GRE

PROJECT ID: 6200-18-70

WITH: N/A

COUNTY: WINNEBAGO

OCTOBER 2026

ORDER OF SHEETS

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

TOTAL SHEETS = 552

N

14

DESIGN DESIGNATION

A.A.D.T.	2026	=	19,440
A.A.D.T.	2046	=	24,080
D.H.V.		=	3155
D.D.		=	65/35
T		=	14.4%
DESIGN SPEED		=	70 MPH
ESALS		=	13,000,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE	300 FR	UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
COMBUSTIBLE FLUIDS	CAUTION	GAS	G
		SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
		TELEPHONE	T
WOODED OR SHRUB AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

OSHKOSH - NEW LONDON

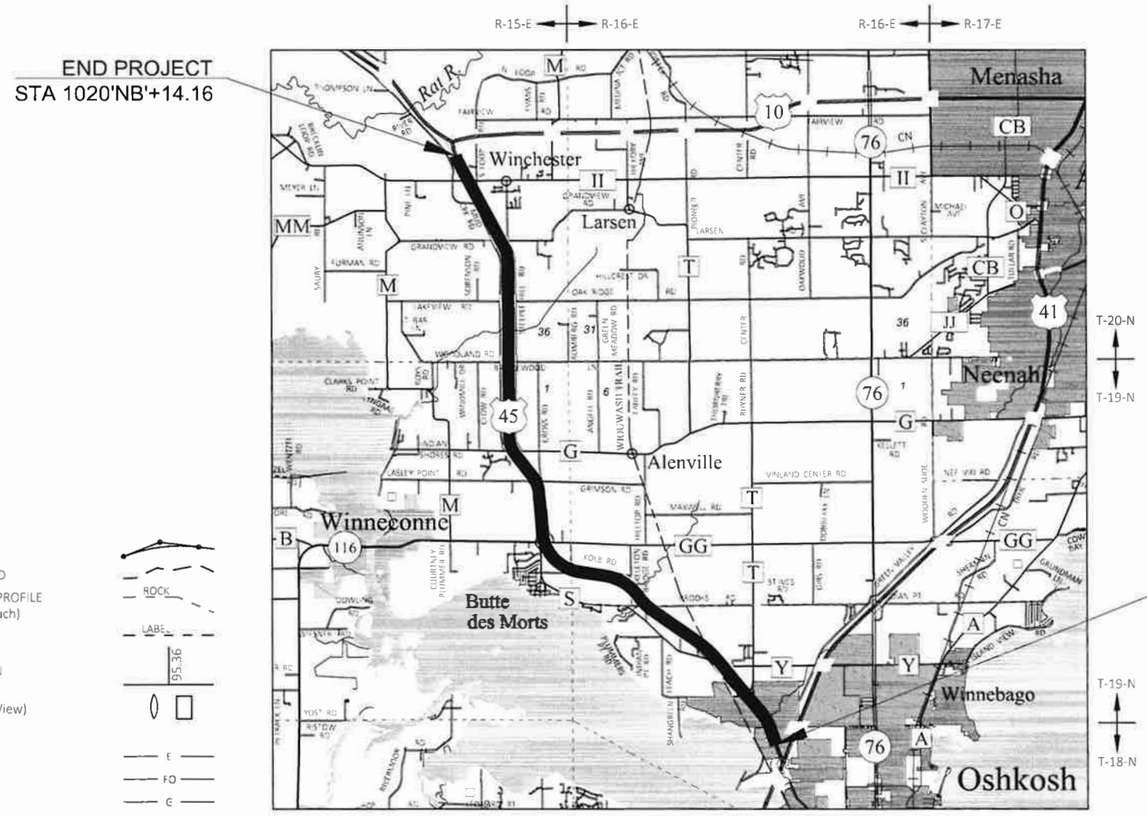
IH 41 - USH 10

USH 45

WINNEBAGO COUNTY

STATE PROJECT NUMBER
6200-18-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6200-18-70		



LAYOUT

SCALE 0 2.5 MI

TOTAL NET LENGTH OF CENTERLINE = 11.543 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WINNEBAGO COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

JT ENGINEERING

WISCONSIN
ANDREW W. BLOCK
E-41224-6
APPLETON
WI.
PROFESSIONAL ENGINEER

DATE 7/28/2026 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	JT ENGINEERING INC.
Project Manager	W.BERTRAND
Regional Examiner	NE REGION
Regional Supervisor	TAMMY RABE

APPROVED FOR THE DEPARTMENT

DATE 7/28/2026 Bill Bertrand, P.E. (Signature)

E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200 18 00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\010101-TI.DWG

PLOT DATE : 7/28/2026 10:45 AM PLOT BY : ANDY BLOCK PLOT NAME :

2

GENERAL NOTES

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

BEARINGS SHOWN ARE BASED ON THE COUNTY COORDINATE SYSTEM.

CURVE DATA IS BASED ON THE ARC DEFINITION.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

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

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

ANY REINFORCEMENT LOCATED IN EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM, AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
CURB RAMP DETAILS
EROSION CONTROL
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING & PERMANENT SIGNING
TRAFFIC CONTROL
DETOUR SIGNING
ALIGNMENT

CONTACTS

WISCONSIN DNR LIAISON

JAY SCHIEFELBEIN
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 360-3784
jeremiah.schiefelbein@wisconsin.gov

WINNEBAGO COUNTY HIGHWAY COMMISSIONER

ROBERT DOEMEL, JR.
901 WEST COUNTY ROAD Y
OSHKOSH, WI 54901
(920) 232-1713
rdoemel@co.winnebago.wi.us

NE REGION SURVEY CONTACT

CORMAC MCINNIS, PLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 492-5638
cormac.mcinnis@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER

WILLIAM BERTRAND, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 360-3124
william.bertrand@dot.wi.gov

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE

CHUCK BARTELT
70 E. DIVISION STREET
FOND DU LAC, WI 54935
(920) 410-5104
cb1461@att.com

ATC MANAGEMENT, INC. - ELECTRICITY/TRANSMISSION

CHRIS DAILEY
P.O. BOX 47
WAUKESHA, WI 53187
(262) 506-6884
cdailey@atcllc.com

CITY OF OSHKOSH - SEWER

JUSTIN GIERACH, P.E.
215 CHURCH AVENUE, P.O. BOX 1130
OSHKOSH, WI 54903
(920) 236-5065
jgierach@oshkoshwi.gov

CITY OF OSHKOSH - WATER

JUSTIN GIERACH, P.E.
215 CHURCH AVENUE, P.O. BOX 1130
OSHKOSH, WI 54903
(920) 236-5065
jgierach@oshkoshwi.gov

SPECTRUM - COMMUNICATION LINE

LISA ALBIN
3545 PLANK ROAD
APPLETON, WI 54915
(920) 378-0360
lisa.albin@charter.com

US INTERNET-WISCONSIN DIVISION, LLC-COMMUNICATION LINE

CHRIS HINES
5711 GREEN VALLEY ROAD
OSHKOSH, WI 54904
(920) 376-5549 OR (920) 354-3319
chines@oa.net

WISCONSIN PUBLIC SERVICE - ELECTRICITY

LINDA TREBIATOWSKI
3300 N. MAIN STREET
OSHKOSH, WI 54901
(920) 660-3266
linda.trebiatowski@wisconsinpublicservice.com

WISCONSIN PUBLIC SERVICE - GAS/PETROLEUM

CHUCK CORNISH
3300 N. MAIN STREET
OSHKOSH, WI 54901
(920) 236-5902
charles.cornish@wisconsinpublicservice.com

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 551.60 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.70 ACRES

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

2

2

N

USH 45/USH 10
INTERCHANGE

USH 10

END PROJECT
STA 1020'NB'+14.16
Y=540,233.992
X=755,894.134

CLAYTON

BISON RD

HANSEN RD

STEEPLE HILL DR

B-70-238

1000'NB'

CTH II

USH 45

975'NB'

B-70-311

GRANDVIEW RD

950'NB'

USH 45/CTH II
INTERCHANGE

GRANDVIEW RD

925'NB'

B-70-310

OAK RIDGE RD

900'NB'

WIOUWASH TRAIL

WINCHESTER

LAKEVIEW RD

875'NB'

B-70-244
B-70-139

BREEZEWOOD LN

B-70-309

VINLAND

850'NB'

WOODLAND RD

CROSS RD

825'NB'

CLOW RD

800'NB'

CTH G

B-70-249

775'NB'

GRIMSON RD

HILLTOP RD

CTH G

750'NB'

725'NB'

WOLF WILDERNESS RECREATION TRAIL

LASLEY POINT RD

700'NB'

CTH GG

B-70-219
B-70-218
B-70-220

WINNECONNE

B-70-222
B-70-221

B-70-241

KOLB RD

675'NB'

625'NB'

600'NB'

BROOKS RD

575'NB'

550'NB'

525'NB'

500'NB'

475'NB'

450'NB'

425'NB'

400'NB'

B-70-216
B-70-215

OSHKOSH

W SUNNYVIEW RD

GREEN VALLEY RD

CITY OF OSHKOSH

IH 41

W SNELL RD

CTH T

B-70-214

USH 45/CTH T (RYF RD)
INTERCHANGE

OSHKOSH

STH 116

SKELETON
BRIDGE RD

B-70-217
R-70-0008

CTH S

CTH S

B-70-213
B-70-212

SOUTHWIND DR

WINNECONNE PARK AND RIDE

USH 45/STH 116 (CTH GG)
INTERCHANGE

RYF RD

W FERNAU AVE

BEGIN PROJECT
STA 410'NB'+69.34
Y=491,186.440
X=782,636.881

IH 41/USH 45
INTERCHANGE

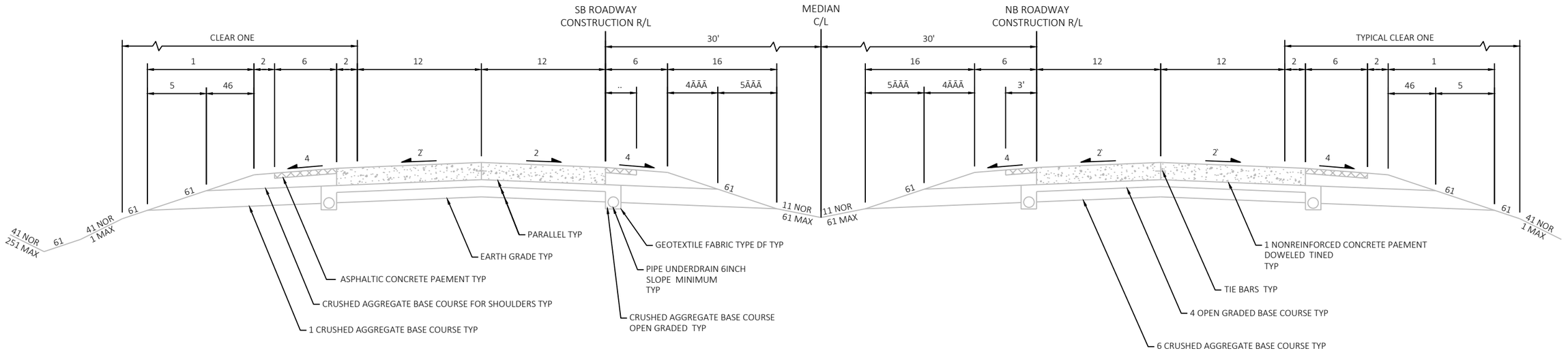
IH 41

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\020201-PO.DWG
LAYOUT NAME - 020201-po

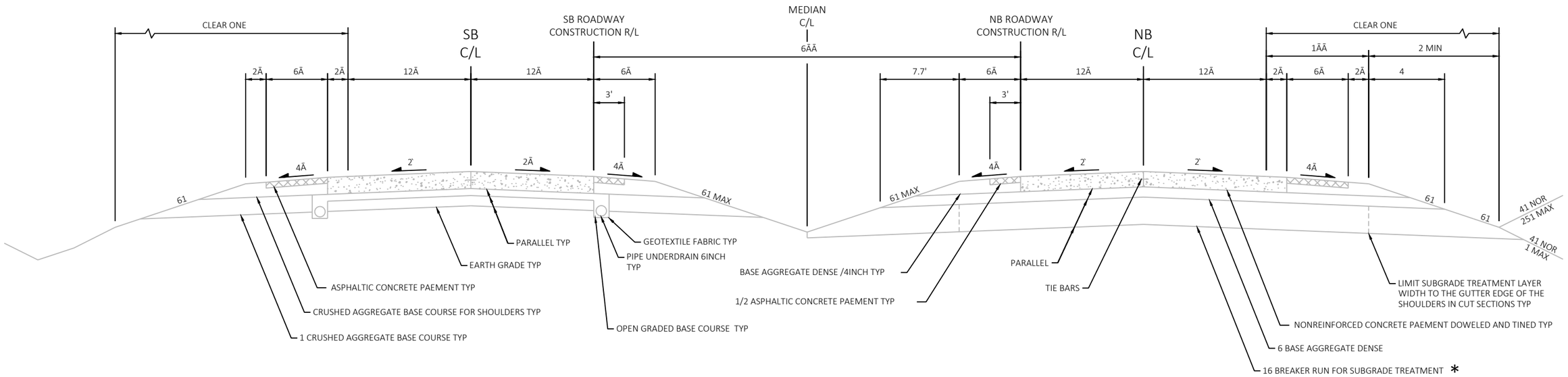
PLOT DATE : 7/24/2026 8:56 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1:4000

WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION USH 45

STA 4164 NB TO STA 5215 NB
STA 4165 SB TO STA 5141 SB
STA 121416 NB TO STA 126 NB
STA 11612 SB TO STA 12422 SB

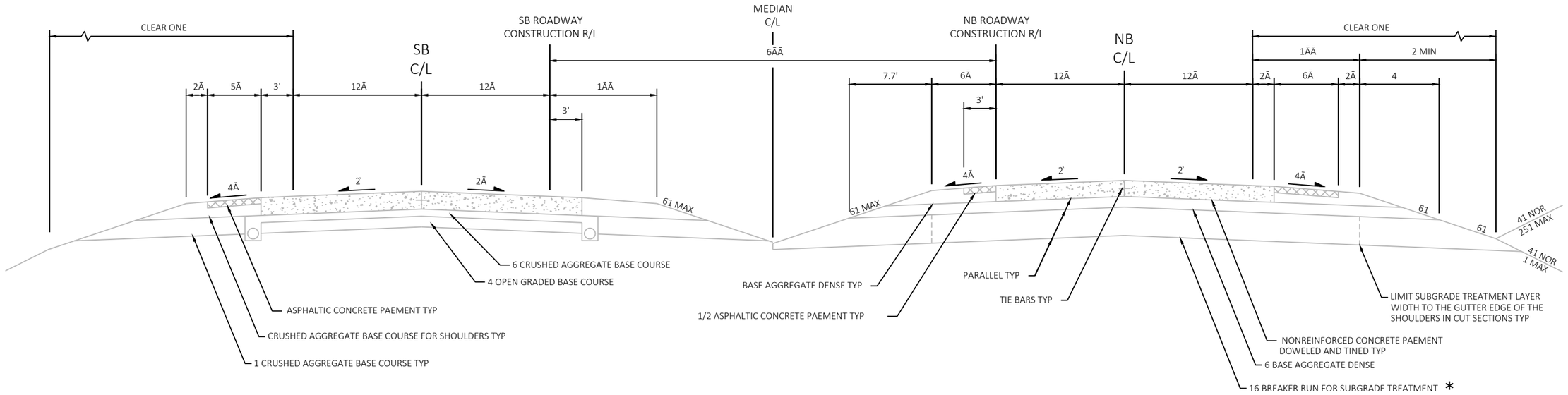


EXISTING TYPICAL SECTION USH 45

STA 5215 NB TO STA 215 NB
STA 5141 SB TO STA 141 SB

* INCREASE THICKNESS OF BREAKER RUN FOR SUBGRADE TREATMENT LAYER FROM 16 TO 6 AT
- STA 5215 NB TO STA 215 NB
- STA 215 NB TO STA 215 NB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 4	E

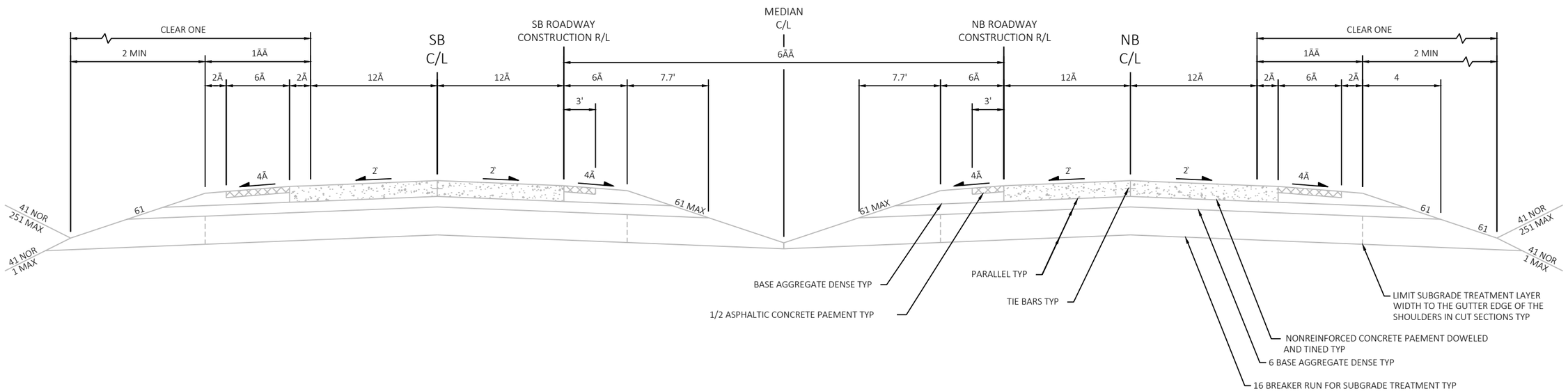


EXISTING TYPICAL SECTION USH 45

STA 215 NB TO STA 15 NB
STA 141 SB TO STA 1 SB
STA 55 NB TO STA 5 NB
STA 545 SB TO STA SB

* INCREASE THICKNESS OF BREAKER RUN FOR SUBGRADE TREATMENT LAYER FROM 16 TO 6 AT

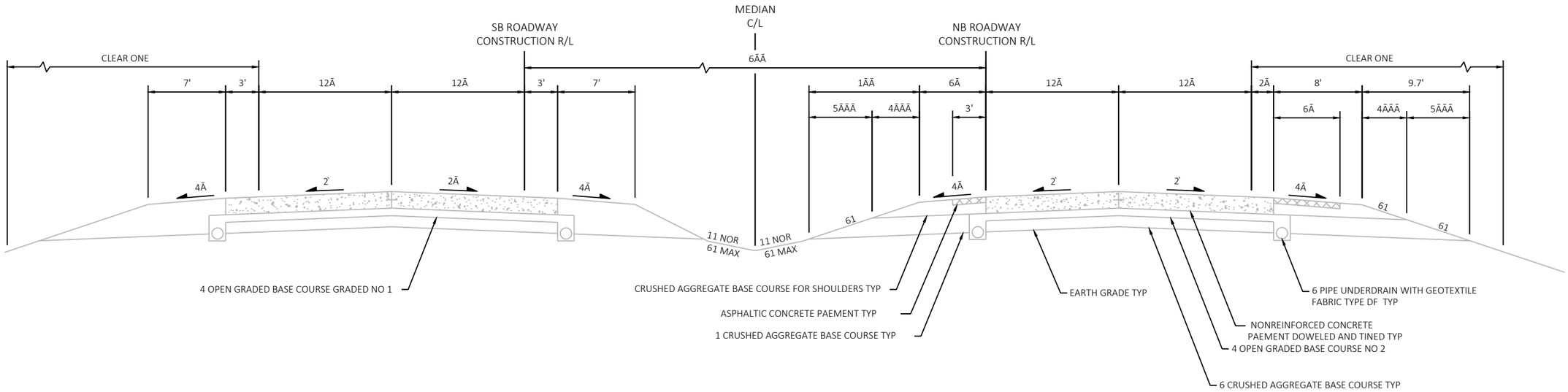
- STA 215 TO STA 5
- STA 645 TO STA 65
- STA 65 TO STA 5



EXISTING TYPICAL SECTION USH 45

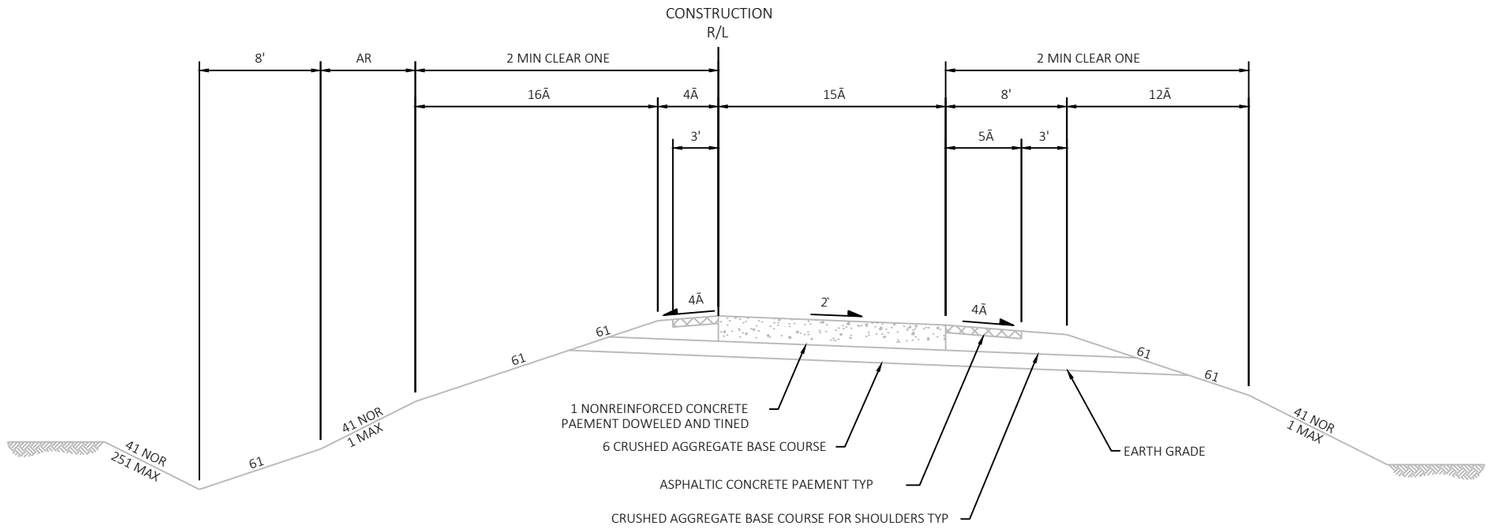
STA 15 NB TO STA 55 NB
STA 1 SB TO STA 545 SB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 5	E



