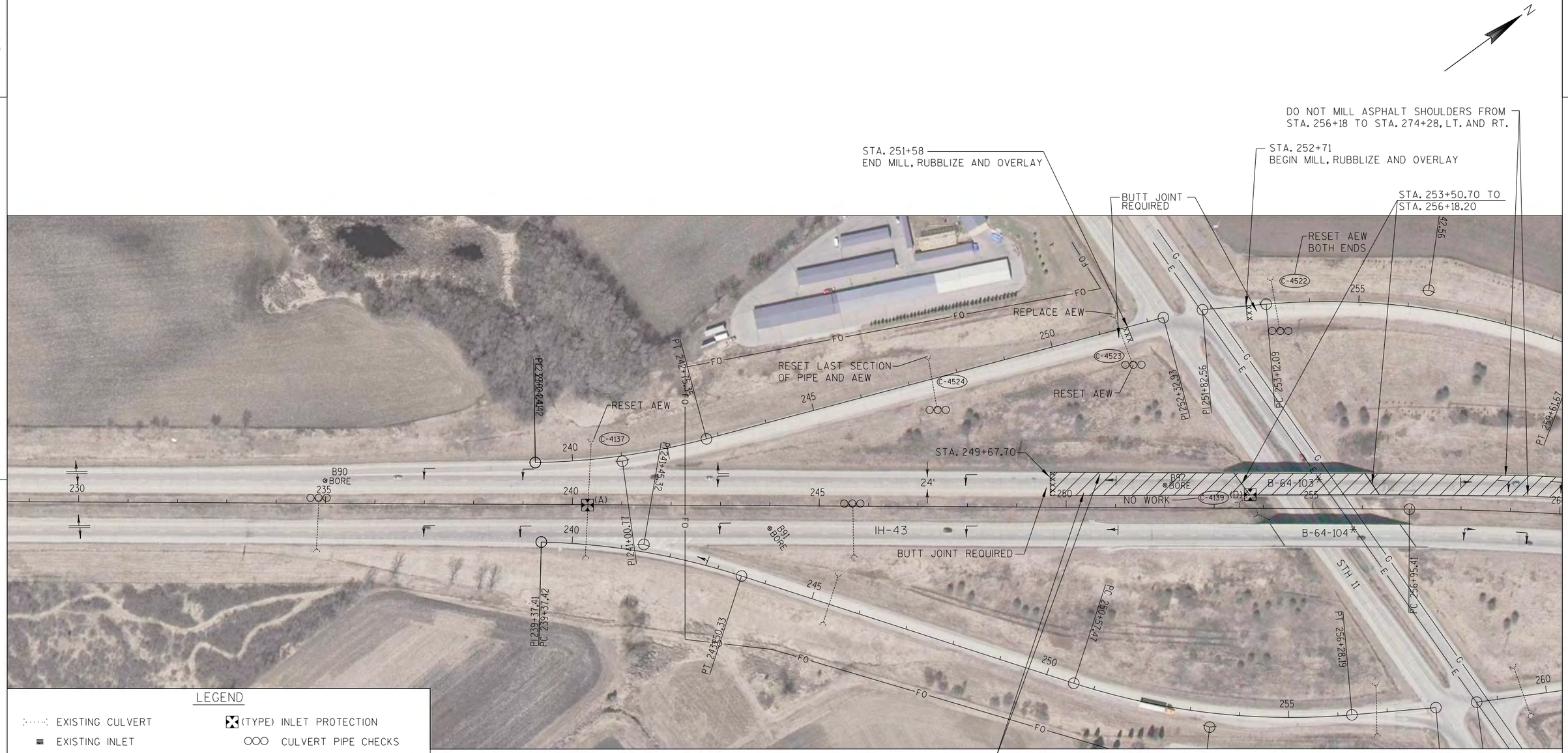


LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 44	E

2



LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

NOTES:

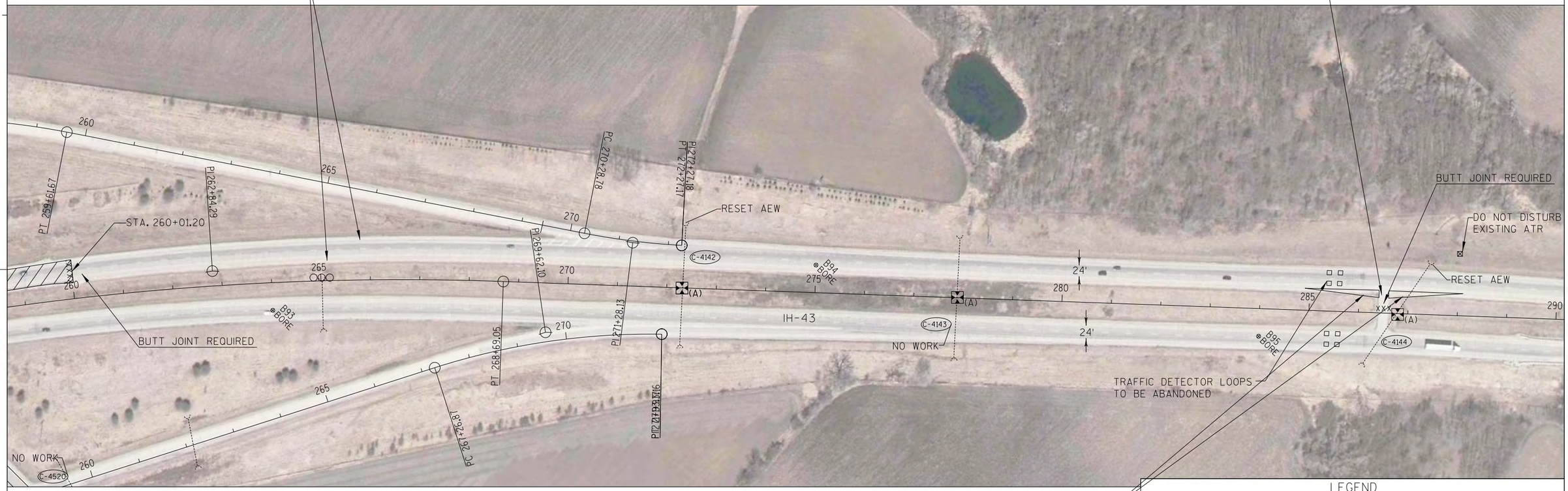
ASPHALT SHOULDERS AT THE GIVEN STATIONING WERE MILLED IN 2009 AS PART OF PROJECT 1090-15-70. SHOULDERS IN THESE AREAS ARE TO REMAIN.

DO NOT MILL, RUBBLIZE, OR OVERLAY. LIMIT WORK TO PAVEMENT MARKING AND ASPHALT RUMBLE STRIPS.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 45	E

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 254+65.41	-2.0%	-2.0%	NORMAL CROWN
STA 255+55.41	0.0%	-2.0%	ZERO SUPER
STA 256+60.41	2.0%	-2.0%	REVERSE CROWN
STA 257+65.41	4.0%	-4.0%	FULL SUPER
STA 267+99.05	4.0%	-4.0%	FULL SUPER
STA 269+04.05	2.0%	-2.0%	REVERSE CROWN
STA 270+09.05	0.0%	-2.0%	ZERO SUPER
STA 270+99.05	-2.0%	-2.0%	NORMAL CROWN
			Note: Field verify SE Transition prior to paving.

CURVE DATA
PI = 262+84.29
R = 5729.58'
Δ = 11°44'11.0"
L = 1173.65'
T = 588.88'
D = 1°00'00"
SE = 4.0%



NOTES:

FIELD VERIFY LIMITS OF EXISTING SUPER-ELEVATION TRANSITION PRIOR TO MILLING ASPHALT SURFACE.

ASPHALT SHOULDERS AT THE GIVEN STATIONING WERE MILLED IN 2009 AS PART OF PROJECT 1090-15-70. SHOULDERS IN THESE AREAS ARE TO REMAIN UNTIL OVERLAYED WITH THE UPPER LAYER OF HMA PAVEMENT.

DO NOT MILL, RUBBLIZE, OR OVERLAY. LIMIT WORK TO PAVEMENT MARKING AND ASPHALT RUMBLE STRIPS.

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 46	E

SUPERELEVATION TABLE - 3 LANES			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 297+63.03	-2.0%	-2.0%	NORMAL CROWN
STA 298+83.03	-2.0%	0.0%	ZERO SUPER
STA 301+23.03	-2.0%	2.0%	REVERSE CROWN
STA 301+23.03	-2.0%	2.0%	FULL SUPER
STA 330+00.00	-2.0%	2.0%	FULL SUPER
STA 330+00.00	-2.0%	2.0%	REVERSE CROWN
STA 331+20.00	-2.0%	0.0%	ZERO SUPER
STA 332+40.00	-2.0%	-2.0%	NORMAL CROWN

Note: Field verify SE Transition prior to paving.

CURVE DATA
PI = 314+22.05
R = 11459.16
Δ = 13°43'27"
L = 2744.85'
T = 1379.03'
D = 0°30'00.0"
SE = 2.0%

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 47	E

2

2

STA. 328+24.00 TO
STA. 329+84.26

RESET AEW

C-4151

320

(A)

325

B99 ⊕BORE

PT 327+87.87

B-64-99 *

C-4152

CULVERT PIPE EXPLORATION

(D)

XXX

330

B-64-100 *

BUTT JOINT REQUIRED

ADJUST GUARD RAIL 1" TO 3"
ADD MOW STRIP

BUTT JOINT REQUIRED

POTTER ROAD

RESET AEW

AUXILIARY LANE

B100 ⊕BORE

335

(A)

C-4154

IH-43

36'

24'

340

345

AUXILIARY LANE

RESET AEW

C-4155

(A)

350

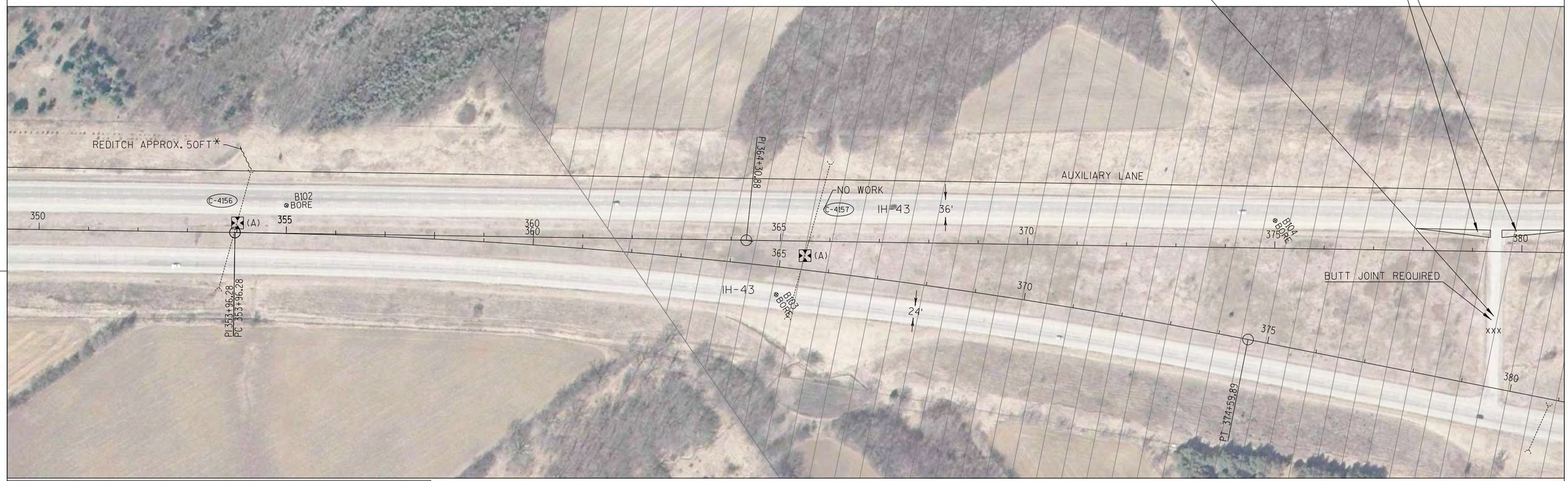
B101 ⊕BORE

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 48	E

2



LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

ARCHEOLOGICAL SITE PROTECTION

* REDITCH DIRECTION AND LENGTH SHOWN IS APPROXIMATE BASED ON FIELD INSPECTION AND TOPOGRAPHIC DATA OBTAINED FROM THE WALWORTH COUNTY GIS WEBSITE. EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REFER TO CONSTRUCTION DETAILS FOR REDITCHING AND RIPRAP.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 49	E

2

AUXILIARY LANE, SEE PROPOSED TYPICAL SECTION
S.B. STA. 310+00 TO STA. 402+40

STA. 387+05.05 TO
STA. 388+76.84

ADJUST GUARD RAIL 1" TO 3"
ADD MOW STRIP

(D)

B-64-97*

IH-43

36'

24'

AUXILIARY LANE

PC 397+59.62

B105 ⊕ BORE

380 385 390 395 400 405 410

BUTT JOINT REQUIRED

AUXILIARY LANE

BUTT JOINT REQUIRED

HODUNK ROAD

B-64-98

B105 ⊕ BORE

PI 406+21.11

SUGAR CREEK

PC 405+62.92

B107 ⊕ BORE

REST AREA

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 393+59.62	-2.0%	-2.0%	NORMAL CROWN
STA 395+99.62	-2.0%	0.0%	ZERO SUPER
STA 398+39.62	-2.0%	2.0%	REVERSE CROWN
STA 398+39.62	-2.0%	2.0%	FULL SUPER
STA 414+01.79	-2.0%	2.0%	FULL SUPER
STA 414+01.79	-2.0%	2.0%	REVERSE CROWN
STA 416+41.79	-2.0%	0.0%	ZERO SUPER
STA 418+81.79	-2.0%	-2.0%	NORMAL CROWN

Note: Field verify SE Transition prior to paving.

CURVE DATA
PI = 406+21.11
R = 22918.32'
Δ = 4°18'20"
L = 1722.24'
T = 861.52'
D = 0°15'00"
SE = 1.0%

ARCHEOLOGICAL SITE PROTECTION

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 50	E

ARCHEOLOGICAL SITE PROTECTION

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 51	E

2

ARCHEOLOGICAL SITE PROTECTION

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 52	E

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 490+03.49	-2.0%	-2.0%	NORMAL CROWN
STA 490+93.49	0.0%	-2.0%	ZERO SUPER
STA 491+98.49	2.0%	-2.0%	REVERSE CROWN
STA 493+03.49	4.0%	-4.0%	FULL SUPER
STA 510+18.13	4.0%	-4.0%	FULL SUPER
STA 511+23.13	2.0%	-2.0%	REVERSE CROWN
STA 512+28.13	0.0%	-2.0%	ZERO SUPER
STA 513+18.13	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 501+68.99
R = 5729.58'
Δ = 18°32'47"
L = 1854.63'
T = 935.5'
D = 1°00'00"
SE = 4.0%

REMOVE STEEL PLATE BEAM GUARD BULLNOSE TERMINAL
INSTALL STEEL THRIE BEAM BULLNOSE TERMINAL

ADD TAPERS AT MAINTENANCE CROSSOVER
(SEE CONSTRUCTION DETAIL)

ARCHEOLOGICAL SITE PROTECTION

LEGEND

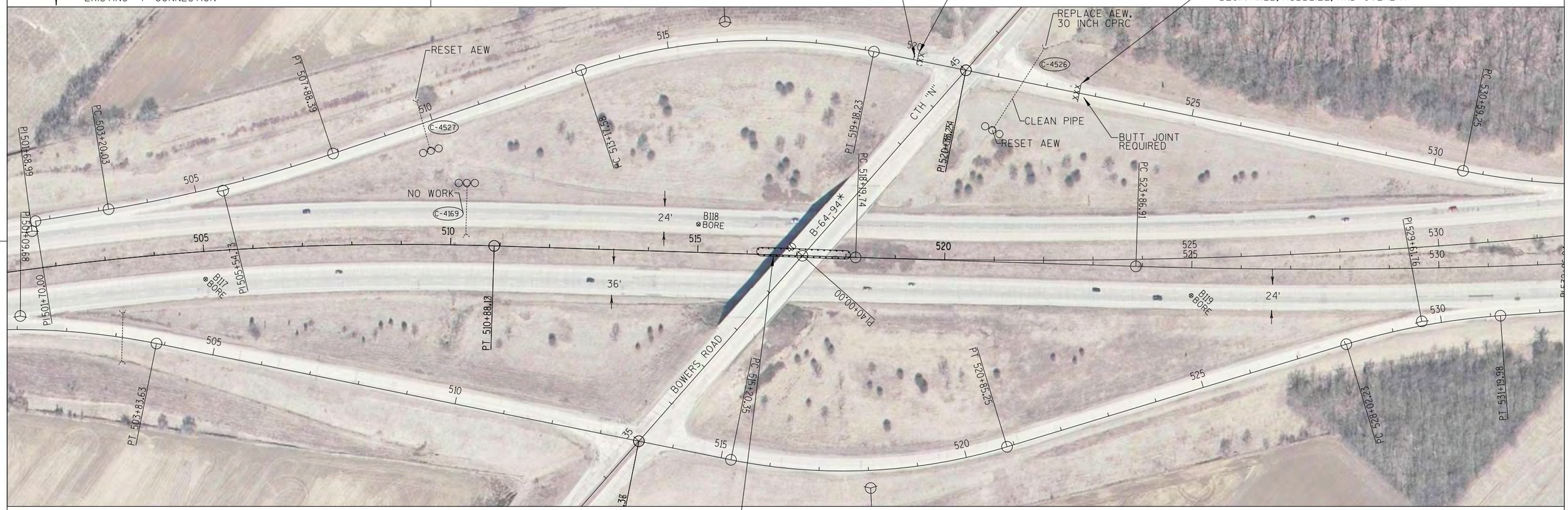
- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 53	E

2

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT



REMOVE STEEL PLATE BEAM GUARD BULLNOSE TERMINAL
INSTALL STEEL THRIE BEAM BULLNOSE TERMINAL

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 54	E

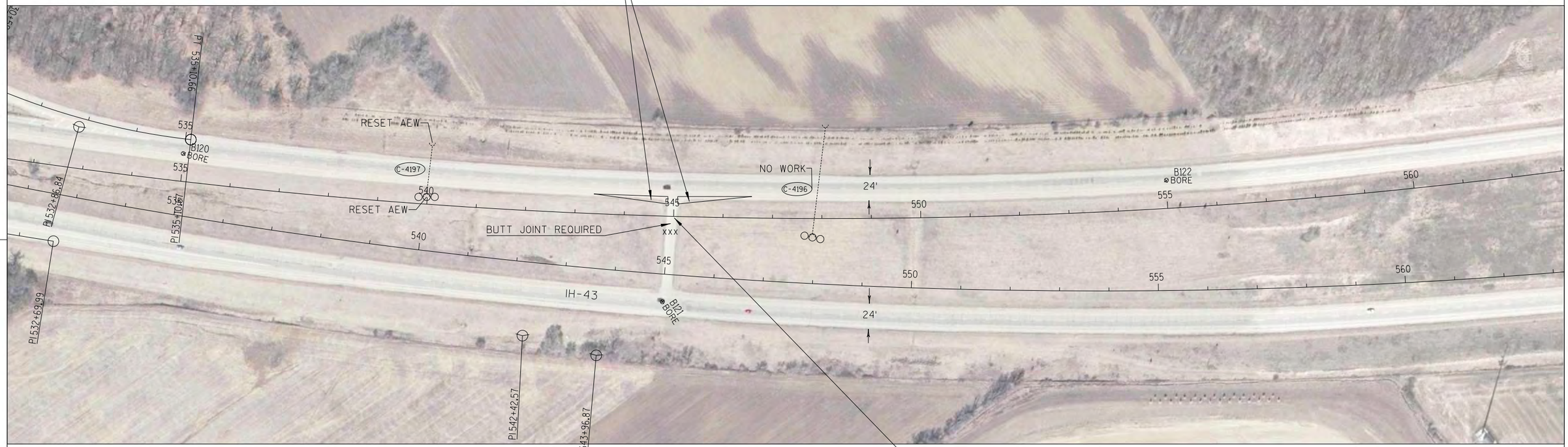
FILE NAME : Q:\2011 Projects\2011020 - I43 Resurface\MicroStation\Planset\1090-15-72\021212_pd.DGN PLOT DATE : 7/29/2013 PLOT BY : OTIE Originator : Dist PLOT SCALE : _PLOTSCALE_

WISDOT/CADDS SHEET 42

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 515+49.74	-2.0%	-2.0%	NORMAL CROWN
STA 516+39.74	-2.0%	0.0%	ZERO SUPER
STA 519+09.74	-2.0%	2.0%	REVERSE CROWN
STA 519+09.74	-2.0%	2.0%	FULL SUPER
STA 565+05.08	-2.0%	2.0%	FULL SUPER
STA 565+05.08	-2.0%	2.0%	REVERSE CROWN
STA 567+75.08	-2.0%	0.0%	ZERO SUPER
STA 568+65.08	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 542+42.57
R = 11459.16'
Δ = 23°52'36"
L = 4775.32'
T = 2422.83'
D = 0°30'00"
SE = 2.0%

ADD TAPERS AT MAINTENANCE CROSSOVER
(SEE CONSTRUCTION DETAIL)



OVERLAY MAINTENANCE CROSSOVER
(SEE S.D.D. FOR DIMENSIONS)

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 55	E

2

N

AUXILIARY LANE, SEE PROPOSED TYPICAL SECTION
S.B. STA. 585+00 TO STA. 700+00

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 56	E

SUPERELEVATION TABLE - 3 LANES			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 582+88.57	-2.0%	-2.0%	NORMAL CROWN
STA 584+08.57	0.0%	-2.0%	ZERO SUPER
STA 585+28.57	2.0%	-2.0%	REVERSE CROWN
STA 586+84.57	4.6%	-4.6%	FULL SUPER
STA 612+71.19	4.6%	-4.6%	FULL SUPER
STA 614+27.19	2.0%	-2.0%	REVERSE CROWN
STA 615+47.19	0.0%	-2.0%	ZERO SUPER
STA 616+67.19	-2.0%	-2.0%	NORMAL CROWN

Note: Field verify SE Transition prior to paving.

CURVE DATA
PI = 600+41.95
R = 3819.72'
Δ = 41°33'33"
L = 2770.61'
T = 1449.41'
D = 1°30'00"
SE = 6.0%

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

NOTES:

ASPHALT SHOULDERS AT THE GIVEN STATIONING WERE MILLED IN 2009 AS PART OF PROJECT 1090-15-70. SHOULDERS IN THESE AREAS ARE TO REMAIN UNTIL OVERLAYED WITH THE UPPER LAYER OF HMA PAVEMENT.

DO NOT MILL, RUBBLIZE, OR OVERLAY. LIMIT WORK TO PAVEMENT MARKING AND ASPHALT RUMBLE STRIPS.

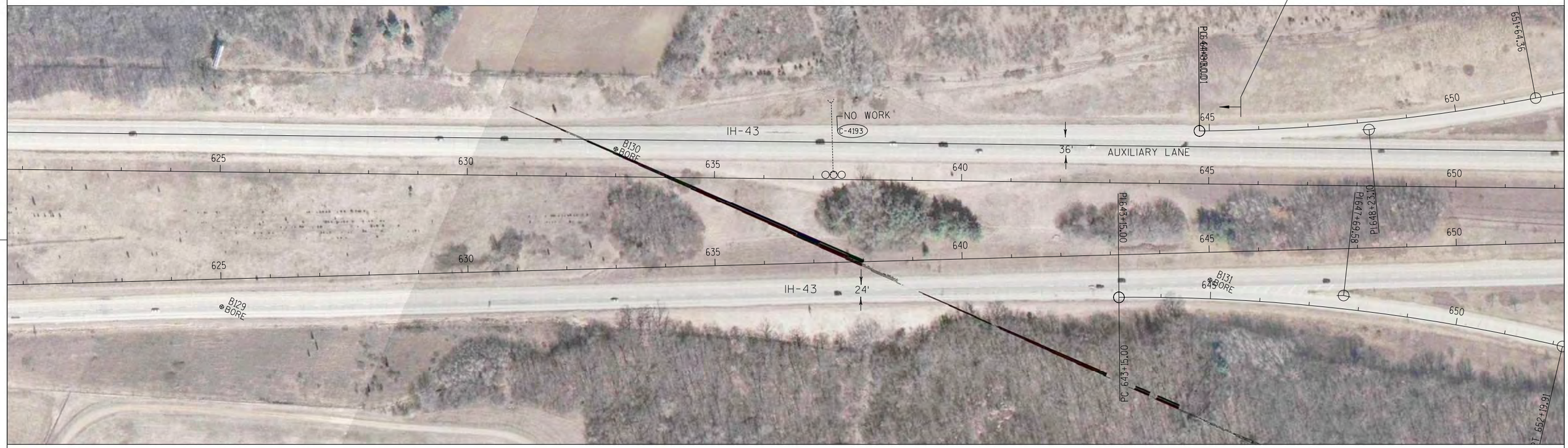
STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 57	E

2

2

N

ADD AERIAL ENFORCEMENT BARS. REFER TO QUANTITIES FOR STATION LOCATIONS.

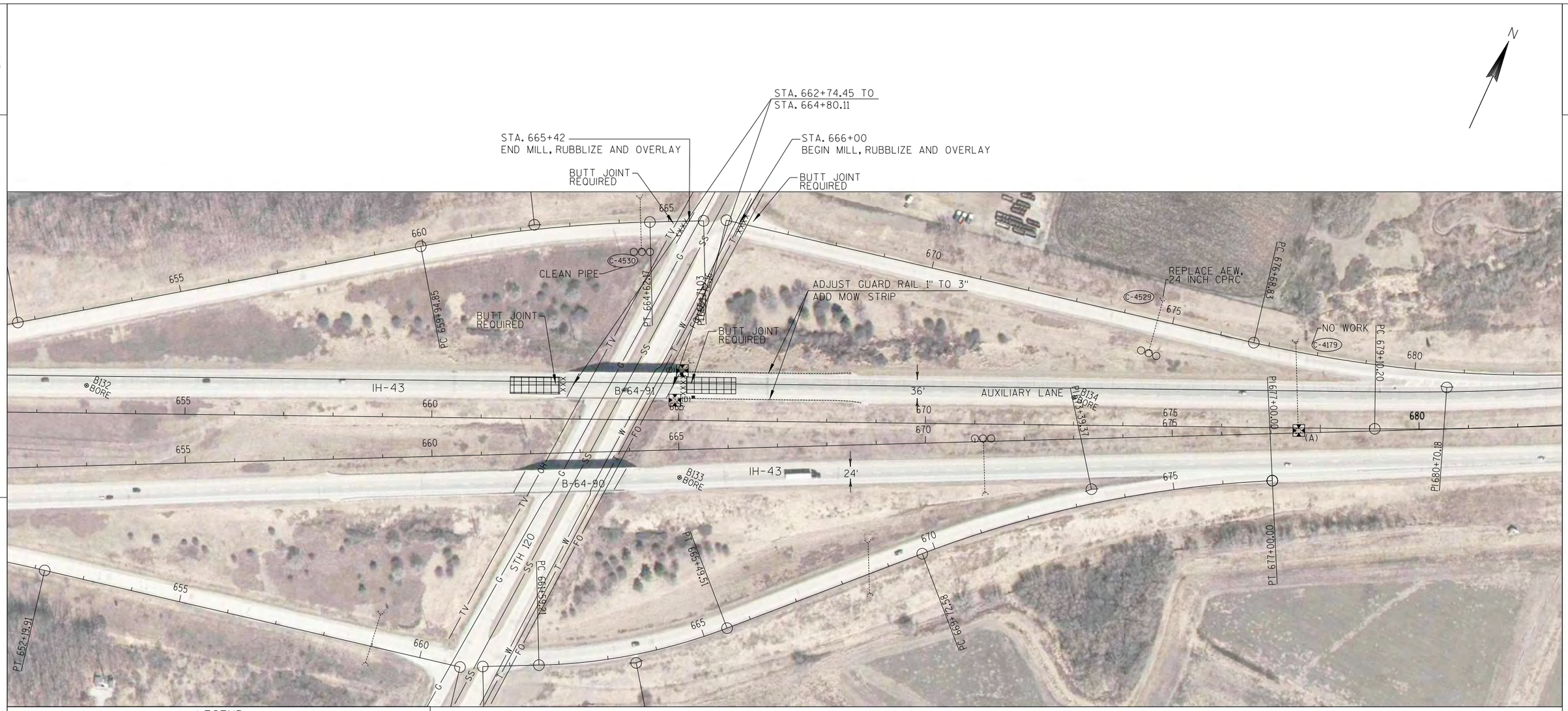


LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 58	E

2



LEGEND

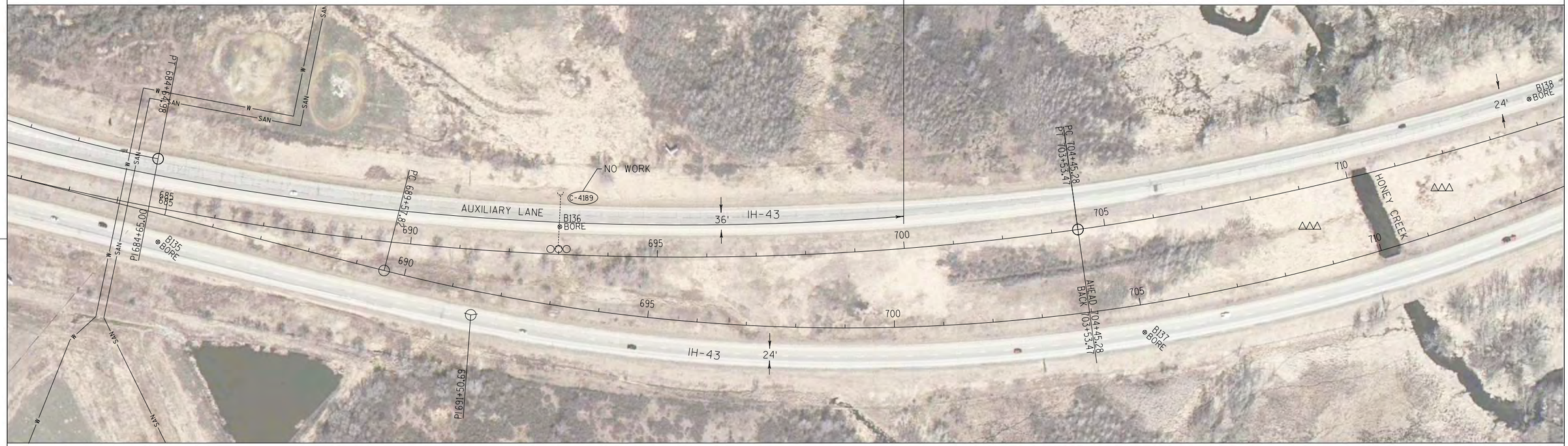
- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 59	E

SUPERELEVATION TABLE - 3 LANES to 2 LANES			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 676+76.87	-2.0%	-2.0%	NORMAL CROWN
STA 677+96.87	-2.0%	0.0%	ZERO SUPER
STA 678+64.87	-2.0%	2.0%	REVERSE CROWN
STA 679+66.87	-5.0%	5.0%	FULL SUPER
STA 728+31.84	-5.0%	5.0%	FULL SUPER
STA 729+33.84	-2.0%	2.0%	REVERSE CROWN
STA 730+01.84	-2.0%	0.0%	ZERO SUPER
STA 731+21.84	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 691+50.69
R = 5729.58
Δ = 24°25'57.7"
L = 2443.27'
T = 1240.47'
D = 1°00'00"
SE = 5.0%

AUXILIARY LANE, SEE PROPOSED TYPICAL SECTION
S.B. STA. 585+00 TO STA. 700+00



LEGEND

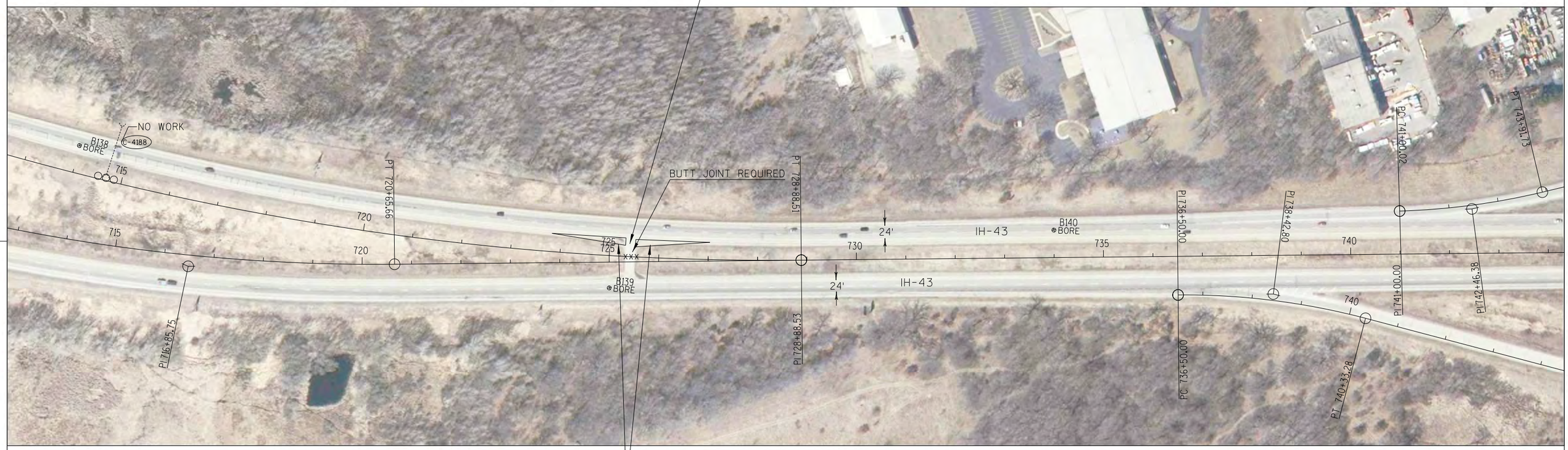
- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 60	E

SUPERELEVATION TABLE - 3 LANES to 2 LANES			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 676+76.87	-2.0%	-2.0%	NORMAL CROWN
STA 677+96.87	-2.0%	0.0%	ZERO SUPER
STA 678+64.87	-2.0%	2.0%	REVERSE CROWN
STA 679+66.87	-5.0%	5.0%	FULL SUPER
STA 728+31.84	-5.0%	5.0%	FULL SUPER
STA 729+33.84	-2.0%	2.0%	REVERSE CROWN
STA 730+01.84	-2.0%	0.0%	ZERO SUPER
STA 731+21.84	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 716+85.75
R = 5729.58'
Δ = 24°25'56"
L = 2443.23'
T = 1240.47'
D = 1°00'00"
SE = 5.0%

N



ADD TAPERS AT MAINTENANCE CROSSOVER
(SEE CONSTRUCTION DETAIL)

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 61	E

2

2

STA. 754+87.47 TO
STA. 756+97.39

STA. 754+56
END MILL, RUBBLIZE AND OVERLAY

STA. 755+22
START MILL, RUBBLIZE AND OVERLAY

BUTT JOINT REQUIRED

BUTT JOINT REQUIRED

B-64-89*

B-64-88*

ADJUST GUARD RAIL 1" TO 3"
ADD MOW STRIP

STH 20

IH-43

CTH L

PC 754+19.73

PI 759+84.58

PC 755+10.96

PT 761+37.18

PC 766+44.04

PI 771+59.33

PT 771+59.32

PI 770+10.59

PC 768+90.31

PC 768+58.67

PT 771+59.20

PC 773+09.31

PC 757+34.14

PT 756+09.20

PI 758+38.89

B141 ⊕BORE

B142 ⊕BORE

B143 ⊕BORE

B144 ⊕BORE

24'

24'

745 750 755 760 765 770

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 62	E

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 770+39.31	-2.0%	-2.0%	NORMAL CROWN
STA 771+29.31	0.0%	-2.0%	ZERO SUPER
STA 772+19.31	2.0%	-2.0%	REVERSE CROWN
STA 773+99.31	6.0%	-6.0%	FULL SUPER
STA 792+07.37	6.0%	-6.0%	FULL SUPER
STA 793+87.37	2.0%	-2.0%	REVERSE CROWN
STA 794+77.37	0.0%	-2.0%	ZERO SUPER
STA 795+67.37	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 783+26.41
R = 3819.72'
Δ = 29°49'15"
L = 1988.05'
T = 1017.09'
D = 1°30'00"
SE = 6.0%

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 63	E

2

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 810+06.96	-2.0%	-2.0%	NORMAL CROWN
STA 810+96.96	-2.0%	0.0%	ZERO SUPER
STA 811+78.29	-2.0%	2.0%	REVERSE CROWN
STA 812+18.96	-3.0%	3.0%	FULL SUPER
STA 835+85.29	-3.0%	3.0%	FULL SUPER
STA 836+25.96	-2.0%	2.0%	REVERSE CROWN
STA 837+07.29	-2.0%	0.0%	ZERO SUPER
STA 837+97.29	-2.0%	-2.0%	NORMAL CROWN
		Note: Field verify SE Transition prior to paving.	

CURVE DATA
PI = 824+12.71
R = 7639.44'
Δ = 18°21'27"
L = 2447.67'
T = 1234.41'
D = 0°45'00"
SE = 3.0%

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 64	E

2

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

* REDITCH DIRECTION AND LENGTH SHOWN IS APPROXIMATE BASED ON FIELD INSPECTION AND TOPOGRAPHIC DATA OBTAINED FROM THE WALWORTH COUNTY GIS WEBSITE. EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REFER TO CONSTRUCTION DETAILS FOR REDITCHING AND RIPRAP.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 65	E

2

2

* REDITCH DIRECTION AND LENGTH SHOWN IS APPROXIMATE BASED ON FIELD INSPECTION AND TOPOGRAPHIC DATA OBTAINED FROM THE WALWORTH COUNTY GIS WEBSITE. EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REFER TO CONSTRUCTION DETAILS FOR REDITCHING AND RIPRAP.

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 66	E

SUPERELEVATION TABLE			
STATION	OUTSIDE LANE	MEDIAN LANE	REMARKS
STA 900+01.19	-2.0%	-2.0%	NORMAL CROWN
STA 900+91.19	0.0%	-2.0%	ZERO SUPER
STA 901+67.69	2.0%	-2.0%	REVERSE CROWN
STA 902+44.19	4.0%	-4.0%	FULL SUPER
STA 915+69.52	4.0%	-4.0%	FULL SUPER
STA 916+46.02	2.0%	-2.0%	REVERSE CROWN
STA 917+22.52	0.0%	-2.0%	ZERO SUPER
STA 918+12.52	-2.0%	-2.0%	NORMAL CROWN
			Note: Field verify SE Transition prior to paving.

CURVE DATA
PI = 909+10.57
R = 5729.58'
Δ = 14°16'24"
L = 1427.33'
T = 717.38'
D = 1°00'00"
SE = 4.0%

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

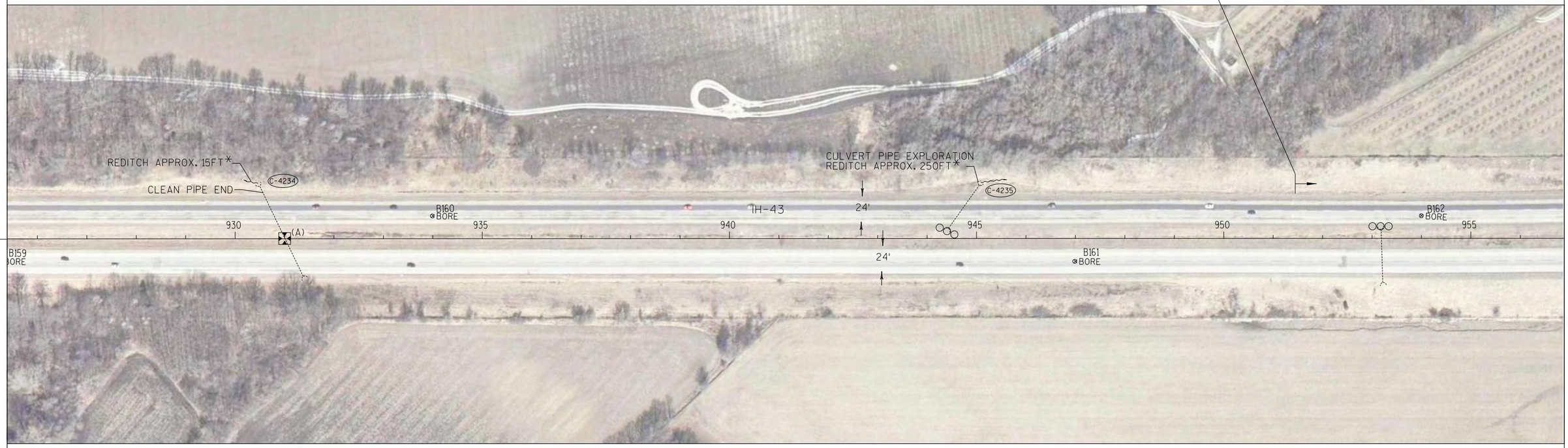
STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 67	E

2

2

N

ADD AERIAL ENFORCEMENT BARS. REFER TO QUANTITIES FOR STATION LOCATIONS.



LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

* REDITCH DIRECTION AND LENGTH SHOWN IS APPROXIMATE BASED ON FIELD INSPECTION AND TOPOGRAPHIC DATA OBTAINED FROM THE WALWORTH COUNTY GIS WEBSITE. EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REFER TO CONSTRUCTION DETAILS FOR REDITCHING AND RIPRAP.

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 68	E

2

2

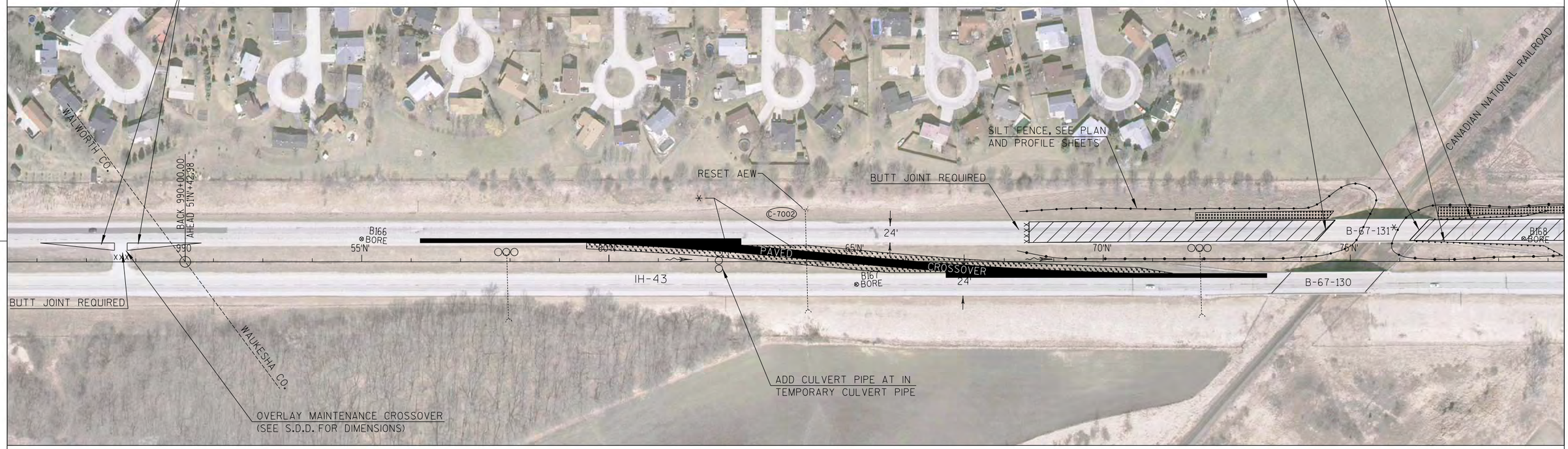
* REDITCH DIRECTION AND LENGTH SHOWN IS APPROXIMATE BASED ON FIELD INSPECTION AND TOPOGRAPHIC DATA OBTAINED FROM THE WALWORTH COUNTY GIS WEBSITE. EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REFER TO CONSTRUCTION DETAILS FOR REDITCHING AND RIPRAP.

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- C-XXXX CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 69	E

2



LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

NOTES:

TOTAL LENGTH OF BEAM GUARD REPLACEMENT INCLUDES MGS THRIE BEAM TRANSITION, MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT (OR TYPE 2, WHERE APPLICABLE).

DO NOT MILL, RUBBLIZE, OR OVERLAY. SEE PLAN & PROFILE AND CROSS-SECTIONS FOR STRUCTURE B-67-131 APPROACH WORK.

* SEEDING MIXTURE NO. 30, AFTER CROSSOVER CONSTRUCTION. SEEDING MIXTURE NO. 30, FERTILIZER, SALVAGED TOPSOIL AND E-MAT AFTER CROSSOVER REMOVAL

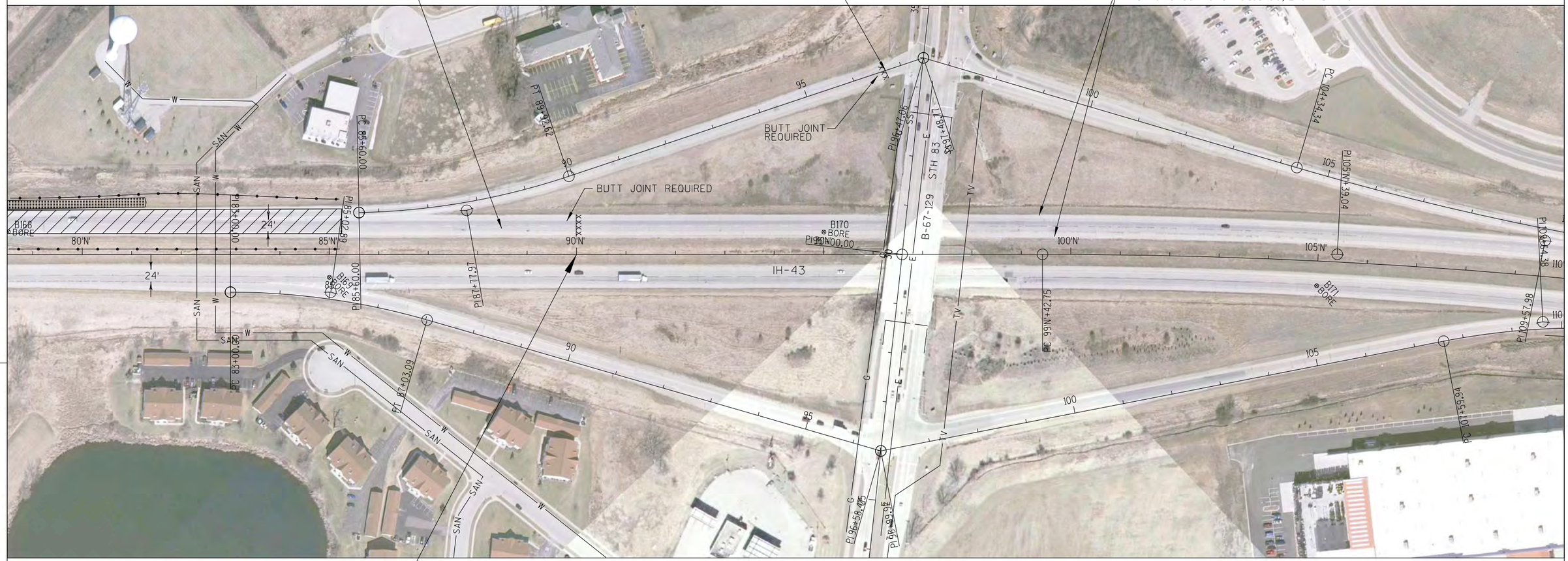
STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 70	E

2

MILL, RUBBLIZE AND OVERLAY

STA. 96+68
END MILL, RUBBLIZE AND OVERLAY

MILL 3½" ASPHALT SHOULDER, PLACE
3½" HMA PAVEMENT, TYPE E-30
STA. 76+39 TO STA. 101+00, LT. AND RT.



END PROJECT
STA. 90+00'N'

NOTES:

MILLING AND PLACING ASPHALT SHOULDERS BEYOND THE PROJECT LIMITS IS BEING DONE TO REMOVE THE ASPHALT RUMBLE STRIPS TO ACCOMODATE THE TRAFFIC LANE SHIFT. DO NOT MILL APSHALT IN AREAS WHERE RUMBLE STRIPS DO NOT EXIST, SUCH AS ALONG EXIT RAMPS.

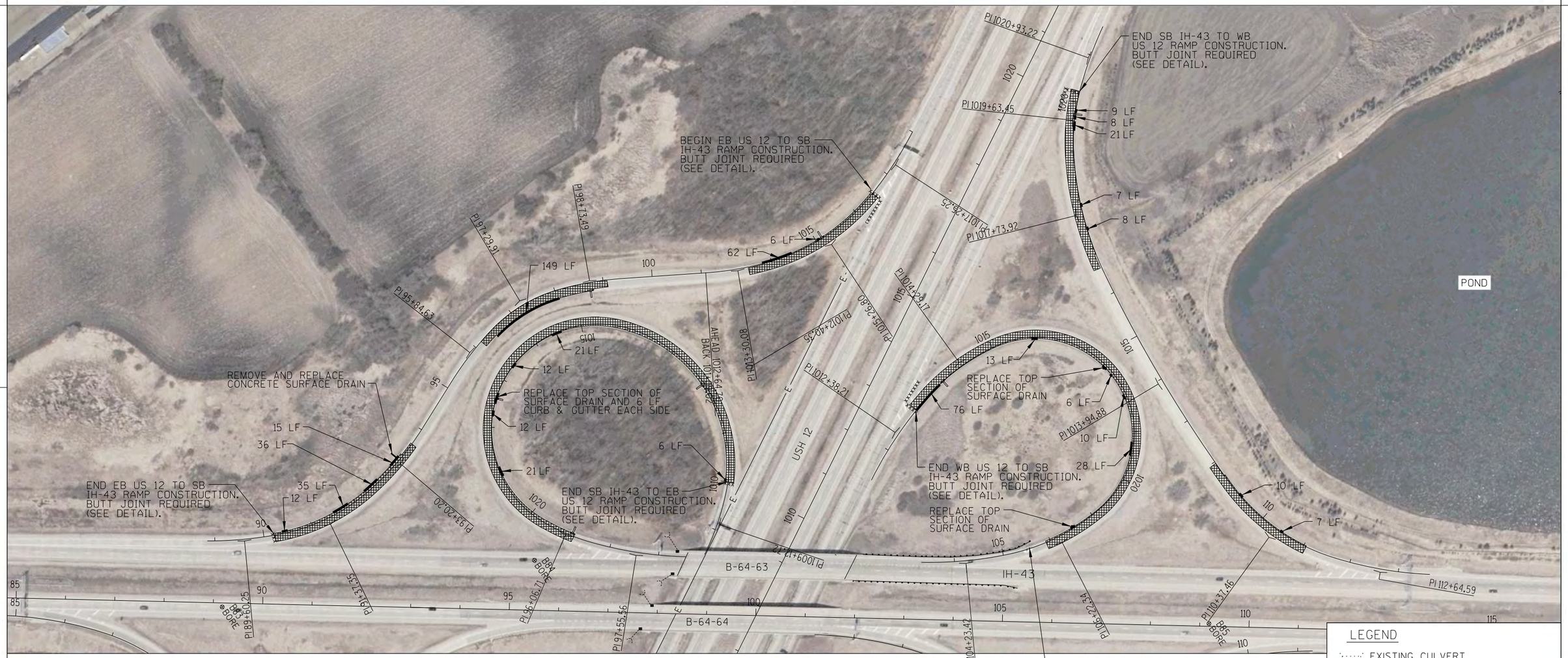
DO NOT MILL, RUBBLIZE, OR OVERLAY. SEE PLAN & PROFILE AND CROSS-SECTIONS FOR STRUCTURE B-67-131 APPROACH WORK.

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- BASE PATCHING CONCRETE, DO NOT RUBBLIZE
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION
- (TYPE) INLET PROTECTION
- CULVERT PIPE CHECKS
- SILT FENCE
- TEMPORARY DITCH CHECKS
- TEMPORARY SEED
- EROSION MAT

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 71	E

2



XX LF

DENOTES CONCRETE CURB AND GUTTER AND CONCRETE SURFACE DRAIN REMOVAL AND REPLACMENT

NOTES:

US 12 RAMPS TO BE RUBBLIZED AND OVERLAYED (SEE CONSTRUCTION DETAILS)

SAW CUT FULL DEPTH ALONG FLANGE PRIOR TO RUBBLIZING

REFER TO CONSTRUCTION DETAIL FOR SURFACE DRAIN REPLACEMENT LIMITS. REFER TO S.D.D. "CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES" AND "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR ADDITIONAL DETAILS

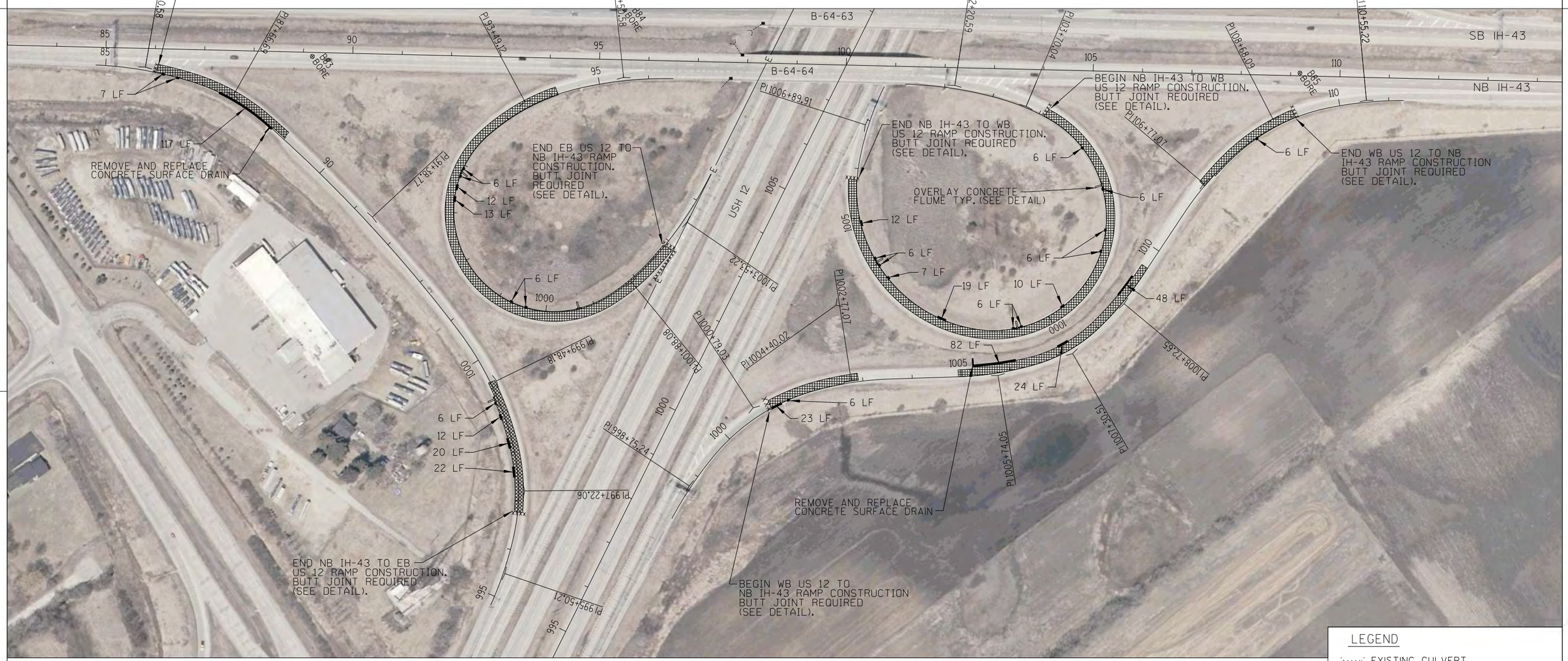
ALL OTHER CONCRETE FLUMES ARE TO BE OVERLAYED. REFER TO CONSTRUCTION DETAIL FOR OVERLAYING CONCRETE FLUMES

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH (SEE DETAIL)
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 72	E

2



XX LF

DENOTES CONCRETE CURB AND GUTTER AND CONCRETE SURFACE DRAIN REMOVAL AND REPLACMENT

NOTES:

US 12 RAMPS TO BE RUBBLIZED AND OVERLAYED (SEE CONSTRUCTION DETAILS)

SAW CUT FULL DEPTH ALONG FLANGE PRIOR TO RUBBLIZING

REFER TO CONSTRUCTION DETAIL FOR SURFACE DRAIN REPLACEMENT LIMITS. REFER TO S.D.D. "CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES" AND "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR ADDITIONAL DETAILS

ALL OTHER CONCRETE FLUMES ARE TO BE OVERLAYED. REFER TO CONSTRUCTION DETAIL FOR OVERLAYING CONCRETE FLUMES

LEGEND

- EXISTING CULVERT
- EXISTING INLET
- (C-XXXX) CULVERT NUMBER
- XXX SAW CUT
- * DENOTES STRUCTURE WORK
- REMOVING CONCRETE SURFACE PARTIAL DEPTH (SEE DETAIL)
- PIPE UNDERDRAIN
- DIRECTION OF FLOW
- EXISTING "L" CONNECTION
- EXISTING "T" CONNECTION

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN DETAILS	SCALE, FEET 0 100 200	SHEET NO: 73	E

2

W5-52L
ESTR

W5-52R
ESTR

N

W4-1
ESTR

MILE 28

REMOVE

MILE 28
D10-2(5)

126

Gateway Tech College Elkhorn Campus
EXIT 27A

TYPE I
ESTR

STRUCTURE
S-64-4

B-64-63

95 100 105 110 115 195

B-64-64

IH-43

BEGIN PROJECT
STA. 100+00

USH 12

STRUCTURE
S-64-2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

EXIT
35
M.P.H.
W13-2
ESTR

EXIT 27A

12 East
Lake Geneva
1/4 MILE

OVERHEAD SIGN
REPLACED UNDER PROJECT 1090-16-60

EXIT 27B

12 West
Madison

OVERHEAD SIGN
REPLACED UNDER PROJECT 1090-16-60

SHEET 1 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 74	E

FILE NAME : J:\projects\d2_10901543\72\023201_ps.DGN PLOT DATE : 02-JUL-2013 08:58 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

2

HOSPITAL
EXIT 27A
125
E10-61
INSTALL NEW STEEL POSTS

Elkhorn
EXIT 27 A
124
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

SPEED LIMIT 65
REMOVE
SPEED LIMIT 65
283
R2-1(5)

SOUTH INTERSTATE 43
REMOVE
SOUTH
MB3-3
INTERSTATE 43
284
M1-1
J4-1(5)

EXITS 27 A-B
123A
12
Madison
Lake Geneva
1 MILE
123
E1-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

N

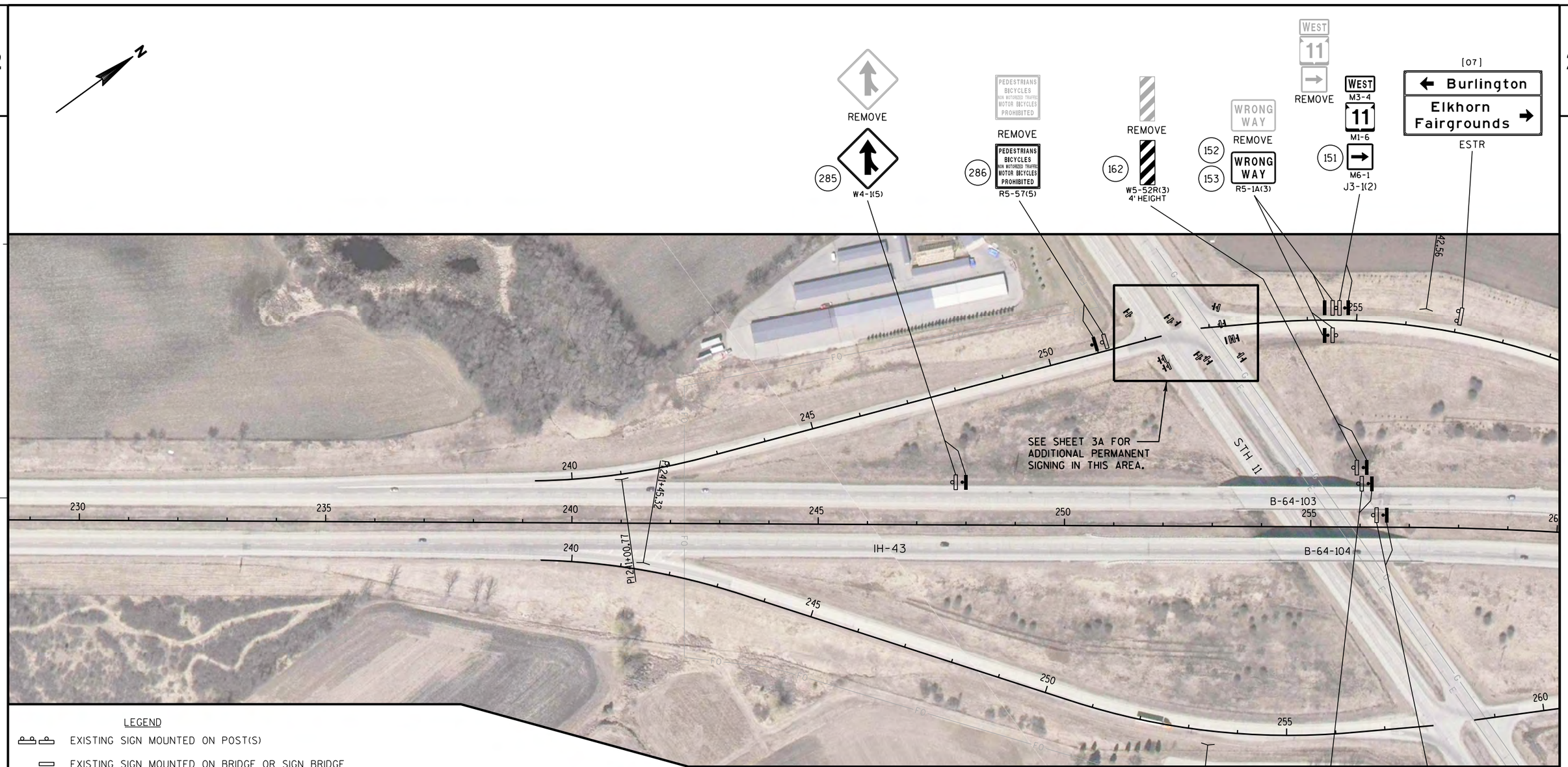
299
RIDESHARE
INFORMATION
www.rideshare.wi.gov
D12-2B(5)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 75	E

FILE NAME : J:\projects\d2_10901543\72\023202_ps.DGN
PLOT DATE : 02-JUL-2013 08:58
PLOT BY : MSCCXV
PLOT NAME :
PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42



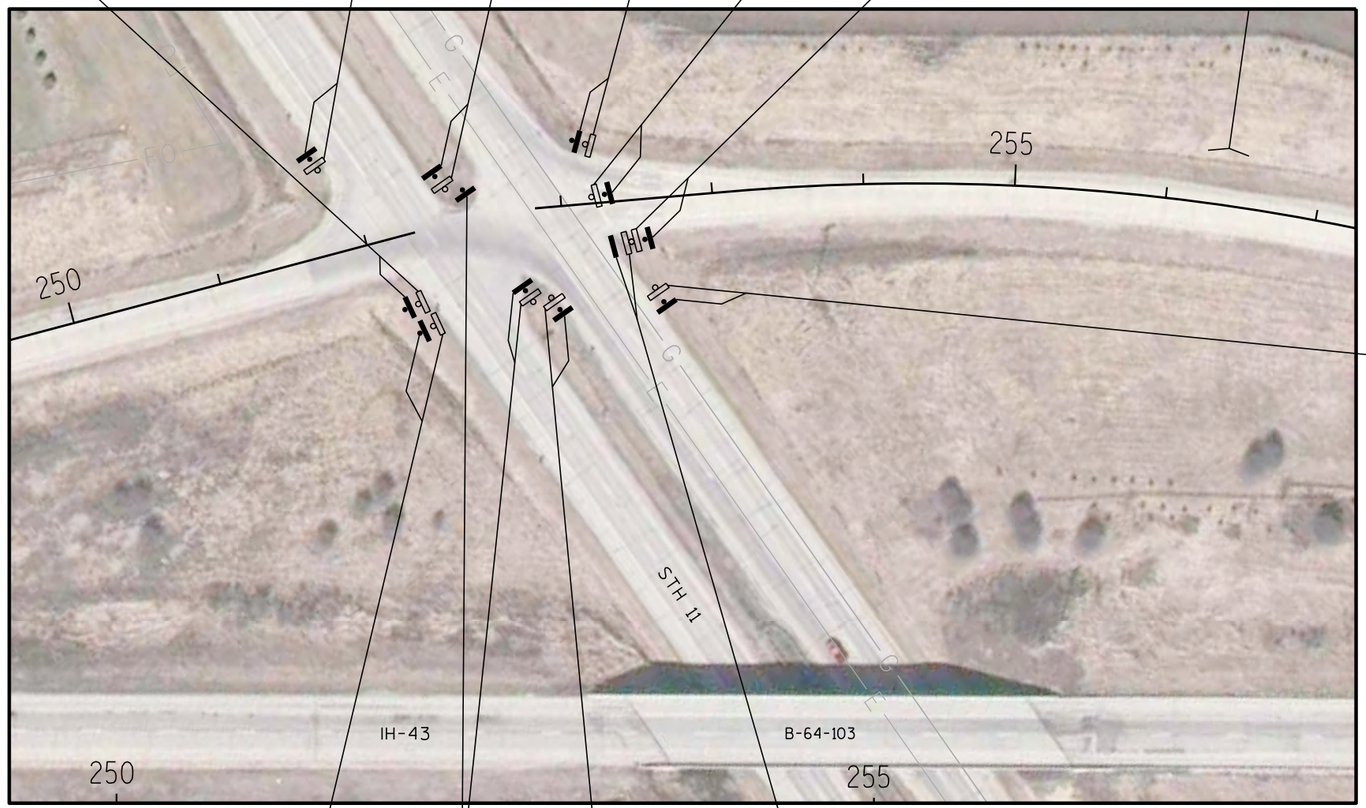
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 3 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 76 E

2



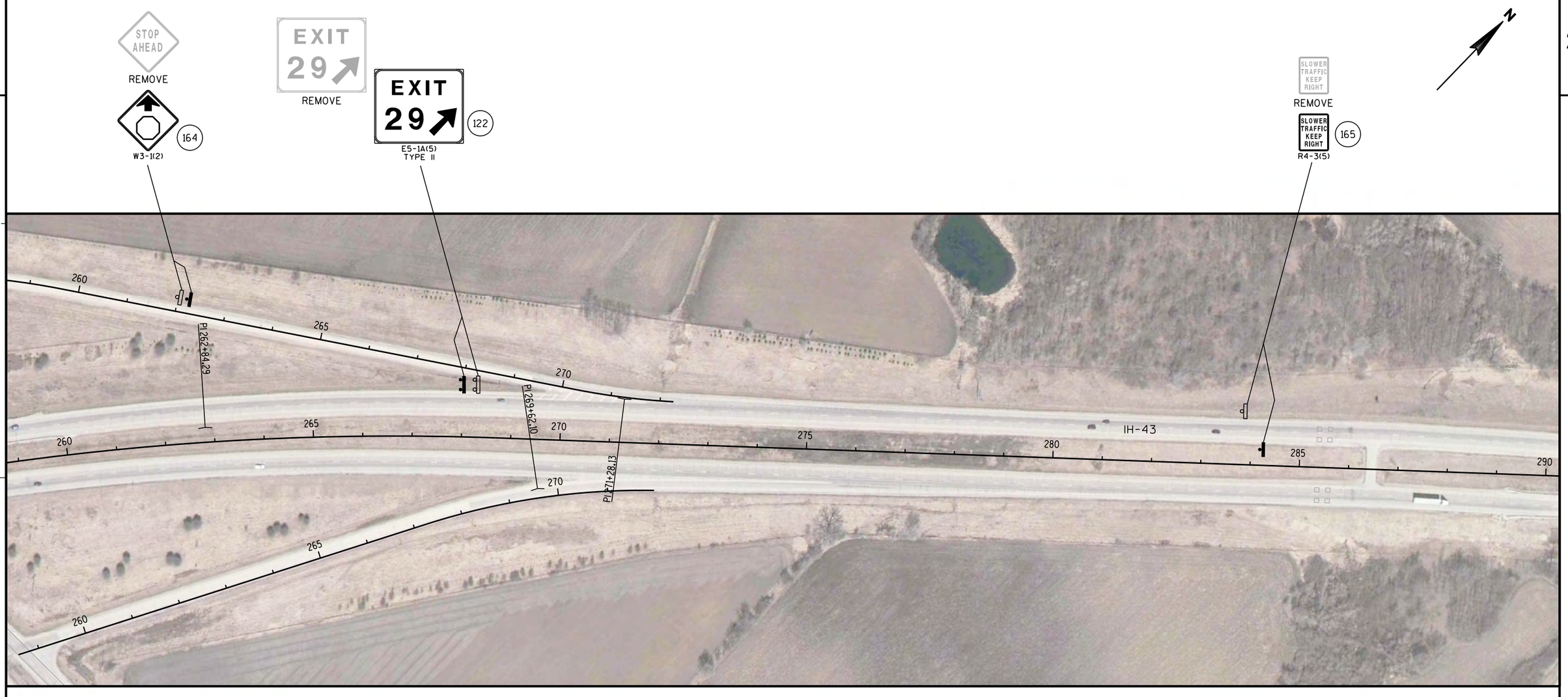
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 3A OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 77	E

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 4 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 78	E

2

EXIT 29 (121A)

11

Elkhorn

Burlington (121)

E4-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

REMOVE
W5-52R(3)
4' HEIGHT (166)

REMOVE
MILE 30
D10-2(5) (128)

Walworth Co
Fairgrounds
EXIT 29 (120)

INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

REMOVE
W4-2R(5) (168)

N

W5-52L(3)
4' HEIGHT (167)

REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 5 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 79	E

FILE NAME : J:\projects\d2_10901543\72\023205_ps.DGN PLOT DATE : 02-JUL-2013 08:59 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

2

LANE ENDS MERGE LEFT
REMOVE

LANE ENDS MERGE LEFT
169
W9-2L(5)

Potters Rd
ESTR

REMOVE
173
W5-52R(3)
4' HEIGHT

REMOVE
172
W5-52L(3)
4' HEIGHT

RIGHT LANE ENDS
REMOVE

RIGHT LANE ENDS
171
W9-1R(5)

EXIT 29
119A

11
Elkhorn
Burlington
1 MILE
119

E1-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

N

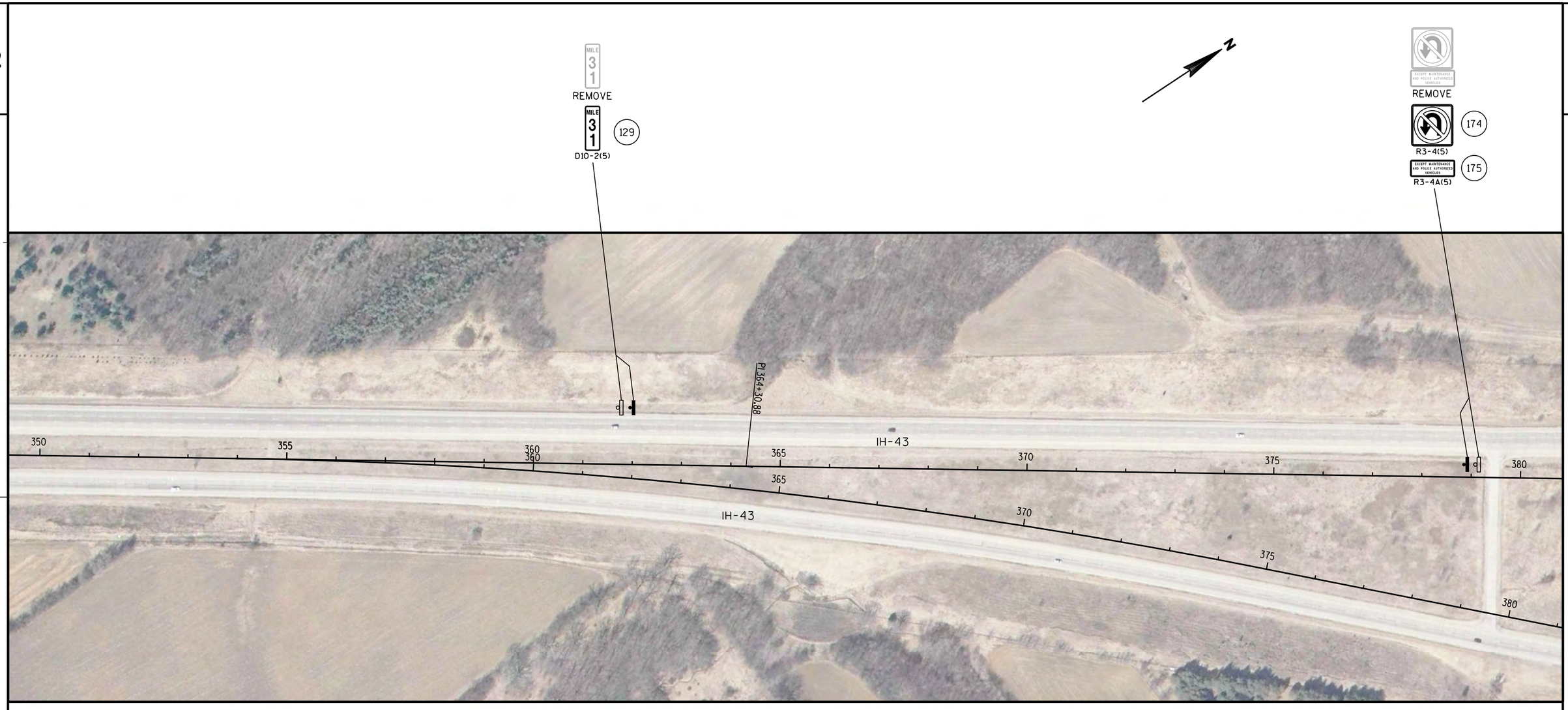
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 6 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 80	E

2



2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 7 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 81	E

FILE NAME : J:\projects\d2_10901543\72\023207_ps.DGN PLOT DATE : 02-JUL-2013 08:59 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

REMOVE

177

W5-52L(3)
4' HEIGHT

176

W5-52R(3)
4' HEIGHT

REMOVE

EMERGENCY STOPPING ONLY
REMOVE

EMERGENCY STOPPING ONLY
R8-7(5)

178

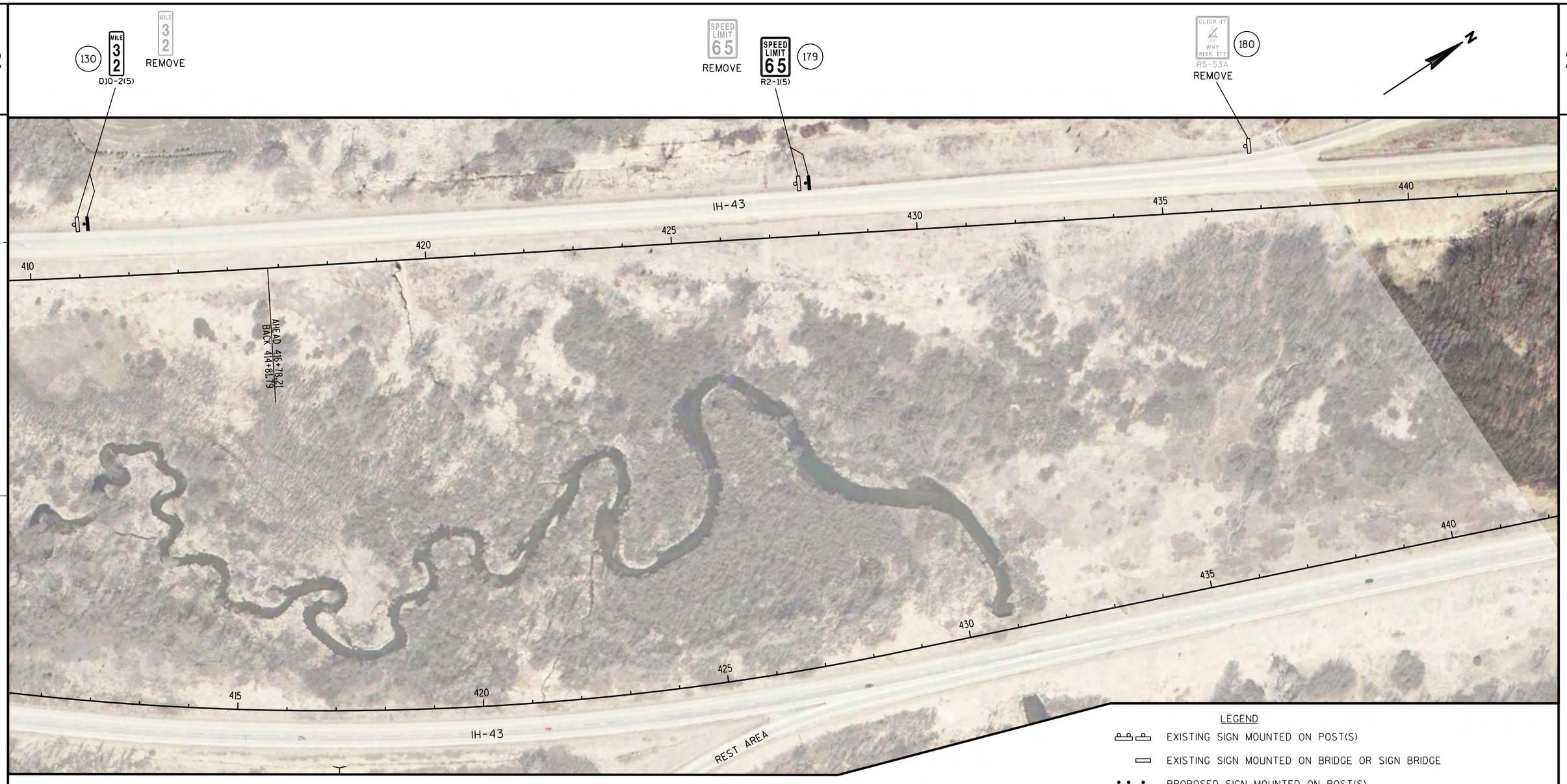
2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 8 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 82	E



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 83	E

FILE NAME : J:\projects\d2_10901543\72\023209_ps.DGN PLOT DATE : 02-JUL-2013 08:59 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

REMOVE

W4-1(5)

181

N

REST AREA

E5-52

REMOVE

REST AREA

E5-54(4)

TYPE II

SIZE 5 WILL NOT FIT

118

MILE 3 3

REMOVE

MILE 3 3

D10-2(5)

131

REST AREA

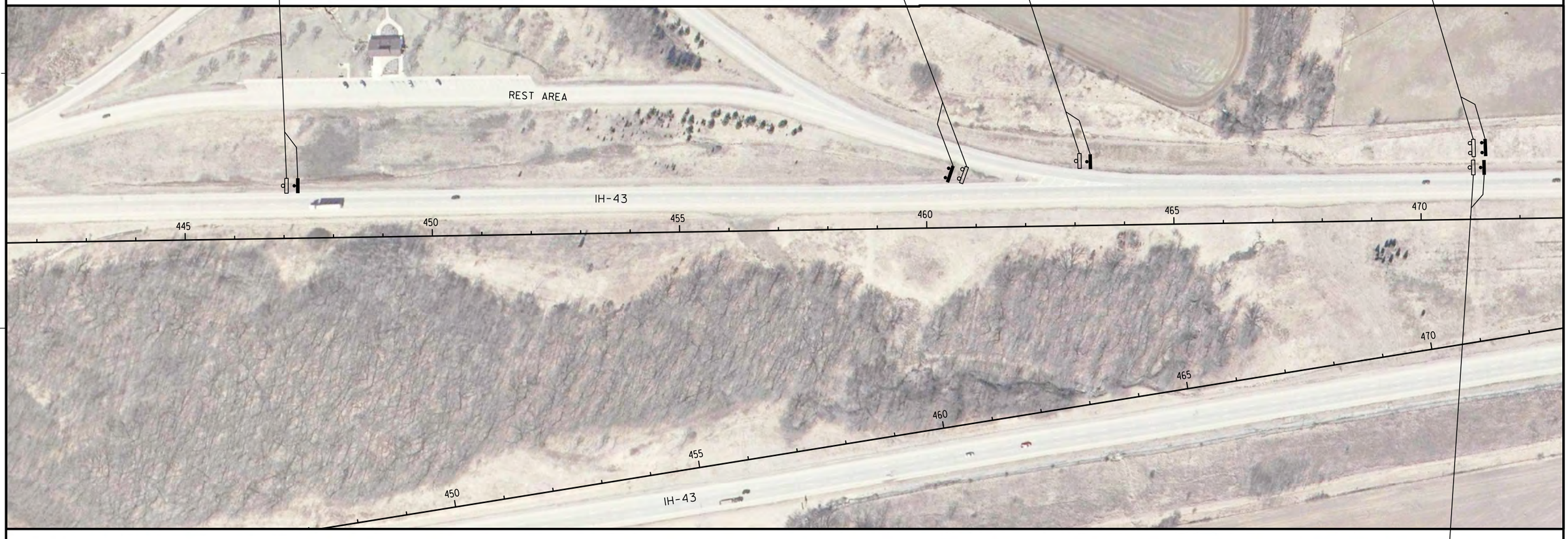
REMOVE

REST AREA

E5-52

INSTALL NEW TYPE I SIGN ON EXISTING STEEL POSTS SEE SIGN DETAIL

117



182

EXIT 25 M.P.H.

W13-2(2)

EXIT 25 M.P.H.

REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 10 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 84	E

2

SPEED LIMIT 65
REMOVE
SPEED LIMIT 65
R2-1
183

RIDESHARE INFO CALL
1-800-455-POOL
D12-2A(5)
300

SOUTH INTERSTATE 43
REMOVE
SOUTH
MB3-3
INTERSTATE 43
M1-1
J4-1(5)
184

Hwy D
M1-94
ESTR

W11-3
REMOVE
186
287

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 11 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 85	E

2

N

REMOVE

W4-1(5)

187

INSTALL NEW TYPE I SIGN
ON NEW STEEL POSTS

REST AREA
1 MILE

115

E5-51
144 X 60
TYPE I

WEATHER INFO

116

E10-53
MOVE

188

NORTH
INTERSTATE
43

MB3-1

M1-1

MB5-1L

J2-1(2)

189

Milwaukee

D1-1

NORTH
INTERSTATE
43

Milwaukee

REMOVE

[09]
WRONG WAY
R5-1A
ESTR

[08]
Bowers Rd
SOUTH NORTH
ESTR

[09]
WEIGHT LIMIT CLASS B
BOWERS ROAD
ESTR

[08]

W3-1
ESTR

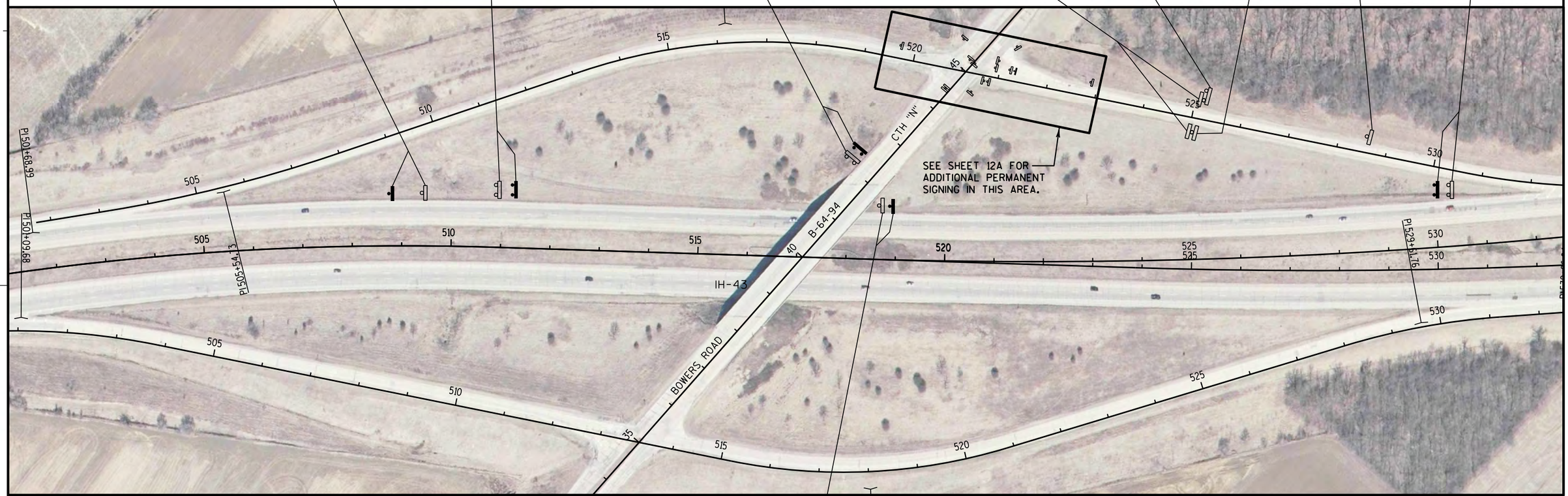
EXIT
33

REMOVE

EXIT
33

114

E5-1A(5)
TYPE II



MILE
3
4

132

D10-2(5)

MILE
3
4

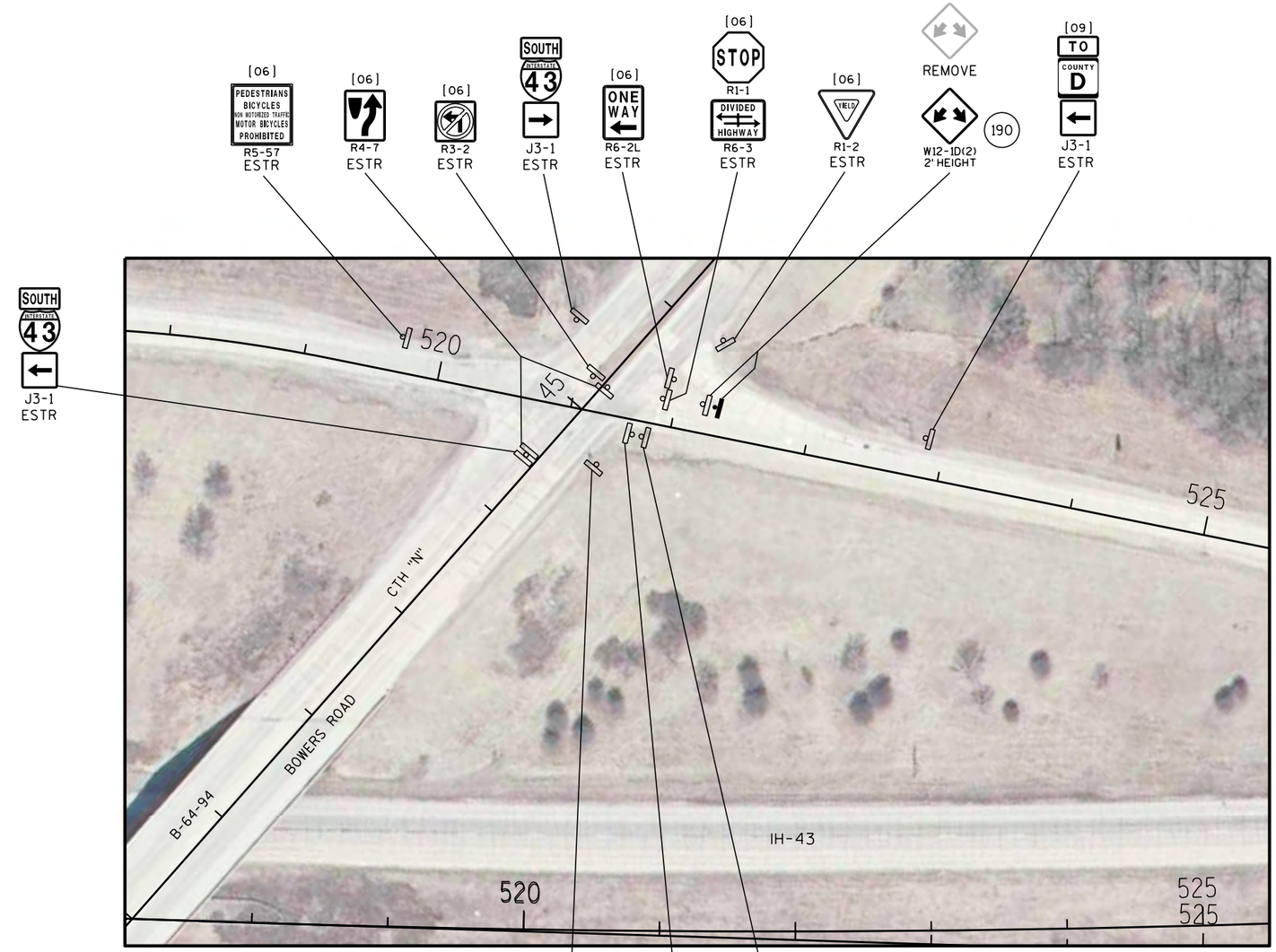
REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 12 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 86	E



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 12A OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 87	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 13 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 88	E

EXIT 33

Bowers Rd

3/4 MILE

112A

112

E1-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

REMOVE

MILE 3 5

133

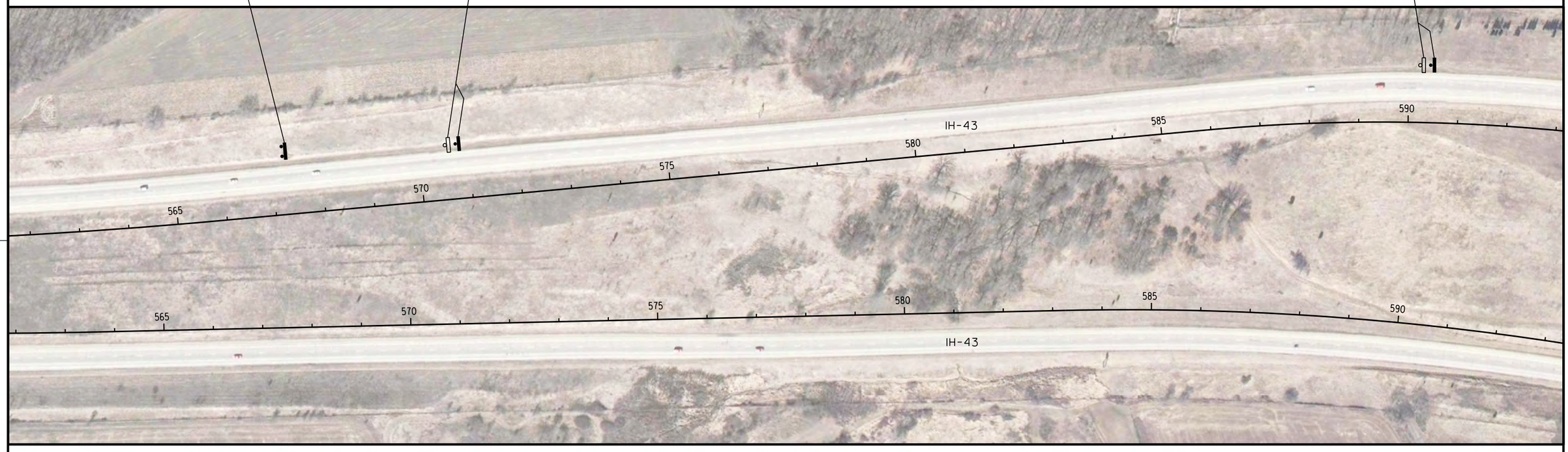
D10-2(5)

N

REMOVE

194

W4-2R(5)



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

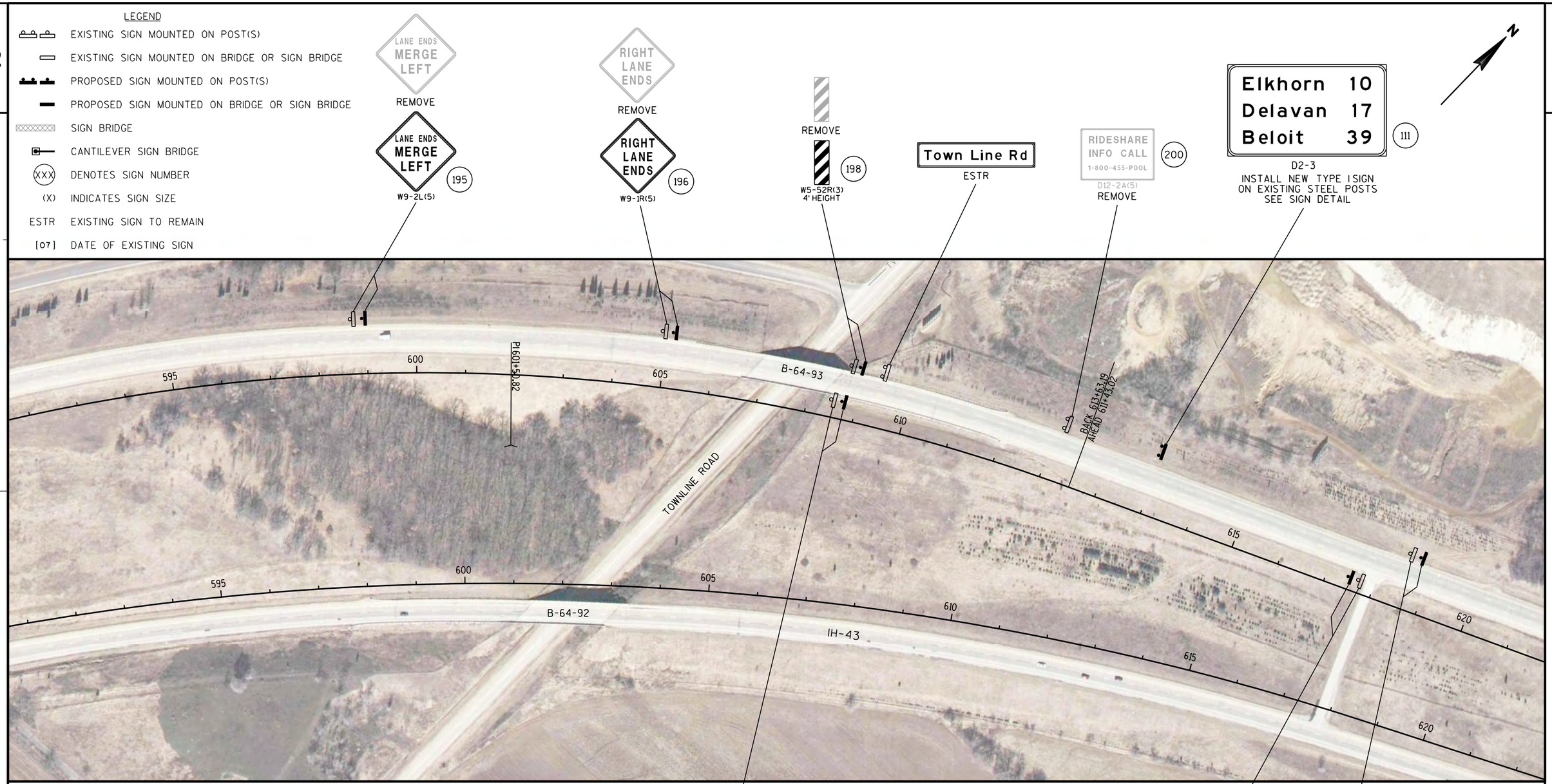
PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 89 E

FILE NAME : J:\projects\d2_10901543\72\023214_ps.DGN PLOT DATE : 02-JUL-2013 09:00 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN



SHEET 15 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 90 E

FILE NAME : J:\projects\d2_10901543\72\023215_ps.DGN PLOT DATE : 02-JUL-2013 09:01 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

REMOVE
MILE 36
D10-2(5)
134

REMOVE
SOUTH INTERSTATE 43
MB3-3
SOUTH INTERSTATE 43
M1-1
J4-1(5)
204

RIDESHARE INFORMATION
www.rideshare.wi.gov
D12-2B(5)
205

N

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 91 E

FILE NAME : J:\projects\d2_10901543\72\023216_ps.DGN
PLOT DATE : 02-JUL-2013 09:01
PLOT BY : MSCCXV
PLOT NAME :
PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

REMOVE
228
W5-52R(3)
4' HEIGHT

SEE SHEET 17A FOR ADDITIONAL PERMANENT SIGNING IN THIS AREA.

REMOVE
WRONG WAY
222
WRONG WAY
223
R5-1A(3)

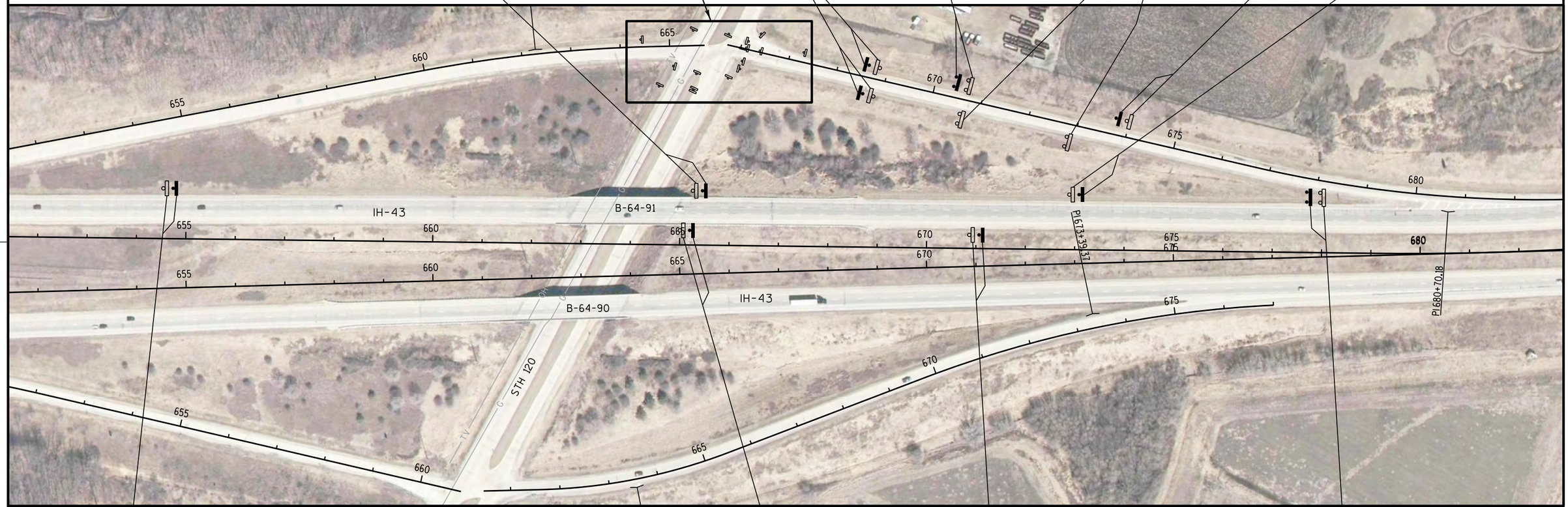
Lake Geneva
East Troy
REMOVE
Lake Geneva
East Troy
224
D1-2

Alpine Valley
ESTR

SIS
ESTR

REMOVE
STOP AHEAD
225
W3-1(2)

REMOVE
MILE 37
MILE 37
135
D10-2(5)



206
W4-1(5)
REMOVE

227
W5-52L(3)
4' HEIGHT
REMOVE

SLOWER TRAFFIC KEEP RIGHT
230
R4-3(5)
SLOWER TRAFFIC KEEP RIGHT
REMOVE

EXIT 36
110
E5-1A(5)
TYPE II

EXIT 36
REMOVE

SHEET 17 OF 29

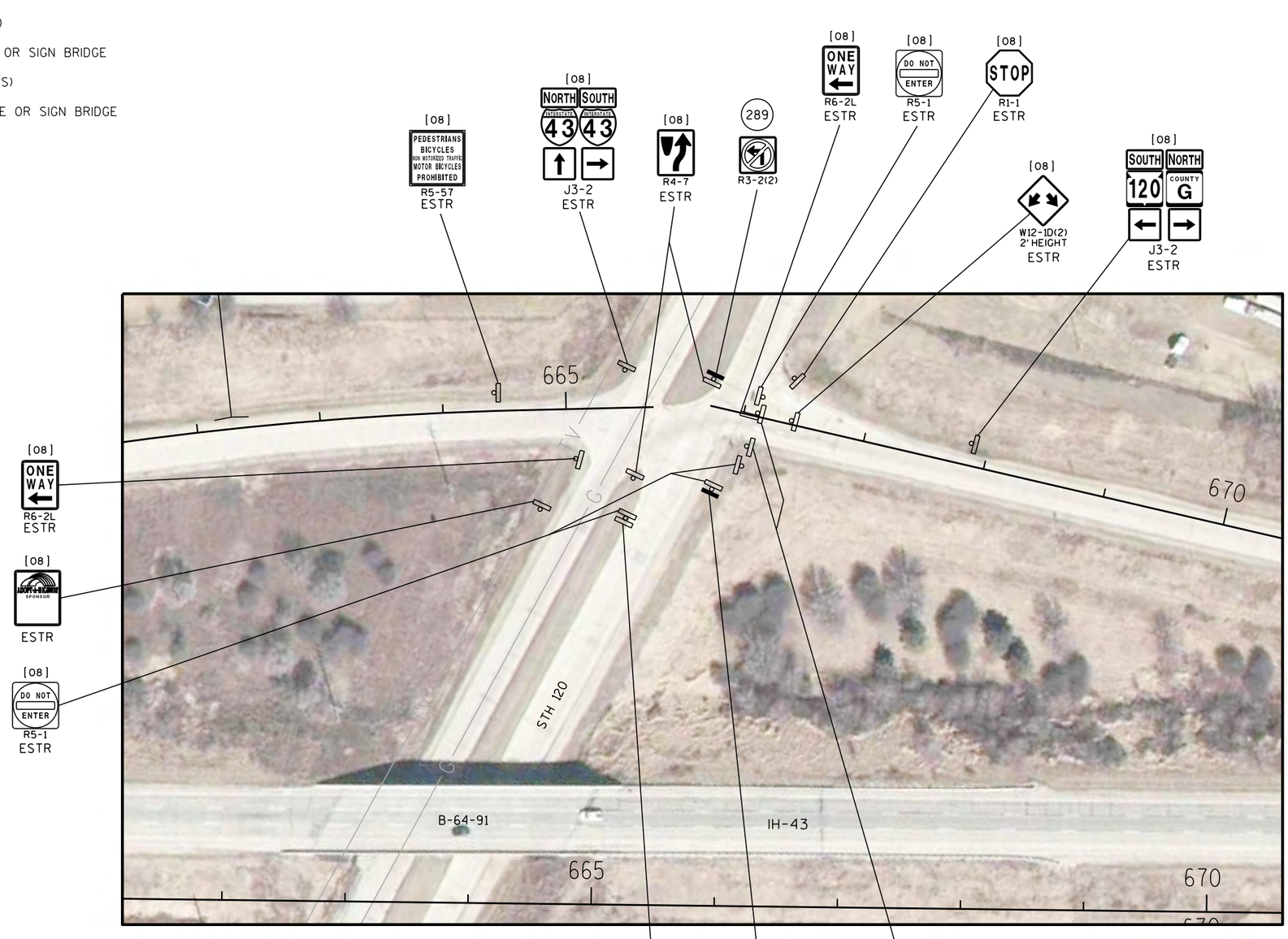
PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 92	E

FILE NAME : J:\projects\d2_10901543\72\023217_ps.DGN PLOT DATE : 02-JUL-2013 09:01 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN



SHEET 17A OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 93	E

FILE NAME : J:\projects\d2_10901543\72\023217a_ps.dgn PLOT DATE : 02-JUL-2013 09:01 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

EXIT 36

120

East Troy

Lake Geneva

109A

109

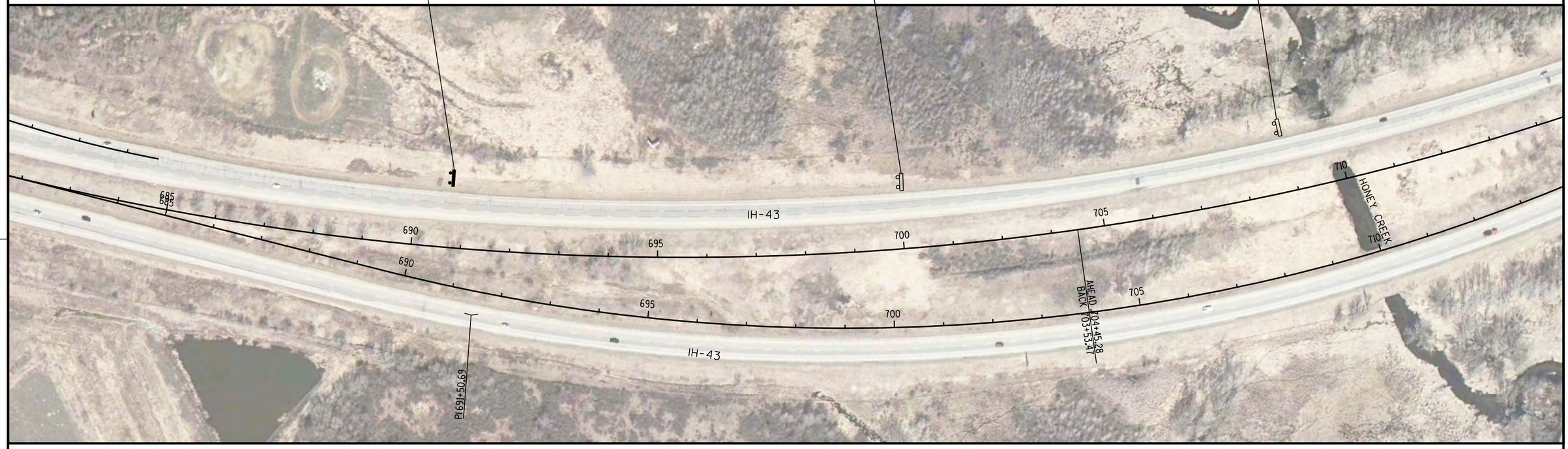
E4-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

Alpine Valley
Music Theater
EXIT 36

ESTR
TYPE I

(SIS)
LODGING

ESTR



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

2

2

EXIT 36 (108A)

120

East Troy
Lake Geneva
1/2 MILE (108)

E1-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

EMERGENCY STOPPING ONLY
REMOVE
EMERGENCY STOPPING ONLY (231)
R8-7(5)

SPEED LIMIT 65
REMOVE
SPEED LIMIT 65 (232)
R2-1(5)

REMOVE
R3-4(5) (290)
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES (291)
R3-4A(5)

SOUTH INTERSTATE 43
REMOVE
SOUTH
MB3-3
INTERSTATE 43 (235)
M1-1
J4-1(5)

MILE 38
REMOVE
MILE 38 (136)
D10-2(5)

N

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

R3-4(5) (233)

R3-4A(5) (234)
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES

REMOVE
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SEE SHEET 20A FOR ADDITIONAL PERMANENT SIGNING IN THIS AREA.

WEST 20 → REMOVE
WEST M3-4 / 20 M1-6 / → M6-1 J3-1(2) 245

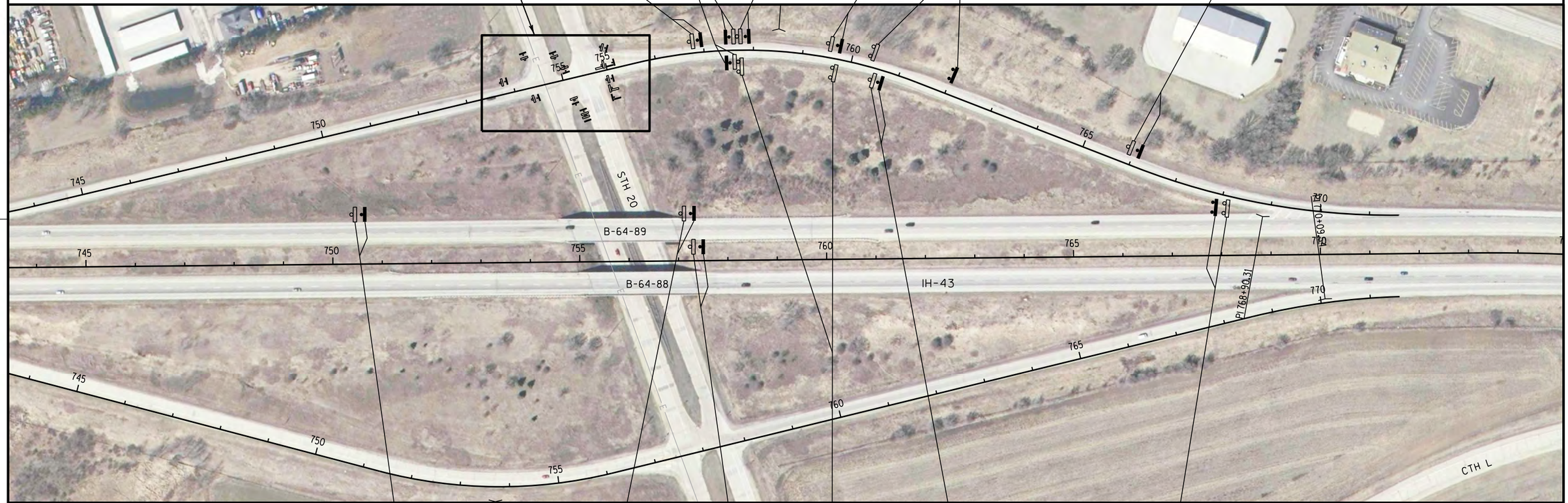
WRONG WAY REMOVE 247
WRONG WAY R5-1A(3) 248

PARK & RIDE → REMOVE
PARK & RIDE D4-5L(3) 246

REMOVE
W1-6(2) 244

← Waterford
East Troy → REMOVE
← Waterford / East Troy → D1-2 243

STOP AHEAD REMOVE
W3-1(2) 241



236 W4-1(5) → REMOVE

240 W5-52R(3) 4' HEIGHT → REMOVE

239 W5-52L(3) 4' HEIGHT → REMOVE

SIS ESTR

EAST 20 → REMOVE
EAST M3-2 / 20 M1-6 / → M5-2L J2-1(2) 242

EXIT 38 → REMOVE

EXIT 38 → E5-1A(5) TYPE II 107

SHEET 20 OF 29

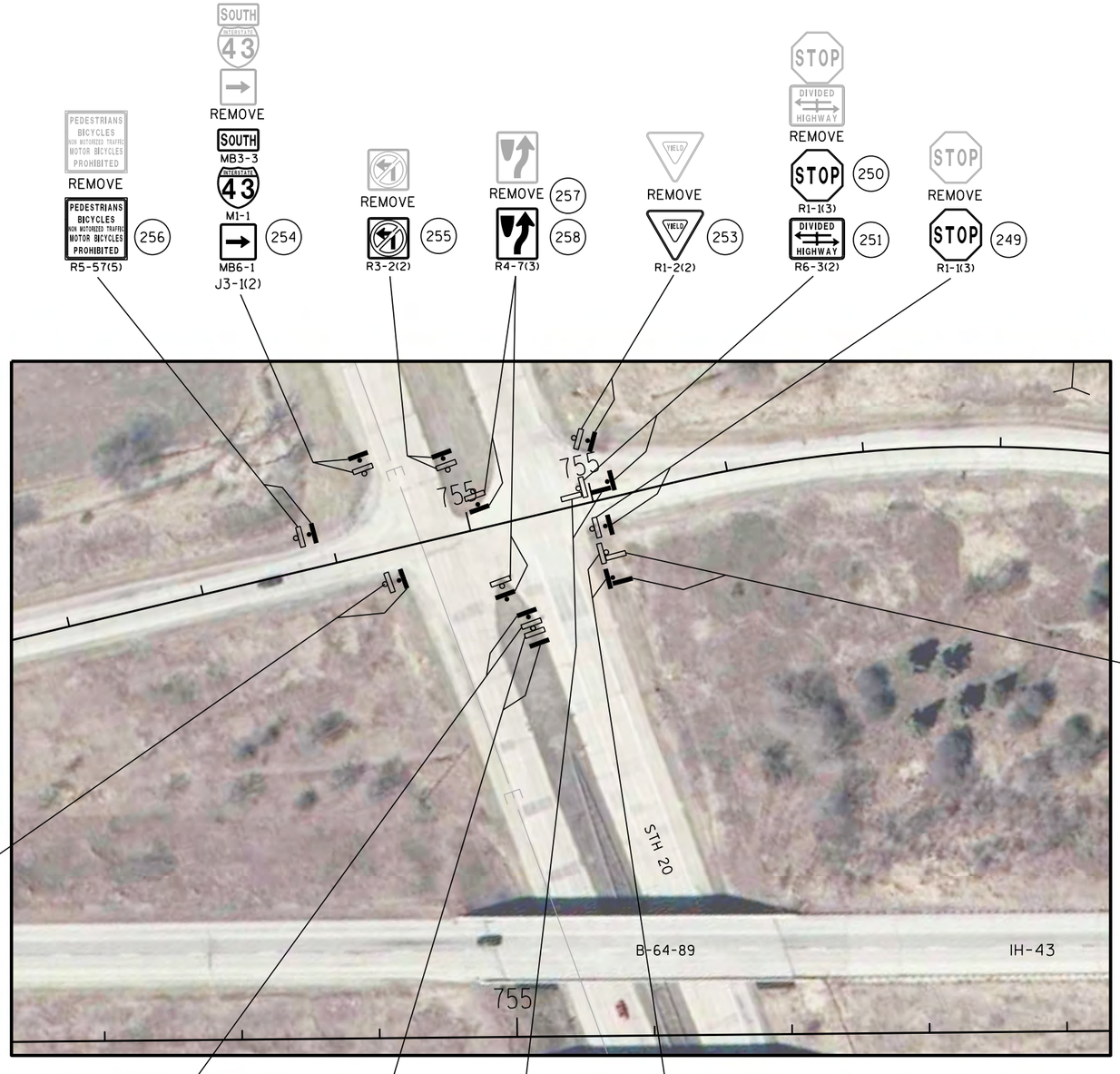
PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 96	E

FILE NAME : J:\projects\d2_10901543\72\023220_ps.DGN PLOT DATE : 02-JUL-2013 09:02 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN



SHEET 20A OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 97	E

FILE NAME : J:\projects\d2_10901543\72\023220a_ps.dgn PLOT DATE : 02-JUL-2013 09:02 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

EXIT 38

20

East Troy

106A

106

E4-1A

INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL

MILE 39

REMOVE

MILE 39

137

D10-2(5)

N

GAS
LODGING

ESTR

REMOVE

261

R3-4(5)

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES

262

R3-4A(5)

(SIS)

FOOD | ATTRACTIONS

ESTR

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

292

R3-4(5)

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES

293

R3-4A(5)

REMOVE

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 98	E

FILE NAME : J:\projects\d2_10901543\72\023221_ps.DGN PLOT DATE : 02-JUL-2013 09:02 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 22 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 99 E

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 100 E

FILE NAME : J:\projects\d2_10901543\72\023223_ps.DGN PLOT DATE : 02-JUL-2013 09:03 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 101	E

FILE NAME : J:\projects\d2_10901543\72\023224_ps.DGN PLOT DATE : 02-JUL-2013 09:03 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

2

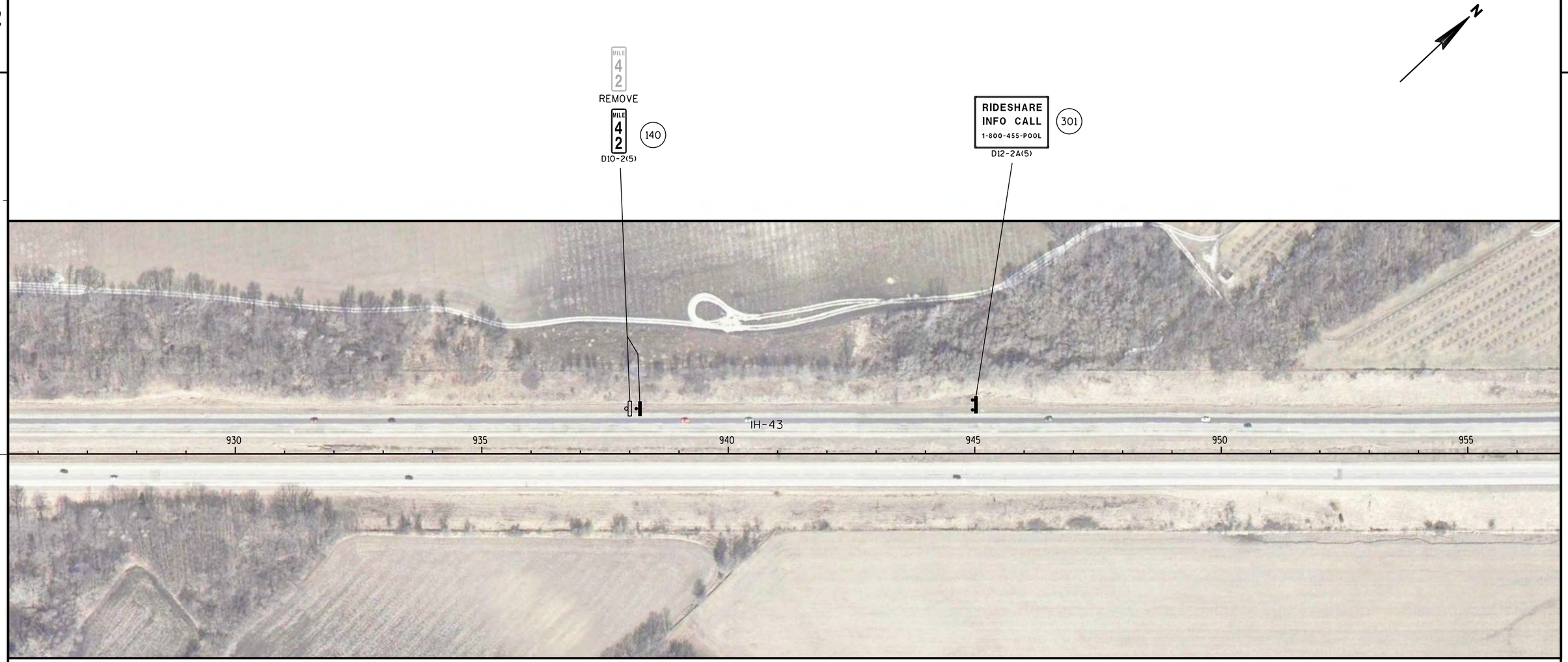
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 25 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 102	E

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 26 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 103	E

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 27 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 104 E

FILE NAME : J:\projects\d2_10901543\72\023227_ps.DGN PLOT DATE : 02-JUL-2013 09:03 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

N

REMOVE
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R3-4(5)
266

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R3-4A(5)
267

Walworth Co
I2-2
268

East Troy 6
Elkhorn 16
Beloit 47
D2-3
INSTALL NEW TYPE I SIGN ON EXISTING STEEL POSTS SEE SIGN DETAIL
103

RIDESHARE INFO CALL 1-800-455-POOL
REMOVE
RIDESHARE INFORMATION www.rideshare.wi.gov
D12-2B
269

SPEED LIMIT 65
REMOVE
SPEED LIMIT 65
R2-1(5)
270

SOUTH INTERSTATE 43
REMOVE
SOUTH
MB3-3
INTERSTATE 43
M1-1
J4-1(5)
271

REMOVE
W5-52R(3)
4' HEIGHT
273

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

R3-4(5)
296

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R3-4A(5)
297

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
REMOVE

SOUTH 43 MILE 43 0
D10-5
141
MOVE TO WOOD POST

SOUTH 43 MILE 43 .2
D10-5
142
MOVE TO WOOD POST

SOUTH 43 MILE 43 .4
D10-5
143
MOVE TO WOOD POST

W5-52L(3)
4' HEIGHT
272
REMOVE

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 105 E

FILE NAME : J:\projects\d2_10901543\72\023228_ps.DGN PLOT DATE : 02-JUL-2013 09:03 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

REMOVE

W4-1(5) 282

SEE SHEET 29A FOR ADDITIONAL PERMANENT SIGNING IN THIS AREA.

EXIT 43 101A

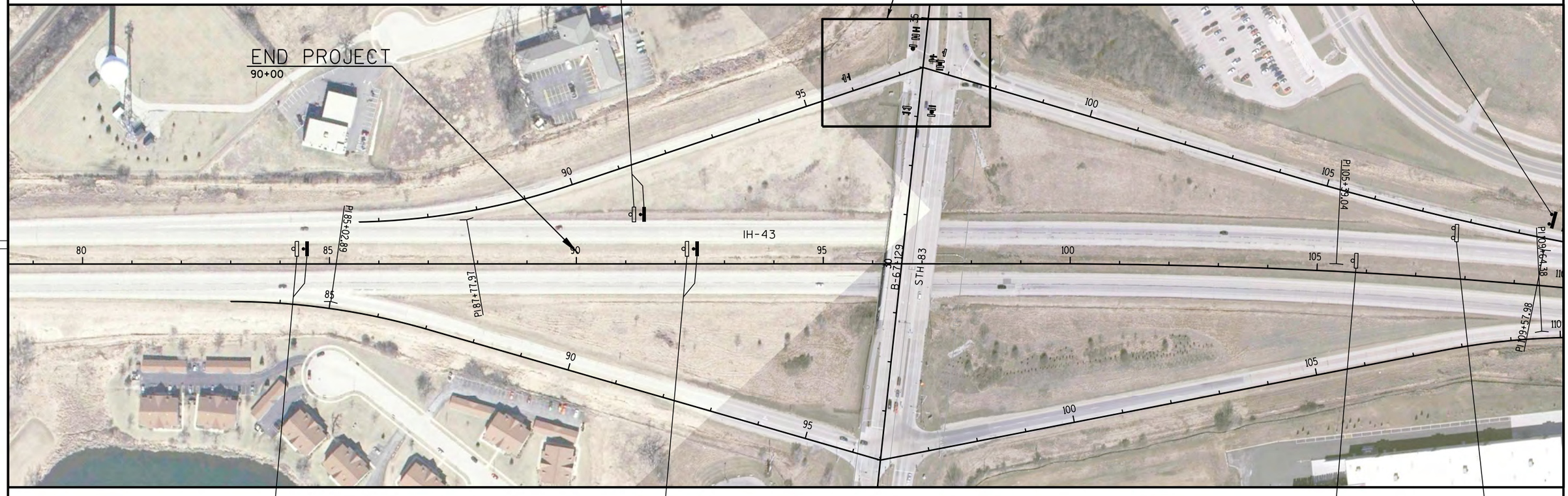
83

Waterford

Mukwonago

101

E4-1A
INSTALL NEW TYPE I SIGN
ON EXISTING STEEL POSTS
SEE SIGN DETAIL



NORTH 43 MILE 43 .6 144
D10-5
MOVE TO
WOOD POST

NORTH 43 MILE 43 .6 145
D10-5
MOVE TO
WOOD POST

SOUTH 43 MILE 44 0
ESTR
SIGN DONE UNDER
PROJECT 1090-15-71

EXIT 43
ESTR
SIGN DONE UNDER
PROJECT 1090-19-71

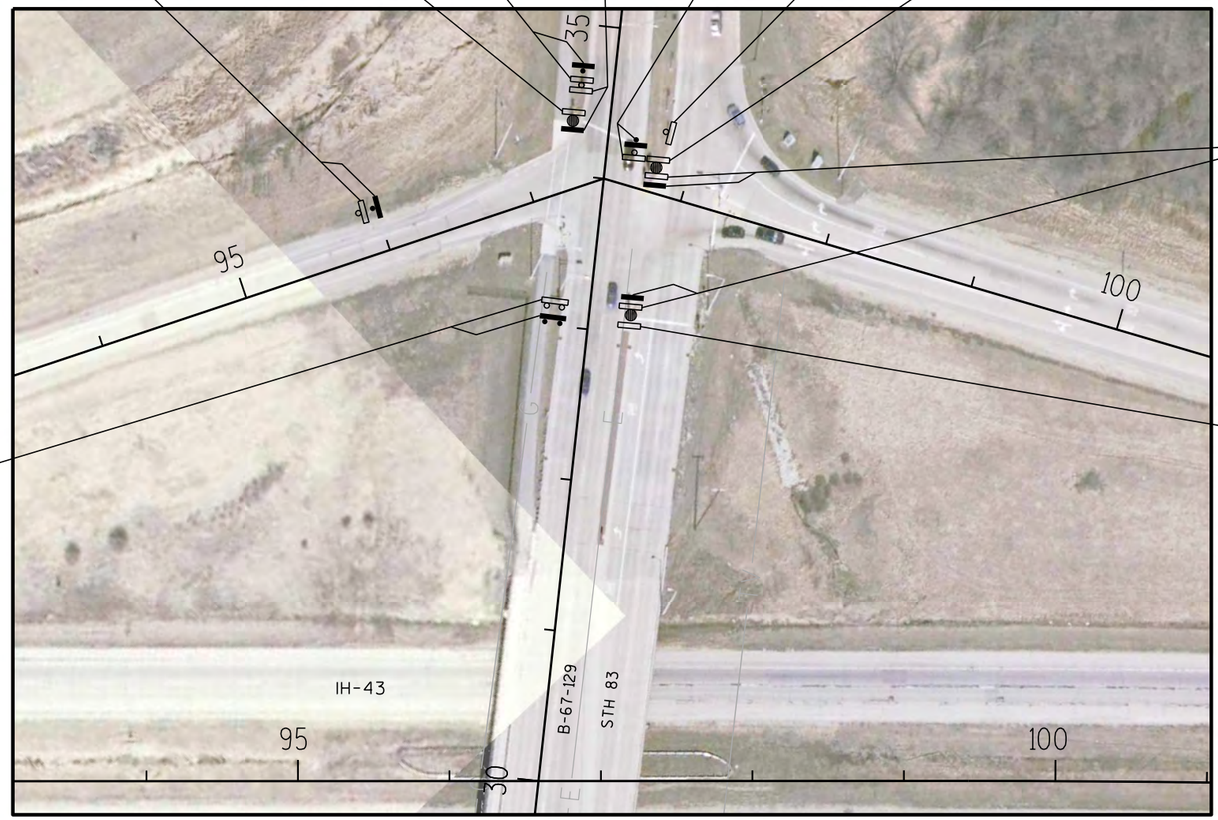
SHEET 29 OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 106 E

FILE NAME : J:\projects\d2_10901543\72\023229_ps.DGN PLOT DATE : 02-JUL-2013 09:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2



275 NORTH MB3-1
INTERSTATE 43 M1-1
MB5-1L
J2-1(2)
274 Milwaukee
D1-1

NORTH INTERSTATE 43
Milwaukee
REMOVE

SOUTH INTERSTATE 43
REMOVE

SOUTH MB3-3
INTERSTATE 43 M1-1
MB6-1
J3-1(2)
278

PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED
REMOVE

PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED
276
R5-57

STOP
R1-1F
ESTR

DO NOT ENTER
REMOVE

277
DO NOT ENTER
R5-1(3)
ON SIGNAL POLE

SOUTH MB3-3
INTERSTATE 43 M1-1
279
MB6-1
J3-1(2)

SOUTH INTERSTATE 43
REMOVE

NO TURN ON RED FROM LEFT LANE
R10-11F
ESTR

R3-2
STOP
R1-1F
ESTR

280 281
R4-7(3)
REMOVE

STOP
R1-1F
ESTR

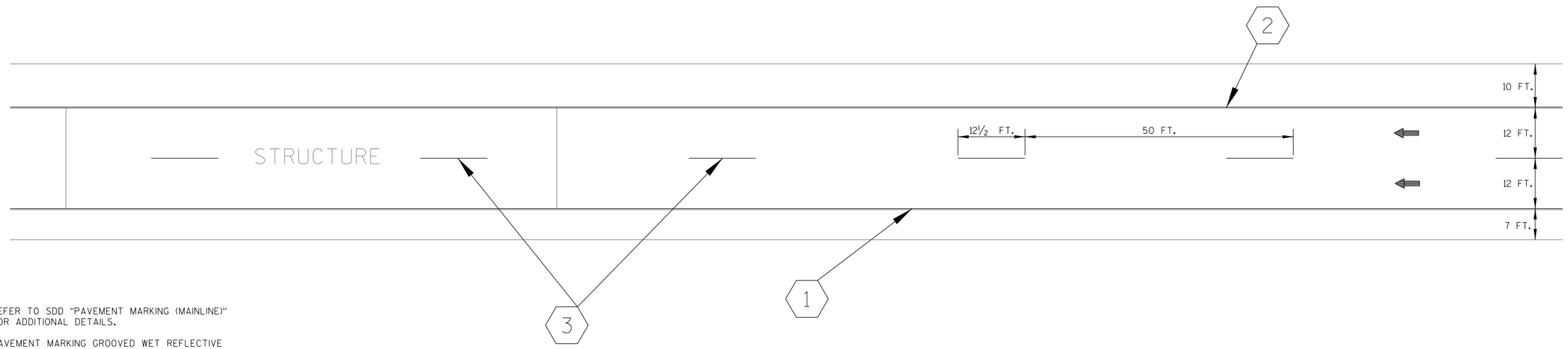
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- [07] DATE OF EXISTING SIGN

SHEET 29A OF 29

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	PERMANENT SIGNING	SHEET 107	E

2



NOTE: REFER TO SDD "PAVEMENT MARKING (MAINLINE)" FOR ADDITIONAL DETAILS.

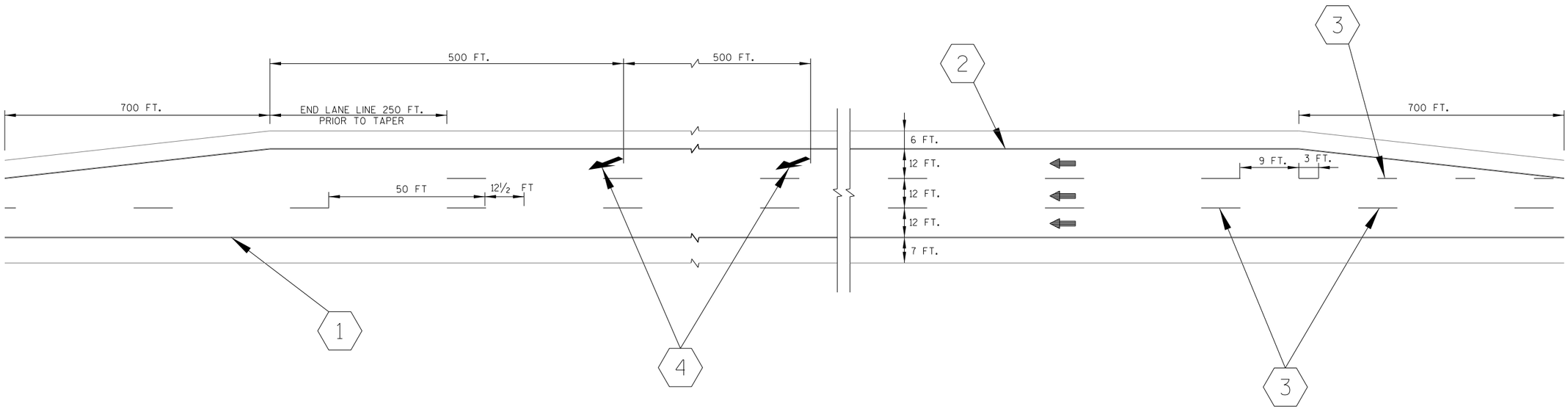
PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH IS TO BE USED ON CONCRETE AND ASPHALT PAVEMENTS.

TYPICAL PAVEMENT MARKING (I-43)

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH
- DIRECTION OF TRAFFIC

2



NOTE: REFER TO SDD "PAVEMENT MARKING (MAINLINE)" FOR ADDITIONAL DETAILS.

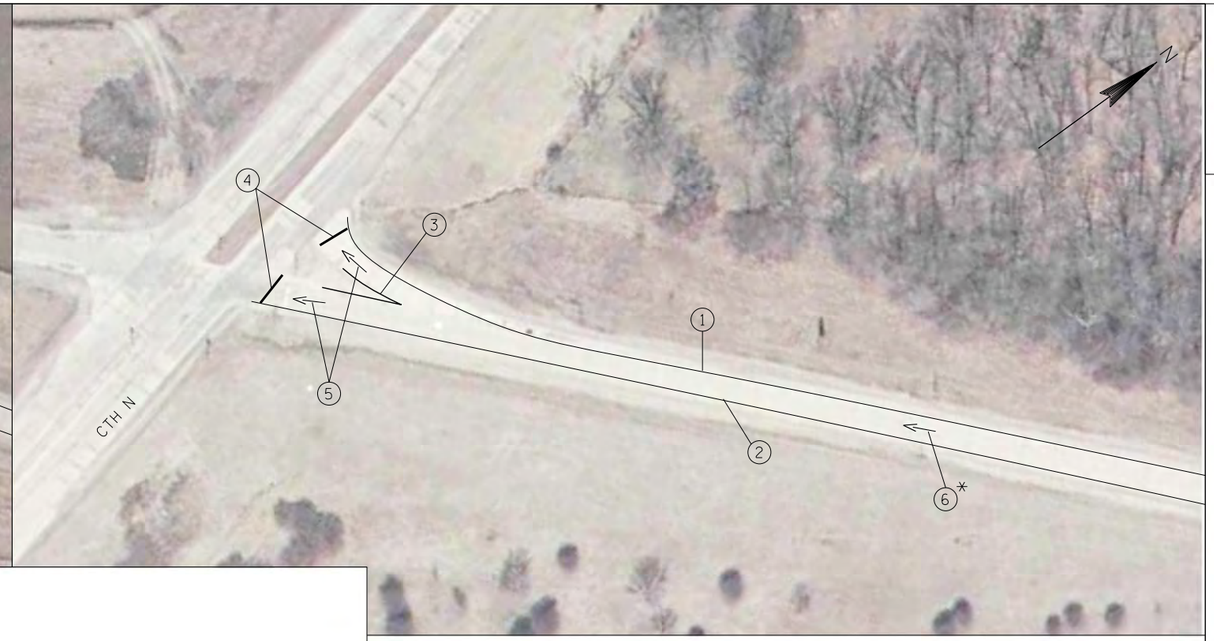
PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH IS TO BE USED ON CONCRETE AND ASPHALT PAVEMENTS.

TYPICAL PAVEMENT MARKING WITH CLIMBING LANE (I-43)

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 5
- DIRECTION OF TRAFFIC

STH 11 EXIT RAMP
NOT TO SCALE

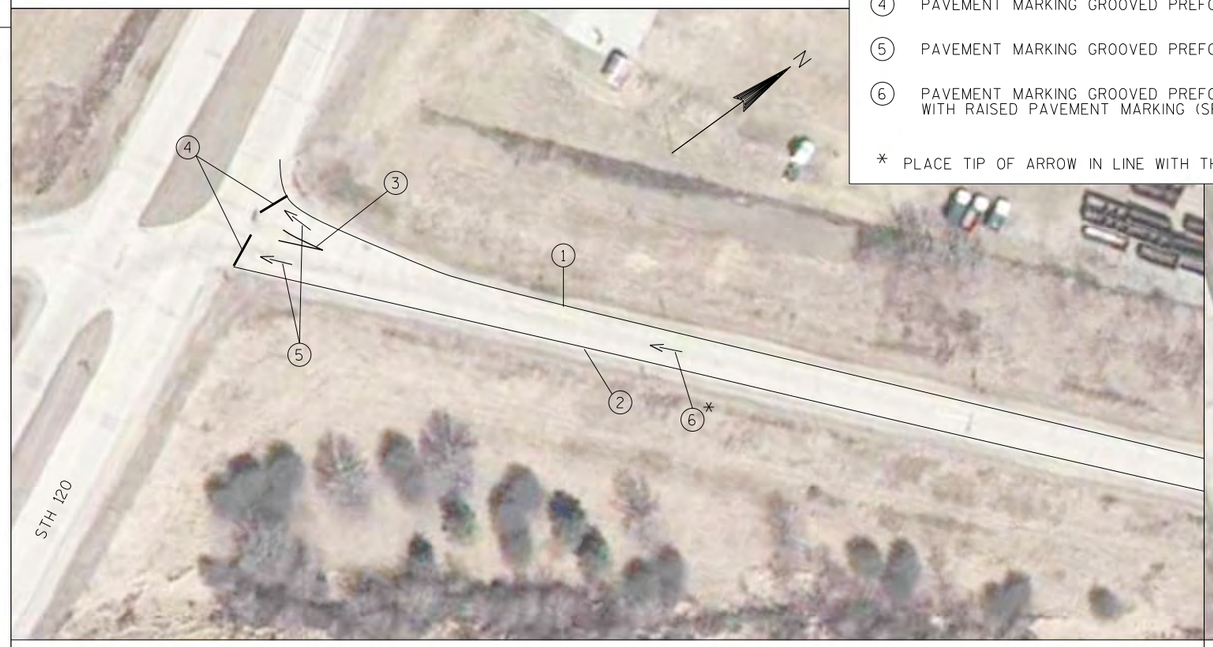


CTH N EXIT RAMP
NOT TO SCALE

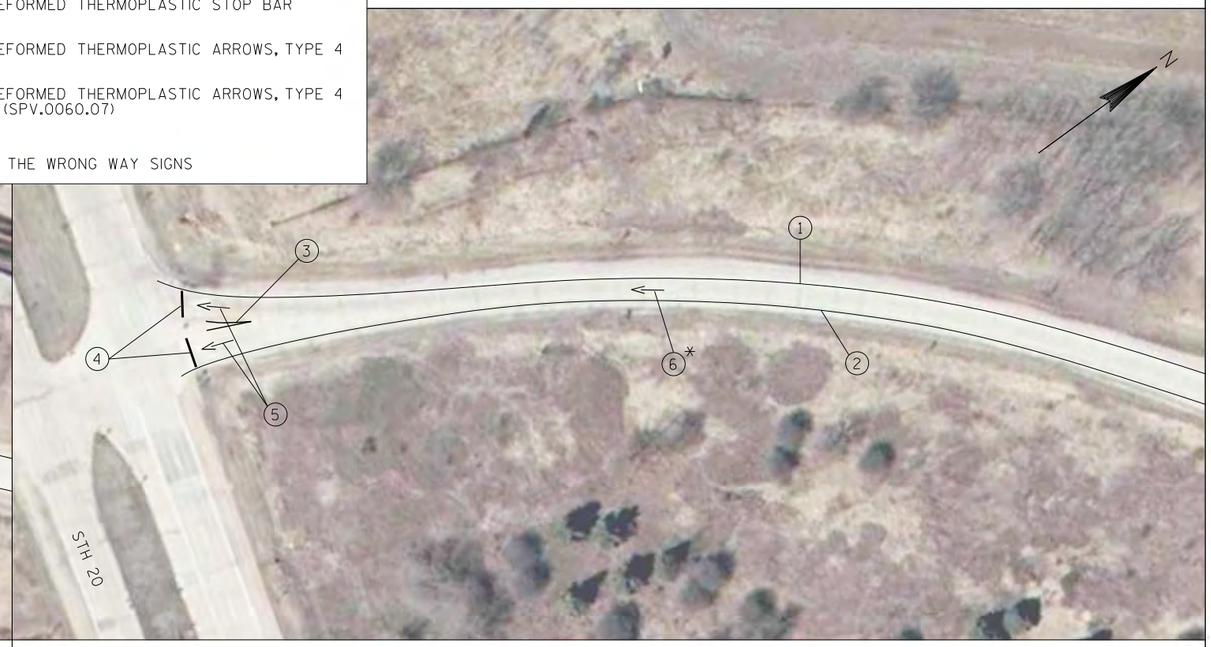
2

1. EPOXY 4-INCH WHITE
2. EPOXY 4-INCH YELLOW
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE, 8-INCH
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR
5. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 4
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 4 WITH RAISED PAVEMENT MARKING (SPV.0060.07)

* PLACE TIP OF ARROW IN LINE WITH THE WRONG WAY SIGNS



STH 120 EXIT RAMP
NOT TO SCALE



STH 20 EXIT RAMP
NOT TO SCALE

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PAVEMENT MARKING DETAILS, EXIT RAMPS VARIOUS	NOT TO SCALE	SHEET NO: 110	E

FILE NAME : O:\2011 Projects\2011020 - I43 Resurface\MicroStation\Planset\1090-15-72\024503_pm.DGN PLOT DATE : 7/29/2013 PLOT BY : OTIE Originator : Dist

1. EPOXY 4-INCH WHITE
2. EPOXY 4-INCH YELLOW
3. EPOXY PAVEMENT MARKING, 24-INCH DIAGONAL, WHITE
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH

NOTES

THIS DETAIL SHOWS PAVEMENT MARKING TYPICAL FOR ALL OF THE US 12 RAMPS. EXACT LOCATION AND LIMITS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

* REPLACE GORES AND DIAGONAL LINES AT BOTH ENDS OF ALL US 12 RAMPS.

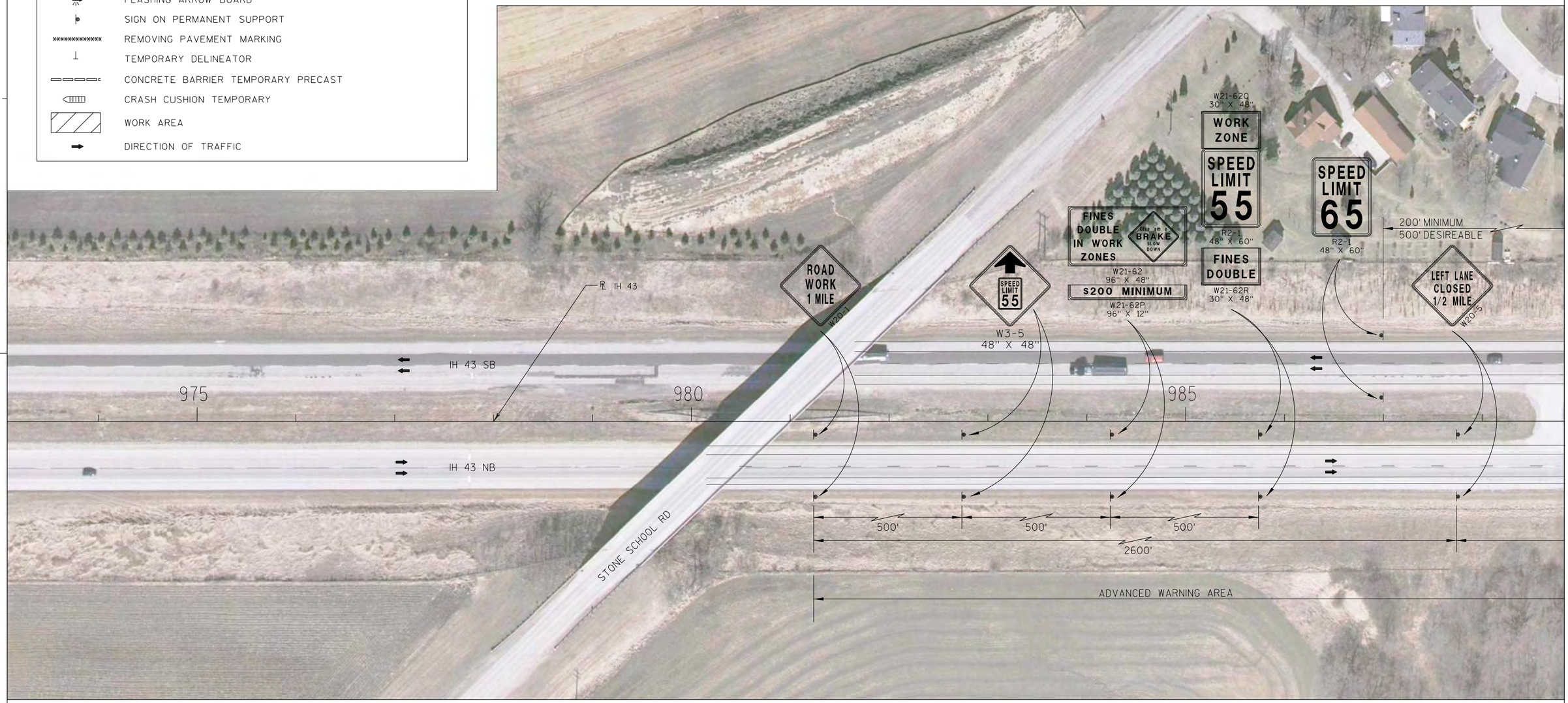
STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PAVEMENT MARKING DETAILS, US-12 RAMPS	NOT TO SCALE	SHEET NO: 111	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

1) SEE SDD: TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER FOR ADDITIONAL ADVANCED WARNING SIGN DETAILS.

2) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

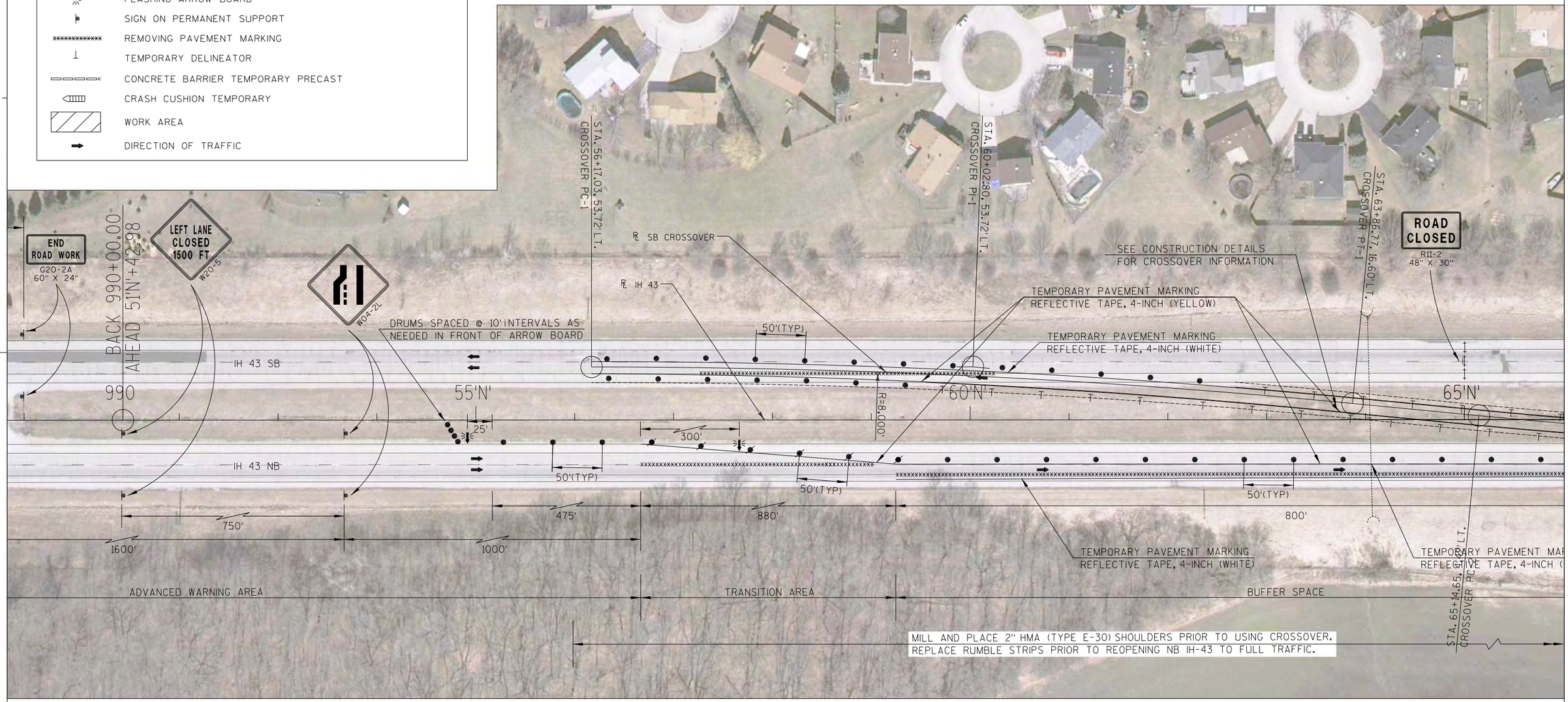
PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 112	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

1) SEE SDD: TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER FOR ADDITIONAL ADVANCED WARNING SIGN DETAILS.

2) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

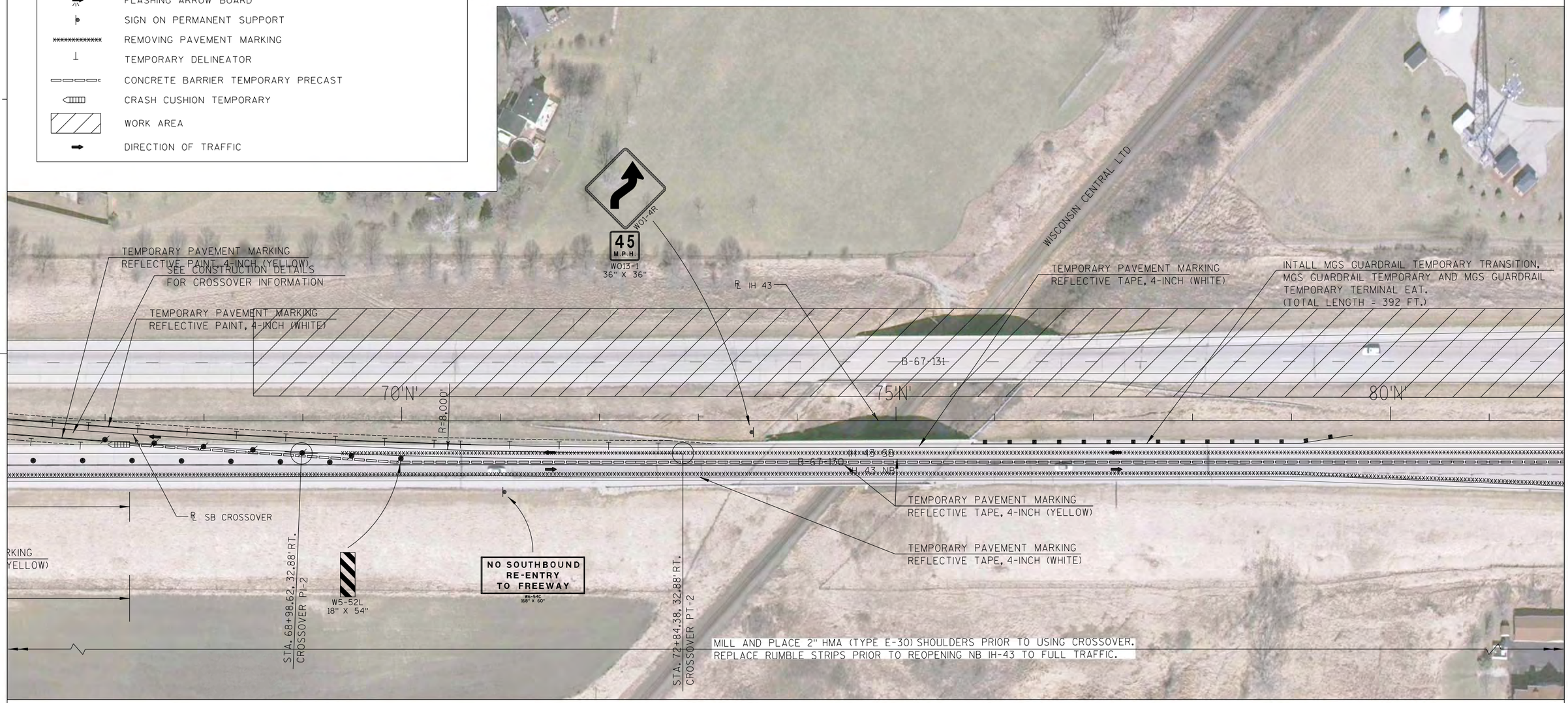
CROSSOVER ALIGNMENT DATA		
POINT	X	Y
PC-1	2,447,234.50	311,974.56
PI-1	2,447,498.54	312,255.80
PT-1	2,447,788.42	312,510.33
PC-2	2,447,884.96	312,595.10
PI-2	2,448,174.84	312,849.63
PT-2	2,448,438.88	313,130.87

PI-1		PI-2	
Δ.	= 5°31'17"	Δ.	= -5°31'17"
D.	= 0°42'58"	D.	= 0°42'58"
T.	= 385.76'	T.	= 385.76'
L.	= 770.93'	L.	= 770.93'
R.	= 8000.00'	R.	= 8000.00'

PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 113	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

1) SEE SDD: TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER FOR ADDITIONAL ADVANCED WARNING SIGN DETAILS.

2) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

3) "NO SOUTHBOUND RE-ENTRY TO FREEWAY" SIGN SHALL BE MOUNTED IMMEDIATELY BELOW THE ADVANCE GUIDE SIGN FOR THE INTERCHANGE.

CROSSOVER ALIGNMENT DATA		
POINT	X	Y
PC-1	2,447,234.50	311,974.56
PI-1	2,447,498.54	312,255.80
PT-1	2,447,788.42	312,510.33
PC-2	2,447,884.96	312,595.10
PI-2	2,448,174.84	312,849.63
PT-2	2,448,438.88	313,130.87

PI-1		PI-2	
Δ.	= 5°31'17"	Δ.	= -5°31'17"
D.	= 0°42'58"	D.	= 0°42'58"
T.	= 385.76'	T.	= 385.76'
L.	= 770.93'	L.	= 770.93'
R.	= 8000.00'	R.	= 8000.00'

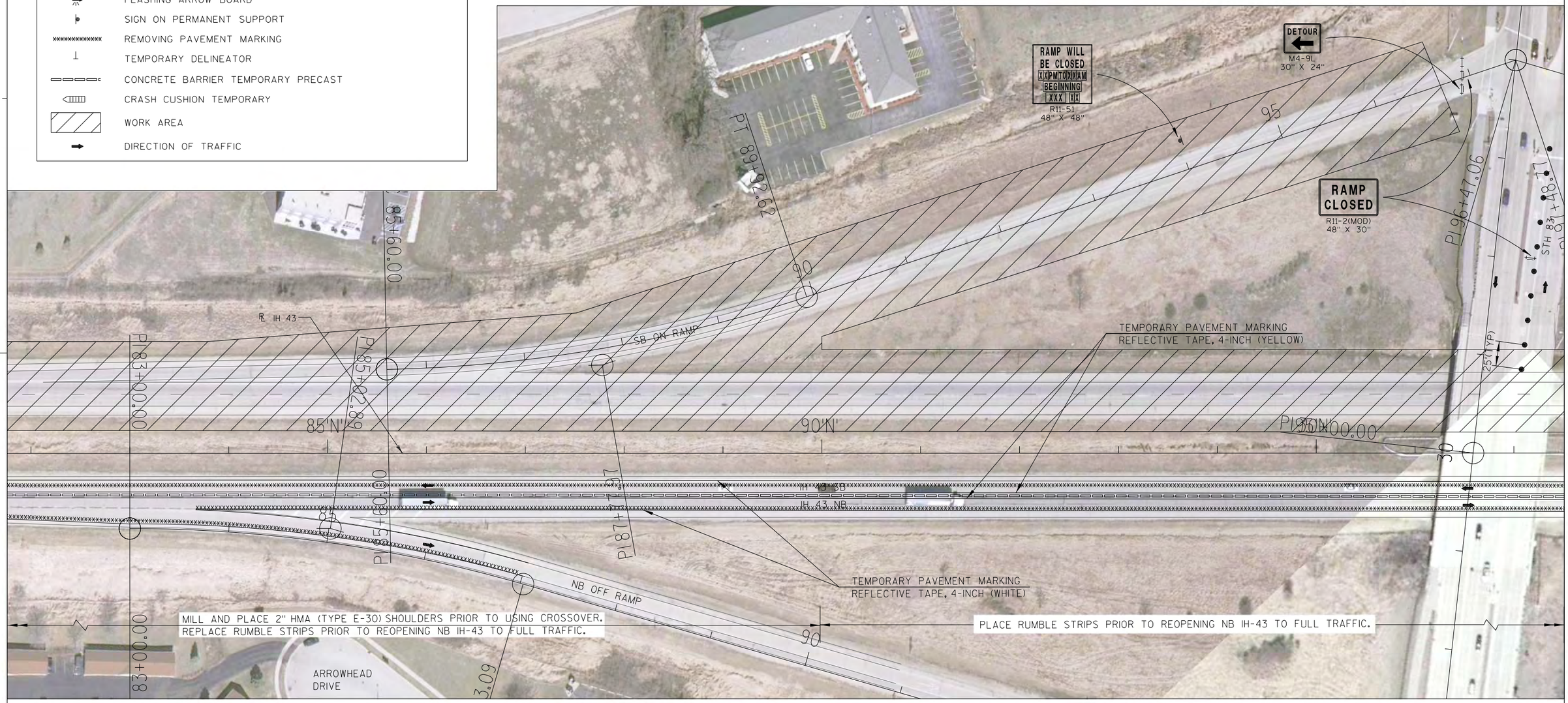
PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 114	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

1) SEE DETOUR SHEETS FOR ADDITIONAL TRAFFIC CONTROL SIGNING FOR RAMP TO IH-43 SOUTH DETOUR.
2) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
3) PLACE "RAMP WILL BE CLOSED" SIGN TEN DAYS PRIOR TO THE RAMP BEING CLOSED.
4) SEE SDD: TRAFFIC CONTROL, EXIT RAMP CLOSURE FOR ADDITIONAL ADVANCED WARNING SIGN DETAILS.

PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 115	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- ********** REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC

N

REMOVE PAVEMENT MARKING FOR THRU MOVEMENT

SB OFF RAMP

PC 104+34.34

PI 105+39.04

HOLZ PKWY

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE, 4-INCH (YELLOW)

℄ IH 43

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE, 4-INCH (YELLOW)

50'(TYP)

PC 99'N+42.75

W21-62Q
30" X 48"
WORK ZONE

SPEED LIMIT 55
R2-1
48" X 60"

FINES DOUBLE
W21-62R
30" X 48"

ROAD WORK AHEAD
W20-1

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE, 4-INCH (WHITE)

NB ON RAMP

PI 107+59.94

PT 111'N+34.25

PLACE RUMBLE STRIPS PRIOR TO REOPENING NB IH-43 TO FULL TRAFFIC.

NOTES:

1) SEE DETOUR SHEETS FOR ADDITIONAL TRAFFIC CONTROL SIGNING FOR RAMP TO IH-43 SOUTH DETOUR.

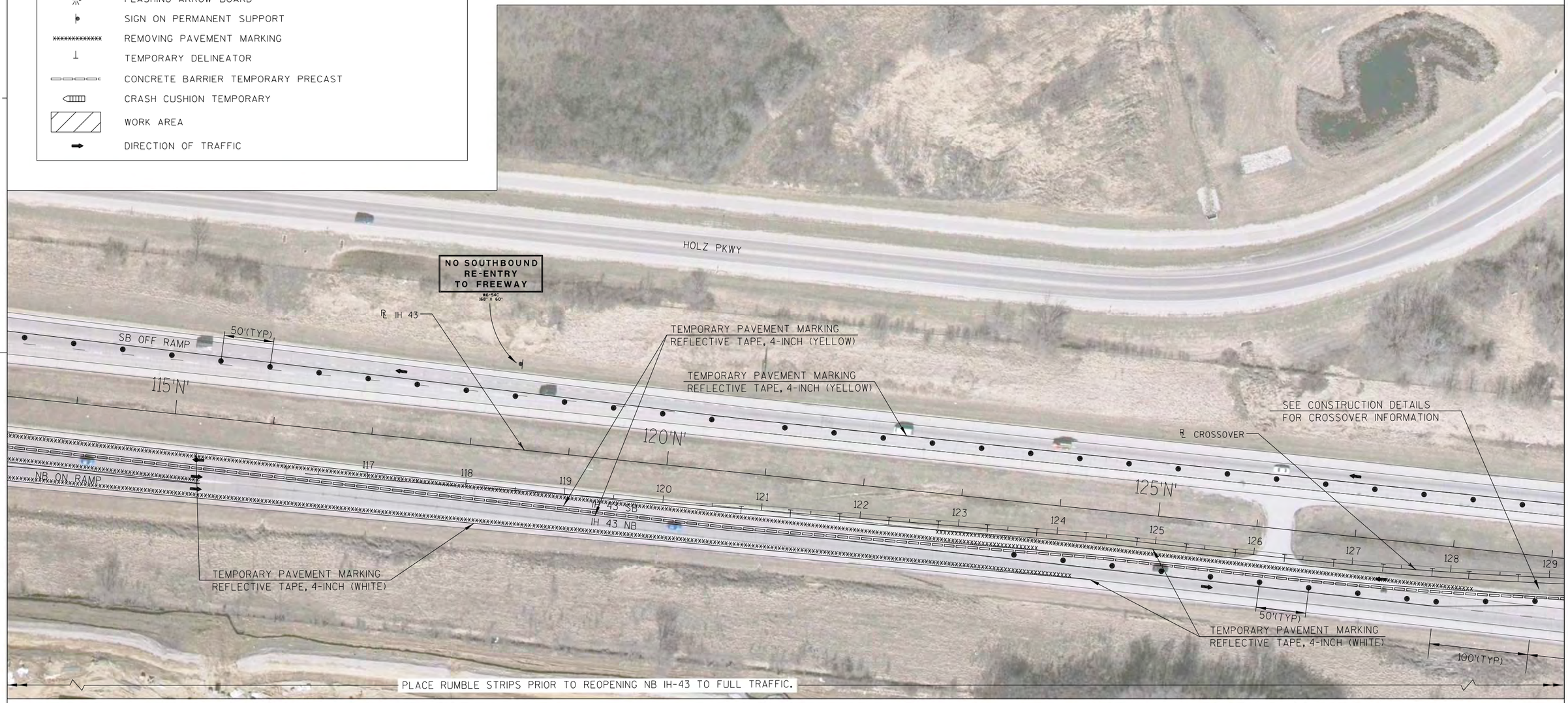
2) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO:1090-15-72	HWY:IH 43	COUNTY:WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 116	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

1) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

2) "NO SOUTHBOUND RE-ENTRY TO FREEWAY" SIGN SHALL BE MOUNTED IMMEDIATELY BELOW THE ADVANCE GUIDE SIGN FOR THE INTERCHANGE.

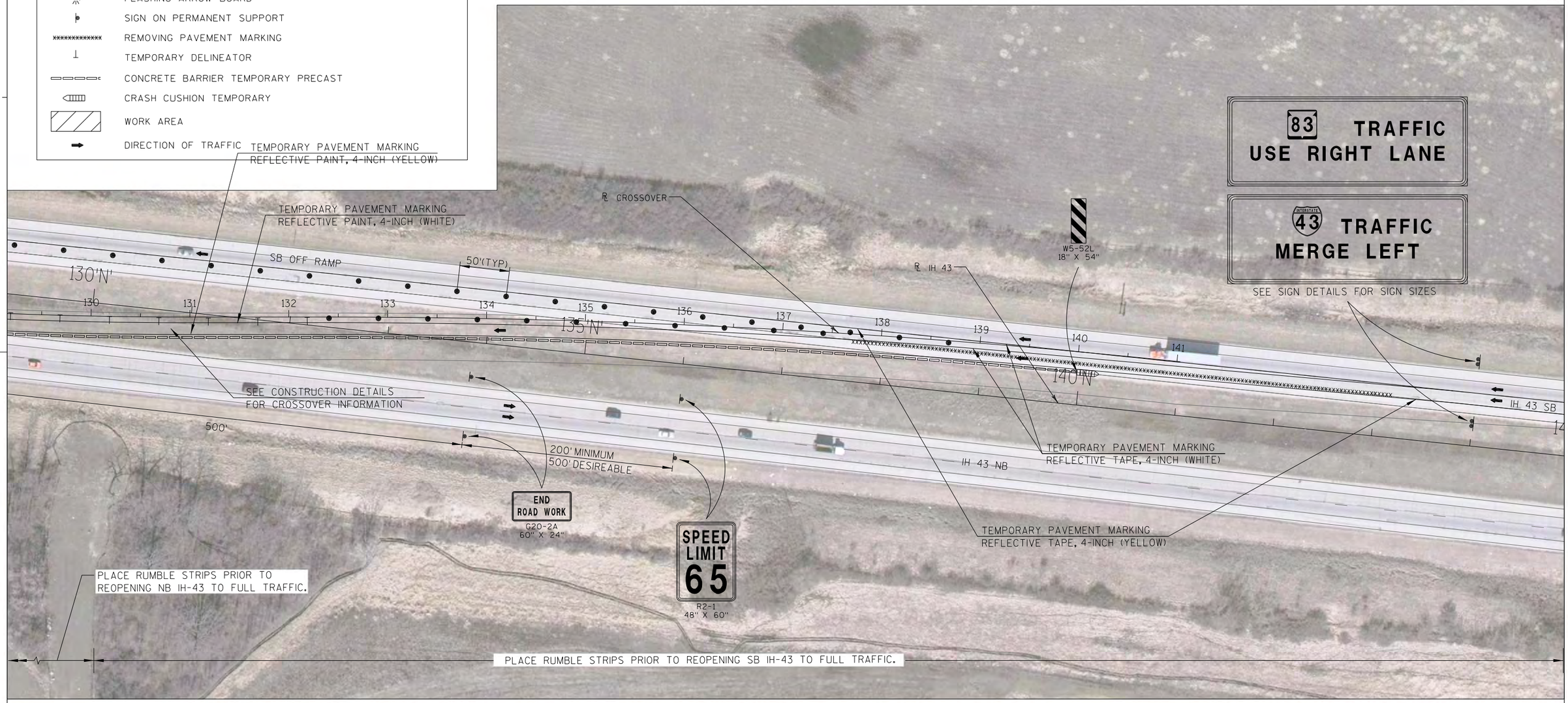
PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 117	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

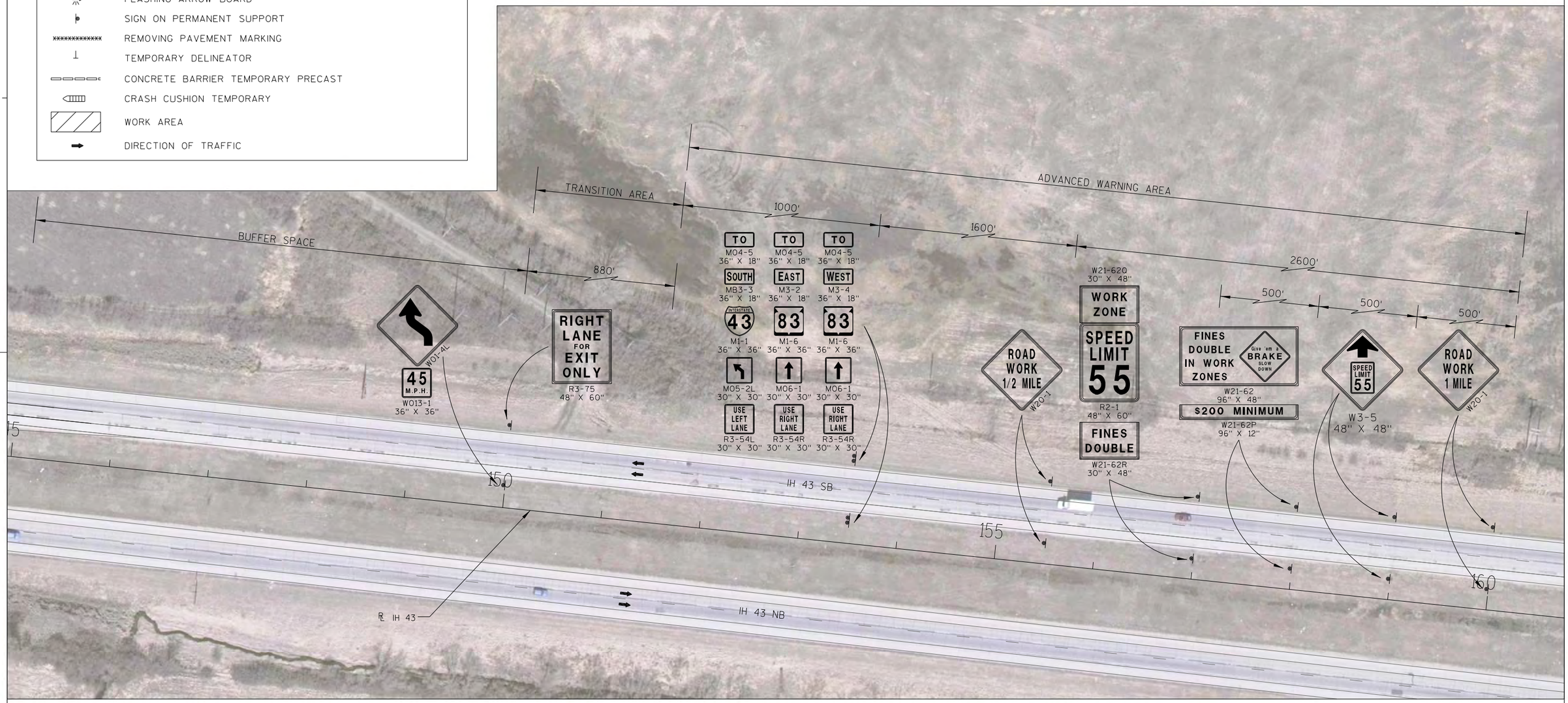
1) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 118	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TEMPORARY DELINEATOR
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK AREA
- DIRECTION OF TRAFFIC



NOTES:

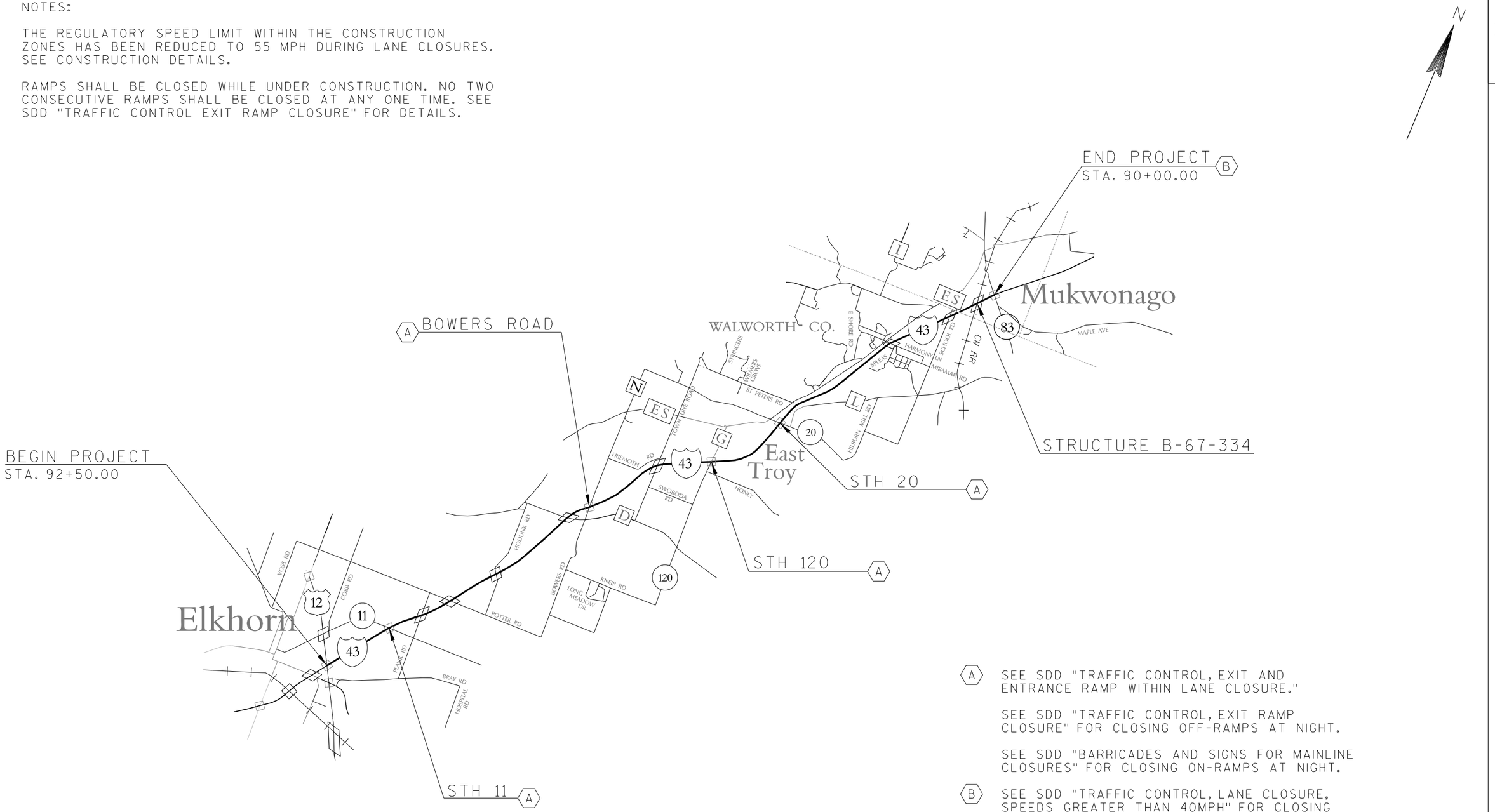
1) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO: 1090-15-72	HWY: IH 43	COUNTY: WAUKESHA	TRAFFIC CONTROL - IH-43 SOUTHBOUND CROSSOVER	SHEET 119	E

NOTES:

THE REGULATORY SPEED LIMIT WITHIN THE CONSTRUCTION ZONES HAS BEEN REDUCED TO 55 MPH DURING LANE CLOSURES. SEE CONSTRUCTION DETAILS.

RAMPS SHALL BE CLOSED WHILE UNDER CONSTRUCTION. NO TWO CONSECUTIVE RAMPS SHALL BE CLOSED AT ANY ONE TIME. SEE SDD "TRAFFIC CONTROL EXIT RAMP CLOSURE" FOR DETAILS.



A SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE."

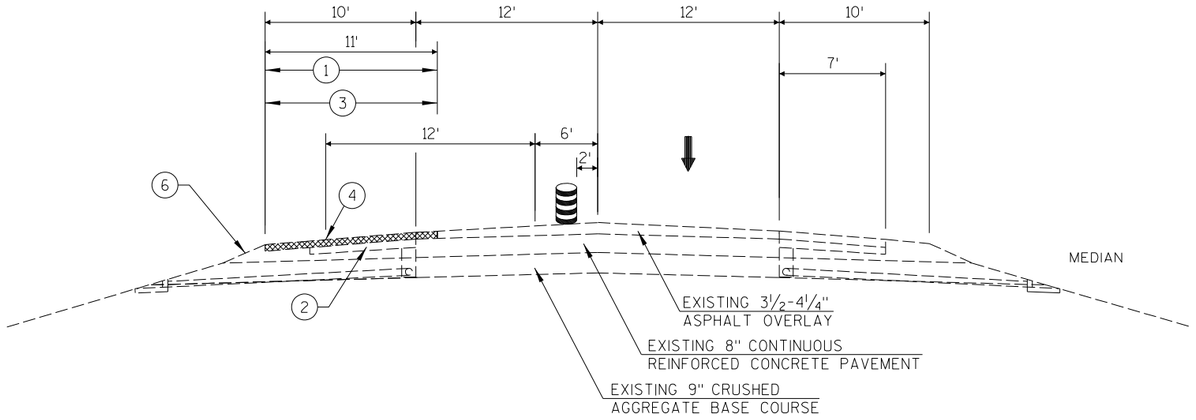
SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR CLOSING OFF-RAMPS AT NIGHT.

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR CLOSING ON-RAMPS AT NIGHT.

B SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40MPH" FOR CLOSING I-43 TO ONE LANE OF TRAFFIC.

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA / WALWORTH	CONSTRUCTION STAGING OVERVIEW (I-43)	SHEET NO: 120	E

2



TYPICAL HALF SECTION (IH-43) - STAGE 1

STAGE 1

1. MILL 3½" OF ASPHALTIC CONCRETE PAVEMENT.
2. LEAVE REMAINING SHOULDER IN PLACE.
3. PAVE 3½" OF HMA PAVEMENT, TYPE E-30 IN SHOULDER AREA.
4. NEW EDGELINE, TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE).

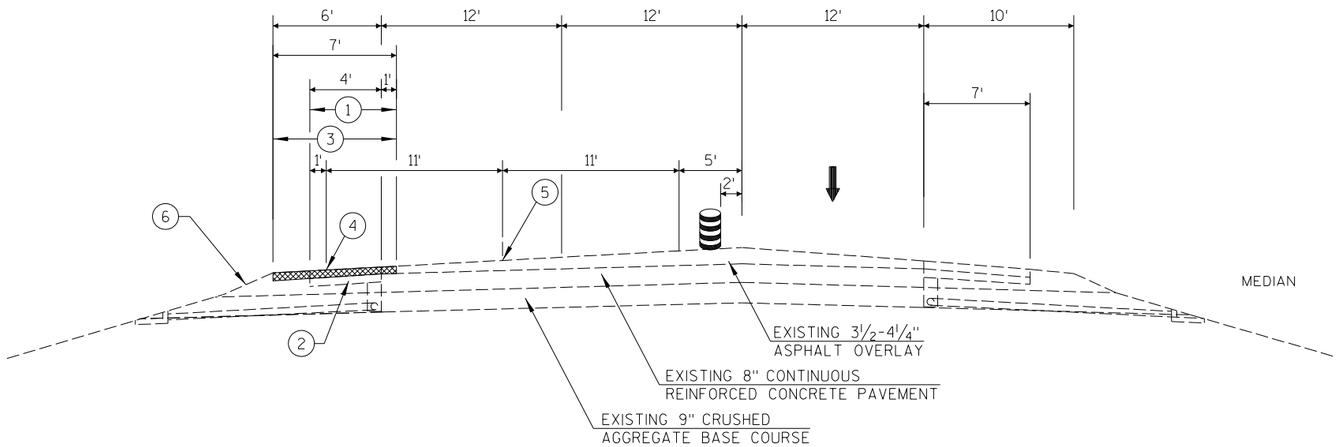
* 5. NEW LANE LINE, TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE): 12½' LINE, 37½' SKIP.

