WKE

DECEMBER 2019

PROJECT ID: 1450-02-70, 1450-02-72

WITH:

COUNTY: OZAUKEE

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 = 566



11

DESIGN DESIGNATION IH 43

A.A.D.T.	(2019)	=	44800
A.A.D.T.	(2039)	=	51900
D.H.V.		=	8.8
D.D.		=	58 NB/42 SB
T.		=	13.8%
DESIGN SPEED		=	70 MPH
ESALS		=	X

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NORTH SOUTH FREEWAY

STH 60 TO N OZAUKEE CO LINE

IH 43

OZAUKEE COUNTY

STATE PROJECT NUMBER

1450-02-70

IH 43 OVER STH 33 TO STH 32 OVER IH 43

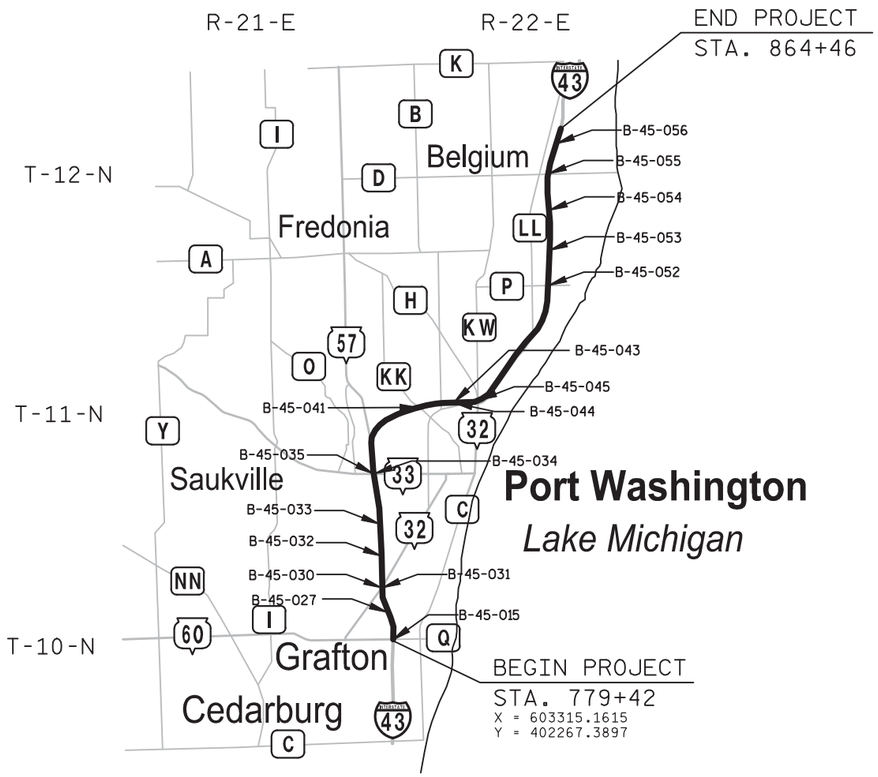
IH 43

OZAUKEE COUNTY

STATE PROJECT NUMBER

1450-02-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1450-02-70	WISC 2019736	1
1450-02-72	WISC 2019737	1



LAYOUT

SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.00

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), OZAUKEE COUNTY, NAD 83 (2011)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88 (2012)

1450-02-70 PLANS PREPARED BY

Lakeside ENGINEERS

WISCONSIN
CHRISTOPHER M QUESNELL
E-37621
NEW BERLIN WI
PROFESSIONAL ENGINEER

7/24/19 (Date)

Chris Quesnell (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	LAKESIDE ENGINEERS/WISDOT
Project Manager	SCOTT ANDERSON, PE
Regional Examiner	STEVE CHOJNACKI, PE
Regional Supervisor	WAFA ELQAQ, PE

APPROVED FOR THE DEPARTMENT

DATE: 7/24/19 Scott M Anderson (Signature)

E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\010101_TI.DWG

PLOT DATE : 7/24/2019 9:55 AM

PLOT BY : TONY BUBLITZ

PLOT NAME :

GENERAL NOTES

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE RESTORED.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF THE SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

WETLAND, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIAL NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION.

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.

CONCRETE JOINTS SHALL MATCH ABUTTING PAVEMENT AND CURB AND GUTTER JOINTS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

SMOOTH AND EVEN JOINTS SHALL BE PROVIDED WHERE MATCHING EXISTING SAWCUTTING.

SAW CUTS IN EXISTING PAVEMENT AND SIDEWALKS SHALL BE TO NEAT STRAIGHT LINES. EDGES OF SAW CUT EDGES DAMAGED DURING CONSTRUCTION SHALL BE RECUT PRIOR TO ACCEPTANCE FOR PAVING.

ORDER OF SECTION 2 SHEETS

Project Overview
Typical Sections
Construction Details
Plan Details
~~FTMS~~
Erosion Control
Storm Sewer
Signing
Traffic Signals
Pavement Marking
Traffic Control and Construction Staging
Detours
Alignment Layout

ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CB	CATCH BASIN
C&G	CURB AND GUTTER
C-C	CENTER TO CENTER
CONC	CONCRETE
CSD	CONCRETE SURFACE DRAIN
CTR	CENTER
CWT	HUNDREDWEIGHT
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DD	DIRECTIONAL DISTRIBUTION
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
E	EAST
EB	EASTBOUND
EL OR ELEV	ELEVATION
EXIST	EXISTING
FS	FULL SUPERELEVATION
FT	FOOT
HE	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
INCID	INCIDENTAL
INL	INLET
L	LENGTH OF CURVE
LF	LINEAR FOOT
LONG	LONGITUDINAL
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
ML OR M/L	MATCH LINE
N	NORTH
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
REQD	REQUIRED
R/L	REFERENCE LINE
RO	RUN OFF LENGTH
RT	RIGHT
RW OR R/W	RIGHT-OF-WAY
S	SOUTH
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SHT	SHEET
SI	SLOPE INTERCEPT
SS	STORM SEWER
STA	STATION
SY	SQUARE YARD
SYM	SYMMETRICAL
T	TANGENT LENGTH
TEMP	TEMPORARY
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED
VAR	VARIABLE OR VARIES
W	WEST
WB	WESTBOUND
YD	YARD

UTILITIES

MS. NICOLE SMULLEN
WE ENERGIES (ELECTRIC)
333 W. EVERETT ST - A299
MILWAUKEE, WI 53203
(414) 221-5617

MS. NICOLE SMULLEN
WISC. GAS CO. (WE ENGERGIES)
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MILWAUKEE, WI 53203
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MR. JEFF MADSON
WISDOT STOC
433 W. ST PAUL AVE, STE 300
MILWAUKEE, WI 53203
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MS. JANE OLDENBURG
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MR. ERIC PEREA
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MR. DARRELL GORE
CHARTER COMMUNICATIONS
4125 N. 124TH ST, SUITE D
BROOKFIELD, WI 53005
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MS. MARY BETH FISHER
PAETEC BUSINESS SERVICES
13935 BISHOPS DR.
BROOKFIELD, WI 53005
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WISDOT SIGNALS
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ATC MANAGEMENT
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CENTURYLINK QWEST COMMUNICATIONS
1025 ELDORADO BLVD
BLOOMFILD, CO 80021
(720) 888-1089

MS. DANA GILLETT
FRONTIER COMMUNICATIONS OF WI
100 COMMUNICATIONS DR
SUN PRAIRIE, WI 53932
(608) 837-1605

MR. JEFF OLDENBURG
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WAUKESHA, WI 53188
(262) 896-7522

AGENCIES

MR. JON EDGREN
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OZAUKEE COUNTY
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PORT WASHINGTON, WI 53074
(262) 284-8331

MR. TIMOTHY NENNIG
UTILITY SUPERINTENDENT
VILLAGE OF GRAFTON
860 BADGER CIRCLE
GRAFTON, WI 53024
(262) 375-5331

MR, MICHAEL WEBER
PORT WASINGTON-SAUKVILLE SCHOOL DISTRICT
100 W. MONROE ST
PORT WASHINGTON, WI 53074
(262) 268-6020

MR. DANIEL BIRENBAUM
DPW & WATER SUPERINTEDENT
VILLAGE OF BELGIUM
104 PETER THEIN AVE
BELGIUM, WI 53004
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MR. MARK LEIBHAM
SHEBOYGAN COUNTY TRANSPORTATION DEPT.
1211 NORTH 23RD STREET
SHEBOYGAN, WI 53081
(920) 459-3822

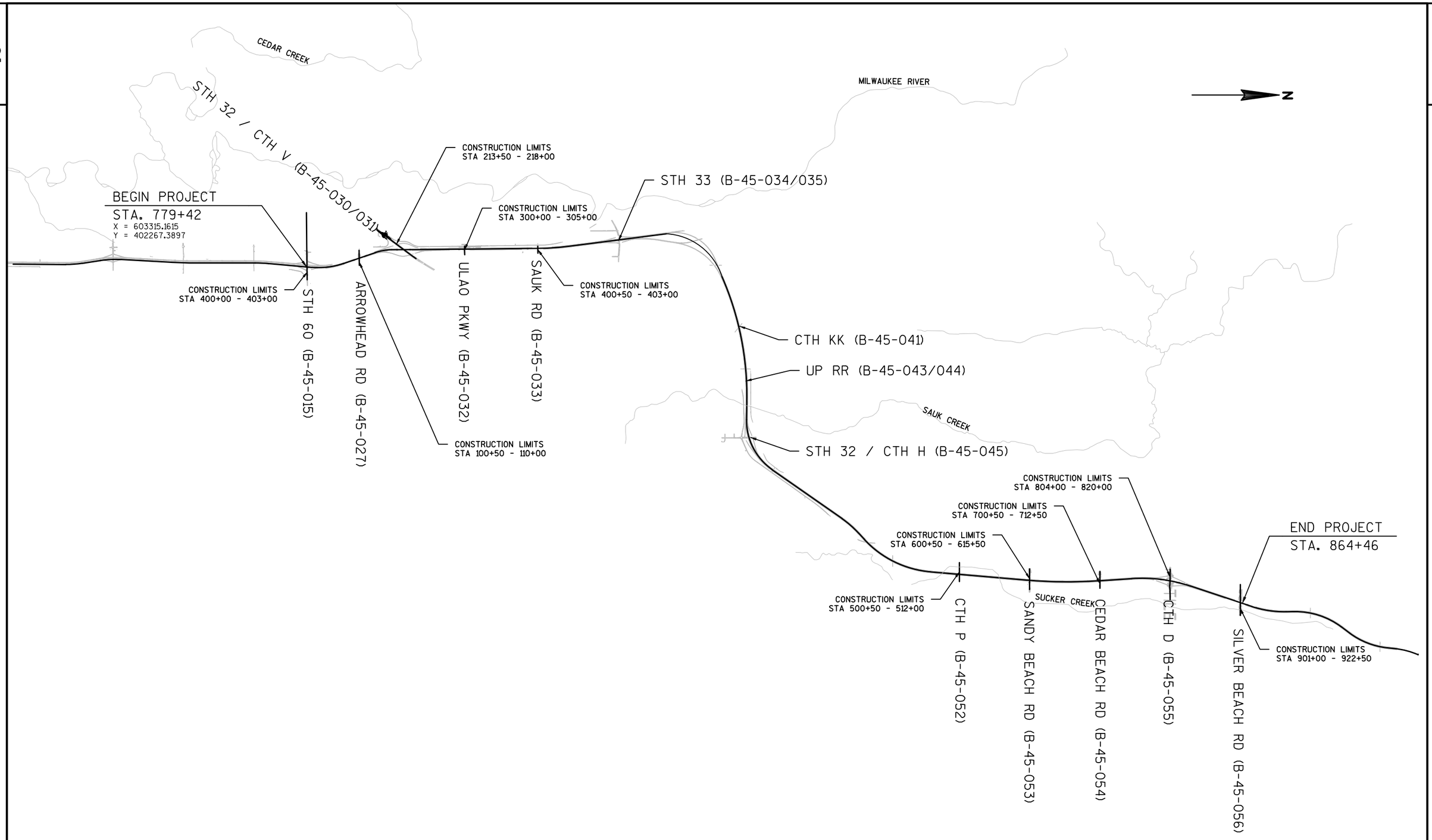
MR. RAYMOND DEBRUIJN
PUBLIC WORKS SUPERINTENDENT
VILLAGE OF SAUKVILLE
1600 COTTONTAIL LANE
SAUKVILLE, WI 53080
(262) 284-0545

DNR LIASION

MS. KRISTINA BETZOLD
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2300 N. DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
(414) 263-8517

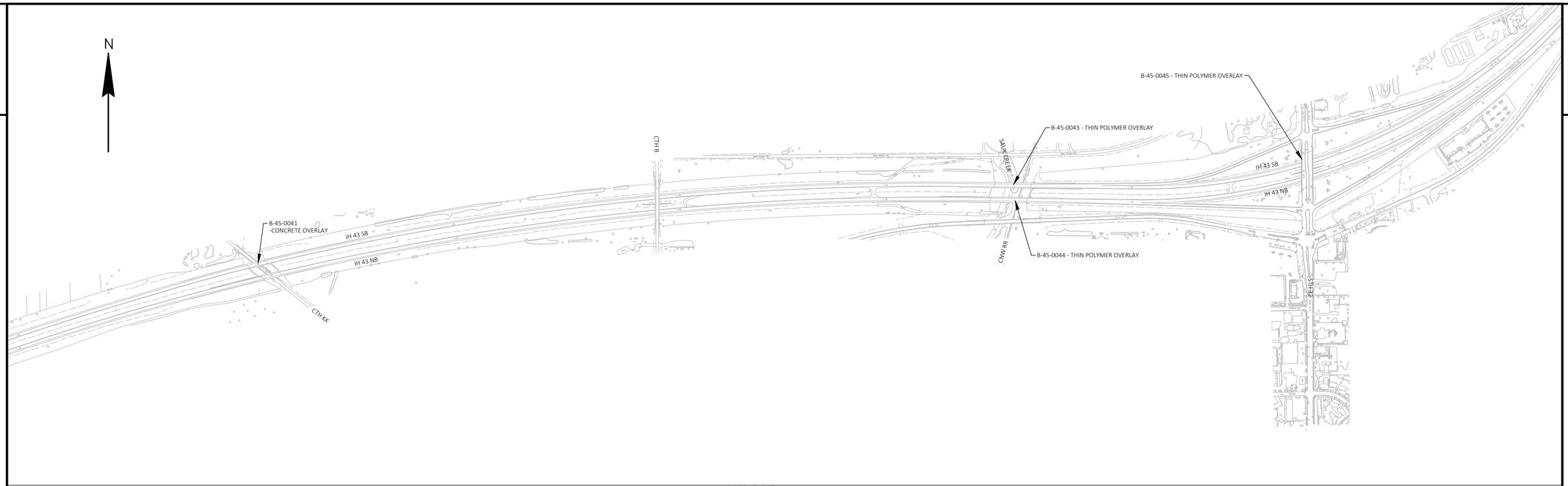
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

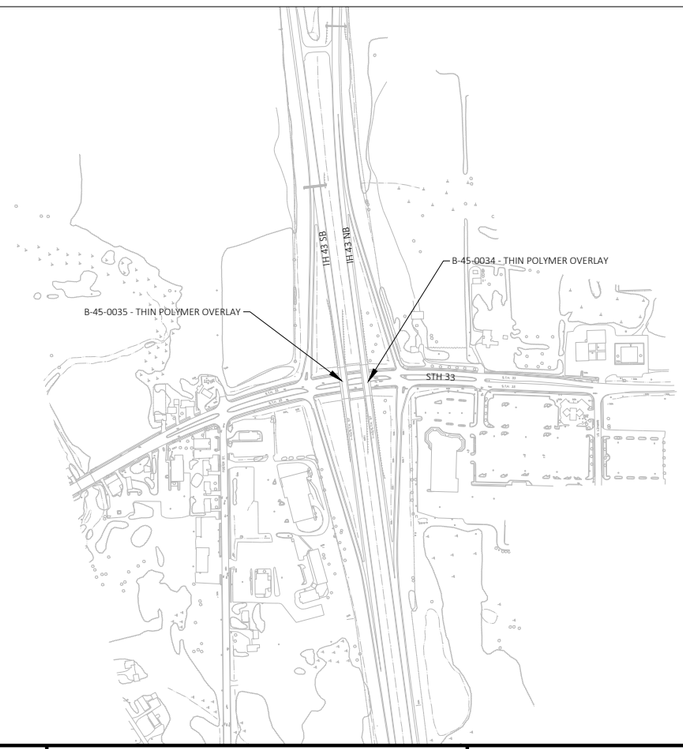
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PROJECT NO:1450-02-70 & 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PROJECT OVERVIEW	SHEET 3	E

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WISDOT/CADDS SHEET 42



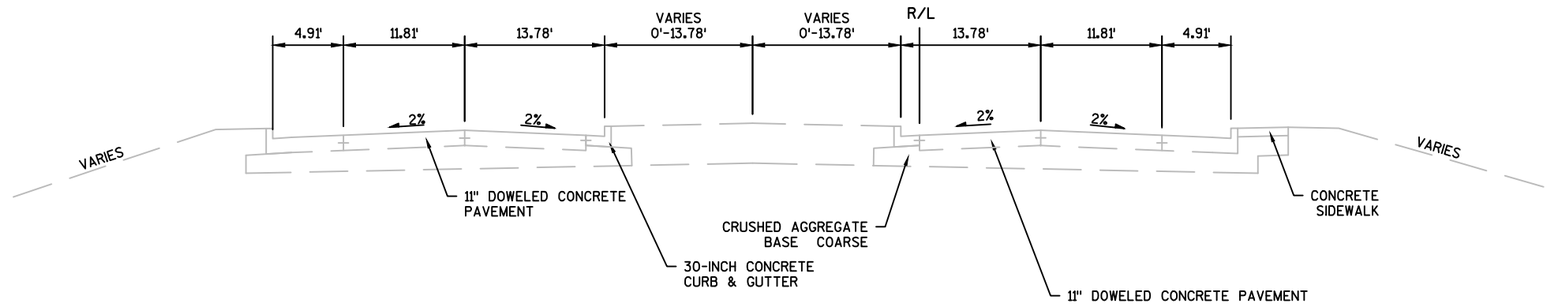




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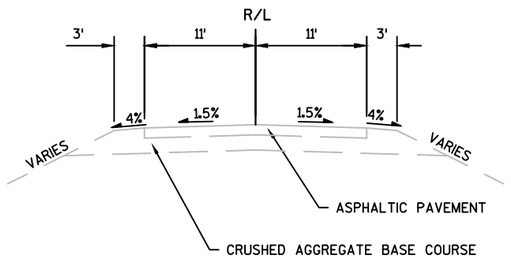
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TYPICAL EXISTING SECTION

STH 60

STA 360+00 TO STA 411+00



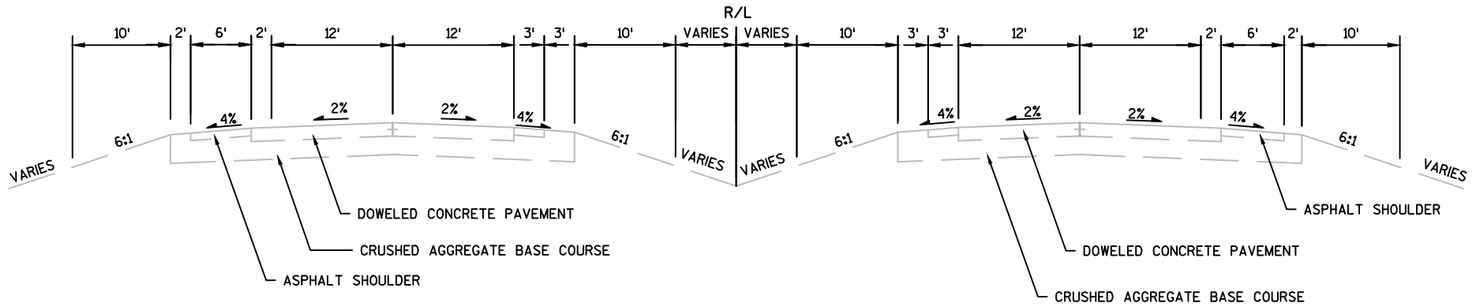
TYPICAL EXISTING SECTION

ARROWHEAD ROAD,

STA 100+00 TO STA 111+00

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TYPICAL SECTIONS	SHEET 5	E

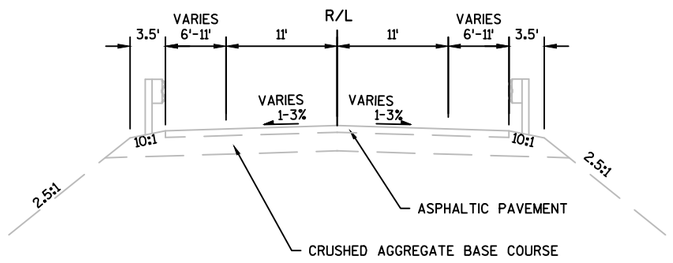
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WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

STH 32

STA 200+00 TO STA 227+00



TYPICAL EXISTING SECTION

ULAO PARKWAY

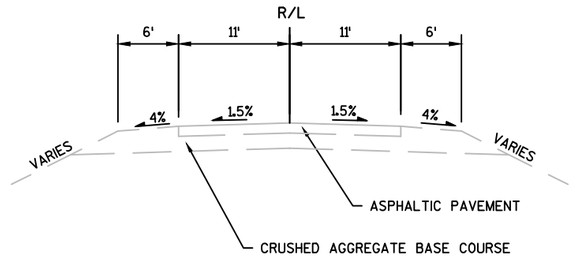
STA 300+00 TO STA 304+00

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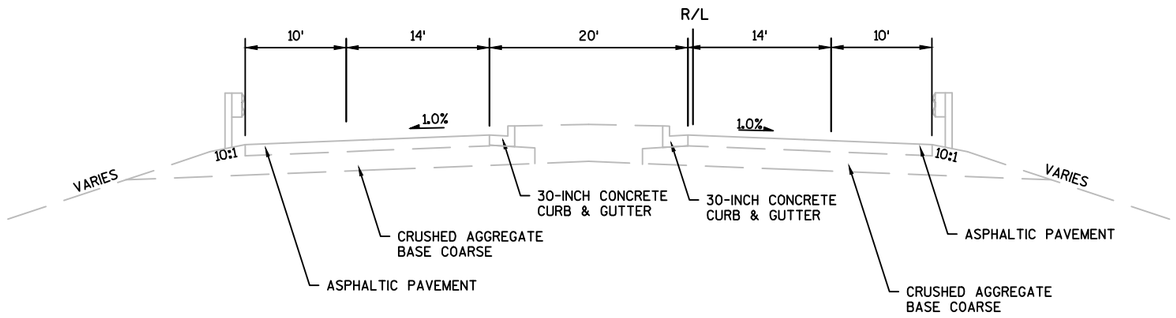
WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

SAUK ROAD,
CTH P,
SANDY BEACH ROAD,
CEDAR BEACH ROAD,
SILVER BEACH ROAD

STA 400+00 TO STA 405+00
STA 500+00 TO STA 514+00
STA 600+00 TO STA 615+00
STA 700+00 TO STA 712+00
STA 900+00 TO STA 923+00



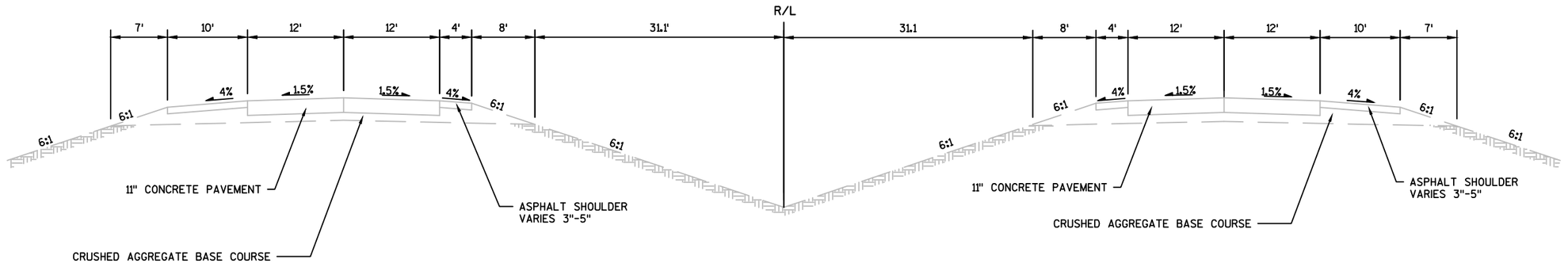
TYPICAL EXISTING SECTION

CTH D

STA 800+00 TO STA 815+00

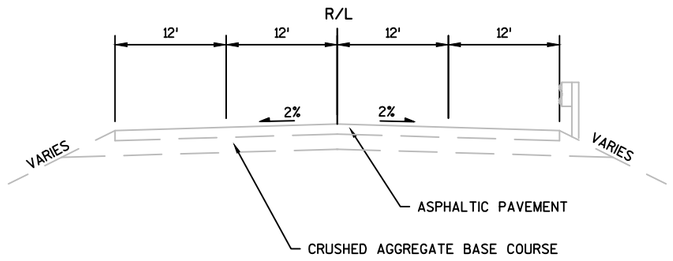
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WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

IH 43



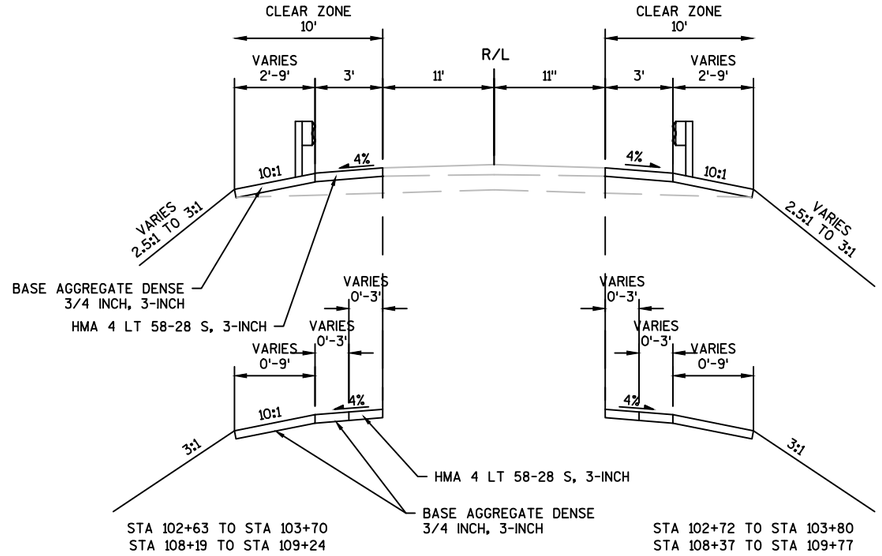
TYPICAL EXISTING SECTION

CTH W

STA 351+00 TO STA 353+03

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TYPICAL SECTIONS	SHEET 8	E

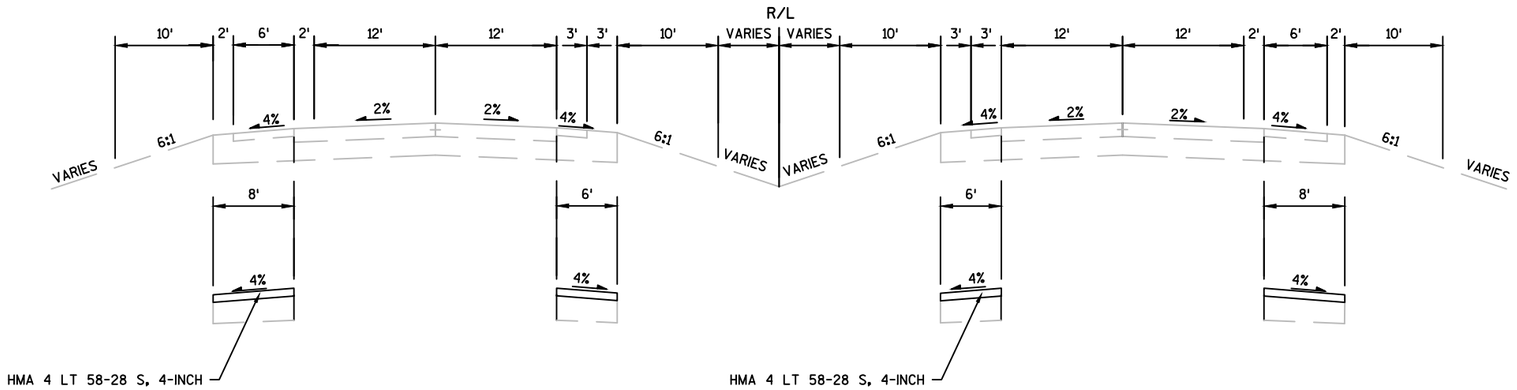
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WISDOT/CADDS SHEET 42



STA 102+63 TO STA 103+70
STA 108+19 TO STA 109+24

STA 102+72 TO STA 103+80
STA 108+37 TO STA 109+77

TYPICAL PROPOSED SECTION
ARROWHEAD ROAD
STA 102+63 TO STA 104+75, STA 107+10 TO STA 109+77



STA 211+84 TO STA 221+04

STA 213+24 TO STA 221+04

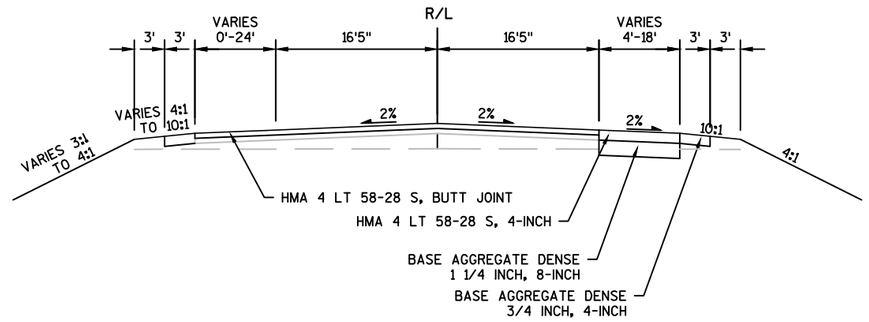
STA 210+88 TO STA 218+76

STA 209+74 TO STA 220+29

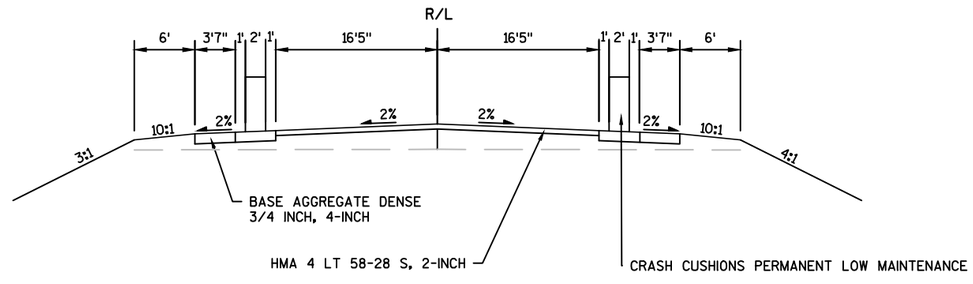
TYPICAL PROPOSED SECTION
STH 32
STA 200+00 TO STA 227+00

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TYPICAL SECTIONS	SHEET 9	E

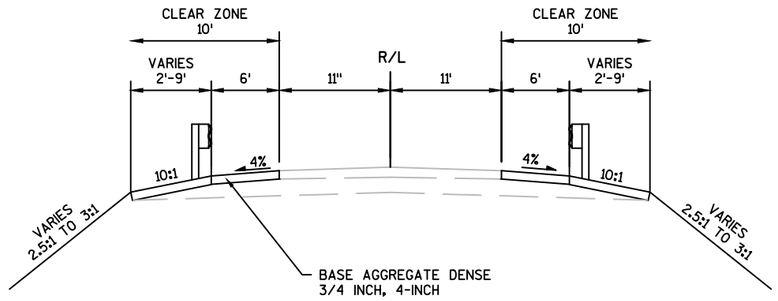
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WISDOT/CADDS SHEET 42



TYPICAL PROPOSED SECTION
ULAO PARKWAY
STA 300+04 TO STA 300+12

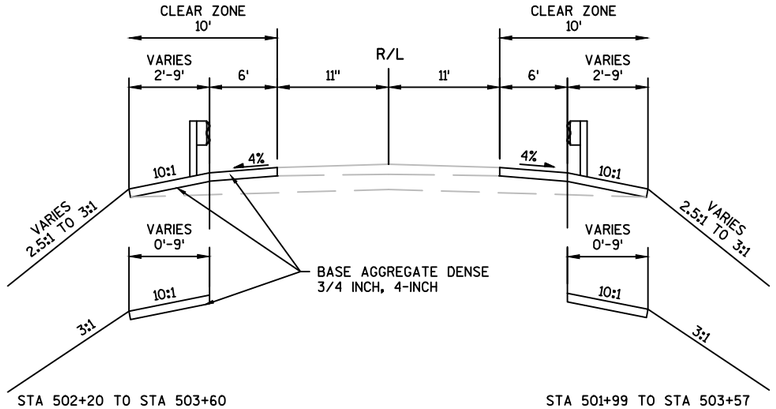


TYPICAL PROPOSED SECTION
ULAO PARKWAY
STA 300+12 TO STA 300+36



TYPICAL PROPOSED SECTION
ULAO PARKWAY
STA 303+34 TO STA 304+34

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TYPICAL SECTIONS	SHEET 10	E



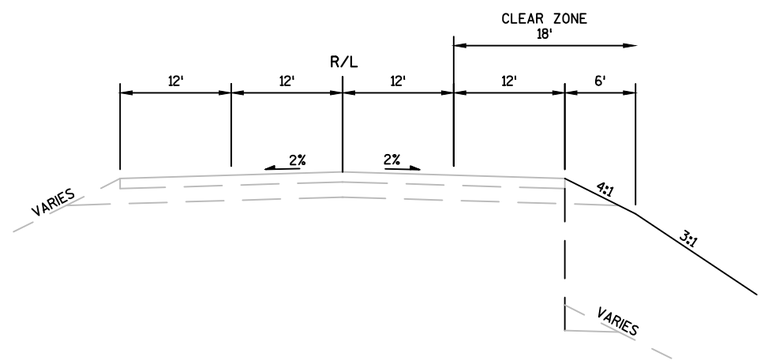
STA 502+20 TO STA 503+60
STA 511+73 TO STA 513+80
STA 602+51 TO STA 604+20
STA 612+34 TO STA 614+34
STA 700+65 TO STA 702+27
STA 709+48 TO STA 710+55
STA 905+10 TO STA 906+96
STA 919+46 TO STA 921+38

STA 501+99 TO STA 503+57
STA 511+70 TO STA 512+48
STA 602+19 TO STA 604+04
STA 612+56 TO STA 614+05
STA 702+13 TO STA 702+29
STA 709+62 TO STA 711+01
STA 906+27 TO STA 908+09
STA 919+00 TO STA 920+39

TYPICAL PROPOSED SECTION

CTH P
SANDY BEACH ROAD
CEDAR BEACH ROAD
SILVER BEACH ROAD

STA 501+99 TO STA 507+50, STA 510+50 TO STA 513+80
STA 602+19 TO STA 607+23, STA 610+28 TO STA 614+34
STA 700+65 TO STA 705+45, STA 708+45 TO STA 711+01
STA 905+10 TO STA 912+24, STA 915+34 TO STA 921+38



STA 351+00 TO STA 351+83

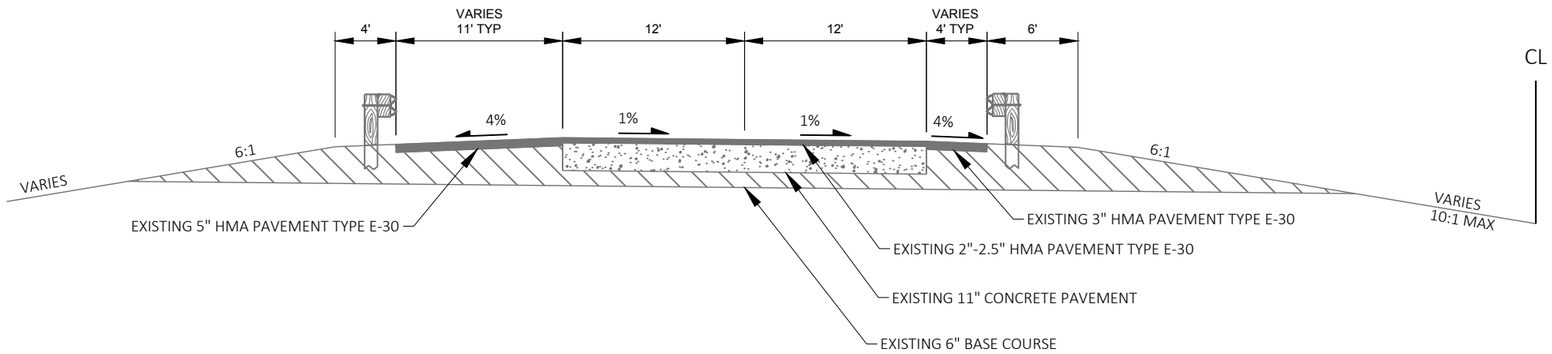
TYPICAL PROPOSED SECTION

CTH W

STA 351+00 TO STA 353+03

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TYPICAL SECTIONS	SHEET 11	E

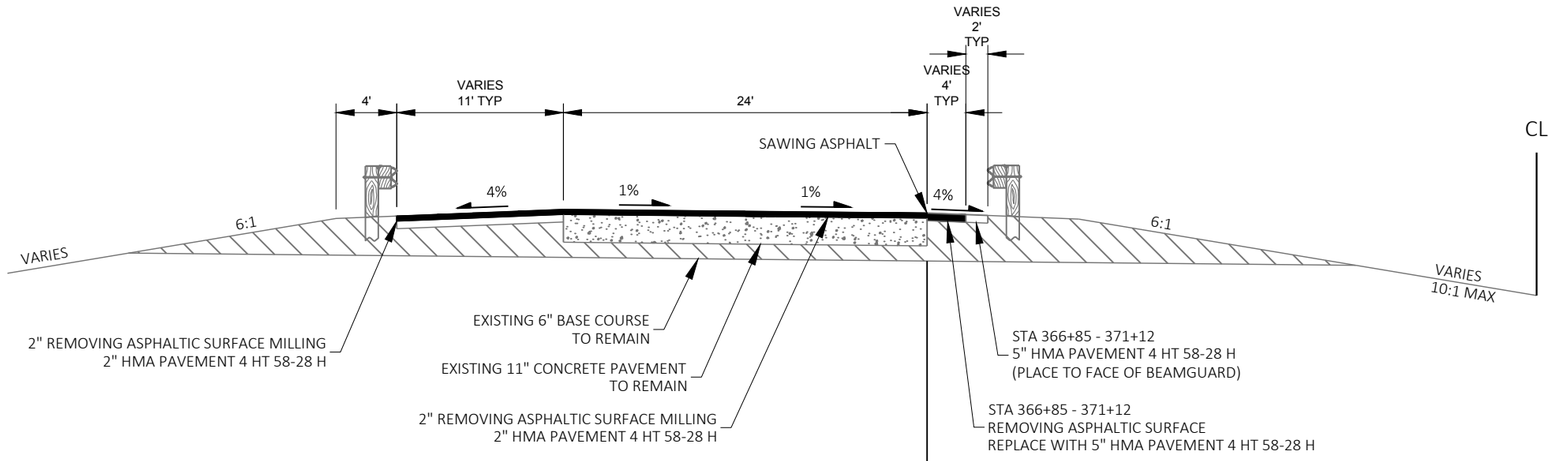
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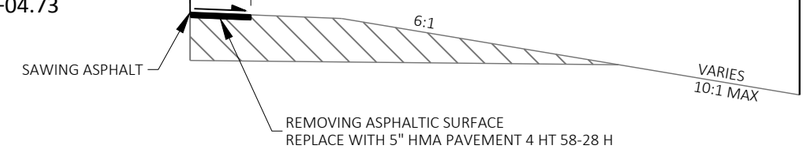
TYPICAL EXISTING SECTION - IH 43
STA 363+98.43 TO 365+33.20
STA 366+84.80 TO 368+04.73

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN: TYPICAL SECTIONS	SHEET 12	E

2

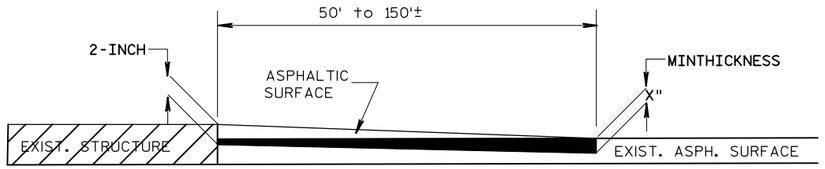


TYPICAL FINISHED SECTION - IH 43
STA 363+98.43 TO 365+33.20
STA 366+84.80 TO 368+04.73



STA 371+12 TO 374+00
STA 362+25 TO 365+38

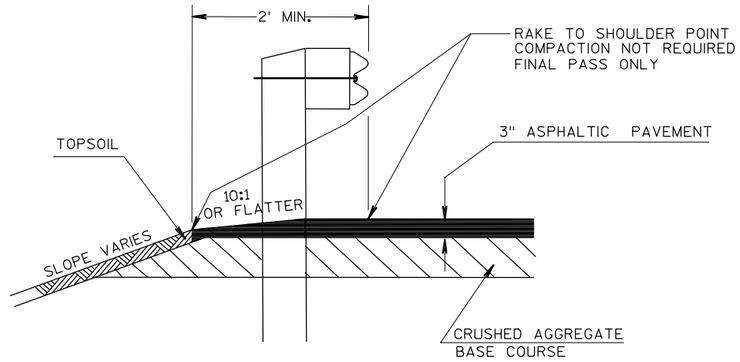
PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN: TYPICAL SECTIONS	SHEET 13	E

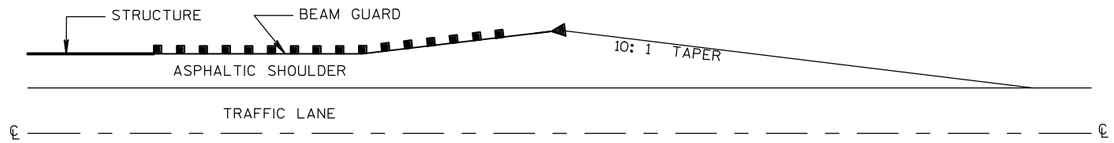


REMOVING ASPHALTIC SURFACE BUTT JOINT

BUTT JOINT DETAIL

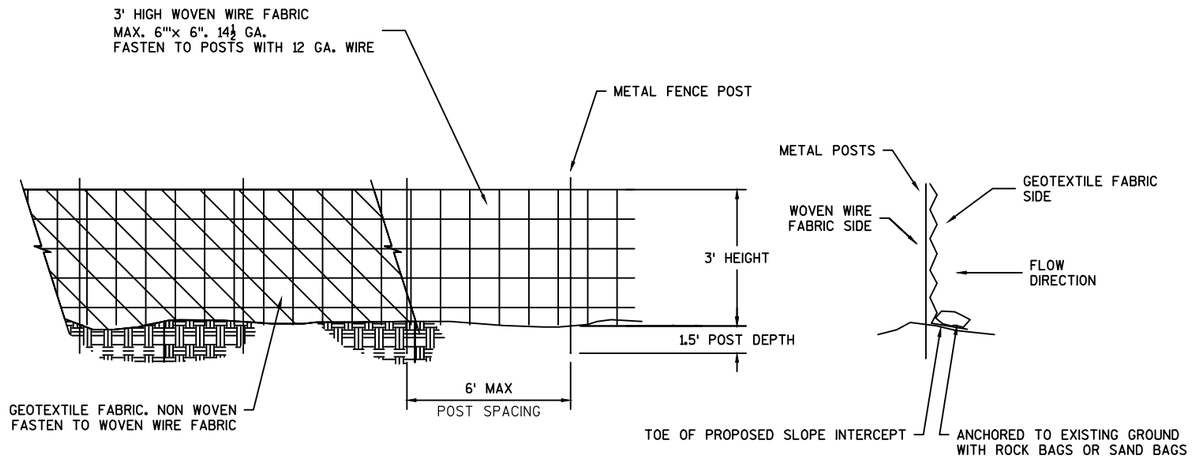
X= 1-INCH: ARROWHEAD ROAD
2-INCH: ULAO PARKWAY, CTH P, SANDY BEACH ROAD, CEDAR BEACH ROAD, SILVER BEACH ROAD





DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

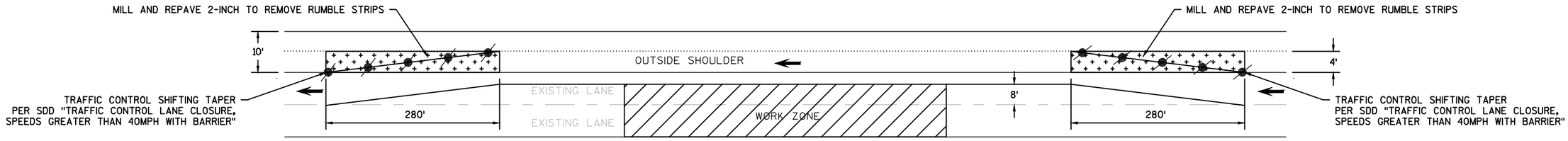
- ARROWHEAD ROAD



HEAVY DUTY SILT FENCE DETAIL

INSTALL AS NECESSARY AS SHOWN IN THE PLANS AND DIRECTED BY THE ENGINEER

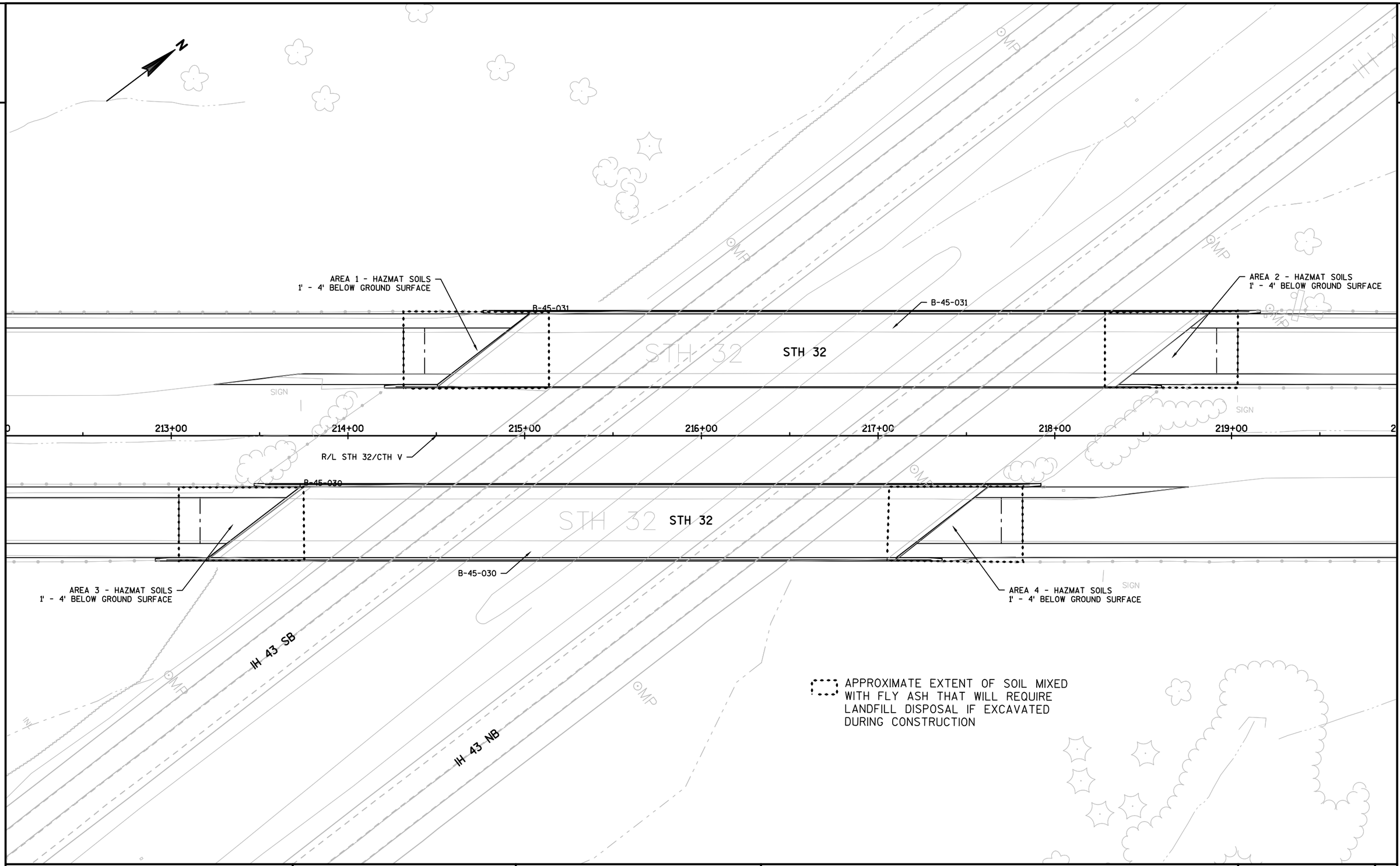
2



IH 43 ASPHALTIC SHOULDER MILLING DETAIL

- IH 43 NB/SB AT CTH D & SILVER BEACH ROAD

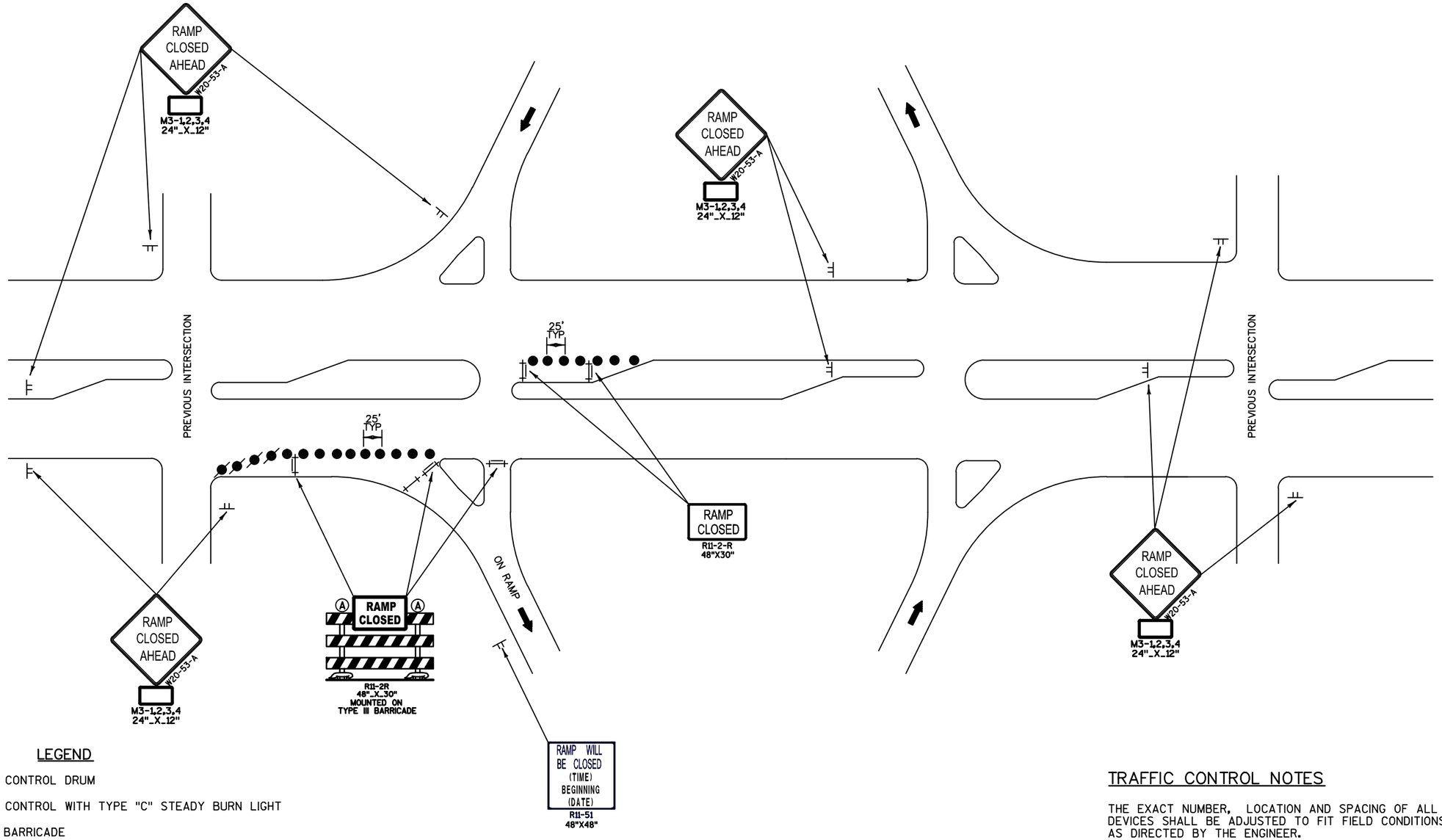
2



PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	CONSTRUCTION DETAIL: HAZMAT SOILS	SHEET 16	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021002_CD.DWG
LAYOUT NAME - 022003_EC - 02200(1)
PLOT DATE : 5/2/2019 8:34 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



NORTH
M3-1
24"_X_12"

EAST
M3-2
24"_X_12"

SOUTH
M3-3
24"_X_12"

WEST
M3-4
24"_X_12"

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

TRAFFIC CONTROL NOTES

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

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

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

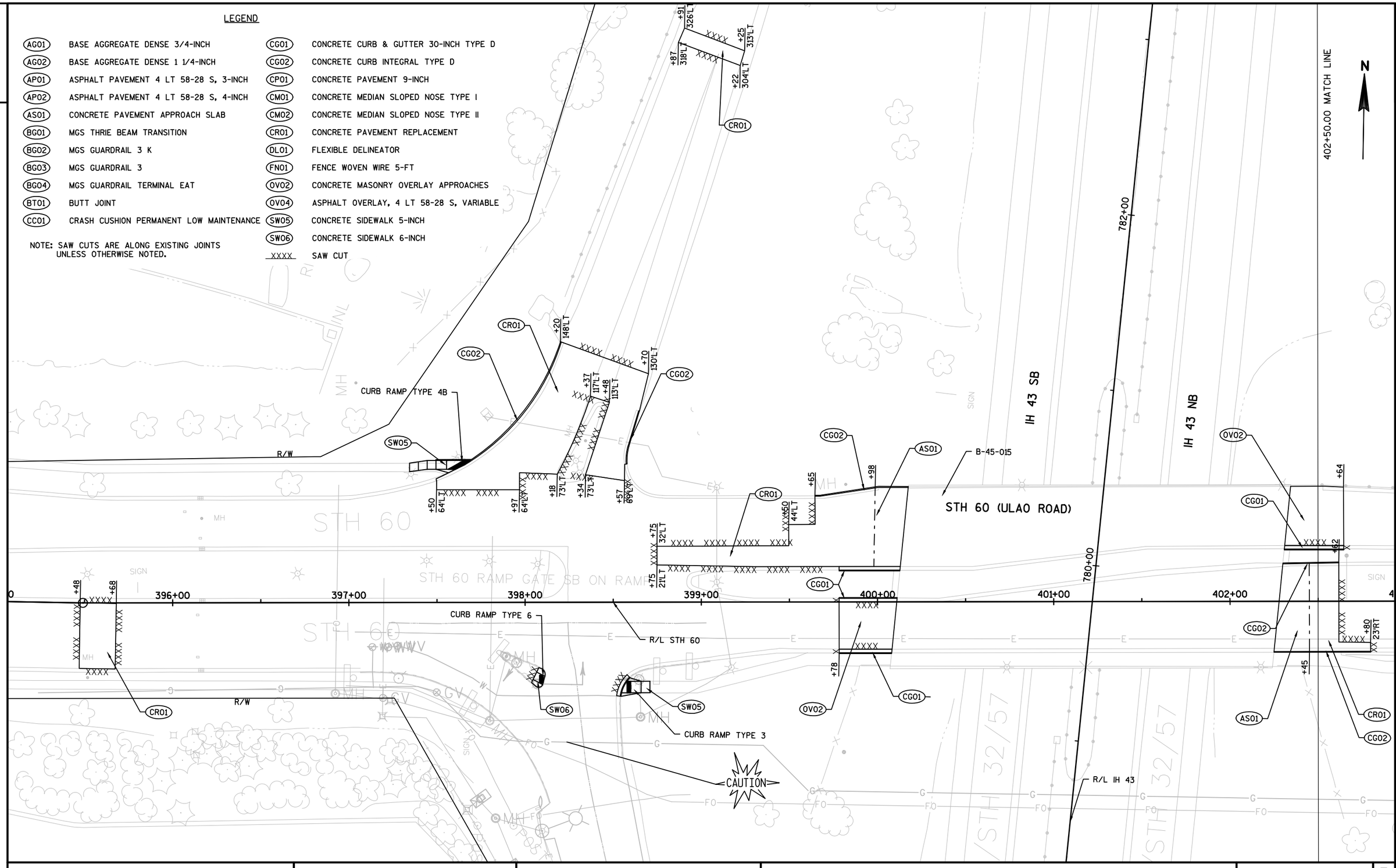
SHORT TERM DEFINED AS 7 DAYS OR LESS.
FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW05	CONCRETE SIDEWALK 5-INCH
		SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

NOTE: SAW CUTS ARE ALONG EXISTING JOINTS UNLESS OTHERWISE NOTED.



PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: STH 60	SHEET 18	E

2

IH 43 NB

402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00

STH 60 RAMP GATE NB OFF RAMP

CTH Q

R/L STH 60

R/W

RIPRAP

SIGN

MH

FILLER CAP

A/C

OPY

W

CAUTION

402+50.00 MATCH LINE

OV02 +64 CG01 +92 CG02 +45 AS01 +80 23'RT CR01 CG02

CR01 CG02 +08 20'LT +34 +08

CR01 CG02 +41 41'RT +51 32'RT CR01 +80 35'RT +34 92'RT +56 103'RT

CR01 +41 291'RT +63 301'RT +38 298'RT +60 308'RT

CR01 +86 37'LT +02 36'LT +00 13'LT +85 13'LT

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW05	CONCRETE SIDEWALK 5-INCH
		SW06	CONCRETE SIDEWALK 6-INCH

NOTE: SAW CUTS ARE ALONG EXISTING JOINTS UNLESS OTHERWISE NOTED.

XXXX SAW CUT

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: STH 60	SHEET 19	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_pd_03
PLOT DATE : 7/11/2019 2:40 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

R/L IH 43

N

MATCH LINE 0+00.00

2

143 NB

00+228

R/W

POST

REMOVING WOOD DELINEATOR POST (TYP)

DL01

R/L ARROWHEAD ROAD

SLOPE INTERCEPT (TYP)

REMOVING GUARDRAIL

FN01

REMOVING FENCE

ARROWHEAD RD.

MP

ADJUSTING INLET COVERS STA 107+11.5, 12.9' LT

WETLAND

B-45-027

BG01 BG03 AP01 BG04 AG01 BT01 OV04

101+00 102+00 103+00 104+00 105+00 106+00 107+00

+63 +70 +73 +17

ARROWHEAD RD

+72 +40 +80 +83 +34 +67

CP 16
STA 103+46.5
26.2' RT
727.523

REMOVING GUARDRAIL

ADJUSTING INLET COVERS STA 107+21.0, 12.6' RT

REMOVING FENCE

TV FO G

WETLAND

R/W

CAUTION

820+00

R/L IH 43

IH 43 SB

IH 43 NB

143 SB

818+00

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: ARROWHEAD ROAD	SHEET 20	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 021202_PD_01
PLOT DATE : 5/1/2019 8:30 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF
WISDOT/CADDS SHEET 42

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

143 NB

R/W

WETLAND

REMOVING GUARDRAIL

REMOVING WOOD DELINEATOR POST (TYP)

ADJUSTING INLET COVERS STA 107+11.5, 12.9' LT

B-45-027

R/L ARROWHEAD ROAD

INDIAN HILL DR.

106+00 107+00 108+00 109+00 110+00 111+00

ARROWHEAD RD

ADJUSTING INLET COVERS STA 107+21.0, 12.6' RT

REMOVING FENCE

REMOVING GUARDRAIL

SLOPE INTERCEPT (TYP)

820+00

R/L IH 43

IH 43 NB

IH 43 SB

MATCH LINE 0+00.00

818+00

WETLAND

CAUTION

R/W

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: ARROWHEAD ROAD	SHEET	E

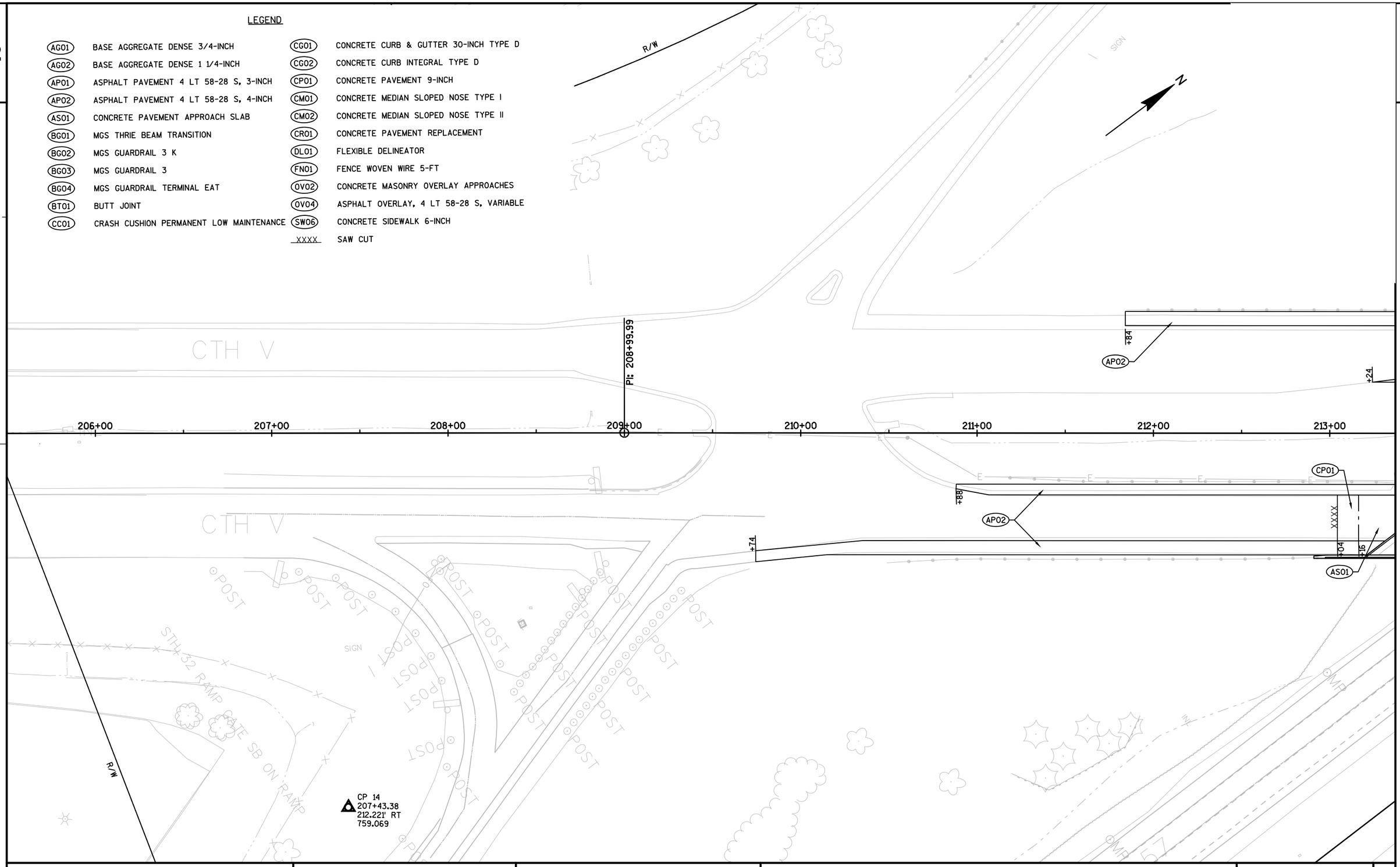
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LAYOUT NAME - 021202_PD_02

PLOT DATE : 5/1/2019 8:31 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF

2

LEGEND

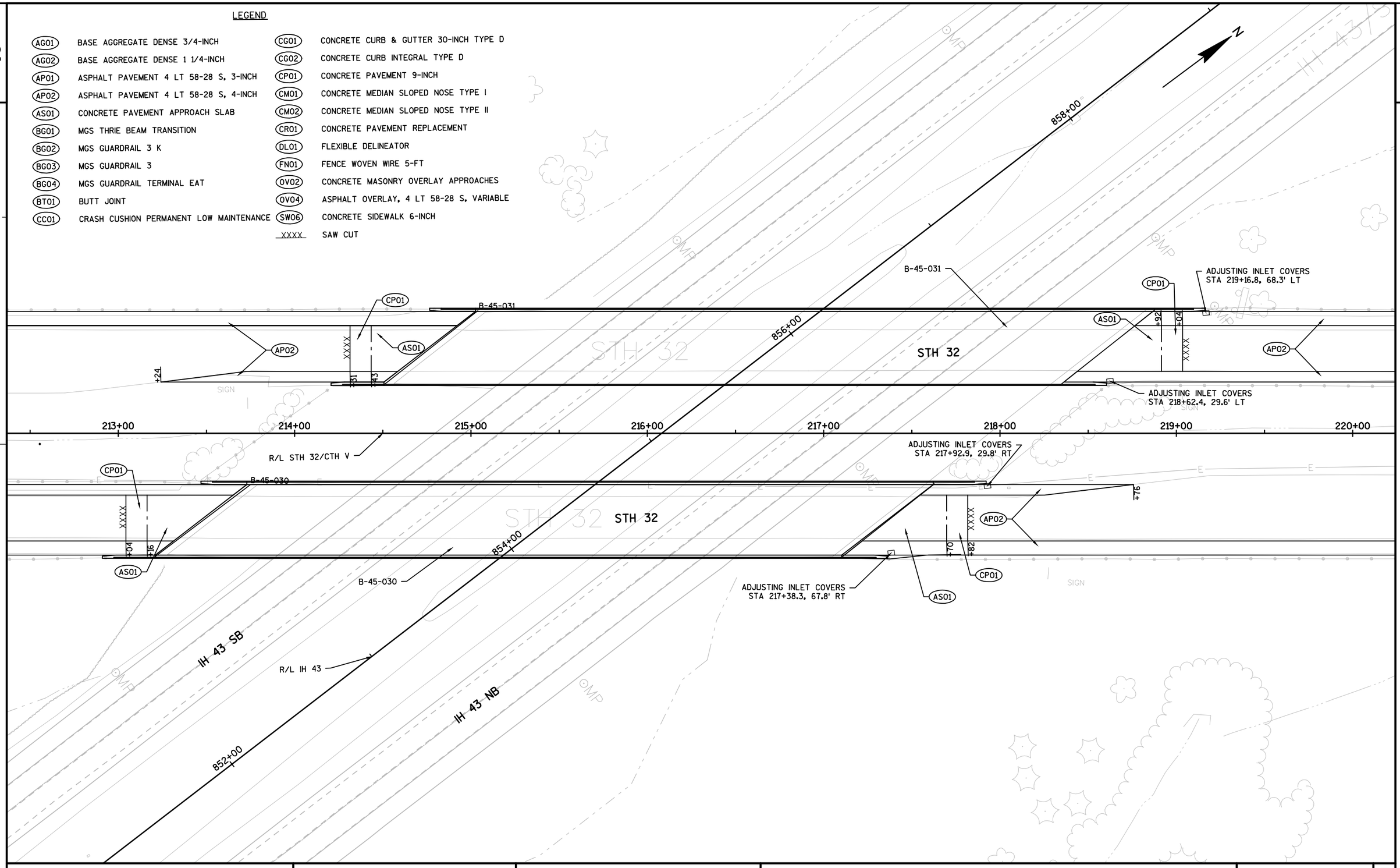
AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT



PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: STH 32/CTH V	SHEET 22	E

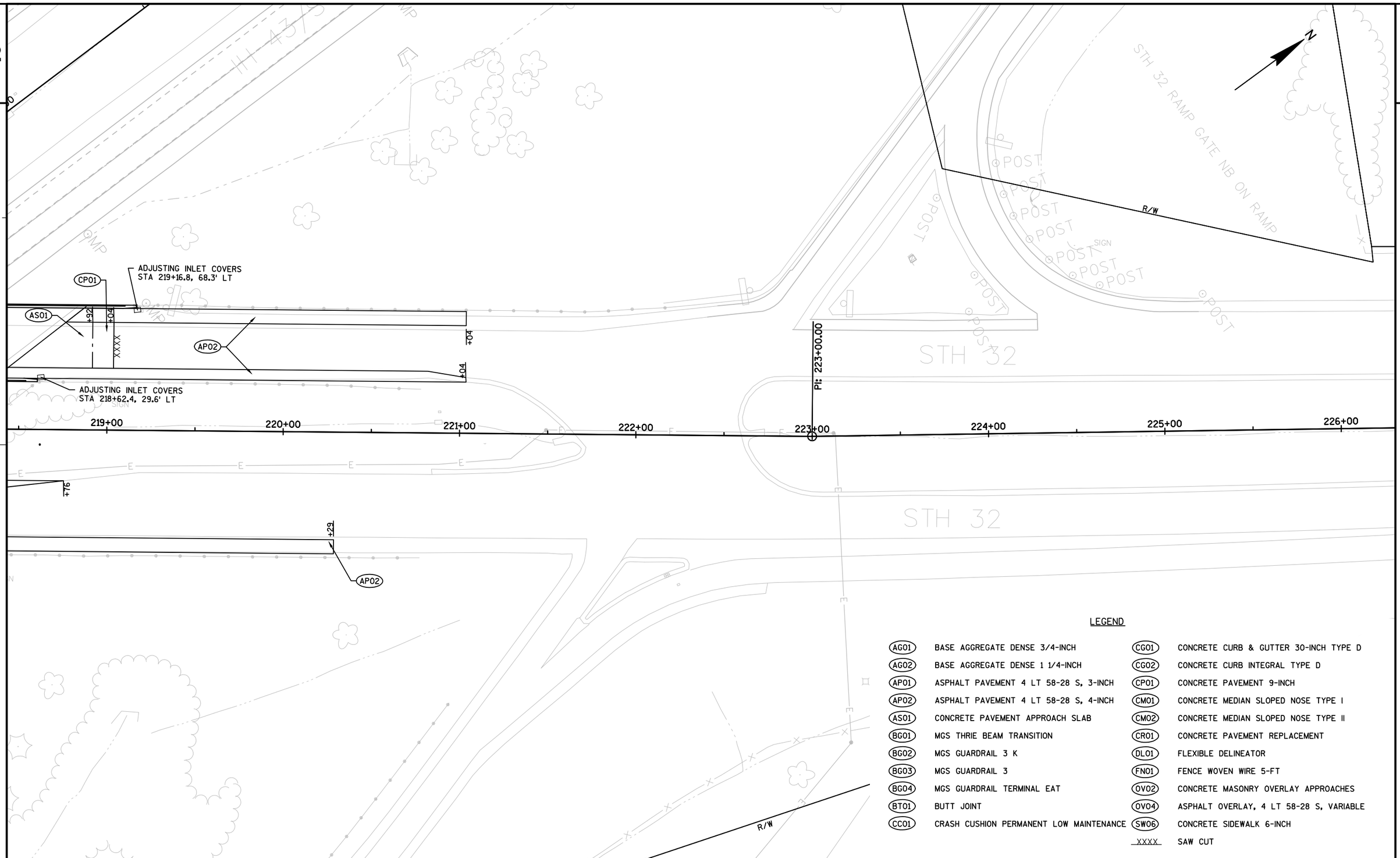
LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT



PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: STH 32/CTH V	SHEET 23	E

2



LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: STH 32/CTH V	SHEET 24	E

2

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

IH 43 SB

IH 43 NB

353+00

352+00

351+00

104+00

102+00

+82

CC01

OV04

300+00

301+00

302+00

303+00

304+00

305+00

306+00

175"

B-45-032

XXXX

ULAO PARKWAY

BT01

CC01

300+07.58, 45.42' RT
25'

AP02

R/L CTH W

R/L IH 43

FN01

BG01

BG03

BG04

+37

+67

+87

+40

R/L ULAO PARKWAY

SLOPE INTERCEPT (TYP)

POST

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: ULAO PARKWAY	SHEET 25	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021204_PD.DWG
LAYOUT NAME - 021204_PD_01

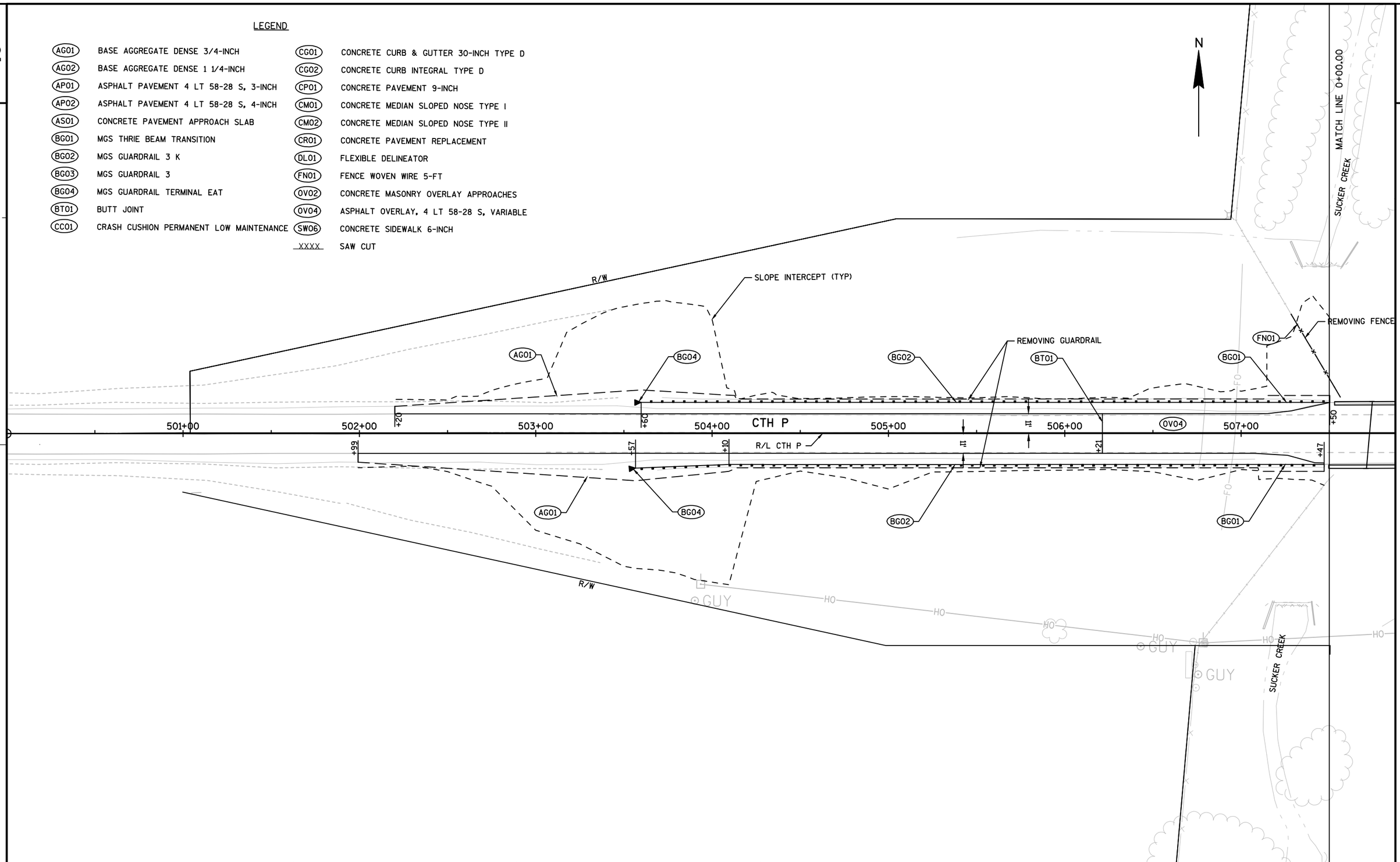
PLOT DATE : 5/1/2019 8:47 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:50_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT



PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CTH P	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021208_PD.DWG
LAYOUT NAME - 021208_PD_01
PLOT DATE : 5/1/2019 8:53 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF

2

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

SUCKER CREEK

IH 43 SB

IH 43 NB

R/L IH 43

650+00

R/W

REMOVING FENCE

B-45-052

CTH P

ADJUSTING INLET COVERS
STA 510+59.5, 15.1' LT

BG01 BG03 BG04 BT01

REMOVING GUARDRAIL

AG01

SLOPE INTERCEPT (TYP)

+50 508+00 509+00 510+00 +58 OV04 511+00 +11 +20 CTH P +73 512+00 513+00 +80 514+00

R/L CTH P

+47 +55 +11 +17 +33 +70 +48

ADJUSTING INLET COVERS
STA 510+55.6, 15.1' RT

BG01 BG03 BG04 AG01

CP 9
STA 513+70.2
35.3' RT
676.586

GUY

GUY

R/W

HO HO HO HO HO

MATCH LINE 0+00.00

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CTH P	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021208_PD.DWG
LAYOUT NAME - 021208_PD_02
PLOT DATE : 5/1/2019 8:54 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF
WISDOT/CADDS SHEET 42

2

2

MATCH LINE 607+75.00

N

R/W

R/W

FN01

REMOVING FENCE

REMOVING GUARDRAIL

AG01

BG04

CP 7
STA 603+97.2
19.2' LT
706.414

BG02

BT01

BG01

601+00

602+00

+51

603+00

604+00

+20

+73

605+00

606+00

11

OV04

607+00

+23

+19

R/L SANDY BEACH ROAD

+04

+57

SANDY BEACH ROAD

11

+45

+20 CONCRETE

ASPHALT

SLOPE INTERCEPT (TYP)

AG01

BG04

SS

BG02

BG01

POST

POST

R/W

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: SANDY BEACH ROAD	SHEET 28	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021209_PD.DWG
LAYOUT NAME - 021209_PD_01

PLOT DATE : 5/1/2019 9:00 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:50_XREF

2

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

IH 43 SB

IH 43 NB

704+00

702+00

700+00

R/W

SLOPE INTERCEPT (TYP)

REMOVING GUARDRAIL

AG01

BG01

BG02

BG04

ADJUSTING INLET COVERS
STA 610+32.9, 15.3' LT

B-45-053

SANDY BEACH RD.

SANDY BEACH ROAD

608+00

609+00

610+00

611+00

612+00

613+00

614+00

615+00

+31

+57

+81

+34

OV04

+28

+03

+56

+05

R/L SANDY BEACH ROAD

GP 8
STA 613+90.29
24.823' RT
688.984

BT01

ADJUSTING INLET COVERS
STA 610+30.0, 15.1' RT

REMOVING FENCE

FN01

R/L IH 43

POST

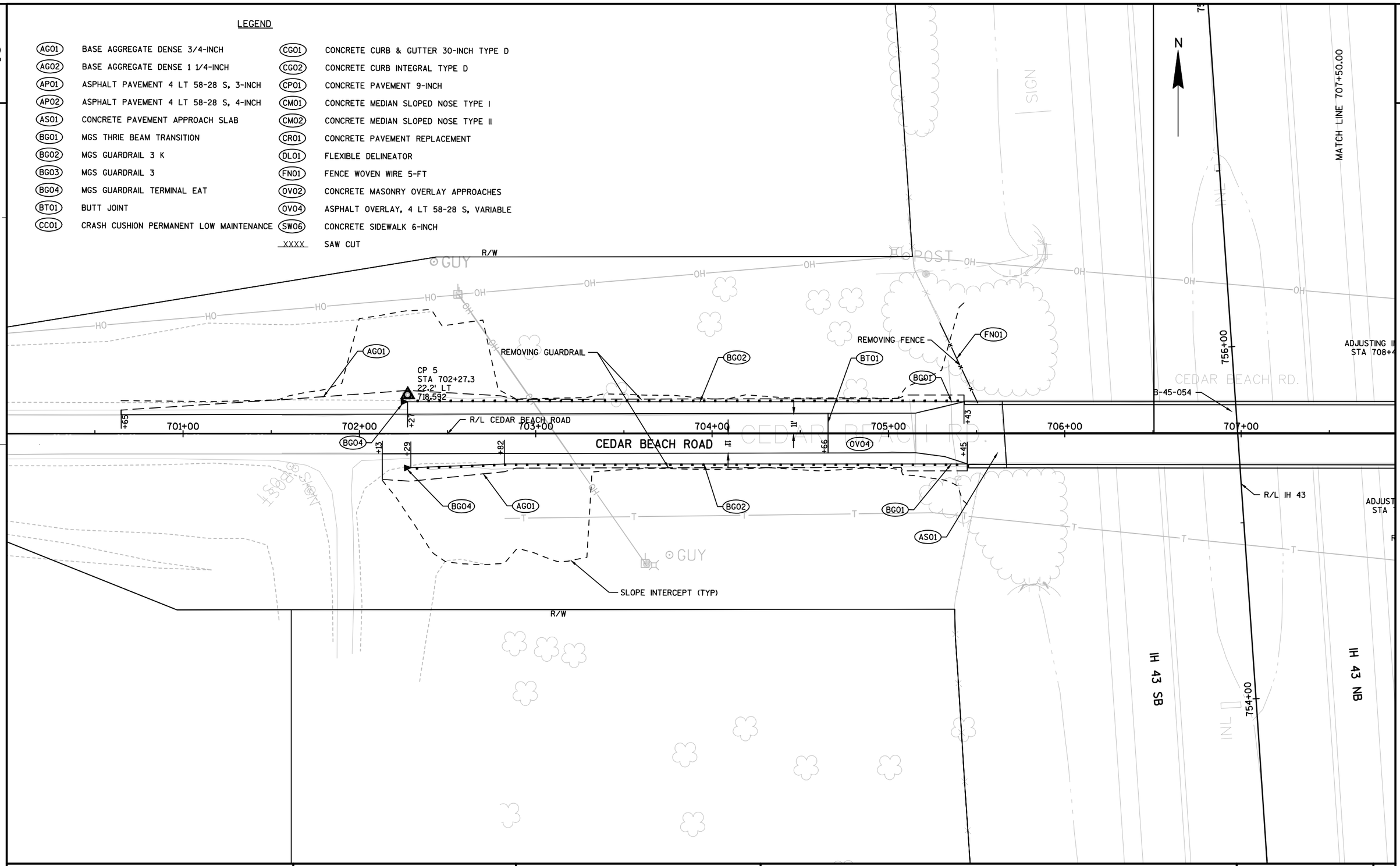
R/W

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: SANDY BEACH ROAD	SHEET 29	E

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT



PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CEDAR BEACH ROAD	SHEET 30 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021210_PD.DWG
LAYOUT NAME - 021210_PD_01

PLOT DATE : 5/1/2019 9:09 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 42

2

N

R/W

FNQ1
REMOVING FENCE
ADJUSTING INLET COVERS
STA 708+46.2, 15.3' LT
REMOVING GUARDRAIL
BGQ1
BGQ3
BT01
BGQ4
AGQ1
ASQ1
B-45-054
CEDAR BEACH RD.
756+00
707+00
708+00
709+00
710+00
711+00
712+00
+45
+48
+55
OVQ4
+09
+25
+47
+62
+01
CEDAR BEACH ROAD
R/L CEDAR BEACH ROAD
CP 6
STA 710+72.12
25.098' RT
713.379
R/L IH 43
ADJUSTING INLET COVERS
STA 708+48.3, 14.7' RT
BGQ1
BGQ3
BGQ4
AGQ1
FNQ1
REMOVING FENCE
SLOPE INTERCEPT (TYP)
R/W
IH 43 SB
IH 43 NB
754+00
NATCH LINE 707+50.00
SIGN

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CEDAR BEACH ROAD	SHEET 31	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021210_PD.DWG
LAYOUT NAME - 021210_PD_02
PLOT DATE : 5/1/2019 9:10 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1" = 50'_XREF
WISDOT/CADDS SHEET 42

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

NOTE: SAW CUTS ARE ALONG EXISTING JOINTS UNLESS OTHERWISE NOTED.

N

ADJUSTING INLET COVERS
INLET COVERS TYPE H
STA 805+17.8, 82.8' LT

SALVAGED INLET COVERS
STA 807+37.6, 19.3' LT

SALVAGED INLET COVERS
STA 807+36.5, 0.1' RT

CP 3
STA 805.99.6
76.3' RT
724.120

WETLAND

WETLAND

R/W

R/W

R/L CTH D

CTH D

HWY D

LAKEVIEW DRIVE

801+00 802+00 803+00 804+00 805+00 806+00 807+00

CAUTION

CAUTION

POINT TABLE			
POINT	STATION	OFFSET	RADIUS
1	804+96.63	44.72'LT	3'
2	805+03.92	45.59'LT	4'
3	805+25.52	87.97'LT	--

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CTH D	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\021211_PD.DWG
LAYOUT NAME - 021211_PD_01
PLOT DATE : 5/1/2019 9:17 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1:50_XREF
WISDOT/CADDS SHEET 42

2

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

NOTE: SAW CUTS ARE ALONG EXISTING JOINTS UNLESS OTHERWISE NOTED.

N

CAUTION

CAUTION

WETLAND

WETLAND

B-45-055

CTH D

R/L CTH D

R/L IH 43

IH 43 SB

IH 43 NB

808+00

809+00

810+00

811+00

812+00

813+00

814+00

815+00

C.T.H. "D"

HWY D

GUY

AS01

BT01

OV04

CG01

SW06

CG02

CR01

CM02

CM01

+38 XXXX +53

+53 XXXX +38

+78 33RT XXXXX +01 33RT

+47 99RT XXXX

SALVAGED INLET COVERS
STA 810+36.3, 21.6' RT

ADJUSTING INLET COVERS
INLET COVERS TYPE H
STA 812+92.6, 24.7, RT

R/W

R/W

R/W

POINT TABLE

POINT	STATION	OFFSET	RADIUS
1	812+89.56	18.97'RT	3'
2	812+84.18	19.86'RT	4'
3	812+64.33	64.52'RT	--

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: CTH D	SHEET 33	E

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

R/W

SLOPE INTERCEPT (TYP)

AG01 BG04 REMOVING GUARDRAIL BG02 BT01 BG01

906+00 907+00 +96 +49 908+00 R/L SILVER BEACH ROAD 909+00 910+00 911+00 OV04 11' 912+00 +24 913+00

SILVER BEACH ROAD

+27 +09 +62 +85 11' +12

CP 1
STA 908+08.4
21.3' RT
703.555

AG01 BG04 BG02 BG01 REMOVING FENCE FN01

R/W

IH 43 SB

862+00

R/L IH 43

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN DETAILS: SILVER BEACH ROAD	SHEET 34	E

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG01	CONCRETE CURB & GUTTER 30-INCH TYPE D
AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CG02	CONCRETE CURB INTEGRAL TYPE D
AP01	ASPHALT PAVEMENT 4 LT 58-28 S, 3-INCH	CP01	CONCRETE PAVEMENT 9-INCH
AP02	ASPHALT PAVEMENT 4 LT 58-28 S, 4-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE I
AS01	CONCRETE PAVEMENT APPROACH SLAB	CM02	CONCRETE MEDIAN SLOPED NOSE TYPE II
BG01	MGS THRIE BEAM TRANSITION	CR01	CONCRETE PAVEMENT REPLACEMENT
BG02	MGS GUARDRAIL 3 K	DL01	FLEXIBLE DELINEATOR
BG03	MGS GUARDRAIL 3	FN01	FENCE WOVEN WIRE 5-FT
BG04	MGS GUARDRAIL TERMINAL EAT	OV02	CONCRETE MASONRY OVERLAY APPROACHES
BT01	BUTT JOINT	OV04	ASPHALT OVERLAY, 4 LT 58-28 S, VARIABLE
CC01	CRASH CUSHION PERMANENT LOW MAINTENANCE	SW06	CONCRETE SIDEWALK 6-INCH
		XXXX	SAW CUT

N

IH 43 SB
IH 43 NB
866+00
R/L IH 43
SUCKER CREEK
R/W
REMOVING GUARDRAIL
FN01
REMOVING FENCE
ADJUSTING INLET COVERS
915+48.5, 15.6' LT
BG01
BT01
BG02
BG04
AG01
B-45-056
914+00
915+00
916+00
917+00
918+00
919+00
920+00
921+00
+43
+34
OV04
11'
+23
+93
+46
+47
+00
+39
SILVER BEACH ROAD
R/L SILVER BEACH ROAD
SLOPE INTERCEPT (TYP)
ADJUSTING INLET COVERS
STA 915+36.4, 15.2' RT
BG01
BG02
BG04
AG01
R/W
SUCKER CREEK
MP
OH
T
HO
SS

2

2

N

IH 43 SB

IH 43 NB

222+00

221+00

220+00

219+00

STH 33

INL

SIGN

MH

B-45-0035- THIN POLYMER OVERLAY

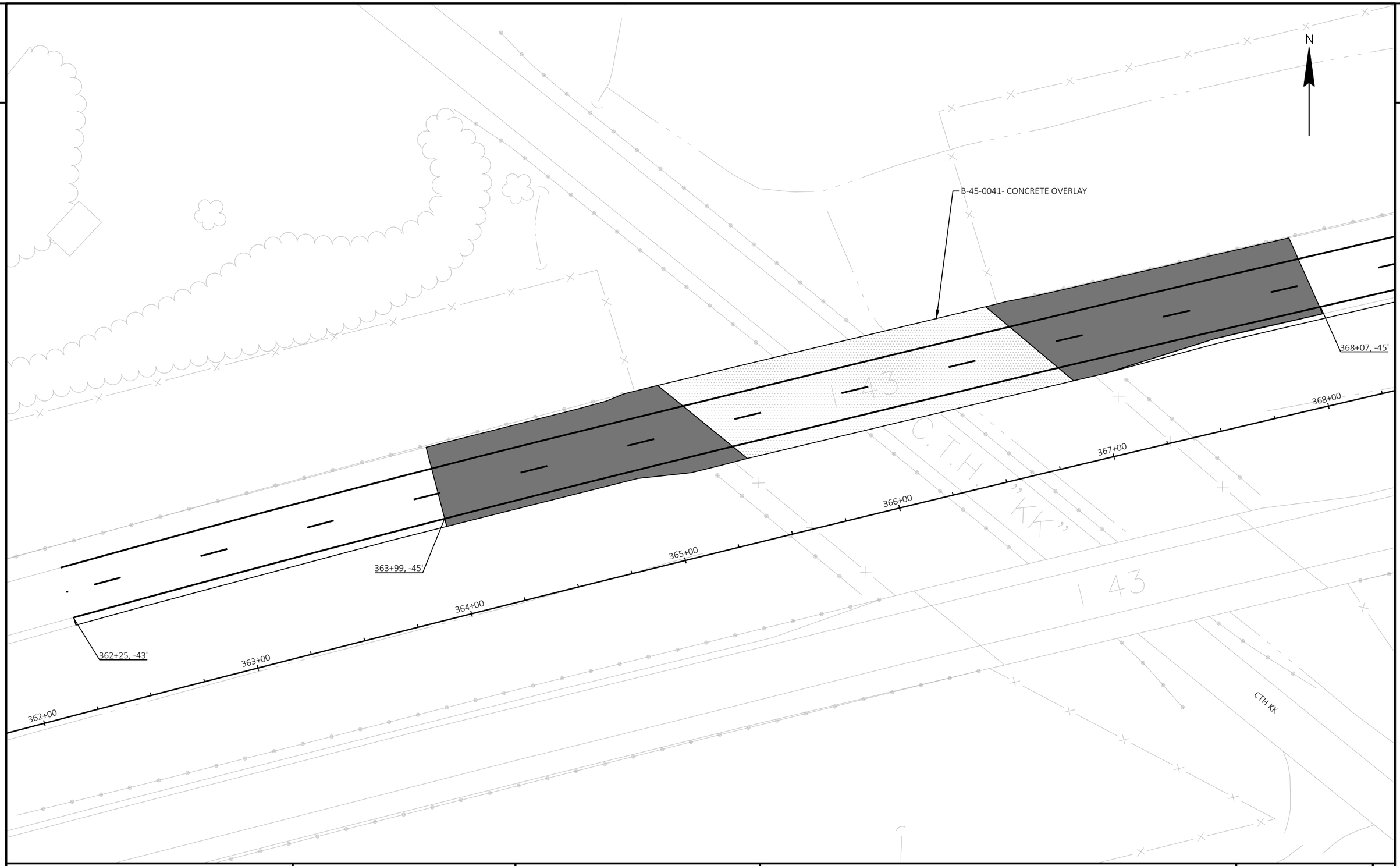
B-45-0034 - THIN POLYMER OVERLAY

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN DETAIL	SHEET 36	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_pd

PLOT DATE : 7/19/2019 11:58 AM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN DETAIL	SHEET 37	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021202_pd

PLOT DATE : 7/19/2019 11:59 AM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

374+00, -45'

374+00

373+00

372+00

371+00

370+00

369+00

368+07, -45'

368+00

IH 43 SB

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN DETAIL	SHEET 38	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021202_pd (2)

PLOT DATE : 7/19/2019 12:00 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

B-45-0043 - THIN POLYMER OVERLAY

IH 43 SB

INL

425+00

426+00

427+00

428+00

429+00

430+00

SAUK CREEK

UNION PACIFIC RAILROAD

IH 43 NB

B-45-0044- THIN POLYMER OVERLAY

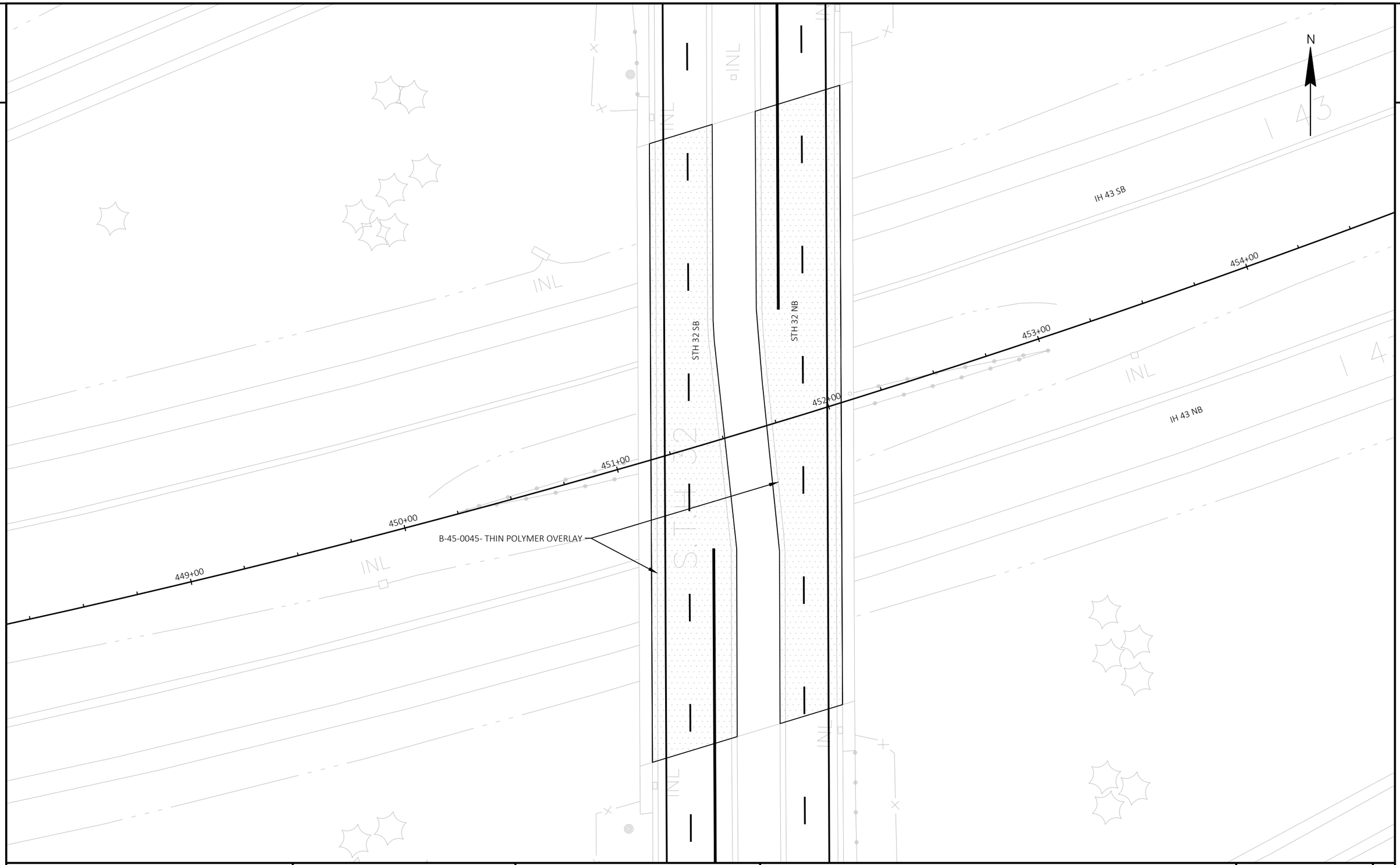
RIPRAP

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN DETAIL	SHEET 39	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021203_pd

PLOT DATE : 7/19/2019 12:01 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN DETAIL	SHEET 40	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021204_pd

PLOT DATE : 7/19/2019 12:02 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

STH 60

398+00 399+00 400+00 401+00 R/L STH 60 402+00 403+00 404+00 405+00

IH 43/STH 32/57

IH 43/STH 32/57

RAMP GATE SB ON RAMP

STH 60 RAMP GATE NB ON RAMP

RIPRAP

WETLAND

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: STH 60	SHEET 41	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022001_EC - 022001

PLOT DATE : 7/18/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

WETLAND

ARROWHEAD RD.

103+00 104+00 105+00 106+00 ARROWHEAD ROAD 107+00 108+00 109+00

R/L ARROWHEAD ROAD

WETLAND

WETLAND

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: ARROWHEAD ROAD	SHEET 42	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022002_EC.DWG
LAYOUT NAME - 022002_EC - 02200 (1)

PLOT DATE : 8/12/2019 10:39 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

B-45-031

STH 32

STH 32/ CTH V

SIGN

214+00 215+00 216+00 217+00 218+00 219+00 220+00

R/L STH 32/CTH V

B-45-030

STH 32

SIGN

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: STH 32/CTH V	SHEET 43	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022003_EC.DWG
LAYOUT NAME - 022003_EC - 02200 (1)
PLOT DATE : 7/1/2019 12:05 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

B-45-032

300+00 301+00 302+00 303+00 304+00 305+00

ULAO PKWY

R/L ULAO PARKWAY

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: ULAO PARKWAY	SHEET 44	E

2

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

SUCKER CREEK

509+00.00 MATCH LINE

CTH P

502+00 503+00 504+00 505+00 R/L CTH P 506+00 507+00 508+00 CTH P 509+00

GUY HO HO HO HO GUY POST HO HO HO HO HO GUY POST

SUCKER CREEK

2

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CTH P	SHEET 45	E

2

2

N

508+00 CTH P | 509+00 | 510+00 | 511+00 | 512+00 | R/L CTH P | 513+00 | 514+00

C.T.H. "P"

CTH P

POST

GUY

GUY

HO

509+00.00 MATCH LINE

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CTH P	SHEET 46	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022008_EC.DWG
LAYOUT NAME - 022008_EC - 022002

PLOT DATE : 8/12/2019 11:11 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

609+00.00 MATCH LINE

602+00 603+00 604+00 605+00 606+00 607+00 608+00 609+00

SANDY BEACH ROAD

R/L SANDY BEACH ROAD

SANDY BEACH RD.

POST

INL

SS

ASPHALT

CONCRETE

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: SANDY BEACH ROAD	SHEET 47	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022009_EC.DWG
LAYOUT NAME - 022009_EC - 022003

PLOT DATE : 8/12/2019 11:24 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

SANDY BEACH ROAD

0 609+00 610+00 611+00 612+00 613+00 614+00 615+00

R/L SANDY BEACH ROAD

SANDY BEACH RD.

POST

INL

CONCRETE

ASPHALT

609+00.00 MATCH LINE

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: SANDY BEACH ROAD	SHEET 48	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022009_EC.DWG
LAYOUT NAME - 022009_EC - 022004

PLOT DATE : 8/12/2019 11:25 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

706+50.00 MATCH LINE

CEDAR BEACH ROAD

701+00 702+00 703+00 704+00 705+00 706+00 707+00

R/L CEDAR BEACH ROAD

CEDAR BEACH RD.

GUY POST OH HO T SIGN INL

2

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CEDAR BEACH ROAD	SHEET 49	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022010_EC.DWG
LAYOUT NAME - 022010_EC - 022011

PLOT DATE : 8/12/2019 11:36 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

CEDAR BEACH ROAD

706+00 707+00 708+00 709+00 710+00 711+00 712+00

R/L CEDAR BEACH ROAD

706+50.00 MATCH LINE

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CEDAR BEACH ROAD	SHEET 50	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022010_EC.DWG
LAYOUT NAME - 022010_EC - 022012

PLOT DATE : 8/12/2019 11:36 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

N

809+98.41 MATCH LINE

WETLAND

R/L CTH D

803+00 804+00 805+00 806+00 807+00 808+00 809+00 810+00

HWY D

CTH D

WETLAND

WETLAND

SIGN G(P) G(P) G(P) SIGN

OHP OH TV GUY VENT MH MH POST UG UG UG INL

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CTH D	SHEET 51	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022011_EC.DWG
LAYOUT NAME - 022011_EC - 022011

PLOT DATE : 7/18/2019 2:54 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

WETLAND

C.T.H. "D"

CTH D

HWY D

R/L CTH D

810+00 811+00 812+00 813+00 814+00 815+00 816+00 817+00

GUY

GV

G(P)

OH

SS

FO

TV

WETLAND

809+98.41 MATCH LINE

WALLS

POOL

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: CTH D	SHEET 52	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022011_EC.DWG
LAYOUT NAME - 022011_EC - 022012

PLOT DATE : 7/18/2019 2:55 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

912+75.00 MATCH LINE

906+00 907+00 908+00 909+00 910+00 911+00 912+00

R/L SILVER BEACH ROAD

SILVER BEACH ROAD

WETLAND

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: SILVER BEACH ROAD	SHEET 53	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022012_EC.DWG
LAYOUT NAME - 022012_EC - 022011

PLOT DATE : 8/12/2019 11:45 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

SUCKER CREEK

SILVER BEACH ROAD

913+00 914+00 915+00 916+00 917+00 918+00 R/L SILVER BEACH ROAD 919+00 920+00

SILVER BEACH RD.

SUCKER CREEK

LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE, 3-FT
- EROSION MAT CLASS 1 TYPE B
- ROCK BAG
- TEMPORARY DITCH CHECK
- INLET PROTECTION TYPE X
- SURFACE WATER FLOW

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	EROSION CONTROL: SILVER BEACH ROAD	SHEET 54	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\022012_EC.DWG
LAYOUT NAME - 022012_EC - 022012

PLOT DATE : 8/12/2019 11:46 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

B-45-0043

IH 43 SB

INL

INL

INL

INL

425+00

426+00

427+00

428+00

429+00

430+00

SAUK CREEK

UNION PACIFIC RAILROAD

B-45-0044

IH 43 NB

RIPRAP

LEGEND

INLET PROTECTION TYPE D

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	EROSION CONTROL	SHEET 55	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022003_ec

PLOT DATE : 7/18/2019 4:41 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

IH 43 SB

IH 43 NB

453+00

452+00

451+00

450+00

STH 32 NB

STH 32 SB

B-45-0045

LEGEND

INLET PROTECTION TYPE D

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	EROSION CONTROL	SHEET 56	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022004_ec

PLOT DATE : 7/18/2019 4:43 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

IH 43/STH 57

STH 60

397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00

775 780 785

PC: 783+50.72

PI: 405+17.57

SOUTH 43 MILE 92 .2
D10-5
ESTR

W4-1R
ESTR

TRAFFIC INFO
TUNE RADIO TO
1060 AM
IMPORTANT
WHEN FLASHING
ESTR

EXIT 92
E5-1A
ESTR

W5-54S W5-54S

Port Washington
NEXT 3 EXITS
E9-1
ESTR

RIPRAP

LOADING DOCK

Signing notes

Type II aluminum signs removed under the contract shall be delivered to the County sign shop. Contact the following individual at the sign shop for distribution county location.

Signing Coordinator County(s) Phone #

- Jenny Buckett Kenosha, Washington, Ozaukee 414-750-2427

Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see standard spec 638.3.4). The Regional sign shop (General phone # 414-266-1165) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

Wood posts sizes, for type II signs are estimated lengths and the actual length will be determined in the field.

Street name signs are property of the municipality (city, village or town). The municipality shall be contacted to remove their street name signs prior to construction and it is their responsibility to reinstall the old signs or replace them following construction. WisDOT does not furnish or install street name signs. The street name signs shall not be placed on top of the STOP signs.

Locate no passing pennants based on establishing no passing zones pay item. Place signs based on where the pavement marking for no passing zones begin.

IH 43/STH 57

SHEET 1 OF 19

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 57	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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

2

N

STH 60

IH 43/STH 32/57

PC: 783+50.72

RIGHT LANE MUST TURN RIGHT R3-7-R ESTR

BIKE LANE R3-17 ESTR

ALTERNATE SOUTH INTERSTATE 43 J2-1 ESTR

NO PARKING ANY TIME R7-1-D ESTR

ALTERNATE INTERSTATE 43 J2-1 ESTR

WEST 60 J4-1 ESTR

SPEED LIMIT 35 R2-1 ESTR

RIGHT TURN LANE R3-55R ESTR

Pi: 393+52.17

Pi: 393+52.17

Pi: 395+49.07

Pi: 395+49.07

H D9-2 ESTR

DO NOT ENTER R5-1

WRONG WAY R5-1A ESTR

DIVIDED HIGHWAY R6-3

STOP R1-1F ESTR

STOP R1-1F ESTR

ALTERNATE SOUTH INTERSTATE 43 J3-1 ESTR

WRONG WAY R5-1A ESTR

EAST WEST COUNTY Q 60 J3-2 ESTR

GAS/ LODGING ESTR

W12-1D ESTR

DO NOT ENTER R5-1

WRONG WAY R5-1A ESTR

STOP R1-1F

DIVIDED HIGHWAY R6-3 ESTR

STOP R1-1F ESTR

R3-1 ESTR

LANE AHEAD ESTR

NORTH INTERSTATE 43 #32# 57 JV2-1 ESTR

WEST 60 J4-1 ESTR

Sheboygan ESTR

Milwaukee ESTR

ONE WAY R6-2-L ESTR

ONE WAY R6-2-R ESTR

JCT INTERSTATE 43 #32# 57 JV1-1 ESTR

SPEED LIMIT 35 R2-1 ESTR

LANE ENDS ESTR

SOUTH INTERSTATE 43 #32# 57 JV2-1 ESTR

NO PARKING ANY TIME R7-1-D ESTR

Sheboygan Milwaukee ESTR

R3-18 ESTR

SOUTH INTERSTATE 43 #32# 57 JV3-1 ESTR

W11-2 W16-7L ESTR

W12-1D ESTR

R4-7 ESTR

STOP R1-1F ESTR

RAMP CLOSED USE ALT ROUTE R11-54-F (2S) 1

RAMP CLOSED USE ALT ROUTE R11-54-F (2S) 2

W3-3 ESTR

NO PARKING ANY TIME R7-1-D ESTR

SPEED LIMIT 35 R2-1 ESTR

NORTH INTERSTATE 43 ONLY D16-1L ESTR

IH 43/STH 32/57

SHEET 2 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 58	E

2

N

3

RAMP CLOSED USE ALT ROUTE
R11-54-F(2S)

W4-2L
ESTR

SPEED LIMIT 35
R2-1
ESTR

STOP
R1-1F
ESTR

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

4

RAMP CLOSED USE ALT ROUTE
R11-54-F(2S)

STOP
R1-1F
ESTR

R3-18

STOP
R1-1F
ESTR

NORTH
INTERSTATE
43

32

57

JV3-1
ESTR

Milwaukee
Sheboygan
ESTR

PI: 405+17.57
PI: 405+17.57

PI: 409+93.86
PI: 409+93.86

EP: 411+01.64
EP: 411+01.64

403+00
404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00

STH 60

STH 60

R4-7
ESTR

R4-7
ESTR

W10-1
ESTR

STOP
R1-1F
ESTR

R3-1

DO NOT ENTER
R5-1

STOP
R1-1F
ESTR

WRONG WAY
R5-1A
ESTR

W12-1D
ESTR

STOP
R1-1
ESTR

DIVIDED HIGHWAY
R6-3

STOP
R1-1F
ESTR

END
60 COUNTY Q
J1-2
ESTR

W10-1
ESTR

W4-2R
ESTR

UNION PACIFIC RAILROAD

RIPRAP

MH

SIGN

SCALE

INL

CANOPY

AG

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 3 OF 19

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 59	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023262_PS

PLOT DATE : 4/3/2019 3:51 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

SOUTH 32 ESTR

SOUTH 43 MILKWAUKEE 57 ESTR

SOUTH 43 MILE 92 .6 D10-5 ESTR

Arrowhead Rd M1-94 ESTR

HOSPITAL EXIT 92 E10-61 TYPE I SIGN ESTR

FLAG FLAG

IH 43/STH 57

820 825 830

BP: 26+43.44

26 30

IH 43/STH 57

NORTH 32 ESTR

NORTH 43 MILE 92 .6 D10-5 ESTR

Arrowhead Rd M1-94 ESTR

EXIT 93 NORTH 32 SOUTH V Port Washington Grafton TYPE I SIGN ESTR

ARROWHEAD RD

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00

POOL

SIGN

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 4 OF 19

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 60	E

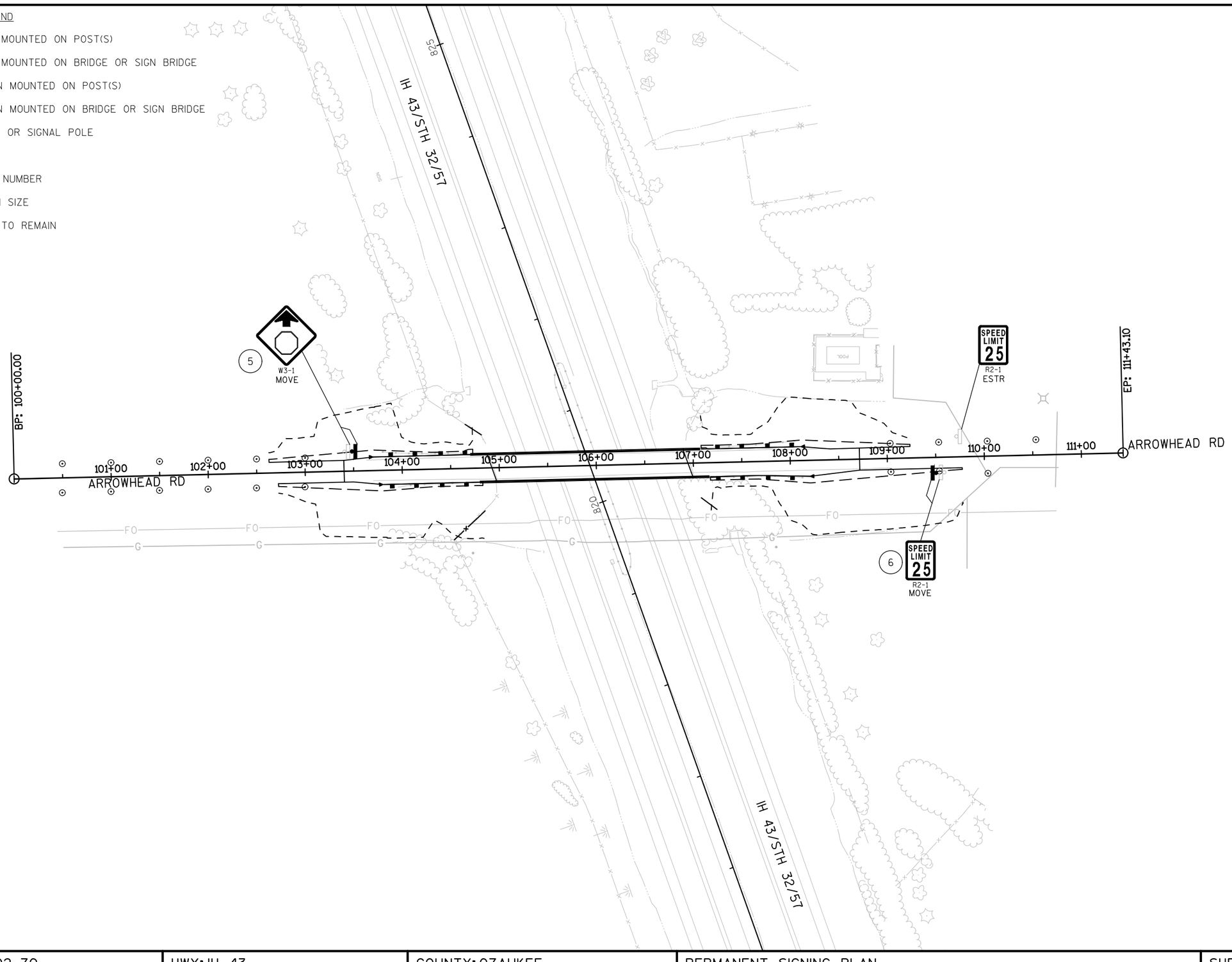
FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 4/3/2019 3:51 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 5 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 61	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023263_PS

PLOT DATE : 4/3/2019 3:51 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

STH 32

207+00

208+00

209+00

PI: 208+99.99

210+00

211+00

212+00

213+00

214+00

215+00

216+00

217+00

218+00

219+00

220+00

221+00

222+00

EXIT 92

60 Q

Grafton

1 MILE

TYPE I SIGN
ESTR

SIS

ESTR

IH 43/STH 57

PT: 845+83.96

845

850

860

IH 43/STH 57

MOVE OVER OR SLOW
DOWN FOR STOPPED
VEHICLES WITH
FLASHING LIGHTS

R5-60
ESTR

PI: 46+44.18

45

50+61.76

STH 32

57+77.18

EP: 59+88.17

OZAUKEE 1 OF 1 ADOPT
SPONSOR
KOHLER
SAUKVILLE
STEWARDSHIP

155-56
ESTR

SHEET 6 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 62	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 4/3/2019 3:51 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

CTH V

STH 32

IH 43/STH 57

206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00

PI: 208+99.99

PI: 57+77.18

860 850

W12-1D ESTR

R3-2 ESTR

DO NOT ENTER R5-1 ESTR

R4-7 ESTR

DO NOT ENTER R5-1 ESTR

WRONG WAY R5-1A ESTR

STOP R1-1

DIVIDED HIGHWAY R6-3 ESTR

ONE WAY R6-2L ESTR

R3-1 ESTR

SOUTH INTERSTATE 43 32 57 JV3-1 ESTR

RAMP CLOSED USE ALT ROUTE R11-54-F(2S) 8

WRONG WAY R5-1A ESTR

Grafton Milwaukee ESTR

SOUTH INTERSTATE 43 32 57 JV3-1 ESTR

RAMP CLOSED USE ALT ROUTE R11-54-F(2S) 7

FREEWAY ENTRANCE D13-3 ESTR

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

R1-2 ESTR

R3-1 ESTR

R1-2 TRAFFIC FROM RIGHT DOES NOT STOP W4-4AR ESTR

ONE WAY R6-2L ESTR

SOUTH INTERSTATE 43 32 57 ESTR

DO NOT ENTER R5-1 ESTR

WRONG WAY R5-1A ESTR

R4-7 ESTR

W5-52R ESTR

W5-52L ESTR

NORTH INTERSTATE 43 NORTH 57 NORTH 32 J2-3 ESTR

SHEET 7 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 63 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

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

IH 43/STH 57

860

STH 32

PI: 223+00.00

EP: 227+47.46

EP: 89+88.12

PT: 57+77.19

213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00

W5-52L ESTR

W5-52R ESTR

SOUTH INTERSTATE 43 / SOUTH 32 / 57 / JCT COUNTY V

JV2-2 ESTR

J1-1 ESTR

ONE WAY R6-2-L ESTR

R1-2 ESTR

RAMP CLOSED USE ALT ROUTE 10 R11-54-F(2S)

R3-1 ESTR

WRONG WAY R5-1A ESTR

R3-2 ESTR

R4-7 ESTR

Port Washington / Sheboygan ESTR

WRONG WAY R5-1A ESTR

RAMP CLOSED USE ALT ROUTE 9 R11-54-F(2S)

NORTH INTERSTATE 43 / 57 ESTR

DO NOT ENTER R5-1 ESTR

R3-1 ESTR

STOP R1-1 DIVIDED HIGHWAY R6-3 ESTR

ONE WAY R6-2-L ESTR

STOP R1-1 DIVIDED HIGHWAY R6-3 ESTR

DO NOT ENTER R5-1 ESTR

WRONG WAY R5-1A ESTR

RIGHT TURN NO STOP R1-51 ESTR

YIELD R1-2 TRAFFIC FROM RIGHT DOES NOT STOP W4-4AR ESTR

DO NOT ENTER R5-1 ESTR

R4-7 ESTR

RIGHT LANE ENDS W9-1R ESTR

SHEET 8 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 64	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023264A_PS

PLOT DATE : 4/3/2019 3:52 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

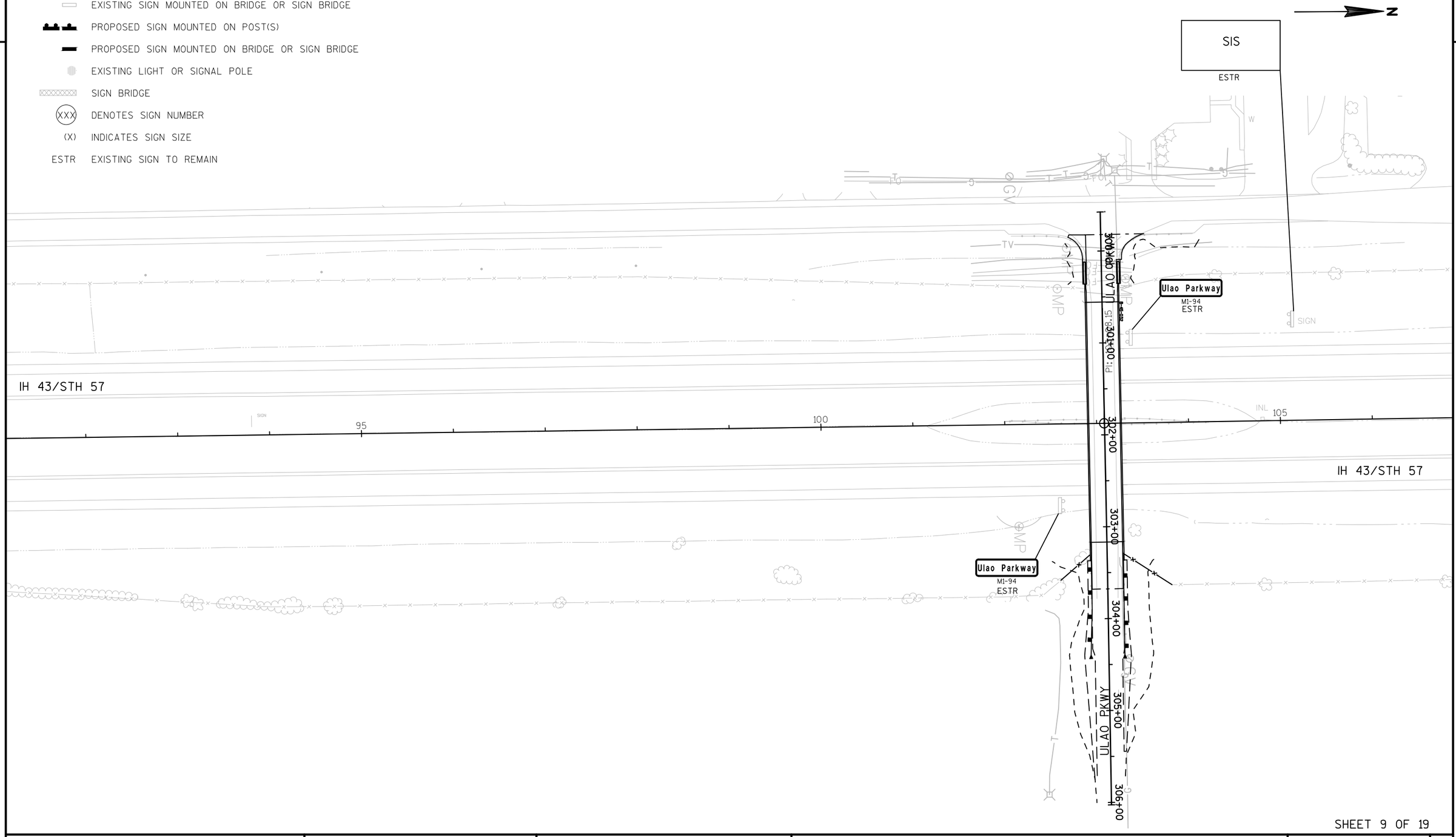
WISDOT/CADDS SHEET 42

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 9 OF 19

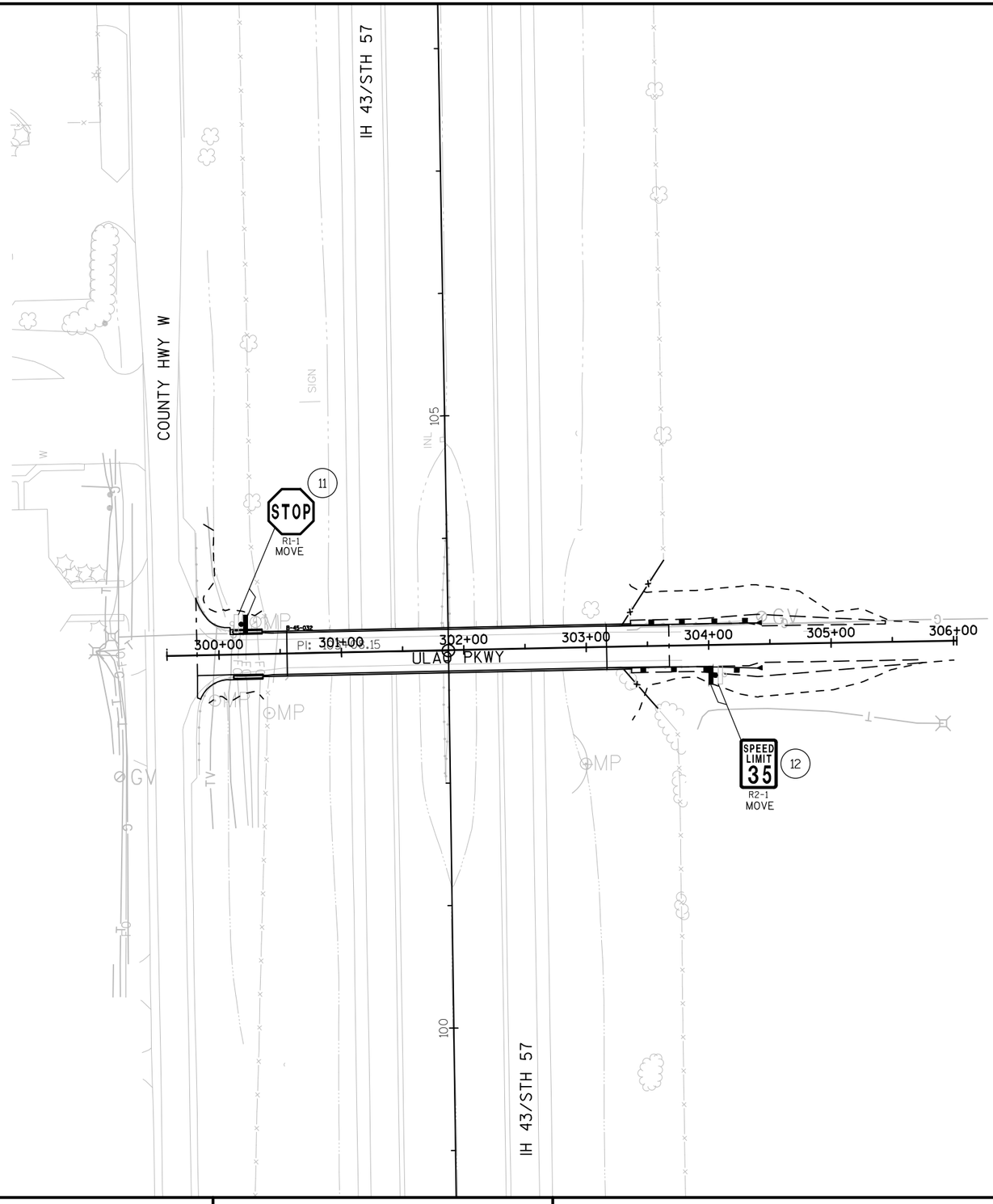
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 65	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023209_PS

PLOT DATE : 4/3/2019 3:52 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



N

SHEET 10 OF 19

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 66 E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023265_PS

PLOT DATE : 4/3/2019 3:52 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

Grafton 4
Milwaukee 24
TYPE I SIGN
ESTR

E Sauk Rd
MI-94
ESTR

BP: 400+00.00

PC: 156+58.19

401+00

402+00

403+00

404+00

405+00

SAUK RD

EP: 405+41.41

IH 43/STH 57

155

160

165

INL

SIGN

Historic Downtown
Port Washington
EXIT 96
TYPE I SIGN
ESTR

E Sauk Rd
MI-94
ESTR

SPONSOR
SAUKVILLE
WAL-MART
ASSOCIATES
I55-56
ESTR

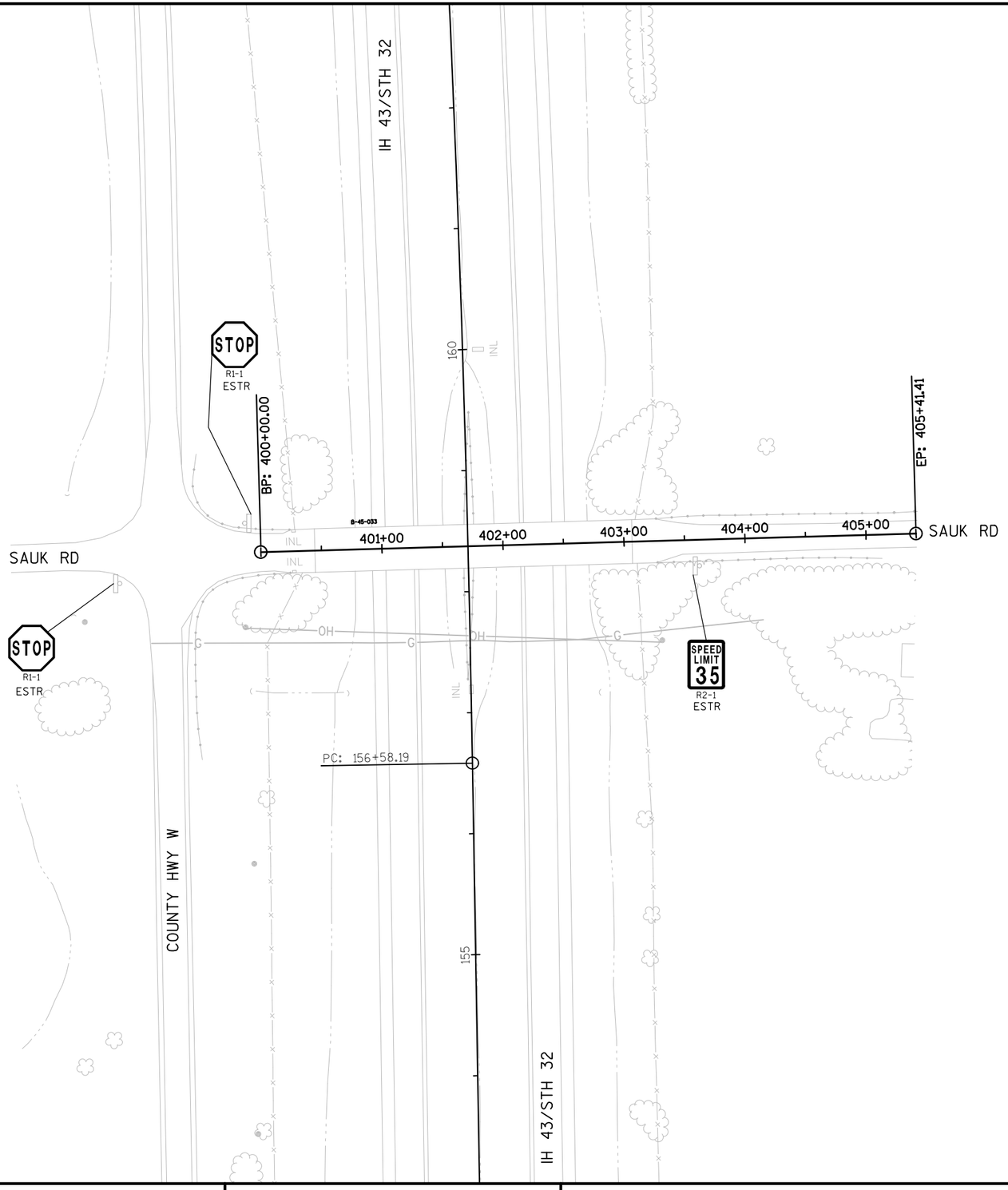
SHEET 11 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 67	E

2

LEGEND

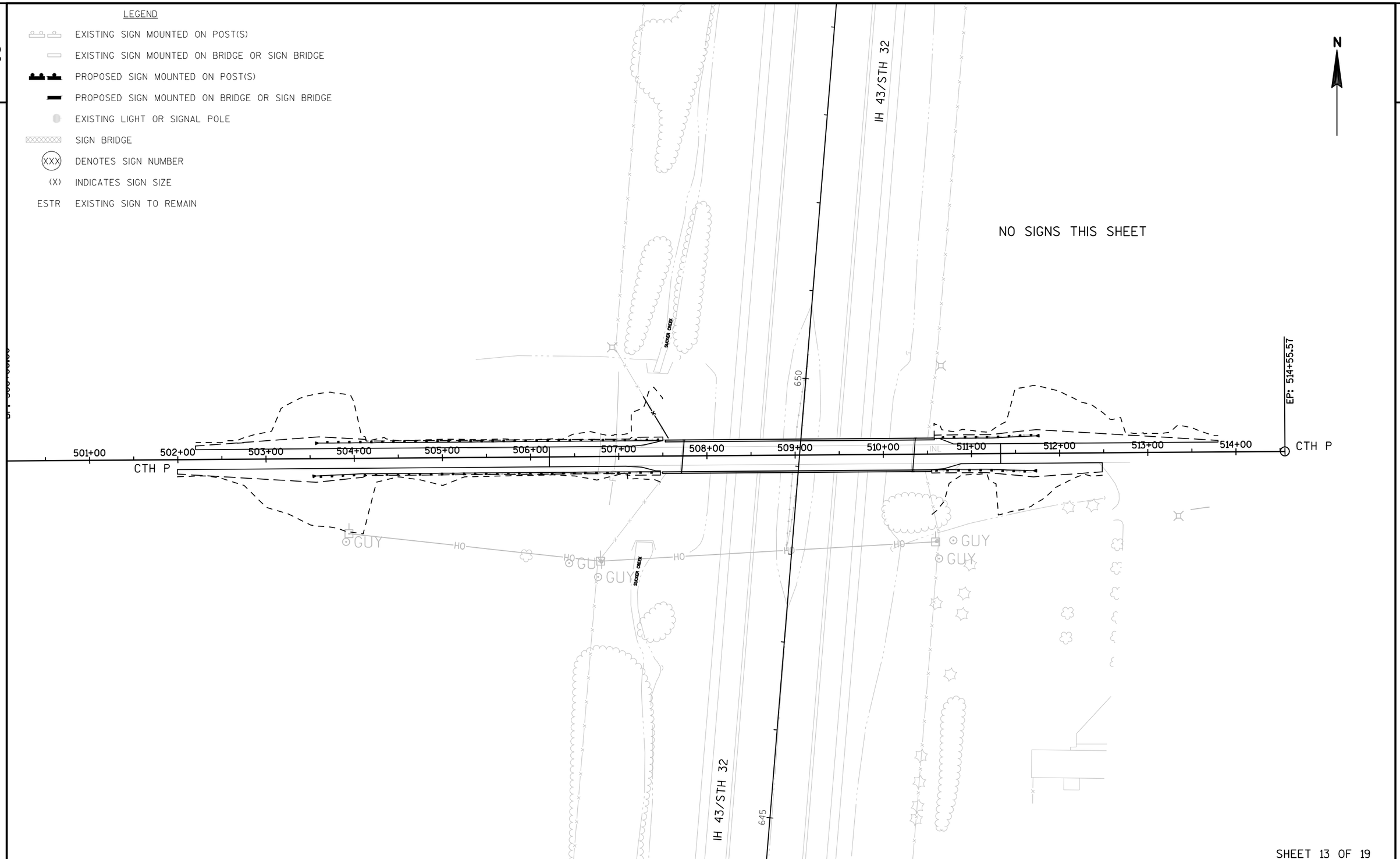
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NO SIGNS THIS SHEET



SHEET 13 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 69 E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023267_PS

PLOT DATE : 4/3/2019 3:53 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

NO SIGNS THIS SHEET

IH 43/STH 32

705

INL

PI: 607+08.85

PI: 610+40.30

EP: 615+72.70

+00 602+00 603+00 604+00 605+00 606+00 607+00 608+00 609+00 610+00 611+00 612+00 613+00 614+00 615+00 SANDY BEACH RD

SANDY BEACH RD

PC: 700+54.51

700

IH 43/STH 32

2

SHEET 14 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 70	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023268_PS

PLOT DATE : 4/3/2019 3:53 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

CEDAR BEACH RD

704+00

705+00

706+00

707+00

708+00

709+00

710+00

711+00

712+00

PI: 705+15.31

PT: 753+91.94

PI: 711+01.72

EP: 712+75.93

Cedar Beach Rd
M1-94
ESTR

Port Washington 8
Milwaukee 35
TYPE I SIGN
ESTR

SIGN

MILE
107
D10-3
ESTR

IH 43/STH 32

755

760

765

INL

SIS
ESTR

Cedar Beach Rd
M1-94
ESTR

Luxembourg
American
Museum
EXIT 107
TYPE I SIGN
ESTR

MILE
107
D10-3
ESTR

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 15 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 71	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023253_PS

PLOT DATE : 4/3/2019 3:53 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

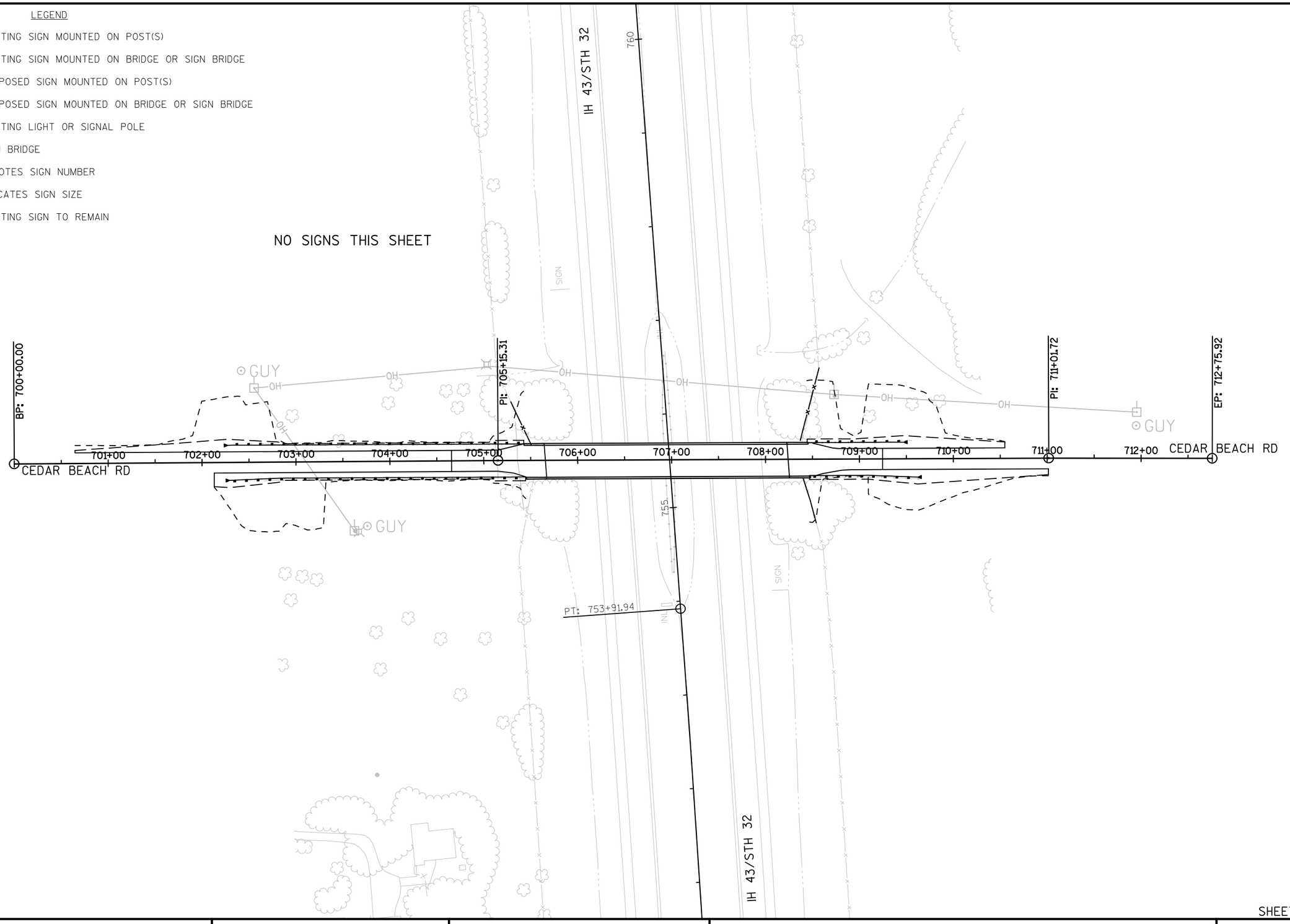
WISDOT/CADDS SHEET 42

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NO SIGNS THIS SHEET



SHEET 16 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 72	E

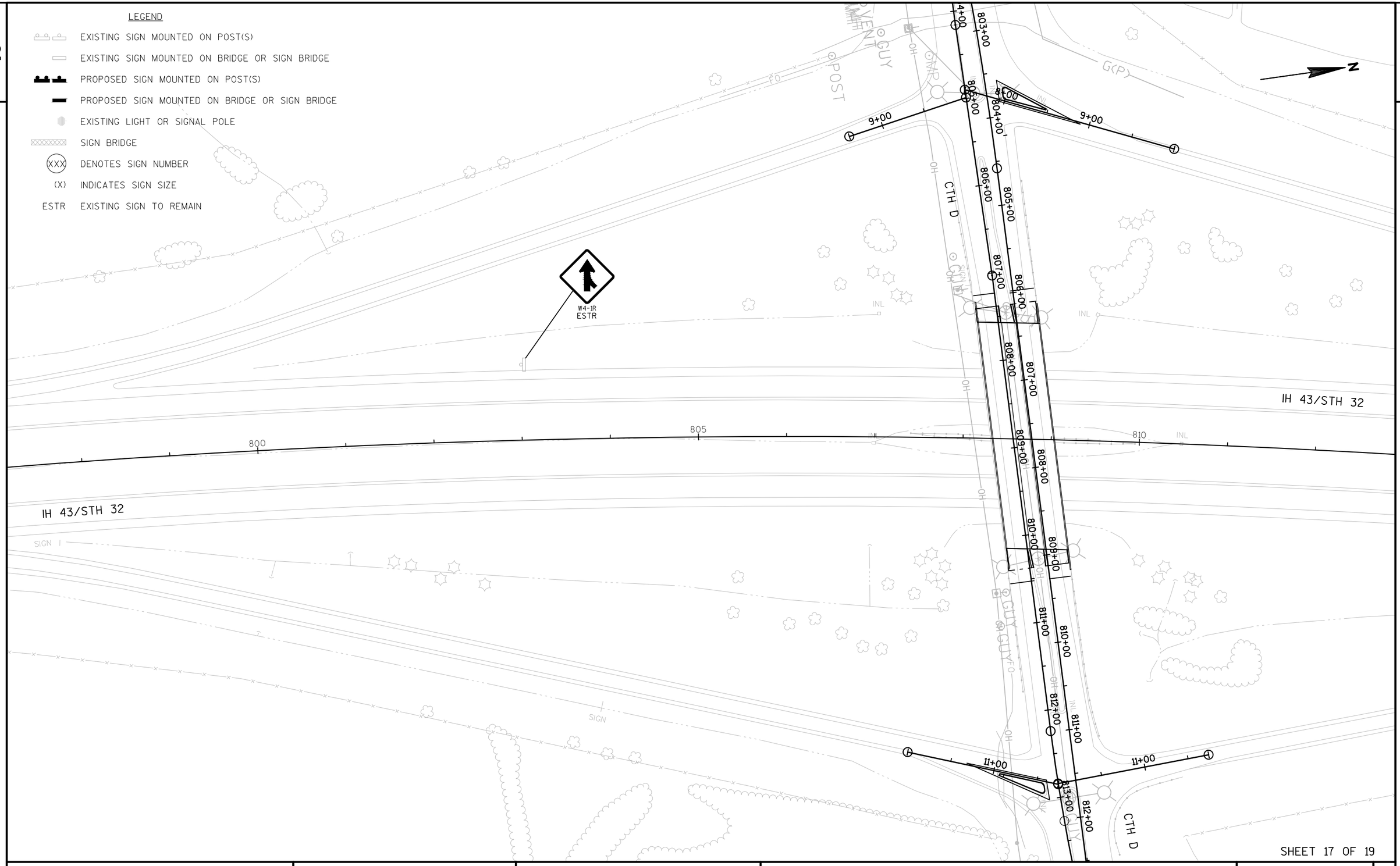
FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023269_PS

PLOT DATE : 4/3/2019 3:53 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 17 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 73	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023256_PS

PLOT DATE : 4/3/2019 3:54 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

2

N

IH 43/STH 32

CTH D

801+00 802+00 803+00 804+00 805+00 806+00 807+00 808+00 809+00 810+00 811+00 812+00 813+00 814+00 815+00 816+00

9+00

11+00

805

13 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

14 ONE WAY R6-2-L MOVE

15 STOP R1-1

16 DIVIDED HIGHWAY R6-3 MOVE

17 DO NOT ENTER R5-1

18 WRONG WAY R5-1A MOVE

19 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

20 W5-52R(2S) 4' MOUNT HEIGHT

21 W5-52R(2S) 4' MOUNT HEIGHT

22 ONE WAY R6-2-L MOVE

23 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

24 RAMP CLOSED USE ALT ROUTE R11-54-F(2S)

25 STOP R1-1

26 DIVIDED HIGHWAY R6-3 MOVE

27 DO NOT ENTER R5-1

28 WRONG WAY R5-1A MOVE

R1-2 YIELD ESTR

R5-1 DO NOT ENTER ESTR

R6-2-L ONE WAY MOVE

R6-3 DIVIDED HIGHWAY MOVE

R1-1 STOP ESTR

R6-3 DIVIDED HIGHWAY ESTR

R5-1A WRONG WAY MOVE

R6-2-L ONE WAY ESTR

R6-2-R ONE WAY ESTR

R3-1 ESTR

R4-7 ESTR

JV3-1 SOUTH 43 32 ESTR

W5-52R(2S) 4' MOUNT HEIGHT ESTR

Belgium / Milwaukee SPEED LIMIT 25 R2-1 ESTR

R6-2-L ONE WAY ESTR

R4-7 ESTR

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

I55-56 ADOPT A HIGHWAY SPONSOR VILLAGE OF BELGIUM ESTR

RAMP CLOSED USE ALT ROUTE R11-54-F(2S) 23

JV3-1 NORTH 43 32 ESTR

R3-2 ESTR

R3-1 ESTR

R4-7 ESTR

R5-1 DO NOT ENTER ESTR

R5-1A WRONG WAY ESTR

R1-1 STOP ESTR

R6-3 DIVIDED HIGHWAY ESTR

Lake Church / Sheboygan ESTR

R6-2-L ONE WAY ESTR

I55-56 ADOPT A HIGHWAY SPONSOR VILLAGE OF BELGIUM ESTR

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

SHEET 18 OF 19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 74 E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023271_PS

PLOT DATE : 4/3/2019 3:54 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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

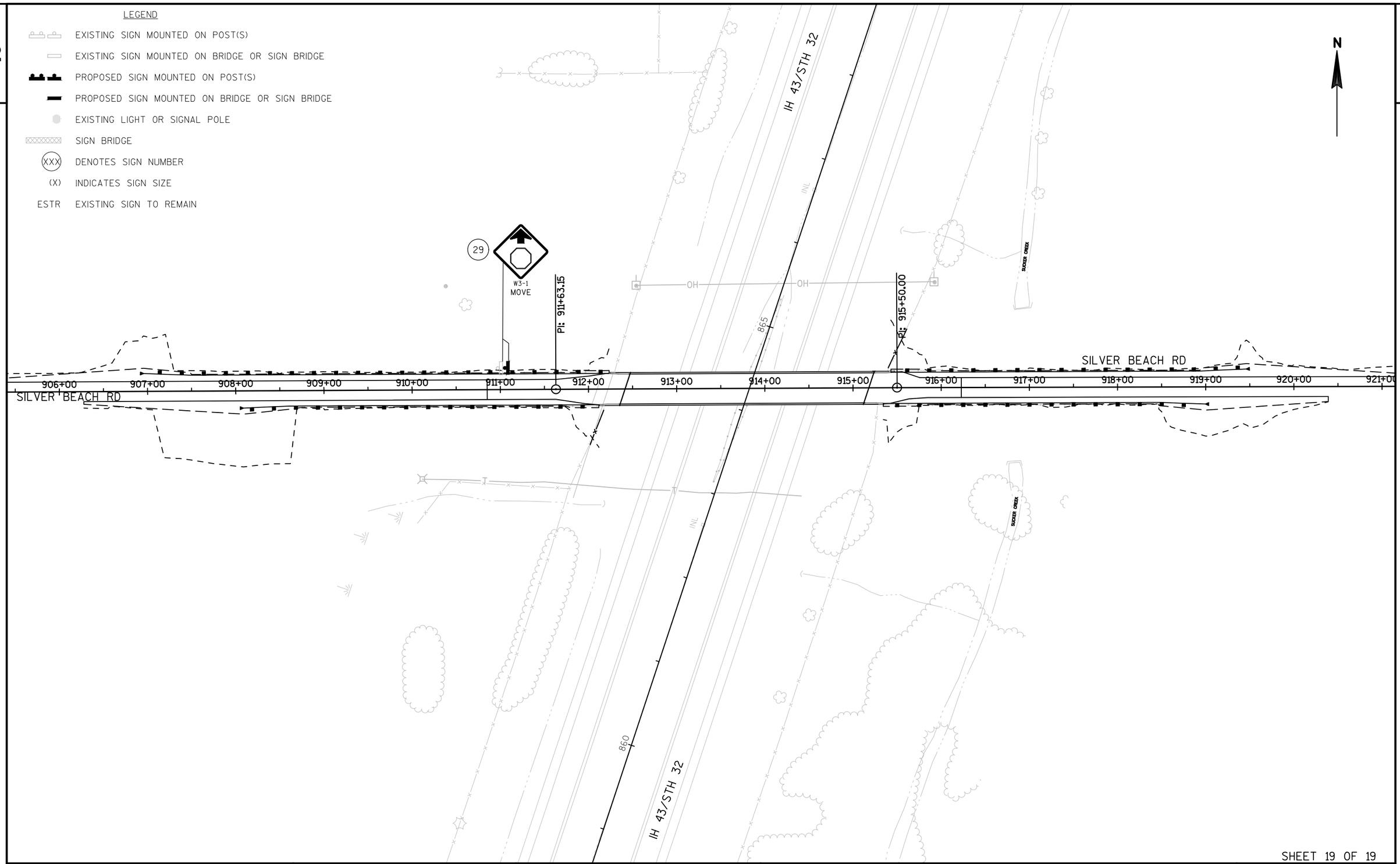
EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN



2

SHEET 19 OF 19

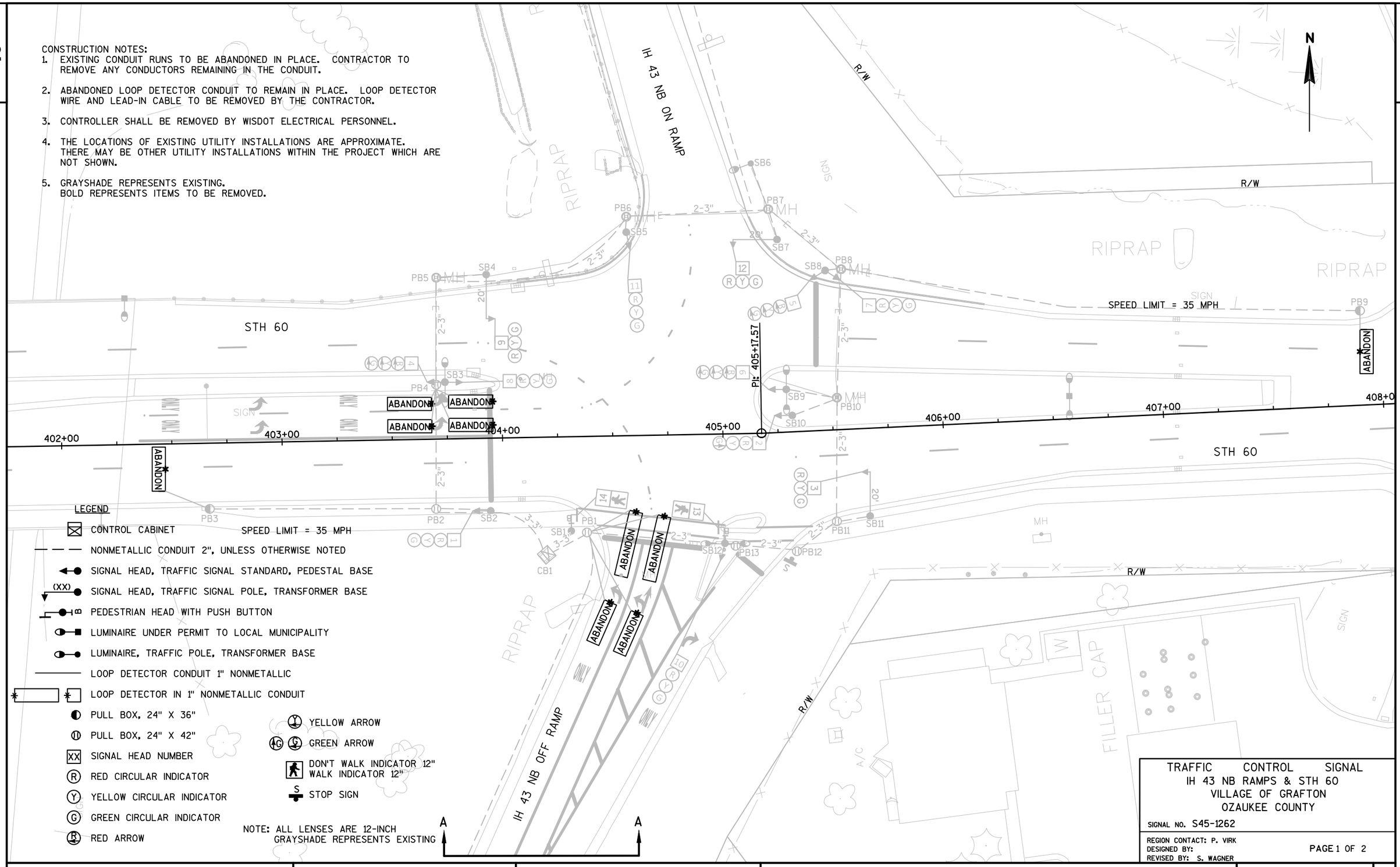
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PERMANENT SIGNING PLAN	SHEET 75	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIGN\023201_PS.DWG
LAYOUT NAME - 023274_PS

PLOT DATE : 4/3/2019 3:54 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:
1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- AG GREEN ARROW
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- S STOP SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1262

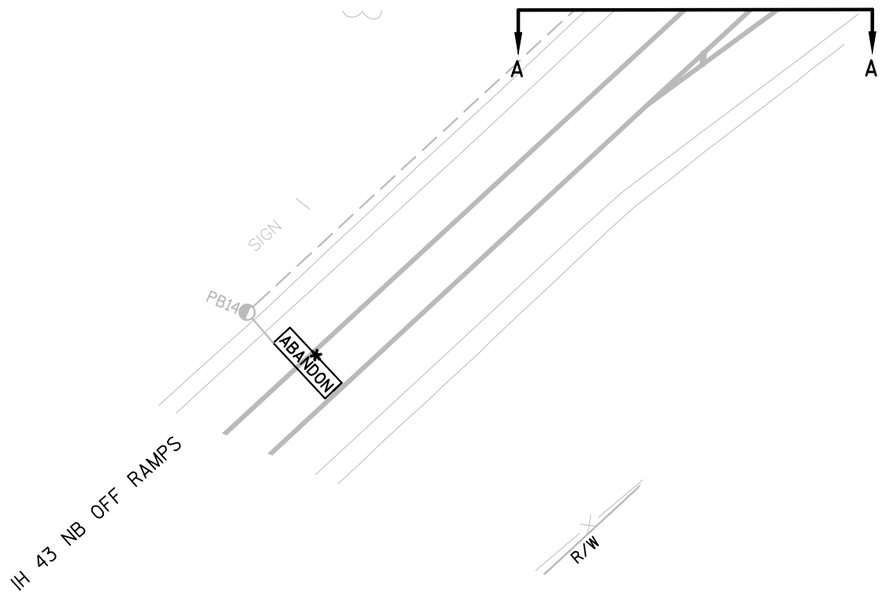
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 2

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 76	E

2

N



TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1262

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 2 OF 2

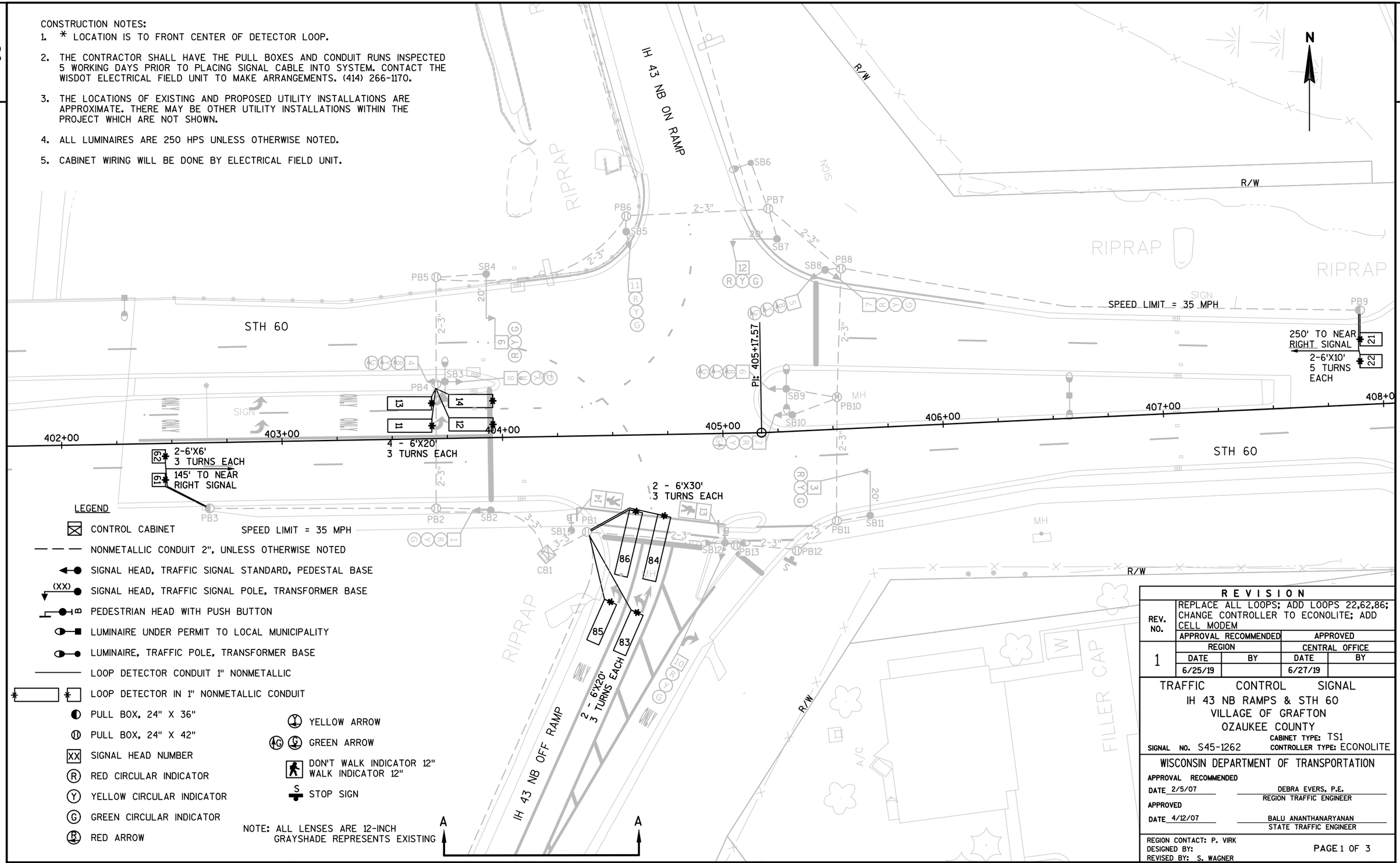
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 77	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1262\S45-1262_REM.DWG
LAYOUT NAME - S67-1262_REM_PG2

PLOT DATE : 6/12/2019 8:21 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN: 40 FT

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE 250 HPS UNLESS OTHERWISE NOTED.
5. CABINET WIRING WILL BE DONE BY ELECTRICAL FIELD UNIT.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- AG GREEN ARROW
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- S STOP SIGN

SPEED LIMIT = 35 MPH

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

REVISION				
REV. NO.	REPLACE ALL LOOPS; ADD LOOPS 22,62,86; CHANGE CONTROLLER TO ECONOLITE; ADD CELL MODEM			
	APPROVAL RECOMMENDED		APPROVED	
1	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	6/25/19		6/27/19	

TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY
CABINET TYPE: TS1
SIGNAL NO. S45-1262 CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/5/07 DEBRA EVERS, P.E. REGION TRAFFIC ENGINEER

APPROVED
DATE 4/12/07 BALU ANANTHANARYANAN STATE TRAFFIC ENGINEER

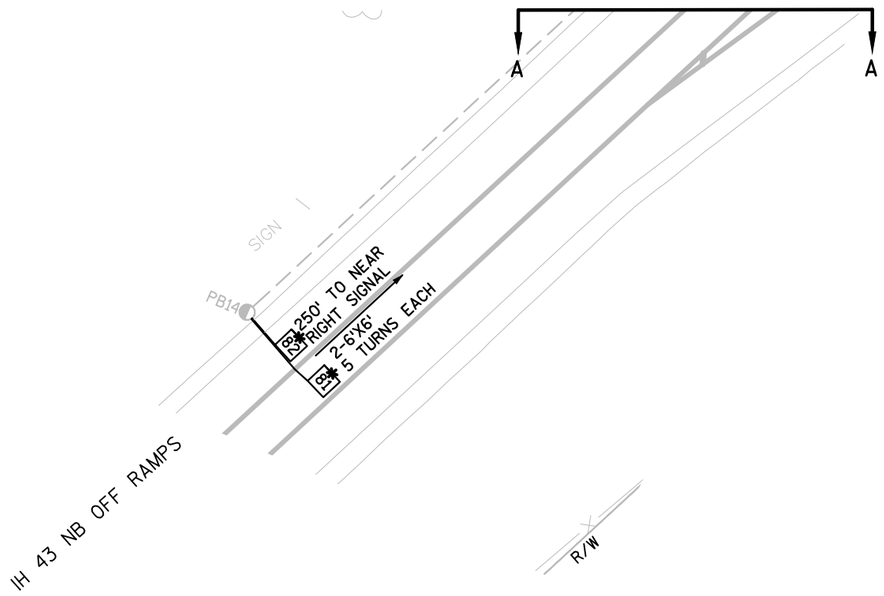
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 3

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL PLAN	SHEET 78	E

2

N



TRAFFIC CONTROL SIGNAL
IH 43 NB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1262

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

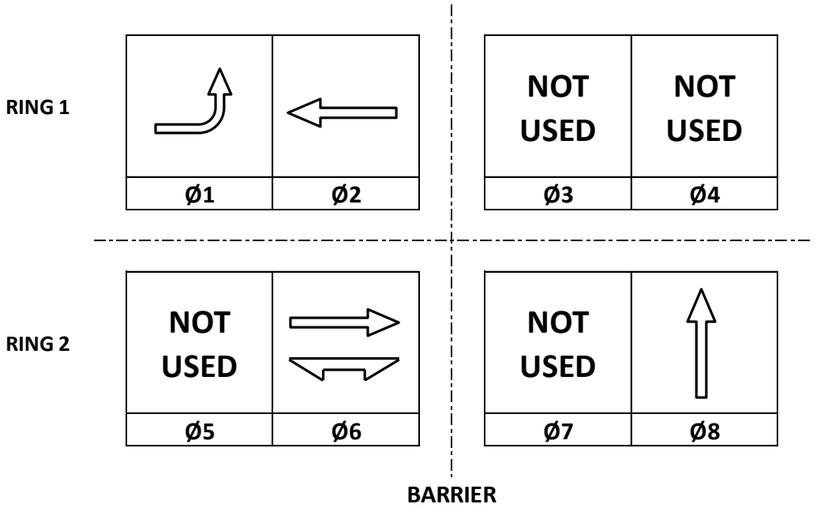
PAGE 2 OF 3

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL PLAN	SHEET 79	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1262\S45-1262_R1.DWG
LAYOUT NAME - S67-1262_R1_PG2

PLOT DATE : 6/28/2019 8:59 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN: 40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R ←
Ø2	7,8,9	R
Ø3		
Ø4		
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	10,11,12	R
Ø2P		
Ø4P		
Ø6P	13,14	
Ø8P		
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	X			1	1				6X20	3
12	1	X			1	1				6X20	3
13	2	X			1	1				6X20	3
14	2	X			1	1				6X20	3
21	3	X			2	2				6X6	4
61	4	X			6	6				6X6	4
81	5			X		8			X	6X20	4
82	6	X			8	8				6X20	3
83	6	X			8	8				6X30	3
84	7	X			8	8				6X20	3
85	7	X			8	8				6X30	3
22	8	X			2	2				6X6	4
62	9	X			6	6				6X6	4

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 45-0092

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

IH 43 NB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO:	S45-1262	CABINET TYPE:	TS1
		CONTROLLER TYPE:	ECONOLITE
DATE:	08-2019	PAGE NUMBER:	3 OF 3

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y LY YELLOW ARROW
- AG G LG GREEN ARROW
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"
- Y YIELD SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

N

IH 43 SB OFF RAMP

IH 43 SB ON RAMP

STH 60

R/W

SPEED LIMIT 35 MPH

PI: 395+49.07

396+00 397+00 398+00 399+00 400+00 401+00

ABANDON

PB1 PB3 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13

CB1

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1263

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 2

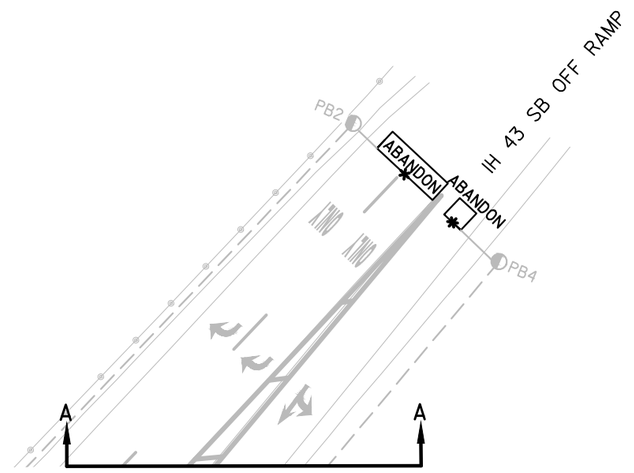
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 81	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1263\S45-1263_REM.DWG
LAYOUT NAME - S67-1263_REM_PG1

PLOT DATE : 6/12/2019 8:25 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1263

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 2 OF 2

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 82	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1263\S45-1263_REM.DWG
LAYOUT NAME - S67-1263_REM_PG2

PLOT DATE : 6/12/2019 8:25 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN: 40 FT

2

2

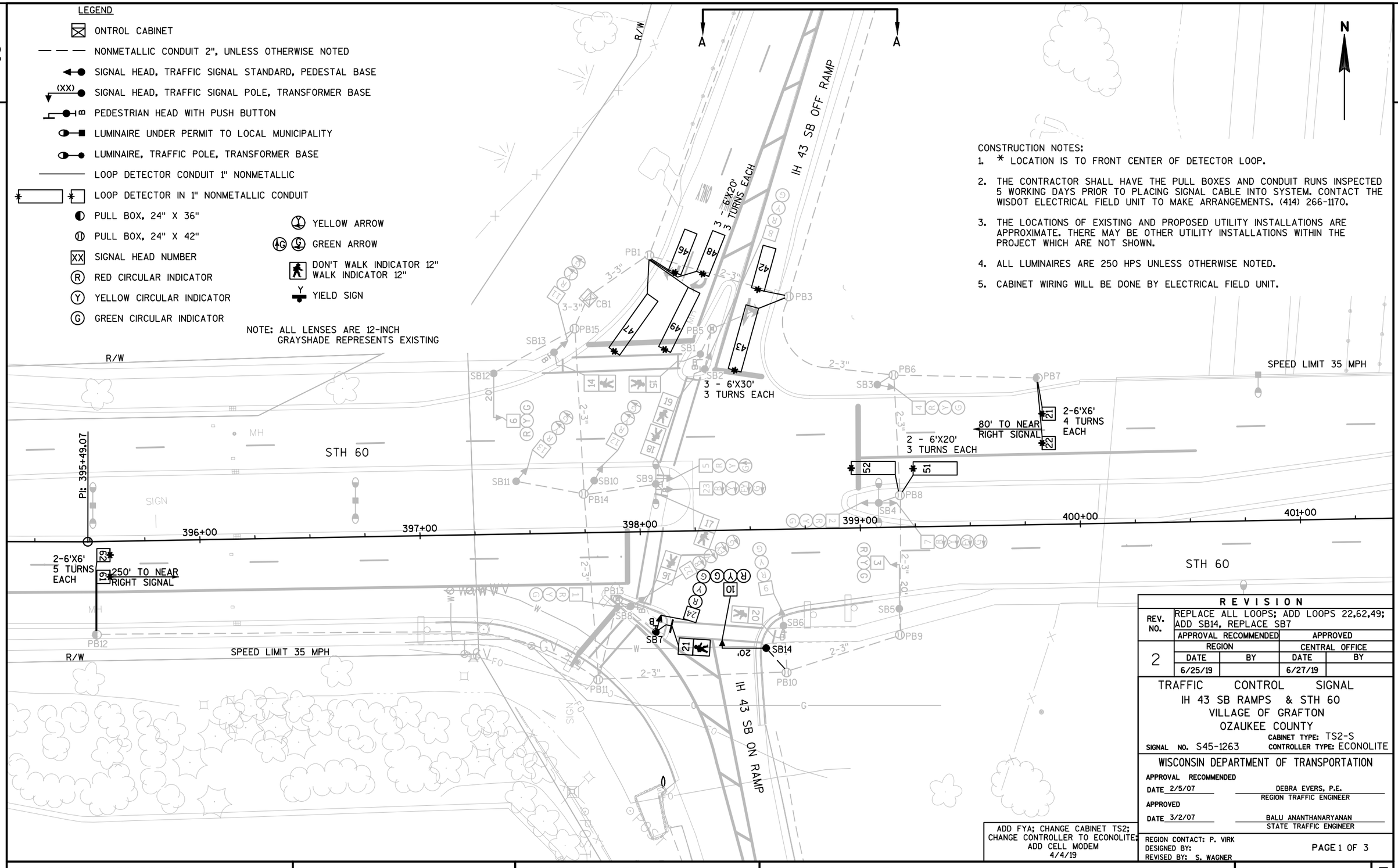
LEGEND

- ONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- 4G GREEN ARROW
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- YIELD SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE 250 HPS UNLESS OTHERWISE NOTED.
5. CABINET WIRING WILL BE DONE BY ELECTRICAL FIELD UNIT.



REVISION				
REV. NO.	REPLACE ALL LOOPS; ADD LOOPS 22,62,49; ADD SB14, REPLACE SB7			
	APPROVAL RECOMMENDED		APPROVED	
2	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	6/25/19		6/27/19	

TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

CABINET TYPE: TS2-S
SIGNAL NO. S45-1263 CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/5/07 DEBRA EVERS, P.E.
REGION TRAFFIC ENGINEER

APPROVED
DATE 3/2/07 BALU ANANTHANARYANAN
STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 3

ADD FYA; CHANGE CABINET TS2; CHANGE CONTROLLER TO ECONOLITE; ADD CELL MODEM
4/4/19

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL PLAN	SHEET 83	E

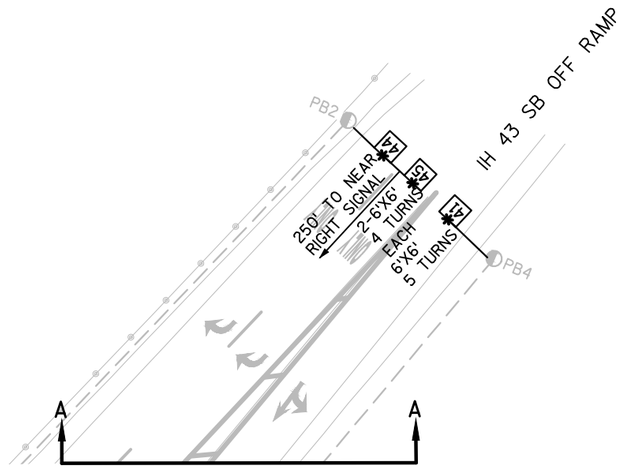
FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1263\S45-1263_R2.DWG
LAYOUT NAME - S67-1263_R2_PG1

PLOT DATE : 6/28/2019 9:02 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH 43 SB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO. S45-1263

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

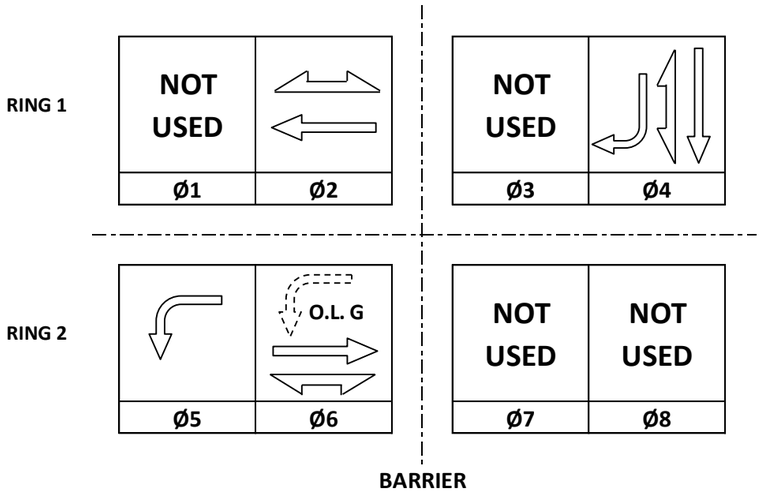
PAGE 2 OF 3

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC SIGNAL PLAN	SHEET 84	E

FILE NAME : N:\PDS\C3D\CAD\14500200\SIG\S45-1263\S45-1263_R2.DWG
LAYOUT NAME - S67-1263_R2_PG2

PLOT DATE : 6/28/2019 9:02 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN: 40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	8,9,10,11,12,13,24	R
Ø5	7,22,23	R ←
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P	14,15	
Ø4P	16,17,18,19	
Ø6P	20,21	
Ø8P		
OLE		
OLF		
OLG	7,22,23	-
OLH		



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 45-0092

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	41	43	45	47	49	52	62
CALLED PHASE	2	4	4	4	4	4	5	6
CALL OPTION	X		X		X	X	X	X
DELAY TIME					X	X		
EXTENTION OPTION	X	X	X	X	X	X	X	X
EXTEND TIME		X		X				
USE ADDED INITIAL	X							X
CROSS SWITCH PHASE							6	

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	22	42	44	46	48	51	61	
CALLED PHASE	2	4	4	4	4	5	6	
CALL OPTION	X	X		X	X	X	X	
DELAY TIME				X	X			
EXTENTION OPTION	X	X	X	X	X	X	X	
EXTEND TIME			X					
USE ADDED INITIAL	X						X	
CROSS SWITCH PHASE						6		

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

IH 43 SB RAMPS & STH 60
VILLAGE OF GRAFTON
OZAUKEE COUNTY

SIGNAL NO:	S45-1263	CABINET TYPE: TS2-S
		CONTROLLER TYPE: ECONOLITE
DATE:	08-19	PAGE NUMBER: 3 OF 3

FILE NAME: N:\SPO\Operations\Signals\Databases\Signal Intersection Files\S45-1263\PLANS\TS2-S_E_FYA_EFGH_Econolite_SEQ.xlsx PLOT DATE: 3/19/2019 PLOT NAME: TS2-S_E_FYA_EFGH_Ecor PLOT BY: _____ PLOT SCALE: 1:1

2

PROJECT ID:	1450-02-70
INTERSECTION:	IH 43 SB RAMPS & CTH 60

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	FUTURE APS
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB7	12	24	RED	ORG	GRN								
		21								BLK	BLU		
		B										WHT/BLK	
SB14	7	10	RED	ORG	GRN								

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
SB8	SB7
SB7	SB14
SB14	SB6

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

N

391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00

STH 60

STH 60 RAMP GATE SB ON RA

RIPRAP

ONLY

MH

SIGN

W PORT RD

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 60	SHEET 87	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_PM - 024501

PLOT DATE : 7/2/2019 1:29 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

N

GATE SB ON RAMP

STH 60 RAMP GATE NB ON RAMP

98+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00

IH 43/STH 32/57

IH 43/STH 32/57

RIPRAP

RIPRAP

RIPRAP

SIGN

SIGN

MH

MH

MH

A/C

ONLY

ONLY

ONLY

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 60	SHEET 88	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_PM - 024502

PLOT DATE : 7/2/2019 1:29 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

N

404+00 405+00 406+00 407+00 408+00 409+00 410+00 411+00

RIPRAP RIPRAP RIPRAP RIPRAP SIGN SIGN SIGN SIGN

CTH Q CTH Q

STH 60 RAMP GATE NB ON RAMP

MH MH MH MH MH MH MH

FILLER CAP CANOPY A/C W W W W W W W W

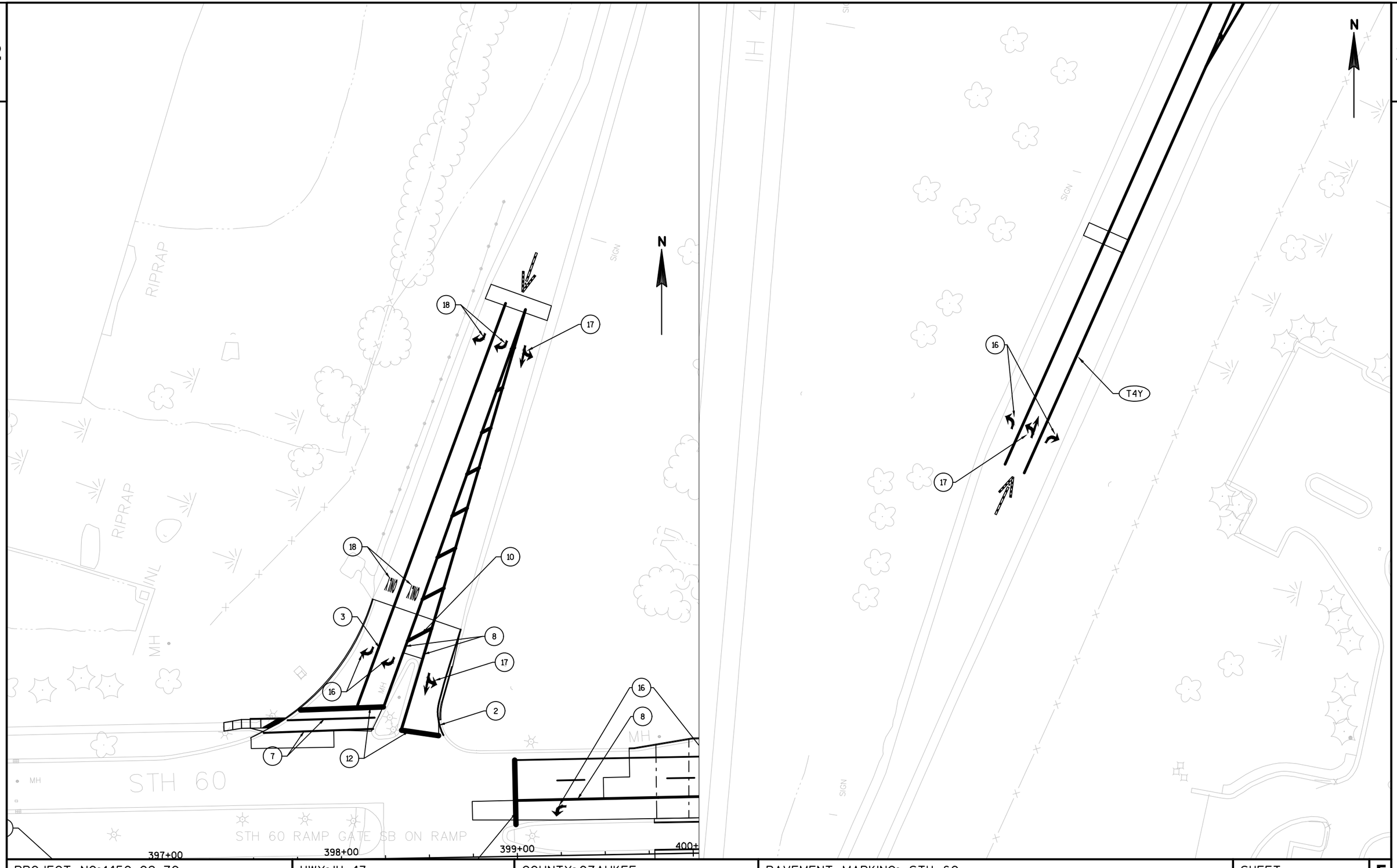
SCALE

ONLY ONLY ONLY

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 60	SHEET 89	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 025001_TC_A - 025005_S1_103

PLOT DATE : 7/2/2019 1:30 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT



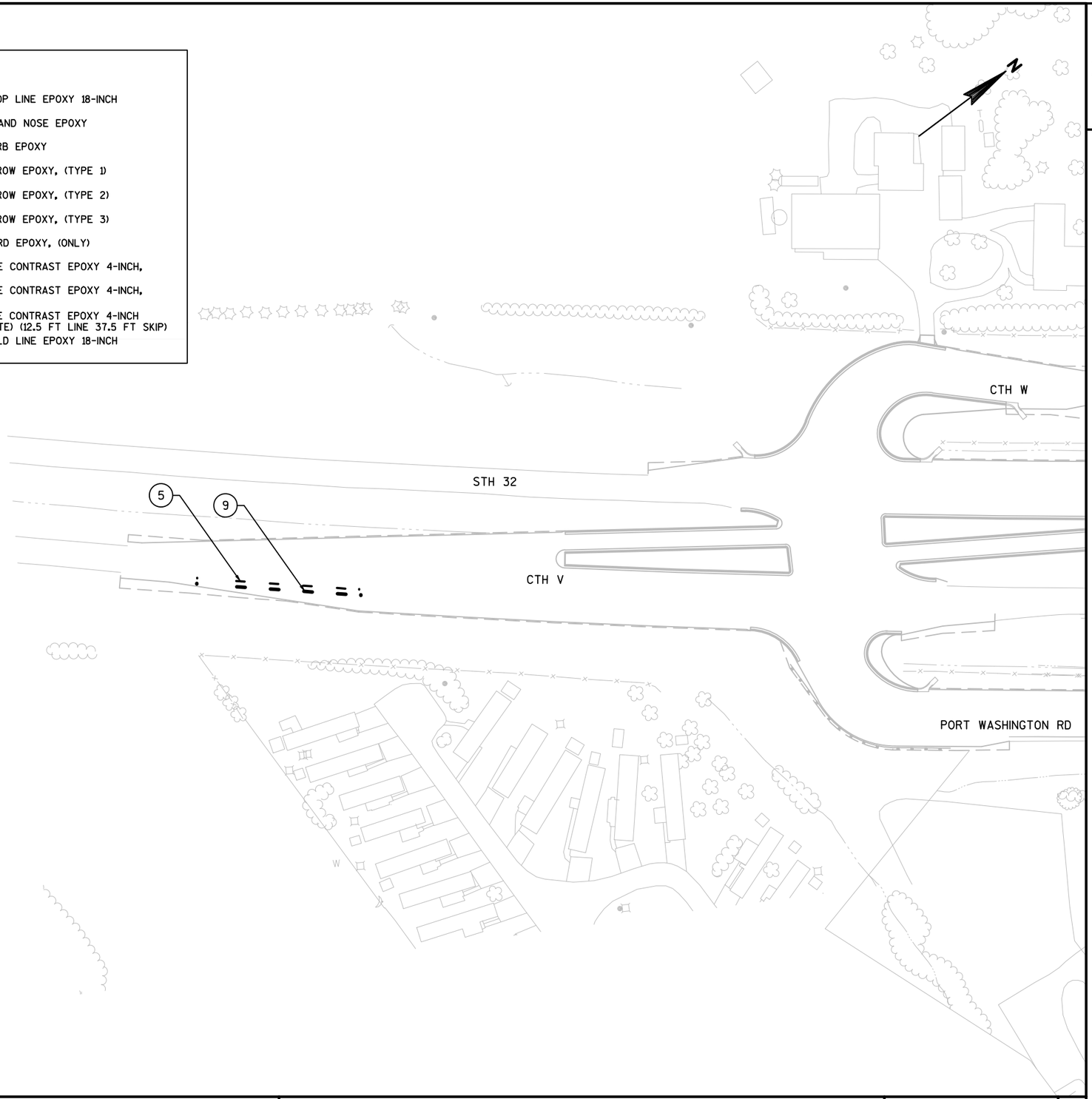
2

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 60	SHEET 90	E

2

LEGEND

① MARKING LINE EPOXY 4-INCH, (WHITE)	⑫ MARKING STOP LINE EPOXY 18-INCH
② MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬ MARKING ISLAND NOSE EPOXY
③ MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭ MARKING CURB EPOXY
④ MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮ MARKING ARROW EPOXY, (TYPE 1)
⑤ MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯ MARKING ARROW EPOXY, (TYPE 2)
⑥ MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰ MARKING ARROW EPOXY, (TYPE 3)
⑦ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱ MARKING WORD EPOXY, (ONLY)
⑧ MARKING LINE EPOXY 8-INCH, (WHITE)	⑲ MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨ MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳ MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩ MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑ MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪ MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒ MARKING YEILD LINE EPOXY 18-INCH



PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 32/CTH V	SHEET 91	E

2

LEGEND

① MARKING LINE EPOXY 4-INCH, (WHITE)	⑫ MARKING STOP LINE EPOXY 18-INCH
② MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬ MARKING ISLAND NOSE EPOXY
③ MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭ MARKING CURB EPOXY
④ MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮ MARKING ARROW EPOXY, (TYPE 1)
⑤ MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯ MARKING ARROW EPOXY, (TYPE 2)
⑥ MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰ MARKING ARROW EPOXY, (TYPE 3)
⑦ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱ MARKING WORD EPOXY, (ONLY)
⑧ MARKING LINE EPOXY 8-INCH, (WHITE)	⑲ MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨ MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳ MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩ MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑ MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪ MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒ MARKING YEILD LINE EPOXY 18-INCH

CTH W

S.T.H. 32 STH 32

CTH V

STH 32

201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00

IH 43 SB EXIT RAMP

S.T.H. 32

CTH V

STH 32 RAMP GATE SB ON RAMP

IH 43 SB ENTRANCE RAMP

PORT WASHINGTON RD

IH 43/STH 57

IH 43/STH 57

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 32/CTH V	SHEET 92	E

2

IH 43 SB EXIT RAMP

IH 43/STH 57

IH 43 NB ENTRANCE RAMP

STH 32 RAMP GATE NB ON RAMP

STH 32

212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00

CTH V

19 20 21

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PAVEMENT MARKING: STH 32/CTH V	SHEET 93	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024503_PM.DWG
LAYOUT NAME - 025003_TC_A_03

PLOT DATE : 7/2/2019 1:15 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

N

801+00 802+00 803+00 804+00

INL SIGN LAKEVIEW DRIVE CANOPY FILLER CAPS

22 5 1 1 9 16 8 16

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING: CTH D	SHEET 94	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024511_PM.DWG
LAYOUT NAME - 024505

PLOT DATE : 7/2/2019 1:04 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

804+00
805+00
806+00
807+00
808+00
809+00
810+00
811+00
CTH D
HWY D
C.T.H. "D"

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING: CTH D	SHEET 95 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024511_PM.DWG
LAYOUT NAME - 024501
PLOT DATE : 7/2/2019 1:05 PM
PLOT BY : REBECCA SUTTON
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

LEGEND

①	MARKING LINE EPOXY 4-INCH, (WHITE)	⑫	MARKING STOP LINE EPOXY 18-INCH
②	MARKING LINE EPOXY 4-INCH, (YELLOW)	⑬	MARKING ISLAND NOSE EPOXY
③	MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑭	MARKING CURB EPOXY
④	MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)	⑮	MARKING ARROW EPOXY, (TYPE 1)
⑤	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑯	MARKING ARROW EPOXY, (TYPE 2)
⑥	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)	⑰	MARKING ARROW EPOXY, (TYPE 3)
⑦	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	ONLY ⑱	MARKING WORD EPOXY, (ONLY)
⑧	MARKING LINE EPOXY 8-INCH, (WHITE)	⑲	MARKING LINE CONTRAST EPOXY 4-INCH, (WHITE)
⑨	MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)	⑳	MARKING LINE CONTRAST EPOXY 4-INCH, (YELLOW)
⑩	MARKING DIAGONAL EPOXY 12-INCH, (WHITE)	㉑	MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
⑪	MARKING DIAGONAL EPOXY 12-INCH, (YELLOW)	㉒	MARKING YEILD LINE EPOXY 18-INCH

TRANSITION, SINGLE TO DOUBLE 4-INCH YELLOW EPOXY LINE STA 814 + 35

(DOUBLE)

12' +32 23' LT

(DOUBLE)

11' +43 14' LT

HWY D

CTH D

SIGN

POST

812+00 813+00 814+00 815+00 816+00 817+00 818+00 819+00

SS

WALLS

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING: CTH D	SHEET 96	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\024511_PM.DWG
LAYOUT NAME - 024502

PLOT DATE : 7/2/2019 1:05 PM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

MARKING LINE EPOXY 4-INCH
(YELLOW)

MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

MARKING LINE EPOXY 4-INCH
(WHITE)

MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

MARKING LINE EPOXY 4-INCH
(WHITE)

IH 43 SB

IH 43 NB

222+00

221+00

220+00

219+00

STH 33

INL

MH

SIGN

B-45-0035

B-45-0034

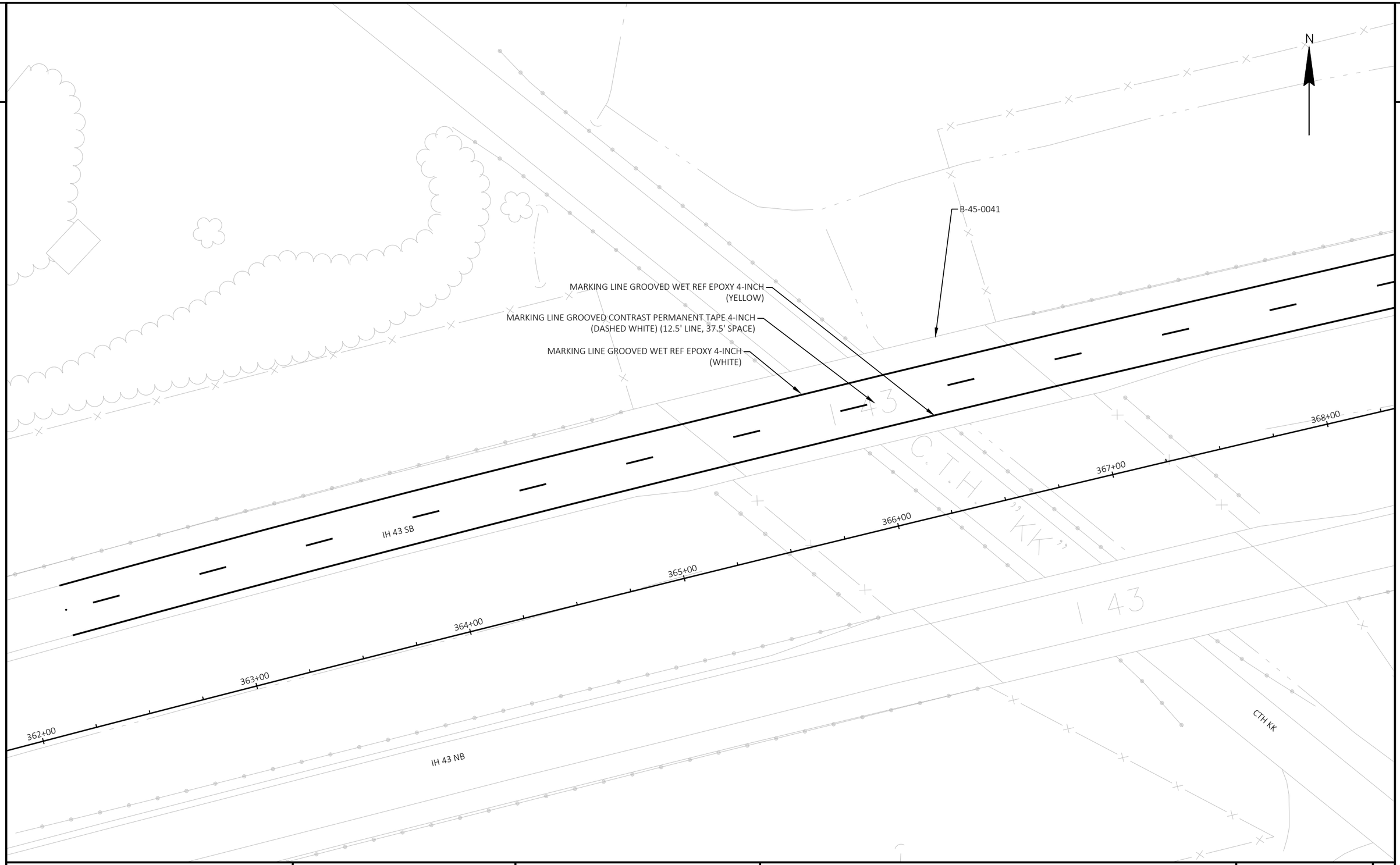
PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 97	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_pm

PLOT DATE : 7/18/2019 5:34 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 98	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024502_pm

PLOT DATE : 7/18/2019 5:36 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

MARKING LINE GROOVED WET REF EPOXY 4-INCH
(YELLOW)

MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

MARKING LINE GROOVED WET REF EPOXY 4-INCH
(WHITE)

IH 43 SB

IH 43 NB

368+00

369+00

370+00

371+00

372+00

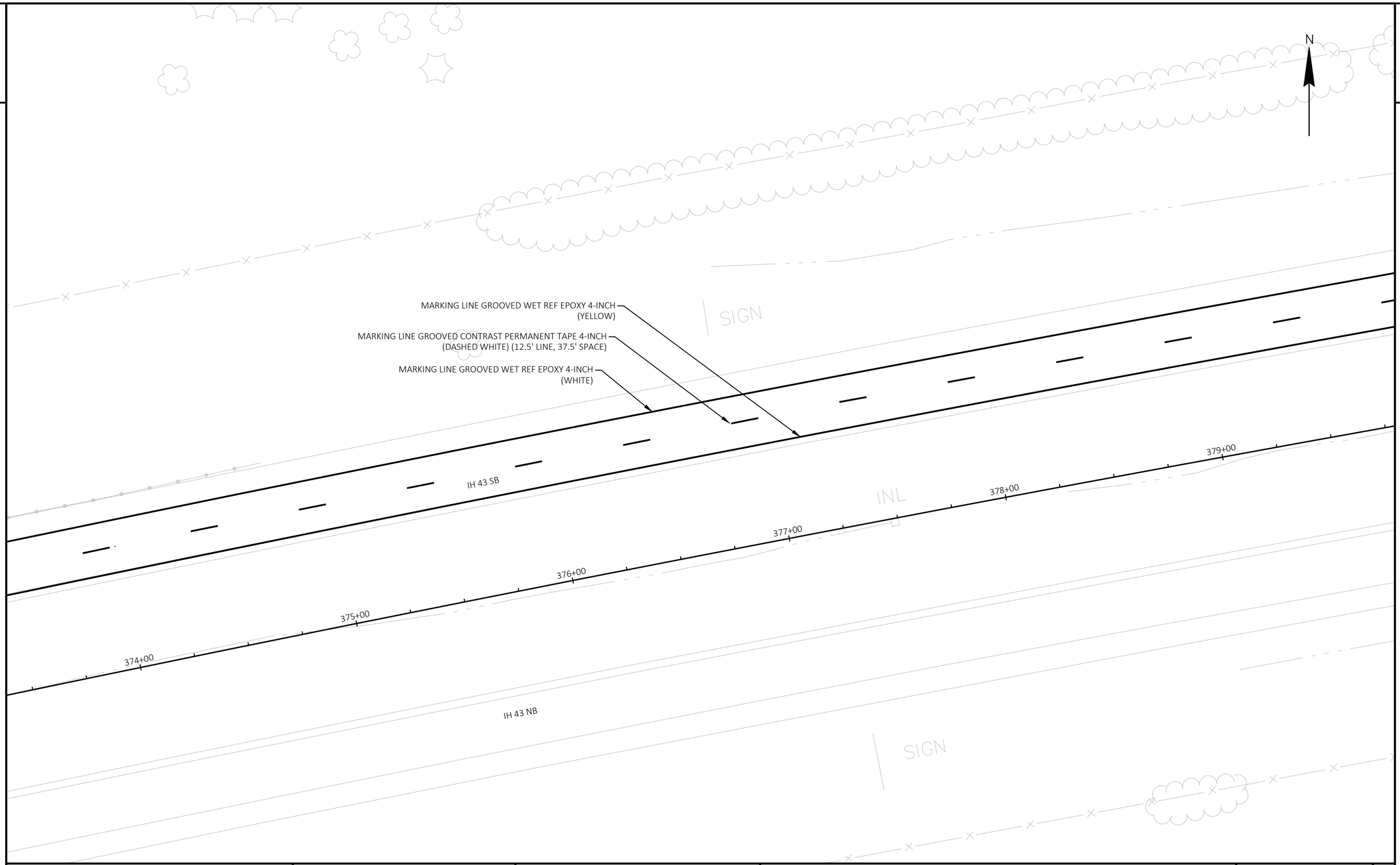
373+00

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 99	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024502_pm (2)

PLOT DATE : 7/18/2019 5:37 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

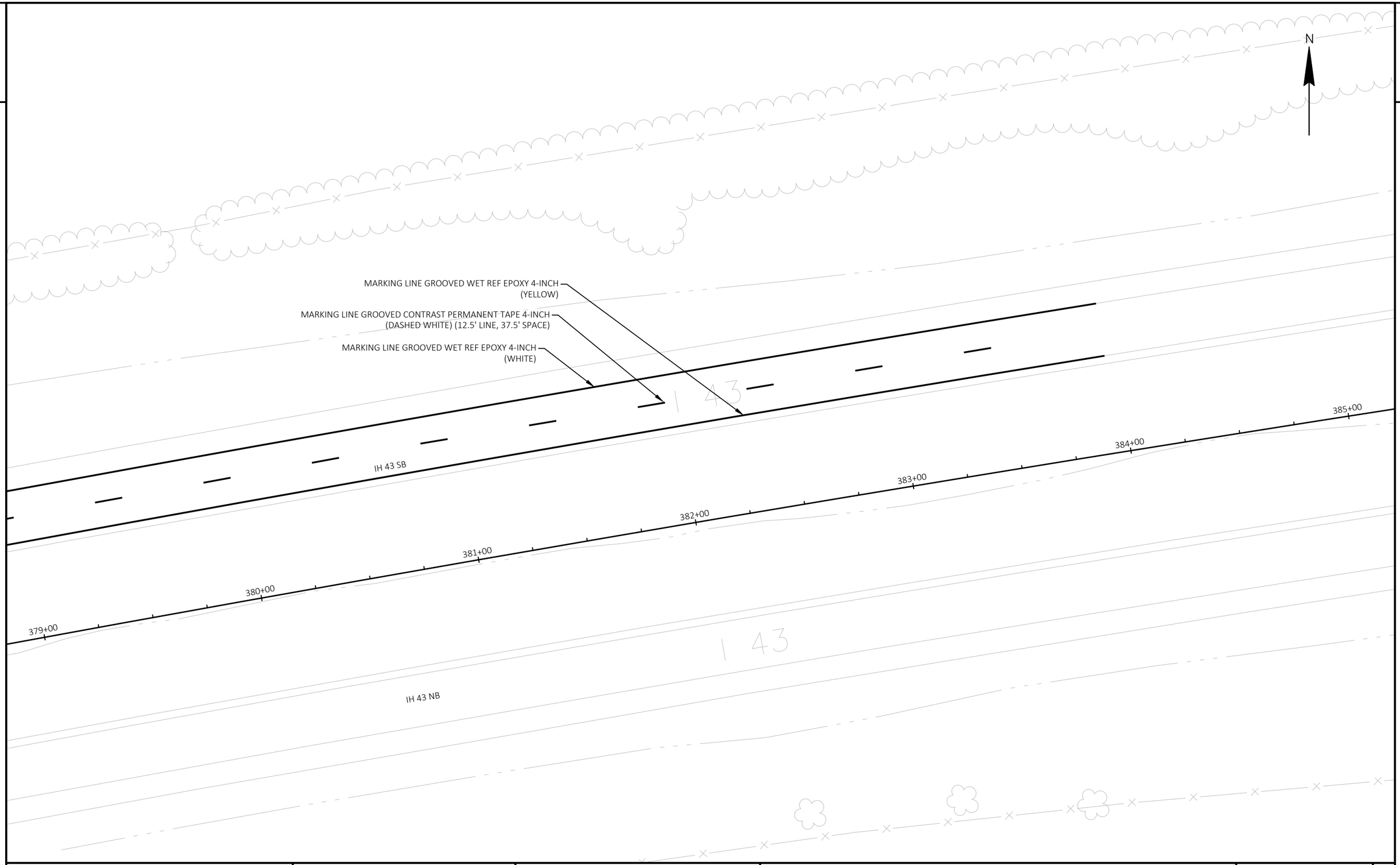


PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 100	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024502_pm (3)

PLOT DATE : 7/18/2019 5:38 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 101	E

2

N

B-45-0043

MARKING LINE EPOXY 4-INCH
(WHITE)

MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

IH 43 SB

INL

INL

INL

INL

425+00

426+00

427+00

428+00

429+00

430+00

MARKING LINE EPOXY 4-INCH
(YELLOW)

SAUK CREEK

UNION PACIFIC RAILROAD

MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

MARKING LINE EPOXY 4-INCH
(WHITE)

B-45-0044

IH 43 NB

RIPRAP

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 102	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024503_pm

PLOT DATE : 7/18/2019 5:40 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

IH 43 SB

IH 43 NB

453+00

452+00

451+00

450+00

STH 32 NB

STH 32 SB

S.T.H. 32

MARKING CONTRAST EPOXY 8-INCH
(WHITE)

MARKING LINE EPOXY 4-INCH
(WHITE)

B-45-0045

MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5' LINE, 37.5' SPACE)

MARKING LINE EPOXY 4-INCH
(WHITE)

MARKING CONTRAST EPOXY 8-INCH
(WHITE)

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET 103	E

2

N

REFER TO TRAFFIC CONTROL - STH 32/CTH V
INSIDE AND OUTSIDE WORK AREAS

REFER TO TRAFFIC CONTROL - ARROWHEAD ROAD
WESTBOUND AND EASTBOUND WORK AREAS

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES:
DETAIL C - MAINLINE CLOSURE, NO POSTED DETOUR"

REFER TO SDD "BARRICADE AND SIGNS FOR MAINLINE
CLOSURES" DETAIL B/D

REFER TO SDD "TRAFFIC CONTROL RAMP WITHIN LANE CLOSURE.
REFER TO SDD "TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40MPH WITH BARRIER
(NO REDUCED REGULATORY SPEED LIMIT. USE 60 MPH ADVISORY SPEED PLAQUE)
- CTH KK
- CTH D
- SILVER BEACH ROAD

REFER TO TRAFFIC CONTROL - STH 60
INSIDE AND OUTSIDE WORK AREAS

STH 32 / CTH V

STH 60

ARROWHEAD RD

ULAO PKWY

SAUK RD

STH 33

CTH KK

UP RR

STH 32 / CTH H

SANDY BEACH RD

CEDAR BEACH RD

CTH P

CTH D

SILVER BEACH RD

REFER TO SDD "TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE"
REFER TO CONSTRUCTION DETAIL TRAFFIC CONTROL FOR ENTRANCE/EXIT RAMP CLOSURE SHORT TERM ONLY
- STH 32/CTH V
- ULAO PARKWAY
- SAUK ROAD
- STH 33
- UP RR

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES:
DETAIL C - MAINLINE CLOSURE, NO POSTED DETOUR"

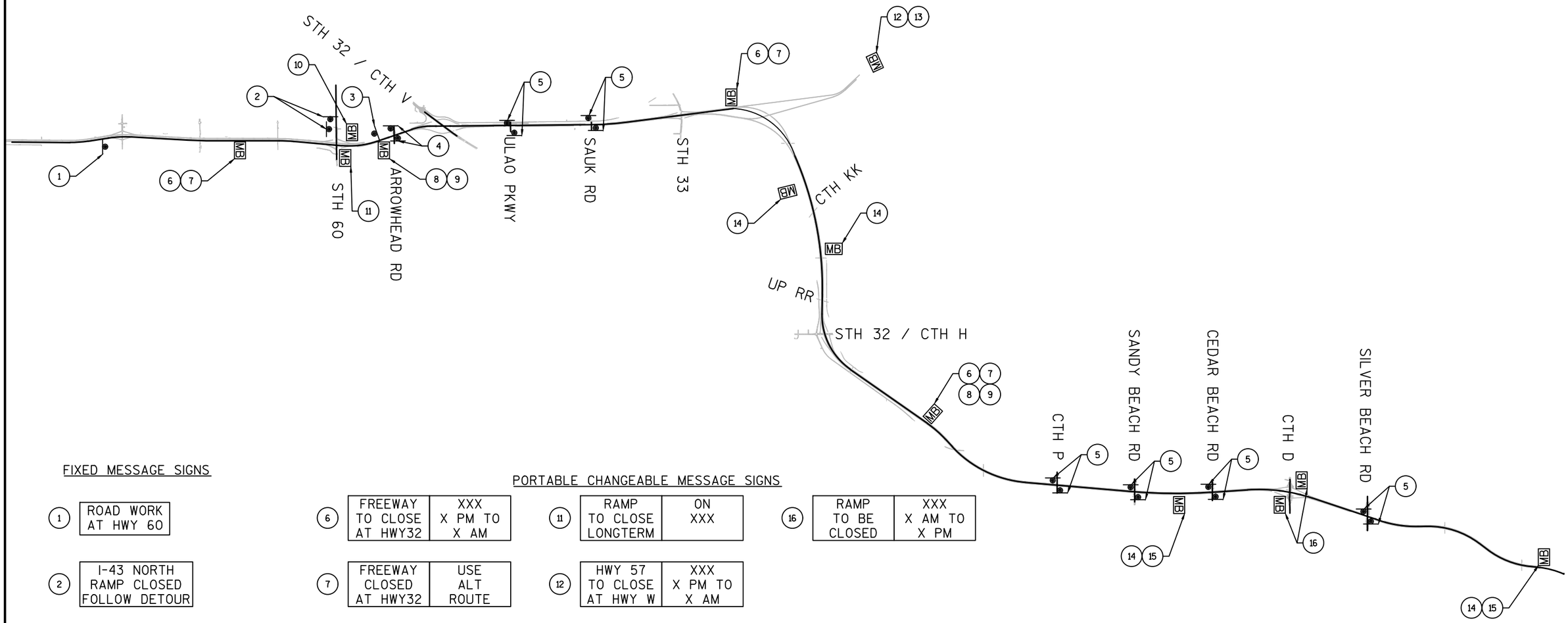
REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES:
DETAIL C - MAINLINE CLOSURE, NO POSTED DETOUR"

REFER TO TRAFFIC CONTROL - CTH D
EASTBOUND AND WESTBOUND WORK AREAS

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES:
DETAIL C - MAINLINE CLOSURE, NO POSTED DETOUR"

PROJECT NO:1450-02-70 & 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL OVERVIEW	SHEET 104	E

2



FIXED MESSAGE SIGNS

1	ROAD WORK AT HWY 60
2	I-43 NORTH RAMP CLOSED FOLLOW DETOUR
3	NO SOUTHBOUND RE-ENTRY TO I-43
4	ROAD WORK BEGINS XXX-XX
5	BRIDGE CLOSED BEGINS XXX-XX

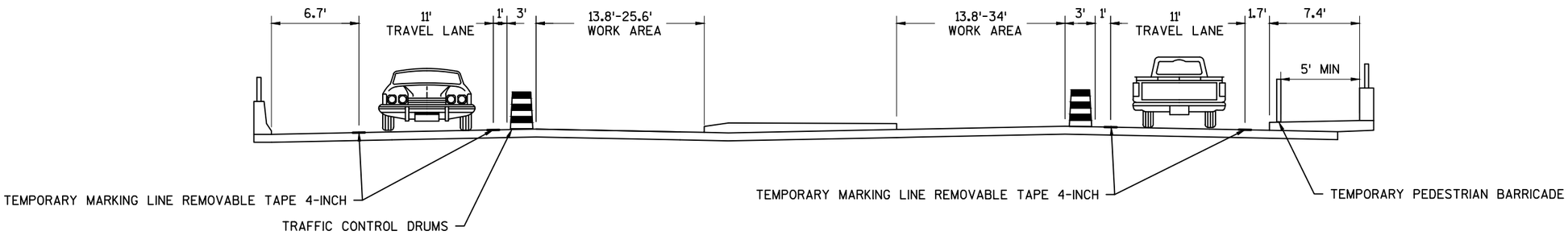
PORTABLE CHANGEABLE MESSAGE SIGNS

6	FREEWAY TO CLOSE AT HWY32	XXX X PM TO X AM
7	FREEWAY CLOSED AT HWY32	USE ALT ROUTE
8	FREEWAY TO CLOSE AT HWY33	XXX X PM TO X AM
9	FREEWAY CLOSED AT HWY33	USE ALT ROUTE
10	NO LEFT TURN TO HWY 60	

11	RAMP TO CLOSE LONGTERM	ON XXX
12	HWY 57 TO CLOSE AT HWY W	XXX X PM TO X AM
13	HWY 57 CLOSED AT HWY W	USE DETOUR ROUTE
14	LONGTERM LANE CLOSURE	TO BEGIN ON XXX
15	HWY D RAMP CLOSED	USE ALT ROUTE
16	RAMP TO BE CLOSED	XXX X AM TO X PM

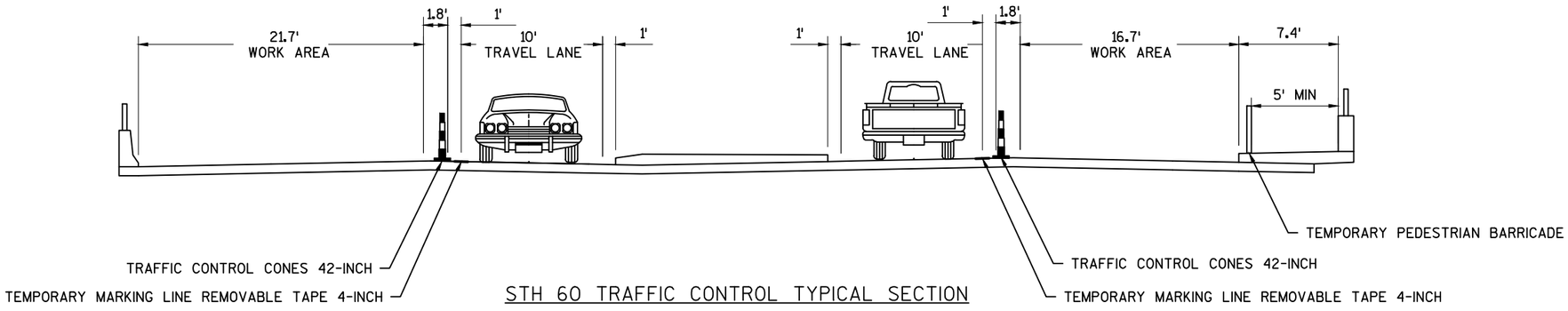
PROJECT NO: 1450-02-70 & 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL OVERVIEW: FMS & PCMS	SHEET 105	E

2



STH 60 TRAFFIC CONTROL TYPICAL SECTION

(LOOKING EAST)
INSIDE WORK AREA

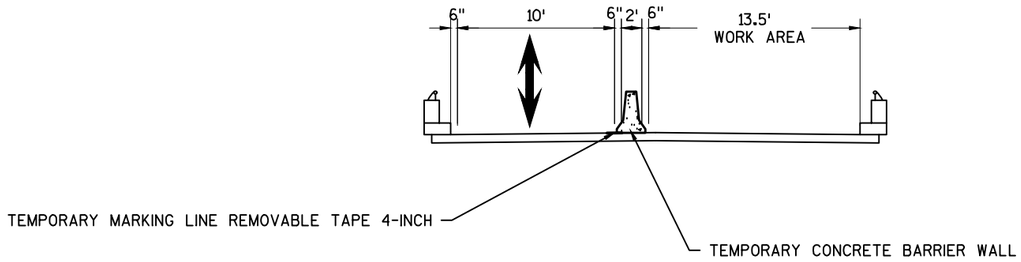


STH 60 TRAFFIC CONTROL TYPICAL SECTION

(LOOKING EAST)
OUTSIDE WORK AREA

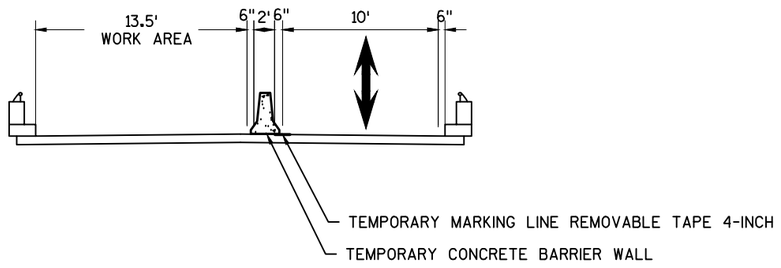
PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 106	E

2



ARROWHEAD RD TRAFFIC CONTROL TYPICAL SECTION

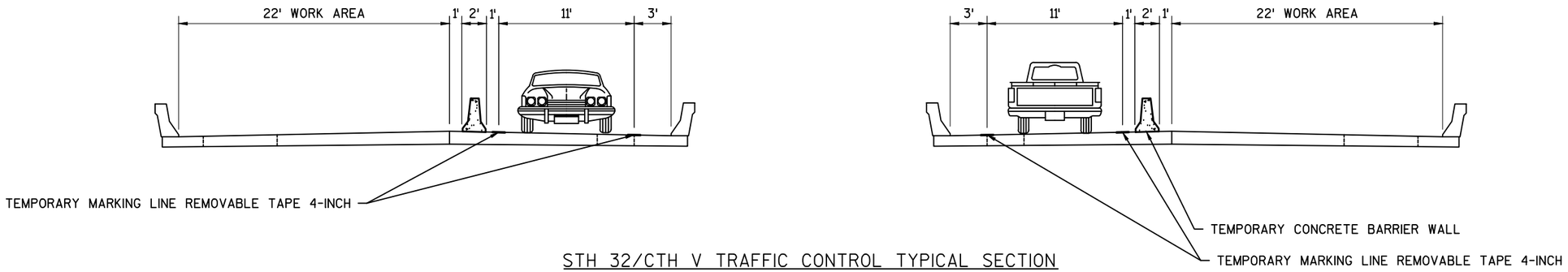
(LOOKING EAST)
EASTBOUND WORK AREA



ARROWHEAD RD TRAFFIC CONTROL TYPICAL SECTION

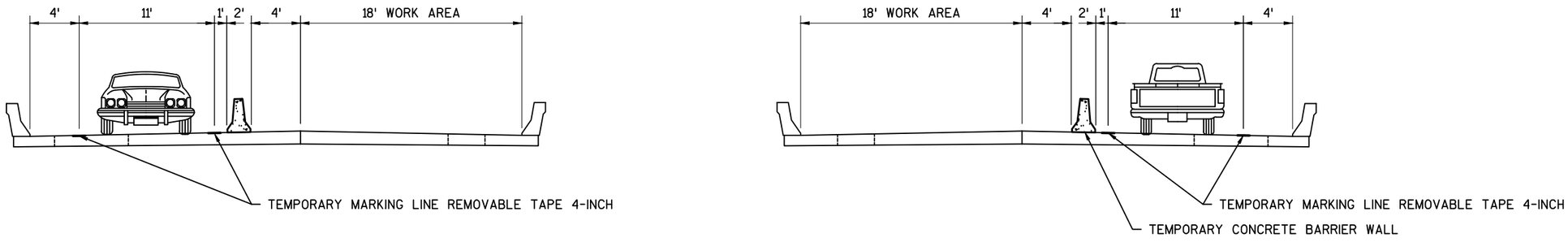
(LOOKING EAST)
WESTBOUND WORK AREA

2



STH 32/CTH V TRAFFIC CONTROL TYPICAL SECTION

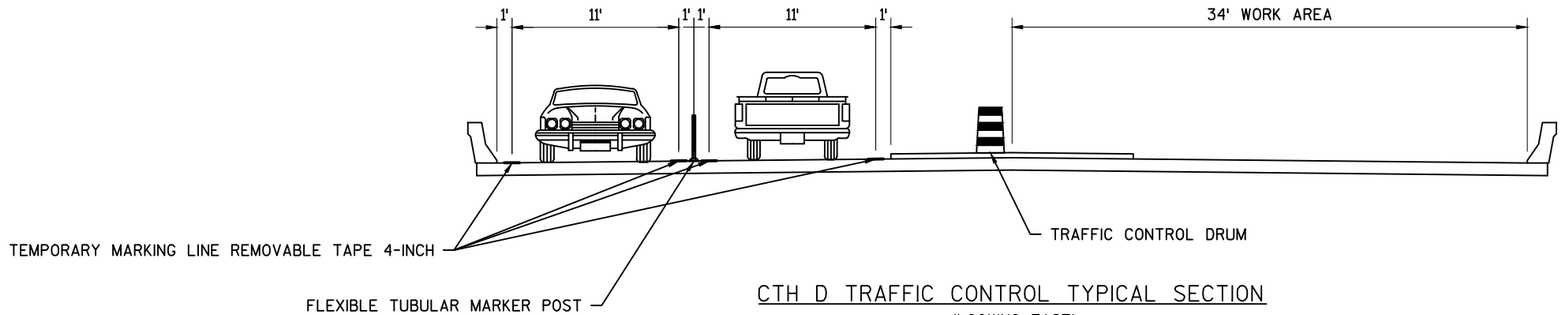
(LOOKING NORTHEAST)
OUTSIDE WORK AREA



STH 32/CTH V TRAFFIC CONTROL TYPICAL SECTION

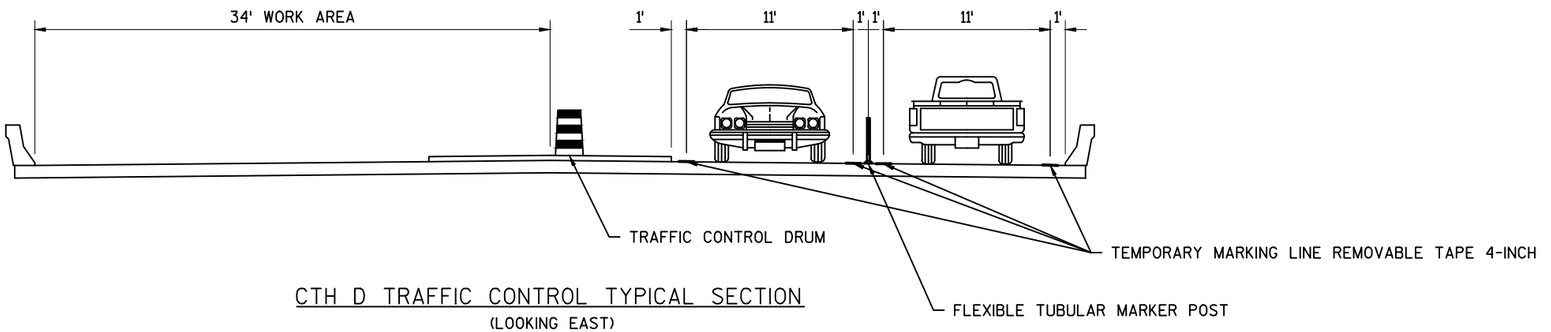
(LOOKING NORTHEAST)
INSIDE WORK AREA

2



CTH D TRAFFIC CONTROL TYPICAL SECTION

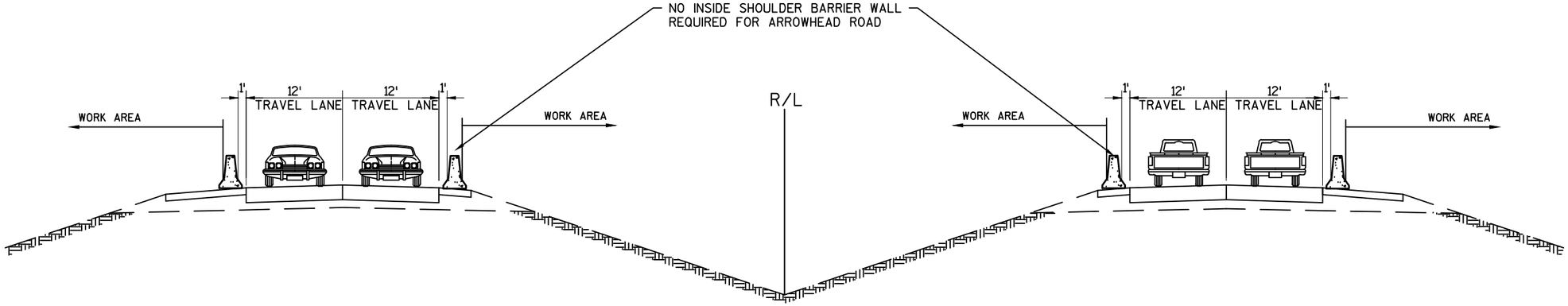
(LOOKING EAST)
EASTBOUND WORK AREA



CTH D TRAFFIC CONTROL TYPICAL SECTION

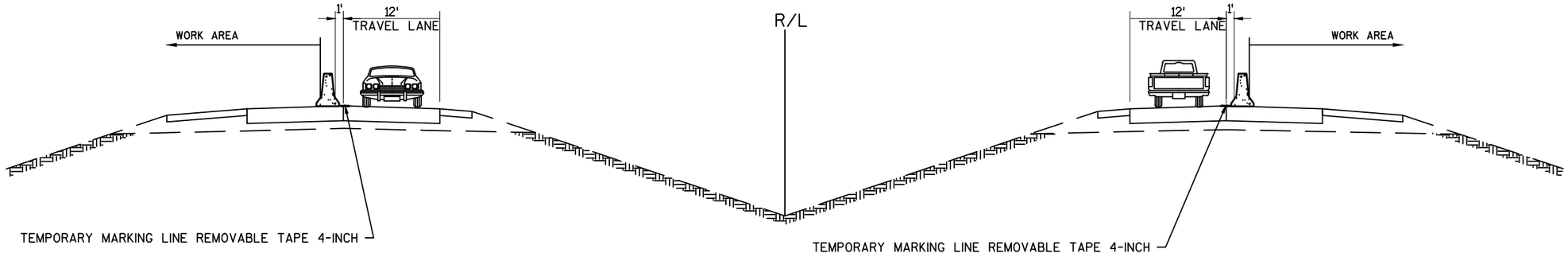
(LOOKING EAST)
WESTBOUND WORK AREA

2

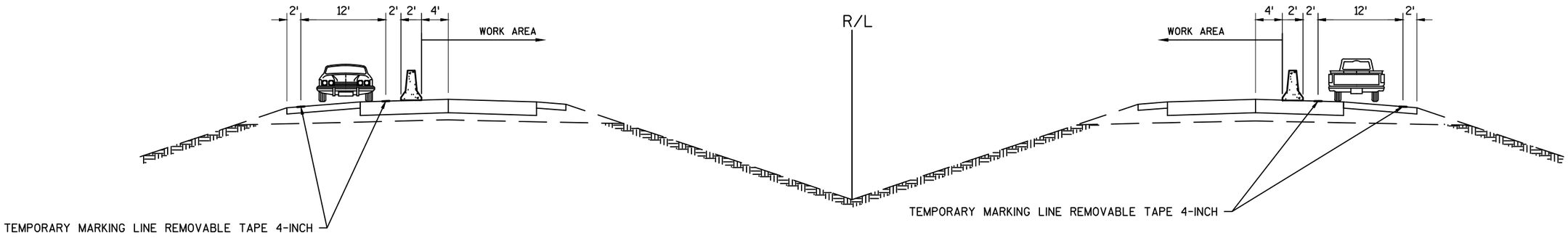


IH 43 TRAFFIC CONTROL TYPICAL SECTION
STRUCTURE PAINTING
ARROWHEAD RD
STH 32/CTH V
ULAO PKWY
SAUK RD

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 110	E



IH 43 TRAFFIC CONTROL TYPICAL SECTION
STRUCTURE PAINTING
CTH D
SILVER BEACH RD



IH 43 TRAFFIC CONTROL TYPICAL SECTION
STRUCTURE PAINTING
CTH D
SILVER BEACH RD

PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 111	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025000_TC.DWG
LAYOUT NAME - 025000_TC - 020201
PLOT DATE : 7/8/2019 1:12 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:15
WISDOT/CADDS SHEET 42

2

N

PLACE SIDEWALK CLOSURE SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS"

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY" AND "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING"

STH 60

STH 60 RAMP GATE SB ON RA

Pi: 393+52.17

Pi: 395+49.07

391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00

260' MERGING TAPER

188' BUFFER

T4W

W10-4L

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

Sheboygan
COVER

BEGIN RIGHT TURN LANE
R3-20RR
24"X36"

TEMPORARY MARKING ARROW REMOVABLE TAPE (RIGHT ARROW ONLY - EXISTING THRU AND LEFT TO REMAIN)

DOUBLE T4W

SEE SDD "TRAFFIC CONTROL DROP-OFF SIGNING"

11'

16'

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - OUTSIDE WORK AREA	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025001_TC_A.DWG
LAYOUT NAME - 025001_TC_A - 025005_S1_101

PLOT DATE : 7/8/2019 1:31 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTES: COVER PLATES MAY BE REQUIRED TO PROTECT DROP-OFF DURING DECK REPAIR WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY OCCURRING. COVER PLATES ARE INCIDENTAL TO THE PROJECT.
SEE SDD "TRAFFIC CONTROL DROP-OFF SIGNING"

RAMP CLOSED FOR SIGNAL TIMING PURPOSES

N

LANE CLOSED
R11-2-L
48"X30"

Sheboygan
COVER

NORTH
43
ONLY
COVER

NORTH
43
32
57
COVER

LANE CLOSED
R11-2-L
48"X30"

RAMP CLOSED
R11-2-R
48"X30"

W1-6
48"X24"

41'
SHIFTING
TAPER

39'
BUFFER

STH 60

31'
SHIFTING TAPER

T4W

T4Y

PI: 405+17.57

GATE SB ON RAMP

STH 60 RAMP GATE NB ON RAMP

98+00
399+00
400+00
401+00
402+00
403+00
404+00
405+00

TEMPORARY
CURB RAMP

DOUBLE T4W

TEMPORARY
PEDESTRIAN
SURFACE
PLATE

LANE CLOSED
R11-2-L
48"X30"

31'
SHIFTING
TAPER

50' BUFFER

41'
SHIFTING TAPER

R3-2
24"X24"

MAINTAIN PEDESTRIAN ACCESS ON SIDEWALK

LANE CLOSED
R11-2-L
48"X30"

12'

REMOVE EXISTING
GORE MARKINGS

RIPRAP

SIGN

MH

A/C

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - OUTSIDE WORK AREA	SHEET 113 E

2

2

N

R11-2-R
48"X30"
RAMP
CLOSED

W1-6
48"X24"

NORTH
43
32
57
COVER

ROAD
WORK
AHEAD
W20-1A

R11-2-L
48"X30"
LANE
CLOSED

W01-4L

Sheboygan
COVER

NORTH
43
32
57
COVER

PLACE ADVANCE WARNING SIGNS
IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL ADVANCE WARNING SIGNS
40 MPH OR LESS, TWO WAY UNDIVIDED ROAD
OPEN TO TRAFFIC" AND "TRAFFIC CONTROL,
ADVANCED WIDTH RESTRICTION SIGNING"

PI: 405+17.57

T4W

11'

PI: 409+93.86

EP: 411+01.64

404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00

STH 60 RAMP GATE NB ON RAMP

CTH Q

END
ROAD WORK
G20-2A
48"X24"

ROAD
WORK
AHEAD
W20-1A

W1-6
48"X24"

12'

T4Y

REMOVE EXISTING
GORE MARKINGS

R11-2-L
48"X30"
LANE
CLOSED

RIPRAP
UNION PACIFIC RAILROAD
MH
SIGN
FILLER CAP
A/C
CANOPY

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - OUTSIDE WORK AREA	SHEET 114	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025001_TC_A.DWG
LAYOUT NAME - 025001_TC_A - 025005_S1_103

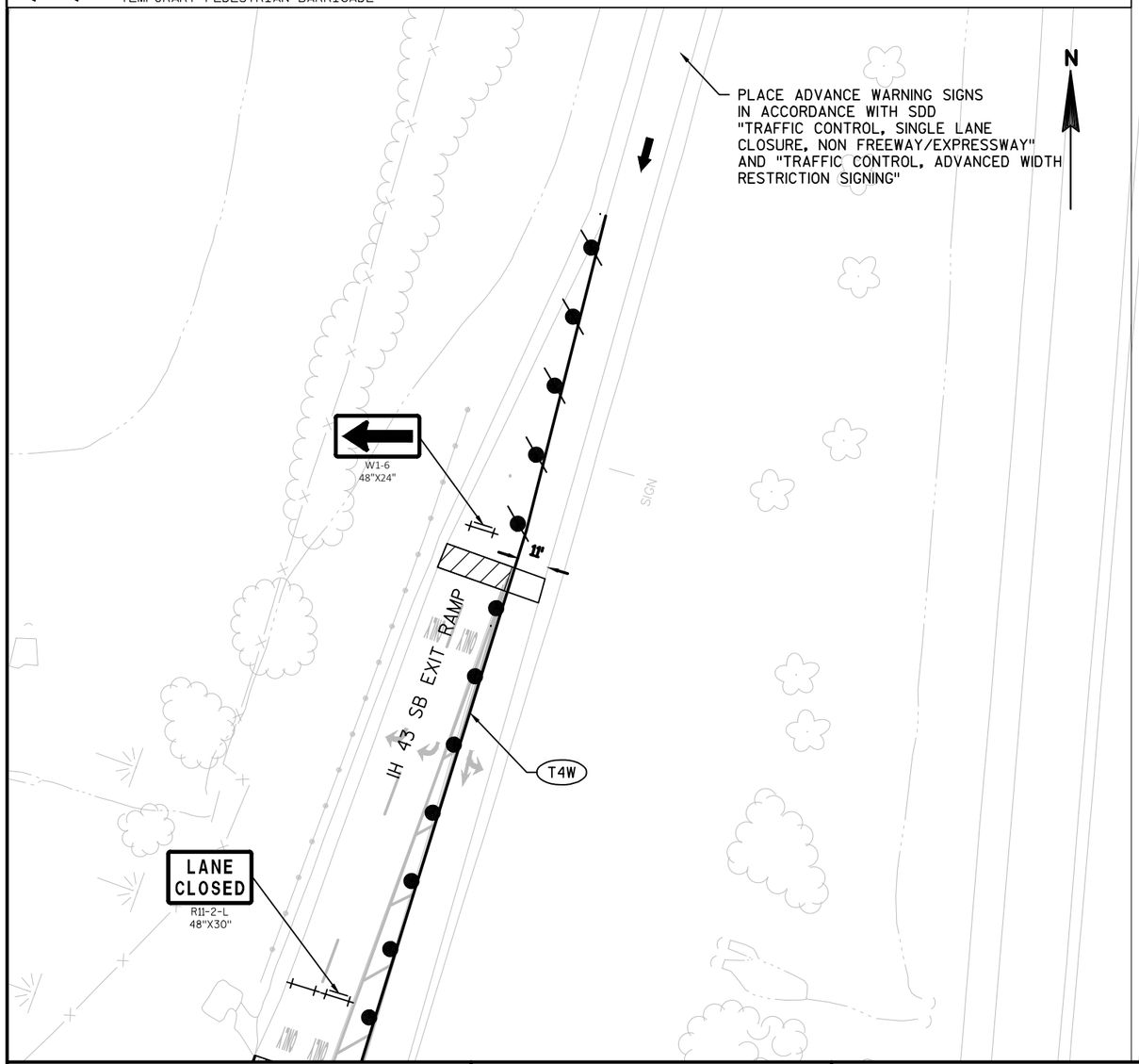
PLOT DATE : 7/8/2019 1:33 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

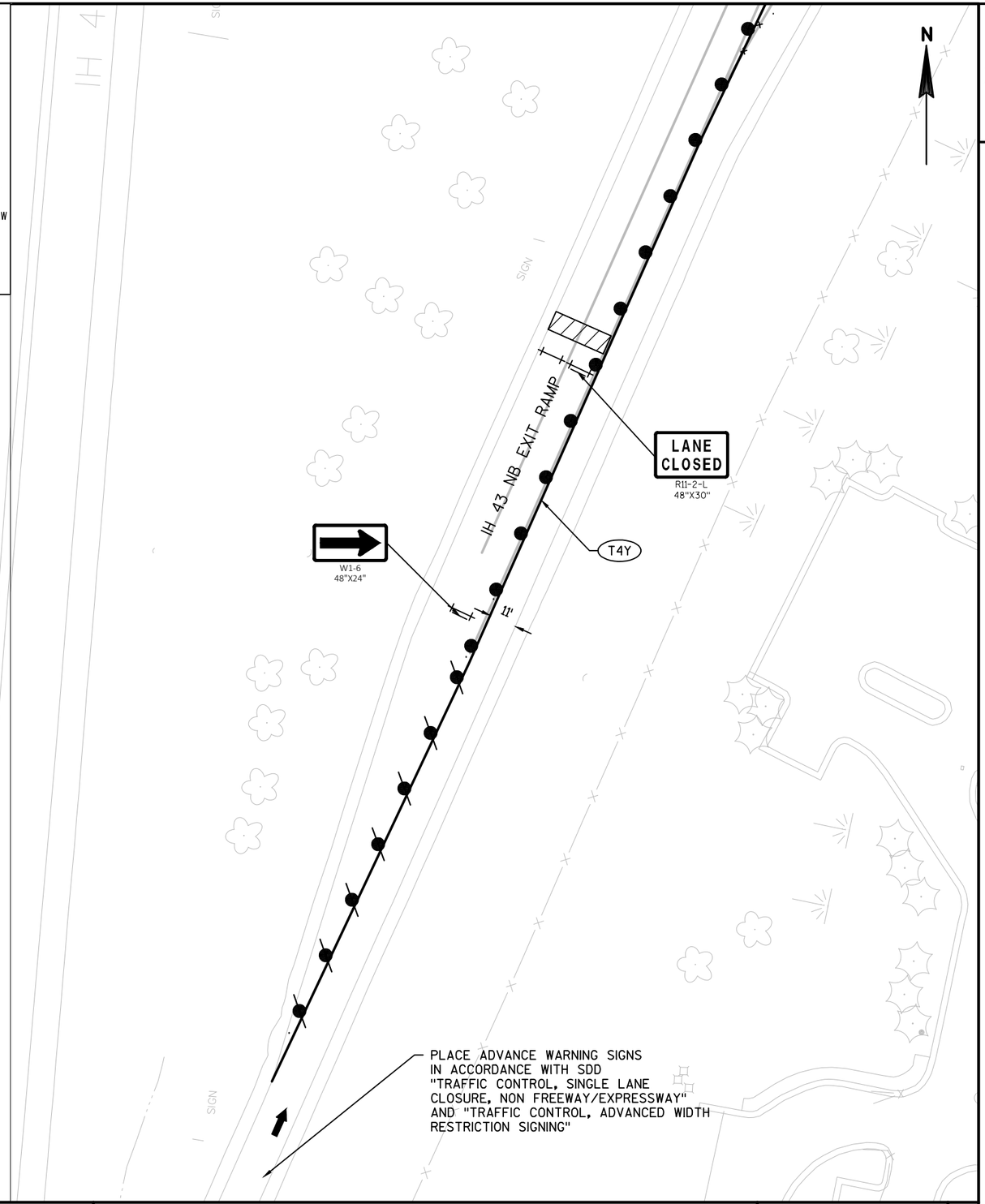
WISDOT/CADDS SHEET 42

2

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	→	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◁▷ ◁▷ ◁▷	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◄	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST		
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		





2

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - OUTSIDE WORK AREA	SHEET 115	E

2

N

STH 60

STH 60 RAMP GATE SB ON RA

END
ROAD WORK
G20-2A
48"X24"

275' MERGING TAPER

172' BUFFER

391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00

11'

T4Y

T4W

LANE
CLOSED
R11-2-L
48"X30"

PLACE ADVANCE WARNING SIGNS
IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, SINGLE LANE
CLOSURE, NON FREEWAY/EXPRESSWAY"
AND "TRAFFIC CONTROL, ADVANCED WIDTH
RESTRICTION SIGNING"

END
ROAD WORK
G20-2A
48"X24"

RIPRAP

SIGN

MH

W

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - INSIDE WORK AREA	SHEET 116	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025001_TC_B.DWG
LAYOUT NAME - 025001_TC_B - 025006_S1_101

PLOT DATE : 7/8/2019 1:57 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

NOTES: COVER PLATES MAY BE REQUIRED TO PROTECT DROP-OFF DURING DECK REPAIR WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY OCCURRING. COVER PLATES ARE INCIDENTAL TO THE PROJECT.
SEE SDD "TRAFFIC CONTROL DROP-OFF SIGNING"

N

LANE CLOSED
R11-2-L
48"X30"

R3-2
24"X24"

NORTH 43 32 57
COVER

T4W

T4Y

Sheboygan
COVER

LANE CLOSED
R11-2-L
48"X30"

NORTH 43 ONLY
COVER

NORTH 43 32 57
COVER

T4W

LANE CLOSED
R11-2-L
48"X30"

RAMP CLOSED
R11-2-R
48"X30"

W1-6
48"X24"

STH 60

GATE SB ON RAMP

STH 60 RAMP GATE NB ON RAMP

98+00
399+00
400+00
401+00
402+00
403+00
404+00
405+00

T4W

T4Y

LANE CLOSED
R11-2-L
48"X30"

W1-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

T4Y

LANE CLOSED
R11-2-L
48"X30"

R3-2
24"X24"

R11-2-L
48"X30"
LANE CLOSED

REMOVE EXISTING GORE MARKINGS

T4Y

TH 32/57

RIPRAP

SIGN

MH

13'

12'

A/C

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - INSIDE WORK AREA	SHEET 117 E

2

2

N

ROAD WORK AHEAD
W20-1A

R11-2-R
48"X30"
RAMP CLOSED

W1-6
48"X24"

NORTH
43
32
57
COVER

Sheboygan
COVER

W1-6
48"X24"

T4W

T4Y

13'

11'

STH 60 RAMP GATE NB ON RAMP

404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00

CTH Q

END
ROAD WORK
G20-2A
48"X24"

R11-2-L
48"X30"
LANE CLOSED

NORTH
43
32
57
COVER

R11-2-L
48"X30"
LANE CLOSED

1100'

W1-4R
30"X30"

122.5' SHIFTING TAPER

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL ADVANCE WARNGING SIGN 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" AND "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING"

ROAD WORK AHEAD
W20-1A

R11-2-L
48"X30"
LANE CLOSED

12'

REMOVE EXISTING GORE MARKINGS

T4Y

RIPRAP
SIGN
MH
UNION PACIFIC RAILROAD
FILLER CAP
CANOPY
A/C

LEGEND

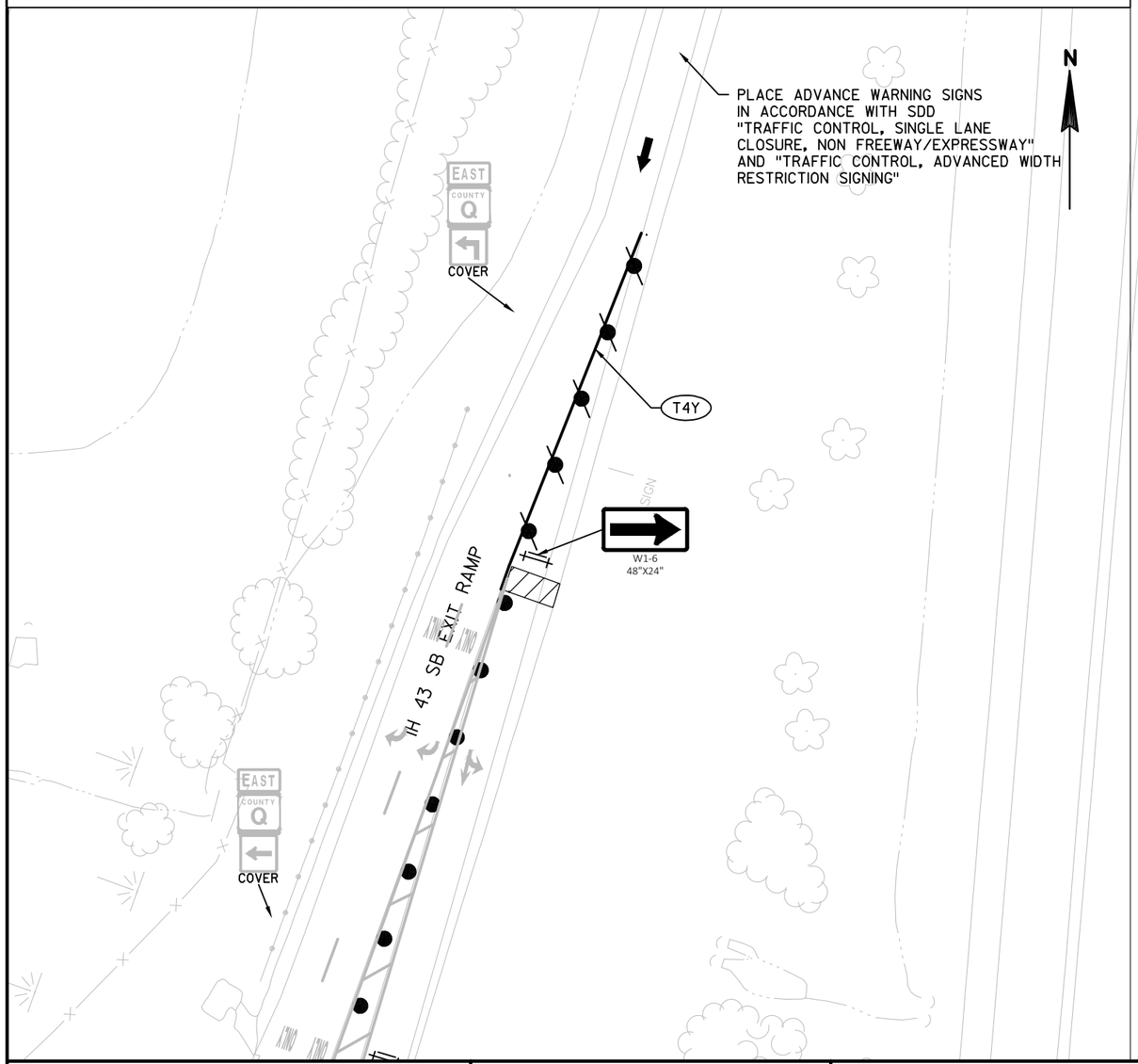
TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

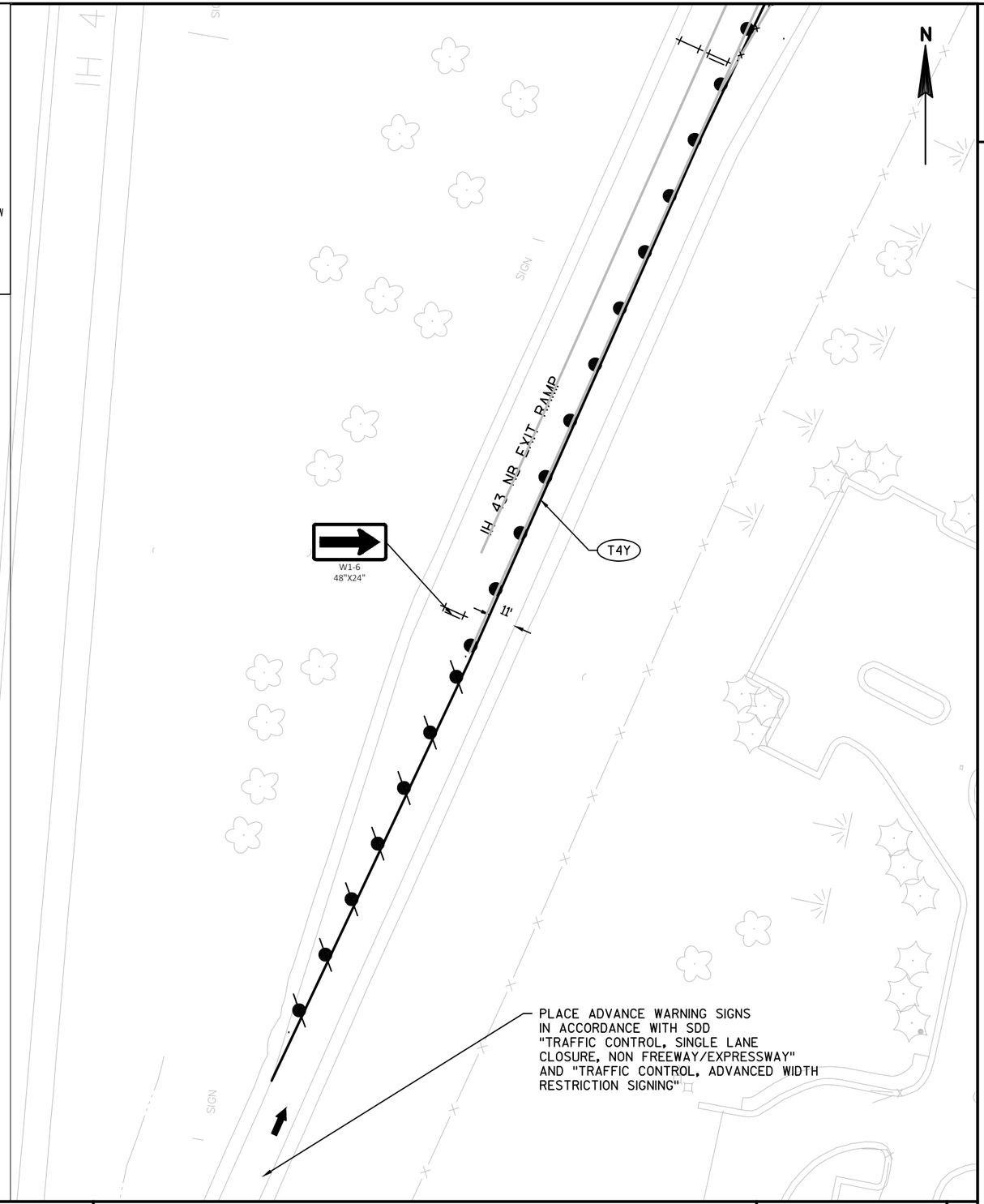
PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - INSIDE WORK AREA	SHEET 118	E

2

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	





PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 60 - INSIDE WORK AREA	SHEET 119	E

NOTES: COVER PLATES MAY BE REQUIRED TO PROTECT DROP-OFF DURING DECK REPAIR WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY OCCURRING. COVER PLATES ARE INCIDENTAL TO THE PROJECT.
SEE SDD "TRAFFIC CONTROL DROP-OFF SIGNING"

CONTRACTOR MAY USE FLAGGING OPERATIONS TO CONTROL TRAFFIC DURING CERTAIN CONSTRUCTION OPERATIONS ADJACENT TO THE LIVE TRAFFIC LANE.