EXISTING TYPICAL SECTION USH 45

STA 5 NB TO STA 121416 NB
STA SB TO STA 11612 SB

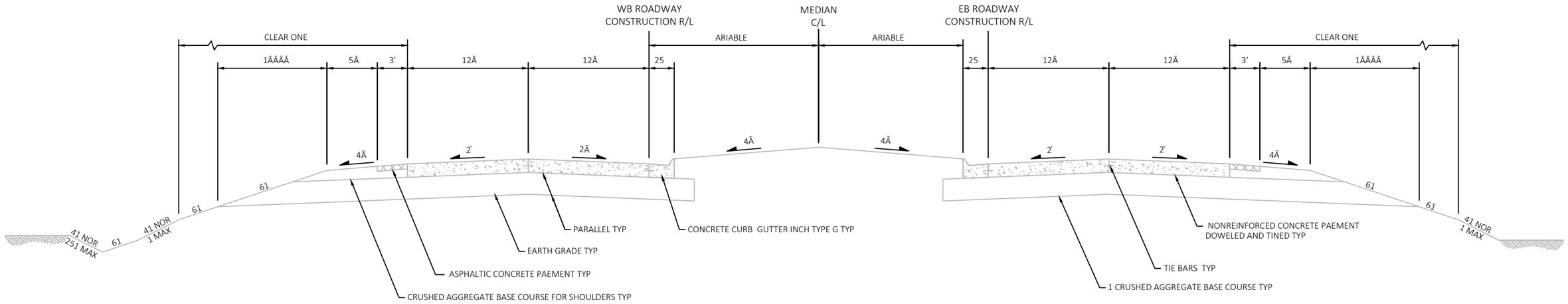


EXISTING TYPICAL SECTION FOR RAMPS AT CTH T

NE RAMP STA 4512 NB TO STA 4641 NB
SE RAMP STA 4556 NB TO STA 4525 NB
NW RAMP STA 4662 SB TO STA 45262 SB
SW RAMP STA 456 SB TO STA 46524 SB

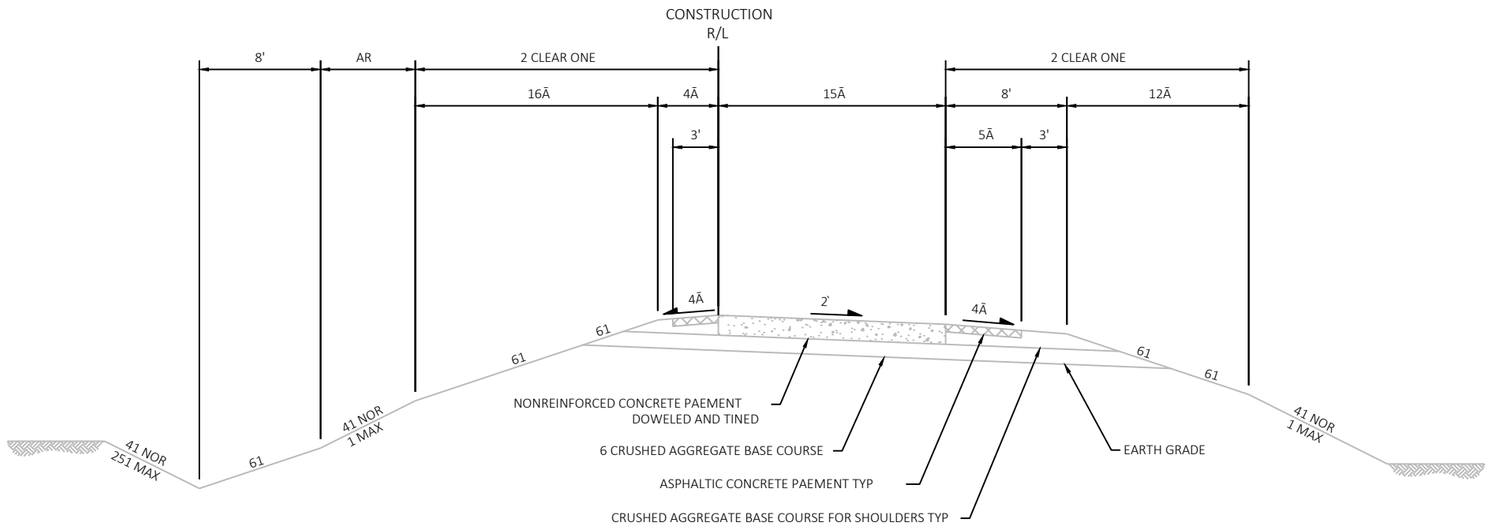
PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 6	E

FILE NAME Ā XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS21TSDWG
LAYOUT NAME` 2
PLOT DATE Ā /24/226 5 AM
PLOT BY Ā AREN FISCHER
PLOT NAME `
PLOT SCALE Ā 1IN1 FT



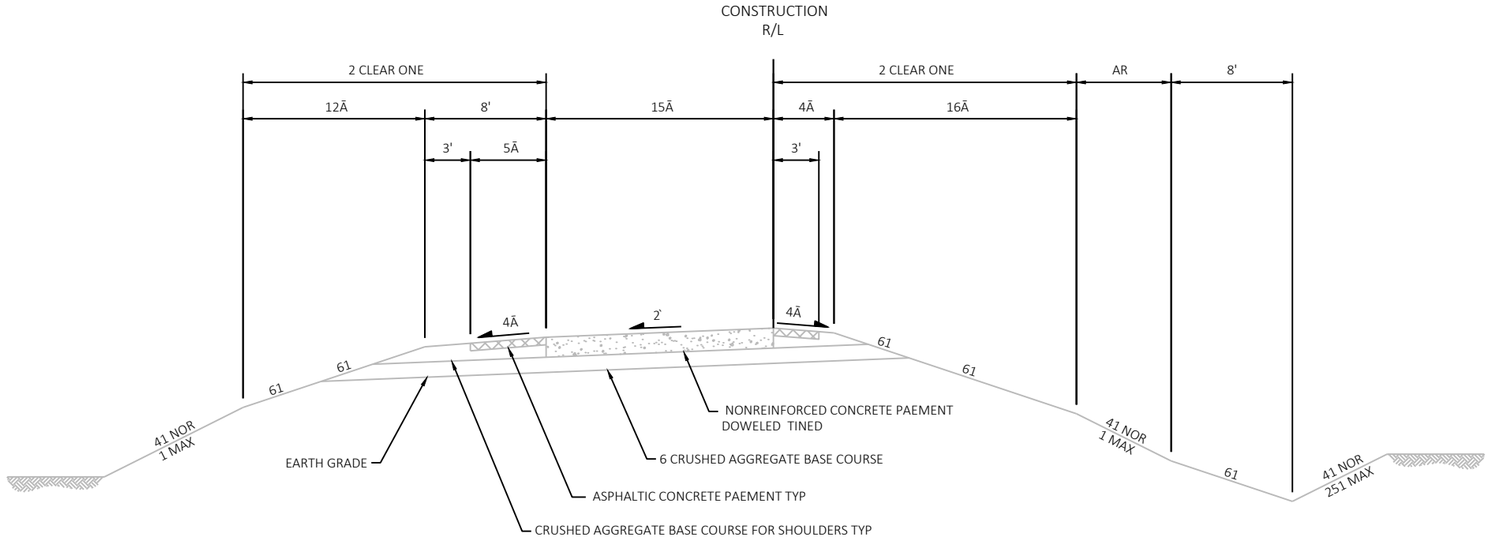
TURN LANES NOT SHOWN

EXISTING TYPICAL SECTION STH 116 / CTH GG
STA 55 TO STA 425



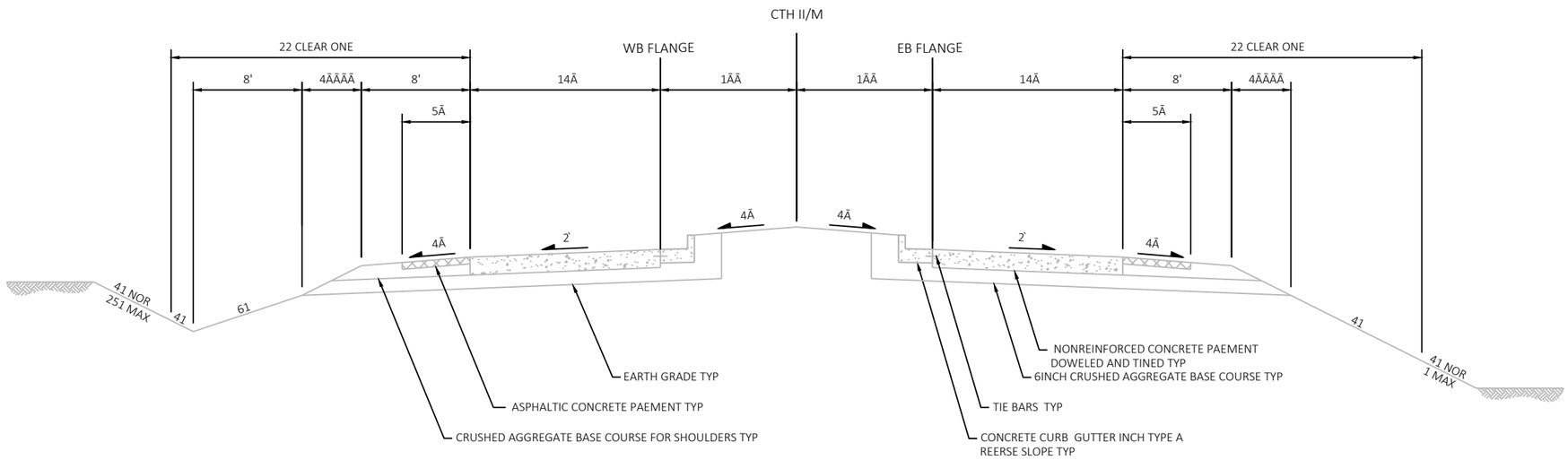
EXISTING TYPICAL SECTION FOR RAMPS AT STH 116 / CTH GG
STA 66415 NB TO STA 6416 NB
STA 66654 NB TO STA 6122 NB

PROECT NO 621	HWYÃ USH 45	COUNTYÃ WINNEBAGO	TYPICAL SECTIONS	SHEET 7	E



EXISTING TYPICAL SECTION FOR RAMPS AT STH 116 / CTH GG

STA 6651 SB TO STA 6644 SB
STA 6246 SB TO STA 646 SB

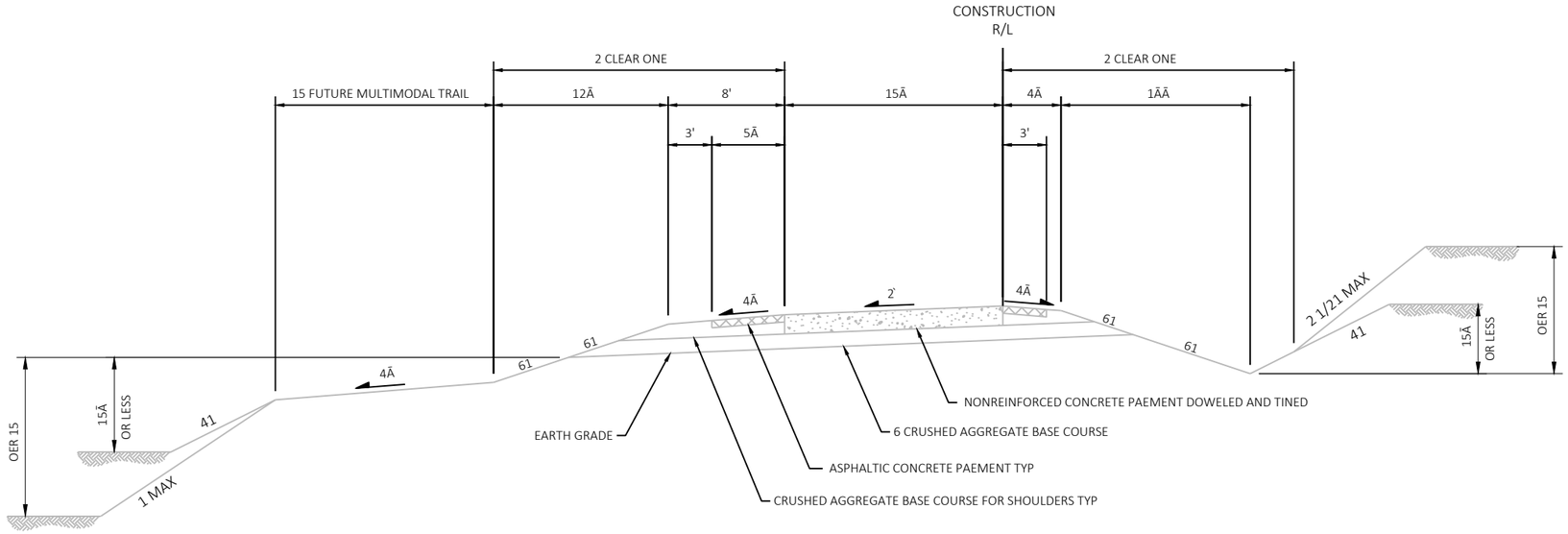


EXISTING TYPICAL SECTION CTH II/M

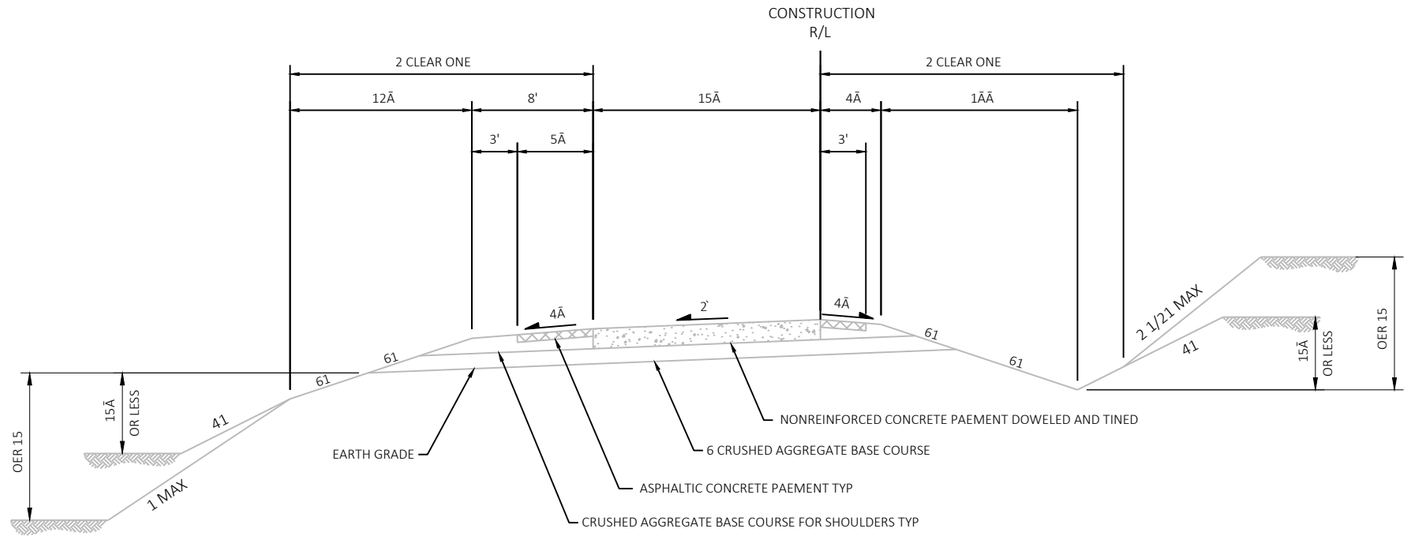
STA 15 TO STA 11164

PROECT NO 621	HWYÃ USH 45	COUNTYÃ WINNEBAGO	TYPICAL SECTIONS	SHEET 8	E

FILE NAME Ã XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS21TSDWG
LAYOUT NAME` 25
PLOT DATE Ã /24/226 5 AM
PLOT BY Ã AREN FISCHER
PLOT NAME `
PLOT SCALE Ã 1IN1 FT



EXISTING TYPICAL SECTION USH 45 CTH II/M
NW RAMP STA 1111 SB TO STA 1411 SB

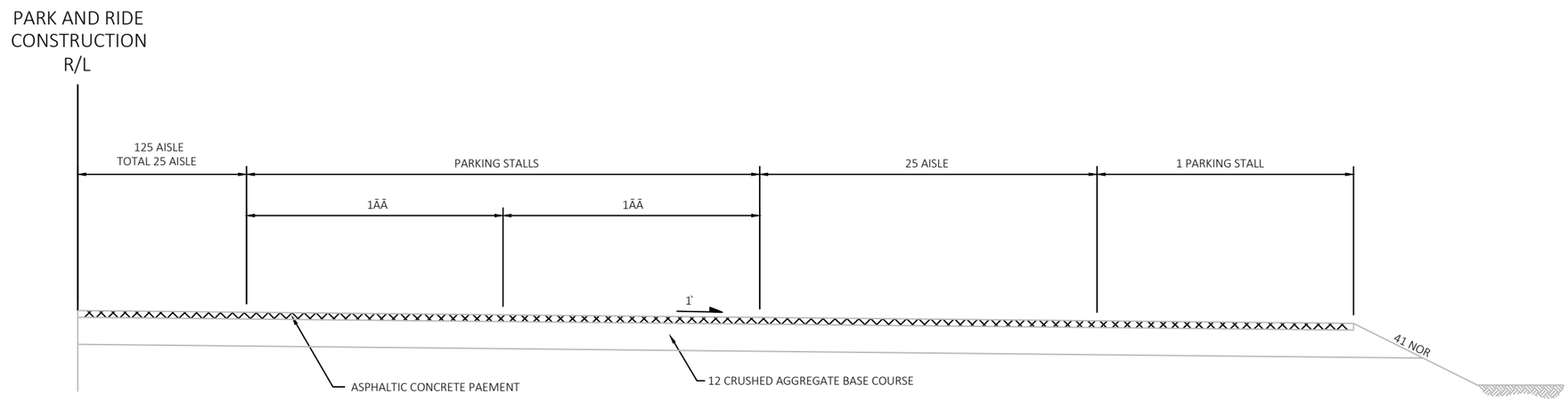


EXISTING TYPICAL SECTION USH 45 CTH II/M
SE RAMP STA 51 NB TO STA 1165 NB
NE RAMP STA 126 NB TO STA 121416 NB
SW RAMP STA 1155 SB TO STA 12122 SB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 9	E

FILE NAME Ā XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS21TSDWG
LAYOUT NAME` 26
PLOT DATE Ā /24/226 5 AM
PLOT BY Ā AREN FISCHER
PLOT NAME `
PLOT SCALE Ā 1IN1 FT

2

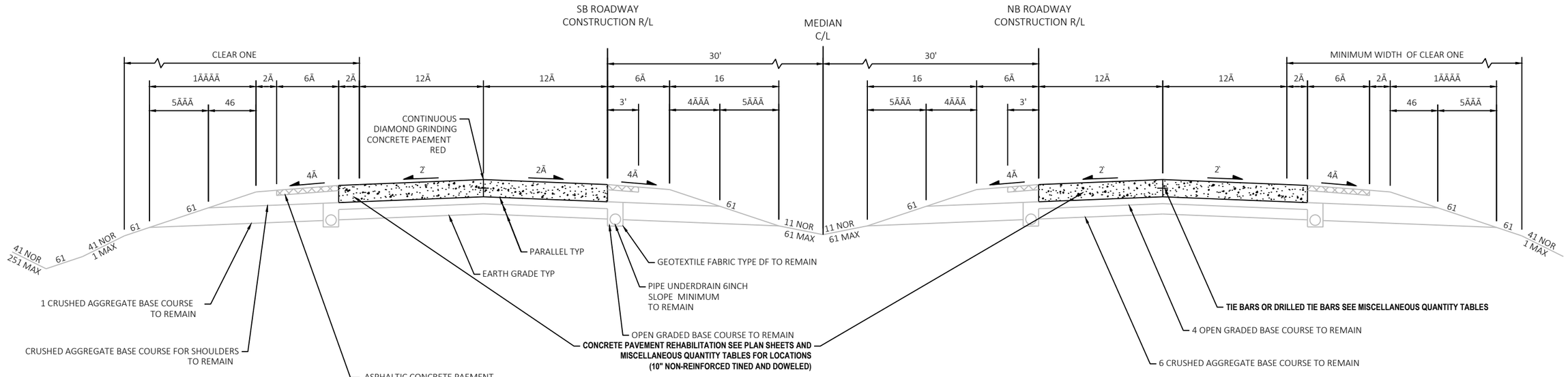


1/2 TYPICAL EXISTING SECTION FOR PARK AND RIDE LOT

WINNECONNE PARK AND RIDE

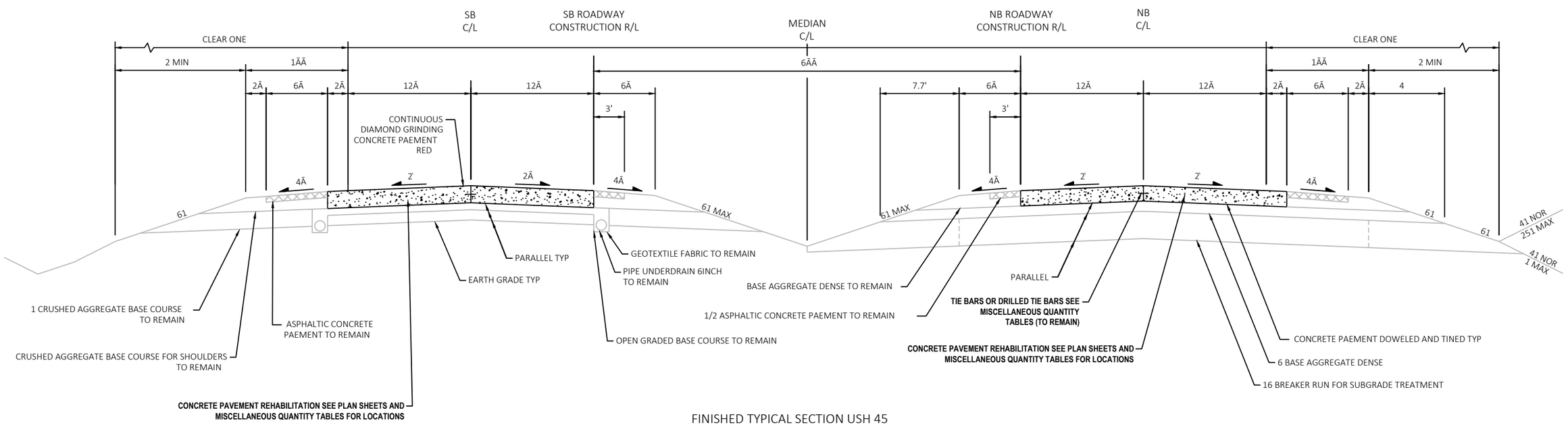
PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 10 E

FILE NAME Ā XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS2TSDWG
LAYOUT NAME` 2
PLOT DATE Ā /24/226 5 AM
PLOT BY Ā AREN FISCHER
PLOT NAME `
PLOT SCALE Ā 1IN1 FT