6. RESHAPE SHOULDERS

LIMITS OF WORK

* DO NOT REMOVE EXISTING LANE LINE OR APPLY NEW LANE LINE IN THE CLIMBING LANE IF ALL LANES OF I-43 WILL BE OPENED TO WEEKEND TRAFFIC PRIOR TO STAGE 2 CONSTRUCTION.

REMOVE EXISTING AND APPLY NEW LANE LINE IN THE CLIMBING LANE IN THE SAME WEEK AS STARTING STAGE 2 CONSTRUCTION.

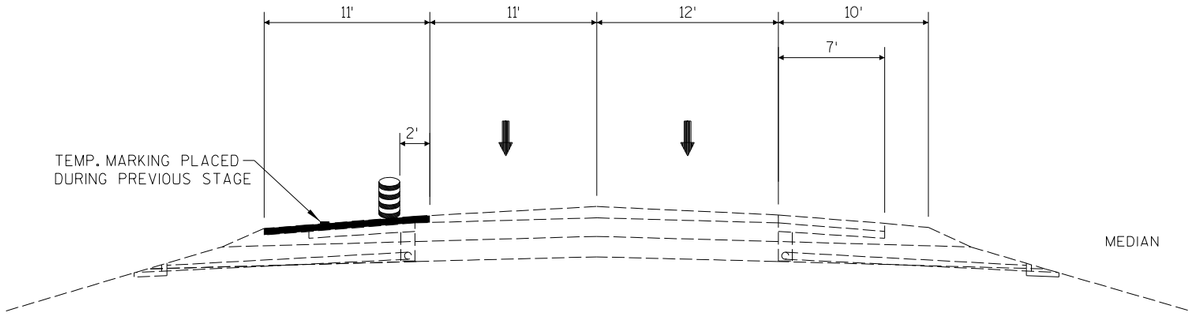


TYPICAL HALF SECTION (IH-43) - STAGE 1

WITH CLIMBING LANE

STATE PROJECT NUMBER:1090-15-72	HWY:IH-43	COUNTY:WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 1	SHEET NO: 121	E

2

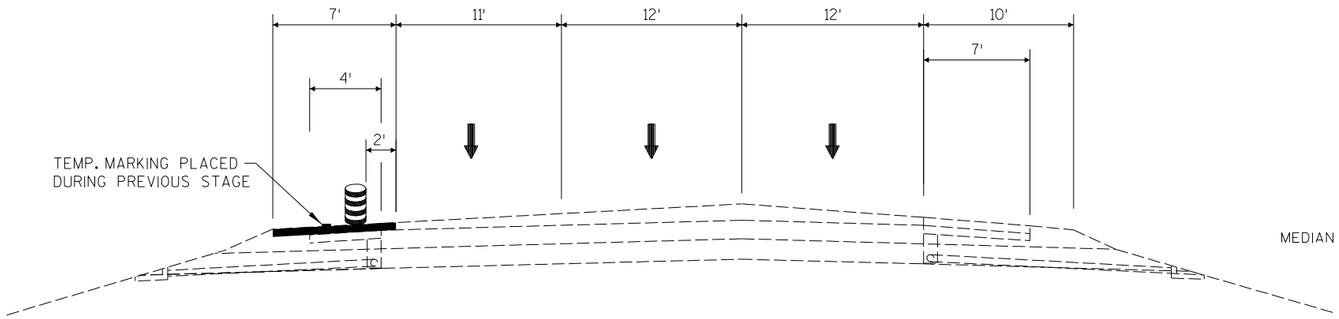


TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC

WEEKEND TRAFFIC
FOLLOWING STAGE 1

NOTE: USE THIS DETAIL FOR OPENING I-43 TO ALL LANES OF TRAFFIC OVER THE WEEKEND IF STAGE 2 CONSTRUCTION IS NOT STARTED WITHIN THE SAME WEEK AS STAGE 1 CONSTRUCTION.

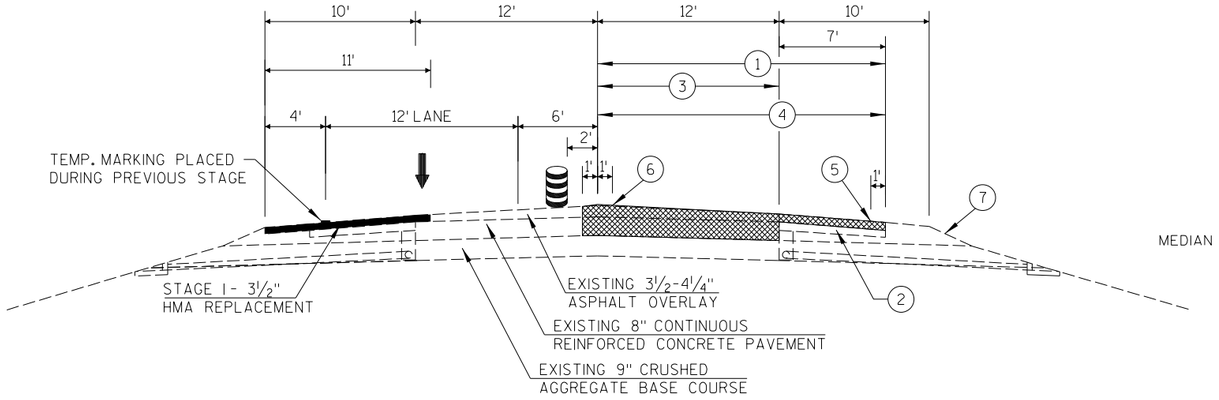
THE REMOVAL OF EXISTING LANE LINES AND THE PLACEMENT OF TEMPORARY LANE LINES WITHIN THE CLIMBING LANE SECTION IN STAGE 1 MUST BE PERFORMED WITHIN THE SAME WEEK AS STAGE 2 CONSTRUCTION.



TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC
WITH CLIMBING LANE

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 1 WEEKEND TRAFFIC	SHEET NO: 122	E

2

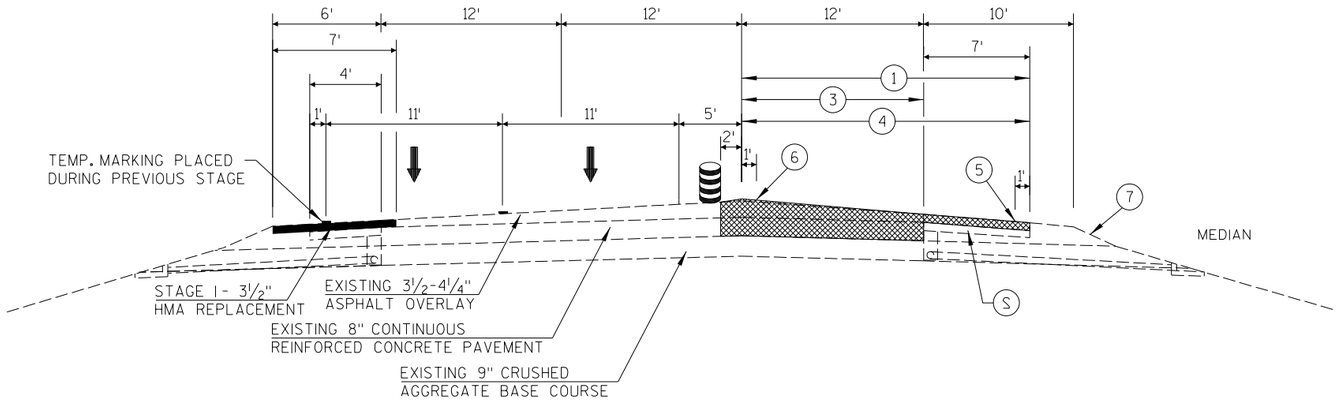


TYPICAL HALF SECTION (IH-43) - STAGE II

STAGE II

1. MILL 3½-4¼" ASPHALTIC CONCRETE PAVEMENT.
2. LEAVE REMAINING SHOULDER IN PLACE.
3. RUBBLIZE EXISTING CONCRETE, REFER TO CONSTRUCTION DETAILS.
4. PAVE LOWER LAYER, LANE AND SHOULDER.
   3½-5", 2-LANE SECTION.
   5-6½", 3-LANE SECTION.
5. NEW EDGELINE, TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW).
6. NEW LANE LINE, TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE): 121"2' LINE, 371"2' SKIP
7. SHAPE SHOULDERS

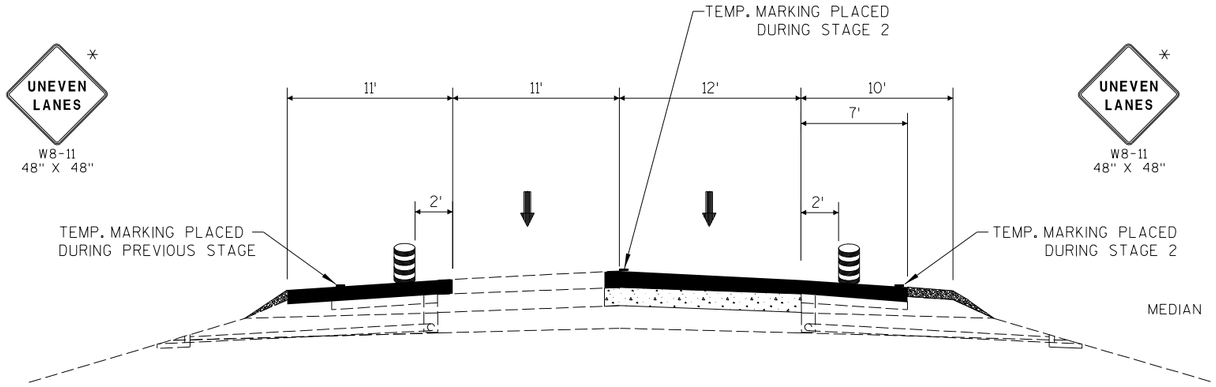
LIMITS OF WORK



TYPICAL HALF SECTION (IH-43) - STAGE II

WITH CLIMBING LANE

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 2	SHEET NO: 123	E

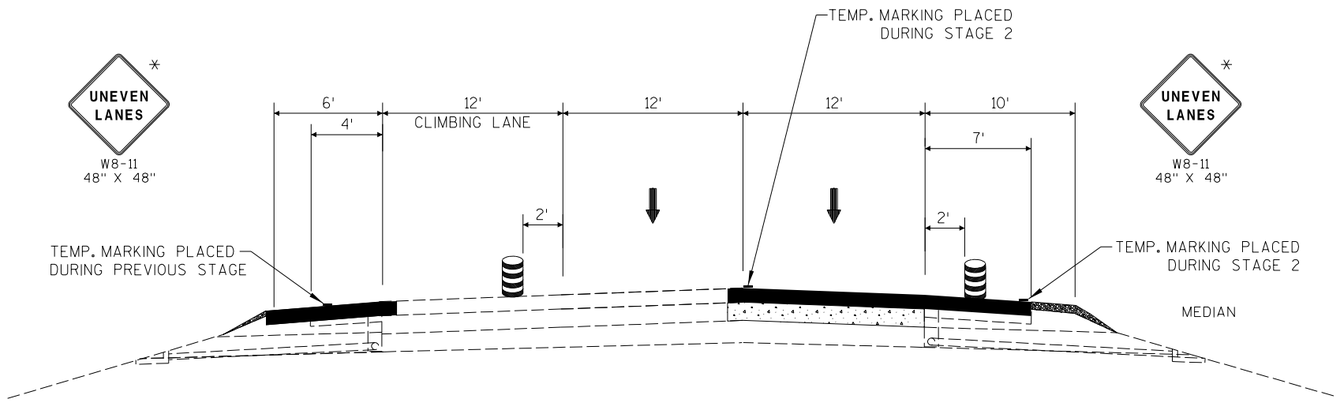


* SIGNS TO BE PAID FOR AS TRAFFIC CONTROL SIGNS AND PLACED AT THE BEGINNING OF LONGITUDINAL JOINTS AND AFTER ON RAMPS WHEN THE TWO LANES ARE AT DIFFERENT ELEVATIONS.

TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC

WEEKEND TRAFFIC
FOLLOWING STAGE 2

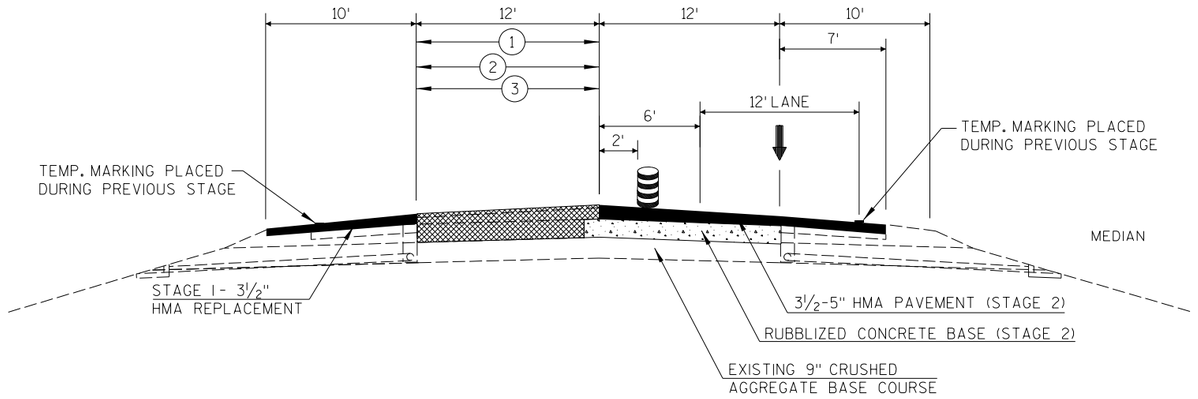
NOTE: USE THIS DETAIL FOR OPENING I-43 TO ALL LANES OF TRAFFIC OVER THE WEEKEND AFTER STAGE 2 CONSTRUCTION IS COMPLETED.



* SIGNS TO BE PAID FOR AS TRAFFIC CONTROL SIGNS AND PLACED AT THE BEGINNING OF LONGITUDINAL JOINTS AND AFTER ON RAMPS WHEN THE TWO LANES ARE AT DIFFERENT ELEVATIONS.

TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC

WITH CLIMBING LANE

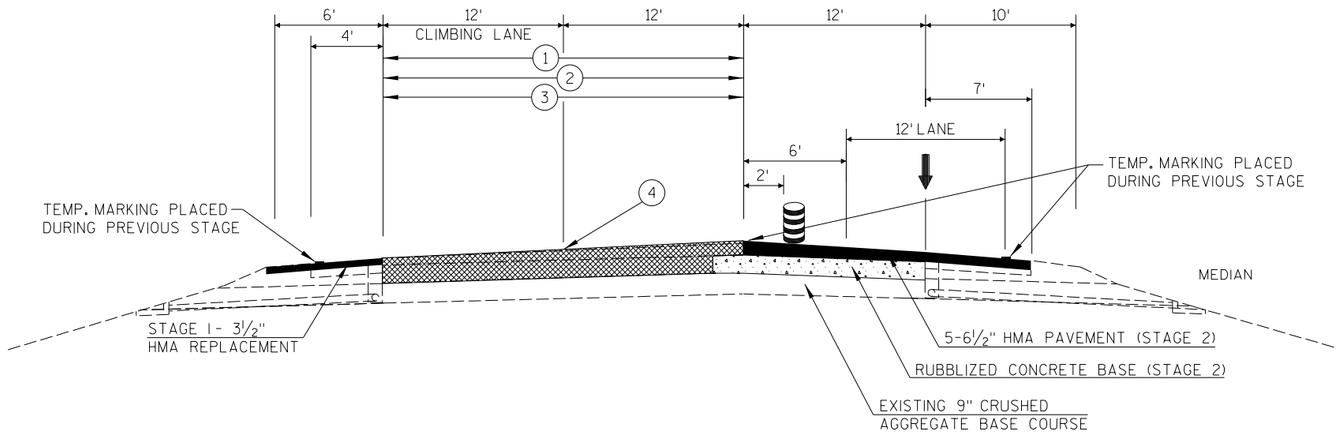


TYPICAL HALF SECTION (IH-43) - STAGE III

STAGE III

1. MILL ASPHALTIC PAVEMENT.
2. RUBBLIZE EXISTING CONCRETE PAVEMENT.
3. PAVE LOWER LAYER, LANE.
   3½-5", 2-LANE SECTION.
   3½-6½", 3-LANE SECTION.
4. NEW LANE LINE, TEMPORARY PAVEMENT MARKING,
   4-INCH (WHITE): 12½' LINE, 37½' SKIP

LIMITS OF WORK

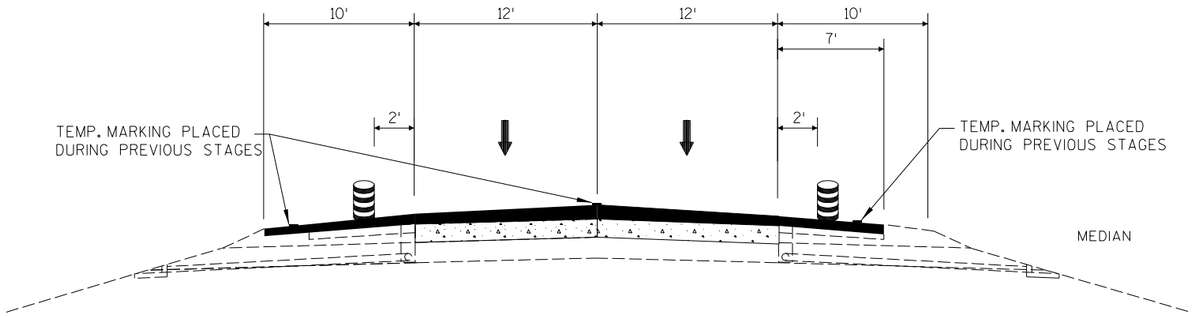


TYPICAL HALF SECTION (IH-43) - STAGE III

WITH CLIMBING LANE

STATE PROJECT NUMBER:1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 3	SHEET NO: 125	E

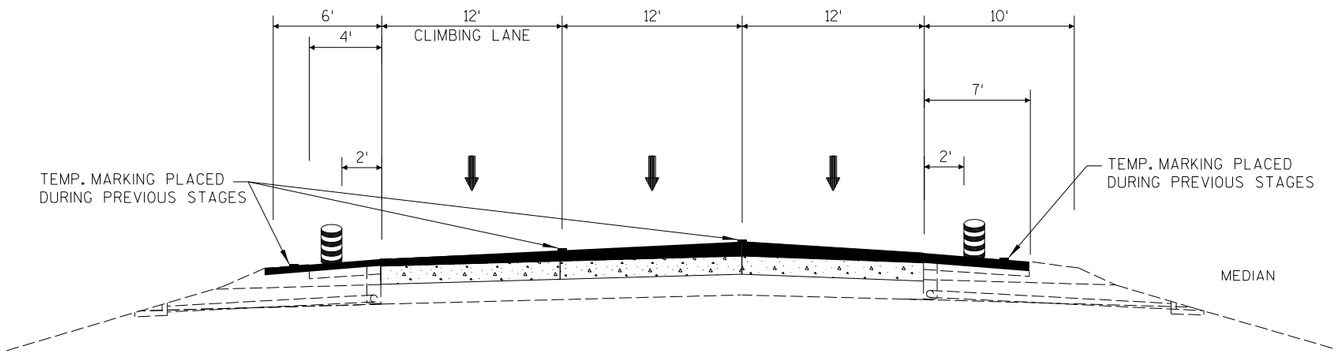
2



TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC

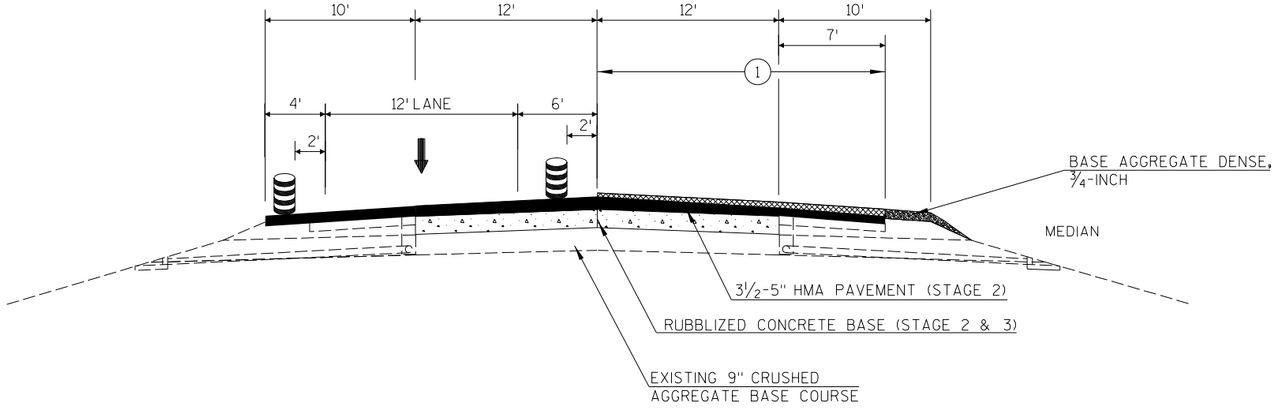
WEEKEND TRAFFIC
FOLLOWING STAGE 3

NOTE: USE THIS DETAIL FOR OPENING I-43 TO ALL LANES OF TRAFFIC OVER THE WEEKEND AFTER STAGE 3 CONSTRUCTION IS COMPLETED.



TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC
WITH CLIMBING LANE

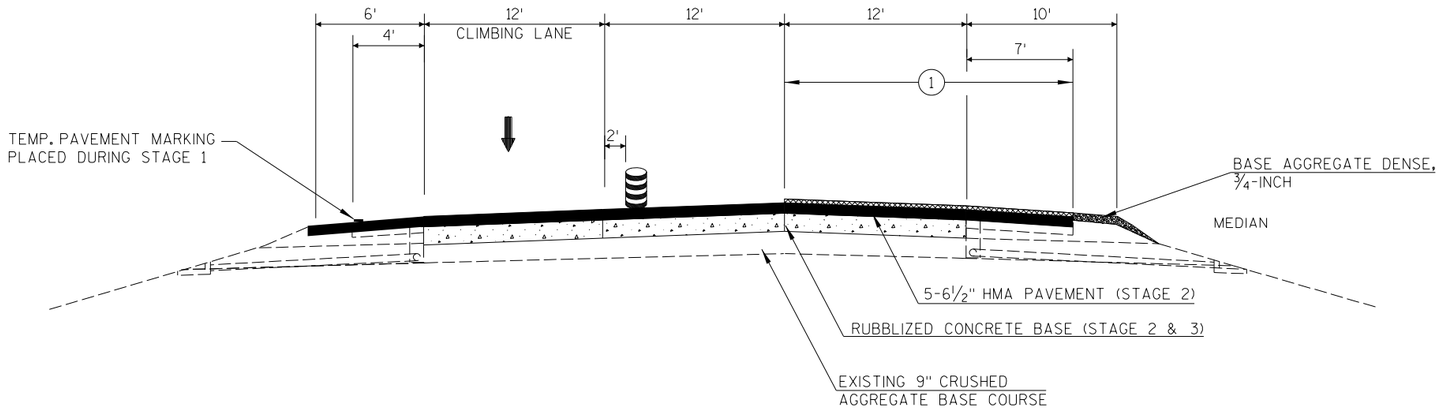
2



TYPICAL HALF SECTION (IH-43) - STAGE IV

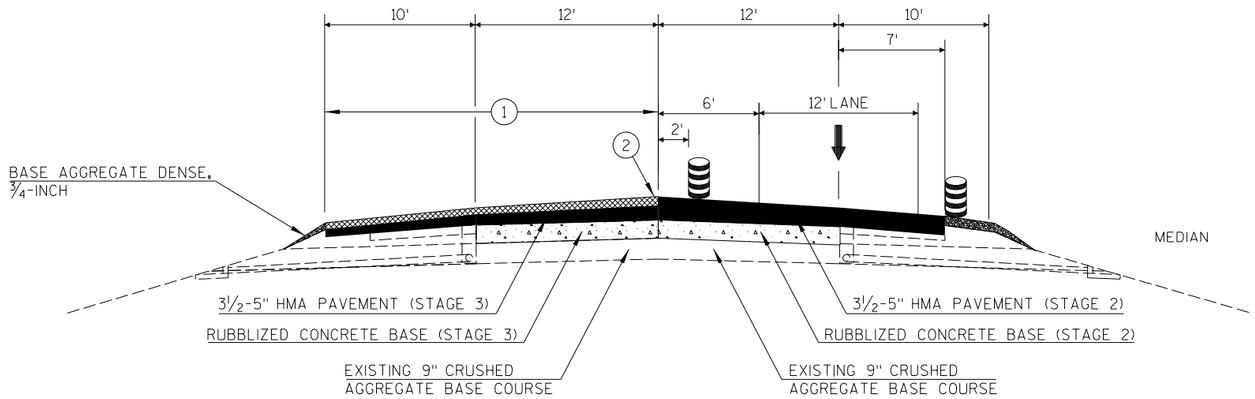
STAGE IV

1. PAVE 2" UPPER LAYER, LANE AND SHOULDER.



TYPICAL HALF SECTION (IH-43) - STAGE IV

WITH CLIMBING LANE

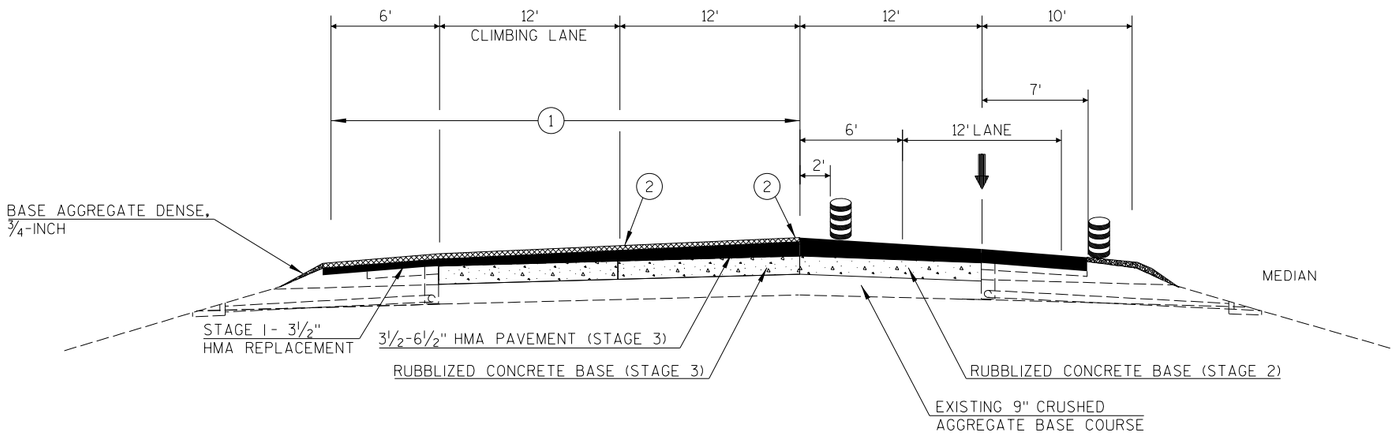


TYPICAL HALF SECTION (IH-43) - STAGE V

STAGE V

1. PAVE 2" TOP LAYER, LANE AND SHOULDER.
2. PLACE TEMPORARY SKIP DASHES. MAKE SURE TEMPORARY PAVEMENT MARKINGS FALL IN THE SAME PLACE THE PERMANENT PAVEMENT MARKINGS WILL GO.

LIMITS OF WORK

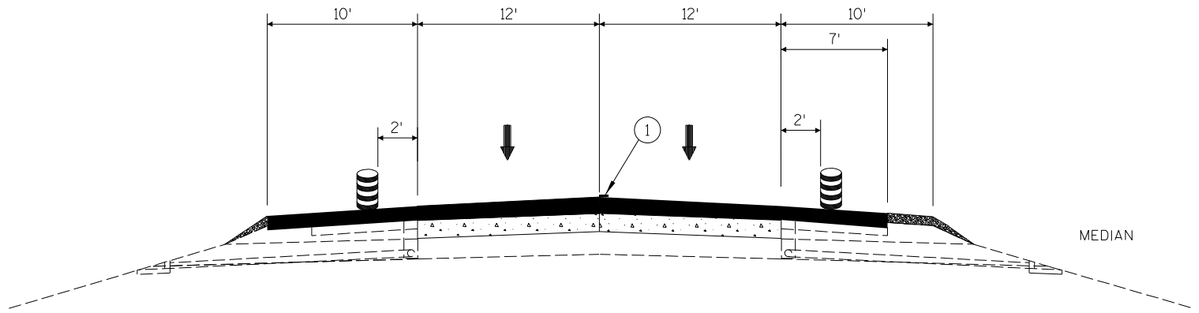


TYPICAL HALF SECTION (IH-43) - STAGE V

WITH CLIMBING LANE

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 5	SHEET NO: 128	E

FILE NAME : O:\2011 Projects\2011020 - I43 Resurface\MicroStation\Planset\1090-15-72\026001_s5A.DGN PLOT DATE : 5/30/2013 PLOT BY : OTIE Originator : Dist PLOT SCALE : _PLOTSCALE_



TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC

WEEKEND TRAFFIC FOLLOWING STAGE 5

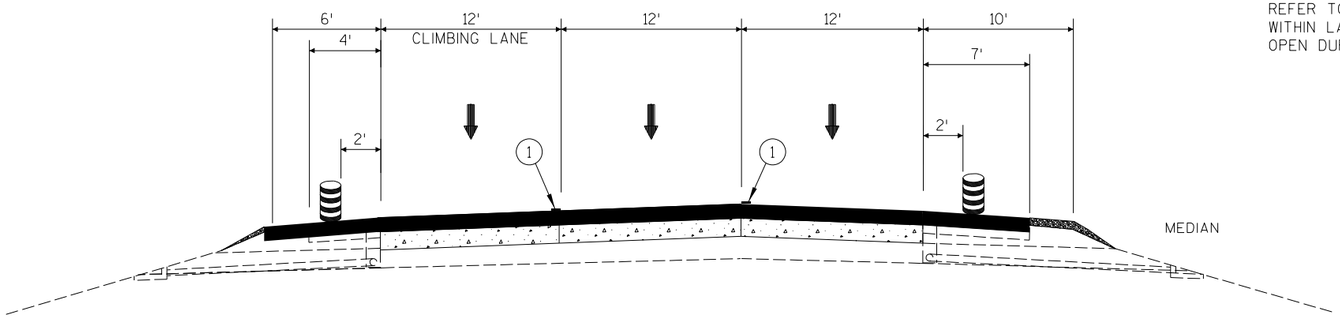
1. TEMPORARY SKIP DASHES PLACED DURING STAGE 5

NOTE: USE THIS DETAIL FOR OPENING I-43 TO ALL LANES OF TRAFFIC OVER THE WEEKEND AFTER STAGE 5 CONSTRUCTION IS COMPLETED.

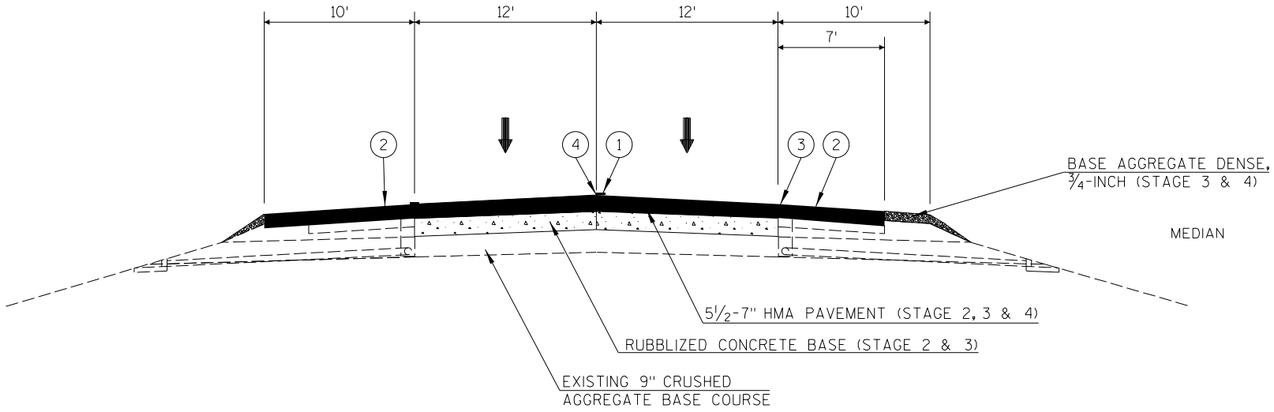
STAGES 4 AND 5 MUST BE COMPLETED WITHIN THE SAME WEEK PRIOR TO OPENING I-43 TO ALL LANES OF TRAFFIC FOR THE WEEKEND.

THE CONTRACTOR MAY CONSTRUCT STAGE 6 WITHIN THE SAME WEEK AS STAGE 5, AS LONG AS TRAFFIC IS OPENED TO ALL LANES OVER THE WEEKEND.

REFER TO SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR KEEPING THE WAYSIDE ON-RAMP OPEN DURING THE WEEKEND WHEN THE CLIMBING LANE IS CLOSED.



TYPICAL HALF SECTION (IH-43) - WEEKEND TRAFFIC
WITH CLIMBING LANE



TYPICAL HALF SECTION (IH-43) - STAGE VI

STAGE VI

1. REMOVING TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE.
2. RUMBLE STRIP, SEE SDD "ASPHALTIC SHOULDER RUMBLE STRIP, MILLING."
3. PERMANENT EDGELINE, EPOXY (WHITE).
4. PERMANENT LANE LINE, WET REFLECTIVE CONTRAST TAPE, 4-INCH (WHITE); 12 1/2' LINE, 37 1/2' SKIP.

LIMITS OF WORK

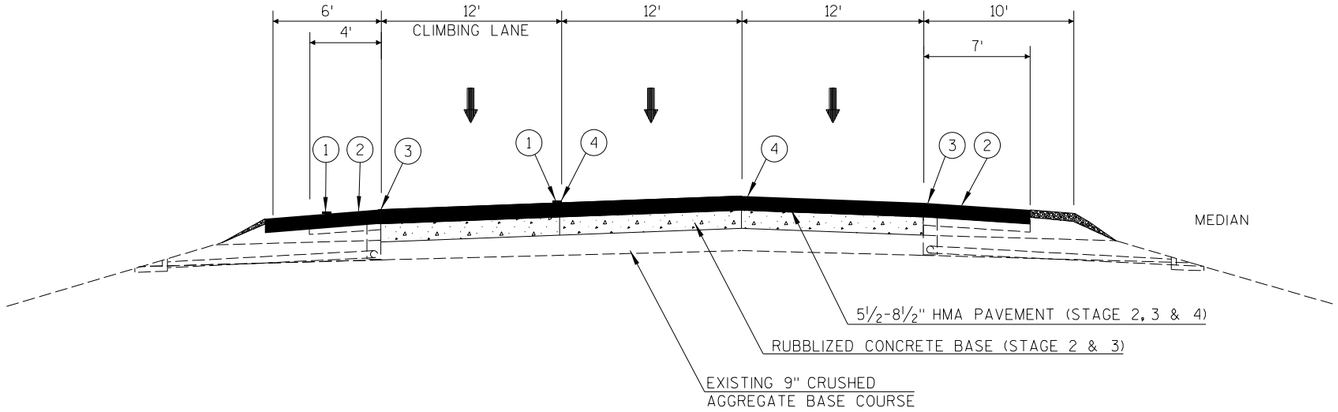
NOTE: APPLY PERMANENT EDGELINE EPOXY WITHIN 7 DAYS OF COMPLETING STAGE 5 WORK.

APPLY PERMANENT LANELINE, WET REFLECTIVE TAPE NO SOONER THAN 5 DAYS AFTER PAVING.

CONSTRUCT RUMBLE STRIPS AFTER ALL PERMANENT PAVEMENT MARKING IS IN PLACE.

THE CONTRACTOR MAY CLOSE IH-43 TO 1 LANE OF TRAFFIC DURING PAVEMENT MARKING AND RUMBLE STRIP CONSTRUCTION WITH THE USE OF TRAFFIC CONTROL DRUMS.

OPEN IH-43 TO ALL LANES OF TRAFFIC AS SOON AS IT IS SAFE AND PRACTICAL TO DO SO.

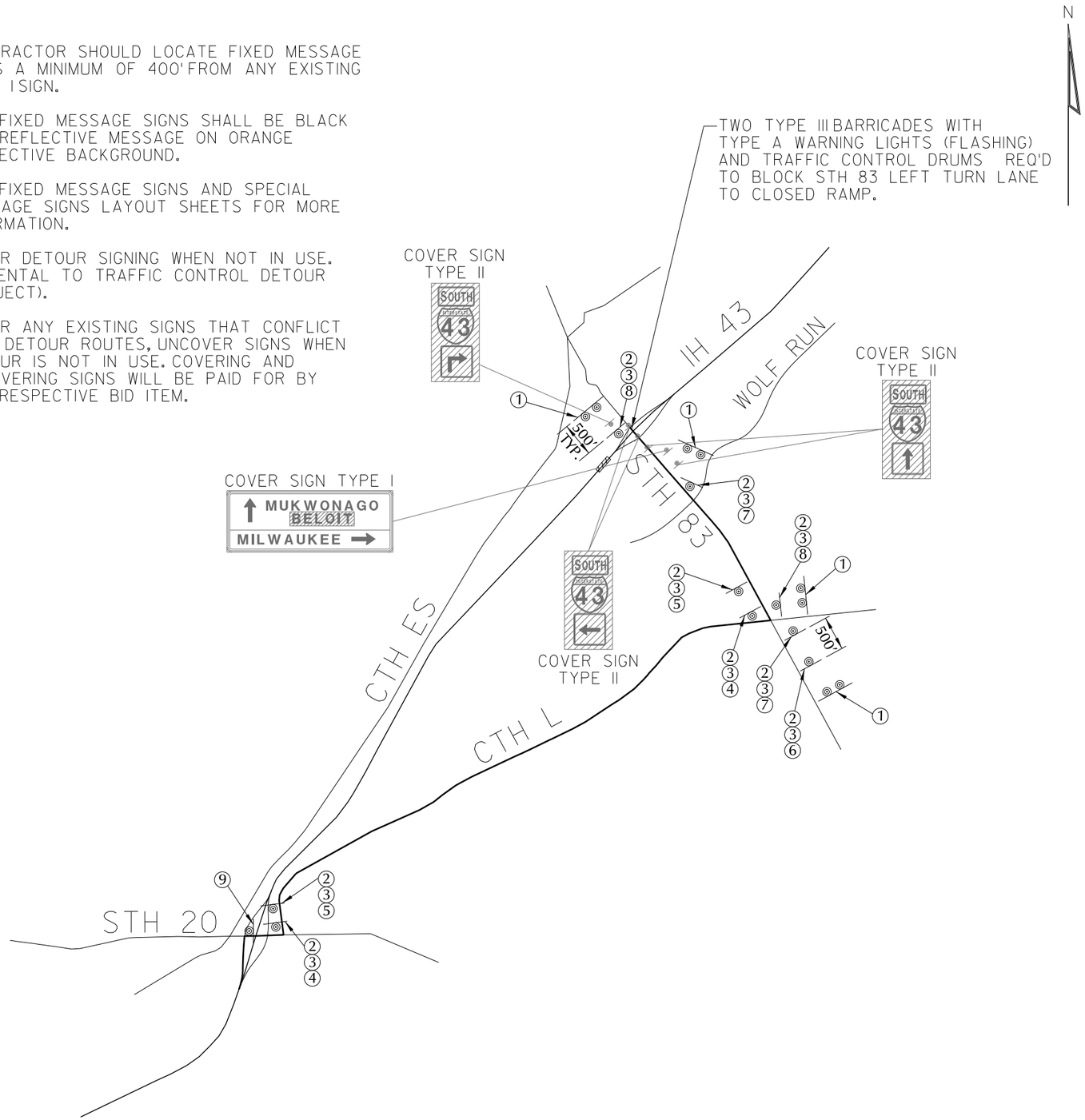


TYPICAL HALF SECTION (IH-43) - STAGE VI
WITH CLIMBING LANE

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CONSTRUCTION STAGING - STAGE 6	SHEET NO: 130	E

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL DETOUR (PROJECT).
5. COVER ANY EXISTING SIGNS THAT CONFLICT WITH DETOUR ROUTES, UNCOVER SIGNS WHEN DETOUR IS NOT IN USE. COVERING AND UNCOVERING SIGNS WILL BE PAID FOR BY THE RESPECTIVE BID ITEM.



① 83 RAMP TO IH-43 SOUTH CLOSED FOLLOW DETOUR *

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② DETOUR
M4-8
24" X 12"

② TO
MB4-5
24" X 12"

③ INTERSTATE 43
M1-1
24" X 24"

③ SOUTH
MB3-3
24" X 12"

④
MO6-1R
21" X 21"

⑤
MO5-1R
21" X 21"

⑥
MO5-1L
21" X 21"

⑦
MO6-1L
21" X 21"

⑧
MO6-1
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

*A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
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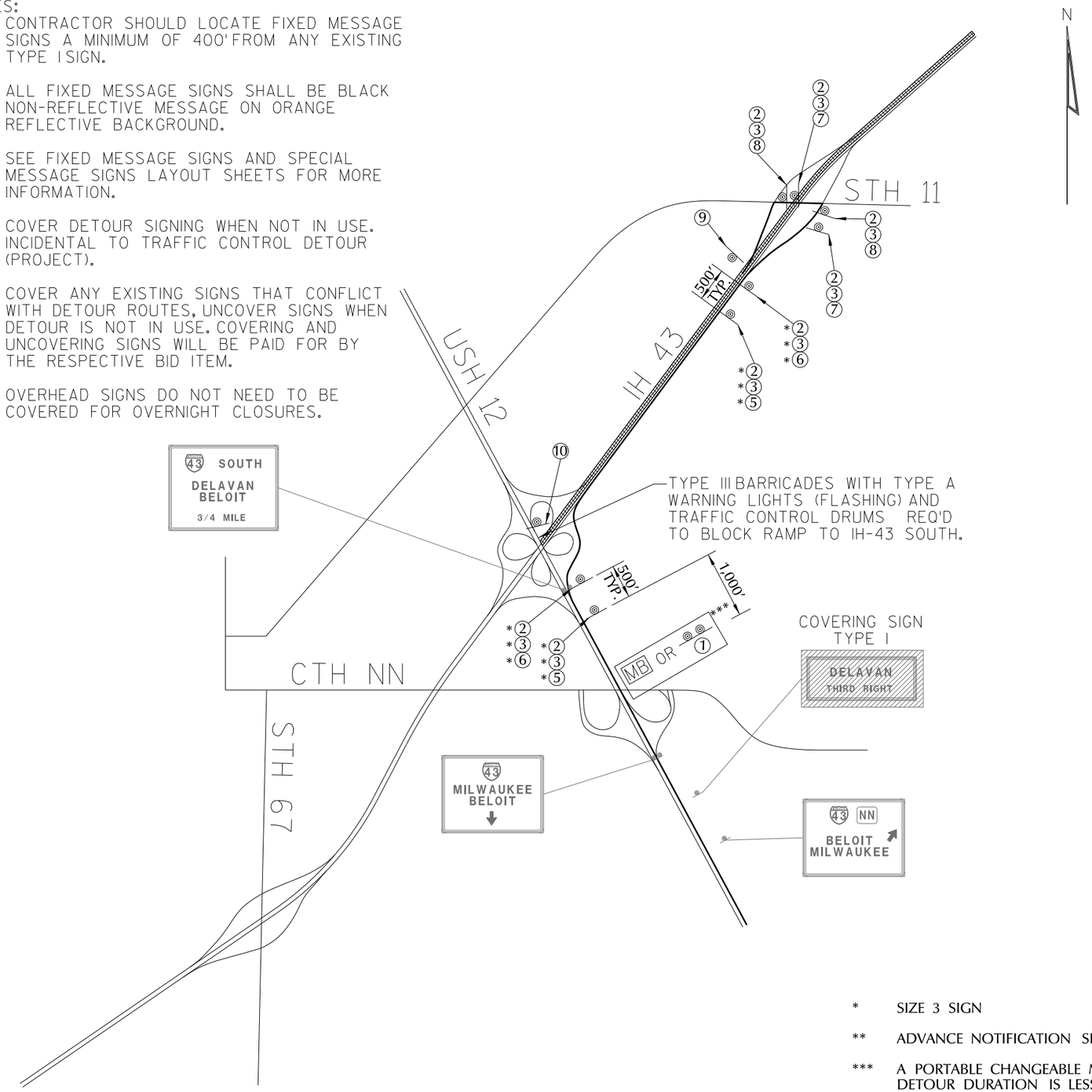
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



① INTERSTATE 43 SOUTH RAMP CLOSED 8PM-5AM FOLLOW DETOUR ***
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② DETOUR / TO
M4-8 / MB4-5
24" X 12" / 24" X 12" (SIZE 2) / 36" X 18" (SIZE 3)

③ INTERSTATE 43
M1-1
24" X 24"

SOUTH
MB3-3
24" X 12"

④
MO6-1
21" X 21"

⑤
MO5-2R
21" X 21" (SIZE 2)
30" X 30" (SIZE 3)

⑥
MO6-2R
21" X 21" (SIZE 2)
30" X 30" (SIZE 3)

⑦
MO5-1L
21" X 21"

⑧
MO6-1L
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** 43 SOUTH RAMP CLOSED 8PM-5AM
BEGINS XX-XX-XX
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB | IH 43 SOUTH RAMP CLOSED → 8PM-5AM FOLLOW DETOUR

* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	DETOUR PLAN - WB USH 12 TO SB I-43 DETOUR	SHEET NO: 132	E

2

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
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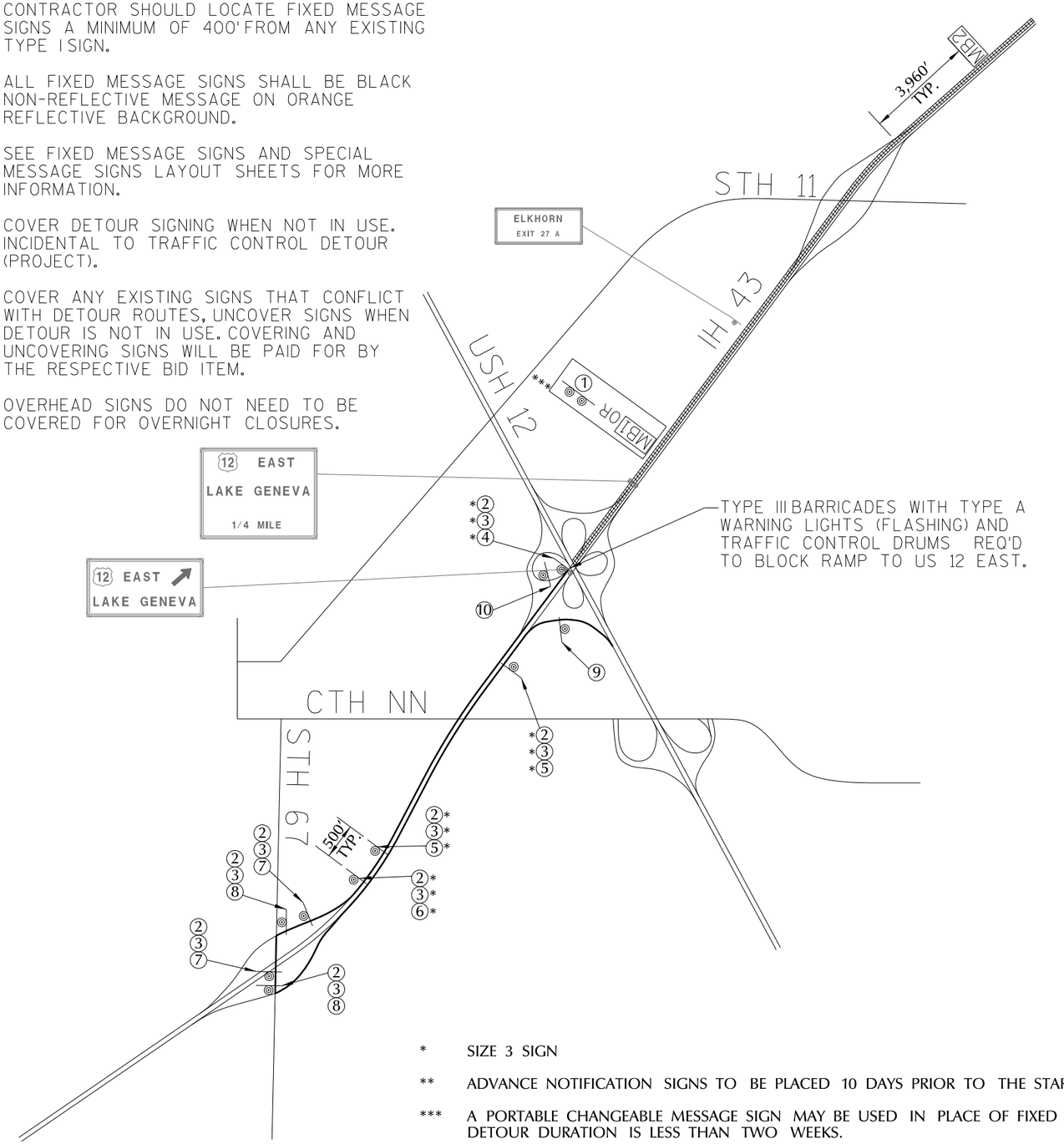
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

① 12 EAST RAMP CLOSED 8PM-5AM FOLLOW DETOUR ***

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

DETOUR
M4-8
24" X 12"

② TO
M4-5
24" X 12" (SIZE 2)
36" X 18" (SIZE 3)

12
③ M1-4
24" X 24"

EAST
M3-3
24" X 12"

④
M06-1
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1L
21" X 21"

⑧
M06-1L
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** 12 EAST
RAMP CLOSED
8PM-5AM
BEGINS XX-XX-XX

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB1	USH 12 EAST RAMP CLOSED	8PM-5AM FOLLOW DETOUR
MB2	EXIT RAMP CLOSED AT USH 12 EAST	USE ALTERNATE ROUTE

2

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	DETOUR PLAN - SB I-43 TO EB USH 12 DETOUR	SHEET NO: 133	E

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL DETOUR (PROJECT).
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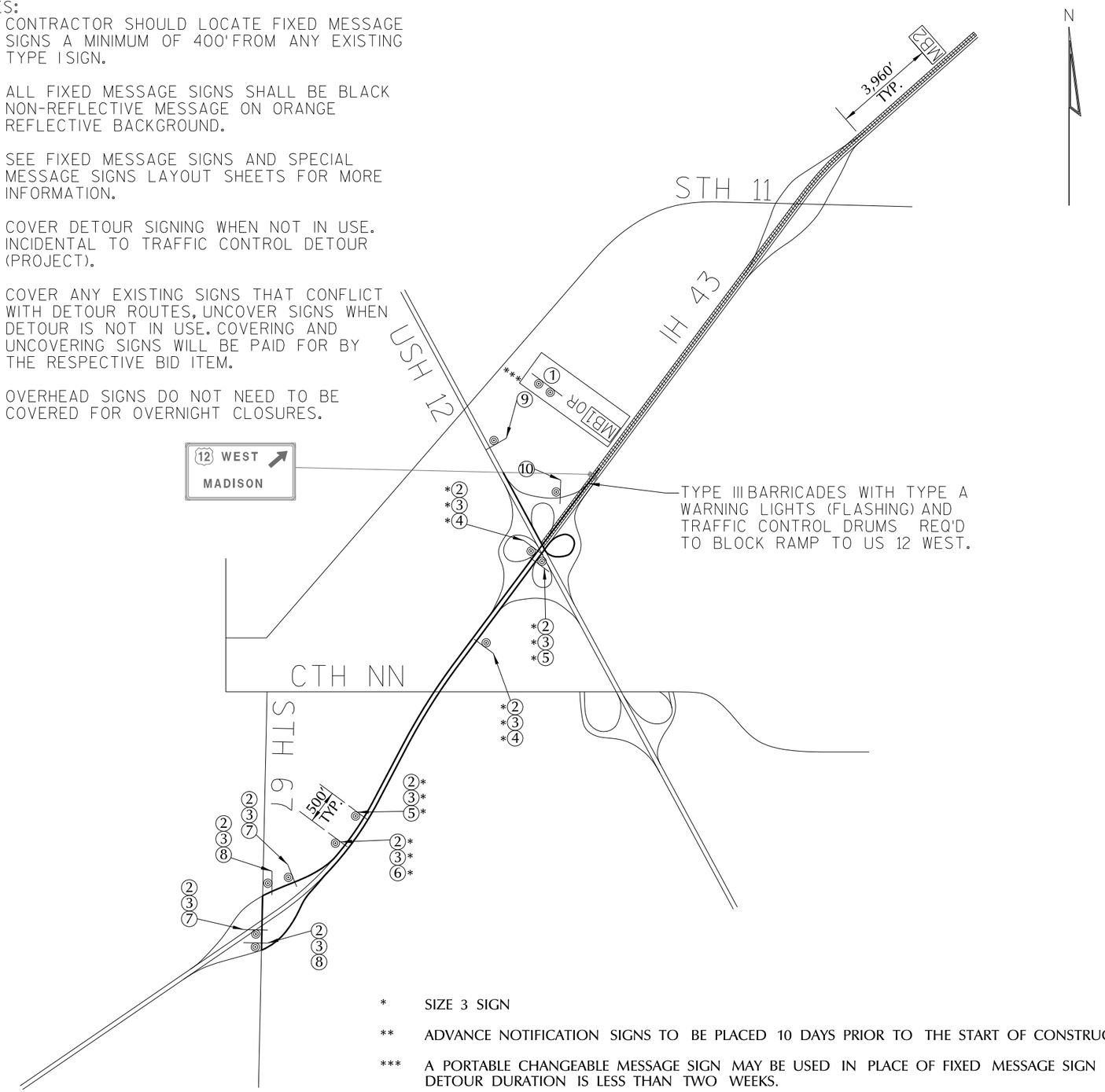
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

① ***
12 WEST RAMP
CLOSED 8PM-5AM
FOLLOW DETOUR
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② DETOUR
M4-8
24" X 12"
TO
M4-5
24" X 12" (SIZE 2)
36" X 18" (SIZE 3)

③ 12
M1-4
24" X 24"
WEST
M3-3
24" X 12"

④
M06-1
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1L
21" X 21"

⑧
M06-1L
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩**
12 WEST
RAMP CLOSED
8PM-5AM
BEGINS XX-XX-XX
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB1	USH 12 WEST RAMP CLOSED	8PM-5AM FOLLOW DETOUR
MB2	EXIT RAMP CLOSED AT USH 12 WEST	USE ALTERNATE ROUTE

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
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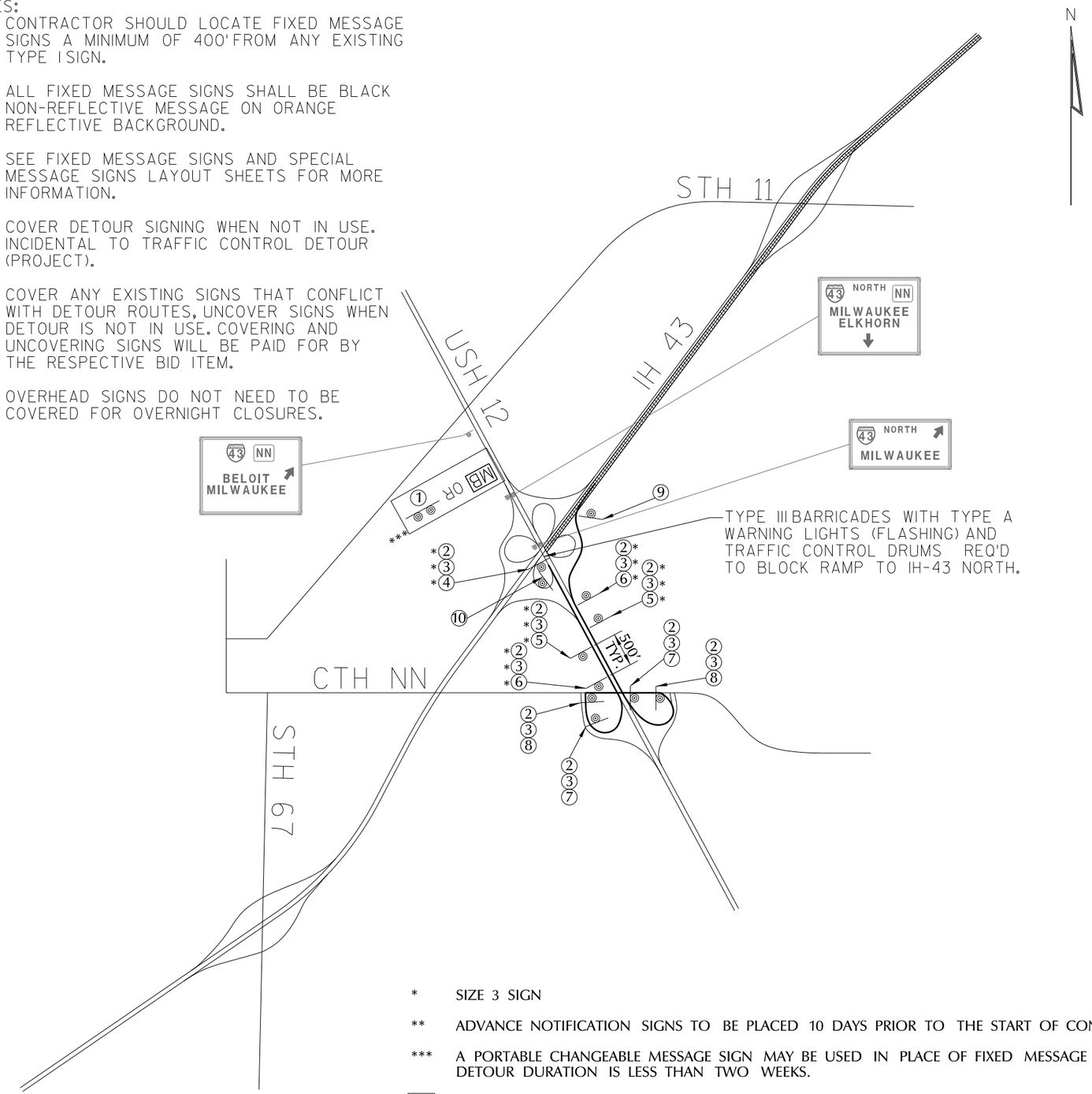

① 43 NORTH RAMP CLOSED 8PM-5AM FOLLOW DETOUR ***
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② TO
MB4-5
24" × 12" (SIZE 2)
36" × 18" (SIZE 3)

INTERSTATE 43
M1-1
24" X 24" (SIZE 2)
36" X 36" (SIZE 3)

③ NORTH
MB3-1
24" X 12" (SIZE 2)
30" X 15" (SIZE 3)

④
M06-1
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1R
21" X 21"

⑧
M06-1R
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** 43 NORTH RAMP CLOSED 8PM-5AM
BEGINS XX-XX-XX
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB | IH 43 NORTH RAMP CLOSED → 9PM-5AM FOLLOW DETOUR

* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

STATE PROJECT NUMBER: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	DETOUR PLAN - EB USH 12 TO NB I-43 DETOUR	SHEET NO: 135	E

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL DETOUR (PROJECT).
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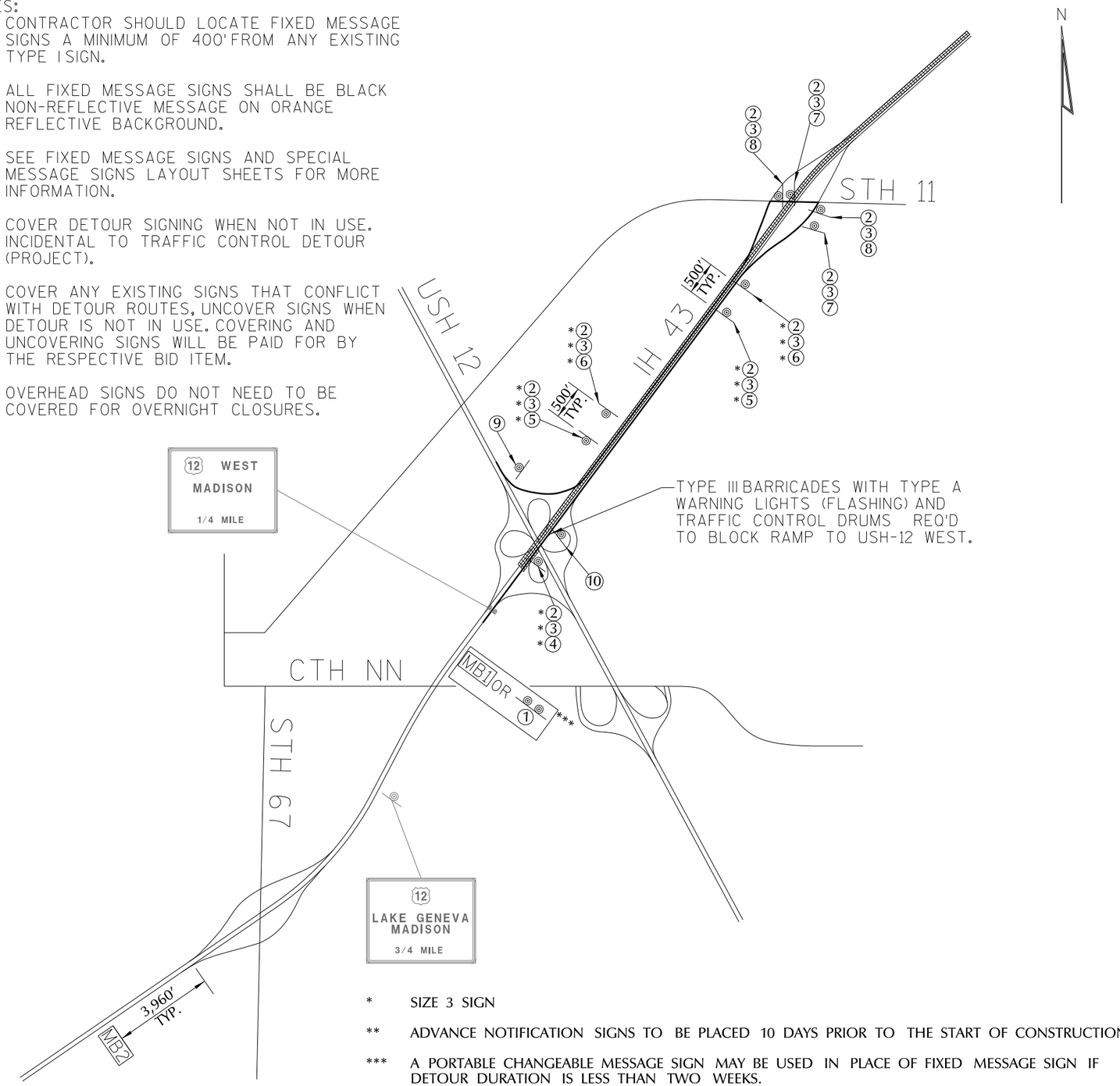
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

① 12 WEST RAMP CLOSED 8PM-5AM FOLLOW DETOUR ***

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② DETOUR
M4-8
24" X 12"
TO
M4-5
24" × 12" (SIZE 2)
36" × 18" (SIZE 3)

③ 12
M1-4
24" X 24"
WEST
M3-3
24" X 12"

④ M06-1
21" X 21"

⑤ M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥ M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦ M05-1L
21" X 21"

⑧ M06-1L
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** 12 WEST
RAMP CLOSED
8PM-5AM
BEGINS XX-XX-XX

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB1	USH 12 WEST RAMP CLOSED	8PM-5AM FOLLOW DETOUR
MB2	EXIT RAMP CLOSED AT USH 12 WEST	USE ALTERNATE ROUTE

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
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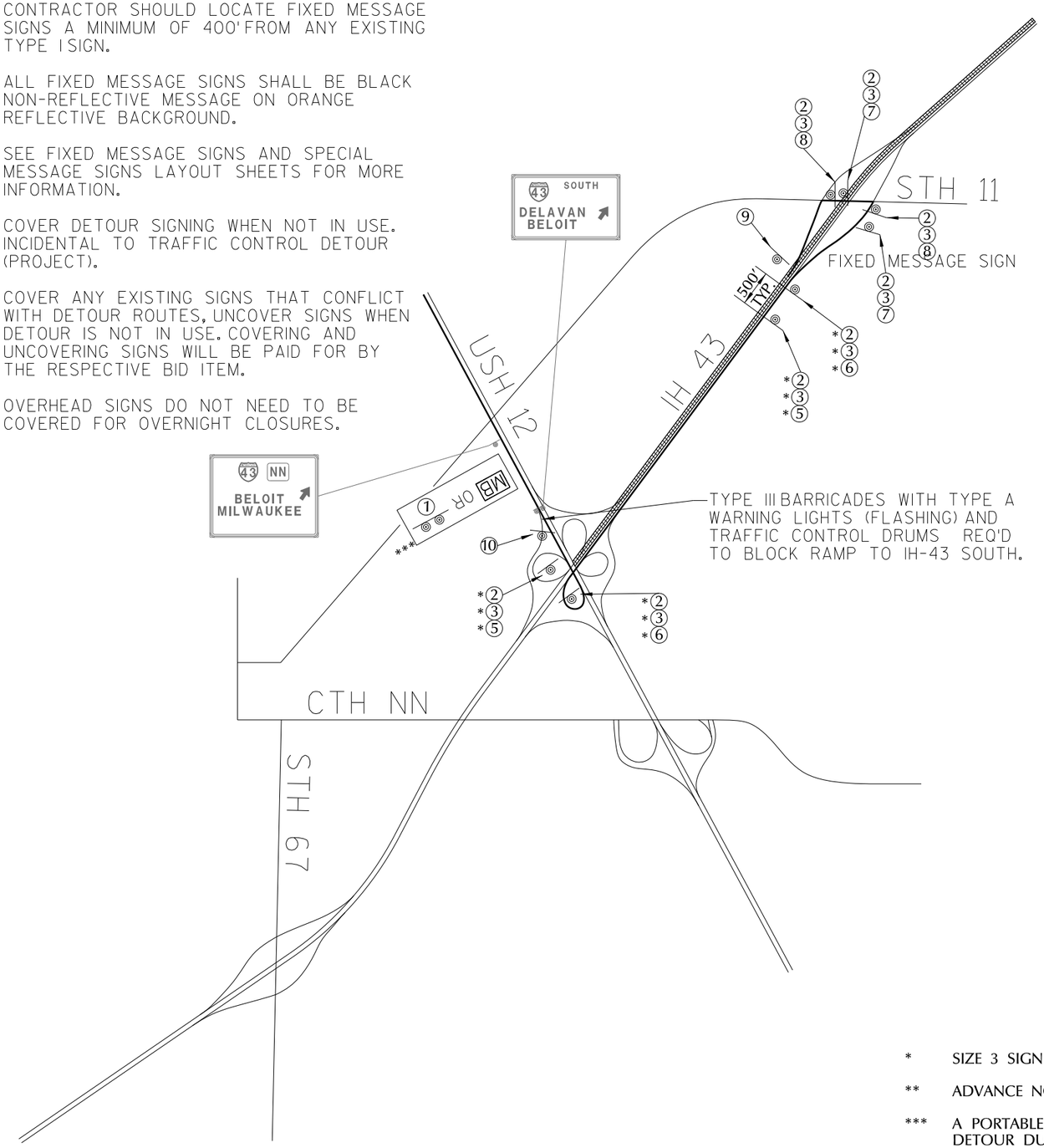

① ***
INTERSTATE 43 SOUTH RAMP
CLOSED 8PM-5AM
FOLLOW DETOUR
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

DETOUR
M4-8
② 24" X 12"
TO
MB4-5
24" × 12" (SIZE 2)
36" × 18" (SIZE 3)

INTERSTATE 43
M1-1
③ 24" X 24"
SOUTH
MB3-3
24" X 12"

④
M06-1
21" X 21"

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1L
21" X 21"

⑧
M06-1L
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** INTERSTATE 43 SOUTH
RAMP CLOSED
8PM-5AM
BEGINS XX-XX-XX
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB
IH 43 SOUTH RAMP CLOSED → 8PM-5AM FOLLOW DETOUR

* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
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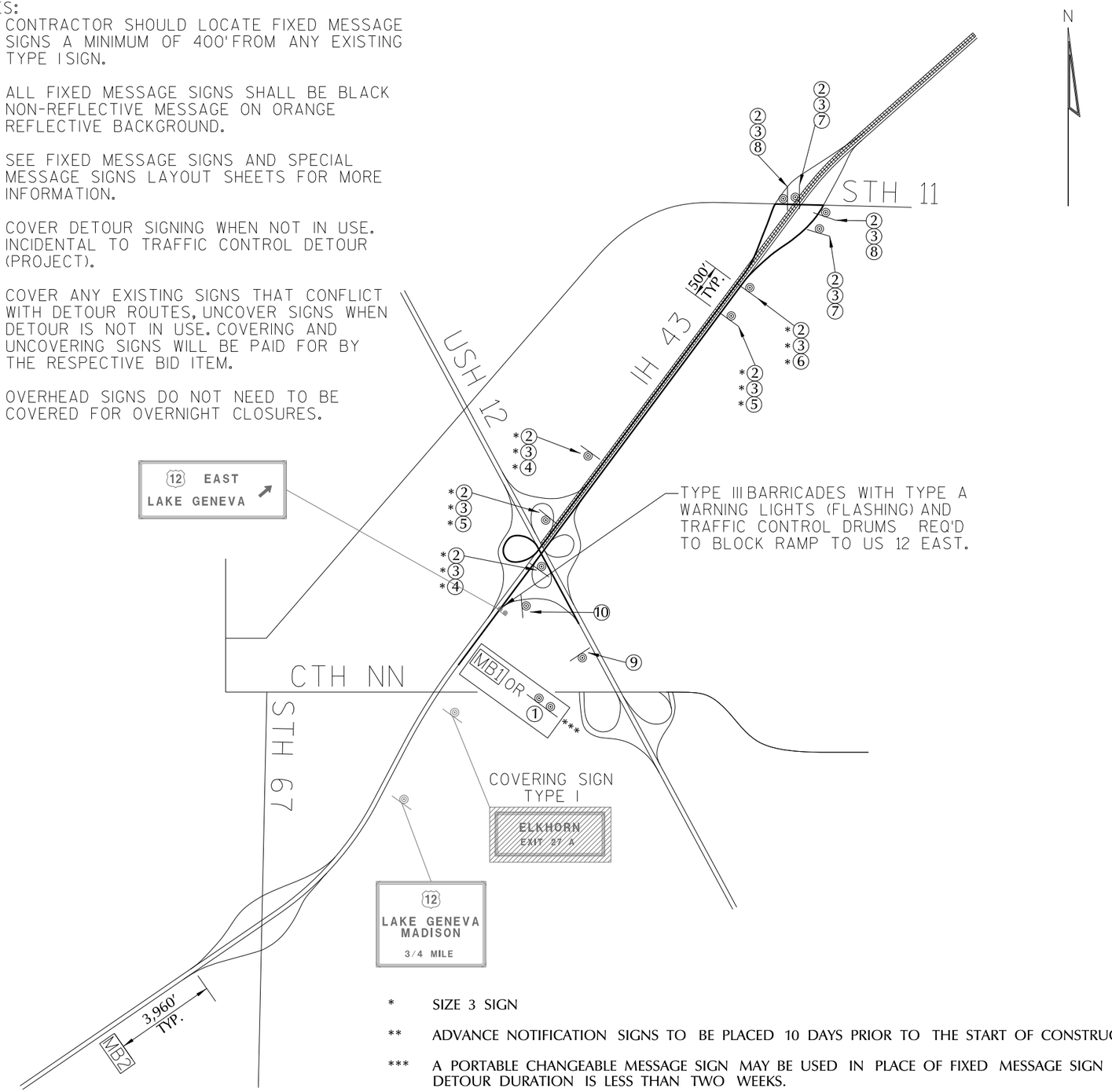
5. COVER ANY EXISTING SIGNS THAT CONFLICT WITH DETOUR ROUTES, UNCOVER SIGNS WHEN DETOUR IS NOT IN USE. COVERING AND UNCOVERING SIGNS WILL BE PAID FOR BY THE RESPECTIVE BID ITEM.
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



* SIZE 3 SIGN

** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

① 12 EAST RAMP
CLOSED 8PM-5AM
FOLLOW DETOUR ***
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

② DETOUR
M4-8
24" X 12"

TO
M4-5
24" X 12" (SIZE 2)
36" X 18" (SIZE 3)

③ 12
M1-4
24" X 24"

EAST
M3-3
24" X 12"

④
M06-1
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1L
21" X 21"

⑧
M06-1L
21" X 21"

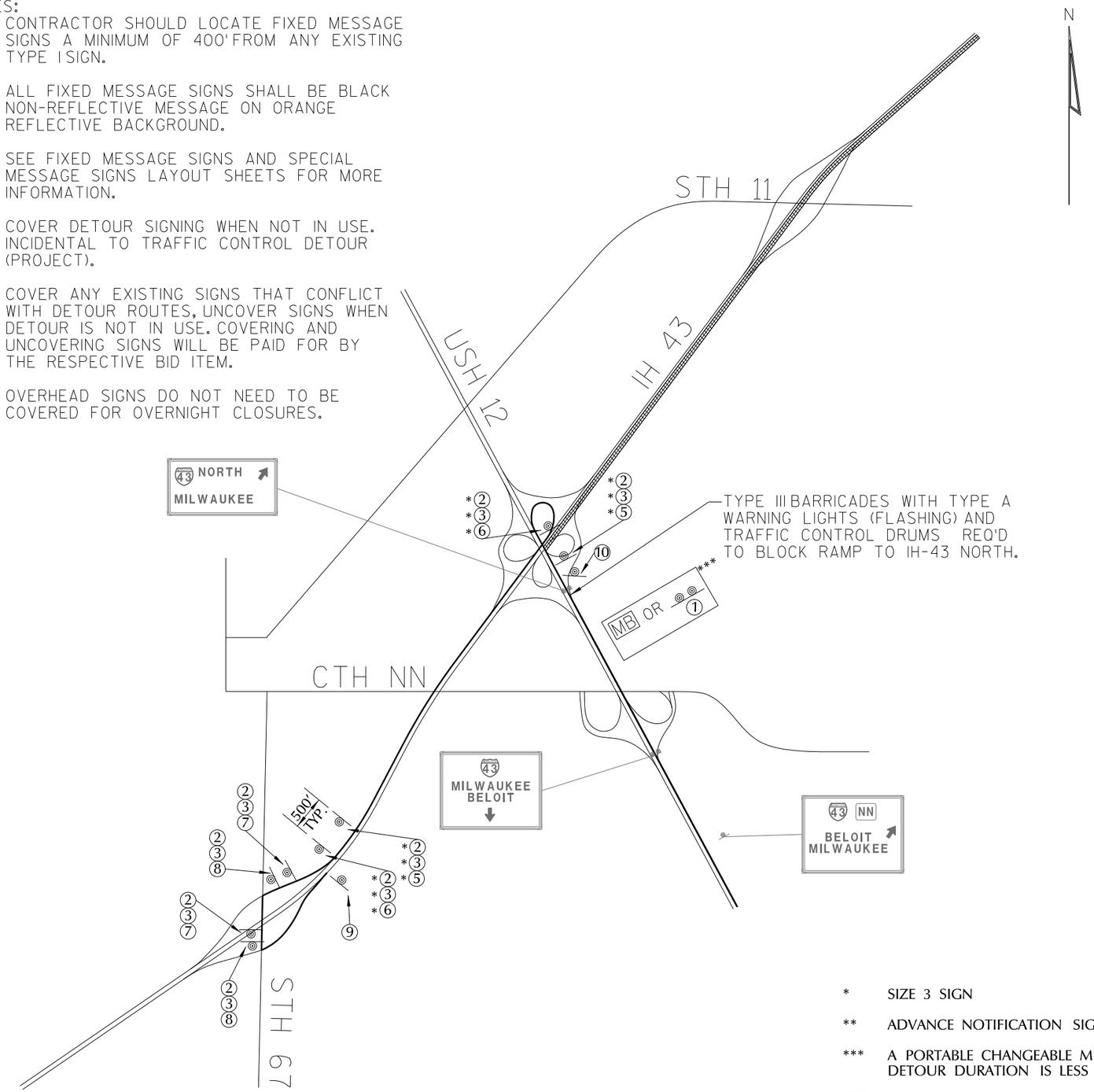
⑨ END DETOUR
M4-8A
24" X 18"

⑩** 12 EAST
RAMP CLOSED
8PM-5AM
BEGINS XX-XX-XX
SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB1	USH 12 EAST RAMP CLOSED	8PM-5AM FOLLOW DETOUR
MB2	EXIT RAMP CLOSED AT USH 12 EAST	USE ALTERNATE ROUTE

NOTES:

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE I SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL DETOUR (PROJECT).
5. COVER ANY EXISTING SIGNS THAT CONFLICT WITH DETOUR ROUTES, UNCOVER SIGNS WHEN DETOUR IS NOT IN USE. COVERING AND UNCOVERING SIGNS WILL BE PAID FOR BY THE RESPECTIVE BID ITEM.
6. OVERHEAD SIGNS DO NOT NEED TO BE COVERED FOR OVERNIGHT CLOSURES.



① 43 NORTH RAMP CLOSED 8PM-5AM FOLLOW DETOUR ***

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

DETOUR
M4-8
24" X 12"

② TO
MB4-5
24" X 12" (SIZE 2)
36" X 18" (SIZE 3)

INTERSTATE 43
M1-1
③ 24" X 24"

NORTH
MB3-3
24" X 12"

④
M06-1
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑤
M05-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑥
M06-2R
21" × 21" (SIZE 2)
30" × 30" (SIZE 3)

⑦
M05-1R
21" X 21"

⑧
M06-1R
21" X 21"

⑨ END DETOUR
M4-8A
24" X 18"

⑩** 43 NORTH RAMP CLOSED 8PM-5AM
BEGINS XX-XX-XX

SEE DETOUR PLAN - FIXED MESSAGE SIGN DETAILS FOR SIGN SIZE

MB | IH 43 NORTH RAMP CLOSED → 9PM-5AM FOLLOW DETOUR

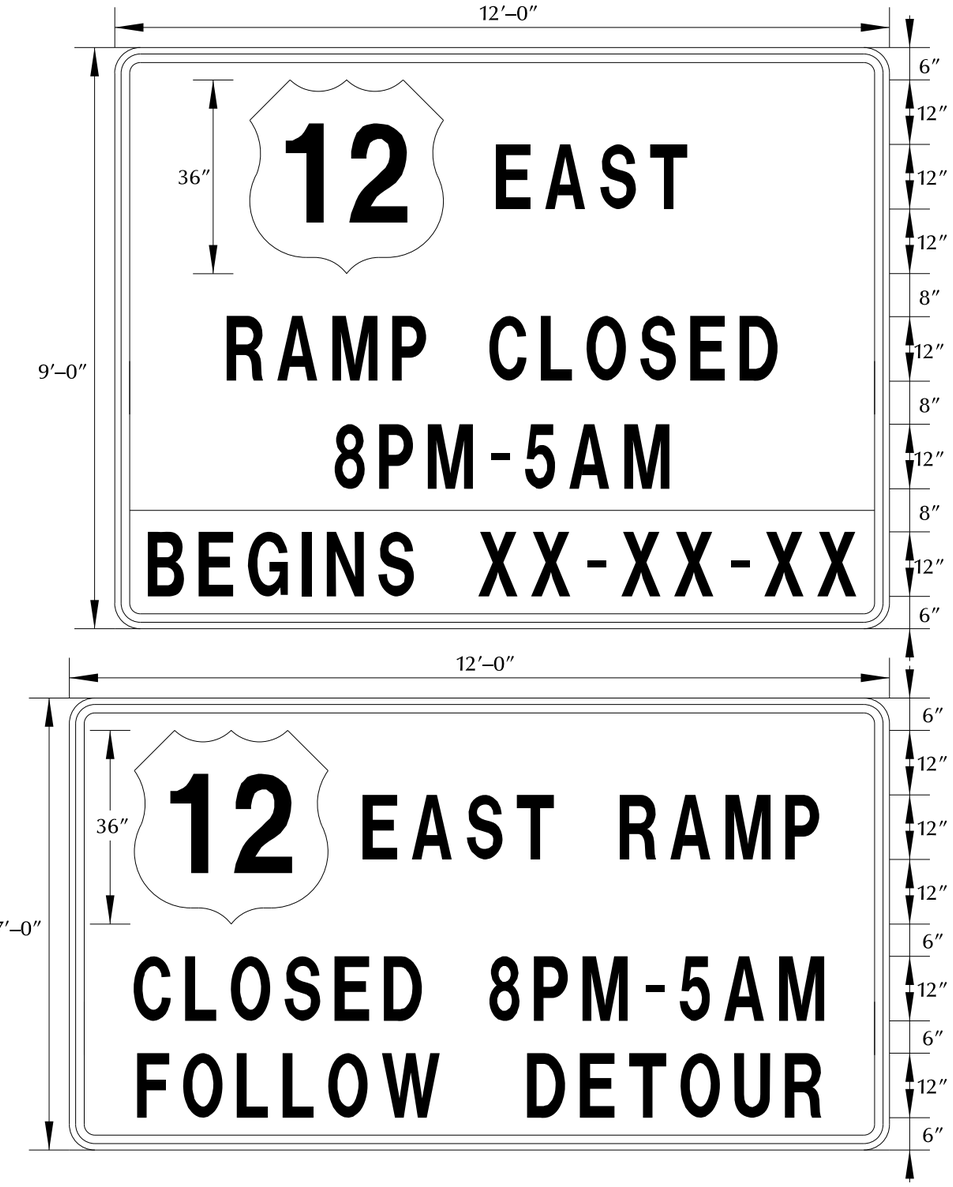
* SIZE 3 SIGN

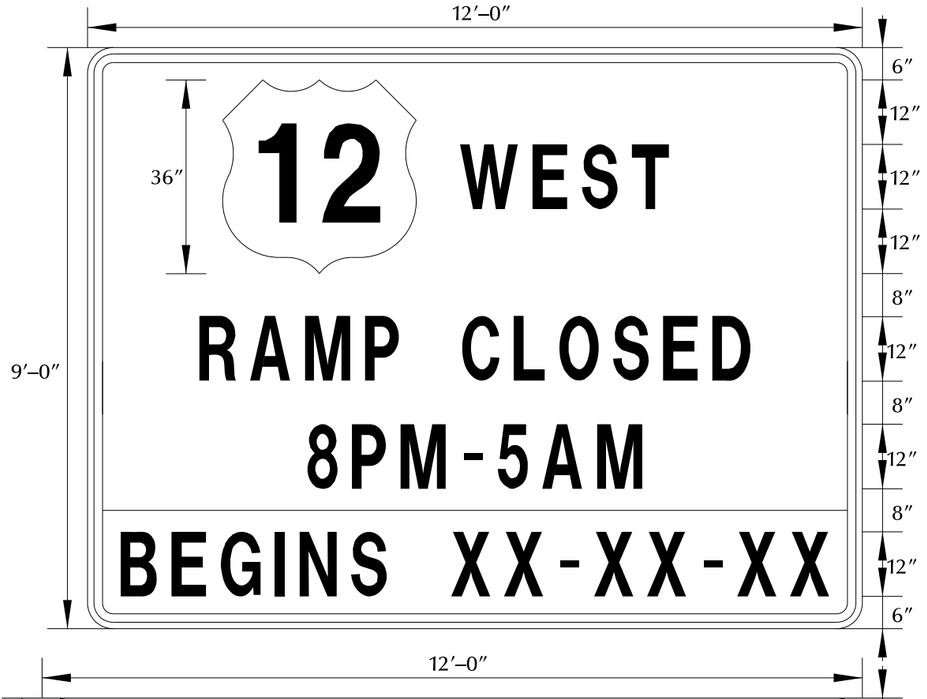
** ADVANCE NOTIFICATION SIGNS TO BE PLACED 10 DAYS PRIOR TO THE START OF CONSTRUCTION

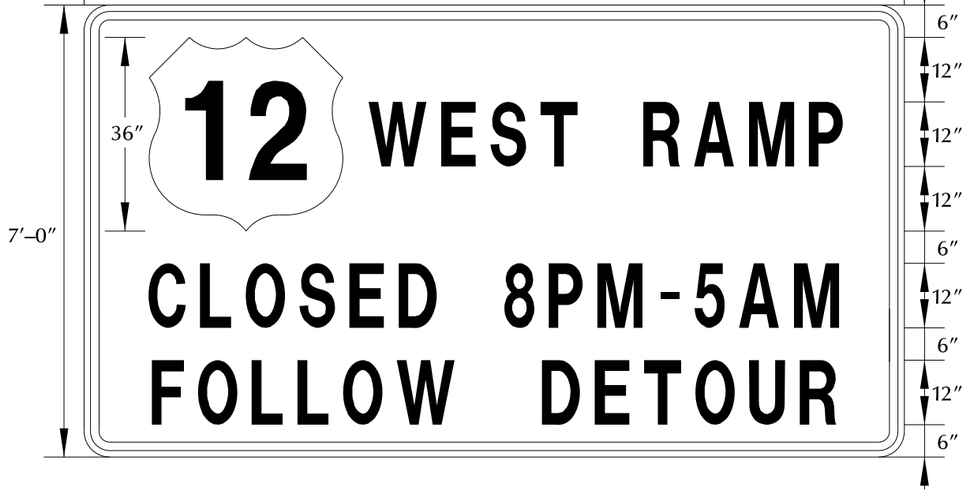
*** A PORTABLE CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF FIXED MESSAGE SIGN IF DETOUR DURATION IS LESS THAN TWO WEEKS.

MB PORTABLE CHANGEABLE MESSAGE SIGN

2





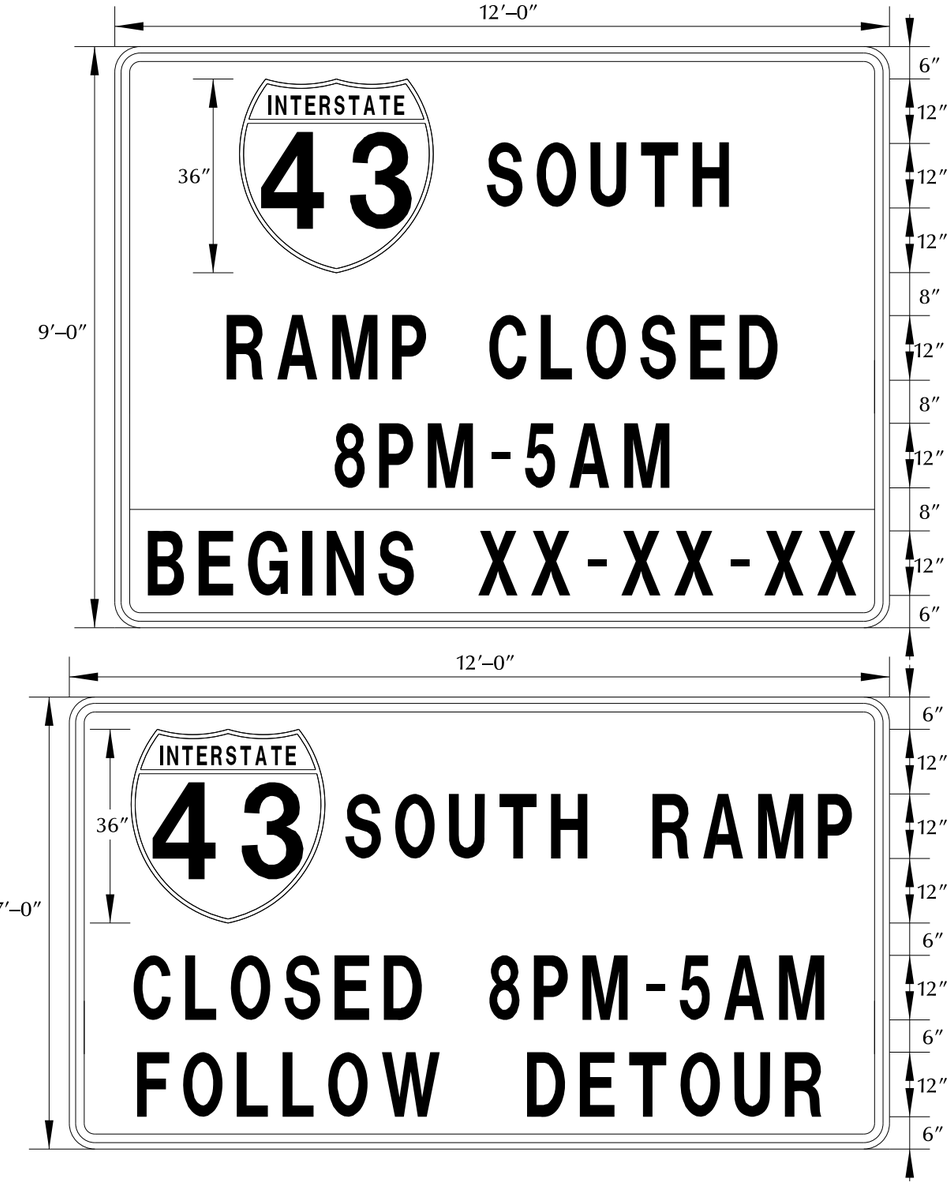


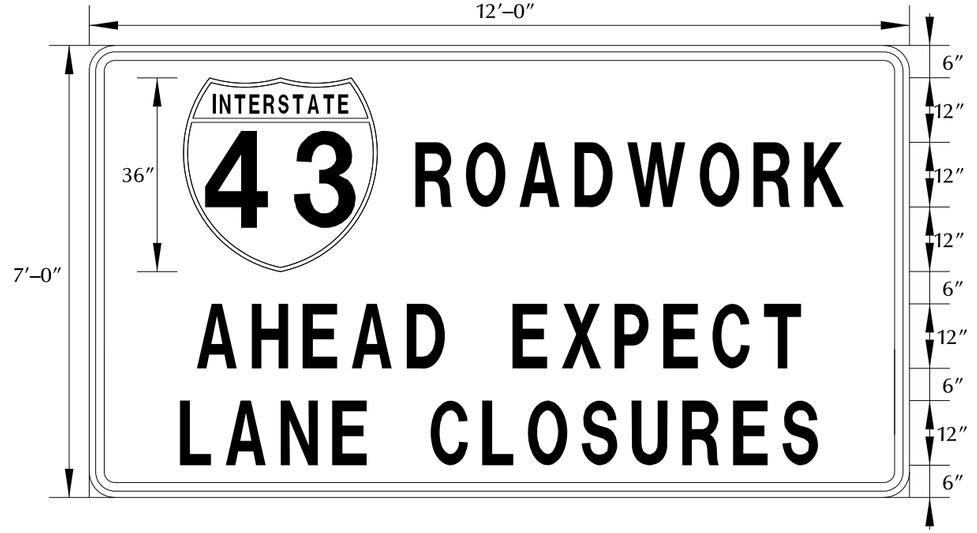
2

NOTES:

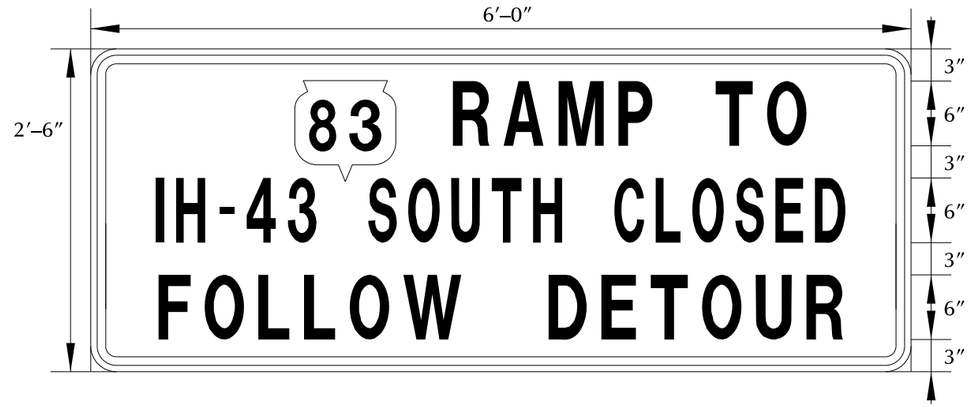
1. ALL SIGNS TO HAVE TYPE F SHEETING – REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE."
5. SIGNS SHALL BE BLACK NON–REFLECTIVE MESSAGE ON ORANGE TYPE F REFLECTIVE BACKGROUND.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS: 12" CAPS SHALL BE SERIES "D", 6" CAPS SHALL BE SERIES "C"
7. BEGINS XX–XX–XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE DATE SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
9. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
10. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION

STATE PROJECT NUMBER:1090-15-72	HWY:IH-43	COUNTY:WAUKESHA/WALWORTH	DETOUR PLAN - FIXED MESSAGE SIGN DETAILS	SHEET NO: 140	E





PLACE AT BEGINNING OF PROJECT AND AT ALL SOUTHBOUND ON RAMPS



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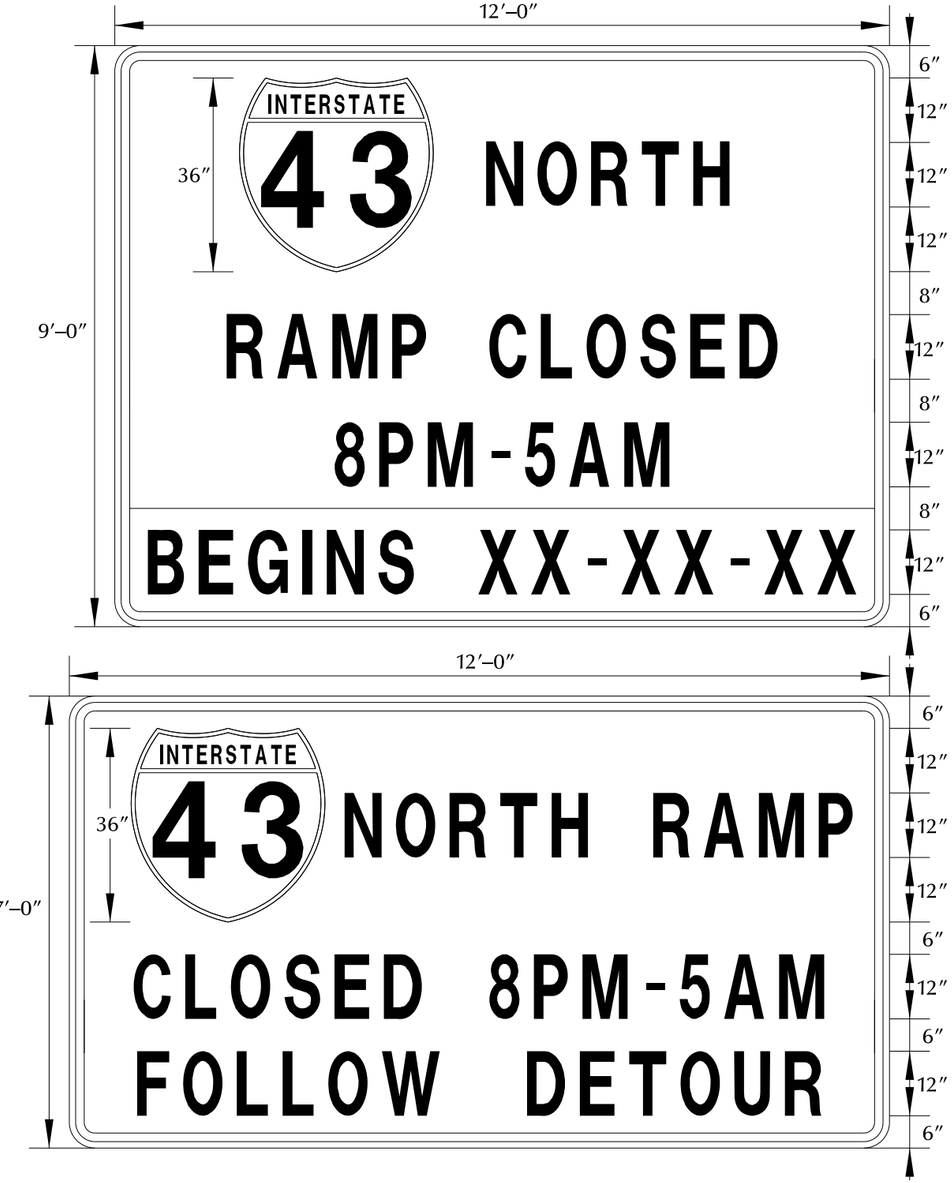

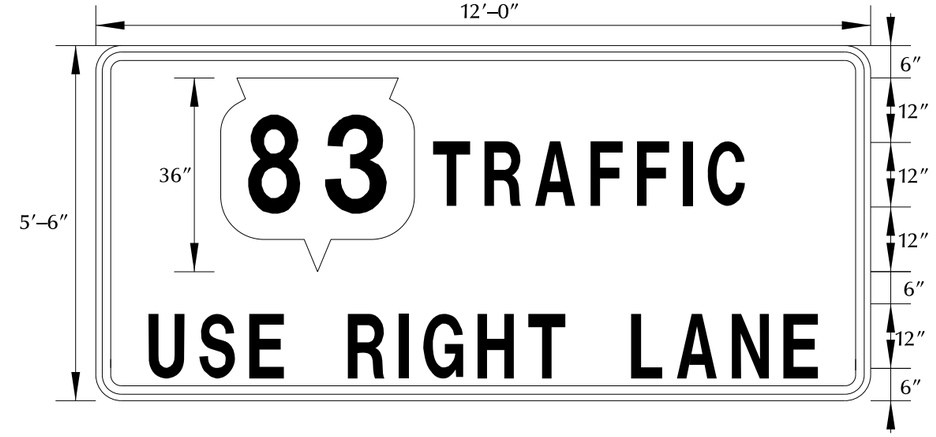

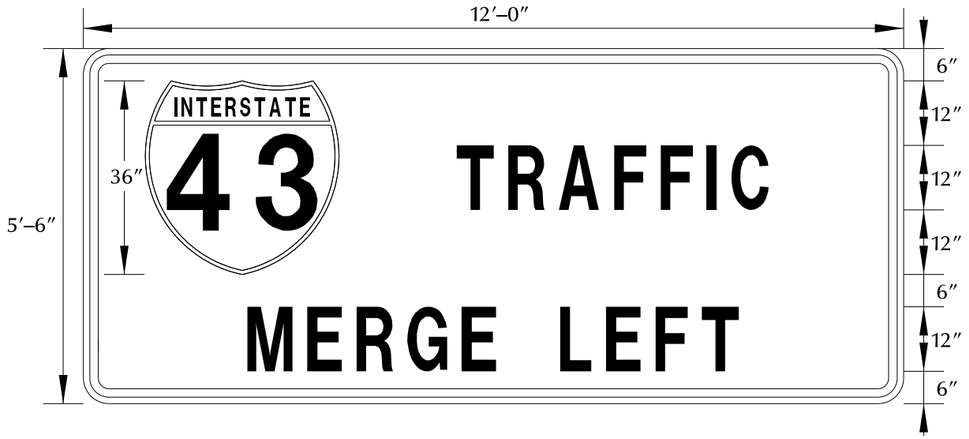

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DATE 18SEP13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1090-15-72 QUANTITY
0010	202.0110	ROADSIDE CLEARING	SY	250.000	250.000
0020	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 75+31.29	LS	1.000	1.000
0030	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 01. B-67-334	LS	1.000	1.000
0040	204.0100	REMOVING PAVEMENT	SY	3,940.000	3,940.000
0050	204.0105	REMOVING PAVEMENT BUTT JOINTS	SY	5,147.000	5,147.000
0060	204.0109.S	REMOVING CONCRETE SURFACE PARTIAL DEPTH	SF	113,590.000	113,590.000
0070	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	2,128.000	2,128.000
0080	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	473,770.000	473,770.000
0090	204.0150	REMOVING CURB & GUTTER	LF	1,115.000	1,115.000
0100	204.0165	REMOVING GUARDRAIL	LF	1,185.000	1,185.000
0110	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	565.000	565.000
0120	204.0190	REMOVING SURFACE DRAINS	EACH	5.000	5.000
0130	205.0100	EXCAVATION COMMON	CY	56,132.000	56,132.000
0140	205.3000.S	TEMPORARY EMERGENCY PULLOUTS	EACH	4.000	4.000
0150	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-67-334	LS	1.000	1.000
0160	208.0100	BORROW	CY	12,146.000	12,146.000
0170	210.0100	BACKFILL STRUCTURE	CY	267.000	267.000
0180	213.0100	FINISHING ROADWAY (PROJECT) 01. 1090-15-72	EACH	1.000	1.000
0190	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	16,405.000	16,405.000
0200	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	29,504.000	29,504.000
0210	305.0500	SHAPING SHOULDERS	STA	1,814.000	1,814.000
0220	313.0115	PIT RUN	CY	26,470.000	26,470.000
0230	320.0145	CONCRETE BASE 8-INCH	SY	3,940.000	3,940.000
0240	335.0100	RUBBLIZING	SY	280,910.000	280,910.000
0250	390.0403	BASE PATCHING CONCRETE SHES	SY	1,760.000	1,760.000
0260	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	140.000	140.000
0270	416.0610	DRILLED TIE BARS	EACH	208.000	208.000
0280	416.0620	DRILLED DOWEL BARS	EACH	1,002.000	1,002.000
0290	416.1015	CONCRETE SURFACE DRAINS HES	CY	14.000	14.000
0300	440.4410.S	INCENTIVE IRI RIDE	DOL	79,615.000	79,615.000
0310	455.0115	ASPHALTIC MATERIAL PG64-22	TON	8,370.000	8,370.000
0320	455.0150	ASPHALTIC MATERIAL PG70-28P	TON	3,012.000	3,012.000
0330	455.0605	TACK COAT	GAL	22,330.000	22,330.000
0340	460.1130	HMA PAVEMENT TYPE E-30	TON	189,610.000	189,610.000
0350	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	115,280.000	115,280.000
0360	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	440.000	440.000
0370	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	186,500.000	186,500.000
0380	502.0100	CONCRETE MASONRY BRIDGES	CY	878.000	878.000
0390	502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,408.000	1,408.000
0400	503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	1,155.000	1,155.000
0410	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	16,480.000	16,480.000
0420	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	143,150.000	143,150.000
0430	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	36.000	36.000
0440	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	71.000	71.000
0450	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-67-334	EACH	15.000	15.000
0460	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 01. B-64-86	EACH	6.000	6.000
0470	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 02. B-64-87	EACH	6.000	6.000

3

DATE 18SEP13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1090-15-72 QUANTITY
0480	506.7050.S	REMOVING BEARINGS (STRUCTURE) 01. B-64-86	EACH	6.000	6.000
0490	506.7050.S	REMOVING BEARINGS (STRUCTURE) 02. B-64-87	EACH	6.000	6.000
0500	506.7050.S	REMOVING BEARINGS (STRUCTURE) 03. B-64-88	EACH	8.000	8.000
0510	506.7050.S	REMOVING BEARINGS (STRUCTURE) 04. B-64-89	EACH	8.000	8.000
0520	506.7050.S	REMOVING BEARINGS (STRUCTURE) 05. B-64-94	EACH	16.000	16.000
0530	506.7050.S	REMOVING BEARINGS (STRUCTURE) 06. B-64-97	EACH	7.000	7.000
0540	506.7050.S	REMOVING BEARINGS (STRUCTURE) 07. B-64-99	EACH	6.000	6.000
0550	506.7050.S	REMOVING BEARINGS (STRUCTURE) 08. B-64-100	EACH	5.000	5.000
0560	506.7050.S	REMOVING BEARINGS (STRUCTURE) 09. B-64-102	EACH	5.000	5.000
0570	506.7050.S	REMOVING BEARINGS (STRUCTURE) 10. B-64-103	EACH	8.000	8.000
0580	506.7050.S	REMOVING BEARINGS (STRUCTURE) 11. B-64-104	EACH	8.000	8.000
0590	509.1500	CONCRETE SURFACE REPAIR	SF	1,415.000	1,415.000
0600	512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	820.000	820.000
0610	512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	820.000	820.000
0620	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	36.000	36.000
0630	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 01. B-64-86	LS	1.000	1.000
0640	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 02. B-64-87	LS	1.000	1.000
0650	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 03. B-64-88	LS	1.000	1.000
0660	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 04. B-64-89	LS	1.000	1.000
0670	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 05. B-64-94	LS	1.000	1.000
0680	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 06. B-64-103	LS	1.000	1.000
0690	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 07. B-64-104	LS	1.000	1.000
0700	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 01. B-64-86	LS	1.000	1.000
0710	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 02. B-64-87	LS	1.000	1.000
0720	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 03. B-64-88	LS	1.000	1.000
0730	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 04. B-64-89	LS	1.000	1.000
0740	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 05. B-64-94	LS	1.000	1.000
0750	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 06. B-64-103	LS	1.000	1.000

3

DATE 18SEP13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1090-15-72 QUANTITY
0760	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 07. B-64-104	LS	1.000	1.000
0770	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	7.000	7.000
0780	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH	EACH	3.000	3.000
0790	520.1030	APRON ENDWALLS FOR CULVERT PIPE 30-INCH	EACH	1.000	1.000
0800	520.1036	APRON ENDWALLS FOR CULVERT PIPE 36-INCH	EACH	1.000	1.000
0810	520.4018	CULVERT PIPE TEMPORARY 18-INCH	LF	700.000	700.000
0820	520.7000	CLEANING CULVERT PIPES	EACH	16.000	16.000
0830	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	24.000	24.000
0840	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	3,710.000	3,710.000
0850	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	21,630.000	21,630.000
0860	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	21,630.000	21,630.000
0870	604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	1,261.000	1,261.000
0880	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	4,140.000	4,140.000
0890	606.0300	RIPRAP HEAVY	CY	219.000	219.000
0900	611.8120.S	COVER PLATES TEMPORARY	EACH	1.000	1.000
0910	612.0106	PIPE UNDERDRAIN 6-INCH	LF	2,000.000	2,000.000
0920	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	597.000	597.000
0930	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	455.000	455.000
0940	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	5.000	5.000
0950	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	11.000	11.000
0960	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0970	614.0220	STEEL THRIE BEAM BULLNOSE TERMINAL	EACH	6.000	6.000
0980	614.0230	STEEL THRIE BEAM	LF	495.000	495.000
0990	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	3,858.000	3,858.000
1000	614.0905	CRASH CUSHIONS TEMPORARY	EACH	26.000	26.000
1010	614.1000	MGS GUARDRAIL TEMPORARY	LF	313.000	313.000
1020	614.1100	MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION	LF	40.000	40.000
1030	614.1200	MGS GUARDRAIL TEMPORARY TRANSITION EAT	EACH	1.000	1.000
1040	614.2300	MGS GUARDRAIL 3	LF	925.000	925.000
1050	614.2500	MGS THRIE BEAM TRANSITION	LF	160.000	160.000
1060	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	5.000	5.000
1070	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	1.000	1.000
1080	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1090-15-72	EACH	1.000	1.000
1090	619.1000	MOBILIZATION	EACH	1.000	1.000
1100	625.0100	TOPSOIL	SY	11,945.000	11,945.000
1110	625.0500	SALVAGED TOPSOIL	SY	16,640.000	16,640.000
1120	627.0200	MULCHING	SY	1,000.000	1,000.000
1130	628.1504	SILT FENCE	LF	4,095.000	4,095.000
1140	628.1520	SILT FENCE MAINTENANCE	LF	4,095.000	4,095.000
1150	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	10.000	10.000
1160	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	8.000	8.000
1170	628.2004	EROSION MAT CLASS I TYPE B	SY	26,456.000	26,456.000
1180	628.7005	INLET PROTECTION TYPE A	EACH	30.000	30.000
1190	628.7020	INLET PROTECTION TYPE D	EACH	18.000	18.000
1200	628.7504	TEMPORARY DITCH CHECKS	LF	300.000	300.000
1210	628.7555	CULVERT PIPE CHECKS	EACH	46.000	46.000

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DATE 18SEP13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1090-15-72 QUANTITY
1220	628.7570	ROCK BAGS	EACH	25.000	25.000
1230	629.0210	FERTILIZER TYPE B	CWT	19.000	19.000
1240	630.0130	SEEDING MIXTURE NO. 30	LB	469.000	469.000
1250	630.0200	SEEDING TEMPORARY	LB	75.000	75.000
1260	633.0100	DELINEATOR POSTS STEEL	EACH	565.000	565.000
1270	633.0500	DELINEATOR REFLECTORS	EACH	755.000	755.000
1280	633.1100	DELINEATORS TEMPORARY	EACH	70.000	70.000
1290	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	37.000	37.000
1300	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	106.000	106.000
1310	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	2,400.000	2,400.000
1320	635.0300	SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS	EACH	28.000	28.000
1330	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	4.800	4.800
1340	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	272.000	272.000
1350	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	2,852.500	2,852.500
1360	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,199.100	1,199.100
1370	637.2230	SIGNS TYPE II REFLECTIVE F	SF	359.000	359.000
1380	638.2101	MOVING SIGNS TYPE I	EACH	1.000	1.000
1390	638.2102	MOVING SIGNS TYPE II	EACH	5.000	5.000
1400	638.2601	REMOVING SIGNS TYPE I	EACH	14.000	14.000
1410	638.2602	REMOVING SIGNS TYPE II	EACH	148.000	148.000
1420	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	135.000	135.000
1430	638.3100	REMOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	8.000	8.000
1440	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
1450	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1090-15-72	DAY	120.000	120.000
1460	643.0300	TRAFFIC CONTROL DRUMS	DAY	96,882.000	96,882.000
1470	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	5,924.000	5,924.000
1480	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	13,490.000	13,490.000
1490	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	20,478.000	20,478.000
1500	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	1,303.000	1,303.000
1510	643.0900	TRAFFIC CONTROL SIGNS	DAY	24,310.000	24,310.000
1520	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	13.000	13.000
1530	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	15.000	15.000
1540	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	1,650.000	1,650.000
1550	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,227.000	1,227.000
1560	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 1090-15-72	EACH	1.000	1.000
1570	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	430.000	430.000
1580	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	1,370.000	1,370.000
1590	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	582.000	582.000
1600	645.0135	GEOTEXTILE FABRIC TYPE SR	SY	23,830.000	23,830.000
1610	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	218,350.000	218,350.000
1620	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	9,650.000	9,650.000
1630	646.0600	REMOVING PAVEMENT MARKINGS	LF	195,955.000	195,955.000
1640	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	27,030.000	27,030.000
1650	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	18,260.000	18,260.000
1660	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	3,250.000	3,250.000
1670	647.0803	PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH	LF	120.000	120.000
1680	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	312,001.000	312,001.000

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DATE 18SEP13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1090-15-72 QUANTITY
1690	649.0300	TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH	LF	200,095.000	200,095.000
1700	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	3,520.000	3,520.000
1710	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	1,477.000	1,477.000
1720	650.5000	CONSTRUCTION STAKING BASE	LF	1,477.000	1,477.000
1730	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-67-334	LS	1.000	1.000
1740	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	85,200.000	85,200.000
1750	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1090-15-72	LS	1.000	1.000
1760	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	1,477.000	1,477.000
1770	690.0150	SAWING ASPHALT	LF	494.000	494.000
1780	690.0250	SAWING CONCRETE	LF	111,813.000	111,813.000
1790	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000
1800	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	5,268.000	5,268.000
1810	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	6,000.000	6,000.000
1820	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	6,000.000	6,000.000
1830	SPV.0045	SPECIAL 01. PCMS REMOTE COMMUNICATIONS	DAY	428.000	428.000
1840	SPV.0060	SPECIAL 01. CLEANING AND PAINTING BEARINGS	EACH	30.000	30.000
1850	SPV.0060	SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4	EACH	13.000	13.000
1860	SPV.0060	SPECIAL 03. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 5	EACH	4.000	4.000
1870	SPV.0060	SPECIAL 04. RESET APRON ENDWALL	EACH	37.000	37.000
1880	SPV.0060	SPECIAL 05. RESEAL WINGWALL	EACH	1.000	1.000
1890	SPV.0060	SPECIAL 06. CULVERT PIPE EXPLORATION	EACH	5.000	5.000
1900	SPV.0060	SPECIAL 07. RAISED PAVEMENT MARKERS	EACH	56.000	56.000
1910	SPV.0085	SPECIAL 01. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGE	LB	1,598.000	1,598.000
1920	SPV.0090	SPECIAL 01. REDITCH	LF	525.000	525.000
1930	SPV.0090	SPECIAL 02. RESET CULVERT PIPE	LF	64.000	64.000
1940	SPV.0090	SPECIAL 03. CONCRETE CURB AND GUTTER 30-INCH TYPE A HES	LF	1,115.000	1,115.000
1950	SPV.0090	SPECIAL 04. SAWING CONCRETE CURB HEAD	LF	120.000	120.000
1960	SPV.0090	SPECIAL 05. ADJUSTING BEAM GUARD	LF	3,495.000	3,495.000
1970	SPV.0090	SPECIAL 06. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH	LF	135.000	135.000

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204.0100
Removing Pavement

Station	to	Station	Location	SY
68'N'+50	-	74'N'+38	SB	1,570
76'N'+36	-	85'N'+25	SB	2,370
			TOTAL:	3,940

204.0109.S
Removing Concrete Surface Partial Depth

Station	to	Station	Location	SF
486+15	-	491+20	SB	12,120
43 SB TO 12 EB			RAMP	18,230
43 SB TO 12 WB			RAMP	9,650
43 NB TO 12 EB			RAMP	9,530
43 NB TO 12 WB			RAMP	17,140
12 EB TO 43 SB			RAMP	13,850
12 EB TO 43 NB			RAMP	17,140
12 WB TO 43 SB			RAMP	14,900
12 WB TO 43 NB			RAMP	13,150
			TOTAL:	113,590

204.0150
Removing Curb & Gutter

Location	LF
43 SB TO 12 EB	72
43 SB TO 12 WB	70
43 NB TO 12 EB	191
43 NB TO 12 WB	96
12 EB TO 43 SB	315
12 EB TO 43 NB	49
12 WB TO 43 SB	133
12 WB TO 43 NB	189
TOTALS:	1,115

204.0165
Removing Guardrail

Category	STRUCTURE	Station	to	Station	Roadway Location	LF
0010	B-64-63	102+16	-	105+42	Outside	330
		101+92	-	105+23	Median	335
	S-64-13	113+00	-	114+00	Outside	100
	B-67-131	76'N'+56	-	77'N'+75	Outside	120
		76'N'+17	-	79'N'+13	Median	300
					TOTAL:	1,185

Butt Joint Removals

Location		204.0105 Removing Pavement Butt Joints SY	204.0115 Removing Asphaltic Surface Butt Joints SY
STA. 92+50 SB	Begin Project	267	133
STA. 93+00 NB	Begin Construction	267	133
SB I-43 On Ramp	from EB USH 12	83	-
SB I-43 On Ramp	from WB USH 12	83	-
NB I-43 On Ramp	from EB USH 12	83	-
NB I-43 On Ramp	from WB USH 12	83	-
SB I-43 Off Ramp	to EB USH 12	83	-
SB I-43 Off Ramp	to WB USH 12	83	-
NB I-43 Off Ramp	to EB USH 12	83	-
NB I-43 Off Ramp	to WB USH 12	83	-
SB I-43 On Ramp	from STH 11	83	-
SB I-43 Off Ramp	to STH 11	83	-
SB I-43 On Ramp	from Rest Area	83	-
SB I-43 Off Ramp	to Rest Area	83	-
SB I-43 On Ramp	from Bowers Road	83	-
SB I-43 Off Ramp	to Bowers Road	83	-
SB I-43 On Ramp	from STH 120	83	-
SB I-43 Off Ramp	to STH 120	83	-
SB I-43 On Ramp	from STH 20	83	-
SB I-43 Off Ramp	to STH 20	83	-
SB I-43 On Ramp	from STH 83	83	-
STA. 90'N'+00	End Project	267	133
B-64-63	North Approach	213	133
B-64-63	South Approach	213	133
B-64-64	South Approach	213	133
B-64-89	North Approach	213	133
B-64-89	South Approach	213	133
B-64-91	North Approach	213	133
B-64-91	South Approach	213	133
B-64-97	North Approach	213	133
B-64-97	South Approach	213	133
B-64-99	North Approach	213	133
B-64-99	South Approach	213	133
B-64-101	North Approach	213	133
B-64-101	South Approach	213	133
Maintenance Cross-overs		270	-
	Total:	5,147	2,128

204.0120
Removing Asphaltic Surface Milling

Station	to	Station	Stage 1 Rt. Shoulder SY	Stage 2 Lt. Shoulder SY	Stage 2 Lt. Lane SY	Stage 3 Rt. Lanes SY	Stage 3 Notched Joint SY	Stage 5 Notched Joint SY	Removing Rumble Strips Rt. Shoulder SY	Removing Rumble Strips Lt. Shoulder SY
92+50	-	98+38	650	450	800	800	-	100	-	-
93+00	-	97+85	550	400	650	650	-	80	-	-
101+79	-	118+31	1,850	1,300	2,200	2,200	-	275	-	-
194+00	-	247+00	5,900	4,100	0	0	-	350	-	-
194+00	-	249+68	0	0	7,400	7,400	930	-	-	-
260+01	-	293+67	0	0	4,500	4,500	560	-	-	-
274+28	-	293+67	2,150	1,500	0	0	325	-	-	-
295+24	-	305+00	1,100	750	1,300	1,300	165	-	-	-
305+00	-	310+00	400	400	650	650	85	-	-	-
310+00	-	328+24	800	1,400	2,450	4,850	305	-	-	-
329+84	-	387+05	2,550	4,450	7,650	15,250	955	-	-	-
388+77	-	399+00	450	800	1,350	2,750	170	-	-	-
399+00	-	402+40	150	250	450	900	55	-	-	-
402+40	-	414+82	1,400	950	1,650	1,650	205	-	-	-
416+78	-	581+00	18,250	12,750	21,900	21,900	2,735	-	-	-
581+00	-	585+00	300	300	550	550	65	-	-	-
585+00	-	600+21	700	1,200	0	0	255	-	-	-
585+00	-	602+83	0	0	2,400	4,600	295	-	-	-
612+24	-	662+74	0	0	6,750	13,450	840	-	-	-
626+46	-	662+74	1,600	2,800	0	0	605	-	-	-
664+80	-	700+00	1,550	2,750	4,700	9,400	585	-	-	-
700+00	-	703+53	250	250	450	450	60	-	-	-
704+45	-	705+00	50	50	50	50	10	-	-	-
705+00	-	754+87	5,550	3,900	6,650	6,650	830	-	-	-
756+97	-	836+25	8,800	6,150	10,550	10,550	1,320	-	-	-
836+36	-	860+00	2,650	1,850	3,150	3,150	395	-	-	-
861+00	-	990+00	14,350	10,050	17,200	17,200	2,150	-	-	-
51'N'+43	-	68'N'+50	1,900	1,350	2,300	2,300	285	-	-	-
85'N'+25	-	90'N'+00	1,750	1,250	650	650	80	-	-	-
IH-43 NB for Crossover			-	-	-	-	-	-	5,000	3,500
IH-43 SB for B-64-86			-	-	-	-	-	-	3,650	2,550
IH-43 NB for B-64-86			-	-	-	-	-	-	3,650	2,550
IH-43 SB for B-64-87			-	-	-	-	-	-	3,650	2,550
IH-43 NB for B-64-87			-	-	-	-	-	-	3,650	350
STH 20 EB for B-64-88			-	-	-	-	-	-	1,050	1,050
STH 20 WB for B-64-88			-	-	-	-	-	-	1,900	1,900
STH 20 EB for B-64-89			-	-	-	-	-	-	1,900	1,900
STH 20 WB for B-64-89			-	-	-	-	-	-	1,050	1,050
IH-43 SB for B-64-94			-	-	-	-	-	-	3,650	2,550
IH-43 NB for B-64-94			-	-	-	-	-	-	3,650	2,550
IH-43 SB for B-64-103			-	-	-	-	-	-	3,650	2,550
STH 11 EB for B-64-103			-	-	-	-	-	-	1,900	1,900
STH 11 WB for B-64-103			-	-	-	-	-	-	1,050	1,050
IH-43 SB for B-64-104			-	-	-	-	-	-	3,650	2,550
STH 11 EB for B-64-104			-	-	-	-	-	-	1,050	1,050
STH 11 WB for B-64-104			-	-	-	-	-	-	1,900	1,900
		Subtotal:	75,650	61,400	108,350	133,800	14,265	805	46,000	33,500
		Total:	473,770							

Earthwork Summary

Division	Station	to	Station	Location	205.0100* Common Excavation (1)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6) Factor 1.2500	Mass Ordinate +/- (7)	Waste	208.0100 Borrow	Comment:
					Cut (2)	EBS* (3)								
1	68+50	-	85+50	IH 43 SB	2,077	-	2,115	173	3,504	4,379	-4,206	-4,206	4,206	Railroad bridge replacement
Division 1 Subtotal					2,077								4,206	
2	100+85	-	101+50	IH 43 SB	75	-	-	-	-	-	-	-	-	Excavation required for drainage flume
Division 2 Subtotal					75									
3	92+50	-	97+65	IH 43 SB	-	140	-	-	-	-	-	-	-	Excavation Below Subgrade
	93+00	-	97+12	IH 43 NB	-	115	-	-	-	-	-	-	-	
	103+12	-	118+04	IH 43 SB	-	410	-	-	-	-	-	-	-	
	194+00	-	249+67	IH 43 SB	-	1,525	-	-	-	-	-	-	-	
	260+01	-	292+31	IH 43 SB	-	885	-	-	-	-	-	-	-	
	296+60	-	326+83	IH 43 SB	-	1,060	-	-	-	-	-	-	-	
	331+25	-	385+72	IH 43 SB	-	2,240	-	-	-	-	-	-	-	
	390+10	-	414+82	IH 43 SB	-	845	-	-	-	-	-	-	-	
	416+78	-	585+00	IH 43 SB	-	4,610	-	-	-	-	-	-	-	
	585+00	-	602+83	IH 43 SB	-	755	-	-	-	-	-	-	-	
	612+24	-	613+63	IH 43 SB	-	60	-	-	-	-	-	-	-	
	611+43	-	661+58	IH 43 SB	-	2,235	-	-	-	-	-	-	-	
	666+15	-	703+53	IH 43 SB	-	1,405	-	-	-	-	-	-	-	
	704+45	-	753+63	IH 43 SB	-	1,290	-	-	-	-	-	-	-	
	758+21	-	836+26	IH 43 SB	-	2,140	-	-	-	-	-	-	-	
	836+36	-	860+00	IH 43 SB	-	650	-	-	-	-	-	-	-	
	861+00	-	990+00	IH 43 SB	-	3,535	-	-	-	-	-	-	-	
	51'N'+43	-	68'N'+50	IH 43 SB	-	470	-	-	-	-	-	-	-	
	85'N'+25	-	90'N'+00	IH 43 SB	-	130	-	-	-	-	-	-	-	
Division 3 Subtotal						24,500								
4	55'N'+00	-	75'N'+00	IH 43 Median	8,380	-	-	-	-	-	-	-	6,620	SB Crossover Installation
	Undistributed			IH 43 Median	1,680	-	-	-	-	-	-	-	1,320	
Division 4 Subtotal					10,060								7,940	
5	55'N'+00	-	75'N'+00	IH 43 Median	7,800	-	-	-	-	-	-	-	-	SB Crossover Removal
	125'N+00	-	141'N'+00	IH 43 Median	8,380	-								NB Crossover Removal
	Undistributed				3,240									
Division 5 Subtotal					19,420									
Total Borrow:													12,146	
Total Common Excavation:					**56,132**									

1) Common Excavation is the sum of the Cut and EBS Excavation columns.
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation is an Undistributed Quantity and is to be backfilled with Breaker Run.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material*90%
6) Expanded Fill. Factor = 1.25
7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
* Quantity also shown on EBS Summary Chart.

305.0110*
Base Aggregate Dense 3/4-Inch

Station to Station	Location	Stage 4 TON	Stage 5 TON
92+50 - 98+38	SB I-43	15	50
93+00 - 97+85	NB I-43	15	40
101+79 - 118+31	SB I-43	45	140
194+00 - 249+68	SB I-43	155	485
260+01 - 293+67	SB I-43	95	300
295+24 - 328+24	SB I-43	160	275
329+84 - 387+05	SB I-43	370	475
388+77 - 414+82	SB I-43	125	235
416+78 - 602+83	SB I-43	585	1,590
612+24 - 613+63	SB I-43	10	10
611+43 - 662+74	SB I-43	335	450
664+80 - 703+53	SB I-43	240	325
704+45 - 754+87	SB I-43	140	440
756+97 - 836+26	SB I-43	220	680
836+37 - 860+00	SB I-43	65	195
861+00 - 990+00	SB I-43	360	1,115
51'N'+43 - 68'N'+50	SB I-43	45	140
68'N'+50 - 74'N'+40	SB I-43	45	115
76'N'+36 - 85'N'+25	SB I-43	70	170
85'N'+25 - 90'N'+00	SB I-43	15	40
SB I-43 On Ramp	from EB USH 12	375	0
SB I-43 On Ramp	from WB USH 12	250	0
NB I-43 On Ramp	from EB USH 12	250	0
NB I-43 On Ramp	from WB USH 12	325	0
SB I-43 Off Ramp	to EB USH 12	275	0
SB I-43 Off Ramp	to WB USH 12	275	0
NB I-43 Off Ramp	to EB USH 12	275	0
NB I-43 Off Ramp	to WB USH 12	275	0
I-43 On Ramp	from STH 11	290	0
I-43 Off Ramp	to STH 11	450	0
I-43 On Ramp	from Bowers Road	440	0
I-43 Off Ramp	to Bowers Road	275	0
I-43 On Ramp	from STH 120	500	0
I-43 Off Ramp	to STH 120	425	0
I-43 On Ramp	from STH 20	325	0
I-43 Off Ramp	to STH 20	400	0
I-43 On Ramp	from STH 83	285	0
	Subtotal:	8,800	7,270

Total: 16,070

*Additional quantities shown elsewhere

305.0120*
Base Aggregate Dense 1 1/4-Inch

Station to Station	Stage 1 TON	Stage 2 TON	Stage 3 TON
68'N'+50 - 74'N'+38		870	870
76'N'+36 - 85'N'+25		1,315	1,315
211+70 - 214+30	47		
285+20 - 287+80	47		
378+20 - 380+80	47		
490+45 - 493+05	47		
543+70 - 546+30	47		
616+70 - 619+30	47		
724+20 - 726+80	47		
795+70 - 798+30	47		
888+45 - 891+05	47		
987+45 - 990+05	47		
Subtotal:	474	2,185	2,185

Total: 4,844

* Additional quantities are shown elsewhere.

305.0500
Shaping Shoulders

Station to Station	Location	Stage 1 STA	Stage 2 STA	Ramps STA
92+50 - 98+38	SB I-43	6	6	-
93+00 - 97+85	NB I-43	5	5	-
101+79 - 118+31	SB I-43	17	17	-
194+00 - 249+68	SB I-43	56	56	-
260+01 - 293+67	SB I-43	34	34	-
295+24 - 328+24	SB I-43	33	33	-
329+84 - 387+05	SB I-43	57	57	-
388+77 - 414+82	SB I-43	26	26	-
416+78 - 602+83	SB I-43	186	186	-
612+24 - 613+63	SB I-43	1	1	-
611+43 - 662+74	SB I-43	51	51	-
664+80 - 703+53	SB I-43	39	39	-
704+45 - 754+87	SB I-43	50	50	-
756+97 - 836+26	SB I-43	79	79	-
836+37 - 860+00	SB I-43	24	24	-
861+00 - 990+00	SB I-43	129	129	-
51'N'+43 - 74'N'+40	SB I-43	23	23	-
76'N'+36 - 90'N'+00	SB I-43	14	14	-
USH 12 Ramps	LT/RT	-	-	24
STH 11 Ramps	LT	-	-	24
Bowers Rd Ramps	LT	-	-	29
STH 120 Ramps	LT	-	-	37
STH 20 Ramps	LT	-	-	29
STH 83	LT	-	-	11
	Subtotal:	830	830	154

Total: 1,814

Temporary Pullouts

Location	Stage	205.3000.S Temporary Emergency Pullouts EACH	643.0900* Traffic Control Signs Number	643.0900* Traffic Control Signs DAYS
IH-43 SB	Stage 2	2	8	240
	Stage 3	2	8	240
	Total:	4	-	480

* Additional Quantities are shown elsewhere.

335.0100
Rubblizing

Location	Direction	SY
92+50 - 97+65	SB	1,370
93+00 - 97+12	NB	1,100
103+12 - 118+04	SB	3,980
194+00 - 249+67	SB	14,850
260+01 - 292+31	SB	8,610
296+60 - 326+83	SB	10,310
331+25 - 385+72	SB	21,790
390+10 - 414+82	SB	8,230
416+78 - 585+00	SB	44,860
585+00 - 602+83	SB	7,130
612+24 - 613+63	SB	560
611+43 - 661+58	SB	20,060
666+15 - 703+53	SB	14,480
704+45 - 753+63	SB	13,110
758+21 - 836+26	SB	20,810
836+36 - 860+00	SB	6,300
861+00 - 990+00	SB	34,400
51'N'+43 - 68'N'+50	SB	4,550
85'N'+25 - 90'N'+00	SB	1,270
SB I-43 On Ramp	from STH 12 EB	- 2,470
SB I-43 On Ramp	from STH 12 WB	- 1,980
NB I-43 On Ramp	from STH 12 EB	- 1,560
NB I-43 On Ramp	from STH 12 WB	- 2,760
SB I-43 Off Ramp	to STH 12 EB	- 2,190
SB I-43 Off Ramp	to STH 12 WB	- 2,460
NB I-43 Off Ramp	to STH 12 EB	- 1,830
NB I-43 Off Ramp	to STH 12 WB	- 1,790
SB I-43 On Ramp	from STH 11	- 2,030
SB I-43 Off Ramp	to STH 11	- 3,380
SB I-43 On Ramp	from Rest Area	- 1,300
SB I-43 Off Ramp	to Rest Area	- 670
SB I-43 On Ramp	from Bowers Road	- 3,500
SB I-43 Off Ramp	to Bowers Road	- 2,000
SB I-43 On Ramp	from STH 120	- 3,500
SB I-43 Off Ramp	to STH 120	- 2,870
SB I-43 On Ramp	from STH 20	- 2,080
SB I-43 Off Ramp	to STH 20	- 2,670
SB I-43 On Ramp	from STH 83	- 2,100
	TOTAL:	280,910

Hot Mix Asphalt Items

Station to Station	455.0115 Asphaltic Material PG64-22 TON	455.0150* Asphaltic Material PG70-28P TON	455.0605* Tack Coat GAL	460.1130* HMA Pavement Type E-30 TON	460.2000 Incentive Density HMA Pavement DOL
43 SB TO 12 EB	25	15	135	680	440
43 SB TO 12 WB	25	15	140	700	450
43 NB TO 12 EB	25	15	145	730	470
43 NB TO 12 WB	25	15	130	660	420
12 EB TO 43 SB	35	25	190	970	620
12 EB TO 43 NB	20	15	115	570	360
12 WB TO 43 SB	20	15	110	560	360
12 WB TO 43 NB	30	20	165	840	540
92+50 - 98+38	50	20	110	1,120	720
93+00 - 97+85	40	15	90	920	590
101+79 - 118+31	140	50	310	3,170	2,030
194+00 - 217+00	190	70	435	4,400	2,820
247+00 - 249+68	10	10	30	340	220
260+01 - 274+28	65	45	165	1,800	1,150
274+28 - 293+67	160	60	365	3,720	2,380
295+24 - 305+00	80	30	185	1,870	1,200
305+00 - 310+00	55	15	135	1,180	760
310+00 - 328+24	205	70	525	4,560	2,920
329+84 - 387+05	645	215	1,655	14,310	9,160
388+77 - 399+00	115	40	295	2,560	1,640
399+00 - 402+40	35	10	95	810	520
402+40 - 414+82	105	40	235	2,380	1,520
416+78 - 581+00	1,370	515	3,100	31,470	20,140
581+00 - 585+00	45	15	95	950	610
585+00 - 600+21	170	55	440	3,810	2,440
600+21 - 602+63	25	10	65	570	360
613+01 - 626+46	140	50	365	3,160	2,020
626+46 - 662+74	410	135	1,050	9,070	5,800
664+80 - 700+00	395	130	1,015	8,800	5,630
700+00 - 703+53	40	10	95	830	530
704+45 - 705+00	5	0	15	130	80
705+00 - 754+87	415	155	940	9,550	6,110
756+97 - 836+25	660	250	1,500	15,190	9,720
836+36 - 860+00	195	75	445	4,530	2,900
861+00 - 990+00	1,080	405	2,435	24,730	15,830
51'N'+43 - 68'N'+50	145	55	320	3,270	2,090
68'N'+50 - 74'N'+38	40	25	65	1,020	650
76'N'+36 - 85'N'+25	55	35	100	1,530	980
85'N'+25 - 90'N'+00	65	20	165	1,470	940
STH 11 On Ramp	30	20	160	800	510
STH 11 Off Ramp	45	30	250	1,250	800
Bowers Road On Ramp	45	30	245	1,220	780
Bowers Road Off Ramp	30	20	155	770	490
STH 120 On Ramp	50	35	280	1,400	900
STH 120 Off Ramp	45	30	235	1,190	760
STH 20 On Ramp	35	20	180	910	580
Sth 20 Off Ramp	40	25	220	1,120	720
STH 83 On Ramp	30	20	160	800	510
SE Correction	100	-	425	1,730	1,110
Subtotal	7,805	2,995	20,280	180,120	115,280

Hot Mix Asphalt Items (Continued)

Station to Station	455.0115 Asphaltic Material PG64-22 TON	455.0150* Asphaltic Material PG70-28P TON	455.0605* Tack Coat GAL	460.1130* HMA Pavement Type E-30 TON	460.2000 Incentive Density HMA Pavement DOL
Rumble Strip Removal					
IH-43 NB for Crossover	60	-	215	980	-
IH-43 SB for B-64-86	45	-	155	720	-
IH-43 NB for B-64-86	45	-	155	720	-
IH-43 SB for B-64-87	45	-	155	720	-
IH-43 NB for B-64-87	30	-	100	460	-
STH 20 EB for B-64-88	15	-	50	240	-
STH 20 WB for B-64-88	25	-	95	440	-
STH 20 EB for B-64-89	25	-	95	440	-
STH 20 WB for B-64-89	15	-	50	240	-
IH-43 SB for B-64-94	45	-	155	720	-
IH-43 NB for B-64-94	45	-	155	720	-
IH-43 SB for B-64-103	45	-	155	720	-
STH 11 EB for B-64-103	25	-	95	440	-
STH 11 WB for B-64-103	15	-	50	240	-
IH-43 SB for B-64-104	45	-	155	720	-
STH 11 EB for B-64-104	15	-	50	240	-
STH 11 WB for B-64-104	25	-	95	440	-
Maintenance Crossovers					
213+00	-	1	5	20	-
286+50	-	1	5	20	-
379+50	-	4	15	60	-
491+75	-	1	5	20	-
545+00	-	2	10	40	-
618+00	-	3	10	50	-
725+50	-	1	5	20	-
797+00	-	1	5	20	-
889+75	-	1	5	20	-
988+75	-	1	5	20	-
Subtotal:	565	17	2,050	9,490	0
Total	8,370	3,012	22,330	189,610	115,280

* Additional quantities are listed elsewhere in the plan.

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614.0396
Guardrail Mow Strip Asphalt

Station	to	Station	Location	SY
101+92	-	105+26	SB, Outside	108
102+16	-	105+37	SB, Inside	113
112+45	-	113+75	SB, Inside	502
113+00	-	114+00	SB, Outside	54
295+00	-	298+67	SB, Inside	158
295+35	-	298+81	SB, Outside	150
329+75	-	333+05	SB, Outside	144
330+05	-	333+80	SB, Inside	161
388+95	-	392+22	SB, Inside	143
389+10	-	392+41	SB, Outside	144
488+23	-	490+13	SB, Inside	645
516+20	-	518+10	SB, Inside	645
665+00	-	668+72	SB, Inside	160
665+10	-	668+44	SB, Outside	145
757+10	-	760+45	SB, Outside	146
757+15	-	760+93	SB, Inside	163
70+98	-	74+49	SB, Outside	137
76+49	-	79+62	SB, Median	124
76+86	-	79+99	SB, Outside	124
			Total:	3,858

Curb and Gutter

Location	416.0610 Drilled Tie Bars EACH	SPV.0090.03 Concrete Curb and Gutter HES 30-Inch Type A LF
43 SB TO 12 EB	24	72
43 SB TO 12 WB	28	70
43 NB TO 12 EB	12	191
43 NB TO 12 WB	48	96
12 EB TO 43 SB	28	315
12 EB TO 43 NB	24	49
12 WB TO 43 SB	24	133
12 WB TO 43 NB	20	189
TOTALS:	208	1,115

Surface Drains

Location	Station	204.0190 Removing Surface Drains EACH	416.1015 Concrete Surface Drains HES CY
43 NB TO 12 EB	88+75 RT	1	4
43 SB TO 12 EB	1017+40 LT	1	2
12 EB TO 43 SB	93+20 LT	1	4
12 WB TO 43 NB	1017+50 RT	1	2
12 WB TO 43 NB	1021+47 RT	1	2
	TOTAL:	5	14

Temporary Beam Guard Items

STRUCTURE	Location	614.1000 MGS Guardrail Temporary LF	614.1100 MGS Guardrail Temporary Thrie Beam Transition LF	614.1200 MGS Guardrail Temporary Transition EAT EACH
B-67-130	Sta. 76+00, Median	313	40	1
	TOTAL:	313	40	1

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465.0400
Asphaltic Shoulder Rumble Strip

Station	to	Station	Location	Stage 3 LF	Stage 4 LF
92+50	-	98+38	SB	600	600
93+00	-	97+85	NB	500	500
101+79	-	118+31	SB	1,650	1,650
194+00	-	253+51	SB	5,950	5,950
256+18	-	293+67	SB	3,750	3,750
295+24	-	328+24	SB	3,300	3,300
329+84	-	387+05	SB	5,700	5,700
388+77	-	414+82	SB	2,600	2,600
416+78	-	601+32	SB	18,450	18,450
603+10	-	662+74	SB	5,950	5,950
664+80	-	703+53	SB	3,850	3,850
704+45	-	754+87	SB	5,050	5,050
756+97	-	836+26	SB	7,950	7,950
836+36	-	860+00	SB	2,350	2,350
861+00	-	990+00	SB	12,900	12,900
51+43	-	74+40	SB	2,300	2,300
76+36	-	101+00	SB	2,450	2,450
56+00	-	130+00	NB -		14,800
134+00	-	145+00	SB,RT -		1,100
STH 11				-	2,950
STH 20				-	2,950
			Subtotal:	85,300	101,200

Total: 186,500

Beam Guard Items

STRUCTURE	Location	614.0010 Barrier System Grading Shaping Finishing EACH	614.0220 Steel Thrie Beam Bullnose Terminal EACH	614.0230 Steel Thrie Beam LF	614.2300 MGS Guardrail 3 LF	614.2500 MGS Thrie Beam Transition LF	614.2610 MGS Guardrail Terminal EAT EACH	614.2620 MGS Guardrail Terminal Type 2 EACH	SPV.0090.05 Adjusting Beam Guard LF
B-64-63	Outside	1	-	-	237.5	40	1	-	-
	Median	1	-	-	250.0	40	1	-	-
B-64-96	Median	2	2	200	-	-	-	-	-
B-64-94	Median	2	2	225	-	-	-	-	-
S-64-13	Outside	1	-	-	50.0	-	1	1	-
	Median	2	2	70	-	-	-	-	-
B-67-334	Outside	1	-	-	175.0	40	1	-	-
	Median	1	-	-	212.5	40	1	-	-
B-64-101	Outside	-	-	-	-	-	-	-	346
	Median	-	-	-	-	-	-	-	367
B-64-99	Outside	-	-	-	-	-	-	-	330
	Median	-	-	-	-	-	-	-	375
B-64-97	Outside	-	-	-	-	-	-	-	331
	Median	-	-	-	-	-	-	-	327
B-64-91	Outside	-	-	-	-	-	-	-	334
	Median	-	-	-	-	-	-	-	372
B-64-89	Outside	-	-	-	-	-	-	-	335
	Median	-	-	-	-	-	-	-	378
	TOTAL:	11	6	495	925.0	160	5	1	3,495

Culvert Pipes

Culvert Number	Station	Location	202.0110 Roadside Clearing SY	520.7000 Cleaning Culvert Pipes Each	520.1024 Apron Endwalls for Culvert Pipe 24-Inch Each	520.1030 Apron Endwalls for Culvert Pipe 30-Inch Each	520.1036 Apron Endwalls for Culvert Pipe 36-Inch Each	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch LF	606.0300* Riprap Heavy CY	628.7504* Temporary Ditch Checks LF	628.7555 Culvert Pipe Checks EACH	645.0120 Geotextile Fabric Type HR SY	SPV.0060.04 Reset Apron Endwall Each	SPV.0060.05 Reseal Wingwall Each	SPV.0060.06 Culvert Pipe Exploration Each	SPV.0090.01 Reditch LF	SPV.0090.02 Reset Culvert Pipe LF
4127A	97+85	SB	-	1	-	-	-	-	3	-	-	10	-	-	1	-	-
4129	98+00	SB	-	1	-	-	-	-	3	-	-	10	-	-	1	-	-
4130	101+50	SB	-	1	-	-	-	-	3	-	1	10	-	-	-	-	-
4133	210+00	NB / SB	-	1	-	-	-	-	3	-	1	10	1	-	-	-	8
4134	217+00	NB / SB	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-
4137	241+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4142	272+25	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4144	287+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4149	305+00	SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4150	304+50	SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4152	328+00	SB	-	1	-	-	-	-	3	-	-	10	-	-	1	-	-
4154	335+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4155	347+50	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4156	354+00	NB / SB	-	-	-	-	-	-	3	10	2	10	1	-	-	50	-
4197	540+00	SB	-	-	-	-	-	-	6	-	1	20	2	-	-	-	-
4200	456+00	SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4202	439+00	SB	-	-	1	-	-	24	3	-	1	10	-	-	-	-	-
4203	418+00	SB	-	1	-	-	-	-	3	-	1	10	1	-	-	-	16
4208	783+00	NB / SB	250	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4211	796+10	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	16
4215	825+00	NB / SB	-	1	-	-	-	-	3	-	1	10	1	-	-	-	-
4216	830+00	SB	-	-	-	-	-	-	6	-	1	20	2	-	-	-	-
4218	841+00	SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4220	845+00	SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4221	849+00	SB	-	-	-	-	-	-	3	10	2	10	1	-	-	20	-
4225	881+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	8
4226	890+00	SB	-	-	-	-	-	-	3	10	2	10	1	-	-	15	-
4228	898+00	Median	-	1	-	-	-	-	3	-	-	10	-	-	1	-	-
4233	923+50	NB / SB	-	-	-	-	1	-	3	-	1	10	-	-	-	-	8
4235	944+00	SB	-	1	-	-	-	-	3	10	1	10	-	-	1	250	-
4237	960+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4238	967+50	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4239	974+50	SB	-	-	-	-	-	-	3	10	2	10	-	-	-	90	-
4522	off ramp	43 to 11	-	-	-	-	-	-	6	-	1	20	2	-	-	-	-
4523	on ramp	11 to 43	-	-	1	-	-	-	3	-	1	10	1	-	-	-	8
4524	on ramp	11 to 43	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4526	off ramp	43 to N	-	1	-	1	-	-	3	-	1	10	1	-	-	-	-
4527	on ramp	N to 43	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
4529	off ramp	43 to 120	-	-	1	-	-	-	3	-	1	10	-	-	-	-	-
4530	on ramp	120 to 43	-	1	-	-	-	-	3	-	1	10	-	-	-	-	-
7002	63+00	NB / SB	-	-	-	-	-	-	3	-	1	10	1	-	-	-	-
	Undistributed		-	5	-	-	-	-	10	-	5	30	5	-	-	100	-
		Total:	250	16	3	1	1	24	139	50	46	460	37	1	5	525	64

*Additional quantities shown elsewhere

Rip-rap heavy (Refer to detail) at all culvert pipes receiving the following treatment; Culvert pipe cleaning, reset apron endwalls, replacing apron end walls, culvert pipe exploration, reditching and resetting culvert pipes.

Location		204.0180 Removing Delineators and Markers EACH	633.0100 Delineator Posts Steel EACH	633.0500 Delineator Reflectors EACH
90+40 - 101+79		3	3	3
101+79 - 118+31		4	4	4
194+00 - 414+82		55	55	55
416+78 - 613+63		49	49	49
611+43 - 703+53		23	23	23
704+45 - 836+26		33	33	33
836+36 - 860+00		6	6	6
861+00 - 990+00		32	32	32
51'N'+43 - 90'N'+00		10	10	10
90'N'+00 - 93'N'+00		1	1	1
SB I-43 On Ramp	from STH 12 EB	16	16	26
SB I-43 On Ramp	from STH 12 WB	34	34	44
SB I-43 Off Ramp	to STH 12 EB	38	38	48
SB I-43 Off Ramp	to STH 12 WB	15	15	25
NB I-43 On Ramp	from STH 12 EB	25	25	35
NB I-43 On Ramp	from STH 12 WB	19	19	29
NB I-43 Off Ramp	to STH 12 EB	17	17	27
NB I-43 Off Ramp	to STH 12 WB	35	35	45
SB I-43 On Ramp	from STH 11	10	10	20
SB I-43 Off Ramp	to STH 11	17	17	27
SB I-43 On Ramp	from Rest Area	13	13	23
SB I-43 Off Ramp	to Rest Area	20	20	30
SB I-43 On Ramp	from Bowers Road	16	16	26
SB I-43 Off Ramp	to Bowers Road	10	10	20
SB I-43 On Ramp	from STH 120	18	18	28
SB I-43 Off Ramp	to STH 120	13	13	23
SB I-43 On Ramp	from STH 20	11	11	21
SB 1-43 Off Ramp	to STH 20	13	13	23
SB I-43 On Ramp	from STH 83	9	9	19
	Total:	565	565	755

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Concrete Barrier

STRUCTURE	LOCATION	STAGE	603.8000 Concrete Barrier Temporary Precast Delivered LF	603.8125 Concrete Barrier Temporary Precast Installed LF	614.0905** Crash Cushions Temporary EACH	COMMENTS
B-67-334	IH-43 NB	-	7,300	7,300	2	Crossover
B-64-86	IH-43 SB	2	560	560	1	Painting
	IH-43 SB	3	560	560	1	Painting
	IH-43 NB	2	560	560	1	Painting
	IH-43 NB	3	560	560	1	Painting
B-64-87	IH-43 SB	2	560	560	1	Painting
	IH-43 SB	3	560	560	1	Painting
	IH-43 NB	2	560	560	1	Painting
	IH-43 NB	3	560	560	1	Painting
B-64-88	STH 20 EB	2	100	100	-	Painting
	STH 20 EB	3	100	100	-	Painting
	STH 20 WB	2	560	560	1	Painting
	STH 20 WB	3	560	560	1	Painting
B-64-89	STH 20 EB	2	560	560	1	Painting
	STH 20 EB	3	560	560	1	Painting
	STH 20 WB	2	100	100	-	Painting
	STH 20 WB	3	100	100	-	Painting
B-64-94	IH-43 SB	2	560	560	1	Painting
	IH-43 SB	3	560	560	1	Painting
	IH-43 NB	2	560	560	1	Painting
	IH-43 NB	3	650	650	1	Painting
B-64-103	IH-43 SB	2	560	560	1	Conc. Surface Repair
	IH-43 SB	3	560	560	1	Conc. Surface Repair
	STH 11 EB	2	560	560	1	Painting
	STH 11 EB	3	560	560	1	Painting
	STH 11 WB	2	100	100	-	Painting
	STH 11 WB	3	100	100	-	Painting
B-64-104	IH-43 NB	2	560	560	1	Conc. Surface Repair
	IH-43 NB	3	560	560	1	Conc. Surface Repair
	STH 11 EB	2	100	100	-	Painting
	STH 11 EB	3	100	100	-	Painting
	STH 11 WB	2	560	560	1	Painting
	STH 11 WB	3	560	560	1	Painting
		TOTAL:	21,630	21,630	26	

** Pavement foundation pad is incidental to crash cushion

Traffic Control

Location	643.0910 Covering Signs Type I EACH	643.0920 Covering Signs Type II EACH
STH 83	1	5
SB 43 TO EB 12	-	-
SB 43 TO WB 12	-	-
NB 43 TO EB 12	1	-
NB 43 TO WB 12	-	-
EB 12 TO SB 43	-	-
EB 12 TO NB 43	-	-
WB 12 TO SB 43	1	-
WB 12 TO NB 43	-	-
Undistributed	10	10
Total:	13	15

647.0803
Pavement Marking Aerial Enforcement Bars
Epoxy 24-Inch

Mile Marker	Approximate Station	LF
	619+25	12
	625+85	12
	632+45	12
	639+05	12
36	645+65	12
	951+35	12
	957+95	12
	964+55	12
	971+15	12
42	977+75	12
	TOTALS:	120

3

Traffic Control

Category	Location	633.1100 Delineators Temporary EACH	643.0300 Drums Number	643.0300 Drums Days	643.0420 Barricades Type III Number	643.0420 Barricades Type III Days	643.0705 Warning Lights Type A Number	643.0705 Warning Lights Type A Days	643.0715 Warning Lights Type C Number	643.0715 Warning Lights Type C Days	643.0800 Arrow Boards Number	643.0800 Arrow Boards Days	643.0900* Signs Number	643.0900* Signs Days	643.1000 Signs Fixed Message SF	643.1050 Signs PCMS Number	643.1050 Signs PCMS Days	643.3000 Detour Signs Number	643.3000 Detour Signs Days	SPV.0045.01 PCMS Remote Communications Number	SPV.0045.01 PCMS Remote Communications Days
0010	Cross-Over	60	193	11,580	14	840	30	1,800	25	1,500	2	120	119	7,140	132	0	0	-	-	-	-
	Miles 0-4	-	268	12,328	16	736	30	1,380	27	1,242	2	92	30	1,380	72	1	46	-	-	-	-
	Miles 4-8	-	268	12,328	16	736	30	1,380	27	1,242	2	92	30	1,380	72	1	46	-	-	-	-
	Miles 8-12	-	268	12,328	16	736	30	1,380	27	1,242	2	92	30	1,380	72	1	46	-	-	-	-
	Miles 12-16	-	278	12,788	16	736	30	1,380	32	1,472	2	92	30	1,380	72	1	46	-	-	-	-
	725+00 NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	214	-	-	1	214
	160+00 SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	214	-	-	1	214
	I-43 Night Work/USH 12 Ramps	-	223	6,690	40	1,200	150	4,500	223	6,690	2	60	28	840	576	16	480	10	300	-	-
	Ramp Work	-	160	800	52	260	30	150	50	250	0	0	32	160	504	5	25	-	-	-	-
	B-64-86	-	450	4,500	2	20	4	40	58	580	8	80	119	1,190	-	-	-	2	20	-	-
	B-64-87	-	446	4,460	2	20	4	40	58	580	8	80	113	1,130	-	-	-	-	-	-	-
	B-64-88	-	145	1,450	2	20	4	40	50	500	7	70	83	830	-	-	-	2	20	-	-
	B-64-89	-	145	1,450	2	20	4	40	50	500	7	70	83	830	-	-	-	2	20	-	-
	B-64-94	-	337	3,370	2	20	4	40	116	1,160	14	140	154	1,540	-	-	-	-	-	-	-
	B-64-97	-	14	140	-	-	-	-	-	-	-	-	6	60	-	-	-	-	-	-	-
	B-64-99	-	12	120	-	-	-	-	-	-	-	-	4	40	-	-	-	-	-	-	-
	B-64-100	-	4	40	-	-	-	-	-	-	-	-	2	20	-	-	-	-	-	-	-
	B-64-102	-	14	140	-	-	-	-	-	-	-	-	6	60	-	-	-	-	-	-	-
	B-64-103	-	247	2,470	3	30	6	60	108	1,080	13	130	152	1,520	-	-	-	2	20	-	-
	B-64-104	-	302	3,020	3	30	6	60	108	1,080	13	130	158	1,580	-	-	-	2	20	-	-
	Undistributed (10%)	10	-	6,880	-	520	-	1,200	-	1,360	-	55	-	1,370	150	-	110	-	30	-	-
	TOTALS:	70	-	96,882	-	5,924	-	13,490	-	20,478	-	1,303	-	23,830	1,650	-	1,227	-	430	-	428

* Additional quantities are shown elsewhere.

3

Pavement Marking

Station to Station		646.0106* Epoxy 4-Inch White LF	646.0106* Epoxy 4-Inch Yellow LF	646.0406 Same Day Epoxy 4-Inch White LF	646.0406 Same Day Epoxy 4-Inch Yellow LF	646.0600* Removing Pavement Markings LF	646.0841.S Grooved Wet Reflective Contrast Tape, 4-Inch (White)	646.0843.S Grooved Wet Reflective Contrast Tape 8-Inch (White) LF	647.0746 Diagonal Epoxy 24-Inch LF	SPV.0060.02 Grooved Preformed Thermoplastic Arrows Type 4 EACH	SPV.0060.03 Grooved Preformed Thermoplastic Arrows Type 5 EACH	SPV.0060.07 Raised Pavement Markers EACH	SPV.0090.06 Grooved Preformed Thermoplastic Stop Line 18-Inch LF
92+50 - 98+38		-	-	588	588	-	150	-	-	-	-	-	-
93+00 - 97+85		-	-	485	485	-	120	-	-	-	-	-	-
101+79 - 118+31		-	-	1,652	1,652	-	410	-	-	-	-	-	-
194+00 - 215+00		-	-	2,100	2,100	-	530	-	-	-	-	-	-
215+00 - 310+00		9,500	9,500	-	-	9,500	2,370	-	-	-	-	-	-
310+00 - 402+40		9,240	9,240	-	-	11,550	4,620	-	-	-	2	-	-
402+40 - 414+82		1,240	1,240	-	-	1,240	310	-	-	-	-	-	-
416+78 - 585+00		16,820	16,820	-	-	16,820	4,210	-	-	-	-	-	-
585+00 - 613+63		2,865	2,865	-	-	3,580	1,430	-	-	-	2	-	-
611+43 - 700+00		8,855	8,855	-	-	11,070	4,430	-	-	-	-	-	-
700+00 - 703+53		355	355	-	-	355	90	-	-	-	-	-	-
704+45 - 836+26		13,180	13,180	-	-	13,180	3,300	-	-	-	-	-	-
836+36 - 860+00		2,365	2,365	-	-	2,365	590	-	-	-	-	-	-
861+00 - 990+00		12,900	12,900	-	-	12,900	3,230	-	-	-	-	-	-
51+43 - 90+00		3,855	3,855	-	-	3,855	960	-	-	-	-	-	-
90+00 - 101+00		1,100	1,100	-	0	1,100	280	-	-	-	-	-	-
SB I-43 On Ramp	from EB USH 12	1,600	1,600	-	-	-	-	1,550	250	-	-	-	-
SB I-43 On Ramp	from WB USH 12	1,350	1,350	-	-	-	-	870	250	-	-	-	-
NB I-43 On Ramp	from EB USH 12	1,000	1,000	-	-	-	-	770	250	-	-	-	-
NB I-43 On Ramp	from WB USH 12	1,850	1,850	-	-	-	-	490	250	-	-	-	-
SB I-43 Off Ramp	to EB USH 12	1,500	1,500	-	-	-	-	990	250	-	-	-	-
SB I-43 Off Ramp	to WB USH 12	1,500	1,500	-	-	-	-	1,070	250	-	-	-	-
NB I-43 Off Ramp	to EB USH 12	1,650	1,650	-	-	-	-	1,200	250	-	-	-	-
NB I-43 Off Ramp	to WB USH 12	1,400	1,400	-	-	-	-	320	250	-	-	-	-
SB I-43 On Ramp	from STH 11	1,000	1,000	-	-	-	-	1,250	-	-	-	-	-
SB I-43 Off Ramp	to STH 11	1,700	1,700	-	-	-	-	500	250	1	-	14	-
SB I-43 On Ramp	from Rest Area	1,950	1,450	-	-	-	-	1,750	-	-	-	-	-
SB I-43 Off Ramp	to Rest Area	1,900	1,600	-	-	-	-	800	250	3	-	-	-
SB I-43 On Ramp	from Bowers Road	1,550	1,550	-	-	-	-	1,100	-	-	-	-	-
SB I-43 Off Ramp	to Bowers Road	1,000	1,000	-	-	-	-	550	250	3	-	14	55
SB I-43 On Ramp	from STH 120	1,750	1,750	-	-	-	-	1,600	-	-	-	-	-
SB I-43 Off Ramp	to STH 120	1,300	1,300	-	-	-	-	650	250	3	-	14	40
SB I-43 On Ramp	from STH 20	1,100	1,100	-	-	-	-	1,150	-	-	-	-	-
SB 1-43 Off Ramp	to STH 20	1,300	1,300	-	-	-	-	450	250	3	-	14	40
SB I-43 On Ramp	from STH 83	900	900	-	-	-	-	1,200	-	-	-	-	-
	Subtotal	109,575	108,775	4,825	4,825	87,515	27,030	18,260	3,250	13	4	56	135
	Total	218,350		9,650		87,515	27,030	18,260	3,250	13	4	56	135

* Additional Quantities listed elsewhere.

Temporary Pavement Marking

Location Station	to	Station	646.0600* Removing Pavement Markings LF	649.0200 Temporary Pavement Marking Reflective Paint 4-Inch White LF	649.0200 Temporary Pavement Marking Reflective Paint 4-Inch Yellow LF	649.0300 Temporary Pavement Marking Reflective Tape 4-Inch White LF	649.0300 Temporary Pavement Marking Reflective Tape 4-Inch Yellow LF	649.0801 Temporary Pavement Marking Removable Tape 8-Inch White LF
92+50	-	98+38	-	735	-	-	-	-
93+00	-	97+85	-	606	-	-	-	-
101+79	-	118+31	-	2,065	-	-	-	-
194+00	-	215+00	-	2,625	-	525	-	-
215+00	-	310+00	-	21,375	9,500	-	-	-
310+00	-	402+40	-	25,410	9,240	11,550	-	-
402+40	-	414+82	-	2,795	1,240	-	-	-
416+78	-	585+00	-	37,850	16,820	-	-	-
585+00	-	613+63	-	7,875	2,865	3,580	-	-
611+43	-	700+00	-	24,355	8,855	11,070	-	-
700+00	-	703+53	-	795	355	-	-	-
704+45	-	836+26	-	29,655	13,180	-	-	-
836+36	-	860+00	-	5,320	2,365	-	-	-
861+00	-	990+00	-	29,025	12,900	-	-	-
51+43	-	90+00	-	8,680	3,855	-	-	-
I-43 FOR SB CROSSOVERS			14,780	1,650	1,650	16,710	19,540	-
B-64-86			13,740	-	-	9,200	10,380	-
B-64-87			13,740	-	-	9,200	10,380	-
B-64-88			6,820	-	-	4,580	5,160	-
B-64-89			6,820	-	-	4,580	5,160	-
B-64-94			14,520	-	-	9,610	10,840	-
B-64-103			7,260	-	-	4,780	5,400	-
B-64-103			6,820	-	-	4,580	5,160	-
B-64-104			7,260	-	-	4,780	5,400	-
B-64-104			6,820	-	-	4,580	5,160	-
SB I-43 Ramp	from STH 11		-	-	-	-	-	200
SB I-43 Ramp	to STH 11		-	-	-	-	-	400
SB I-43 Ramp	from Rest Area		-	-	-	-	-	200
SB I-43 Ramp	to Rest Area		-	-	-	-	-	400
SB I-43 Ramp	from Bowers Road		-	-	-	-	-	200
SB I-43 Ramp	to Bowers Road		-	-	-	-	-	400
SB I-43 Ramp	from STH 120		-	-	-	-	-	200
SB I-43 Ramp	to STH 120		-	-	-	-	-	400
SB I-43 Ramp	from STH 20		-	-	-	-	-	200
SB 1-43 Ramp	to STH 20		-	-	-	-	-	400
SB I-43 Ramp	from STH 83		-	-	-	-	-	200
UNDISTRIBUTED 10%			9,860	20,080	8,280	9,930	8,260	320
Subtotals:			108,440	220,896	91,105	109,255	90,840	3,520
TOTALS:			108,440	312,001		200,095		3,520

*Additional quantities located elsewhere

643.2000
Traffic Control Detour
(Project)

Location	EACH
STH 83	0.11
43 SB TO 12 EB	0.11
43 SB TO 12 WB	0.11
43 NB TO 12 EB	0.11
43 NB TO 12 WB	0.11
12 EB TO 43 SB	0.11
12 EB TO 43 NB	0.11
12 WB TO 43 SB	0.11
12 WB TO 43 NB	0.11
Total	1

3

Landscaping

Culvert Number	Station		Station		625.0100 Topsoil SY	627.0200 Mulching SY	628.2004* Erosion Mat Class I Type B SY	629.0210* Fertilizer Type B CWT	630.0130* Seeding Mixture No. 30 LB
	Maintenance Crossovers								
	211+70	-	214+30	RT	160	-	160	0.1	3
	285+20	-	287+80	RT	160	-	160	0.1	3
	378+20	-	380+80	RT	160	-	160	0.1	3
	490+45	-	493+05	RT	160	-	160	0.1	3
	543+70	-	546+30	RT	160	-	160	0.1	3
	616+70	-	619+30	RT	160	-	160	0.1	3
	724+20	-	726+80	RT	160	-	160	0.1	3
	795+70	-	798+30	RT	160	-	160	0.1	3
	888+45	-	891+05	RT	160	-	160	0.1	3
	987+45	-	990+05	RT	160	-	160	0.1	3
	CN RR Bridge								
	71'N'+00	-	75'N'+00		3,570	-	2,696	2.3	64
	75'N'+50	-	85'N'+00		6,330	-	5,003	4.0	114
	Reditch								
C-4156	354+00			LT	45	-	44	0.1	1
C-4221	849+00			LT	10	-	11	0.1	1
C-4226	889+50			LT	5	-	6	0.1	1
C-4235	945+00			LT	265	-	267	0.2	5
C-4239	974+50			LT	90	-	89	0.1	2
	Undistributed				30	1000	100	0.1	2
	Total:				11,945	1,000	9,816	8	220

*Additional quantities shown elsewhere

Inlet Protection

CULVERT/ STRUCTURE	628.7005 Inlet Protection Type A EACH	628.7020 Inlet Protection Type D EACH
114+60	1	-
C-4133	1	-
C-4134	1	-
C-4137	1	-
C-4142	1	-
C-4143	1	-
C-4144	1	-
C-4149	1	-
C-4150	1	-
C-4151	1	-
C-4154	1	-
C-4155	1	-
C-4156	1	-
C-4157	1	-
C-4202	1	-
C-4179	1	-
C-4208	1	-
C-4210	1	-
C-4211	1	-
C-4215	1	-
C-4219	1	-
C-4225	1	-
C-4226	1	-
C-4228	1	-
C-4233	1	-
C-4234	1	-
C-4237	1	-
C-4328	1	-
C-4329	1	-
C-7002	1	-
B-64-63	-	2
B-64-64	-	2
B-64-89	-	2
B-64-91	-	2
B-64-93	-	2
B-64-97	-	2
B-64-99	-	1
B-64-101	-	2
B-64-103	-	1
B-67-131	-	2
Total:	30	18

Erosion Control

Location	628.1504 Silt Fence LF	628.1520 Silt Fence Maintenance LF	628.1905 Mobilizations Erosion Control EACH	628.1910 Mobilizations Emergency Erosion Control EACH	628.7504* Temporary Ditch Checks LF	628.7570 Rock Bags EACH	630.0200* Seeding Temporary LB
Project 1090-15-72	-	-	10	8	-	-	-
68'N'+00 TO 74'N'+50	1,576	1,576	-	-	-	-	-
76'N'+25 TO 85'N'+25	2,019	2,019	-	-	-	-	-
Undistributed	500	500	-	-	250	25	75
Total:	4,095	4,095	10	8	250	25	75

*Additional Quantities shown elsewhere

Sawing

Location		690.0150 Sawing Asphalt Stage 1 LF	690.0150 Sawing Asphalt Stage 2 LF	690.0150 Sawing Asphalt Stage 3 LF	690.0250 Sawing Concrete Stage 2 LF	690.0250 Sawing Concrete Stage 3 LF
92+50	Begin Project	-	-	-	12	24
93+00	NB Lanes	-	-	-	12	24
103+12	SB Lanes	-	-	-	12	24
SB I-43 On Ramp	from EB USH 12	-	-	55	-	1,234
SB I-43 On Ramp	from WB USH 12	-	-	-	-	1,131
NB I-43 On Ramp	from EB USH 12	-	-	-	-	1,073
NB I-43 On Ramp	from WB USH 12	-	-	-	-	1,041
SB I-43 Off Ramp	to EB USH 12	-	-	-	-	1,259
SB I-43 Off Ramp	to WB USH 12	-	-	50	-	725
NB I-43 Off Ramp	to EB USH 12	-	-	-	-	677
NB I-43 Off Ramp	to WB USH 12	-	-	-	-	1,289
249+68	SB Lanes	-	19	22	12	12
253+50	SB Shoulders	10	7	-	-	-
SB I-43 On Ramp	from STH 11	-	-	10	-	30
260+01	SB Lanes	-	19	22	12	12
SB I-43 Off Ramp	to STH 11	-	-	10	-	30
274+28	SB Shoulders	10	7	-	-	-
292+31	SB Lanes	-	-	-	12	12
296+60	SB Lanes	-	-	-	12	12
326+83	SB Lanes	-	-	-	12	12
331+25	SB Lanes	-	-	-	12	12
385+72	SB Lanes	-	-	-	12	24
390+10	SB Lanes	-	-	-	12	24
SB I-43 On Ramp	from Rest Area	-	-	25	-	15
SB I-43 Off Ramp	from Rest Area	-	-	25	-	15
SB I-43 On Ramp	from Bowers Road	-	-	10	-	30
SB I-43 Off Ramp	to Bowers Road	-	-	10	-	30
600+21	SB Shoulders	4	7	-	-	-
602+83	SB Lanes	-	19	28	12	24
612+24	SB Lanes	-	19	28	12	24
626+46	SB Shoulders	4	7	-	-	-
SB I-43 On Ramp	from STH 120	-	-	10	-	30
661+58	SB Lanes	-	-	-	12	24
666+15	SB Lanes	-	-	-	12	24
SB I-43 Off Ramp	to STH 120	-	-	10	-	30
SB I-43 On Ramp	from STH 20	-	-	10	-	30
753+63	SB Lanes	-	-	-	12	12
758+21	SB Lanes	-	-	-	12	12
SB I-43 Off Ramp	to STH 20	-	-	10	-	30
65+30	SB Lanes	-	-	-	12	12
85+25	SB Lanes	-	-	-	12	12
SB I-43 On Ramp	from STH 83	-	-	10	-	30
90+00'N'	End Project	-	-	-	12	12
101+00'N'	SB Shoulders	10	7	-	-	-
Longitudinal Joint	(Entire Length)	-	-	-	100,000	-
Structure B-64-63		-	-	-	192	192
Structure B-64-64		-	-	-	-	192
Structure B-64-89		-	-	-	192	192
Structure B-64-91		-	-	-	192	192
Structure B-64-97		-	-	-	192	192
Structure B-64-99		-	-	-	192	192
Structure B-64-101		-	-	-	192	192
	Subtotal:	38	111	345	101,392	10,421
	Total:		494		111,813	

* Additional Quantities listed elsewhere.