N

WO1-6
48" X 24"
TYPE III BARRICADE

WO1-6
48" X 24"
TYPE III BARRICADE

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS"

TEMPORARY CONCRETE BARRIER TAPERED END SECTION

100'

WO5-52L
12"X36"

WO5-52R
12"X36"

TEMPORARY TRAFFIC SIGNAL FOR BRIDGES

STOP HERE ON RED
R10-6
24"X36"

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

TSL

ARROWHEAD RD

ARROWHEAD RD.

T4W

R/L ARROWHEAD ROAD

100'

TEMPORARY CONCRETE BARRIER TAPERED END SECTION

WO5-52R
12"X36"

WO5-52L
12"X36"

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR PLACEMENT OF ASPHALT SHOULDER AND BRIDGE CONSTRUCTION OPERATIONS ADJACENT TO TRAFFIC

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR PLACEMENT OF ASPHALT SHOULDER AND BRIDGE CONSTRUCTION OPERATIONS ADJACENT TO TRAFFIC

STOP HERE ON RED
R10-6
24"X36"

TEMPORARY TRAFFIC SIGNAL FOR BRIDGES

WO1-4R

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS"

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - ARROWHEAD ROAD - WESTBOUND WORK AREA	SHEET 120	E

NOTES: COVER PLATES MAY BE REQUIRED TO PROTECT DROP-OFF DURING DECK REPAIR WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY OCCURRING. COVER PLATES ARE INCIDENTAL TO THE PROJECT.
SEE SDD "TRAFFIC CONTROL DROP-OFF SIGNING"

CONTRACTOR MAY USE FLAGGING OPERATIONS TO CONTROL TRAFFIC DURING CERTAIN CONSTRUCTION OPERATIONS ADJACENT TO THE LIVE TRAFFIC LANE.

N

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS"

TEMPORARY CONCRETE BARRIER TAPERED END SECTION

100'

TSL

R/L ARROWHEAD ROAD

ARROWHEAD RD

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR PLACEMENT OF ASPHALT SHOULDER AND BRIDGE CONSTRUCTION OPERATIONS ADJACENT TO TRAFFIC

WO5-52L 12"X36"

T4W

3'

10'

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR PLACEMENT OF ASPHALT SHOULDER AND BRIDGE CONSTRUCTION OPERATIONS ADJACENT TO TRAFFIC

WO5-52R 12"X36"

WO1-4R

TEMPORARY CONCRETE BARRIER TAPERED END SECTION

TEMPORARY TRAFFIC SIGNAL FOR BRIDGES

STOP HERE ON RED
R10-6 24"X36"

TSL

100'

STOP HERE ON RED
R10-6 24"X36"

TEMPORARY TRAFFIC SIGNAL FOR BRIDGES

WO5-52R 12"X36"

WO5-52L 12"X36"

WO1-6 48" X 24"

TYPE III BARRICADE

WO1-6 48" X 24"

TYPE III BARRICADE

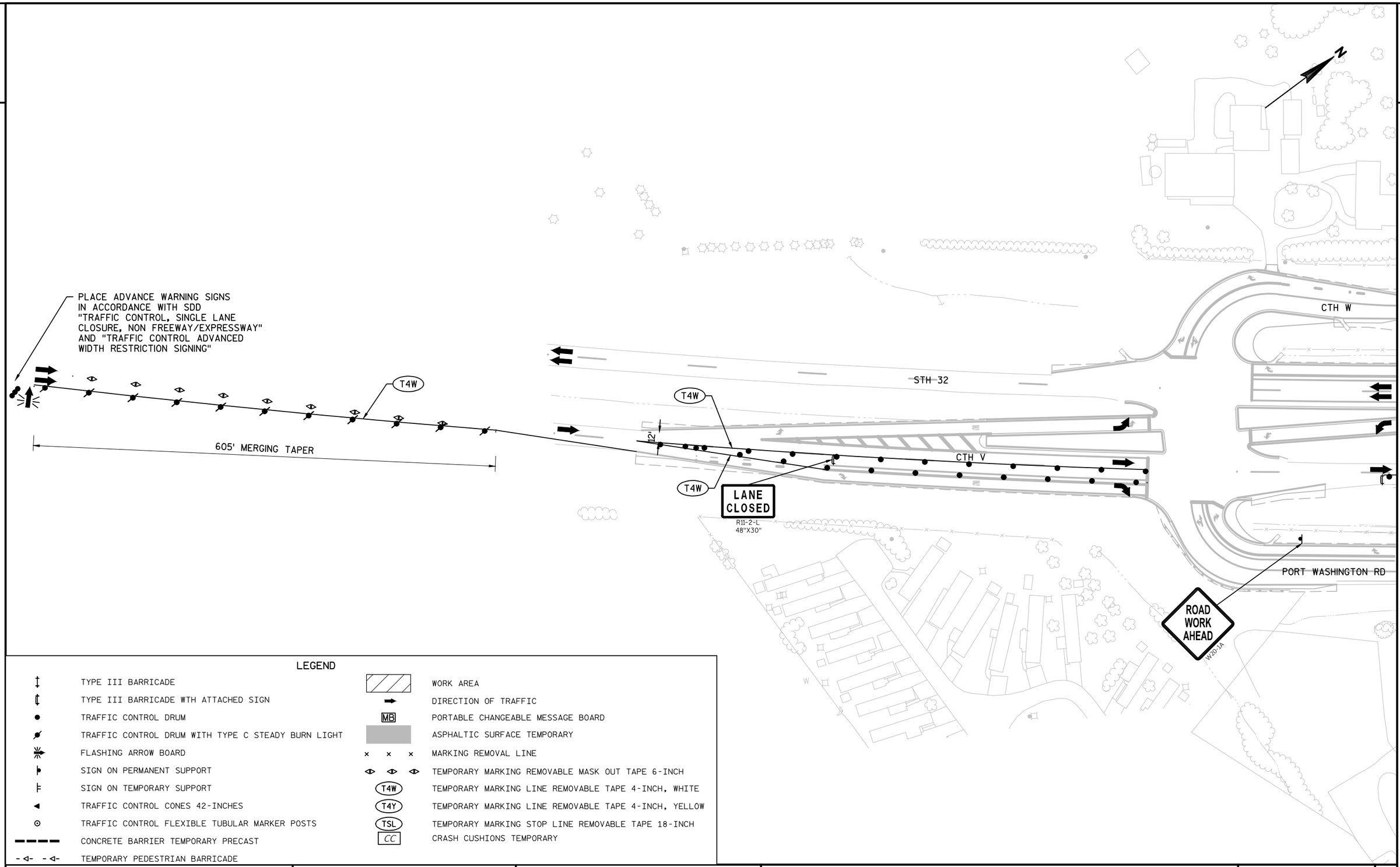
PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS"

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - ARROWHEAD ROAD - EASTBOUND WORK AREA	SHEET 121	E

2



LEGEND

‡	TYPE III BARRICADE	▨	WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - OUTSIDE WORK AREA	SHEET 122	E

2

SEE SDD "TRAFFIC CONTROL ADVANCED WIDTH RESTRICTION SIGNING"

ROAD WORK AHEAD
W20-1A

IH 43 SB EXIT RAMP

END ROAD WORK
G20-2A
48"X24"

CTH W

C.T.H. "W"

S.T.H. 32 STH 32

CTH V

STH 32

201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00

ROAD WORK AHEAD
W20-1A

CTH V

12'

T4W

LANE CLOSED
R11-2-L
48"X30"

PORT WASHINGTON RD

W01-4L

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

IH 43 SB ENTRANCE RAMP

110' SHIFTING TAPER

T4Y

LANE CLOSED
R11-2-L
48"X30"

CTH V

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - OUTSIDE WORK AREA	SHEET 123	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025003_TC_A.DWG
LAYOUT NAME - 025003_TC_A_02
PLOT DATE : 7/8/2019 2:50 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

IH 43 SB EXIT RAMP

END ROAD WORK
G20-2A
48"X24"

USE SDD "TRAFFIC CONTROL, LANE CLOSURE" FOR PLACEMENT OF ASPHALT SHOULDER

T4Y

STH 32

WO5-52L
12"X36"

LANE CLOSED
R11-2-L
48"X30"

110'
SHIFTING TAPER

T4W

IH 43/STH 57

OMP

IH 43 NB ENTRANCE RAMP

END ROAD WORK
G20-2A
48"X24"

POST

STH 32 RAMP GATE NB ON RAMP

T4W

T4W

212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00

CTH V

STH 32

T4Y

T4W

WO5-52R
12"X36"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

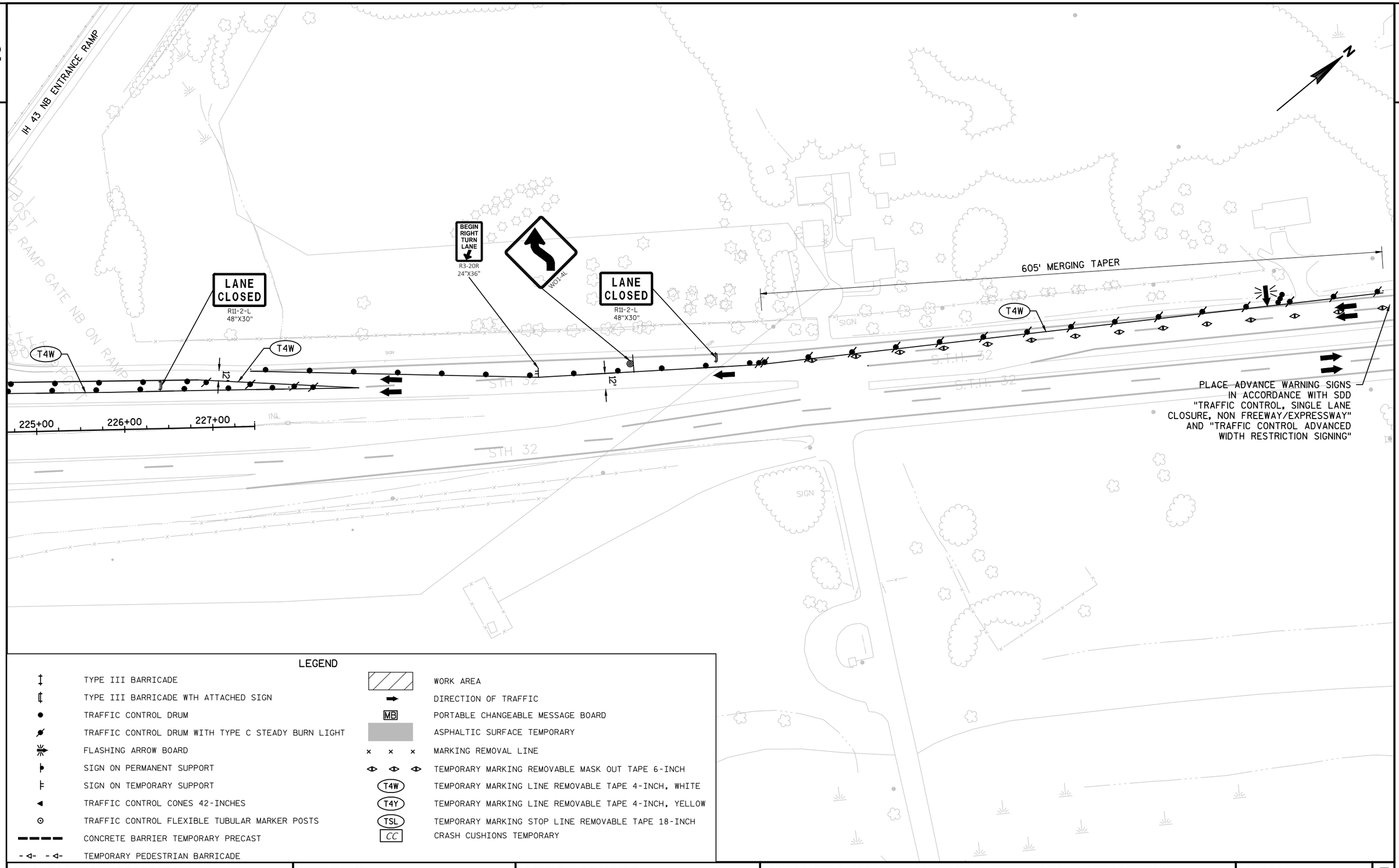
IH 43 NB EXIT RAMP

SEE SDD "TRAFFIC CONTROL ADVANCED WIDTH RESTRICTION SIGNING"

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	MB — PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	× × × MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	CC — CRASH CUSHIONS TEMPORARY
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - OUTSIDE WORK AREA	SHEET 124	E

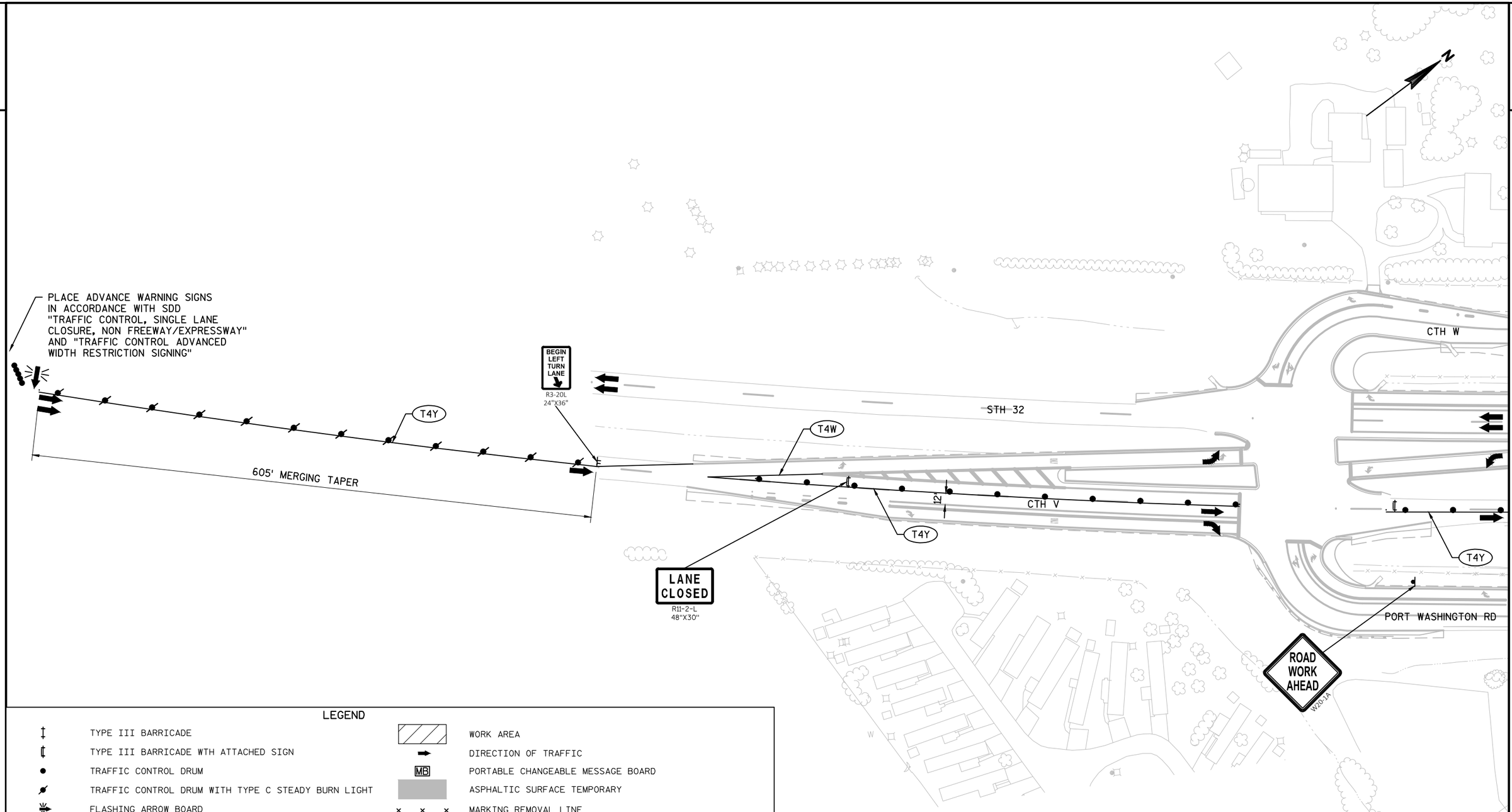


LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - OUTSIDE WORK AREA	SHEET 125	E

2



LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - INSIDE WORK AREA	SHEET 126	E

2

SEE SDD "TRAFFIC CONTROL ADVANCED WIDTH RESTRICTION SIGNING"

ROAD WORK AHEAD
W20-1A

IH 43 SB EXIT RAMP

END ROAD WORK
G20-2A
48"X24"

CTH W

C.T.H. "W"

LANE CLOSED
R11-2-L
48"X30"

S.T.H. 32

STH 32

CTH V

201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00

12

T4Y

ROAD WORK AHEAD
W20-1A

W01-4L

PORT WASHINGTON RD

LANE CLOSED
R11-2-L
48"X30"

110' SHIFTING TAPER

T4W

T4Y

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

IH 43 SB ENTRANCE RAMP

IH 43/STH 57

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	→	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT		TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◄	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - INSIDE WORK AREA	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025003_TC_B.DWG
LAYOUT NAME - 025003_TC_B_02
PLOT DATE : 7/8/2019 3:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

IH 43 SB EXIT RAMP

IH 43/STH 57

IH 43 NB ENTRANCE RAMP

STH 32 RAMP GATE NB ON RAMP

END ROAD WORK
G20-2A
48"X24"

USE SDD "TRAFFIC CONTROL, LANE CLOSURE" FOR PLACEMENT OF ASPHALT SHOULDER

W05-52R
12"X36"

280' SHIFTING TAPER

T4Y

T4W

STH 32

212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00

CTH V

W05-52L
12"X36"

LANE CLOSED
R11-2-L
48"X30"

ROAD WORK AHEAD
W20-1A

IH 43 NB EXIT RAMP

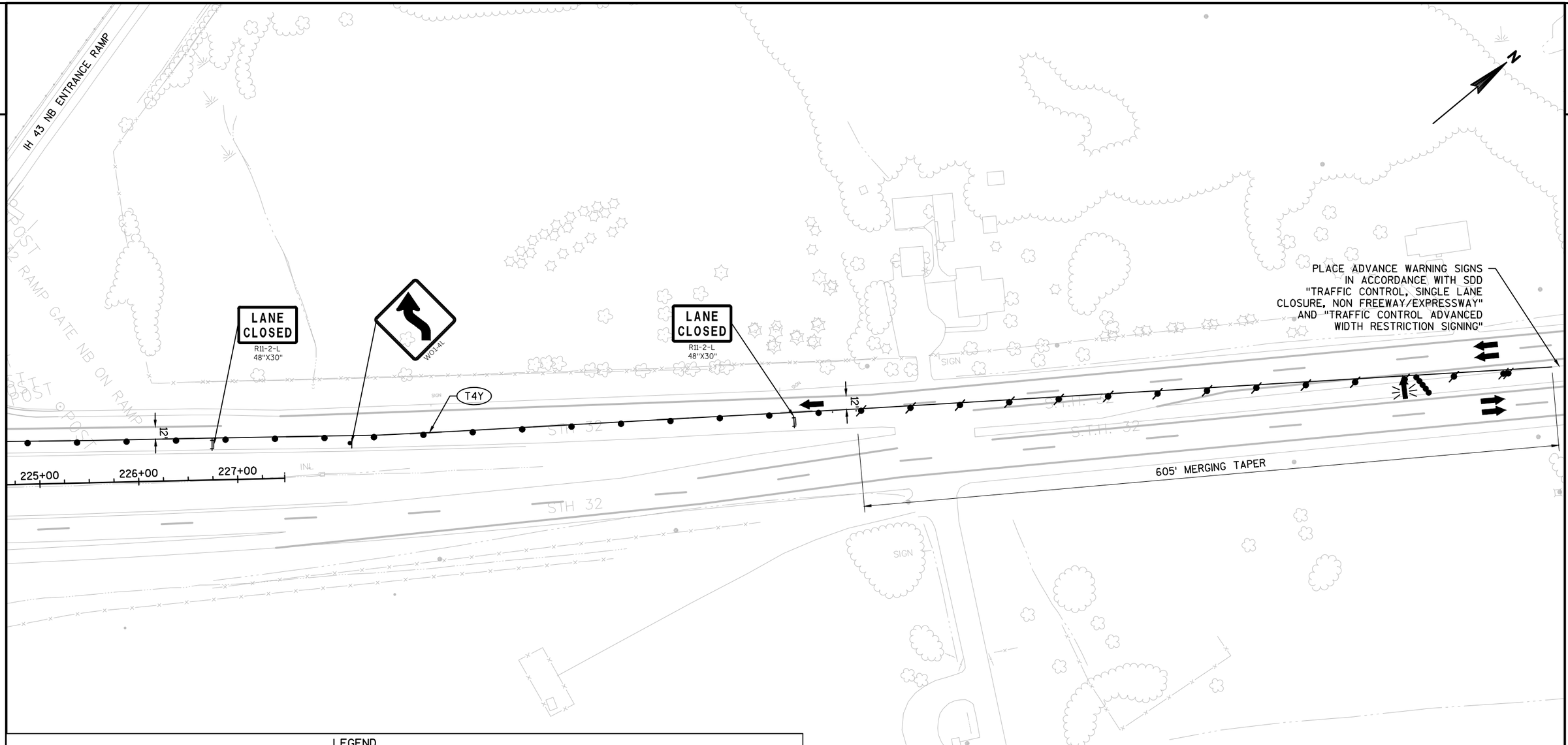
SEE SDD "TRAFFIC CONTROL ADVANCED WIDTH RESTRICTION SIGNING"

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
SIGN ON TEMPORARY SUPPORT	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TRAFFIC CONTROL CONES 42-INCHES	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
CONCRETE BARRIER TEMPORARY PRECAST	CRASH CUSHIONS TEMPORARY
TEMPORARY PEDESTRIAN BARRICADE	

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - INSIDE WORK AREA	SHEET 128	E

2



LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
⊢	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32/CTH V - INSIDE WORK AREA	SHEET 129	E

2

N

REFER TO SDD "TRAFFIC CONTROL, WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC

REFER TO SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR SHORT TERM CLOSURE

REMOVE EXISTING CASTING AND PLATE STRUCTURE PRIOR TO PLACING TEMPORARY ASPHALT.

REFER TO SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

802+00 803+00 804+00 805+00 806+00 807+00 808+00 809+00 810+00 811+00 812+00 813+00 814+00 815+00 816+00

I-43 NB

C.T.H. "D"

HWY D

REMOVE EXISTING CASTING AND PLATE STRUCTURE PRIOR TO PLACING TEMPORARY ASPHALT.

REFER TO SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR SHORT TERM CLOSURE

REFER TO SDD "TRAFFIC CONTROL, WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC

LEGEND

TYPE III BARRICADE	WORK AREA
TYPE III BARRICADE WTH ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	ASPHALTIC SURFACE TEMPORARY
FLASHING ARROW BOARD	MARKING REMOVAL LINE
SIGN ON PERMANENT SUPPORT	T4W — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
SIGN ON TEMPORARY SUPPORT	T4Y — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TRAFFIC CONTROL CONES 42-INCHES	P4W — TEMPORARY MARKING LINE PAINT 4-INCH, WHITE
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	P4Y — TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW
CONCRETE BARRIER TEMPORARY PRECAST	TSL — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
TEMPORARY PEDESTRIAN SAFETY FENCE	

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL: CTH D PREP WORK	SHEET 130	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025011_TC_0.DWG
LAYOUT NAME - 025011_TC_0

PLOT DATE : 4/23/2019 9:08 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

SOUTH INTERSTATE 43 32

ROAD CLOSED
R11-2*
48"X30"
*TWO SIGNS ON ONE BARRICADE

180' SHIFTING TAPER

DOUBLE T4Y

T4W

T4Y DOUBLE

CTH D

801+00

802+00

803+00

804+00

805+00

806+00

CTH D R/L

HWY D

INL

11'

13'

T4W
3' LINE, 9' GAP

T4W

W01-4L

W06-3

DO NOT PASS
R4-1
24"X30"

ROAD CLOSED
R11-2*
48"X30"
*TWO SIGNS ON ONE BARRICADE

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

SOUTH INTERSTATE 43 32

ROAD WORK AHEAD
W20-1A

IH 43 SB EXIT RAMP

T4W

14'

TEMPORARY MARKING ARROW PAINT

TSL

LANE CLOSED
R11-2-L
48"X30"

LANE CLOSED
R11-2-L
48"X30"

ONLY
R3-5R
42"X48"

ROAD CLOSED
R11-2
48"X30"

END ROAD WORK
G20-2A
48"X24"

LEGEND

	TYPE III BARRICADE		WORK AREA
	TYPE III BARRICADE WTH ATTACHED SIGN		DIRECTION OF TRAFFIC
	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT		TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
	TEMPORARY PEDESTRIAN BARRICADE		

NOTE:
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKING SPACING TO BE 25' IN TAPERS AND 50' IN ALL OTHER LOCATIONS.

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - EB WORK AREA	SHEET 131	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025011_TC_A.DWG
LAYOUT NAME - 025018_TC_001
PLOT DATE : 7/8/2019 3:23 PM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

NOTE:
SEE SDD "TRAFFIC CONTROL WIDTH RESTRICTION SIGNING" FOR CTH D AND NB/SB EXIT RAMPS

IH 43 SB EXIT RAMP

LANE CLOSED
R11-2-L
48"X30"

T4Y DOUBLE

T4W

DO NOT PASS
W10G-3
R4-1
24"X30"

STOP
R1-1
30"X30"

TSL

END ROAD WORK
G20-2A
48"X24"

806+00 807+00 808+00 809+00 810+00 811+00 812+00 813+00

CTH D

CTH D R/L

11' 11'

DO NOT PASS
W10G-3
R4-1
24"X30"

NOTE:
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKING SPACING TO BE 25' IN TAPERS AND 50' IN ALL OTHER LOCATIONS.

T4Y

T4W

ROAD WORK AHEAD
W20-2A

IH 43 NB EXIT RAMP

LEGEND

↕	TYPE III BARRICADE		WORK AREA
↕	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - EB WORK AREA	SHEET 132	E

2

END ROAD WORK
G20-2A
48"X24"

STOP
R1-1
30"X30"

W01-4R

T4W

T4Y DOUBLE

DO NOT PASS
R4-1
24"X30"

W06-3

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

N

NOTE:
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKING SPACING TO BE 25' IN TAPERS AND 50' IN ALL OTHER LOCATIONS.

11'

11'

812+00

813+00

CTH D R/L

814+00

815+00

816+00

817+00

818+00

CTH D

T4W
3' LINE, 9' GAP

YIELD
R1-2
36"X31"

W03-2

W04-1R

ROAD WORK AHEAD
W20-1A

IH 43 NB EXIT RAMP

WALLS

SS

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
✳	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
▶	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - EB WORK AREA	SHEET 133	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\025011_TC_A.DWG
LAYOUT NAME - 025018_tc_003
PLOT DATE : 7/8/2019 3:24 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

IH 43 SB EXIT RAMP

W03-2

R11-2-L
48"X30"
LANE CLOSED

W04-3R

ROAD CLOSED
R11-2*
48"X30"
*TWO SIGNS ON ONE BARRICADE

YIELD
R1-2
36"X31"

W06-3
DO NOT PASS
R4-1
24"X30"

T4Y

129' SHIFTING TAPER

INL

CTH D

801+00

802+00

803+00

CTH D R/L

804+00

805+00

806+00

T4W

T4Y

TSL

HWY DIV

11'

11'

T4W

3' LINE, 9' GAP

DOUBLE T4Y

MARKING REMOVAL SPECIAL MARKING

W01-4R

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

ROAD CLOSED
R11-2*
48"X30"
*TWO SIGNS ON ONE BARRICADE

LAKEVIEW DRIVE

STOP
R1-1
30"X30"

END ROAD WORK
G20-2A
48"X24"

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - WB WORK AREA	SHEET 134	E

NOTE:
SEE SDD "TRAFFIC CONTROL WIDTH RESTRICTION SIGNING" FOR CTH D AND NB/SB EXIT RAMPS

IH 43 SB EXIT RAMP

CTH D

806+00 807+00 808+00 CTH D R/L 809+00 810+00 811+00 812+00 813+00

11' 11'

DOUBLE T4Y

DO NOT PASS
R4-1
24"X30"
W06-3

NOTE:
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKING SPACING TO BE 25' IN TAPERS AND 50' IN ALL OTHER LOCATIONS.

DO NOT PASS
R4-1
24"X30"
W06-3

ROAD CLOSED
R11-2
48"X30"

END ROAD WORK
G20-2A
48"X24"

T4W

C.T.H. "D"

HWY D

TSL

LANE CLOSED
R11-2-L
48"X30"

14'

TEMPORARY MARKING ARROW PAINT

T4W

ROAD WORK AHEAD
W20-3A

IH 43 NB EXIT RAMP

N

LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - WB WORK AREA	SHEET 135	E

NOTE:
TRAFFIC CONTROL FLEXIBLE TUBULAR MARKING SPACING TO BE 25' IN TAPERS AND 50' IN ALL OTHER LOCATIONS.

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2-L
48"X30"

LANE CLOSED
R11-2-L
48"X30"

ROAD WORK AHEAD
W20-1A

NORTH INTERSTATE 43 32

DO NOT PASS
R4-1
24"X30"

NORTH INTERSTATE 43 32

W01-4L

W06-3

N

CTH D

CTH D R/L

HWY D

812+00 813+00 814+00 815+00 816+00 817+00 818+00 819+00

T4W

T4Y DOUBLE

T4W 3' LINE, 9' GAP

10'

14'

IH 43 NB EXIT RAMP

PLACE ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

308' SHIFTING TAPER

POST

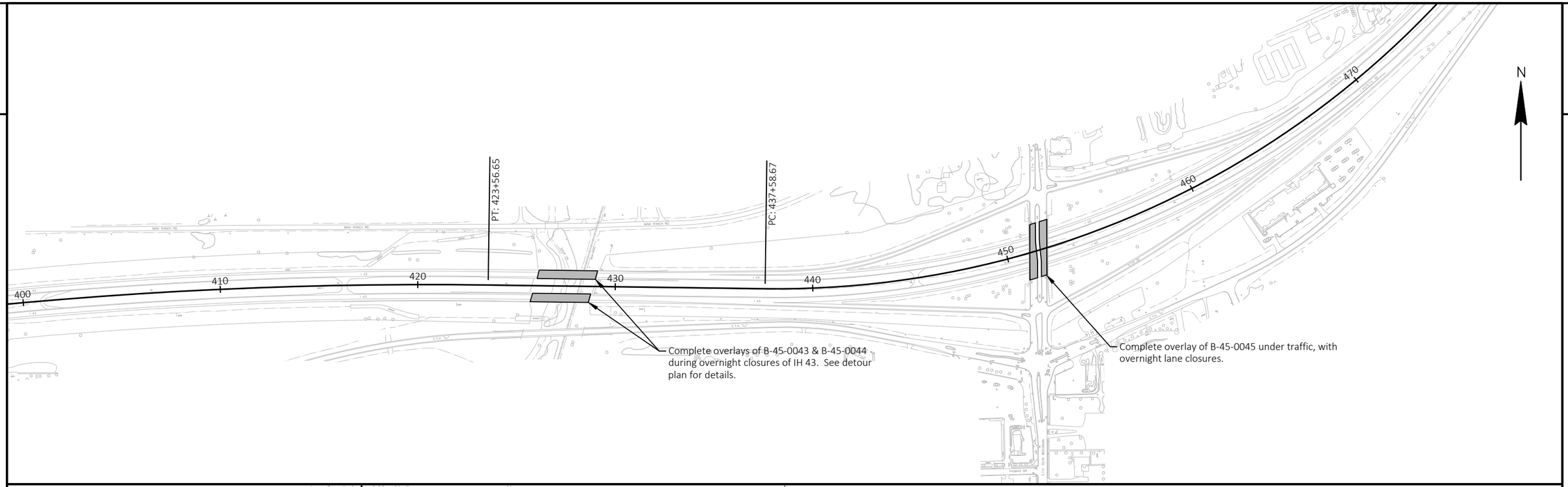
WALLS

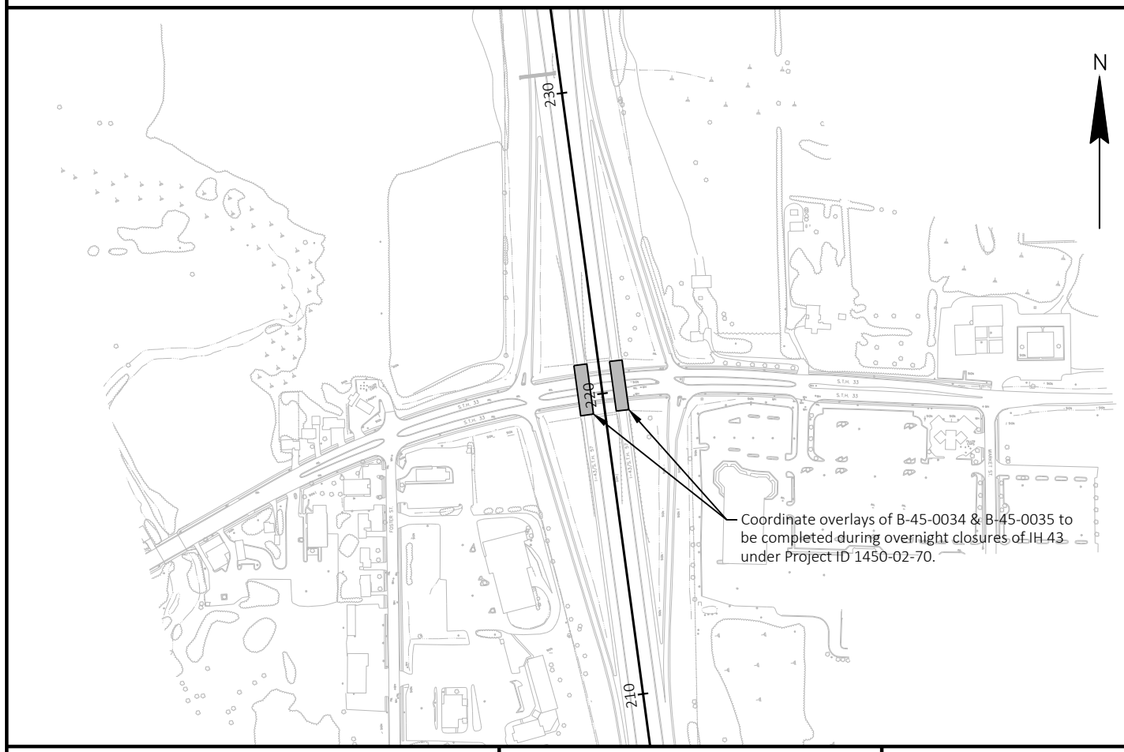
POOL

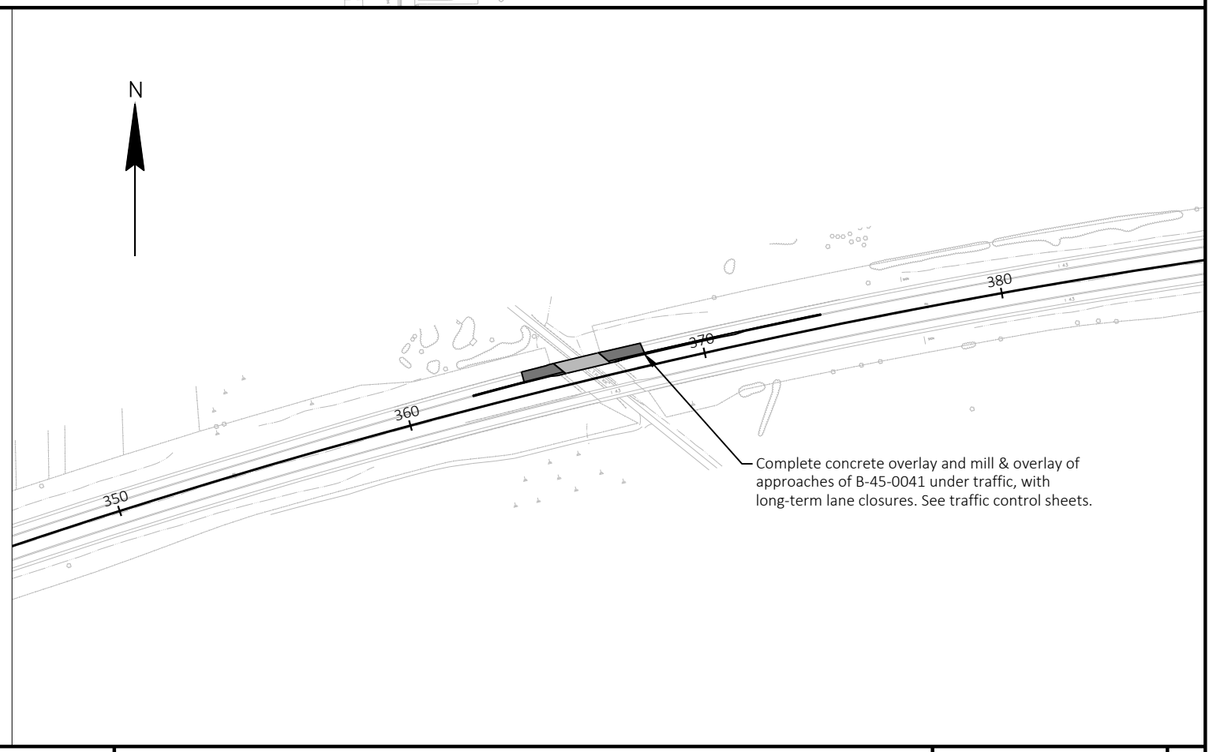
LEGEND

‡	TYPE III BARRICADE		WORK AREA
‡	TYPE III BARRICADE WTH ATTACHED SIGN	➡	DIRECTION OF TRAFFIC
●	TRAFFIC CONTROL DRUM	MB	PORTABLE CHANGEABLE MESSAGE BOARD
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		ASPHALTIC SURFACE TEMPORARY
	FLASHING ARROW BOARD	× × ×	MARKING REMOVAL LINE
	SIGN ON PERMANENT SUPPORT	◂▸ ◂▸ ◂▸	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
⊢	SIGN ON TEMPORARY SUPPORT	T4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
◂	TRAFFIC CONTROL CONES 42-INCHES	T4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
⊙	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	TSL	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH
▬▬▬	CONCRETE BARRIER TEMPORARY PRECAST	CC	CRASH CUSHIONS TEMPORARY
-◁- -◁-	TEMPORARY PEDESTRIAN BARRICADE		

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	TRAFFIC CONTROL - CTH D - WB WORK AREA	SHEET 136	E

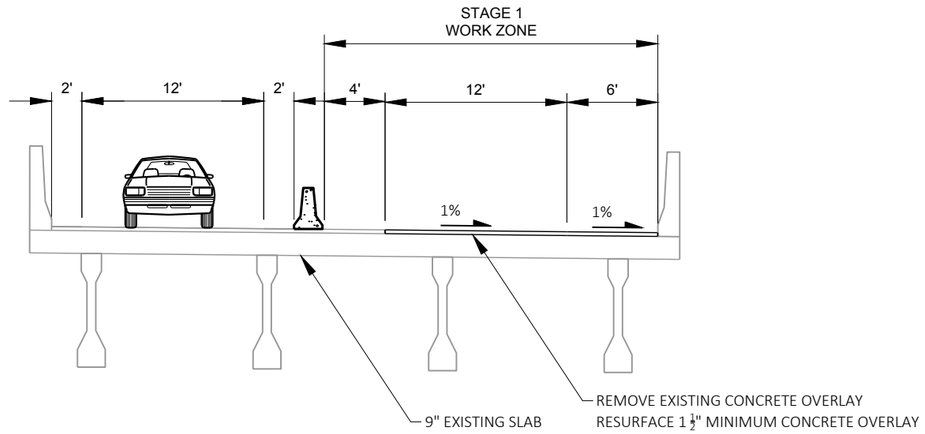




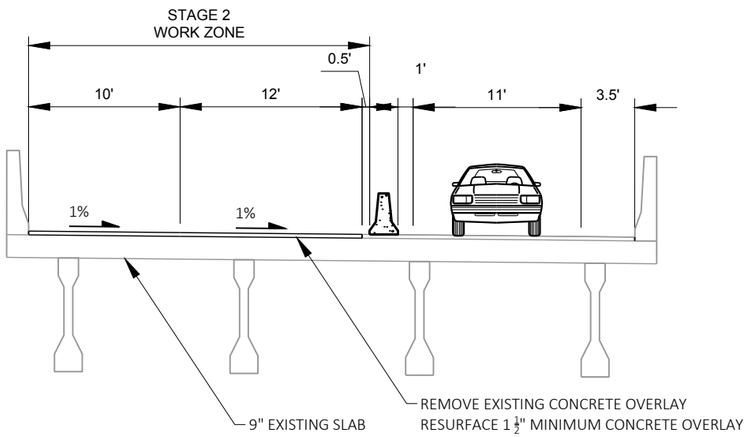


PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - OVERVIEW	SHEET 137	E

2

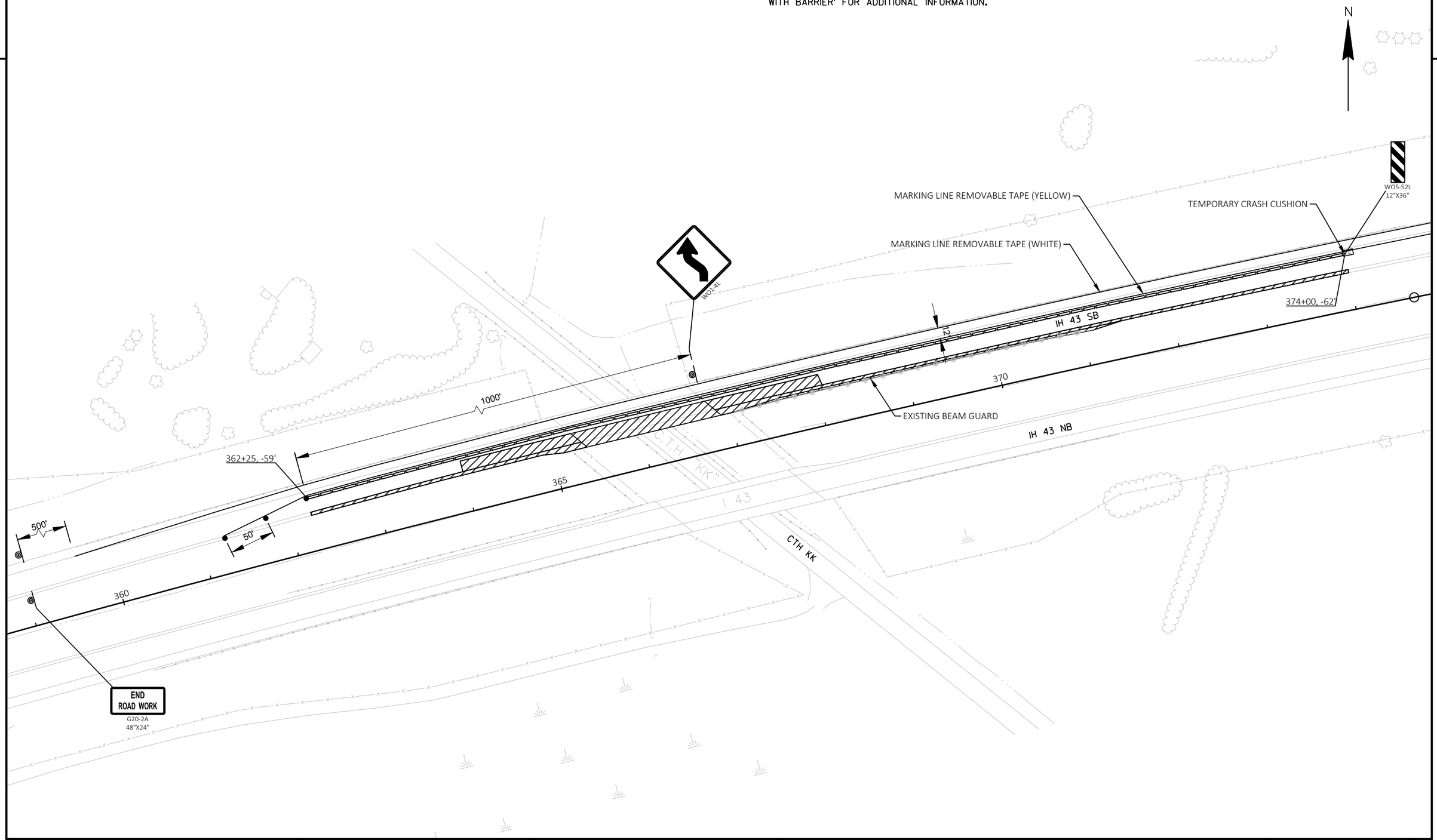


STAGE 1 - CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0041



STAGE 2- CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0041

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



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 139	E

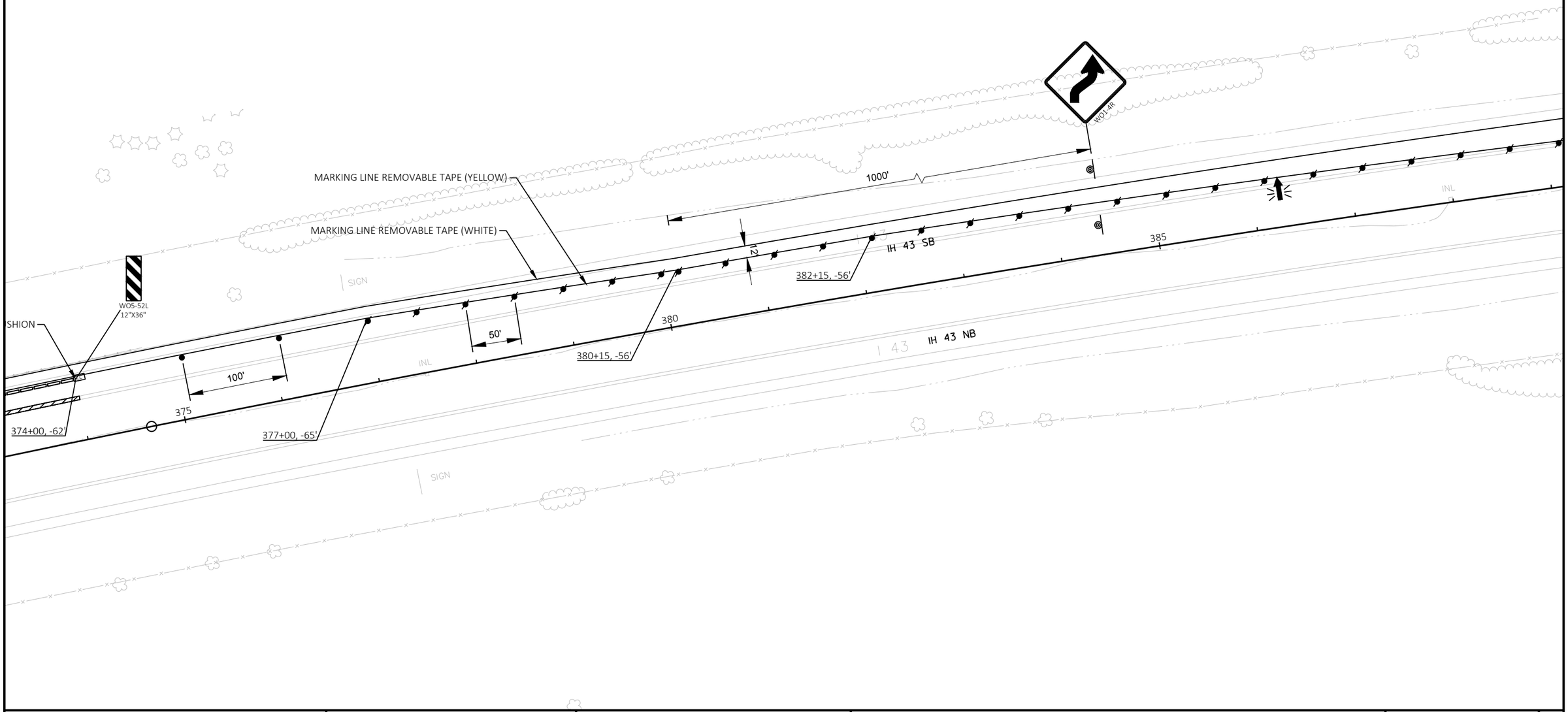
FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025102_TC.DWG
LAYOUT NAME - 025102_tc

PLOT DATE : 7/18/2019 4:56 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

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

N



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 140	E

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

N

W04-2L

LEFT LANE CLOSED 1/2 MILE
W20-5SG

ROAD WORK 1 MILE
W20-1F

MARKING LINE REMOVABLE TAPE (WHITE)

1000'

1600'

2600'

IH 43 SB

400

INL

50'

395

12'

12'

390

390+55, -44'

IH 43 NB

INL

MARKING LINE REMOVABLE TAPE (YELLOW)

I 43

I 43

CTH B

T

SEPTIC

SEPTIC

SIGN

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 141	E

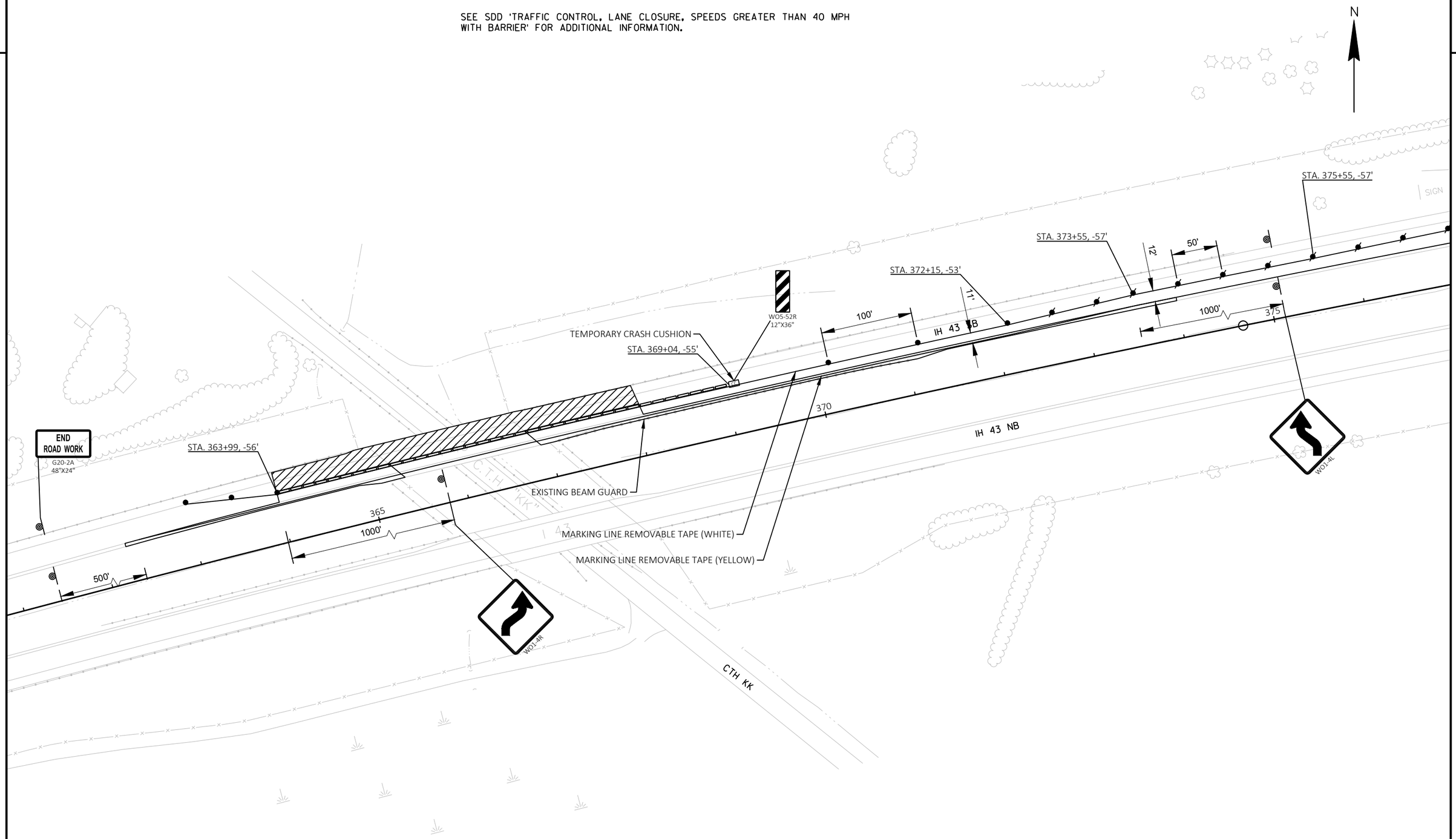
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LAYOUT NAME - 025103_tc (2)

PLOT DATE : 7/18/2019 4:59 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

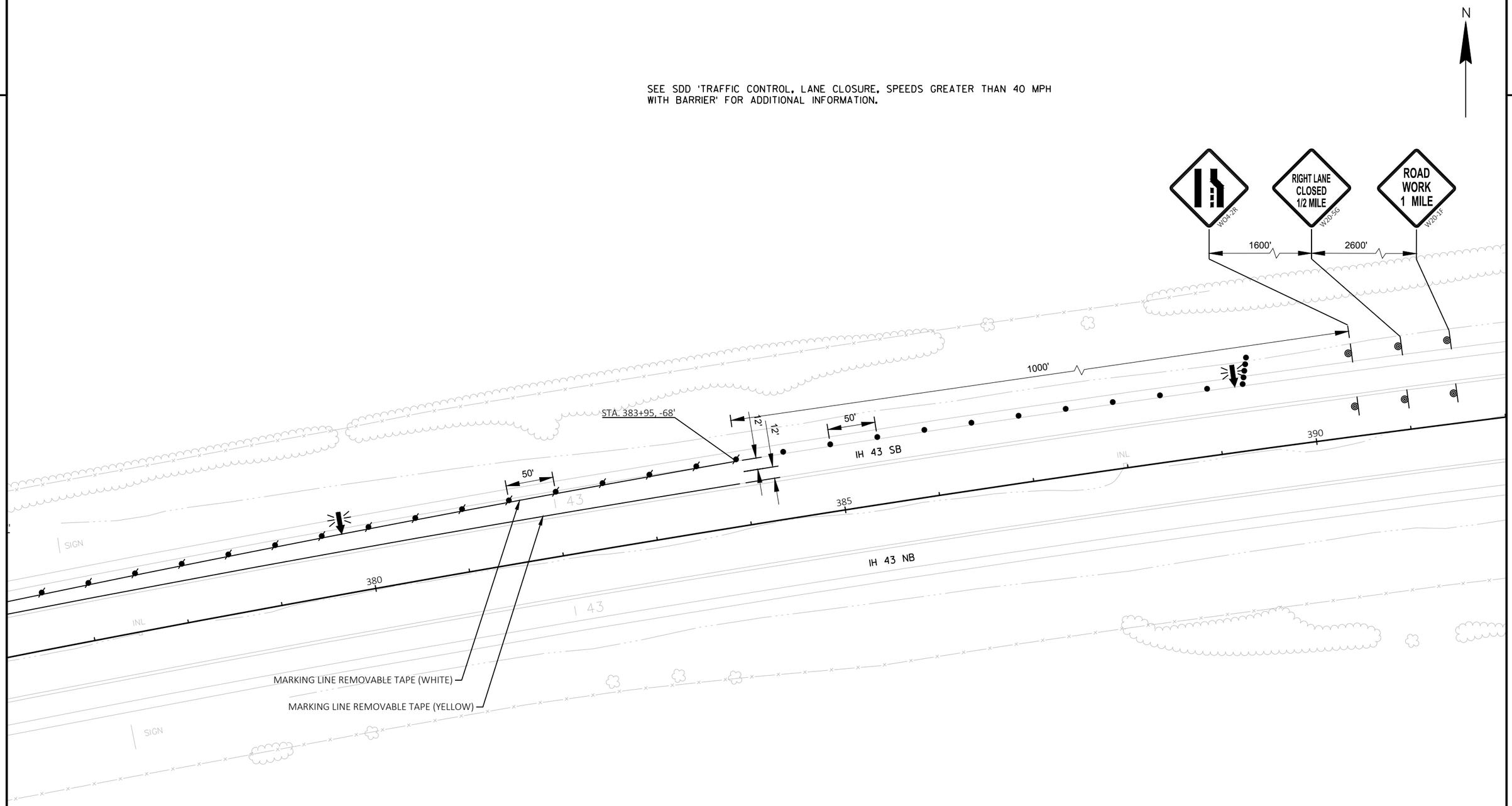
2

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



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 142	E

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



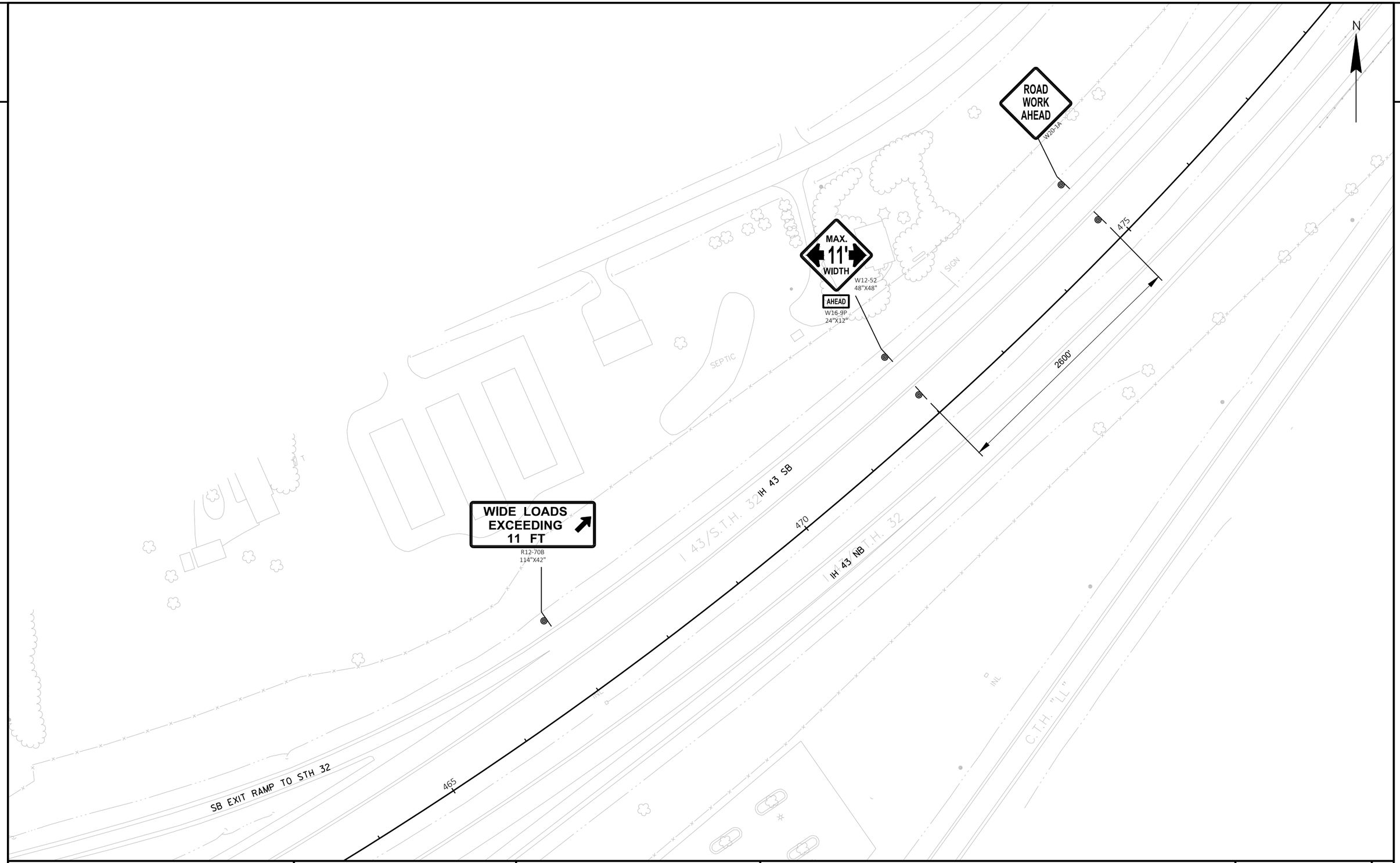
PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 143	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025104_TC.DWG
LAYOUT NAME - 025105_tc

PLOT DATE : 7/18/2019 5:01 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

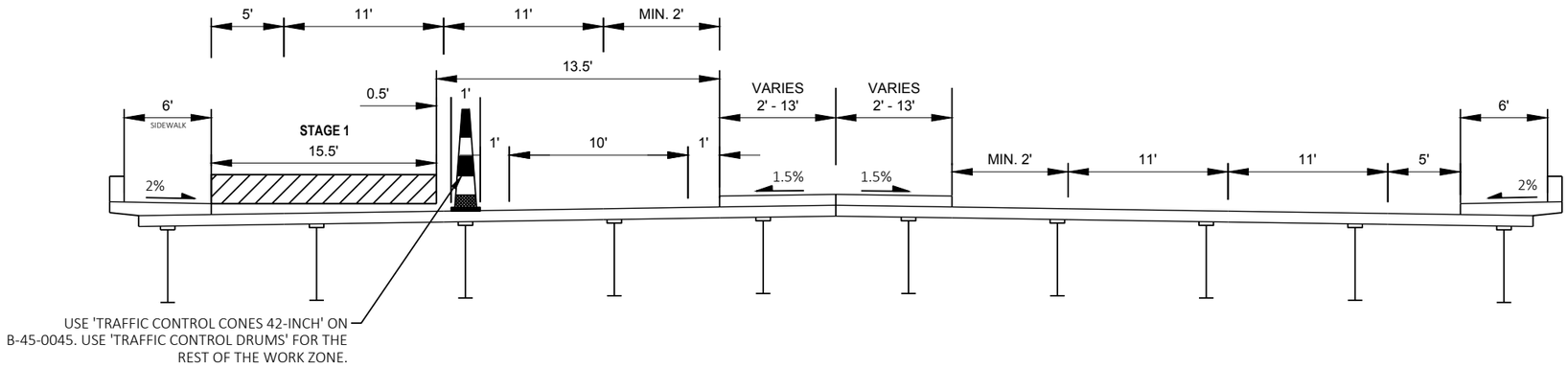


PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 144	E

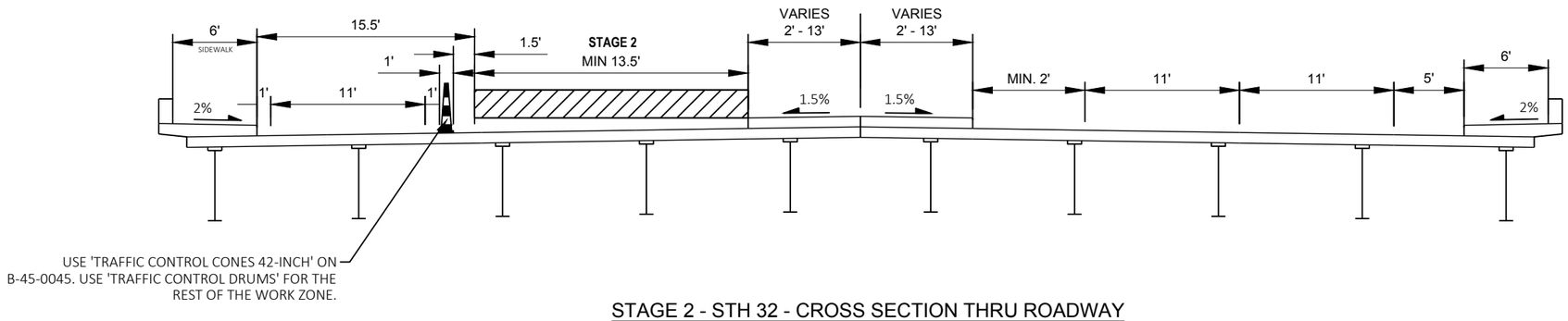
FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025104_TC.DWG
LAYOUT NAME - 025105_tc (2)

PLOT DATE : 7/18/2019 5:02 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



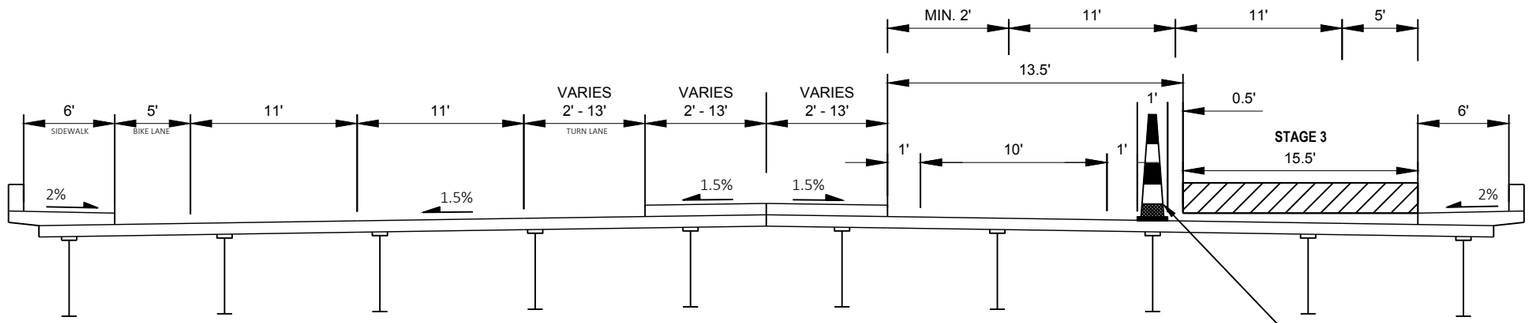
STAGE 1 - STH 32 - CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0045



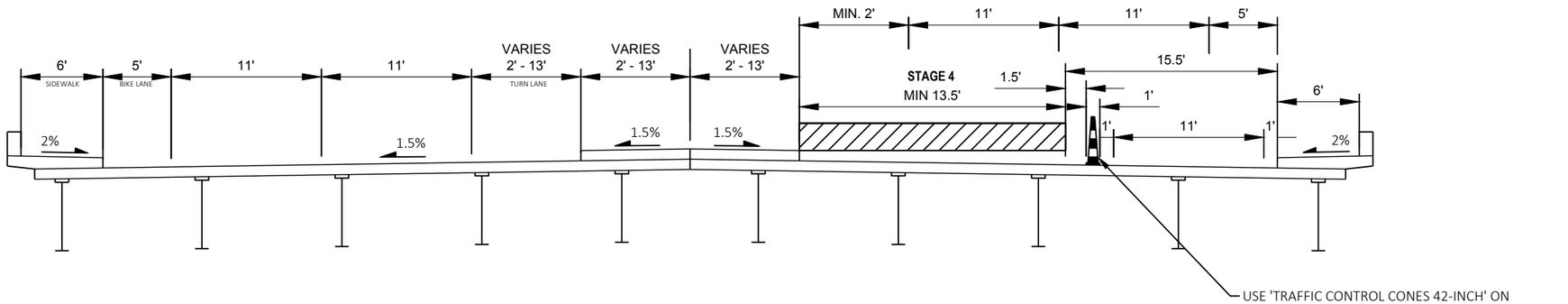
STAGE 2 - STH 32 - CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0045

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN: STAGING - STH 32 - TYPICAL SECTIONS	SHEET 145	E

2



STAGE 3 - STH 32 - CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0045



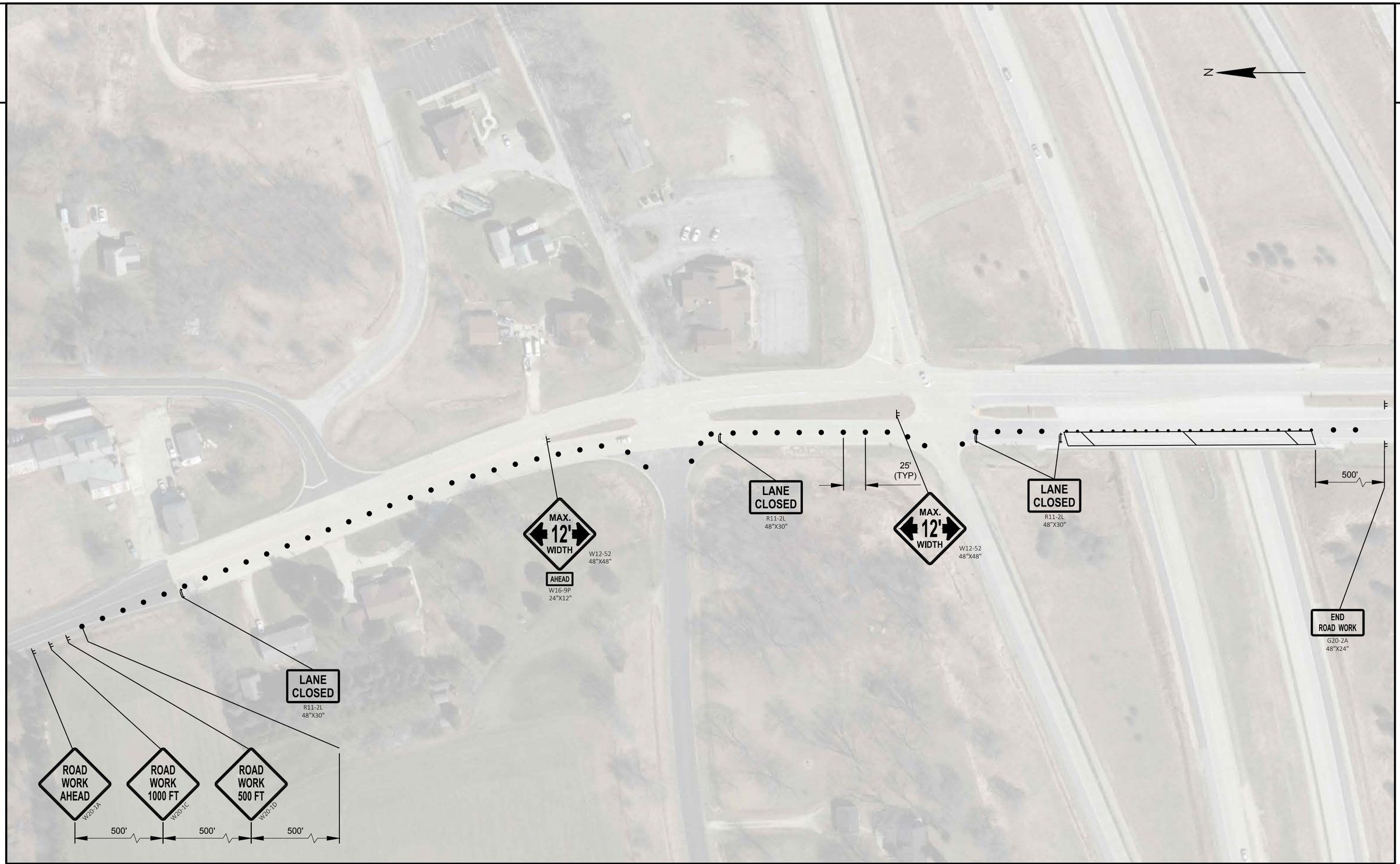
STAGE 4 - STH 32 - CROSS SECTION THRU ROADWAY
(LOOKING NORTH)
B-45-0045

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	PLAN: STAGING - STH 32 - TYPICAL SECTIONS	SHEET 146	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025106_TC_TS.DWG
LAYOUT NAME - 020302-ts 1in-10ft

PLOT DATE : 7/18/2019 5:02 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

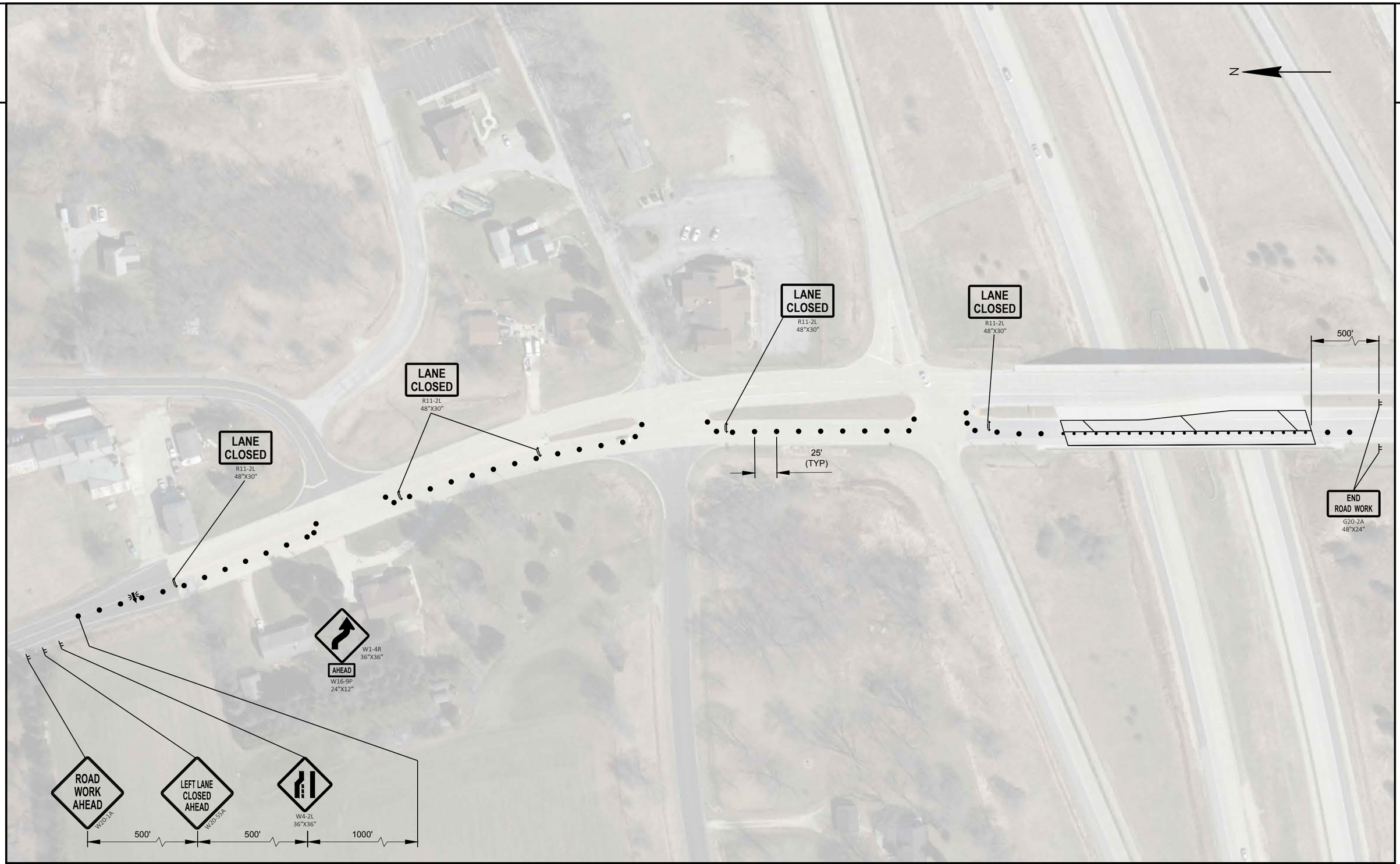


PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32 - STAGE 1	SHEET 147	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025106_TC.DWG
LAYOUT NAME - 025106_tc

PLOT DATE : 7/18/2019 5:03 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32 - STAGE 2	SHEET 148	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025108_TC.DWG
LAYOUT NAME - 025108_tc

PLOT DATE : 7/18/2019 5:03 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

500'

25'
(TYP)

END ROAD WORK
G20-2A
48"X24"

MAX. 12' WIDTH
W12-52
48"X48"

MAX. 12' WIDTH
W12-52
48"X48"

AHEAD
W16-9P
24"X12"

W4-2R
36"X36"

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

1000'

500'

500'

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32 - STAGE 3	SHEET 149	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025110_TC.DWG
LAYOUT NAME - 025110_tc

PLOT DATE : 7/18/2019 5:03 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

END
ROAD WORK
G20-2A
48"X24"

500'

LANE
CLOSED
R11-2L
48"X30"

25'
(TYP)

W4-2L
36"X36"

LEFT LANE
CLOSED
AHEAD
W20-5SA

ROAD
WORK
AHEAD
W20-1A

1000'

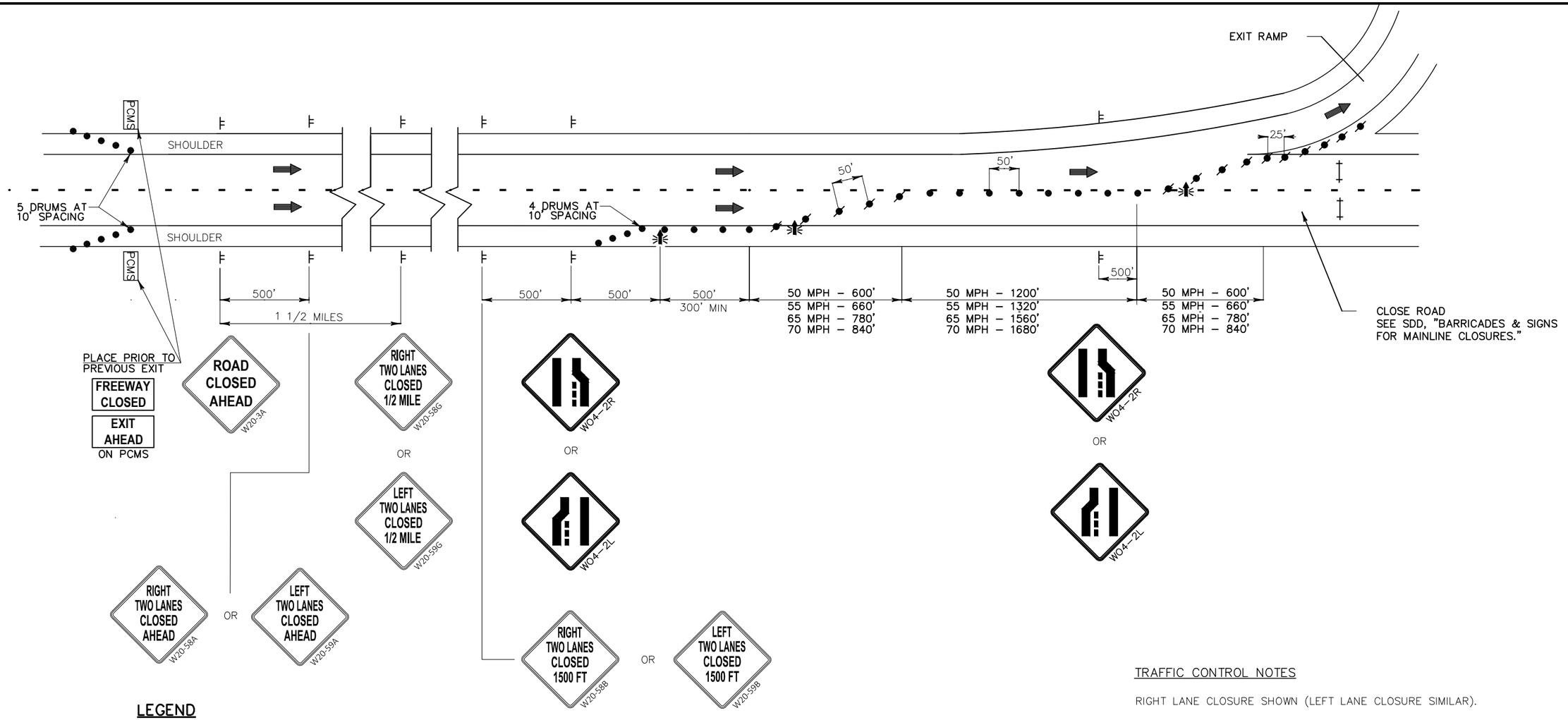
500'

500'

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	TRAFFIC CONTROL - STH 32 - STAGE 4	SHEET 150	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\025112_TC.DWG
LAYOUT NAME - 025112_tc

PLOT DATE : 7/18/2019 5:03 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

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

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

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

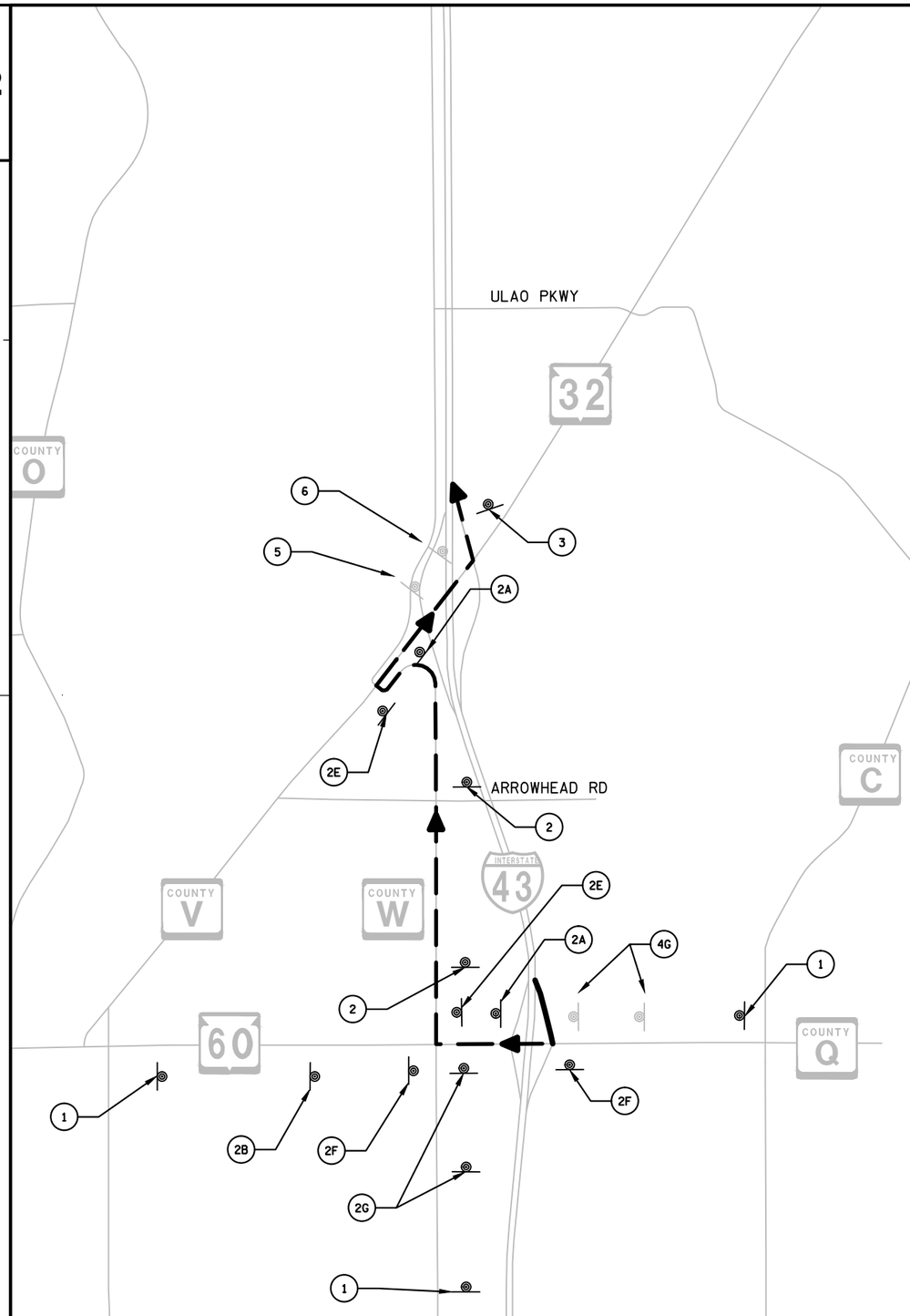
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.



LEGEND

- DETOUR ROUTE
- FULL CLOSURE
- COVER SIGN
- SIGN ON POST
- EXISTING SIGN ON POST

N

GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS AND "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. 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.
5. ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL UNLESS OTHERWISE NOTED.
6. 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.

A — M05-1R 21"X21"
B — M05-1L 21"X21"
C — M05-2R 21"X21"
D — M05-2L 21"X21"
E — M06-1 21"X21"
F — M06-1 21"X21"
G — M06-1 21"X21"
H — M06-2 21"X21"
I — M06-2 21"X21"

1 — NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"
DETOUR AHEAD W20-2-A 48"X48"

2 — DETOUR M04-8 24"X12"
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

3 — END DETOUR M04-8A 30"X24"
NORTH M3-1 36"X18"
INTERSTATE 43 M1-1 36"X36"

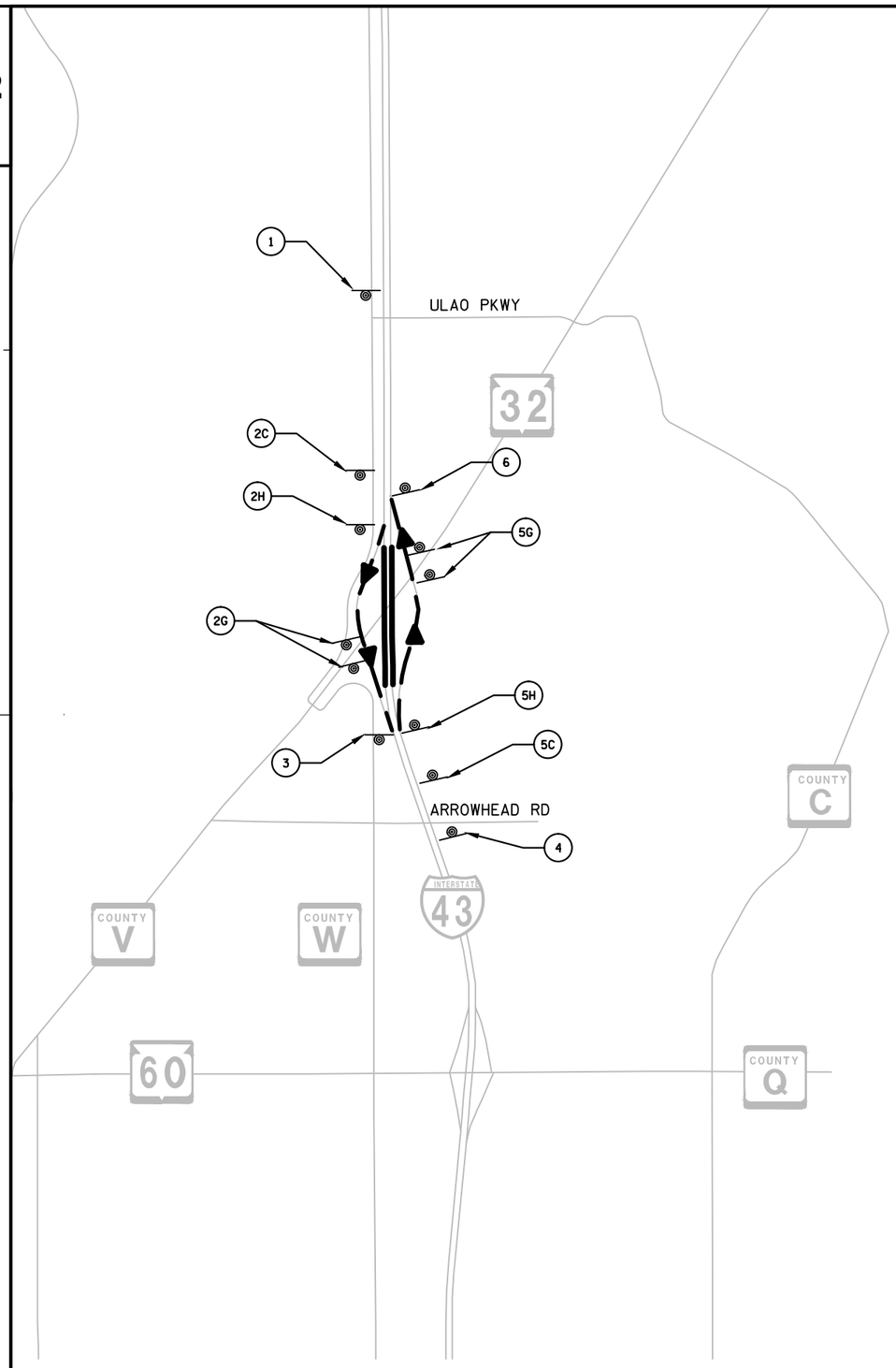
4 — DETOUR M04-8 24"X12"
NORTH
INTERSTATE 43
32
57

5 — DETOUR M04-8 24"X12"
NORTH
INTERSTATE 43
32
57

6 — DETOUR M04-8 24"X12"
NORTH
INTERSTATE 43
32
57

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEEE	DETOUR PLAN: STH 60 NB ENTRANCE RAMP	SHEET 152	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027001A_DT.DWG
LAYOUT NAME - 027001A_DT - PLAN 1 IN 100 FT
PLOT DATE : 4/18/2019 8:03 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 42



LEGEND

DETOUR ROUTE
FULL CLOSURE
COVER SIGN
SIGN ON POST
EXISTING SIGN ON POST

N

GENERAL NOTES:

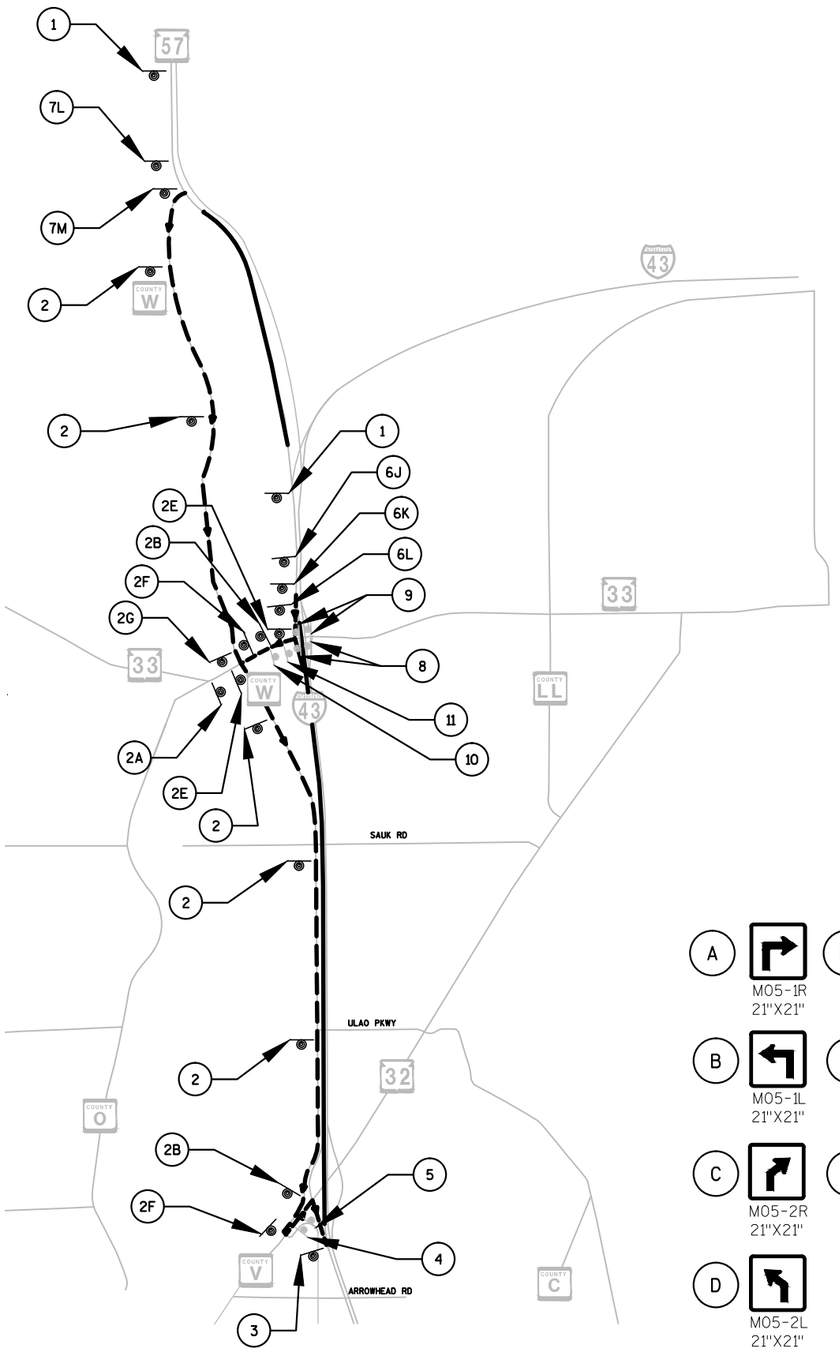
1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS AND "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. 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.
5. ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL UNLESS OTHERWISE NOTED.
6. 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.

A — M05-1R 30"X30"
B — M05-1L 30"X30"
C — M05-2R 30"X30"
D — M05-2L 30"X30"
E — M06-1 30"X30"
F — M06-1 30"X30"
G — M06-1 30"X30"
H — M06-2 30"X30"
I — M06-2 30"X30"

1 — SOUTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"; DETOUR AHEAD W20-2-A 48"X48"
2 — DETOUR M04-8 36"X18"; SOUTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"
3 — END DETOUR M04-8A 30"X24"; SOUTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"
4 — NORTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"; DETOUR AHEAD W20-2-A 48"X48"
5 — DETOUR M04-8 36"X18"; NORTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"
6 — END DETOUR M04-8A 30"X24"; NORTH M3-3 36"X18"; INTERSTATE 43 M1-1 36"X36"

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	DETOUR PLAN: IH 43 FULL CLOSURE WIS 32/CTH V	SHEET 153	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027004C_DT.DWG
LAYOUT NAME - 027004C_DT - PLAN 1 IN 100 FT
PLOT DATE : 4/18/2019 8:09 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 42



LEGEND

DETOUR ROUTE
FULL CLOSURE
SIGN ON POST
EXISTING SIGN ON POST
COVER SIGN

N

GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS AND "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. 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.
5. ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL UNLESS OTHERWISE NOTED.
6. 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.

9
DETOUR M04-8 24"X12"
DETOUR M04-8 24"X12"
SOUTH INTERSTATE 43
SOUTH 57
M06-1 21"X21"
M06-1 21"X21"

10
SOUTH INTERSTATE 43
57
CLOSED
ORANGE PANEL BLACK_TEXT

11
SOUTH INTERSTATE 43
SOUTH 57
CLOSED
CLOSED
ORANGE PANEL BLACK_TEXT

A M05-1R 21"X21"
E M06-1 21"X21"
H M06-2 21"X21"
L M05-1R 30"X30"
B M05-1L 21"X21"
F M06-1 21"X21"
I M06-2 21"X21"
M M06-1 30"X30"
C M05-2R 21"X21"
G M06-1 21"X21"
J M05-2R 30"X30"
D M05-2L 21"X21"
K M06-2 30"X30"

1
SOUTH M3-3 36"X18"
INTERSTATE 43 M1-1 36"X36"
DETOUR AHEAD W20-2-A 48"X48"

2
DETOUR M04-8 24"X12"
SOUTH M3-3 24"X12"
INTERSTATE 43 M1-1 24"X24"

3
END DETOUR M04-8A 30"X24"
SOUTH M3-3 36"X18"
INTERSTATE 43 M1-1 36"X36"

4
DETOUR M04-8 24"X12"
SOUTH
INTERSTATE 43
32
57

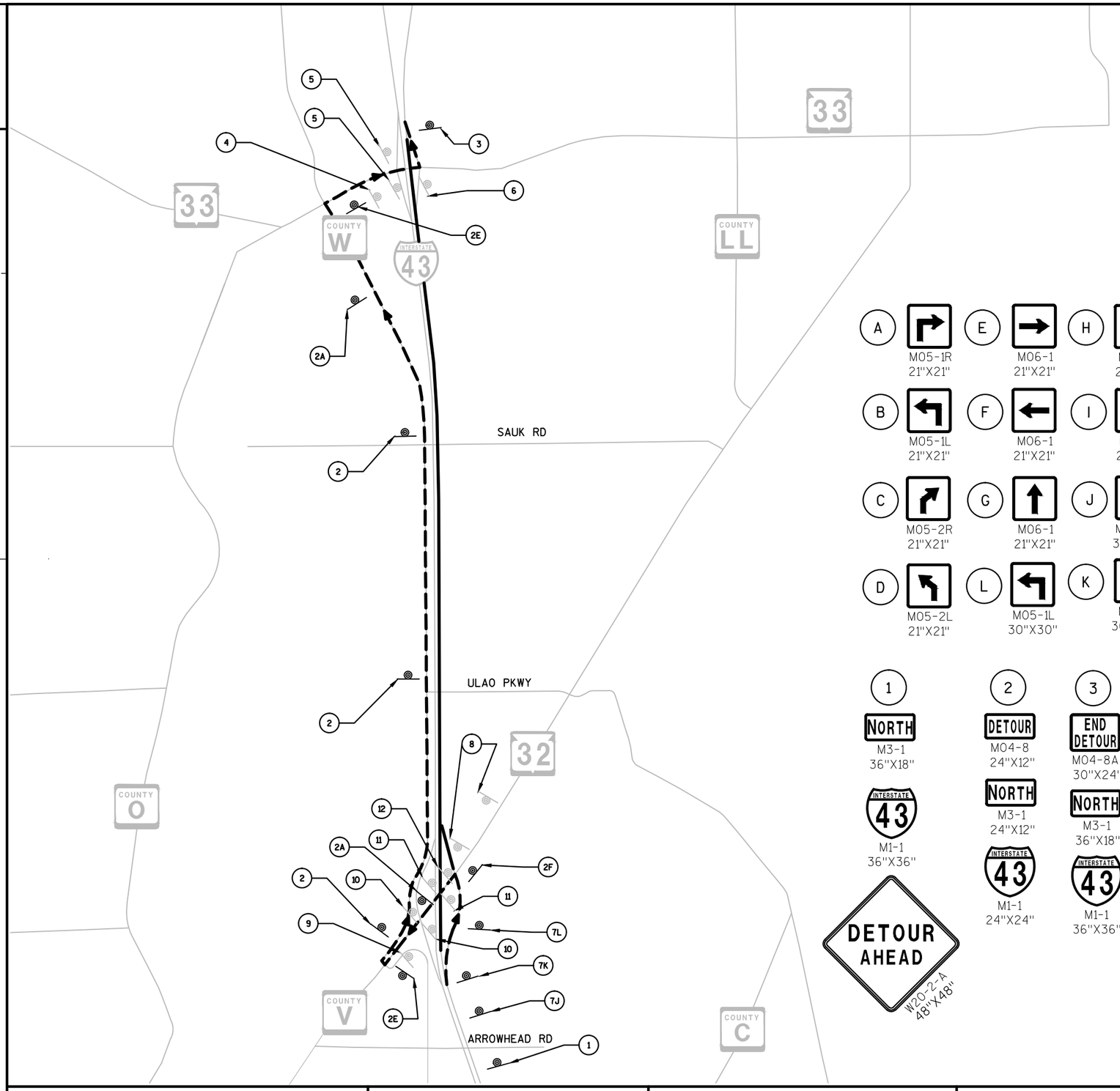
5
DETOUR M04-8 24"X12"
SOUTH
INTERSTATE 43
32
57

6
DETOUR M04-8 36"X18"
SOUTH M3-3 36"X18"
INTERSTATE 43 M1-1 36"X36"

7
DETOUR M04-8 36"X18"
SOUTH M3-3 36"X18"
INTERSTATE 43 M1-1 36"X36"
57 M1-6 36"X36"

8
DETOUR M04-8 24"X12"
SOUTH
INTERSTATE 43
M06-1 21"X21"

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	DETOUR PLAN: IH 43 SB FULL CLOSURE STH 33 TO STH 32/CTH V	SHEET 154	E



LEGEND

- DETOUR ROUTE
- FULL CLOSURE
- COVER SIGN
- SIGN ON POST
- EXISTING SIGN ON POST

N

GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS AND "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. 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.
5. ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL UNLESS OTHERWISE NOTED.
6. 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.

A — M05-1R 21"X21"
E — M06-1 21"X21"
H — M06-2 21"X21"
B — M05-1L 21"X21"
F — M06-1 21"X21"
I — M06-2 21"X21"
C — M05-2R 21"X21"
G — M06-1 21"X21"
J — M05-2R 30"X30"
D — M05-2L 21"X21"
L — M05-1L 30"X30"
K — M06-2 30"X30"

10
NORTH
INTERSTATE 43
NORTH
57
CLOSED
CLOSED
ORANGE PANEL BLACK_TEXT

11
PORT WASHINGTON
SHEBOYGAN

12
NORTH
INTERSTATE 43
57
CLOSED
ORANGE PANEL BLACK_TEXT

1
NORTH
M3-1
36"X18"
INTERSTATE 43
M1-1
36"X36"

DETOUR AHEAD
W20-2-A
48"X48"

2
DETOUR
M04-8
24"X12"
NORTH
M3-1
24"X12"
INTERSTATE 43
M1-1
24"X24"

3
END DETOUR
M04-8A
30"X24"
NORTH
M3-1
36"X18"
INTERSTATE 43
M1-1
36"X36"

4
DETOUR
M04-8
24"X12"
NORTH
INTERSTATE 43
57

5
DETOUR
M04-8
24"X12"
NORTH
INTERSTATE 43

6
DETOUR
M04-8
24"X12"
NORTH
INTERSTATE 43

7
DETOUR
M04-8
36"X18"
NORTH
M3-1
36"X18"
INTERSTATE 43
M1-1
36"X36"

8
DETOUR
M04-8
24"X12"
NORTH
INTERSTATE 43
57
M06-1
21"X21"

9
NORTH
INTERSTATE 43
57
32
CLOSED
ORANGE PANEL BLACK_TEXT

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	DETOUR PLAN: IH 43 NB FULL CLOSURE STH 32/CTH V TO STH 33	SHEET 155	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027011C_DT_.DWG
LAYOUT NAME - 027011C_DT_ - PLAN 1 IN 100 FT
PLOT DATE : 4/18/2019 8:17 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 42

2

DETOUR
M4-8
24"X12"
NORTH
INTERSTATE
43
M6-1
21"X21"

DETOUR
M4-8
24"X12"
NORTH
INTERSTATE
43
USE
LEFT
LANE
M6-1
21"X21"

DETOUR
M4-8
24"X12"
NORTH
INTERSTATE
43
NORTH
57
M6-1
21"X21"

NORTH
57

SEE CONSTRUCTION DETAIL:
TWO LANE FULL FREEWAY
CLOSURE

MB

NORTHWOODS RD

ULAO PKWY

SAUK RD

MINK RANCH RD

W

KK

H

LL

B

C

CC

KW

32

33

57

HIGHLAND

LAKE DRIVE

N

LEGEND

- SIGN ON POST
- EXISTING SIGN ON POST
- DETOUR ROUTE
- WORK ZONE
- COVER EXISTING SIGN

NOTE:

* SIZE 3

A MO6-1 21"X21"
B MO6-1 21"X21"
C MO6-1 21"X21"
D MO5-1R 21"X21"
E MO5-1L 21"X21"
F MO5-2L 21"X21"
G MO5-2R 21"X21"

1 DETOUR AHEAD W20-2A
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

2 DETOUR M4-8 24"X12"
NORTH M3-1 24"X12"
INTERSTATE 43 M1-1 24"X24"

3 END DETOUR M4-8A 24"X18"
INTERSTATE 43 M1-1 24"X24"

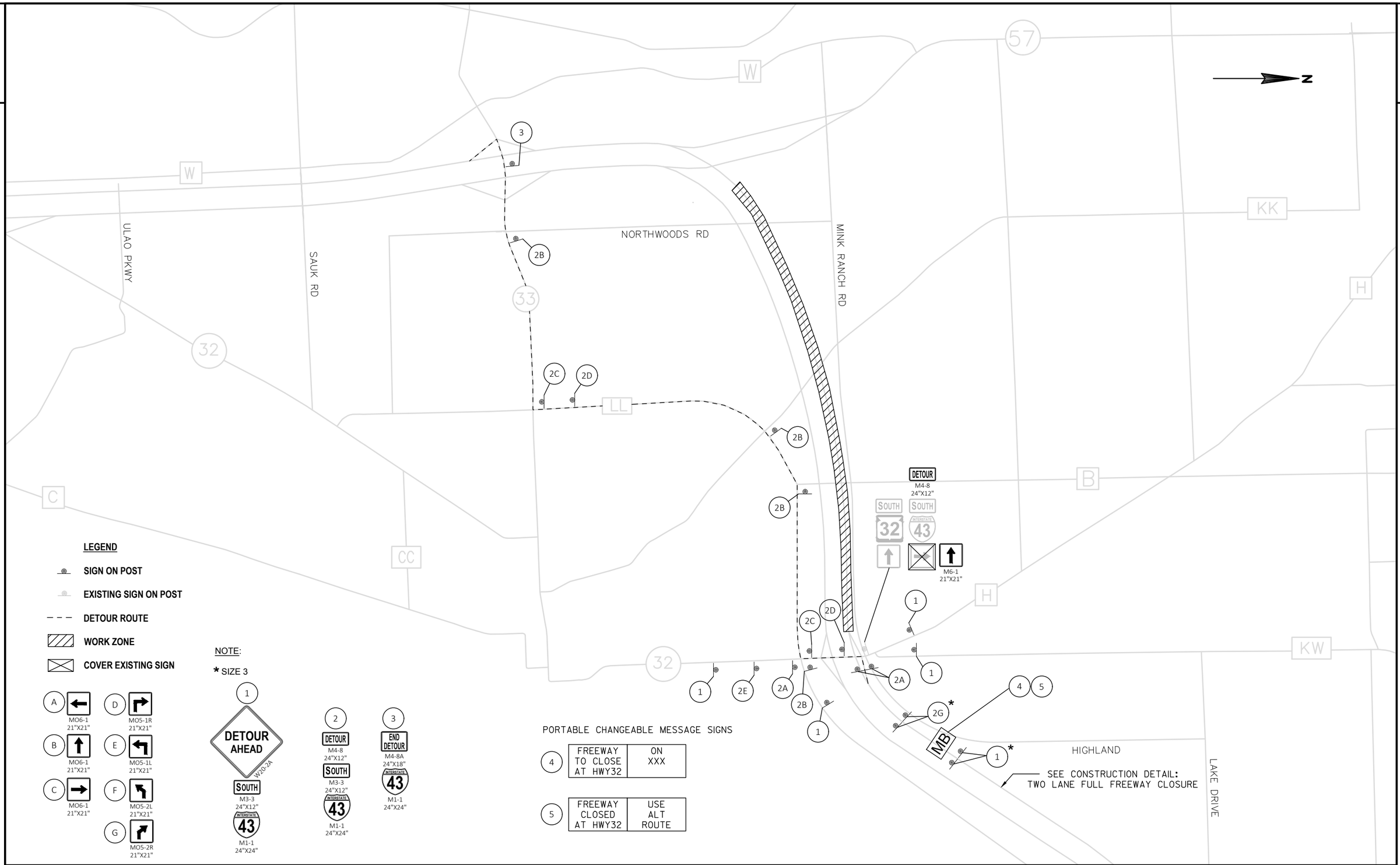
PORTABLE CHANGEABLE MESSAGE SIGNS

4	FREEWAY TO CLOSE AT HWY57	ON XXX
5	FREEWAY CLOSED AT HWY57	USE ALT ROUTE

PROJECT NO: 1450-02-72	HWY: I-43	COUNTY: OZAUKEE	TRAFFIC CONTROL: DETOUR FOR NB 33 TO 32/H FULL FWY CLOSURE	SHEET 156	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - FULL 33-32 NB
PLOT DATE : 7/24/2019 1:44 PM
PLOT BY : SPAETH, MICHELE L
PLOT NAME :
PLOT SCALE : ############

2



PROJECT NO: 1450-02-72	HWY: I-43	COUNTY: OZAUKEE	TRAFFIC CONTROL: DETOUR FOR SB 33 TO 32/H FULL FWY CLOSURE	SHEET 157	E

FILE NAME : N:\PDS\C3D\14500202\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - FULL 33-32 SB
PLOT DATE : 7/24/2019 1:44 PM
PLOT BY : SPAETH, MICHELE L
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

STH 60
359+62.51
X = 599156.2
Y = 402209.3

SECTION LINE

X = 601786.57
Y = 403536.26

STH 32/CTH V
200+00.00
X = 600985.7
Y = 408294.0

SECTION LINE

X = 601653.99
Y = 414158.89

N89° 15' 26"W
5318.01'

CTH W
350+00.00
X = 601657.0
Y = 413957.7

SECTION LINE

PI 16

SECTION LINE

ARROWHEAD RD
100+00.00
X = 602021.4
Y = 406201.2

N0° 37' 27"W
5315.56'

CP 14
759.069
X = 601600.12
Y = 408763.12

PI 21

CP 15
750.975
X = 601664.53
Y = 410419.78

N0° 48' 22"W
5307.91'

SECTION LINE

ULAO PKWY
299+57.53
X = 601653.7
Y = 414158.4

CTH W
353+50.00
X = 601650.8
Y = 414307.6

PI 17

PI 18

CP 16
727.523
X = 602368.48
Y = 406183.13

PC 3

PI 3

PT 3

PI 7

PC 2

PT 2

PI 22

PI 4

PI 5

PI 6

PI 19

PI 20

PI 2

CP 17
703.494
X = 603003.11
Y = 405392.13

X = 601728.66
Y = 408851.50

CP 13
762.439
X = 601996.43
Y = 413578.37

CP 12
791.205
X = 601684.09
Y = 414209.47

PI 23

ULAO PKWY
306+02.68
X = 601684.09
Y = 414209.47

ARROWHEAD RD
111+43.19
X = 603164.2
Y = 406228.1

STH 32/CTH V
227+47.46
X = 602621.4
Y = 410501.4

STH 60
411+01.64
X = 604294.4
Y = 402297.3

S88° 58' 43"W
5335.91'

SECTION LINE

X = 601721.63
Y = 403631.36

S89° 01' 31"W
5326.61'

SECTION LINE

X = 601054.50
Y = 408942.11

S88° 53' 48"W
5309.78'

SECTION LINE

SECTION LINE

SECTION LINE

N0° 43' 27"W
5311.18'

N0° 59' 16"W
5319.82'

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-AD - SHEET - (1)

PLOT DATE : 7/3/2019 8:25 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

2

2

N

X = 601653.99
Y = 414158.89

N89° 15' 26"W
5318.01'

SECTION LINE

CTH W
350+00.00
X = 601657.0
Y = 413957.7

ULAO PKWY
299+57.53
X = 601653.7
Y = 414158.4

CTH W
353+50.00
X = 601650.8
Y = 414307.6

PI
7

100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255

SECTION LINE

N1° 10' 06"W
5527.49'

PC
8

CP 10
785.789
X = 601569.02
Y = 419741.01

PT
8

PI
9

PI
23

305

CP 12
791.205
X = 601684.09
Y = 414209.47

ULAO PKWY
306+02.68
X = 601684.09
Y = 414209.47

CP 11
769.931
X = 601905.15
Y = 418975.40

PI
8

S88° 54' 18"W
3730.47'

SECTION LINE

X = 601541.29
Y = 419685.23

X = 597811.50
Y = 419613.33

X = 597748.57
Y = 424926.26

N0° 40' 44"W
5312.70'

SECTION LINE

N0° 51' 01"W
5278.04'

SECTION LINE

S88° 47' 11"W
5318.26'

SECTION LINE

S88° 53' 48"W
5309.78'

SECTION LINE

S88° 38' 50"W
5300.96'

SECTION LINE

SECTION LINE

X = 603065.64
Y = 425038.92

N0° 35' 39"W
5326.76'

SECTION LINE

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 159	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-AD - SHEET - (2)

PLOT DATE : 7/3/2019 8:25 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

2

2

SECTION LINE

SECTION LINE

SECTION LINE

SECTION LINE

SECTION LINE

N89° 33' 09"E
5298.57'

N88° 38' 26"E
5299.31'

N0° 15' 31"E
5297.98'

N0° 21' 48"E
5297.20'

551+00.00 MATCH LINE

N

T 11 N R 9 10 16 15 22 E
X = 618870.90
Y = 441262.81

T 11 N R 3 2 10 11 22 E
X = 624202.98
Y = 446601.29

T 11 N R 16 15 21 22 22 E
X = 618846.99
Y = 435964.89

T 11 N R 10 11 15 14 22 E
X = 624169.40
Y = 441304.19

PC 10
PT 10
PI 10
PC 11
PI 11
PT 11
PC 12

440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 160	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-AD - SHEET - (3)

PLOT DATE : 7/3/2019 8:25 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

2

N

750+00.00 MATCH

SECTION LINE

SECTION LINE

SECTION LINE N0° 22' 27"W
5299.09'

SECTION LINE N0° 51' 53"E
5043.41'

S89° 36' 06"W
5280.41'

X = 624279.10
Y = 451644.12

X = 624350.14
Y = 451644.12

X = 624315.55
Y = 456943.10

CTH P
500+00.00
X = 625637.1
Y = 451653.3

SANDY BEACH RD
600+00.00
X = 626094.7
Y = 456959.8

CP 7
706.414
X = 626491.73
Y = 456982.70

600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750

PI 12

PT 12

PI 24

PT 13

PI 13

PI 27

PC 13

PI 25

CP 9
676.586
X = 627007.99
Y = 451628.40

CTH P
514+55.57
X = 627092.6
Y = 451664.3

CP 8
688.984
X = 627485.04
Y = 456944.13

SANDY BEACH RD
615+72.7
X = 627667.4
Y = 456969.8

S89° 17' 19"W
4943.66'

S89° 34' 48"W
5244.73'

X = 629146.26
Y = 449692.66

X = 629503.54
Y = 447333.79

X = 629594.74
Y = 451682.55

X = 629595.83
Y = 449769.80

N0° 18' 57"W
5307.48'

N1° 12' 05"E
4349.71'

SECTION LINE

PROJECT NO:1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 161	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-AD - SHEET - (4)

PLOT DATE : 7/3/2019 8:25 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

2

SECTION LINE

SECTION LINE

SECTION LINE

SECTION LINE

SECTION LINE

SECTION LINE

N

2

X = 624248.29
Y = 461557.54

T 12 N
R 22 E
22 15 14 23

S89° 41' 56"W
5294.10'

CTH D
800+00.00
X = 626054.6
Y = 467574.7

PI 28

PI 29

PI 30

CP 3
724.120
X = 626653.10
Y = 467493.36

PI 14

PI 31

CEDAR BEACH RD
700+00.00
X = 626270.8
Y = 462270.9

CP 5
718.592
X = 626497.97
Y = 462294.71

PI 26

PC 14

PC 32

PI 32

PT 32

PI 33

PI 34

CP 4
702.308
X = 627129.66
Y = 467996.35

PT 14

SILVER BEACH RD
900+00.00
X = 627202.0
Y = 472874.01

CP 1
703.555
X = 628010.49
Y = 472856.89

PI 35

CP 2
674.581
X = 628827.66
Y = 473325.15

PI 36

PC 15

PI 15

PT 13

PI 27

CP 6
713.379
X = 627342.92
Y = 462251.58

CEDAR BEACH RD
712+75.92
X = 627546.7
Y = 462276.8

CTH D
823+35.27
X = 628388.7
Y = 467578.8

NO° 06' 31"W
5300.18'

NO° 15' 44"W
5298.20'

NO° 18' 57"W
5307.48'

N89° 09' 03"W
5216.81'

750+00.00 MATCH LINE

N89° 22' 34"W
5260.23'

T 12 N
R 22 E
26 23 24 25

X = 629566.58
Y = 462287.20

T 12 N
R 22 E
23 14 13 24

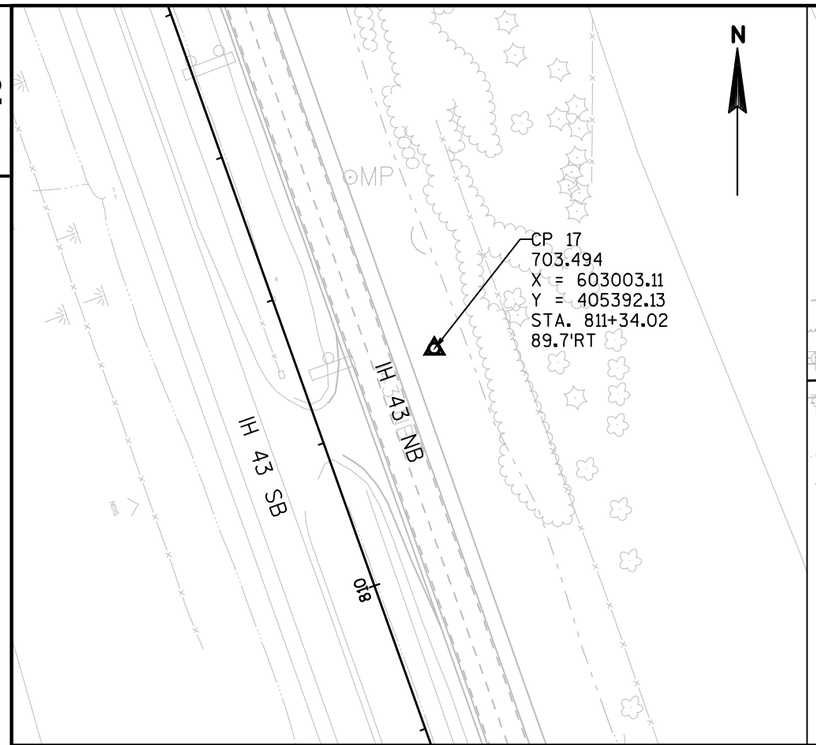
X = 629542.32
Y = 467585.35

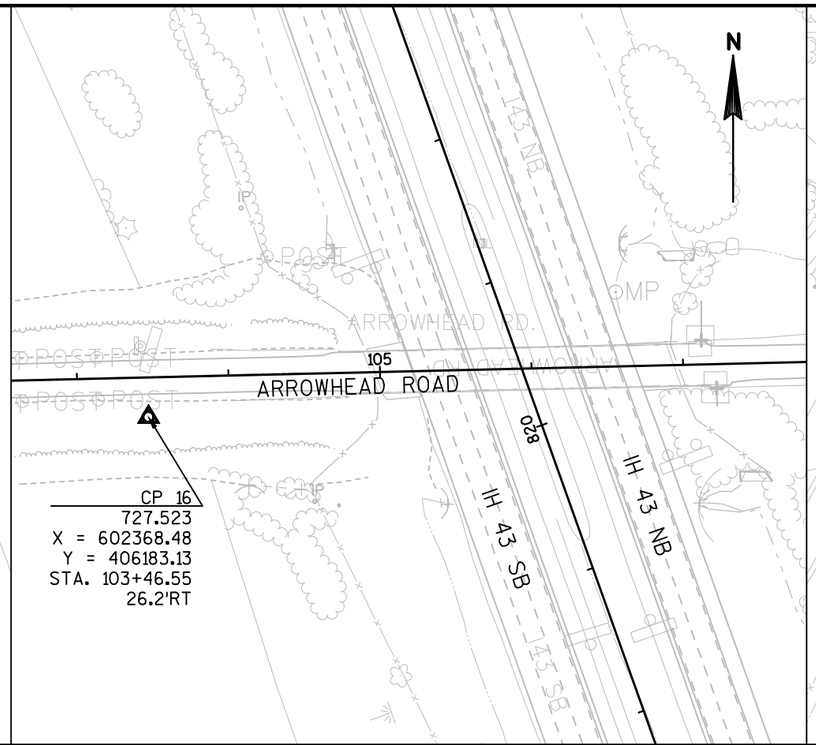
T 12 N
R 22 E
14 11 12 13

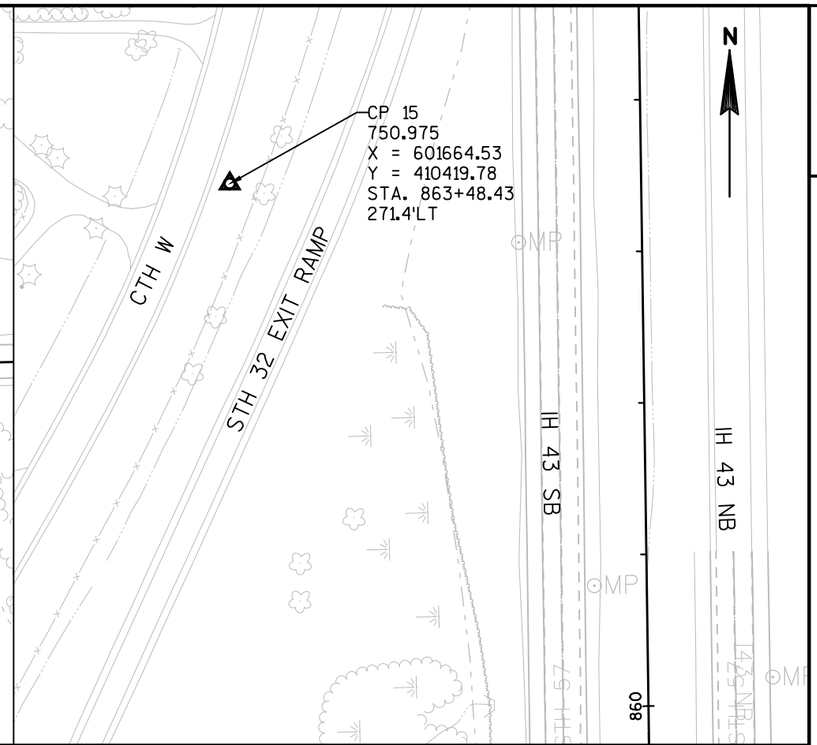
X = 629532.27
Y = 472885.52

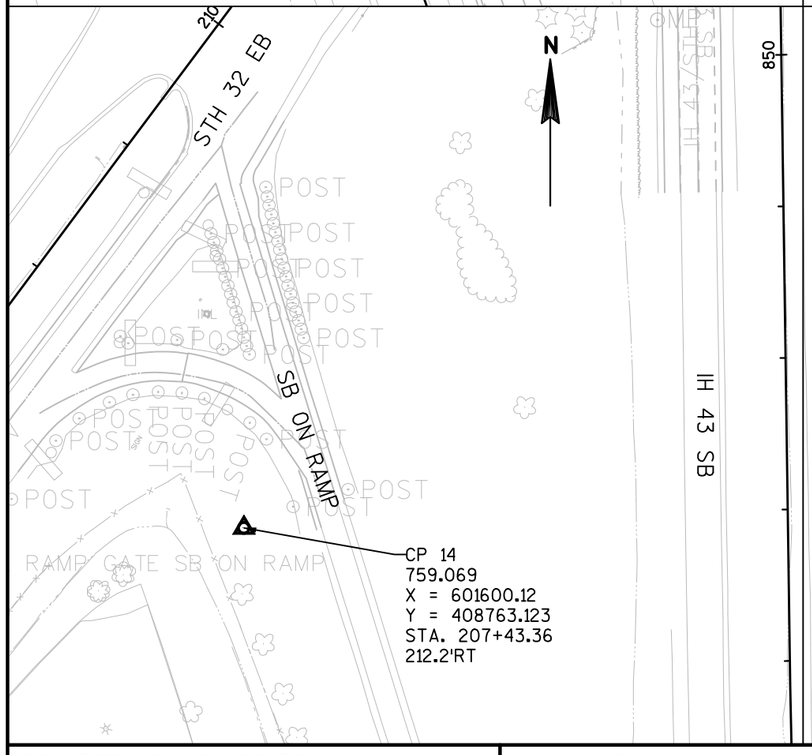
PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 162	E

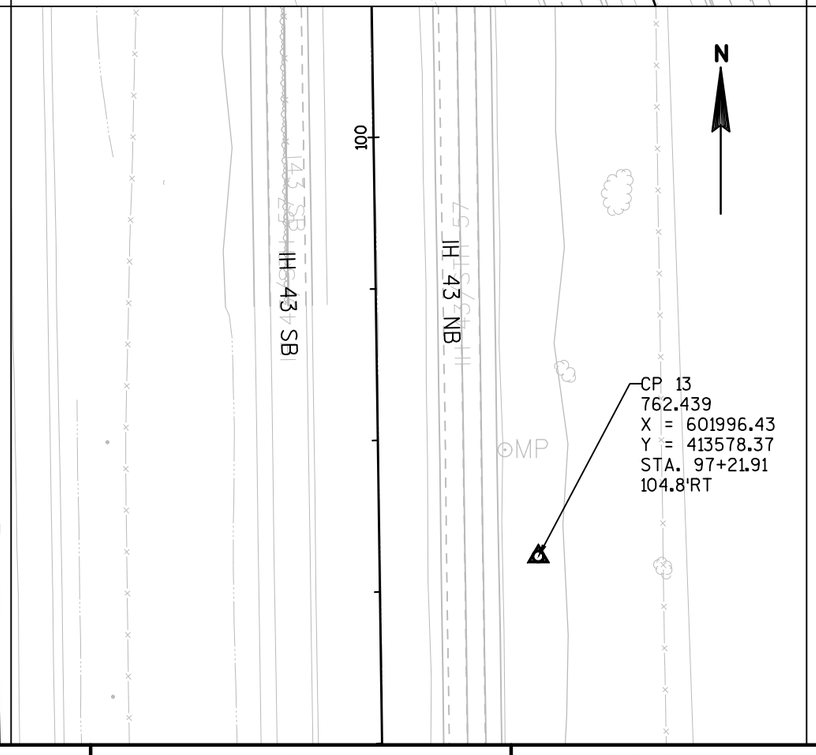
NUMBER	ROADWAY NAME	PI STATION	PI COORDINATES			D	T	L	E	R	PC STATION	PC COORDINATES		PT STATION	PT COORDINATES	
			X	Y								X	Y		X	Y
1	IH 43	750+64.57	603071.8	399362.6												
2	IH 43	795+89.22	603449.6	403871.4	24° 23' 40.99"	1° 0' 0"	1238.50'	2439.47'	132.33	5729.58'	783+50.72	603346.2	402637.3	807+90.19	603034	405038.1
3	IH 43	839+62.85	602181.7	407431	18° 48' 13.98"	1° 30' 0"	632.48'	1253.59'	52.01	3819.72'	833+30.37	602181.7	407431.1	845+83.96	601960.6	408659.3
4	IH 43	874+31.65	601920.7	411506.7												
5	IH 43	887+51.64	601902.3	412826.6												
6	IH 43	89+71.5	601902.3	412826.6												
7	IH 43	103+08.15	601883.4	414163.1												
8	IH 43	170+05.68	601771.3	420859.7	6° 43' 47"	0° 15' 0"	1347.49'	2691.89'	39.58	22918.31'	156+58.19	601793.8	419512.4	183+50.07	601591	422195
9	IH 43	256+00.00	600620.9	429379.8												
10	IH 43	461+83.99	617222.6	435489.3	55° 46' 7.39"	1° 15' 0"	2425.32'	4461.50'	602.1	4583.66'	437+58.67	614797.5	435522	482+20.17	618613.8	437476
11	IH 43	555+29.79	622806.7	443463.5	12° 25' 54.39"	0° 45' 0"	832.05'	1657.57'	45.18	7639.44'	546+97.74	622329.5	442781.9	563+55.31	623419.5	444026.3
12	IH 43	600+24.12	626121.7	446508	42° 46' 10.19"	0° 45' 0"	2991.52'	5702.60'	564.84	7639.44'	570+32.61	623918.4	444484.4	627+35.21	626365	449489.6
13	IH 43	727+28.60	627177.7	459449.9	8° 53' 44.55"	0° 10' 0"	2674.09'	5337.43'	103.85	34377.47'	700+54.51	626960.2	456784.7	753+91.94	626980.4	462116.7
14	IH 43	802+36.96	626623	466948.5	22° 31' 33"	0° 30' 0"	2282.05'	4505.17'	225.03	11459.16'	779+54.91	626791.4	464672.7	824+60.08	627339.4	469115.2
15	IH 43	886+81.87	629292.5	475022.5	19° 41' 45"	0° 45' 0"	1326.14'	2626.11'	114.25	7639.44'	873+55.73	628876.2	473763.4	899+81.84	629260.1	476348.2
16	STH 60	386+10.47	601804	402244.1												
17	STH 60	393+52.17	602545.6	402257.4												
18	STH 60	395+49.07	602742.5	402257.1												
19	STH 60	405+17.57	603710.8	402274.5												
20	STH 60	409+93.86	604186.6	402296.7												
21	STH 32/CTH V	208.99.99	601523.6	409015.5												
22	STH 32/CTH V	223+00.00	602362	410136.7												
23	ULAO PKWY	303+42.68	602038.5	414166.7												
24	SANDY BEACH RD	607+08.85	626803.5	456966.5												
25	SANDY BEACH RD	610+40.3	627135	456968.1												
26	CEDAR BEACH RD	705+15.31	626786.1	462274.4												
27	CEDAR BEACH RD	711+01.72	627372.5	462277												
28	CTH D	801+26.23	626180.7	467579.6												
29	CTH D	802+40.2	626294.6	467576.5												
30	CTH D	804+15.69	626470.1	467571.9												
31	CTH D	807+03.11	626757.4	467568.4												
32	CTH D	813+27.5	627381.6	467549.7	5° 30' 10.8"	2° 39' 53.71"	103.328'	206.498'	2.482'	2150.00'	812+24.17	627278.3	467552.8	814+30.67	627484.7	467556.5
33	CTH D	816+58.03	627711.5	467571.5												
34	CTH D	819+67.97	628021.4	467577.1												
35	SILVER BEACH RD	911+63.15	628365.1	472880												
36	SILVER BEACH RD	915+50.00	628751.9	472881.8												

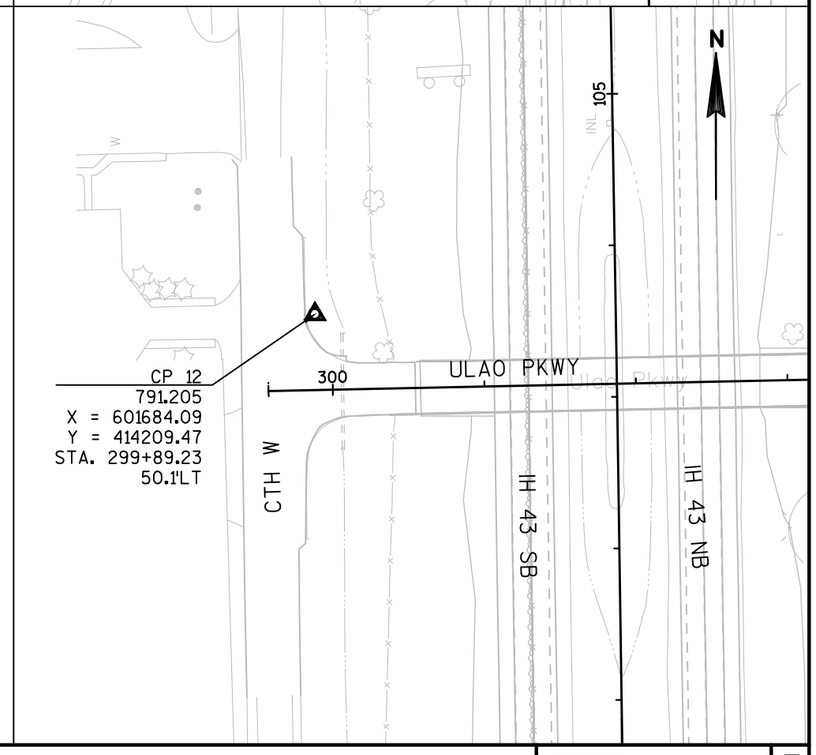






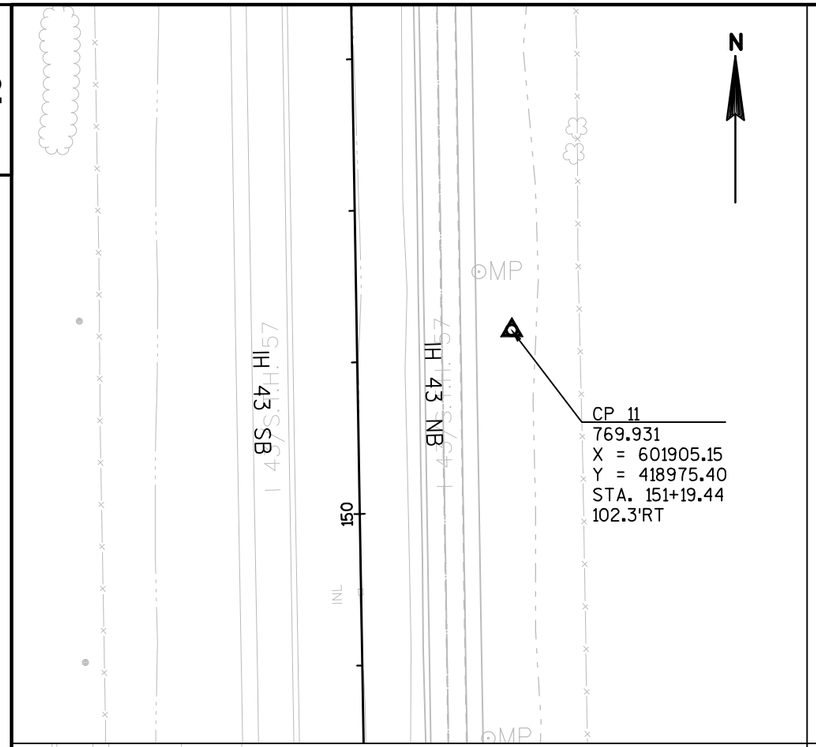


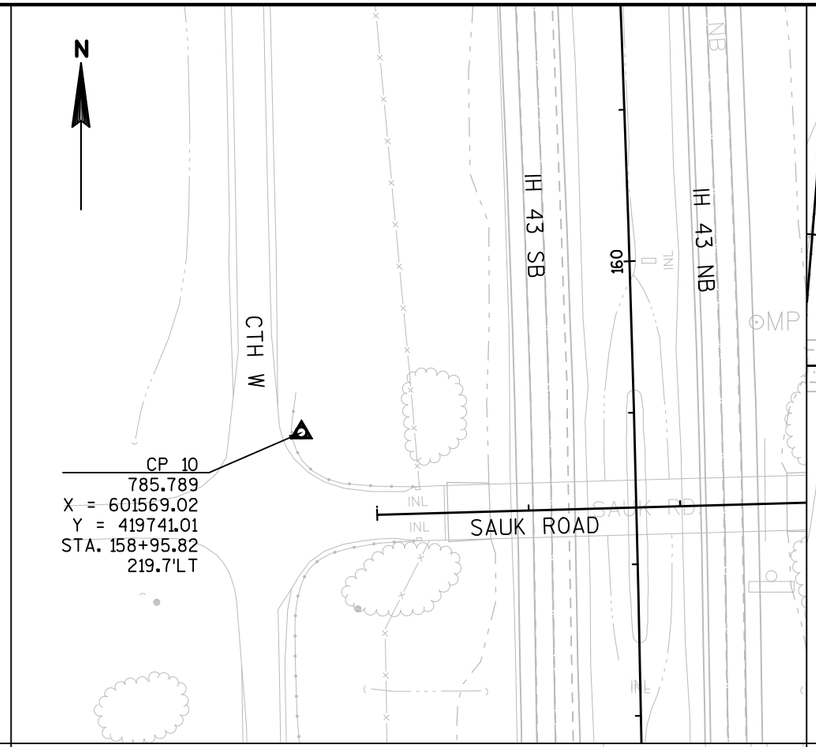


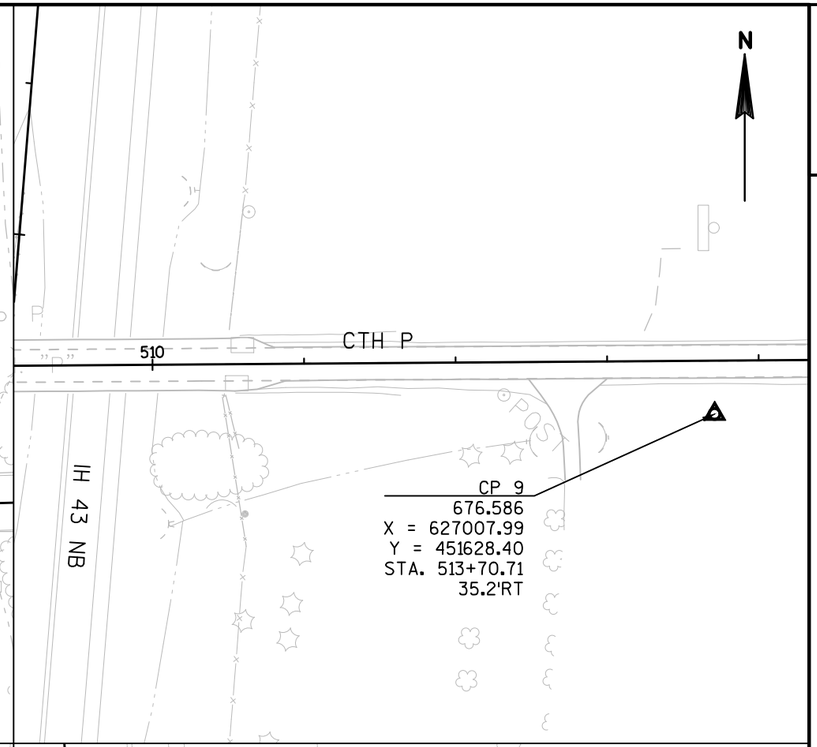


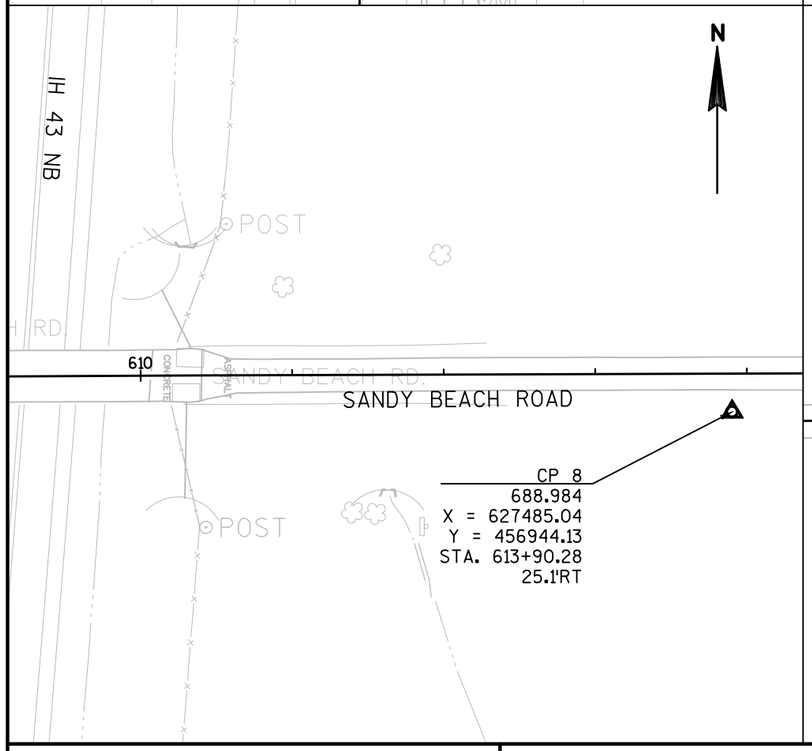
PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 164 E

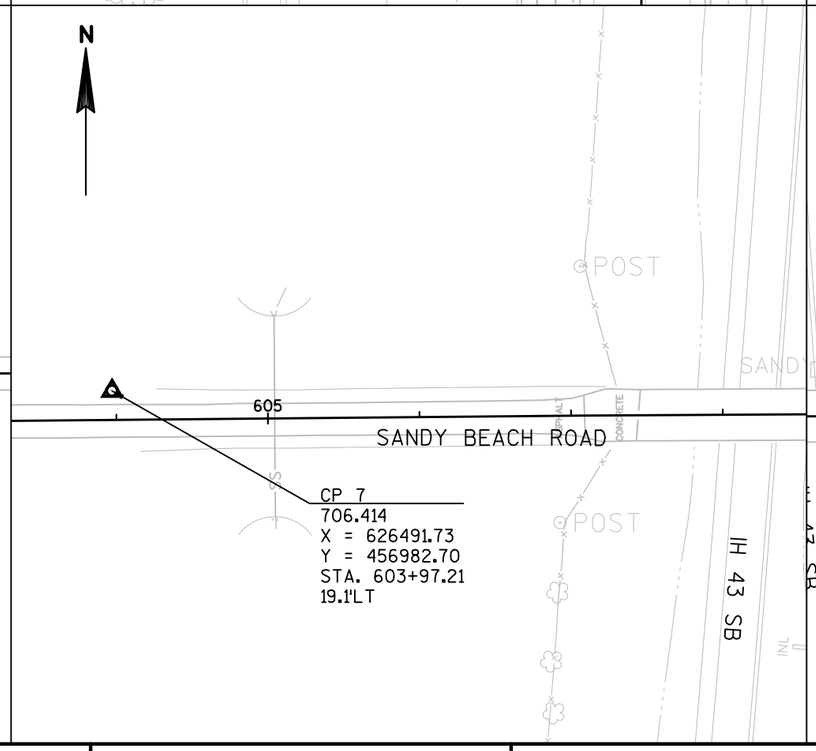
FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027202-AD.DWG
LAYOUT NAME - 027202-AD - 027207
PLOT DATE : 7/8/2019 11:13 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

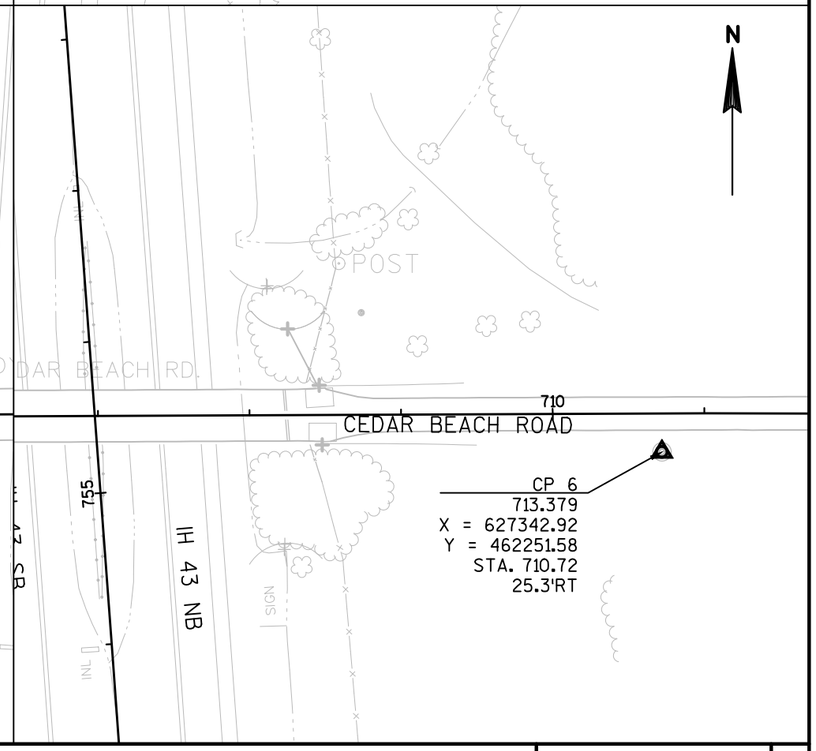






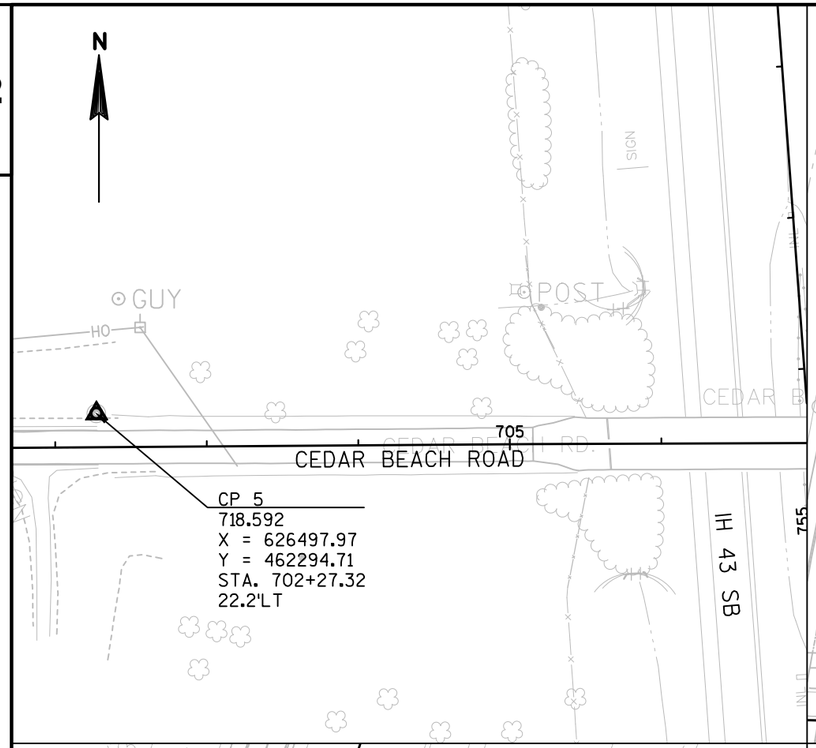


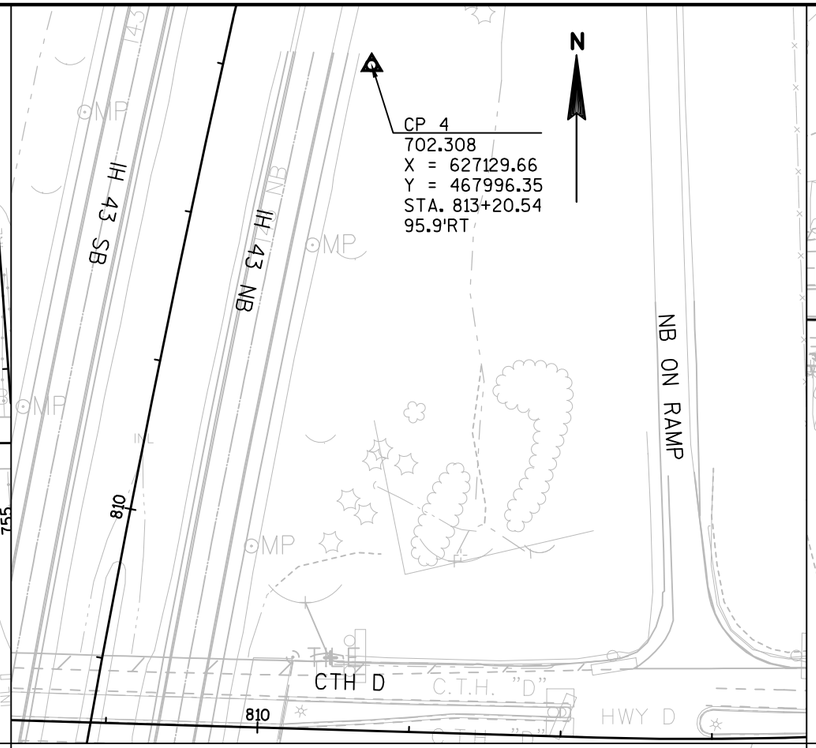


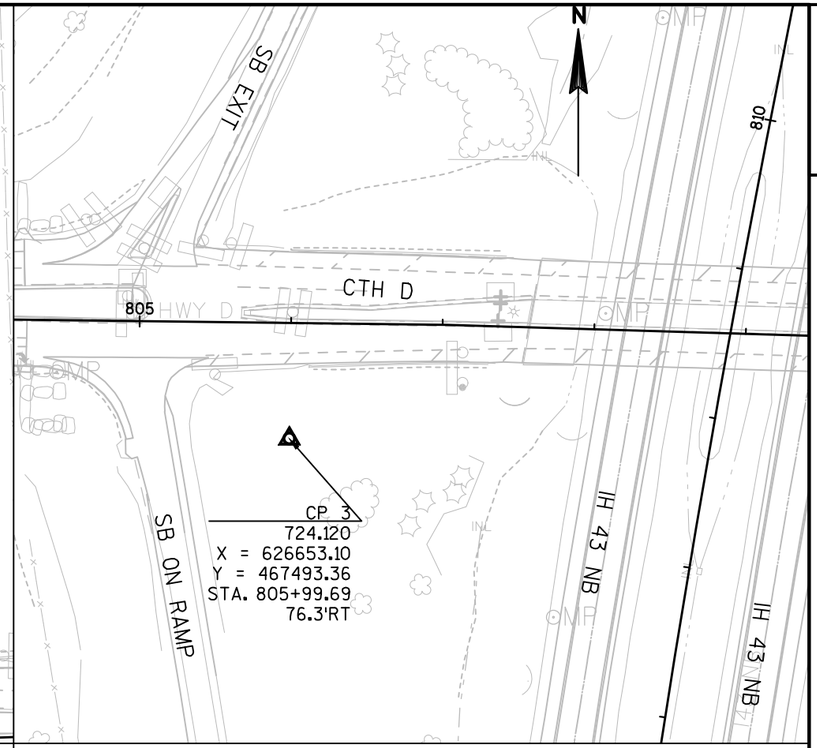


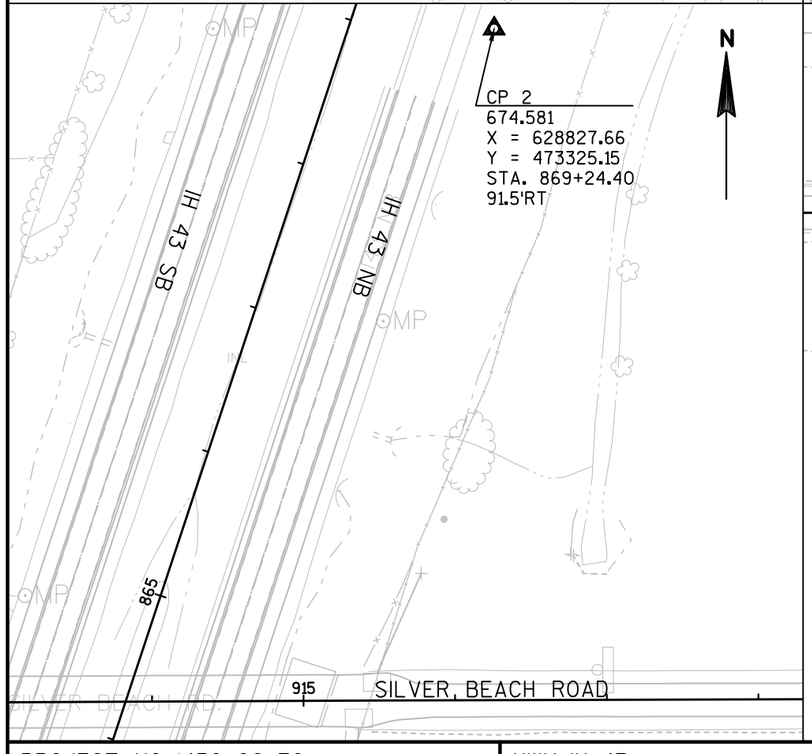
PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET	E

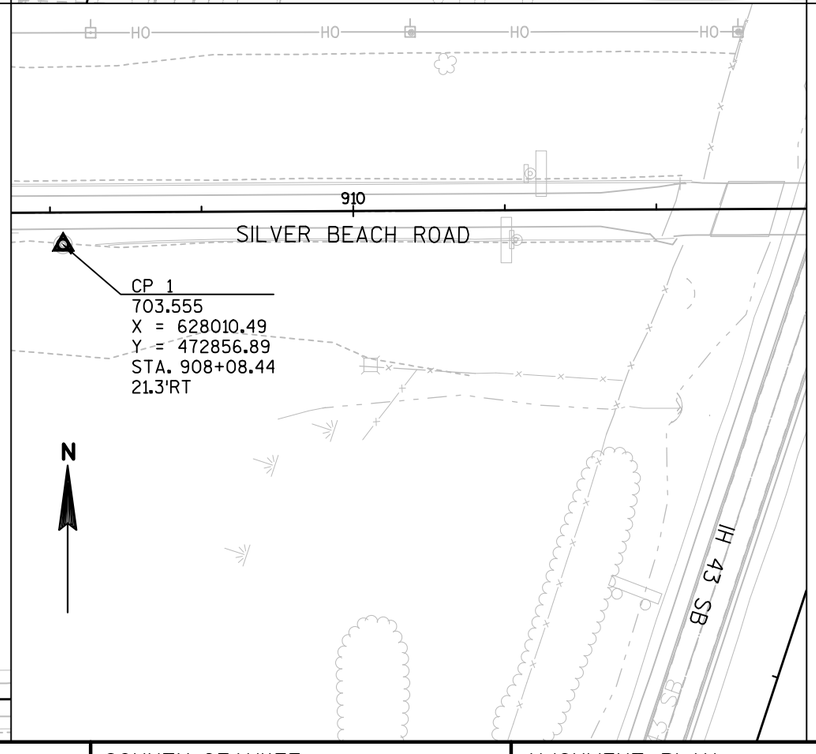
FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027202-AD.DWG
LAYOUT NAME - 027202-AD - 027208
PLOT DATE : 7/8/2019 11:18 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42









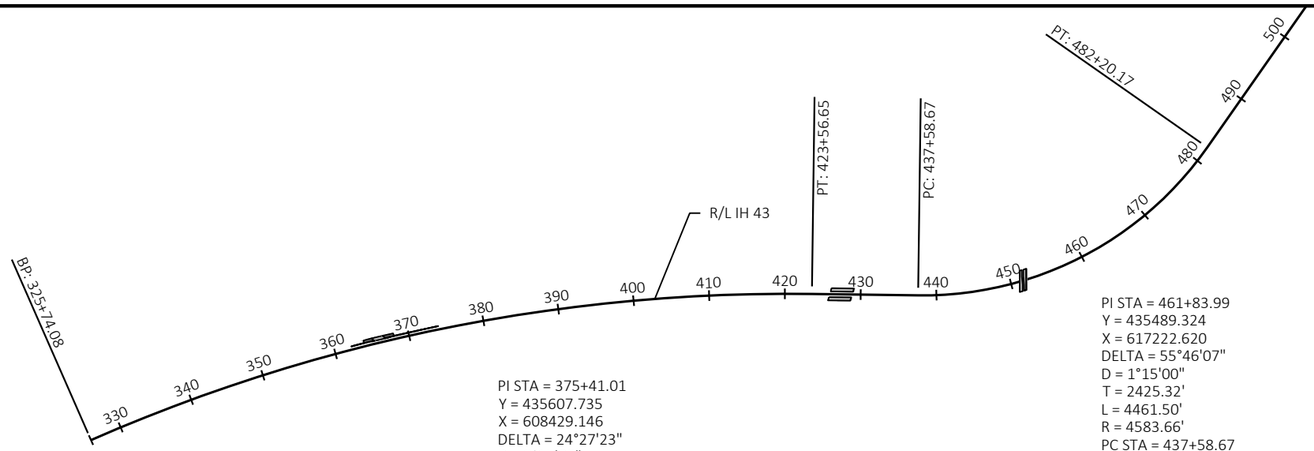


PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\027202-AD.DWG
LAYOUT NAME - 027202-AD - 027209

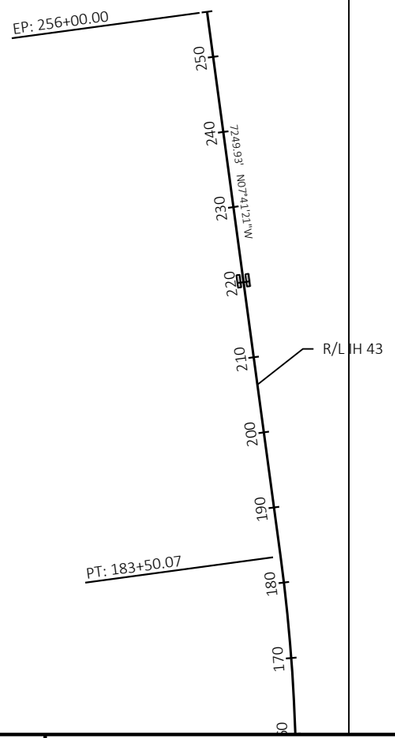
PLOT DATE : 7/8/2019 11:22 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT





PI STA = 375+41.01
Y = 435607.735
X = 608429.146
DELTA = 24°27'23"
D = 0°15'00"
T = 4966.93'
L = 9782.57'
R = 22918.31'
PC STA = 325+74.08
Y = 433612.483
X = 603880.590
PT STA = 423+56.65
Y = 435540.858
X = 613395.625
BK = N66°18'54.2"E
AH = S89°13'42.7"E

PI STA = 461+83.99
Y = 435489.324
X = 617222.620
DELTA = 55°46'07"
D = 1°15'00"
T = 2425.32'
L = 4461.50'
R = 4583.66'
PC STA = 437+58.67
Y = 435521.980
X = 614797.519
PT STA = 482+20.17
Y = 437475.964
X = 618613.823
BK = S89°13'42.7"E
AH = N35°00'10.0"E



PI STA = 170+05.68
Y = 420859.664
X = 601771.257
DELTA = 6°43'47"
D = 0°15'00"
T = 1347.49'
L = 2691.89'
R = 22918.31'
PC STA = 156+58.19
Y = 419512.359
X = 601793.820
PT STA = 183+50.07
Y = 422195.042
X = 601590.965
BK = N00°57'33.8"W
AH = N07°41'20.8"W

PROJECT NO: 1450-02-72	HWY: IH 43	COUNTY: OZAUKEE	ALIGNMENT PLAN	SHEET 167	E

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0002	201.0105	Clearing	STA	70.000	70.000	
0004	201.0205	Grubbing	STA	70.000	70.000	
0006	203.0200	Removing Old Structure (station) 01. 301+86	LS	1.000	1.000	
0008	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-45-27	LS	1.000	1.000	
0010	203.0210.S	Abatement of Asbestos Containing Material (structure) 02. B-45-32	LS	1.000	1.000	
0012	203.0210.S	Abatement of Asbestos Containing Material (structure) 03. B-45-52	LS	1.000	1.000	
0014	203.0210.S	Abatement of Asbestos Containing Material (structure) 04. B-45-53	LS	1.000	1.000	
0016	203.0210.S	Abatement of Asbestos Containing Material (structure) 05. B-45-54	LS	1.000	1.000	
0018	203.0210.S	Abatement of Asbestos Containing Material (structure) 06. B-45-55	LS	1.000	1.000	
0020	203.0210.S	Abatement of Asbestos Containing Material (structure) 07. B-45-56	LS	1.000	1.000	
0022	204.0100	Removing Pavement	SY	695.000	695.000	
0024	204.0109.S	Removing Concrete Surface Partial Depth	SF	1,905.000	1,905.000	
0026	204.0110	Removing Asphaltic Surface	SY	637.000	225.000	412.000
0028	204.0115	Removing Asphaltic Surface Butt Joints	SY	4,273.000	4,273.000	
0030	204.0120	Removing Asphaltic Surface Milling	SY	3,487.000	2,535.000	952.000
0032	204.0130	Removing Curb	LF	604.000	604.000	
0034	204.0150	Removing Curb & Gutter	LF	220.000	220.000	
0036	204.0155	Removing Concrete Sidewalk	SY	107.000	107.000	
0038	204.0165	Removing Guardrail	LF	5,154.000	5,154.000	
0040	204.0170	Removing Fence	LF	603.000	603.000	
0042	204.0180	Removing Delineators and Markers	EACH	21.000	21.000	
0044	204.0195	Removing Concrete Bases	EACH	1.000	1.000	
0046	204.9105.S	Removing (item description) 01. Loop Detector Wire & Lead In Cable IH 43 NB Ramps & STH 60	LS	1.000	1.000	
0048	204.9105.S	Removing (item description) 02. Loop Detector Wire & Lead In Cable IH 43 SB Ramps & STH 60	LS	1.000	1.000	
0050	204.9105.S	Removing (item description) 03. Traffic Signals IH 43 SB Ramps & STH 60	LS	1.000	1.000	
0052	205.0100	Excavation Common	CY	872.000	872.000	
0054	206.1000	Excavation for Structures Bridges (structure) 01. B-45-32	LS	1.000	1.000	
0056	208.0100	Borrow	CY	5,003.000	5,003.000	
0058	210.1500	Backfill Structure Type A	TON	42.000	42.000	
0060	213.0100	Finishing Roadway (project) 01. 1450-02-70	EACH	1.000	1.000	
0062	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,807.000	1,807.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0064	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	13.000	13.000	
0066	415.0090	Concrete Pavement 9-Inch	SY	140.000	140.000	
0068	415.0410	Concrete Pavement Approach Slab	SY	776.000	776.000	
0070	416.0610	Drilled Tie Bars	EACH	365.000	365.000	
0072	416.0620	Drilled Dowel Bars	EACH	377.000	377.000	
0074	416.1720	Concrete Pavement Replacement	SY	1,682.000	1,682.000	
0076	455.0605	Tack Coat	GAL	600.000	507.000	93.000
0078	460.2000	Incentive Density HMA Pavement	DOL	760.000	600.000	160.000
0080	460.5224	HMA Pavement 4 LT 58-28 S	TON	934.000	934.000	
0082	460.7424	HMA Pavement 4 HT 58-28 H	TON	245.000		245.000
0084	465.0125	Asphaltic Surface Temporary	TON	66.000	66.000	
0086	465.0400	Asphaltic Shoulder Rumble Strips	LF	2,240.000	2,240.000	
0088	495.1000.S	Cold patch	TON	10.000	10.000	
0090	502.0100	Concrete Masonry Bridges	CY	380.000	380.000	
0092	502.3101	Expansion Device (structure) 01. B-45-27	LF	58.000	58.000	
0094	502.3101	Expansion Device (structure) 02. B-45-30	LF	132.000	132.000	
0096	502.3101	Expansion Device (structure) 03. B-45-31	LF	132.000	132.000	
0098	502.3101	Expansion Device (structure) 04. B-45-32	LF	68.000	68.000	
0100	502.3101	Expansion Device (structure) 05. B-45-52	LF	70.000	70.000	
0102	502.3101	Expansion Device (structure) 06. B-45-53	LF	70.000	70.000	
0104	502.3101	Expansion Device (structure) 07. B-45-54	LF	70.000	70.000	
0106	502.3101	Expansion Device (structure) 08. B-45-55	LF	138.000	138.000	
0108	502.3101	Expansion Device (structure) 09. B-45-56	LF	72.000	72.000	
0110	502.3200	Protective Surface Treatment	SY	13,928.000	13,239.000	689.000
0112	502.3210	Pigmented Surface Sealer	SY	262.000	262.000	
0114	502.4106	Adhesive Anchors 3/4-inch	EACH	4.000	4.000	
0116	502.4205	Adhesive Anchors No. 5 Bar	EACH	1,082.000	1,082.000	
0118	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	110,380.000	110,380.000	
0120	505.0904	Bar Couplers No. 4	EACH	28.000	28.000	
0122	505.0905	Bar Couplers No. 5	EACH	104.000	104.000	
0124	505.0906	Bar Couplers No. 6	EACH	40.000	40.000	
0126	506.2610	Bearing Pads Elastomeric Laminated	EACH	76.000	76.000	
0128	506.7050.S	Removing Bearings (structure) 01. B-45-27	EACH	8.000	8.000	
0130	506.7050.S	Removing Bearings (structure) 02. B-45-32	EACH	8.000	8.000	
0132	506.7050.S	Removing Bearings (structure) 03. B-45-52	EACH	12.000	12.000	
0134	506.7050.S	Removing Bearings (structure) 04. B-45-53	EACH	12.000	12.000	
0136	506.7050.S	Removing Bearings (structure) 05. B-45-54	EACH	12.000	12.000	
0138	506.7050.S	Removing Bearings (structure) 06. B-45-55	EACH	16.000	16.000	
0140	506.7050.S	Removing Bearings (structure) 07. B-45-56	EACH	8.000	8.000	
0142	506.7060.S	Bridge Jacking (structure) .01 B-45-30	LS	1.000	1.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0144	509.0200	Preparation Approaches	SY	211.000	211.000	
0146	509.0301	Preparation Decks Type 1	SY	2,260.000	1,846.000	414.000
0148	509.0302	Preparation Decks Type 2	SY	1,407.000	1,095.000	312.000
0150	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	63.000	10.000	53.000
0152	509.0400.S	Cleaning Concrete Surfaces	SY	494.000	494.000	
0154	509.0500	Cleaning Decks	SY	8,012.000	8,012.000	
0156	509.0505.S	Cleaning Decks to Reapply Concrete Masonry Overlay	SY	4,123.000	3,447.000	676.000
0158	509.0600	Cleaning Approaches	SY	211.000	211.000	
0160	509.1000	Joint Repair	SY	375.000	375.000	
0162	509.1200	Curb Repair	LF	40.000	40.000	
0164	509.1500	Concrete Surface Repair	SF	415.000	305.000	110.000
0166	509.2000	Full-Depth Deck Repair	SY	12.000	10.000	2.000
0168	509.2500	Concrete Masonry Overlay Decks	CY	1,231.000	1,153.000	78.000
0170	509.2600	Concrete Masonry Overlay Approaches	CY	9.000	9.000	
0172	509.5100.S	Polymer Overlay	SY	8,008.000	1,000.000	7,008.000
0174	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 01. B-45-30	SY	1,736.000	1,736.000	
0176	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 02. B-45-31	SY	1,711.000	1,711.000	
0178	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 03. B-45-41	SY	676.000		676.000
0180	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-45-27	SY	607.000	607.000	
0182	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 02. B-45-52	SY	999.000	999.000	
0184	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 03. B-45-53	SY	1,000.000	1,000.000	
0186	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 04. B-45-54	SY	985.000	985.000	
0188	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 05. B-45-55	SY	1,497.000	1,497.000	
0190	513.9005.S	Removing and Resetting Tubular Railing (structure) 01. B-45-27	LS	1.000	1.000	
0192	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000	
0194	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-45-27	LS	1.000	1.000	
0196	517.1800.S	Structure Repainting Recycled Abrasive (structure) 02. B-45-30	LS	1.000	1.000	
0198	517.1800.S	Structure Repainting Recycled Abrasive (structure) 03. B-45-31	LS	1.000	1.000	
0200	517.1800.S	Structure Repainting Recycled Abrasive (structure) 04. B-45-32	LS	1.000	1.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0202	517.1800.S	Structure Repainting Recycled Abrasive (structure) 05. B-45-33	LS	1.000	1.000	
0204	517.1800.S	Structure Repainting Recycled Abrasive (structure) 06. B-45-55	LS	1.000	1.000	
0206	517.1800.S	Structure Repainting Recycled Abrasive (structure) 07. B-45-56	LS	1.000	1.000	
0208	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-45-27	LS	1.000	1.000	
0210	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-45-30	LS	1.000	1.000	
0212	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-45-31	LS	1.000	1.000	
0214	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-45-32	LS	1.000	1.000	
0216	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-45-33	LS	1.000	1.000	
0218	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 06. B-45-55	LS	1.000	1.000	
0220	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 07. B-45-56	LS	1.000	1.000	
0222	517.6001.S	Portable Decontamination Facility	EACH	7.000	7.000	
0224	601.0150	Concrete Curb Integral Type D	LF	604.000	604.000	
0226	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	220.000	220.000	
0228	601.0600	Concrete Curb Pedestrian	LF	20.000	20.000	
0230	602.0410	Concrete Sidewalk 5-Inch	SF	278.000	278.000	
0232	602.0415	Concrete Sidewalk 6-Inch	SF	653.000	653.000	
0234	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	21.000	21.000	
0236	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	20.000	20.000	
0238	602.2400	Concrete Safety Islands	SF	26.000	26.000	
0240	603.8000	Concrete Barrier Temporary Precast Delivered	LF	10,140.000	8,455.000	1,685.000
0242	603.8125	Concrete Barrier Temporary Precast Installed	LF	13,865.000	12,180.000	1,685.000
0244	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	139.000	99.000	40.000
0246	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	4,223.000	4,223.000	
0248	611.0430	Reconstructing Inlets	EACH	3.000	3.000	
0250	611.0624	Inlet Covers Type H	EACH	2.000	2.000	
0252	611.8115	Adjusting Inlet Covers	EACH	16.000	16.000	
0254	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000	
0256	611.9710	Salvaged Inlet Covers	EACH	2.000	2.000	
0258	614.0010	Barrier System Grading Shaping Finishing	EACH	24.000	24.000	
0260	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	10.000	10.000	
0262	614.0805	Crash Cushions Permanent Low Maintenance	EACH	2.000	2.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0264	614.0905	Crash Cushions Temporary	EACH	28.000	26.000	2.000
0266	614.2300	MGS Guardrail 3	LF	163.000	163.000	
0268	614.2330	MGS Guardrail 3 K	LF	3,075.000	3,075.000	
0270	614.2500	MGS Thrie Beam Transition	LF	869.000	869.000	
0272	614.2610	MGS Guardrail Terminal EAT	EACH	22.000	22.000	
0274	616.0100	Fence Woven Wire (height) 01. 4 FT	LF	603.000	603.000	
0276	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1450-02-70	EACH	1.000	1.000	
0278	619.1000	Mobilization 01. 1450-02-70	EACH	1.000	1.000	
0280	620.0300	Concrete Median Sloped Nose	SF	37.000	37.000	
0282	624.0100	Water	MGAL	142.000	142.000	
0284	625.0500	Salvaged Topsoil	SY	17,057.000	17,057.000	
0286	628.1504	Silt Fence	LF	10,791.000	10,791.000	
0288	628.1520	Silt Fence Maintenance	LF	11,120.000	11,120.000	
0290	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000	
0292	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000	
0294	628.2008	Erosion Mat Urban Class I Type B	SY	17,057.000	17,057.000	
0296	628.7015	Inlet Protection Type C	EACH	22.000	22.000	
0298	628.7020	Inlet Protection Type D	EACH	20.000	6.000	14.000
0300	628.7504	Temporary Ditch Checks	LF	20.000	20.000	
0302	628.7570	Rock Bags	EACH	1.000	1.000	
0304	629.0205	Fertilizer Type A	CWT	11.000	11.000	
0306	630.0120	Seeding Mixture No. 20	LB	461.000	461.000	
0308	630.0500	Seed Water	MGAL	383.000	383.000	
0310	633.0200	Delineators Flexible	EACH	19.000	19.000	
0312	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	22.000	22.000	
0314	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	1.000	1.000	
0316	637.2210	Signs Type II Reflective H	SF	120.000	120.000	
0318	637.2230	Signs Type II Reflective F	SF	6.000	6.000	
0320	638.2102	Moving Signs Type II	EACH	15.000	15.000	
0322	638.3000	Removing Small Sign Supports	EACH	9.000	9.000	
0324	643.0300	Traffic Control Drums	DAY	61,545.000	58,186.000	3,359.000
0326	643.0420	Traffic Control Barricades Type III	DAY	9,604.000	9,563.000	41.000
0328	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	150.000	150.000	
0330	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	100.000	100.000	
0332	643.0705	Traffic Control Warning Lights Type A	DAY	19,193.000	19,126.000	67.000
0334	643.0715	Traffic Control Warning Lights Type C	DAY	15,189.000	13,436.000	1,753.000
0336	643.0800	Traffic Control Arrow Boards	DAY	1,026.000	890.000	136.000
0338	643.0900	Traffic Control Signs	DAY	33,232.000	31,978.000	1,254.000
0340	643.0910	Traffic Control Covering Signs Type I	EACH	8.000	8.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0342	643.0920	Traffic Control Covering Signs Type II	EACH	48.000	43.000	5.000
0344	643.1000	Traffic Control Signs Fixed Message	SF	291.000	291.000	
0346	643.1050	Traffic Control Signs PCMS	DAY	534.000	444.000	90.000
0348	643.1070	Traffic Control Cones 42-Inch	DAY	828.000	690.000	138.000
0350	643.4100.S	Traffic Control Interim Lane Closure	EACH	56.000	56.000	
0352	643.5000	Traffic Control	EACH	1.000	1.000	
0354	644.1430	Temporary Pedestrian Surface Plate	SF	53.000	53.000	
0356	644.1601	Temporary Curb Ramp	DAY	14.000	14.000	
0358	644.1810	Temporary Pedestrian Barricade	LF	330.000	330.000	
0360	646.1020	Marking Line Epoxy 4-Inch	LF	13,701.000	10,774.000	2,927.000
0362	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	4,352.000		4,352.000
0364	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	544.000		544.000
0366	646.3020	Marking Line Epoxy 8-Inch	LF	3,142.000	3,142.000	
0368	646.5020	Marking Arrow Epoxy	EACH	34.000	34.000	
0370	646.5120	Marking Word Epoxy	EACH	6.000	6.000	
0372	646.6120	Marking Stop Line Epoxy 18-Inch	LF	261.000	261.000	
0374	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	2.000	2.000	
0376	646.7120	Marking Diagonal Epoxy 12-Inch	LF	607.000	607.000	
0378	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	267.000	267.000	
0380	646.8120	Marking Curb Epoxy	LF	94.000	94.000	
0382	646.8220	Marking Island Nose Epoxy	EACH	6.000	6.000	
0384	646.9000	Marking Removal Line 4-Inch	LF	10,339.000	6,642.000	3,697.000
0386	646.9100	Marking Removal Line 8-Inch	LF	258.000	258.000	
0388	646.9300	Marking Removal Special Marking	EACH	5.000	5.000	
0390	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	58,265.000	50,046.000	8,219.000
0392	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	150.000	150.000	
0394	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	9,409.000	9,409.000	
0396	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	474.000	474.000	
0398	650.6500	Construction Staking Structure Layout (structure) 01. B-45-032	LS	1.000	1.000	
0400	650.9910	Construction Staking Supplemental Control (project) 01. 1450-02-70	LS	1.000	1.000	
0402	650.9920	Construction Staking Slope Stakes	LF	4,755.000	4,755.000	
0404	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	14.000	14.000	
0406	652.0800	Conduit Loop Detector	LF	2,158.000	2,158.000	
0408	654.0101	Concrete Bases Type 1	EACH	1.000	1.000	
0410	654.0102	Concrete Bases Type 2	EACH	1.000	1.000	
0412	655.0230	Cable Traffic Signal 5-14 AWG	LF	79.000	79.000	
0414	655.0240	Cable Traffic Signal 7-14 AWG	LF	336.000	336.000	
0416	655.0260	Cable Traffic Signal 12-14 AWG	LF	311.000	311.000	

					1450-02-70	1450-02-72
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0418	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	331.000	331.000	
0420	655.0700	Loop Detector Lead In Cable	LF	4,792.000	4,792.000	
0422	655.0800	Loop Detector Wire	LF	7,304.000	7,304.000	
0424	657.0100	Pedestal Bases	EACH	1.000	1.000	
0426	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000	
0428	657.0305	Poles Type 2	EACH	1.000	1.000	
0430	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	1.000	1.000	
0432	657.0590	Trombone Arms 20-FT	EACH	1.000	1.000	
0434	658.0173	Traffic Signal Face 3S 12-Inch	EACH	2.000	2.000	
0436	658.0416	Pedestrian Signal Face 16-Inch	EACH	1.000	1.000	
0438	658.0500	Pedestrian Push Buttons	EACH	1.000	1.000	
0440	658.5069	Signal Mounting Hardware (location) 01. IH 43 SB Ramps & STH 60	LS	1.000	1.000	
0442	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-45-027	LS	1.000	1.000	
0444	690.0150	Sawing Asphalt	LF	1,246.000	214.000	1,032.000
0446	690.0250	Sawing Concrete	LF	220.000	220.000	
0448	715.0415	Incentive Strength Concrete Pavement	DOL	780.000	780.000	
0450	715.0502	Incentive Strength Concrete Structures	DOL	9,968.000	9,188.000	780.000
0452	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	6,000.000	6,000.000	
0454	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	9,000.000	9,000.000	
0456	SPV.0035	Special 01. Rapid Set Deck Repair	CY	6.000	1.000	5.000
0458	SPV.0060	Special 01. Traffic Control Full Freeway Closure	EACH	52.000	52.000	
0460	SPV.0060	Special 02. Cleaning and Sealing Concrete Girder Ends	EACH	25.000	20.000	5.000
0462	SPV.0060	Special 03. Field Facilities Office Space	EACH	1.000	1.000	
0464	SPV.0090	Special 01. Heavy Duty Silt Fence, 3-FT	LF	329.000	329.000	
0466	SPV.0090	Special 02. Marking Contrast Epoxy 4-Inch	LF	560.000		560.000
0468	SPV.0090	Special 03. Marking Contrast Epoxy 8-Inch	LF	389.000		389.000
0470	SPV.0195	Special 01. Management of Solid Waste	TON	320.000	320.000	

ALL ITEMS ARE CATEGORY 1000
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UNLESS OTHERWISE SPECIFIED

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					REMOVING PAVEMENT				
					204.0100	204.0109.S	204.0110	204.0115	204.0120
ROADWAY	STATION	TO	STATION	OFFSET	REMOVING PAVEMENT SY	REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	REMOVING ASPHALTIC SURFACE SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMOVING ASPHALTIC SURFACE MILLING SY
STH 60	399+97		400+17	14' LT	88	--	--	--	--
	402+25		402+45	--	99	--	--	--	--
	399+78		400+11	RT	--	840	--	--	--
	402+31		402+65	LT	--	1065	--	--	--
Arrowhead	103+43		104+97	--	--	--	--	468	--
	106+90		108+70	--	--	--	--	548	--
STH 32	213+04		213+75	32' RT	127	--	--	--	--
	214+31		215+04	28' LT	127	--	--	--	--
	217+10		217+82	32' RT	127	--	--	--	--
	218+34		219+04	28' LT	127	--	--	--	--
	209+75		213+31	61' RT	--	--	--	--	302
	210+88		213+73	29' RT	--	--	--	--	184
	211+84		215+03	61' LT	--	--	--	--	279
	213+24		214+58	29' LT	--	--	--	--	71
	217+12		220+29	61' RT	--	--	--	--	278
	217+55		218+76	29' RT	--	--	--	--	61
	218+36		221+04	29' LT	--	--	--	--	171
	218+77		221+04	61' LT	--	--	--	--	197
Ulao PKWY	299+82		300+56	--	--	--	--	307	--
	303+17		303+68	--	--	--	--	192	--
CTH P	506+21		507+74	--	--	--	--	430	--
	510+33		511+33	--	--	--	--	299	--
Sandy Beach Rd	606+45		607+46	--	--	--	--	295	--
	610+05		610+57	--	--	--	--	181	--
Cedar Beach Rd	704+65		705+67	--	--	--	--	296	--
	708+23		709+25	--	--	--	--	305	--
CTH D	804+85		805+48	37' LT	--	--	116	--	--
	807+23		807+38	20' LT	--	--	--	44	--
	807+23		807+38	--	--	--	--	40	--
	810+38		810+53	--	--	--	--	44	--
	810+38		810+53	20' LT	--	--	--	40	--
	812+47		813+01	13' RT	--	--	109	--	--
Silver Beach Rd	910+85		912+47	--	--	--	--	462	--
	915+12		916+23	--	--	--	--	322	--
IH 43	Outside Shoulder NB At CTH D			--	--	--	--	--	124
	Outside Shoulder NB At CTH D			--	--	--	--	--	124
	Outside Shoulder SB At CTH D			--	--	--	--	--	124
	Outside Shoulder SB At CTH D			--	--	--	--	--	124
	Outside Shoulder NB At Silver Beach			--	--	--	--	--	124
	Outside Shoulder NB At Silver Beach			--	--	--	--	--	124
	Outside Shoulder SB At Silver Beach			--	--	--	--	--	124
	Outside Shoulder SB At Silver Beach			--	--	--	--	--	124
	1450-02-70 TOTALS				695	1905	225	4273	2535

Continued

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					REMOVING PAVEMENT				
					204.0100	204.0109.S	204.0110	204.0115	204.0120
ROADWAY	STATION	TO	STATION	OFFSET	REMOVING PAVEMENT SY	REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	REMOVING ASPHALTIC SURFACE SY	REMOVING ASPHALTIC SURFACE BUTT JOINT SY	REMOVING ASPHALTIC SURFACE MILLING SY
IH 43 STAGE 1	362+25		365+38	45' LT	--	--	140	--	--
	363+99		365+38	56' LT	--	--	--	--	173
	366+59		368+07	56' LT	--	--	--	--	167
	366+59		374+00	45' LT	--	--	272	--	--
IH 43 STAGE 2	363+99		365+38	68' LT	--	--	--	--	285
	366+59		368+07	68' LT	--	--	--	--	327
			1450-02-72 TOTALS		0	0	412	0	952
			PROJECT TOTALS		695	1905	637	4273	3487

REMOVING CURB & GUTTER

					204.013	204.0150
ROADWAY	STATION	TO	STATION	OFFSET	REMOVING CURB LF	REMOVING CURB & GUTTER LF
STH 60	397+50		398+21	78' LT	109	--
	398+52		398+59	47' RT	--	12
	398+57		398+64	100' LT	31	--
	399+65		400+18	64' LT	53	--
	402+25		402+80	28' RT	55	--
	402+30		402+62	22' LT	32	--
	403+34		403+84	22' LT	50	--
	404+41		404+41	41' RT	35	--
	399+78		400+13	18' LT	--	35
	399+78		400+11	2' LT	--	33
	399+78		400+08	29' RT	--	30
	402+31		402+65	29' LT	--	34
CTH D	804+94		805+26	44' LT	119	--
	807+38		807+58	19' LT	--	20
	807+38		807+56	1' LT	--	18
	810+18		810+38	1' LT	--	20
	810+20		810+38	20' LT	--	18
	812+63		812+93	19' RT	120	--
			PROJECT TOTALS		604	220

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\030201_MQ.DWG
LAYOUT NAME - 030201
PLOT DATE : 7/24/2019 9:21 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

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HAZARDOUS MATERIAL

ROADWAY	STATION	TO	STATION	OFFSET	SPV.0195.01 MANAGEMENT OF SOLID WASTE TON
STH 32	213+04		213+75	32' RT	80
	214+31		215+04	28' LT	80
	217+10		217+82	32' RT	80
	218+34		219+04	28' LT	80
			PROJECT TOTALS		320

REMOVING SIDEWALK

ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
STH 60	397+34		397+69	78' LT	18
	398+04		398+11	43' RT	3
	398+54		398+71	48' RT	13
CTH D	804+94		805+24	45' LT	37
	812+66		812+92	19' RT	36
			PROJECT TOTALS		107

REMOVING FENCE

ROADWAY	STATION	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF
Arrowhead Rd	104+52		104+84	44' RT	40
	104+65		104+82	35' LT	20
	107+07		107+23	36' RT	20
Ulao Pkwy	303+29		303+64	35' LT	63
	303+31		303+57	35' RT	40
CTH P	507+25		507+56	35' LT	60
Sandy Beach Rd	607+09		607+19	62' LT	40
	610+26		610+38	47' RT	50
Cedar Beach Rd	705+29		705+50	35' LT	50
	708+37		708+57	35' LT	80
	708+40		708+54	35' RT	50
Silver Beach Rd	912+02		912+17	35' RT	40
	915+40		915+62	35' LT	50
			PROJECT TOTALS		603

CLEARING AND GRUBBING

ROADWAY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
Arrowhead Rd	103+00		105+00	LT	2	2
	103+00		105+00	RT	2	2
	107+00		109+00	LT	2	2
	107+00		109+00	RT	2	2
Ulao PKWY	303+00		305+00	LT	2	2
	303+00		305+00	RT	2	2
CTH P	503+00		508+00	LT	5	5
	503+00		508+00	RT	5	5
	510+00		512+00	LT	2	2
	510+00		512+00	RT	2	2
Sandy Beach Rd	604+00		608+00	LT	4	4
	604+00		608+00	RT	4	4
	610+00		612+00	LT	2	2
	610+00		612+00	RT	2	2
Cedar Beach Rd	702+00		706+00	LT	4	4
	702+00		706+00	RT	4	4
	708+00		710+00	LT	2	2
	708+00		710+00	RT	2	2
Silver Beach Rd	907+00		913+00	LT	6	6
	908+00		913+00	RT	5	5
	915+00		919+00	LT	4	4
	915+00		920+00	RT	5	5
			PROJECT TOTALS		70	70

REMOVING GUARDRAIL

ROADWAY	STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF
Arrowhead Rd	103+88		104+70	16' LT	82
	104+02		104+80	17' RT	78
	107+08		107+83	16' LT	75
	107+18		107+96	15' RT	77
Ulao Pkwy	299+80		300+38	17' RT	123
	299+83		300+38	17' LT	123
	303+34		304+32	17' LT	98
	303+34		304+32	17' RT	98
CTH P	503+69		507+47	19' RT	378
	503+72		507+50	20' LT	379
	510+55		511+64	19' RT	109
	510+58		511+61	19' LT	103
Sandy Beach Rd	604+16		607+20	19' RT	304
	604+26		607+23	19' LT	297
	610+28		612+42	19' RT	213
	610+31		612+28	19' LT	197
Cedar Beach Rd	702+38		705+43	20' LT	305
	702+40		705+45	19' RT	305
	708+44		709+41	20' LT	97
	708+47		709+50	19' RT	103
Silver Beach Rd	907+20		912+23	19' LT	504
	908+30		912+12	19' RT	382
	915+34		918+85	19' RT	350
	915+43		919+17	19' LT	374
			PROJECT TOTALS		5154

REMOVING DELINEATORS AND MARKERS

ROADWAY	STATION	OFFSET	204.0180 REMOVING DELINEATORS AND MARKERS EACH
Arrowhead Rd	100+14	14' LT	1
	100+14	14' RT	1
	100+64	14' LT	1
	100+64	14' RT	1
	101+14	14' LT	1
	101+14	14' RT	1
	101+64	14' LT	1
	101+64	14' RT	1
	102+14	14' LT	1
	102+14	14' RT	1
	102+64	14' LT	1
	102+64	14' RT	1
	103+14	14' LT	1
	103+14	14' RT	1
	108+28	14' LT	1
	108+28	14' RT	1
	108+78	14' LT	1
	108+78	14' RT	1
	109+28	14' LT	1
	109+78	14' LT	1
	110+01	16' RT	1
	PROJECT TOTALS		21

ALL ITEMS ARE CATEGORY 1000
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Division	From/To Station	Location	205.0100 Common Excavation (1) Cut (2)	Salvaged/ Unusable Pavement Material (3)	Available Material (4)	Unexpanded Fill	Expanded Fill (5) Factor 1.25	Mass Ordinate +/- (6)	Waste	Borrow (item #208.0100)
PROJECT 1450-02-70	102+63 to 109+77	ARROWHEAD ROAD WESTBOUND WORK AREA	8	0	8	383	479	-471	0	471
	102+63 to 109+78	ARROWHEAD ROAD EASTBOUND WORK AREA	4	0	4	515	644	-640	0	640
	300+10 to 306+00	ULAO PARKWAY	32	4	28	183	229	-197	0	197
	502+00 to 513+50	CTH P	179	0	179	630	788	-609	0	609
	602+19 to 614+37	SANDY BEACH ROAD	223	0	223	1571	1964	-1741	0	1741
	701+00 to 711+00	CEDAR BEACH ROAD	135	0	135	643	804	-669	0	669
	905+50 to 921+00	SILVER BEACH ROAD	291	0	291	766	958	-667	0	667
	352+54 to 353+08	CTH W	0	0	0	9	11	-11	0	11
Grand Total			872	4	868	4700	5875	-5003	0	5003
Total Common Exc			872							

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

2) Salvaged/Unsuable Pavement Material is included in Cut.

3) Salvaged/Unusable Pavement Material

4) Available Material = Cut - Salvaged/Unusable Pavement Material

5) Expanded Fill. Factor = 1.25

6) 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.

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BASE AGGREGATE

ROADWAY	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
STH 60	397+34		397+69	78' LT	4	--	1
	398+04		398+11	43' RT	1	--	1
	398+54		398+71	48' RT	3	--	1
Arrowhead Rd	102+63		104+73	LT	22	--	2
	102+72		104+83	RT	21	--	2
	107+08		109+24	LT	21	--	2
	107+17		109+77	RT	27	--	2
Ulao Pkwy	299+82		300+12	16' RT	--	13	1
	299+95		300+36	RT	4	--	1
	299+98		300+36	LT	3	--	1
	303+37		305+45	LT	29	--	3
	303+37		305+75	RT	38	--	3
CTH P	501+99		507+47	RT	129	--	9
	502+20		507+50	LT	117	--	9
	510+55		512+48	RT	57	--	4
	510+58		513+80	LT	79	--	6
Sandy Beach Rd	602+19		607+20	RT	118	--	9
	602+51		607+23	LT	115	--	9
	610+28		614+05	RT	94	--	7
	610+31		614+34	LT	94	--	7
Cedar Beach Rd	700+65		705+43	LT	106	--	8
	702+13		705+45	RT	81	--	6
	708+44		710+55	LT	54	--	4
	708+47		711+01	RT	69	--	5
CTH D					--	--	--
					--	--	--
Silver Beach	905+10		912+24	LT	152	--	11
	906+28		912+12	RT	127	--	9
	915+34		920+39	RT	116	--	9
	915+43		921+38	LT	129	--	10
			PROJECT TOTALS		1807	13	142

CONCRETE PAVEMENT

ROADWAY	STATION	TO	STATION	OFFSET	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY
STH 60	399+97		400+17	14' LT	--	88	--
	402+25		402+45	--	--	99	--
	395+47		395+67	20' RT	--	--	84
	397+50		398+70	110' LT	--	--	504
	398+74		399+97	32' LT	--	--	288
	398+87		399+25	315' LT	--	--	36
	402+45		402+80	--	--	--	106
	403+34		404+08	2' LT	--	--	166
	403+37		403+63	300' RT	--	--	22
	404+34		404+79	64' RT	--	--	210
	407+85		408+01	25' LT	--	--	41
STH 32	213+04		213+75	32' RT	35	92	--
	214+31		215+04	28' LT	35	92	--
	217+10		217+82	32' RT	35	92	--
	218+34		219+04	28' LT	35	92	--
CTH D	807+38		807+57	--	--	45	--
	807+38		807+63	20' LT	--	65	--
	810+12		810+38	--	--	65	--
	810+19		810+38	20' LT	--	46	--
	804+85		805+48	37' LT	--	--	116
	812+47		813+01	13' RT	--	--	109
			PROJECT TOTALS		140	776	1682

DRILLED BARS

ROADWAY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
STH 60	240	297
STH 32	--	80
CTH D	125	--
PROJECT TOTALS	365	377

COLD PATCH

LOCATION	495.1000.S COLD PATCH TON
Project No. 1450-02-70	10
PROJECT TOTALS	10

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					ASPHALTIC PAVEMENT			
					455.0605 TACK COAT	460.5224 HMA PAVEMENT 4 LT 58-28 S	460.7424 HMA PAVEMENT 4 HT 58-28 H	465.0125 ASPHALTIC SURFACE TEMPORARY
ROADWAY	STATION	TO	STATION	OFFSET	GAL	TON	TON	TON
Arrowhead Rd	103+43		104+97	--	33	28	--	--
	106+90		108+70	--	39	32	--	--
	103+43		104+73	13' LT	3	6	--	--
	103+50		104+83	13' RT	4	8	--	--
	107+15		108+42	13' LT	3	6	--	--
	107+27		108+70	13' RT	5	11	--	--
STH 32	209+75		213+31	61' RT	22	80	--	--
	210+88		213+73	29' RT	13	49	--	--
	211+84		215+03	61' LT	20	74	--	--
	213+24		214+58	29' LT	5	19	--	--
	217+12		220+29	61' RT	20	74	--	--
	217+55		218+76	29' RT	5	16	--	--
	218+36		221+04	29' LT	12	45	--	--
	218+77		221+04	61' LT	14	52	--	--
Ulao Pkwy	299+82		300+56	--	22	36	--	--
	303+17		303+68	--	14	23	--	--
	299+82		300+12	16.5' RT	2	7	--	--
CTH P	506+21		507+74	--	31	38	--	--
	510+33		511+33	--	21	26	--	--
Sandy Beach Rd	606+45		607+46	--	21	26	--	--
	610+05		610+57	--	13	16	--	--
Cedar Beach Rd	704+65		705+67	--	21	26	--	--
	708+23		709+25	--	22	27	--	--
CTH D	807+23		807+38	20' LT	4	5	--	--
	807+23		807+38	--	3	5	--	--
	810+38		810+53	--	4	5	--	--
	810+38		810+53	20' LT	3	5	--	--
	804+85		805+48	37' LT	--	--	--	34
	812+47		813+01	13' RT	--	--	--	32
Silver Beach Rd	910+85		912+47	--	33	41	--	--
	915+12		916+23	--	23	28	--	--
IH 43	Outside Shoulder NB At CTH D			--	9	15	--	--
	Outside Shoulder NB At CTH D			--	9	15	--	--
	Outside Shoulder SB At CTH D			--	9	15	--	--
	Outside Shoulder SB At CTH D			--	9	15	--	--
	Outside Shoulder NB At Silver Beach			--	9	15	--	--
	Outside Shoulder NB At Silver Beach			--	9	15	--	--
	Outside Shoulder SB At Silver Beach			--	9	15	--	--
	Outside Shoulder SB At Silver Beach			--	9	15	--	--
			1450-02-70 TOTALS		507	934	0	66

CONTINUED

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					ASPHALTIC PAVEMENT			
					455.0605 TACK COAT	460.5224 HMA PAVEMENT 4 LT 58-28 S	460.7424 HMA PAVEMENT 4 HT 58-28 H	465.0125 ASPHALTIC SURFACE TEMPORARY
ROADWAY	STATION	TO	STATION	OFFSET	GAL	TON	TON	TON
IH 43 STAGE 1	362+25		365+38	45' LT	7	--	39	--
	363+99		365+38	56' LT	12	--	14	--
	366+59		368+07	56' LT	12	--	19	--
	366+59		374+00	45' LT	19	--	104	--
IH 43 STAGE 2	363+99		365+38	68' LT	20	--	32	--
	366+59		368+07	68' LT	23	--	37	--
			1450-02-72 TOTALS		93	0	245	0
			PROJECT TOTALS		600	934	245	66

RUMBLE STRIPS

ROADWAY	STATION	TO	STATION	OFFSET	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
IH 43	Outside Shoulder NB At CTH D				280
	Outside Shoulder NB At CTH D				280
	Outside Shoulder SB At CTH D				280
	Outside Shoulder SB At CTH D				280
	Outside Shoulder NB At Silver Beach				280
	Outside Shoulder NB At Silver Beach				280
	Outside Shoulder SB At Silver Beach				280
	Outside Shoulder SB At Silver Beach				280
			PROJECT TOTALS		2240

APPROACH SLAB OVERLAY

ROADWAY	STATION	TO	STATION	OFFSET	509.0200 PREPARATION APPROACHES SY	509.0600 CLEANING APPROACHES SY	509.2600 CONCRETE MASONRY OVERLAY APPROACHES CY
STH 60	399+78		400+11	RT	93	93	4
	402+31		402+65	LT	118	118	5
			PROJECT TOTALS		211	211	9

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\030201_MQ.DWG
LAYOUT NAME - 030205
PLOT DATE : 10/17/2019 1:31 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

ALL ITEMS ARE CATEGORY 1000
& PROJECT NO. 1450-02-70
UNLESS OTHERWISE SPECIFIED

3

CONCRETE SIDEWALK

ROADWAY	STATION	TO	STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.2400 CONCRETE SAFETY ISLAND SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
STH 60	397+34		397+69	78' LT	162	--	--	--	20	--
	398+04		398+11	43' RT	--	--	26	8	--	--
	398+54		398+71	48' RT	116	--	--	13	--	--
CTH D	804+94		805+24	45' LT	--	333	--	--	--	--
	812+66		812+92	19' RT	--	320	--	--	--	--
	804+94		804+94	44' LT	--	--	--	--	--	3
	805+06		805+06	43' LT	--	--	--	--	--	3
	805+24		805+24	86' LT	--	--	--	--	--	10
	812+65		812+65	62' RT	--	--	--	--	--	15
	812+82		812+82	17' RT	--	--	--	--	--	3
	812+92		812+92	18' RT	--	--	--	--	--	3
			PROJECT TOTALS		278	653	26	21	20	37

BARRIER SYSTEMS

ROADWAY	STATION	TO	STATION	OFFSET	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
Arrowhead RD	103+70		104+83	14' LT	1	12.5	--	39.5	1
	103+80		104+93	14' RT	1	12.5	--	39.5	1
	107+08		108+11	14' LT	1	12.5	--	39.5	1
	107+17		108+20	14' RT	1	12.5	--	39.5	1
Ulao Pkwy	300+12		300+36	17.5' LT	1	--	--	--	--
	300+12		300+36	17.5' RT	1	--	--	--	--
	303+37		304+40	17.5' LT	1	12.5	--	39.5	1
	303+37		304+40	17.5' RT	1	12.5	--	39.5	1
CTH P	503+57		507+47	17.5' RT	1	--	300	39.5	1
	503+60		507+50	17.5' LT	1	--	300	39.5	1
	510+55		511+70	17.5' RT	1	25	--	39.5	1
	510+58		511+73	17.5' LT	1	25	--	39.5	1
Sandy Beach RD	604+04		607+20	17.5' RT	1	--	225	39.5	1
	604+20		607+23	17.5' LT	1	--	212.5	39.5	1
	610+28		612+03	17.5' RT	1	--	137.5	39.5	1
	610+69		611+81	17.5' LT	1	--	112.5	39.5	1
Cedar Beach RD	702+27		705+43	17.5' LT	1	--	225	39.5	1
	702+29		705+45	17.5' RT	1	--	225	39.5	1
	708+44		709+47	17.5' LT	1	12.5	--	39.5	1
	708+47		709+62	17.5' RT	1	25	--	39.5	1
Silver Beach RD	906+96		912+23	17.5' LT	1	--	437.5	39.5	1
	908+09		912+12	17.5' RT	1	--	312.5	39.5	1
	915+34		919+00	17.5' RT	1	--	275	39.5	1
	915+43		919+46	17.5' LT	1	--	312.5	39.5	1
			PROJECT TOTALS		24	163	3075	869	22

FIELD OFFICE

SPV.0060.03
FIELD FACILITIES OFFICE SPACE

LOCATION	EACH
Project No. 1450-02-70 & 1450-02-72	1
PROJECT TOTALS	1

FINISHING ROADWAY

213.0100
FINISHING ROADWAY 1450-02-70

LOCATION	EACH
Project No. 1450-02-70 & 1450-02-72	1
PROJECT TOTALS	1

MOBILIZATION

619.1000
MOBILIZATION

LOCATION	EACH
Project No. 1450-02-70 & 1450-02-72	1
PROJECT TOTALS	1

HAUL ROAD MAINTENANCE

618.0100
MAINTENANCE AND REPAIR OF HAUL ROADS 1450-02-70

LOCATION	EACH
Project No. 1450-02-70 & 1450-02-72	1
PROJECT TOTALS	1

TRAFFIC CONTROL

643.5000
TRAFFIC CONTROL

LOCATION	EACH
Project No. 1450-02-70 & 1450-02-72	1
PROJECT TOTALS	1

CONCRETE CURB & GUTTER

ROADWAY	STATION	TO	STATION	OFFSET	601.0150 CONCRETE CURB INTEGRAL TYPE D LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF
STH 60	397+49		397+69	81' LT	--	--	20
	397+50		398+21	78' LT	109	--	--
	398+52		398+59	47' RT	--	12	--
	398+57		398+64	100' LT	31	--	--
	399+65		400+18	64' LT	53	--	--
	402+25		402+80	28' RT	55	--	--
	402+30		402+62	22' LT	32	--	--
	403+34		403+84	22' LT	50	--	--
	404+41		404+41	41' RT	35	--	--
	399+78		400+13	18' LT	--	35	--
	399+78		400+11	2' LT	--	33	--
	399+78		400+08	29' RT	--	30	--
	402+31		402+65	29' LT	--	34	--
CTH D	807+38		807+58	19' LT	--	20	--
	807+38		807+56	1' LT	--	18	--
	810+18		810+38	1' LT	--	20	--
	810+20		810+38	20' LT	--	18	--
	804+94		805+26	44' LT	119	--	--
	812+63		812+93	19' RT	120	--	--
			PROJECT TOTALS		604	220	20

ALL ITEMS ARE CATEGORY 1000
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UNLESS OTHERWISE SPECIFIED

3

STORM SEWER

ROADWAY	STATION	OFFSET	611.0430 RECONSTRUCTING INLETS EACH	611.0624 INLET COVERS TYPE H EACH	611.8115 ADJUSTING INLET COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH	611.9710 SALVAGED INLET COVERS EACH
Arrowhead Rd	107+12	13' LT	--	--	1	--	--
	107+21	13' RT	--	--	1	--	--
STH 32	217+38	68' RT	--	--	1	--	--
	217+93	30' RT	--	--	1	--	--
	218+62	30' LT	--	--	1	--	--
	219+17	68' LT	--	--	1	--	--
CTH P	510+56	15' RT	--	--	1	--	--
	510+60	15' LT	--	--	1	--	--
Sandy Beach Rd	610+30	15' RT	--	--	1	--	--
	610+33	15' LT	--	--	1	--	--
Cedar Beach Rd	708+46	15' LT	--	--	1	--	--
	708+48	15' RT	--	--	1	--	--
CTH D	805+18	83' LT	--	1	1	1	--
	807+38	19' LT	--	--	--	--	1
	810+36	22' RT	--	--	--	--	1
	812+93	25' RT	--	1	1	1	--
Silver Beach Rd	915+36	15' RT	--	--	1	--	--
	915+49	15' LT	--	--	1	--	--
1450-02-70 PROJECT			3	--	--	--	--
PROJECT TOTALS			3	2	16	2	2

FLEXIBLE DELINEATORS

ROADWAY	STATION	OFFSET	633.0200 DELINEATORS FLEXIBLE (WHITE) EACH
Arrowhead	100+50	14' LT	1
	100+50	14' RT	1
	101+00	14' LT	1
	101+00	14' RT	1
	101+50	14' LT	1
	101+50	14' RT	1
	102+00	14' LT	1
	102+00	14' RT	1
	102+50	14' LT	1
	102+50	14' RT	1
	103+00	14' LT	1
	103+00	14' RT	1
	109+00	14' LT	1
	109+00	14' RT	1
	109+50	14' LT	1
	109+50	14' RT	1
	110+00	14' LT	1
	110+00	17' RT	1
	110+50	14' LT	1
PROJECT TOTALS			19

FENCE

ROADWAY	STATION	TO	STATION	OFFSET	616.0100 FENCE WOVEN WIRE 4-FT LF
Arrowhead RD	104+52		104+84	44' RT	40
	104+65		104+82	35' LT	20
	107+07		107+23	36' RT	20
Ulao Pkwy	303+29		303+64	35' LT	63
	303+31		303+57	35' RT	40
CTH P	507+25		507+56	35' LT	60
Sandy Beach RD	607+09		607+19	62' LT	40
	610+26		610+38	47' RT	50
Cedar Beach RD	705+29		705+50	35' LT	50
	708+37		708+57	35' LT	80
	708+40		708+54	35' RT	50
Silver Beach RD	912+02		912+17	35' RT	40
	915+40		915+62	35' LT	50
			PROJECT TOTALS		603

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CONSTRUCTION STAKING

ROADWAY	STATION	TO	STATION	OFFSET	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT B-45-032 LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1450-02-70 LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
Arrowhead Rd	102+61		104+88		--	--	227
	107+05		109+81		--	--	276
Ulao PKWY					1	--	--
	299+82		300+48		--	--	66
	303+31		305+87		--	--	256
CTH P	502+00		507+52		--	--	552
	510+42		513+80		--	--	338
Sandy Beach Rd	602+18		607+28		--	--	510
	610+25		614+35		--	--	410
Cedar Beach Rd	700+65		705+50		--	--	485
	708+42		711+00		--	--	258
Silver Beach Rd	905+10		912+28		--	--	718
	915+35		921+40		--	--	605
CTH W	352+54		353+08		--	--	54
					--	--	--
Project No. 1450-02-70					--	1	--
			PROJECT TOTALS		1	1	4755

SAWING

ROADWAY	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STH 60	398+52		398+60	47' RT	--	19
	399+78		400+11	2' LT	--	33
	399+78		400+08	29' RT	--	30
	402+31		402+65	29' LT	--	34
STH 32	213+05		213+05	38' RT	--	26
	214+35		214+35	34' LT	--	26
	217+78		217+78	38' RT	--	26
	219+03		219+03	34' LT	--	26
Ulao Pkwy	299+82		300+36	16' RT	75	--
	300+10		300+36	16' LT	28	--
CTH D	807+38		807+38	16' LT	29	--
	807+38		807+38	56' LT	26	--
	810+38		810+38	56' LT	29	--
	810+38		810+38	18' LT	27	--
			1450-02-70 TOTALS		214	220
IH 43	362+25		365+38		312	--
	366+59		374+00		720	--
			1450-02-72 TOTALS		1032	--
			PROJECT TOTALS		1246	220

ALL ITEMS ARE CATEGORY 1000
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UNLESS OTHERWISE SPECIFIED

3

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					EROSION CONTROL & RESTORATION												
				628.1504	628.1520	SPV.0090.01	628.1905	628.1910	628.2008	628.7504	628.7570	628.7015	628.7020	625.0500	629.0205	630.0120	630.0500
ROADWAY	STATION	TO STATION	OFFSET	SILT FENCE LF	SILT FENCE MAINTENANCE LF	HEAVY DUTY SILT FENCE, 3-FT LF	MOBILIZATION EROSION CONTROL EACH	MOBILIZATION EMERGENCY EROSION CONTROL EACH	EROSION MAT URBAN CLASS I TYPE B SY	TEMPORARY DITCH CHECKS LF	ROCK BAGS EACH	INLET PROTECTION TYPE C EACH	INLET PROTECTION TYPE D EACH	SALVAGED TOPSOIL SY	FERTILIZER TYPE A CWT	SEEDING MIXTURE NO. 20 LB	SEED WATER MGAL
STH 60				--	--	--	--	--	--	--	--	4	--	--	--	--	--
Arrowhead Rd	102+61	104+85	LT	308	308	--	--	--	559	--	--	--	--	559	0.4	15	13
	102+67	104+88	RT	119	303	184	--	--	972	--	--	--	--	972	0.6	26	22
	107+05	109+33	LT	191	303	112	--	--	629	--	--	--	1	629	0.4	17	14
	107+15	109+81	RT	349	382	33	--	--	1142	--	--	--	1	1142	0.7	31	26
STH 32/CTH V				--	--	--	--	--	--	--	--	--	4	--	--	--	--
Ulao PKWY	299+82	300+46	LT	147	147	--	--	--	174	20	1	--	--	174	0.1	5	4
	299+82	300+48	RT	86	86	--	--	--	82	--	--	--	--	82	0.1	2	2
	303+31	305+75	LT	189	189	--	--	--	426	--	--	--	--	426	0.3	12	10
	303+31	305+87	RT	336	336	--	--	--	330	--	--	--	--	330	0.2	9	7
CTH P	502+20	507+52	LT	657	657	--	--	--	768	--	--	--	--	768	0.5	21	17
	502+00	507+52	RT	638	638	--	--	--	863	--	--	--	--	863	0.5	23	19
	510+53	513+80	LT	409	409	--	--	--	684	--	--	1	--	684	0.4	18	15
	510+42	512+49	RT	309	309	--	--	--	390	--	--	1	--	390	0.2	11	9
Sandy Beach Rd	602+50	607+28	LT	630	630	--	--	--	2409	--	--	--	--	2409	1.5	65	54
	602+18	607+25	RT	587	587	--	--	--	730	--	--	--	--	730	0.5	20	16
	610+25	614+35	LT	609	609	--	--	--	801	--	--	1	--	801	0.5	22	18
	610+25	614+05	RT	545	545	--	--	--	1499	--	--	1	--	1499	0.9	40	34
Cedar Beach Rd	700+65	705+50	LT	649	649	--	--	--	519	--	--	--	--	519	0.3	14	12
	702+09	705+50	RT	433	433	--	--	--	596	--	--	--	--	596	0.4	16	13
	708+42	710+55	LT	403	403	--	--	--	716	--	--	1	--	716	0.5	19	16
	708+42	711+00	RT	312	312	--	--	--	350	--	--	1	--	350	0.2	9	8
CTH D				--	--	--	--	--	--	--	--	10	--	--	--	--	--
Silver Beach Rd	905+10	912+28	LT	809	809	--	--	--	441	--	--	--	--	441	0.3	12	10
	906+28	912+14	RT	744	744	--	--	--	1147	--	--	--	--	1147	0.7	31	26
	915+40	921+40	LT	724	724	--	--	--	311	--	--	1	--	311	0.2	8	7
	915+35	920+40	RT	608	608	--	--	--	519	--	--	1	--	519	0.3	14	12
Project No. 1450-02-70				--	--	--	9	5	--	--	--	--	--	--	--	--	--
		1450-02-70 TOTALS		10,791	11,120	329	9	5	17,057	20	1	22	6	17,057	11	461	383
IH 43 SB				--	--	--	--	--	--	--	--	--	2	--	--	--	--
IH 43 NB				--	--	--	--	--	--	--	--	--	2	--	--	--	--
STH 32				--	--	--	--	--	--	--	--	--	10	--	--	--	--
		1450-02-72 TOTALS		--	--	--	--	--	--	--	--	--	14	--	--	--	--
		PROJECT TOTALS		10,791	11,120	329	9	5	17,057	20	1	22	20	17,057	11	461	383

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
2	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
3	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
4	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
5	W3-1	--	--	x	--	--	--	1	1	--	1	--	--
6	R2-1	--	--	x	--	--	--	1	1	--	1	--	--
7	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
8	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
9	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
10	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
11	R1-1	--	--	x	--	--	--	1	1	--	1	--	--
12	R2-1	--	--	x	--	--	--	1	1	--	1	--	--
13	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
14	R6-2L	--	--	x	--	--	--	1	--	1	1	--	--
15	R1-1	--	--	x	--	--	--	1	1	--	1	--	--
16	R6-3	--	--	x	--	--	--	--	--	--	1	#15	--
17	R5-1	--	--	x	--	--	--	--	--	--	1	#15	BACK OF SIGN #15
18	R5-1A	--	--	x	--	--	--	--	--	--	1	#15	3 FT MOUNT HEIGHT
19	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
20	W5-52R(2S)	--	12	x	36	--	3.000	--	1	--	--	--	4 FT MOUNT HEIGHT
21	W5-52R(2S)	--	12	x	36	--	3.000	--	1	--	--	--	4 FT MOUNT HEIGHT
22	R6-2L	--	--	x	--	--	--	--	--	--	1	#25	--
23	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
24	R11-54F(2S)	--	48	x	30	10.000	--	--	1	--	--	--	--
25	R1-1	--	--	x	--	--	--	1	1	--	1	--	--
26	R6-3	--	--	x	--	--	--	--	--	--	1	#25	--
27	R5-1	--	--	x	--	--	--	1	1	--	1	--	--
28	R5-1A	--	--	x	--	--	--	--	--	--	1	#27	--
29	W3-1	--	--	x	--	--	--	1	1	--	1	--	--
--	--	--	--	x	--	--	--	--	--	--	--	--	--
	TOTALS					120.000	6.000	9	22	1	15		

*FOR PROJECT INFORMATION ONLY

NOTE: ALL COVERED SIGNS TO BE COVERED FOR DURATION OF WORK IN AREA, ONE CYCLE ONLY

ALL ITEMS ARE CATEGORY 1000
& PROJECT NO. 1450-02-70
UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL

			643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.0910	643.0920	643.1050		643.1070		643.4100.S	SPV.0060.01
		DURATION (CALENDAR DAYS)*	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE 1	TRAFFIC CONTROL COVERING SIGNS TYPE 2	TRAFFIC CONTROL SIGNS PCMS		TRAFFIC CONTROL CONES 42-INCH		TRAFFIC CONTROL INTERIM LANE CLOSURE	TRAFFIC CONTROL FULL FREEWAY CLOSURE
ROADWAY	LOCATION		NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	EA	EA	NO.*	DAYS	NO.*	DAYS	EA	EA
STH 60	Inside Work Area	46	142	6532	18	828	36	1656	30	1380	1	46	48	2208	--	9	--	--	4	184	--	--
	Outside Work Area	46	170	7820	23	1058	46	2116	35	1610	1	46	49	2254	--	8	--	--	11	506	--	--
	NB Entrance Ramp Detour	84	--	--	--	--	--	--	--	--	--	--	60	5040	--	4	--	--	--	--	--	--
Arrowhead Rd	EB Work Area	28	4	112	2	56	4	112	--	--	--	--	23	644	--	--	--	--	--	--	--	--
	WB Work Area	28	4	112	2	56	4	112	--	--	--	--	23	644	--	--	--	--	--	--	--	--
	SB Painting (I-43)	2	60	120	3	6	6	12	17	34	2	4	9	18	--	--	--	--		--	2	--
	NB Painting (I-43)	2	60	120	3	6	6	12	17	34	2	4	9	18	--	--	--	--	--	--	2	--
STH 32	Asphalt Shoulders	5	118	590	6	30	12	60	28	140	4	20	20	100	--	--	--	--	--	--	--	--
	Inside Work Area	48	103	4944	7	336	14	672	30	1440	2	96	46	2208	--	--	--	--	--	--	--	--
	Outside Work Area	48	146	7008	7	336	14	672	36	1728	2	96	47	2256	--	--	--	--	--	--	--	--
	SB Painting (I-43)	12	136	1632	14	168	28	336	44	528	3	36	33	396	--	--	5	60	--	--	2	10
	NB Painting (I-43)	12	136	1632	16	192	32	384	44	528	3	36	35	420	--	--	5	60	--	--	2	10
Ulao Pkwy	Full Closure	84	10	840	18	1512	36	3024	--	--	--	--	14	1176	--	--	--	--	--	--	--	--
	CTH W Shoulder Closure	5	12	60	1	5	2	10	--	--	--	--	6	30	--	--	--	--	--	--	--	--
	SB Painting (I-43)	7	262	1834	30	210	60	420	77	539	8	56	60	420	--	--	5	35	--	--	2	5
	NB Painting (I-43)	7	136	952	14	98	28	196	44	308	3	21	33	231	--	--	5	35	--	--	2	5
	Deck Replacement (I-43)	24	136	3264	14	336	28	672	44	1056	3	72	33	792	--	--	5	120	--	--	24	4
Sauk Rd	SB Painting (I-43)	7	262	1834	30	210	60	420	77	539	8	56	60	420	--	--	5	35	--	--	2	5
	NB Painting (I-43)	7	136	952	14	98	28	196	44	308	3	21	33	231	--	--	5	35	--	--	2	5
CTH P	Full Closure	40	--	--	18	720	36	1440	--	--	--	--	14	560	--	--	--	--	--	--	--	--
Sandy Beach Rd	Full Closure	40	--	--	18	720	36	1440	--	--	--	--	14	560	--	--	--	--	--	--	--	--
Cedar Beach Rd	Full Closure	40	--	--	18	720	36	1440	--	--	--	--	14	560	--	--	--	--	--	--	--	--
CTH D	Island Removal	5	56	280	4	20	8	40	--	--	--	--	14	70	8	--	2	24	--	--	--	--
	EB Work Area	54	100	5400	13	702	26	1404	15	810	--	--	58	3132	--	--	--	--	--	--	--	--
	WB Work Area	54	102	5508	14	756	28	1512	9	486	--	--	56	3024	--	--	--	--	--	--	--	--
	SB Painting (I-43)	28	41	1148	2	56	4	112	12	336	2	56	11	308	--	--	--	--	--	--	--	--
	NB Painting (I-43)	28	41	1148	2	56	4	112	12	336	2	56	11	308	--	--	--	--	--	--	--	--
Silver Beach Rd	SB Painting (I-43)	28	41	1148	2	56	4	112	12	336	2	56	11	308	--	--	--	--	--	--	--	--
	NB Painting (I-43)	28	41	1148	2	56	4	112	12	336	2	56	11	308	--	--	--	--	--	--	--	--
IH 43 NB Full Closure	At STH 32/CTH V	14	--	--	--	--	--	--	--	--	--	--	44	616	--	--	--	--	--	--	--	--
	STH 32/CTH V to STH 33	14	--	--	--	--	--	--	--	--	--	--	61	854	--	13	--	--	--	--	--	--
IH 43 SB Full Closure	STH 33 to STH 32/CTH V	14	--	--	--	--	--	--	--	--	--	--	104	1456	--	9	--	--	--	--	--	--
UNDISTRIBUTED		8	256	2048	20	160	40	320	78	624	7	56	51	408	--	--	5	40	--	--	16	8
1450-02-70 TOTALS				58186		9563		19126		13436		890		31978	8	43		444		690	56	52
IH 43 SB	Stage 1	30	49	1470	--	--	--	--	29	870	2	60	12	360	--	--	1	7	--	--	--	--
	Stage 2	30	45	1350	--	--	--	--	24	720	2	60	19	570	--	--	1	7	--	--	--	--
	Detour	1	109	109	5	5	6	6	51	51	3	3	92	92	--	1	2	16	--	--	--	--
IH 43 NB	Detour	1	109	109	5	5	6	6	51	51	3	3	113	113	--	3	2	16	--	--	--	--
STH 32	Stage 1	1	48	48	3	3	6	6	--	--	--	--	12	12	--	--	1	7	23	23	--	--
	Stage 2	2	49	98	5	10	10	20	--	--	1	2	12	24	--	--	1	7	23	46	--	--
	Stage 3	1	44	44	5	5	10	10	12	12	2	2	13	13	--	--	1	7	23	23	--	--
	Stage 4	2	38	76	4	8	8	16	12	24	2	4	9	18	--	--	1	7	23	46	--	--
UNDISTRIBUTED		1	55	55	5	5	3	3	25	25	2	2	52	52	--	1	8	16	--	--	--	--
1450-02-72 TOTALS				3359		41		67		1753		136		1254	--	5		90	--	138	--	--
PROJECT TOTALS				61545		9604		19193		15189		1026		33232	8	48		534		828	56	52

ALL ITEMS ARE CATEGORY 1000
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UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL BARRIER

ROADWAY	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
STH 60	Outside Work Area	--	--
Arrowhead Rd	WB Work Area	625	625
	EB Work Area	--	625
	SB Painting (I-43)	340	340
	NB Painting (I-43)	340	340
STH 32	Inside Work Area	--	1500
	Outside Work Area	1500	1500
	SB Painting (I-43)	675	675
	NB Painting (I-43)	675	675
Ulao PKWY	SB Painting (I-43)	675	675
	NB Painting (I-43)	675	675
Sauk Rd	SB Painting (I-43)	675	675
	NB Painting (I-43)	675	675
CTH D	SB Painting (I-43)	400	800
	NB Painting (I-43)	400	800
Silver Beach Rd	SB Painting (I-43)	400	800
	NB Painting (I-43)	400	800
	1450-02-70 TOTALS	8455	12180
IH 43 SB	Stage 1	1178	1178
IH 43 SB	Stage2	507	507
	1450-02-72 TOTALS	1685	1685
	PROJECT TOTALS	10140	13865

TEMPORARY TRAFFIC SIGNAL

ROADWAY	STRUCTURE	661.0100 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES B-45-027 LS
ARROWHEAD RD	B-45-027	1
	PROJECT TOTALS	1

CRASH CUSHION

ROADWAY	STATION	TO STATION	OFFSET	614.0805 CRASH CUSHIONS PERMANENT LOW MAINTENANCE EACH	614.0905 CRASH CUSHION TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN --	CRASH TEST LEVEL --	TRAFFIC DIRECTION --	TRAFFIC LOCATION --	CRASH CUSHION SHIELDS --
Arrowhead Rd	SB Painting (I-43)		RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	NB Painting (I-43)		RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
STH 32	Inside Work Area		--	--	2	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
	Outside Work Area		--	--	2	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	SB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	NB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
Ulao Pkwy	300+12	300+36	17.5' LT	1	--	2	OM-3L (W5-58L)	TL-3	Unidirectional	R	Permanent Concrete Bridge Parapet
	300+12	300+36	17.5' RT	1	--	2	OM-3R (W5-58R)	TL-3	Unidirectional	L	Permanent Concrete Bridge Parapet
	SB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	NB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
Sauk Rd	SB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	NB Painting (I-43)		LT SHLDR	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
			RT SHLDR	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
CTH D	SB Painting (I-43)		Outside Lane	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
			Inside Lane	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
	NB Painting (I-43)		Outside Lane	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
			Inside Lane	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
Silver Beach Rd	SB Painting (I-43)		Outside Lane	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
			Inside Lane	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
	NB Painting (I-43)		Outside Lane	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
			Inside Lane	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
	1450-02-70 TOTALS			2	26						
IH 43 SB	Stage 1		Inside Lane	--	1	2	OM-3L (WO5-58L)	TL-3	Unidirectional	R	Temp Barrier Wall
	Stage 2		Outside Lane	--	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier Wall
	1450-02-72 TOTALS			--	2						
	PROJECT TOTALS			2	28						

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FIXED MESSAGE SIGNS

SIGN NUMBER	NUMBER REQUIRED	SIGN SIZE W X H FT			643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1	1	8.5	X	3.5	30
2	2	6.5	X	3.0	39
3	1	12.0	X	3.5	42
4	2	6.0	X	2.0	24
5	12	6.5	X	2.0	156
PROJECT TOTALS					291

FLEXIBLE TUBULAR MARKERS

ROADWAY	LOCATION	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH
CTH D	EB WORK AREA	75	50
	WB WORK AREA	75	50
	PROJECT TOTALS	150	100

TEMPORARY PEDESTRIAN ACCOMMODATION

ROADWAY	LOCATION	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAYS	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
STH 60	Outside Work Area	53	14	330
	PROJECT TOTALS	53	14	330

3

PERMANENT PAVEMENT MARKING

ROADWAY	STATION	STATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (12.5 FT LINE, 37.5 FT SKIP) WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH EACH	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	SPV.0090.02 MARKING CONTRAST EPOXY 4-INCH (12.5FT LINE, 37.5 FT SKIP) WHITE LF	SPV.0090.03 MARKING CONTRAST EPOXY 8-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH
STH 60			83	1812	--	--	--	2547	22	6	193	--	--	143	--	--	267	--	--
STH 32			941	1212	--	--	--	37	--	--	--	--	--	--	--	--	--	--	--
Ulao Pkwy			747	712	--	--	--	--	--	--	24	--	--	--	--	--	--	--	--
CTP P			128	1024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CTH D			1851	2264	--	--	--	558	12	--	44	2	129	335	--	--	--	94	6
	1450-02-70 TOTALS		10774		--		--	3142	34	6	261	2	607		--	--	267	94	6
IH 43 NB	219+36	221+02	165	166	--	--	--	--	--	--	--	--	--	--	42	--	--	--	--
IH 43 SB	219+36	221+04	167	167	--	--	--	--	--	--	--	--	--	--	42	--	--	--	--
IH 43 SB	362+25	383+95	--	--	2175	2177	544	--	--	--	--	--	--	--	--	--	--	--	--
IH 43 NB	425+80	428+74	294	295	--	--	--	--	--	--	--	--	--	--	75	--	--	--	--
IH 43 SB	426+06	429+01	295	296	--	--	--	--	--	--	--	--	--	--	75	--	--	--	--
STH 32 NB			--	554	--	--	--	--	--	--	--	--	--	--	161	182	--	--	--
STH 32 SB			--		--		--	--	--	--	--	--	--	--	165	207	--	--	--
	1450-02-72 TOTALS		2927		4352		544	--	--	--	--	--	--	--	560	389	--	--	--
	PROJECT TOTALS		13701		4352		544	3142	34	6	261	2	607		560	389	267	94	6

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PAVEMENT MARKING REMOVAL

ROADWAY	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
STH 60	INSIDE	226	143	--
	OUTSIDE	--	--	--
STH 32	INSIDE	1889	--	--
	OUTSIDE	1425	--	--
CTH D	Eastbound	1998	--	--
	Westbound	1104	115	5
1450-02-70 TOTALS		6642	258	5
IH 43 SB	STAGE 1	2320	--	--
	STAGE 2	1377	--	--
1450-02-72 TOTALS		3697	--	--
PROJECT TOTALS		10339	258	5

TEMPORARY PAVEMENT MARKING

ROADWAY	LOCATION	649.0150 TEMPORARY MARKING REMOVABLE TAPE 4-INCH YELLOW LF	649.0150 TEMPORARY MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE LF	649.0960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH BLACK LF	649.0970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH BLACK LF
STH 60	Inside	2752	1754	--	555	321
	Outside	360	3395	--	217	153
Arrowhead Rd	Westbound	--	640	--	--	--
	Eastbound	--	652	--	--	--
STH 32	Inside	5882	2095	--	--	--
	Outside	1488	7556	--	297	--
CTH D	Eastbound	1593	3300	80	420	--
	Westbound	1929	3950	70	--	--
IH 43		8140	4560	--	7920	--
1450-02-70 TOTALS		50046		150	9409	474
IH 43 SB	STAGE 1	2939	2061	--	--	--
	STAGE 2	1117	2102	--	--	--
1450-02-72 TOTALS		8219		--	--	--
PROJECT TOTALS		58265		150	9409	474

IH 43 NB RAMPS & STH 60
OZAUKEE COUNTY
CATEGORY 1500
S45-1262

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION		204.9105.S.01 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
IH 43 NB RAMPS & STH 60		1
	TOTAL	1

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	CELLULAR MODEM

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB4	403.68.1, 5.8' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	126	252
12	PB4	403+95.7, 6.0' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	126	252
13	PB4	403.68.1, 16.1' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	64	126	192
14	PB4	403+95.9, 16.6' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	66	126	198
21	PB9	407+90.5, 29.7' LT	6'X10'	5	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	52	504	260
22	PB9	407+90.3, 19.7' LT	6'X10'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	504	360

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IH 43 NB RAMPS & STH 60
OZAUKEE COUNTY
CATEGORY 1500
S45-1262

TRAFFIC DETECTOR LOOPS TABLE IS CONT'D

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
61	PB3	402+46.7, 16.6' RT	6'X6'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	173	210
62	PB3	402+47.0, 5.9' RT	6'X6'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	98	173	294
81	PB14	403+57.6, 299.7' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	315	350
82	PB14	403+46.6, 294.5' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	46	315	230
83	PB1	404+59.7, 80.6' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	134	34	402
84	PB1	404+72.8, 36.9' RT	6'X30'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	138	34	414
85	PB1	404+47.6, 75.5' RT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	116	34	348
86	PB1	404+60.0, 34.7' RT	6'X30'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	116	34	348
					TOTAL	1210*	2624*	4110*

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN
** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

IH 43 SB RAMPS & STH 60
OZAUKEE COUNTY
CATEGORY 1500
S45-1263

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
SB7	1
TOTAL	1

REMOVE TRAFFIC SIGNALS

LOCATION	204.9105.S.03 REMOVING TRAFFIC SIGNALS L.S.
IH 43 SB RAMPS & STH 60	1
TOTAL	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	204.9105.S.02 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
IH 43 SB RAMPS & STH 60	1
TOTAL	1

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
PB10	SB14	14
	TOTAL	14

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB7	399+83.5, 50.3' LT	6'X6'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	50	255	200
22	PB7	399+83.3, 37.0' LT	6'X6'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	78	255	312
41	PB4	399+17.3, 307.5' LT	6'X6'	5	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	50	321	250
42	PB3	398+55.4, 109.1' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	74	114	222
43	PB3	398+44.2, 72.6' LT	6'X30'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	102	114	306
44	PB2	398+95.0, 316.7' LT	6'X6'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	44	259	176
45	PB2	399+05.1, 312.9' LT	6'X6'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	66	259	264
46	PB1	398+17.8, 117.5' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	74	48	222
47	PB1	397+89.7, 82.1' LT	6'X30'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	106	48	318
48	PB1	398+30.5, 116.6' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	98	48	294
49	PB1	398+12.7, 82.6' LT	6'X30'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	118	48	354

IH 43 SB RAMPS & STH 60
OZAUKEE COUNTY
CATEGORY 1500
S45-1263

TRAFFIC DETECTOR LOOPS TABLE IS CONT'D

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
51	PB8	399+24.5, 26.5' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	74	244	222
52	PB8	398+96.4, 27.2' LT	6'X20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	72	244	216
61	PB12	395+59.0, 16.1' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	70	421	350
62	PB12	395+59.0, 6.2' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 2)	90	421	450
					TOTAL	948*	2168*	3194*

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

CONCRETE BASES

SIGNAL BASE NO.	LOCATION*	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH
SB7	398+06.2, 45.7' RT	1	
SB14	398+56.3, 53.9' RT		1
	TOTAL	1	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	SB7		311
CB1	SB14	336	
	TOTAL	336	311

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
SB8	SB7	54
SB7	SB14	217
SB14	SB6	60
	TOTAL	331

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
SB7	HEAD 21	15
SB7	HEAD 24	19
SB14	HEAD 10	45
	TOTAL	79

POLES

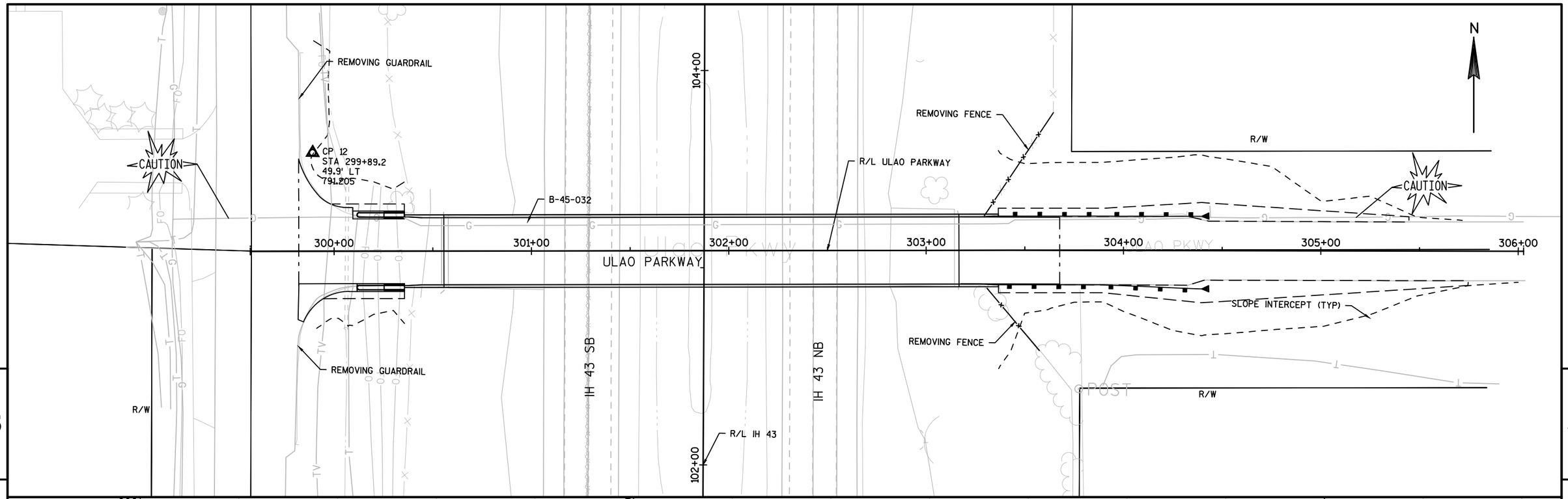
SIGNAL BASE NO.		657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0590 TROMBONE ARMS 20-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH
SB7		1			1		1
SB14			1	1		1	
	TOTAL	1	1	1	1	1	1

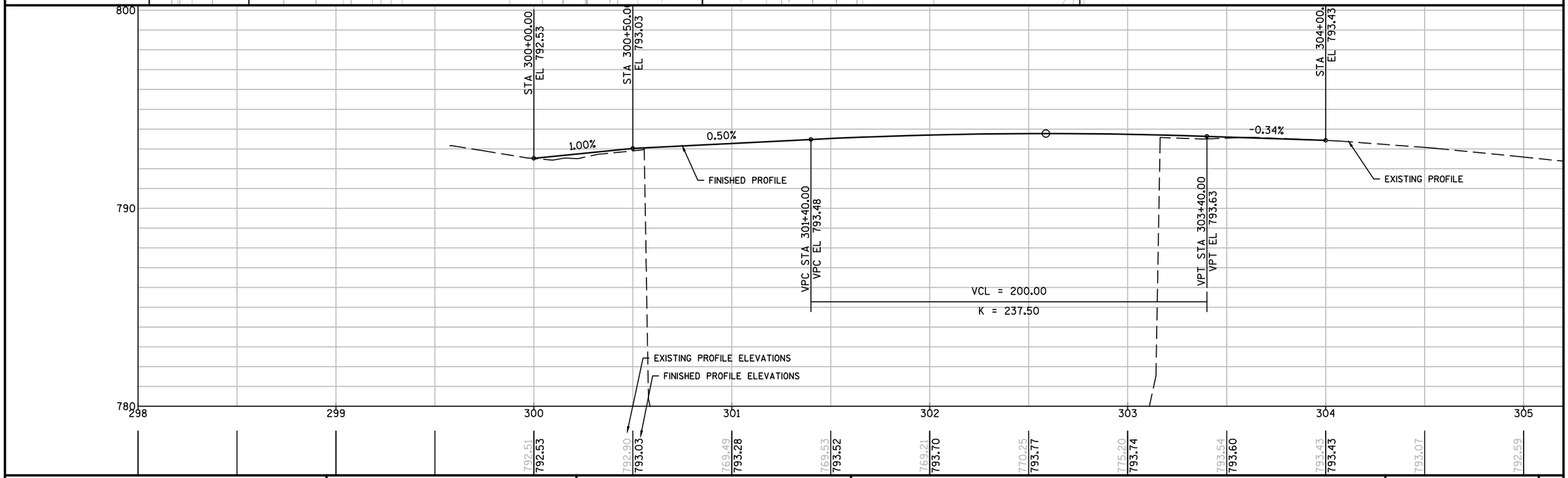
FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
SB7	HEAD 21		1
SB7	HEAD 24	1	
SB14	HEAD 10	1	
	TOTAL	2	1

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE L.S.
IH 43 SB RAMPS & STH 60	1
TOTAL	1





PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	PLAN AND PROFILE: ULAO PARKWAY	SHEET 192 E

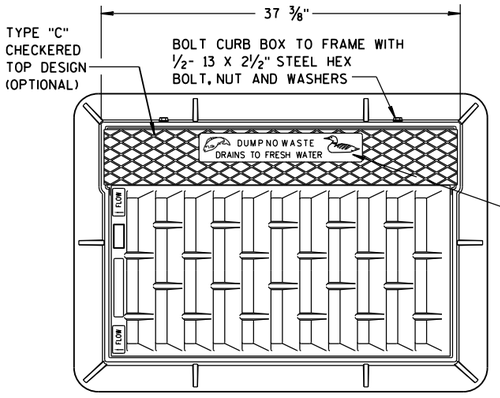
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A04-04A	FLEXIBLE DELINEATOR POST
15B01-08A	FENCE WOVEN WIRE
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-07D	ON RAMP LANE CLOSURE
15C02-07E	OFF RAMP LANE CLOSURE
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

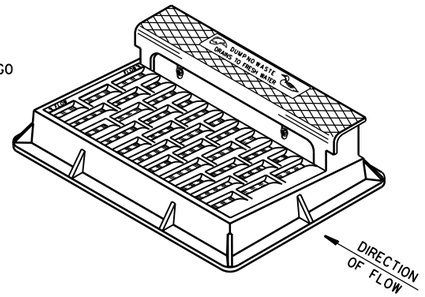
6

Standard Detail Drawing List

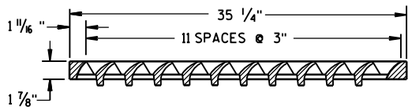
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C29-06A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D03-05	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D15-05A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-05B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-05C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D33-06	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD
15D42-01	TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE

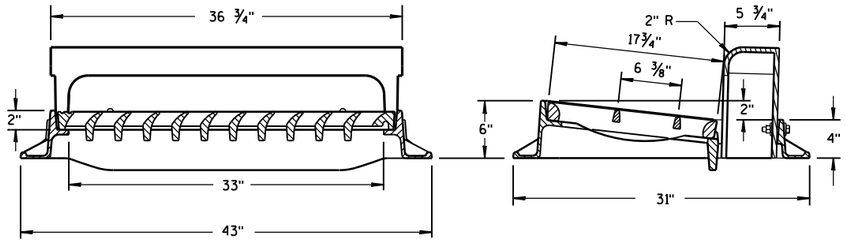


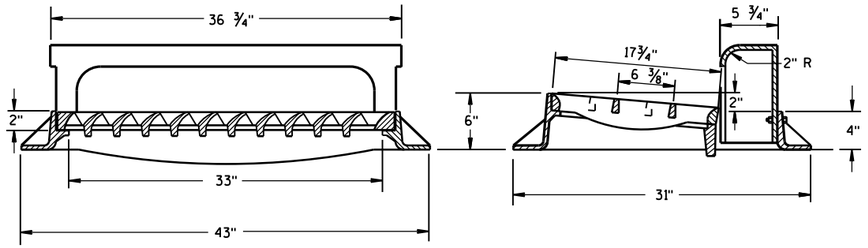
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

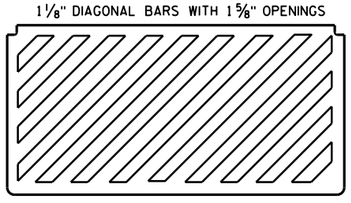






TYPE "H"

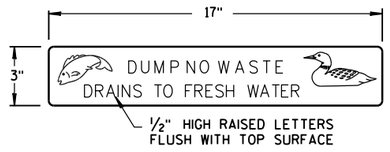
NOTE: EITHER CASTING IS ACCEPTABLE



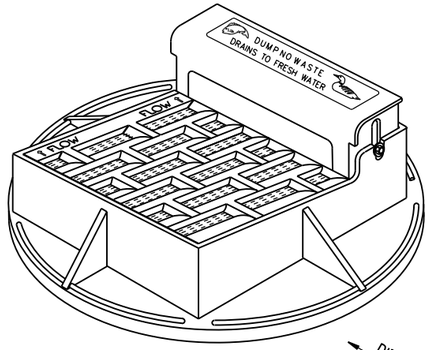
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

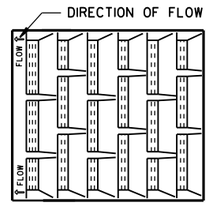
NOTE:
GRATE IS REVERSIBLE.

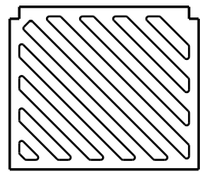
GENERAL NOTES

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

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

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

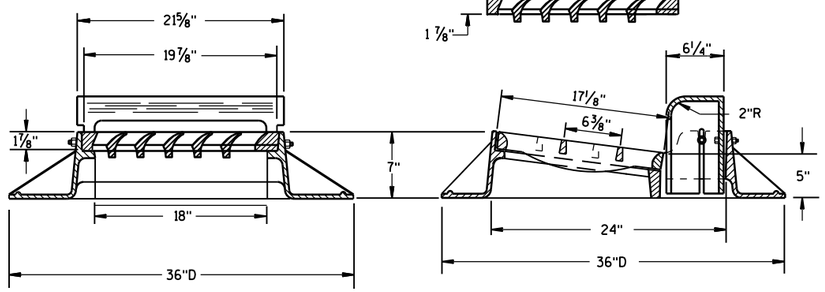




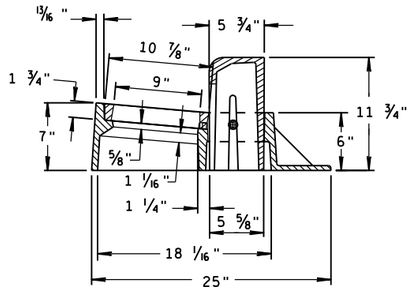
SPECIAL GRATE FOR TYPE "A" COVER

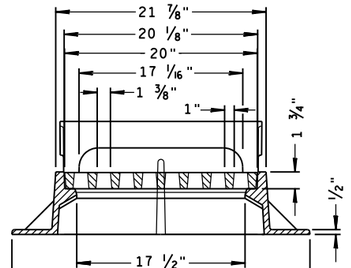
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

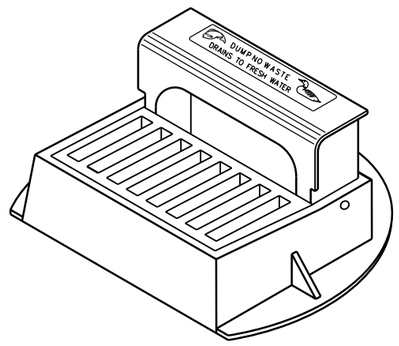


TYPE "A"





TYPE "Z"



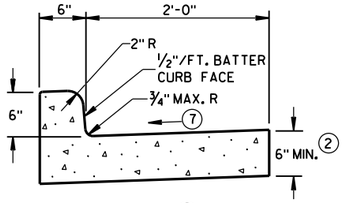
INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

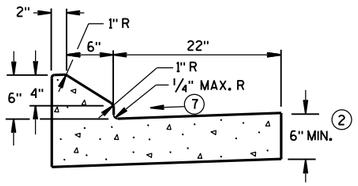
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

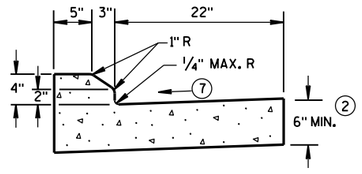
S.D.D. 8 A 5-19a



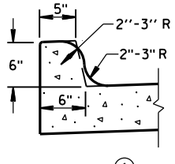
TYPES A (1) & D



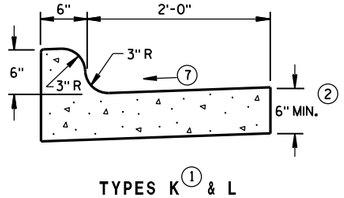
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

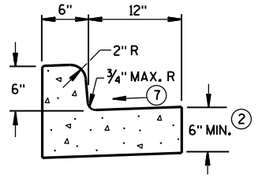


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



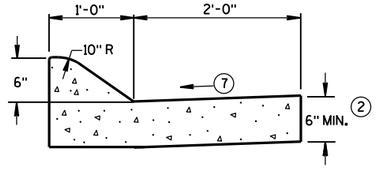
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

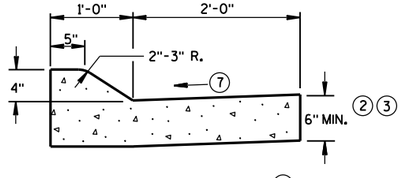


TYPES A (1) & D

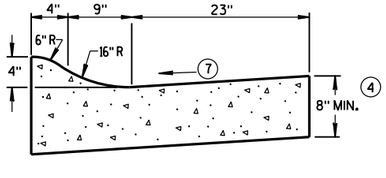
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

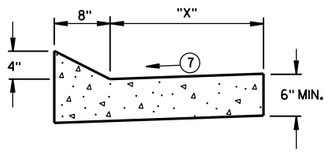


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

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.