FINISHED TYPICAL SECTION USH 45

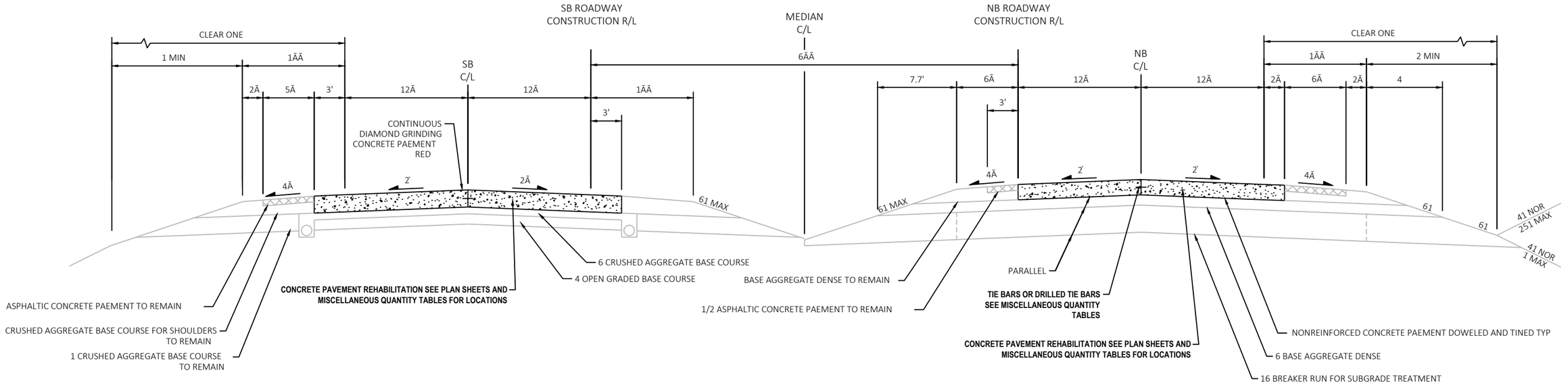
STA 4164 NB TO STA 5215 NB
STA 4165 SB TO STA 5141 SB
STA 121416 NB TO STA 126 NB
STA 11612 SB TO STA 12422 SB
CONTINOUS DIAMOND GRINDING RED
STA 1161 TO 1215 SB



FINISHED TYPICAL SECTION USH 45

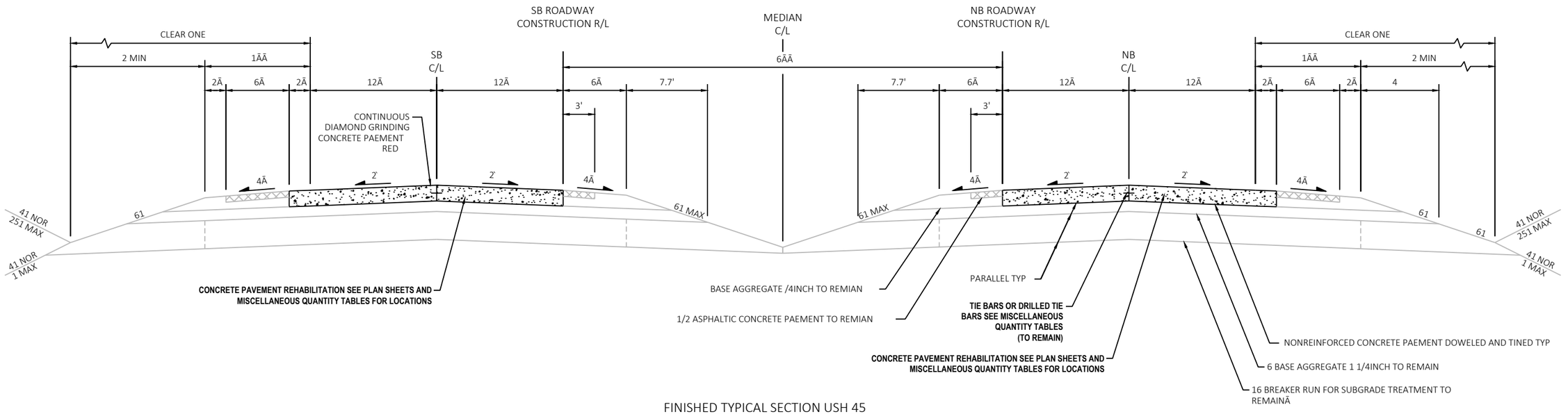
STA 5215 NB TO STA 215 NB
STA 5141 SB TO STA 141 SB
CONTINOUS DIAMOND GRINDING
RED STA 64 SB TO 141 SB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 11	E



FINISHED TYPICAL SECTION USH 45

STA 215 NB TO STA 15 NB
STA 141 SB TO STA 1 SB
STA 55 NB TO STA 5 NB
STA 545 SB TO STA SB

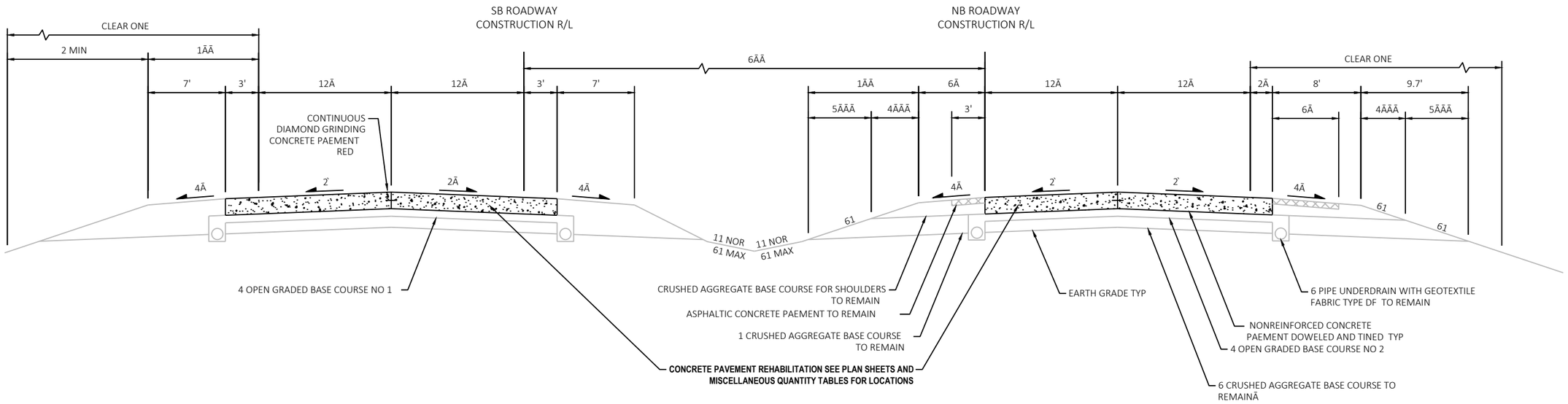


FINISHED TYPICAL SECTION USH 45

STA 15 NB TO STA 55 NB
STA 1 SB TO STA 545 SB

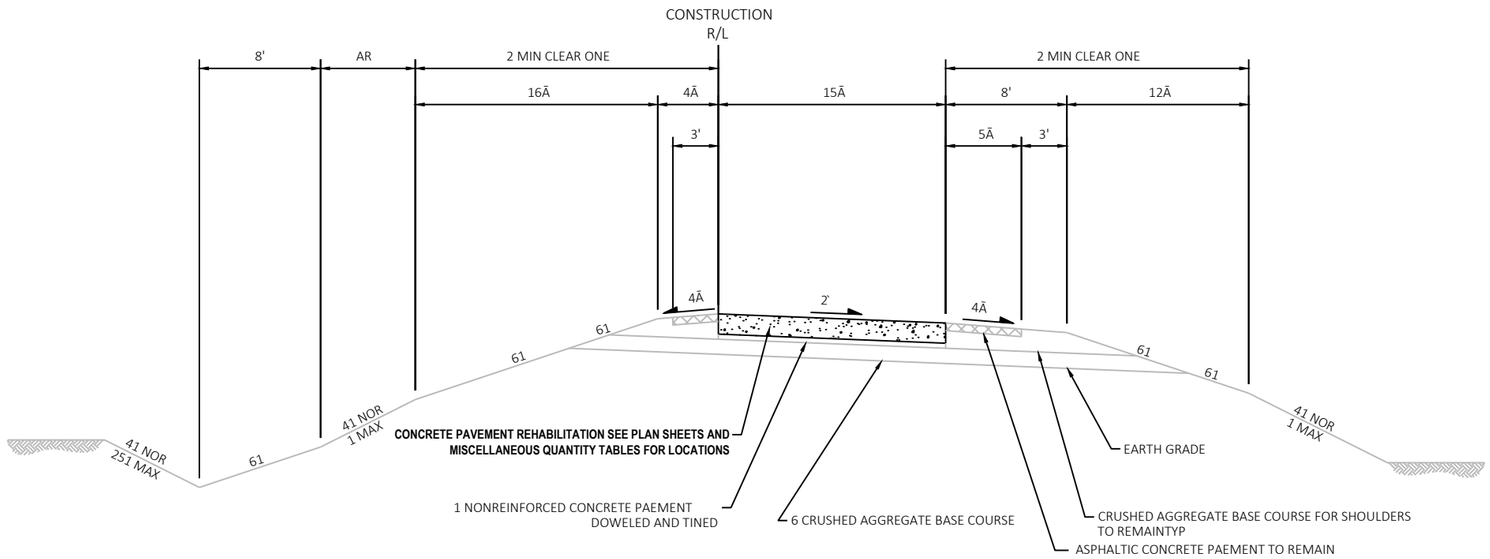
PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 12	E

FILE NAME Ā XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS22TSDWG
LAYOUT NAME` 2
PLOT DATE Ā /24/226 5 AM
PLOT BY Ā AREN FISCHER
PLOT NAME `
PLOT SCALE Ā 1IN1 FT



FINISHED TYPICAL SECTION USH 45

STA 5 NB TO STA 121416 NB
STA SB TO STA 1161 SB

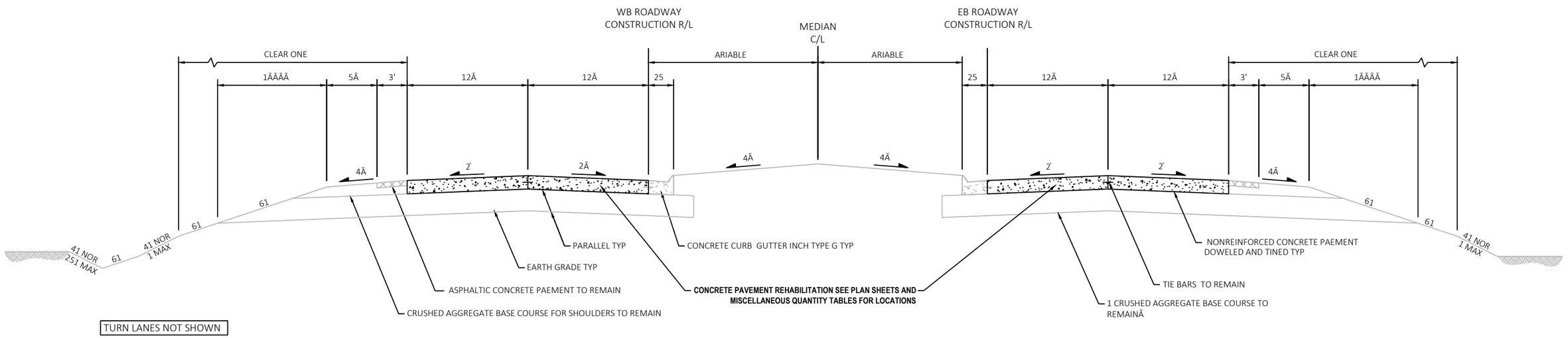


FINISHED TYPICAL SECTION FOR RAMPS AT CTH T

NE RAMP STA 4512 NB TO STA 4641 NB
SE RAMP STA 4556 NB TO STA 4525 NB
NW RAMP STA 4662 SB TO STA 45262 SB
SW RAMP STA 456 SB TO STA 46524 SB

PROECT NO 621	HWYÃ USH 45	COUNTYÃ WINNEBAGO	TYPICAL SECTIONS	SHEET 13	E

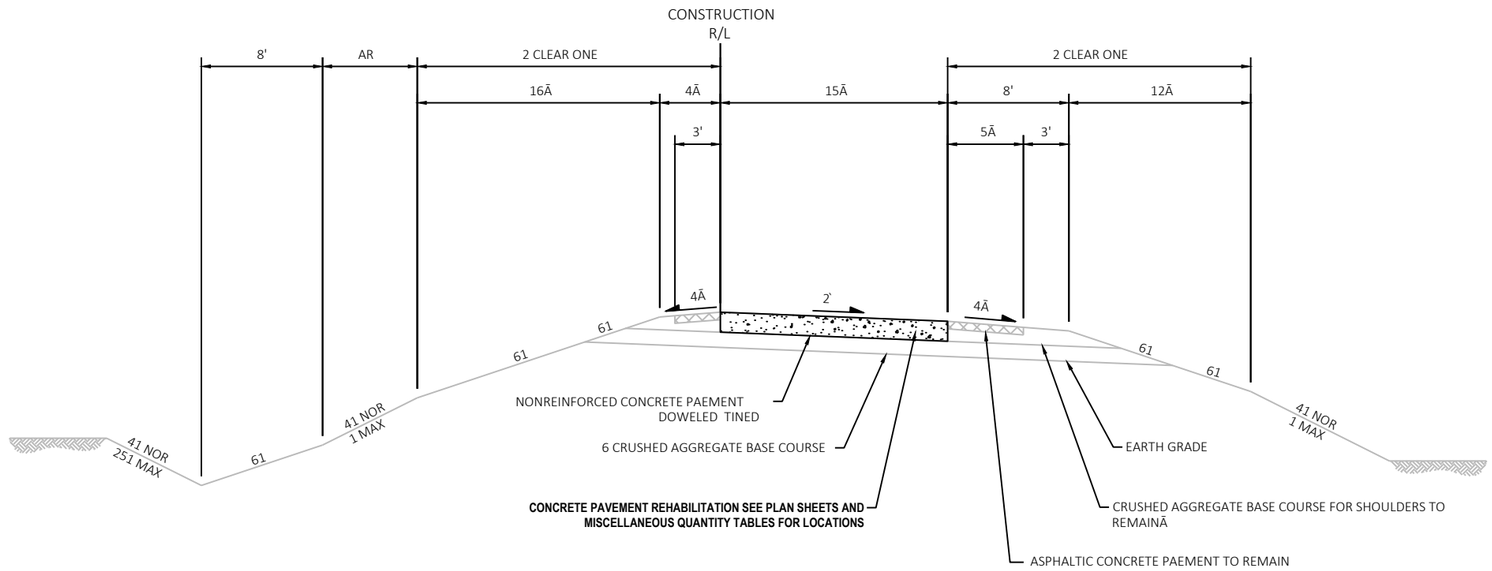
FILE NAME Ã XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS22TSDWG
LAYOUT NAME` 21
PLOT DATE Ã /24/226 5 AM
PLOT BY Ã AREN FISCHER
PLOT NAME `
PLOT SCALE Ã 1IN1 FT



TURN LANES NOT SHOWN

FINISHED TYPICAL SECTION STH 116 / CTH GG

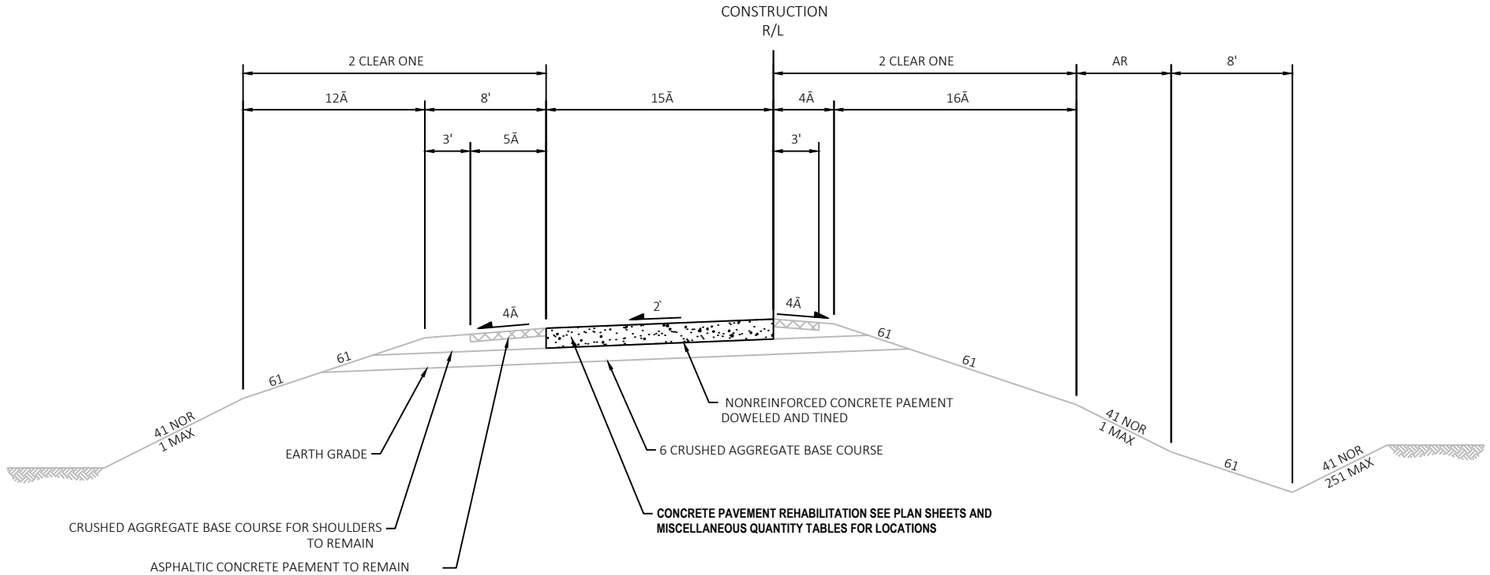
STA 55 TO STA 425



FINISHED TYPICAL SECTION FOR RAMPS AT STH 116 / CTH GG

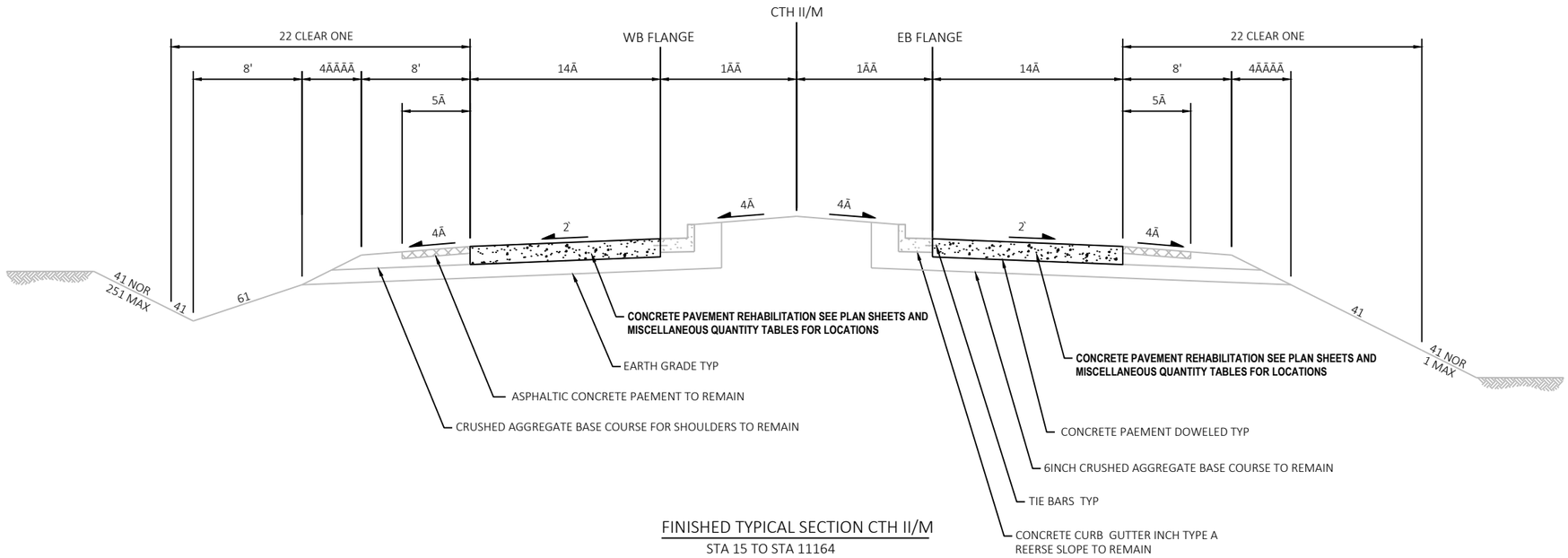
STA 66415 NB TO STA 6416 NB
STA 66654 NB TO STA 6122 NB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 14	E



FINISHED TYPICAL SECTION FOR RAMPS AT STH 116 / CTH GG

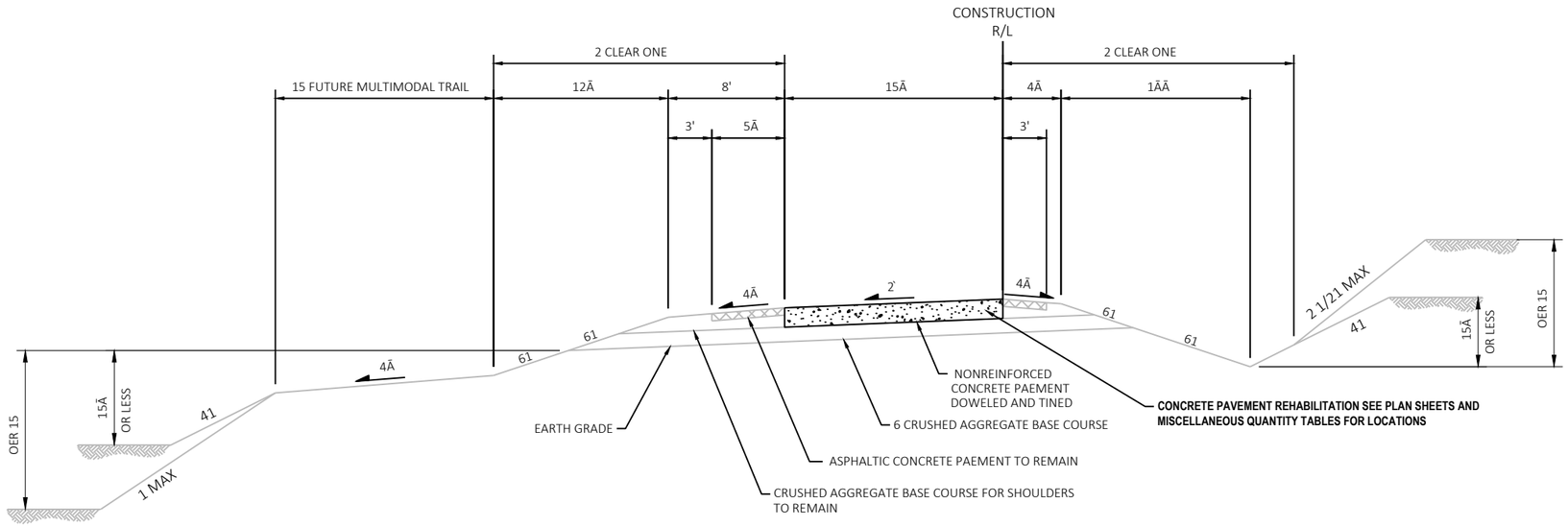
STA 6651 SB TO STA 6644 SB
STA 6246 SB TO STA 646 SB