3

Crossover Quantities

Category 0010

		305.0110* Base Aggregate Dense 3/4 Inch TON	305.0120* Base Aggregate Dense 1 1/4 Inch TON	465.0125 Asphaltic Surface Temporary TON	520.4018 Culvert Pipe Temporary 18-Inch LF	611.8120.S Cover Plates Temporary EACH	625.0500 Salvaged Topsoil SY	628.2004* Erosion Mat Class I Type B SY	629.0210* Fertilizer Type B CWT	630.0130* Seeding Mixture No. 30 LB
Installation										
SB IH-43 Crossover	North of RR	-	-	-	-	-	-	-	-	-
	South of RR	335	2,160	440	700	1	4,730	4,730	3.00	43
Undistributed		-	-	-	-	-	950	950	1.00	9
	Subtotal:	335	2,160	440	700	1	5,680	5,680	4.00	52
Removal/Restoration										
SB IH-43 Crossover	North of RR	-	-	-	-	-	4,400	4,400	3.00	79
	South of RR	-	-	-	-	-	4,730	4,730	3.00	85
Undistributed		-	-	-	-	-	1,830	1,830	1.00	33
	Subtotal:	0	0	0	0	0	10,960	10,960	7.00	197
	Totals:	335	2,160	440	700	1	16,640	16,640	11	249

*Additional quantities located elsewhere

SPV.0090.04
Sawing Concrete Curb Head

Station	Station	Location	LF
105+30	106+50	LT	120
		TOTALS:	120

Flume

Station	Station	606.0300* Riprap Heavy CY	645.0120* Geotextile Fabric Type HR SY
100+85	101+50	48	72
	TOTAL:	48	72

*Additional quantities shown elsewhere

Construction Staking

Project	650.4500 Subgrade LF	650.5000 Base LF	650.6500 Structure Layout (B-67-334) LS	650.8000 Resurfacing Reference LF	650.9910 Supplemental Control (Project) LS	650.9920 Slope Stakes LF
1090-15-72	1,477	1,477	1	85,200	1	1,477
Total:	1,477	1,477	1	85,200	1	1,477

TYPE I & II PERMANENT SIGNING -

CATEGORY CODE 0010

IH 43 SB 1090-15-72

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
101	E4-1A	I	[83] WATERFORD [A] MUKWONAGO	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS SHEET 29 OF 29	21 x 11	231.00	1	--	--	--	--	--	--	--	2	--	--	--	--
101A	E1-5p	I	EXIT 43	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 101	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
102		--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
103	D2-3	I	EAST TROY 6 ELKHORN 16 BELOIT 47	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS SHEET 28 OF 29	14 x 7.5	105.00	--	--	--	--	--	--	--	2				--
104	E1-1A	I	[20] EAST TROY 1 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS SHEET 22 OF 29	16 x 11	176.00	1	--	--	--	--	--	--	--	2	--	--	--	--
104A	E1-5p	I	EXIT 38	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 104	9 x 2.5	22.50		--	--	--	--	--	--	--	--	--	--	--
105	D4-4	I	[CAR] PARK & RIDE EXIT 38	-- x --	--	--	--	--	--	--	--	--	PROVIDE NEW STEEL SUPPORTS USE SAME OFFSET PLACE 20' PRIOR TO EXIST. SIGN SHEET 22 OF 29	12 x 7.5	90.00	1	2	--	A	1.2	68	600	--	--	--		
106	E4-1A	I	[20] EAST TROY [A]	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	19 x 8	152.00	1	--	--	--	--	--	--	2	--	--	--	--
106A	E1-5p	I	EXIT 38	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 106	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
107	E5-1A	II	EXIT 38 [A]	72 x 60	30.000	--	1	2		2				-- x --	--												
108	E1-1A	I	[120] EAST TROY LAKE GENEVEA 1/2 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	20 x 14	280.00	1	--	--	--	--	--	--	2	--	--	--	--
108A	E1-5p	I	EXIT 36	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 108	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
109	E4-1A	I	[120] EAST TROY [A] LAKE GENEVA	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	21 x 11	231.00	1	--	--	--	--	--	--	2	--	--	--	--
109A	E1-5p	I	EXIT 36	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 109	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
110	E5-1A	II	EXIT 36 [A]	72 x 60	30.000	--	1	2	--	2	--	--		-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111	D2-3	I	ELKHORN 10 DELAVAN 17 BELOIT 39	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	13 x 7.5	97.50	1	--	--	--	--	--	--	2	--	--	--	--
112	E1-1A	I	BOWERS RD 3/4 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	17 x 7	119.00	--	--	--	--	--	--	--	2	--	--	--	--
112A	E1-5p	I	EXIT 33	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 112	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
113	E4-1A	I	BOWERS RD [A]	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	20 x 4.5	90.00	1	--	--	--	--	--	--	2	--	--	--	--
113A	E1-5p	I	EXIT 33	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 113	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
114	E5-1A	II	EXIT 33 [A]	72 x 60	30.000	--	1	2	--	2	--	--		-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--	--
115	E5-51	I	REST AREA 1 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON NEW STEEL SUPPORTS SAME OFFSET	12 x 5	60.00	1	2	--	A	1.2	68	600	--	--	--	--	--
116	E10-53	I	WEATHER INFO	-- x --	--	--	--	--	--	--	--	--	MOUNT UNDER SIGN # 115	-- x --	--	--	--	1	--	--	--	--	--	--	--	--	--	--
117	E5-52	I	REST AREA [A]	-- x --	--	--	--	--	--	--	--	--	INSTALL NEW STEEL SUPPORTS SAME OFFSET 20' PRIOR TO EXIST. SIGN	10 x 4.5	45.00	1	2	--	A	1.2	68	600	--	--	--	--	--
118	E5-54(4)	II	REST AREA [A]	60 x 66	27.500	--	1	2	--	2	--	--	USE SIZE 4 DUE TO LIMITED GORE AREA	-- x --	--	--	--	--	--	--	--	--		--	--	--	--
119	E1-1A	I	[11] ELKHORN BURLINGTON 1 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	17 x 14	238.00	--	--	--	--	--	--	--	2	--	--	--	--
119A	E1-5p	I	EXIT 29	-- x --	--	--	--	--		--			INSTALL ON SIGN # 119	9 x 2.5	22.50											
120	--	I	WALWORTH COUNTY FAIRGROUNDS EXIT 29	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	13 x 7.5	97.50	1	--	--	--	--	--	--	2	--	--	--	--

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
121	E4-1A	I	[11] ELKHORN [A] BURLINGTON	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	19 x 11	209.00	1	--	--	--	--	--	--	2	--	--	--	--
121A	E1-5p	I	EXIT 29	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN #121	9 x 2.5	22.50	--	--	--	--	--	--	--	--	--	--	--	--
122	E5-1A	II	EXIT 29 [A]	72 x 60	30.000	--	1	2	--	2	--	--		-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
123	E1-1A	I	[12] MADISON LAKE GENEVA 1 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	20 x 14	280.00	1	--	--	--	--	--	--	2	--	--	--	--
123A	E1-5 MOD	I	EXITS 27 A-B	-- x --	--	--	--	--	--	--	--	--	INSTALL ON SIGN # 123	14 x 2.5	35.00	--	--	--	--	--	--	--	--	--	--	--	--
124	--	I	ELKHORN EXIT 27A	-- x --	--	--	--	--	--	--	--	--	INSTALL ON EXIST. STEEL SUPPORTS	12 x 5	60.00	--	--	--	--	--	--	--	2	--	--	--	--
125	E10-61	I	HOSPITAL EXIT 27A	-- x --	--	--	--	--	--	--	--	--	PROVIDE NEW STEEL SUPPORTS OFFSET SAME AS EXIST. SIGN	12 x 4.5	54.00	1	2	--	A	1.2	68	600	--	--	--	--	--
126	D10-2	II	MILE 28	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
127	D10-2	II	MILE 29	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
128	D10-2	II	MILE 30	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
129	D10-2	II	MILE 31	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
130	D10-2	II	MILE 32	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
131	D10-2	II	MILE 33	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
132	D10-2	II	MILE 34	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
133	D10-2	II	MILE 35	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
134	D10-2	II	MILE 36	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
135	D10-2	II	MILE 37	12 x 36	3.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
136	D10-2	II	MILE 38	12 x 24	2.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
137	D10-2	II	MILE 39	12 x 24	2.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
138	D10-2	II	MILE 40	12 x 24	2.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
139	D10-2	II	MILE 41	12 x 24	2.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
140	D10-2	II	MILE 42	12 x 24	2.000	--	1	1	--	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
141	D10-5	II	N (43 SHIELD) 43/0	-- x --	--	--	--	--	1	--	1	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
142	D10-5	II	N (43 SHIELD) 43/2	-- x --	--	--	--	--	1	--	1	--	SHEET 28	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
143	D10-5	II	N (43 SHIELD) 43/4	-- x --	--	--	--	--	1	--	1	--	SHEET 28	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
144	D10-5	II	N (43 SHIELD) 43/6	-- x --	--	--	--	--	1	--	1	--	SHEET 29	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
145	D10-5	II	N (43 SHIELD) 43/8	-- x --	--	--	--	--	1	--	1	--	SHEET 29	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
146	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
147	R3-2(2)	II	--	24 x 24	4.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
148	R1-1(3)	II	--	36 x 36	7.46	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
149	R6-3(2)	II	--	30 x 24	5.00	--	1	--	--	--	--	#148	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
150	R1-1(3)	II	--	36 x 36	7.46	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
151	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M3-4		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
152	R5-1A(5)	II	--	42 x 30	8.75	--	1	--	--	--	--	#151	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
153	R5-1A(5)	II	--	42 x 30	8.75	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
154	R3-1(2)	II	--	24 x 24	4.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
155	R5-1(3)	II	--	30 x 30	6.25	--	1	--	--	--	--	#150	TRIM TO OCTAGON	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
156	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
157	R4-7(2)	II	--	24 x 30	5.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
158	R4-7(2)	II	--	24 x 30	5.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
		--		x	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
159	R6-2L(2)	II	--	24 x 30	5.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
160	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M3-2		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
161	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
162	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
163	R1-2(2)	II	--	36 x 31	3.88	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
164	W3-1(2)	II	--	36 x 36	--	9.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
165	R4-3(5)	II	--	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
166	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
167	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
168	W4-2R(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
169	W9-2L(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
170		--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
171	W9-1R(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
172	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
173	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
174	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
175	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#174	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
176	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
177	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
178	R8-7(5)	II	--	48 x 36	12.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
179	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
180	--	II	CLICK IT	-- x --	--	--	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
181	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
182	W13-2(5)	II	EXIT 25 MPH	48 x 60	--	20.00	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
183	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
184	J4-1(5)	II	--	36 x 51	12.75	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	30 x 15	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
185		--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
186	W11-3	II	DEER CROSSING	-- x --	--	--	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
187	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
188	J2-1(2)	II	--	24 x 57	9.50	--	1	--	--	--	--	#189	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB5-1L		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
189	D1-1	II	[A] MILWAUKEE	78 x 15	8.13	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
190	W12-1D(2)	II	--	24 x 24	--	4.00	1	1	--	--	1	--	2' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
191	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
192	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#191	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
193	R8-7(5)	II	--	48 x 36	12.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
194	W4-2R(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
195	W9-2L(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
196	W9-1R(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
197	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
198	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
199		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
200	D12-2A	II	--	-- x --	--	--	1	2	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
201	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
202	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#201	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
203	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
204	J4-1(5)	II	--	36 x 54	13.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	36 x 18	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
205	D12-2B(5)	II	--	114 x 48	38.00	--	--	--	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
206	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
207		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
208		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
209		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
210		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
211		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
212		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
213		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
214		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
215		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
216		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
217		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
218		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
219		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
220		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
221		II	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
222	R5-1A(5)	II	--	42 x 30	8.75	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
223	R5-1A(5)	II	--	42 x 30	8.75	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
224	D1-2	II	[A] LAKE GENEVA EAST TROY [A]	84 x 30	17.50	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
225	W3-1(2)	II	--	36 x 36	--	9.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
226		--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
227	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
228	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
229	NOT USED		--			--			--		--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
			--			--	--		--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
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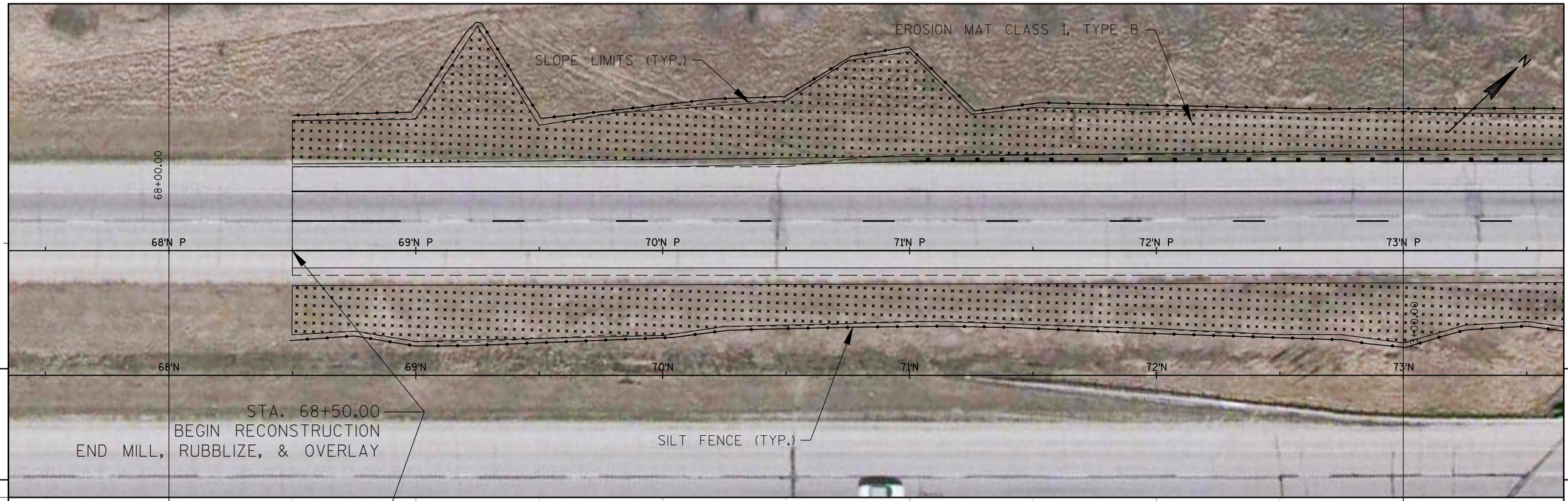
			--		--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
230	R4-3(5)	II	--	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
231	R8-7(5)	II	--	48 x 36	12.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
232	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
233	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
234	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#233	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
235	J4-1(5)	II	--	36 x 54	13.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	36 x 18	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
236	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
237	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M3-2		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
238	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
239	W5-52L(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
240	W5-52R(3)	II	--	18 x 54	--	6.75	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
241	W3-1(2)	II	--	36 x 36	--	9.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
242	J2-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M3-2		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
243	D1-2	II	[A] WATERFORD EAST TROY [A]	72 x 30	15.00	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
244	W1-6(2)	II		48 x 24	--	8.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
245	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M3-4		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
246	D4-5L(2)	II	--	36 x 48	12.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
247	R5-1A(5)	II	--	42 x 30	8.75	--	1	--	--	--	--	#246	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
248	R5-1A(5)	II	--	42 x 30	8.75	--	1	--	--	--	--	--	MOUNT ON BACK ON EXIST. SIS	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
249	R1-1(3)	II	--	36 x 36	7.46	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
250	R1-1(3)	II	--	36 x 36	7.46	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
251	R6-3(2)	II	--	30 x 24	5.00	--	1	--	--	--	--	#250	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
252	R6-2L(2)	II	--	24 x 30	5.00	--	1	--	--	--	--	#250	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
253	R1-2(2)	II	--	36 x 31	3.88	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
254	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
255	R3-2(2)	II	--	24 x 24	4.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
256	R5-57(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
257	R4-7(3)	II	--	36 x 48	12.00	--	1	--	--	--	--	#255	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
258	R4-7(3)	II	--	36 x 48	12.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
259	R3-1(2)	II	--	24 x 24	4.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
260	R5-1(3)	II	--	30 x 30	6.25	--	1	--	--	--	--	#259	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
261	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
262	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#261	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
263	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
264	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#263	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
265		--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	* NOT USED *	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
266	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
267	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#266	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
268	I2-2	II	WALWORTH CO.	96 x 21	14.000	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
269	D12-2B(5)	II	--	114 x 48	38.00	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
270	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
271	J4-1(5)	II	--	36 x 54	13.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	36 x 18	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
272	W5-52L(3)	II	--	18 x 54	--	6.750	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
273	W5-52R(3)	II	--	18 x 54	--	6.750	1	1	--	--	1	--	4' MOUNTING HEIGHT	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
274	D1-1	II	[A] MILWAUKEE	78 x 15	8.13	--	1	2	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
275	J2-1(2)	II	--	24 x 57	9.50	--	1	--	--	--	--	#274	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-1		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB5-1L		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
276	R5-57(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
277	R5-1(3)	II	--	30 x 30	6.25	--	1	--	--	--	--	#278	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
278	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--

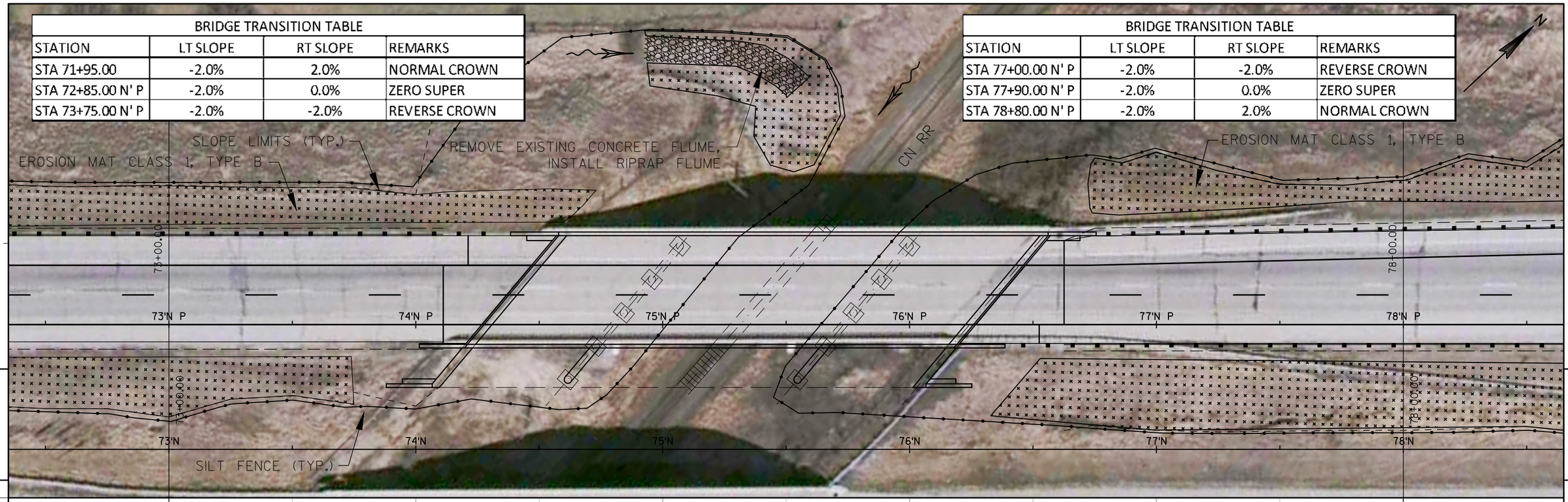
SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	638.2102 MOVE SIGNS TYPE II I [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0614 WOOD POSTS 4"X 6"x14' [EA]	638.2102 MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	638.2101 MOVING SIGNS TYPE I I [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
279	J3-1(2)	II	--	24 x 57	9.50	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	24 x 12	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	24 x 24	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB6-1		--	21 x 21	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
280	R4-7(3)	II	--	36 x 48	12.00	--	1	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
281	R4-7(3)	II	--	36 x 48	12.00	--	1	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
282	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
283	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	1	1	--	1	--	--	SHEET 2	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
284	J4-1(5)	II	--	36 x 51	12.75	--	1	1	--	1	--	--	SHEET 2	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	MB3-3		--	30 x 15	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
	M1-1		--	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
285	W4-1(5)	II	--	48 x 48	--	16.00	1	1	--	1	--	--	SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
286	R5-57(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	SHEET 3	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
287	W11-3	II	DEER CROSSING	-- x --	--	--	1	1	--	--	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
288	R3-1(2)	II	--	24 x 24	4.00	--	--	--	--	--	--	--	MOUNT ON EXIST. POST	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
289	R3-2(2)	II	--	24 x 24	4.00	--	--	--	--	--	--	--	MOUNT ON EXIST. POST	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
290	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
291	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#290	MOUNT UNDER SIGN #290 - SHEET 19	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
292	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
293	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#292	MOUNT UNDER SIGN #292 - SHEET 21	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
294	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
295	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#294	MOUNT UNDER SIGN #294 - SHEET 24	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
296	R3-4(5)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
297	R3-4A(5)	II	--	36 x 12	3.00	--	1	--	--	--	--	#296	MOUNT UNDER SIGN #296 - SHEET 28	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
298	R5-1(3)	II	--	36 x 36	9.00	--	1	1	--	1	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
299	D12-2B	II	--	114 x 48	38.00	--	--	--	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
300	D12-2A	II	--	78 x 54	29.25	--	--	--	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
301	D12-2A	II	--	78 x 54	29.25	--	--	--	--	2	--	--	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTALS					1199.100	359.000	148	135	5	106	37	--			2852.50	14	8	1	--	4.800	272.000	2400.000	28				



PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN AND PROFILE: SOUTHBOUND IH-43	SHEET 166	E

BRIDGE TRANSITION TABLE			
STATION	LT SLOPE	RT SLOPE	REMARKS
STA 71+95.00	-2.0%	2.0%	NORMAL CROWN
STA 72+85.00 N' P	-2.0%	0.0%	ZERO SUPER
STA 73+75.00 N' P	-2.0%	-2.0%	REVERSE CROWN

BRIDGE TRANSITION TABLE			
STATION	LT SLOPE	RT SLOPE	REMARKS
STA 77+00.00 N' P	-2.0%	-2.0%	REVERSE CROWN
STA 77+90.00 N' P	-2.0%	0.0%	ZERO SUPER
STA 78+80.00 N' P	-2.0%	2.0%	NORMAL CROWN



5

5

VCL = 1130.00'
K = 416.96
VPI STA = 77+10.00
VPI EL = 859.27

STA. 75+26.85
REMOVE STRUCTURE B-67-0131
191'-1¾" THREE SPAN, CONCRETE GIRDER
44' CLEAR ROADWAY WIDTH

STA. 75+31.29
STRUCTURE B-67-0334 REQUIRED
200'-0" THREE SPAN, CONCRETE GIRDER
44' CLEAR ROADWAY WIDTH

FINISHED IH-43 SB PROFILE

EXISTING IH-43 SB PROFILE

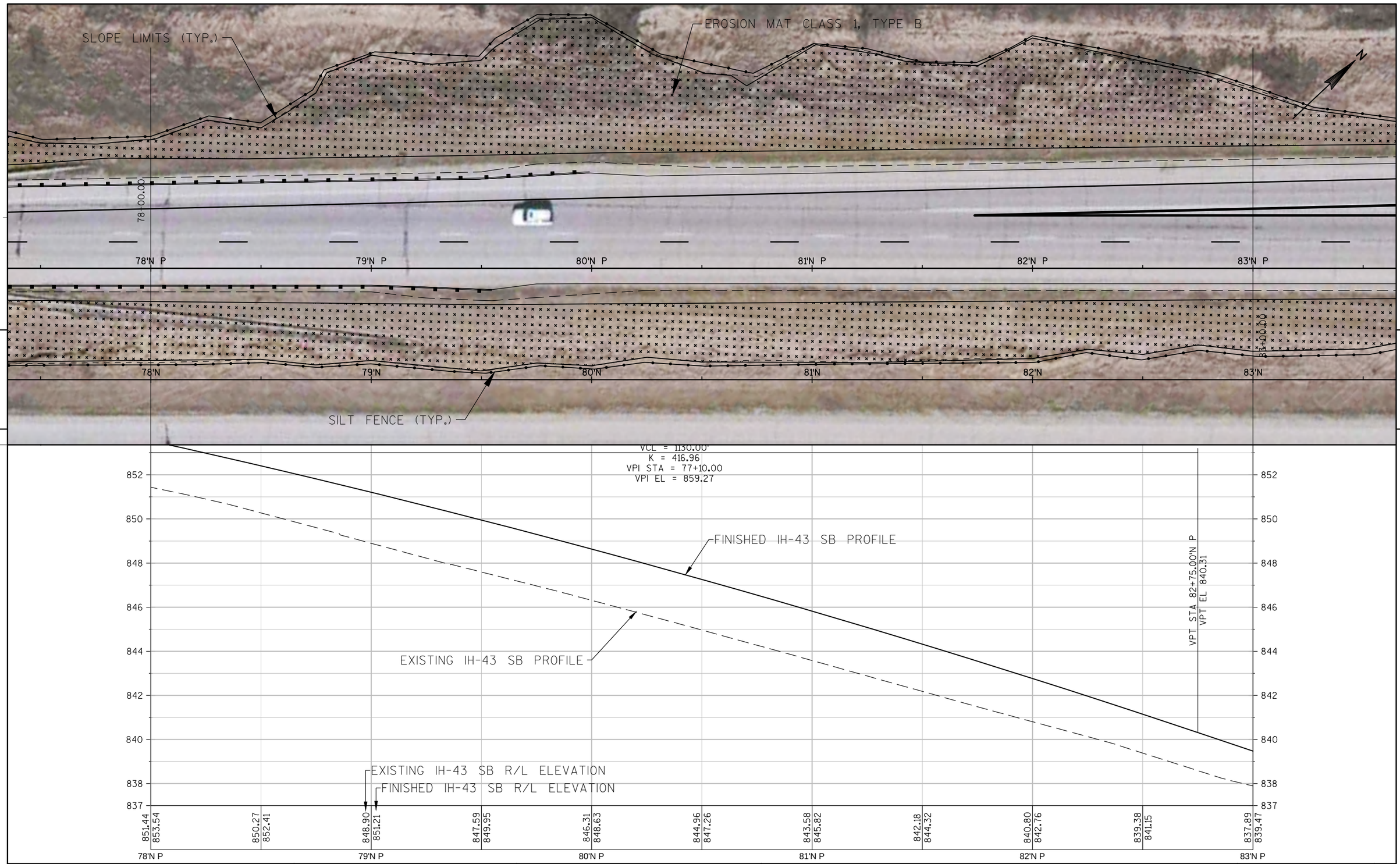
EXISTING IH-43 SB R/L ELEVATION
FINISHED IH-43 SB R/L ELEVATION

866
864
862
860
858
856
854
852
850

73'N P	74'N P	75'N P	76'N P	77'N P	78'N P
860.50 / 861.63	859.80 / 861.09	858.92 / 860.49	858.30 / 859.83	857.42 / 859.11	856.55 / 858.34
855.67 / 857.50	854.44 / 856.60	853.18 / 855.64	852.48 / 854.62	851.44 / 853.54	

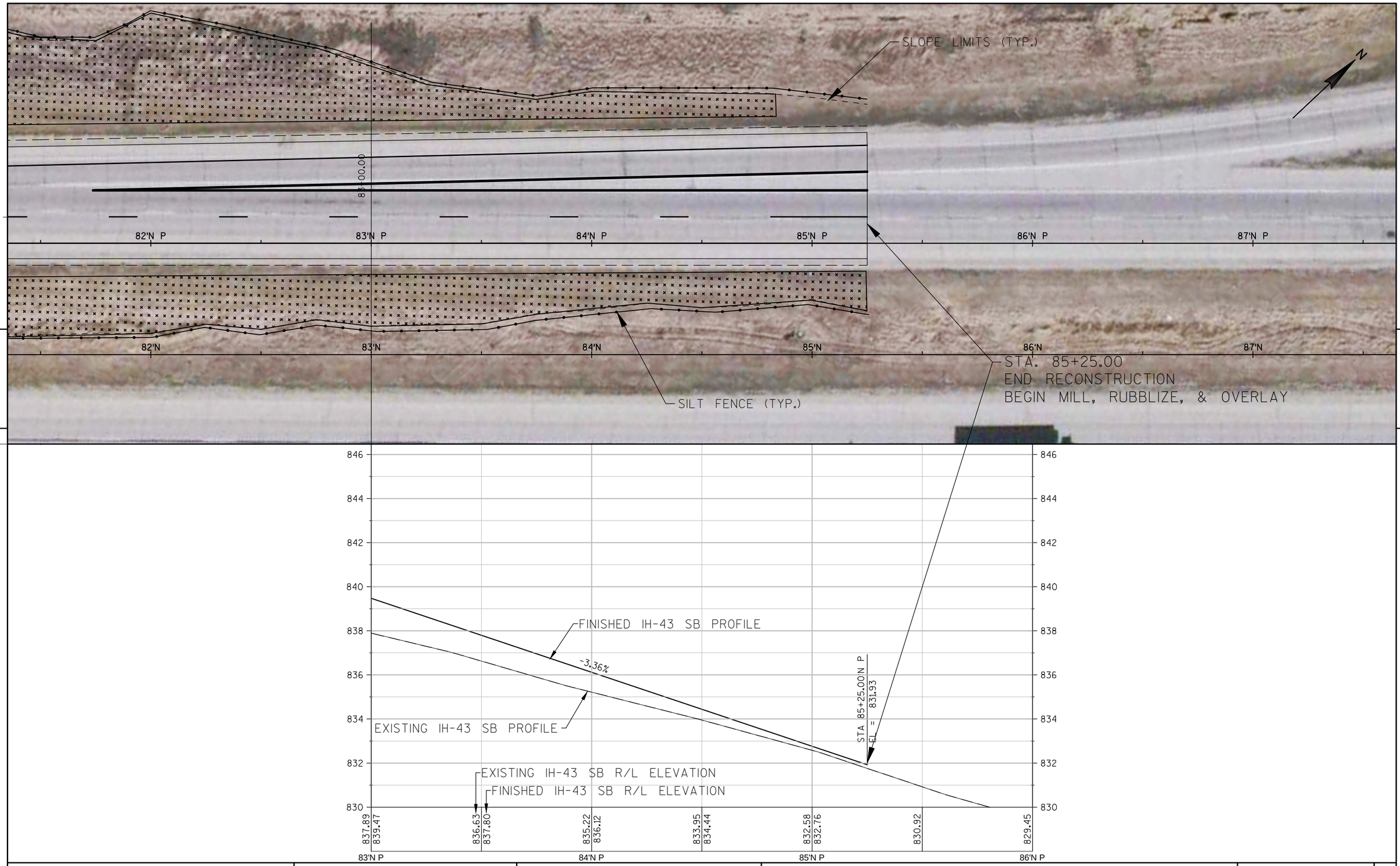
PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN AND PROFILE: SOUTHBOUND IH-43	SHEET	E

FILE NAME : Q:\2011 PROJECTS\2011020 - I43 RESURFACE\MICROSTATION\PLANSET\1090-15-72\050101_PP.DWG PLOT DATE : 8/1/2013 1:24 PM PLOT BY : PATRICK SMITH PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 44



PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALORTH	PLAN AND PROFILE: SOUTHBOUND IH-43	SHEET	E

FILE NAME : Q:\2011 PROJECTS\2011020 - I43 RESURFACE\MICROSTATION\PLANSET\1090-15-72\050101_PP.DWG PLOT DATE : 8/1/2013 1:24 PM PLOT BY : PATRICK SMITH PLOT NAME : _____ PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 44



PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	PLAN AND PROFILE: SOUTHBOUND IH-43	SHEET 169	E

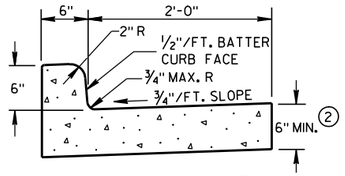
Standard Detail Drawing List

08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
11A01-04	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B28-02	GUARDRAIL MOW STRIP
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A06-02	DELINEATOR LAYOUT
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

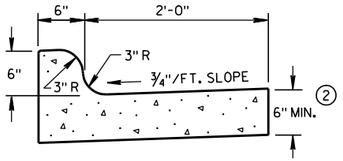
6

Standard Detail Drawing List

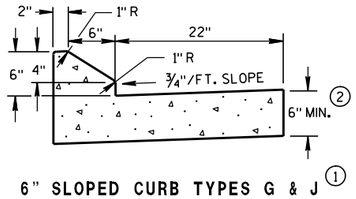
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15C	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-15D	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C10-10	PAVEMENT MARKINGS FOR DROP LANES FREEWAY/EXPRESSWAY
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C14-01	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-01	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D05-02	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D13-01	TEMPORARY EMERGENCY PULLOUTS
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-01	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-01	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



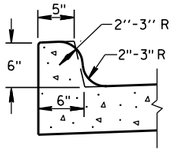
TYPES A & D (1)



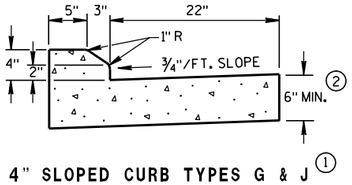
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

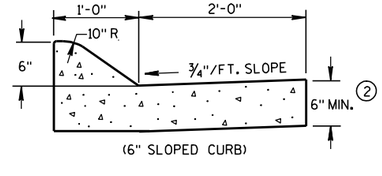


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

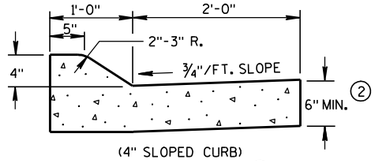


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

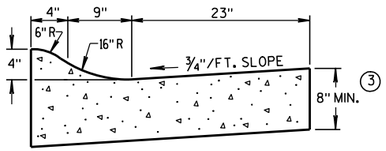


(6" SLOPED CURB)



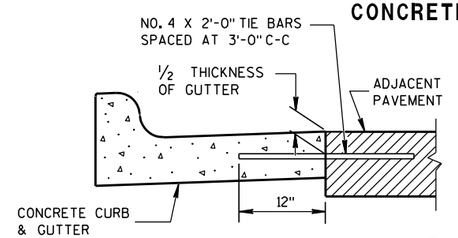
(4" SLOPED CURB)

TYPES A & D (1)

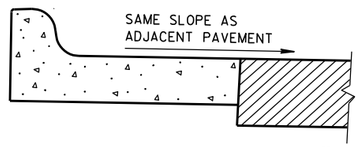


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

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.

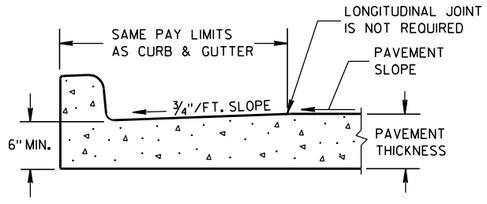
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

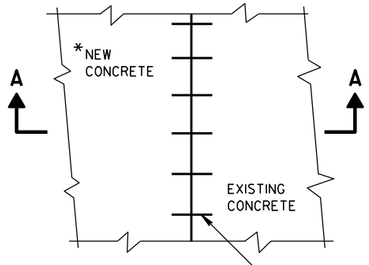
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

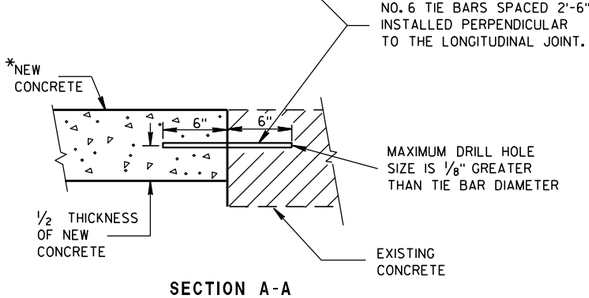


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



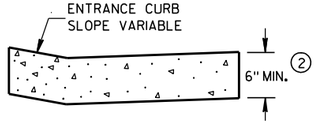
PLAN VIEW

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

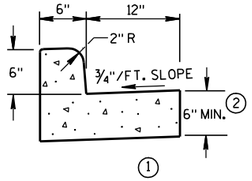


SECTION A-A

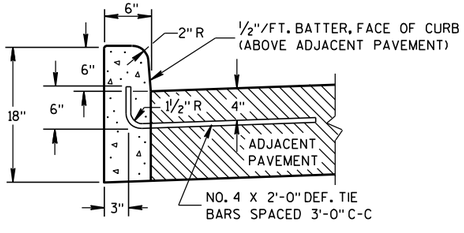
TIE BARS DRILLED INTO EXISTING PAVEMENT



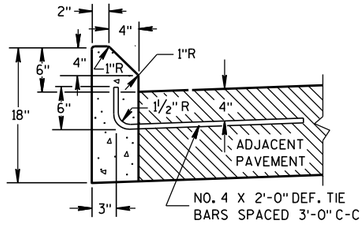
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



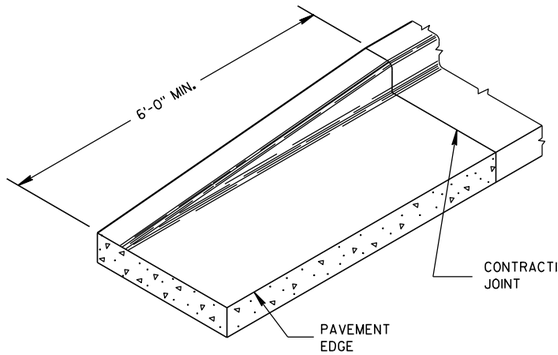
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

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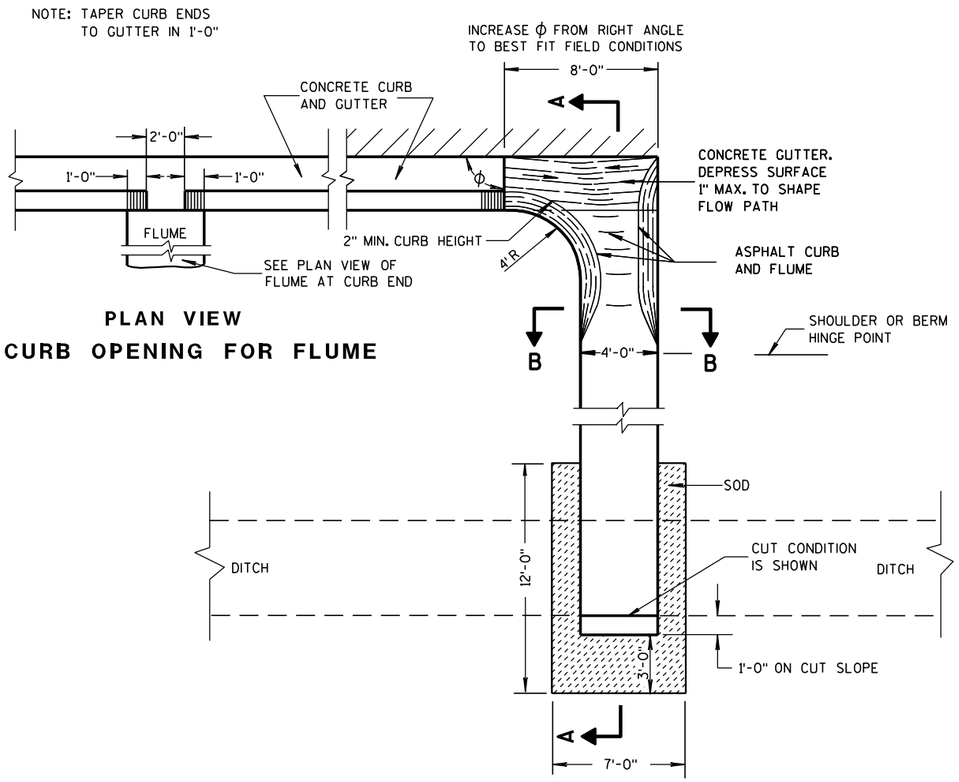
S.D.D. 8 D 1-17

6

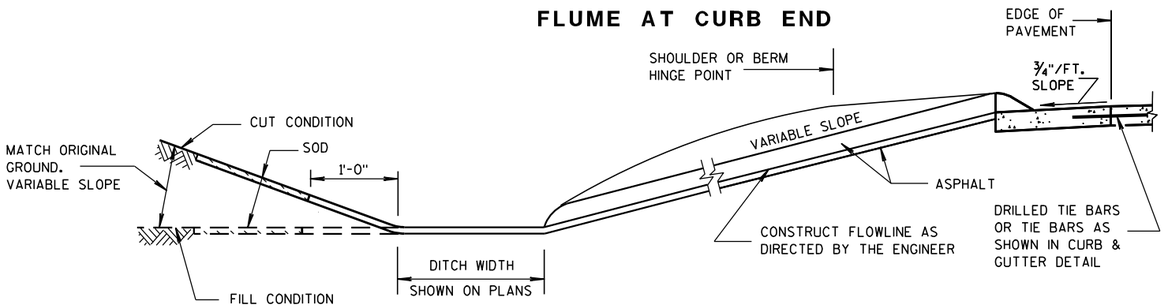
S.D.D. 8 D 1-17

ASPHALTIC FLUME

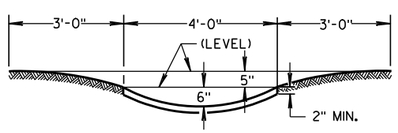


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

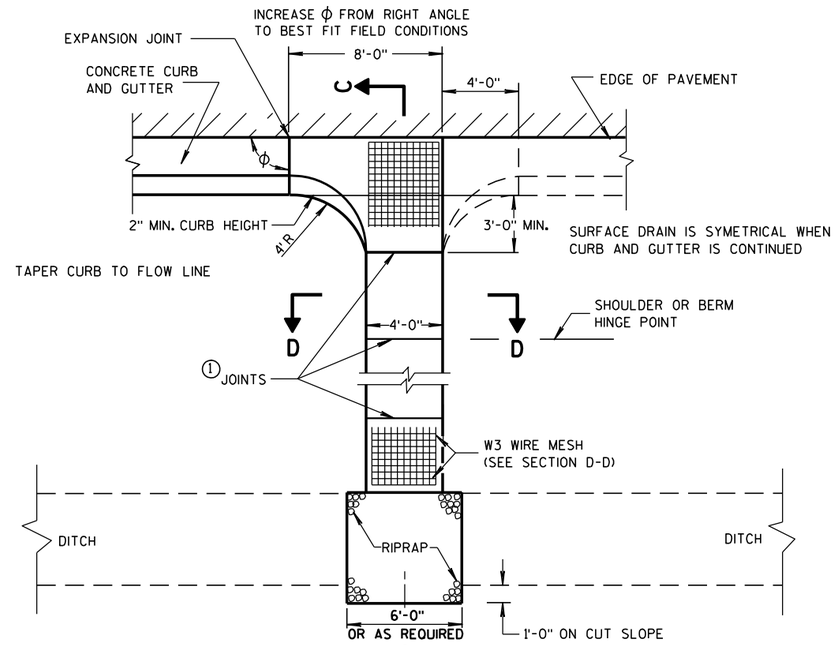
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

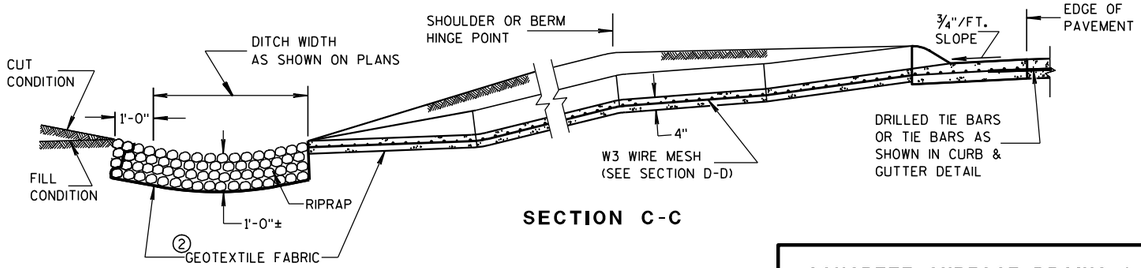
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

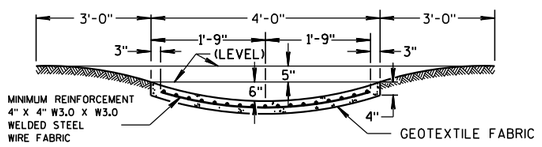
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



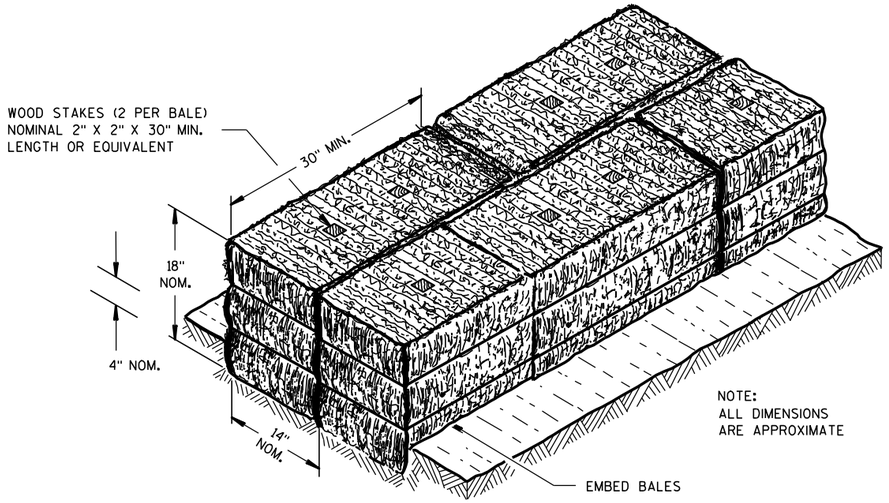
SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

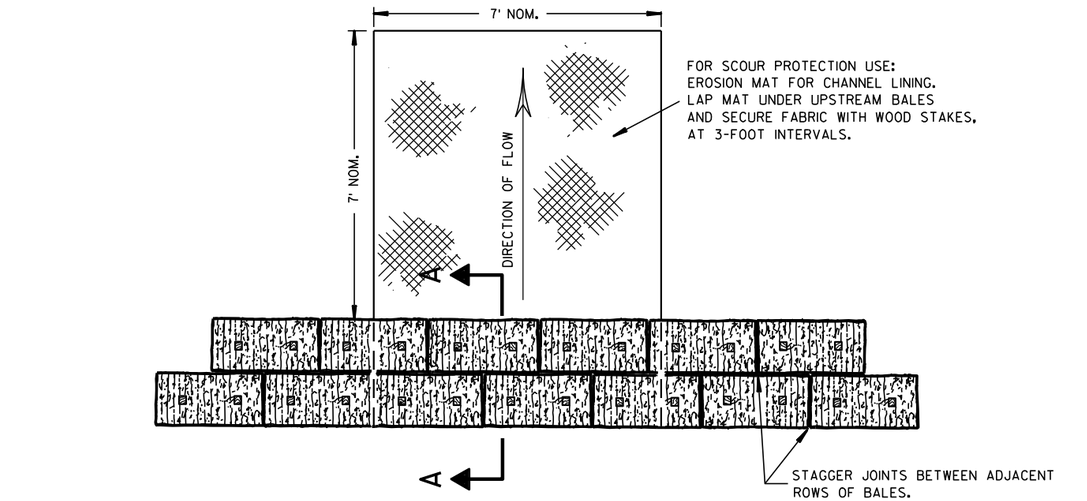
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

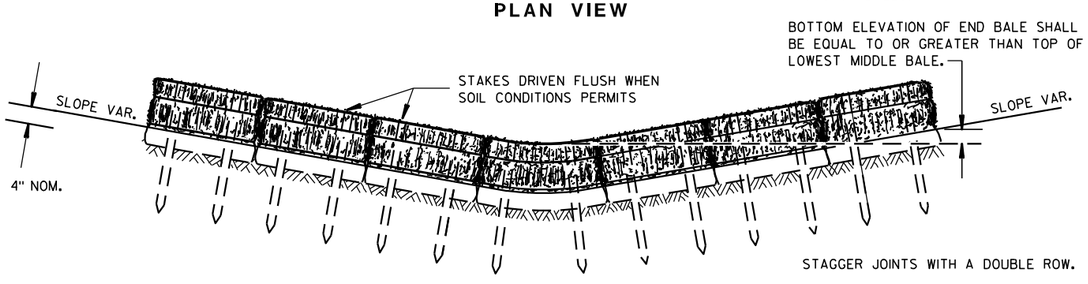
6
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



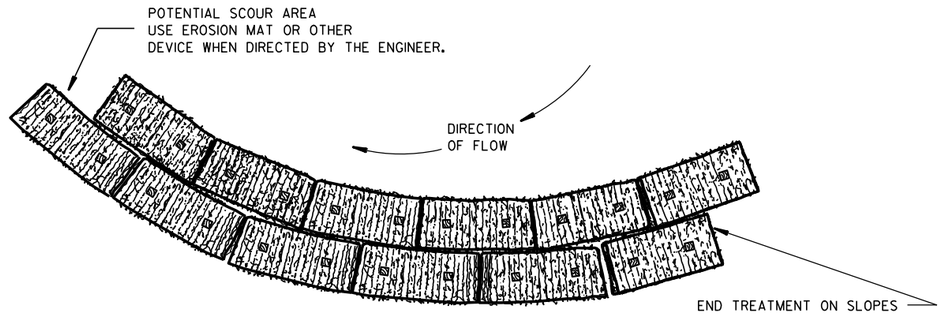
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

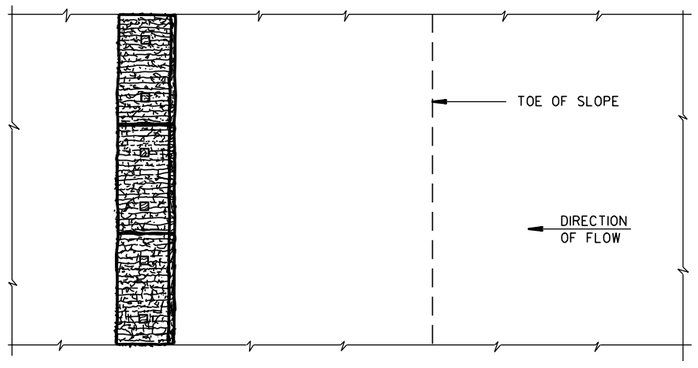
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

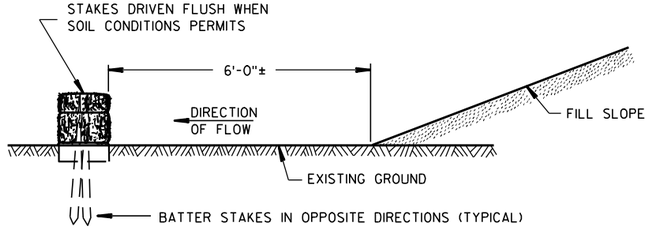


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

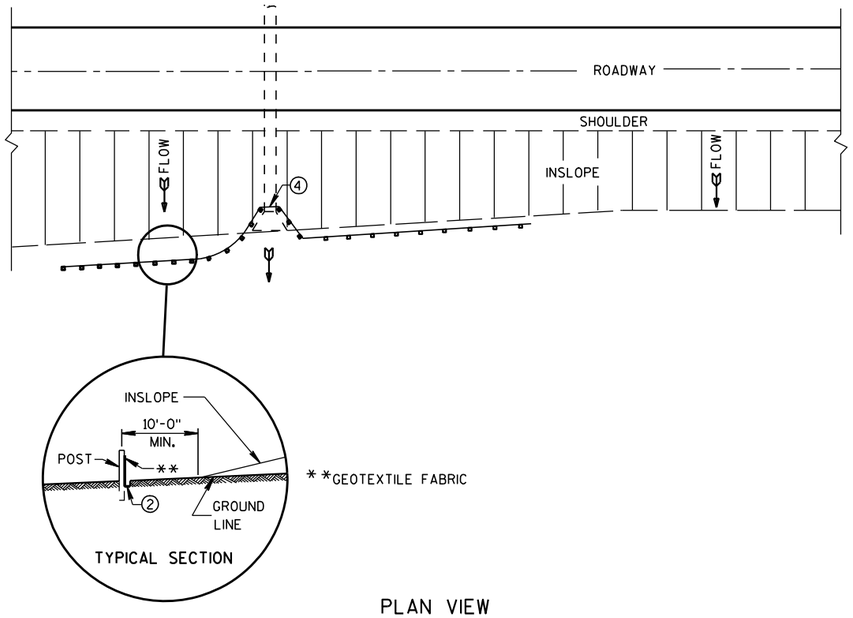
APPROVED

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

FHWA

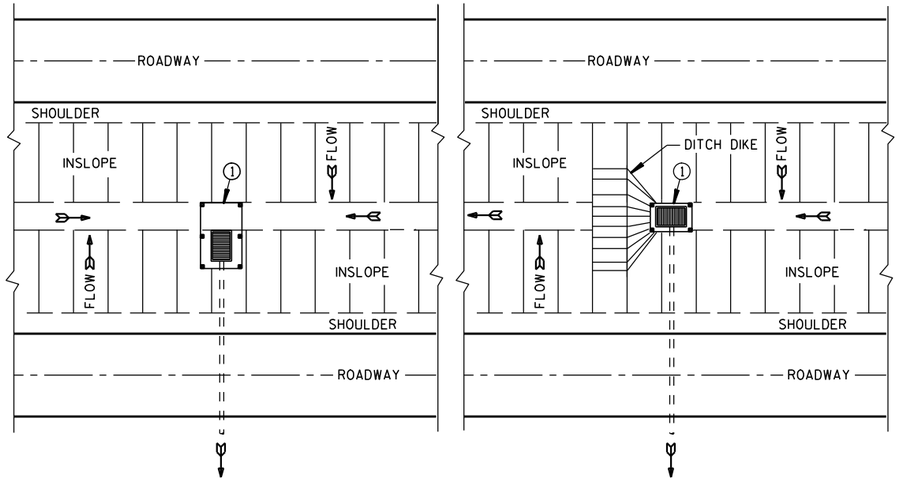
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



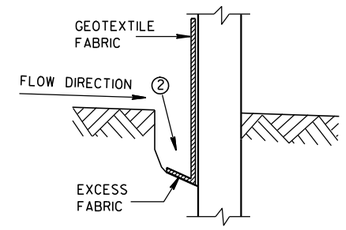
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

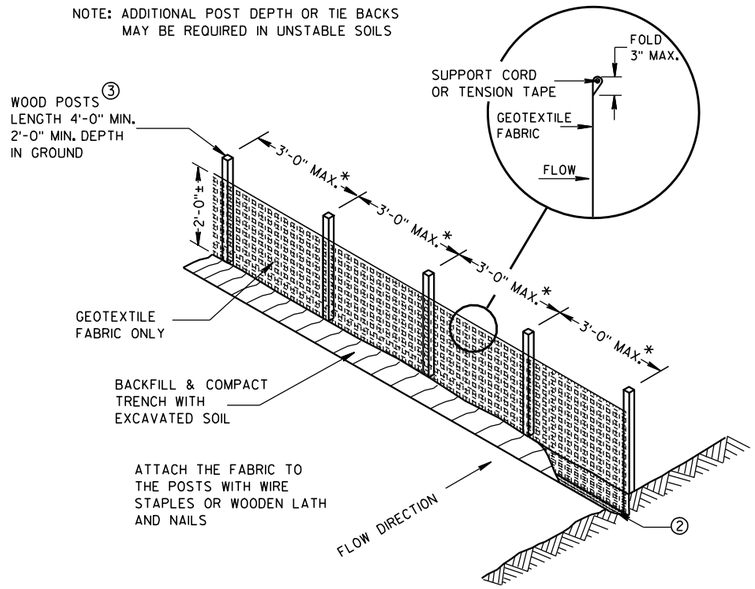
GENERAL NOTES

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

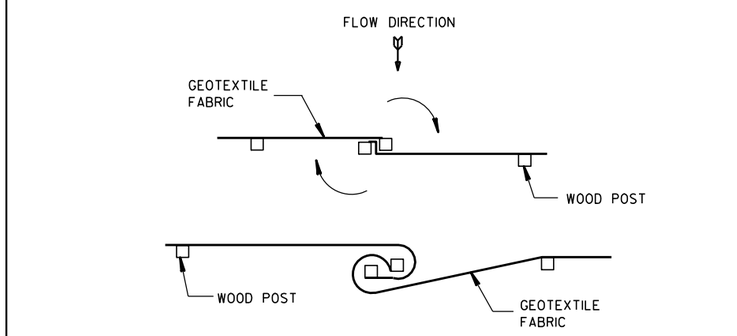
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



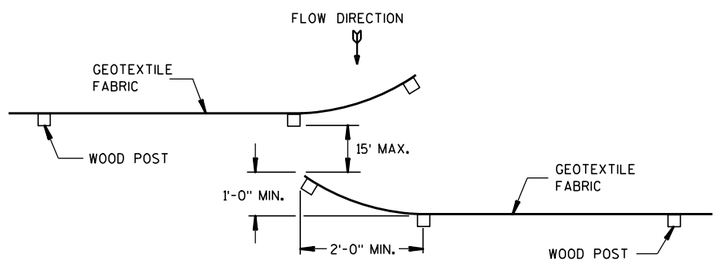
TRENCH DETAIL



SILT FENCE

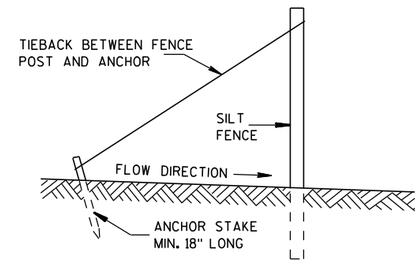


TWIST METHOD



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

6

S.D.D. 8 E 9-6

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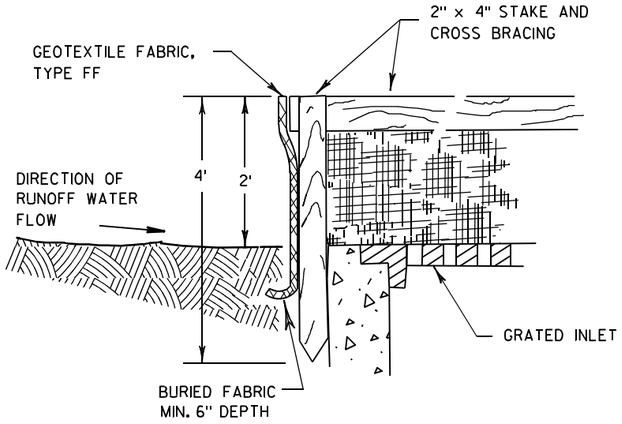
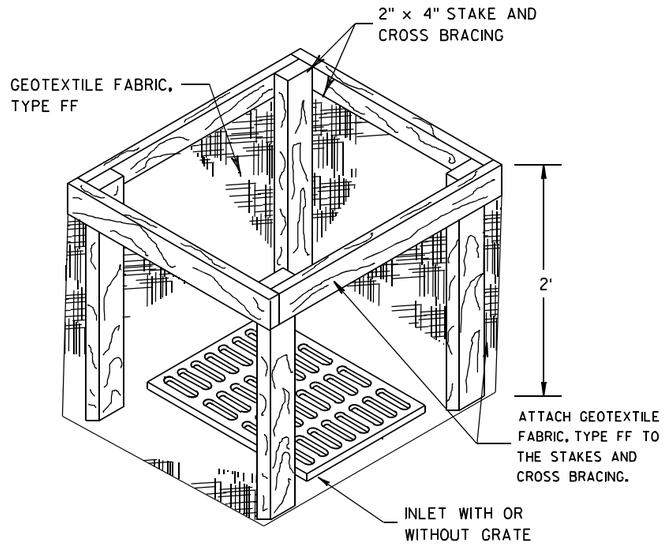
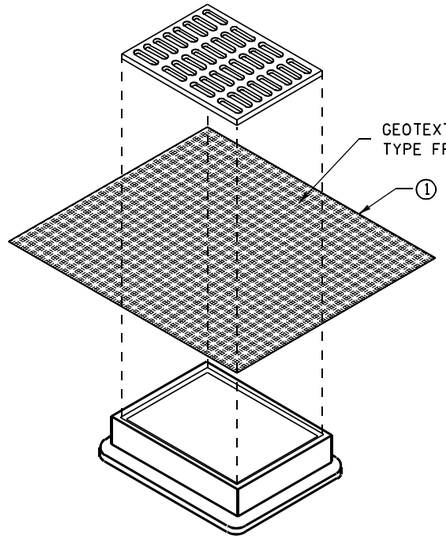
S.D.D. 8 E 9-6



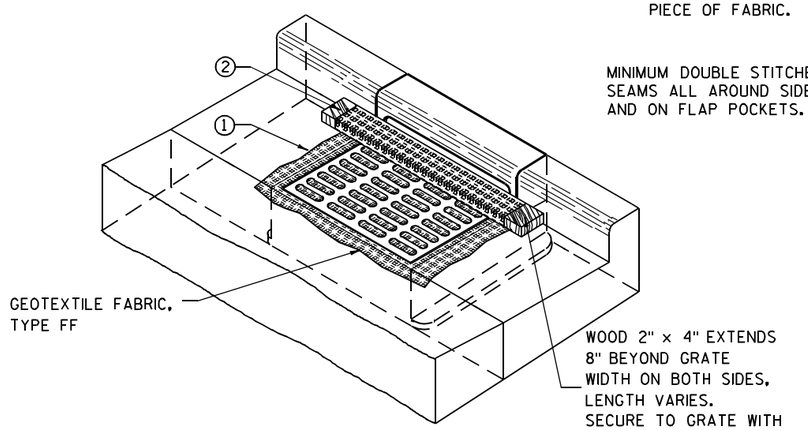


INLET PROTECTION, TYPE A

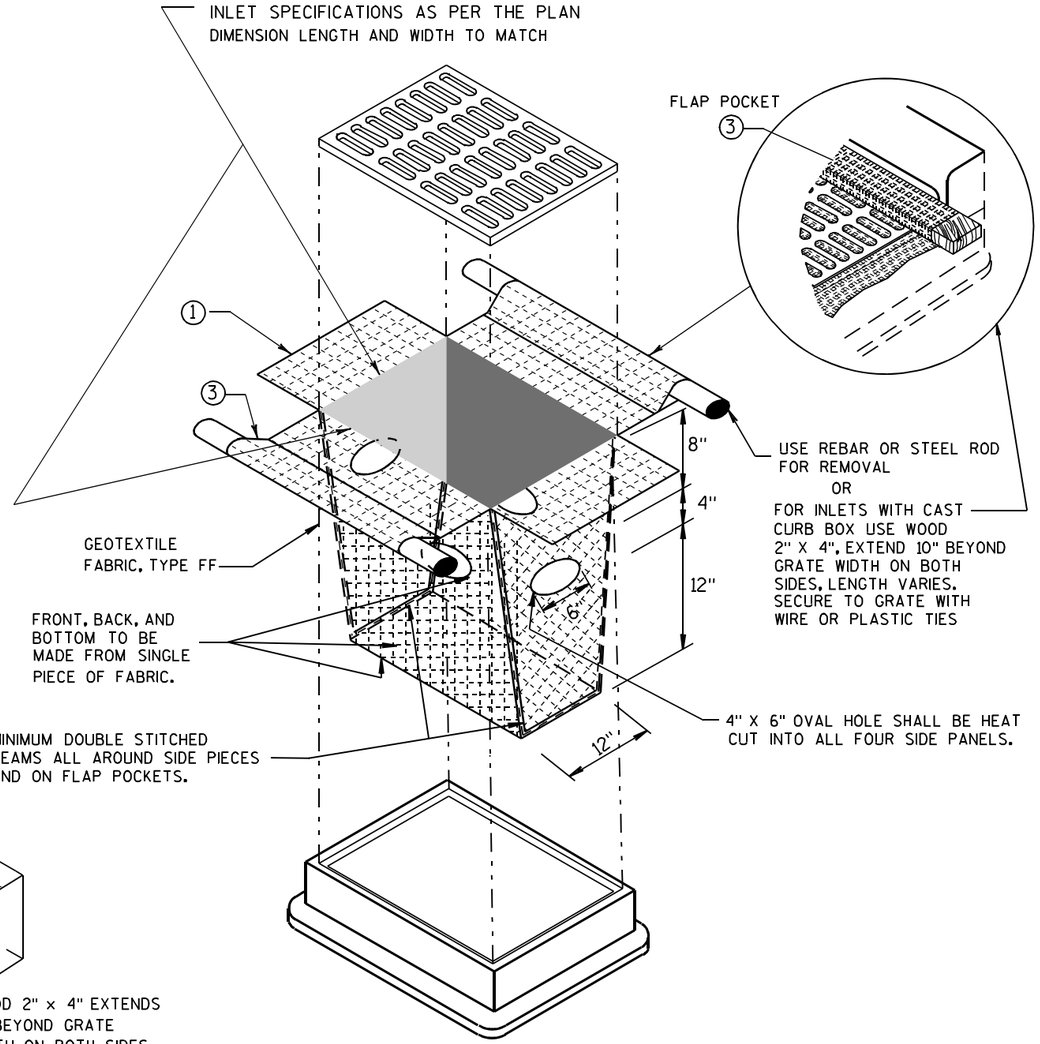


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 10-2

METAL APRON ENDWALLS

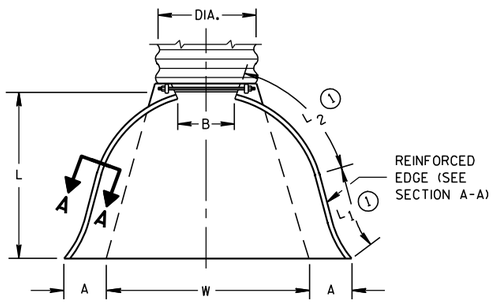
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

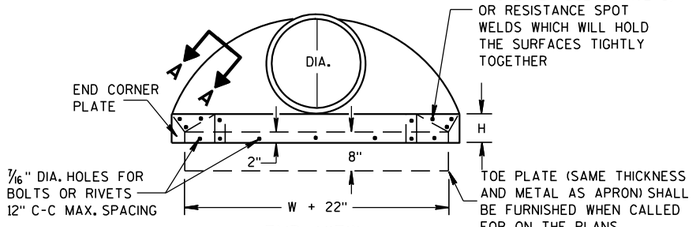
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24-30 **	* 72-78 **	* 21-27 **	99	102	5 1/2	2 to 1
72	7	* 24-36 **	78	21	99	108	6	2 to 1
78	7 1/2	* 24-36 **	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

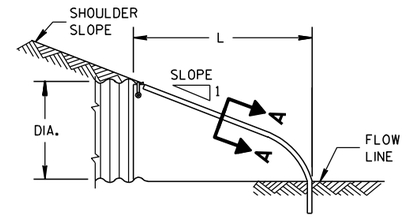
*MINIMUM
**MAXIMUM



PLAN VIEW

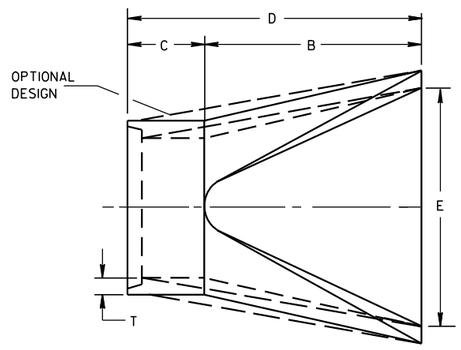


END VIEW

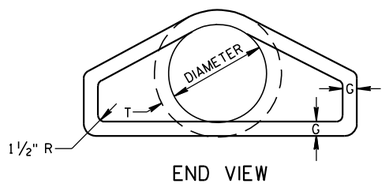


SIDE ELEVATION

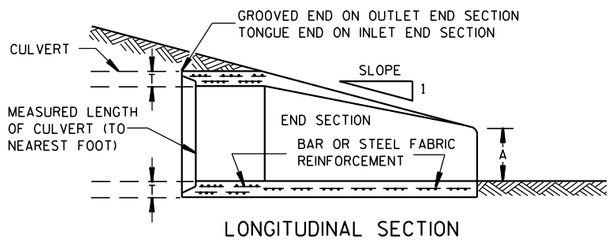
METAL ENDWALLS



PLAN

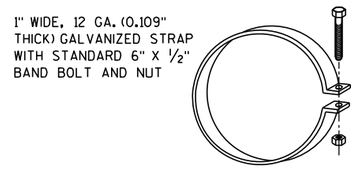


END VIEW



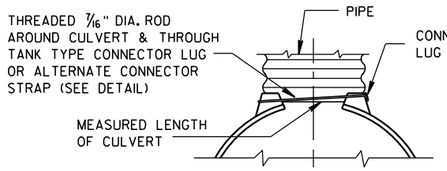
LONGITUDINAL SECTION

CONCRETE ENDWALLS

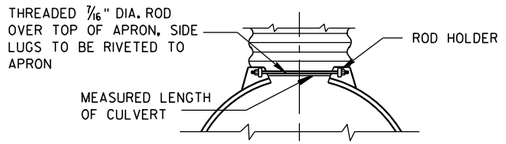


ALTERNATE FOR TYPE 1 CONNECTION

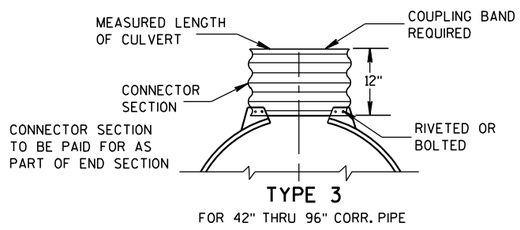
END SECTION CONNECTOR STRAP



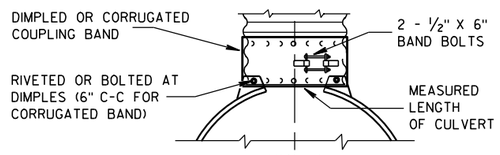
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

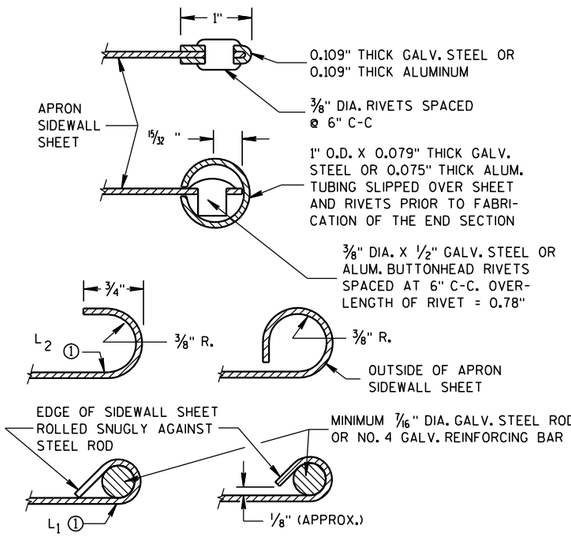
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

177

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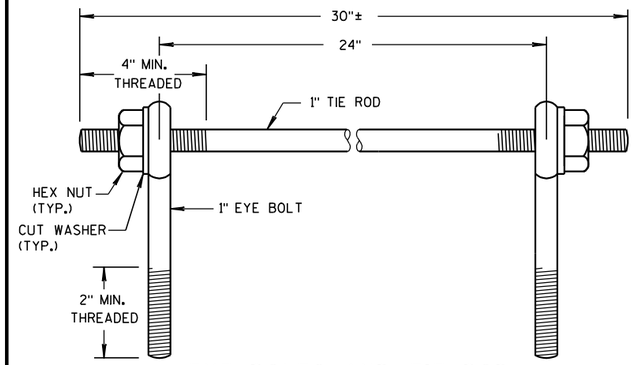
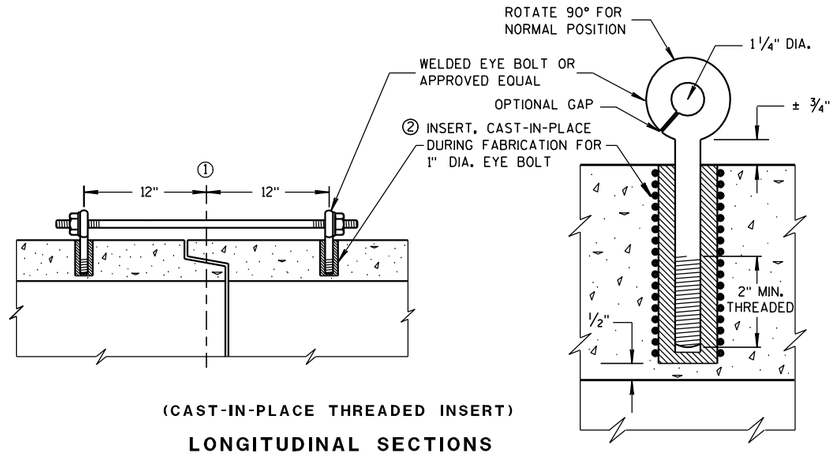
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

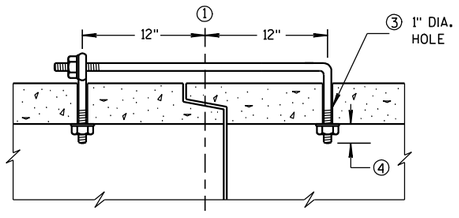
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

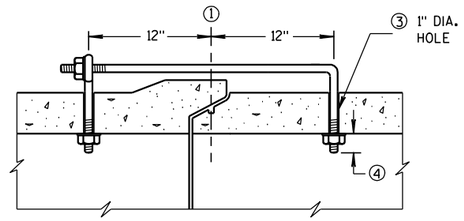
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

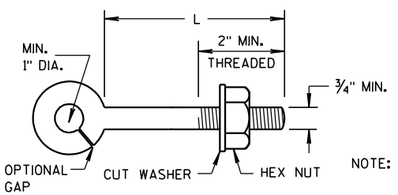


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

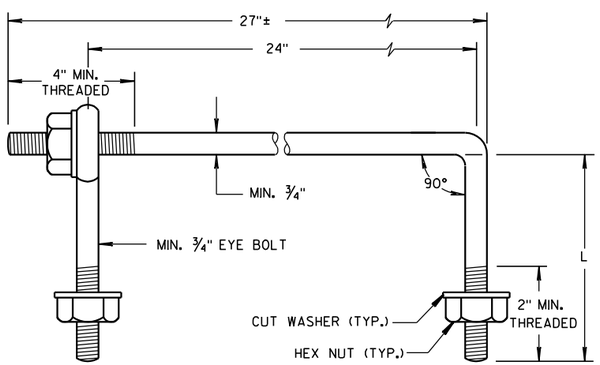
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

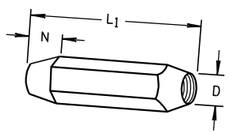
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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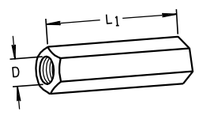
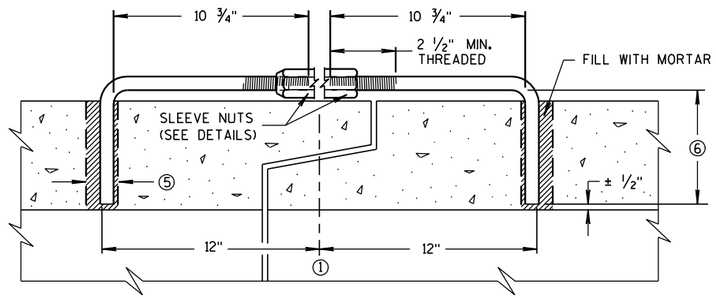


PLAIN

RIGHT AND LEFT THREADS

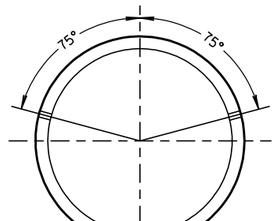
SLEEVE NUTS



LONGITUDINAL SECTION

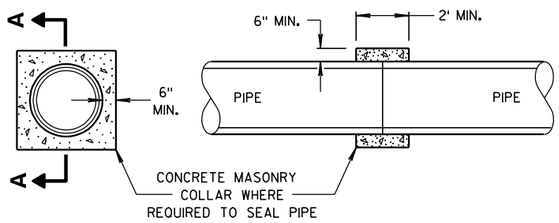
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

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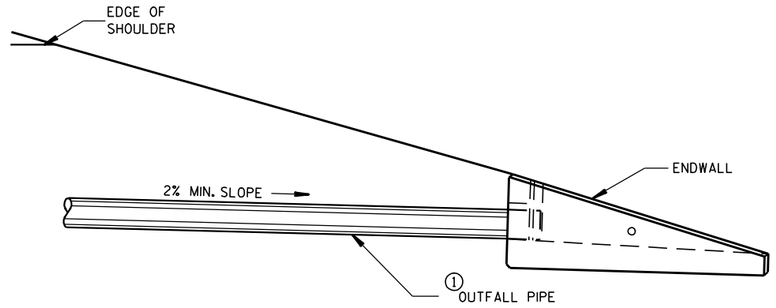
S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

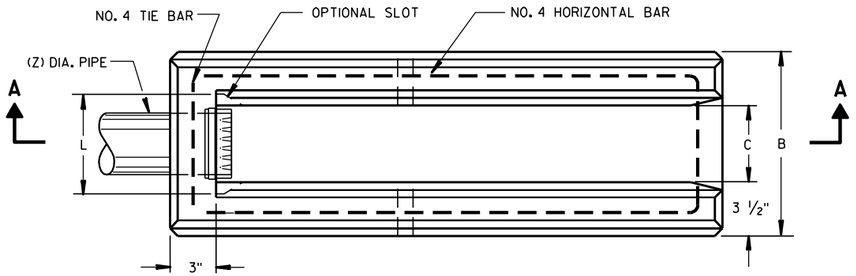
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

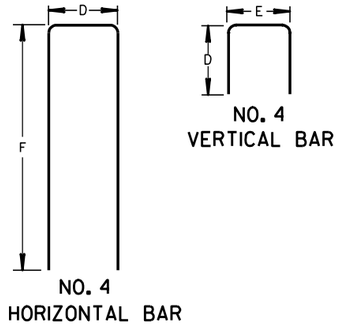
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

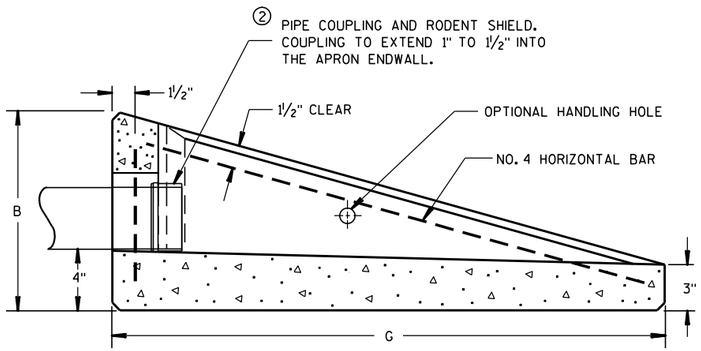
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



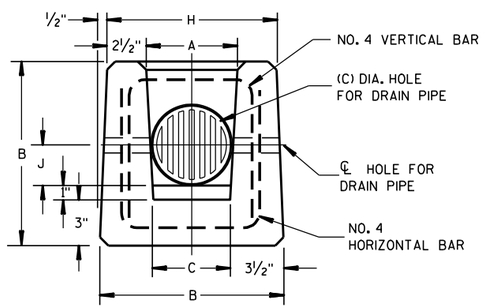
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

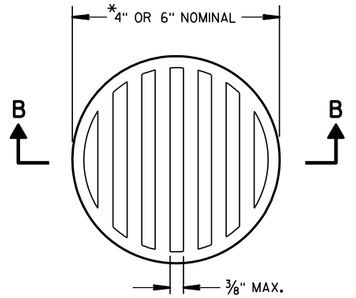


SECTION A-A

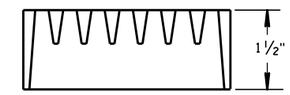


END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4

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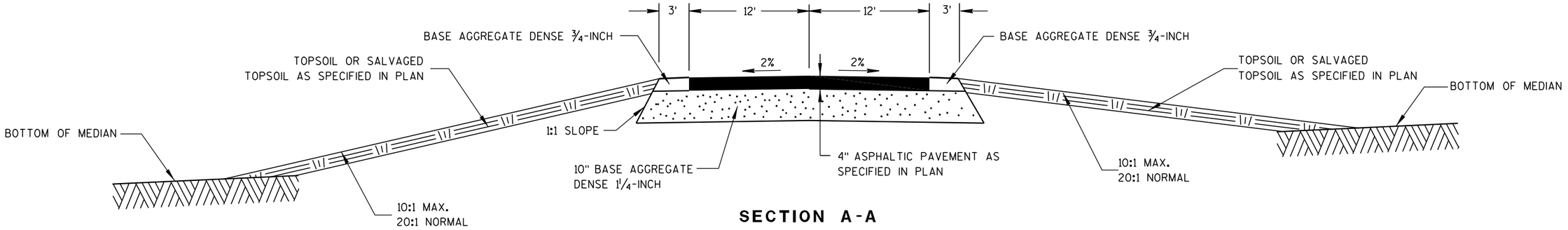
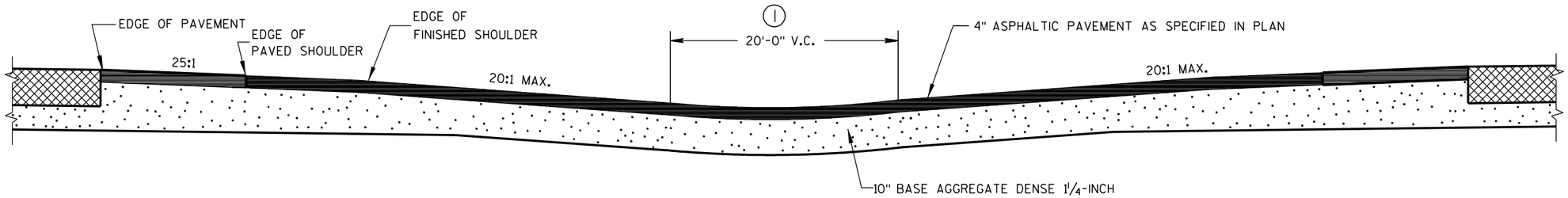
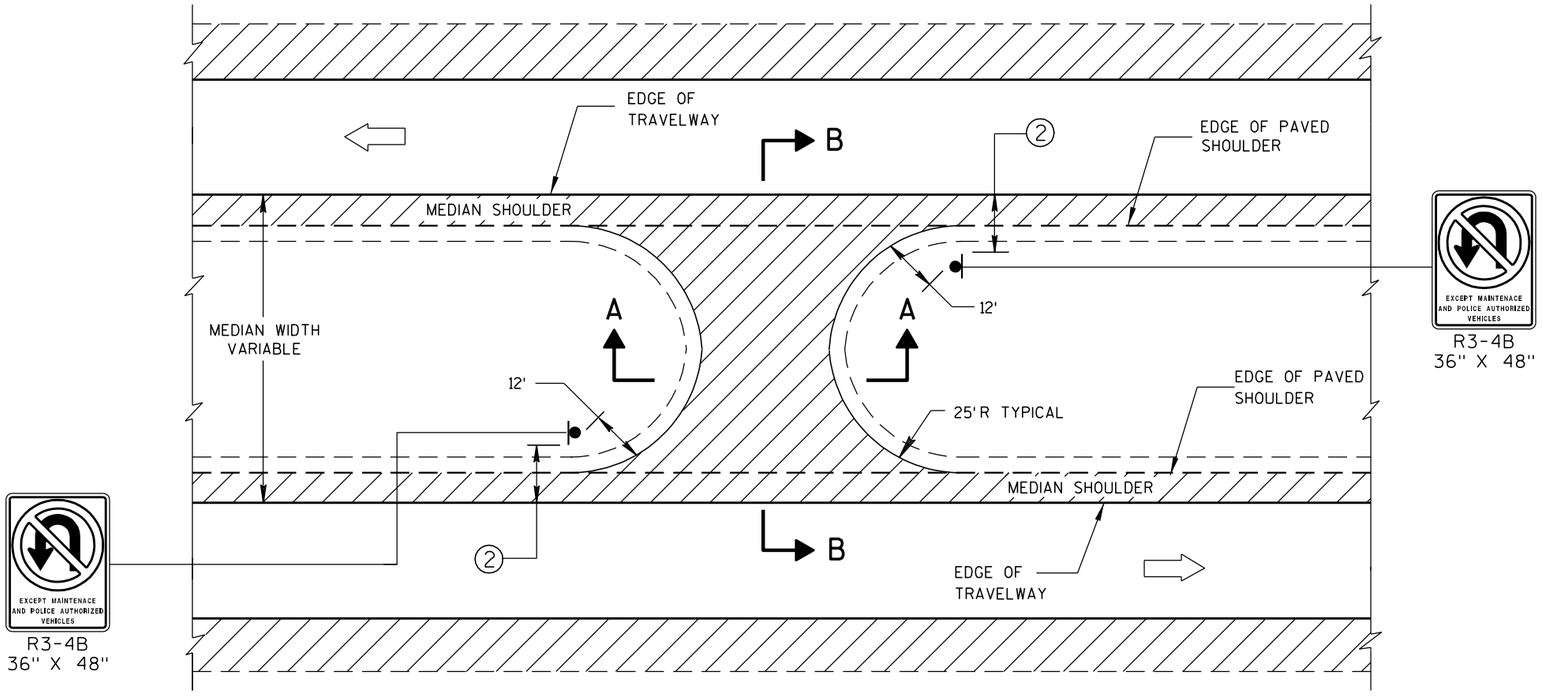
S.D.D. 8 F 6-4



SECTION A-A



SECTION B-B



PLAN VIEW

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) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

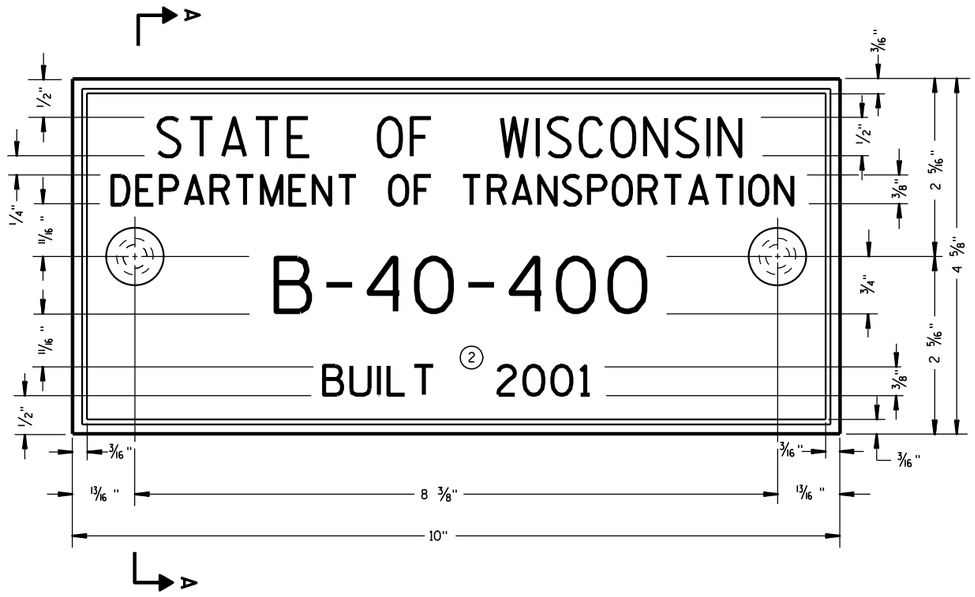
MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/01/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

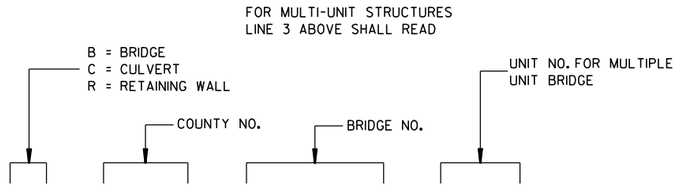
6

S.D.D. 11 A 1-4



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

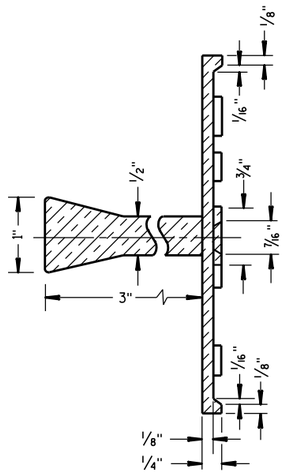
GENERAL NOTES

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

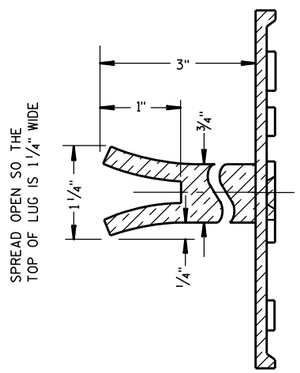
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

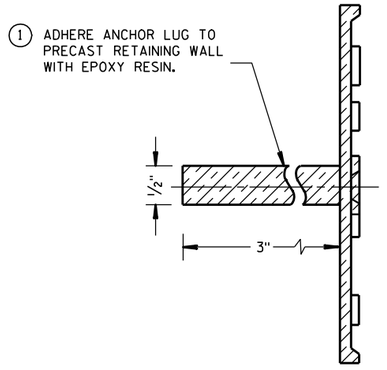
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

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S.D.D. 12 A 3-10

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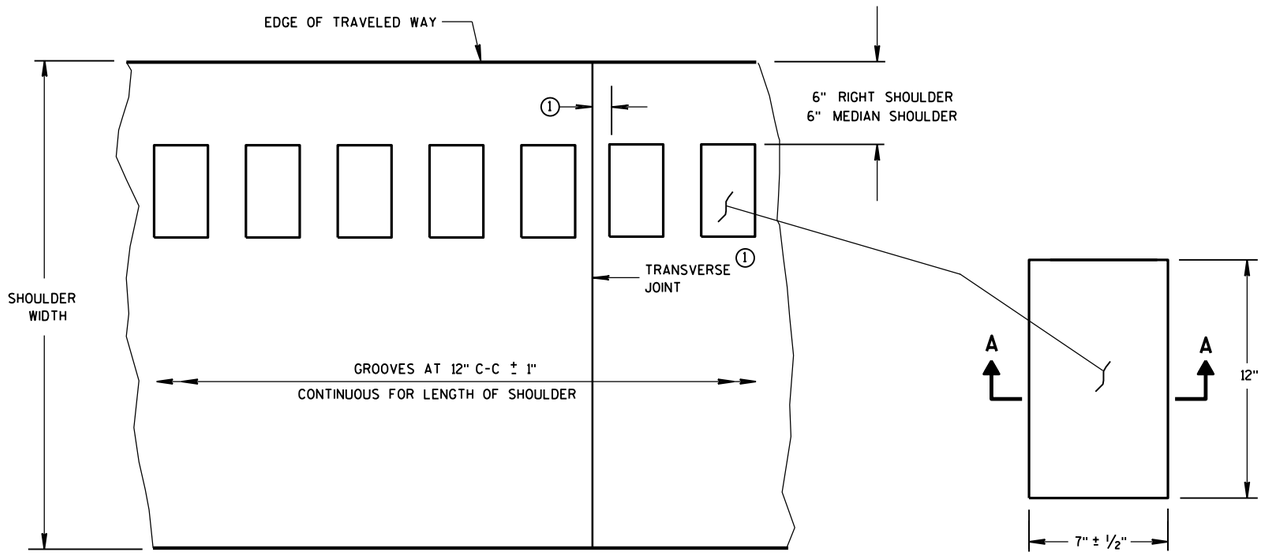
S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

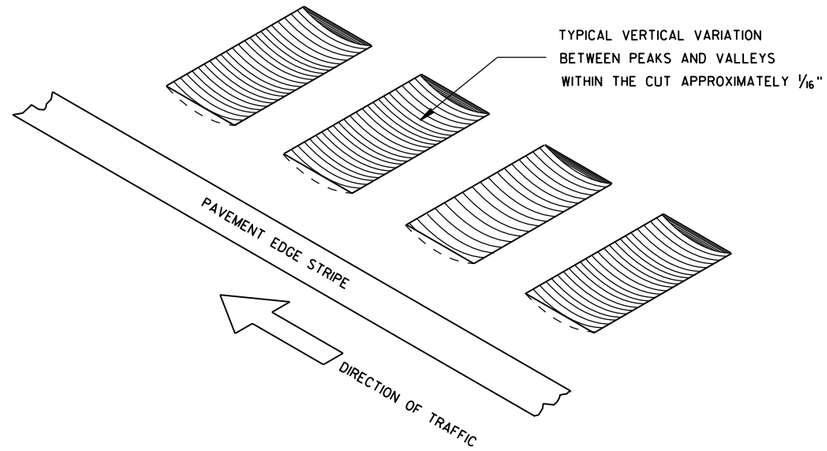
GENERAL NOTES

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

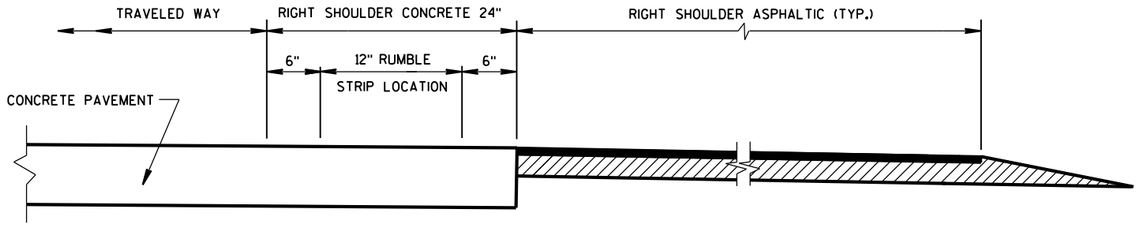
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

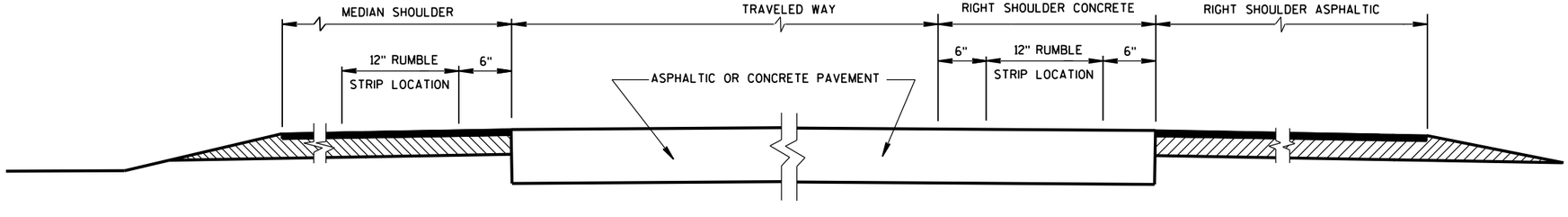
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



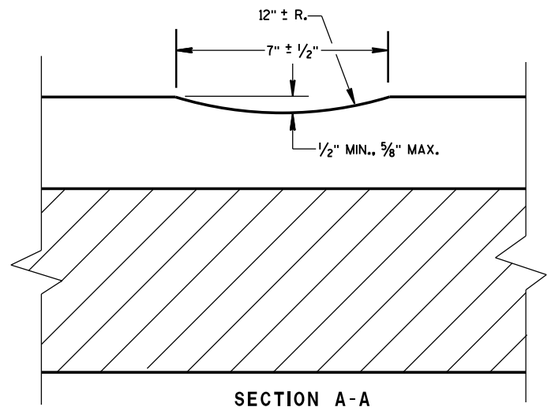
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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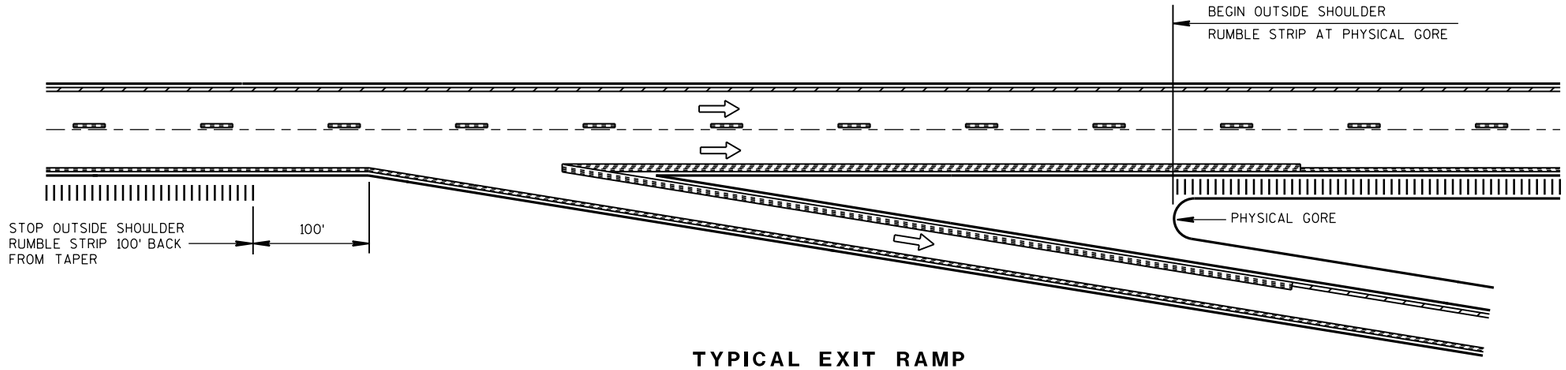
S.D.D. 13 A 5-5a



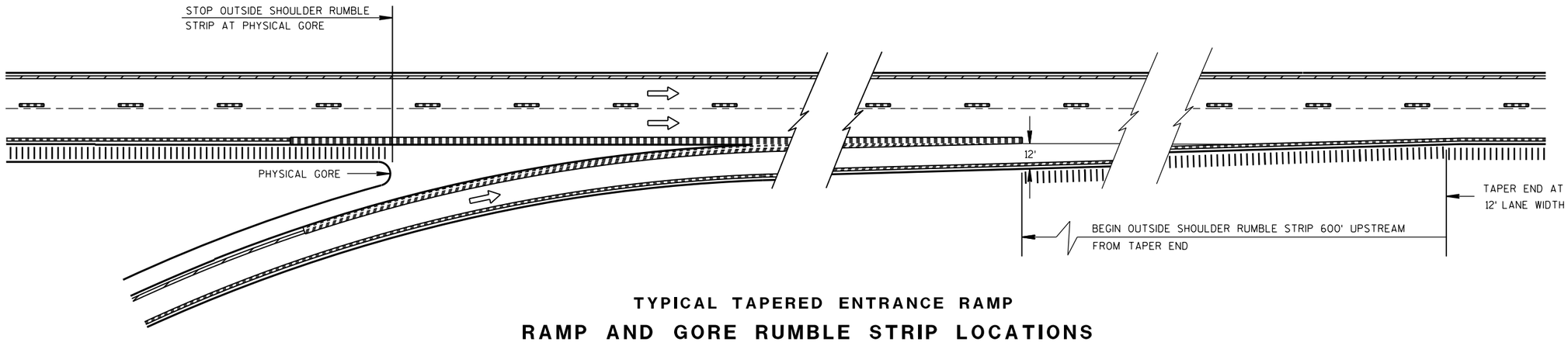
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

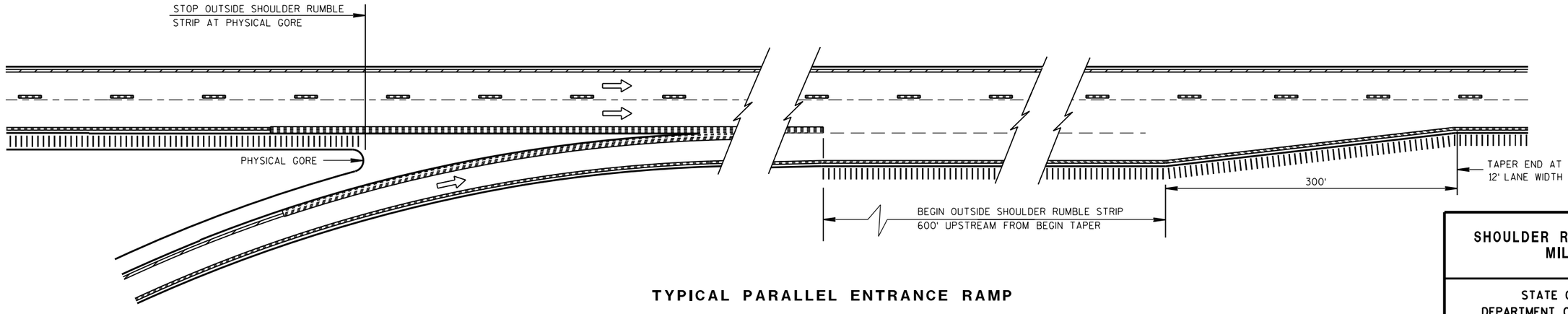
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

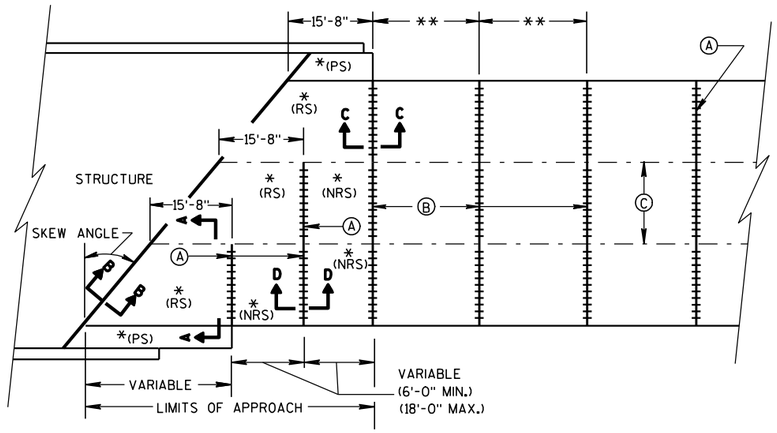
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

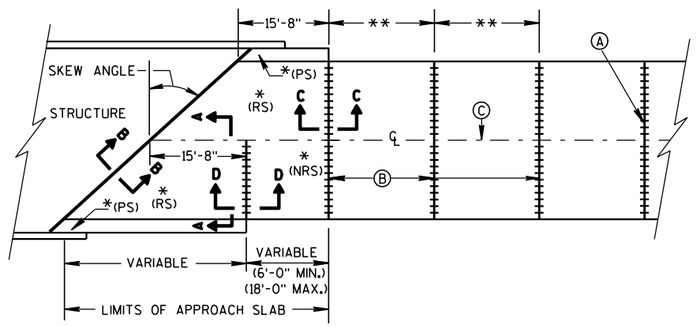
APPROVED
12/17/2012 DATE
/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER
FHWA

6

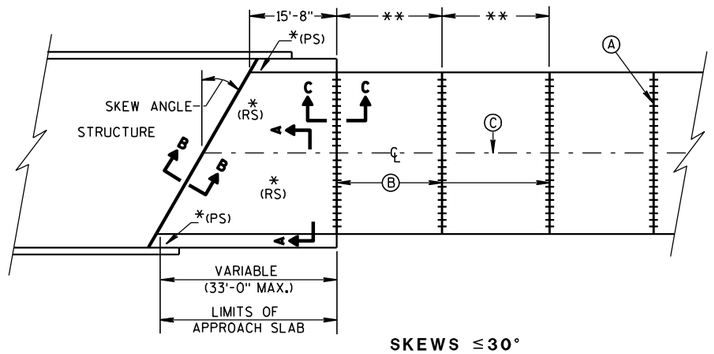
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



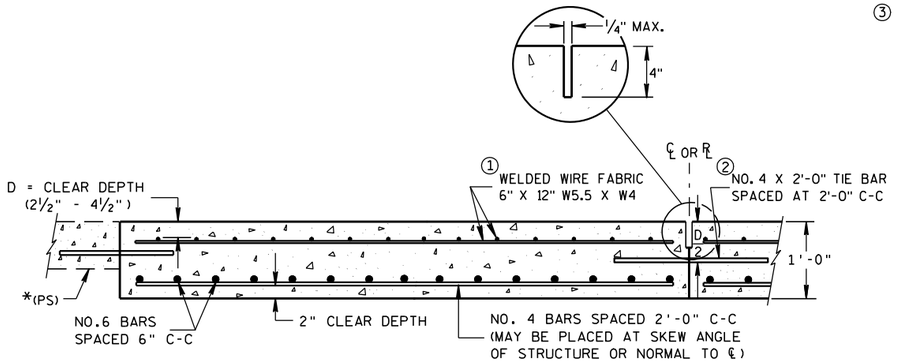
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

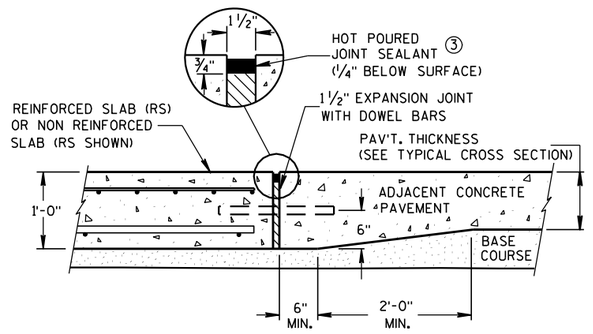
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

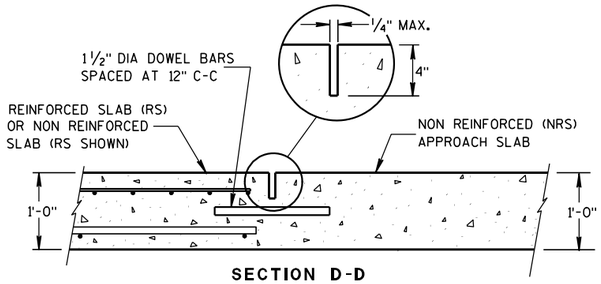
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

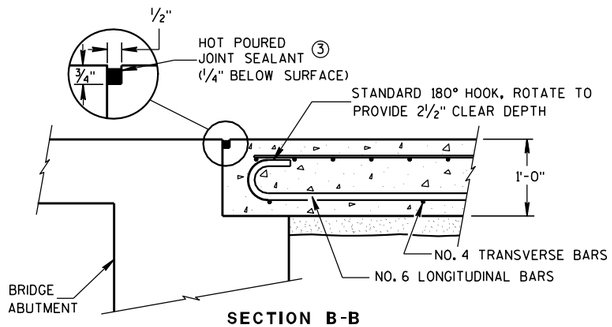
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

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.

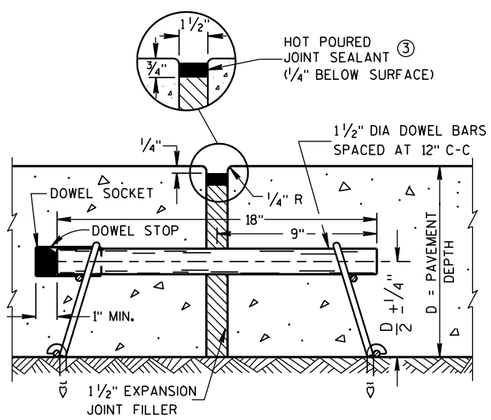
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

(3) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



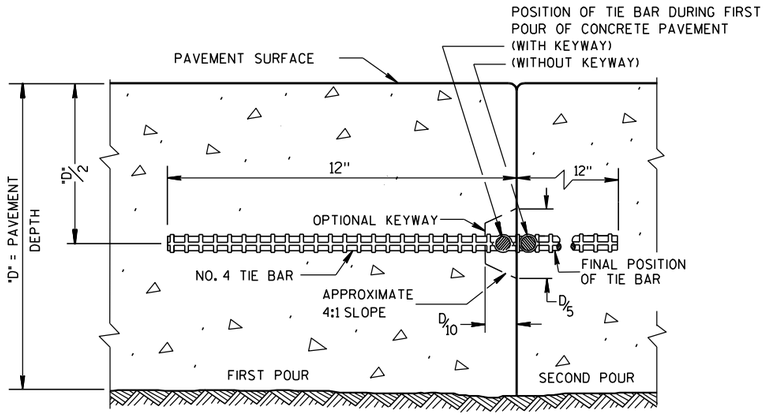
EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

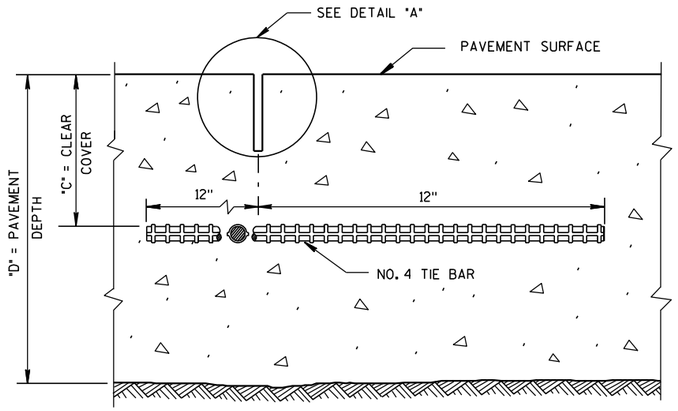
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE — ENGINEER
FHWA

6
S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

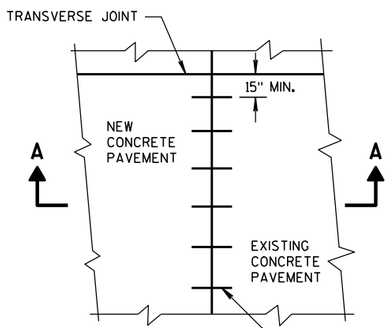
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

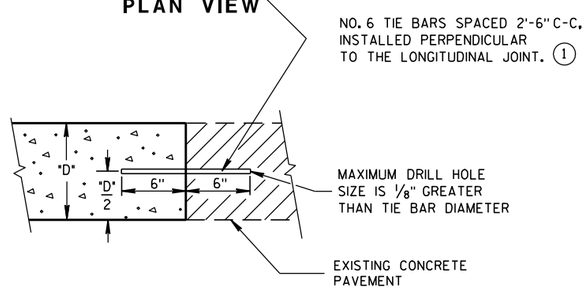
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

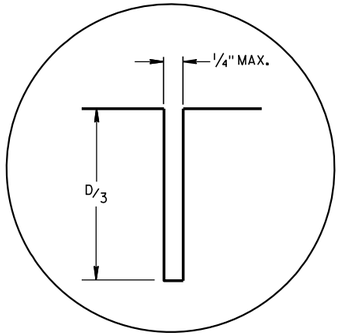
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

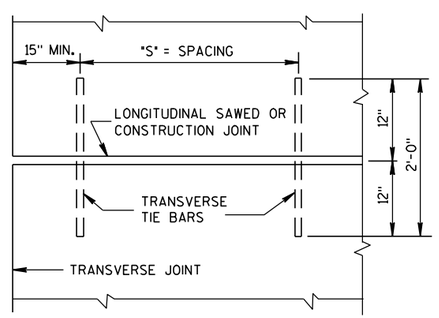


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-5-2010 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI185 INEER

FHWA

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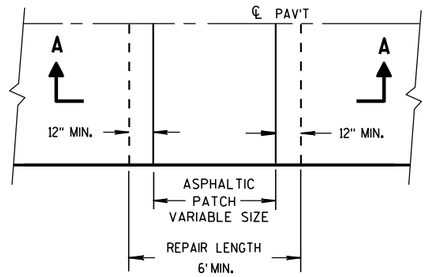
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

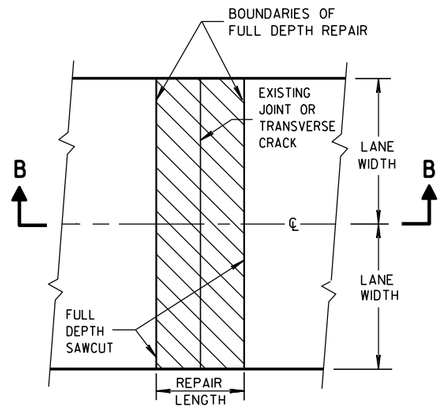
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

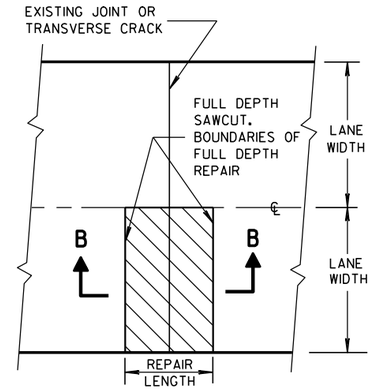
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



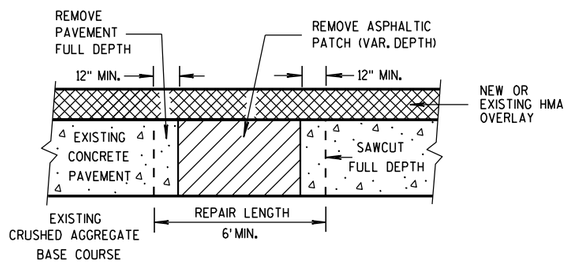
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

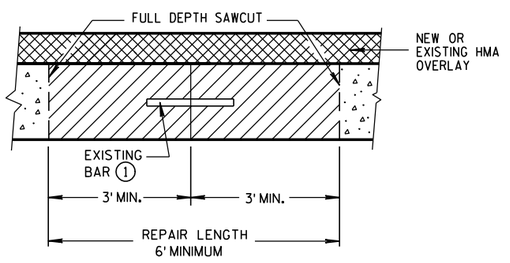
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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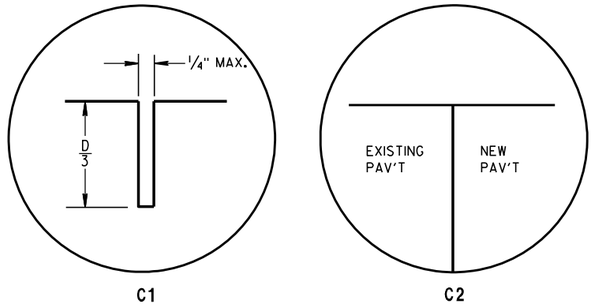
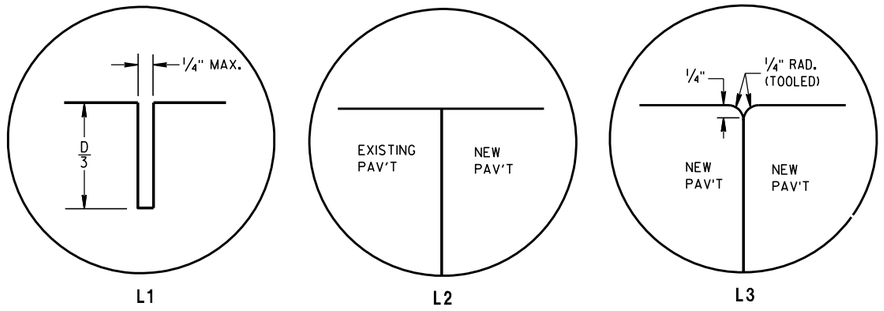
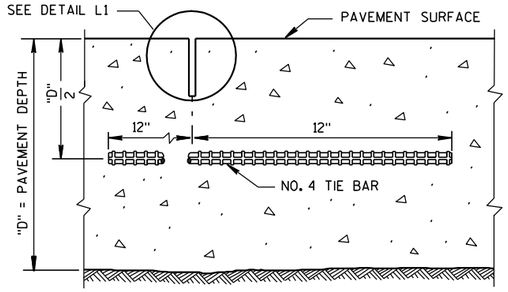
S.D.D. 13 C 14-4a



TRANSVERSE JOINTS

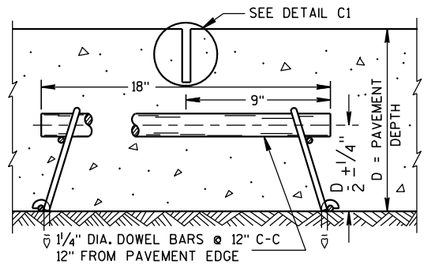


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

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

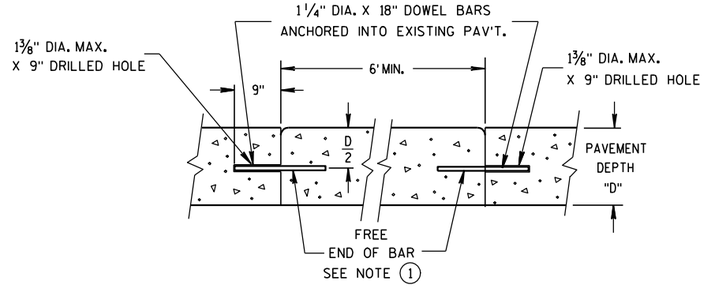
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

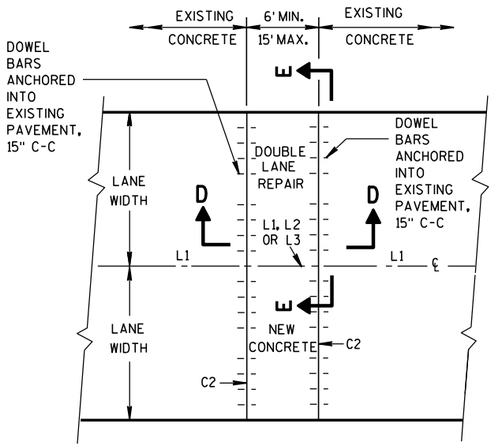
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

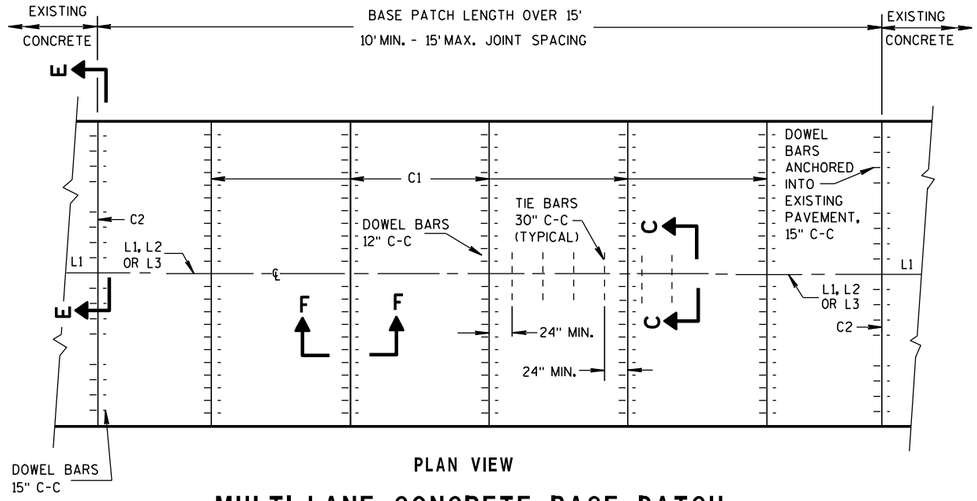


SECTION D-D



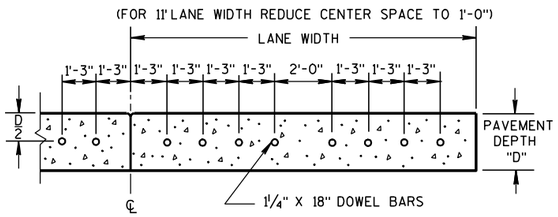
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

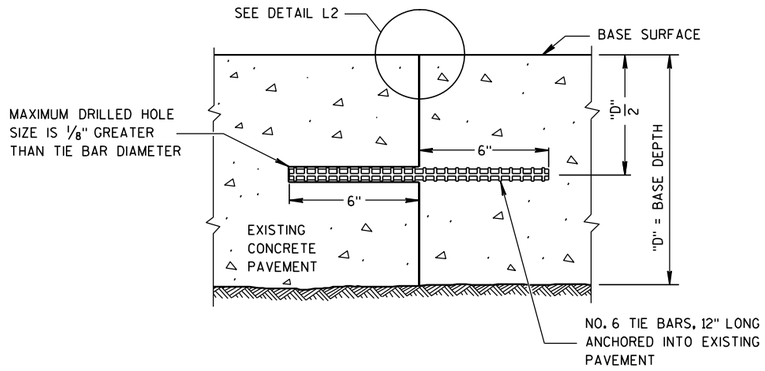
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 14-4b

6

S.D.D. 13 C 14-4b



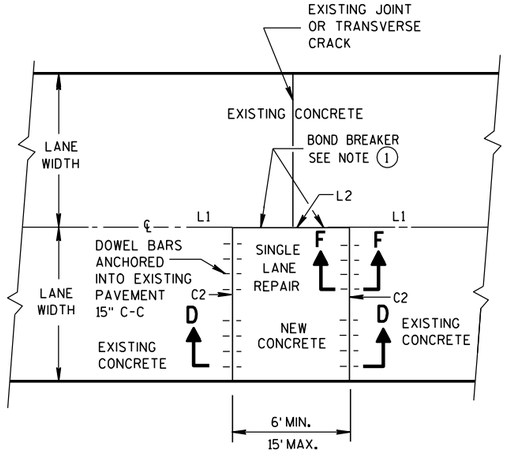
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

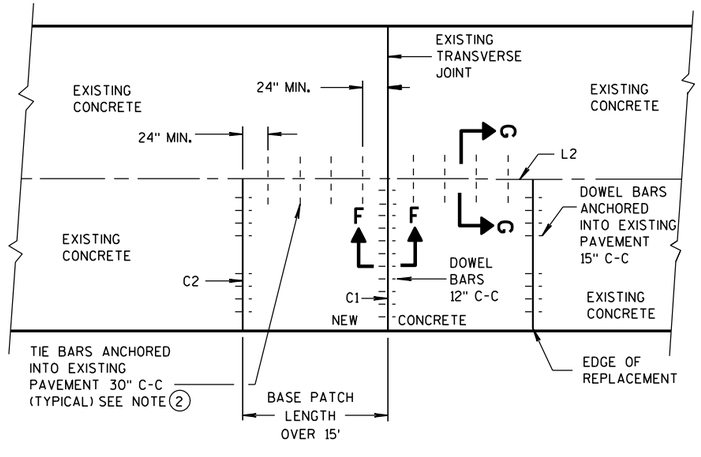
1. USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

2. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-11-2009 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE NEER

FHWA

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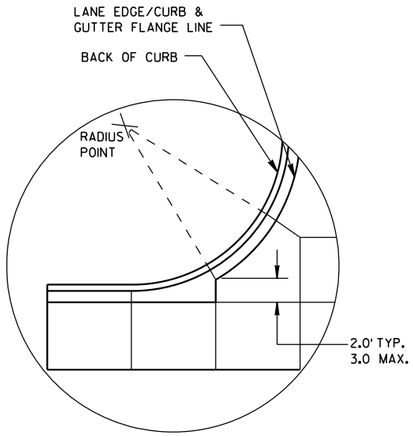
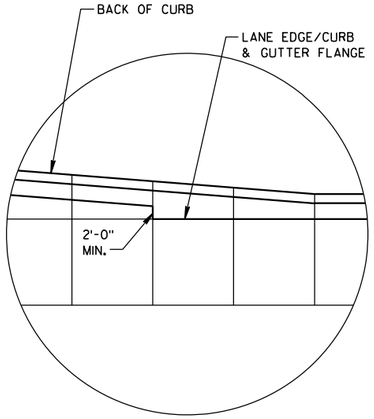
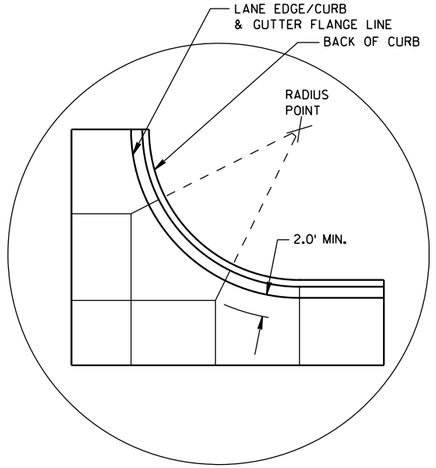


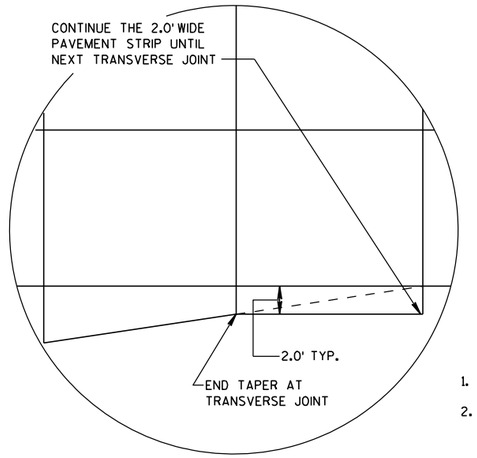
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

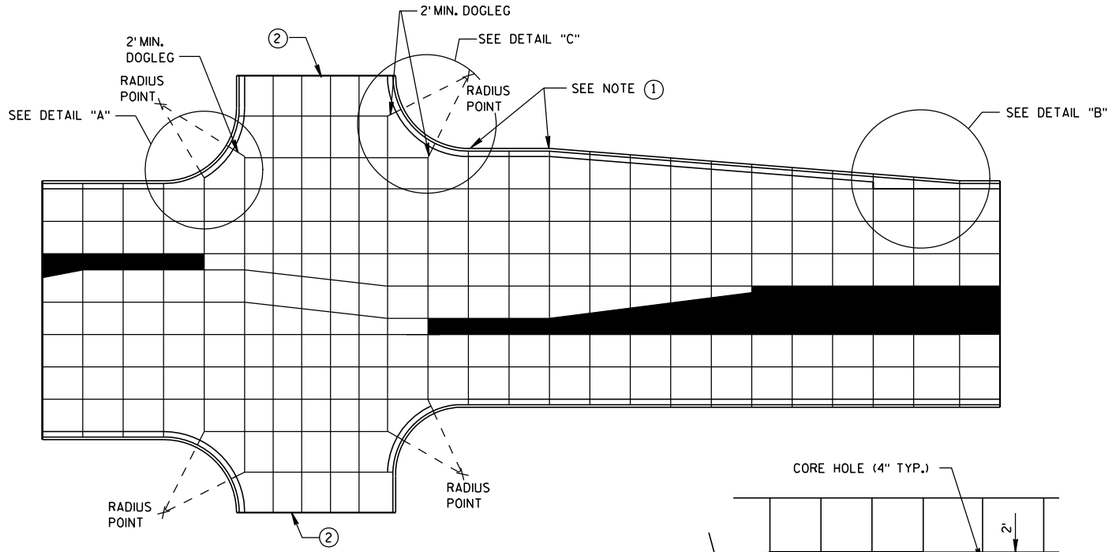
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

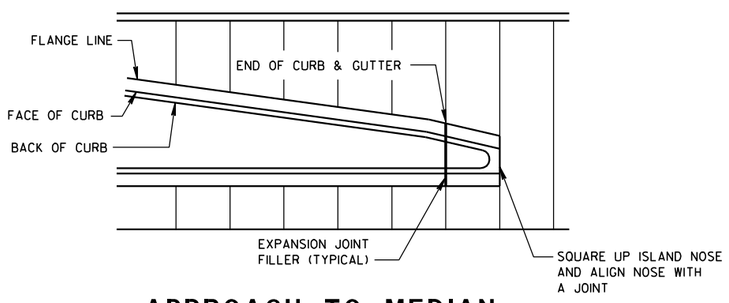
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



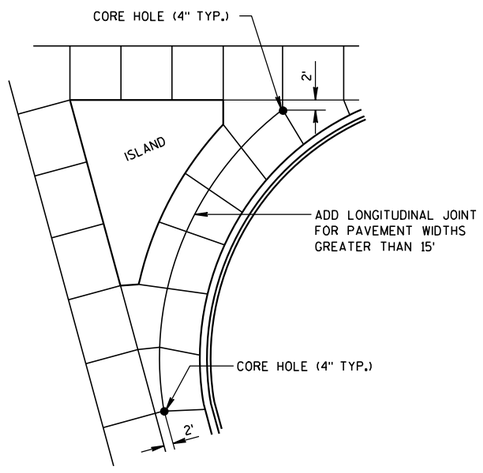
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

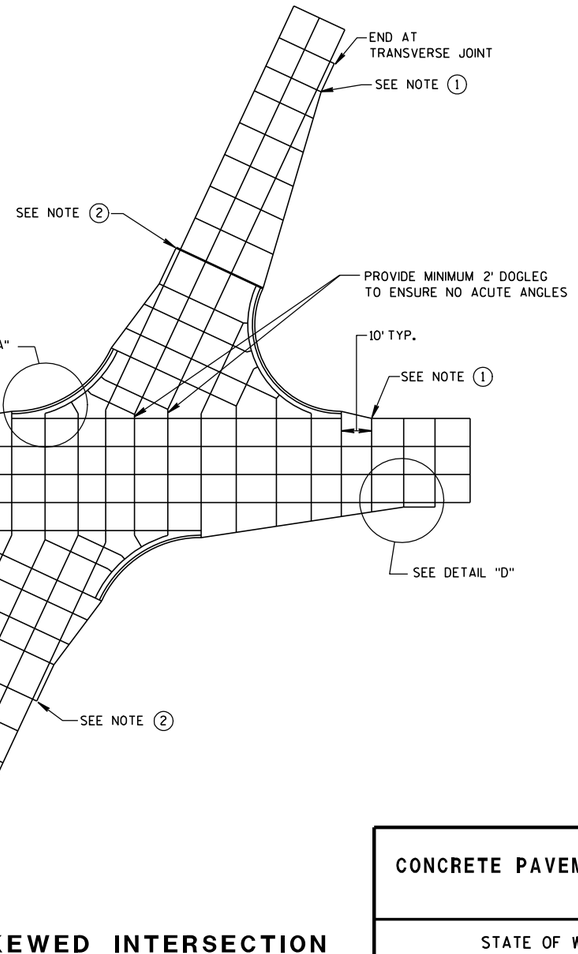
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

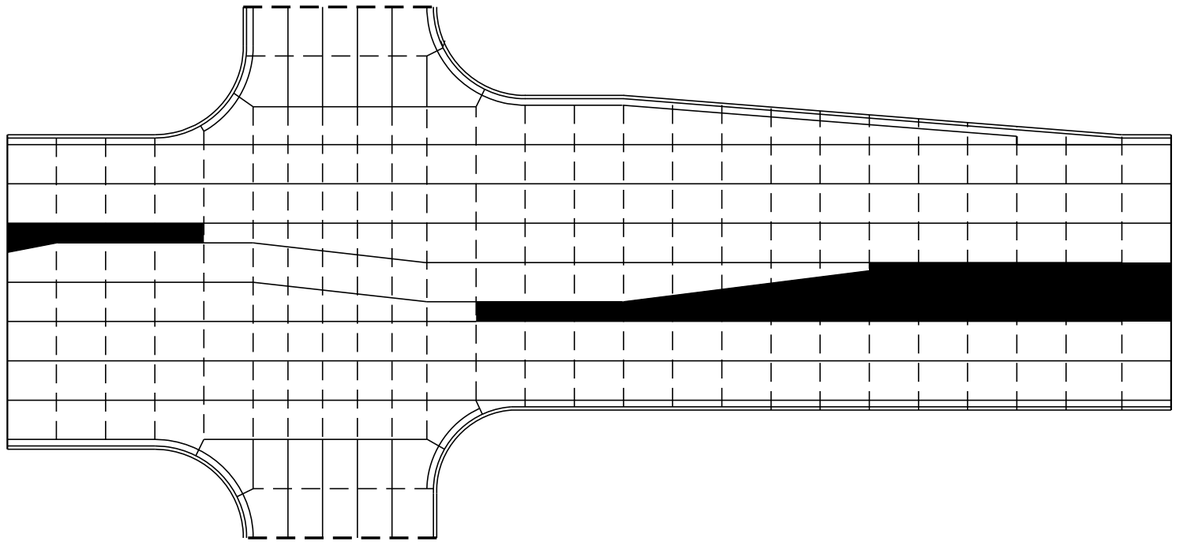
6
S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

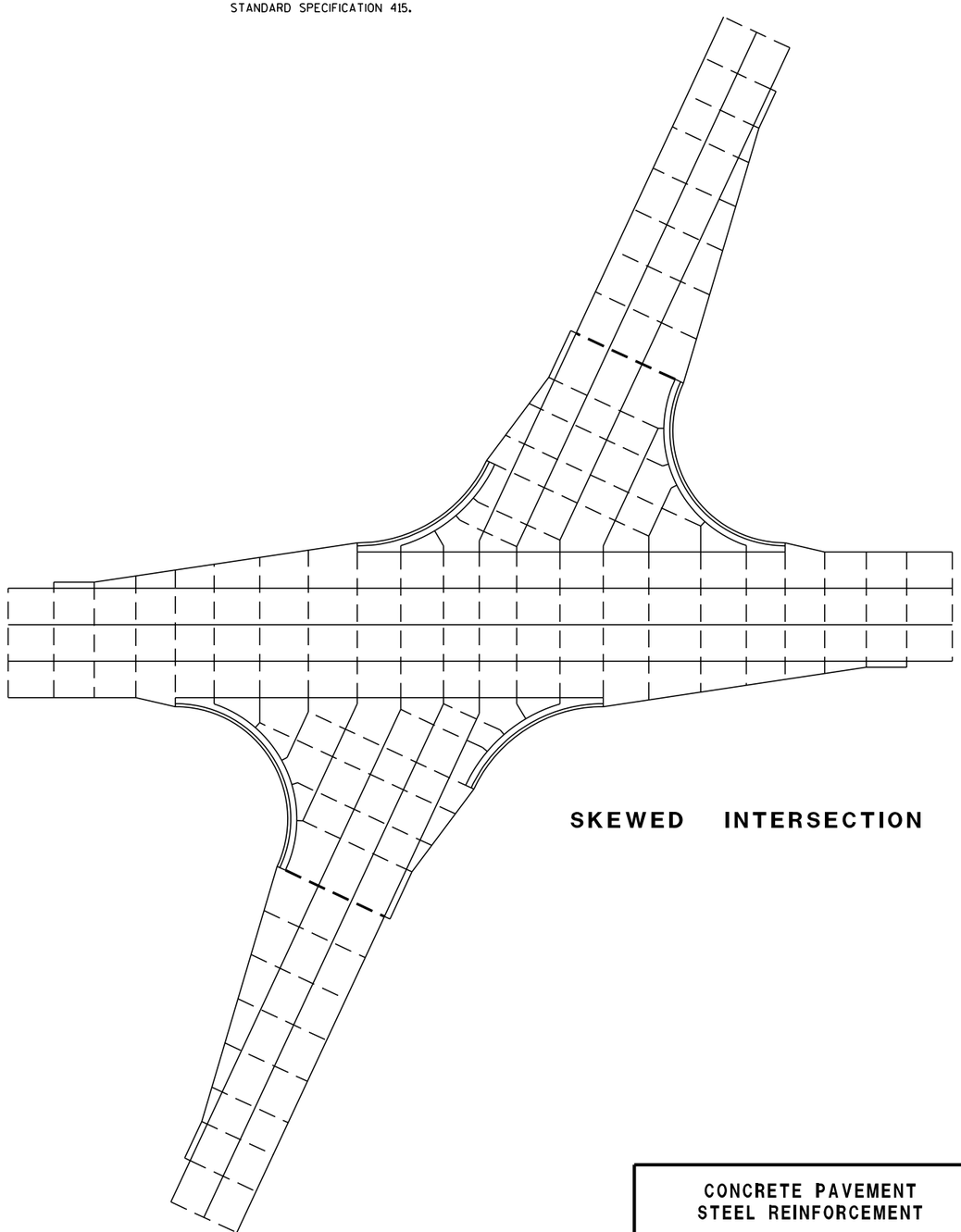
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

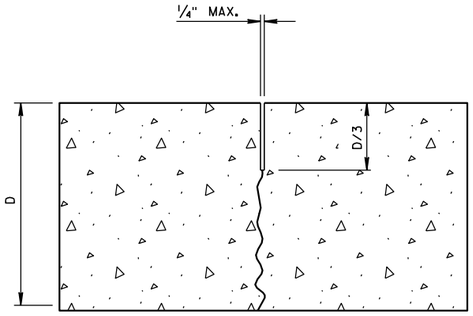
6

S.D.D. 13 C 18-1b

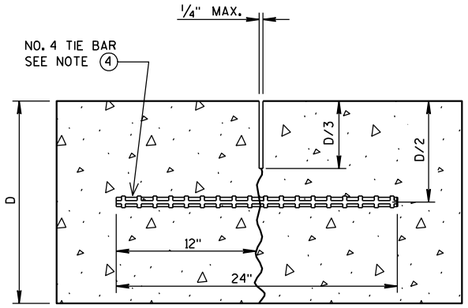
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



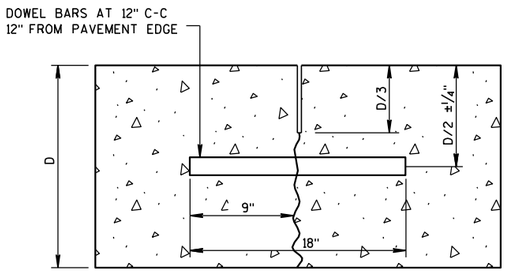
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

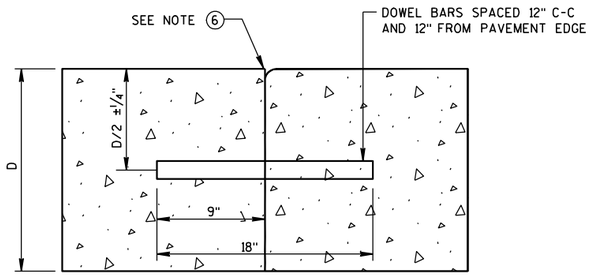
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



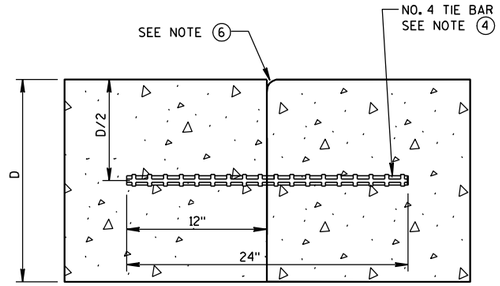
DOWELED-TRANSVERSE

CONTRACTION JOINTS

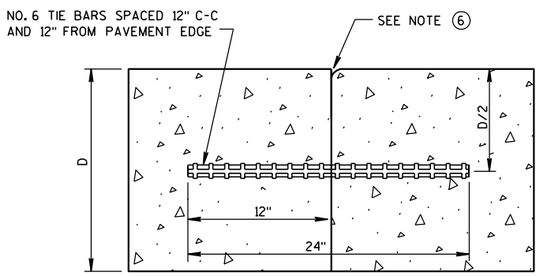
SEE NOTE (2)



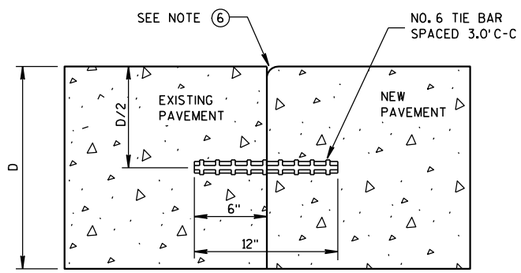
DOWELED TRANSVERSE



TIED LONGITUDINAL



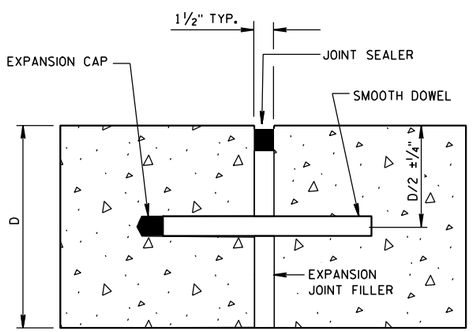
TIED TRANSVERSE
SEE NOTE (3)



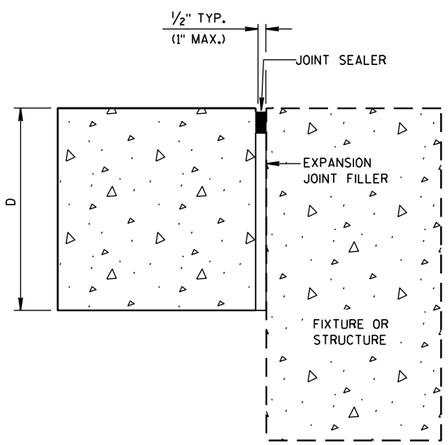
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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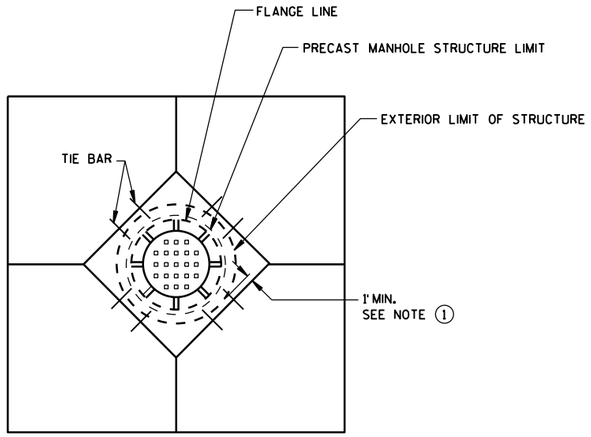
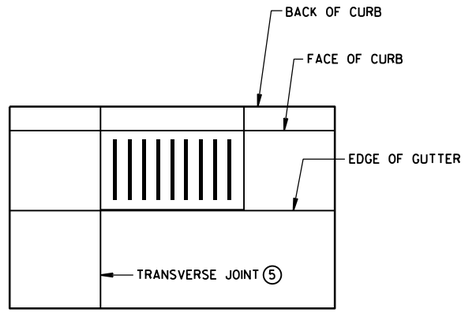
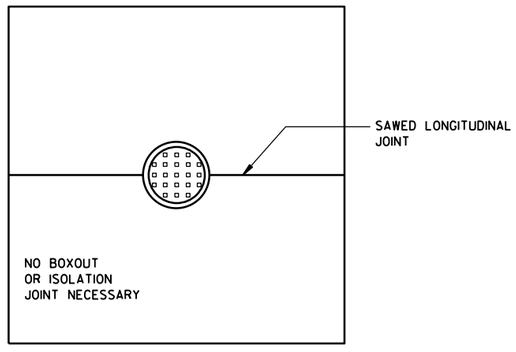
S.D.D. 13 C 18-1c



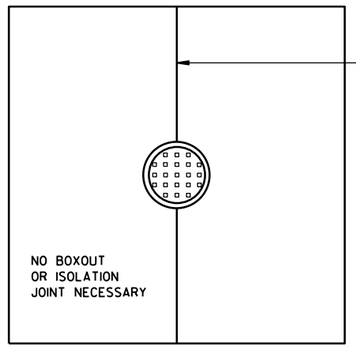
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



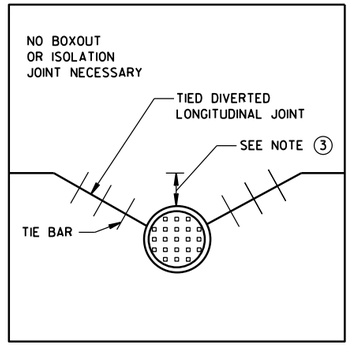
INLET WITH TRANSVERSE JOINT



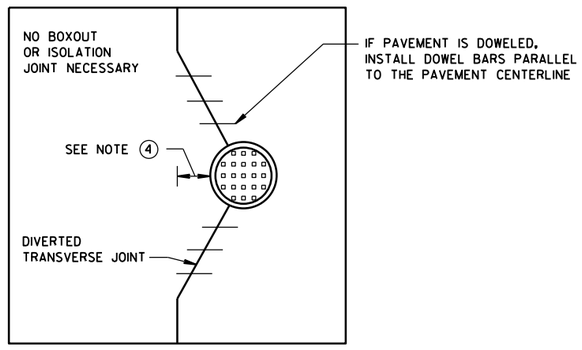
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

NEER

FHWA

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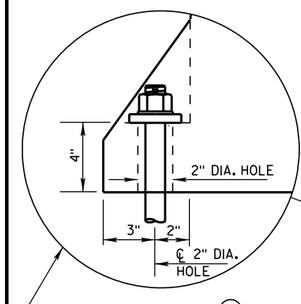
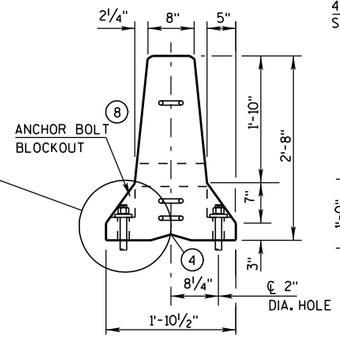
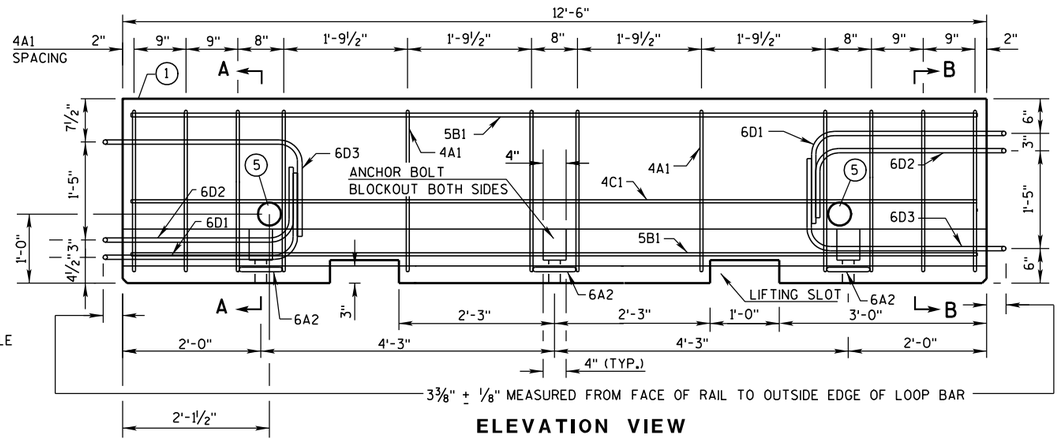
S.D.D. 13 C 18-2d



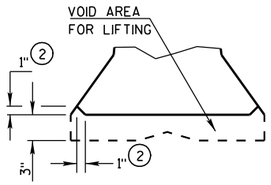
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



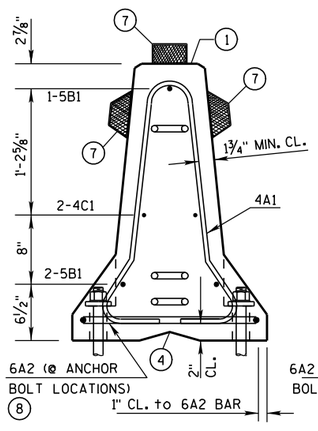
END VIEW



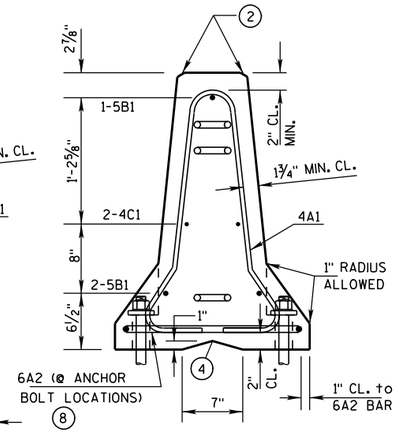
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



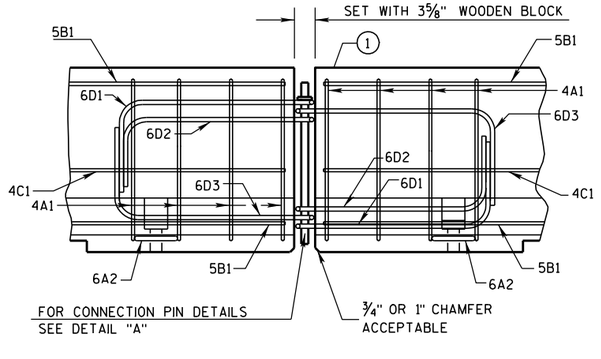
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

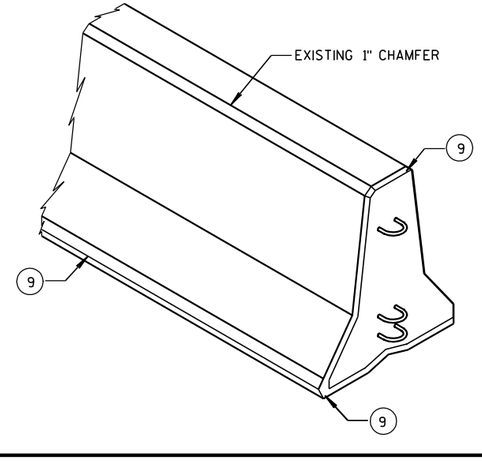
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION

1/2" TOP PLATE DETAIL

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



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

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

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

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

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

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

INSTALL MECHANICAL OR EPOXY 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 ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

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

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

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

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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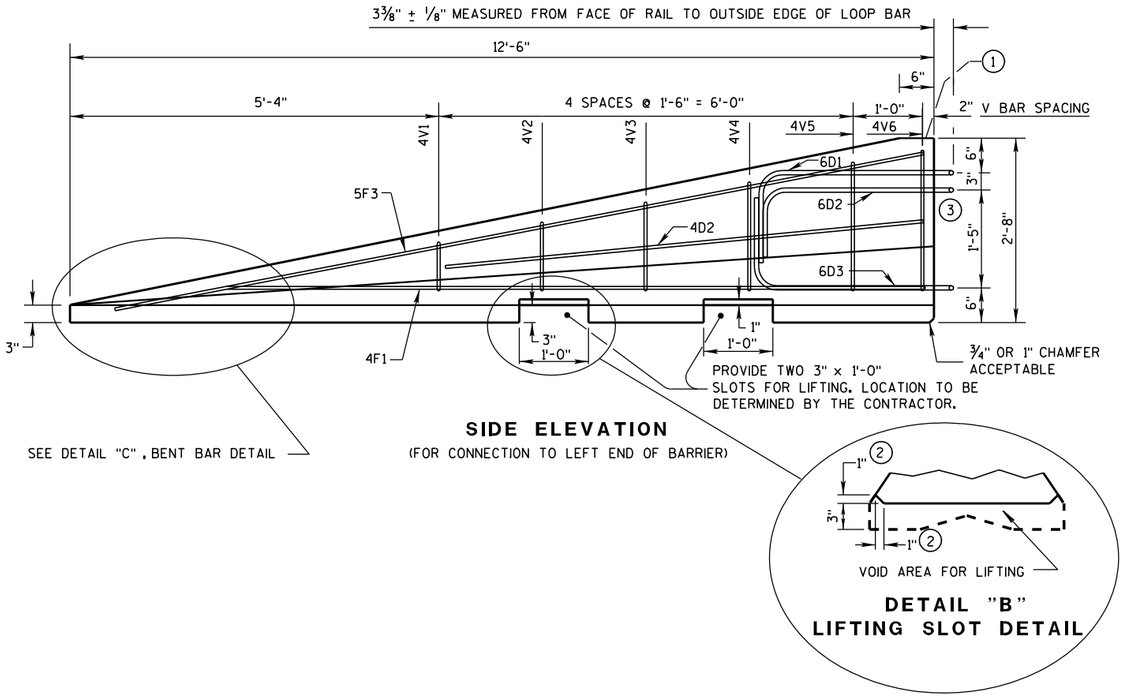
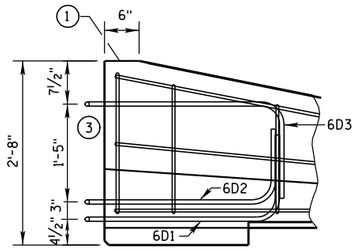
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

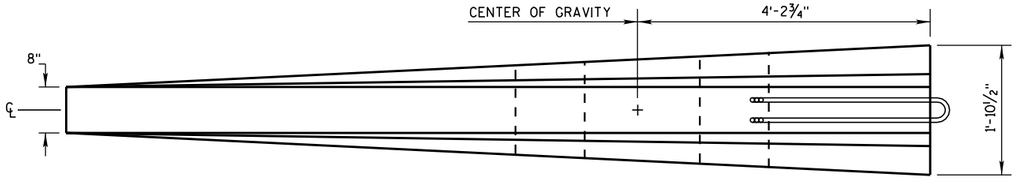


SIDE ELEVATION

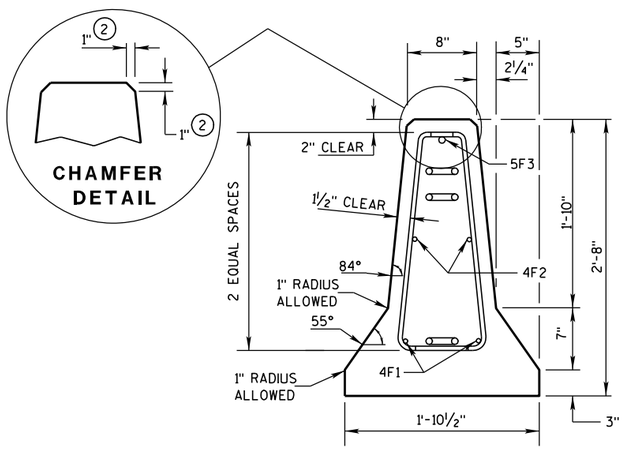
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

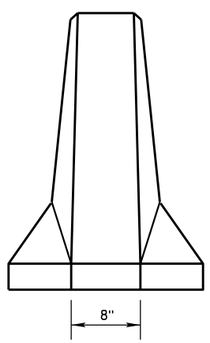
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



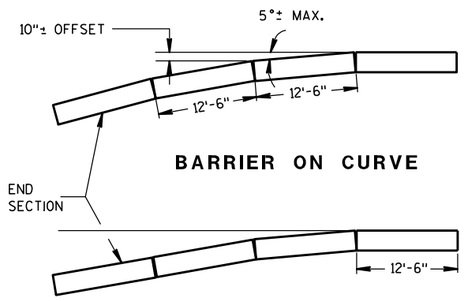
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

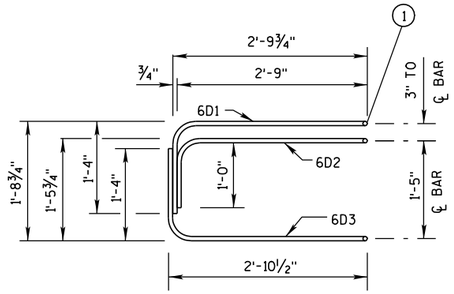
6

S.D.D. 14 B 7-13b

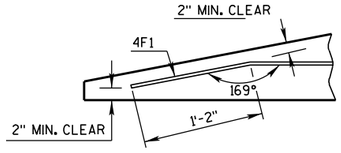
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

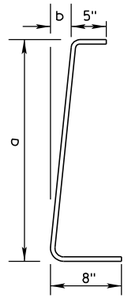
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



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

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

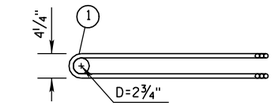
GENERAL NOTES

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

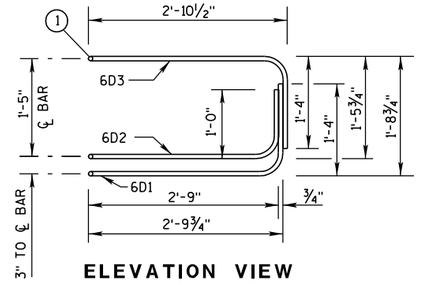
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

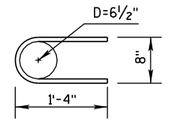
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



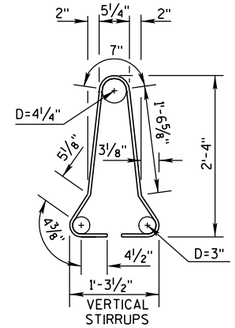
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

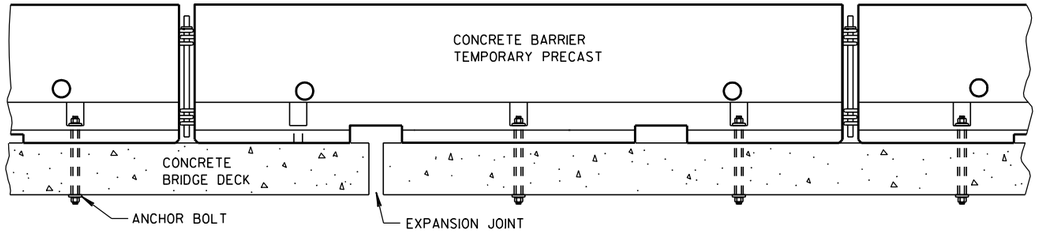
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

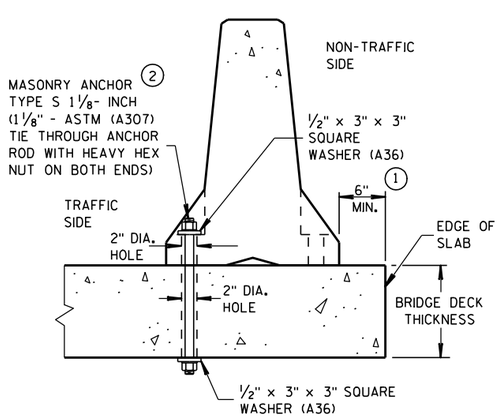
6

S.D.D. 14 B 7-13c



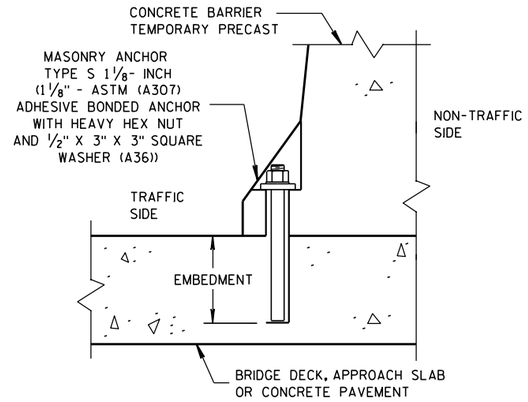
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



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

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

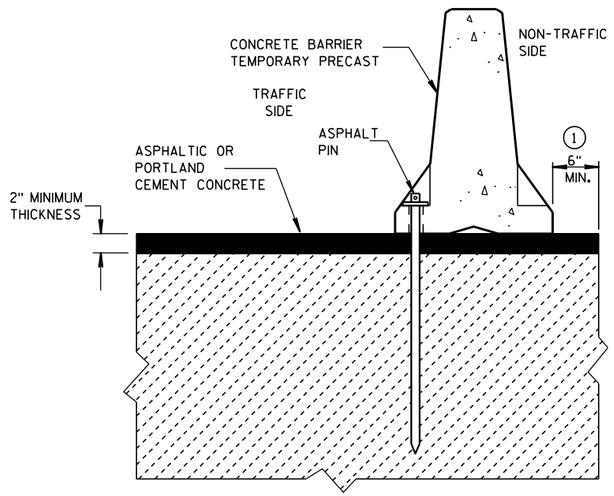
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE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

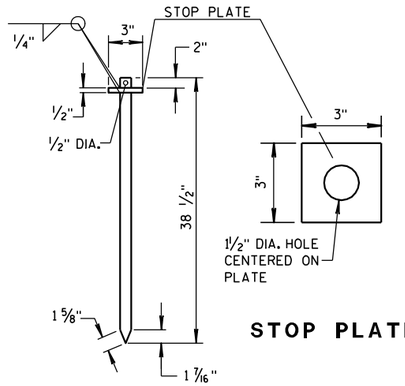
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE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

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



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

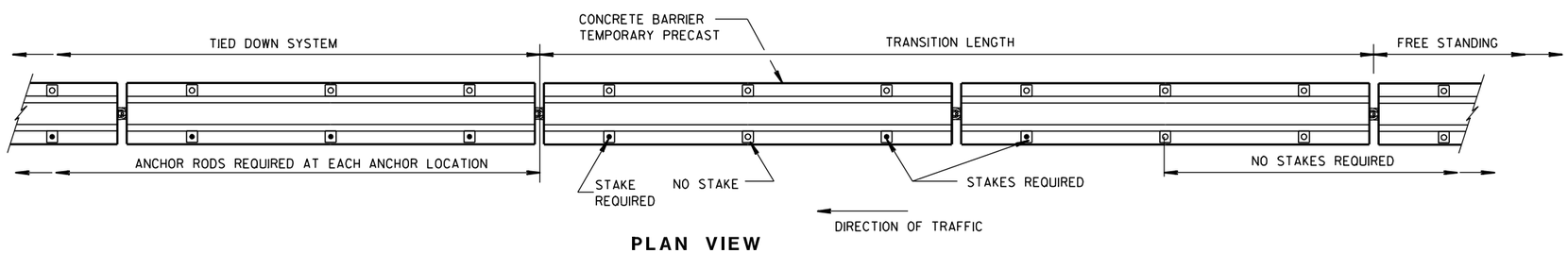
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

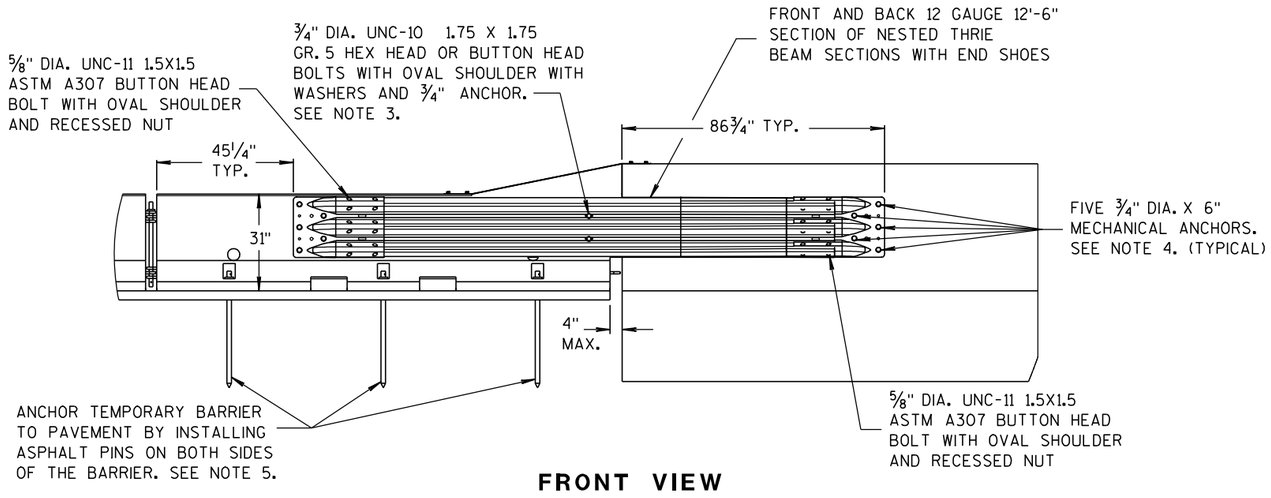
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

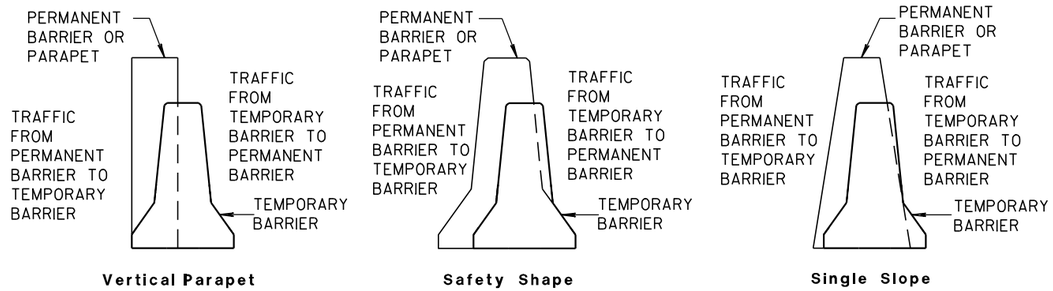
6
S.D.D. 14 B 7-13d

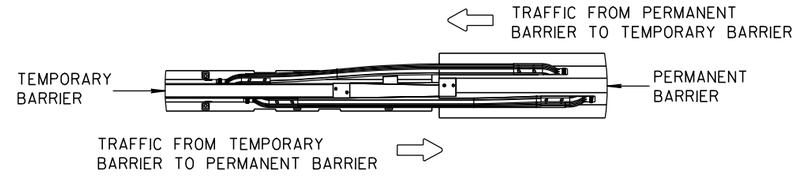


FRONT VIEW

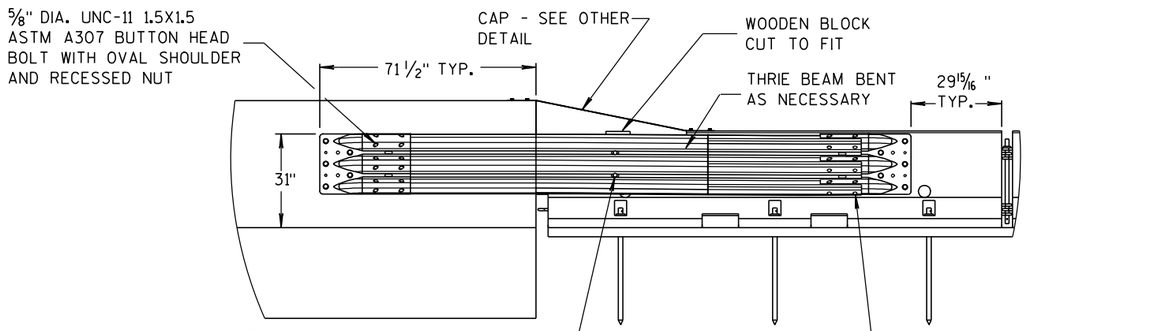
NOTES

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 EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY 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 EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

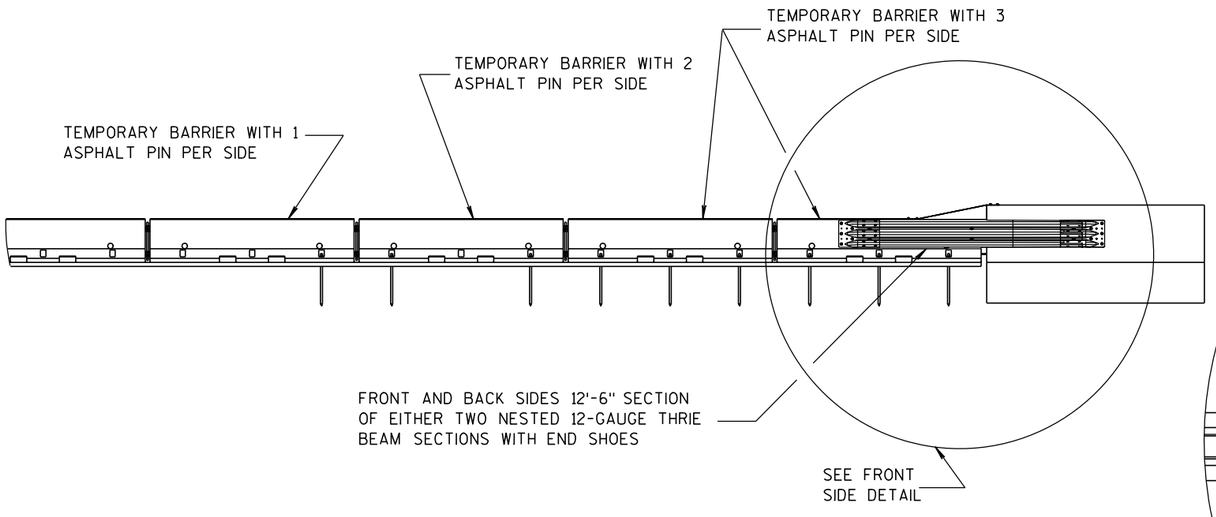




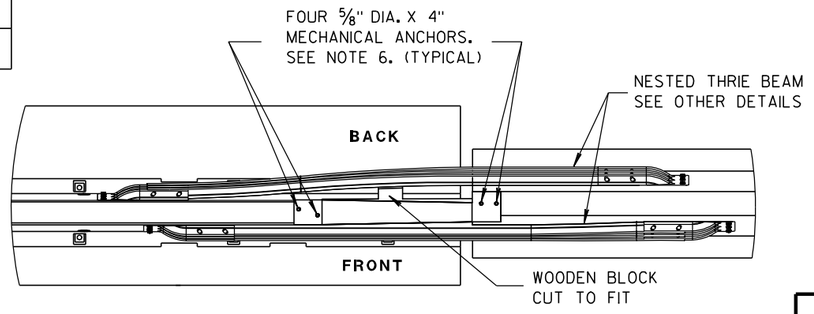
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



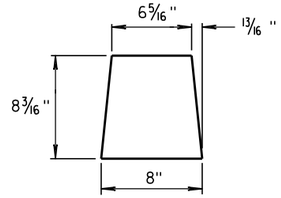
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

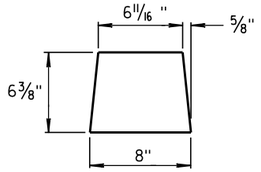
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

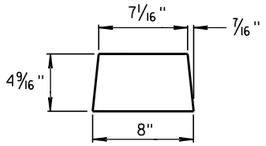
6
S.D.D. 14 B 7-13e



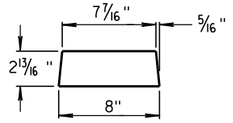
GUSSET 1



GUSSET 2

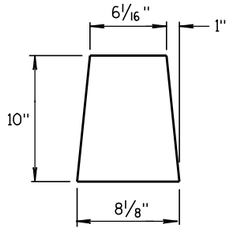


GUSSET 3

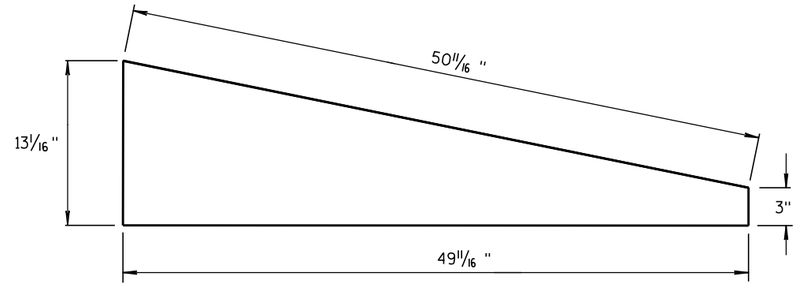


GUSSET 4

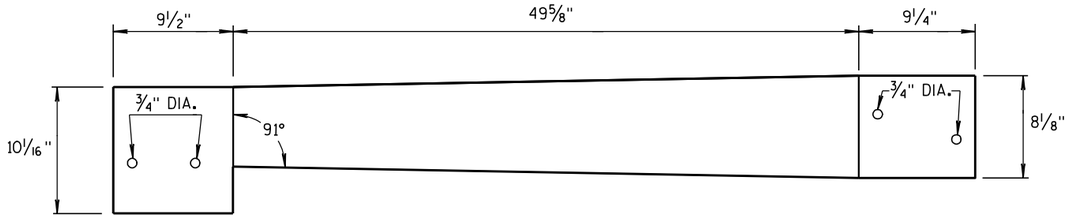
GUSSETS

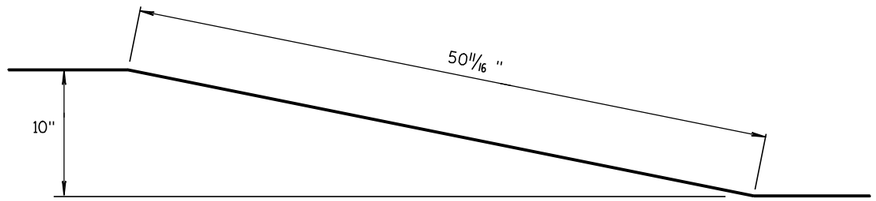


END PLATE

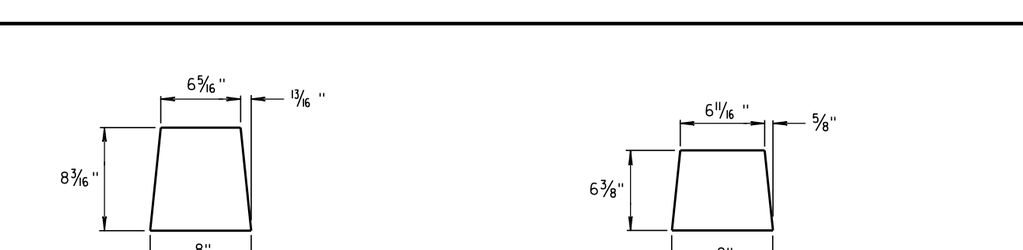


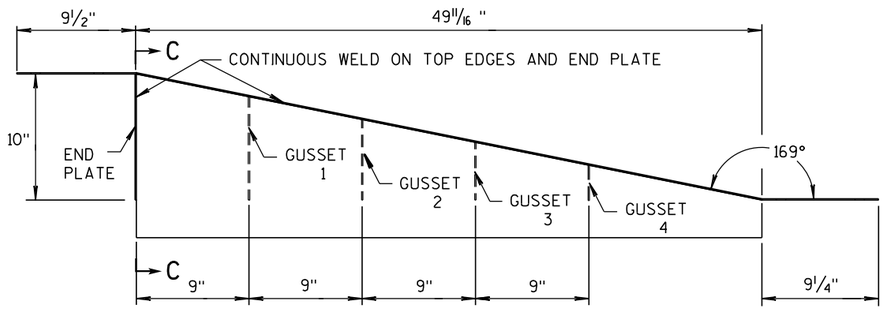
SIDE PLATE

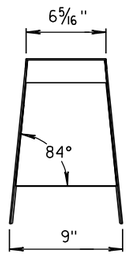




TOP PLATE







SECTION C-C

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.

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.