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

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

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

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

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

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

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

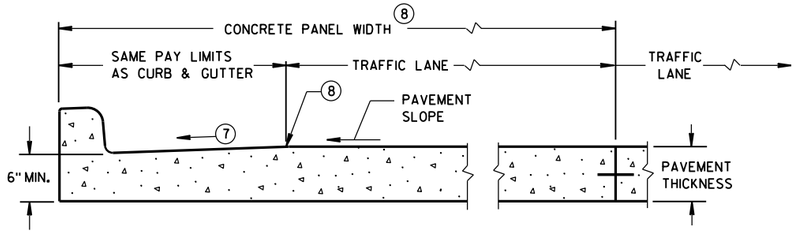
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

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

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

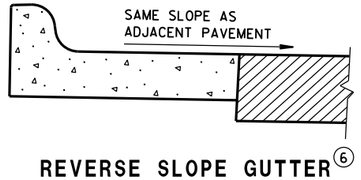
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



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

CONCRETE CURB & GUTTER

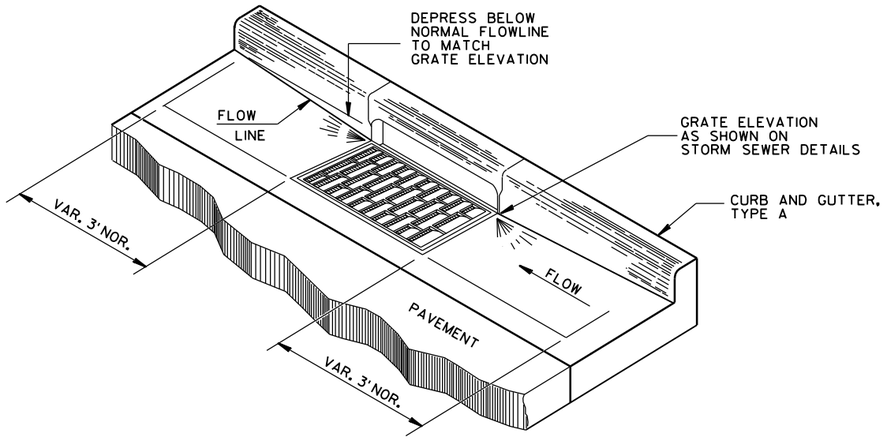
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

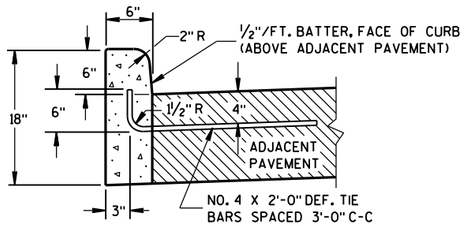
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

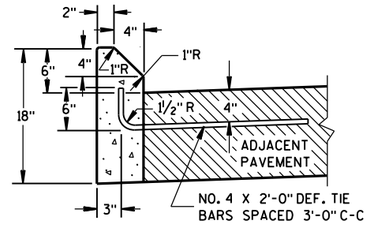
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

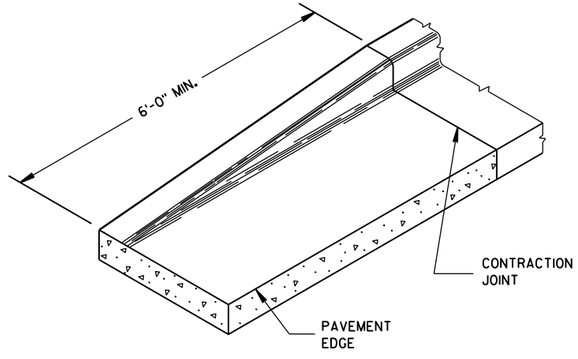


TYPES A(1) & D

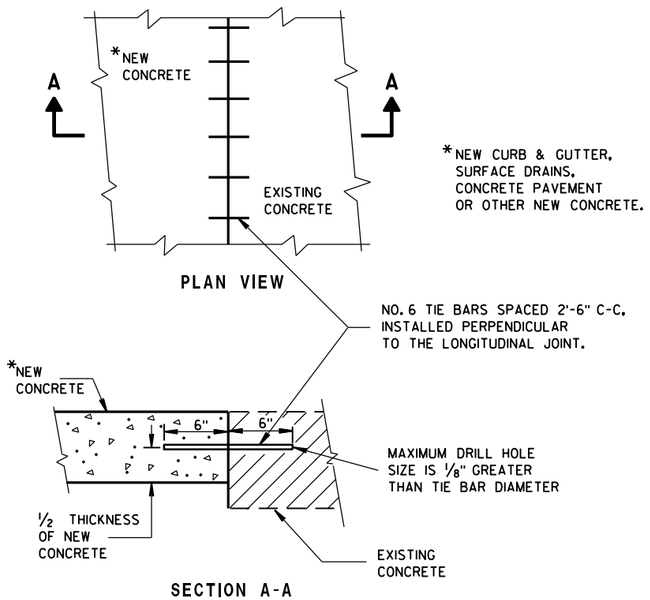


TYPES G(1) & J

CONCRETE CURB



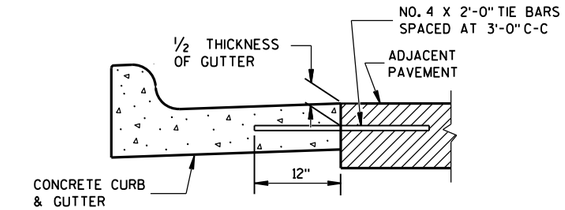
END SECTION CURB & GUTTER



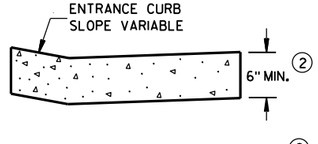
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

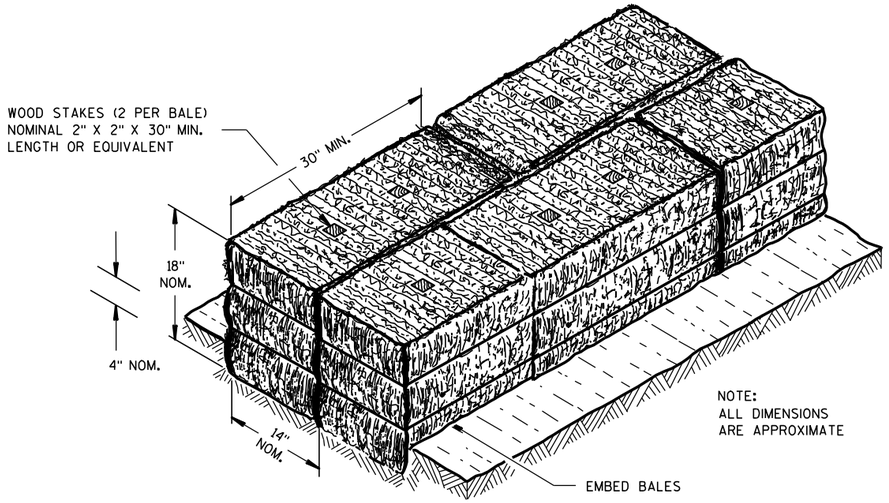
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 197 ENT
UNIT SUPERVISOR
FHWA

6

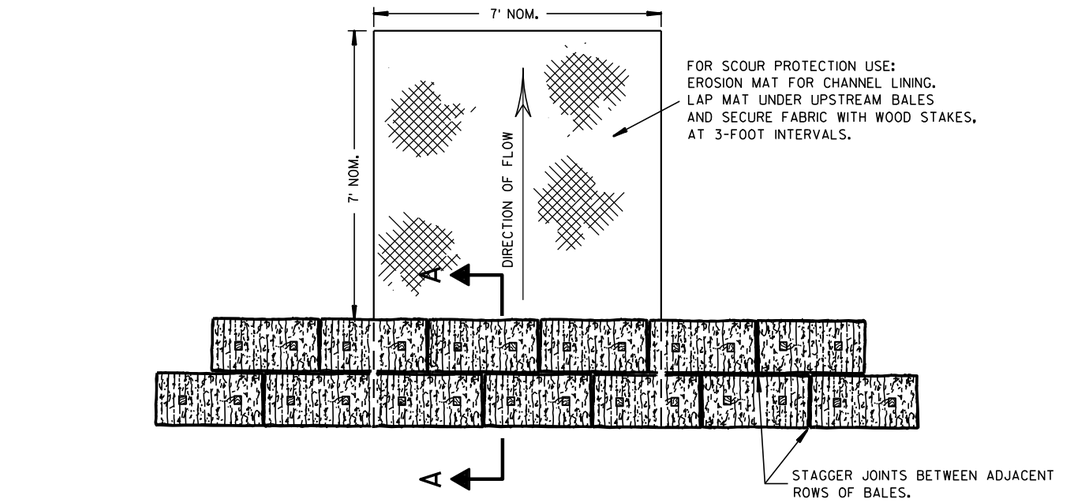
S.D.D. 8 D 1-20b

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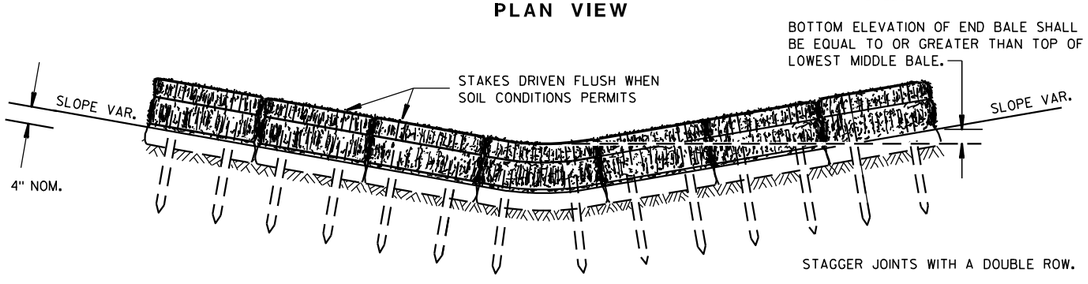
S.D.D. 8 D 1-20b



SECTION A-A



PLAN VIEW



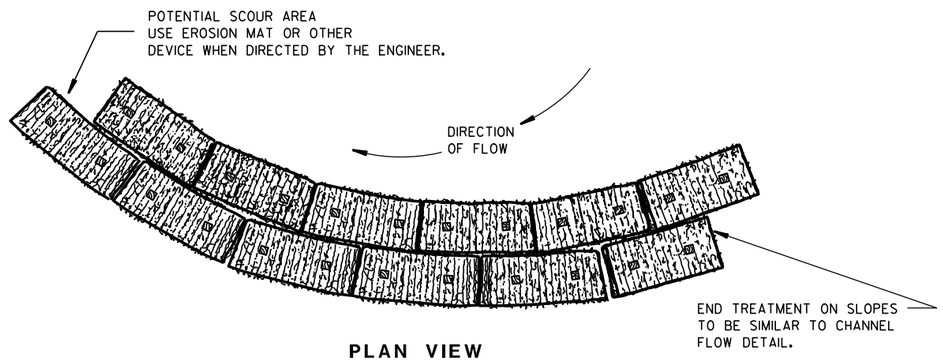
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

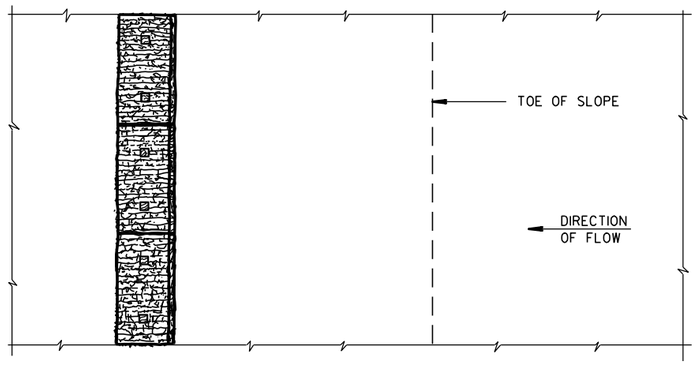
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

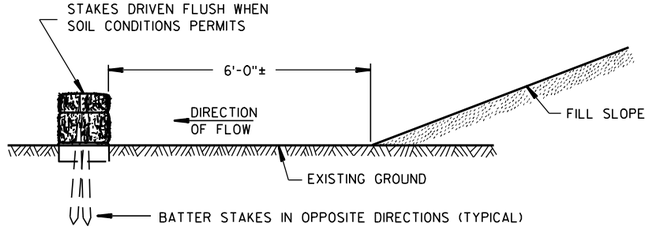


PLAN VIEW

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

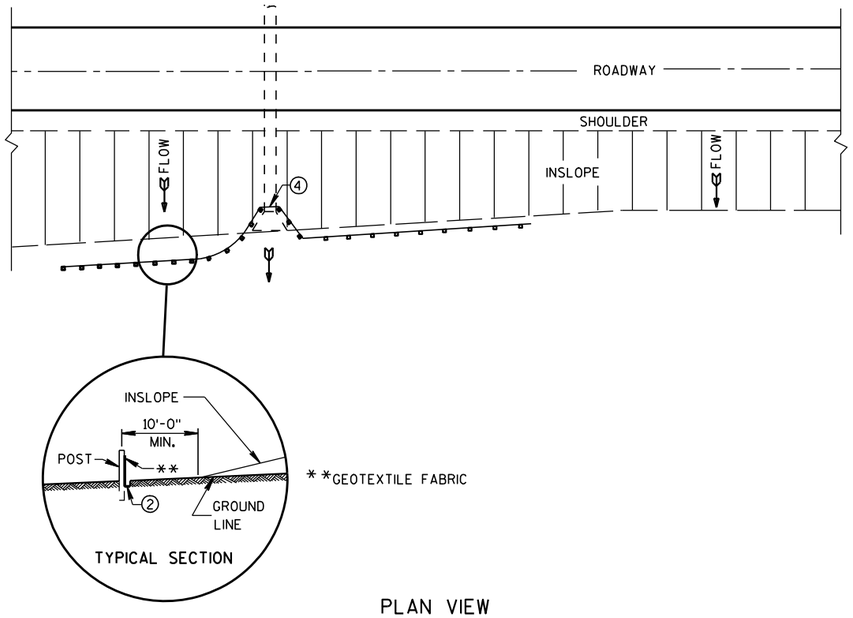
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

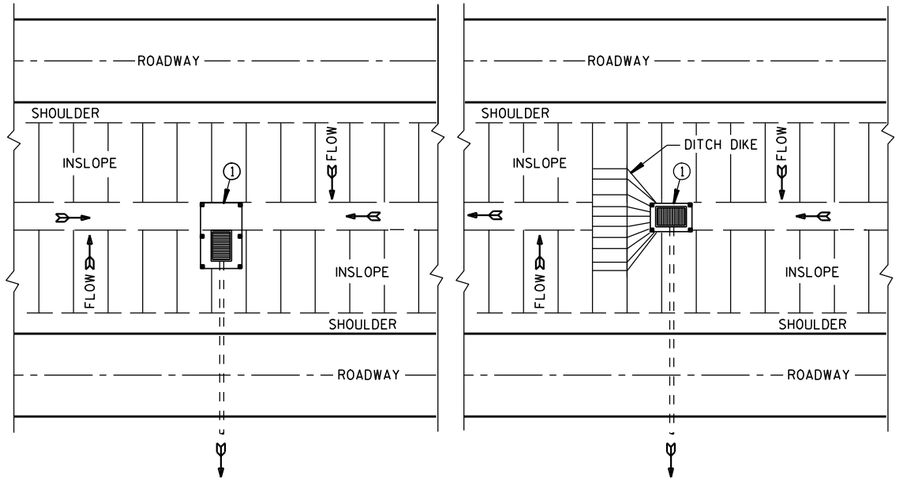
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



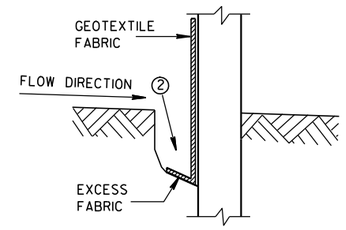
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

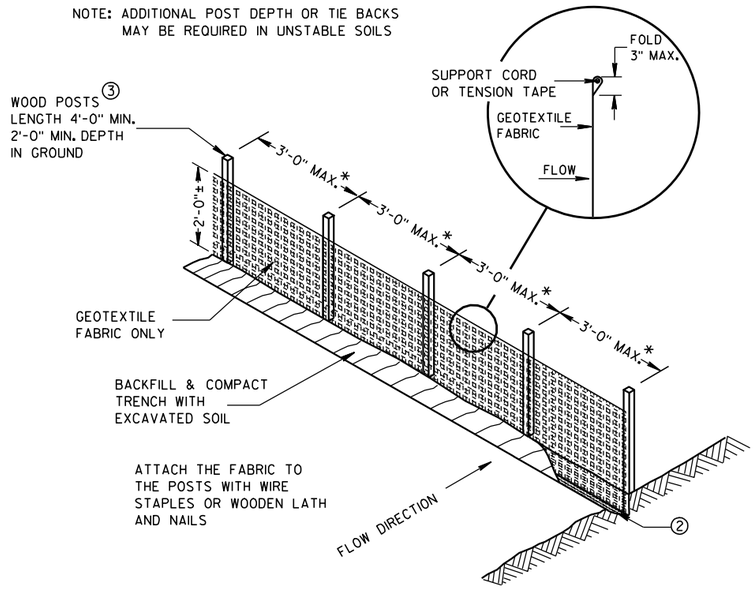
GENERAL NOTES

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

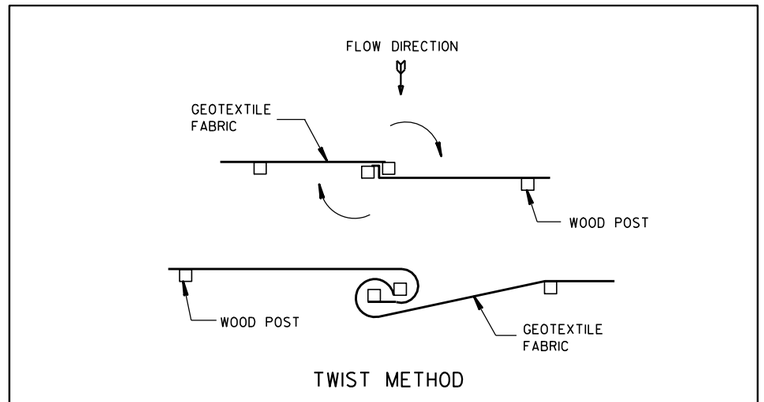
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



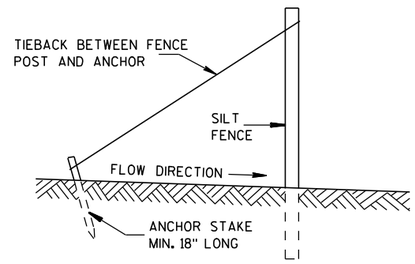
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

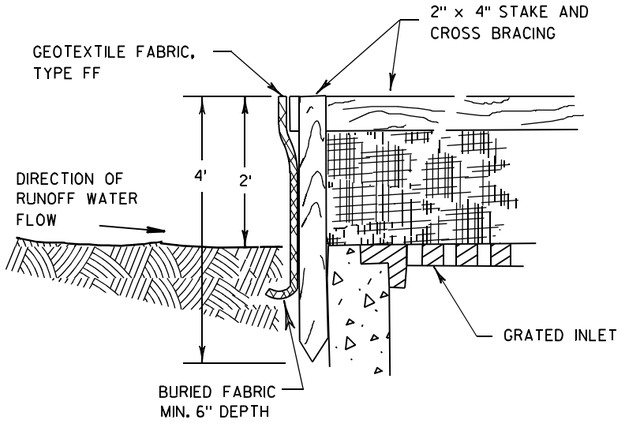
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

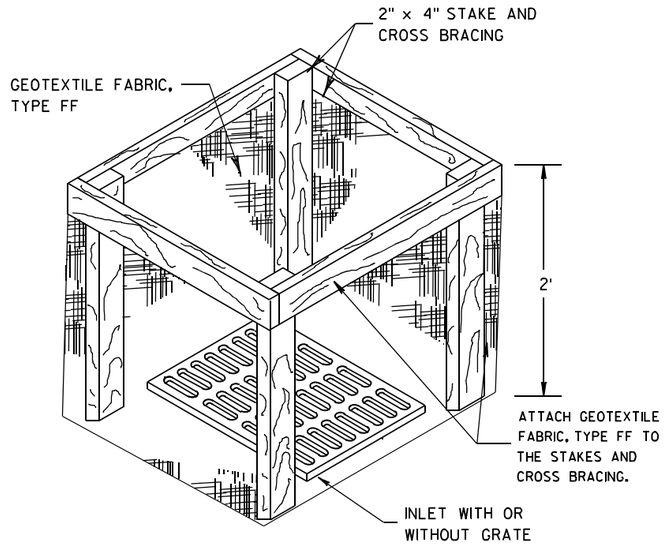
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S.D.D. 8 E 9-6

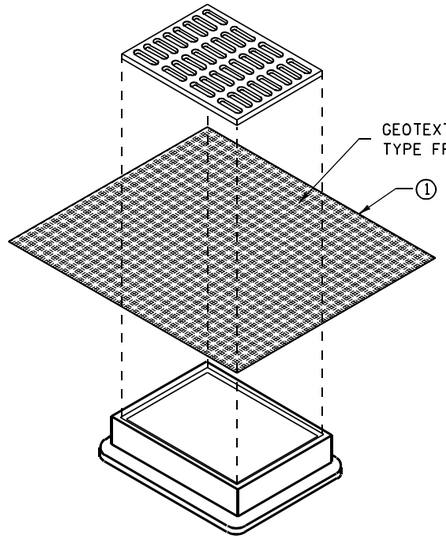
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S.D.D. 8 E 9-6



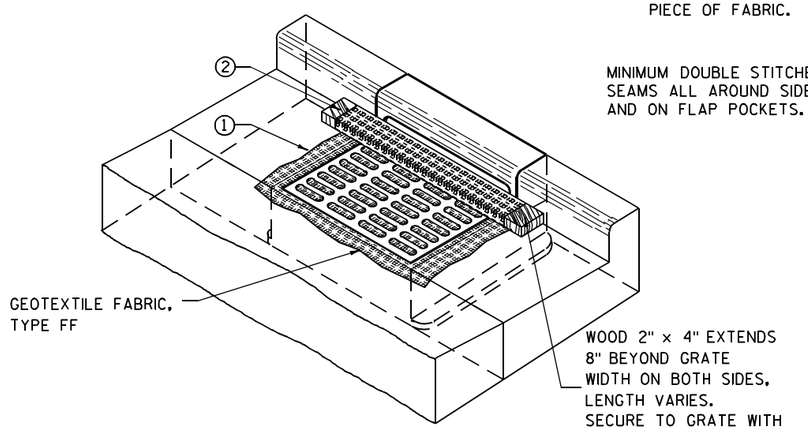


INLET PROTECTION, TYPE A

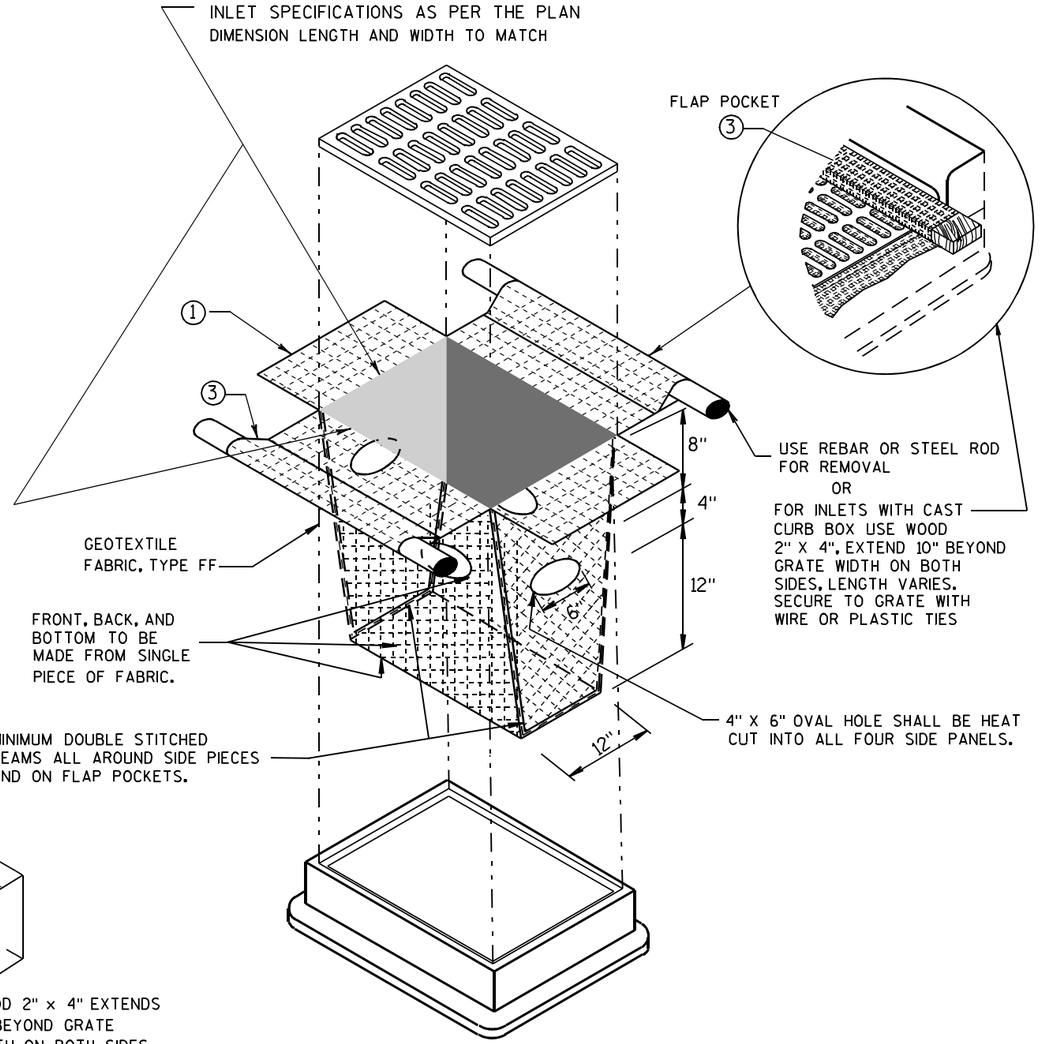


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

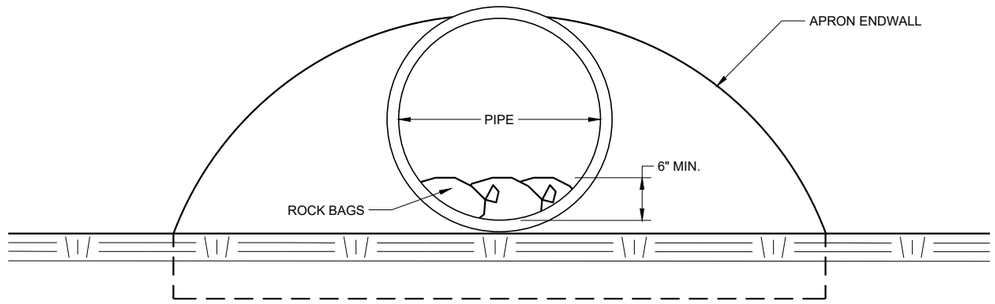
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

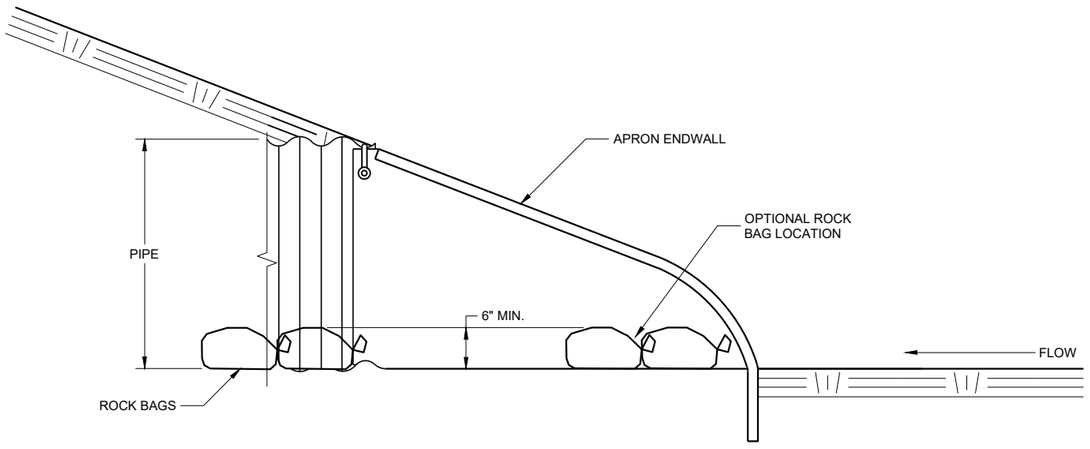
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Daniel Schave
EROSION CONTROL ENGI
FHWA

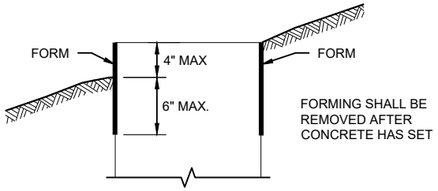
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SDD 08E15 - 01

6

SDD 08E15 - 01

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

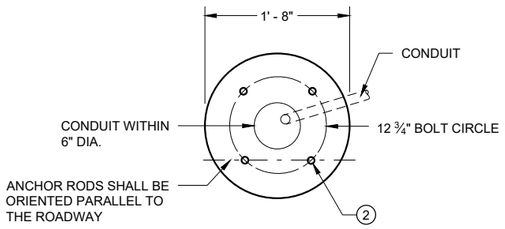
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

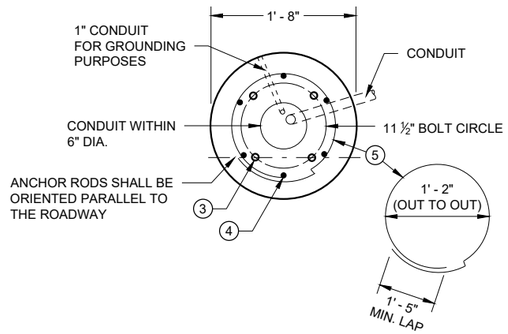
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

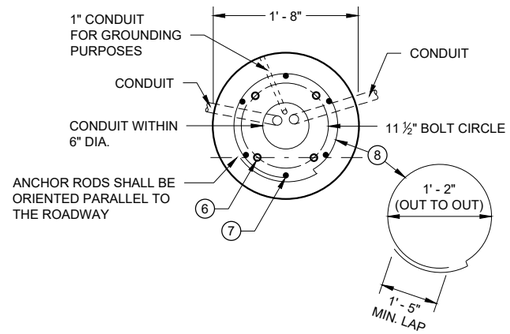
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







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

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

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

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

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

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

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

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

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

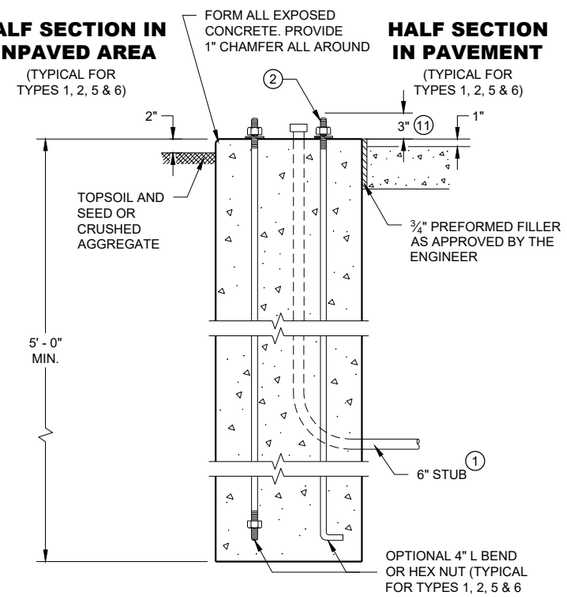
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

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

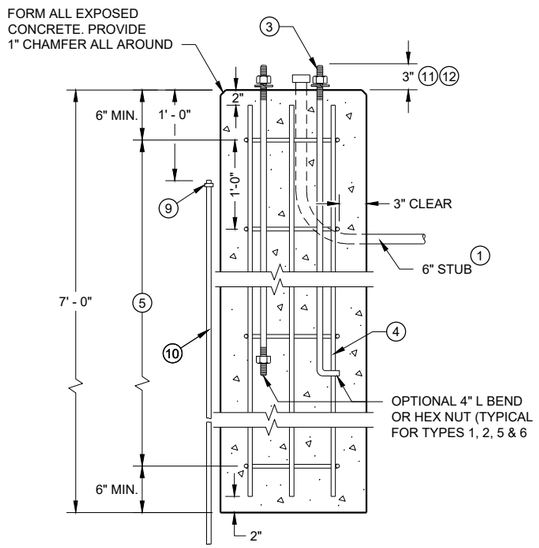
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

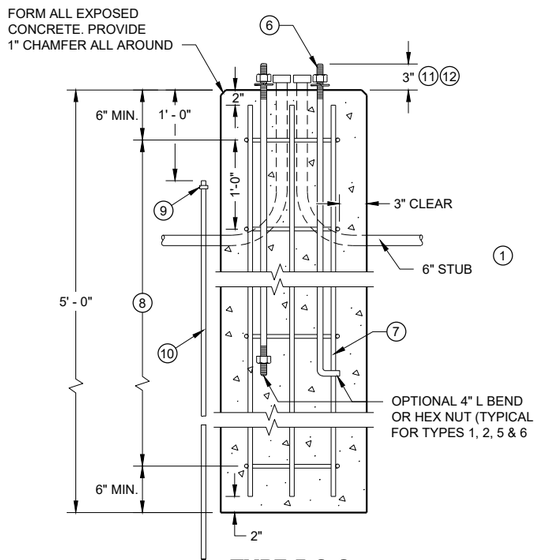
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



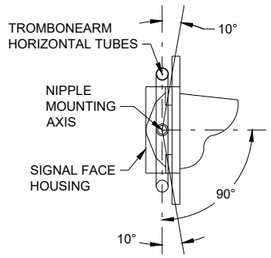
TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 202
FHWA

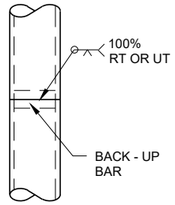


SECTION A-A

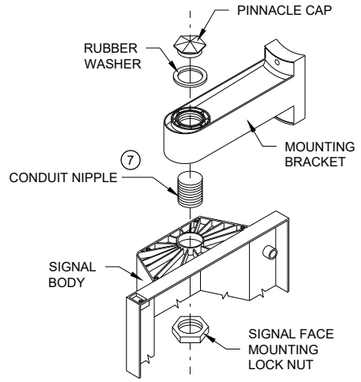
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

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



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

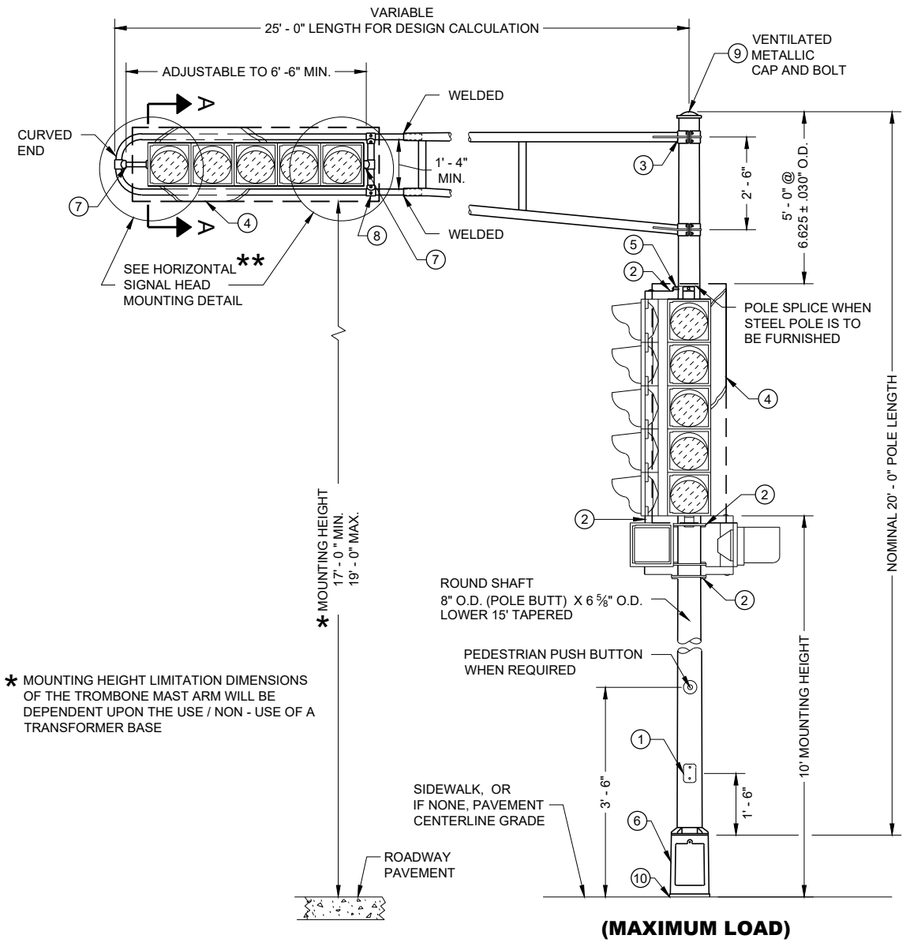
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE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

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

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

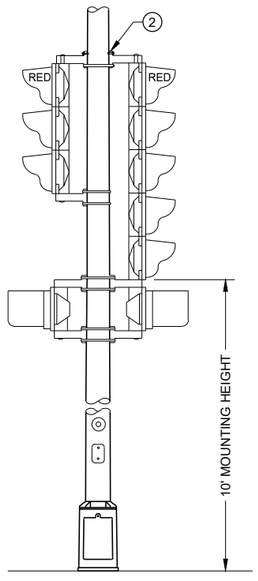
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

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

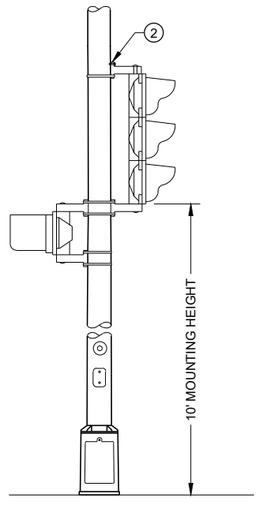


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

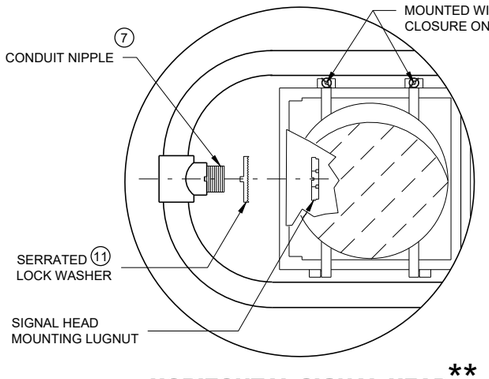
(MAXIMUM LOAD)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

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

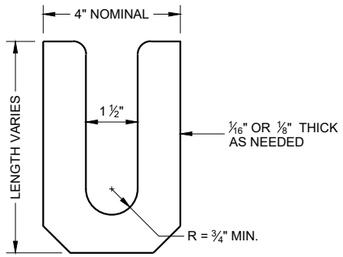
TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

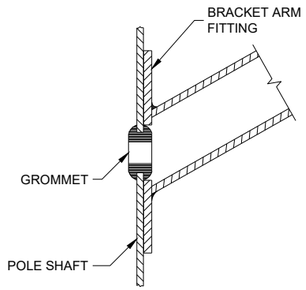
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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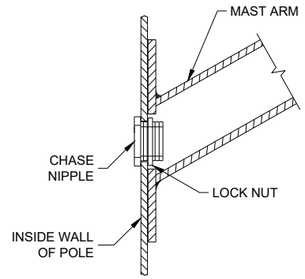
SDD 09E01 - 15a



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

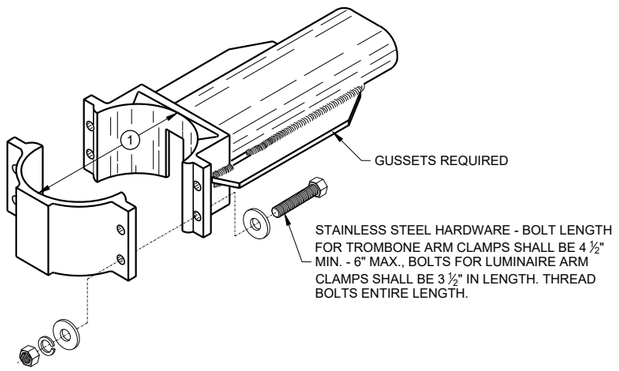
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

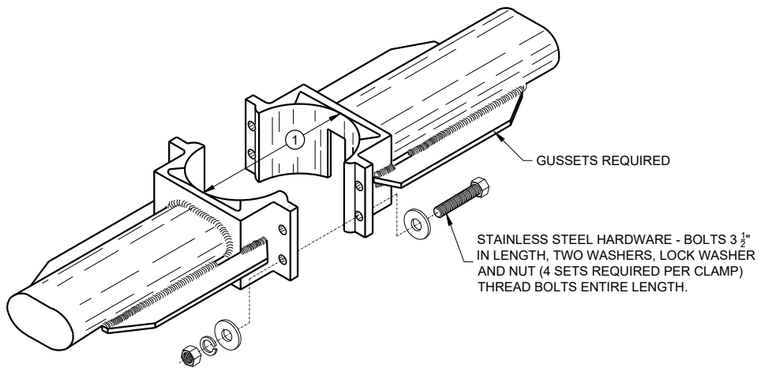
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

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

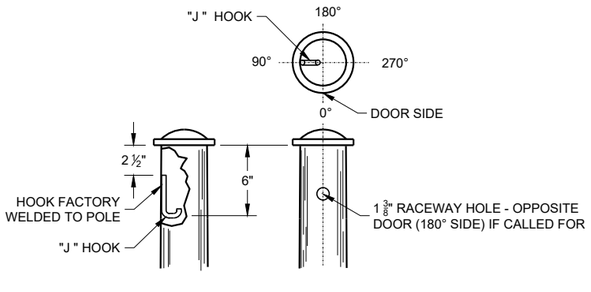
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



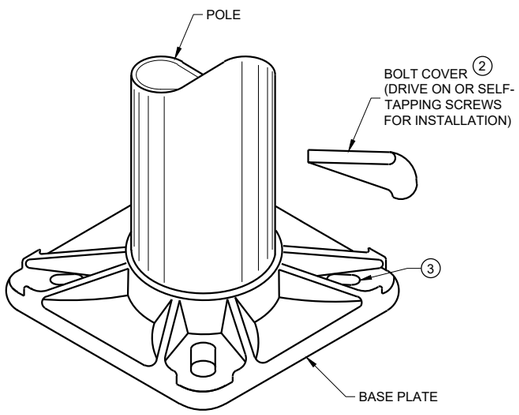
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



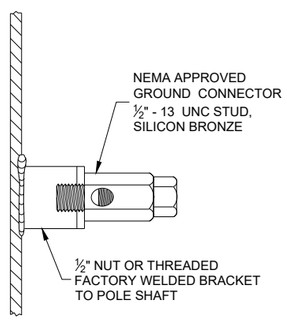
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

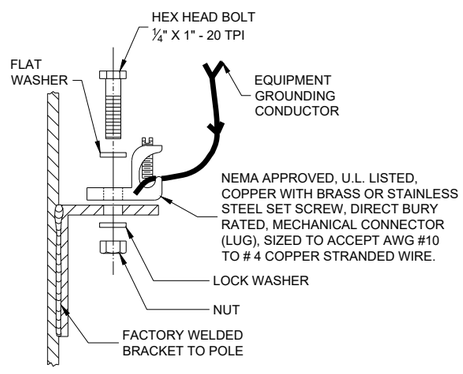


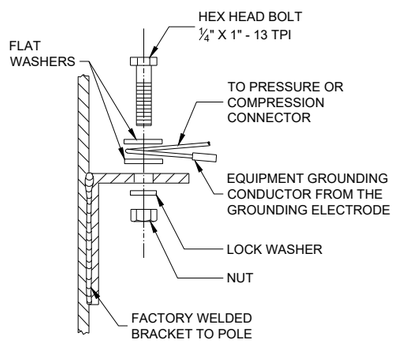
TYPICAL "J" HOOK LOCATION



BASE PLATE







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

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

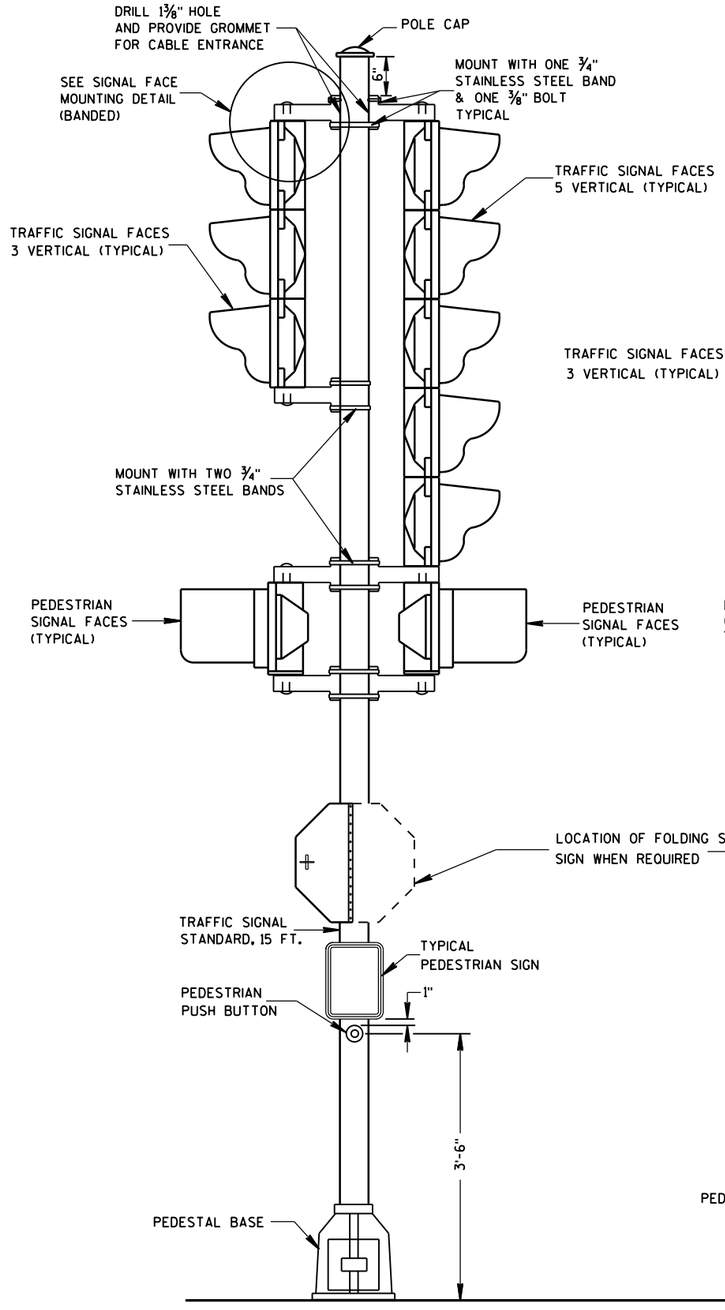
APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

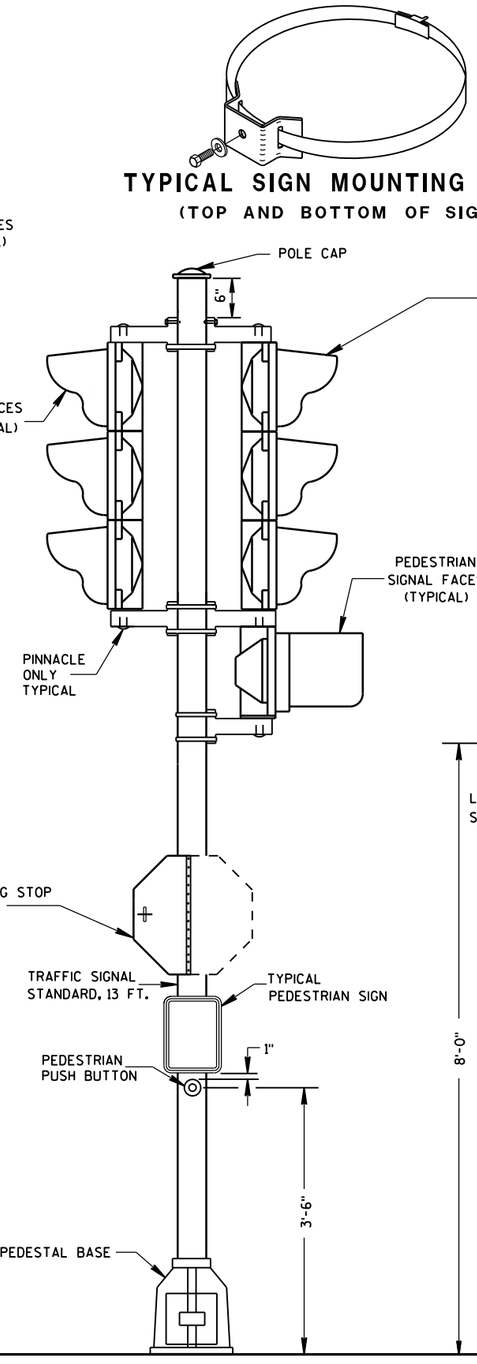
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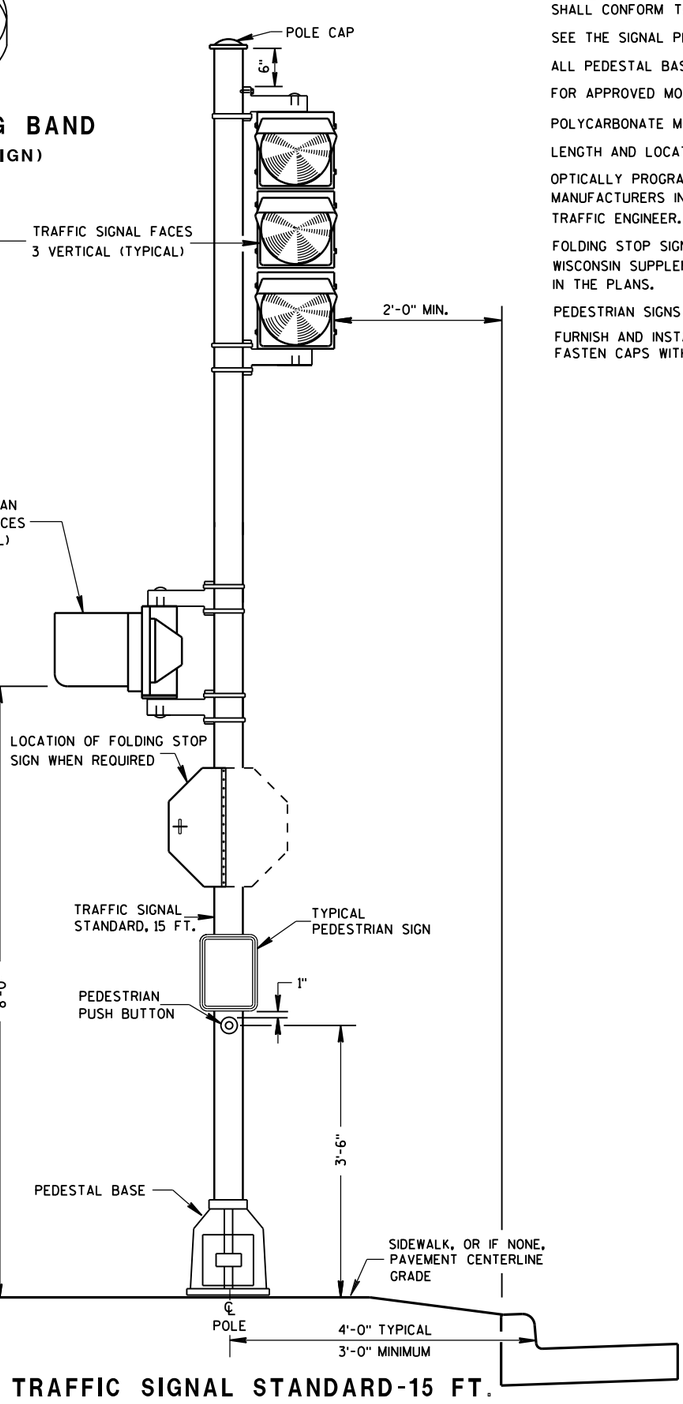


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

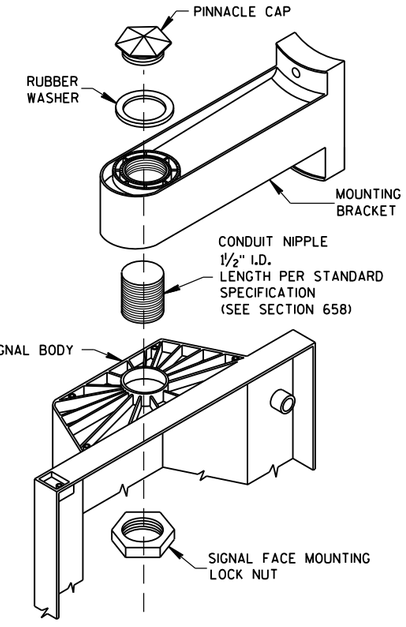
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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



SIGNAL FACE MOUNTING DETAIL
(BANDED)

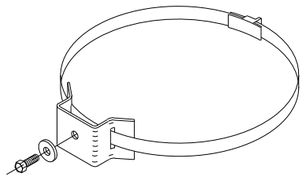
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

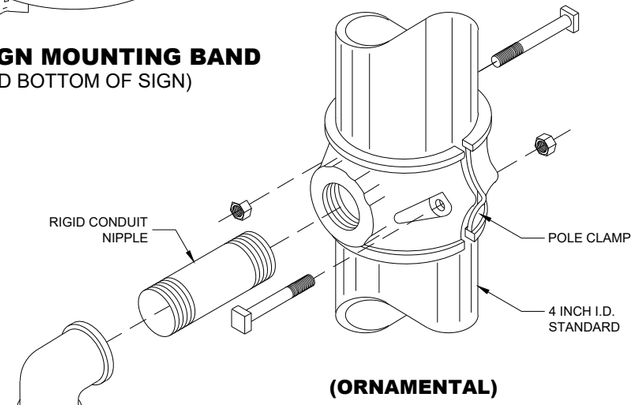
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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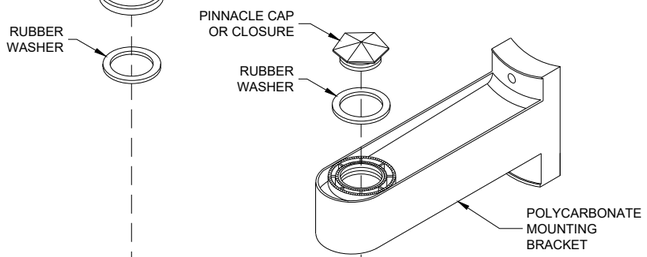
S.D.D. 9 E 6-5



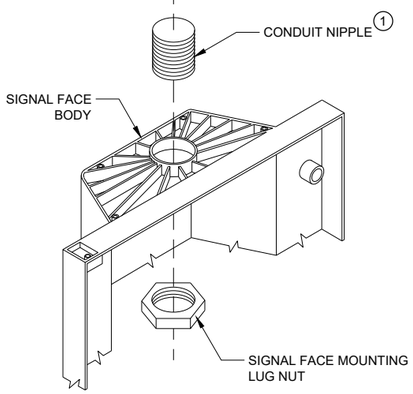
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



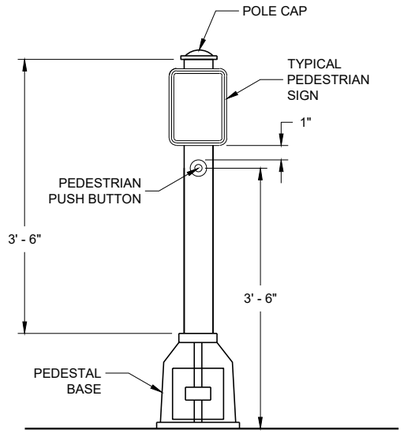
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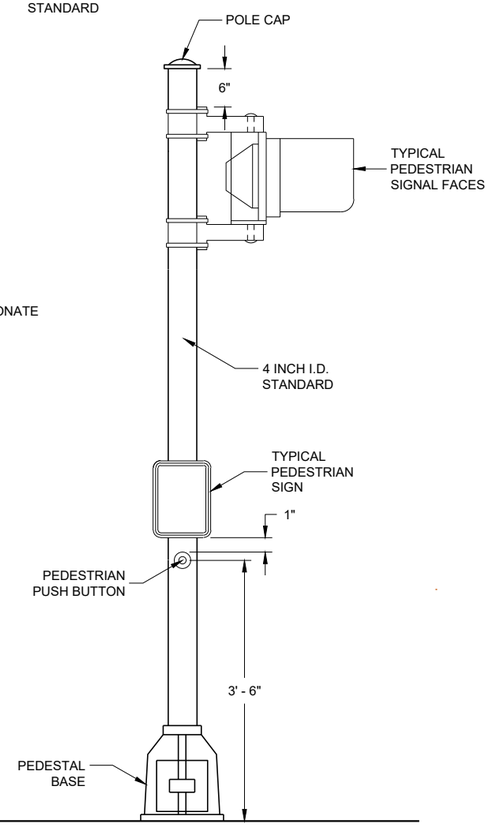
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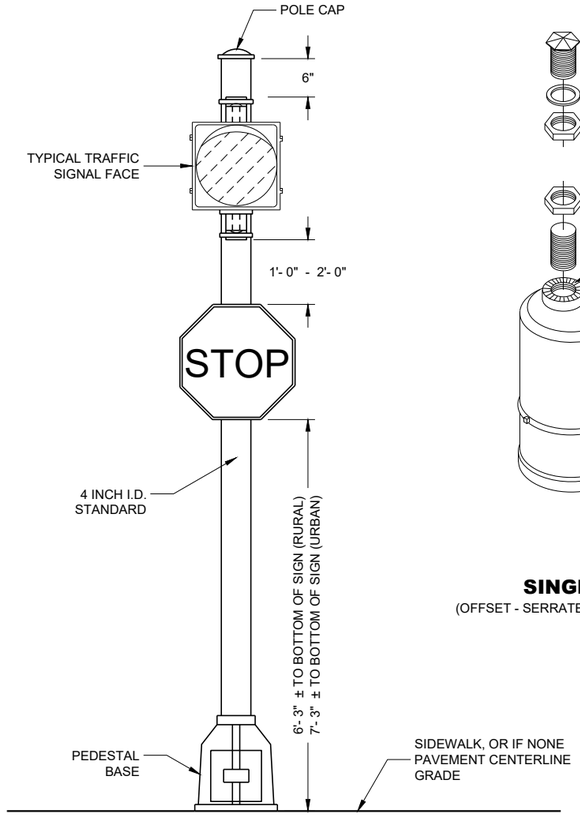
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

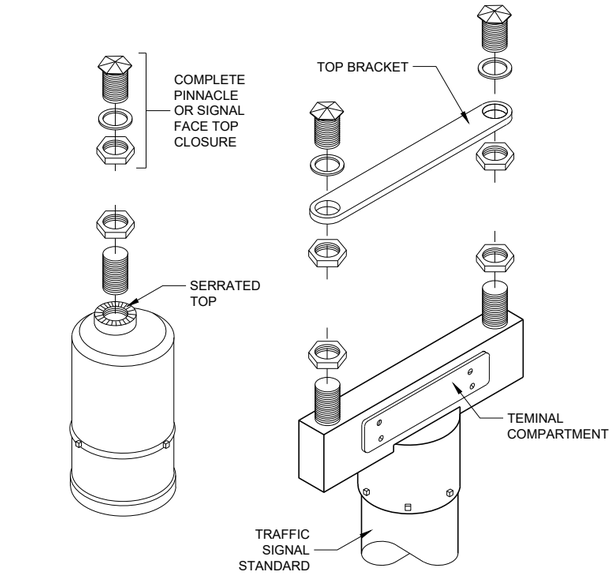
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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

(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

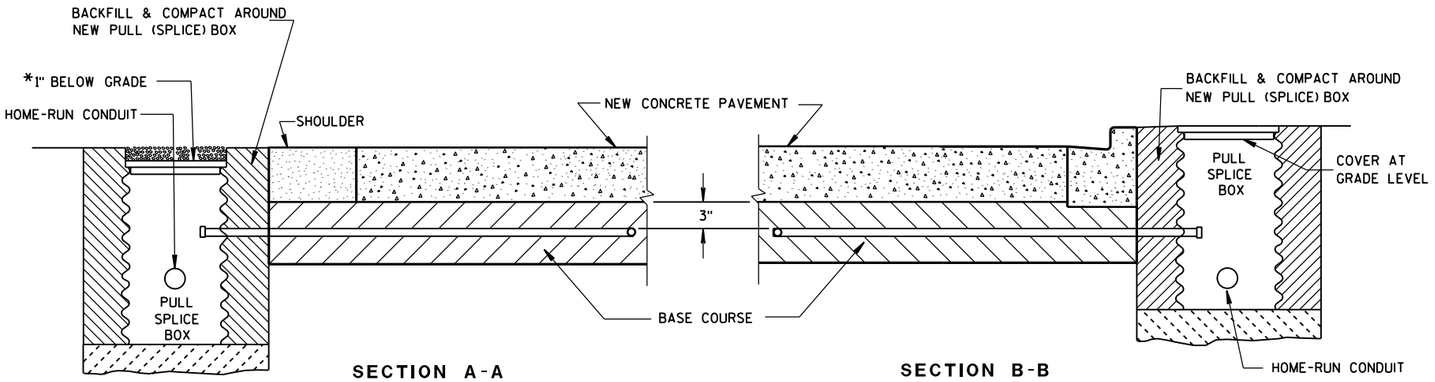
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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SDD 09E07 - 06



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

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

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

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

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

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

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

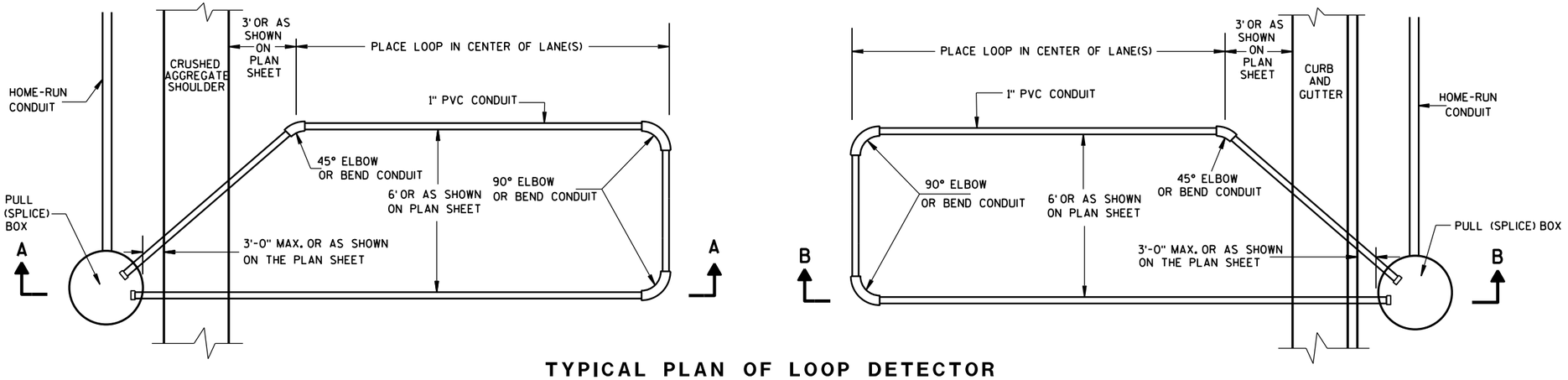
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

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

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

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



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

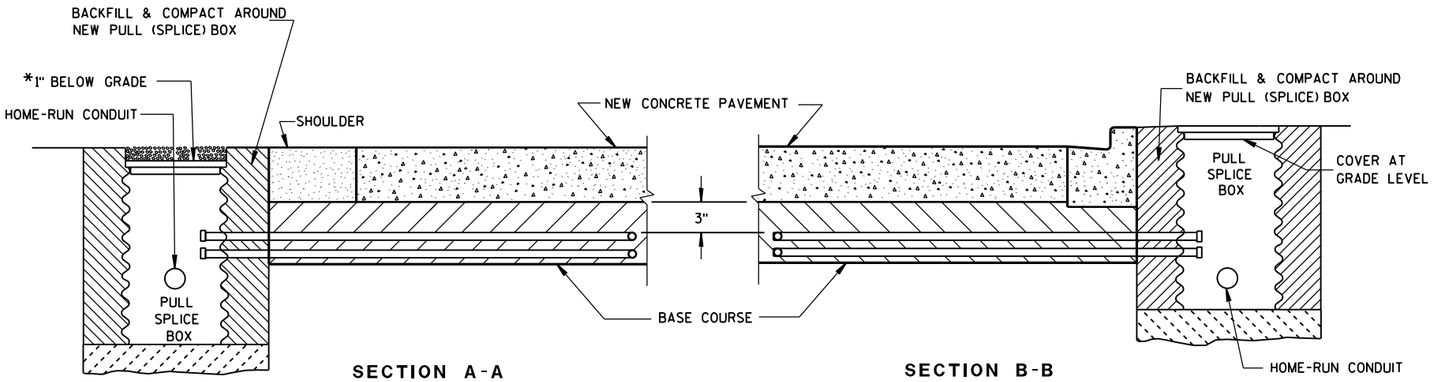
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 F 15-4a

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S.D.D. 9 F 15-4a



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

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

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

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

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

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

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

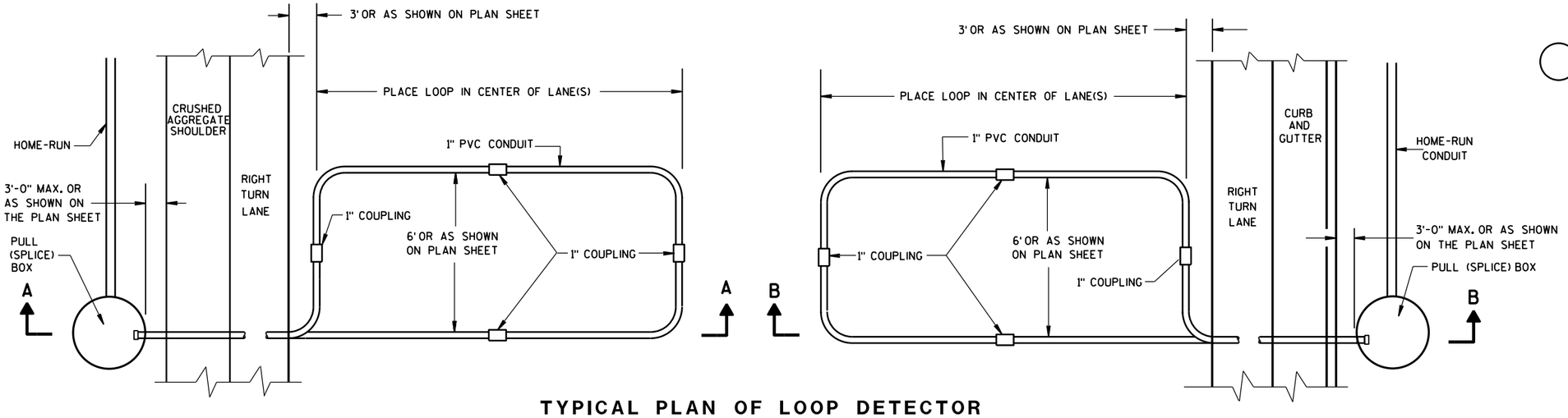
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

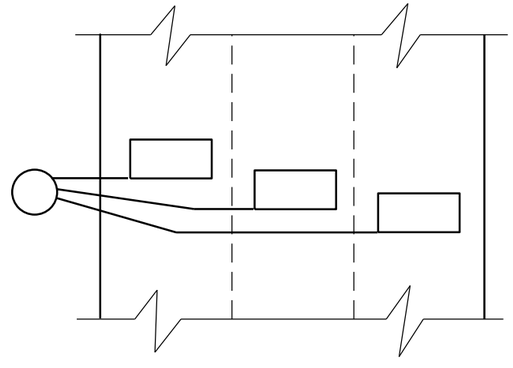
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

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

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



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



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

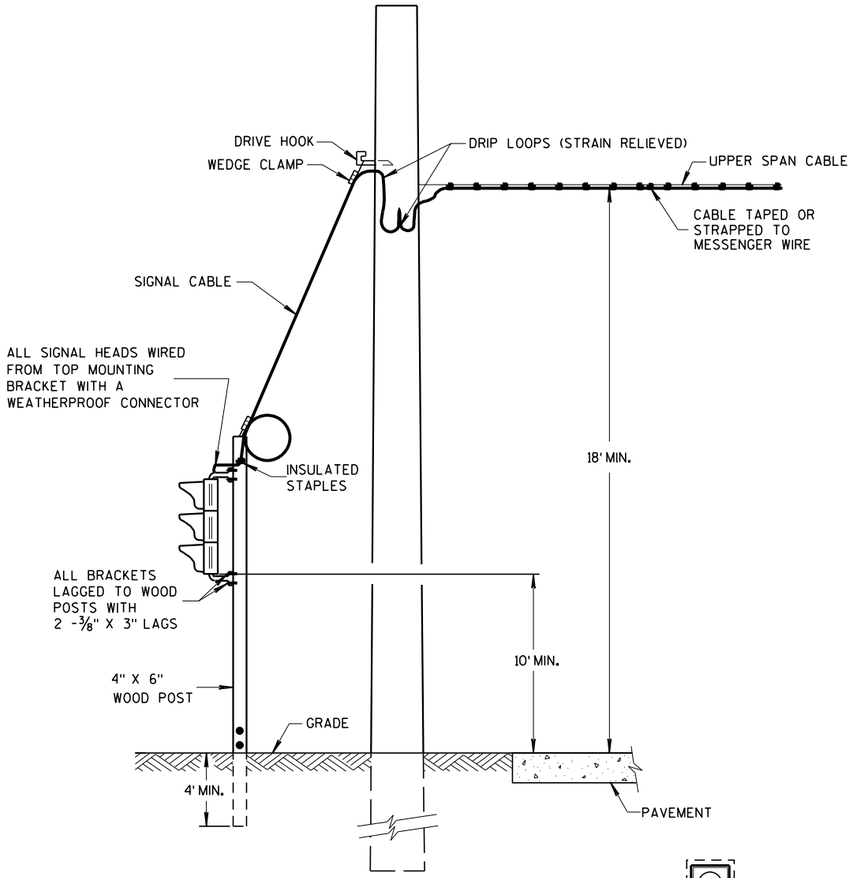
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

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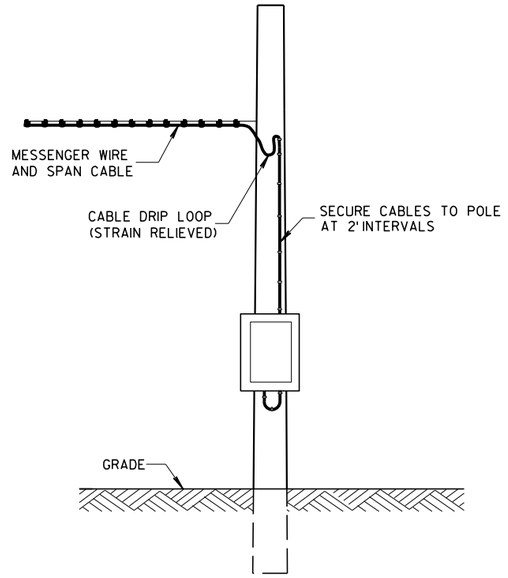
S.D.D. 9 F 15-4b

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S.D.D. 9 F 15-4b



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

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

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

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

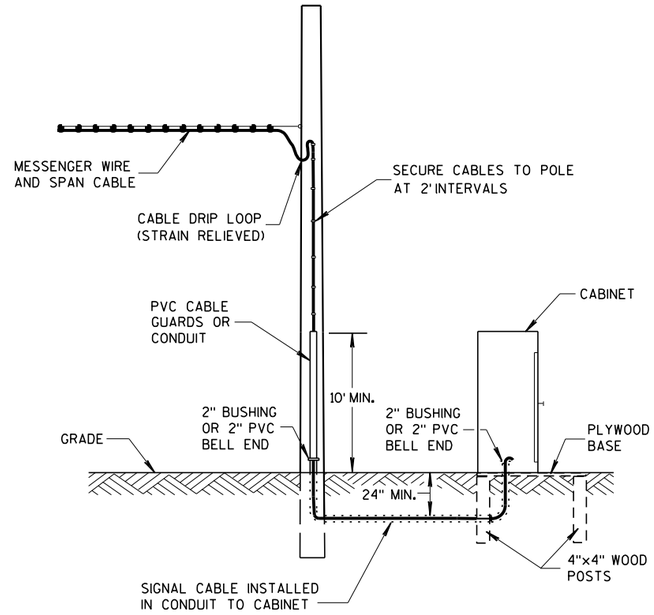
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

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

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.

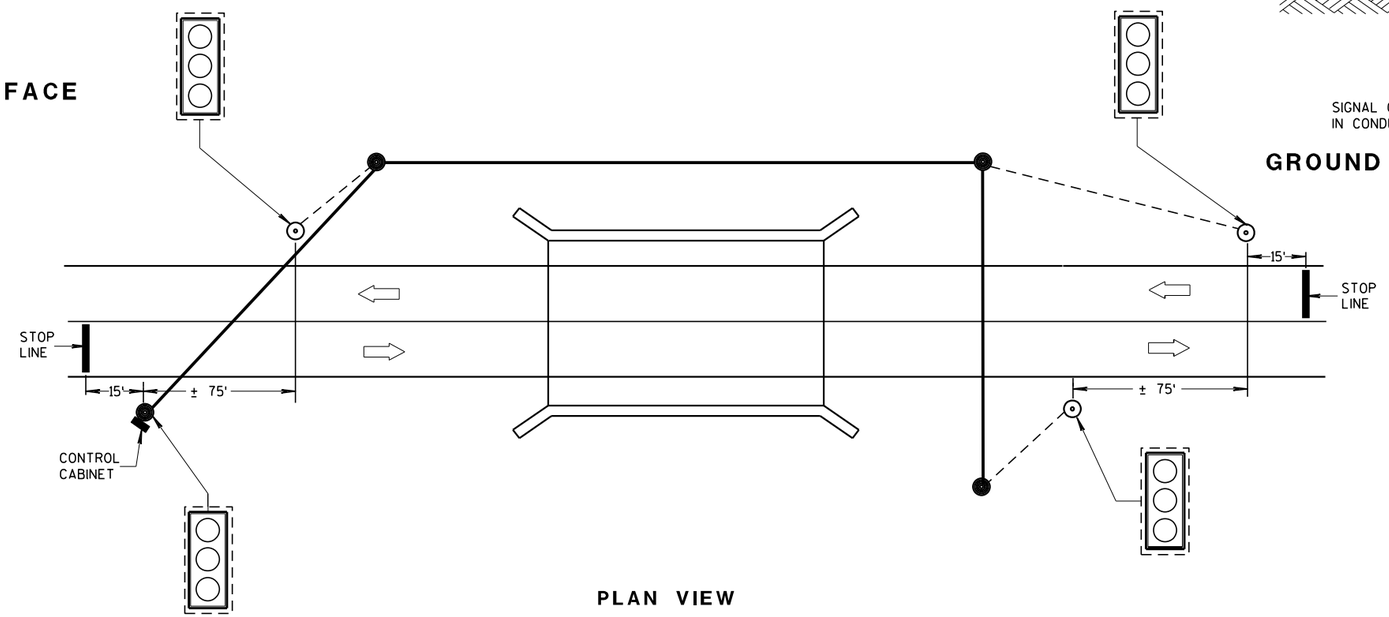
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



GROUND MOUNT CABINET INSTALLATION

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

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



PLAN VIEW

TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

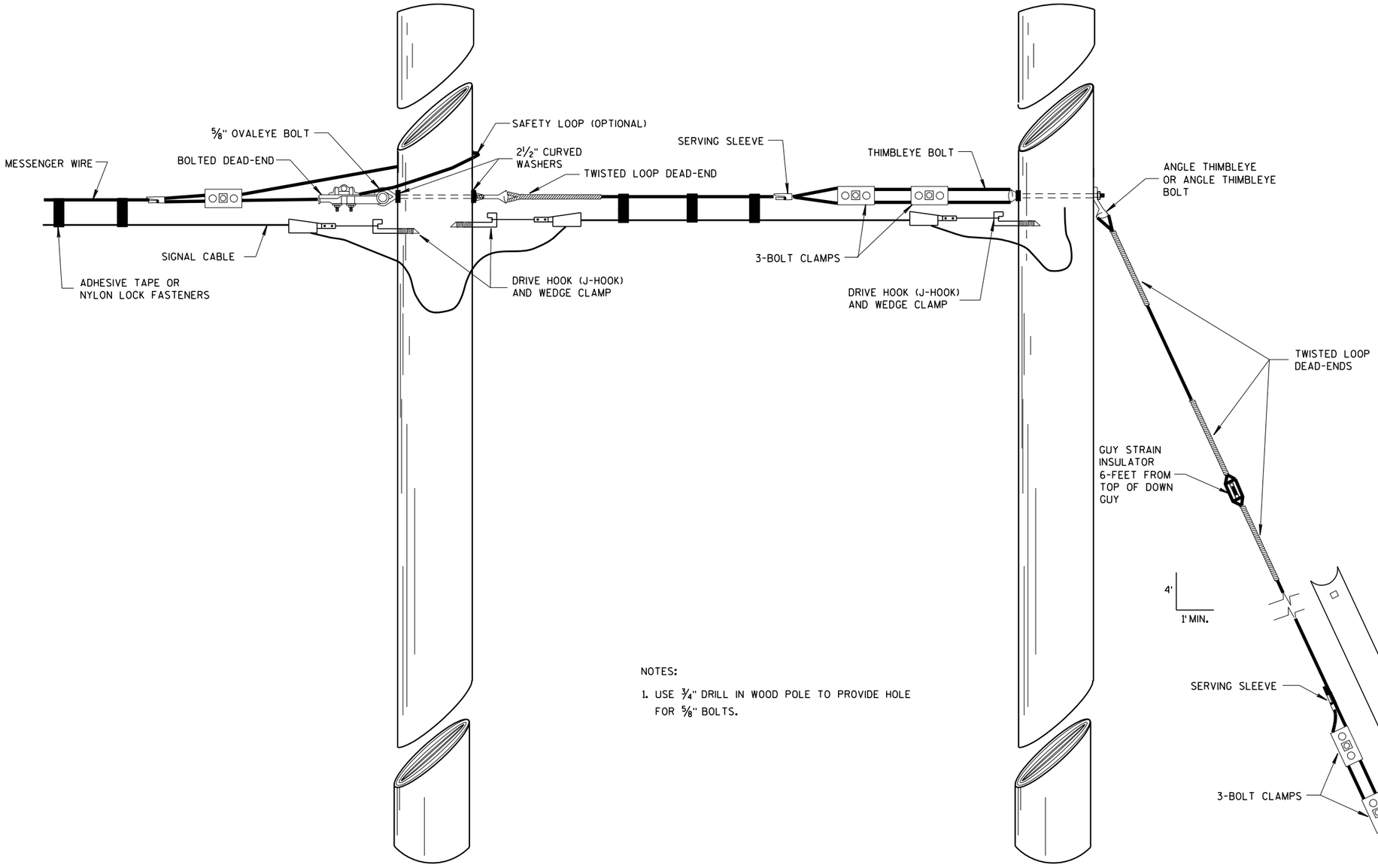
MINIMUM POLE LENGTHS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICA
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SPAN WIRE POLE

GUY POLE

NOTES:

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

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

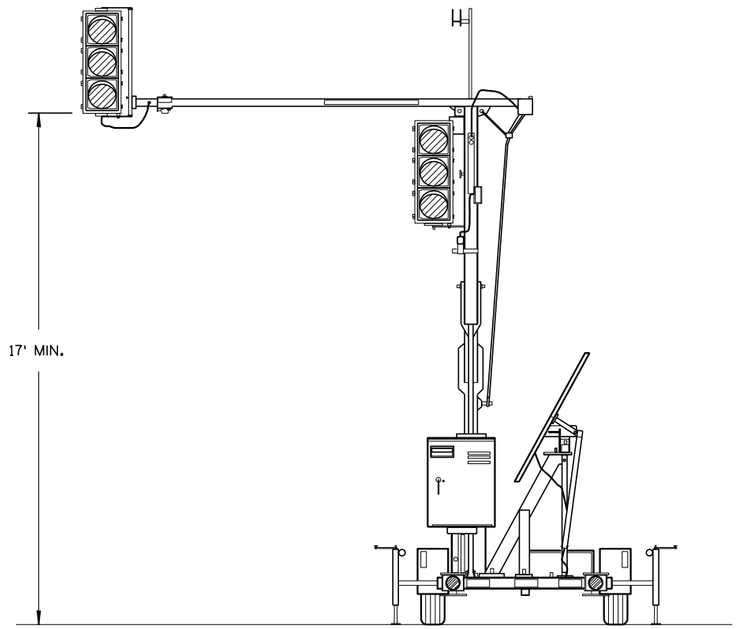
APPROVED
March 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

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S.D.D. 9 G 2-5b

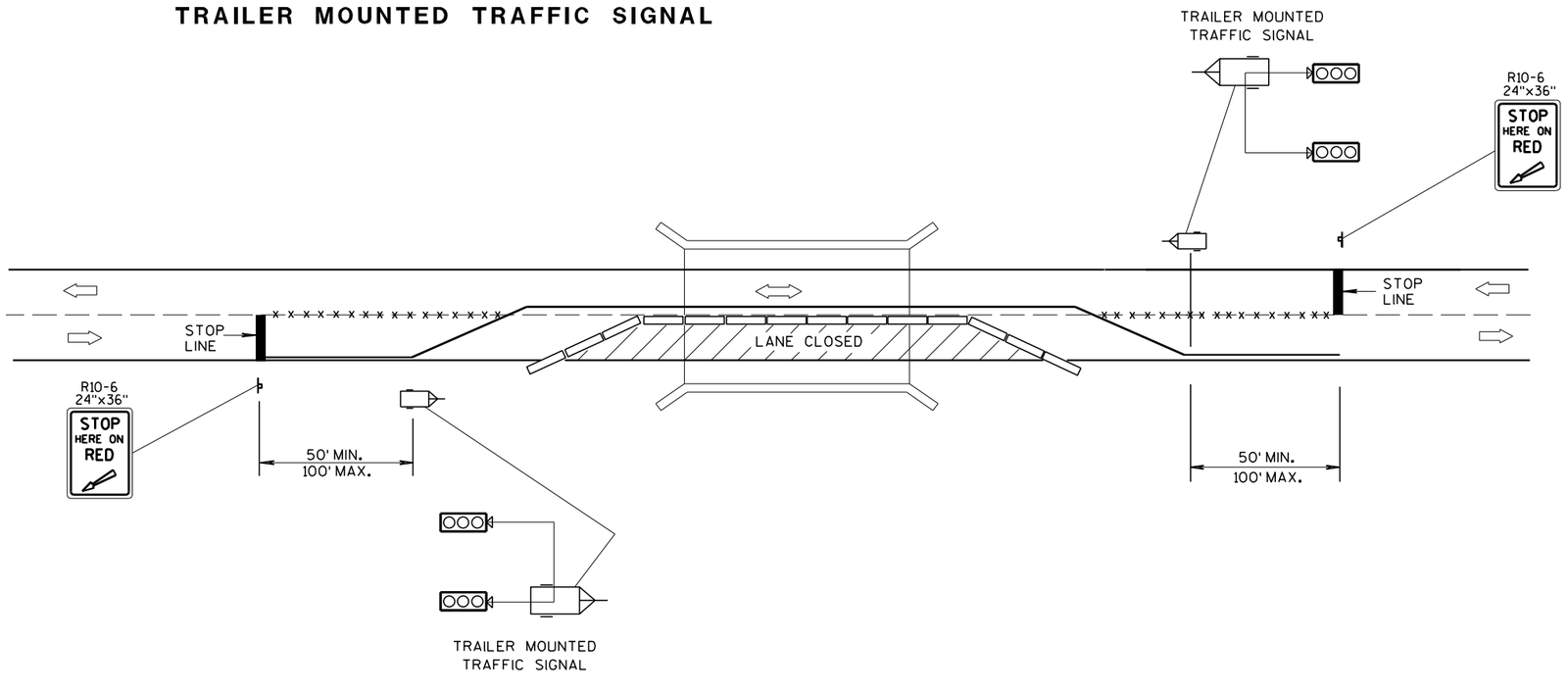


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

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



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

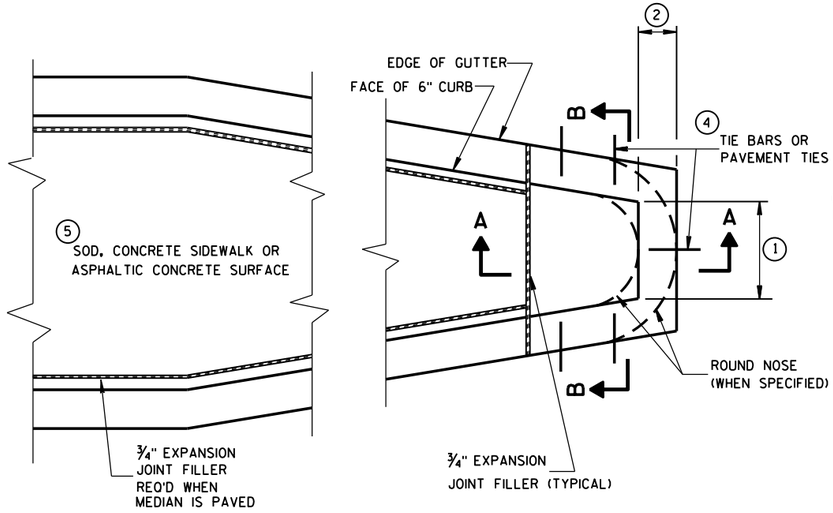
APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 211 R
FHWA

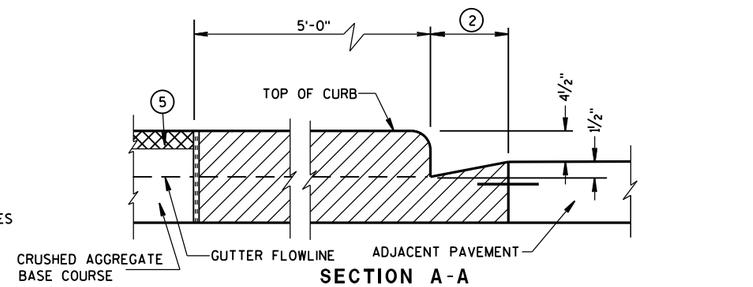
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S.D.D. 9 G 2-5c

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S.D.D. 9 G 2-5c





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

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

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

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

(1) NEW OR EXISTING CONCRETE PAVEMENT.

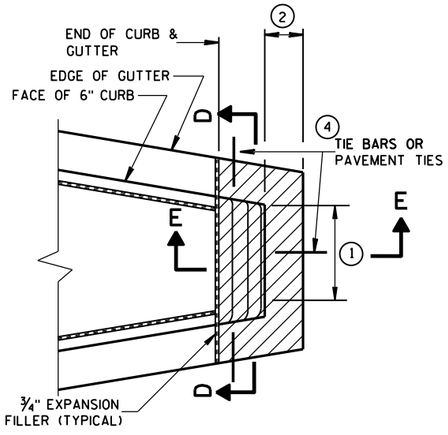
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

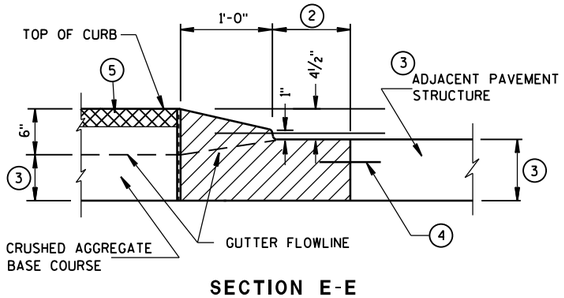
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

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

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

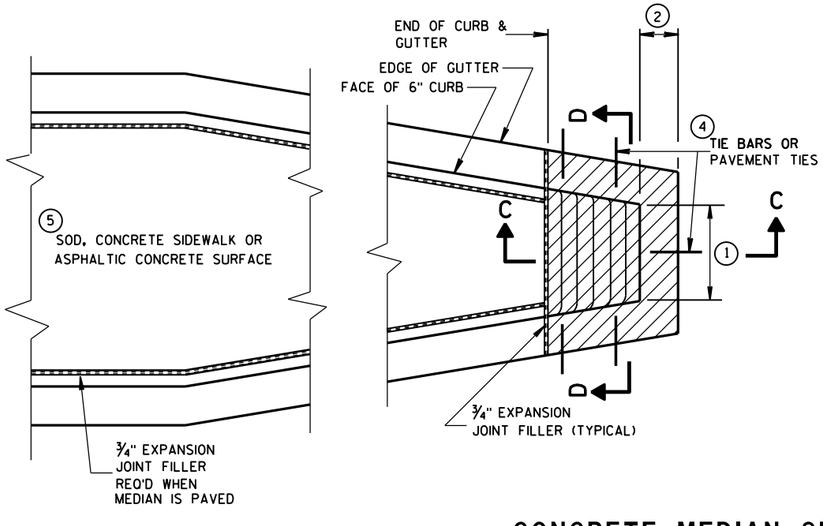
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

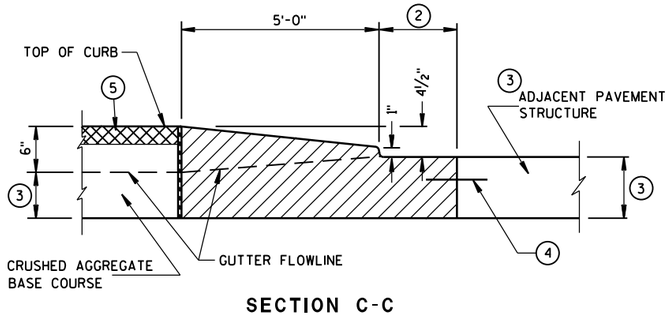




SECTION E-E

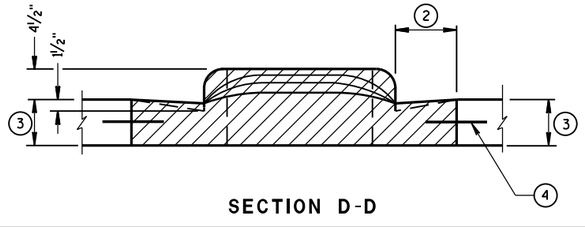
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

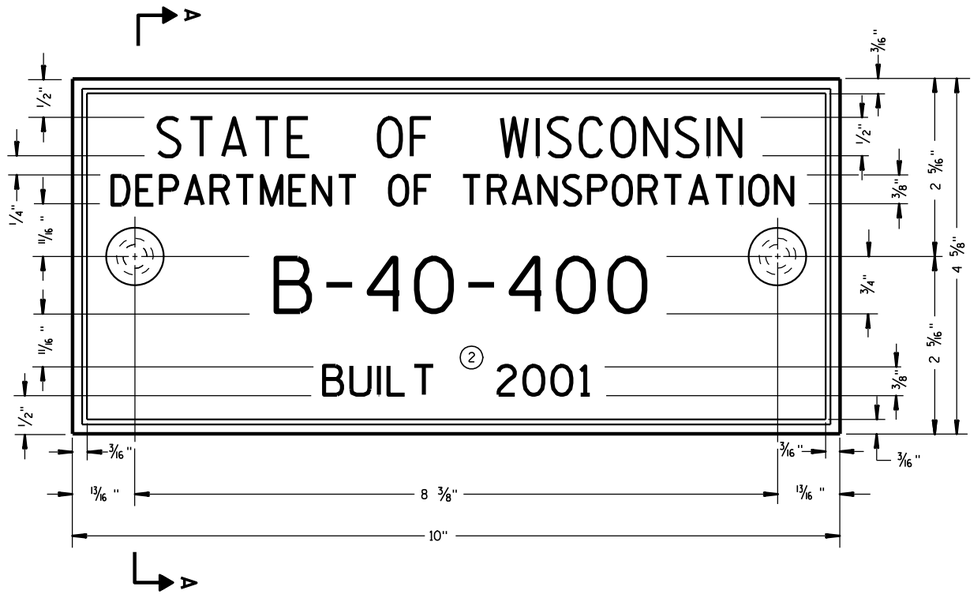
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



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

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

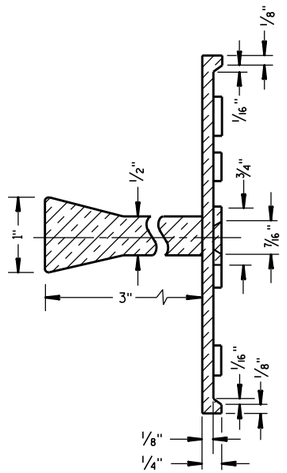
GENERAL NOTES

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.

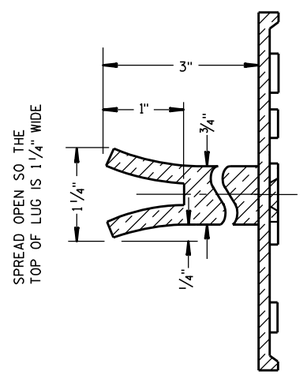
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

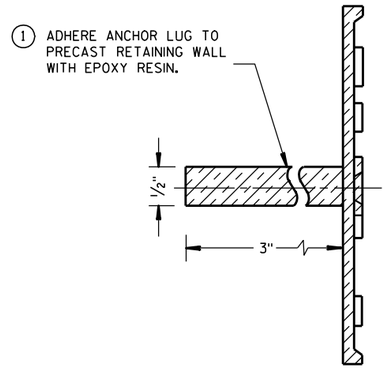
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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 DEVELOPMENT ENGINEER

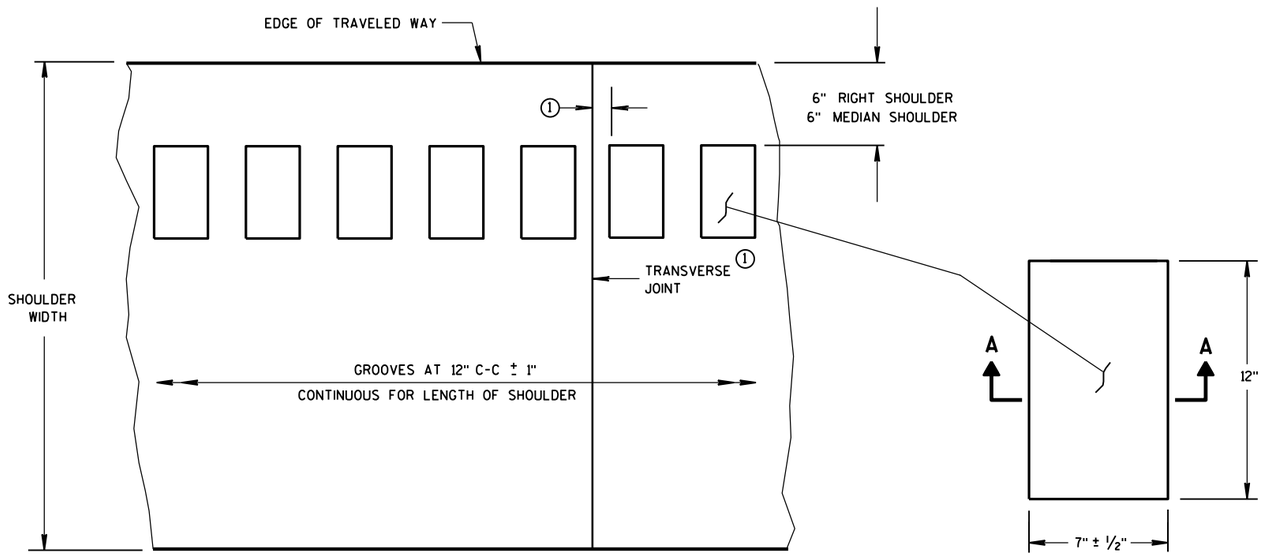
FHWA

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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

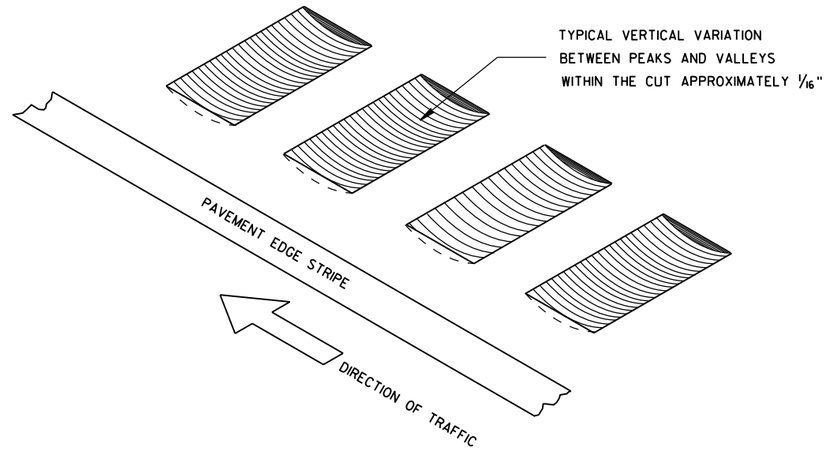
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

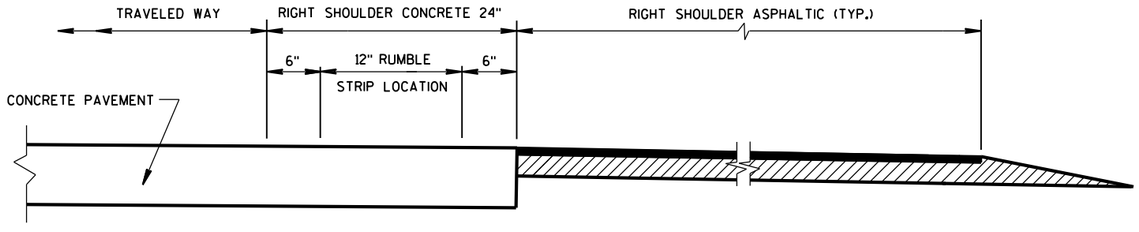
RUMBLE STRIPS ON EXPRESSWAYS

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.

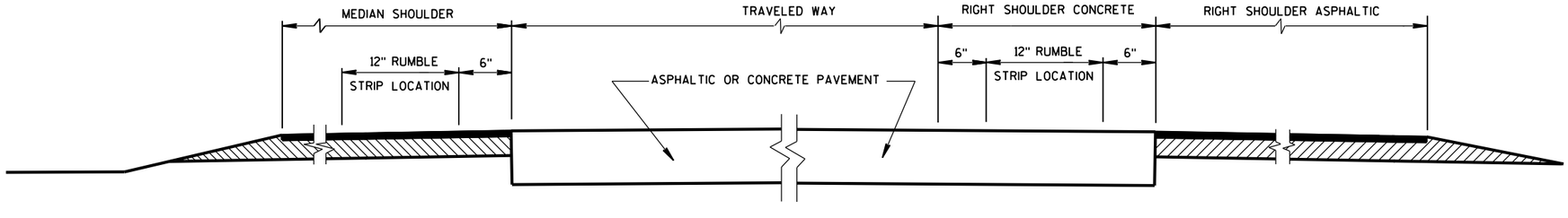
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



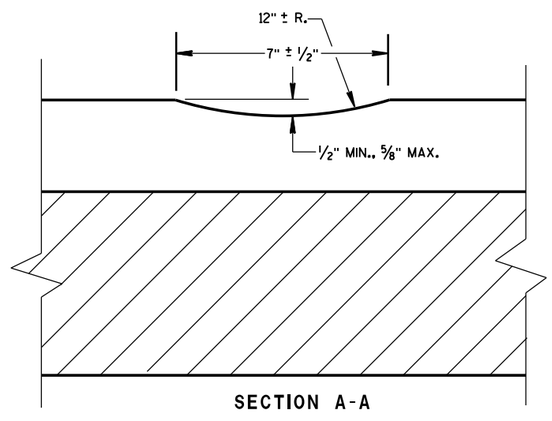
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

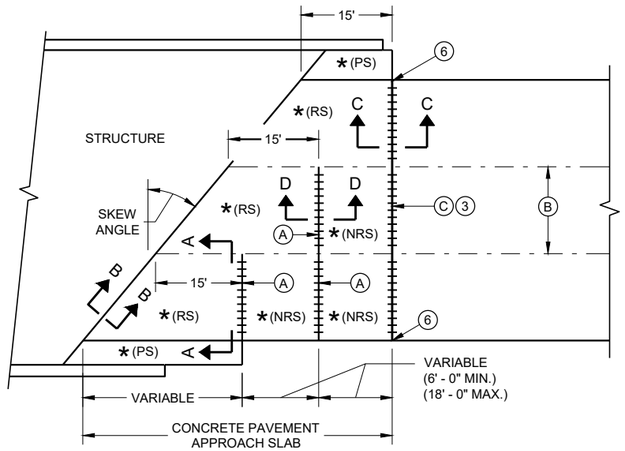
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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S.D.D. 13 A 5-5a



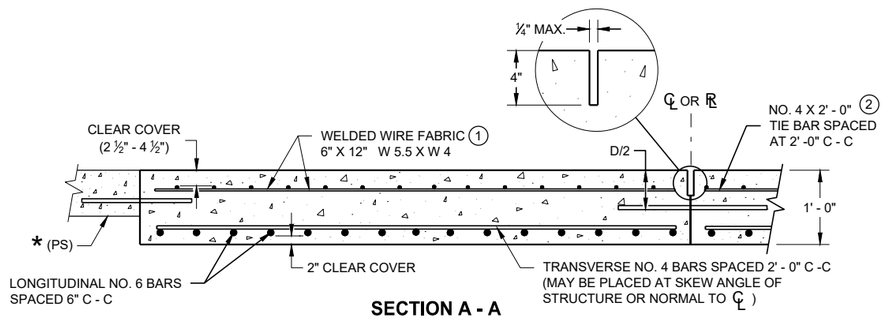
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (RS) = REINFORCED CONCRETE SLAB

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

* (NRS) - NON - REINFORCED CONCRETE SLAB

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



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

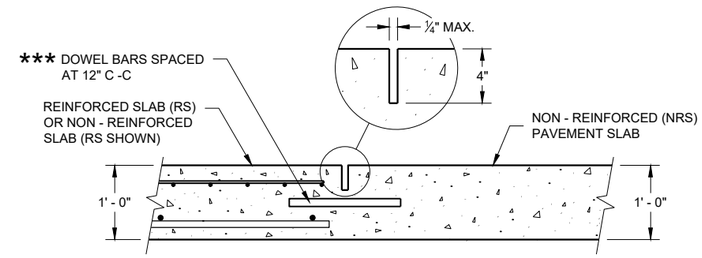
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

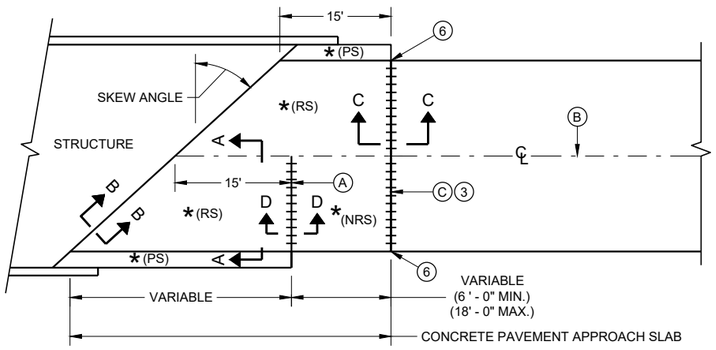
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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

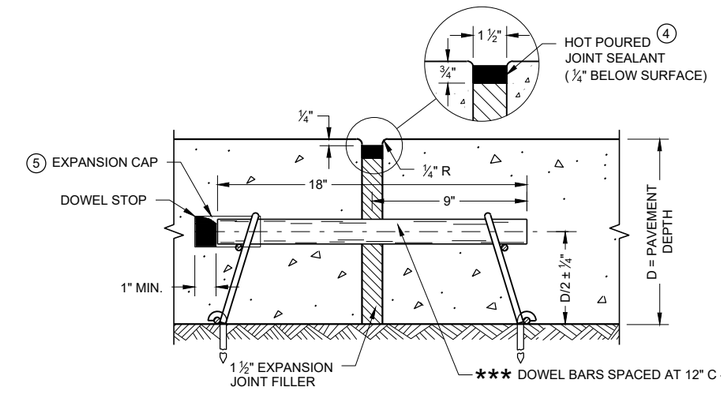


SECTION D - D
CONTRACTION JOINT

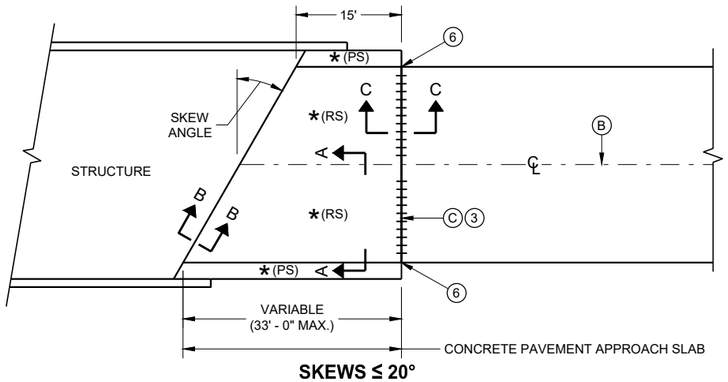


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

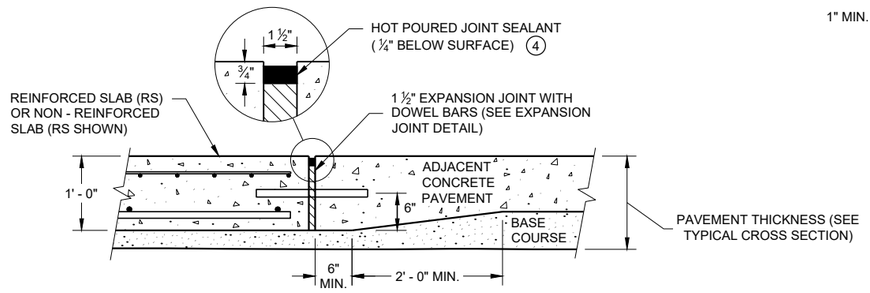


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

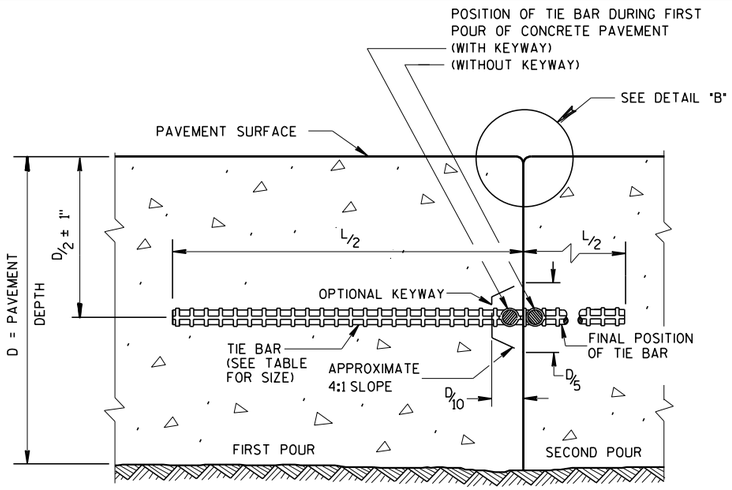
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISI

FHWA

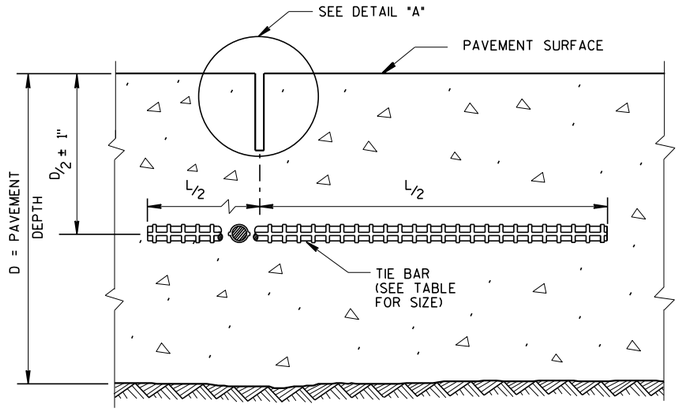
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SDD 13B02 - 09a

SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

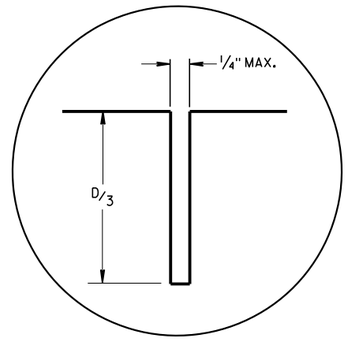
GENERAL NOTES

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

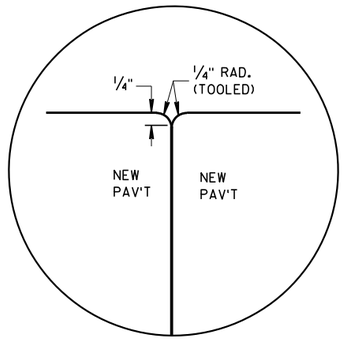
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

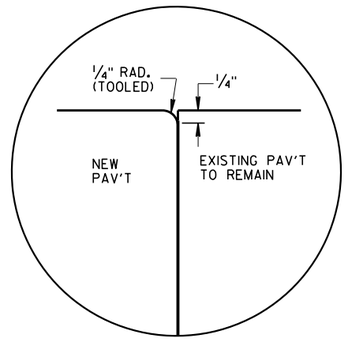
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



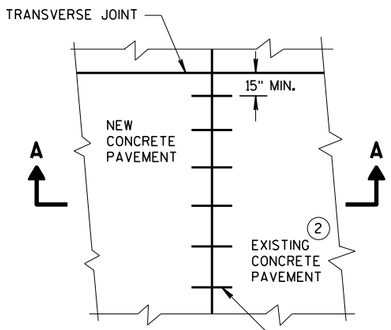
DETAIL "A"



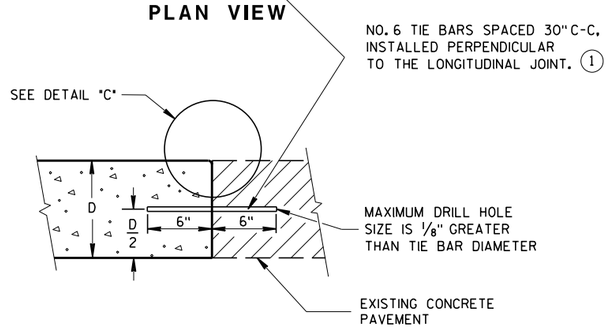
DETAIL "B"



DETAIL "C"



PLAN VIEW



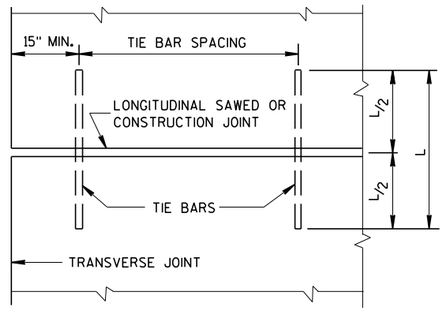
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

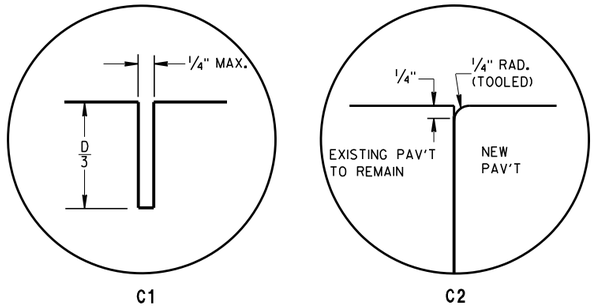
APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19



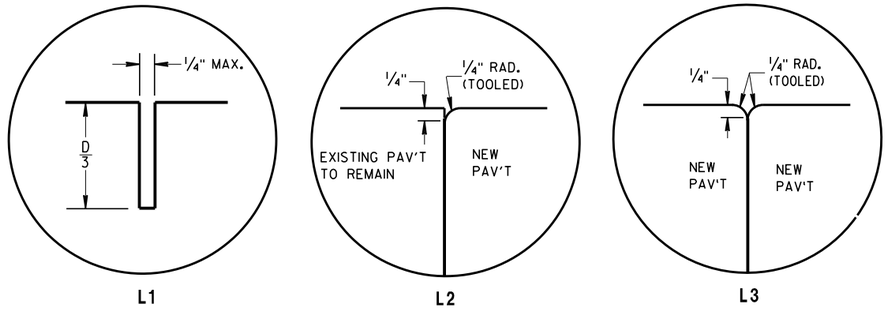
TRANSVERSE JOINTS

TIE BAR TABLE

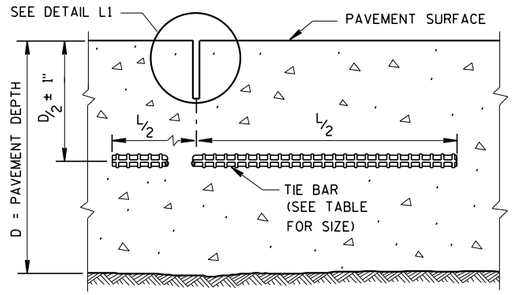
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

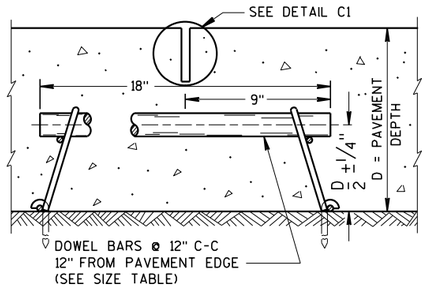
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

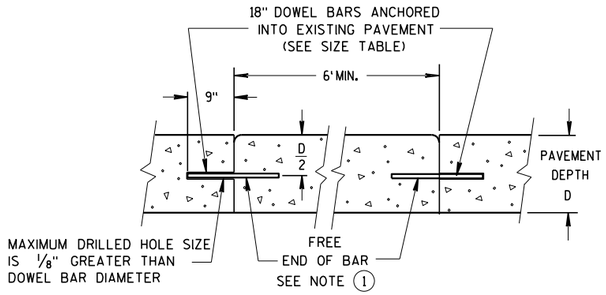
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

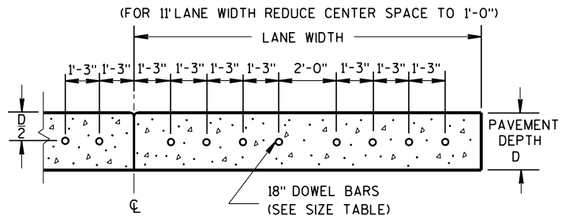


SECTION F-F

CONTRACTION JOINT



SECTION D-D

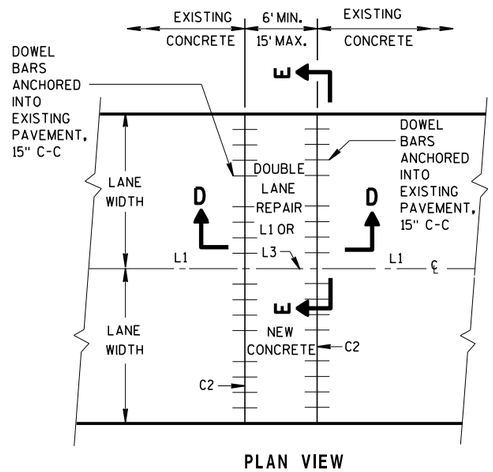


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

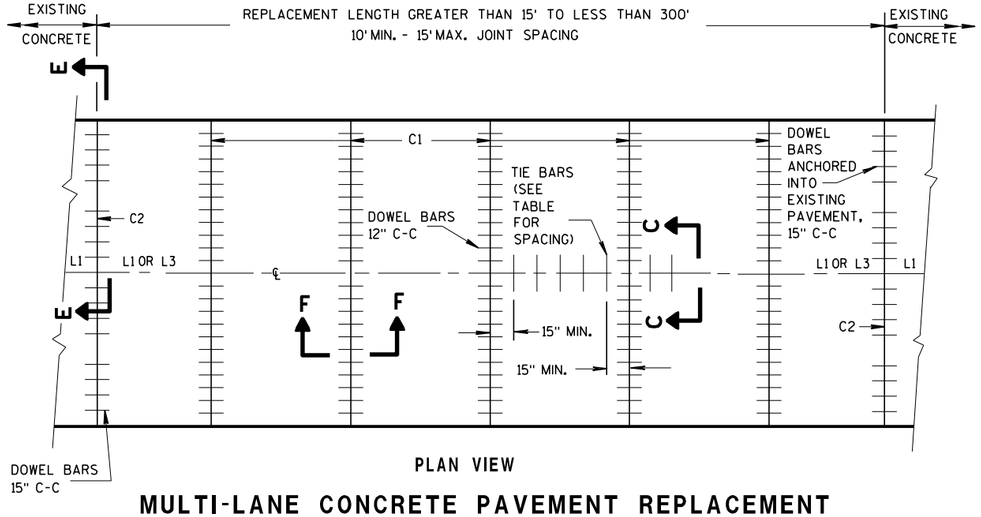
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

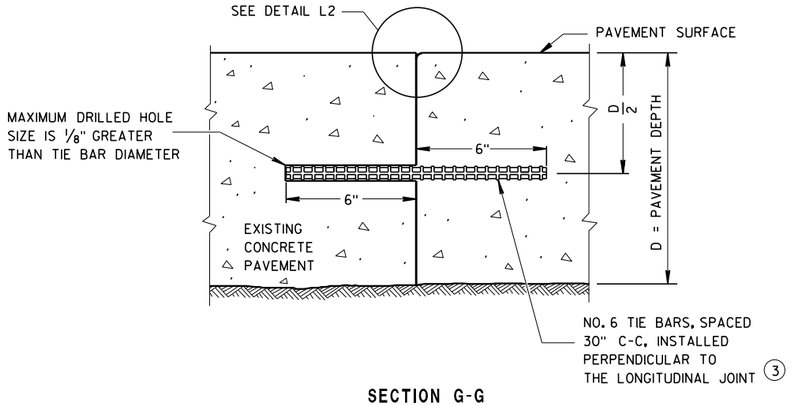
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT



SECTION G-G

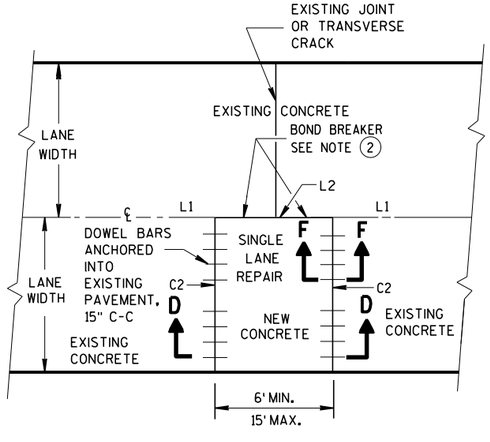
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

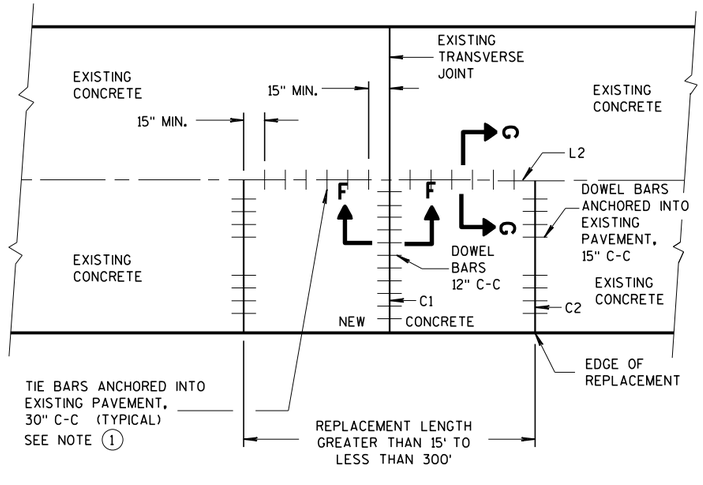
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

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



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

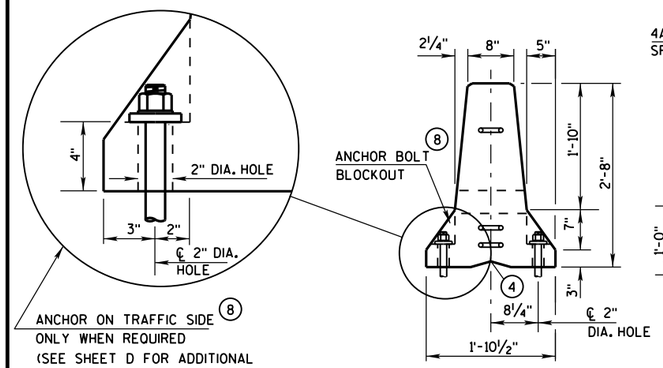
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

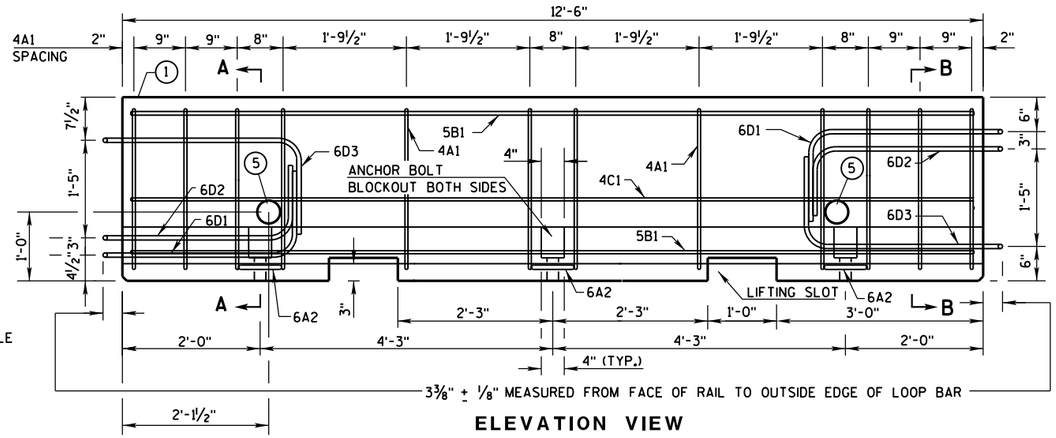
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... — PAVEMENT SUPE...
FHWA

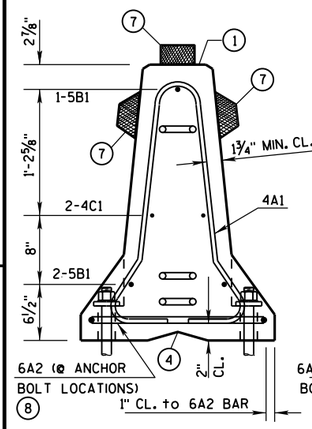
6
S.D.D. 13 C 9-15c



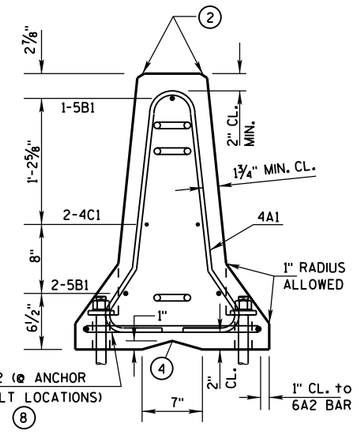
END VIEW



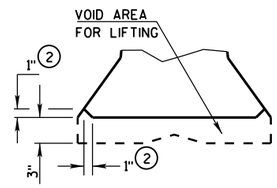
ELEVATION VIEW



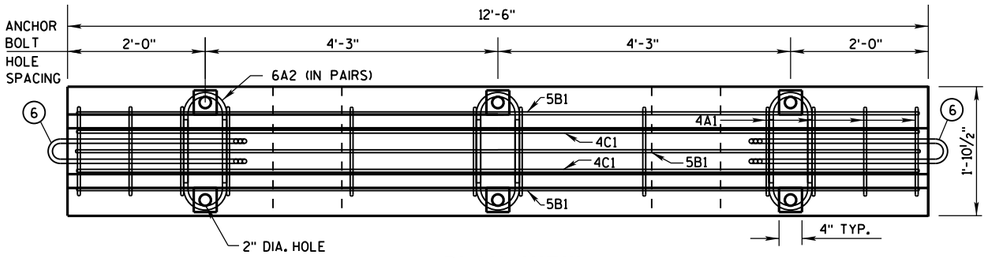
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

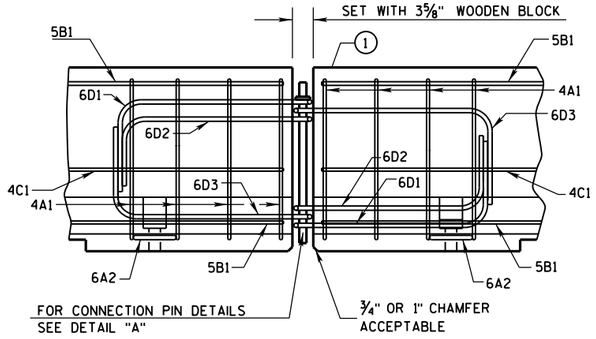


DETAIL "B"
LIFTING SLOT DETAIL

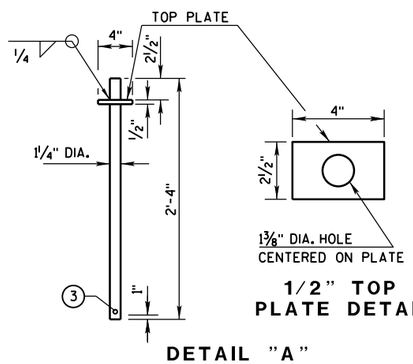


PLAN VIEW

DETAILS OF BARRIER SECTION

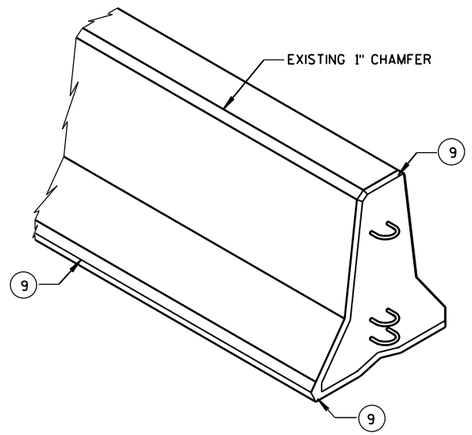


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

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



GENERAL NOTES

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

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

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

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

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

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

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

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

(2) 1" CHAMFER TO PREVENT SPALLING.

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

(4) "V" NOTCH IS OPTIONAL.

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

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

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

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

(9) 1" CHAMFER OPTIONAL.

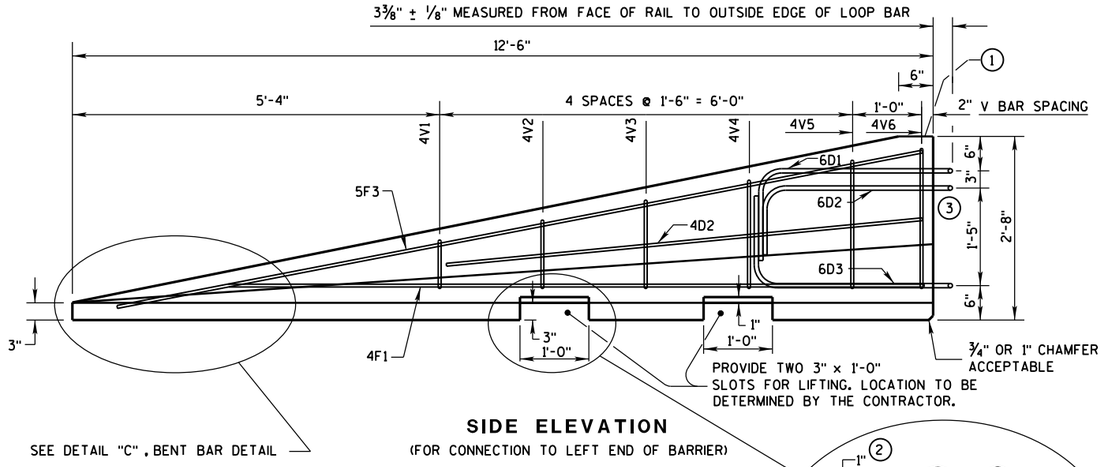
f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

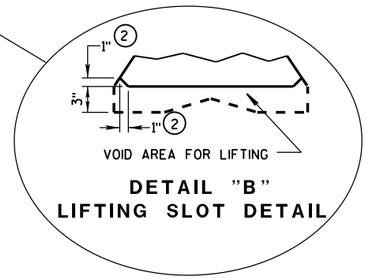
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

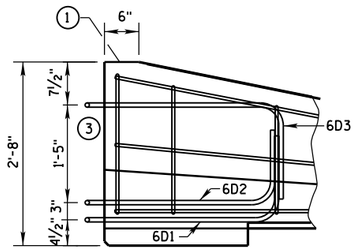
S.D.D. 14 B 7-15a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



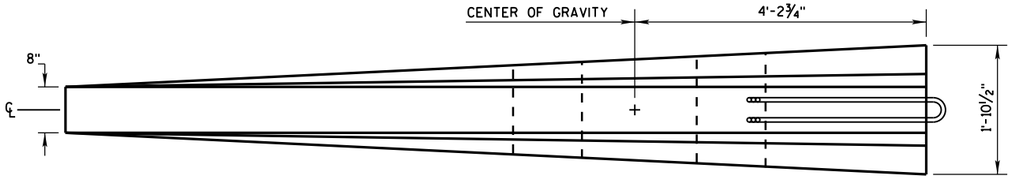
DETAIL "B"
LIFTING SLOT DETAIL



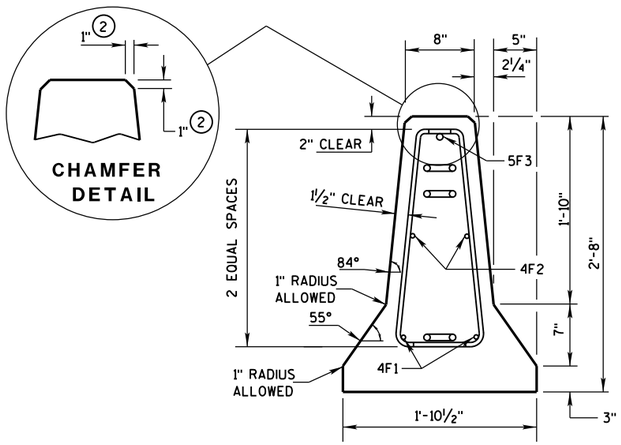
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

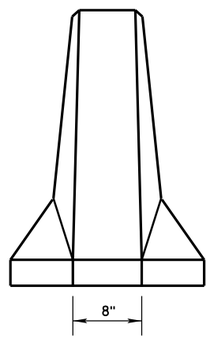
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



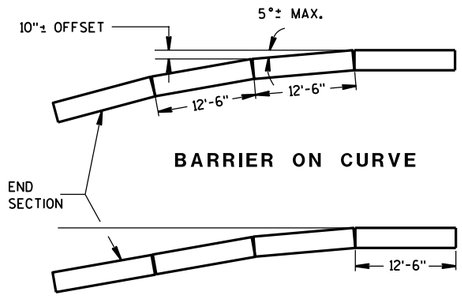
PLAN VIEW



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"

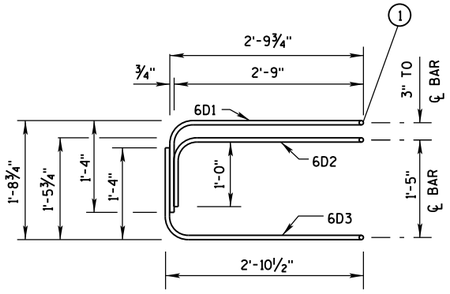
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

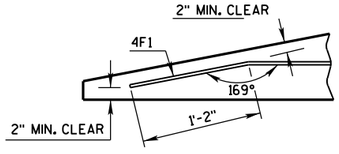
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

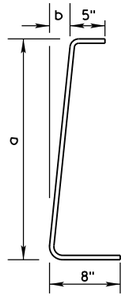
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



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

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

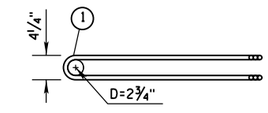
GENERAL NOTES

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

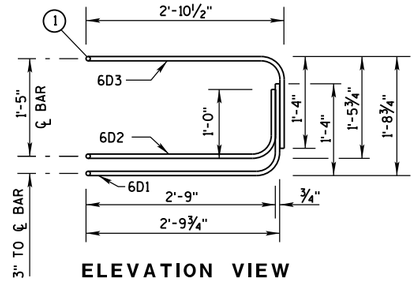
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

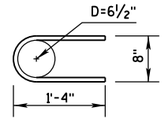
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



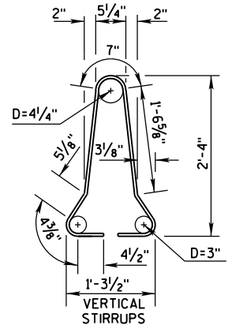
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

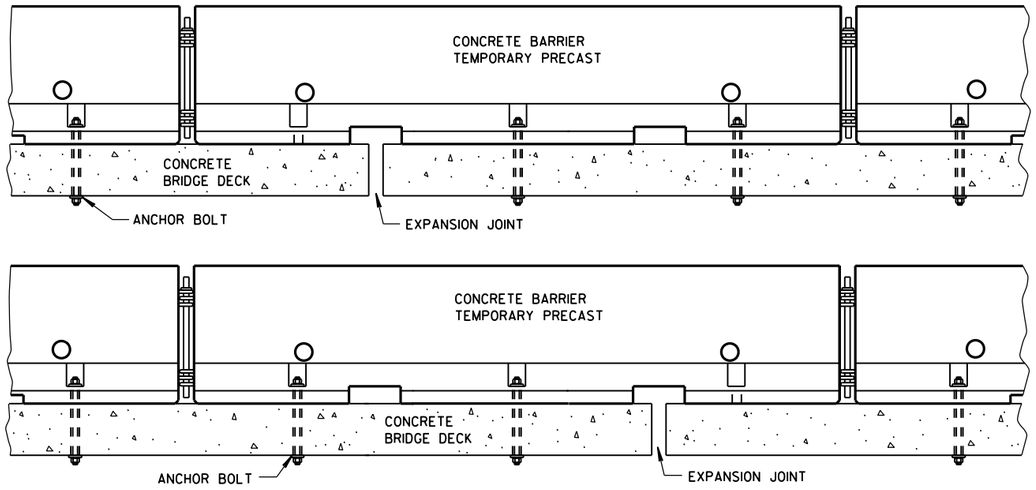
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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

GENERAL NOTES

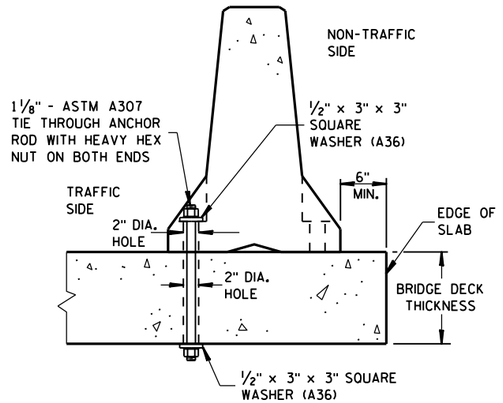
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

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

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

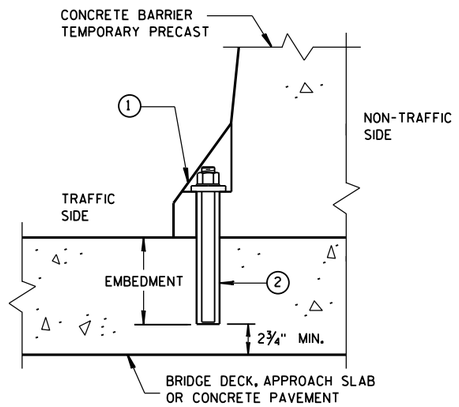
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

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



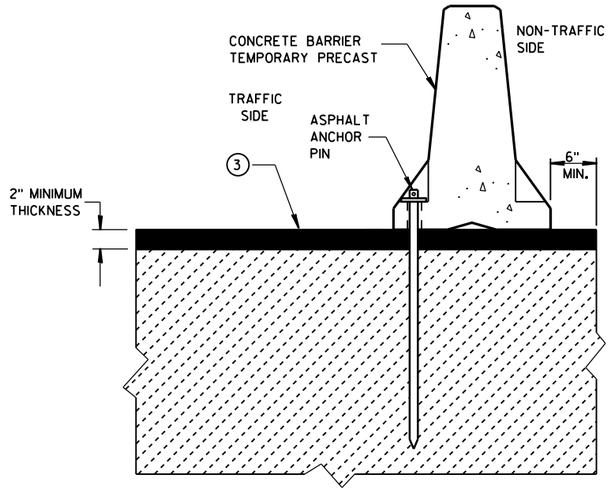
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

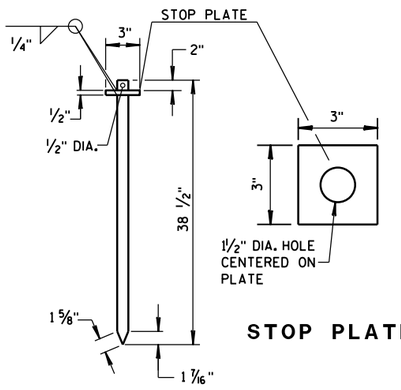


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



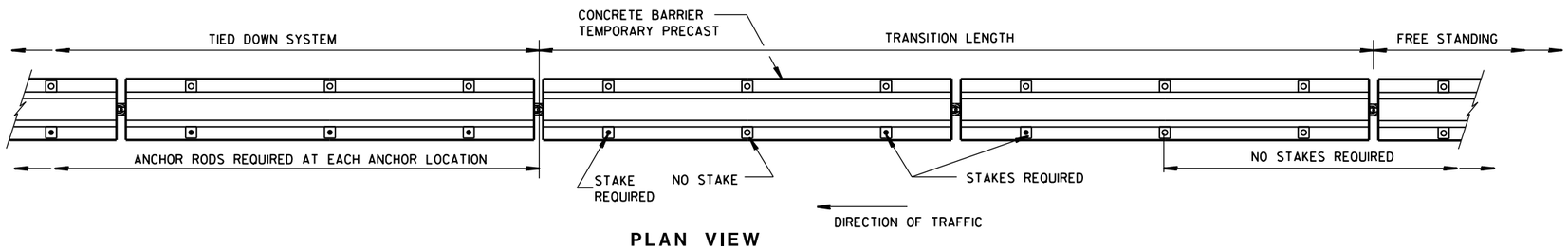
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

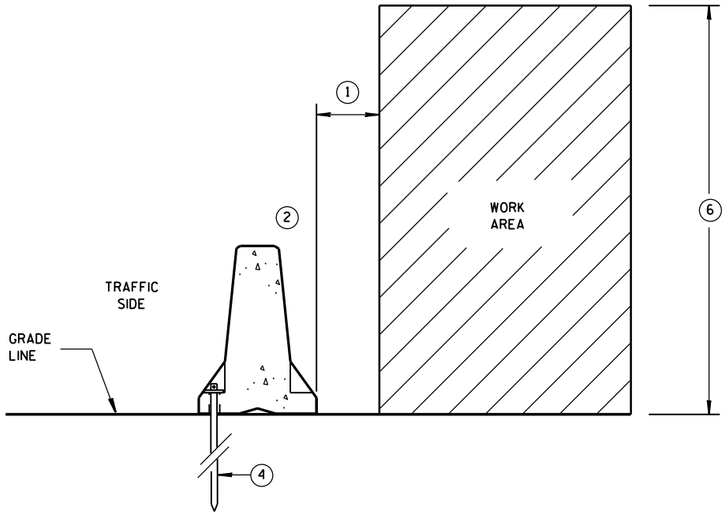
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

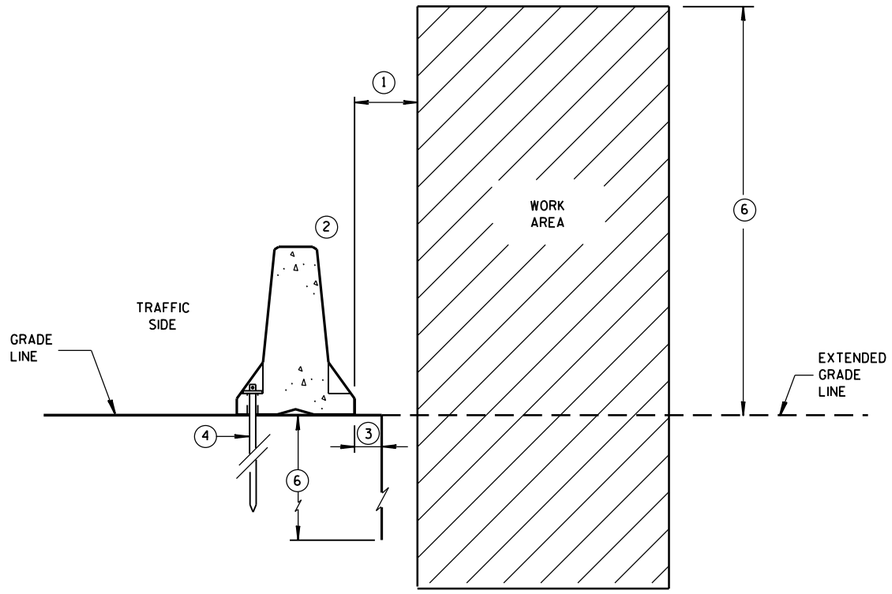
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

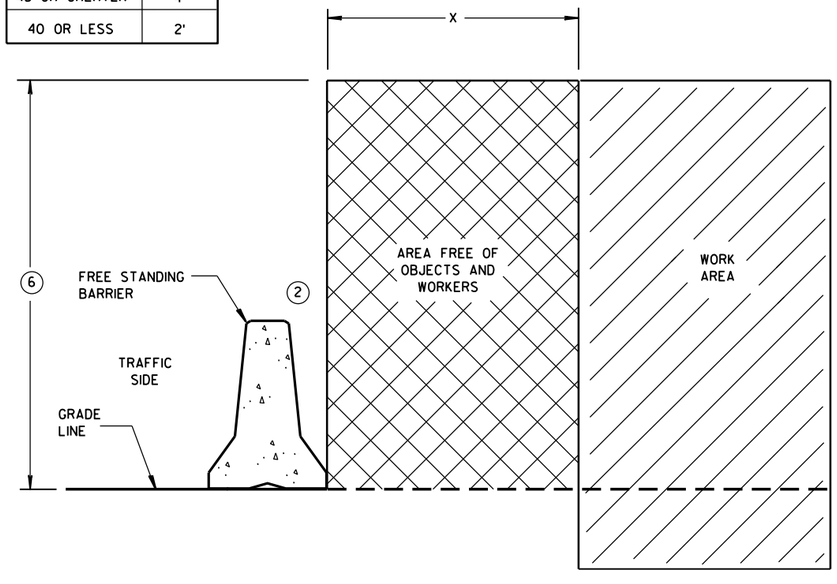


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

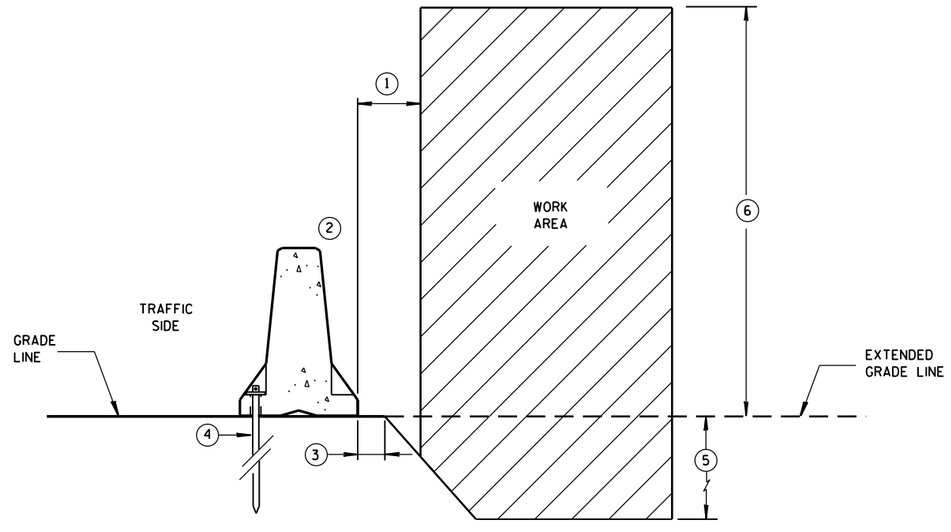
GENERAL NOTES

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

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



FREE STANDING BARRIER SPACE REQUIREMENTS



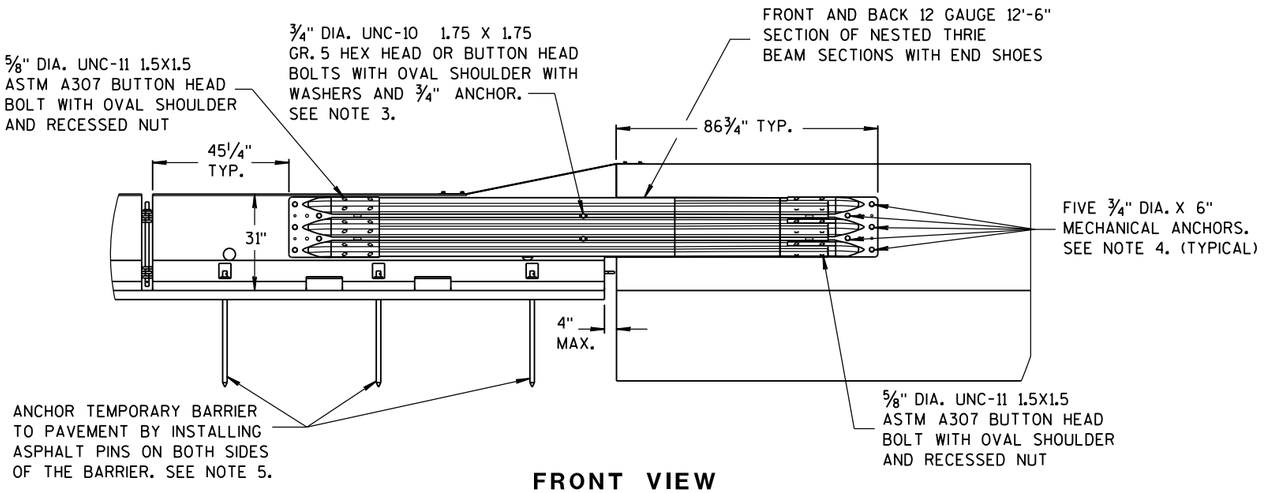
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

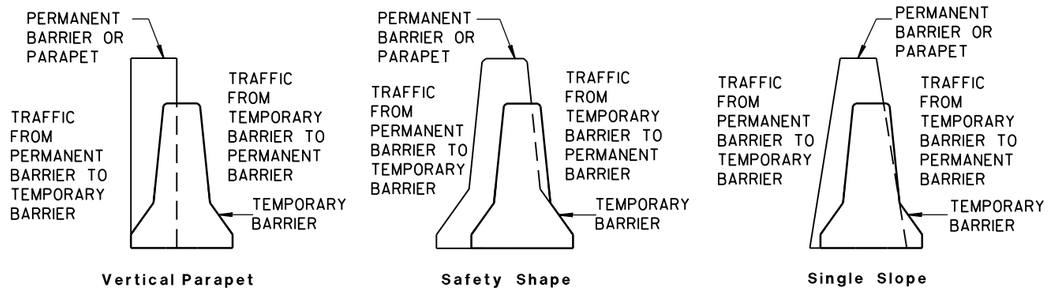
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



FRONT VIEW

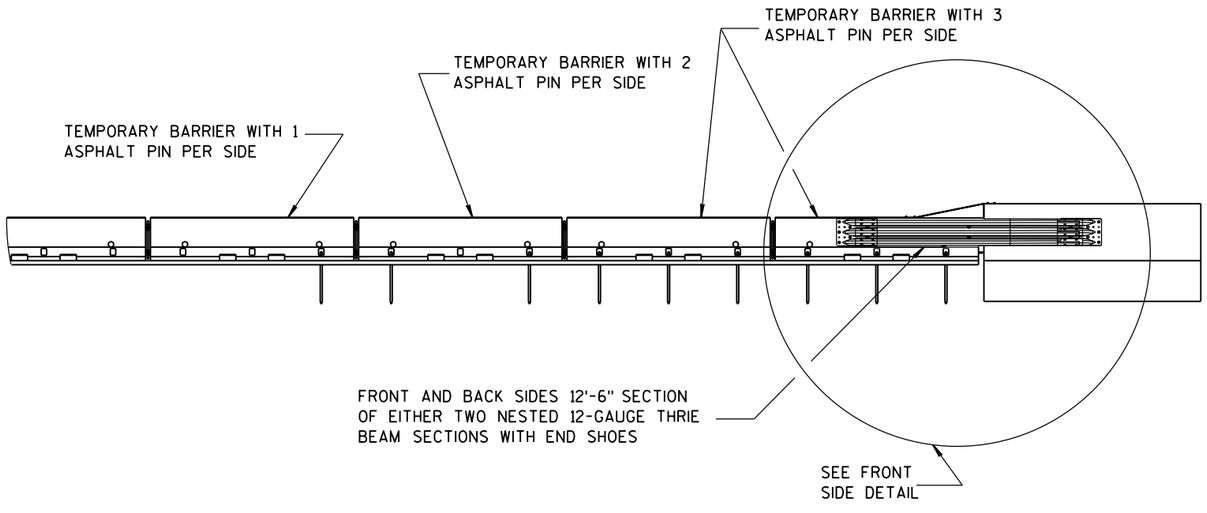


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

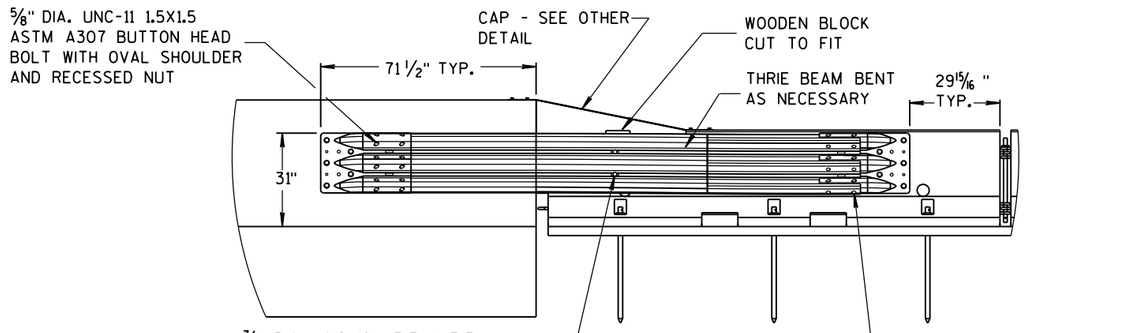
NOTES

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

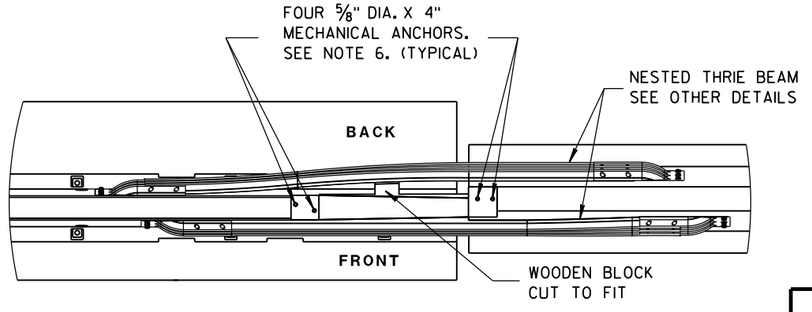
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD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



FRONT VIEW



BACK VIEW



PLAN VIEW

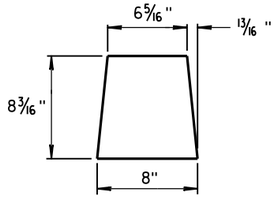
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

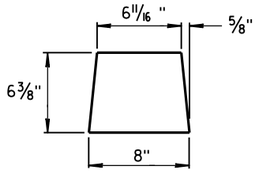
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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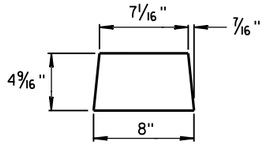
S.D.D. 14 B 7-15f



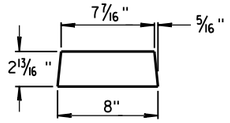
GUSSET 1



GUSSET 2

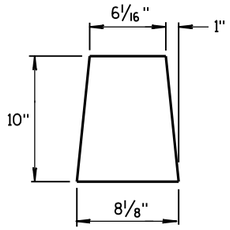


GUSSET 3

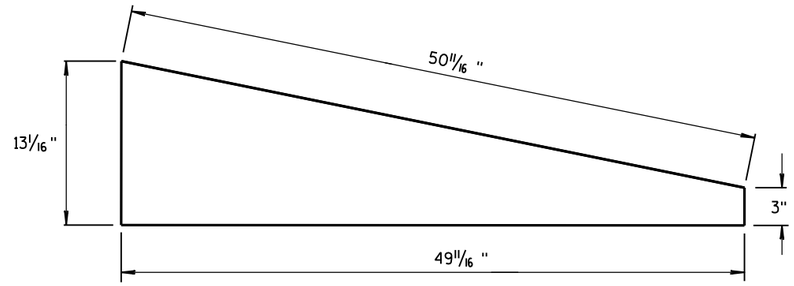


GUSSET 4

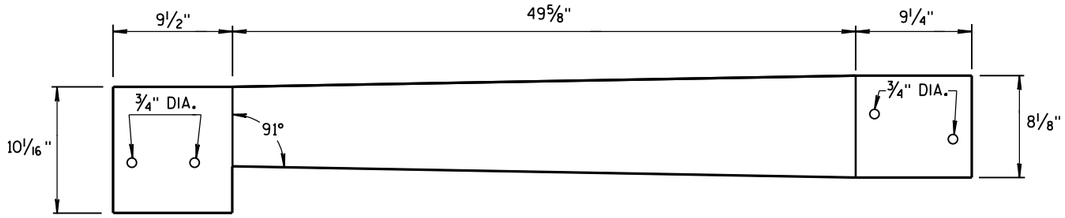
GUSSETS

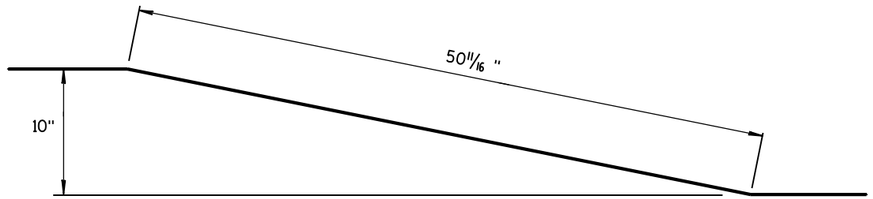


END PLATE



SIDE PLATE

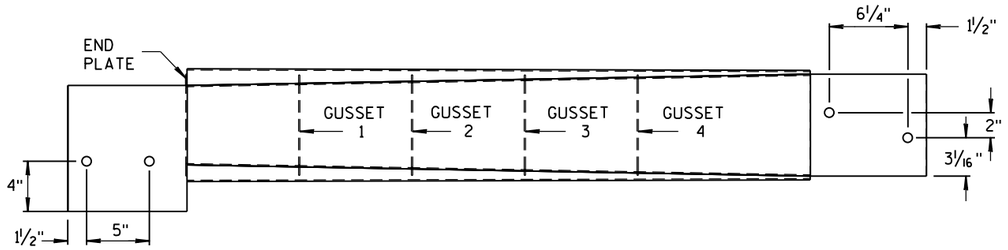


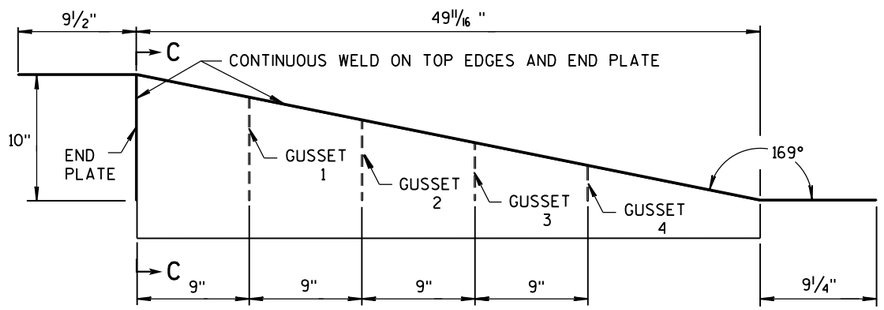


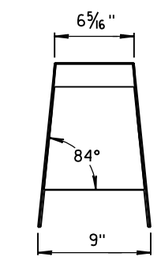
TOP PLATE

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

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







SECTION C-C

NOTES

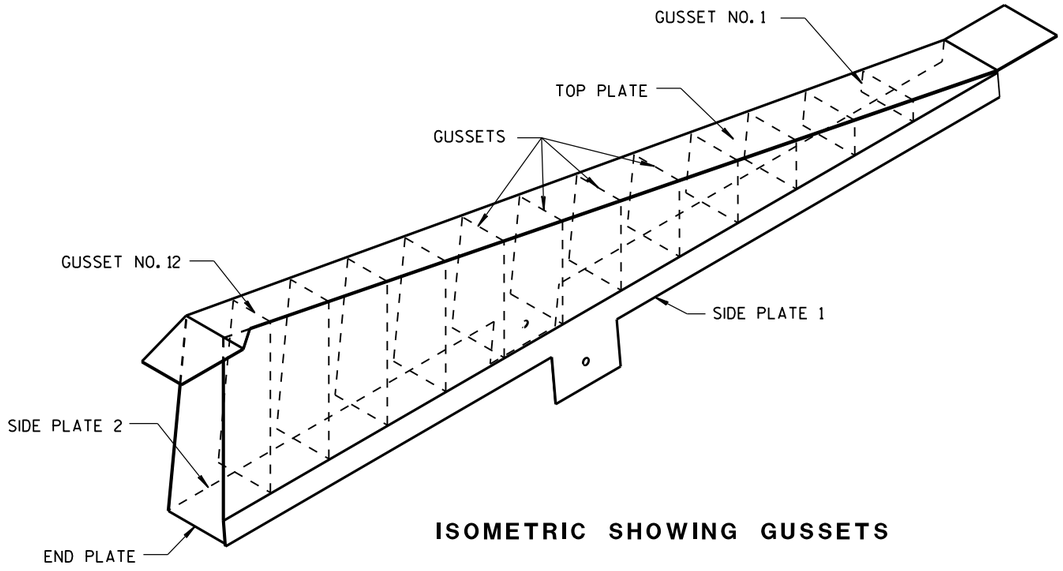
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

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

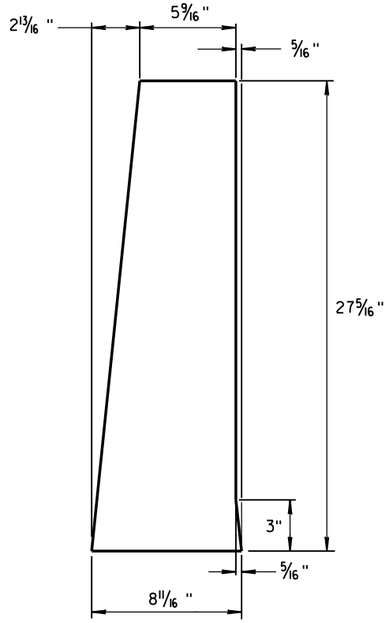
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

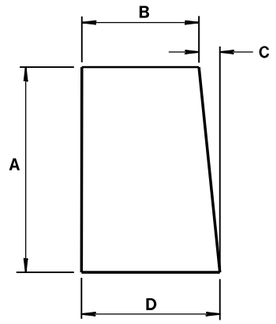


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



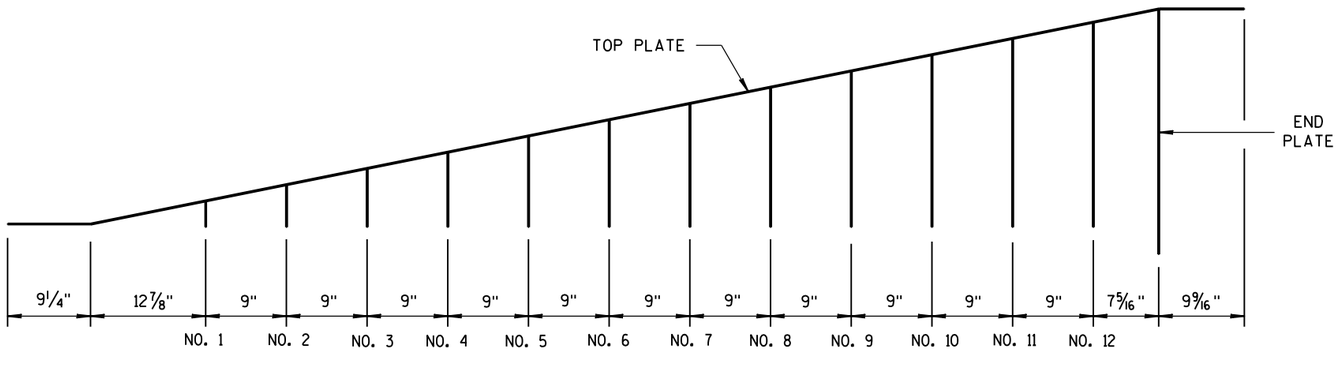
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

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

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

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



GUSSET LOCATION

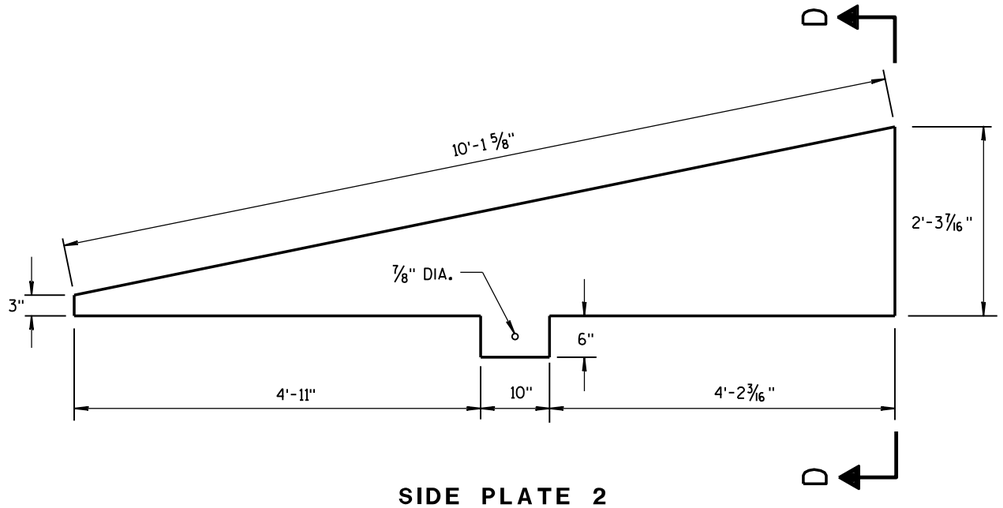
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

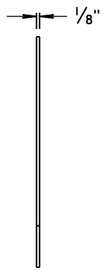
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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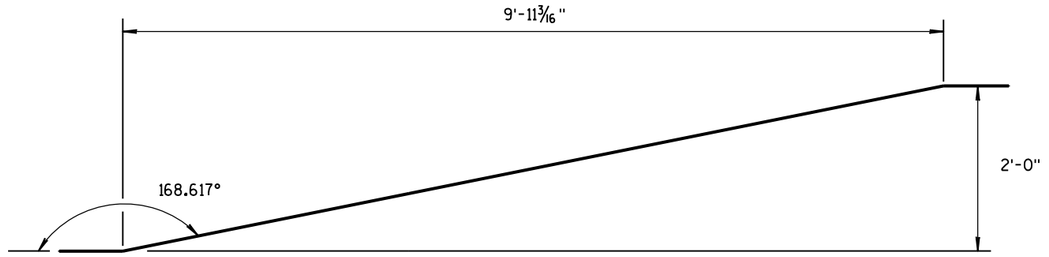
S.D.D. 14 B 7-15h



SIDE PLATE 2

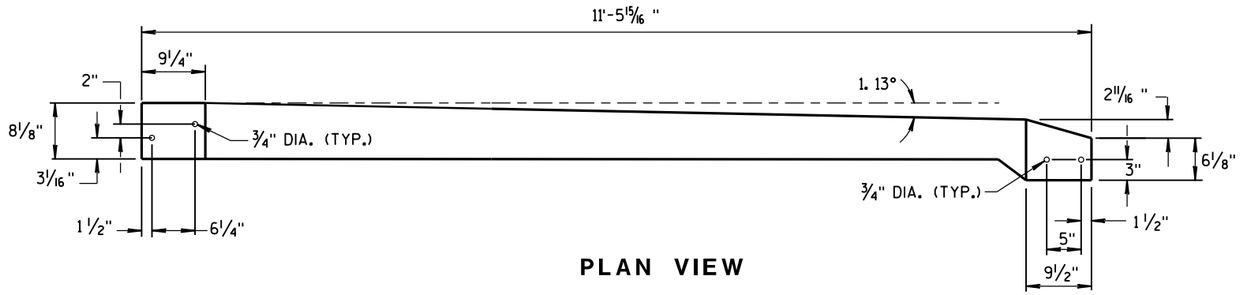


END VIEW



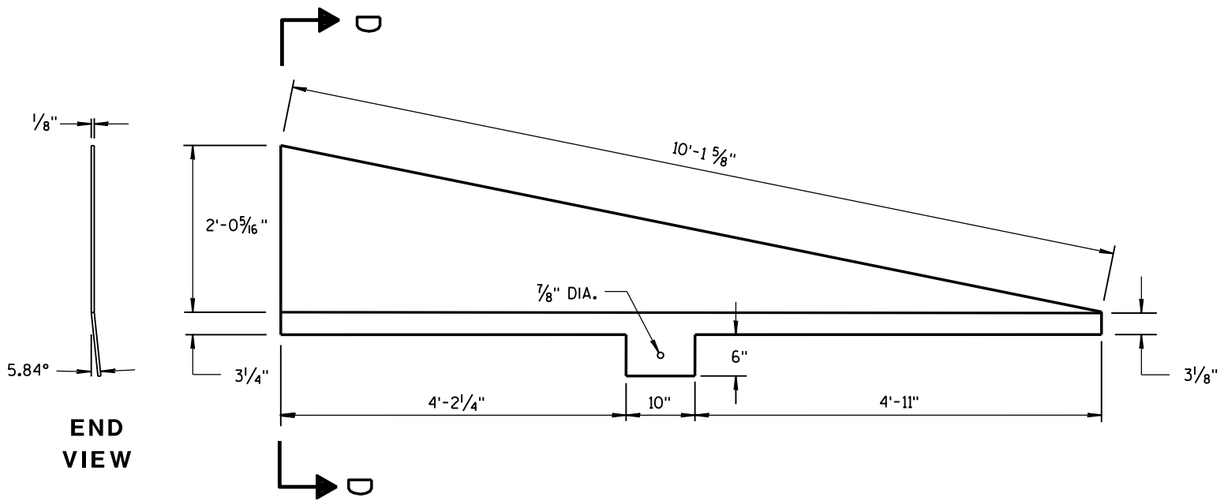
SIDE VIEW

TOP PLATE



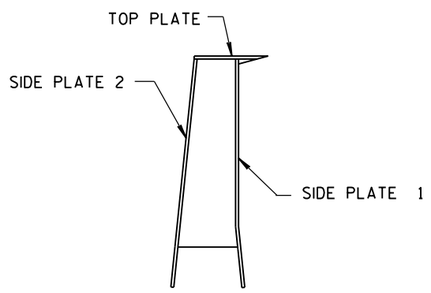
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

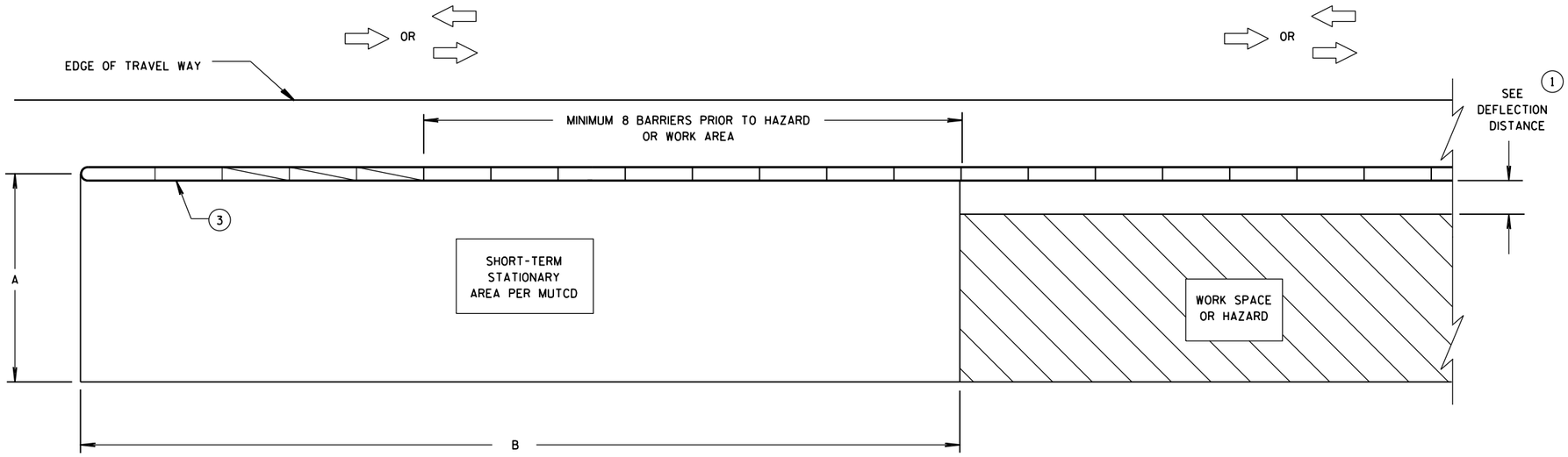
APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
227
ENT
FHWA

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

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



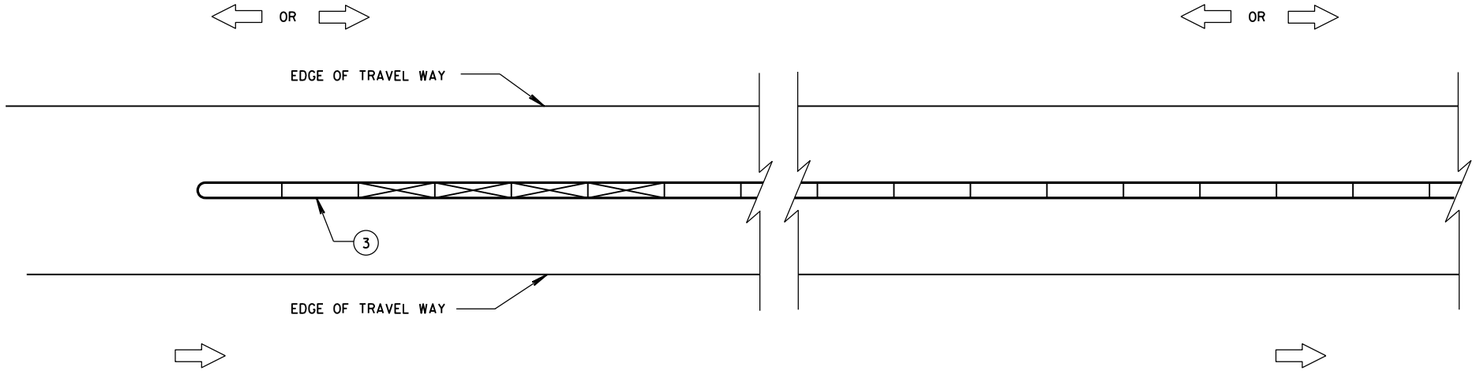
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

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

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

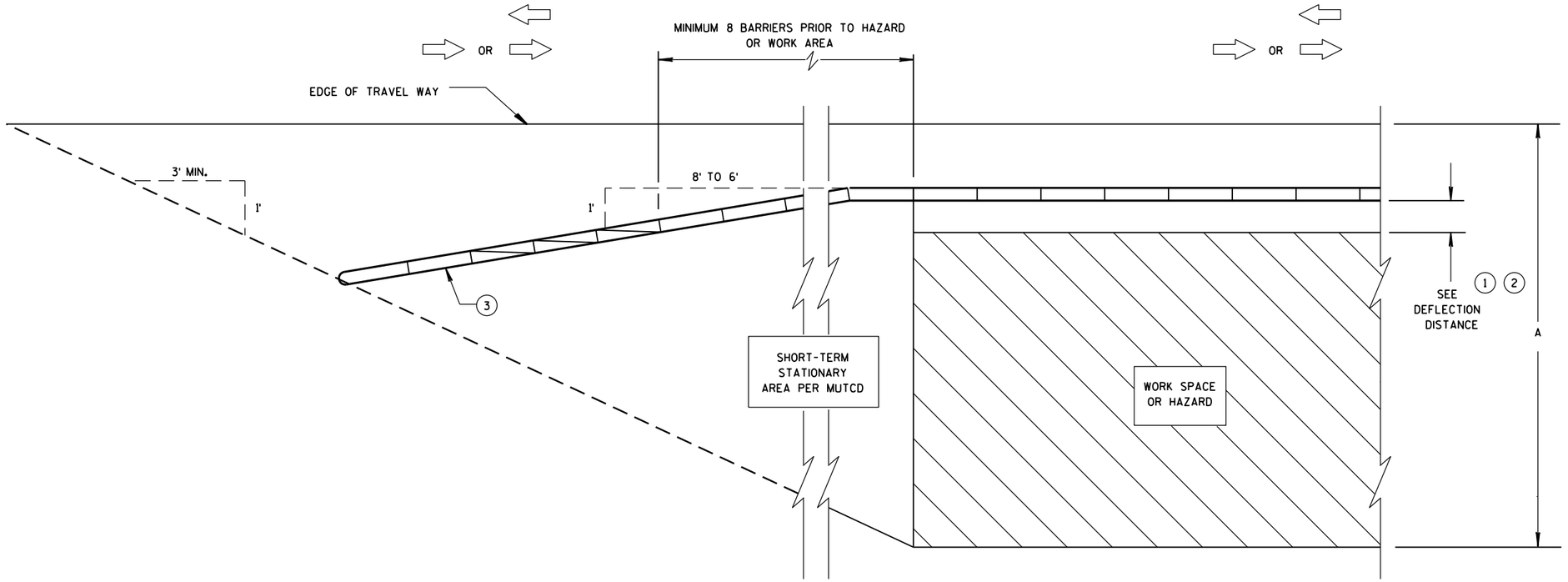
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

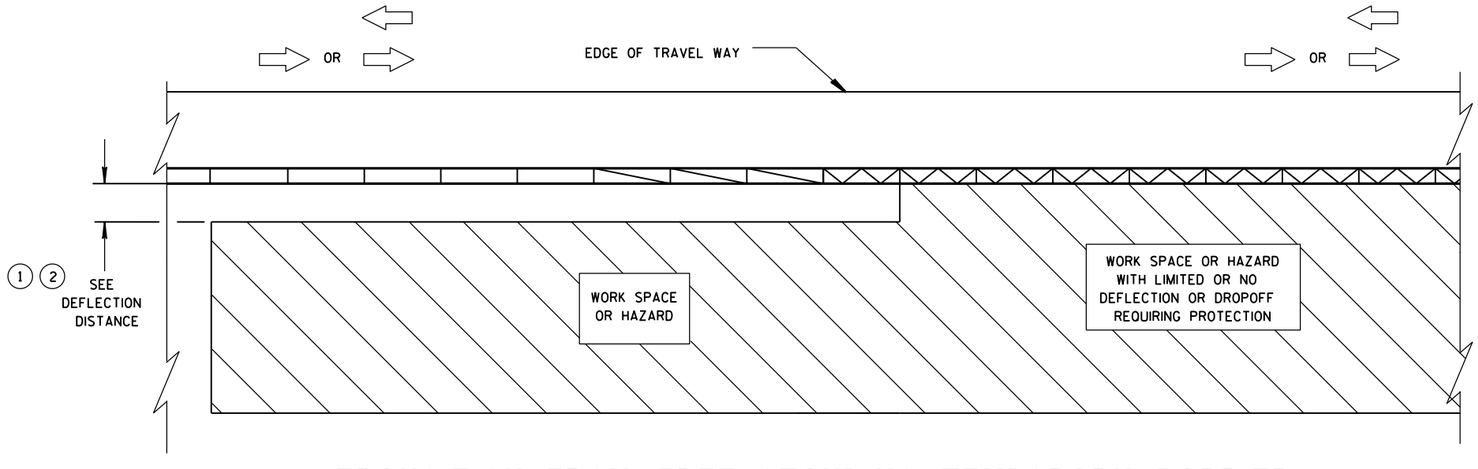
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



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



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

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

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

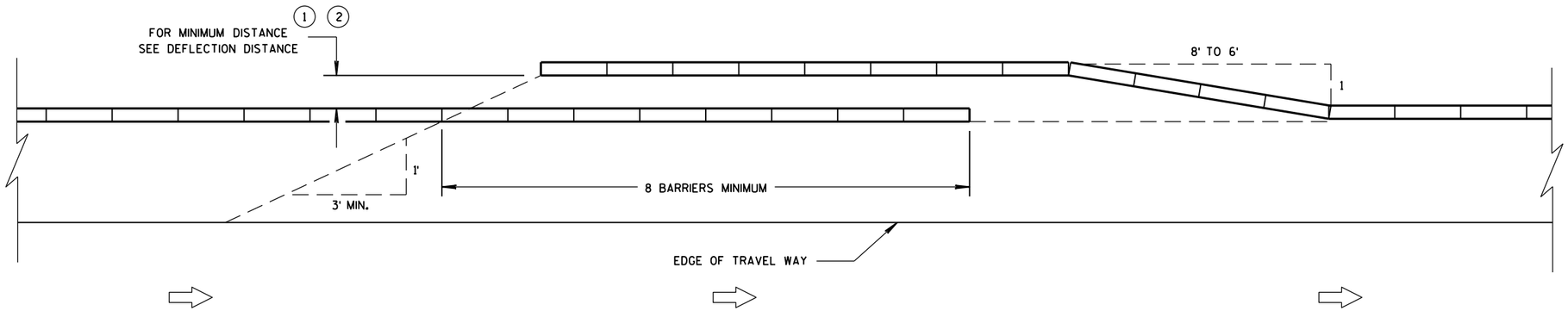
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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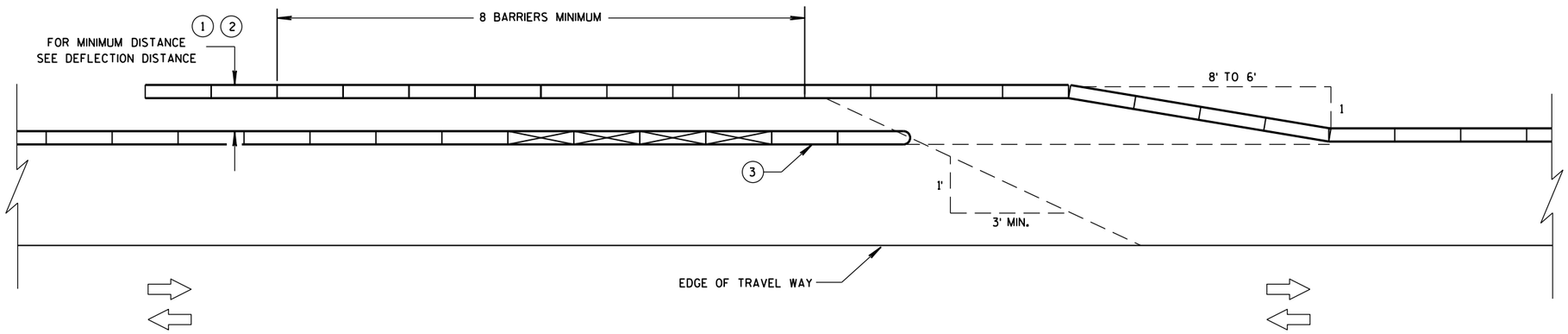
S.D.D. 14 B 8-2b

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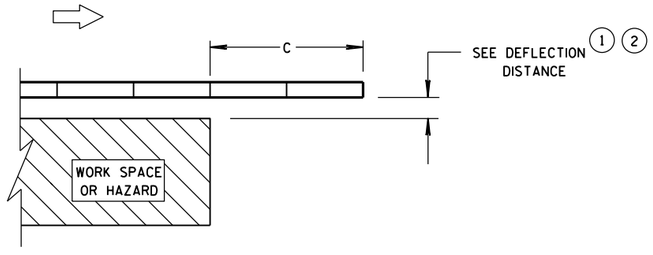
S.D.D. 14 B 8-2b



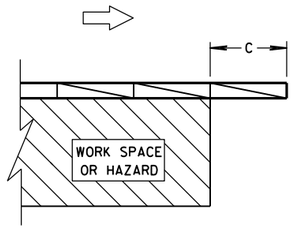
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

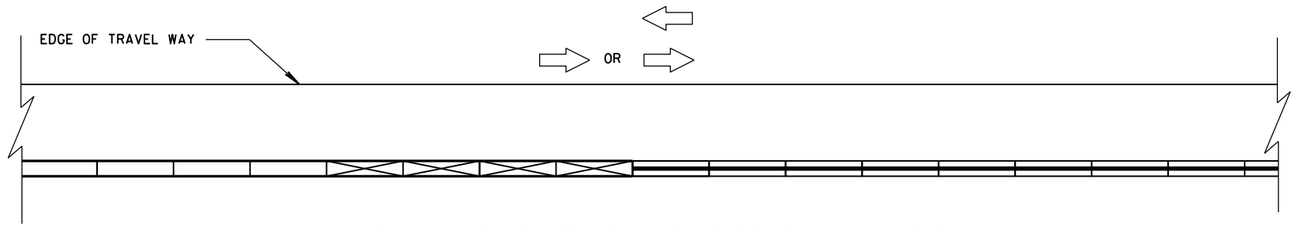
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

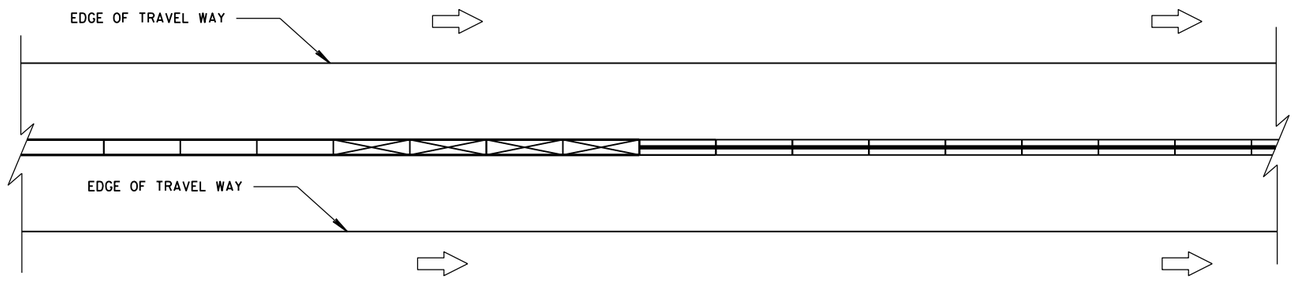
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



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



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

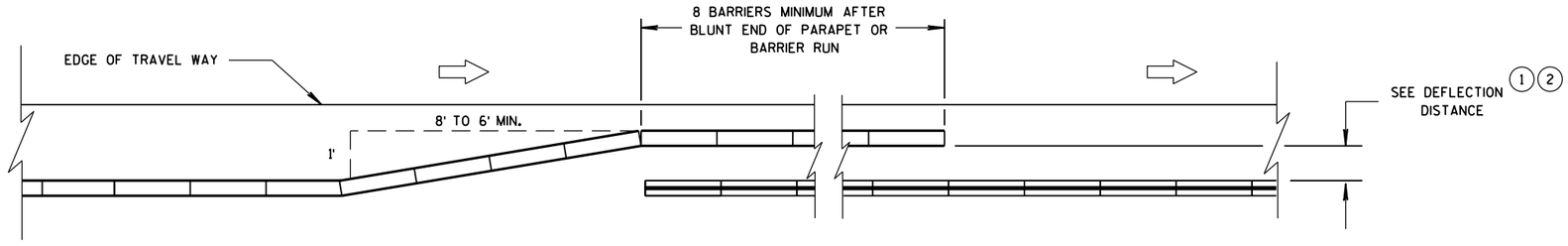
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

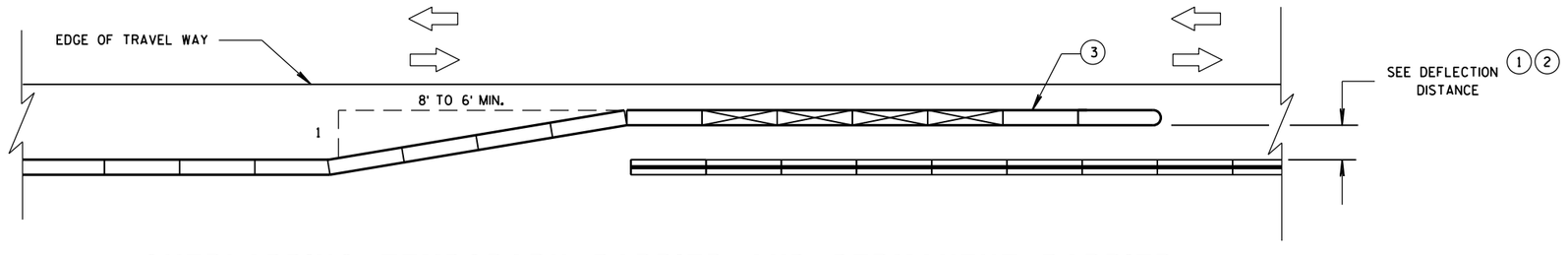
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

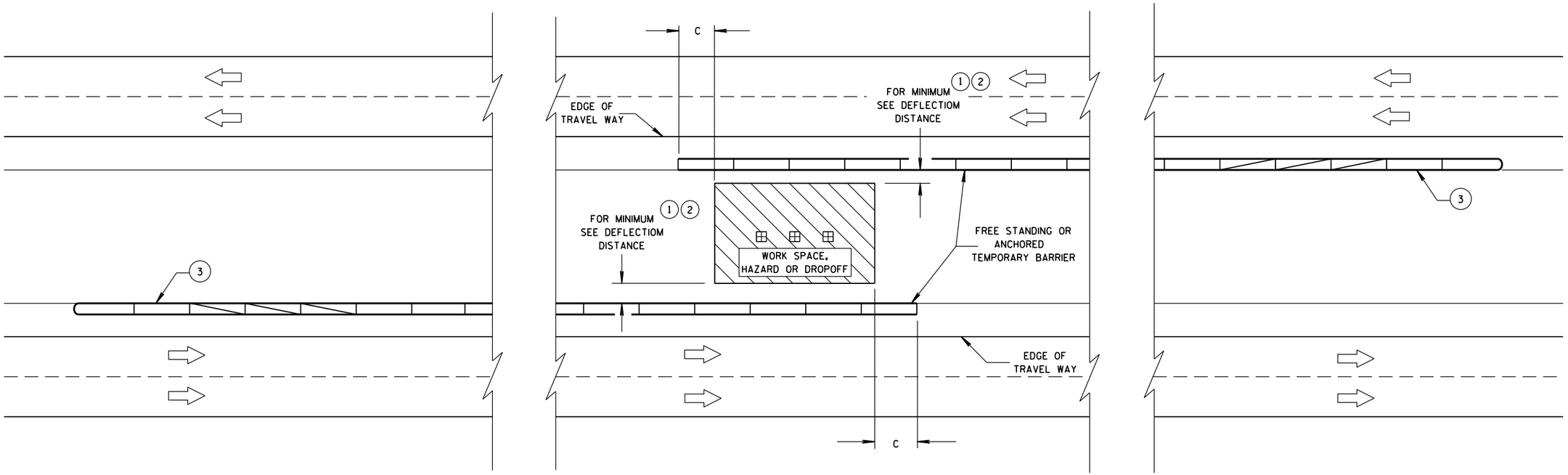
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
232
ENT
FHWA

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

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(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.

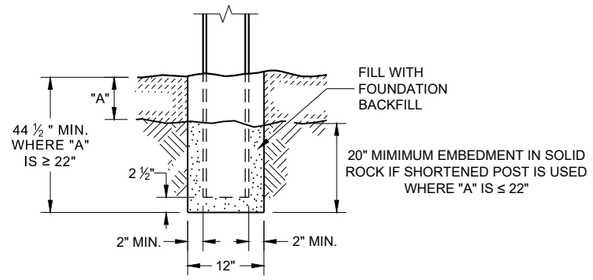
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

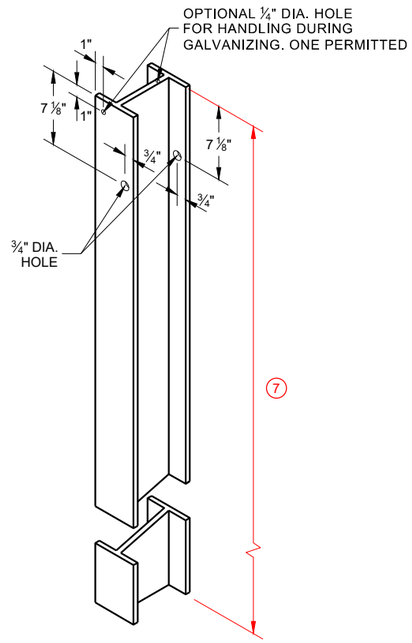
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

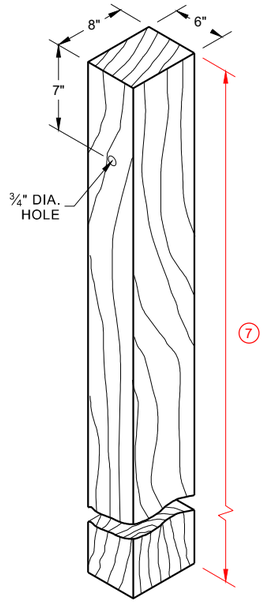
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



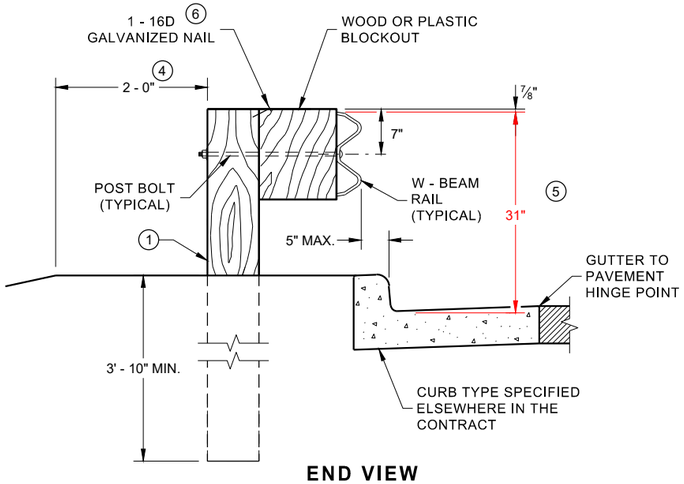
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



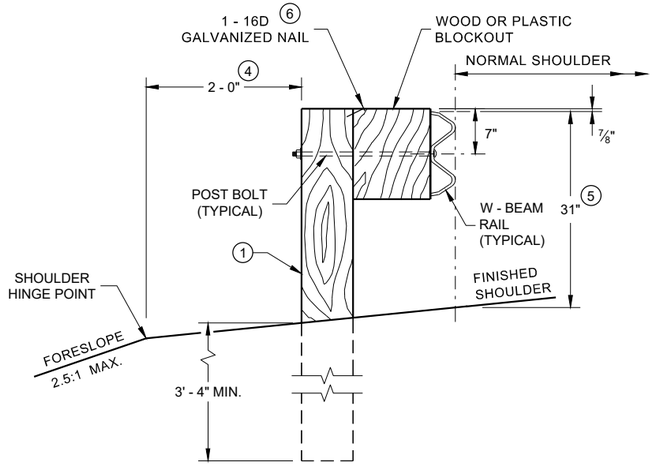
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



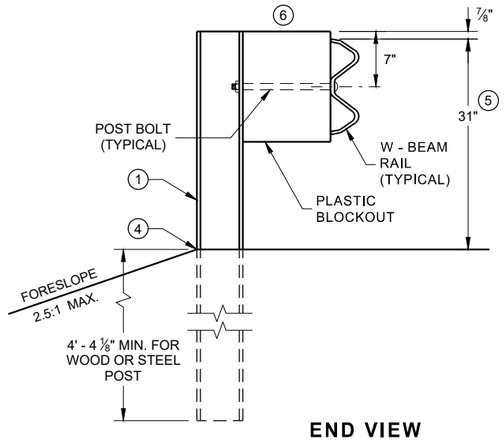
WOOD POST (6" X 8") NOMINAL (1)



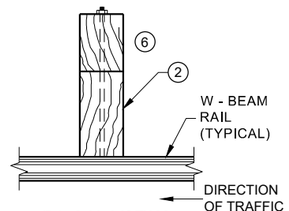
END VIEW
LOCATED ALONG A CURBED ROADWAY



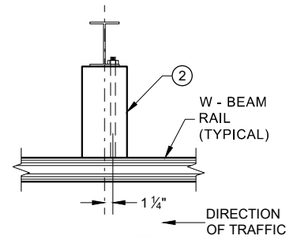
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



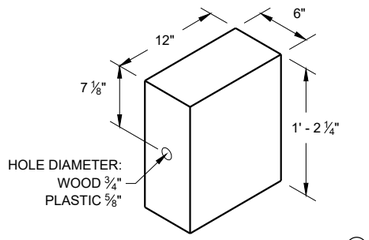
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



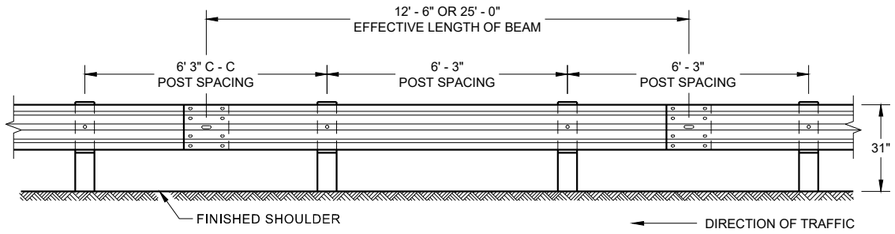
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

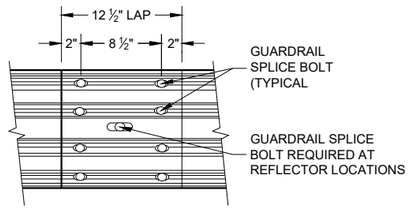
STATE OF WISCONSIN
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SDD 14B42 - 06a

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FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

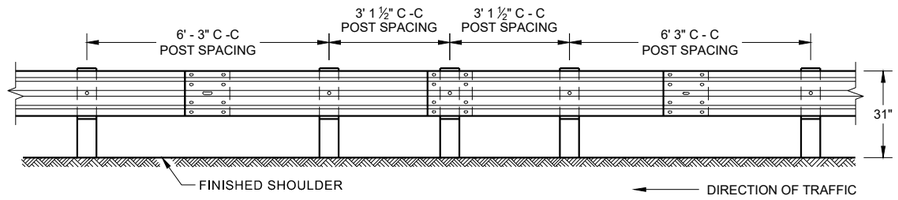
GENERAL NOTES

⑧ 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.

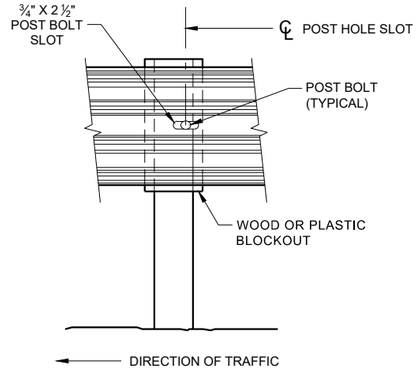
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

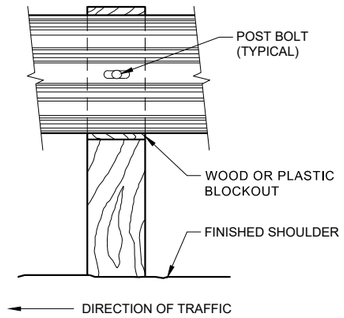
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



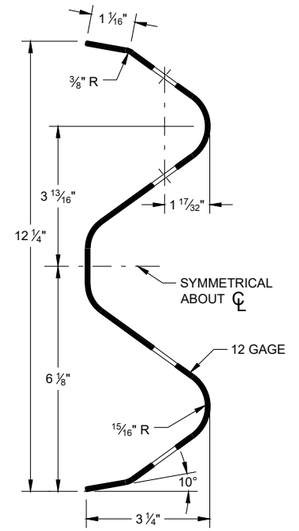
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



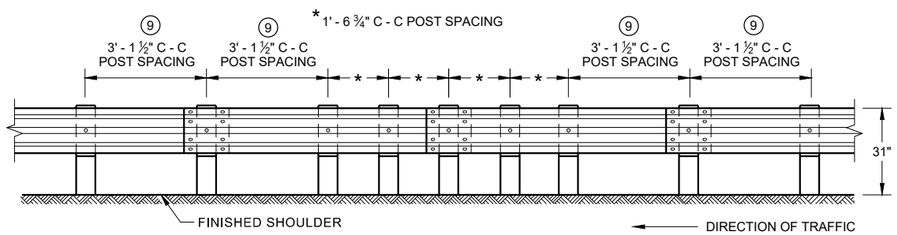
FRONT VIEW AT STEEL POST



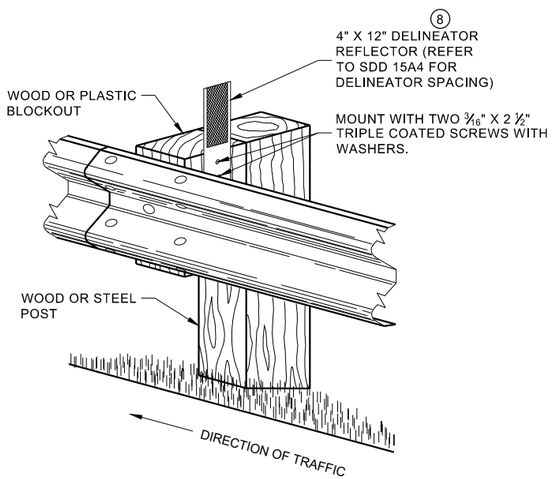
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)



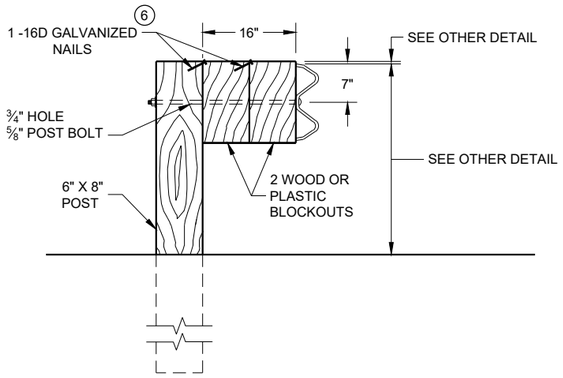
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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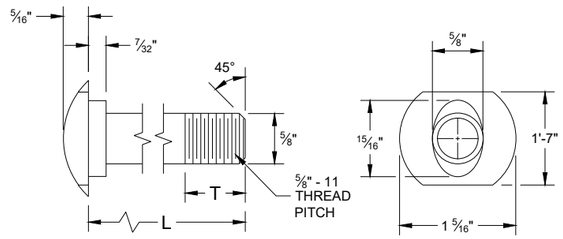


DETAIL FOR 16" BLOCKOUT DEPTH

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.

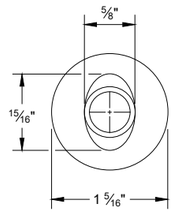
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

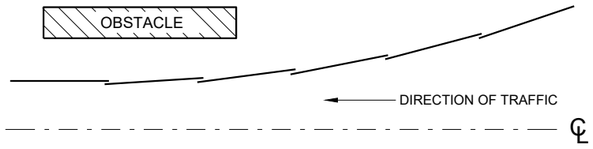


POST BOLT TABLE

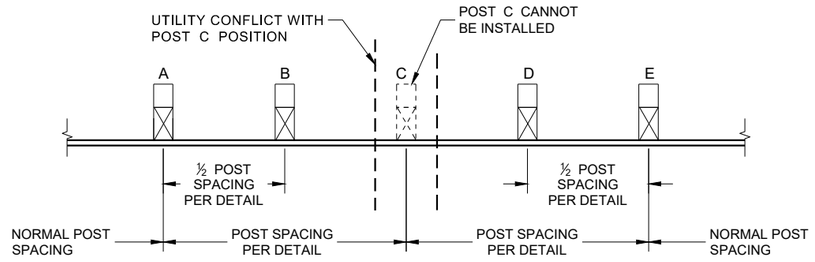
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



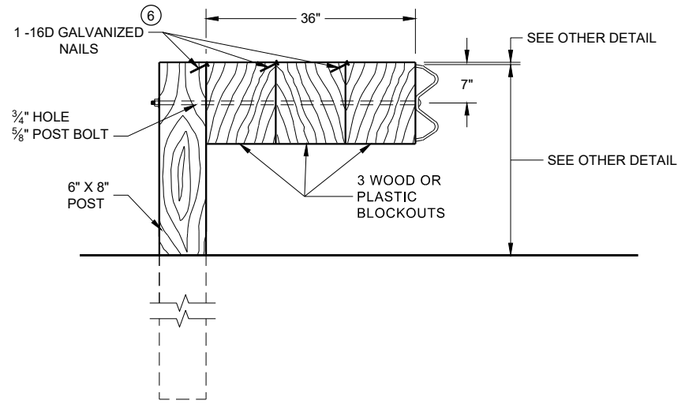
ALTERNATE BOLT HEAD



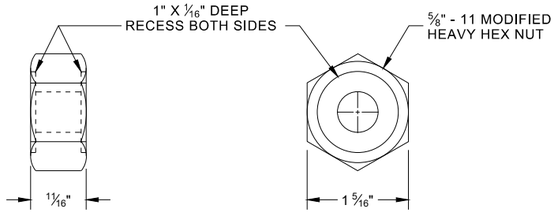
PLAN VIEW
BEAM LAPPING DETAIL



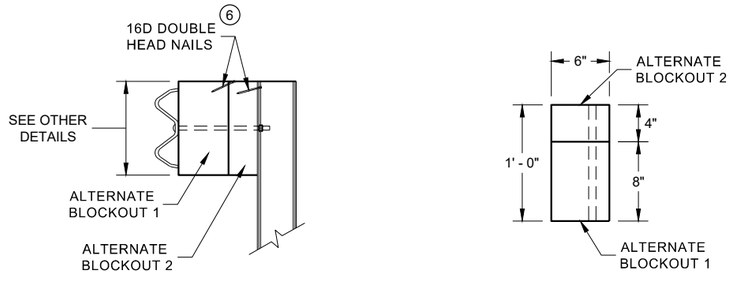
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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 MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

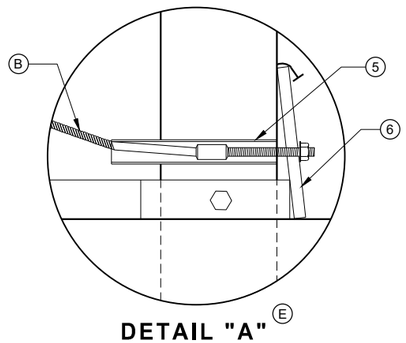
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

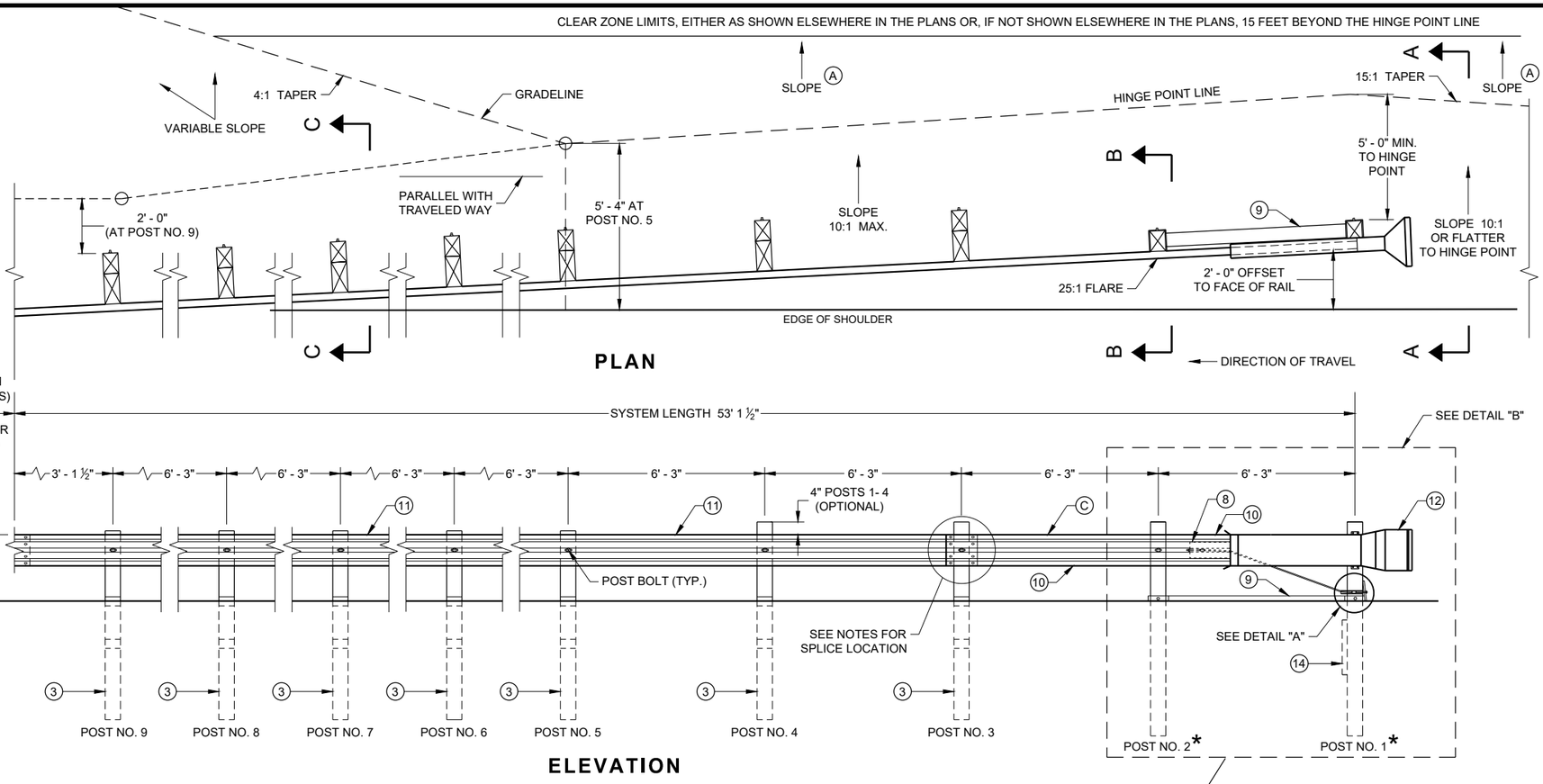
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

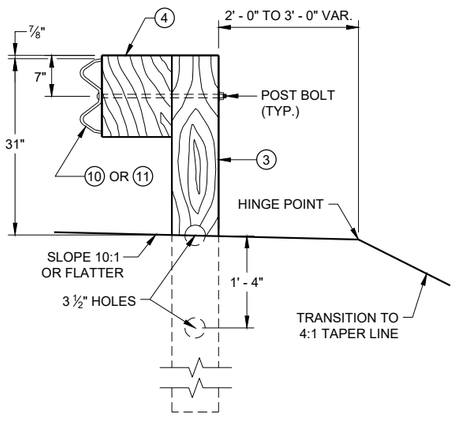
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

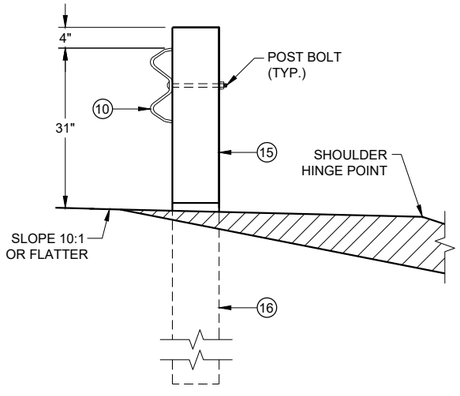


DETAIL "A" (E)

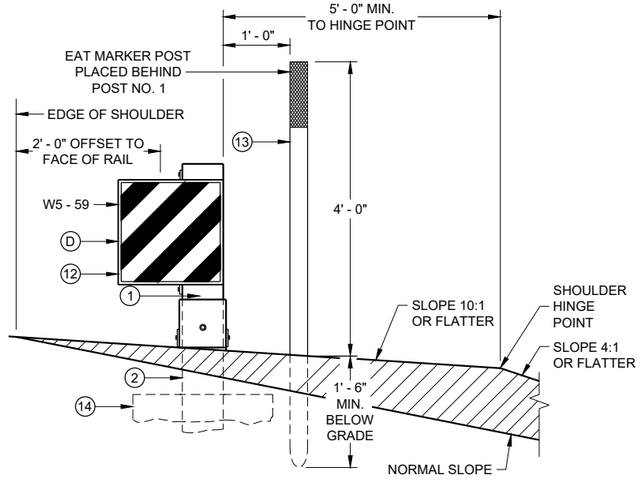




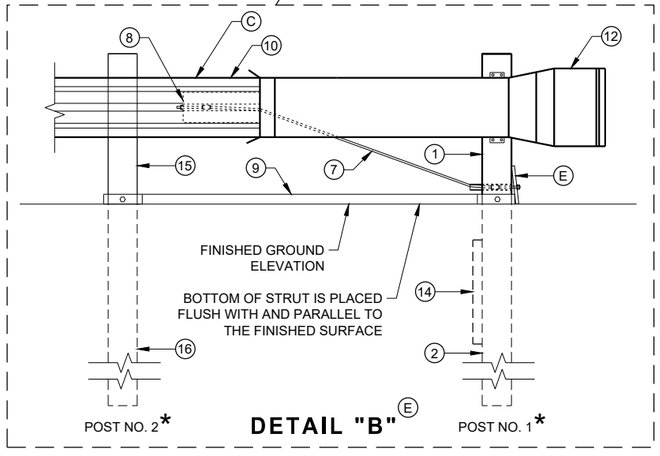
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

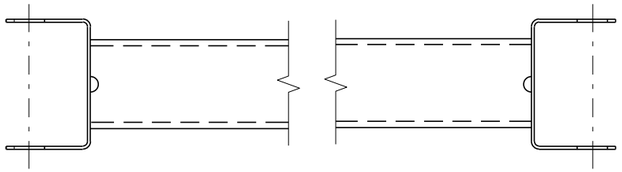
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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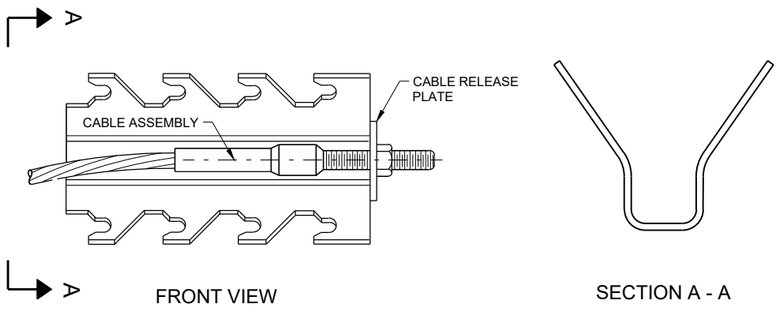
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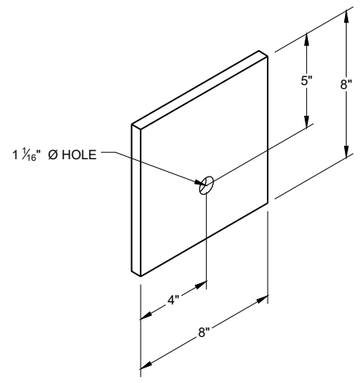
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
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	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

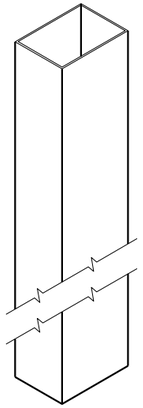
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SDD 14B44 - 04b

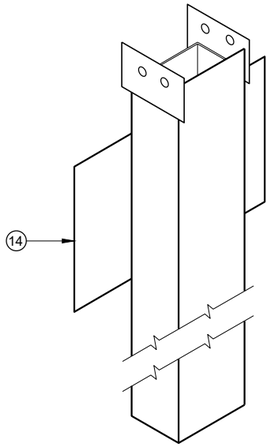
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

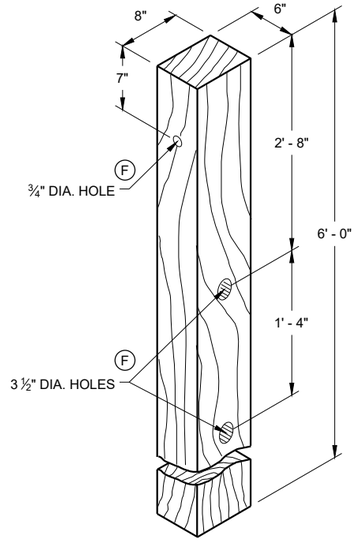
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



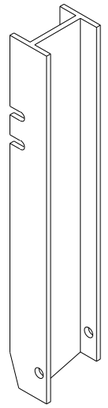
UPPER POST NO. 1 (1) (E)



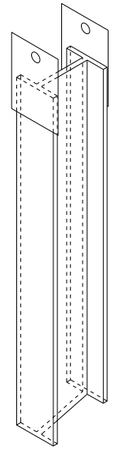
LOWER POST NO. 1 (2) (E)



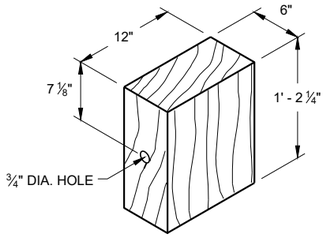
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



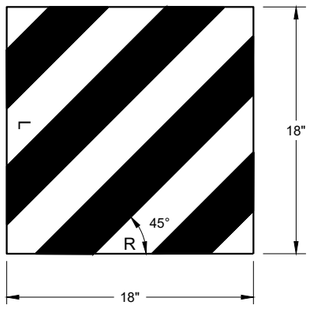
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

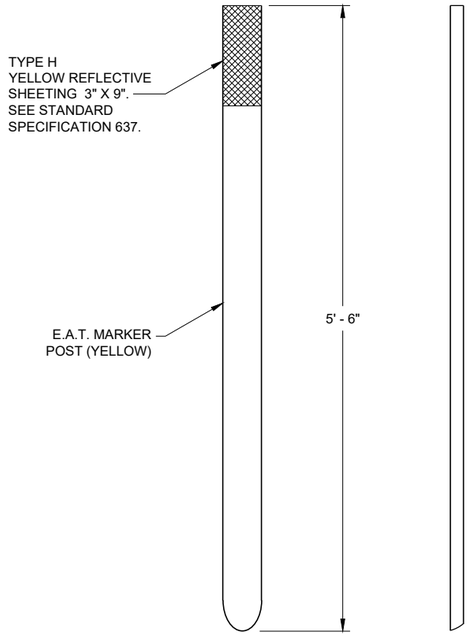


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



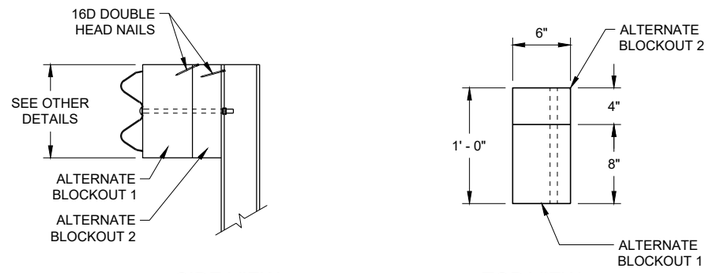
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

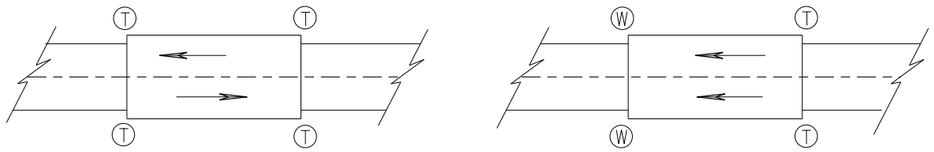
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

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SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

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.

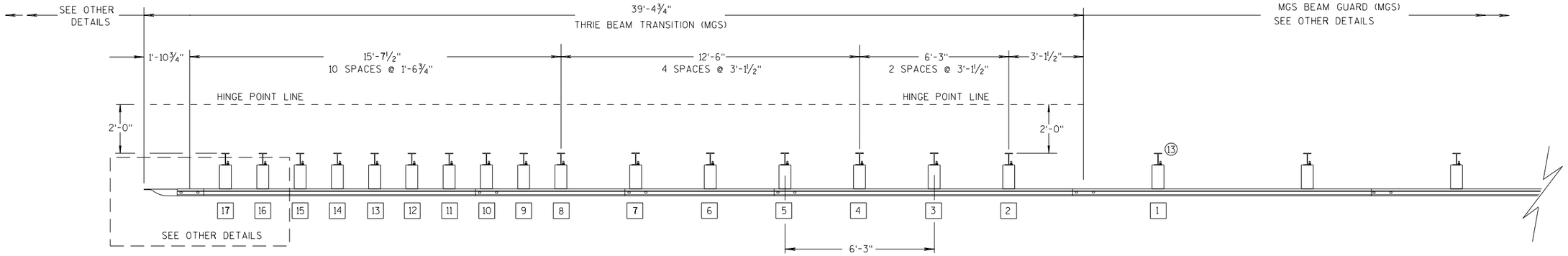
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

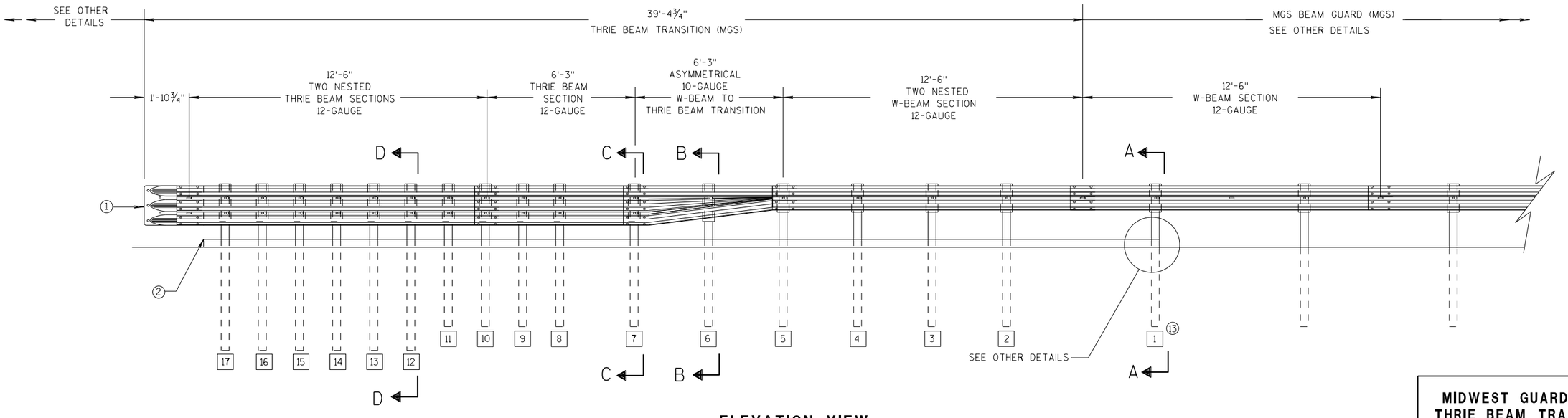
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 45-5a

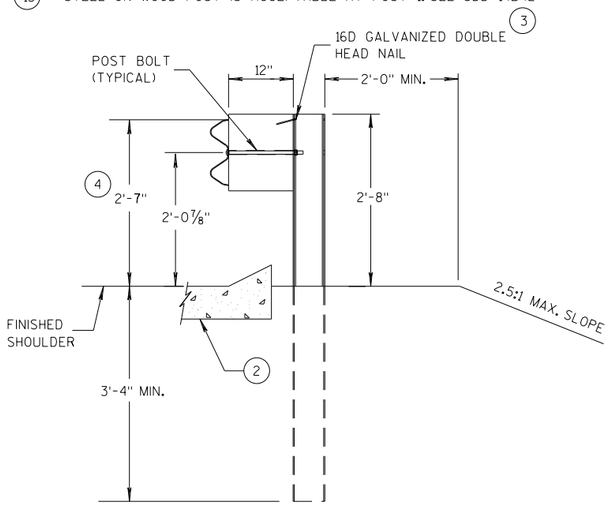
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

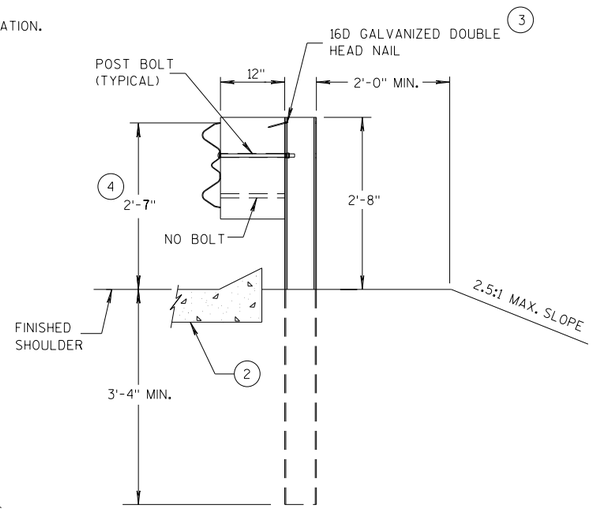
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



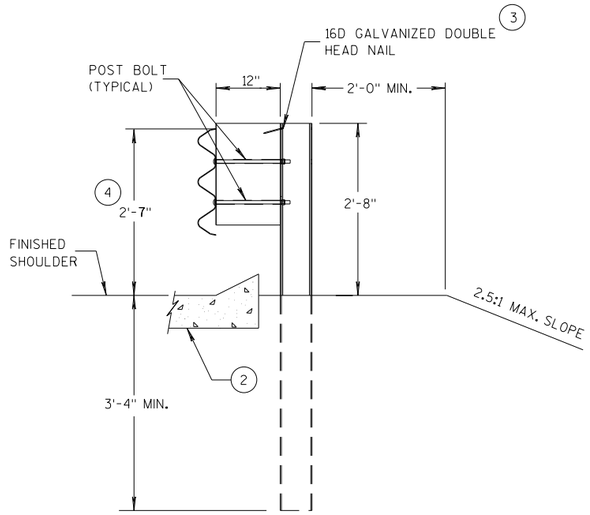
SECTION A-A (13)

POSTS 1-5



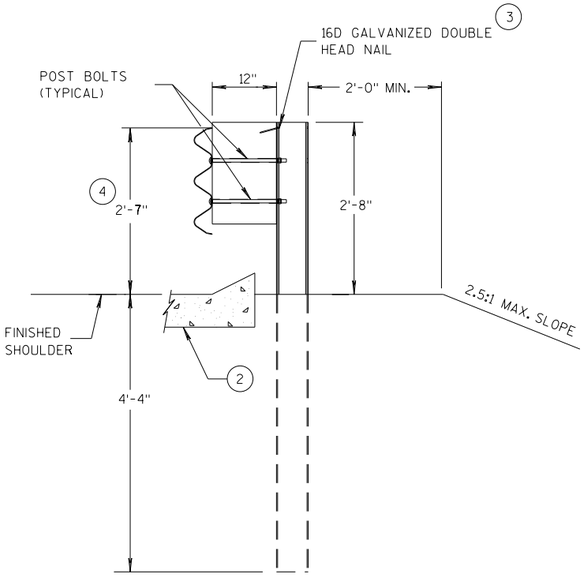
SECTION B-B

POST 6



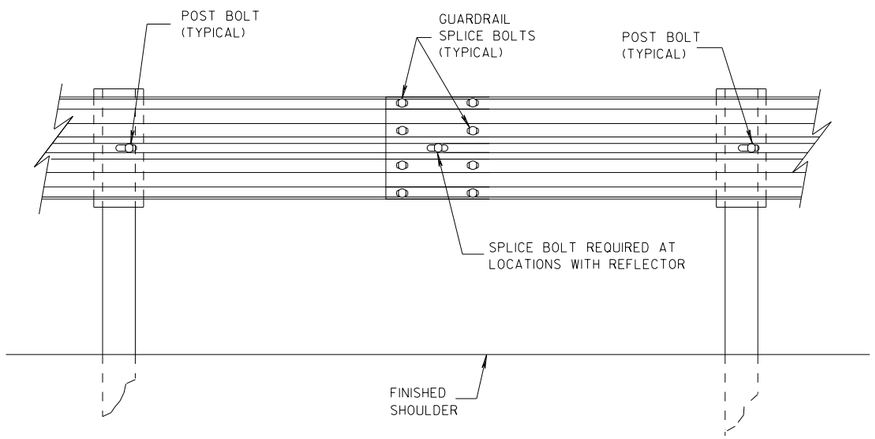
SECTION C-C

POSTS 7-11



SECTION D-D

POSTS 12-17



SPLICE DETAIL

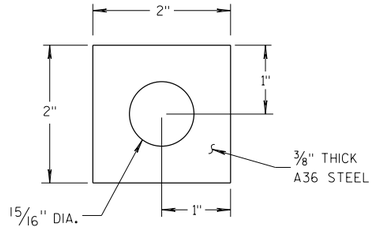
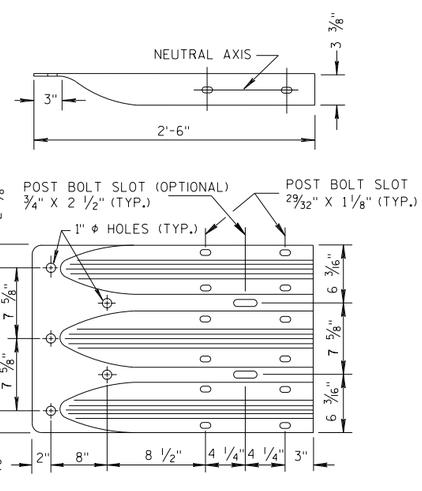
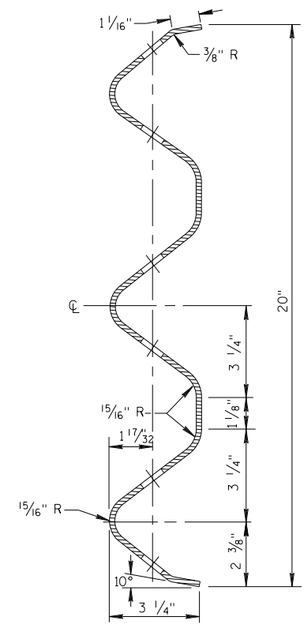


PLATE WASHER DETAIL



THRIE BEAM TERMINAL CONNECTOR



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

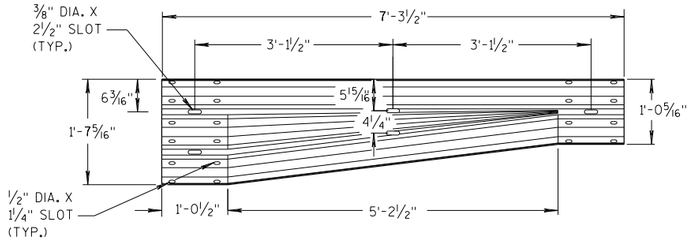
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 240

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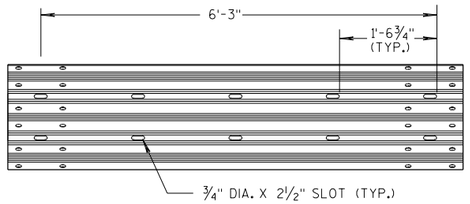
S.D.D. 14 B 45-5b

6

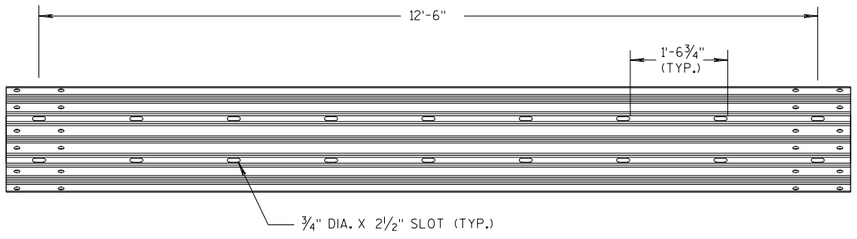
S.D.D. 14 B 45-5b



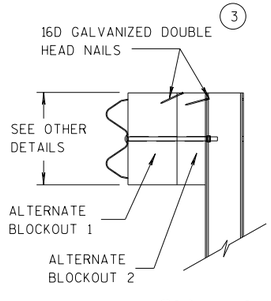
W-BEAM TO THRIE BEAM TRANSITION SECTION



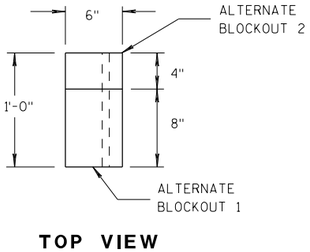
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

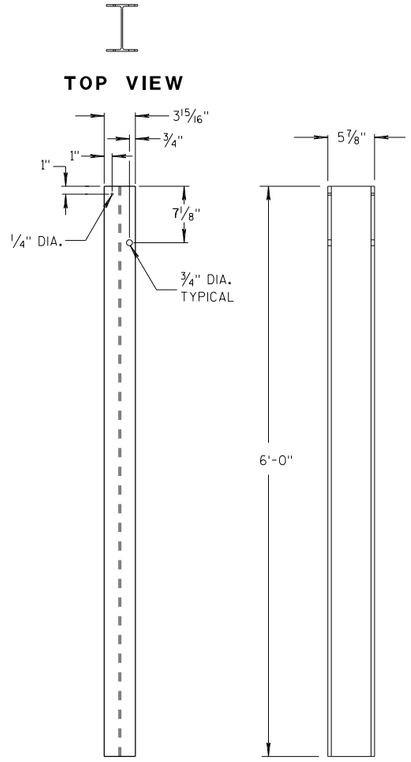


SIDE VIEW



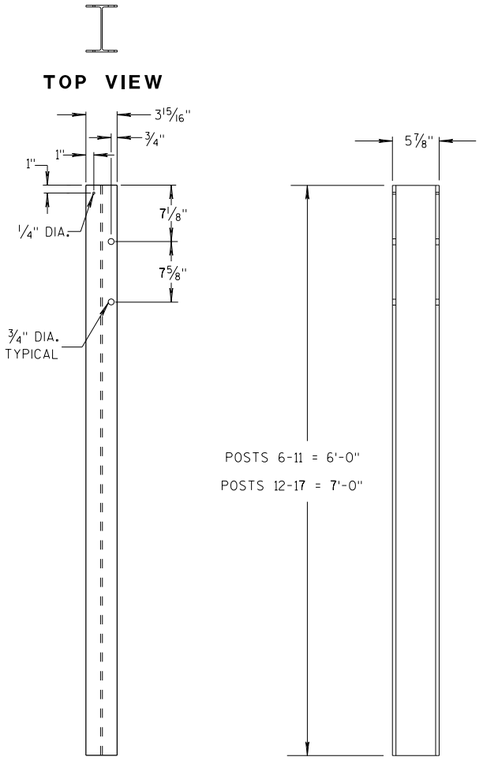
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



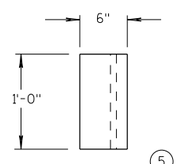
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

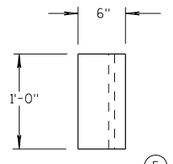


FRONT VIEW SIDE VIEW

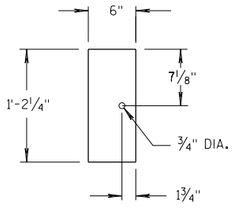
STEEL POSTS 6-17



TOP VIEW (5)

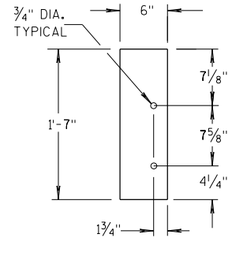


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

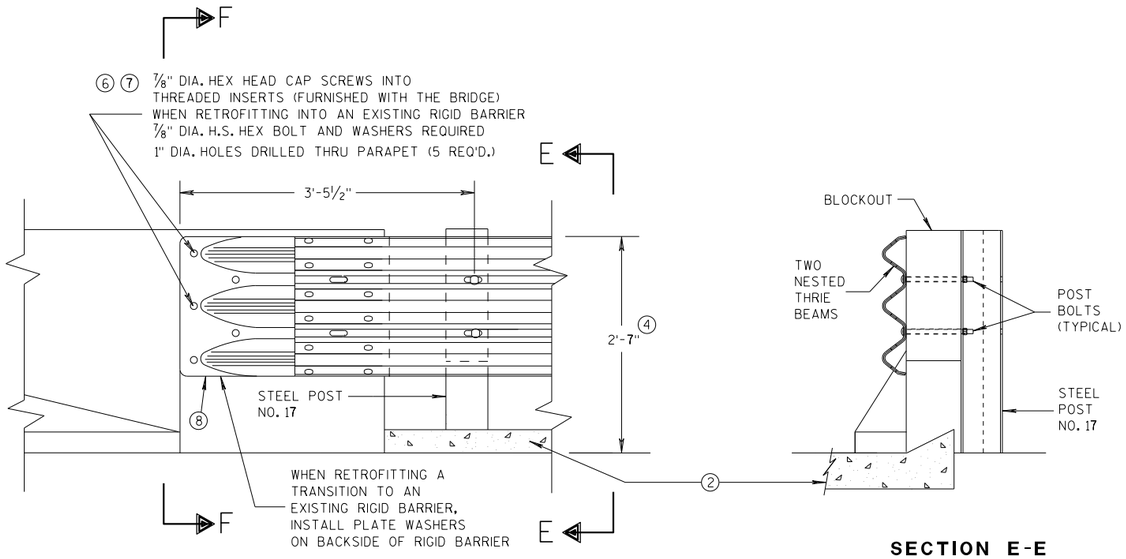
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 241

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S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

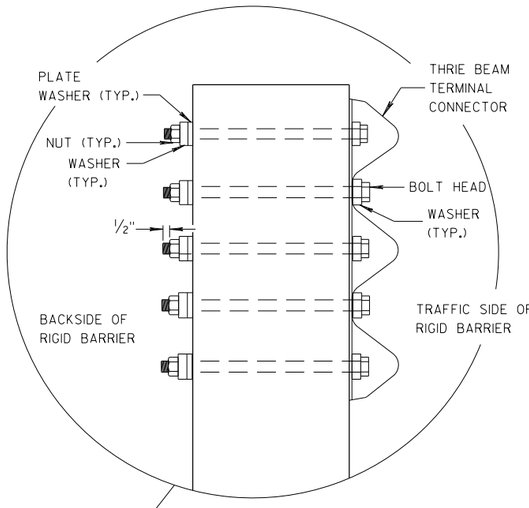
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

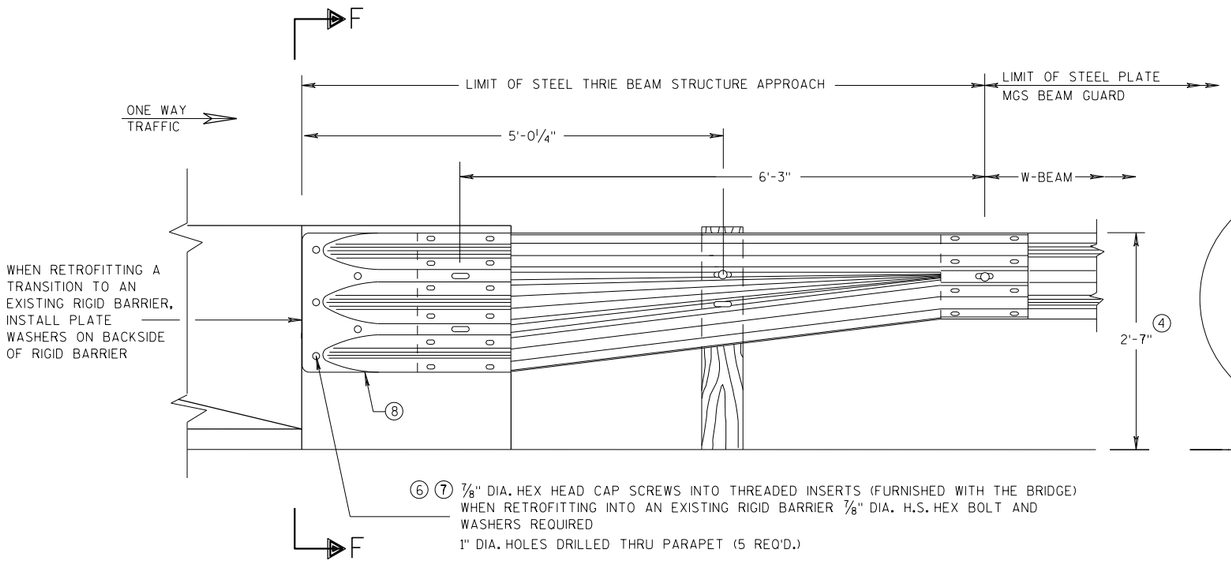
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

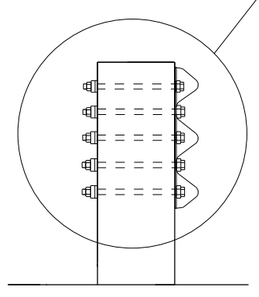
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

⑧ 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".

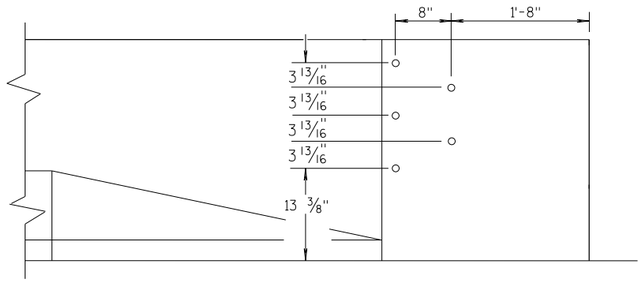




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

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
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible] NT
FHWA

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S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

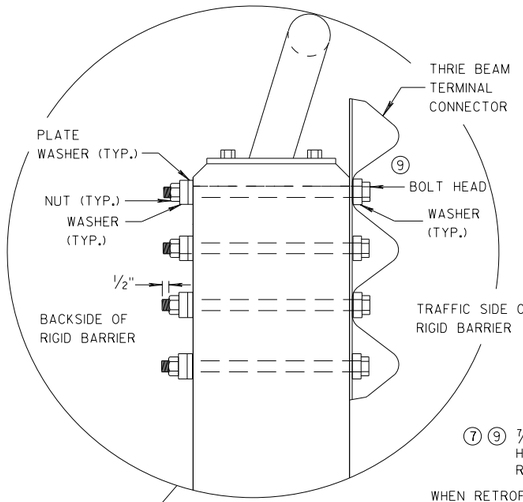
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

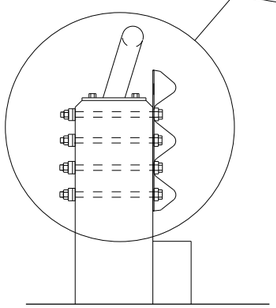
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) 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.

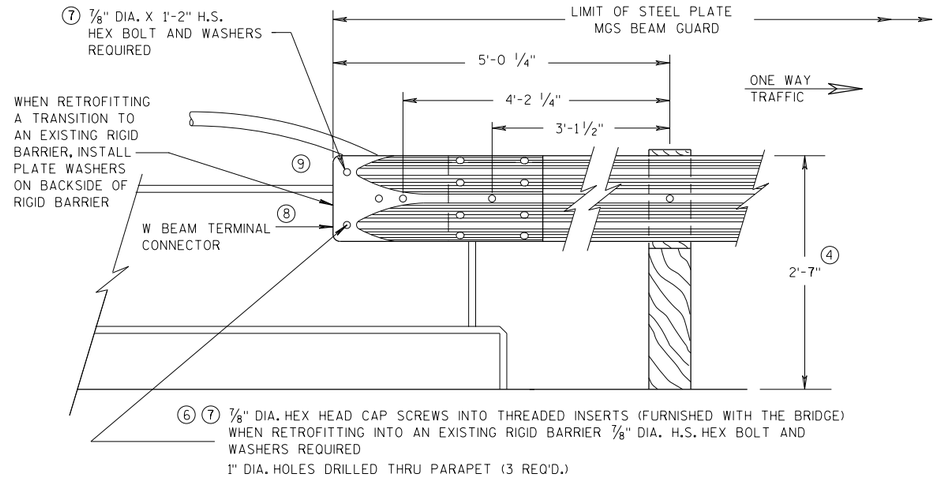
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) 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.