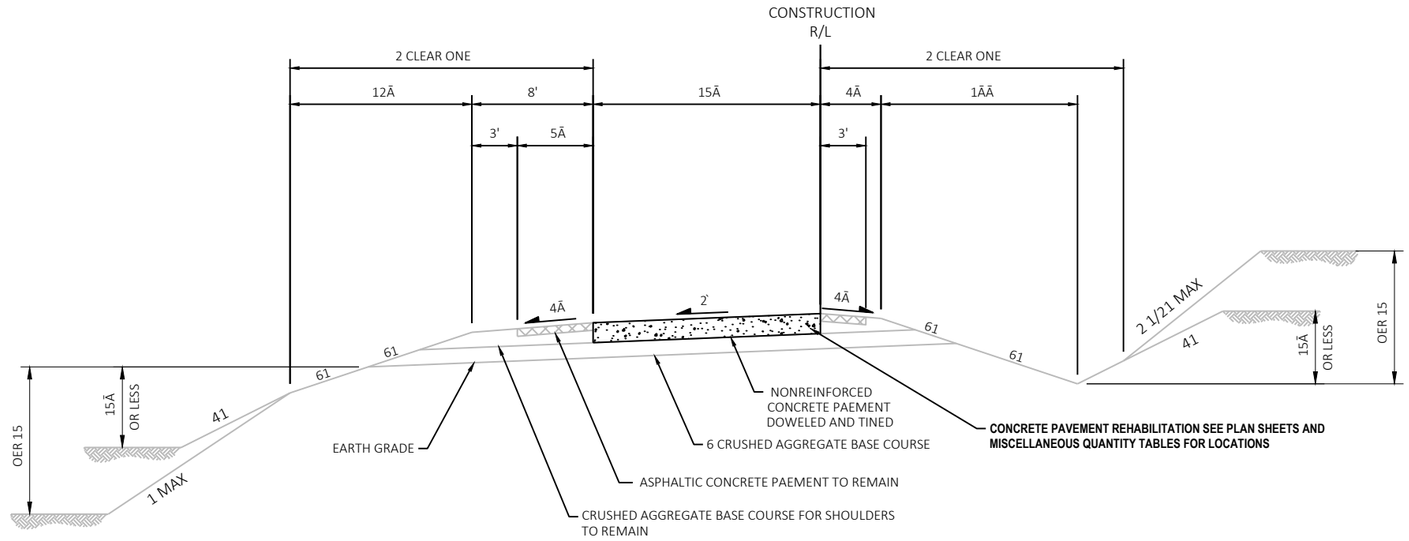
FINISHED TYPICAL SECTION CTH II/M

STA 15 TO STA 11164

PROECT NO 621	HWYÃ USH 45	COUNTYÃ WINNEBAGO	TYPICAL SECTIONS	SHEET 15	E



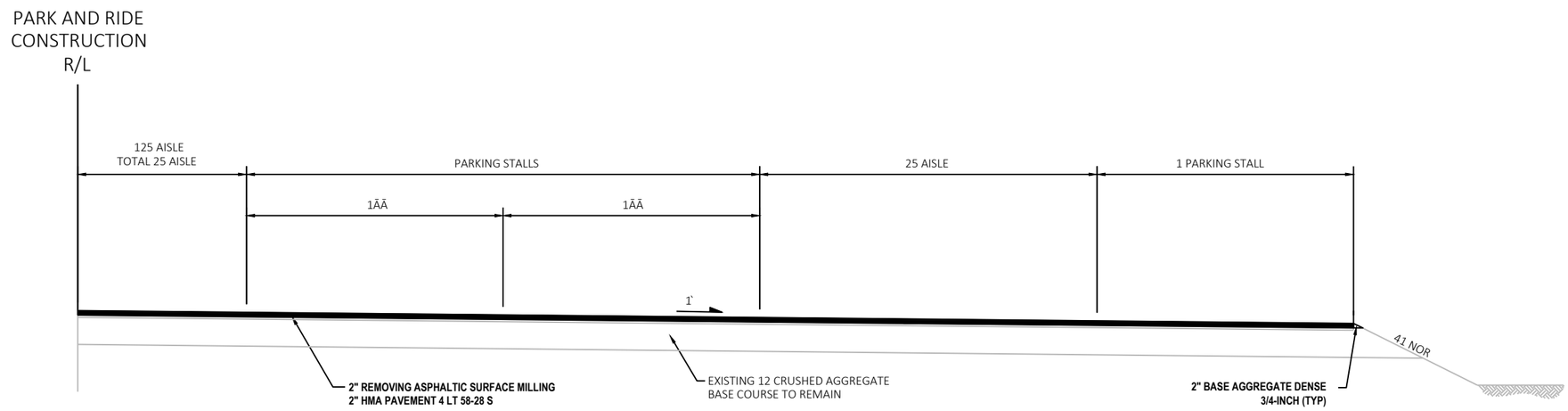
FINISHED TYPICAL SECTION USH 45 CTH II/M
NW RAMP STA 1111 SB TO STA 1411 SB



FINISHED TYPICAL SECTION USH 45 CTH II/M
SE RAMP STA 51 NB TO STA 1165 NB
NE RAMP STA 126 NB TO STA 121416 NB
SW RAMP STA 1155 SB TO STA 12122 SB

PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 16	E

2



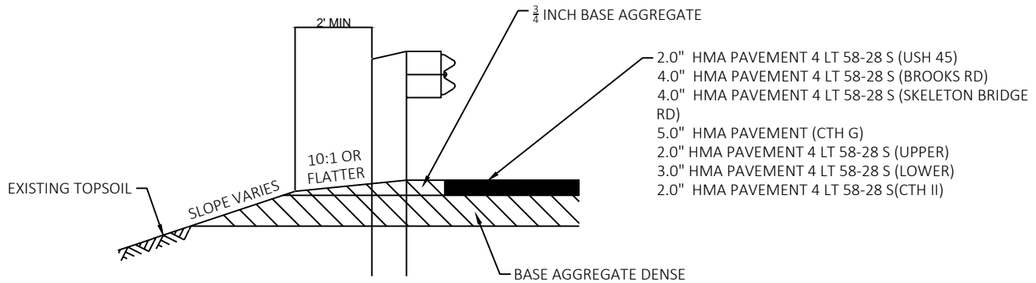
1/2 TYPICAL FINISHED SECTION FOR PARK AND RIDE LOT

WINNECONNE PARK AND RIDE

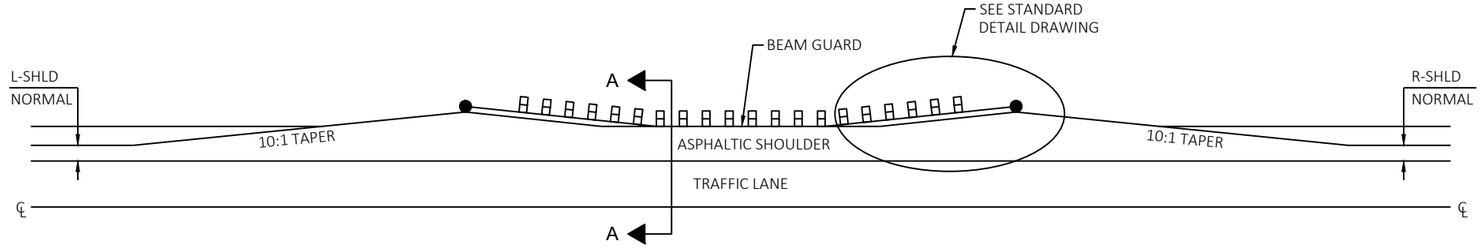
PROECT NO 621	HWYĀ USH 45	COUNTYĀ WINNEBAGO	TYPICAL SECTIONS	SHEET 17	E

FILE NAME Ā XPROECTSWINNEBAGO621 USH 45 WO2DESIGNCDPLAN SHEETS2TSDWG
LAYOUT NAME` 214
PLOT DATE Ā /24/226 5 AM
PLOT BY Ā AREN FISCHER
PLOT NAME `
PLOT SCALE Ā 1IN1 FT

2

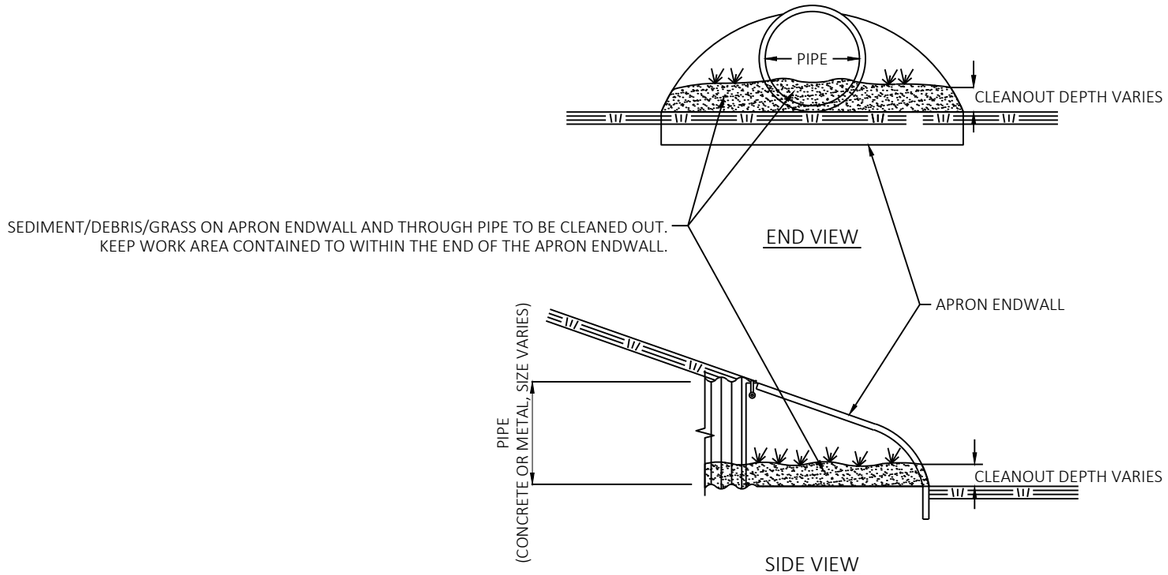


SECTION A-A



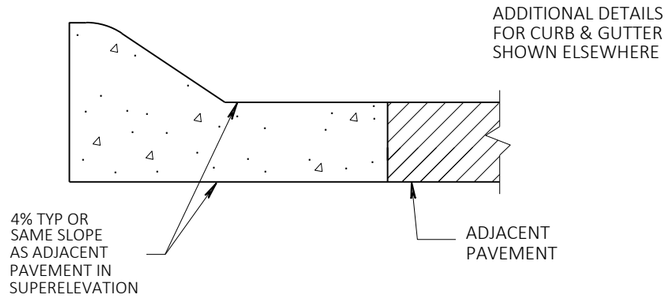
NOTE: SEE PLAN LOCATIONS WHERE SHOULDER PAVING IS REQUIRED. AT LOCATIONS WHERE SHOULDER PAVING IS NOT CALLED FOR, THIS DETAIL DOES NOT APPLY.

DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD



SIDE VIEW

CLEAN CULVERT PIPE

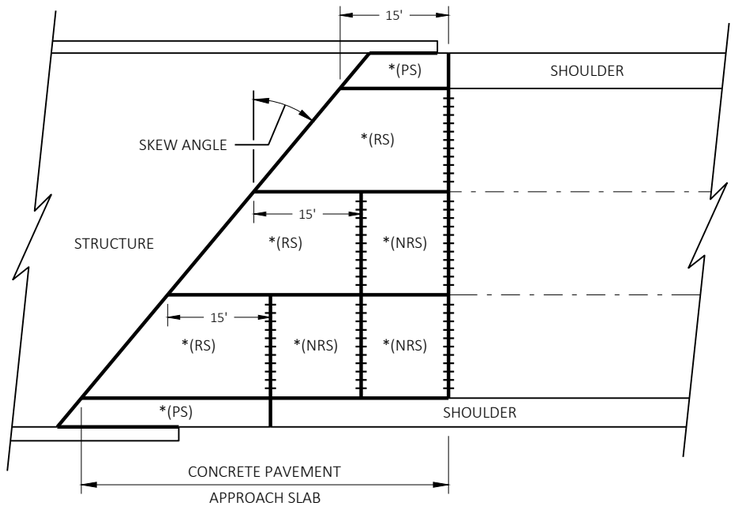


CONCRETE CURB & GUTTER - GUTTER SLOPE

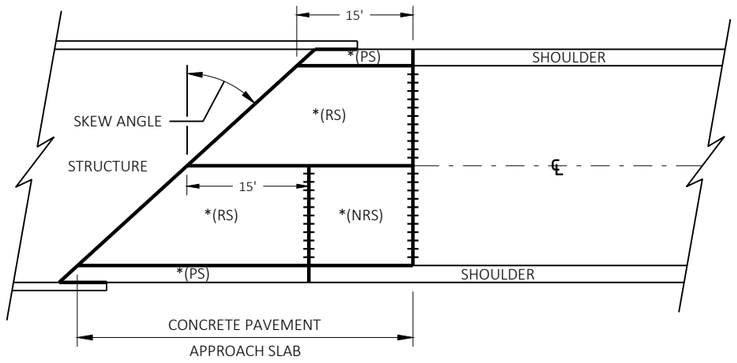
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 18	E

2

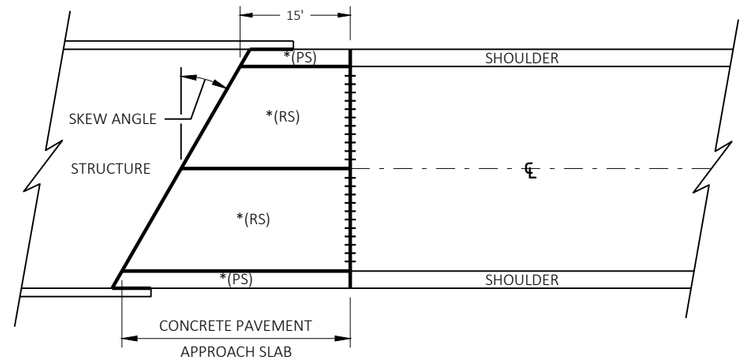
NOTE: SEAL ANY CRACKS GREATER THAN 1/4-INCH WITHIN THE APPROACH SLAB



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

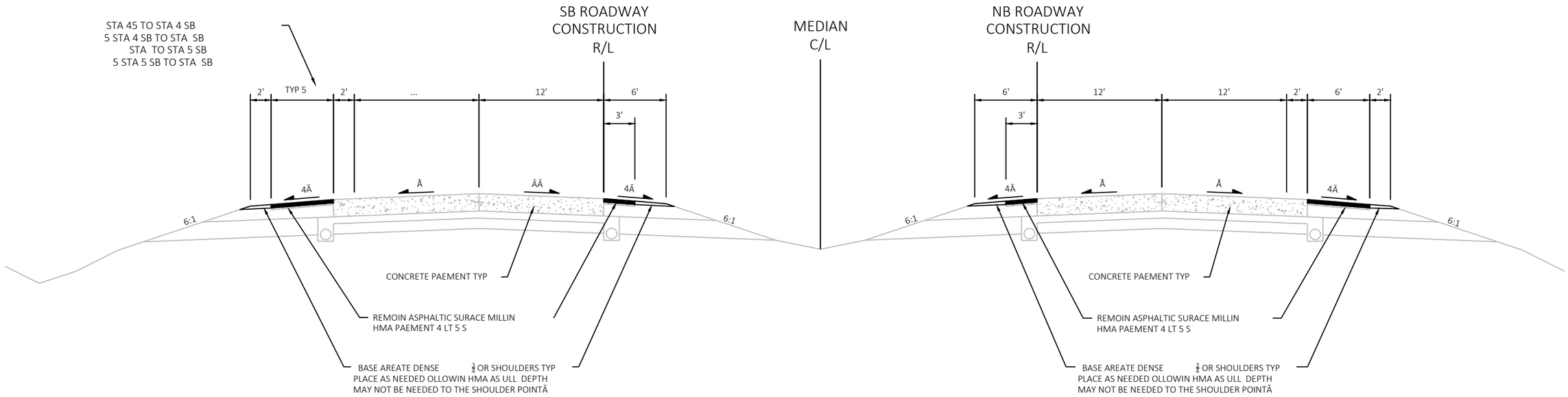


SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

LEGEND

———	TRANSVERSE AND LONGITUDINAL JOINTS TO BE CLEANED AND SEALED
*(RS)	REINFORCED CONCRETE SLAB
*(NRS)	NON REINFORCED CONCRETE SLAB
*(PS)	PAVED CONCRETE/ASPHALT SHOULDER OR CONCRETE SURFACE DRAIN

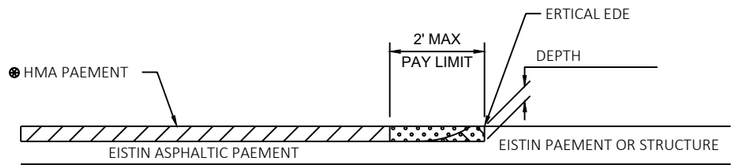
BRIDGE JOINT/APPROACH RUBBERING FOR CONCRETE PAVEMENT APPROACH SLAB



MILLIN DEPTH MAY ARY THROUHOUT THE PROECT ENSURE MILLIN ACCOMMODATES THE OERLAY BE LUSH WITH ADACENT CONCRETE

USH 45 HMA SHOULDER REPAIR

ARIOUS LOCATIONS AS PLAN SHEETS SHOW OR ENINEER DIRECTS



REMOIN ASPHALTIC SURACE MILLIN

REMOIN ASPHALTIC SURACE BUTT OINTS

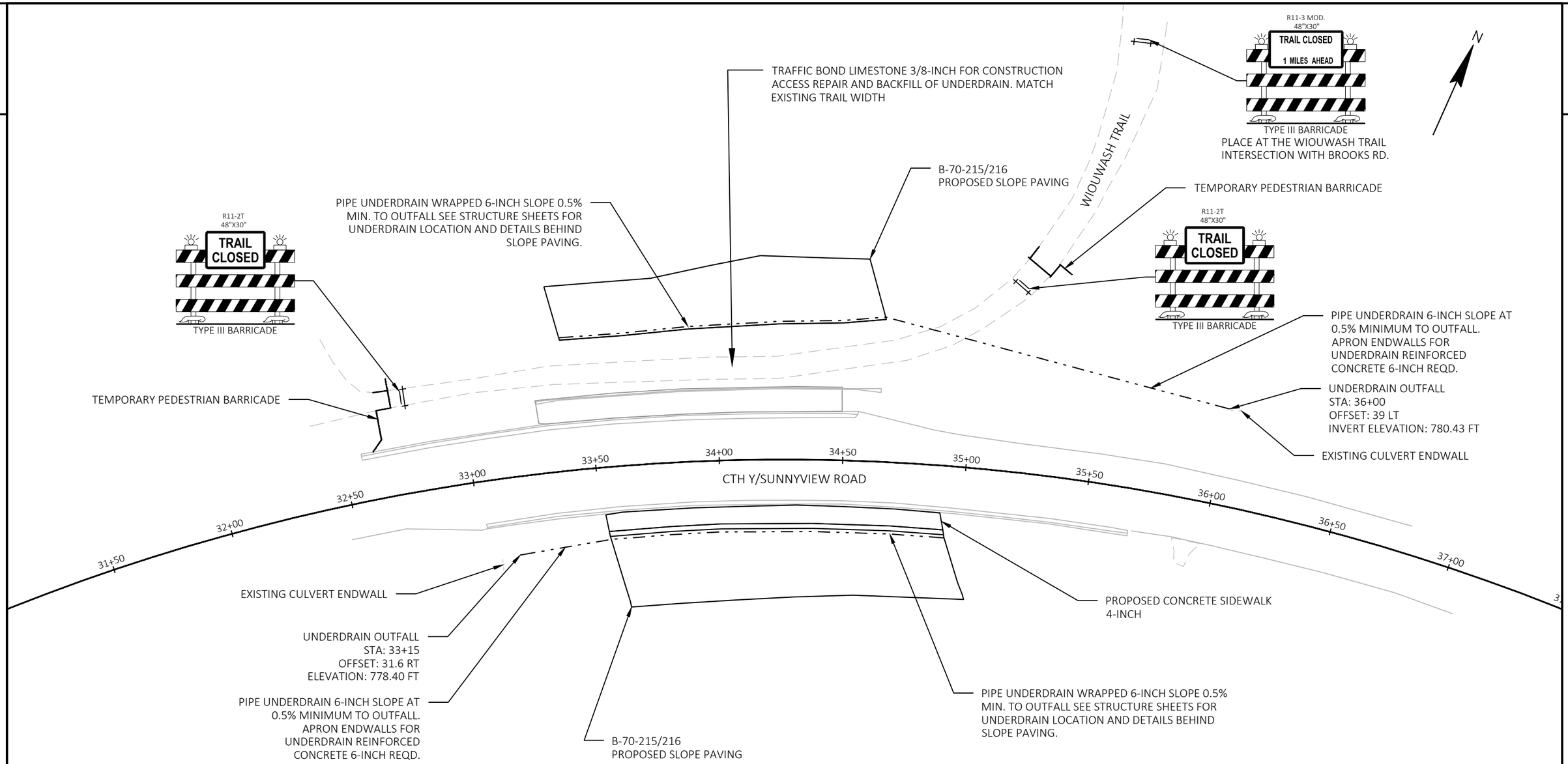
REMOE ASPHALTIC SURACE WEDE AT BUTT OINT TO CREATE ERTICAL EDE

SEE TYPICAL CROSS SECTION OR PAEMENT TYPE AND THICNESS O INDIIDUAL LAYERS

BUTT OINT DETAIL OR ASPHALTIC PAEMENTS NO PROILE CHANE

PROECT NO 6200-18-70	HWYĀ USH 45	COUNTYĀ WINNEBAO	CONSTRUCTION DETAILS	SHEET 20	E

2



NOTE:
UNDERDRAIN BELOW PROPOSED SLOPE PAVING TO BE PAID UNDER APPLICABLE STRUCTURE CATEGORY.

UNDERDRAIN OUTSIDE OF PROPOSED SLOPE PAVING TO BE PAID UNDER ROADWAY CATEGORY 0010.