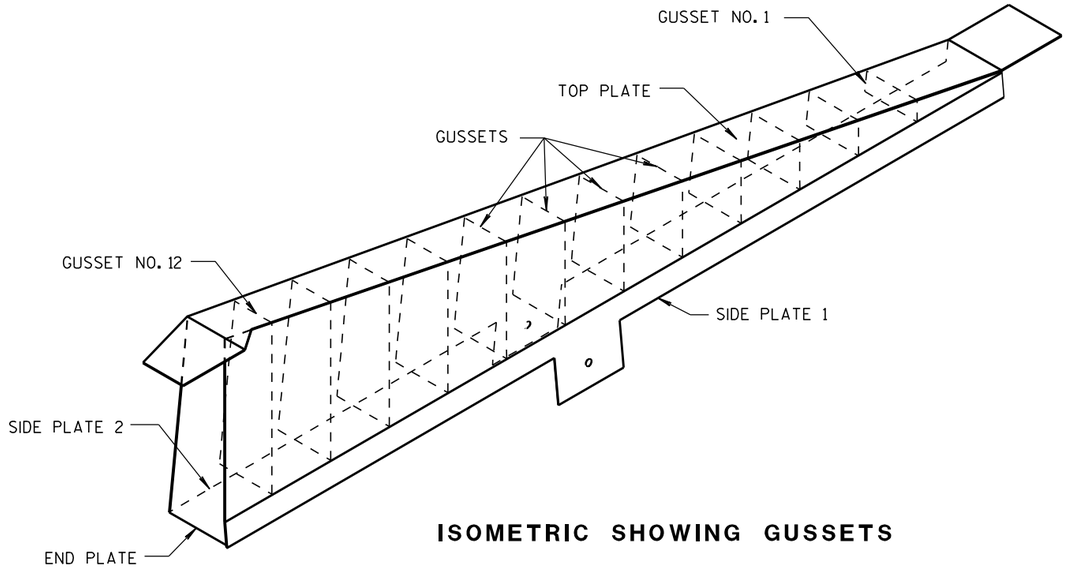
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

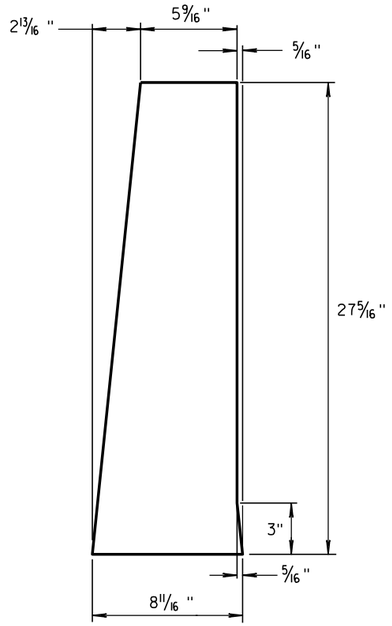
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13f

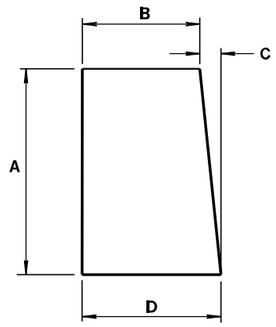


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

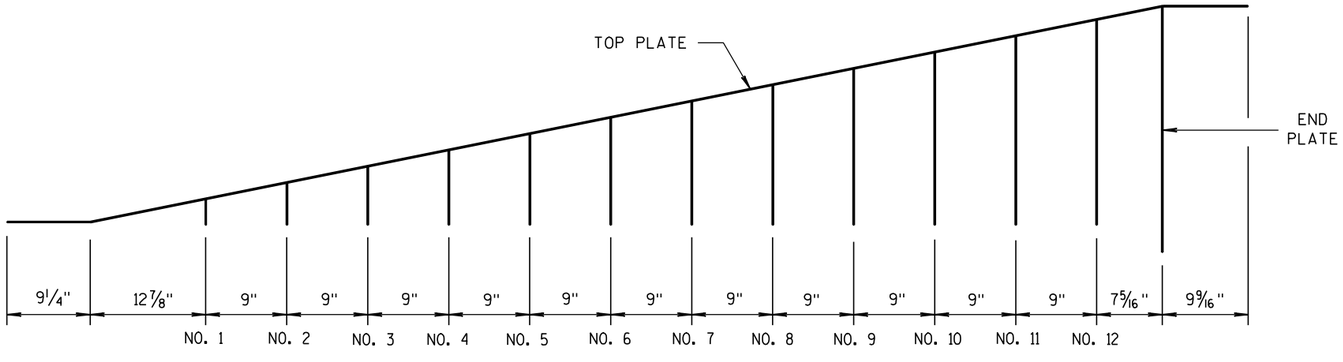
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

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

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

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



GUSSET LOCATION

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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S.D.D. 14 B 7-13g

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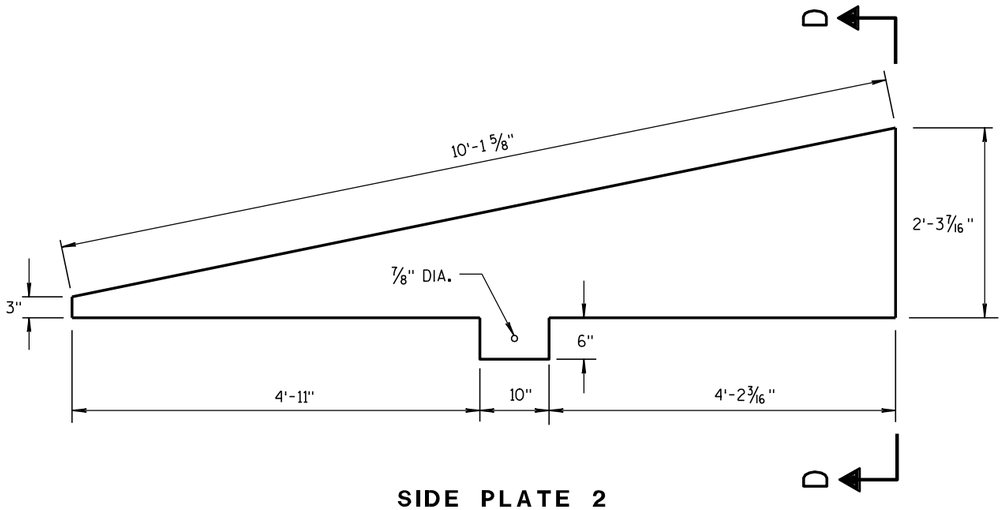
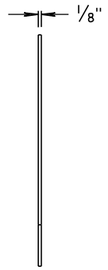
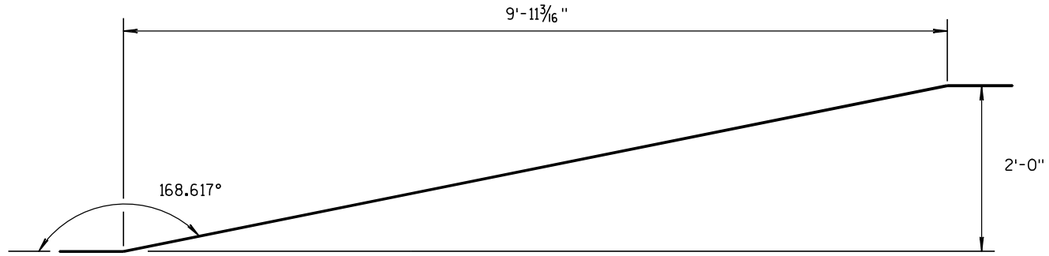
S.D.D. 14 B 7-13g



SIDE PLATE 2

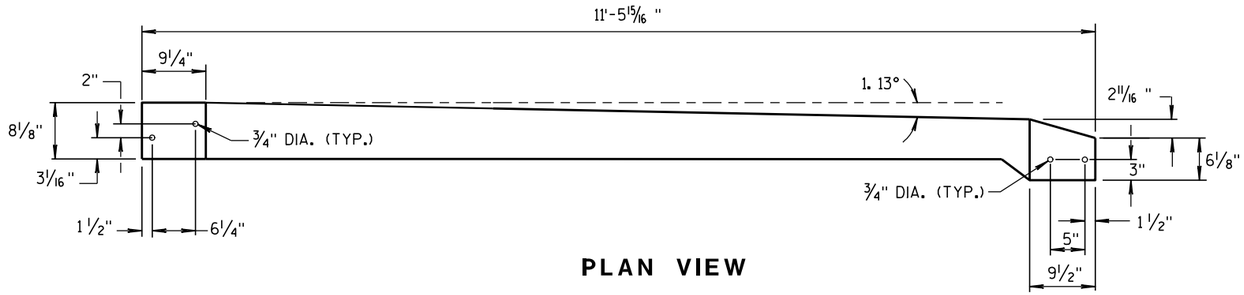


END VIEW



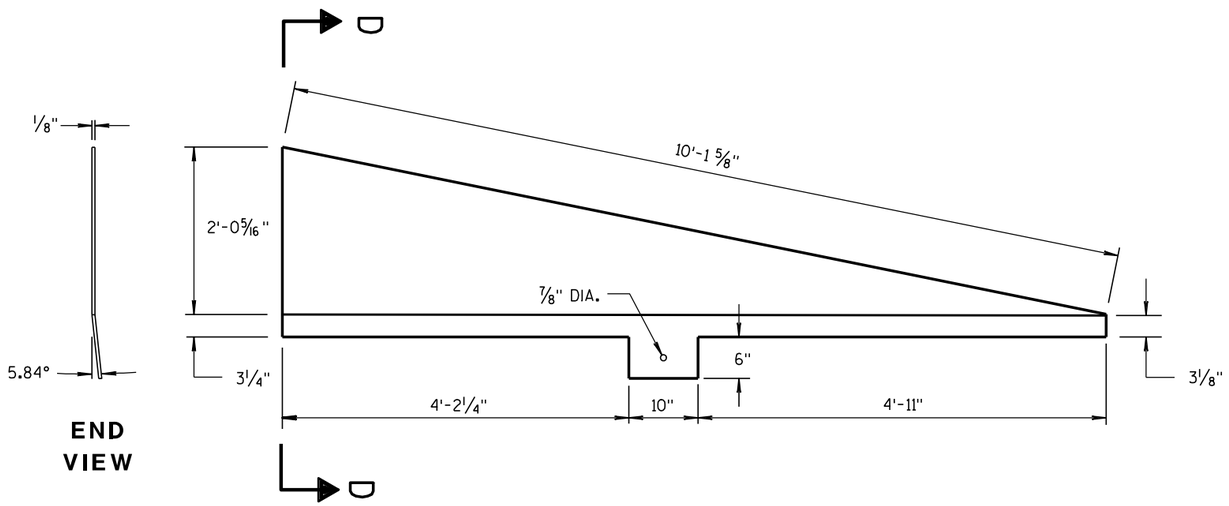
SIDE VIEW

TOP PLATE



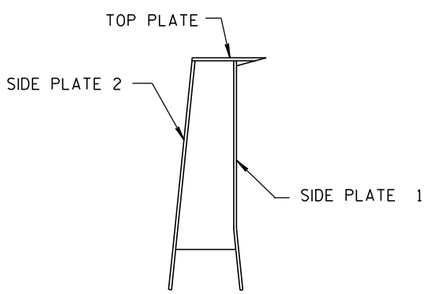
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. ---- ROADWAY STANDARDS ENGINEER
FHWA	200 ENT

6

S.D.D. 14 B 7-13h

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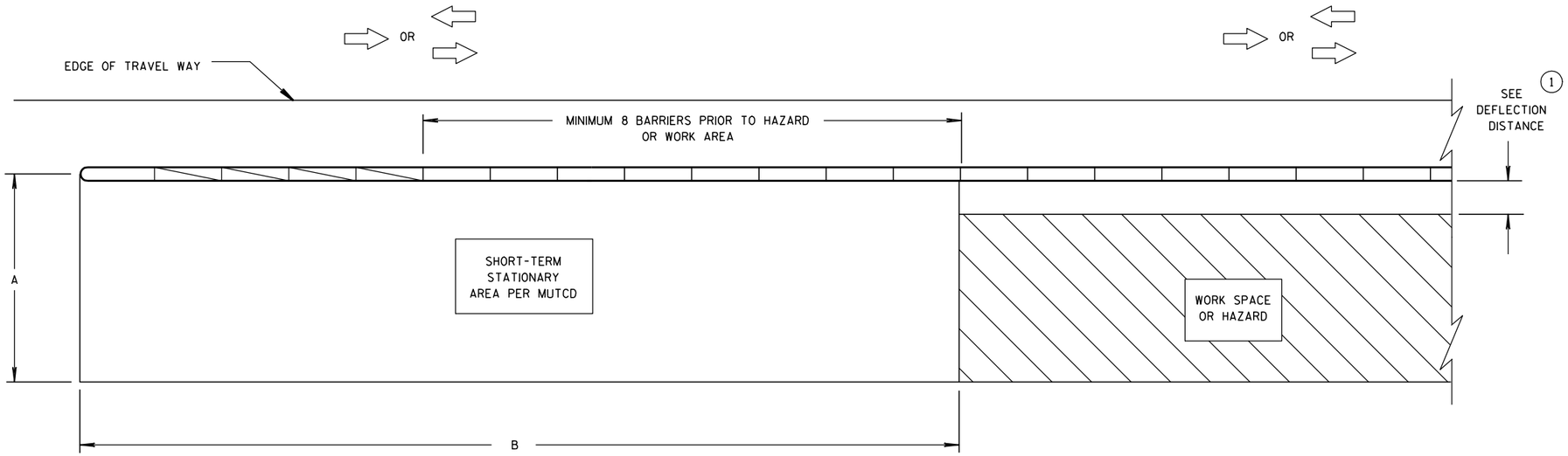
S.D.D. 14 B 7-13h



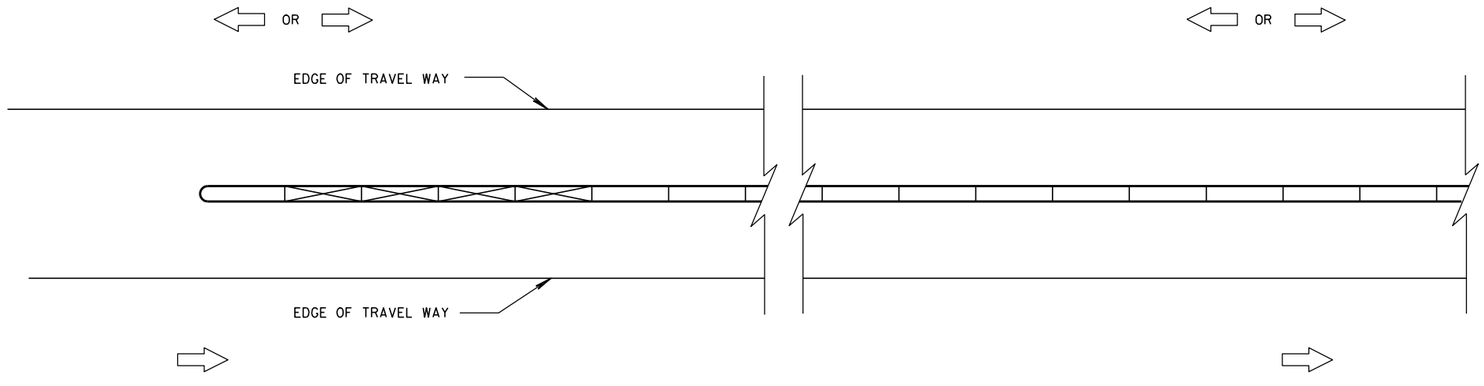
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

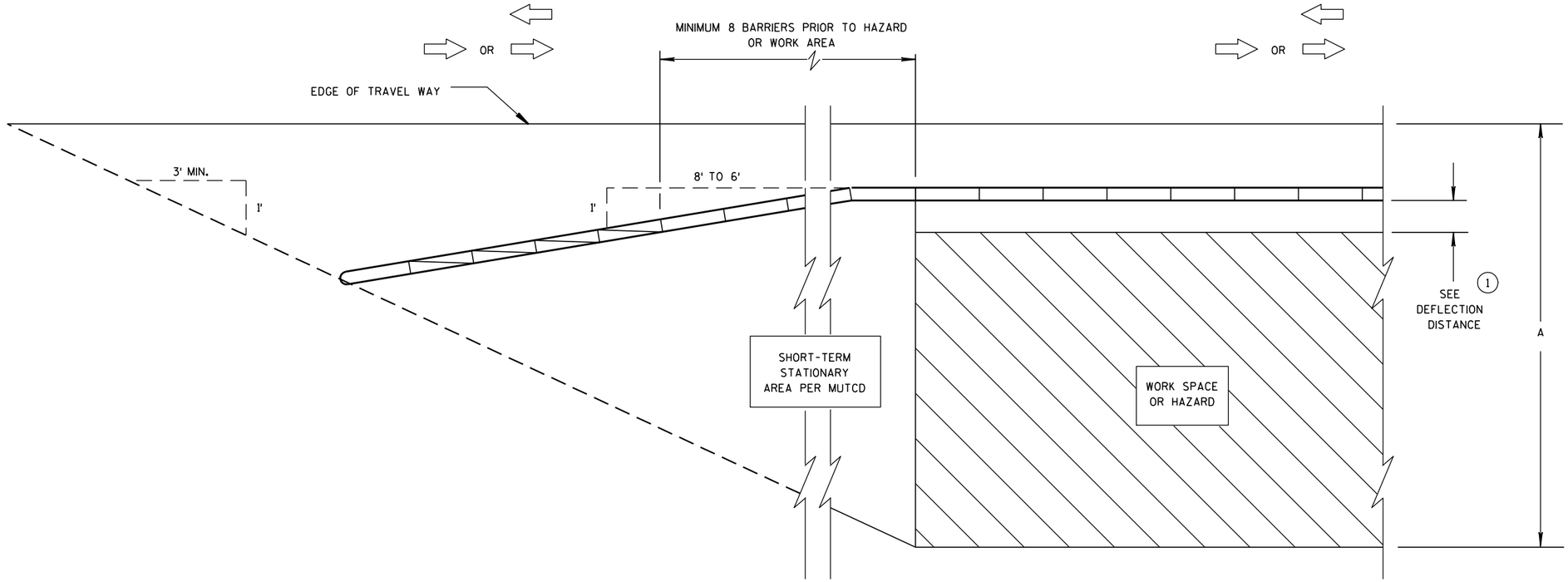
(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

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

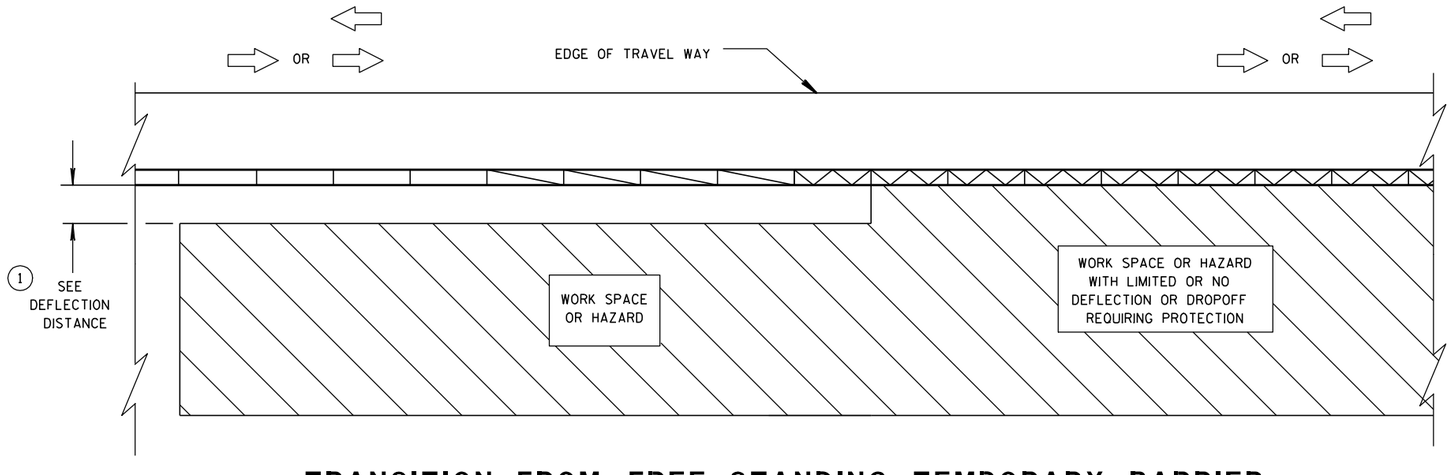
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1a



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



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1b

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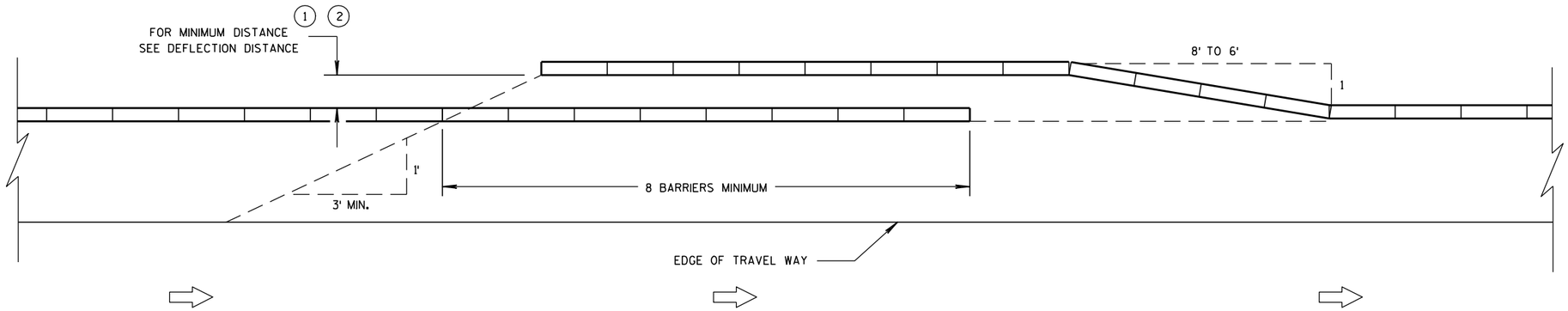
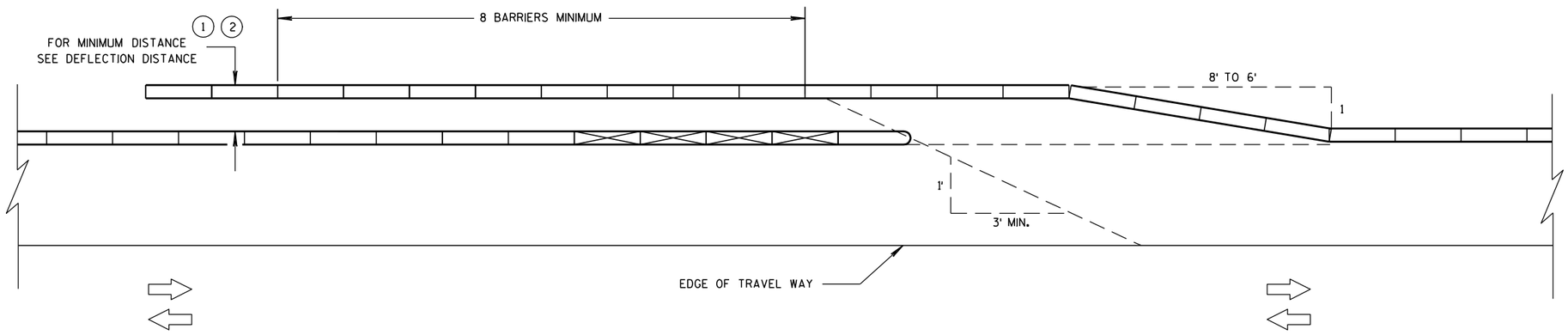
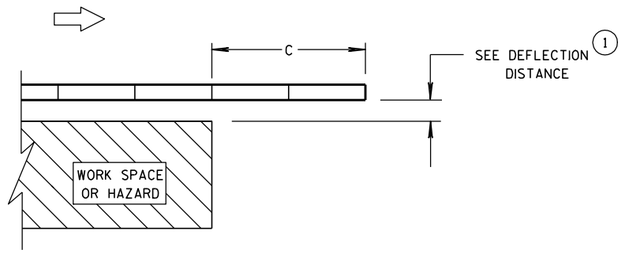
S.D.D. 14 B 8-1b



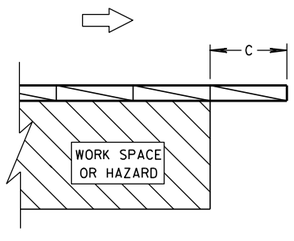
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

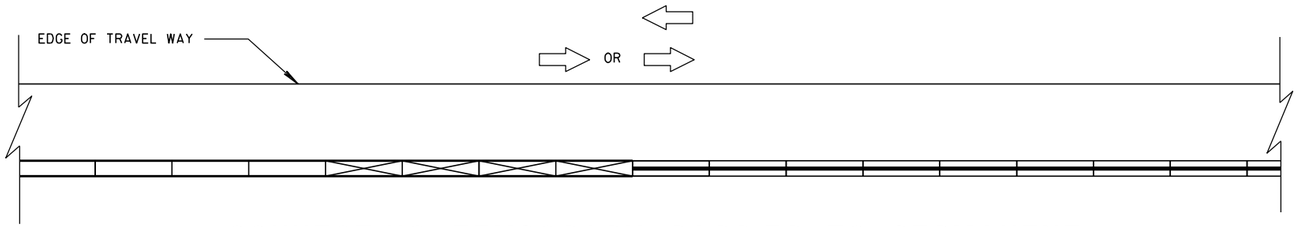
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

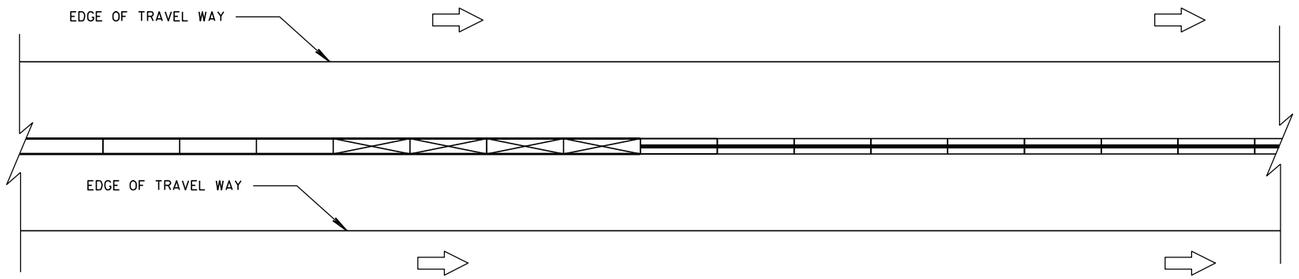
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1c



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



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

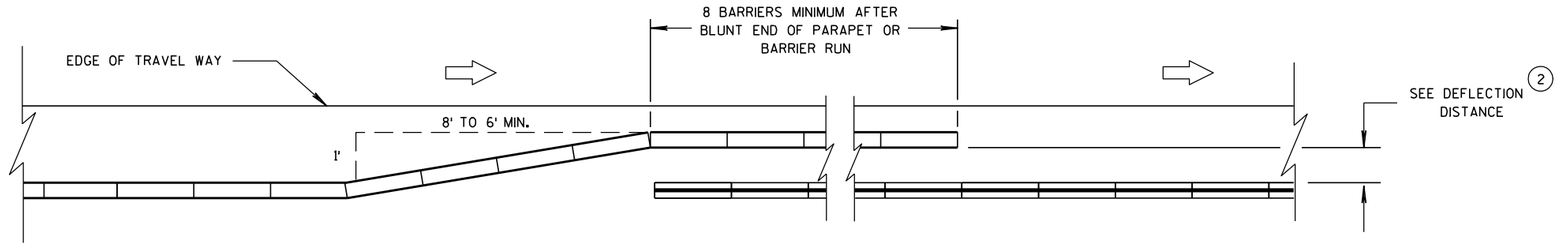
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

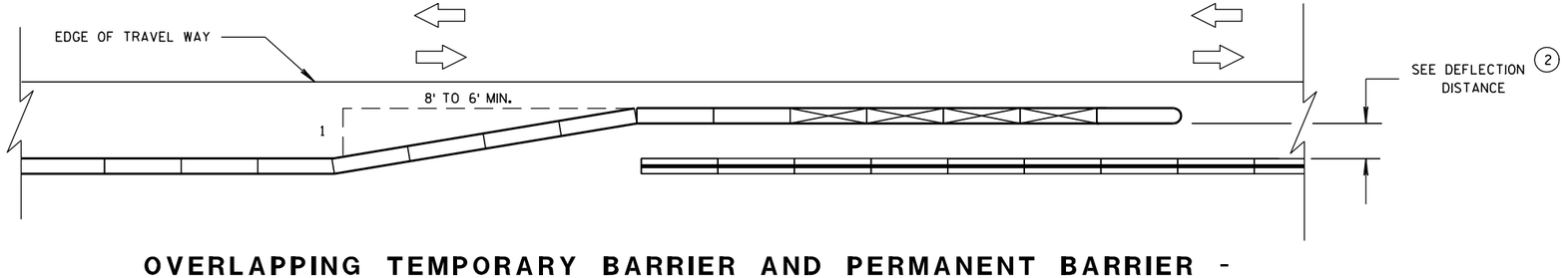
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

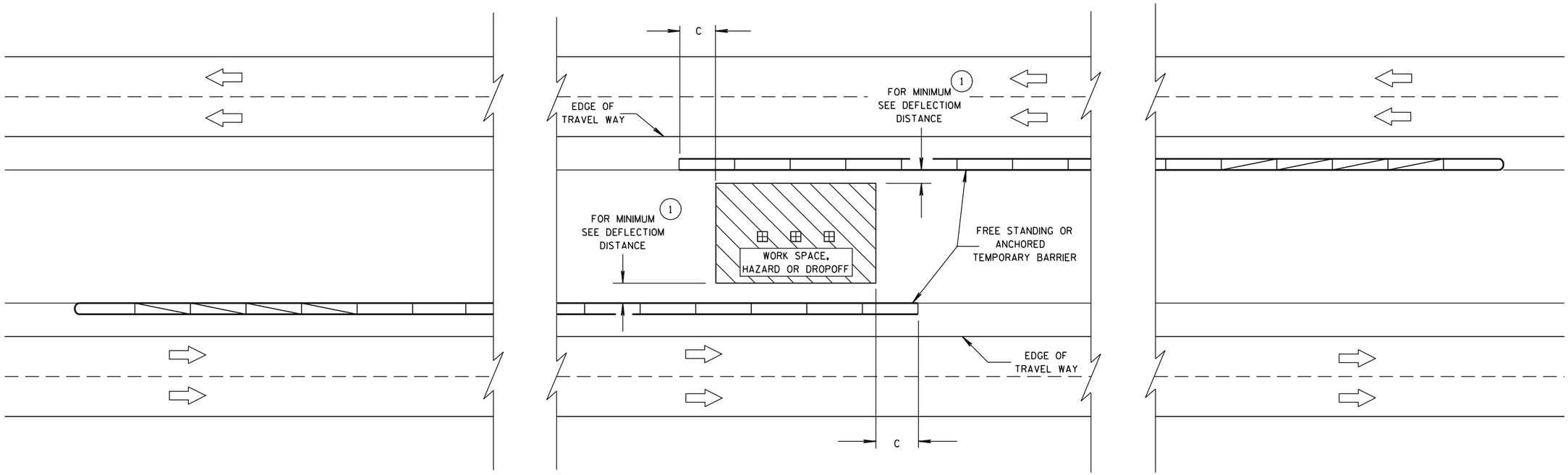
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER

FHWA

6
S.D.D. 14 B 8-1e

GENERAL NOTES

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

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

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

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

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

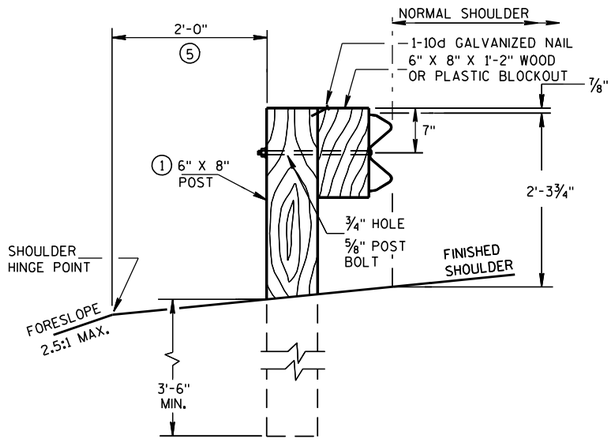
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

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

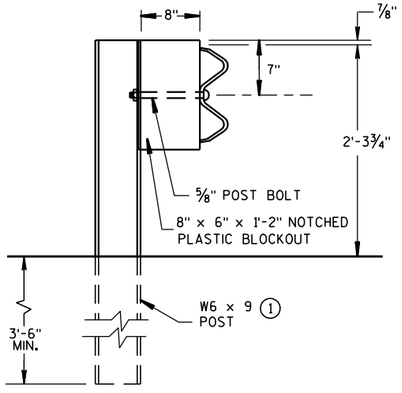
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED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

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

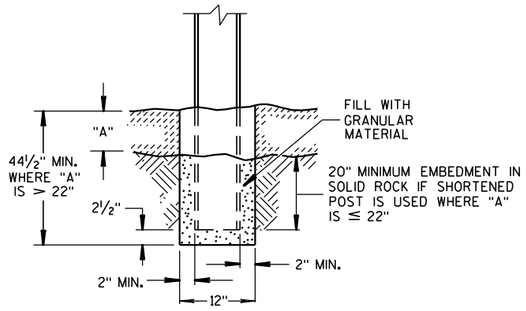
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



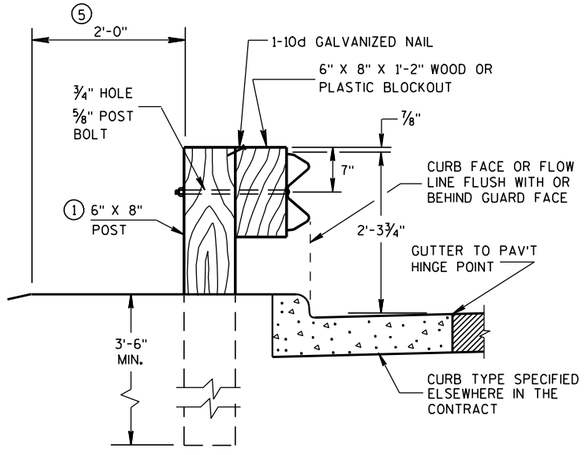
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



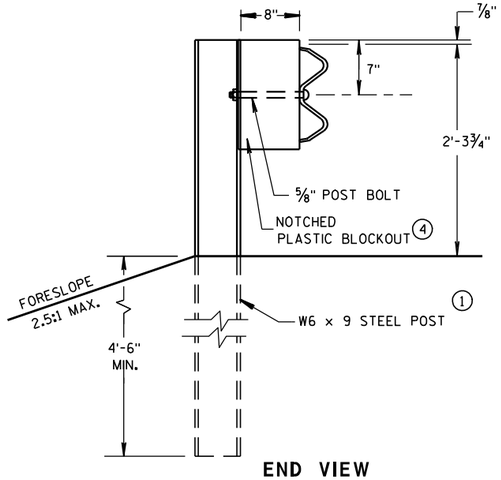
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



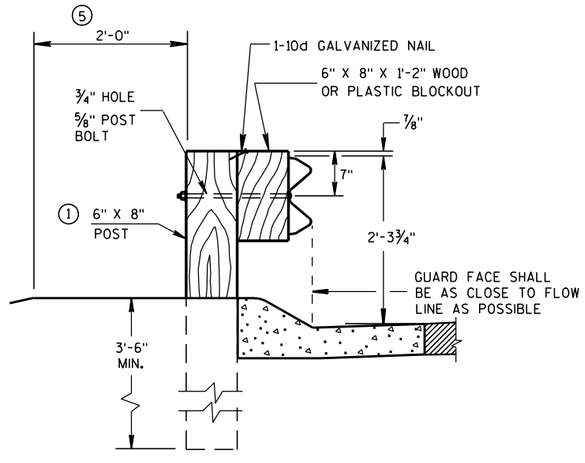
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



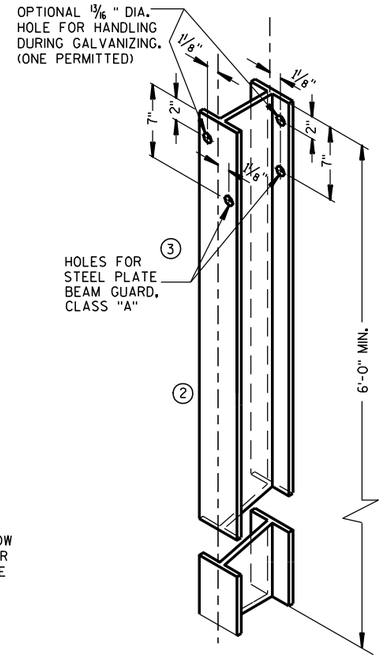
END VIEW
LOCATED ALONG A CURBED ROADWAY



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

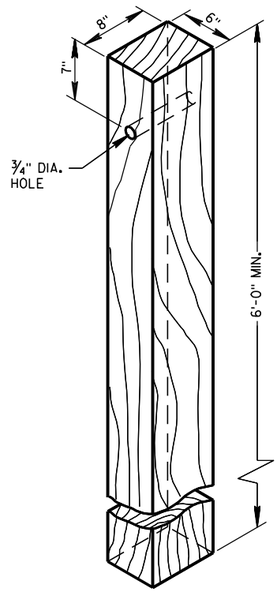


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

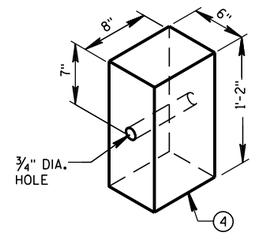


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

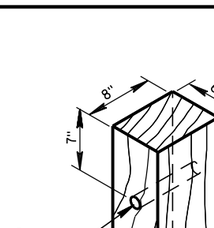
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



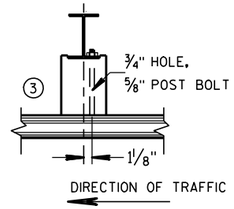
WOOD POST
(6"X8") NOMINAL



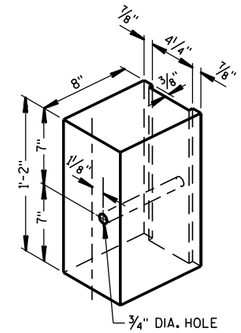
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

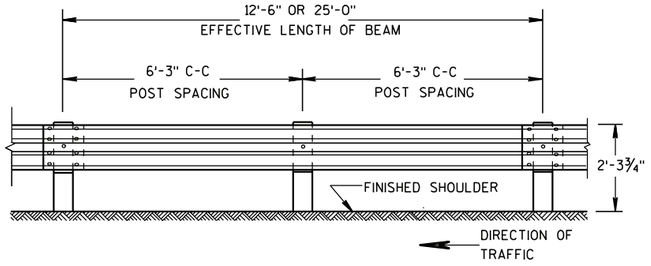
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

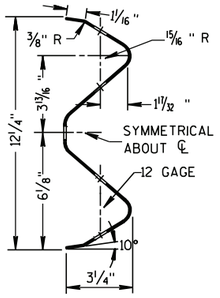
6

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

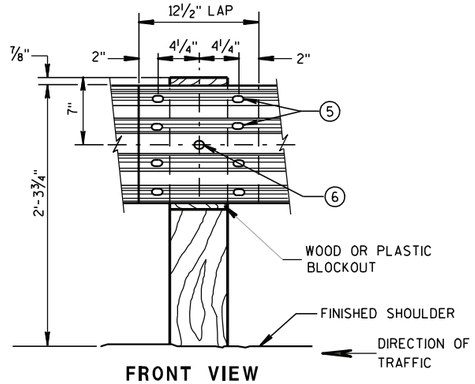


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

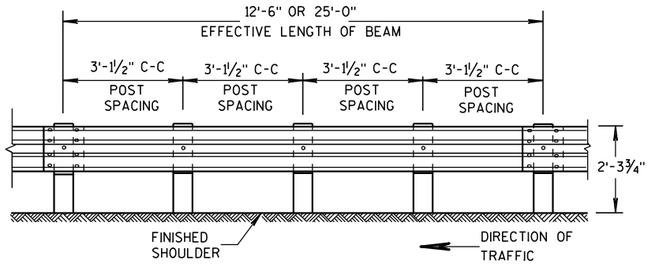


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

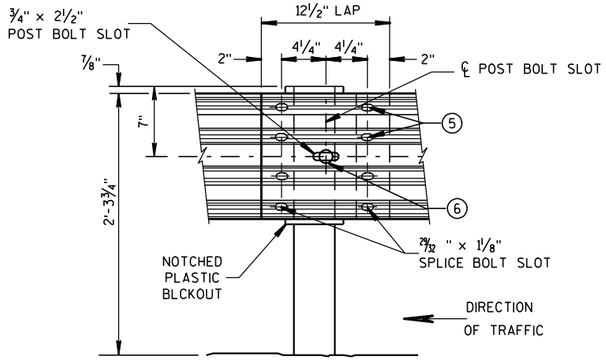
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

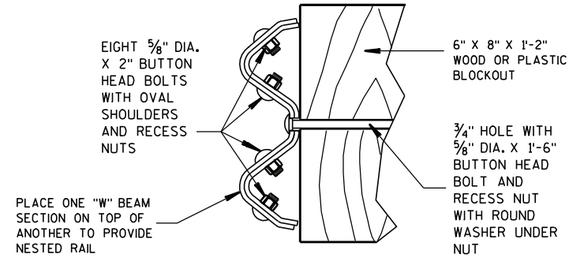
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

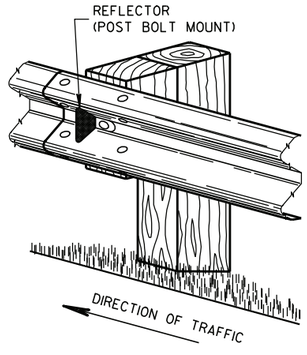


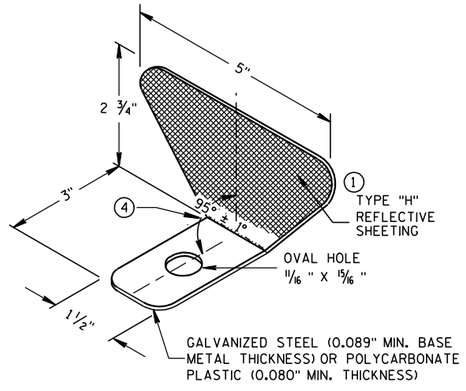
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	



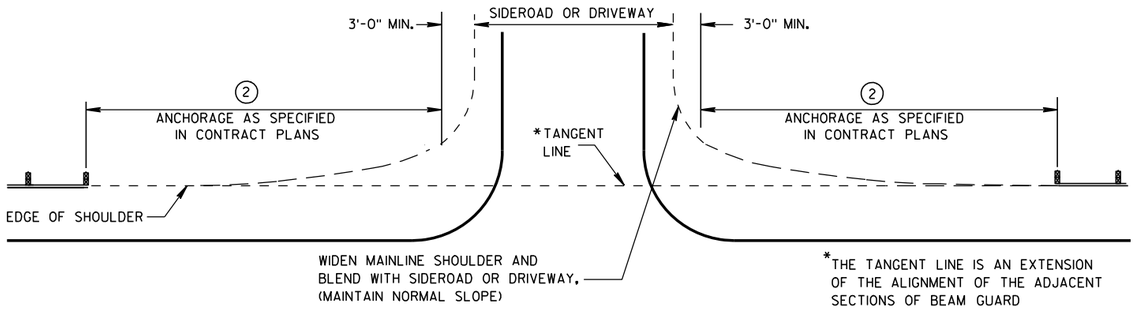


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

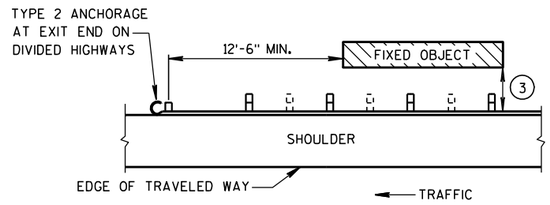
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

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

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

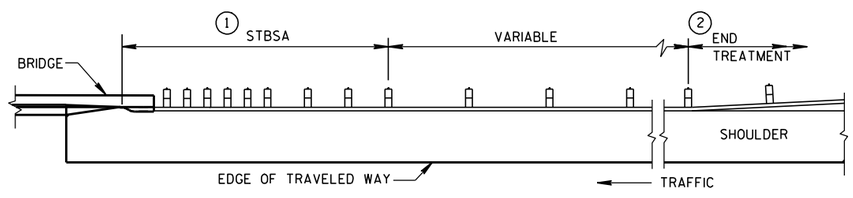
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

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

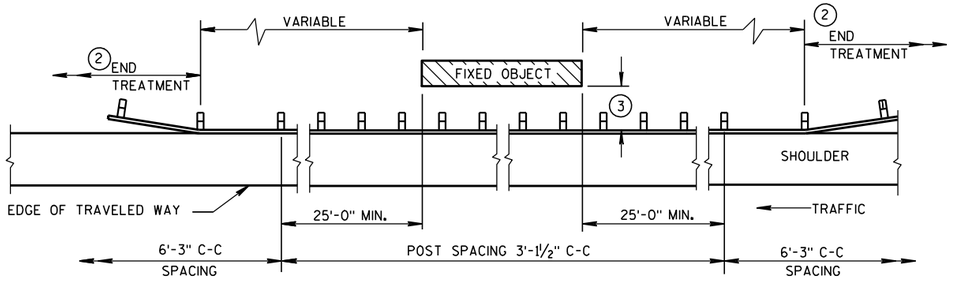
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

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

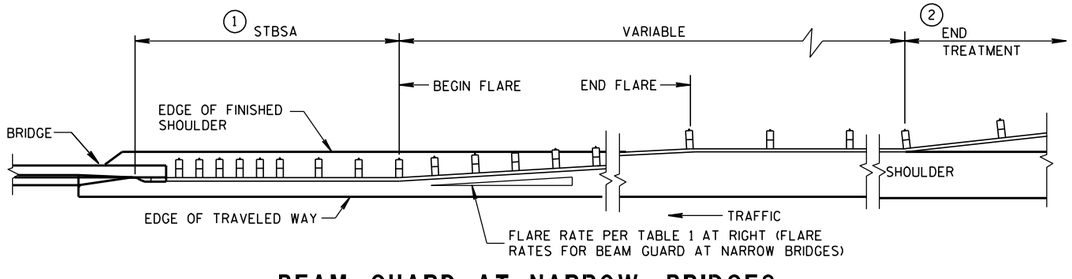


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



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

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

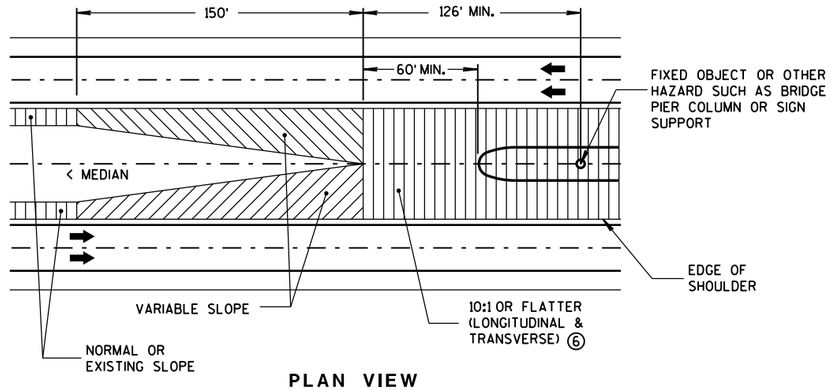
STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

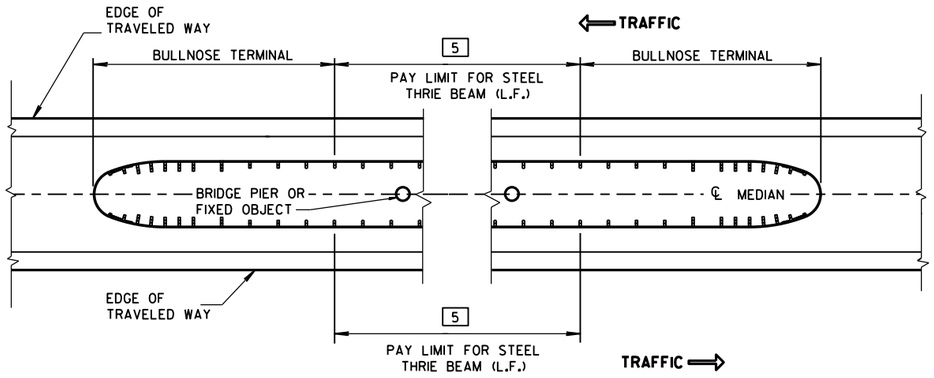
6

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

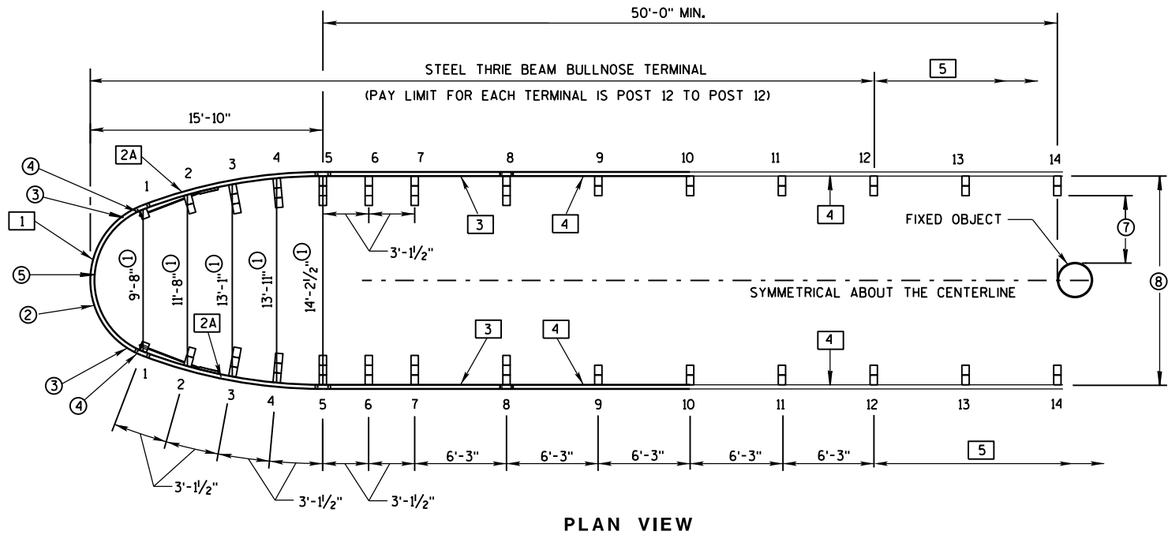


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

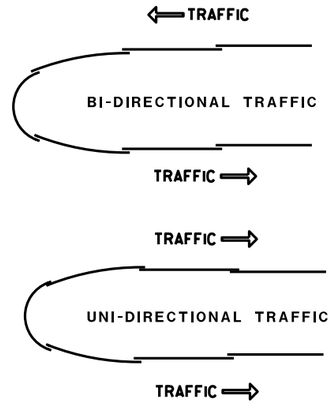


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

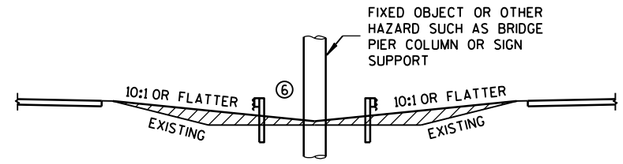
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

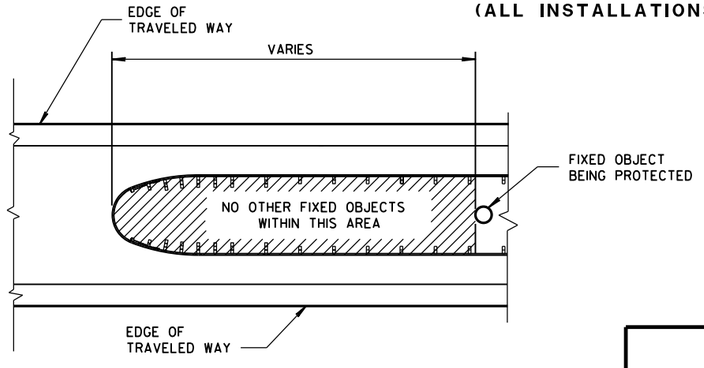
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



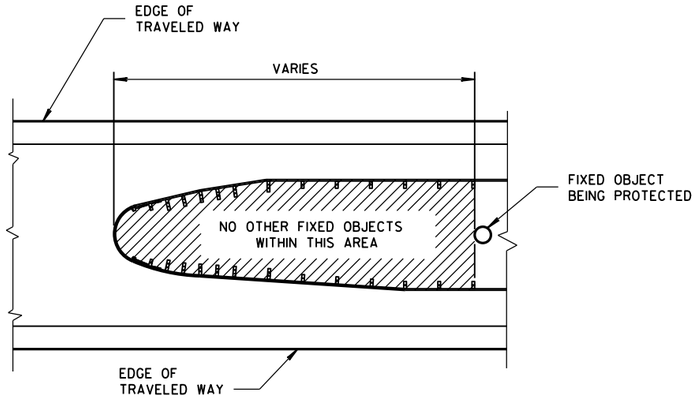
HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 26-2a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

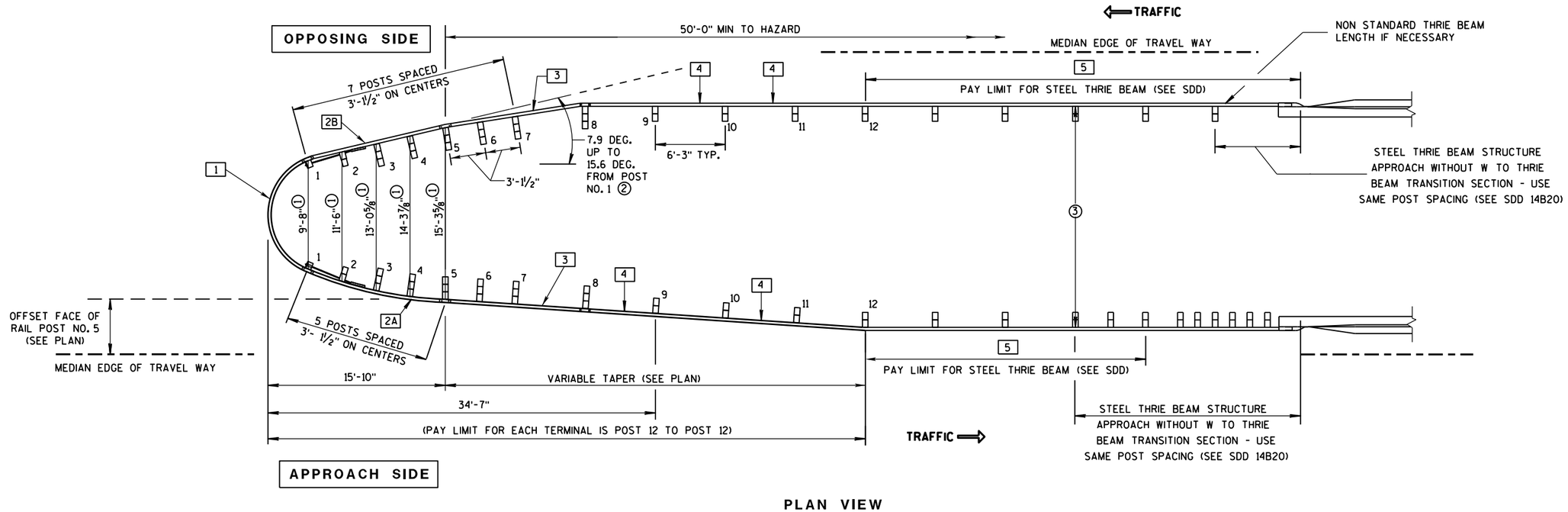
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

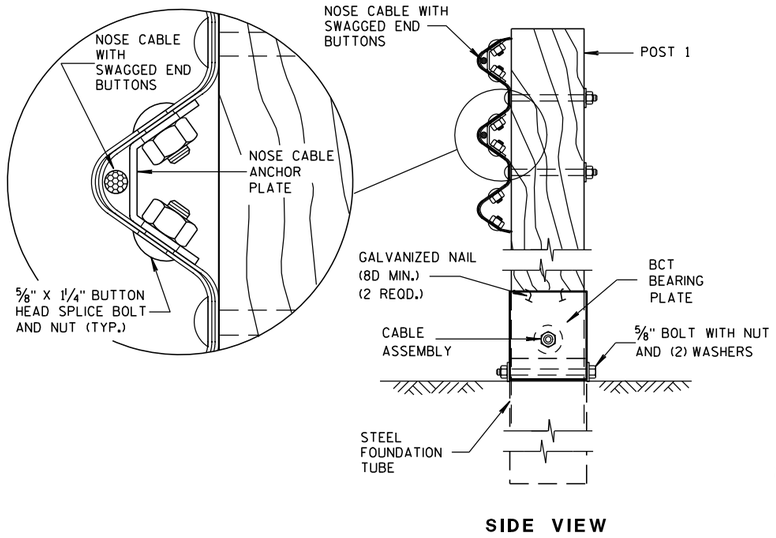
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

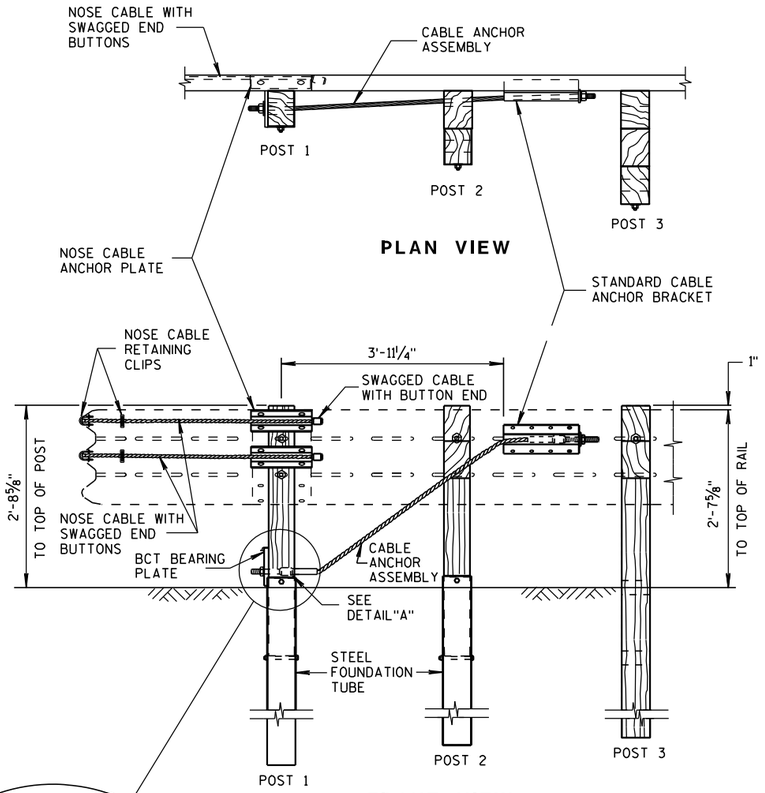
6

S.D.D. 14 B 26-2b



SIDE VIEW

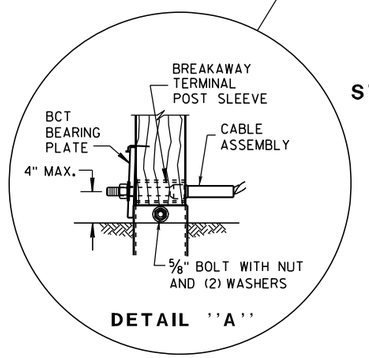
NOSE CABLE ASSEMBLY AT POST NO. 1



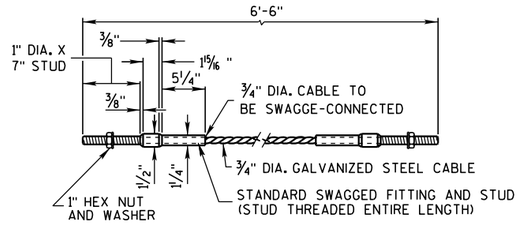
PLAN VIEW

FRONT VIEW

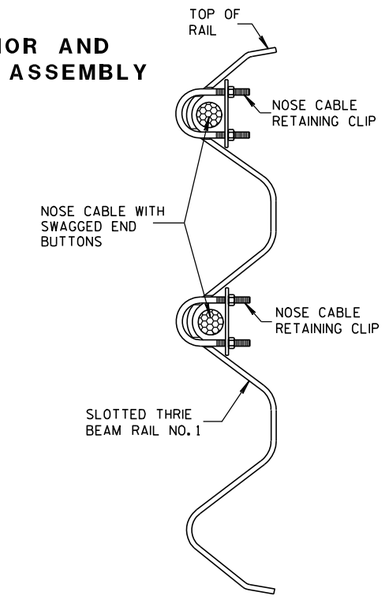
NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY



DETAIL ''A''



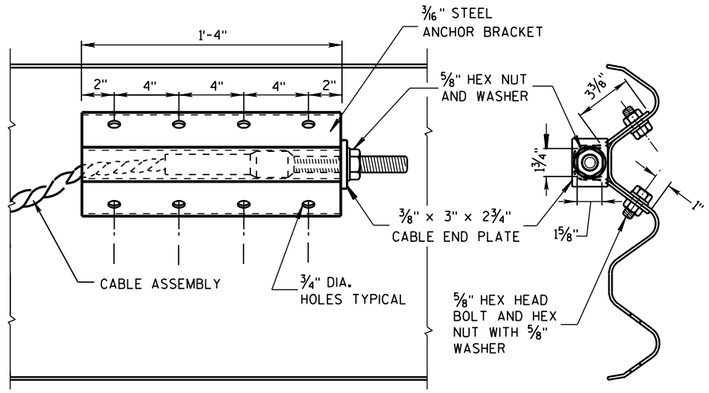
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP

GENERAL NOTES

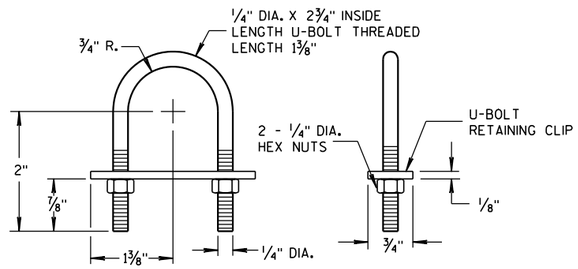
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



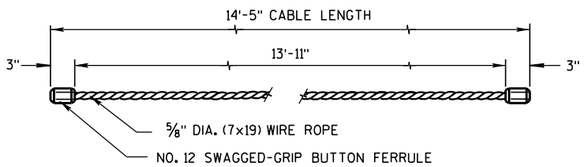
FRONT VIEW

END VIEW

DETAILS OF CABLE ANCHOR BRACKET

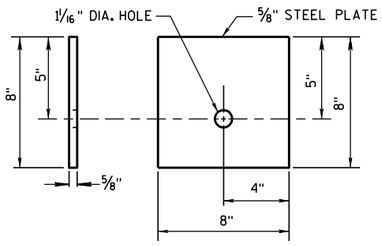


NOSE CABLE RETAINING CLIP

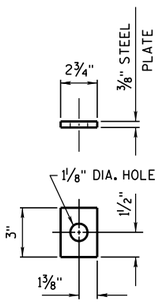


NOSE CABLE WITH SWAGGED END BUTTONS

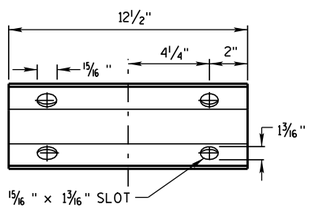
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.



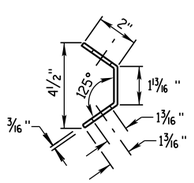
BCT BEARING PLATE



CABLE END PLATE



ELEVATION VIEW



END VIEW

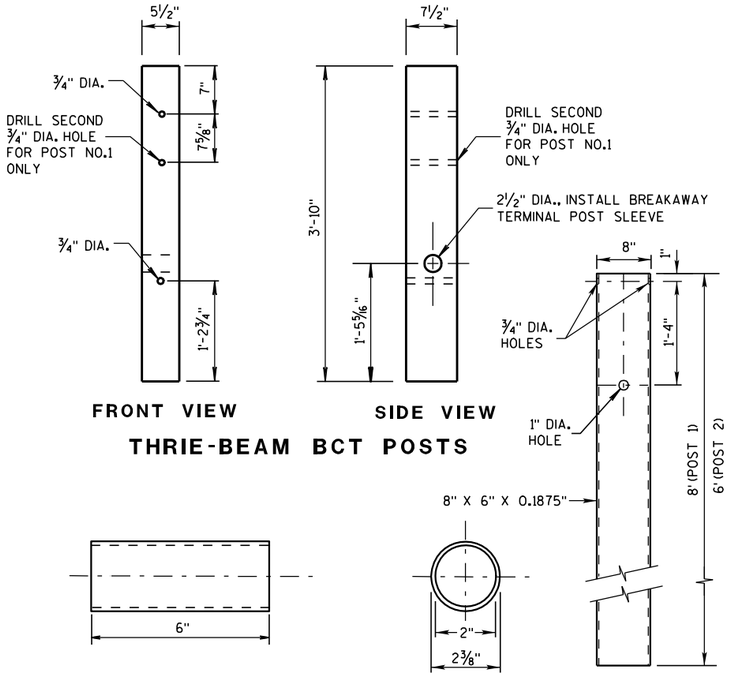
NOSE CABLE ANCHOR PLATE

NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

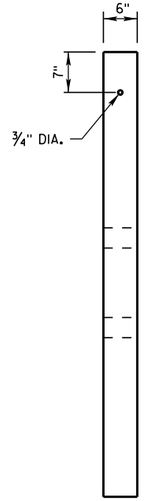
6
S.D.D. 14 B 26-2c

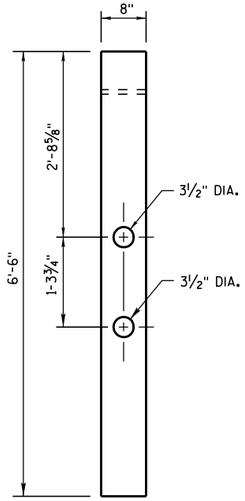


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

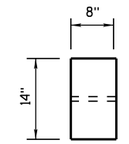


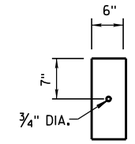


THRIE-BEAM CRT WOOD POSTS

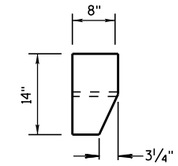
GENERAL NOTES

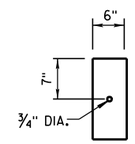
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



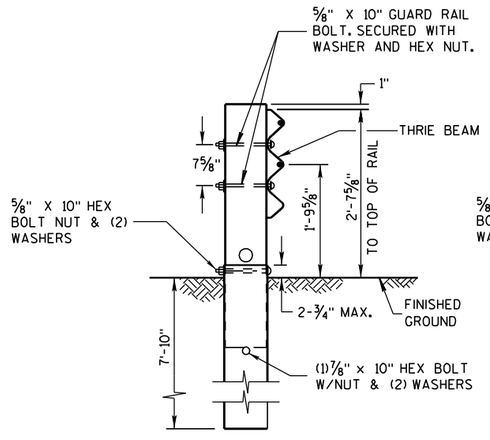


STANDARD WOOD BLOCK



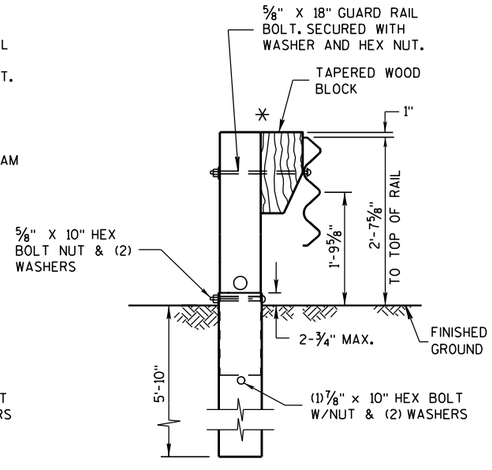


TAPERED WOOD BLOCK



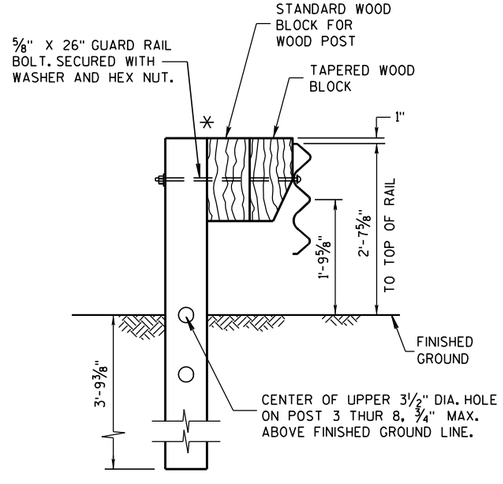
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



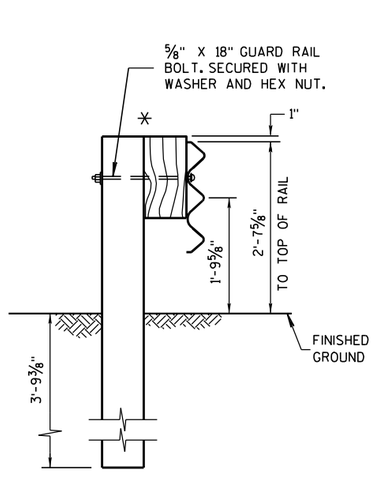
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

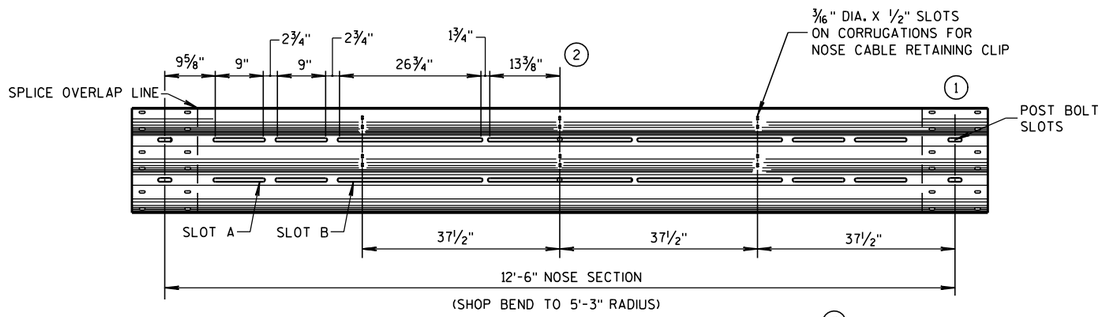
✳ IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

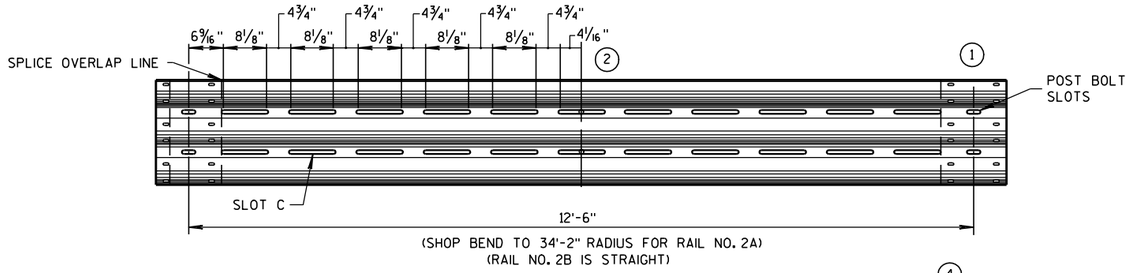
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

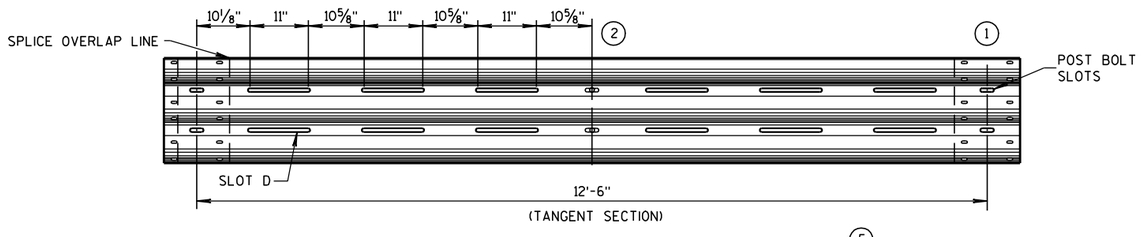
S.D.D. 14 B 26-2d



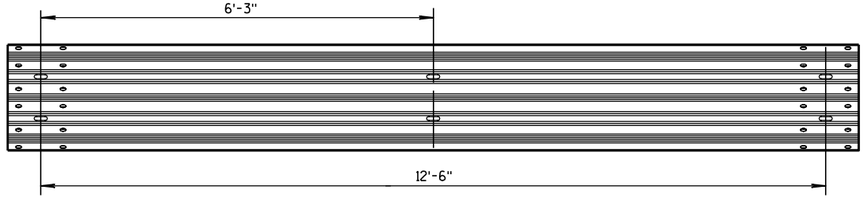
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

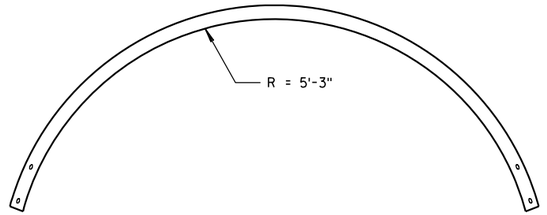
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

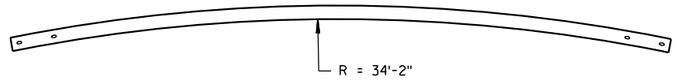
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



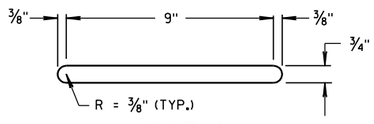
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

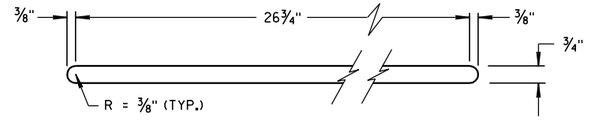


PLAN VIEW

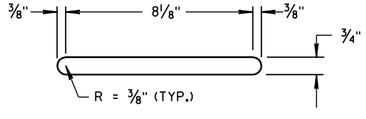
SLOTTED THRIE BEAM RAIL NO. 2A



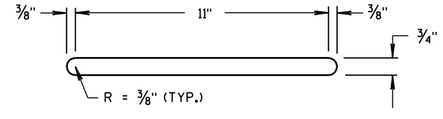
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

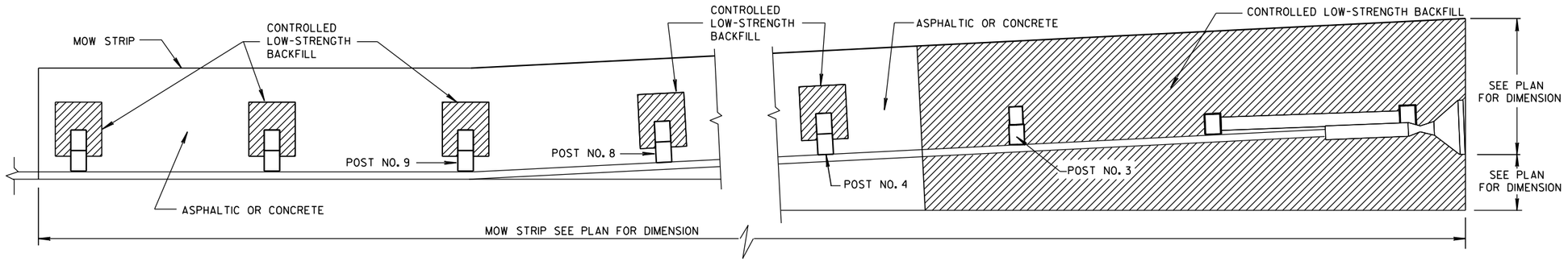
9-16-2010
DATE

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

FHWA

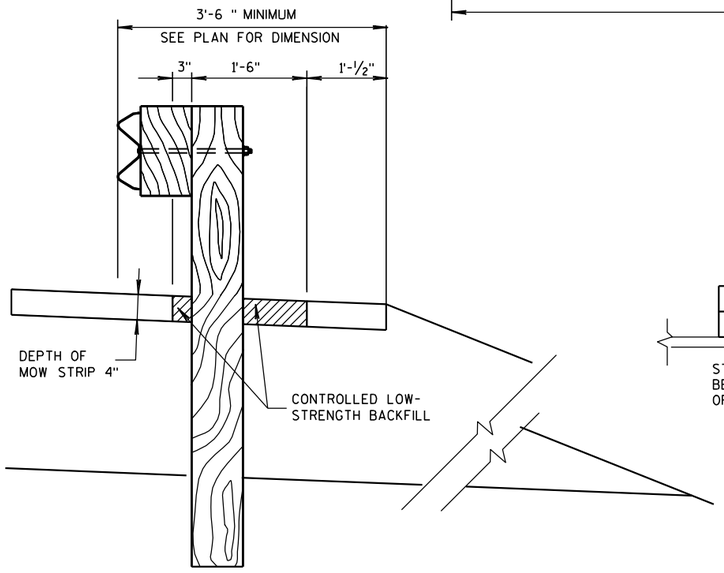
6

S.D.D. 14 B 26-2e

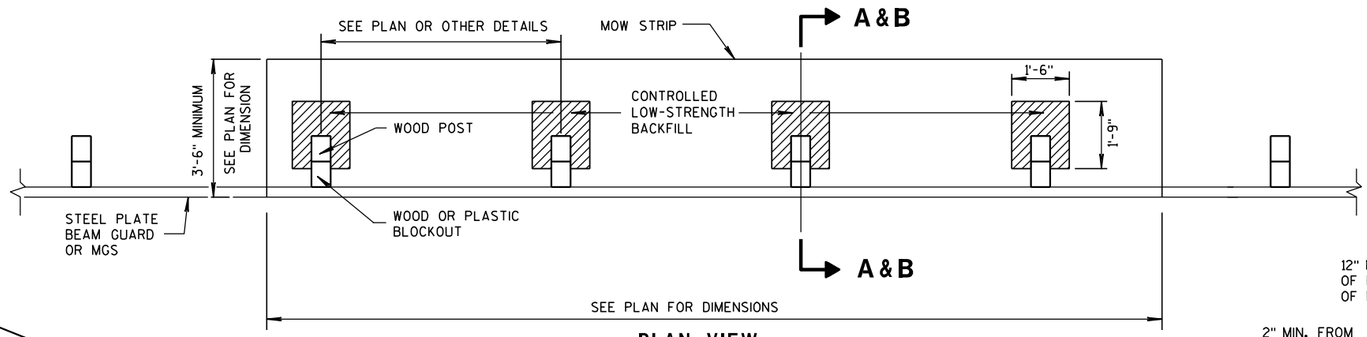


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

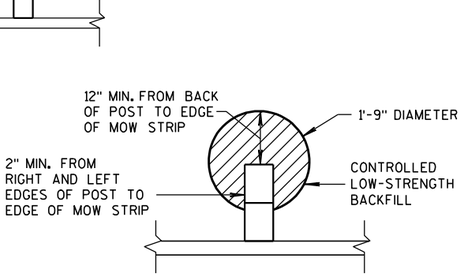


SECTION A-A

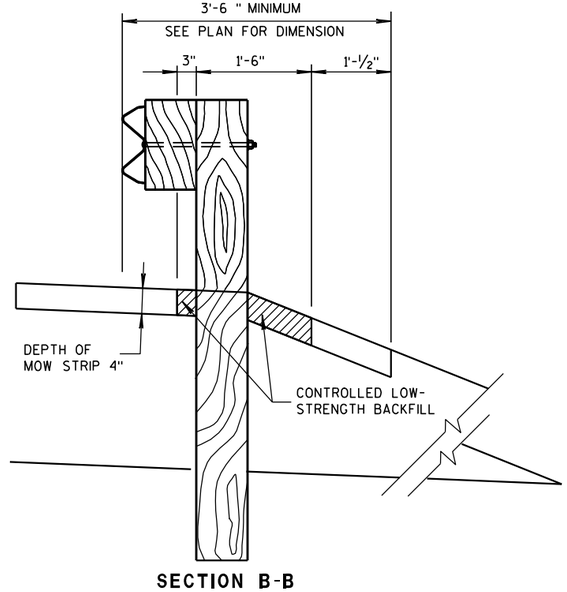


PLAN VIEW

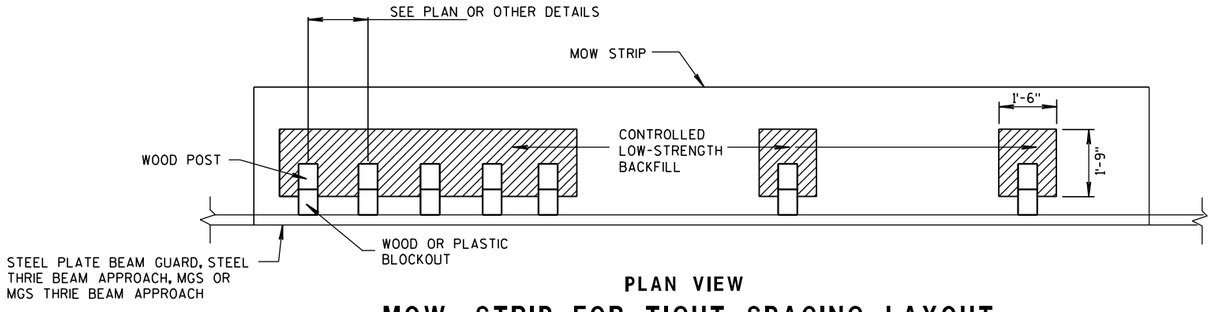
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA
MOW STRIP DESIGN

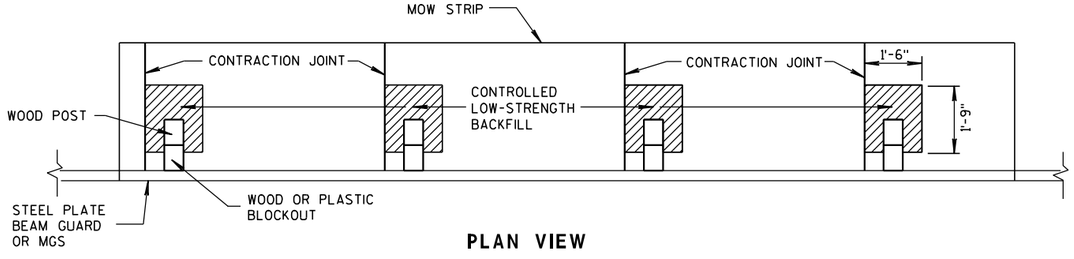


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12
DATE

/S/ Jerry H. Zo...
ROADWAY STANDARDS I214 ...ENT
ENGINEER

FHWA

6

S.D.D. 14 B 28-2

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GENERAL NOTES

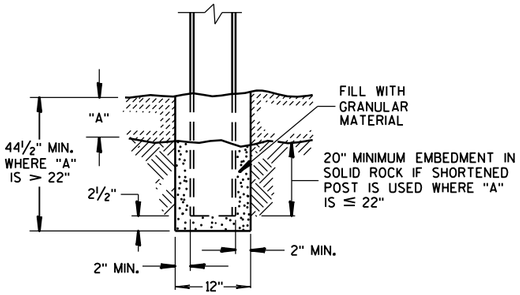
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

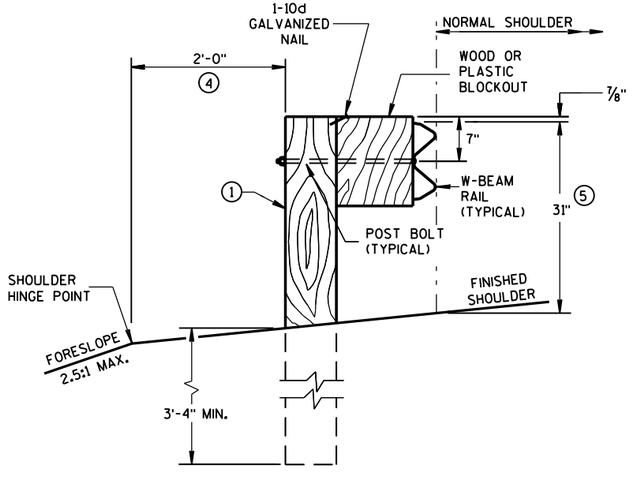
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

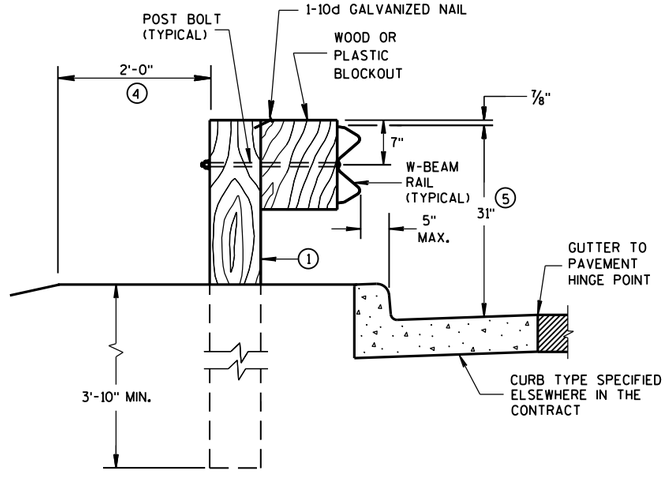


END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



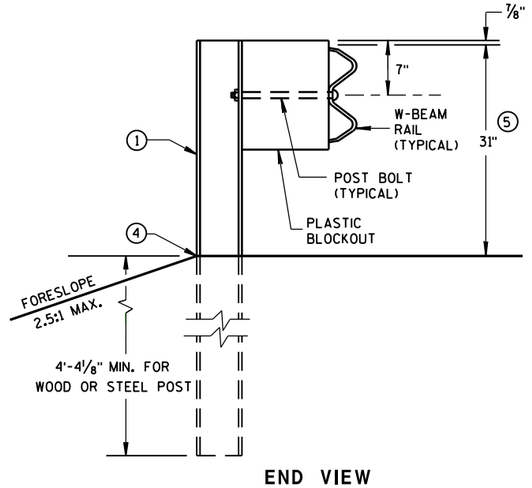
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



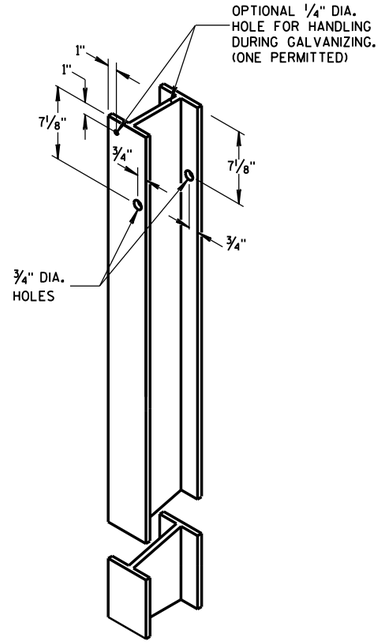
END VIEW

LOCATED ALONG A CURBED ROADWAY

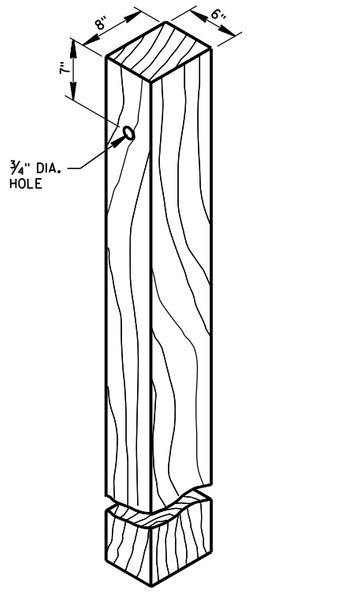


END VIEW

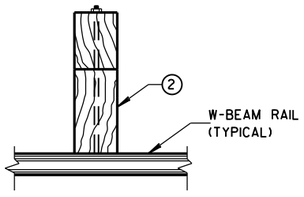
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



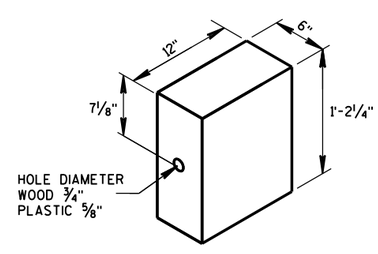
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



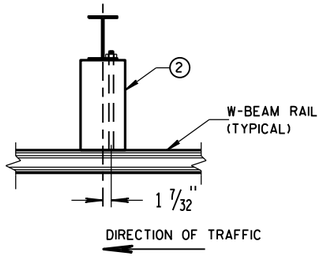
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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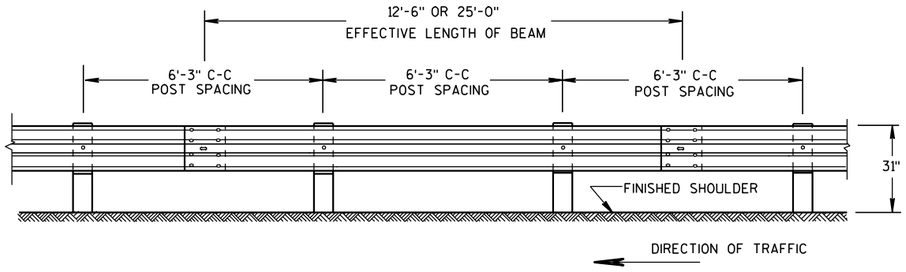
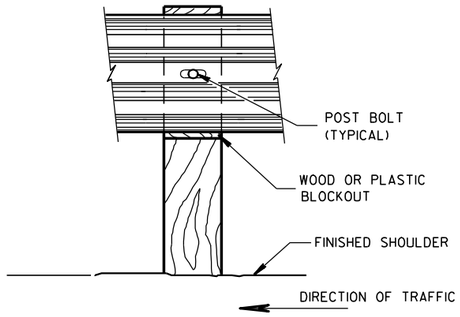


FRONT VIEW

POST SPACING STANDARD INSTALLATION



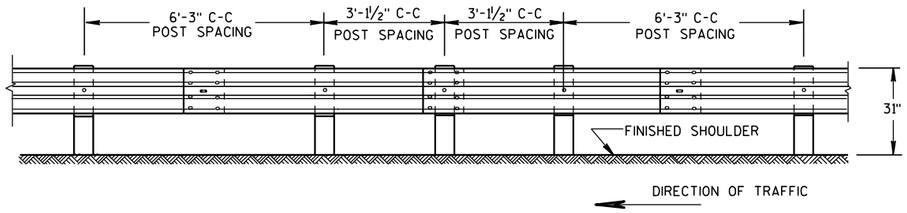
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

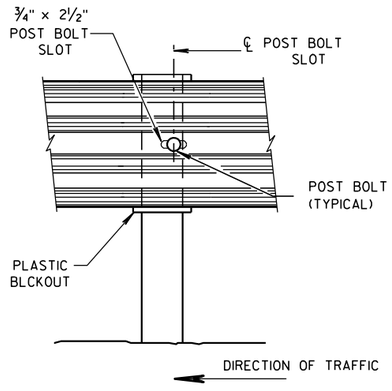
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

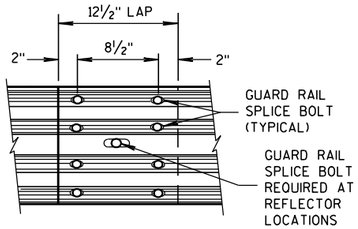


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

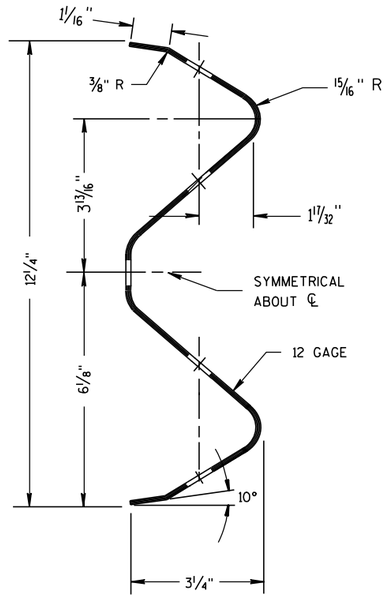


FRONT VIEW AT STEEL POST

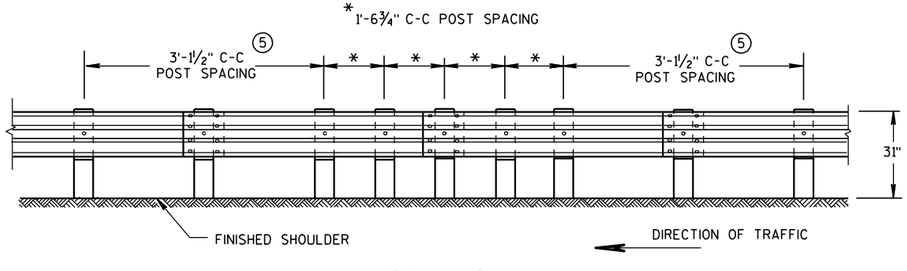


FRONT VIEW

MID-SPAN BEAM SPLICE

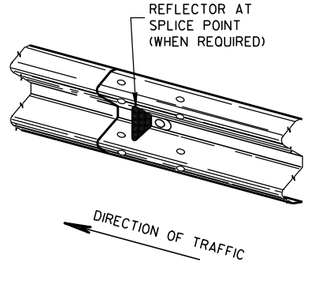


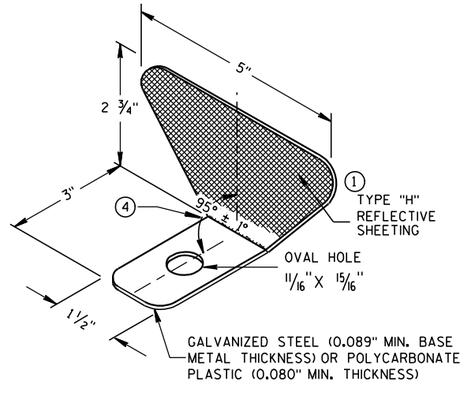
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 42-2b

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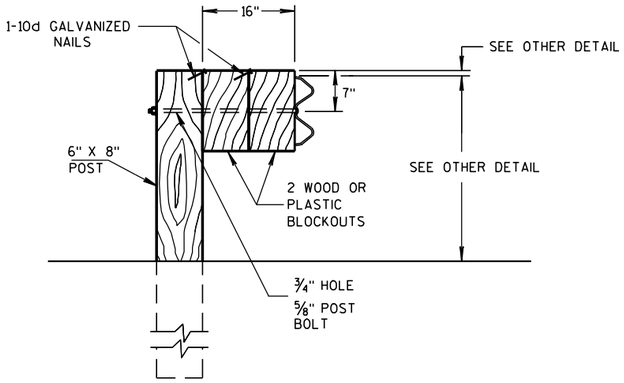
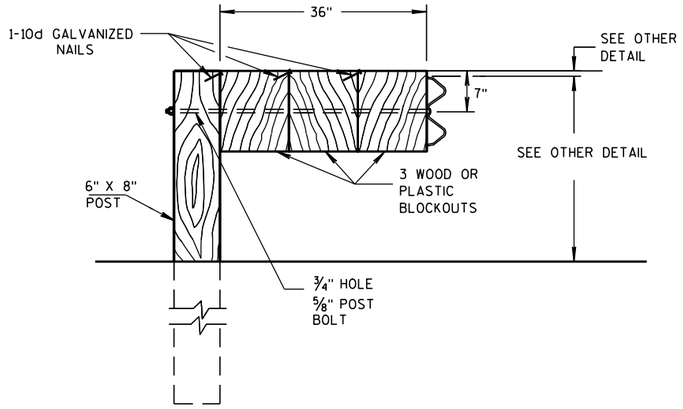


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

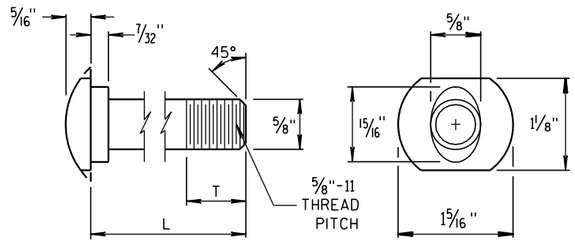


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

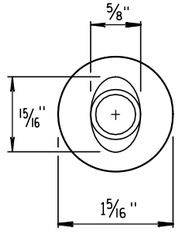
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

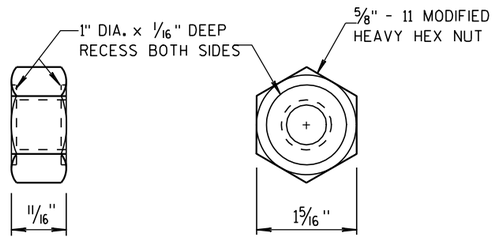


POST BOLT TABLE

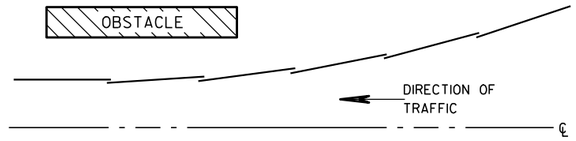
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

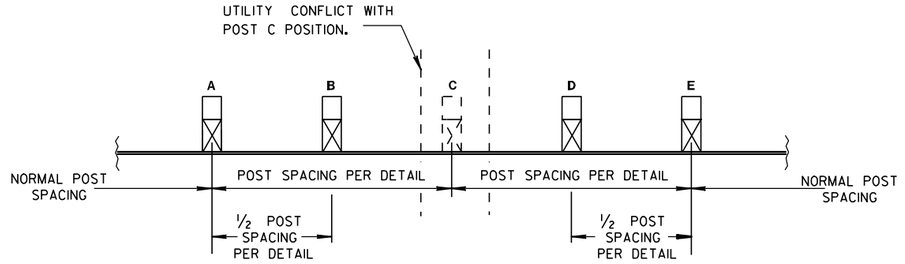


POST BOLT AND RECESS NUT

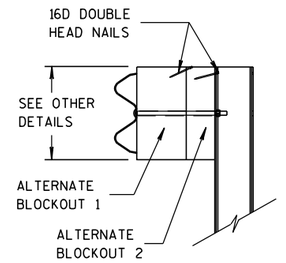


PLAN VIEW

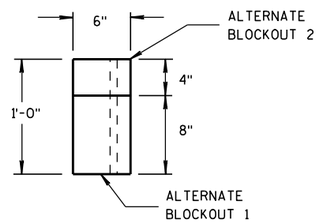
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

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

FHWA

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S.D.D. 14 B 42-2c

GENERAL NOTES

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

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

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

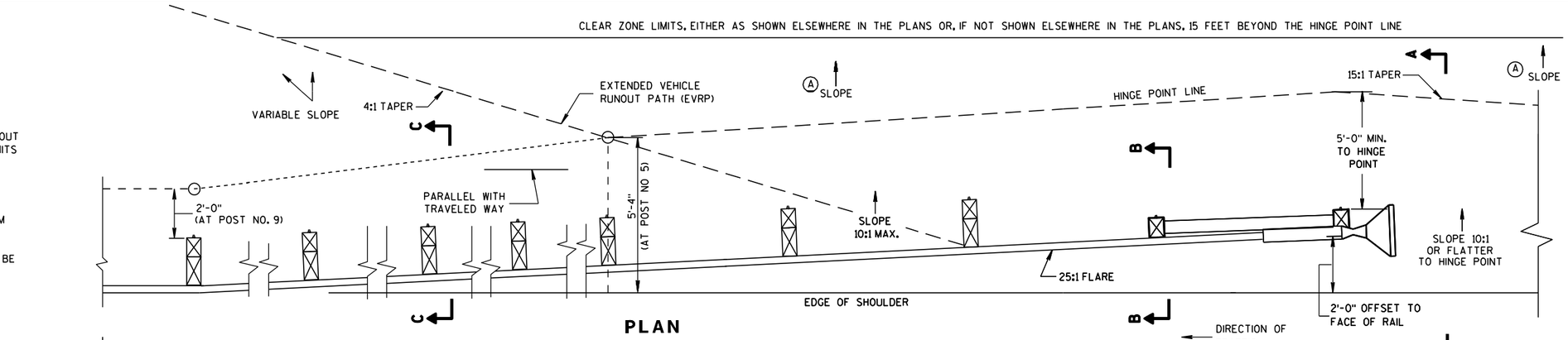
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

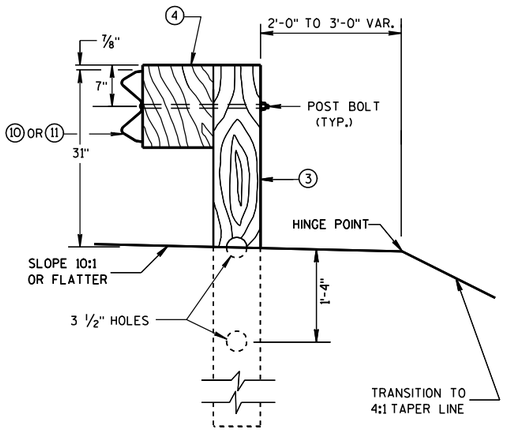
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

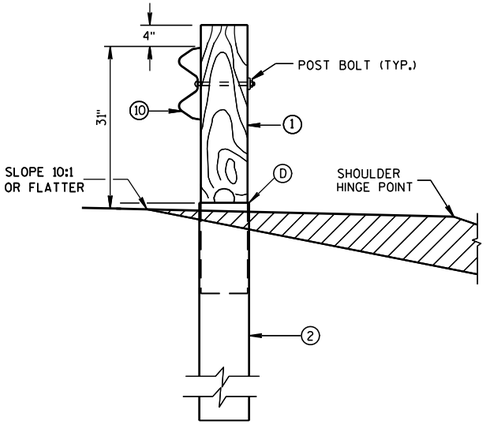
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

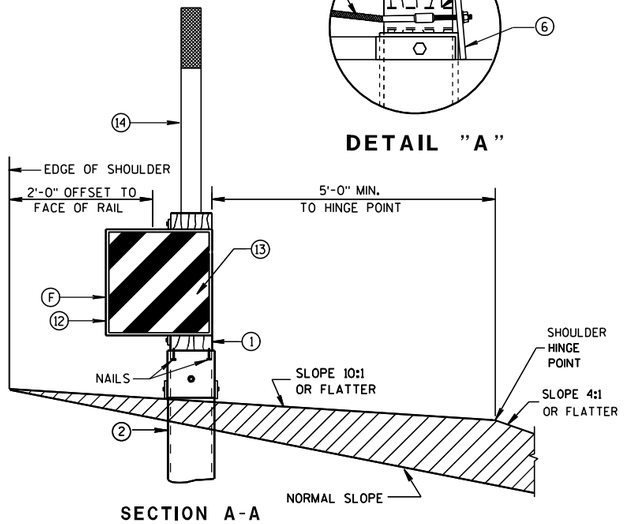




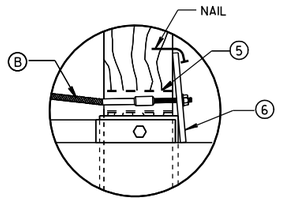
SECTION C-C
TYPICAL AT POST NOS. 3-9



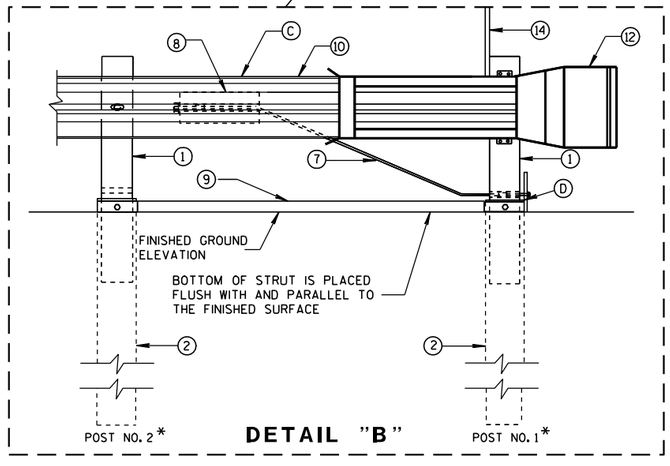
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1a

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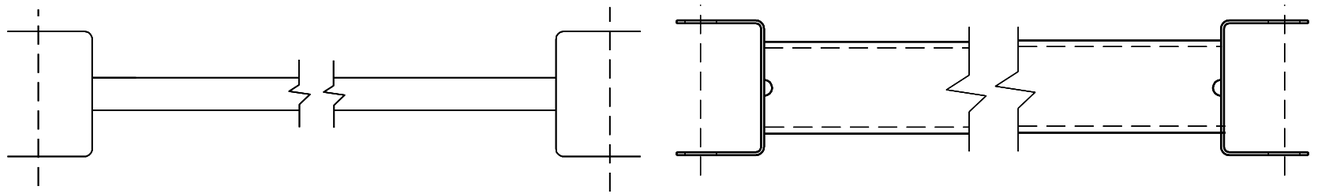
S.D.D. 14 B 44-1a

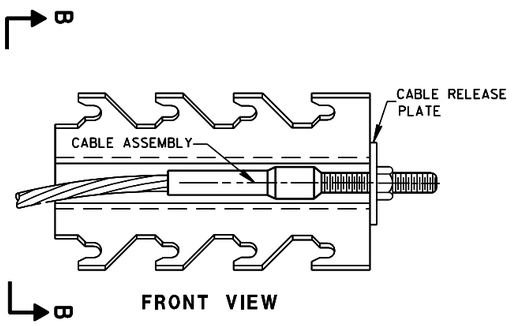


(9) (H)

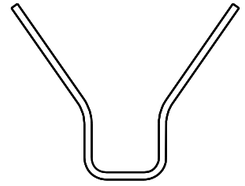
GENERIC GROUND STRUT

BILL OF MATERIALS

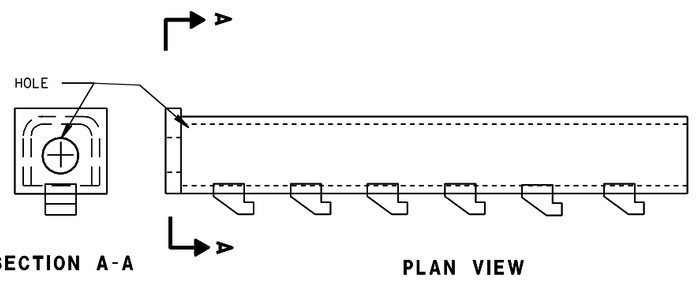
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



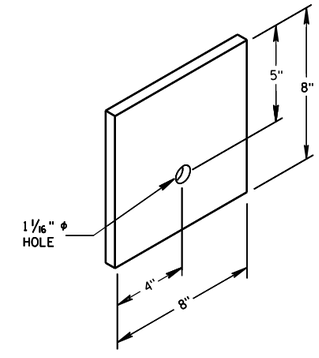
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



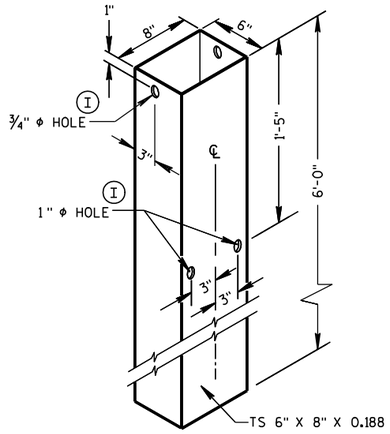
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

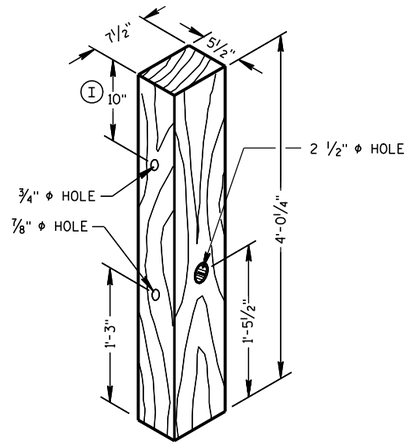
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

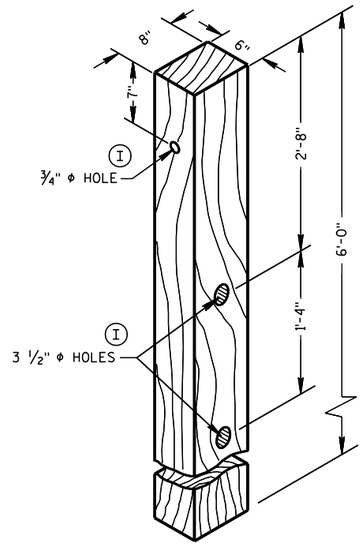


FOUNDATION TUBE (2)



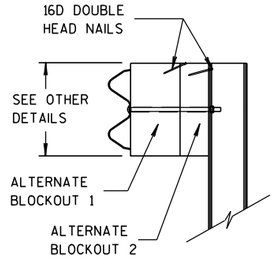
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

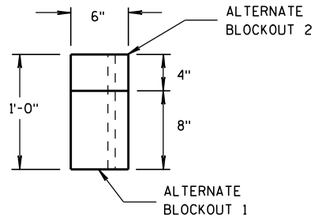


POSTS NUMBER 3-9

WOOD CRT POST (3)

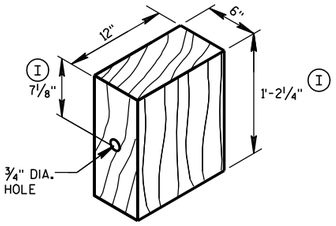


SIDE VIEW



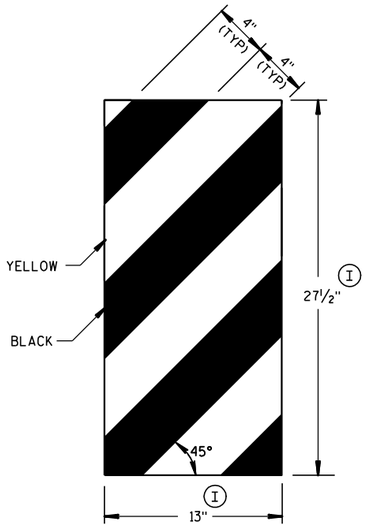
TOP VIEW

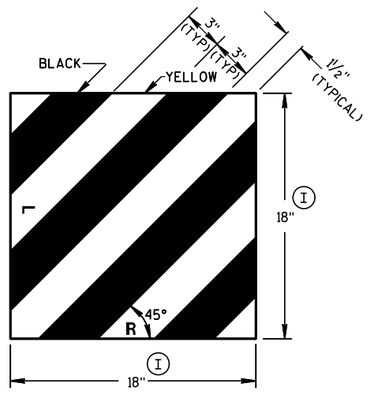
ALTERNATE WOOD BLOCKOUT DETAIL



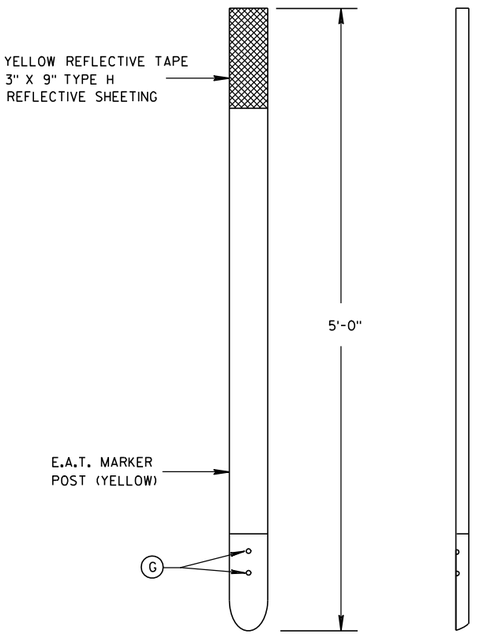
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





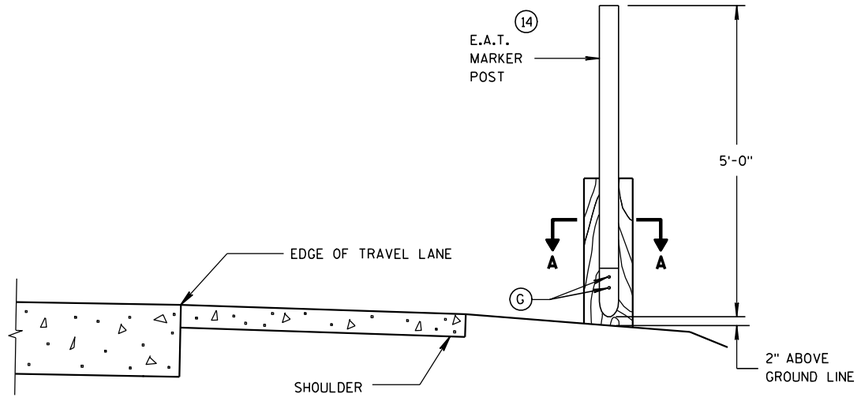
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

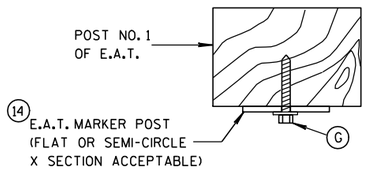
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2011
DATE

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

220

FHWA

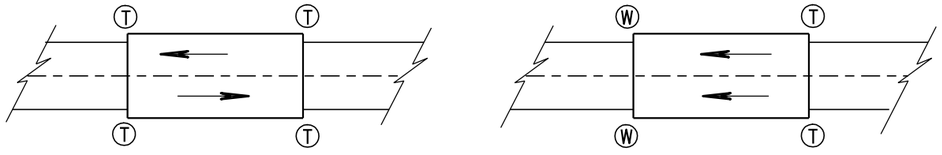
[illegible]

6

6

S.D.D. 14 B 44-1c

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

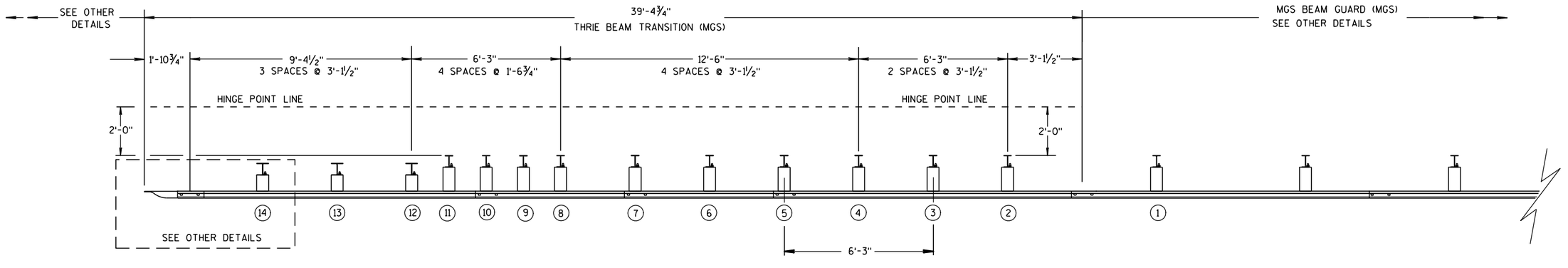
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

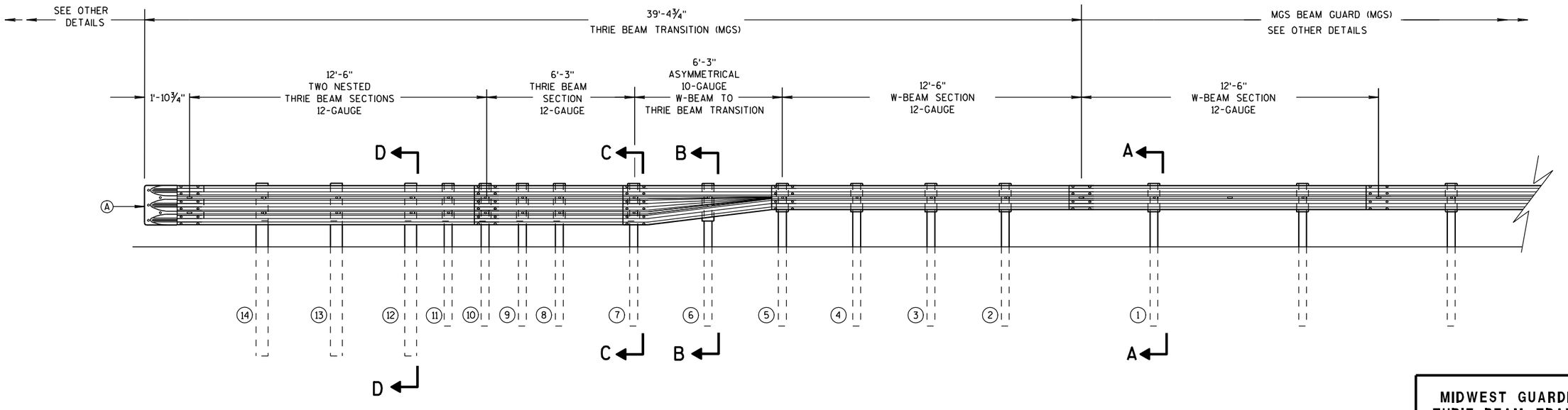
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

S.D.D. 14 B 45-3a

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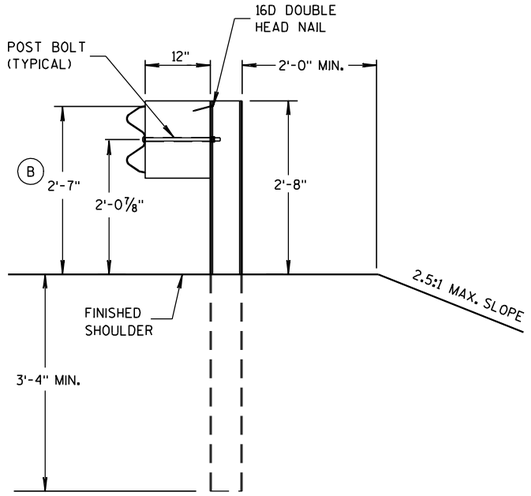
S.D.D. 14 B 45-3a

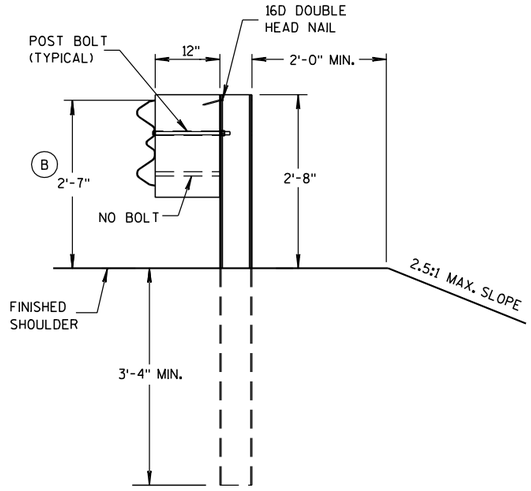
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



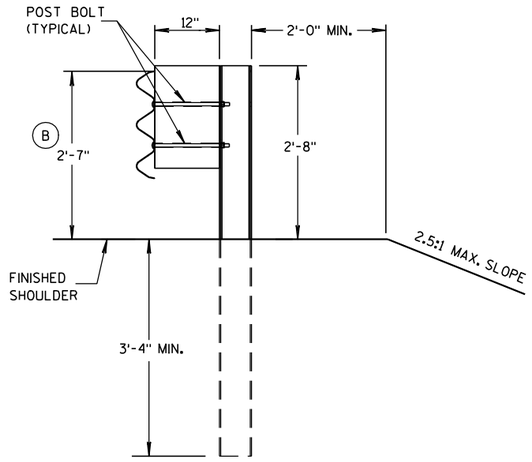
SECTION A-A

POSTS 1-5



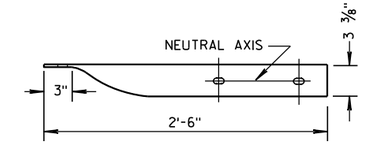
SECTION B-B

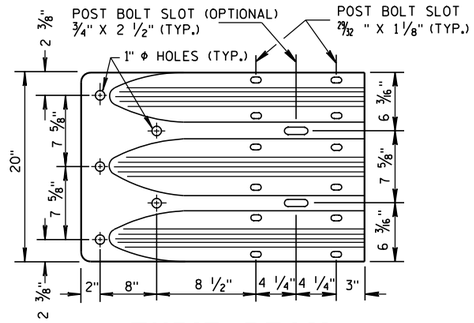
POST 6



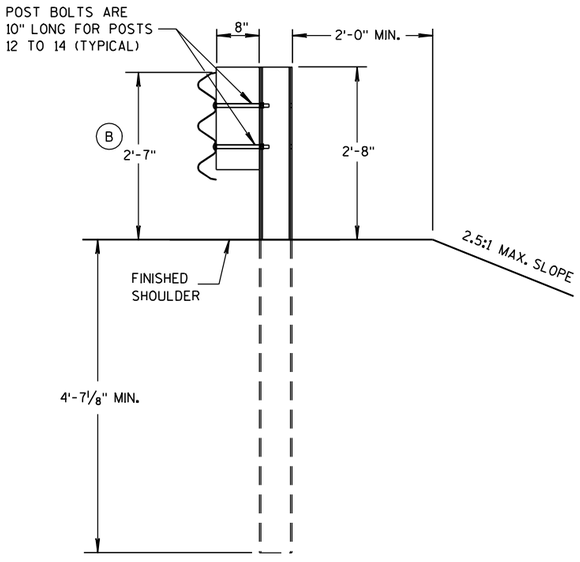
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

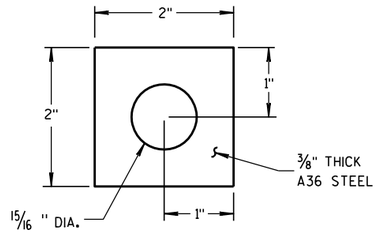
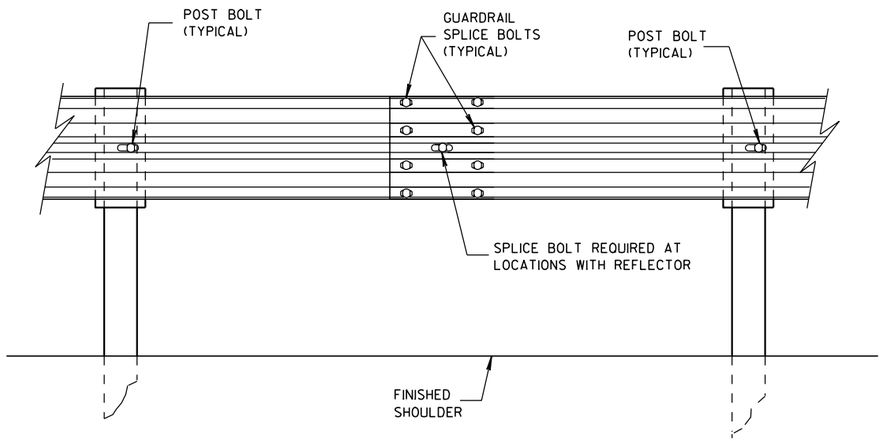
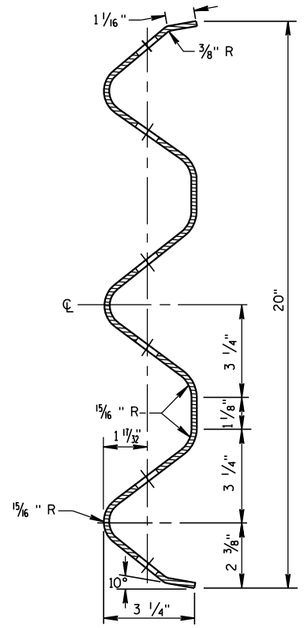


PLATE WASHER DETAIL



SPLICE DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

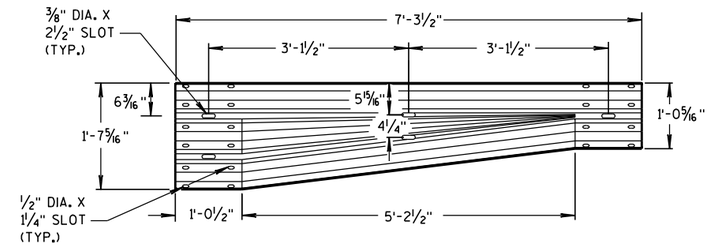
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

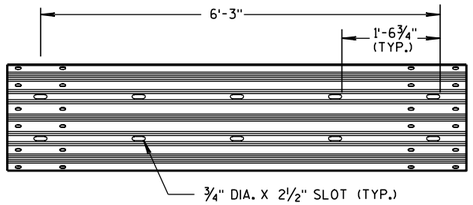
S.D.D. 14 B 45-3b

6

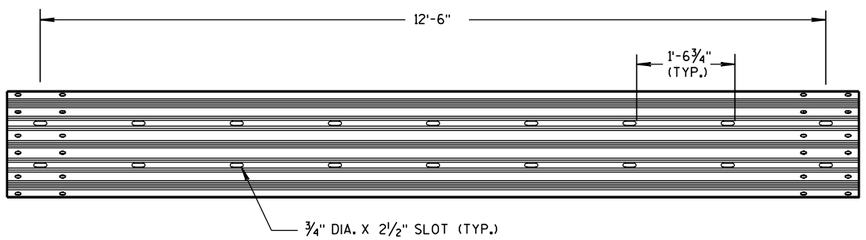
S.D.D. 14 B 45-3b



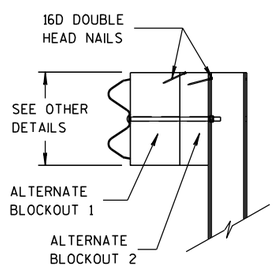
W-BEAM TO THRIE BEAM TRANSITION SECTION



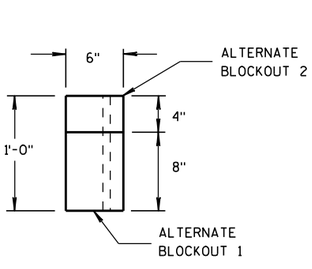
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

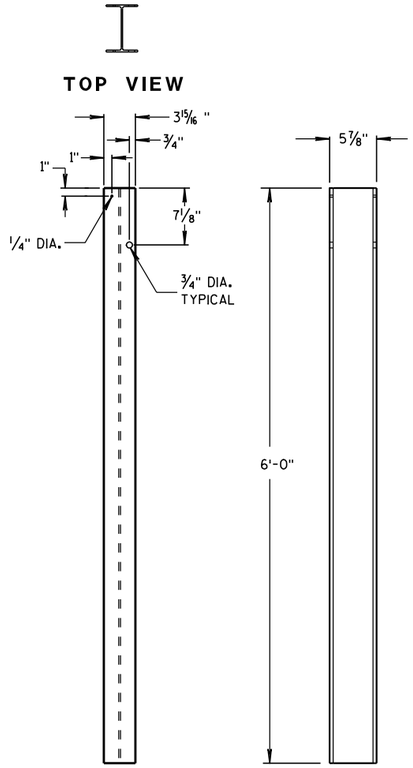


SIDE VIEW

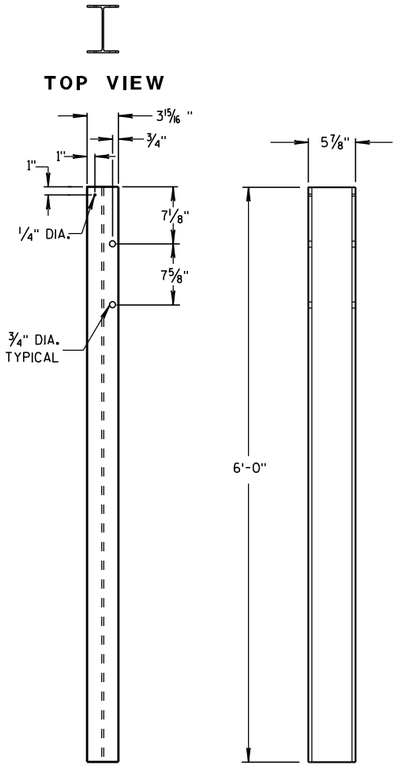


TOP VIEW

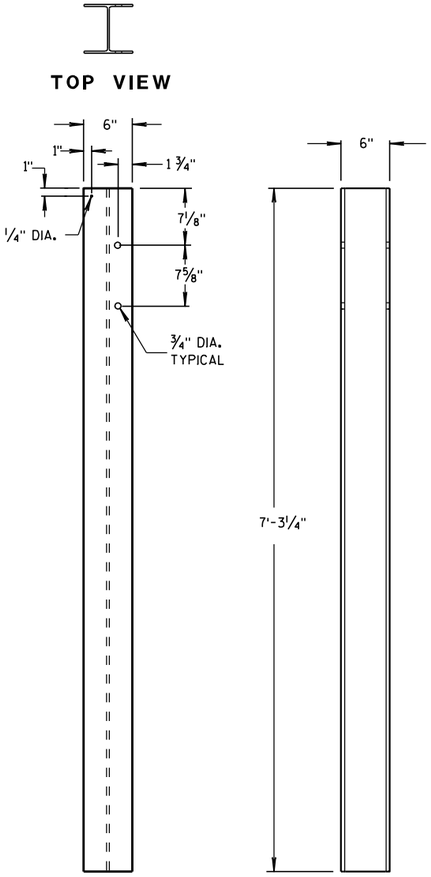
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

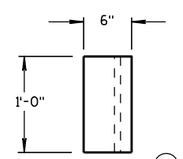


STEEL POSTS 6-11

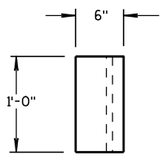


STEEL POSTS 12-14

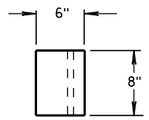
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



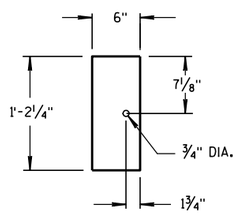
TOP VIEW (1)



TOP VIEW (1)

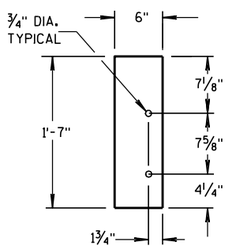


TOP VIEW



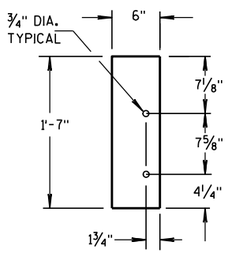
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

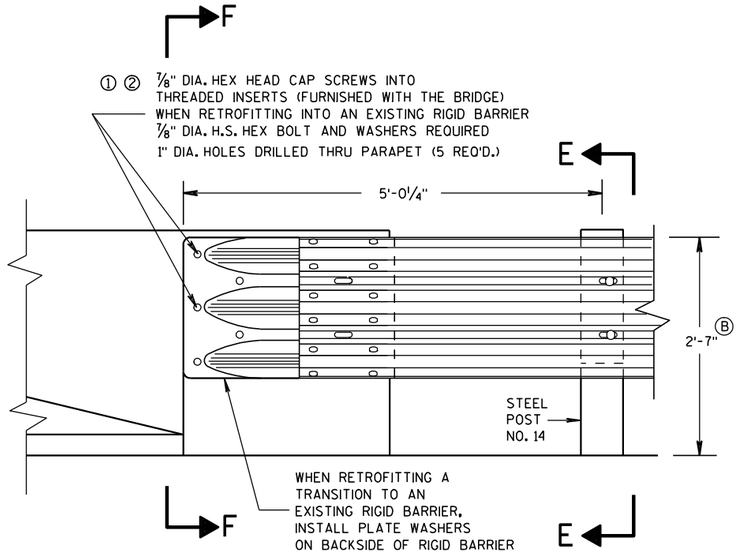
POST NUMBER	SECTION TYPE	LENGTH
(1)	W6x9	72"
(2)	W6x9	72"
(3)	W6x9	72"
(4)	W6x9	72"
(5)	W6x9	72"
(6)	W6x9	72"
(7)	W6x9	72"
(8)	W6x9	72"
(9)	W6x9	72"
(10)	W6x9	72"
(11)	W6x9	72"
(12)	W6x15	87 1/8"
(13)	W6x15	87 1/8"
(14)	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

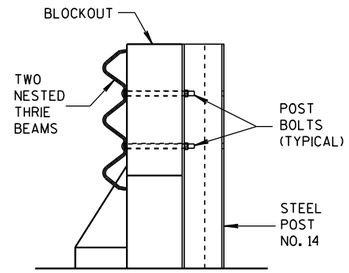
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

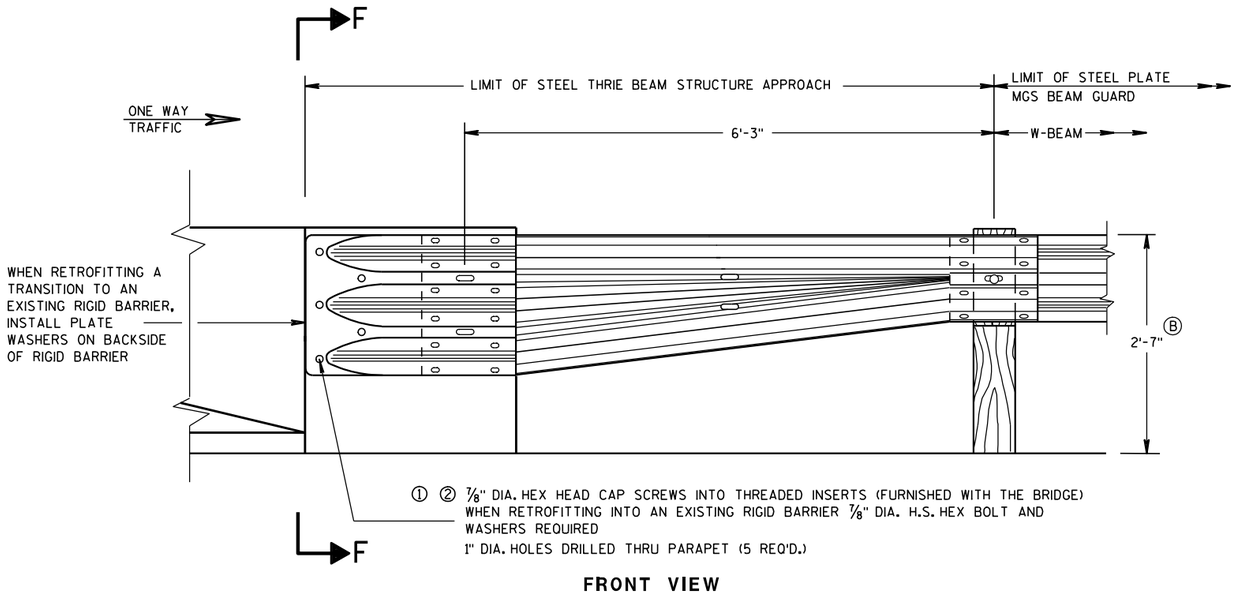
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

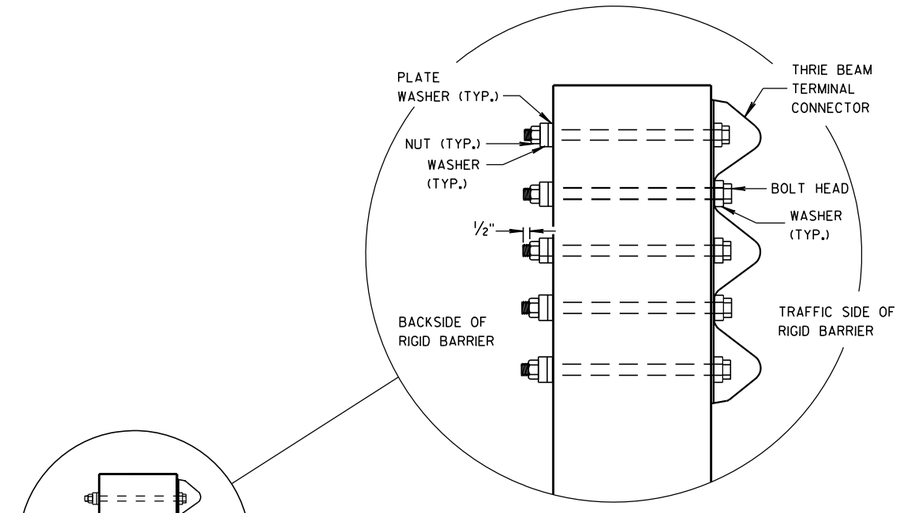
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

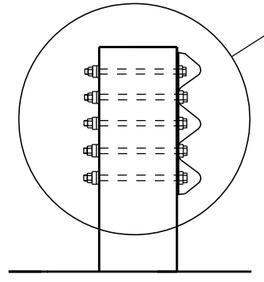
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

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

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

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

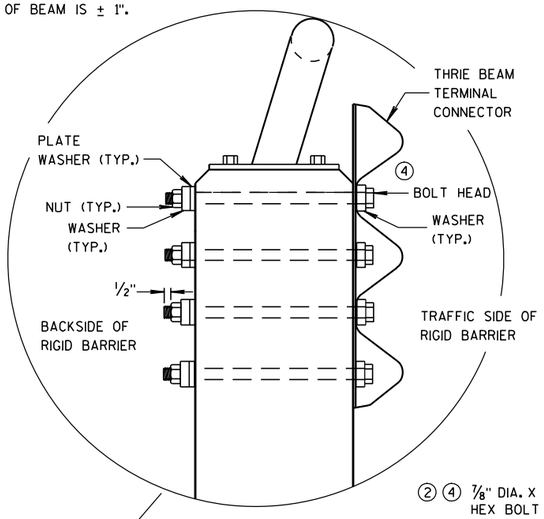
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

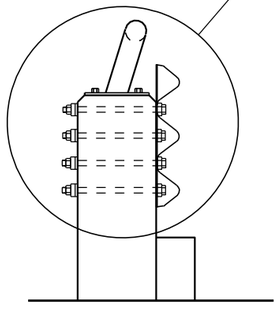
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

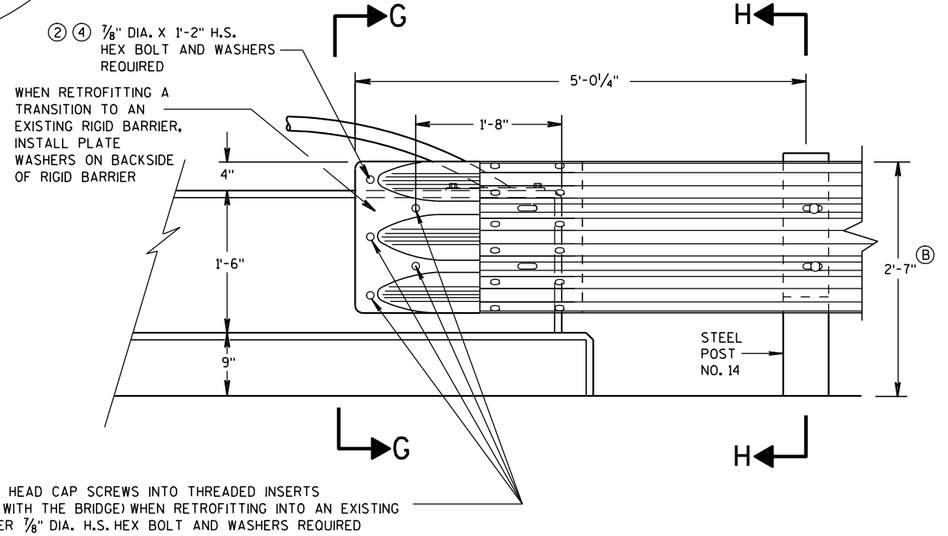
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

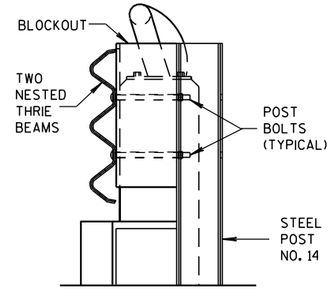




SECTION G-G

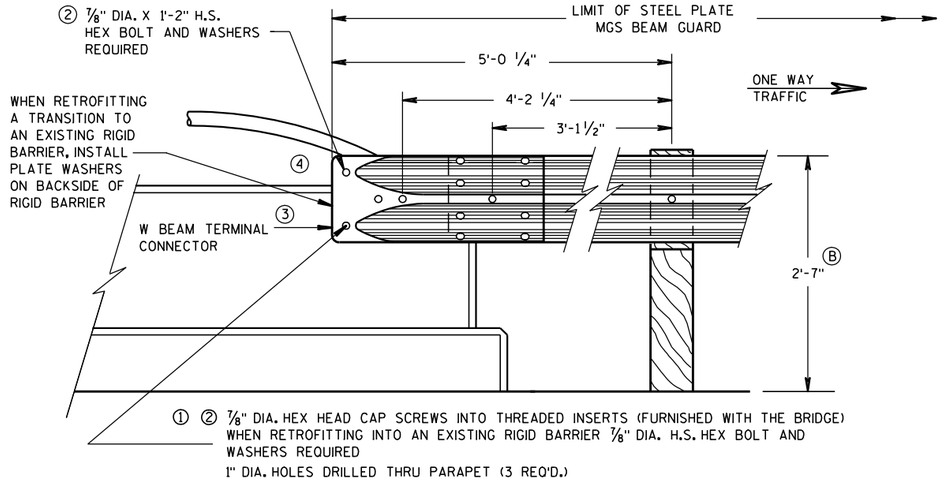


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
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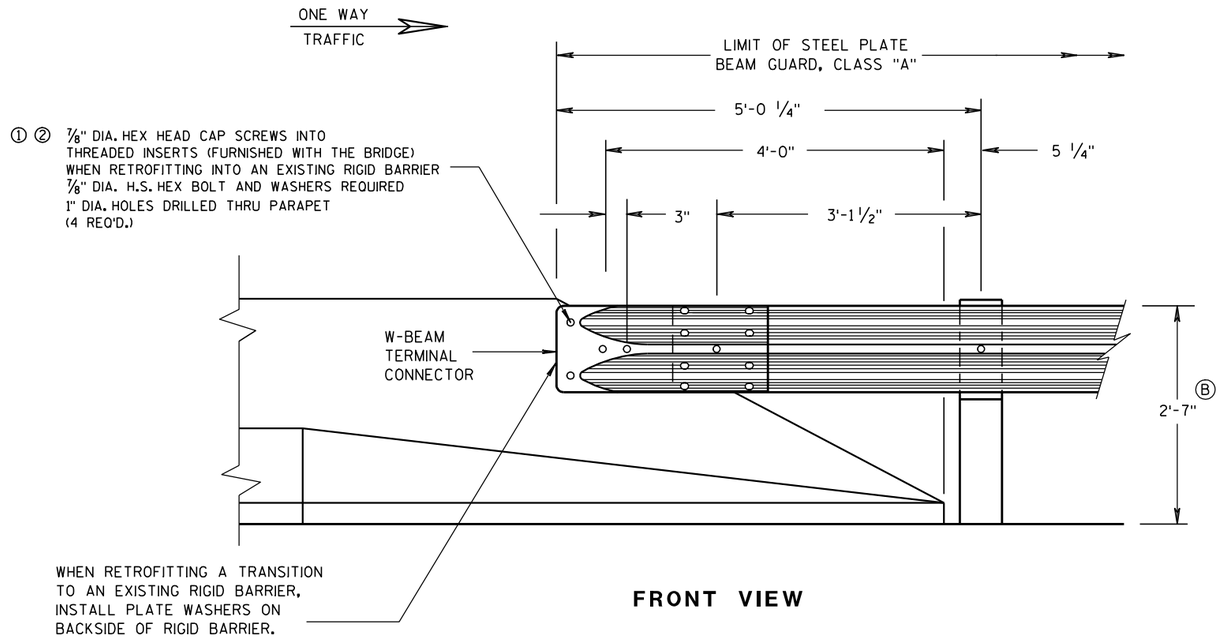


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

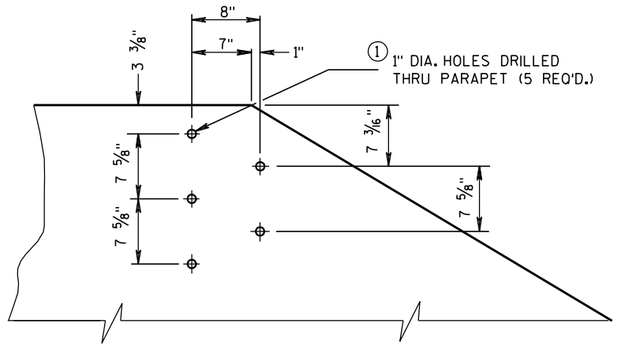
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

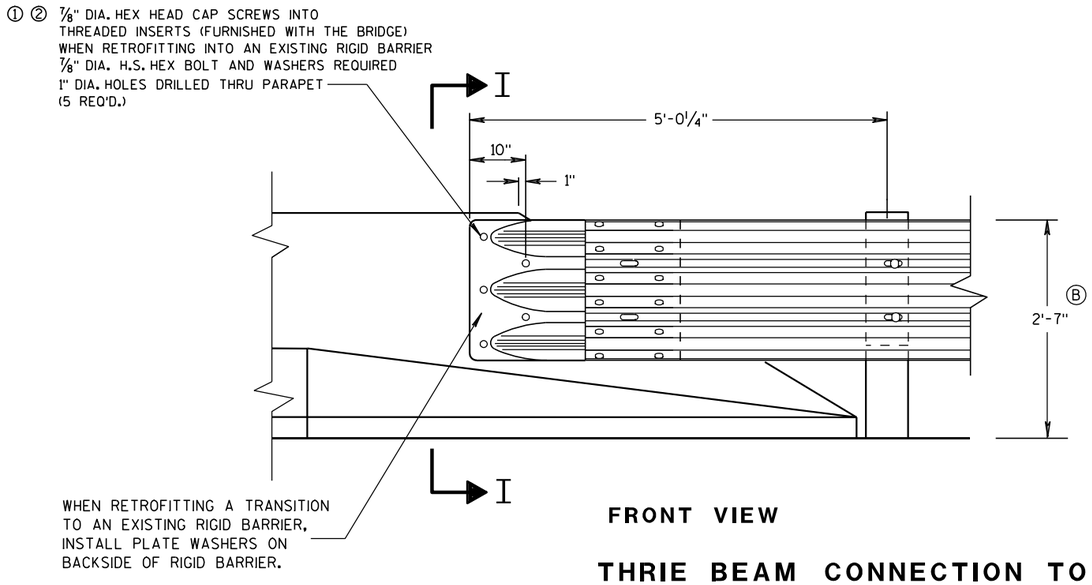
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

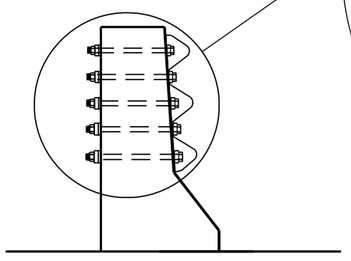
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



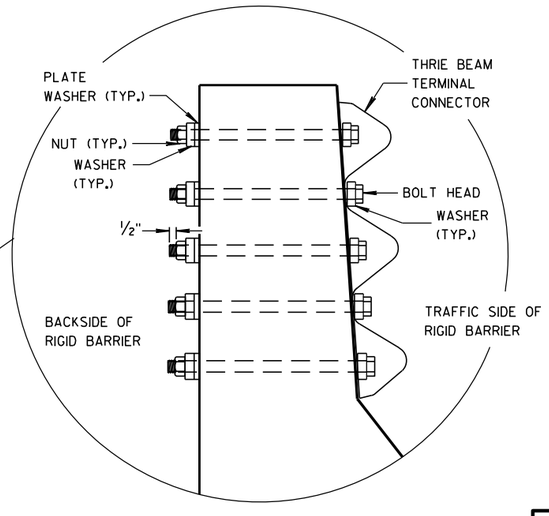
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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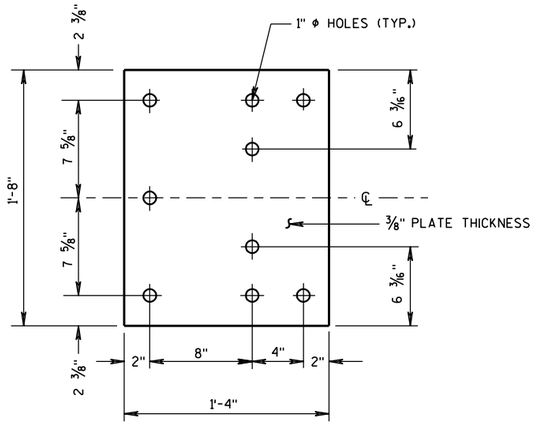
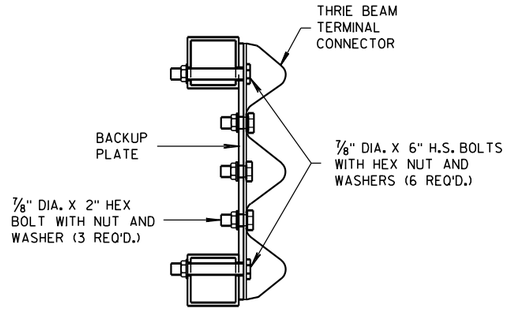
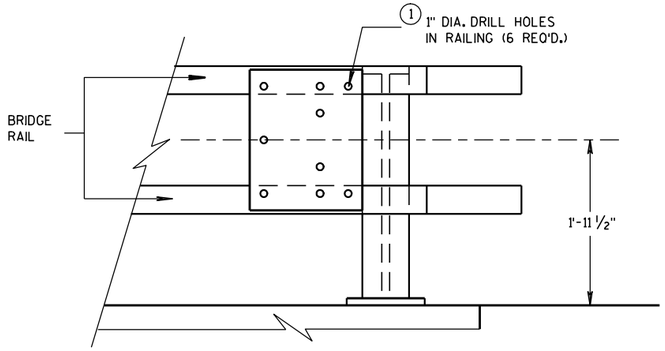


BACK-UP PLATE DETAIL



SECTION J-J

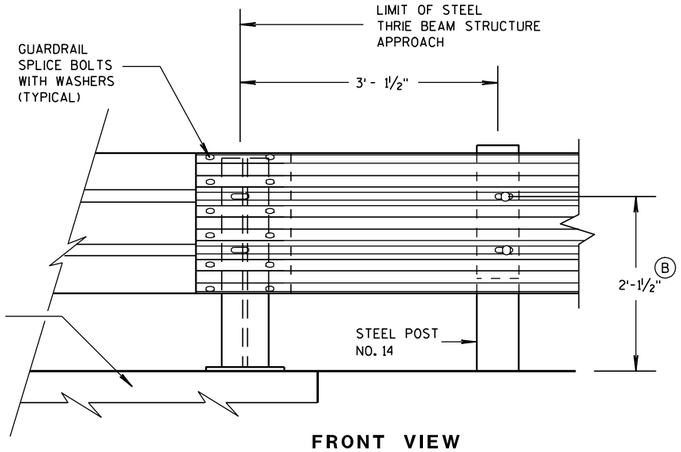


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

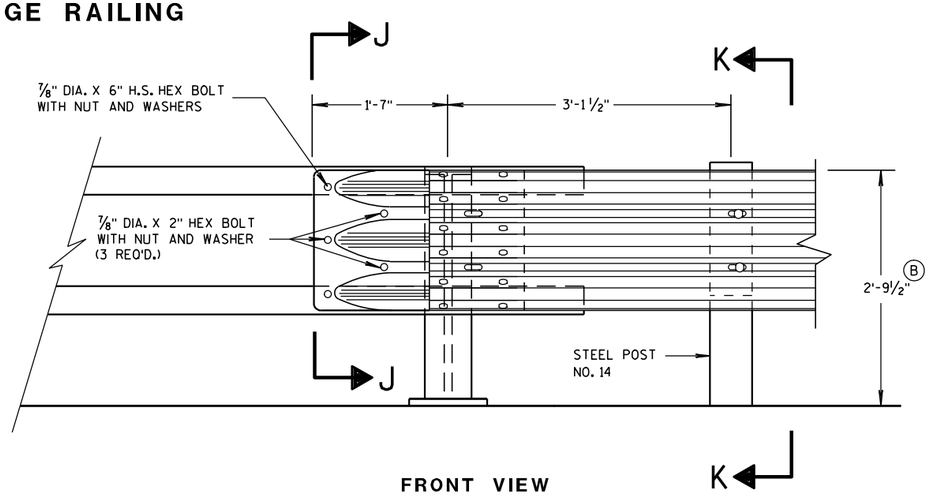
1. DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

B. TOLERANCE FOR TOP OF BEAM IS ± 1".

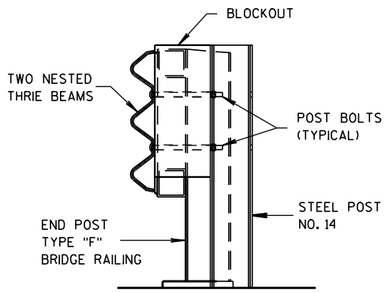


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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ROADWAY STANDARDS DEVELOPMENT ENGINEER
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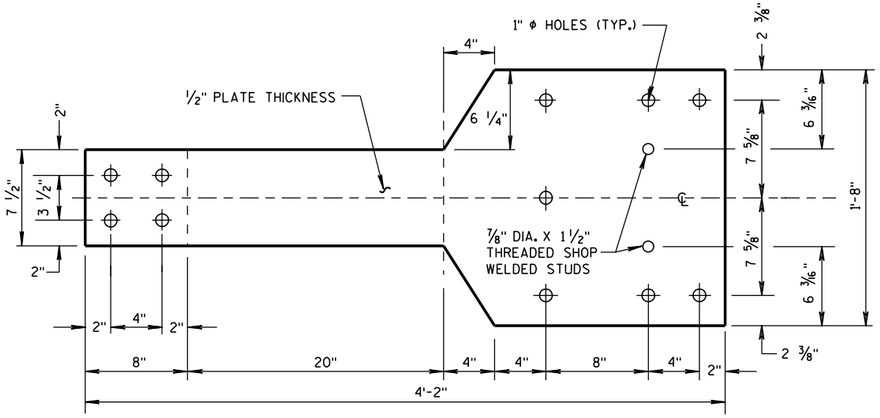
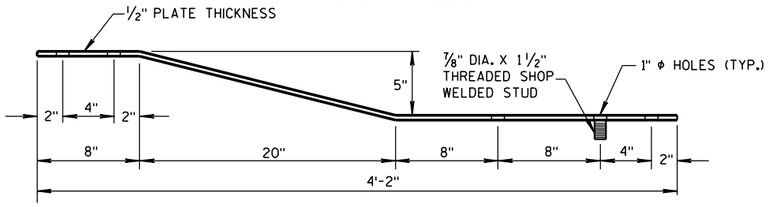
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

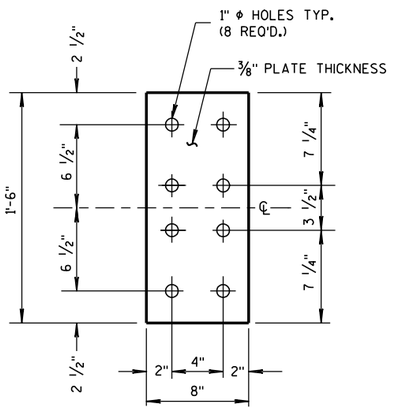


FRONT VIEW



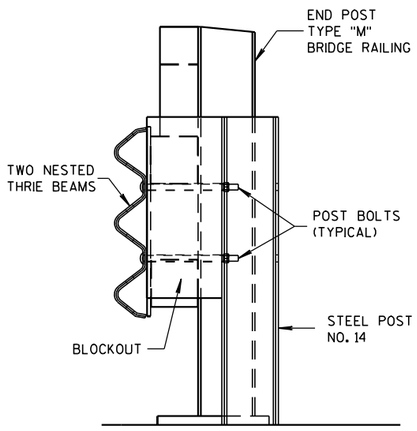
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

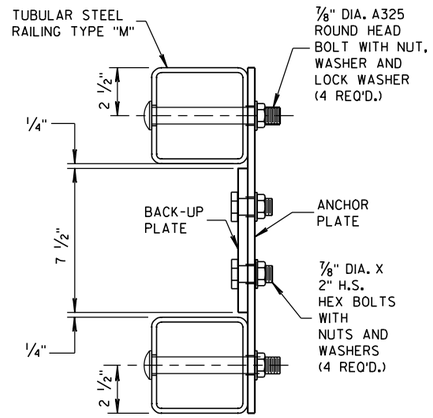


FRONT VIEW

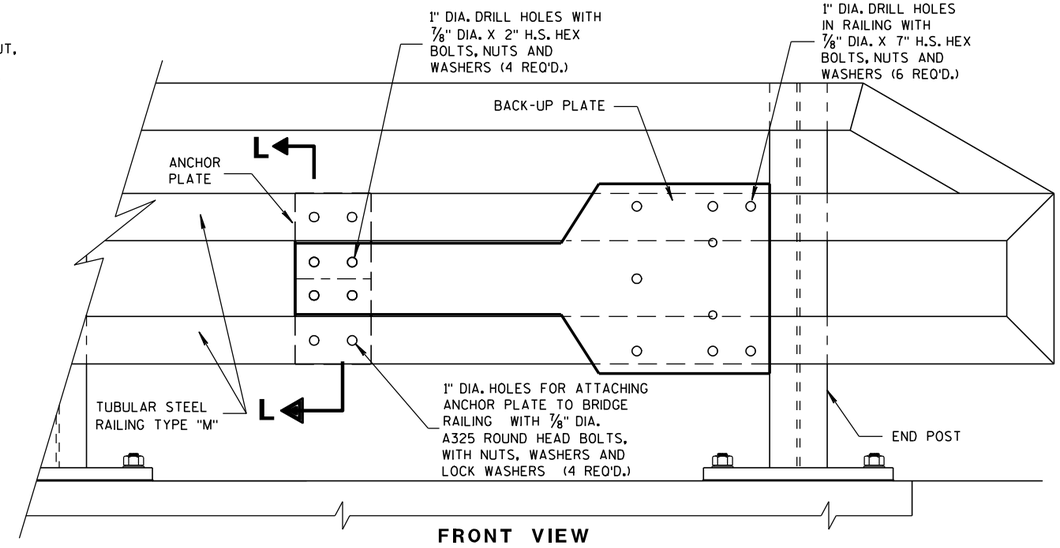
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

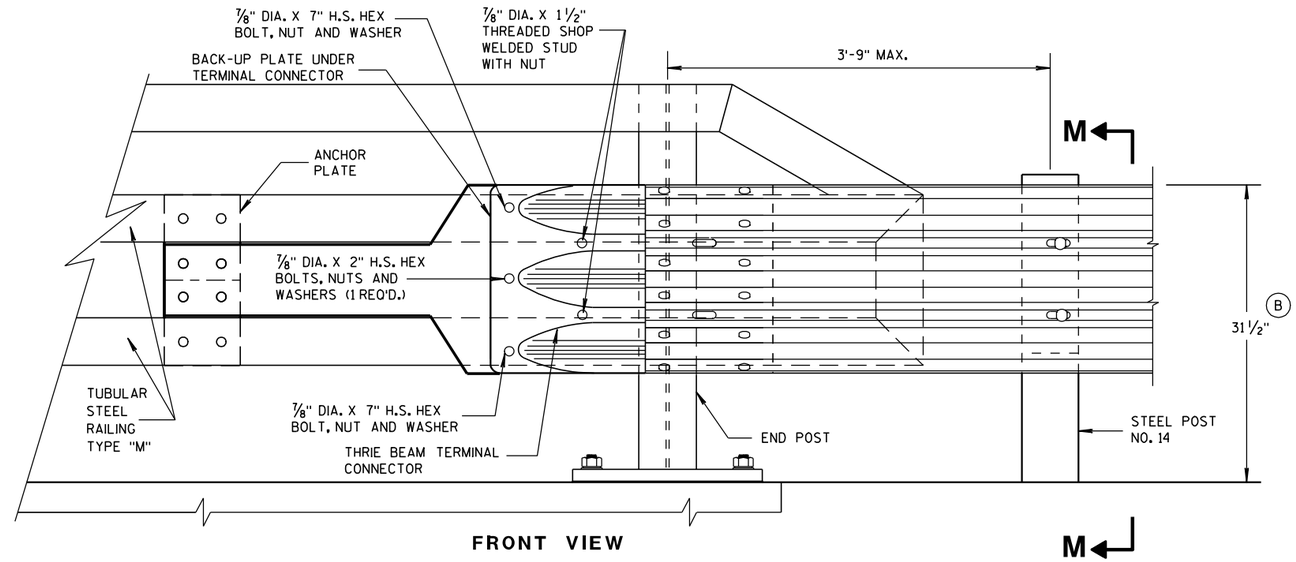


SECTION L-L

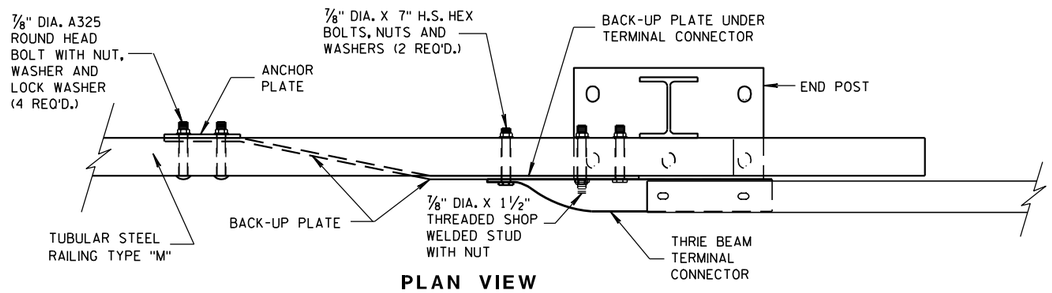


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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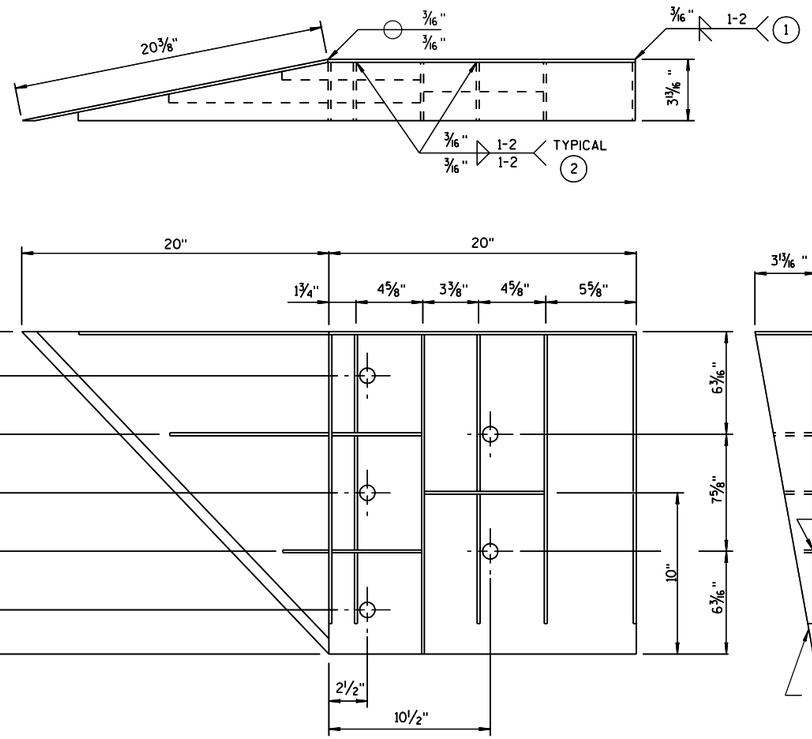
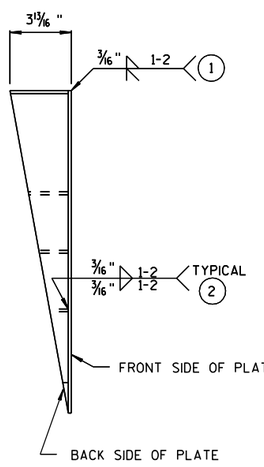
S.D.D. 14 B 45-3h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

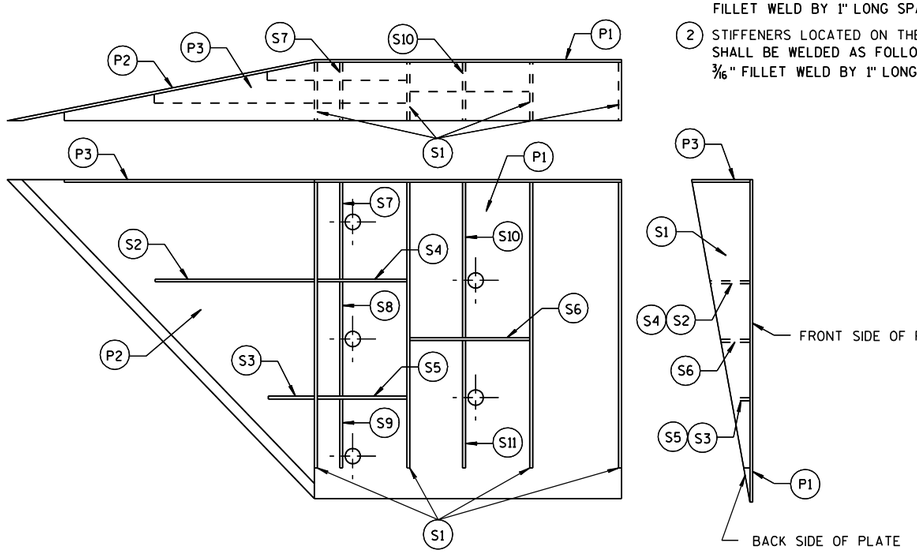


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE ⅜" THICK.

ALL STIFFENERS ARE ¼" THICK.