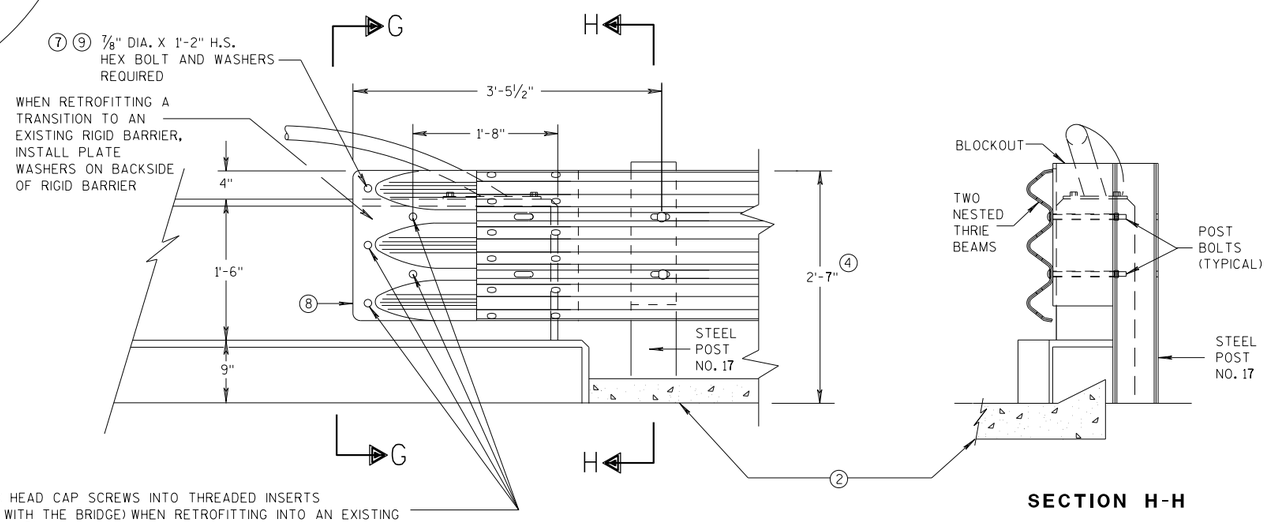
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

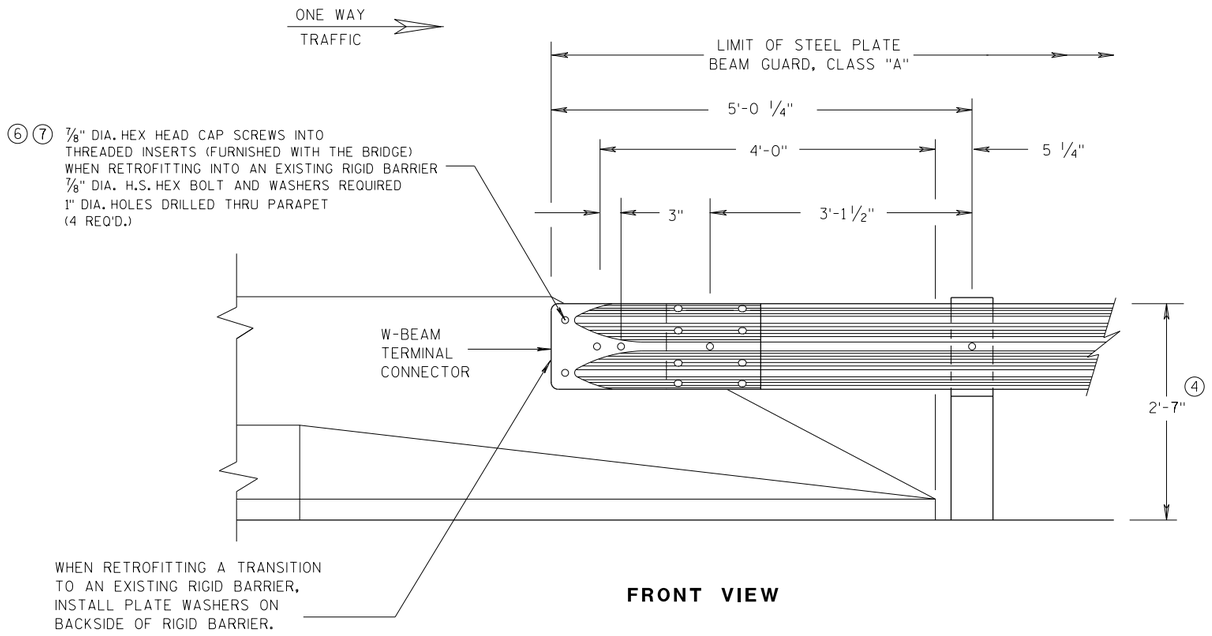
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS — NT
FHWA

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S.D.D. 14 B 45-5e

6

S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

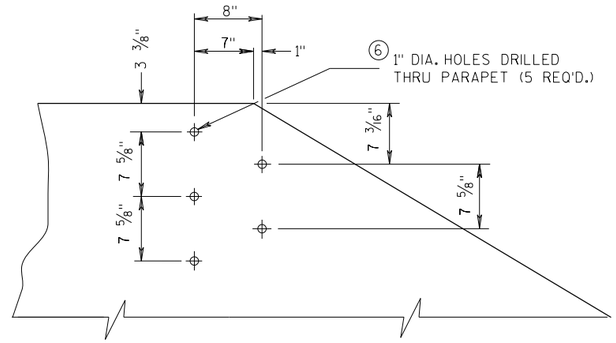
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

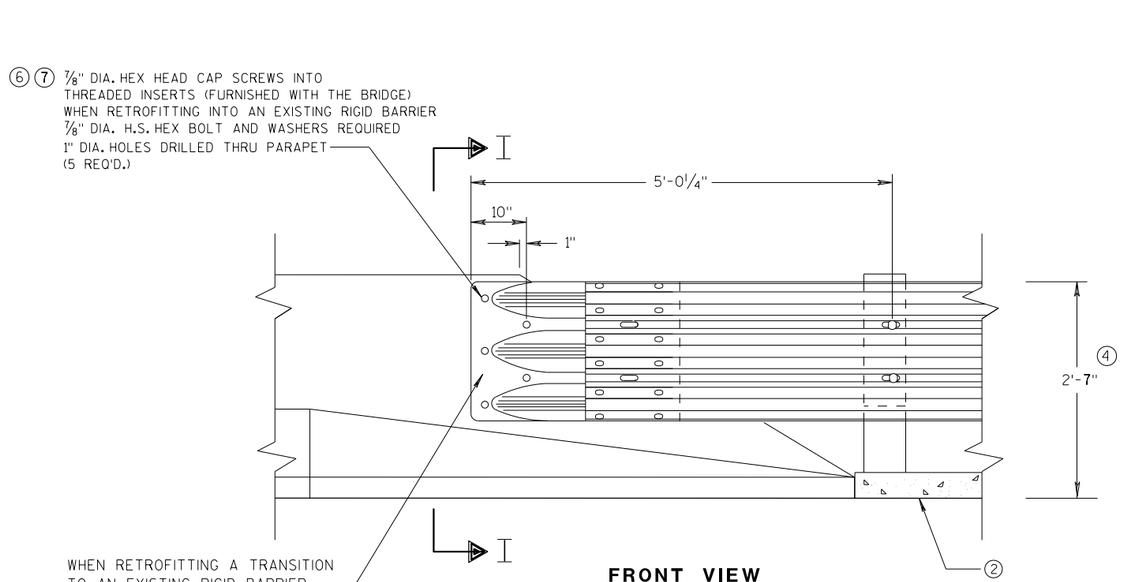
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

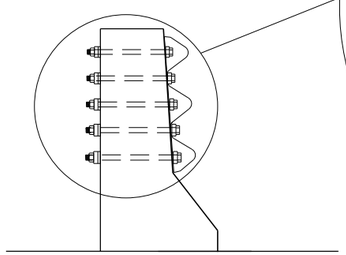
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



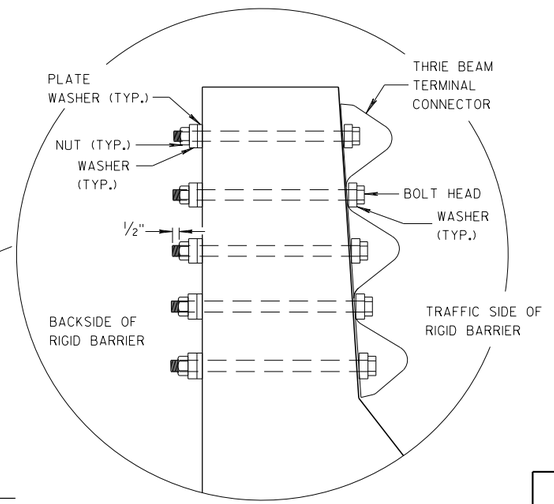
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

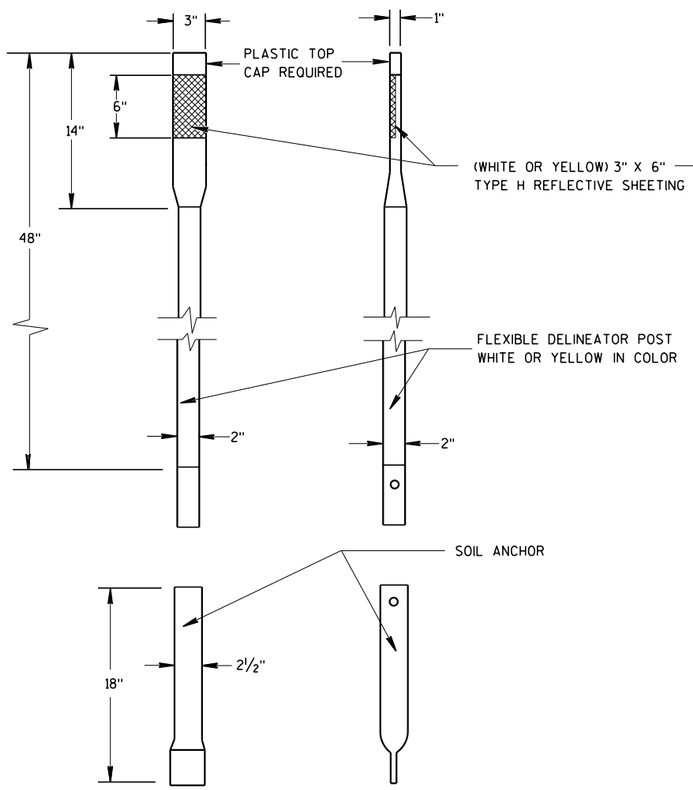
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS I[illegible]ENT UNIT SUPERVI
FHWA

6

S.D.D. 14 B 45-5f

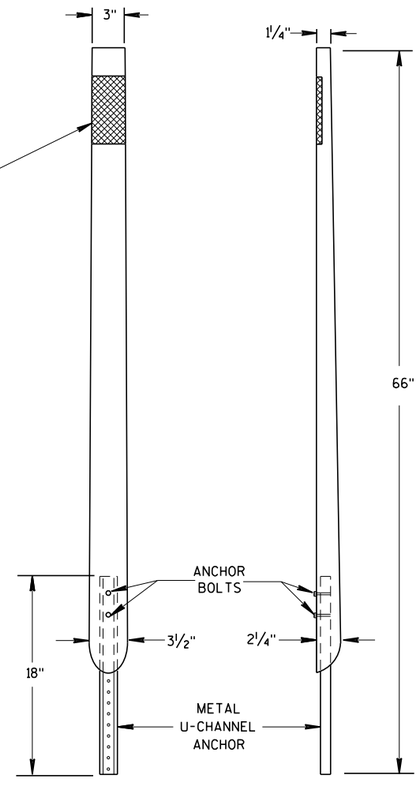
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S.D.D. 14 B 45-5f



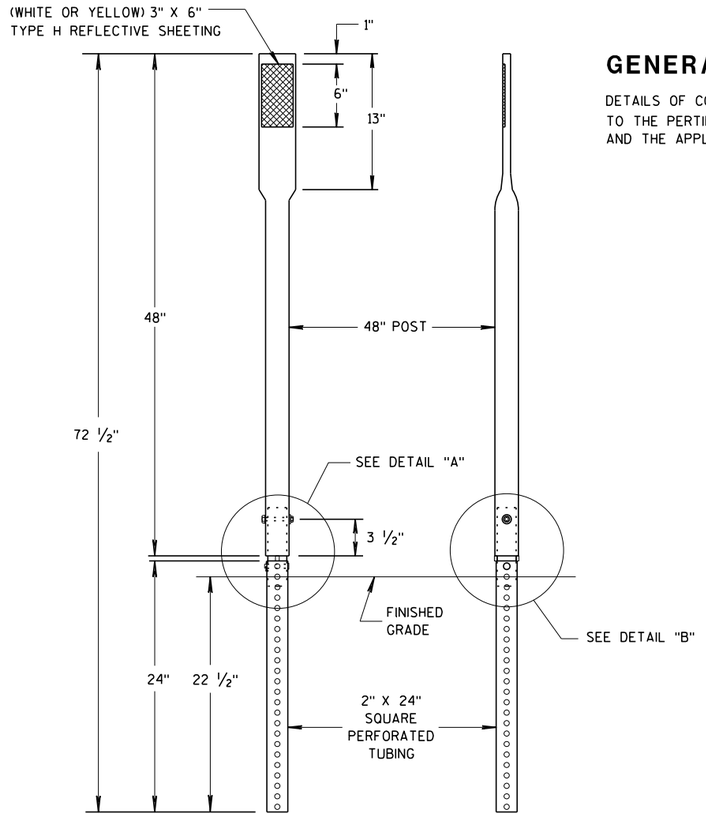
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE DELINEATOR POSTS

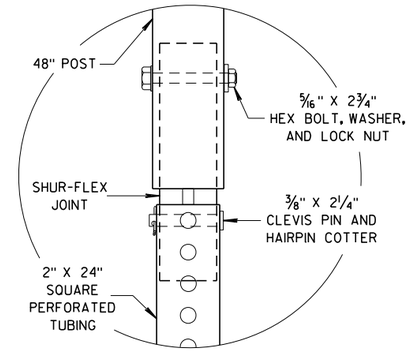


FRONT VIEW SIDE VIEW

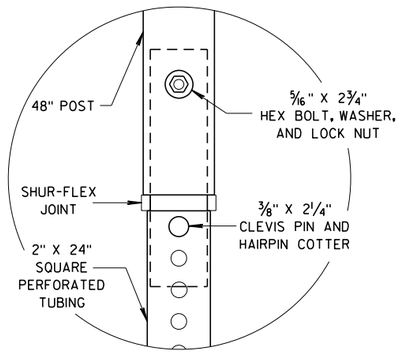
ALTERNATE 3

GENERAL NOTES

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



DETAIL A

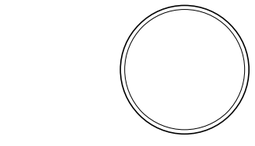


DETAIL B

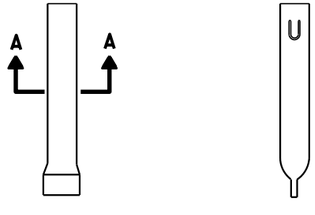
REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
*100' C-C	RAMPS
400' C-C	MAINLINE

*START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

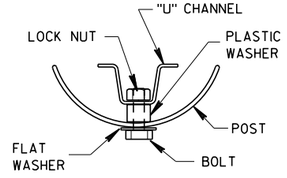


SECTION A-A

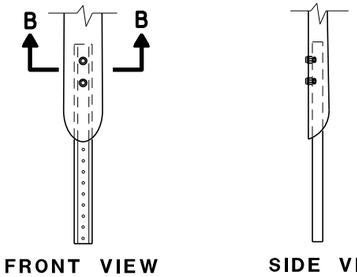


FRONT VIEW SIDE VIEW

ALTERNATE 1

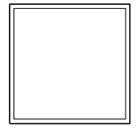


SECTION B-B

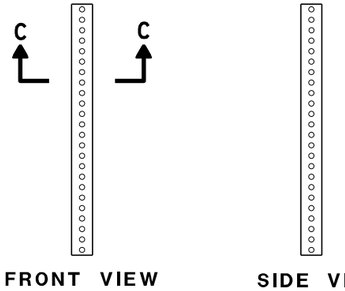


FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



SECTION C-C



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

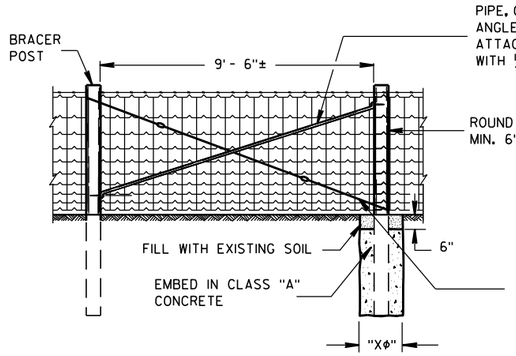
APPROVED
March 2018 — DATE
/S/ Matt Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

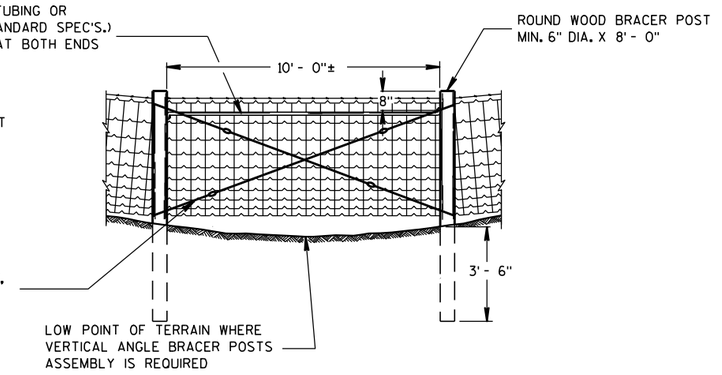
S.D.D. 15 A 4-4a

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

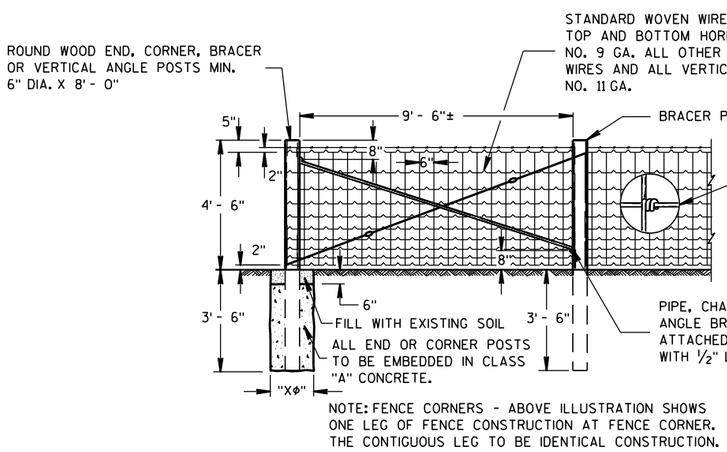
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

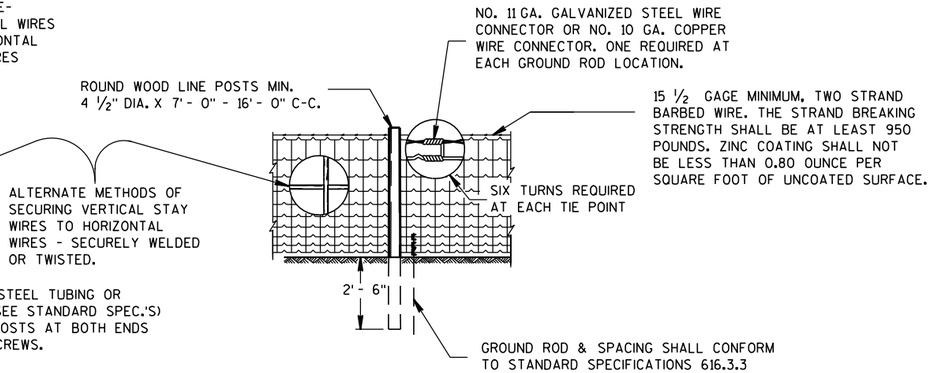
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



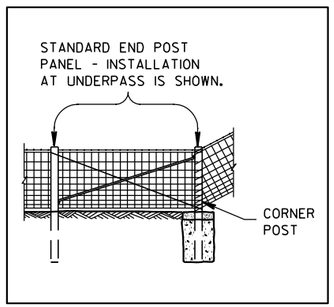
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

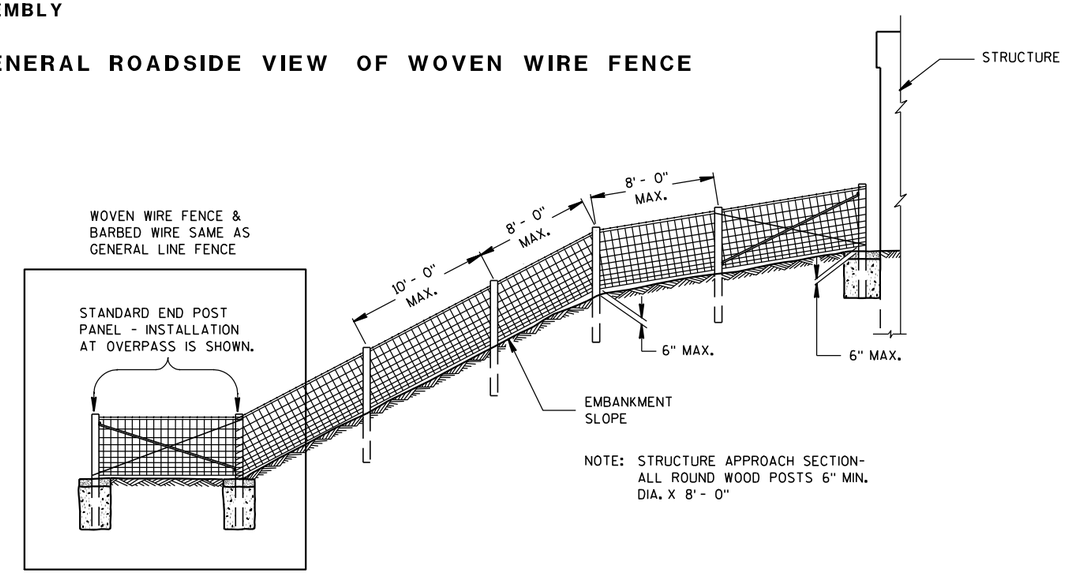


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



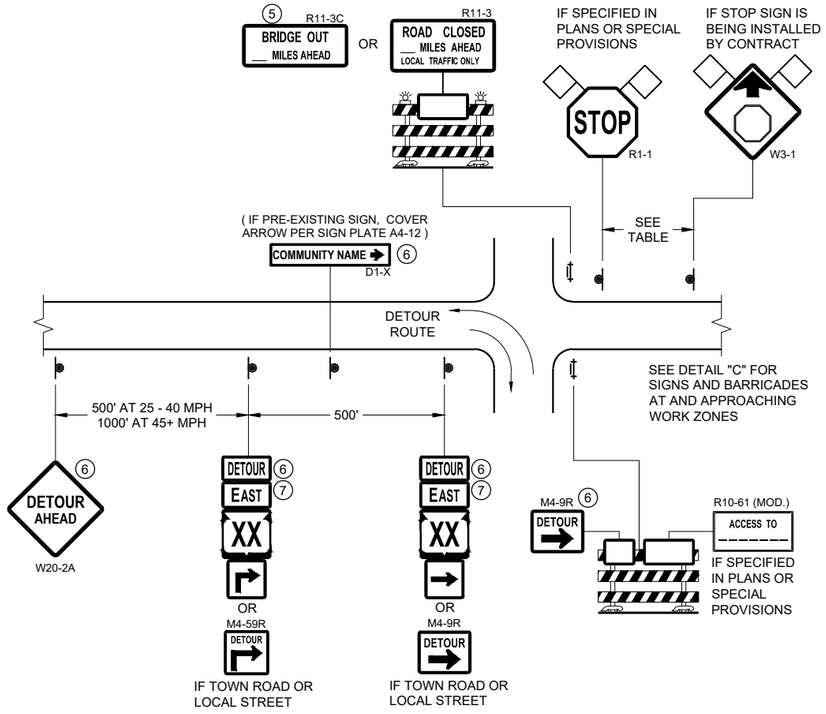
FENCE DESIGN AT STRUCTURE APPROACH

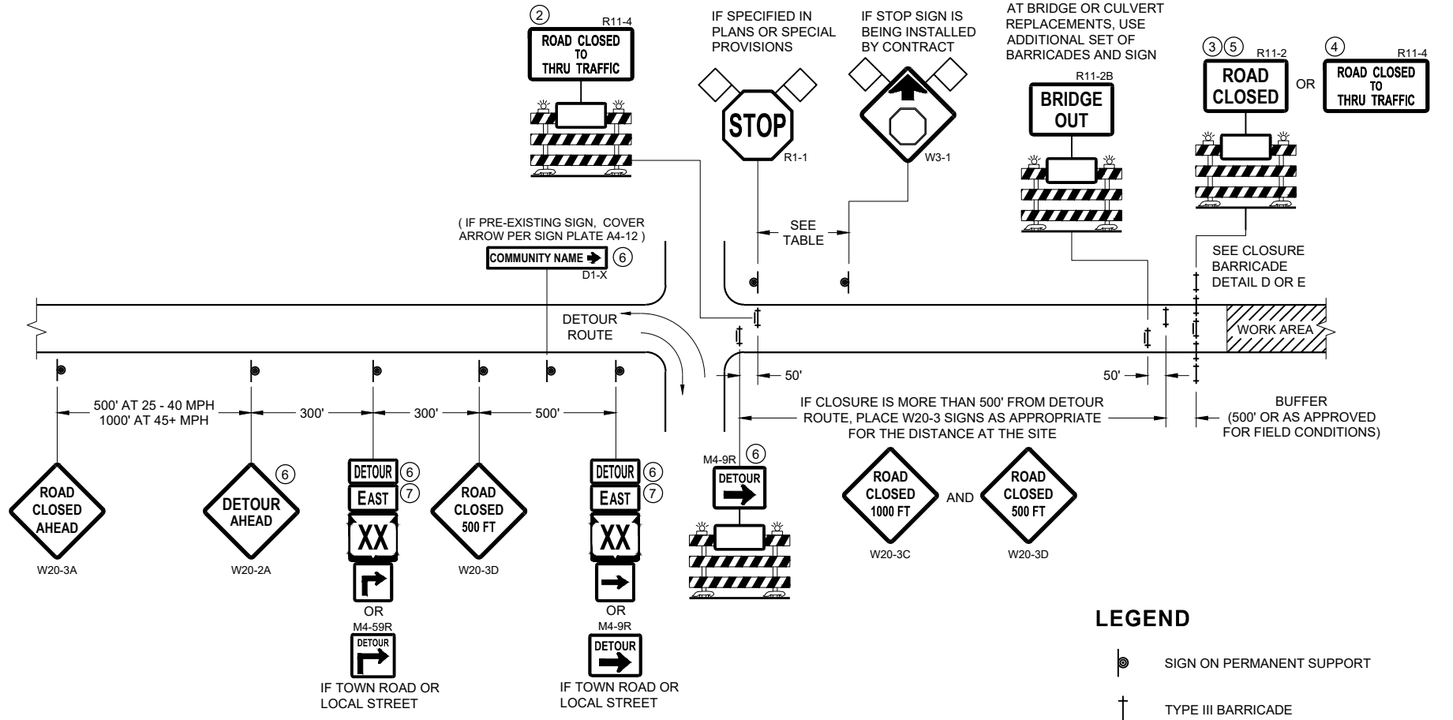
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 B 1-8a
S.D.D. 15 B 1-8a



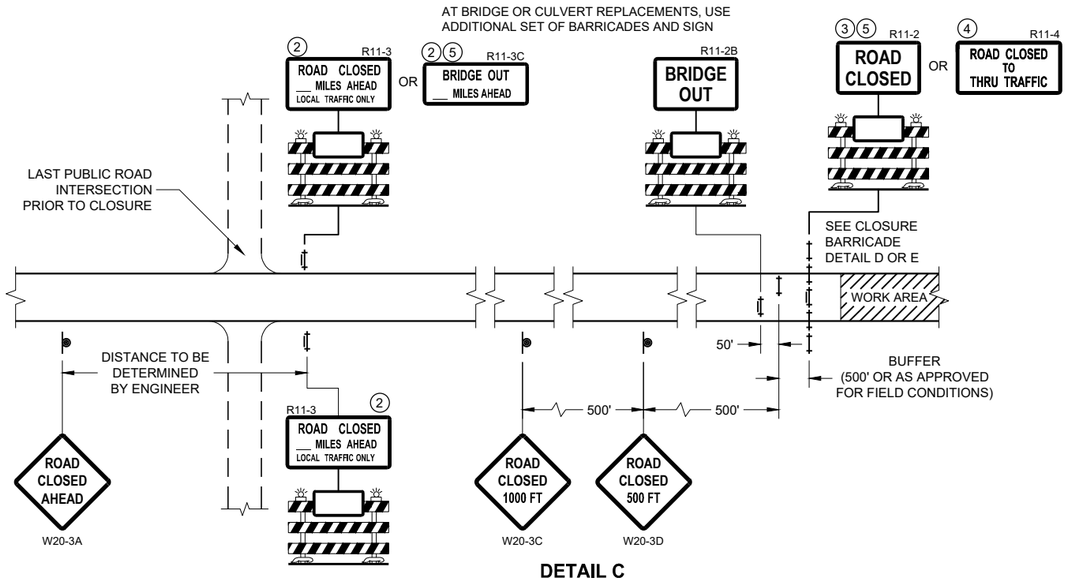


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

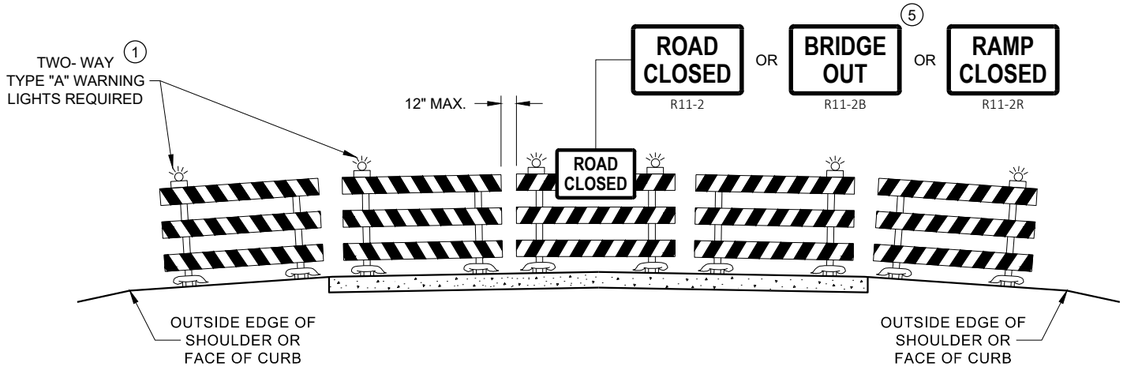
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

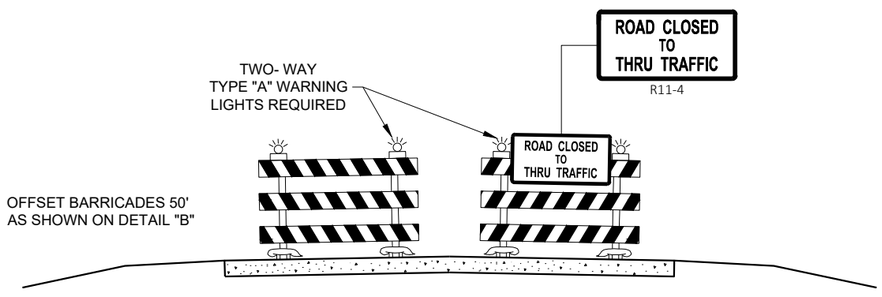
6

SDD 15C02 - 07a

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 07b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

DETOUR EAST XX *
D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR EAST XX / WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES * G20-51

DETOUR WEST XX * OR M4-59L DETOUR ** IF TOWN ROAD OR LOCAL STREET

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

MATCH POINT

* M4-59L DETOUR ** OR DETOUR EAST XX * IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME * (IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR DETOUR EAST XX IF TOWN ROAD OR LOCAL STREET

500'

DETOUR WEST XX

DETOUR WEST XX M4-9R DETOUR ** OR IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * M4-59R DETOUR ** OR IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX *

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

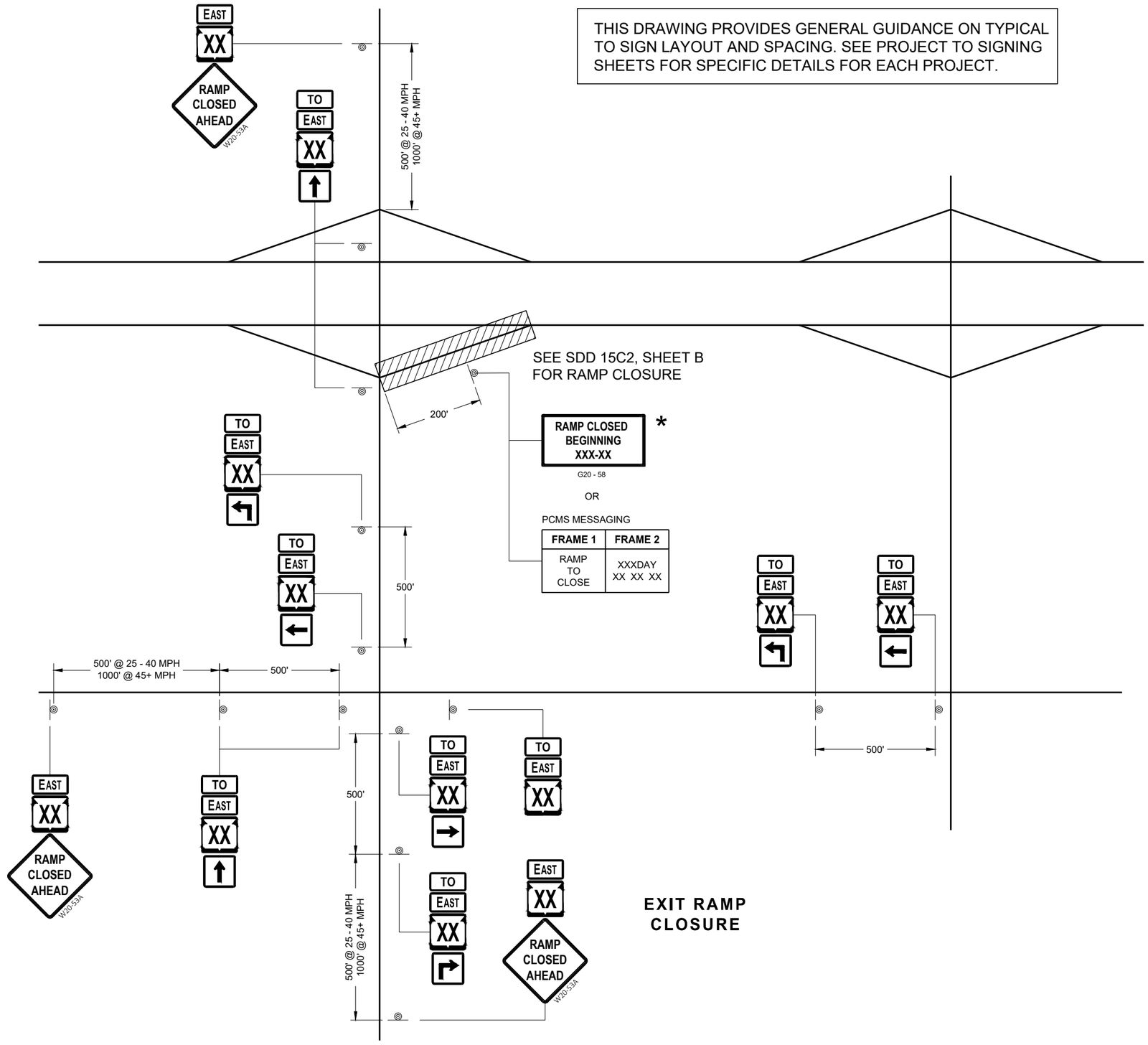
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 07c

SDD 15C02 - 07c

6



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

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

FOR LAYOU

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 SHALL 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 FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

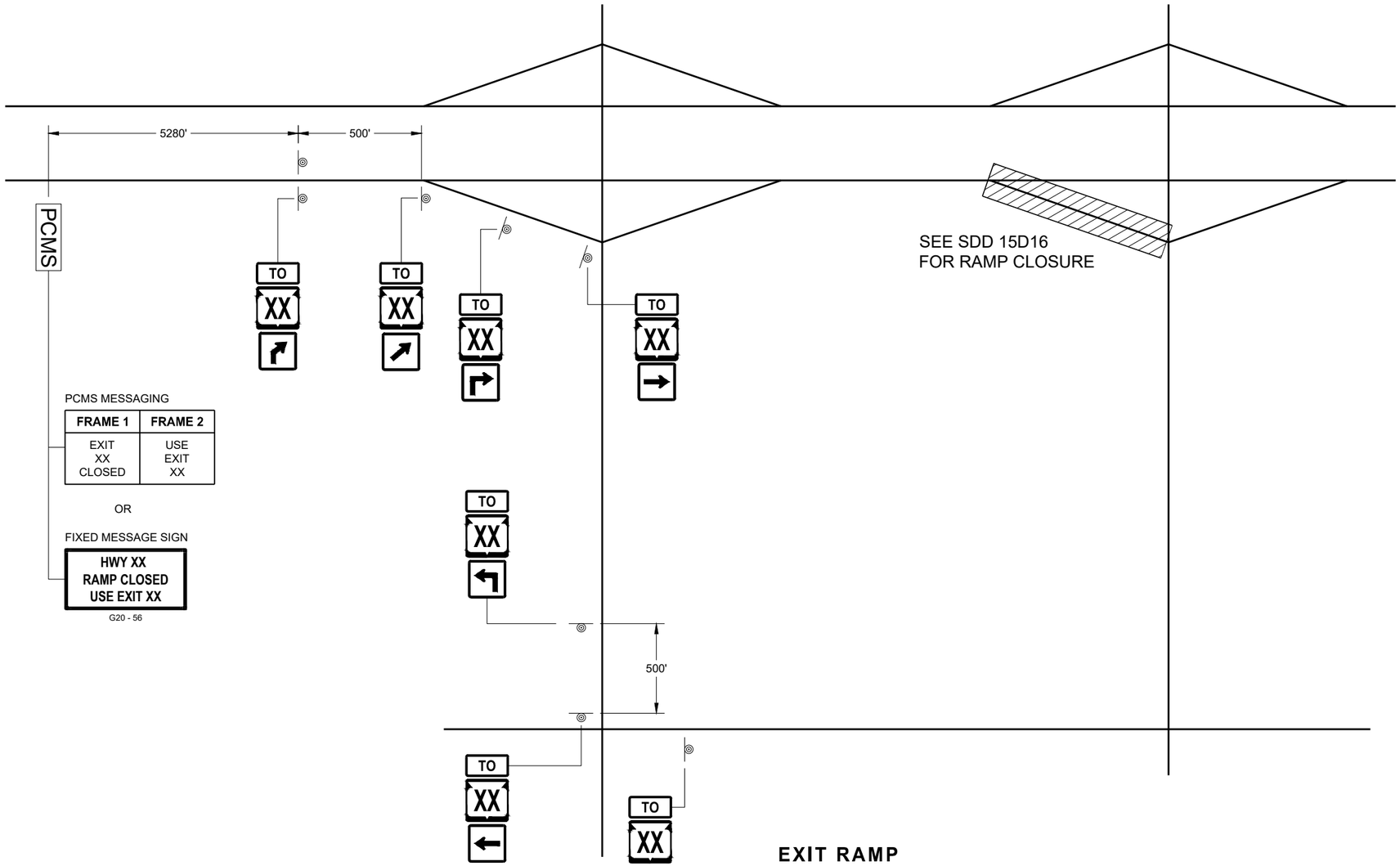
APPROVED
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 SHALL 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 FOLLOW:

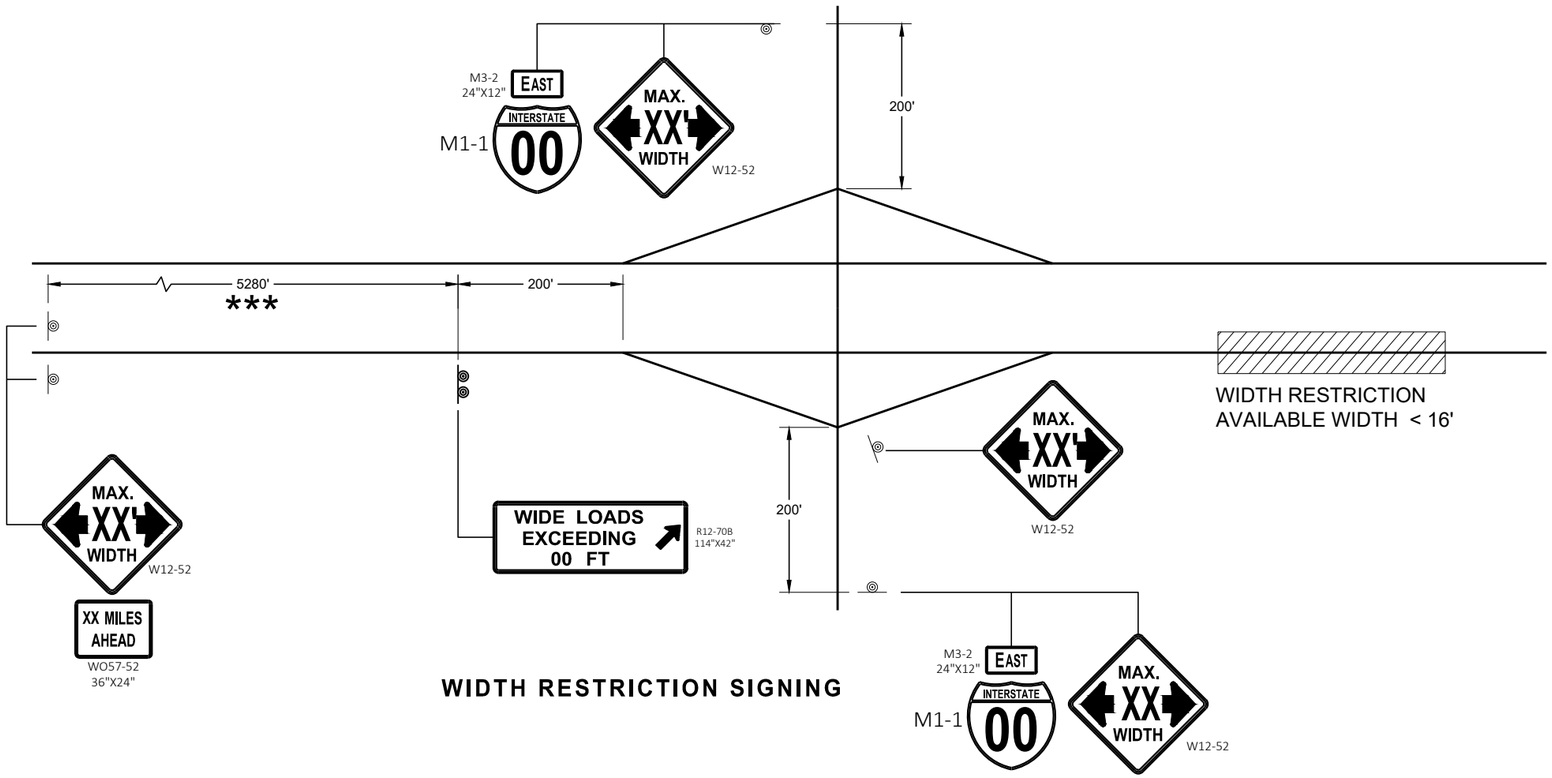
MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2018 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEE
FHWA

6 SDD 15C02 - 07e



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

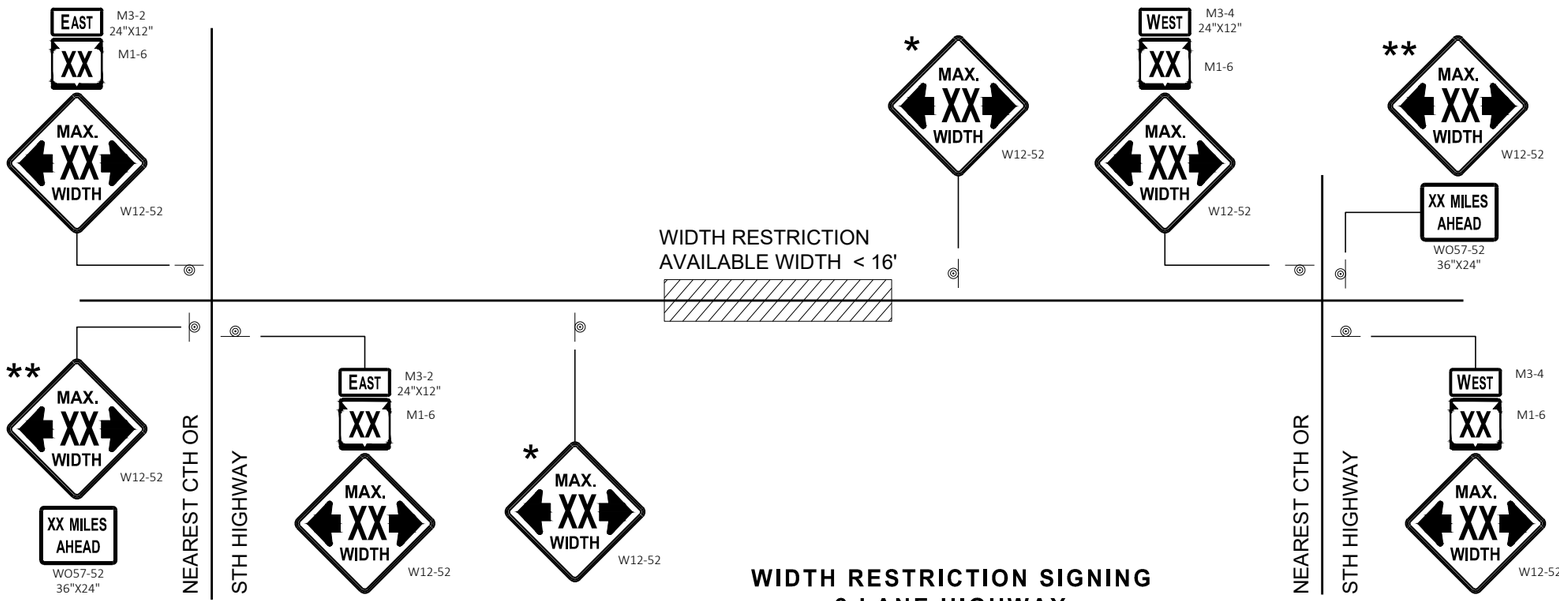
* PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

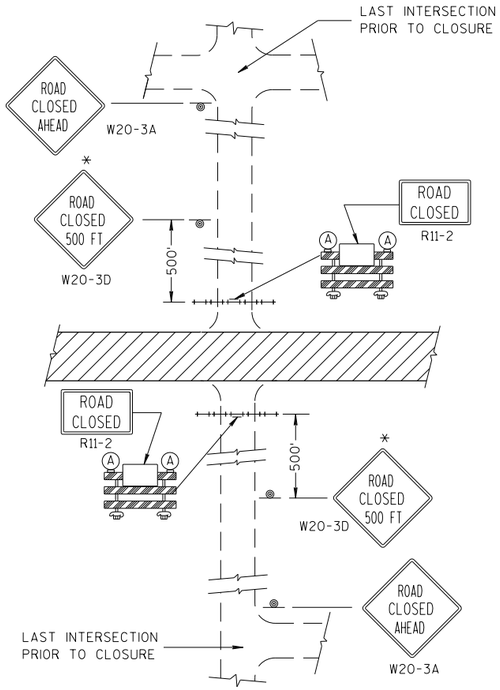
APPROVED
November 2018
DATE

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WORK ZONE ENGINEE

FHWA

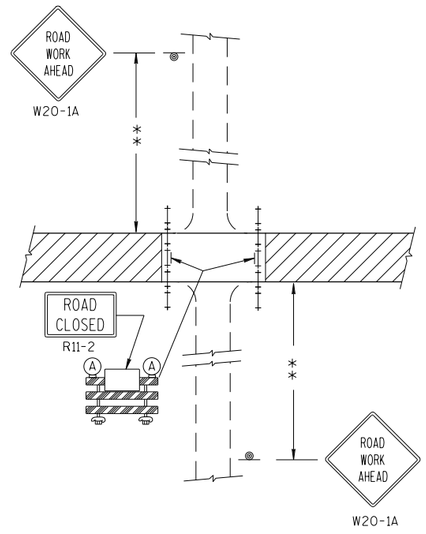
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SDD 15C02 - 07f



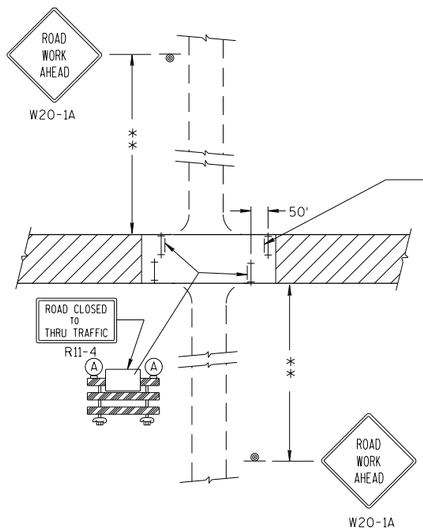
DETAIL 1

(NO ACCESS TO PROJECT)



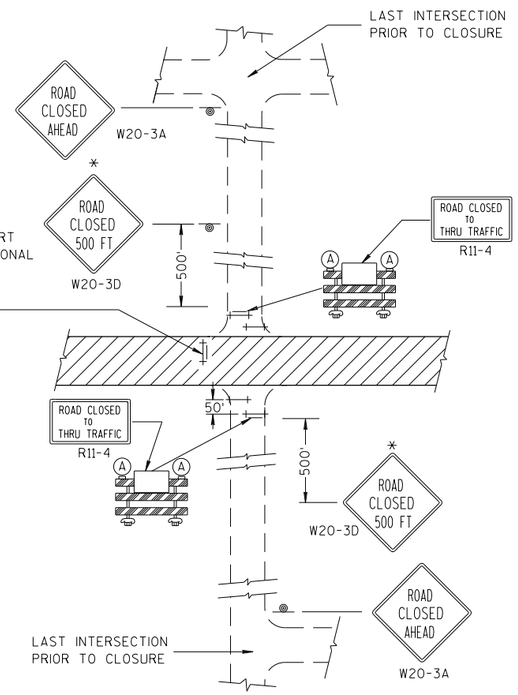
DETAIL 2

(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.

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

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

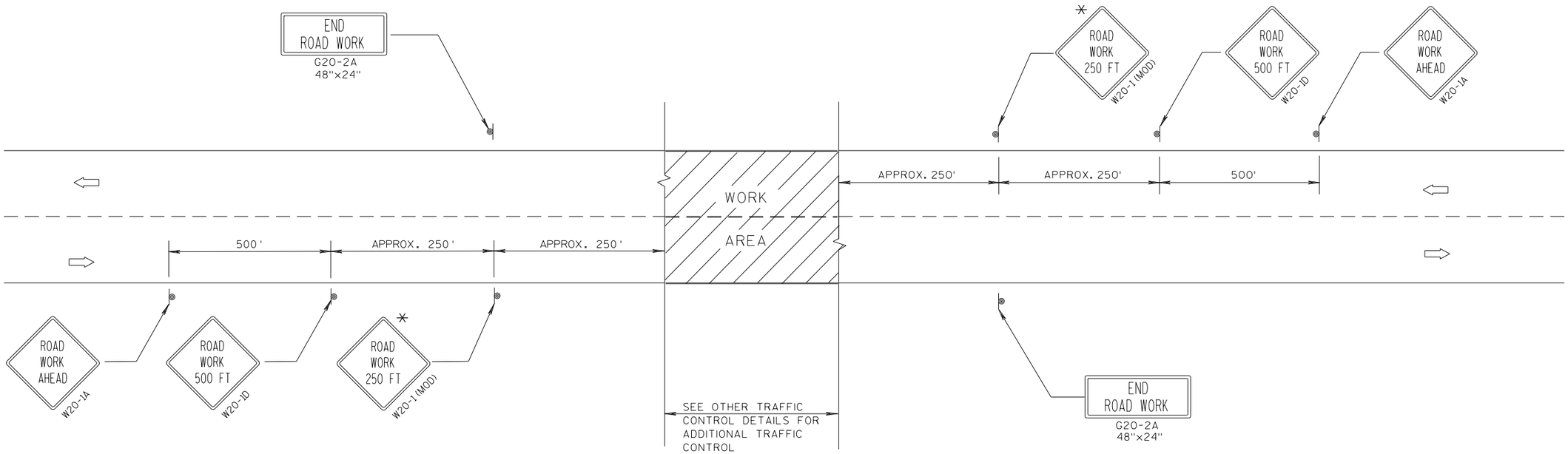
/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

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S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

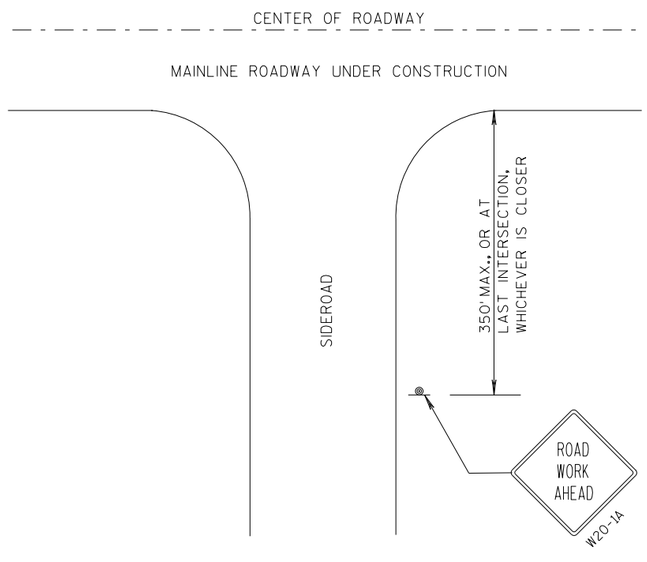
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
DATE

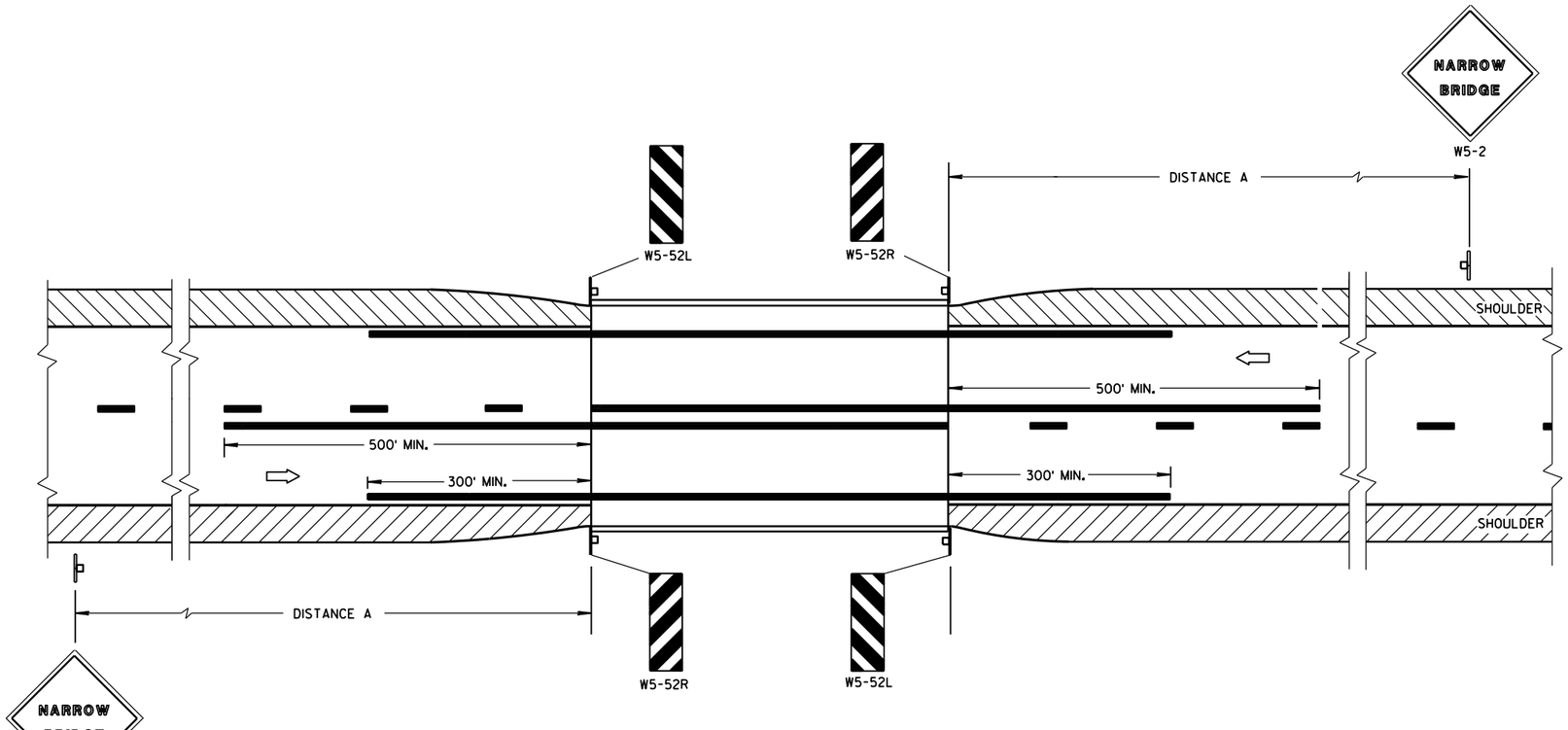
/S/ Andrew Heldtke
WORK ZONE ENGI

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S.D.D. 15 C 5-5



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

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

GENERAL NOTES

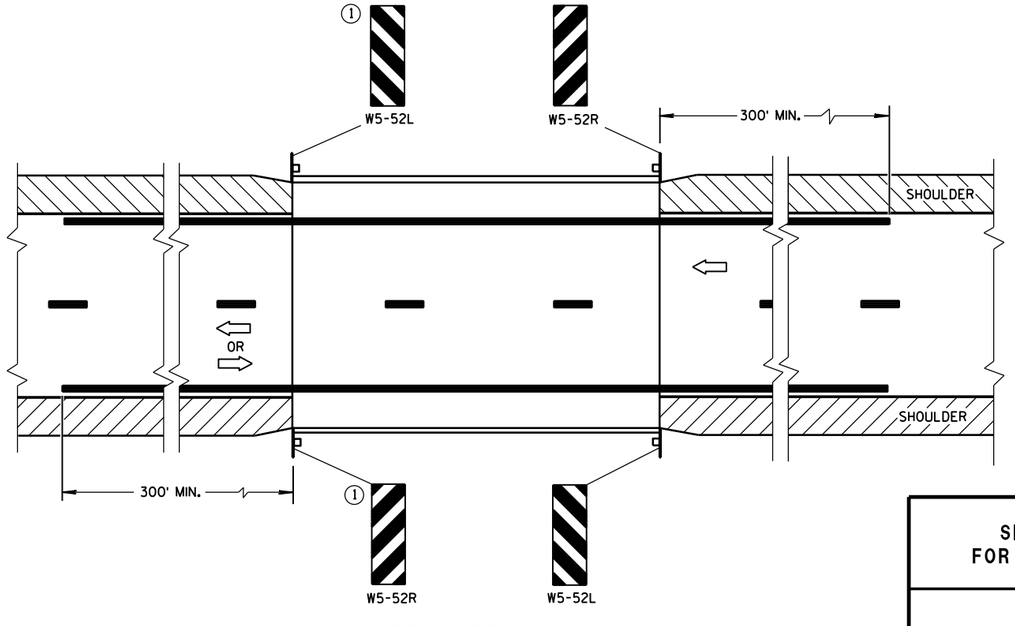
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

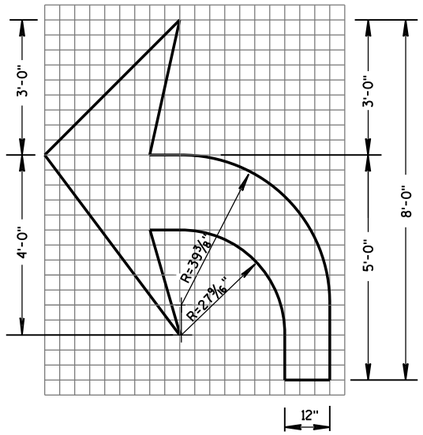
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

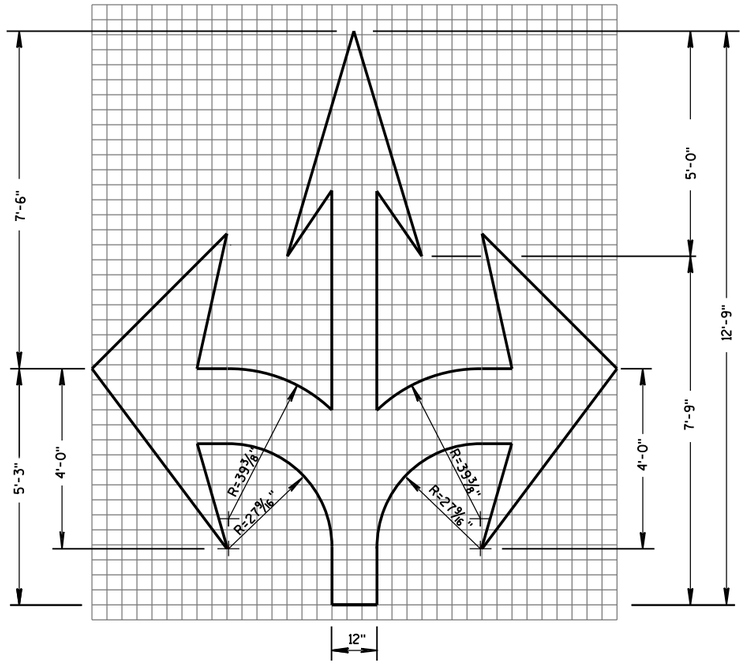
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S.D.D. 15 C 6-9

GENERAL NOTES

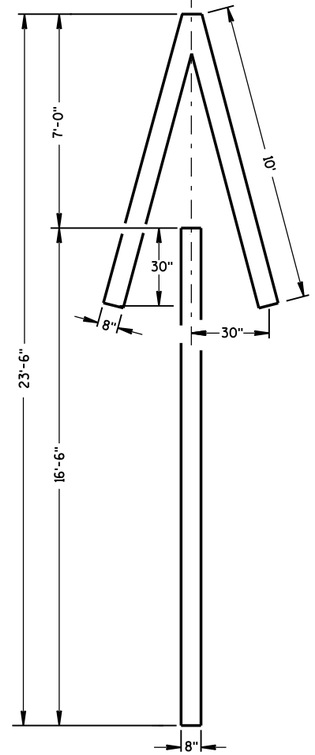
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



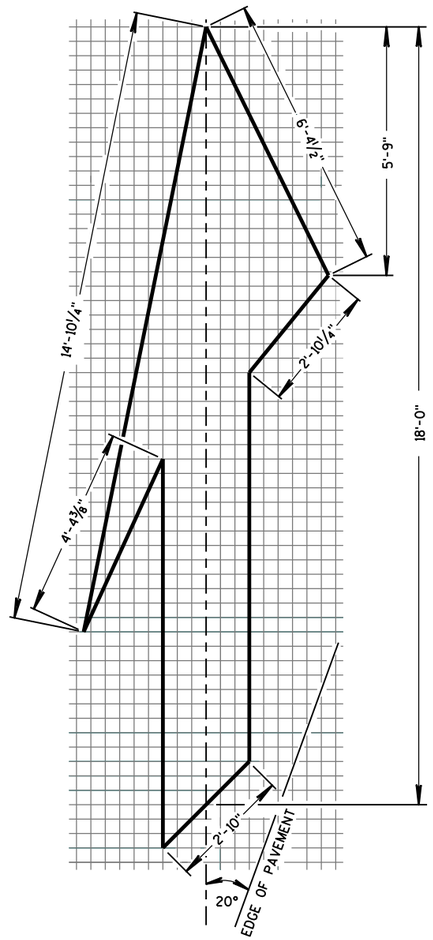
TYPE 2



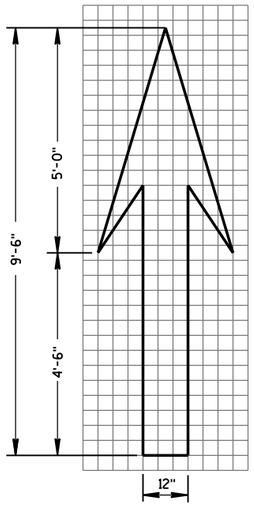
TYPE 6



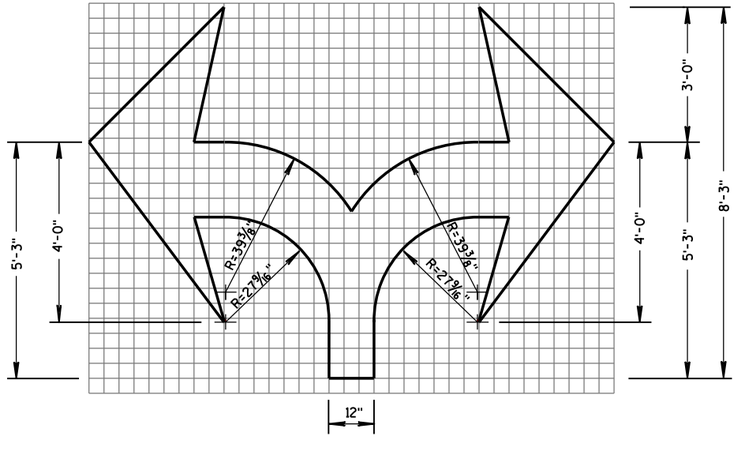
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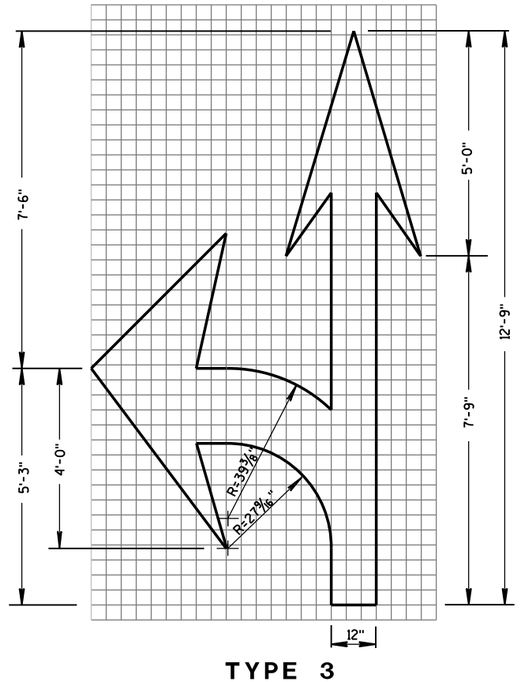
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

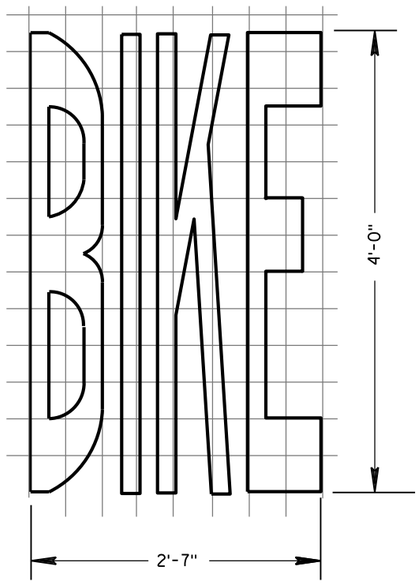
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

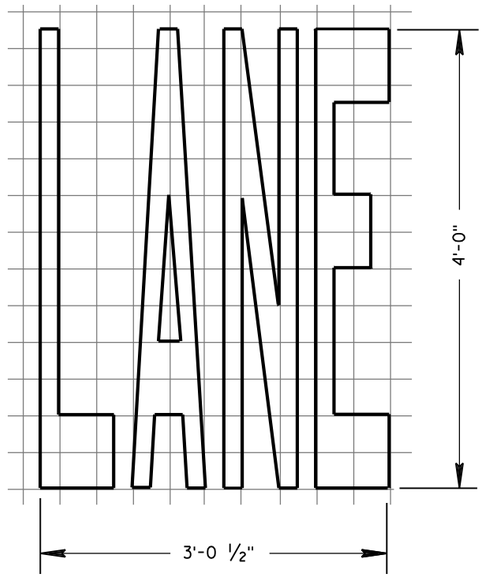
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S.D.D. 15 C 7-14c

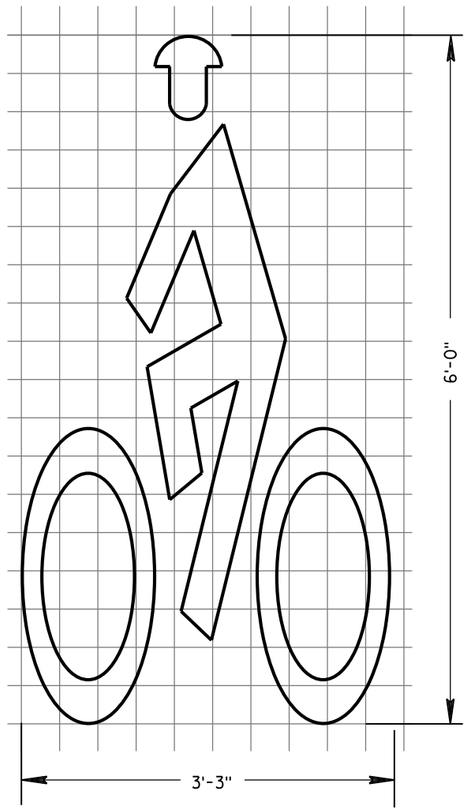
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S.D.D. 15 C 7-14c

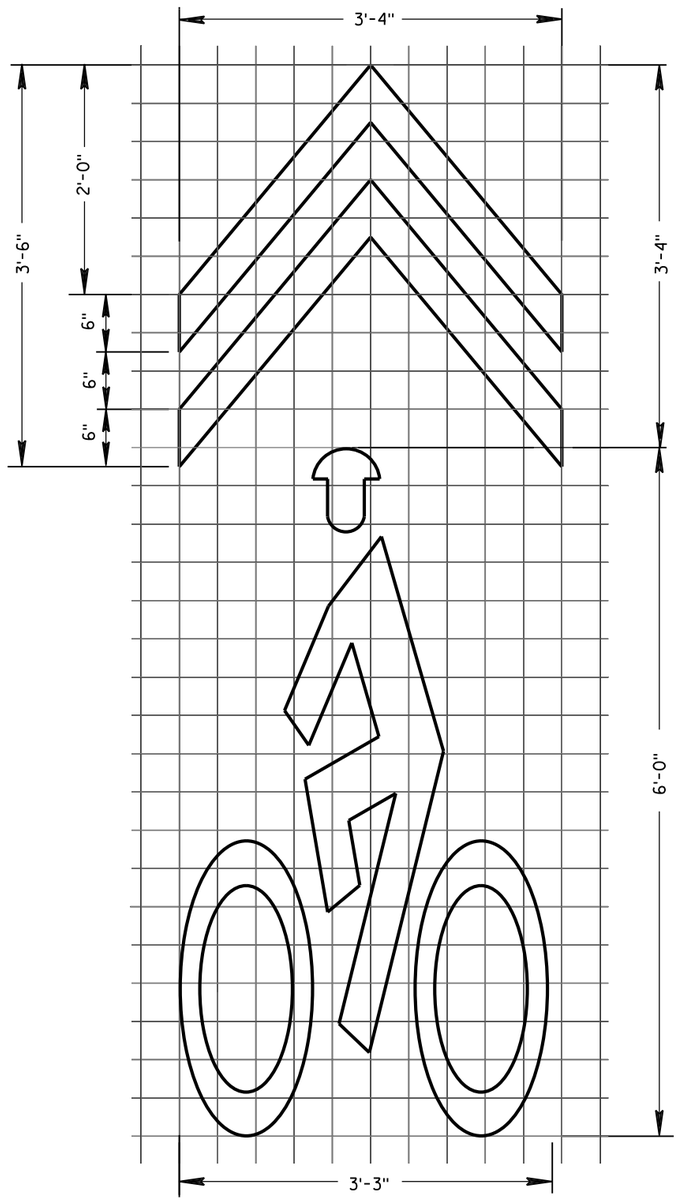




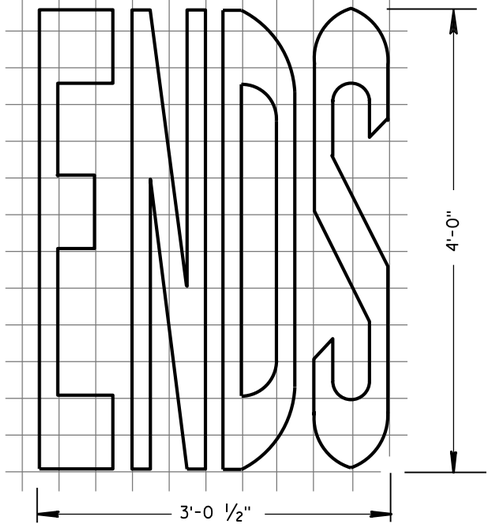
BIKE LANE WORDS



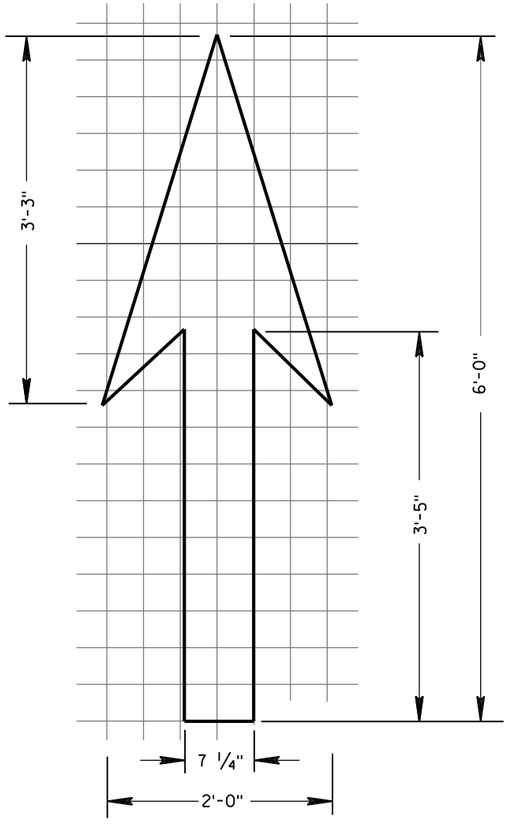
BIKE LANE SYMBOL



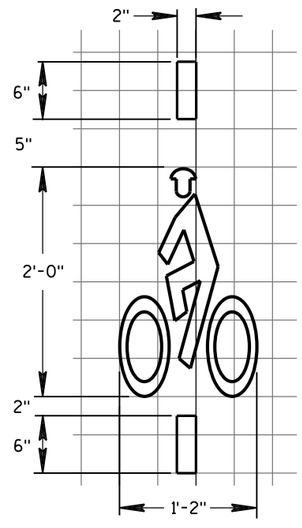
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

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

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

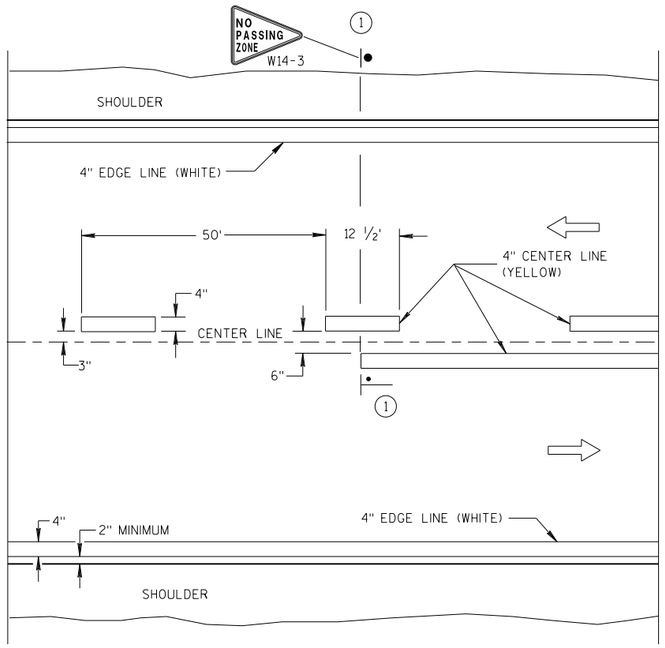
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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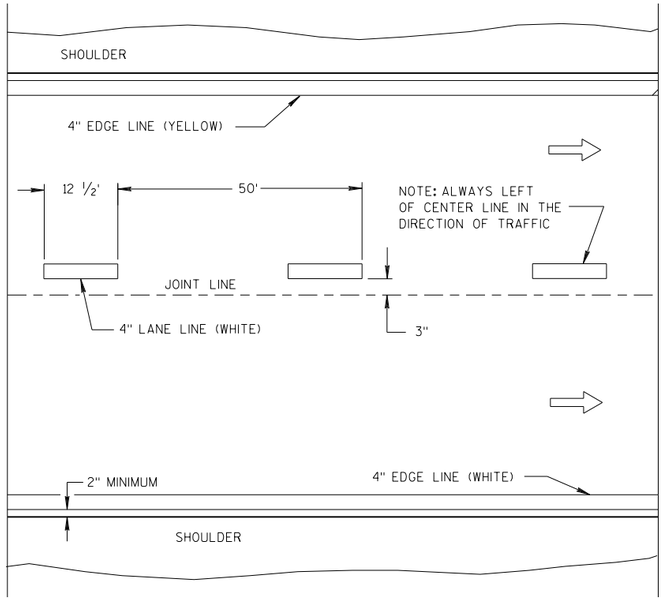
S.D.D. 15 C 7-14e

6

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



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

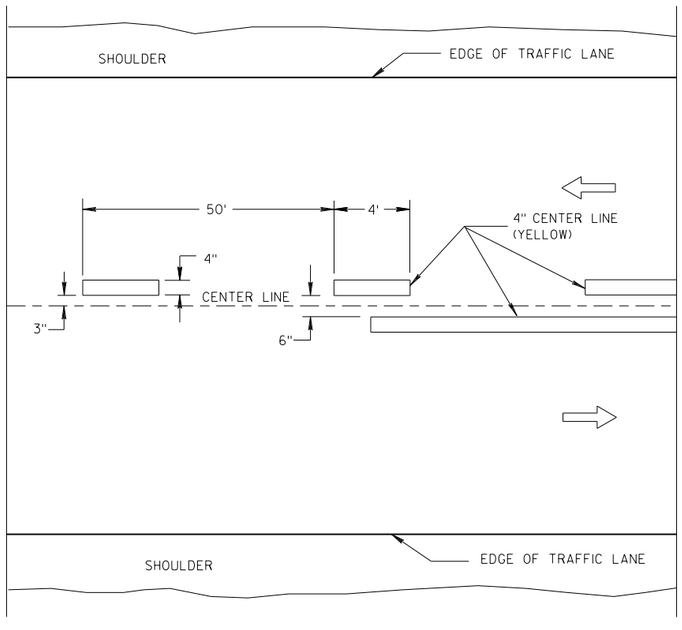
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

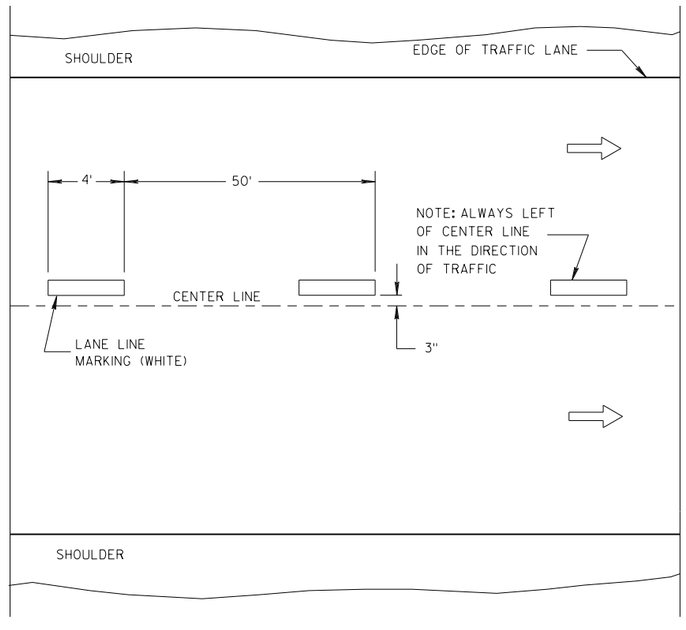
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018 DATE

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STATE SIGNING AND MARKING ENGINEER

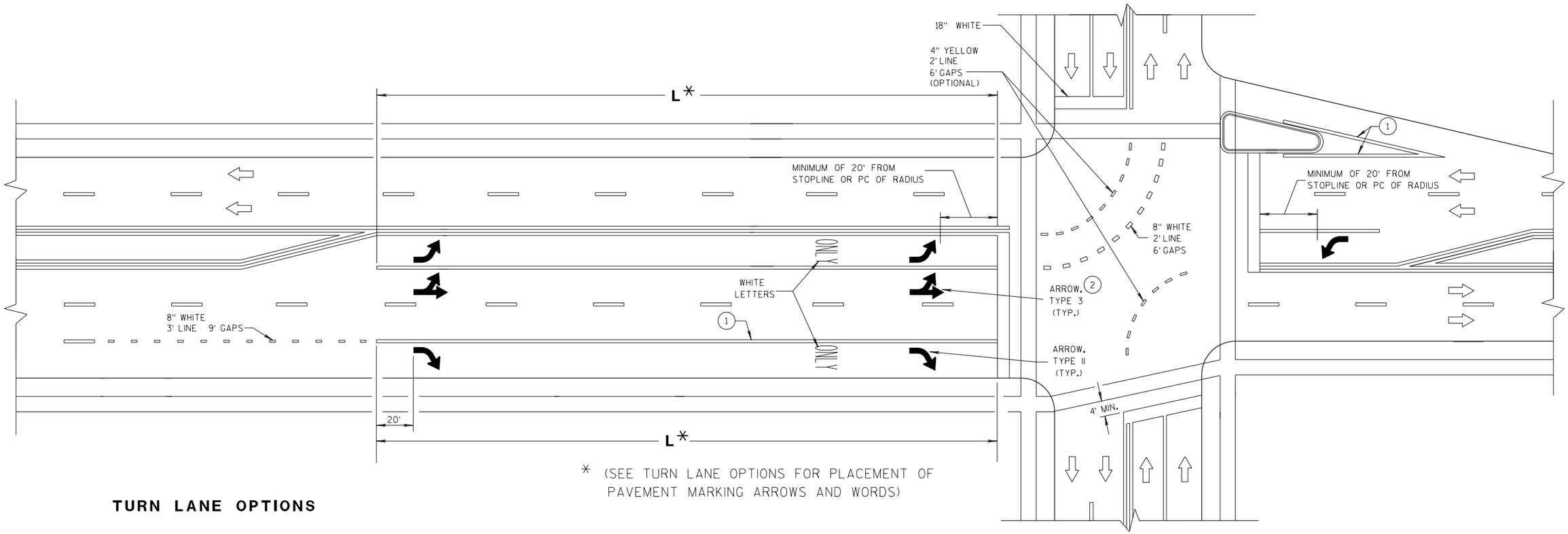
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S.D.D. 15 C 8-19a

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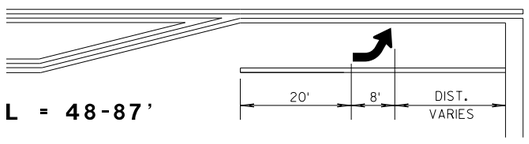
S.D.D. 15 C 8-19a



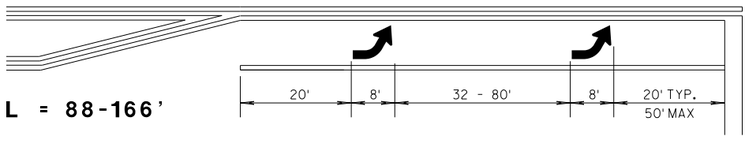
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

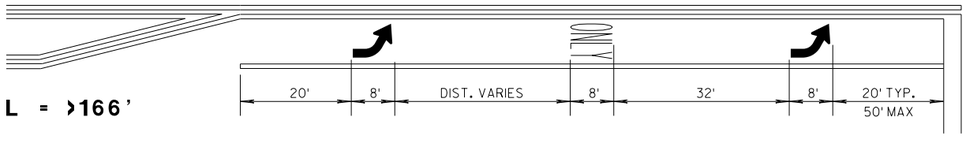
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

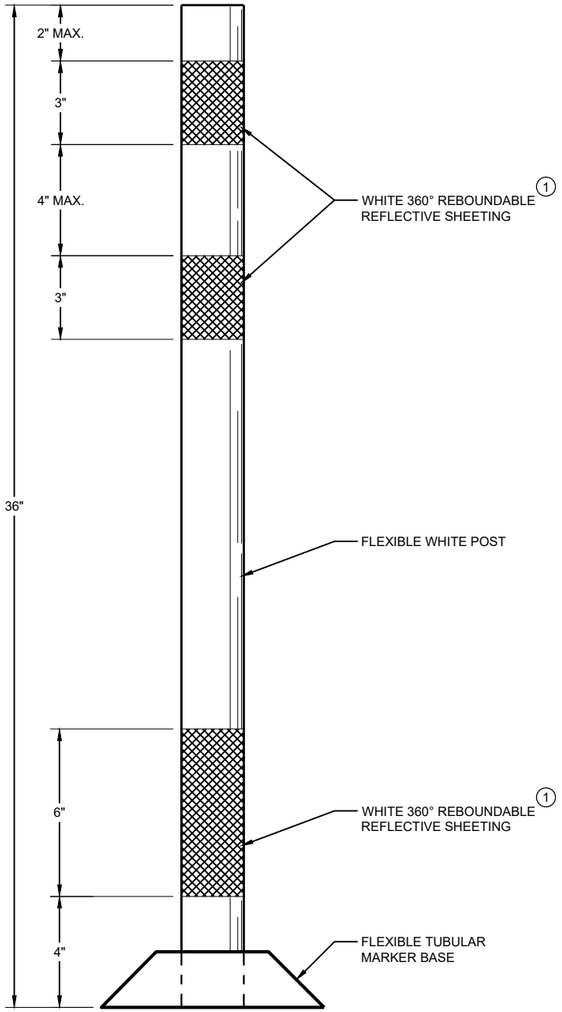
GENERAL NOTES

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

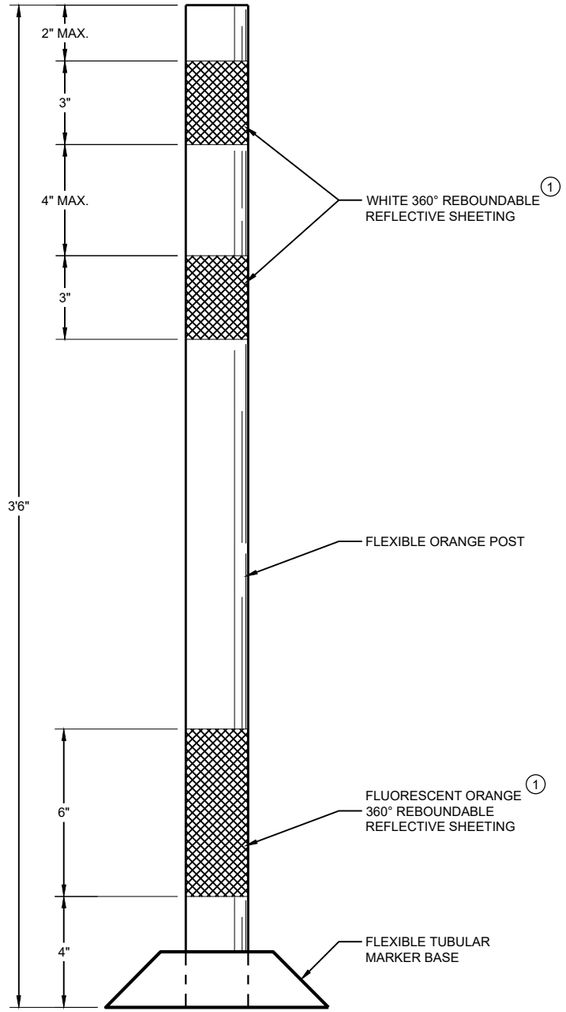
⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

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

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

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

6

SDD 15C11 - 07a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

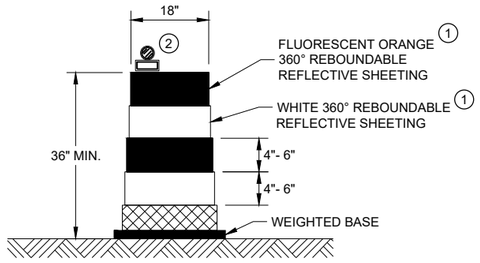
FHWA

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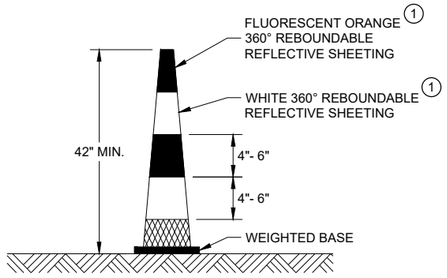
SDD 15C11 - 07a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

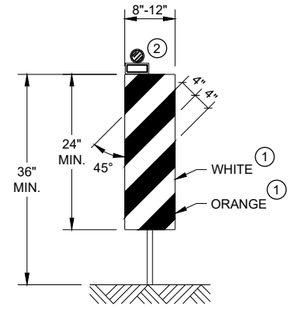


DRUM



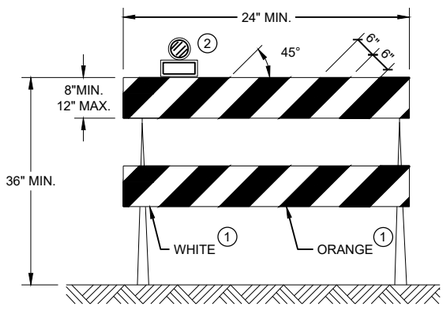
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



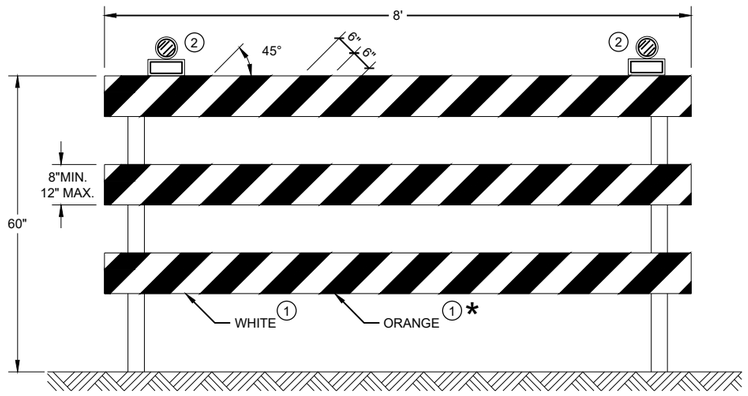
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15C11 - 07b

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LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

FLAGGING

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 REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

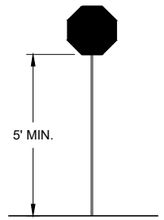
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

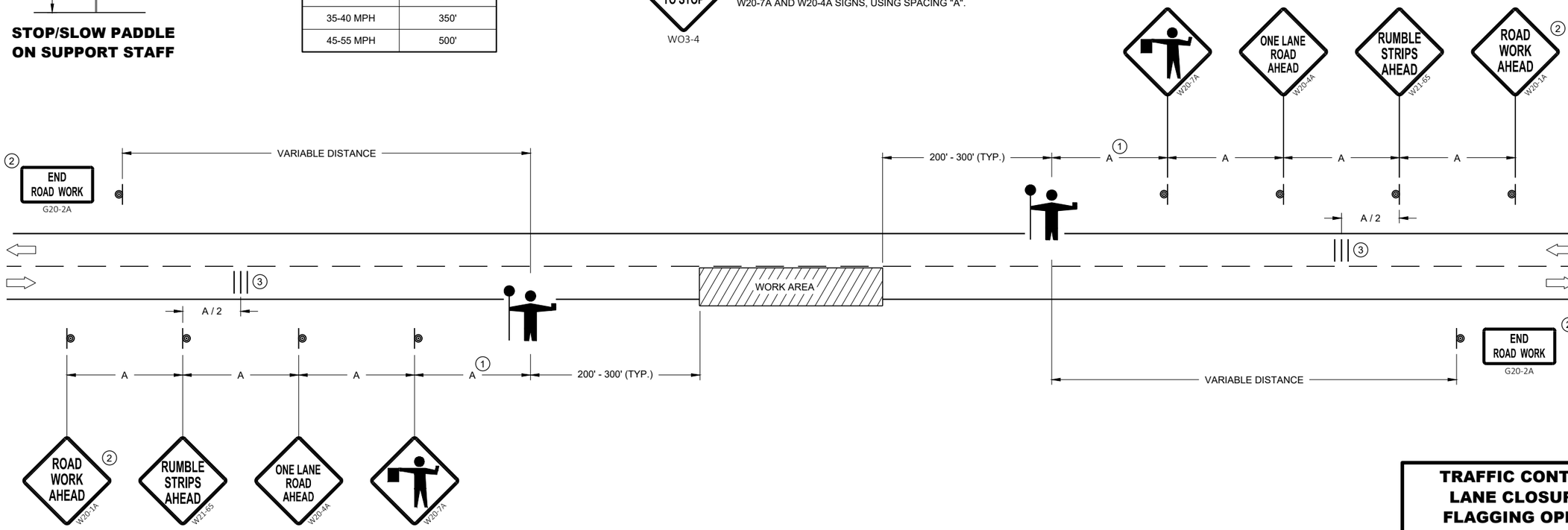
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

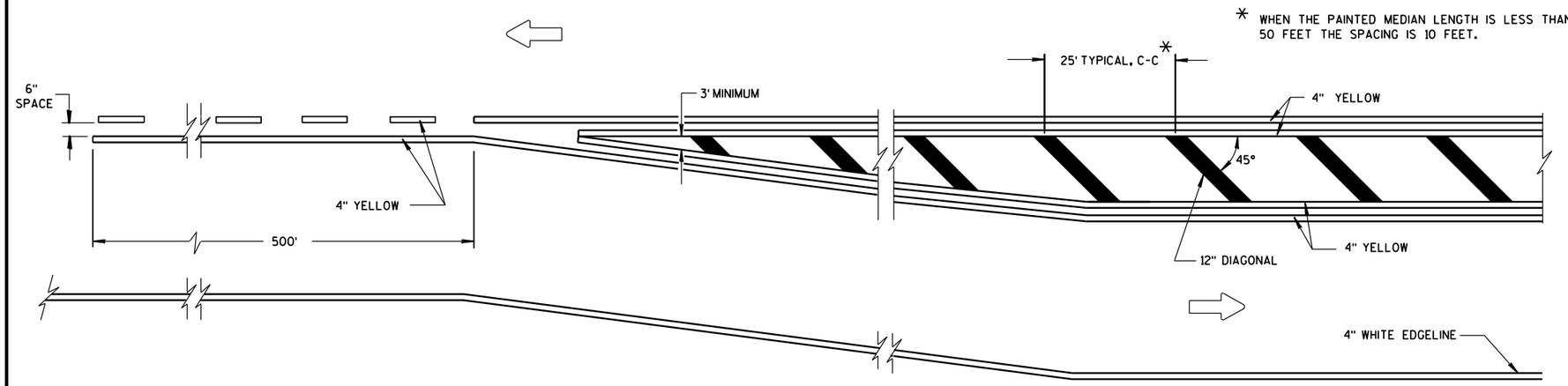
APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

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SDD 15C12 - 07

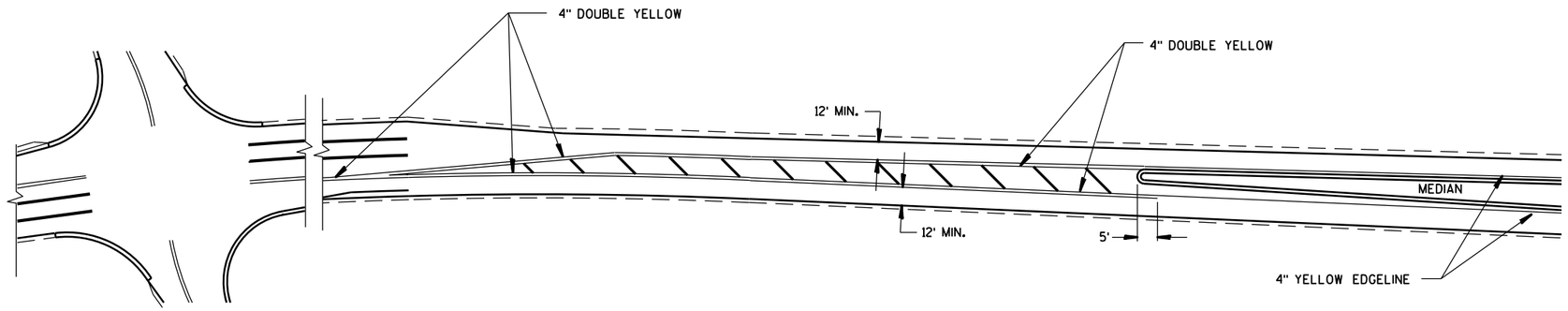


MEDIAN ISLAND DETAIL

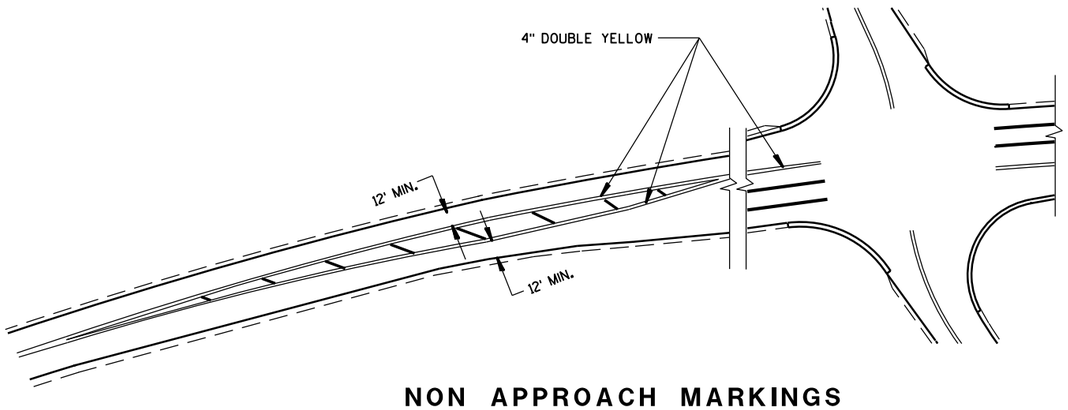
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE FHWA	/S/ Matthew Rauch STATE SIGNING AND MARK ... EER

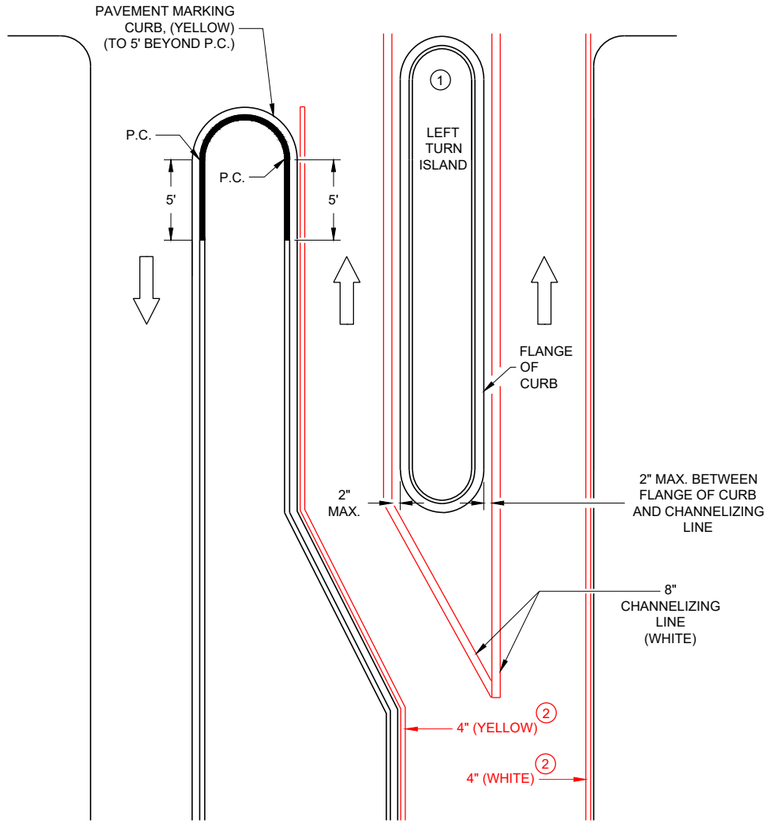
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S.D.D. 15 C 18-4

6

S.D.D. 15 C 18-4

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

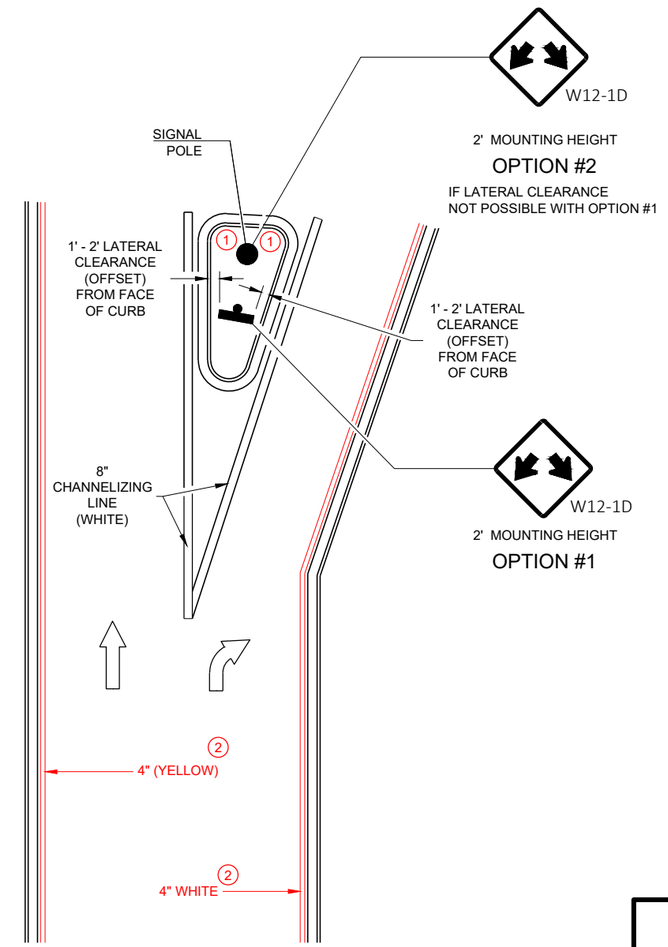
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

DOUBLE ARROW
WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

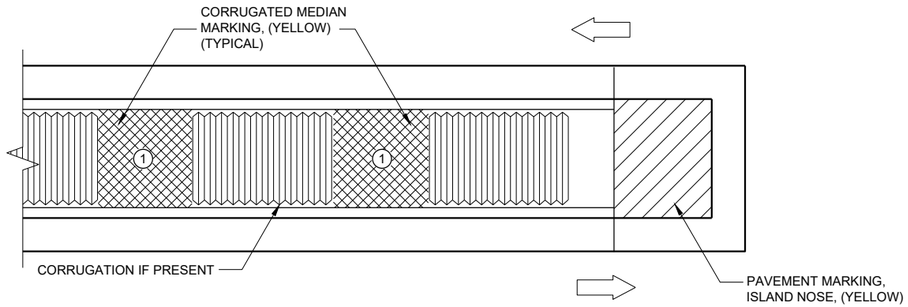
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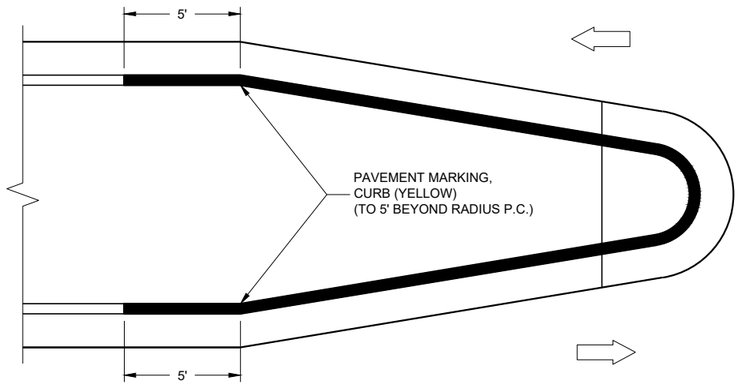
SDD 15C27 - 03a

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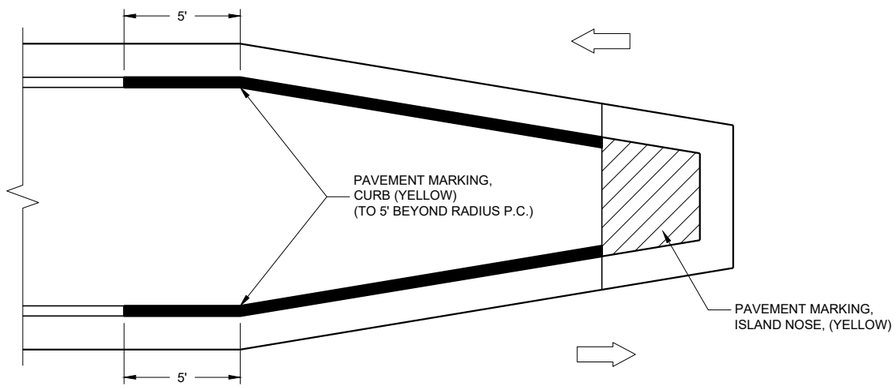
SDD 15C27 - 03a



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**

GENERAL NOTES

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 ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS
(ISLANDS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

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

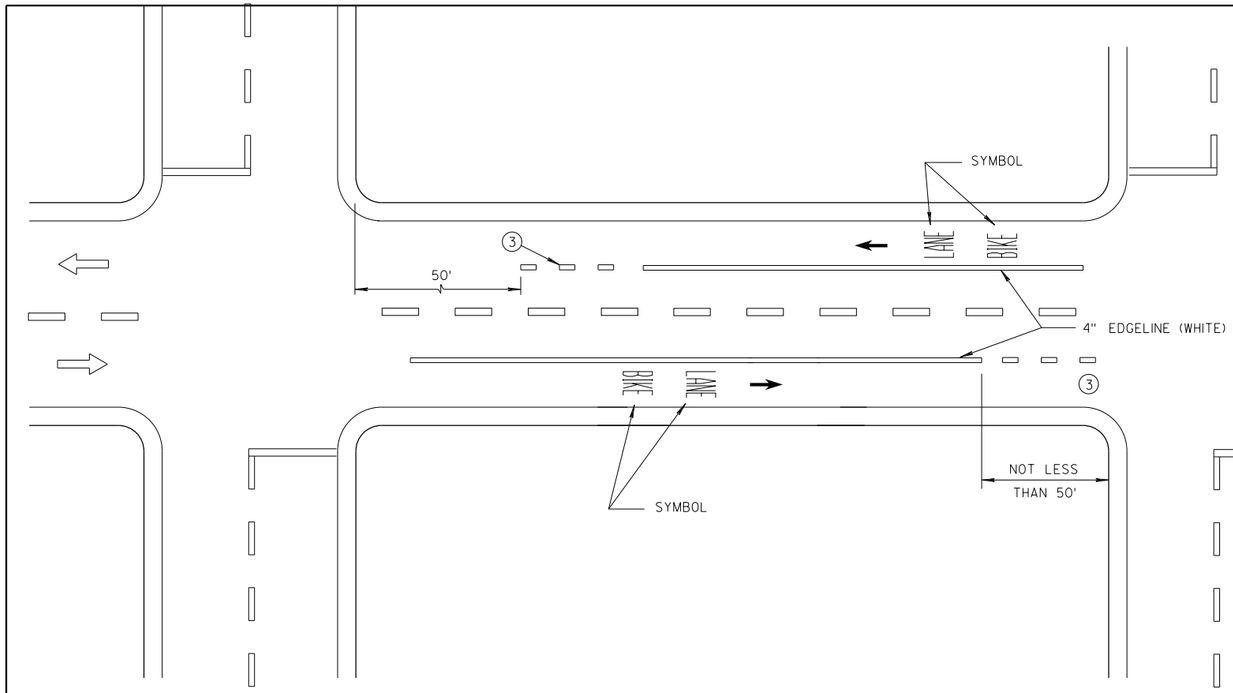
FHWA

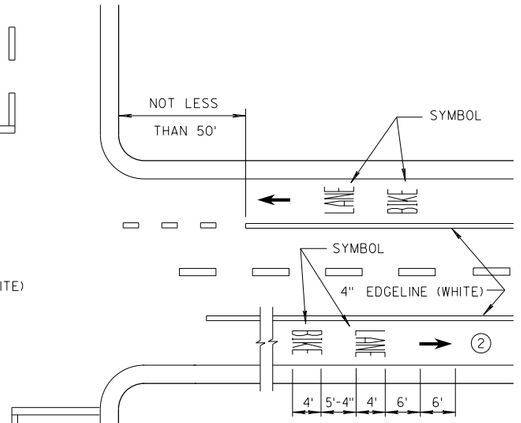
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SDD 15C27 - 03b

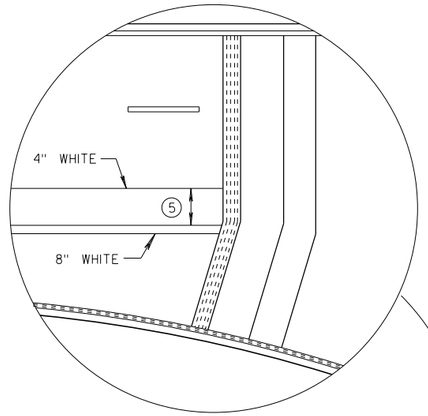
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SDD 15C27 - 03b

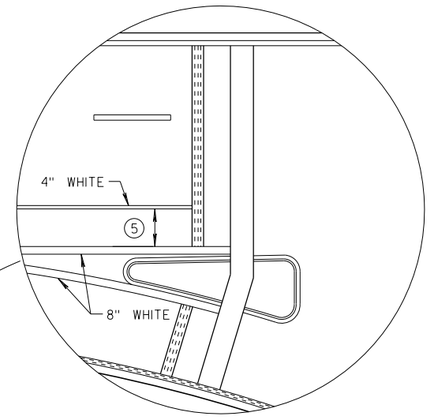




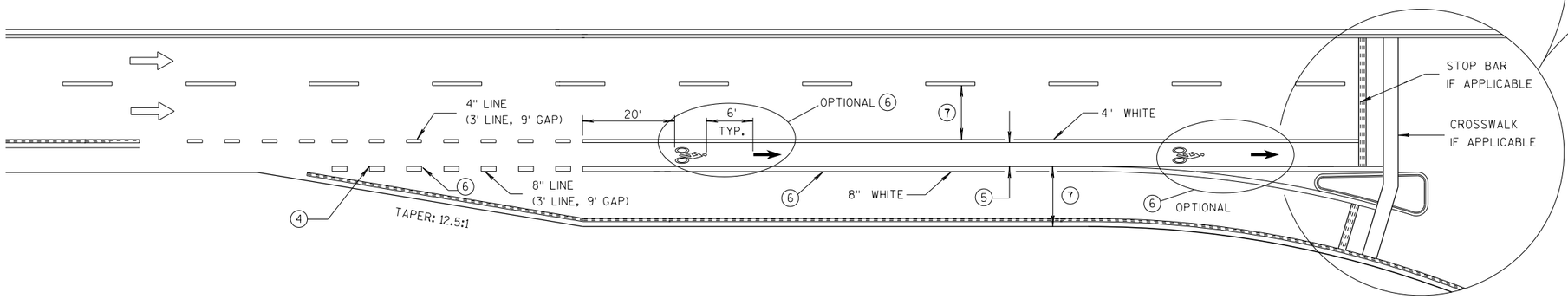
DESIGNATED BICYCLE LANE
NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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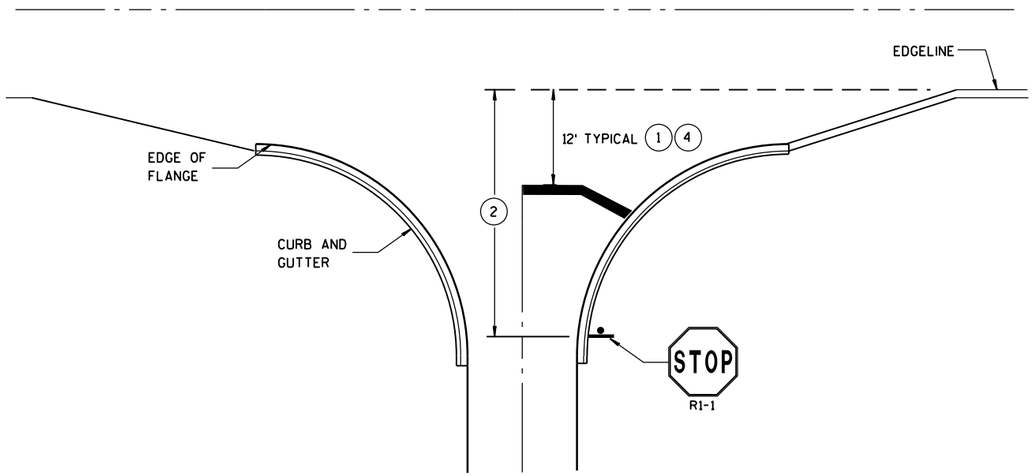
7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR

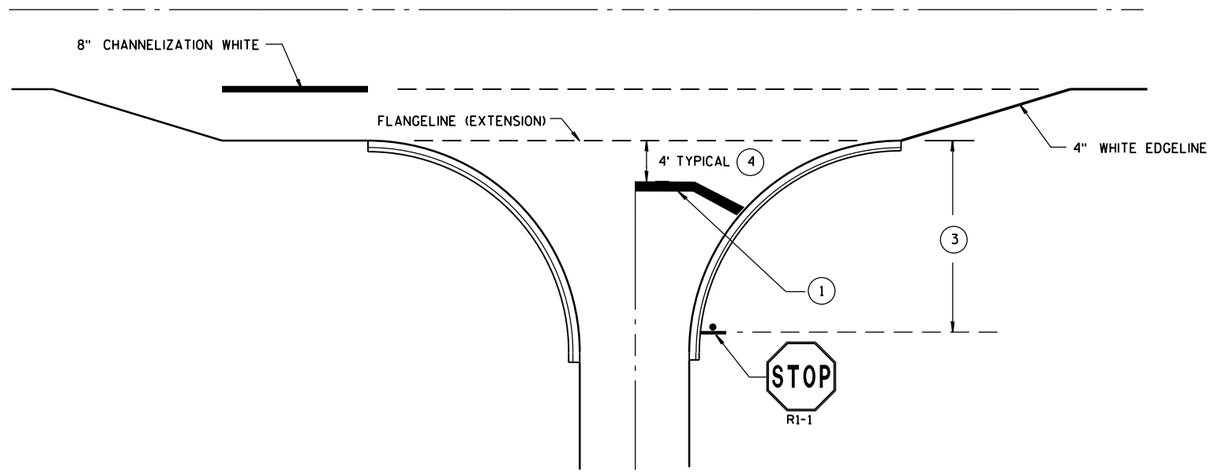
FHWA

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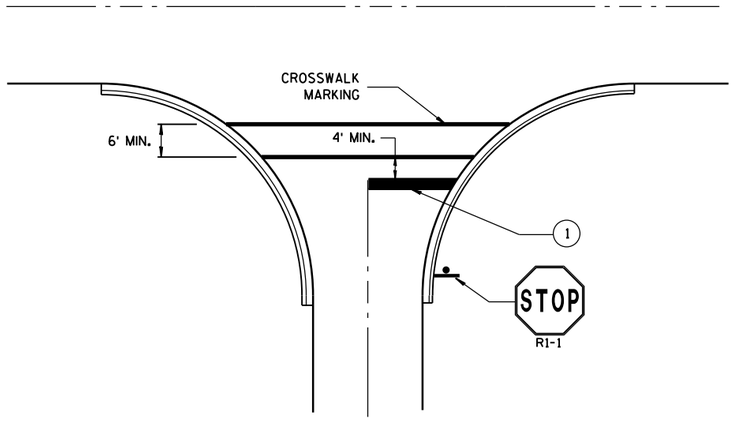
S.D.D. 15 C 29-6a



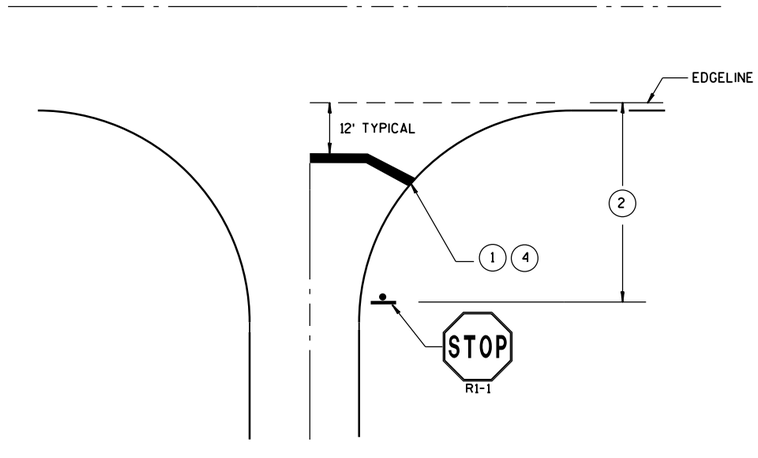
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

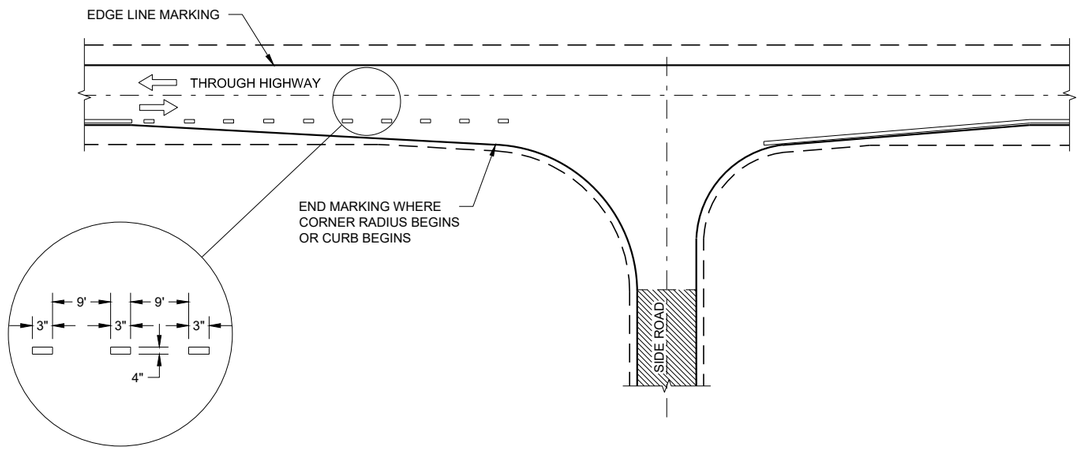
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR 267 NEER

FHWA

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S.D.D. 15 C 33-3



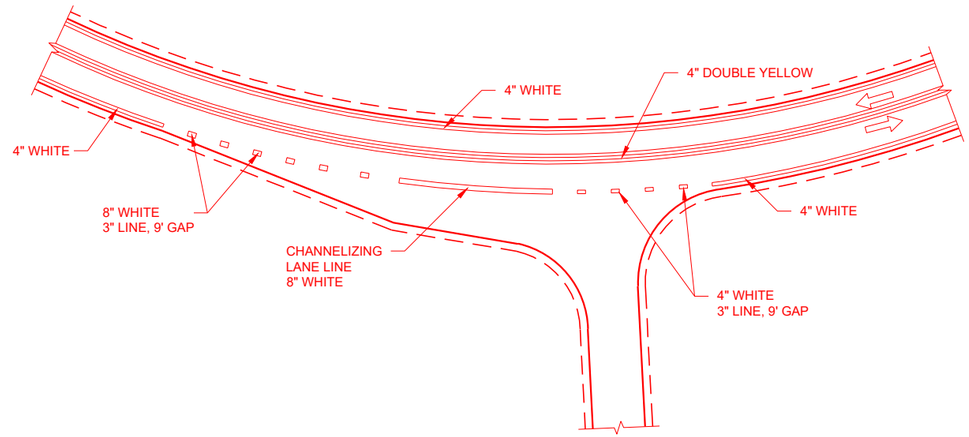
MINOR INTERSECTION

GENERAL NOTES

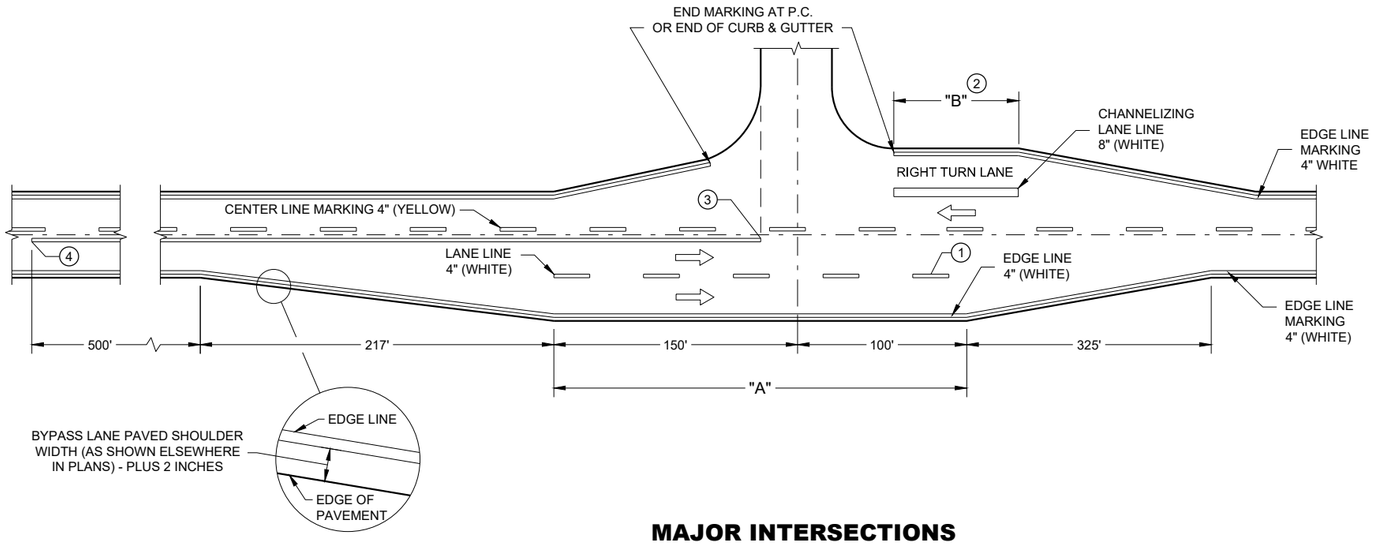
OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

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. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

6

SDD 15C35 - 03a

SDD 15C35 - 03a

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" x 48" 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 OR AS APPROVED BY THE ENGINEER.

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 4 OR MORE 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 ONE HALF 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.

(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.

(2) IF NEEDED. USE ONLY IF DESIGN SPEED IS 10 MPH LESS THAN POSTED SPEED.

LEGEND

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



OR





R2-1
48"X60"

OR



R2-1
48"X60"

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES.

LOCATED 400 FEET BEYOND THE W20- 5G SIGN.

SEE SDD 15D12b FOR SIGN PLACEMENT.

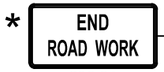
(BLACK AND WHITE)

LOCATED 700 FEET BEYOND W03-5 SIGN

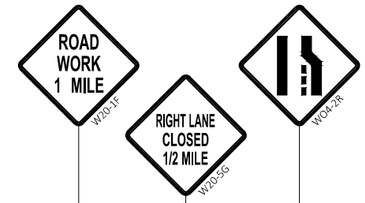


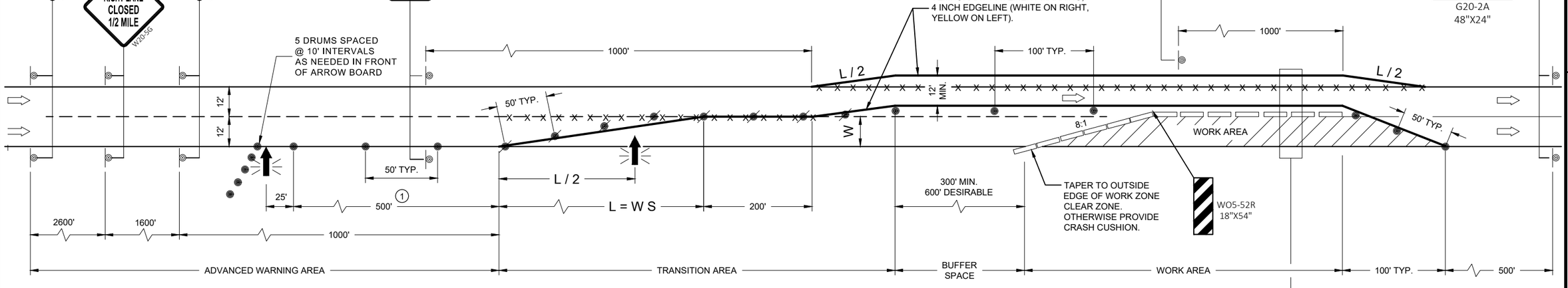


* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

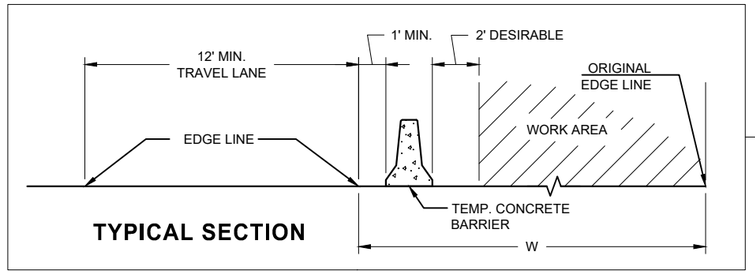


G20-2A
48"X24"





L, TAPER LENGTH (MPH)												
SPEED (MPH)	W, LATERAL OFFSET (FT)											
	1	2	3	4	5	6	7	8	9	10	11	12
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840



TYPICAL SECTION

TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINE

FHWA

SDD 15D03-05

SDD 15D03-05

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

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" X 48" 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 R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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.

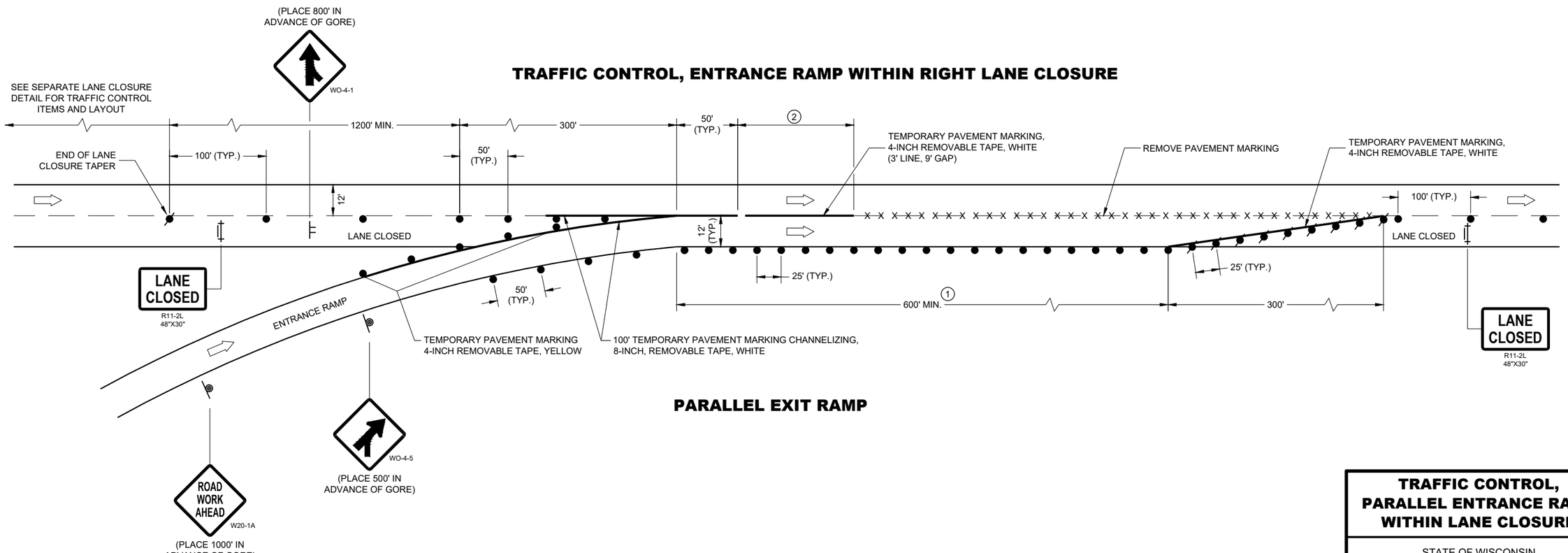
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05a

6

SDD 15D15 - 05a

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

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" X 48" 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 R11-2L "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 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

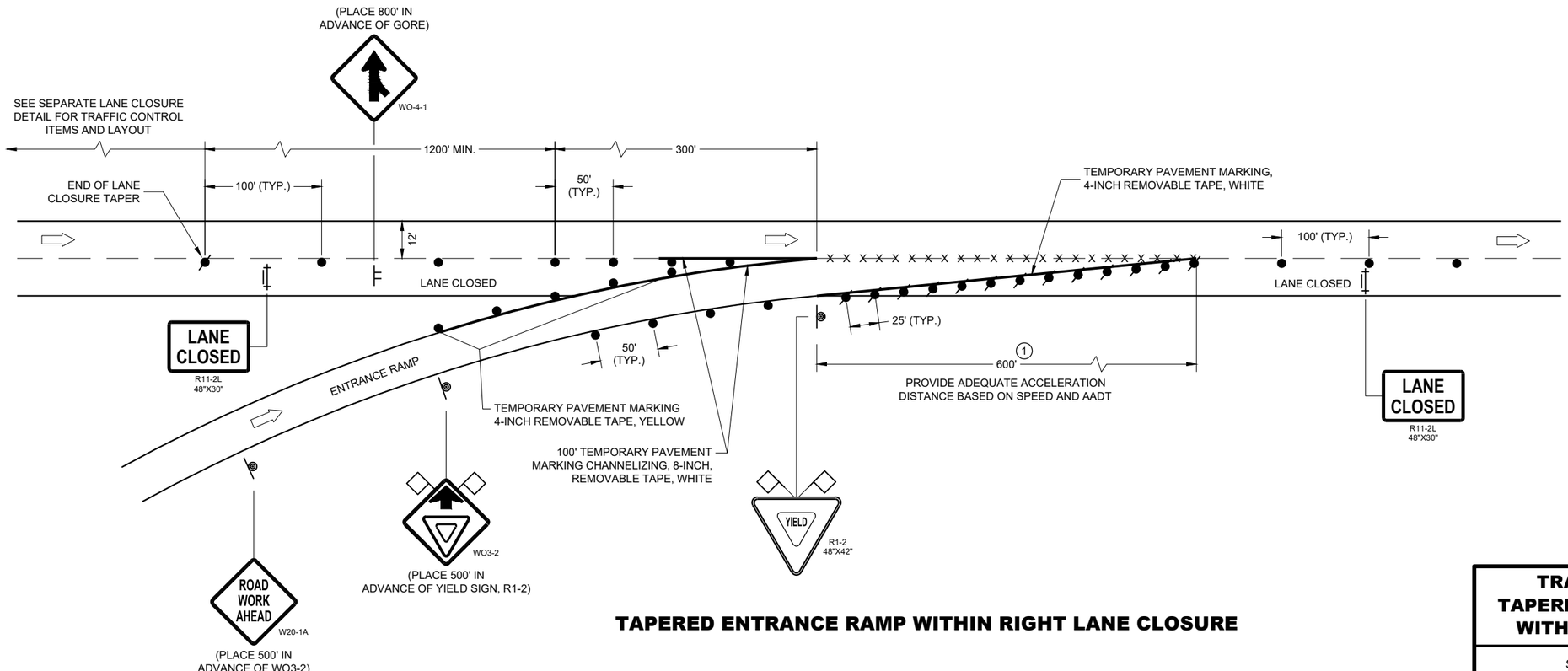
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05c

6

SDD 15D15 - 05c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

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" X 48" 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 R11-2L "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 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

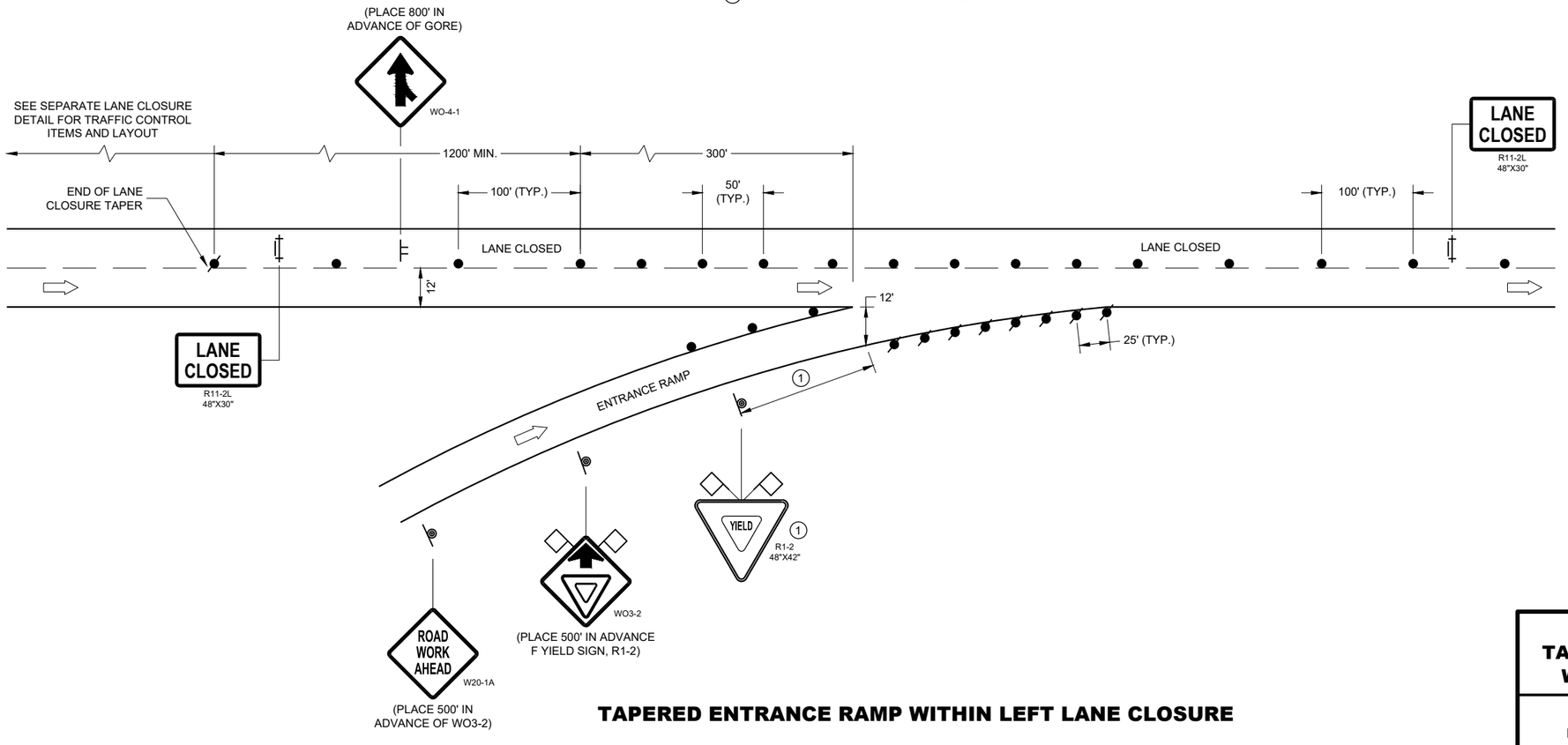
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05d

6

SDD 15D15 - 05d

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

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" X 48" 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 R11-2L "LANE CLOSED" SIGNS.

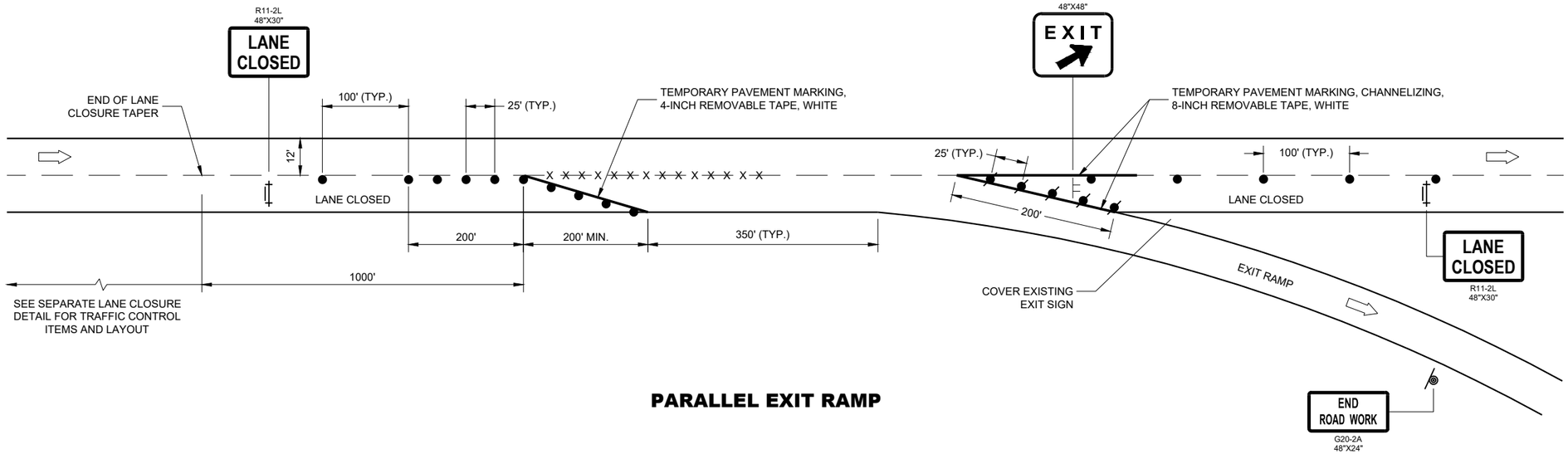
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT 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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05e

6

SDD15D15 - 05e

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF 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 WORK IS NOT IN PROGRESS.

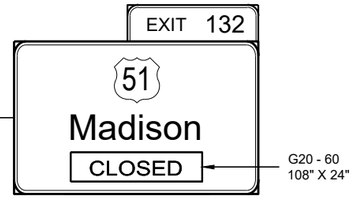
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

** PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"

OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

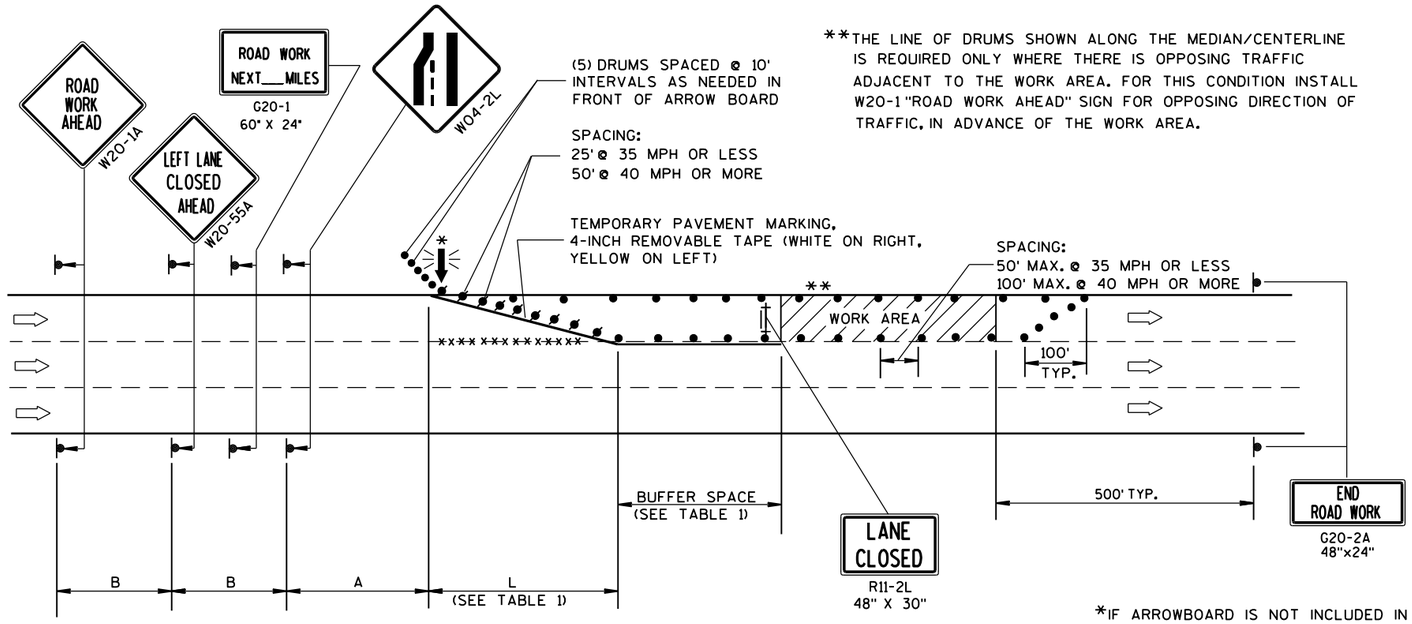
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D16 - 04



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

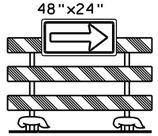


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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

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

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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.

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

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

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

6

S.D.D. 15 D 20-4

6

S.D.D. 15 D 20-4

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
W / S	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L= WS AT 45 MPH OR GREATER
L = WS² / 60 AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = 1/3L

GENERAL NOTES

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

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

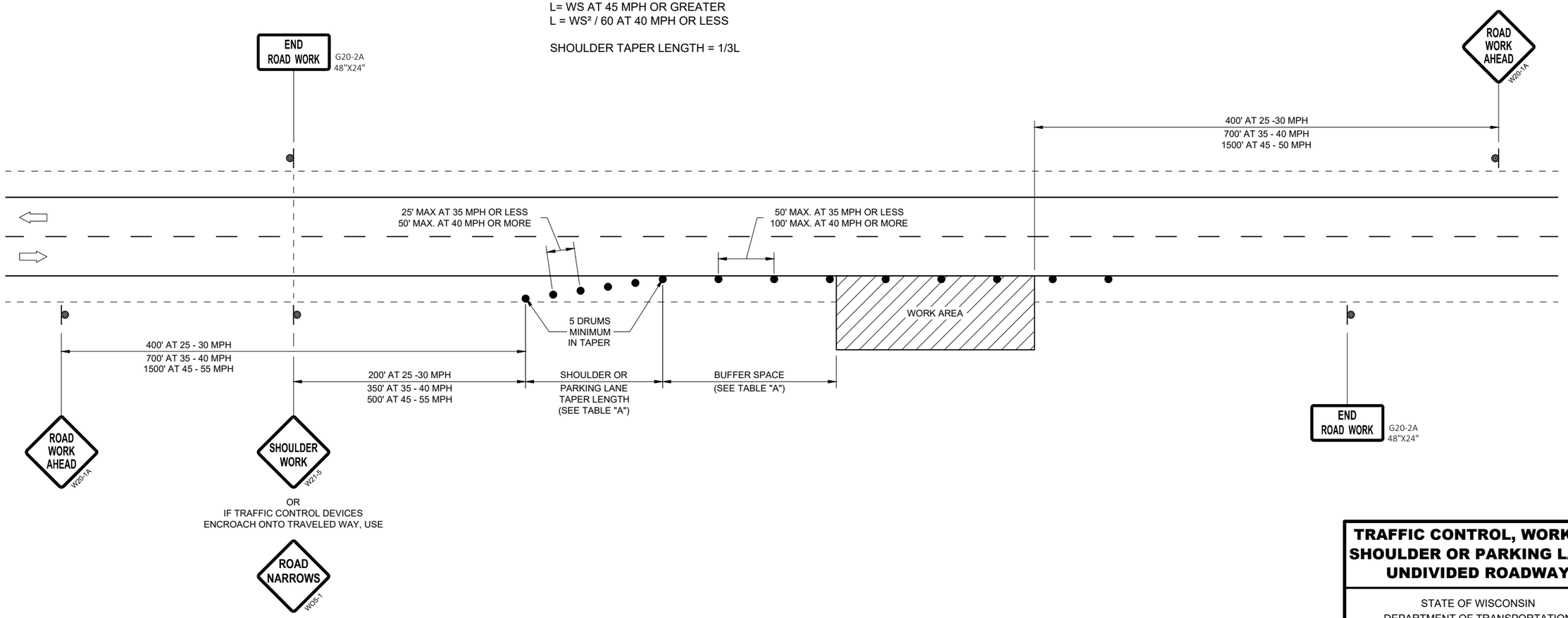
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY RESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

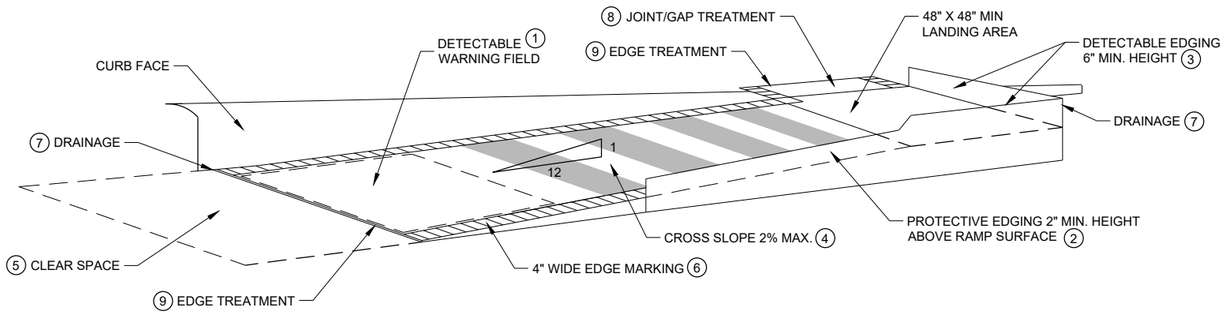
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

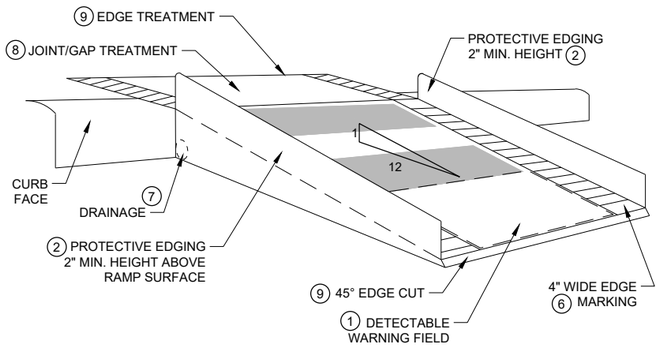
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

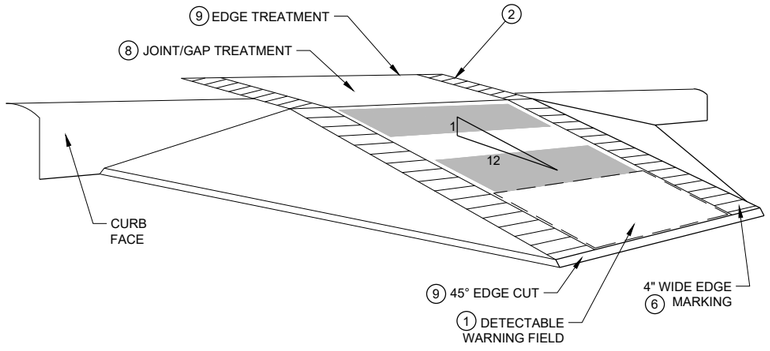
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SDD 15D28 - 03



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

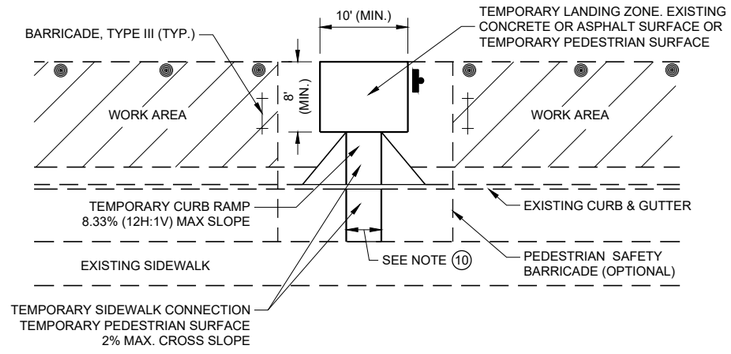
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

GENERAL NOTES

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

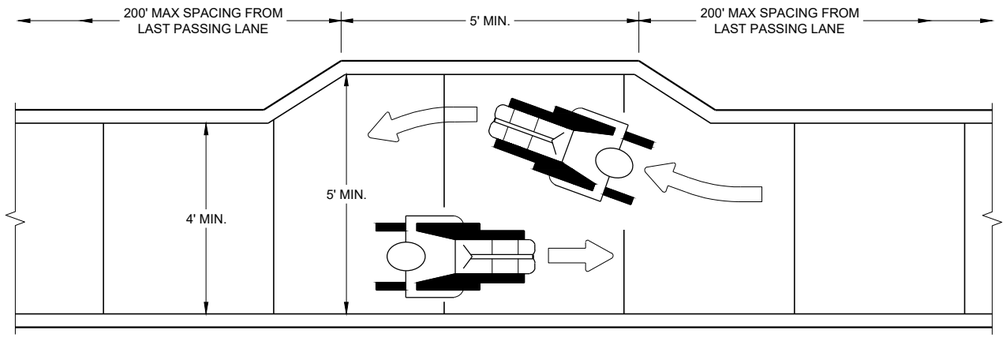
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

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

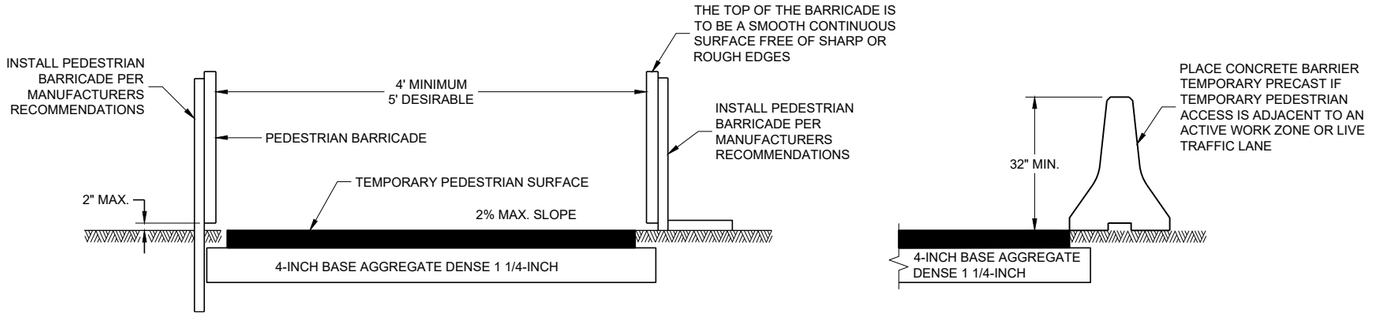


TEMPORARY BUS STOP PAD

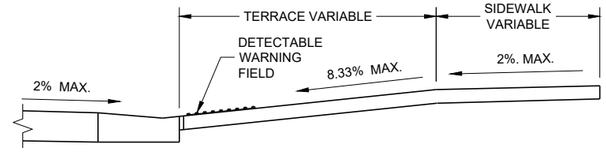
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



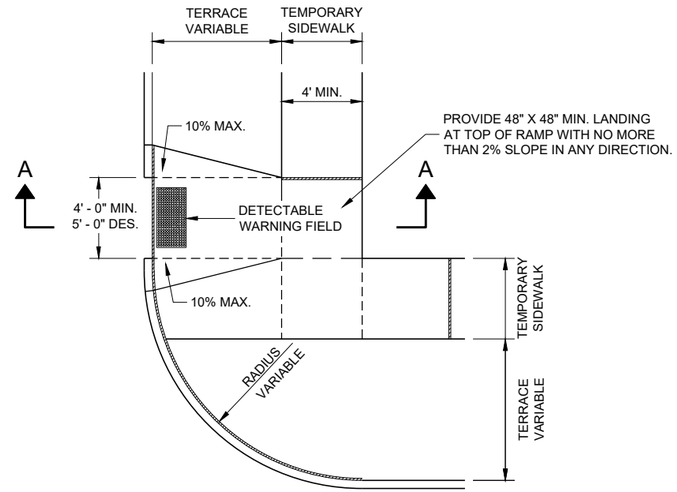
NARROW SIDEWALK PASSING DETAIL



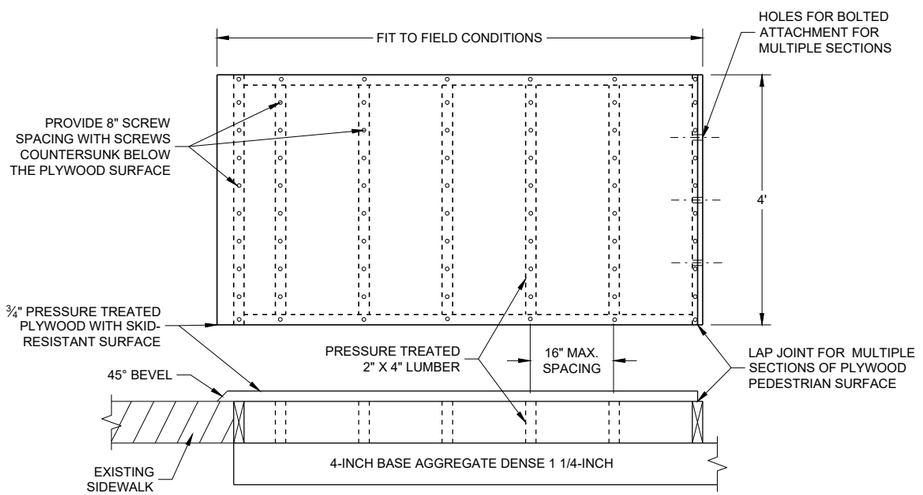
TEMPORARY PEDESTRIAN ACCESS



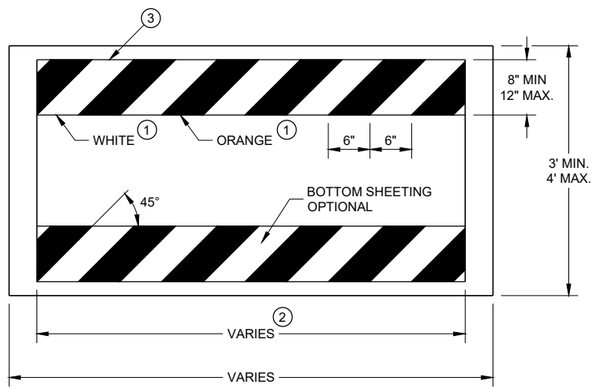
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

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

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

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

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D30 - 05c

6

SDD 15D30 - 05c

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLAGS, 16" X 16" MIN. (ORANGE)

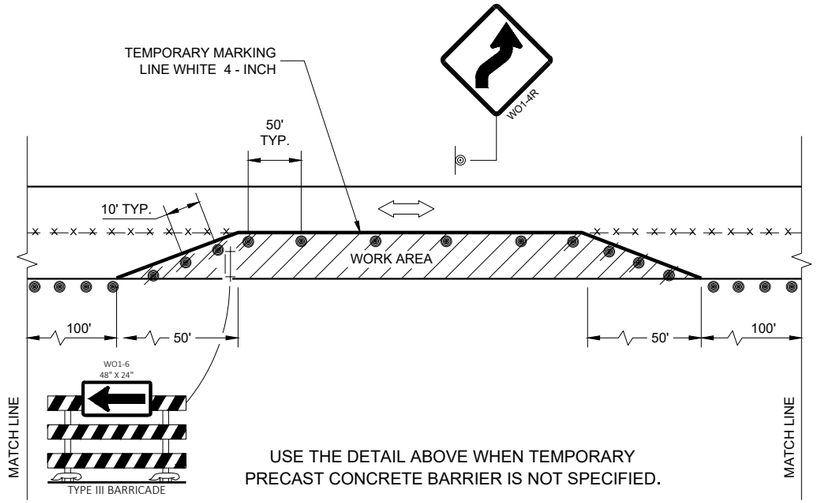
REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

ASPHALTIC PAVEMENT WIDENING

CONCRETE BARRIER TEMPORARY PRECAST

TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" 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 OR AS APPROVED BY THE ENGINEER.

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

(1) 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.

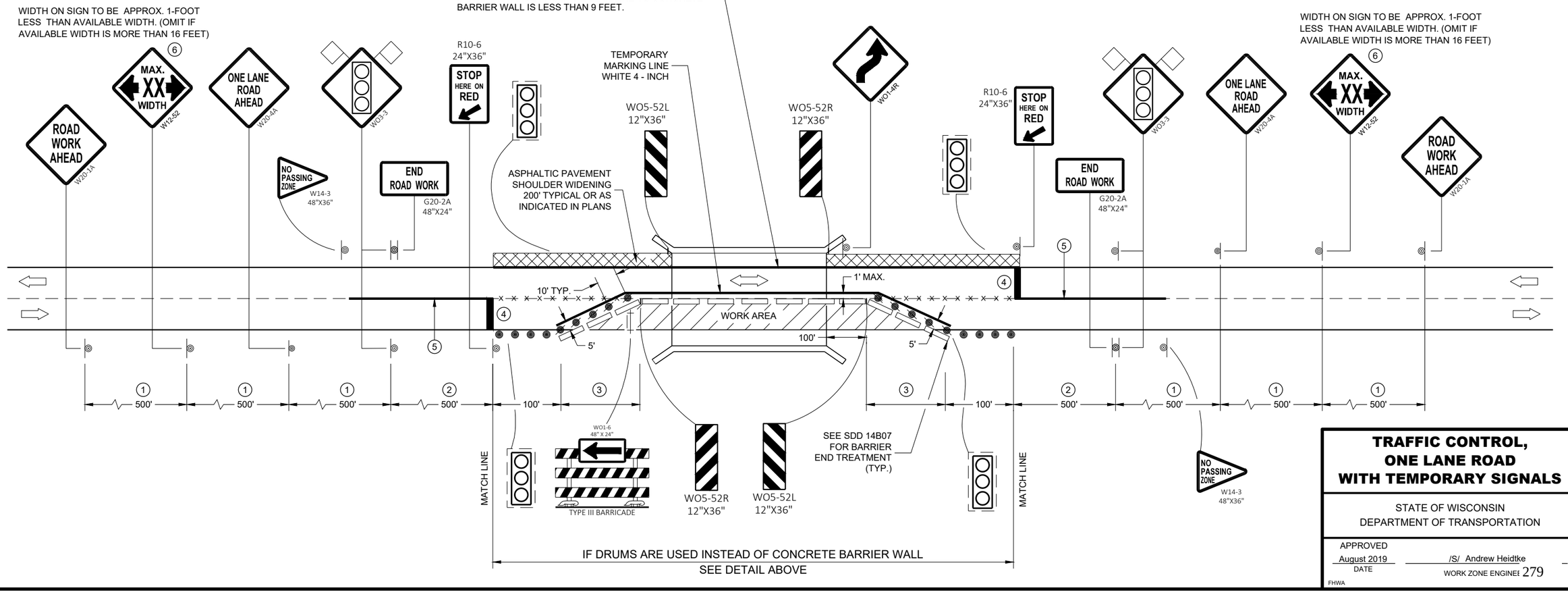
(2) USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.

(3) DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.

(4) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.

(5) 700 FOOT TEMPORARY MARKING LINE, DOUBLE YELLOW 4 - INCH . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(6) SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

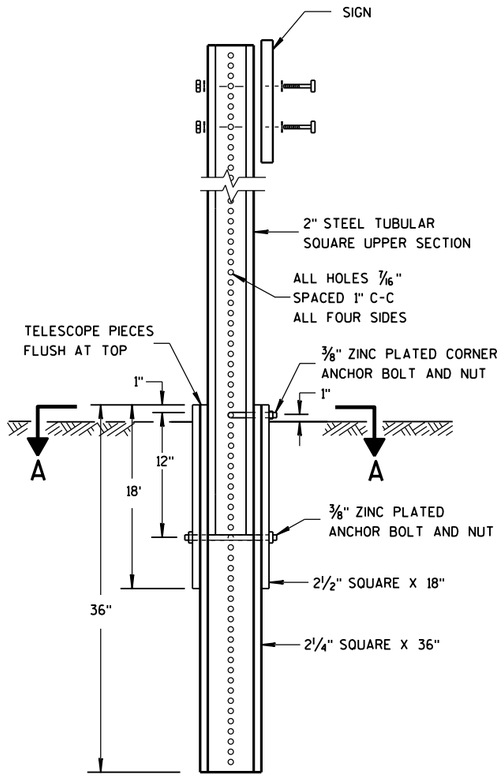
APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

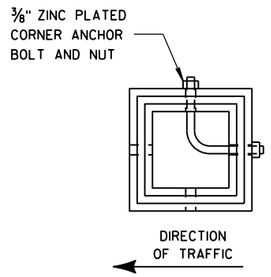
FHWA

SDD 15D33 - 06

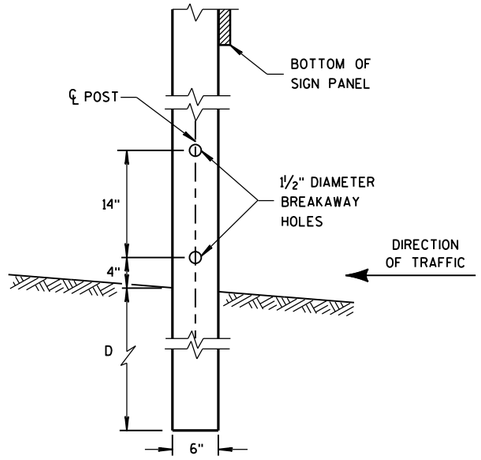
SDD 15D33 - 06



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



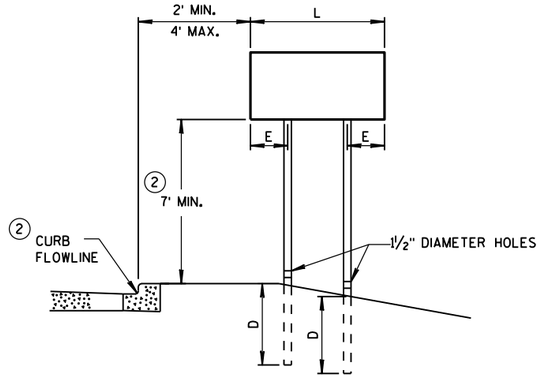
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

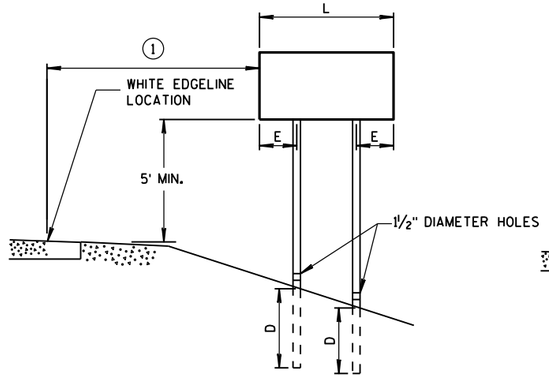
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

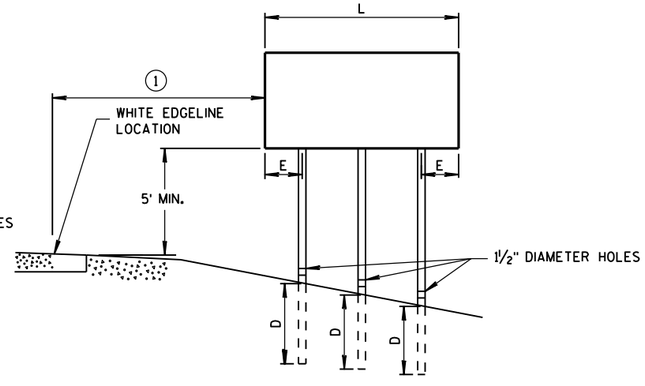
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

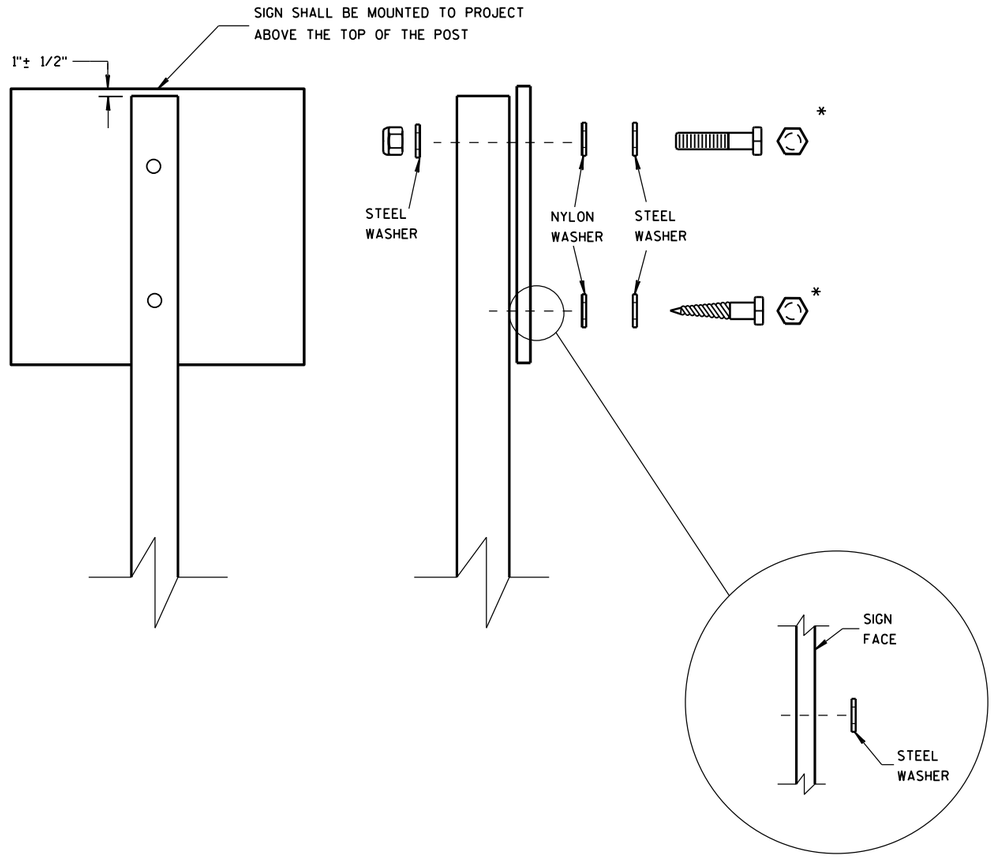
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

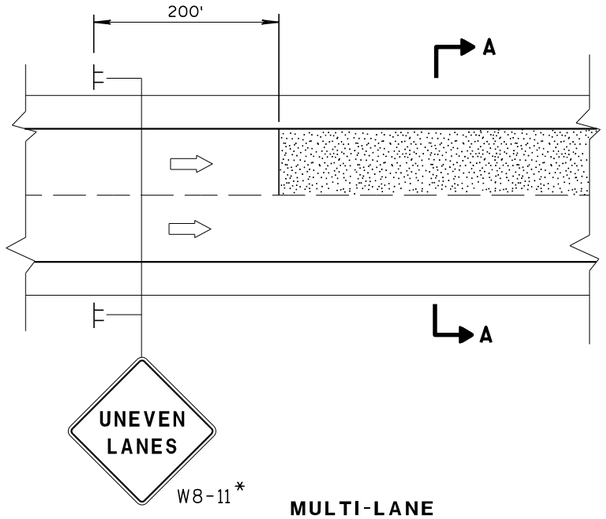
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

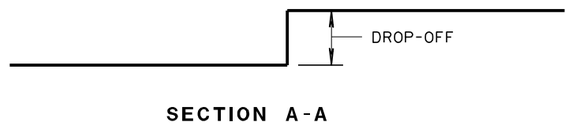
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



MULTI-LANE

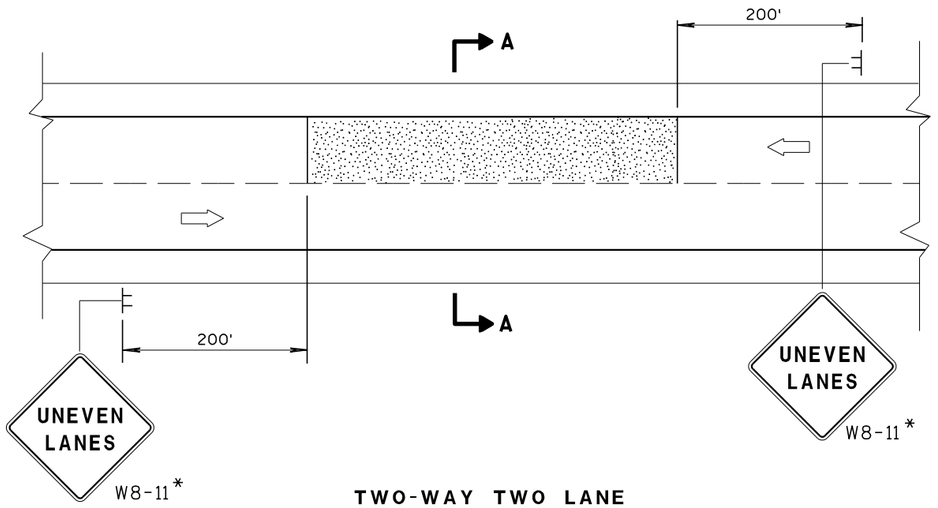


SECTION A-A

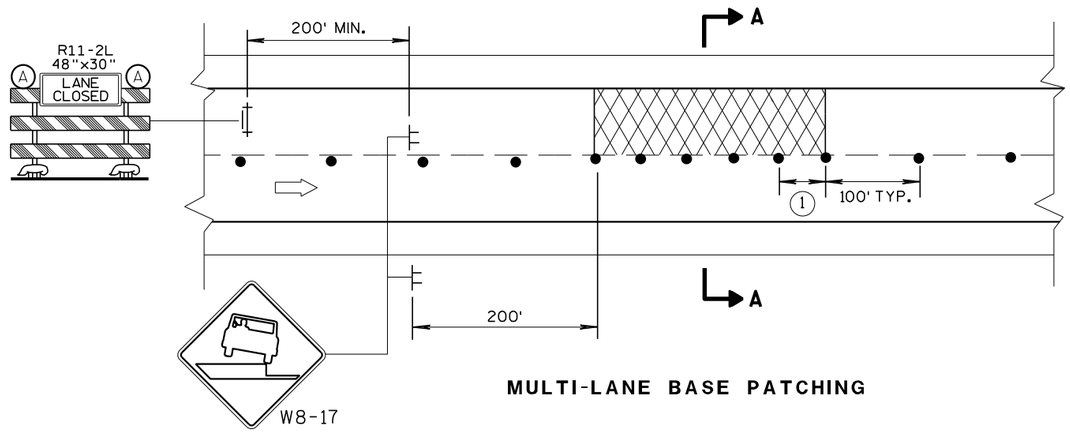
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SECTION A-A

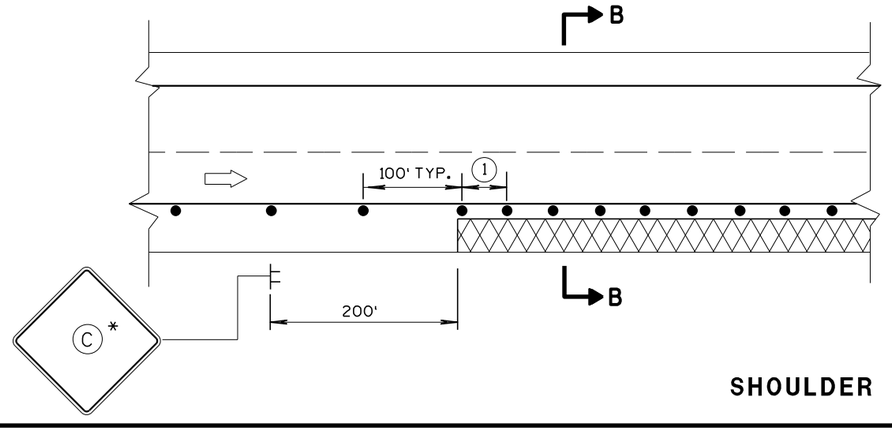


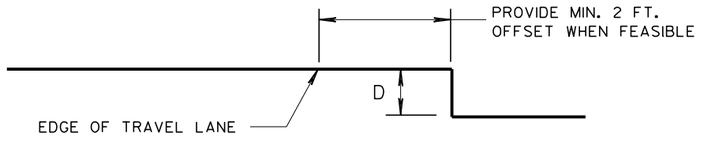
TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew H
WORK ZONE EN
FHWA

6

S.D.D. 15 D 39-2

6

S.D.D. 15 D 39-2

LEGEND

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

GENERAL NOTES

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

ALL SIGNS ARE 48"×48" 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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER 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.

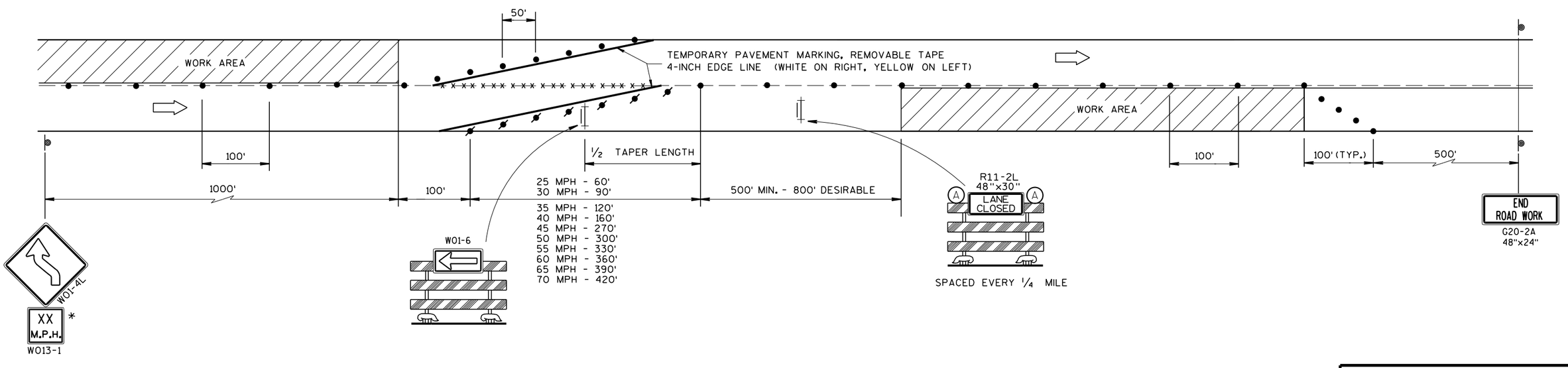
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

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. THE LANE CLOSURE MUST 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.



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew I
WORK ZONE E
FHWA

6

S.D.D. 15 D 40-1

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

RIGHT CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR)

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

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

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

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

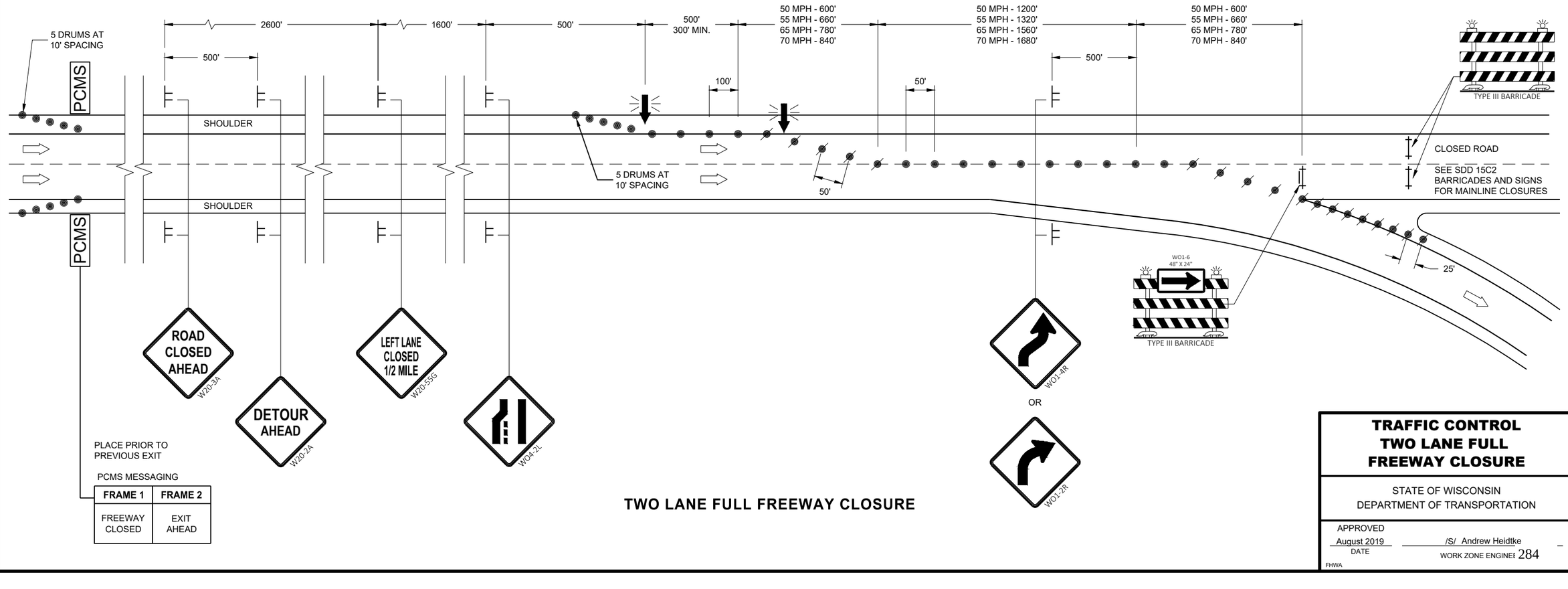
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP REINFORCE THE DRUM LINE.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

REFER TO DETOUR ROUTES FOR TRAFFIC GUIDANCE SIGNING.

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



TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL TWO LANE FULL FREEWAY CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

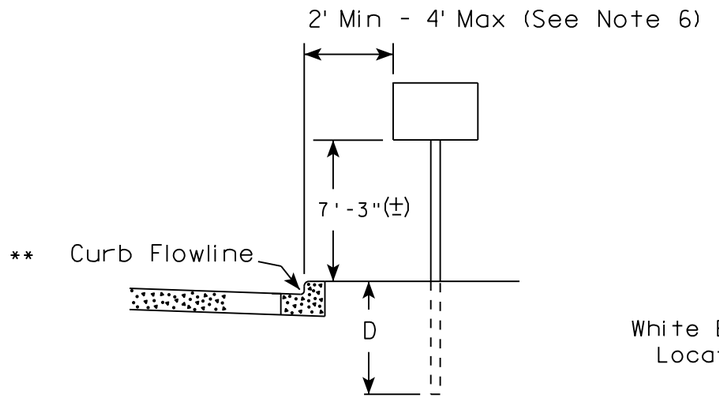
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6

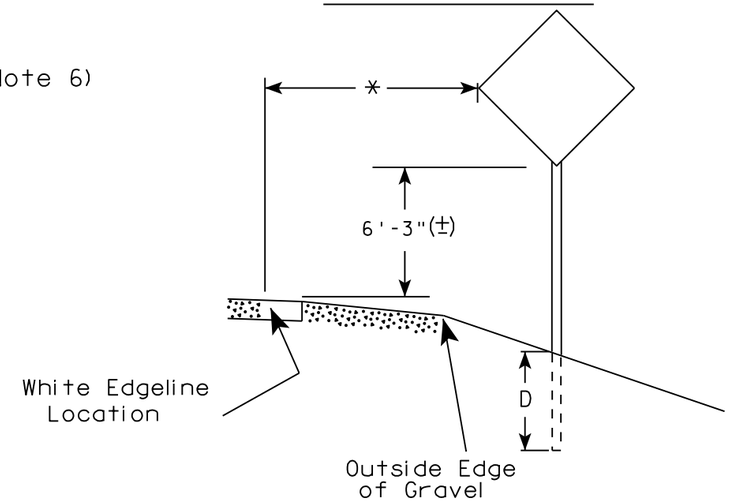
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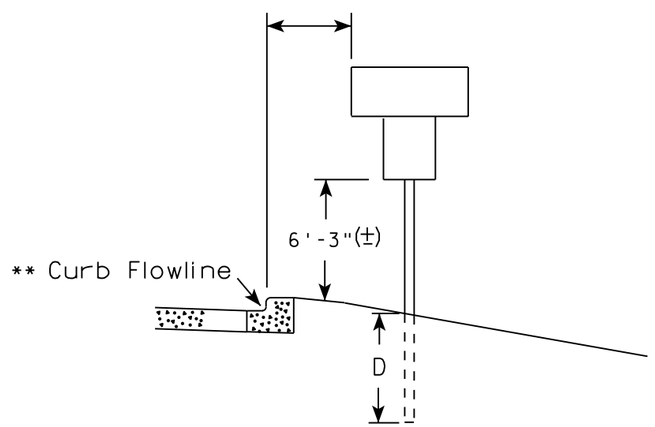
SDD 15D42 - 01

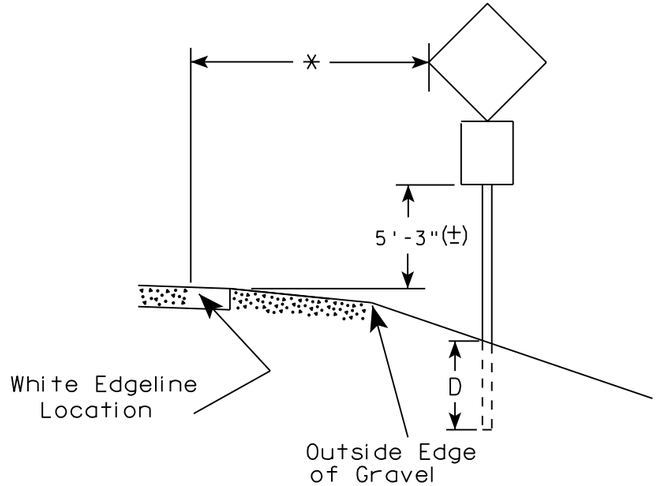
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

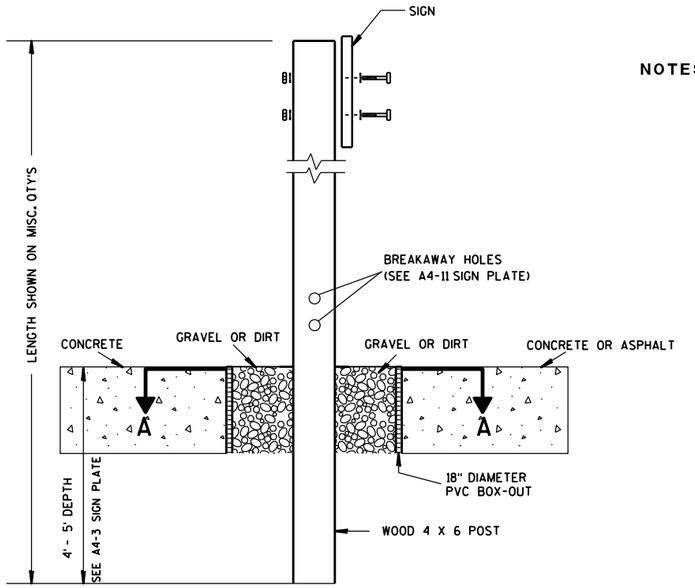
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7 7

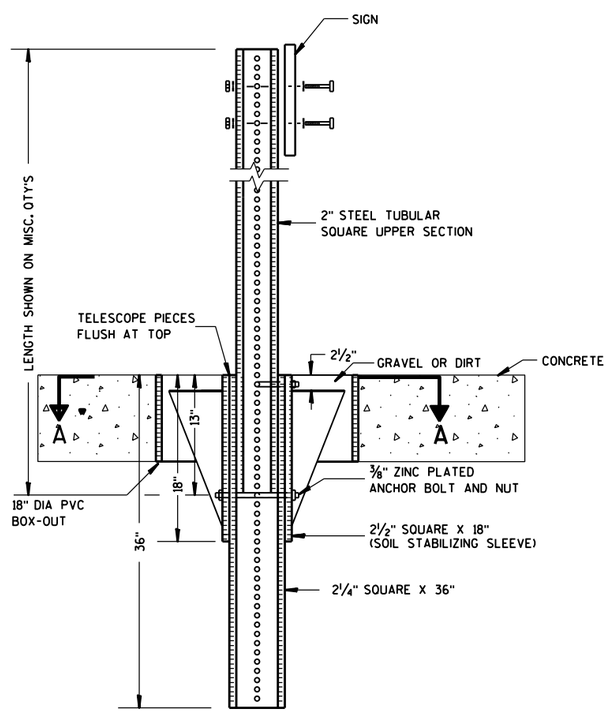
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 285	E



ELEVATION VIEW

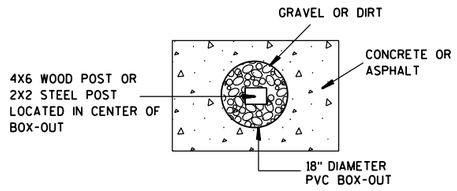
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

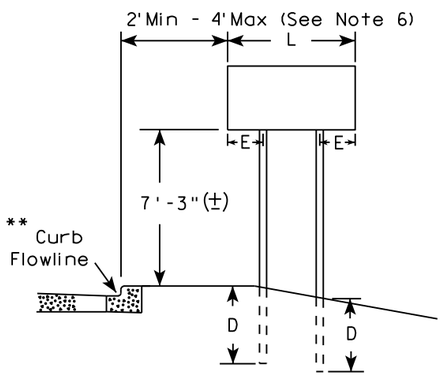
APPROVED Matthew R Rauch
for State Traffic Engineer

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

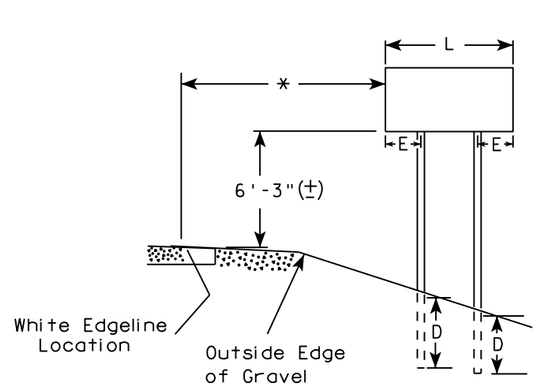
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

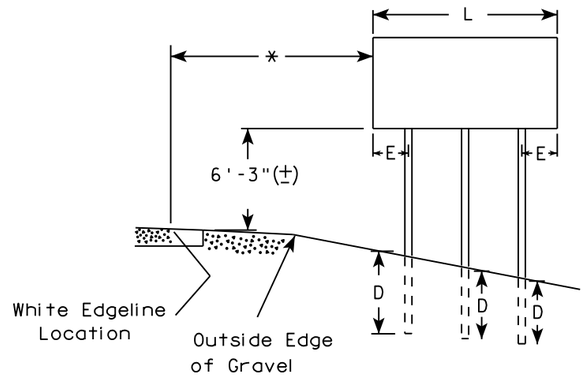
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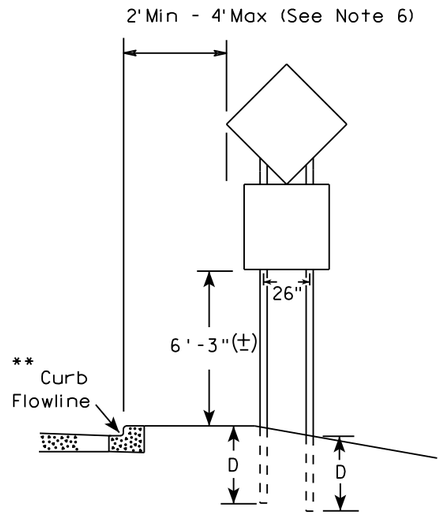
URBAN AREA



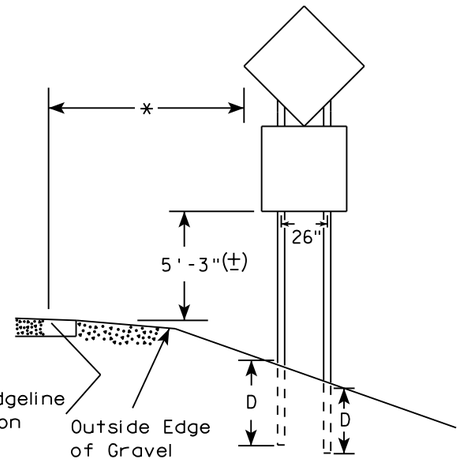
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

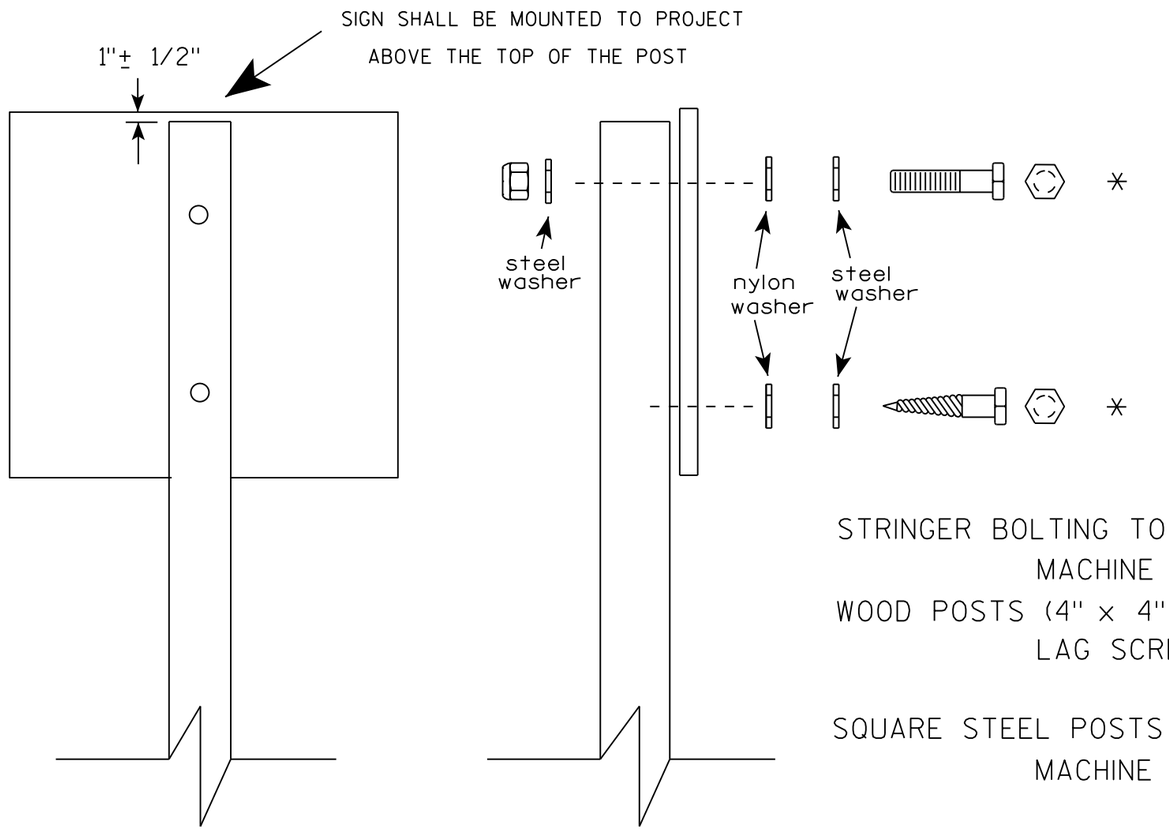
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 287	E



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

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

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

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

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

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

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

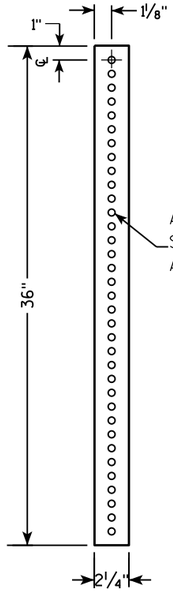
PROJECT NO:

SHEET NO: E

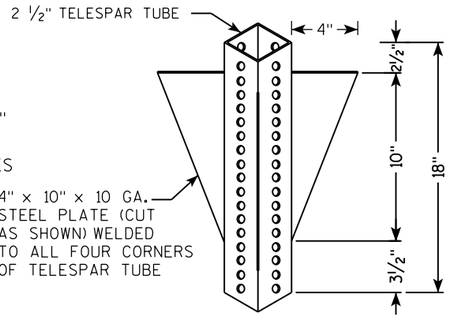
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TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

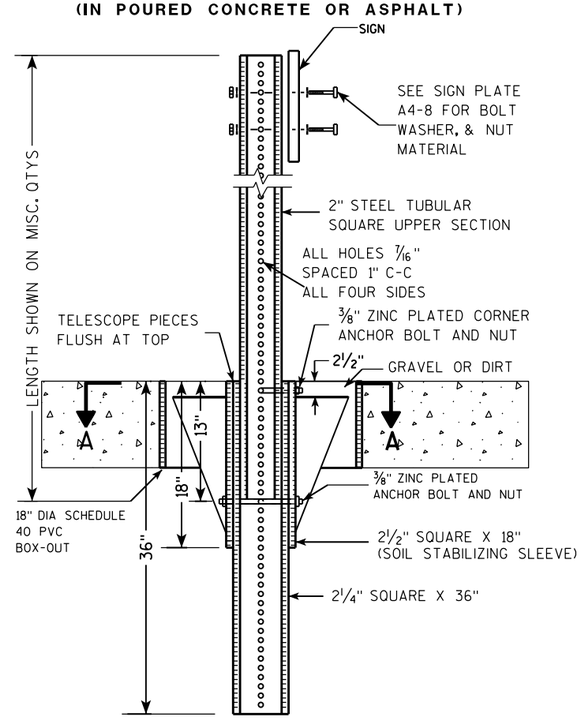
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



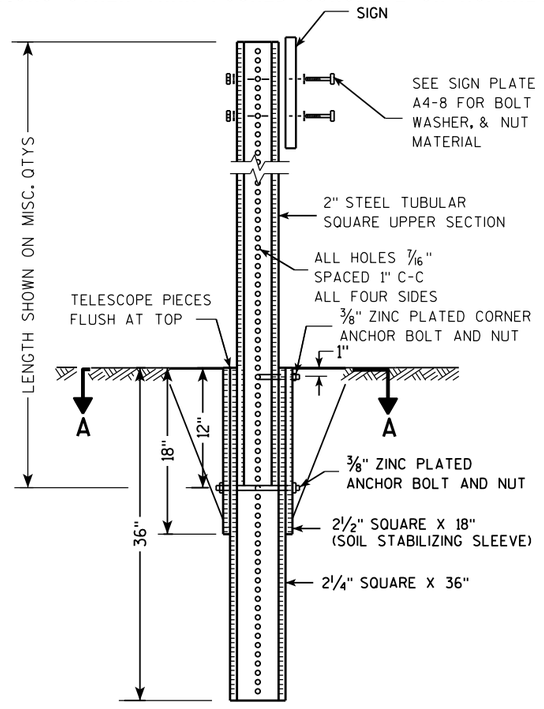
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

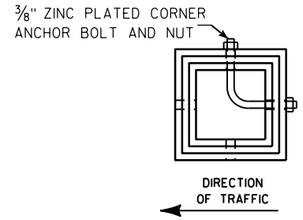


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

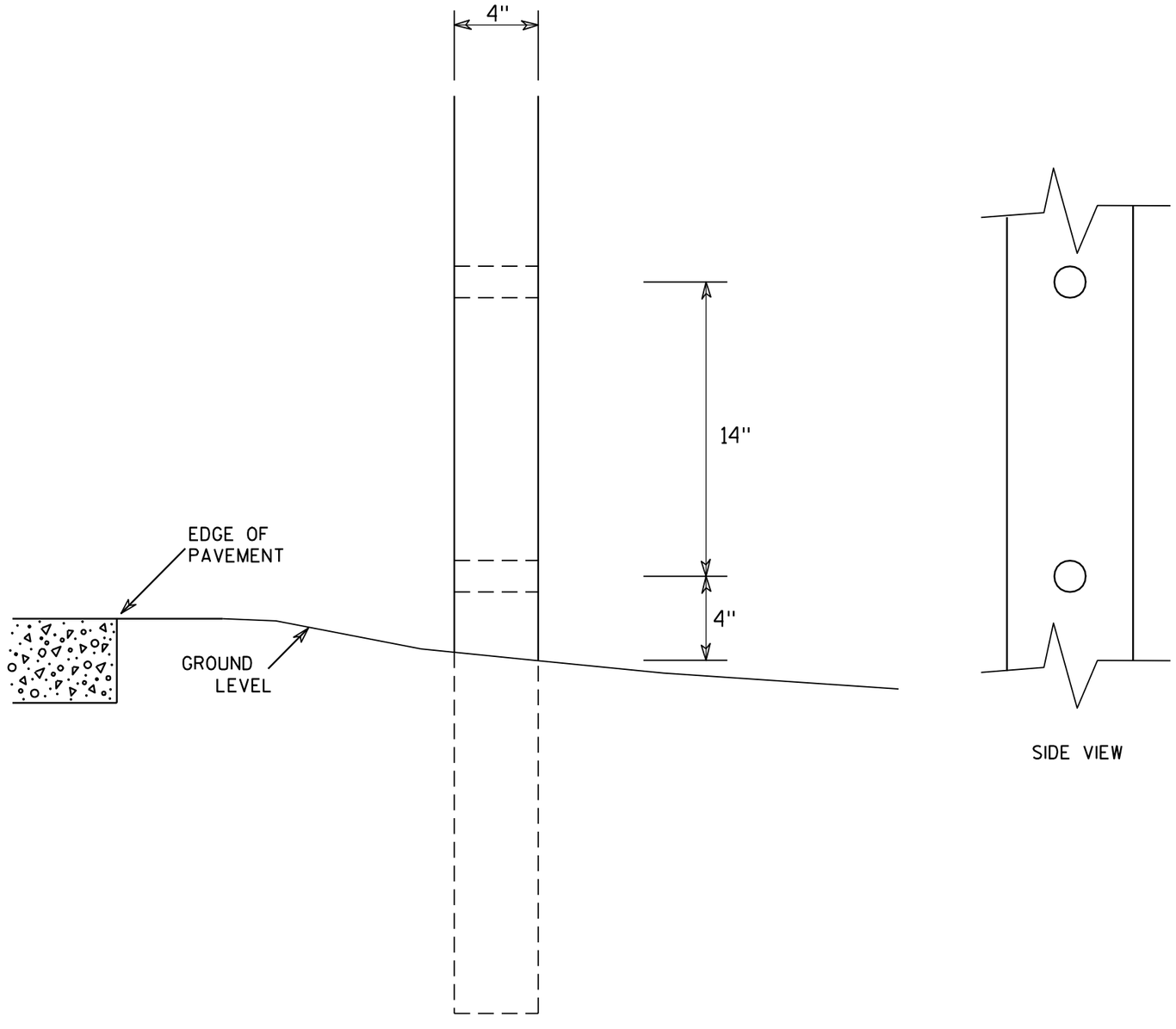
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 289 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

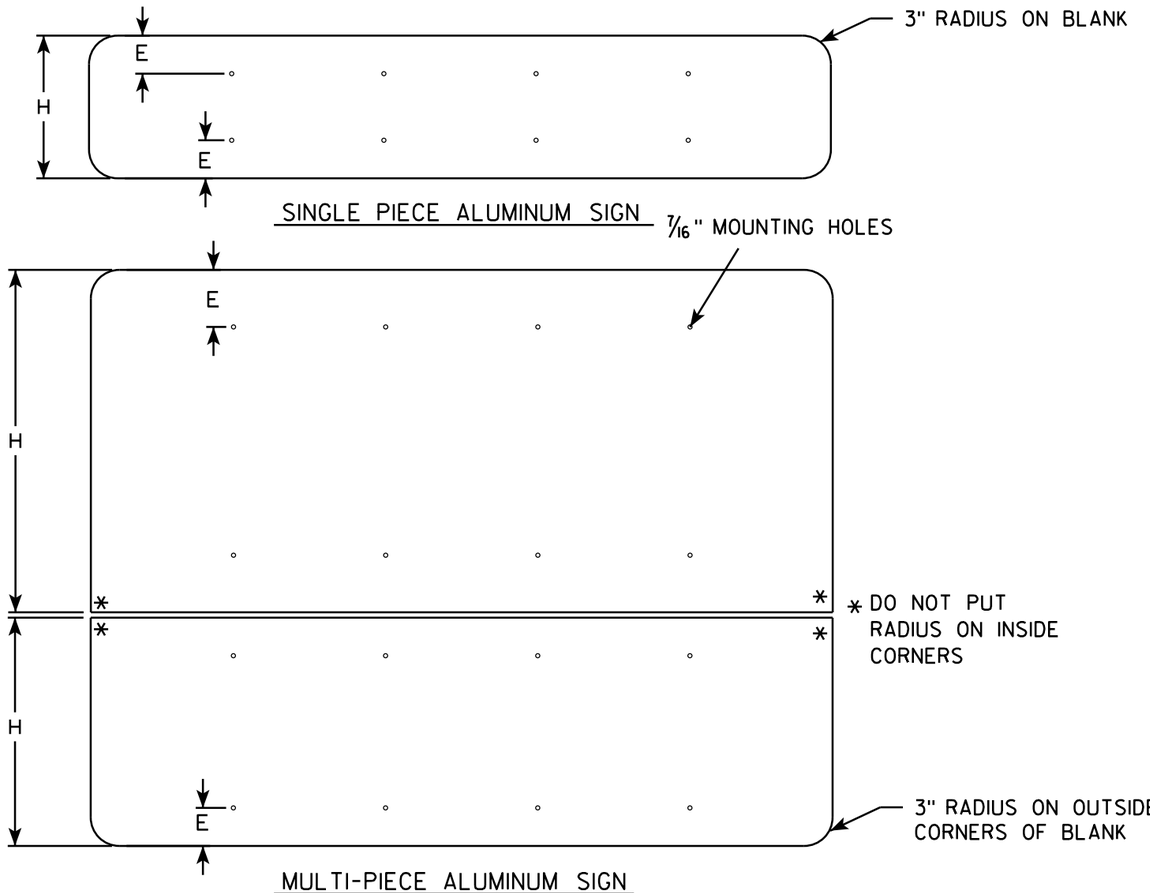
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

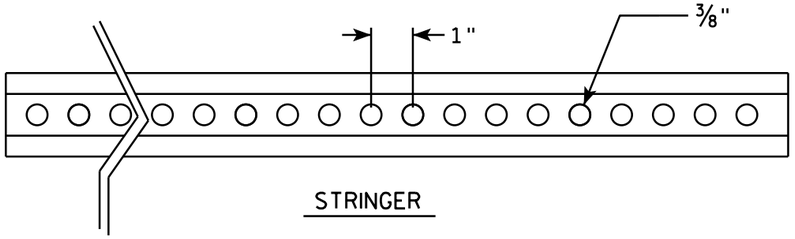
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 290	E



GENERAL NOTES

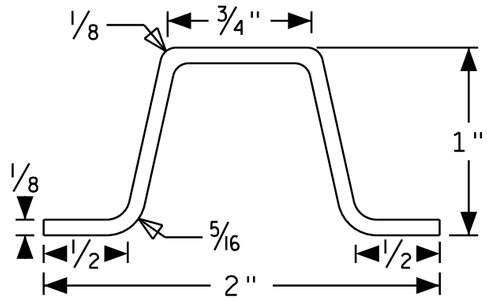
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER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

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

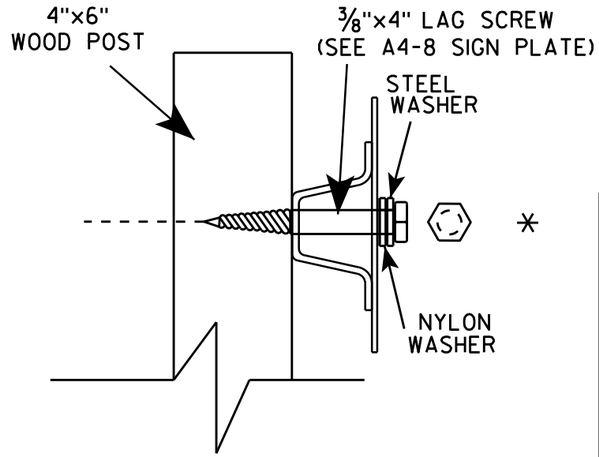


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

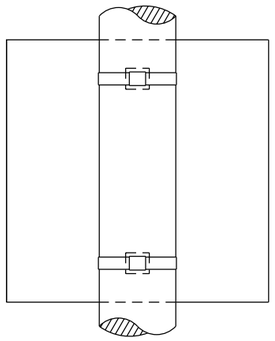
DATE 4/26/16 PLATE NO A4-18.1

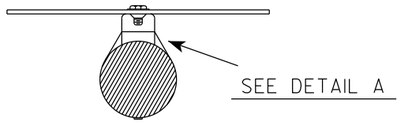
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

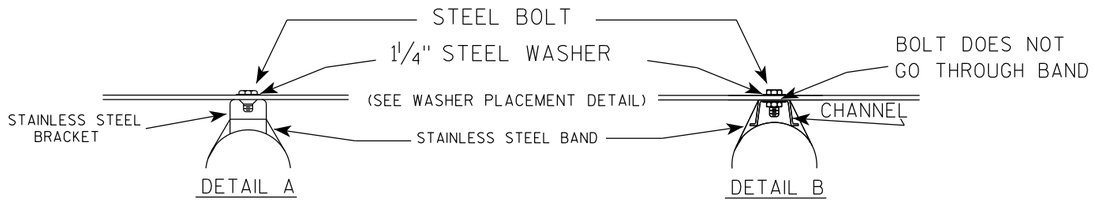
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



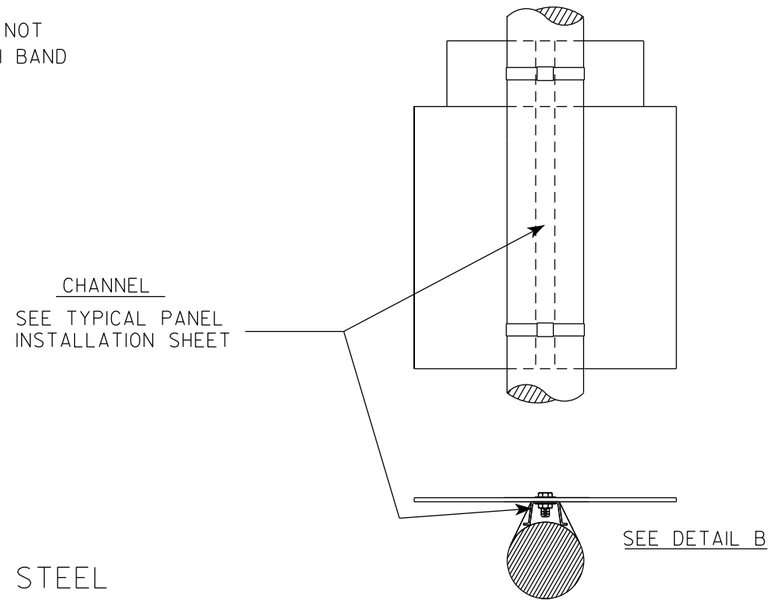




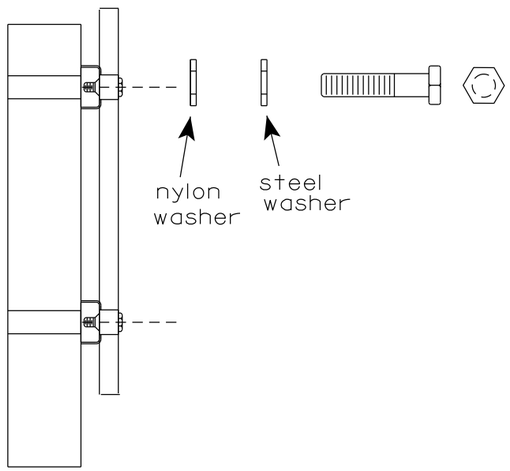
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

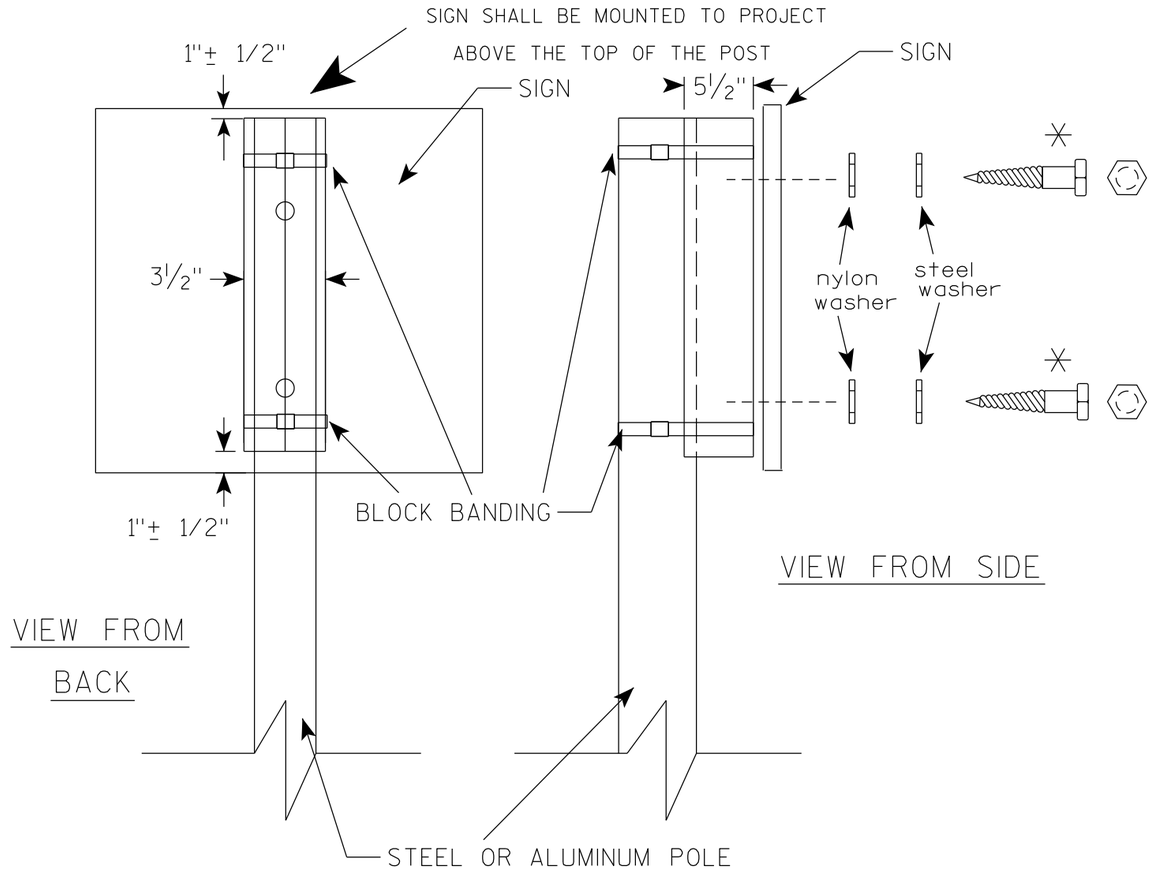
WISCONSIN DEPT OF TRANSPORTATION

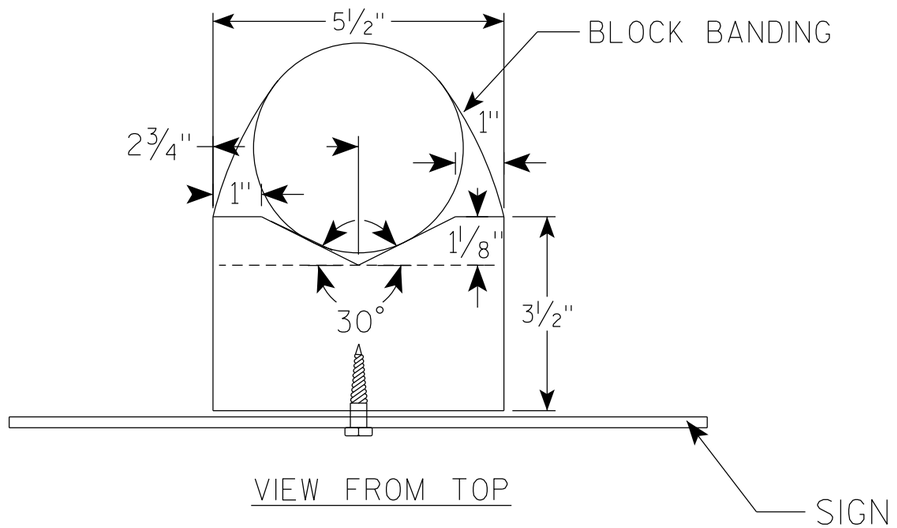
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 292	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

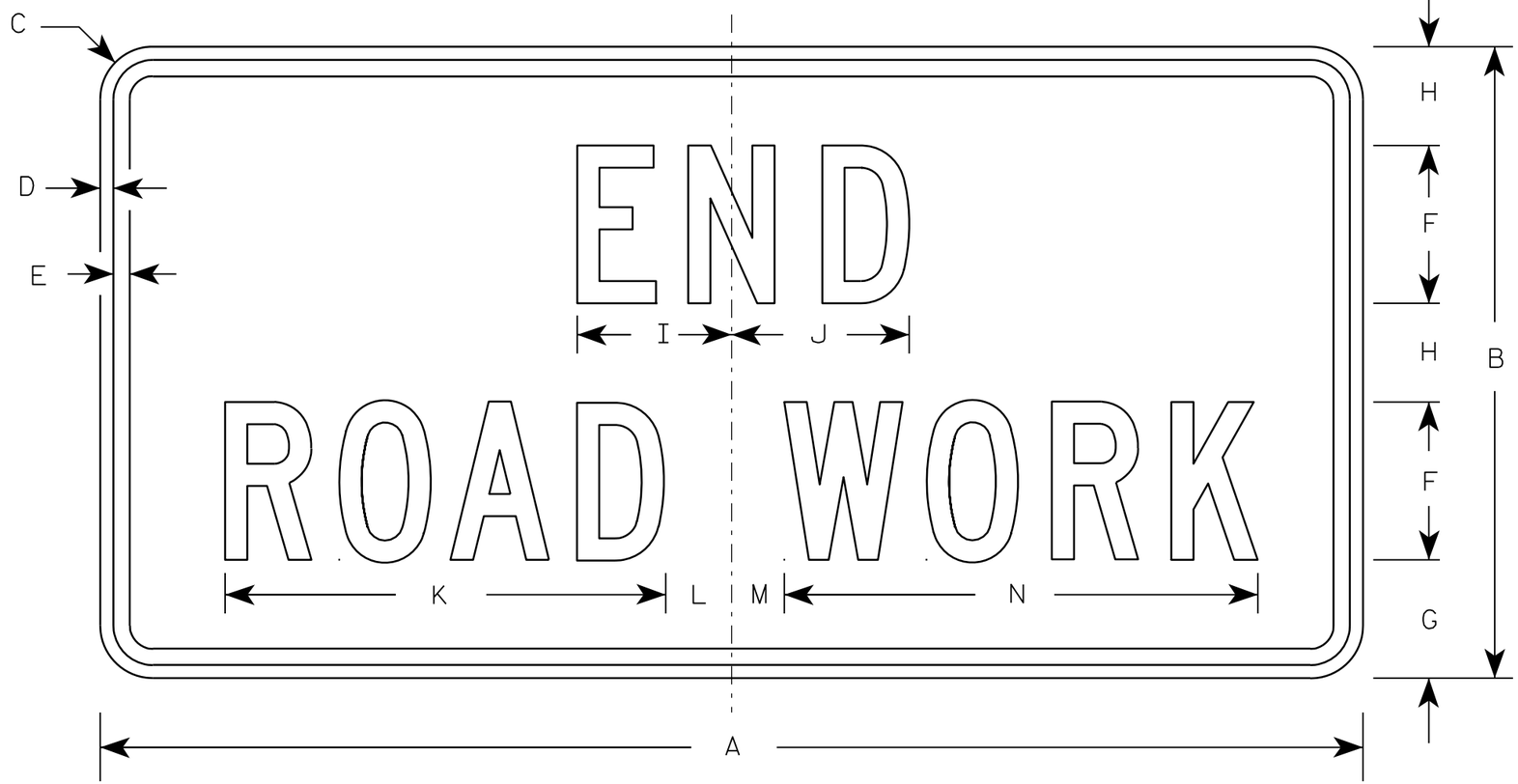
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:				SHEET NO: 293	E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

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

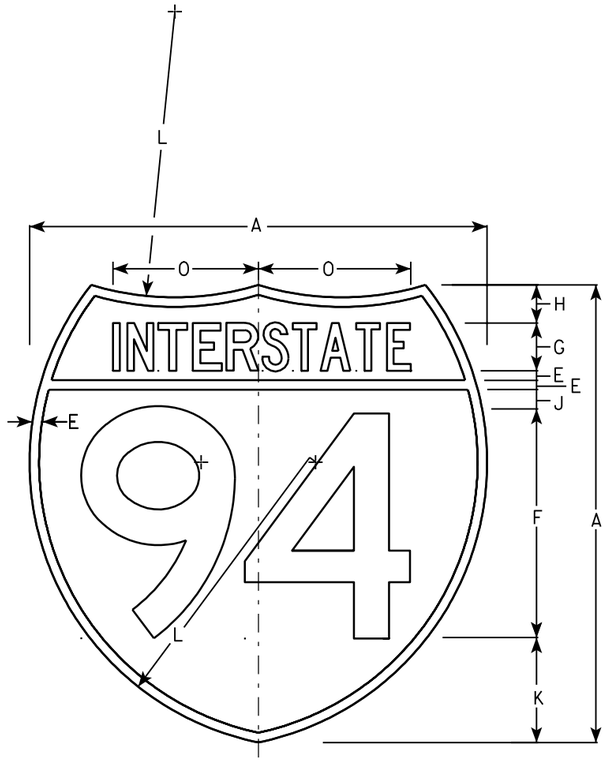
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

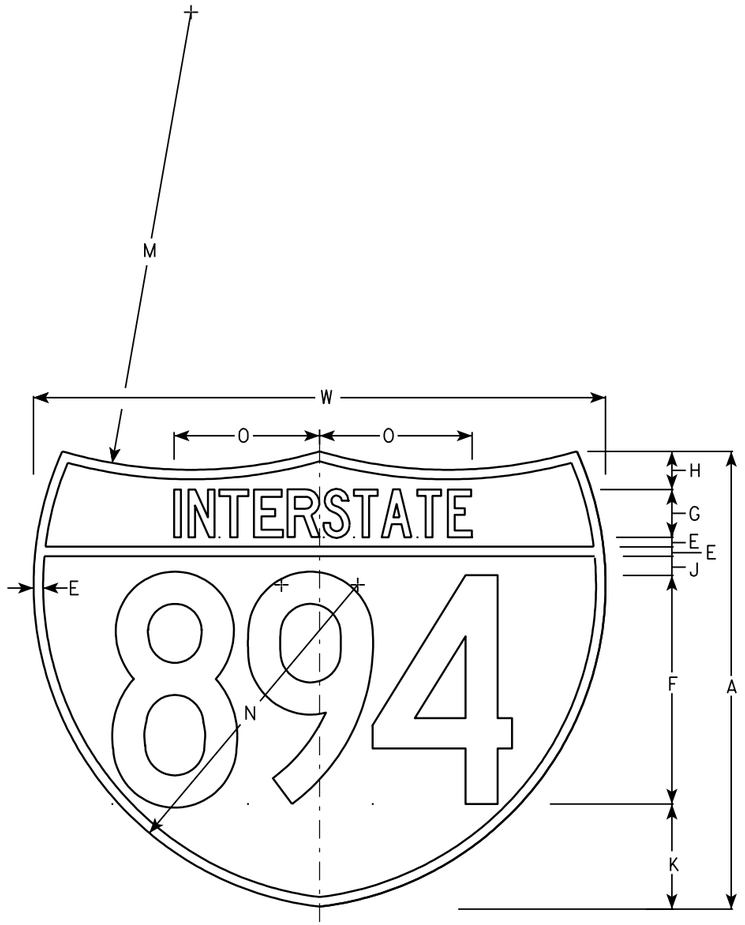
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 294	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

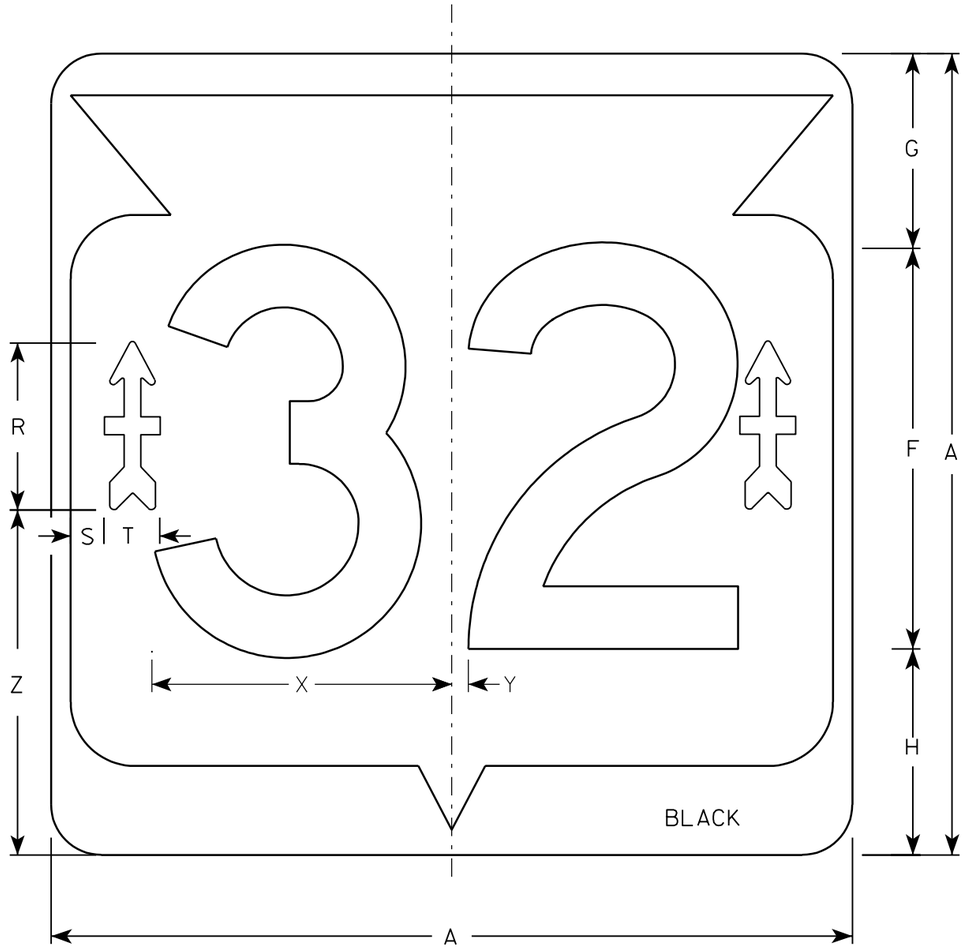
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

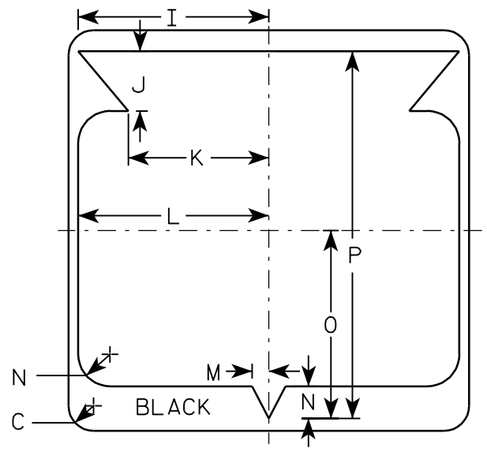
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 295	E



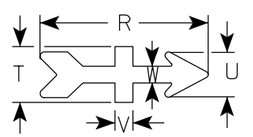
M1-6B

NOTES

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



32nd DIVISION ARROW
ACTUAL SIZE



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 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

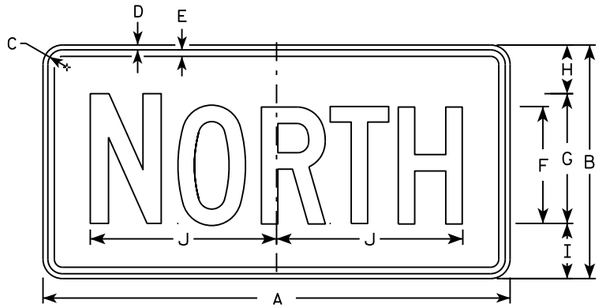
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

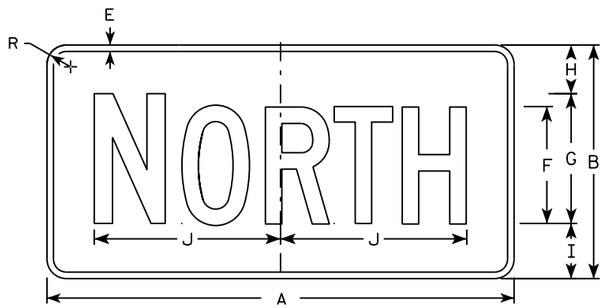
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 296 | E



M3-1
MM3-1
MP3-1



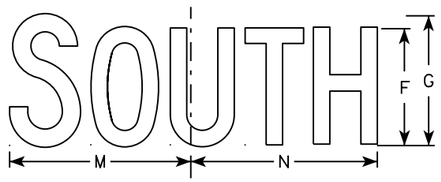
MB3-1
MK3-1
MN3-1



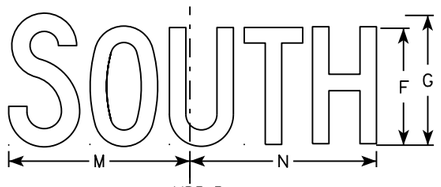
M3-2
MM3-2
MP3-2



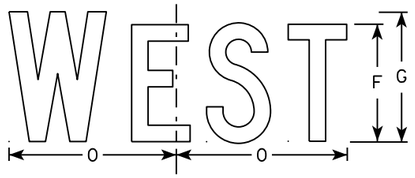
MB3-2
MK3-2
MN3-2



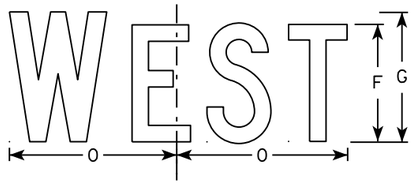
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

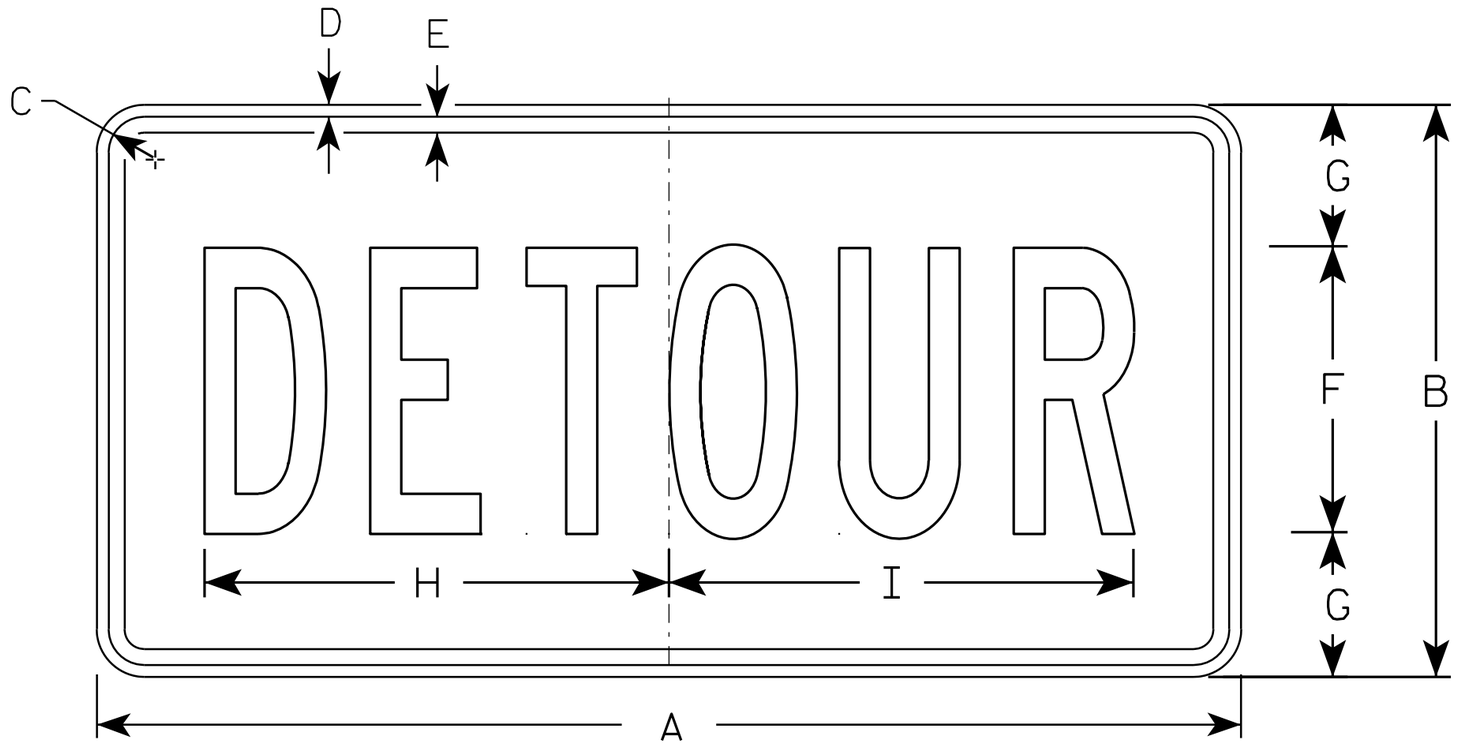
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

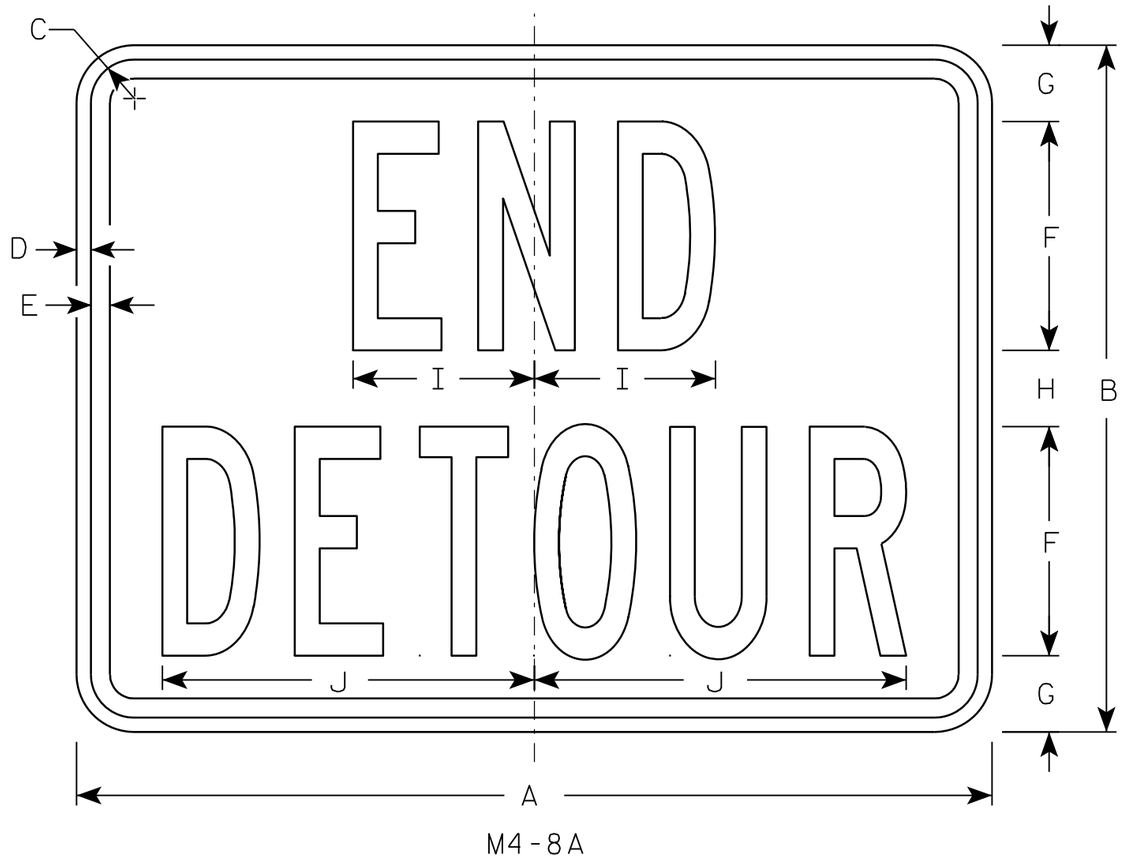
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 298	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

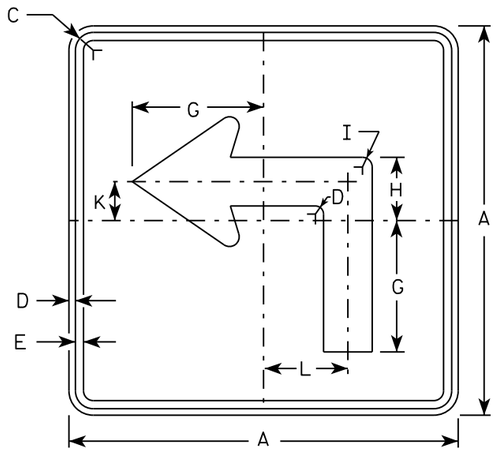
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

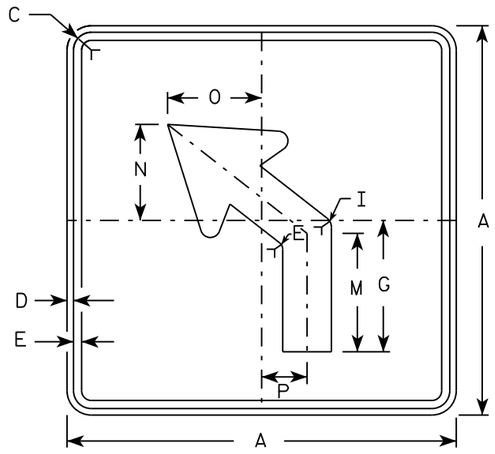
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

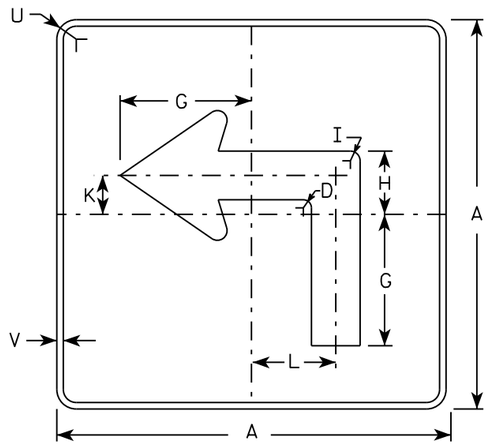
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 299	E



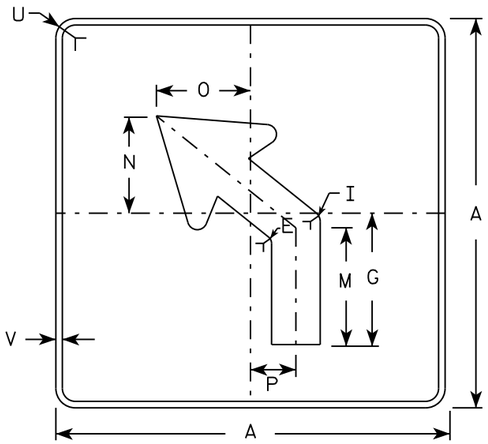
M5-1L
MM5-1L
MO5-1L
MP5-1L



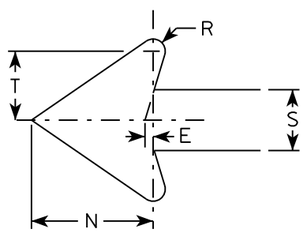
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

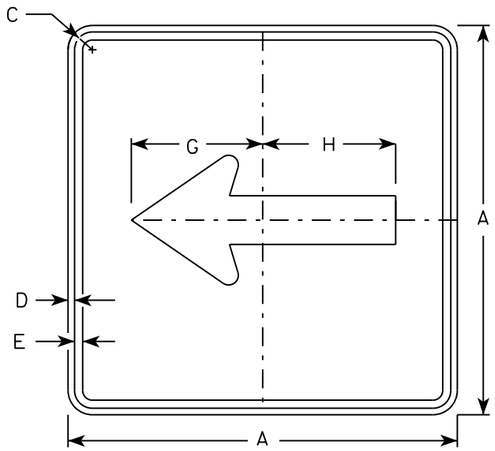
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

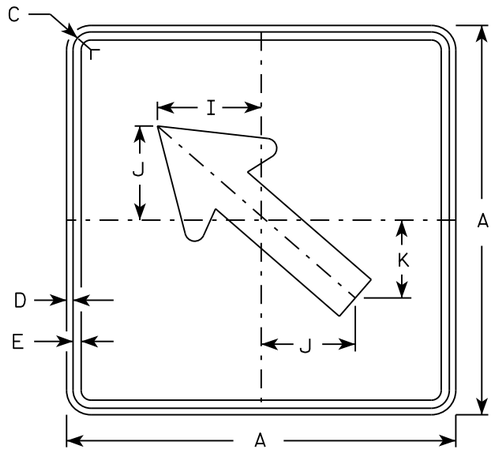
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



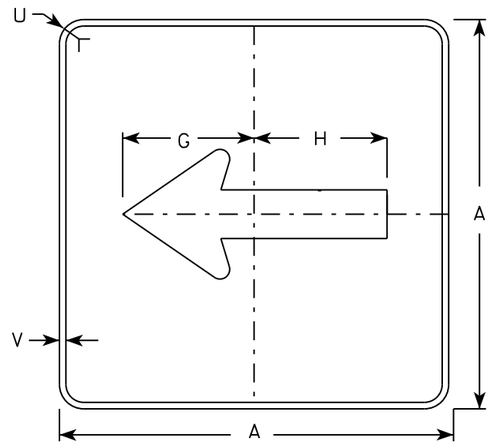
M6-1
MM6-1
MO6-1
MP6-1



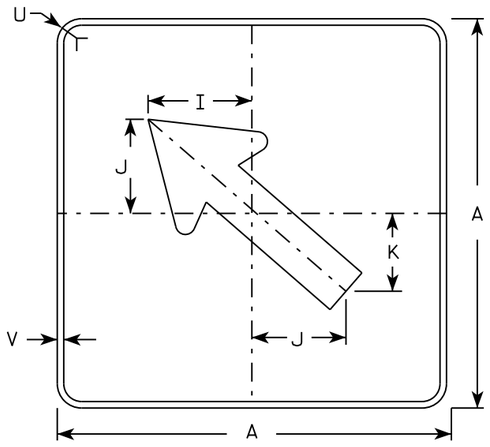
M6-2
MM6-2
MO6-2
MP6-2

NOTES

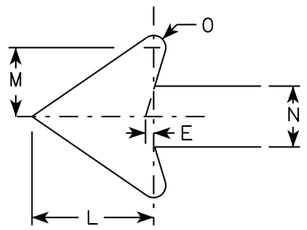
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

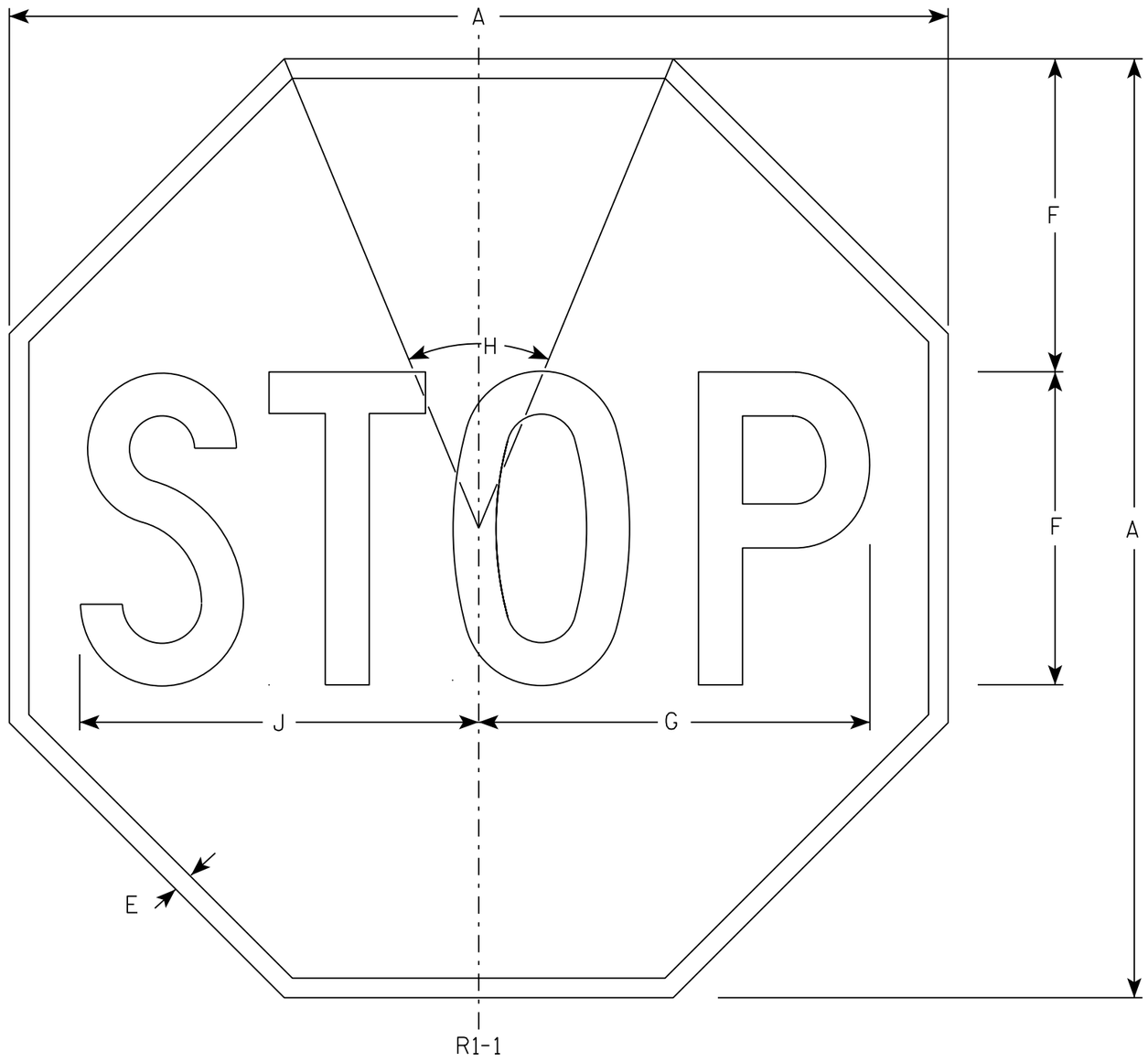
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 301 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

STANDARD SIGN

R1-1

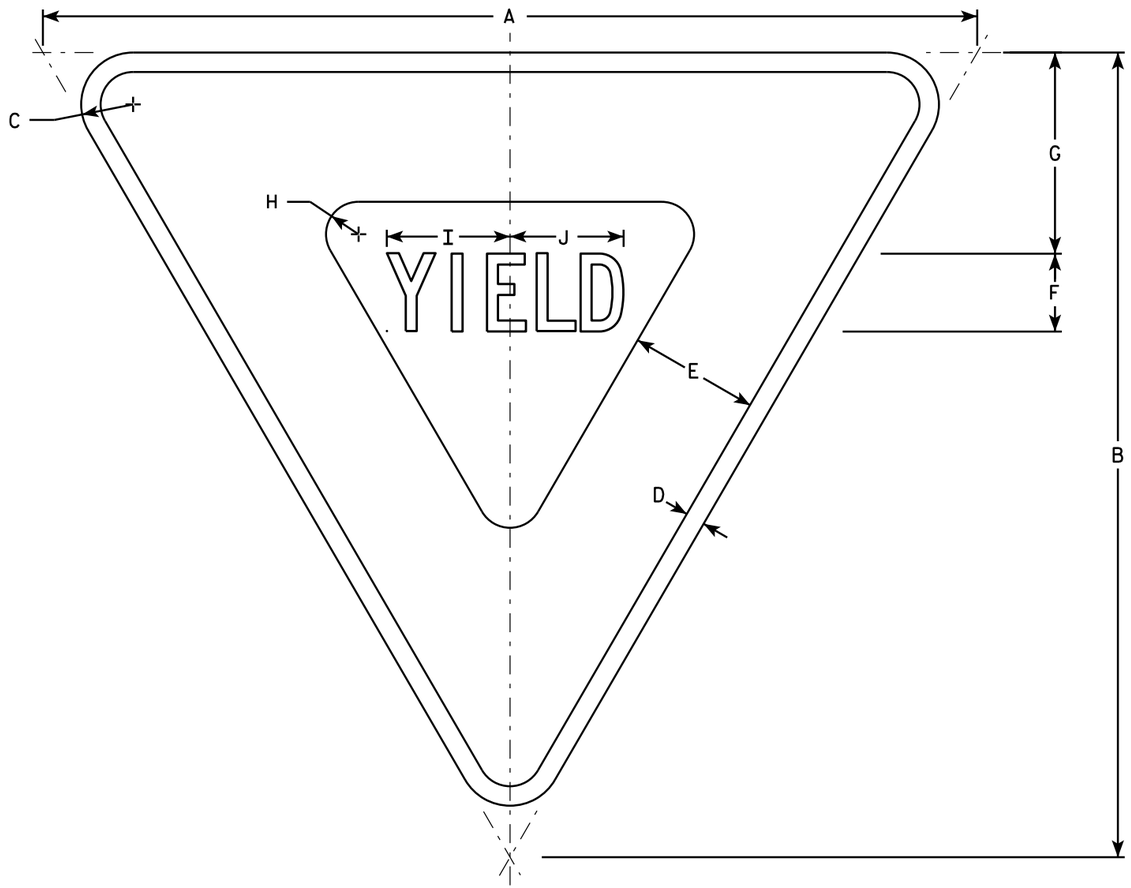
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 302	E



R1-2

NOTES

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

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

STANDARD SIGN
R1-2

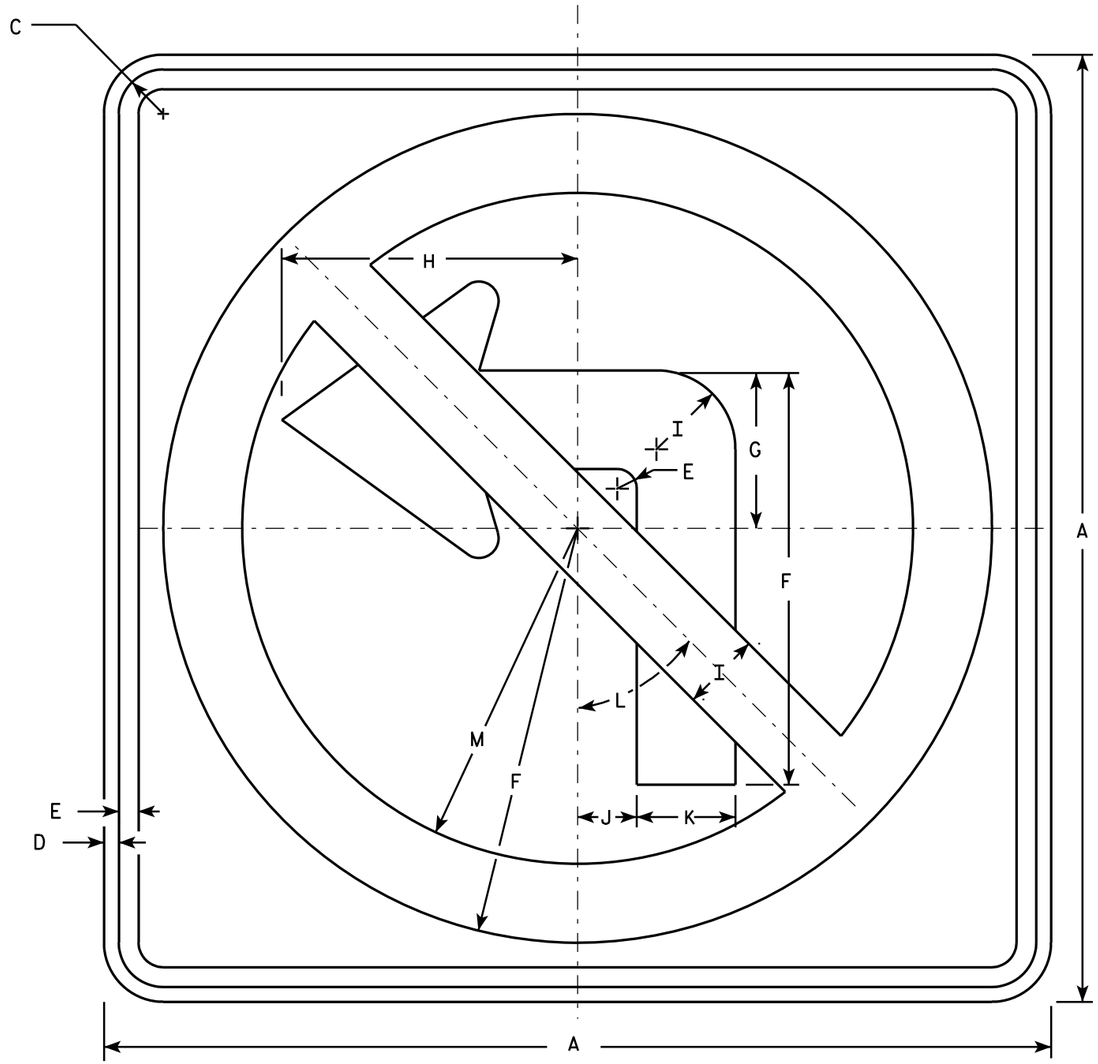
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

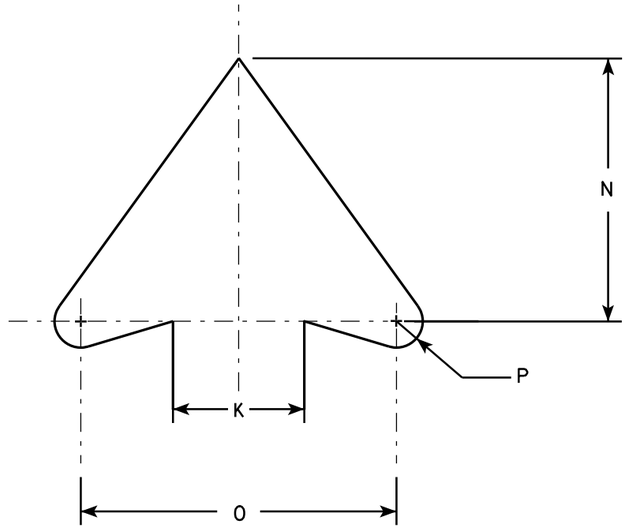
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

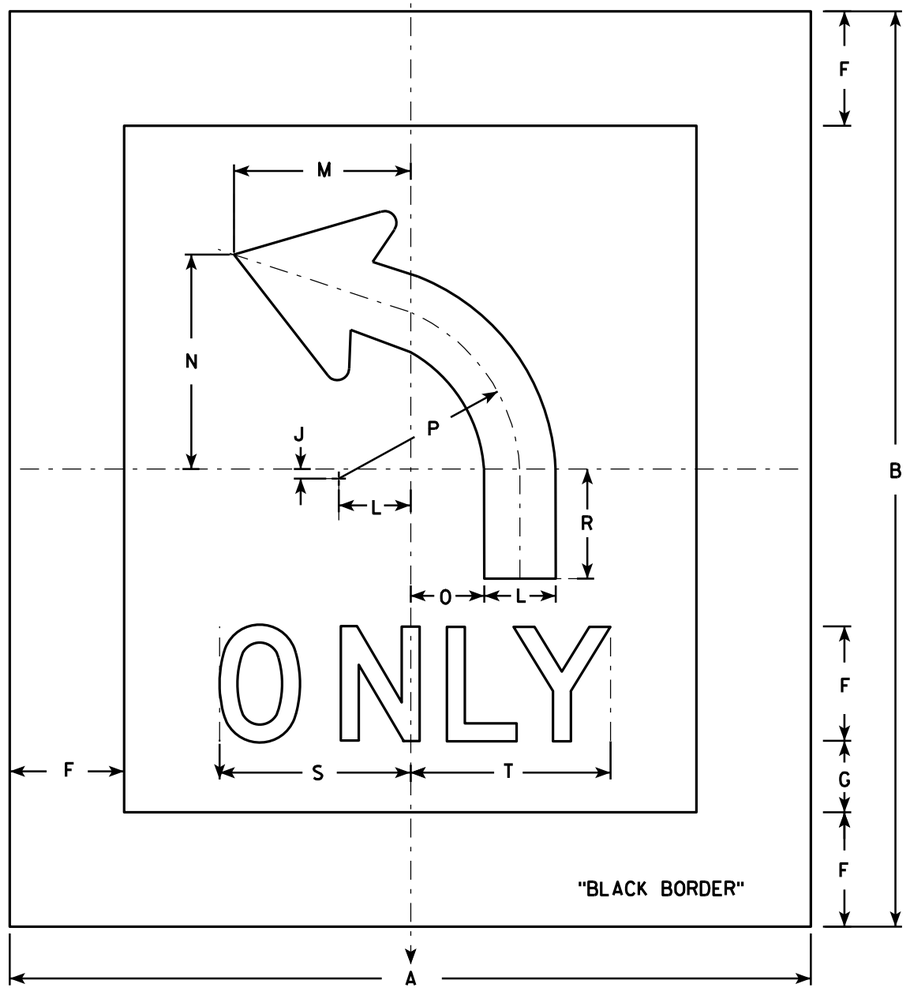
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

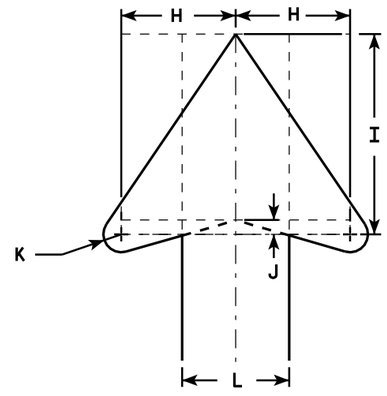
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 304	E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

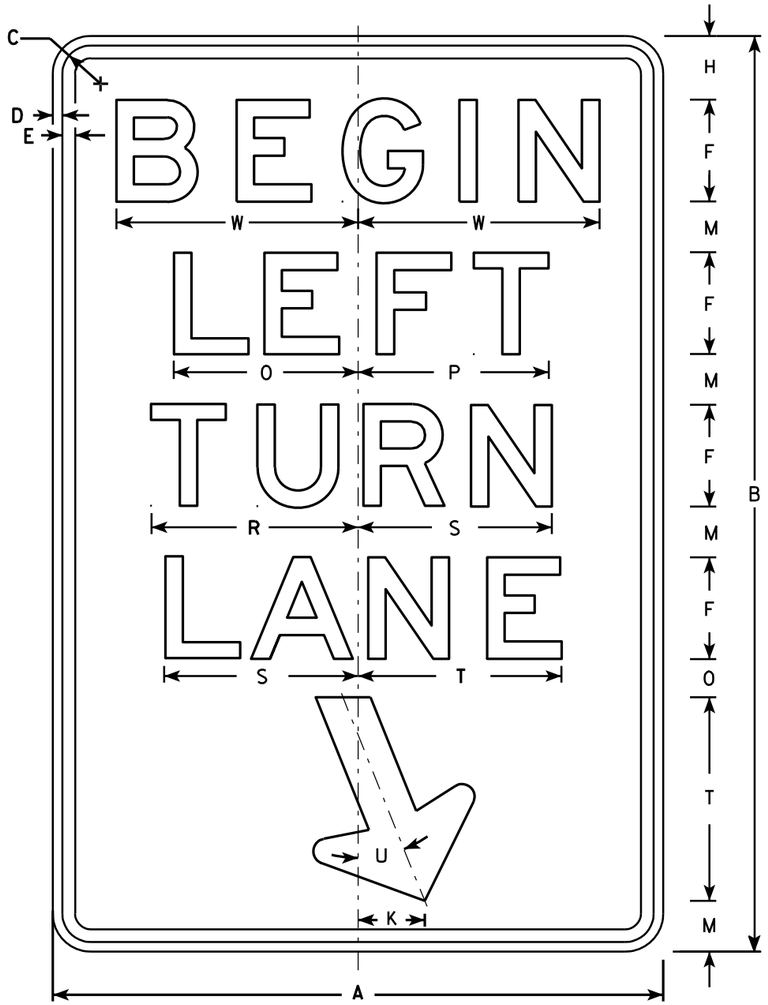
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

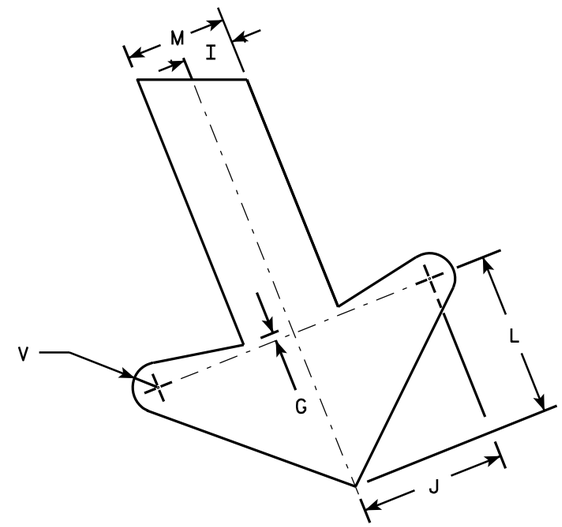
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 305 | E



R3-20L

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

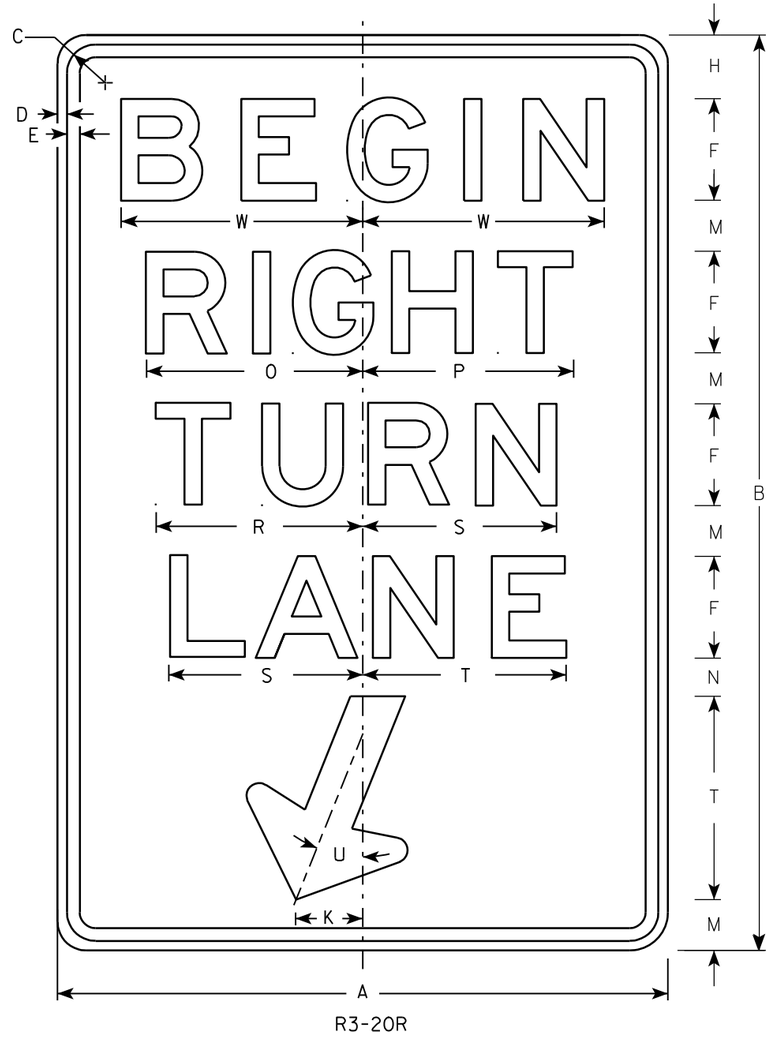
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

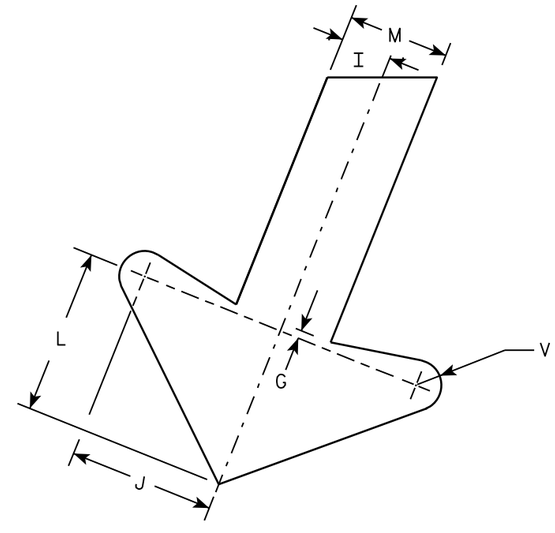
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 306 | E



R3-20R

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

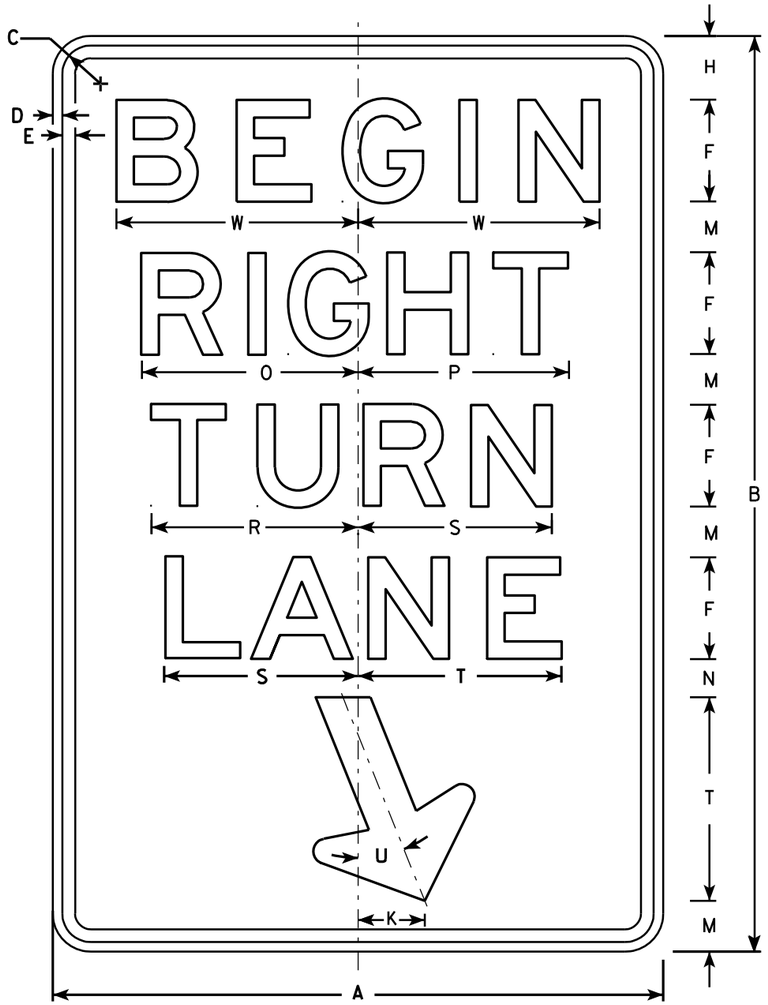
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

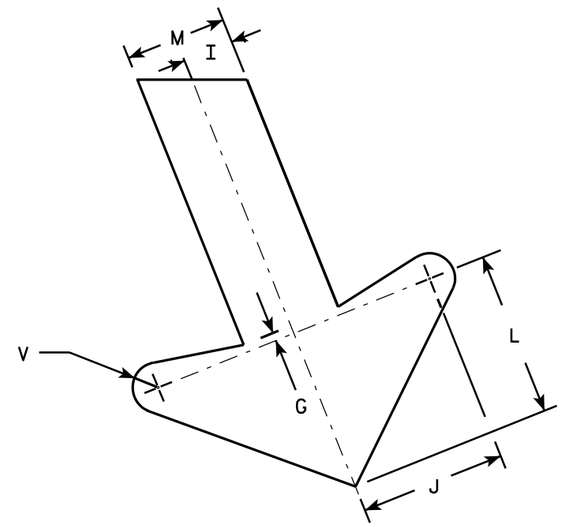
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 307 | E



R3-20RR

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

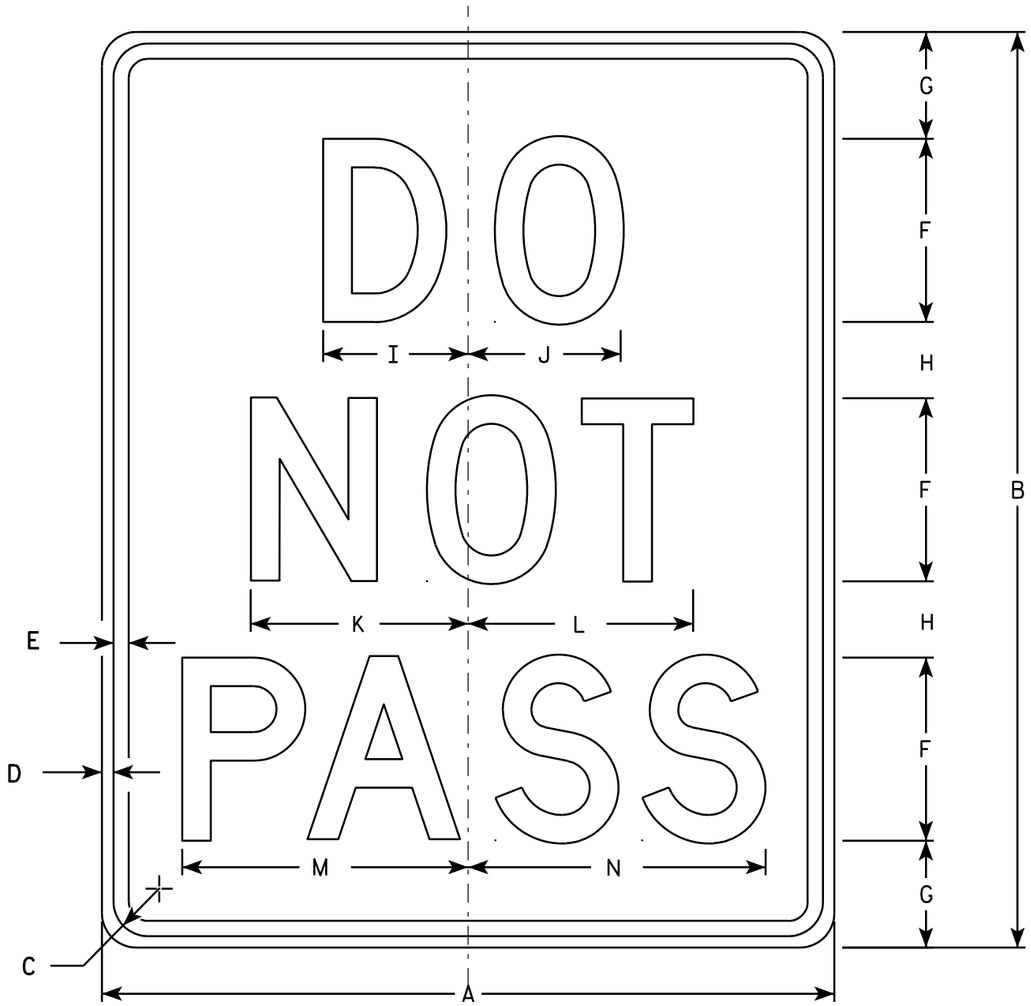
STANDARD SIGN
R3-20RR

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20RR.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 308 | E



R4-1

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 - 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	18	24	1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 1/8	3 1/4	4 3/4	4 7/8	6 1/4	6 1/2													3.0
2S	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
2M	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
3																											
4	36	48	1 5/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
5	48	60	2 1/4	3/4	1	10	8	7	7 3/4	8 3/8	11 7/8	12 1/4	15 5/8	16 1/4													20.0

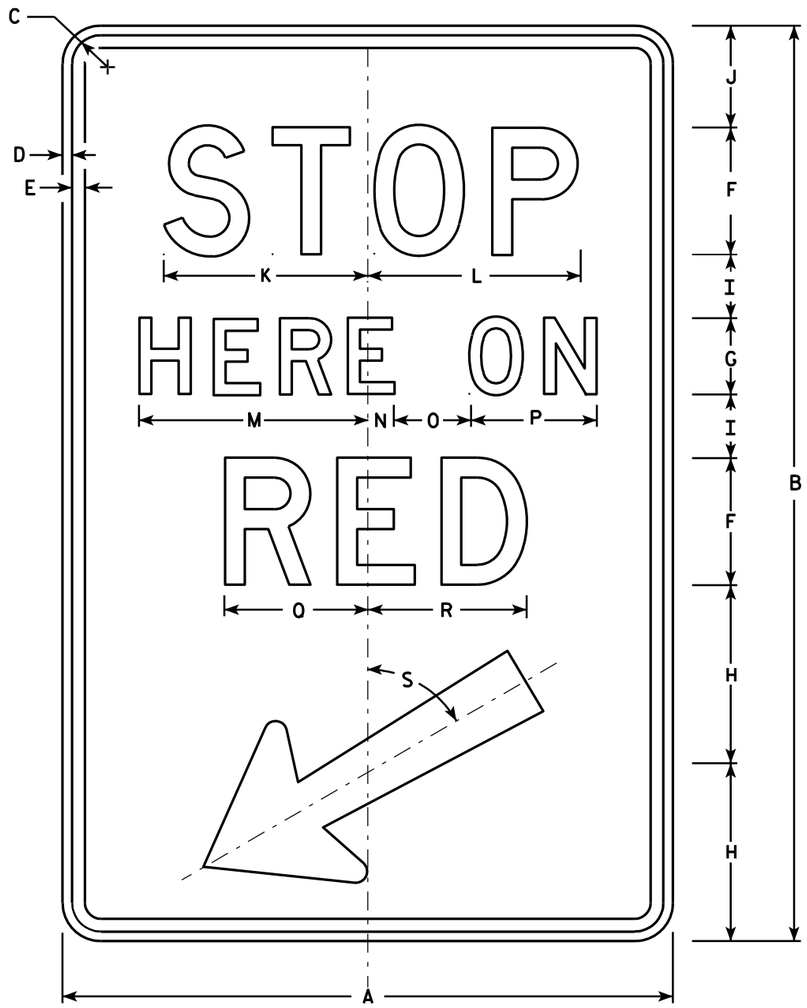
STANDARD SIGN
R4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-1.7

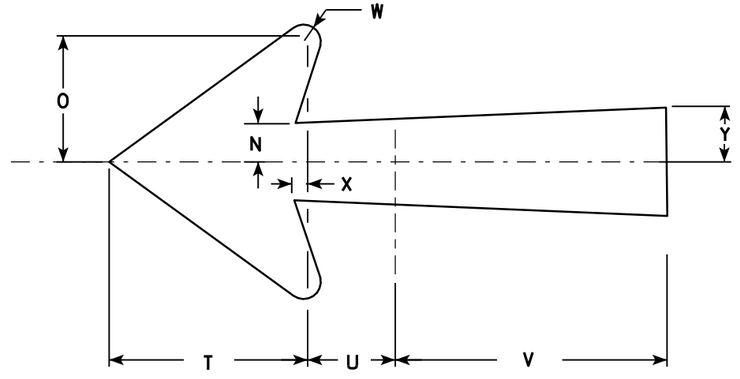
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 309 | E



R10-6

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.