NOTES:

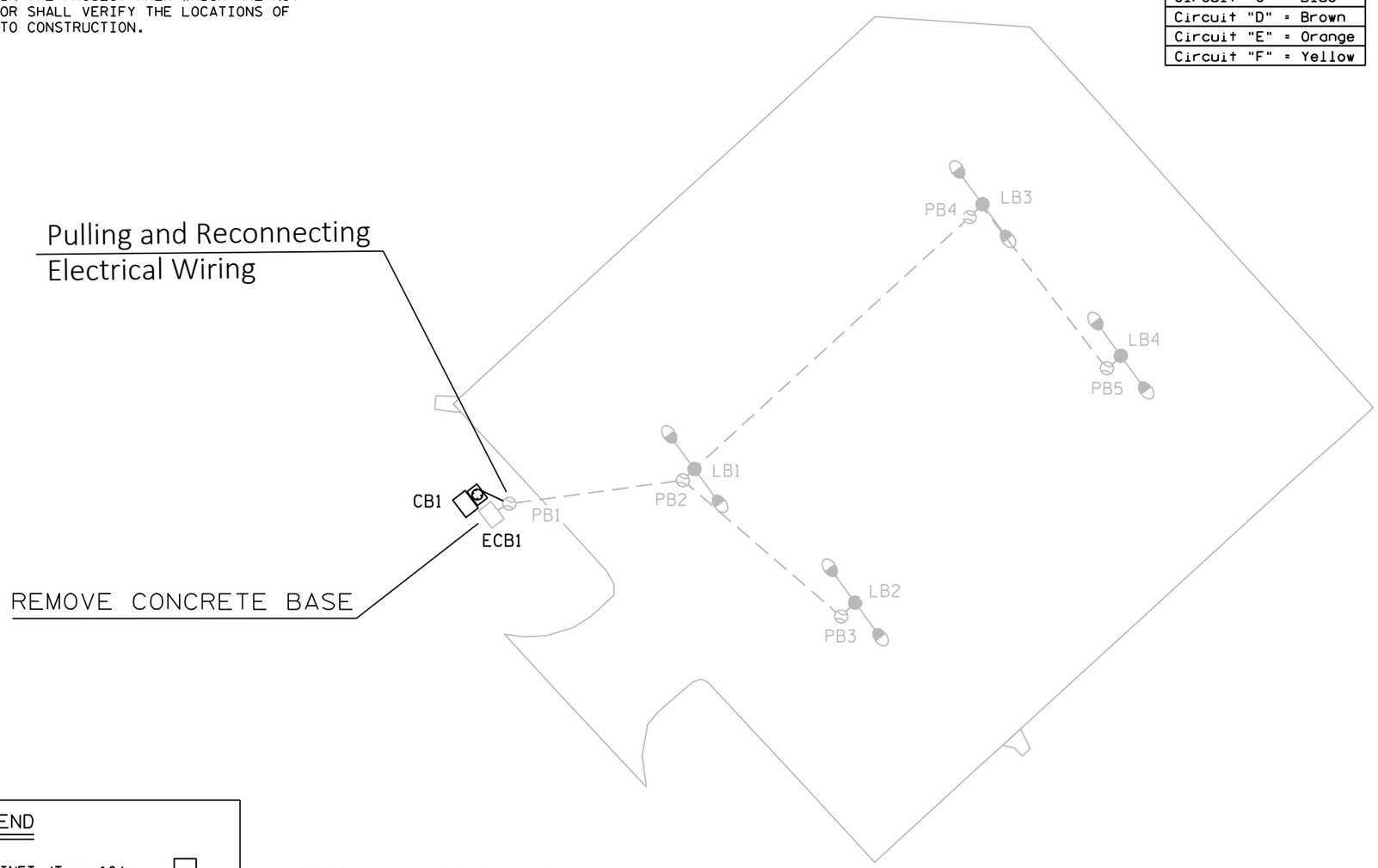
WISCONSIN DOT NORTHEAST REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THEM 3 DAYS IN ADVANCE.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

CONDUCTOR COLOR SCHEME

Circuit "A" = Black
Circuit "B" = Red
Circuit "C" = Blue
Circuit "D" = Brown
Circuit "E" = Orange
Circuit "F" = Yellow

N



LEGEND

- LIGHTING CONTROL CABINET (Type 10) WITH METER BREAKER PEDESTAL
- 2" CONDUIT, NON-METALLIC (unless otherwise noted)
- LIGHTING UNIT
- PULL BOX 24" X 42"
- UTILITY POLE
- ELECTRIC, UNDERGROUND — E —
- ELECTRIC, OVERHEAD — OH —

EXAMPLE (see individual label on each lighting unit)

III-LED A-12-5-A-4

- LIGHT UNIT NUMBER IN CIRCUIT
- CIRCUIT ID
- BASE TYPE
- MAST ARM LENGTH (in feet)
- LAMP WATTAGE
- DISTRIBUTION TYPE

240 VOLT SYSTEM

120/240 VOLT ELECTRIC SERVICE

BUTTE DES MORTS PARK AND RIDE
USH 45 & STH 116/CTH GG
WINNEBAGO COUNTY

LIGHTING NO. L70-0562

DESIGNER: WISDOT NE REGION TRAFFIC UNIT

DATE: 10/15/2024 SHEET NO. 1 OF 1

PROJECT NO: 6200-18-70	HWY: STH 45	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - PARK AND RIDE LIGHITNG PLAN	SHEET 22	E

2

2

EXISTING R/W

LAKE BUTTE DES MORTS DR

USH 45 SB

USH 45 NB

414 'SB'

416 'SB'

418 'SB'

414 'NB'

416 'NB'

418 'NB'

PC: 415'SB'+70.45

PC: 415'NB'+70.47

STA 414'NB'+75.24
38.01' RT

STA 415'NB'+44.13
32.63' RT

NB'+03.52
40.00' RT
POST #1

'NB'+28.25
38.97' RT
POST #5

'NB'+52.98
38.10' RT
POST #9

SLOPE INTERCEPT

AGGREGATE SHOULDER

PAVEMENT EDGE

MGS EAT

MGS GUARDRAIL 3

STEARNS DR

EXISTING R/W

G

SAN

W

WVM

OH

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 23	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021201-pd

PLOT DATE : 7/24/2026 10:46 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LAKE BUTTE DES MORTS DR

USH 45 SB

420 'SB'

422 'SB'

424 'SB'

B-70-212

PAVEMENT EDGE

AGGREGATE SHOULDER

STA 419'NB'+96.21
-2.66' LT

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

SLOPE INTERCEPT

420 'NB'

422 'NB'

424 'NB'

B-70-213

STA 419'NB'+26.98
-7.98' LT

'NB'+46.28
-8.18' LT
POST #1

'NB'+71.33
-7.49' LT
POST #5

'NB'+96.35
-6.41' LT
POST #9

USH 45 NB

SLOPE INTERCEPT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

STEARNS DR

EXISTING R/W

EXI

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 24	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021202-pd

PLOT DATE : 7/24/2026 10:46 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EXISTING R/W

LAKE BUTTE DES MORTS DR

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

CONCRETE SURFACE DRAIN AND CONCRETE CURB & GUTTER

SLOPE INTERCEPT

AGGREGATE SHOULDER

B-70-212

426 'SB'

USH 45 SB

428 'SB'

430 'SB'

'SB'+12.64
-33.89' LT
POST #9

'SB'+37.85
-34.83' LT
POST #5

'SB'+63.06
-35.77' LT
POST #1

STA 429'SB'+82.11
-35.68' LT

PT: 428'SB'+61.88

'SB'+48.42
9.46' RT
POST #9

'SB'+73.37
10.39' RT
POST #5

'SB'+98.35
11.36' RT
POST #1

STA 430'SB'+17.42
9.66' RT

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

426 'NB'

B-70-213

428 'NB'

USH 45 NB

430 'NB'

PT: 428'NB'+82.51

STEARNS DR

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 25	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021203-pd
PLOT DATE : 7/24/2026 10:46 AM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LAKE BUTTE DES MORTS DR

N

USH 45 SB

436 'SB'

438 'SB'

440 'SB'

436 'NB'

438 'NB'

440 'NB'

USH 45 NB

STA 437'NB'+38.81
37.88' RT

'NB'+47.52
46.61' RT
POST #1

'NB'+72.51
47.33' RT
POST #5

'NB'+97.50
48.05' RT
POST #9

USH 45 NB OFF RAMP AT CTH T

AGGREGATE SHOULDER

SLOPE INTERCEPT

MGS EAT

MGS THRIE BEAM
TRANSITION

MGS GUARDRAIL 3

STEARNS DR

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 26	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021204-pd

PLOT DATE : 7/24/2026 10:46 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

CTH T EB

B-70-214

CTH T WB

26

28

MGS GUARDRAIL 3

MGS EAT

MGS GUARDRAIL TERMINAL TYPE 2

AGGREGATE SHOULDER

SLOPE INTERCEPT

STA 451'SB'+97.09
-34.00' LT

'SB'+83.76
-34.12' LT
POST #9

'SB'+08.74
-35.06' LT
POST #5

'SB'+33.73
-36.00' LT
POST #1

STEEL THRIE BEAM

USH 45 SB

SLOPE INTERCEPT

450 'SB'

452 'SB'

454 'SB'

'NB'+88.08
-35.10' LT
POST #1

'NB'+00.39
-37.39' LT
POST #5

'NB'+51.07
-40.77' LT

'NB'+76.83
-40.76' LT

'NB'+14.13
-38.21' LT
POST #5

'NB'+26.60
-37.36' LT
POST #1

SLOPE INTERCEPT

'NB'+88.08
-24.93' LT
POST #1

'NB'+00.39
-22.64' LT
POST #5

SLOPE INTERCEPT

'NB'+14.10
-22.61' LT
POST #5

'NB'+26.60
-22.61' LT
POST #1

450 'NB'

452 'NB'

454 'NB'

USH 45 NB

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM
BULLNOSE TERMINAL

NOTE:
- LABEL FOR BULLNOSE TERMINAL POSTS ARE TO FRONT OF RAIL
- OFFSET FOR BULLNOSE TERMINAL IS MEASURED FROM NB ALIGNMENT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 27	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021205-pd

PLOT DATE : 7/24/2026 10:46 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EXISTING R/W

N

USH 45 SB

B-70-215

476 'SB'

478 'SB'

480 'SB'

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

AGGREGATE SHOULDER

STA 476'NB'+16.17
-9.81' LT

SLOPE INTERCEPT

'NB'+32.44
-8.28' LT
POST #1

'NB'+57.42
-7.34' LT
POST #5

'NB'+82.40
-6.40' LT
POST #9

476 'NB'

478 'NB'

480 'NB'

USH 45 NB

B-70-216

STA 476'NB'+73.25
37.45' RT

'NB'+82.54
36.91' RT
POST #1

'NB'+07.52
35.93' RT
POST #5

'NB'+32.50
35.02' RT
POST #9

AGGREGATE SHOULDER

SLOPE INTERCEPT

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

CTH Y (SUNNYVIEW RD)

34

36

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 28	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021206-pd

PLOT DATE : 7/24/2026 10:46 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EXISTING R/W

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

SLOPE INTERCEPT

AGGREGATE SHOULDER

'SB'+10
-34.48' LT
POST #9

'SB'+35.05
-35.44' LT
POST #5

'SB'+60.11
-36.36' LT
POST #1

STA 485'SB'+79.55
-36.69' LT

B-70-215

USH 45 SB

PC: 484'SB'+12.59

'SB'+52.39
6.91' RT
POST #9

'SB'+77.36
7.84' RT
POST #5

'SB'+02.33
8.83' RT
POST #1

STA 486'SB'+21.33
7.60' RT

482 'SB'

484 'SB'

486 'SB'

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

482 'NB'

484 'NB'

486 'NB'

488 'N

B-70-216

USH 45 NB

PC: 484'NB'+33.22

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 29	E

2

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 30	E

2

2

EXISTING R/W

MGS GUARDRAIL TERMINAL TYPE 2

MGS GUARDRAIL 3

MGS GUARDRAIL 3K

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

AGGREGATE SHOULDER

CONCRETE SURFACE DRAIN AND CONCRETE CURB & GUTTER

SLOPE INTERCEPT

PC: 579'SB'+82.67

STA 579'SB'+22.68
-37.00' LT

CONCRETE CURB & GUTTER

B-70-218

USH 45 SB

580 'SB'

582 'SB'

584 'SB'

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

CONCRETE SURFACE DRAIN AND CONCRETE CURB & GUTTER

AGGREGATE SHOULDER

SLOPE INTERCEPT

580 'NB'

584 'NB'

B-70-219

PC: 579'NB'+01.96

STA 580'NB'+60.32
-10.14' LT

USH 45 NB

'NB'+85.16
-9.98' LT
POST #1

582 'NB'

'NB'+10.19
-9.04' LT
POST #5

'NB'+35.22
-8.10' LT
POST #9

CONCRETE CURB & GUTTER

'NB'+44.36
36.94' RT
POST #1

'NB'+69.14
36.00' RT
POST #5

'NB'+93.93
35.06' RT
POST #9

STA 581'NB'+31.13
37.15' RT

AGGREGATE SHOULDER

SLOPE INTERCEPT

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 31	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021209-pd

PLOT DATE : 7/28/2026 2:27 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EXISTING R/W

SLOPE INTERCEPT

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

L4

AGGREGATE SHOULDER

STA 589'SB'+41.21
-36.97' LT

'SB'+70.81
-36.06' LT
POST #9

'SB'+96
-37.00' LT
POST #5

'SB'+21.19
-37.94' LT
POST #1

'SB'+95.19
8.17' RT
POST #9

'SB'+20.12
9.11' RT
POST #5

'SB'+45.05
10.06' RT
POST #1

B-70-218

USH 45 SB

586 'SB'

588 'SB'

590 'SB'

SLOPE INTERCEPT

SLOPE INTERCEPT

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL TYPE 2

STA 589'NB'+37.62
-8.25' LT

MGS EAT

586 'NB'

588 'NB'

590 'NB'

B-70-219

USH 45 NB

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

L6

AGGREGATE SHOULDER

SKELETON BRIDGE RD

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 32	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021210-pd

PLOT DATE : 7/24/2026 10:47 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

USH 45 SB

672 'SB'

674 'SB'

676 'SB'

B-70-221

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

AGGREGATE SHOULDER

SLOPE INTERCEPT

'NB'+88.50
-9.93' LT
POST #1

672 'NB'

'NB'+13.42
-8.90' LT
POST #5

'NB'+38.35
-8.03' LT
POST #9

674 'NB'

USH 45 NB

676 'NB'

B-70-222

STA 670'NB'+64.10
-7.28' LT

STA 671'NB'+40.53
36.38' RT

'NB'+60.71
36.25' RT
POST #1

'NB'+85.90
35.32' RT
POST #5

'NB'+11.11
34.38' RT
POST #9

CONCRETE CURB & GUTTER

SLOPE INTERCEPT

AGGREGATE SHOULDER

CONCRETE SURFACE DRAIN AND CONCRETE CURB & GUTTER

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

CTH GG EB

CTH GG WB

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 33	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021211-pd

PLOT DATE : 7/24/2026 10:47 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 681'SB'+47.46
-37.28' LT

'SB'+84.65
-37.09' LT
POST #9

'SB'+09.39
-38.06' LT
POST #5

'SB'+34.16
-38.98' LT
POST #1

USH 45 SB

'SB'+30.20
6.17' RT
POST #9

'SB'+55.23
7.11' RT
POST #5

'SB'+80.26
8.05' RT
POST #1

678 'SB'

680 'SB'

682 'SB'

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 681'SB'+88.95
6.75' RT

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

678 'NB'

680 'NB'

682 'NB'

USH 45 NB

STH 116 EB

STH 116 WB

B-70-221

B-70-222

78

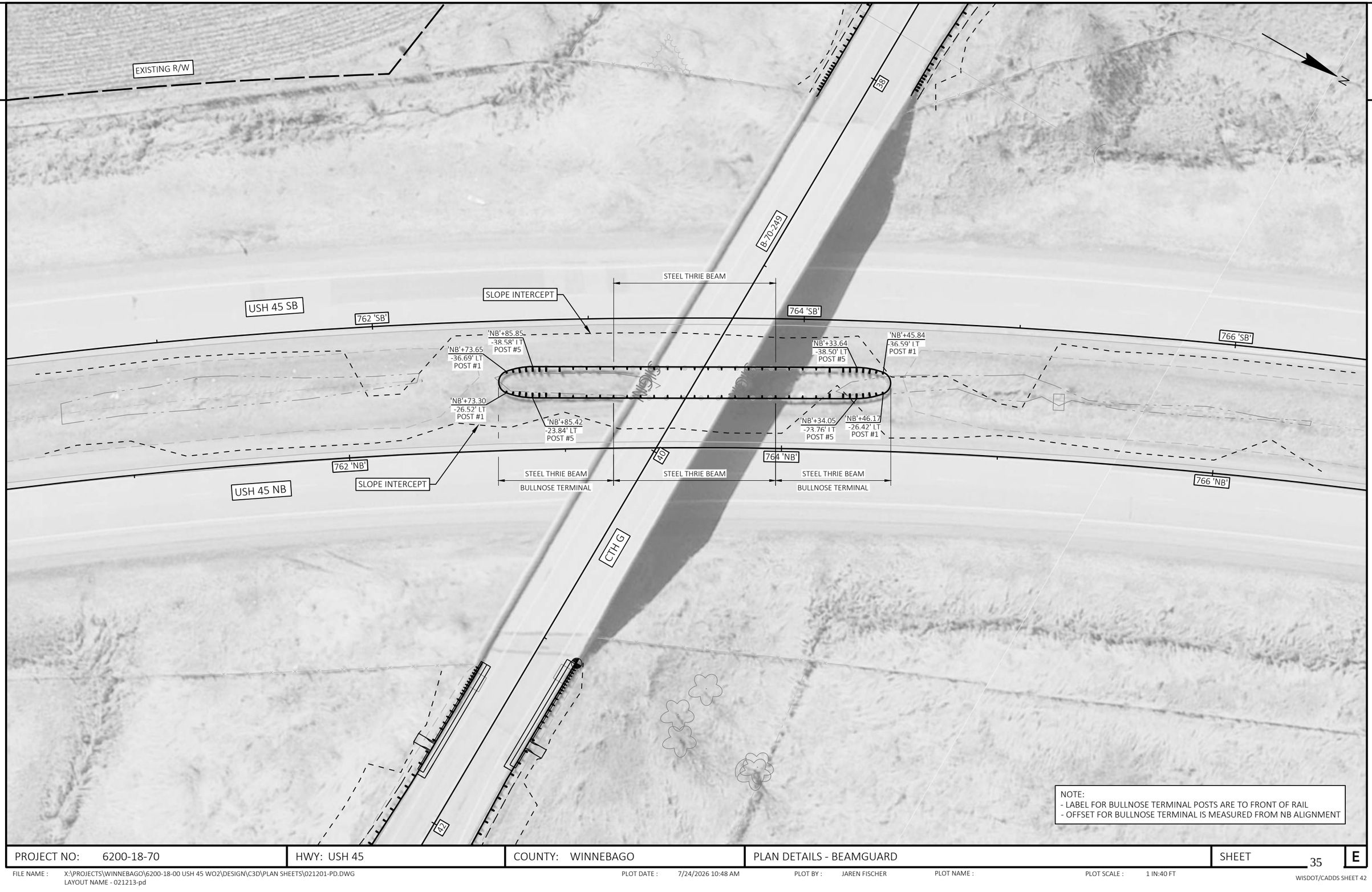
41

80

FO

SS

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 34	E



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 35	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021213-pd

PLOT DATE : 7/24/2026 10:48 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

WOODLAND RD

B-70-309

20

PI: 842'SB'+08.73

SLOPE INTERCEPT

USH 45 SB

840 'SB'

842 'SB'

844 'SB'

STEEL THRIE BEAM

'NB'+19.60
-37.68' LT
POST #5

'NB'+07.27
-35.46' LT
POST #1

'NB'+56.85
-37.19' LT
POST #5

'NB'+69.19
-34.91' LT
POST #1

'NB'+07.21
-25.28' LT
POST #1

'NB'+19.52
-22.93' LT
POST #5

'NB'+56.88
-22.44' LT
POST #5

'NB'+69.20
-24.73' LT
POST #1

840 'NB'

842 'NB'

844 'NB'

SLOPE INTERCEPT

PI: 841'NB'+88.46

USH 45 NB

STEEL THRIE BEAM

STEEL THRIE BEAM

STEEL THRIE BEAM

BULLNOSE TERMINAL

BULLNOSE TERMINAL

BREEZEWOOD LN

22

NOTE:
- LABEL FOR BULLNOSE TERMINAL POSTS ARE TO FRONT OF RAIL
- OFFSET FOR BULLNOSE TERMINAL IS MEASURED FROM NB ALIGNMENT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 36	E

2

2

N

USH 45 SB

866 'SB'

868 'SB'

870 'SB'

B-70-139

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM

TRANSITION

STA 869'NB'+35.85
-13.25' LT

'NB'+46.24
-8.00' LT
POST #1

'NB'+77.46
-6.82' LT
POST #5

'NB'+96.20
-6.12' LT
POST #9

866 'NB'

868 'NB'

870 'NB'

USH 45 NB

STA 867'NB'+33.97
34.00' RT

'NB'+53.04
36.00' RT
POST #1

'NB'+78.02
35.06' RT
POST #5

'NB'+03
34.12' RT
POST #9

B-70-244

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM

TRANSITION

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 37	E

2

N

SS

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 876'SB'+18.22
-34.00' LT

'SB'+49.18
-34.12' LT
POST #9

'SB'+74.16
-35.06' LT
POST #5

'SB'+99.15
-36.00' LT
POST #1

B-70-139

USH 45 SB

'SB'

874 'SB'

'SB'+74.34
10.12' RT
POST #9

'SB'+99.32
11.06' RT
POST #5

'SB'+24.30
12.00' RT
POST #1

876 'SB'

878 'SB'

STA 876'SB'+43.37
10.00' RT

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

872 'NB'

874 'NB'

876 'NB'

878 'NB'

B-70-244

USH 45 NB

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 38	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021216-pd

PLOT DATE : 7/24/2026 10:48 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

LAKEVIEW RD

USH 45 SB

892 'SB'

894 'SB'

896 'SB'

898 '

STEEL THRIE BEAM

20

B-70-310

'NB'+86.09
-34.94' LT
POST #1

'NB'+98.41
-37.22' LT
POST #5

'NB'+35.91
-37.18' LT
POST #5

'NB'+48.22
-34.89' LT
POST #1

'NB'+86.08
-24.76' LT
POST #1

'NB'+98.40
-22.47' LT
POST #5

'NB'+35.90
-22.43' LT
POST #5

'NB'+48.22
-24.71' LT
POST #1

892 'NB'

894 'NB'

896 'NB'

USH 45 NB

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM
BULLNOSE TERMINAL

OAKRIDGE RD

22

OH

SS

NOTE:
- LABEL FOR BULLNOSE TERMINAL POSTS ARE TO FRONT OF RAIL
- OFFSET FOR BULLNOSE TERMINAL IS MEASURED FROM NB ALIGNMENT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 39	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021217-pd

PLOT DATE : 7/24/2026 10:48 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

44

B-70-311

USH 45 SB

946 'SB'

948 'SB'

950 'SB'