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

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

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

① STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND ⅜" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

② STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
⅜" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	⅜"
P2	1		20" x 20" x 28⁹⁄₁₆"	⅜"
P3	1		39" x 3⅝" x 20" x 19⁵⁄₁₆"	⅜"
S1	4		18⁷⁄₁₆" x 3⅝" x 18¾"	¼"
S2	1		10¼" x 2⁷⁄₁₆" x 10⅜" x ½"	¼"
S3	1		3" x 1⁹⁄₁₆" x 3⅛" x ½"	¼"
S4	1		6⅛" x 2⁷⁄₁₆"	¼"
S5	1		6⅛" x 1⁹⁄₁₆"	¼"
S6	1		7¾" x 1¾"	¼"
S7	1		2⁹⁄₁₆" x 6" x 3⅝" x 5⅞"	¼"
S8	1		1⁵⁄₃₂" x 7½" x 2½" x 7⅜"	¼"
S9	1		6¹⁄₁₆" x 6⅜" x 1³⁄₃₂"	¼"
S10	1		1⅞" x 9⅞" x 3⅝" x 9¹¹⁄₁₆"	¼"
S11	1		8½" x 8¾" x 1¹³⁄₁₆"	¼"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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/S/ Jerry H ---- ROADWAY STANDARDS ENGINEER
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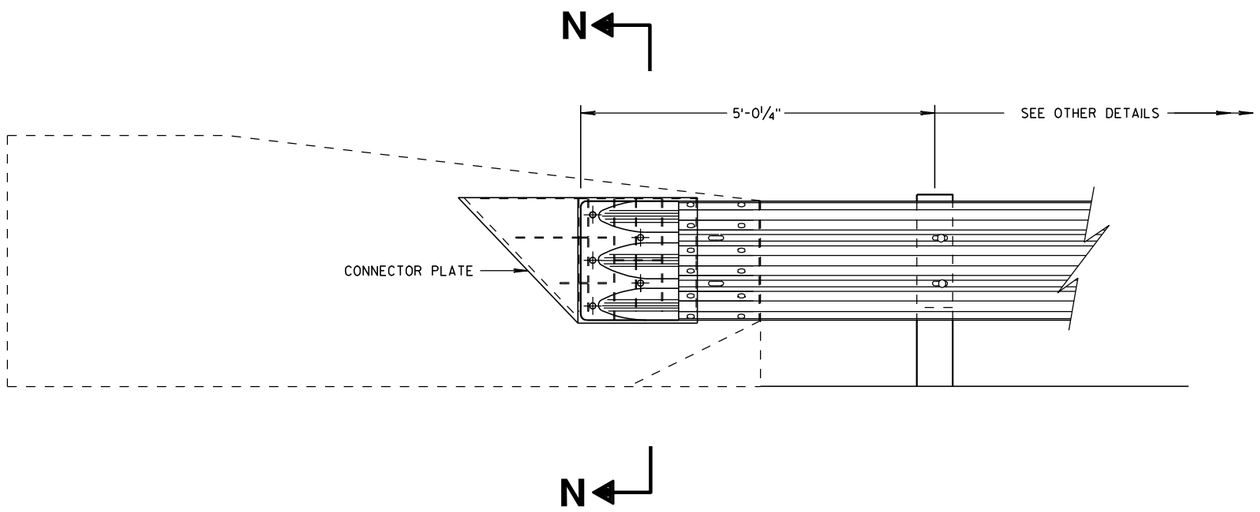
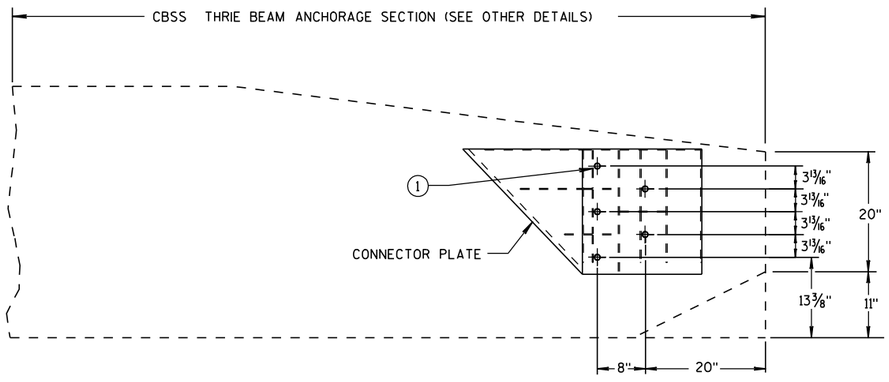


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

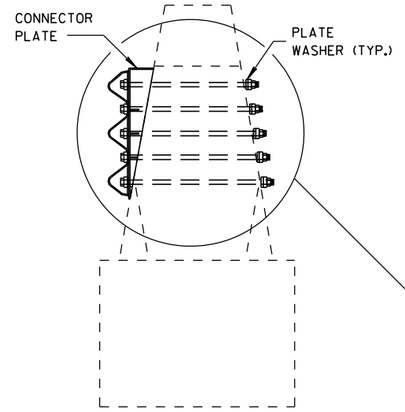


SINGLE SLOPE CONNECTION PLATE PLACEMENT

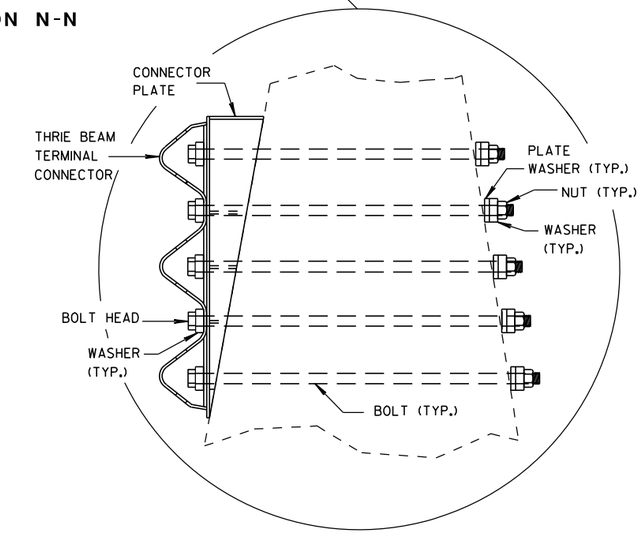
GENERAL NOTES

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]230
ENGINEER

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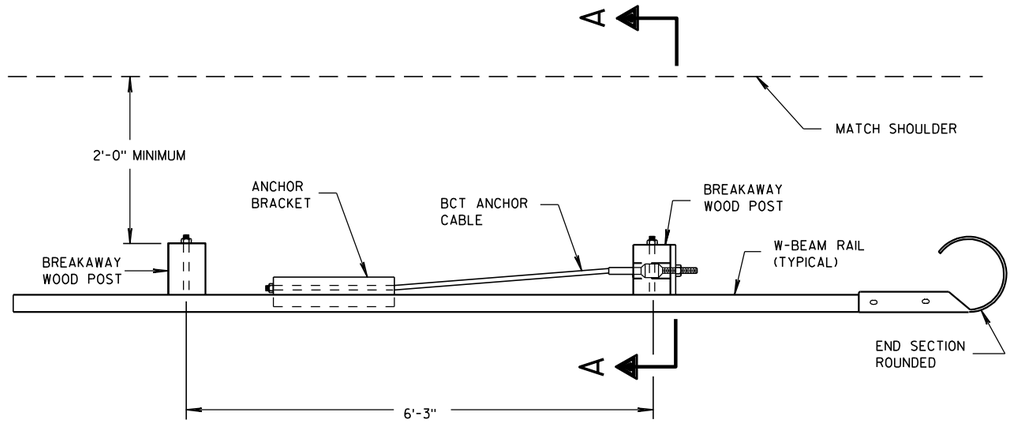
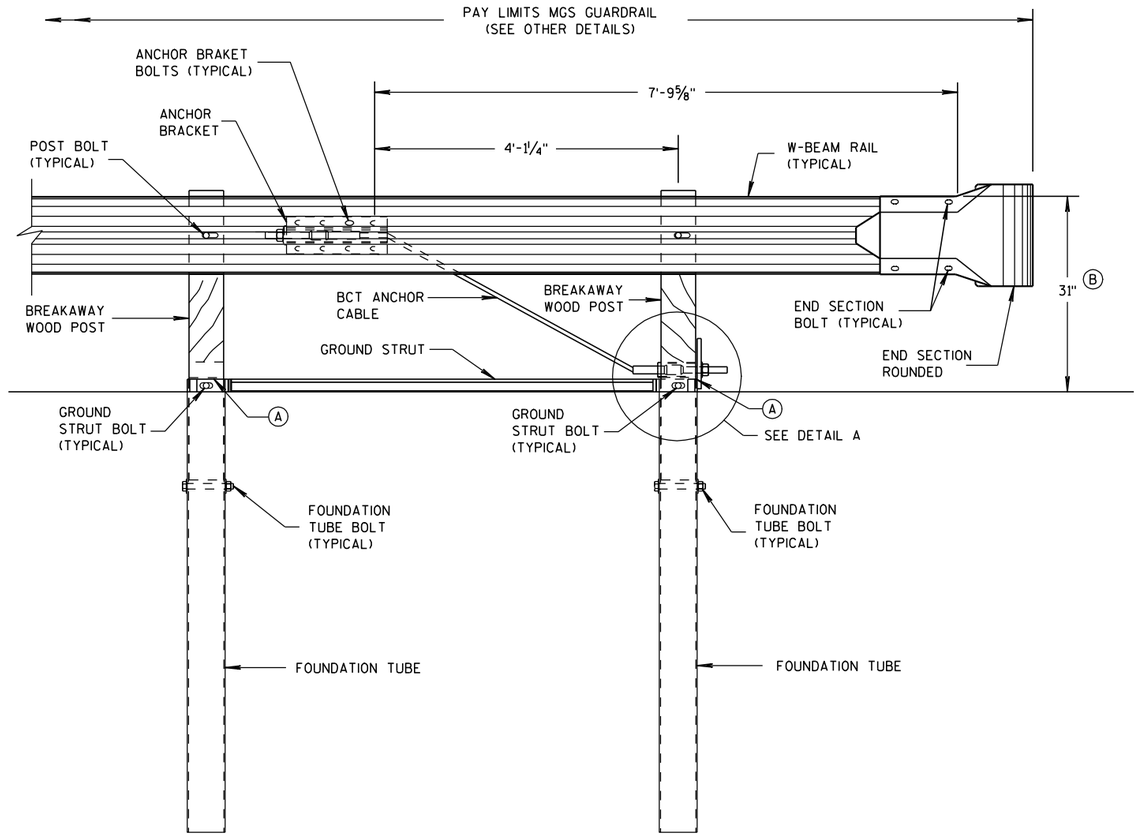
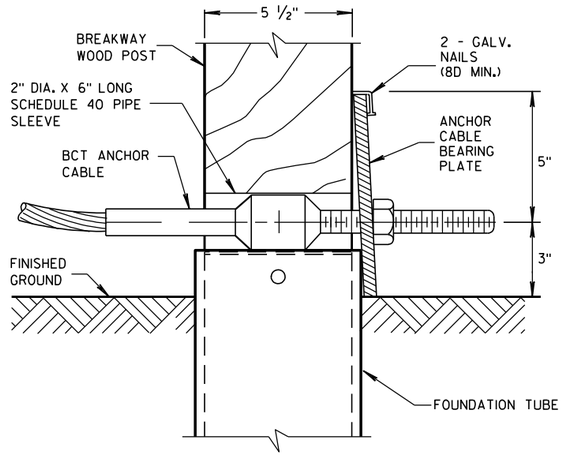


PLAN VIEW



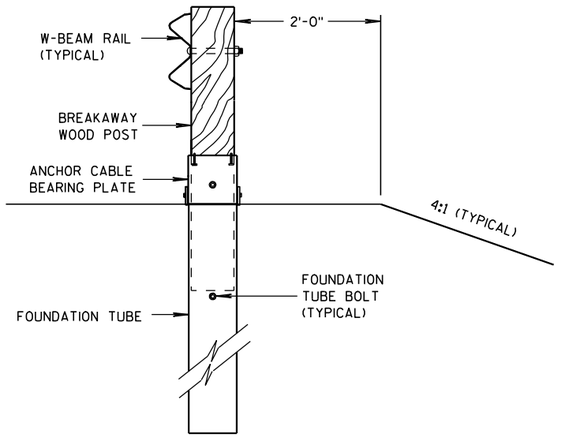
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

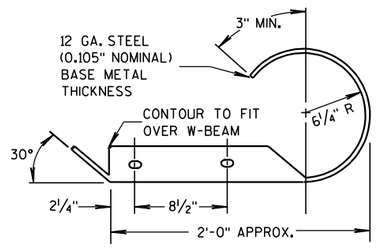
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

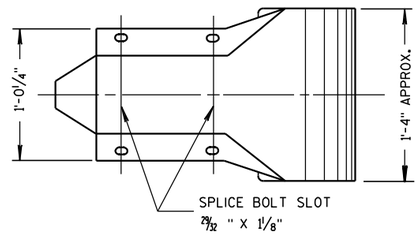
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

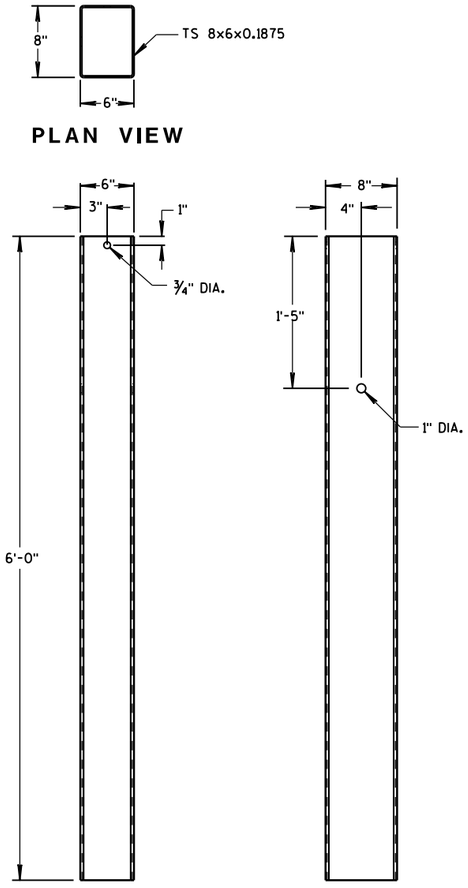
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

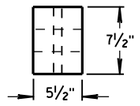
S.D.D. 14 B 47-1a

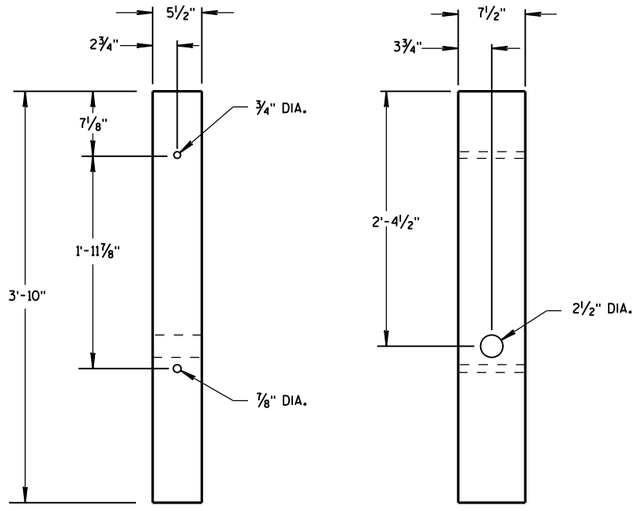
6

S.D.D. 14 B 47-1a



FOUNDATION TUBE



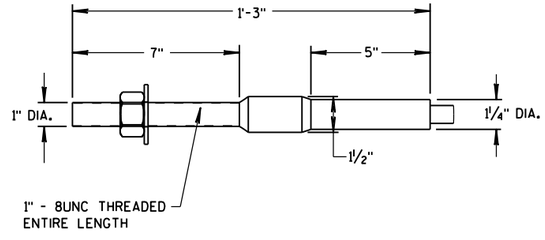


BREAKAWAY WOOD POST

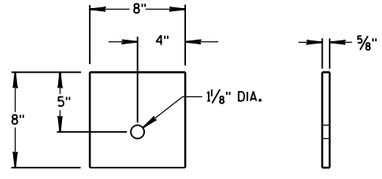
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 47-1b

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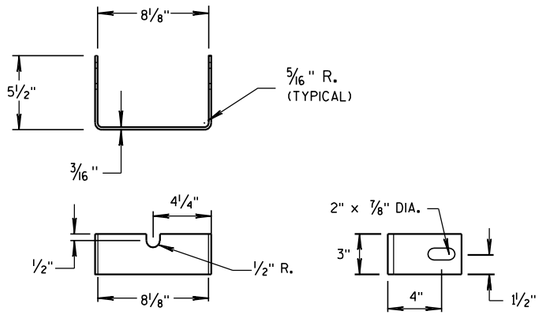
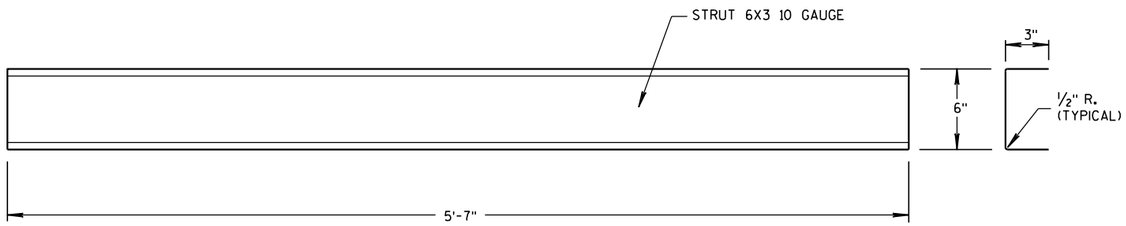
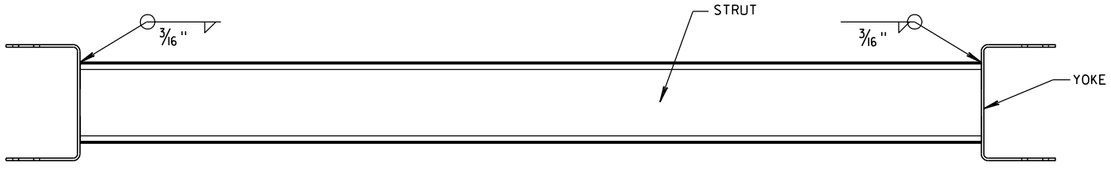
S.D.D. 14 B 47-1b



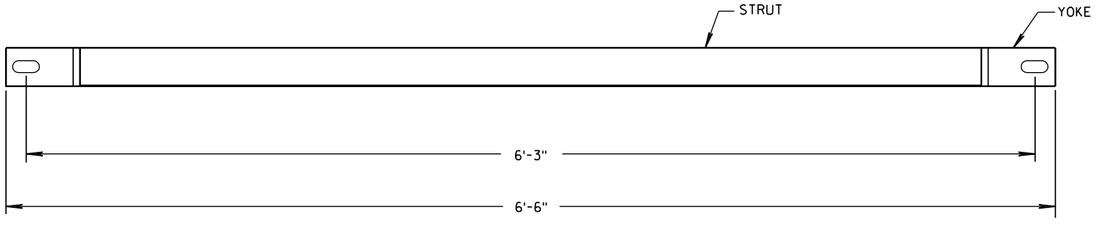
YOKE DETAIL



STRUT DETAIL

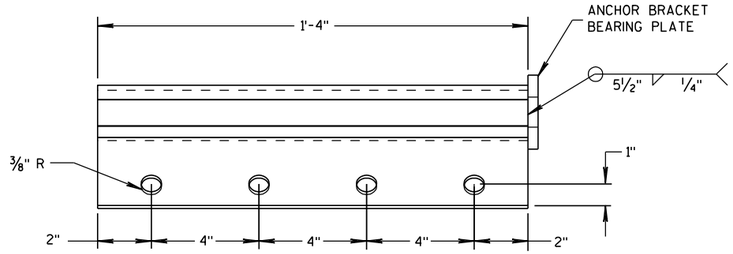


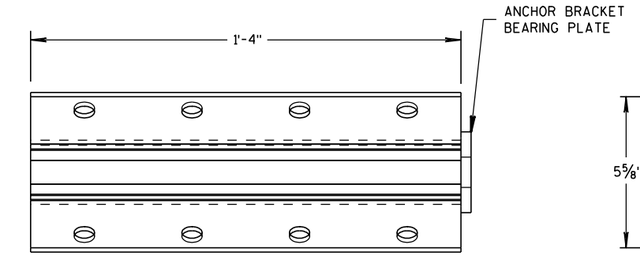
PLAN VIEW

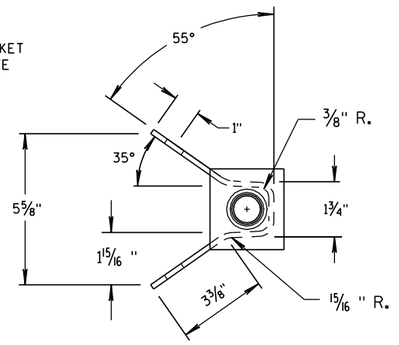


FRONT VIEW

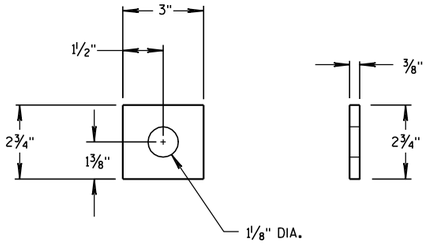
GROUND STRUT DETAIL







ANCHOR BRACKET

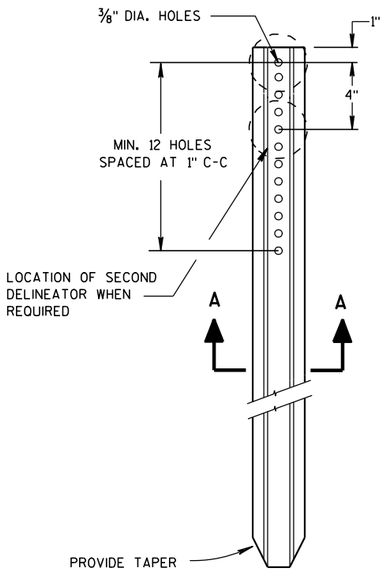


ANCHOR BRACKET BEARING PLATE

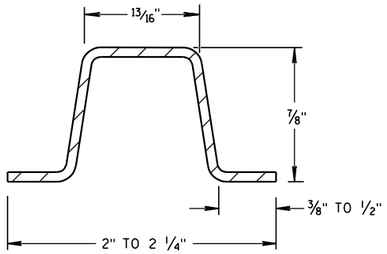
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/23/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	233 [illegible]ENT

6

S.D.D. 14 B 47-1c

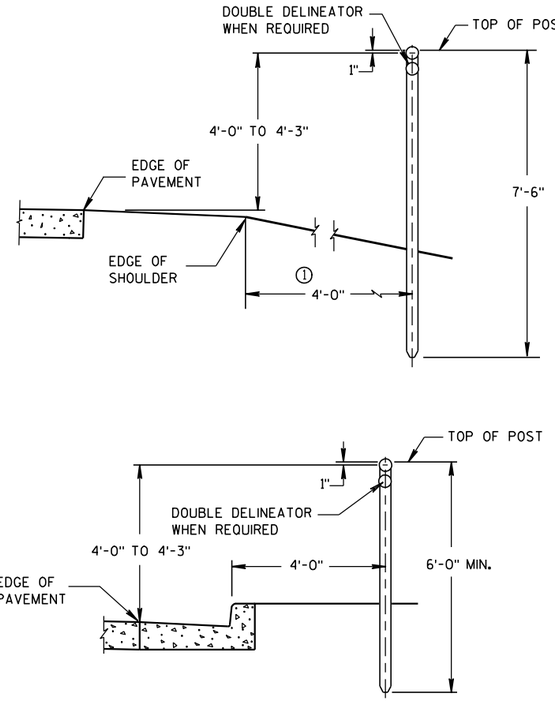


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

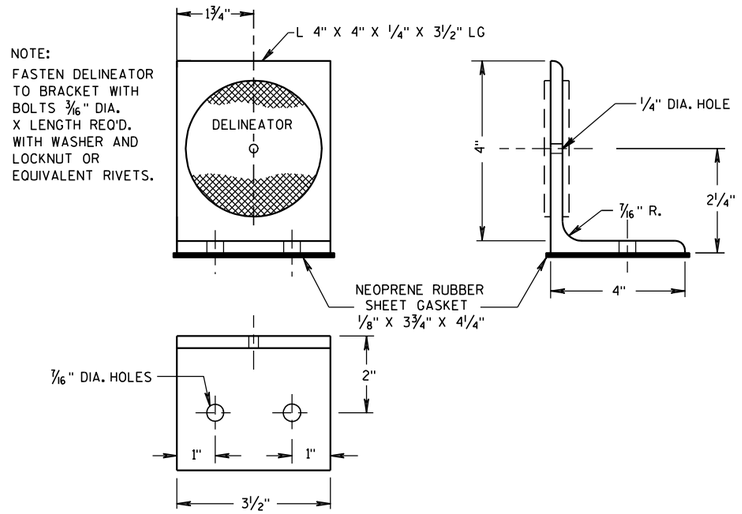


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

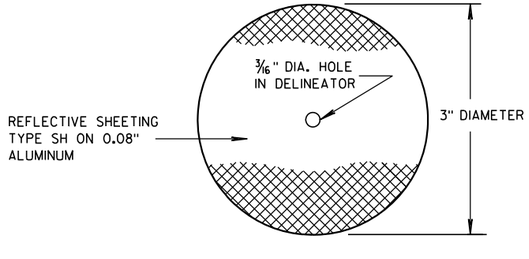
GENERAL NOTES

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

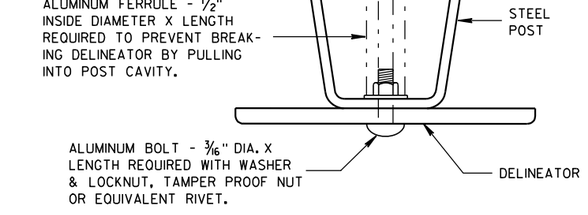
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



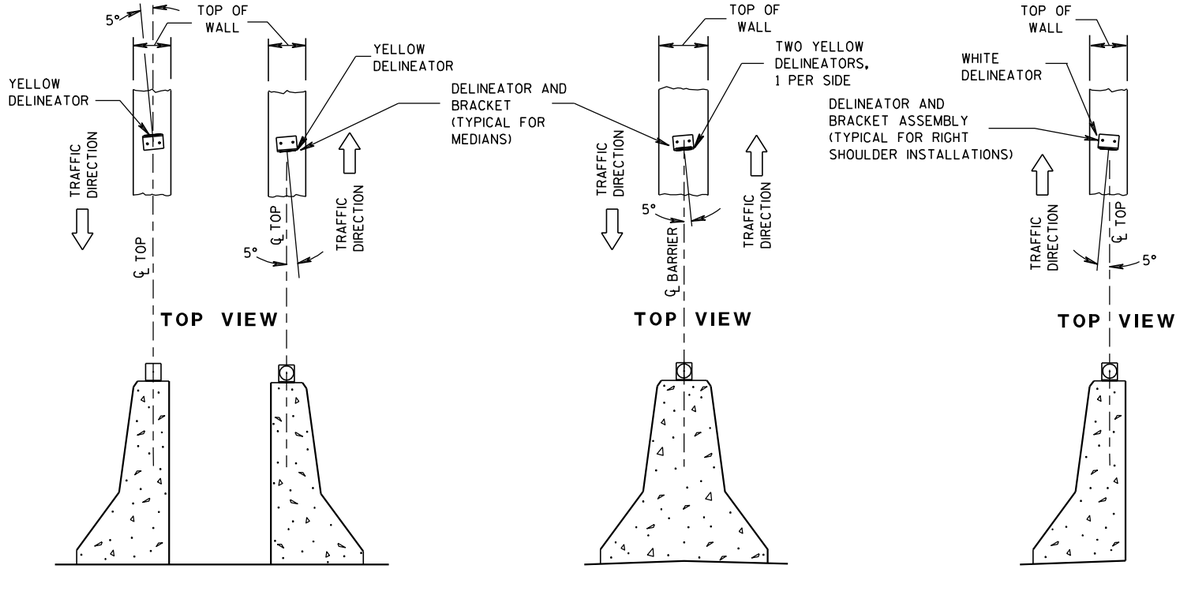
DELINEATOR BRACKET



DELINEATOR

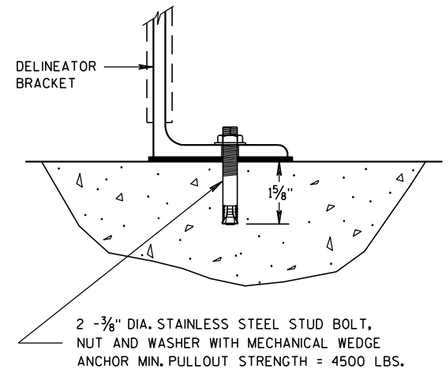


MOUNTING DETAIL FOR DELINEATOR



DOUBLE BARRIERS IN MEDIAN | MEDIAN BARRIER | BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1/25/2011 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

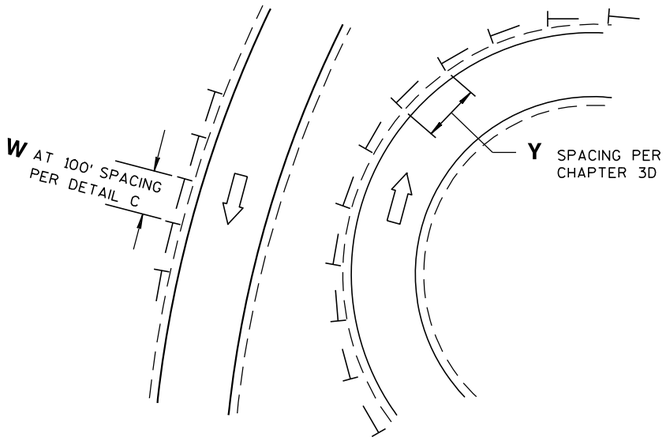
FHWA

6

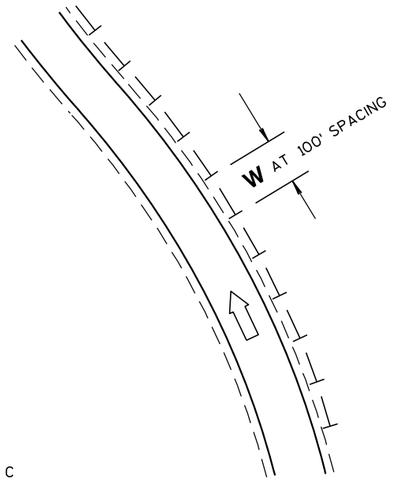
S.D.D. 15 A 2-7

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



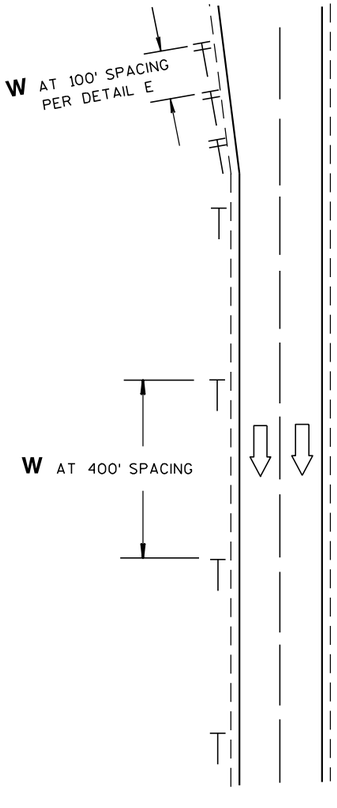
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



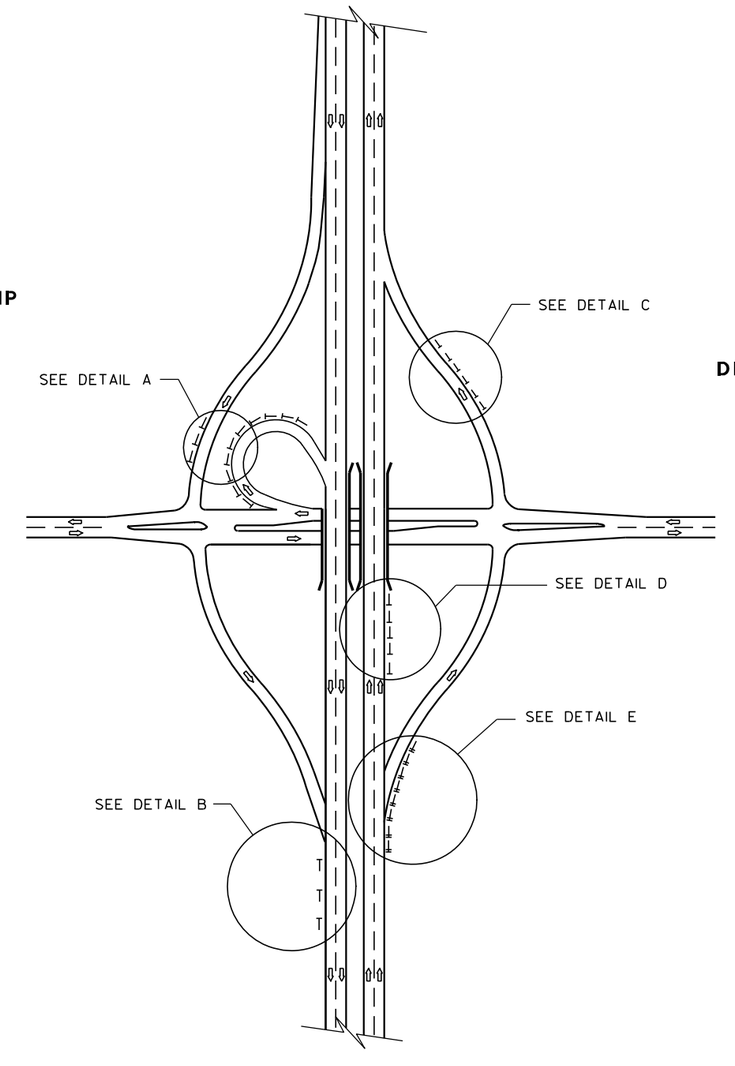
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

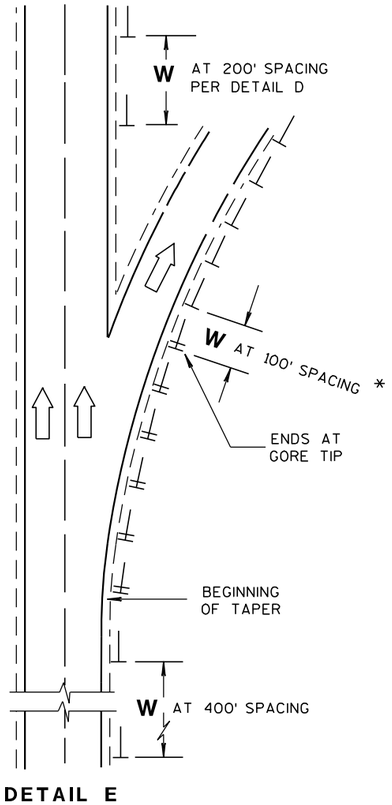
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



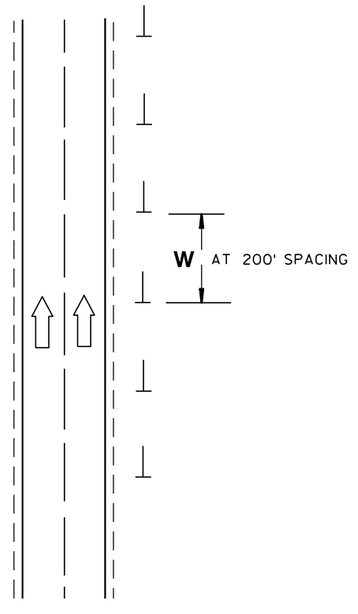
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

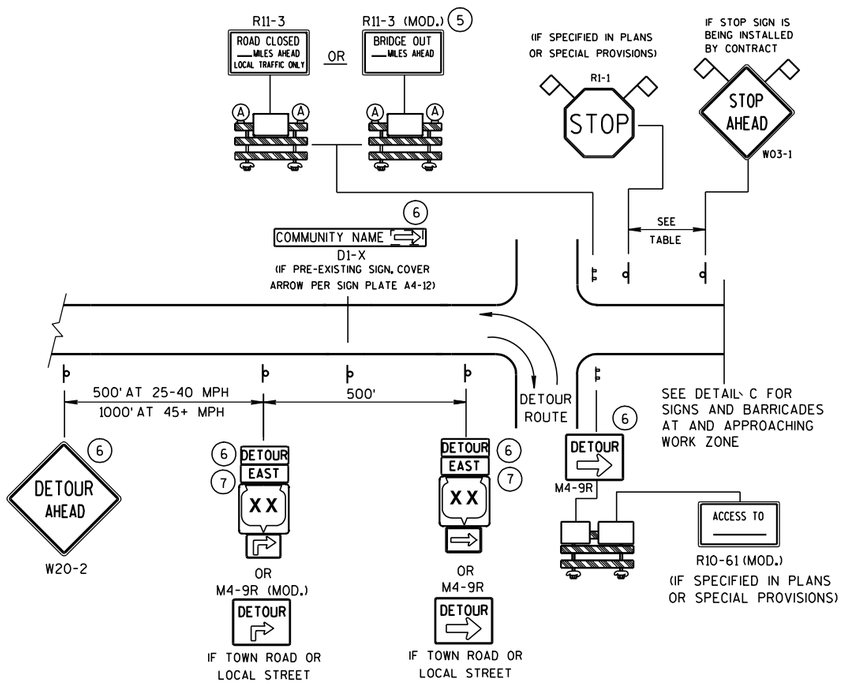
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 6-2

6

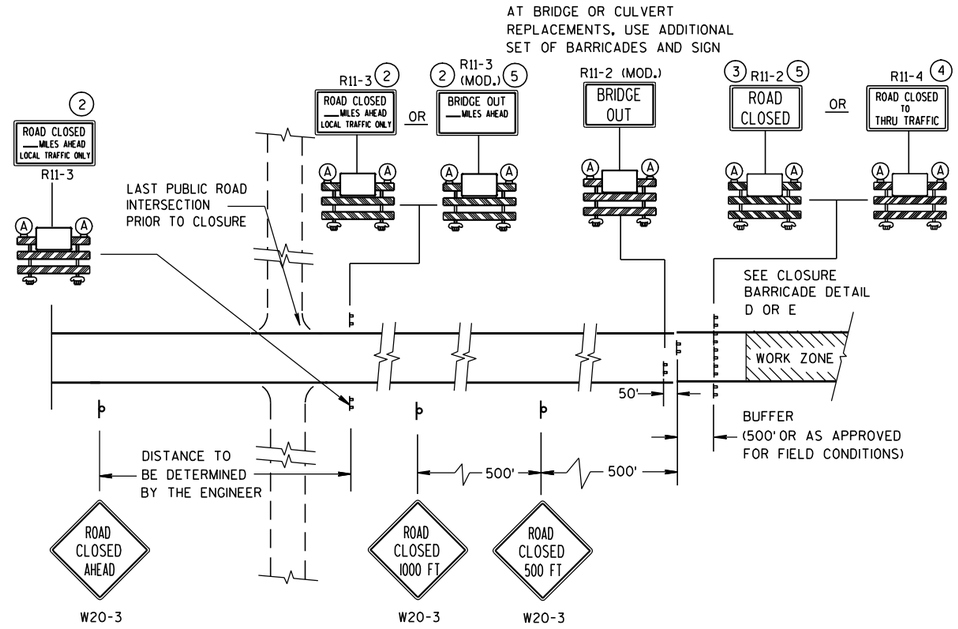
S.D.D. 15 A 6-2



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

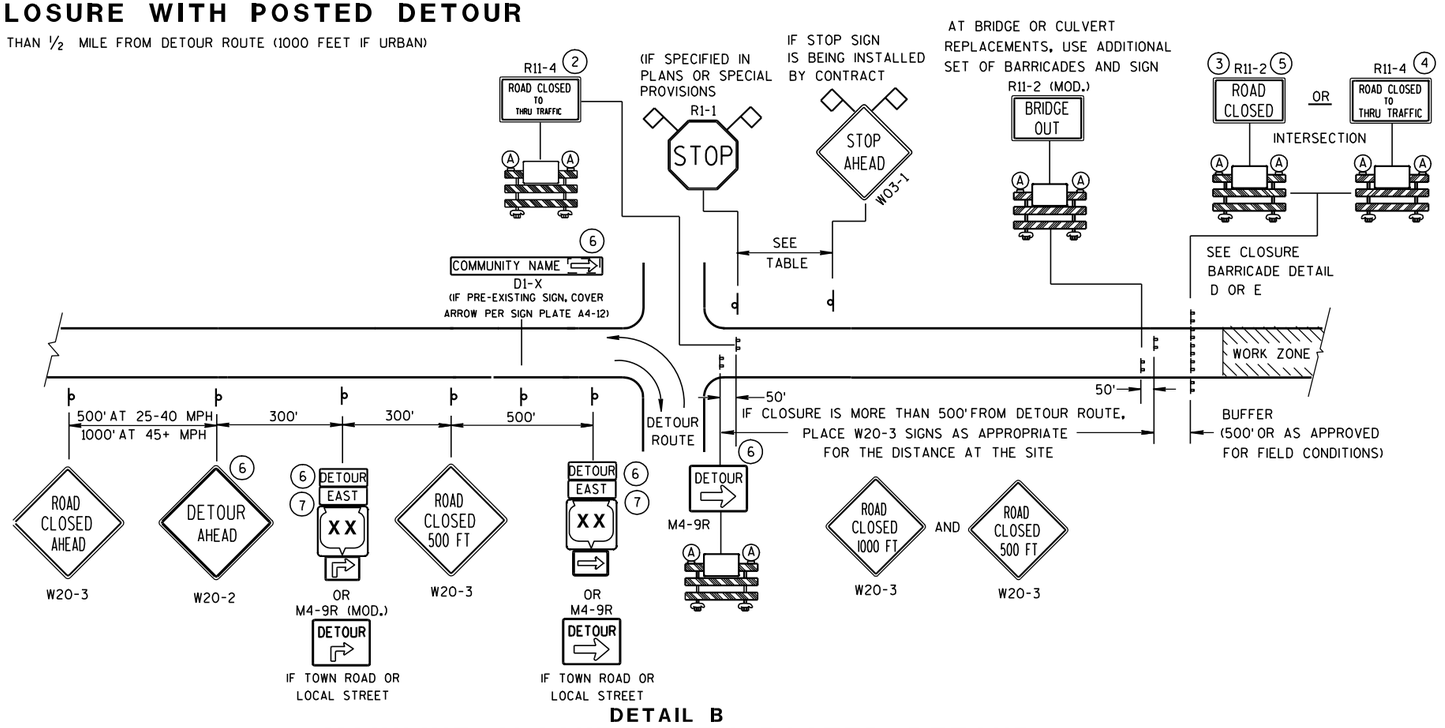


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

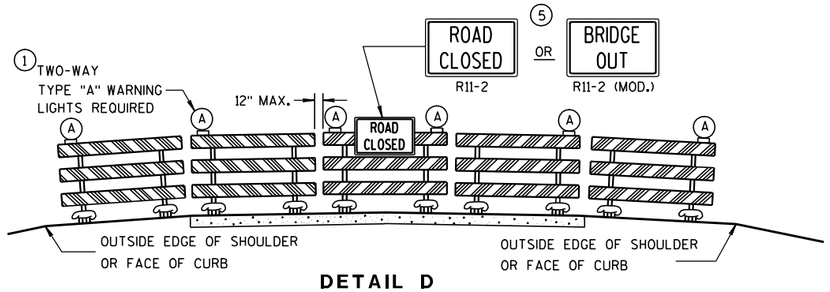
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

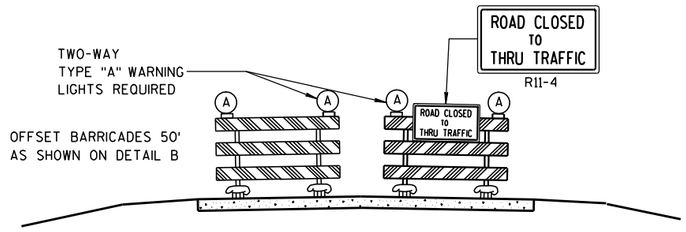
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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 AND 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

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 C 2-4b

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

GENERAL NOTES

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

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

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

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

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

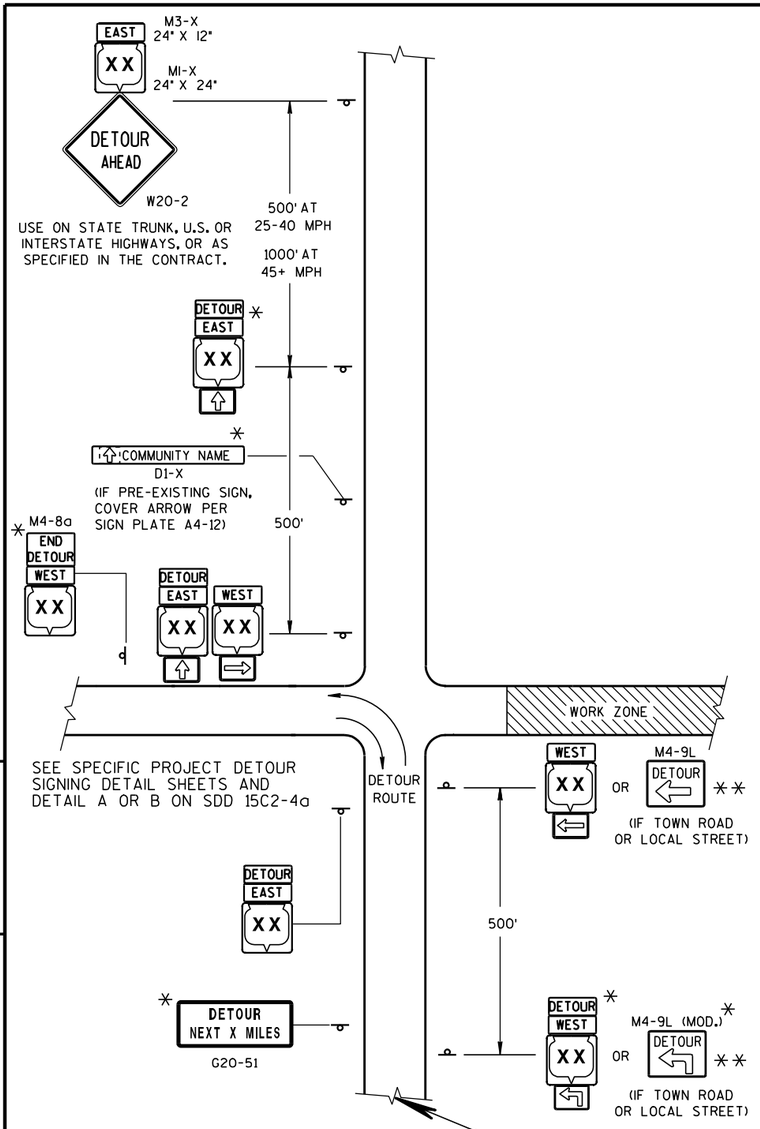
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

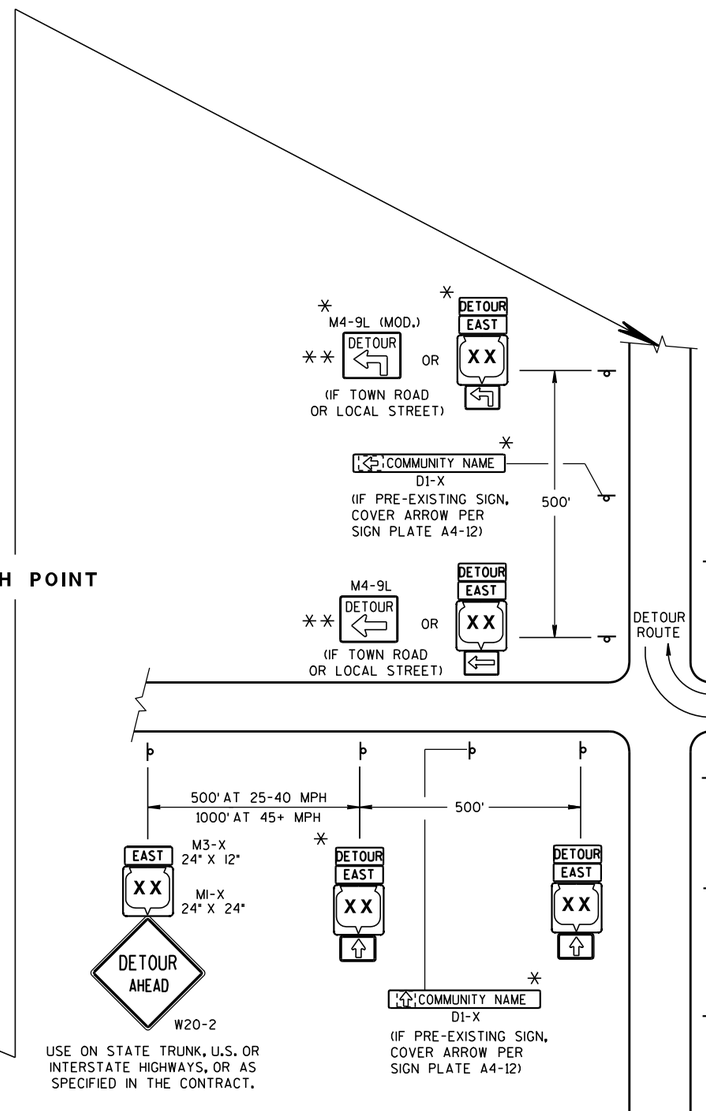
SIGN SIZES SHALL BE AS FOLLOWS:

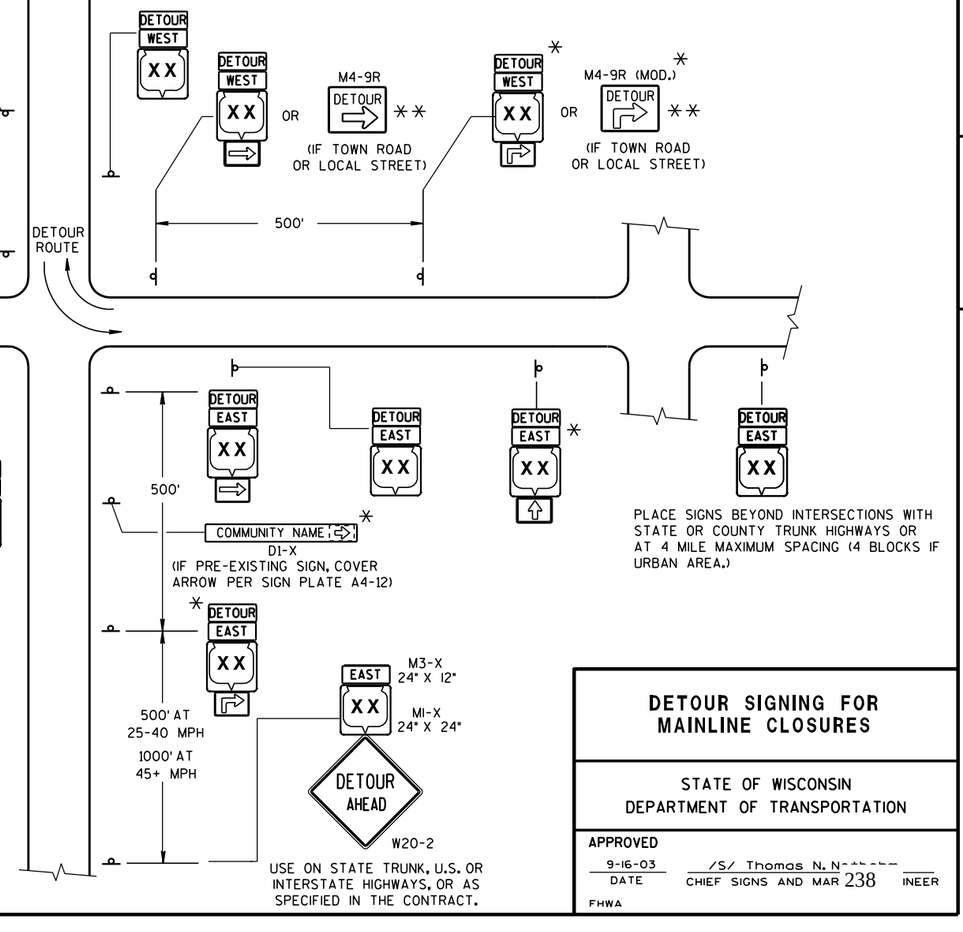
M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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







LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- M05-1 OR M06-1 OR M06-1

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

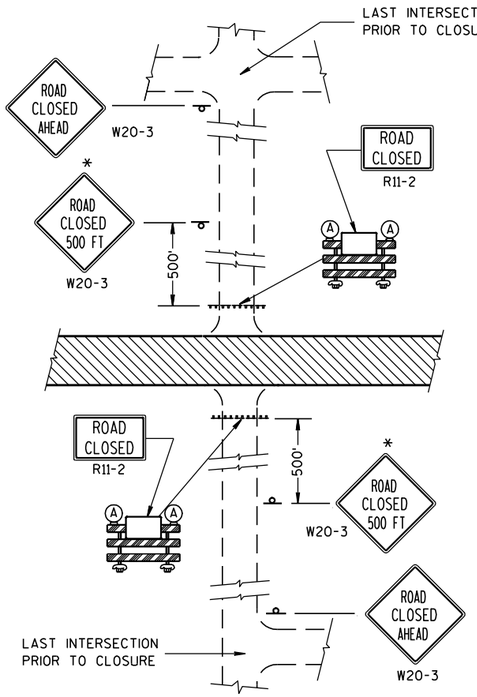
APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MAR 238 INEER
FHWA

6

S.D.D. 15 C 2-4c

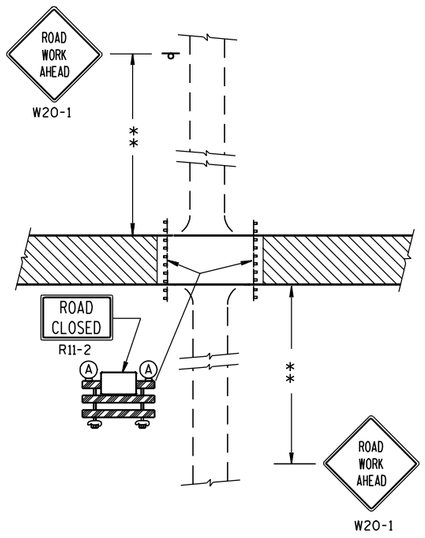
6

S.D.D. 15 C 2-4c



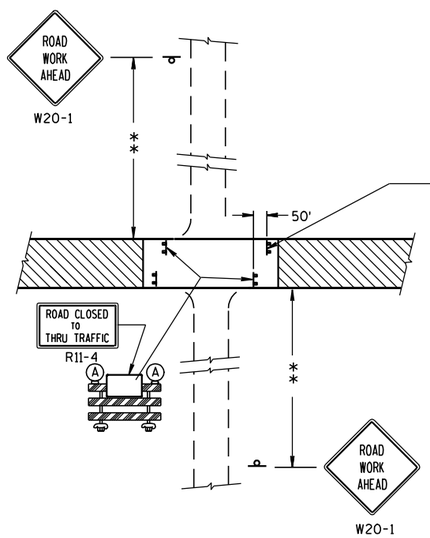
DETAIL 1

(NO ACCESS TO PROJECT)



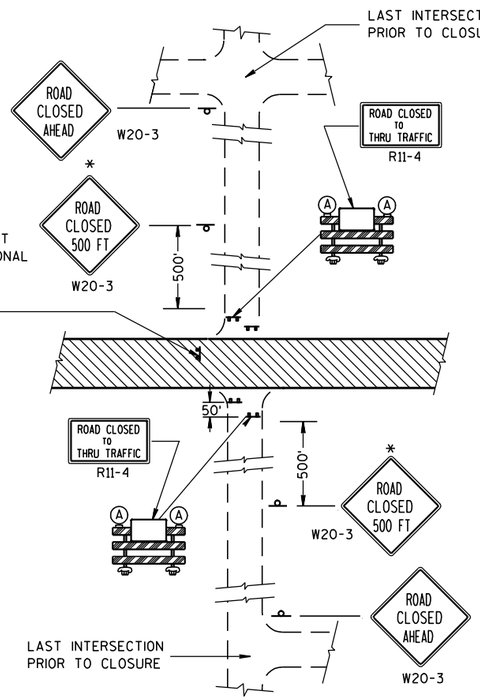
DETAIL 2

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



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

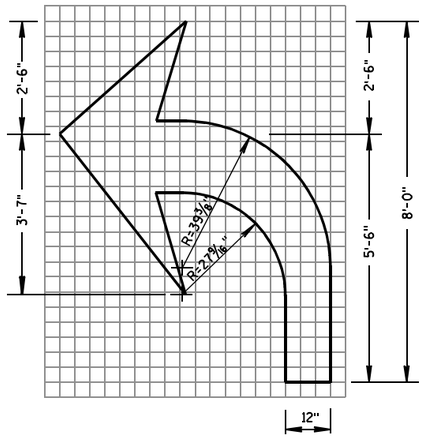
9-16-03 DATE

/S/ Thomas N. N[illegible] CHIEF SIGNS AND MAR[illegible] INEER

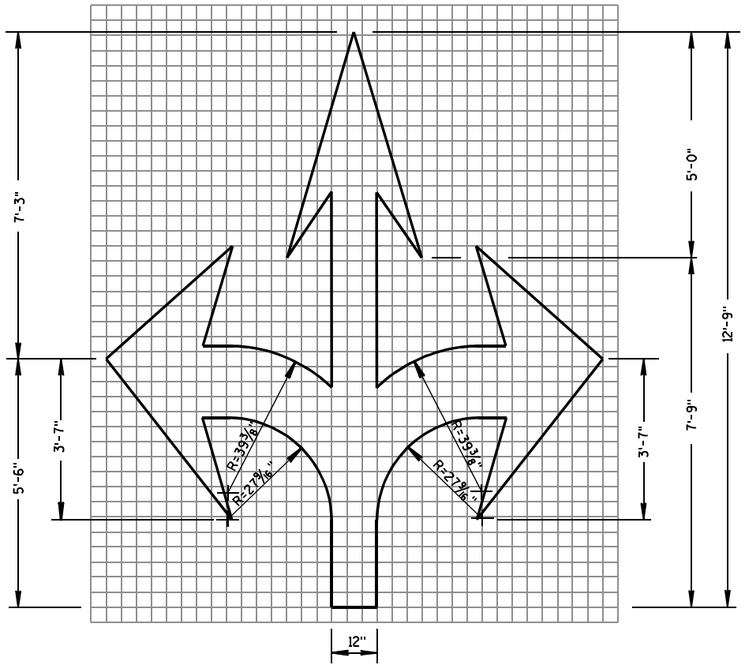
FHWA

6

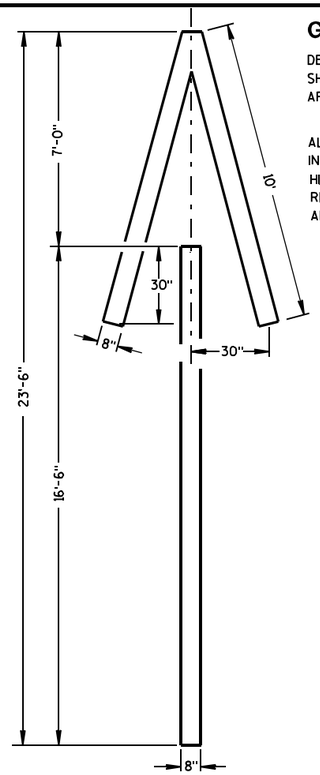
S.D.D. 15 C 3-1



TYPE 2



TYPE 6

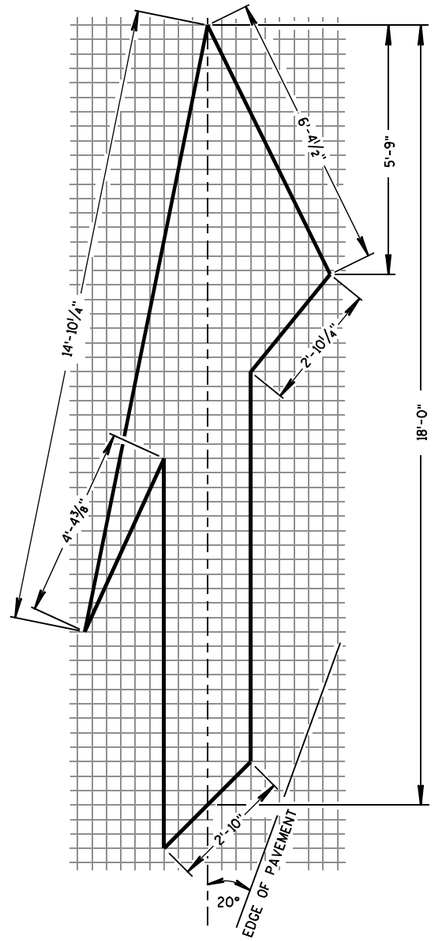


TYPE 4

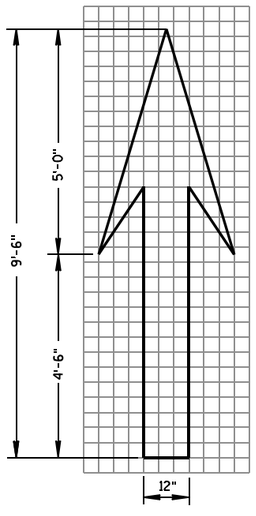
GENERAL NOTES

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.

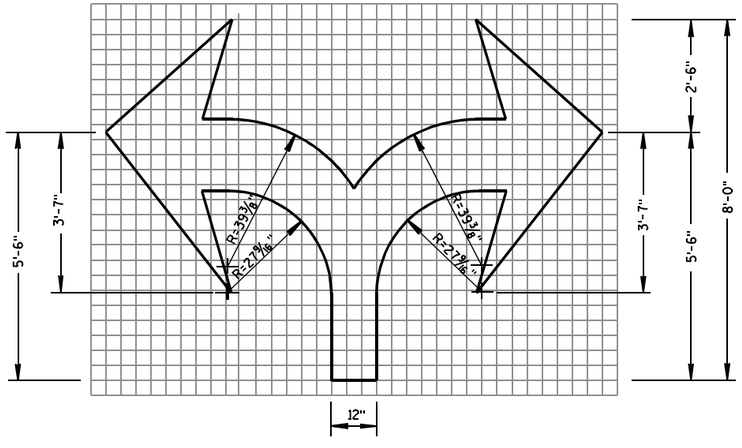
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



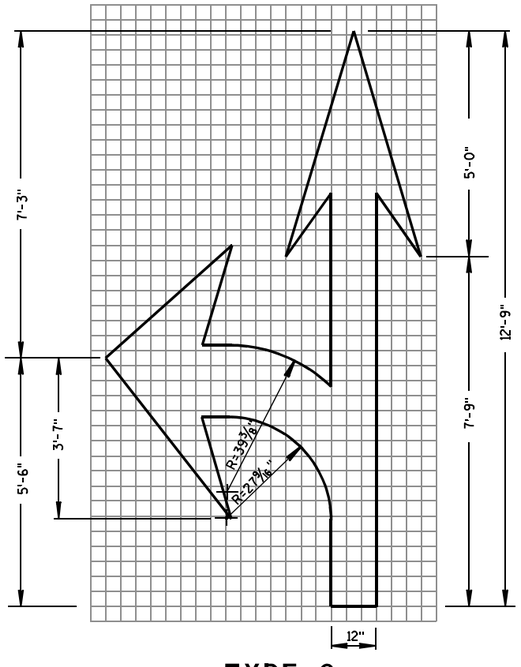
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

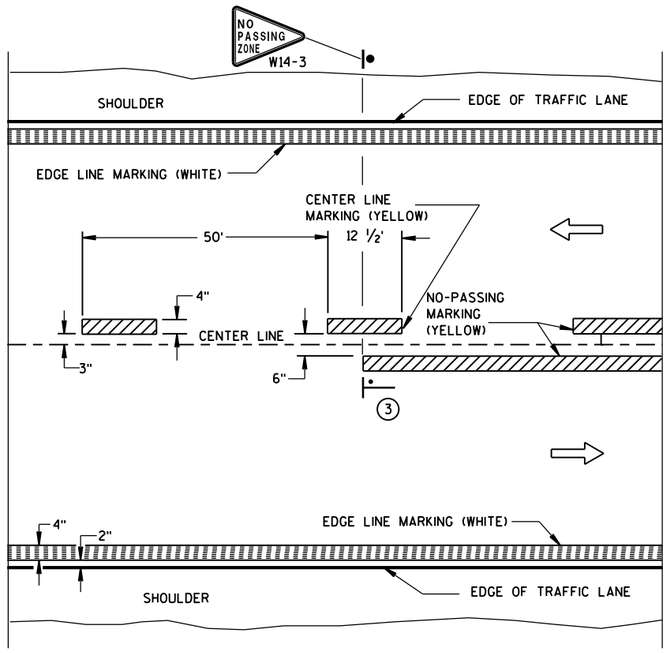
FHWA

6

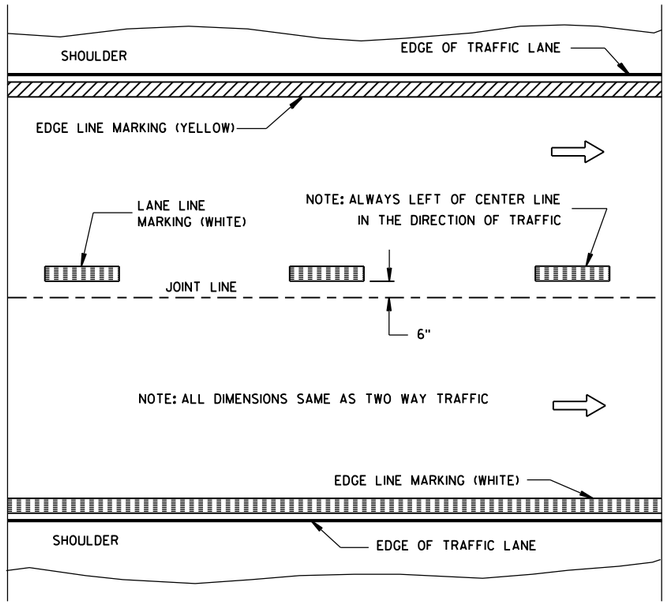
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

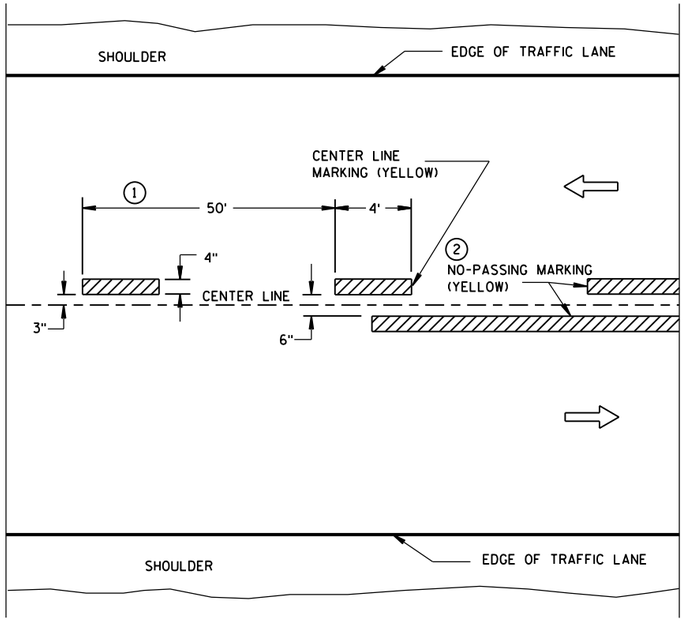


TWO WAY TRAFFIC

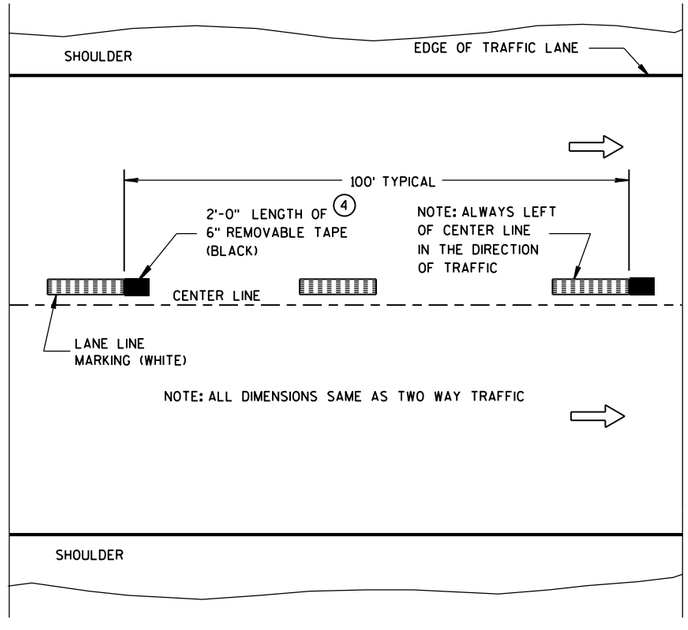


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

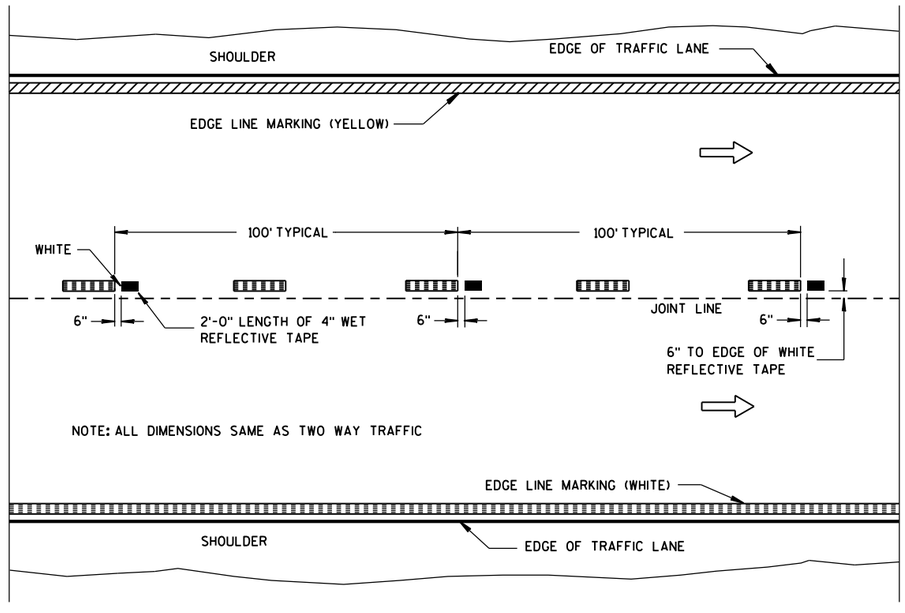
GENERAL NOTES

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

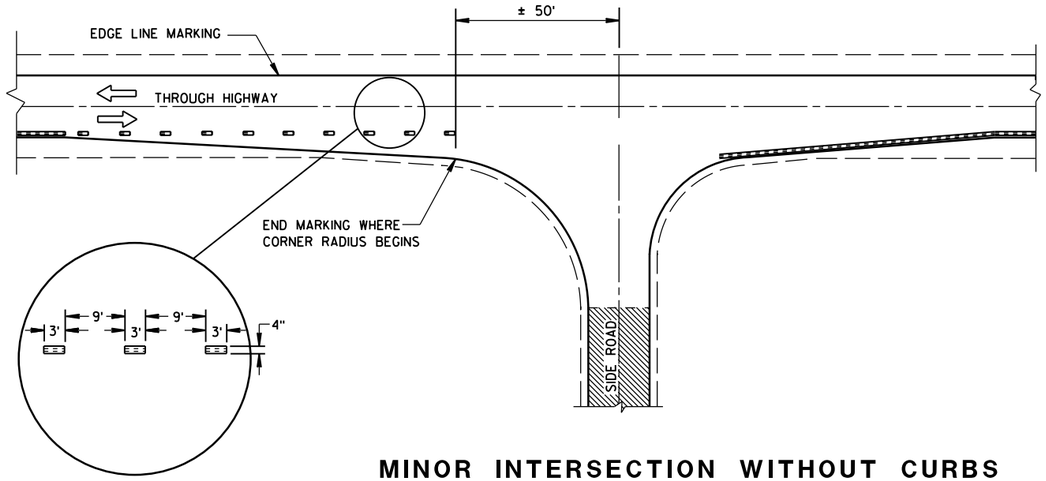
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

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



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

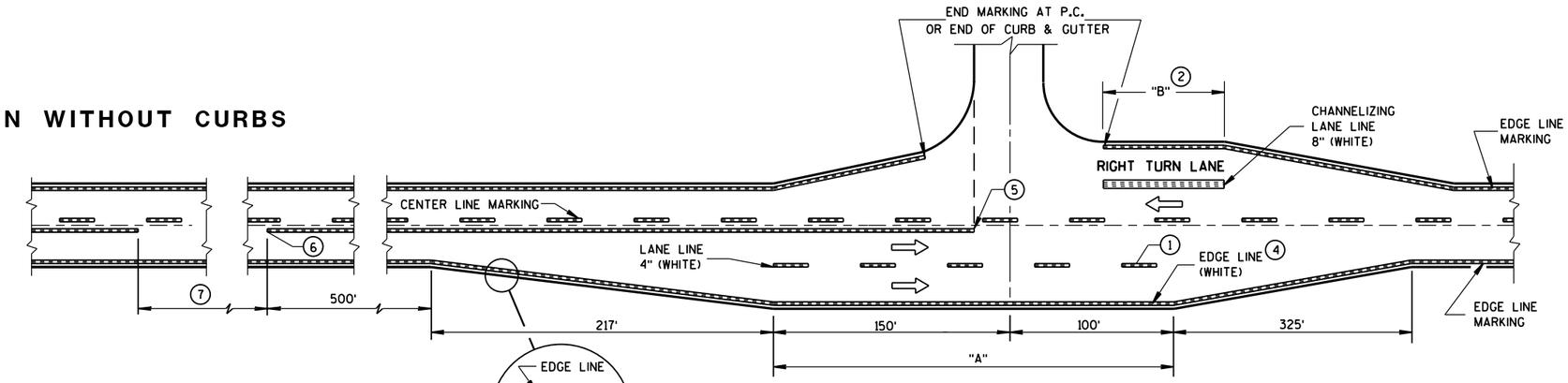
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

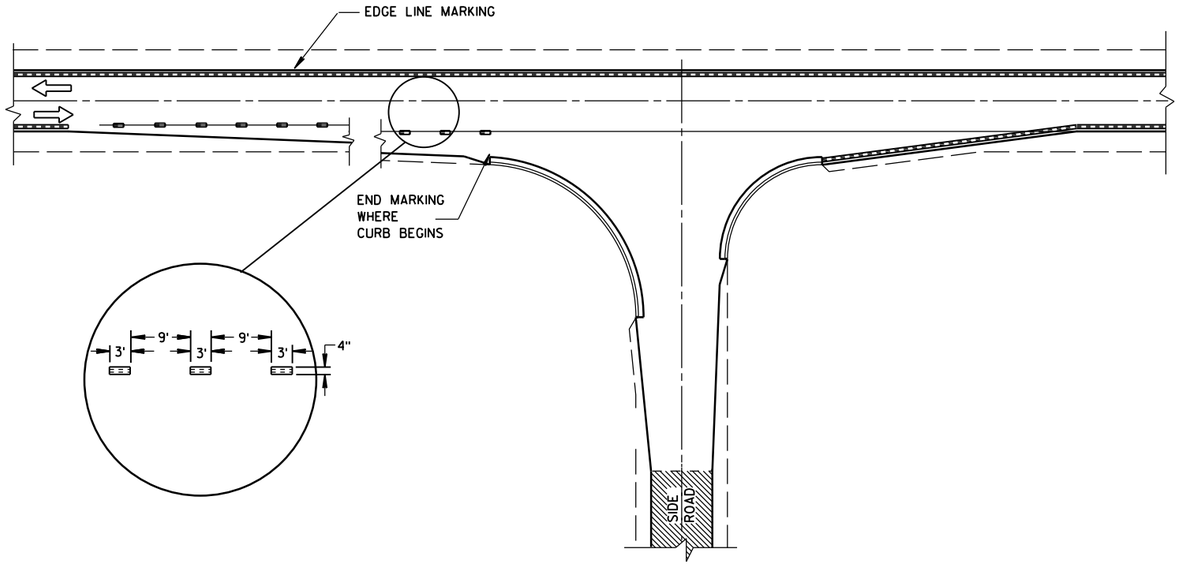
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



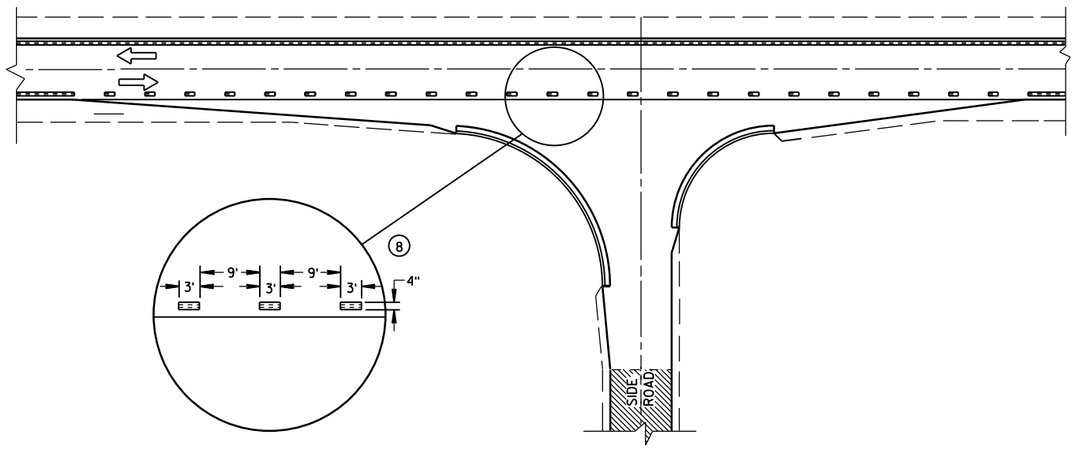
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

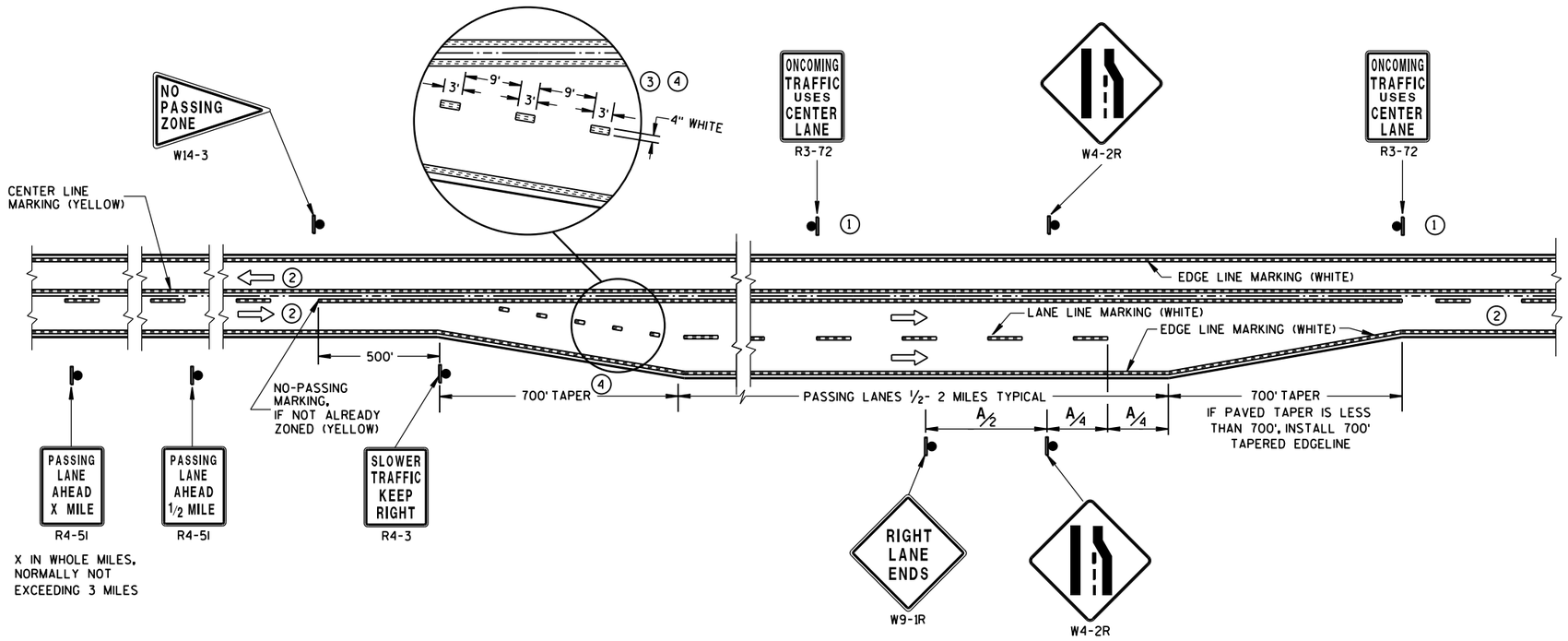
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

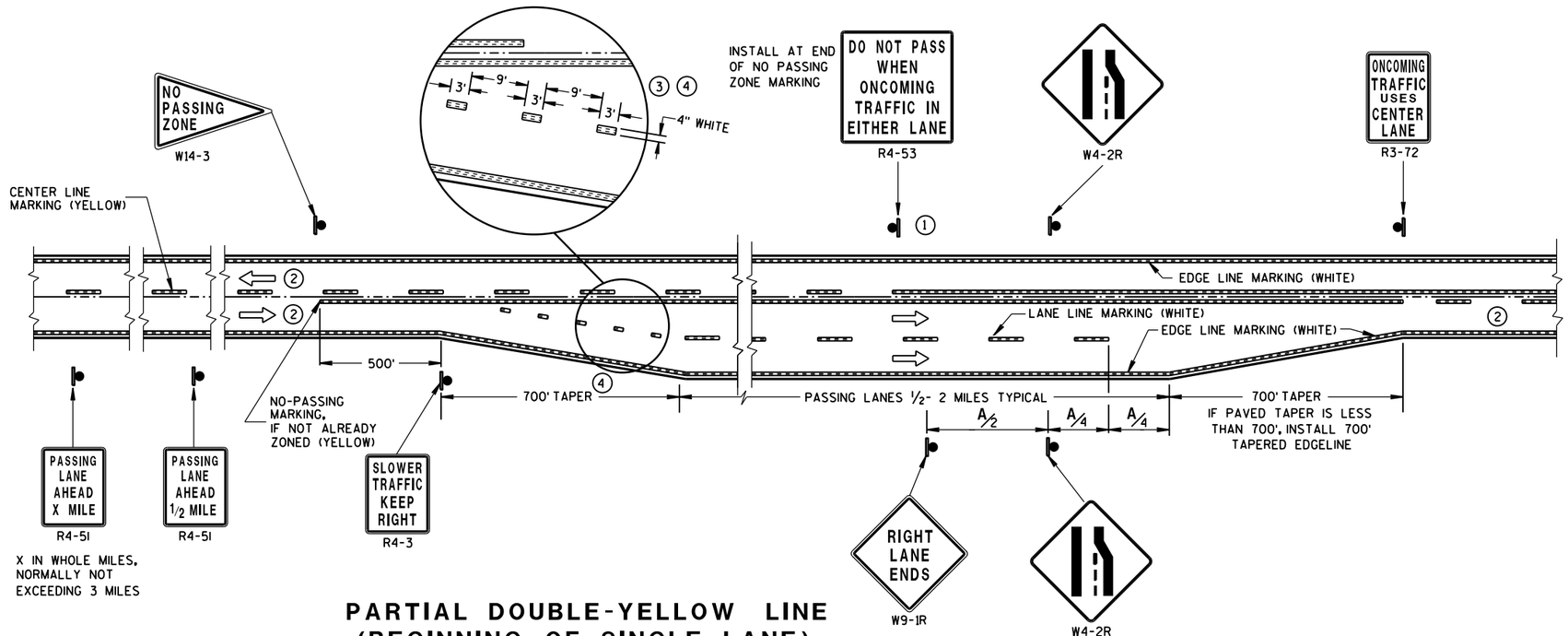
S.D.D. 15 C 8-15b

6

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



SOLID DOUBLE-YELLOW LINE
(THROUGHOUT ENTIRE PASSING/CLIMBING LANE)



PARTIAL DOUBLE-YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3'LINE 9'GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

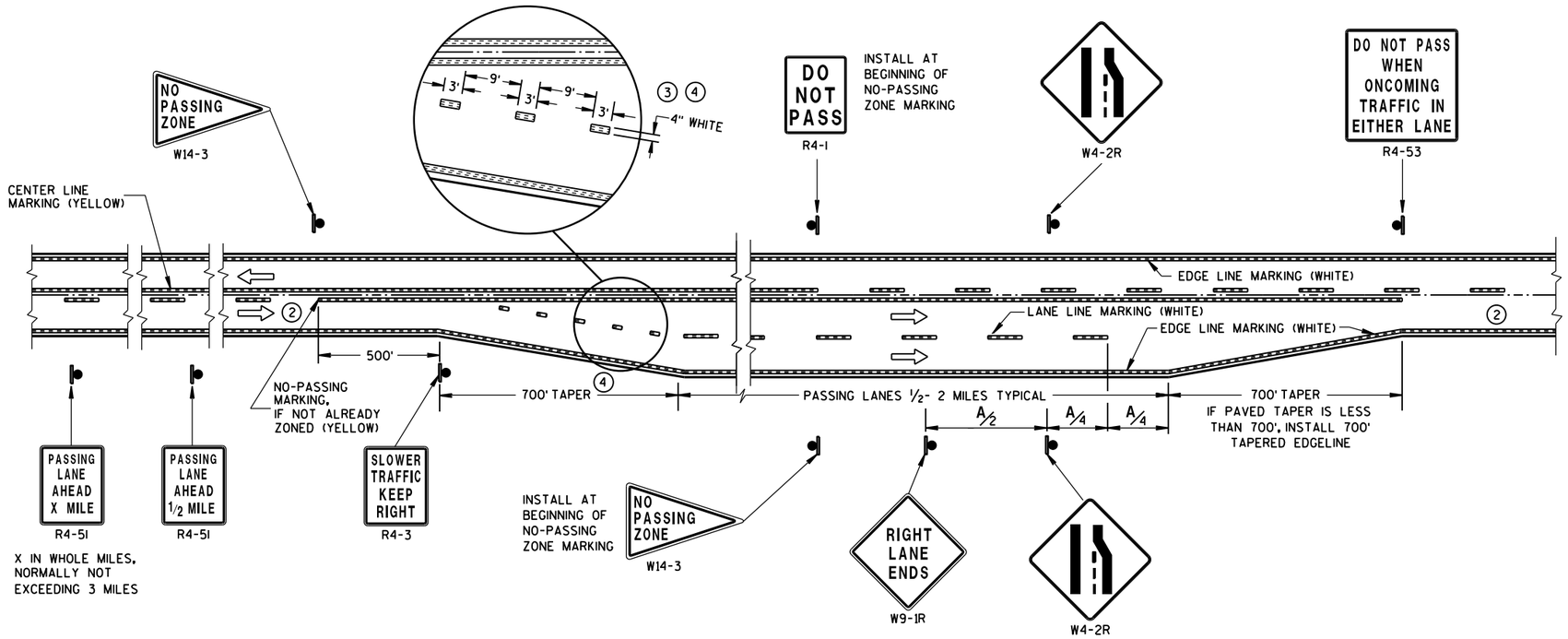
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

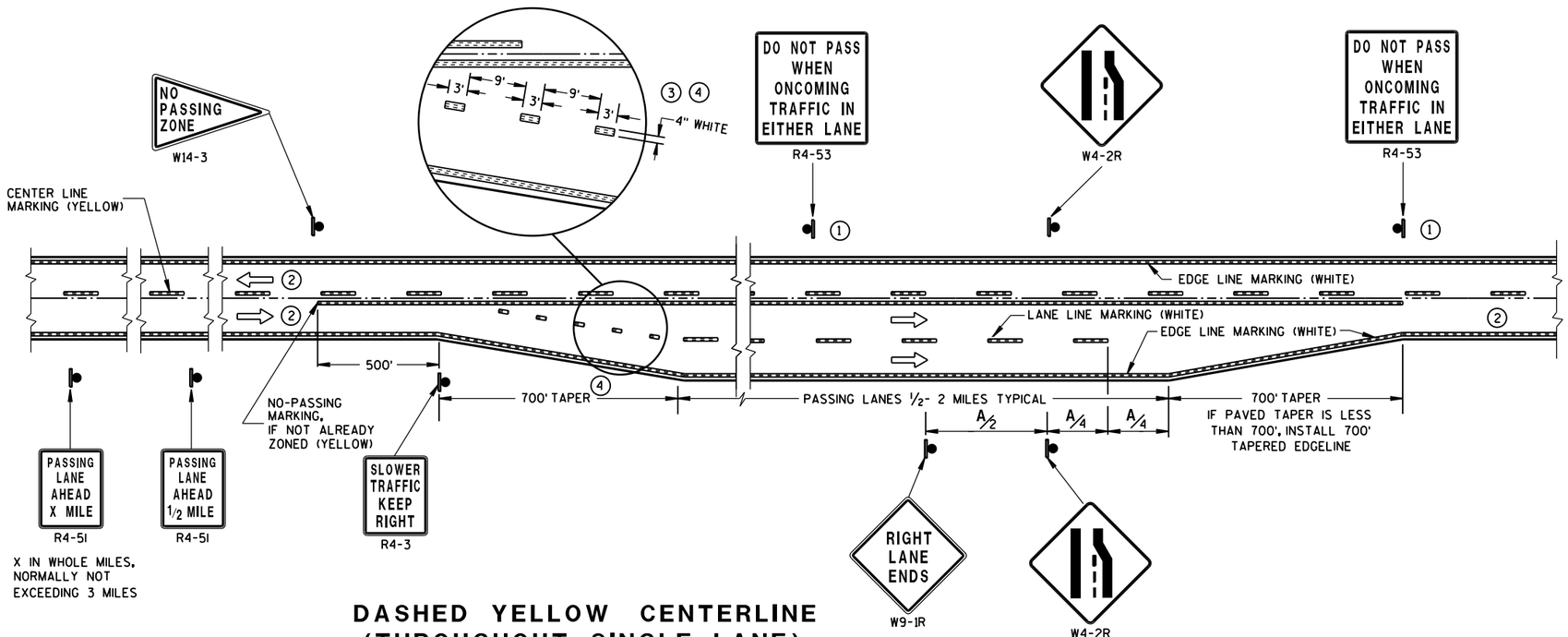
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



SOLID DOUBLE-YELLOW LINE (END OF SINGLE LANE)



DASHED YELLOW CENTERLINE (THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1/2 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3'LINE 9'GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

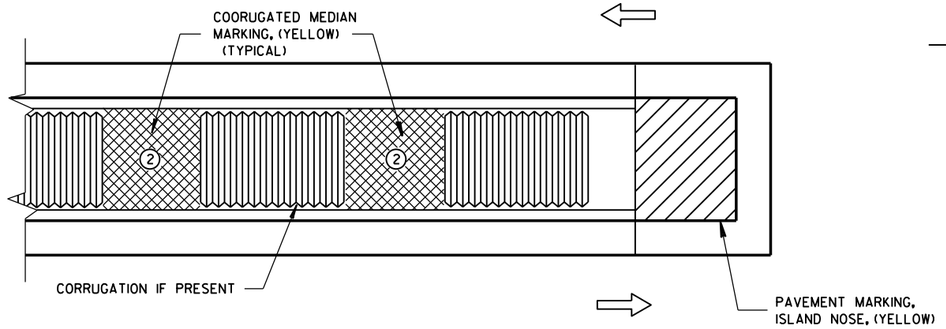
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

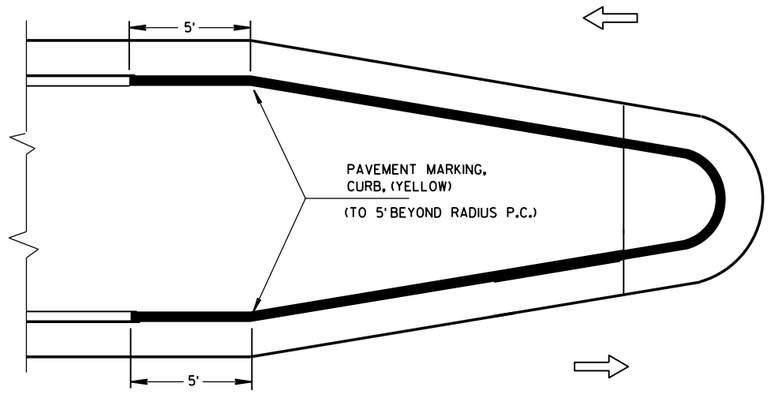
S.D.D. 15 C 8-15d

6

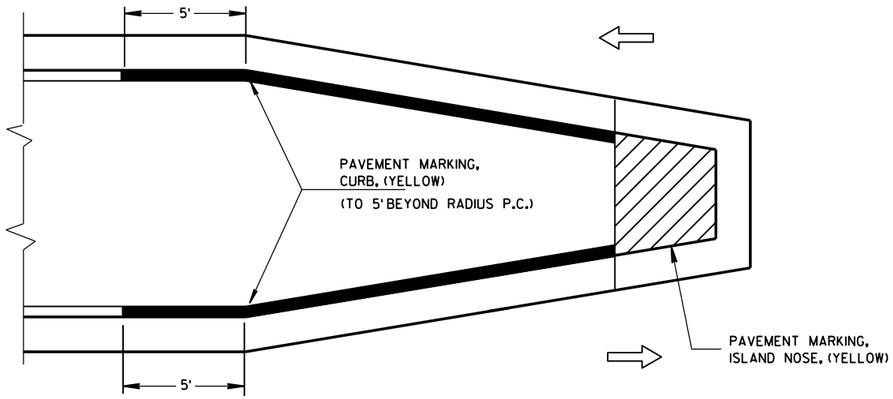
S.D.D. 15 C 8-15d



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

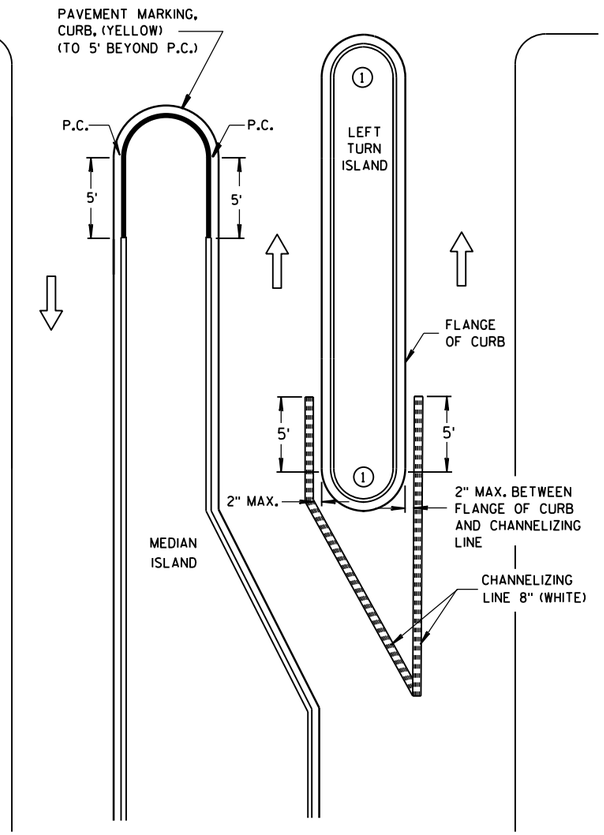


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

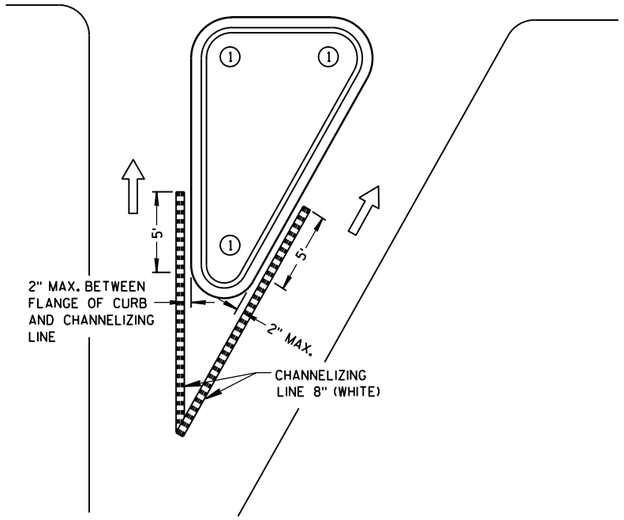


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

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

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



RIGHT TURN ISLAND

LEGEND

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

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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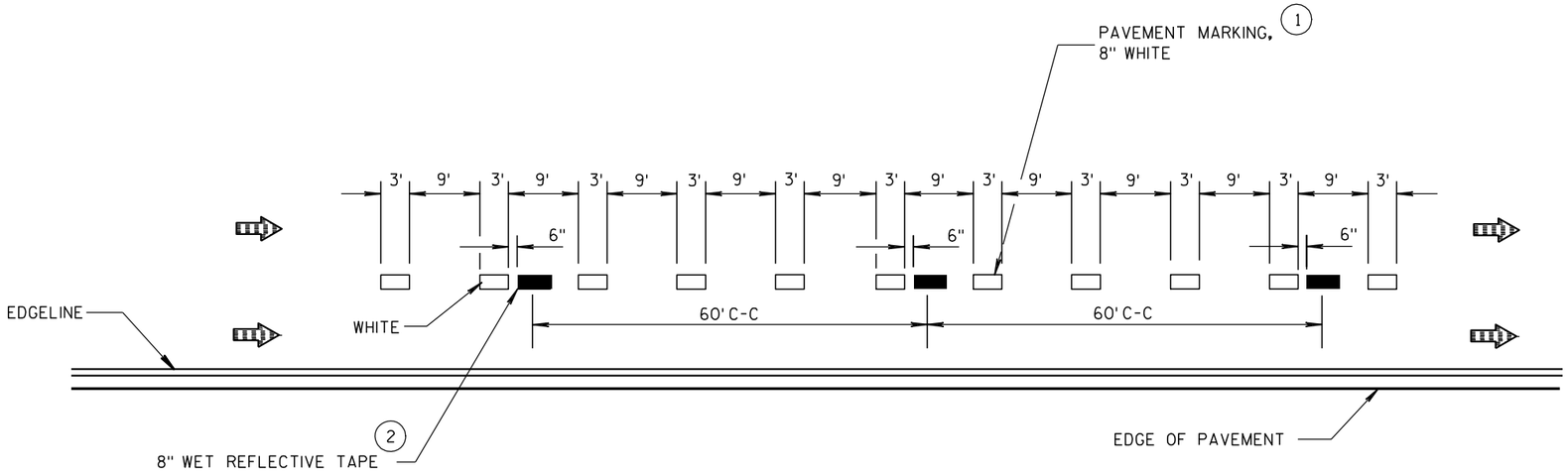
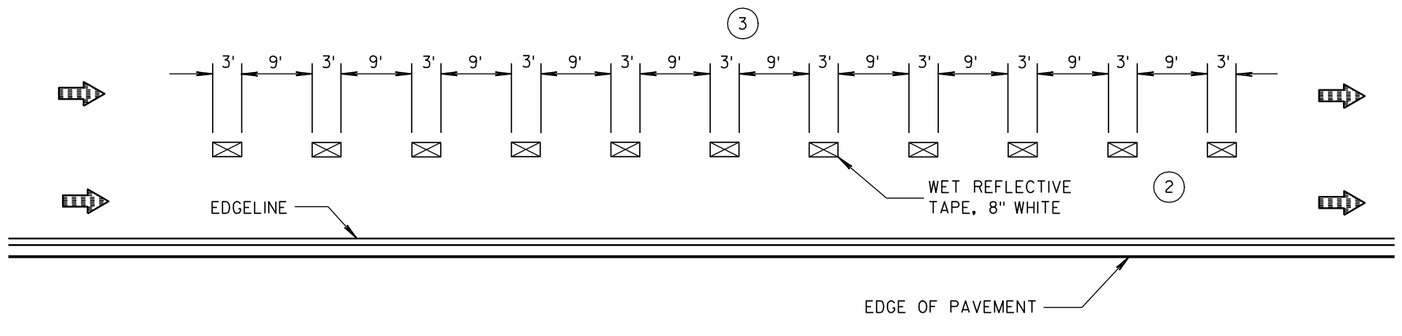
S.D.D. 15 C 8-16f



SPRAYED OR NON WET REFLECTIVE DROP LANE LINE SUPPLEMENTED BY WET REFLECTIVE TAPE SEGMENT

GENERAL NOTES

1. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE. RETRACE EXISTING 4" MARKING WITH 8" MARKING.
2. REPLACE SAME 4" WET REFLECTIVE TAPE WHERE EXISTING 4" TAPE IS IN PLACE.
3. 3' LINE 9' GAP, EXCEPT REPLACE THE EXISTING LINE - GAP PATTERN AND WIDTH OF TAPE WHERE EXISTING TAPE IS IN PLACE.



DROP LANE DETAIL FOR NEW WET REFLECTIVE TAPE INSTALLATIONS

LEGEND

- 2.0' LENGTH OF WET REFLECTIVE TAPE
- 3.0' LENGTH OF WET REFLECTIVE TAPE
- DROP LANE MARKING SPRAYED OR NON WET REFLECTIVE TAPE
- DIRECTION OF TRAFFIC

PAVEMENT MARKINGS FOR DROP LANES FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/13/10 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 10-10

TWO-LANE ROADWAY

SYMBOLS

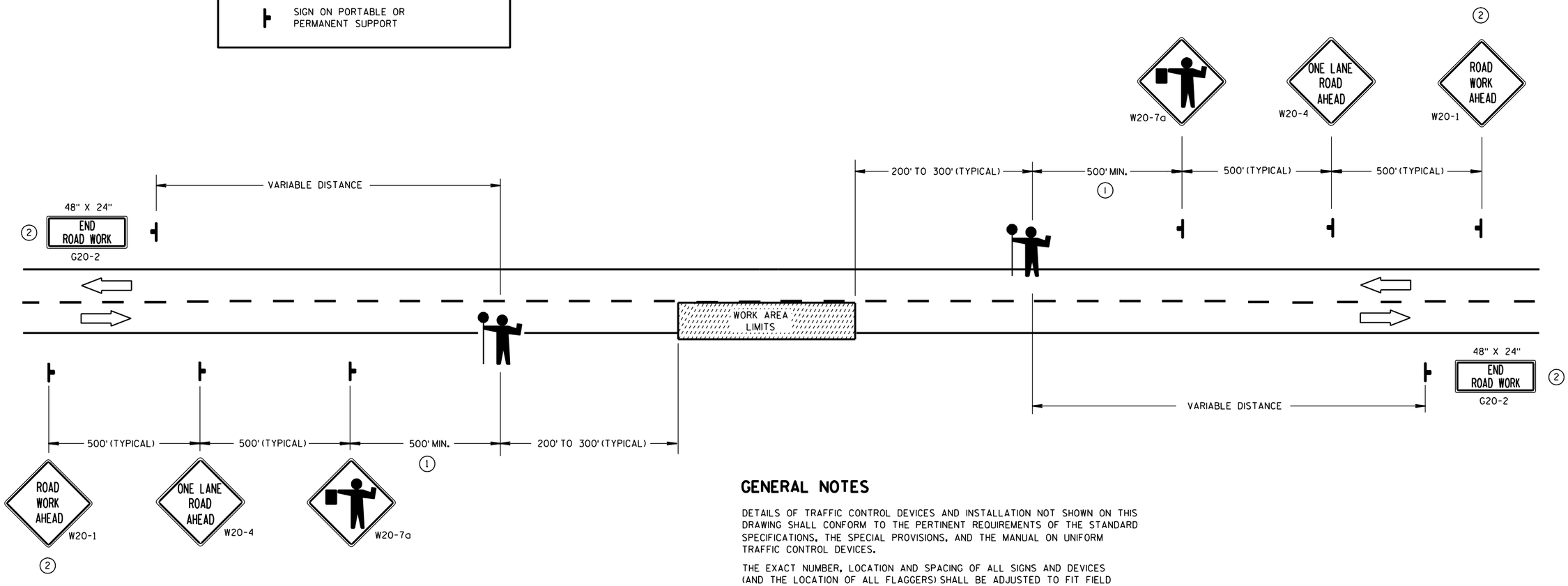
WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT

W3-4

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



(1) FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

247

FHWA

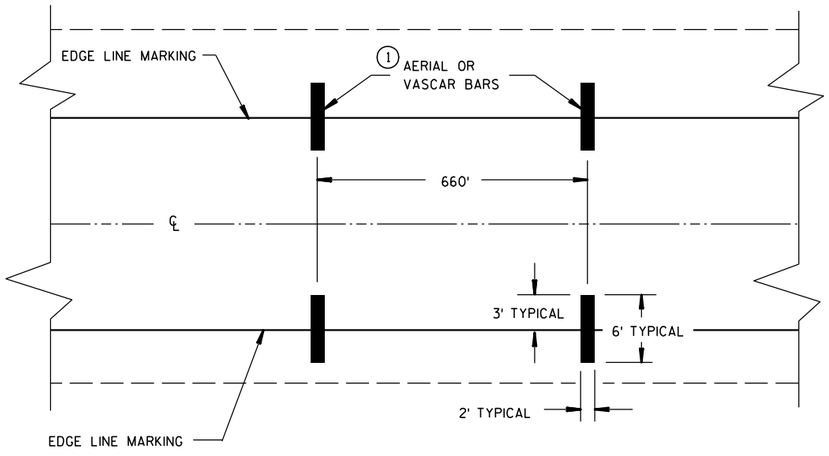
6

S.D.D. 15 C 12-3

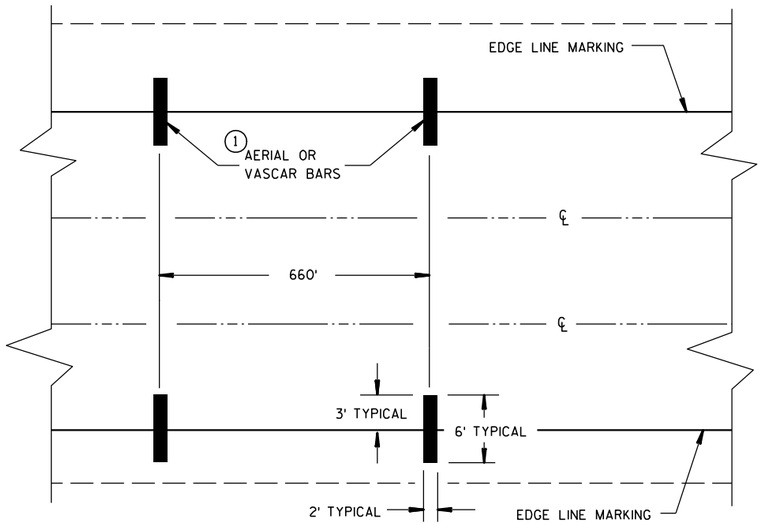
GENERAL NOTES

(1) NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

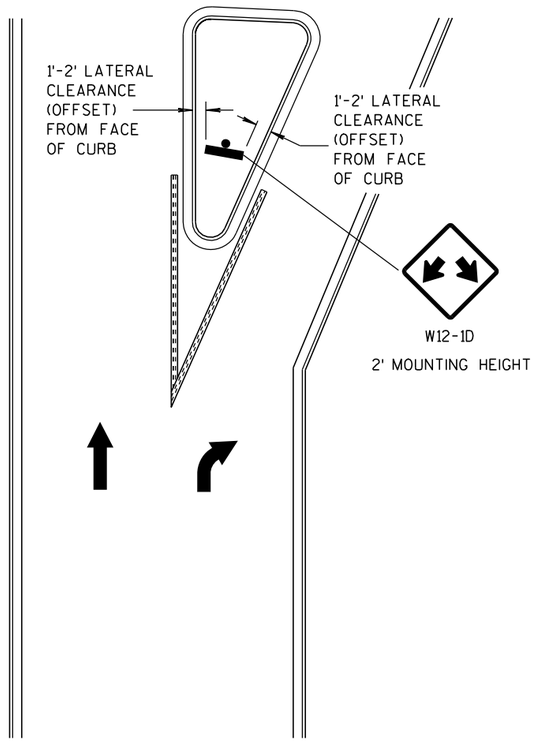
AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/23/01 DATE	/S/ Chester L Spong CHIEF SIGNS AND MARKINGS ENGINEER
FHWA	

6
S.D.D. 15 C 14-1

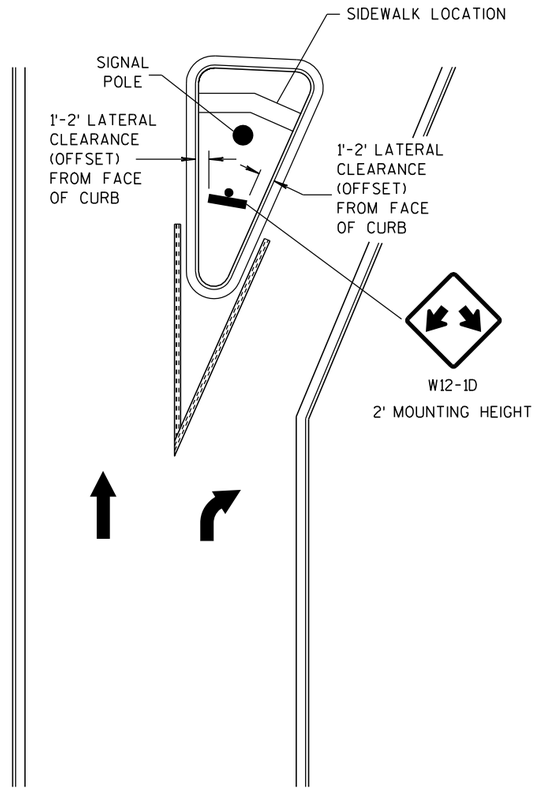
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

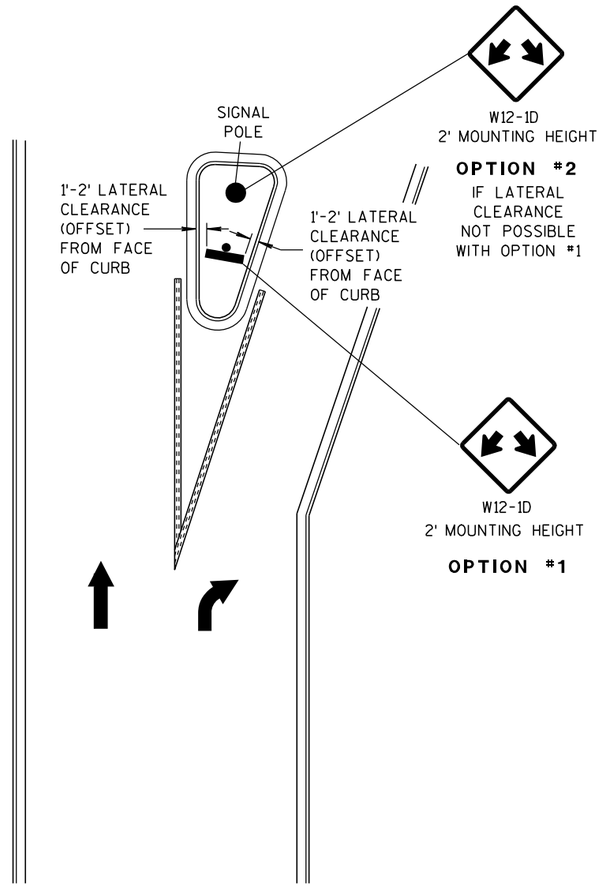
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



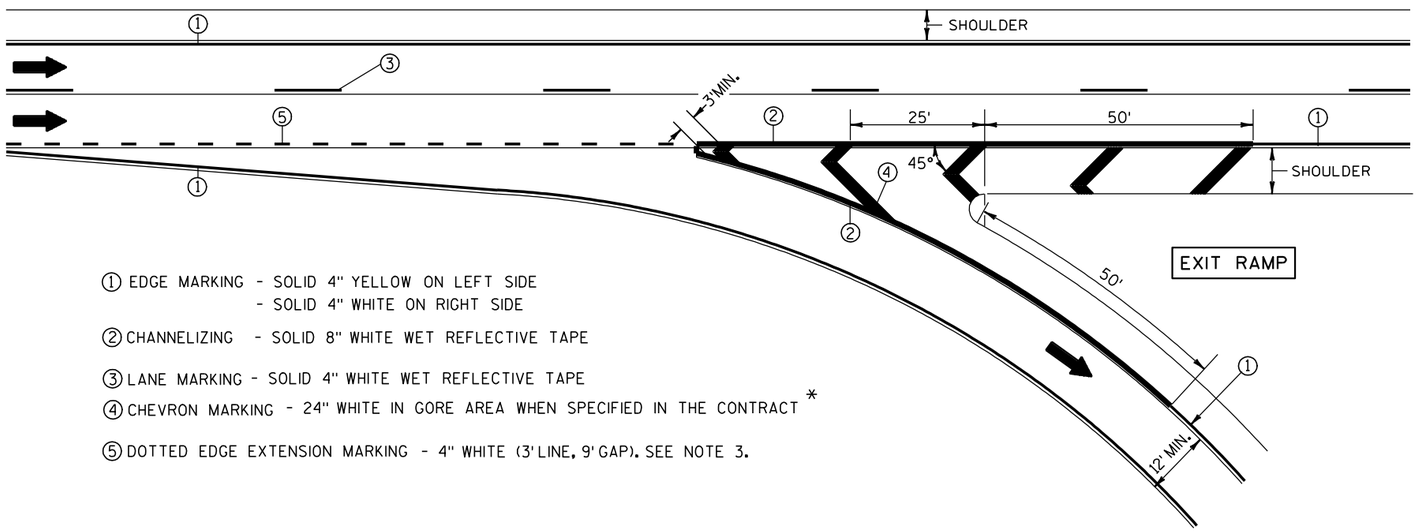
LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothem STATE TRAFFIC ENGINEER 249 IGN
FHWA	



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

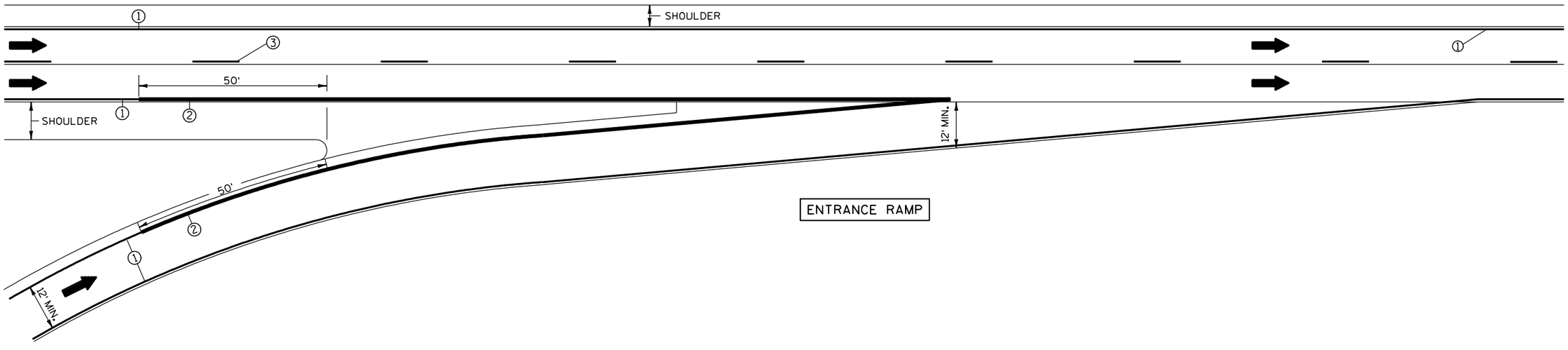
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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 TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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.

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

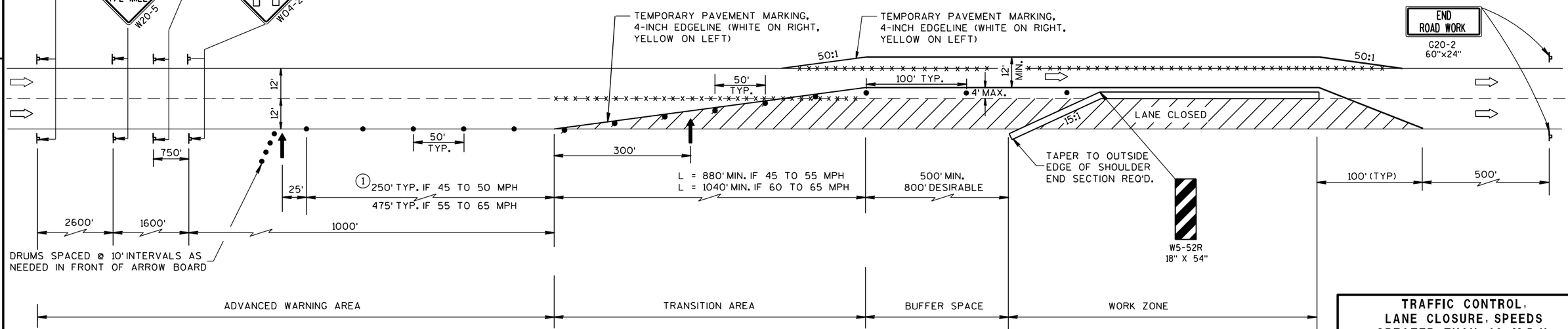
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE (251 IC

FHWA

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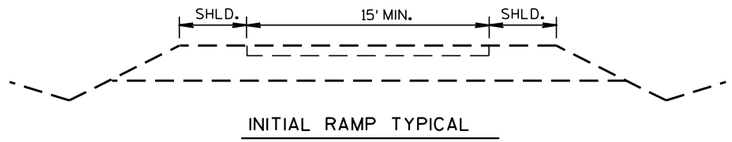
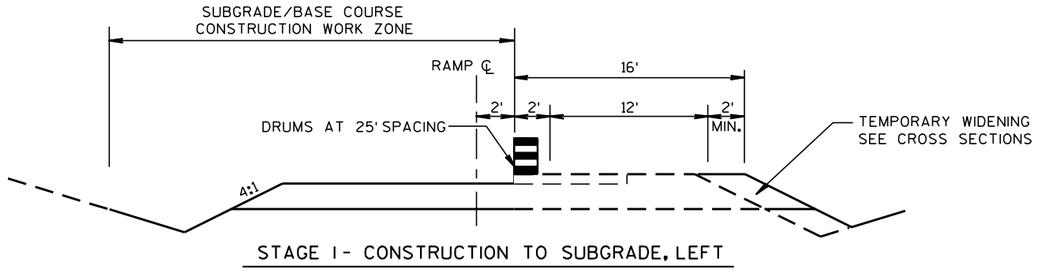
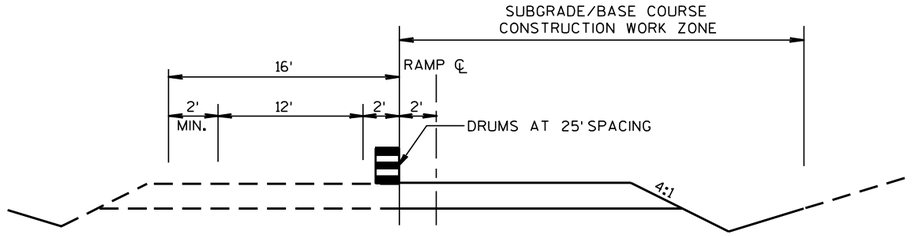
S.D.D. 15 D 3-1



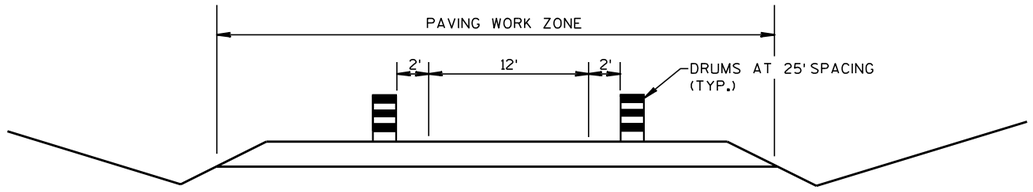
INITIAL RAMP TYPICAL



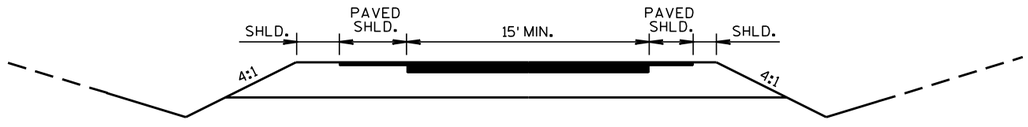
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES :

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STAGE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE [illegible]252 IC

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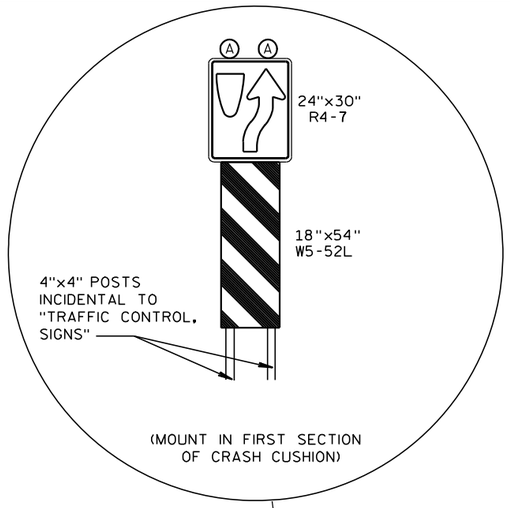
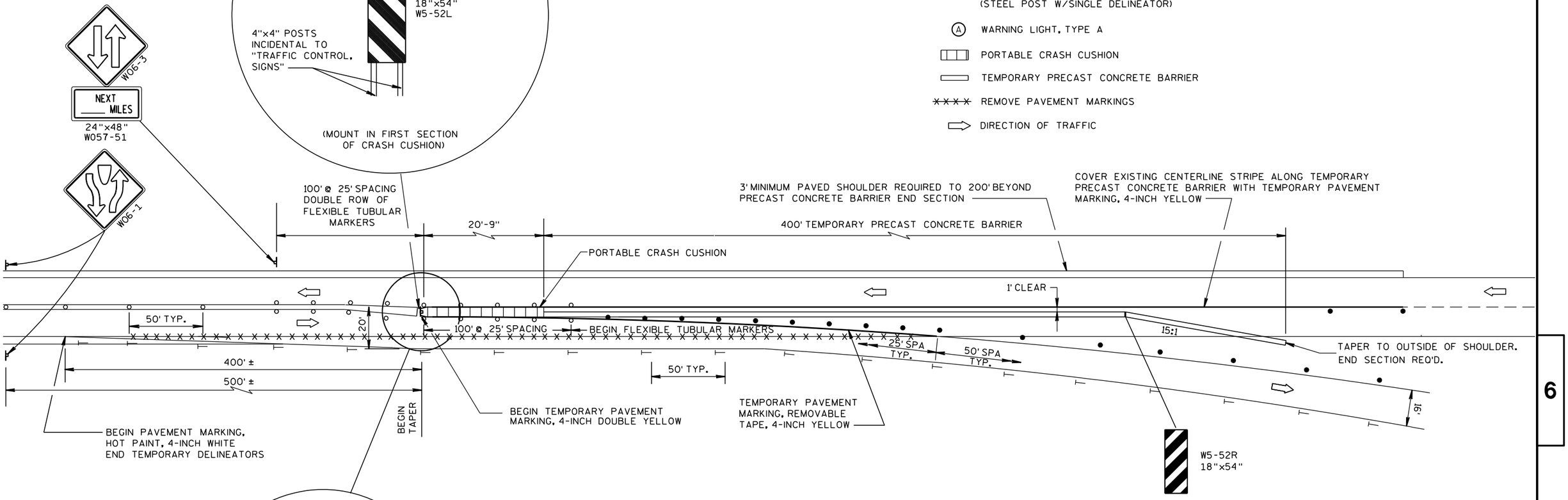
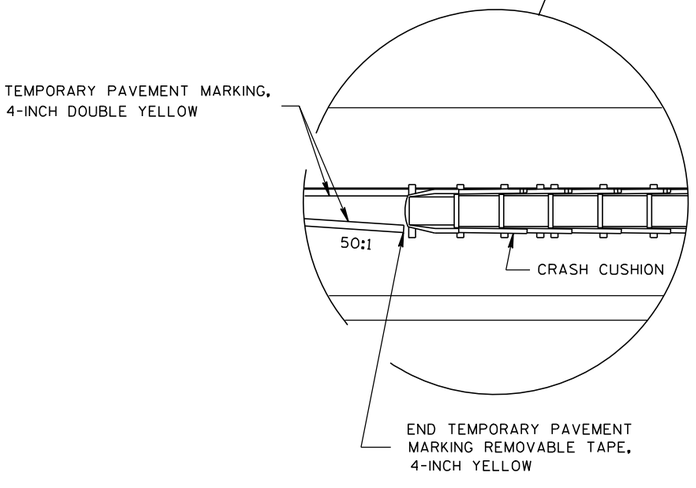


LEGEND

- POST WITH ATTACHED SIGN
- DRUM
- FLEXIBLE TUBULAR MARKER POST AND BASE
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- (A) WARNING LIGHT, TYPE A
- PORTABLE CRASH CUSHION
- TEMPORARY PRECAST CONCRETE BARRIER
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC





GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-7-95
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

FHWA

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S.D.D. 15 D 5-2

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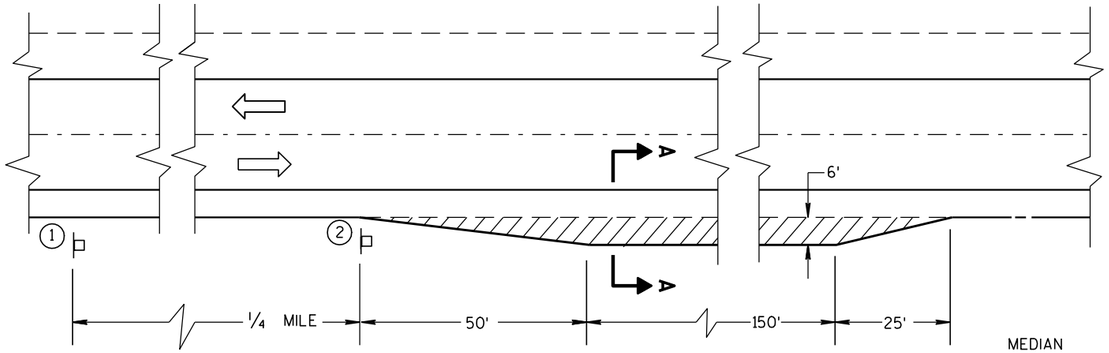
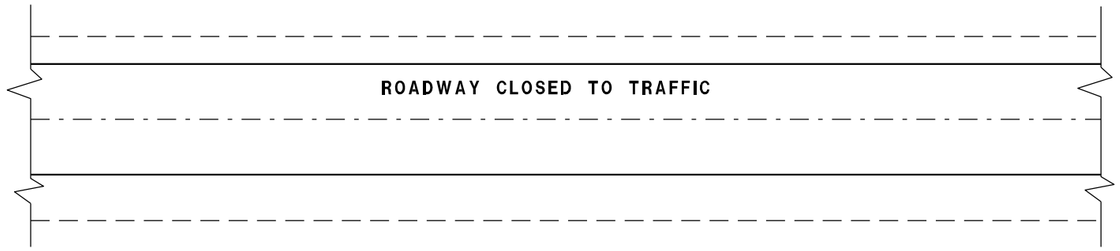
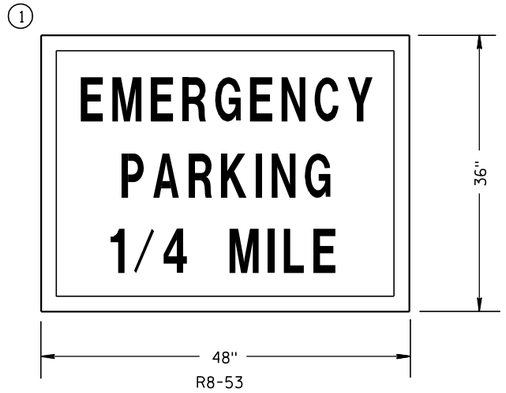
S.D.D. 15 D 5-2





PLAN VIEW

TEMPORARY EMERGENCY PULLOUTS FOR DIVIDED HIGHWAYS



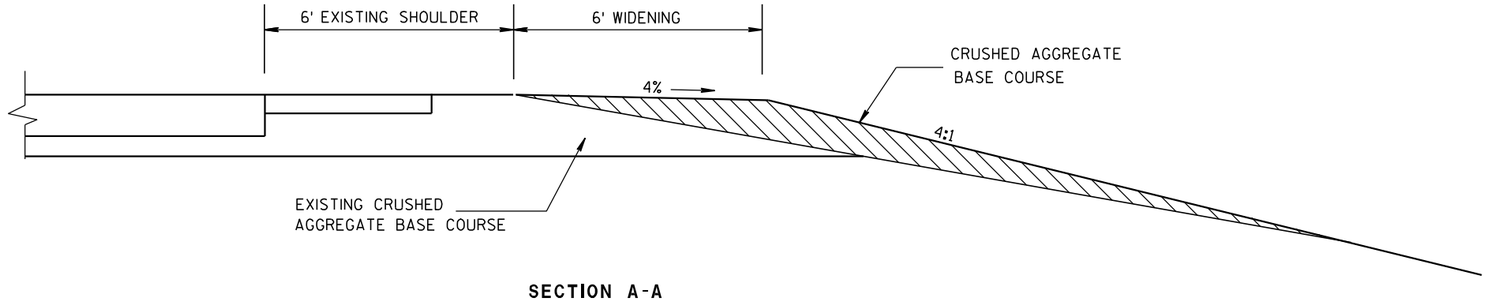
SIGNS TO BE BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND

SIGNS FOR TEMPORARY EMERGENCY PULLOUTS

GENERAL NOTES

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

TEMPORARY EMERGENCY PULLOUTS AND SIGNS SHALL BE REMOVED AND THE ROADWAY RESTORED TO ITS ORIGINAL CROSS SECTION AND CONDITION PRIOR TO REOPENING THE ROADWAY TO ONE WAY TRAFFIC.



SECTION A-A

TEMPORARY EMERGENCY PULLOUTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-96 DATE	/S/ Chester J. [illegible] STATE TRAFFIC E 254
FHWA	

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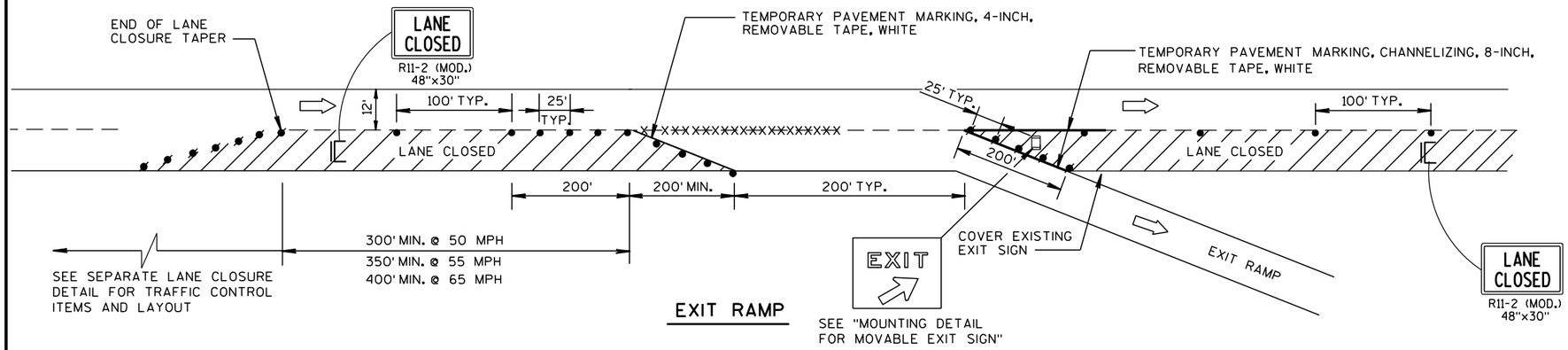
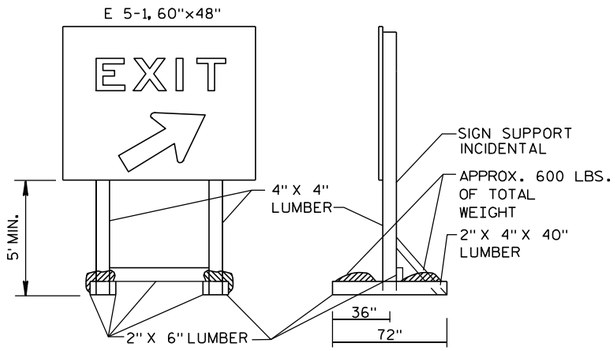
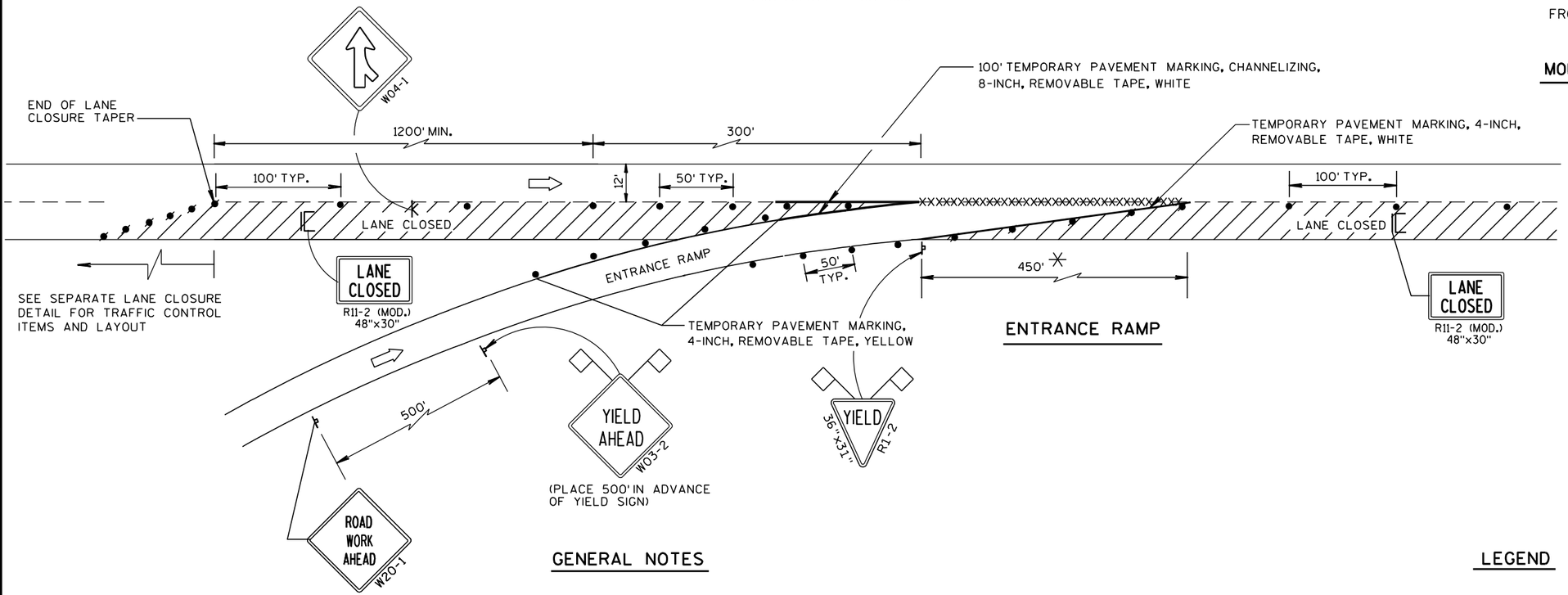


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND 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.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible] 255
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1

SYMBOLS

IC/C	TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
•	DRUM
⊢	POST MOUNTED SIGN
(A)	WARNING LIGHT, TYPE A (FLASHING)
⇨	DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

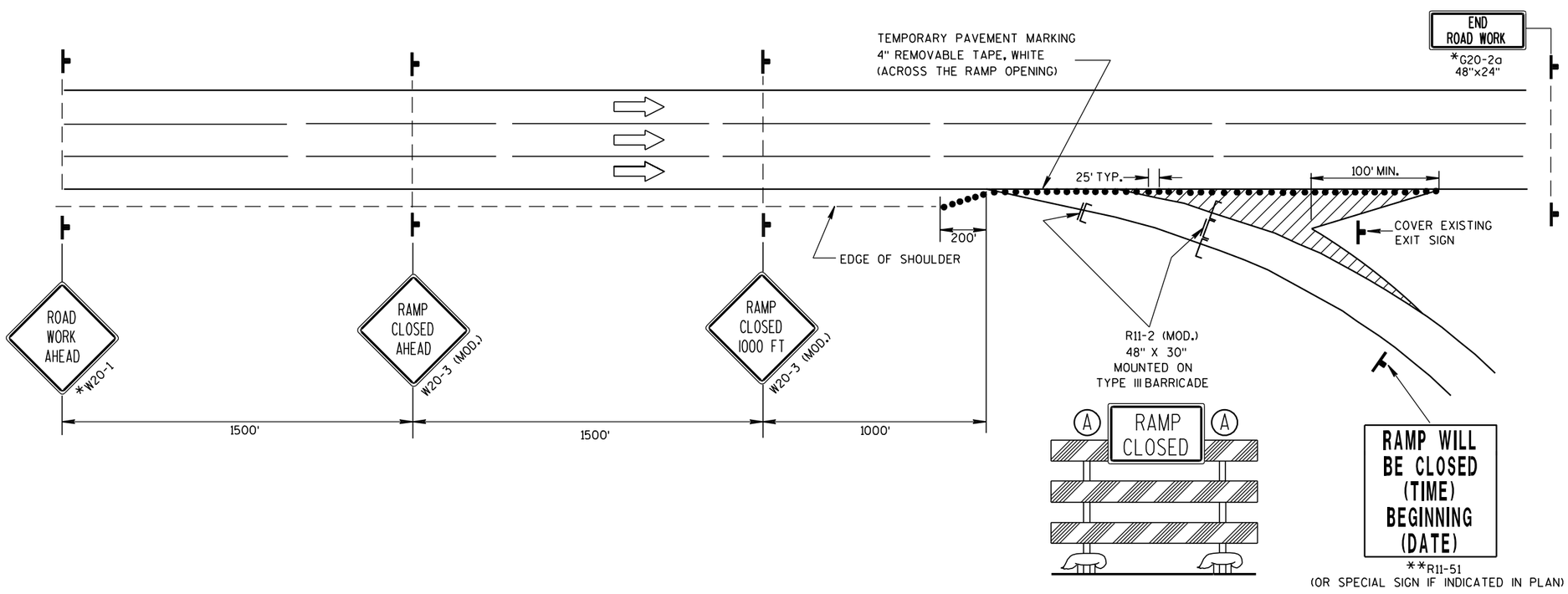
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

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

**USE THE "RAMP WILL BE CLOSED" SIGN IF INDICATED IN MISCELLANEOUS QUANTITIES. PLACE 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 D 16-1

SYMBOLS

- TRAFFIC CONTROL DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW
- ARROW BOARD IN CAUTION MODE

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

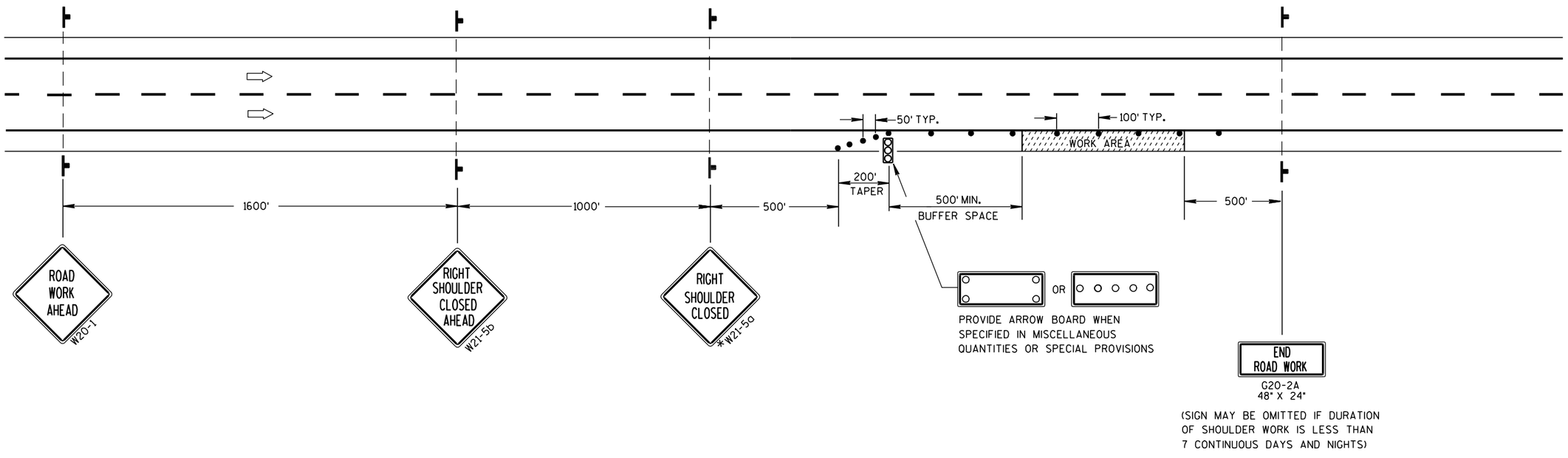
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

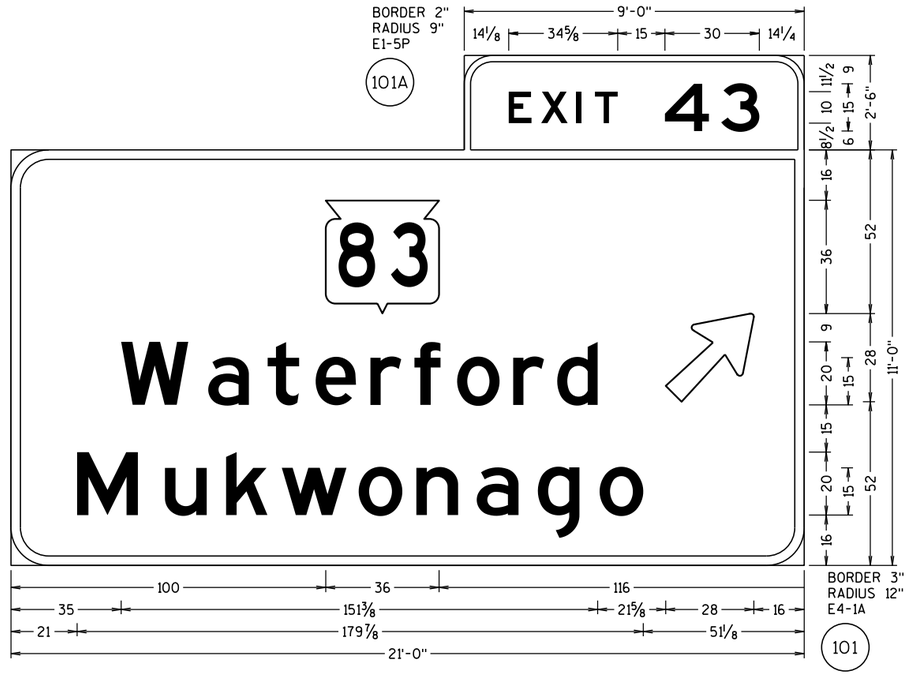
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

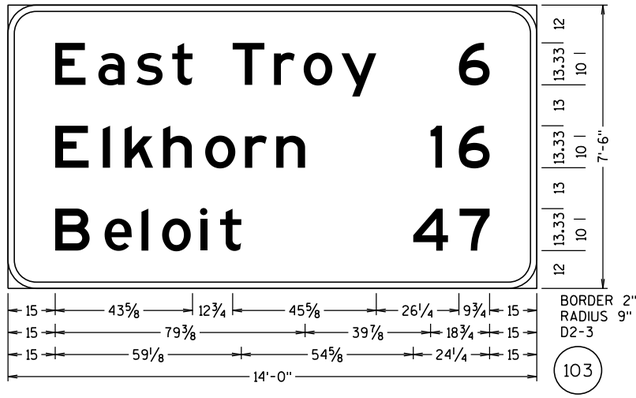
APPROVED

5/23/00
DATE

/S/ Chester J Spagg
CHIEF SIGNS AND MAR 257 INEER

FHWA





GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

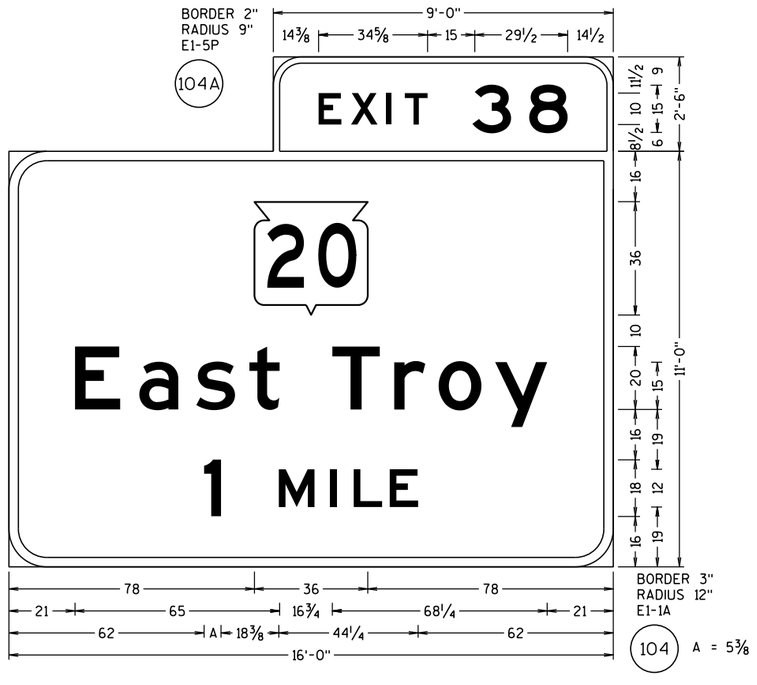
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

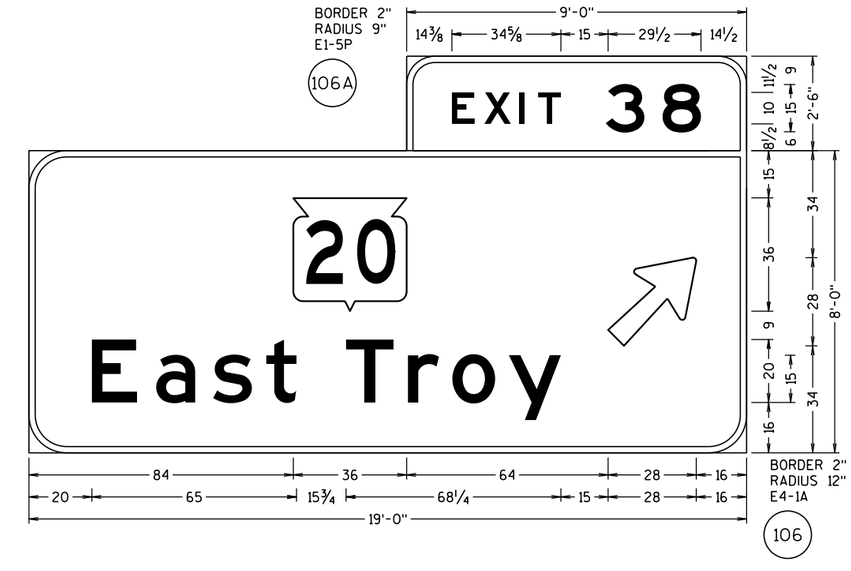
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES ALL-7 AND ALL-10

11. DO NOT SCALE.





SHEET 1 OF 4

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	SIGNING DETAIL - TYPE I SIGNS	SCALE: 0 1/2" 1"	SHEET 258	E

FILE NAME : J:\projects\d2_10901543\72\SignDet_1090-15-72.dgn PLOT DATE : 02-JUL-2013 09:34 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1

WISDOT/CADDS SHEET 47

GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

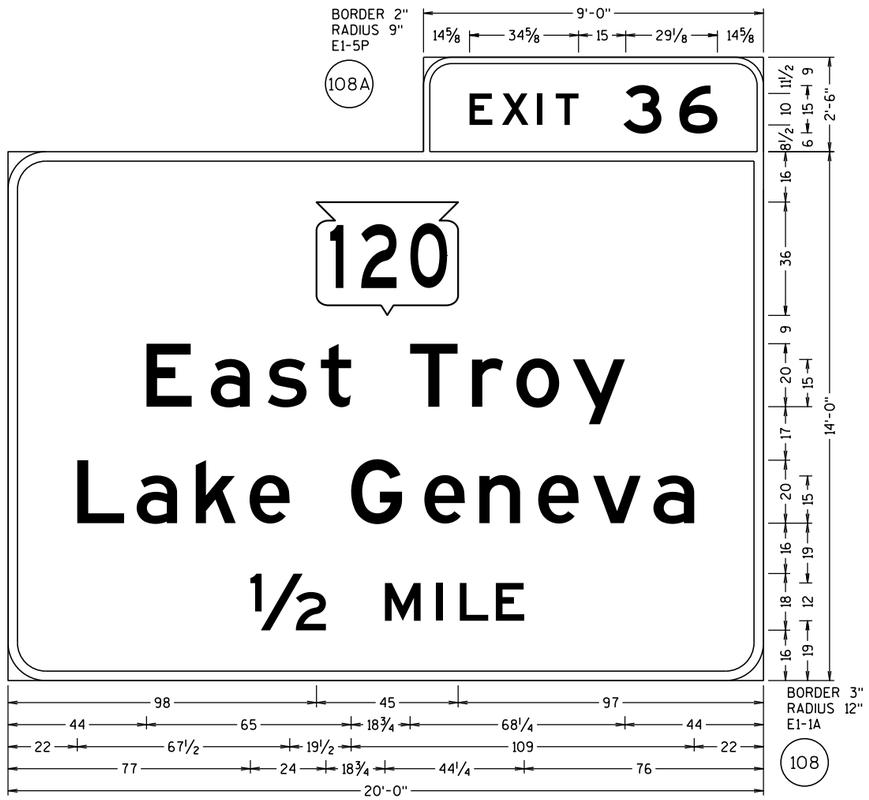
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES ALL-7 AND ALL-10

11. DO NOT SCALE.

BORDER 2" RADIUS 9" E1-5P

108A

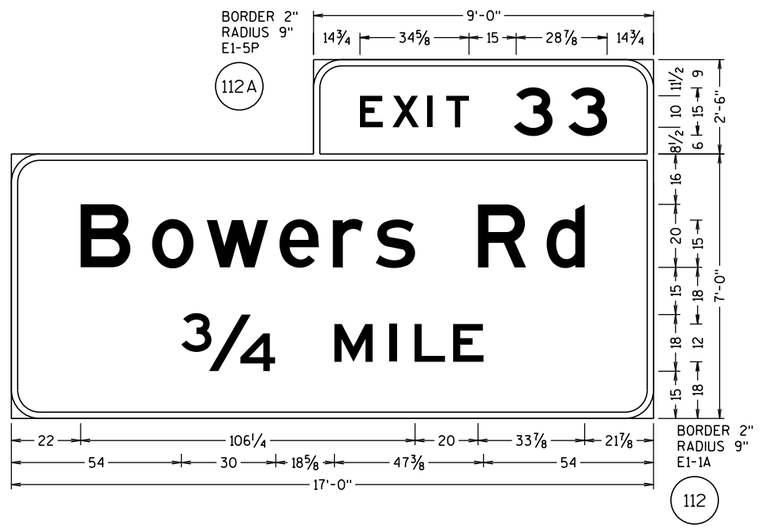


BORDER 3" RADIUS 12" E1-1A

108

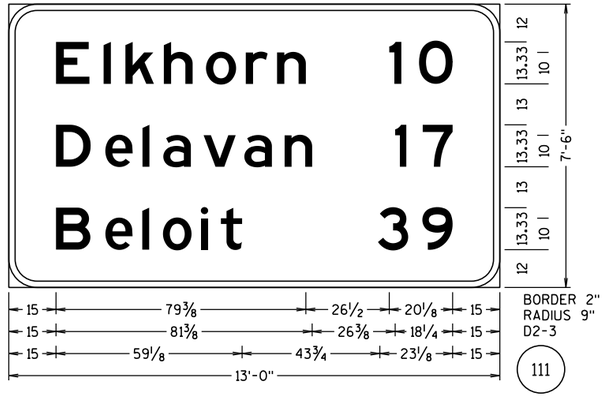
BORDER 2" RADIUS 9" E1-5P

112A



BORDER 2" RADIUS 9" E1-1A

112

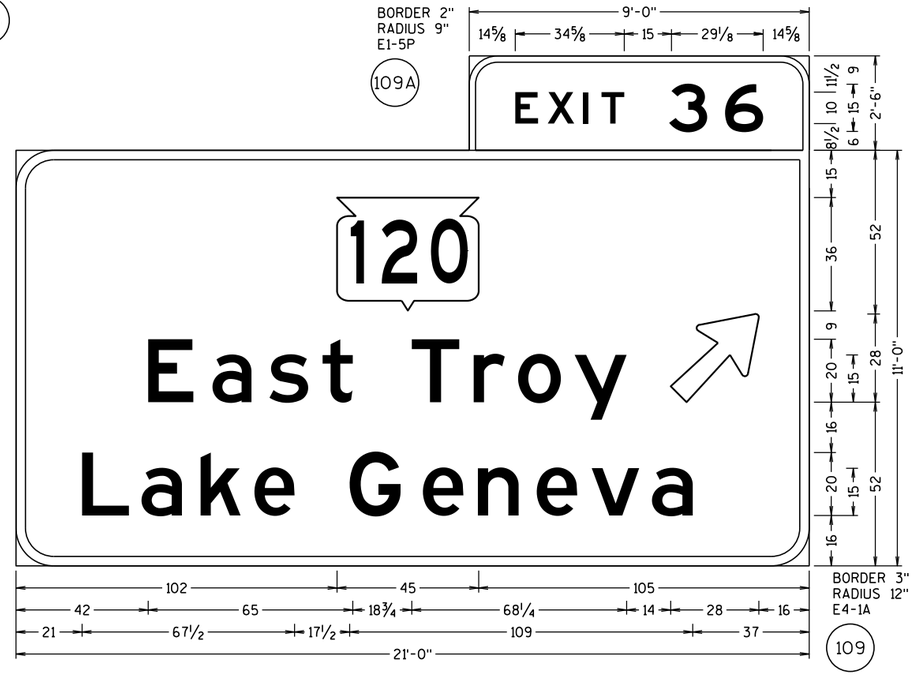


BORDER 2" RADIUS 9" D2-3

111

BORDER 2" RADIUS 9" E1-5P

109A



BORDER 3" RADIUS 12" E4-1A

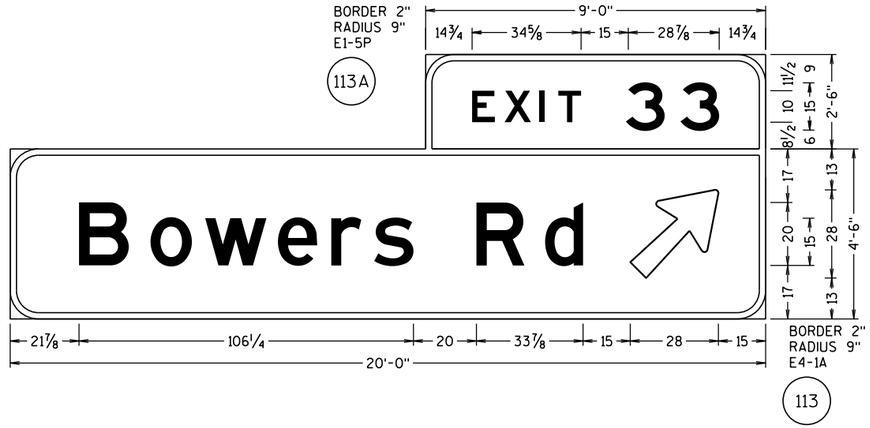
109

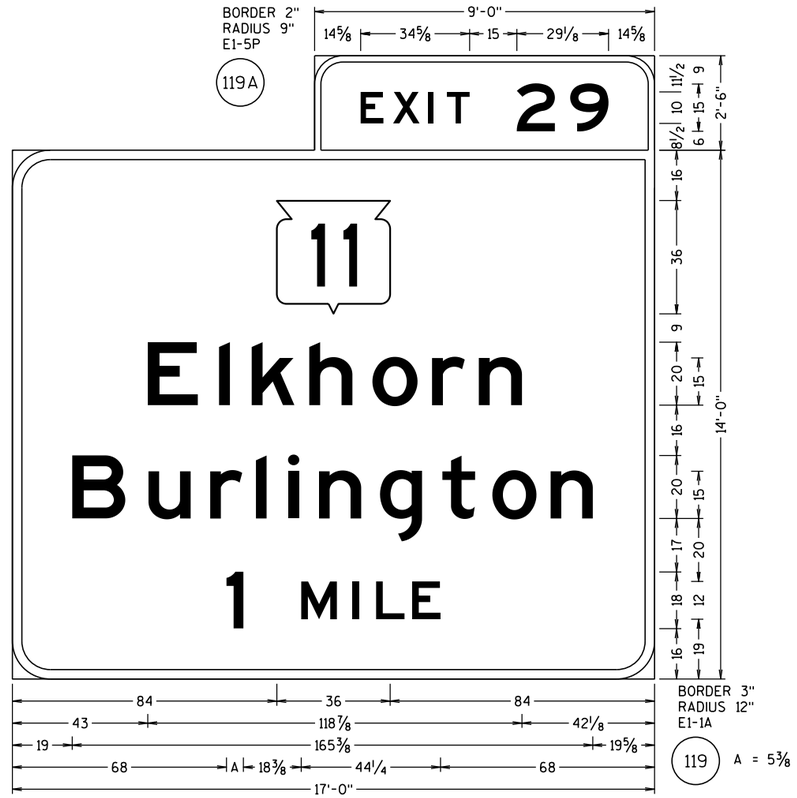
SHEET 2 OF 4

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	SIGNING DETAIL - TYPE I SIGNS	SCALE: 0 ½" 1"	SHEET 259	E

FILE NAME : J:\projects\d2_10901543\72\SignDet_1090-15-72.dgn PLOT DATE : 02-JUL-2013 09:34 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1

WISDOT/CADDS SHEET 47





GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

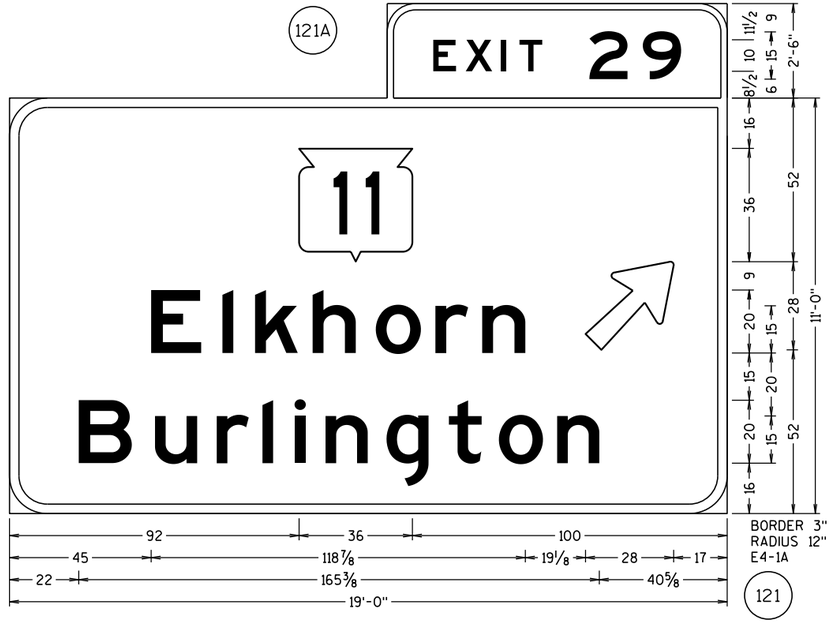
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

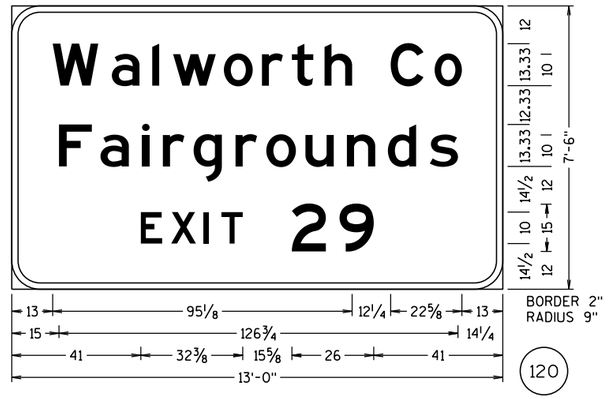
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

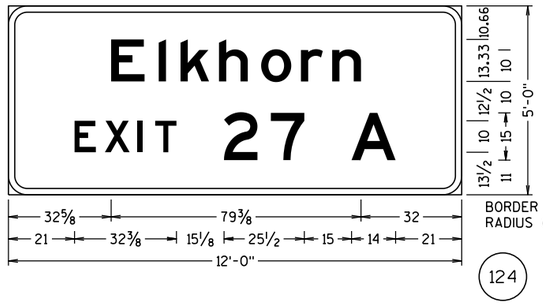
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

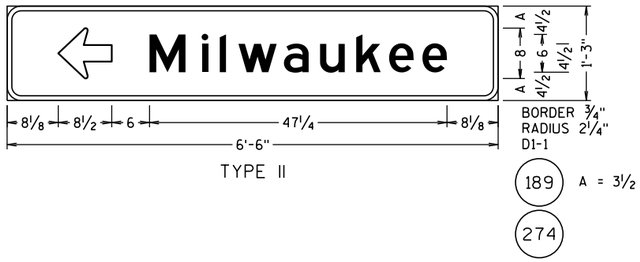
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES ALL-7 AND ALL-10

11. DO NOT SCALE.

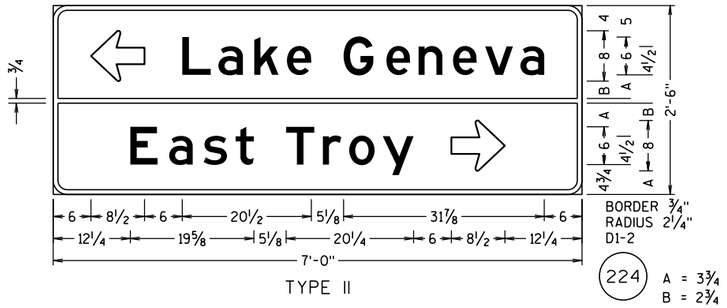




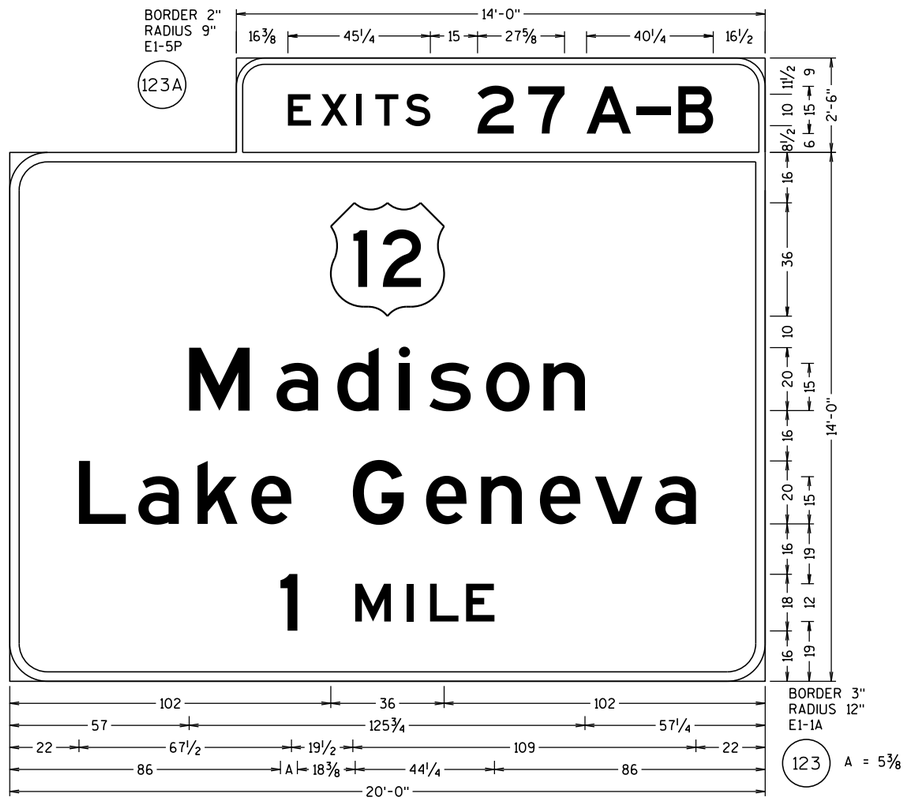


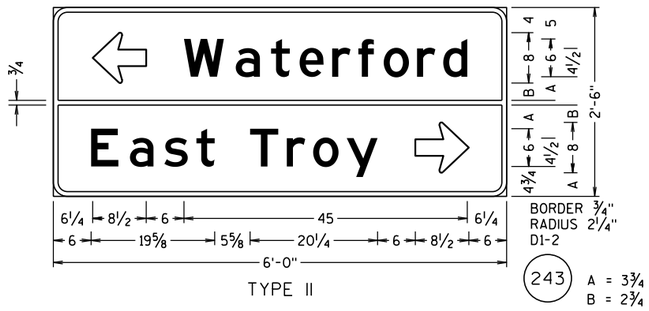


TYPE II

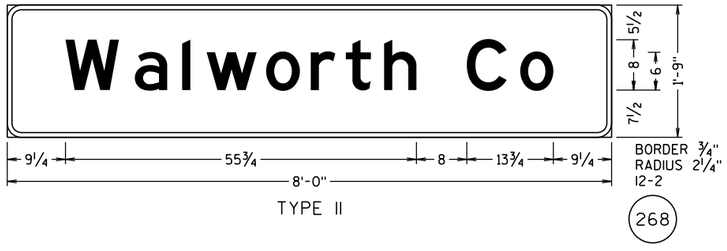


TYPE II





TYPE II



TYPE II

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES ALL-7 AND ALL-10
11. DO NOT SCALE.

7

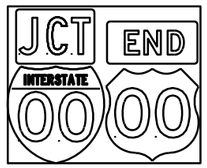
7

PROJECT NO: 1090-15-72	HWY: IH-43 SB (12 - 83)	COUNTY: WAUKESHA/WALWORTH	SIGNING DETAIL - TYPE I SIGNS	SCALE: 0 ½" 1"	SHEET 261	E

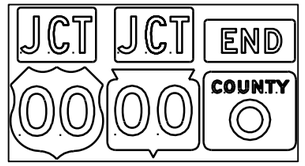
FILE NAME : J:\projects\d2_10901543\72\SignDet_1090-15-72.dgn PLOT DATE : 02-JUL-2013 09:35 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1

TYPICAL ASSEMBLIES

J1-1

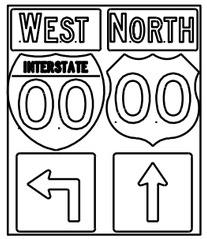


J1-2

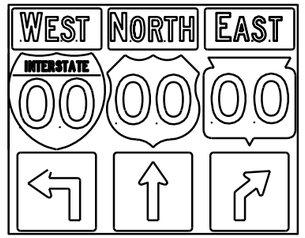


J1-3

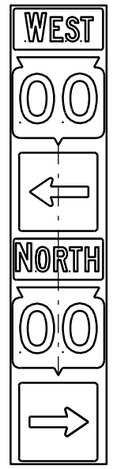
J2-1



J2-2

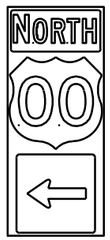


J2-3

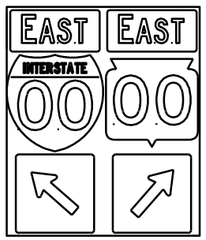


JV

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



J3-1



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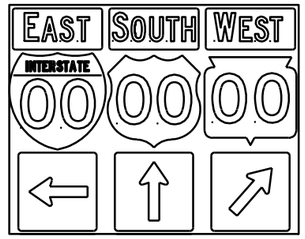
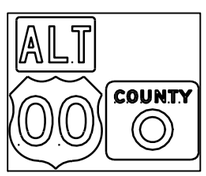
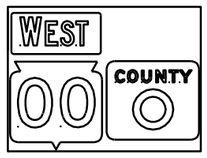


J3-3

J4-1



J4-2



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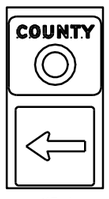


J13-1

J12-1

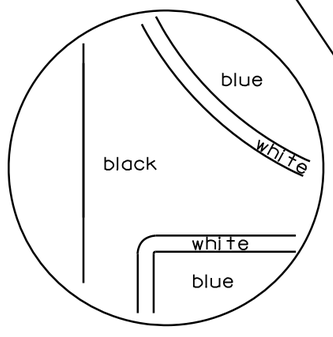
J32-1

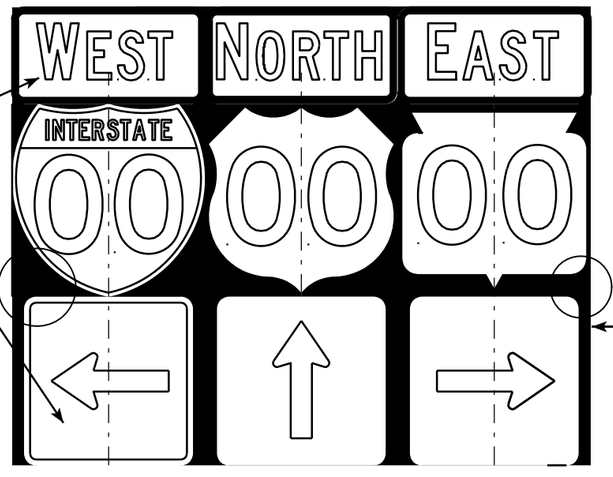
J33-1

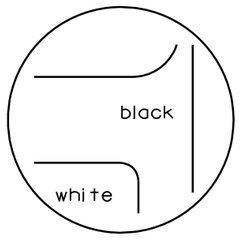
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

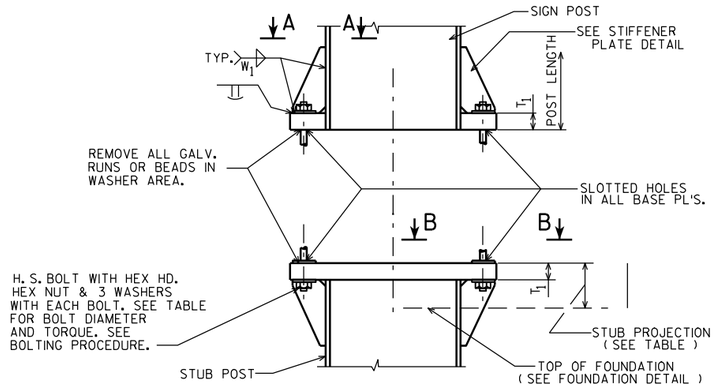
DATE 3/25/13 PLATE NO. A2-1S.7

7

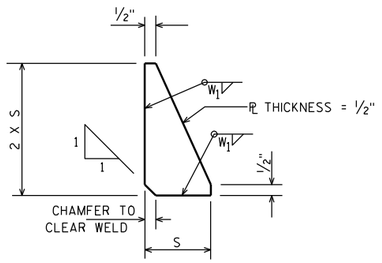
7

PROJECT NO:

SHEET NO: 262 E

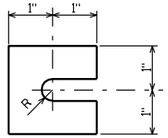


SIGN POST AND STUB POST ELEVATION



STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



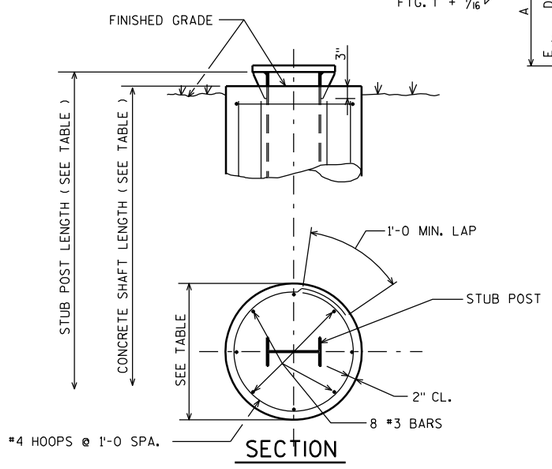
FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL

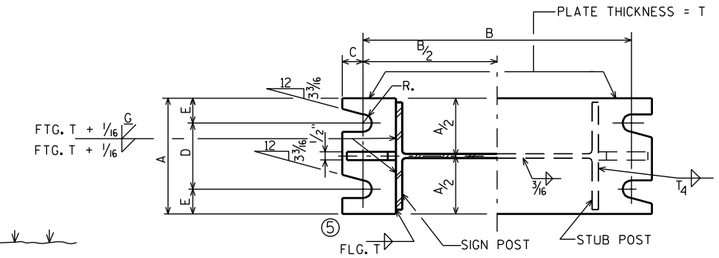
	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
⑦ E	1.0	62

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
⑦	E	8 @ 7'-11	9 @ 6'-3

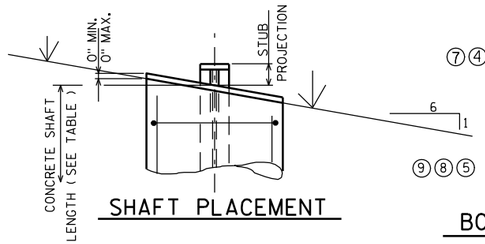
POST DETAIL



SECTION



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND[Δ]	140 [Δ]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

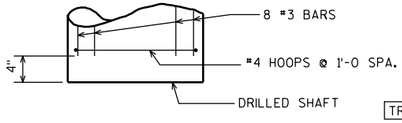
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

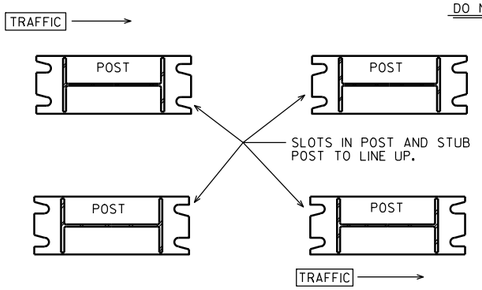
BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



FOUNDATION DETAIL



POST SLOT ORIENTATION ⑦

	TYPE	DIMENSION: POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
④	A	W10"X12.0 #/FT.	3/4" Φ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32 "	2 1/8"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
④	B	W12"X16.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32 "	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
	C	W12"X19.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32 "	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
	D	W12"X22.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32 "	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32 "	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

BASE CONNECTION DATA TABLE ① ⑥ ① FOUNDATION DATA ②

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer
DATE 4/26/11 PLATE NO. A3-1.13

NO.	DATE	REVISION
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

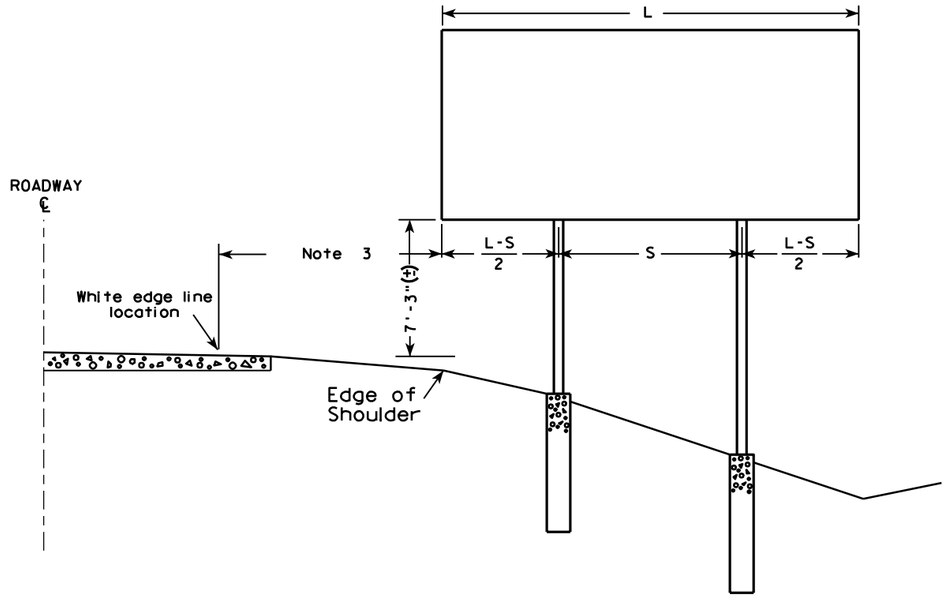
CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

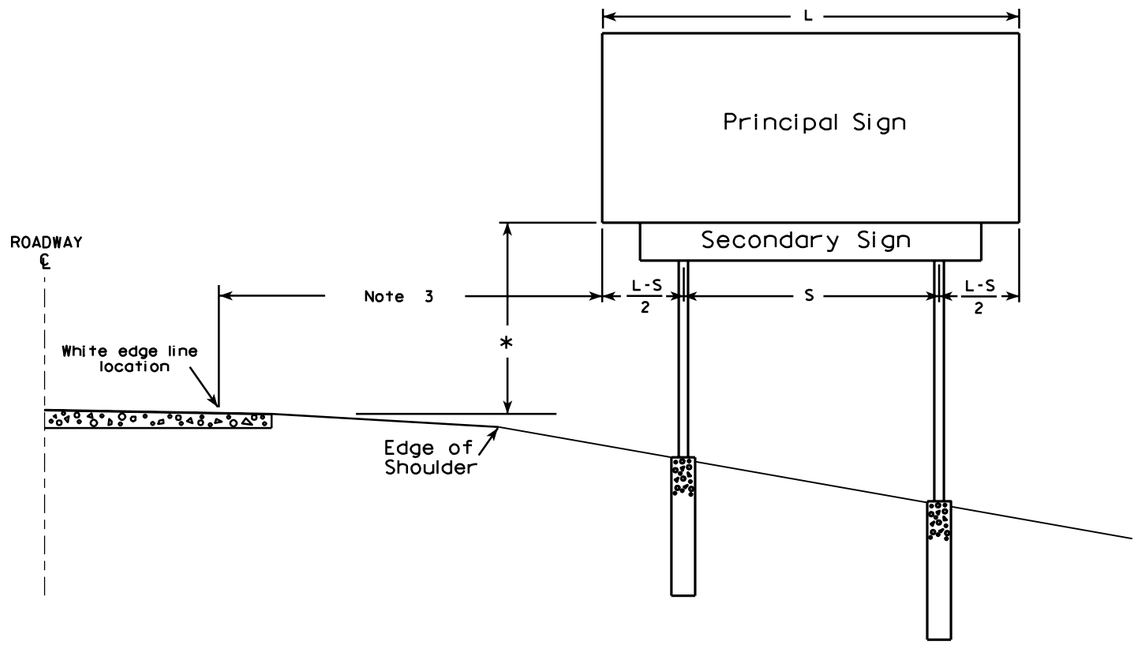
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS SHEET

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 263	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A31.DGN PLOT DATE : 26-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 87399.319456:1.000000 WISDOT/CADDS SHEET 42

7 7





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

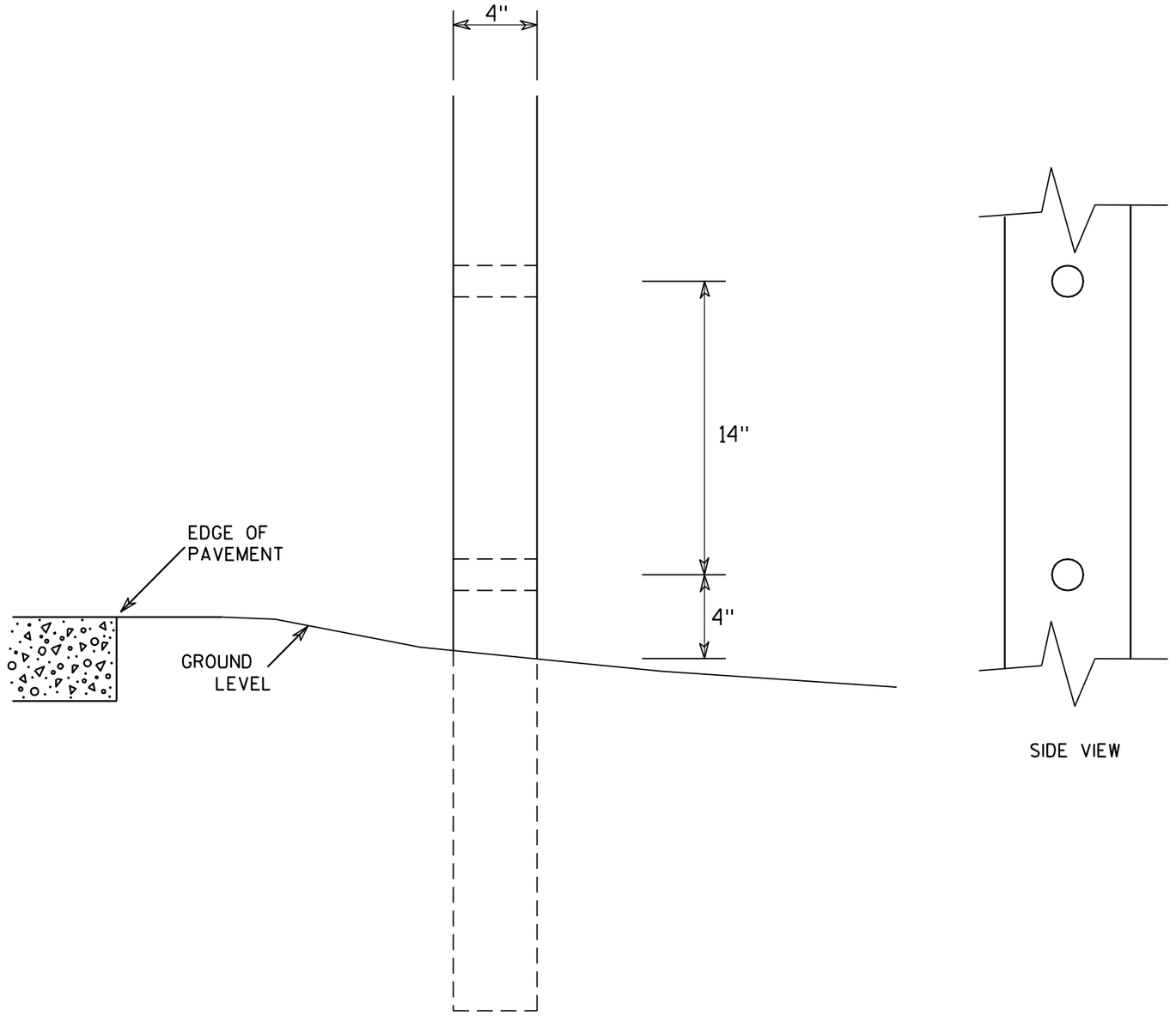
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 264	E



SIDE VIEW

GENERAL NOTES

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

7

7

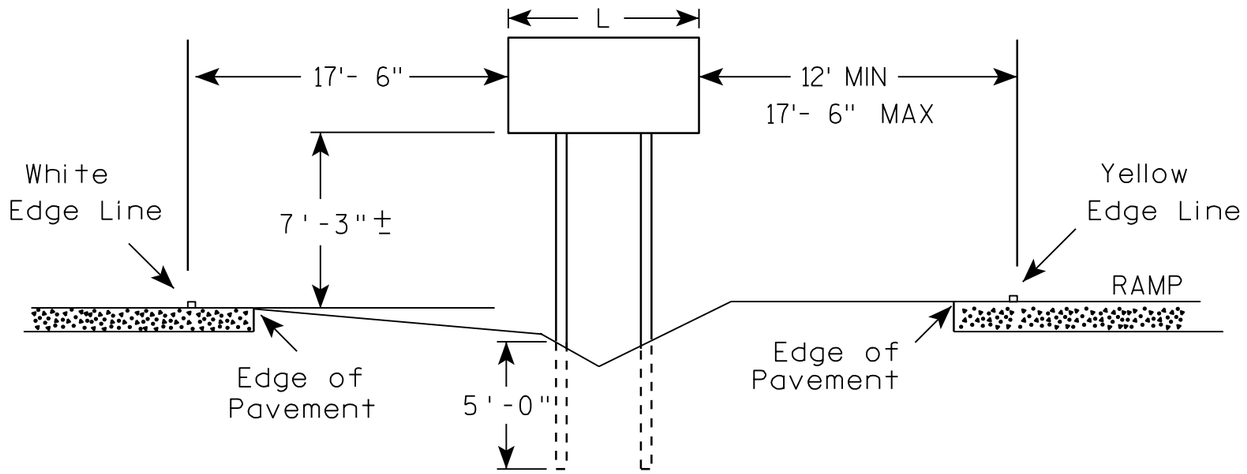
4 X 6 WOOD POST MODIFICATIONS

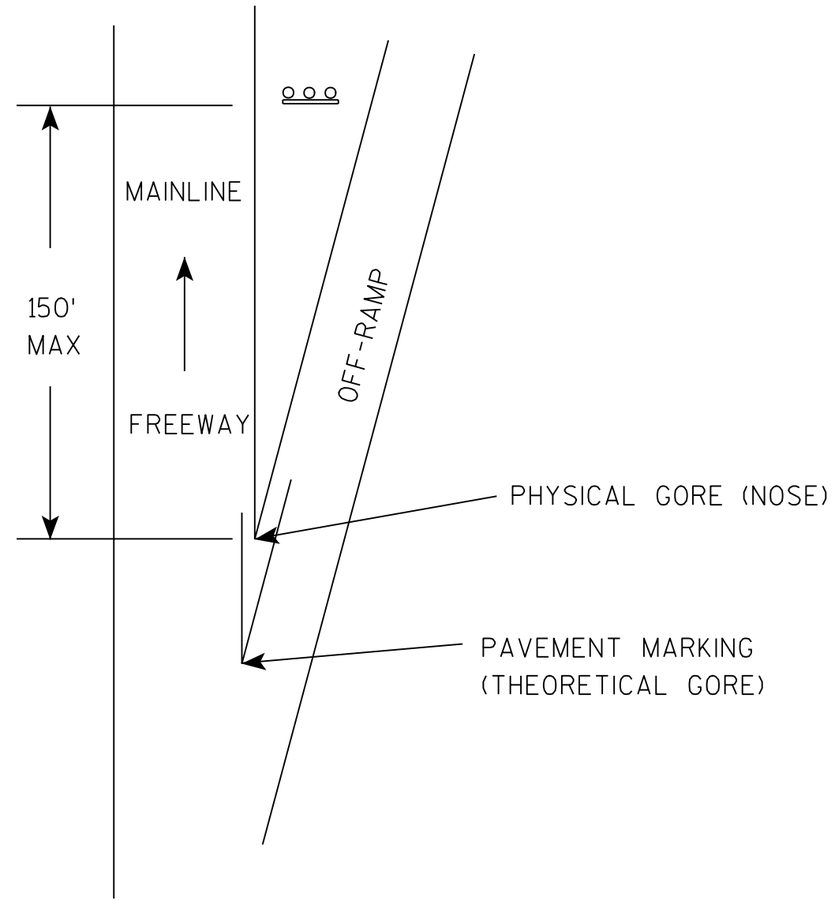
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 265	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 9 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

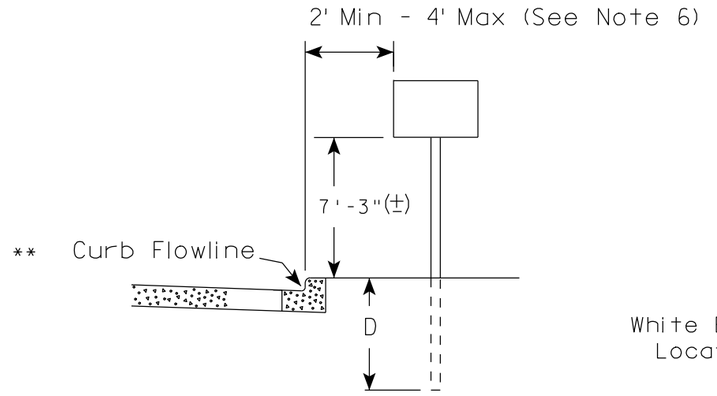
TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

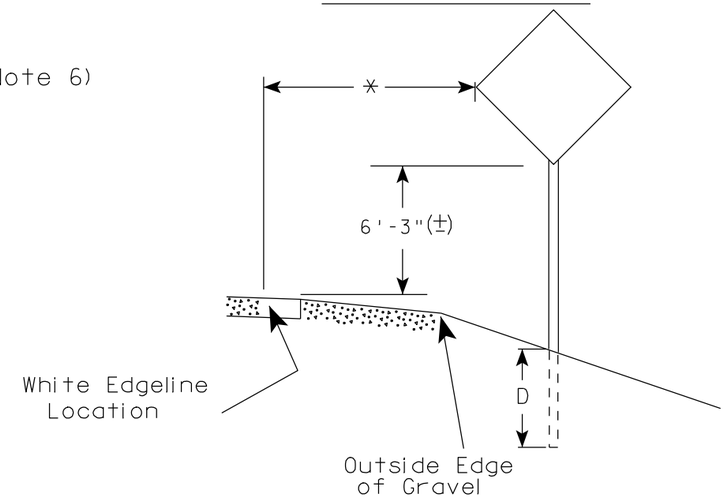
APPROVED Chester J Spang
for State Traffic Engineer

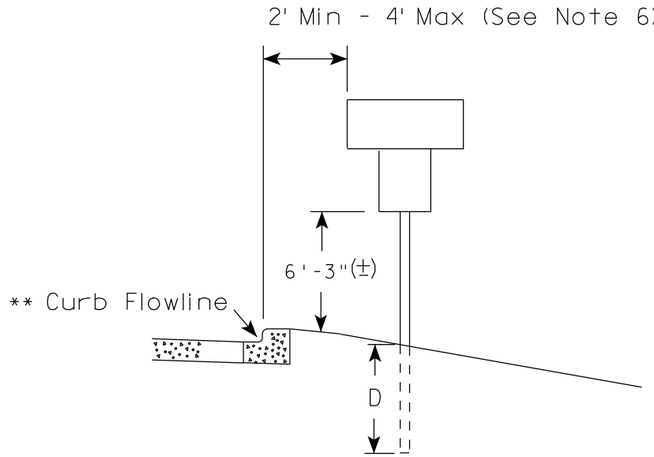
DATE 4/4/00 PLATE NO. A4-2.2

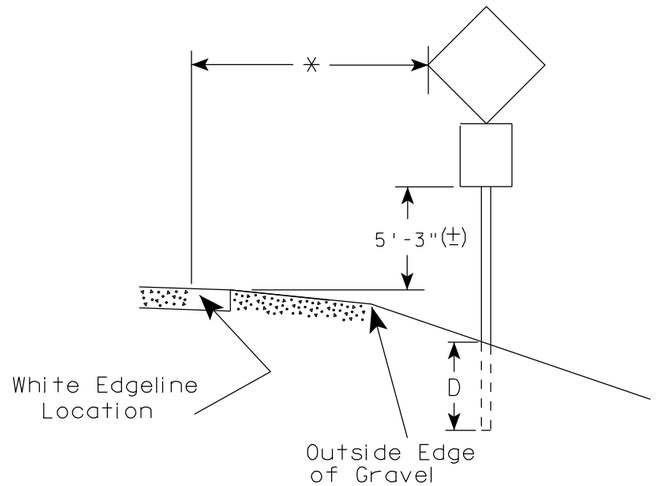
URBAN AREA



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.

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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 (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

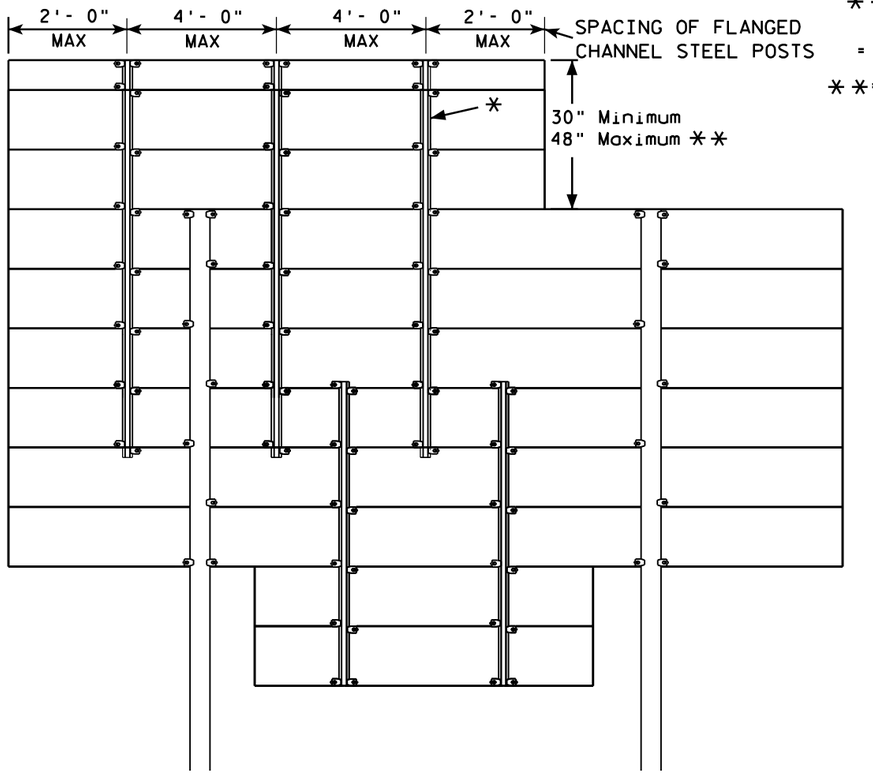
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/24/2013 PLATE NO. A4-3.17

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 267	E

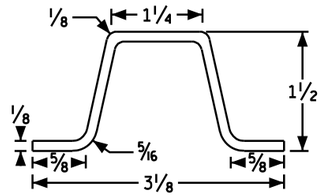
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

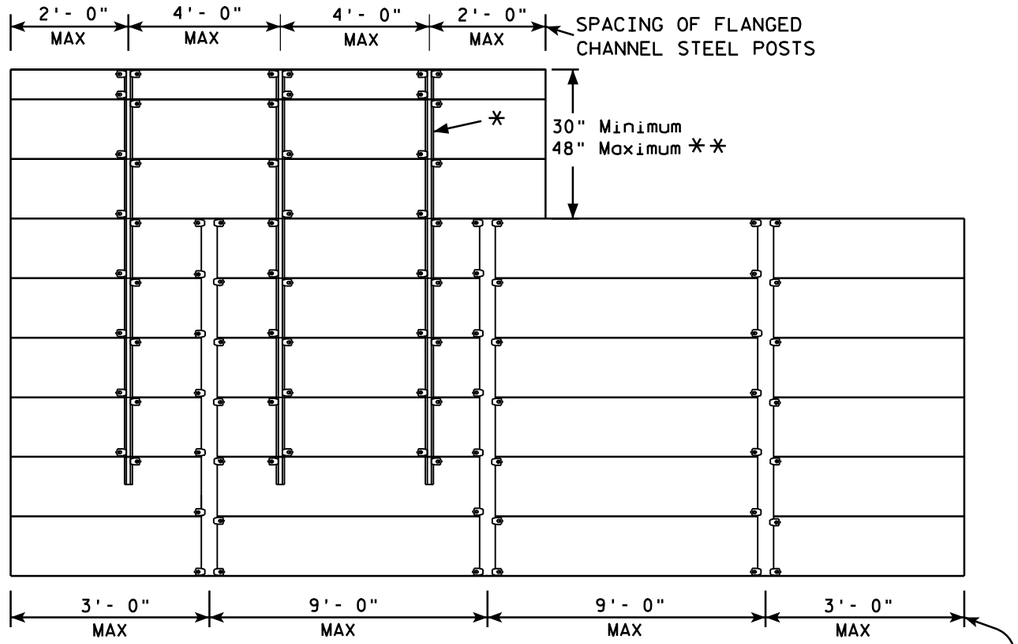
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

7

7

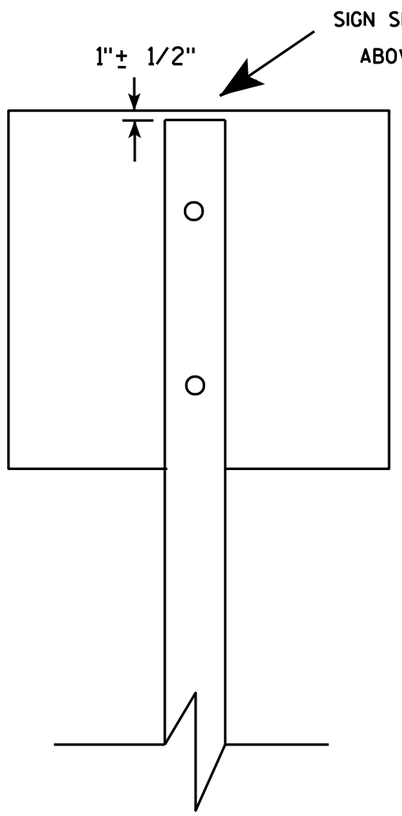
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

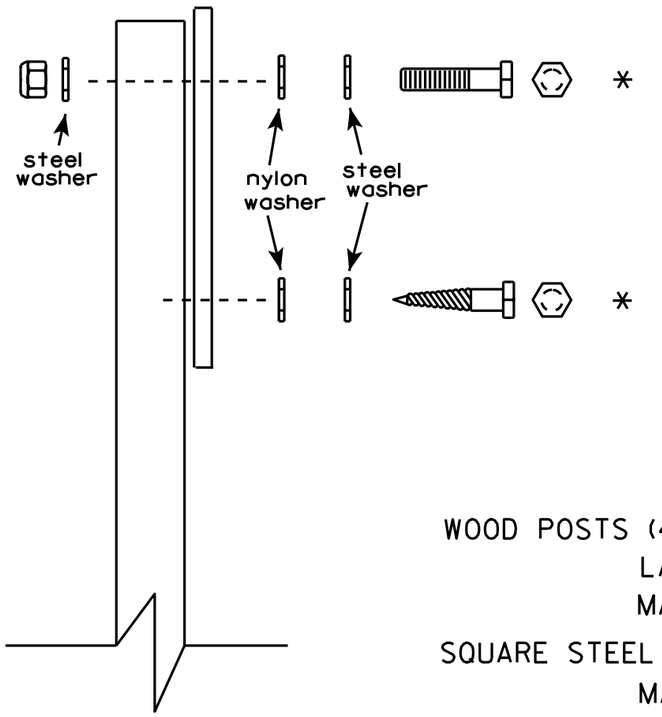
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. A4-6.11

PROJECT NO:				SHEET NO: 268	E





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

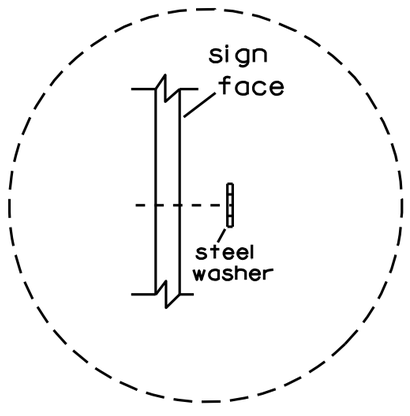
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

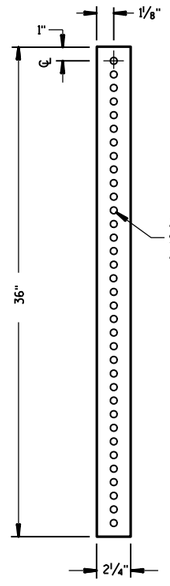
7

PROJECT NO:

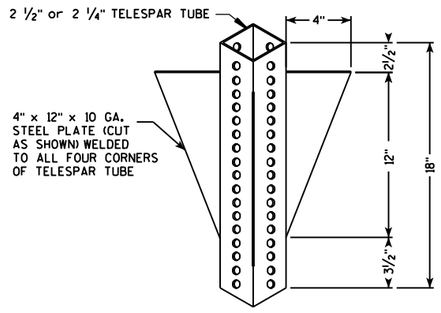
SHEET NO: 269 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

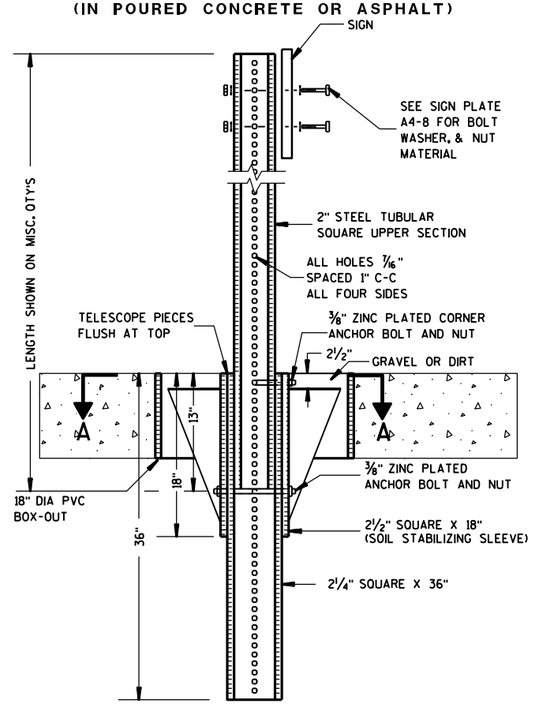
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



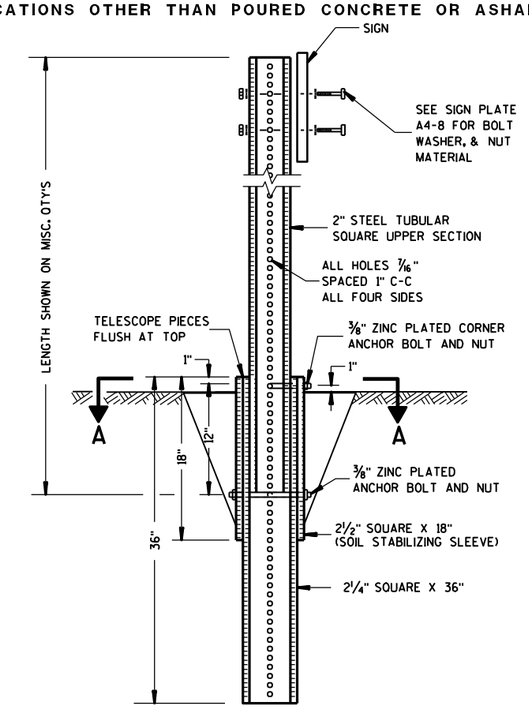
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

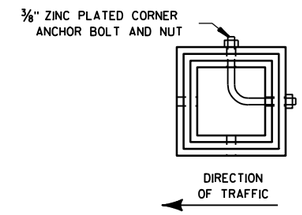


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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).