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	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

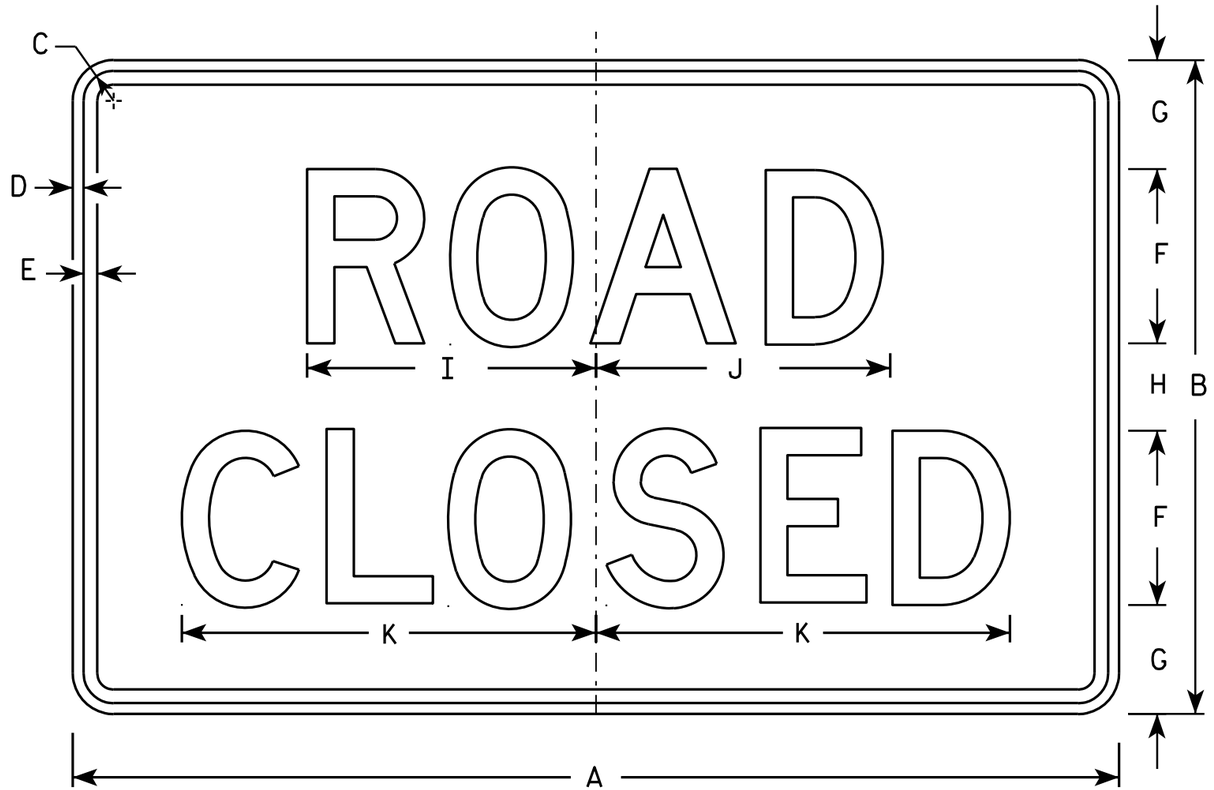
STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

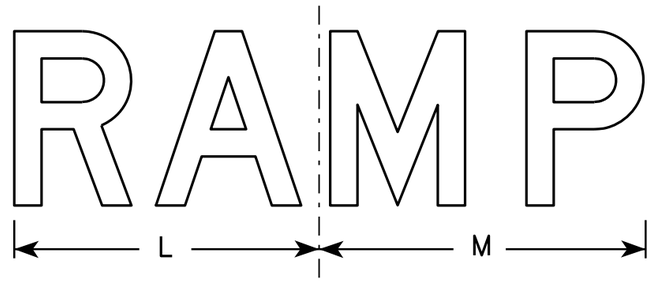
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 310	E



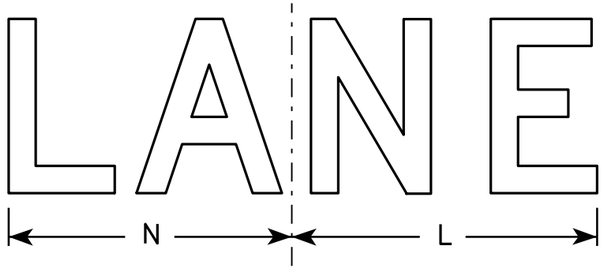
R11-2

NOTES

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



R11-2R



R11-2L

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

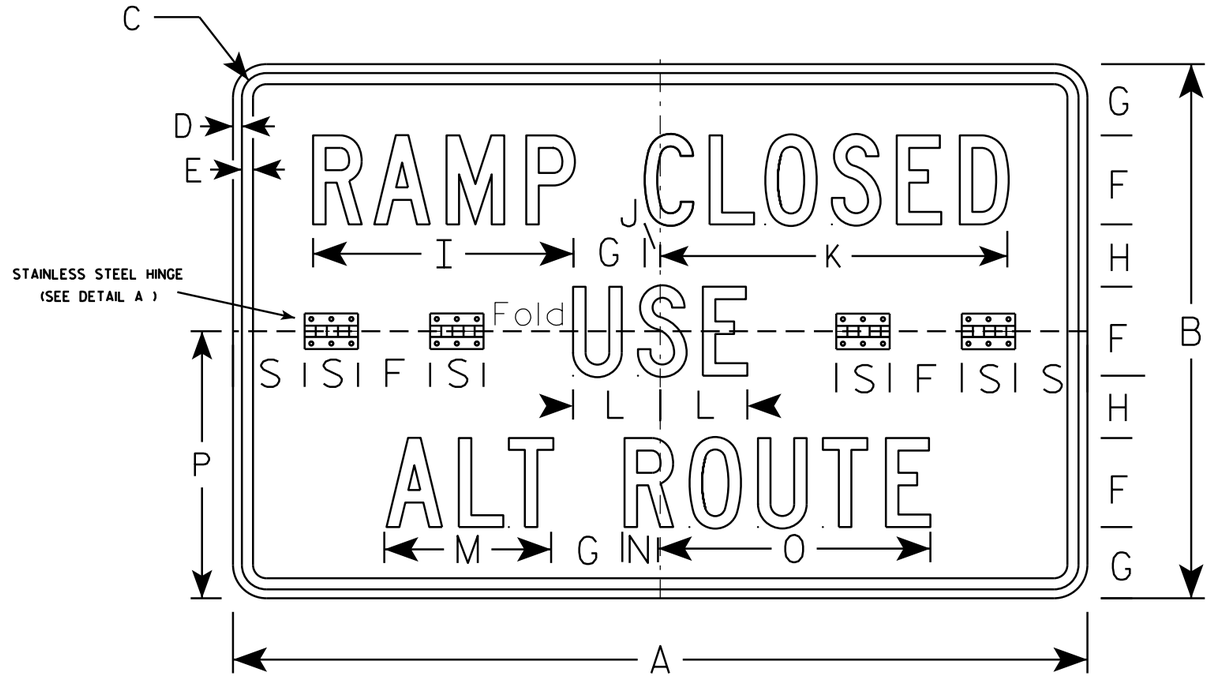
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

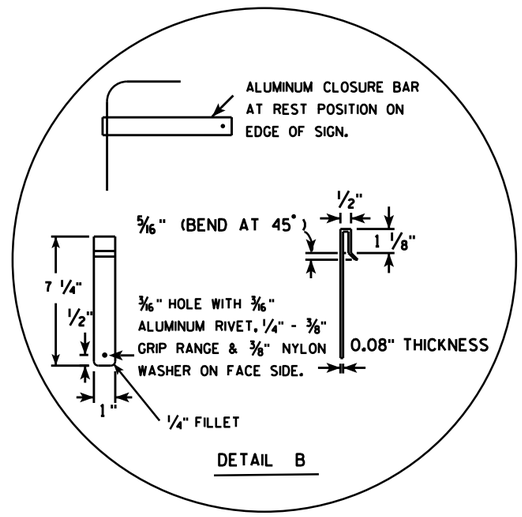
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 311 | E



R11-54F

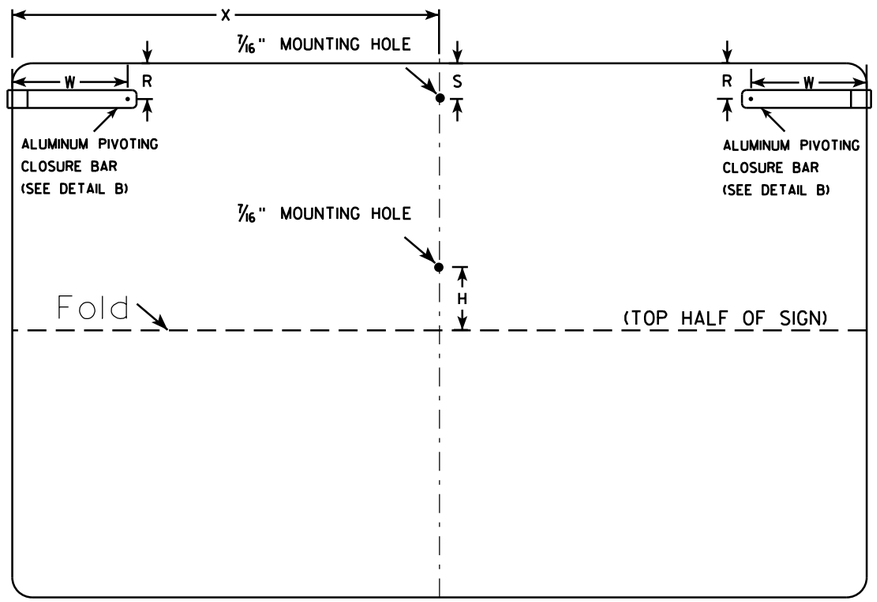
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.



(BACK VIEW)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

STANDARD SIGN
R11-54F

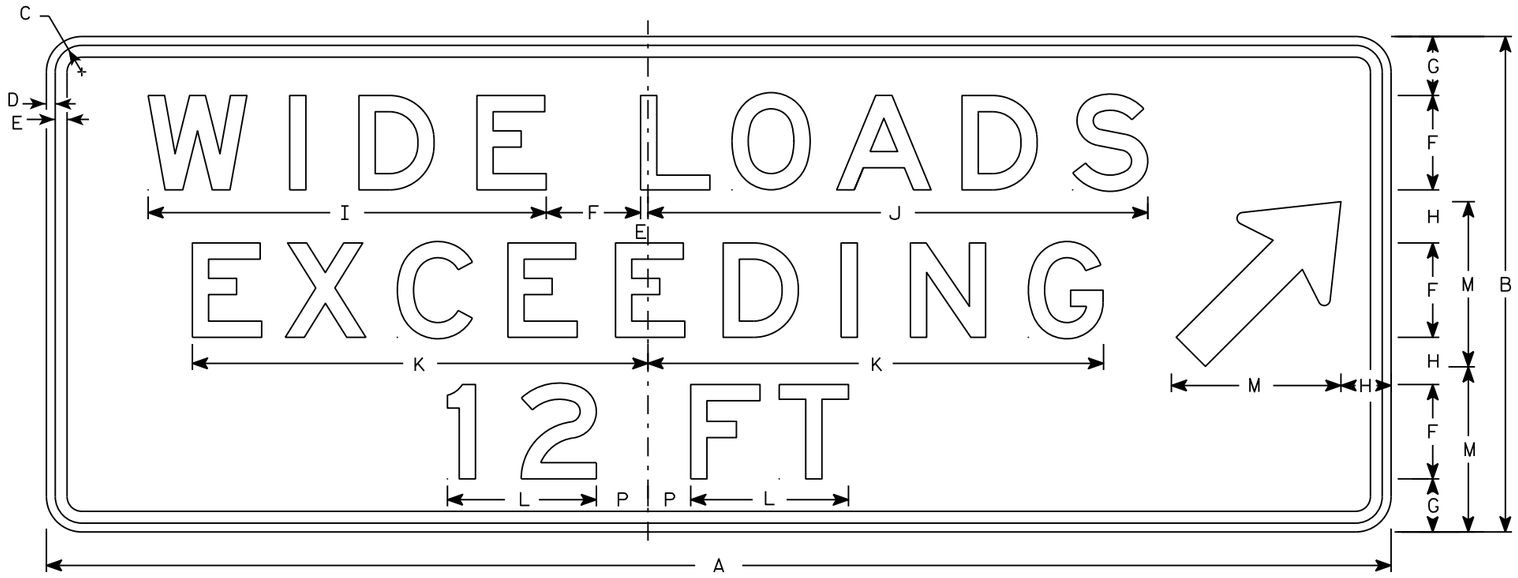
WISCONSIN DEPT OF TRANSPORTATION

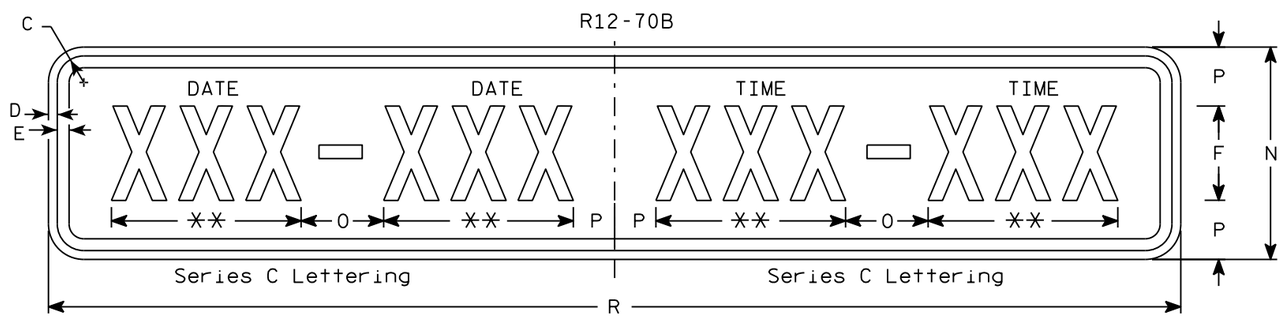
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE NO. R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1154F.DGN PLOT DATE : 28-MAY-2014 14:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.511110:1.000000
WISDOT/CADDS SHEET 42





R12-70C

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	R12-70 Area sq. ft.	R12-70C Area sq. ft.
1																												
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
3																												
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0

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 except as noted
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.

** Substitute appropriate message, optically center message

TYPICAL SIGN
R12-70B

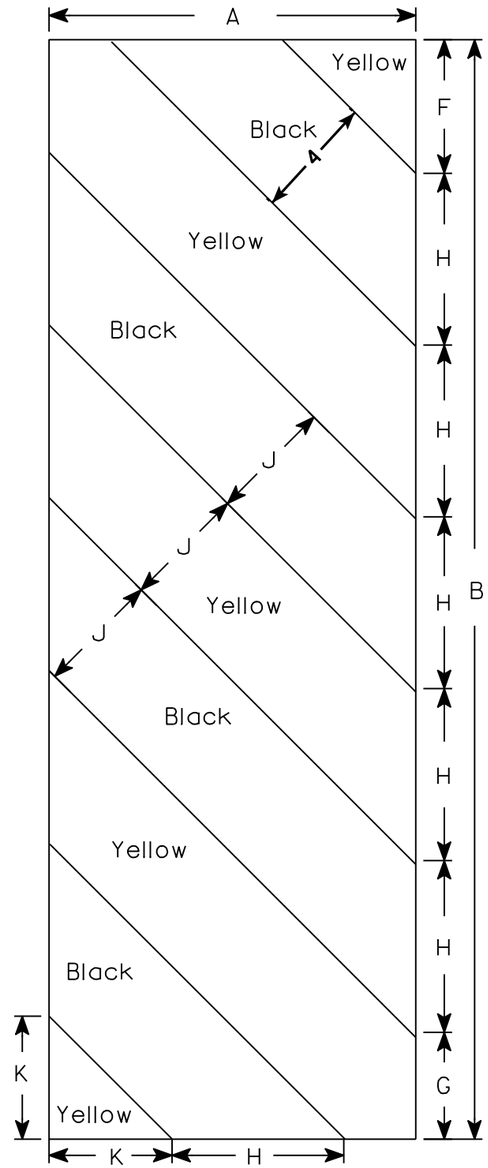
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

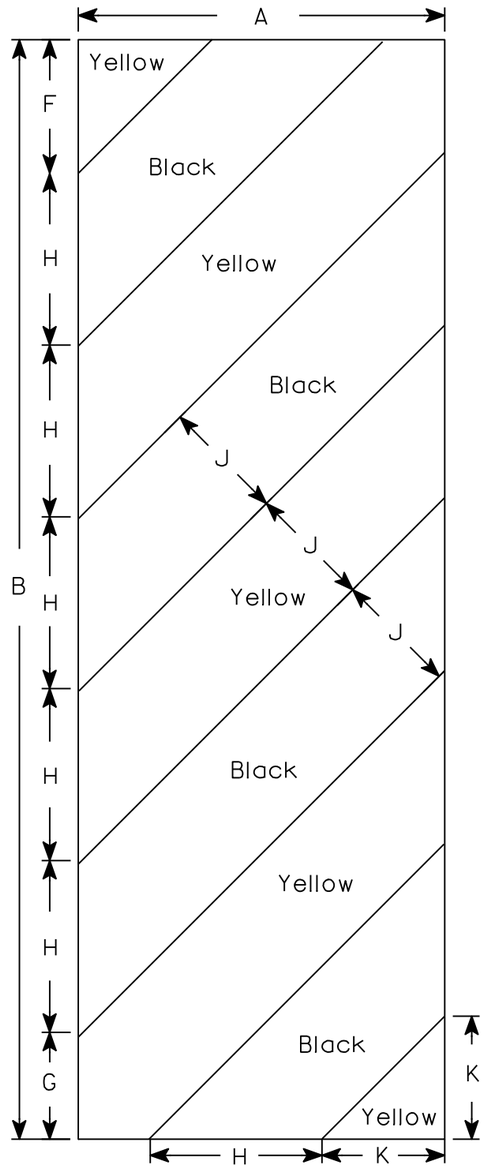
DATE 11/10/15 PLATE NO R12-70B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

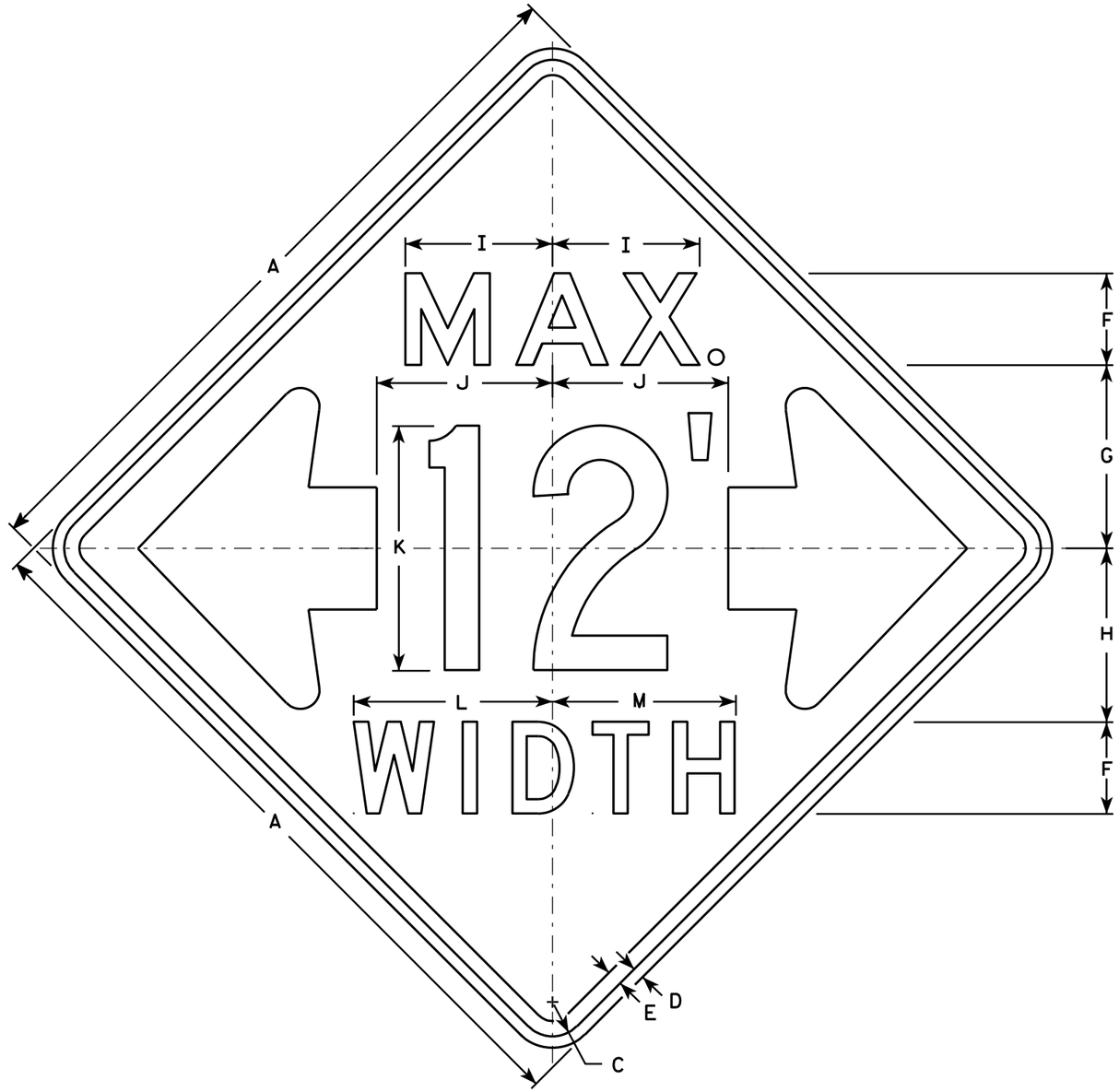
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

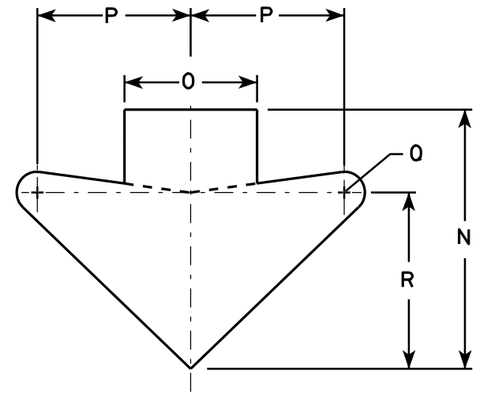
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 314	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

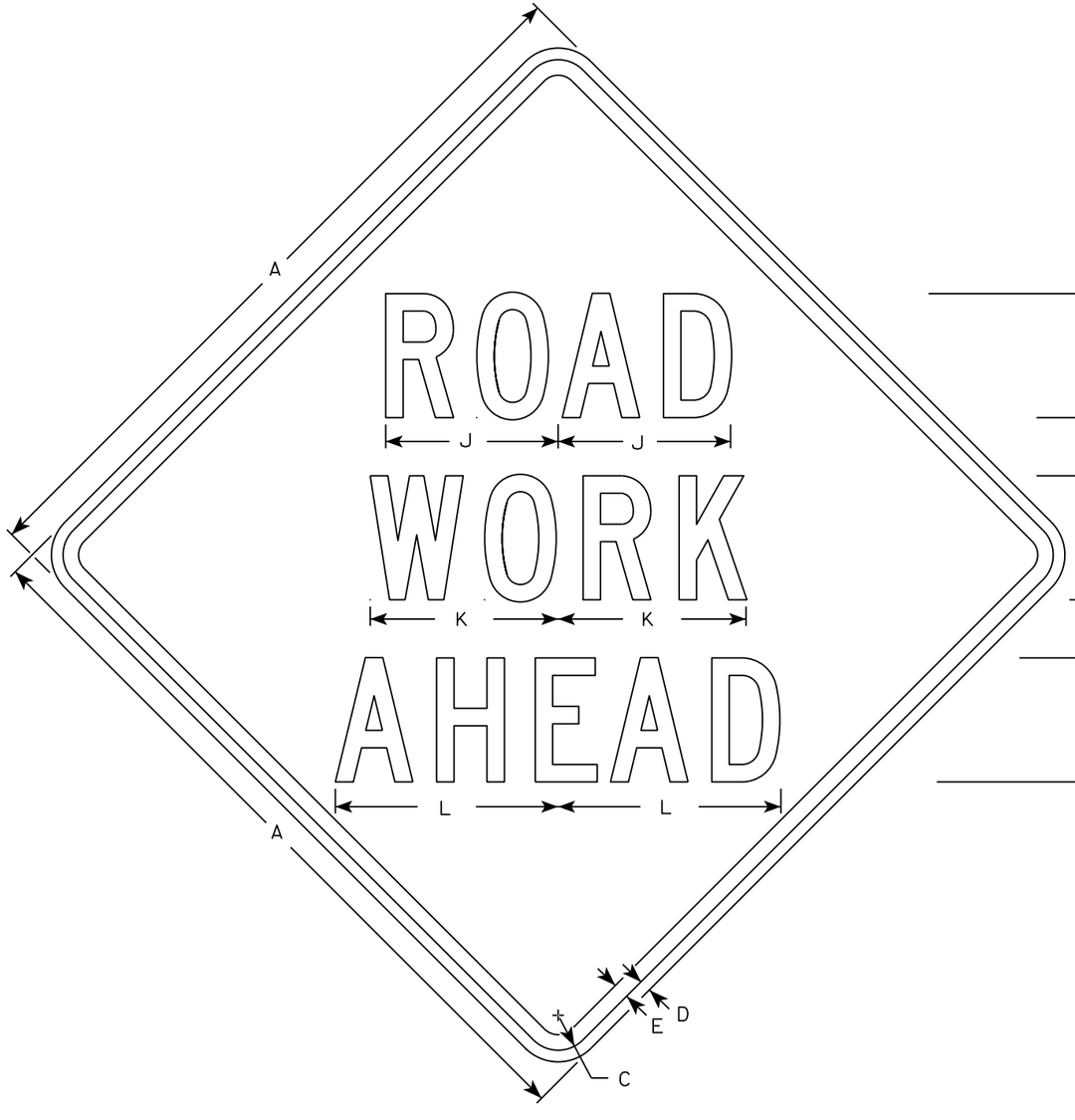
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

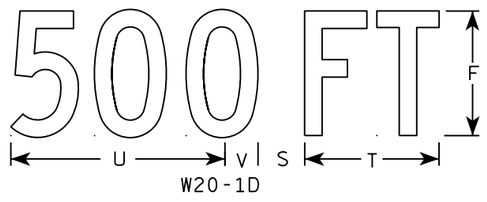
DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 315 | E

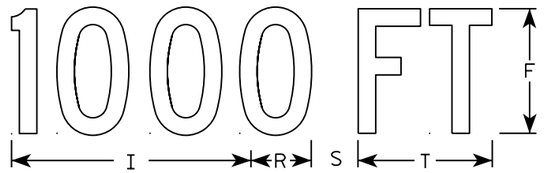
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



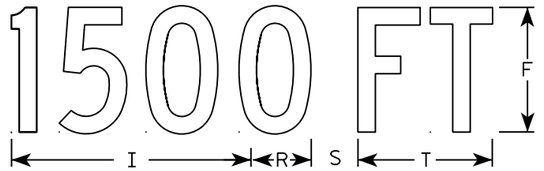
W20-1A



W20-1D



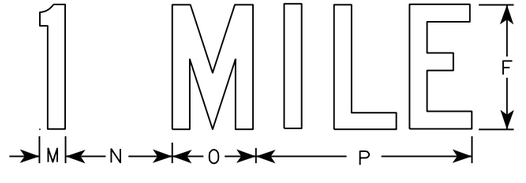
W20-1C



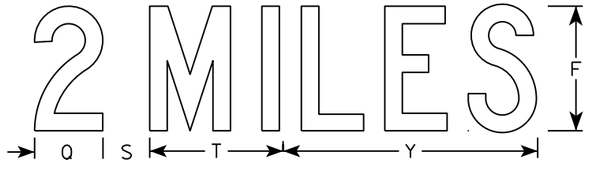
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

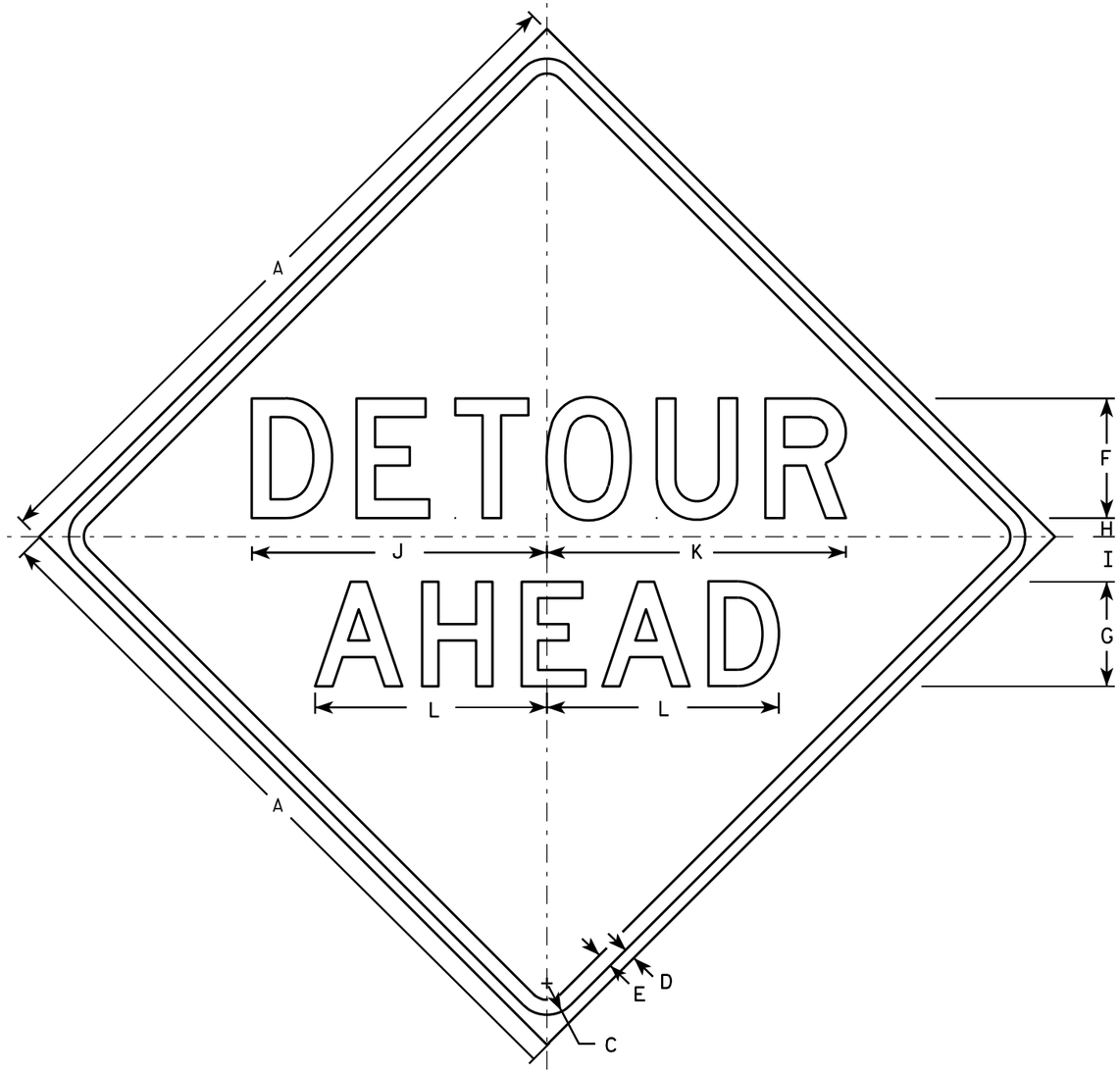
APPROVED Matthew R Rauch
for State Traffic Engineer

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

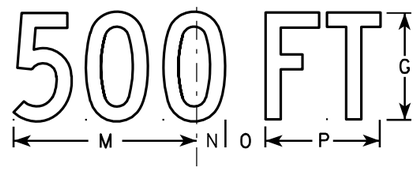
PROJECT NO:

SHEET NO: E

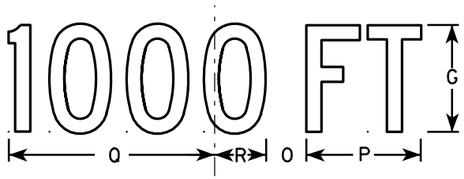
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



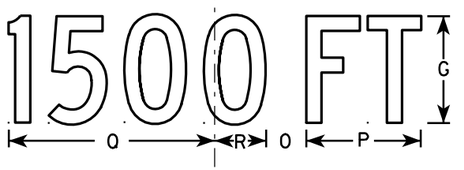
W20-2A



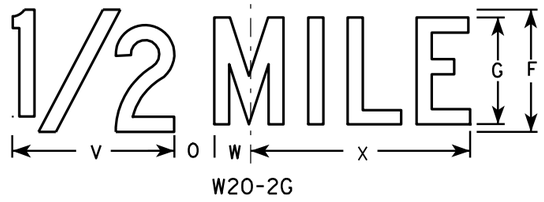
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

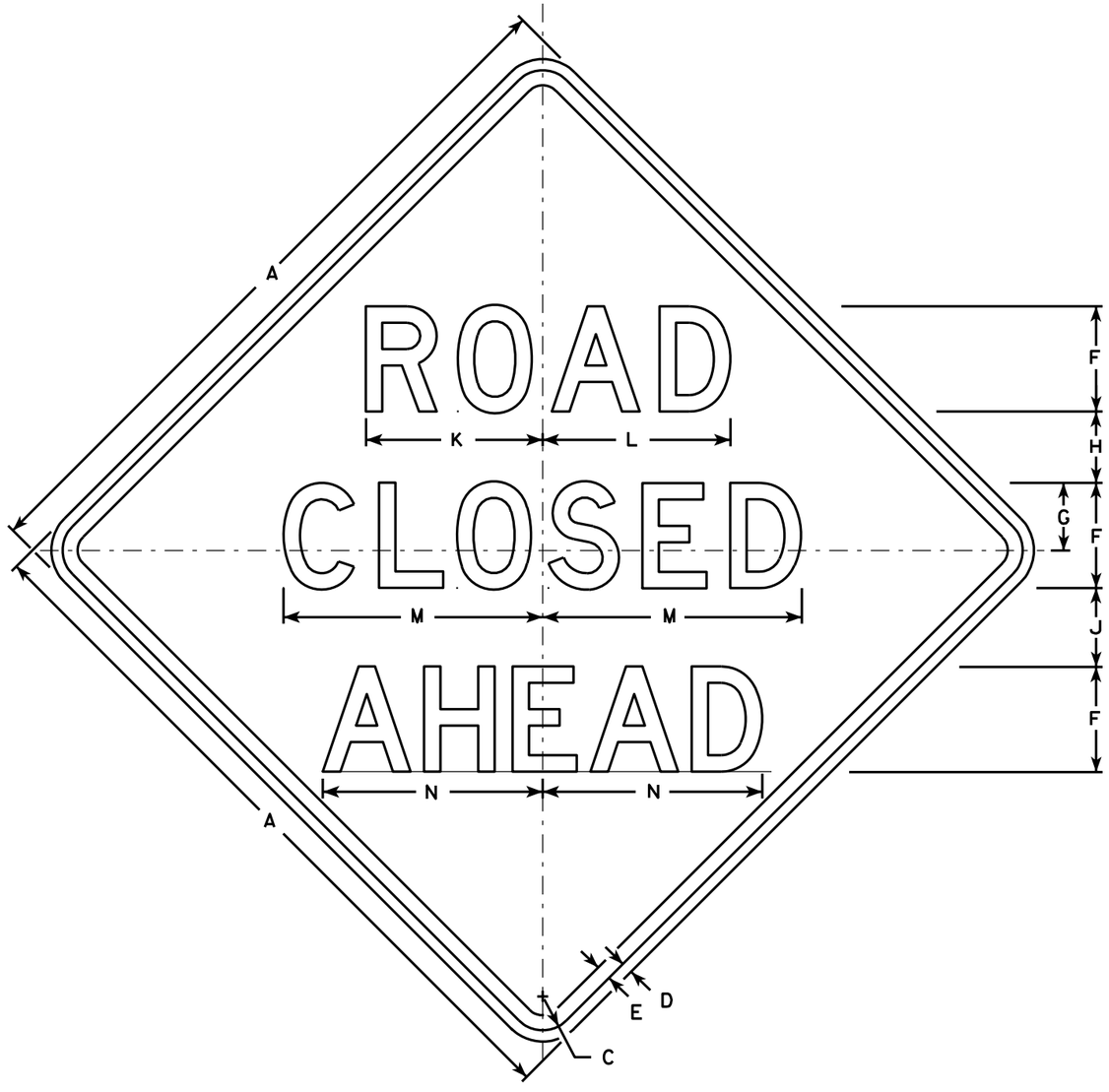
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

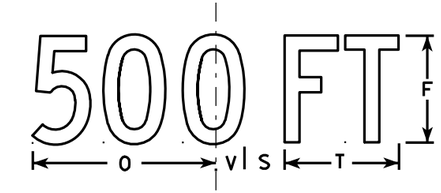
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 317 | E

7

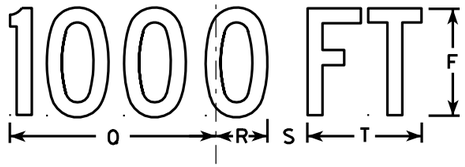
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



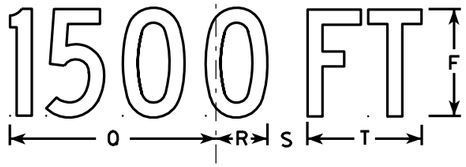
W20-3A



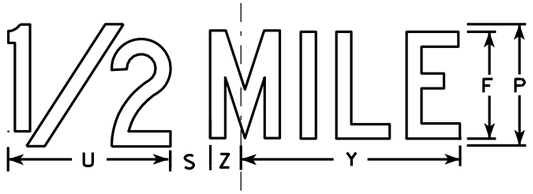
W20-3D



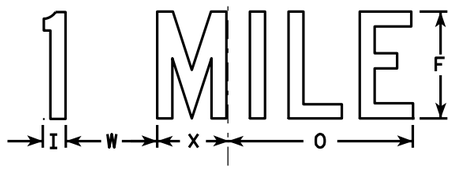
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

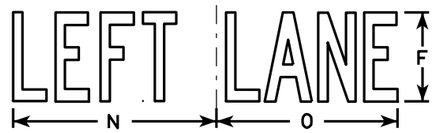
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

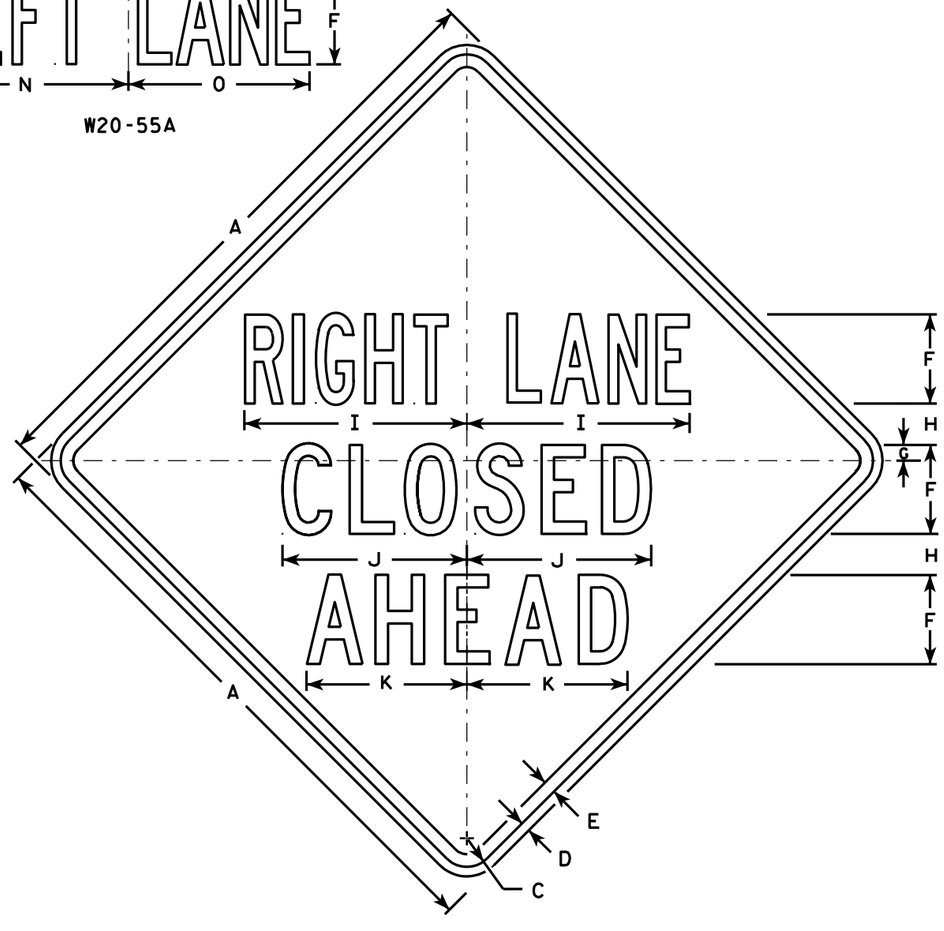
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 318 | E



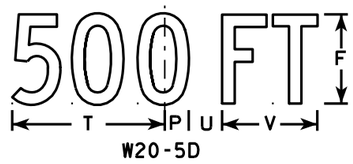
W20-56A



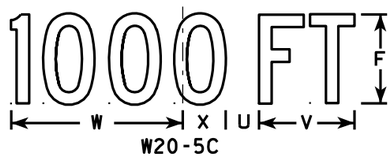
W20-55A



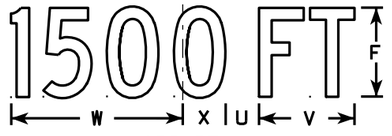
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

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

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

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

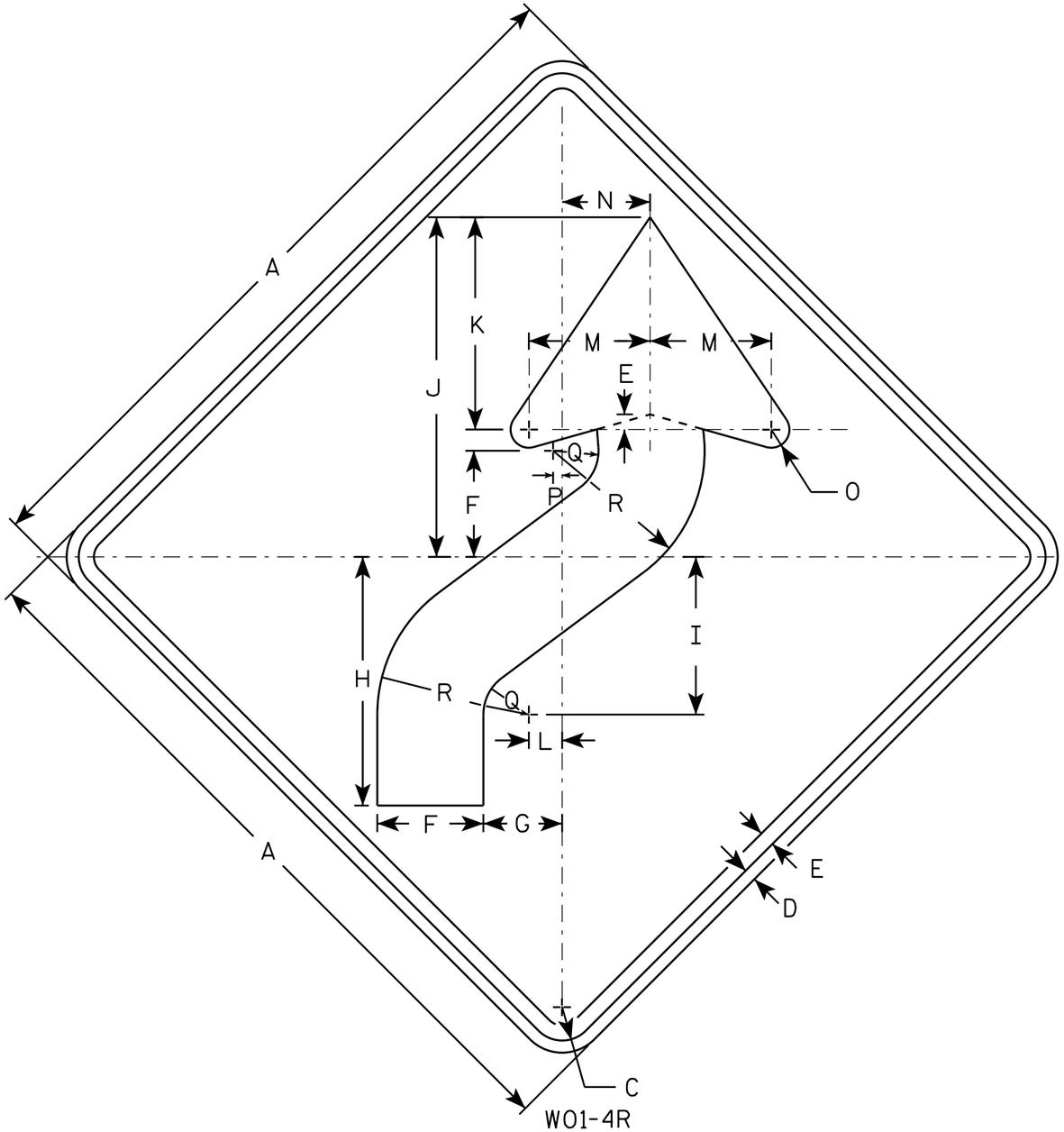
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 319	E

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



W01-4R

NOTES

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

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

STANDARD SIGN
W01-4

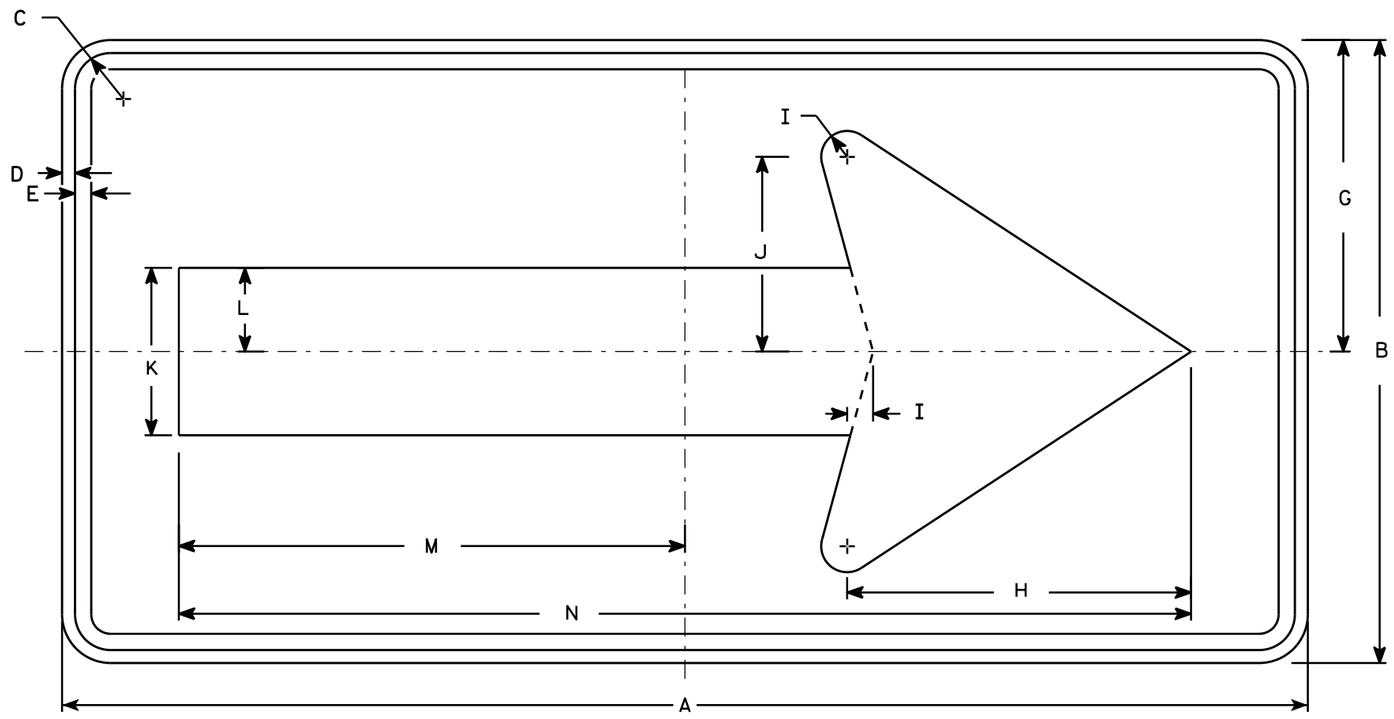
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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

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



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

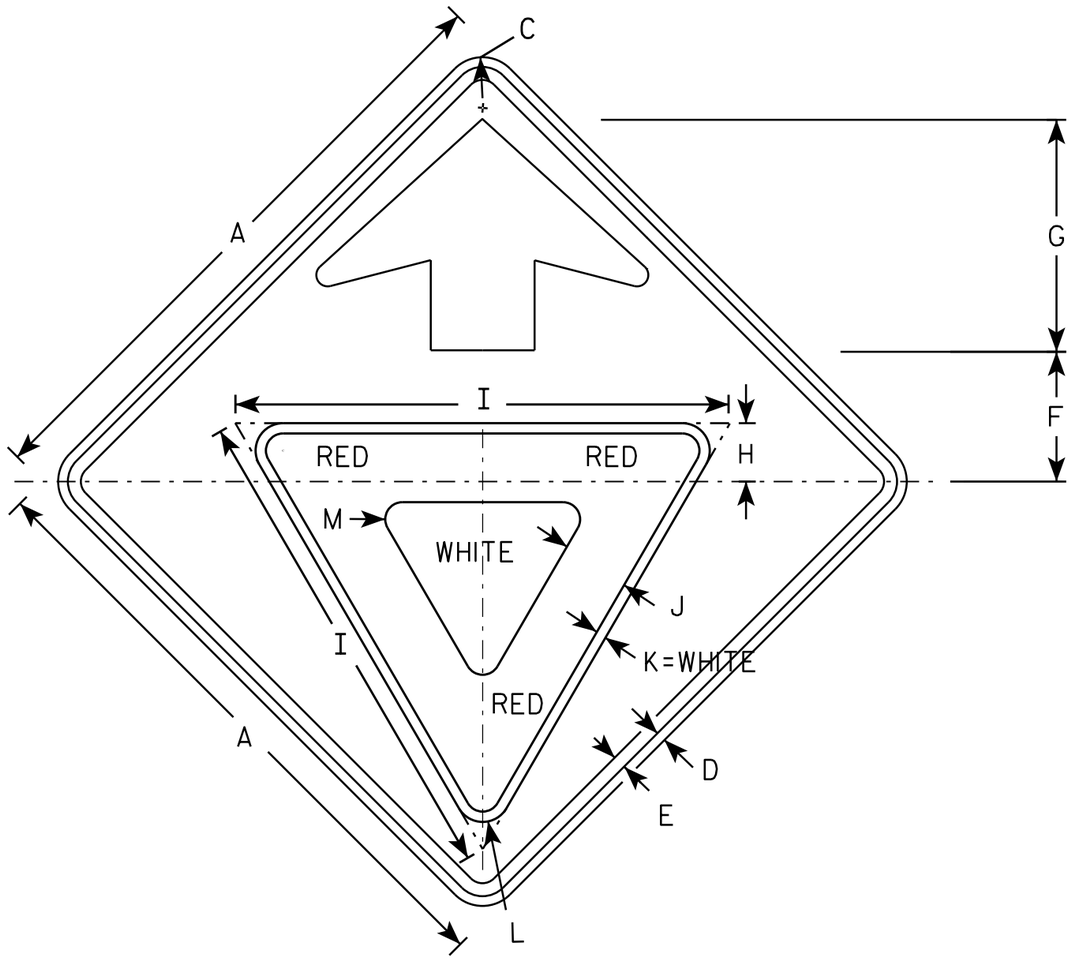
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-6.1

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

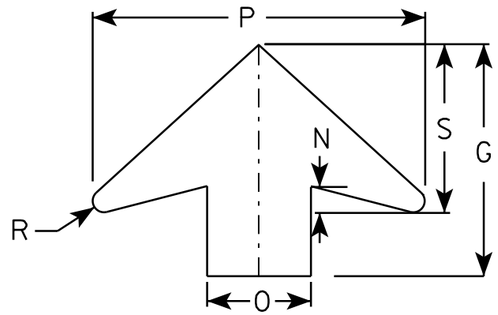
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield 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	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

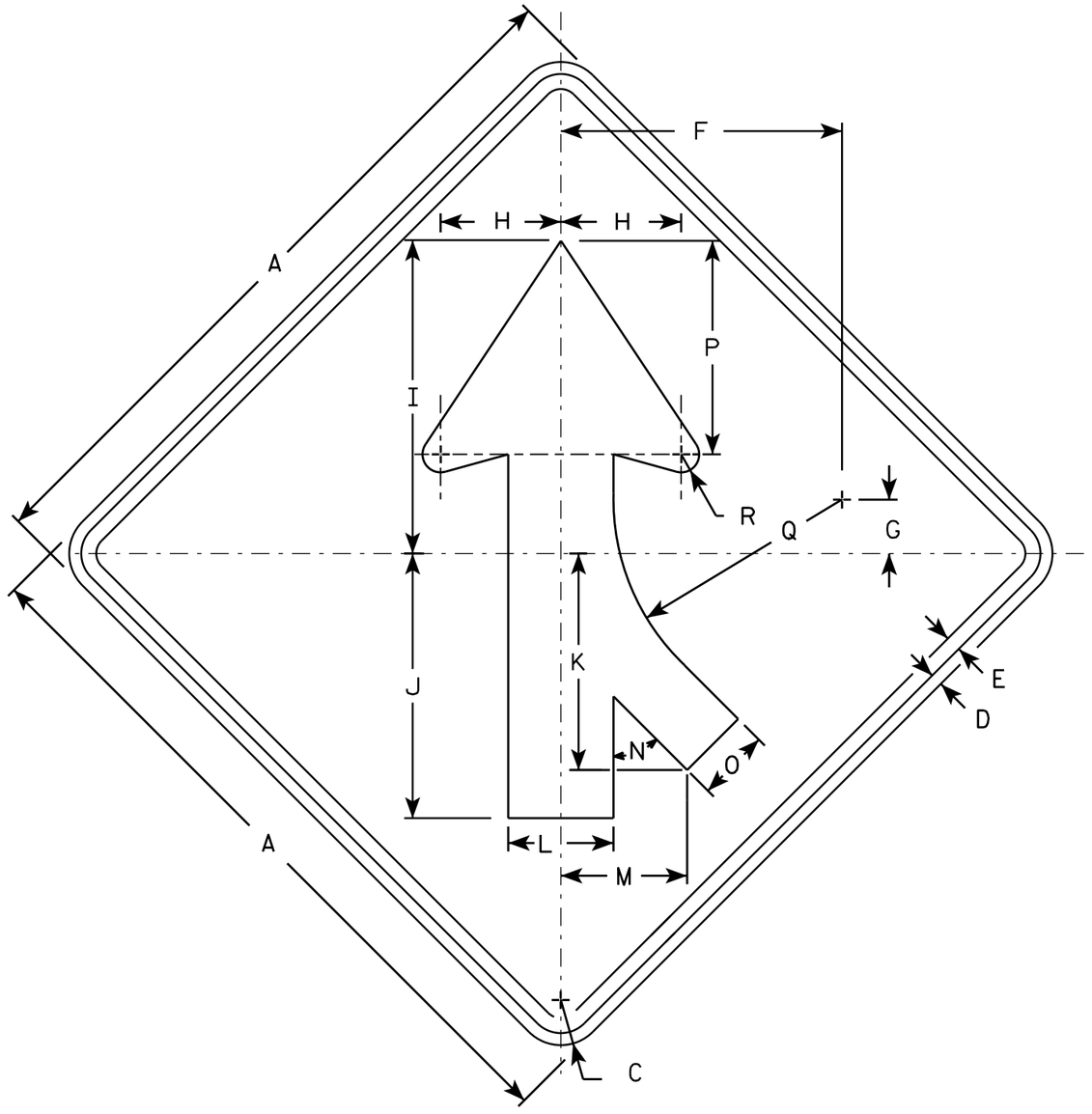
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

NOTES

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

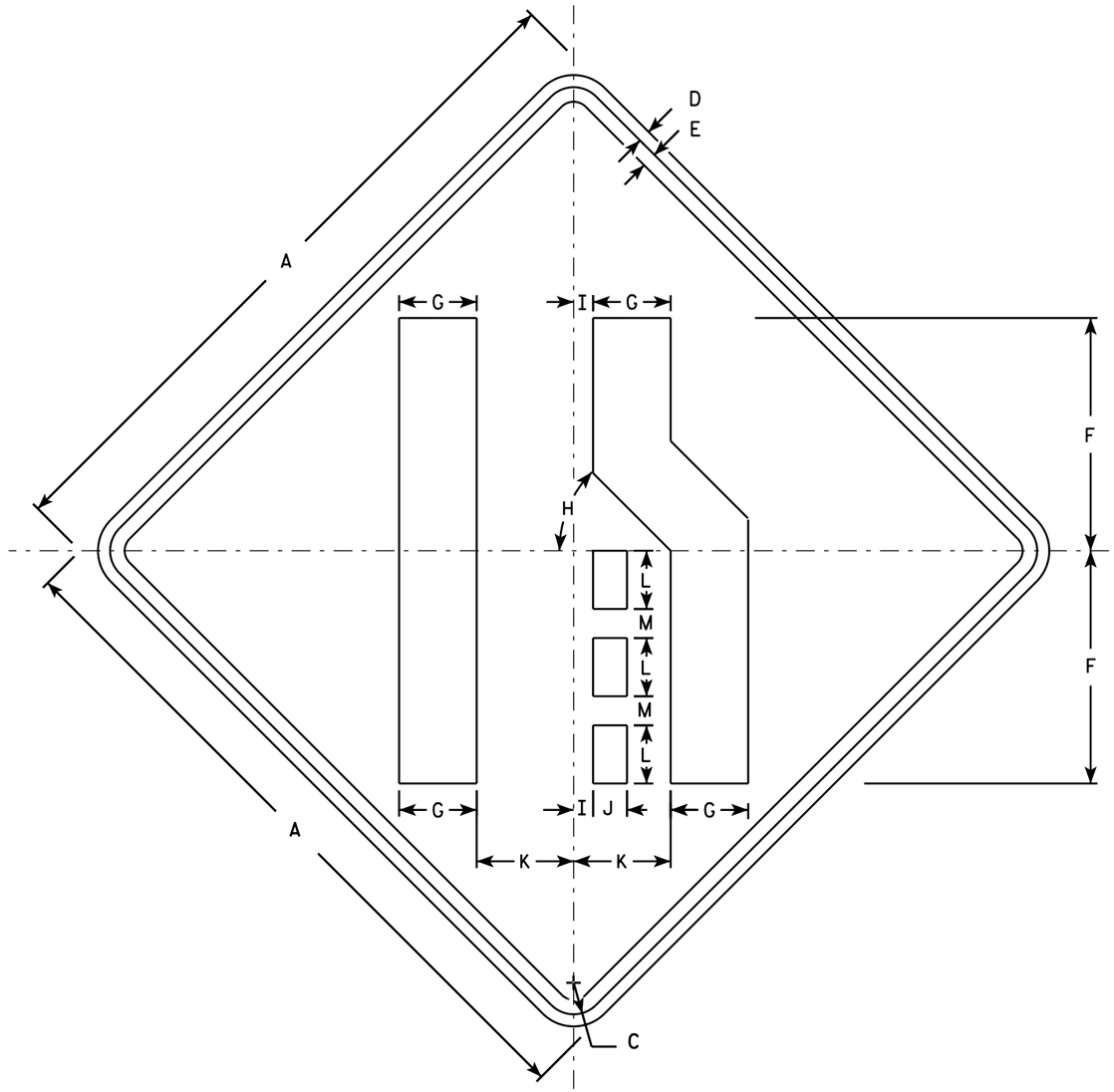
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-1.1

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



W04-2R

NOTES

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

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

STANDARD SIGN
W04-2

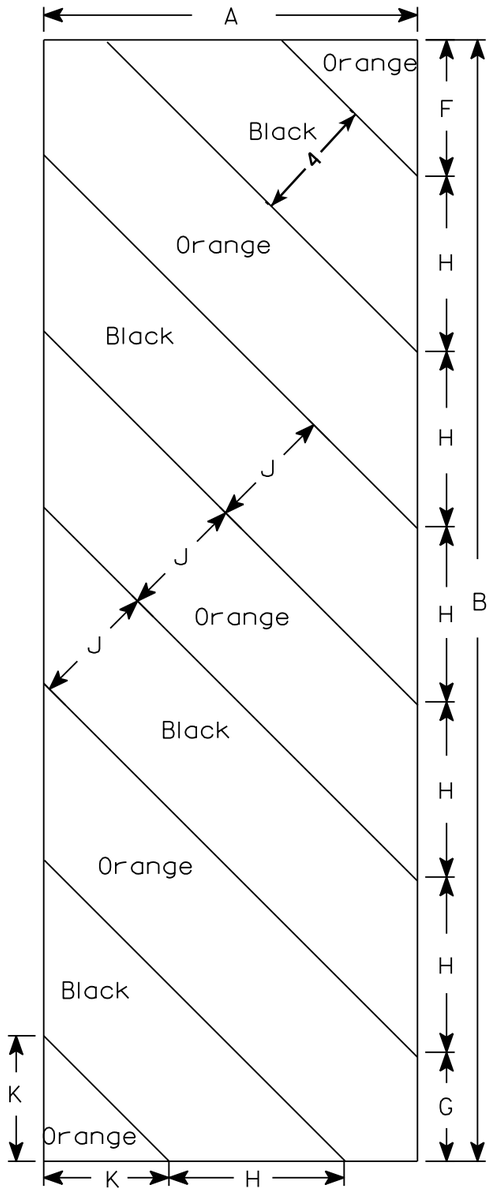
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

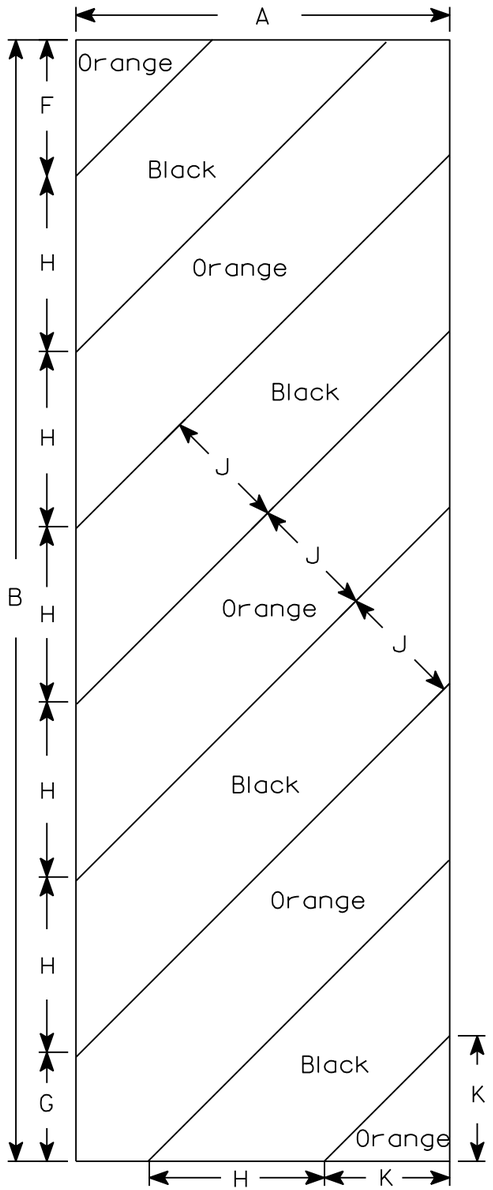
DATE 11/20/13 PLATE 324 W04-2.1

PROJECT NO: | SHEET NO: E

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



W05-52L



W05-52R

NOTES

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

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

STANDARD SIGN

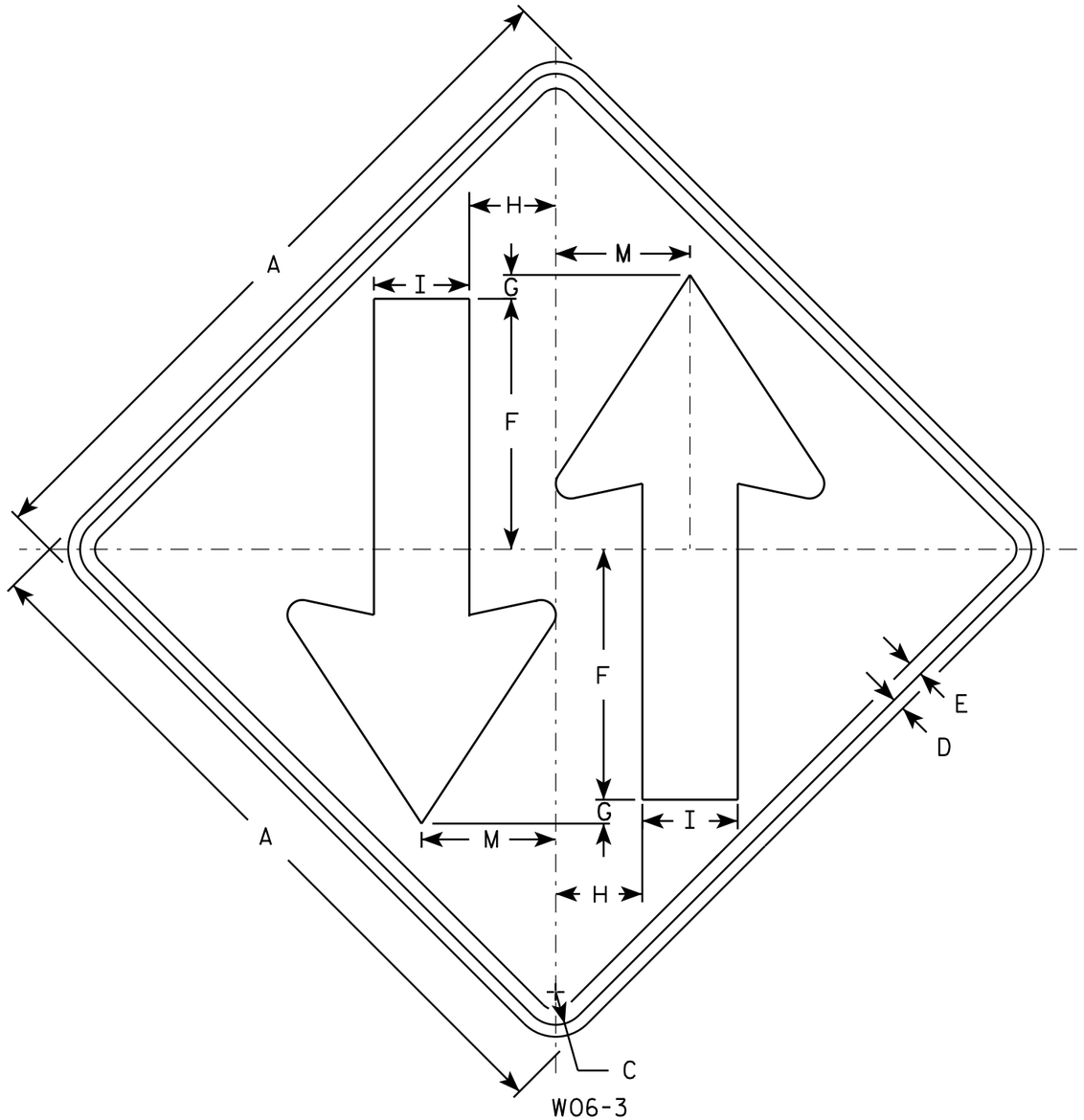
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

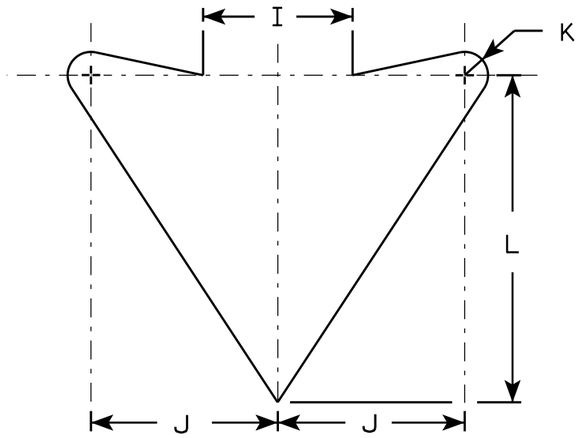
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W06-3

NOTES

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



ARROW DETAIL

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

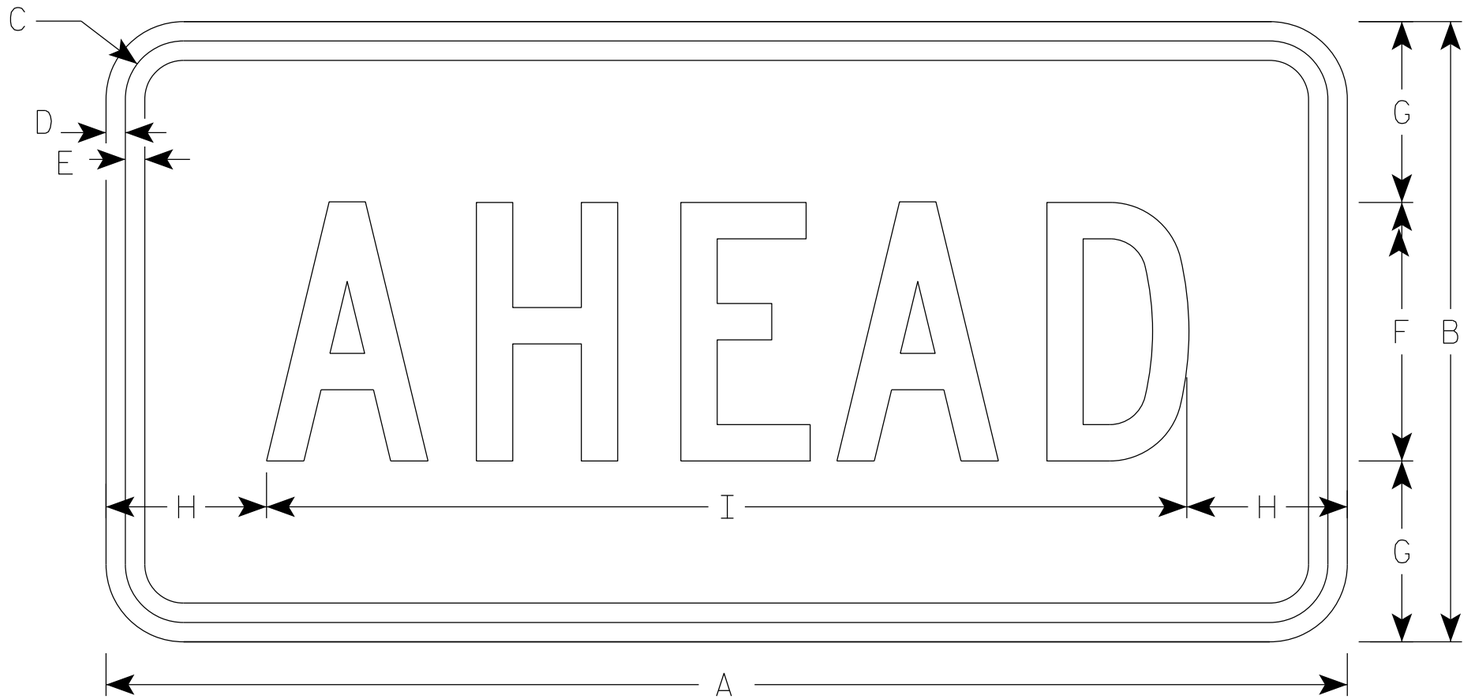
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 326 W06-3.1

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



W016-9P

NOTES

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

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 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2S	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
2M	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
3	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0

STANDARD SIGN
W016-9P

WISCONSIN DEPT OF TRANSPORTATION

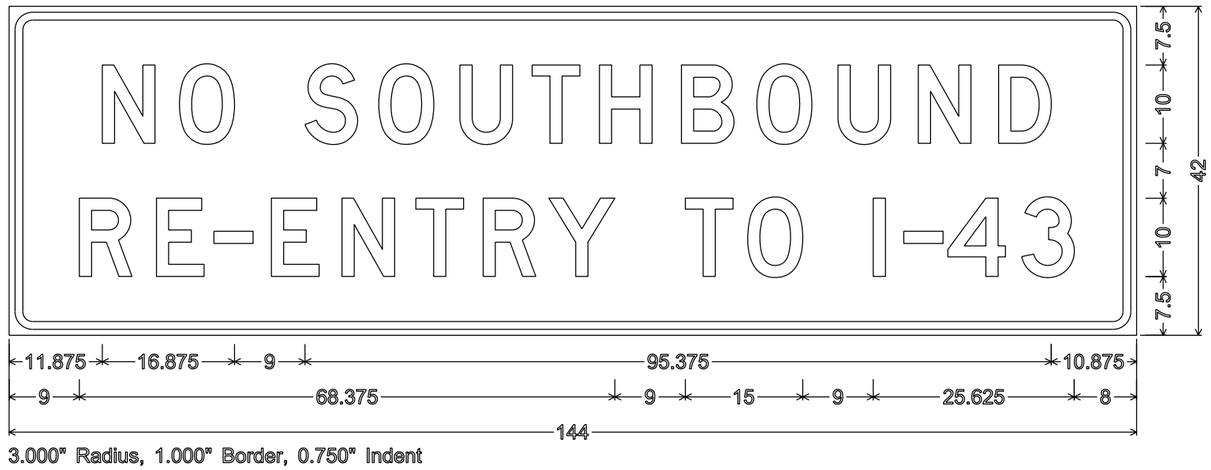
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/1/19 PLATE NO. W016-9P.7

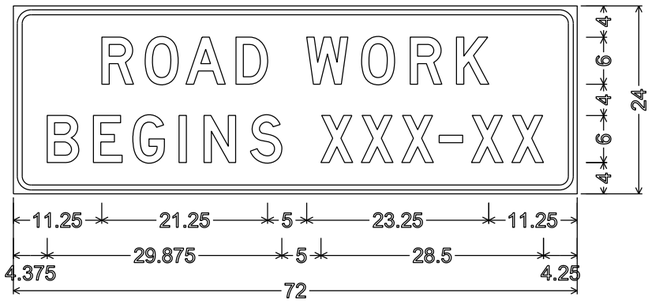
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 327 | E

NOTES

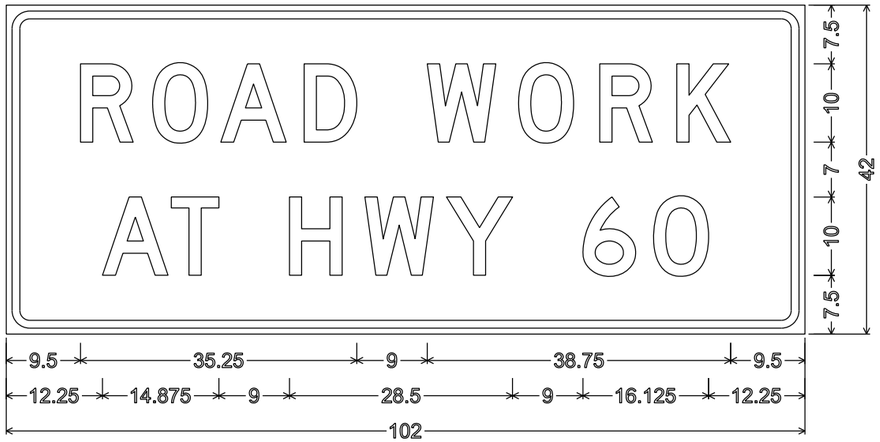
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



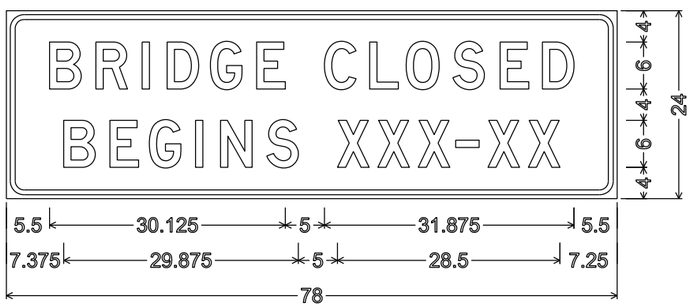
3.000" Radius, 1.000" Border, 0.750" Indent



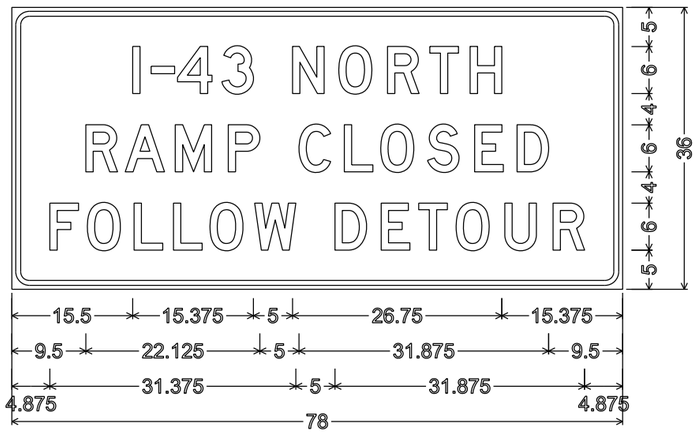
2.250" Radius, 0.625" Border, 0.500" Indent



3.000" Radius, 1.000" Border, 0.750" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



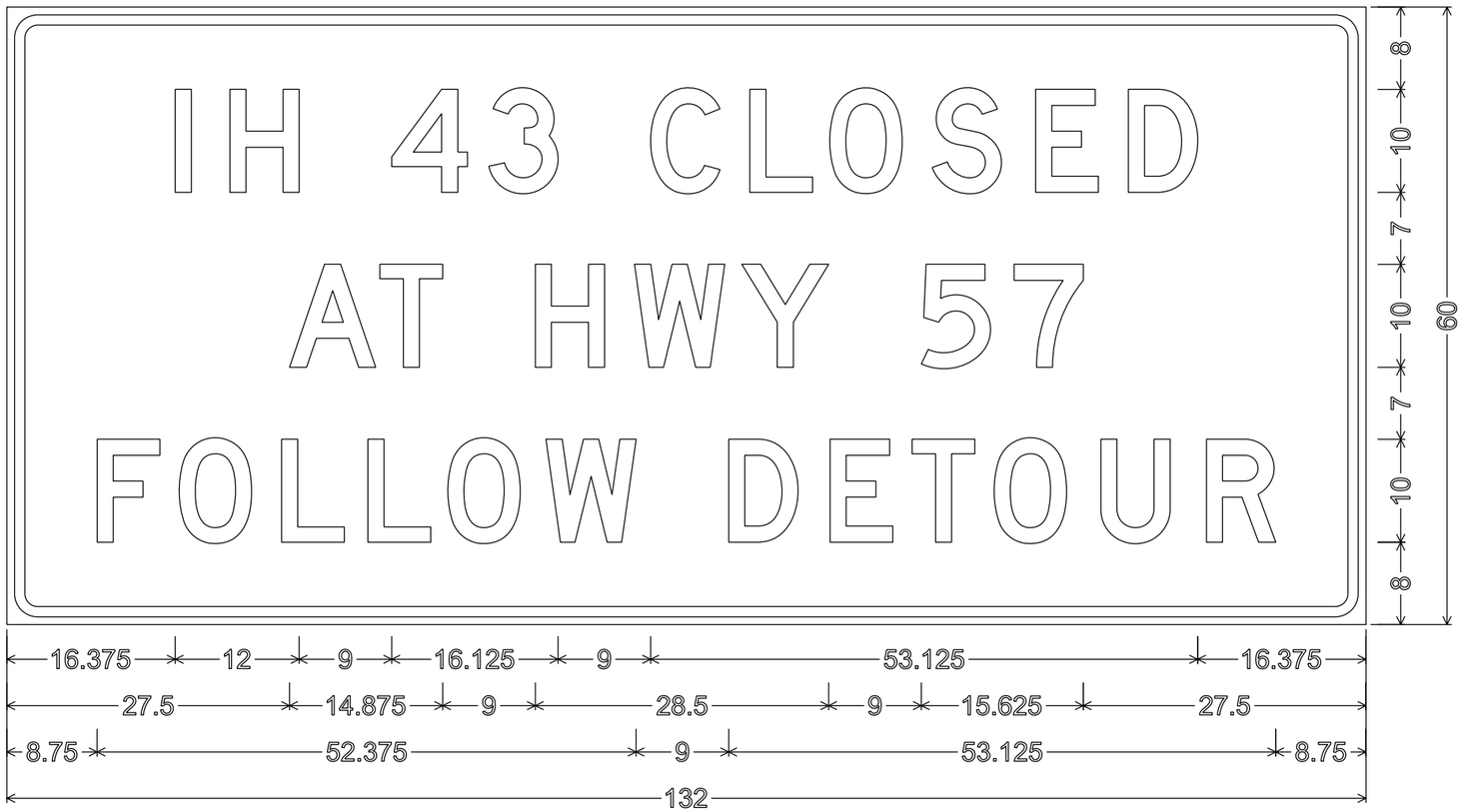
2.250" Radius, 0.625" Border, 0.500" Indent

7

7

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

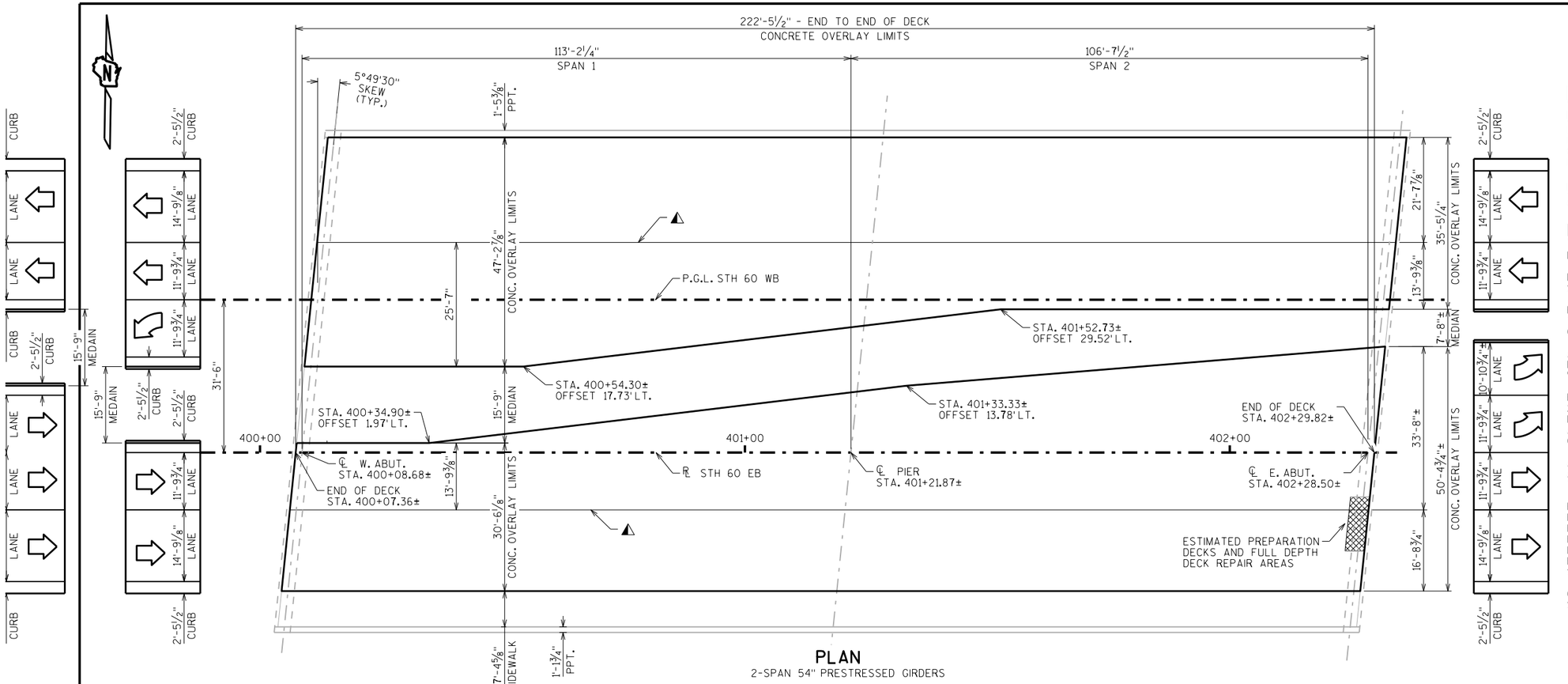


3.000" Radius, 1.000" Border, 0.750" Indent

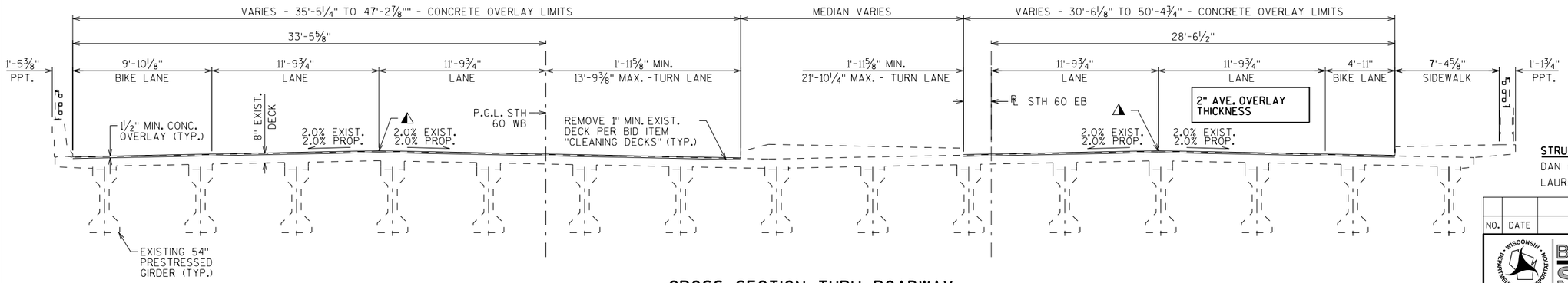
7

7

PROJECT NO:1450-02-72	HWY: IH 43	COUNTY:OZAUKEE	TEMPORARY SIGNING	SHEET NO: 329	E



PLAN
2-SPAN 54" PRESTRESSED GIRDERS



CROSS SECTION THRU ROADWAY
LOOKING EAST FROM WEST ABUT.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,989
509.0301	PREPARATION DECKS TYPE 1	SY	7
509.0302	PREPARATION DECKS TYPE 2	SY	2
509.0500	CLEANING DECKS	SY	1,989
509.1500	CONCRETE SURFACE REPAIR	SF	1
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	111

STATE PROJECT NUMBER
1450-02-70

DESIGN DATA

LIVE LOAD:
DESIGN RATING: HS-20
INVENTORY RATING: HS-20
OPERATIONAL RATING: HS-32
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

CONCRETE SURFACE REPAIR LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

TRAFFIC VOLUME

STH 60
ADT = 18,700 (2039)
R.D.S. = 40 M.P.H.

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. STAGING DETAILS

▲ CROWN POINT/LONGIT. CONST. JOINT

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES
ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-15

STH 60 OVER IH 43-STH32-STH57

COUNTY: OZAUKEE | VILLAGE: GRAFTON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	MWB	DLM	MWB

CONCRETE OVERLAY

SHEET 1 OF 2

330

I.D. 1450-02-00K DATE: JULY 2019

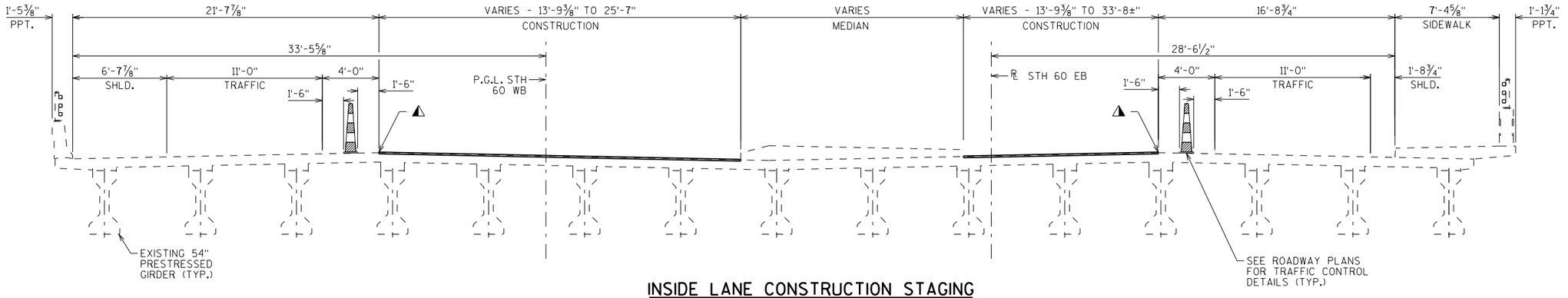
SCALE = 12.00

8

8

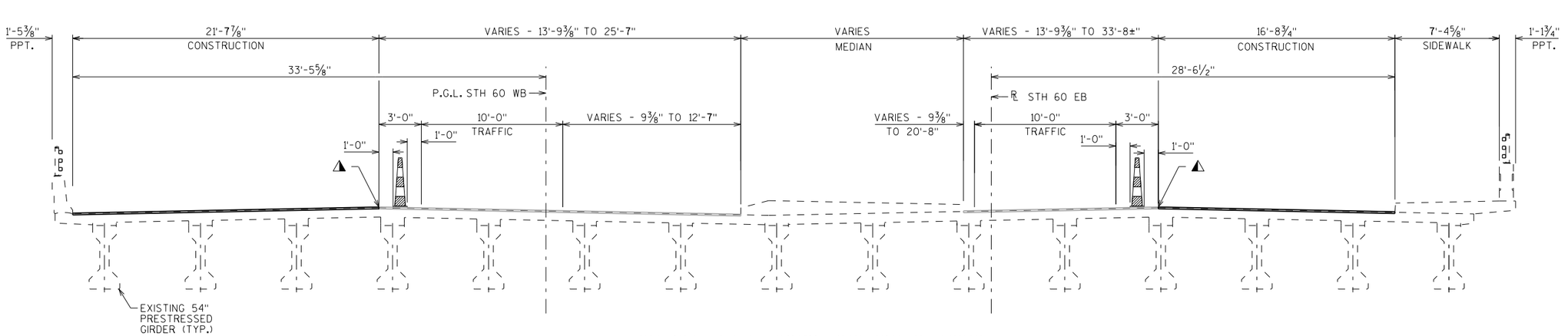
STATE PROJECT NUMBER

1450-02-70



INSIDE LANE CONSTRUCTION STAGING

LOOKING EAST FROM WEST. ABUT.



OUTSIDE LANE CONSTRUCTION STAGING

LOOKING EAST FROM WEST. ABUT.

8

8

▲ LONGIT. CONST. JOINT/ CROWN POINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-15

DRAWN BY DLM | PLANS CK'D. MWB

STAGING DETAILS

SHEET 2

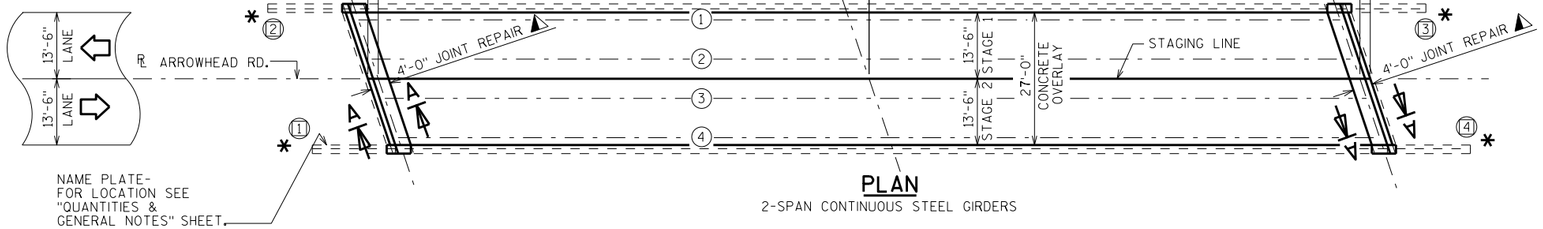
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SCALE = 4.00

STATE PROJECT NUMBER
1450-02-70

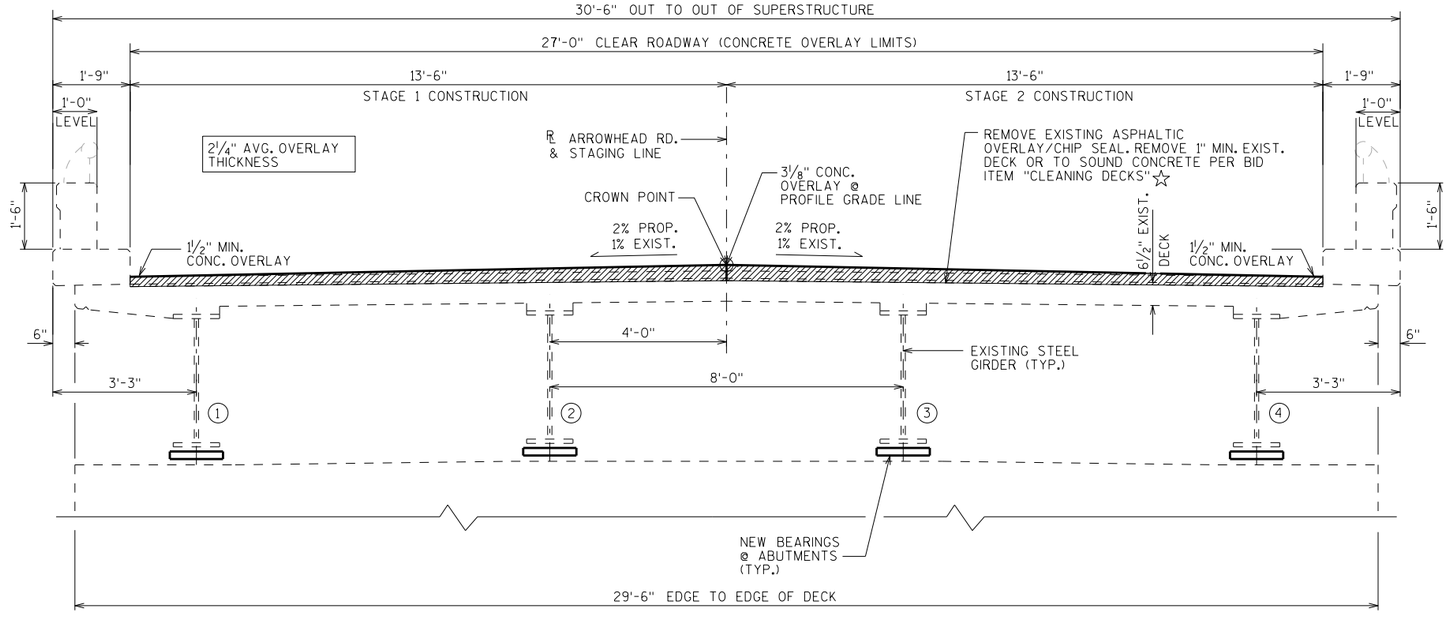
* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(1) INDICATES WING NUMBER



PLAN

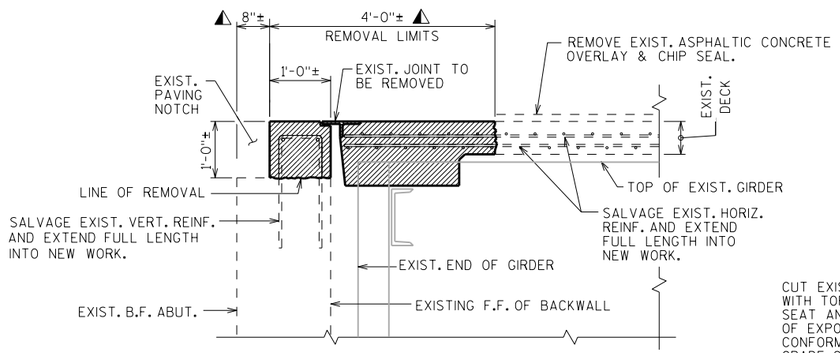
2-SPAN CONTINUOUS STEEL GIRDERS



CROSS SECTION THRU ROADWAY

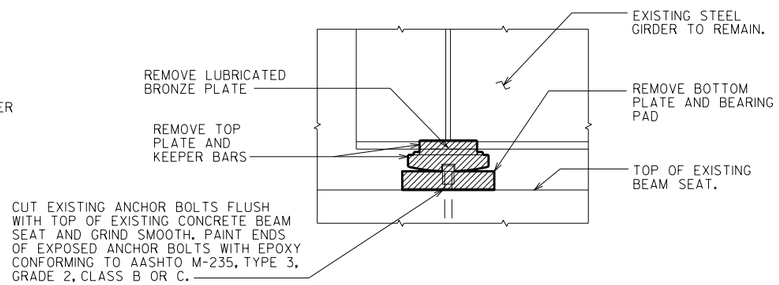
LOOKING EAST

☆ EXISTING 2"± ASPHALTIC OVERLAY WITH CHIP SEAL. REMOVAL COVERED UNDER "REMOVING ASPHALTIC CONCRETE DECK OVERLAY".



EXISTING SECTION A-A

SHOWING REMOVAL TYP. BOTH ABUTMENTS



BEARING REMOVAL DETAIL

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-14
OPERATING RATING: HS-28
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 150 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ———— fy = 60,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON: ARROWHEAD ROAD
ADT = 560 (2039)
R.D.S. = 30 M.P.H.

FEATURE UNDER: IH-43
ADT = 51,900 (2039)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. CONCRETE OVERLAY & JOINT REPLACEMENT
2. QUANTITIES & GENERAL NOTES
3. JOINT REPAIR DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS
6. STEEL GIRDER BEARINGS
7. SLOPE PAVING RESEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:
DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-27

ARROWHEAD RD. OVER IH 43

COUNTY	TOWN/CITY/VILLAGE
OZAUKEE	GRAFTON

DESIGN SPEC. REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

CONCRETE OVERLAY & JOINT REPLACEMENT

SHEET 1 OF 8

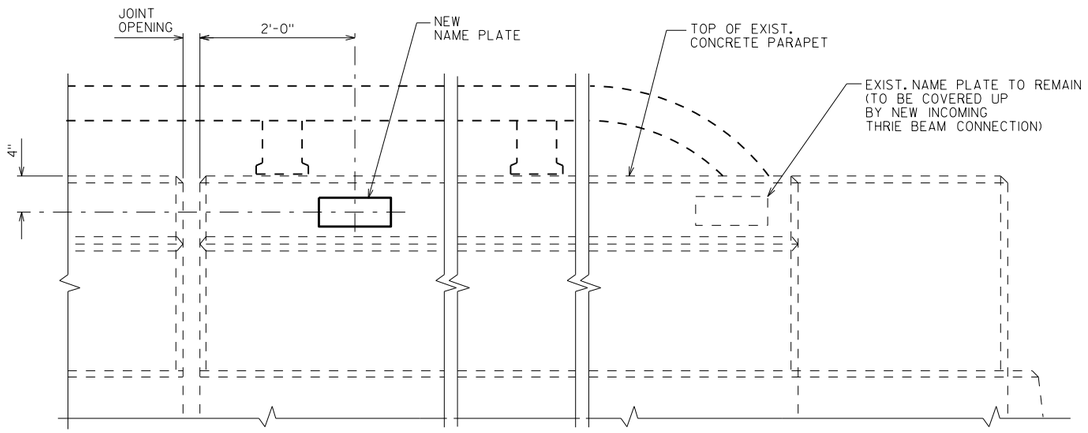
332

I.D. 1450-02-00E DATE: MAY 2019

SCALE = 15.00

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⬟ NAME PLATE DETAIL

INSIDE ELEVATION OF SOUTHWEST WING - WING 1

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-27	LS	———	———	———	1
◔ 502.3100	EXPANSION DEVICE B-45-27	LF	58	———	———	58
502.3200	PROTECTIVE SURFACE TREATMENT	SY	625	———	———	625
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	33	33	66
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2170	———	———	2170
505.0904	BAR COUPLERS NO. 4	EACH	8	———	———	8
505.0905	BAR COUPLERS NO. 5	EACH	26	———	———	26
505.0906	BAR COUPLERS NO. 6	EACH	10	———	———	10
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	8	———	———	8
506.7050.S	REMOVING BEARINGS B-45-27	EACH	8	———	———	8
509.0301	PREPARATION DECKS TYPE 1	SY	261	———	———	261
509.0302	PREPARATION DECKS TYPE 2	SY	196	———	———	196
509.0500	CLEANING DECKS	SY	607	———	———	607
509.1000	JOINT REPAIR	SY	33	———	———	33
509.1200	CURB REPAIR	LF	35	———	———	35
509.1500	CONCRETE SURFACE REPAIR	SF	———	15	15	30
509.2000	FULL-DEPTH DECK REPAIR	SY	1	———	———	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	74	———	———	74
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-45-27	SY	607	———	———	607
513.9005.S	REMOVING AND RESETTING TUBULAR RAILING B-45-27	LS	———	———	———	1
△ 517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-27	LS	———	———	———	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-27	LS	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	118	118	236
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	———	2	2	4
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	LS	———	———	———	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3⅛". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT CAULK AROUND RAIL ATTACHMENT PLATES, CAULK AROUND BOLTS IN ATTACHMENT PLATES, AND GASKET UNDER ATTACHMENT PLATES. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE GREEN, (FEDERAL STANDARD COLOR NO. 24260) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

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

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

⬟ THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWING 12a3; ATTACH TO EXISTING PARAPET PER THE "ALTERNATE LUG (FOR ATTACHMENT TO PRECAST STRUCTURES)" DETAIL OF STANDARD DETAIL DRAWING 12a3. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1967. NAME PLATE & INSTALLATION TO BE INCLUDED IN BID ITEM, "CONCRETE MASONRY OVERLAY DECKS".

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

◔ QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.

△ ESTIMATED QUANTITY IS BASED ON PAINTING 10'-0" ONLY OF THE EXISTING GIRDER ENDS AT BOTH ABUTMENTS, INCLUDING EXISTING STEEL END DIAPHRAGMS & ALL CONNECTION ELEMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

DRAWN BY WWR | PLANS CK'D. DMB

QUANTITES & GENERAL NOTES

SHEET 2

333

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SCALE = 17.00

STATE PROJECT NUMBER

1450-02-70

BILL OF BARS

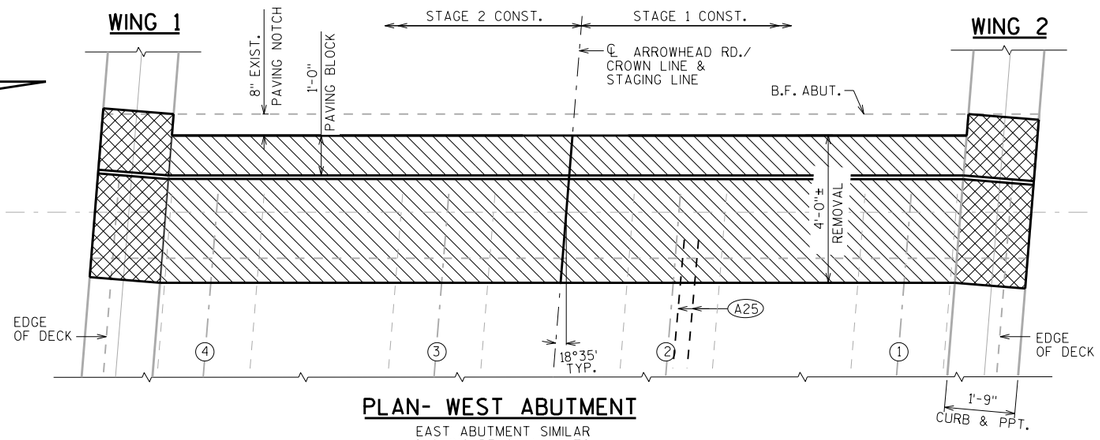
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
★	S501	X	36	6'-4"			PAVING BLOCK - TRANSVERSE
	S402	X	66	3'-2"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	66	3'-0"	X		PAVING BLOCK - VERTICAL
●	S504	X	40	15'-5"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	20	7'-1"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	8	7'-1"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	60	4'-11"	X		DIAPHRAGM - VERTICAL
	S508	X	16	4'-11"	X		PARAPET - VERTICAL
	S509	X	28	1'-10"	X		PARAPET & CURB- VERTICAL
	S510	X	16	3'-8"	X		PARAPET & DECK/CURB- VERTICAL
*	S411	X	8	7'-0"			EXPANSION DEVICE - TRANSVERSE
◒	S612	X	20	3'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
☆	S413	X	8	3'-6"			DIAPHRAGM - TRANSVERSE - TOP
*◒	S414	X	8	3'-6"			EXPANSION DEVICE - TRANSVERSE
	S515	X	8	4'-2"	X		CURB/PAVING NOTCH
	S516	X	12	5'-5"	X		PPT./CURB/WING-VERTICAL
	S517	X	4	3'-2"	X		CURB/WING-VERTICAL

* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS

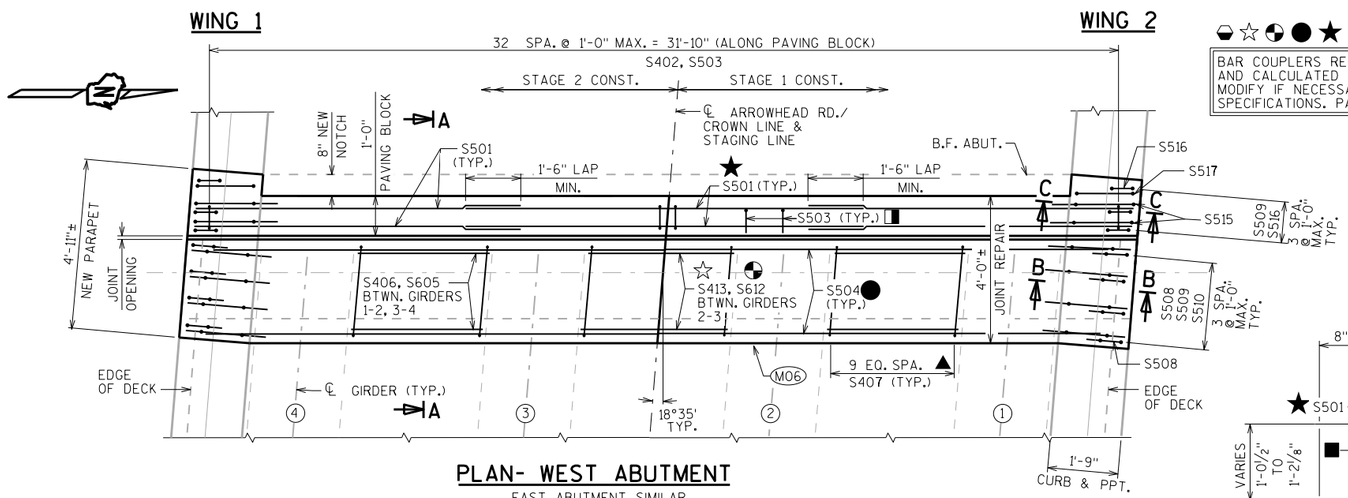
◒ ☆ ◔ ● ★

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.



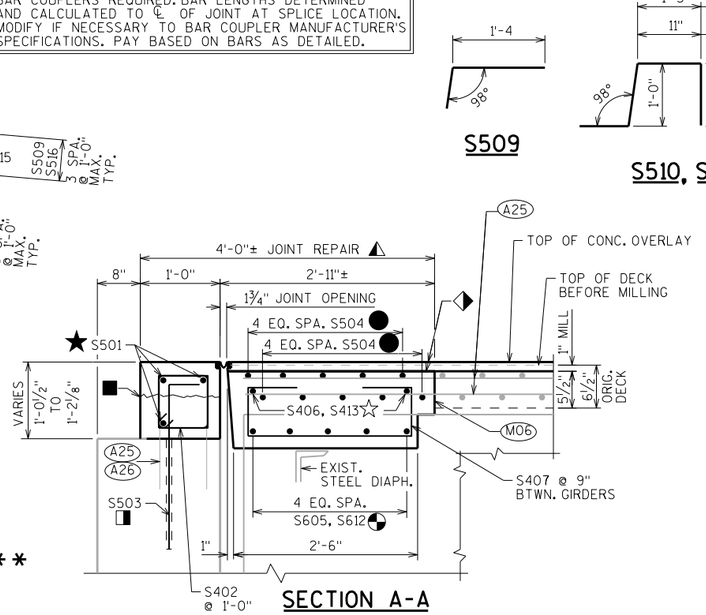
PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS

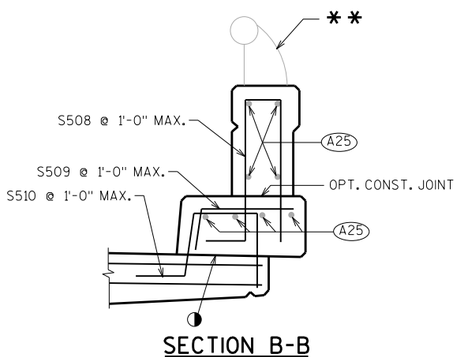


PLAN- WEST ABUTMENT

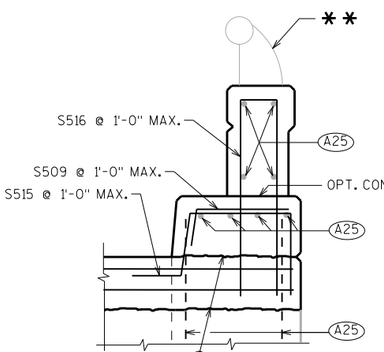
EAST ABUTMENT SIMILAR
SHOWING REPAIR



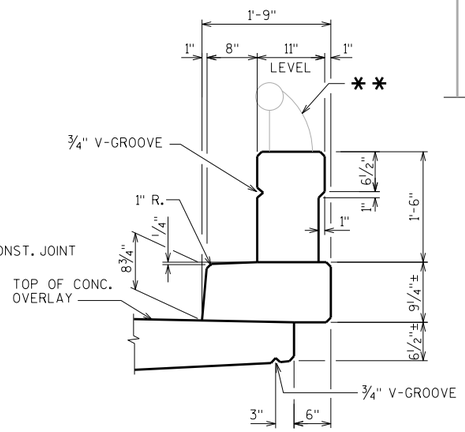
SECTION A-A



SECTION B-B

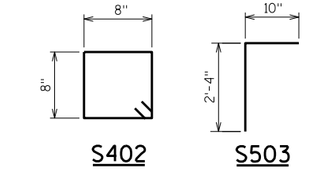


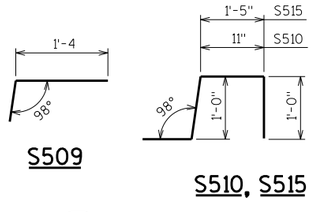
SECTION C-C



SECTION THRU PARAPET

** SALVAGE AND REUSE EXISTING METAL RAIL, RAIL POSTS, & CONNECTION ELEMENTS. NOTE THAT ASBESTOS ABATEMENT IS REQUIRED FOR CAULKING AROUND THE RAIL POST ATTACHMENT PLATES AND THE ATTACHMENT PLATE BOLTS. WORK SHALL BE INCLUDED IN THE BID ITEM "REMOVING AND RESETTING TUBULAR RAILING B-45-27".





(2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

(2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

(5) #6 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

(10) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

(3) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

NOTE: SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

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

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

M06 ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.

◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.

▲ MEASURED NORMAL TO ℄ SUBSTRUCTURE

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

DRAWN BY WWR | PLANS CK'D. DMB

JOINT REPAIR DETAILS

SHEET 3

334

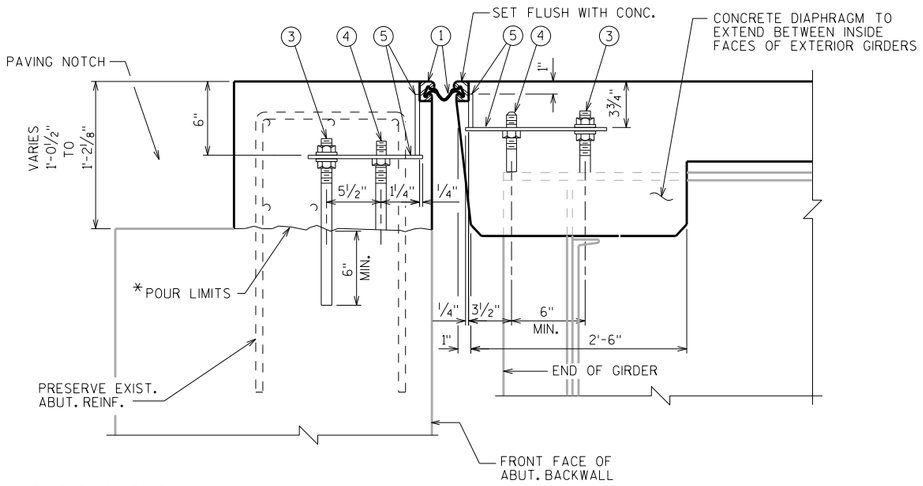
SCALE = 2.00

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STATE PROJECT NUMBER

1450-02-70



* POUR CONC. ABOVE THIS JOINT AFTER SUPERSRTUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.

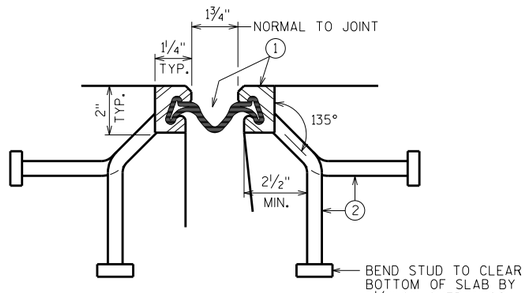
(6) GALVANIZED PLATE ⅜" X 1'-5¼" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

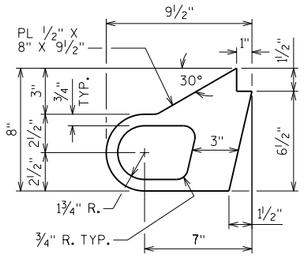
(9) ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

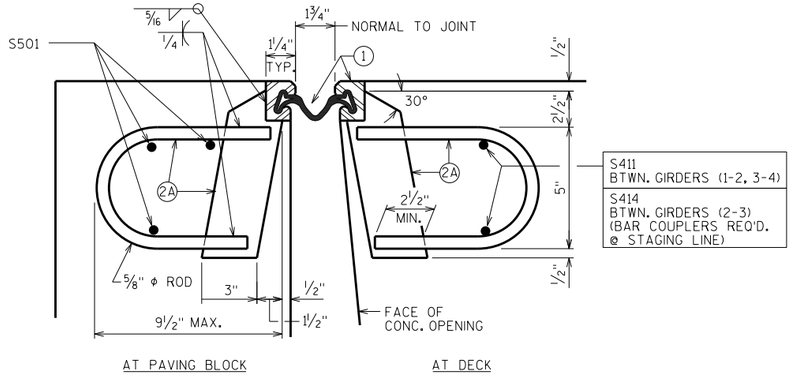


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

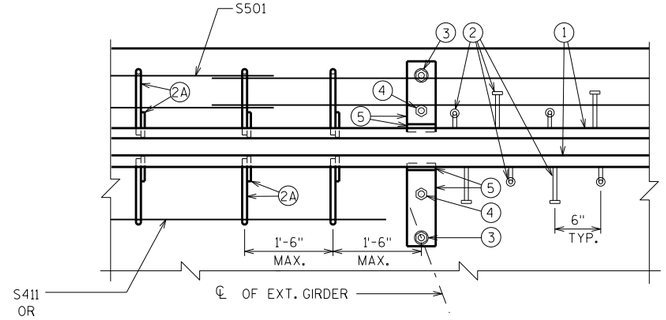


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-27".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

DRAWN BY WWR | PLANS CK'D. DMB

EXPANSION DEVICE

SHEET 4

335

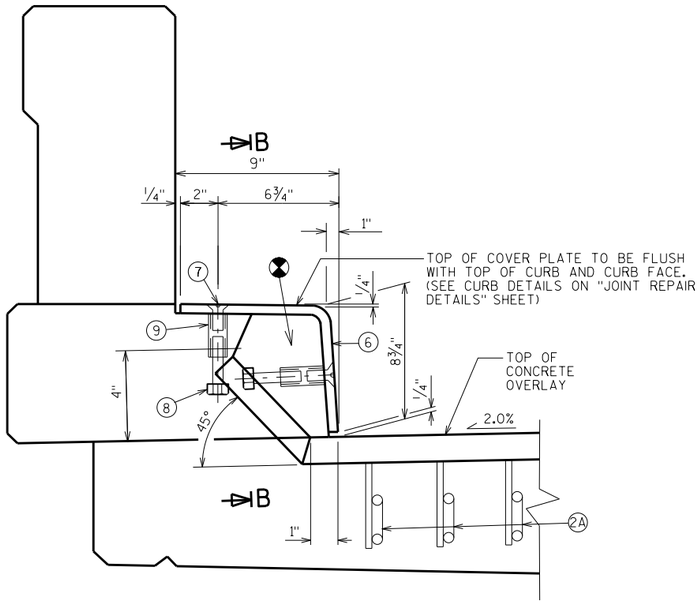
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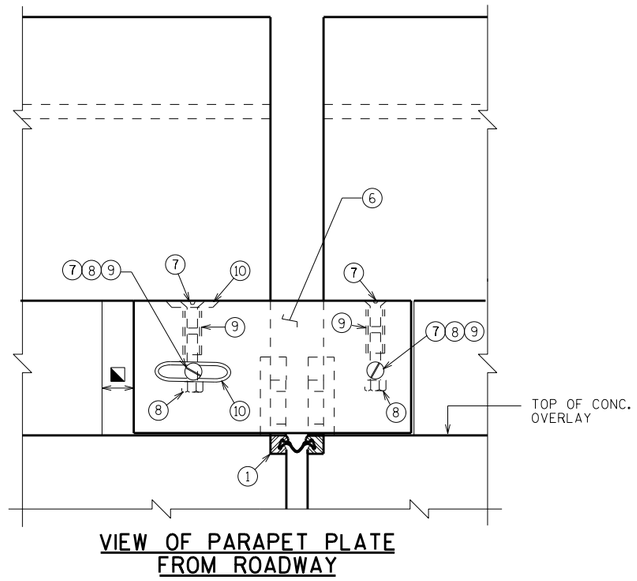
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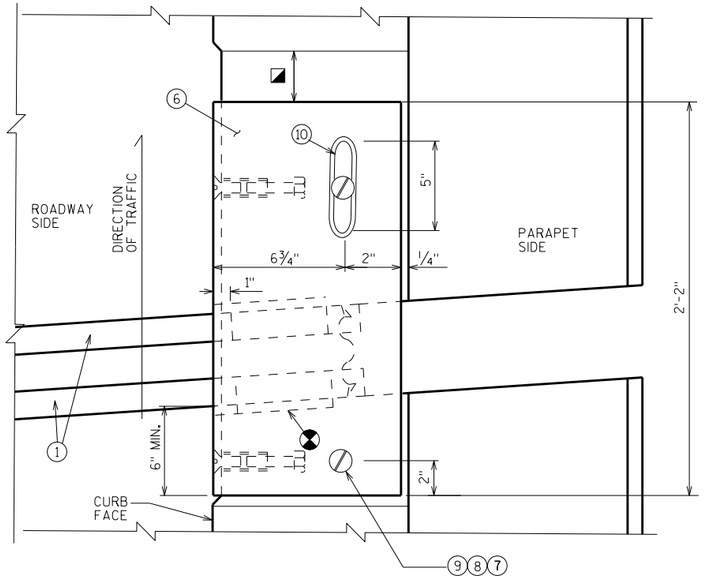
1450-02-70



TYP. PART. SECT. THRU CURB & PARAPET

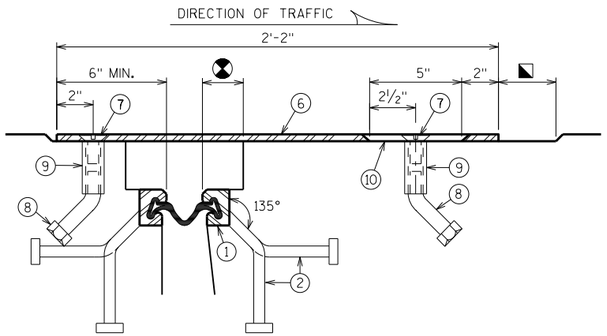


VIEW OF PARAPET PLATE FROM ROADWAY



TYP. PART. PLAN @ CURB & PARAPET

COVER PLATES TO BE FABRICATED SUCH THAT PLATE EXPANSION IS SITUATED WITH DIRECTION OF TRAFFIC AS SHOWN ABOVE.



SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

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COVER PLATE DETAILS

SHEET 5

336

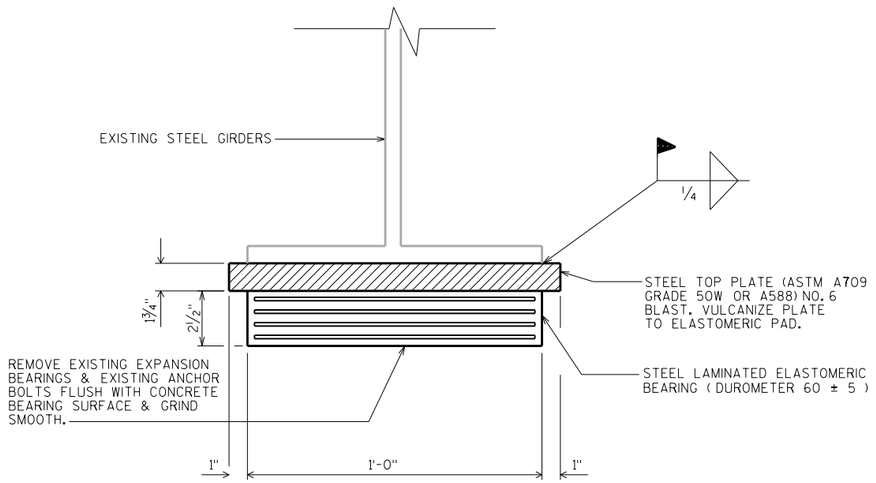
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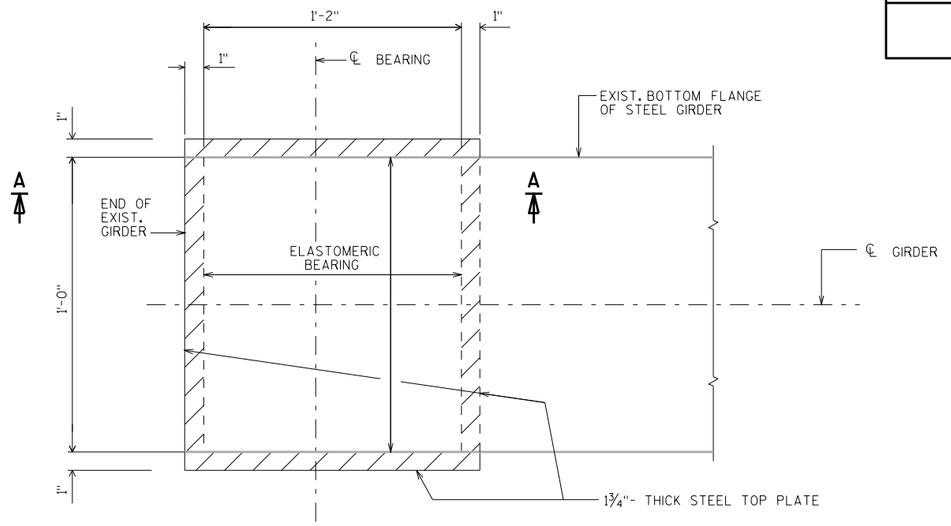
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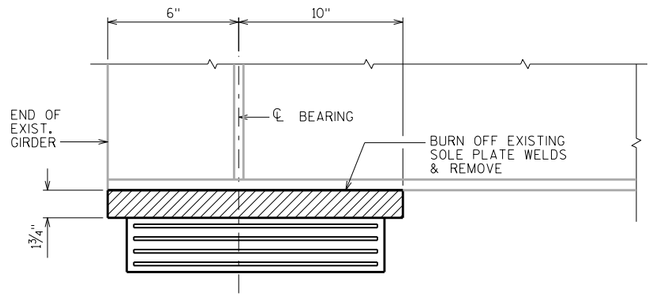
1450-02-70



END VIEW

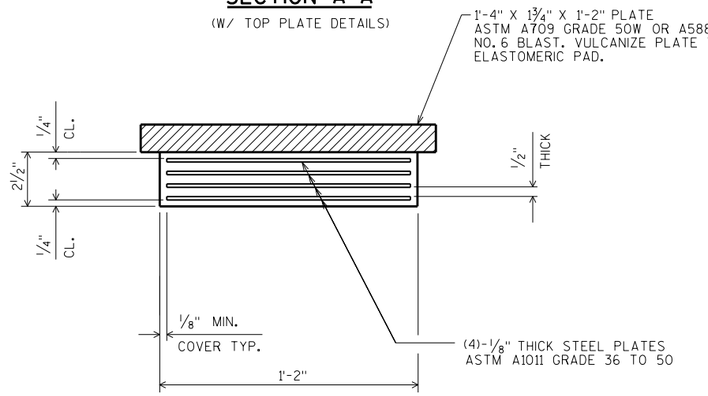


PLAN VIEW



SECTION A-A

(W/ TOP PLATE DETAILS)



SECTION A-A

(W/ ADDITIONAL BEARING DETAILS)

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 EXIST. 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
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

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STEEL GIRDER BEARINGS

SHEET 6

337

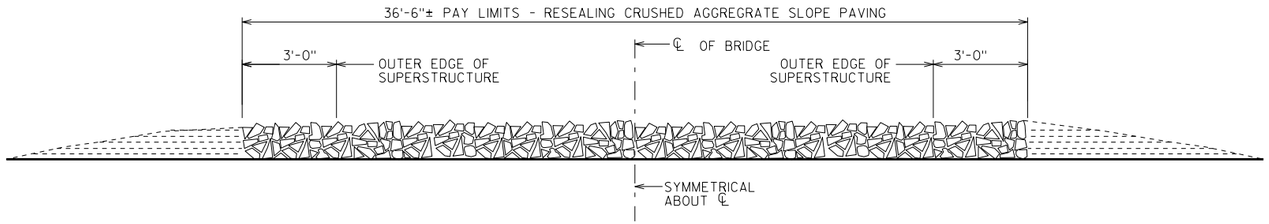
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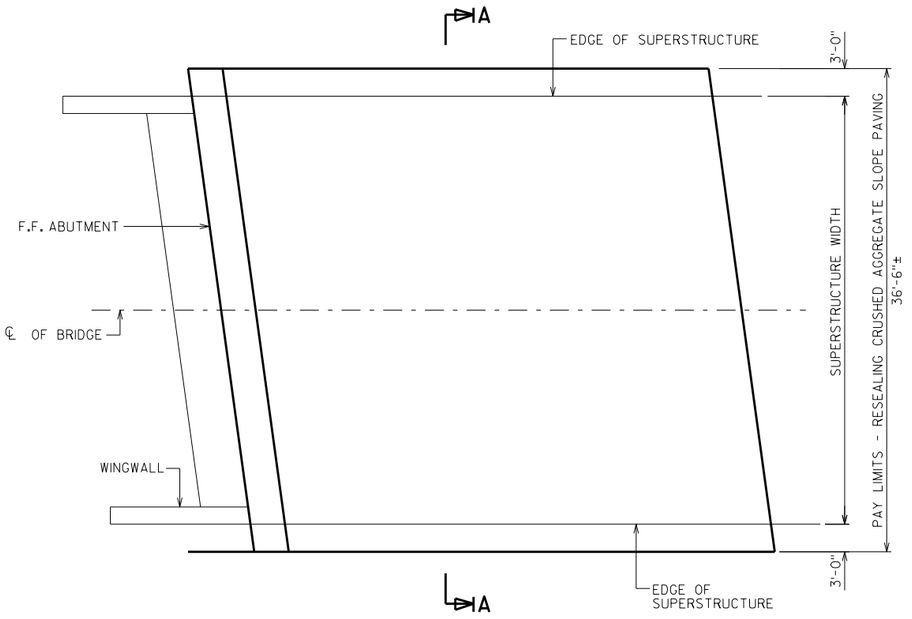
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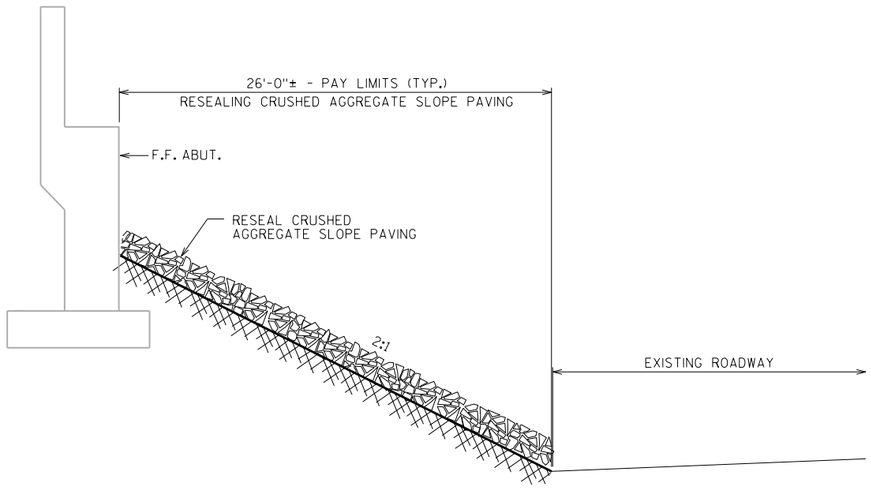
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

DRAWN BY WWR | PLANS CK'D. DMB

SLOPE PAVING RESEALING

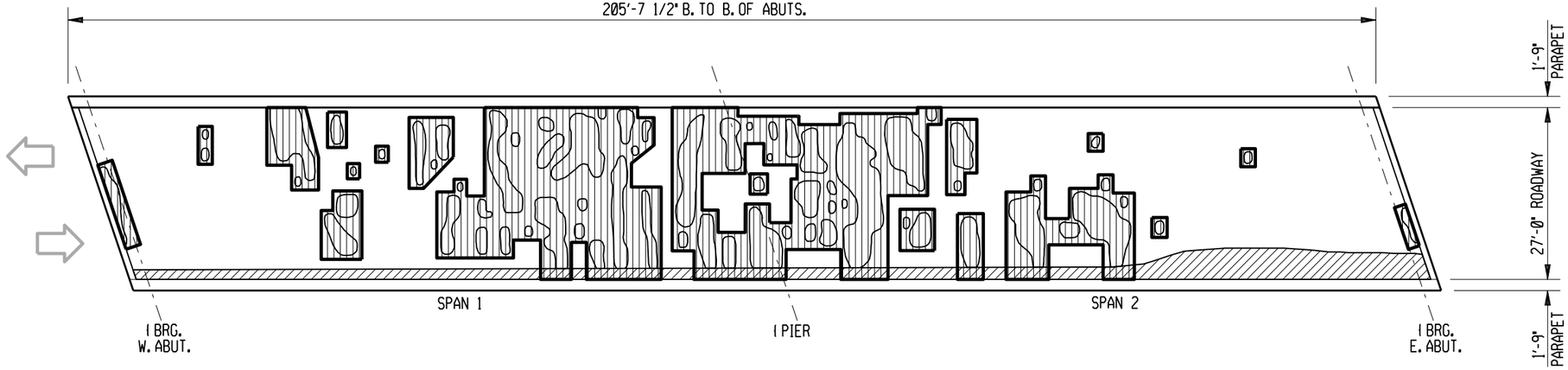
SHEET 7

338

SCALE = 1.00

STATE PROJECT NUMBER

1450-02-70



PLAN

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

N

PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-27	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	612.6	
SHADE/DEBRIS	yd^2	52.2	
PREPARATION, DECKS, TYPE 1	yd^2	260.1	46.4
PREPARATION, DECKS, TYPE 2	yd^2	195.1	34.8
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY W/CHIP SEAL
INFRARED INSPECTION DATE: 3/26/19

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-27

DRAWN BY WWR | PLANS CK'D. DMB

DECK CONDITION SURVEY

SHEET 8

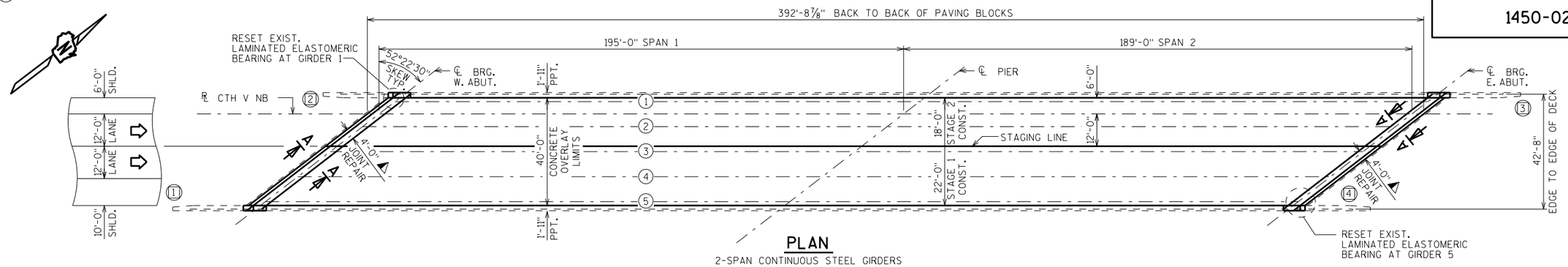
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STATE PROJECT NUMBER

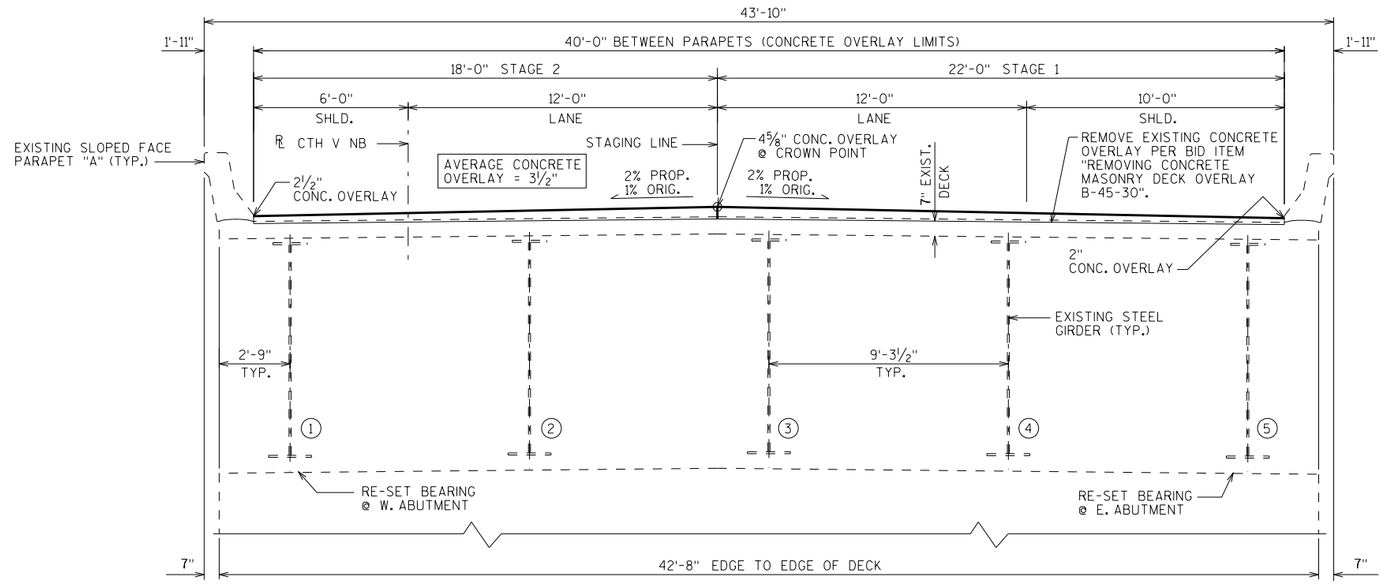
1450-02-70

INDICATES WING NUMBER



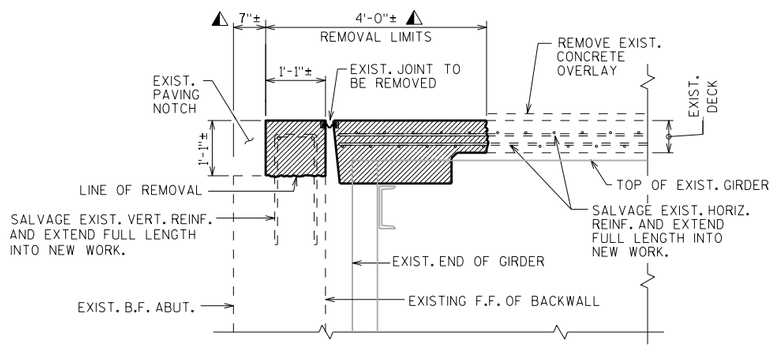
PLAN

2-SPAN CONTINUOUS STEEL GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST



EXISTING SECTION A-A

SHOWING REMOVAL TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-12
OPERATING RATING: HS-20
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 110 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON: CTH V NB
ADT = 12,800 (2039)
R.D.S. = 60 M.P.H.

FEATURE UNDER: IH 43
ADT = 51,900 (2039)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. CONCRETE OVERLAY & STRIP SEAL REPLACEMENT
2. QUANTITIES & GENERAL NOTES
3. JOINT REPAIR DETAILS 1
4. JOINT REPAIR DETAILS 2
5. EXPANSION DEVICE
6. COVER PLATE DETAILS
7. SLOPE PAVING RESEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-30

CTH V NB OVER IH 43

COUNTY: OZAUKEE — TOWN ~~CITY/VILLAGE~~: GRAFTON

DESIGN SPEC. REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

CONCRETE OVERLAY & STRIP SEAL REPLACEMENT

SHEET 1 OF 8

340

I.D. 1450-02-00A — DATE: MAY 2019

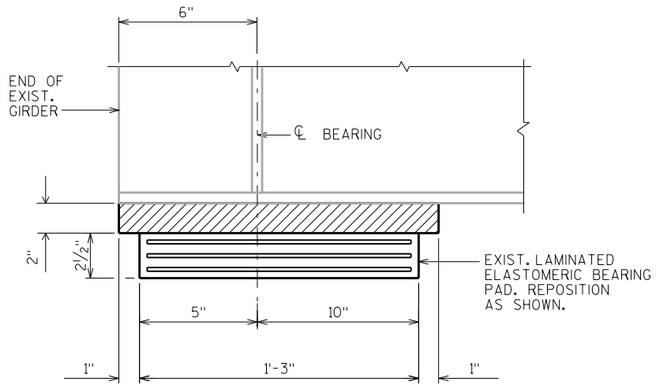
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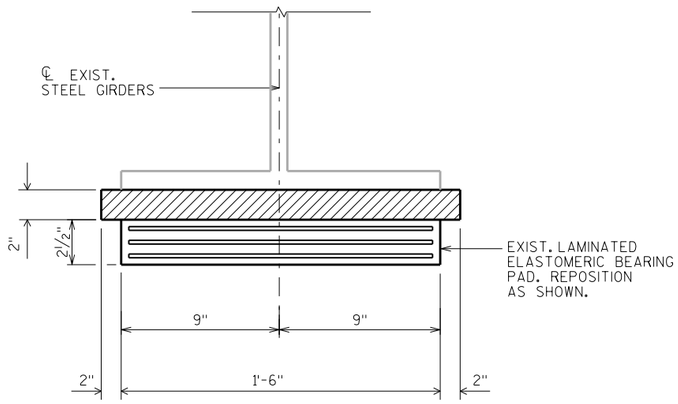
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STATE PROJECT NUMBER

1450-02-70



SIDE VIEW



END VIEW

GIRDER REPOSITIONING DETAIL ☆

SHOWING EXISTING LAMINATED ELASTOMERIC BEARINGS AT ABUTMENTS. REPOSITIONING REQUIRED AT GIRDER 1 OF THE WEST ABUTMENT AND GIRDER 5 OF THE EAST ABUTMENT.

DO NOT REMOVE STEEL TOP PLATE OR BEARING PAD FROM THE BOTTOM FLANGE OF THE EXISTING GIRDER. ENSURE THAT TOP OF EXISTING BEAM SEAT IS CLEAN PRIOR TO RESETTING OF EXISTING PAD.

WORK REQUIRED TO REPOSITION BEARINGS TO BE CONSIDERED INCIDENTAL TO BID ITEM, "BRIDGE JACKING B-45-30".

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
●	502.3100	EXPANSION DEVICE B-45-30	LF	132	———	———	132
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	1778	———	———	1778
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	69	69	138
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4610	———	———	4610
	505.0904	BAR COUPLERS NO. 4	EACH	8	———	———	8
	505.0905	BAR COUPLERS NO. 5	EACH	26	———	———	26
	505.0906	BAR COUPLERS NO. 6	EACH	10	———	———	10
☆	506.7060.S	BRIDGE JACKING B-45-30	LS	———	———	———	1
	509.0301	PREPARATION DECKS TYPE 1	SY	668	———	———	668
	509.0302	PREPARATION DECKS TYPE 2	SY	501	———	———	501
	509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	1736	———	———	1736
	509.1000	JOINT REPAIR	SY	66	———	———	66
	509.1500	CONCRETE SURFACE REPAIR	SF	———	35	30	65
	509.2000	FULL-DEPTH DECK REPAIR	SY	1	———	———	1
	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	261	———	———	261
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-45-30	SY	1736	———	———	1736
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-30	LS	———	———	———	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-30	LS	———	———	———	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	1
◆	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY		5	10	15
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	397	397	794

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS AS SHOWN ON SHEET 1 PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3½". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

ALL LINES OF CONCRETE REMOVAL SHALL BE DEFINED BY A MIN. ½" DEEP SAW CUT.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

● QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.

☆ BRIDGE JACKING AND RESETTING OF EXISTING ABUTMENT BEARINGS IS INCLUDED IN THE BID ITEM "BRIDGE JACKING B-45-30". BEARING RESETTINGIS REQUIRED AT GIRDER 1 OF THE WEST ABUTMENT AND GIRDER 5 OF THE EAST ABUTMENT. SEE "GIDRER REPOSITIONING DETAIL" ON THIS SHEET.

◆ SLOPE PAVING REPAIR IS REQUIRED ALONG THE NORTHEAST AND SOUTHEAST WINGS AND THE FLUME DISCHARGE AREA OF THE SOUTHEAST CORNER OF THE BRIDGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

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QUANTITES & GENERAL NOTES

SHEET 2

341

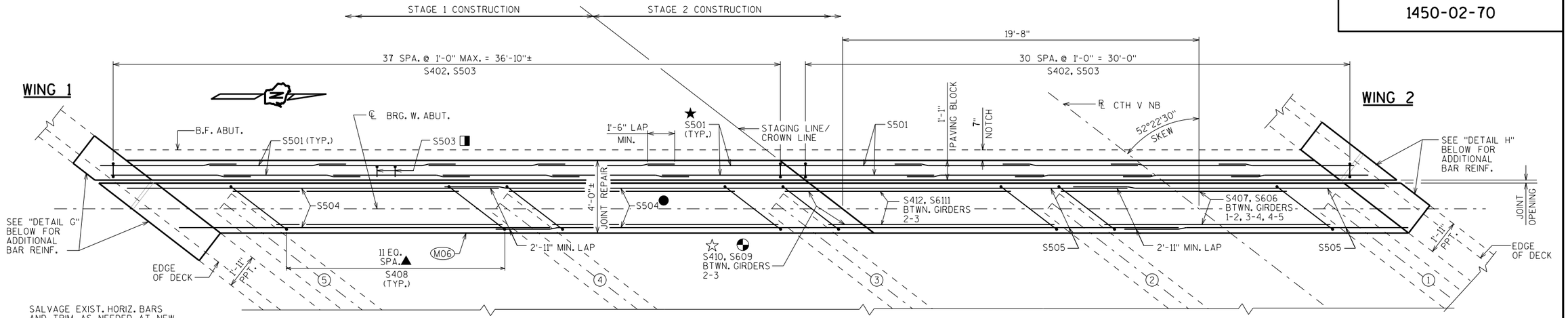
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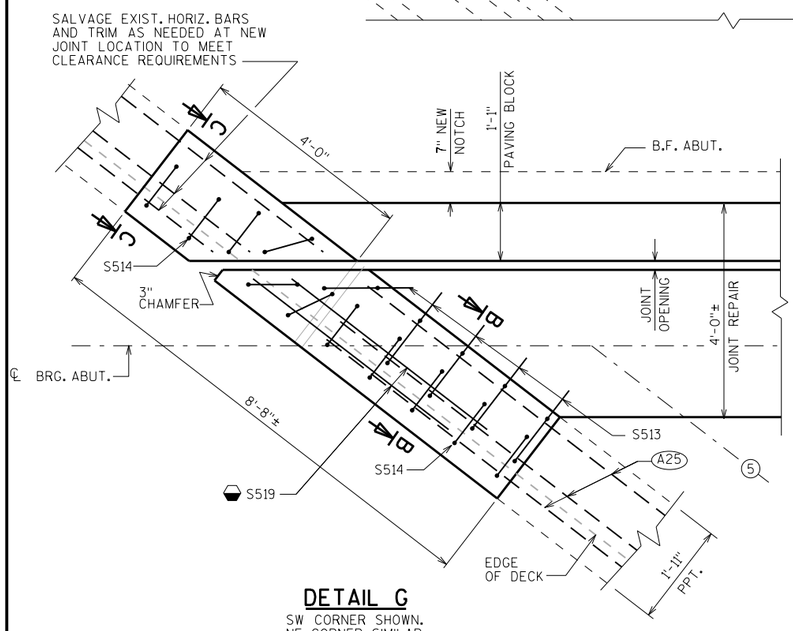
1450-02-70



PLAN

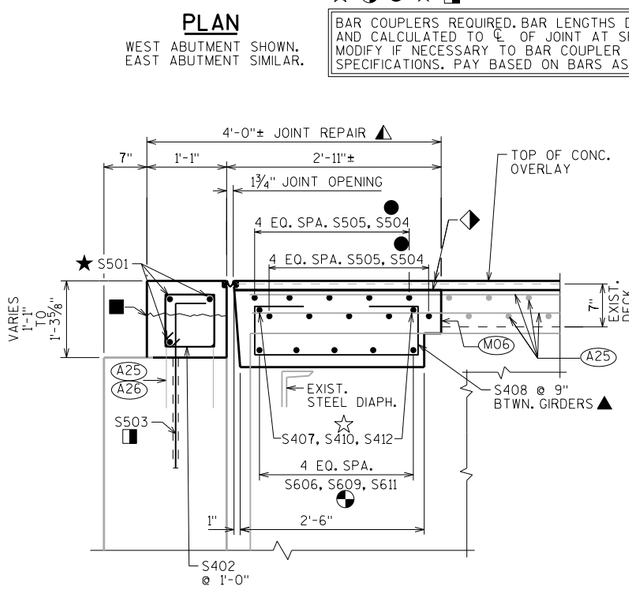
WEST ABUTMENT SHOWN.
EAST ABUTMENT SIMILAR.

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

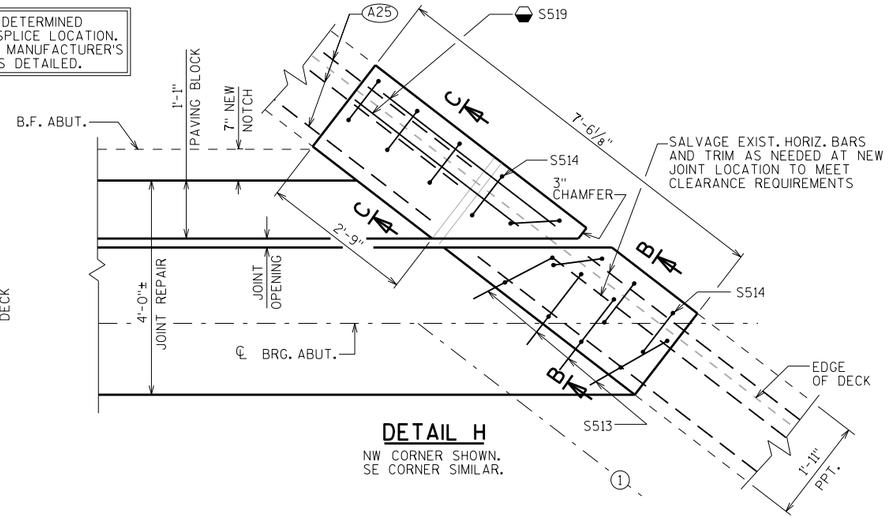


DETAIL G

SW CORNER SHOWN.
NE CORNER SIMILAR.

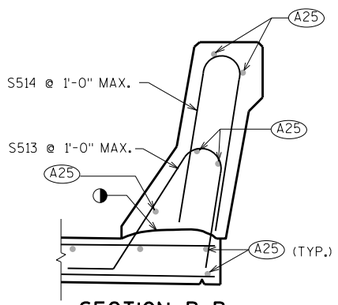


SECTION THRU JOINT REPAIR

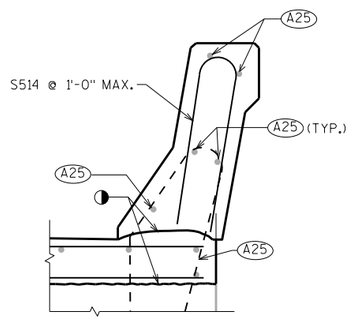


DETAIL H

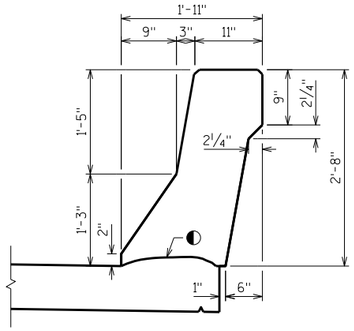
NW CORNER SHOWN.
SE CORNER SIMILAR.



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

NOTE:
SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

- 4'-6" LONG #5 HORIZ. BARS, MIN 2'-6" LAP WITH EXISTING HORIZ. B.F. PARAPET BARS
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ◭ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

- (A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- (A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"
- (M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

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JOINT REPAIR DETAILS 1

SHEET 3

342

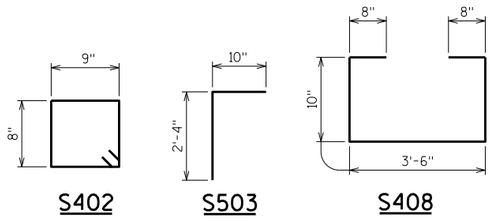
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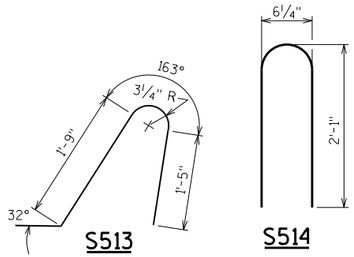
SCALE = 2.75

STATE PROJECT NUMBER

1450-02-70



S402 S503 S408



S513 S514

BILL OF BARS

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

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
★	S501	X	66	7'-8"			PAVING BLOCK - TRANSVERSE
	S402	X	138	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	138	3'-0"	X		PAVING BLOCK - VERTICAL
●	S504	X	40	20'-6"			SUPERSTRUCTURE - TRANSVERSE
	S505	X	40	17'-2"			SUPERSTRUCTURE - TRANSVERSE
	S606	X	30	12'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S407	X	12	12'-6"			DIAPHRAGM - TRANSVERSE - TOP
	S408	X	96	6'-2"	X		DIAPHRAGM - VERTICAL
◕	S609	X	10	2'-0"			DIAPHRAGM - TRANSVERSE - BOTTOM
☆	S410	X	4	2'-0"			DIAPHRAGM - TRANSVERSE - TOP
	S611	X	10	10'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S412	X	4	10'-6"			DIAPHRAGM - TRANSVERSE - TOP
	S513	X	18	5'-0"	X		PARAPET & DECK- VERTICAL
	S514	X	38	4'-9"	X		PARAPET - VERTICAL
	~~S515~~	~~X~~	NOT	USED	~~X~~		~~PARAPET & PAV. BLOCK - VERTICAL~~
*	S416	X	12	12'-6"			EXPANSION DEVICE - TRANSVERSE
◪ *	S417	X	4	2'-0"			EXPANSION DEVICE - TRANSVERSE
*	S418	X	4	10'-6"			EXPANSION DEVICE - TRANSVERSE
	S519	X	16	4'-6"			PARAPET - HORIZONTAL

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

◨ NO. 5 ADHESIVE ANCHORS

* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS

☆ USE (2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

◕ USE (5) #6 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

● USE (10) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

★ USE (3) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

◪ USE (2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

DRAWN BY WWR | PLANS CK'D. DMB

JOINT REPAIR DETAILS 2

SHEET 4

343

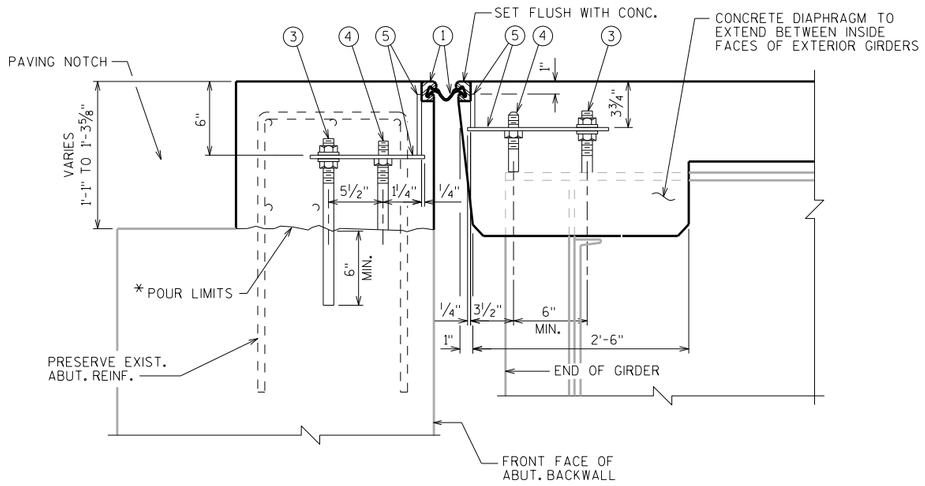
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8

STATE PROJECT NUMBER

1450-02-70



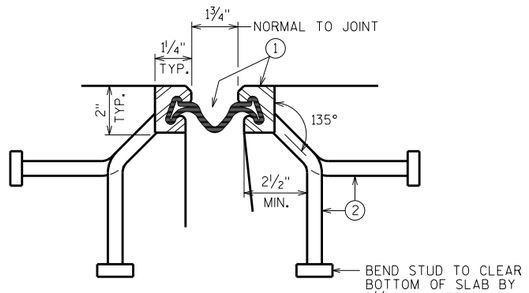
* POUR CONC. ABOVE THIS JOINT AFTER SUPERSRTUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

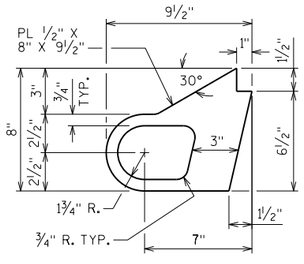
LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-5" X 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

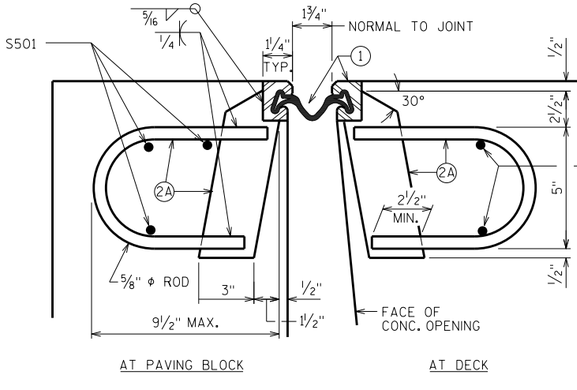


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS.



ALTERNATE STRIP SEAL ANCHOR



S416
BTWN. GIRDERS (1-2, 3-4, 4-5)

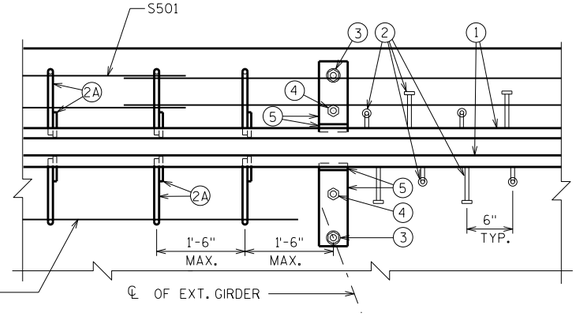
■ S417, S418
BTWN. GIRDERS (2-3)

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

S416
BTWN. GIRDERS (1-2, 3-4, 4-5)

■ S417, S418
BTWN. GIRDERS (2-3)
(BAR COUPLERS REQ'D. @ STAGING LINE)



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-30".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

DRAWN BY WWR | PLANS CK'D. DMB

EXPANSION DEVICE

SHEET 5

344

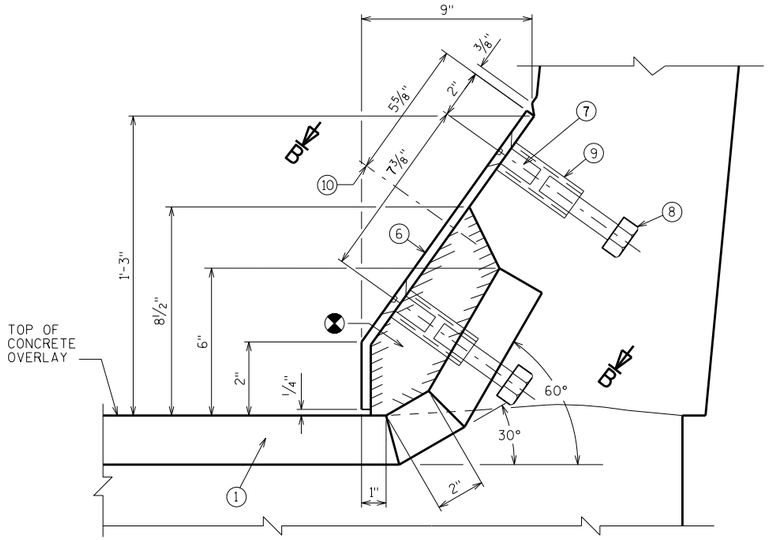
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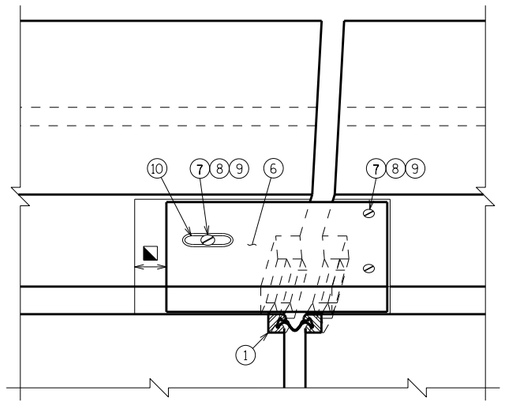
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STATE PROJECT NUMBER

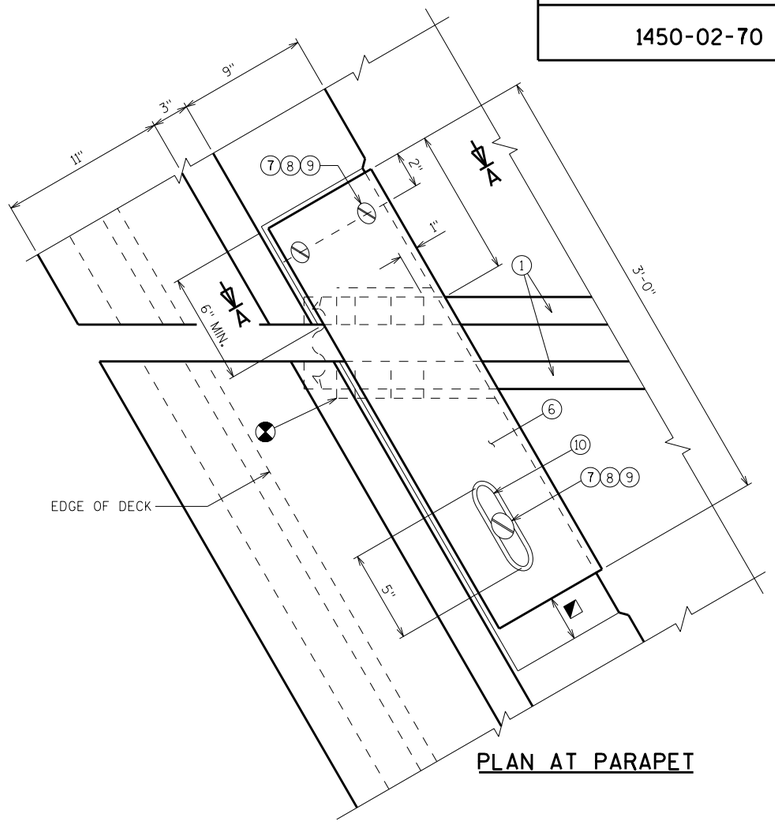
1450-02-70



SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN AT PARAPET

SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

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COVER PLATE DETAILS

SHEET 6

345

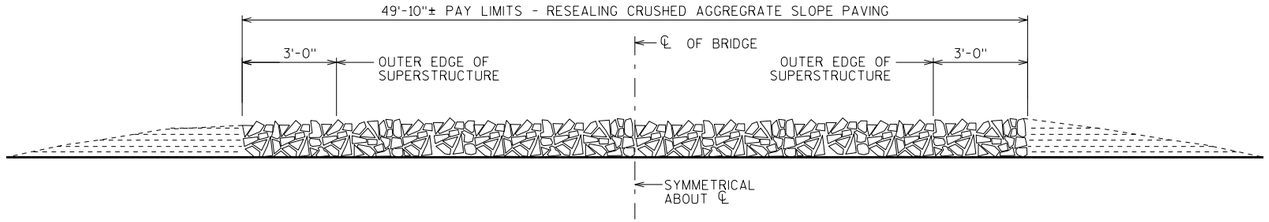
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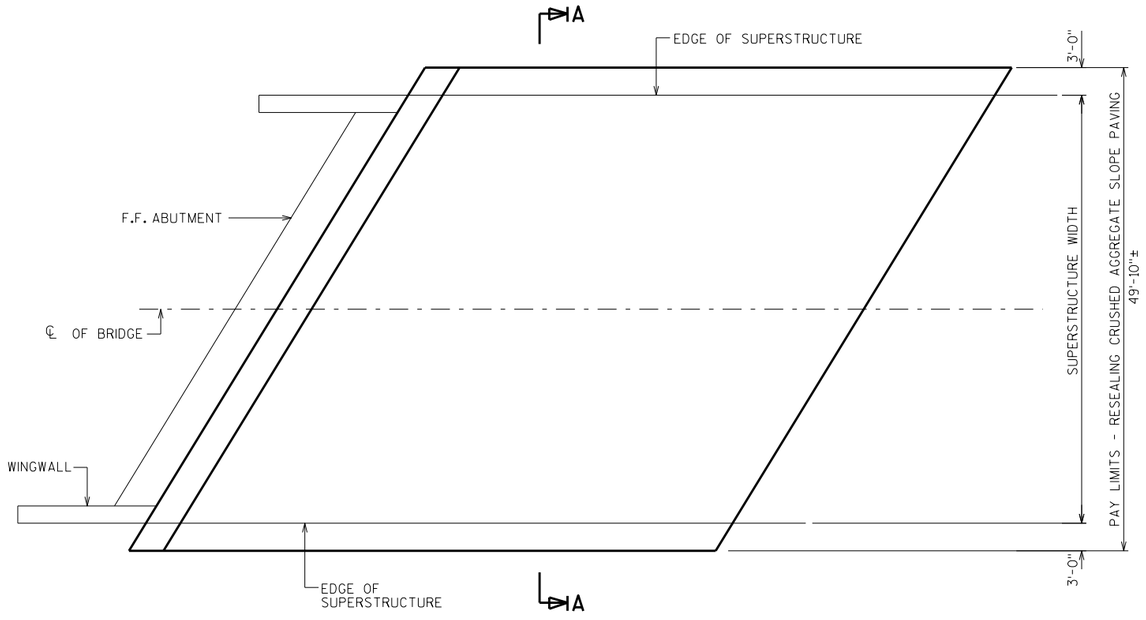
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STATE PROJECT NUMBER

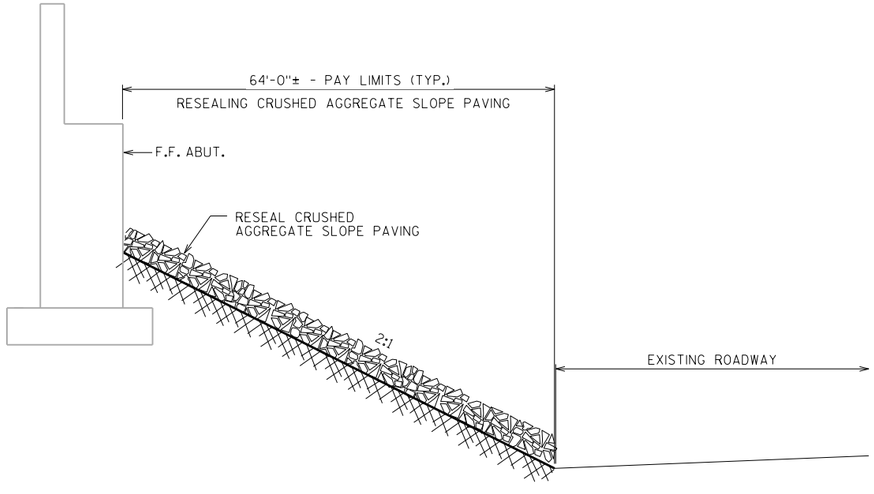
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

DRAWN BY WWR | PLANS CK'D. DMB

SLOPE PAVING RESEALING

SHEET 7

346

SCALE = 1.00

STATE PROJECT NUMBER
1450-02-70



PLAN

PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-30	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1745.3	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	667.7	38.3
PREPARATION, DECKS, TYPE 2	yd^2	500.8	28.7
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE OVERLAY
INFRARED INSPECTION DATE: 3/26/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-30

DRAWN BY WWR | PLANS CK'D. DMB

DECK CONDITION SURVEY

SHEET 8

347

SCALE = 12.00

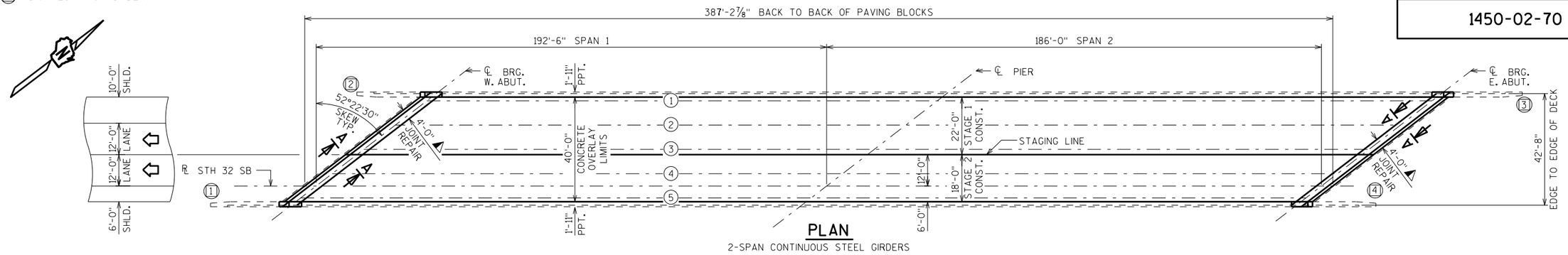
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STATE PROJECT NUMBER

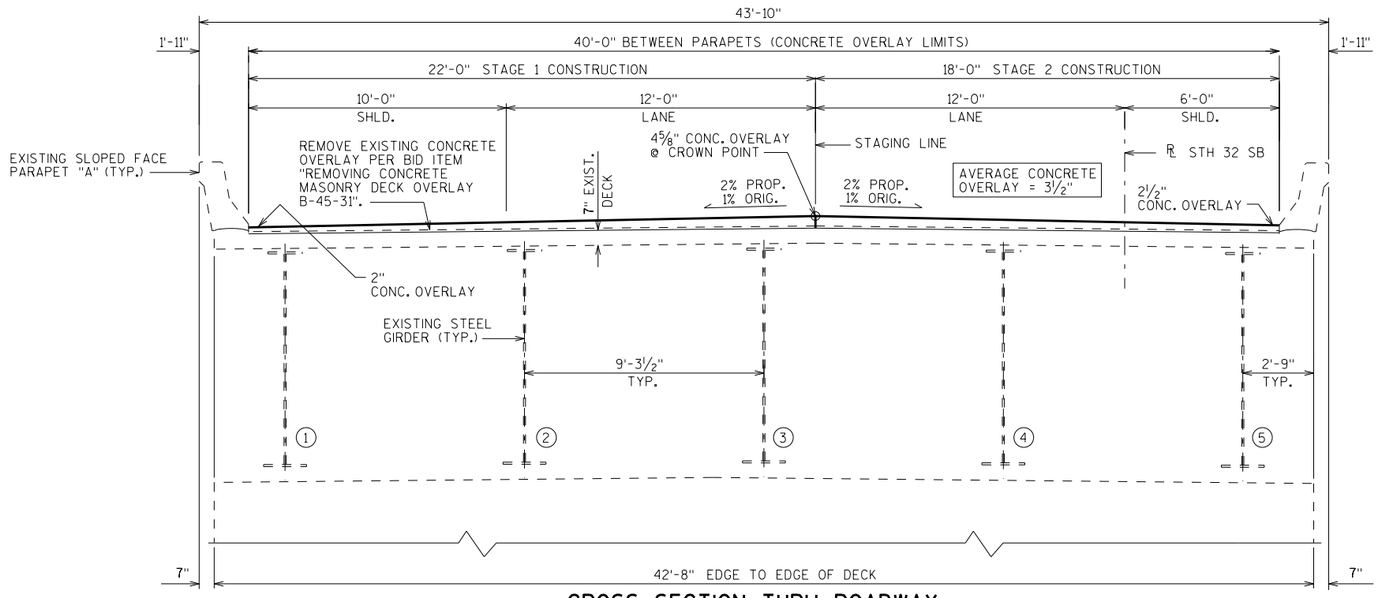
1450-02-70

INDICATES WING NUMBER



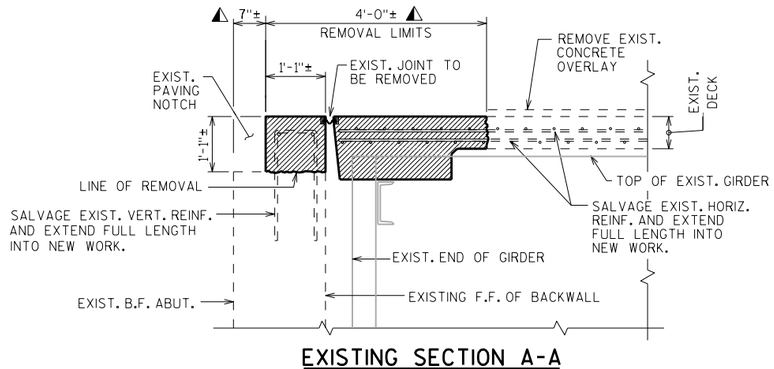
PLAN

2-SPAN CONTINUOUS STEEL GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

◭ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-12
OPERATING RATING: HS-20
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 110 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON: STH 32 SB
ADT = 13,600 (2039)
R.D.S. = 60 M.P.H.

FEATURE UNDER: IH 43
ADT = 51,900 (2039)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. CONCRETE OVERLAY & STRIP SEAL REPLACEMENT
2. QUANTITIES & GENERAL NOTES
3. JOINT REPAIR DETAILS 1
4. JOINT REPAIR DETAILS 2
5. EXPANSION DEVICE
6. COVER PLATE DETAILS
7. SLOPE PAVING RESEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-31

STH 32 SB OVER IH 43

COUNTY	TOWN ~~CITY/VILLAGE~~
OZAUKEE	GRAFTON

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

CONCRETE OVERLAY & STRIP SEAL REPLACEMENT

SHEET 1 OF 8

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I.D. 1450-02-00B

DATE: MAY 2019

SCALE = 20.00

8

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STATE PROJECT NUMBER
1450-02-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS AS SHOWN ON SHEET 1 PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3½". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
● 502.3100	EXPANSION DEVICE B-45-31	LF	132	———	———	132
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1754	———	———	1754
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	69	69	138
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4610	———	———	4610
505.0904	BAR COUPLERS NO. 4	EACH	8	———	———	8
505.0905	BAR COUPLERS NO. 5	EACH	26	———	———	26
505.0906	BAR COUPLERS NO. 6	EACH	10	———	———	10
509.0301	PREPARATION DECKS TYPE 1	SY	60	———	———	60
509.0302	PREPARATION DECKS TYPE 2	SY	6	———	———	6
509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	1711	———	———	1711
509.1000	JOINT REPAIR	SY	66	———	———	66
509.1500	CONCRETE SURFACE REPAIR	SF	———	33	32	65
509.2000	FULL-DEPTH DECK REPAIR	SY	1	———	———	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	197	———	———	197
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-45-31	SY	1711	———	———	1711
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-31	LS	———	———	———	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-31	LS	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	397	397	794
			———	———	———	

● QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

DRAWN BY WWR | PLANS CK'D. DMB

QUANTITES & GENERAL NOTES

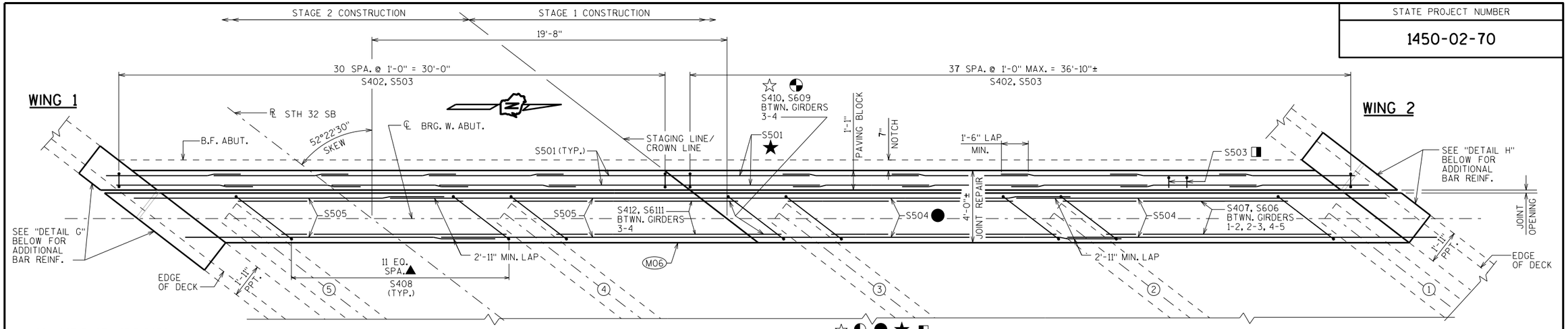
SHEET 2

349

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STATE PROJECT NUMBER

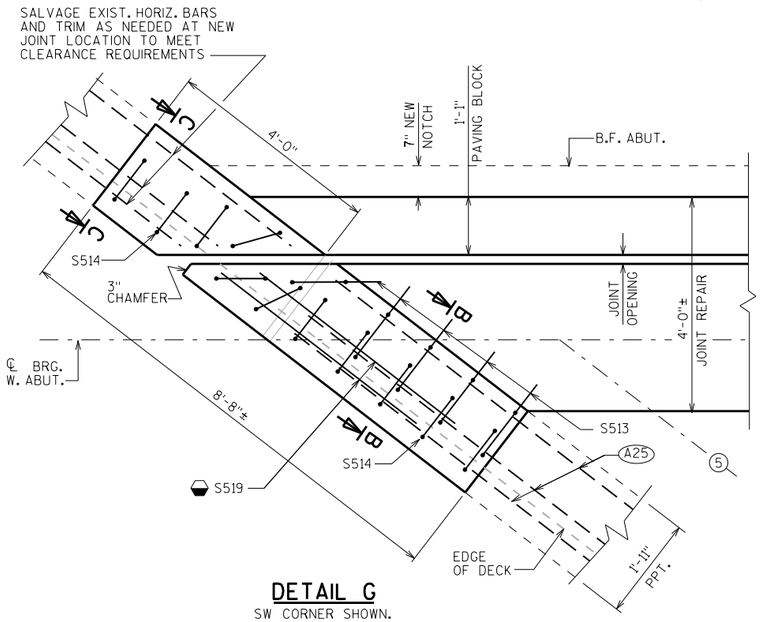
1450-02-70



PLAN

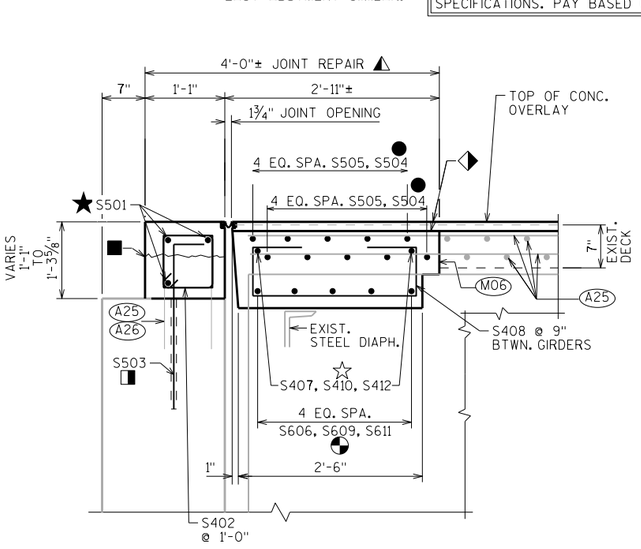
WEST ABUTMENT SHOWN.
EAST ABUTMENT SIMILAR.

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

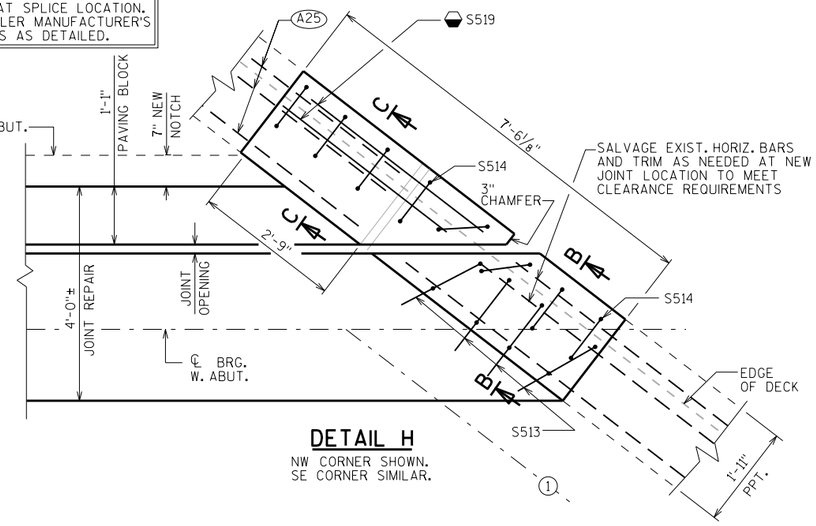


DETAIL G

SW CORNER SHOWN.
NE CORNER SIMILAR.

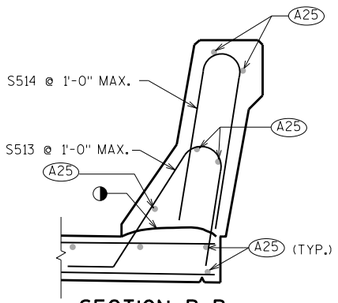


SECTION THRU JOINT REPAIR

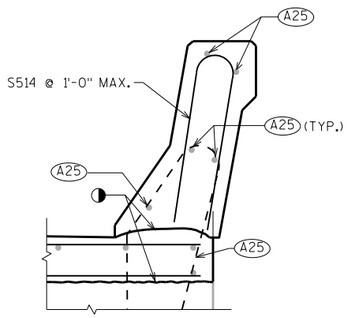


DETAIL H

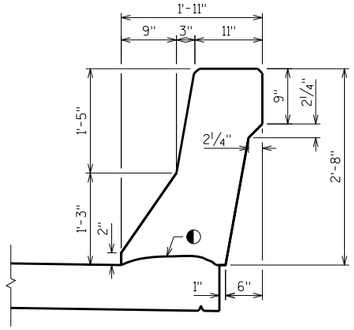
NW CORNER SHOWN.
SE CORNER SIMILAR.



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

NOTE: SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

- 4'-6" LONG #5 HORIZ. BARS. MIN 2'-6" LAP WITH EXISTING HORIZ. B.F. PARAPET BARS
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ◭ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

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

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

(M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

DRAWN BY WWR | PLANS CK'D. DMB

JOINT REPAIR DETAILS 1

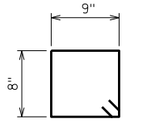
SHEET 3

350

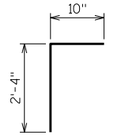
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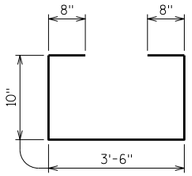
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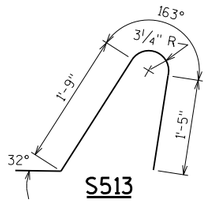
S402



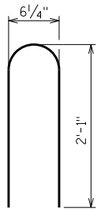
S503



S408



S513



S514

BILL OF BARS

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

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
★	S501	X	66	7'-8"			PAVING BLOCK - TRANSVERSE
	S402	X	138	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	138	3'-0"	X		PAVING BLOCK - VERTICAL
●	S504	X	40	20'-6"			SUPERSTRUCTURE - TRANSVERSE
	S505	X	40	17'-2"			SUPERSTRUCTURE - TRANSVERSE
	S606	X	30	12'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S407	X	12	12'-6"			DIAPHRAGM - TRANSVERSE - TOP
	S408	X	96	6'-2"	X		DIAPHRAGM - VERTICAL
◔	S609	X	10	2'-0"			DIAPHRAGM - TRANSVERSE - BOTTOM
☆	S410	X	4	2'-0"			DIAPHRAGM - TRANSVERSE - TOP
	S611	X	10	10'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S412	X	4	10'-6"			DIAPHRAGM - TRANSVERSE - TOP
	S513	X	18	5'-0"	X		PARAPET & DECK- VERTICAL
	S514	X	38	4'-9"	X		PARAPET - VERTICAL
	~~S515~~	~~X~~	NOT	USED	~~X~~		~~PARAPET & PAV. BLOCK - VERTICAL~~
✱	S416	X	12	12'-6"			EXPANSION DEVICE - TRANSVERSE
◩ ✱	S417	X	4	2'-0"			EXPANSION DEVICE - TRANSVERSE
✱	S418	X	4	10'-6"			EXPANSION DEVICE - TRANSVERSE
	S519	X	16	4'-6"			PARAPET - HORIZONTAL

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

◨ NO. 5 ADHESIVE ANCHORS

✱ SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS

☆ USE (2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

◔ USE (5) #6 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

● USE (10) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

★ USE (3) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

◩ USE (2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)

STATE PROJECT NUMBER

1450-02-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

DRAWN BY WWR | PLANS CK'D. DMB

JOINT REPAIR DETAILS 2

SHEET 4

351

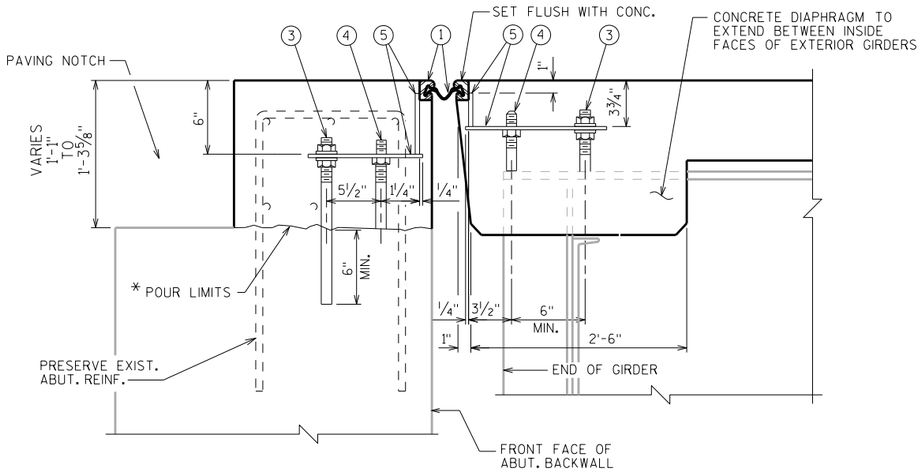
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STATE PROJECT NUMBER

1450-02-70



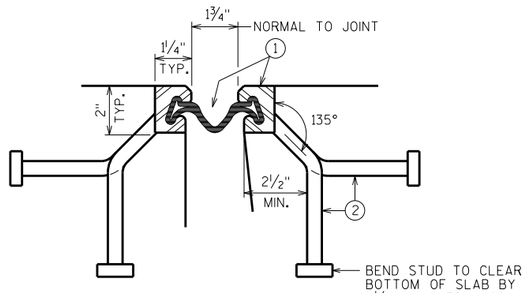
* POUR CONC. ABOVE THIS JOINT AFTER SUPERSRTUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

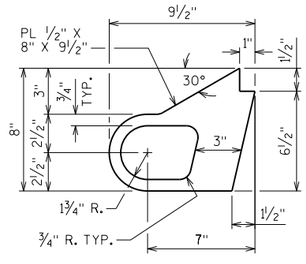
LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-5" X 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

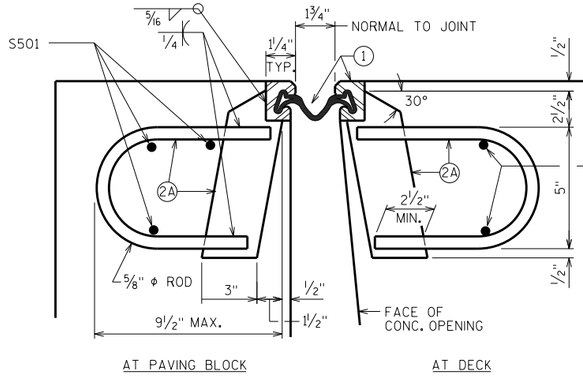


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS.



ALTERNATE STRIP SEAL ANCHOR



S416
BTWN. GIRDERS (1-2, 2-3, 4-5)

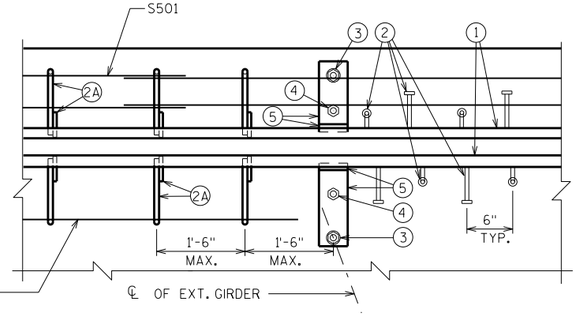
S417, S418
BTWN. GIRDERS (3-4)

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

S416
BTWN. GIRDERS (1-2, 2-3, 4-5)

S417, S418
BTWN. GIRDERS (3-4)
(BAR COUPLERS REQ'D. @ STAGING LINE)



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-31".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

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EXPANSION DEVICE

SHEET 5

352

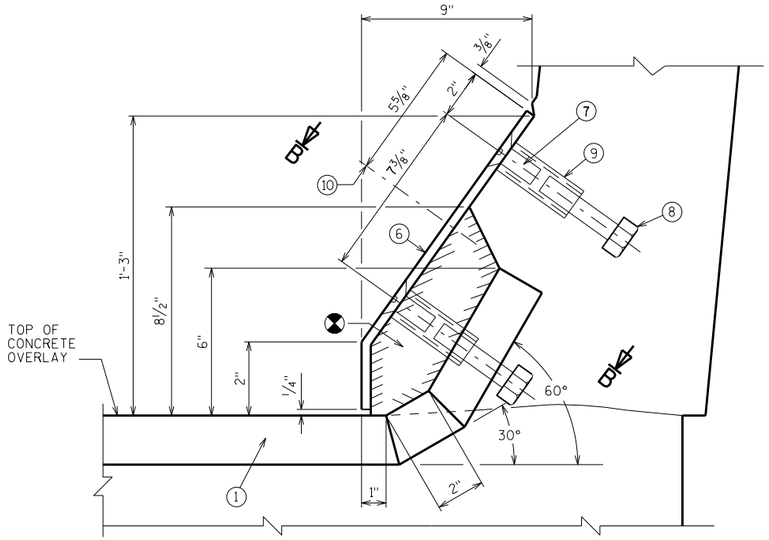
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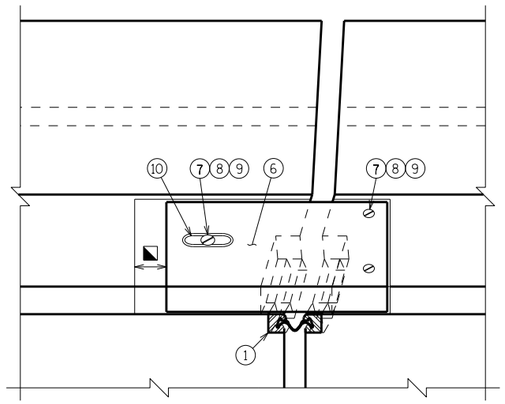
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STATE PROJECT NUMBER

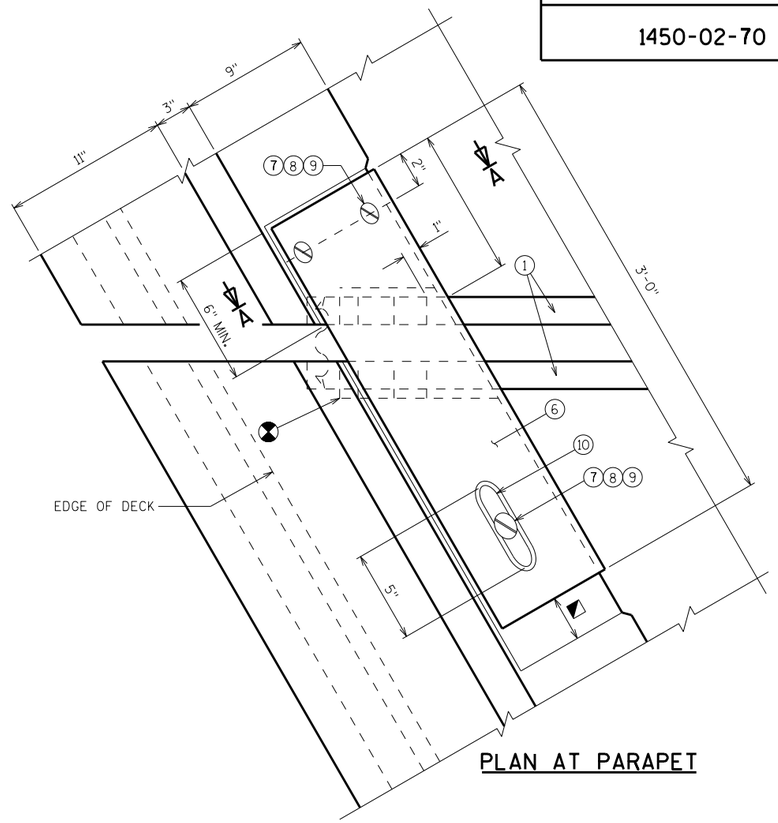
1450-02-70



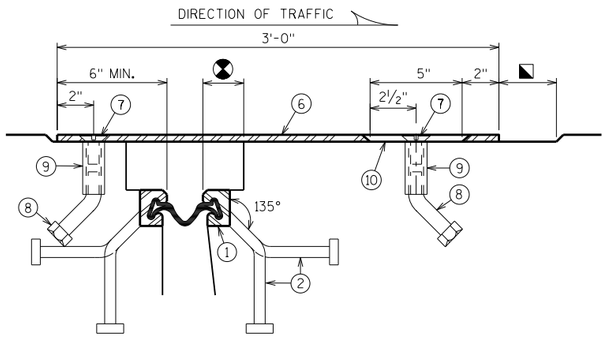
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN AT PARAPET



SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

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STRUCTURE B-45-31

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COVER PLATE DETAILS

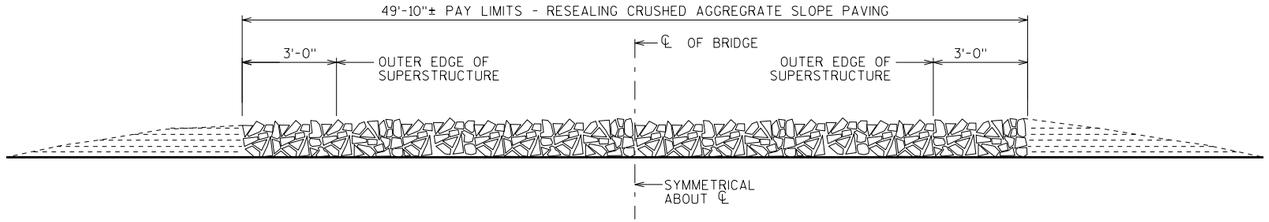
SHEET 6

353

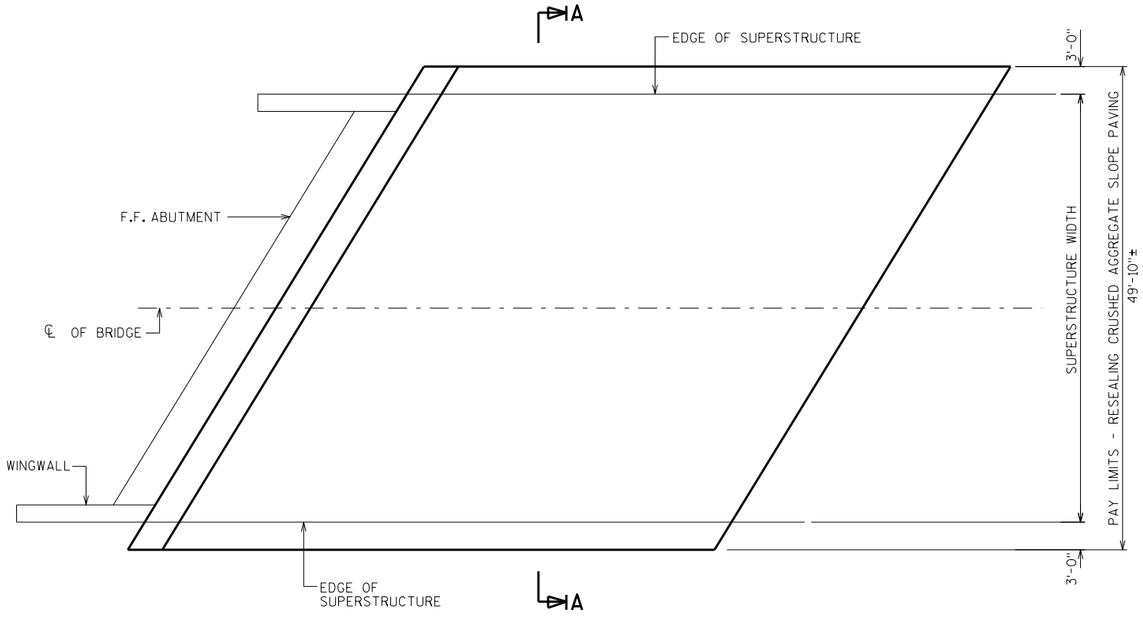
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STATE PROJECT NUMBER

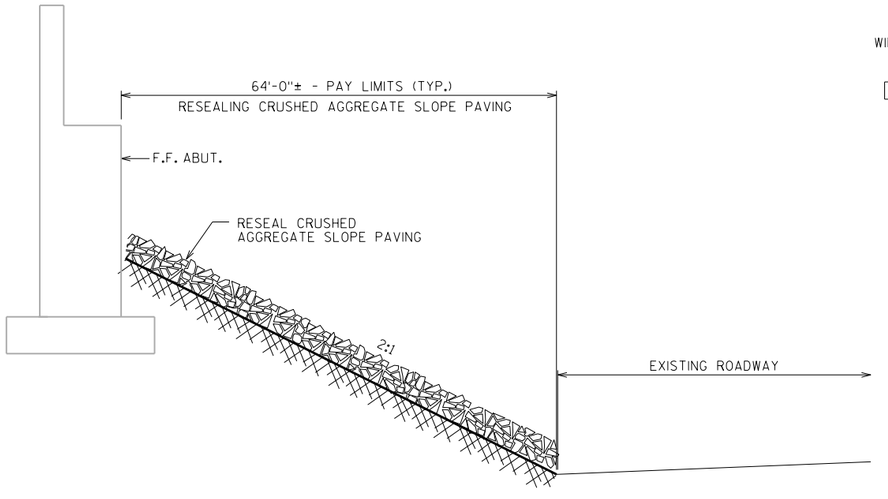
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

DRAWN BY WWR | PLANS CK'D. DMB

SLOPE PAVING RESEALING

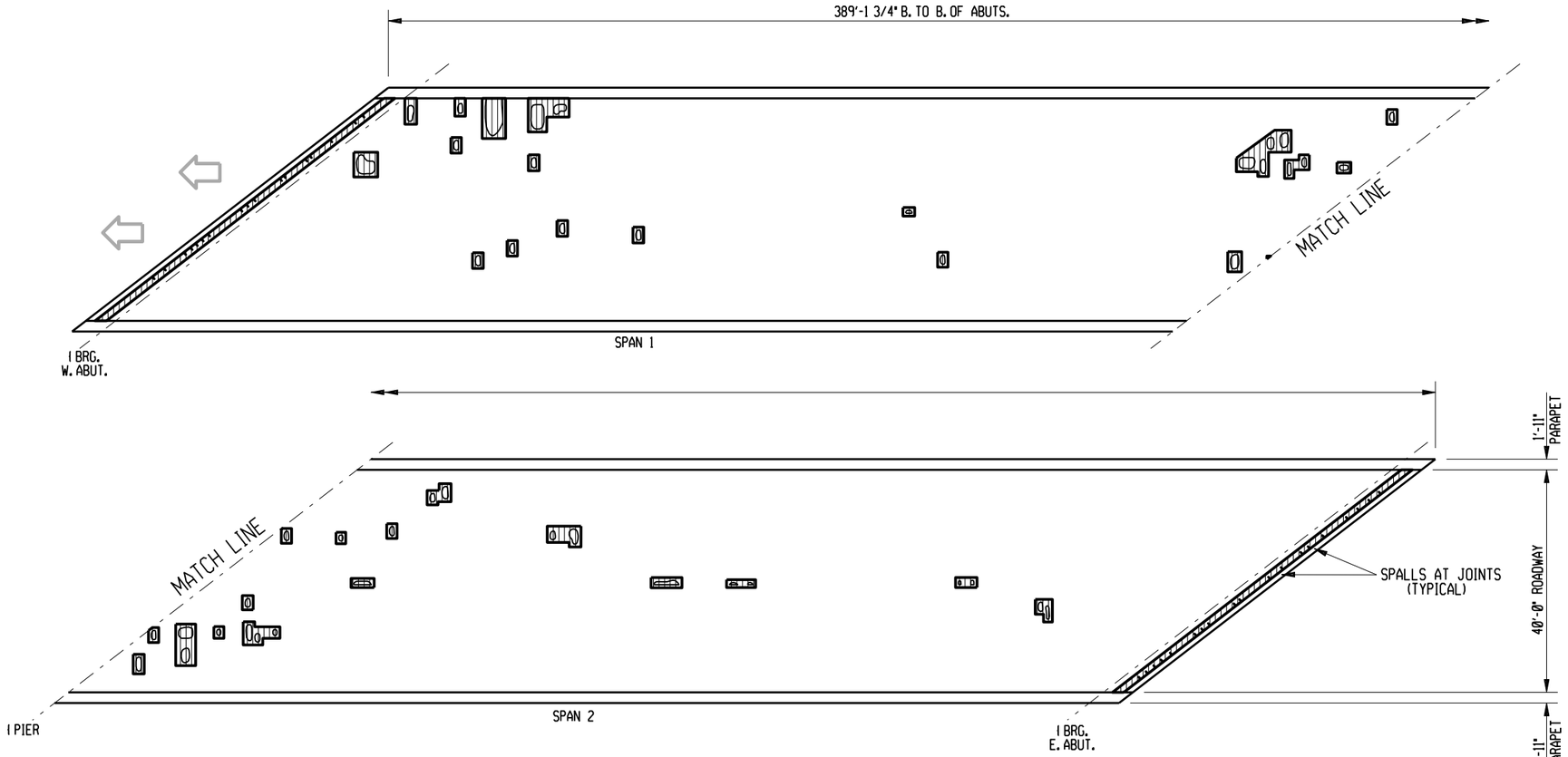
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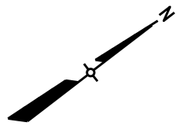
STATE PROJECT NUMBER

1450-02-70



PLAN

PROPOSED REHABILITATION AREAS



REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-31	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1721.3	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	59.1	3.4
PREPARATION, DECKS, TYPE 2	yd^2	5.9	0.3
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE OVERLAY
INFRARED INSPECTION DATE: 3/26/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-31

DRAWN BY WWR | PLANS CK'D. DMB

DECK CONDITION SURVEY

SHEET 8

355

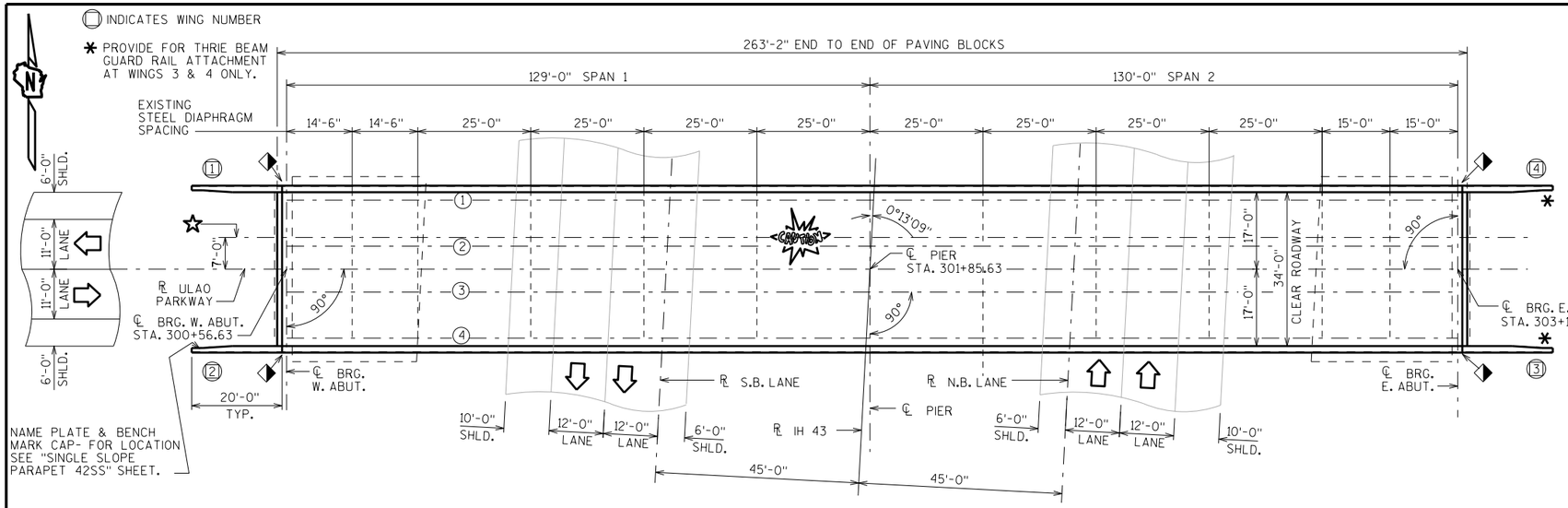
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STATE PROJECT NUMBER

1450-02-70



PLAN VIEW OF NEW DECK & PARAPETS INCLUDING ABUTMENT WINGS

2-SPAN CONTINUOUS STEEL GIRDERS

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-22
OPERATING RATING: HS-37
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 170 (KIPS)

MATERIAL PROPERTIES:

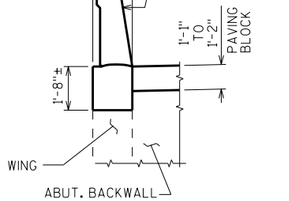
CONCRETE MASONRY:
SUPERSTRUCTURE ——— f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

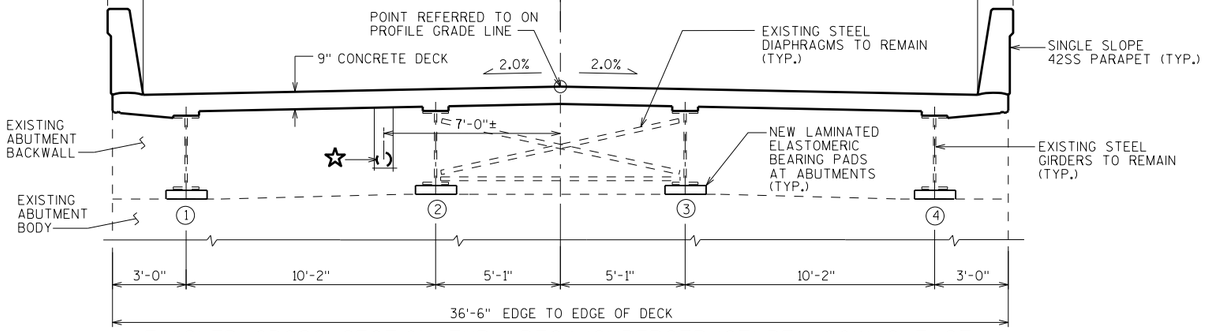
TRAFFIC VOLUME

FEATURE ON: ULAO PARKWAY
ADT = 560 (2039)
R.D.S. = 40 M.P.H.

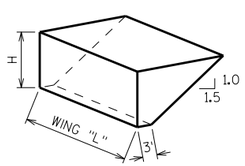
FEATURE UNDER: IH 43
ADT = 51,900 (2039)
R.D.S. = 70 M.P.H.



WING SECTION AT NEW PAVING BLOCK



FINISHED CROSS SECTION THRU DECK/SUPERSTRUCTURE LOOKING EAST



ABUTMENT WING BACKFILL DIAGRAM

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

☆ EXISTING 6" GAS LINE TO BE ABANDONED PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY THAT GAS LINE HAS BEEN CUT & ABANDONED PRIOR TO BEGINNING REMOVAL OPERATIONS. REMOVAL OF GAS LINE SHALL BE INCLUDED IN THE BID ITEM "REMOVING OLD STRUCTURE STA. 301+86".

◐ PRESERVE AND RE-INSTALL DRAIN SYSTEMS AT DECK CORNERS AS NEEDED AND AS DIRECTED BY FIELD ENGINEER DURING DECK REMOVAL & REPLACEMENT.

LIST OF DRAWINGS

1. DECK REPLACEMENT PLAN
2. QUANTITIES & GENERAL NOTES
3. REMOVAL DETAILS
4. BEARING DETAILS
5. SUPERSTRUCTURE
6. SUPERSTRUCTURE DETAILS
7. EXPANSION DEVICE
8. COVER PLATE DETAILS
9. SINGLE SLOPE PARAPET 42SS

STRUCTURE DESIGN CONTACTS:
DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-32

ULAO PARKWAY OVER IH 43

COUNTY: OZAUKEE | TOWN/CITY/VILLAGE: GRAFTON

DESIGN SPEC. REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

DECK REPLACEMENT PLAN

SHEET 1 OF 9

356

I.D. 1450-02-00C DATE: MAY 2019

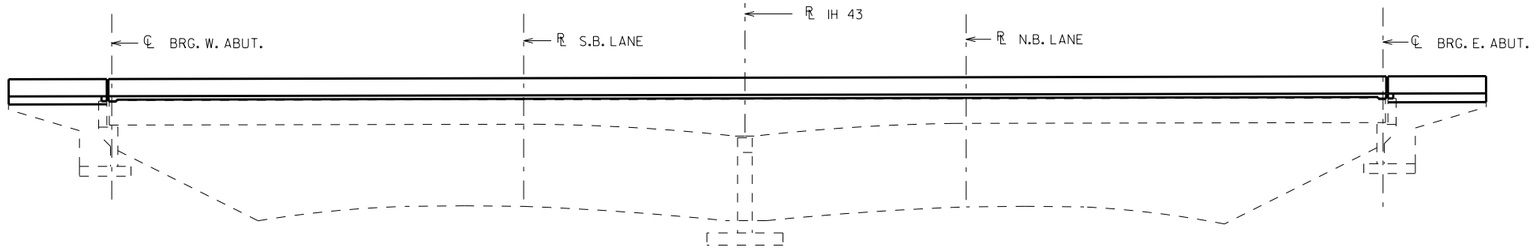
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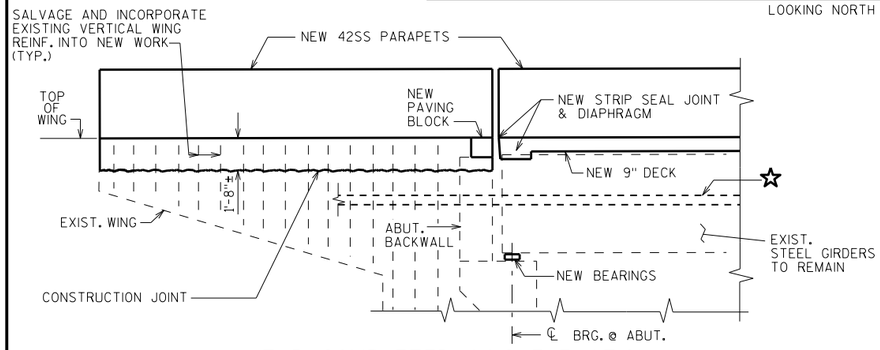
STATE PROJECT NUMBER

1450-02-70



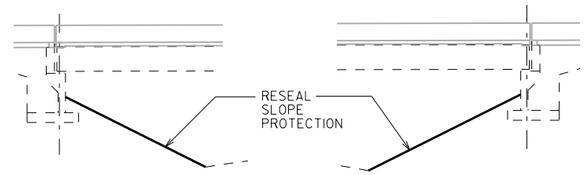
ELEVATION OF NEW DECK & PARAPET INCLUDING ABUTMENT WINGS

LOOKING NORTH



TYP. COMPLETED WING ELEVATION

SHOWING NEW WORK. PAVING BLOCK AND DIAPHRAGM ARE SHOWN LOOKING THRU WING AND DECK ELEVATION VIEW.



PART. ELEVATION

☆ EXISTING 6" GAS LINE TO BE ABANDONED PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY THAT GAS LINE HAS BEEN CUT & ABANDONED PRIOR TO BEGINNING REMOVAL OPERATIONS. REMOVAL OF GAS LINE SHALL BE INCLUDED IN THE BID ITEM "REMOVING OLD STRUCTURE STA. 301+86".

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

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

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING BLOCK AND NOTCH.

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

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

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

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1972.

CONCRETE REMOVAL AT WINGS AND PAVING BLOCKS SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT IN ABUTMENT WINGS WHERE SHOWN.

IF EXISTING SALVAGED BAR STEEL REINFORCEMENT IS SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED BARS OF THE SAME SIZE. EMBED 1'-6" INTO EXISTING CONCRETE. WORK TO BE PAID UNDER ITEM "REMOVING OLD STRUCTURE STA. 301+86.

BRIDGE STATIONING MAY VARY BASED ON EXACT LOCATION OF THE BRIDGE ALONG THE ALIGNMENT. CONTRACTOR TO VERIFY. VARIATIONS TO THE NEW GRADE LINE OVER ½" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE BUREAU OF STRUCTURES DESIGN SECTION FOR REVIEW.

SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF WINGS WITH "RUBBERIZED MEMBRANE WATERPROOFING".

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

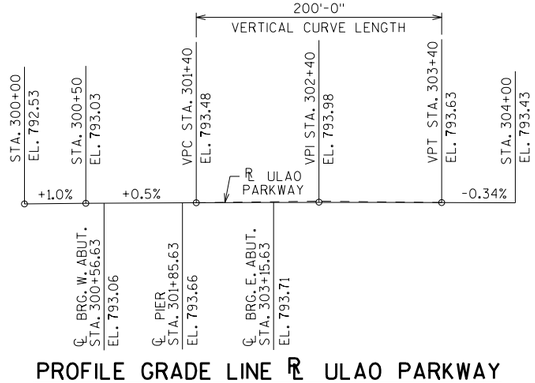
REMOVE AND SALVAGE THE EXISTING RAILINGS (INCLUDES RAILS, POSTS AND ALL ASSOCIATED HARDWARE). AFTER REMOVAL, THE RAILINGS ARE TO BE SET ASIDE AND SHALL REMAIN THE PROPERTY OF THE STATE OF WISCONSIN. THE CONTRACTOR WILL COORDINATE WITH JOSH BORDEN AT 1-(262)-689-7890, AS TO WHEN THE RAILING ARE READY TO BE PICKED UP. THIS SHALL BE INCIDENTAL TO "REMOVING OLD STRUCTURE STA. 301+86".

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH "ABATEMENT OF ASBESTOS CONTAINING MATERIAL" BID ITEM.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 301+86	LS	———	———	———	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-32	LS	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-45-32	LS	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	21	21	42
502.0100	CONCRETE MASONRY BRIDGES	CY	358	11	11	380
● 502.3100	EXPANSION DEVICE B-45-32	LF	68	———	———	68
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1008	———	———	1008
502.3210	PIGMENTED SURFACE SEALER	SY	262	———	———	262
502.4106	ADHESIVE ANCHORS 3/4-INCH	EACH	4	———	———	4
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	290	———	———	290
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	81,200	1750	1750	84,700
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	8	———	———	8
506.7050.S	REMOVING BEARINGS B-45-32	EACH	8	———	———	8
509.1500	CONCRETE SURFACE REPAIR	SF	———	15	10	25
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	8	8	16
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-32	LS	———	———	———	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-32	LS	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	1
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	———	42	42	84
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	160	160	320
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	———	———	2	2
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	L.S.	———	———	———	1

● QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.



PROFILE GRADE LINE ℄ ULAO PARKWAY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

DRAWN BY WWR | PLANS CK'D. DMB

QUANTITIES & GENERAL NOTES

SHEET 2

357

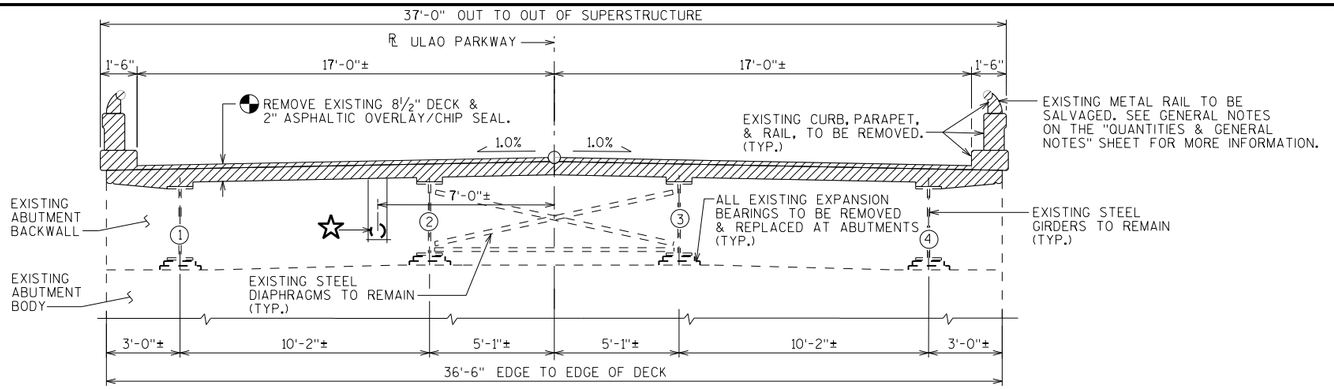
SCALE = 15.00

8

8

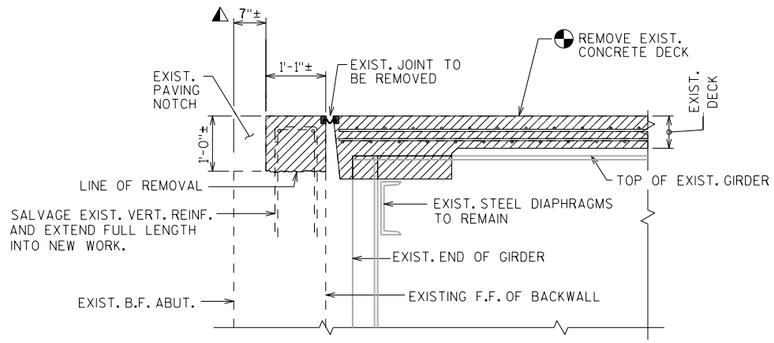
STATE PROJECT NUMBER

1450-02-70



EXISTING CROSS SECTION THRU DECK/SUPERSTRUCTURE LOOKING EAST

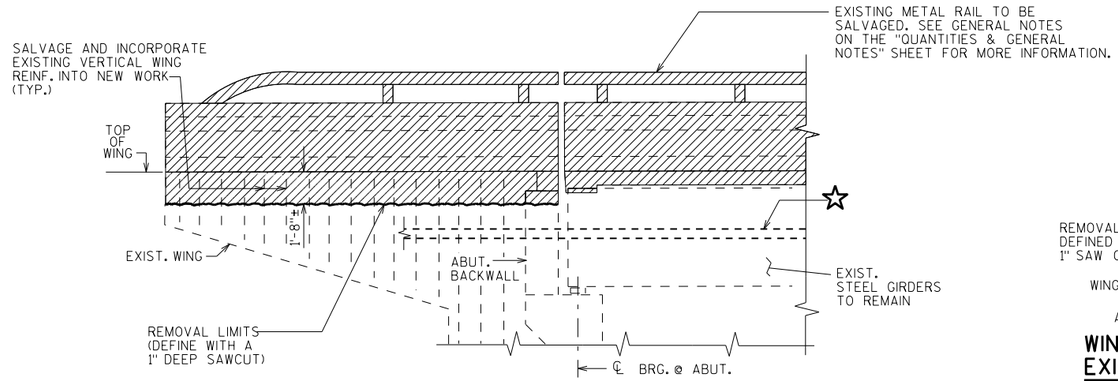
SHOWING REMOVAL LIMITS



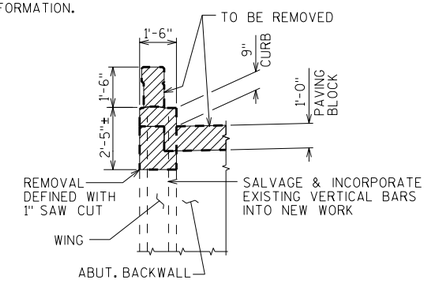
EXISTING SECTION THRU JOINTS

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

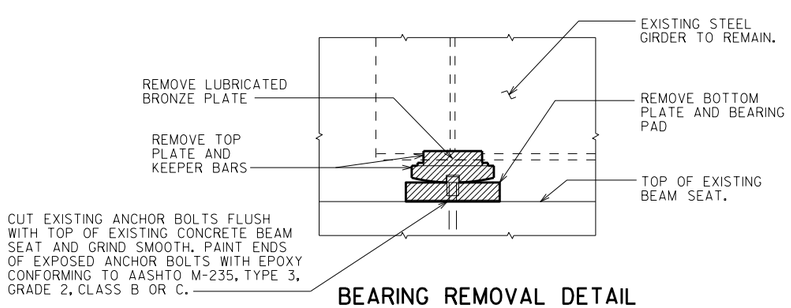


TYP. REMOVAL LIMITS AT WINGS



WING SECTION AT EXIST. PAVING BLOCK

☆ EXISTING 6" GAS LINE TO BE ABANDONED PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY THAT GAS LINE HAS BEEN CUT & ABANDONED PRIOR TO BEGINNING REMOVAL OPERATIONS. REMOVAL OF GAS LINE SHALL BE INCLUDED IN THE BID ITEM "REMOVING OLD STRUCTURE STA. 301+86".