STEEL THRIE BEAM

'NB'+77.10
-34.97' LT
POST #1

'NB'+89.42
-37.27' LT
POST #5

'NB'+26.92
-37.36' LT
POST #5

'NB'+39.24
-35.09' LT
POST #1

N 90°

N 90°

'NB'+77.11
-24.79' LT
POST #1

'NB'+89.43
-22.52' LT
POST #5

'NB'+26.93
-22.61' LT
POST #5

'NB'+39.25
-24.91' LT
POST #1

946 'NB'

46

948 'NB'

950 'NB'

USH 45 NB

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM
BULLNOSE TERMINAL

GRANDVIEW RD

EXISTING R/W

EXISTING R/W

NOTE:
- LABEL FOR BULLNOSE TERMINAL POSTS ARE TO FRONT OF RAIL
- OFFSET FOR BULLNOSE TERMINAL IS MEASURED FROM NB ALIGNMENT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 40	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021218-pd

PLOT DATE : 7/24/2026 10:49 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

SS

B-70-238

96

STEEL THRIE BEAM

USH 45 SB

1006 'SB'

1008 'SB'

1010 'SB'

'NB'+67.40
-35.08' LT
POST #1

'NB'+79.72
-37.35' LT
POST #5

'NB'+67.22
-37.15' LT
POST #5

'NB'+79.54
-34.85' LT
POST #1

'NB'+67.39
-74.90' LT
POST #1

'NB'+79.71
-22.60' LT
POST #5

'NB'+67.21
-22.40' LT
POST #5

'NB'+79.53
-24.68' LT
POST #1

1006 'NB'

1008 'NB'

1010 'NB'

USH 45 NB

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM
BULLNOSE TERMINAL

CTH M

96

OHDN

E

FO

G

NOTE:
- LABEL FOR BULLNOSE TERMINAL POSTS ARE TO FRONT OF RAIL
- OFFSET FOR BULLNOSE TERMINAL IS MEASURED FROM NB ALIGNMENT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 41	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021201-PD.DWG
LAYOUT NAME - 021219-pd

PLOT DATE : 7/24/2026 10:49 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

568

USH 45 NB

USH 45 SB

566

PT: 11+76.04

12

SLOPE INTERCEPT

AGGREGATE SHOULDER

PAVEMENT EDGE

STA 13+88.63
-17.03' LT

MGS GUARDRAIL 3

MGS EAT

MGS THRIE BEAM
TRANSITION

14

+87.85
20.55' RT
POST #1

+12.83
19.61' RT
POST #5

+37.81
18.67' RT
POST #9

+10.80
-20.00' LT
POST #1

+36.14
-19.31' LT
POST #5

+61.45
-18.17' LT
POST #9

PC: 14+97.50

16

BROOKS RD

B-70-217

18

STA 12+94.69
20.28' RT

AGGREGATE SHOULDER

SLOPE INTERCEPT

EXISTING R/W

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 42	E

2

N

EXISTING R/W

SLOPE INTERCEPT

AGGREGATE SHOULDER

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

+37.78
-18.55' LT
POST #9

+62.76
-19.50' LT
POST #5

+87.75
-20.44' LT
POST #1

BROOKS RD

22

24

PT: 19+71.74

20

+60.93
18.95' RT
POST #9

+85.91
19.89' RT
POST #5

+10.89
20.83' RT
POST #1

B-70-217

564

564

USH 45 NB

USH 45 SB

562

AGGREGATE SHOULDER

SLOPE INTERCEPT

MGS THRIE BEAM TRANSITION

MGS EAT

MGS GUARDRAIL 3

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 43	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021222-pd

PLOT DATE : 7/24/2026 10:49 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

EXISTING R/W

MGS GUARDRAIL 3

MGS EAT

MGS THRIE BEAM

TRANSITION

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 12+50.77
-20.36' LT

+84.40
-18.01' LT
POST #1

+09.16
-18.21' LT
POST #5

+33.93
-18.41' LT
POST #9

PC- 10+20.02

SKELETON BRIDGE RD

12

14

B-70-220

583

+27.79
19.37' RT
POST #1

+53.03
18.44' RT
POST #5

+78.25
17.50' RT
POST #9

10

STA 11+08.36
17.81' RT

AGGREGATE SHOULDER

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM

TRANSITION

SLOPE INTERCEPT

USH 45 SB

588

USH 45 NB

586

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 44	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021223-pd

PLOT DATE : 7/24/2026 10:49 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

USH 45 SB

USH 45 NB

590

590

SKELETON BRIDGE RD

B-70-220

16

18

20

EXISTING R/W

EXISTING R/W

SLOPE INTERCEPT

SLOPE INTERCEPT

AGGREGATE SHOULDER

AGGREGATE SHOULDER

PT: 17+51.72

PC: 20+94.47

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS EAT

+62.78
-17.78' LT
POST #9

+87.77
-18.72' LT
POST #5

+12.75
-19.65' LT
POST #1

+11.93
18.39' RT
POST #9

+36.91
19.24' RT
POST #5

+61.89
20.30' RT
POST #1

STA 19+28.01
-17.83' LT

STA 19+94.60
17.39' RT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 45	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021224-pd

PLOT DATE : 7/24/2026 10:49 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

MUDCREEK RD

EXISTING R/W

USH 45 NB

USH 45 SB

STEEL PLATE
BEAM GUARD EAT

STEEL THRIE BEAM
STRUCTURE APPROACH

SLOPE INTERCEPT

PAVEMENT EDGE

AGGREGATE SHOULDER

DRIVEWAY CUT CURB REQUIRED (TYP)

STA 37+00.55
-24.64' LT

+27.15
-20.42' LT
POST #1

+52.13
-19.42' LT
POST #5

+77.11
-18.42' LT
POST #9

CTH G

34

36

38

B-70-249

+65.42
20.50' RT
POST #1

+90.40
19.56' RT
POST #5

+15.38
18.61' RT
POST #9

STA 36+03.95
22.34' RT

AGGREGATE SHOULDER

SLOPE INTERCEPT

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 46	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021225-pd

PLOT DATE : 7/24/2026 10:50 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROZEK RD

EXISTING R/W

MGS GUARDRAIL3

MGS THRIE BEAM TRANSITION

MGS EAT

SLOPE INTERCEPT

AGGREGATE SHOULDER

DRIVEWAY CUT CURB REQUIRED (TYP)

STA 42+43.34
-24.64' LT

+68.40
-18.49' LT
POST #9

+93.39
-19.43' LT
POST #5

+18.37
-20.37' LT
POST #1

764

B-70-249

CTH G

40

42

44

+91.82
18.67' RT
POST #9

+16.80
19.55' RT
POST #5

+41.78
20.49' RT
POST #1

STA 43+32.75
20.35' RT

AGGREGATE SHOULDER

MGS THRIE BEAM TRANSITION

MGS EAT

SLOPE INTERCEPT

MGS GUARDRAIL 3

USH 45 NB

USH 45 SB

762

762

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 47	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021226-pd

PLOT DATE : 7/24/2026 10:50 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MUDCREEK RD

USH 45 SB

USH 45 NB

STEEPLE HILL DR

N

STEEL PLATE BEAM
GUARD EAT

STEEL THRIE BEAM
STRUCTURE APPROACH

AGGREGATE SHOULDER

SLOPE INTERCEPT

STA 18+36.06
-24.46' LT

STA 18+38.26
-19.48' LT

+48.07
-19.26' LT
POST #1

+73.05
-18.26' LT
POST #5

+98.03
-17.26' LT
POST #9

PI: 842+08.73

B-70-309

PI: 841+88.46

STEEL THRIE BEAM
STRUCTURE APPROACH

STEEL PLATE BEAM
GUARD EAT

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 22+55.08
-24.32' LT

STA 22+40.71
-18.59' LT

+88.32
-17.44' LT
POST #9

+13.30
-18.44' LT
POST #5

+38.28
-19.44' LT
POST #1

18

20

22

842

840

WOODLAND RD

BREEZEWOOD LN

PI: 20+00.00

+47.98
19.39' RT
POST #1

+72.96
18.39' RT
POST #5

+97.94
17.39' RT
POST #9

STA 18+45.19
18.55' RT

STA 18+47.65
25.46' RT

AGGREGATE SHOULDER

SLOPE INTERCEPT

STEEL PLATE BEAM
GUARD EAT

STEEL THRIE BEAM
STRUCTURE APPROACH

+88.39
17.38' RT
POST #9

+13.37
18.38' RT
POST #5

+38.35
19.38' RT
POST #1

STA 22+49.34
20.26' RT

STA 22+57.45
24.11' RT

AGGREGATE SHOULDER

SLOPE INTERCEPT

STEEL THRIE BEAM
STRUCTURE APPROACH

STEEL PLATE BEAM
GUARD EAT

ROZEK RD

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 48	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021227-pd

PLOT DATE : 7/24/2026 10:50 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MUDCREEK RD

STEEPLE HILL DR

USH 45 SB

USH 45 NB

896

894

LAKEVIEW RD

OAKRIDGE RD

B-70-310

PI: 20+00.00

18

20

22

STEEL PLATE BEAM
GUARD EAT

STEEL THRIE BEAM
STRUCTURE APPROACH

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 18+48.09
-25.08' LT

STA 18+45.40
-18.27' LT

+48.09
-19.08' LT
POST #1

+73.07
-18.08' LT
POST #5

+98.05
-17.08' LT
POST #9

STA 18+45.56
18.39' RT

STA 18+41.38
25.04' RT

+48.39
19.51' RT
POST #1

+73.37
18.51' RT
POST #5

+98.35
17.51' RT
POST #9

STA 22+53.84
-24.19' LT

STA 22+41.63
-19.48' LT

+86.72
-17.33' LT
POST #9

+11.70
-18.33' LT
POST #5

+36.68
-19.33' LT
POST #1

STA 22+39.47
18.54' RT

STA 22+36.52
25.45' RT

+86.56
17.45' RT
POST #9

+11.54
18.44' RT
POST #5

+36.52
19.44' RT
POST #1

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 49	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021228-pd

PLOT DATE : 7/24/2026 10:50 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

950

949

948

946

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 43+50.99
-24.82' LT

STEEL PLATE BEAM GUARD EAT

STEEL THRIE BEAM STRUCTURE APPROACH

STA 43+49.13
-18.69' LT

+55.22
-19.16' LT
POST #1

+80.54
-18.38' LT
POST #5

+05.83
-17.15' LT
POST #9

44

B-70-311

46

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

MGS EAT

STA 48+01.20
-18.51' LT

SLOPE INTERCEPT

AGGREGATE SHOULDER

STA 49+15.98
-14.67' LT

+46.34
-17.17' LT
POST #9

+71.63
-18.32' LT
POST #5

+96.95
-19.01' LT
POST #1

48

PT: 47+98.51

STA 48+70.53
13.59' RT

+57.95
17.07' RT
POST #9

+82.64
17.86' RT
POST #5

+07.41
19.04' RT
POST #1

GRANDVIEW RD

STA 49+19.59
19.02' RT

AGGREGATE SHOULDER

PAVEMENT EDGE

SLOPE INTERCEPT

MGS THRIE BEAM TRANSITION

MGS EAT

MGS GUARDRAIL 3

EXISTING R/W

MGS GUARDRAIL SHORT RADIUS 44.9'

8 CRT Posts Needed

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

STA 43+79.08
22.68' RT

AGGREGATE SHOULDER

R24.65'

STA 43+80.61
47.75' RT
Y=533776.828
X=759116.214

SLOPE INTERCEPT

STA 43+57.36
34.87' RT

MGS GUARDRAIL 3

MGS EAT

+66.73
81.22' RT
POST #9

MUD CREEK RD

+75.51
104.40' RT
POST #5

STA 43+89.07
125.73' RT

+84.04
127.64' RT
POST #1

STA 43+84.91
131.60' RT

USH 45 SB

USH 45 NB

NOTE:
- RADIUS MEASURED TO BACK OF RAIL

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 50	E

2

2

N

MGS GUARDRAIL SHORT RADIUS TERMINAL

STA 98+58.25
-97.17' LT

MGS GUARDRAIL 3

STA 98+54.59
-95.42' LT

STA 98+51.01
-61.23' LT
Y=539271.079
X=756588.939

SLOPE INTERCEPT

R=72.04'

STA 98+70.59
-71.94' LT

STA 98+53.88
-39.11' LT

MGS GUARDRAIL SHORT RADIUS 43.3'

7 CRT Posts Needed

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

B-70-238

CTH M/CTH II

94

96

98

MGS EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

PAVEMENT EDGE

AGGREGATE SHOULDER

STA 94+21.26
44.23' RT

STA 94+19.61
55.27' RT
44.03' RT
POST #1

+54.89
40.05' RT
POST #5

+79.57
36.07' RT
POST #9

SLOPE INTERCEPT

L1010

L1008

USH 45 NB

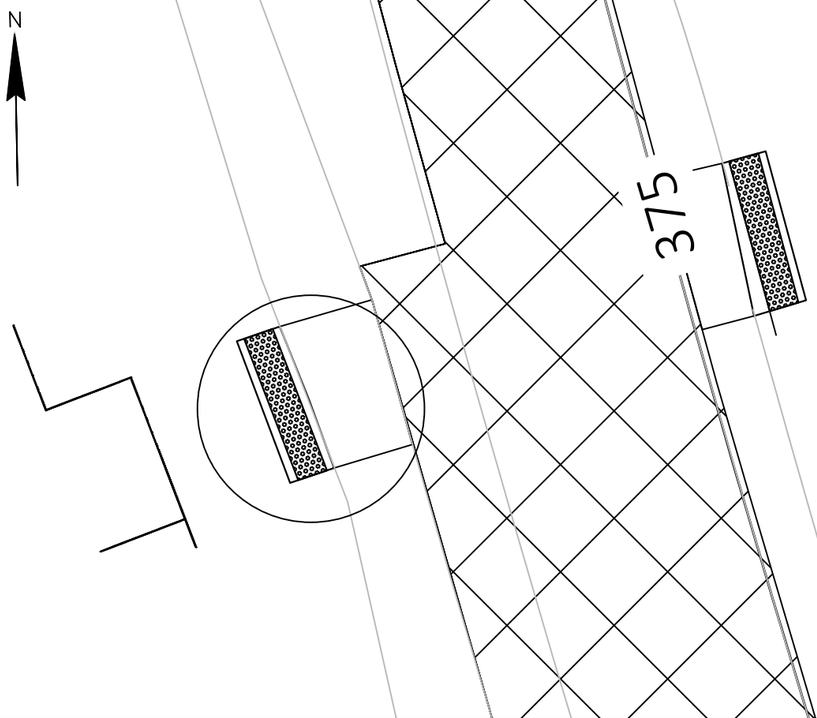
USH 45 SB

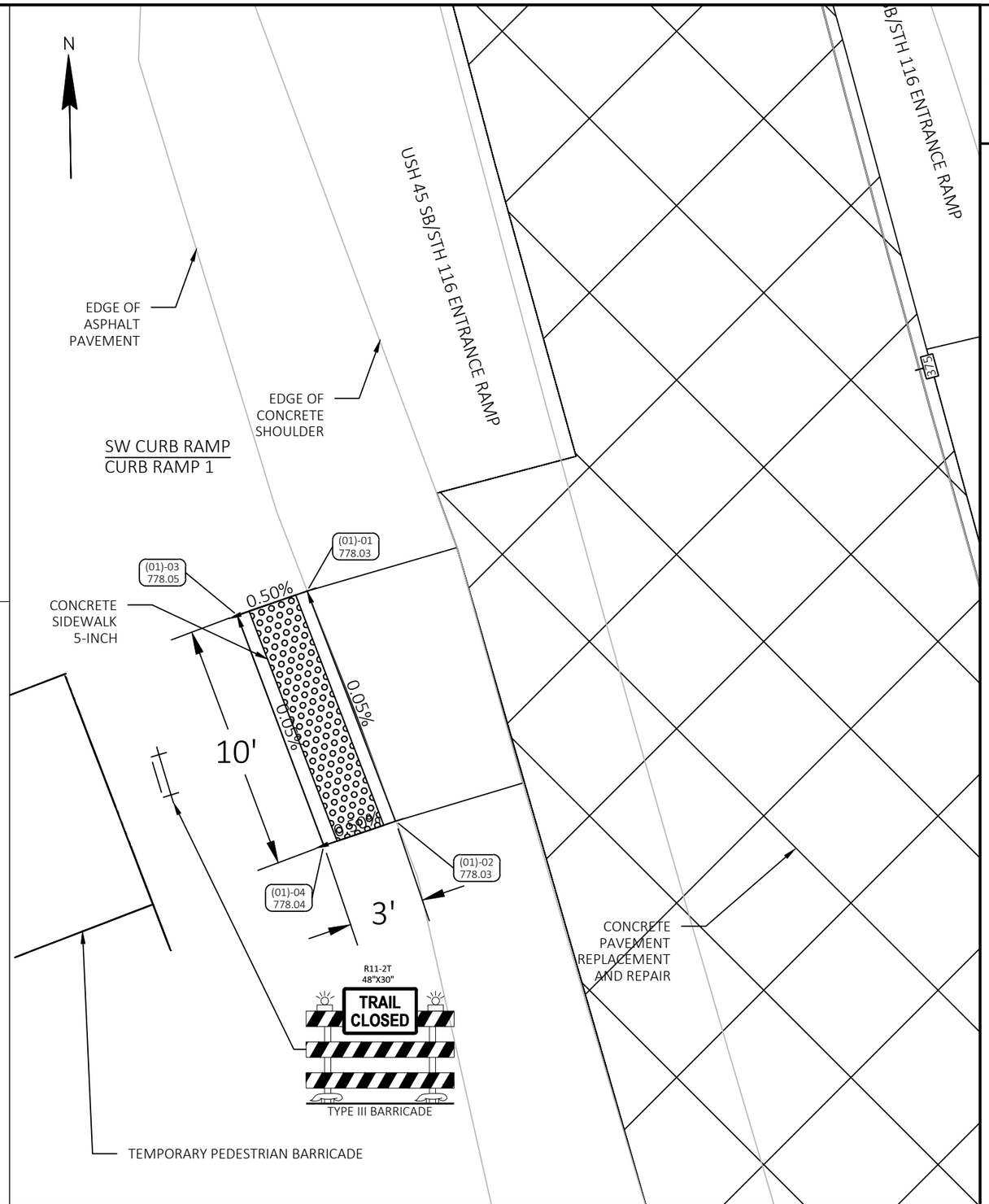
NOTE:
- RADIUS MEASURED TO BACK OF RAIL

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN DETAILS - BEAMGUARD	SHEET 51	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\021202-PD.DWG
LAYOUT NAME - 021230-pd
PLOT DATE : 7/27/2026 10:41 AM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

WW On Ramp West					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(01)-01	374+97.93	26.33' LT	778.03	507538.90	762770.95
(01)-02	374+88.16	25.39' LT	778.03	507529.56	762774.54
(01)-03	374+97.74	29.32' LT	778.05	507537.92	762768.12
(01)-04	374+88.01	28.46' LT	778.04	507528.57	762771.63