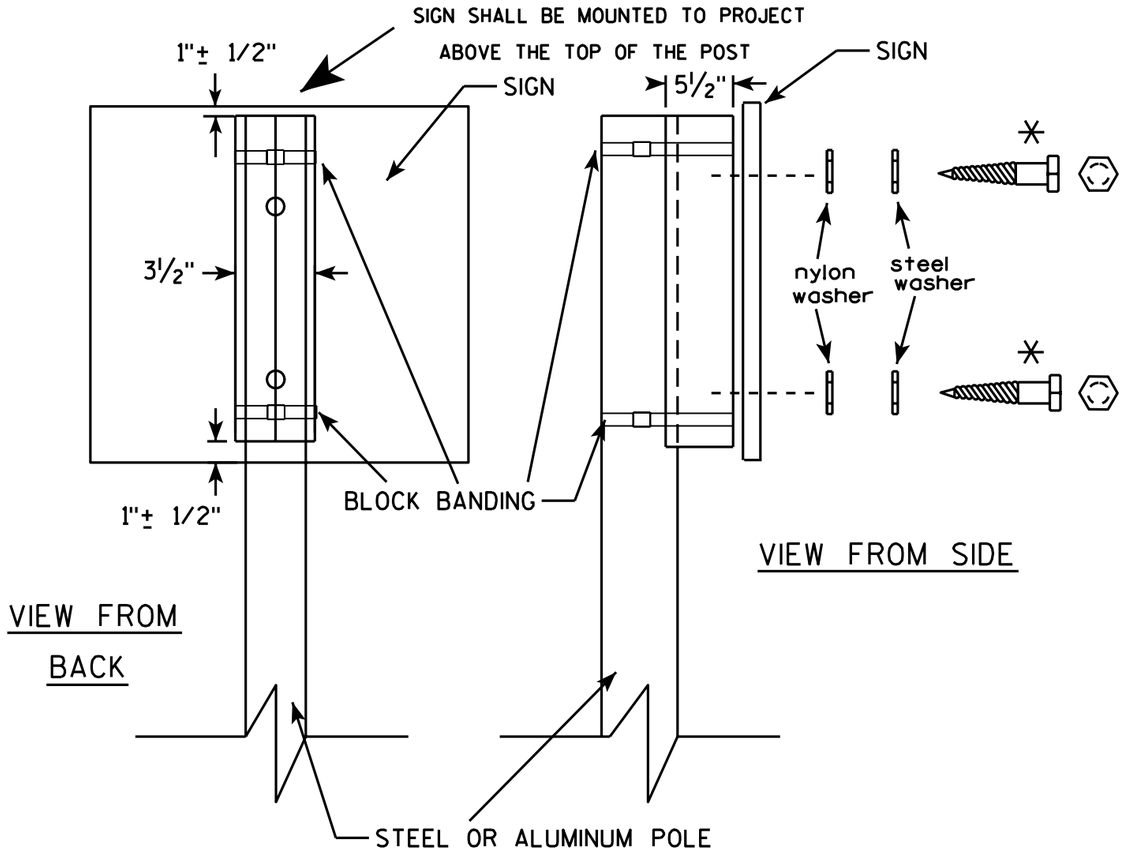
TUBULAR STEEL SIGN POST A4-9

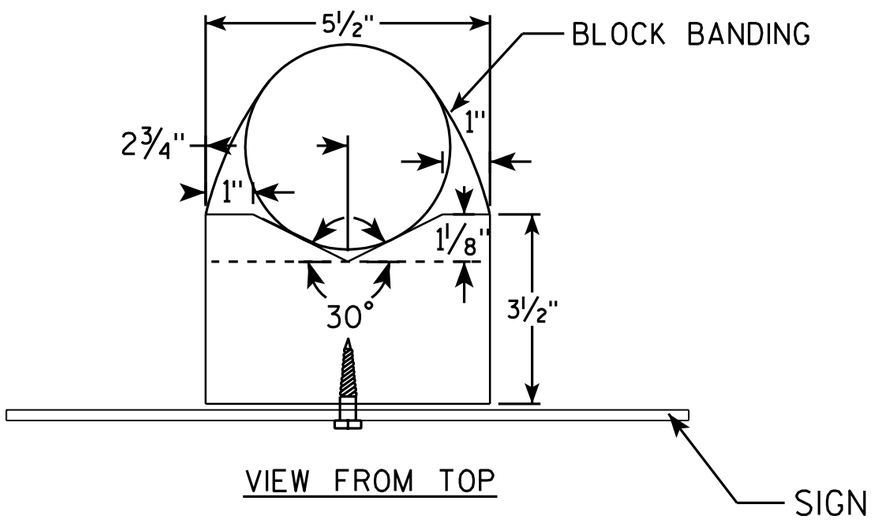
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 270	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

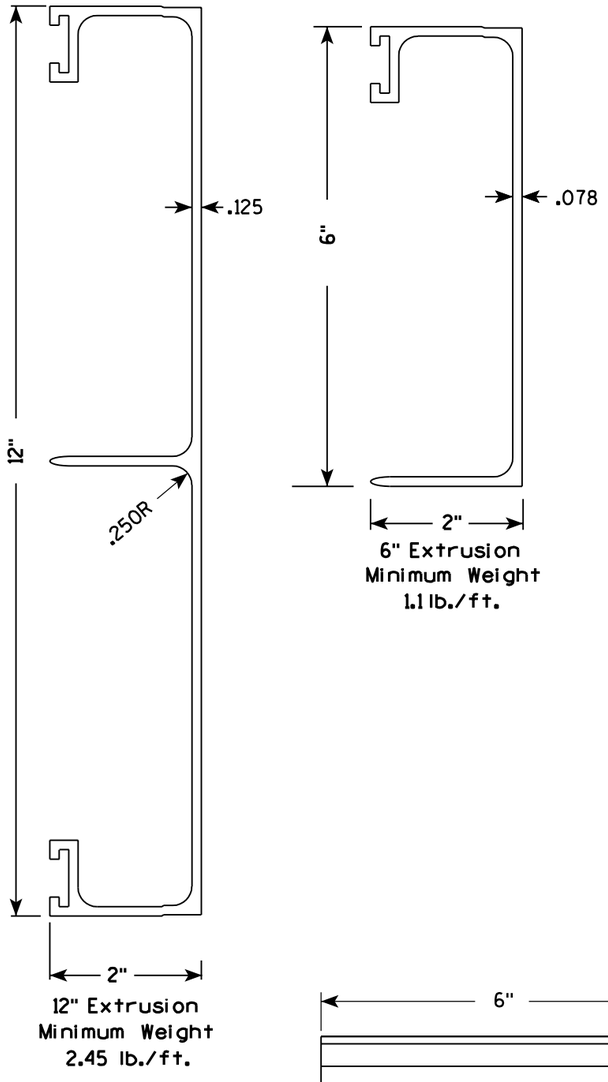
APPROVED Matthew R Rauch
for State Traffic Engineer

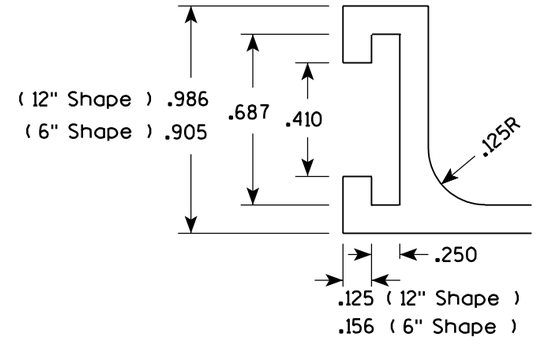
DATE 7/12/07 PLATE NO. A5-10.1

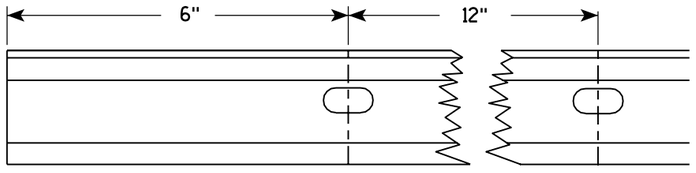
PROJECT NO:

SHEET NO: 271 E

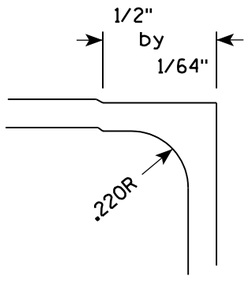
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

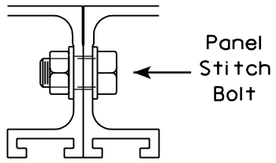


Hardware

STITCH BOLT, WASHER & NUT

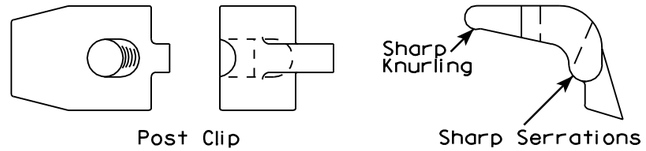
The hardware includes:

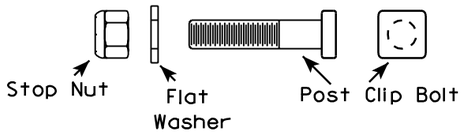
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spagg
for State Traffic Engineer

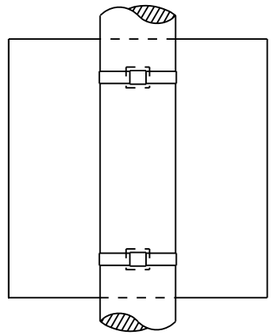
DATE 11/18/99 PLATE NO. A5-2.9

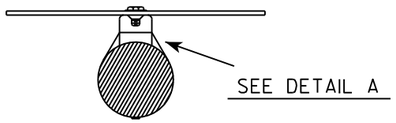
PROJECT NO:

SHEET NO: 272 E

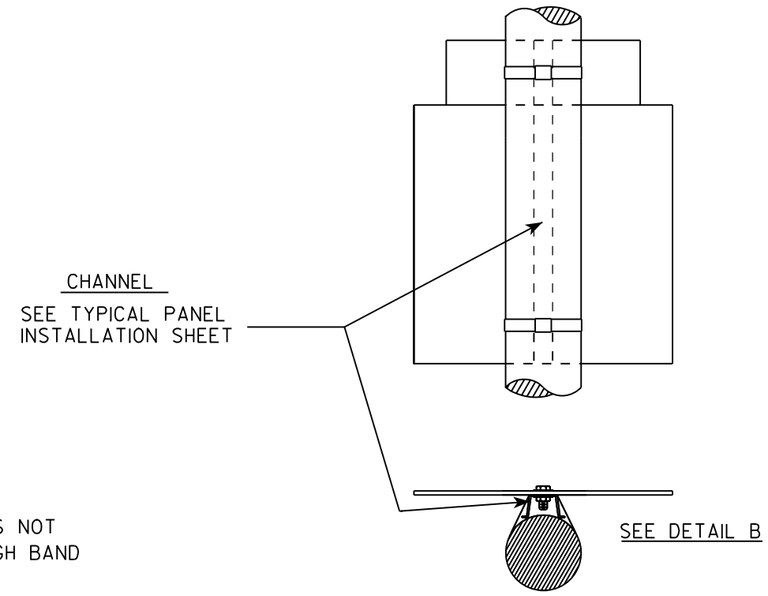
BANDING

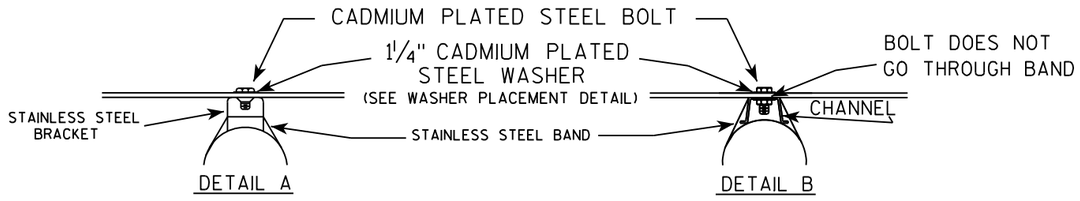
SINGLE SIGN



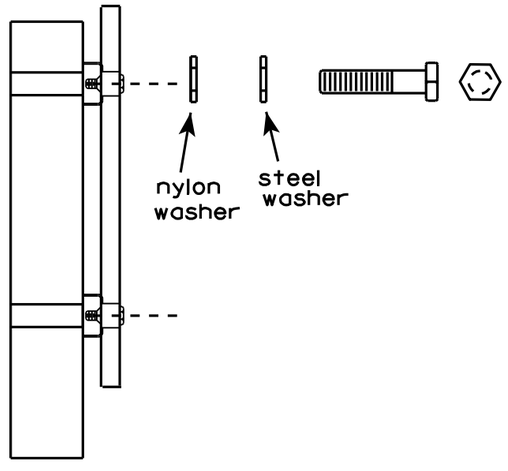


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

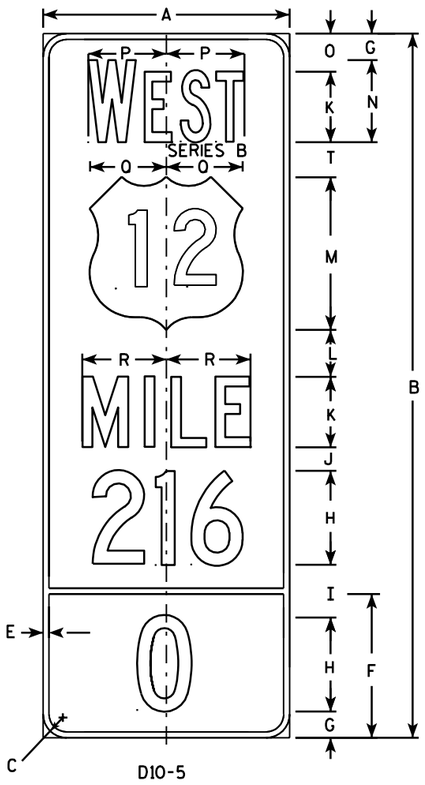
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

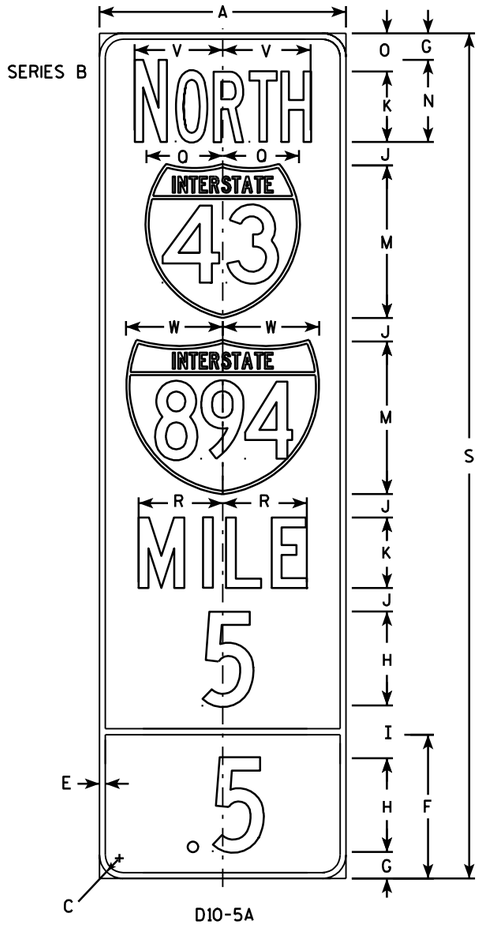
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E



D10-5

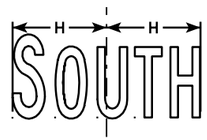


D10-5A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. 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.
6. The decimal point is required for all digits except "0".
7. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.

SERIES B



SERIES B

Metric equivalent for this sign is:		Metric equivalent for this sign is:	
SIZE	D10-5	SIZE	D10-5A
1		1	
2		2	
3		3	
4	525 mm X 1500 mm	4	525 mm X 1950 mm
5	525 mm X 1500 mm	5	525 mm X 1950 mm

																										D10-5		D10-5A	
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.	Area m2	Area sq. ft.	Area m2
1																														
2																														
3																														
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	0.79	10.5	1.03
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	0.79	10.5	1.03

STANDARD SIGN
D10-5

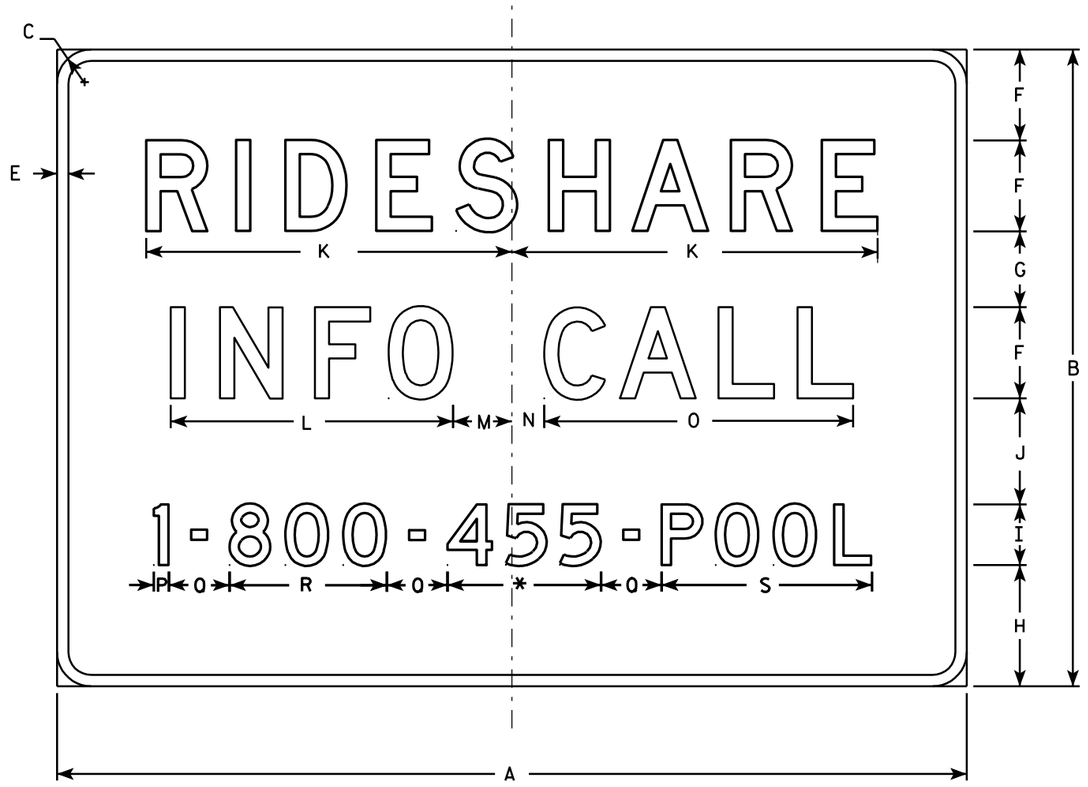
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/09/05 PLATE NO. D10-5.1

PROJECT NO:

SHEET NO: 274 E



D12-2A

NOTES

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

* Variable (See note 5)

Metric equivalent for this sign is:

SIZE	
1	1200 mm X 525 mm
2	1500 mm X 1050 mm
3	
4	1500 mm X 1050 mm
5	1950 mm X 1350 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	48	21	1 1/2		1/2	3	2 3/4	3 1/2	3	2 3/4	12 1/8	9 3/8	2	1 1/8	10 1/4	3/4	3	7 3/4	10 5/8								7.0	0.63
2	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
3																												
4	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
5	78	54	3		1	8	6	10	6	8	30 7/8	23 5/8	4 7/8	2 1/8	26 3/8	1 1/2	5	15 1/2	21 1/4								29.25	2.63

STANDARD SIGN
D12-2A

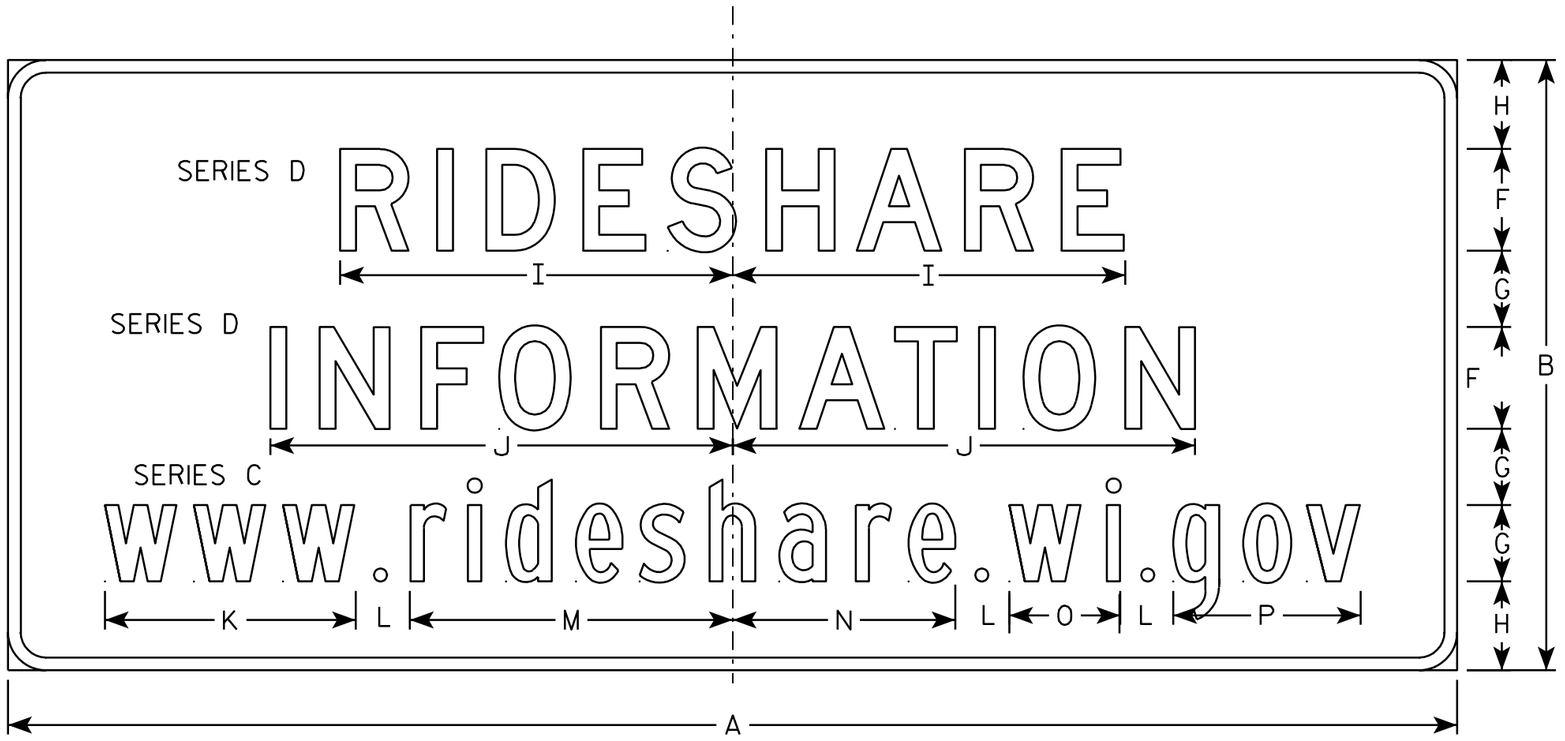
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spay for State Traffic Engineer

DATE 1/16/02 PLATE NO. D12-2A.3

PROJECT NO:

SHEET NO: 275 E



D12-2B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - Lines 1 & 2 are Series D and Line 3 is 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	
2	2100 mm X 900 mm
3	
4	2850 mm X 1200 mm
5	2850 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	84	36	2 1/4		3/4	6	4 1/2	5 1/4	24 1/4	28 5/8	14 3/4	3	19	13 1/8	6 1/2	11											21.0	1.90
3																												
4	114	48	3		1	8	6	7	30 7/8	36 3/8	19 3/4	4 1/4	25 3/8	17 1/2	8 3/4	14 3/4											38.0	3.42
5	114	48	3		1	8	6	7	30 7/8	36 3/8	19 3/4	4 1/4	25 3/8	17 1/2	8 3/4	14 3/4											38.0	3.42

STANDARD SIGN
D12-2B

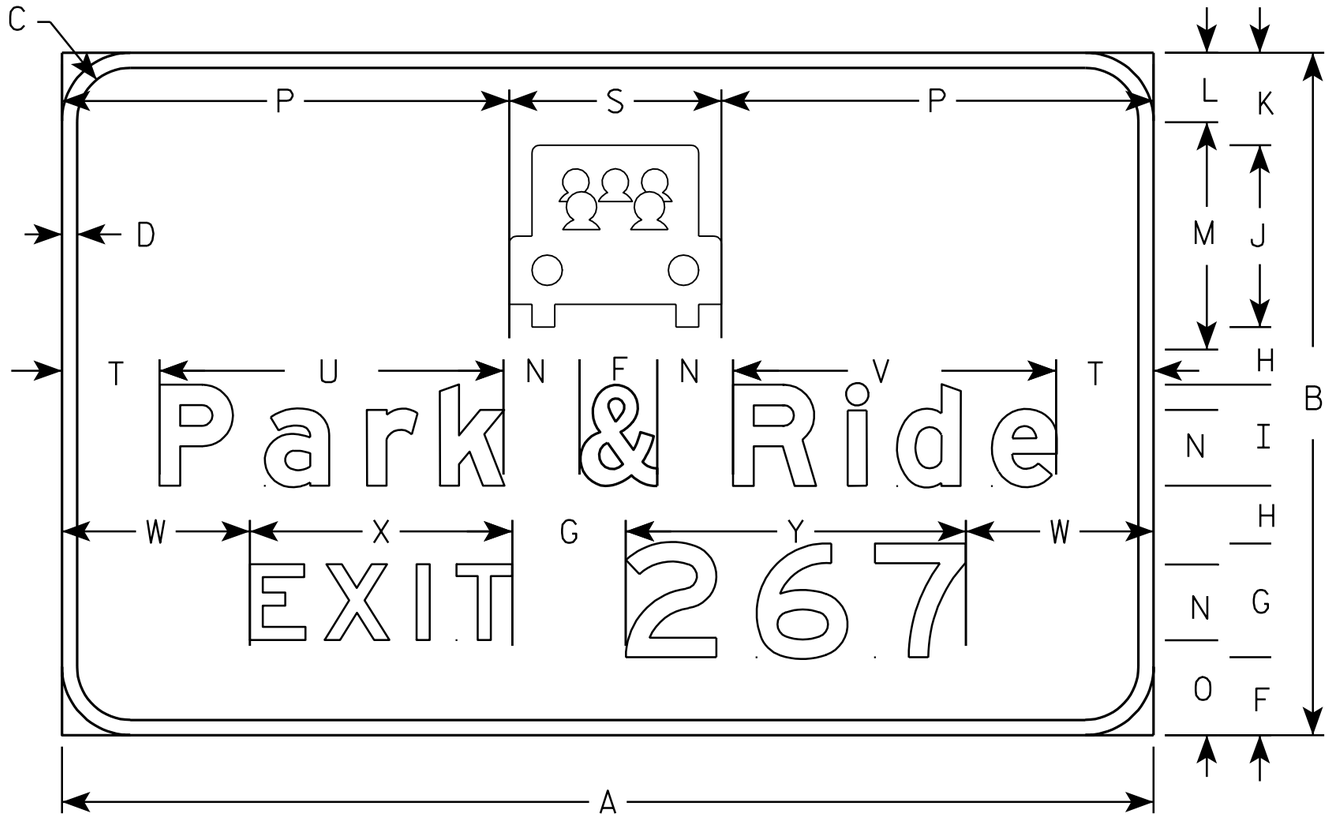
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/04/08 PLATE NO D12-2B.2

PROJECT NO:

SHEET NO: 276 E



D4-4

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	3600 mm X 2250 mm
3	
4	
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	144	90	9	2		10 1/4	15	7 5/8	13 7/8	24	12 1/4	9 1/8		10	12 1/2	58			28	12 7/8	45 3/8	42 5/8	24 3/4	34 5/8	44 7/8		90.0	8.1
3																												
4																												
5																												

STANDARD SIGN
D4-4

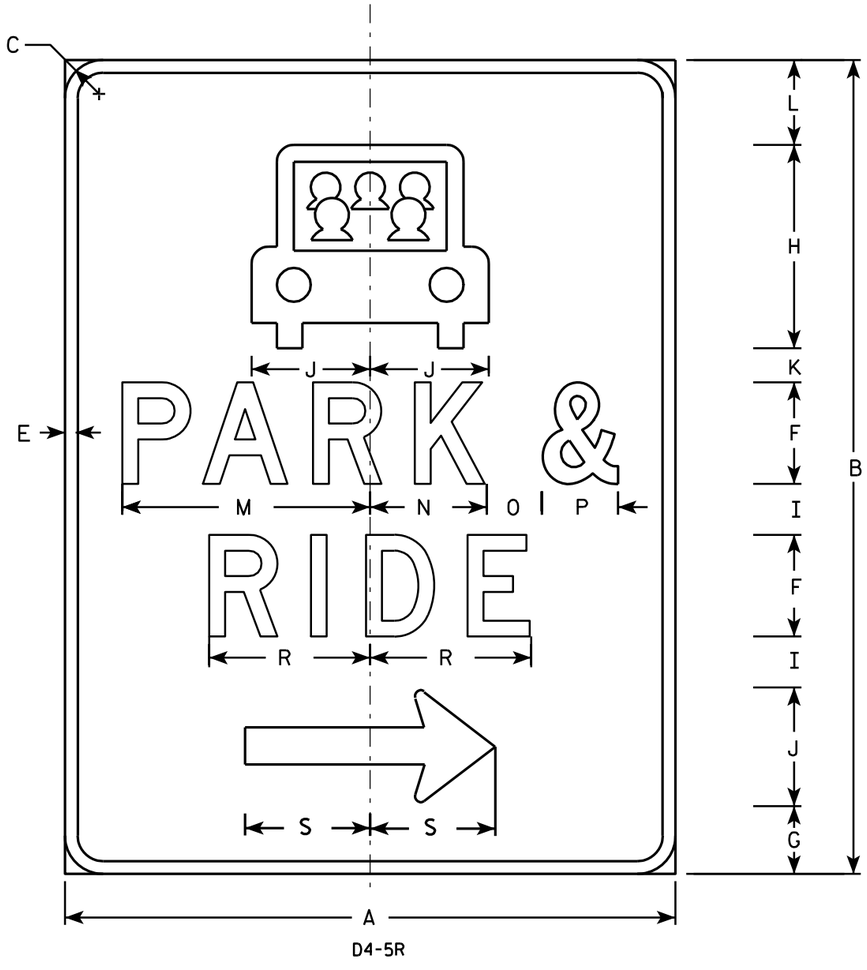
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO D4-4.2

PROJECT NO:

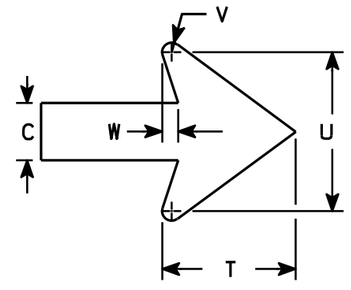
SHEET NO: 277 E



D4-5R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The D4-5L is the same as a D4-5R except the arrow 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																											
2	30	36	1 3/8		5/8	5	1 3/8	9	2	5	1 5/8	5	11 3/4	5 1/2	2 3/4	3 3/4		8	6 1/8	4	4 3/8	3/8	1/2				7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8				12.0
4																											
5																											

STANDARD SIGN
D4-5 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/15/10 PLATE NO. D4-5.2

PROJECT NO:

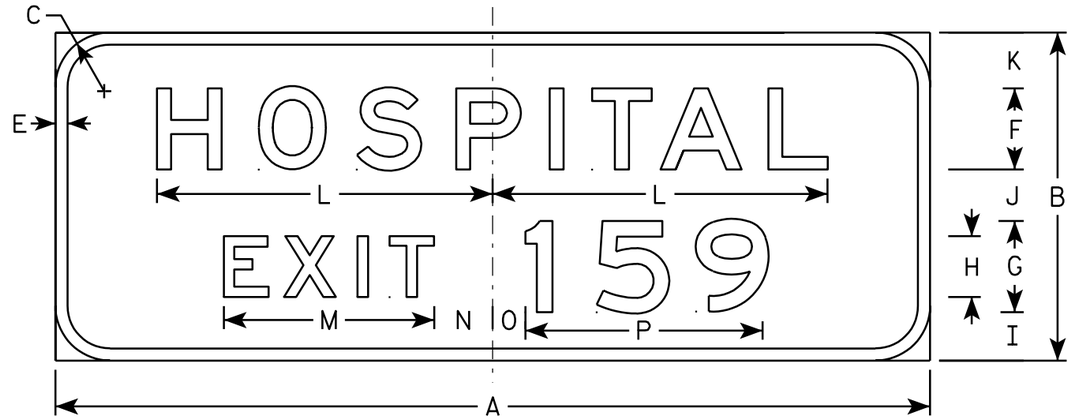
SHEET NO: 278 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\D45.DGN PLOT DATE : 15-NOV-2010 14:08 PLOT BY : dotsja

WISDOT/CADDS SHEET 42

7

7



E10-61

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, other than extrusions, the corners and borders shall be rounded.
5. Apply proper Exit Numbers and letters, optically adjust spacing to achieve proper balance.

7

Metric equivalent for this sign is:

SIZE	
1	
2	3600 mm X 1350 mm
3	
4	
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	144	54	9		2	13 3/8	15	10	8	8 1/2	9 1/4	55 1/4	34 5/8	9 5/8	5 3/8	39											54	4.86
3																												
4																												
5																												

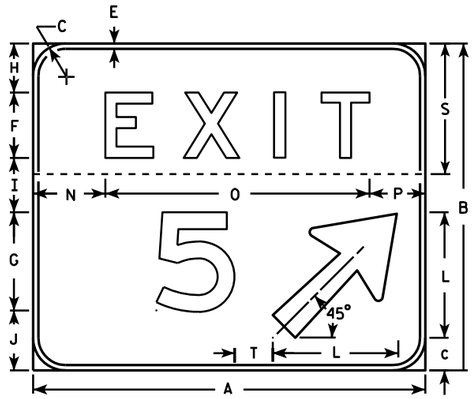
TYPICAL SIGNS
E10-61

WISCONSIN DEPT OF TRANSPORTATION

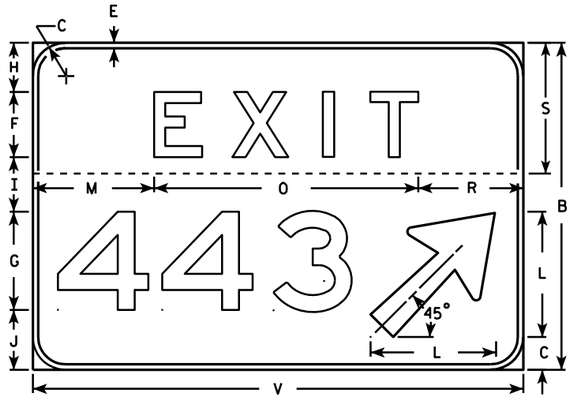
APPROVED Matthew R Rauch
for State Traffic Engineer

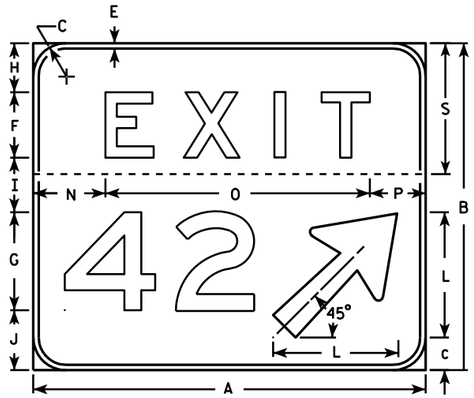
DATE 12/8/08 PLATE NO. E10-61.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 279	E



NOTE: T diminision shall be measured from the back of the number to the front of the arrow





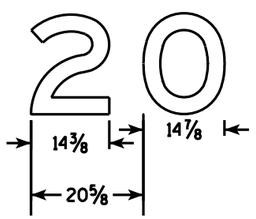
NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

EXAMPLE FOR USING SPACING CHART



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
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

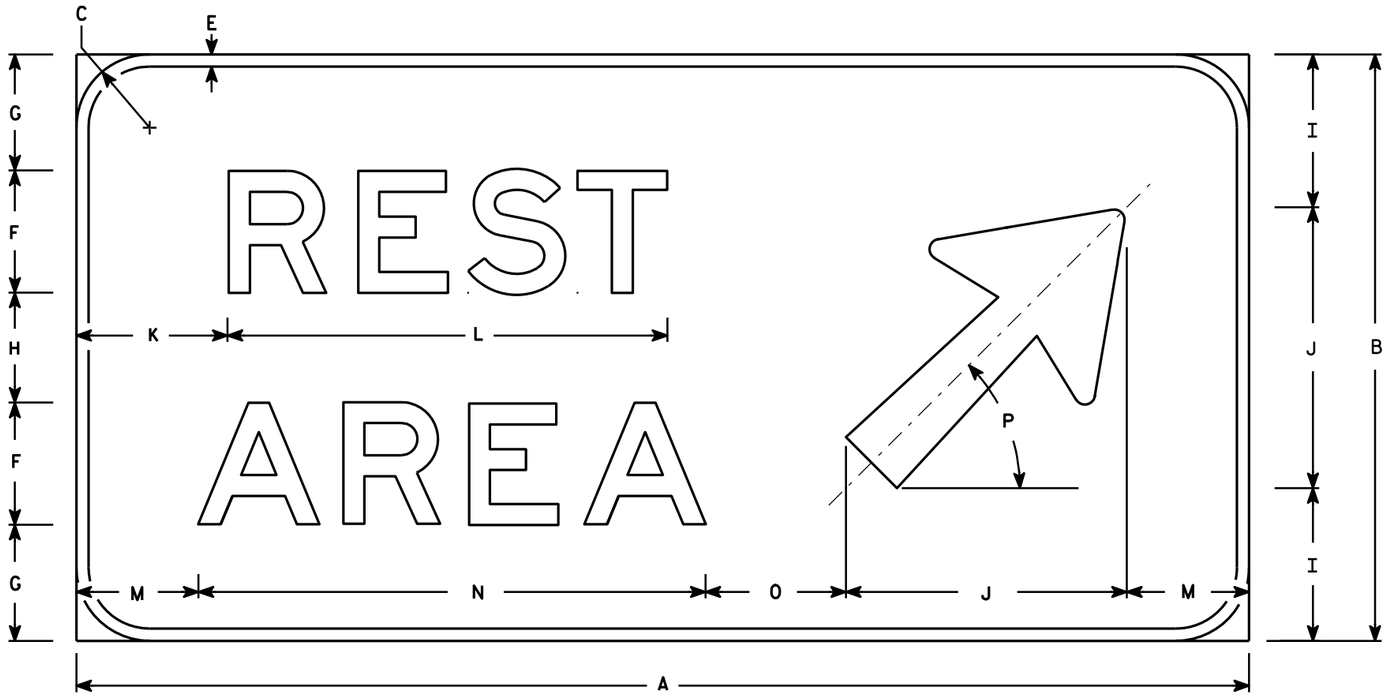
STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 280 | E



E5-52

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is standard Interstate Type A.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	96	48	6		1	10	9 ½	9	12 ½	23	12 ⅜	36 ⅜	10	41 ½	11 ½	45°											32.0
5	144	54	6		2	15	8	8	13	28	20 ¼	62	16 ¼	68	15 ½	45°											54.0

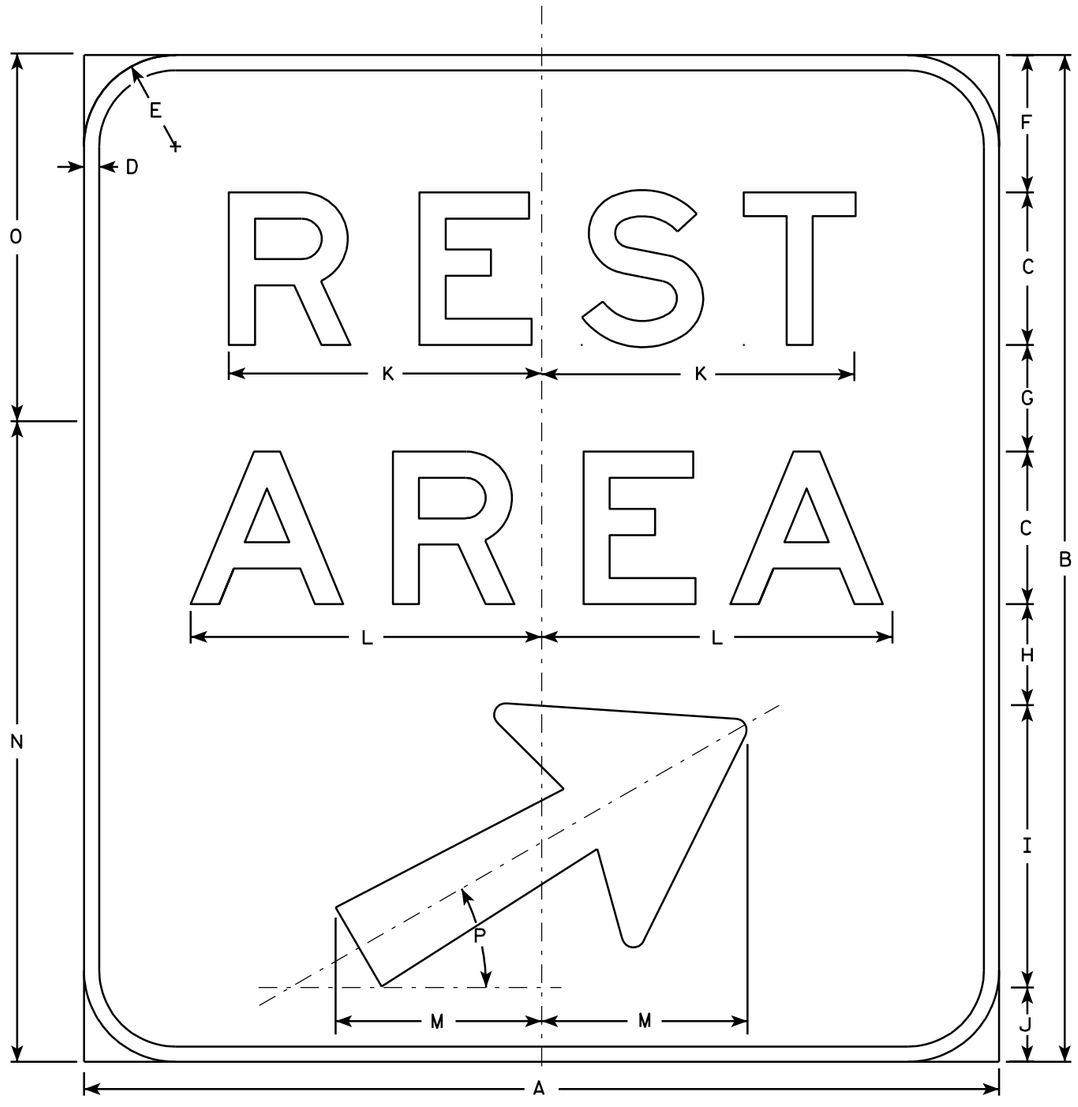
STANDARD SIGN
E5-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/30/13 PLATE NO. E5-52.11

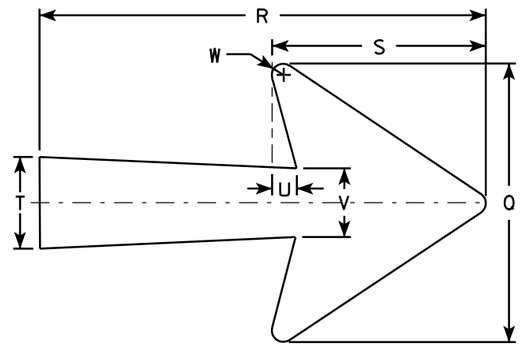
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 281	E



E5-54

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown. Base material for this sign shall be plywood.
5. Arrow is Type A as per A1-1 standard
6. Dimensions N & O indicate cutting lines for plywood panels.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1650 mm
5	1800 mm X 1800 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	60	66	10	1	6	9	7	6 5/8	18 1/2	4 7/8	21	23	13 1/2	42	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				27.5	2.47
5	72	72	12	1	9	9	7	8	18 1/2	5 1/2	25	27	13 1/2	48	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				36.0	3.24

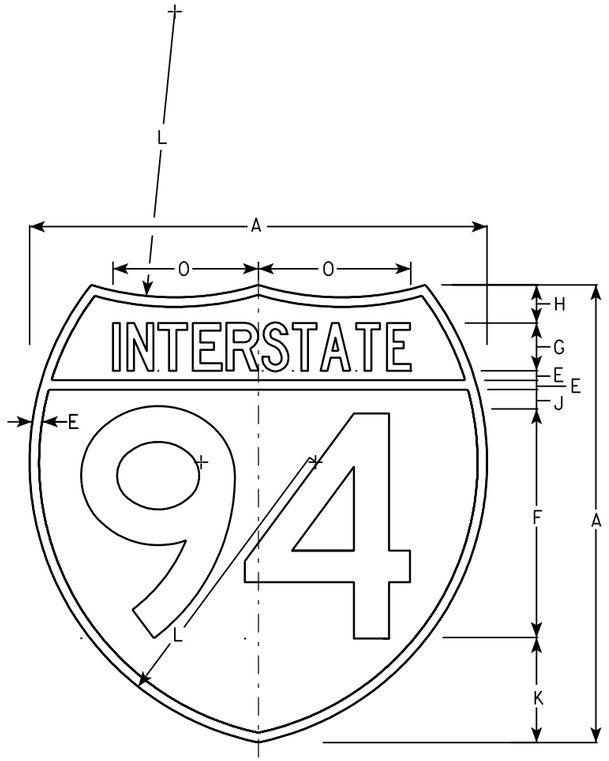
STANDARD SIGN
E5-54

WISCONSIN DEPT OF TRANSPORTATION

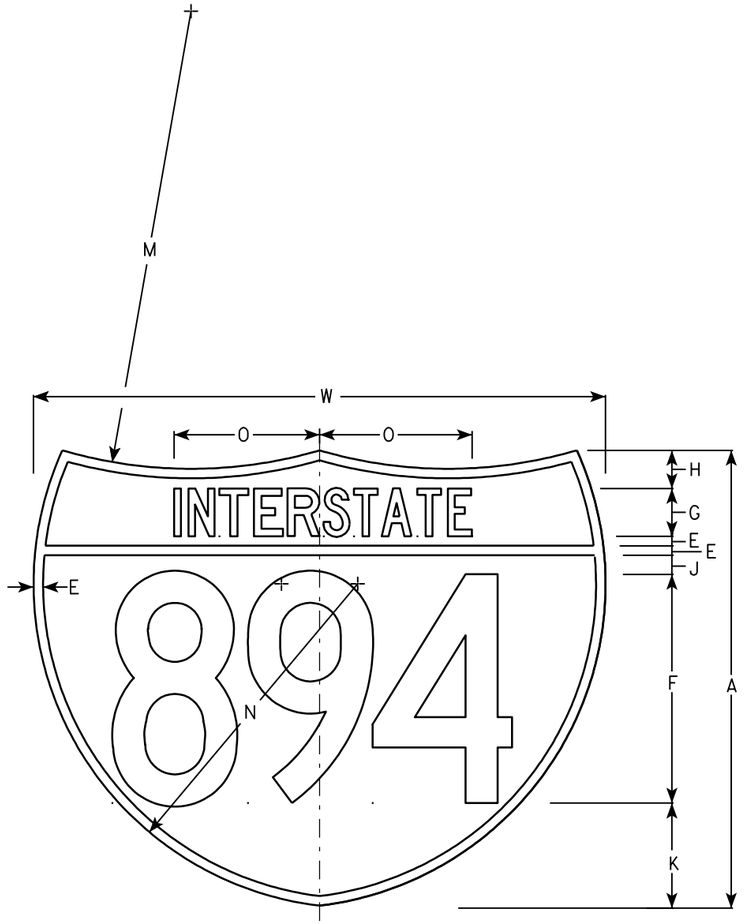
APPROVED Chester J Spanz
for State Traffic Engineer

DATE 2/11/97 PLATE NO. E5-54.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 282	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

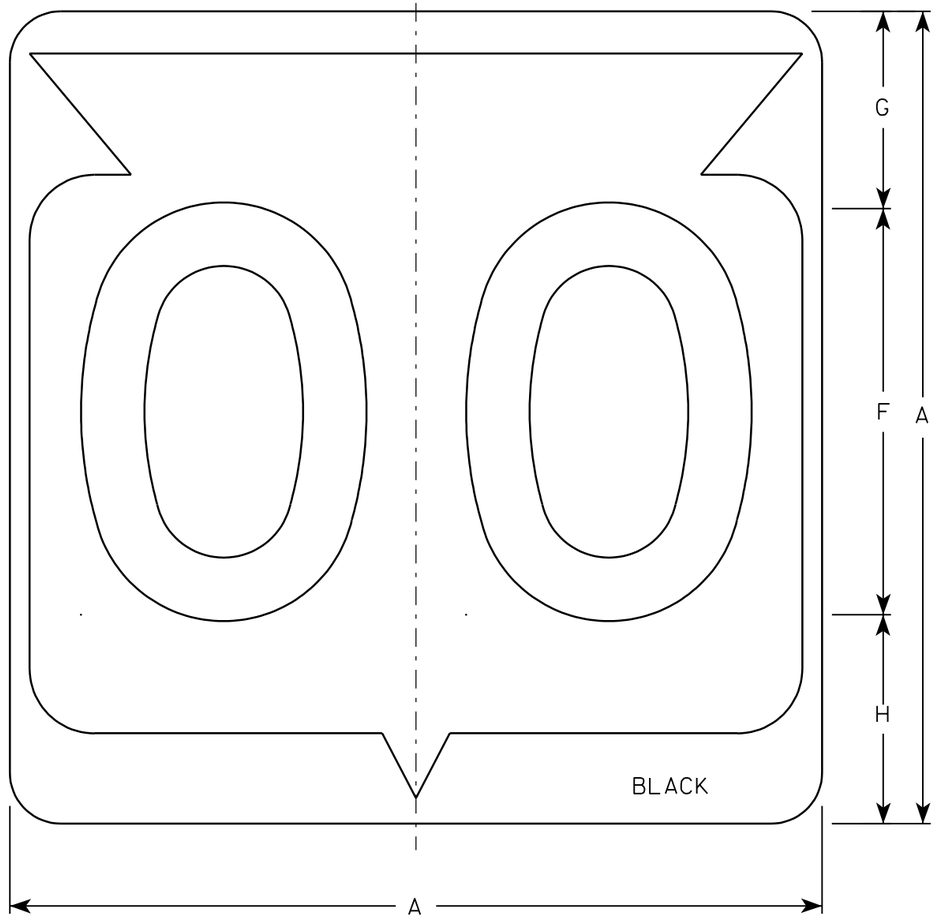
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

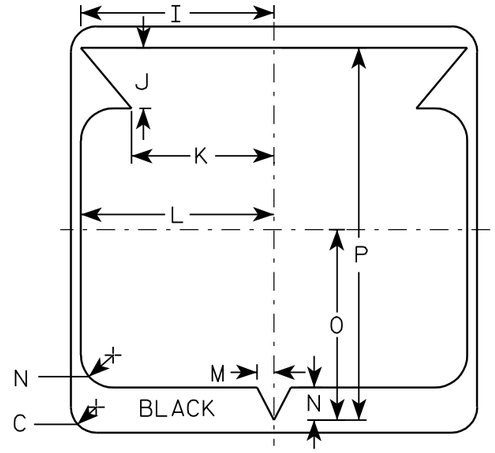
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 283	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

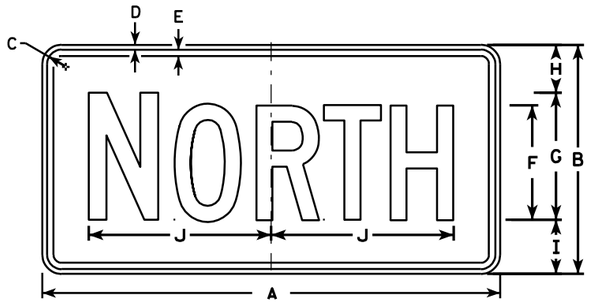
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

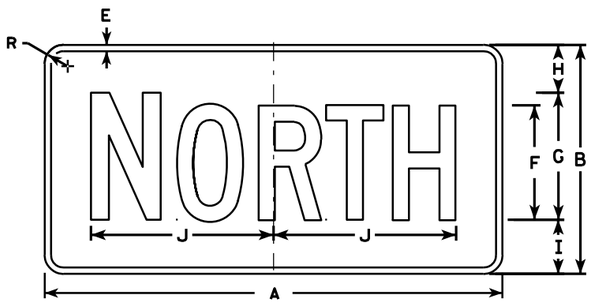
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 284	E

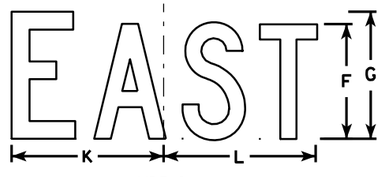


M3-1
MK3-1
MO3-1

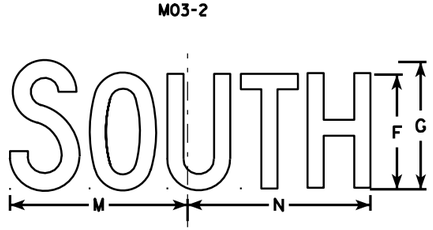


MB3-1
MG3-1
MM3-1
MN3-1

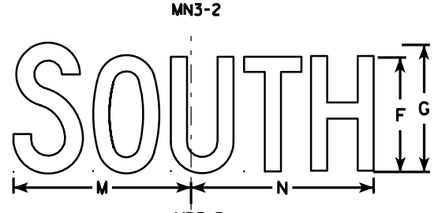
M3-2
MK3-2
MO3-2



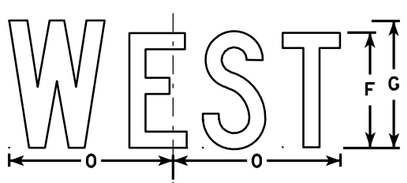
MB3-2
MG3-2
MM3-2
MN3-2



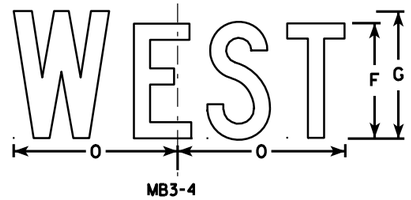
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

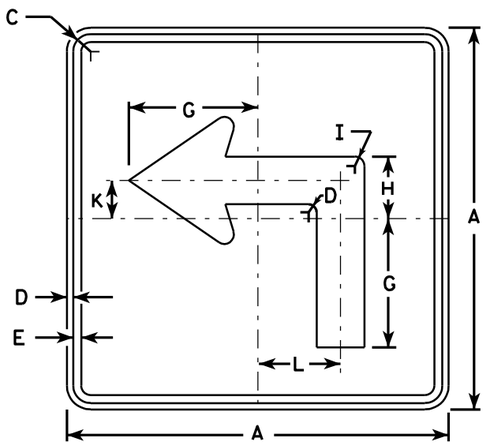
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

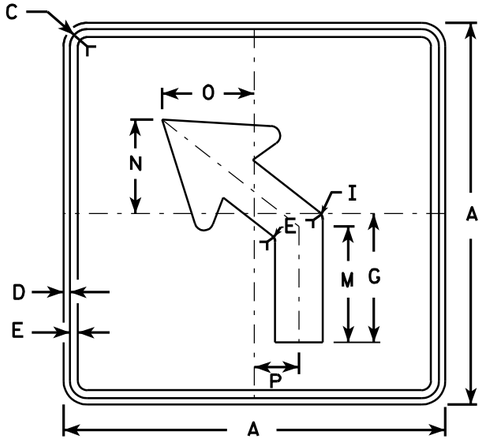
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

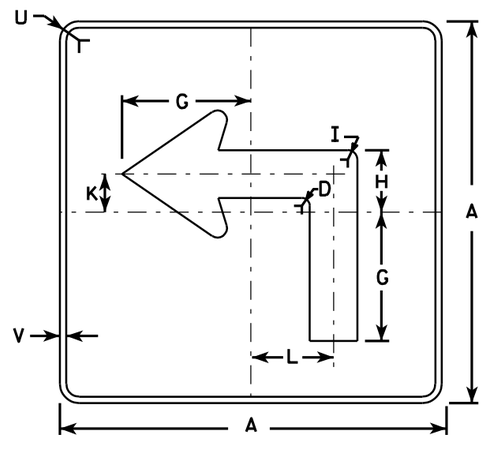
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 285	E



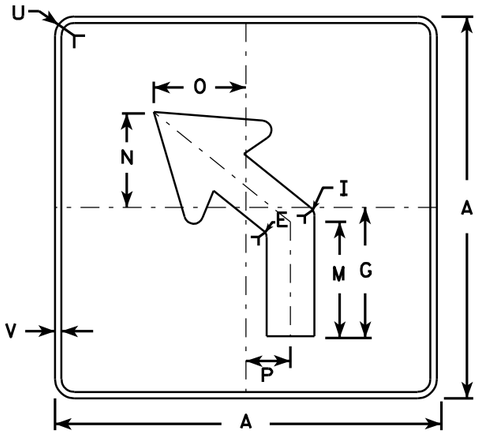
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



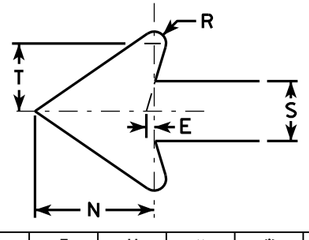
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

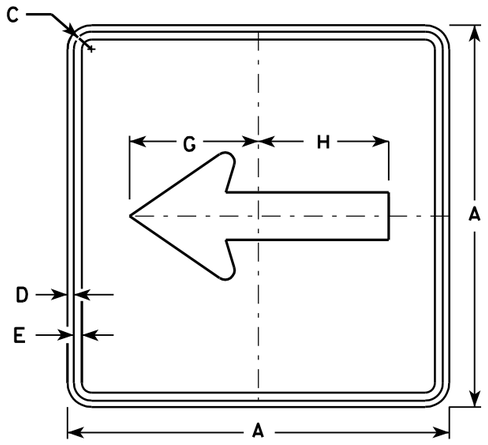
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

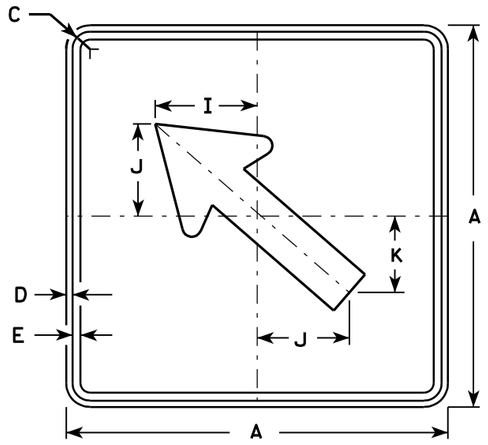
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 286 | E

7

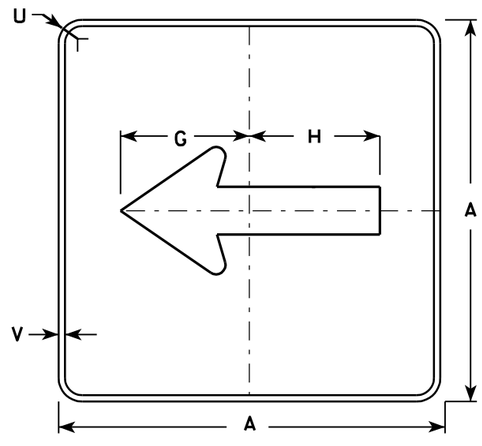
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



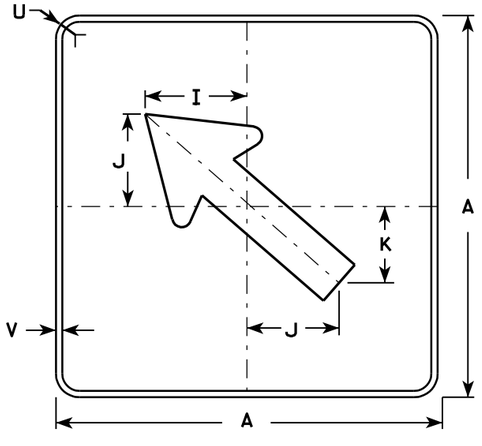
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

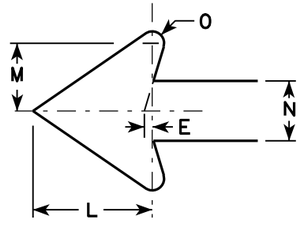
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

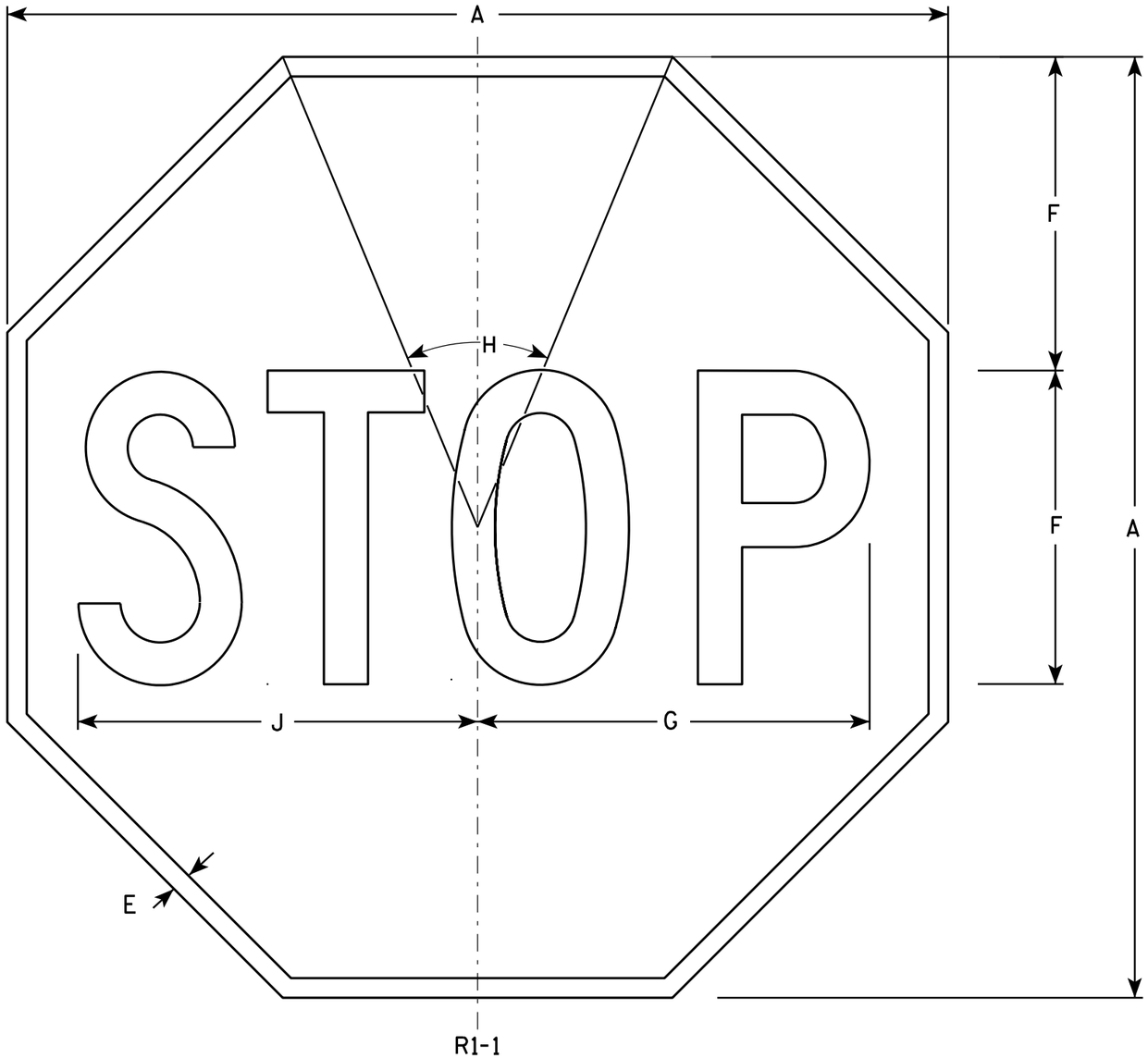
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 287	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	24				3/8	8	10	45°		10 1/4																	3.31
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 12/03/10 PLATE NO. R1-1.12

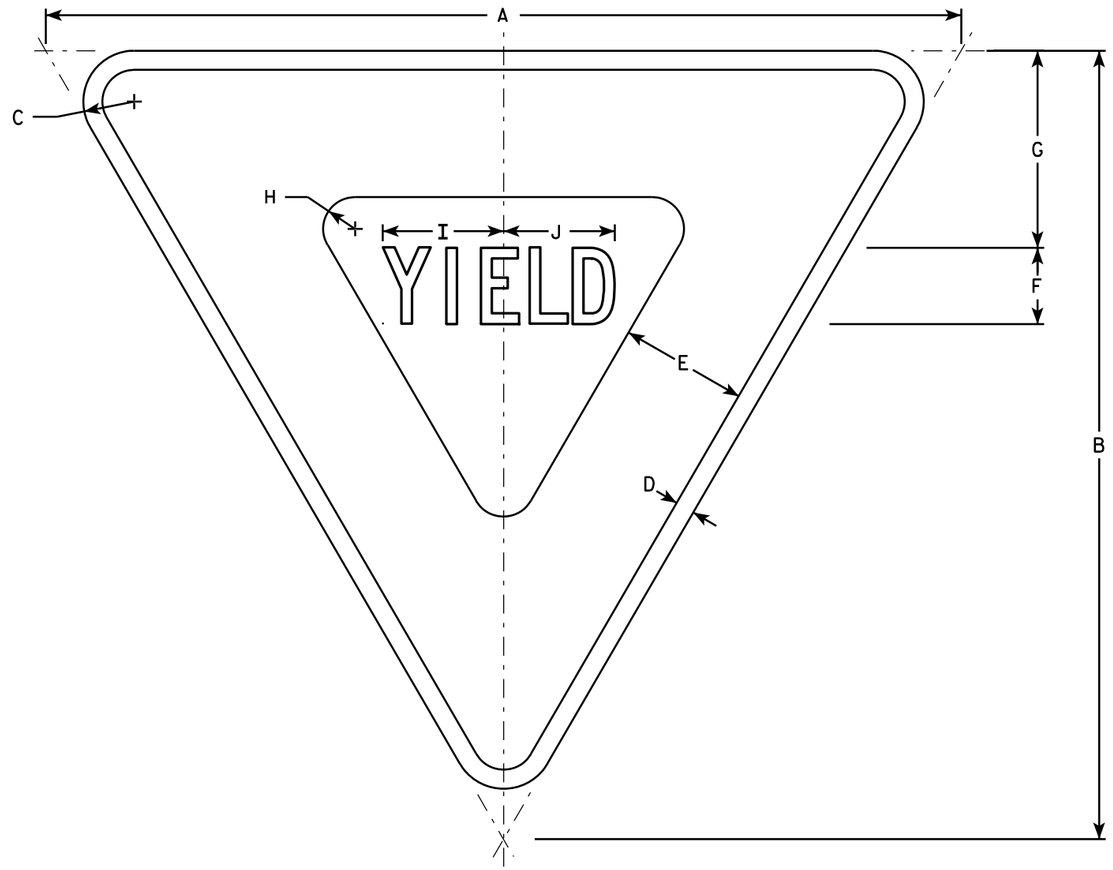
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 288	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11.DGN PLOT DATE : 02-DEC-2010 15:09 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

WISDOT/CADDS SHEET 42

7

7



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	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
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

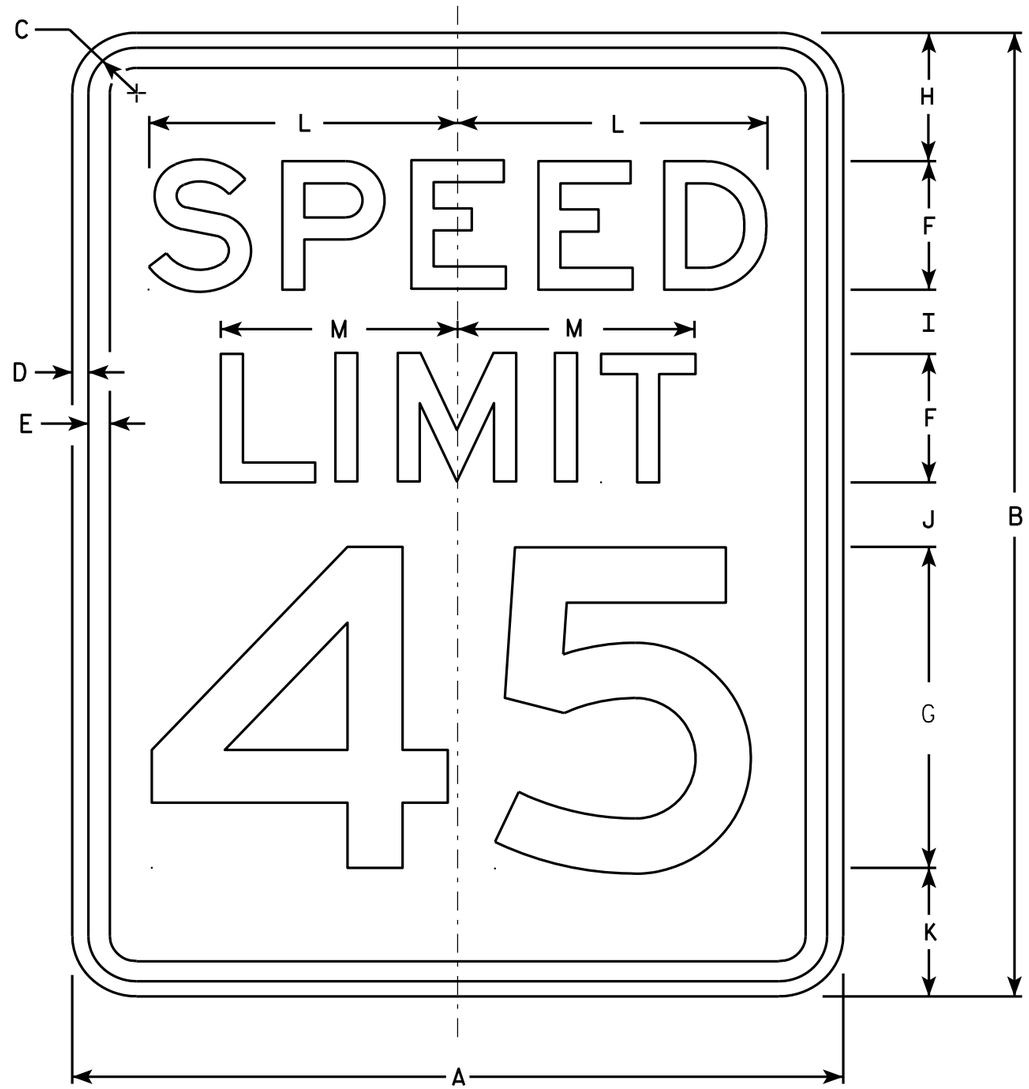
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 289 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

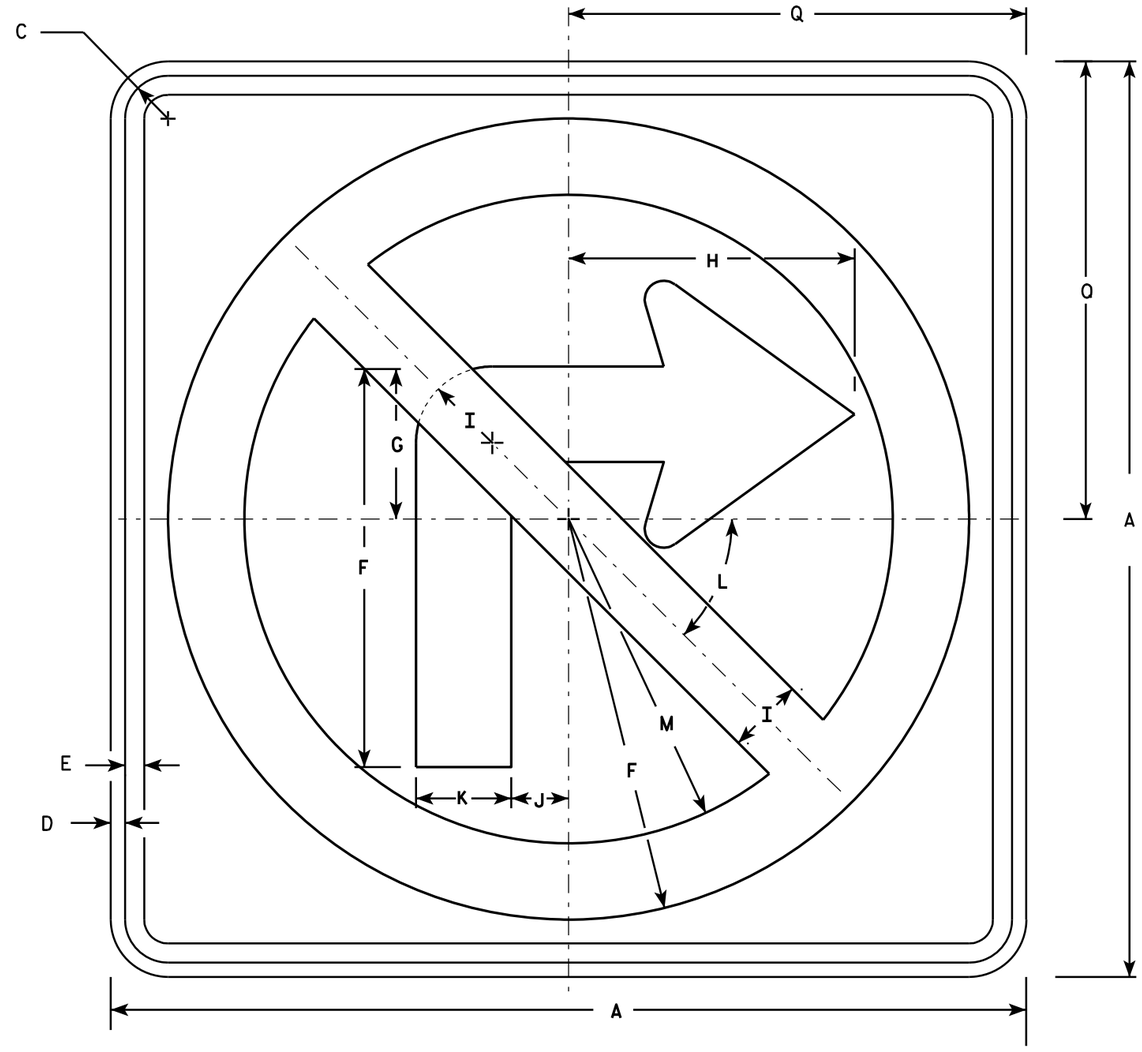
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 290 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

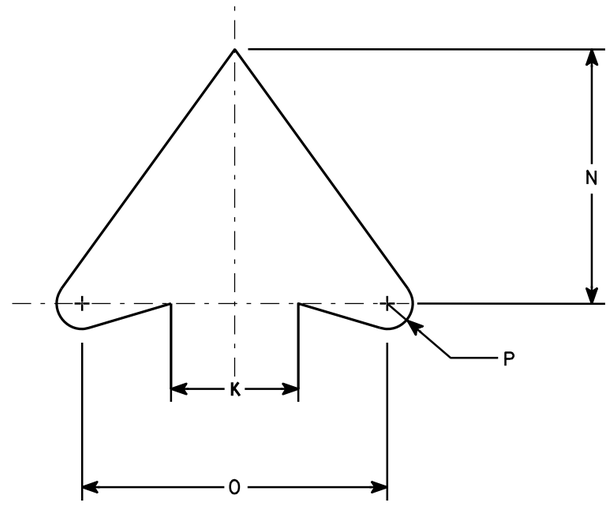
WISDOT/CADDS SHEET 42



R3-1

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

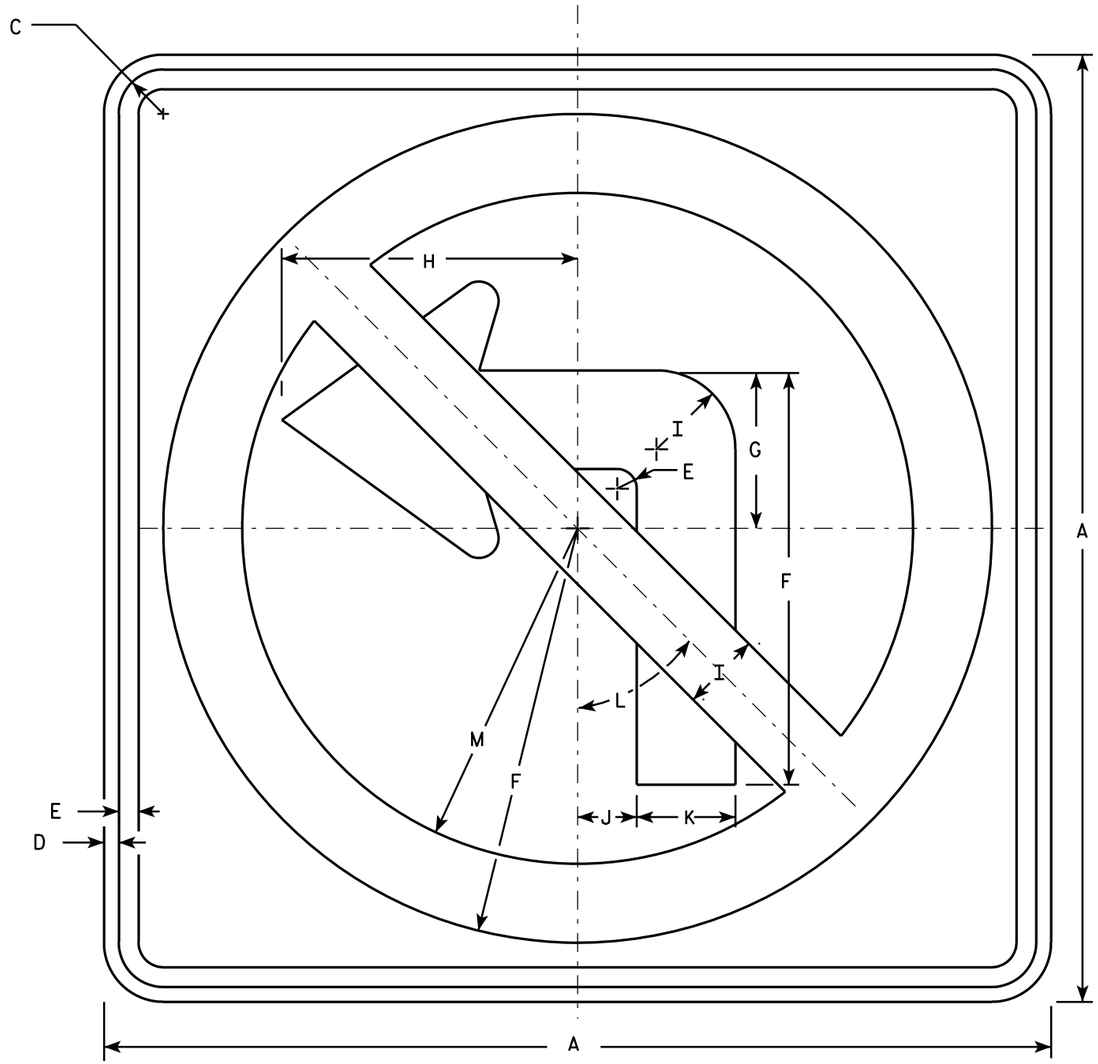
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

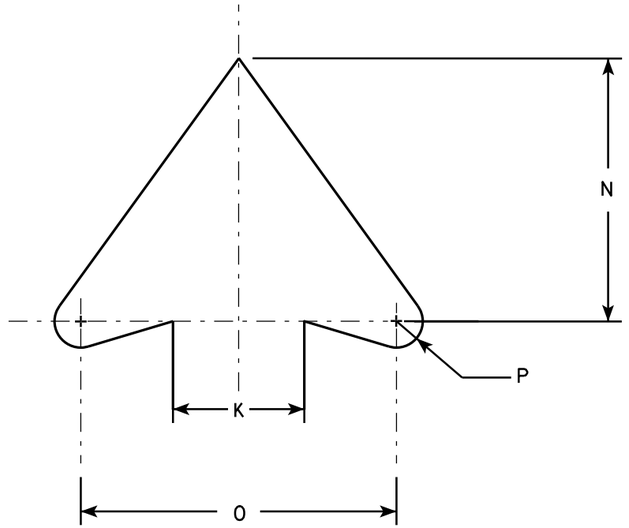
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 291	E



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

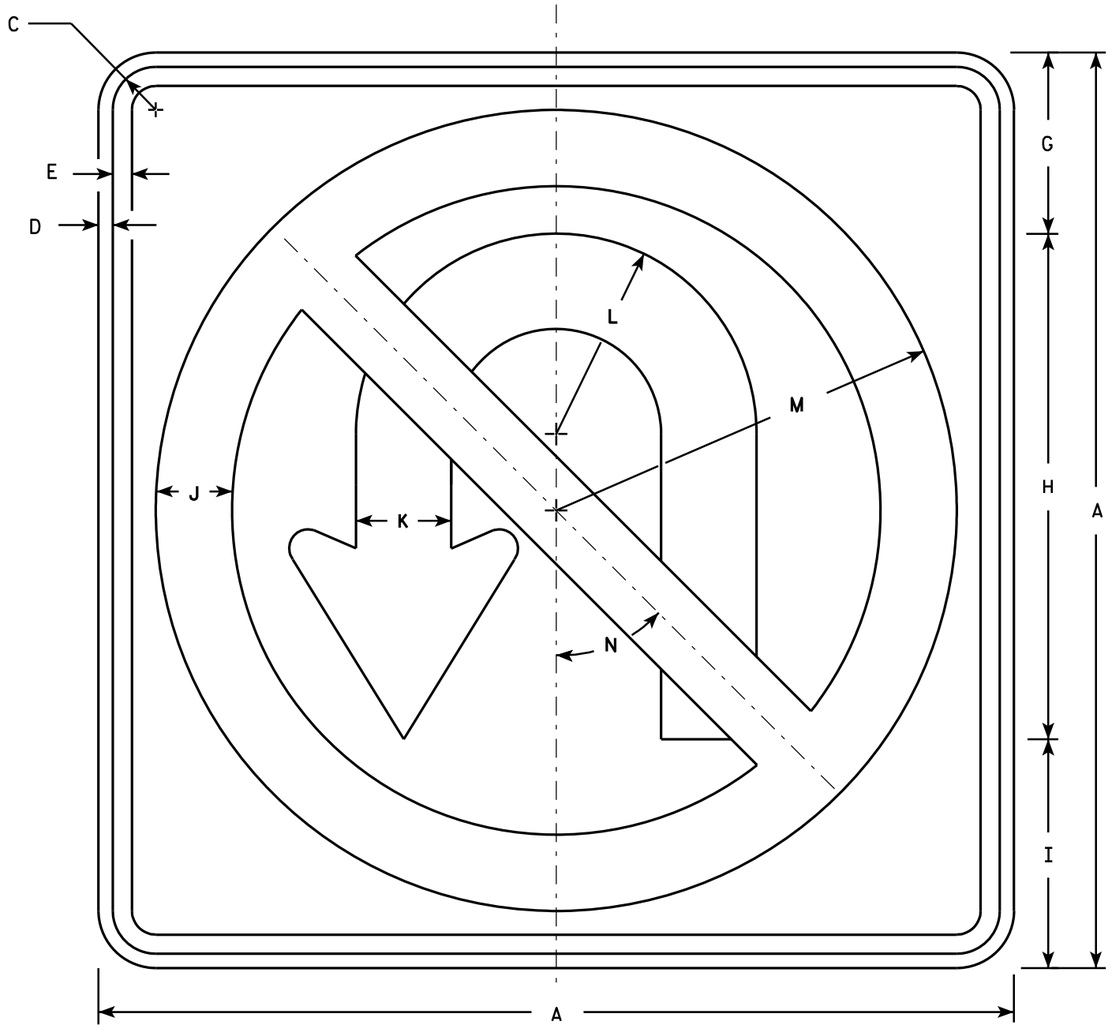
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

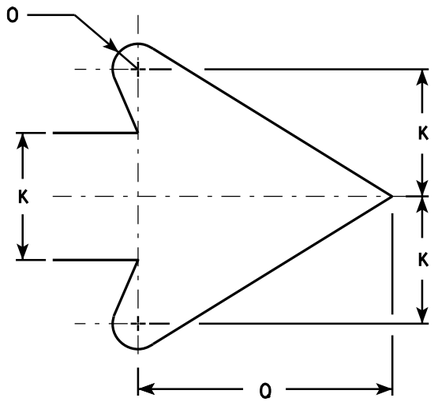
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 292	E



R3-4

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

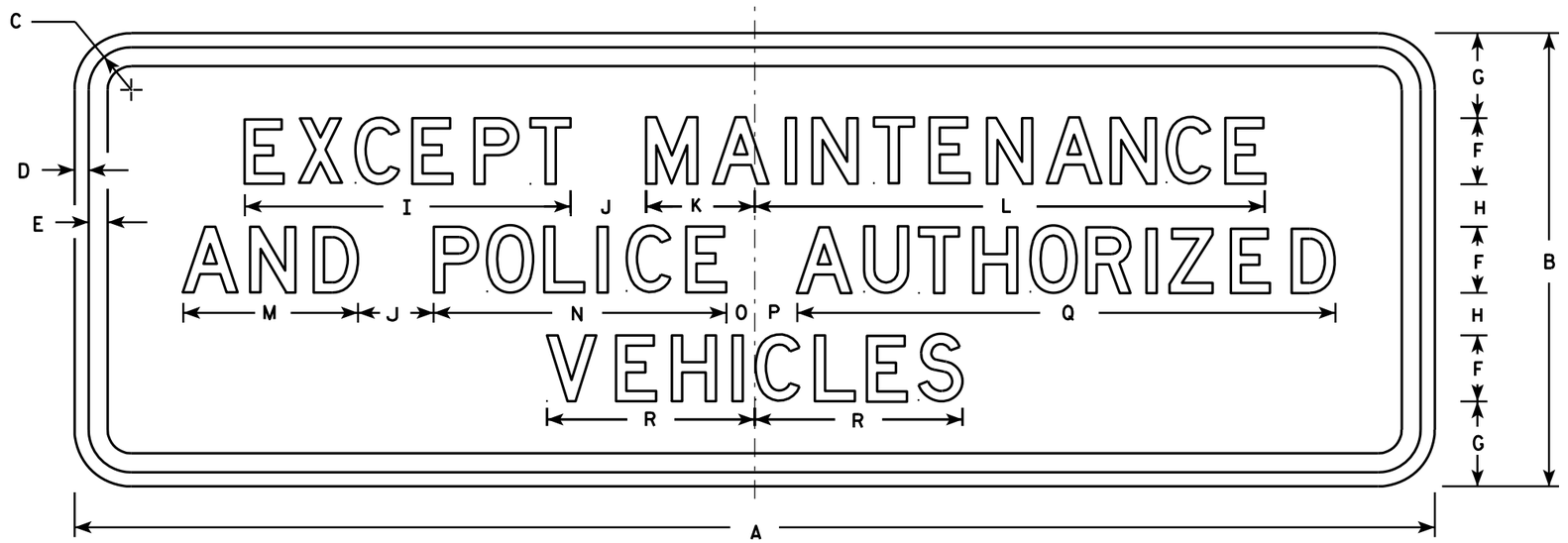
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 293	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 - 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.



R3-4A

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																											
2M																											
3																											
4	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0
5	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0

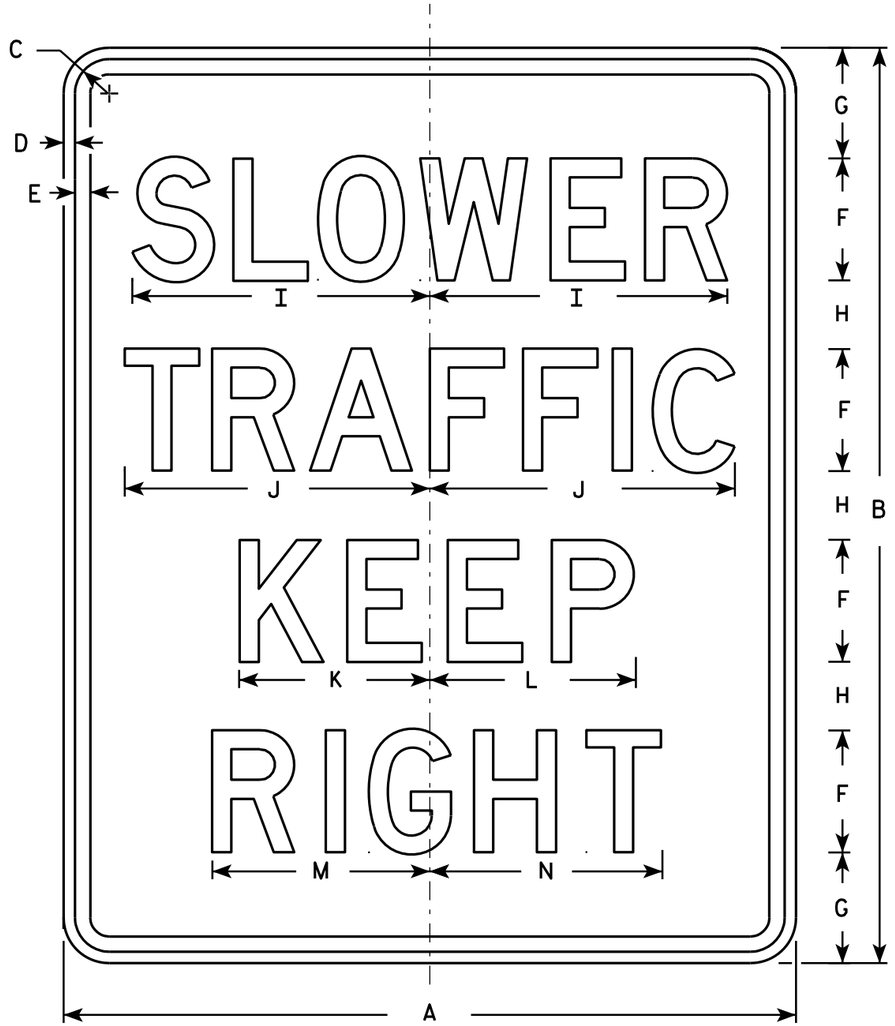
STANDARD SIGN
R3-4A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4A.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 294	E



R4-3

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

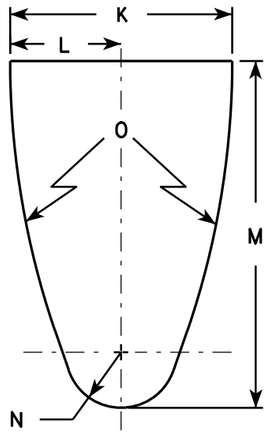
SHEET NO: 295 E

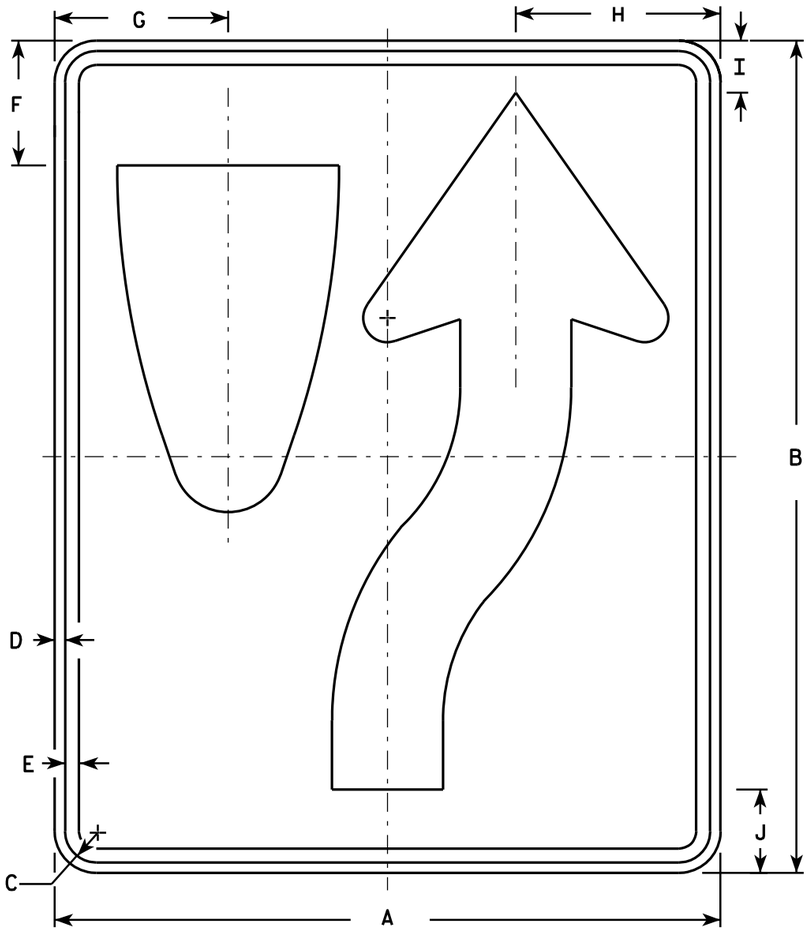
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7

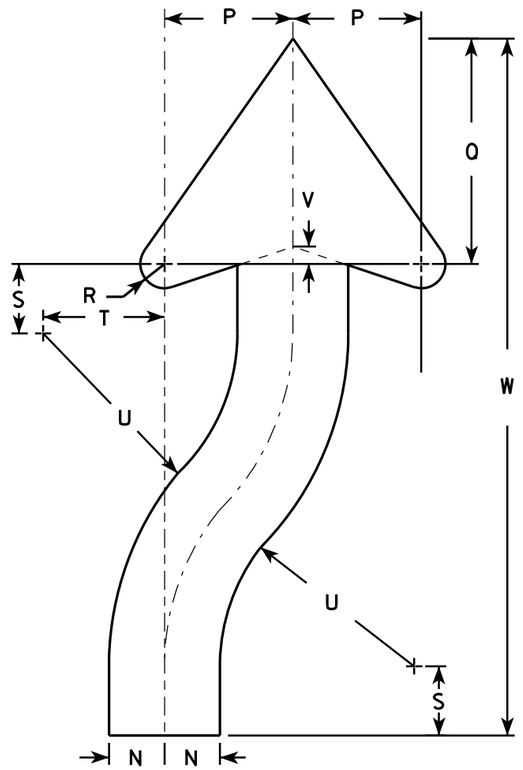




R4-7

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

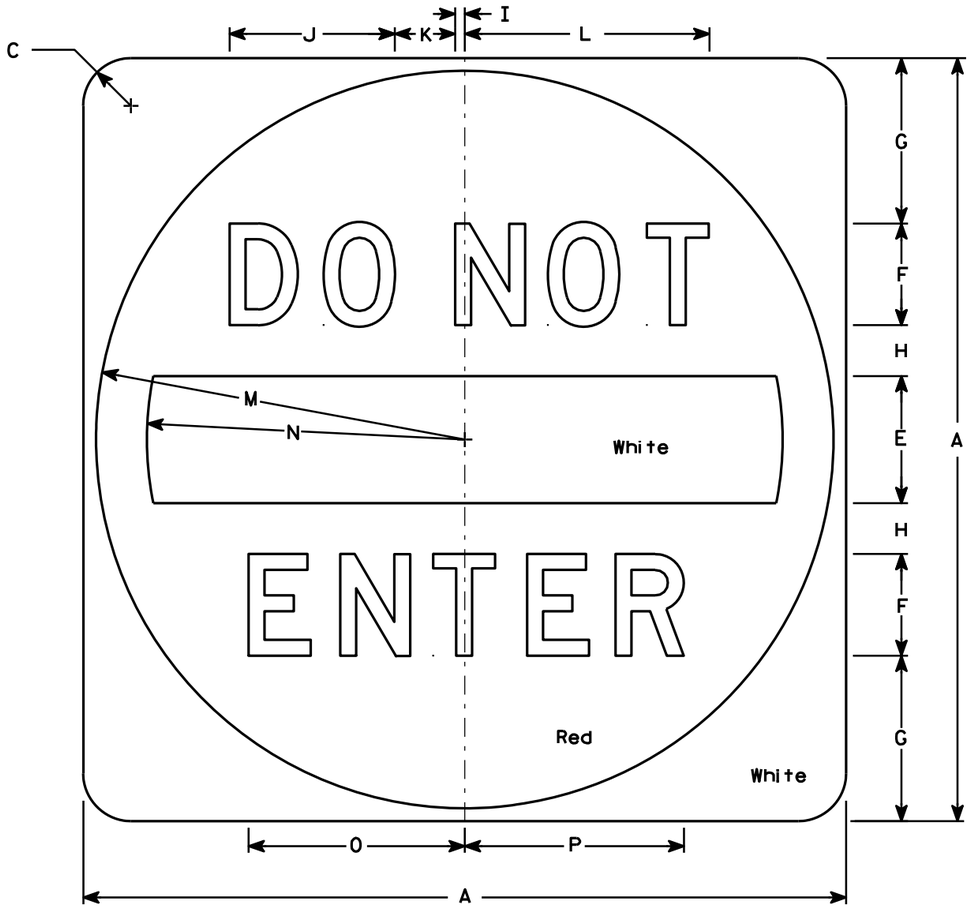
STANDARD SIGN
R4-7 & R4-8

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: 296	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

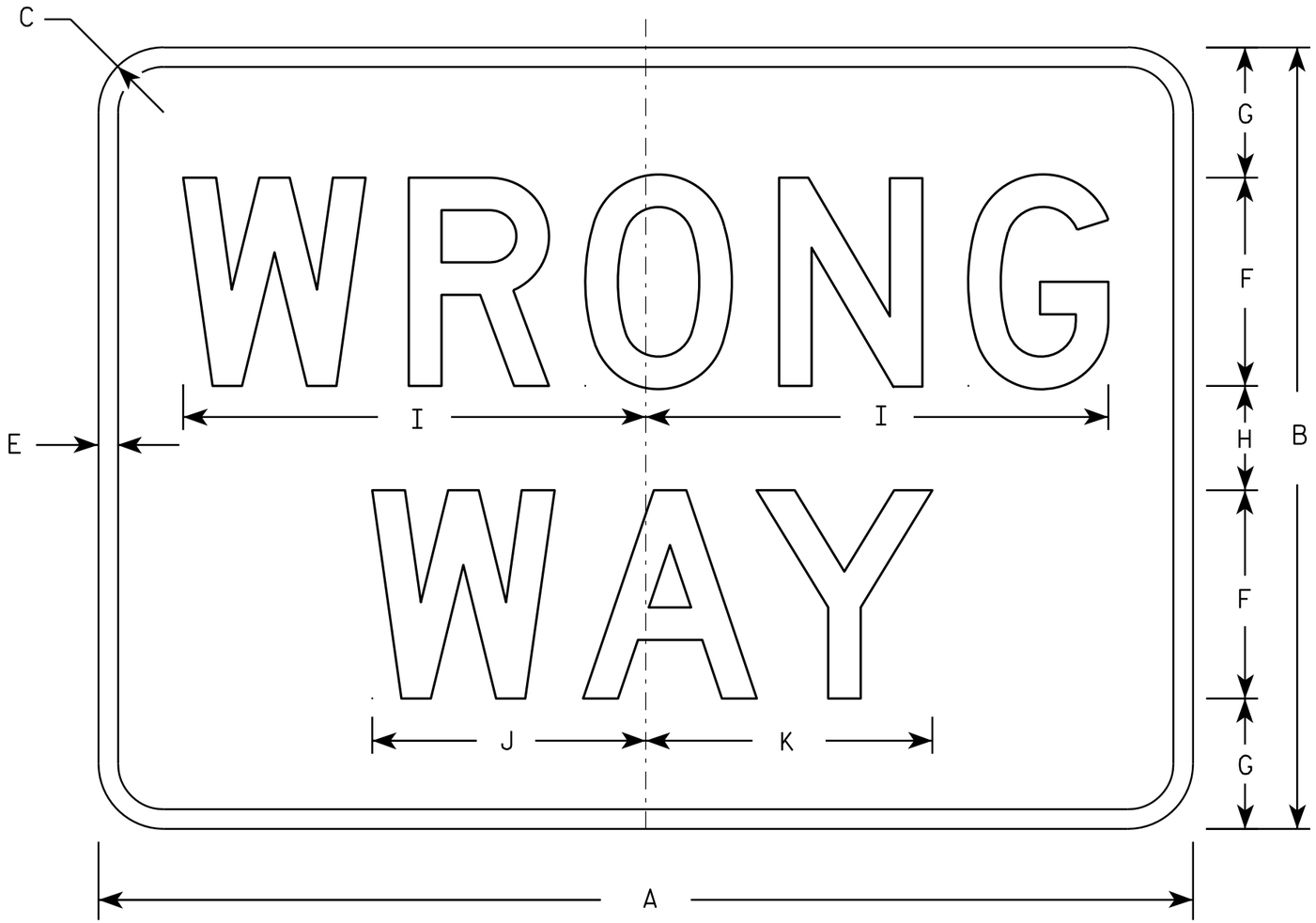
STANDARD SIGN
R5-1

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: 297 | E



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 298 | E

R5-57

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 - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

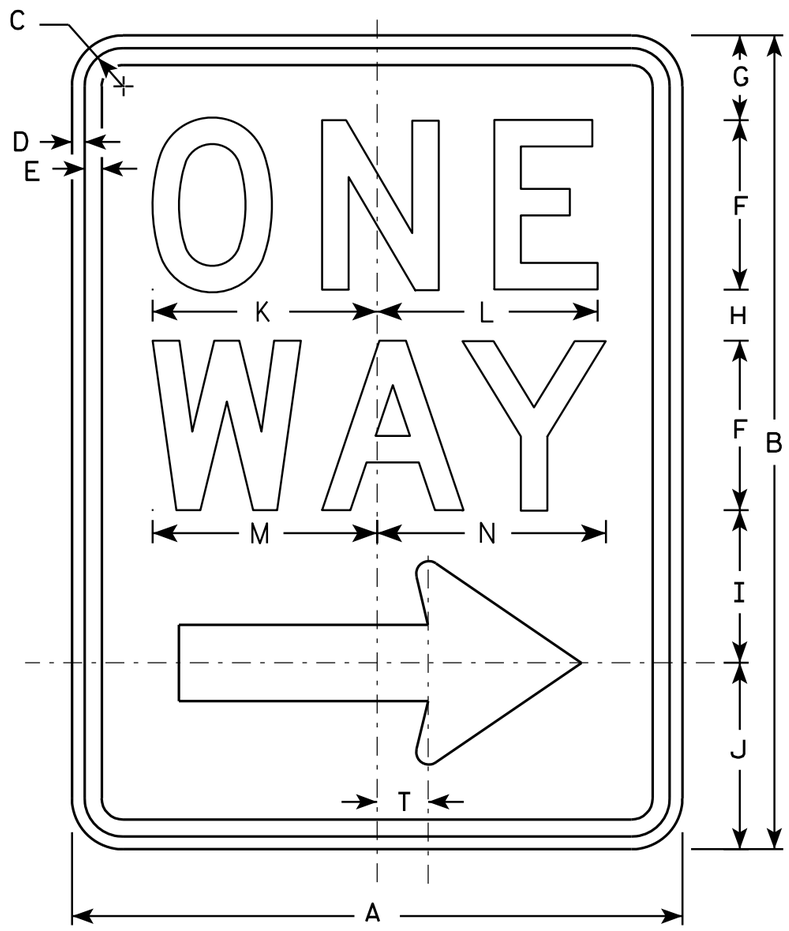
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 299 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

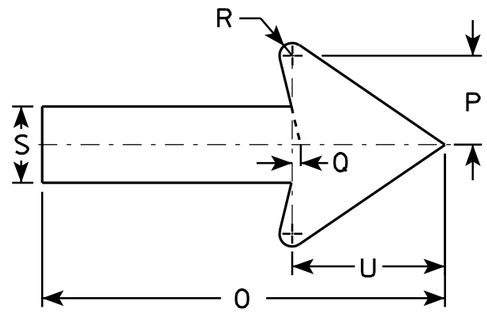
7



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																										

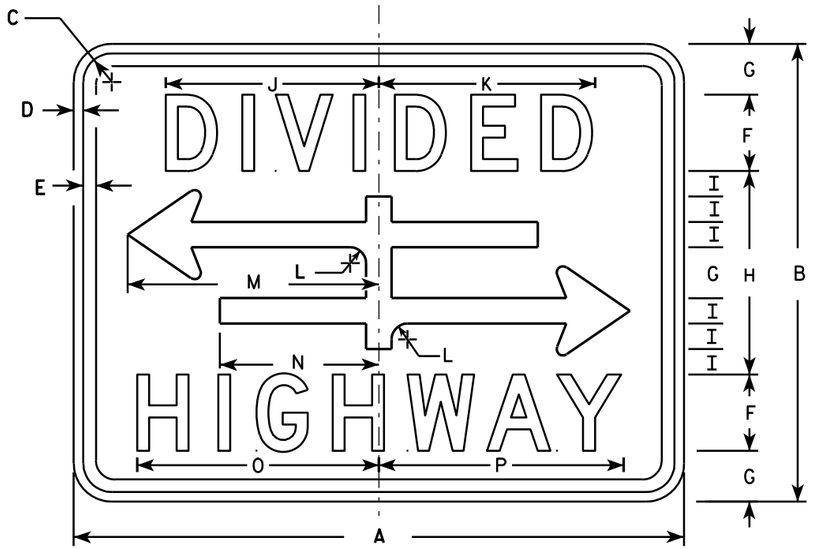
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

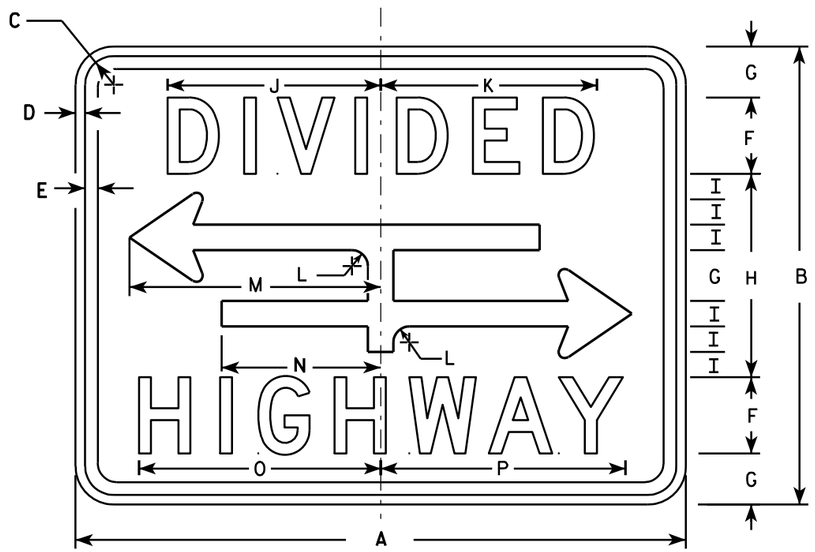
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 300	E



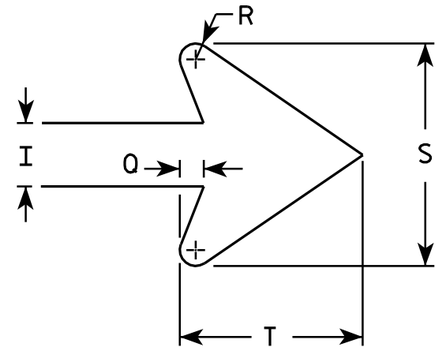
R6-3

NOTES

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



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

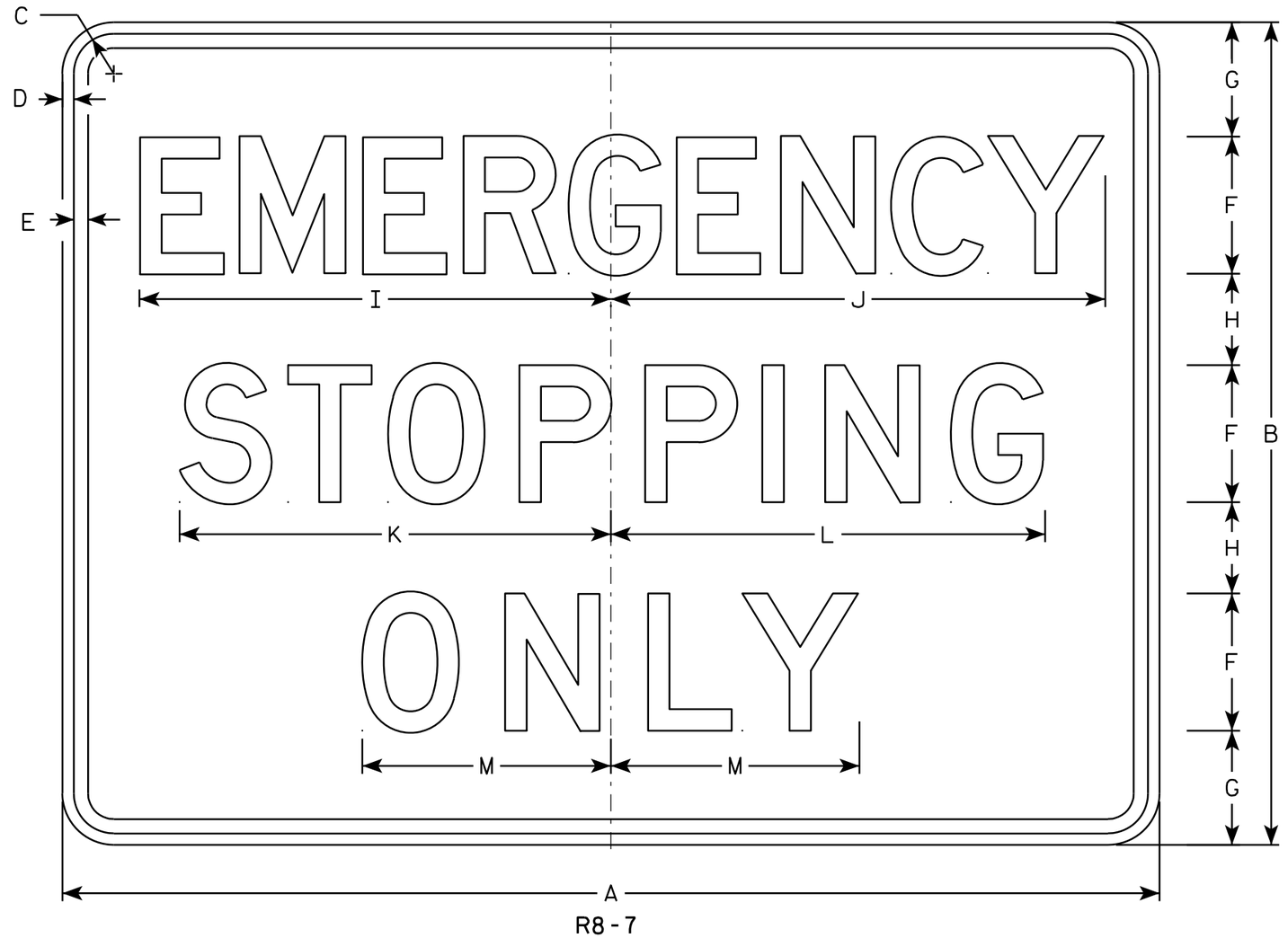
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 301 E



R8-7

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

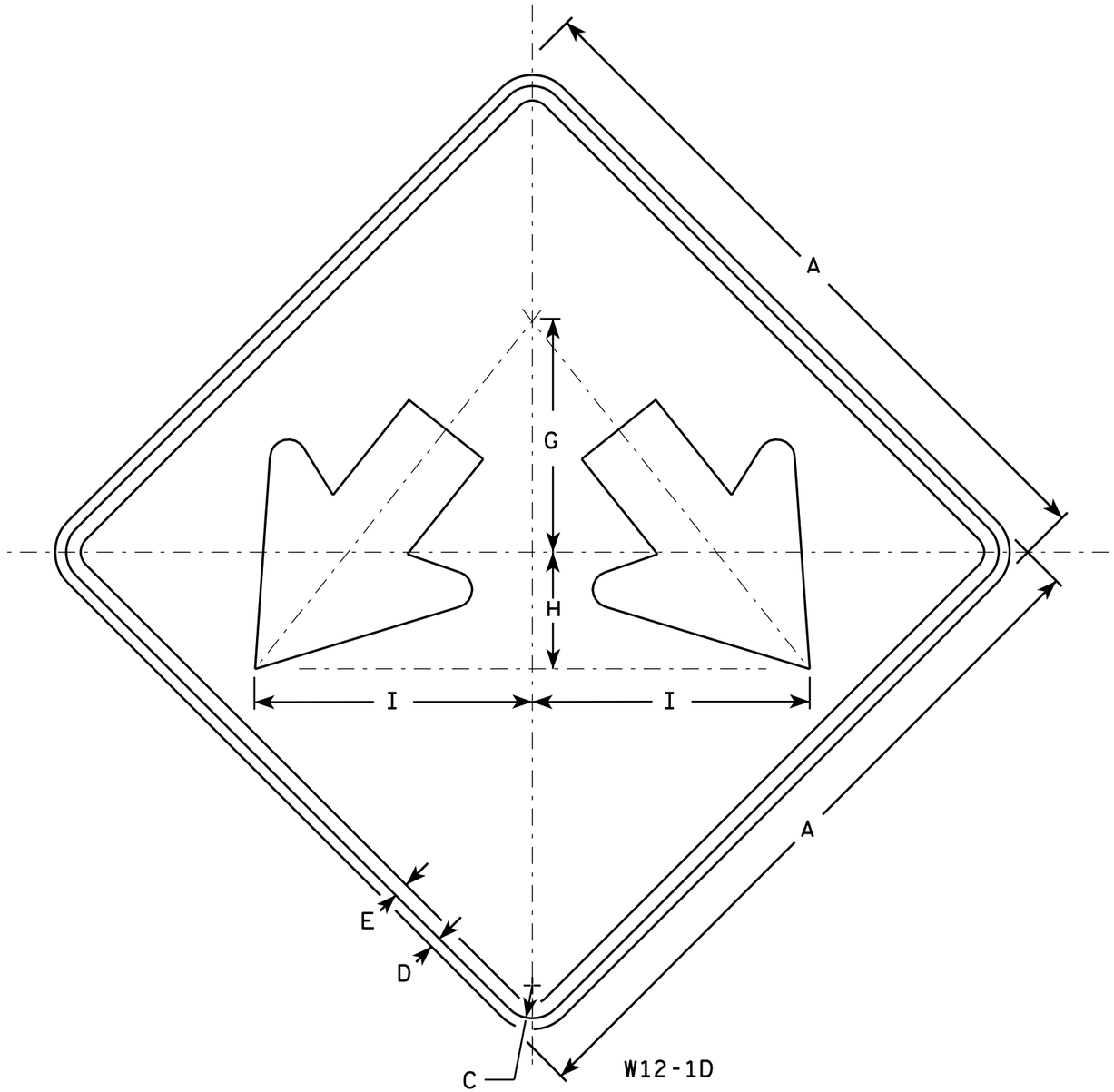
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

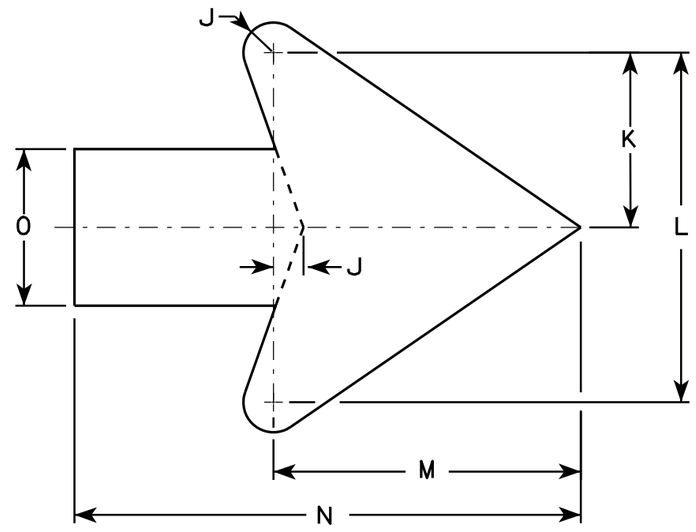
DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 302 | E



NOTES

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



Arrow Detail

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

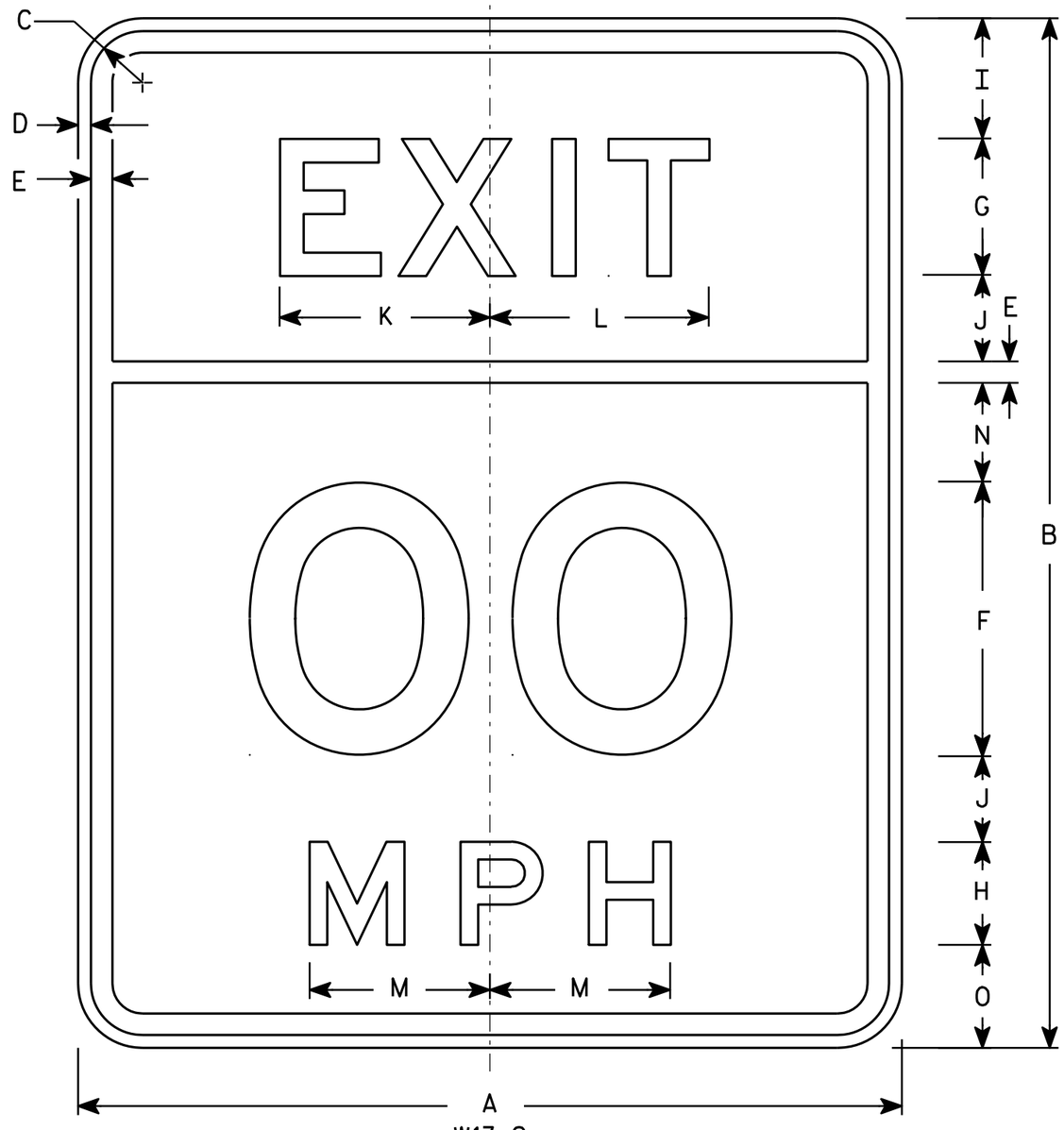
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 303 | E



W13-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline 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																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

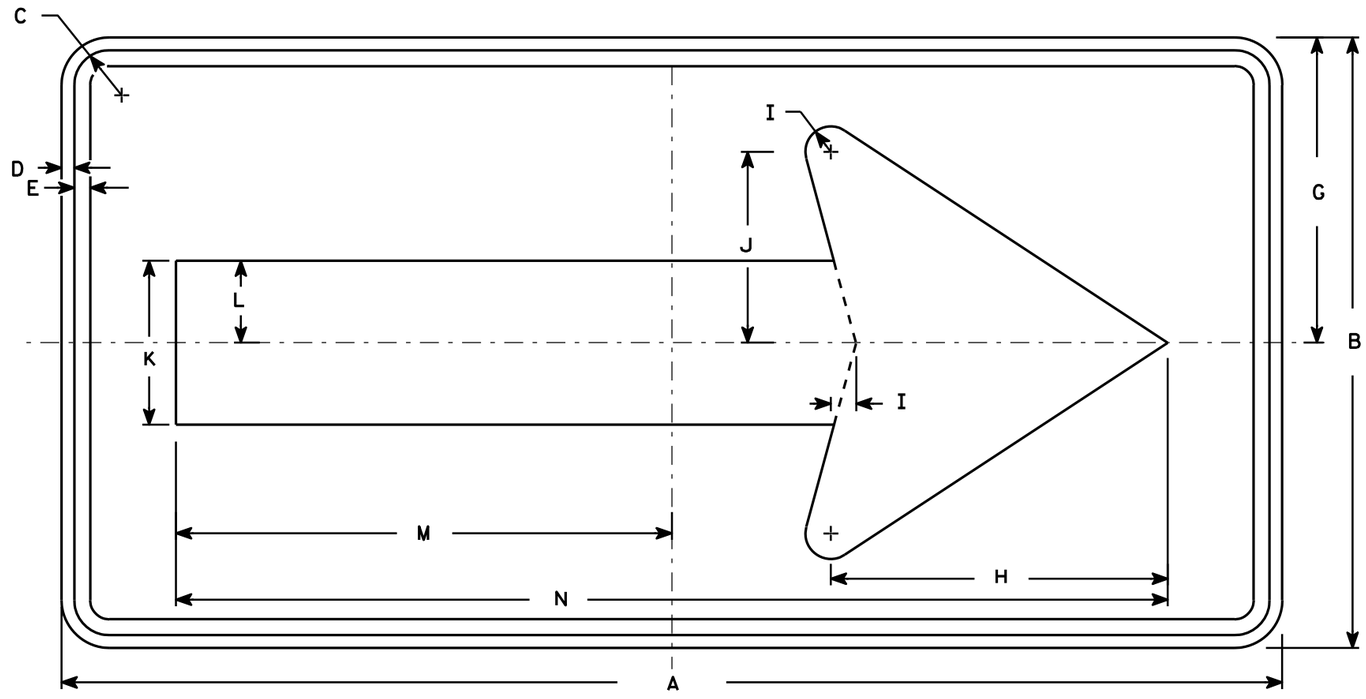
STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 304 | E



W1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
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	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

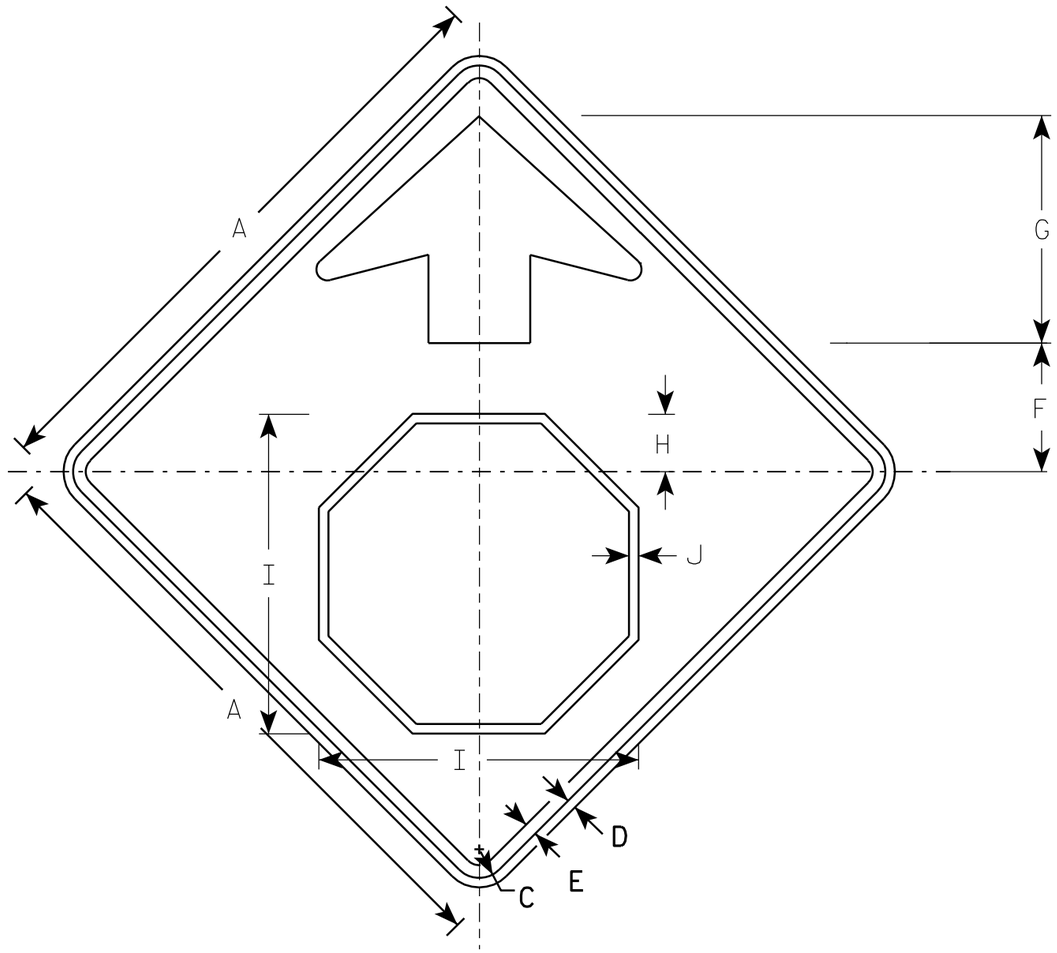
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

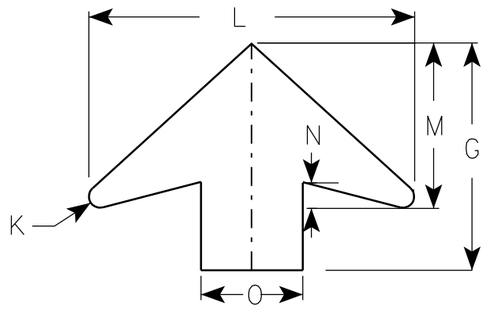
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 305



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

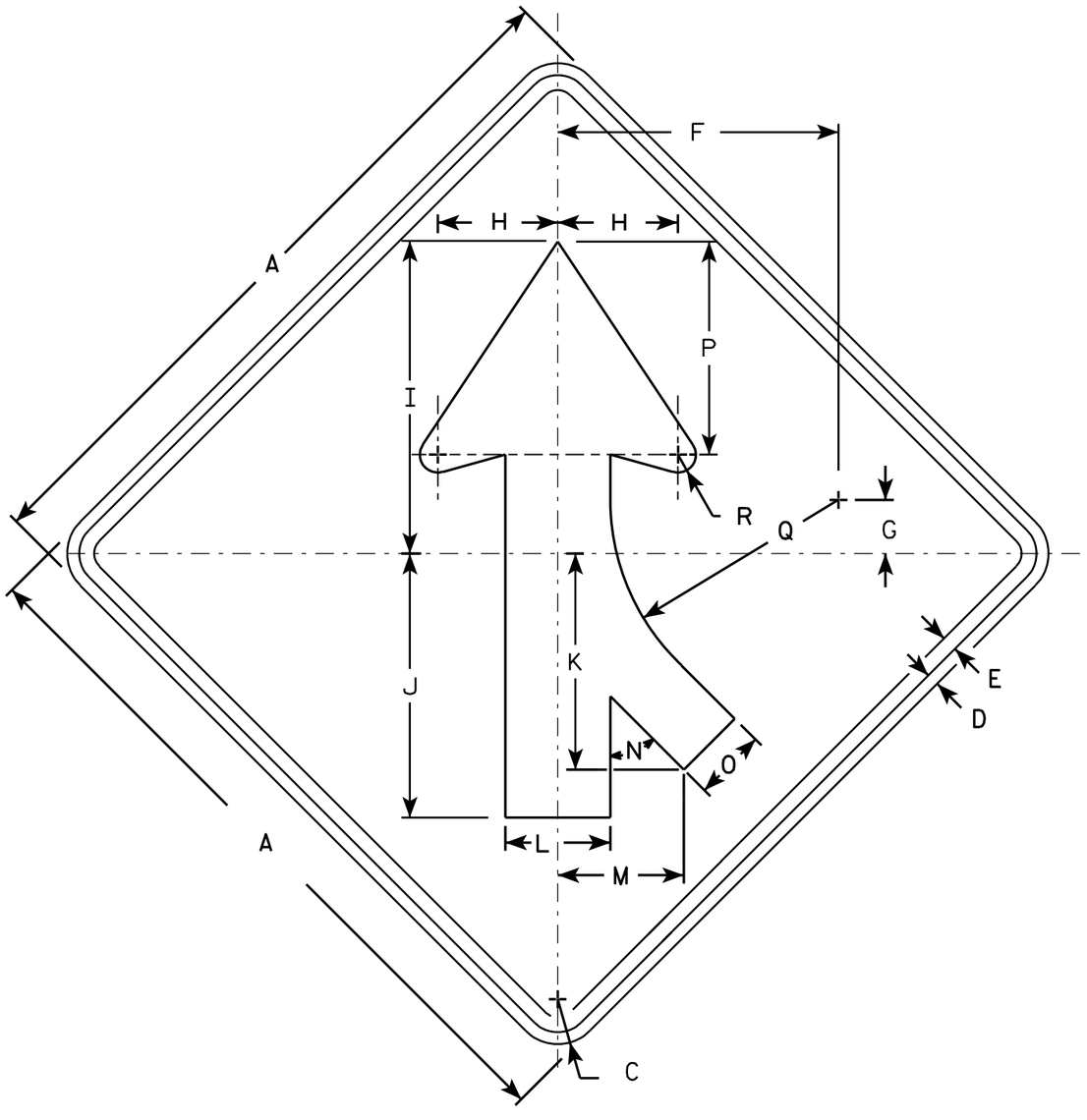
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 306 E



W4-1 R

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. W4-1L is the same as W4-1R 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	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

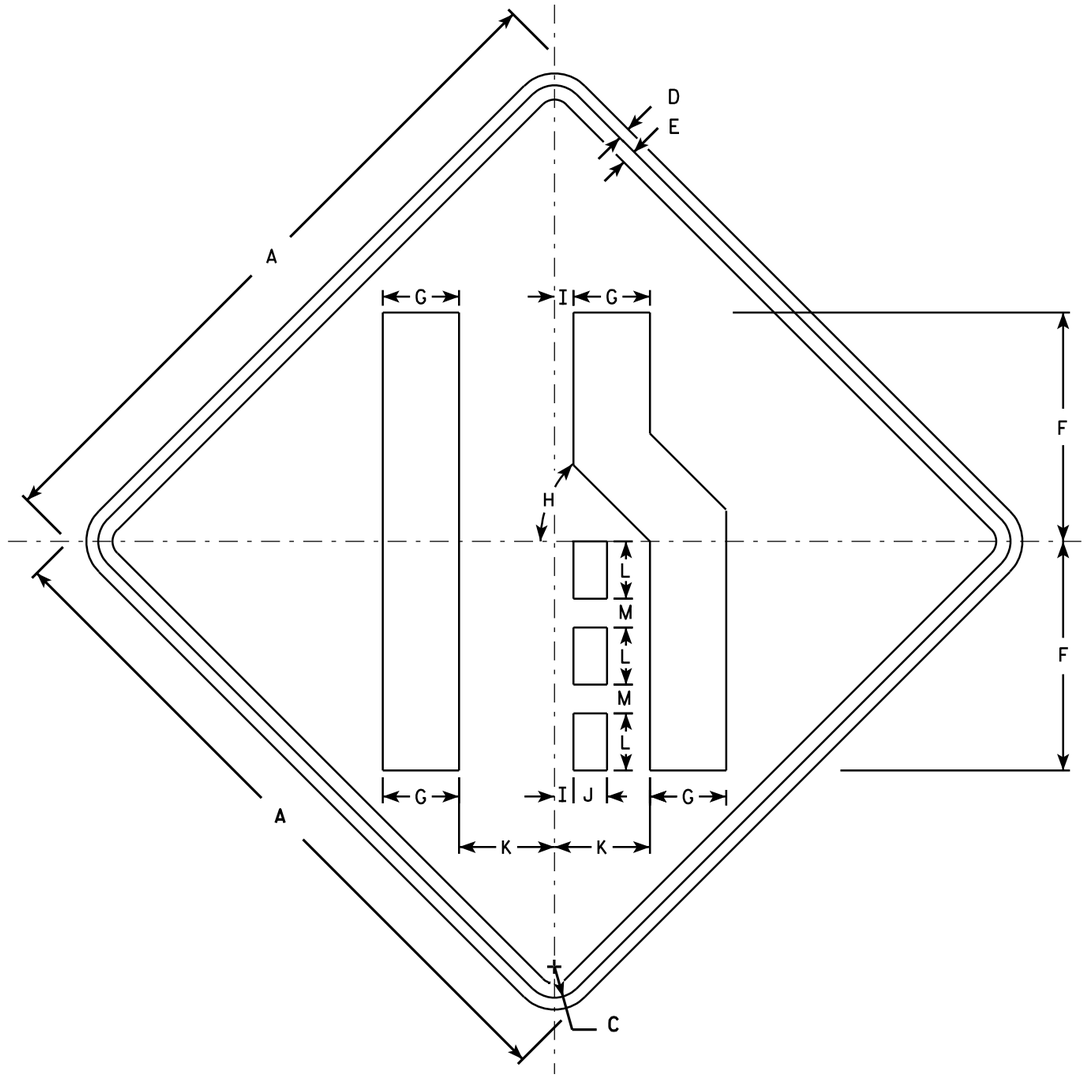
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 307	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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. W4-2L is the same as W4-2R 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
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
W4-2

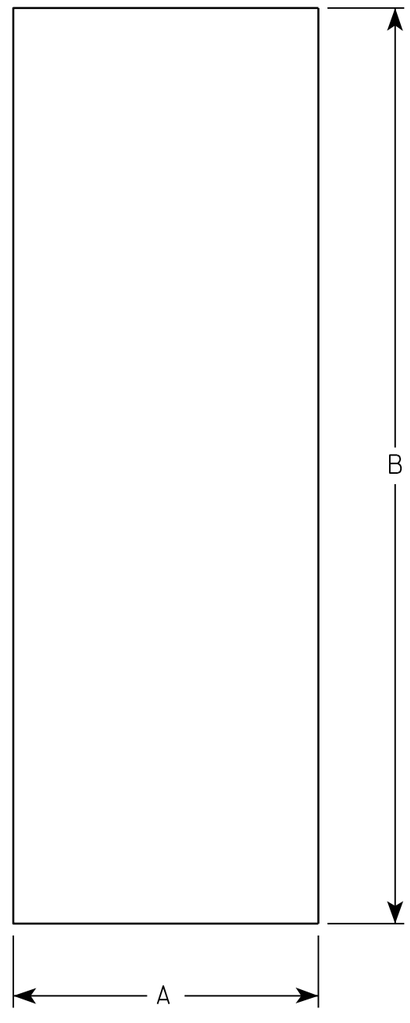
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 308 E



W5-53

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	4	12																									.33
2M	4	12																									.33
3																											
4																											
5																											

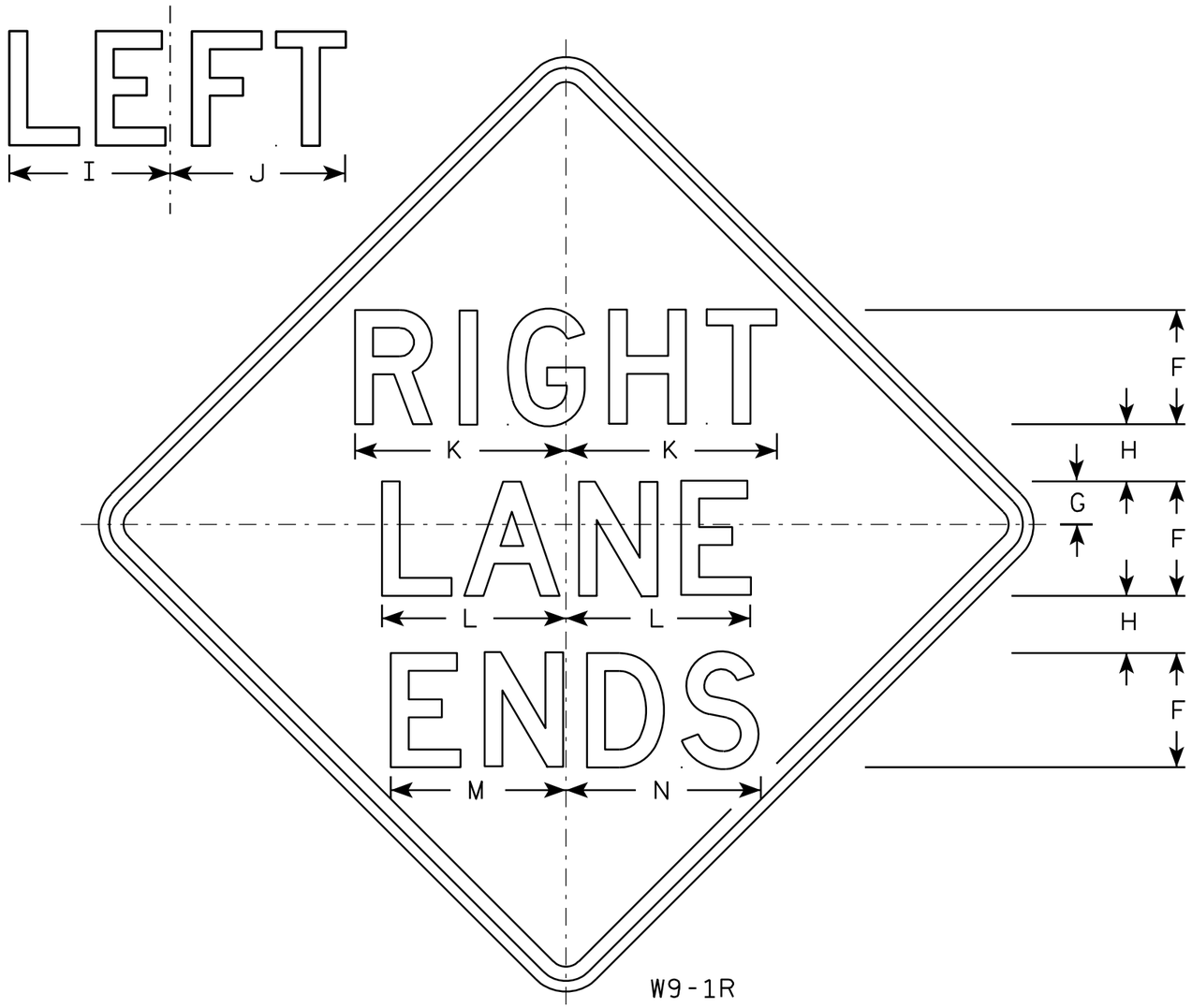
STANDARD SIGN
W5-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-53.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 309	E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - 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. W9-1L same as W9-1R except the word Left replaces Right.

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

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

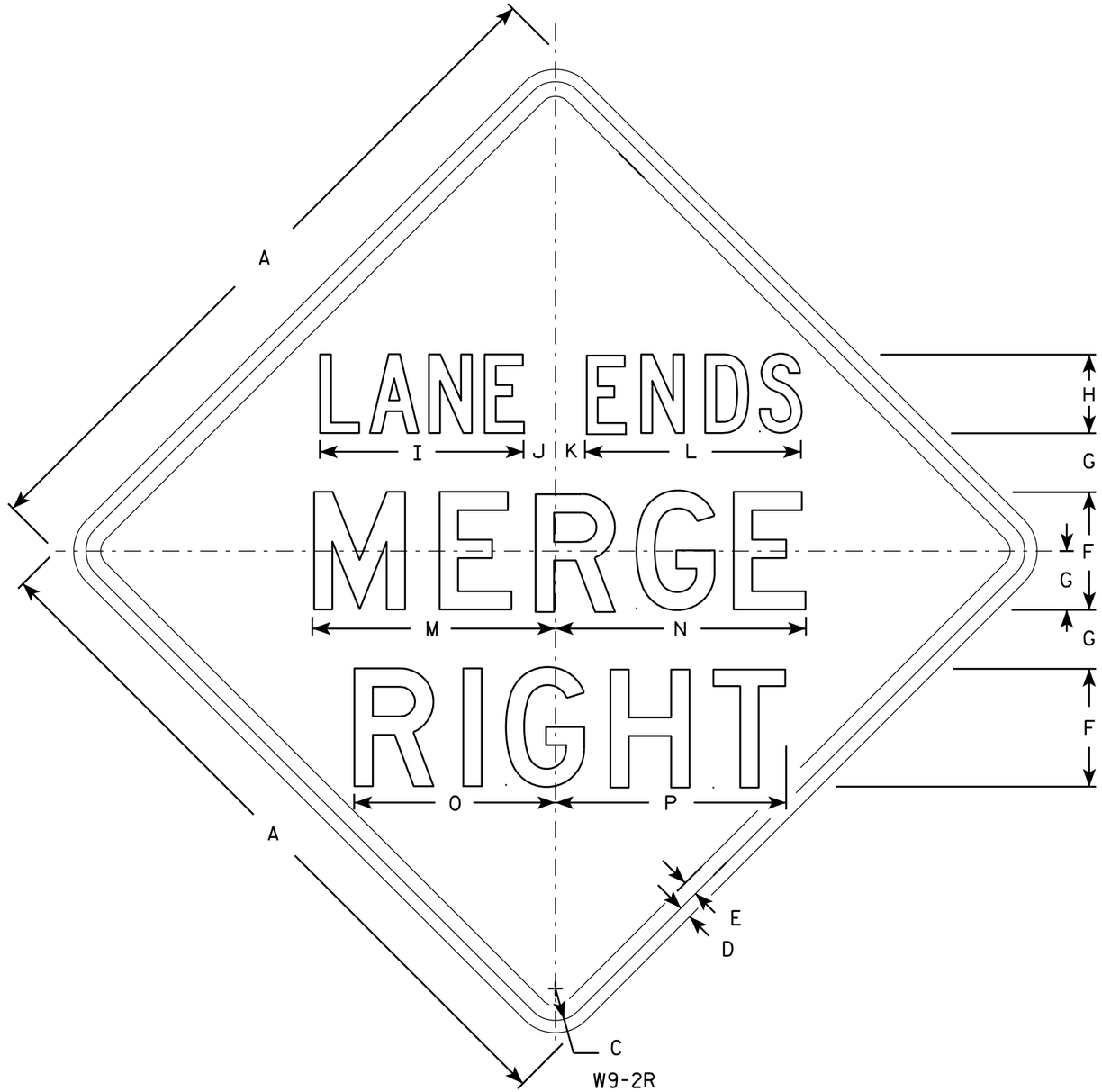
SHEET NO: 310 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

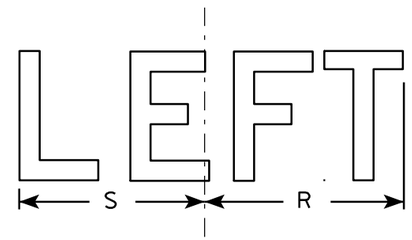
WISDOT/CADDS SHEET 42

7

7



W9-2R



W9-2L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C, lines 2 & 3 are Series D.
6. W9-1L is the same as W9-2R except the word LEFT replaces RIGHT.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	2 1/2	3	8	1	1 1/8	8 1/4	10 3/8	10 5/8	8 5/8	9 7/8		7 5/8	7 1/8								6.25
2S	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
2M	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
3																											
4	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
5	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0

STANDARD SIGN
W9-2

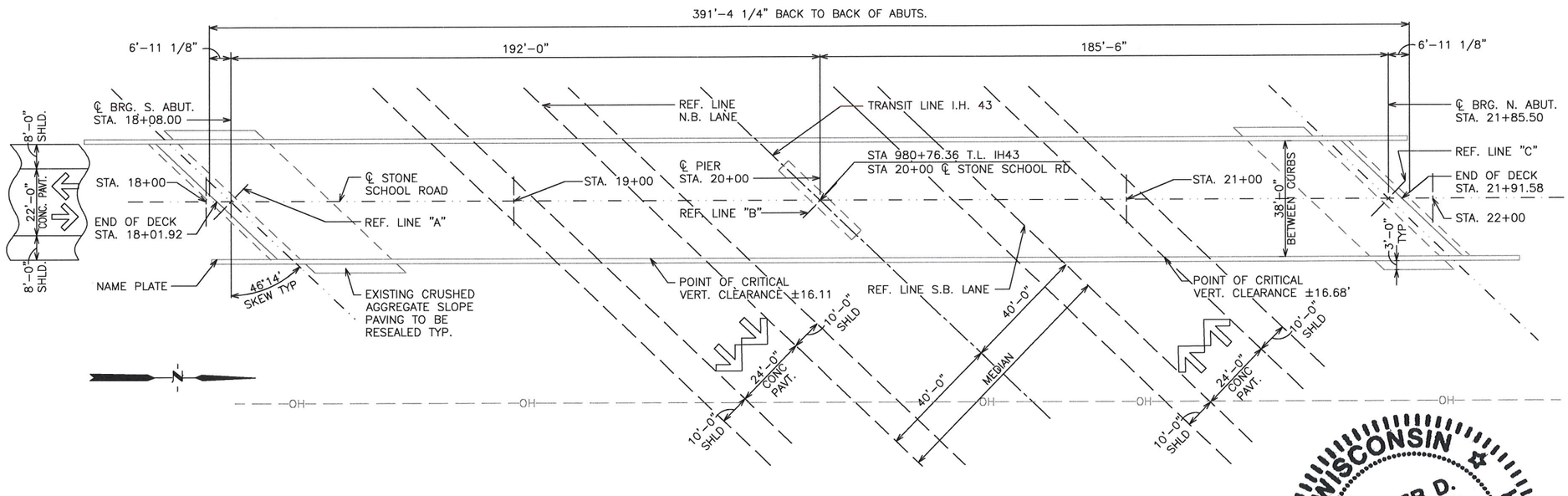
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

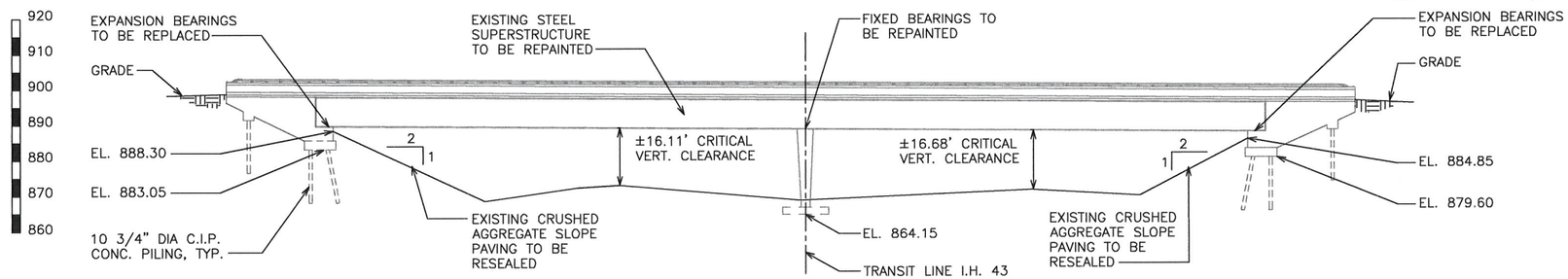
DATE 03/18/13 PLATE NO. W9-2.10

PROJECT NO:

SHEET NO: 311 E



PLAN B-64-86
(TWO SPAN STEEL BOX GIRDER)



ELEVATION
(NORMAL TO I.H. 43)

STATE PROJECT NUMBER

1090-15-72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED INCLUDING FIXED BEARINGS.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

IT SHOULD BE KNOWN THAT THE EXISTING BRIDGE HAS MOVED LATERALLY UP TO TWO INCHES. THE NEW BEARINGS SHALL BE INSTALLED IN THE CURRENT GIRDER LOCATIONS.

TRAFFIC DATA:

AVERAGE DAILY TRAFFIC (ADT):

STONE SCHOOL RD (50MPH)---------790
(CONSTRUCTION YEAR 2014)

STONE SCHOOL RD (50MPH)---------870
(DESIGN YEAR 2034)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

I.H.43 (70MPH)----------30,000
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION, ESTIMATED QUANTITIES TABLE
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 6/4/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher FOR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-86

STONE SCHOOL RD OVER I.H.43

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	EAST TROY

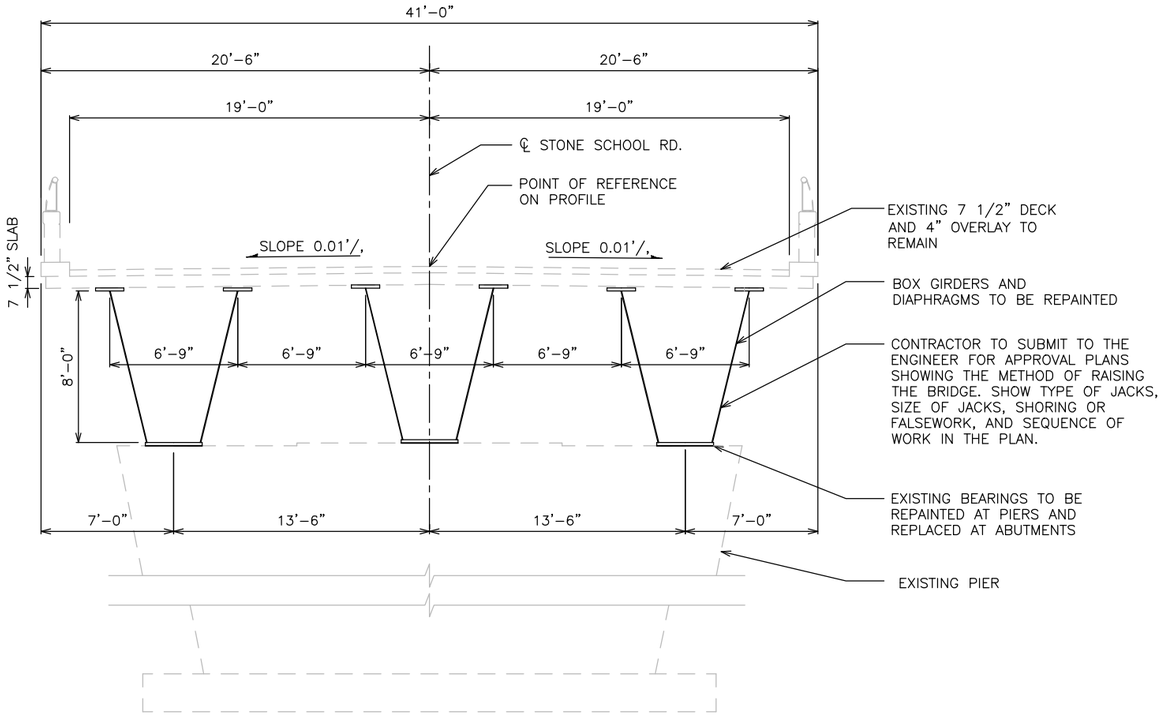
DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

GENERAL PLAN

SHEET 1 OF 3

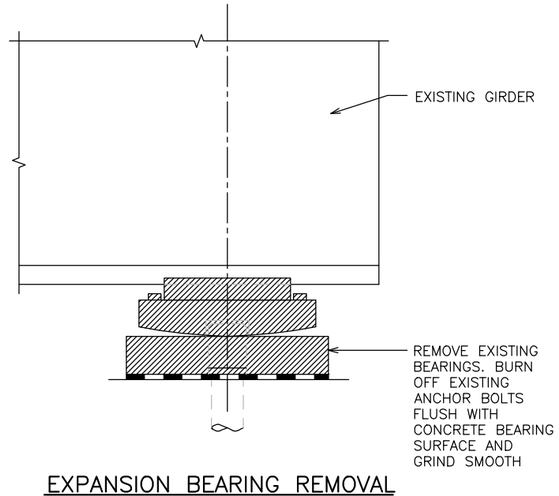
STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–86
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.6000	BEARING ASSEMBLIES EXPANSION B–64–86	EA	3		3		6
506.7050.S.01	REMOVING BEARINGS B–64–86	EA	3		3		6
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		3			3
517.1800.S.01	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–86	LS				1	1
517.4500.S.01	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–86	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	300		300		600



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–86

STONE SCHOOL RD OVER I.H.43

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

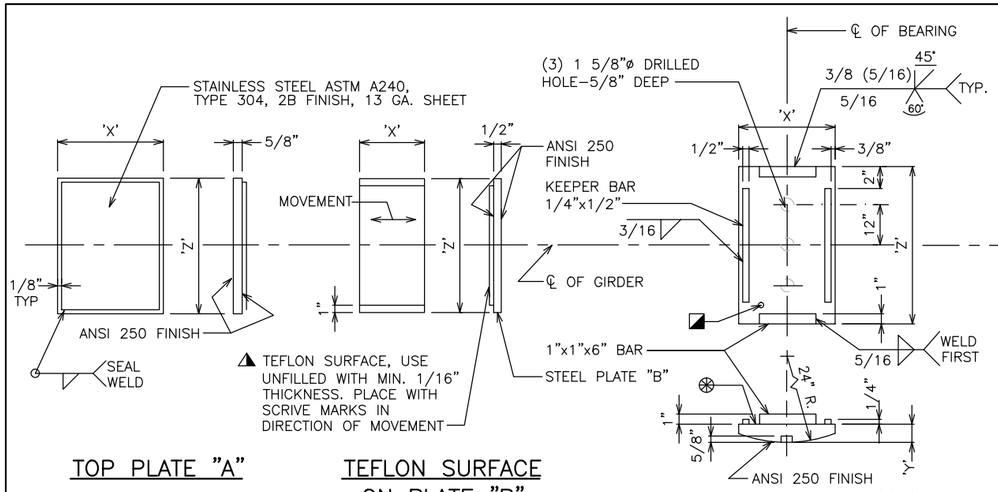
EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

313

8

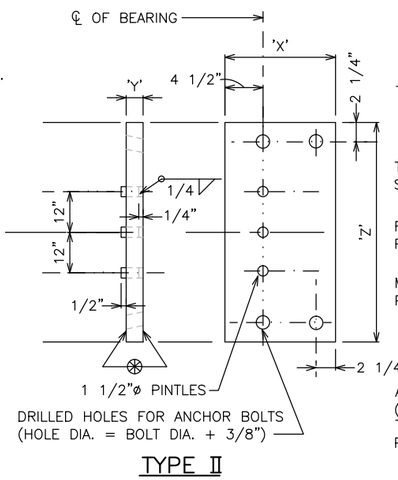
8



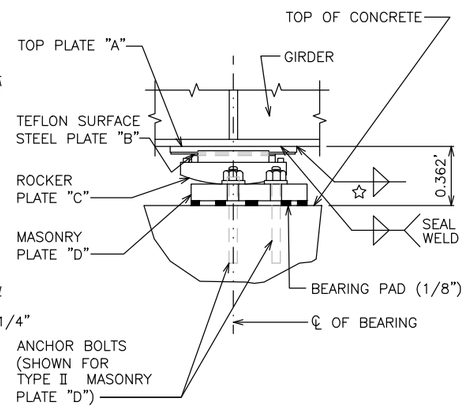
TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

ROCKER PLATE "C"



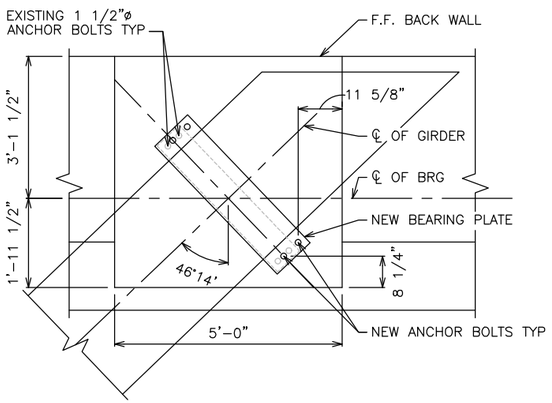
TYPE II MASONRY PLATE "D"



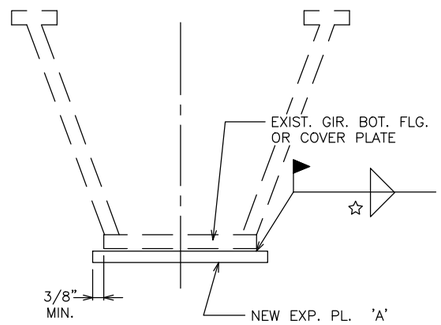
EXPANSION BEARING ASSEMBLY

EXPANSION BEARING

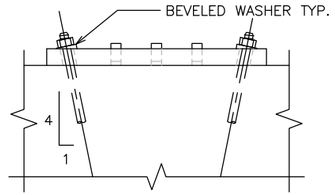
	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'				
EXPANSION BEARING	11"	36.75"	7"	36.75"	9"	1 7/16"	37"	12"	1.5"	46.75"	II	1.5"x1'–10"	3	SOUTH ABUT
	11"	36.75"	7"	36.75"	9"	1 7/16"	37"	12"	1.5"	46.75"	II	1.5"x1'–10"	3	NORTH ABUT



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS



BEARING REPLACEMENT DETAILS



MASONRY PLATE "D"

☆ TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	÷MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2" TO 2 1/4"	△ 3/8"
OVER 2 1/4" TO 6"	△ 1/2"

÷ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'–10 FOR 1 1/2" BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING ANCHOR BOLTS, STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B–64–86", EACH.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

EXPANSION BEARINGS:
TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A".
ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

▲ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING FEDERAL SPECIFICATION MMM–A–134, FEP FILM OR EQUAL.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

STATE PROJECT NUMBER

1090–15–72

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–86

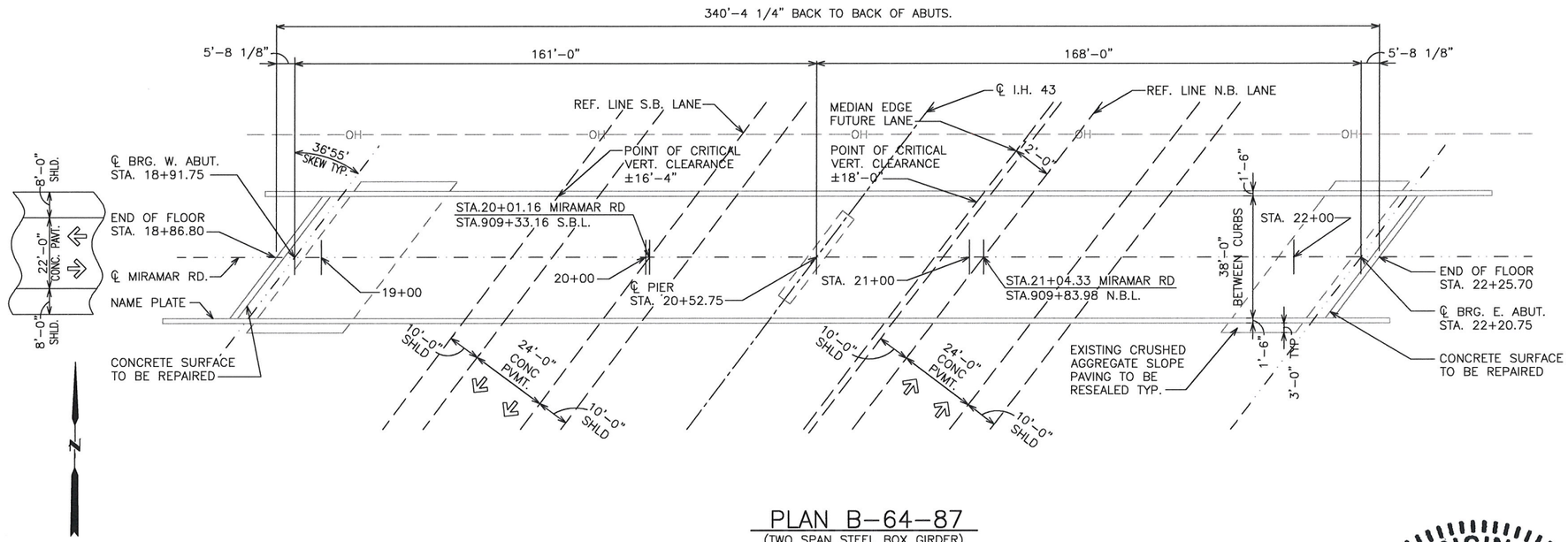
STONE SCHOOL RD OVER I.H.43

CONST SPEC	2013	DRAWN BY	KGC	PLANS CHK'D	SDB

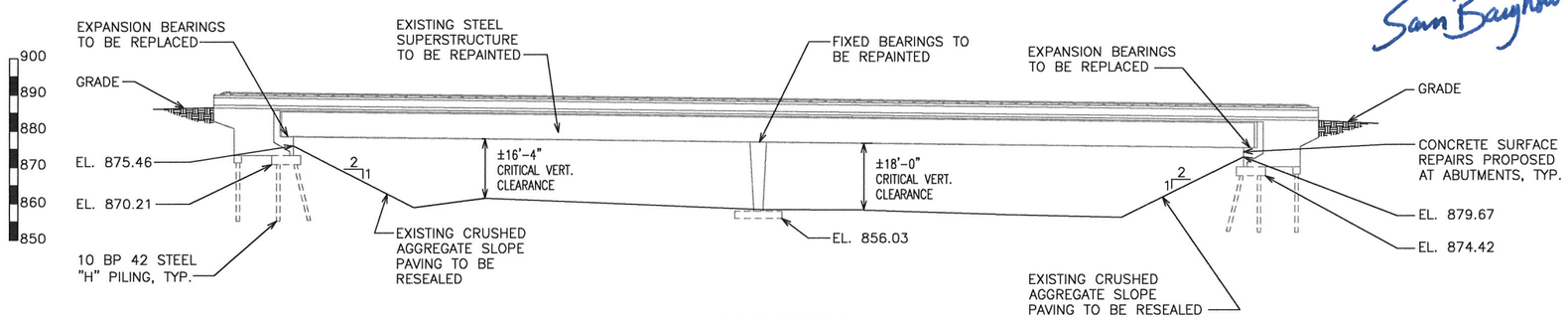
BEARING DETAILS

SHEET 3 OF 3

314



PLAN B–64–87
(TWO SPAN STEEL BOX GIRDER)



ELEVATION
(NORMAL TO I.H. 43)

WISCONSIN PROFESSIONAL ENGINEER
SAMEER D. BARGHOUT E-41862-006 MADISON WI

Sam Barghout 6/4/2013

STATE PROJECT NUMBER

1090–15–72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED INCLUDING FIXED BEARINGS.

CONCRETE SURFACE REPAIRS TO BE MADE AS DIRECTED BY THE ENGINEER.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

IT SHOULD BE KNOWN THAT THE EXISTING BRIDGE HAS MOVED LATERALLY UP TO TWO INCHES. THE NEW BEARINGS SHALL BE INSTALLED IN THE CURRENT GIRDER LOCATIONS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT);

MIRAMAR ROAD (30MPH)----------1,540
(CONSTRUCTION YEAR 2014)

MIRAMAR ROAD (30MPH)----------1,700
(DESIGN YEAR 2034)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

I.H.43 (70MPH)----------30,000
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–87

MIRAMAR ROAD OVER I.H.43

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	EAST TROY

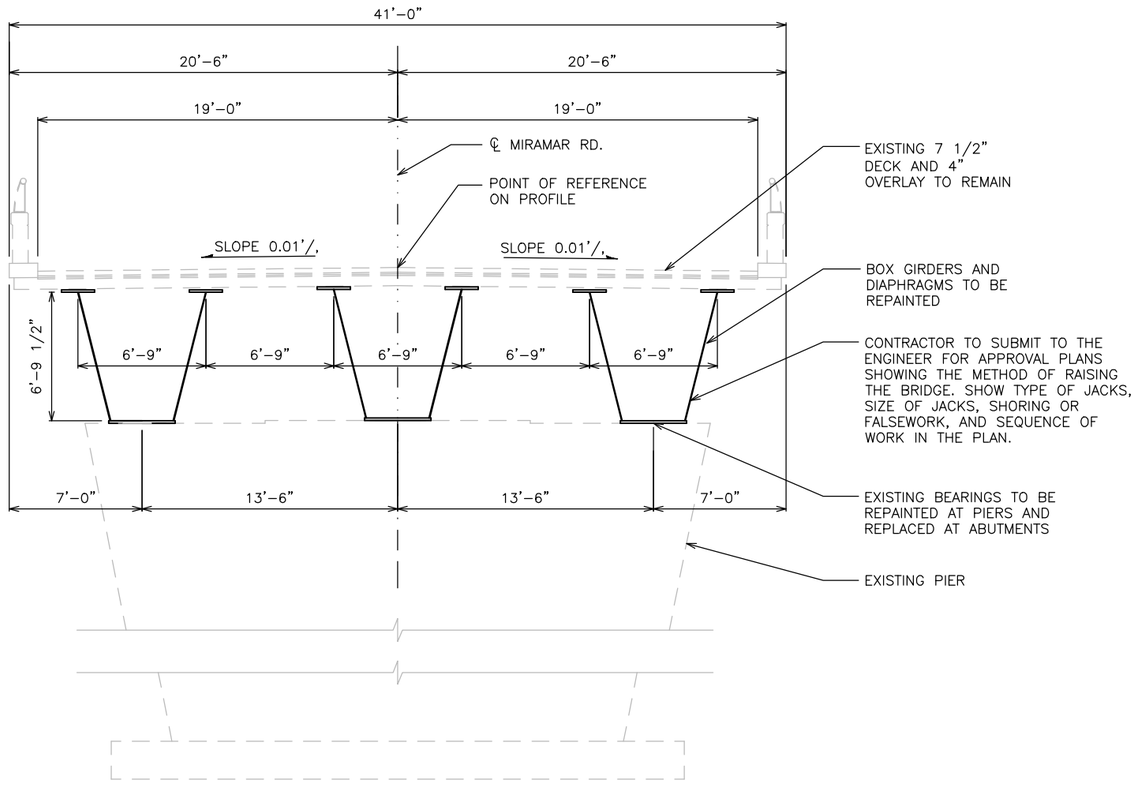
DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

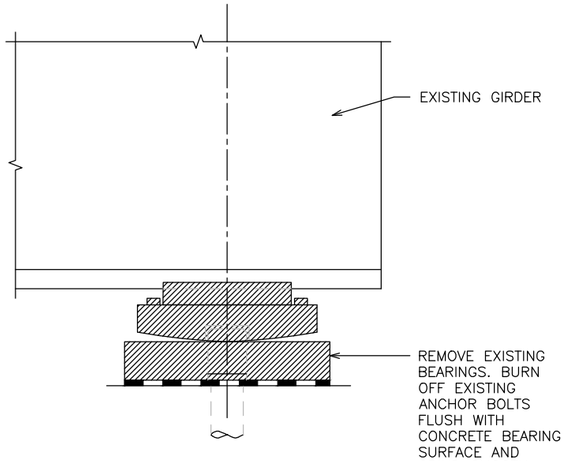
GENERAL PLAN

SHEET 1 OF 3

STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–87
(LOOKING NORTH)



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	WEST ABUT.	PIER	EAST ABUT.	SUPER	TOTALS
506.6000	BEARING ASSEMBLIES EXPANSION B–64–87	EA	3		3		6
506.7050.S.02	REMOVING BEARINGS B–64–87	EA	3		3		6
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		3			3
509.1500	CONCRETE SURFACE REPAIR	SF	25		25		50
517.1800.S.02	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–87	LS				1	1
517.4500.S.02	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–87	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	300		295		595

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–87

MIRAMAR ROAD OVER I.H.43

CONST SPEC	DRAWN BY	PLANS CHK'D
2013	KGC	SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

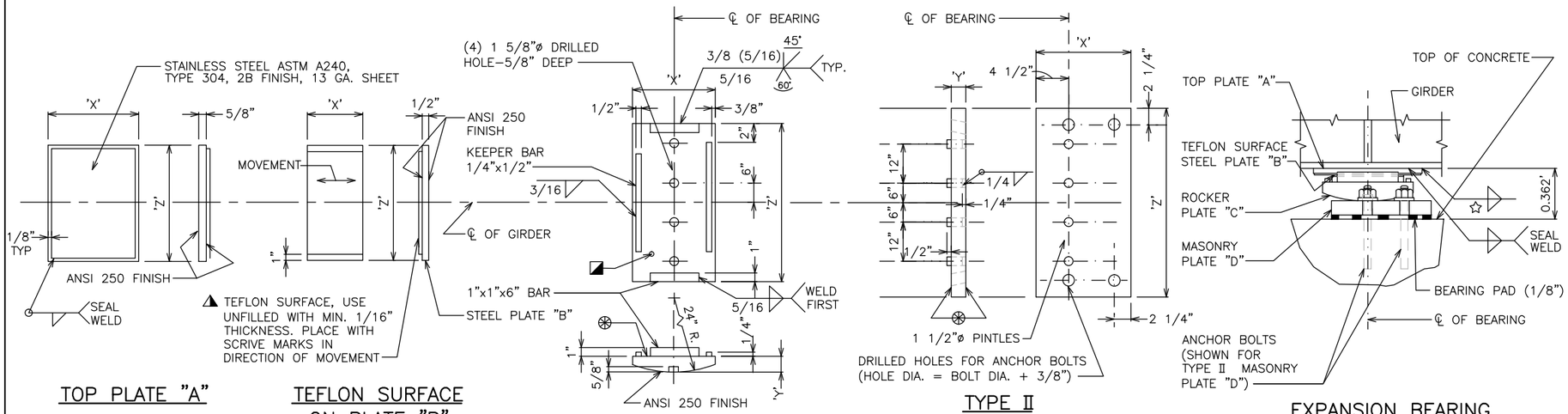
316

8

8

STATE PROJECT NUMBER

1090-15-72



TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

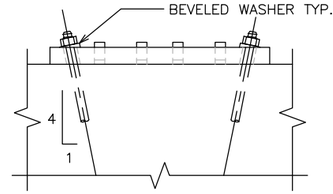
ROCKER PLATE "C"

TYPE II MASONRY PLATE "D"

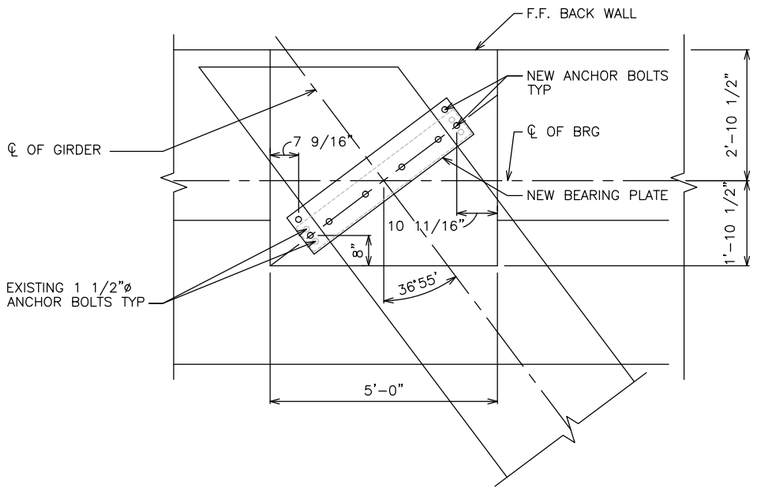
EXPANSION BEARING ASSEMBLY

EXPANSION BEARING

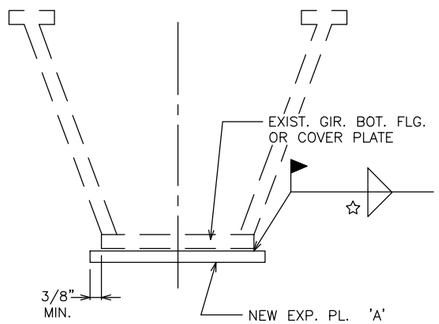
	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'				
EXPANSION BEARING	11"	42.75"	7"	42.75"	9"	1 7/16"	43"	12"	1.5"	52.75"	II	1.5"x1'-10"	3	WEST ABUT
	11"	42.75"	7"	42.75"	9"	1 7/16"	43"	12"	1.5"	52.75"	II	1.5"x1'-10"	3	EAST ABUT



MASONRY PLATE "D"



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS



BEARING REPLACEMENT DETAILS

TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	ǂMIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2" TO 2 1/4"	△ 3/8"
OVER 2 1/4" TO 6"	△ 1/2"

ǂ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-10 FOR 1 1/2" BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING ANCHOR BOLTS, STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-64-87", EACH.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

EXPANSION BEARINGS:
TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A".
ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

◭ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING FEDERAL SPECIFICATION MMM-A-134, FEP FILM OR EQUAL.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-87

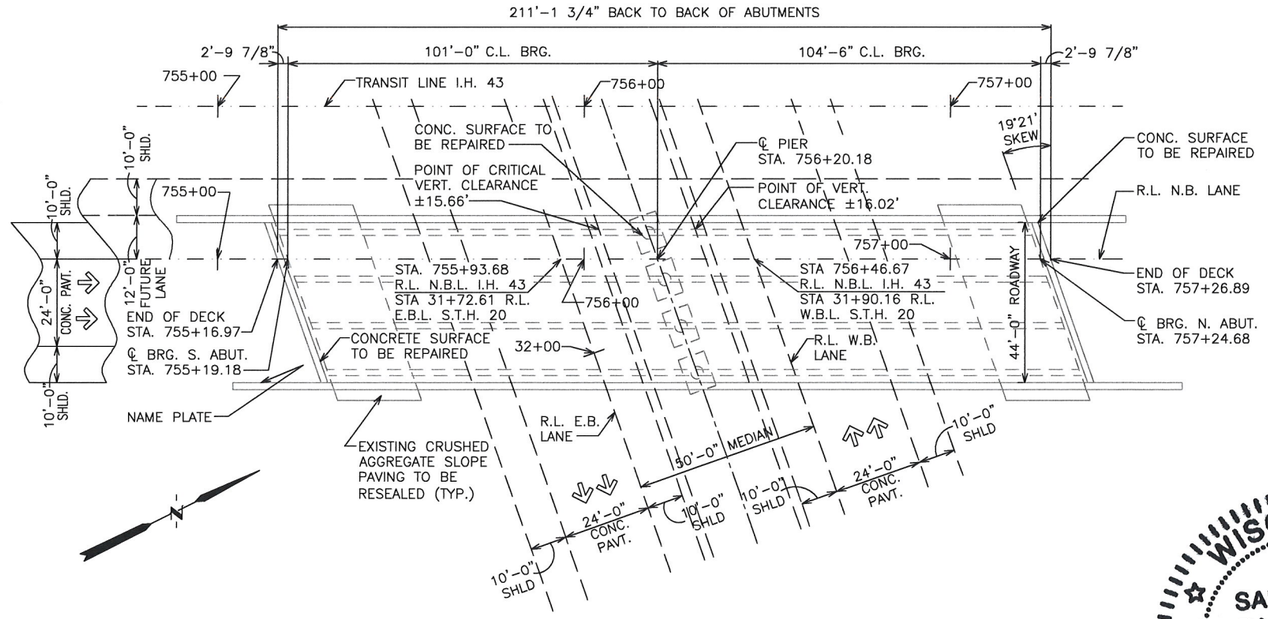
MIRAMAR ROAD OVER I.H.43

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

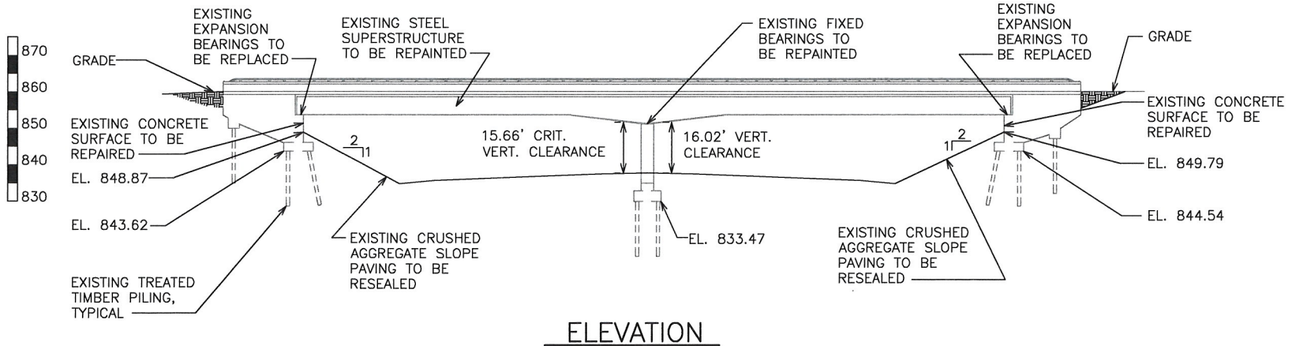
BEARING DETAILS

SHEET 3 OF 3

317



PLAN B–64–88
(TWO SPAN HAUNCHED STEEL PLATE GIRDER)



ELEVATION
(NORMAL TO S.T.H. 20)

STATE PROJECT NUMBER

1090–15–72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED INCLUDING FIXED BEARINGS.