BEARING REMOVAL DETAIL

EXISTING SHEAR CONNECTORS ON GIRDER TOP FLANGES TO REMAIN. TAKE CARE DURING DECK REMOVAL TO NOT DAMAGE SHEAR CONNECTORS. IF DAMAGED, REPLACE SHEAR CONNECTORS AT THE EXPENSE OF THE CONTRACTOR.

▨ = INDICATES REMOVAL LIMITS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

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REMOVAL DETAILS

SHEET 3

358

SCALE = 15.00

8

8

STATE PROJECT NUMBER
1450-02-70

NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

GRIND EXIST. WELD THAT ATTACHED EXIST. TOP PLATE TO EXIST. BOT. FLANGE. GRIND AFFECTED AREAS SMOOTH.

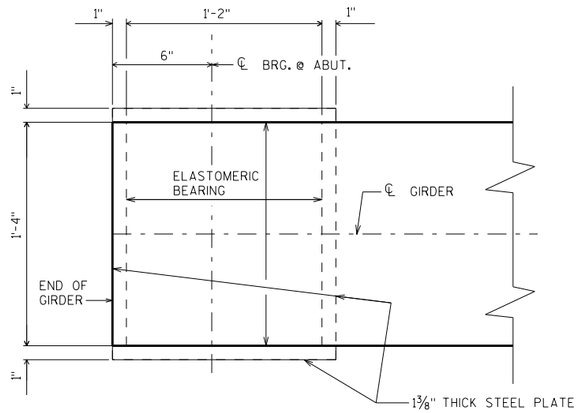
WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL.

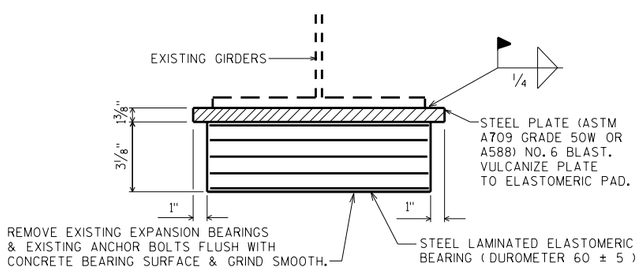
TOP STEEL PLATE MAY NOT BE OMITTED.

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85°F.

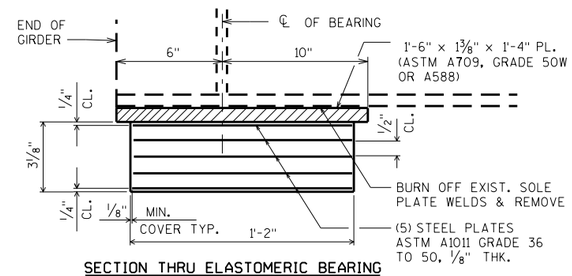
ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.



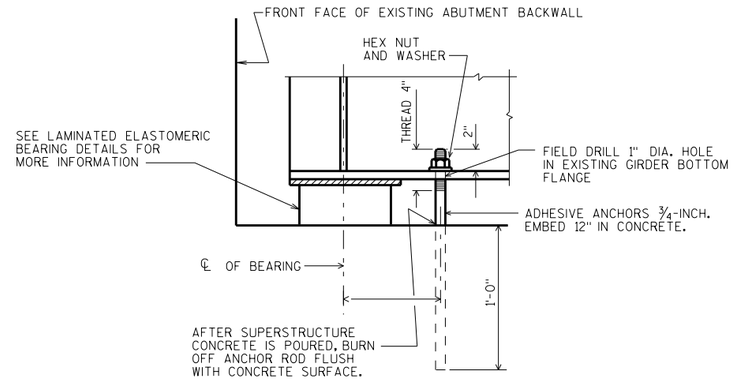
PLAN VIEW



FRONT ELEVATION
(4 PER ABUT.)



SECTION THRU ELASTOMERIC BEARING
(4 PER ABUT.)



TEMPORARY HOLD DOWN DEVICE

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

ABUTMENT EXPANSION BEARING REPLACEMENT - STEEL GIRDERS
LAMINATED ELASTOMERIC BEARINGS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

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BEARING DETAILS

SHEET 4

359

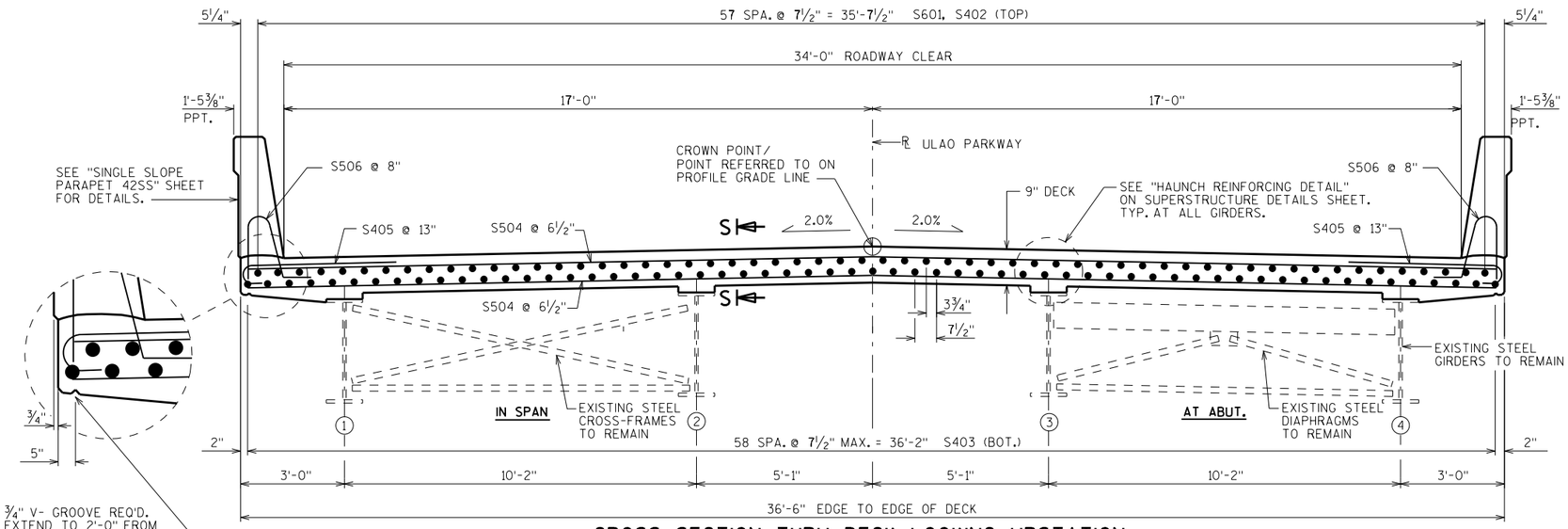
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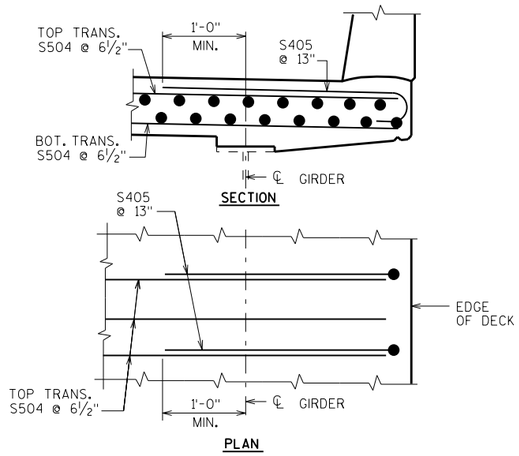
STATE PROJECT NUMBER

1450-02-70

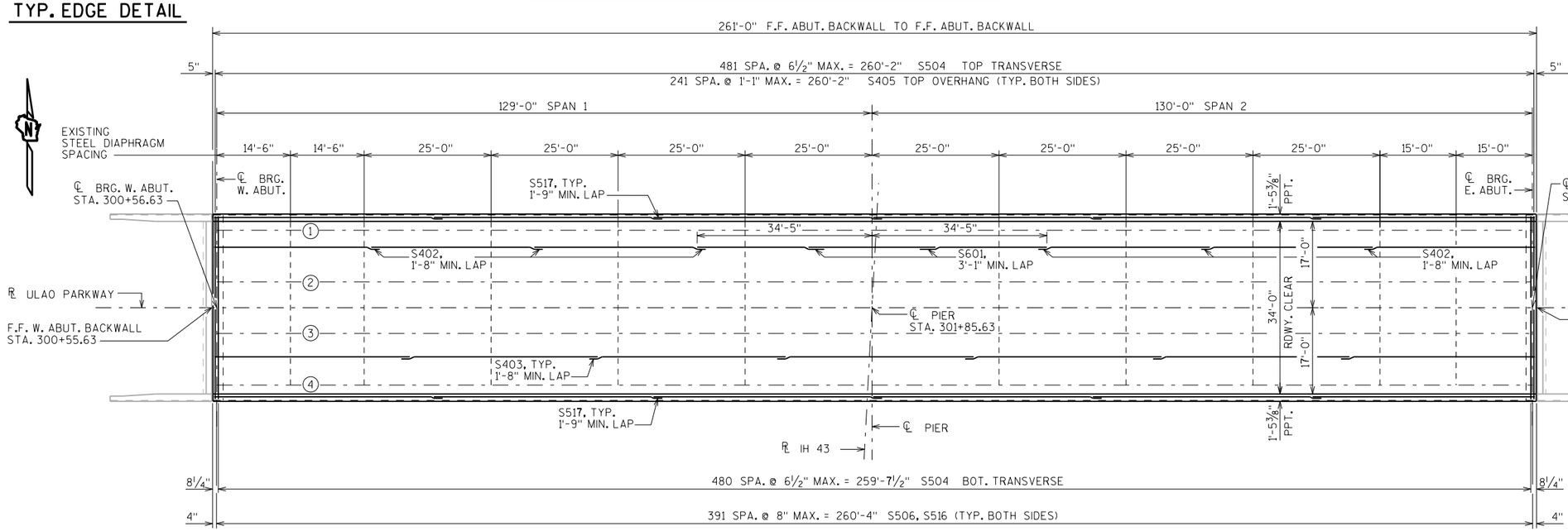


CROSS SECTION THRU DECK LOOKING UPSTATION

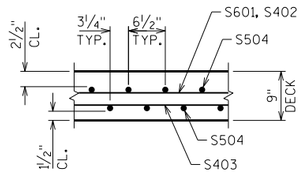
TYP. EDGE DETAIL



ADDITIONAL REINF. STEEL @ OVERHANG



PLAN



SECTION S-S

TOP OF DECK ELEVATIONS

	℄ BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. PIER	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. E. ABUT.
LEFT EOD	792.72	792.79	792.85	792.92	792.98	793.05	793.11	793.17	793.23	793.28	793.32	793.36	793.39	793.41	793.43	793.44	793.44	793.43	793.42	793.40	793.37
GIRDER 1	792.76	792.82	792.89	792.95	793.02	793.08	793.15	793.21	793.27	793.32	793.36	793.40	793.43	793.45	793.46	793.47	793.47	793.47	793.45	793.43	793.41
GIRDER 2	792.96	793.03	793.09	793.15	793.22	793.28	793.35	793.41	793.47	793.52	793.56	793.60	793.63	793.65	793.67	793.67	793.68	793.67	793.66	793.64	793.61
GIRDER 3	792.96	793.03	793.09	793.15	793.22	793.28	793.35	793.41	793.47	793.52	793.56	793.60	793.63	793.65	793.67	793.67	793.68	793.67	793.66	793.64	793.61
GIRDER 4	792.76	792.82	792.89	792.95	793.02	793.08	793.15	793.21	793.27	793.32	793.36	793.40	793.43	793.45	793.46	793.47	793.47	793.47	793.45	793.43	793.41
RIGHT EOD	792.72	792.79	792.85	792.92	792.98	793.05	793.11	793.17	793.23	793.28	793.32	793.36	793.39	793.41	793.43	793.44	793.44	793.43	793.42	793.40	793.37

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

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SUPERSTRUCTURE

SHEET 5

360

SCALE = 12.00

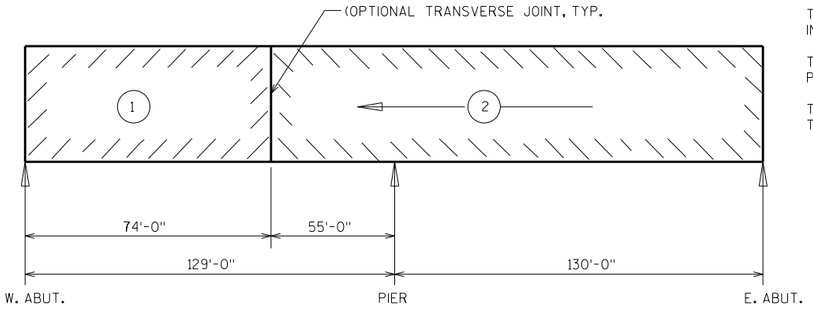
8

8

STATE PROJECT NUMBER

1450-02-70

(2) INDICATES POUR NUMBER AND DIRECTION OF POUR



OPTIONAL DECK POUR SEQUENCE

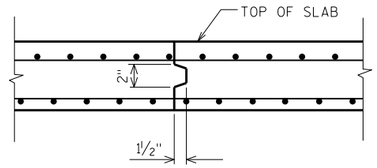
NOTES

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

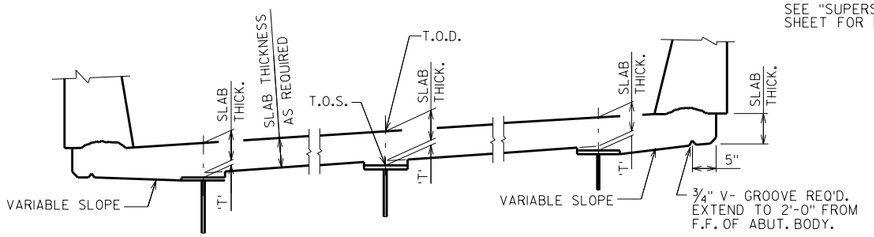
TWO OR MORE SEQUENTIAL POURS MAY BE COMBINED AND PLACED IN ONE CONTINUOUS OPERATION.

THE NEXT DECK POUR CAN BE MADE NO LESS THAN 72 HOURS AFTER THE PREVIOUS POUR.

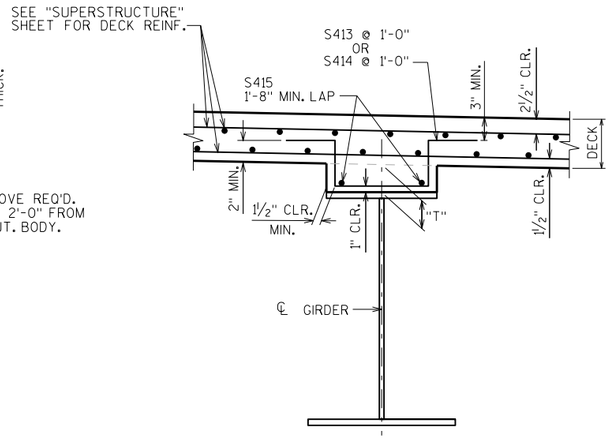
THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION.



SECTION THRU TRANSVERSE JOINT



SECTION THRU SLAB



HAUNCH REINFORCING DETAIL

NOTES

'T' = HAUNCH HEIGHT AT CENTERLINE OF GIRDER.

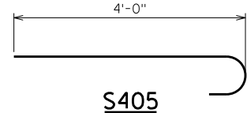
TO DETERMINE 'T':
ELEVATIONS OF THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF BEARINGS AND AT 0.1 POINTS.

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

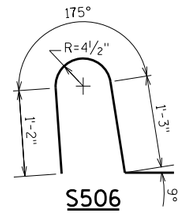
- SLAB THICKNESS

= 'T' VALUE FOR SETTING HAUNCH

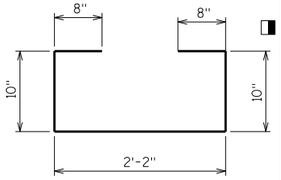
AVERAGE "T" USED FOR ESTIMATING CONCRETE QUANTITIES IS 3.3"



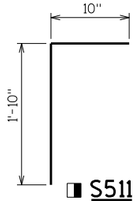
S405



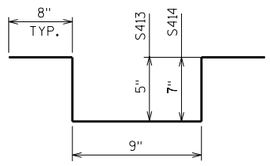
S506



S407



S511



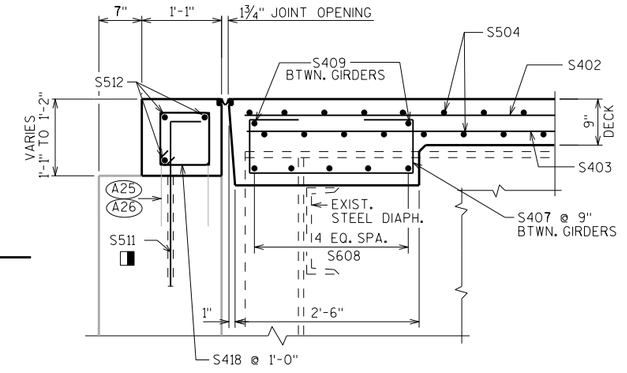
S413, S414

BILL OF BARS

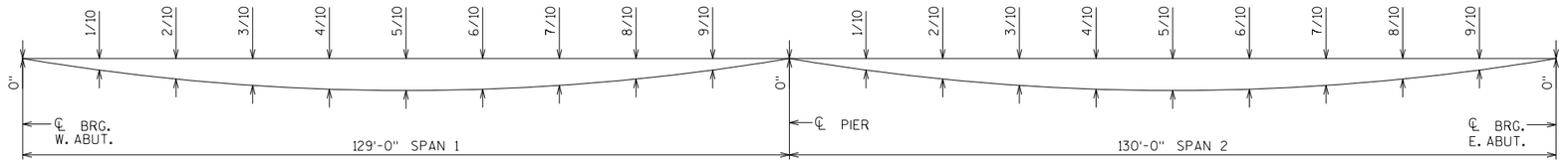
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S601	X	174	25'-0"			DECK-LONGIT.-TOP
S402	X	348	33'-9"			DECK-LONGIT.-TOP
S403	X	413	38'-8"			DECK-LONGIT.-BOT.
S504	X	963	36'-2"			DECK-TRANS.-TOP & BOT.
S405	X	484	4'-6"	X		DECK TRANS.-TOP EDGE
S506	X	784	4'-5"	X		DECK/PARAPET-VERT.
S407	X	78	4'-10"	X		DIAPHRAGM-VERT.
S608	X	30	8'-10"			DIAPHRAGM-HORIZ.-BOT.
S409	X	12	8'-10"			DIAPHRAGM-HORIZ.-TOP
S410	X	4	30'-0"			EXP. JOINT-HORIZ.
S511	X	74	3'-0"	X		PAVING BLOCK-VERT.
S512	X	30	8'-4"			PAVING BLOCK-HORIZ.
S413	X	520	2'-7"	X		DECK-GIRDER HAUNCH BARS-VERT.-G1&G4
S414	X	520	2'-11"	X		DECK-GIRDER HAUNCH BARS-VERT.-G2&G3
S415	X	48	44'-10			DECK-GIRDER HAUNCH BARS-HORIZ.
S516	X	784	6'-8"	X		PARAPET @ DECK-VERT.
S517	X	96	45'-0"			PARAPET @ DECK-HORIZ.
S418	X	74	3'-4"	X		PAVING BLOCK STIRRUPS-VERT.

◨ ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.



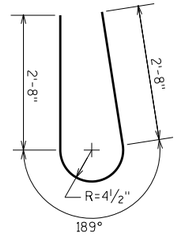
SECTION THRU JOINT AT ABUTMENT



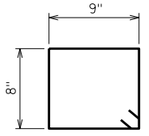
DEFLECTION DIAGRAM

DEFLECTION DIAGRAM TABLE

GIRDERS		ALONG ℄ GIRDER	℄ BRG. W.ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ BRG. E.ABUT.
2 & 3	(IN.)	CONC. ONLY	0	1.1	1.9	2.4	2.6	2.4	1.9	1.2	0.6	0.1	0	0.2	0.6	1.3	2.0	2.5	2.7	2.5	2.0	1.1	0
		TOTAL DEFL.	0	1.2	2.2	2.8	3.0	2.8	2.2	1.4	0.7	0.2	0	0.2	0.7	1.6	2.4	3.0	3.2	3.0	2.3	1.3	0
1 & 4	(IN.)	CONC. ONLY	0	0.9	1.6	2.0	2.1	2.0	1.6	1.0	0.5	0.1	0	0.1	0.5	1.1	1.7	2.1	2.3	2.1	1.6	0.9	0
		TOTAL DEFL.	0	1.0	1.9	2.4	2.5	2.4	1.9	1.2	0.6	0.1	0	0.2	0.6	1.3	2.0	2.5	2.7	2.5	2.0	1.1	0



S516



S418

NOTE: SEE "COVER PLATE DETAILS" SHEET AND INCORPORATE IN JOINT INSTALLATION

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

DRAWN BY WWR | PLANS CK'D. DMB

SUPERSTRUCTURE DETAILS

SHEET 6

361

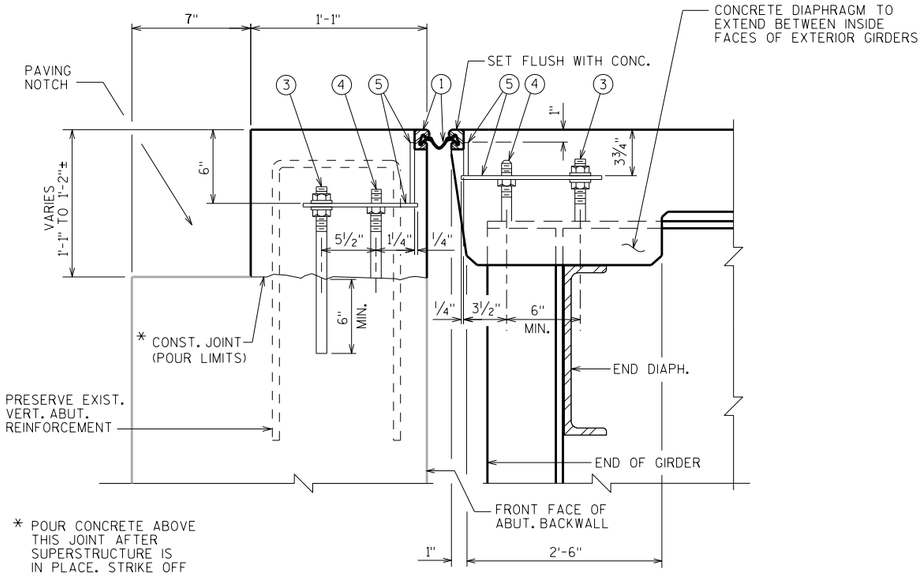
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8

8

STATE PROJECT NUMBER

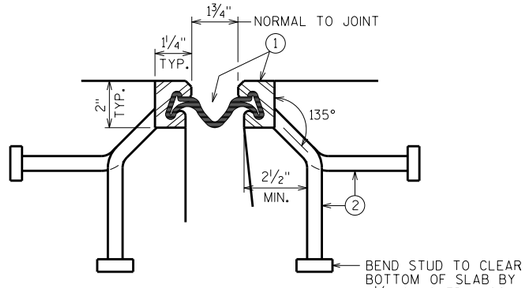
1450-02-70



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

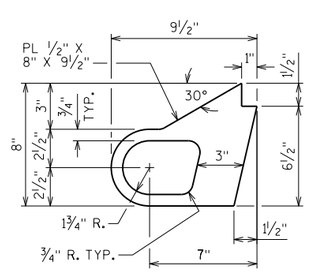
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

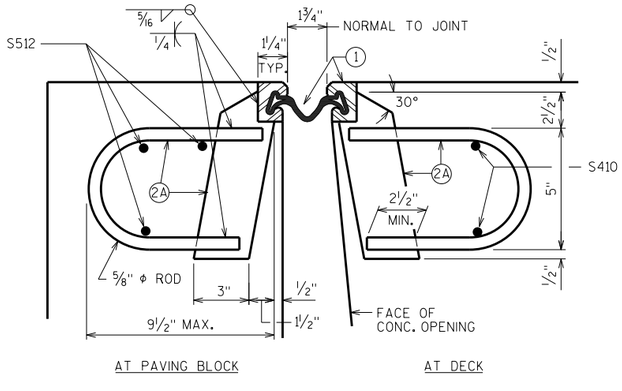


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

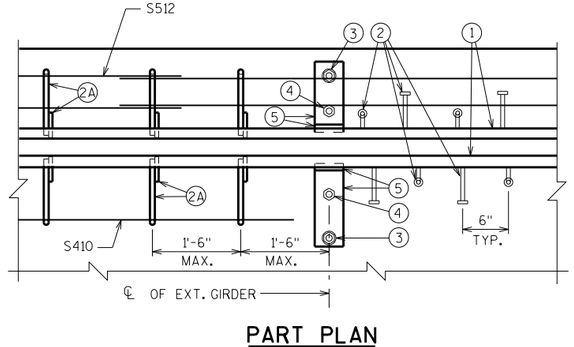


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) ¾"ϕ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾"ϕ X 2¼" GALVANIZED THREADED COUPLING.

(11) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-32".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

DRAWN BY WWR | PLANS CK'D. DMB

EXPANSION DEVICE

SHEET 7

362

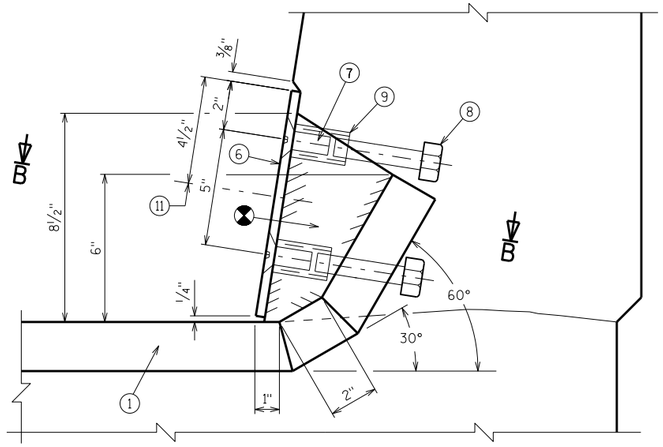
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8

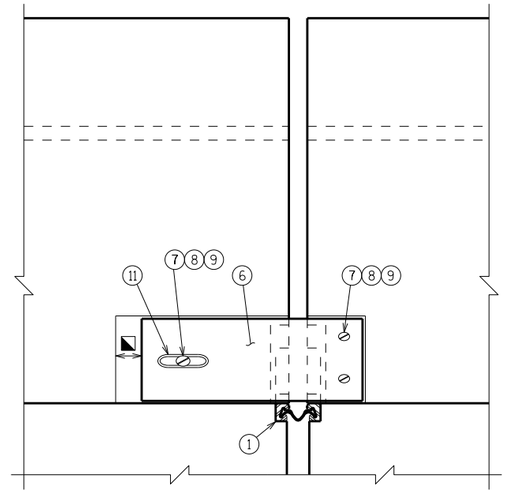
SCALE =

STATE PROJECT NUMBER

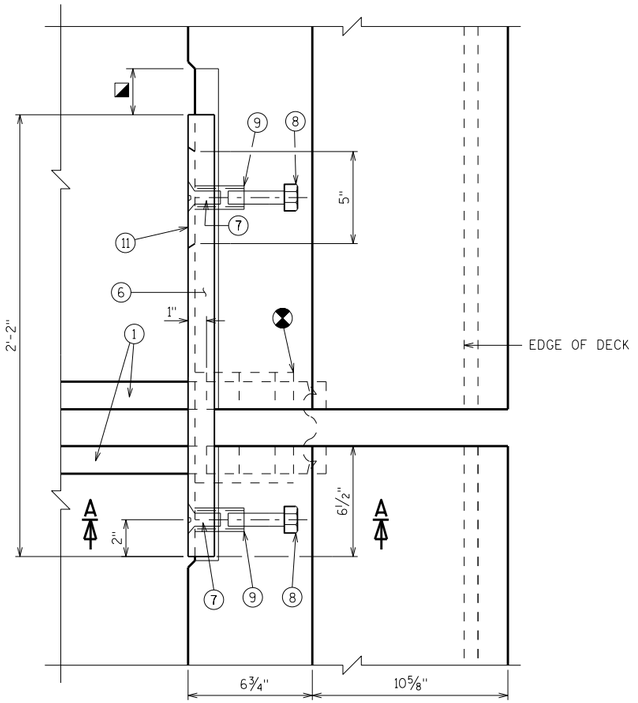
1450-02-70



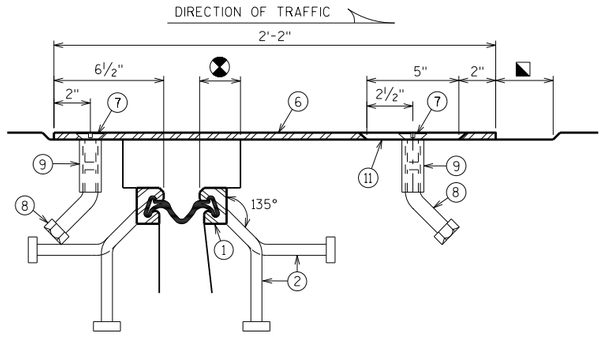
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

DRAWN BY WWR | PLANS CK'D. DMB

COVER PLATE DETAILS

SHEET 8

363

SCALE =

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8

STATE PROJECT NUMBER
1450-02-70

BILL OF BARS

FOR ABUTMENT PARAPETS

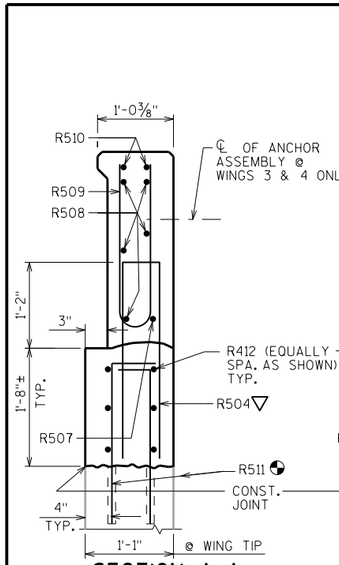
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	36	36	5'-10	X		PARAPET VERT.
R502	X	36	36	6'-8"	X		PARAPET VERT.
R503	X	22	22	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-8"	X		PARAPET HORIZ.
R508	X	10	10	19'-8"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	◭	PARAPET VERT.
R510	X	4	4	19'-8"	X		PARAPET HORIZ.
◔ R511	X	108	108	2'-9"	X		WING TOP
** R412	X	12	12	19'-8"			WING HORIZ.

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

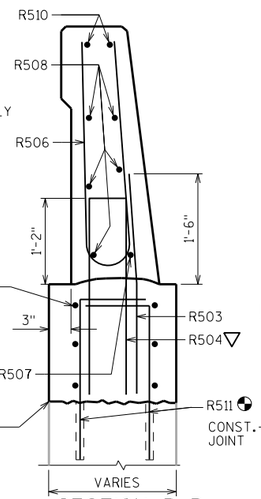
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

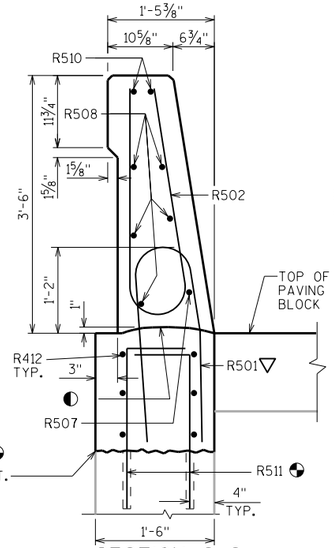
BUNDLE AND TAG EACH SERIES SEPARATELY.



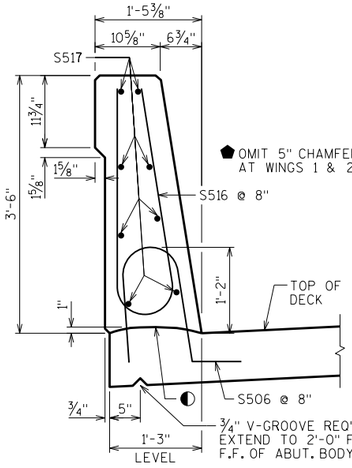
SECTION A-A



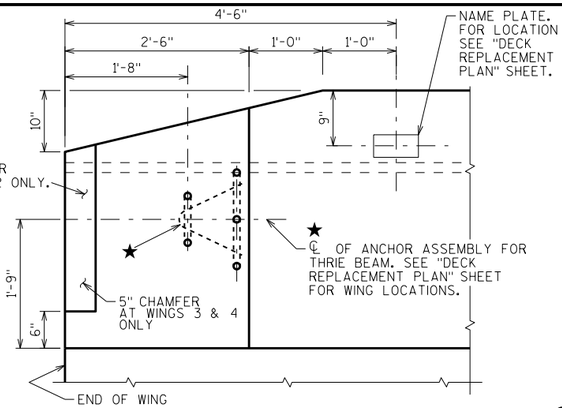
SECTION B-B



SECTION C-C

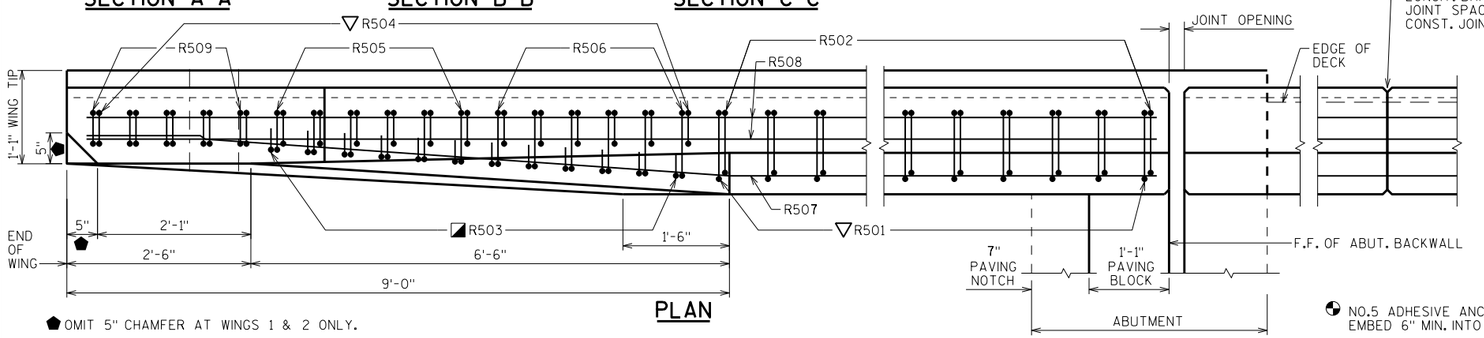


SECTION THRU PARAPET ON DECK



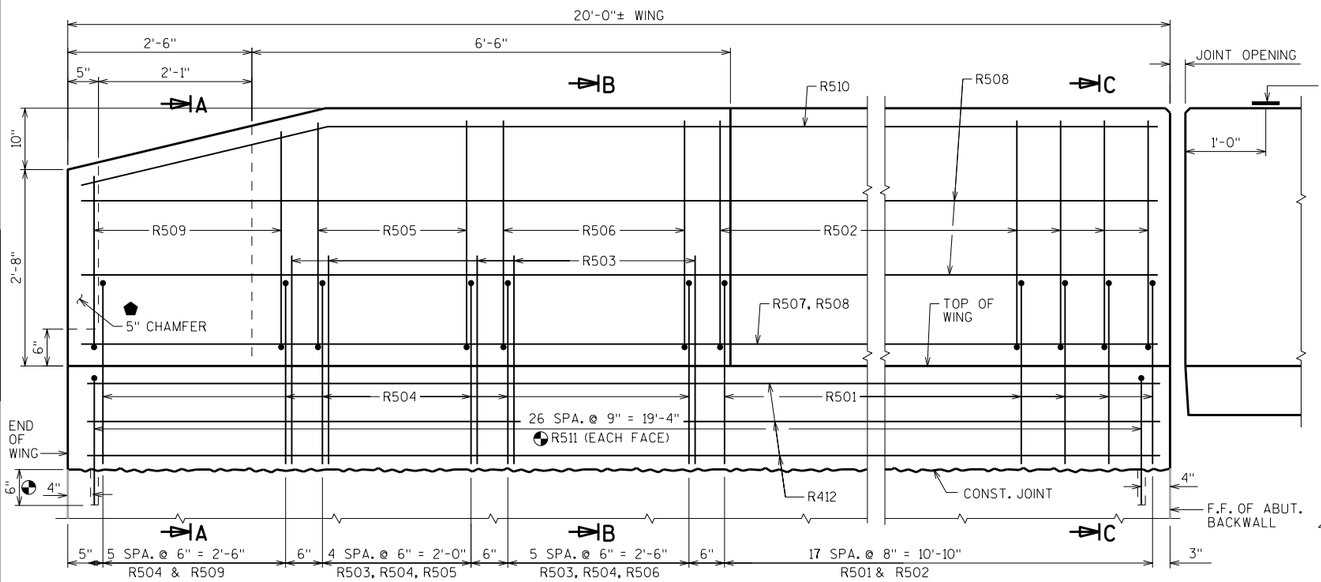
PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET



PLAN

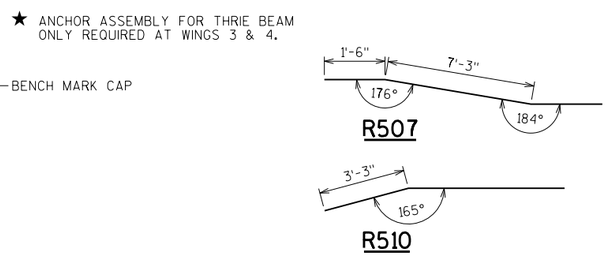
⬟ OMIT 5" CHAMFER AT WINGS 1 & 2 ONLY.



INSIDE ELEVATION

◔ NO.5 ADHESIVE ANCHORS. EMBED 6" MIN. INTO CONCRETE.

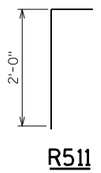
★ ANCHOR ASSEMBLY FOR THRIE BEAM ONLY REQUIRED AT WINGS 3 & 4.



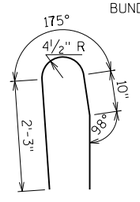
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

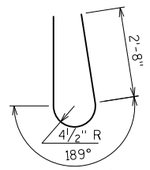
ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



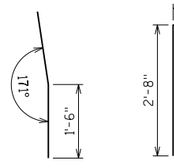
R511



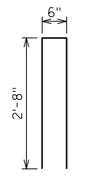
R501



R502



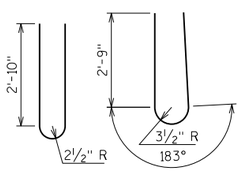
R503



R504

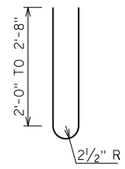
R507

R510



R505

R506



R509

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

** FIELD BEND TO MEET CLEARANCE RQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-32

DRAWN BY	PLANS CK'D.
WWR	DMB

SINGLE SLOPE PARAPET 42SS

SHEET 9

364

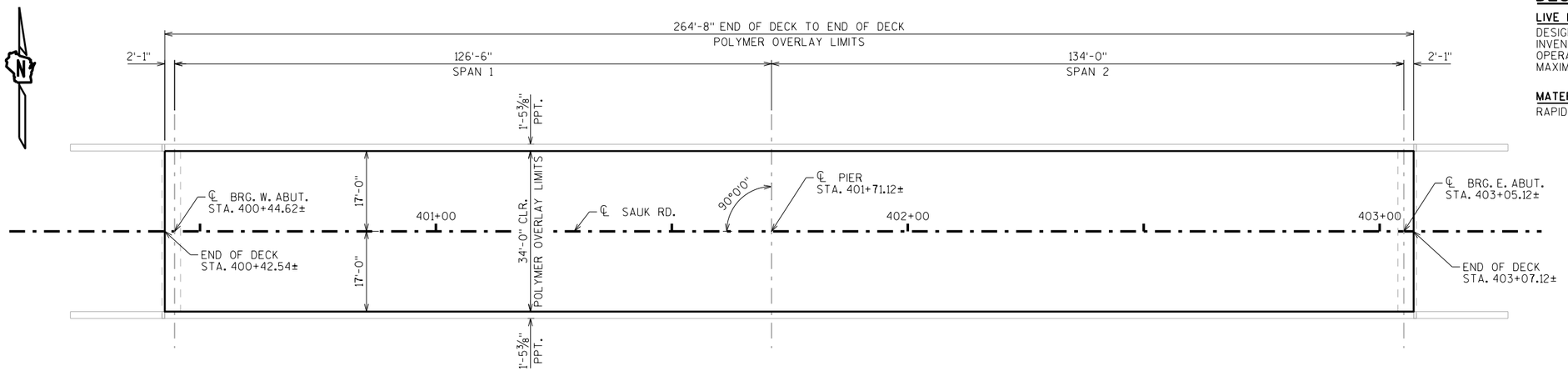
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SCALE = 1.00

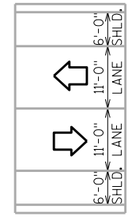
STATE PROJECT NUMBER

1450-02-70



PLAN

(2-SPAN HAUNCHED STEEL GIRDERS)



DESIGN DATA

LIVE LOAD:

DESIGN RATING: H20
INVENTORY RATING: HS-21
OPERATIONAL RATING: HS-36
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 230 (KIPS)

MATERIAL PROPERTIES:

RAPID SET DECK REPAIR ——— f'c = 4,000 P.S.I.

NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

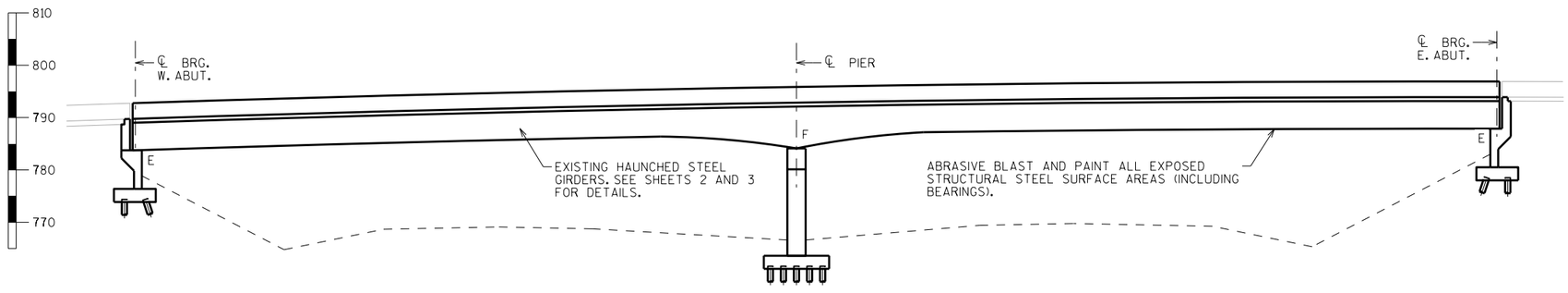
THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER AND SHALL BE FILLED WITH "RAPID SET DECK REPAIR"

POLYMER OVERLAY SHALL NOT BE PLACED OVER EXPANSION JOINT.



ELEVATION

(NORMAL TO SAUK RD.)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.5100.S	POLYMER OVERLAY	SY	1000
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-33	LS	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-33	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0035	RAPID SET DECK REPAIR	CY	1

TRAFFIC VOLUME

SAUK RD.

ADT = 130 (2039)
R.D.S. = 40 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY
2. FRAMING PLAN, CROSS-SECTION & DETAILS
3. STEEL GIRDER DETAILS

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-33

SAUK RD. OVER IH 43-STH 57

COUNTY: OZAUKEE
TOWN: SAUKVILLE
DESIGN SPEC.: REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	MWB	DLM	MWB

POLYMER OVERLAY

SHEET 1 OF 3

365

I.D. 1450-02-00D

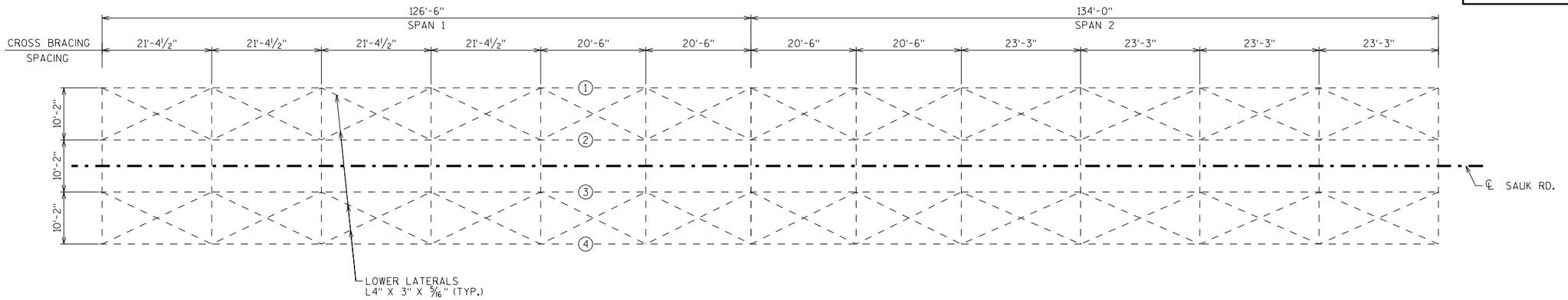
DATE: JULY 2019

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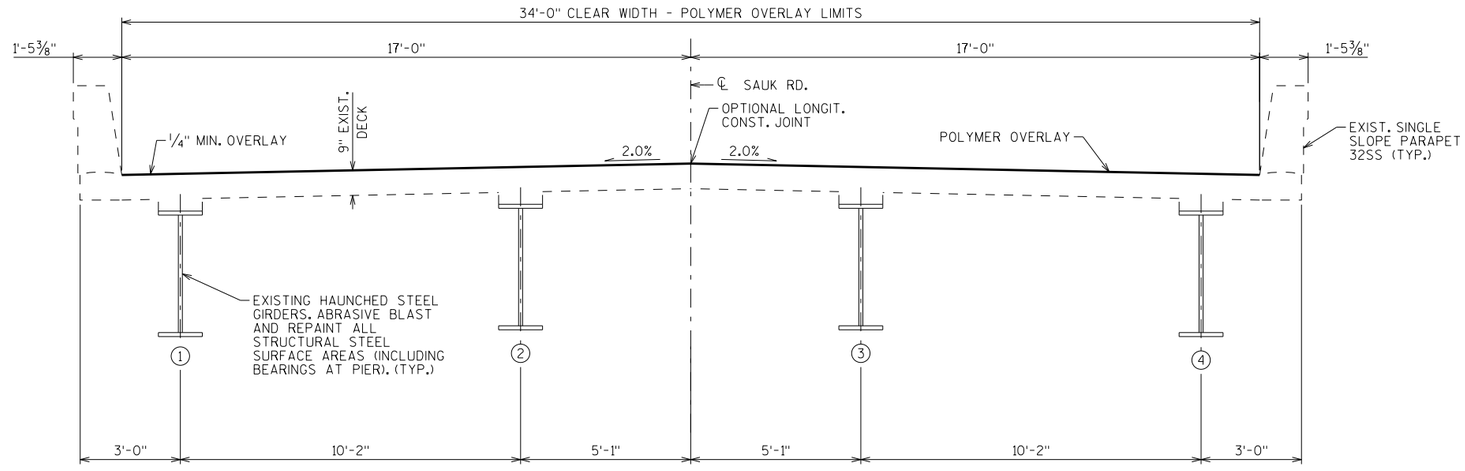
STATE PROJECT NUMBER

1450-02-70

INDICATES GIRDER NO.

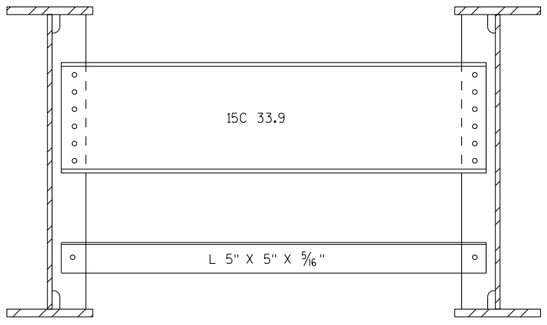


FRAMING PLAN

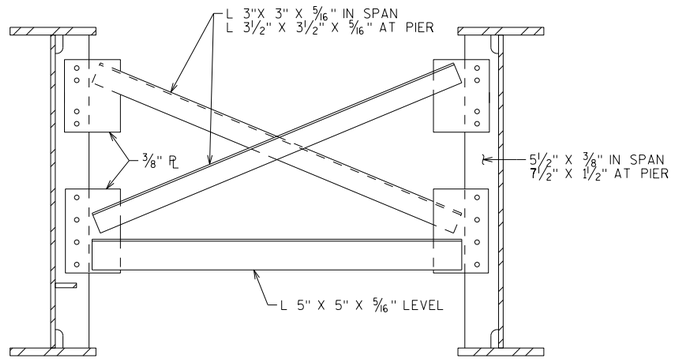


CROSS SECTION THRU ROADWAY

LOOKING EAST



EXISTING END DIAPH. CONNECTION



EXISTING CROSS FRAMING DETAILS

TYP. IN SPANS AND AT PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-33

DRAWN BY DLM | PLANS CK'D. MWB

FRAMING PLAN, CROSS-SECTION, & DETAILS

SHEET 2

366

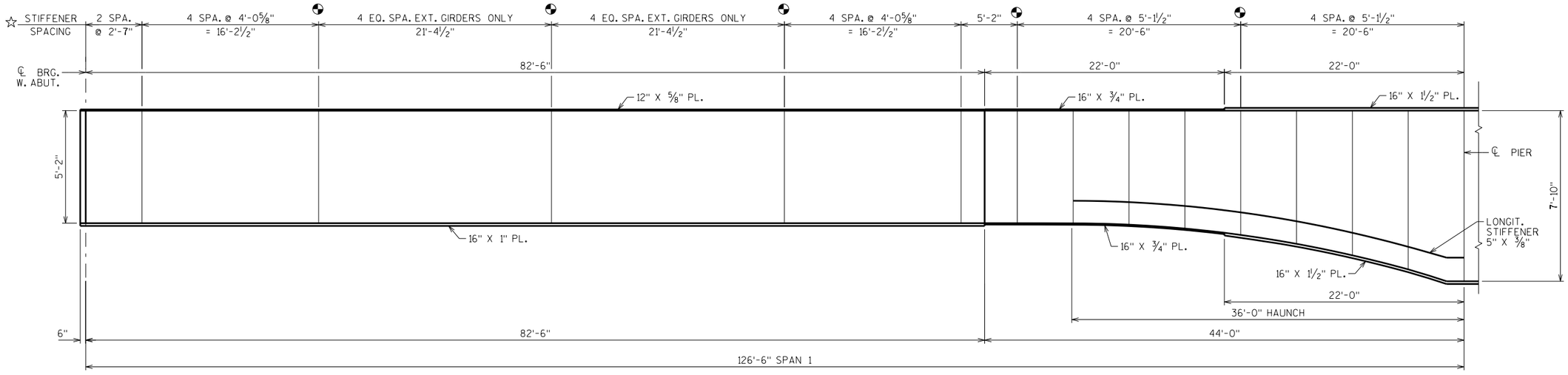
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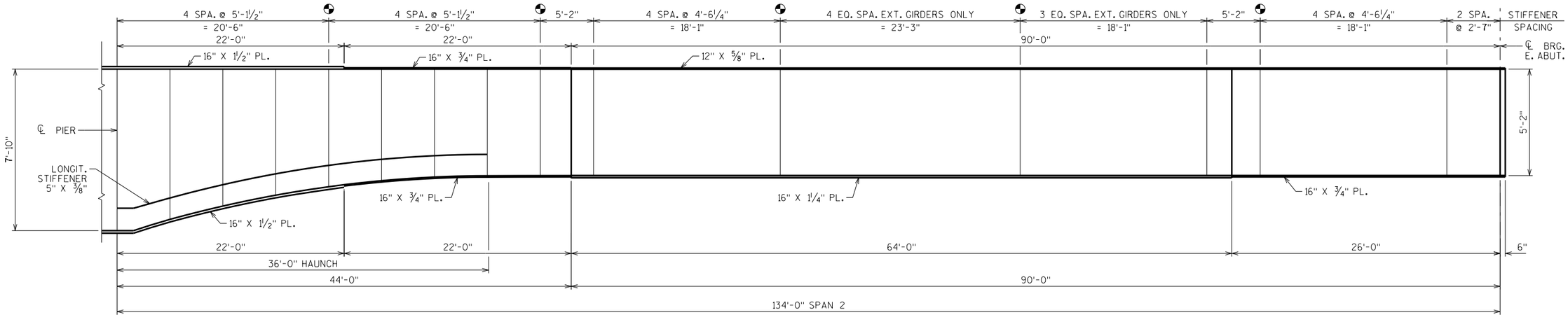
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STATE PROJECT NUMBER

1450-02-70



EXISTING GIRDER ELEVATION



EXISTING GIRDER ELEVATION

☆ VERTICAL STIFFENERS ARE 5" X 5/16" PL. EXCEPT AS NOTED.

CROSS FRAME STIFFENER 5 1/2" X 3/8" PL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-33

DRAWN BY DLM | PLANS CK'D. MWB

STEEL GIRDER DETAILS

SHEET 3

367

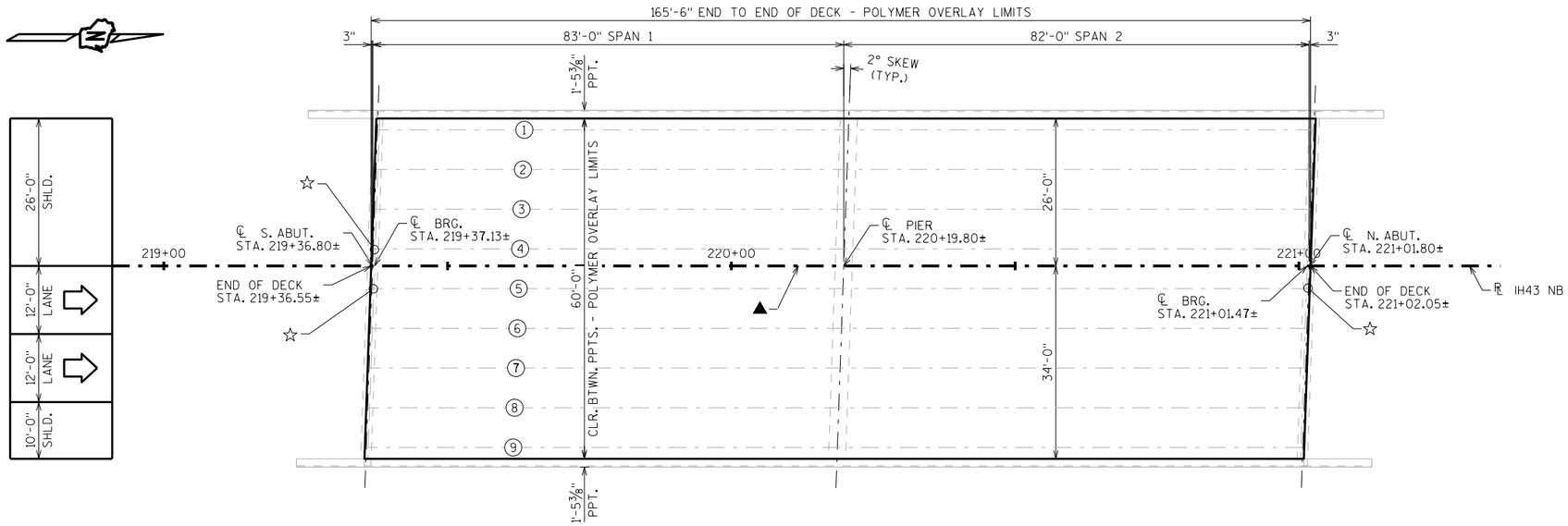
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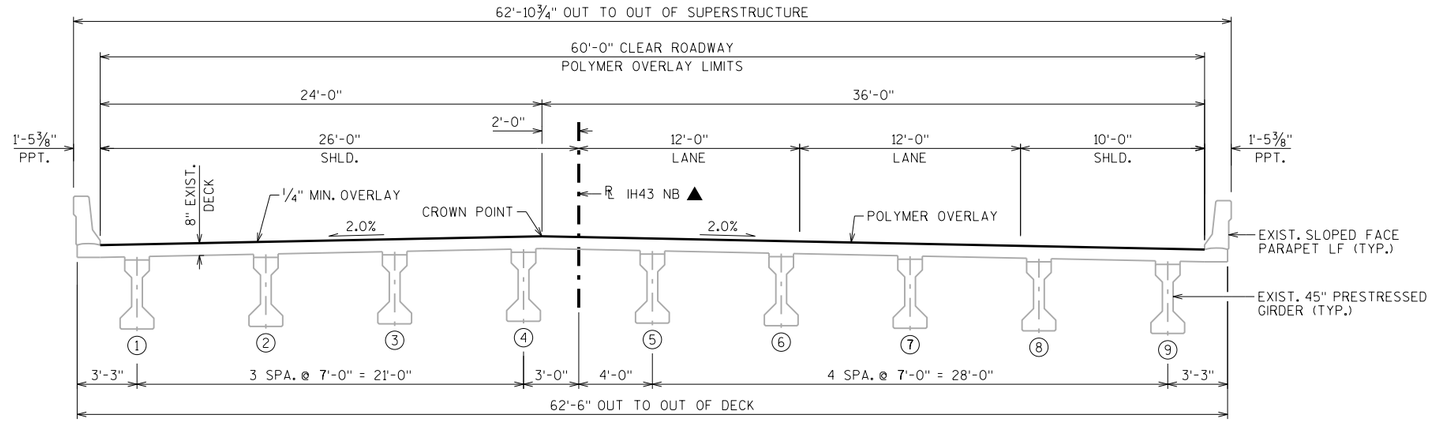
STATE PROJECT NUMBER

1450-02-72



PLAN

EXISTING TWO SPAN PRESTRESSED GIRDER BRIDGE



CROSS SECTION THRU ROADWAY

LOOKING NORTH

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-21
OPERATING RATING: HS-41
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
RAPID SET DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE SURFACE REPAIR ——— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND 2012 RE-DECK PLANS.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

◯ INDICATES GIRDER NUMBER

☆ CLEAN AND SEAL CONCRETE GIRDER END. SEE SHEET 2 FOR DETAILS.

▲ OPTIONAL CONSTRUCTION JOINT

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.5100.S	POLYMER OVERLAY	SY	1104
SPV.0035	RAPID SET DECK REPAIR	CY	1
SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EA	3

TRAFFIC VOLUME

IH 43 NB/STH 57 NB
ADT = 24,800 (2019)
R.D.S. = 70 M.P.H.

STH 33
ADT = 18,200 (2019)
R.D.S. = 35 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY
2. GIRDER CLEANING & SEALING

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-34

IH 43 NB/STH 57 NB OVER STH 33

COUNTY	VILLAGE
OZAUKEE	SAUKVILLE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

POLYMER OVERLAY

SHEET 1 OF 2

368

I.D. 1450-02-02B DATE: JULY 2019

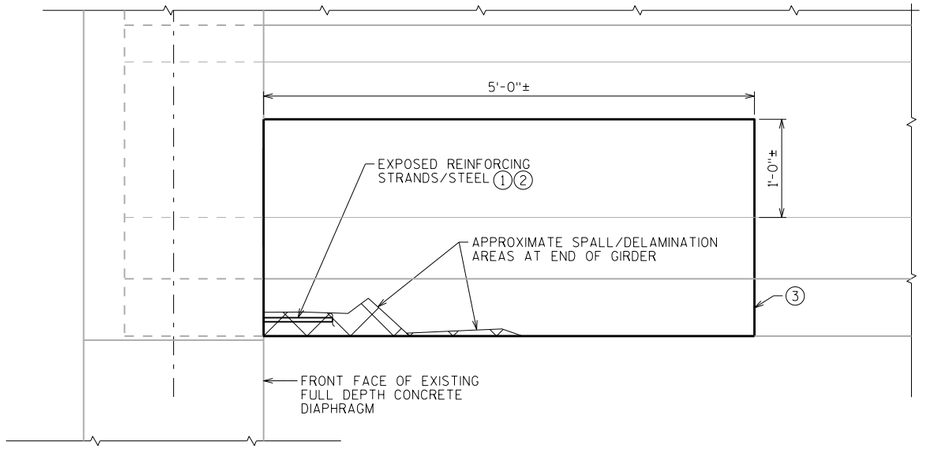
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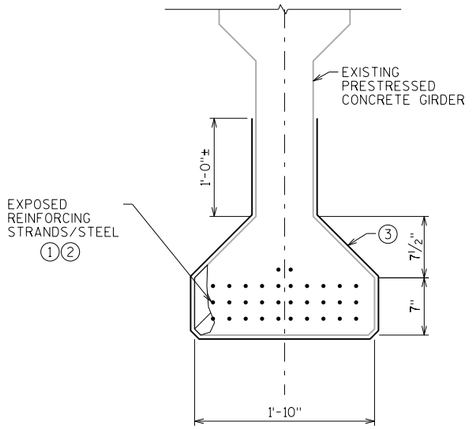
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STATE PROJECT NUMBER

1450-02-72



GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW

① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND INTERMEDIATE COAT.

③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES:

CLEAN AND SEAL GIRDER ENDS AS SHOWN ON THESE PLANS AND PER THE SPECIAL PROVISION "SPV.0060: CLEANING AND SEALING CONCRETE GIRDER ENDS."

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT INTERMEDIATE COAT SHALL BE CONCRETE GRAY.

WORK AREAS ARE ANTICIPATED AT GIRDERS 4 AND 5 AT SOUTH ABUTMENT AND GIRDER 5 AT NORTH ABUTMENT. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-34

DRAWN BY DLM | PLANS CK'D. DMB

GIRDER CLEANING & SEALING

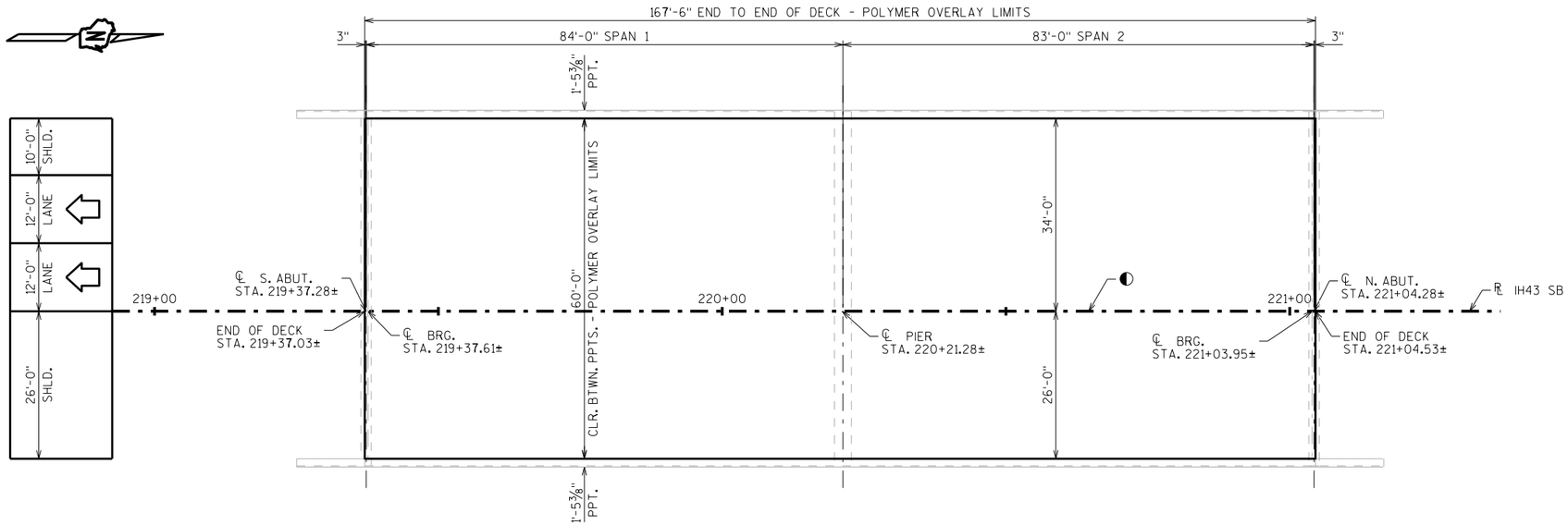
SHEET 2

369

SCALE = 0.75

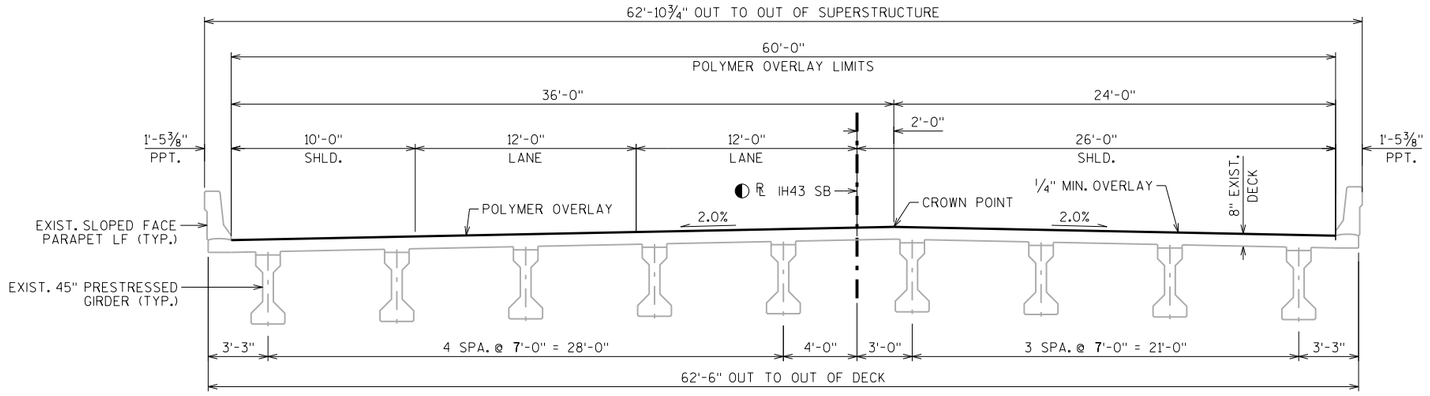
STATE PROJECT NUMBER

1450-02-72



PLAN

EXISTING TWO SPAN PRESTRESSED GIRDER BRIDGE



CROSS SECTION THRU ROADWAY

LOOKING NORTH

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-19
OPERATING RATING: HS- 39
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
RAPID SET DECK REPAIR ——— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND 2012 RE-DECK PLANS.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

◐ OPTIONAL LONGIT. CONST. JOINT

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.5100.S	POLYMER OVERLAY	SY	1,117
SPV.0035	RAPID SET DECK REPAIR	CY	1

TRAFFIC VOLUME

IH 43 SB/STH 57 SB
ADT = 17,900 (2019)
R.D.S. = 70 M.P.H.

STH 33
ADT = 18,200 (2019)
R.D.S. = 35 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-35

IH 43 SB/STH 57 SB OVER STH 33

COUNTY	VILLAGE
OZAUKEE	SAUKVILLE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

POLYMER OVERLAY

SHEET 1 OF 1

370

I.D. 1450-02-02C DATE: JUNE 2019

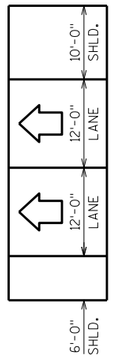
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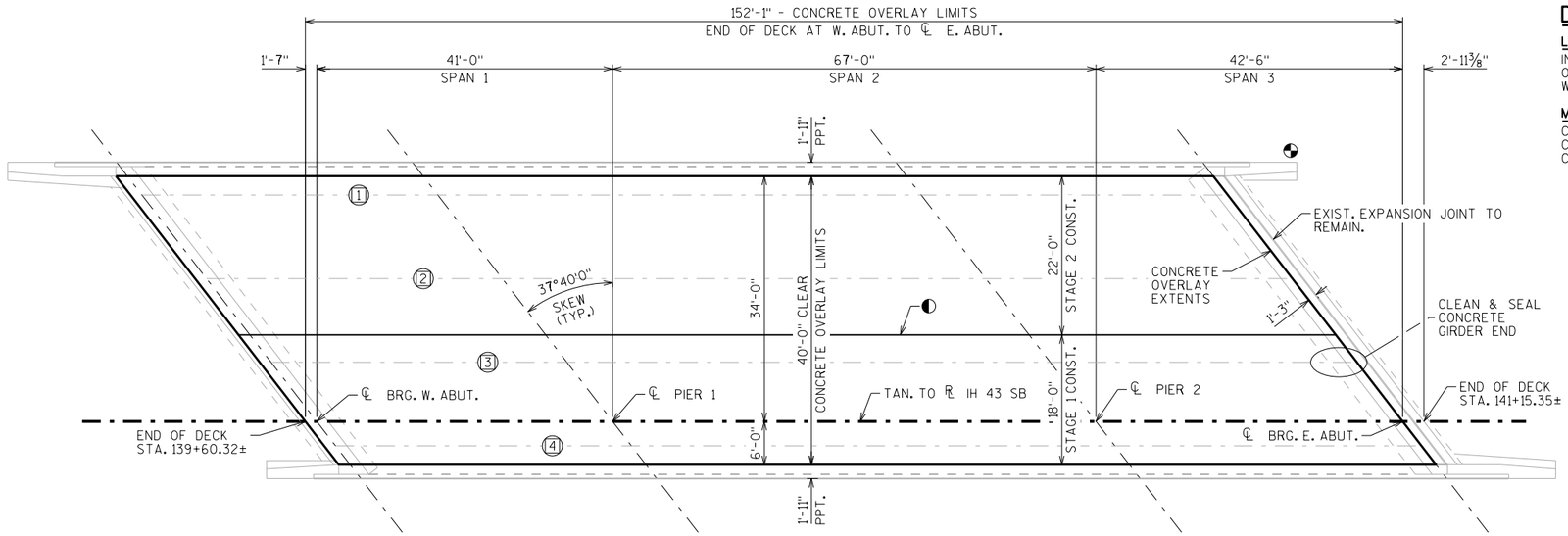
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STATE PROJECT NUMBER

1450-02-72

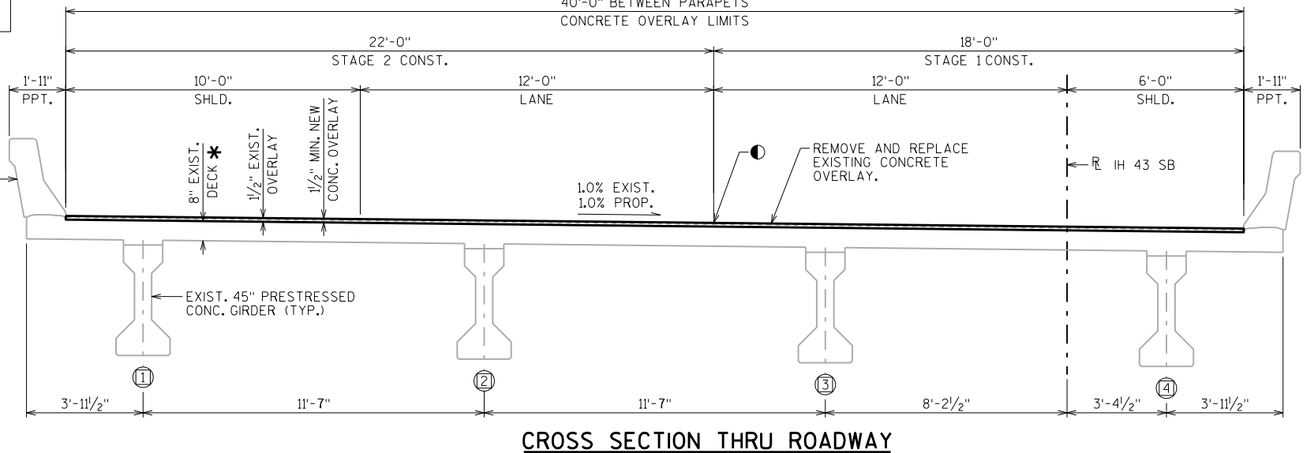




PLAN

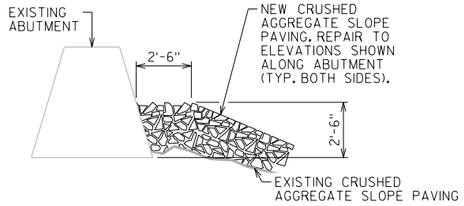
CONCRETE OVERLAY - THREE SPAN PRESTRESSED CONCRETE GIRDER

2" AVERAGE OVERLAY THICKNESS



CROSS SECTION THRU ROADWAY

LOOKING EAST



SLOPE PAVING REPAIR DETAIL

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	689
	509.0301	PREPARATION DECKS TYPE 1	SY	409
	509.0302	PREPARATION DECKS TYPE 2	SY	307
⬟	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	3
	509.1500	CONCRETE SURFACE REPAIR	SF	80
	509.2000	FULL-DEPTH DECK REPAIR	SY	2
	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	78
	509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	676
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-45-41	SY	676
	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	40
	SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	1

✱ ORIGINAL DECK= 9" - 1" MIN. MILL (FROM 2009 CONCRETE OVERLAY PLANS) = 8" EXIST. DECK ASSUMED.

◐ LONGIT. CONST. JOINT

⬭ INDICATES GIRDER NO.

⬟ AREA FOR 'SAWING PAVEMENT DECK PREPARATION AREAS' BID ITEM LOCATED AT EAST EXPANSION JOINT. SEE DETAIL ON 'REPAIR DETAILS' SHEET.

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
1	139+25	DISK AT WINGWALL (EL. 815.72 STAMPED ON DISK)	815.77

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-15
OPERATING RATING: HS-25
WISCONSIN STANDARD PERMIT VEHICLE: 230(KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
CONCRETE MASONRY OVERLAY DECKS —— f'c = 4,000 P.S.I.
CONCRETE SURFACE REPAIR —————— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND 2009 OVERLAY PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY, AS WELL AS THE TOP SURFACE OF EXISTING ROADWAY BEYOND OVERLAY LIMITS AT EAST ABUTMENT. EXISTING EXPANSION JOINT SHALL BE PRESERVED IN SUCH A MANNER THAT PROTECTIVE SURFACE TREATMENT IS NOT APPLIED ON JOINT.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

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

CONCRETE SURFACE REPAIR AREAS ARE ANTICIPATED AT PIER 1 CAP, PIER 2 NORTH COLUMN, NW WINGTIP, AND ALONG SOUTH PARAPET. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY".

REPAIR UNDERMINING AT WEST AND EAST ABUTMENTS UNDER BID ITEM "SLOPE PAVING REPAIR CRUSHED AGGREGATE".

TRAFFIC VOLUME

IH 43
ADT = 12,800 (2019)
R.D.S. = 70 M.P.H.

CTH KK
ADT = 1,450 (2019)
R.D.S. = 35 M.P.H.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. STAGING DETAILS
3. REPAIR DETAILS
4. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-41

IH 43 SB OVER CTH KK

COUNTY	TOWN
OZAUKEE	PORT WASHINGTON

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

CONCRETE OVERLAY

SHEET 1 OF 4

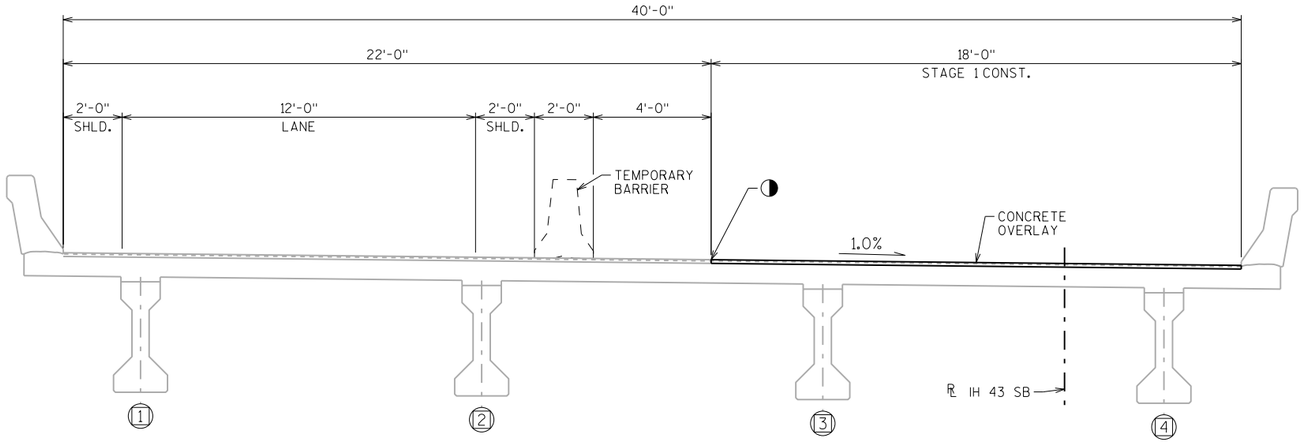
371

I.D. 1450-02-02A DATE: JULY 2019

SCALE = 10.00

STATE PROJECT NUMBER

1450-02-72

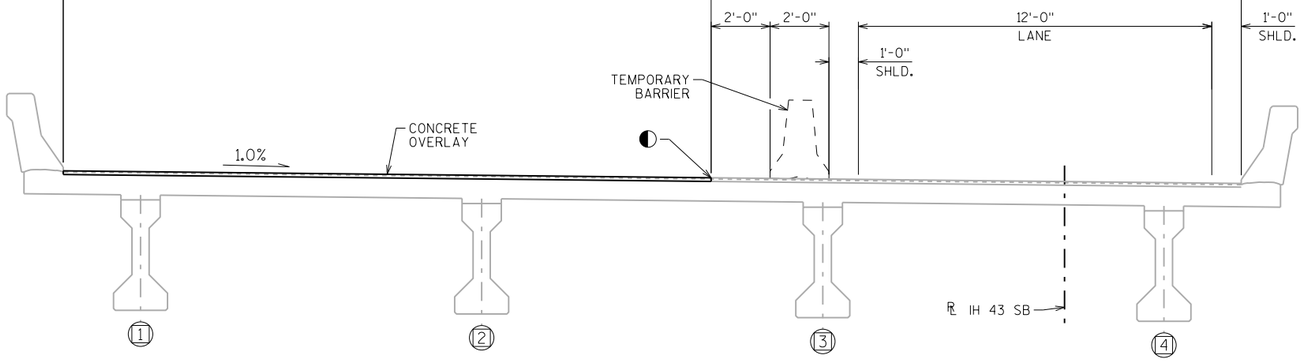


STAGE 1 CONST.

LOOKING EAST

◐ LONGITUDINAL CONSTRUCTION JOINT

◯ INDICATES GIRDER NUMBER



STAGE 2 CONST.

LOOKING EAST

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-41

DRAWN BY DLM | PLANS CK'D. DMB

STAGING DETAILS

SHEET 2

372

SCALE = 2.50

STATE PROJECT NUMBER

1450-02-72

NOTES:

CLEAN AND SEAL GIRDER ENDS AS SHOWN ON THESE PLANS AS PER THE SPECIAL PROVISION "SPV.0060: CLEANING AND SEALING CONCRETE GIRDER ENDS."

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT INTERMEDIATE COAT SHALL BE GRAY.

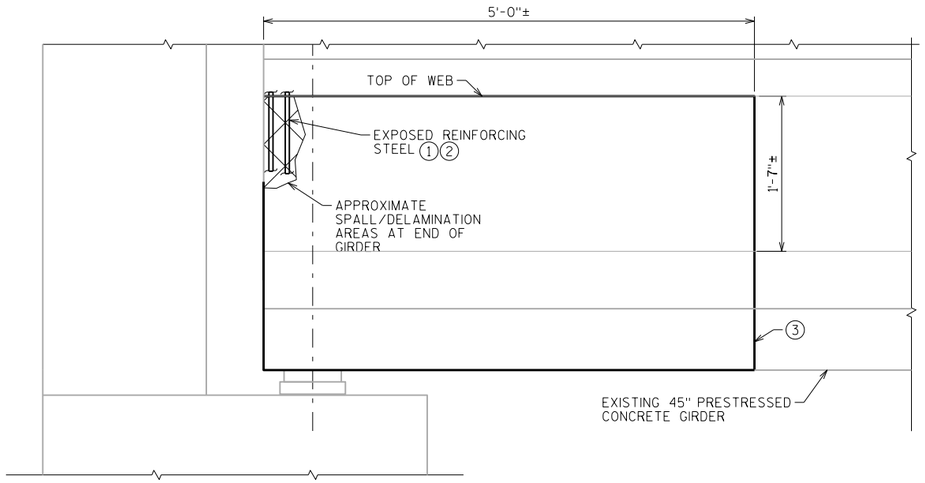
WORK ANTICIPATED AT EAST ABUTMENT, GIRDER 3. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

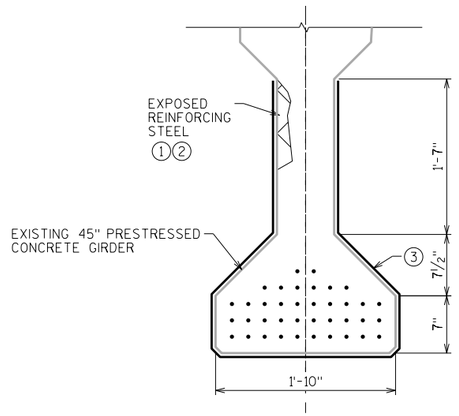
① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND INTERMEDIATE COAT.

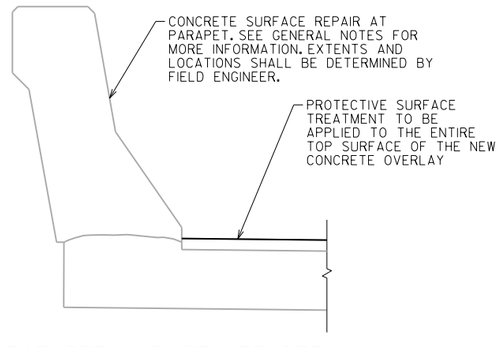
③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.



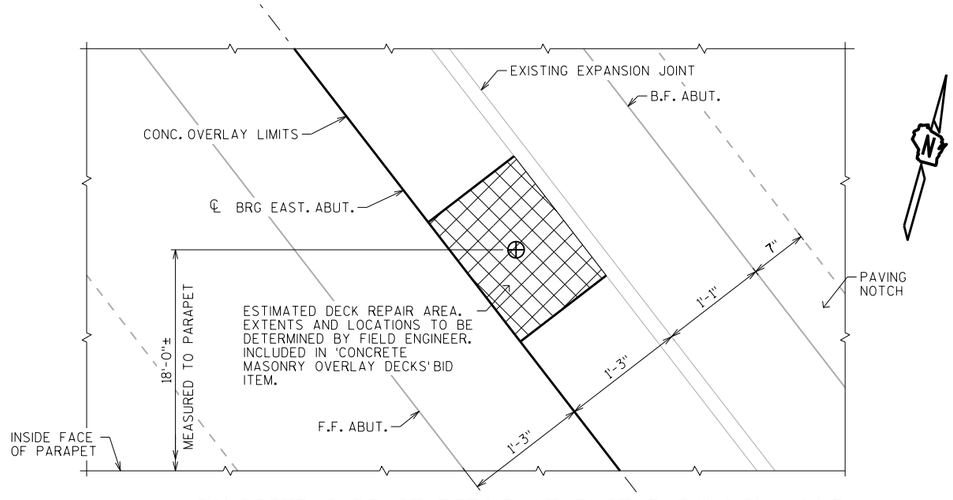
GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW



PARAPET AND SEALER DETAIL



CONCRETE SURFACE REPAIR AT EAST EXPANSION JOINT

(PLAN VIEW)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-41

DRAWN BY DLM | PLANS CK'D. DMB

REPAIR DETAILS

SHEET 3

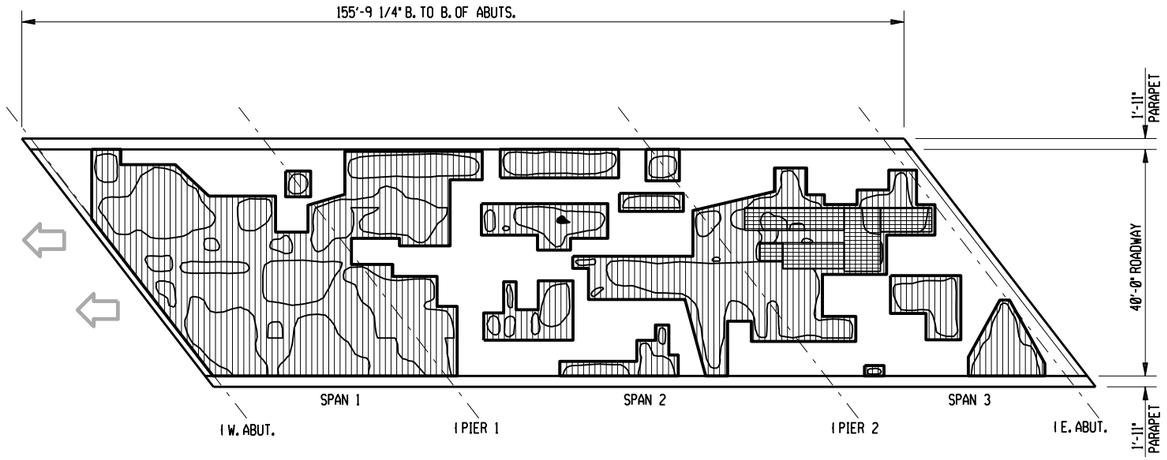
373

SCALE = 0.75

8

8

STATE PROJECT NUMBER
1450-02-72



PLAN

PROPOSED REHABILITATION AREAS



REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-41	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	689.3	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	408.6	59.3
PREPARATION, DECKS, TYPE 2	yd^2	306.5	44.5
FULL DEPTH DECK REPAIR	yd^2	2.0	0.3

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE OVERLAY
INFRARED INSPECTION DATE: 6/26/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-41

DRAWN BY DLM | PLANS CK'D. DMB

DECK CONDITION SURVEY

SHEET 4

374

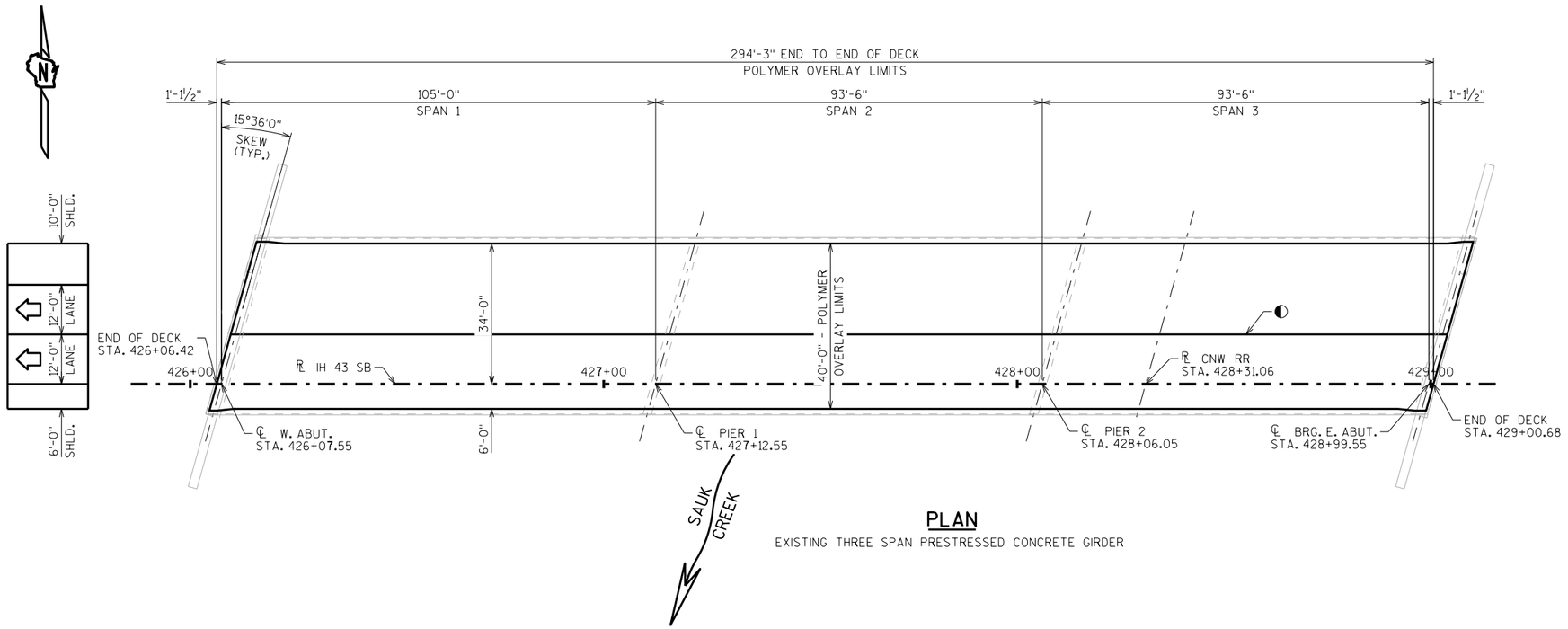
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STATE PROJECT NUMBER

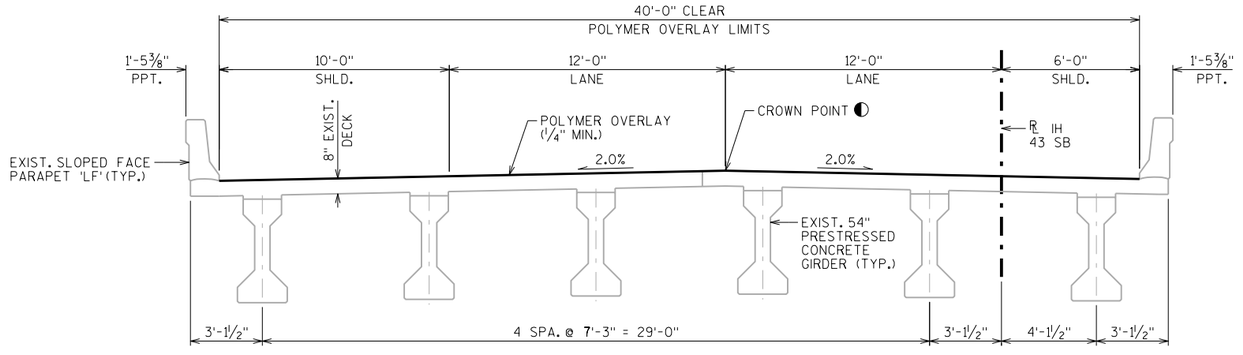
1450-02-72



PLAN

EXISTING THREE SPAN PRESTRESSED CONCRETE GIRDER

◐ OPTIONAL LONGIT. CONST. JOINT



CROSS SECTION THRU BRIDGE

LOOKING EAST

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-24
OPERATING RATING: HS-48
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
RAPID SET DECK REPAIR ———— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND 2012 RE-DECK PLANS.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.5100.S	POLYMER OVERLAY	SY	1,308
SPV.0035	RAPID SET DECK REPAIR	CY	1

TRAFFIC VOLUME

IH 43 SB
ADT = 12,800 (2019)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Ducker LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-43

IH 43 SB OVER CNW RR

COUNTY	TOWN
OZAUKEE	PORT WASHINGTON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

POLYMER OVERLAY

SHEET 1 OF 1

375

I.D. 1450-02-02D

DATE: JUNE 2019

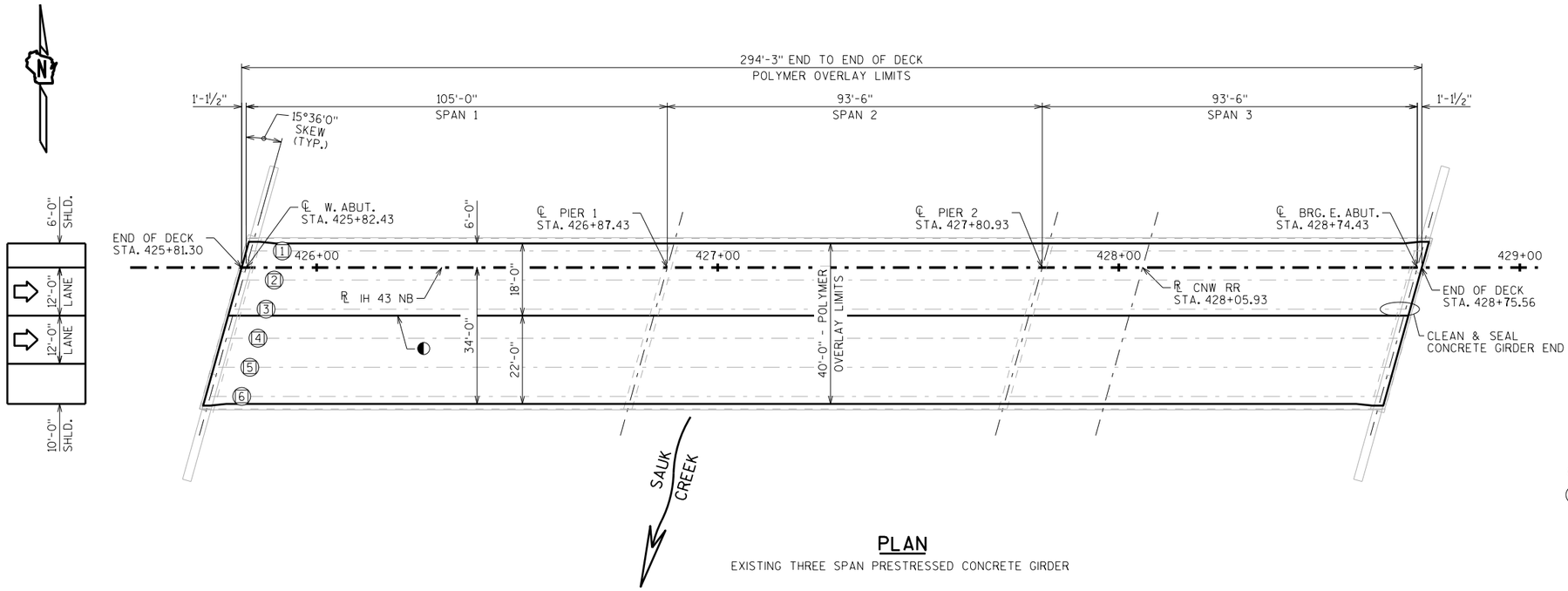
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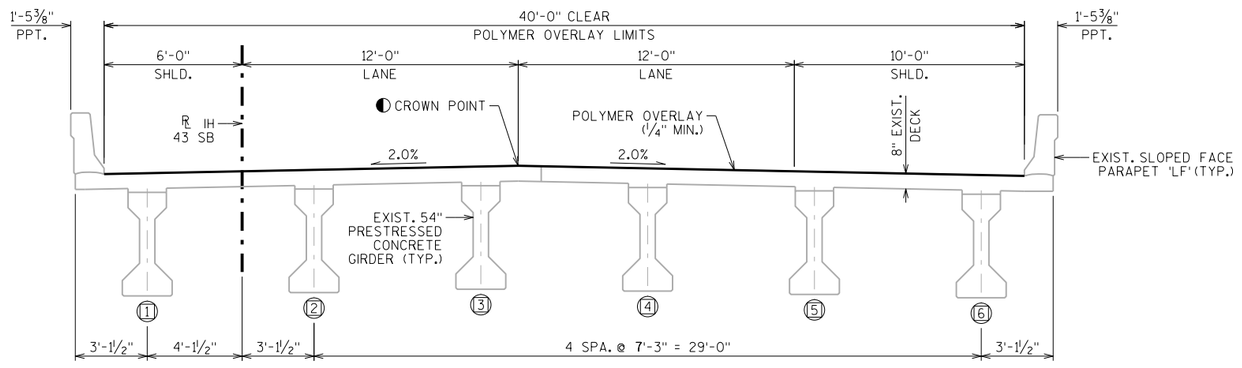
STATE PROJECT NUMBER

1450-02-72



PLAN

EXISTING THREE SPAN PRESTRESSED CONCRETE GIRDER



CROSS SECTION THRU BRIDGE

LOOKING EAST

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-24
OPERATING RATING: HS-48
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
RAPID SET DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE SURFACE REPAIR ——— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND 2012 RE-DECK PLANS.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

◐ OPTIONAL LONGIT. CONST. JOINT.

◯ INDICATES GIRDER NO.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.5100.S	POLYMER OVERLAY	SY	1,308
SPV.0035	RAPID SET DECK REPAIR	CY	1
SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	1

TRAFFIC VOLUME

IH 43 NB
ADT = 17,600 (2019)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY
2. GIRDER CLEANING & SEALING

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-44

IH 43 NB OVER CNW RR & SAUK CREEK

COUNTY	TOWN
OZAUKEE	PORT WASHINGTON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

POLYMER OVERLAY

SHEET 1 OF 2

376

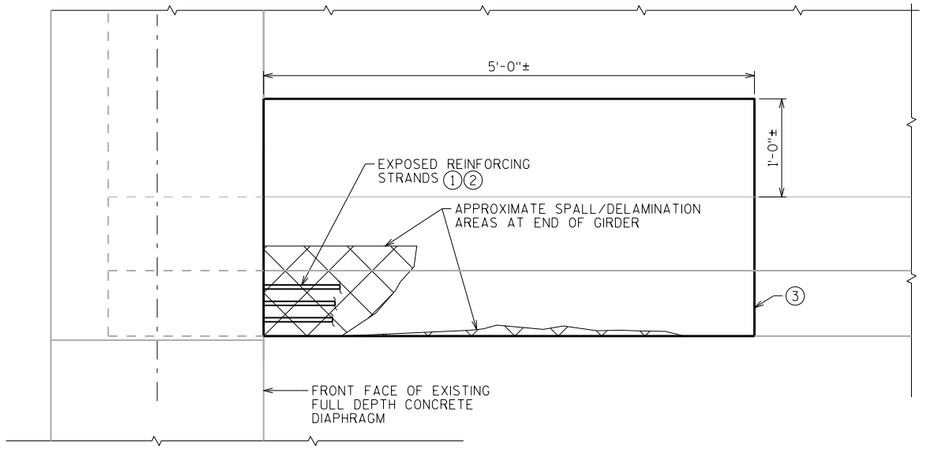
I.D. 1450-02-02E

DATE: JULY 2019

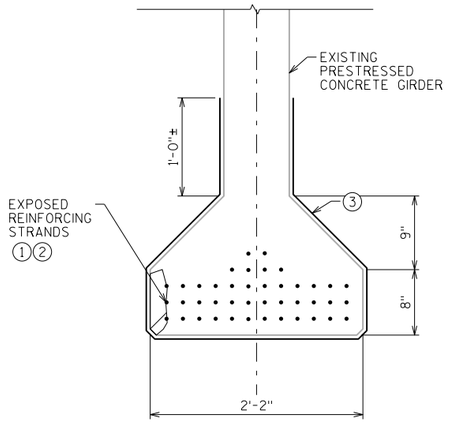
SCALE = 16.00

STATE PROJECT NUMBER

1450-02-72



GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW

① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND INTERMEDIATE COAT.

③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES:

CLEAN AND SEAL GIRDER ENDS AS SHOWN ON THESE PLANS AND PER THE SPECIAL PROVISION "SPV.0060: CLEANING AND SLEALING CONCRETE GIRDER ENDS."

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT INTERMEDIATE COAT SHALL BE CONCRETE GRAY.

WORK AREAS ARE ANTICIPATED AT GIRDER 3 OF SPAN 3 AT EAST ABUTMENT. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-44

DRAWN BY DLM | PLANS CK'D. DMB

GIRDER CLEANING & SEALING

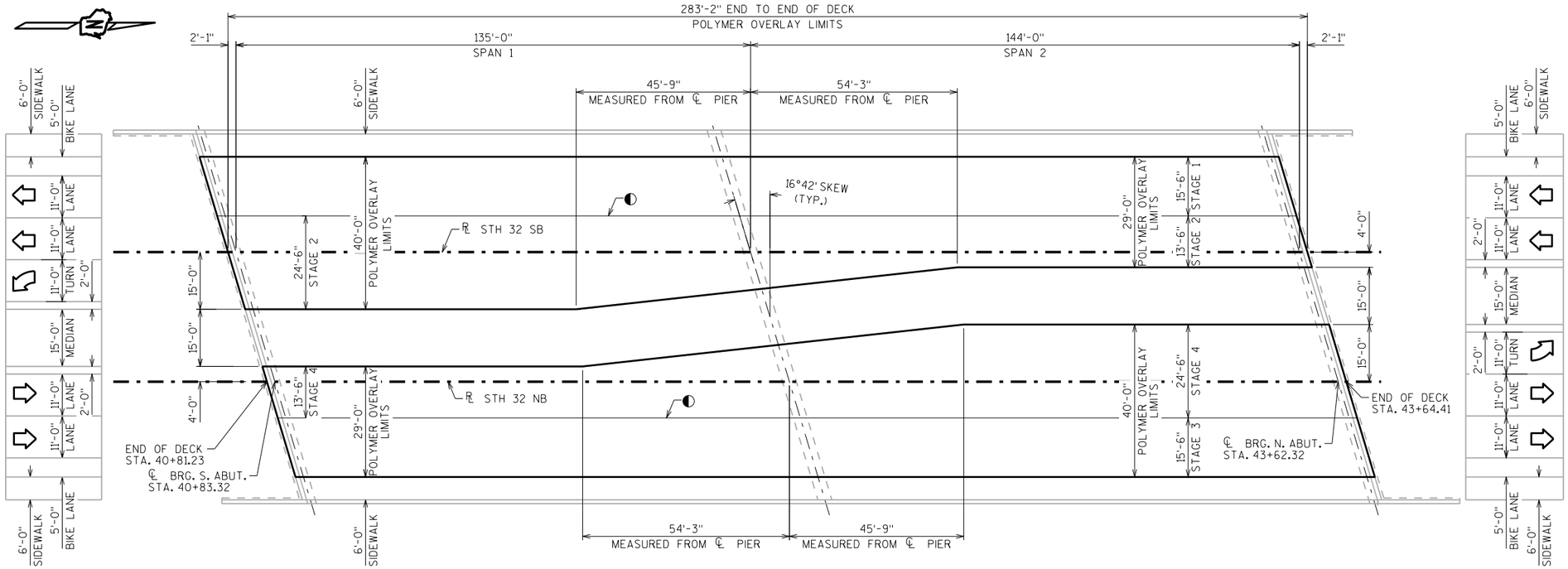
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377

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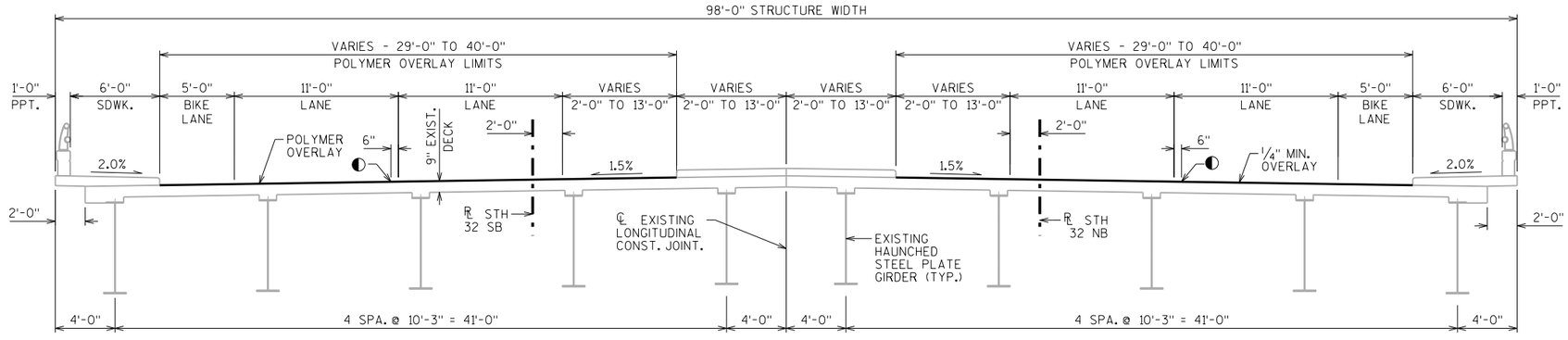
STATE PROJECT NUMBER

1450-02-72



PLAN

EXISTING TWO SPAN HAUNCHED STEEL DECK GIRDER



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10
509.1500	CONCRETE SURFACE REPAIR	SF	20
509.5100.S	POLYMER OVERLAY	SY	2,171
SPV.0035	RAPID SET DECK REPAIR	CY	1

◐ LONGIT. CONST. JOINT

TRAFFIC VOLUME

STH 32
ADT = 5,950 (2019)
R.D.S. = 30 M.P.H.

IH 43
ADT = 30,400 (2019)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. POLYMER OVERLAY
2. STAGING DETAILS

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-21
OPERATING RATING: HS-35
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 170 (KIPS)

MATERIAL PROPERTIES:
RAPID SET DECK REPAIR ——— f'c = 4,000 P.S.I.
CONCRETE SURFACE REPAIR ——— f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS & 2012 RE-DECK PLANS.

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

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

CONCRETE SURFACE REPAIR AREAS ANTICIPATED AT PIER COLUMN 2 AND COLUMN 5 AND AT NORTH AND SOUTH ABUTMENTS. LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-45

STH 32 SB OVER IH 43

COUNTY OZAUKEE | TOWN PORT WASHINGTON

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	DMB	DLM	DMB

POLYMER OVERLAY

SHEET 1 OF 2

378

I.D. 1450-02-02F

DATE: JULY 2019

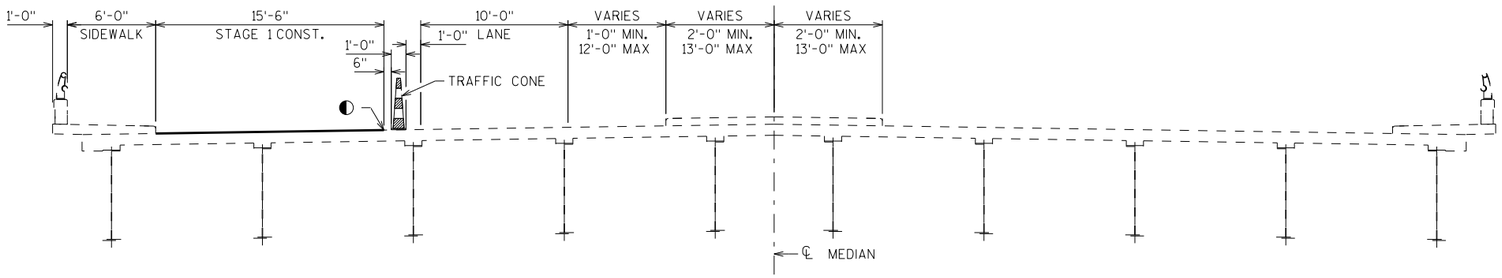
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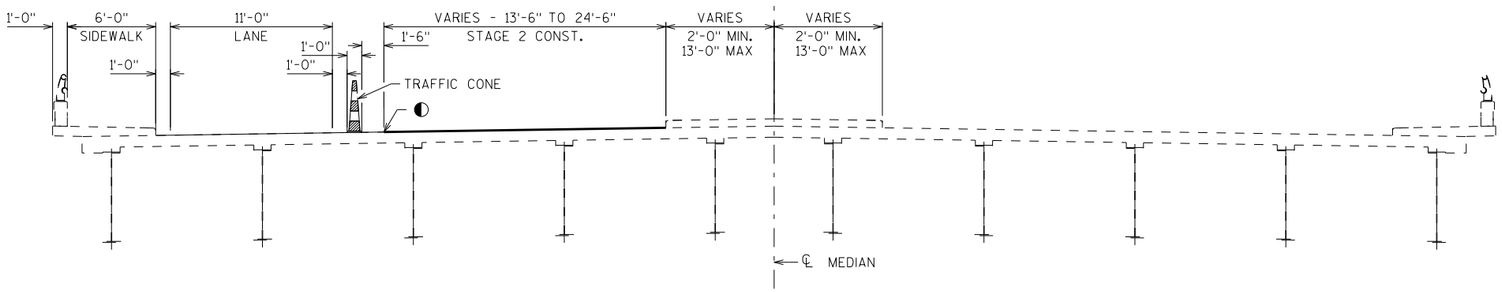
STATE PROJECT NUMBER

1450-02-72



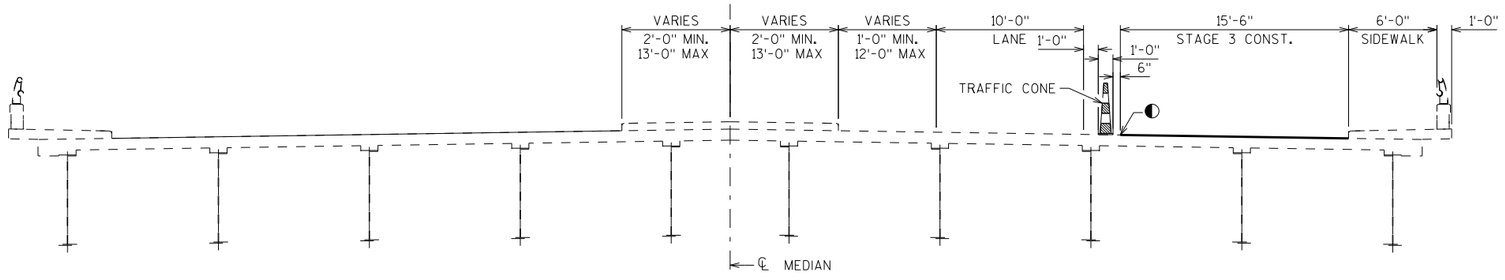
STAGE 1 CONST.

(LOOKING NORTH)



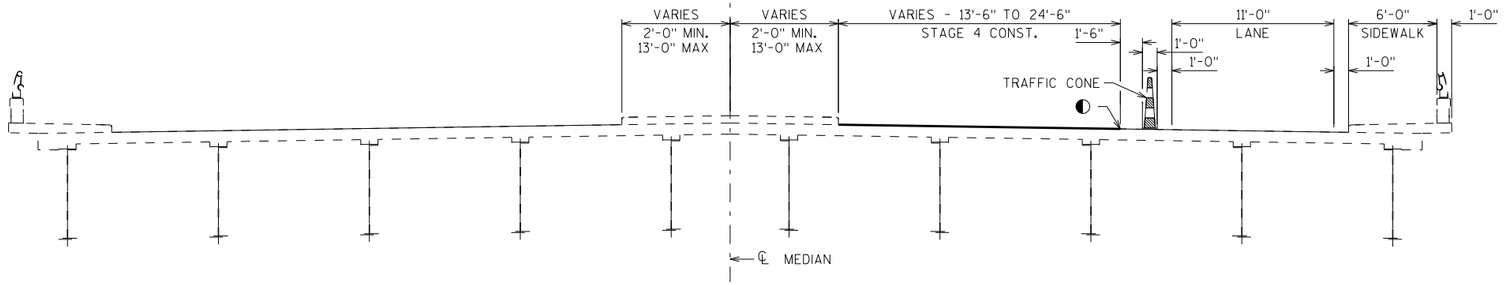
STAGE 2 CONST.

(LOOKING NORTH)



STAGE 3 CONST.

(LOOKING NORTH)



STAGE 4 CONST.

(LOOKING NORTH)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-45

DRAWN BY DLM | PLANS CK'D. DMB

STAGING DETAILS

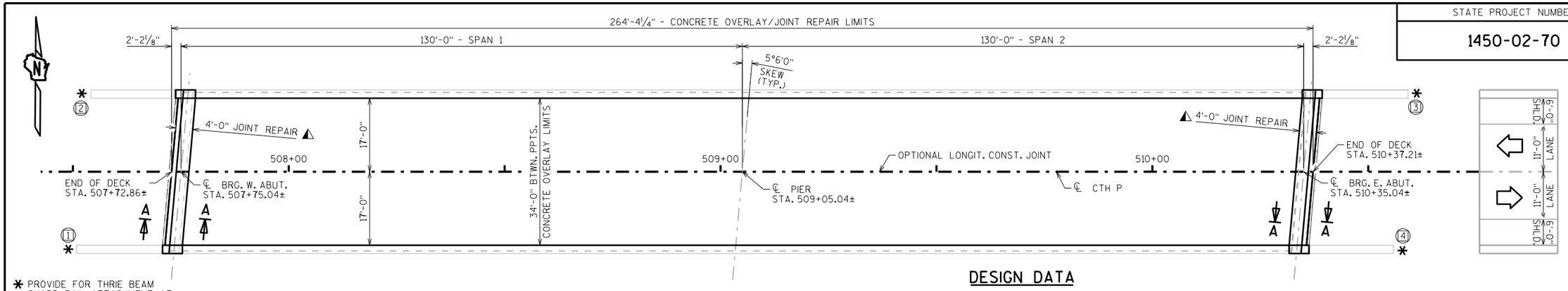
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379

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STATE PROJECT NUMBER

1450-02-70

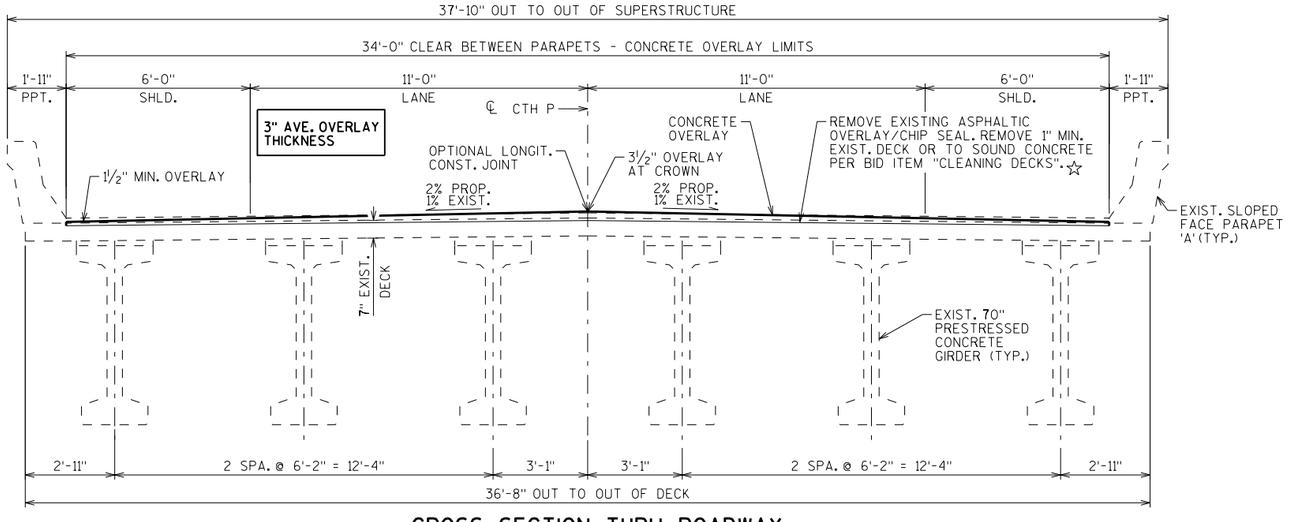


✱ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

⃝ INDICATES WING NUMBER

PLAN

2-SPAN 70" PRESTRESSED CONCRETE GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST

☆ EXISTING 2"± ASPHALTIC OVERLAY WITH CHIP SEAL. REMOVAL COVERED UNDER "REMOVING ASPHALTIC CONCRETE DECK OVERLAY".

DESIGN DATA

LIVE LOAD:

DESIGN RATING: H-20
INVENTORY RATING: HS-17
OPERATIONAL RATING: HS-27
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINF. SHALL BE EMBEDDED 2" CLR. UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

ALL LINES OF REMOVAL SHALL BE DEFINED BY A MIN. 1" DEEP SAW CUT.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT PARAPET EXAPANSION JOINTS. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

TRAFFIC VOLUME

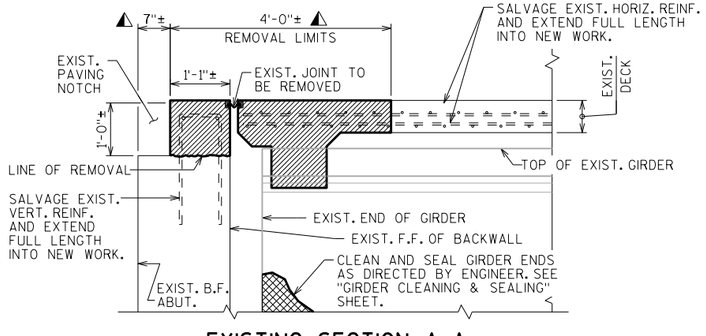
CTH P

ADT = 440 (2039)
R.D.S. = 55 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-52	LS	1
502.3100	EXPANSION DEVICE B-45-52	LF	70
502.3200	PROTECTIVE SURFACE TREATMENT	SY	999
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	76
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,250
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	12
506.7050.S	REMOVING BEARINGS, B-45-52	EACH	12
509.0301	PREPARATION DECKS TYPE 1	SY	148
509.0302	PREPARATION DECKS TYPE 2	SY	111
509.0500	CLEANING DECKS	SY	969
509.1000	JOINT REPAIR	SY	34
509.1500	CONCRETE SURFACE REPAIR	SF	25
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	95
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-45-52	SY	999
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	343
SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	9

◆ NOTE: PAYMENT BASED ON LENGTH BETWEEN INSIDE FACES OF CURBS.



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. JOINT REPAIR DETAILS
3. EXPANSION DEVICE
4. COVER PLATE DETAILS
5. PRESTRESSED GIRDER BEARINGS
6. SLOPE PAVING RESEALING
7. GIRDER REPAIR & SEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-52

CTH P OVER IH43/STH32

COUNTY	TOWN/CITY/VILLAGE
OZAUKEE	BELGIUM

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	MWB	DLM	MWB

CONCRETE OVERLAY

SHEET 1 OF 8

380

I.D. 1450-02-00F

DATE: JULY 2019

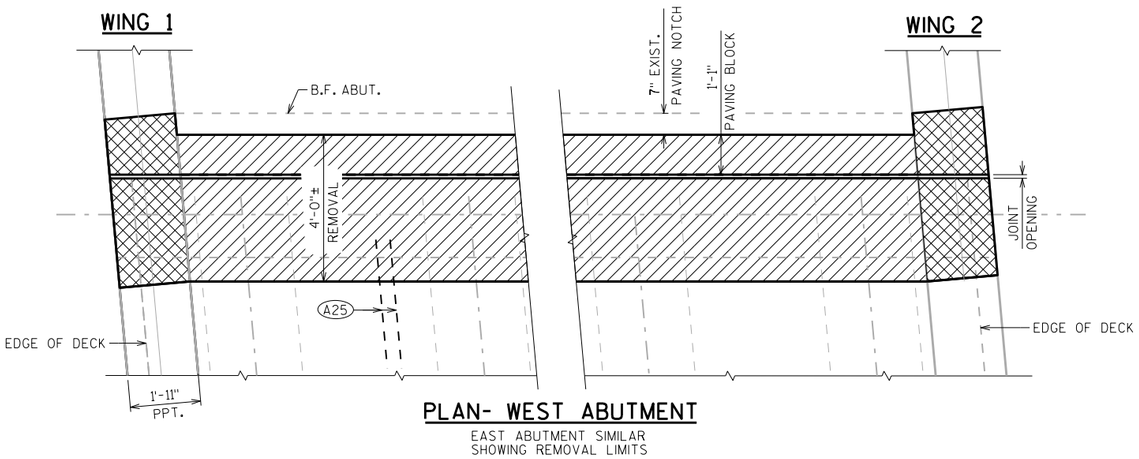
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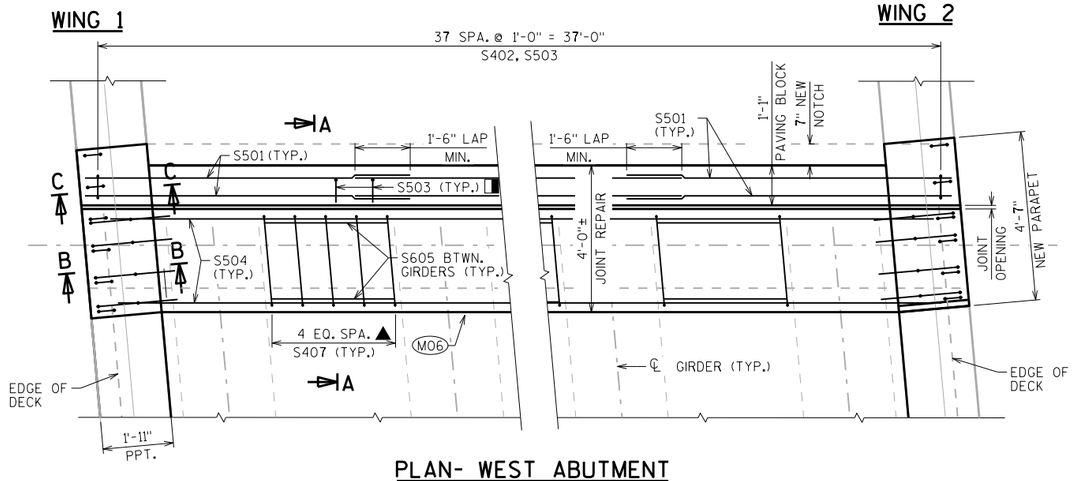
STATE PROJECT NUMBER

1450-02-70



PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS



PLAN- WEST ABUTMENT

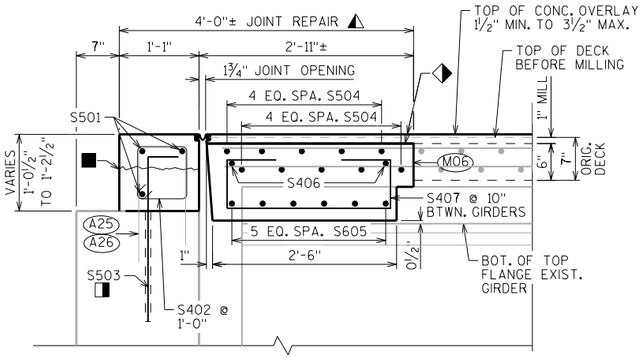
EAST ABUTMENT SIMILAR
SHOWING REPAIR

BILL OF BARS

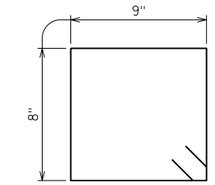
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	30	8'-10"			PAVING BLOCK - TRANSVERSE
	S402	X	76	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	76	3'-0"	X		PAVING BLOCK - VERTICAL
	S504	X	20	36'-5"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	60	3'-4"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	4	36'-5"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	50	4'-10"	X		DIAPHRAGM - VERTICAL
	S508	X	24	4'-9"	X		PARAPET - VERTICAL
	S509	X	16	5'-0"	X		PARAPET & DECK- VERTICAL
*	S410	X	20	3'-4"			EXPANSION DEVICE - TRANSVERSE

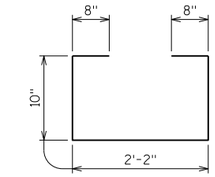
* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS



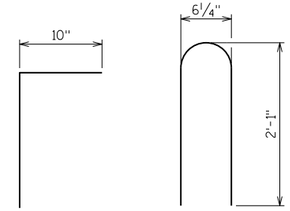
SECTION A-A



S402

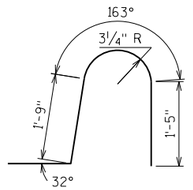


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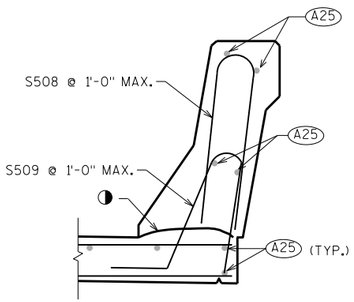


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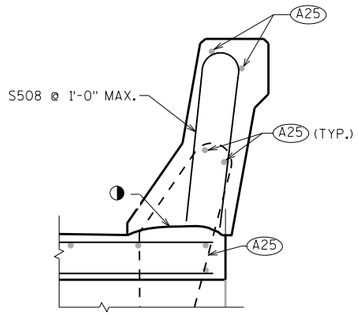
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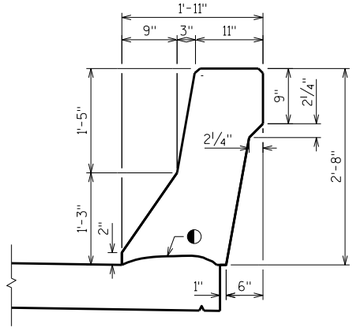
S509



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ◭ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- (A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- (A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"
- (M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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JOINT REPAIR DETAILS

SHEET 2

381

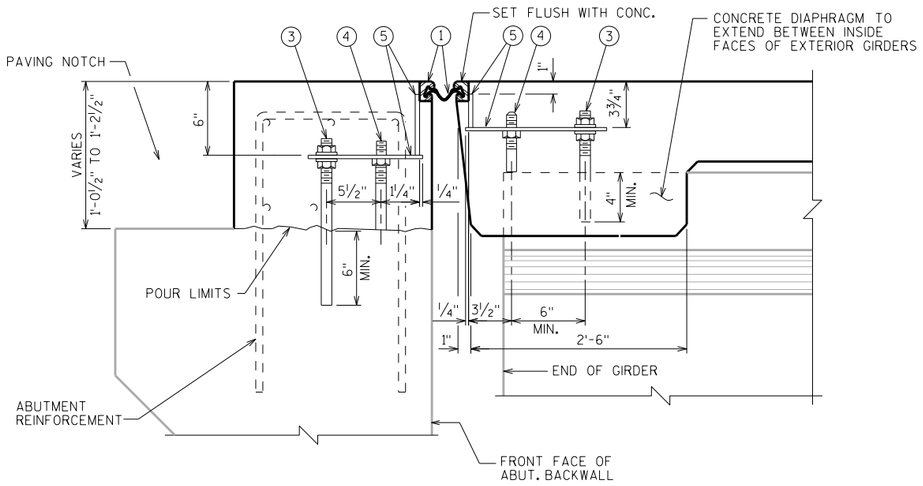
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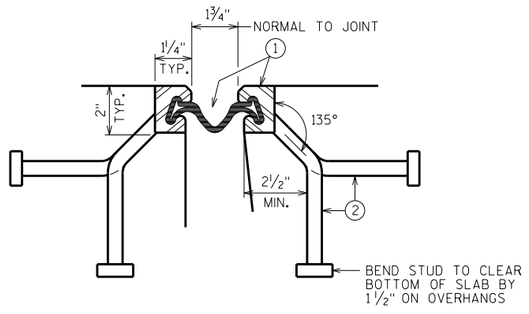
STATE PROJECT NUMBER

1450-02-70



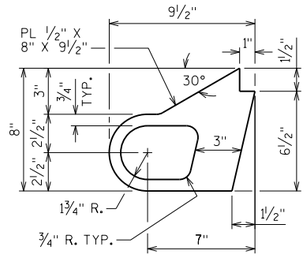
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

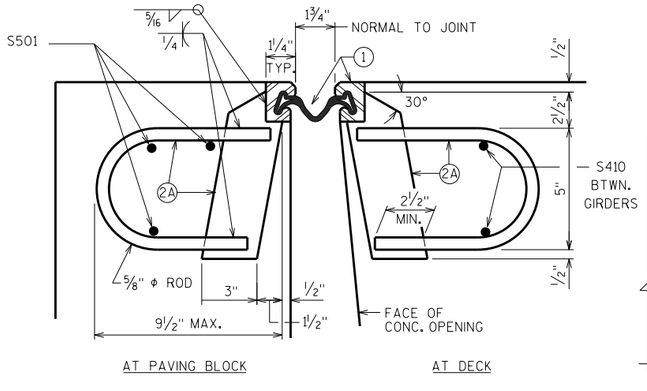


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

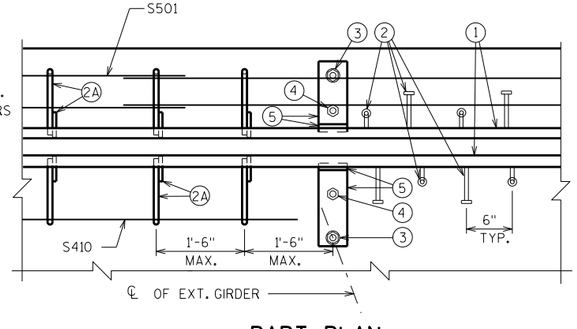


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.

(6) GALVANIZED PLATE 3/8" X 1'-5" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-52".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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EXPANSION DEVICE

SHEET 3

382

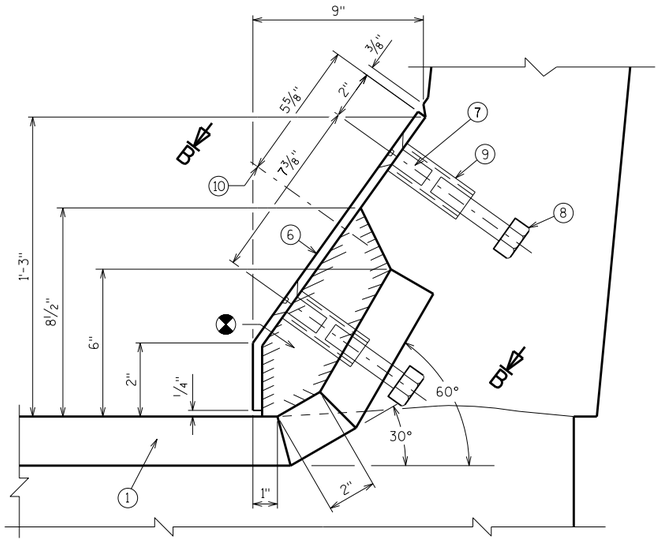
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8

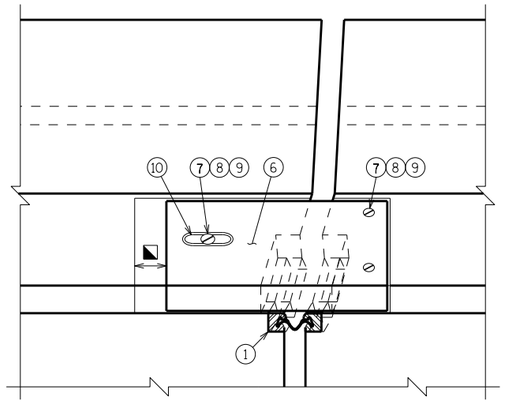
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STATE PROJECT NUMBER

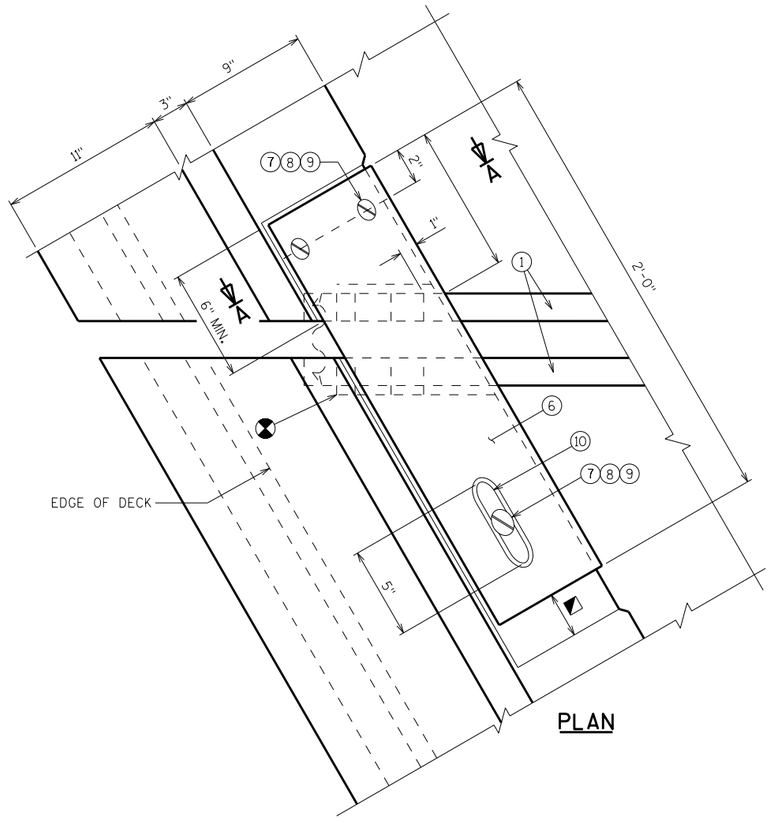
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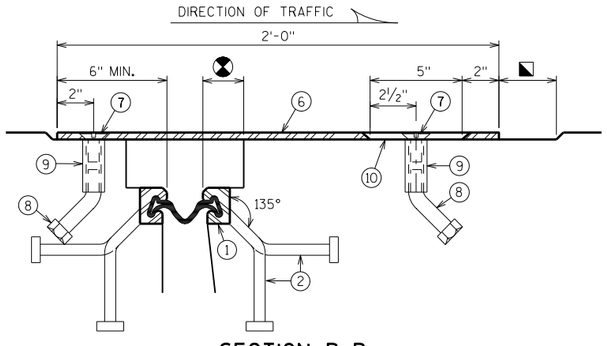
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

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

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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COVER PLATE DETAILS

SHEET 4

383

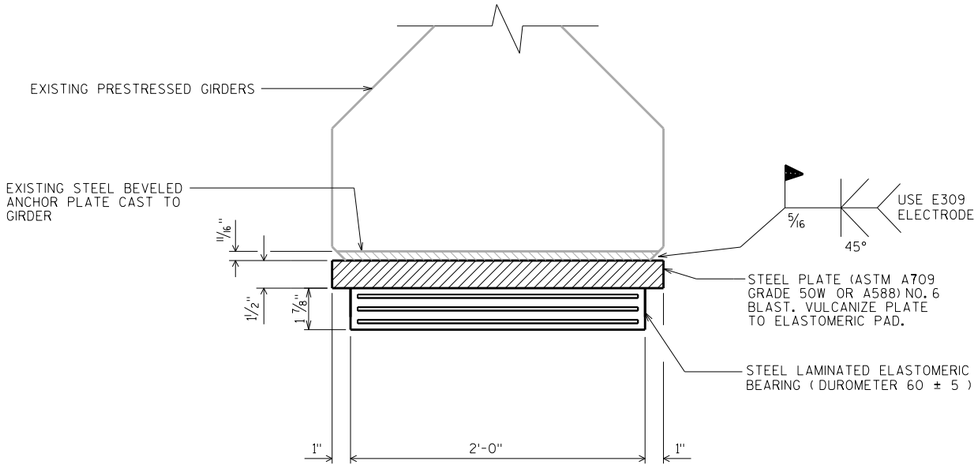
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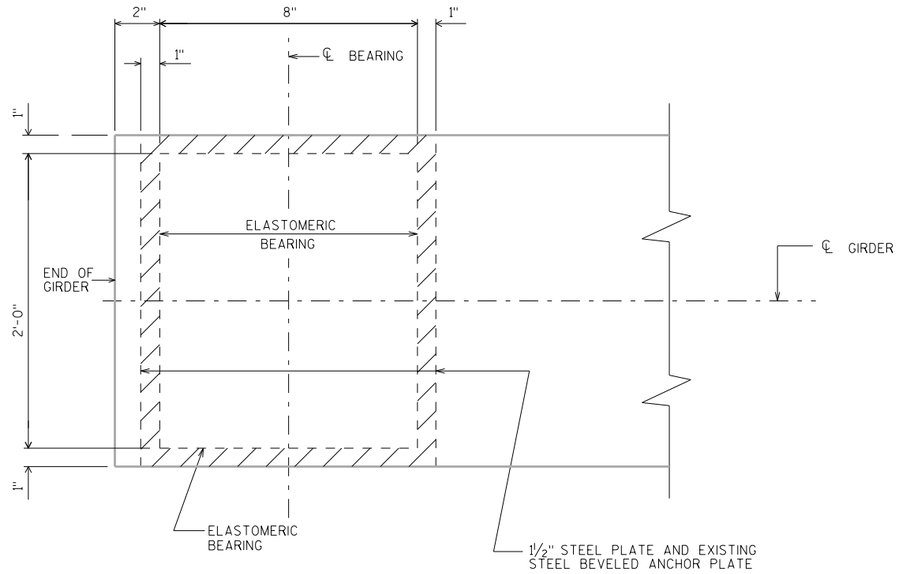
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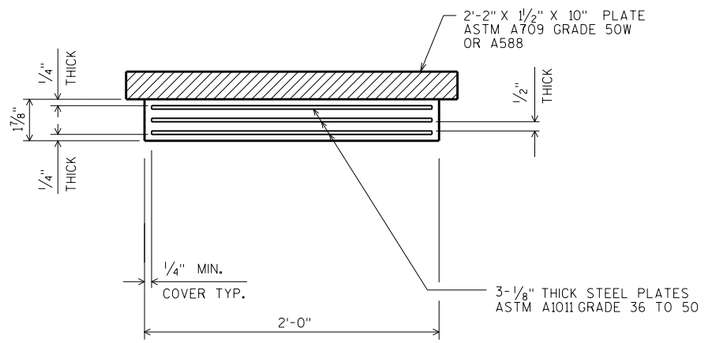
1450-02-70



END VIEW



PLAN VIEW



SECTION THRU ELASTOMERIC 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.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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PRESTRESSED GIRDER BEARINGS

SHEET 5

384

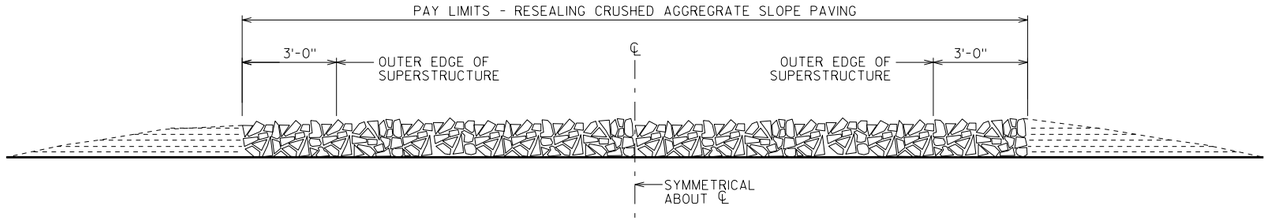
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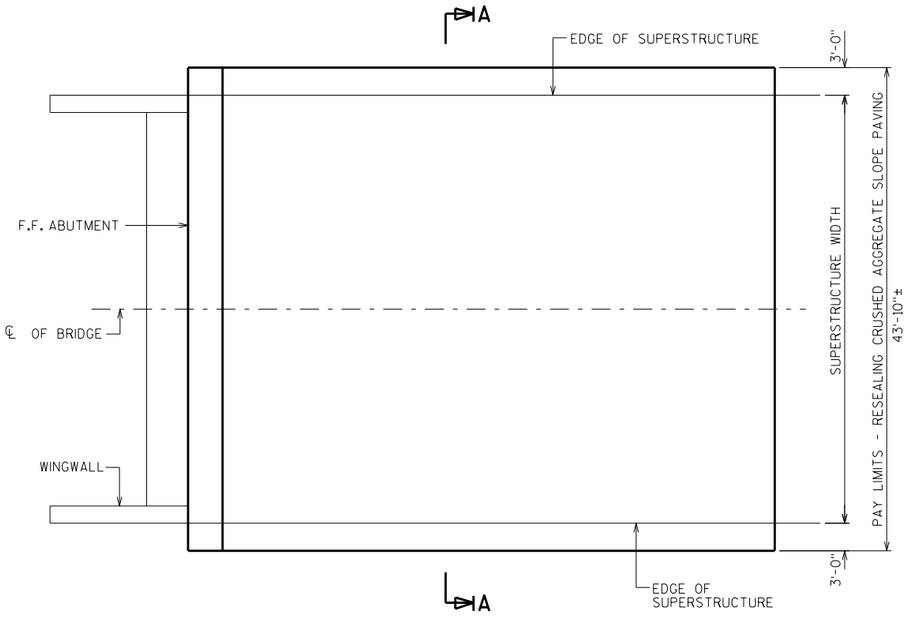
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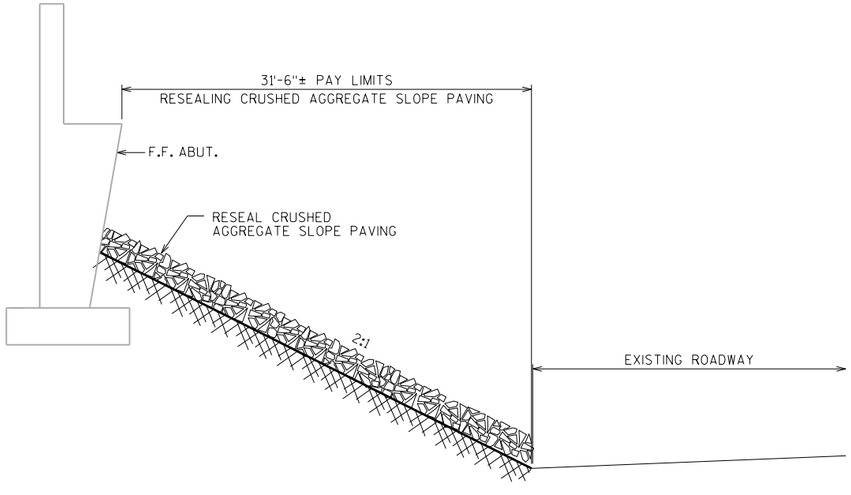
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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SLOPE PAVING RESEALING

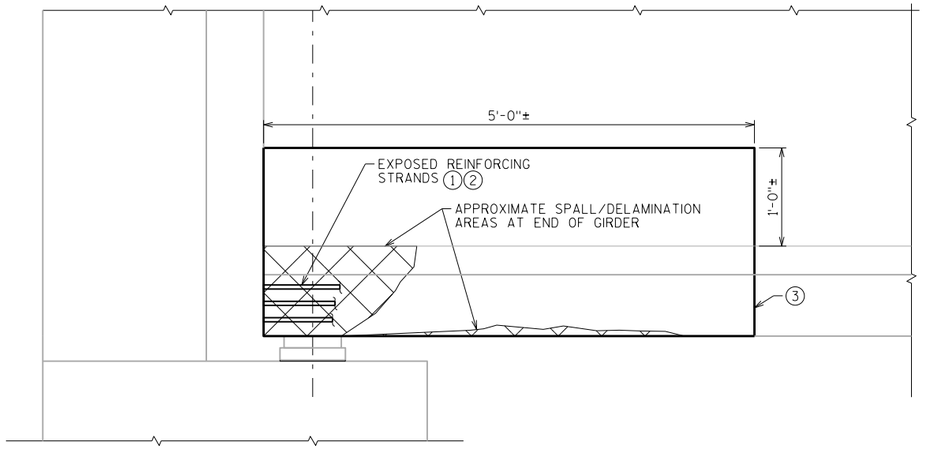
SHEET 6

385

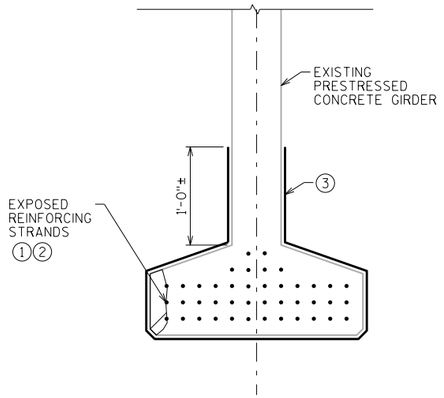
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STATE PROJECT NUMBER

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GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW

① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND TOP COAT.

③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES:

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT TOP COAT SHALL BE CONCRETE GRAY.

REPAIR AREAS ARE ANTICIPATED AT 5 GIRDERS AT WEST ABUTMENT AND 4 GIRDERS AT EAST ABUTMENT. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

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STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

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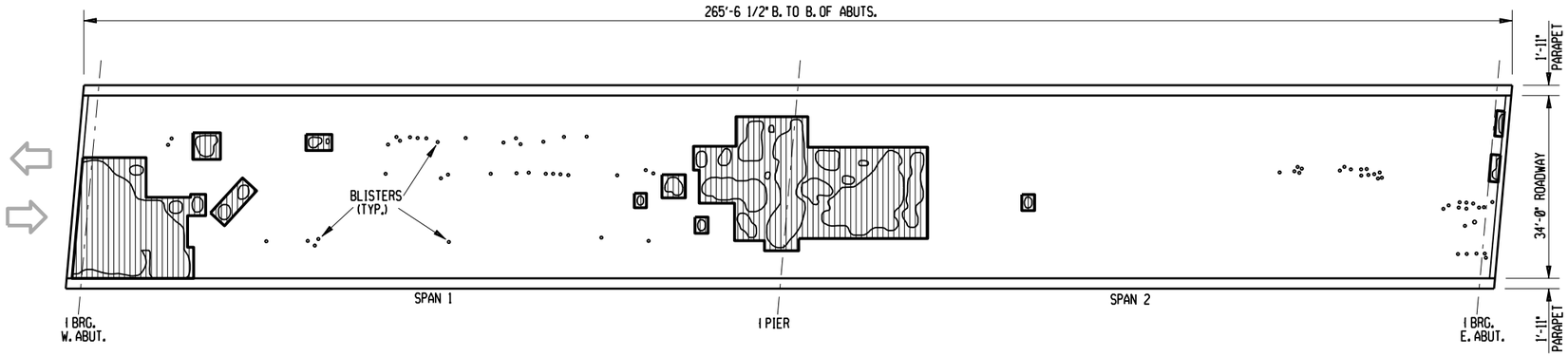
GIRDER CLEANING & SEALING

SHEET 7

386

SCALE = 0.75

STATE PROJECT NUMBER
1450-02-70



PLAN

N

PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-52	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	998.4	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	147.2	14.7
PREPARATION, DECKS, TYPE 2	yd^2	110.4	11.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND/BLISTERS
ASPHALT PATCH
CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: PMA OVERLAY W/CHIP SEAL
INFRARED INSPECTION DATE: 4/9/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER

8

8

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-52

DRAWN BY DLM | PLANS CK'D. MWB

DECK CONDITION SURVEY

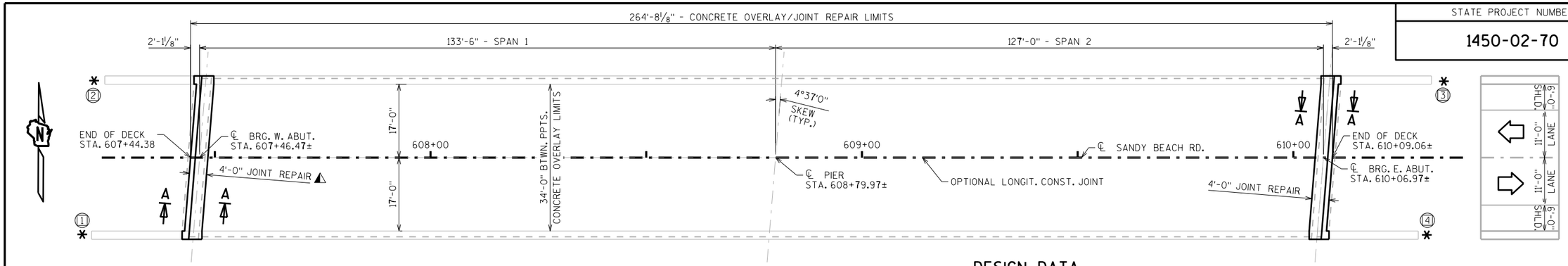
SHEET 8

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STATE PROJECT NUMBER

1450-02-70

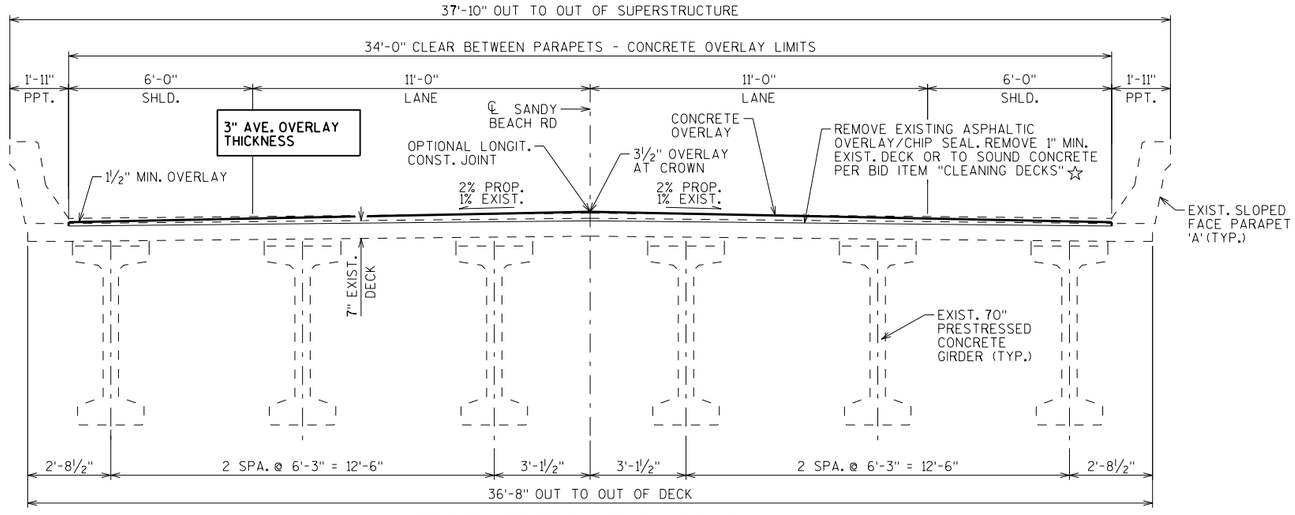


✱ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

⃞ INDICATES WING NUMBER

PLAN

2-SPAN 70" PRESTRESSED CONCRETE GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST

☆ EXISTING 2"± ASPHALTIC OVERLAY WITH CHIP SEAL. REMOVAL COVERED UNDER "REMOVING ASPHALTIC CONCRETE DECK OVERLAY".

DESIGN DATA

LIVE LOAD:

DESIGN RATING: H-20
INVENTORY RATING: HS-21
OPERATIONAL RATING: HS-34
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINF. SHALL BE EMBEDDED 2" CLR. UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

ALL LINES OF REMOVAL SHALL BE DEFINED BY A MIN. 1" DEEP SAW CUT.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

TRAFFIC VOLUME

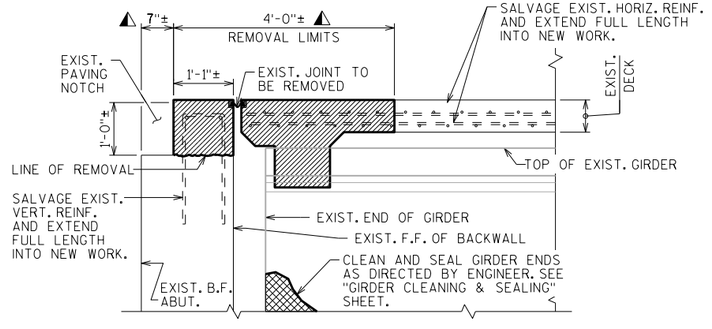
SANDY BEACH RD

ADT = 530 (2039)
R.D.S. = 55 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-53	LS	1
502.3100	EXPANSION DEVICE B-45-53	LF	70
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,008
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	76
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,260
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	12
506.7050.S	REMOVING BEARINGS, B-45-53	EACH	12
509.0301	PREPARATION DECKS TYPE 1	SY	18
509.0302	PREPARATION DECKS TYPE 2	SY	2
509.0500	CLEANING DECKS	SY	970
509.1000	JOINT REPAIR	SY	34
509.1500	CONCRETE SURFACE REPAIR	SF	20
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	95
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-45-53	SY	1,000
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	354
SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	6

◆ NOTE: PAYMENT BASED ON LENGTH BETWEEN INSIDE FACES OF CURBS.



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. JOINT REPAIR DETAILS
3. EXPANSION DEVICE
4. COVER PLATE DETAILS
5. PRESTRESSED GIRDER BEARINGS
6. SLOPE PAVING RESEALING
7. GIRDER CLEANING AND SEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-53

SANDY BEACH RD. OVER IH43/STH32

COUNTY	TOWN
OZAUKEE	BELGIUM

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	MWB	DLM	MWB

CONCRETE OVERLAY

SHEET 1 OF 8

388

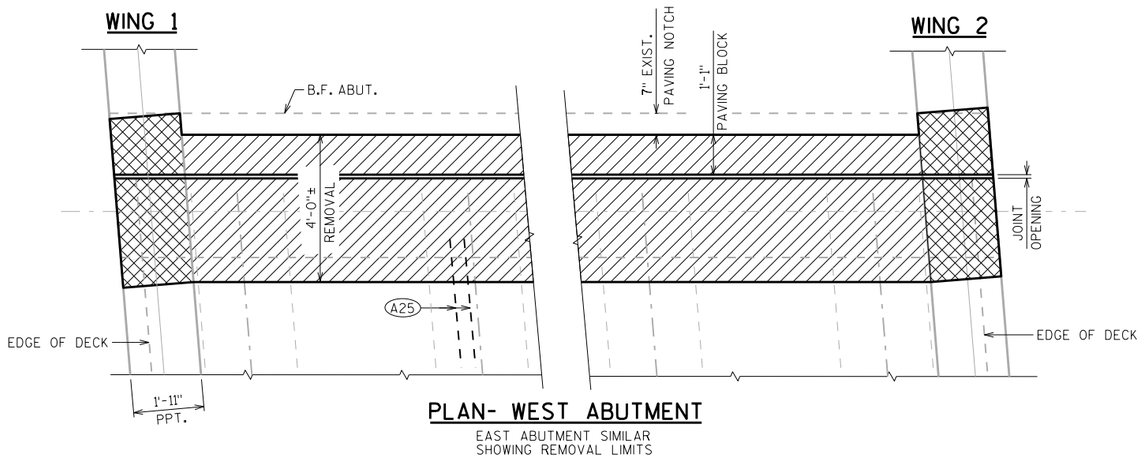
I.D. 1450-02-00G

DATE: JULY 2019

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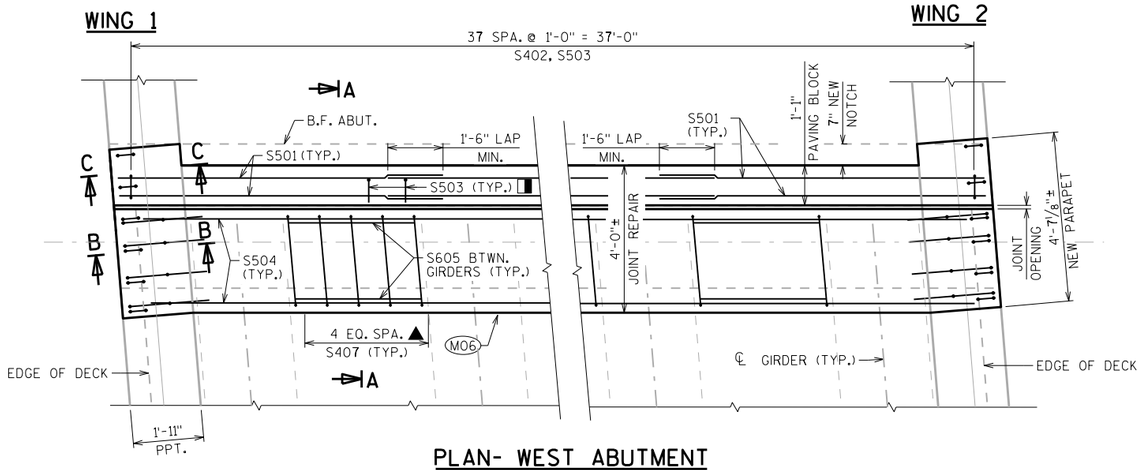
STATE PROJECT NUMBER

1450-02-70



PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS



PLAN- WEST ABUTMENT

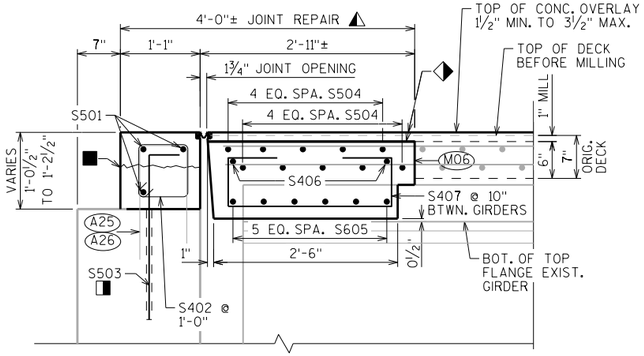
EAST ABUTMENT SIMILAR
SHOWING REPAIR

BILL OF BARS

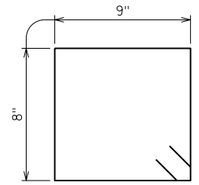
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	30	8'-10"			PAVING BLOCK - TRANSVERSE
	S402	X	76	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	76	3'-0"	X		PAVING BLOCK - VERTICAL
	S504	X	20	36'-5"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	60	3'-5"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	4	36'-5"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	50	4'-10"	X		DIAPHRAGM - VERTICAL
	S508	X	24	4'-9"	X		PARAPET - VERTICAL
	S509	X	16	5'-0"	X		PARAPET & DECK- VERTICAL
*	S410	X	20	3'-4"			EXPANSION DEVICE - TRANSVERSE

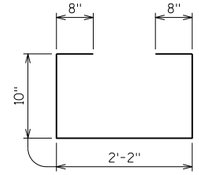
* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS



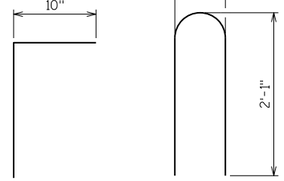
SECTION A-A



S402

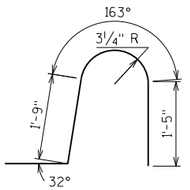


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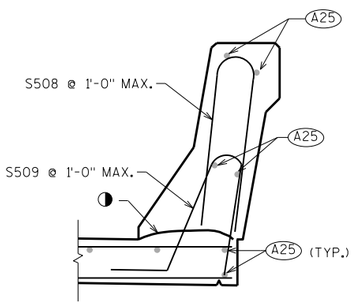


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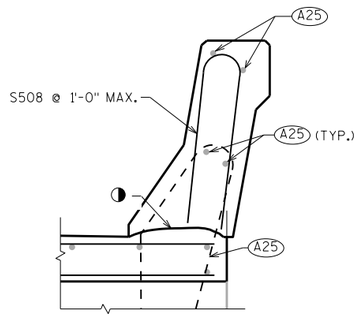
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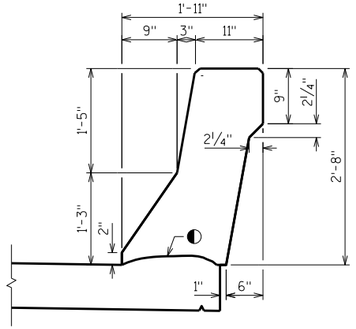
S509



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ◭ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- (A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- (A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"
- (M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

DRAWN BY DLM | PLANS CK'D. MWB

JOINT REPAIR DETAILS

SHEET 2

389

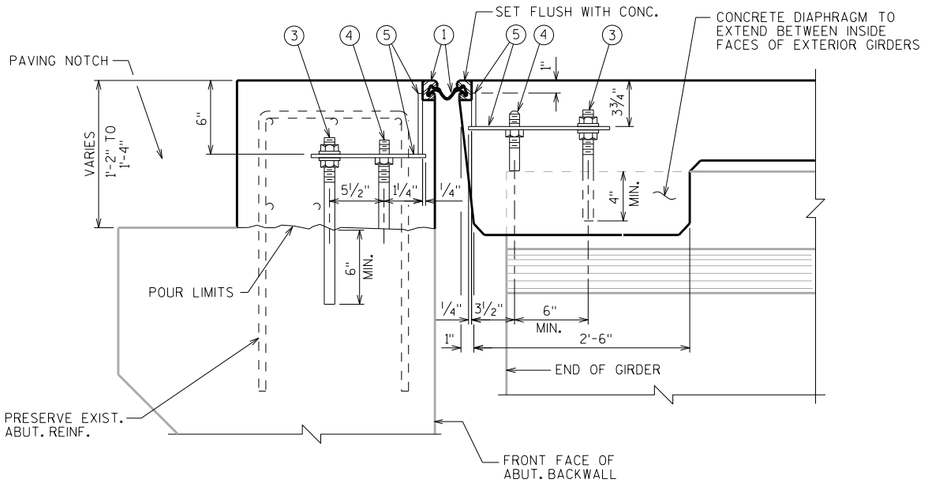
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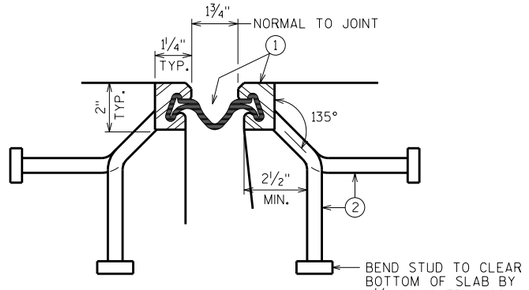
STATE PROJECT NUMBER

1450-02-70



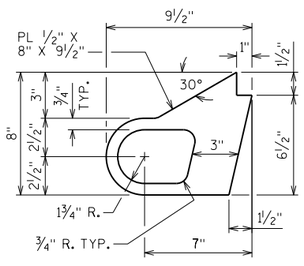
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

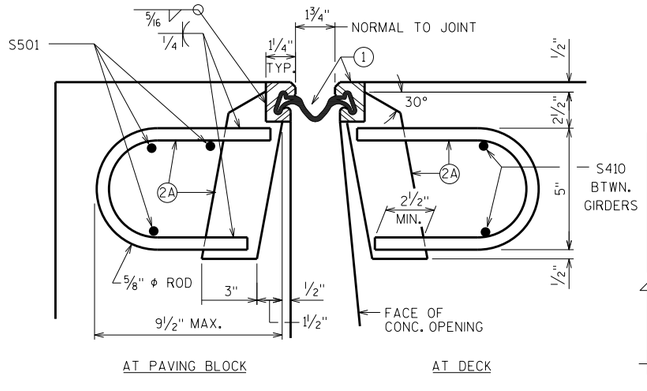


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

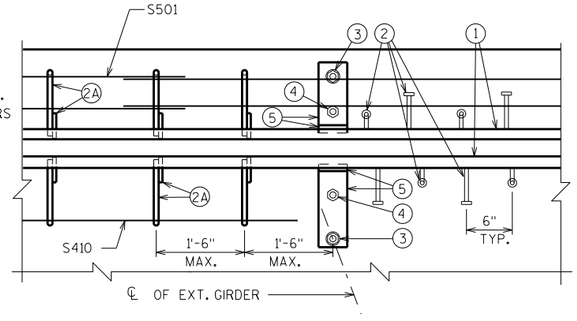


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-5" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾"ϕ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"ϕ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-53".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

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EXPANSION DEVICE

SHEET 3

390

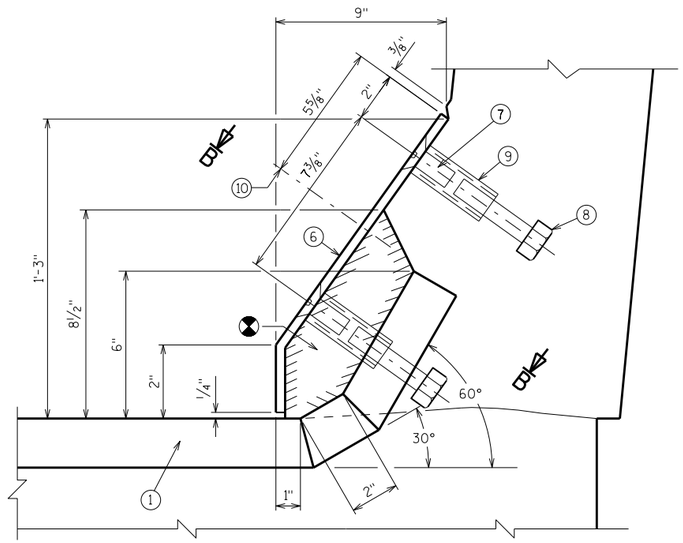
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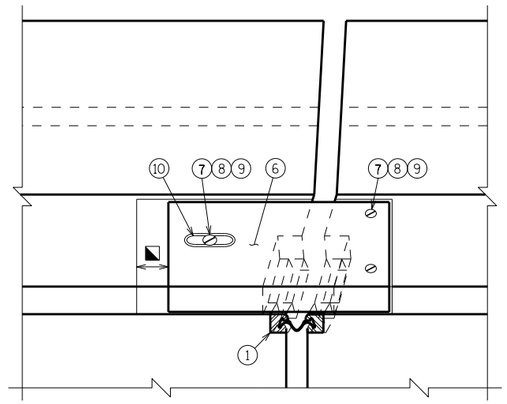
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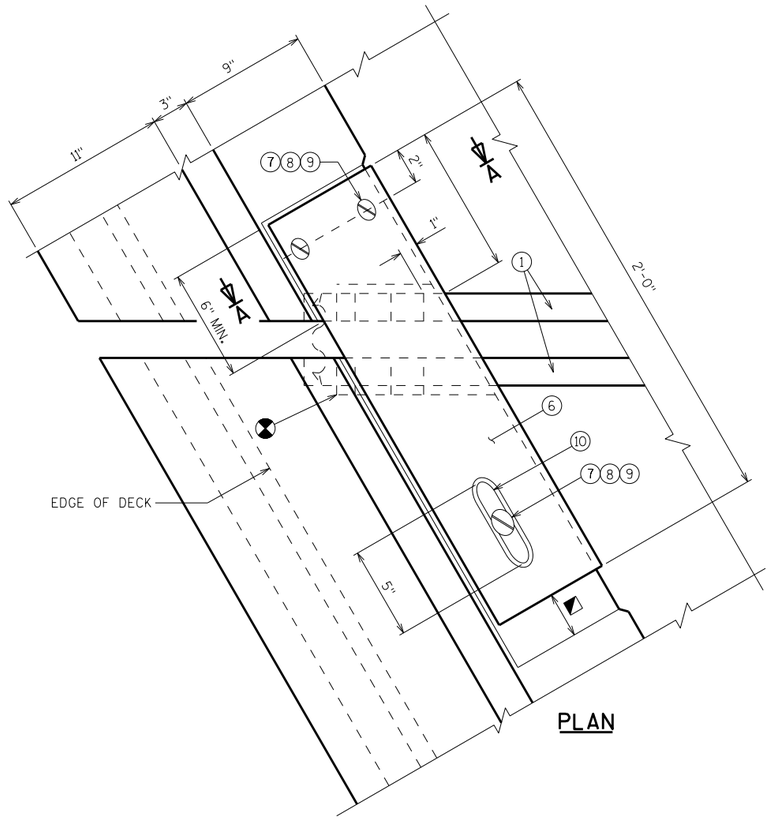
1450-02-70



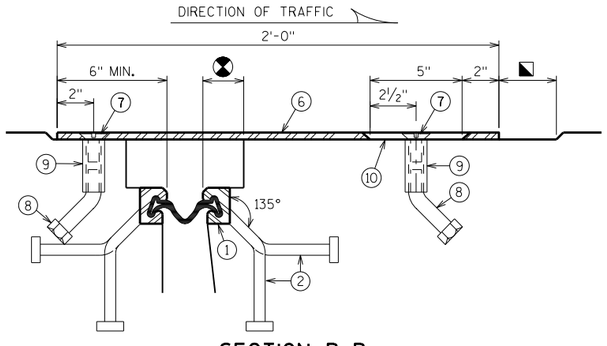
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

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

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

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COVER PLATE DETAILS

SHEET 4

391

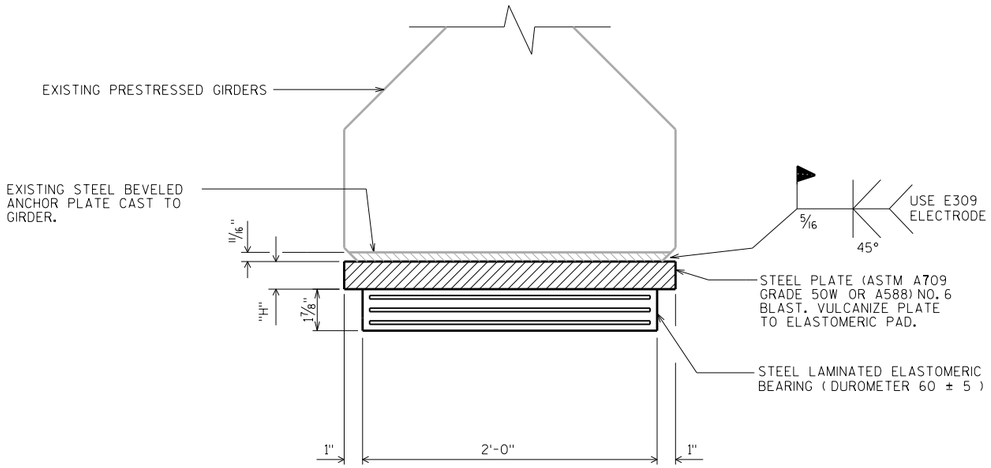
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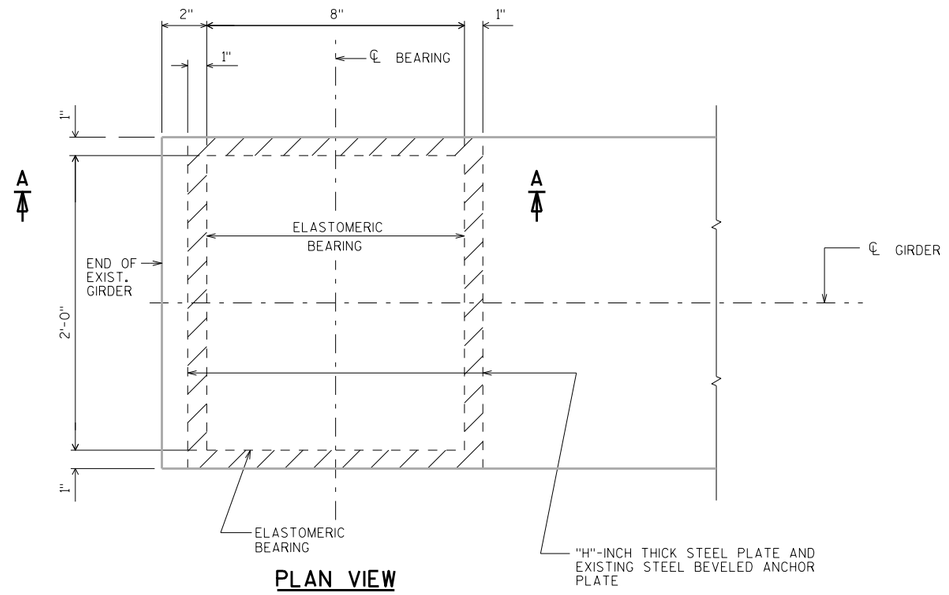
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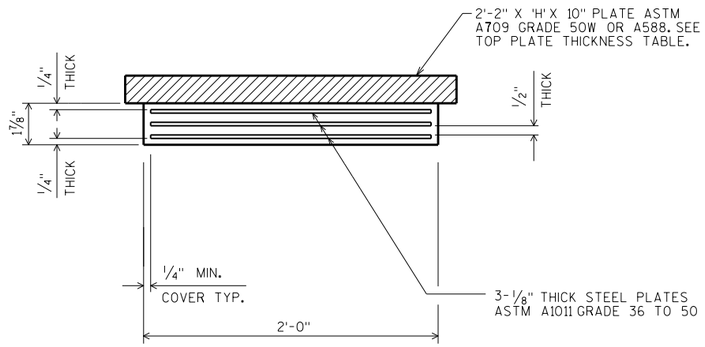
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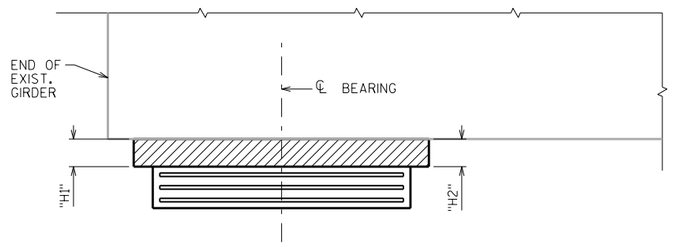
END VIEW



PLAN VIEW



SECTION THRU ELASTOMERIC BEARING



SECTION A-A

TOP PLATE THICKNESS

PAD LOCATION	"H1"	"H2"
W. ABUT.	1 1/2"	1 5/8"
E. ABUT.	1 1/2"	1 3/4"

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

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PRESTRESSED GIRDER BEARINGS

SHEET 5

392

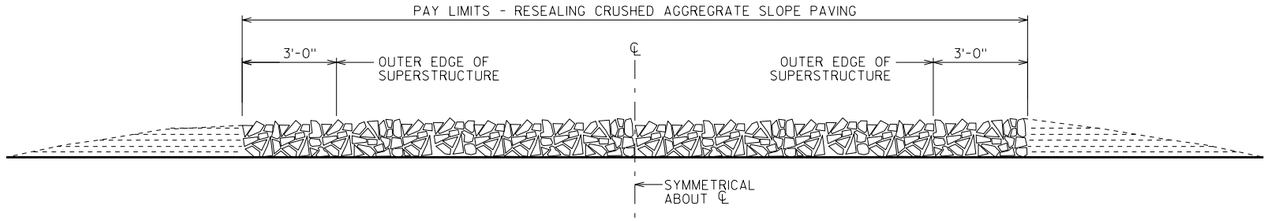
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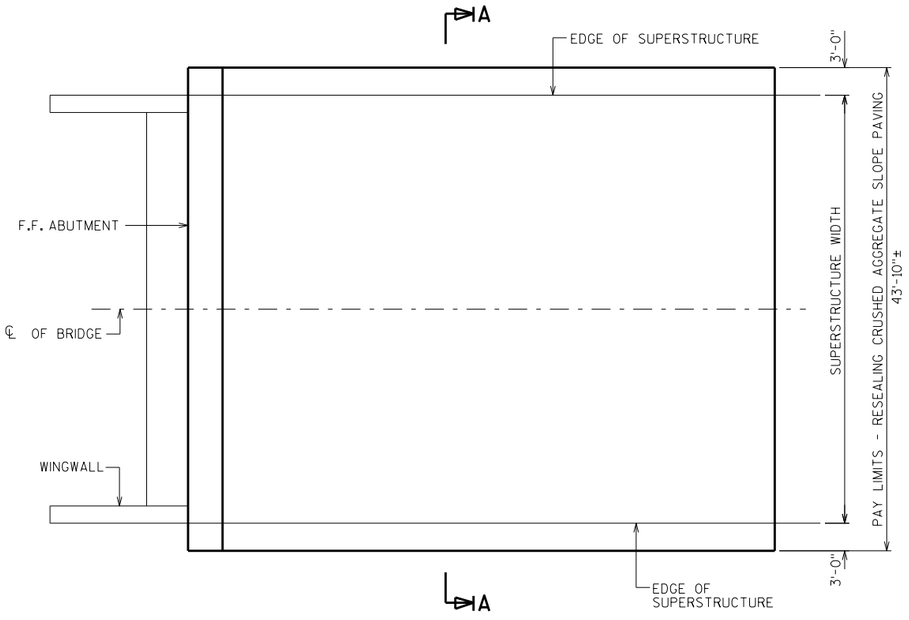
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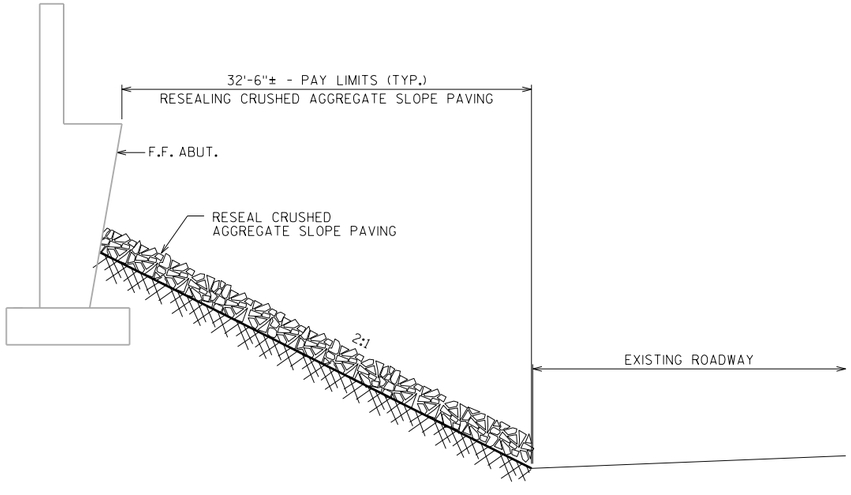
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

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SLOPE PAVING RESEALING

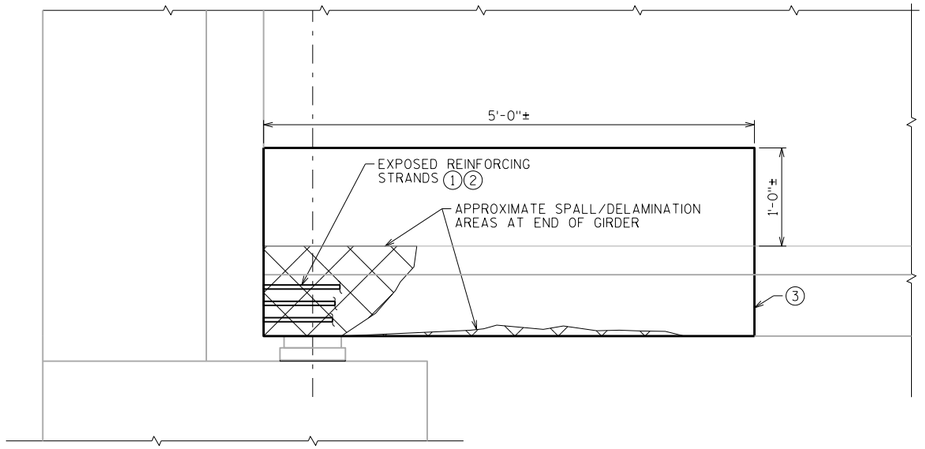
SHEET 6

393

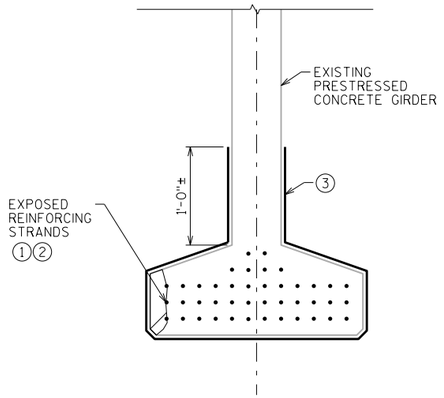
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STATE PROJECT NUMBER

1450-02-70



GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW

① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND TOP COAT.

③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES:

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT TOP COAT SHALL BE CONCRETE GRAY.

REPAIR AREAS ARE ANTICIPATED AT 6 GIRDERS AT EAST ABUTMENT. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

DRAWN BY DLM | PLANS CK'D. MWB

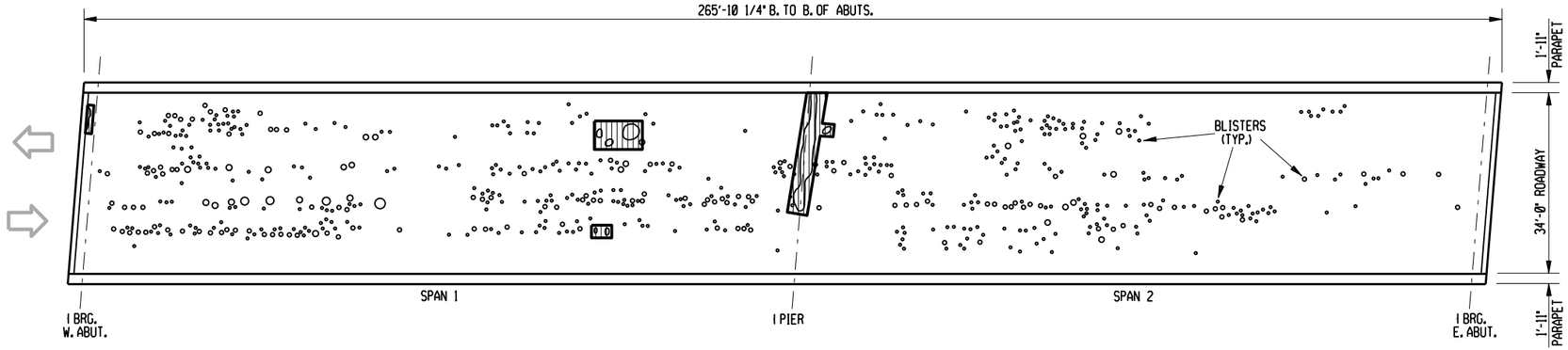
GIRDER CLEANING & SEALING

SHEET 7

394

SCALE = 0.75

STATE PROJECT NUMBER
1450-02-70



PLAN

N

PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-53	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1000.0	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	17.4	1.7
PREPARATION, DECKS, TYPE 2	yd^2	1.7	0.2
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND/BLISTERS

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: PMA OVERLAY W/CHIP SEAL
INFRARED INSPECTION DATE: 4/9/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-53

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DECK CONDITION SURVEY

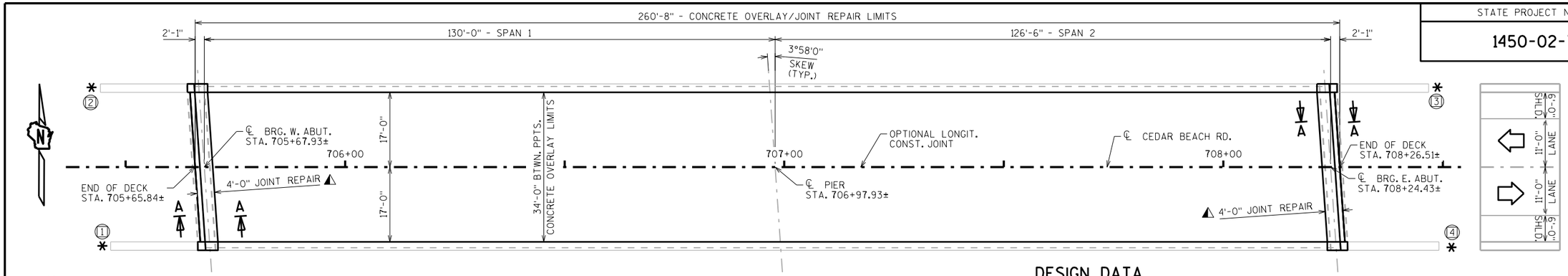
SHEET 8

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SCALE = 13.00

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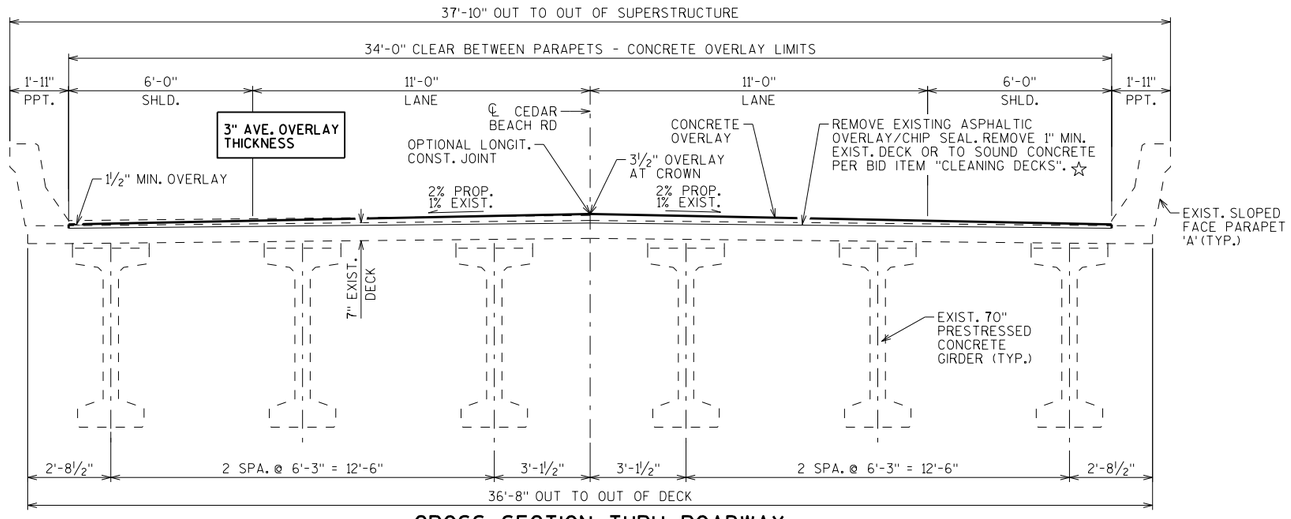


* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

⬡ INDICATES WING NUMBER

PLAN

2-SPAN 70" PRESTRESSED CONCRETE GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST

☆ EXISTING 2"± ASHPALTIC OVERLAY WITH CHIP SEAL. REMOVAL COVERED UNDER "REMOVING ASPHALTIC CONCRETE DECK OVERLAY".

DESIGN DATA

LIVE LOAD:

DESIGN RATING: H-20
INVENTORY RATING: HS-21
OPERATIONAL RATING: HS-32
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

TRAFFIC VOLUME

CEDAR BEACH RD

ADT = 560 (2039)
R.D.S. = 55 M.P.H.

NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINF. SHALL BE EMBEDDED 2" CLR. UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 3". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

ALL LINES OF REMOVAL SHALL BE DEFINED BY A MIN. 1" DEEP SAW CUT.

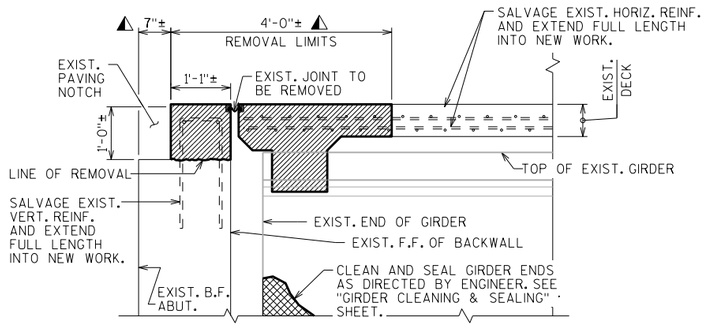
CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-54	LS	1
502.3100	EXPANSION DEVICE (B-45-54)	LF	70 ◆
502.3200	PROTECTIVE SURFACE TREATMENT	SY	985
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	76
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,260
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	12
506.7050.S	REMOVING BEARINGS, B-45-54	EACH	12
509.0301	PREPARATION DECKS TYPE 1	SY	26
509.0302	PREPARATION DECKS TYPE 2	SY	3
509.0500	CLEANING DECKS	SY	955
509.1000	JOINT REPAIR	SY	34
509.1500	CONCRETE SURFACE REPAIR	SF	11
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	94
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY (B-45-54)	SY	985
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	322
SPV.0060	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	5

◆ NOTE: PAYMENT BASED ON LENGTH BETWEEN INSIDE FACES OF CURBS.



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

◭ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. JOINT REPAIR DETAILS
3. EXPANSION DEVICE
4. COVER PLATE DETAILS
5. PRESTRESSED GIRDER BEARINGS
6. SLOPE PAVING RESEALING
7. GIRDER CLEANING AND SEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-45-54

CEDAR BEACH RD. OVER IH43/STH32

COUNTY	TOWN/CITY/VILLAGE
OZAUKEE	BELGIUM

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DLM	MWB	DLM	MWB

CONCRETE OVERLAY

SHEET 1 OF 8

396

I.D. 1450-02-00H DATE: JULY 2019

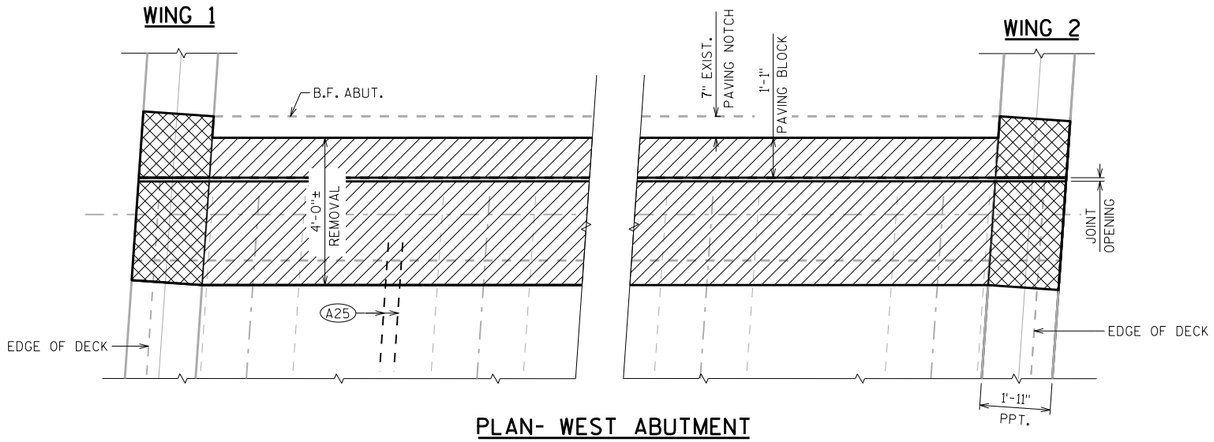
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8

STATE PROJECT NUMBER

1450-02-70



PLAN- WEST ABUTMENT

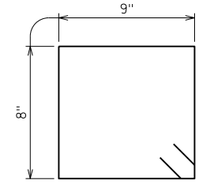
EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS

BILL OF BARS

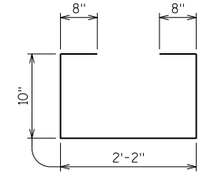
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	30	8'-10"			PAVING BLOCK - TRANSVERSE
	S402	X	76	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	76	3'-0"	X		PAVING BLOCK - VERTICAL
	S504	X	20	36'-5"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	60	3'-5"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	4	36'-5"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	50	4'-10"	X		DIAPHRAGM - VERTICAL
	S508	X	24	4'-9"	X		PARAPET - VERTICAL
	S509	X	16	5'-0"	X		PARAPET & DECK - VERTICAL
*	S410	X	20	3'-4"			EXPANSION DEVICE - TRANSVERSE

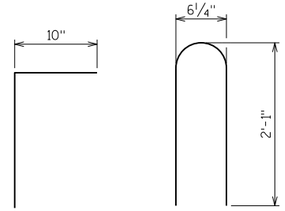
* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS



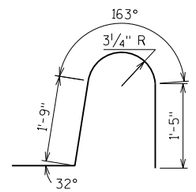
S402



S407

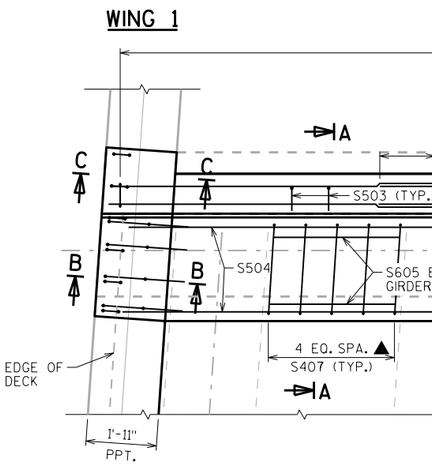


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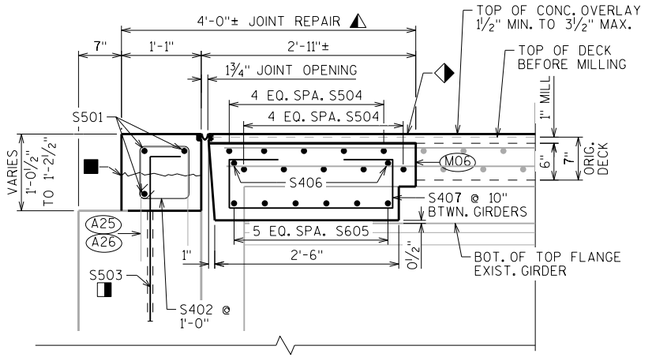
S508

S509

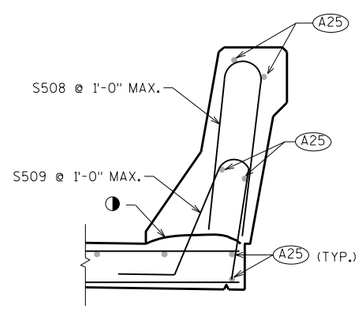


PLAN- WEST ABUTMENT

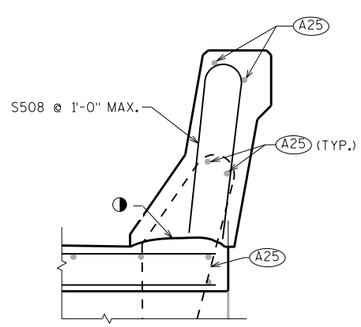
EAST ABUTMENT SIMILAR
SHOWING REPAIR



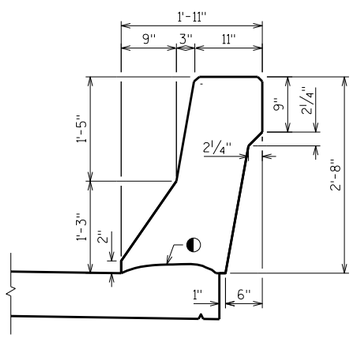
SECTION A-A



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ▲ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- (A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- (A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"
- (M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

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STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

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JOINT REPAIR DETAILS

SHEET 2

397

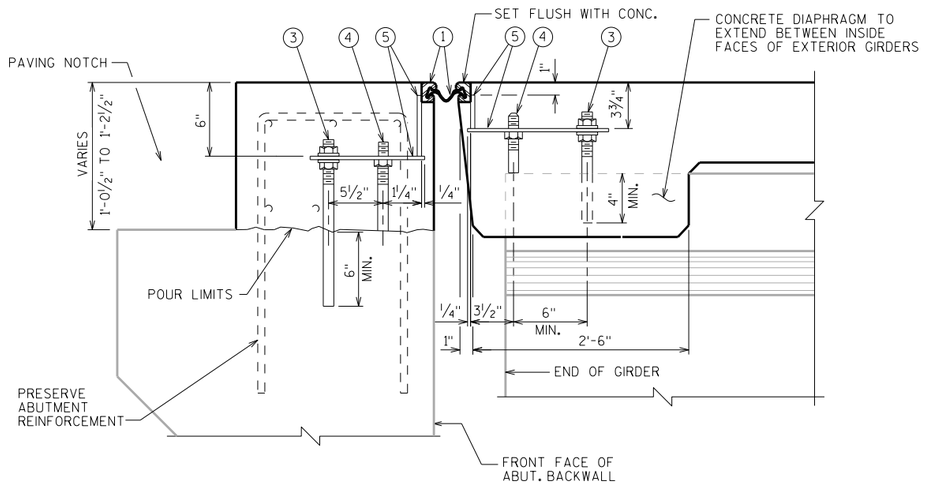
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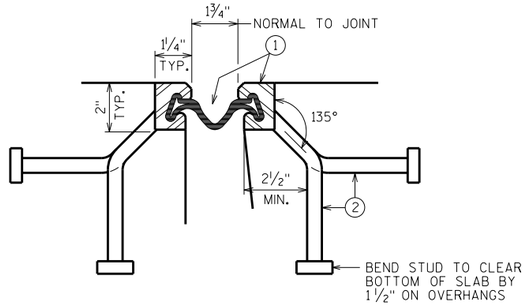
STATE PROJECT NUMBER

1450-02-70



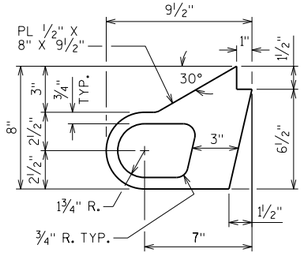
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

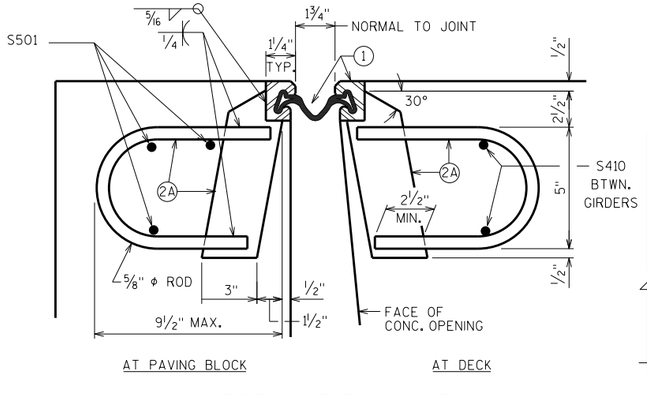


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

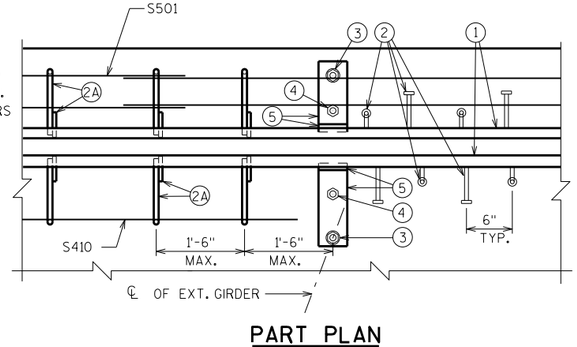


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.

(6) GALVANIZED PLATE 3/8" X 1'-5" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-54.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

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EXPANSION DEVICE

SHEET 3

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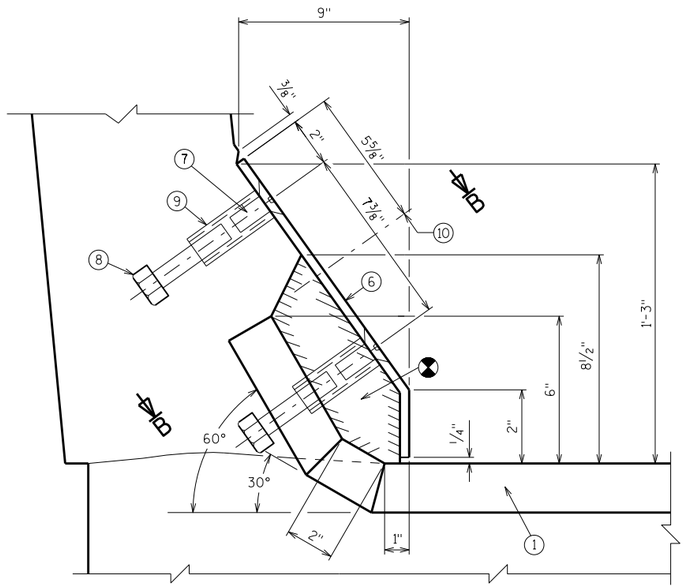
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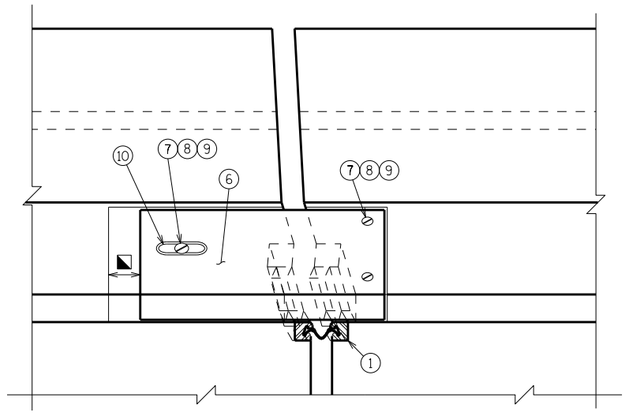
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STATE PROJECT NUMBER

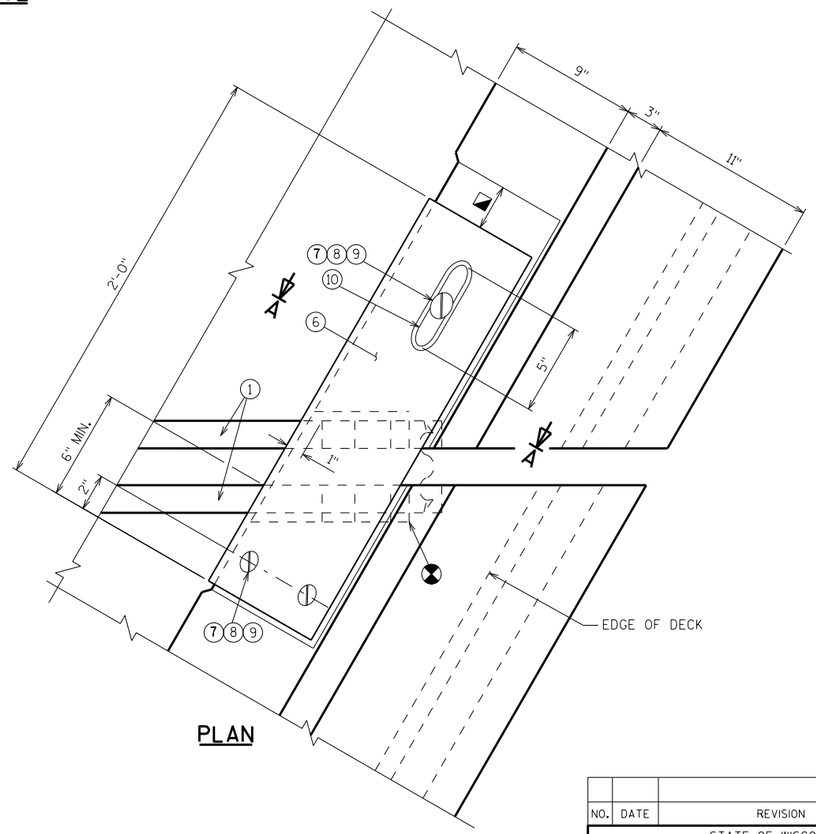
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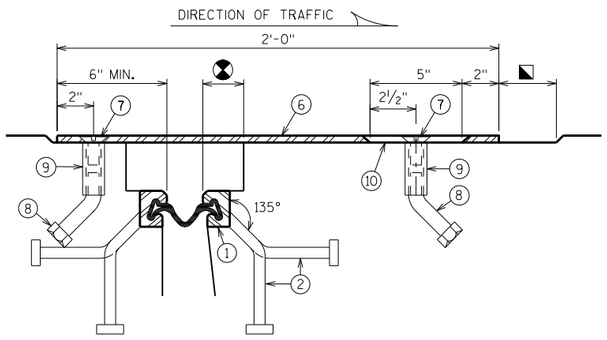
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

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STRUCTURE B-45-54

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COVER PLATE DETAILS

SHEET 4

399

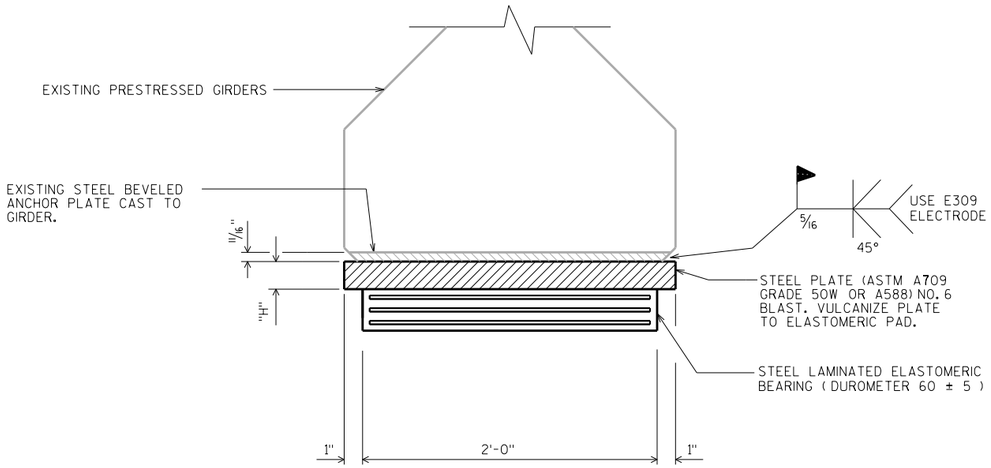
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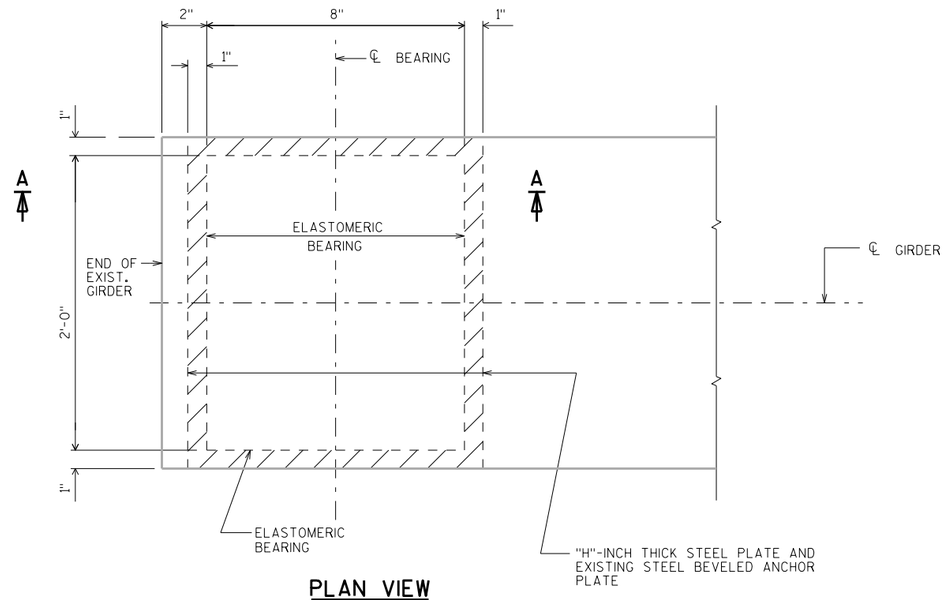
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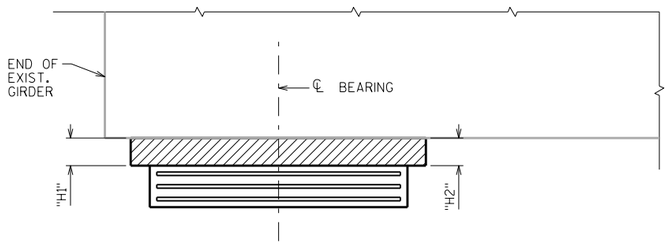
1450-02-70



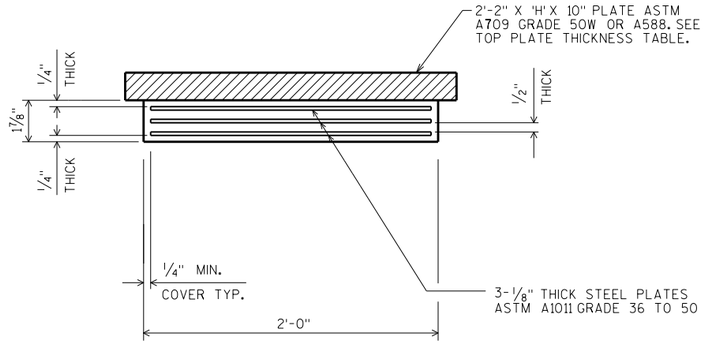
END VIEW



PLAN VIEW



SECTION A-A



SECTION THRU ELASTOMERIC BEARING

TOP PLATE THICKNESS

PAD LOCATION	"H1"	"H2"
W. ABUT.	1 1/2"	1 1/2"
E. ABUT.	1 1/2"	1 5/8"

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

DRAWN BY DLM | PLANS CK'D. MWB

PRESTRESSED GIRDER BEARINGS

SHEET 5

400

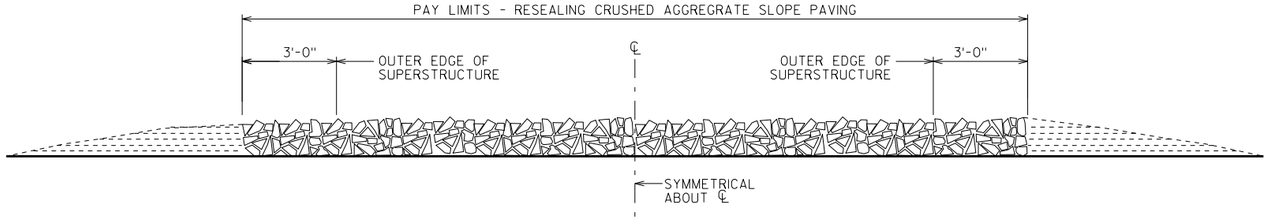
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8

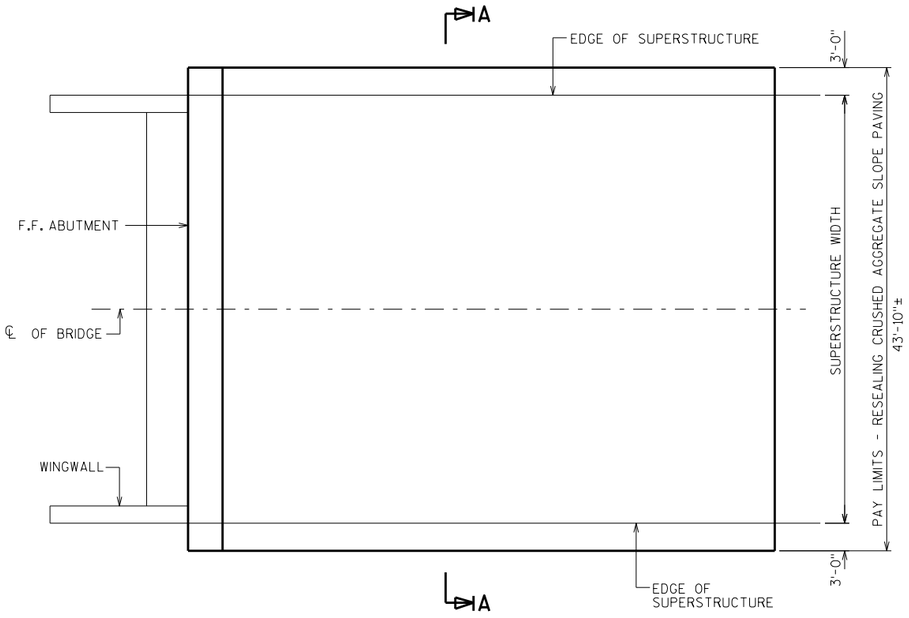
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STATE PROJECT NUMBER

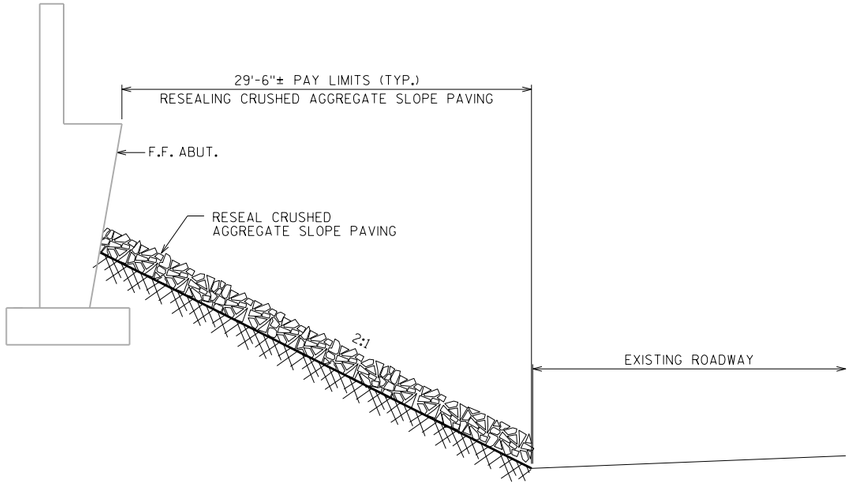
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

DRAWN BY DLM | PLANS CK'D. MWB

SLOPE PAVING RESEALING

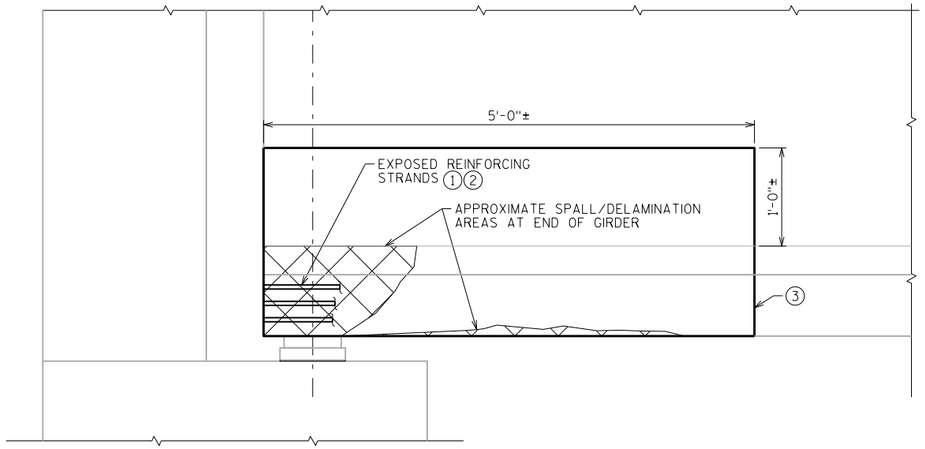
SHEET 6

401

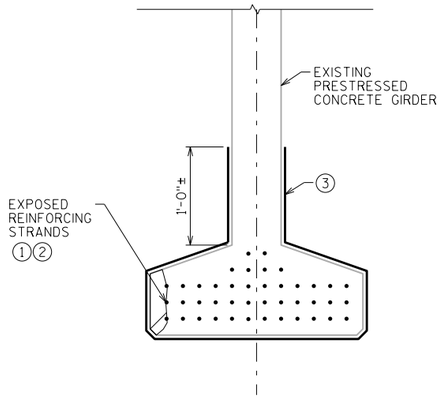
SCALE = 1.00

STATE PROJECT NUMBER

1450-02-70



GIRDER END - ELEVATION VIEW



GIRDER END - SECTION VIEW

① BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

② BRUSH APPLY ORGANIC ZINC RICH PRIMER AND TOP COAT.

③ APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES:

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT TOP COAT SHALL BE CONCRETE GRAY.

REPAIR AREAS ARE ANTICIPATED AT 3 GIRDERS AT EAST ABUTMENT AND 2 GIRDERS AT WEST ABUTMENT. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

DRAWN BY DLM | PLANS CK'D. MWB

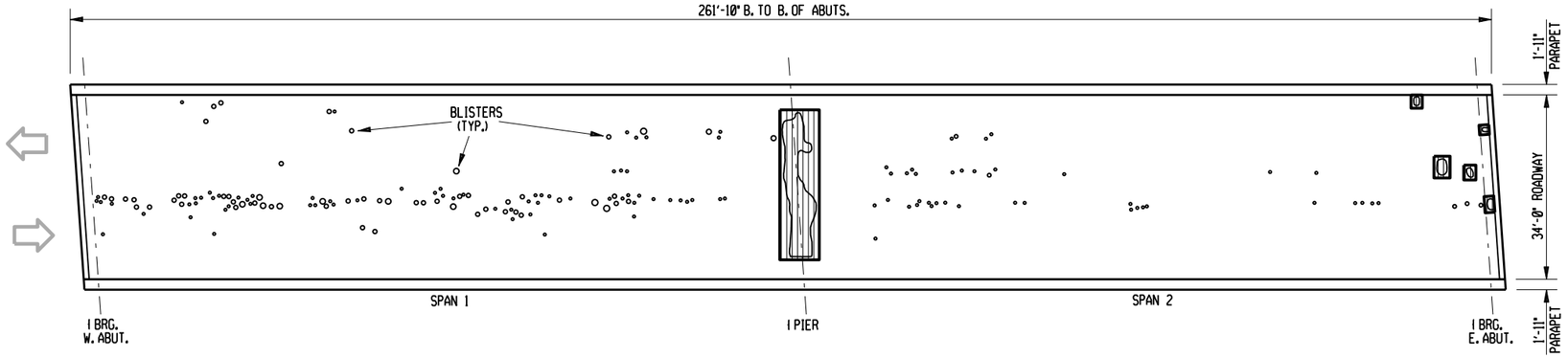
GIRDER CLEANING & SEALING

SHEET 7

402

SCALE = 0.75

STATE PROJECT NUMBER
1450-02-70



PLAN

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER



PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-54	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	985.2	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	25.9	2.6
PREPARATION, DECKS, TYPE 2	yd^2	2.6	0.3
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND/BLISTERS

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: PMA OVERLAY W/CHIP SEAL
INFRARED INSPECTION DATE: 4/9/19

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-54

DRAWN BY DLM | PLANS CK'D. MWB

DECK CONDITION SURVEY

SHEET 8

403

SCALE = 13.00

STATE PROJECT NUMBER

1450-02-70

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-14
OPERATING RATING: HS-24
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 110 (KIPS)

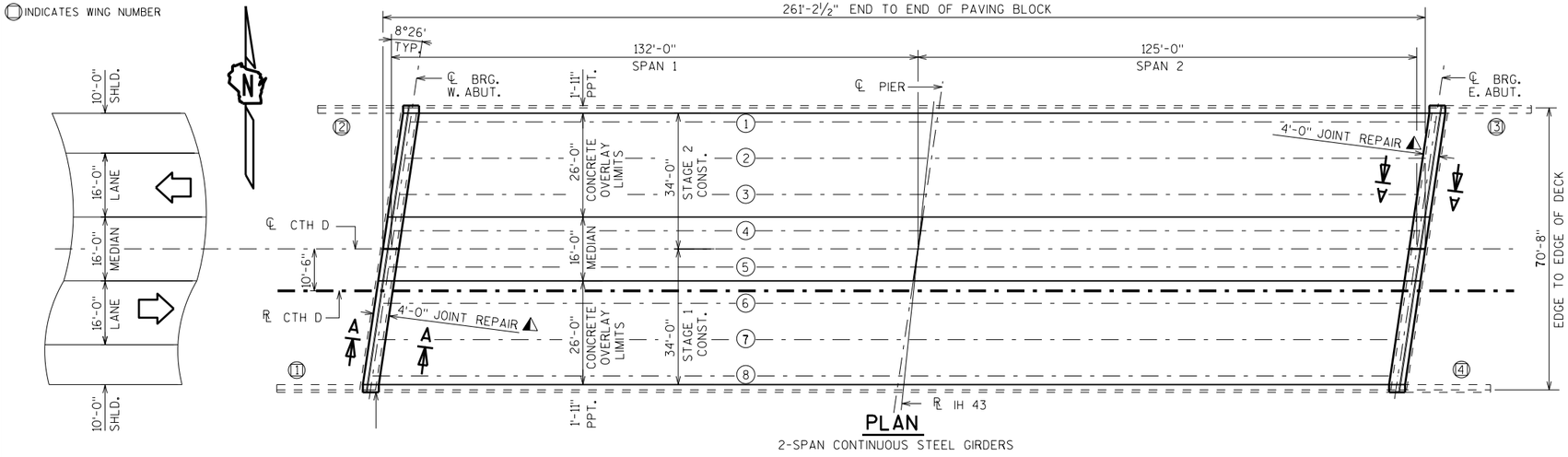
MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

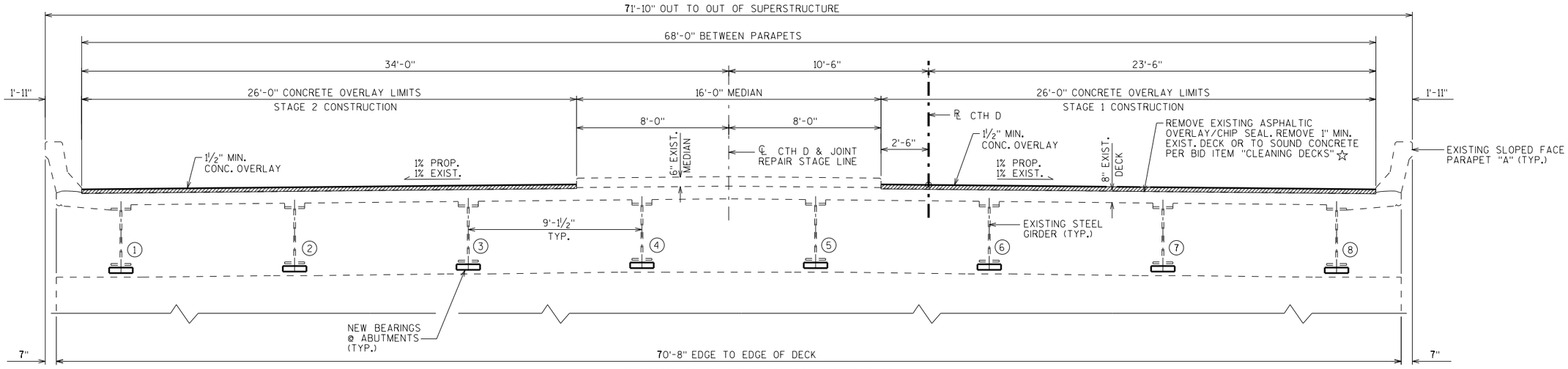
BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON: CTH D
ADT = 6100 (2039)
R.D.S. = 40 M.P.H.

FEATURE UNDER: IH 43
ADT = 28,500 (2039)
R.D.S. = 70 M.P.H.

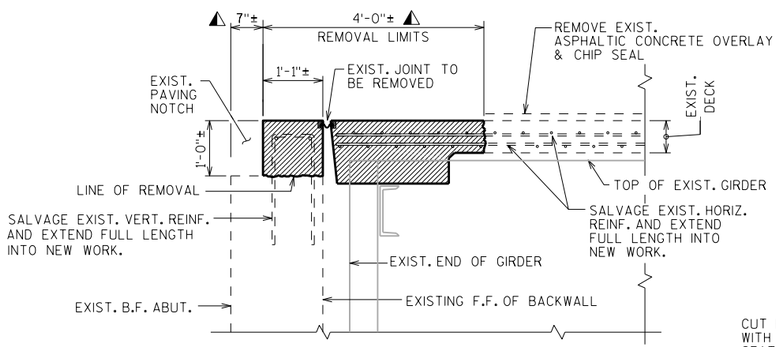




CROSS-SECTION THRU ROADWAY

LOOKING EAST

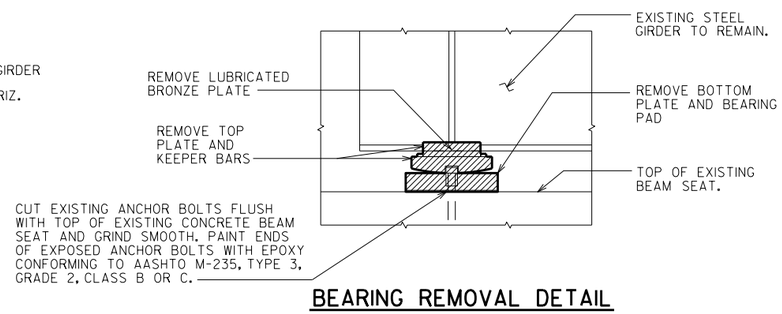
☆ EXISTING 2"± ASPHALTIC OVERLAY WITH CHIP SEAL. REMOVAL COVERED UNDER "REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-45-55".



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.



BEARING REMOVAL DETAIL

LIST OF DRAWINGS

1. CONCRETE OVERLAY & JOINT REPLACEMENT
2. QUANTITIES & GENERAL NOTES
3. JOINT REPAIR DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS
6. STEEL GIRDER BEARINGS
7. SLOPE PAVING RESEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:
DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-55

CTH D OVER IH 43

COUNTY	TOWN/CITY/VILLAGE
OZAUKEE	BELGIUM

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

CONCRETE OVERLAY & JOINT REPLACEMENT

SHEET 1 OF 8

404

I.D. 1450-02-001 DATE: MAY 2019

SCALE = 17.00

8

8

STATE PROJECT NUMBER
1450-02-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE MEDIAN AND THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS. SURFACE PREPARATION OF MEDIAN SURFACES PRIOR TO APPLICATION OF PROTECTIVE SURFACE TREATMENT SHALL BE INCLUDED IN THE BID ITEM "CLEANING CONCRETE SURFACES".

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 1½". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

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

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-55	LS	———	———	———	1
● 502.3100	EXPANSION DEVICE B-45-55	LF	138	———	———	138
502.3200	PROTECTIVE SURFACE TREATMENT	SY	2025	———	———	2025
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	72	72	144
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5000	———	———	5000
505.0904	BAR COUPLERS NO. 4	EACH	4	———	———	4
505.0905	BAR COUPLERS NO. 5	EACH	26	———	———	26
505.0906	BAR COUPLERS NO. 6	EACH	10	———	———	10
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	16	———	———	16
506.7050.S	REMOVING BEARINGS B-45-55	EACH	16	———	———	16
509.0301	PREPARATION DECKS TYPE 1	SY	437	———	———	437
509.0302	PREPARATION DECKS TYPE 2	SY	219	———	———	219
509.0400.S	CLEANING CONCRETE SURFACES	SY	494	———	———	494
509.0500	CLEANING DECKS	SY	1497	———	———	1497
509.1000	JOINT REPAIR	SY	69	———	———	69
509.1200	CURB REPAIR	LF	5	———	———	5
509.1500	CONCRETE SURFACE REPAIR	SF	———	30	25	55
509.2000	FULL-DEPTH DECK REPAIR	SY	2	———	———	2
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	124	———	———	124
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-45-55	SY	1497	———	———	1497
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-55	LS	———	———	———	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-55	LS	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	339	339	678
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	LS	———	———	———	1

● QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

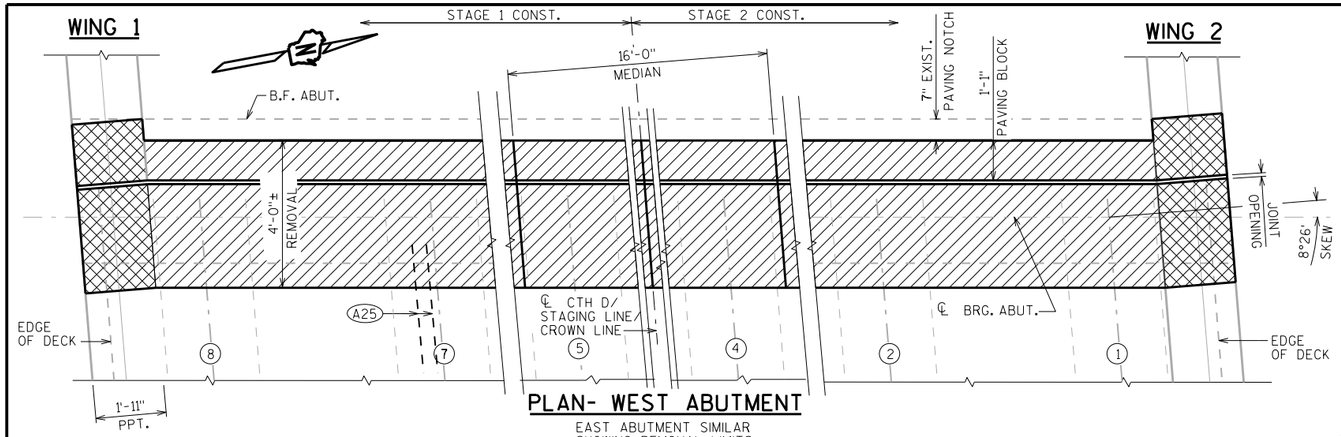
DRAWN BY WWR | PLANS CK'D. DMB

QUANTITES & GENERAL NOTES

SHEET 2

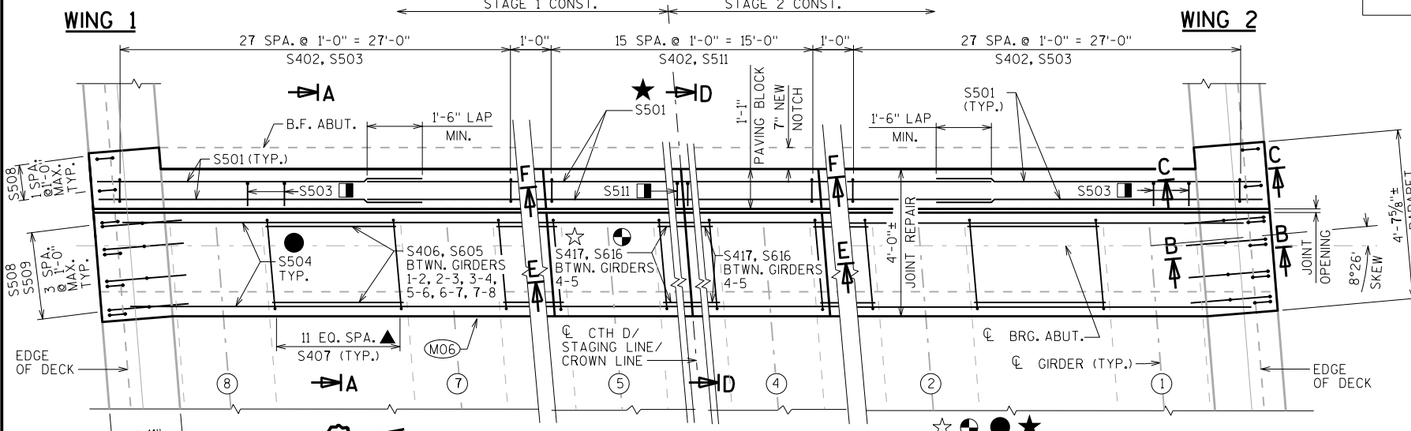
405

SCALE = 17.00



PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS



PLAN- WEST ABUTMENT

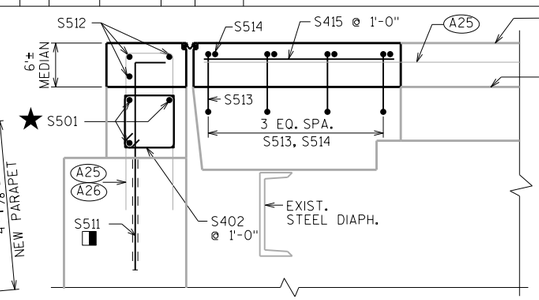
EAST ABUTMENT SIMILAR
SHOWING REPAIR

BAR COUPLERS REQUIRED. BAR LENGTHS DETERMINED AND CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

BILL OF BARS

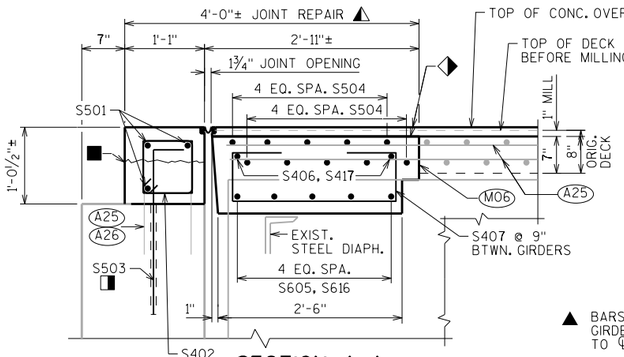
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
★	S501	X	72	7'-3"			PAVING BLOCK - TRANSVERSE
	S402	X	144	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	112	3'-0"	X		PAVING BLOCK - VERTICAL
●	S504	X	40	35'-7"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	60	7'-9"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	24	7'-9"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	168	4'-10"	X		DIAPHRAGM - VERTICAL
	S508	X	24	4'-9"	X		PARAPET - VERTICAL
	S509	X	16	5'-0"	X		PARAPET & DECK- VERTICAL
*	S410	X	24	7'-9"			EXPANSION DEVICE - TRANSVERSE
◨	S511	X	32	3'-6"	X		PAVING BLOCK - VERTICAL @ MEDIAN
	S512	X	12	7'-10"			PAVING BLOCK - TRANSVERSE @ MEDIAN
	S513	X	16	3'-5"	X		DECK - VERTICAL @ MEDIAN
	S514	X	16	7'-10"			DECK - TRANSVERSE @ MEDIAN
	S415	X	34	2'-6"			DECK - LONGIT. @ MEDIAN
◔	S616	X	20	4'-0"			DIAPHRAGM - TRANSVERSE - BOTTOM
☆	S417	X	8	4'-0"			DIAPHRAGM - TRANSVERSE - TOP



SECTION D-D

SHOWING ADDITIONAL MEDIAN STEEL. BARS SHOWN IN DIAPHRAGM IN "SECTION A-A" STILL REQUIRED HERE.

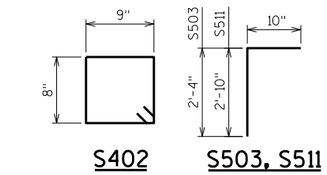


SECTION A-A

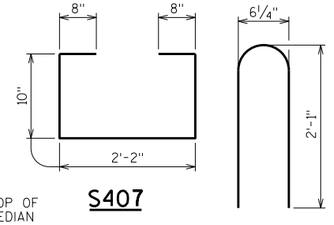
- ✱ SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS
- ☆ (2) #4 BAR COUPLERS AT STAGING LINE. (PER ABUT.)
- ◔ (5) #6 BAR COUPLERS AT STAGING LINE. (PER ABUT.)
- ● (10) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)
- ★ (3) #5 BAR COUPLERS AT STAGING LINE. (PER ABUT.)
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

NOTE: SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

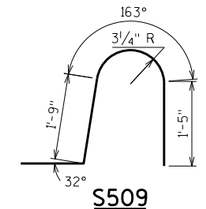
- A25 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- A26 IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"
- M06 ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.
- ■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ▲ MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.



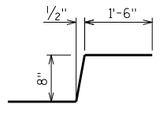
S402 S503, S511



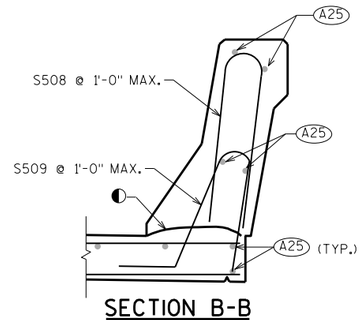
S407 S508



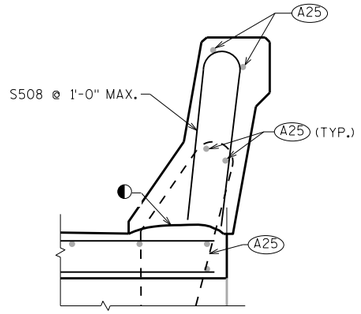
S509



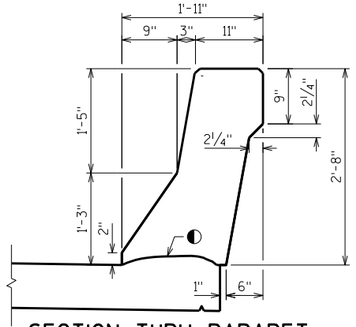
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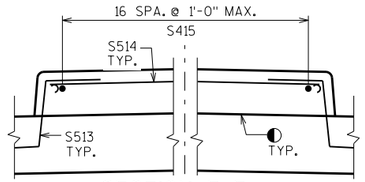
SECTION B-B



SECTION C-C

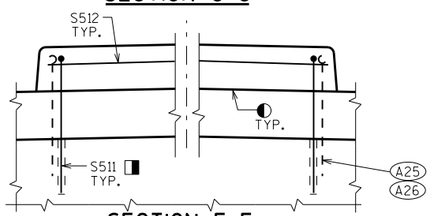


SECTION THRU PARAPET



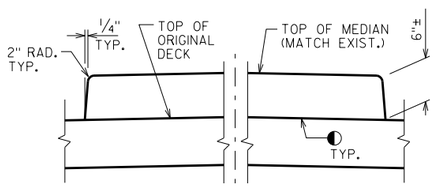
SECTION E-E

(MEDIAN STEEL @ DECK/DIAPH.)
(SEE SECTION A-A FOR DIAPH. STEEL)



SECTION F-F

(MEDIAN STEEL @ PAVING BLOCK)



PART. SECT. THRU MEDIAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

DRAWN BY WWR | PLANS CK'D. DMB

JOINT REPAIR DETAILS

SHEET 3

406

STATE PROJECT NUMBER

1450-02-70

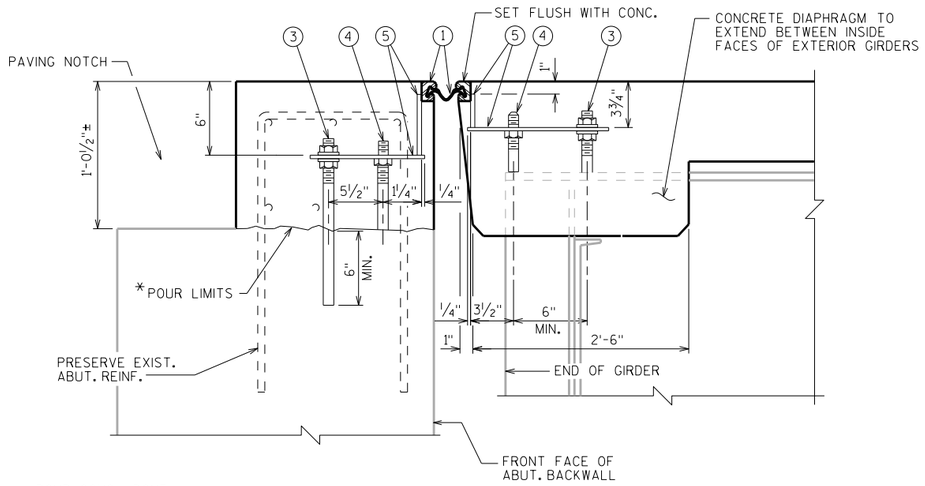
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8

8

STATE PROJECT NUMBER

1450-02-70



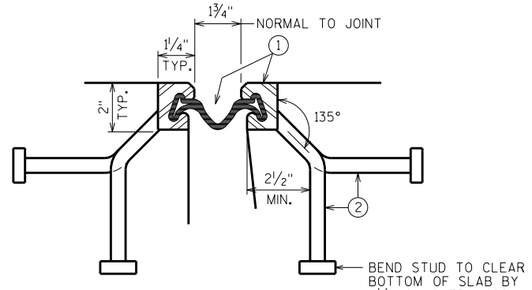
* POUR CONC. ABOVE THIS JOINT AFTER SUPERSRTUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

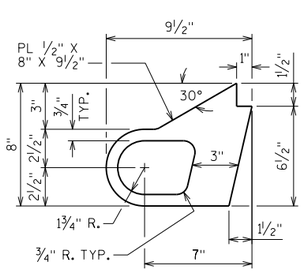
LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. 3/4" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" X 1'-5" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
6A. GALVANIZED PLATE 3/8" X 1'-5 1/4" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

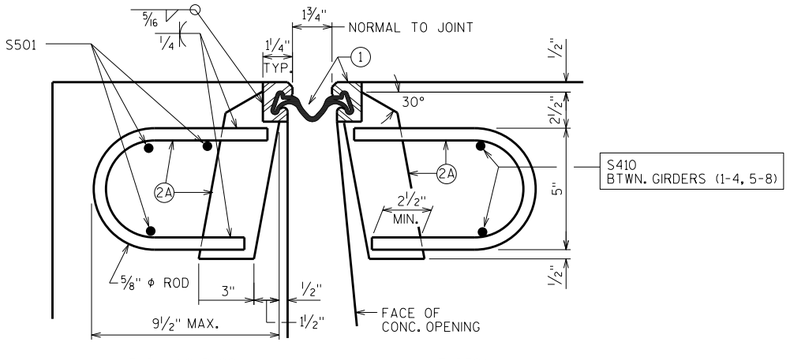


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS AND MEDIANS

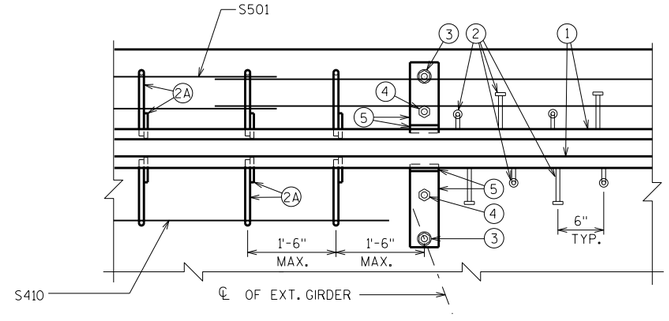


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-55".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

DRAWN BY WWR | PLANS CK'D. DMB

EXPANSION DEVICE

SHEET 4

407

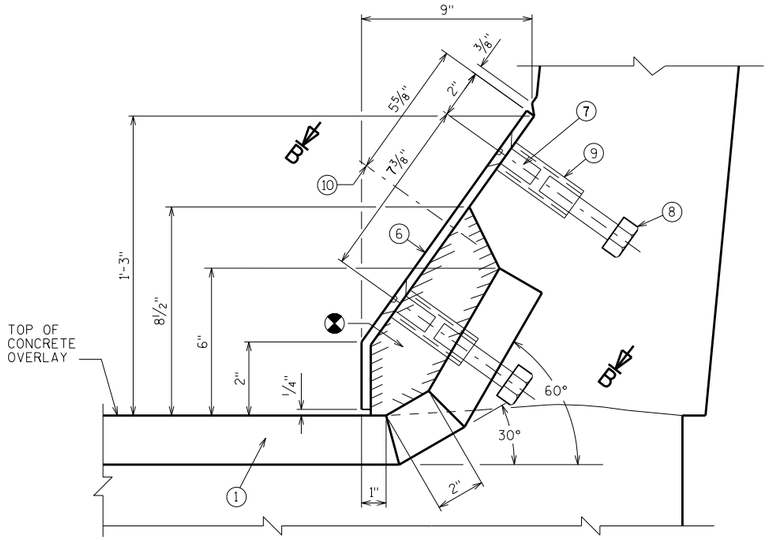
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8

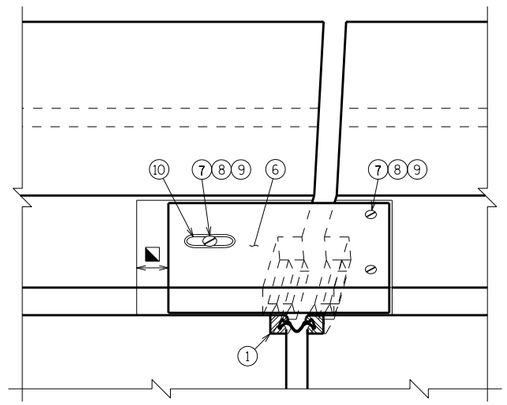
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STATE PROJECT NUMBER

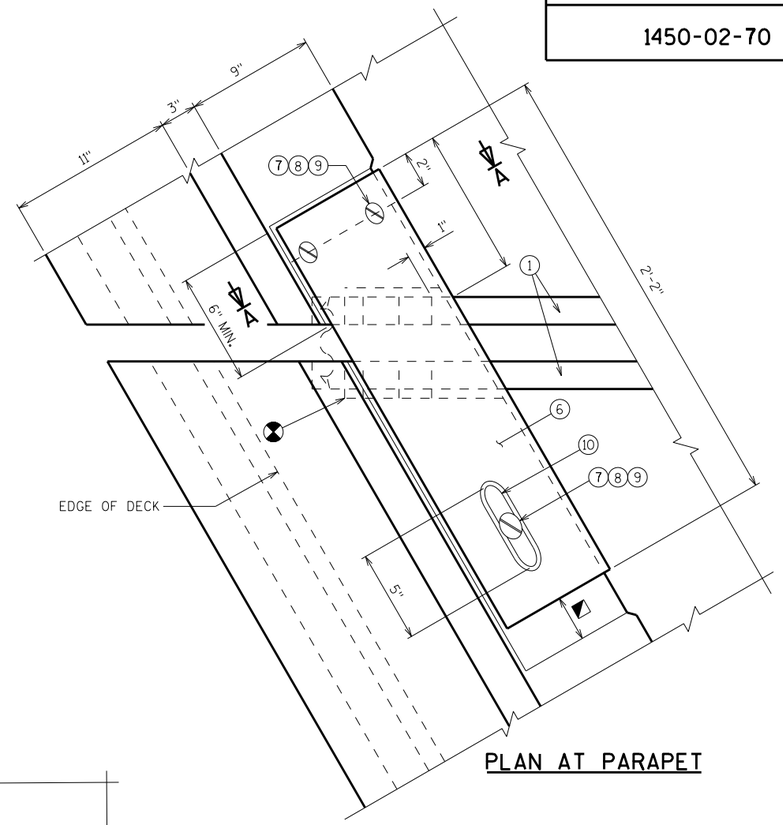
1450-02-70



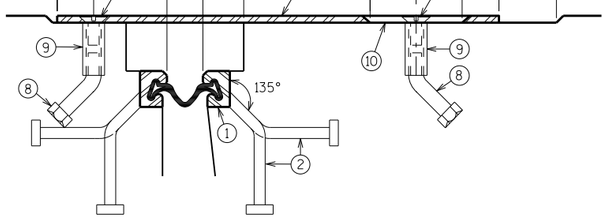
SECTION A-A



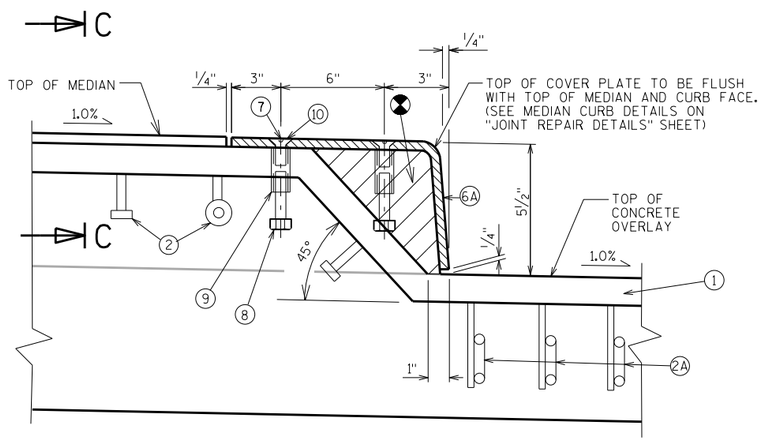
VIEW OF PARAPET PLATE FROM ROADWAY



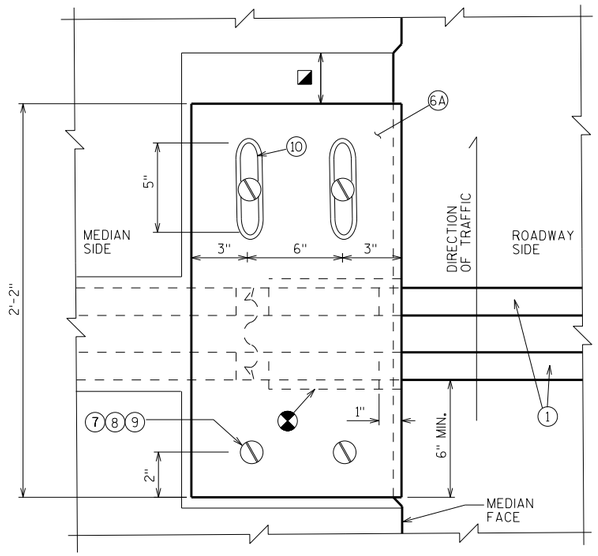
PLAN AT PARAPET



SECTION B-B



TYP. PART. SECT. THRU MEDIAN



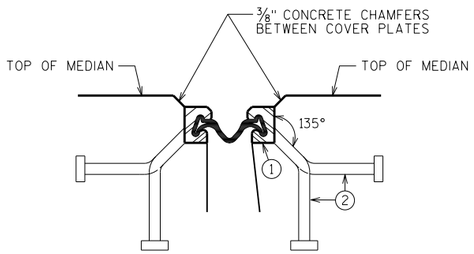
TYP. PART. PLAN @ MEDIAN

COVER PLATES TO BE FABRICATED SUCH THAT PLATE EXPANSION IS SITUATED WITH DIRECTION OF TRAFFIC AS SHOWN ABOVE.