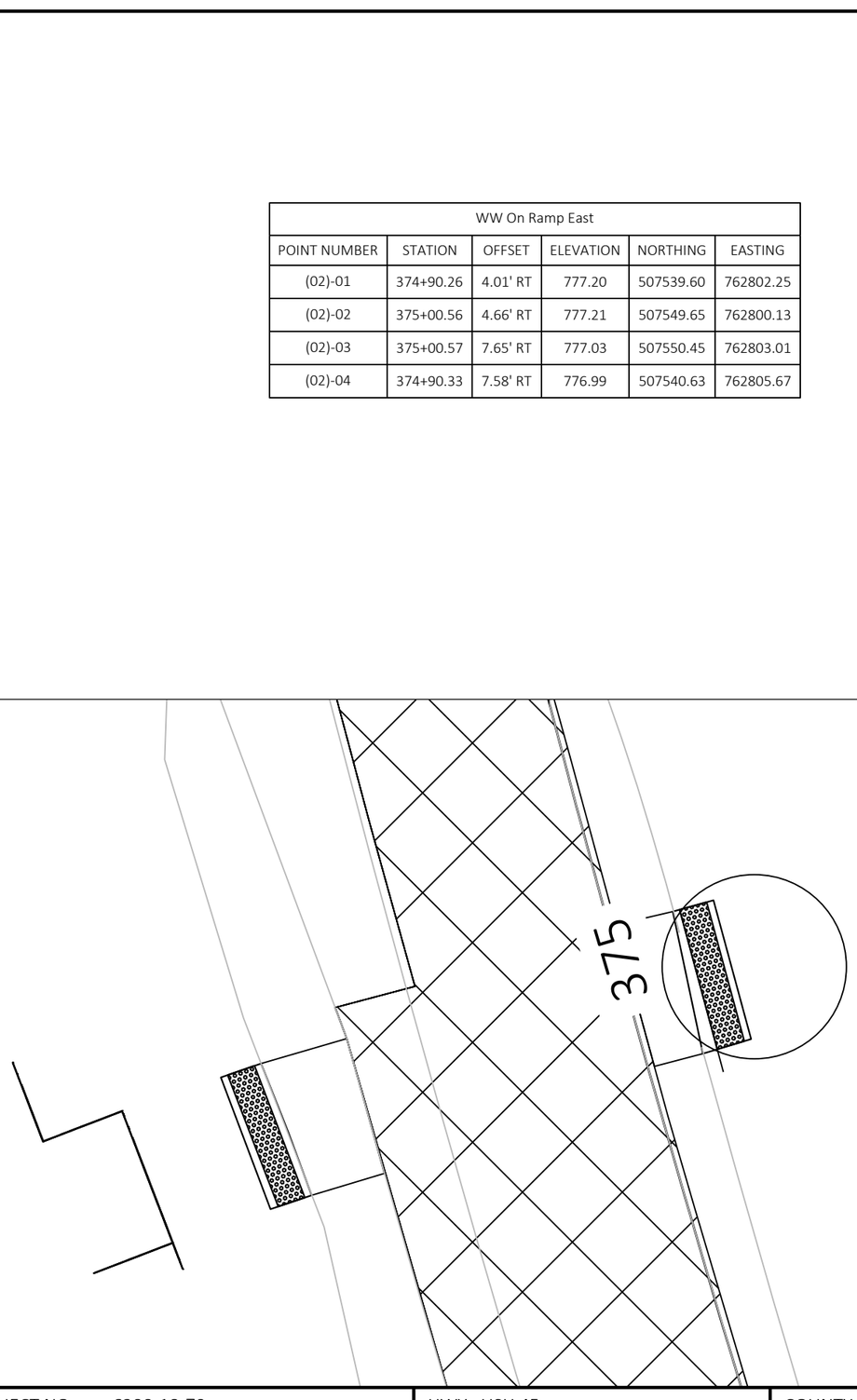


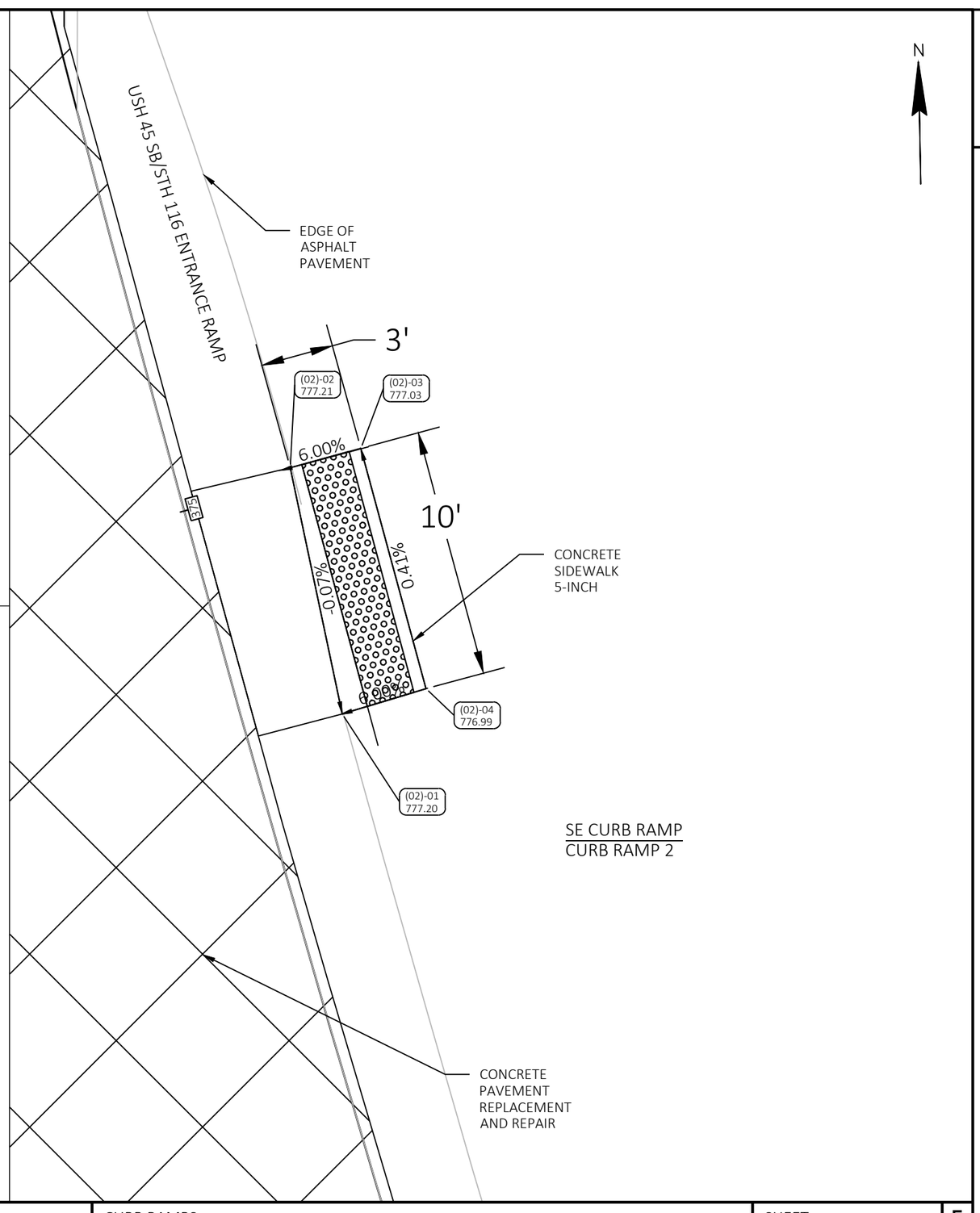


2

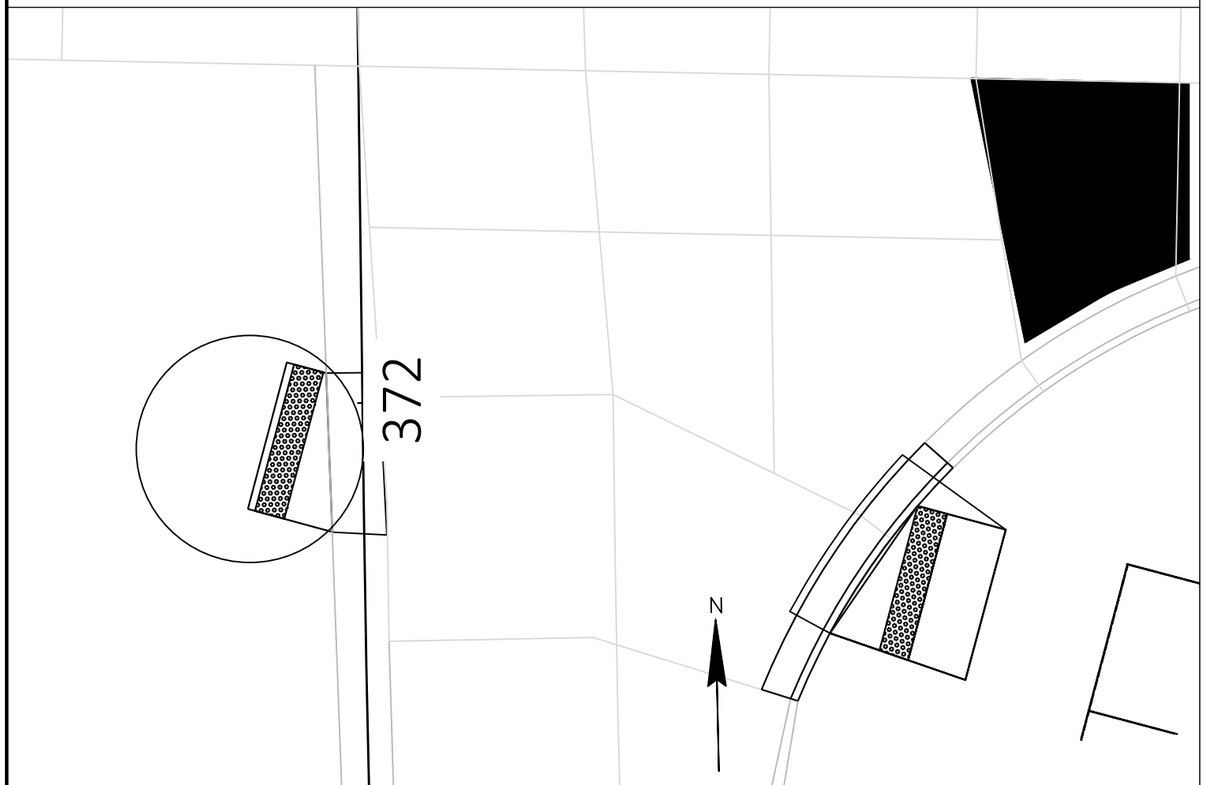
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CURB RAMPS	SHEET 52	E

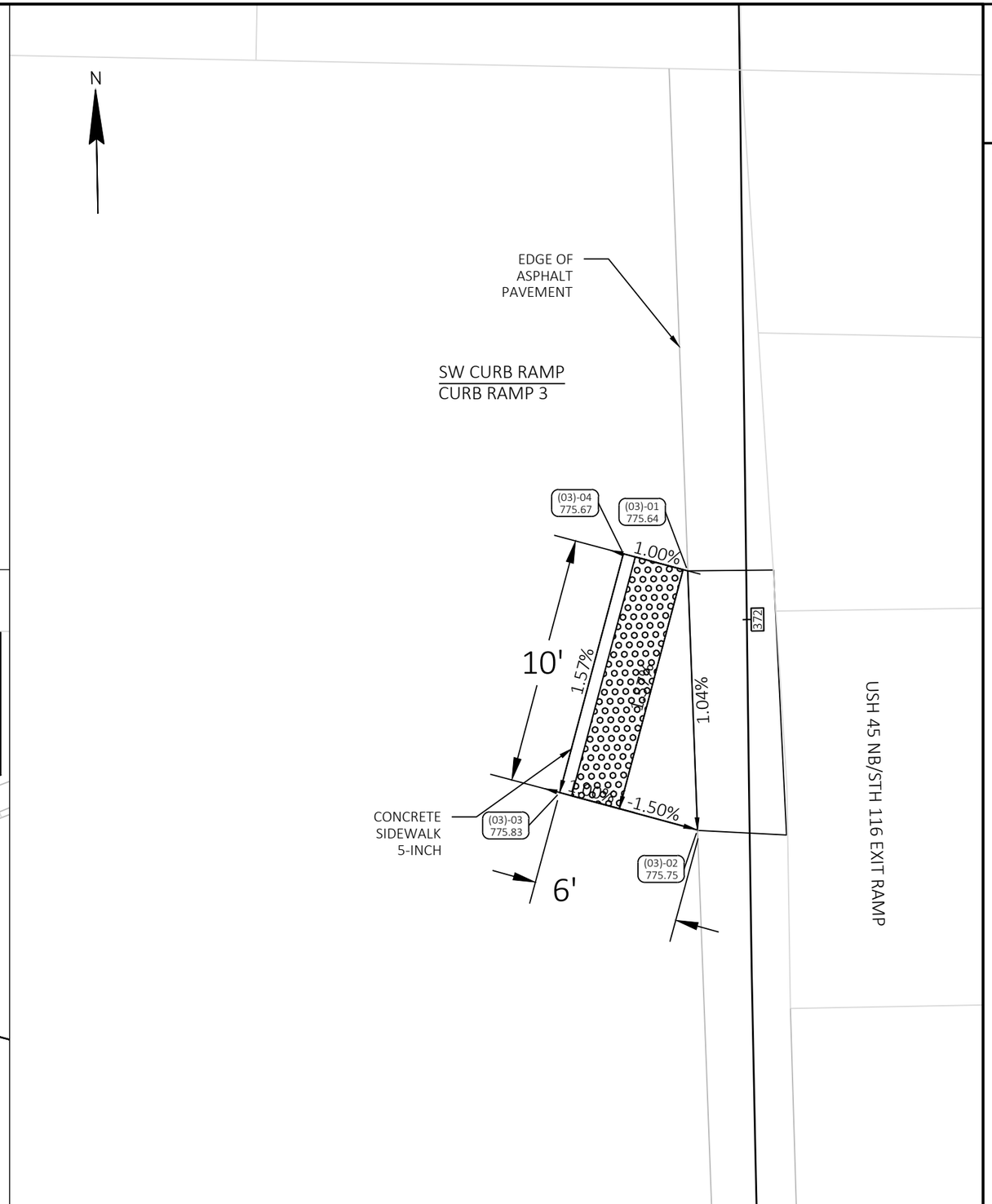
WW On Ramp East					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(02)-01	374+90.26	4.01' RT	777.20	507539.60	762802.25
(02)-02	375+00.56	4.66' RT	777.21	507549.65	762800.13
(02)-03	375+00.57	7.65' RT	777.03	507550.45	762803.01
(02)-04	374+90.33	7.58' RT	776.99	507540.63	762805.67



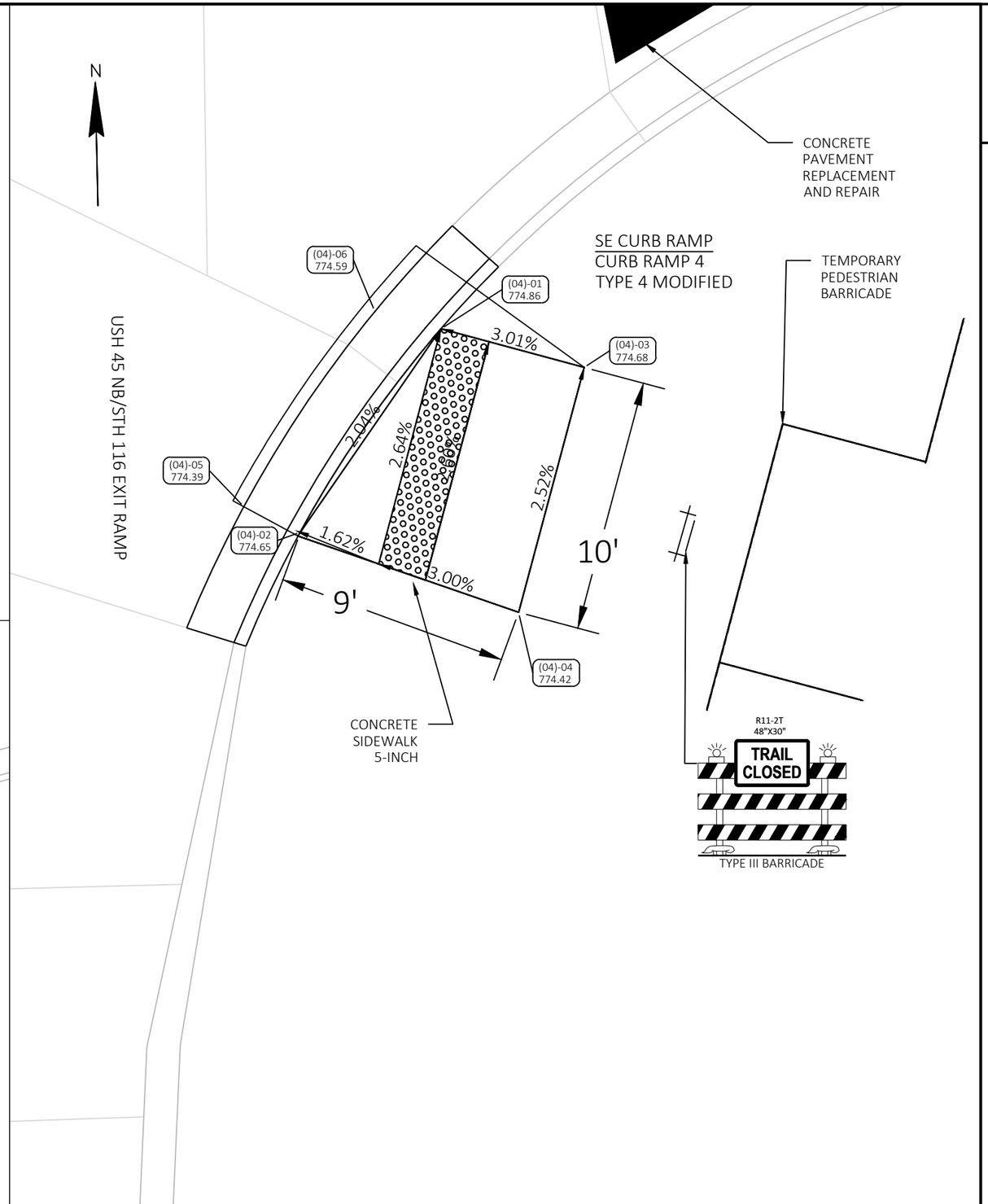


WW Off Ramp West					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(03)-01	372+52.00	2.37' LT	775.64	507587.31	763254.45
(03)-02	372+41.52	2.11' LT	775.75	507576.83	763254.85
(03)-03	372+43.10	7.66' LT	775.83	507578.35	763249.28
(03)-04	372+52.72	4.96' LT	775.67	507588.00	763251.85



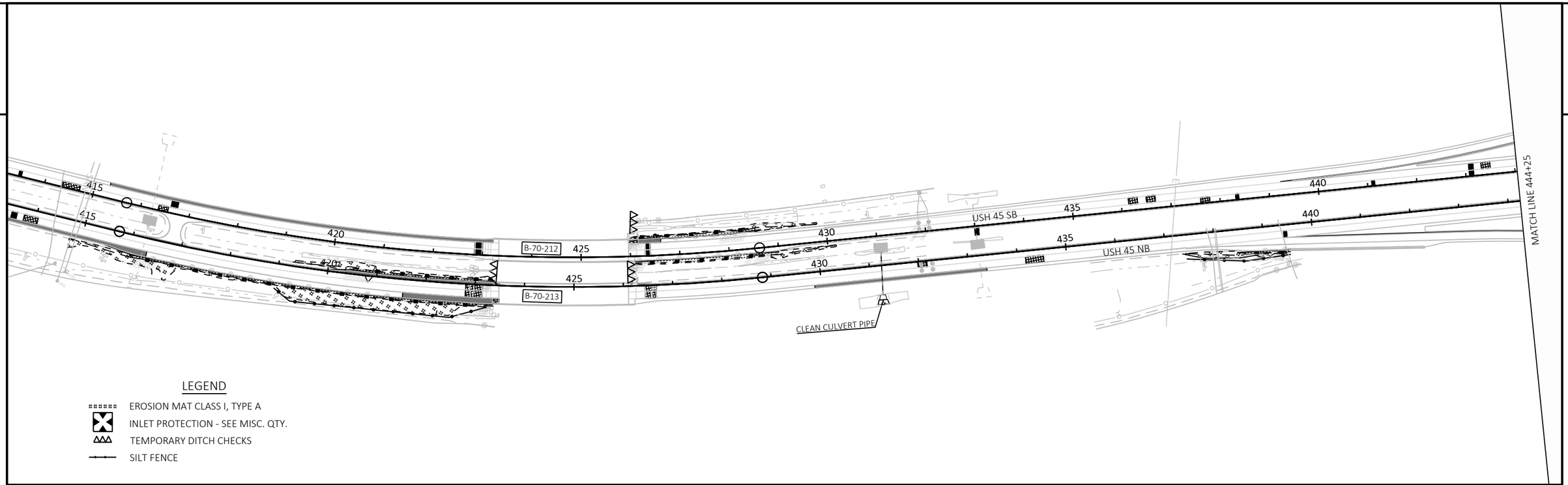


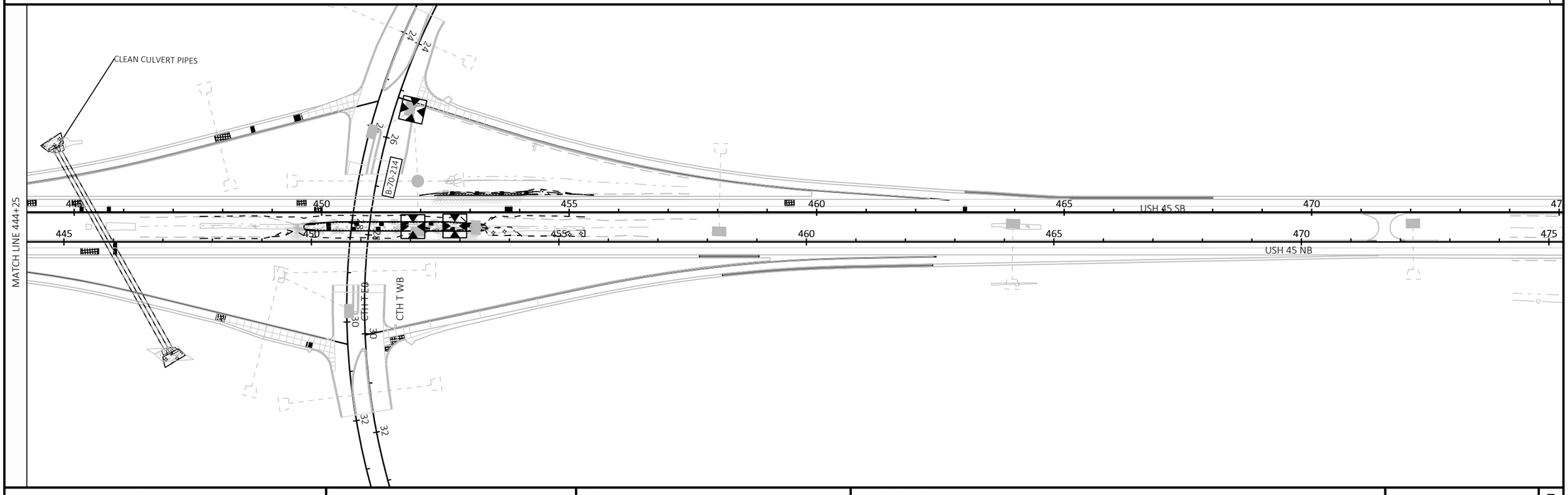
WW Off Ramp East					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(04)-01	372+42.73	36.55' RT	774.86	507578.55	763293.49
(04)-02	372+34.39	30.72' RT	774.65	507570.30	763287.79
(04)-03	372+41.04	42.34' RT	774.68	507576.98	763299.30
(04)-04	372+30.91	39.51' RT	774.42	507567.06	763296.64
(04)-05	372+35.50	28.45' RT	774.39	507571.34	763285.50
(04)-06	372+43.48	33.88' RT	774.59	507579.26	763290.81



2

2





PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 56	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 7/24/2026 10:43 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

LEGEND

- EROSION MAT CLASS I, TYPE A
- INLET PROTECTION - SEE MISC. QTY.
- TEMPORARY DITCH CHECKS
- SILT FENCE

W SUNNYVIEW RD

B-70-215

B-70-216

USH 45 SB

USH 45 NB

CLEAN CULVERT PIPE

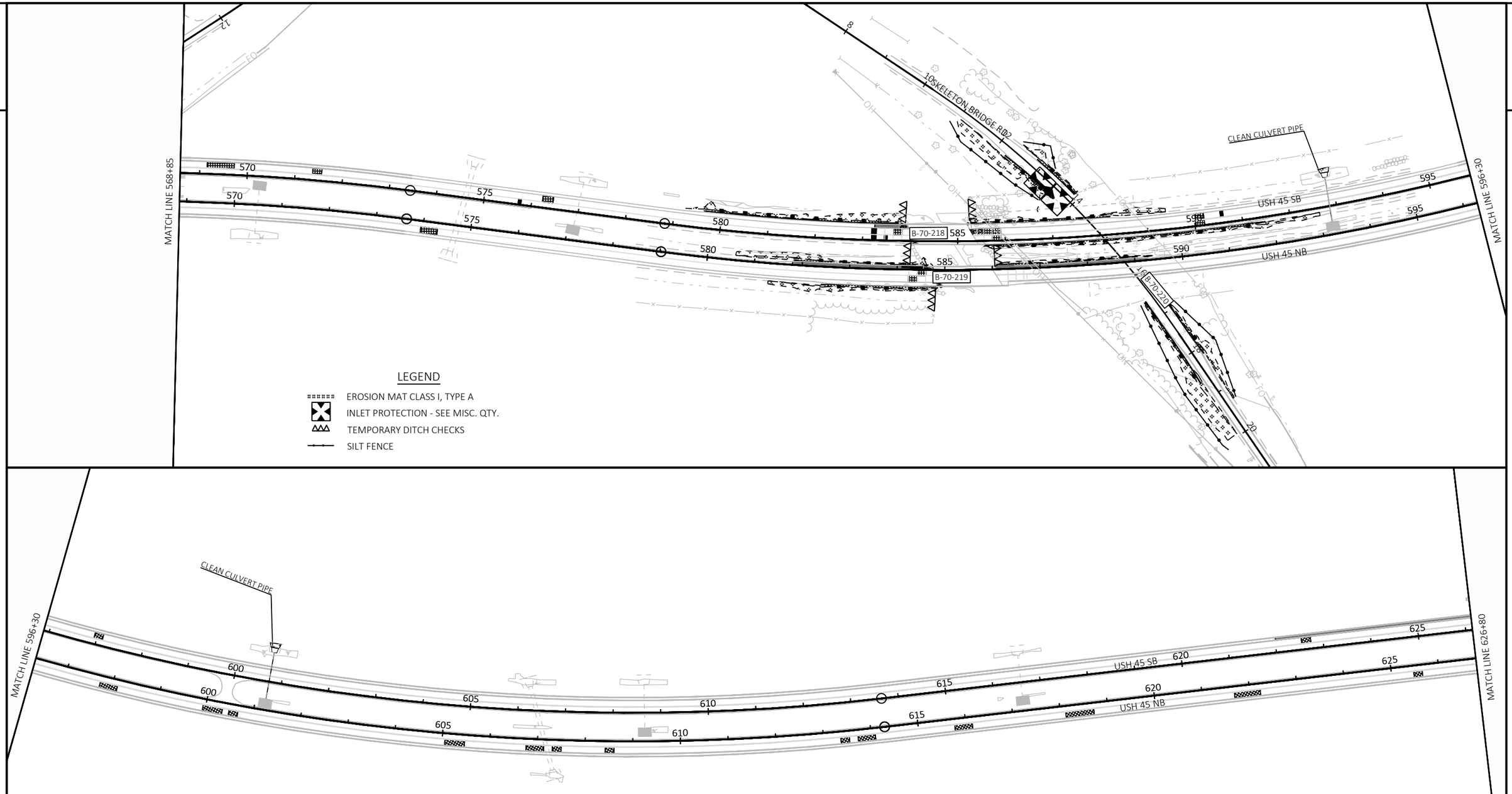
480 485 490 495 500 505

545 550 555 560 565

BROOKS RD

MATCH LINE 568+85

N


MATCH LINE 568+85
MATCH LINE 596+30
MATCH LINE 596+30
MATCH LINE 626+80
SKELETON BRIDGE RD2
CLEAN CULVERT PIPE
CLEAN CULVERT PIPE
USH 45 SB
USH 45 NB
USH 45 SB
USH 45 NB
B-70-218
B-70-219
B-70-220
570
575
580
585
590
595
600
605
610
615
620
625
LEGEND
EROSION MAT CLASS I, TYPE A
INLET PROTECTION - SEE MISC. QTY.
TEMPORARY DITCH CHECKS
SILT FENCE

2

2

N

MATCH LINE 626+80

630

630

635

635

USH 45 SB

USH 45 NB

640

640

645

645

650

655

655

CLEAN CULVERT PIPE

MATCH LINE 657+30

LEGEND

EROSION MAT CLASS I, TYPE A

INLET PROTECTION - SEE MISC. QTY.