CONCRETE SURFACE REPAIRS TO BE MADE AS DIRECTED BY THE ENGINEER.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT);

S.T.H. 20 (50MPH)----------12,300
(CONSTRUCTION YEAR 2014)

S.T.H. 20 (50MPH)----------15,500
(DESIGN YEAR 2034)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

I.H.43 (70MPH)----------30,000
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher for 08/13/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–88

I.H.43 NB OVER STH.20

COUNTY	TOWN ~~/CITY/VILLAGE~~
WALWORTH	EAST TROY

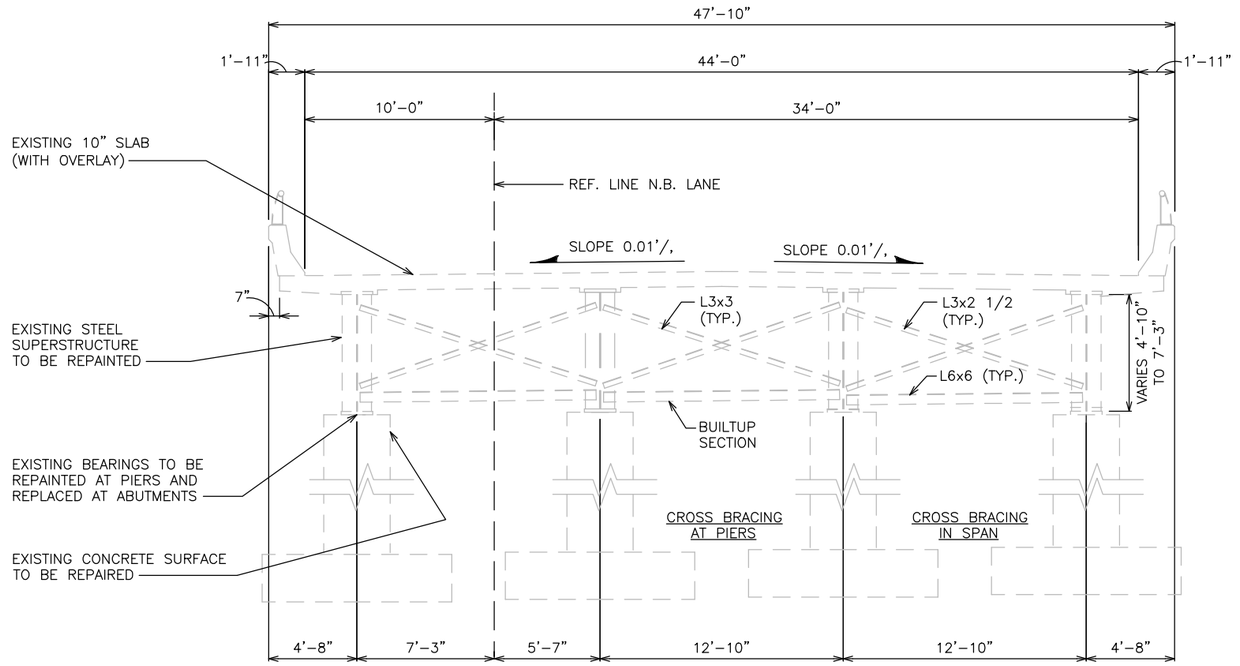
DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

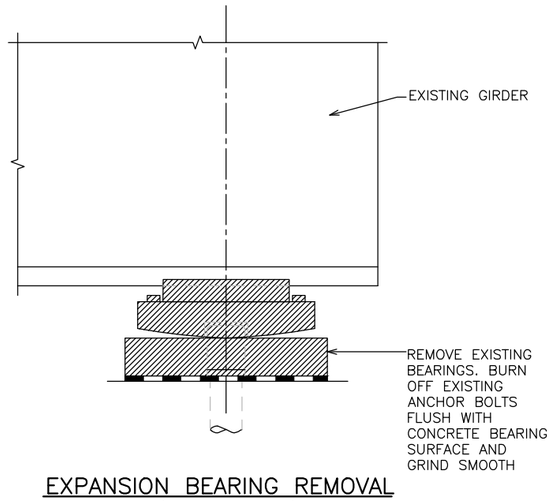
GENERAL PLAN

SHEET 1 OF 3

STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–88
(LOOKING NORTH)



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	4		4		8
506.7050.S.03	REMOVING BEARINGS B–64–88	EA	4		4		8
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		4			4
509.1500	CONCRETE SURFACE REPAIR	SF	45	5	15		65
517.1800.S.03	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–88	LS				1	1
517.4500.S.03	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–88	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	265		265		530

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–88

I.H.43 NB OVER STH.20

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

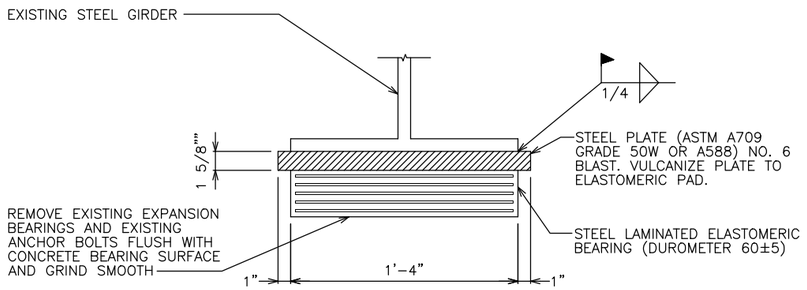
319

8

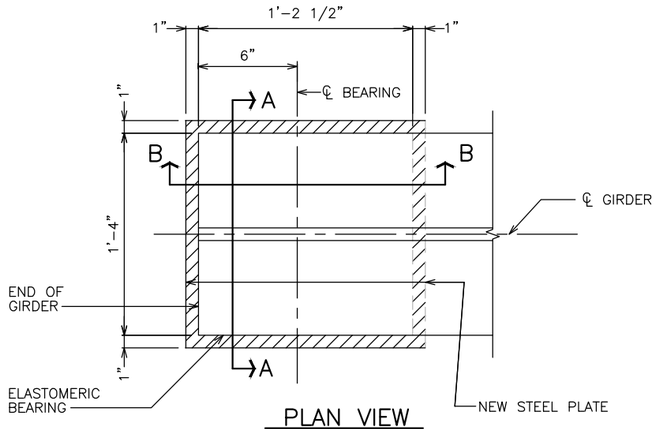
8

STATE PROJECT NUMBER

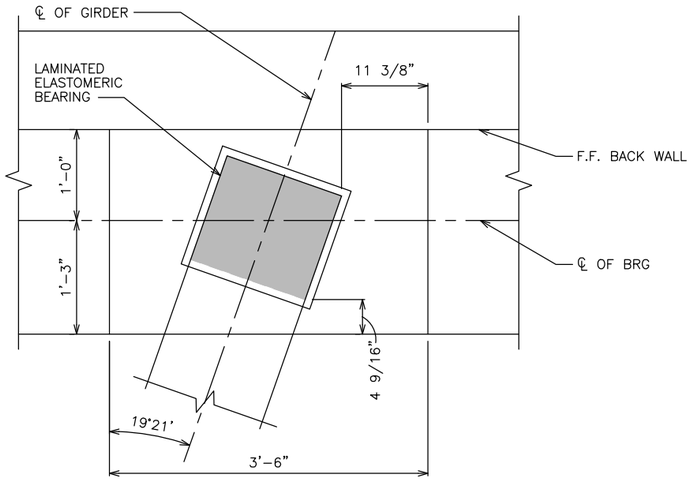
1090–15–72



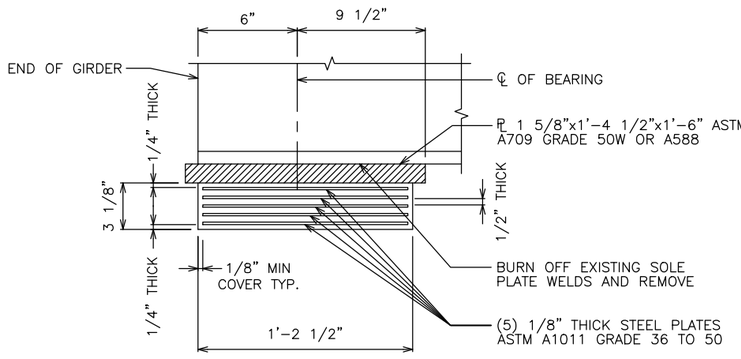
END VIEW A–A
(BOTH ABUTMENTS)



PLAN VIEW



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS



SECTION B–B THRU ELASTOMERIC BEARING

BEARING NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–88

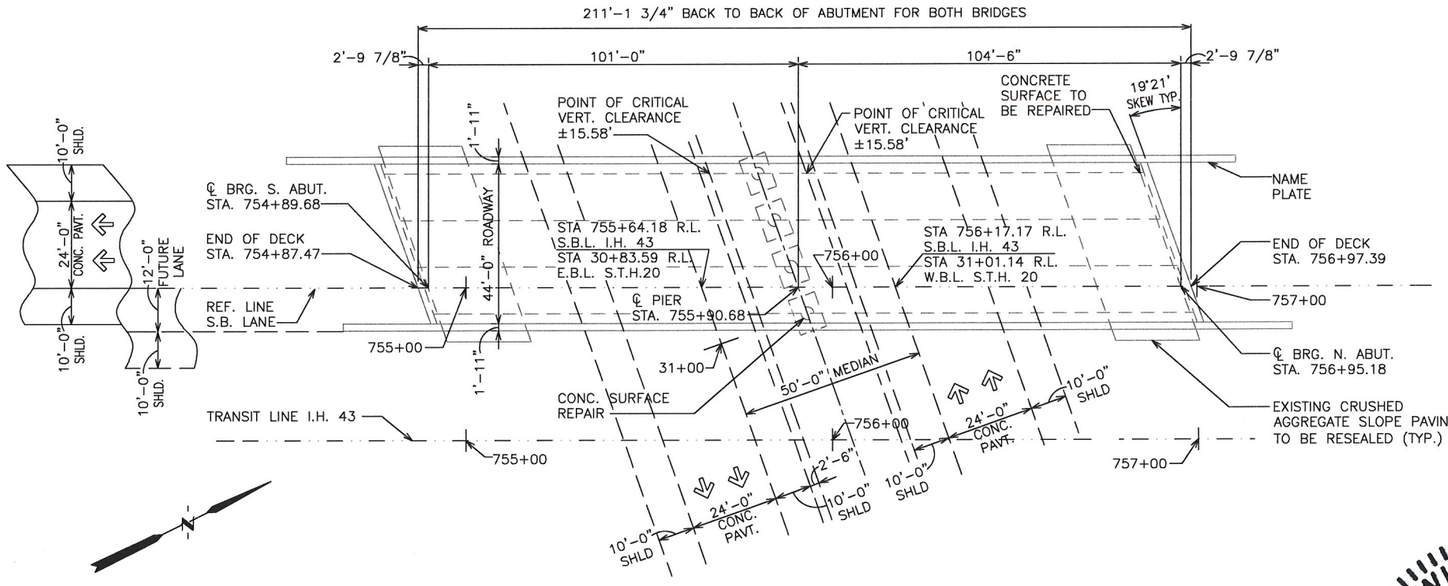
I.H.43 NB OVER STH.20

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

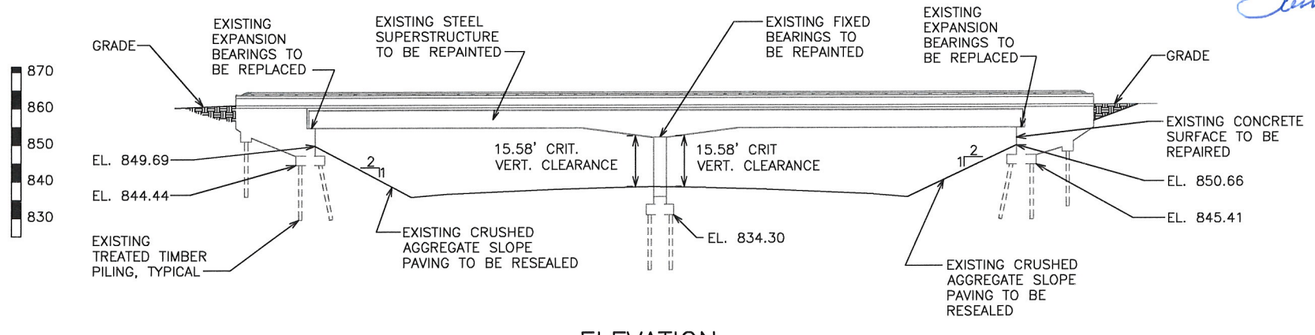
BEARING DETAIL

SHEET 3 OF 3

320



PLAN B–64–89
(TWO SPAN STEEL HAUNCHED PLATE GIRDER)



ELEVATION
(NORMAL TO S.T.H. 20)

STATE PROJECT NUMBER

1090–15–72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED INCLUDING FIXED BEARINGS.

CONCRETE SURFACE REPAIRS TO BE MADE AS DIRECTED BY THE ENGINEER.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT);

S.T.H. 20 (50MPH)----------12,300
(2014 CONSTRUCTION YEAR)

S.T.H. 20 (50MPH)----------15,500
(2034 DESIGN YEAR)

I.H.43 (70MPH)----------25,200
(2014 CONSTRUCTION YEAR)

I.H.43 (70MPH)----------30,000
(2034 DESIGN YEAR)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/13/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–89

I.H.43 SB OVER STH.20

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	EAST TROY

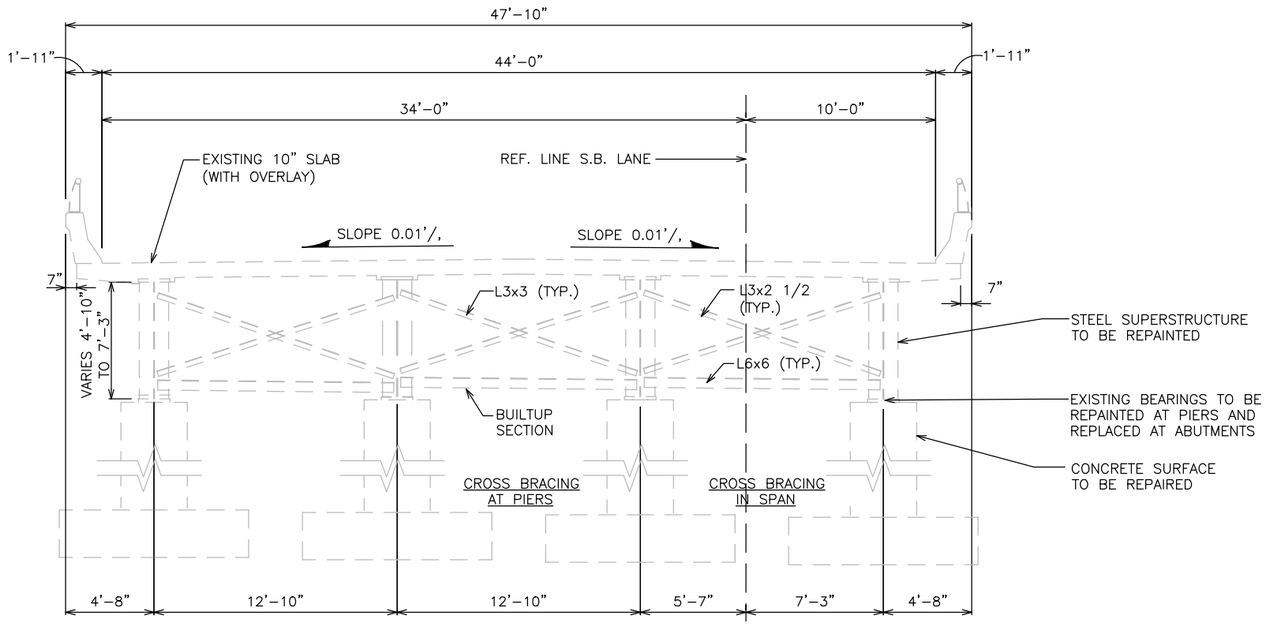
DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

GENERAL PLAN

SHEET 1 OF 3

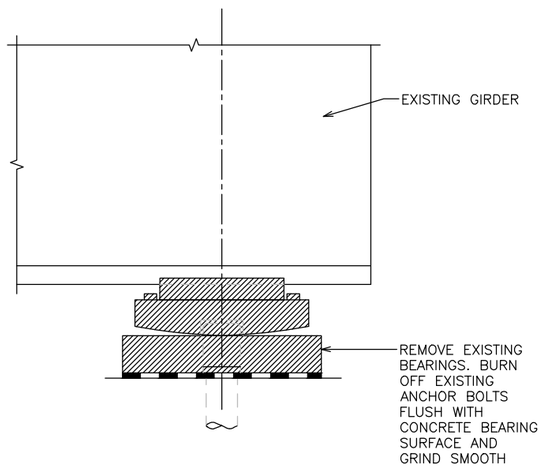
STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–89
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	4		4		8
506.7050.S.04	REMOVING BEARINGS B–64–89	EA	4		4		8
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		4			4
509.1500	CONCRETE SURFACE REPAIR	SF		5	20		25
517.1800.S.04	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–89	LS				1	1
517.4500.S.04	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–89	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	225		260		485



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–89

I.H.43 SB OVER STH.20

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

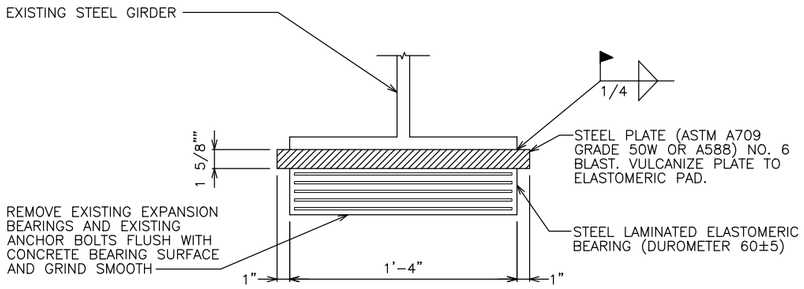
322

8

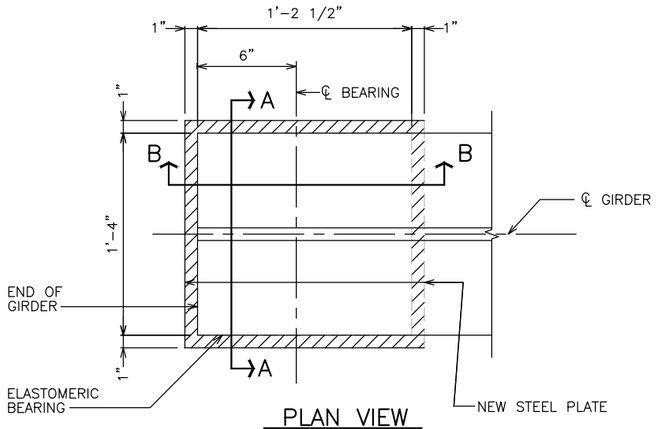
8

STATE PROJECT NUMBER

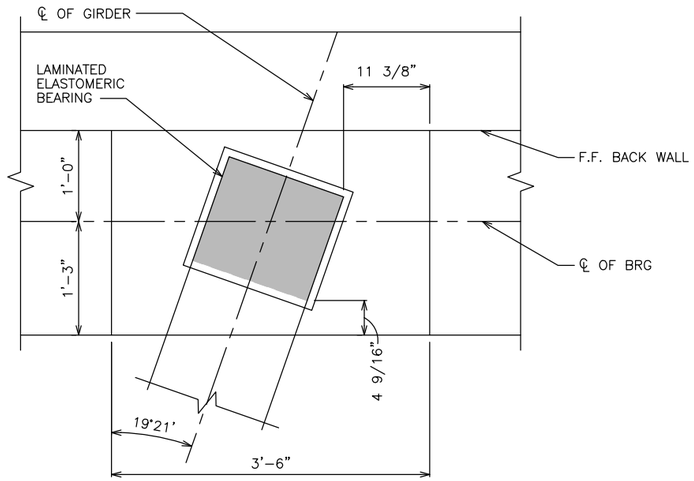
1090–15–72



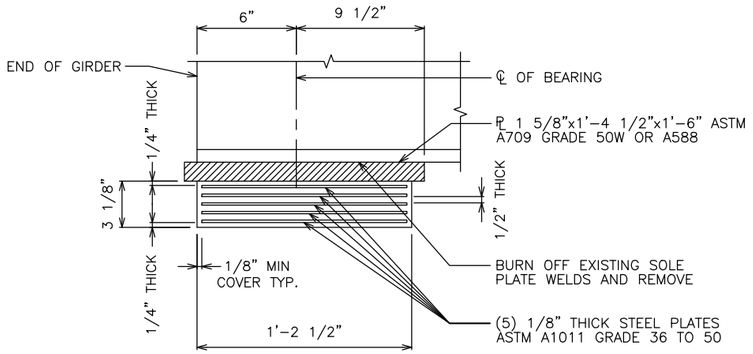
END VIEW A–A
(BOTH ABUTMENTS)



PLAN VIEW



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS



SECTION B–B THRU ELASTOMERIC BEARING

BEARING NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–89

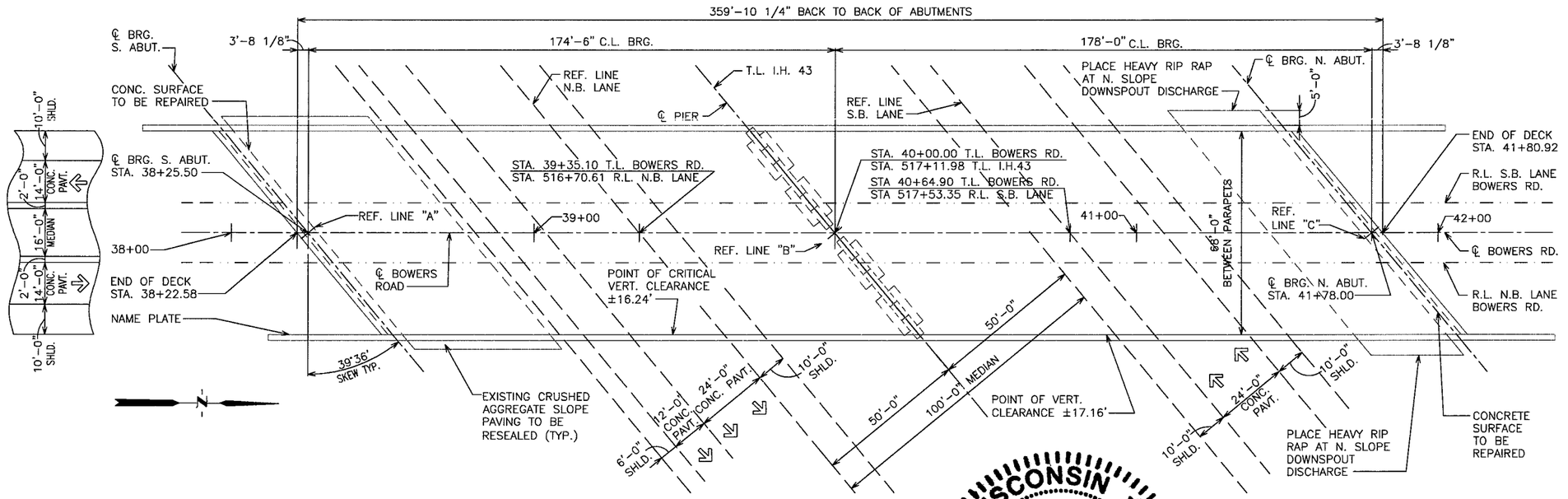
I.H.43 SB OVER STH.20

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

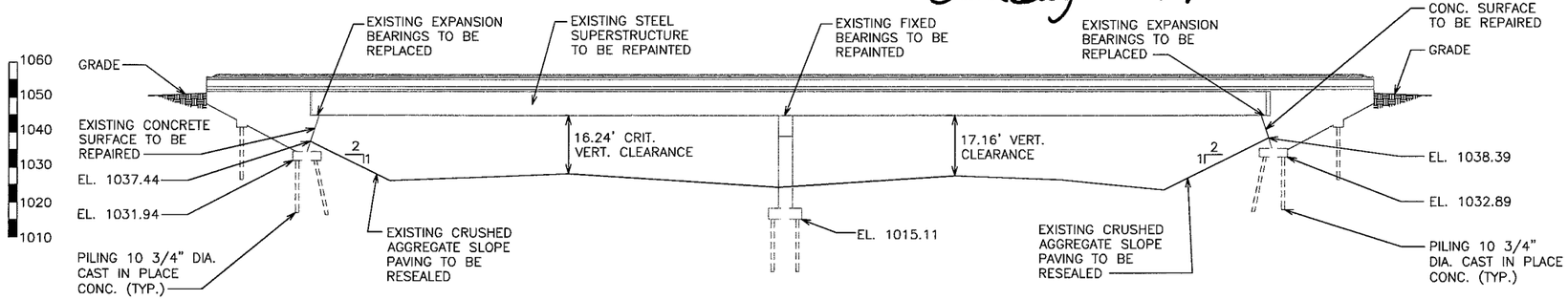
BEARINGS DETAILS

SHEET 3 OF 3

323



PLAN B-64-94
(TWO SPAN STEEL PLATE GIRDER)



ELEVATION
(NORMAL TO I.H. 43)

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER
Sam Barghout 7/8/2013

LIST OF DRAWINGS

1. GENERAL PLAN
2. EXISTING CROSS SECTION AND ESTIMATED QUANTITIES
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

STATE PROJECT NUMBER

1090-15-72

EXISTING HSI DESIGN DATA:

LIVE LOAD: HS-20 EXISTING
INVENTORY RATING: HS-17 (EXISTING)
OPERATING RATING: HS-28 (EXISTING)
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 233 KIPS (EXISTING)

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY-SLAB----f'c=4,000 PSI
ALL OTHERS----------f'c=3,500 PSI

GENERAL NOTES

PROPOSED WORK CONSISTS OF EXPANSION BEARING REPLACEMENT, PAINTING, CONCRETE SURFACE REPAIR, HEAVY RIP RAP, AND RESEALING SLOPE PAVING.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED BLUE (MEDIUM SKY BLUE TONE) #25240 INCLUDING FIXED BEARINGS.

CONCRETE SURFACE REPAIRS TO BE MADE AS DIRECTED BY THE ENGINEER.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT);

BOWERS ROAD (50MPH)_____2,300
(CONSTRUCTION YEAR 2014)

BOWERS ROAD (50MPH)_____2,500
(DESIGN YEAR 2034)

I.H.43 (70MPH)_____25,200
(CONSTRUCTION YEAR 2014)

I.H.43 (70MPH)_____30,000
(DESIGN YEAR 2034)

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 07/24/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-94

BOWERS ROAD OVER I.H.43

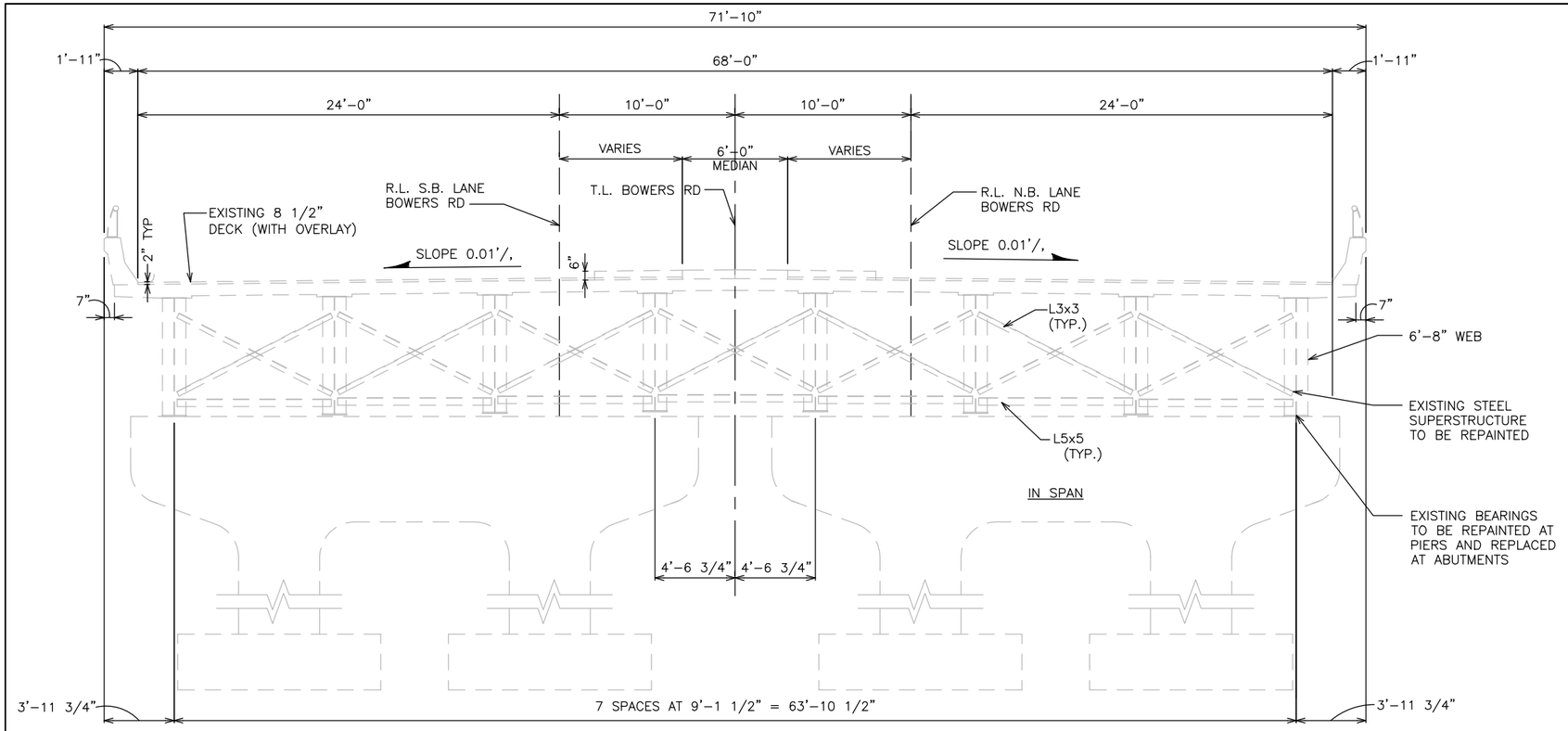
COUNTY	TOWN/~~CITY~~/~~VILLAGE~~
WALWORTH	LAFAYETTE

DESIGN SPEC.
REHABILITATION N/A

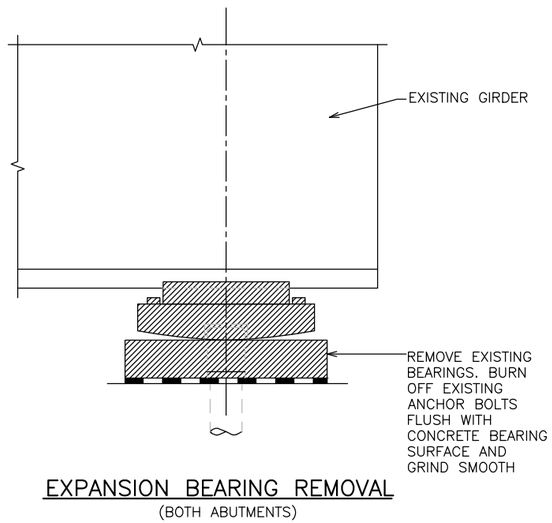
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

GENERAL PLAN

SHEET 1 OF 3



CROSS SECTION OF B-64-97
(LOOKING NORTH)



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

STATE PROJECT NUMBER
1090-15-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	8		8		16
506.7050.S.05	REMOVING BEARINGS B-64-94	EA	8		8		16
509.1500	CONCRETE SURFACE REPAIR	SF	40		40		80
517.1800.S.05	STRUCTURE REPAINTING RECYCLED ABRASIVE B-64-94	LS				1	1
517.4500.S.05	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B-64-94	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	405		475		880
606.0300	RIPRAP HEAVY	CY			32		32
645.0120	GEOTEXTILE FABRIC TYPE HR	SY			50		50
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		8			8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-94

DRAWN BY KGC | PLANS CHK'D SDB

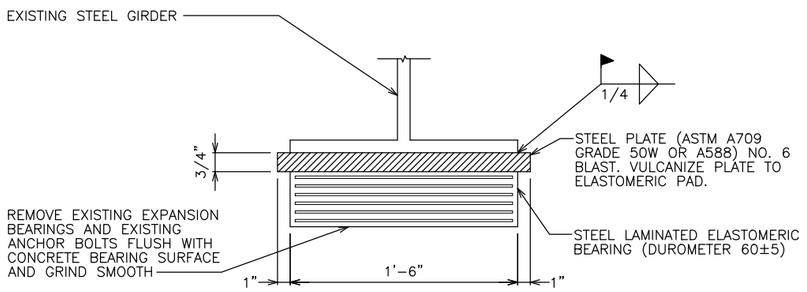
EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

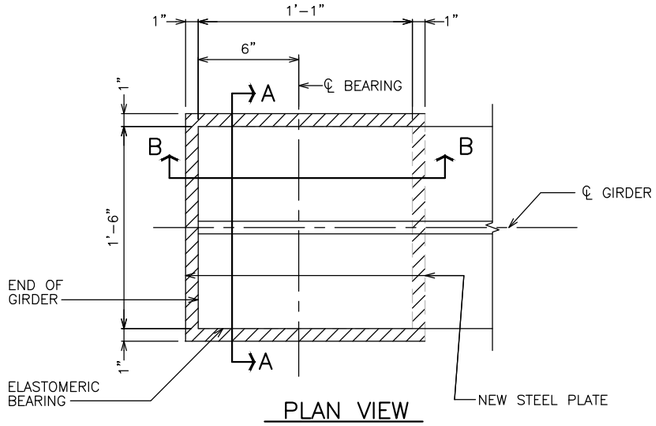
325

STATE PROJECT NUMBER

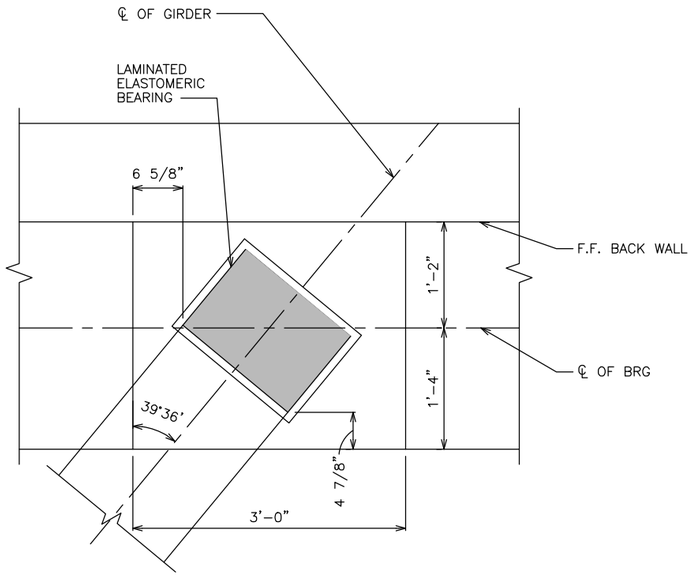
1090–15–72



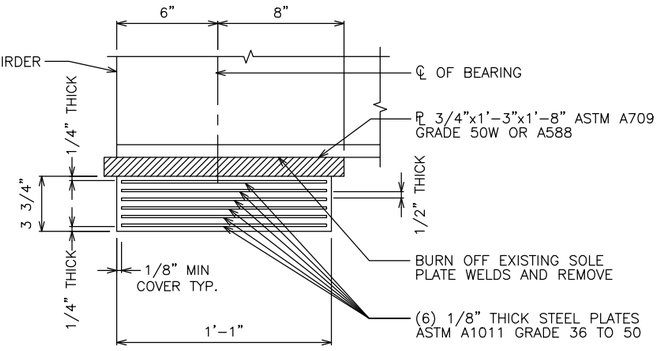
END VIEW A–A
(BOTH ABUTMENTS)



PLAN VIEW



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS



SECTION B–B THRU ELASTOMERIC BEARING

BEARING NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

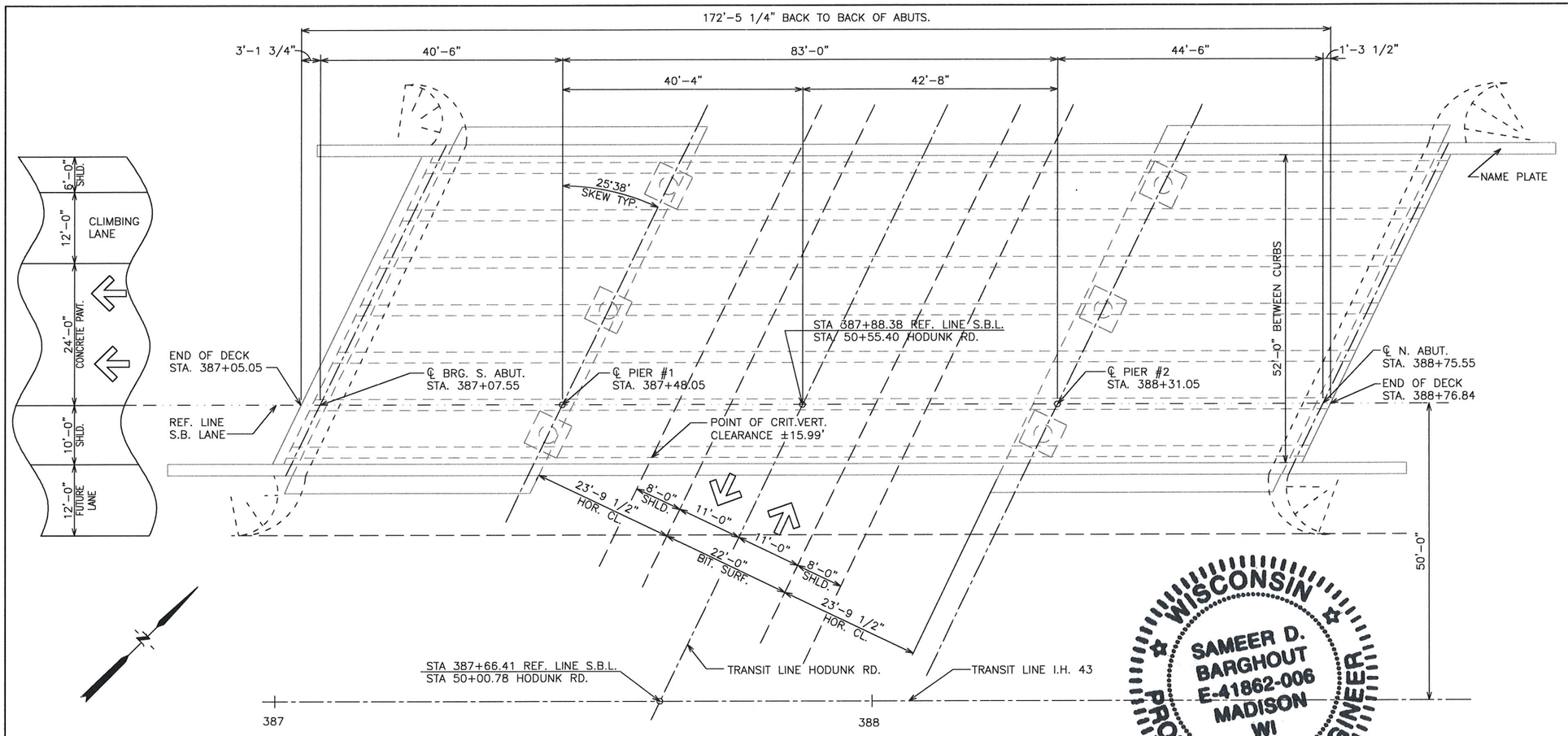
STRUCTURE B–64–94

DRAWN BY KGC | PLANS CHK'D SDB

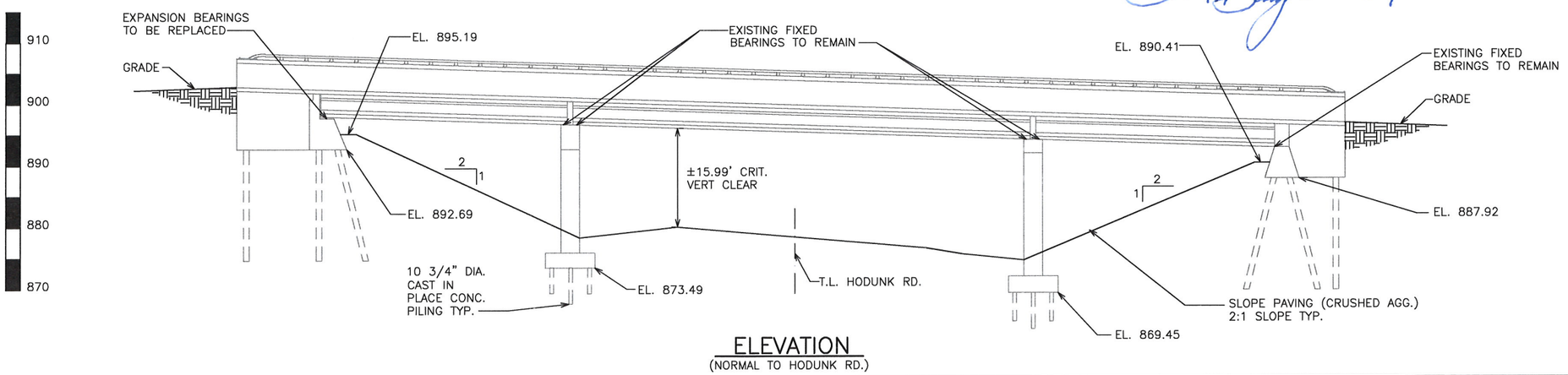
BEARING DETAILS

SHEET 3 OF 3

326



PLAN B-64-97
(3 SPAN PRESTRESSED GIRDER)



ELEVATION
(NORMAL TO HODUNK RD.)

STATE PROJECT NUMBER

1090-15-72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH) ----------30,000
(DESIGN YEAR 2034)

HODUNK ROAD ----------40
(CONSTRUCTION YEAR 2010)

HODUNK ROAD ----------100
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. EXIST CROSS SECTION AND ESTIMATED QUANTITIES
3. PRESTRESSED GIRDER EXPANSION BEARINGS

WISCONSIN PROFESSIONAL ENGINEER
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI

Sam Barghout 5/31/2013

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-97

I.H.43 SB OVER HODUNK ROAD

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	LAFAYETTE

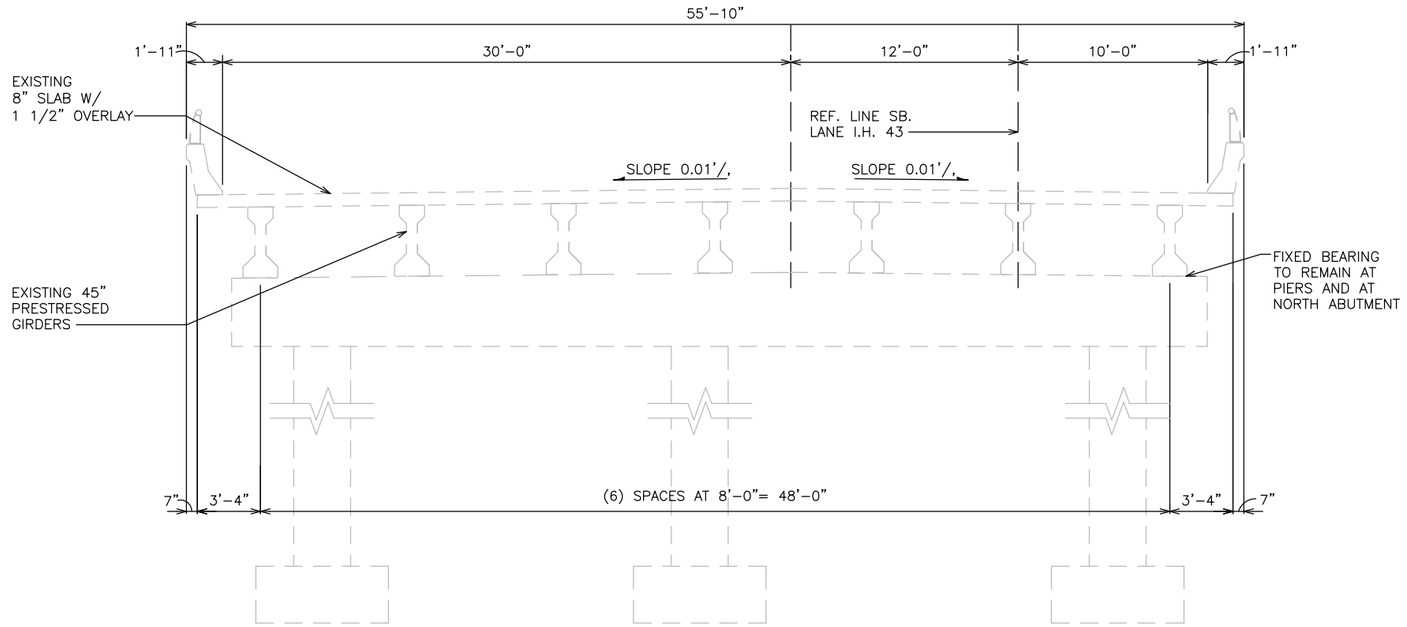
DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	SDB	DESIGN CK'D.	JJH	DRAWN BY	DAS	PLANS CK'D.	SDB

GENERAL PLAN

SHEET 1 OF 3

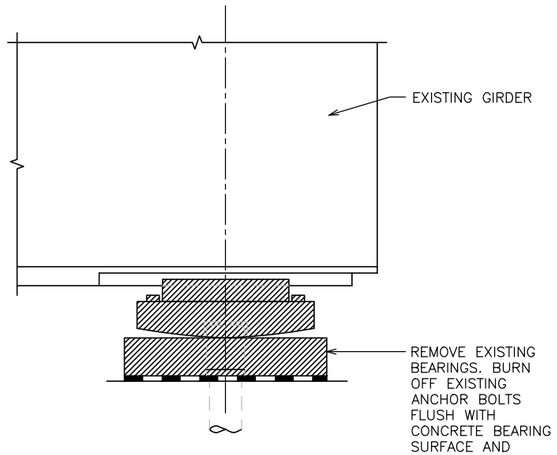
STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–97
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEMS NUMBER	BID ITEM DESCRIPTION	UNIT	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	7
506.7050.S.06	REMOVING BEARINGS B–64–97	EA	7



EXPANSION BEARING REMOVAL
(SOUTH ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–97

I.H.43 SB OVER HODUNK ROAD

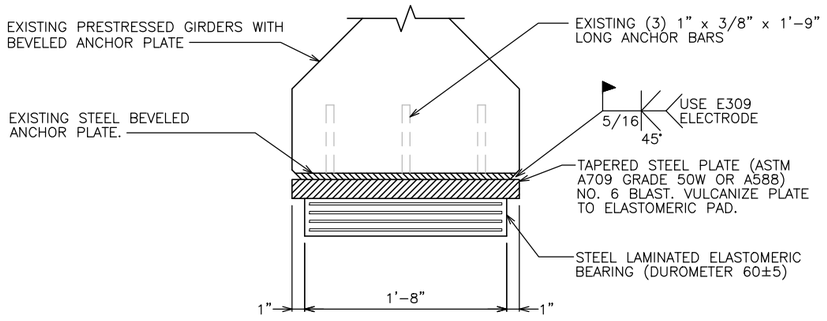
CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

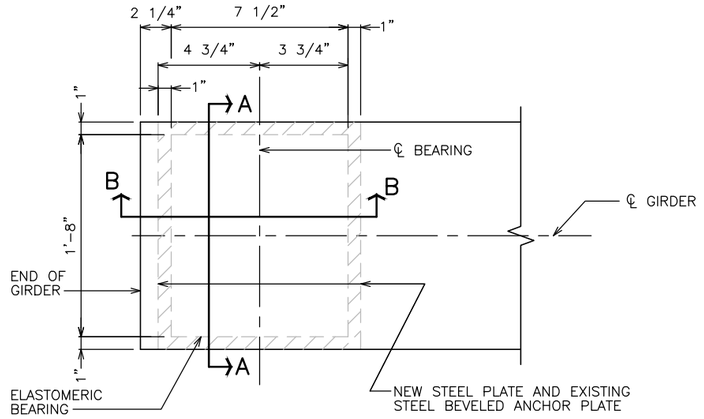
SHEET 2 OF 3

STATE PROJECT NUMBER

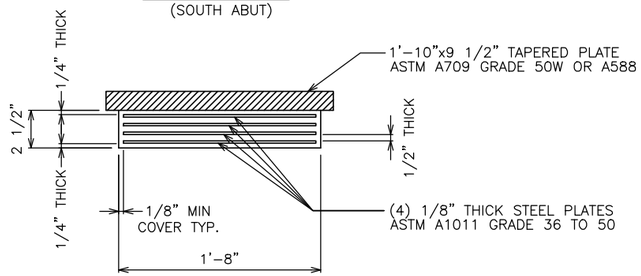
1090-15-72



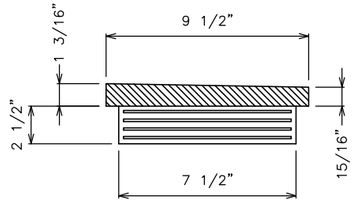
END VIEW
(SOUTH ABUT)



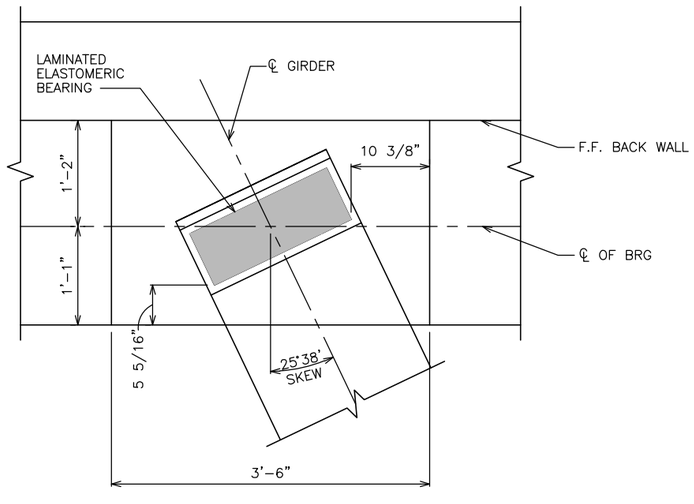
PLAN VIEW



SECTION A-A THRU ELASTOMERIC BEARING



SECTION B-B THRU ELASTOMERIC BEARING



CLEARANCE DIAGRAM AT SKEWED ABUTMENT

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-97

I.H.43 SB OVER HODUNK ROAD

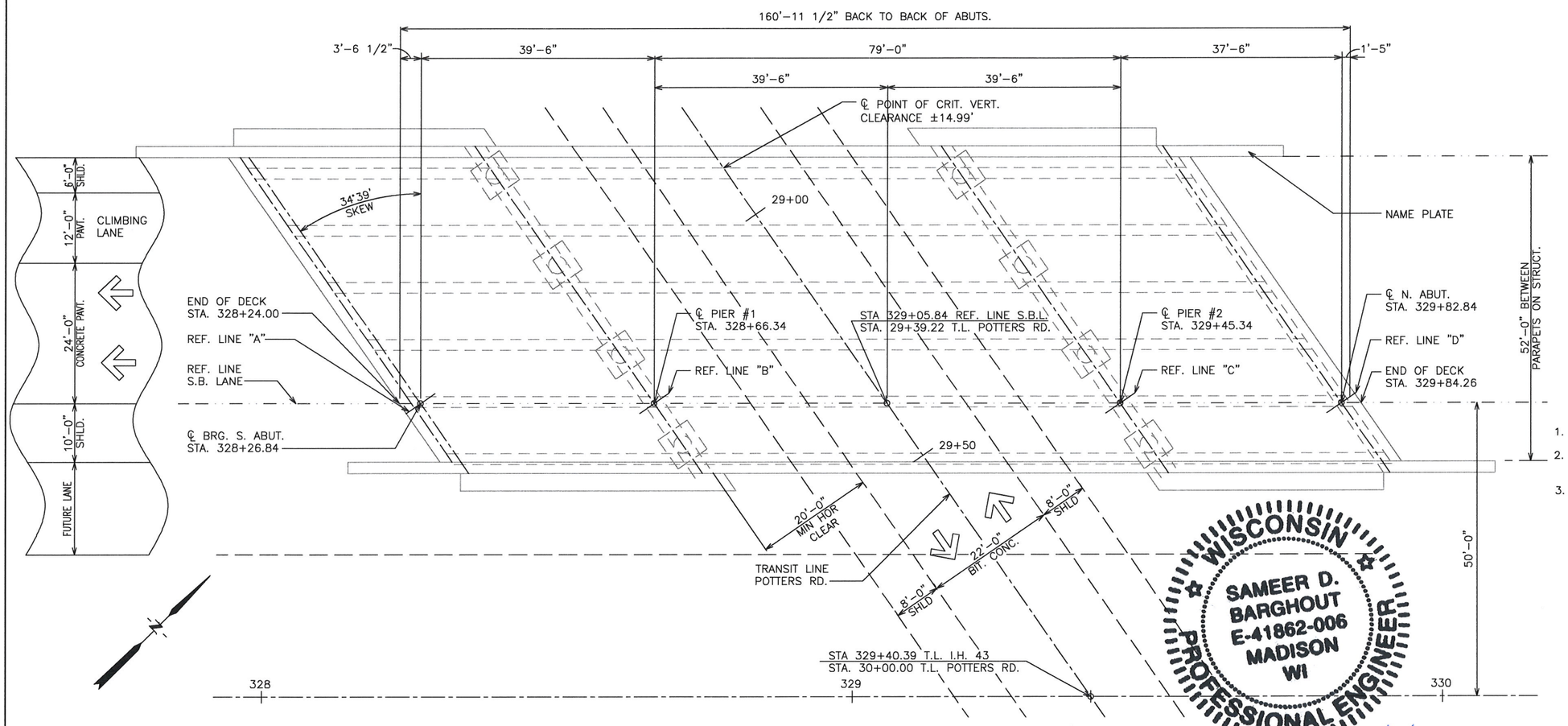
CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

PRESTRESSED GIRDER EXPANSION BEARINGS

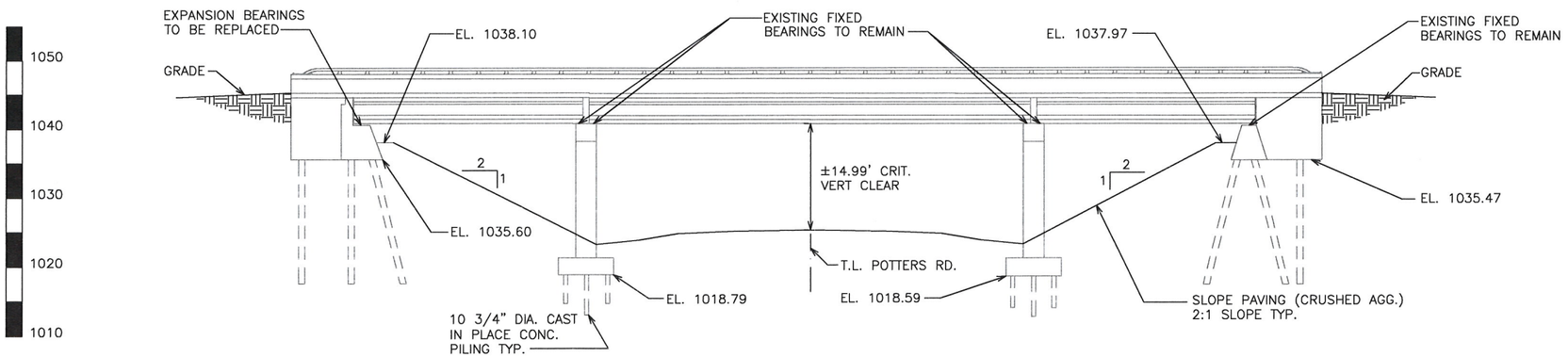
SHEET 3 OF 3

STATE PROJECT NUMBER

1090–15–72



PLAN B–64–99
(3 SPAN PRESTRESSED GIRDER)



ELEVATION
(NORMAL TO POTTERS RD.)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH)----------30,000
(DESIGN YEAR 2034)

POTTERS ROAD (45MPH)----------150
(CONSTRUCTION YEAR 2010)

POTTERS ROAD (45MPH)----------200
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. EXIST CROSS SECTION AND ESTIMATED QUANTITIES
3. PRESTRESSED GIRDER EXPANSION BEARINGS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–99

I.H.43 SB OVER POTTERS ROAD

COUNTY	TOWN ~~/CITY/VILLAGE~~
WALWORTH	LAFAYETTE

DESIGN SPEC.
REHABILITATION N/A

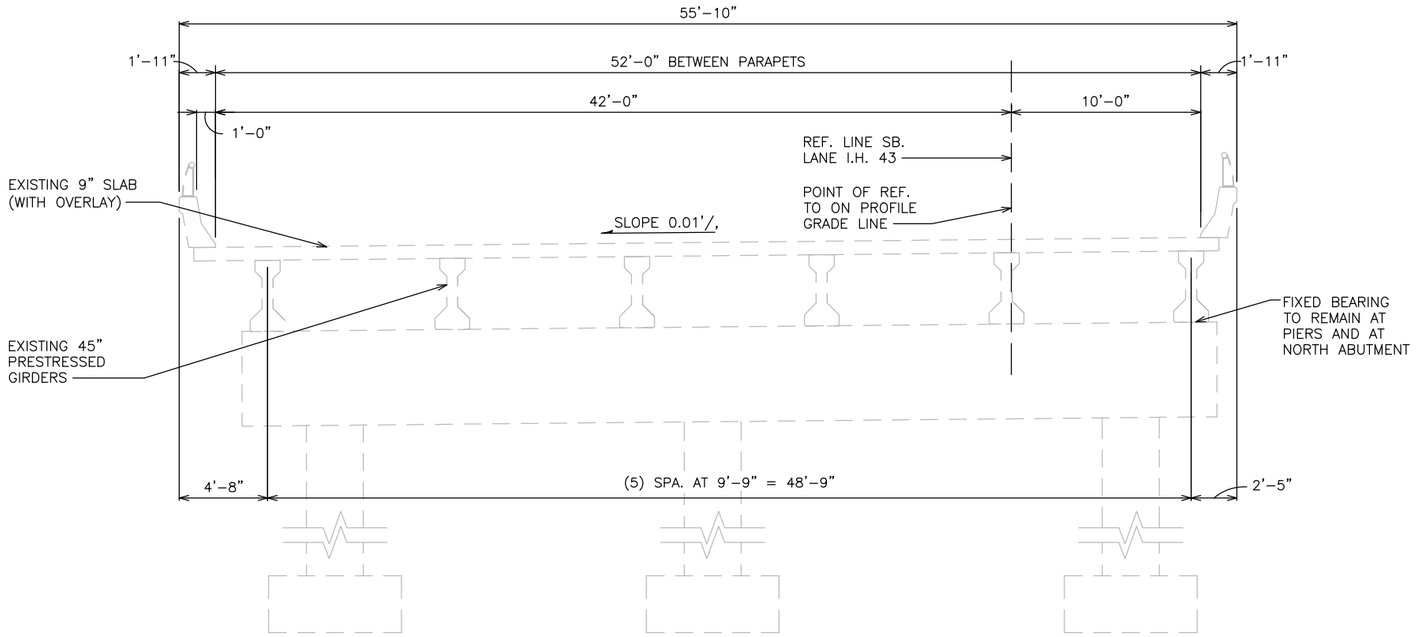
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	DAS	SDB

GENERAL PLAN

SHEET 1 OF 3

STATE PROJECT NUMBER

1090-15-72

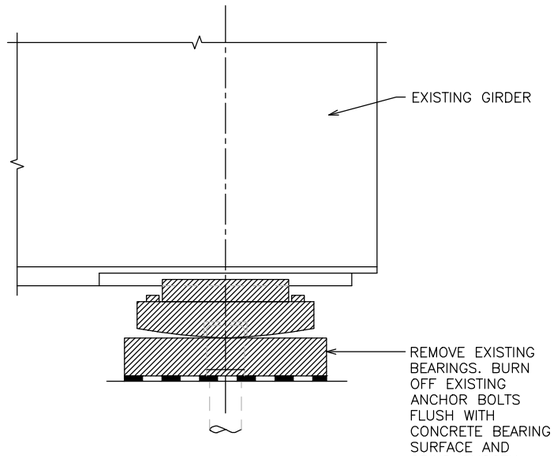


CROSS SECTION OF B-64-99

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEMS NUMBER	BID ITEM DESCRIPTION	UNIT	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	6
506.7050.S.07	REMOVING BEARINGS B-64-99	EA	6



EXPANSION BEARING REMOVAL

(SOUTH ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-99

I.H.43-SB OVER POTTERS ROAD

CONST SPEC	DRAWN BY	PLANS CHK'D
2013	DAS	SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

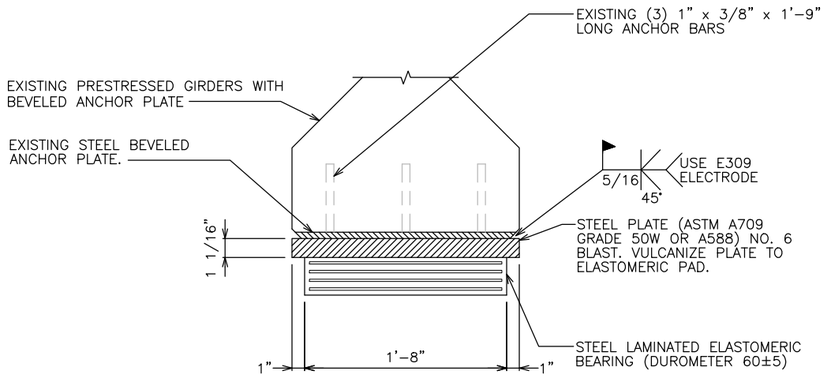
331

8

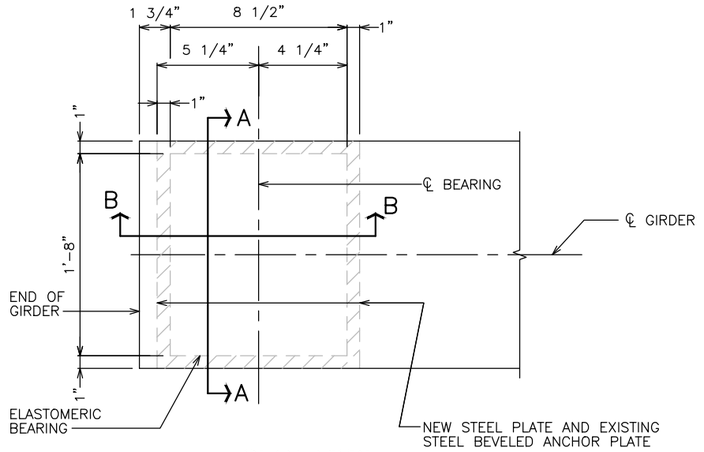
8

STATE PROJECT NUMBER

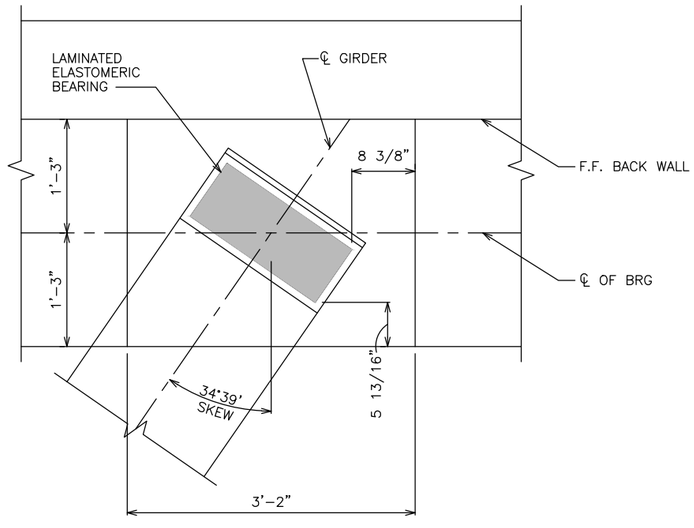
1090–15–72



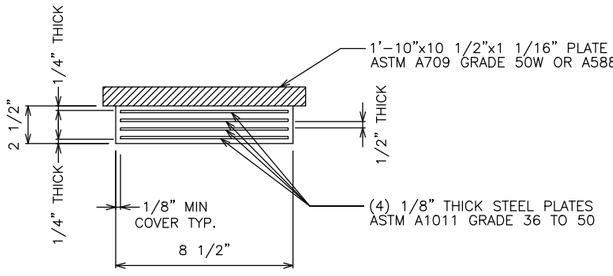
END VIEW A–A
(SOUTH ABUT)



PLAN VIEW



CLEARANCE DIAGRAM AT SKEWED ABUTMENT



SECTION B–B THRU ELASTOMERIC BEARING

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

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GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

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8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–99

I.H.43–SB OVER POTTERS ROAD

CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

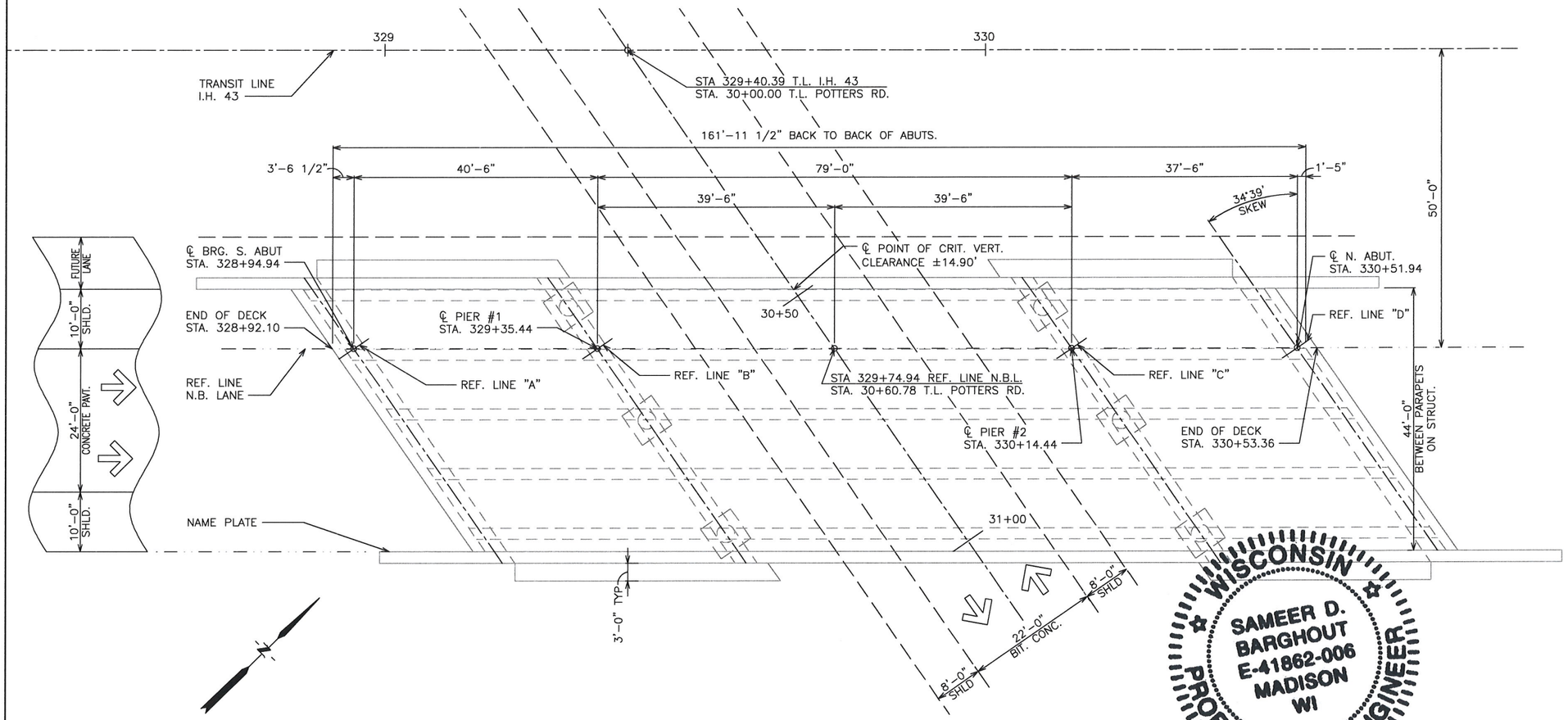
PRESTRESSED GIRDER EXPANSION BEARINGS

SHEET 3 OF 3

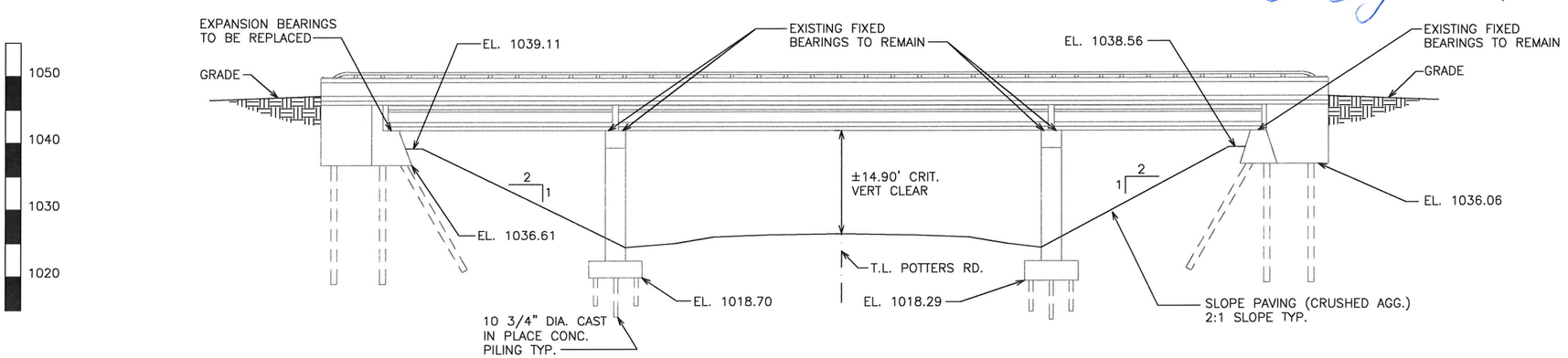
332

STATE PROJECT NUMBER

1090-15-72



PLAN B-64-100
(3 SPAN PRESTRESSED GIRDER)



ELEVATION
(NORMAL TO POTTERS RD.)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH) ----------30,000
(DESIGN YEAR 2034)

POTTERS ROAD (45MPH)----------150
(CONSTRUCTION YEAR 2010)

POTTERS ROAD (45MPH)----------200
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. EXIST CROSS SECTION AND ESTIMATED QUANTITIES
3. PRESTRESSED GIRDER EXPANSION BEARINGS

SAMEER D. BARGHOUT E-41862-006 MADISON WI
WISCONSIN PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-100

I.H.43 NB OVER POTTERS ROAD

COUNTY	TOWN/~~CITY~~/~~VILLAGE~~
WALWORTH	LAFAYETTE

DESIGN SPEC. REHABILITATION N/A

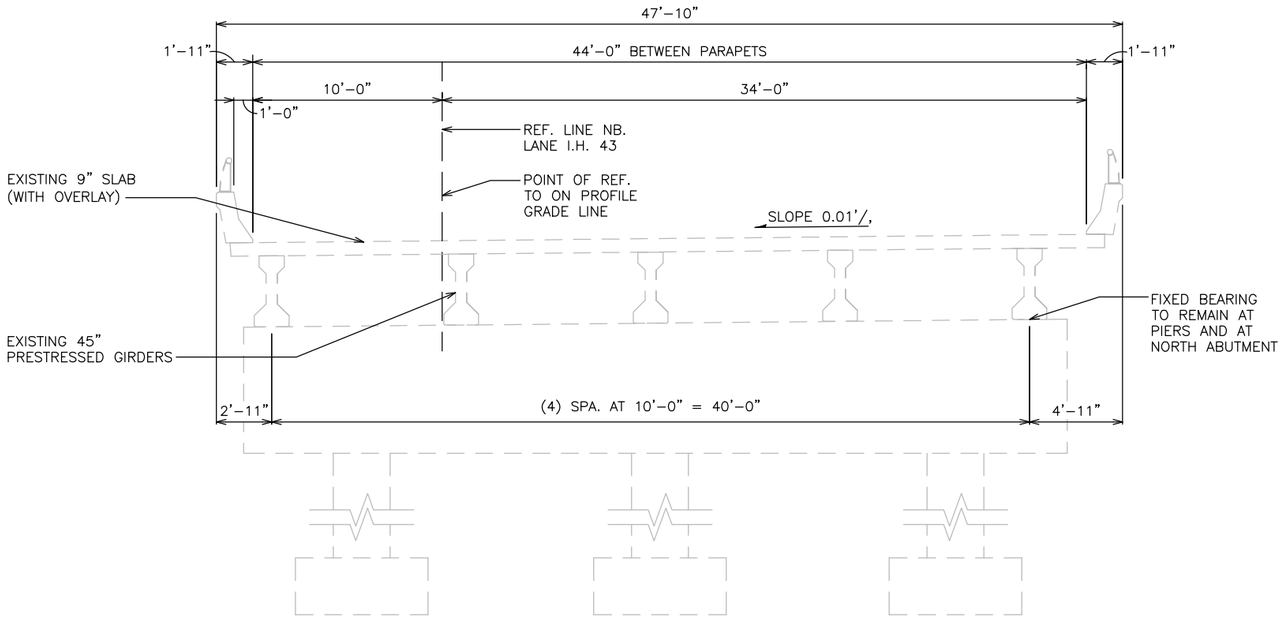
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	DAS	SDB

GENERAL PLAN

SHEET 1 OF 3

STATE PROJECT NUMBER

1090-15-72



CROSS SECTION OF B-64-100
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEMS NUMBER	BID ITEM DESCRIPTION	UNIT	TOTALS
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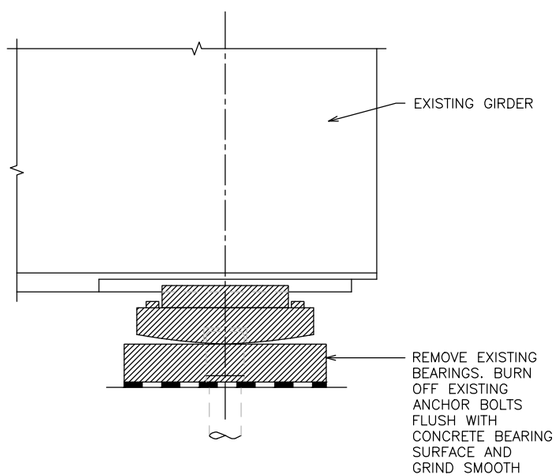
506.7050.S.08	REMOVING BEARINGS B-64-100	EA	5



EXPANSION BEARING REMOVAL
(SOUTH ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-100

I.H.43 NB OVER POTTERS ROAD

CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

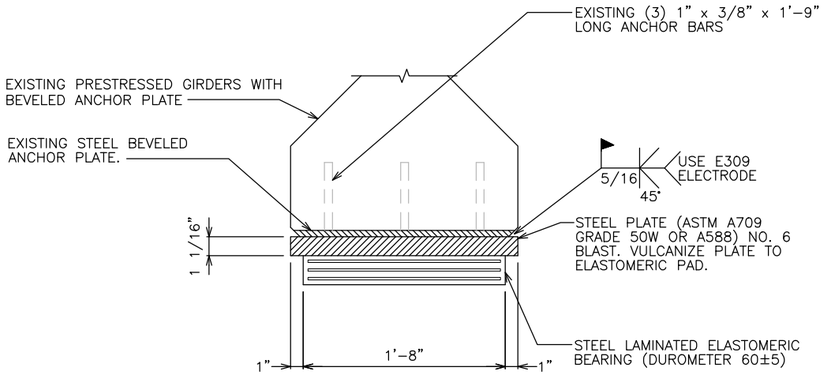
EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

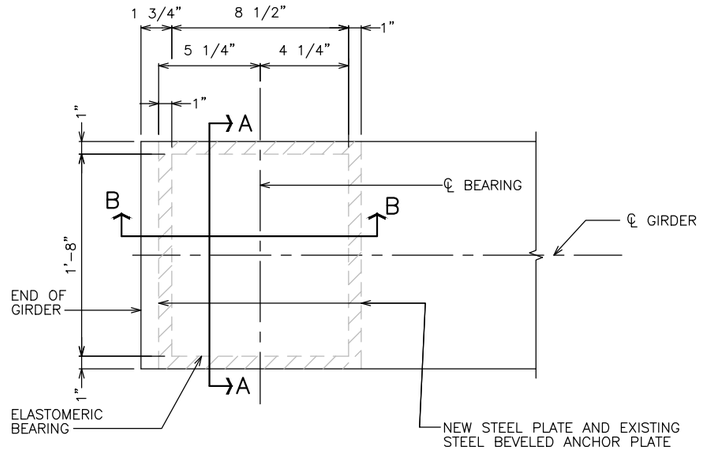
334

STATE PROJECT NUMBER

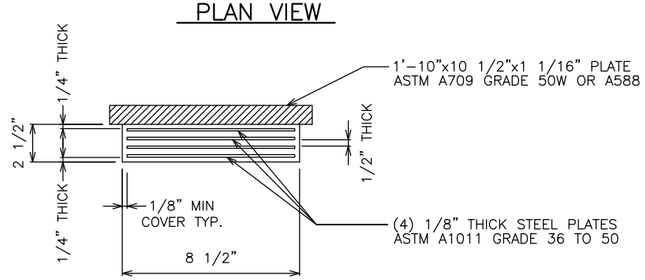
1090-15-72



END VIEW A-A
(SOUTH ABUT)



PLAN VIEW



SECTION B-B THRU ELASTOMERIC BEARING

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

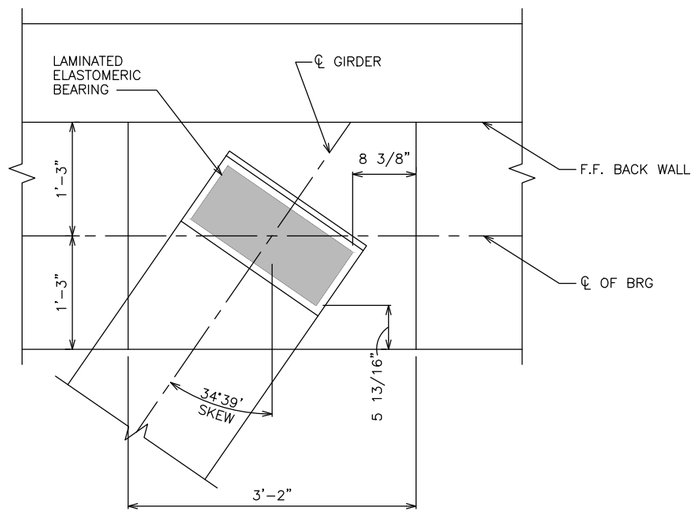
ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.



CLEARANCE DIAGRAM AT SKEWED ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-100

I.H.43 NB OVER POTTERS ROAD

CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

PRESTRESSED GIRDER EXPANSION BEARINGS

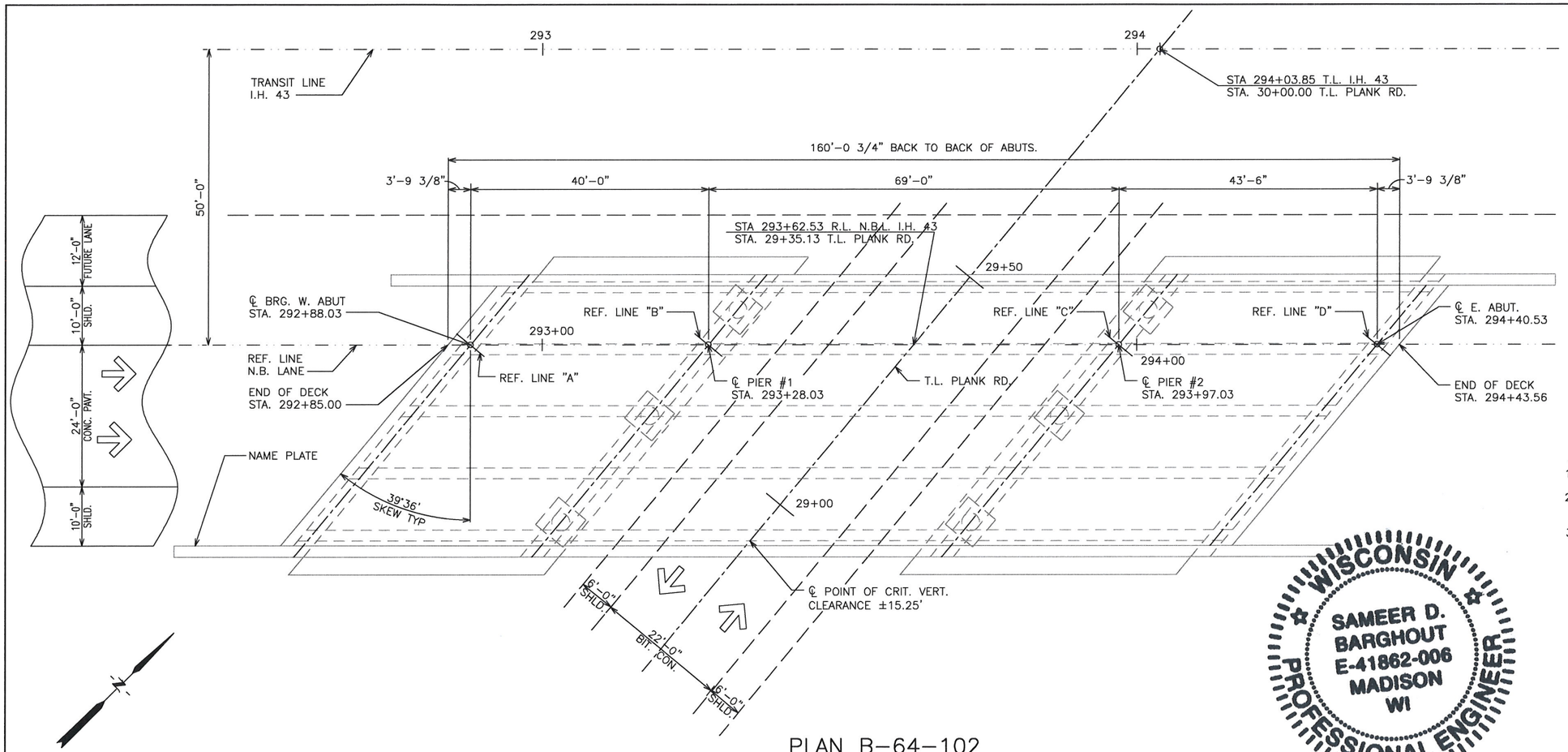
SHEET 3 OF 3

335

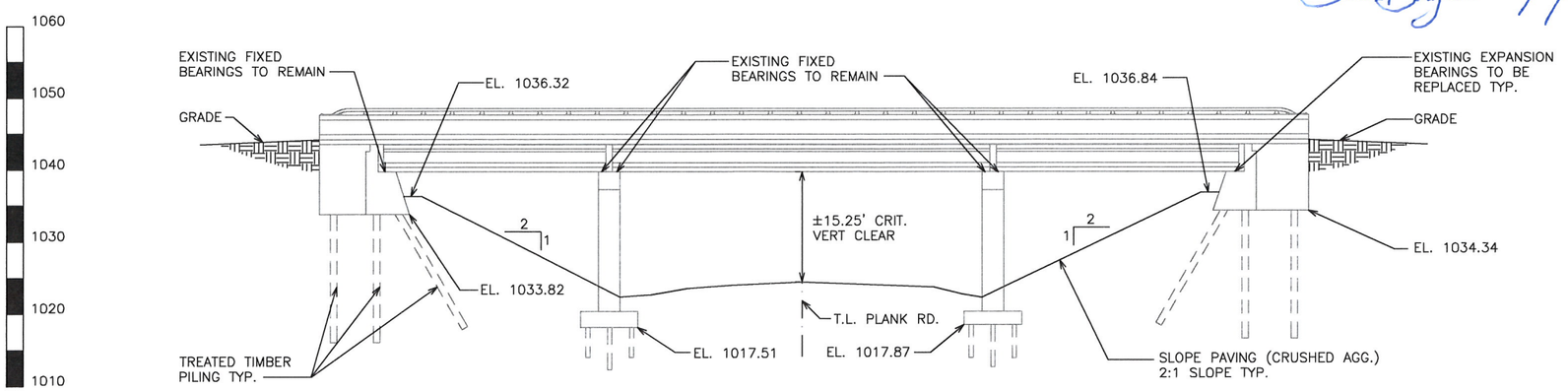
08

08

STATE PROJECT NUMBER
1090–15–72



PLAN B–64–102
(3 SPAN PRESTRESSED GIRDER)



ELEVATION
(NORMAL TO PLANK RD.)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

I.H.43 (70MPH)----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH) ----------30,000
(DESIGN YEAR 2031)

PLANK ROAD ----------200
(CONSTRUCTION YEAR 1980)

PLANK ROAD ----------250
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. EXIST CROSS SECTION AND ESTIMATED QUANTITIES
3. PRESTRESSED GIRDER EXPANSION BEARINGS

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/13/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–102

I.H.43 NB OVER PLANK ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
WALWORTH	LAFAYETTE

DESIGN SPEC.
REHABILITATION N/A

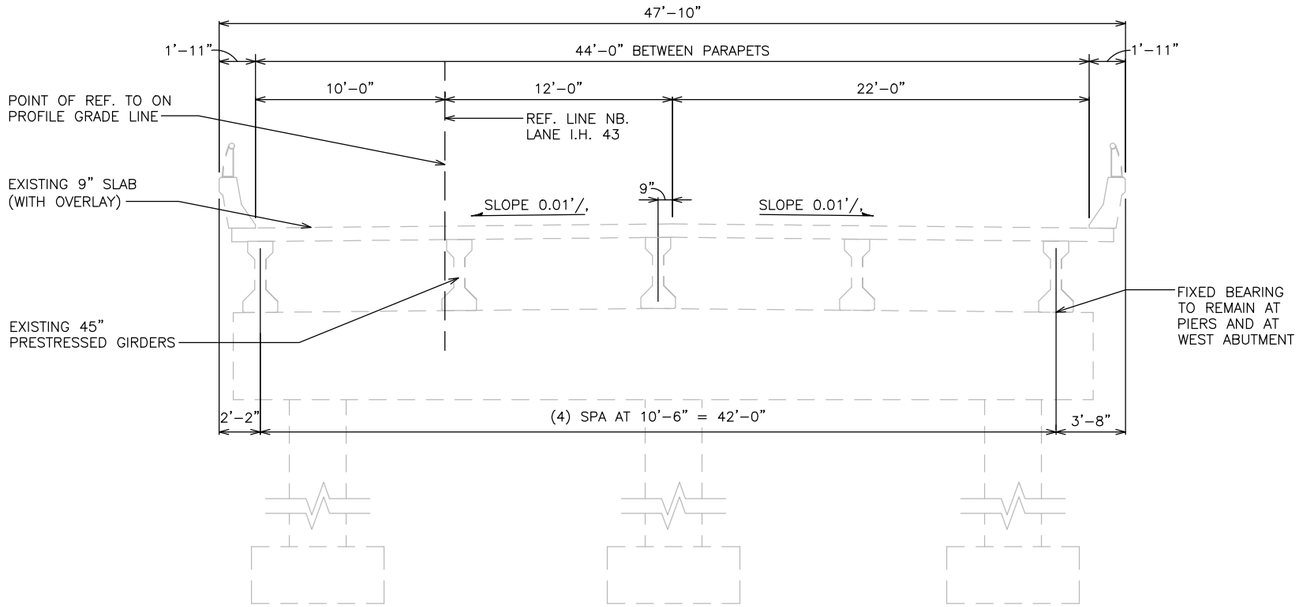
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	DAS	SDB

GENERAL PLAN

SHEET 1 OF 3

STATE PROJECT NUMBER

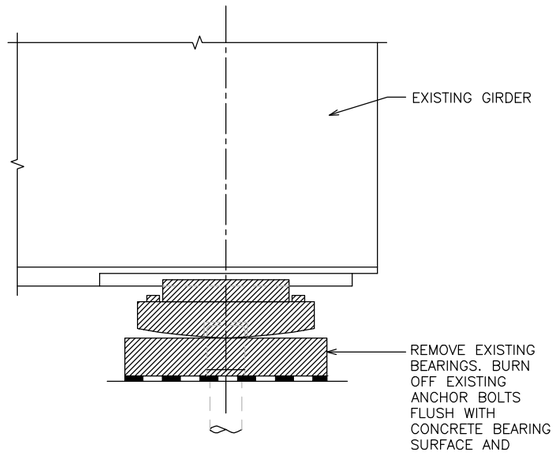
1090-15-72



CROSS SECTION OF B-64-102
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEMS NUMBER	BID ITEM DESCRIPTION	UNIT	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	5
506.7050.S.09	REMOVING BEARINGS B-64-102	EA	5



EXPANSION BEARING REMOVAL
(EAST ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-64-102

I.H.43 NB OVER PLANK ROAD

CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

SHEET 2 OF 3

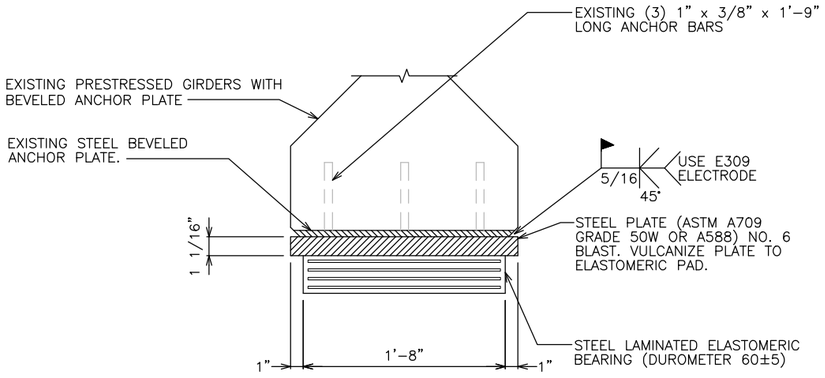
337

8

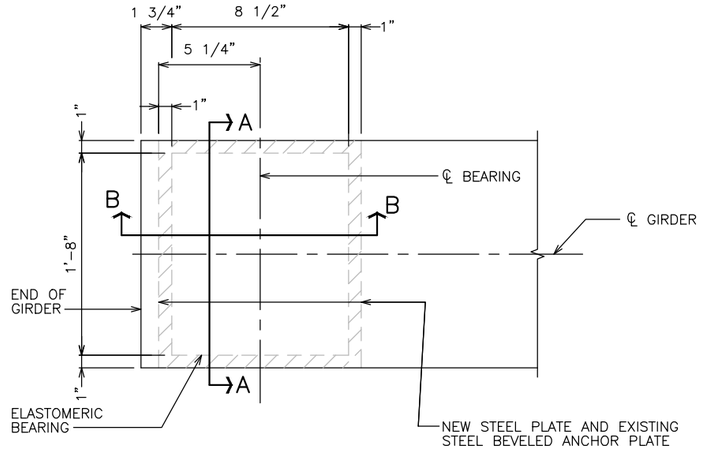
8

STATE PROJECT NUMBER

1090–15–72



END VIEW A–A
(EAST ABUT)



PLAN VIEW

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

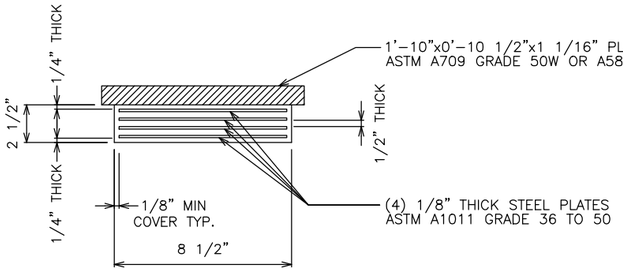
ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

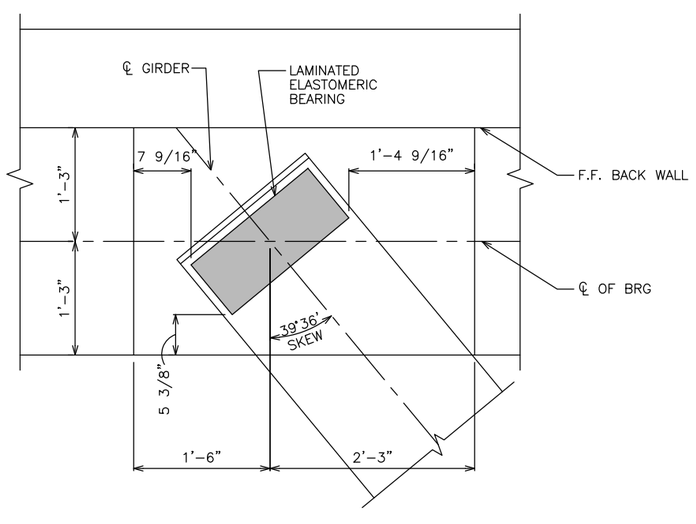
GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PAD ELASTO LAM." EACH.



SECTION B–B THRU ELASTOMERIC BEARING



CLEARANCE DIAGRAM AT SKEWED ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–102

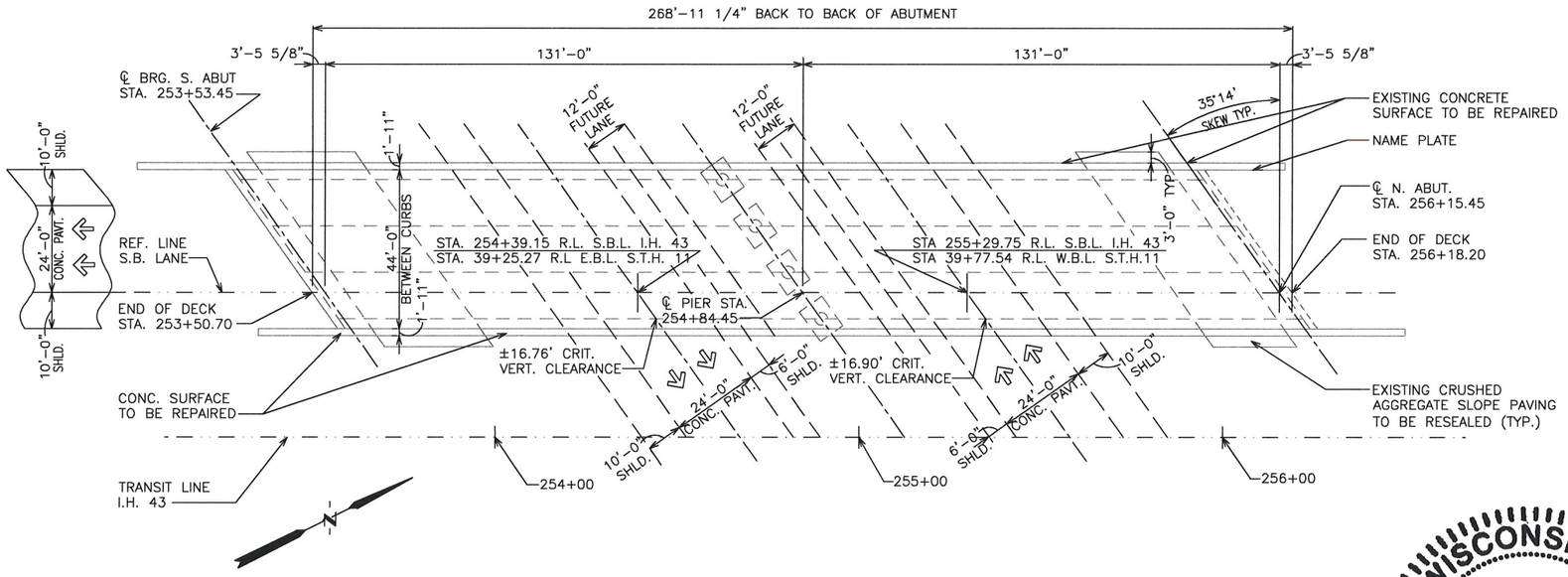
I.H.43 NB OVER PLANK ROAD

CONST SPEC 2013	DRAWN BY DAS	PLANS CHK'D SDB

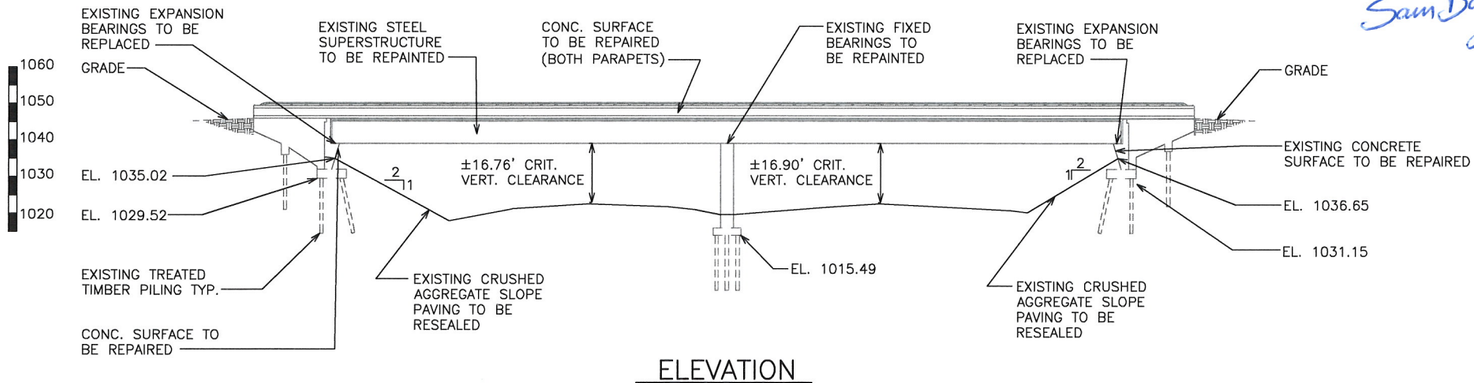
PRESTRESSED GIRDER EXPANSION BEARINGS

SHEET 3 OF 3

338



PLAN B-64-103
(TWO SPAN STEEL PLATE GIRDER)



ELEVATION
(NORMAL TO S.T.H. 11)

STATE PROJECT NUMBER

1090-15-72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

THE TOP AND OUTSIDE FACES OF PARAPETS NEED APPROX 750SF OF CONCRETE SURFACE REPAIRS.

ALL EXPOSED STEEL SURFACES TO BE CLEANED AND PAINTED INCLUDING FIXED BEARINGS.

CONCRETE SURFACE REPAIRS TO BE MADE AS DIRECTED BY THE ENGINEER.

CONTRACTOR TO SUBMIT TO THE ENGINEER FOR APPROVAL PLANS SHOWING THE METHOD OF RAISING THE BRIDGE. SHOW TYPE OF JACKS, SIZE OF JACKS, SHORING OR FALSEWORK, AND SEQUENCE OF WORK IN THE PLAN. ADDITIONAL WEB BRACING OR STIFFENERS MAY BE NEEDED BASED ON LOAD DISTRIBUTION AND JACK LOCATION WHEN RAISING GIRDERS.

TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

IH43 (70MPH) ----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH) ----------30,000
(DESIGN YEAR 2034)

S.T.H.11 (60MPH) ----------4,100
(CONSTRUCTION YEAR 2014)

S.T.H.11 (60MPH) ----------5,000
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
3. BEARING DETAILS

OTIE CONTACT:
SAM BARGHOUT, PE, SE
608.241.6704
WISDOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER, PE
608.266.8489

WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/13/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-64-103

I.H.43 SB OVER STH.11

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	LAFAYETTE

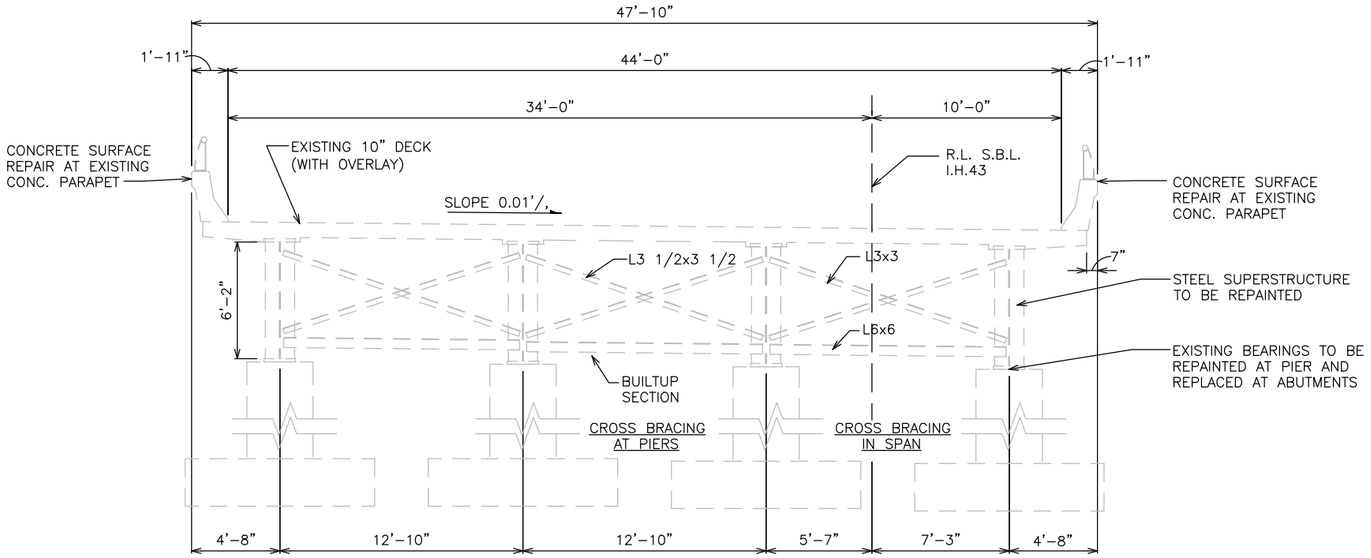
DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

GENERAL PLAN

SHEET 1 OF 3

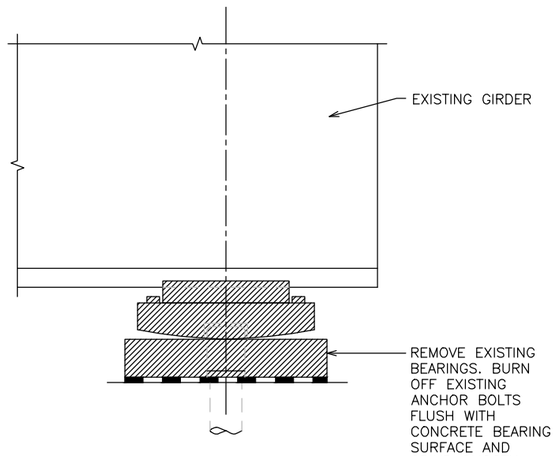
STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–103
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	4		4		8
506.7050.S.10	REMOVING BEARINGS B–64–103	EA	4		4		8
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		4			4
509.1500	CONCRETE SURFACE REPAIR	SF	15		30	750	795
517.1800.S.06	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–103	LS				1	1
517.4500.S.06	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–103	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	250		270		520



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–103

I.H.43 SB OVER STH.11

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

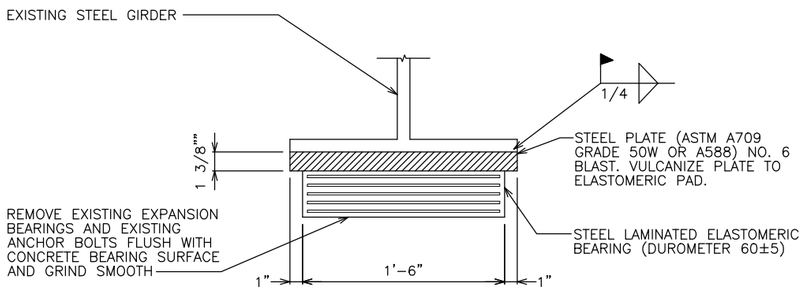
SHEET 2 OF 3

340

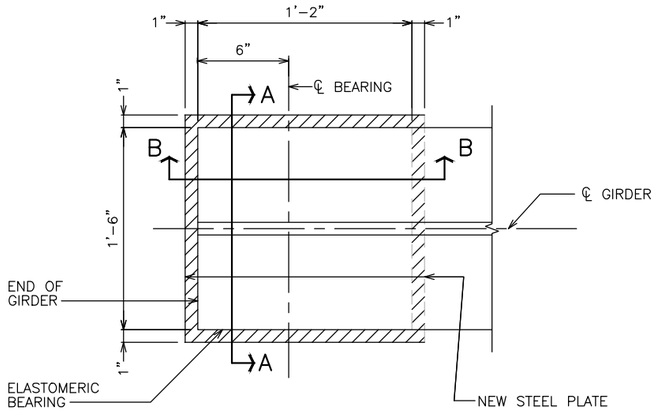
8

8

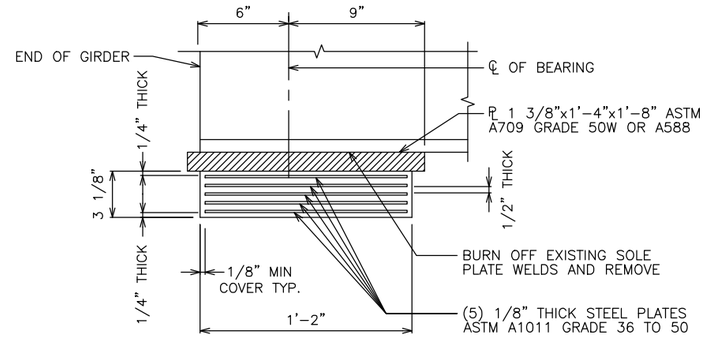
STATE PROJECT NUMBER
1090–15–72



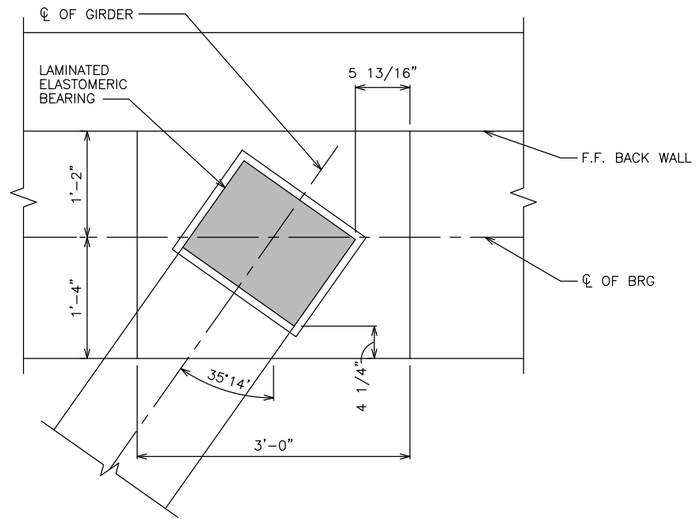
END VIEW A–A
(BOTH ABUTMENTS)



PLAN VIEW



SECTION B–B THRU ELASTOMERIC BEARING



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS

BEARING NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–103

I.H.43 SB OVER STH.11

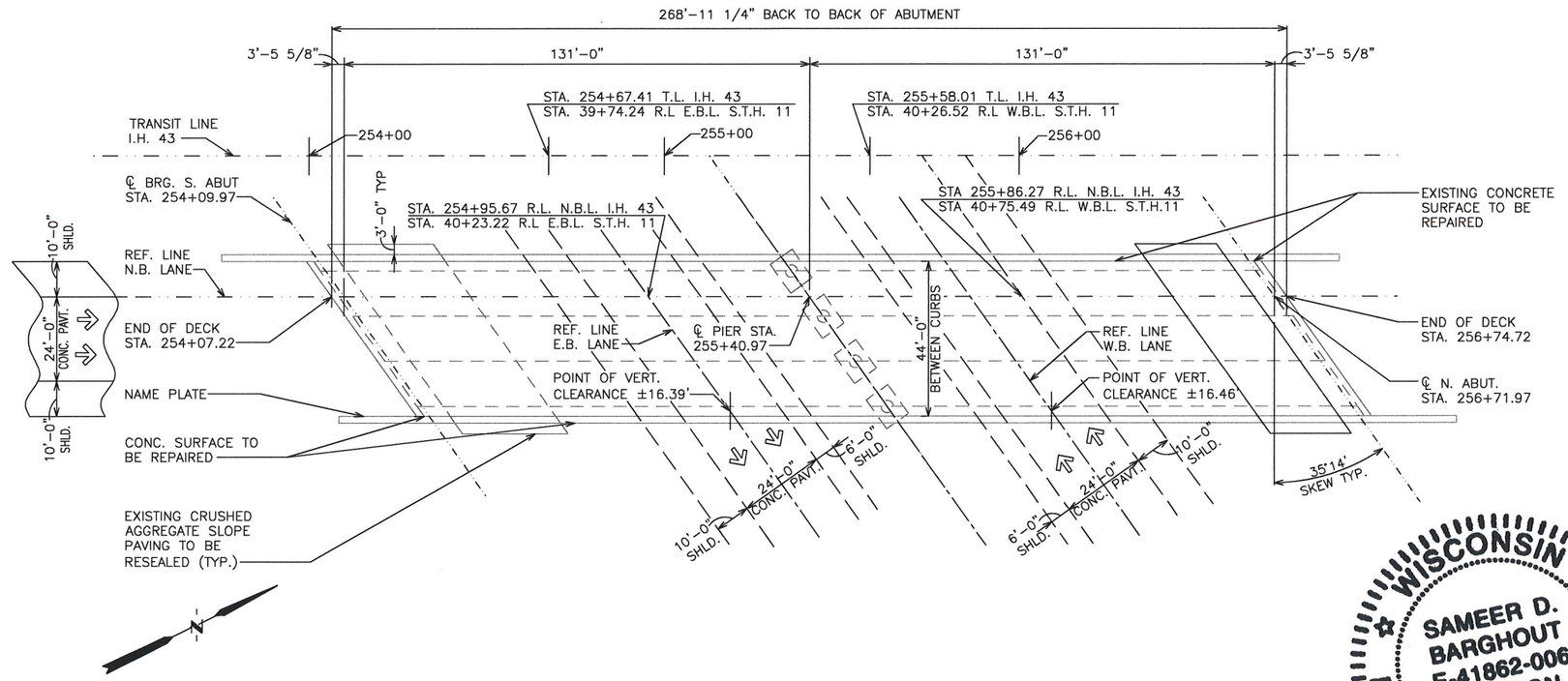
CONST SPEC	2013	DRAWN BY	KGC	PLANS CHK'D	SDB

BEARINGS DETAILS

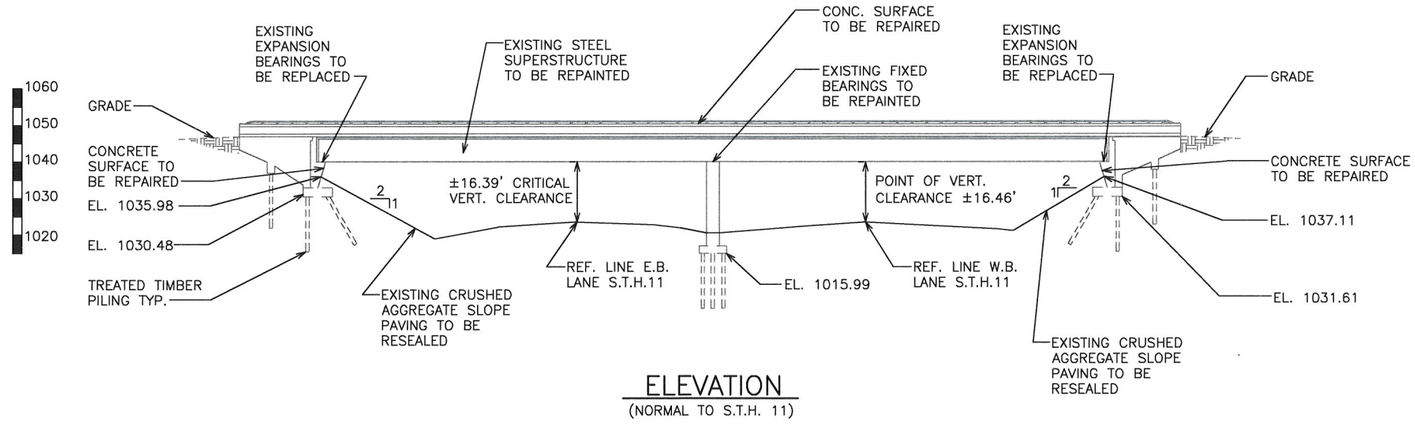
SHEET 3 OF 3

341

STATE PROJECT NUMBER
1090–15–72



PLAN B–64–104
(TWO SPAN STEEL PLATE GIRDER)



ELEVATION
(NORMAL TO S.T.H. 11)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURAL PLANS AND CONCRETE OVERLAY PLANS.

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TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC (ADT)

IH43 (70MPH) ----------25,200
(CONSTRUCTION YEAR 2014)

IH43 (70MPH) ----------30,000
(DESIGN YEAR 2034)

STH.11 (60MPH) ----------4,100
(CONSTRUCTION YEAR 2014)

STH.11 (60MPH) ----------5,000
(DESIGN YEAR 2034)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
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WISCONSIN
SAMEER D. BARGHOUT
E-41862-006
MADISON
WI
PROFESSIONAL ENGINEER

Sam Barghout 5/31/2013

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OTIE
Oneida Total Integrated Enterprises

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/13/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B–64–104

I.H.43 NB OVER STH.11

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	LAFAYETTE

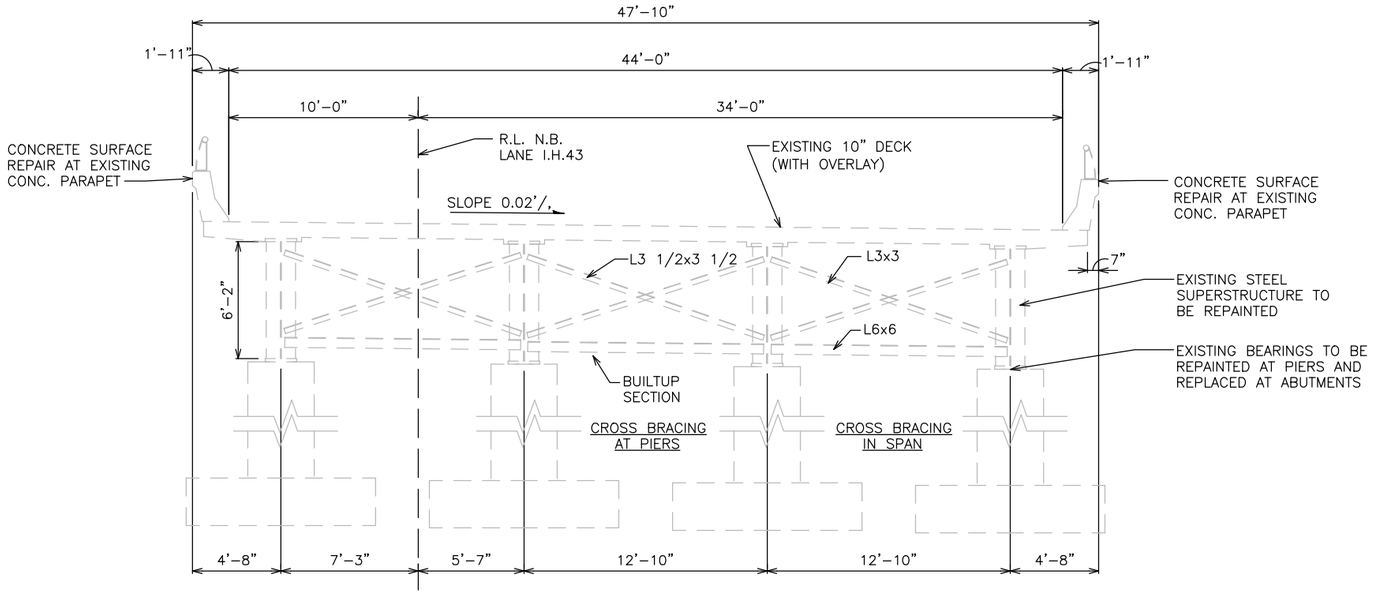
DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SDB	JJH	KGC	SDB

GENERAL PLAN

SHEET 1 OF 3

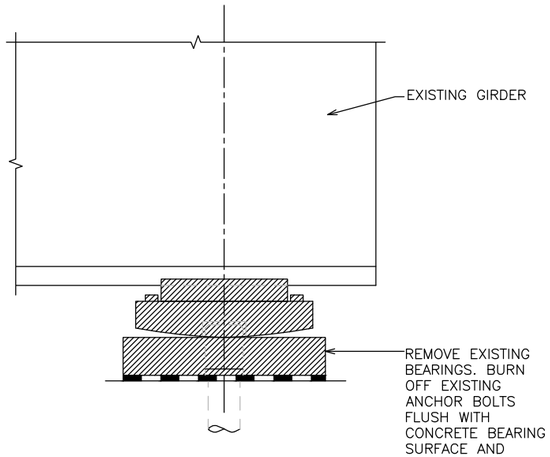
STATE PROJECT NUMBER
1090–15–72



CROSS SECTION OF B–64–104
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTALS
506.2610	BEARING PAD ELASTOMERIC LAMINATED	EA	4		4		8
506.7050.S.11	REMOVING BEARINGS B–64–104	EA	4		4		8
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EA		4			4
509.1500	CONCRETE SURFACE REPAIR	SF	15		45	340	400
517.1800.S.07	STRUCTURE REPAINTING RECYCLED ABRASIVE B–64–104	LS				1	1
517.4500.S.07	NEGATIVE PRESSURE CONTAINMENT & COLLECTION OF WASTE MATERIALS B–64–104	LS				1	1
517.6001.S.	PORTABLE DECONTAMINATION FACILITY	EA				1	1
604.9015.S.	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	265		265		530



EXPANSION BEARING REMOVAL
(BOTH ABUTMENTS)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–104

I.H.43 NB OVER STH.11

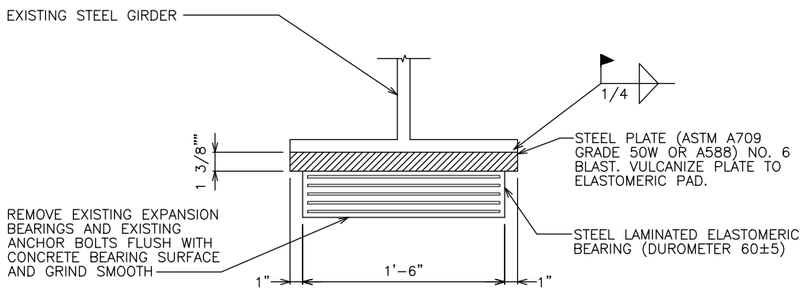
CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

EXISTING CROSS SECTION AND ESTIMATED QUANTITIES

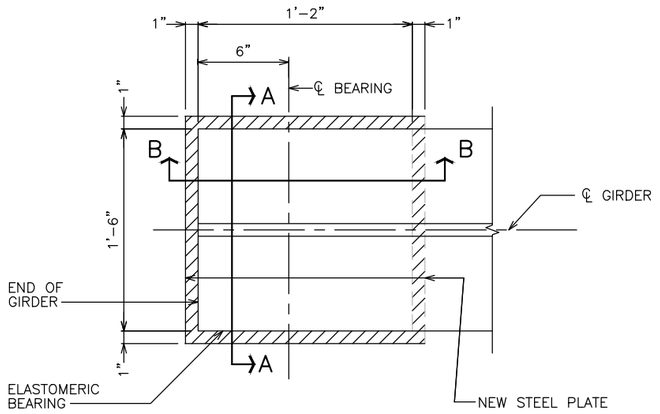
SHEET 2 OF 3

343

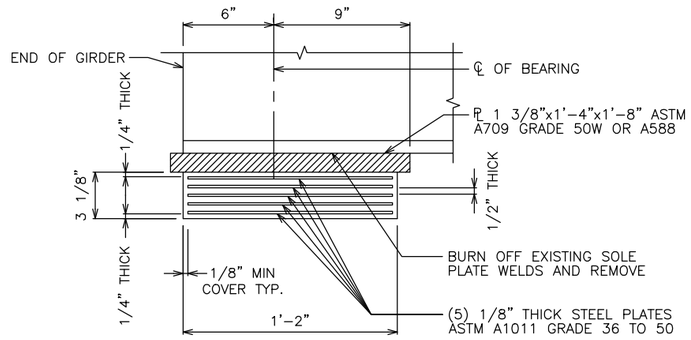
STATE PROJECT NUMBER
1090–15–72



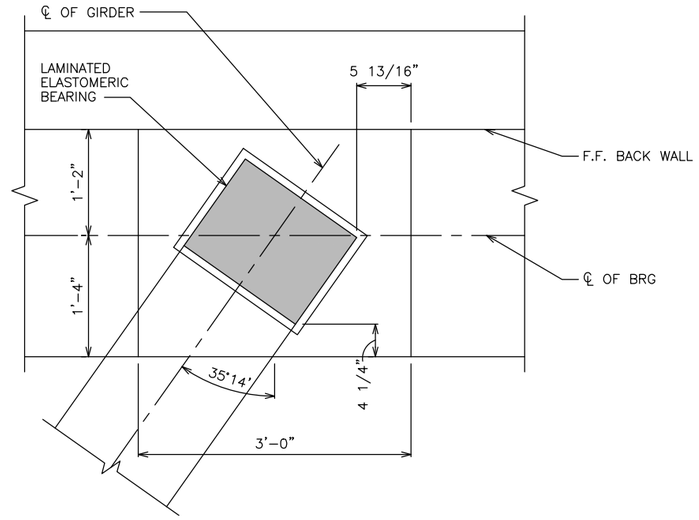
END VIEW A–A
(BOTH ABUTMENTS)



PLAN VIEW



SECTION B–B THRU ELASTOMERIC BEARING



CLEARANCE DIAGRAM AT SKEWED ABUTMENTS

BEARING NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

EXISTING BEARING HEIGHTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE REPLACEMENT BEARING. REPLACEMENT BEARING HEIGHT TO MATCH EXISTING.

GRIND EXISTING WELD THAT ATTACHED EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–64–104

I.H.43 NB OVER STH.11

CONST SPEC 2013	DRAWN BY KGC	PLANS CHK'D SDB

BEARING DETAILS

SHEET 3 OF 3

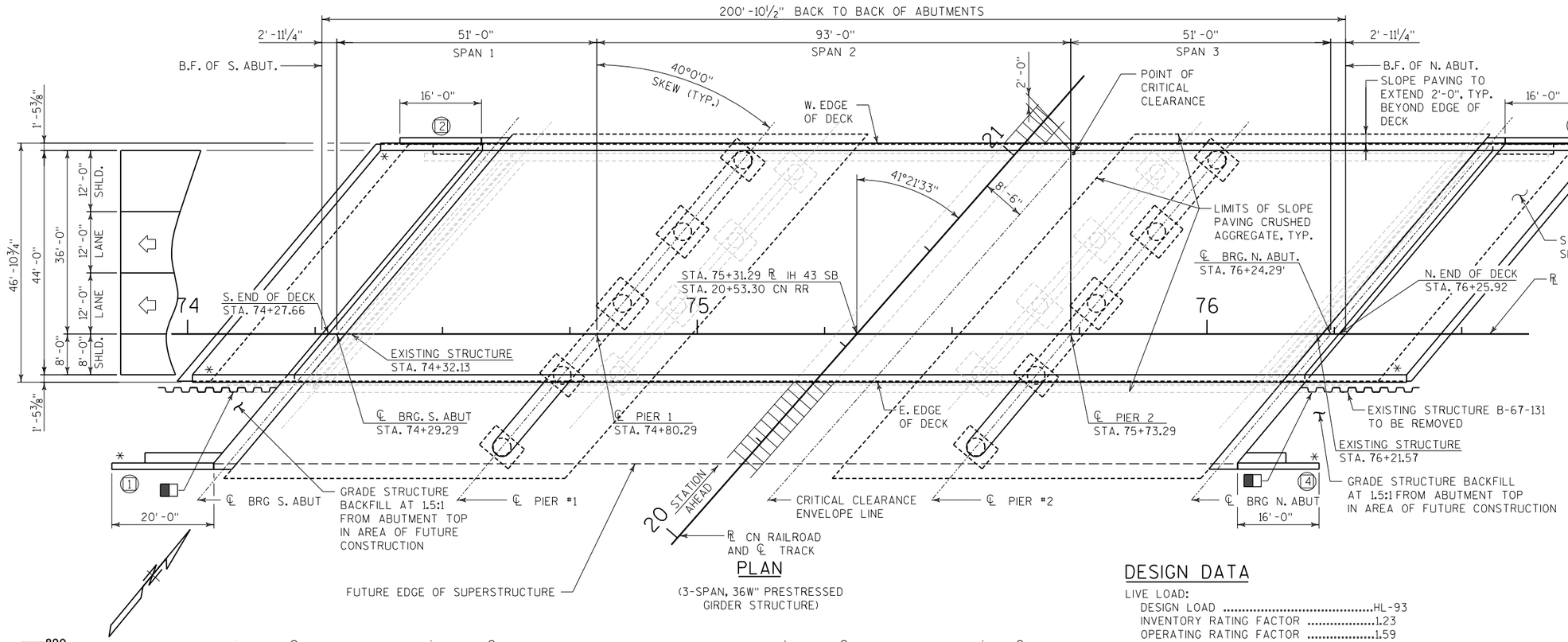
344

8

8

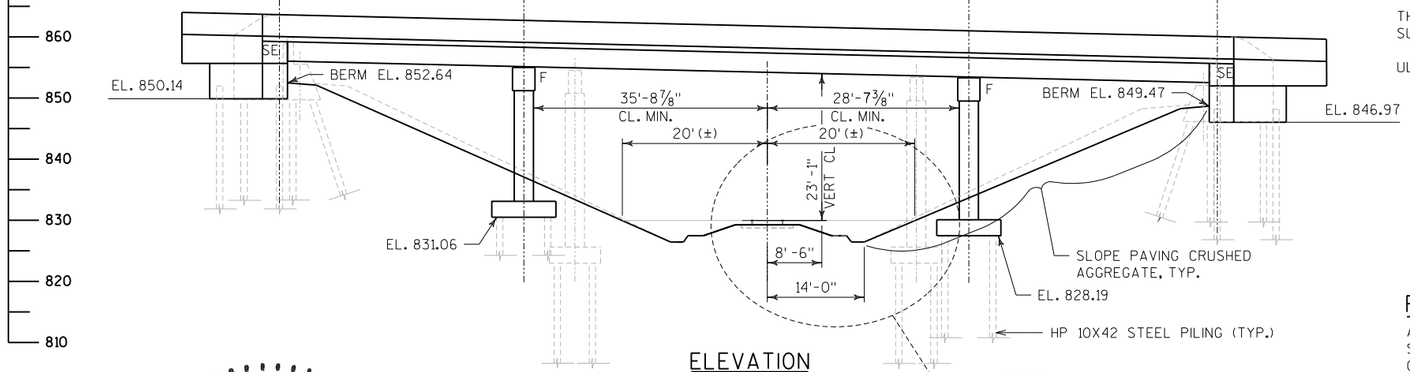
STATE PROJECT NUMBER

1090-15-72



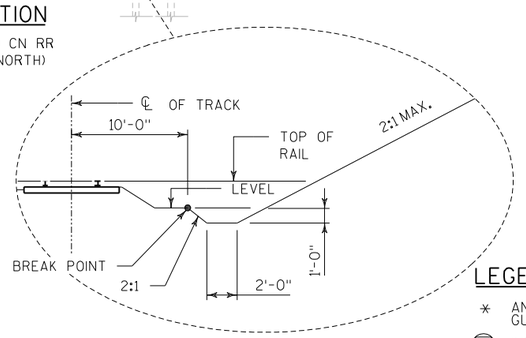
PLAN

(3-SPAN, 36W" PRESTRESSED GIRDER STRUCTURE)



ELEVATION

NORMAL TO CN RR (LOOKING NORTH)



WISCONSIN
JOHN F. RUBLEIN
E-38700
MADISON
WI
PROFESSIONAL ENGINEER
7/30/13

DESIGN DATA

LIVE LOAD:
- DESIGN LOAD HL-93
- INVENTORY RATING FACTOR 1.23
- OPERATING RATING FACTOR 1.59
- WIS-SPV RATING ..... 250 KIPS

THE STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

ULTIMATE DESIGN STRESSES:
- CONCRETE MASONRY :
  - SUPERSTRUCTURE ..... f'c = 4,000 PSI
  - ALL OTHER ..... f'c = 3,500 PSI
- HIGH STRENGTH BAR STEEL REINFORCEMENT GRADE 60 ..... fy = 60,000 PSI
- 36W-INCH PRESTRESSED GIRDERS CONCRETE MASONRY ..... f'c = 8,000 PSI
- PRESTRESSING STRANDS = 0.6 INCH DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 PSI

FOUNDATION DATA

ABUTMENTS AND PIERS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 40'-0" LONG AT SOUTH ABUTMENT.
ESTIMATED 35'-0" LONG AT PIER #1.
ESTIMATED 35'-0" LONG AT PIER #2.
ESTIMATED 55'-0" LONG AT NORTH ABUTMENT.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA IH 43 SB

ADT = 25,200 (2014)
ADT = 30,000 (2034)
RDS = 70 MPH

LEGEND

- * ANCHOR ASSEMBLIES FOR THRIE BEAM GUARD RAIL ATTACHMENT
- ◯ INDICATES WING NUMBER
- ■ PERMANENT SHEET PILING REQUIRED, SEE SHT 24.

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
JOHN RUBLEIN (608) 229-1434

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS-SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. ABUTMENT WING WALL #1
7. ABUTMENT WING WALL #2
8. NORTH ABUTMENT
9. NORTH ABUTMENT DETAILS
10. ABUTMENT WING WALL #3
11. ABUTMENT WING WALL #4
12. PIER 1
13. PIER 2
14. PIER DETAILS
15. 36W" PRESTRESSED GIRDER
16. 36W" PRESTRESSED GIRDER DETAILS
17. STEEL DIAPHRAGM
18. SUPERSTRUCTURE
19. SUPERSTRUCTURE CROSS-SECTION
20. SUPERSTRUCTURE BILL OF BARS
21. SUPERSTRUCTURE DETAILS 1
22. SUPERSTRUCTURE DETAILS 2
23. SINGLE SLOPE 32SS PARAPET AT APRON
24. STRUCTURAL APPROACH SLAB
25. STRUCTURAL APPROACH SLAB DETAILS

NO.	DATE	REVISION	BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Madison, WI 53703
608-249-0140

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-67-334

I-43 SB OVER CN RR

COUNTY	TOWN
WAUKESHA	MUKWONAGO

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ACT	JFR	TRW	ACT

GENERAL PLAN AND ELEVATION

SHEET 1 OF 25
345

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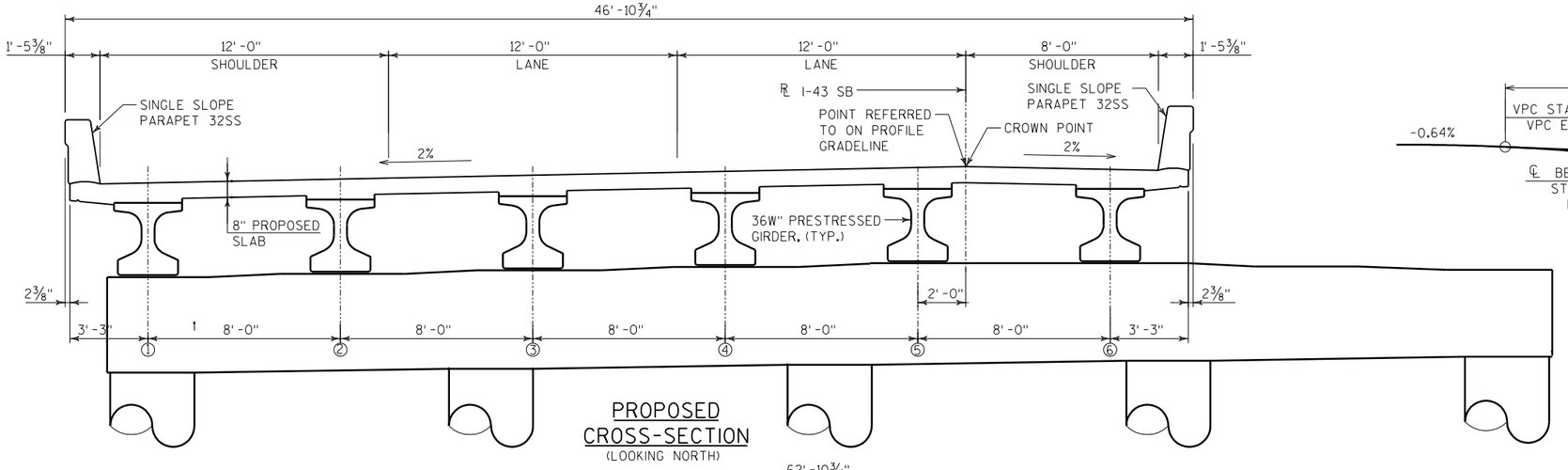
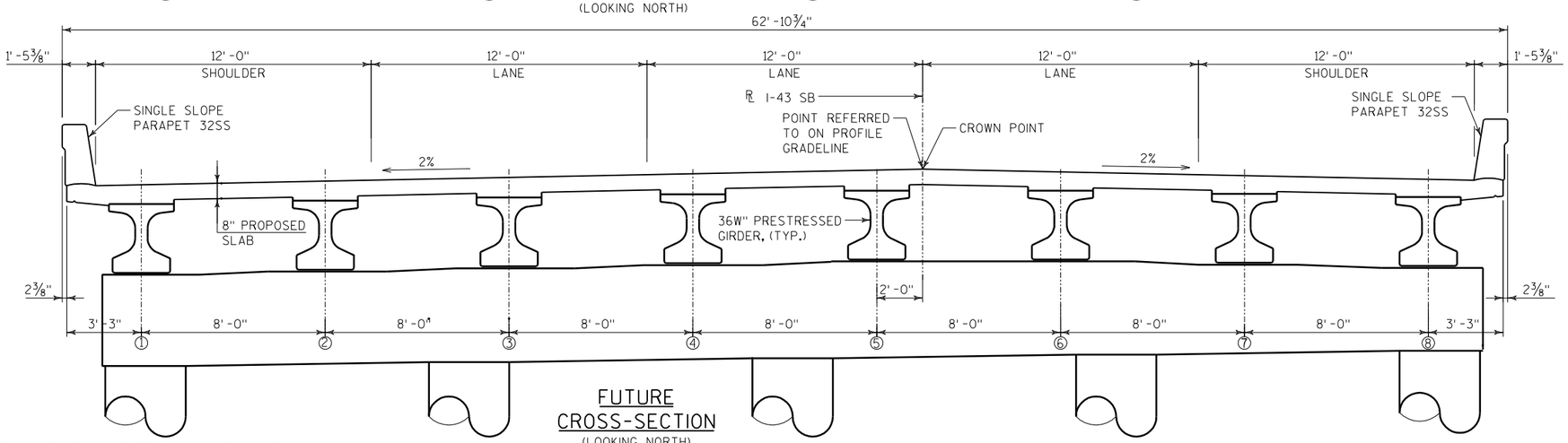
STATE PROJECT NUMBER

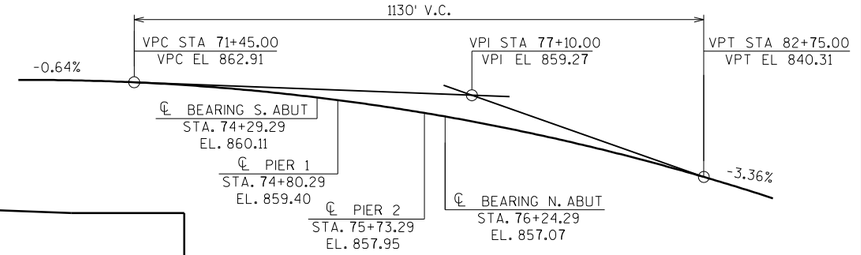
1090-15-72



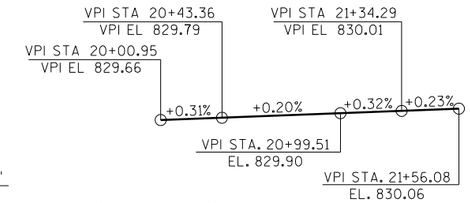
PROPOSED CROSS-SECTION
(LOOKING NORTH)



FUTURE CROSS-SECTION
(LOOKING NORTH)



PROFILE GRADE LINE - IH 43 SB



EXISTING PROFILE GRADE LINE CN RAILROAD

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	S. APRON	S. ABUT.	PIER 1	PIER 2	N. ABUT.	N. APRON	SUPER	TOTAL
203.0200	REMOVING OLD STRUCTURE STA. 75+31.29	LS	-	-	-	_	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURE, BRIDGES B-67-334	LS	-	-	-	_	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	-	131	-	_	136	-	-	267
502.0100	CONCRETE MASONRY BRIDGES	CY	67	85	99	102	83	67	374	878
502.3200	PROTECTIVE SURFACE TREATMENT	SY	120	-	-	_	-	120	1168	1408
503.0137	PRESTRESSED GRIDER TYPE I36W-INCH	LF	-	-	-	_	-	-	1155	1155
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	-	6288	2267	2267	5652	-	-	16480
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	11736	2128	14160	14528	1681	11736	87174	143150
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	6	12	12	6	-	-	36
506.4000	STEEL DIAPHRAGMS B-67-334	EACH	-	-	-	_	-	-	15	15
512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	410	-	-	_	-	410	-	820
512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	410	-	-	_	-	410	-	820
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	18	-	_	18	-	-	36
550.1100	PILING STEEL HP 10-INCH X 42 LB.	LF	-	560	1190	1190	770	-	-	3710
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	-	670	-	_	590	-	-	1261
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	130	95	-	_	100	130	-	455
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	_	-	2	-	4
SPV.0085.01	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGE		799	-			-	799	-	1598
	NON-BID ITEMS									
	FILLER									½"&¾"

ALL ITEMS CATEGORY 0020

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEVATION
1	STA. 73+66.00, 68.38' RT	SW CORNER NB BRIDGE, BOX CUT IN RETAINING WALL	859.93
2	STA. 74+34.87, 45.03' LT	24" IRON ROD	856.09
3	STA. 75+65.01, 63.32' RT	NW CORNER NB BRIDGE, BOX CUT IN RETAINING WALL	856.89

GENERAL NOTES

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

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M153. TYPES I, II OR III OR M213.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 2⅜" WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE EXISTING STRUCTURE (B-67-131) IS A THREE-SPAN, STEEL DECK GIRDER BRIDGE WITH AN OVERALL LENGTH OF 191.10 FEET AND AN OVERALL WIDTH OF 47.83 FEET AND IS TO BE REPLACED.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING CRUSHED AGGREGATE TO THE EXTENT SHOWN ON THE GENERAL PLAN AND ELEVATION SHEET AND THE IN THE ABUTMENT DETAILS.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK AND THE TOP AND ROADWAY FACE OF PARAPETS.

SHEET PILING TO HAVE MIN. SECTION MODULUS OF 18.1 IN^3/FT. WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

CROSS-SECTION & QUANTITIES

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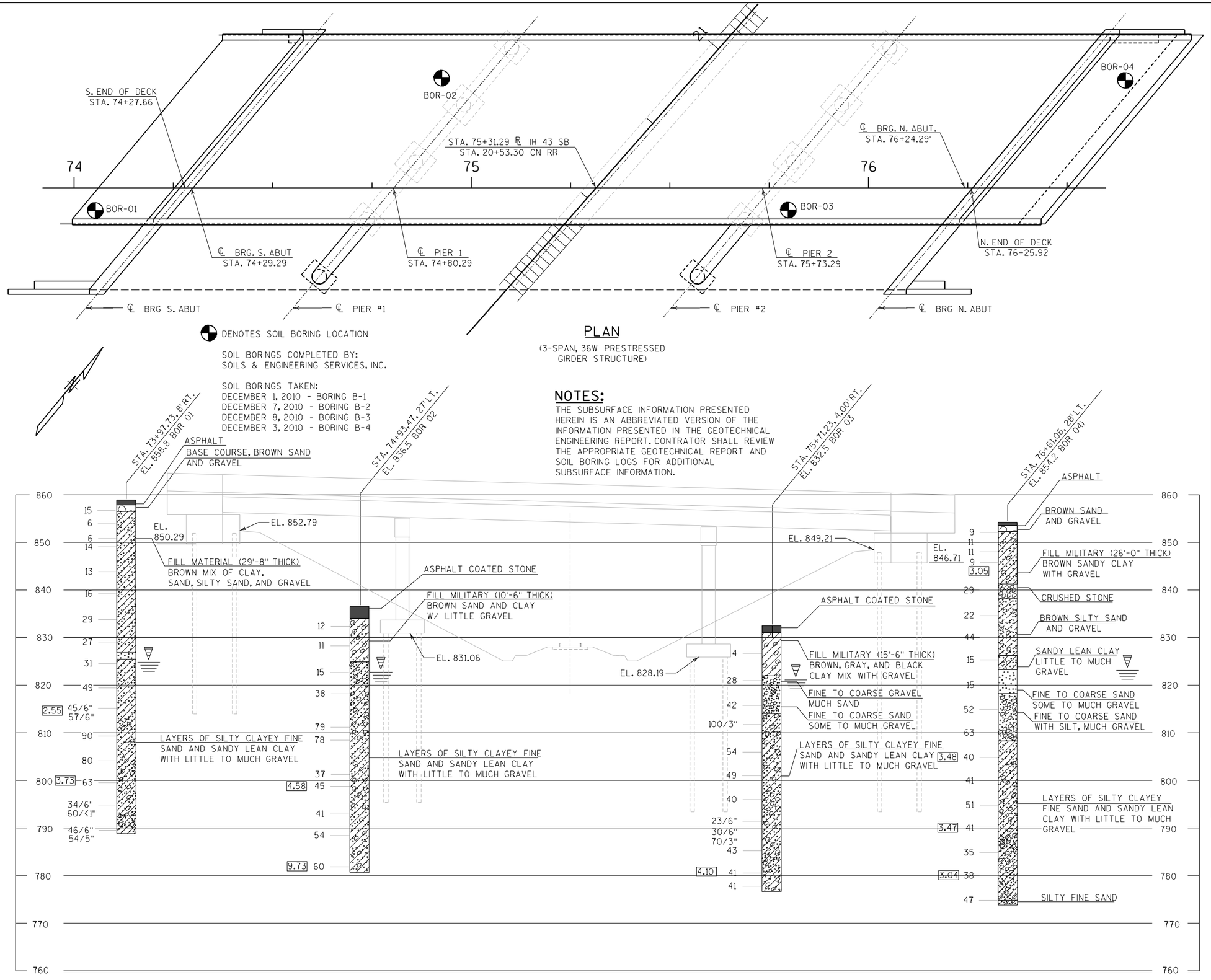


STATE PROJECT NUMBER

1090-15-72

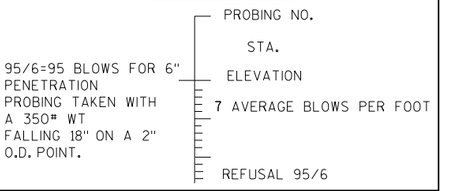
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

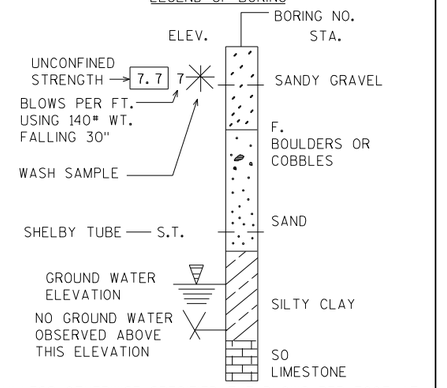
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

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SUBSURFACE EXPLORATION

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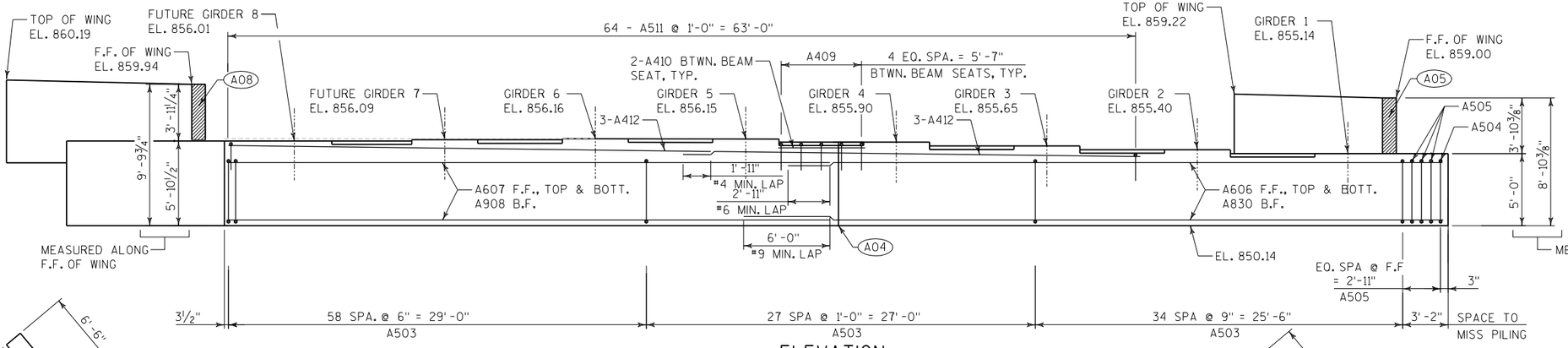
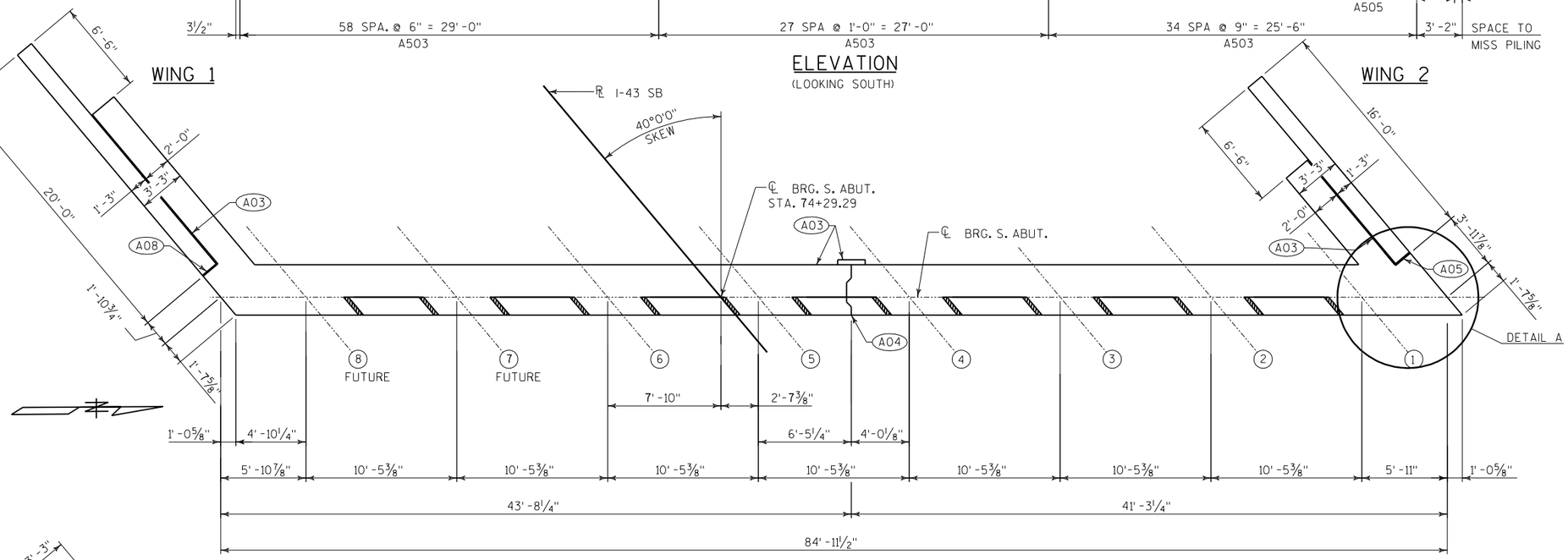
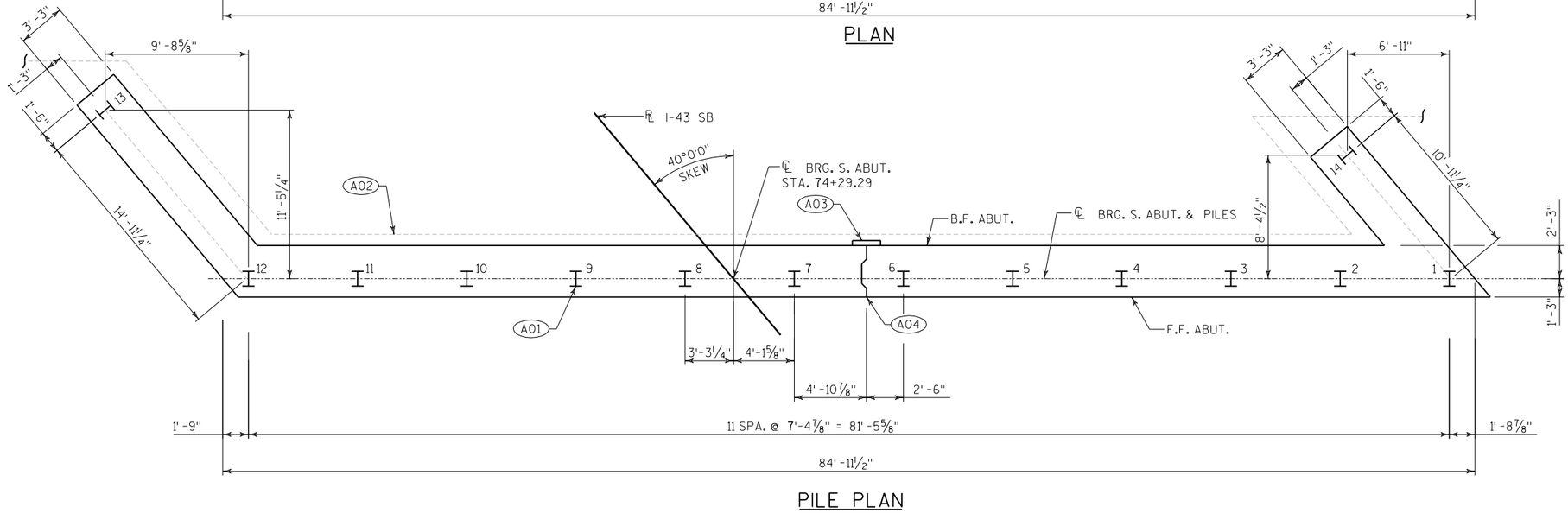


ELEVATION

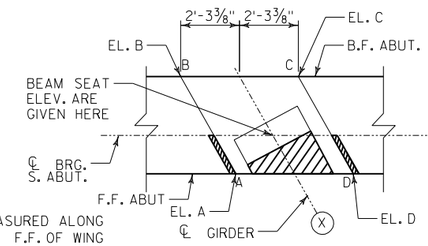
(LOOKING SOUTH)



PLAN



PILE PLAN



SEAT DETAIL AND ELEVATION CORRECTIONS

VALUES ARE IN FEET. ADD THESE VALUES TO THE SEAT ELEVATION TO OBTAIN ELEVATION OF POINTS A,B,C, & D.

GIRDER	EL. A	EL. B	EL. C	EL. D
1-8	-0.01	0.03	0.03	-0.02

LEGEND:

(A01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40'-0" LONG.

(A02) PIPE UNDERDRAIN, WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END AND CAP UPPER END. THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THE DETAIL SHOWN ON SHEET 5. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS RQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TO OR MORE NO. 10 X 1-INCH STIANLESS SHEET METAL SCREWS AND SHALL BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE. FILLER THICKNESS AT INSIDE FACE OF WING ADDED TO ABUTMENT LENGTH.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" X 8" WITH ¾" V-GROOVE. SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT DETAIL. RUN BAR STEEL THROUGH JOINT.

(A05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A06) ¾" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

(A08) FUTURE ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

SEE SHEET 5 FOR DETAIL A.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

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SOUTH ABUTMENT

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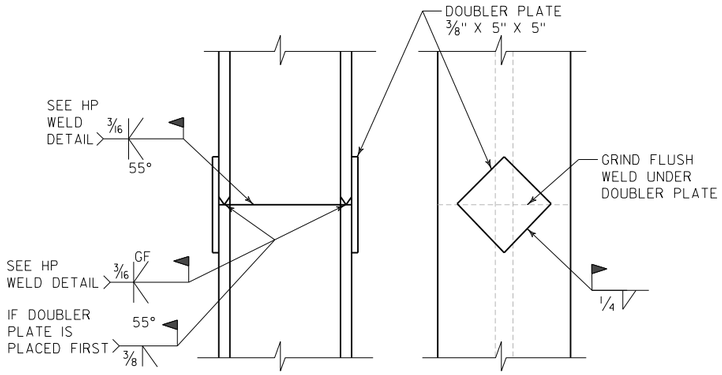
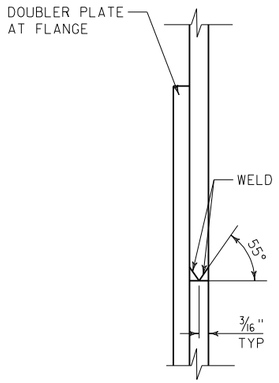
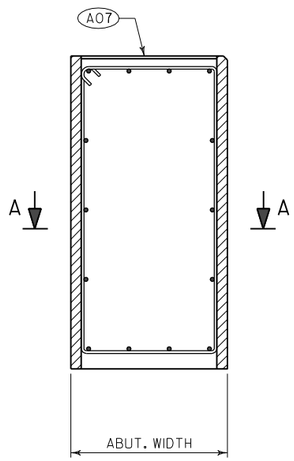


PILE SPLICE DETAIL

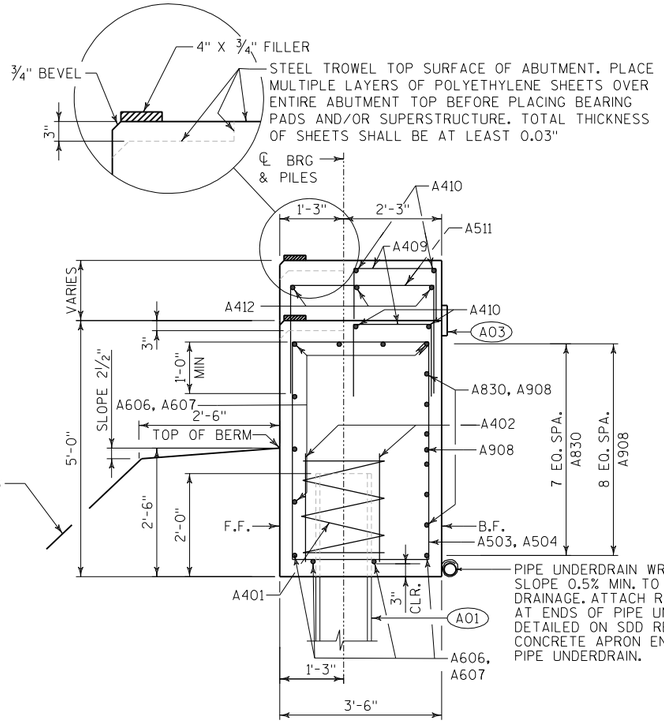


'HP' WELD DETAIL

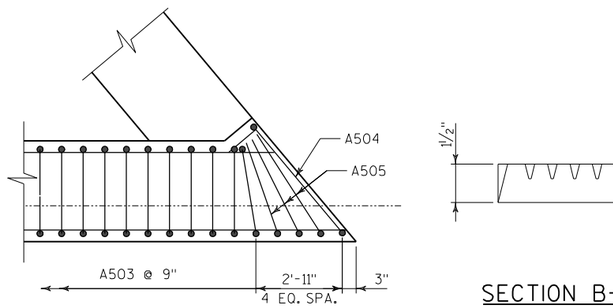
FLANGE SHOWN,
WEB SIMILAR



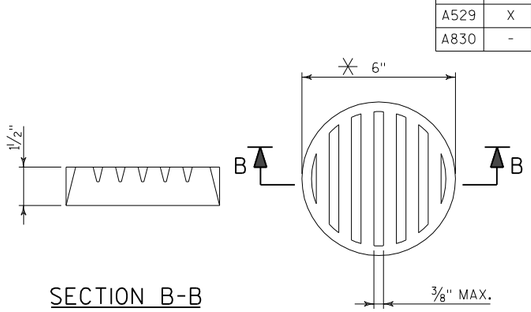
SECTION THRU ABUTMENT BODY



SECTION THRU BODY



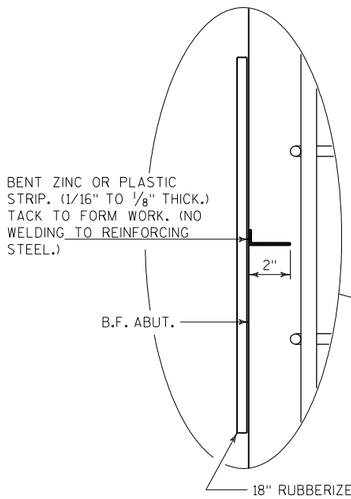
DETAIL A

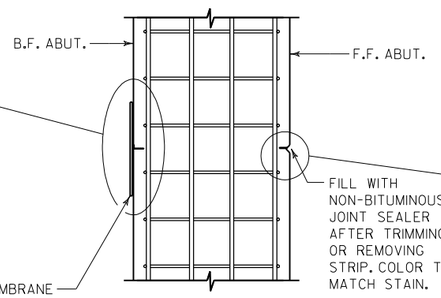


SECTION B-B

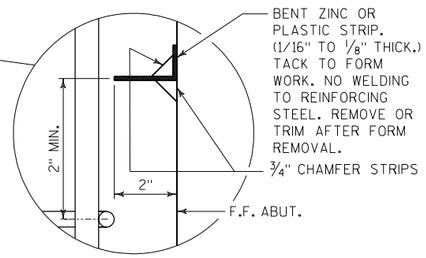
RODENT SHIELD

✳ DIMENSIONS ARE APROXIMATE, THE GRATE IS SIZED TO FIT INTO PIPE COUPLING. ORIENT SHEILD SO SLOTS ARE VERTICAL.





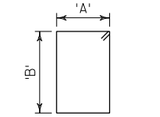
SECTION A-A



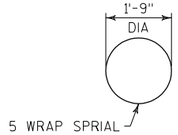
ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

BILL OF BARS

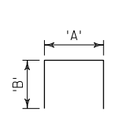
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
A401	-	12	28'-0"	X		ABUTMENT PILES - 1 PER PILE	VERTICAL
A402	-	24	2'-3"	-		ABUTMENT PILES - 2 PER PILE	VERTICAL
A503	-	120	15'-7"	X		ABUTMENT BODY STIRRUPS	VERTICAL
A504	-	1	19'-5"	X		ABUTMENT BODY STIRRUP - W. END	VERTICAL
A505	-	3	9'-9"	X		ABUTMENT BODY STIRRUPS - W. END	HORIZONTAL
A606	-	11	45'-7"	-		ABUTMENT BODY - W. END FF, TOP & BOTT.	HORIZONTAL
A607	-	11	41'-10"	-		ABUTMENT BODY - E. END FF, TOP & BOTT.	HORIZONTAL
A908	-	7	43'-7"	-		ABUTMENT BODY - E. END BF	HORIZONTAL
A409	-	35	5'-5"	X		ABUTMENT BODY - TOP BTWN SEATS 1-8	VERTICAL
A410	-	14	7'-10"	-		ABUTMENT BODY - BTWN SEATS 1-8	HORIZONTAL
A511	-	64	7'-3"	X		ABUTMENT BODY	VERTICAL
A412	-	6	32'-6"	X		ABUTMENT BODY	HORIZONTAL
A813	X	9	17'-4"	X		WING WALL 1	HORIZONTAL
A514	X	7	15'-1"	-		WING WALL 1	HORIZONTAL
A515	X	15	17'-5"	X		WING WALL 1	VERTICAL
A516	X	18	12'-8"	X		WING WALL 1 EXTENSION	VERTICAL
A517	X	9	10'-6"	X		WING WALL 1 EXTENSION	VERTICAL
A418	X	3	7'-9"	-		WING WALL 1 EXTENSION	HORIZONTAL
A419	X	9	19'-8"	-		WING WALL 1 EXTENSION	HORIZONTAL
A620	X	2	19'-8"	-		WING WALL 1 EXTENSION TOP	HORIZONTAL
-	-	-	-	-		-	-
A522	X	6	11'-3"	-		WING WALL 2	HORIZONTAL
A523	X	9	15'-9"	X		WING WALL 2	VERTICAL
A524	X	9	10'-4"	X		WING WALL 2 EXTENSION	VERTICAL
A425	X	9	15'-8"	-		WING WALL 2 EXTENSION	HORIZONTAL
A626	X	2	15'-8"	-		WING WALL 2 EXTENSION TOP	HORIZONTAL
A427	X	3	7'-8"	-		WING WALL 2 EXTENSION	HORIZONTAL
A628	X	8	10'-8"	X		WING WALL 2	HORIZONTAL
A529	X	13	12'-4"	X		WING WALL 2 EXTENSION	VERTICAL
A830	-	6	45'-7"	-		ABUTMENT BODY - W. END BF	HORIZONTAL



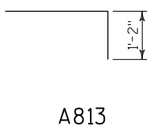
BAR MARK	DIM. 'A'	DIM. 'B'
A503	3'-2"	4'-4"
A504	5'-1"	4'-4"
A515	2'-11"	5'-6"
A523	2'-11"	4'-8"



A401



BAR MARK	DIM. 'A'	DIM. 'B'
A505	4'-4"	2'-10"
A409	1'-11"	1'-10"
A511	3'-2"	2'-2"
A516	11"	6'-0"
A517	11"	4'-11"
A524	11"	4'-10"
A529	11"	5'-10"



A813

A628

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

(A01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40'-0" LONG.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(A07) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

SOUTH ABUTMENT DETAILS

SHEET 349 5 OF 25

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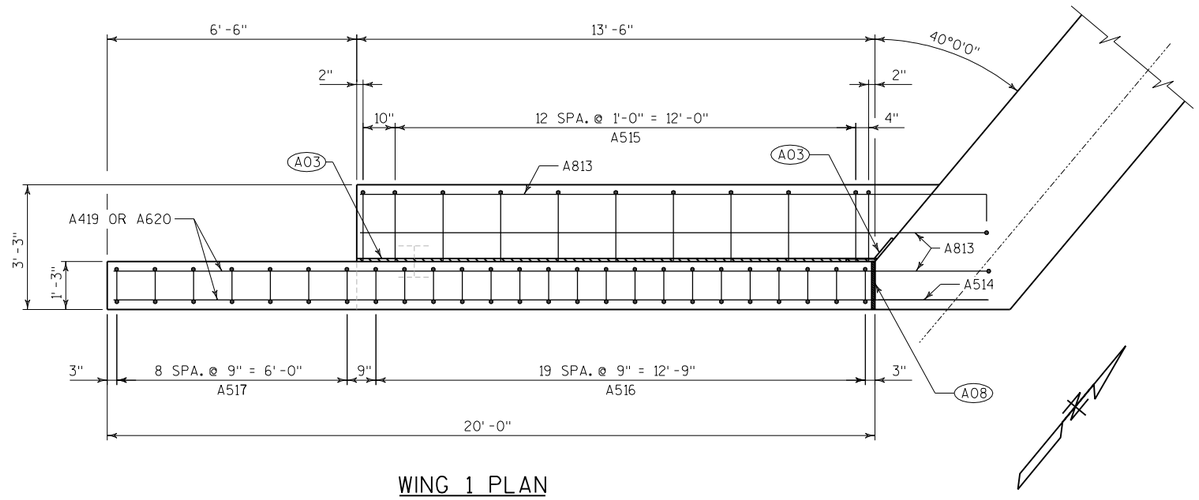
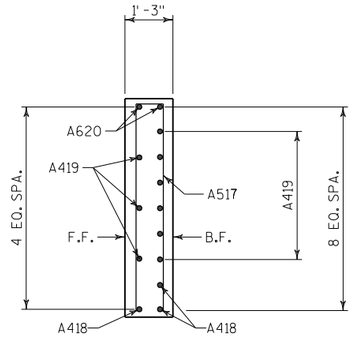
7/30/2013

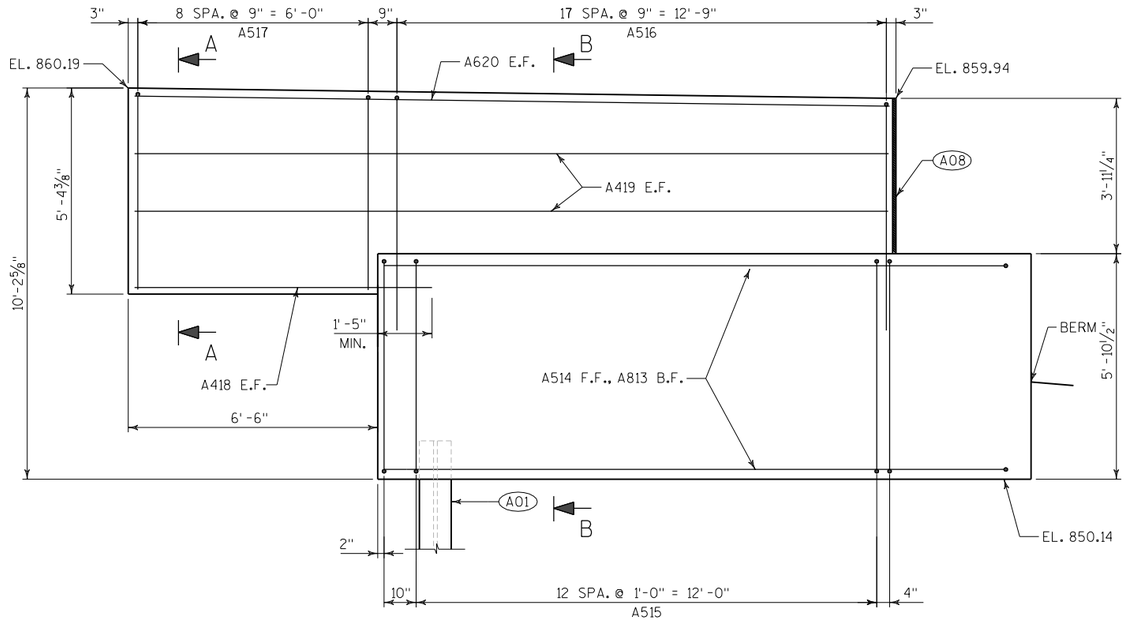
STATE PROJECT NUMBER
1090-15-72



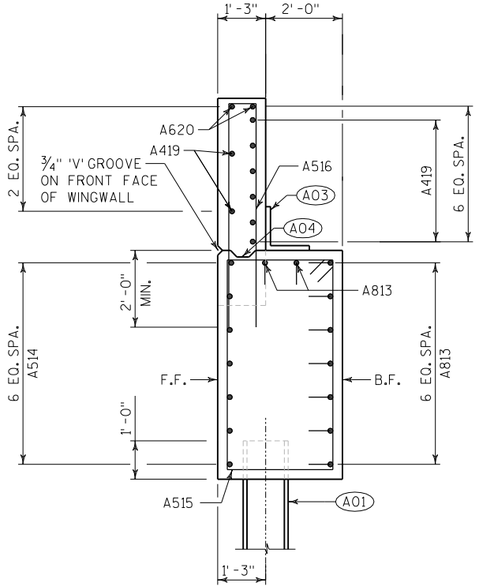
WING 1 PLAN



SECTION A-A



WING 1 ELEVATION



SECTION B-B

LEGEND

(A01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40'-0" LONG.

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(A04) OPTIONAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2"X6" (18" RMW @ BF & ¾" "V" GROOVE @ FF IF JOINT IS USED).

(A08) FUTURE ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 5 FOR BILL OF BARS AND BENDING DIAGRAM.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

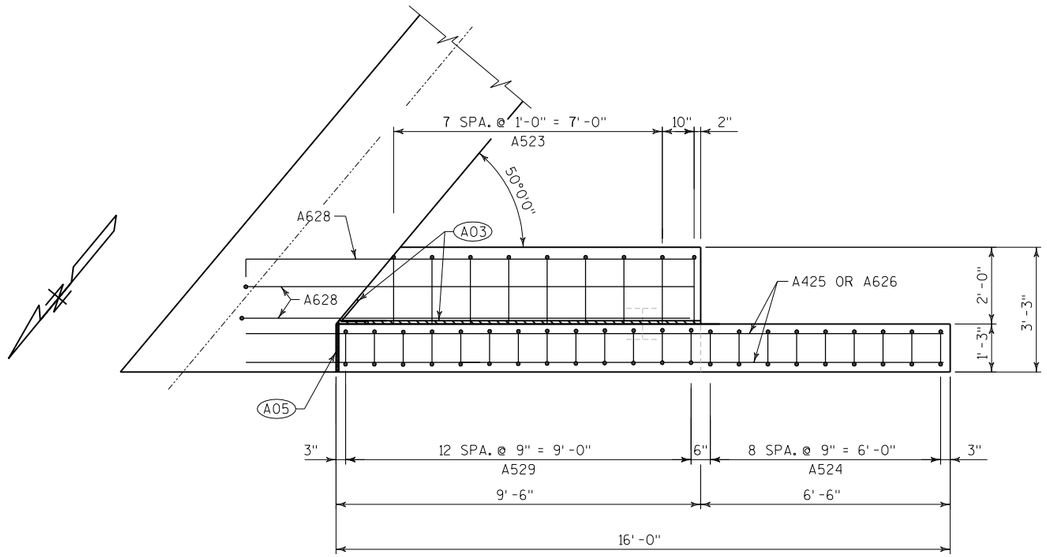
DRAWN BY	TRW	PLANS CK'D.	ACT

ABUTMENT WING WALL #1

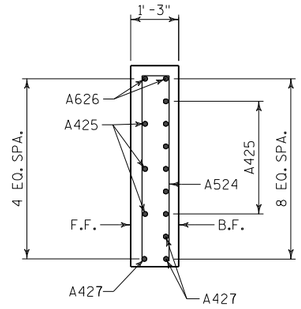
SHEET 6 OF 25

.350

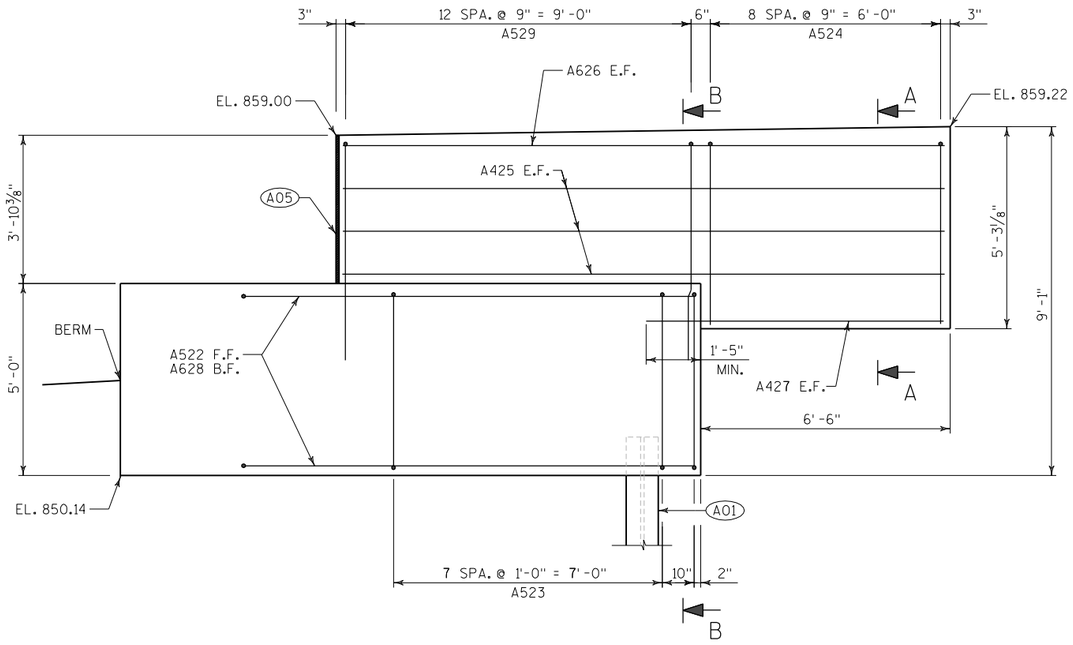
STATE PROJECT NUMBER
1090-15-72



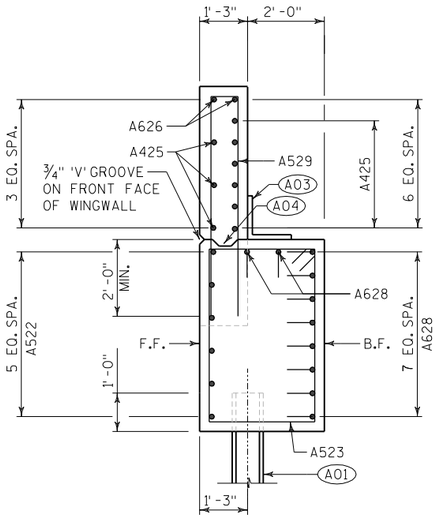
WING 2 PLAN



SECTION A-A



WING 2 ELEVATION



SECTION B-B

LEGEND

(A01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING. DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40'-0" LONG.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A04) OPTIONAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2"X6" (18" RMW @ BF & ¾" "V" GROOVE @ FF IF JOINT IS USED).

(A05) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 5 FOR BILL OF BARS AND BENDING DIAGRAM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT WING WALL #2

SHEET 7 OF 25

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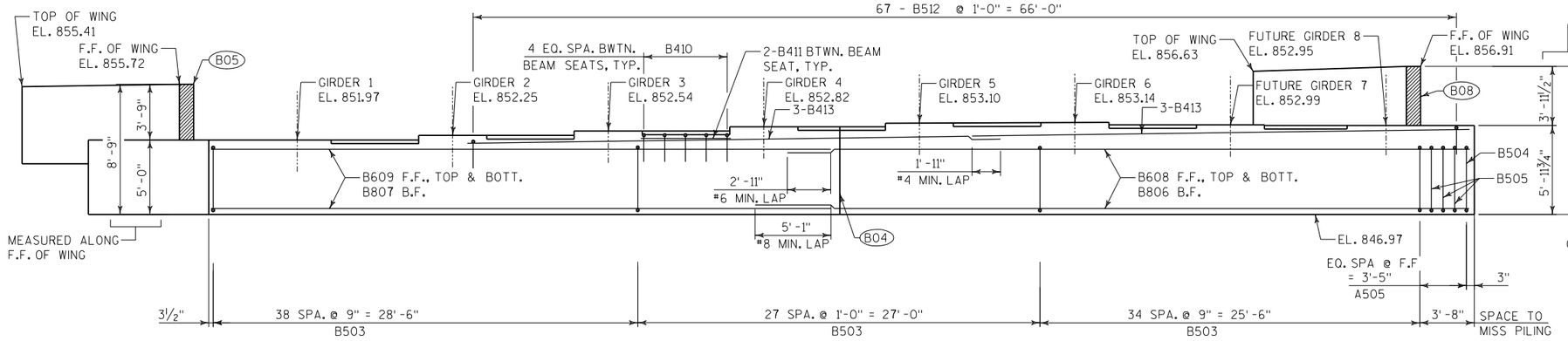
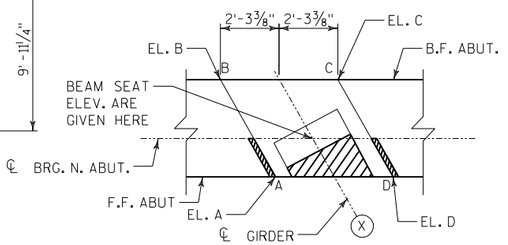
STATE PROJECT NUMBER
1090-15-72



ELEVATION

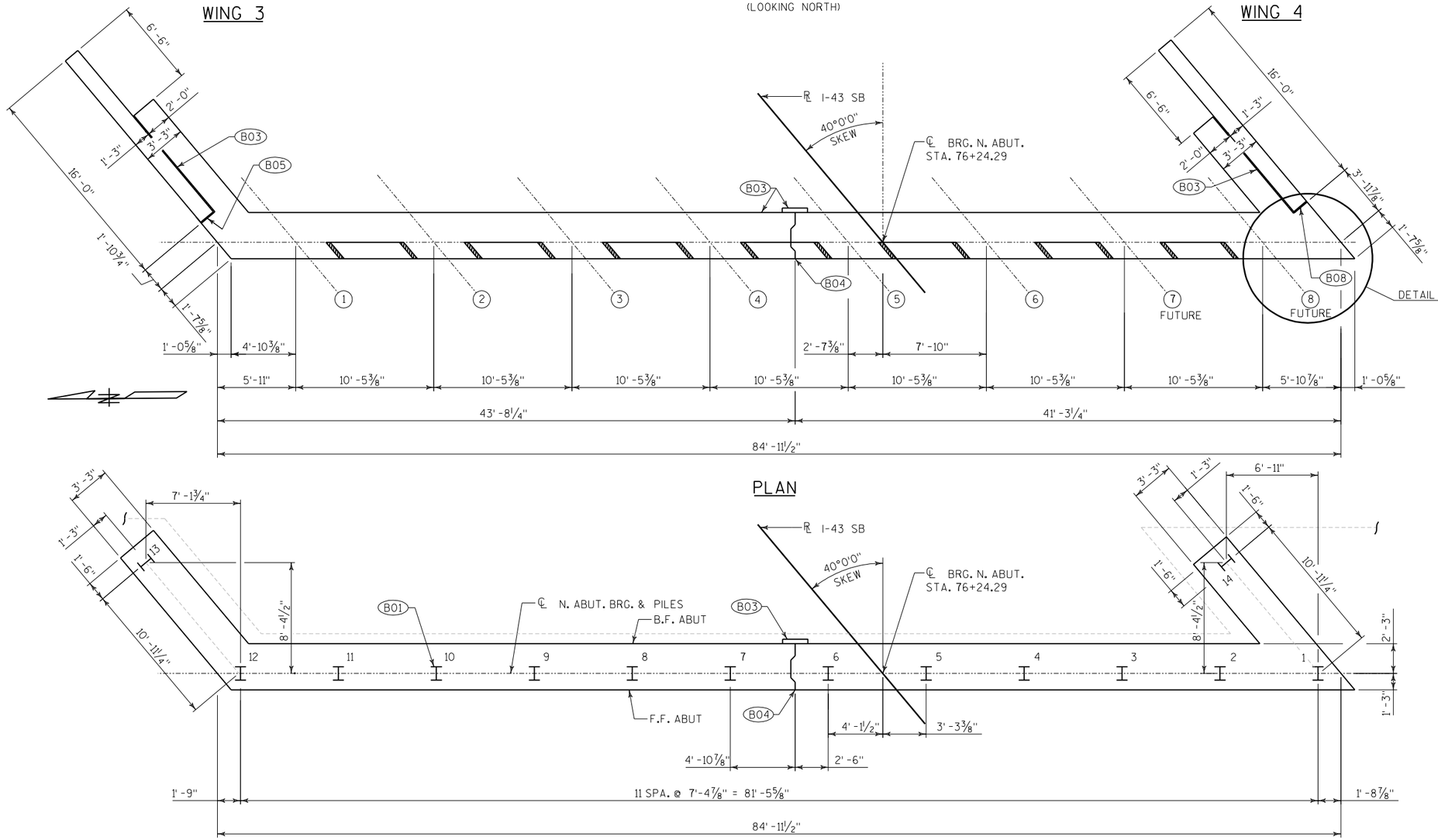
(LOOKING NORTH)



SEAT DETAIL AND ELEVATION CORRECTIONS

VALUES ARE IN FEET. ADD THESE VALUES TO THE SEAT ELEVATION TO OBTAIN ELEVATION OF POINTS A,B,C, & D.