NOTE:
SEE "EXPANSION DEVICE" SHEET FOR LEGEND OF CIRCLE NOTES.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

DRAWN BY WWR | PLANS CK'D. DMB

COVER PLATE DETAILS

SHEET 5

408

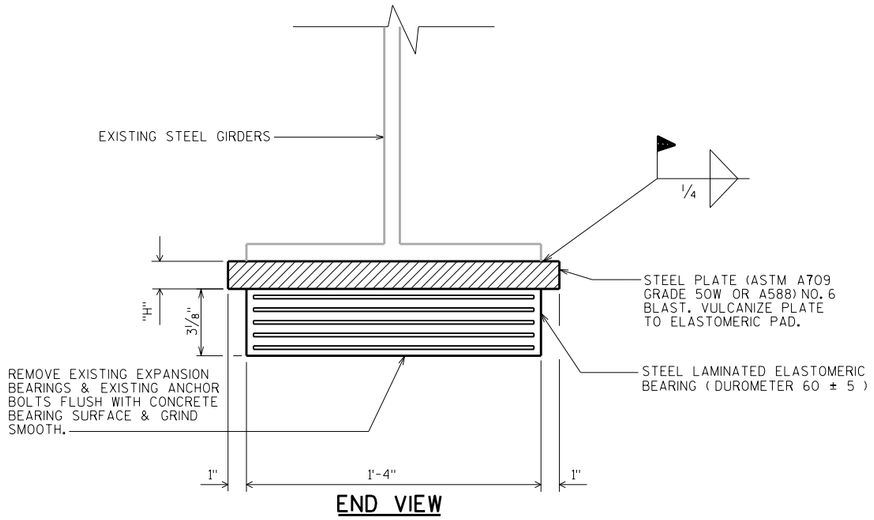
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8

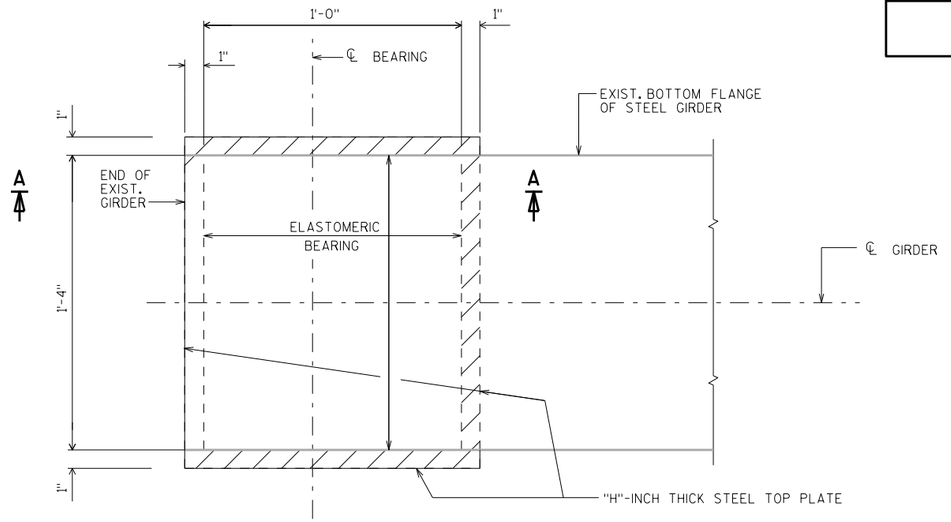
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STATE PROJECT NUMBER

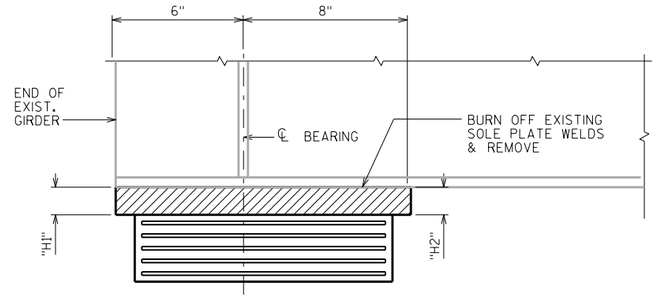
1450-02-70



END VIEW



PLAN VIEW

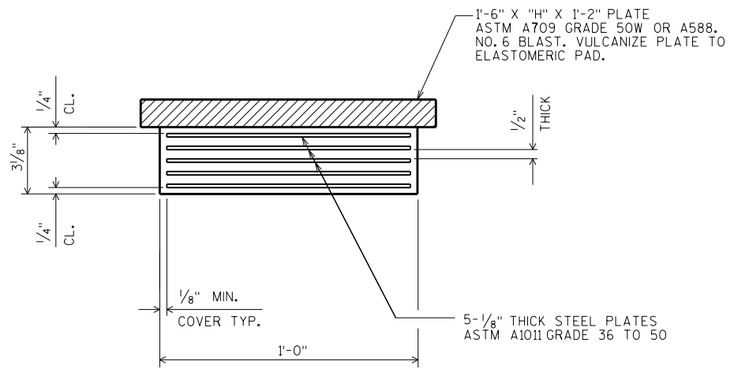


SECTION A-A

(W/ TOP PLATE DETAILS)

TOP PLATE THICKNESS

PAD LOCATION	"H1"	"H2"
W. ABUT.	1 3/8"	1 5/8"
E. ABUT.	1 5/8"	1 3/8"



SECTION A-A

(W/ ADDITIONAL BEARING DETAILS)

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 EXIST. 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
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

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STEEL GIRDER BEARINGS

SHEET 6

409

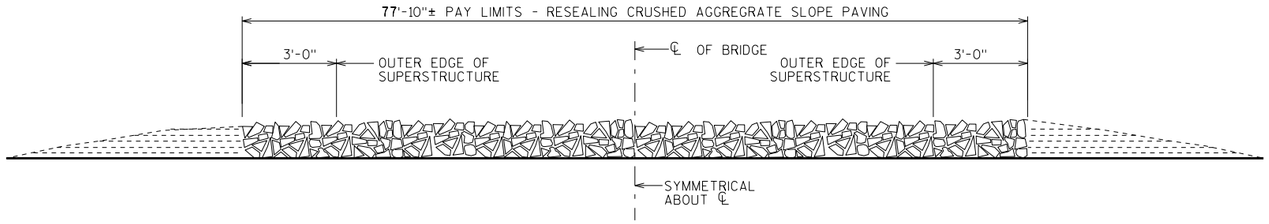
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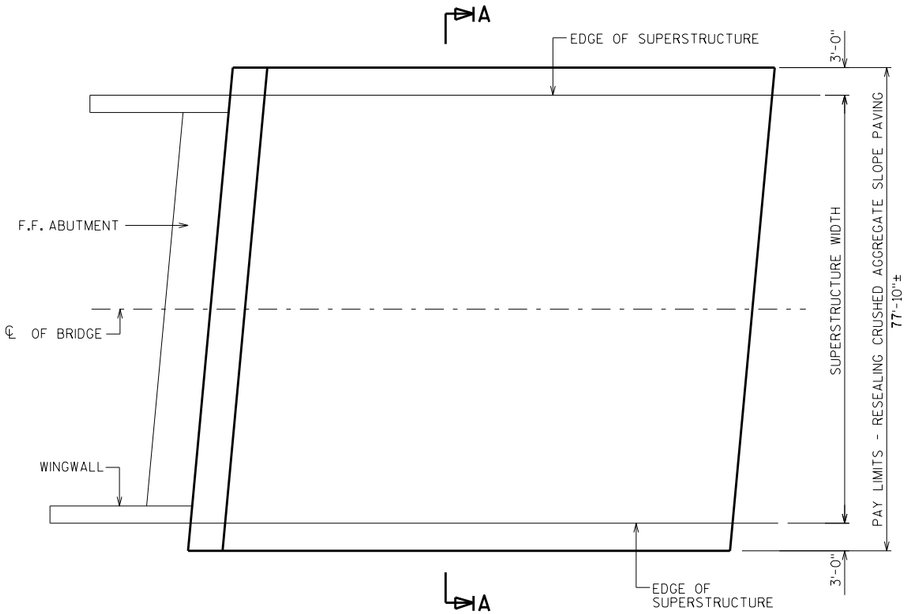
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STATE PROJECT NUMBER

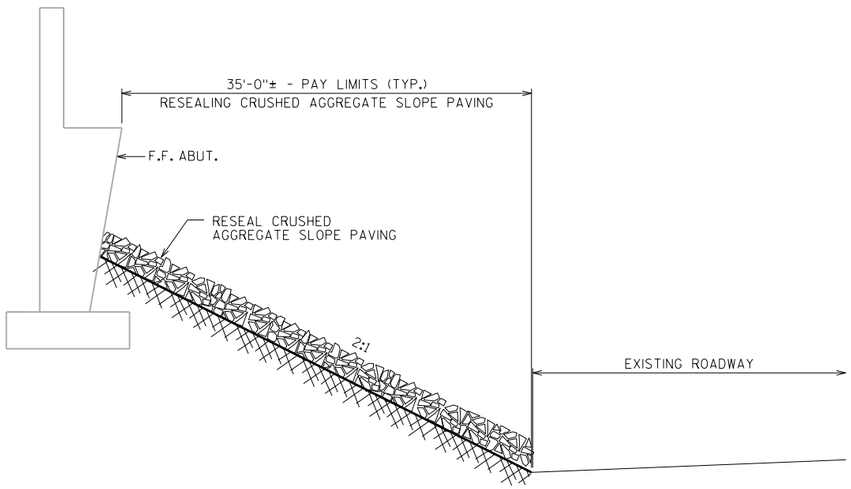
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

DRAWN BY WWR | PLANS CK'D. DMB

SLOPE PAVING RESEALING

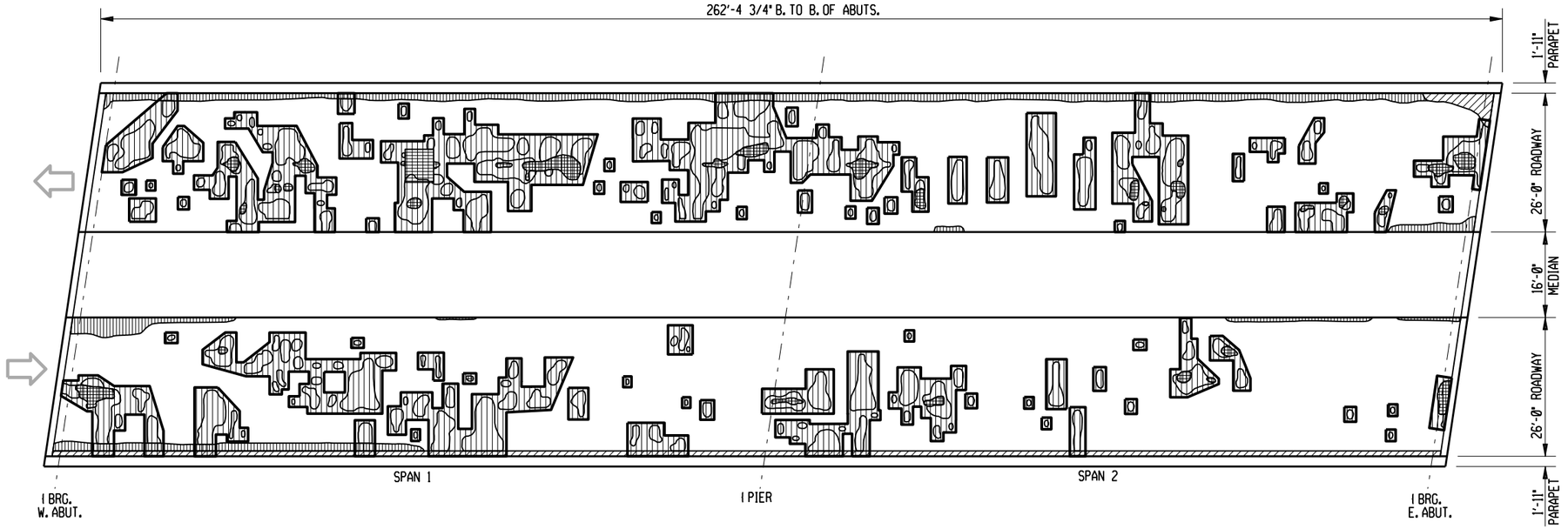
SHEET 7

410

SCALE = 1.00

STATE PROJECT NUMBER

1450-02-70



PLAN

PROPOSED REHABILITATION AREAS

N

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-55	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1509.1	
SHADE/DEBRIS	yd^2	32.9	
PREPARATION, DECKS, TYPE 1	yd^2	436.6	29.6
PREPARATION, DECKS, TYPE 2	yd^2	218.3	14.8
FULL DEPTH DECK REPAIR	yd^2	2.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY

INFRARED INSPECTION DATE: 4/9/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-55

DRAWN BY WWR | PLANS CK'D. DMB

DECK CONDITION SURVEY

SHEET 8

411

8

8

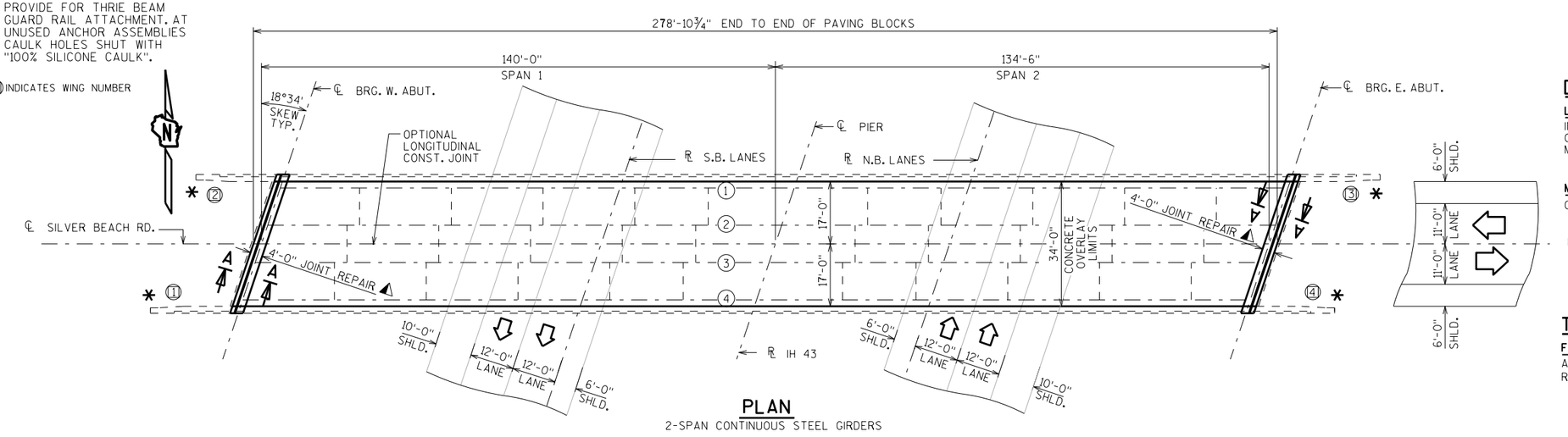
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STATE PROJECT NUMBER

1450-02-70

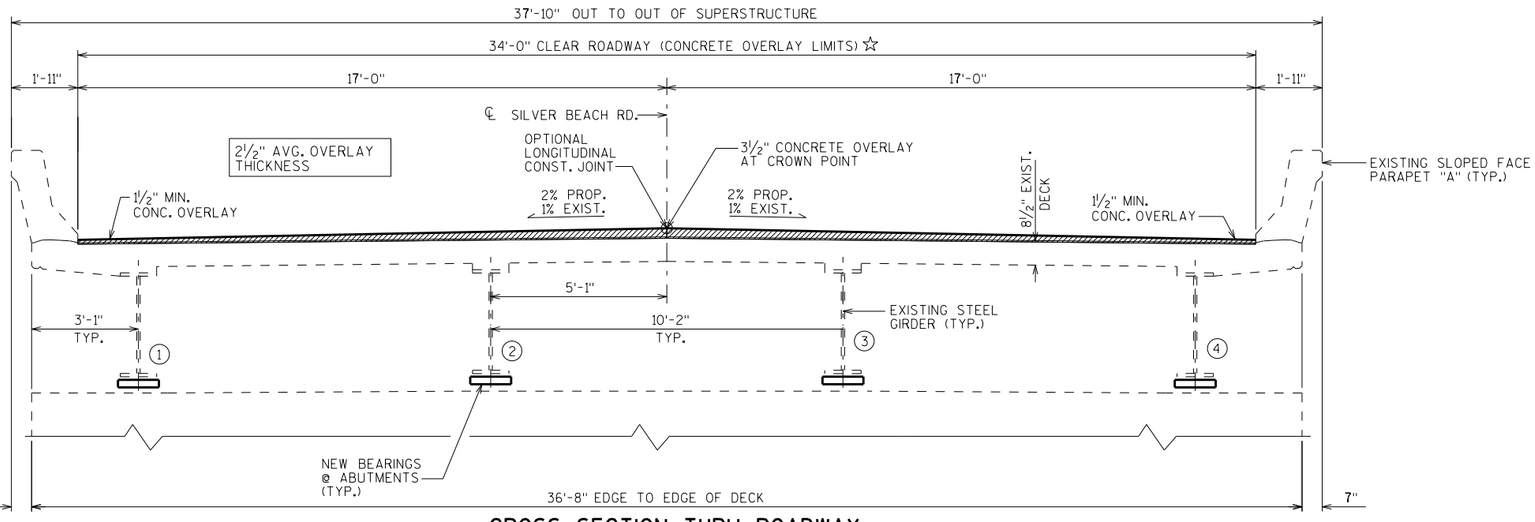
* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(1) INDICATES WING NUMBER



PLAN

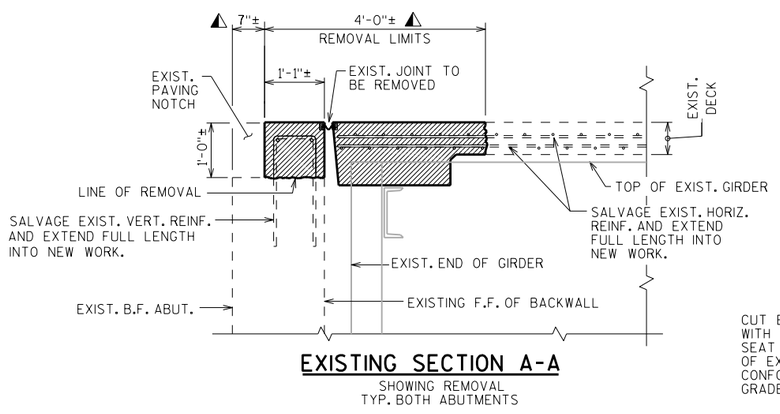
2-SPAN CONTINUOUS STEEL GIRDERS



CROSS SECTION THRU ROADWAY

LOOKING EAST

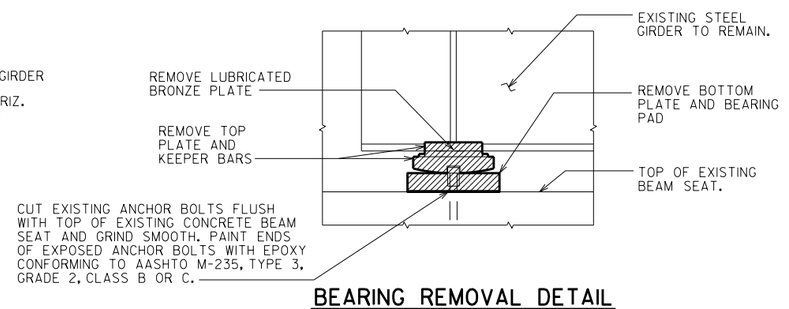
☆ REMOVE 1" EXIST. DECK OR TO SOUND CONCRETE PER BID ITEM "CLEANING DECKS"



EXISTING SECTION A-A

SHOWING REMOVAL TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.



BEARING REMOVAL DETAIL

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-18
OPERATING RATING: HS-31
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 140 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON: SILVER BEACH RD.
ADT = 560 (2039)
R.D.S. = 50 M.P.H.

FEATURE UNDER: IH 43
ADT = 28,500 (2039)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. CONCRETE OVERLAY & JOINT REPLACEMENT
2. QUANTITIES & GENERAL NOTES
3. JOINT REPAIR DETAILS
4. EXPANSION DEVICE
5. COVER PLATE DETAILS
6. STEEL GIRDER BEARINGS
7. SLOPE PAVING RESEALING
8. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:

DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 10/10/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-45-56

SILVER BEACH RD. OVER IH 43

COUNTY	TOWN/CITY/VILLAGE
OZAUKEE	BELGIUM

DESIGN SPEC. REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DMB	DLM	WWR	DMB

CONCRETE OVERLAY & JOINT REPLACEMENT

SHEET 1 OF 8

412

I.D. 1450-02-00J

DATE: MAY 2019

SCALE = 17.00

8

8

STATE PROJECT NUMBER

1450-02-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF OVERLAY SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AREAS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF THE EXPECTED AVERAGE OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH 'ABATEMENT OF ASBESTOS CONTAINING MATERIAL' BID ITEM.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

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

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-45-56	LS	——	——	——	1
● 502.3100	EXPANSION DEVICE B-45-56	LF	72	——	——	72
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1068	——	——	1068
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	——	39	39	78
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2520	——	——	2520
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	8	——	——	8
506.7050.S	REMOVING BEARINGS B-45-56	EACH	8	——	——	8
509.0301	PREPARATION DECKS TYPE 1	SY	220	——	——	220
509.0302	PREPARATION DECKS TYPE 2	SY	55	——	——	55
509.0500	CLEANING DECKS	SY	1025	——	——	1025
509.1000	JOINT REPAIR	SY	39	——	——	39
509.1500	CONCRETE SURFACE REPAIR	SF	——	2	6	8
509.2000	FULL-DEPTH DECK REPAIR	SY	1	——	——	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	102	——	——	102
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-45-56	LS	——	——	——	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-45-56	LS	——	——	——	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	——	——	——	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	——	191	191	382
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	——	2	2	4
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	LS	——	——	——	1

● QUANTITY IS BASED ON THE DISTANCE FROM GUTTER LINE TO GUTTER LINE AT EACH ABUTMENT.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

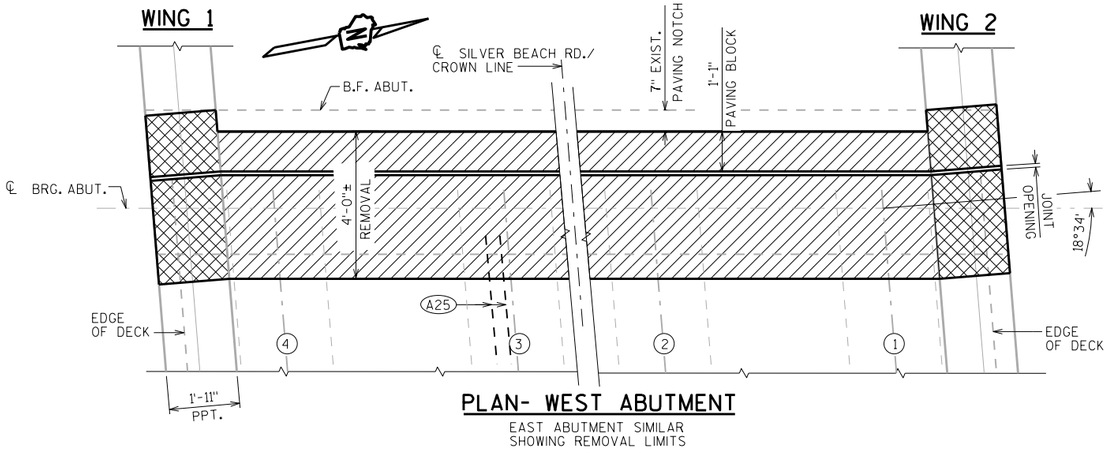
DRAWN BY WWR | PLANS CK'D. DMB

QUANTITES & GENERAL NOTES

SHEET 2

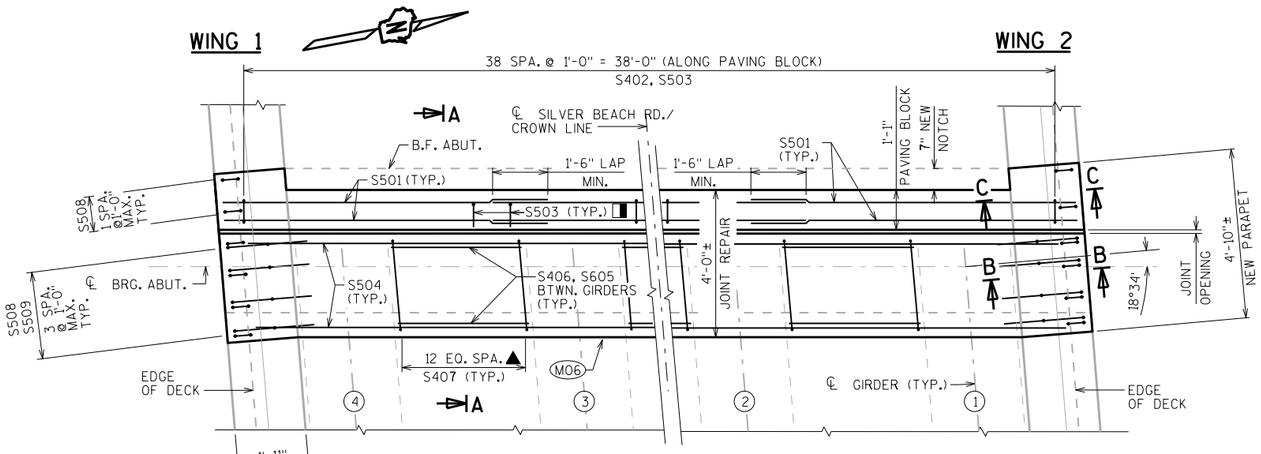
413

SCALE = 17.00



PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS



PLAN- WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REPAIR

BILL OF BARS

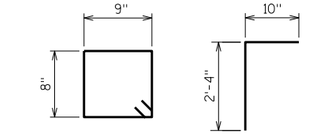
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

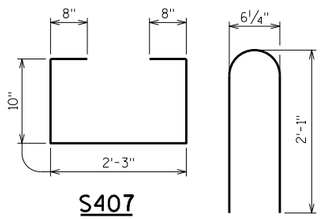
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	36	7'-8"			PAVING BLOCK - TRANSVERSE
	S402	X	78	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	78	3'-0"	X		PAVING BLOCK - VERTICAL
	S504	X	20	38'-3"			SUPERSTRUCTURE - TRANSVERSE
	S605	X	30	9'-0"			DIAPHRAGM - TRANSVERSE - BOTTOM
	S406	X	12	9'-0"			DIAPHRAGM - TRANSVERSE - TOP
	S407	X	78	4'-11"	X		DIAPHRAGM - VERTICAL
	S508	X	24	4'-9"	X		PARAPET - VERTICAL
	S509	X	16	5'-0"	X		PARAPET & DECK- VERTICAL
*	S410	X	12	8'-10"			EXPANSION DEVICE - TRANSVERSE

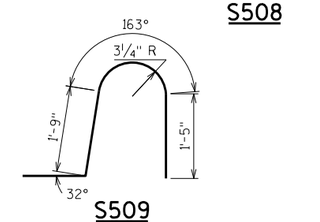
* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS

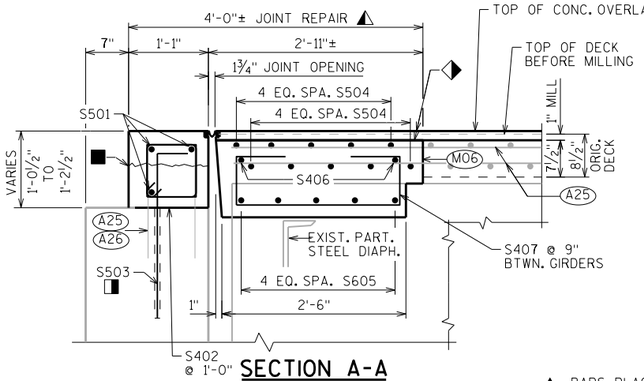
STATE PROJECT NUMBER

1450-02-70

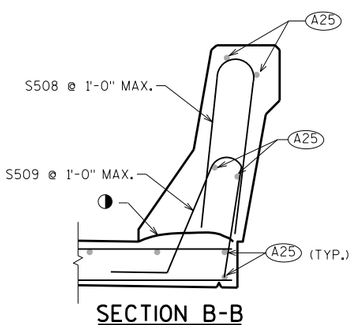




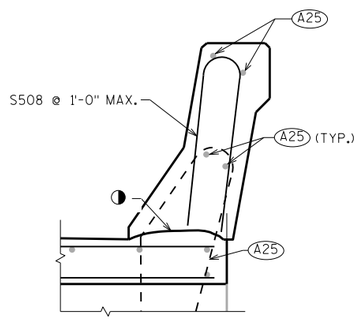




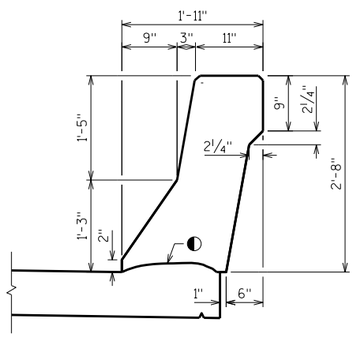
SECTION A-A



SECTION B-B



SECTION C-C



SECTION THRU PARAPET

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

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

(M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

■ OPT. CONST. JOINT 1" MIN. BELOW EXIST. REINF.

◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.

△ MEASURED NORMAL TO ℄ SUBSTRUCTURE

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

NOTE: SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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JOINT REPAIR DETAILS

SHEET 3

414

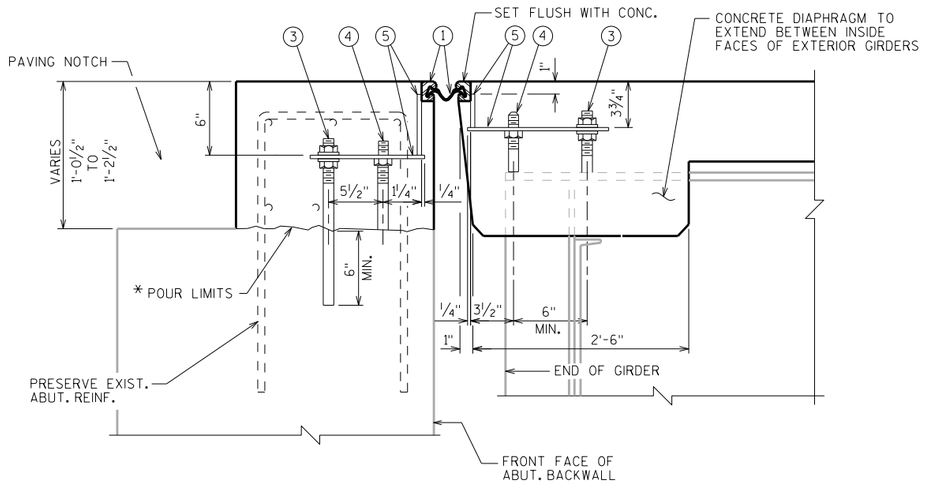
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8

STATE PROJECT NUMBER

1450-02-70



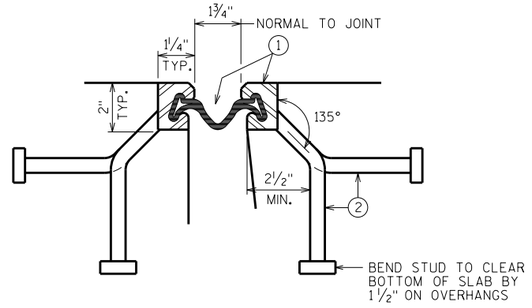
* POUR CONC. ABOVE THIS JOINT AFTER SUPERSRTUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

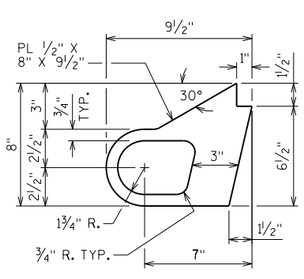
LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-5" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

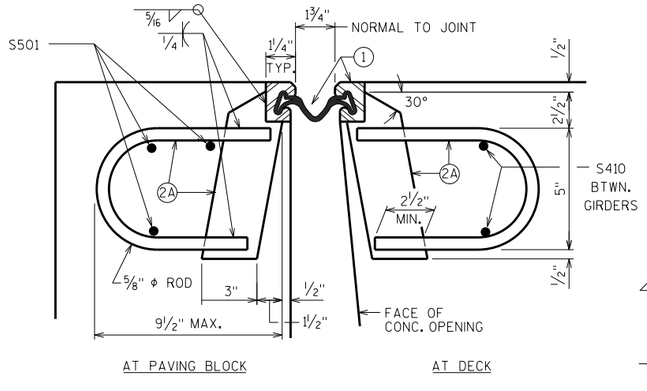


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS.

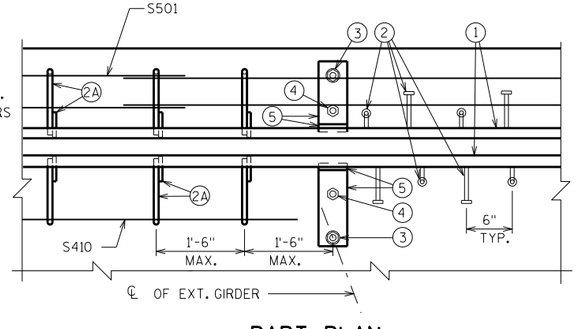


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

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

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

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-45-56".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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EXPANSION DEVICE

SHEET 4

415

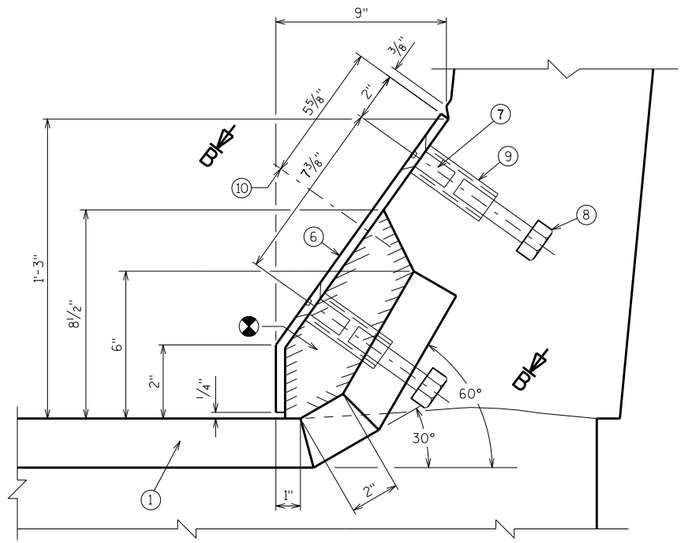
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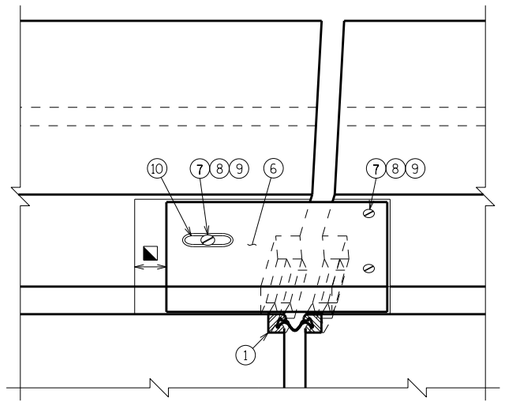
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STATE PROJECT NUMBER

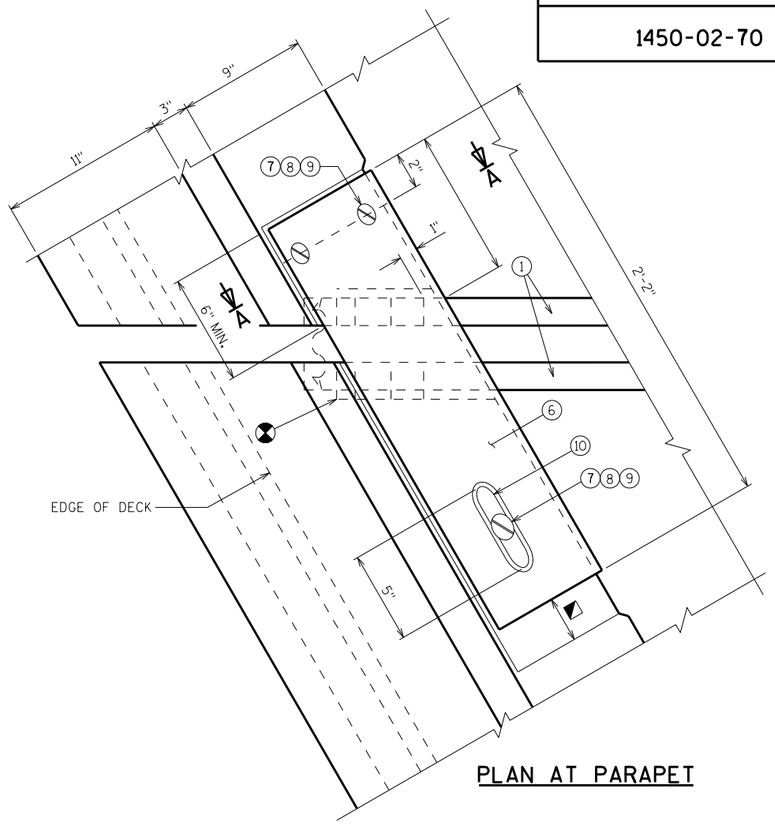
1450-02-70



SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN AT PARAPET

SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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COVER PLATE DETAILS

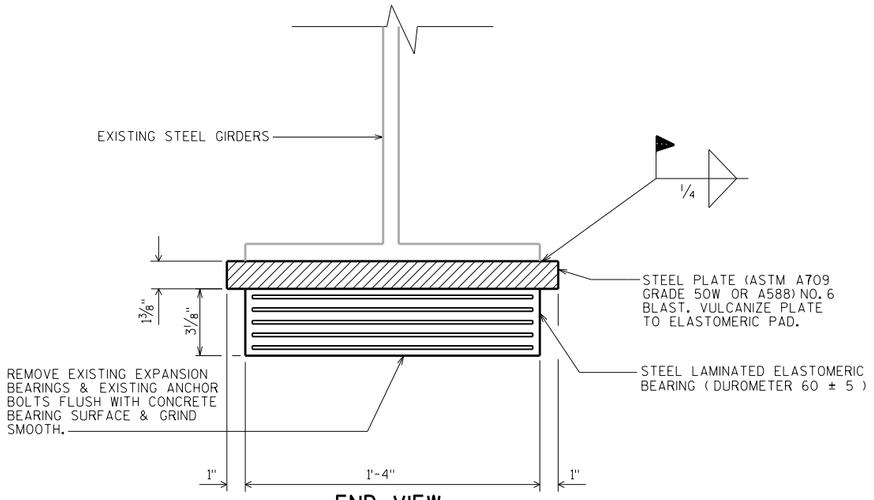
SHEET 5

416

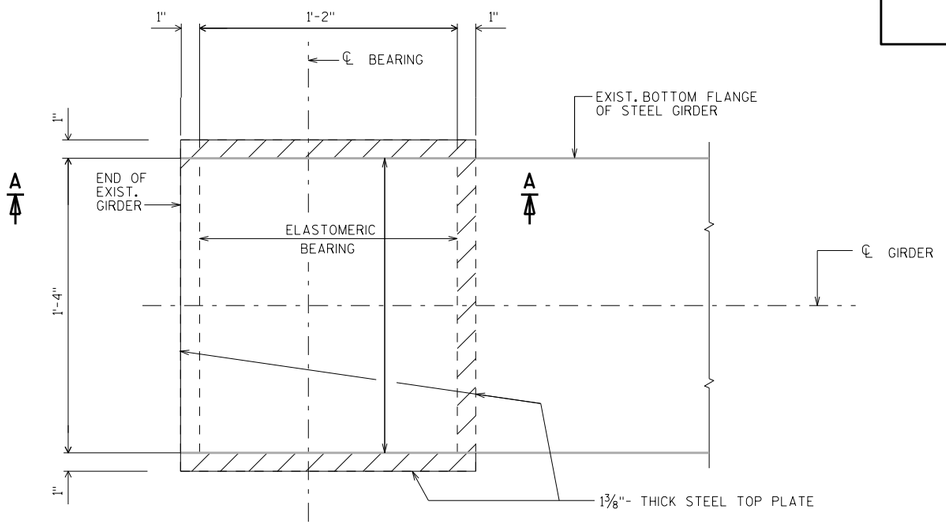
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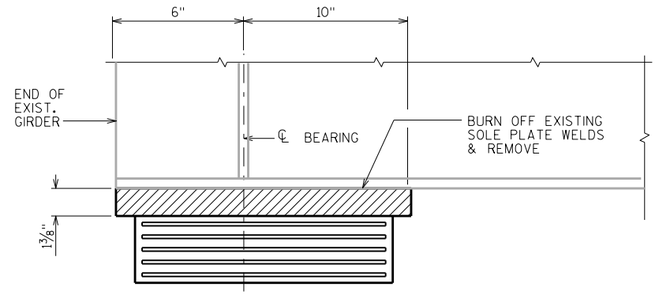
1450-02-70



END VIEW

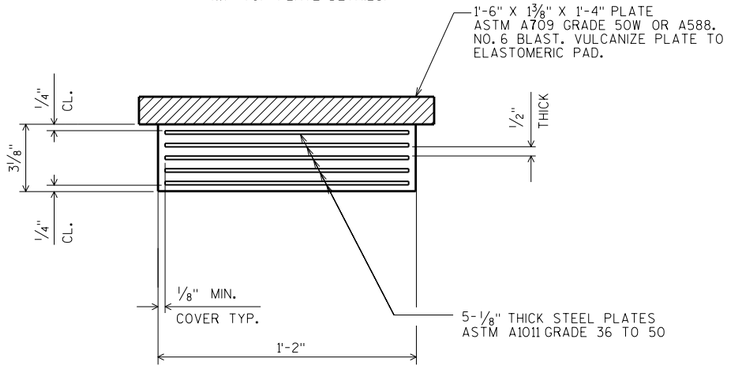


PLAN VIEW



SECTION A-A

(W/ TOP PLATE DETAILS)



SECTION A-A

(W/ ADDITIONAL BEARING DETAILS)

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 EXIST. 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
STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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STEEL GIRDER BEARINGS

SHEET 6

417

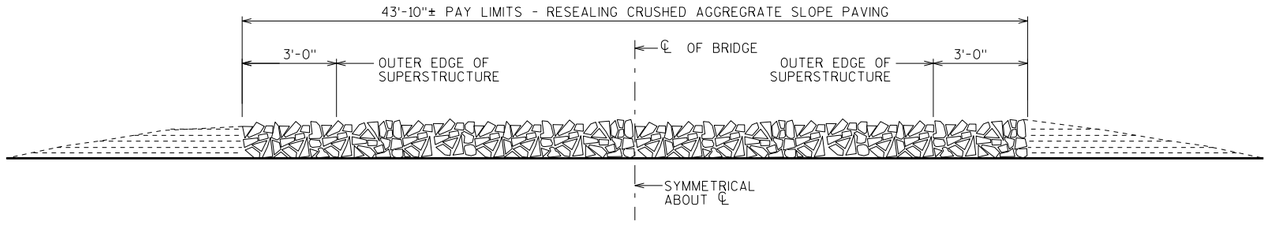
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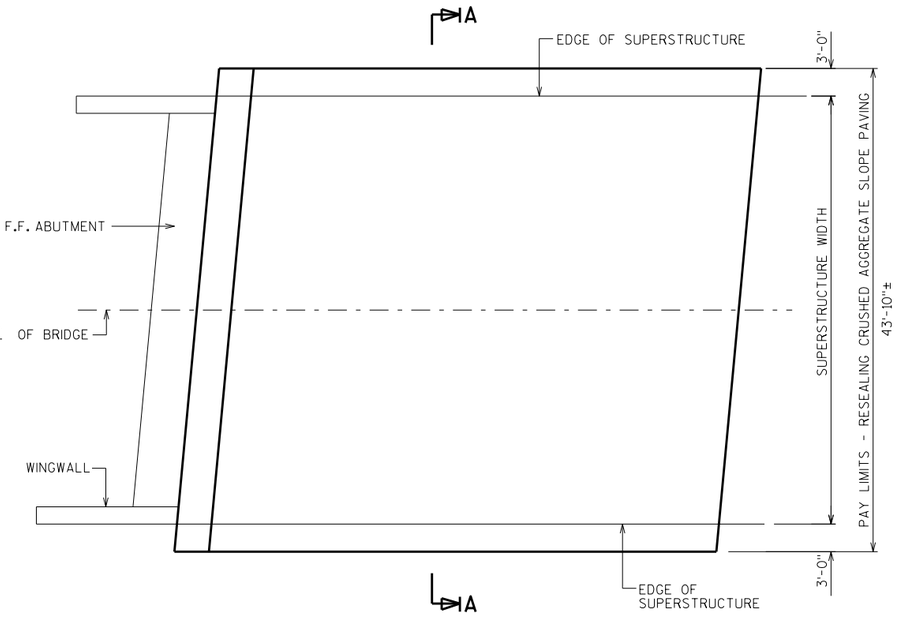
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STATE PROJECT NUMBER

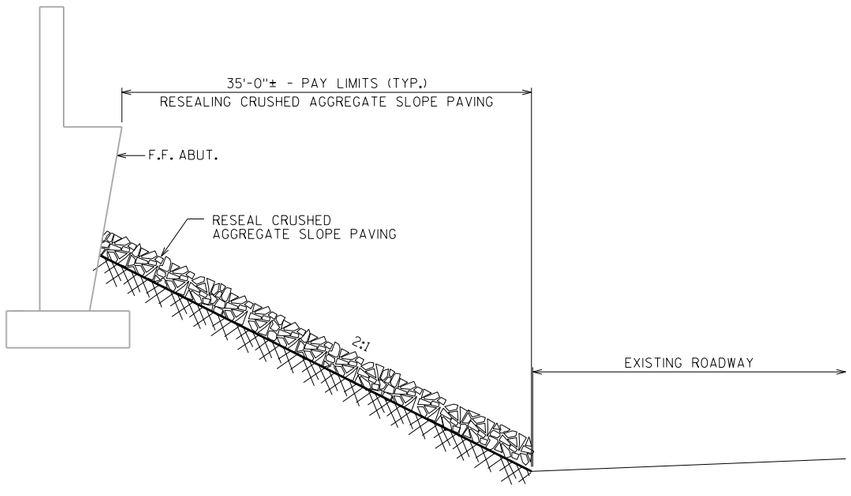
1450-02-70



SECTION A-A



PLAN



STANDARD CROSS SECTION

8

8

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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SLOPE PAVING RESEALING

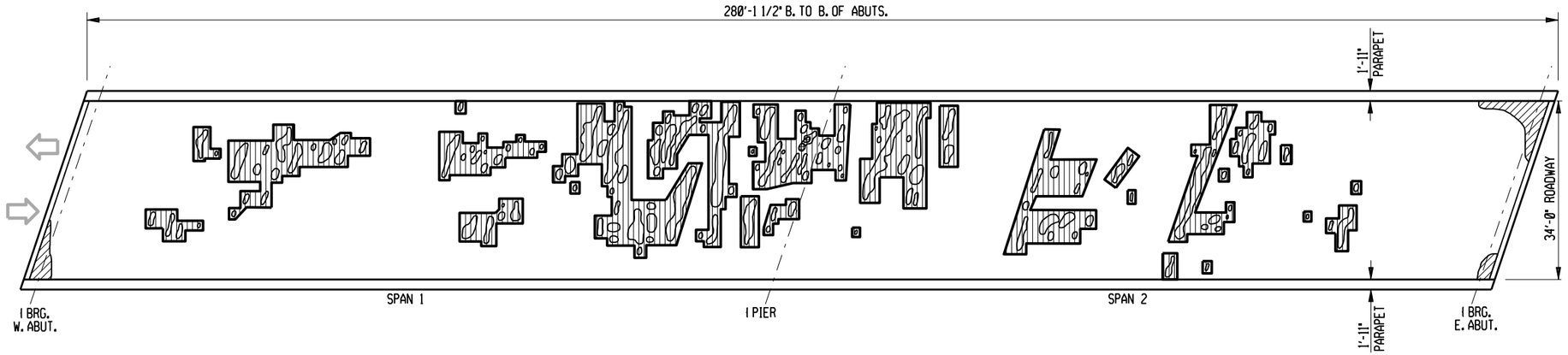
SHEET 7

418

SCALE = 1.00

STATE PROJECT NUMBER

1450-02-70



PLAN

N

PROPOSED REHABILITATION AREAS

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-45-56	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1053.7	
SHADE/DEBRIS	yd^2	9.6	
PREPARATION, DECKS, TYPE 1	yd^2	219.3	21.0
PREPARATION, DECKS, TYPE 2	yd^2	54.8	5.2
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY

INFRARED INSPECTION DATE: 4/9/19

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-45-56

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DECK CONDITION SURVEY

SHEET 8

419

SCALE = 12.00

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8

ARROWHEAD - WESTBOUND WORK AREA									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
							CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE	CUT	FILL	CUT	FILL	1.00	1.25	ORDINATE
102+62.93	10263	0	0	0	0	0	0	0	0
102+72	10272	9	0	1	0	0	0	0	0
103+00	10300	28	0	7	0	4	0	5	-5
103+50	10350	50	0	28	0	32	1	45	-44
103+70	10370	20	0	33	0	22	1	73	-72
103+80	10380	10	0	38	0	13	1	89	-88
103+95	10395	15	0	30	0	19	1	113	-111
104+00	10400	5	0	8	0	3	1	117	-116
104+05	10405	5	0	6	0	1	1	119	-117
104+20	10420	15	1	3	0	3	2	122	-120
104+33	10433	13	1	4	0	2	2	124	-122
104+50	10450	17	1	4	0	2	2	127	-125
104+73	10473	23	0	10	0	6	3	134	-132
104+83	10483	10	0	0	0	2	3	137	-134
107+09	10709	0	0	27	1	111	3	275	-272
107+17	10717	8	0	8	0	5	3	282	-279
107+50	10750	33	0	4	0	8	4	292	-288
107+62	10762	12	0	5	0	2	4	294	-290
107+70	10770	8	0	8	0	2	4	296	-292
107+87	10787	17	0	23	0	10	4	308	-304
107+95	10795	8	0	32	0	8	4	319	-314
108+00	10800	5	0	40	0	7	4	327	-323
108+12	10812	12	1	57	0	21	4	354	-349
108+20	10820	8	1	56	0	17	5	375	-370
108+50	10850	30	1	34	1	50	6	437	-431
109+00	10900	50	1	2	2	33	7	477	-470
109+24	10924	24	0	0	0	1	8	478	-471
109+50	10950	26	0	0	0	0	8	478	-471
109+77	10977	27	0	0	0	0	8	478	-471
			TOTAL		8	383			

ARROWHEAD - EASTBOUND WORK AREA									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
102+62.93	10263	0	0	0	0	0	0	0	0
102+72	10272	9	0	0	0	0	0	0	0
103+00	10300	28	0	5	0	3	0	3	-3
103+50	10350	50	0	39	1	41	1	54	-53
103+70	10370	20	0	53	0	34	1	96	-95
103+80	10380	10	0	50	0	19	1	120	-119
103+95	10395	15	0	56	0	29	1	157	-155
104+00	10400	5	0	53	0	10	1	169	-168
104+05	10405	5	0	48	0	9	1	181	-180
104+20	10420	15	0	28	0	21	1	207	-206
104+33	10433	13	0	16	0	11	2	221	-219
104+50	10450	17	0	23	0	12	2	236	-234
104+73	10473	23	0	41	0	27	2	270	-268
104+83	10483	10	0	0	0	8	2	280	-277
107+09	10709	0	0	0	0	0	2	280	-277
107+17	10717	8	0	0	0	0	2	280	-277
107+50	10750	33	0	2	0	1	2	281	-279
107+62	10762	12	0	4	0	1	3	283	-281
107+70	10770	8	0	4	0	1	3	285	-282
107+87	10787	17	0	9	0	4	3	290	-287
107+95	10795	8	0	20	0	4	3	295	-292
108+00	10800	5	0	28	0	4	3	300	-298
108+12	10812	12	0	53	0	18	3	323	-320
108+20	10820	8	0	60	0	17	3	344	-341
108+50	10850	30	0	41	0	56	3	414	-411
109+00	10900	50	0	49	0	83	3	518	-514
109+24	10924	24	0	42	0	41	4	569	-565
109+50	10950	26	0	38	0	39	4	617	-614
109+77	10977	27	0	3	0	21	4	643	-639
			TOTAL		4	515			

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ULAO PKWY									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
300+10	30010	0	1	27	0	0	0	0	0
300+35.59	30036	26	0	43	1	33	1	42	-41
303+37	30337	0	1	99	8	0	8	42	-34
303+50	30350	13	1	17	1	28	9	77	-68
303+78	30378	28	0	13	1	16	9	96	-87
303+84	30384	6	0	14	0	3	9	100	-90
304+00	30400	16	1	17	0	9	10	111	-102
304+07	30407	7	0	21	0	5	10	118	-108
304+09	30409	2	0	22	0	2	10	120	-110
304+34	30434	25	2	35	1	27	11	153	-142
304+50	30450	16	3	29	1	19	12	177	-164
305+00	30500	50	2	8	5	34	17	220	-202
305+50	30550	50	2	0	4	7	21	229	-208
305+71.60	30572	22	1	0	1	0	22	229	-207
306+00	30600	28	0	0	1	0	23	229	-206
			TOTAL		22	183			

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PROJECT NO:1450-02-70 | HWY:IH 43 | COUNTY:OZAUKEE | EARTHWORK - ULAO PARKWAY | SHEET 422 E

CTH P									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
502+00	50200	0	2	0	0	0	0	0	0
502+21	50221	21	4	0	2	0	2	0	2
502+50	50250	29	5	0	5	0	7	0	7
503+00	50300	50	6	16	10	15	17	19	-1
503+50	50350	50	5	131	10	136	27	189	-161
503+57	50357	7	5	147	1	36	29	234	-205
503+60	50360	3	5	147	1	16	29	254	-225
503+82	50382	22	6	101	5	101	34	381	-347
503+85	50385	3	6	94	1	11	35	394	-360
504+00	50400	15	7	37	3	36	38	440	-402
504+07	50407	7	8	16	2	7	40	448	-408
504+10	50410	3	7	3	1	1	41	450	-409
504+50	50450	40	6	0	10	2	51	452	-401
505+00	50500	50	7	3	12	3	63	456	-393
505+50	50550	50	6	1	12	3	75	461	-386
506+00	50600	50	6	0	11	1	86	461	-375
506+50	50650	50	6	2	12	2	98	463	-365
507+00	50700	50	4	2	10	3	108	467	-360
507+50	50750	50	0	32	4	31	112	506	-395
510+55	51055	0	0	38	0	0	112	506	-394
510+58	51058	3	0	43	0	5	112	512	-400
511+00	51100	42	6	2	5	35	117	556	-439
511+20	51120	20	6	1	5	1	122	558	-436
511+23	51123	3	7	2	1	0	122	558	-436
511+45	51145	22	7	31	6	13	128	575	-446
511+48	51148	3	7	39	1	4	129	580	-450
511+50	51150	2	7	43	1	3	130	583	-454
511+70	51170	20	8	80	6	46	135	640	-505
511+73	51173	3	8	80	1	9	136	651	-515
512+00	51200	27	9	40	8	60	145	727	-582
512+48	51248	48	11	7	18	42	163	779	-616
512+50	51250	2	5	7	1	1	163	780	-616
513+00	51300	50	5	0	9	6	172	788	-615
513+50	51350	50	4	0	8	0	180	788	-607
				TOTAL	179	630			

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PROJECT NO:1450-02-70 | HWY:IH 43 | COUNTY:OZAUKEE | EARTHWORK - CTH P | SHEET 423 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 020304

PLOT DATE : 4/29/2019 3:58 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:15

WISDOT/CADDS SHEET 42

SANDY BEACH RD									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
602+18.62	60219	0	1	0	0	0	0	0	0
602+50	60250	31	2	0	2	0	2	0	2
602+51	60251	1	8	0	0	0	2	0	2
603+00	60300	49	7	27	14	24	16	30	-14
603+50	60350	50	6	93	12	111	28	169	-141
604+00	60400	50	9	184	14	256	42	489	-447
604+04	60404	4	9	189	1	28	43	524	-480
604+20	60420	16	8	193	5	113	48	665	-617
604+29	60429	9	8	149	3	57	51	736	-686
604+45	60445	16	8	93	5	72	56	826	-771
604+50	60450	5	8	73	1	15	57	846	-788
604+54	60454	4	8	69	1	11	58	859	-800
604+70	60470	16	10	36	5	31	64	898	-834
605+00	60500	30	7	13	9	27	73	932	-859
605+50	60550	50	8	35	14	44	87	986	-900
606+00	60600	50	8	20	14	51	101	1050	-949
606+50	60650	50	7	10	14	29	115	1086	-971
607+00	60700	50	5	24	12	32	127	1126	-999
607+20	60720	20	0	39	2	23	129	1155	-1026
607+22.97	60723	3	0	42	0	4	129	1161	-1032
610+28.28	61028	0	0	24	1	0	130	1161	-1031
610+31.34	61031	3	1	26	0	3	130	1164	-1034
610+50	61050	19	3	66	1	32	131	1204	-1073
611+00	61100	50	6	38	8	97	139	1325	-1186
611+50	61150	50	7	1	13	36	152	1371	-1219
611+84	61184	34	8	40	9	26	161	1403	-1242
612+00	61200	16	7	70	4	33	166	1444	-1278
612+06	61206	6	7	81	2	17	167	1465	-1297
612+09	61209	3	7	88	1	9	168	1477	-1308
612+31	61231	22	7	148	6	96	174	1597	-1423
612+34	61234	3	7	149	1	17	175	1618	-1443
612+50	61250	16	8	146	5	87	179	1727	-1548
612+56	61256	6	9	139	2	32	181	1766	-1585
613+00	61300	44	8	24	14	133	195	1933	-1738
613+50	61350	50	7	1	14	24	209	1963	-1753
613+86	61386	36	6	0	9	1	218	1964	-1746
614+00	61400	14	3	0	2	0	220	1964	-1743
614+36.40	61437	37	2	0	3	0	223	1964	-1740
				TOTAL	223	1571			

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PROJECT NO:1450-02-70 | HWY:IH 43 | COUNTY:OZAUKEE | EARTHWORK - SANDY BEACH ROAD | SHEET 424 E

CEDAR BEACH RD									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
701+00	70100	0	2	0	0	0	0	0	0
701+50	70150	50	3	0	4	0	4	0	4
702+00	70200	50	3	16	5	15	9	19	-10
702+13	70213	13	8	35	3	12	12	35	-22
702+27	70227	14	7	76	4	29	16	71	-54
702+29	70229	2	7	79	1	6	17	78	-61
702+50	70250	21	6	96	5	68	22	163	-141
702+52	70252	2	6	95	0	7	22	171	-149
702+54	70254	2	6	95	0	7	22	180	-158
702+77	70277	23	5	35	5	55	27	249	-222
702+79	70279	2	6	30	0	2	27	252	-225
703+00	70300	21	6	16	5	18	32	275	-243
703+50	70350	50	7	0	12	16	45	295	-250
704+00	70400	50	7	0	13	0	58	295	-238
704+50	70450	50	7	0	13	0	71	295	-225
705+00	70500	50	7	0	13	0	83	295	-212
705+43	70543	43	0	12	5	10	89	307	-219
708+44.56	70845	0	0	73	1	67	90	391	-301
708+50	70850	5	1	100	0	17	90	412	-323
708+97	70897	47	5	0	5	87	95	521	-426
709+00	70900	3	5	1	1	0	96	521	-426
709+12	70912	12	6	42	2	10	98	533	-435
709+22	70922	10	6	59	2	19	100	557	-456
709+37	70937	15	6	81	3	39	104	605	-502
709+47	70947	10	4	84	2	31	106	643	-538
709+50	70950	3	5	91	1	10	106	655	-549
709+62	70962	12	6	76	3	37	109	702	-593
710+00	71000	38	6	16	8	65	117	783	-666
710+50	71050	50	5	1	10	16	127	803	-676
710+54.90	71055	5	5	0	1	0	128	803	-676
711+00	71100	45	3	0	7	0	135	804	-669
				TOTAL	135	643			

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PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	EARTHWORK - CEDAR BEACH ROAD	SHEET 425	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 020306

PLOT DATE : 4/29/2019 3:58 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:15

WISDOT/CADDS SHEET 42

SILVER BEACH RD									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
905+50	90550	0	3	0	0	0	0	0	0
906+00	90600	50	4	0	6	0	6	0	6
906+28	90628	28	6	0	5	0	11	0	11
906+50	90650	22	6	1	5	0	16	1	15
906+96	90696	46	6	19	10	17	26	22	4
907+00	90700	4	6	18	1	3	27	25	2
907+21	90721	21	8	39	5	22	32	53	-21
907+46	90746	25	11	50	9	41	41	105	-64
907+50	90750	4	10	53	2	8	42	114	-72
908+00	90800	50	9	99	18	141	60	290	-230
908+09	90809	9	9	109	3	35	63	333	-270
908+34	90834	25	7	88	8	91	71	448	-376
908+50	90850	16	6	70	4	47	75	506	-431
908+59	90859	9	9	65	2	23	78	535	-457
909+00	90900	41	9	0	13	50	91	597	-506
909+50	90950	50	7	0	14	0	105	597	-492
910+00	91000	50	9	0	14	0	120	597	-477
910+50	91050	50	8	0	16	0	135	597	-462
911+00	91100	50	9	0	15	0	151	597	-447
911+50	91150	50	10	0	17	0	168	597	-429
912+00	91200	50	3	8	12	8	180	607	-427
912+11.56	91212	12	1	49	1	12	181	622	-442
912+23	91223	11	0	13	0	13	181	639	-458
915+34.22	91534	0	0	21	1	76	182	734	-552
915+43.18	91543	9	1	111	0	22	182	761	-579
915+50	91550	7	1	53	0	21	182	787	-605
916+00	91600	50	4	2	5	51	187	851	-664
916+50	91650	50	7	0	10	2	197	853	-655
917+00	91700	50	6	0	12	0	209	853	-644
917+50	91750	50	6	0	10	0	219	853	-634
918+00	91800	50	7	0	12	0	231	854	-622
918+50	91850	50	6	1	13	1	244	854	-611
918+75	91875	25	5	20	5	10	249	866	-617
918+96	91896	21	8	27	5	18	254	889	-635
919+00	91900	4	8	31	1	4	256	895	-639
919+00	91900	0	0	0	0	0	256	895	-639
919+21	91921	21	8	23	3	9	259	906	-647
919+46	91946	25	7	19	7	19	266	930	-664
919+50	91950	4	7	18	1	3	267	933	-666
920+00	92000	50	6	1	12	18	278	956	-678
920+39	92039	39	2	0	6	1	284	957	-673
920+50	92050	11	3	0	1	0	285	958	-672
921+00	92100	50	3	0	5	0	291	958	-667
				TOTAL	291	766			

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PROJECT NO:1450-02-70	HWY:IH 43	COUNTY:OZAUKEE	EARTHWORK - SILVER BEACH ROAD	SHEET 426	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 020306

PLOT DATE : 4/29/2019 3:58 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1:15

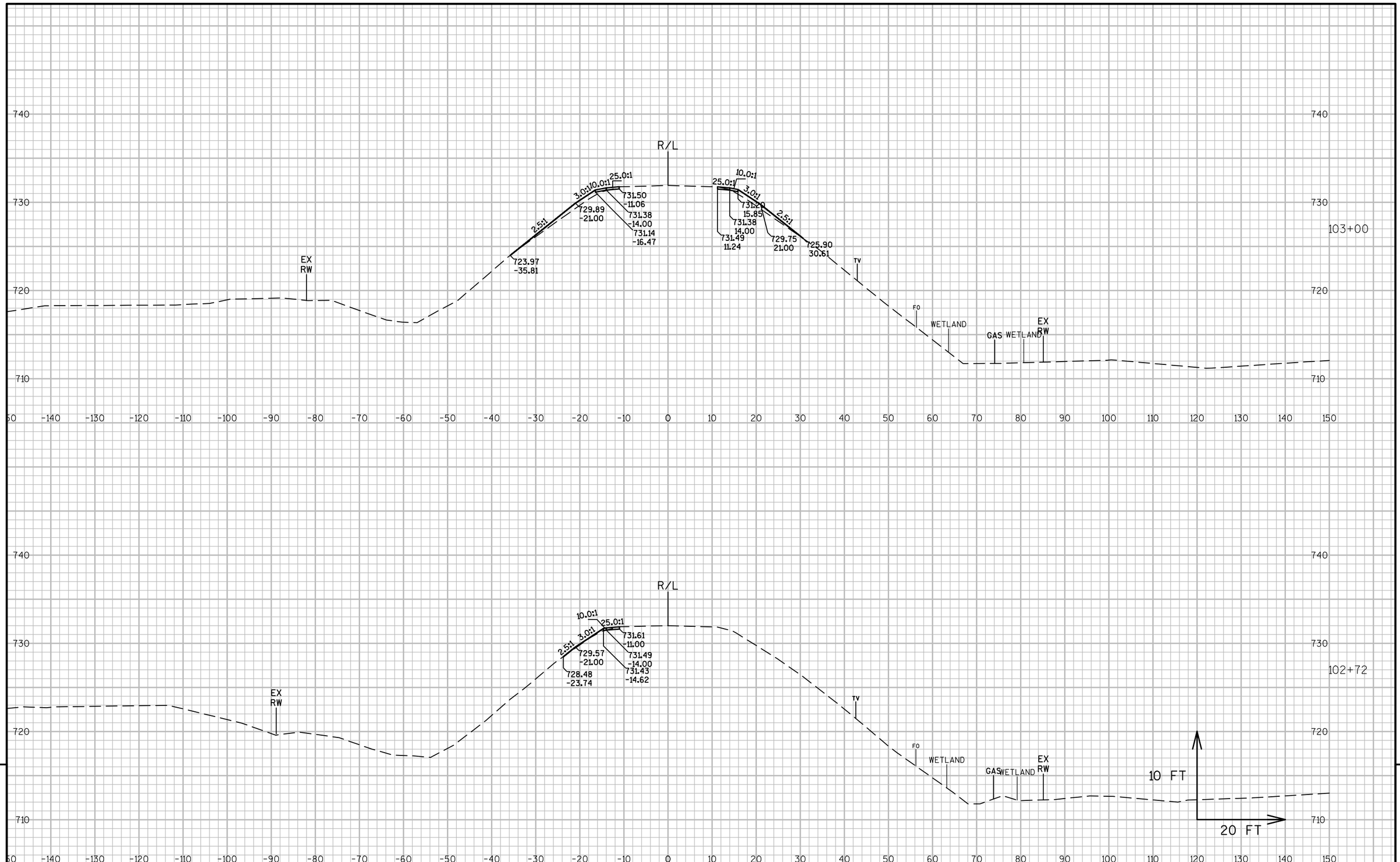
WISDOT/CADDS SHEET 42

CTH W									
			AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY, ADJUSTED)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS
STATION	REAL STATION	DISTANCE					1.00	1.25	ORDINATE
352+54	35254	0	0	1	0	0	0	0	0
353+00	35300	46	0	8	0	8	0	10	-10
353+08	35308	8	0	0	0	1	0	11	-11
				TOTAL	0	9			

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PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	EARTHWORK - CTH W	SHEET 427	E



9

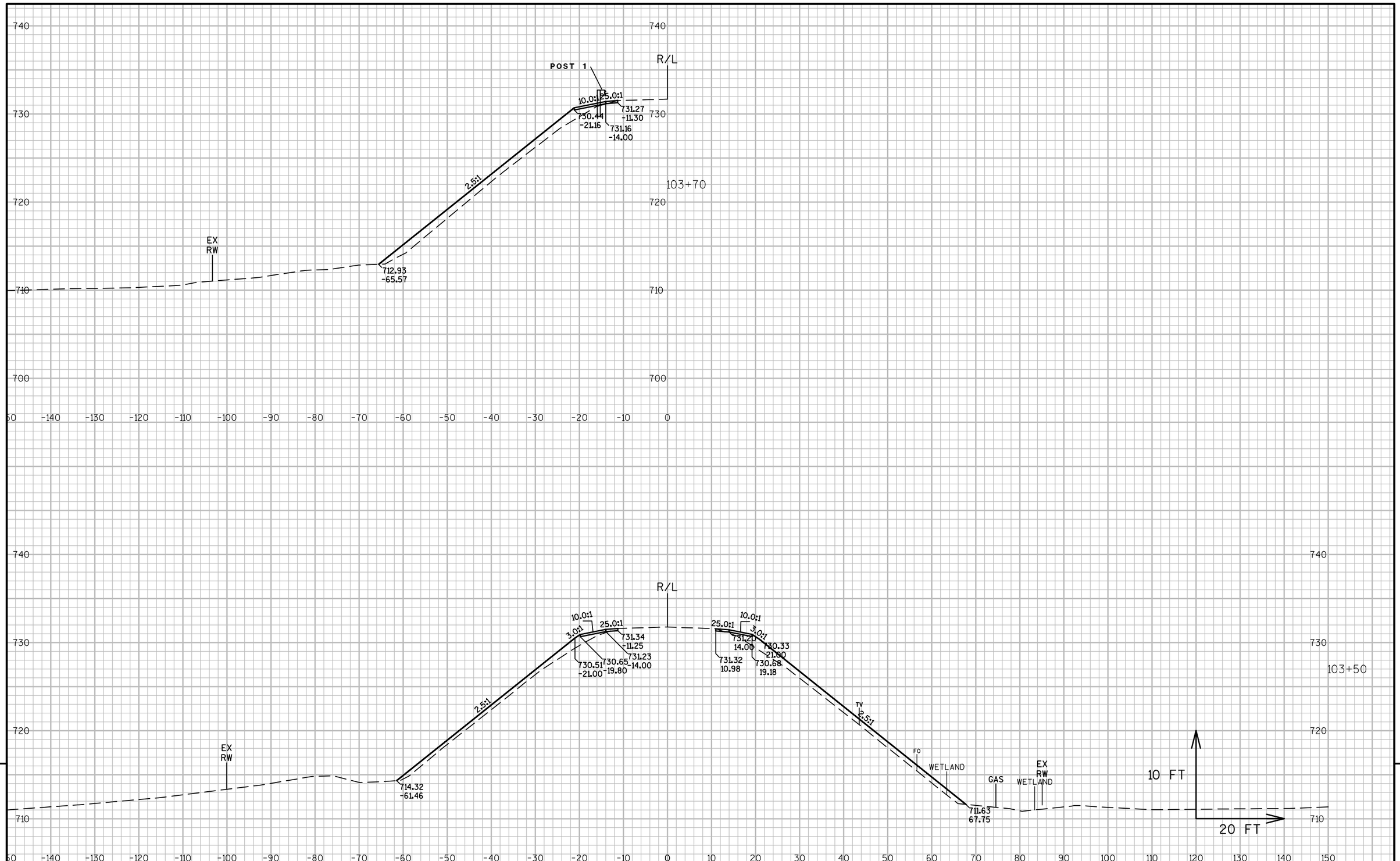
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 428	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (1)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

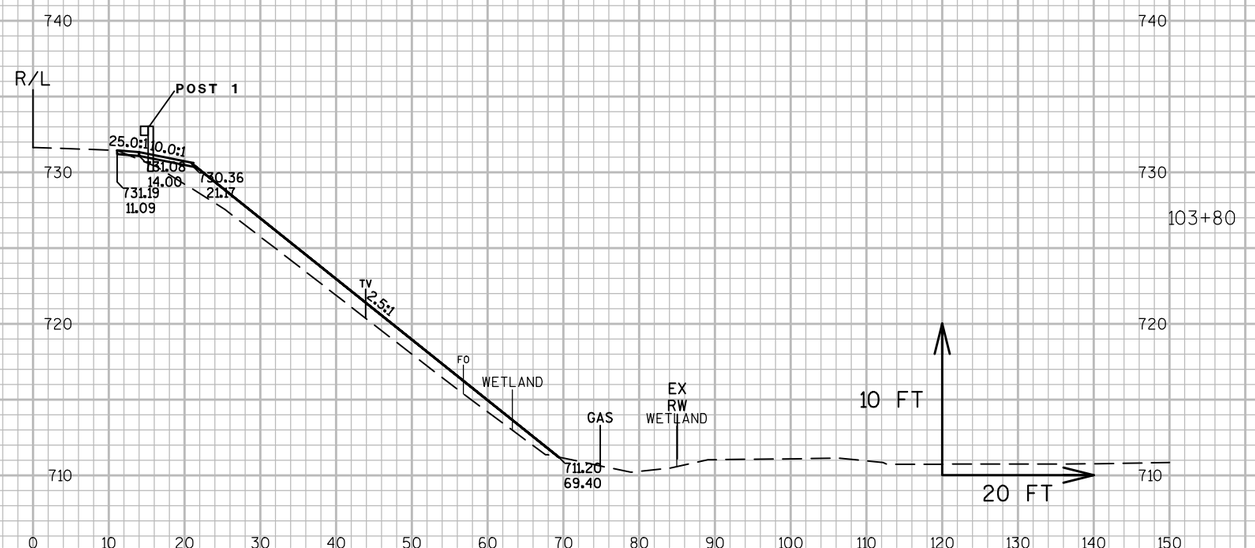
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 429	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (2)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



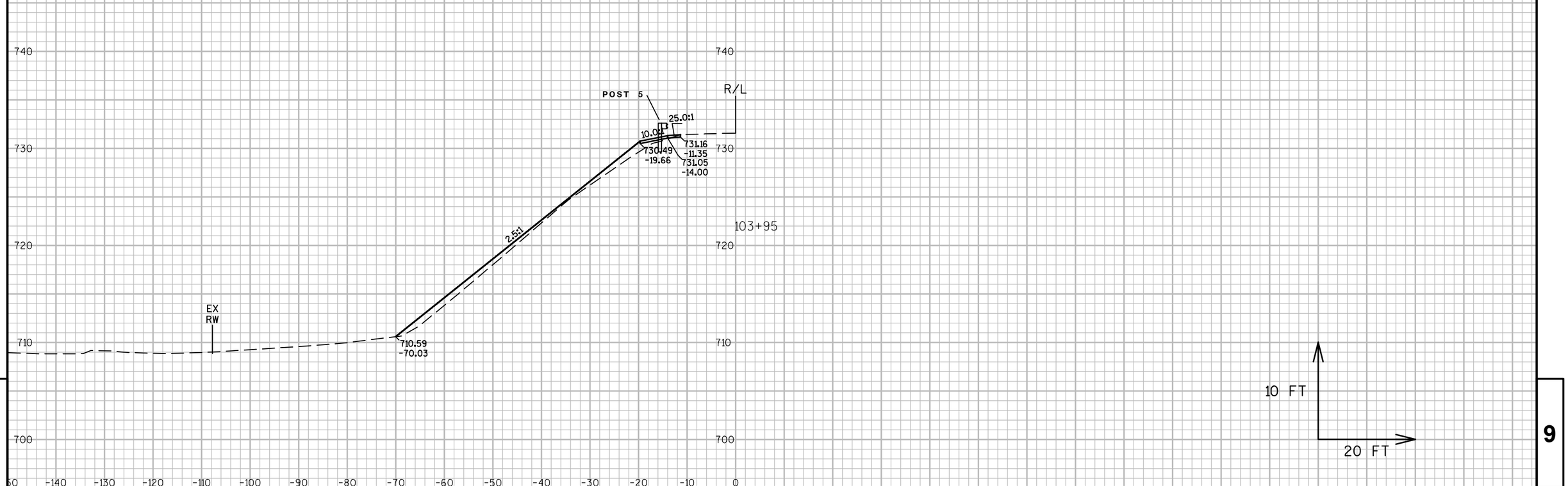
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9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 430	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (3)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



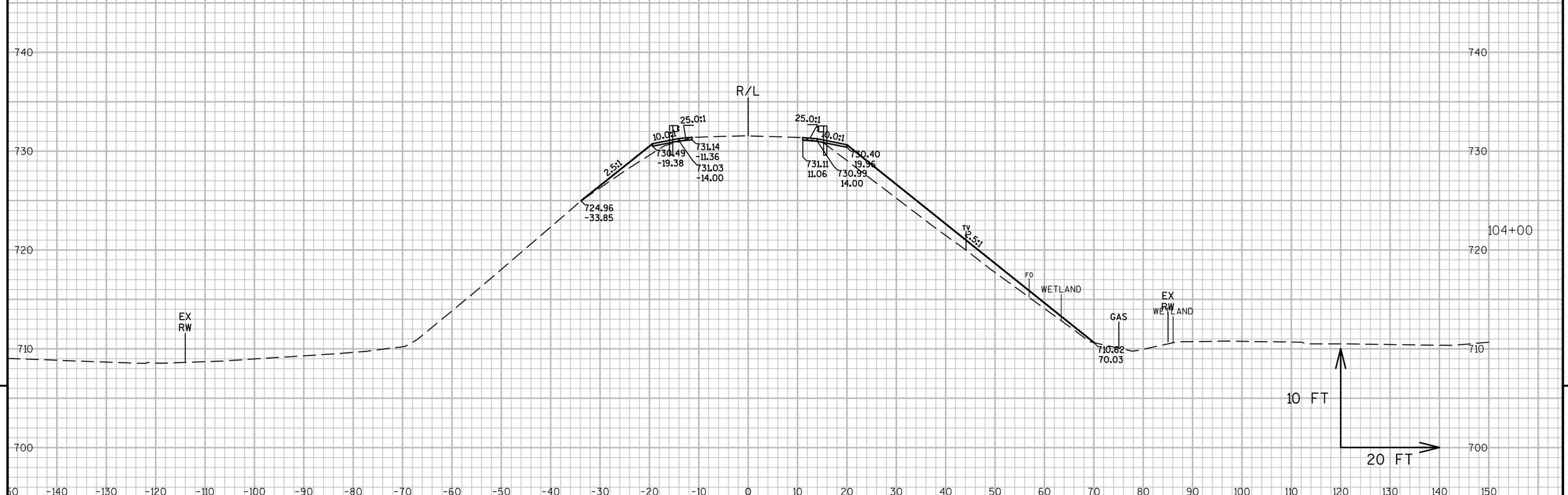
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9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 431	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (4)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



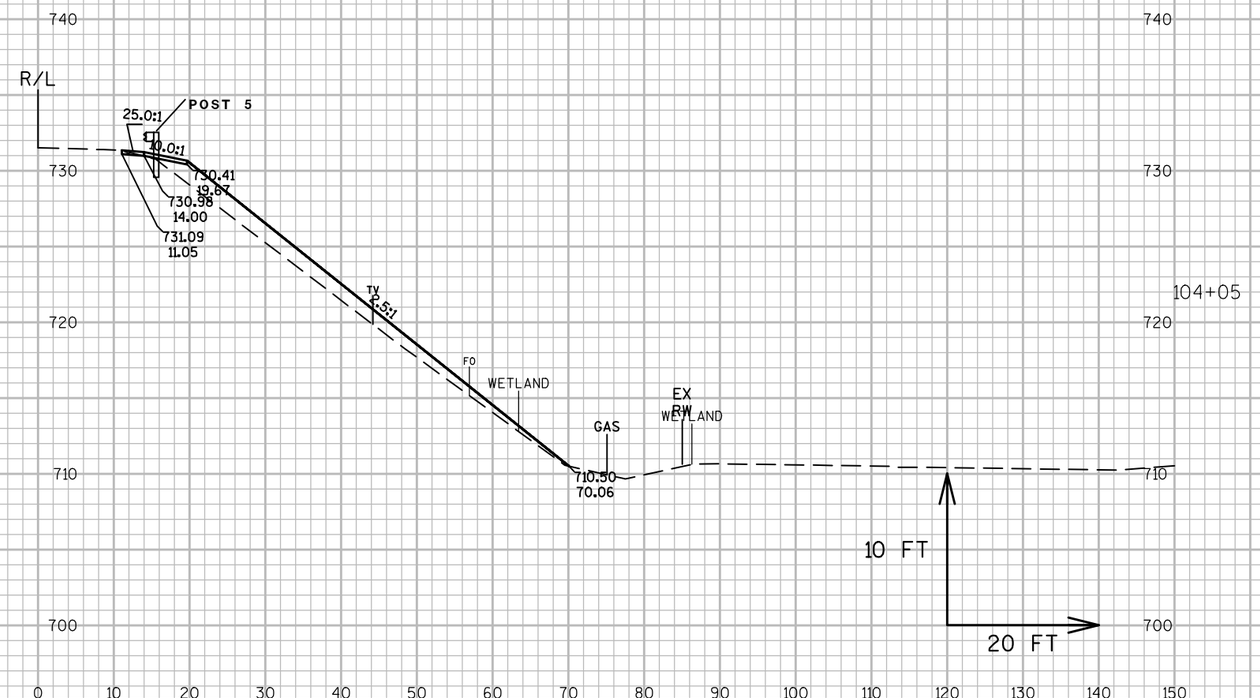
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 432 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (5)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

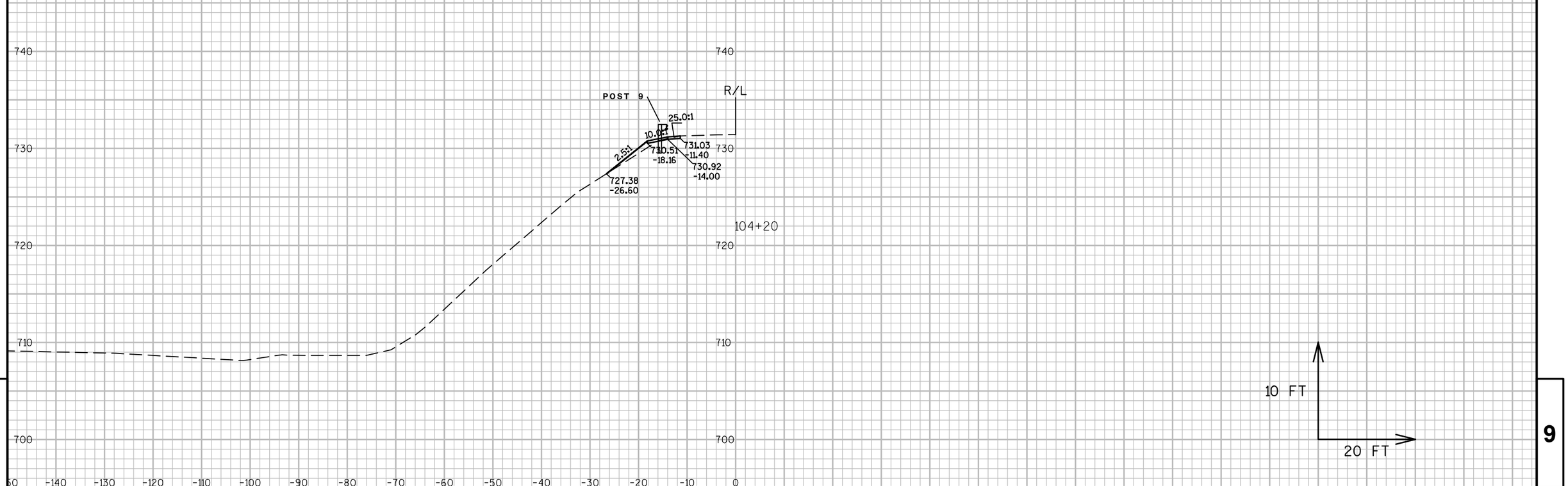
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 433	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (6)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

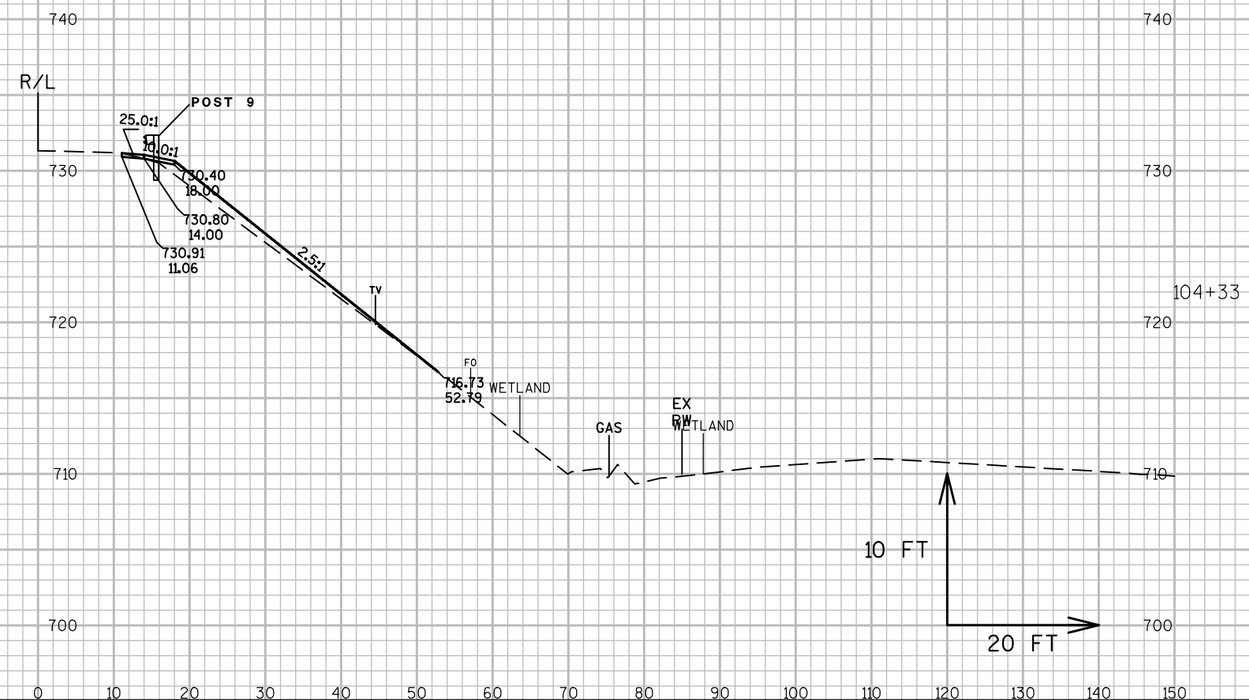
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 434	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (7)

PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

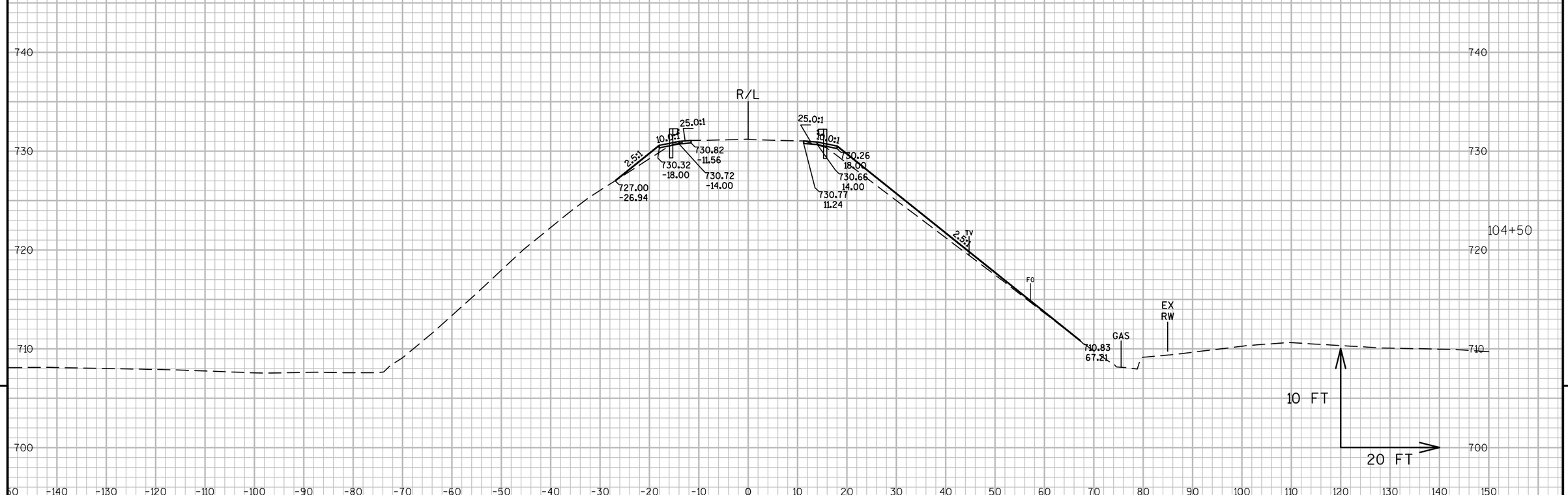
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 435	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (8)

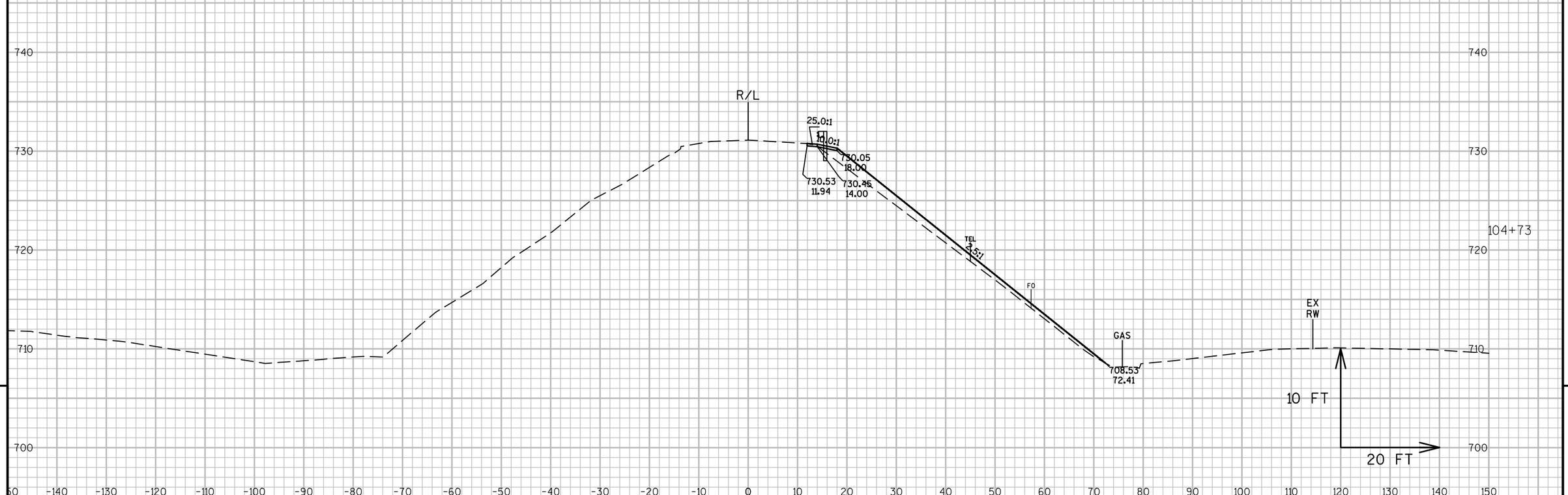
PLOT DATE : 3/1/2019 10:05 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



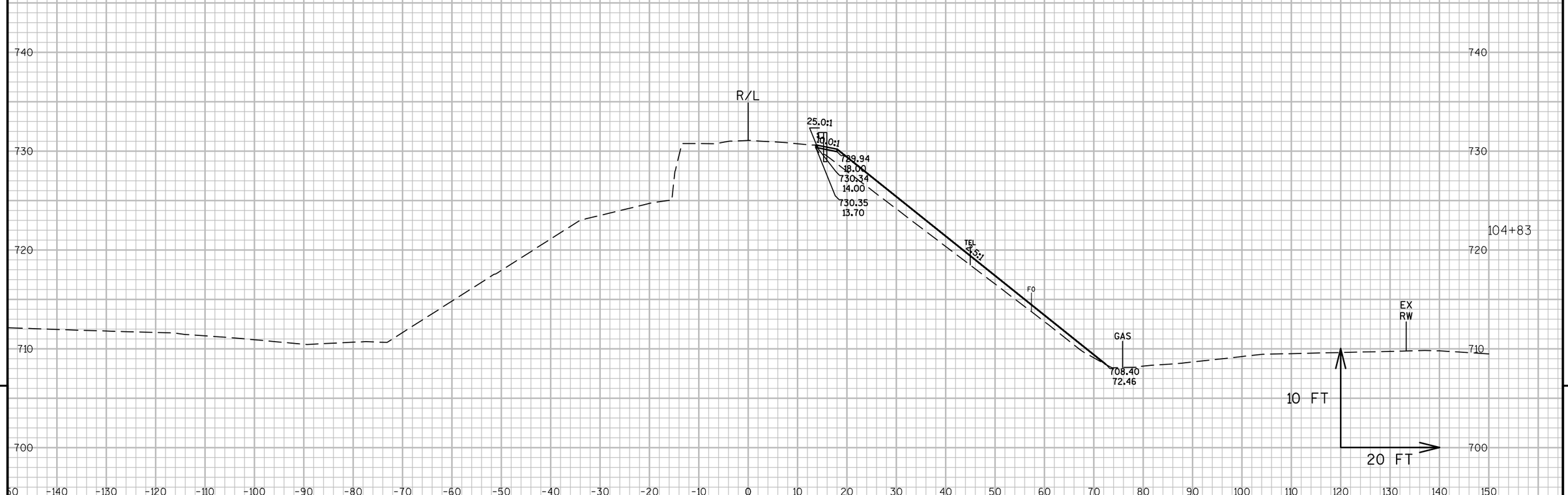
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 436 E



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 437 E



9

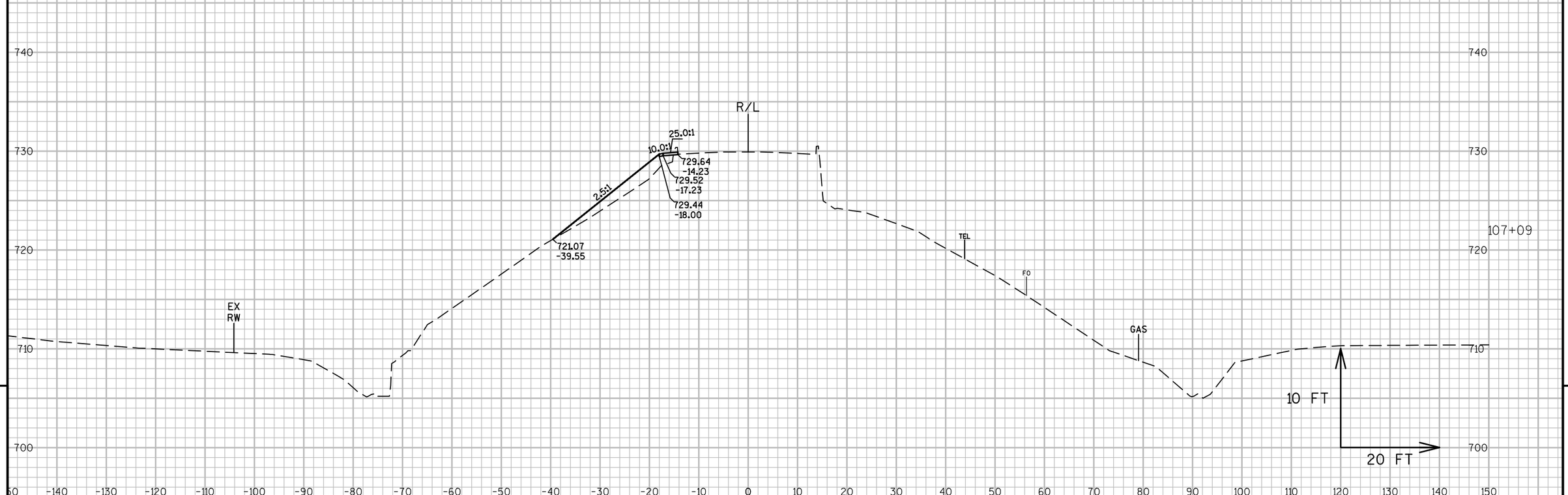
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 438	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (11)

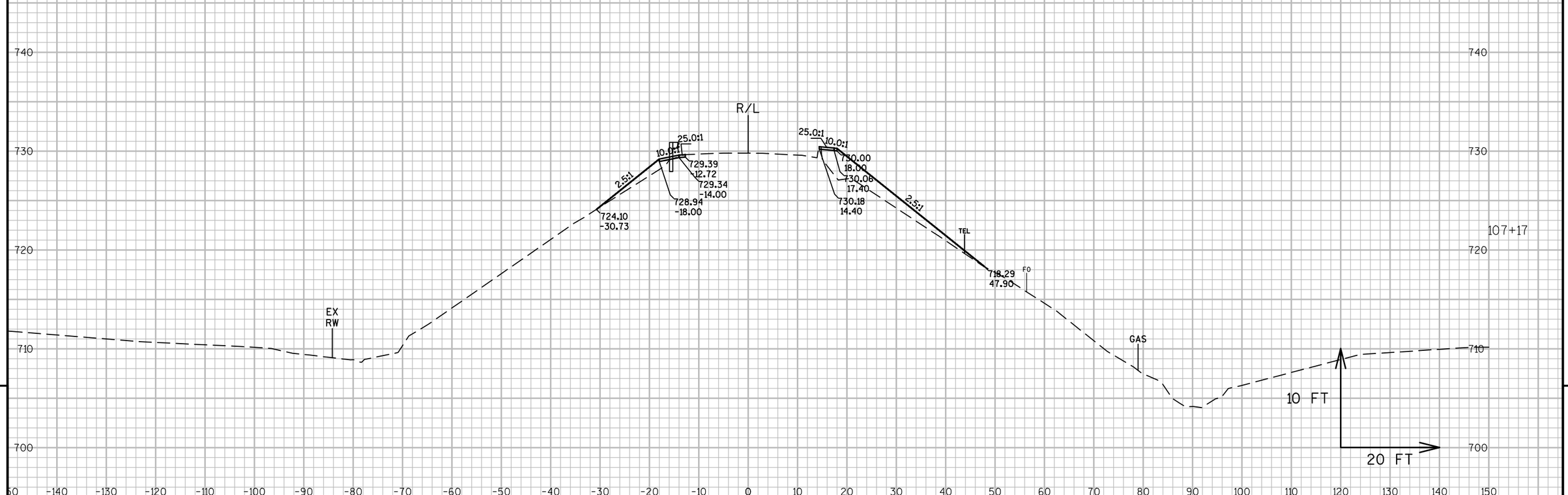
PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 439 E

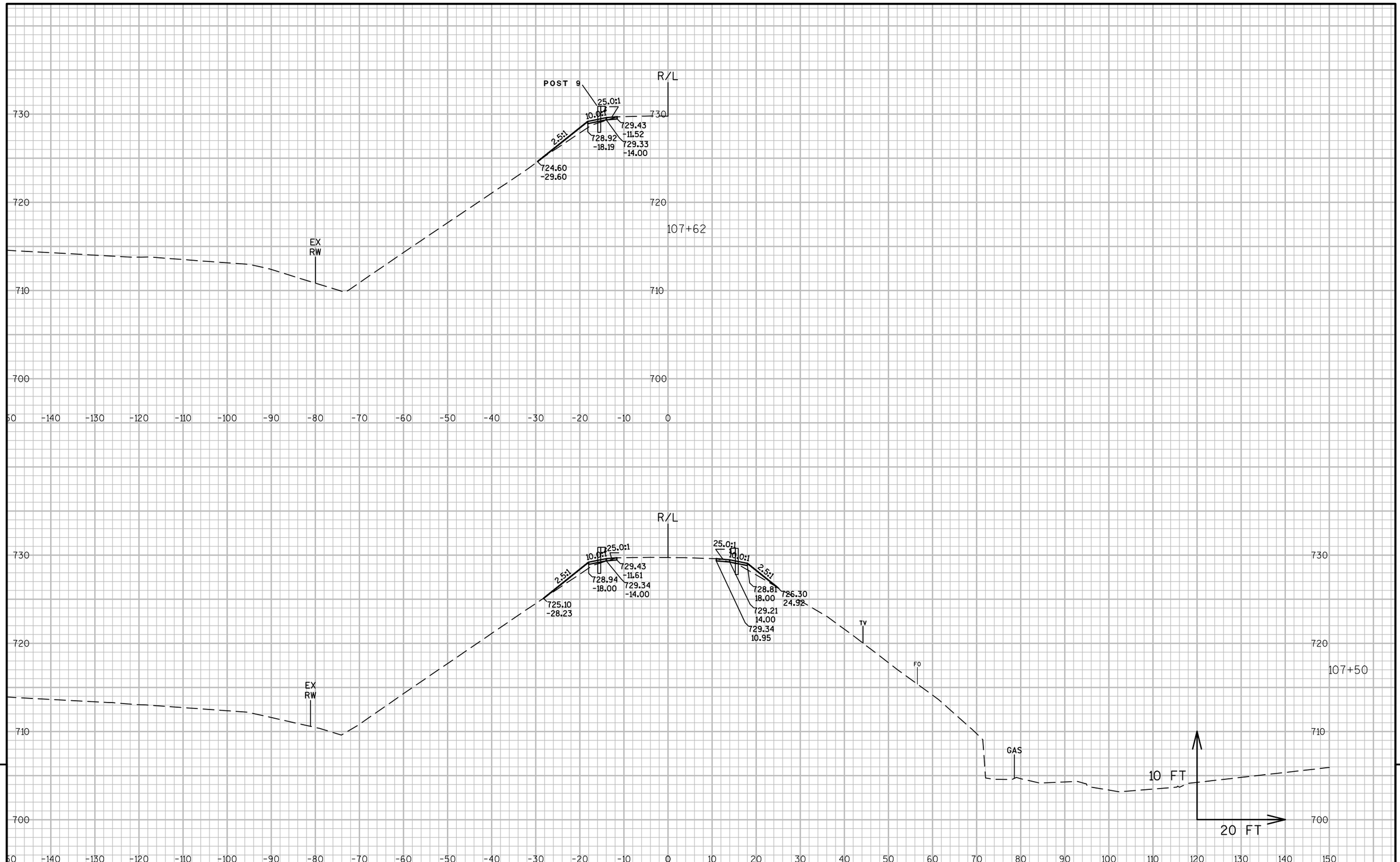


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 440 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (13)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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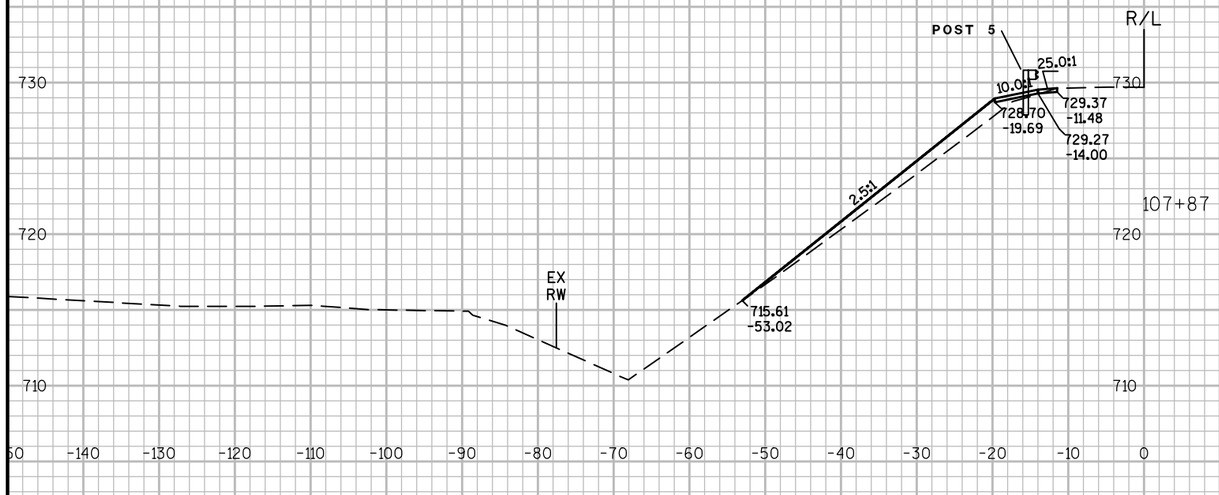
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 441	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (14)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





9

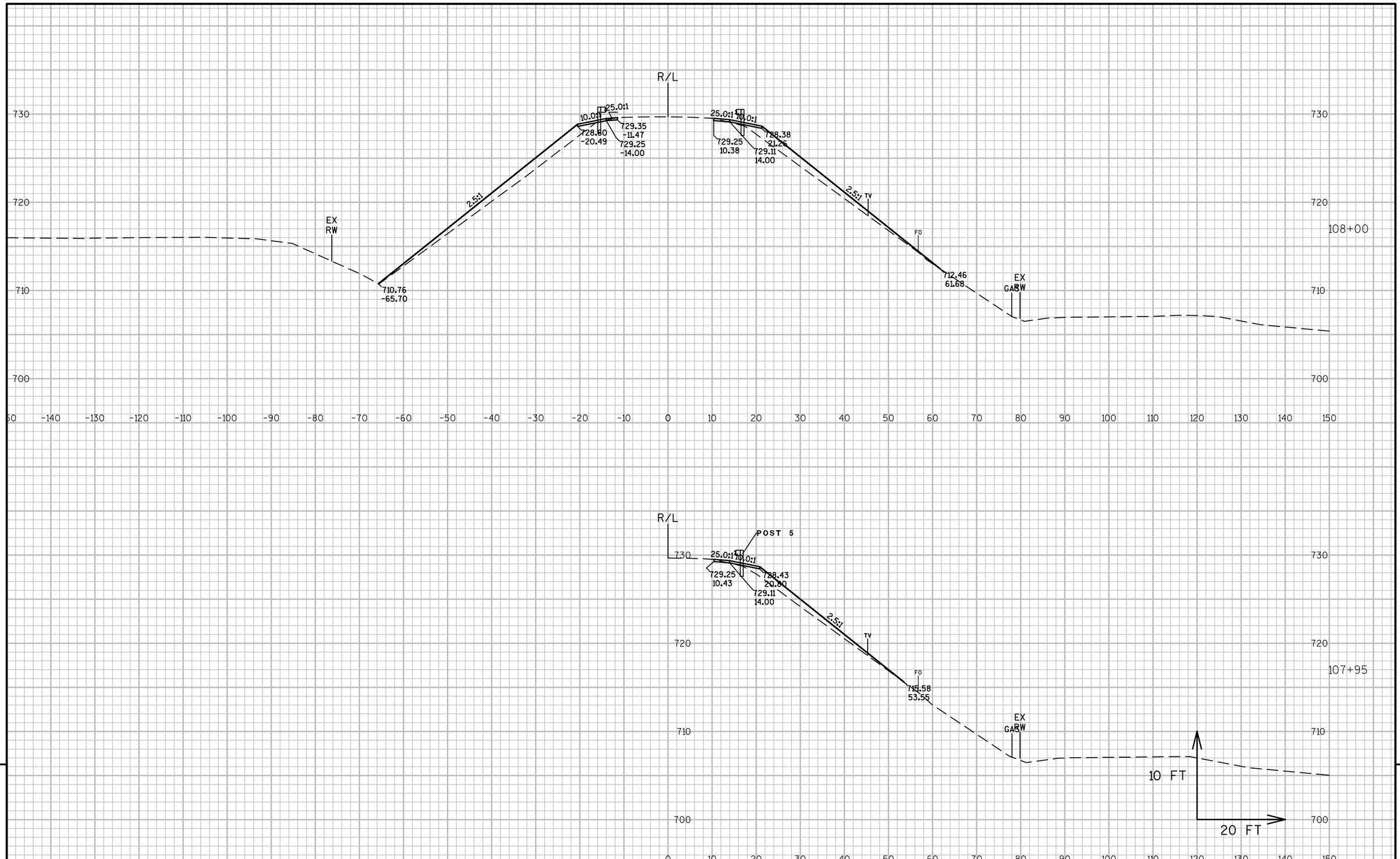
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 442	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (15)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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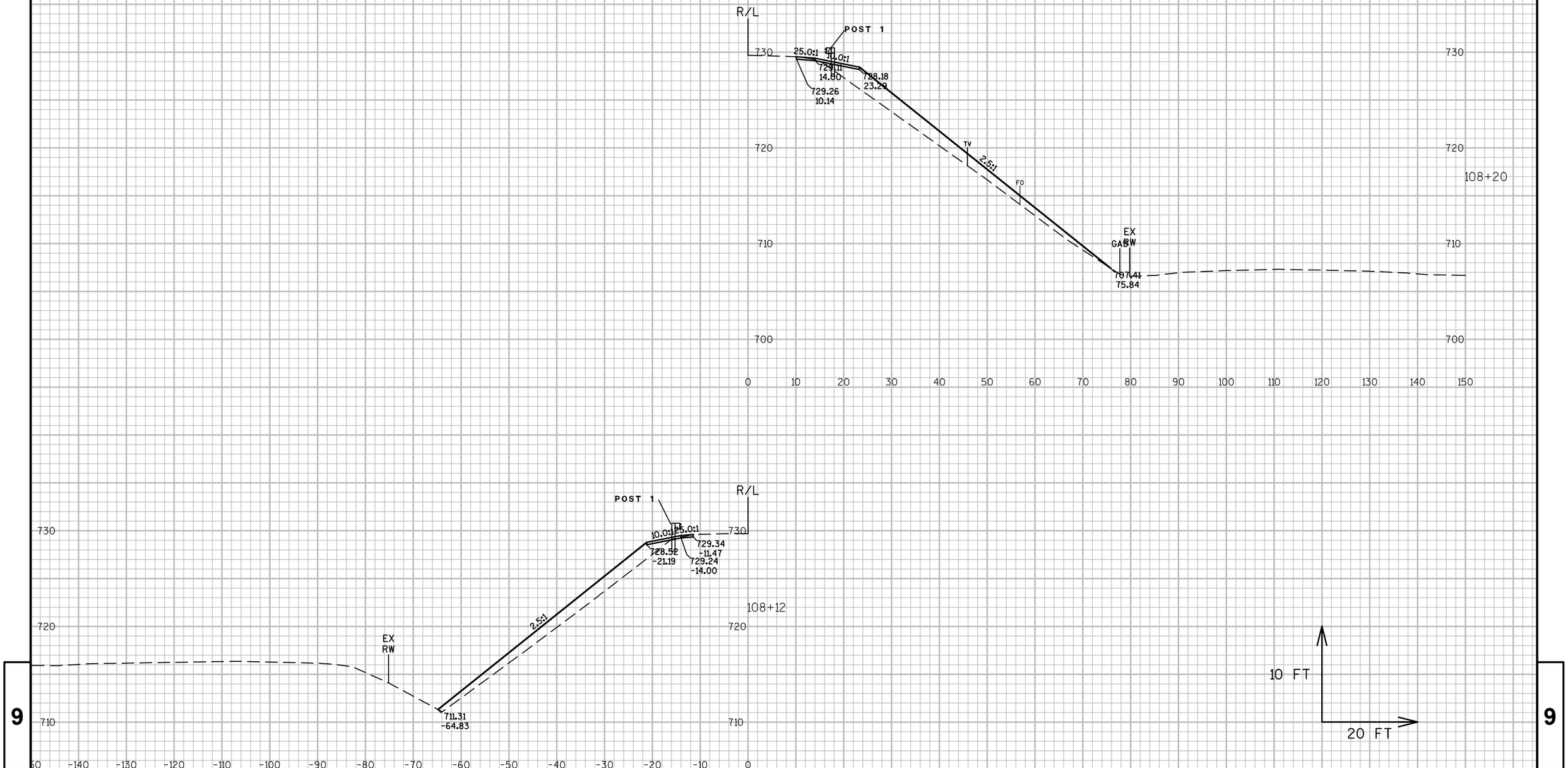
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 443	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (16)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



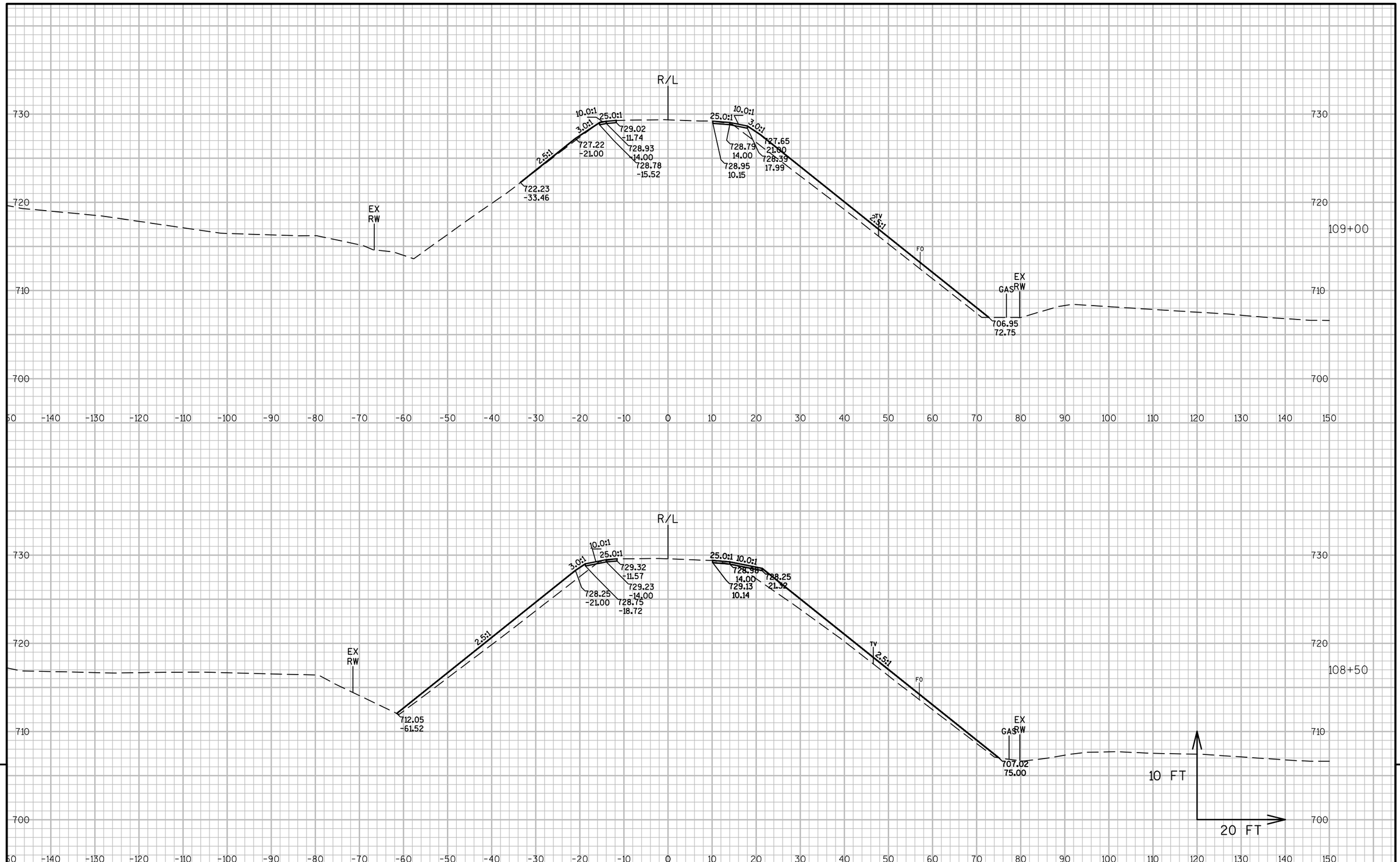
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 444	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (17)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



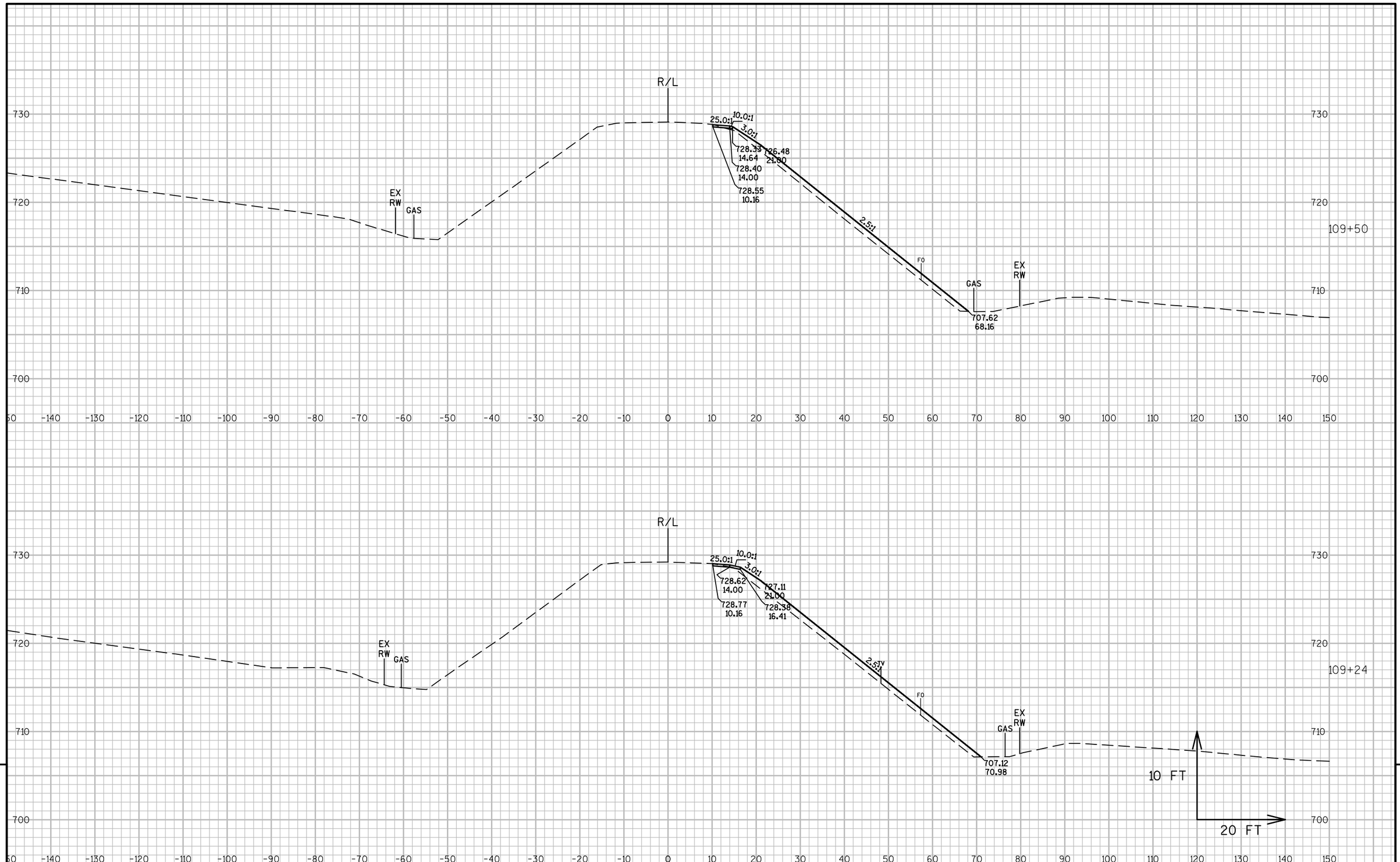
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 445	E

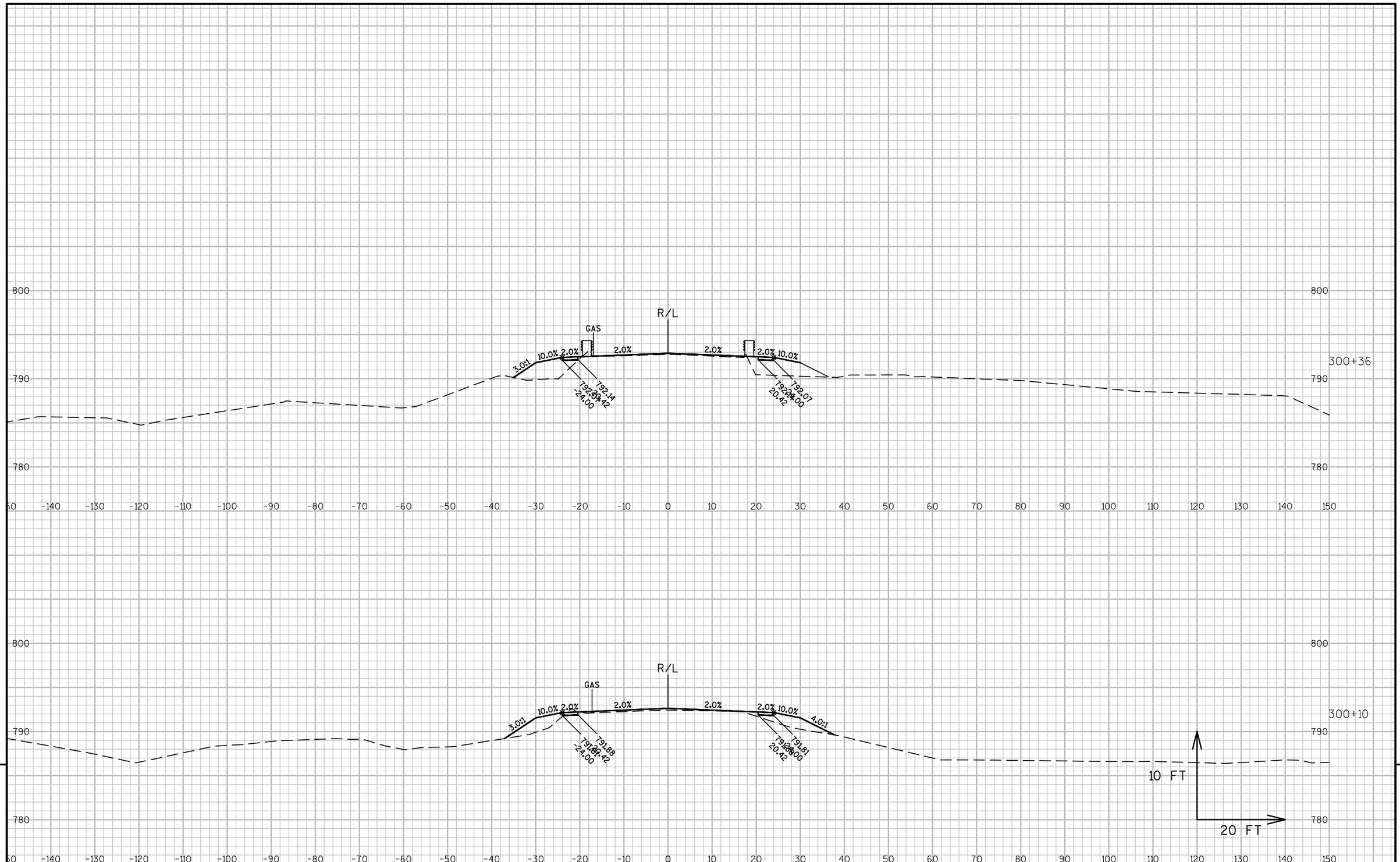
FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 090202_XS - SECTION SHEET - (18)

PLOT DATE : 3/1/2019 10:06 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ARROWHEAD ROAD	SHEET 446 E



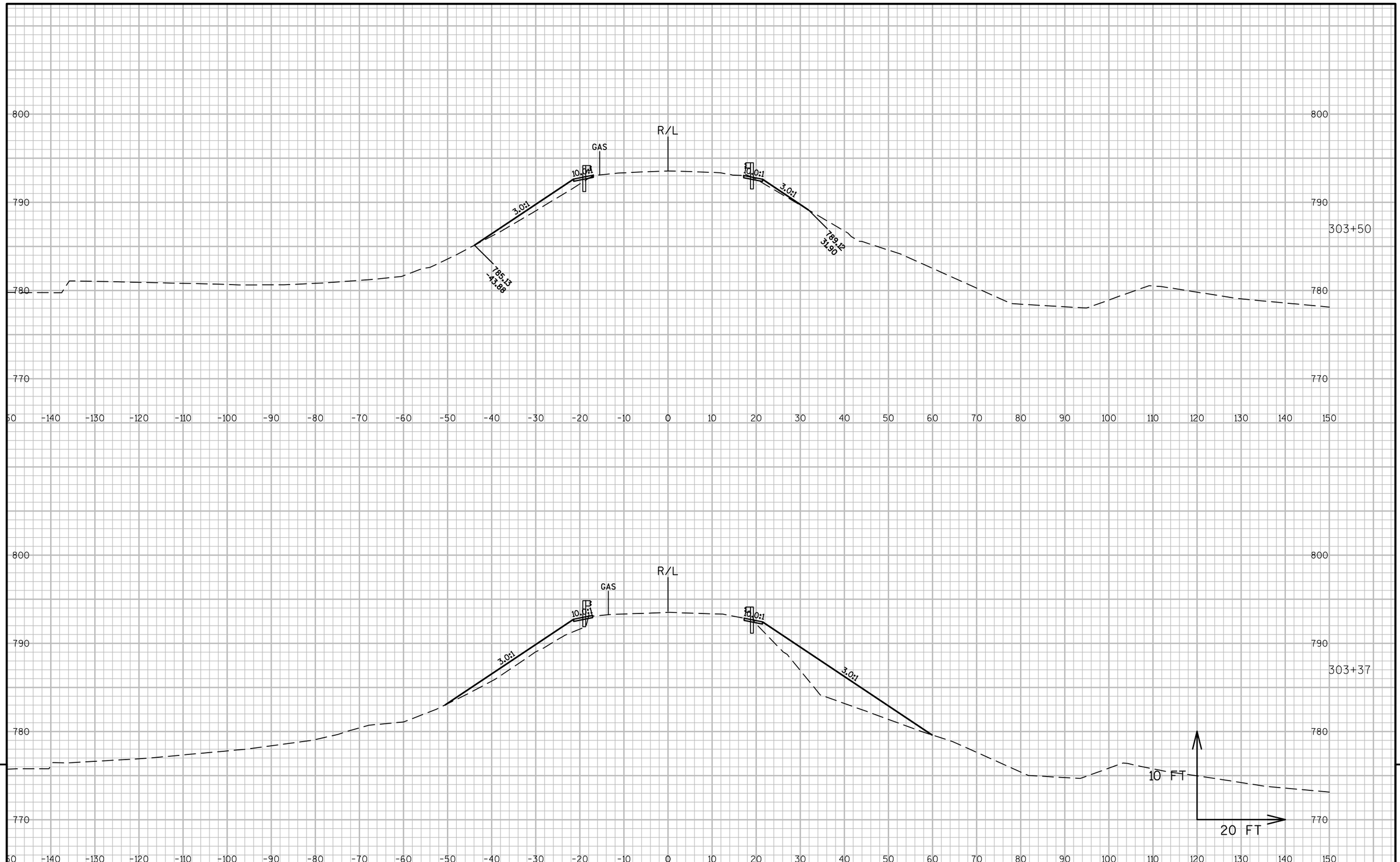
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PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 447	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (26)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



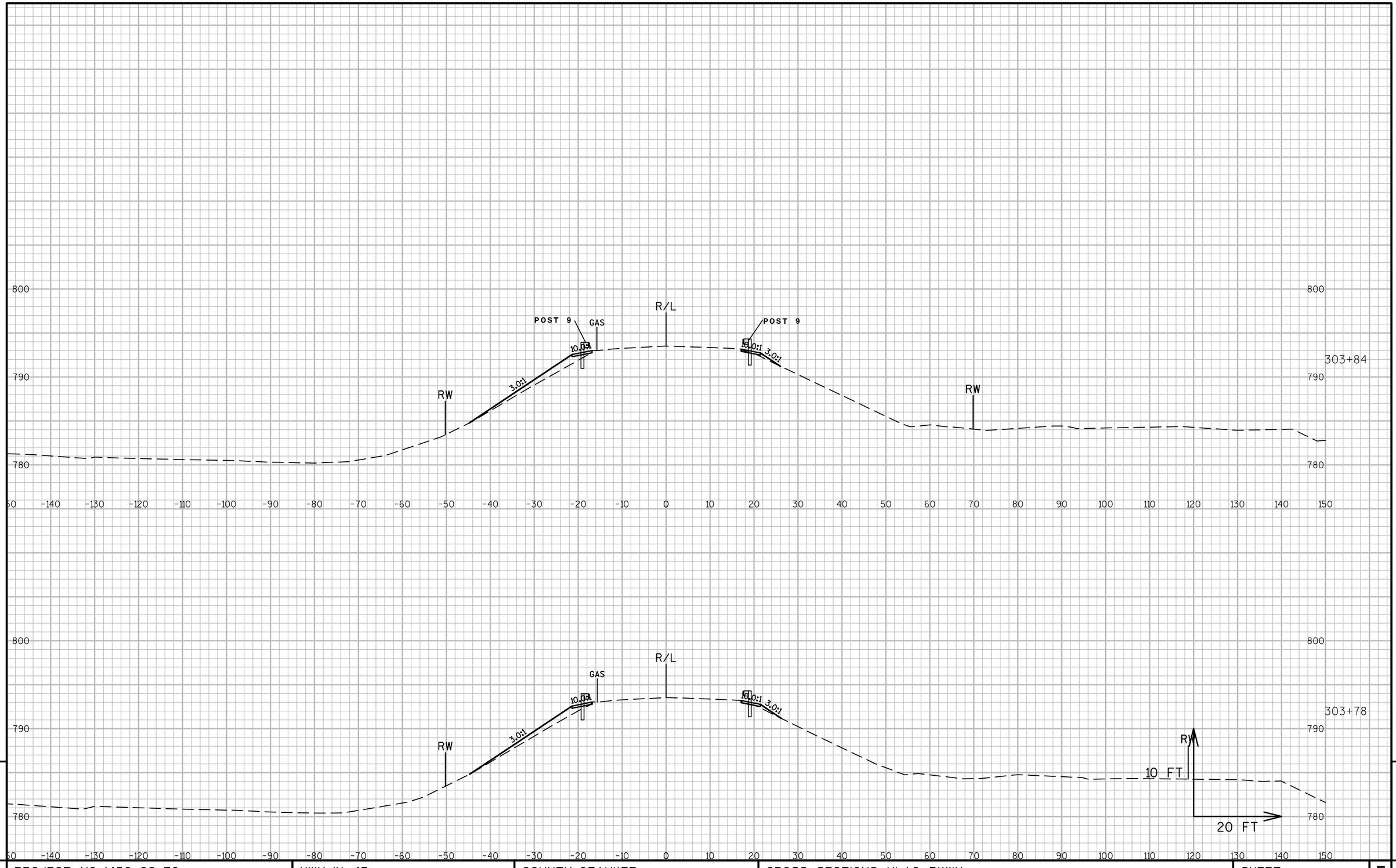
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 448	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (27)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



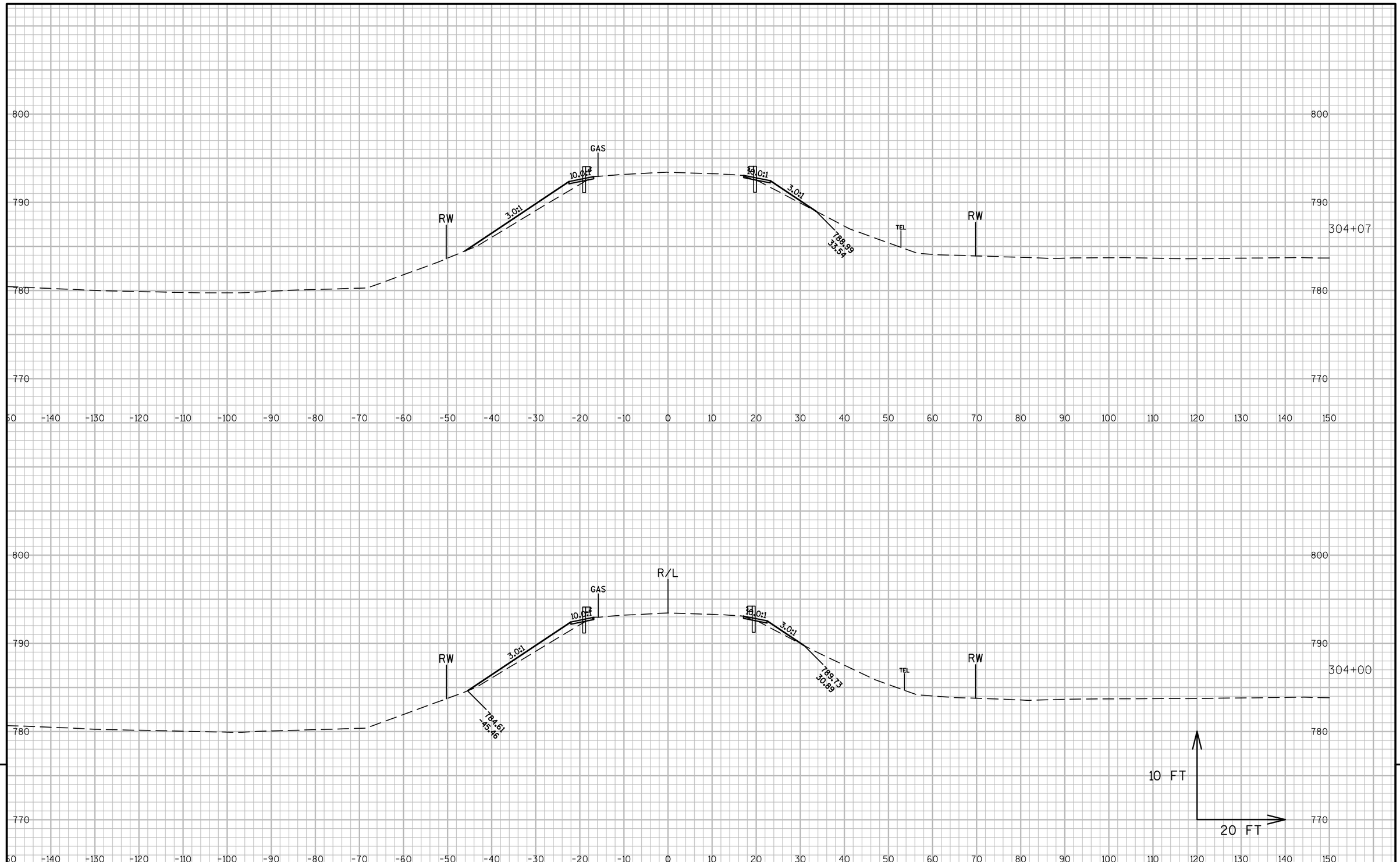
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PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 449	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (28)

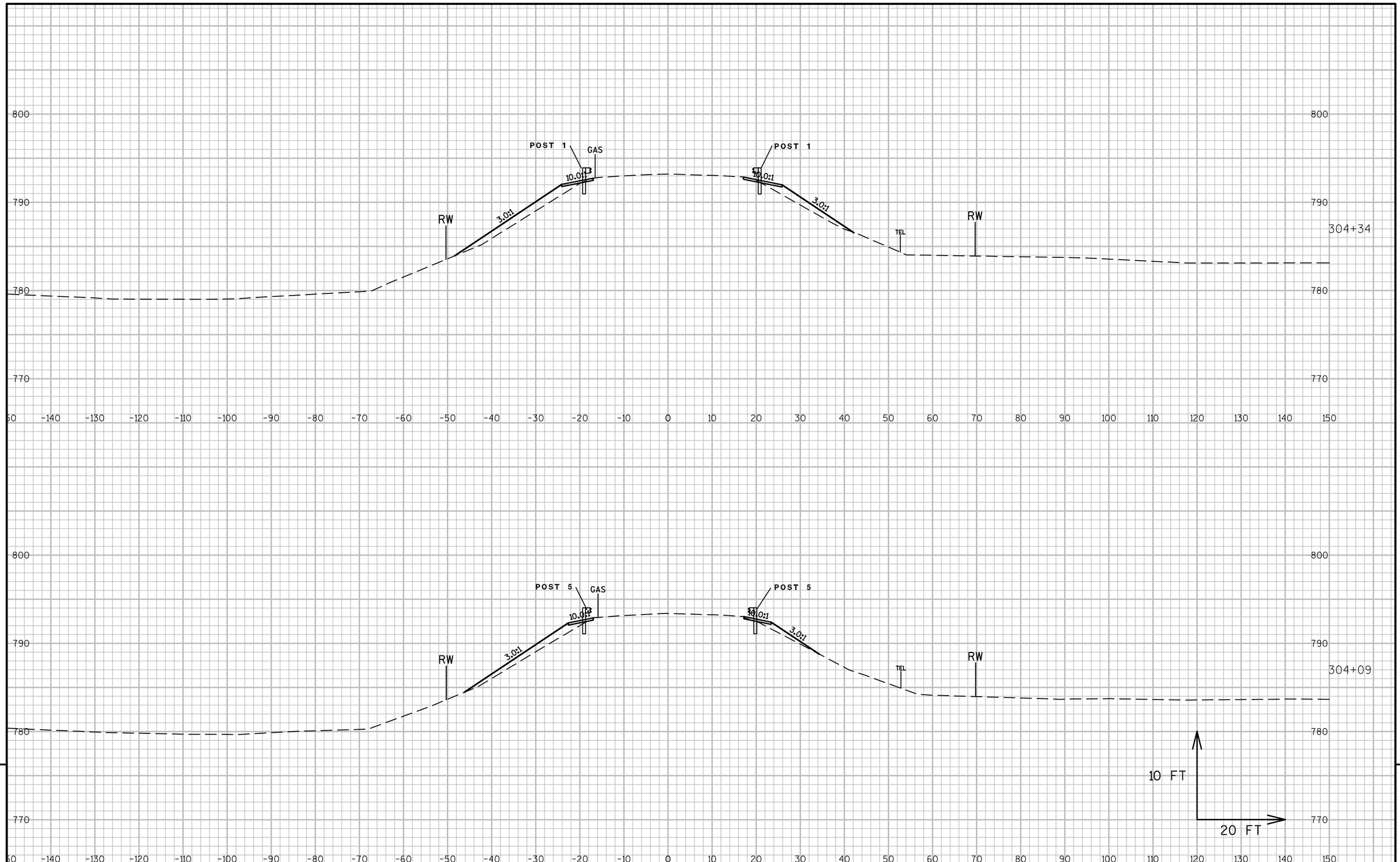
PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 450	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (29)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



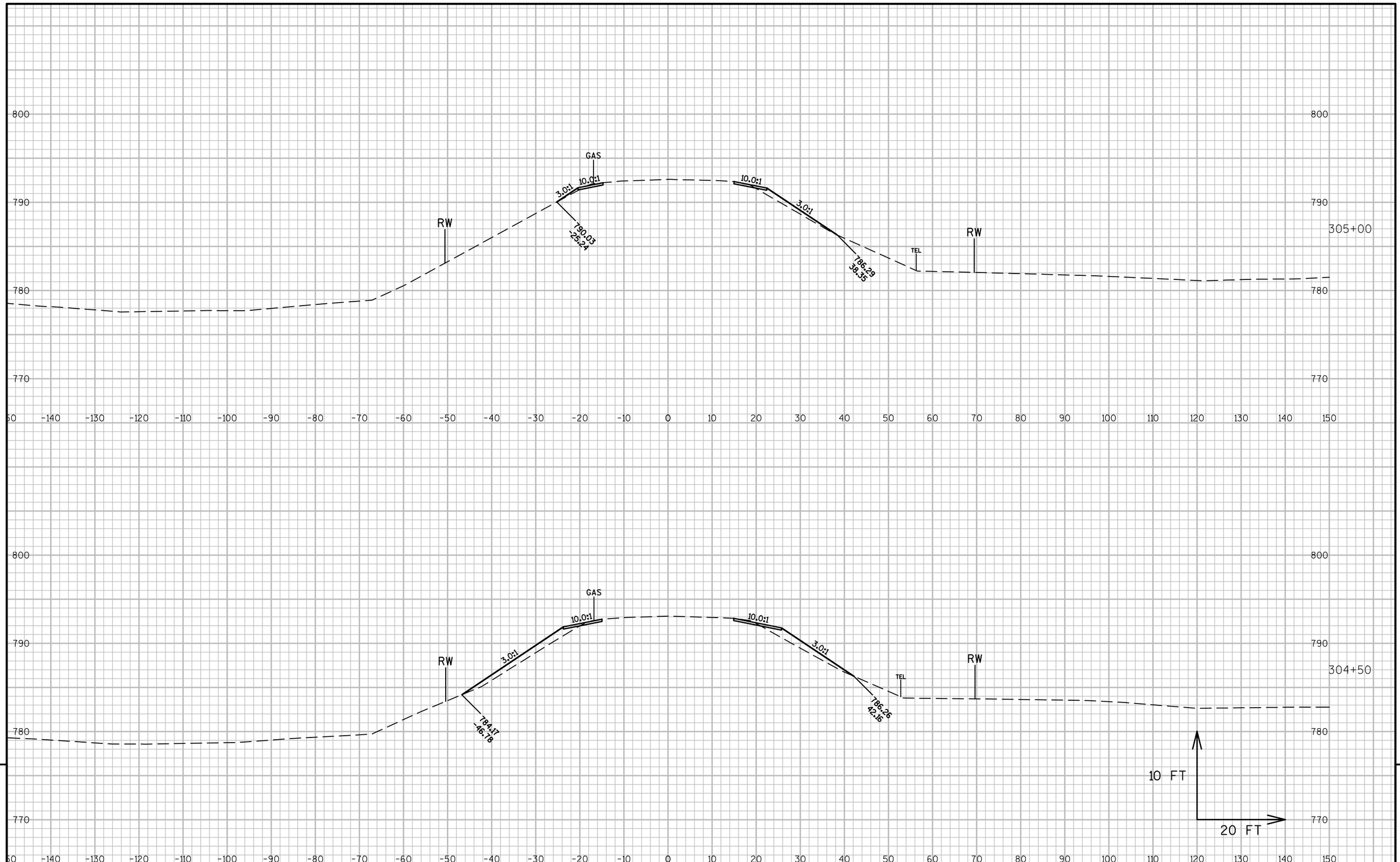
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 451	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (30)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

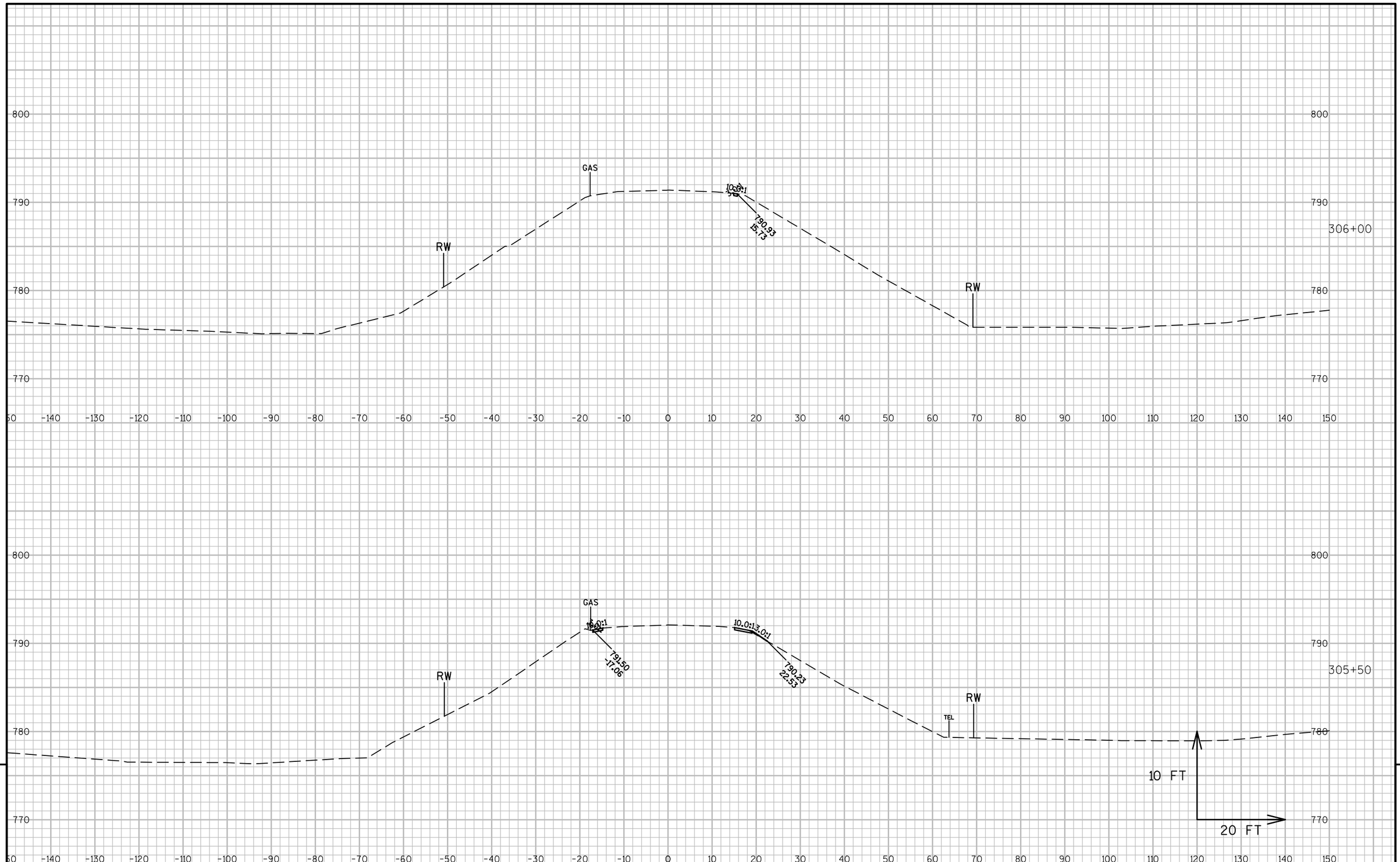
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 452	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (31)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

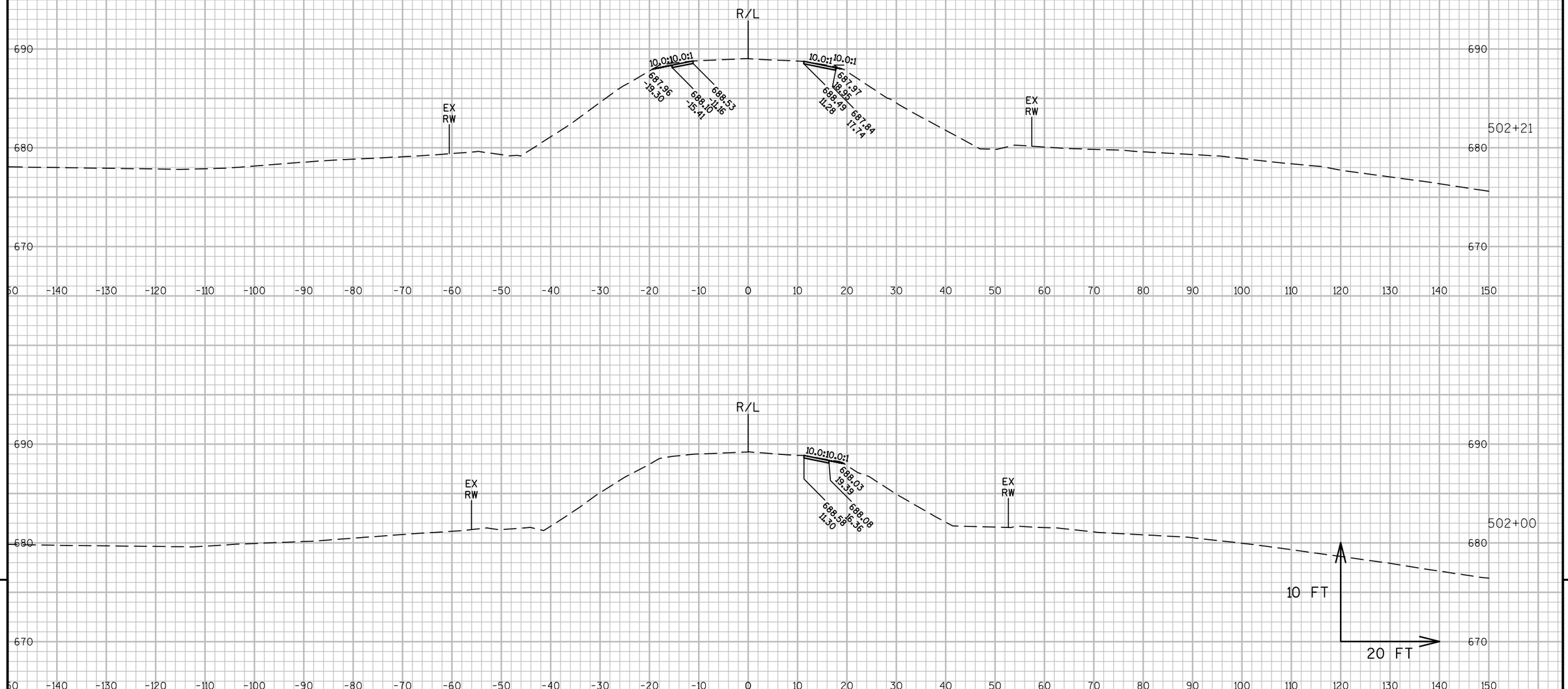


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: ULAO PKWY	SHEET 453	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090204_XS.DWG
LAYOUT NAME - 090204_XS - SECTION SHEET - (32)

PLOT DATE : 4/8/2019 12:44 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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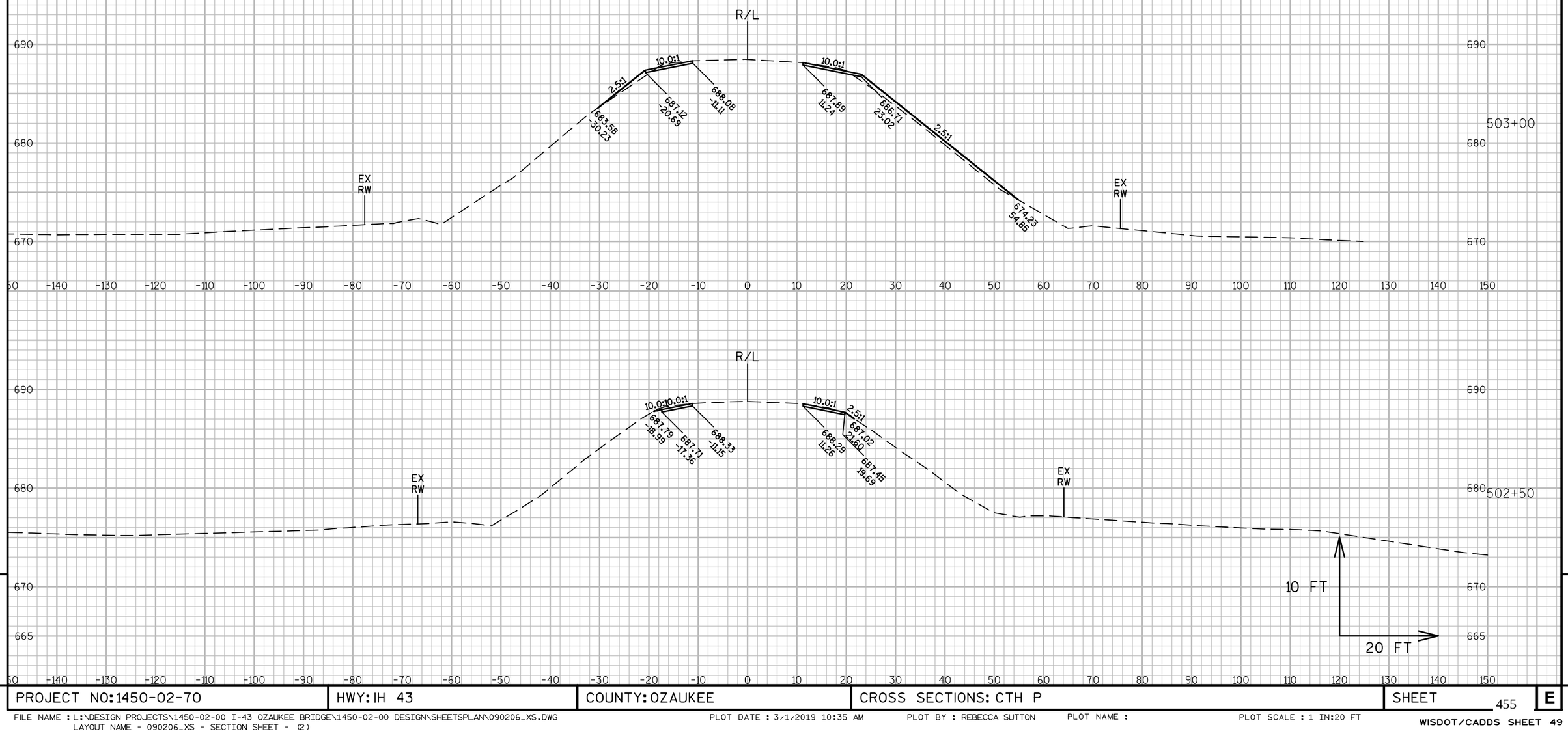
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 454	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (1)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

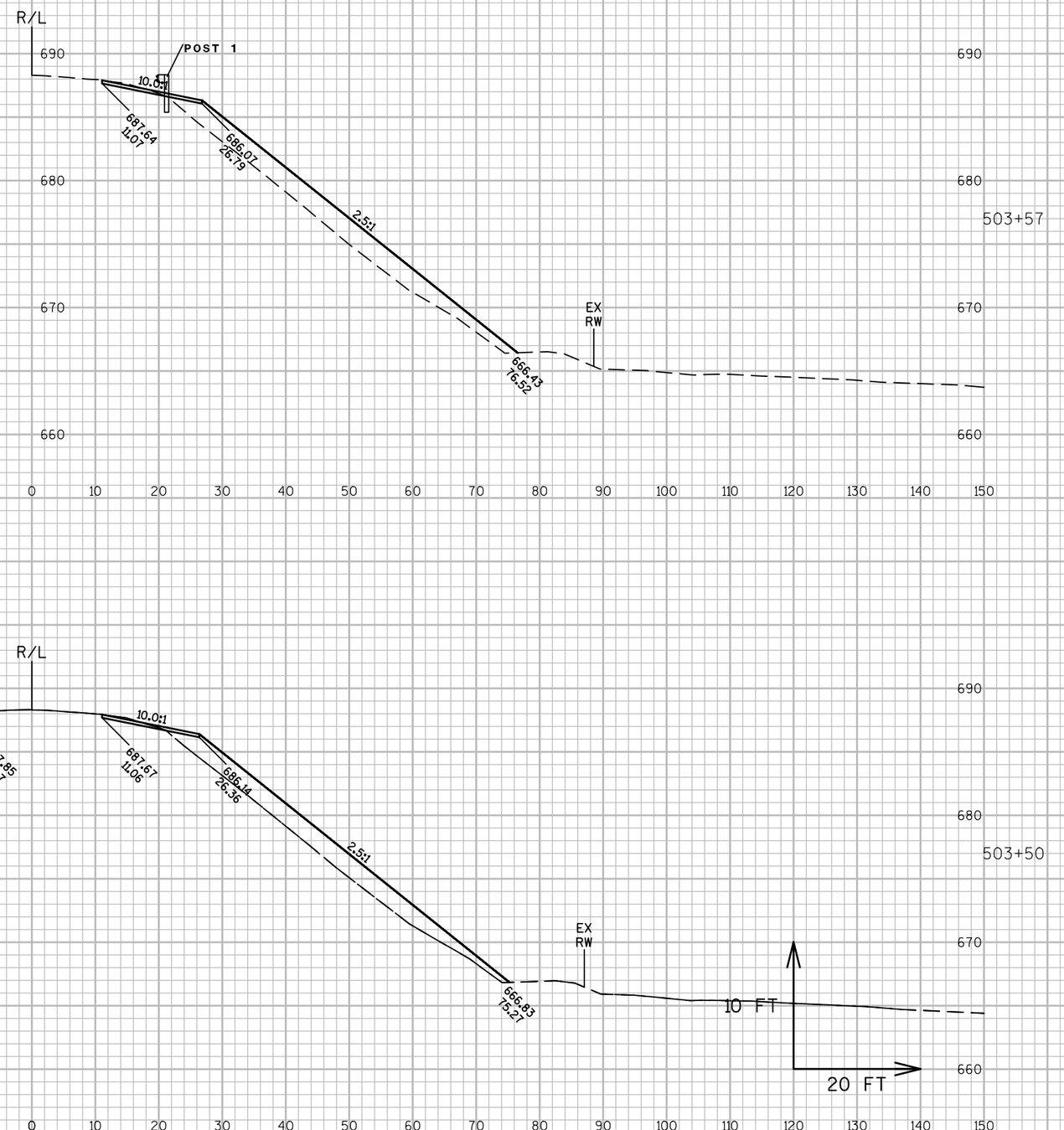


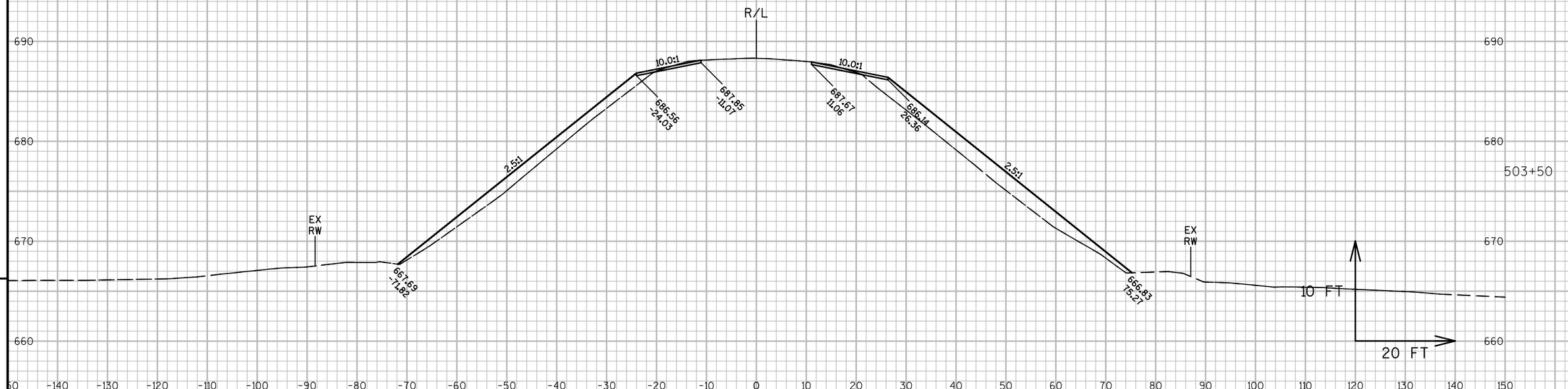
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 455	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (2)
PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





9

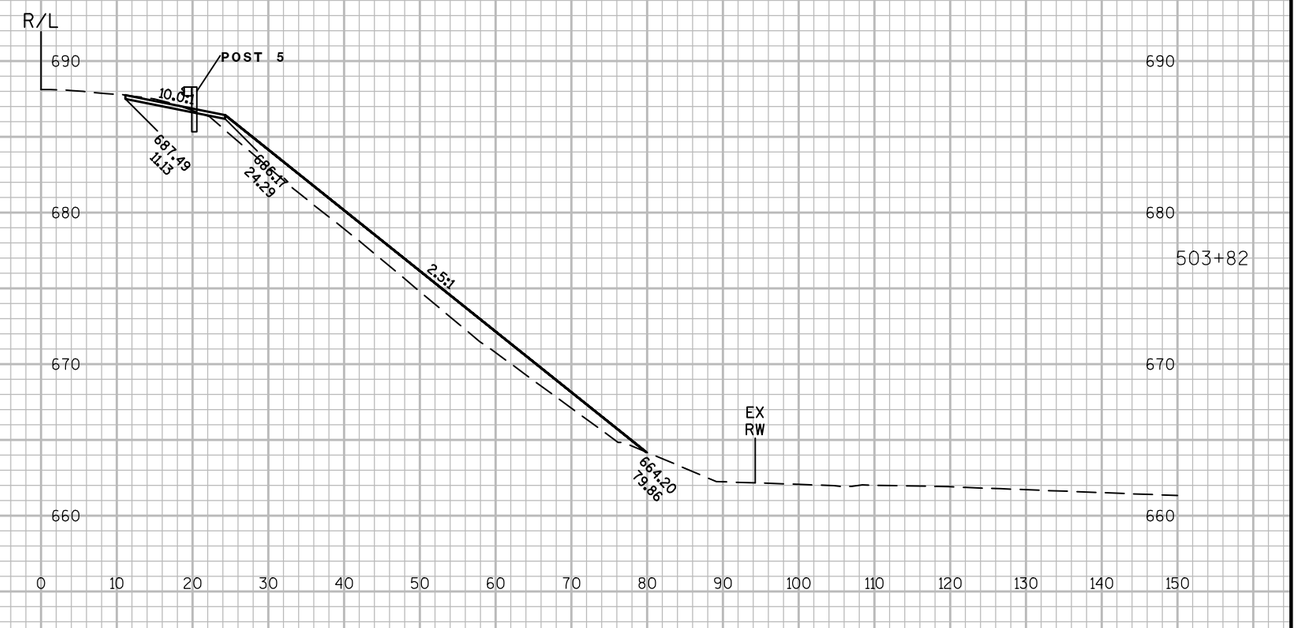
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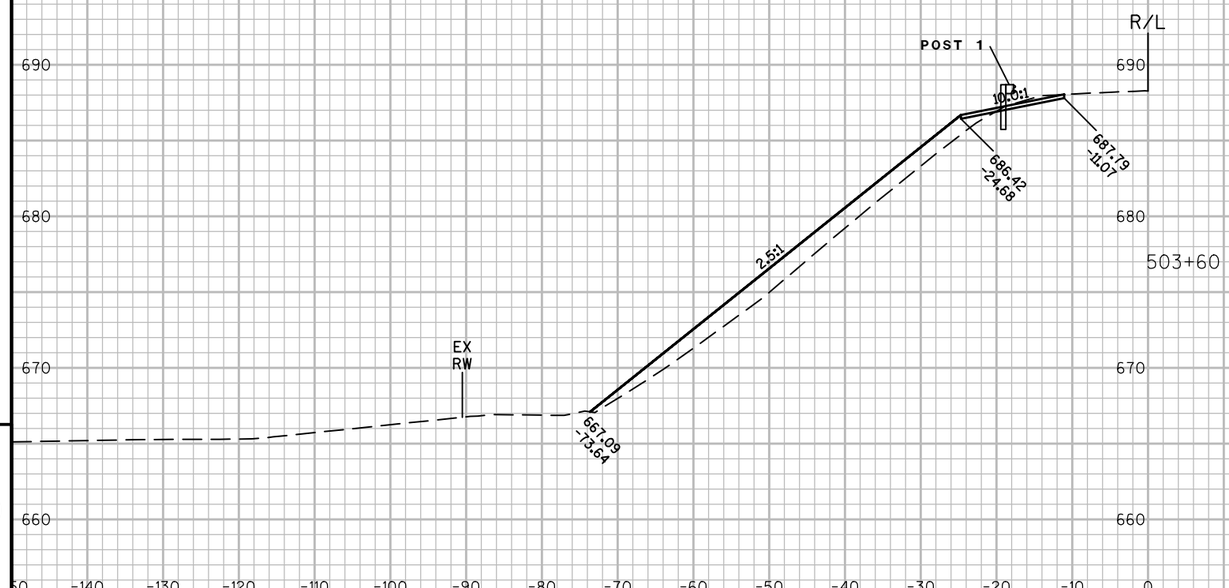
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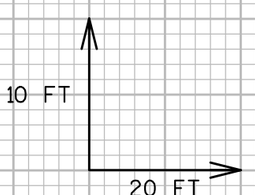
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LAYOUT NAME - 090206_XS - SECTION SHEET - (3)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







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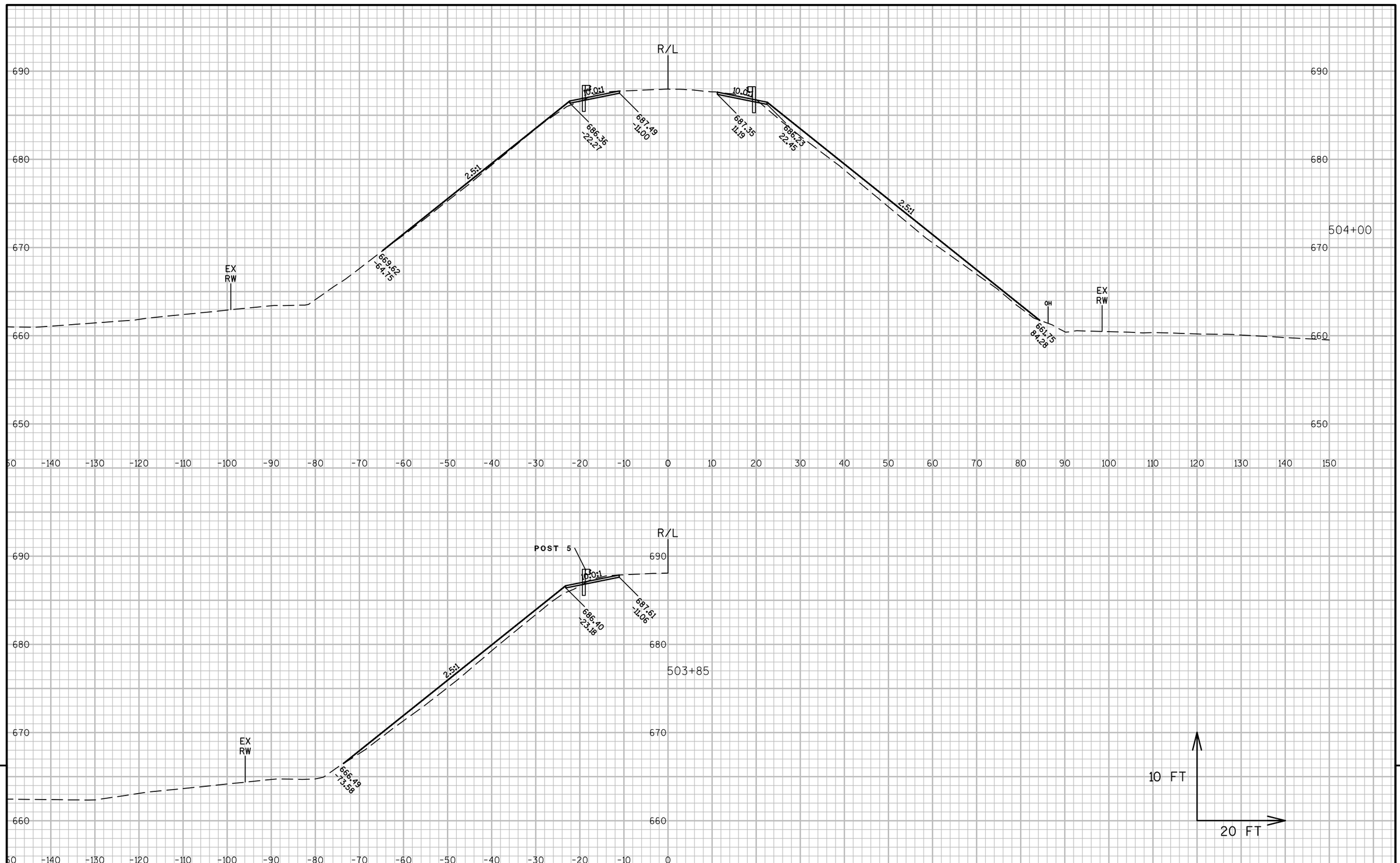
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 457	E

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LAYOUT NAME - 090206_XS - SECTION SHEET - (4)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

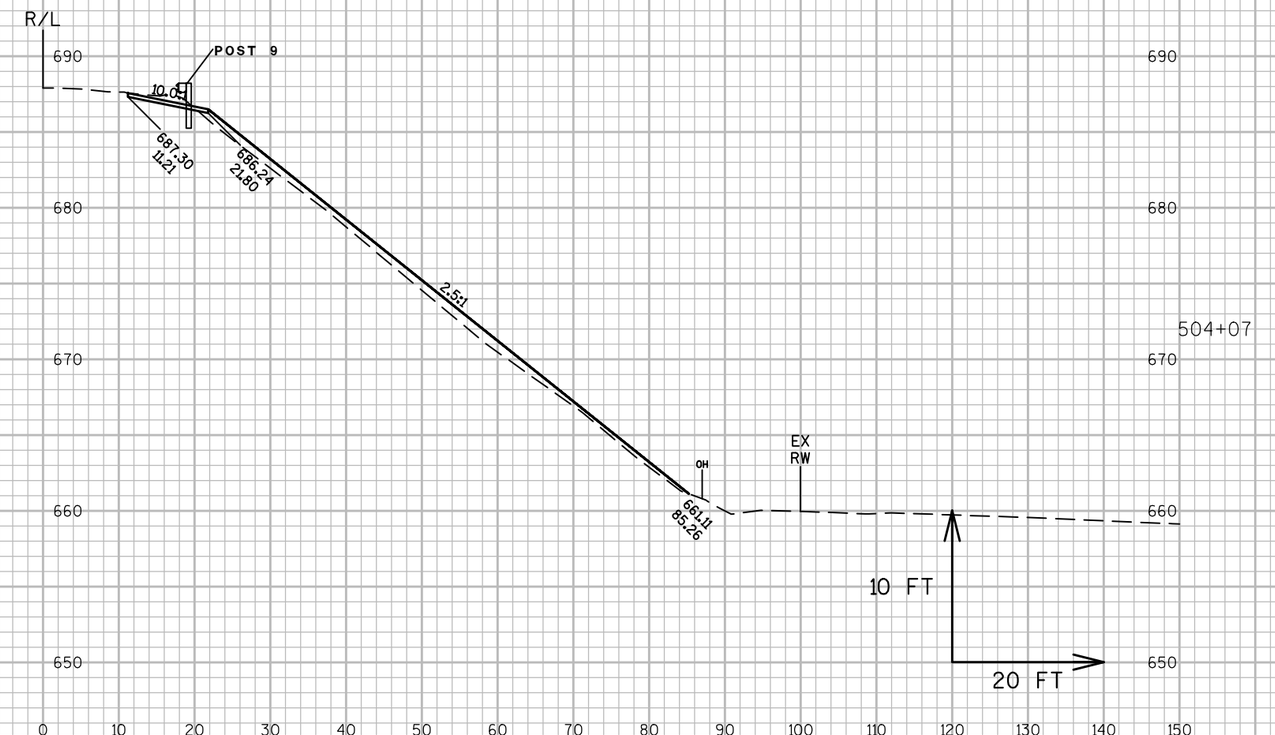


PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 458	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (5)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

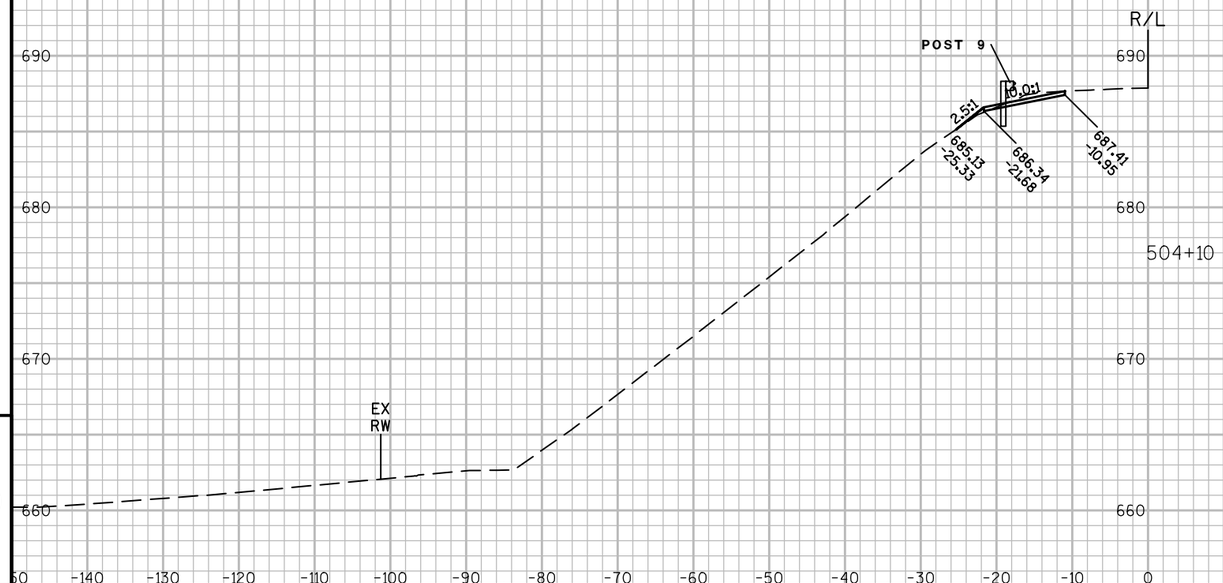
WISDOT/CADDS SHEET 49

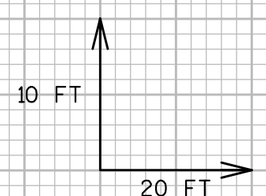


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 459	E





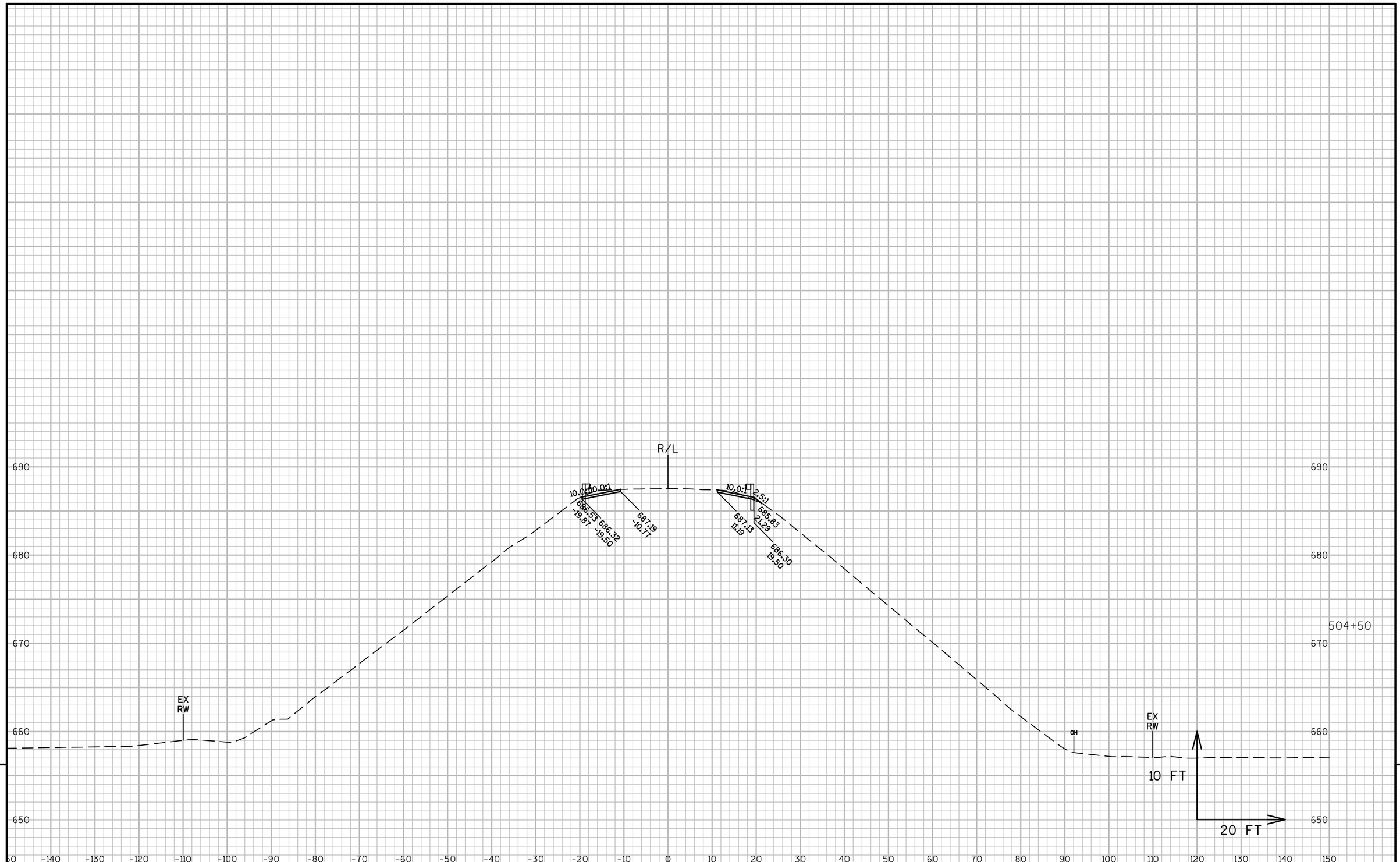
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 460	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (7)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



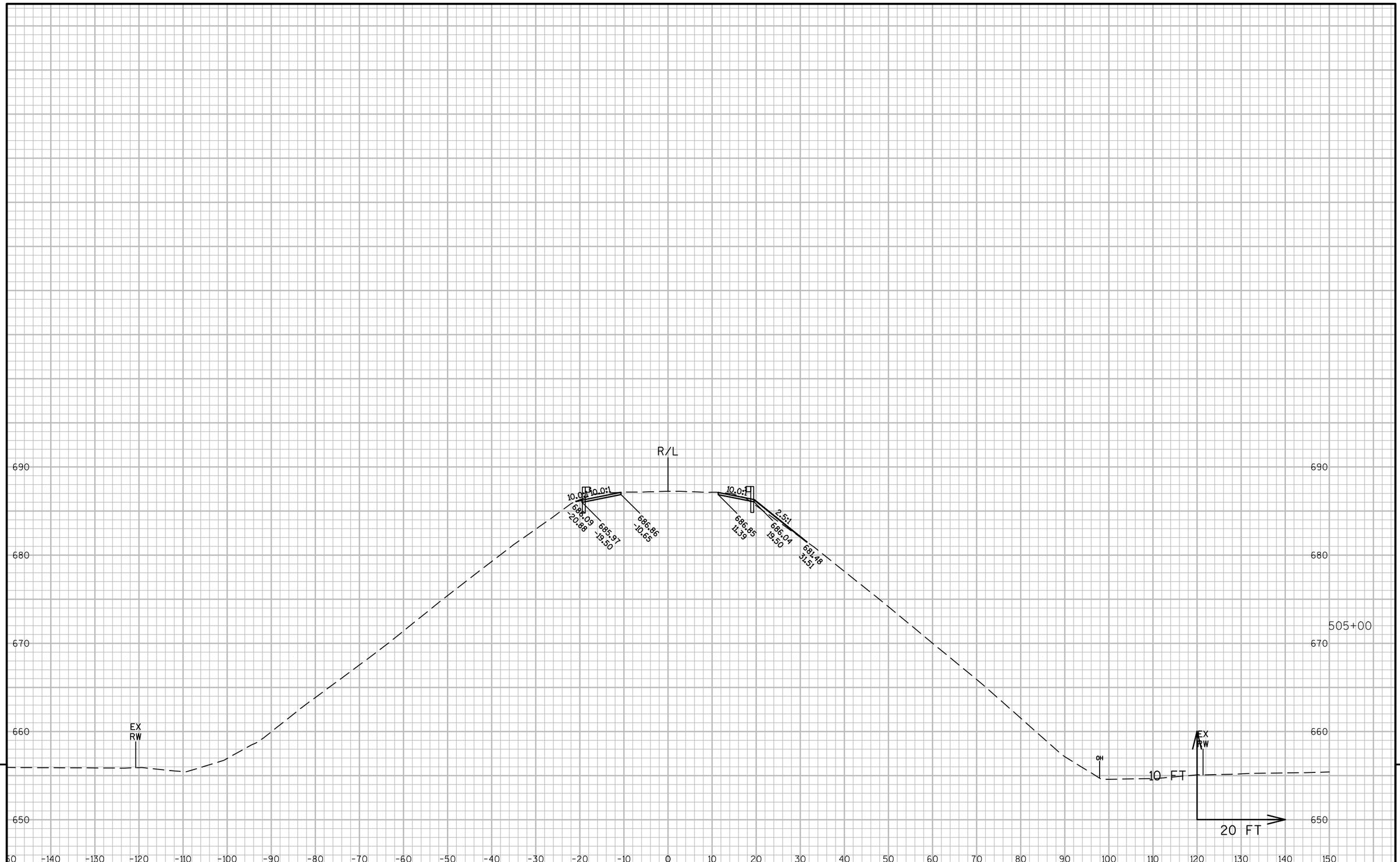
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 461	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (8)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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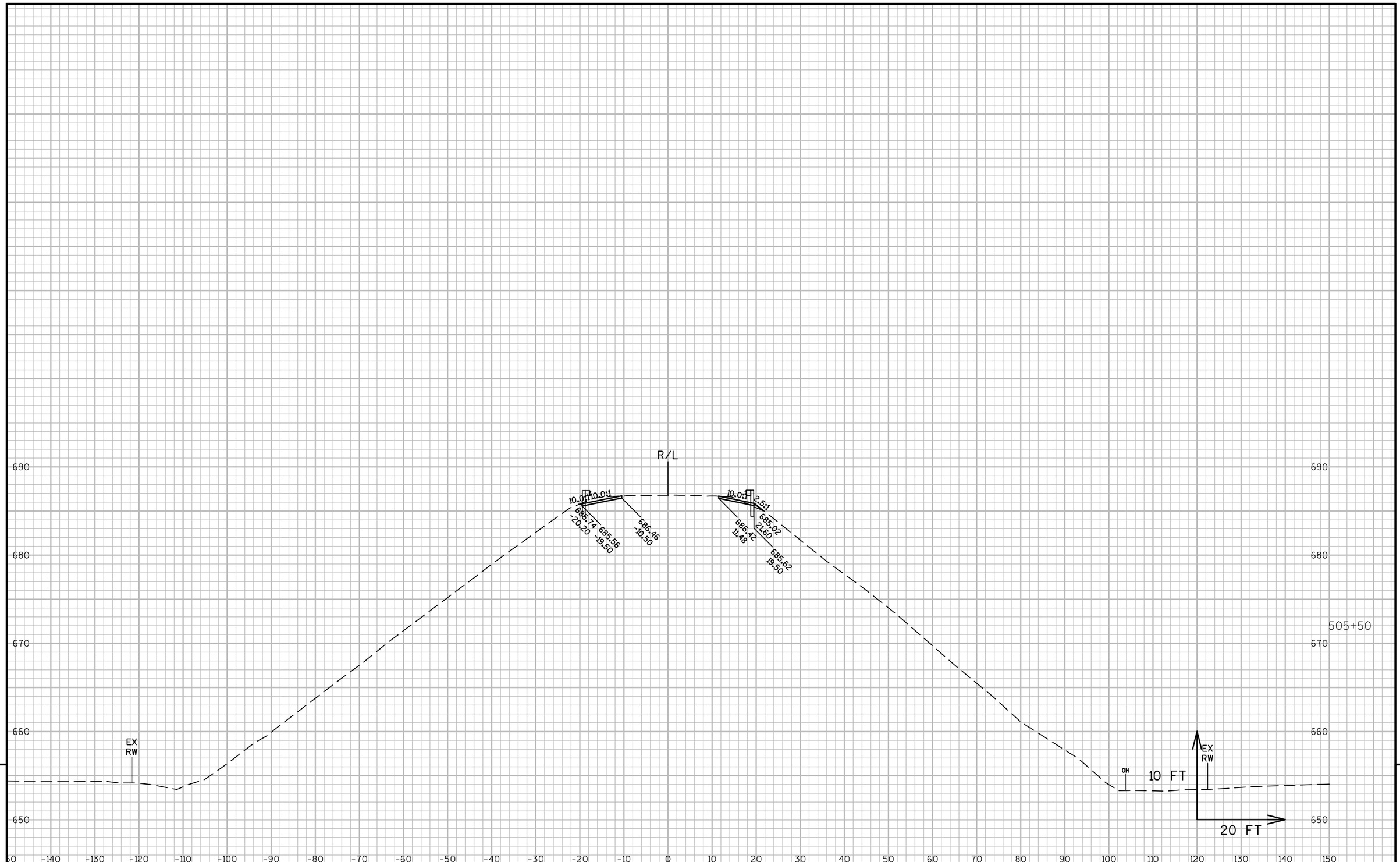
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 462	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (9)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

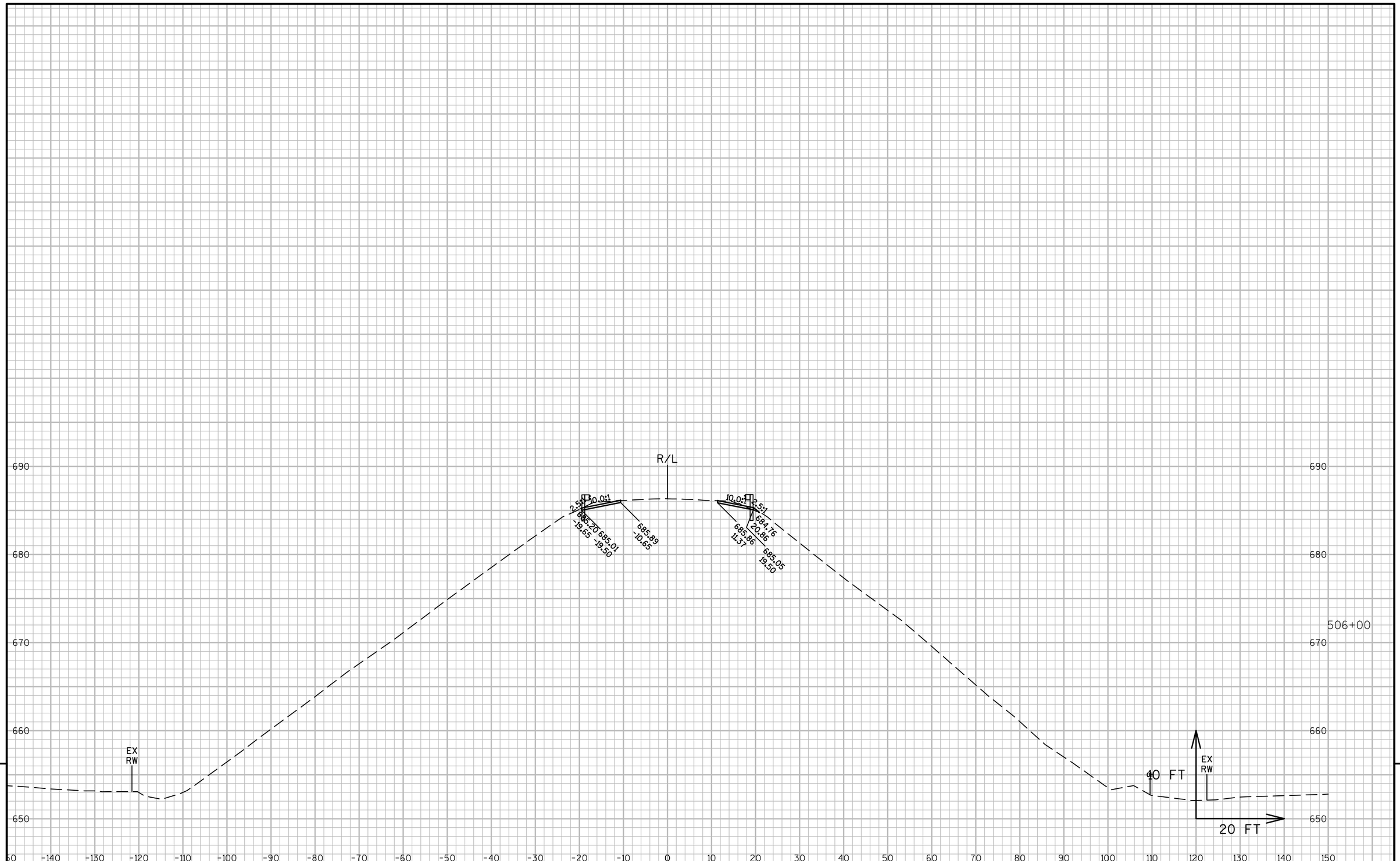
WISDOT/CADDS SHEET 49



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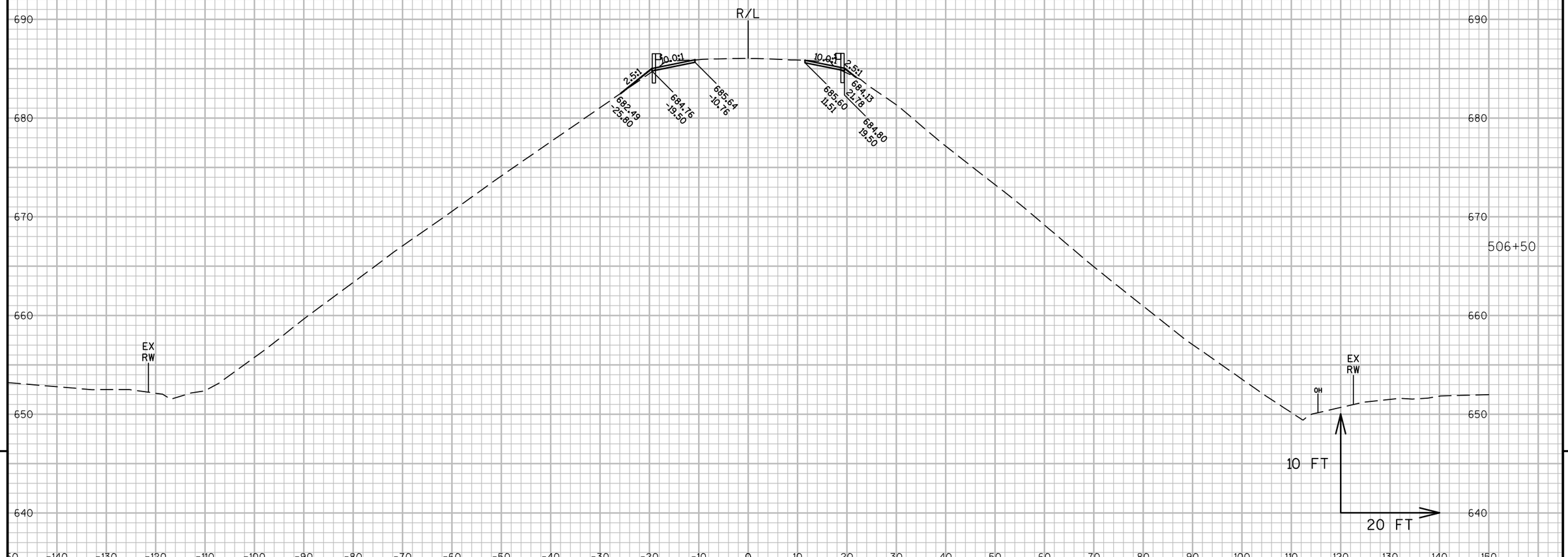
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 463	E



9 9

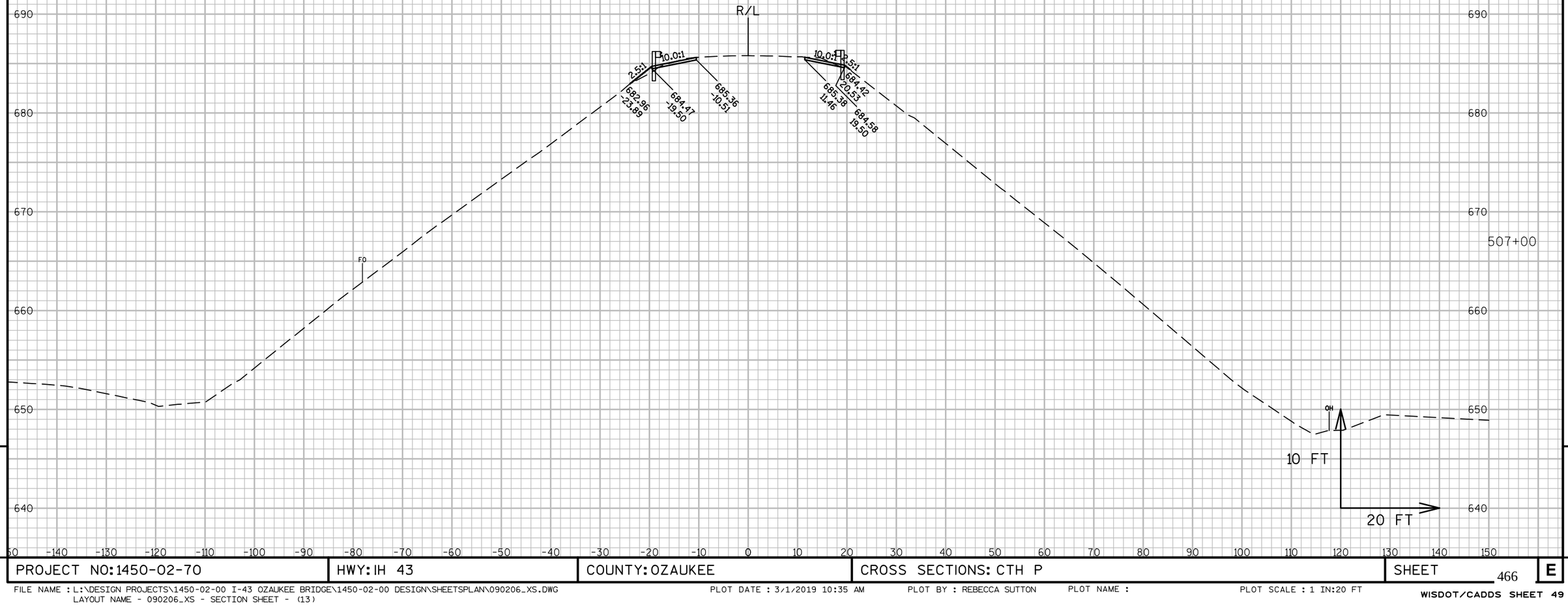
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 464 E



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 465	E



9

9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 466 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (13)

PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

690

690

R/L

10.00

684.96
-11.41

684.58
-21.50

2.4:1

666.33
-66.02

OH

507+50

10 FT

20 FT

680
670
660
650
640

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

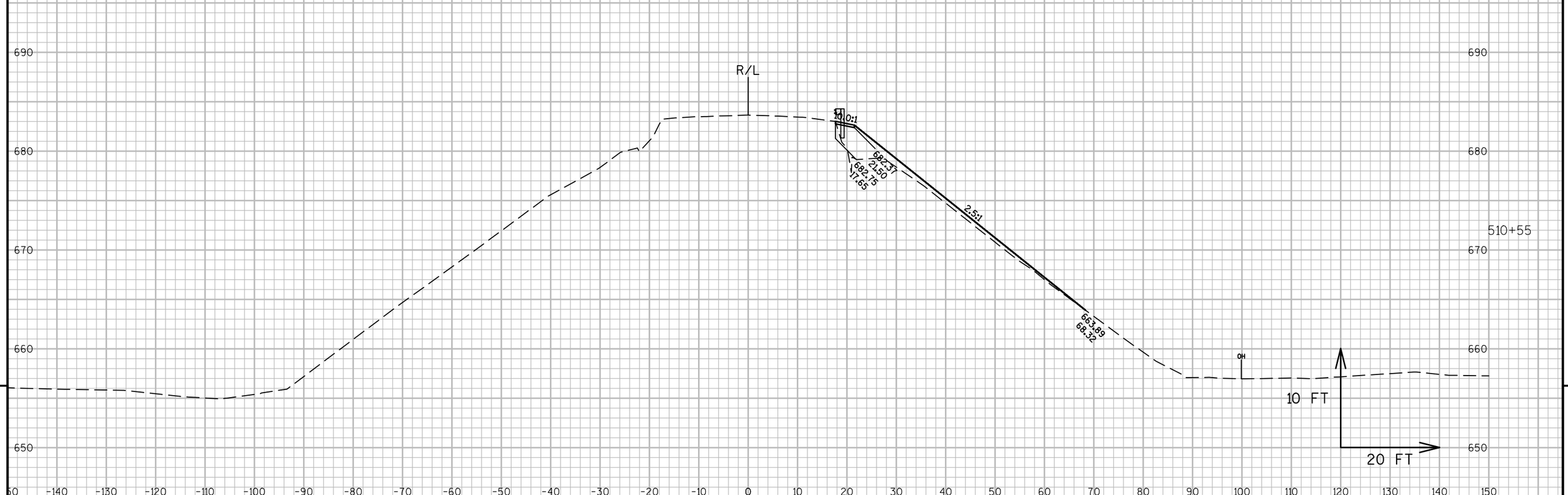
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PROJECT NO:1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 467	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (14)

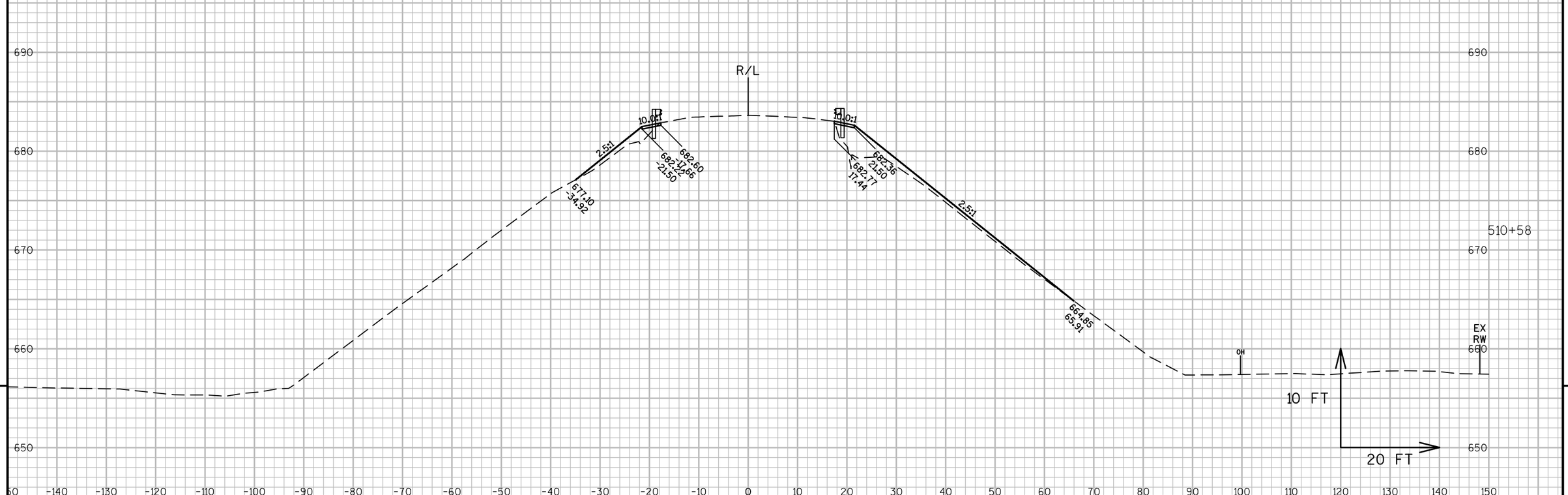
PLOT DATE : 3/1/2019 10:35 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 468	E



9

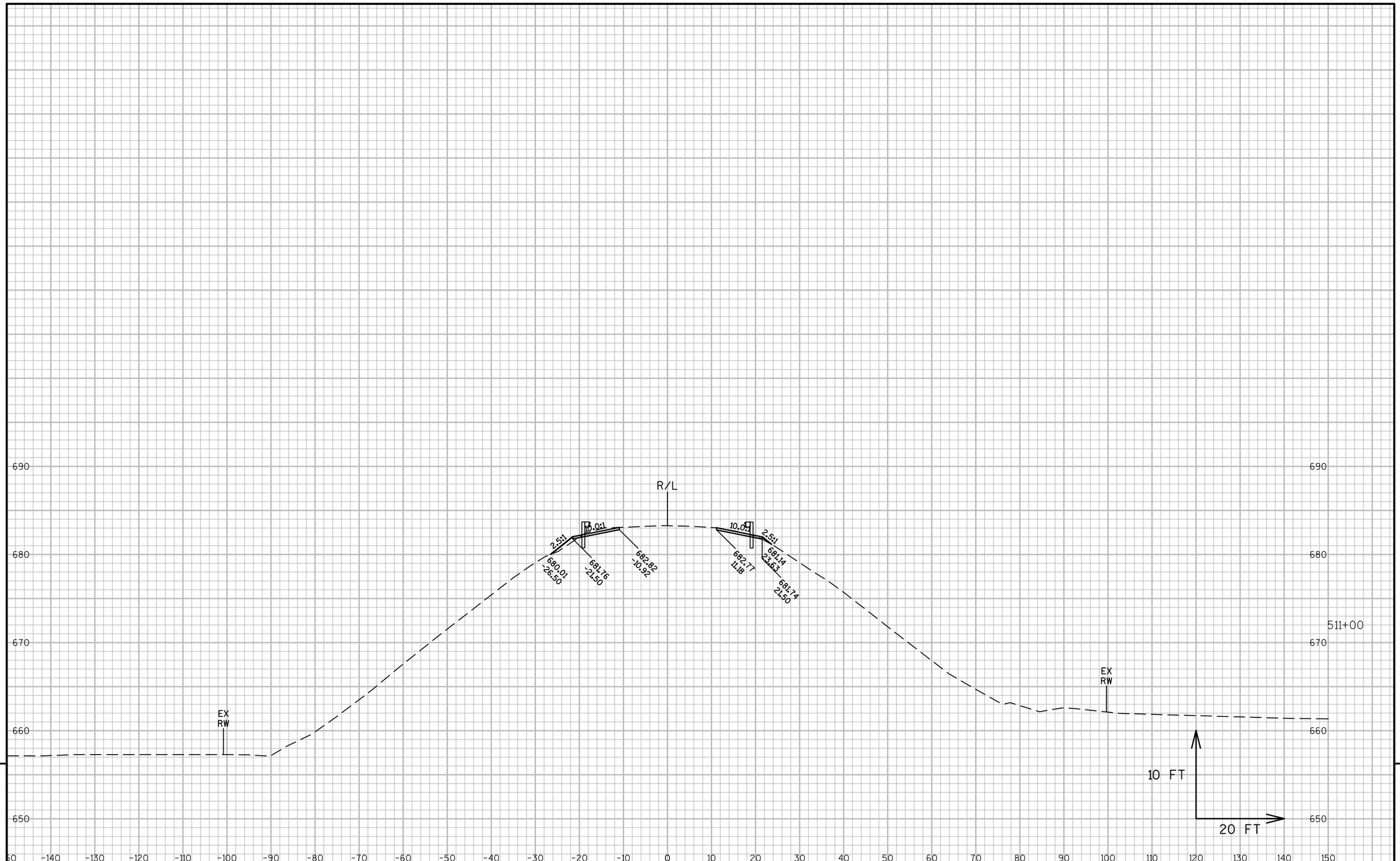
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 469	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (16)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 470 E

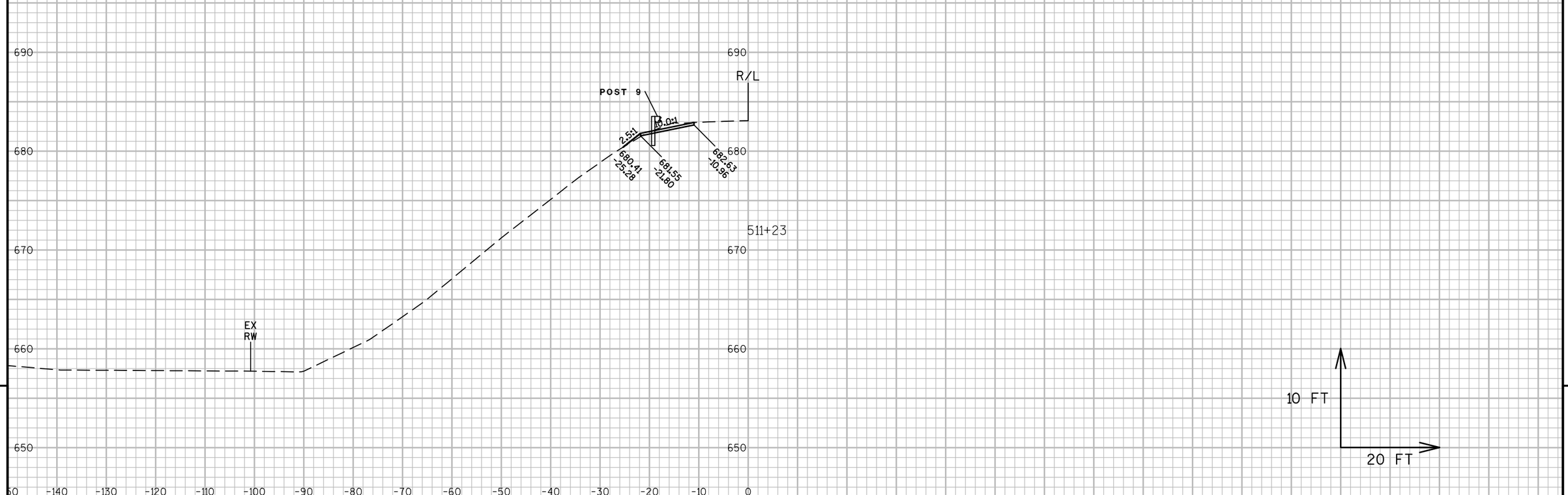


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 471	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (18)
PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



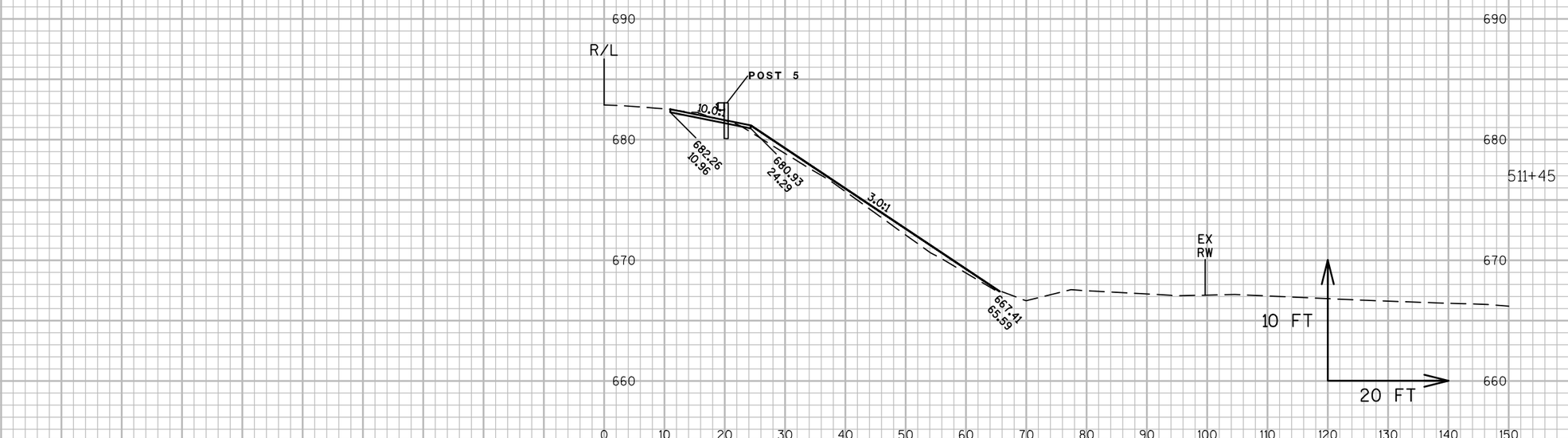
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 472	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (19)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



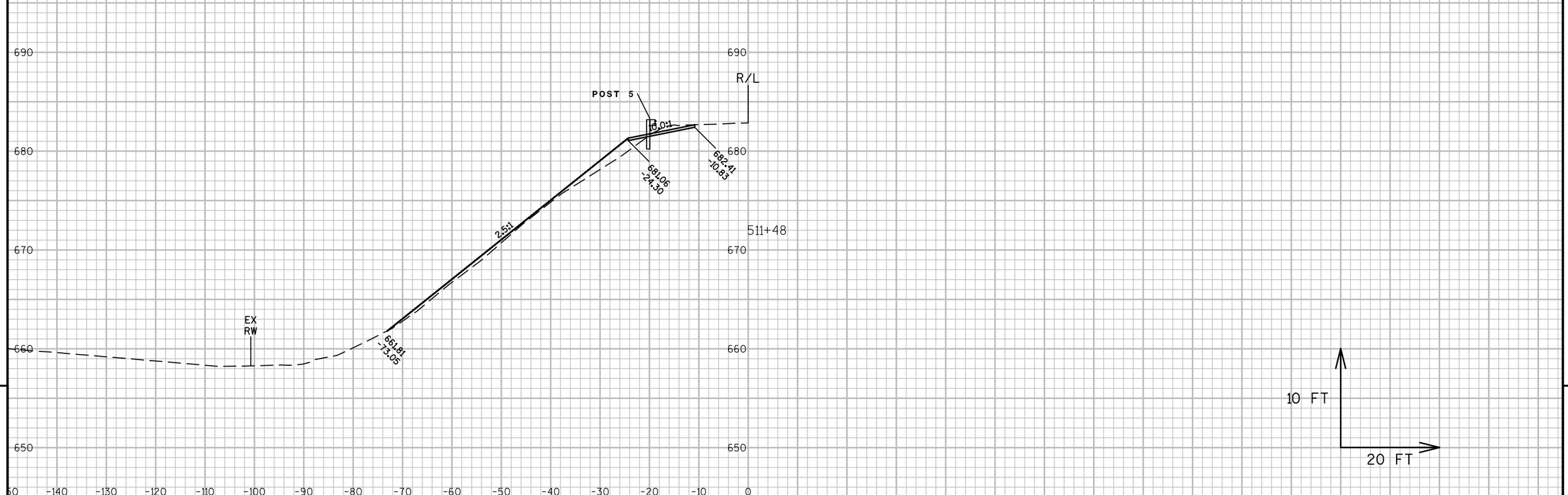
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 473	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (20)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



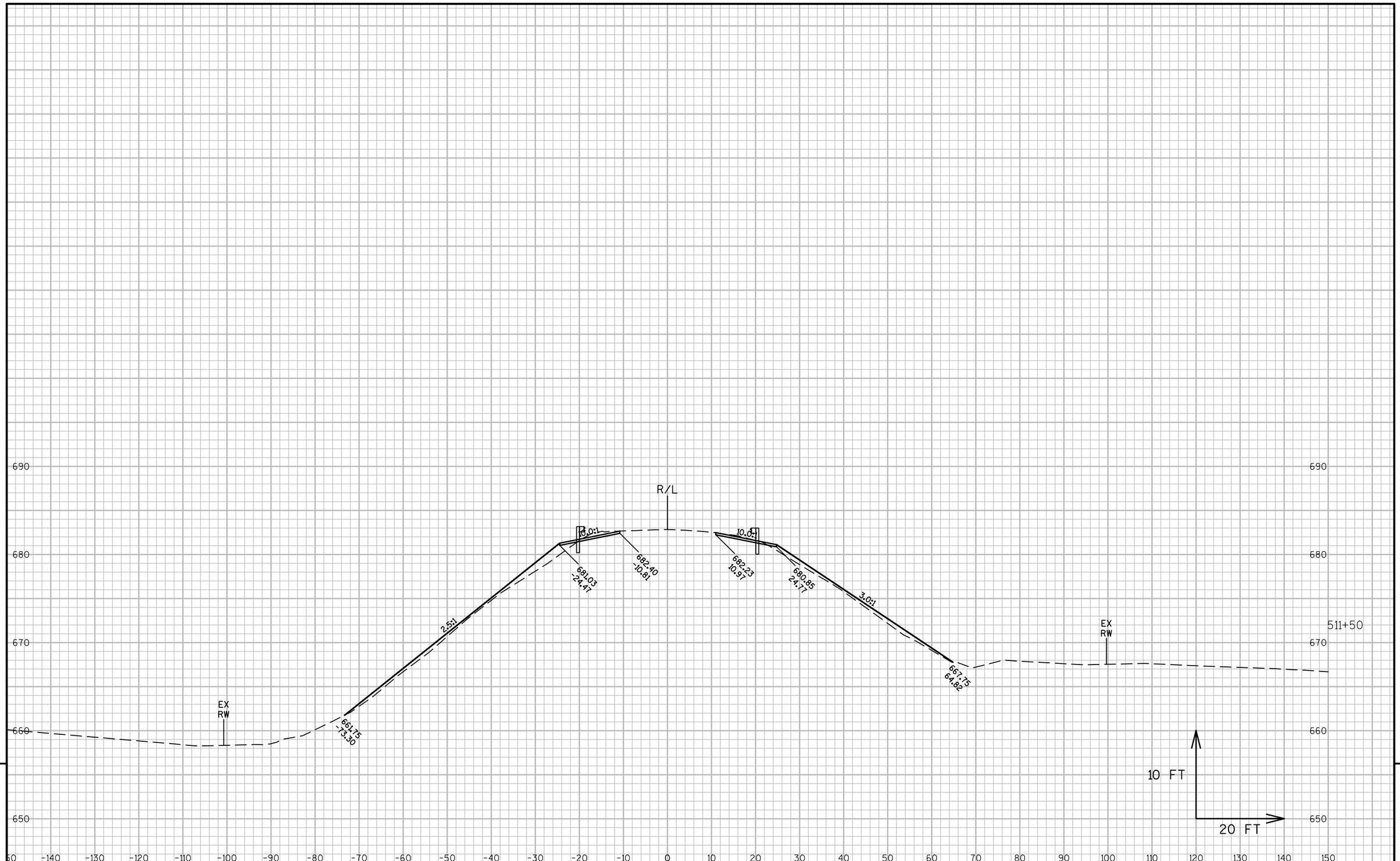
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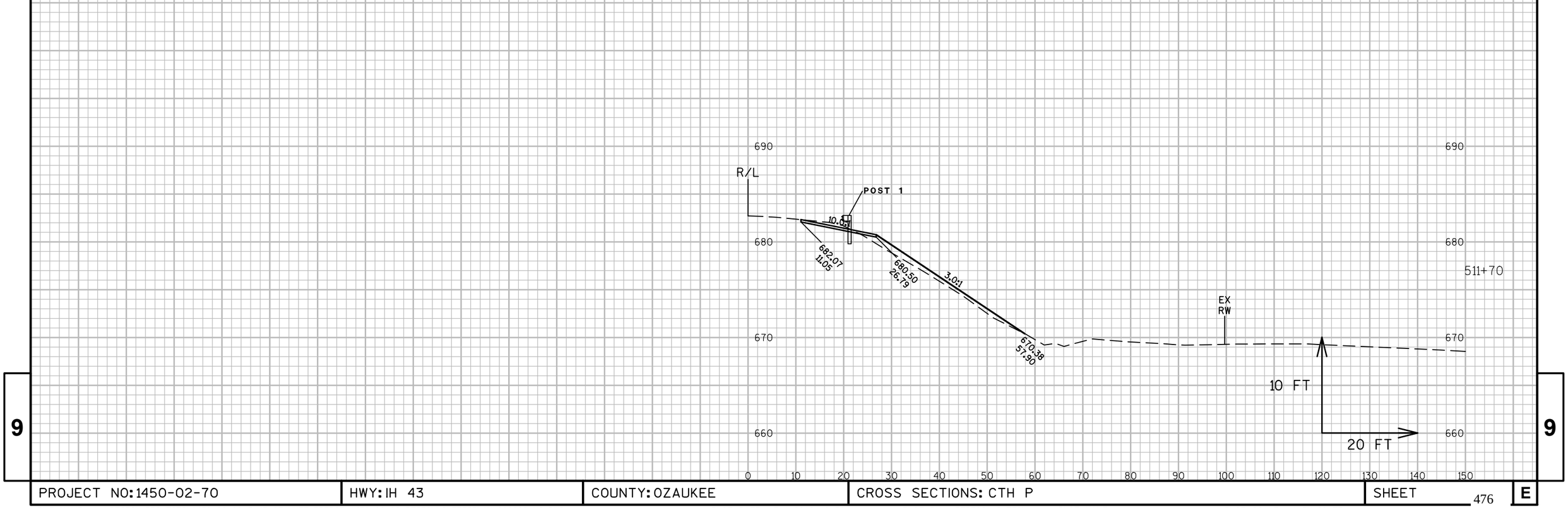
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 474	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (21)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 475 E



9

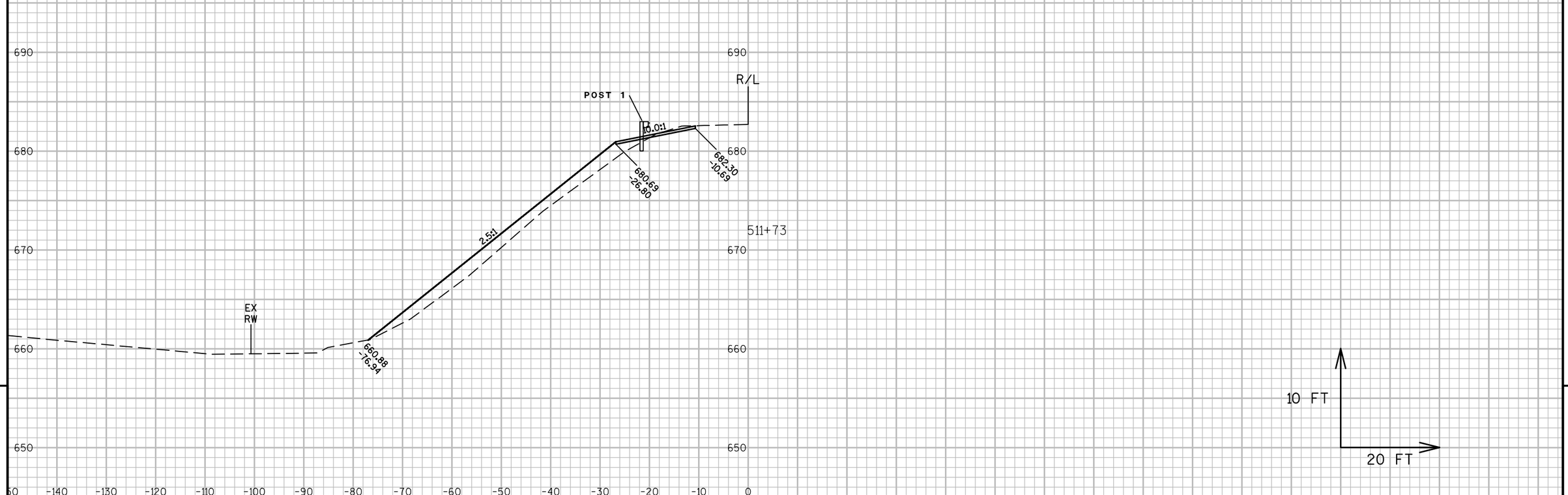
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 476	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (23)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



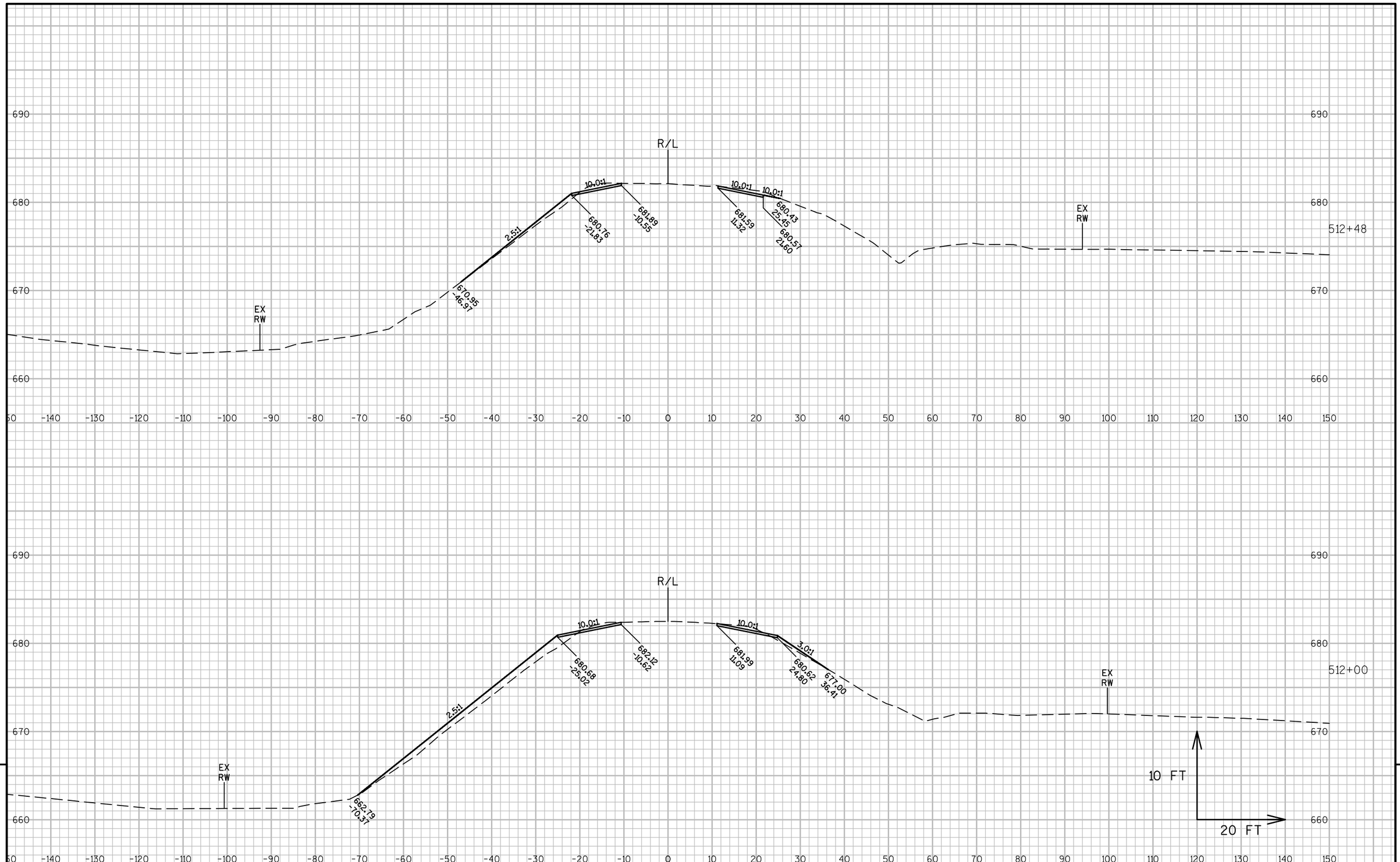
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 477	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (24)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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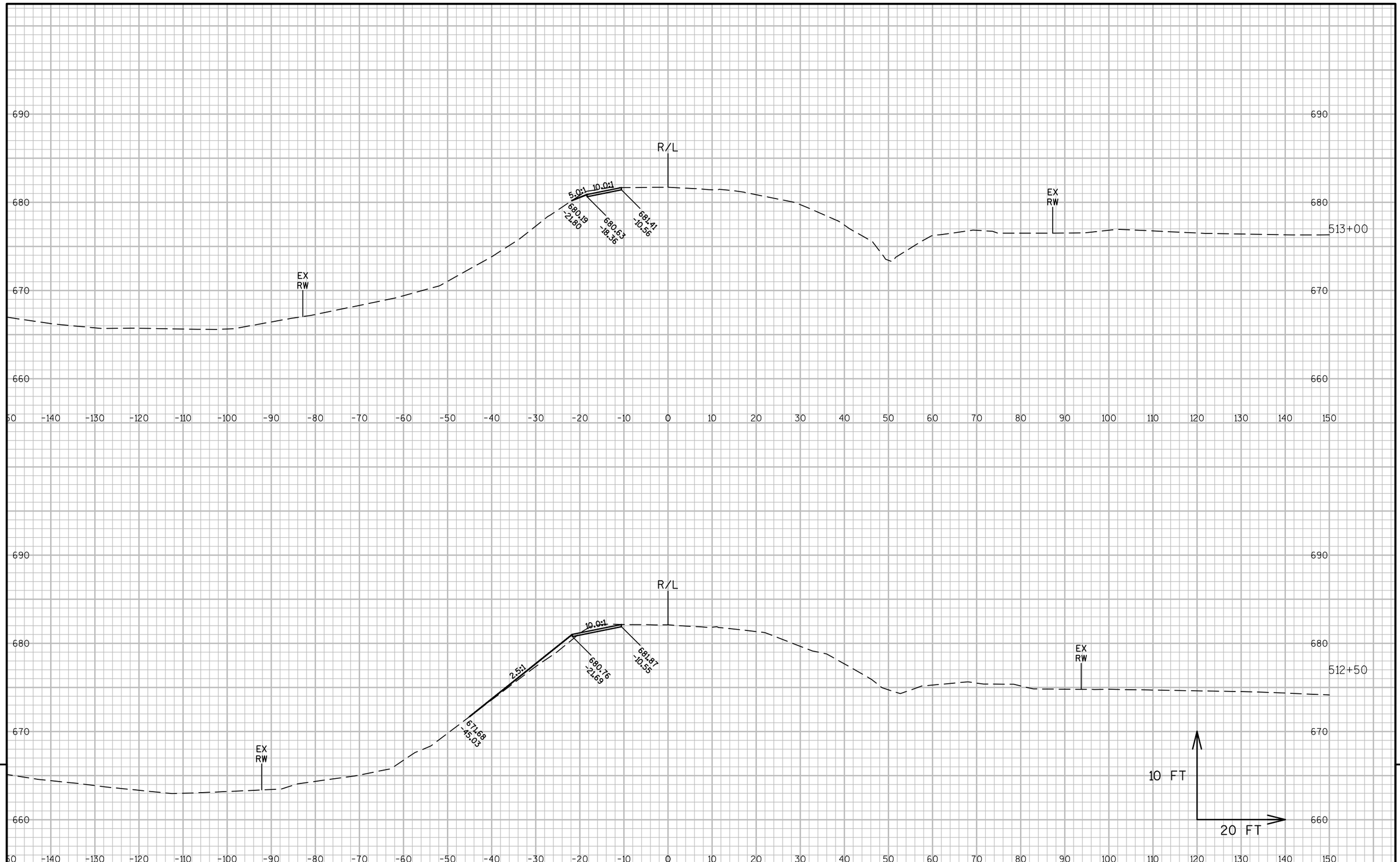
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 478	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (25)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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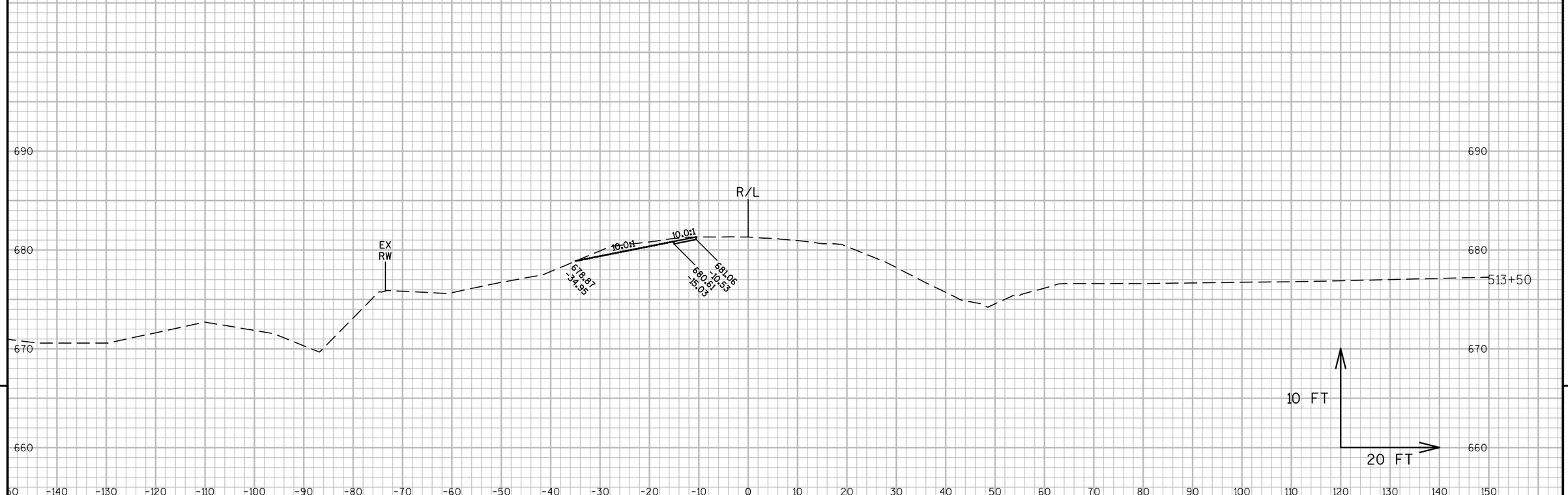
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 479	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (26)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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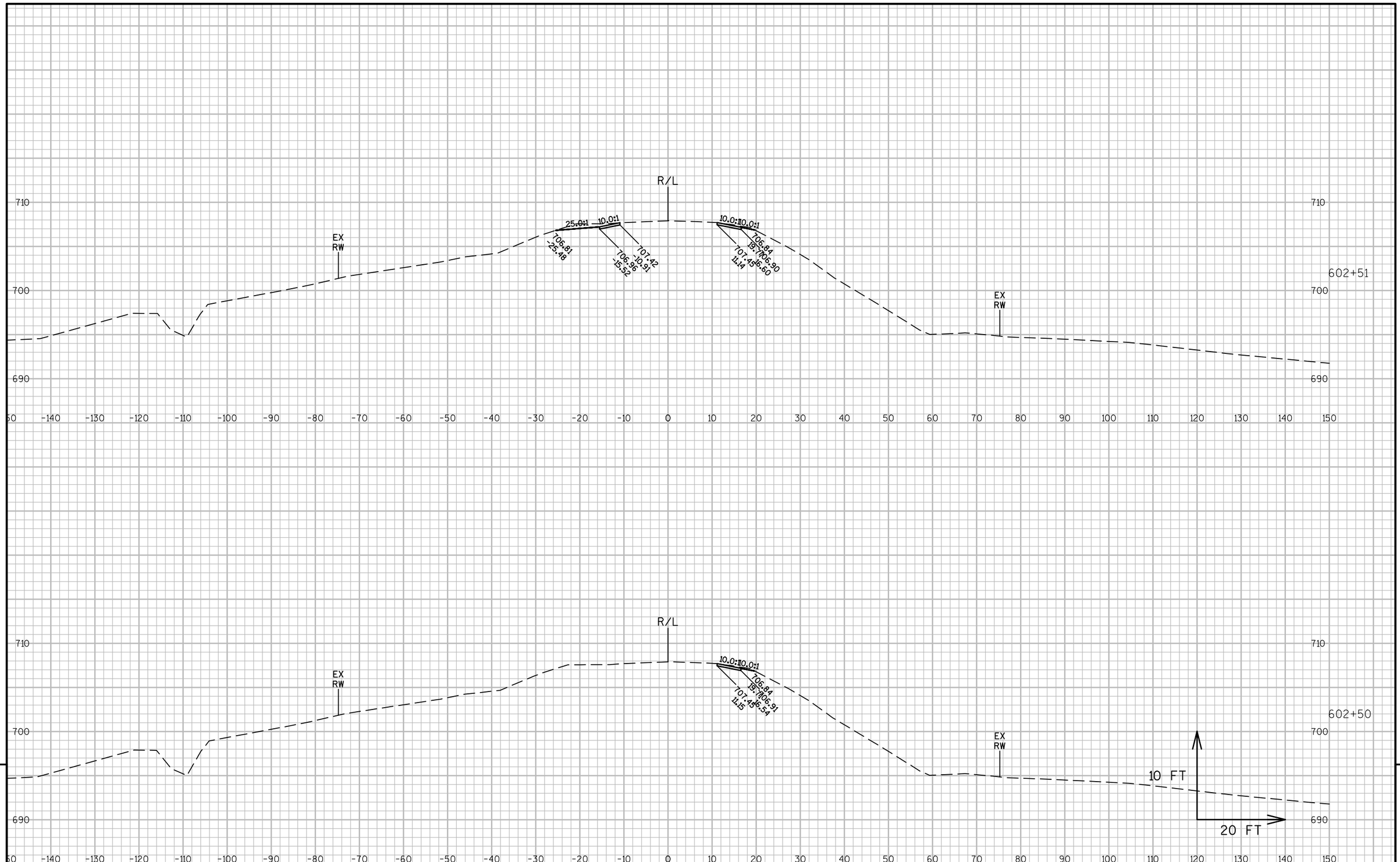
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH P	SHEET 480	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090206_XS.DWG
LAYOUT NAME - 090206_XS - SECTION SHEET - (27)

PLOT DATE : 3/1/2019 10:36 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



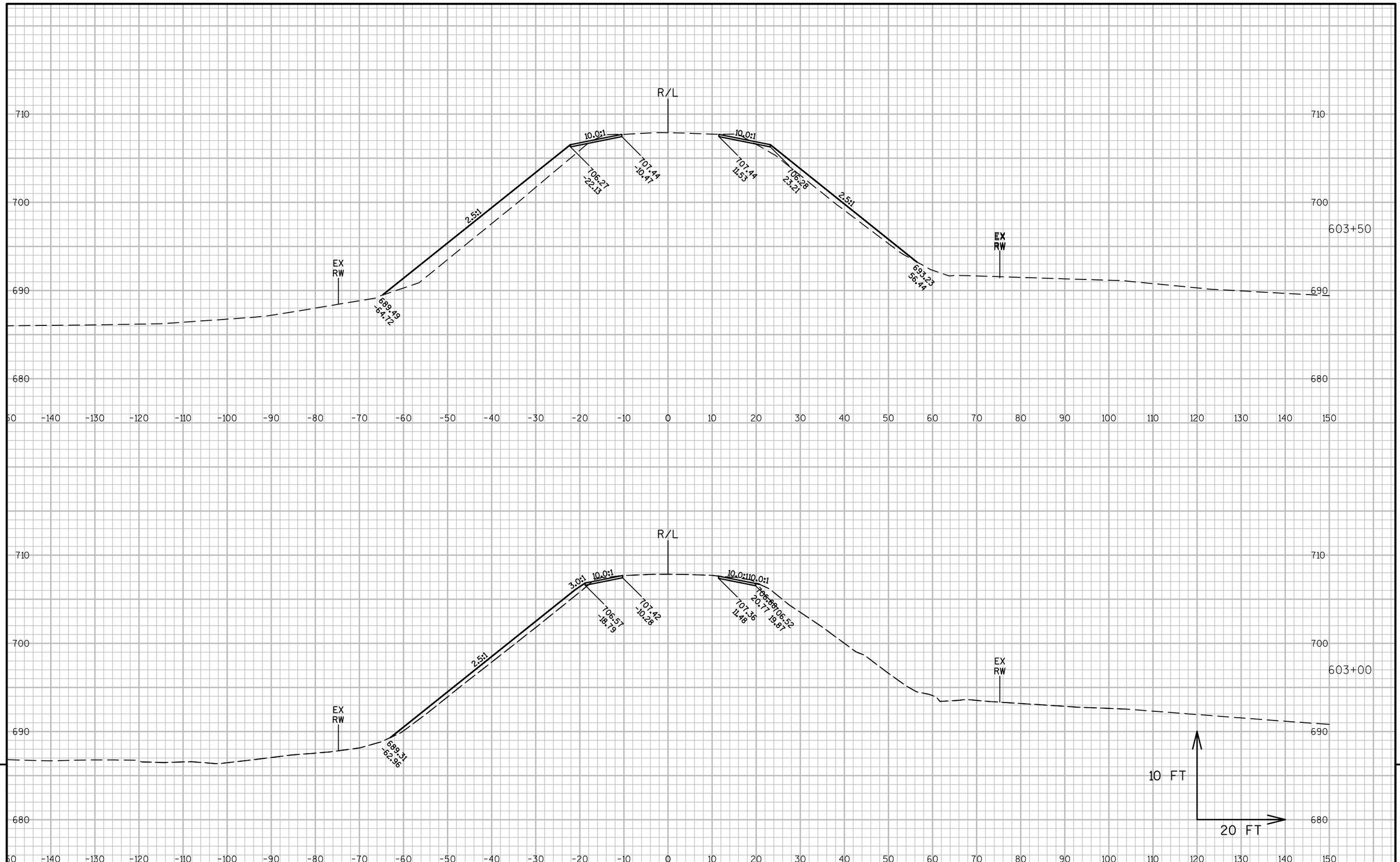
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 481 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (1)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