GIRDER	EL. A	EL. B	EL. C	EL. D
1-8	0.03	-0.05	-0.05	0.03



PLAN

PILE PLAN

LEGEND:

(B01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 55'-0" LONG.

(B02) PIPE UNDERDRAIN, WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END AND CAP UPPER END. THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THE DETAIL SHOWN ON SHEET 9. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS ROUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TO OR MORE NO. 10 X 1-INCH STIANLESS SHEET METAL SCREWS AND SHALL BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE. FILLER THICKNESS AT INSIDE FACE OF WING ADDED TO ABUTMENT LENGTH.

(B04) KEYED CONST JOINT FORMED BY BEVELED 2" X 8" WITH ¾" V-GROOVE. SEE SHEET 9 FOR ALTERNATE CONSTRUCTION JOINT DETAIL. RUN BAR STEEL THROUGH JOINT.

(B05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B06) ¾" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

(B08) FUTURE ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 9 FOR DETAIL A.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

NORTH ABUTMENT

SHEET 352 8 OF 25

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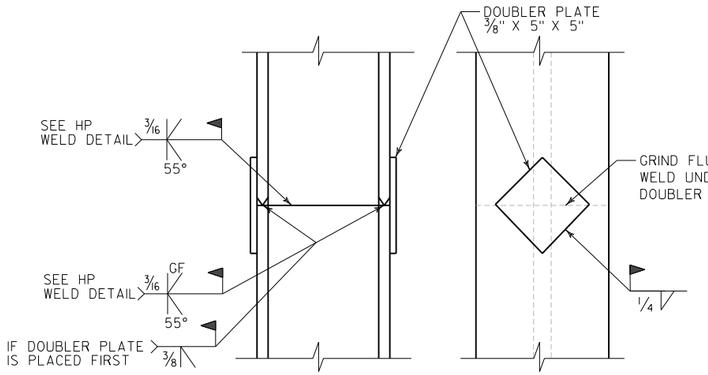
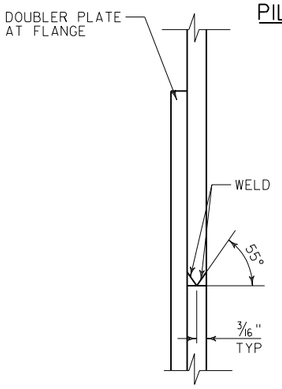
7/30/2013

STATE PROJECT NUMBER

1090-15-72

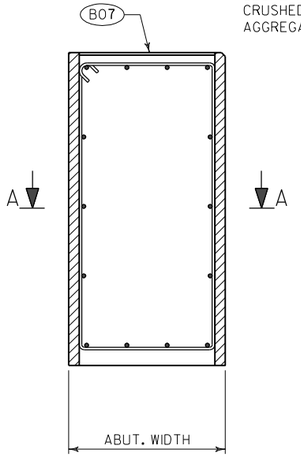


PILE SPLICE DETAIL

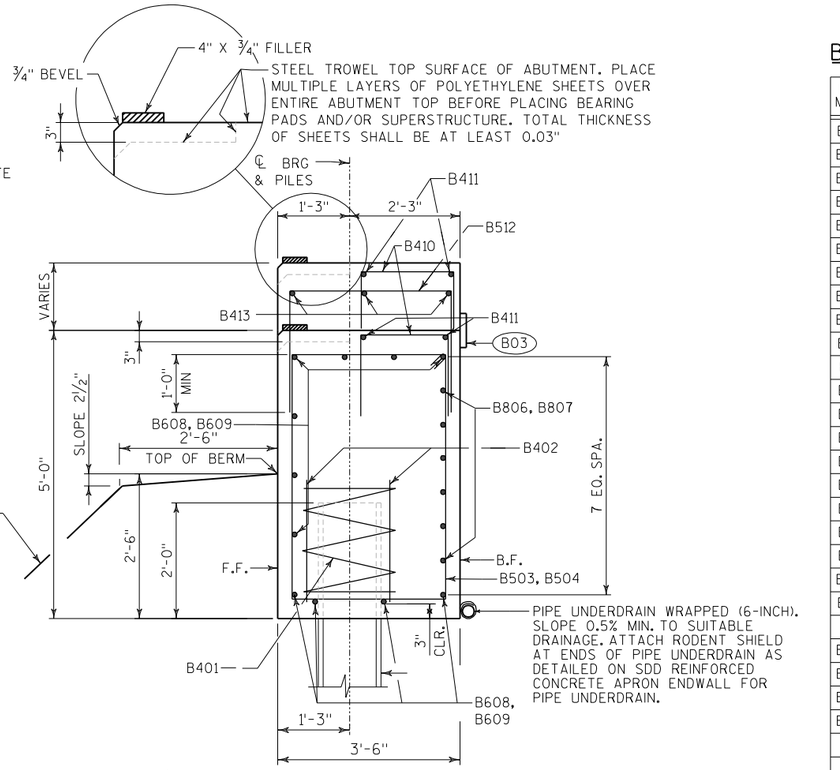


'HP' WELD DETAIL

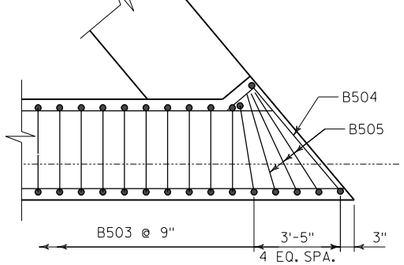
FLANGE SHOWN,
WEB SIMILAR



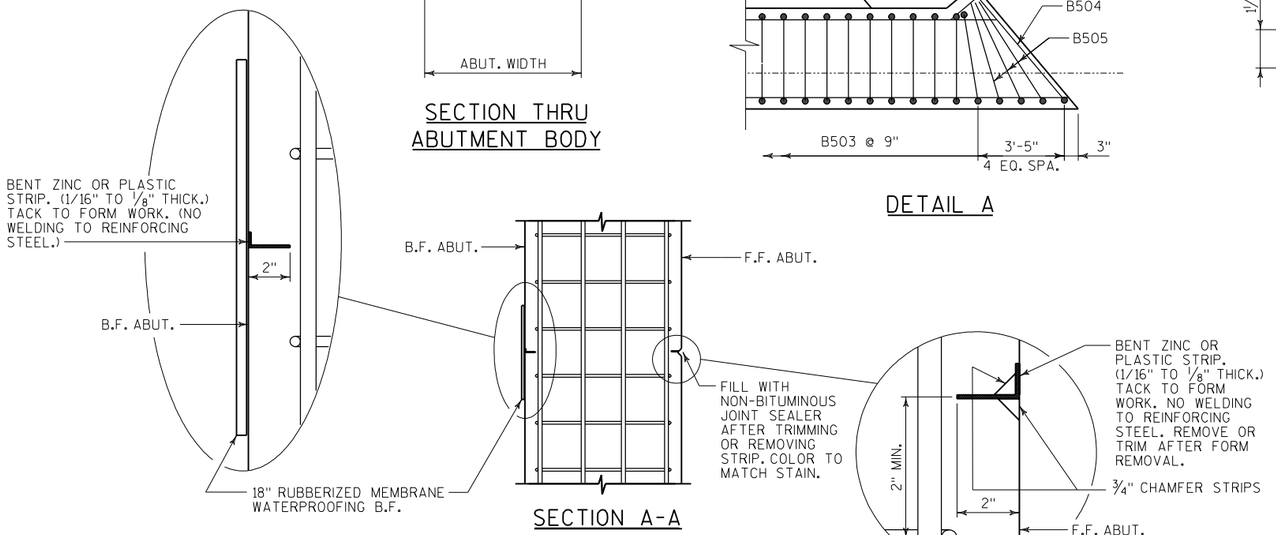
SECTION THRU
ABUTMENT BODY



SECTION THRU BODY



DETAIL A

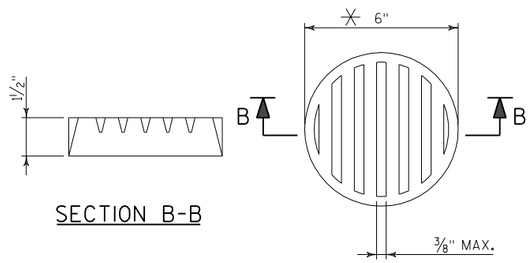


SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

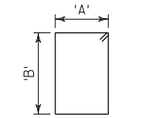
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
B401	-	12	28'-0"	X		ABUTMENT PILES - 1 PER PILE	VERTICAL
B402	-	24	2'-3"	-		ABUTMENT PILES - 2 PER PILE	VERTICAL
B503	-	100	15'-7"	X		ABUTMENT BODY STIRRUPS	VERTICAL
B504	-	1	19'-5"	X		ABUTMENT BODY STIRRUPS - E. END	VERTICAL
B505	-	3	9'-9"	X		ABUTMENT BODY STIRRUPS - E. END	VERTICAL
B806	-	6	44'-9"	-		ABUTMENT BODY BF	HORIZONTAL
B807	-	6	43'-7"	-		ABUTMENT BODY BF	HORIZONTAL
B608	-	11	45'-2"	-		ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B609	-	11	42'-4"	-		ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B410	-	35	5'-5"	X		ABUTMENT BODY - TOP BTWN SEATS 1-8	VERTICAL
B411	-	14	7'-10"	-		ABUTMENT BODY - BTWN SEATS 1-8	HORIZONTAL
B512	-	67	7'-5"	X		ABUTMENT BODY	VERTICAL
B413	-	6	34'-0"	-		ABUTMENT BODY	HORIZONTAL
B614	X	10	12'-8"	X		WING WALL 3	HORIZONTAL
B515	X	13	11'-3"	-		WING WALL 3 & 4	HORIZONTAL
B516	X	10	15'-9"	X		WING WALL 3	VERTICAL
B417	X	10	7'-9'	-		WING WALL 3 & 4 EXTENSION	HORIZONTAL
B418	X	15	15'-8"	-		WING WALL 3 & 4 EXTENSION	HORIZONTAL
B619	X	4	15'-8"	-		WING WALL 3 & 4 EXTENSION TOP	HORIZONTAL
B520	X	9	10'-6"	X		WING WALL 3 EXTENSION	VERTICAL
B521	X	13	12'-2"	X		WING WALL 3 EXTENSION	VERTICAL
-	-	-	-	-		-	-
B623	X	10	10'-8"	X		WING WALL 4	HORIZONTAL
B524	X	9	17'-9"	X		WING WALL 4	VERTICAL
B525	X	9	11'-10"	X		WING WALL 4 EXTENSION	VERTICAL
B526	X	13	12'-6"	X		WING WALL 4 EXTENSION	VERTICAL

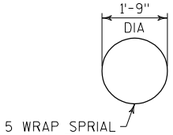


SECTION B-B

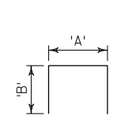
RODENT SHIELD



BAR MARK	DIM. 'A'	DIM. 'B'
B503	3'-2"	4'-4"
B504	5'-1"	4'-4"
B516	2'-11"	4'-8"
B524	2'-11"	5'-8"



B401



BAR MARK	DIM. 'A'	DIM. 'B'
B505	4'-4"	2'-10"
B410	1'-11"	1'-10"
B512	3'-2"	2'-3"
B520	11"	4'-11"
B521	11"	5'-9"
B525	11'	5'-7"
B526	11"	5'-11"

✳ DIMENSIONS ARE APROXIMATE, THE GRATE IS SIZED TO FIT INTO PIPE COUPLING. ORIENT SHEILD SO SLOTS ARE VERTICAL.

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

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(B01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DEYERMINED BY THE GATES DYNAMIC FORMULA. ESTIMATED 40'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B07) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

B614, B623

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

NORTH ABUTMENT DETAILS

SHEET NO. 353 9 OF 25

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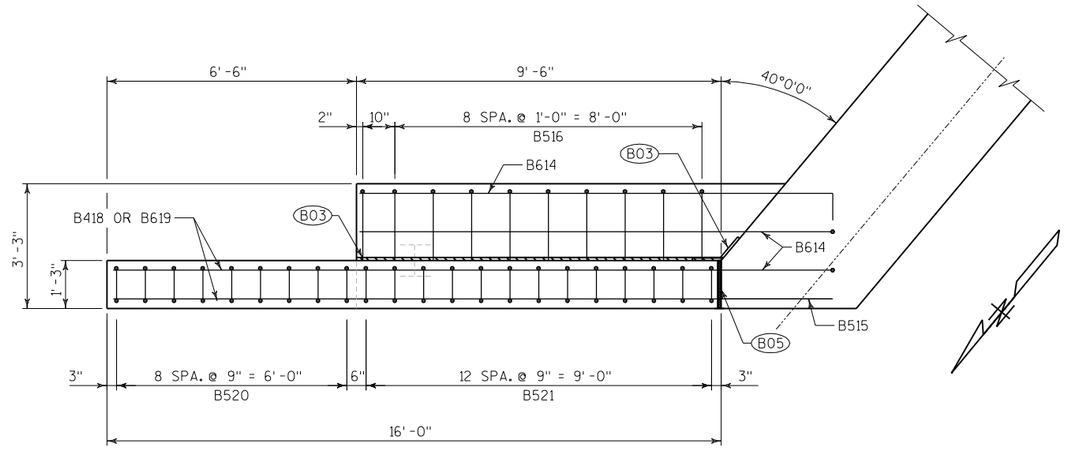
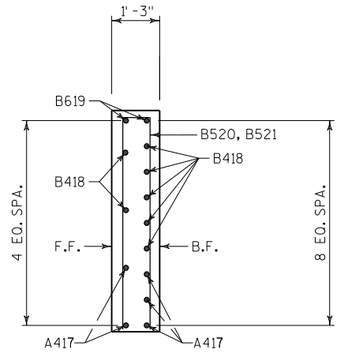
7/30/2013

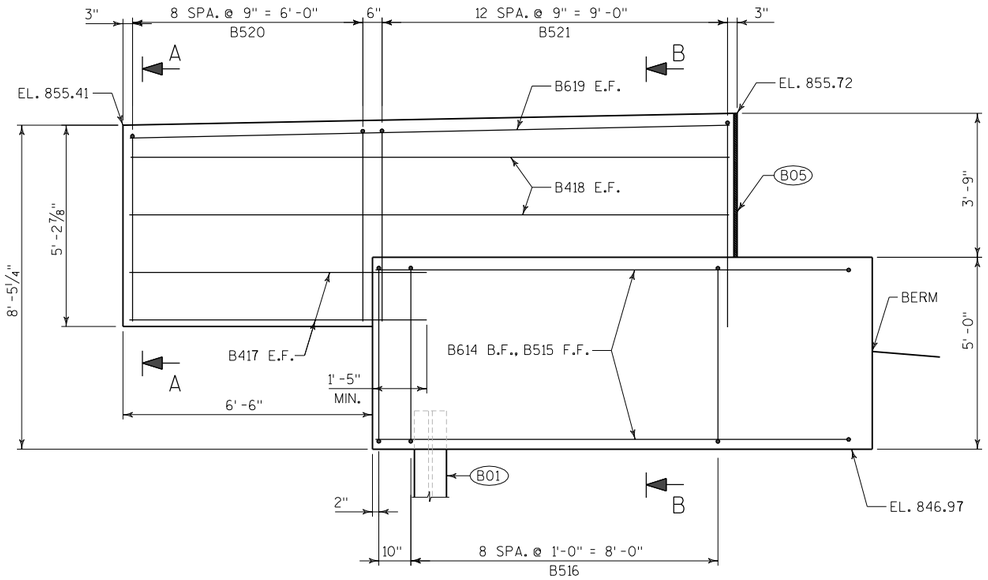
STATE PROJECT NUMBER
1090-15-72



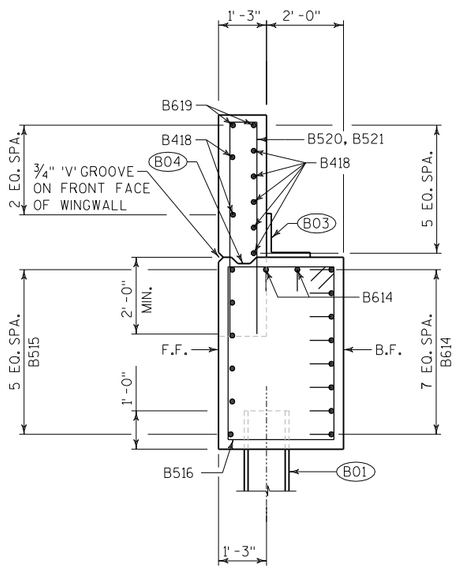
WING 3 PLAN



SECTION A-A



WING 3 ELEVATION



SECTION B-B

LEGEND

(B01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 55'-0" LONG.

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(B04) OPTIONAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2"X6" (18" RMW @ BF & ¾" "V" GROOVE @ FF IF JOINT IS USED).

(B05) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDING DIAGRAM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

ABUTMENT WING WALL #3

SHEET 10 OF 25

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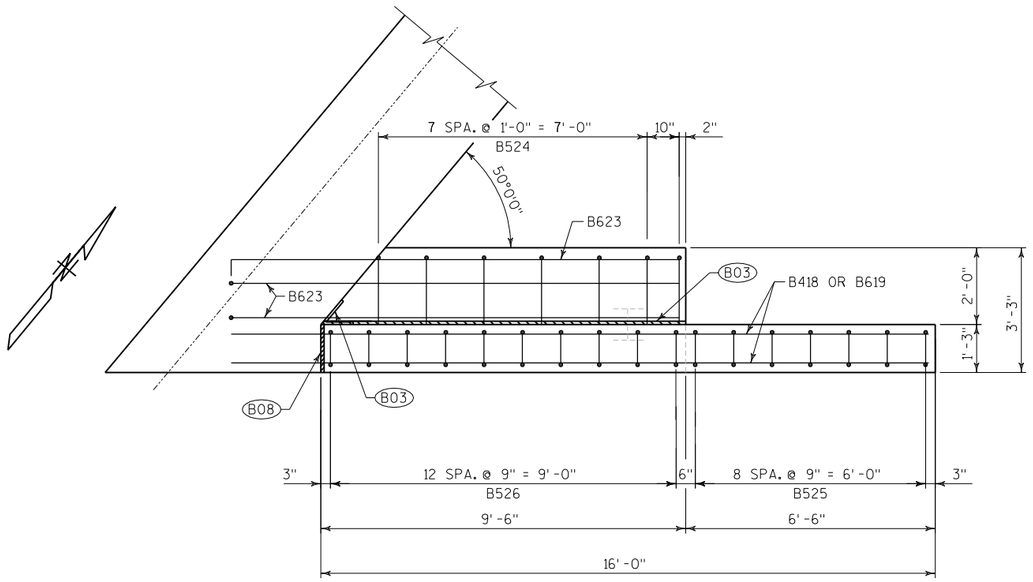
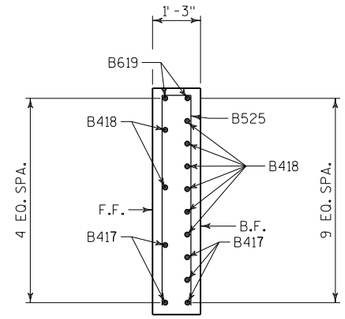
STATE PROJECT NUMBER

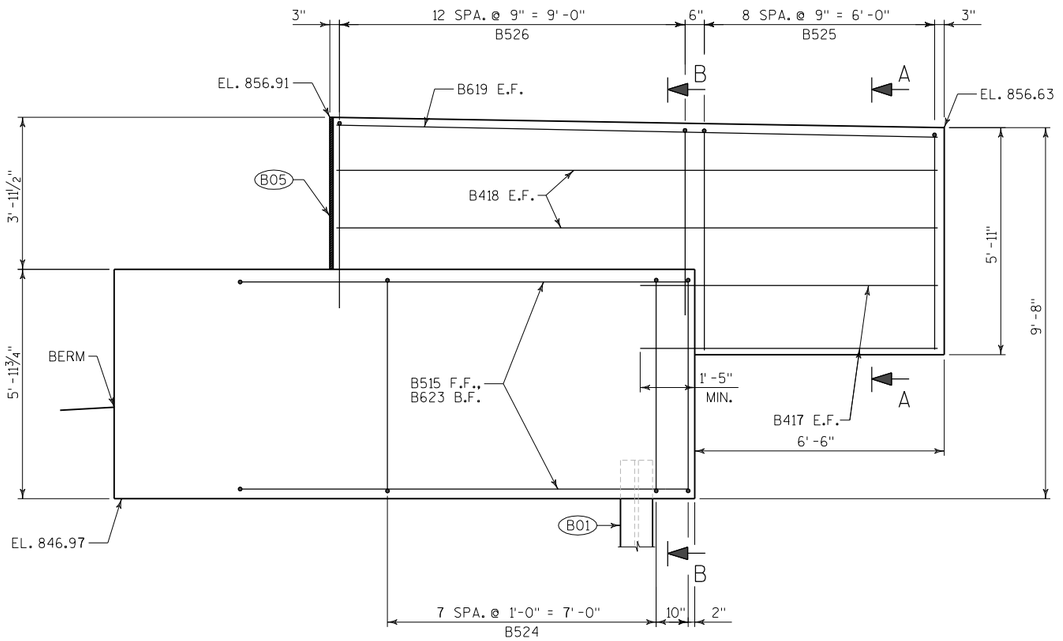
1090-15-72



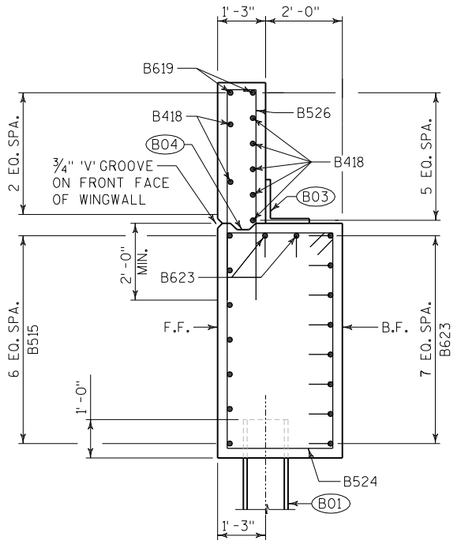
WING 4 PLAN



SECTION A-A



WING 4 ELEVATION



SECTION B-B

LEGEND

(B01) ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 55'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(B04) OPTIONAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2"X6" (18" RMW @ BF & ¾" "V" GROOVE @ FF IF JOINT IS USED).

(B08) FUTURE ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDING DIAGRAM.

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STRUCTURE B-67-334

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ABUTMENT WING WALL #4

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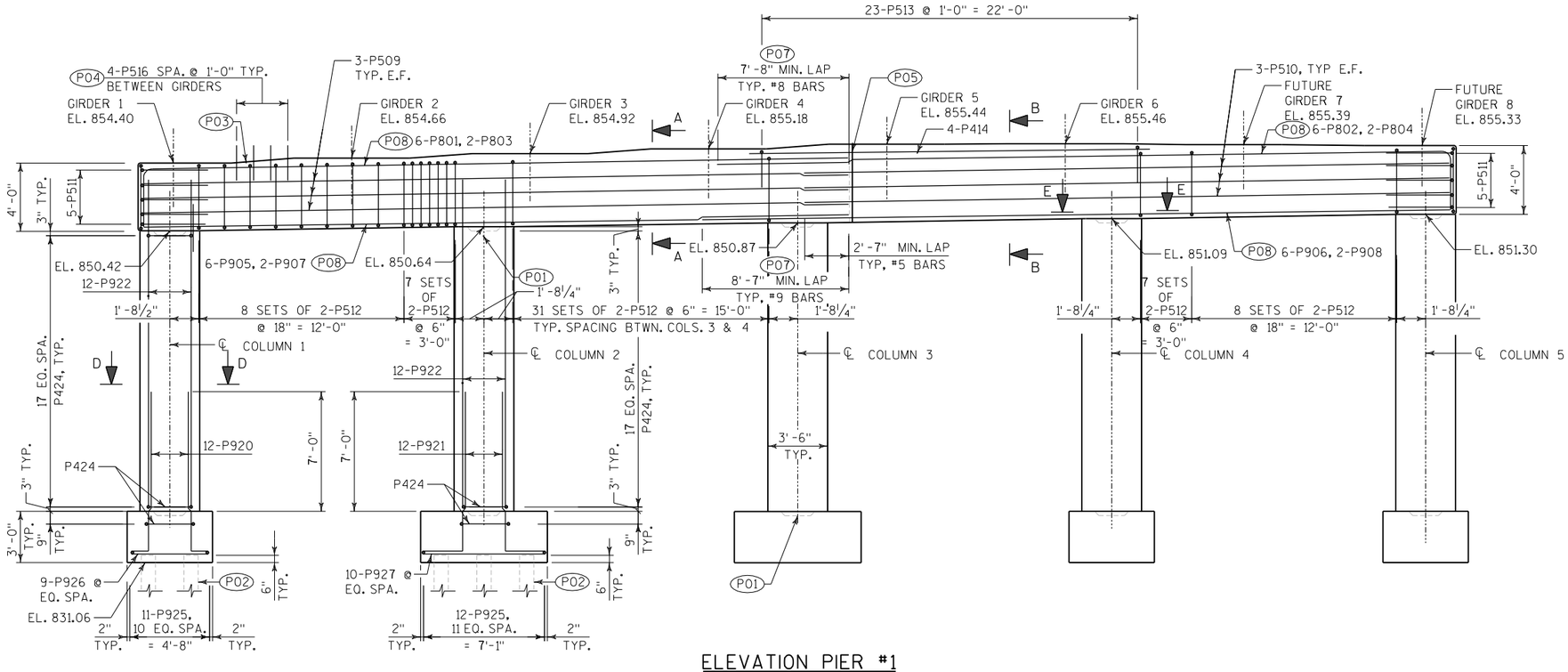
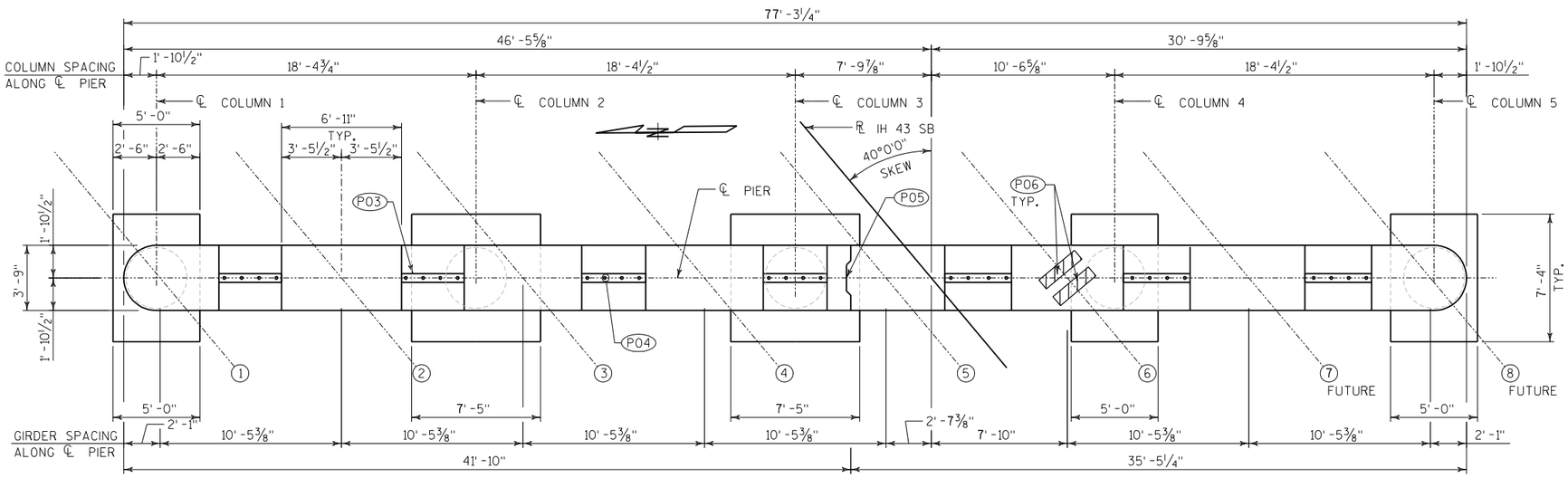


ELEVATION PIER #1

(LOOKING NORTH)

TYP. REINFORCEMENT FOR COLUMNS 1, 4 & 5

TYP. REINFORCEMENT FOR COLUMNS 2 & 3



PLAN PIER # 1

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 1'-3" X 1'-3" X 2", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) PIER TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35'-0" LONG.

(P03) KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"X6" BETWEEN BEAM SEATS.

(P04) P516 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2"X6"X2'-0" KEYWAY. RUN BAR STEEL THROUGH JOINT.

(P06) ½" THICK ELASTOMERIC BEARING PAD, SEE 'SUPERSTRUCTURE DETAILS' SHEET FOR DETAILS.

(P07) LAPS SHOWN ARE MINIMUM. LENGTH & LOCATION OF LAP WILL VARY BASED ON VARIABLE EXTENSION OF BARS INTO RADIUS CAP ENDS.

(P08) OFFSET BARS AT ENDS OF PIER CAP AS REQUIRED TO MAINTAIN EDGE CLEARANCES.

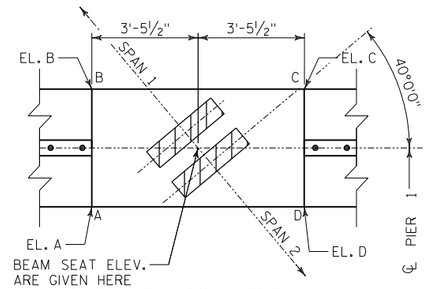
NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT. WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SEE SHEET 14 FOR SECTION A-A, B-B, D-D & E-E.



SEAT DETAIL AND ELEVATION CORRECTIONS

VALUES ARE IN FEET. ADD THESE VALUES TO THE SEAT ELEVATION TO OBTAIN ELEVATION OF POINTS A,B,C, & D.

GIRDER	EL. A	EL. B	EL. C	EL. D
1-8	0.02	0.08	-0.01	-0.06

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PIER 1

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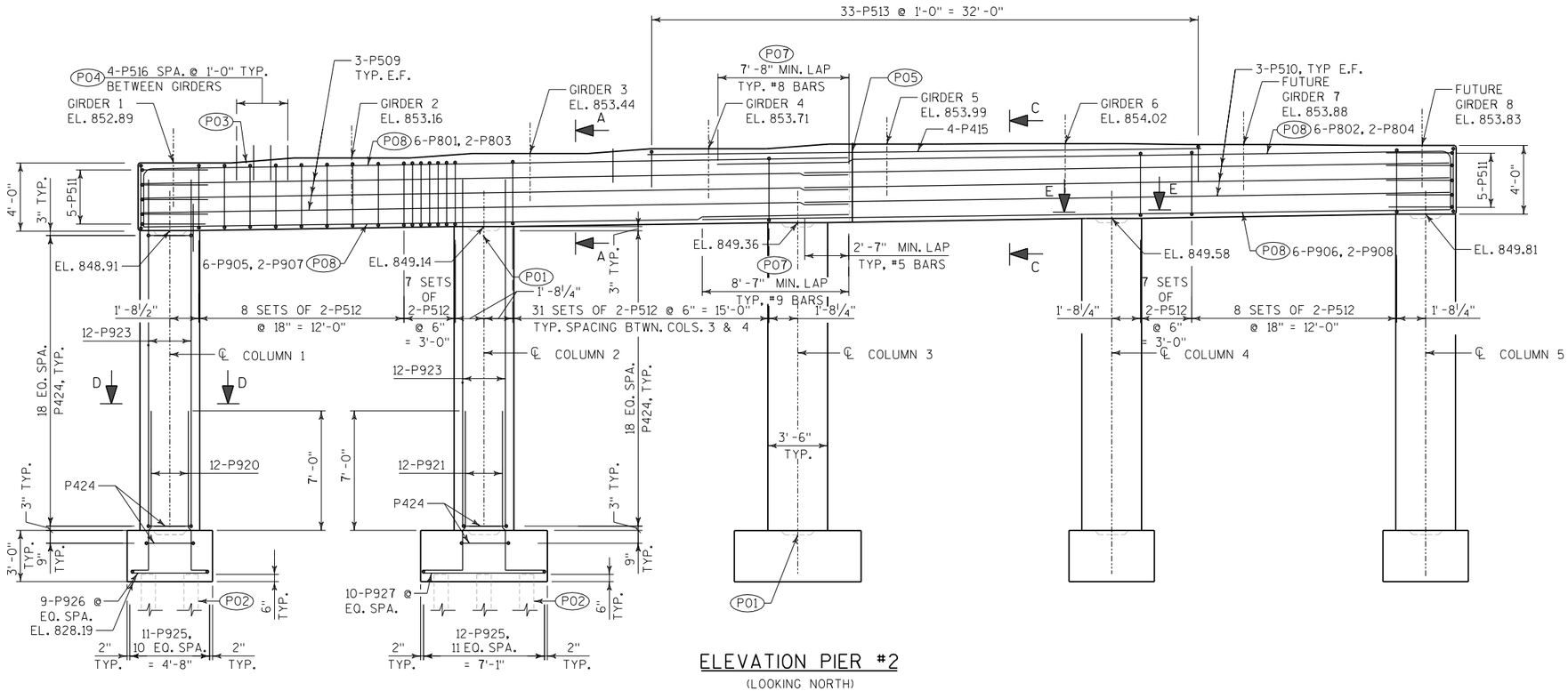
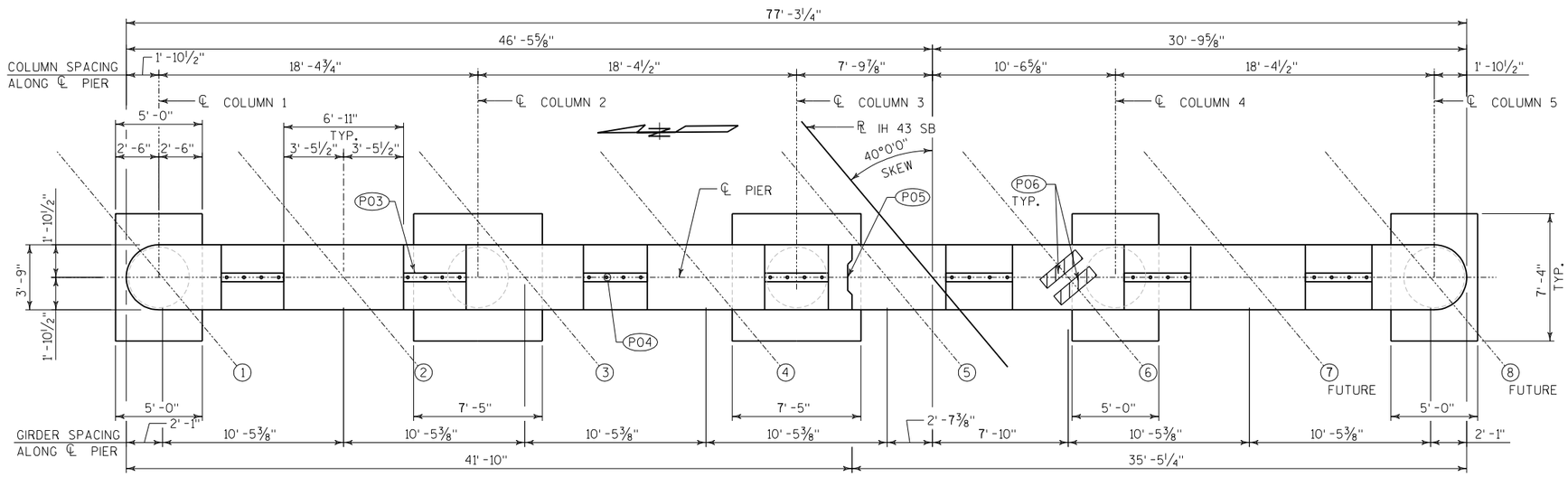


ELEVATION PIER #2

(LOOKING NORTH)

TYP. REINFORCEMENT FOR COLUMNS. 1, 4 & 5

TYP. REINFORCEMENT FOR COLUMNS. 2 & 3



PLAN PIER #2

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 1'-3" X 1'-3" X 2", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) PIER TO BE SUPPORTED ON HP 10X42 STEEL PILING, DRIVEN TO A DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35'-0" LONG.

(P03) KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"X6" BETWEEN BEAM SEATS.

(P04) P516 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2"X6"X2'-0" KEYWAY. RUN BAR STEEL TROUGH JOINT.

(P06) ½" THICK ELASTOMERIC BEARING PAD, SEE 'SUPERSTRUCTURE DETAILS' SHEET FOR DETAILS.

(P07) LAPS SHOWN ARE MINIMUM. LENGTH & LOCATION OF LAP WILL VARY BASED ON VARIABLE EXTENSION OF BARS INTO RADIUS CAP ENDS.

(P08) OFFSET BARS AT ENDS OF PIER CAP AS REQUIRED TO MAINTAIN EDGE CLEARANCES.

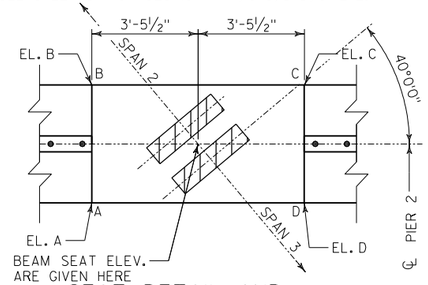
NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT. WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SEE SHEET 14 FOR SECTION A-A, C-C, D-D, & E-E.



SEAT DETAIL AND ELEVATION CORRECTIONS

VALUES ARE IN FEET. ADD THESE VALUES TO THE SEAT ELEVATION TO OBTAIN ELEVATION OF POINTS A,B,C, & D.

GIRDER	EL. A	EL. B	EL. C	EL. D
1-8	0.02	0.08	-0.01	-0.06

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STRUCTURE B-67-334

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PIER 2

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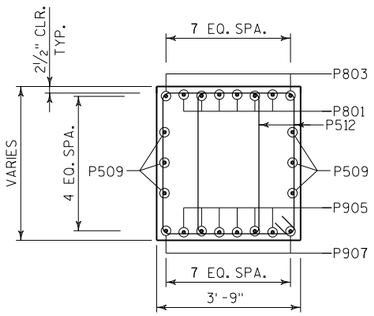
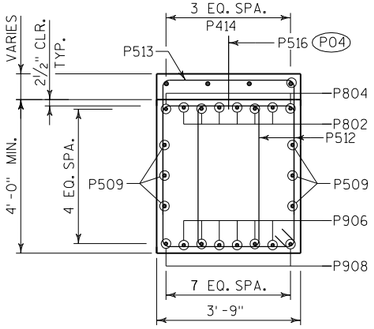
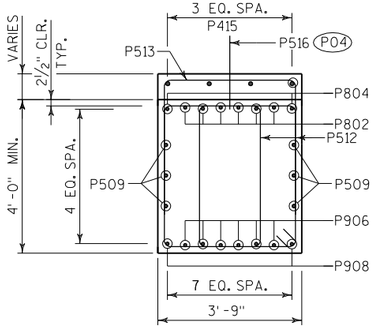


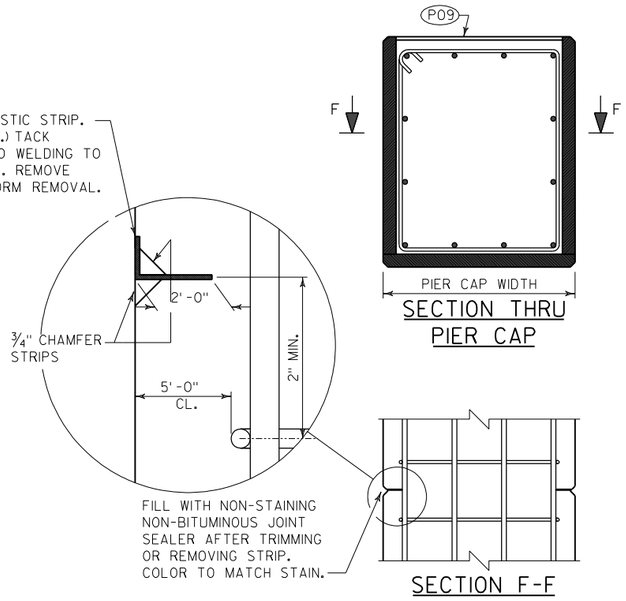
SECTION A-A



SECTION B-B



SECTION C-C



SECTION THRU PIER CAP

SECTION F-F

ALTERNATE CONSTRUCTION JOINT AT PIER CAP

ALTERNATE CONSTRUCTION JOINT NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

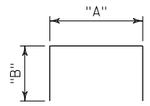
CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

(P09) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

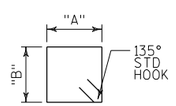
(P04) P516 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
P801	X	12	42'-6"	X		CAP - TOP, W. END	HORIZONTAL
P802	X	12	45'-2"	X		CAP - TOP, E. END	HORIZONTAL
P803	X	4	41'-3"	X		CAP - TOP, W. END	HORIZONTAL
P804	X	4	43'-1"	X		CAP - TOP, E. END	HORIZONTAL
P905	X	12	40'-11"	-		CAP - BOTT, W. END	HORIZONTAL
P906	X	12	44'-6"	-		CAP - BOTT, E. END	HORIZONTAL
P907	X	4	39'-8"	-		CAP - BOTT, W. END	HORIZONTAL
P908	X	4	33'-10"	-		CAP - BOTT, E. END	HORIZONTAL
P509	X	12	39'-8"	-		CAP - SIDES, W. END	HORIZONTAL
P510	X	12	36'-5"	-		CAP - SIDES, E. END	HORIZONTAL
P511	X	20	8'-5"	X		CAP - STIRRUPS, ENDS	HORIZONTAL
P512	X	368	12'-3"	X		CAP - STIRRUPS	VERTICAL
P513	X	56	6'-4"	X		CAP - STIRRUPS	VERTICAL
P414	X	4	22'-0"	-		CAP - TOP	HORIZONTAL
P415	X	4	32'-0"	-		CAP - TOP	HORIZONTAL
P516	X	56	2'-0"	-		CAP - DOWEL BARS	VERTICAL
-	-	-	-	-		-	
P920	X	72	9'-10"	X		COLUMN - 1, 4 & 5 BOTT	VERTICAL
P921	X	48	10'-8"	X		COLUMN - 2 & 3 BOTT	VERTICAL
P922	X	60	20'-0"	-		COLUMN - PIER 1	VERTICAL
P923	X	60	21'-2"	-		COLUMN - PIER 2	VERTICAL
P424	X	195	11'-5"	X		COLUMN - STIRRUP	HORIZONTAL
P925	-	114	7'-0"	-		FOOTING	HORIZONTAL
P926	-	54	4'-8"	-		FOOTING	HORIZONTAL
P927	-	40	7'-1"	-		FOOTING	HORIZONTAL

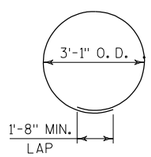


MARK	"A"	"B"
P513	2'-3"	2'-2"



MARK	"A"	"B"
P512	2'-3"	3'-7"

MARK	"A"
P801	1'-9"
P802	1'-9"
P803	1'-9"
P804	1'-9"
P920	9"
P921	1'-7"



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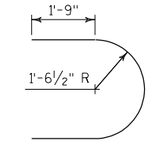

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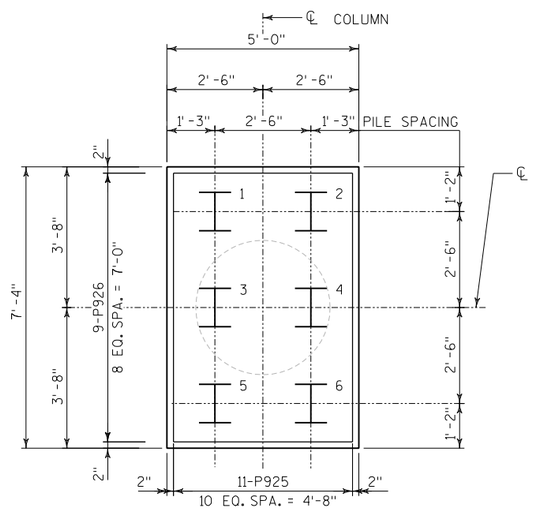
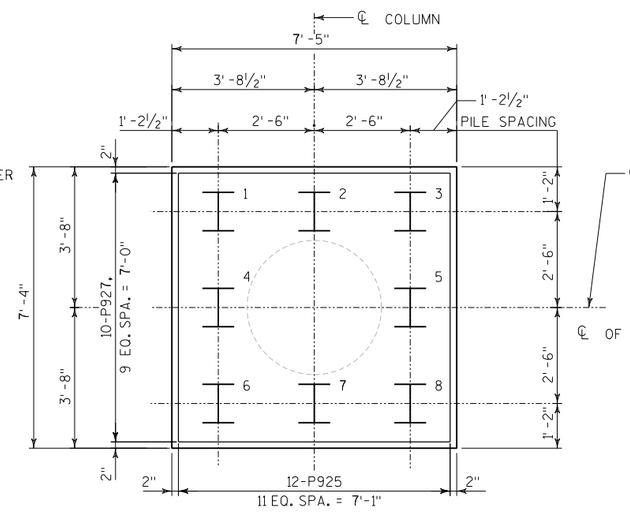


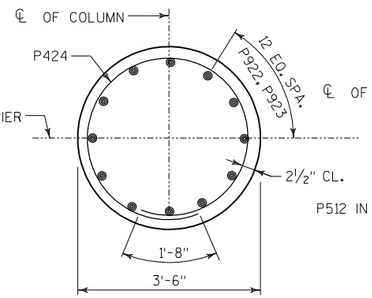
FOOTING PLAN

COLUMNS 1, 4 & 5

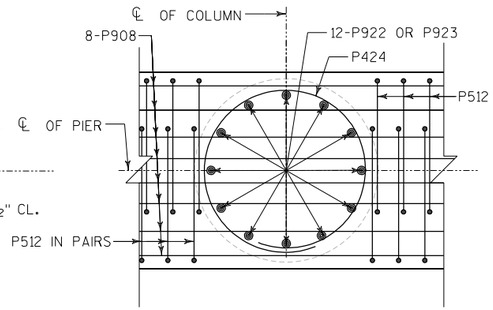


FOOTING PLAN

COLUMNS 2 & 3



SECTION D-D



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

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PIER DETAILS

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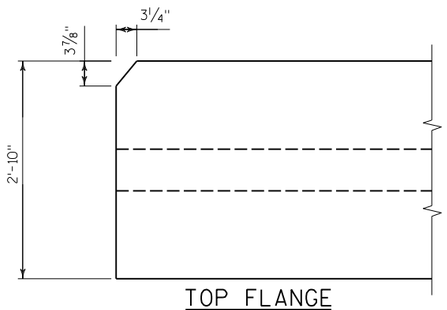
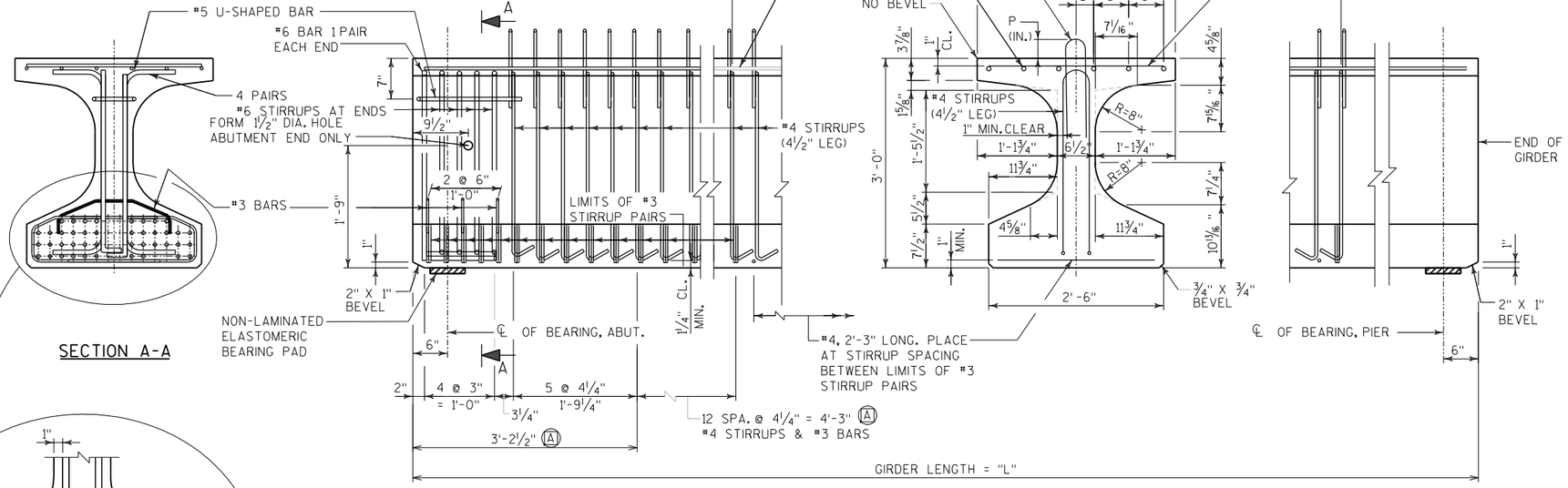
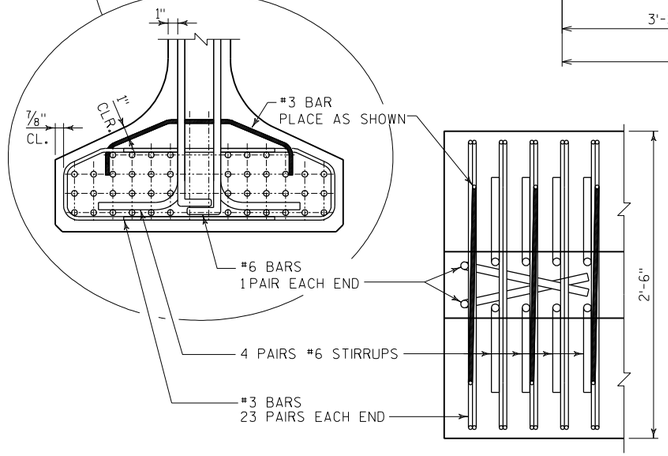


TOP FLANGE

AT ABUTMENT, FORM OUT TOP FLANGE AS SHOWN



SECTION A-A



BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-5"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

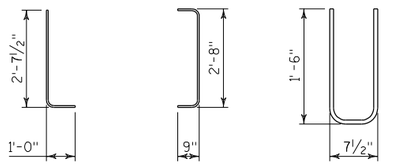
PRESTRESSING STRANDS SHALL BE 0.6 DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

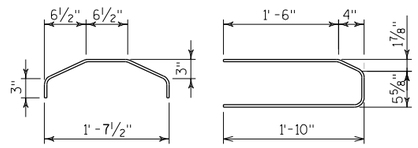
FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

STIRRUP SPACING

SPAN	LOCATION	BAR SIZE	SPACING
1 & 3	FROM END TO 7'-5½"	AS SHOWN	AS SHOWN
	FROM 7'-5½" TO 20'-5"	#4	6"
	FROM 20'-5" TO MIDSPAN	#4	8"
2	FROM END TO 7'-5½"	AS SHOWN	AS SHOWN
	FROM 7'-5½" TO 18'-7¼"	#4	5"
	FROM 18'-7¼" TO 27'-11"	#4	6"
	FROM 27'-11" TO 37'-3"	#4	8"
	FROM 37'-3" TO MIDSPAN	#4	10"

SPACING IS SYMMETRICAL ABOUT MIDSPAN OF GIRDER





GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800
	2-5	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800
	6	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800
2	1	91'-9"	0.6	1.3	1.7	2.0	2.1	2.0	1.7	1.3	0.6	8000	7	0.6	34	6800	31	11.5	14.5	5	-	-
	2-5	91'-9"	0.7	1.3	1.8	2.2	2.3	2.2	1.8	1.3	0.7	8000	7	0.6	34	6800	31	11.5	14.5	5	-	-
	6	91'-9"	0.6	1.3	1.7	2.0	2.1	2.0	1.7	1.3	0.6	8000	7	0.6	34	6800	31	11.5	14.5	5	-	-
3	1	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800
	2-5	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800
	6	50'-4 1/2"	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	8000	7	0.6	-	-	-	-	-	-	20	6800

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

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STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

36W" PRESTRESSED GIRDER

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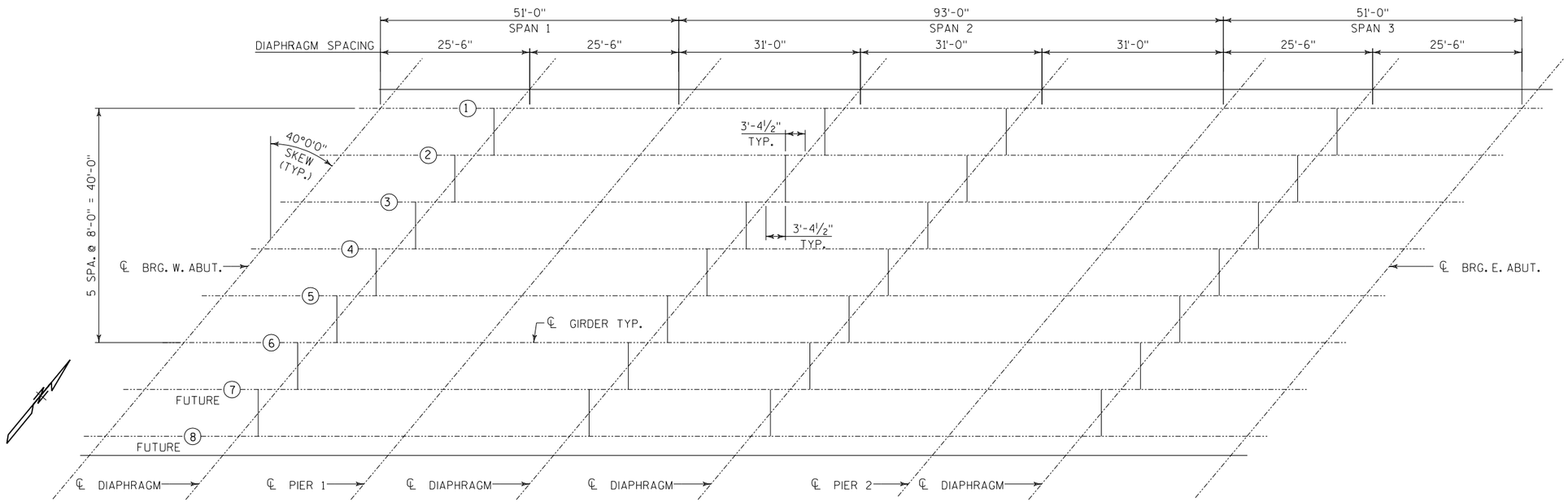
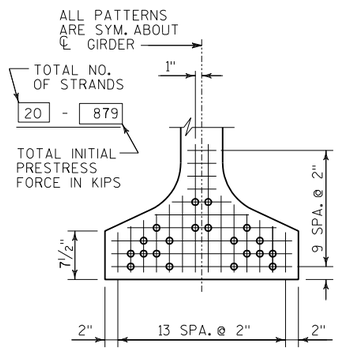
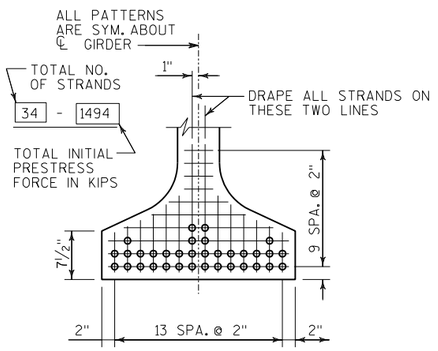


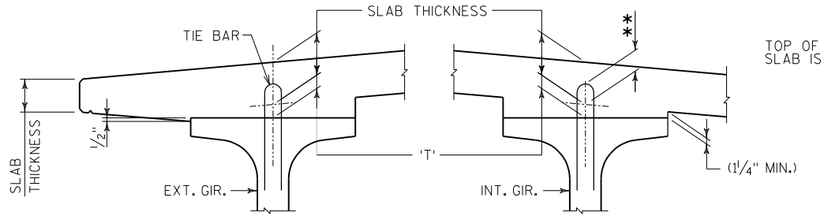
FRAMING PLAN



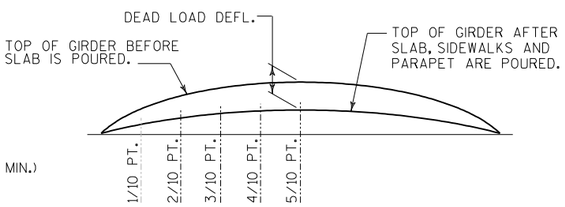
SPAN 1 & 3 STRAND PATTERN



SPAN 2 STRAND PATTERN



SLAB HAUNCH DETAIL



DEAD LOAD DEFLECTION DIAGRAM

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

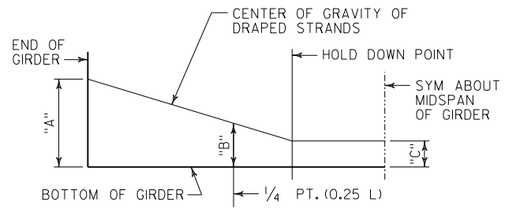
NOTE: AN AVERAGE HAUNCH ('T') OF 2⅜" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	0.9
2	4.1
3	0.9

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DRAPED STRAND PROFILE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

36W" PRESTRESSED GIRDER DETAILS

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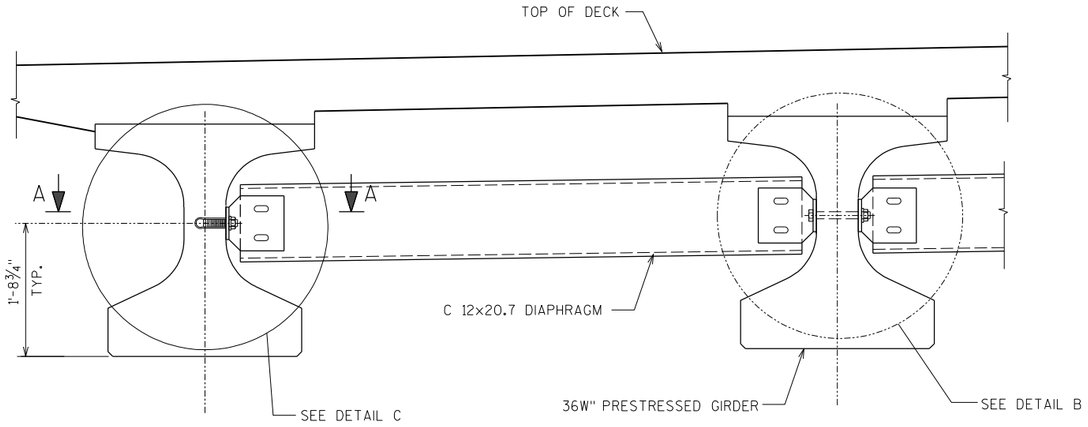
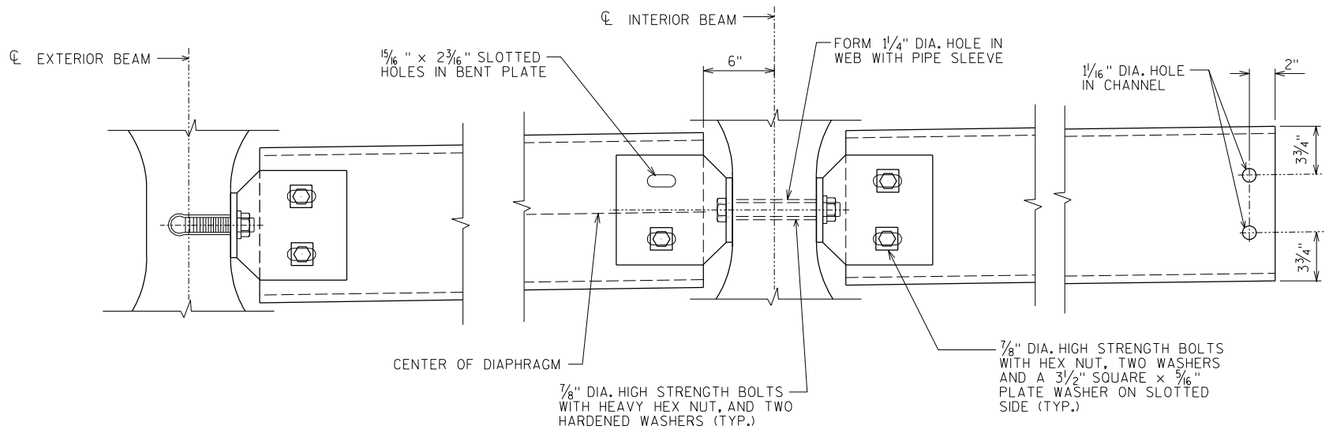


EXTERIOR GIRDER

INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM



DETAIL C

DETAIL B

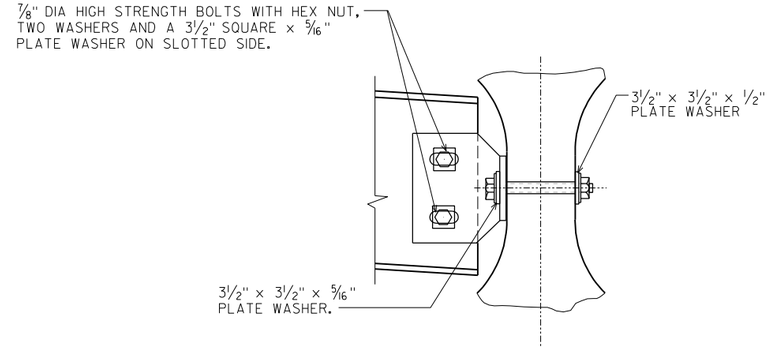
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-67-334, EACH.

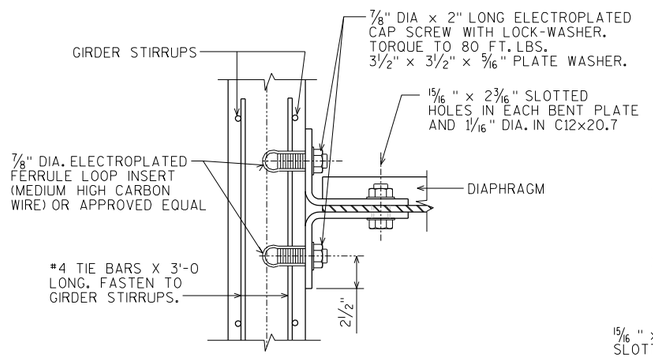
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN 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 OVERSIZE 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.

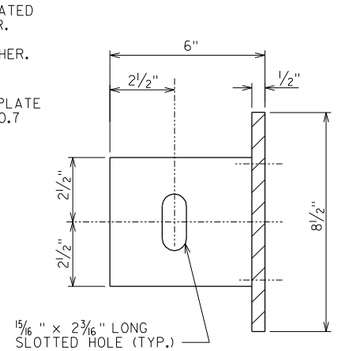


SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°

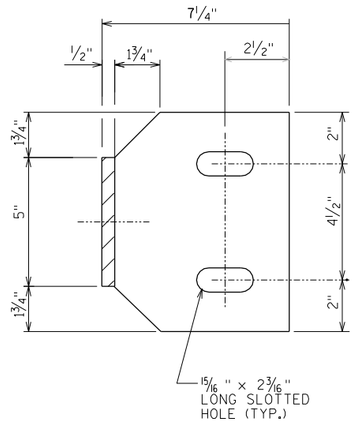


SECTION A-A

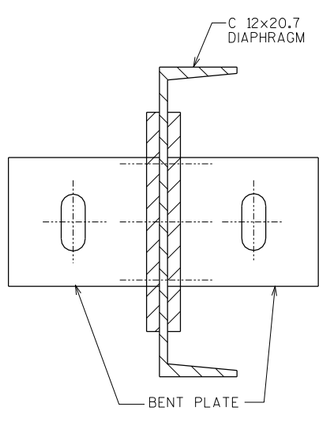
(FOR EXTERIOR ATTACHMENT)



BEAM FACE



DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

STEEL DIAPHRAGM

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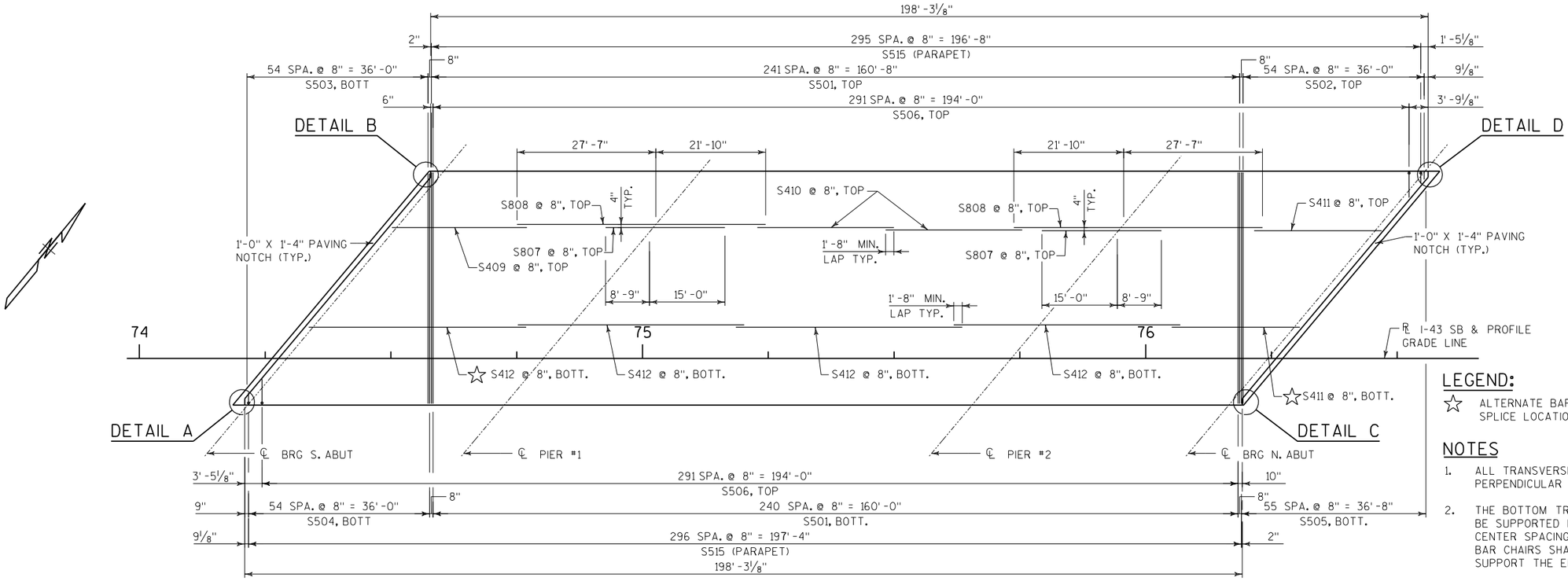
1090-15-72



PLAN

(3-SPAN, 36W PRESTRESSED GIRDER STRUCTURE)

LEGEND:

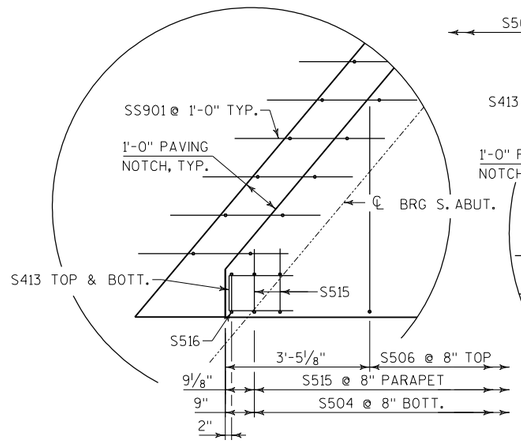
☆ ALTERNATE BARS S411 & S412 BOTTOM BARS TO RANDOMIZE SPLICE LOCATION.

NOTES

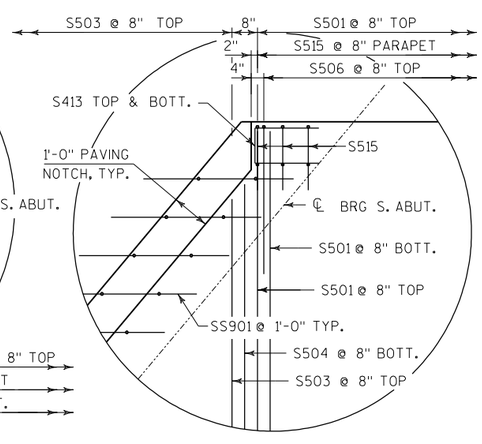
1. ALL TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO THE GIRDERS.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.

TOP OF DECK ELEVATIONS

LOCATION	S. ABUT.	SPAN 1									PIER 1	SPAN 2									PIER 2	SPAN 3									N. ABUT.
		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	
FF PARAPET	858.98	858.91	858.83	858.76	858.69	858.61	858.54	858.46	858.39	858.31	858.23	858.09	857.95	857.80	857.65	857.50	857.35	857.19	857.03	856.88	856.71	856.62	856.53	856.44	856.35	856.26	856.17	856.08	855.98	855.89	855.79
G1	859.04	858.97	858.90	858.82	858.75	858.68	858.60	858.53	858.45	858.38	858.30	858.16	858.01	857.87	857.72	857.57	857.41	857.26	857.10	856.94	856.78	856.69	856.60	856.51	856.42	856.33	856.24	856.15	856.05	855.96	855.86
G2	859.29	859.22	859.15	859.08	859.01	858.93	858.86	858.79	858.71	858.64	858.56	858.42	858.28	858.13	857.98	857.84	857.68	857.53	857.38	857.22	857.06	856.97	856.88	856.79	856.70	856.61	856.52	856.43	856.34	856.24	856.15
G3	859.55	859.48	859.41	859.33	859.26	859.19	859.12	859.04	858.97	858.89	858.82	858.68	858.54	858.40	858.25	858.10	857.95	857.80	857.65	857.49	857.33	857.25	857.16	857.07	856.98	856.89	856.80	856.71	856.62	856.53	856.43
G4	859.80	859.73	859.66	859.59	859.52	859.45	859.37	859.30	859.23	859.15	859.08	858.94	858.80	858.66	858.52	858.37	858.22	858.07	857.92	857.77	857.61	857.52	857.43	857.35	857.26	857.17	857.08	856.99	856.90	856.81	856.71
G5	860.05	859.98	859.91	859.84	859.77	859.70	859.63	859.56	859.48	859.41	859.34	859.20	859.06	858.92	858.78	858.64	858.49	858.34	858.19	858.04	857.88	857.80	857.71	857.62	857.53	857.45	857.36	857.27	857.18	857.09	857.00
PLG SB	860.11	860.04	859.97	859.90	859.83	859.76	859.69	859.62	859.55	859.47	859.40	859.27	859.13	858.99	858.85	858.70	858.56	858.41	858.26	858.10	857.95	857.86	857.78	857.69	857.60	857.52	857.43	857.34	857.25	857.16	857.07
G6	860.06	859.99	859.92	859.85	859.78	859.71	859.64	859.57	859.50	859.43	859.35	859.22	859.08	858.94	858.80	858.66	858.51	858.37	858.22	858.07	857.91	857.83	857.74	857.66	857.57	857.48	857.39	857.31	857.22	857.13	857.04
FF PARAPET	860.04	859.97	859.90	859.83	859.76	859.70	859.63	859.55	859.48	859.41	859.34	859.20	859.07	858.93	858.79	858.65	858.50	858.35	858.21	858.05	857.90	857.82	857.73	857.65	857.56	857.47	857.38	857.30	857.21	857.12	857.03

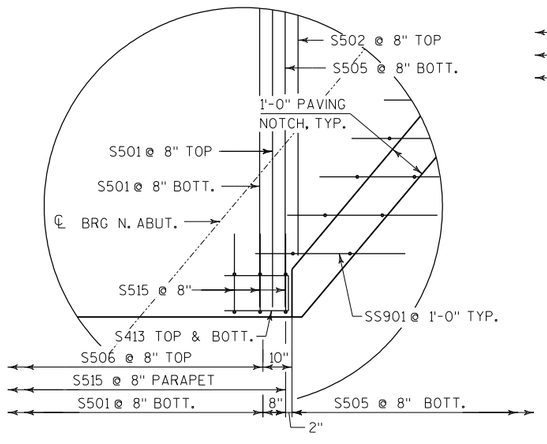


DETAIL A

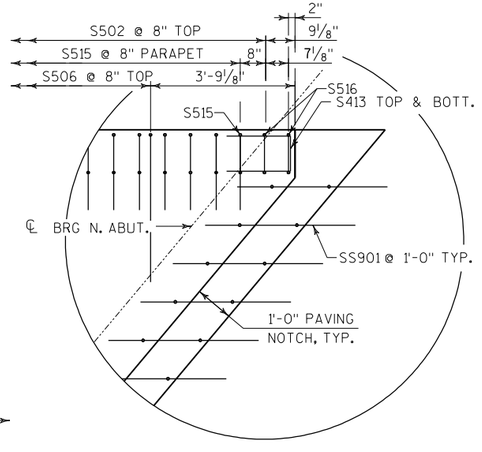


DETAIL B

SEE SHT. 21 FOR OUTER DIAPHRAGM BARS



DETAIL C



DETAIL D

SEE SHT. 22 FOR OUTER DIAPHRAGM BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE

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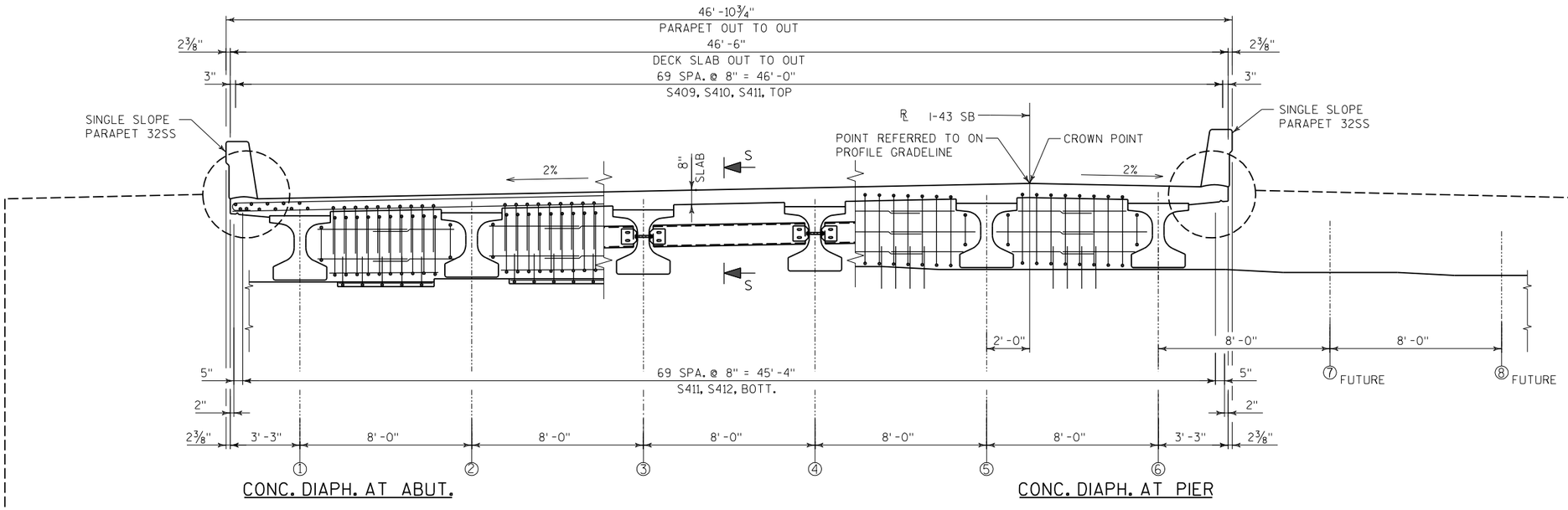
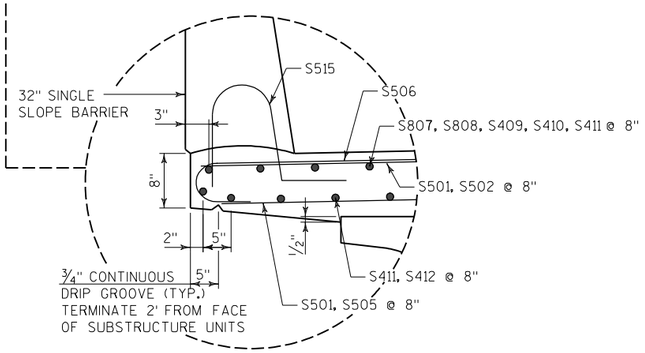
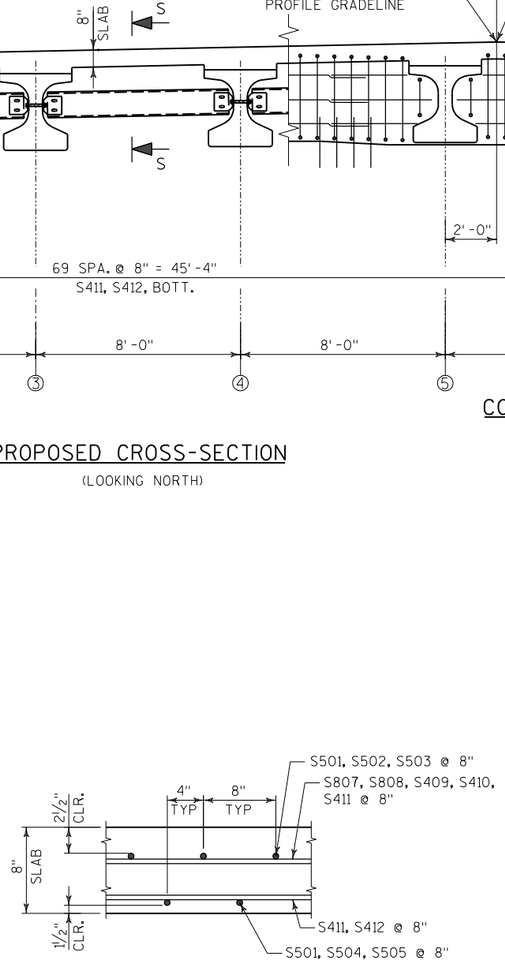


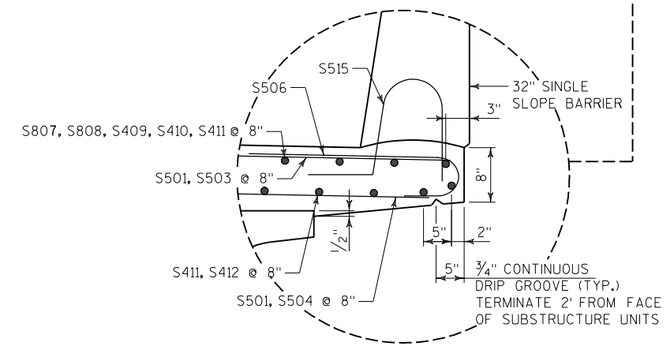
PROPOSED CROSS-SECTION

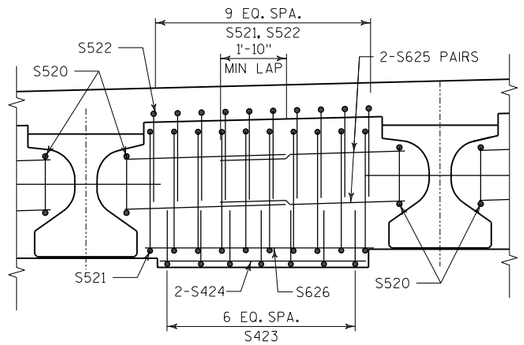
(LOOKING NORTH)





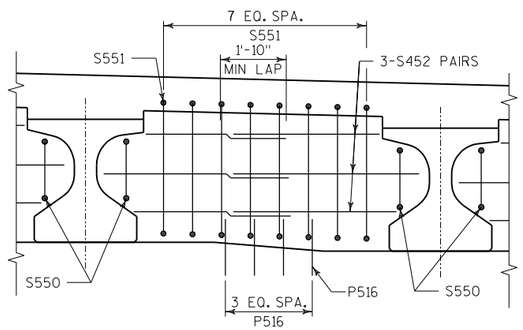
SECTION S-S





TYP. SECTION

ABUTMENT DIAPHRAGM DETAILS



TYP. SECTION

PIER DIAPHRAGM DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE CROSS-SECTION

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BILL OF BARS

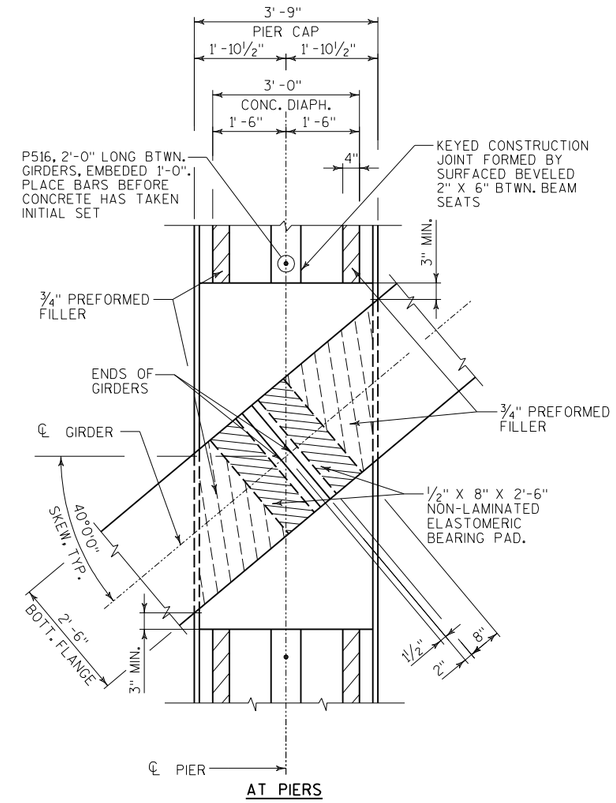
BAR MARK	COAT	NO.	LENGTH	BENT	⚠ BAR SERIES	LOCATION	
S501	X	483	46'-2"	-	-	SLAB - TOP & BOTT	TRANSVERSE
S502	X	55	23'-2"	-	X	SLAB - TOP	TRANSVERSE
S503	X	55	22'-10"	-	X	SLAB - TOP	TRANSVERSE
S504	X	55	23'-3"	-	X	SLAB - BOTT	TRANSVERSE
S505	X	56	23'-3"	-	X	SLAB - BOTT	TRANSVERSE
S506	X	584	5'-0"	X	-	SLAB - EDGE	TRANSVERSE
S807	X	140	23'-9"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S808	X	142	49'-5"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S409	X	70	27'-6"	-	-	SLAB - TOP	LONGITUDINAL
S410	X	140	27'-2"	-	-	SLAB - TOP	LONGITUDINAL
S411	X	141	25'-8"	-	-	SLAB - TOP & BOTT	LONGITUDINAL
S412	X	284	45'-0"	-	-	SLAB - BOTT	LONGITUDINAL
S413	X	8	4'-1"	-	-	SLAB - TOP & BOTT, CORNERS	HORIZONTAL
-	-	-	-	-	-	-	-
S515	X	593	4'-5"	X	-	PARAPET	VERTICAL
S516	X	3	3'-7"	X	-	PARAPET	VERTICAL
S517	X	596	5'-0"	X	-	PARAPET	VERTICAL
S518	X	36	35'-0"	-	-	PARAPET	HORIZONTAL
-	-	-	-	-	-	-	-
S520	X	12	11'-7"	X	-	ABUT DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S521	X	116	13'-3"	X	-	ABUT DIAPHRAGM - STIRRUPS	VERTICAL
S522	X	108	6'-7"	X	-	ABUT DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S423	X	70	3'-8"	X	-	ABUT DIAPHRAGM @ NOTCH	VERTICAL
S424	X	20	5'-6"	-	-	ABUT DIAPHRAGM @ NOTCH	HORIZONTAL
S625	X	40	5'-7"	-	-	ABUT DIAPHRAGM - FF BTWN GIRDERS	HORIZONTAL
S626	X	10	6'-8"	-	-	ABUT DIAPHRAGM - FF BTWN GIRDERS	HORIZONTAL
S527	X	24	6'-0"	-	-	ABUT DIAPHRAGM - THRU GRIDER	HORIZONTAL
S528	X	2	6'-1"	X	-	ABUT DIAPHRAGM - SE & NW END	VERTICAL
S529	X	2	5'-8"	X	-	ABUT DIAPHRAGM - SE & NW END	VERTICAL
S530	X	15	32'-9"	-	-	ABUT DIAPHRAGM - BF & TOP	HORIZONTAL
S531	X	5	32'-5"	X	-	ABUT DIAPHRAGM - SE & NW END	HORIZONTAL
S532	X	2	7'-1"	X	-	ABUT DIAPHRAGM - NE & SW END	VERTICAL
S533	X	2	7'-6"	X	-	ABUT DIAPHRAGM - NE & SW END	VERTICAL
S534	X	1	16'-3"	X	-	ABUT DIAPHRAGM - NE END	VERTICAL
S535	X	1	17'-1"	X	-	ABUT DIAPHRAGM - NE END	VERTICAL
S536	X	1	17'-11"	X	-	ABUT DIAPHRAGM - NE END	VERTICAL
S637	X	2	7'-11"	X	-	ABUT DIAPHRAGM - SE & NE END	HORIZONTAL
S638	X	4	9'-2"	X	-	ABUT DIAPHRAGM - SE & NE END	HORIZONTAL
S639	X	1	11'-3"	X	-	ABUT DIAPHRAGM - SW END	HORIZONTAL
S640	X	2	13'-2"	X	-	ABUT DIAPHRAGM - SW END	HORIZONTAL
S641	X	1	7'-7"	X	-	ABUT DIAPHRAGM - NW END	HORIZONTAL
S642	X	2	8'-9"	X	-	ABUT DIAPHRAGM - NW END	HORIZONTAL
S543	X	1	14'-3"	X	-	ABUT DIAPHRAGM - NW END	VERTICAL
S544	X	1	15'-11"	X	-	ABUT DIAPHRAGM - NW END	VERTICAL
S445	X	8	3'-4"	-	-	ABUT DIAPHRAGM - ENDS	VERTICAL
-	-	-	-	-	-	-	-
S550	X	20	11'-2"	X	-	PIER DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S551	X	80	11'-4"	X	-	PIER DIAPHRAGM - STIRRUPS	VERTICAL
S452	X	120	5'-7"	-	-	PIER DIAPHRAGM - BTWN GIRDERS	HORIZONTAL

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

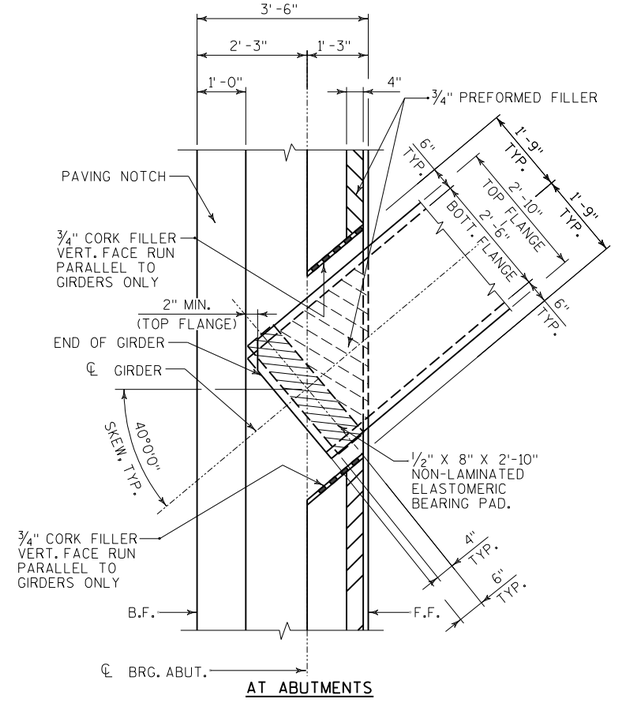
BAR SERIES[1]

BAR MARK	NO. REQ'D	'A'	LENGTH	LOCATION
S502	1 SERIES OF 55	1'-5" TO 44'-7"	23'-3"	SLAB
S503	1 SERIES OF 55	1'-4" TO 44'-3"	22'-10"	SLAB
S504	1 SERIES OF 55	1'-9" TO 44'-8"	23'-3"	SLAB
S505	1 SERIES OF 56	1'-6" TO 45'-0"	23'-3"	SLAB

[1] BUNDLE & TAG EACH SERIES SEPARATELY.

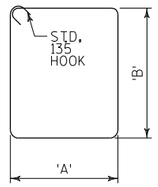


AT PIERS

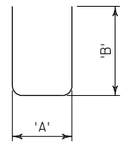


AT ABUTMENTS

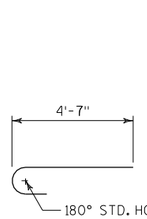
BEARING PAD DETAILS



BAR MARK	DIM. 'A'	DIM. 'B'
S520	4'-1"	1'-5"
S521	4'-1"	2'-3"
S524	4'-3"	3'-7"
S525	4'-8"	3'-7"
S526	5'-1"	3'-7"
S543	3'-3"	3'-7"
S544	4'-1"	3'-7"
S550	3'-6"	1'-5"



BAR MARK	DIM. 'A'	DIM. 'B'
S413	11"	1'-8"
S522	2'-10"	2'-0"
S528	2'-4"	2'-0"
S529	1'-11"	2'-0"
S532	3'-4"	2'-0"
S533	3'-9"	2'-0"



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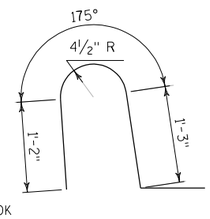

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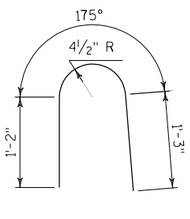
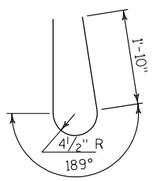


S516



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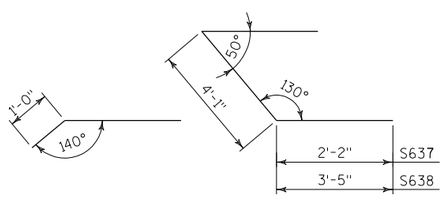
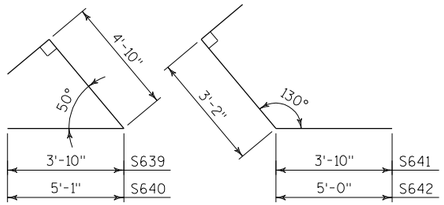
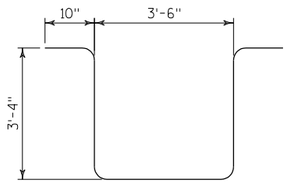


S531 S637, S638



S639, S640 S641, S642



S551

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

SUPERSTRUCTURE BILL OF BARS

1.364

SHEET 20 OF 25

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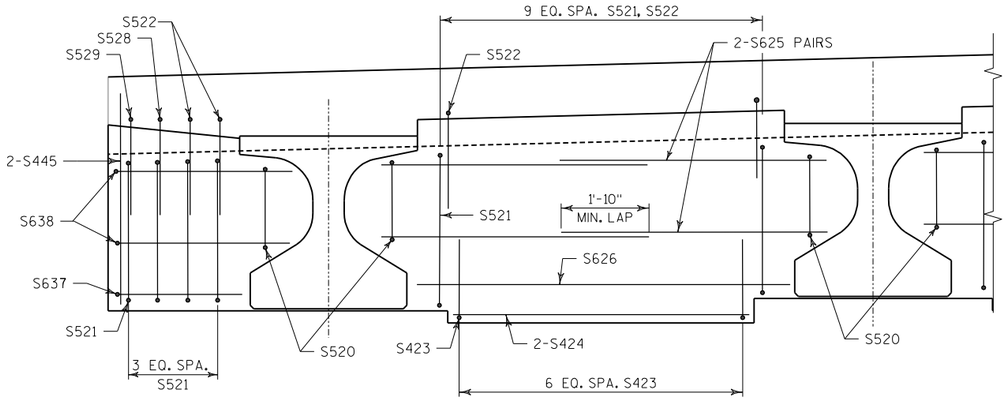
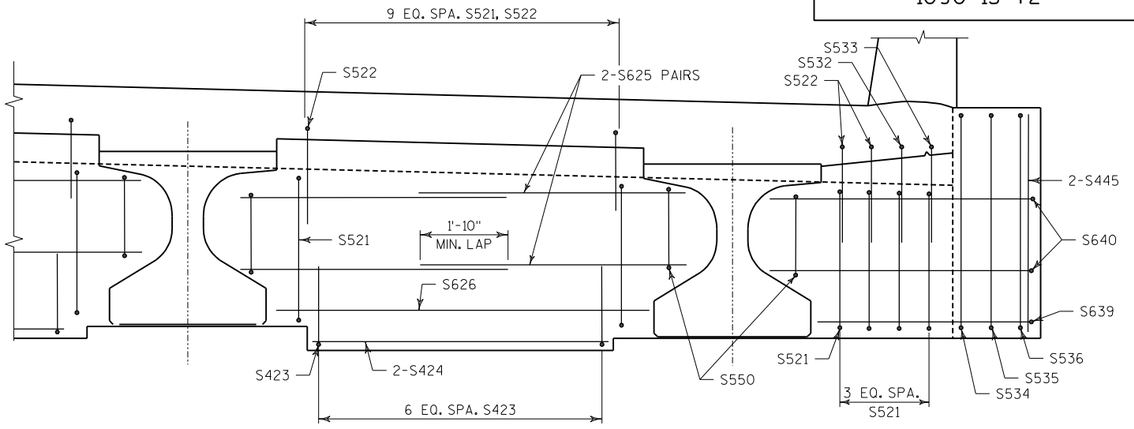
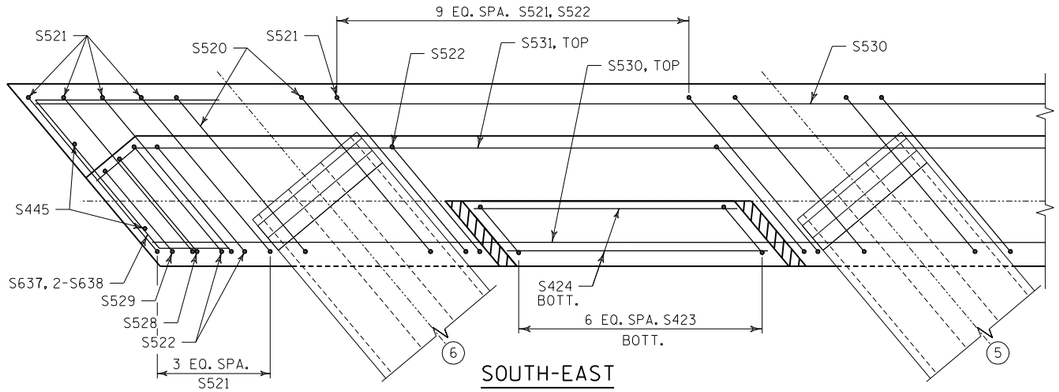
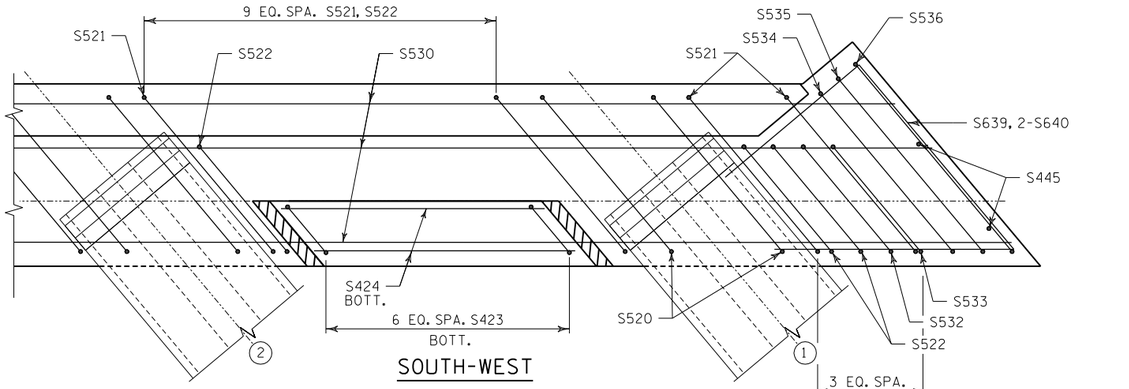


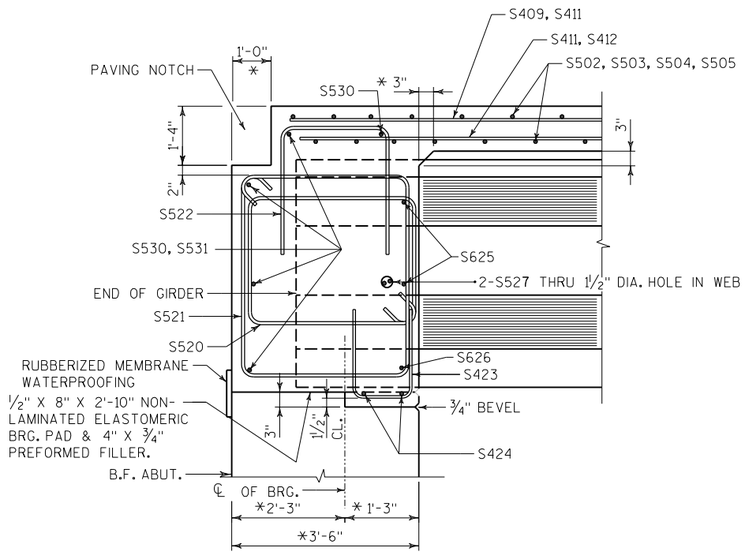




SOUTH-EAST

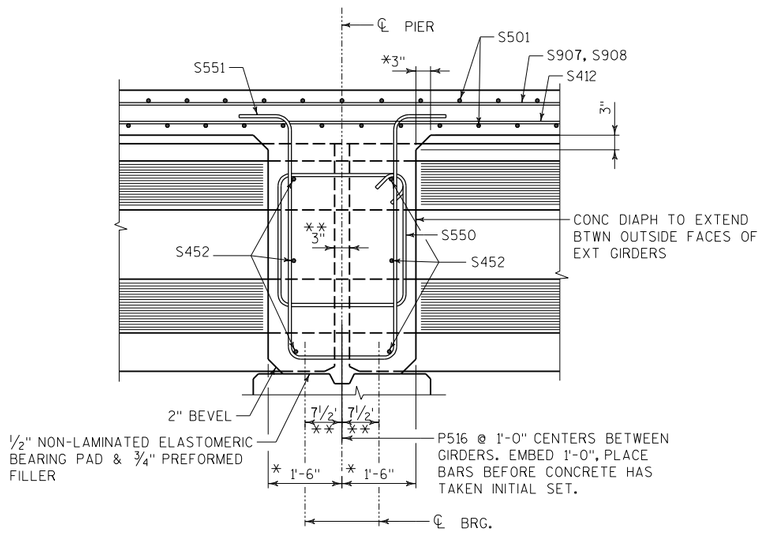


SOUTH-WEST



DIAPHRAGM AT ABUTMENTS

(BTWN. GIRDERS, TYP.)



DIAPHRAGM AT PIERS

(BTWN. GIRDERS, TYP.)

LEGEND

* DIMENSIONS ARE NORMAL TO ℄ OF SUBSTRUCTURE UNITS

** DIMENSIONS ARE PARALLEL TO THE GIRDER

NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE DETAILS 1

SHEET 21 OF 25

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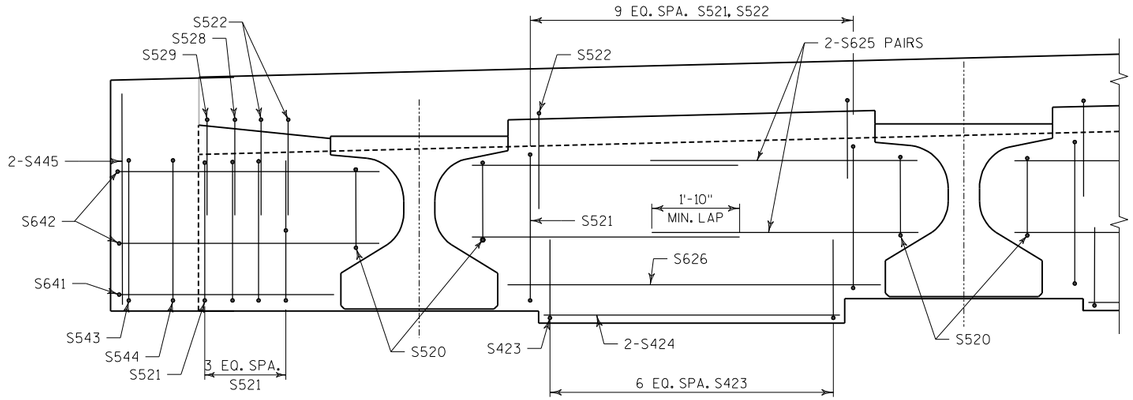
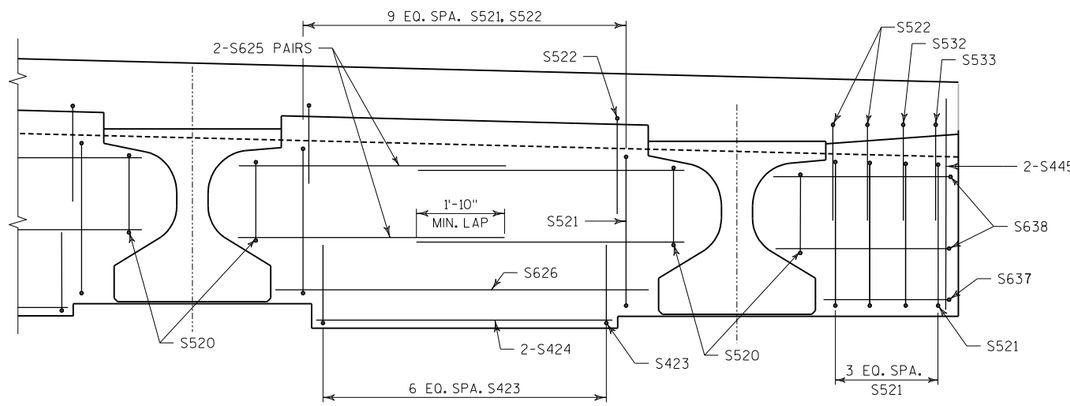
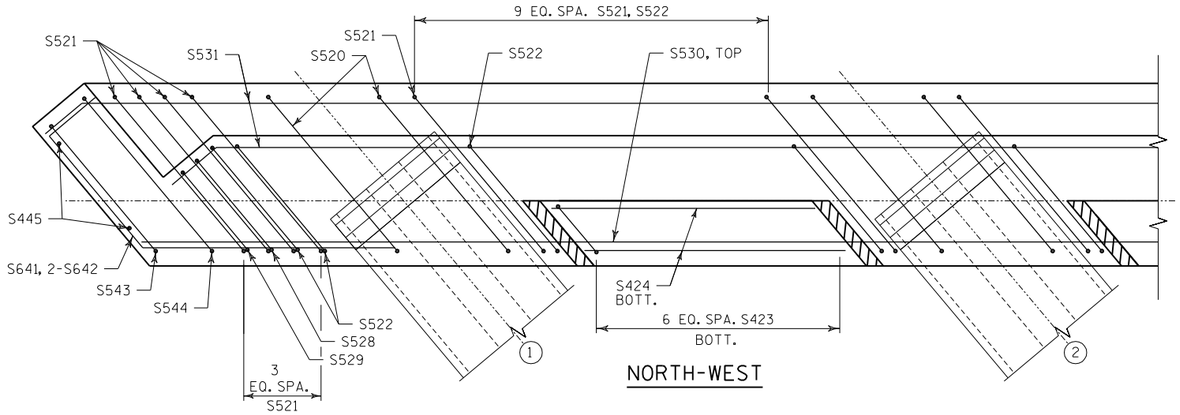
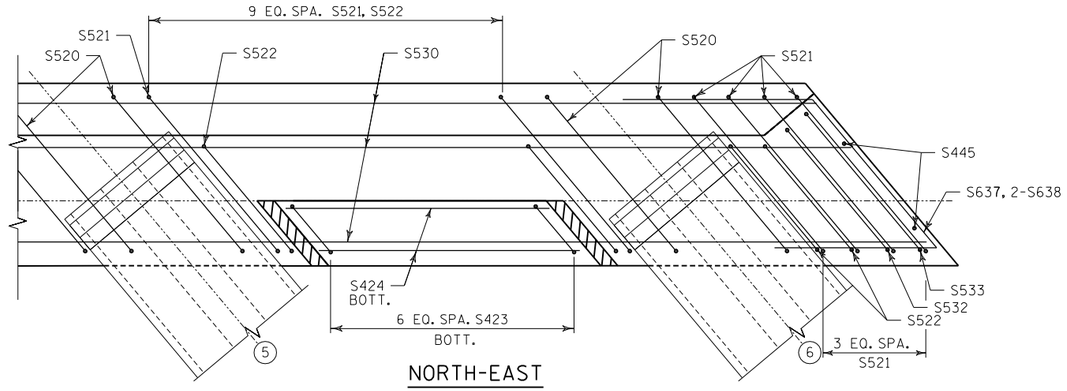
1090-15-72







NORTH-WEST



NORTH-EAST

NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY	TRW	PLANS CK'D.	ACT

SUPERSTRUCTURE DETAILS 2

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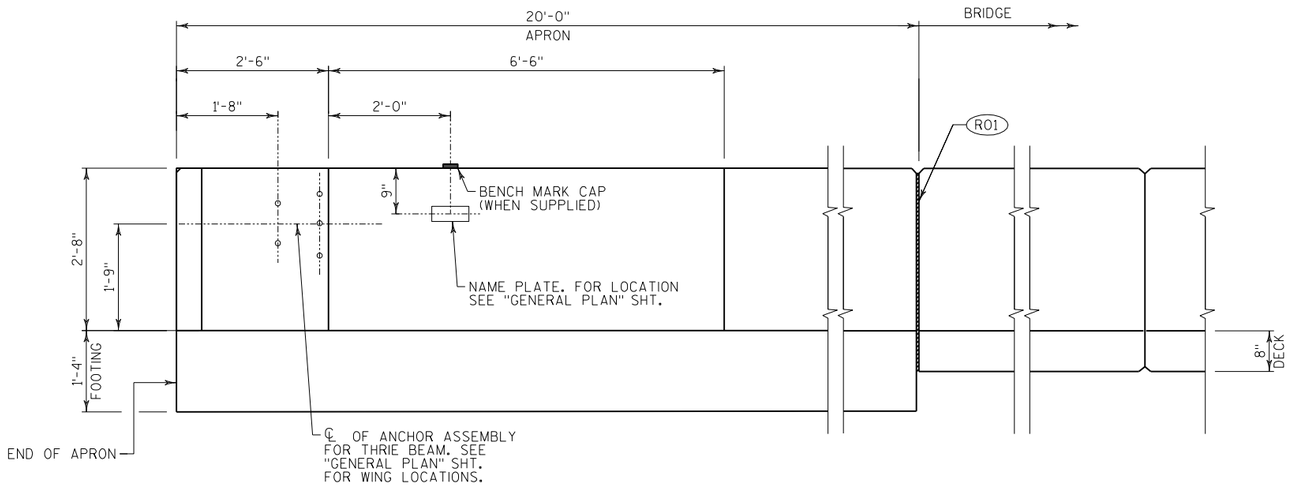
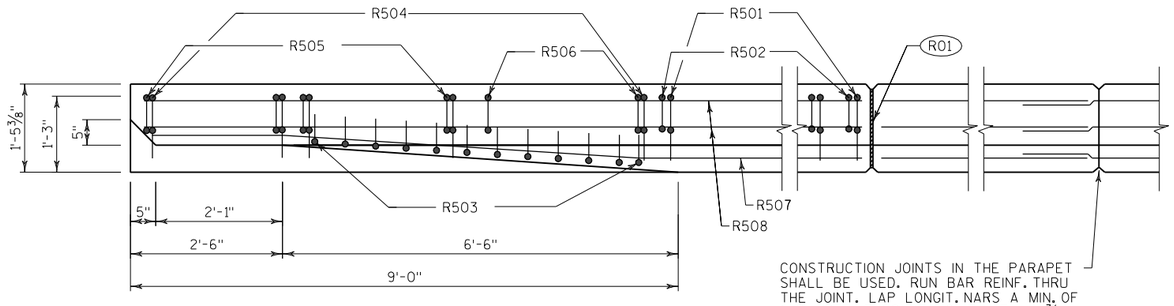
1090-15-72

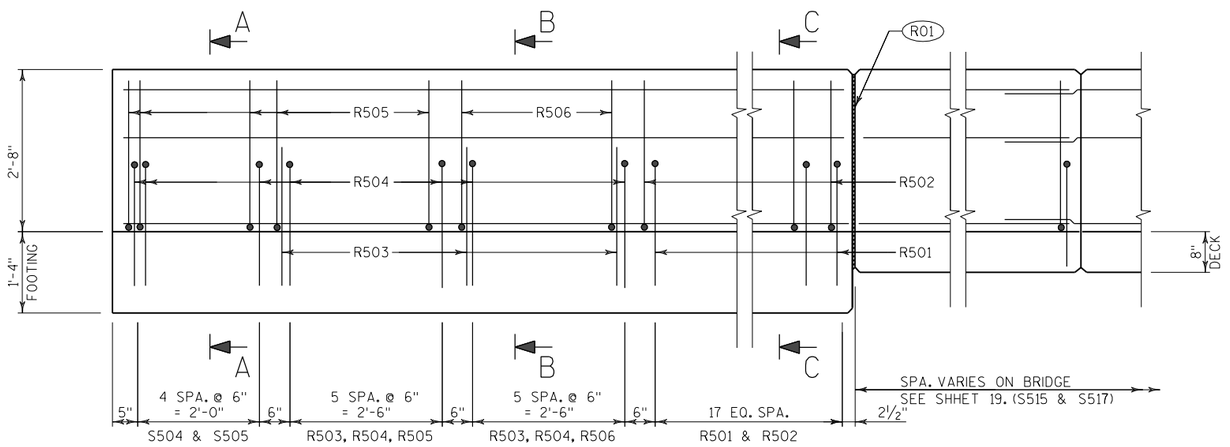


INSIDE ELEVATION

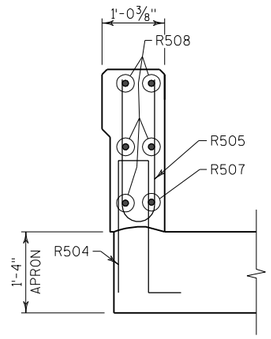


PLAN

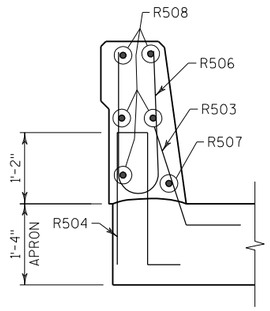
CONSTRUCTION JOINTS IN THE PARAPET SHALL BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. NARS A MIN. OF 1'-9". DEFINE CONST. JOINT WITH A ¾" 'V'-GROOVE.



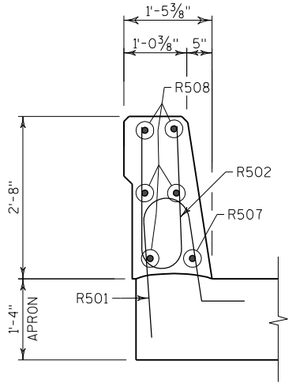
OUTSIDE ELEVATION



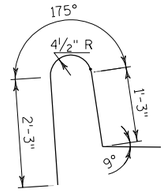
SECTION A



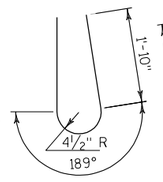
SECTION B



SECTION C



R501



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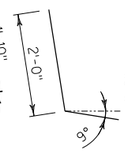

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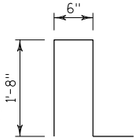

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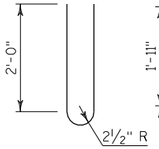

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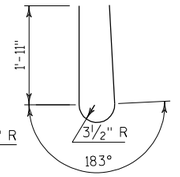

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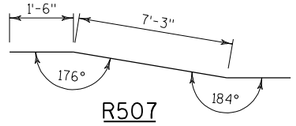
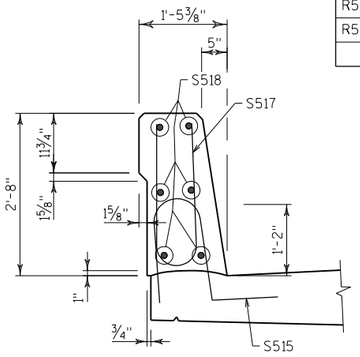


R507

BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION	
R501	X	72	4'-5"	X		PARAPET	VERTICAL
R502	X	72	5'-0"	X		PARAPET	VERTICAL
R503	X	48	2'-9"	X		PARAPET	VERTICAL
R504	X	68	4'-4"	X		PARAPET	VERTICAL
R505	X	44	4'-9"	X		PARAPET	VERTICAL
R506	X	24	4'-10"	X		PARAPET	VERTICAL
R507	X	4	19'-7"	X		PARAPET	HORIZONTAL
R508	X	20	19'-8"	-		PARAPET	HORIZONTAL



SECTION THRU PARAPET ON BRIDGE

SEE SHEET 19 FOR REBAR SPACING ON BRIDGE.
SEE SHEET 21 FOR BILL OF BARS.

NOTE

(R01) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

SINGLE SLOPE PARAPET 32SS AT APRON

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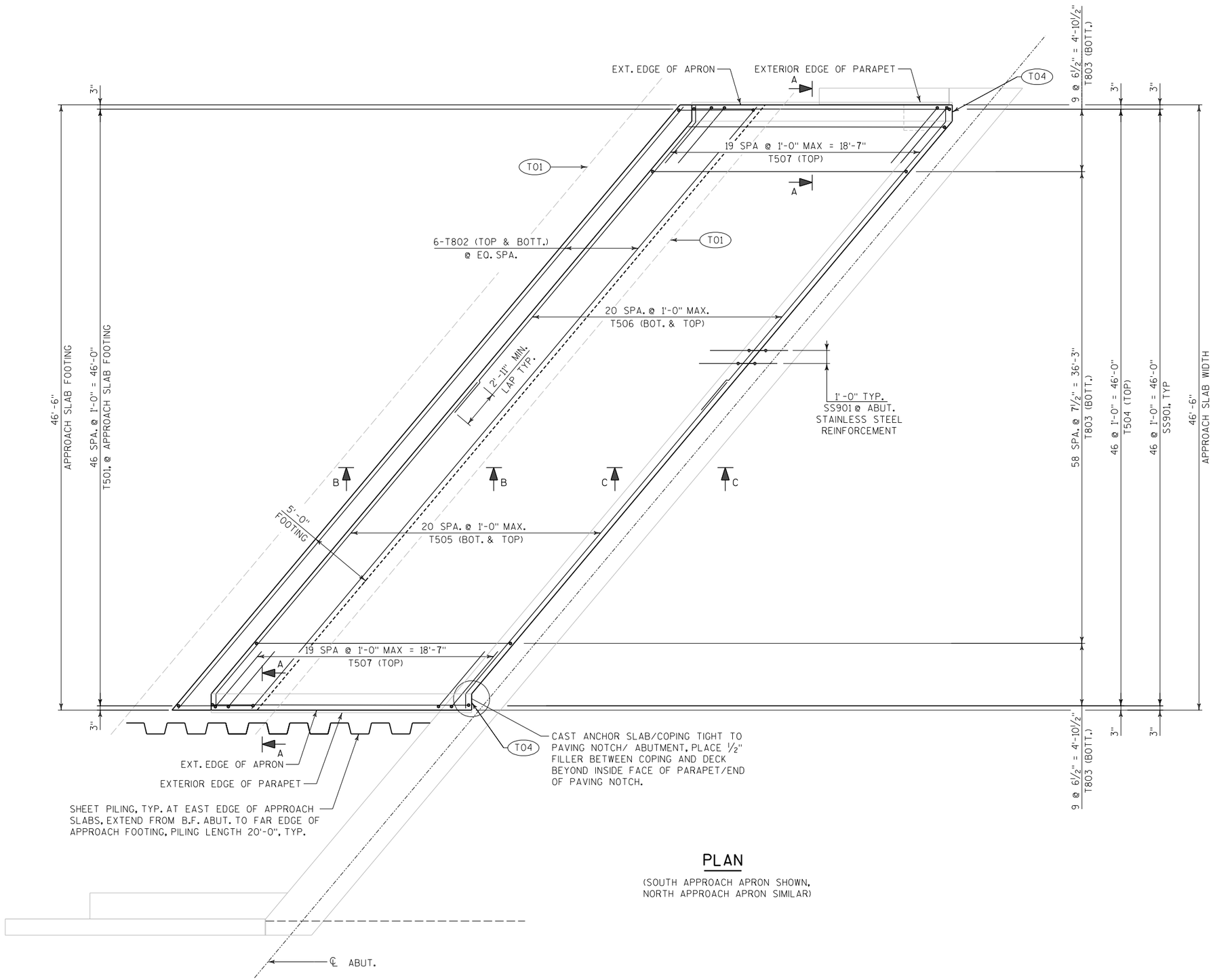
7/30/2013

STATE PROJECT NUMBER
1090-15-72



PLAN

(SOUTH APPROACH APRON SHOWN,
NORTH APPROACH APRON SIMILAR)

DESIGN DATA:

ALLOWABLE SOIL BEARING PRESSURE:	2,000 P.S.F.
CONCRETE STRENGTH F'C:	4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60, FY:	60,000 P.S.I.

NOTES AND LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T04) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

SEE SHEET 25 FOR SECTIONS A-A, B-B & C-C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB

SHEET 24 OF 25
.368

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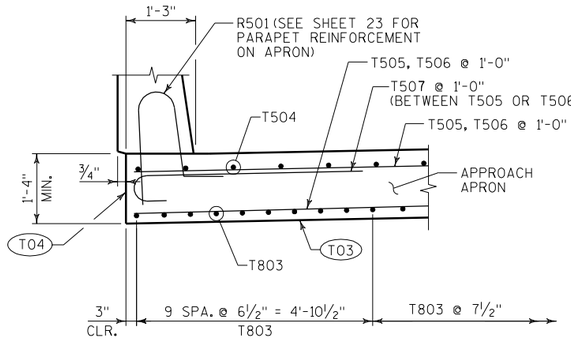
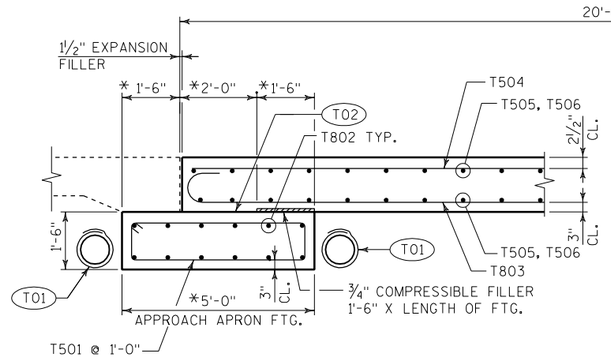
STATE PROJECT NUMBER

1090-15-72



SECTION A-A



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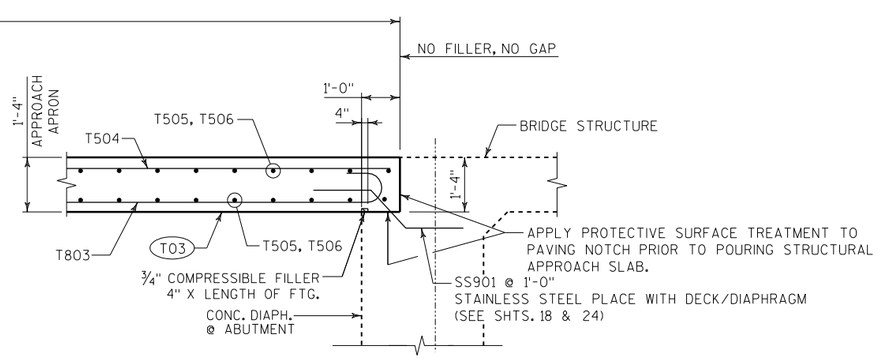


SECTION C-C

TRANSVERSE SECTION THRU APPROACH APRON

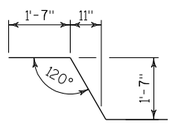
* MEASURED NORMAL TO ABUTMENT

BILL OF BARS

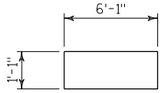
BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION	
T501	X	94	14'-11"	X	-	APRON FOOTING - STIRRUP	VERTICAL
T802	X	24	60'-0"	-	-	APRON FOOTING	TRANS
T803	X	154	21'-3"	X	-	APRON SLAB - BOTT	LONG
T504	X	94	19'-5"	-	-	APRON SLAB - TOP	LONG
T505	X	80	31'-1"	X	-	APRON SLAB - TOP & BOTT	TRANS
T506	X	80	31'-3"	X	-	APRON SLAB - TOP & BOTT	TRANS
T507	X	80	4'-1"	X	-	APRON SLAB - EDGES	TRANS

BILL OF BARS

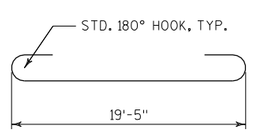
BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
SS901		94	5'-0"	X	-	CONC. ABUT. DIAPH. TO APPROACH SLAB



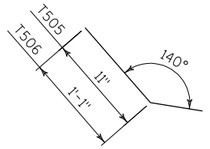
SS901



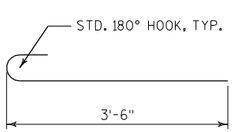
T501



T803



T505, T506



T507

NOTES AND LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE SUBGRADE.

(T04) 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-334

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB DETAILS

SHEET 25 OF 25
369

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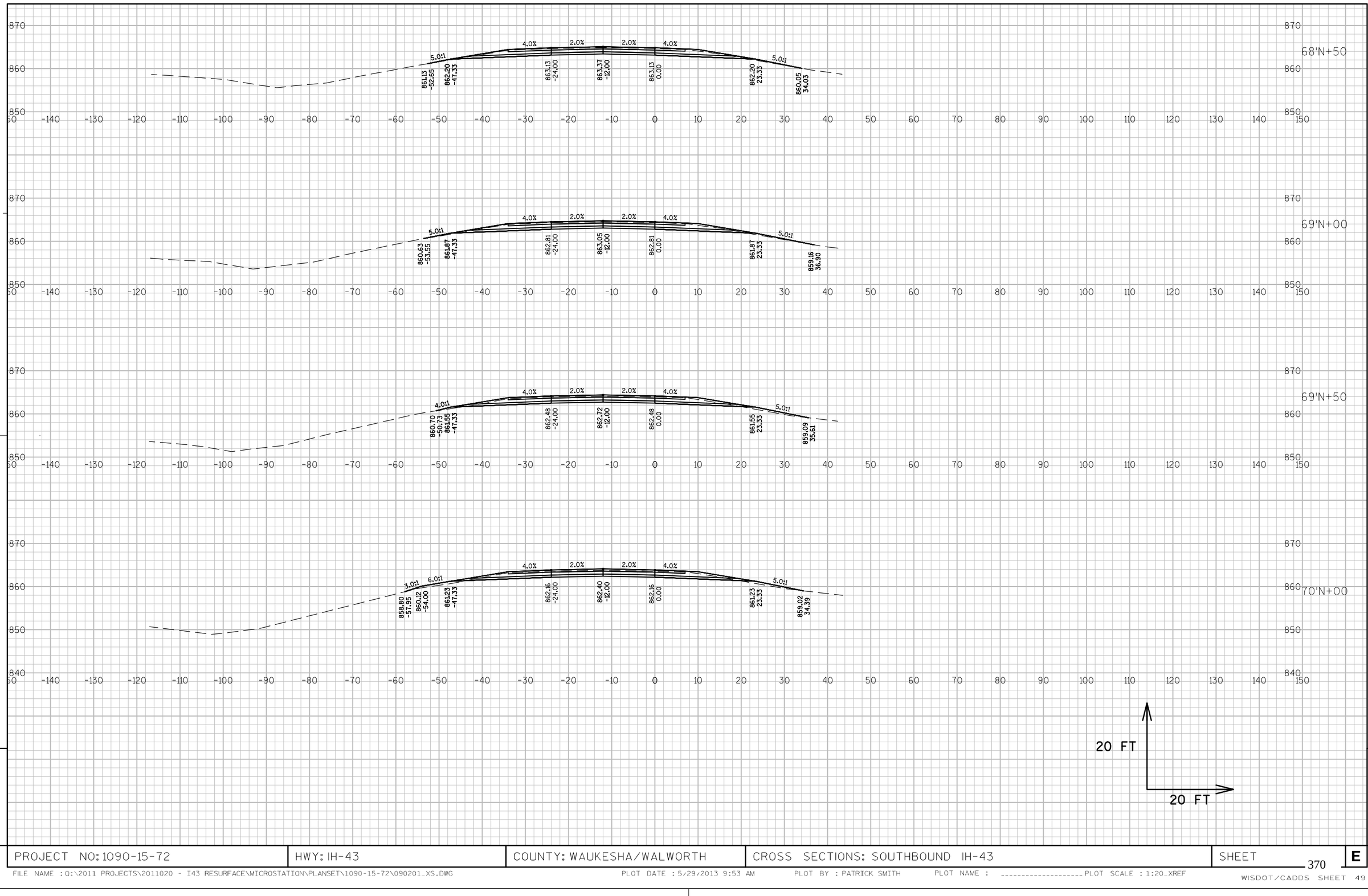
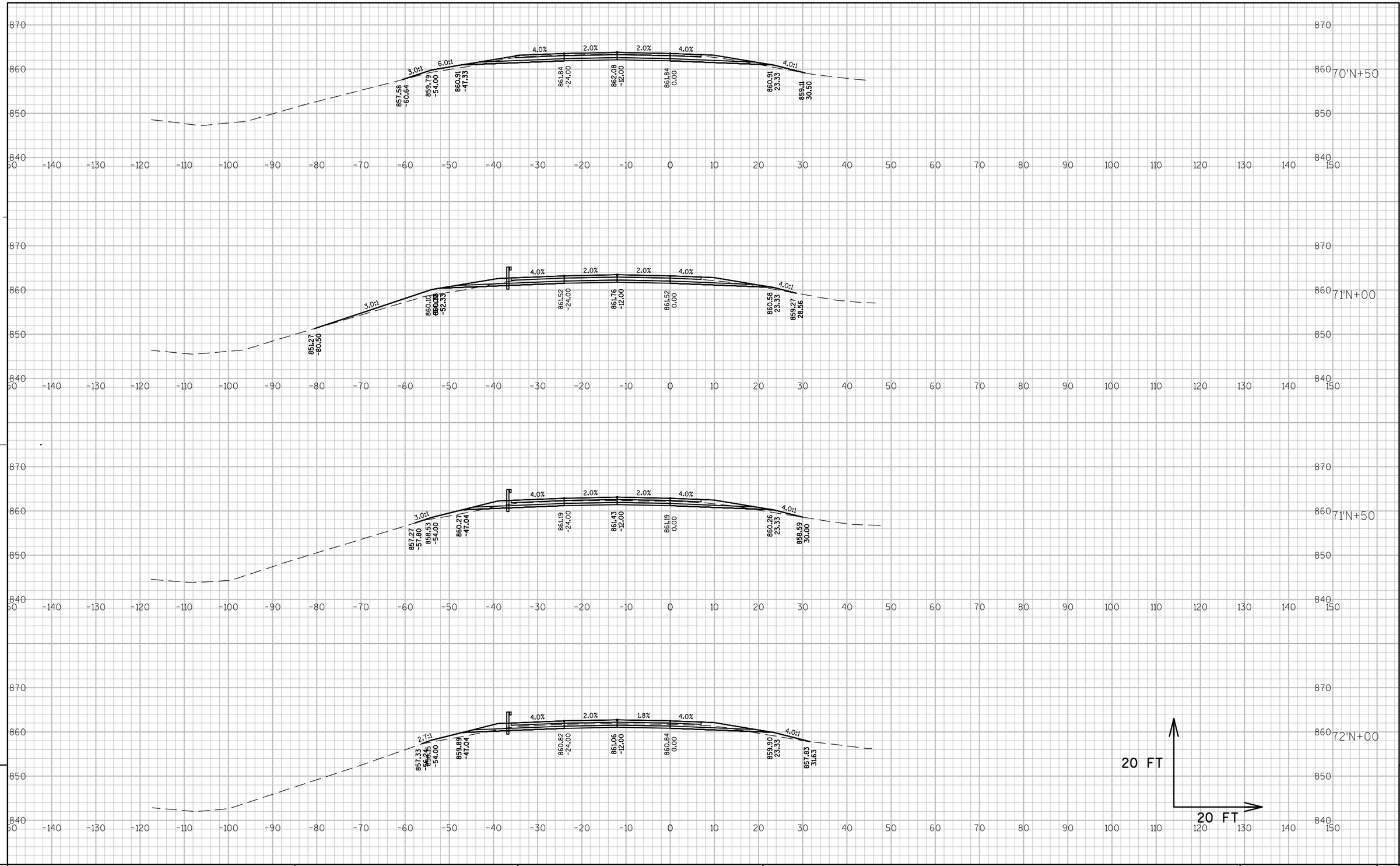
7/30/2013



PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WAUKESHA/WALWORTH	CROSS SECTIONS: SOUTHBOUND IH-43	SHEET 370	E



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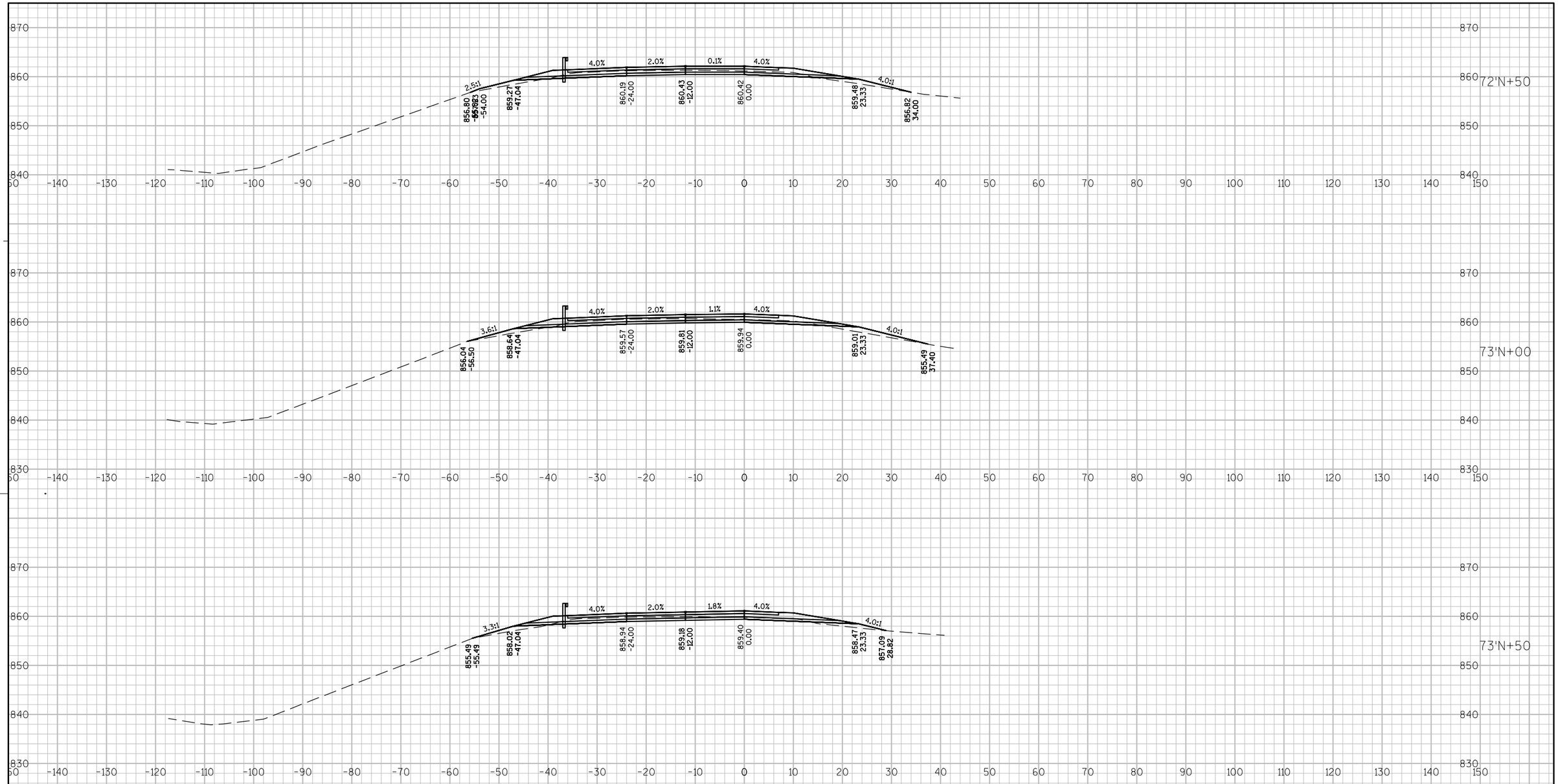

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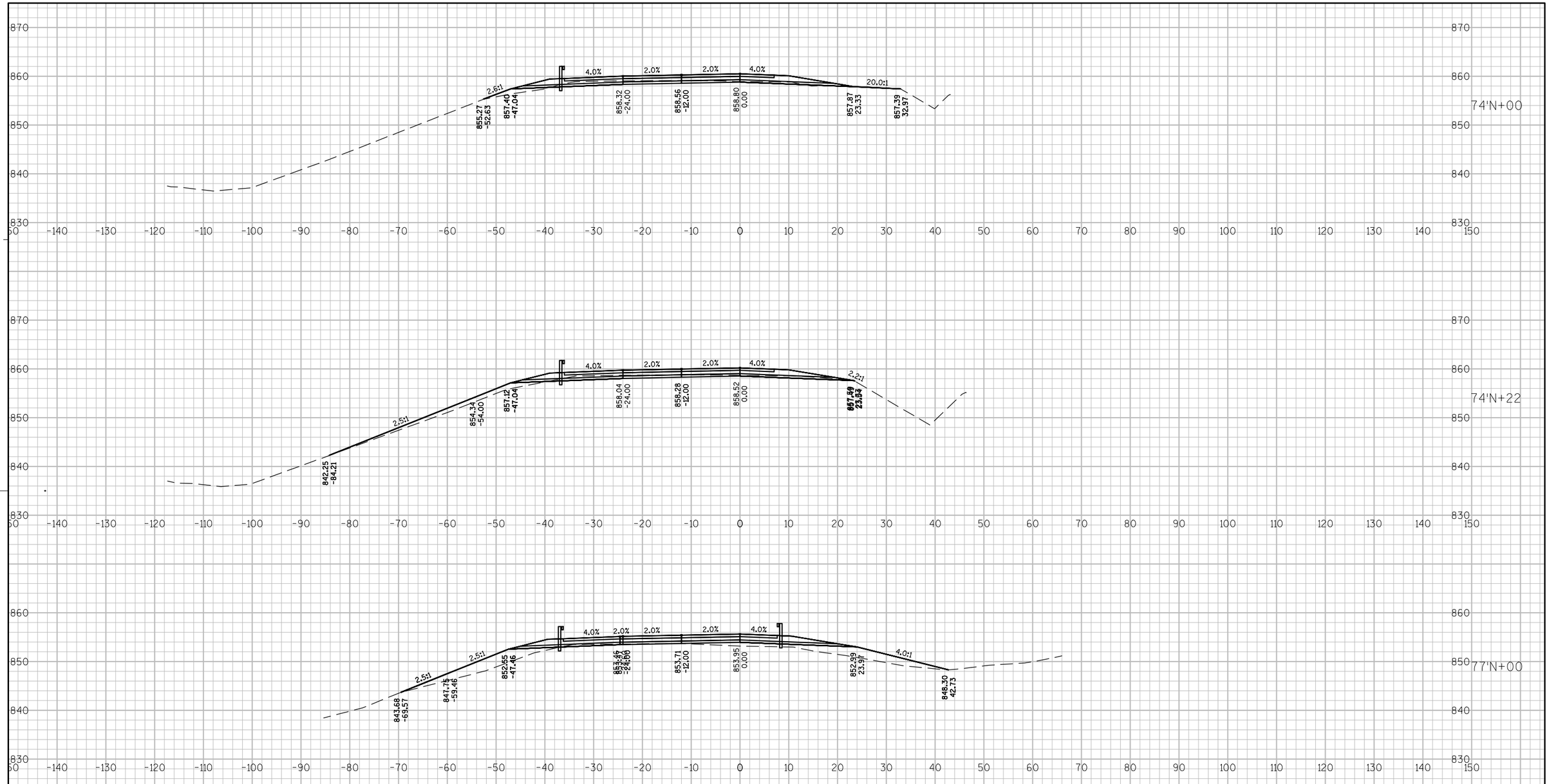

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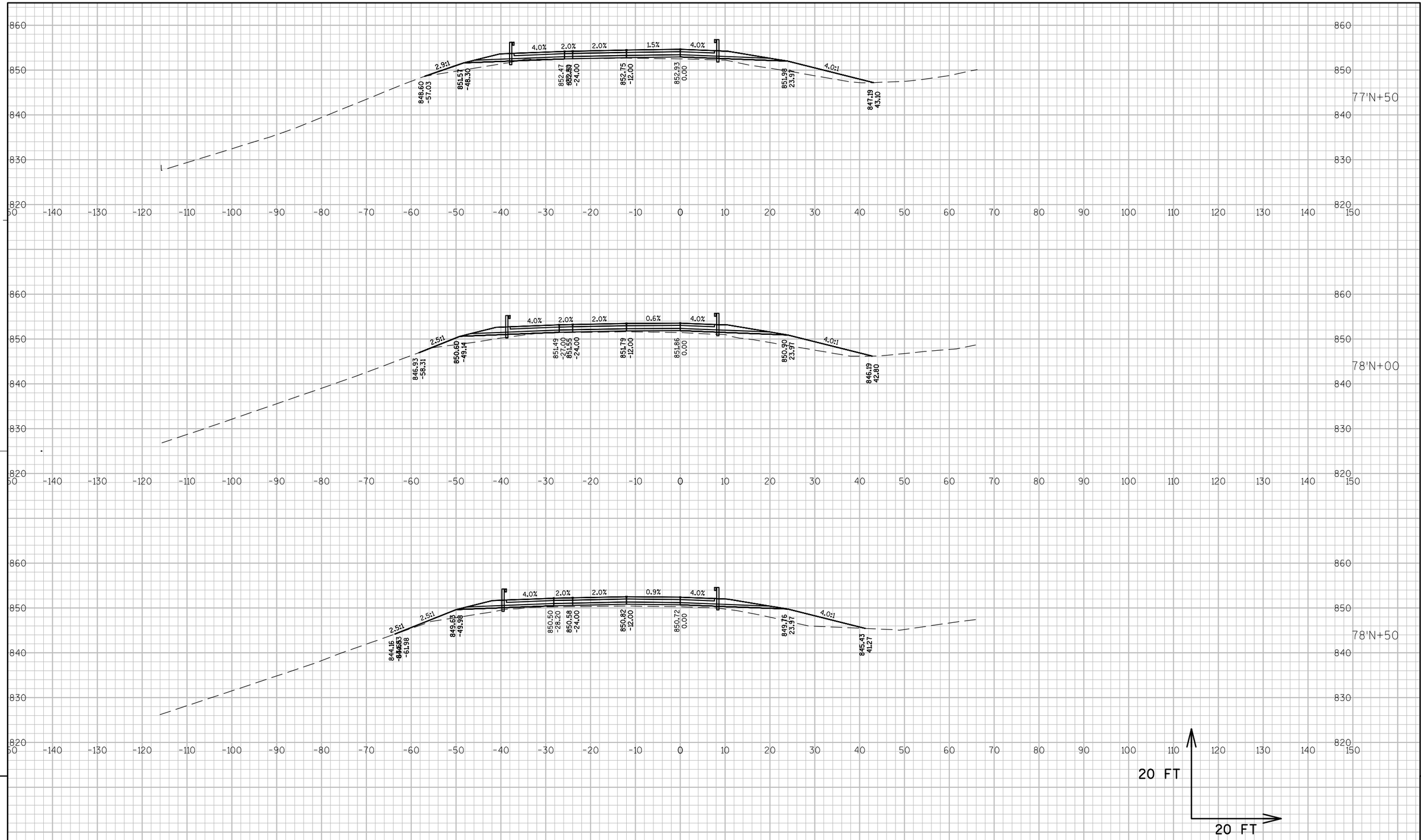

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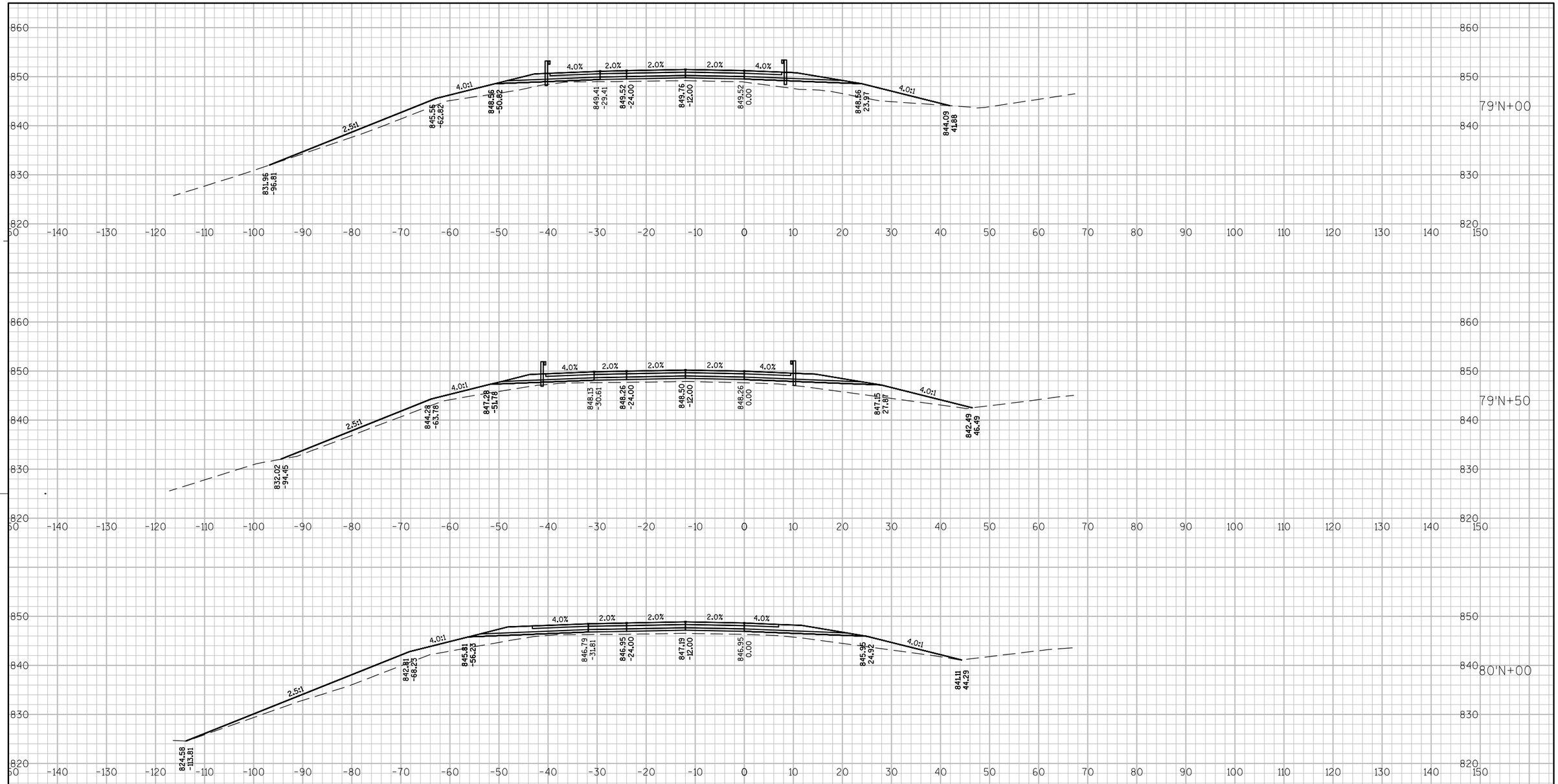

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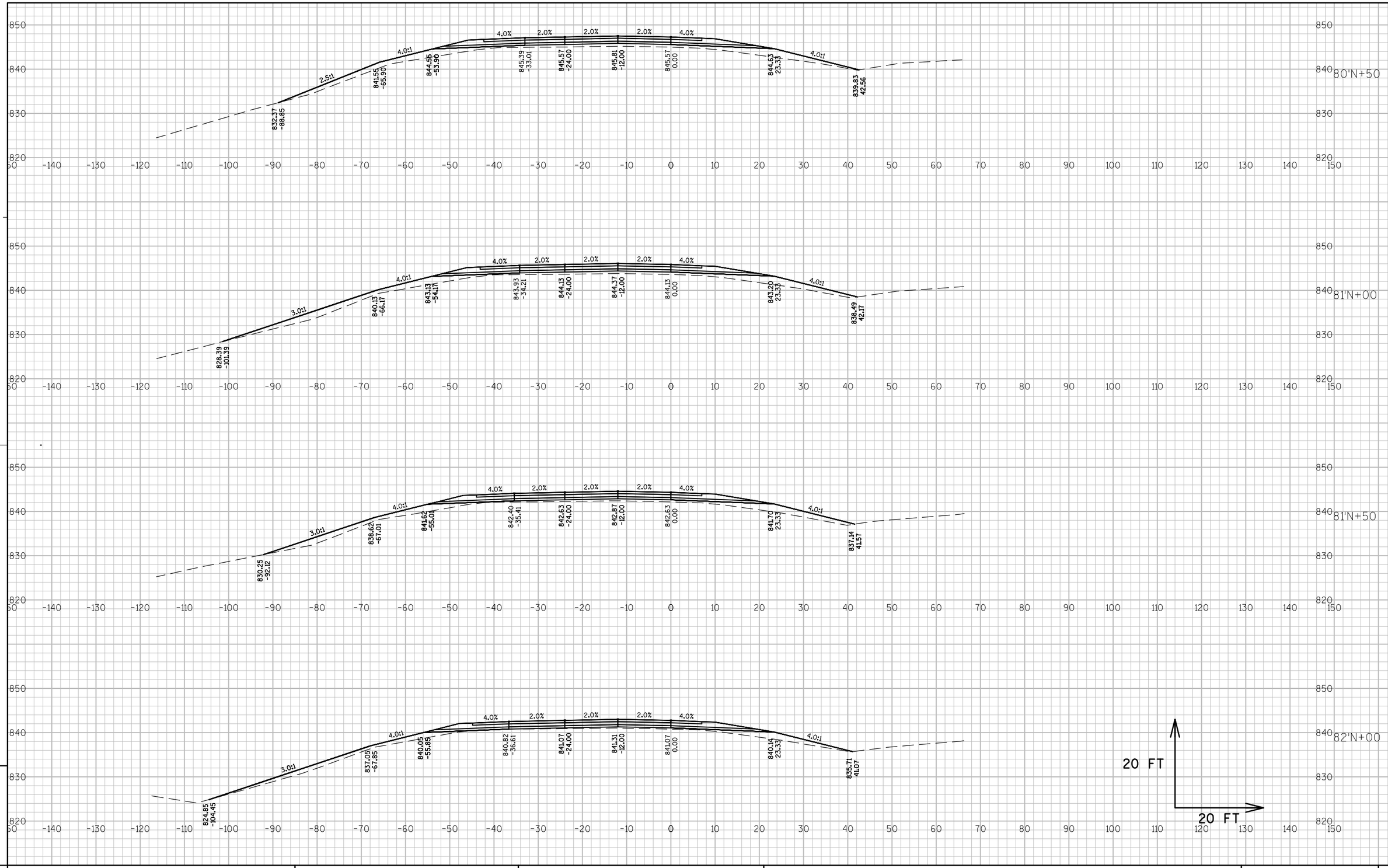

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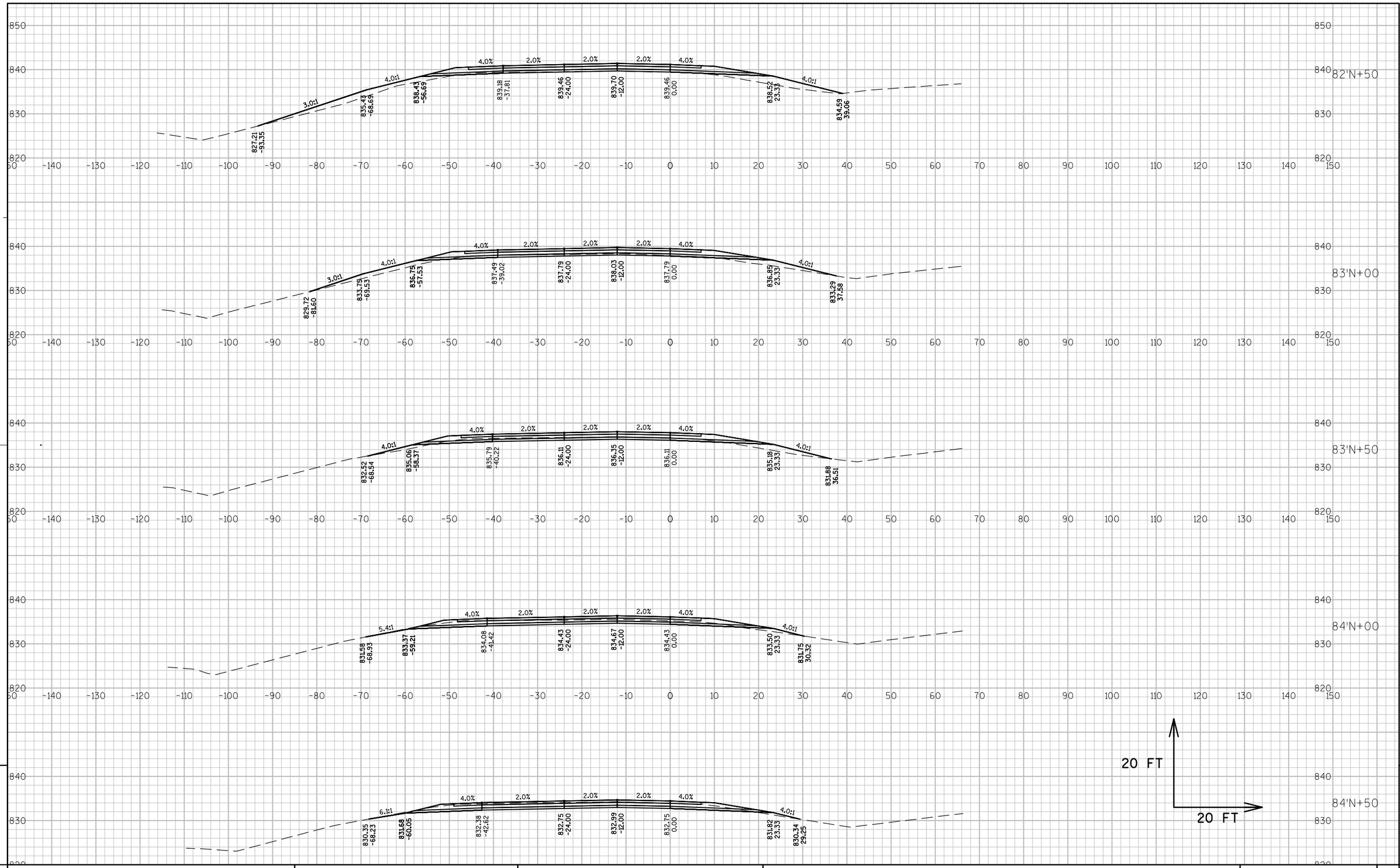

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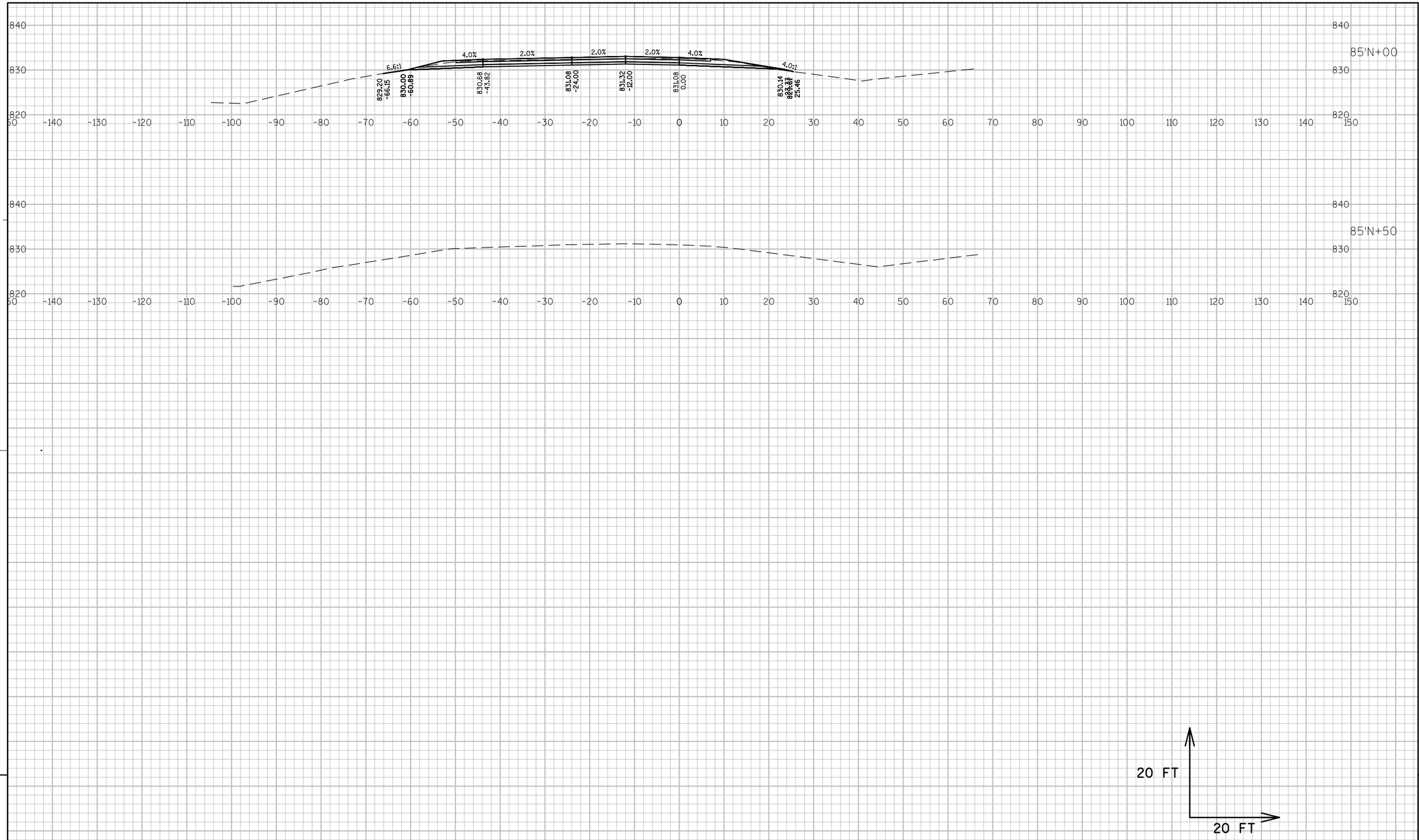

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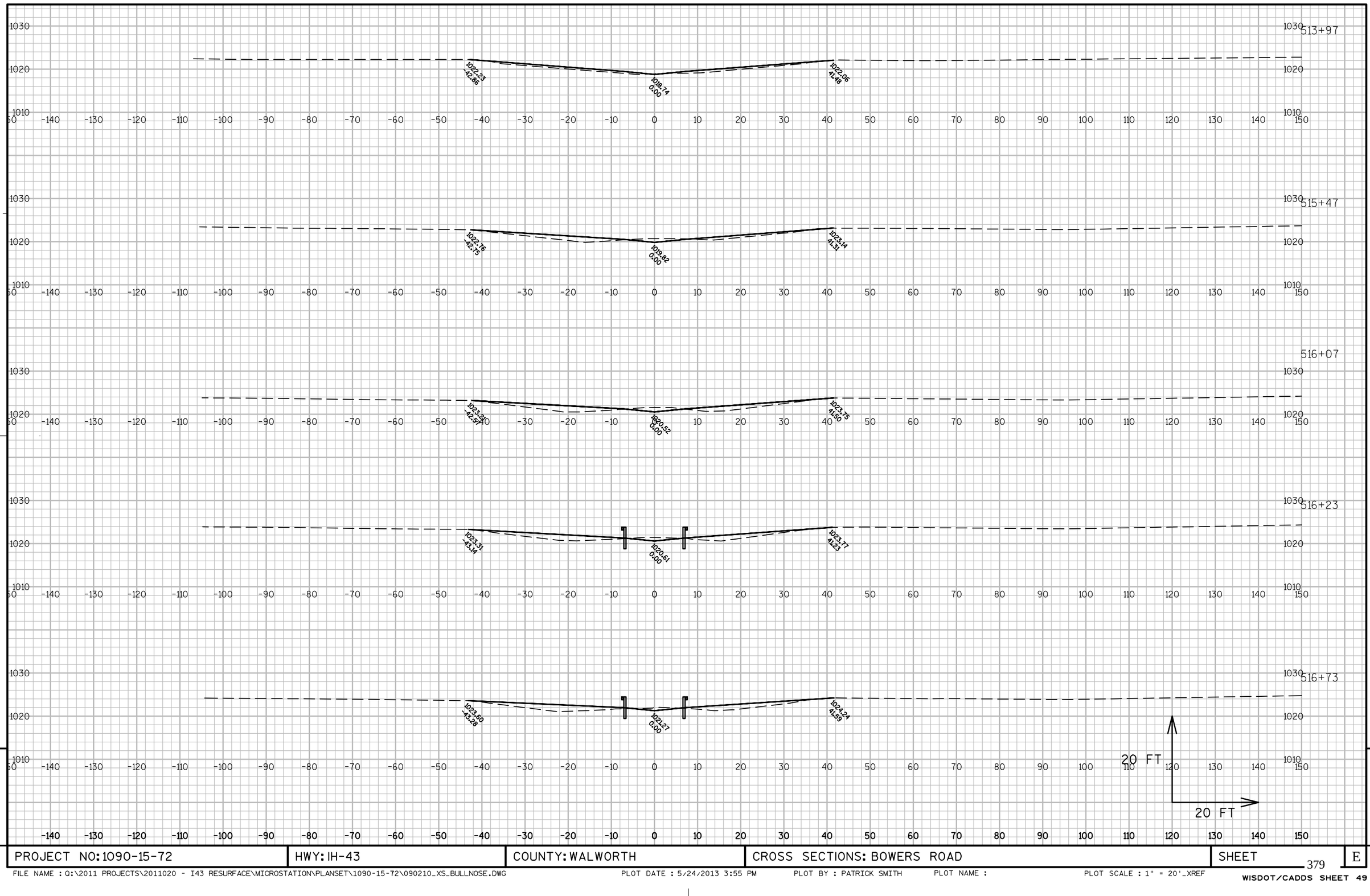

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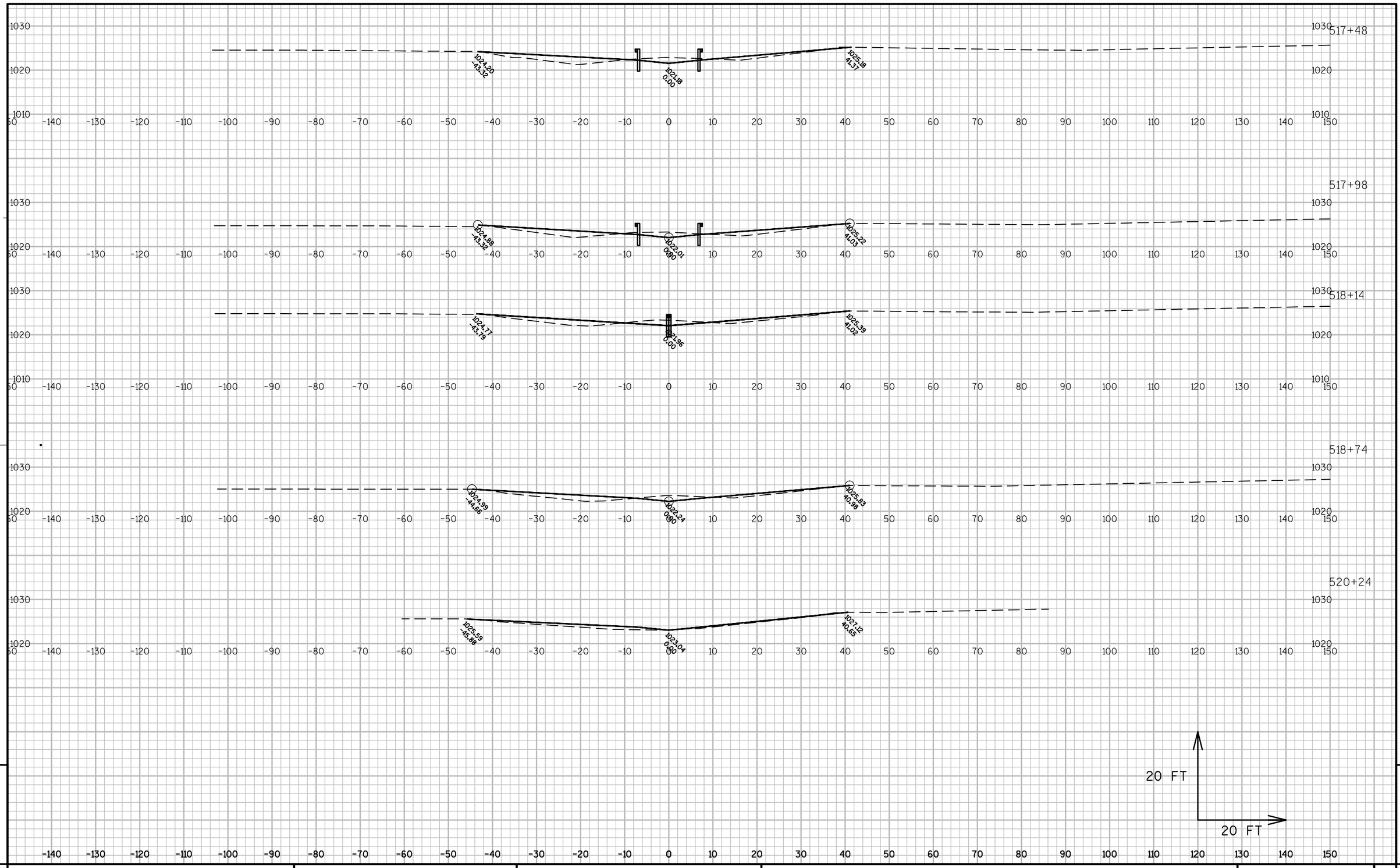

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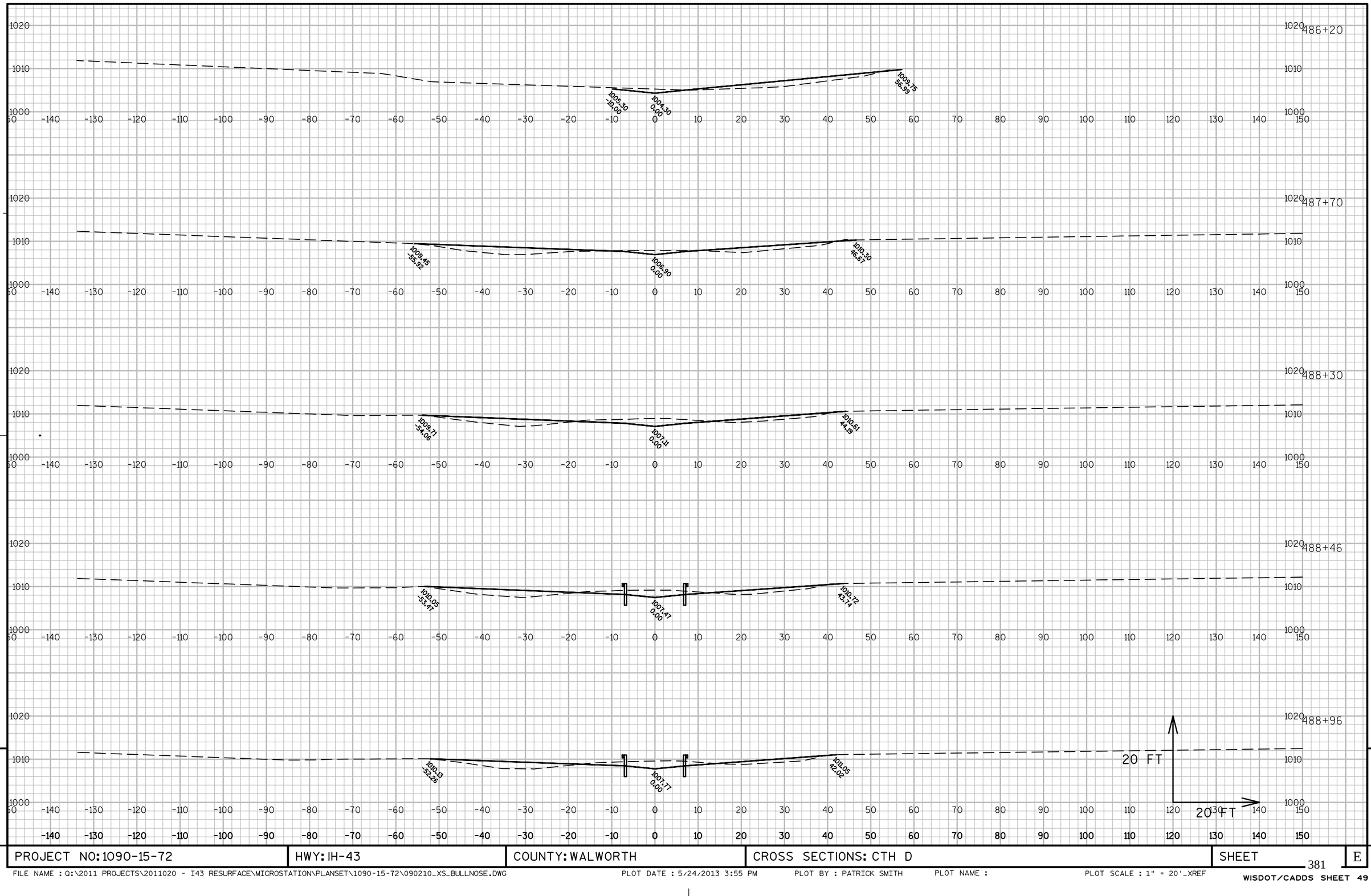
WISDOT/CADDS SHEET 49



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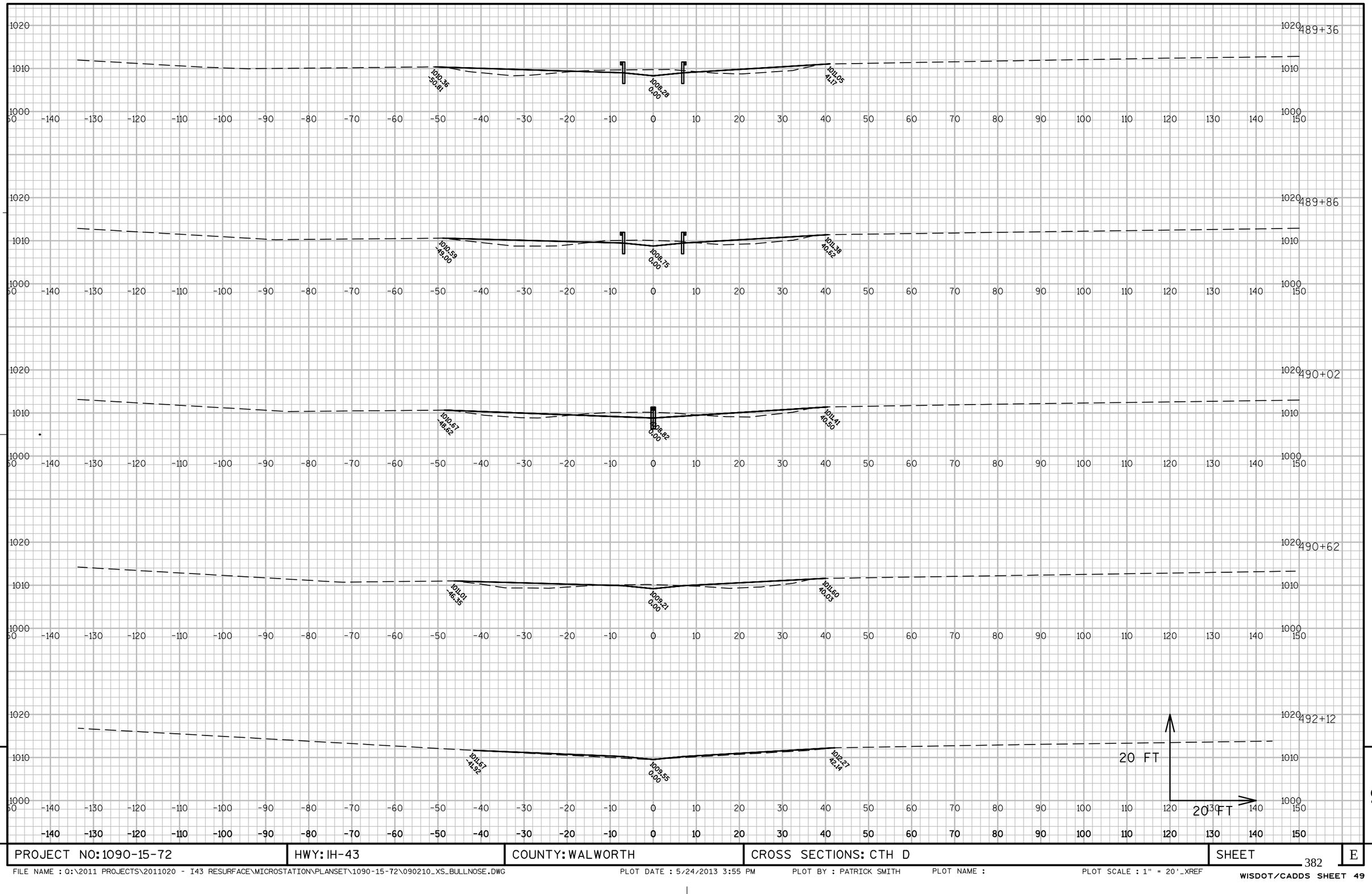

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WISDOT/CADDS SHEET 49

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1029.12
-10.00

1028.12
0.00

1032.32
31.79

111+73

1026.63
-32.15

1023.74
0.00

1027.85
31.79

112+33

1025.12
-31.88

1022.55
0.00

1026.12
31.95

112+49

1024.54
-32.00

1022.17
0.00

1025.67
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1023.58
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1024.59
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1022.60
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1023.72
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20 FT

20 FT

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PROJECT NO: 1090-15-72	HWY: IH-43	COUNTY: WALWORTH	CROSS SECTIONS: OVERHEAD SIGN	SHEET	E

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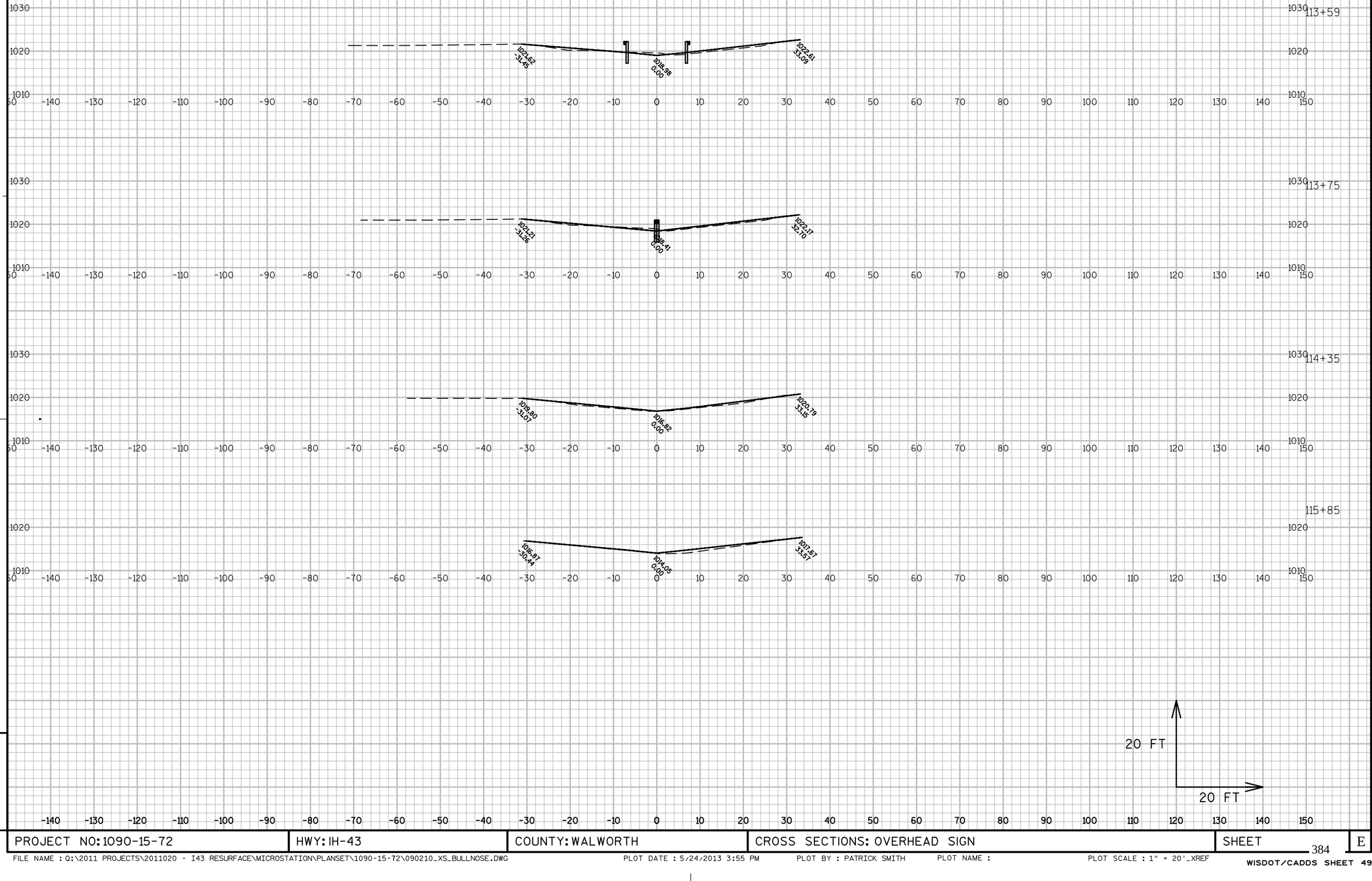

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Notes

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