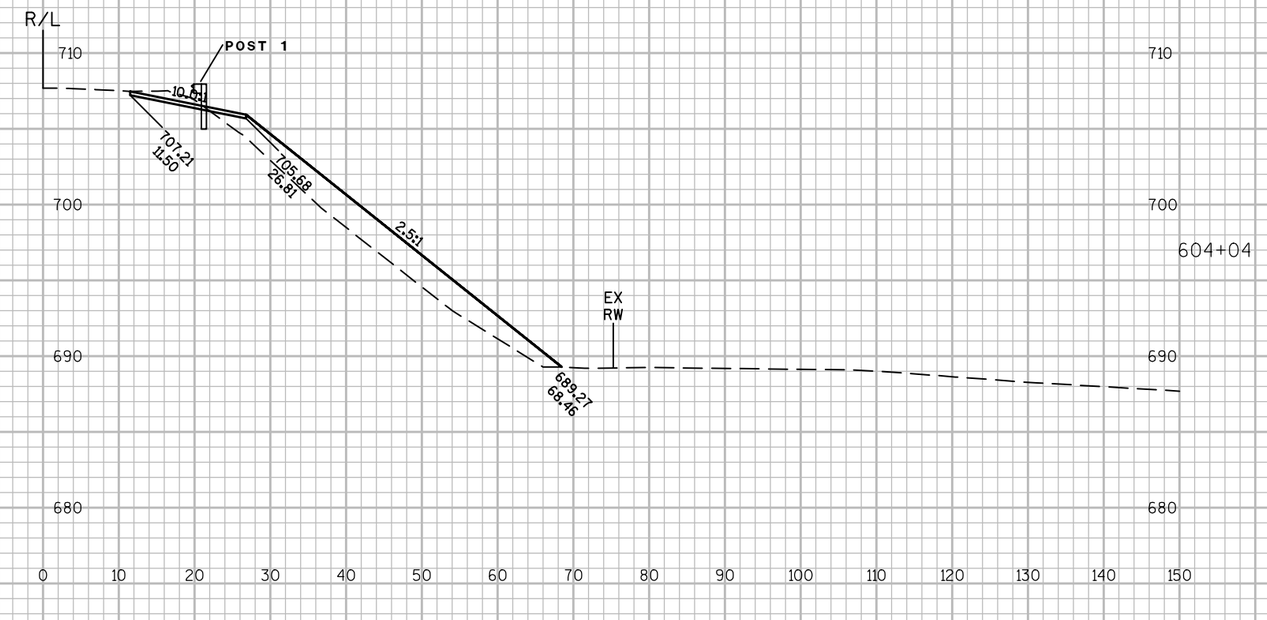
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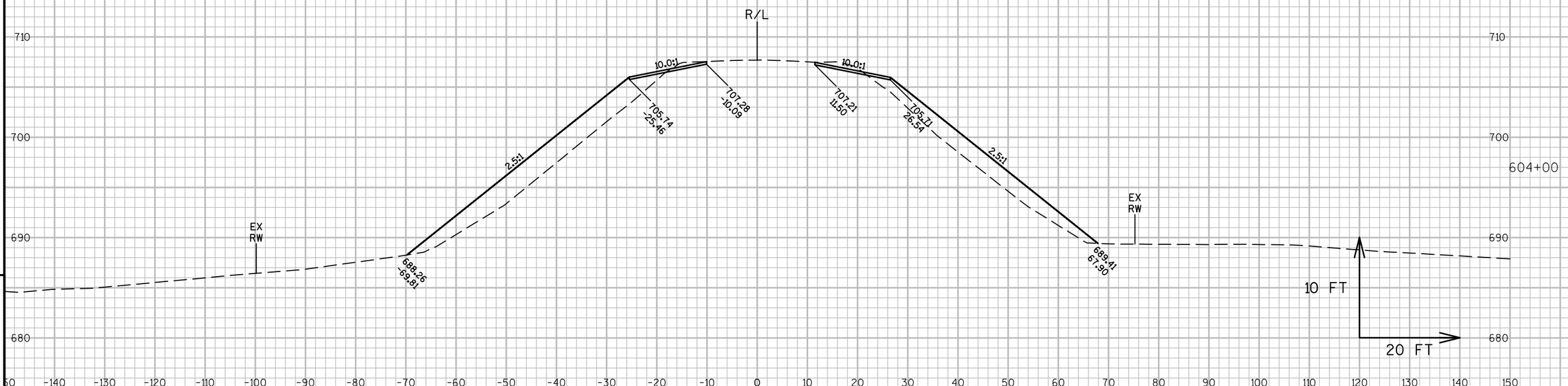
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 482	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (2)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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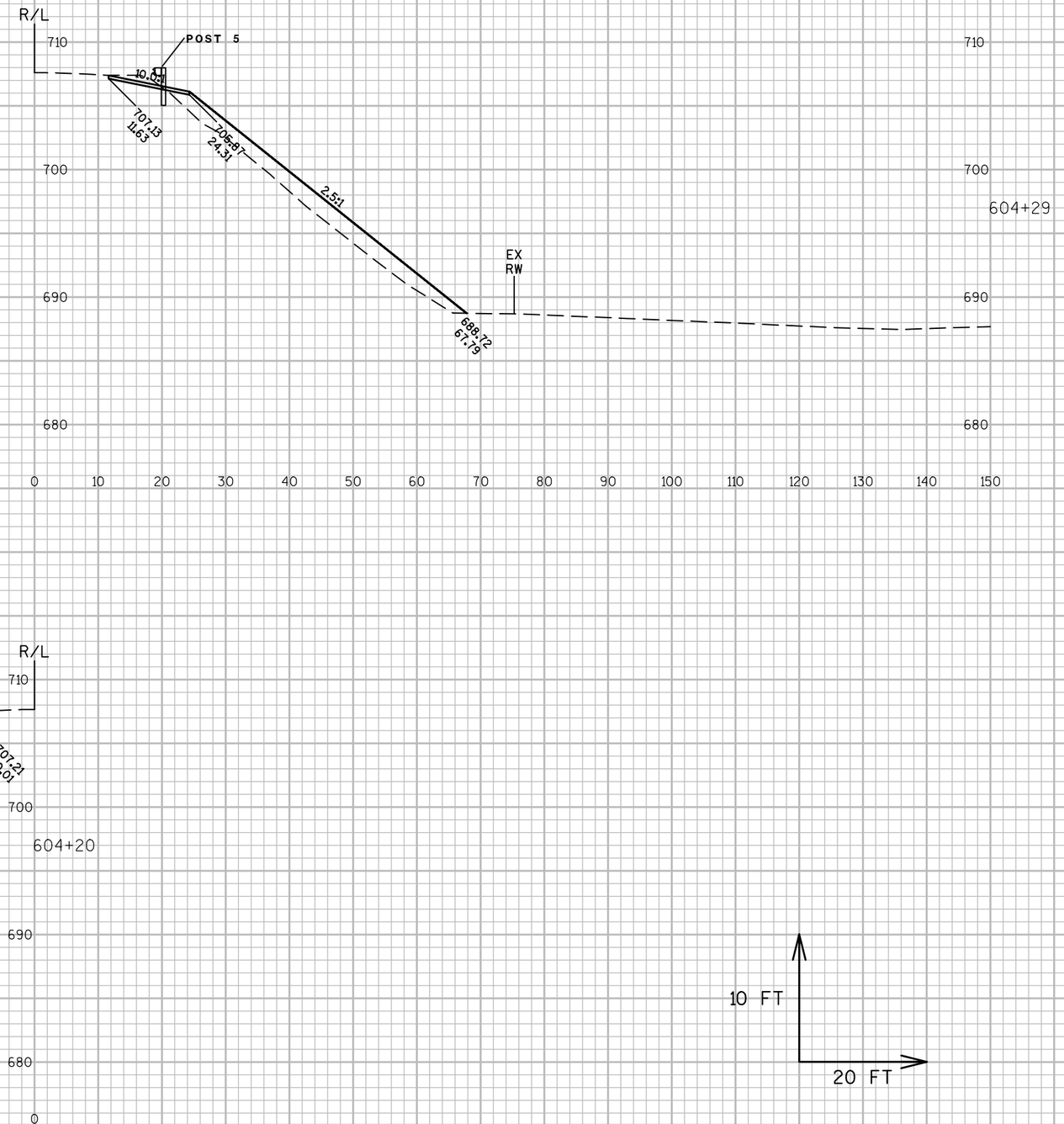
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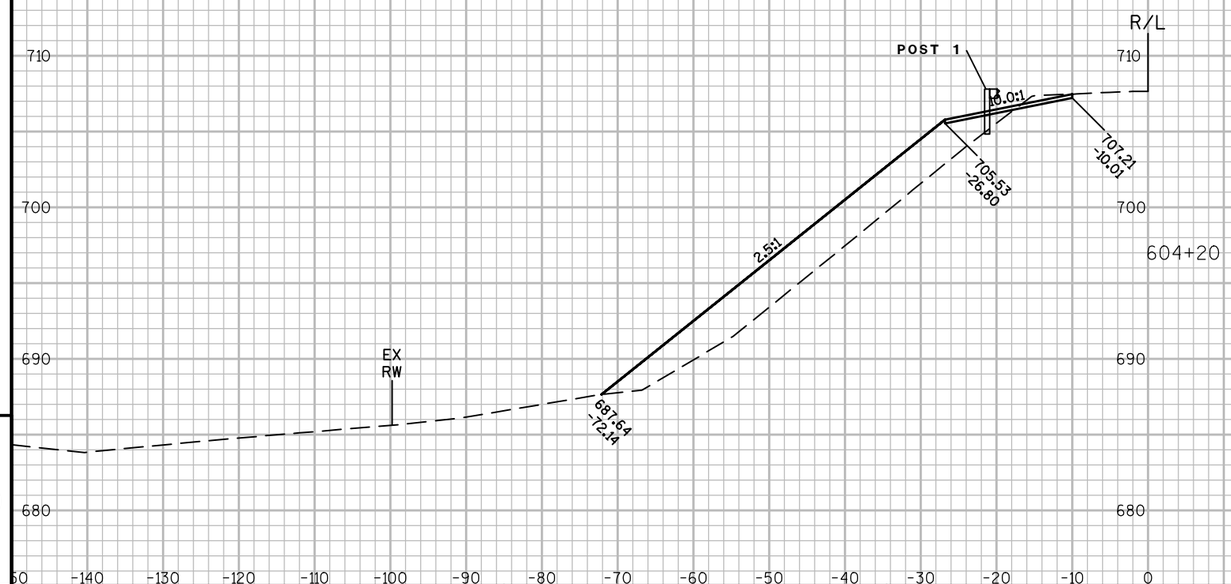
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 483	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (3)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

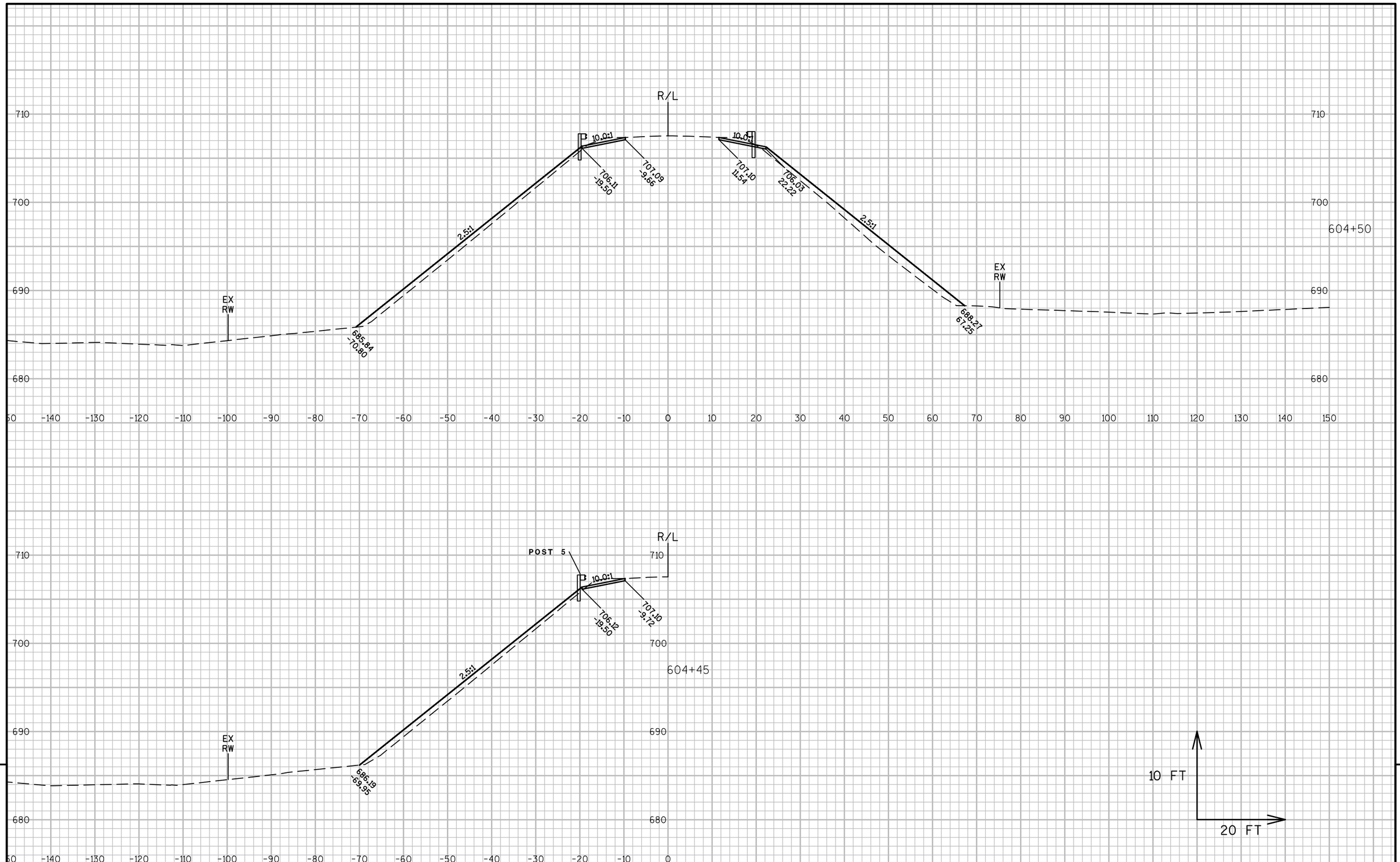




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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 484	E



9

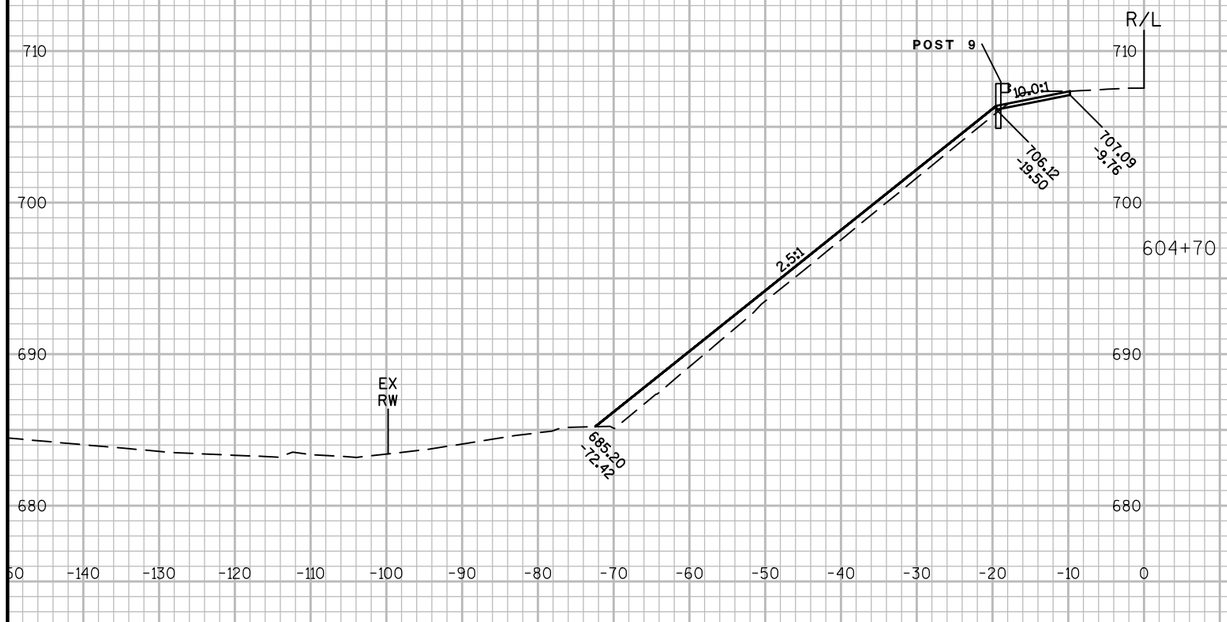
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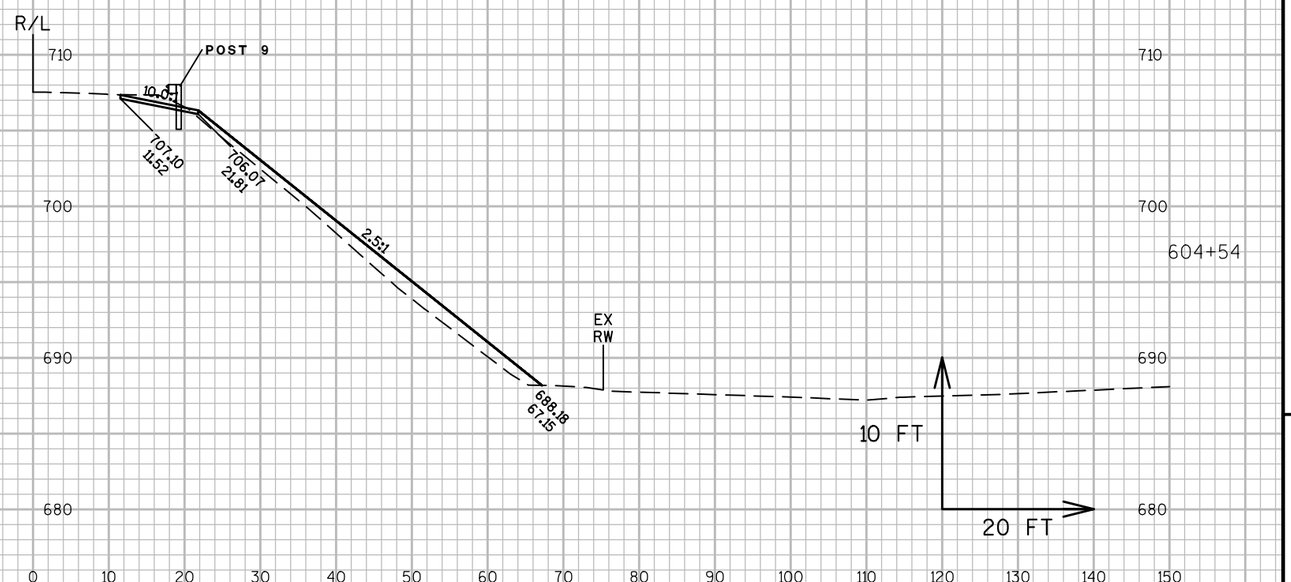
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 485	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (5)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





9

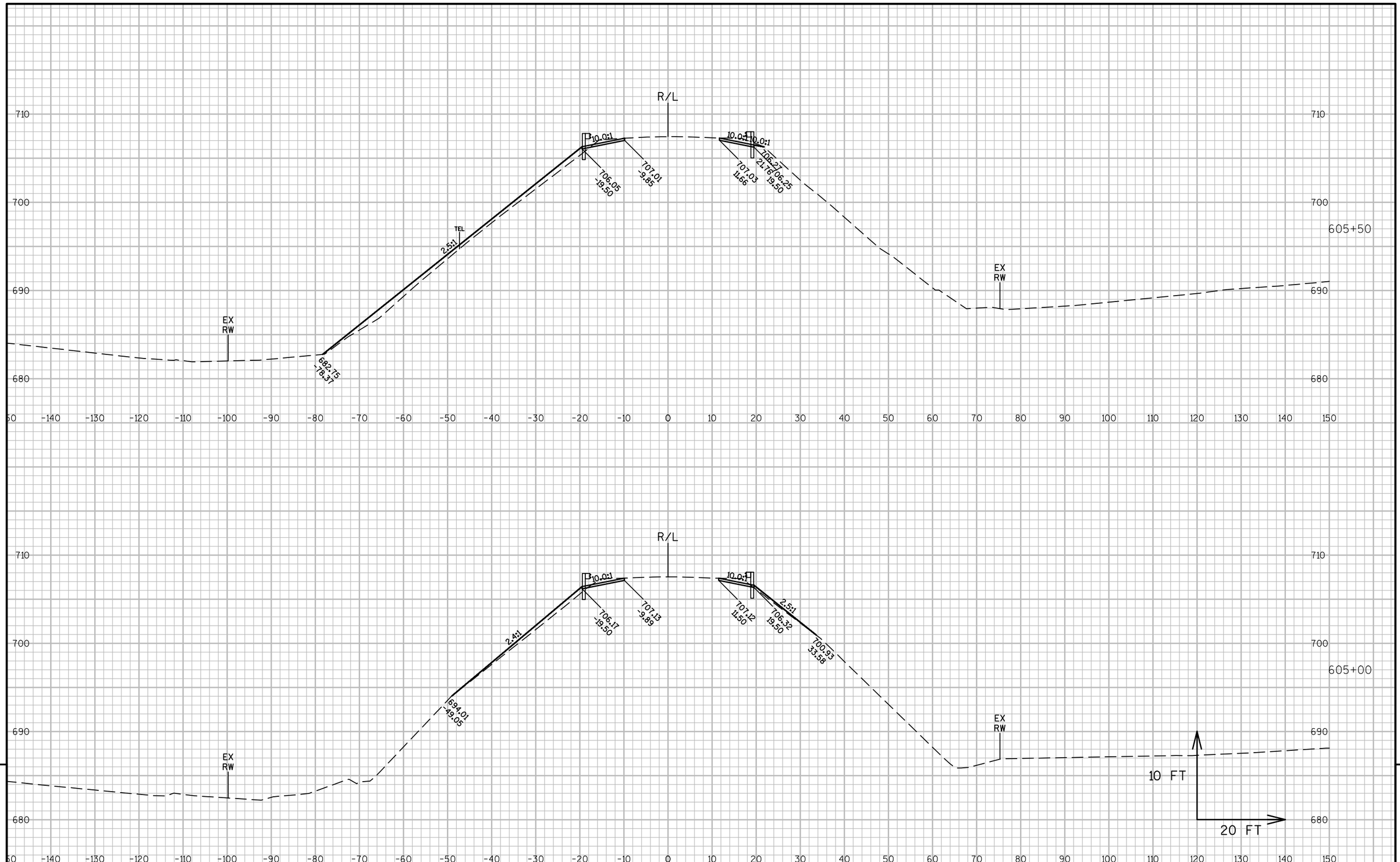
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 486	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (6)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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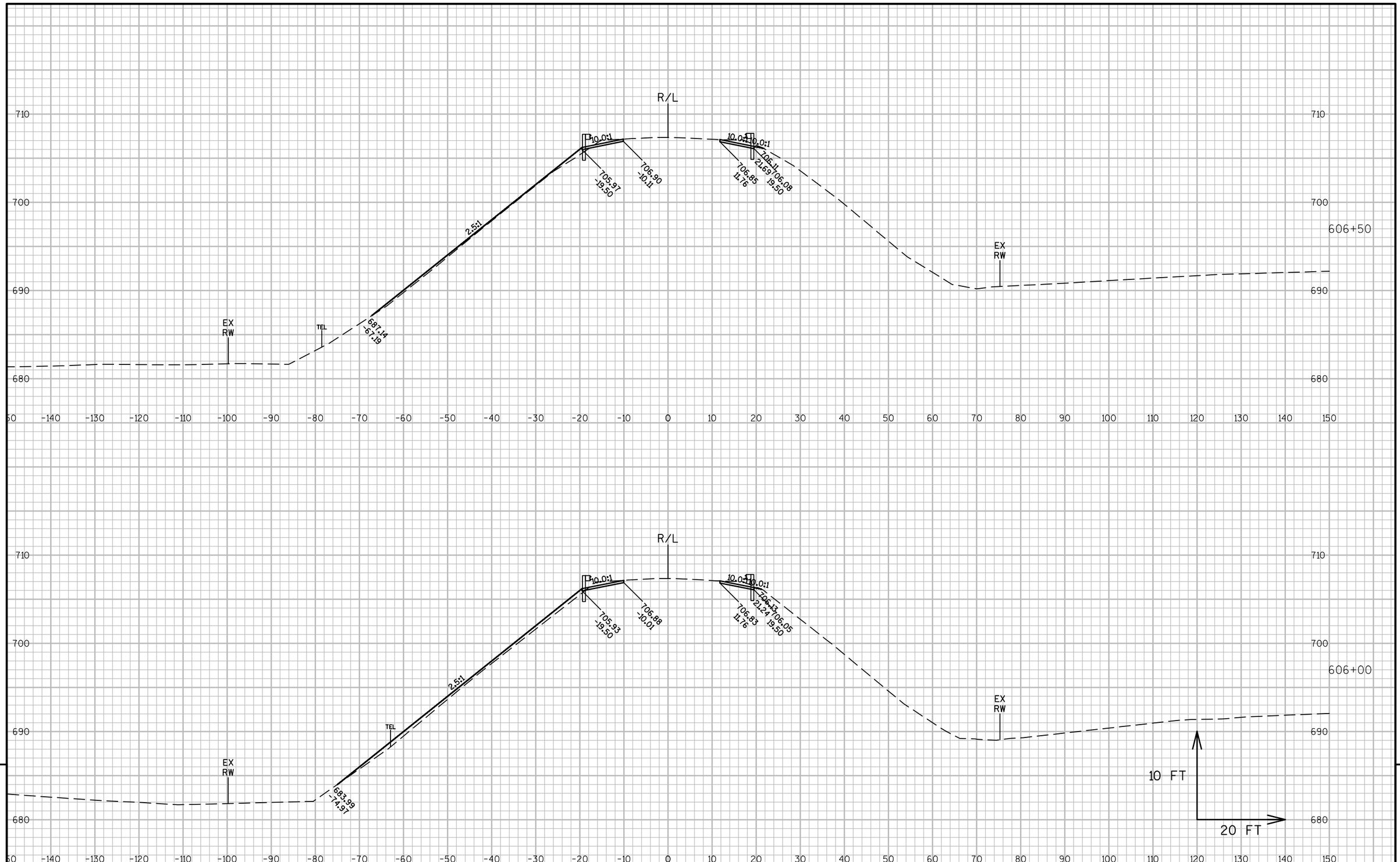
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 487	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (7)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



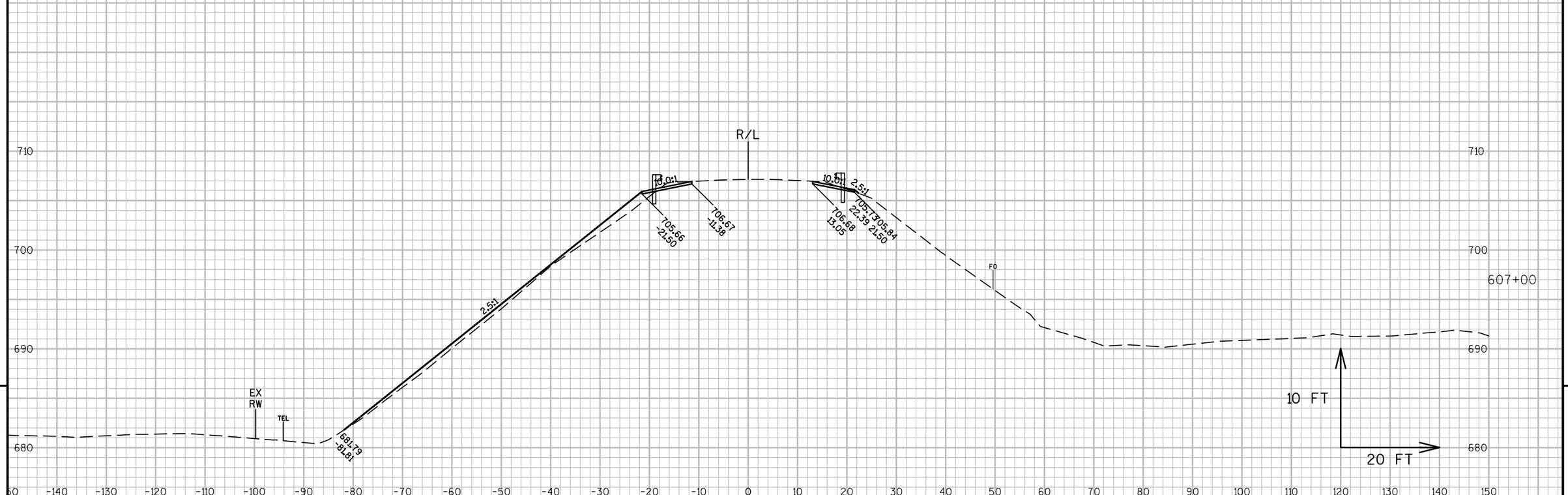
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 488	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (8)

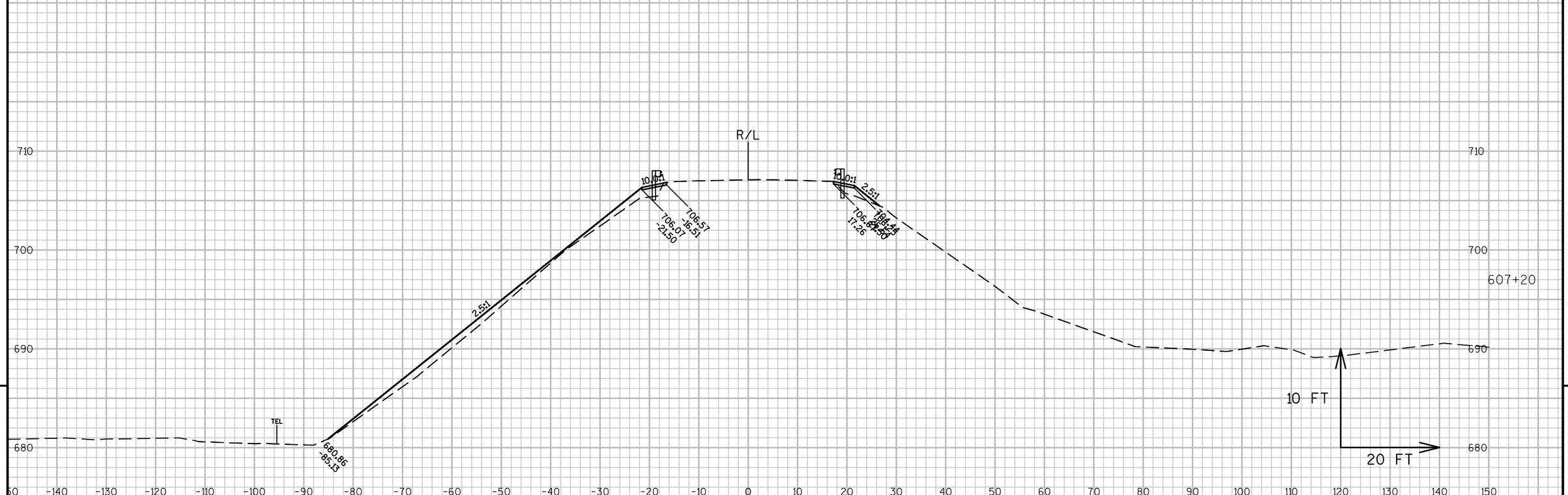
PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 489	E



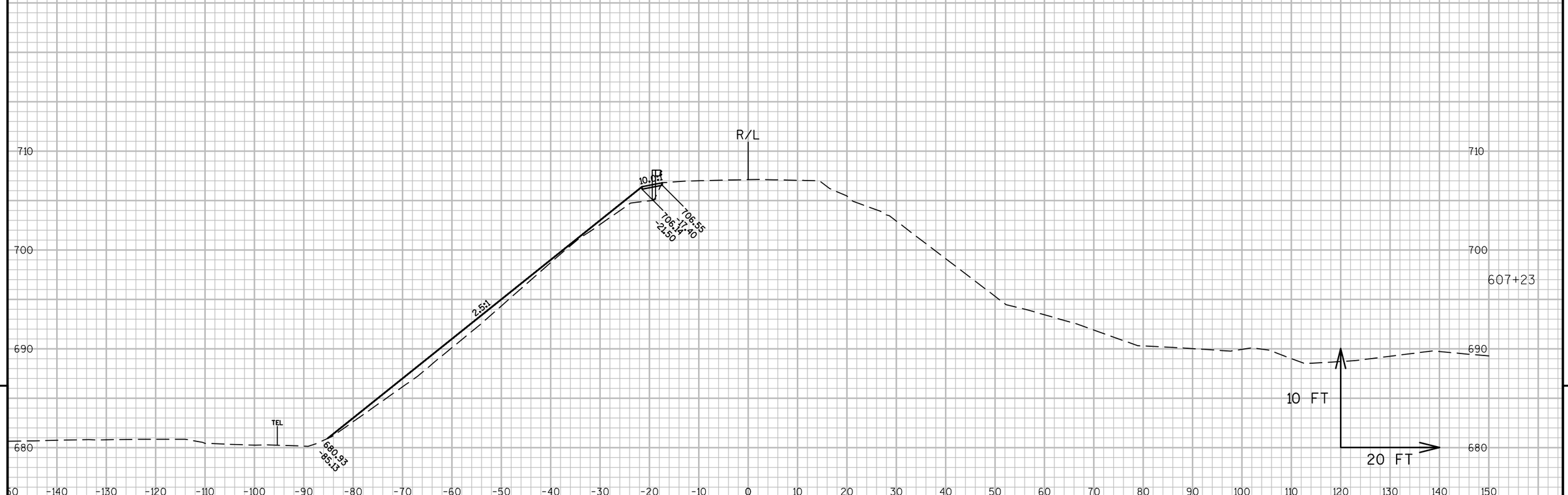
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 490	E

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LAYOUT NAME - 090207_XS - SECTION SHEET - (10)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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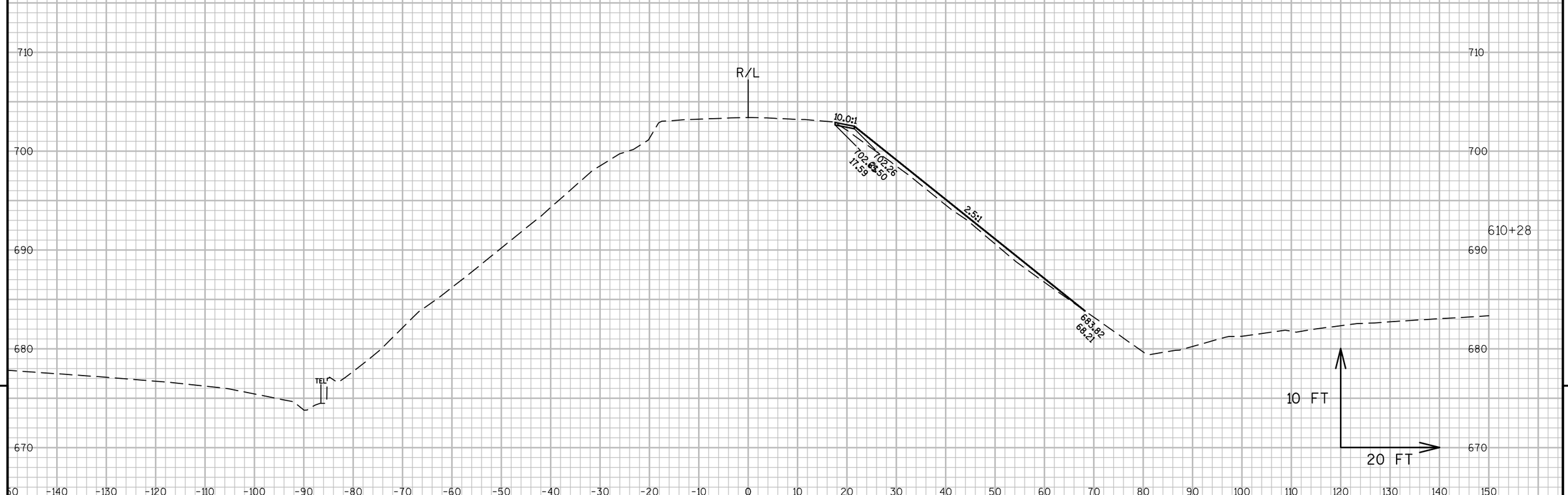
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 491	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (11)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



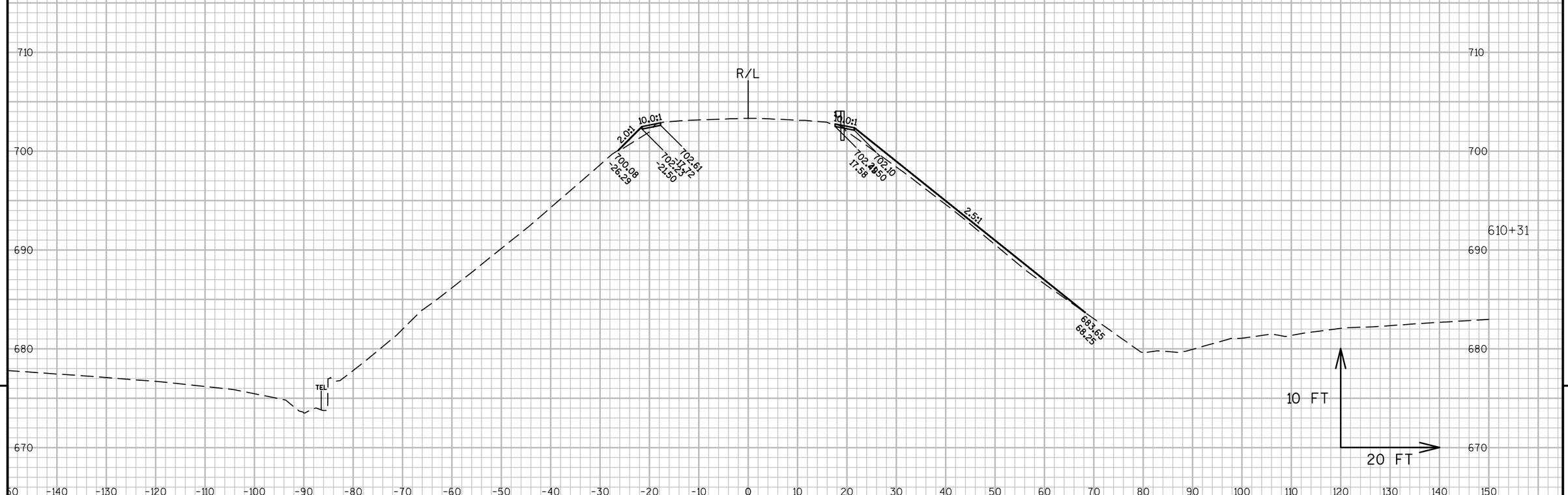
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 492 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (12)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



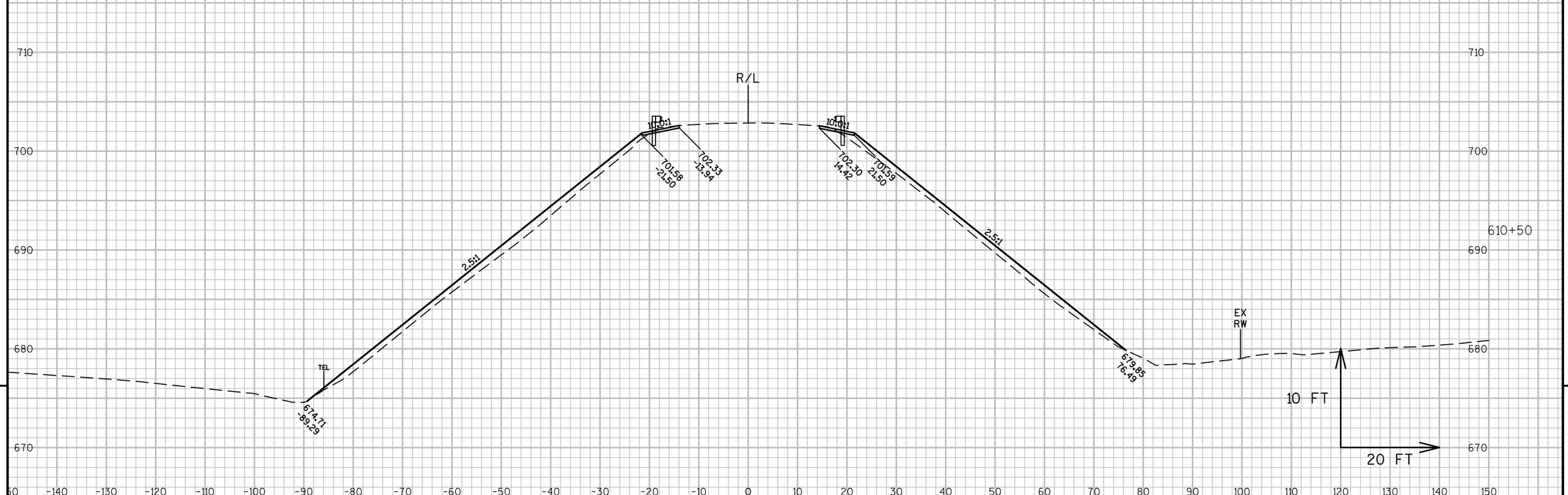
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 493 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (13)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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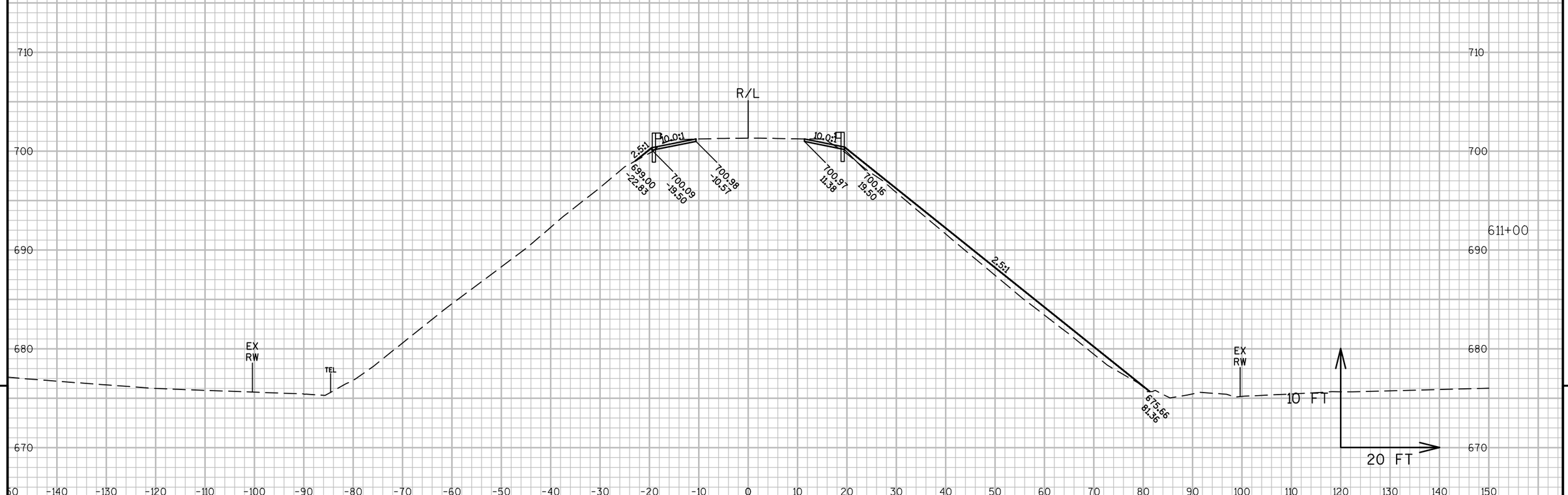
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 494	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (14)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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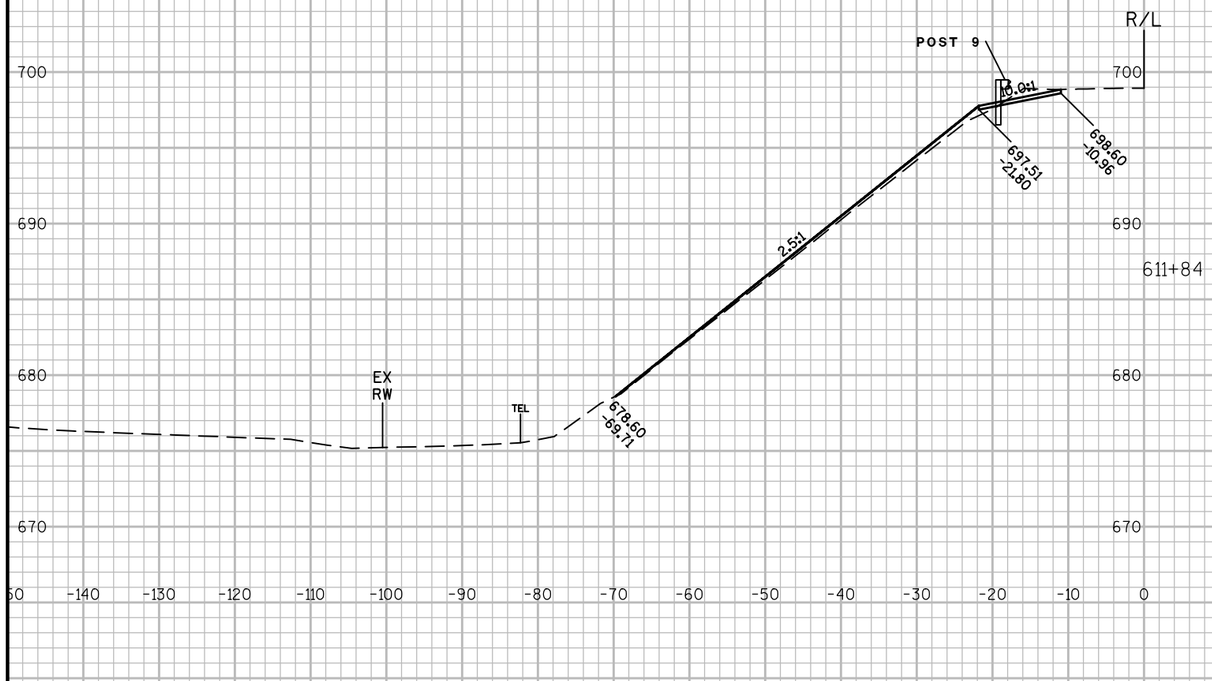
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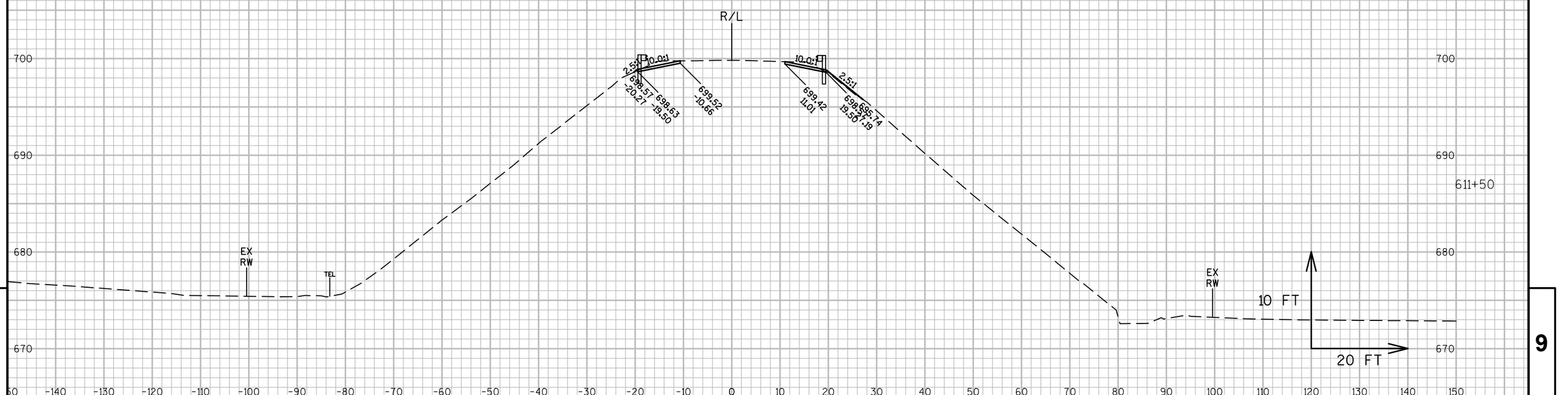
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 495	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (15)

PLOT DATE : 4/8/2019 2:06 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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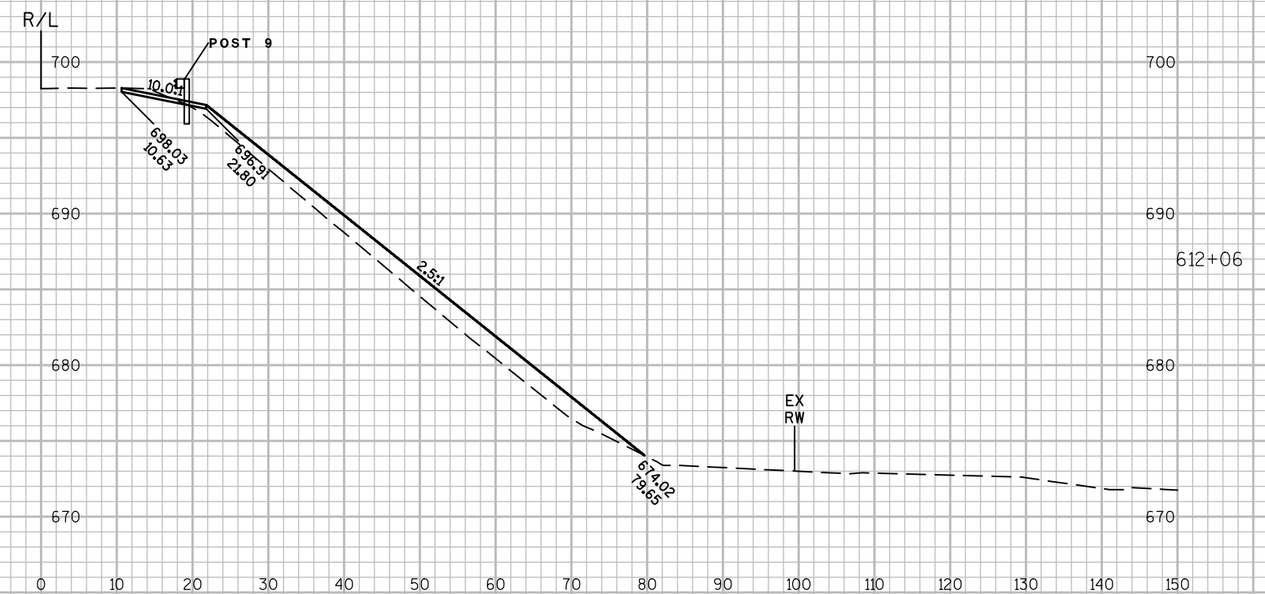
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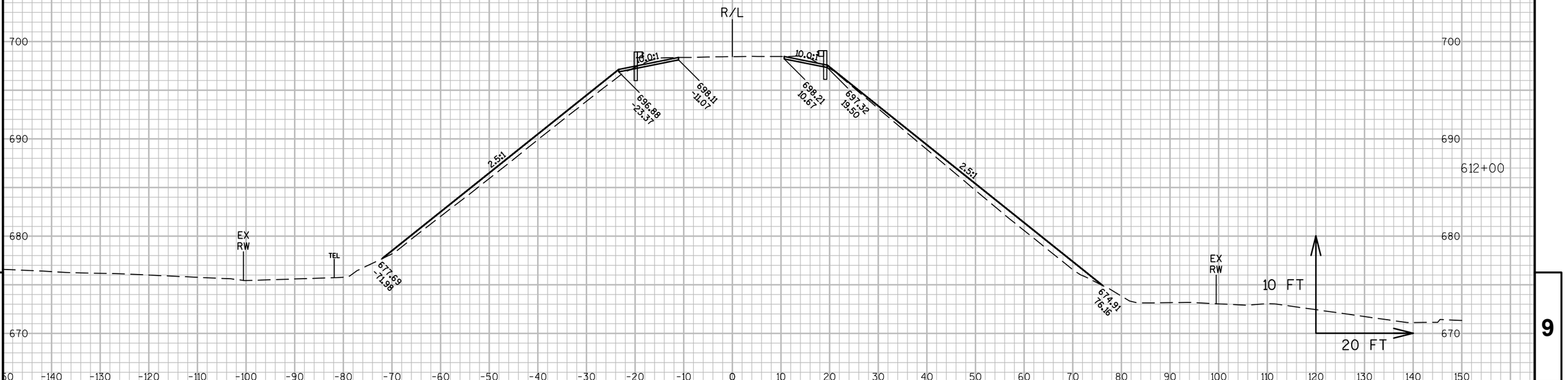
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 496	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (16)

PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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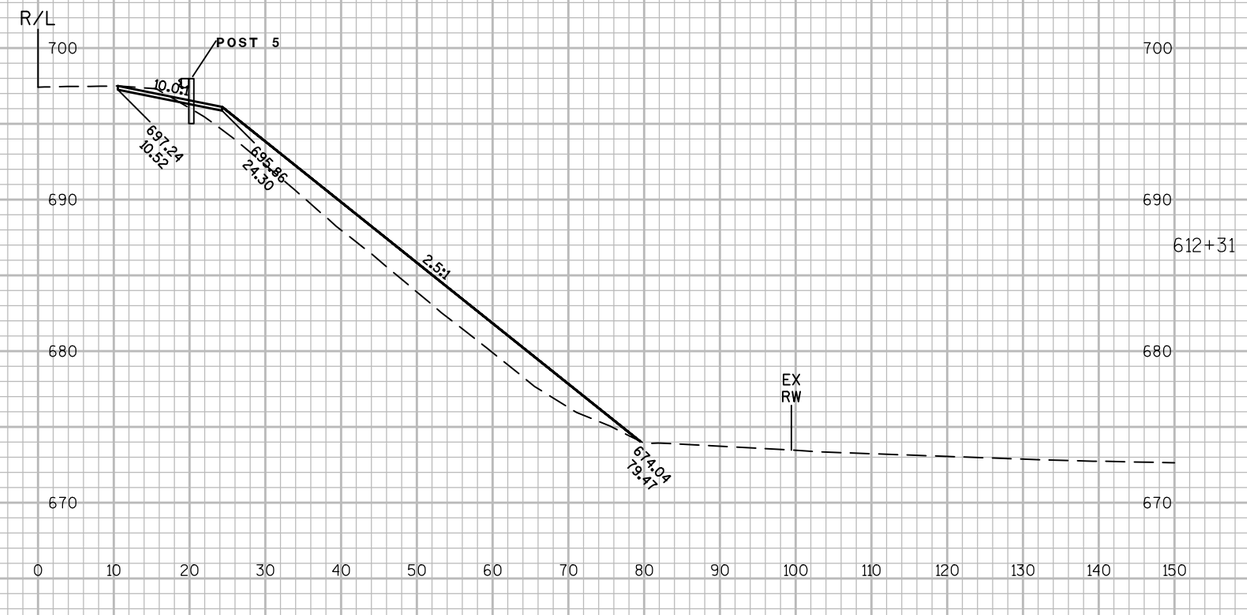
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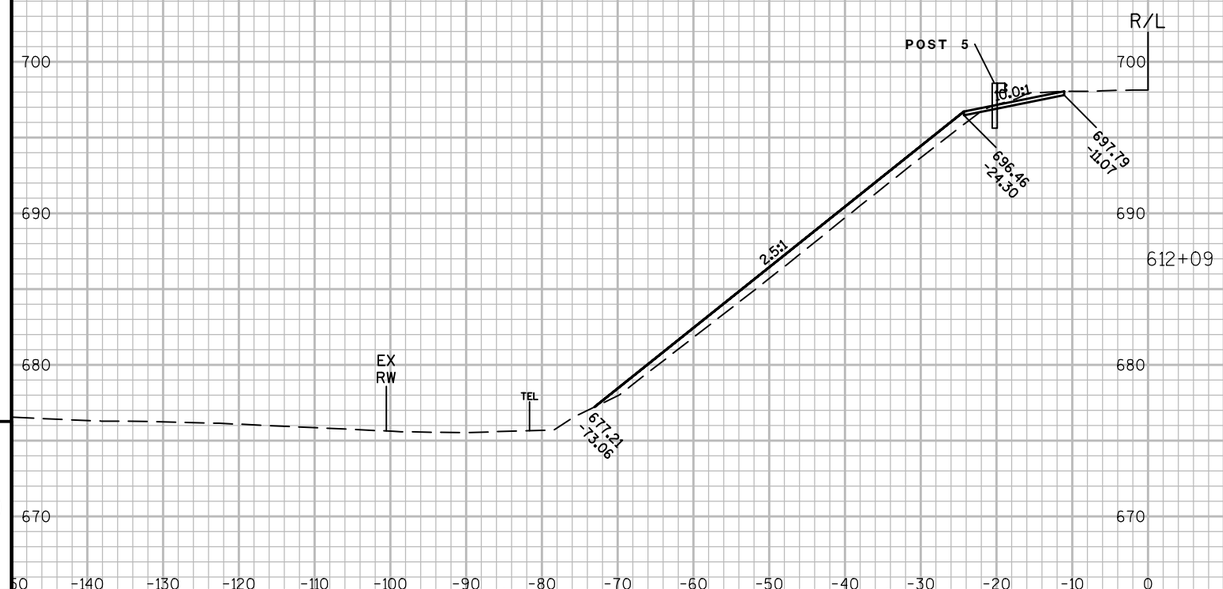
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 497	E

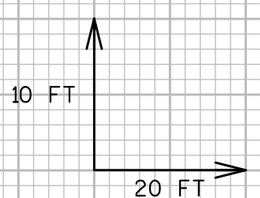
FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (17)

PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







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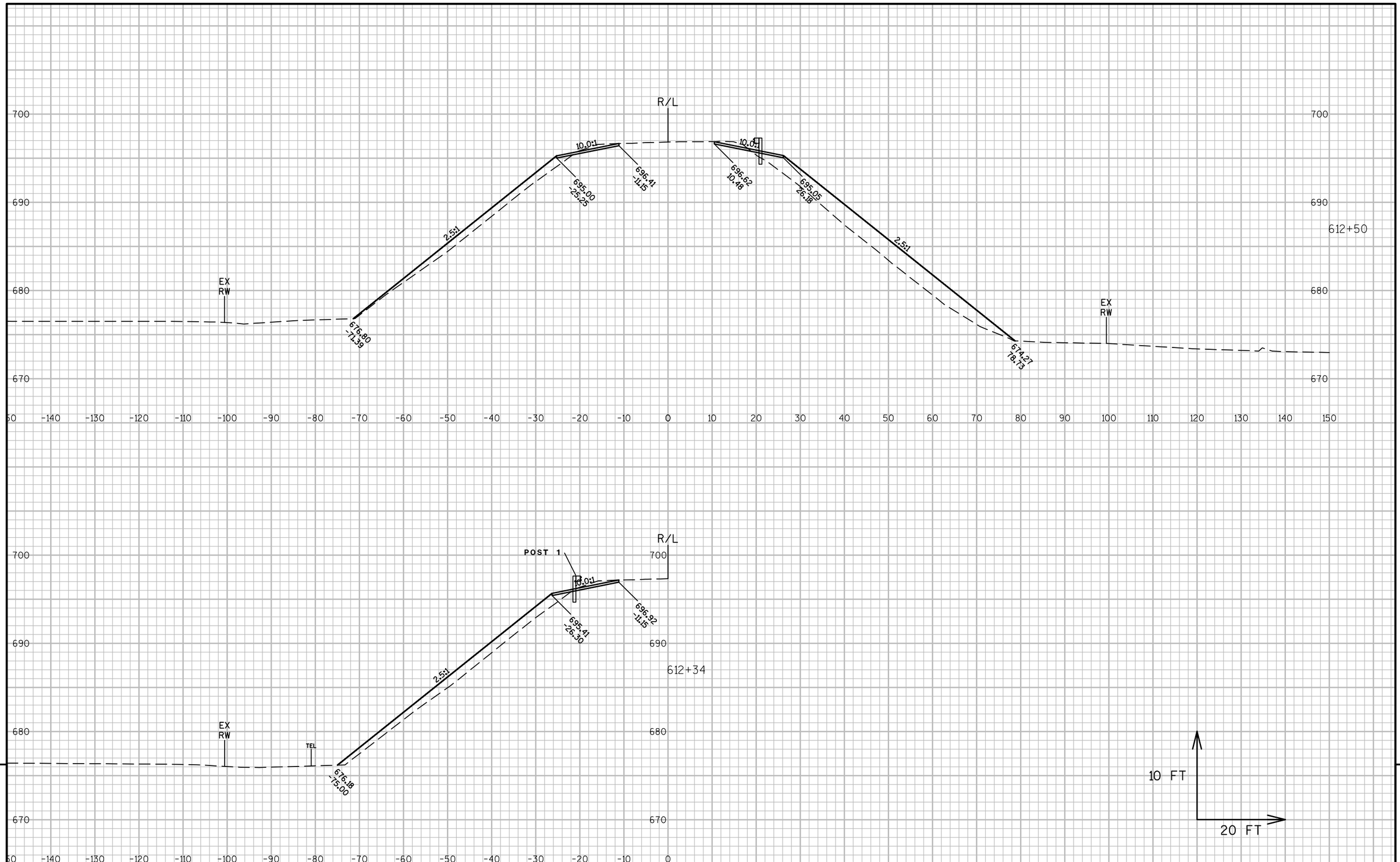
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 498	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (18)

PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



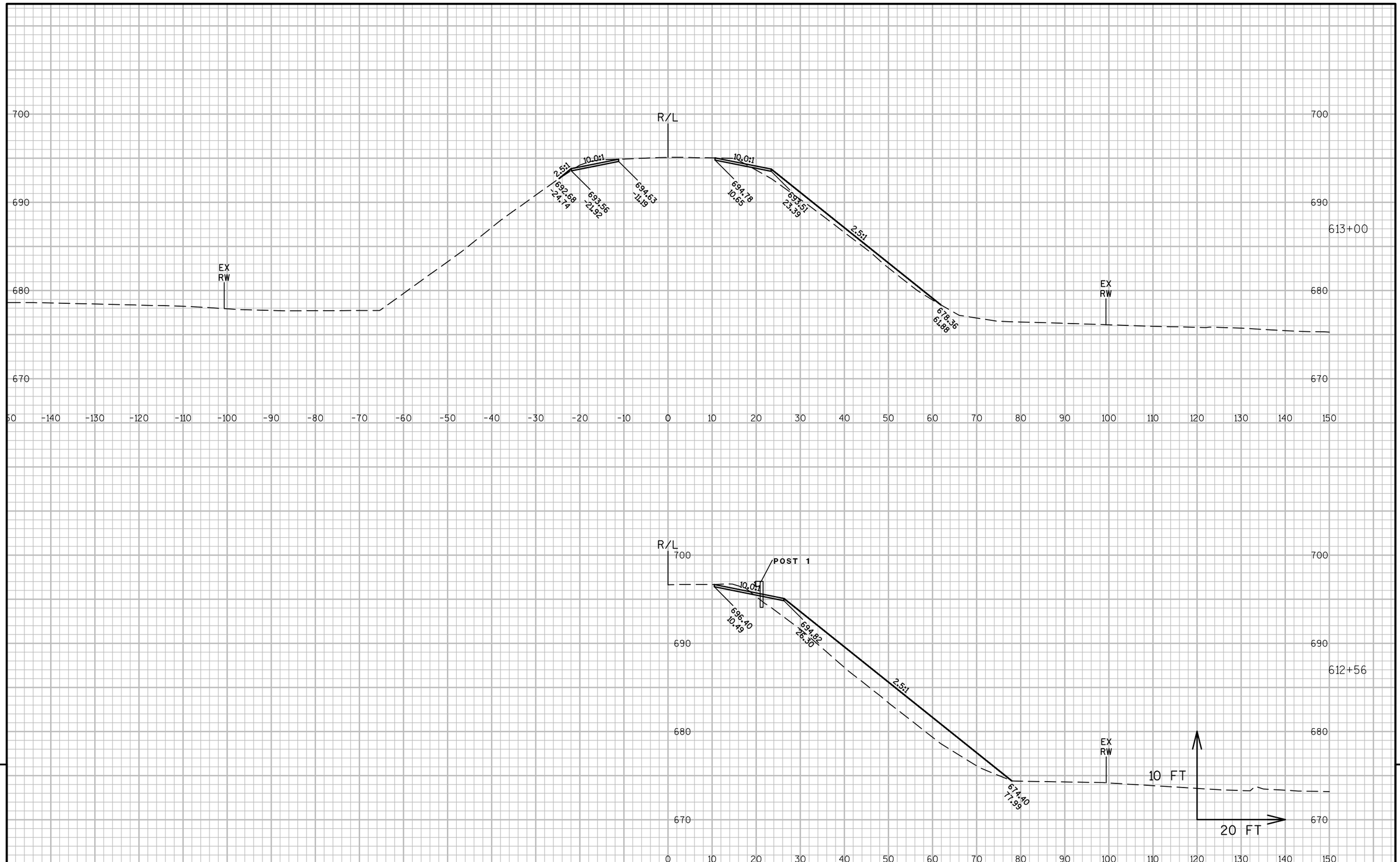
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 499	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (19)

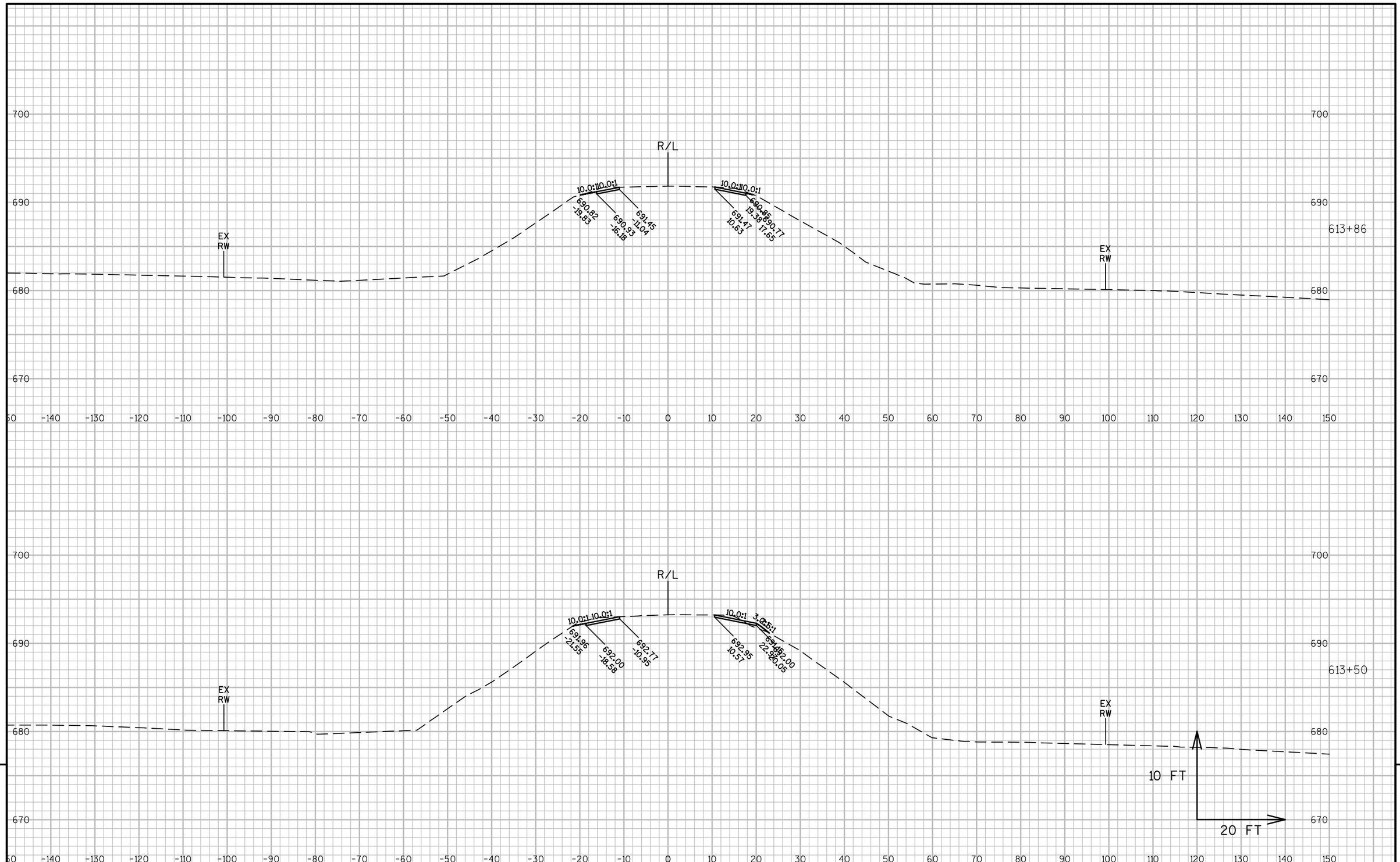
PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 500	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (20)

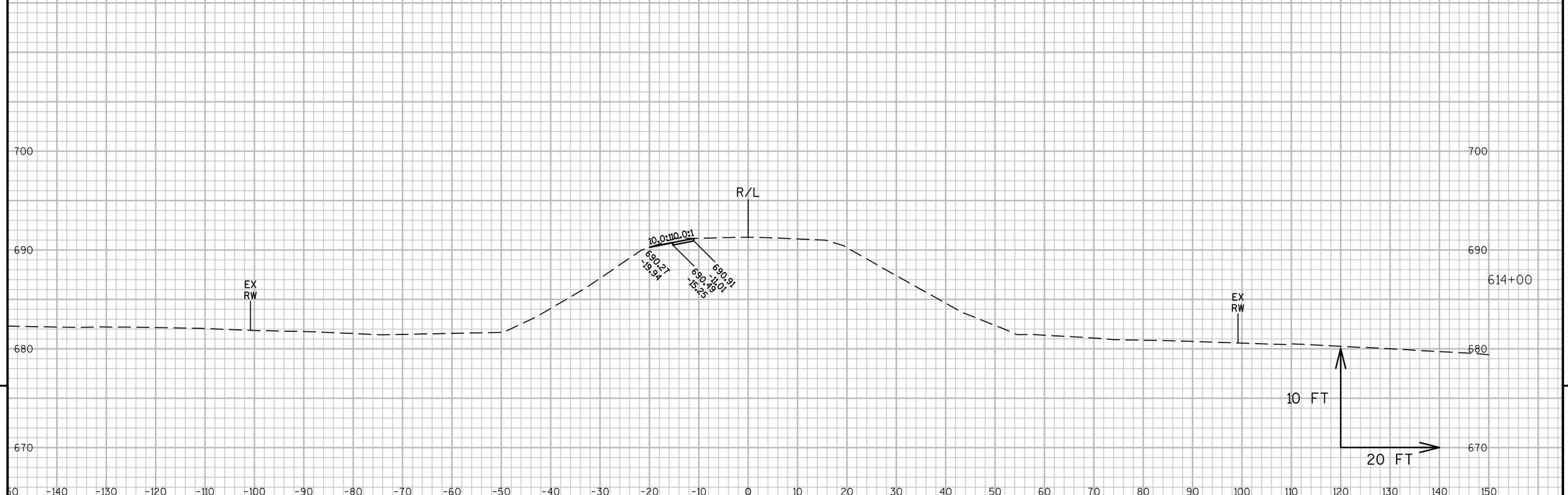
PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 501	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (21)

PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



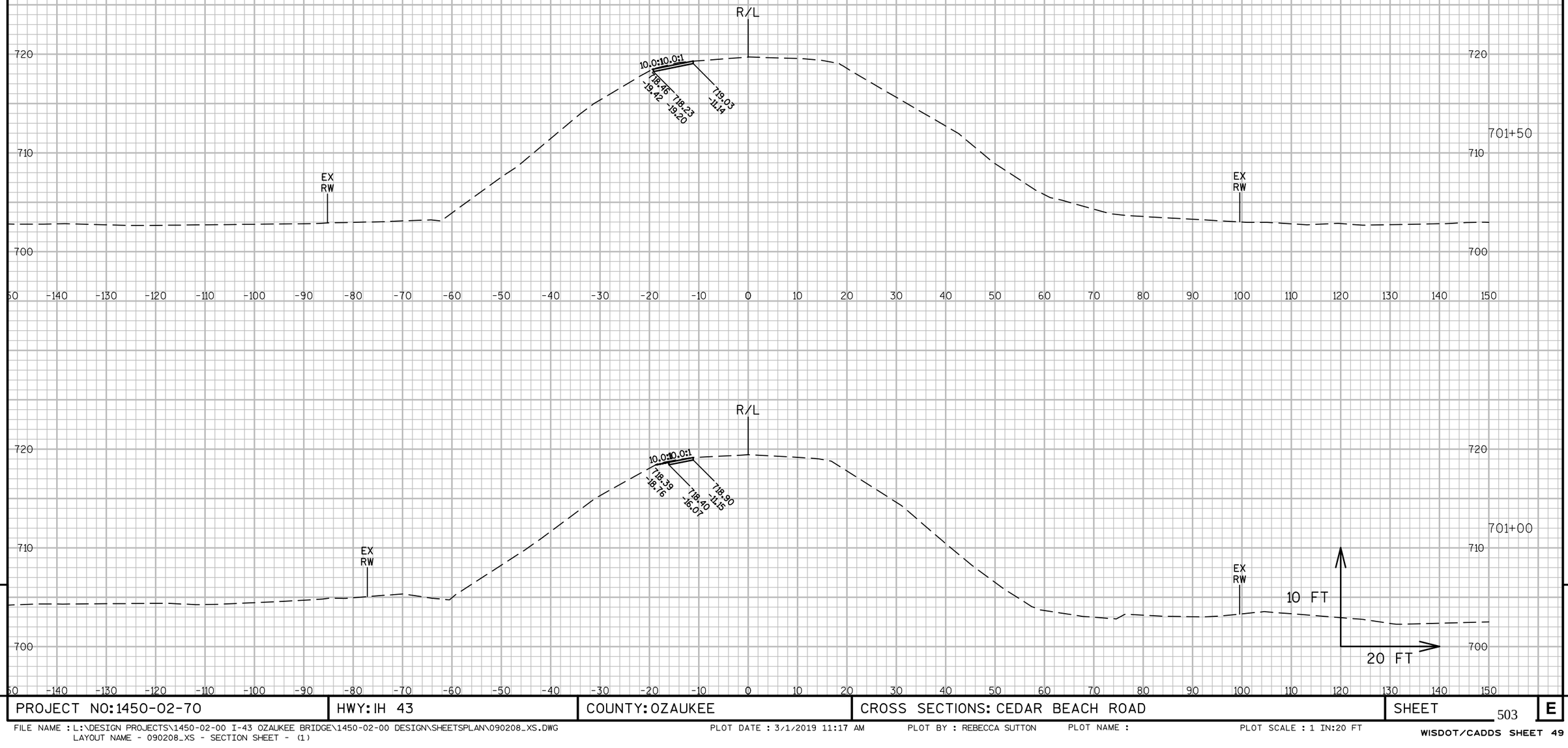
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SANDY BEACH ROAD	SHEET 502	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090207_XS.DWG
LAYOUT NAME - 090207_XS - SECTION SHEET - (22)

PLOT DATE : 4/8/2019 2:07 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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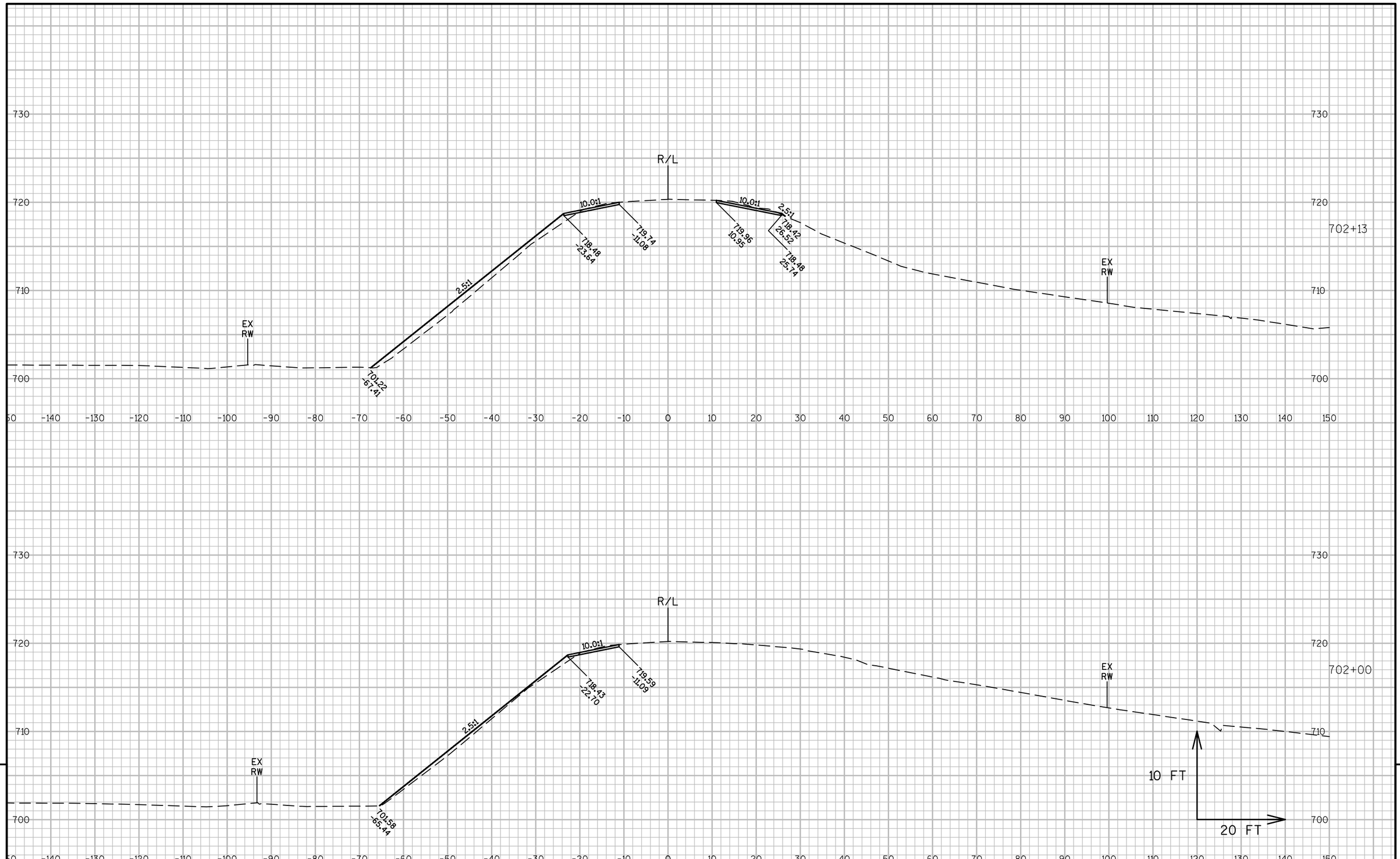
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 503	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (1)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



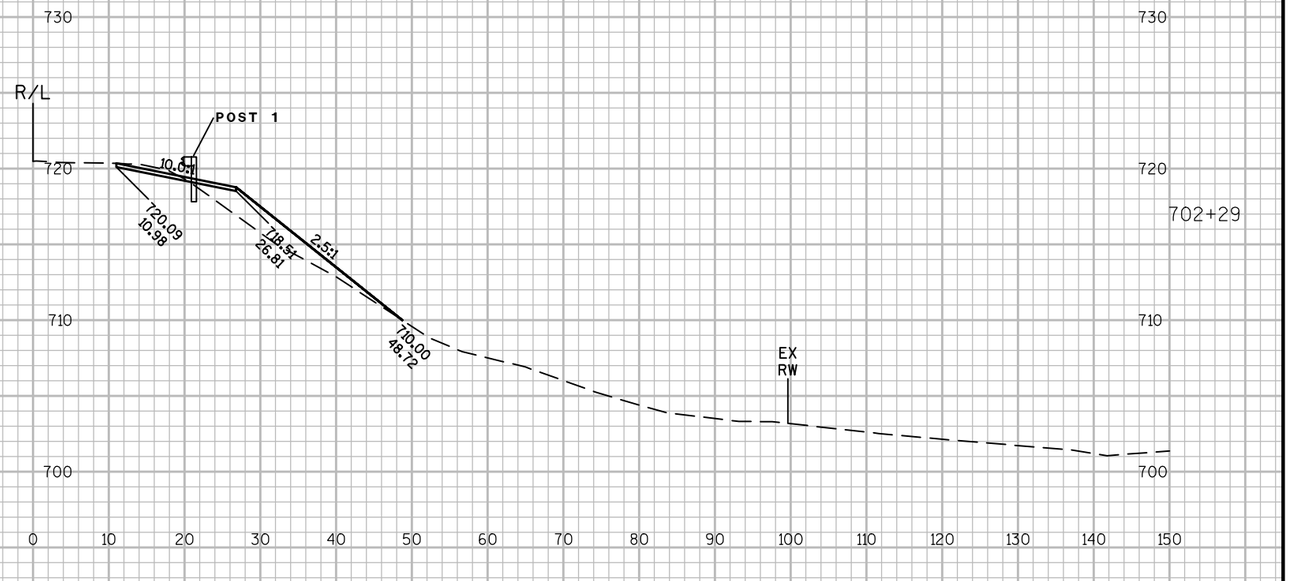
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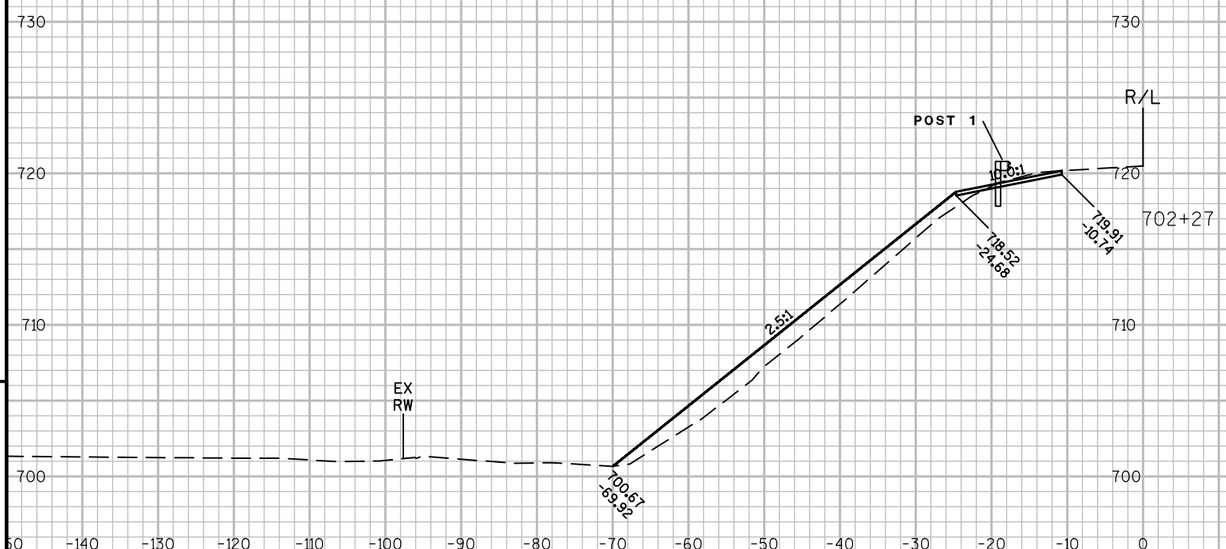
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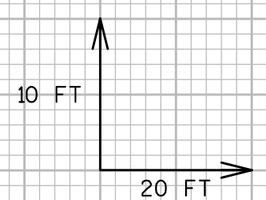
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 504	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (2)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT







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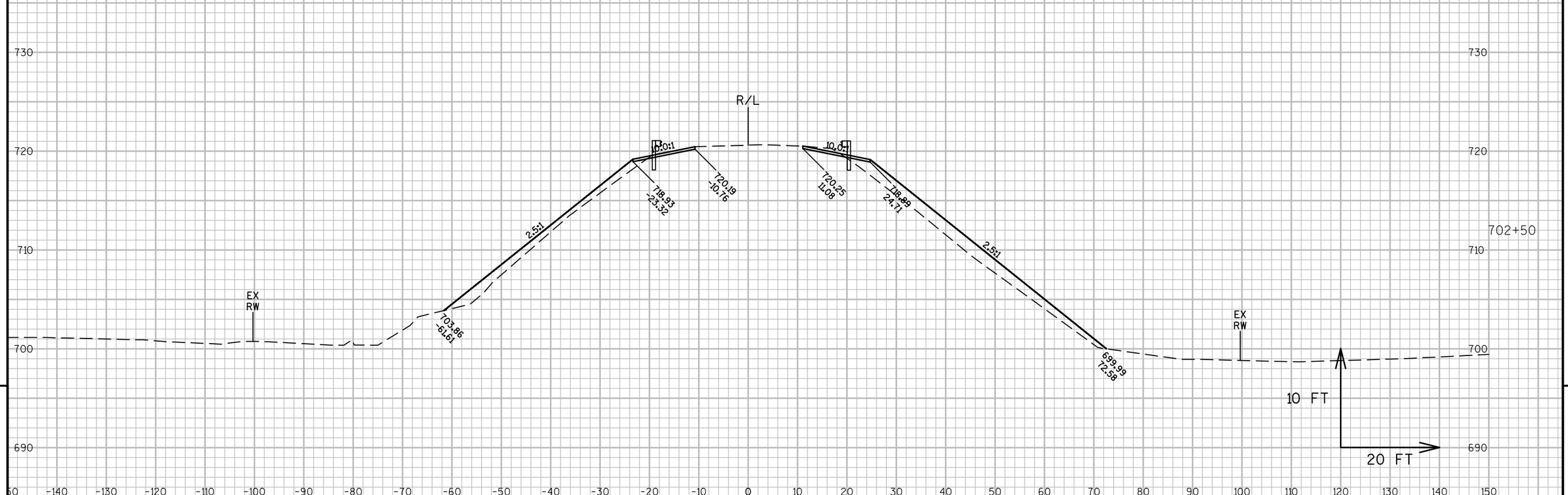
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 505	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (3)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



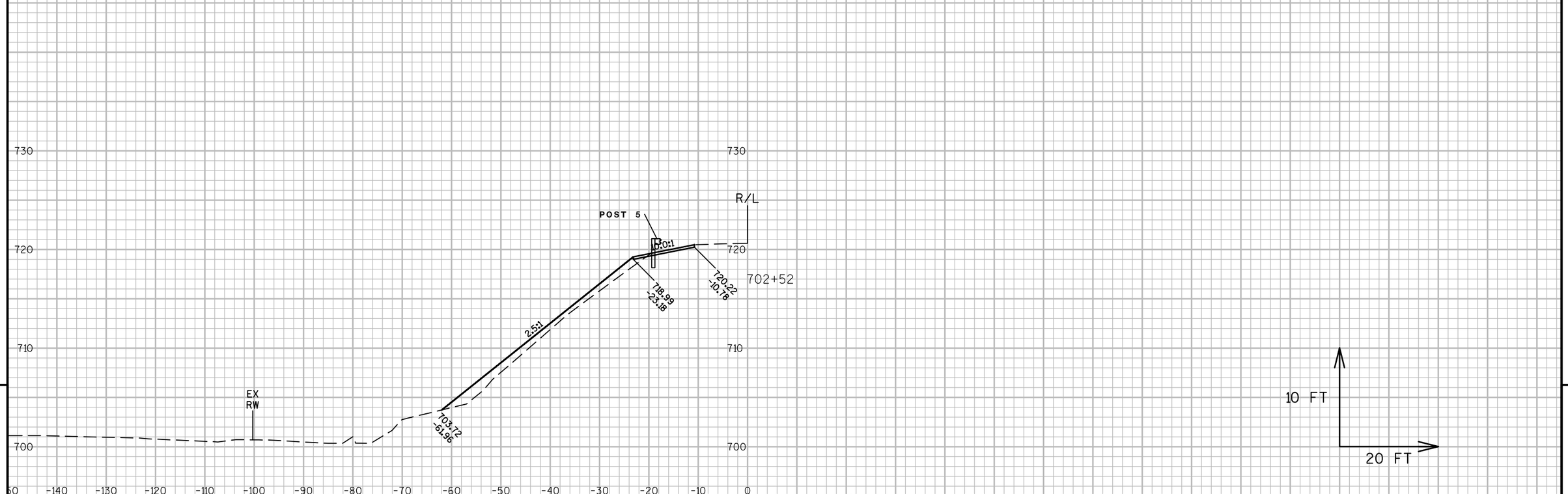
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 506	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (4)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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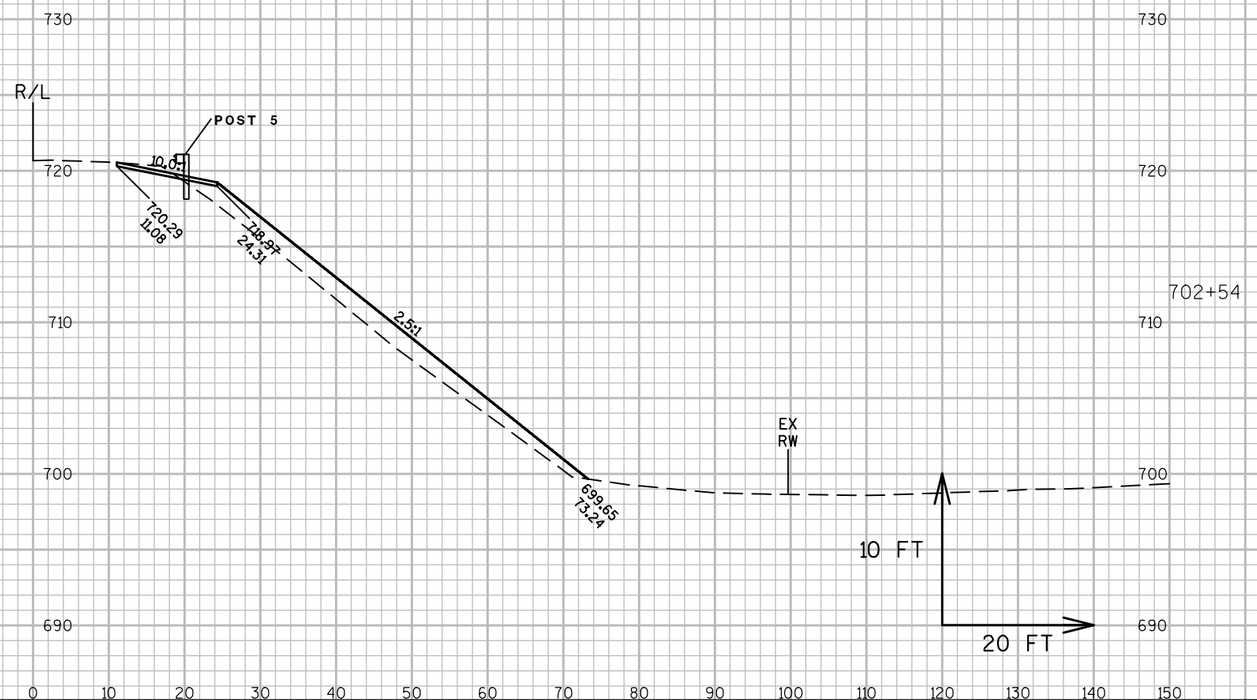
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 507	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (5)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



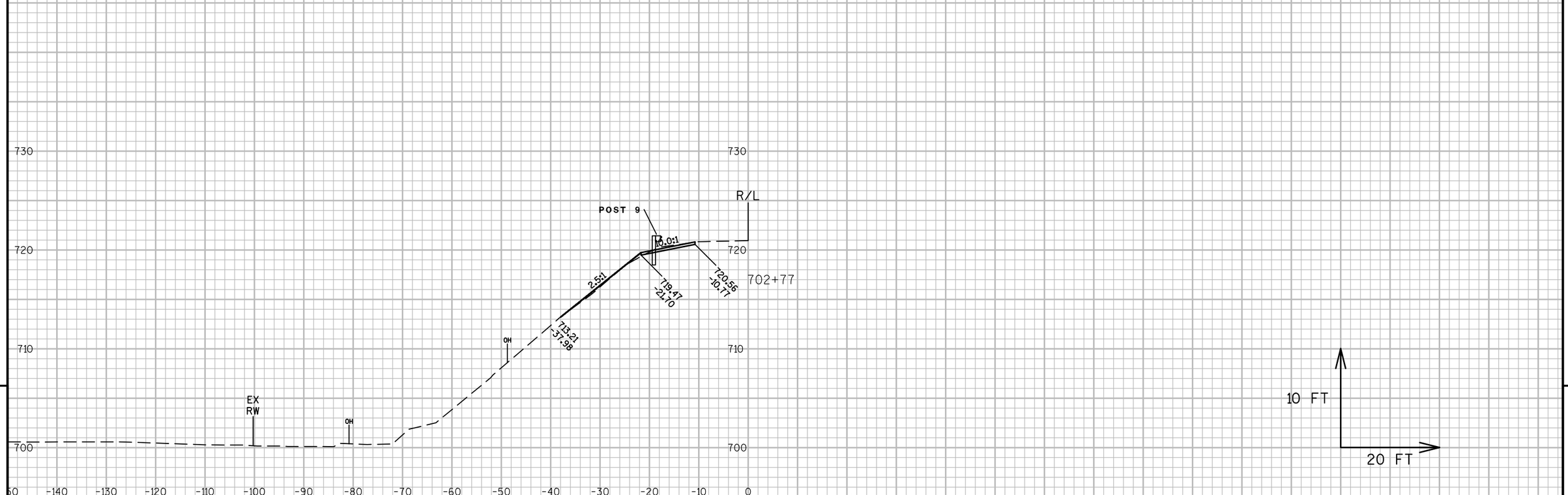
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 508	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (6)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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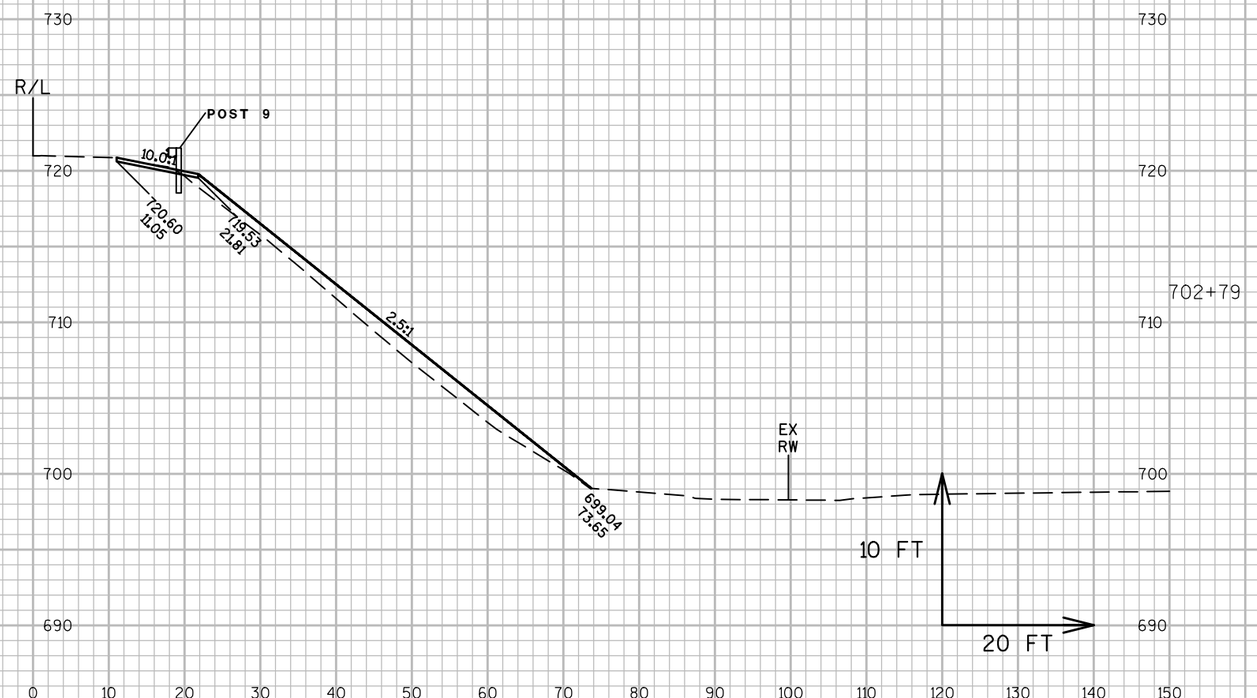
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 509	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (7)

PLOT DATE : 3/1/2019 11:17 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

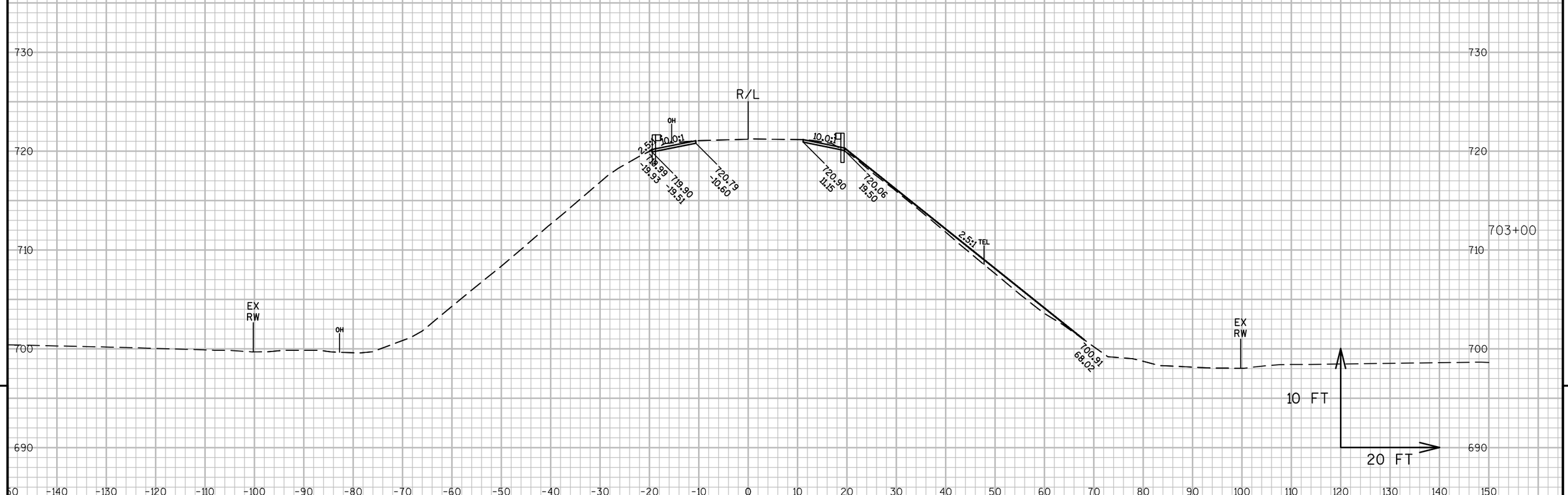
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 510	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (8)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



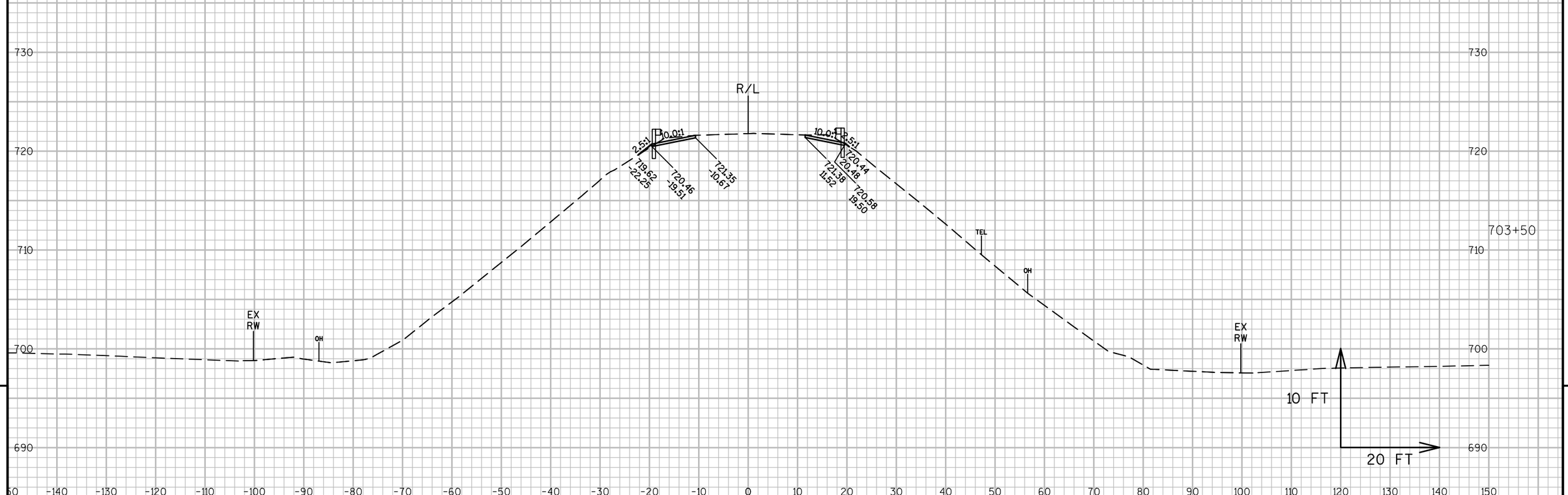
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 511	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (9)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

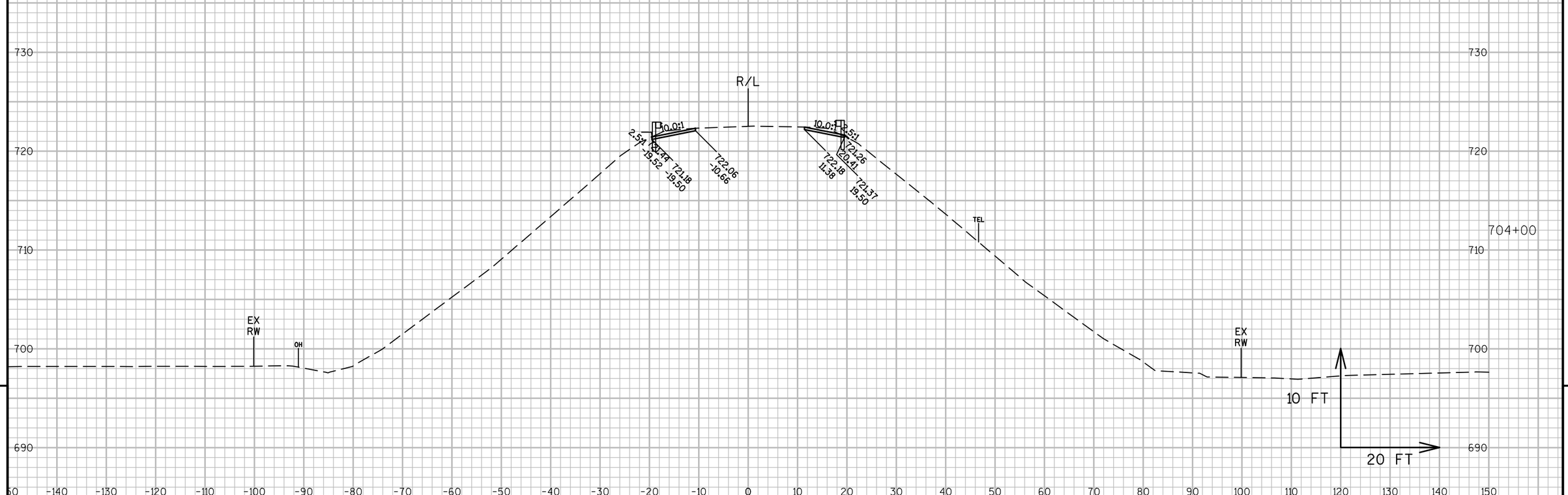


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 512 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (10)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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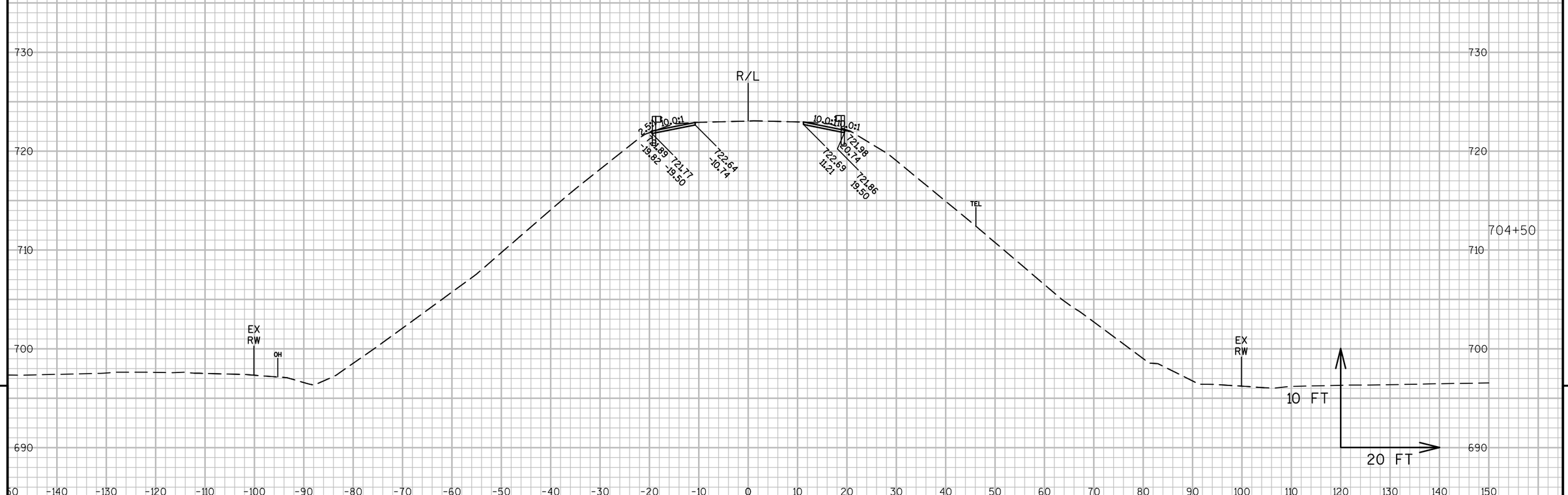
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 513	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (11)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



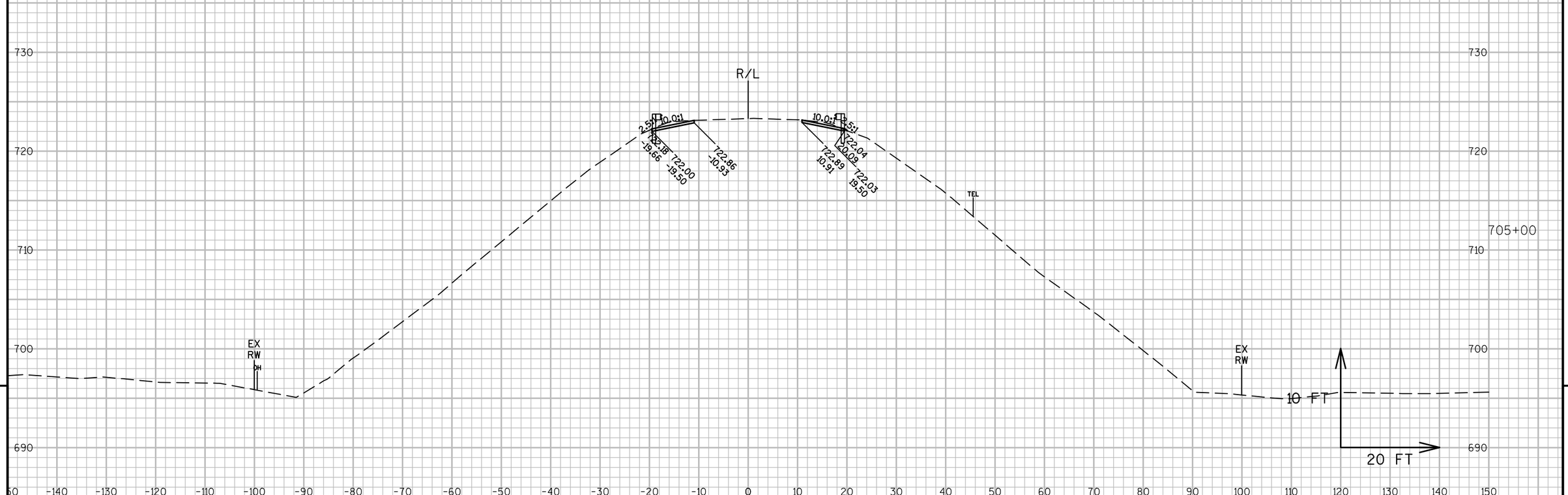
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 514	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (12)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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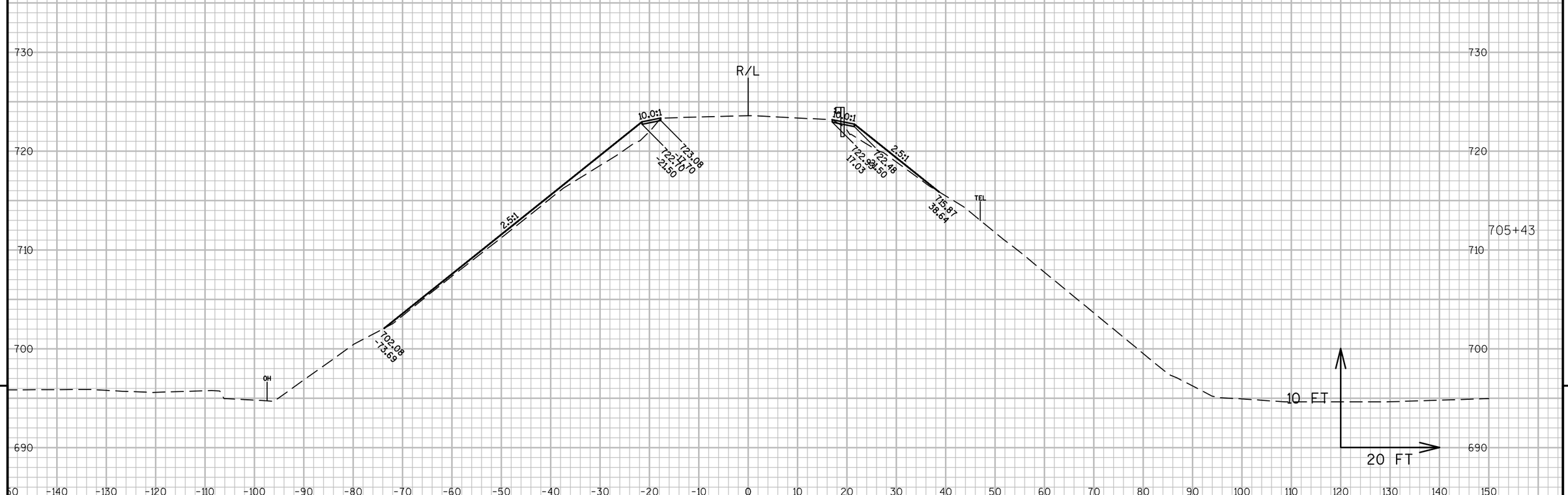
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 515	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (13)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



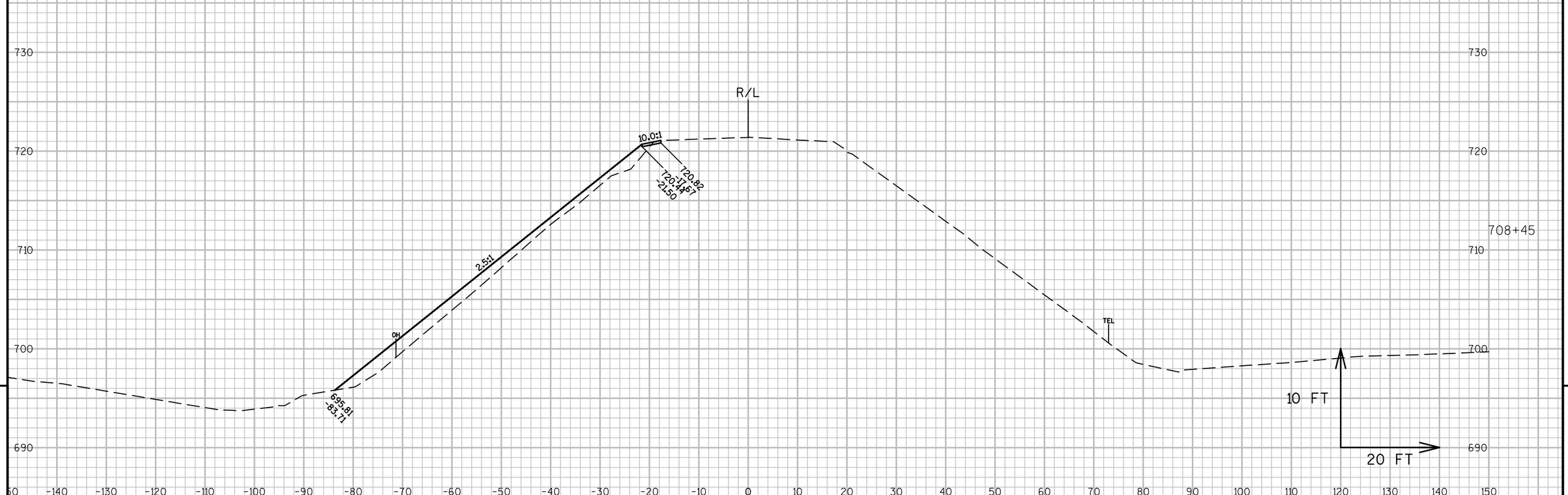
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 516	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (14)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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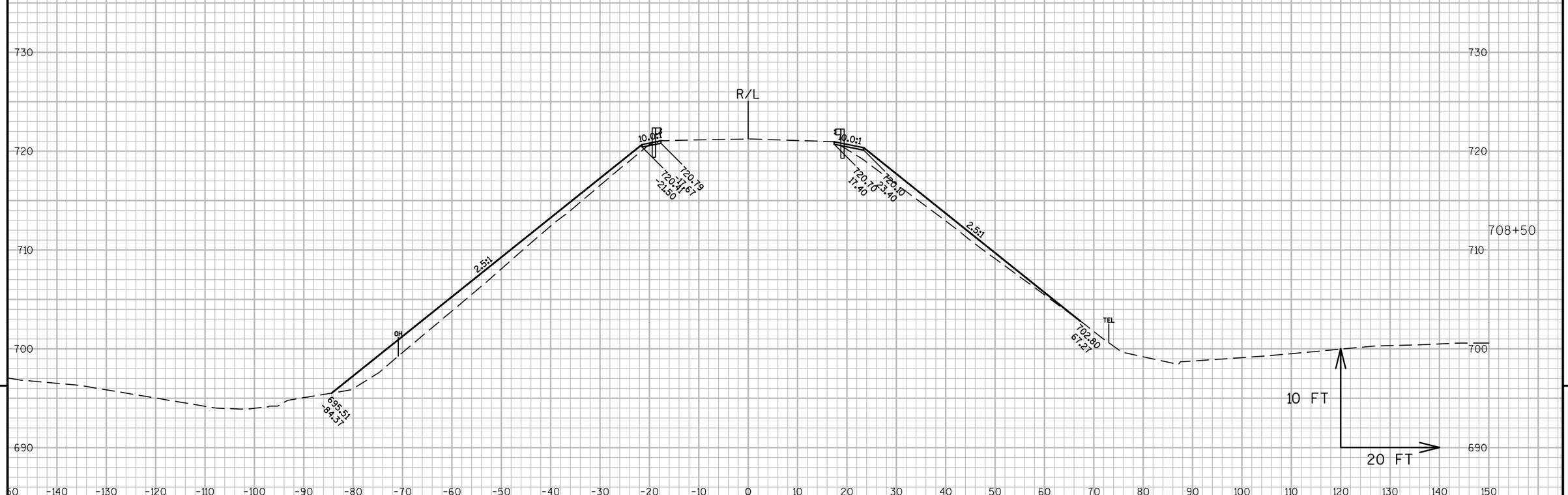
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 517	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (15)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

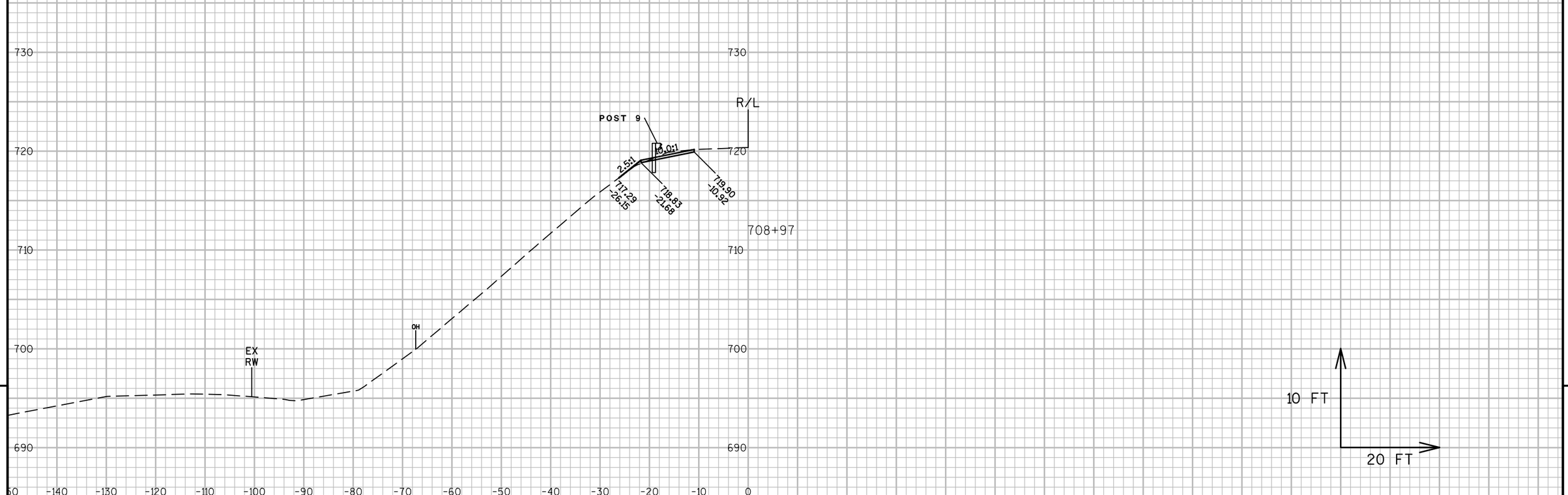


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 518 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (16)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



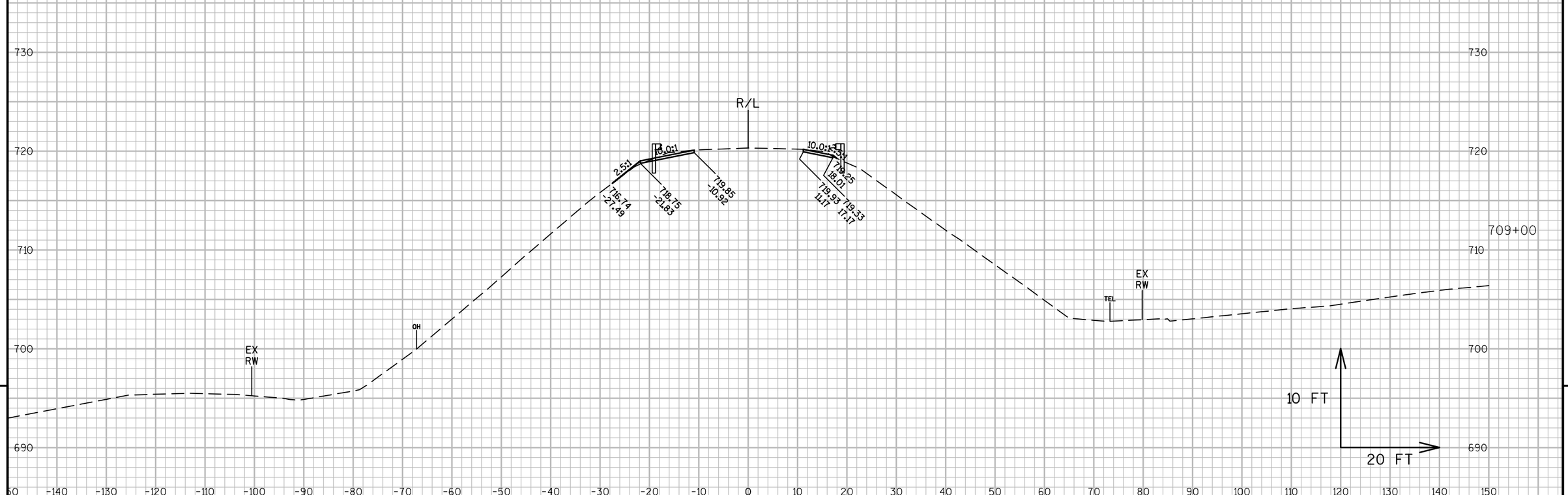
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 519	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (17)

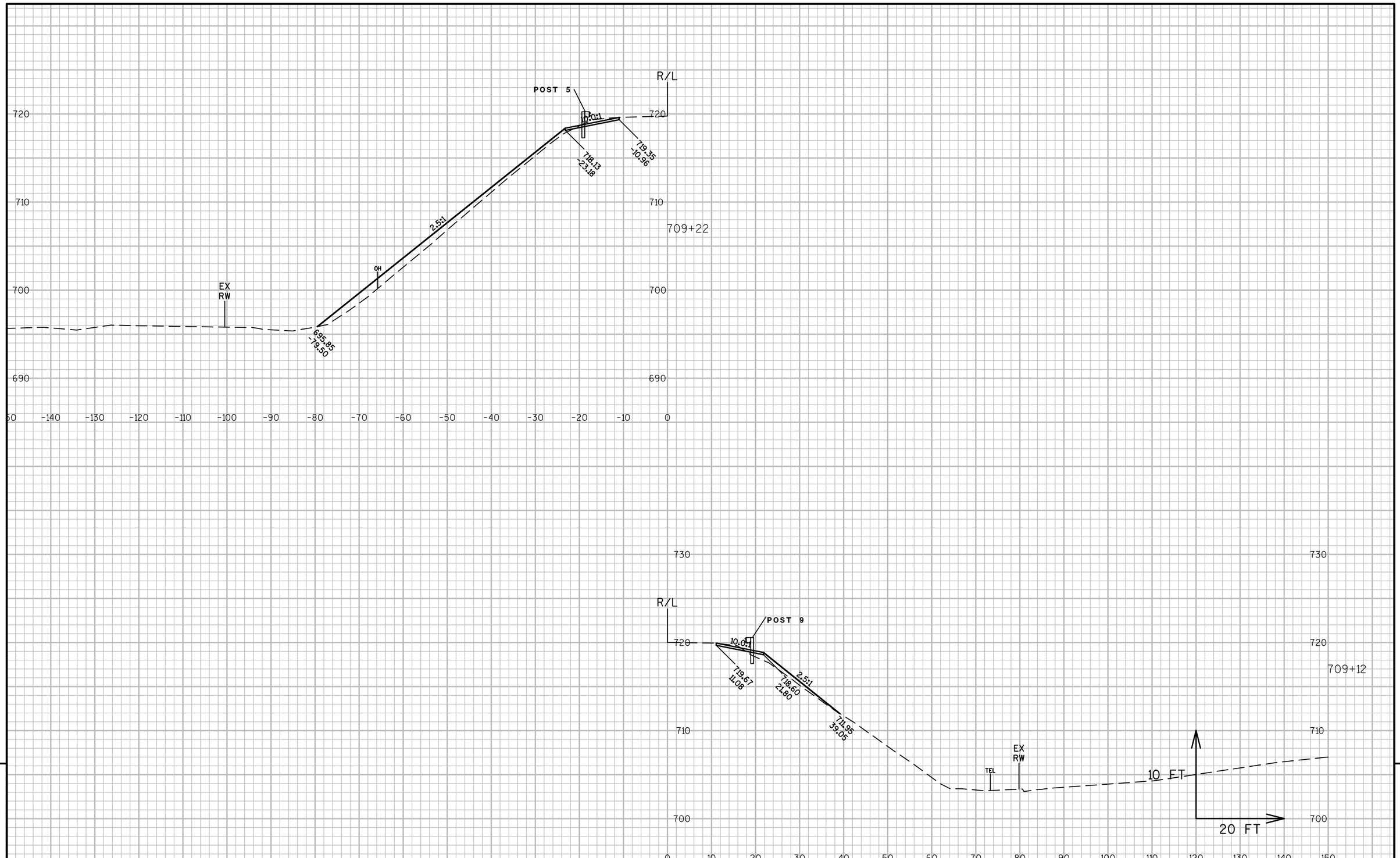
PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 520	E



9

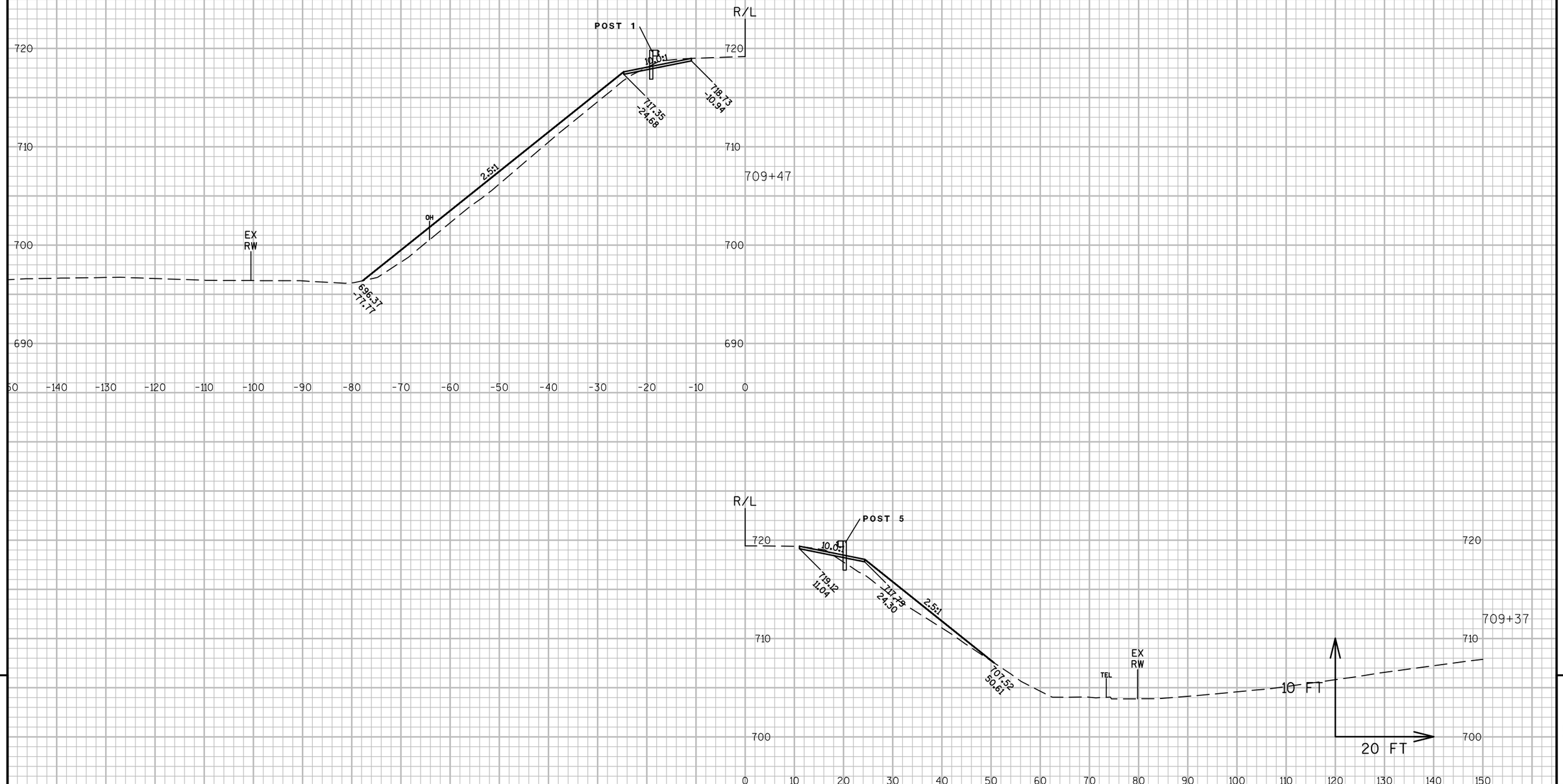
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 521	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (19)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

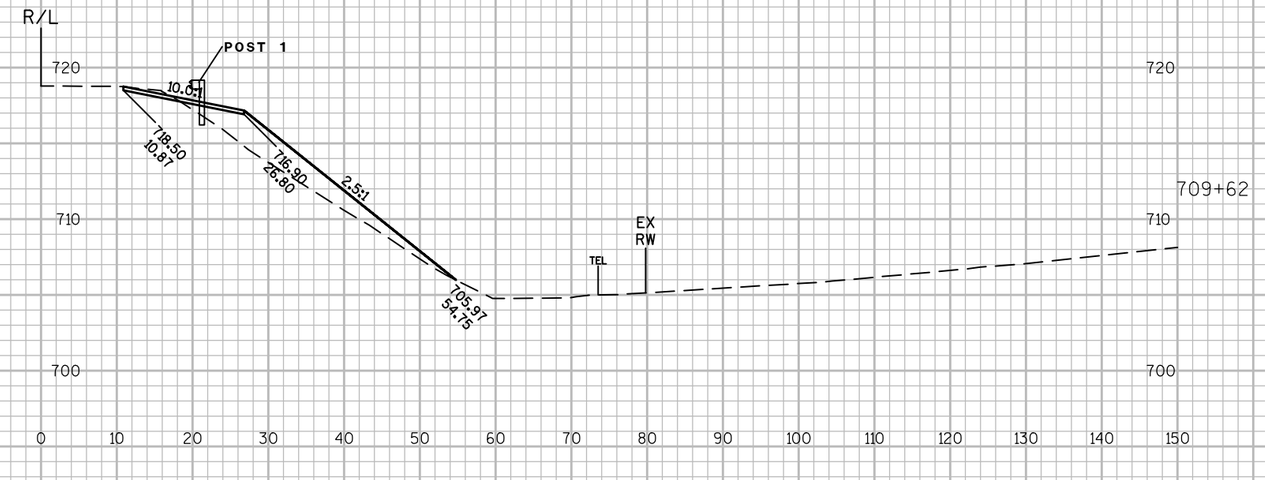
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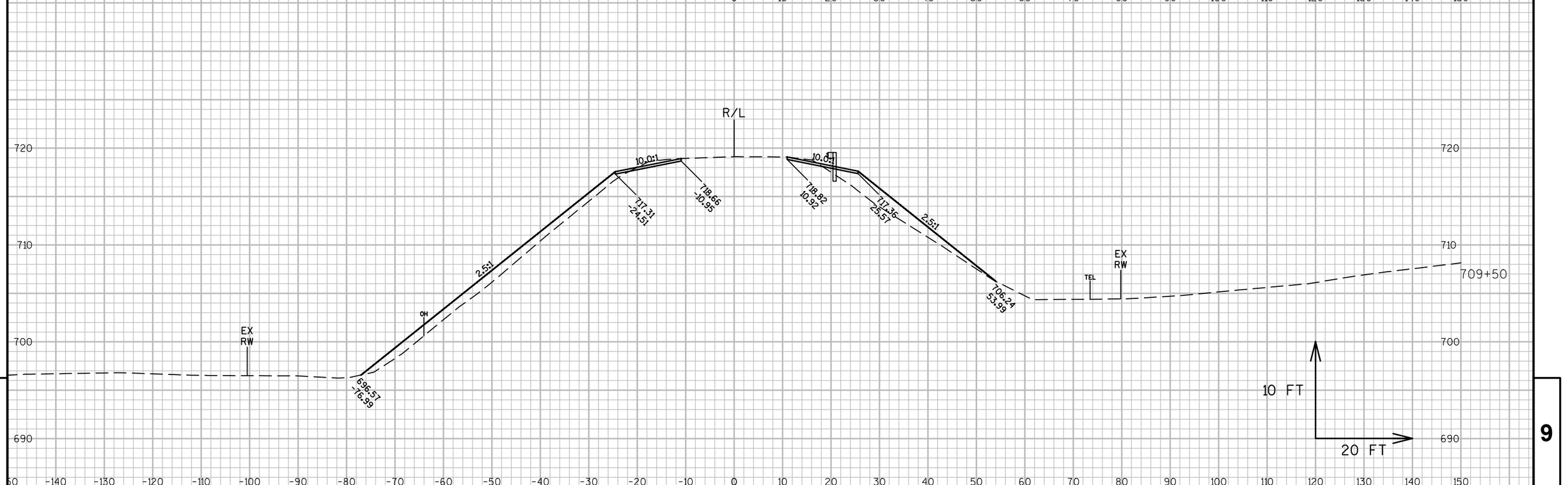
PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 522	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (20)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





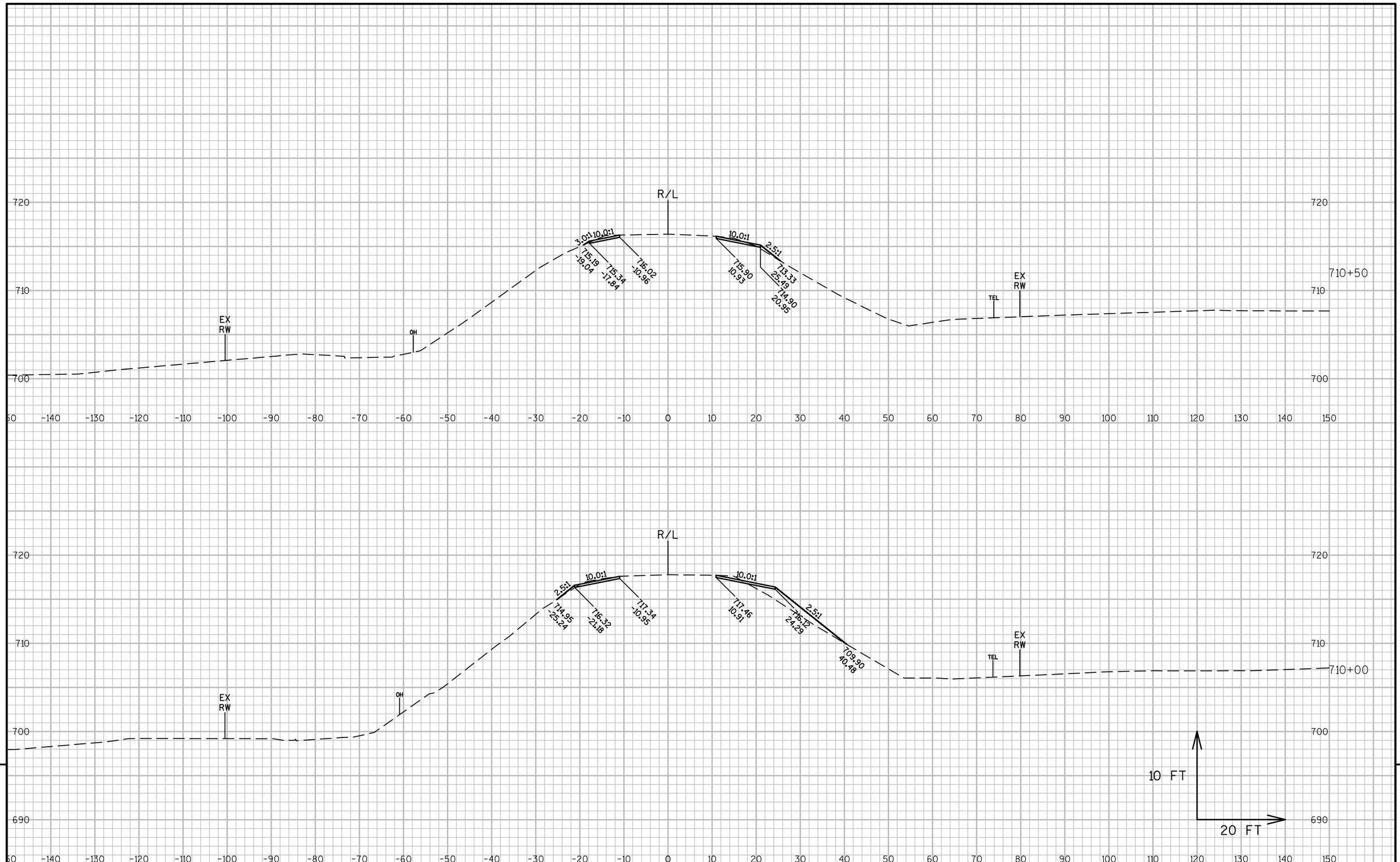
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 523	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (21)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT



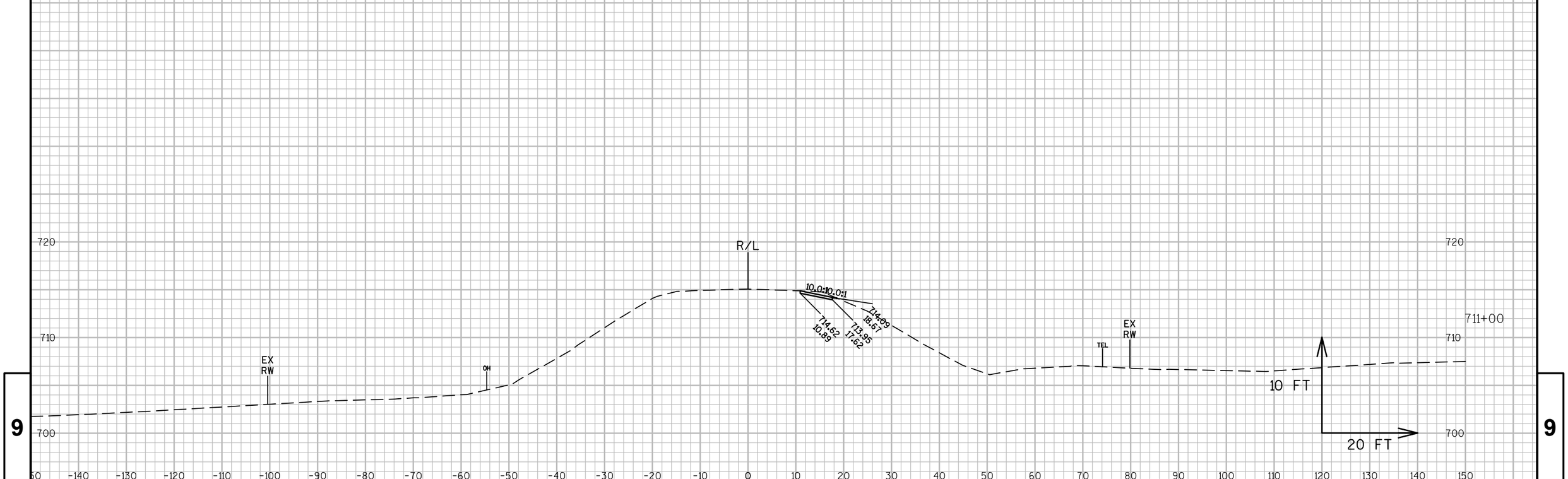
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 524	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (22)

PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT

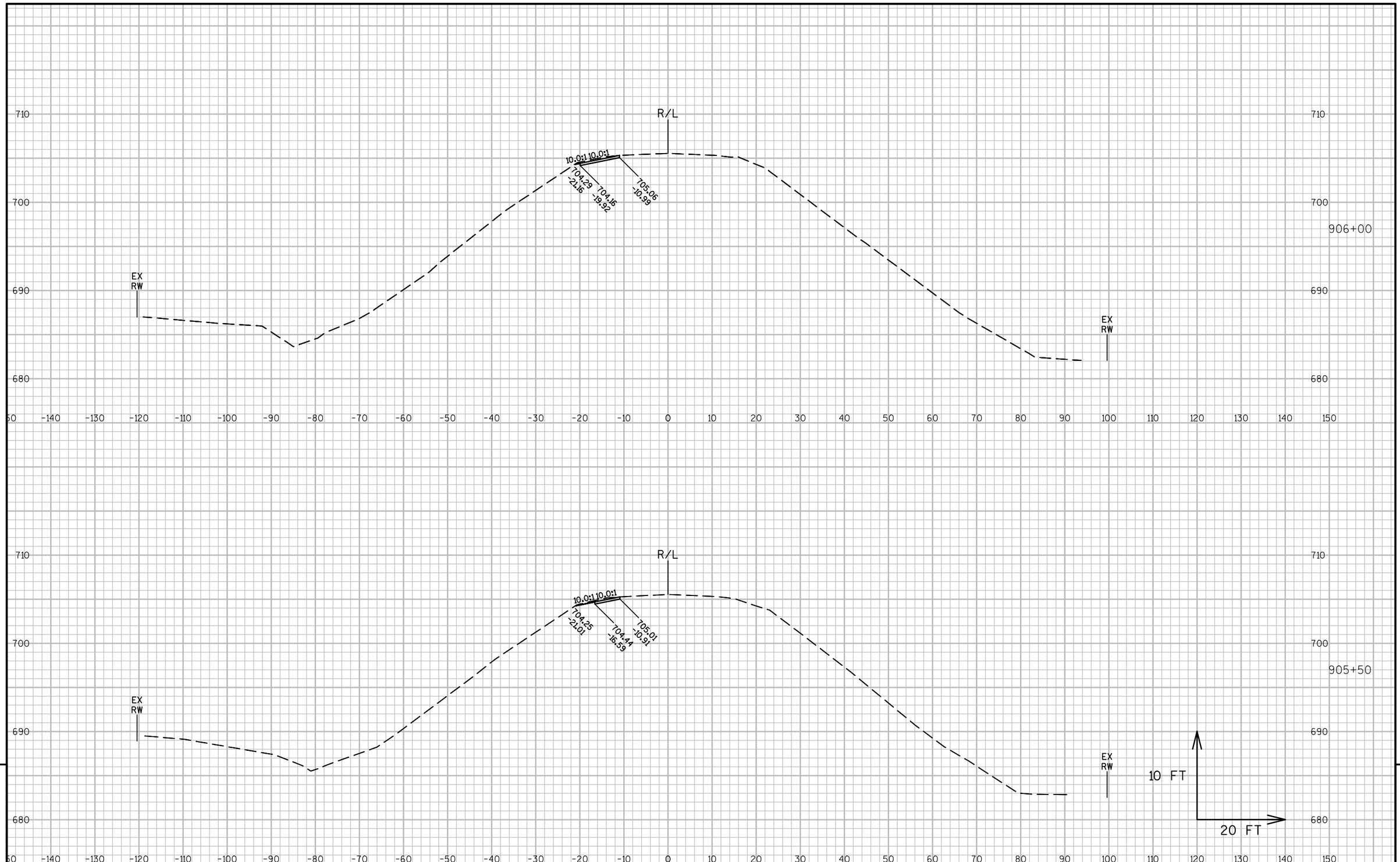


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: CEDAR BEACH ROAD	SHEET 525	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090208_XS.DWG
LAYOUT NAME - 090208_XS - SECTION SHEET - (23)
PLOT DATE : 3/1/2019 11:18 AM PLOT BY : REBECCA SUTTON PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

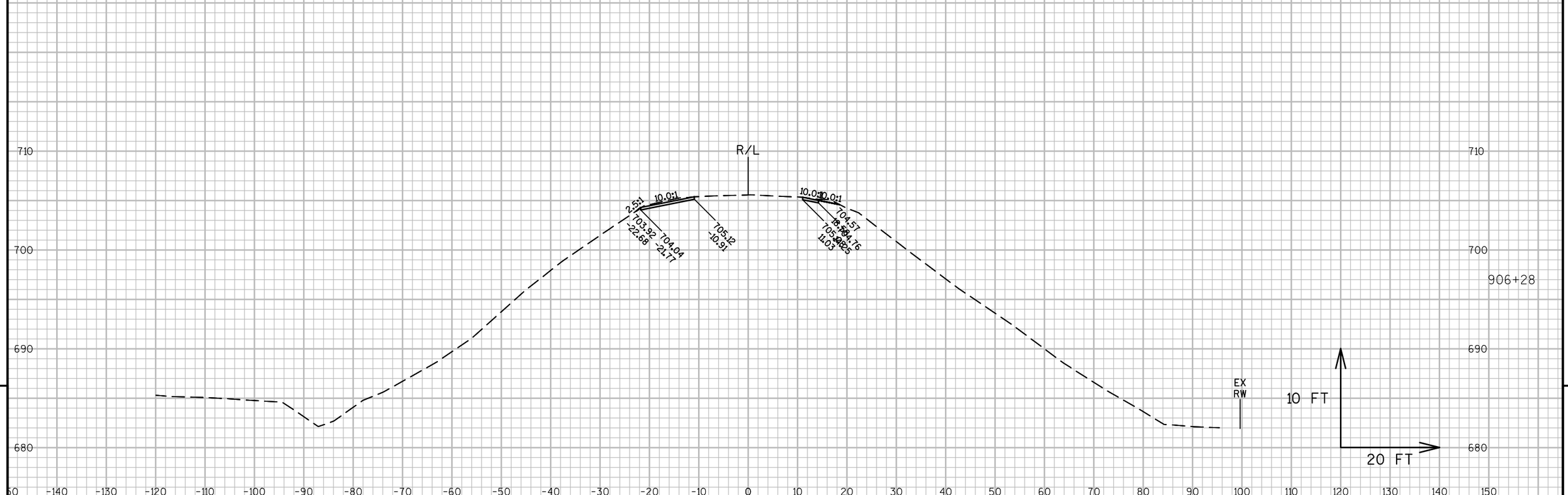
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 526	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (1)

PLOT DATE : 4/8/2019 2:13 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



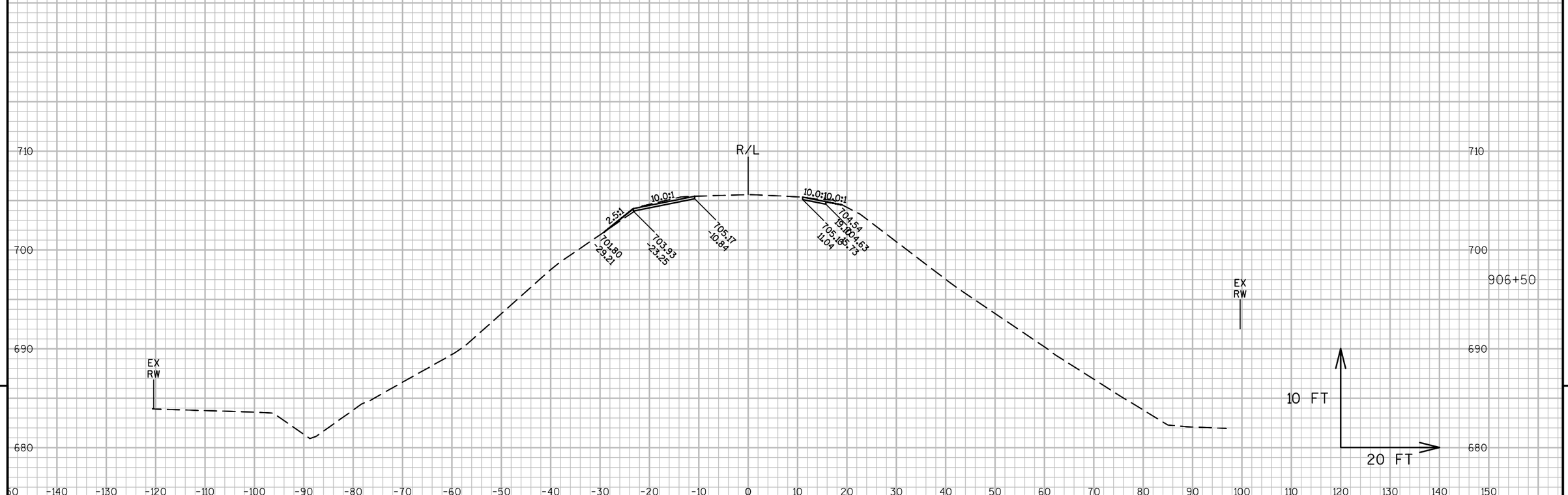
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 527	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (2)

PLOT DATE : 4/8/2019 2:13 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



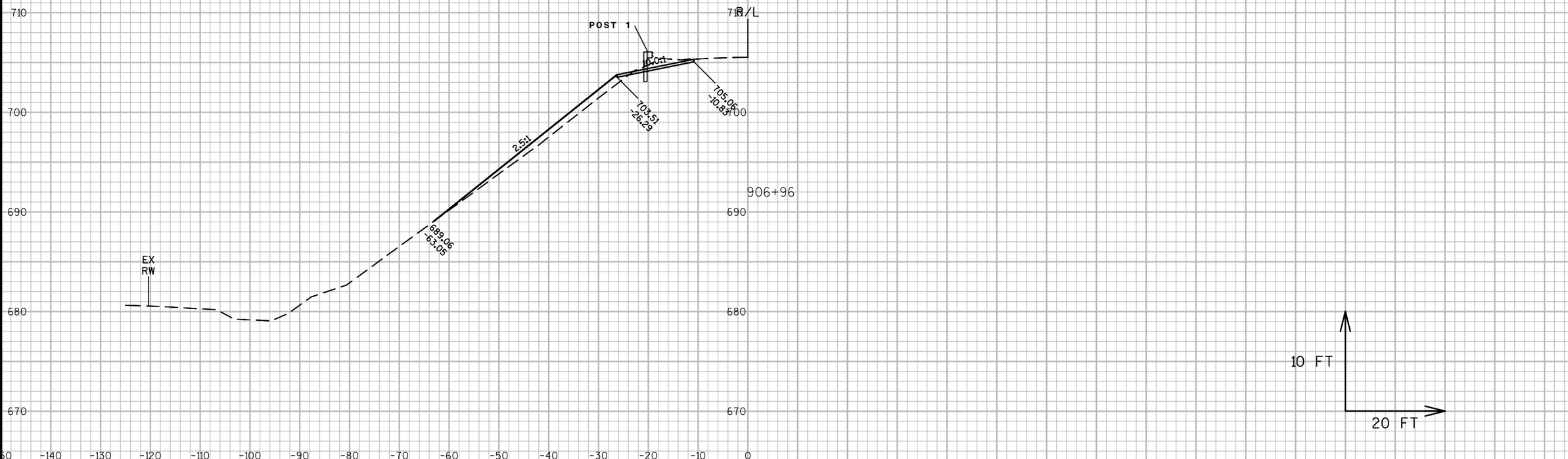
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 528	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (3)

PLOT DATE : 4/8/2019 2:13 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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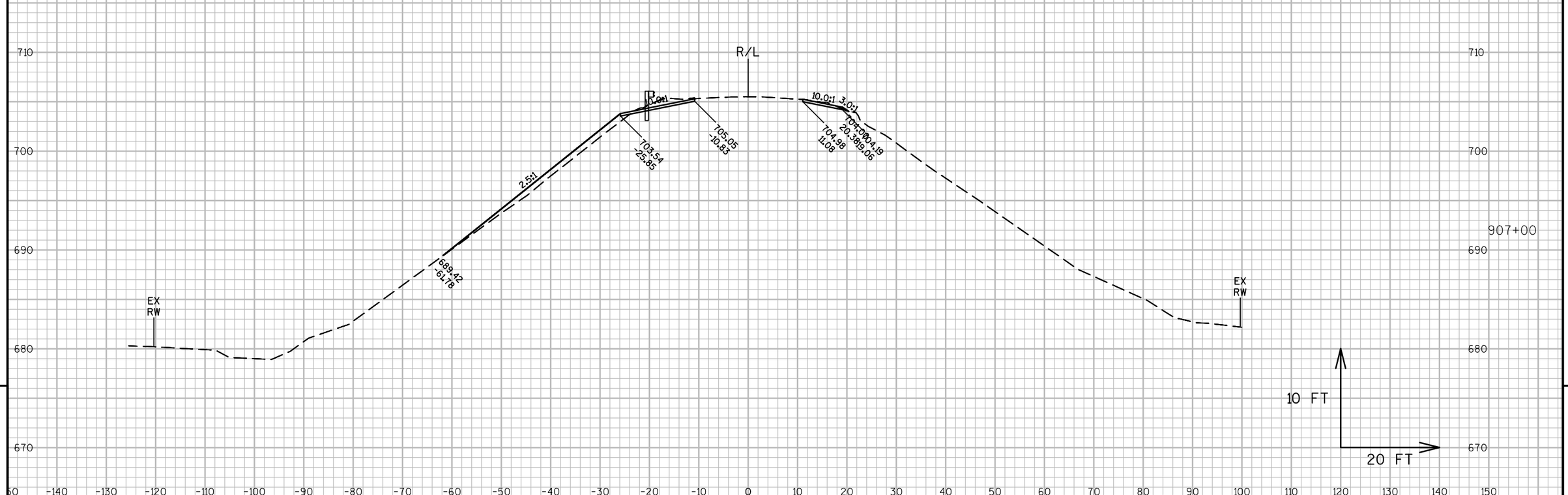
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 529	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (4)

PLOT DATE : 4/8/2019 2:13 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



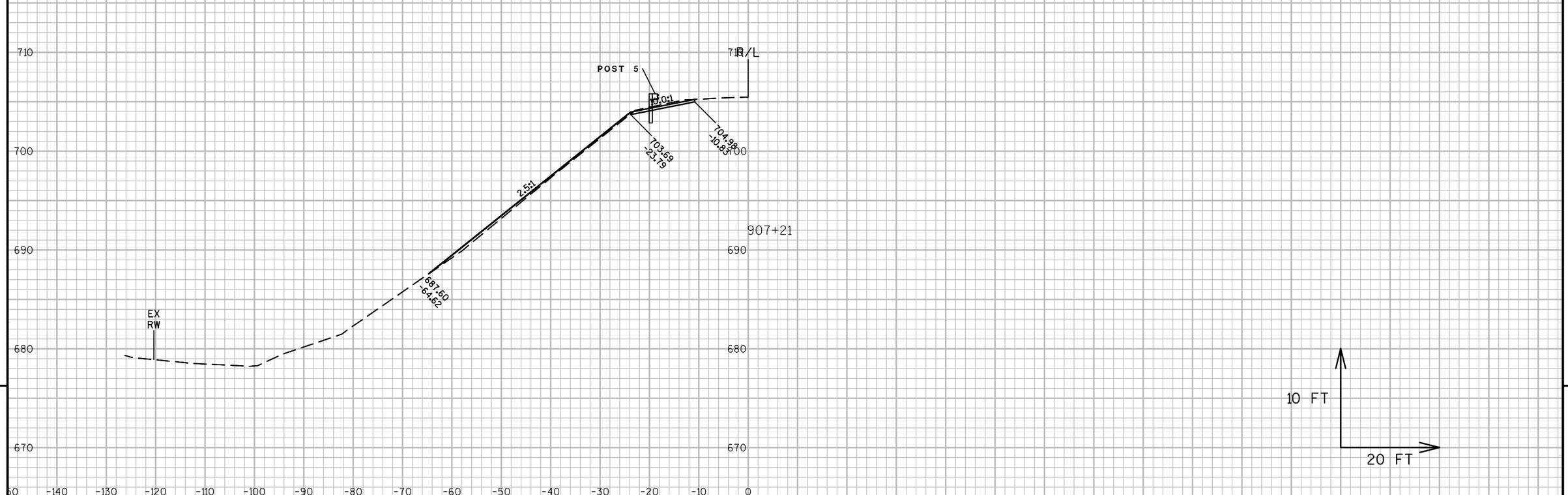
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 530	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (5)

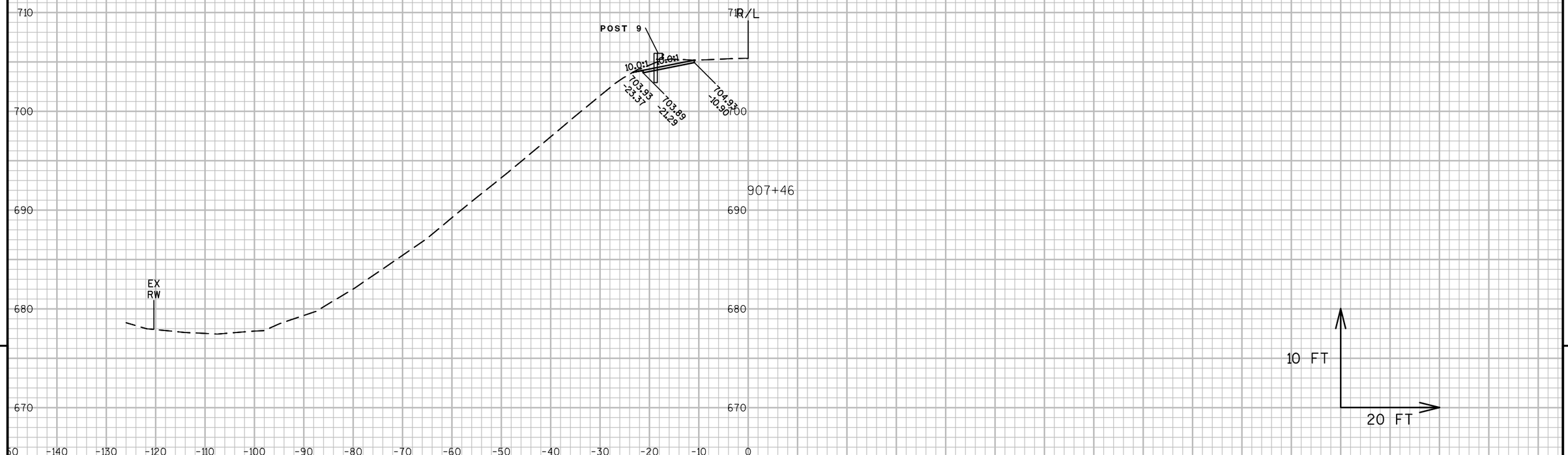
PLOT DATE : 4/8/2019 2:13 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 531	E



9

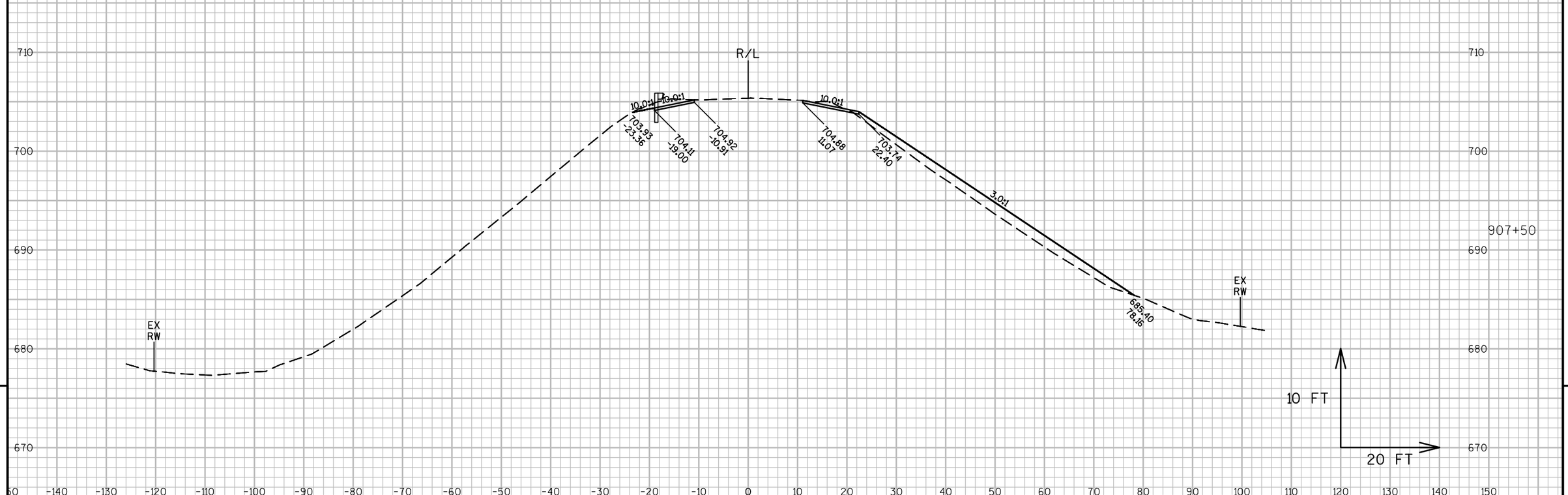
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 532	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (7)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



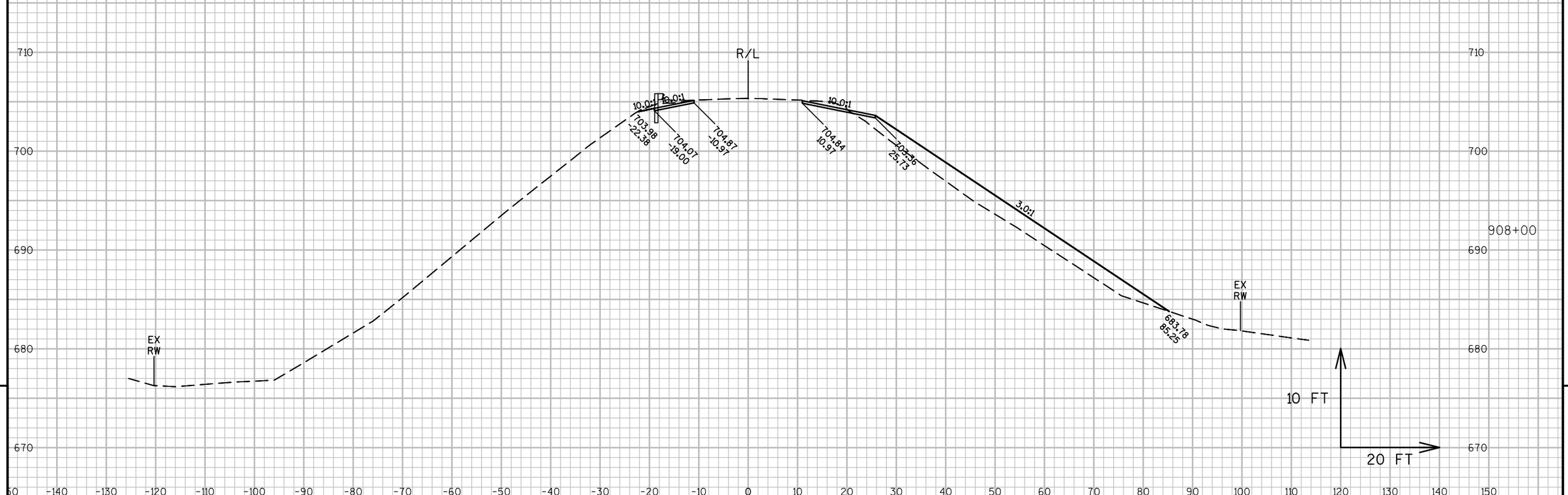
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 533	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (8)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



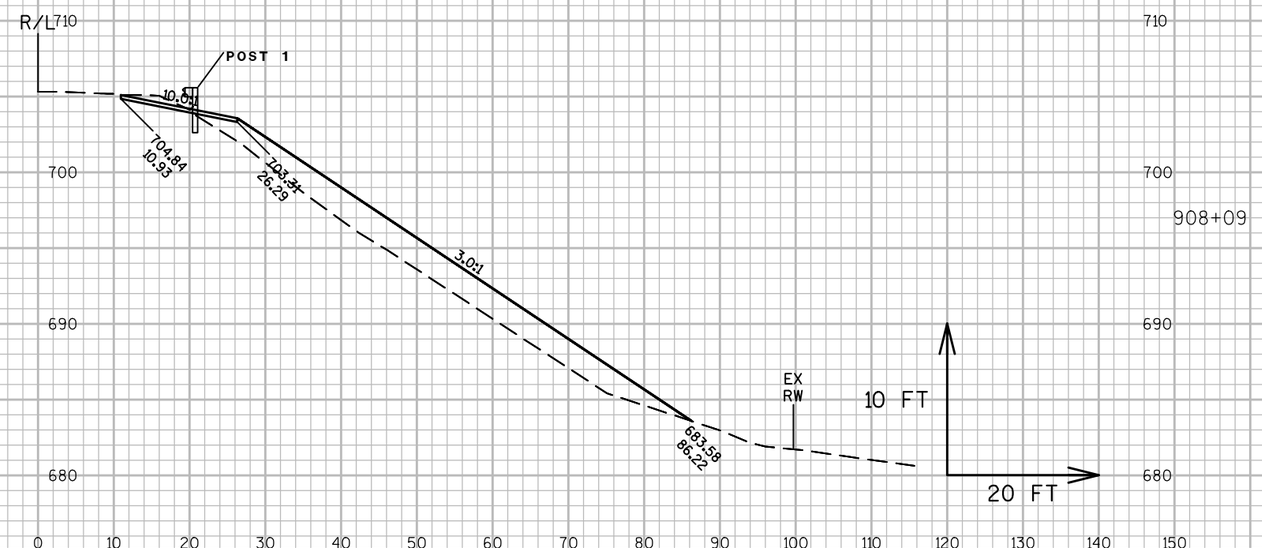
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 534	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (9)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



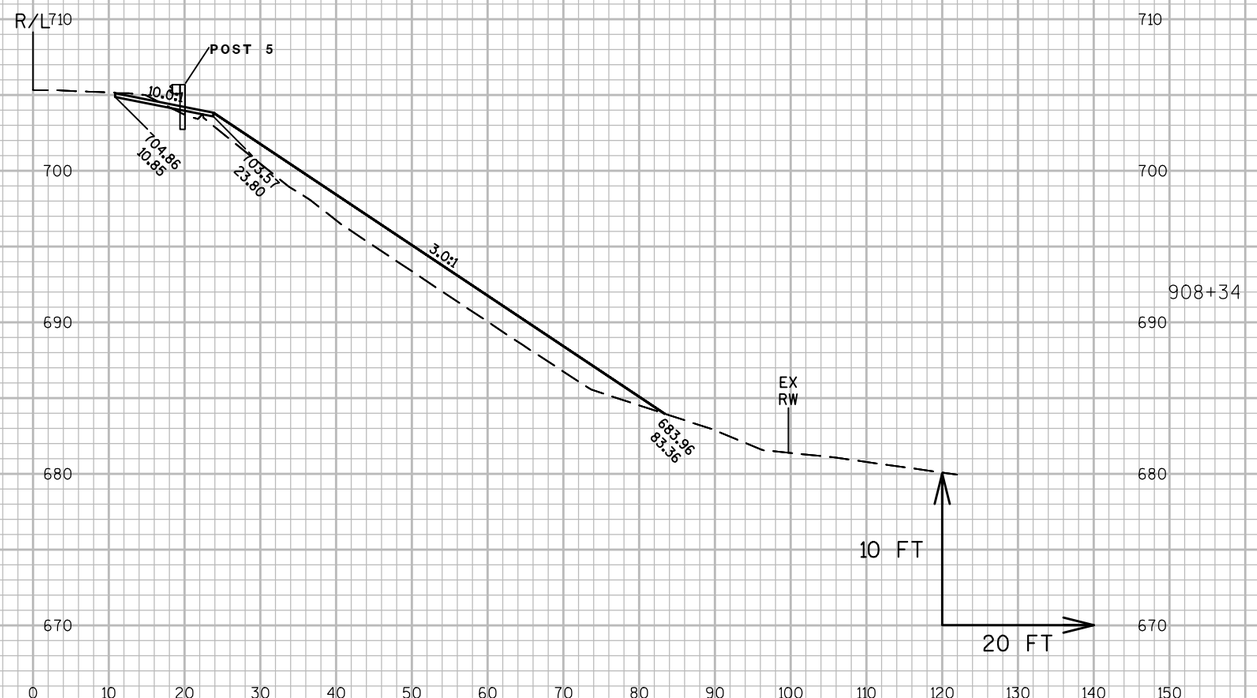
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 535	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (10)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



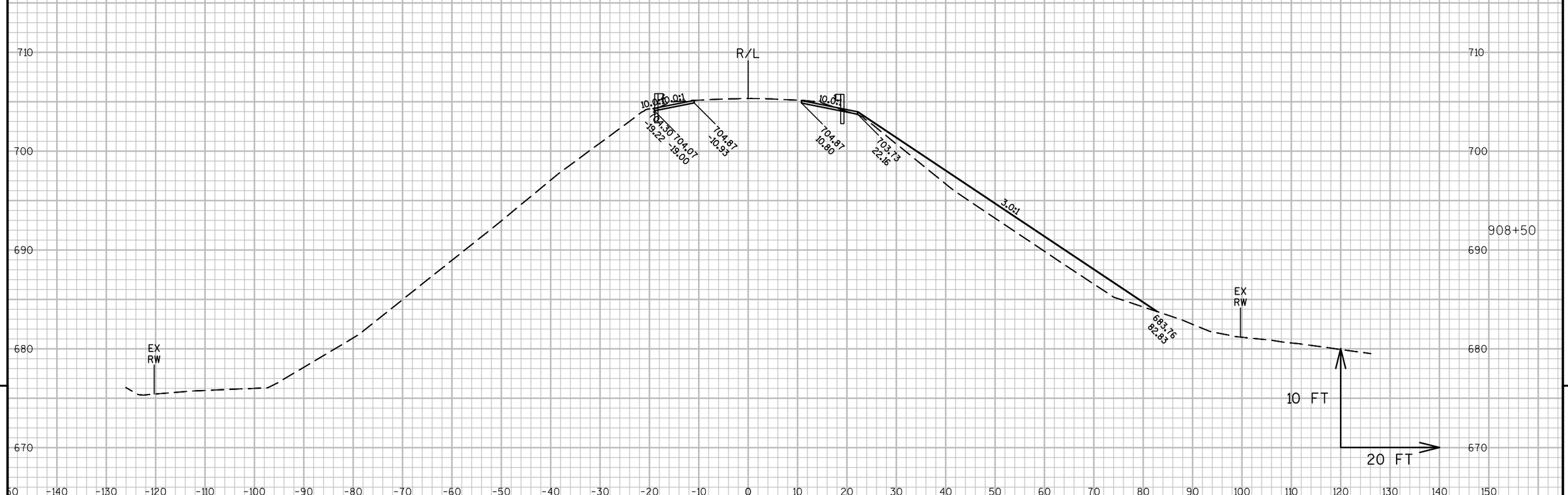
9

9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 536	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (11)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



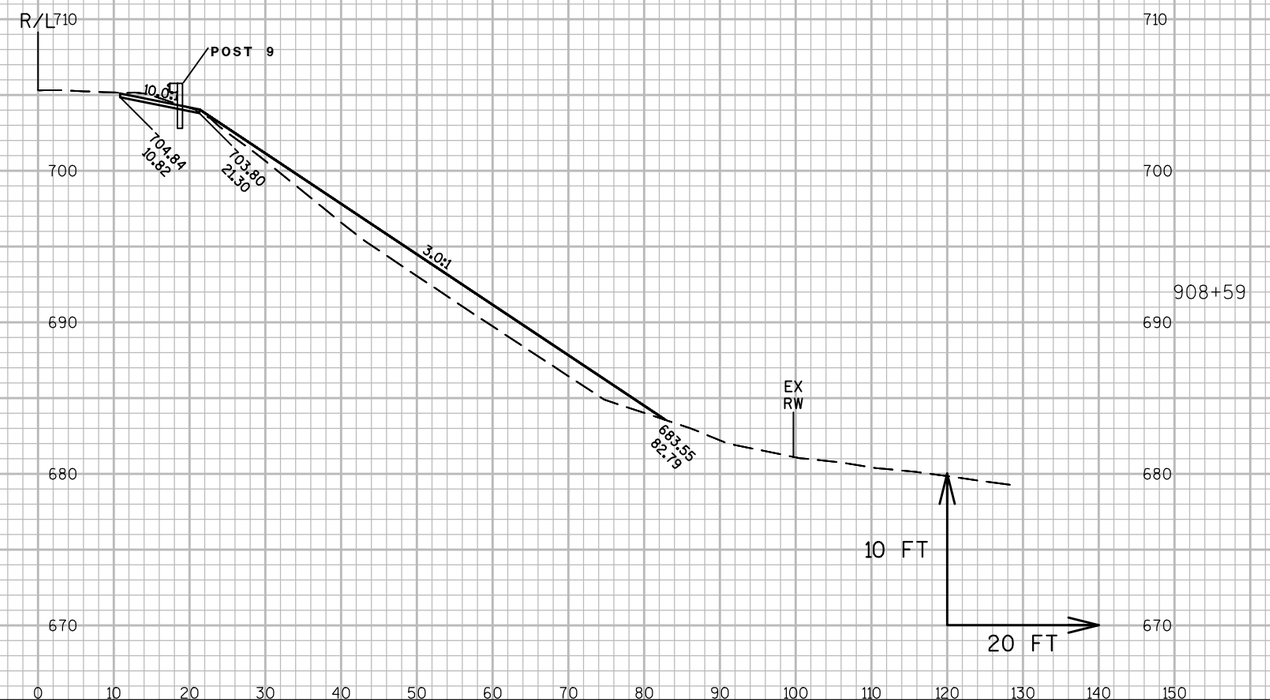
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 537	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (12)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



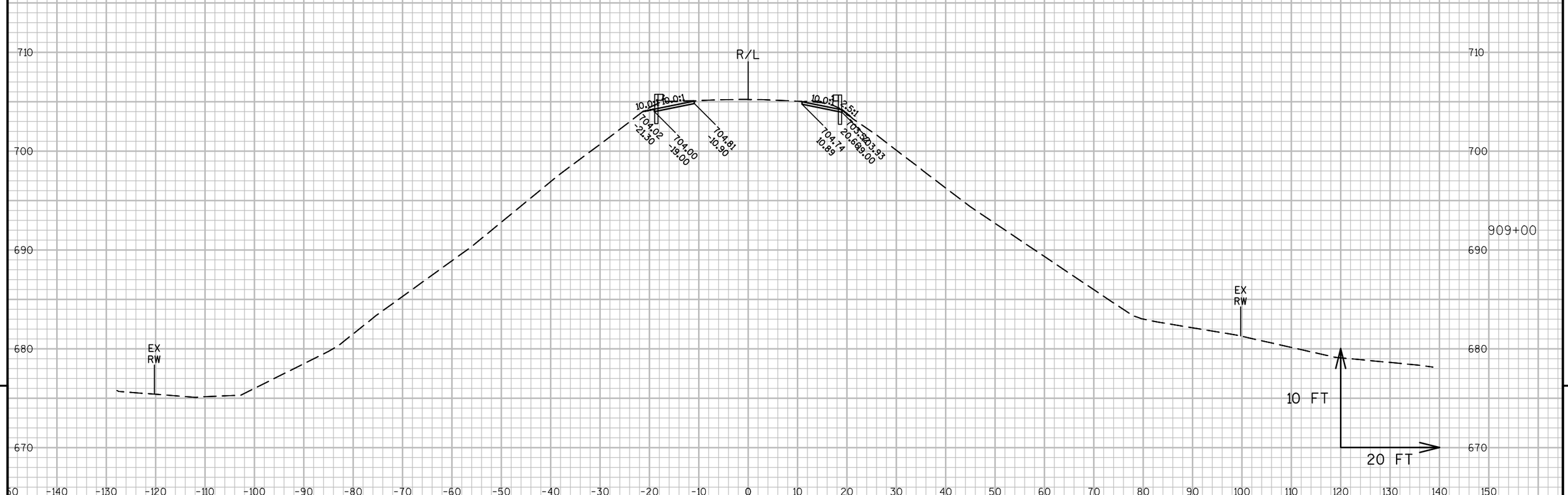
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 538	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (13)

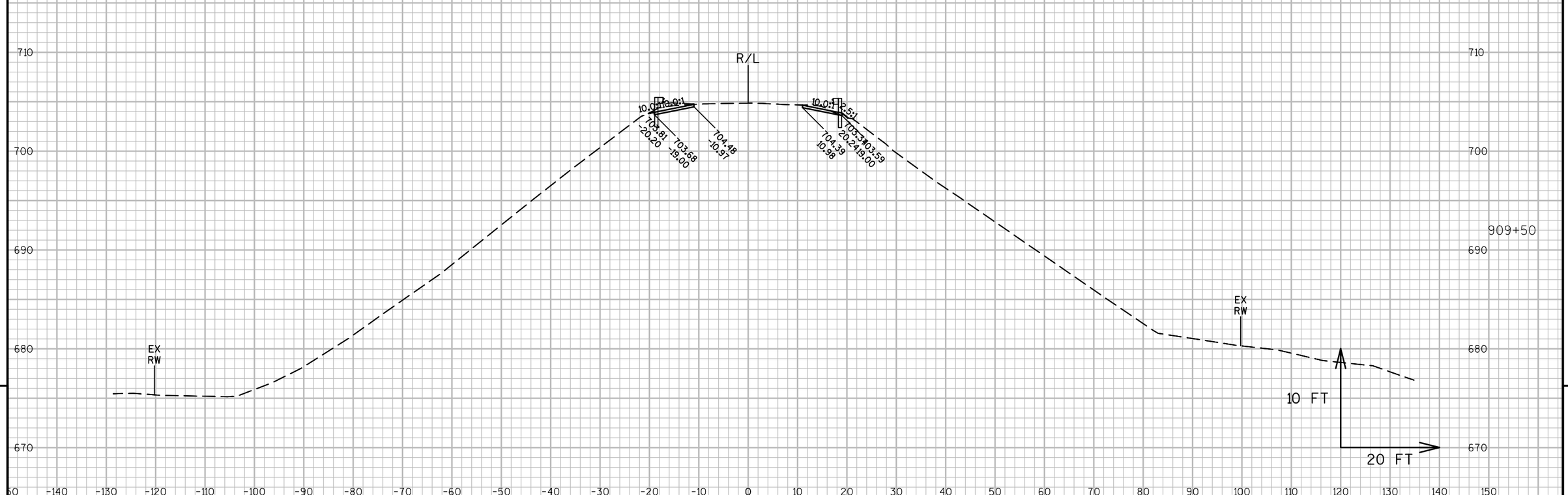
PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 539	E



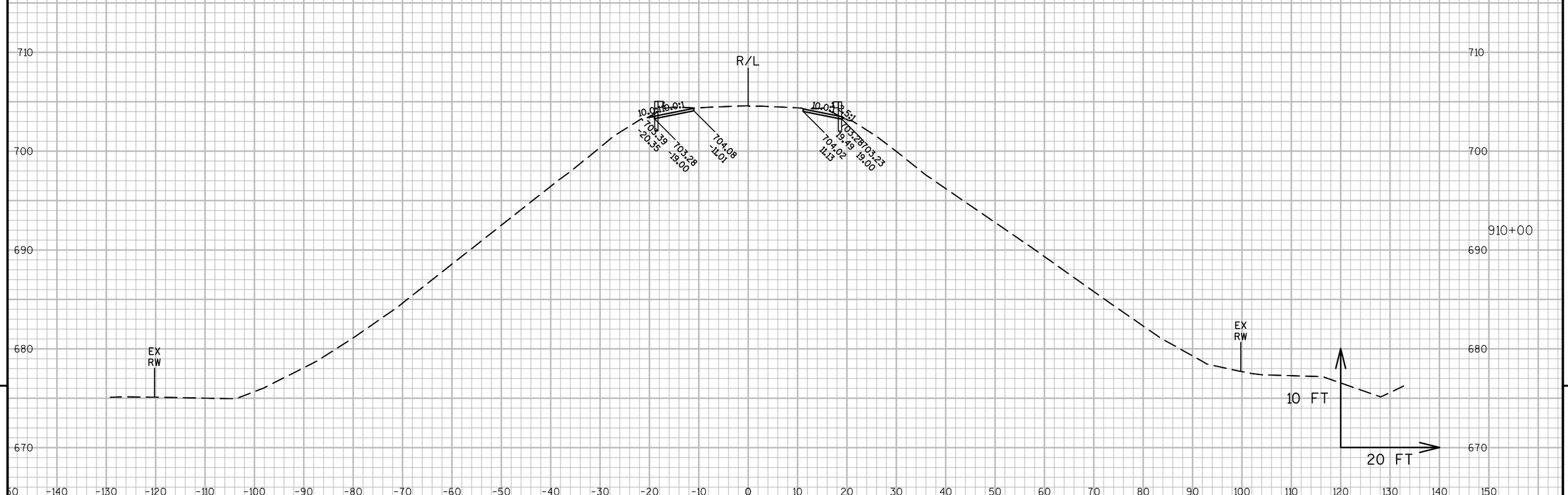
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 540	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (15)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



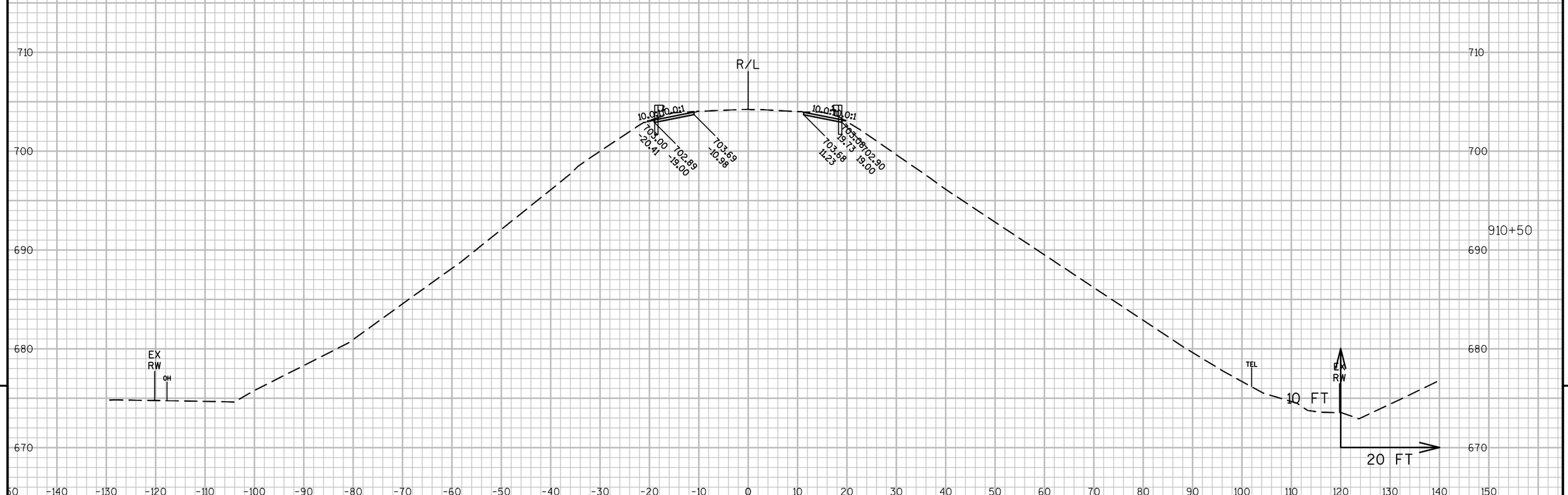
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 541	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (16)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



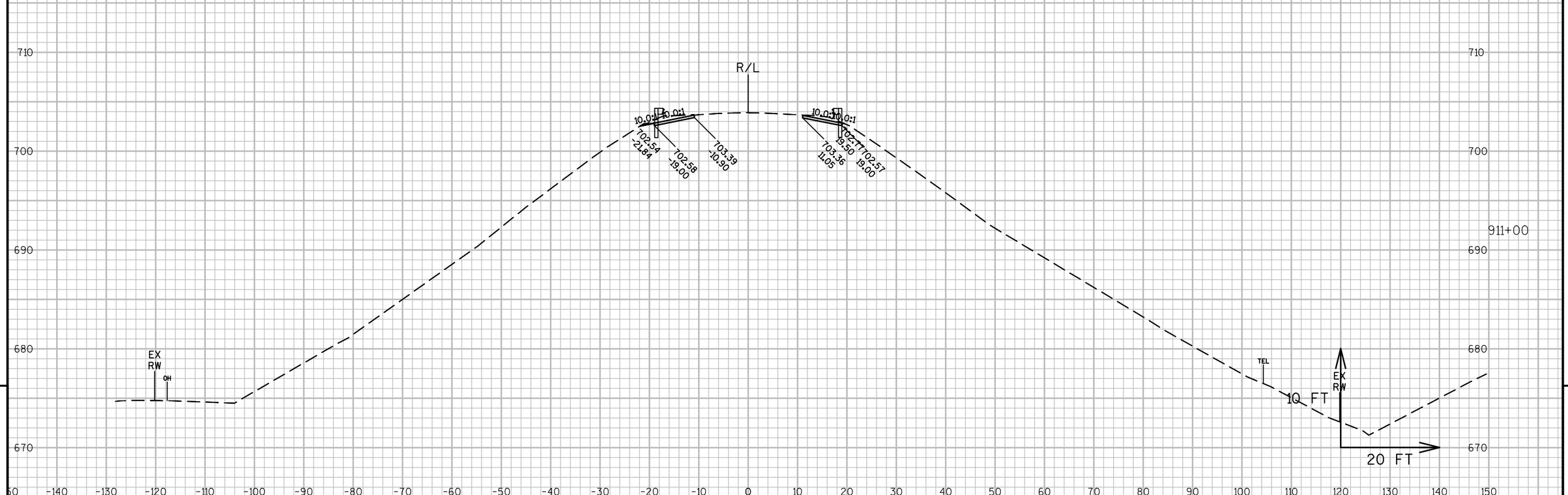
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 542	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (17)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



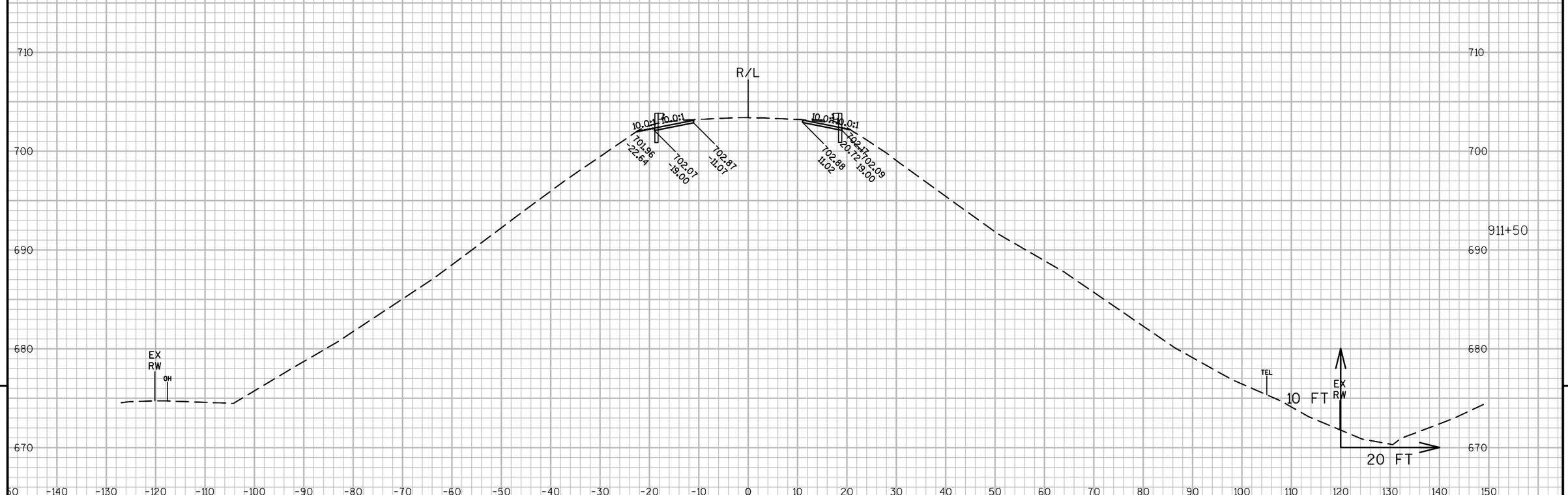
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 543	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (18)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



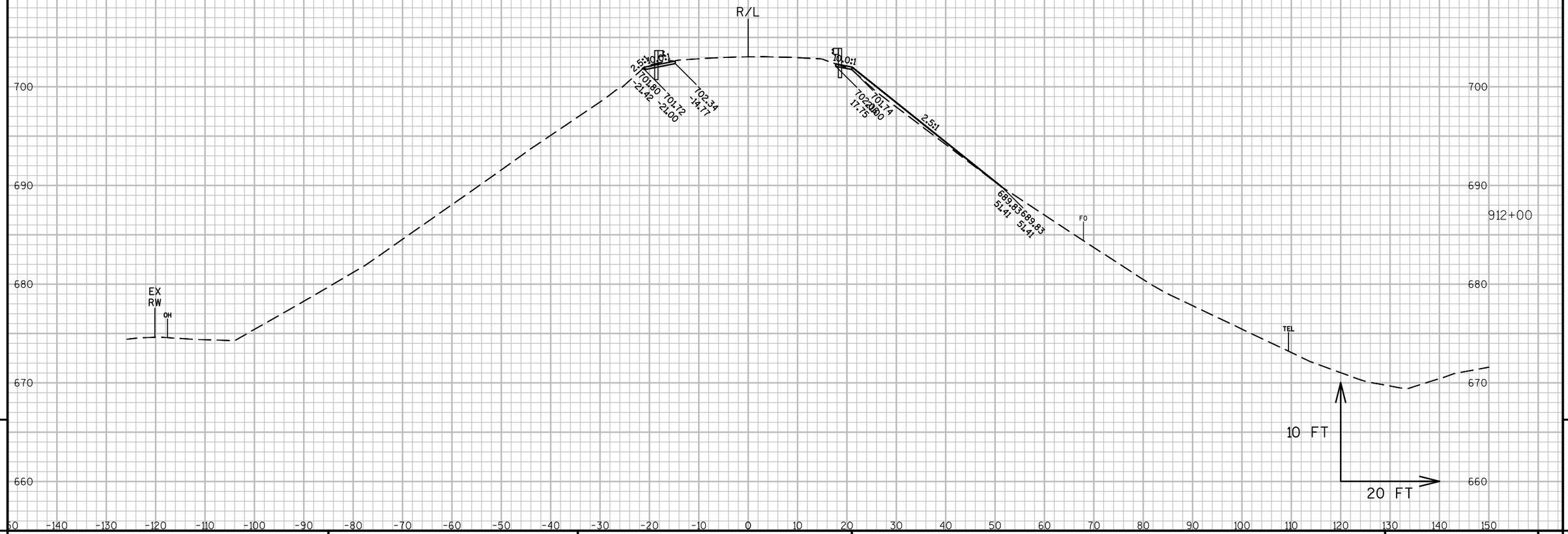
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 544	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (19)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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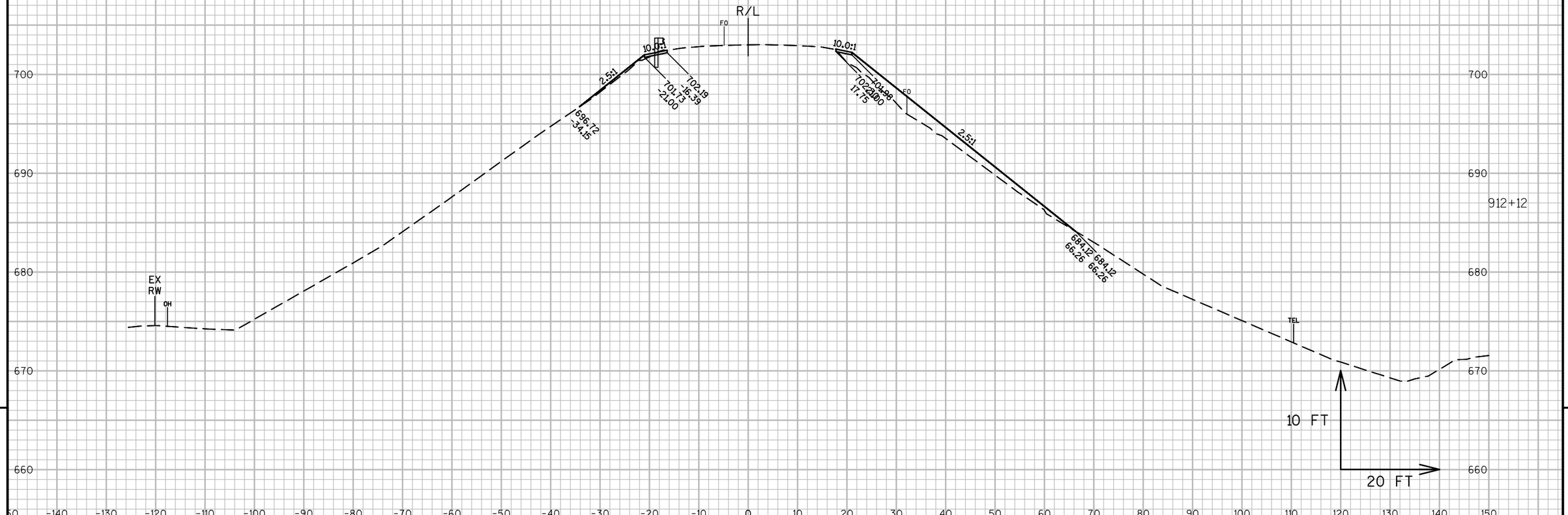
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 545	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (20)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



710

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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 546	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (21)
PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 547 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (22)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

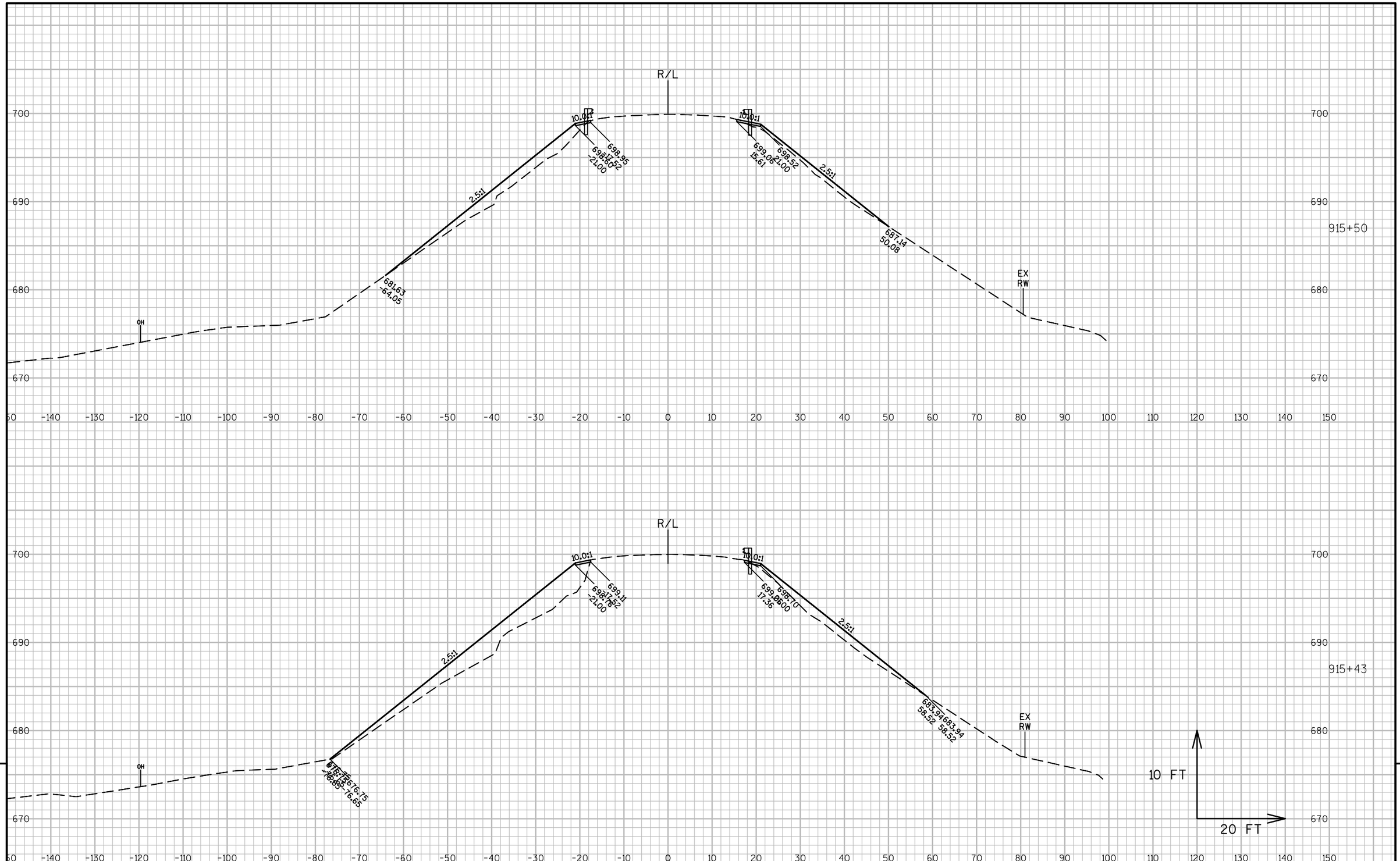


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 548 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (23)

PLOT DATE : 4/8/2019 2:14 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



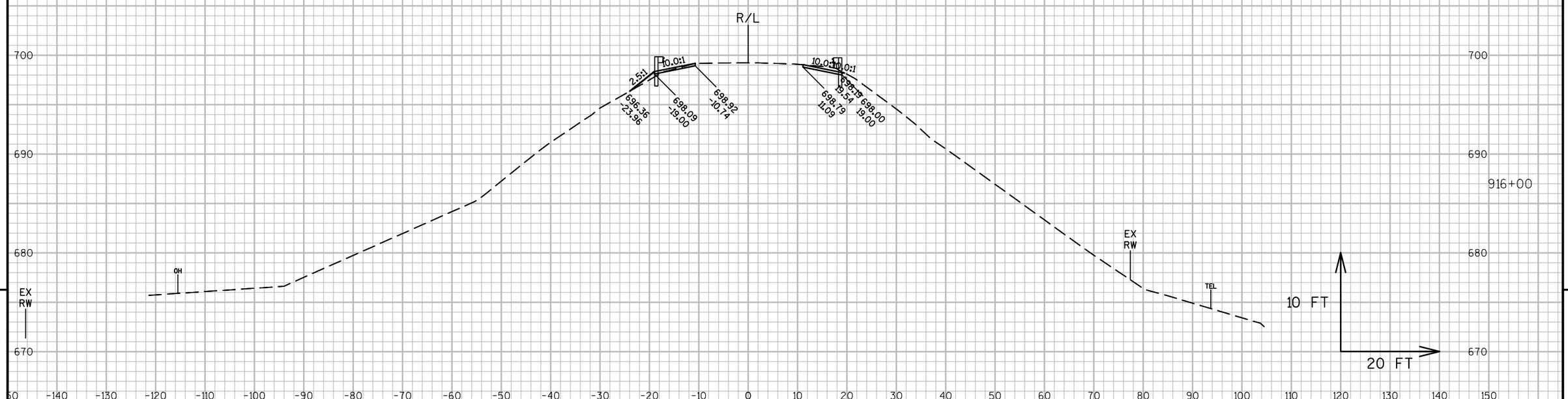
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 549	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (24)

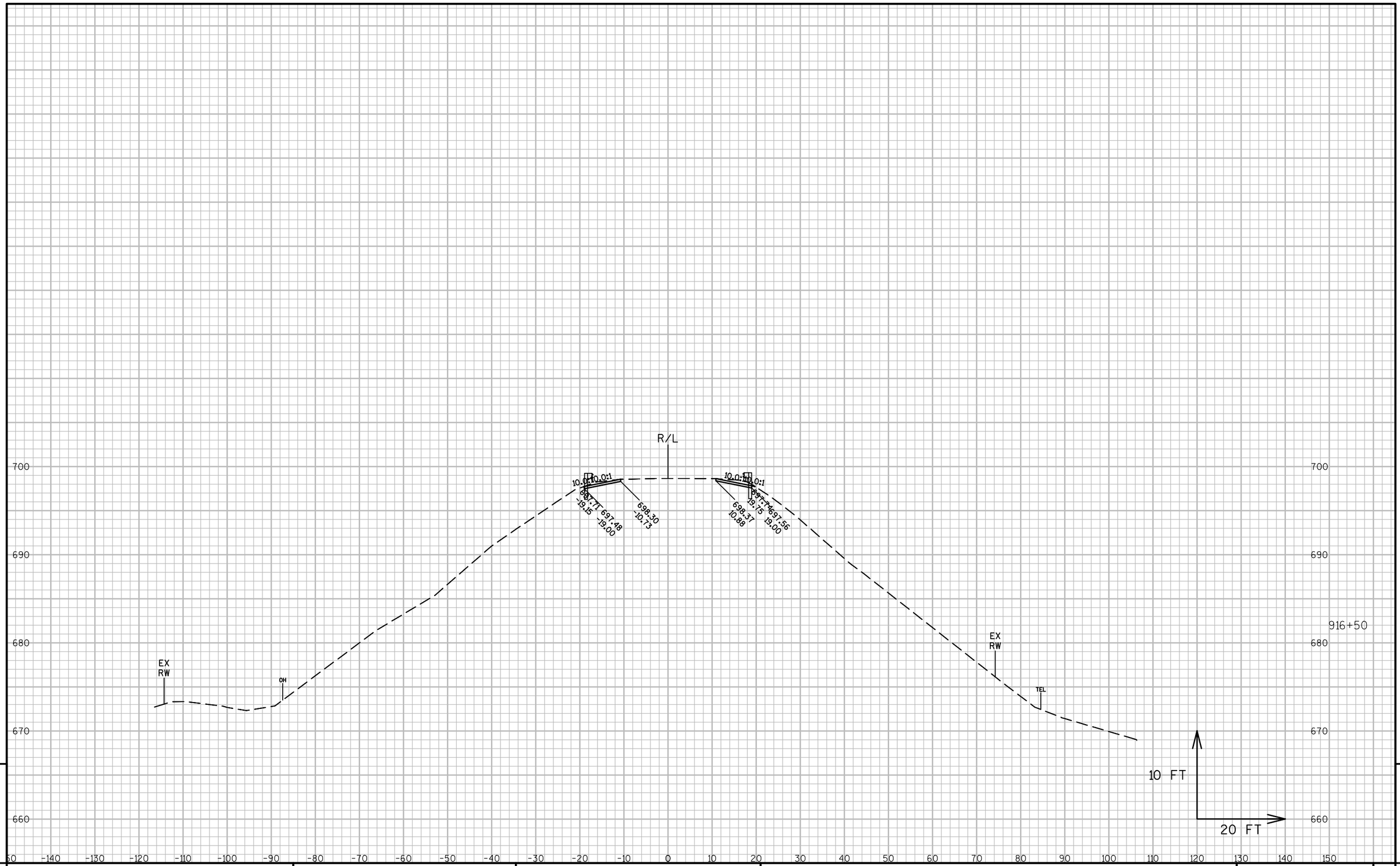
PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

9

PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 550	E

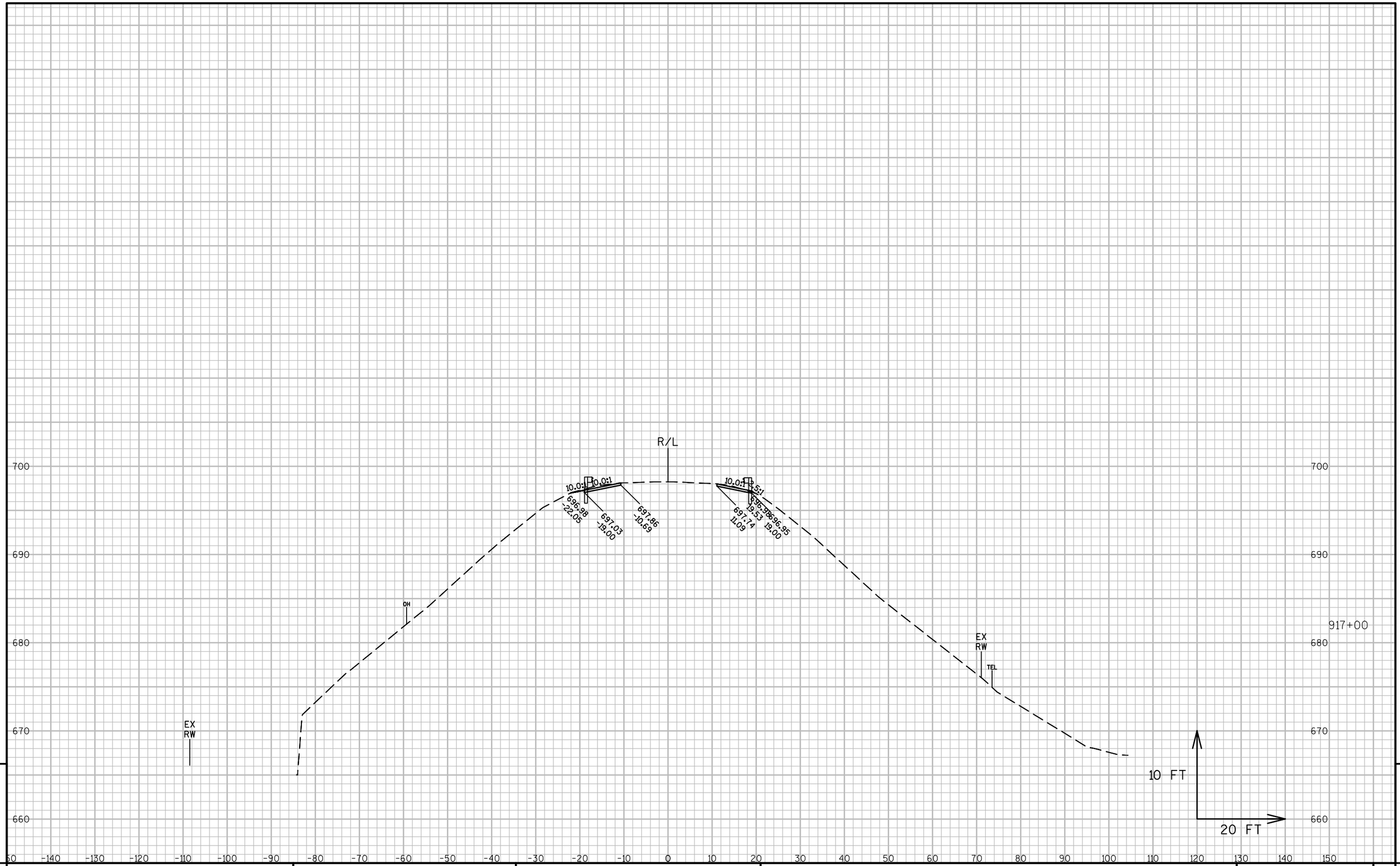


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 551	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (26)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

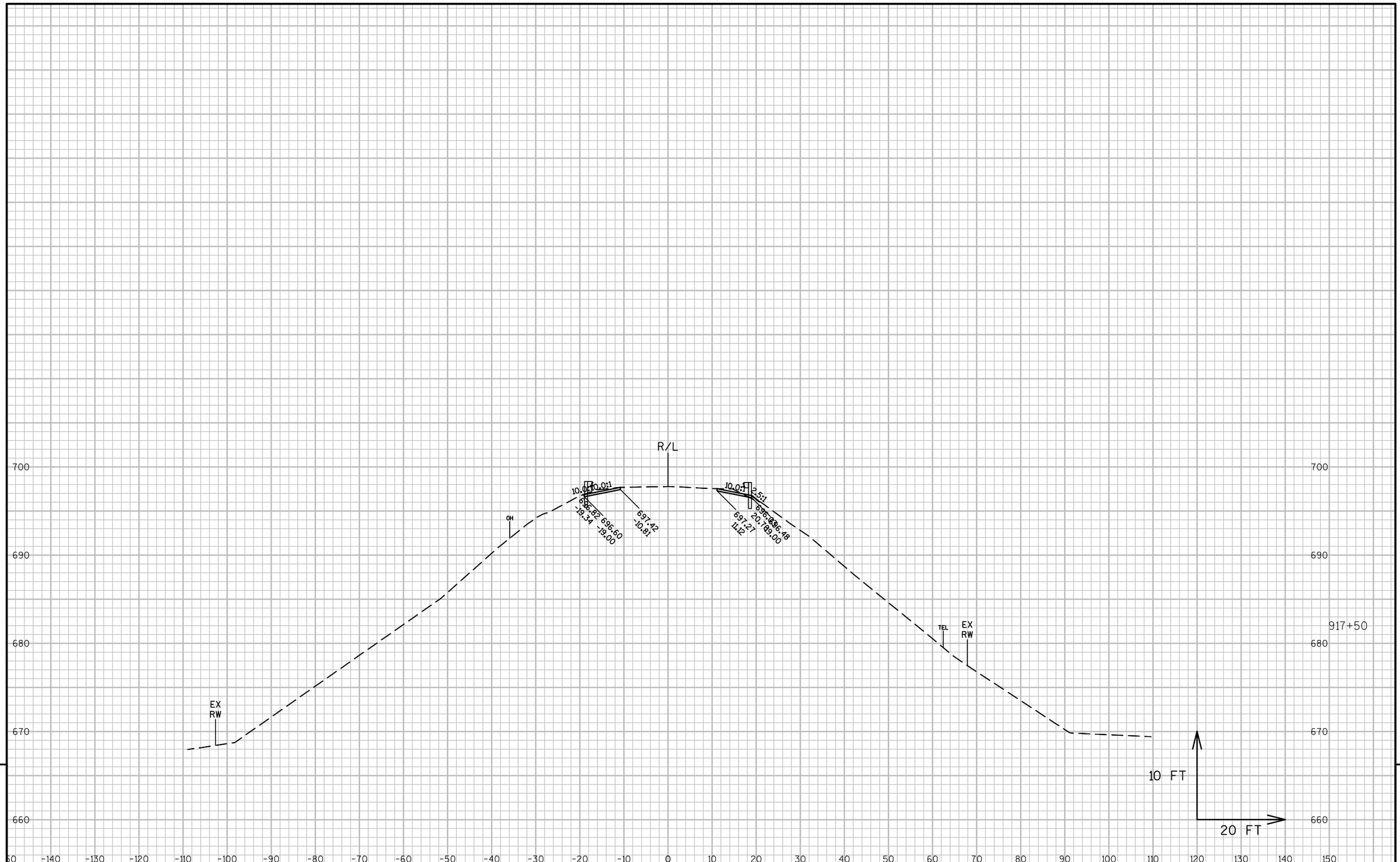
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 552	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (27)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



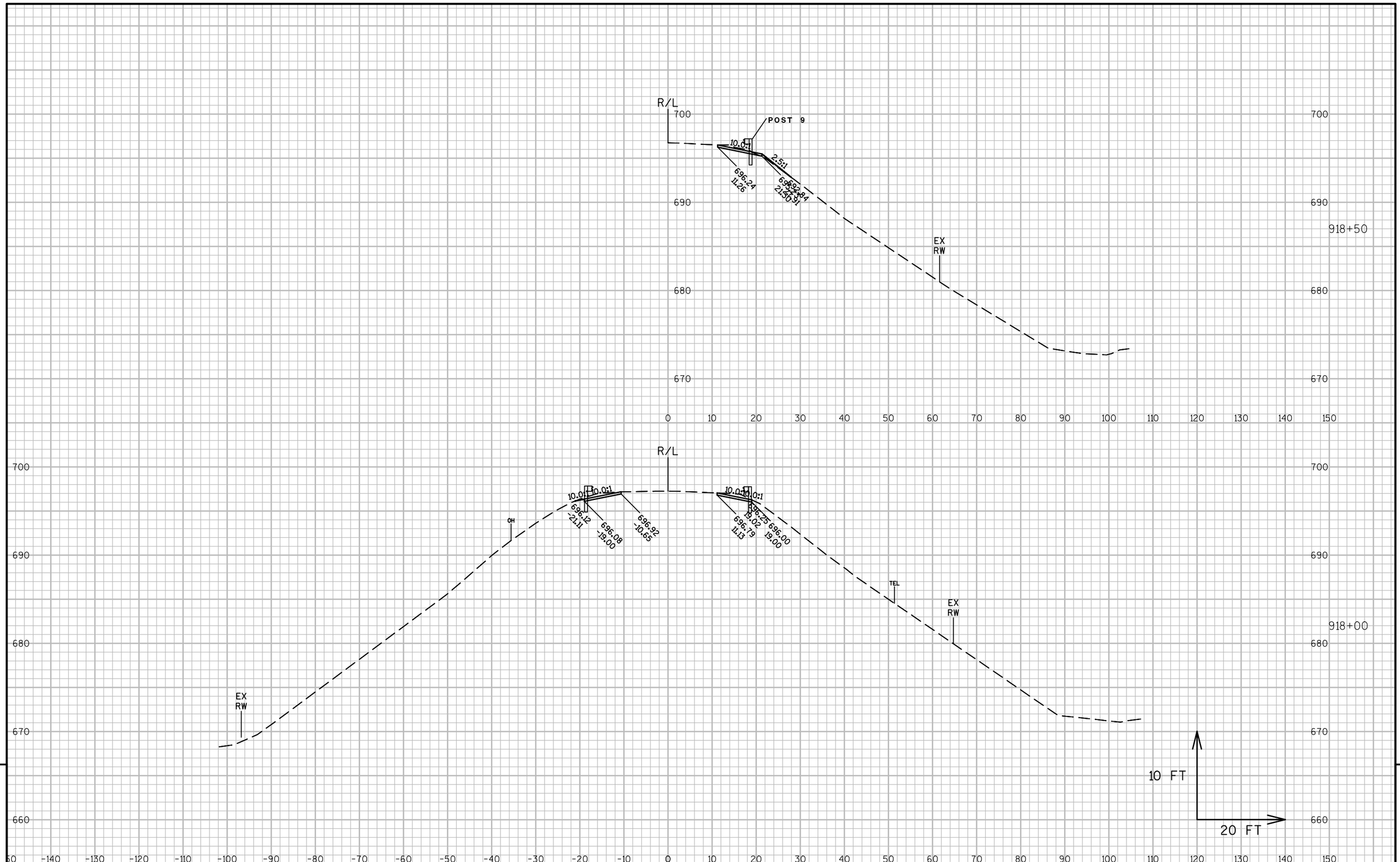
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 553	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (28)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



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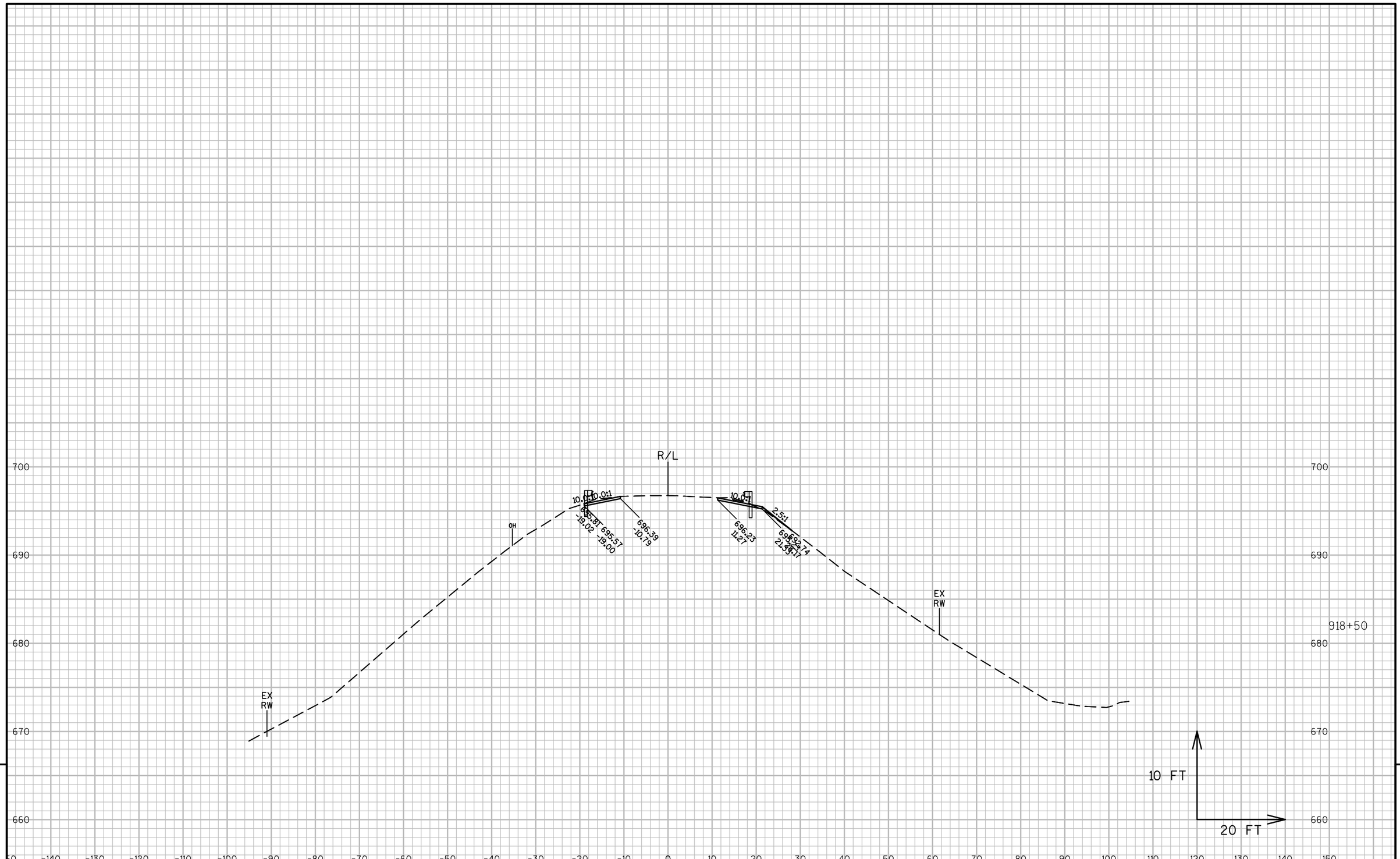
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 554	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (29)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



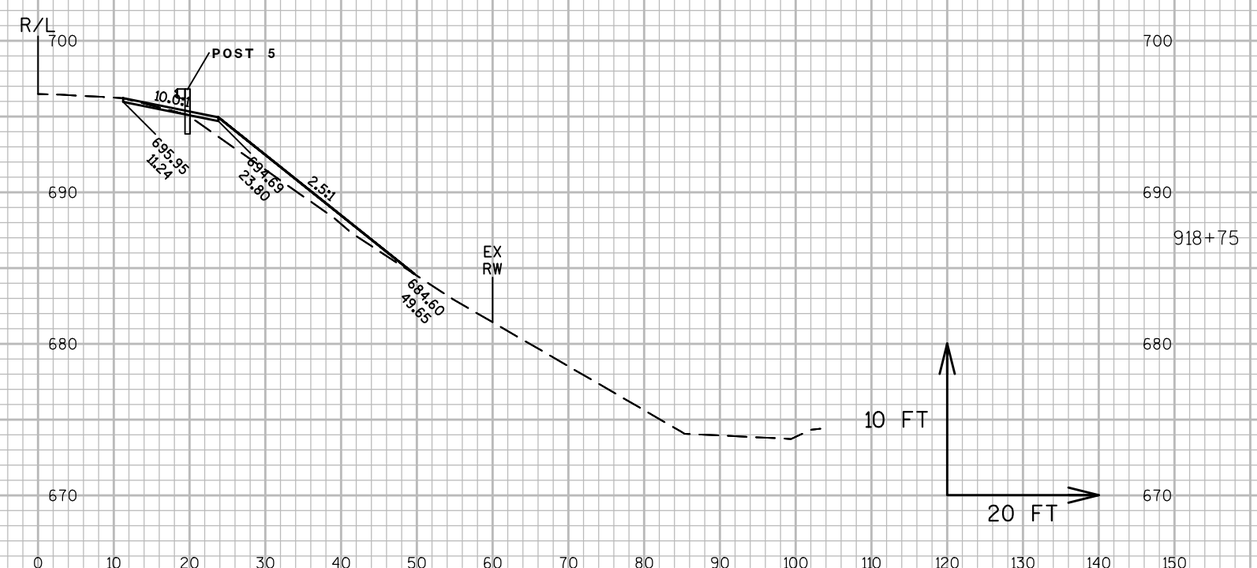
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 555	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (30)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

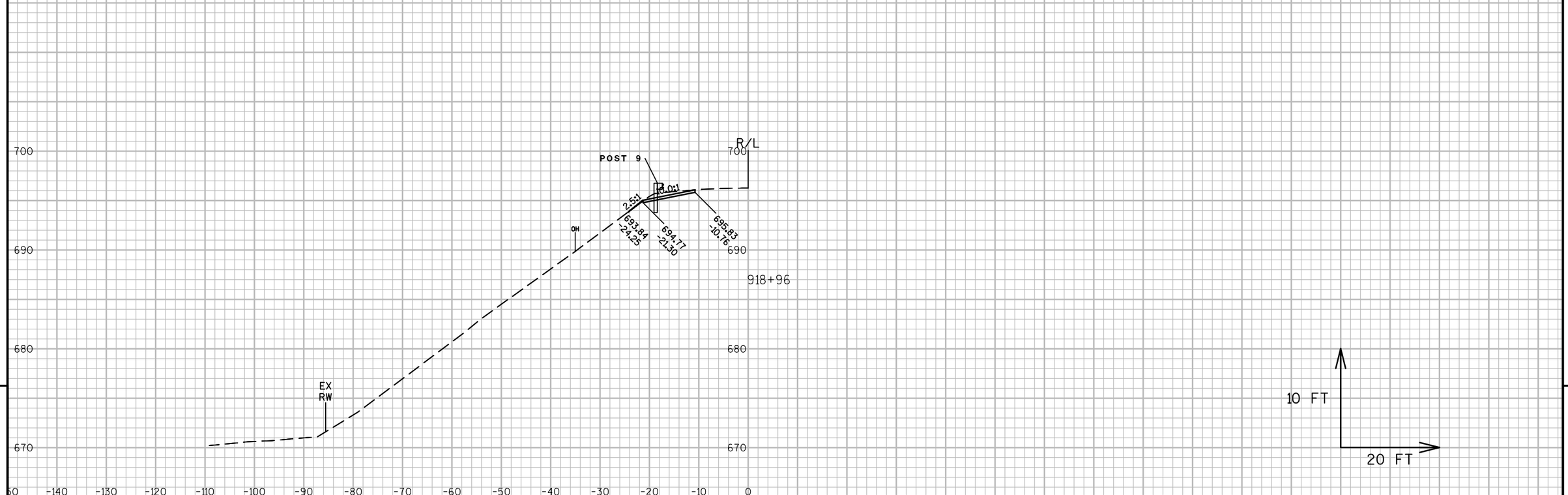


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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 556	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (31)
PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



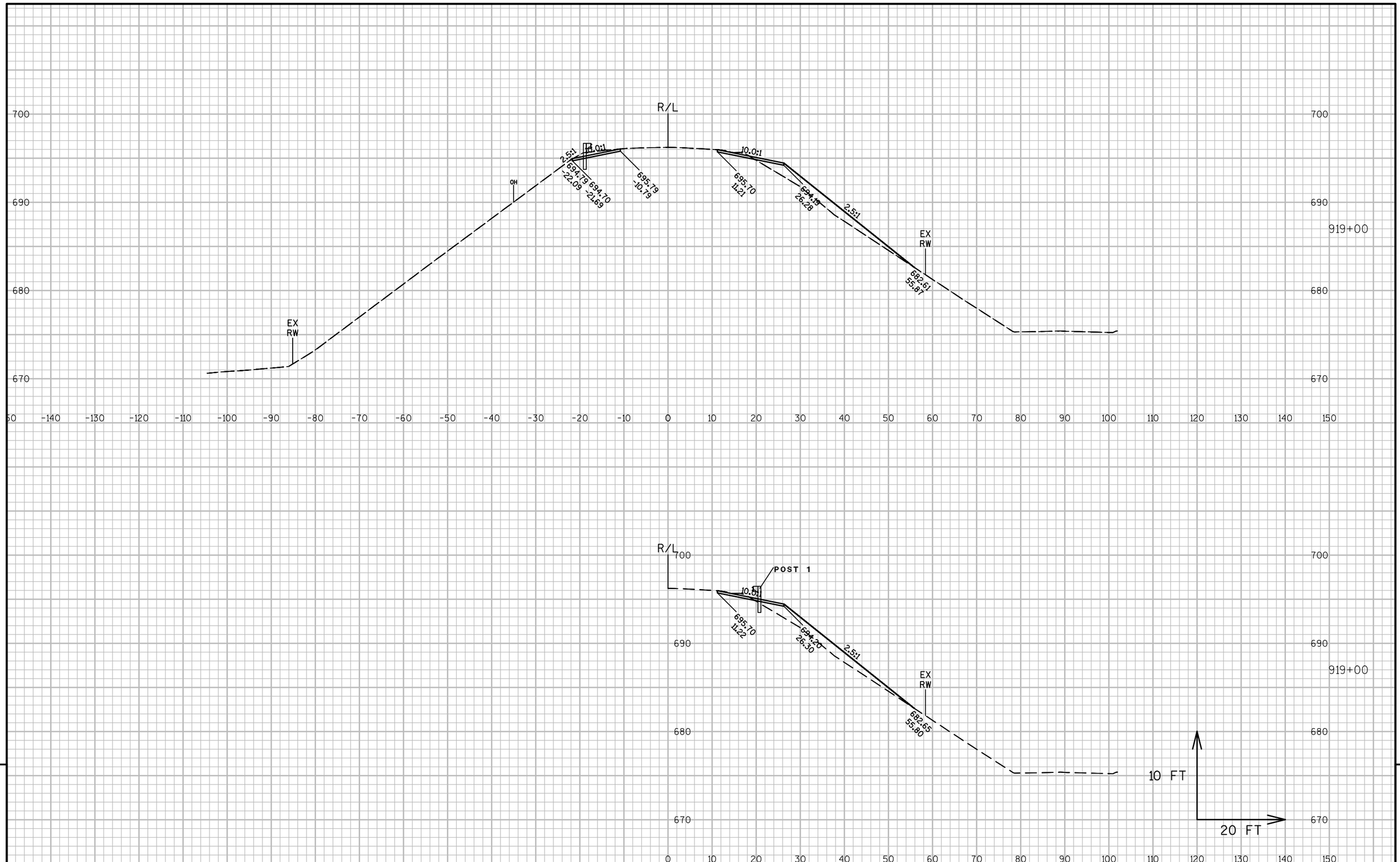
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 557	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (32)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



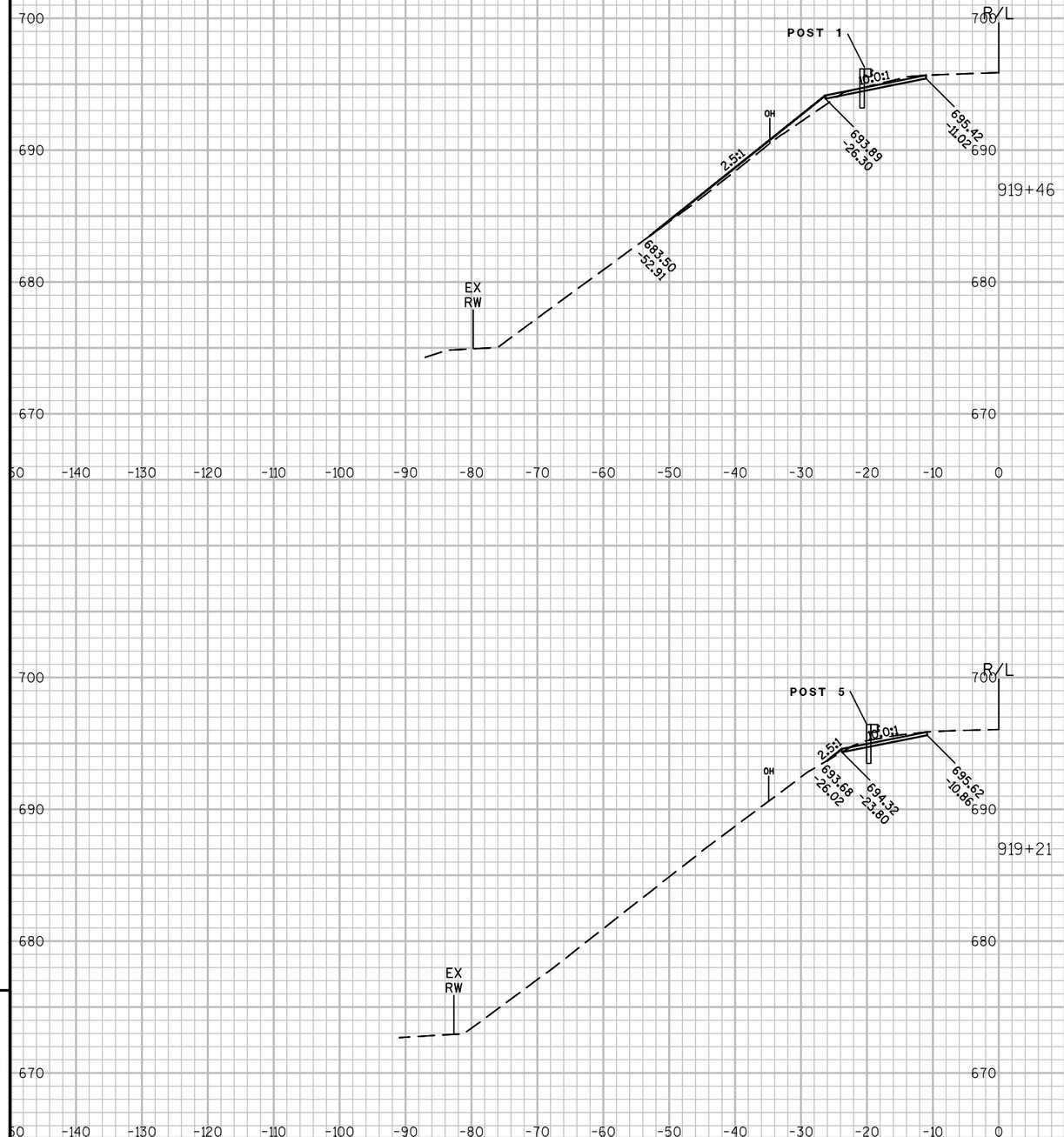
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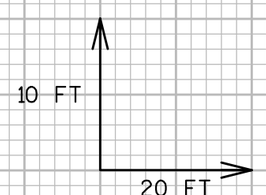
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 558	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (33)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT





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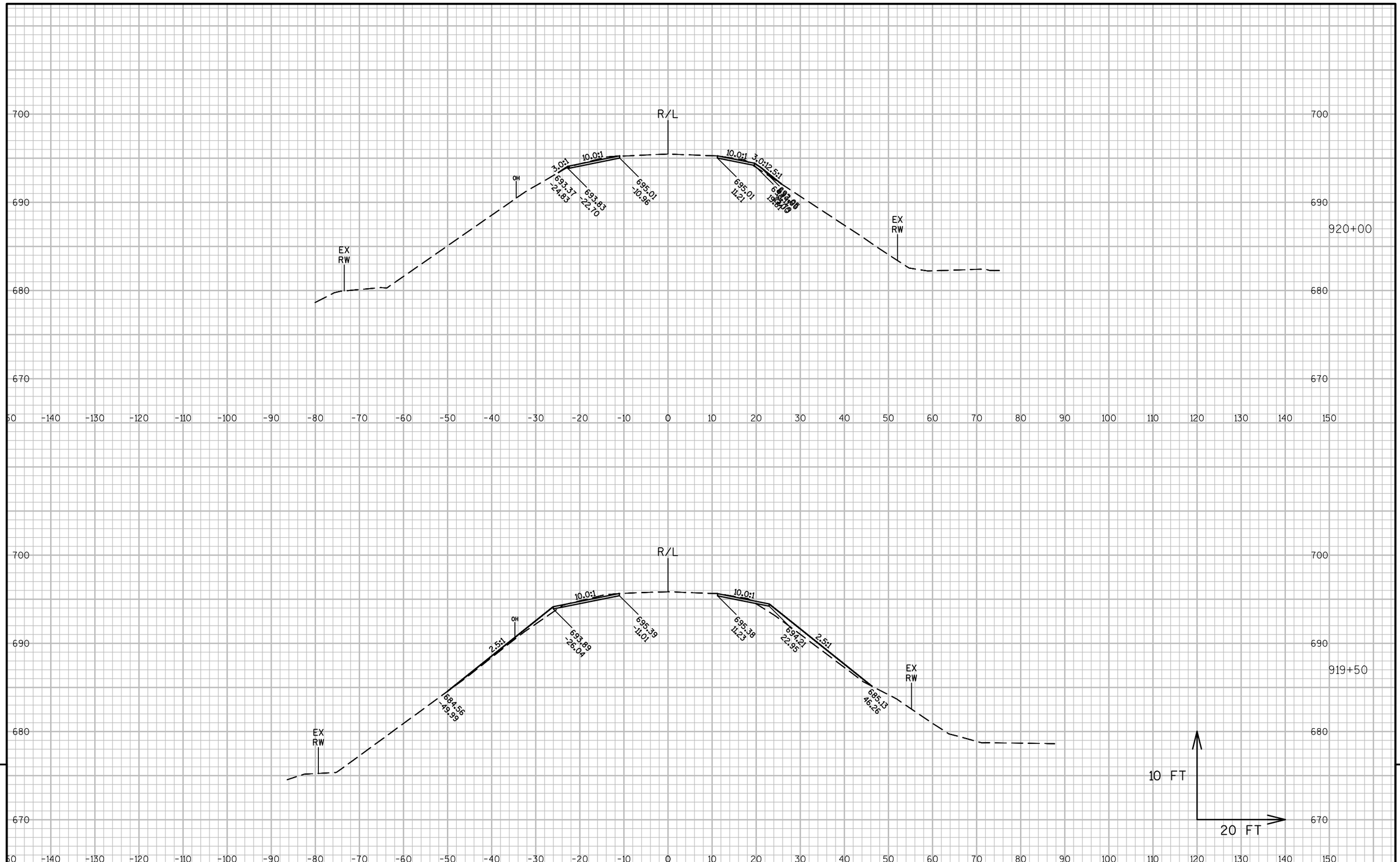
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 559	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (34)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

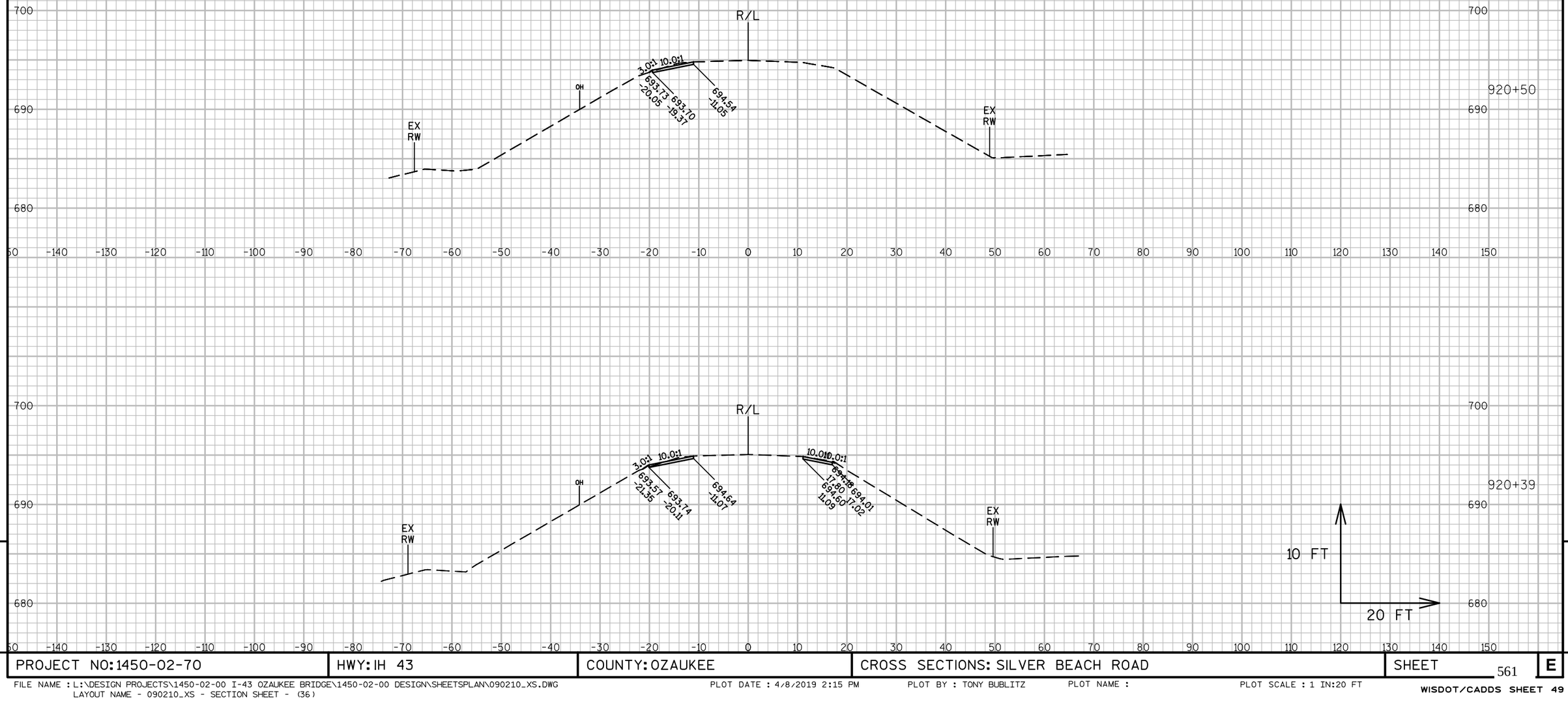
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 560	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (35)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

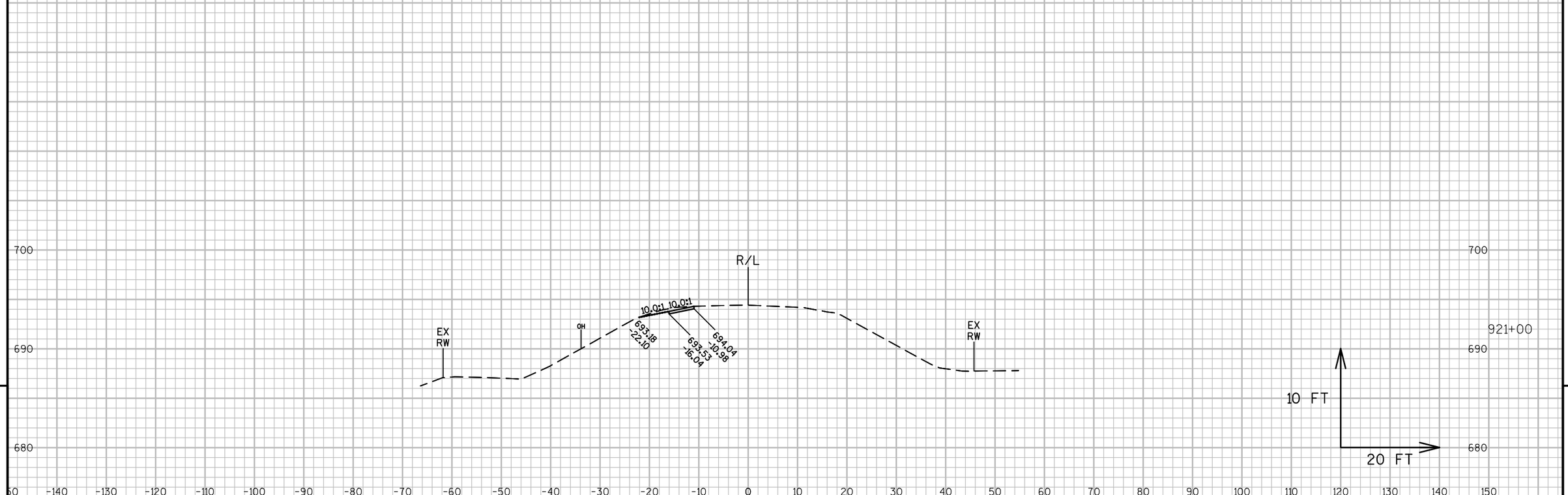


PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 561 E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (36)

PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



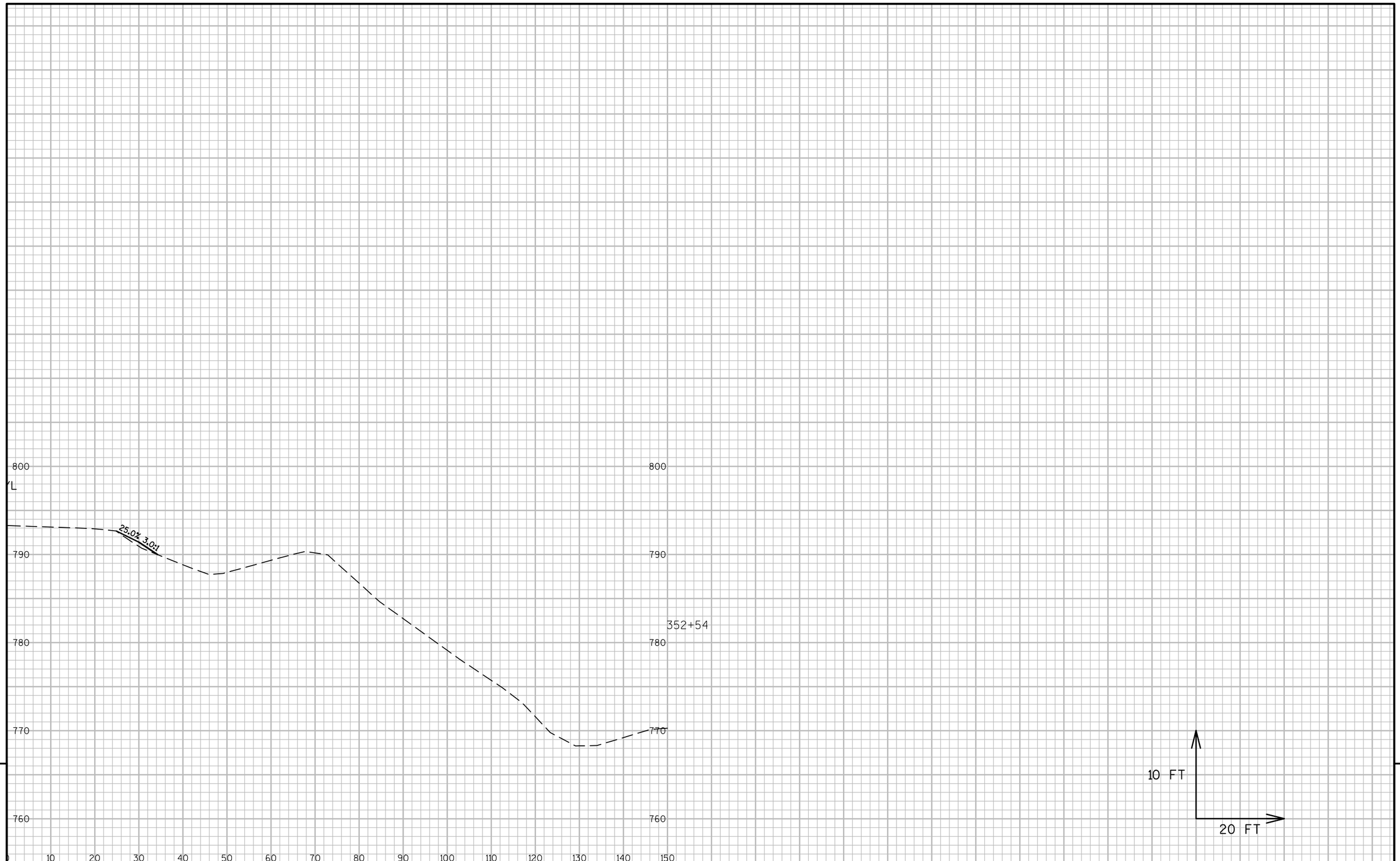
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PROJECT NO: 1450-02-70	HWY: IH 43	COUNTY: OZAUKEE	CROSS SECTIONS: SILVER BEACH ROAD	SHEET 562	E

FILE NAME : L:\DESIGN PROJECTS\1450-02-00 I-43 OZAUKEE BRIDGE\1450-02-00 DESIGN\SHEETSPLAN\090210_XS.DWG
LAYOUT NAME - 090210_XS - SECTION SHEET - (37)

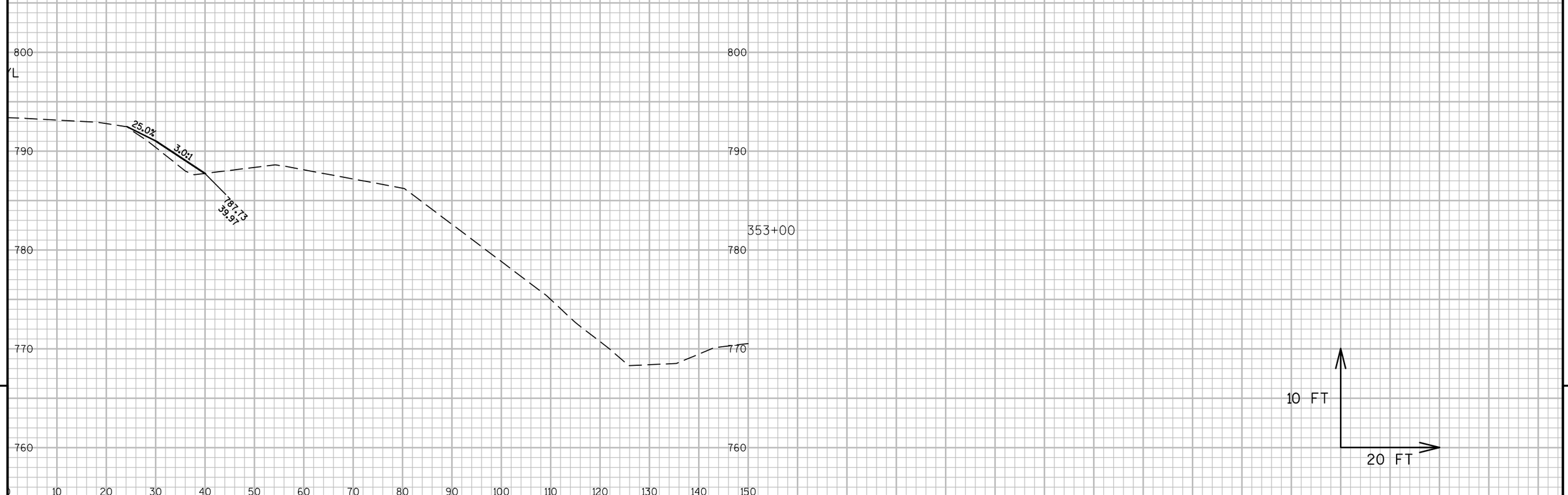
PLOT DATE : 4/8/2019 2:15 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

9

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH W	SHEET 563	E



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9

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH W	SHEET 564	E



9

9

PROJECT NO: 1450-02-70	HWY: IH-43	COUNTY: OZAUKEE	CROSS SECTIONS: CTH W	SHEET 565	E

Wisconsin Department of Transportation

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