TEMPORARY DITCH CHECKS

SILT FENCE

MATCH LINE 657+30

660

660

665

665

USH 45 SB

USH 45 NB

670

670

675

675

B-70-221

B-70-222

680

680

685

685

STH 116 EB

STH 116 WB

MATCH LINE 687+80

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 59	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 7/24/2026 10:43 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 687+80

MATCH LINE 718+30

690 695 700 705 710 USH 45 SB 715

690 695 700 705 710 715 USH 45 NB

CLEAN CULVERT PIPE

LEGEND

EROSION MAT CLASS I, TYPE A

INLET PROTECTION - SEE MISC. QTY.

TEMPORARY DITCH CHECKS

SILT FENCE

36

B-70-249

765 770 775

765 770 775

750 755 760

750 755 760

USH 45 SB

USH 45 NB

COUNTY RD G

44

MATCH LINE 779+30

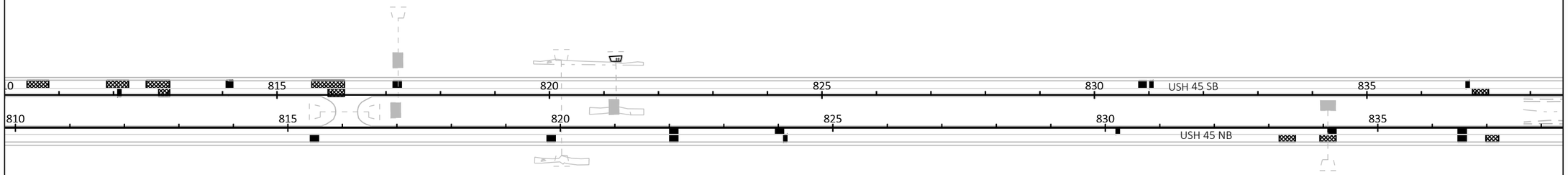
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 60	E

2

2

MATCH LINE 809+80

MATCH LINE 838+40



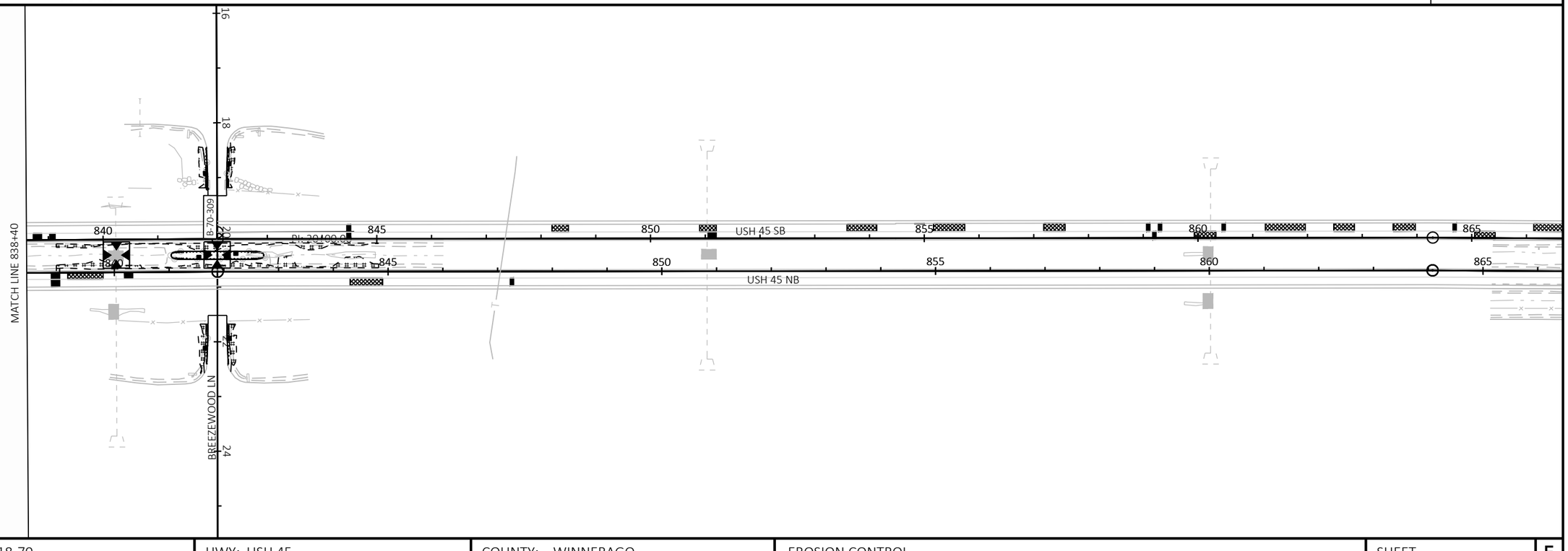
LEGEND

EROSION MAT CLASS I, TYPE A

INLET PROTECTION - SEE MISC. QTY.

TEMPORARY DITCH CHECKS

SILT FENCE



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 61	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\022001-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 7/24/2026 10:43 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

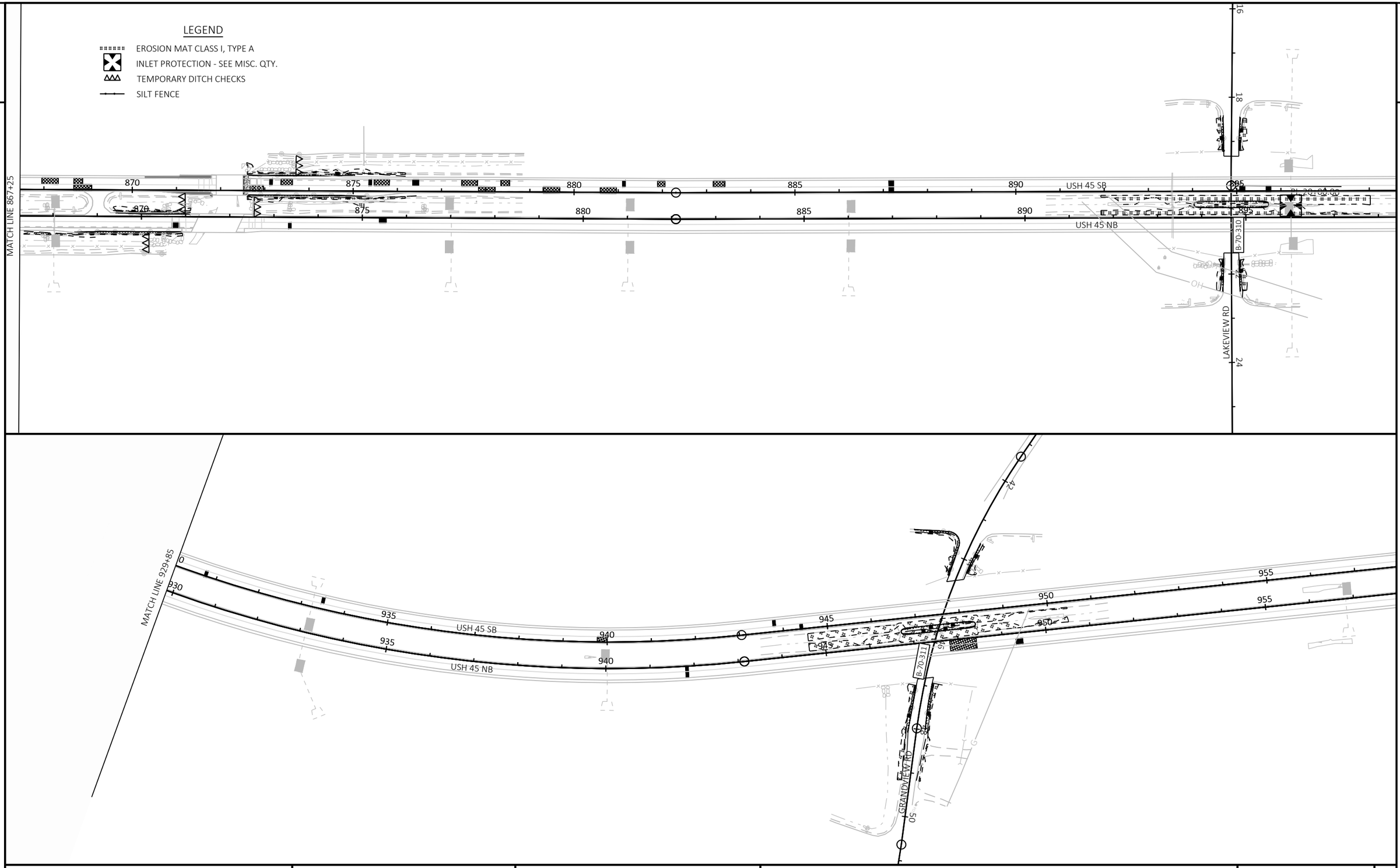
LEGEND

EROSION MAT CLASS I, TYPE A

INLET PROTECTION - SEE MISC. QTY.

TEMPORARY DITCH CHECKS

SILT FENCE



2

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 62	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\022001-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 7/24/2026 10:44 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2

2

LEGEND

EROSION MAT CLASS I, TYPE A

INLET PROTECTION - SEE MISC. QTY.

TEMPORARY DITCH CHECKS

SILT FENCE

MATCH LINE 961+35

965 970 975 USH 45 SB 980 985 990

965 970 975 USH 45 NB 980 985 990

CLEAN CULVERT PIPE

CLEAN CULVERT PIPE

MATCH LINE 992+85

995 USH 45 SB 1000 1005 1010 1015

995 USH 45 NB 1000 1005 1010 1015

B-70.238

CTH II EB

CTH II WB

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	EROSION CONTROL	SHEET 63	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\022001-EC.DWG
LAYOUT NAME - 08

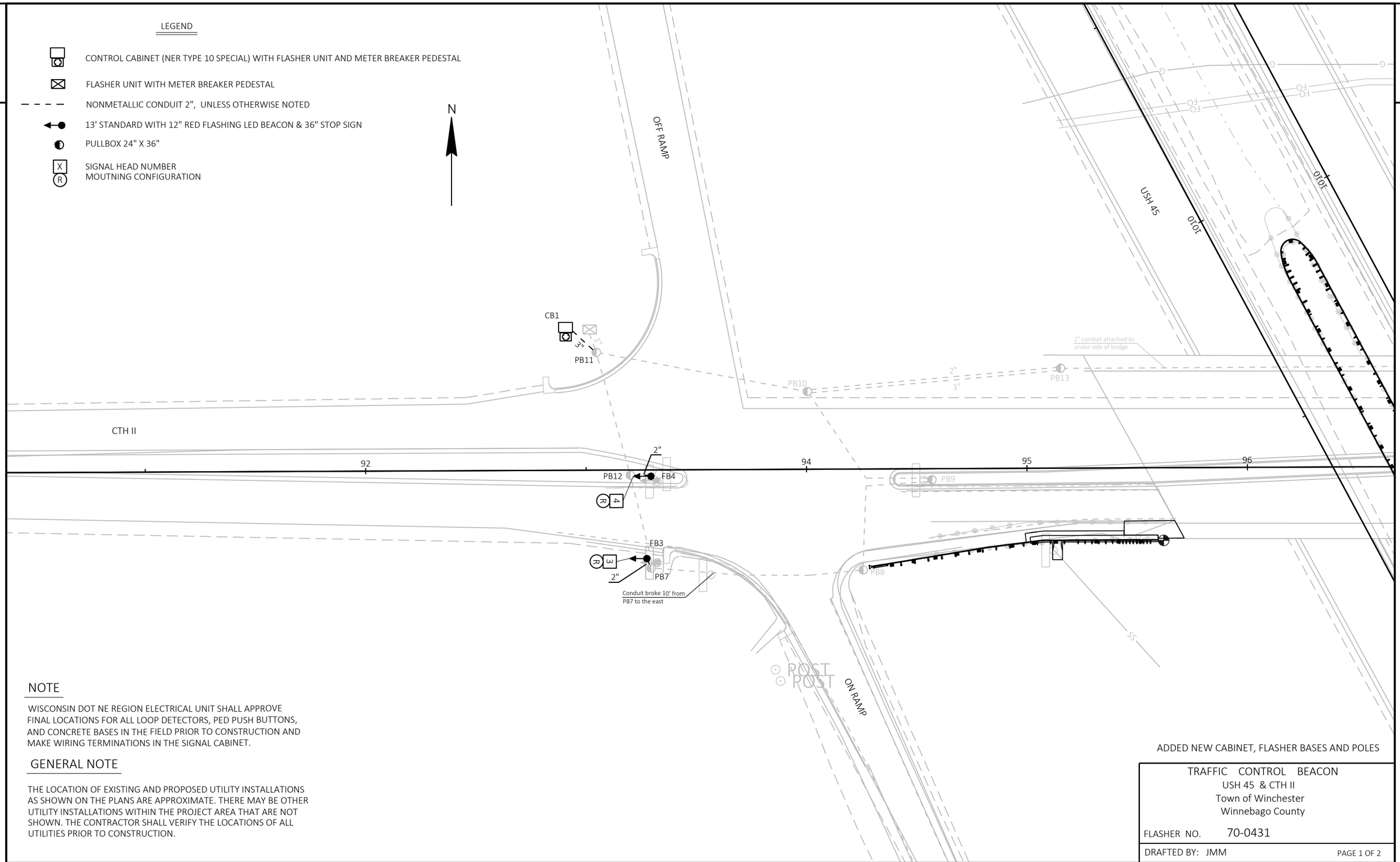
PLOT DATE : 7/24/2026 10:44 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2

LEGEND

- CONTROL CABINET (NER TYPE 10 SPECIAL) WITH FLASHER UNIT AND METER BREAKER PEDESTAL
- FLASHER UNIT WITH METER BREAKER PEDESTAL
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- 13' STANDARD WITH 12" RED FLASHING LED BEACON & 36" STOP SIGN
- PULLBOX 24" X 36"
- SIGNAL HEAD NUMBER / MOUTNING CONFIGURATION



NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS, PED PUSH BUTTONS, AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION AND MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET.

GENERAL NOTE

THE LOCATION 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 SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

ADDED NEW CABINET, FLASHER BASES AND POLES

TRAFFIC CONTROL BEACON
USH 45 & CTH II
Town of Winchester
Winnebago County

FLASHER NO. 70-0431

DRAFTED BY: JMM

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	F70-0431 WEST FUTURE	SHEET 64	E

FILE NAME : F:\D3_TRAFFI\F70-0431 (45 & II)\F70-0431 FUTURE.DWG
LAYOUT NAME - F70-0431-rfb-West

PLOT DATE : 2/18/2026 8:18 AM PLOT BY : MARTENS, JOHN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

13' STANDARD WITH 12" RED FLASHING LED BEACON & 36" STOP SIGN

PULLBOX 24" X 36"

SIGNAL HEAD NUMBER
MOUTNING CONFIGURATION

ON RAMP

SS

2" conduit attached to under side of bridge

PB15

PB14

SIGN

PB5

2"

PB4

FB1

SIGN

SIGN

98

PB6

FB2

PB3

100

102

CTH II

2"

PB1

PB2

USH 45

OFF RAMP

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS, PED PUSH BUTTONS, AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION AND MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET.

GENERAL NOTE

THE LOCATION 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 SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

ADDED NEW CABINET, FLASHER BASES AND POLES

TRAFFIC CONTROL BEACON
USH 45 & CTH II
Town of Winchester
Winnebago County

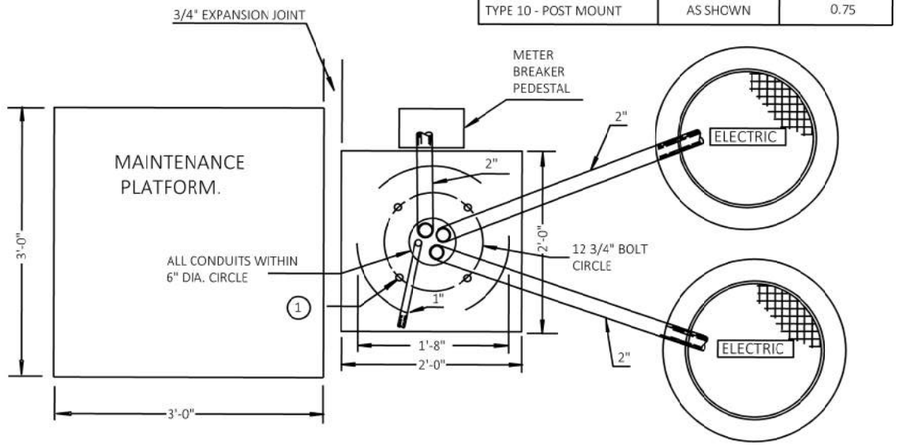
FLASHER NO. 70-0431

DRAFTED BY: JMM

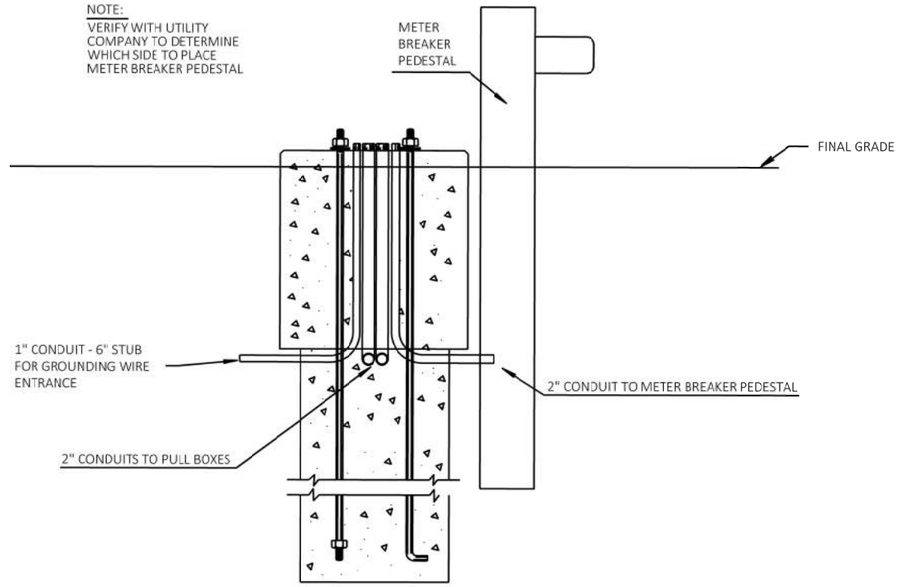
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	F70-0431 EAST FUTURE	SHEET 65	E

FILE NAME : F:\D3_TRAFFI\F70-0431 (45 & II)\F70-0431 FUTURE.DWG
LAYOUT NAME - F70-0431-rfb-East
PLOT DATE : 2/18/2026 8:18 AM PLOT BY : MARTENS, JOHN M PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

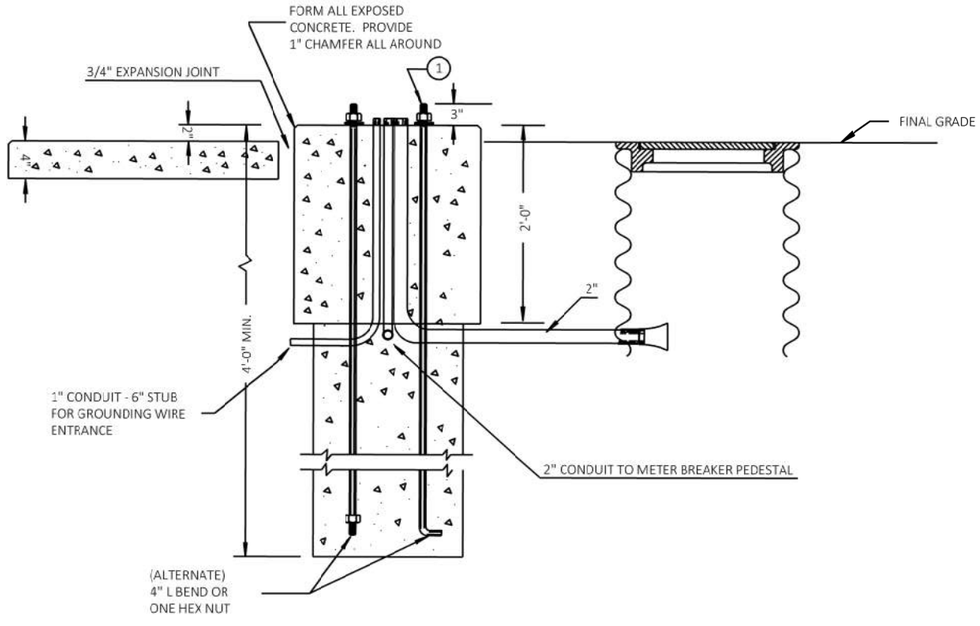
CONTROL CABINET BASE TYPE	DIMENSIONS	C.Y. CONCRETE (APPROX.)
TYPE 10 - POST MOUNT	AS SHOWN	0.75



PLAN VIEW



FRONT VIEW



PROFILE VIEW

GENERAL NOTES

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

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

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

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

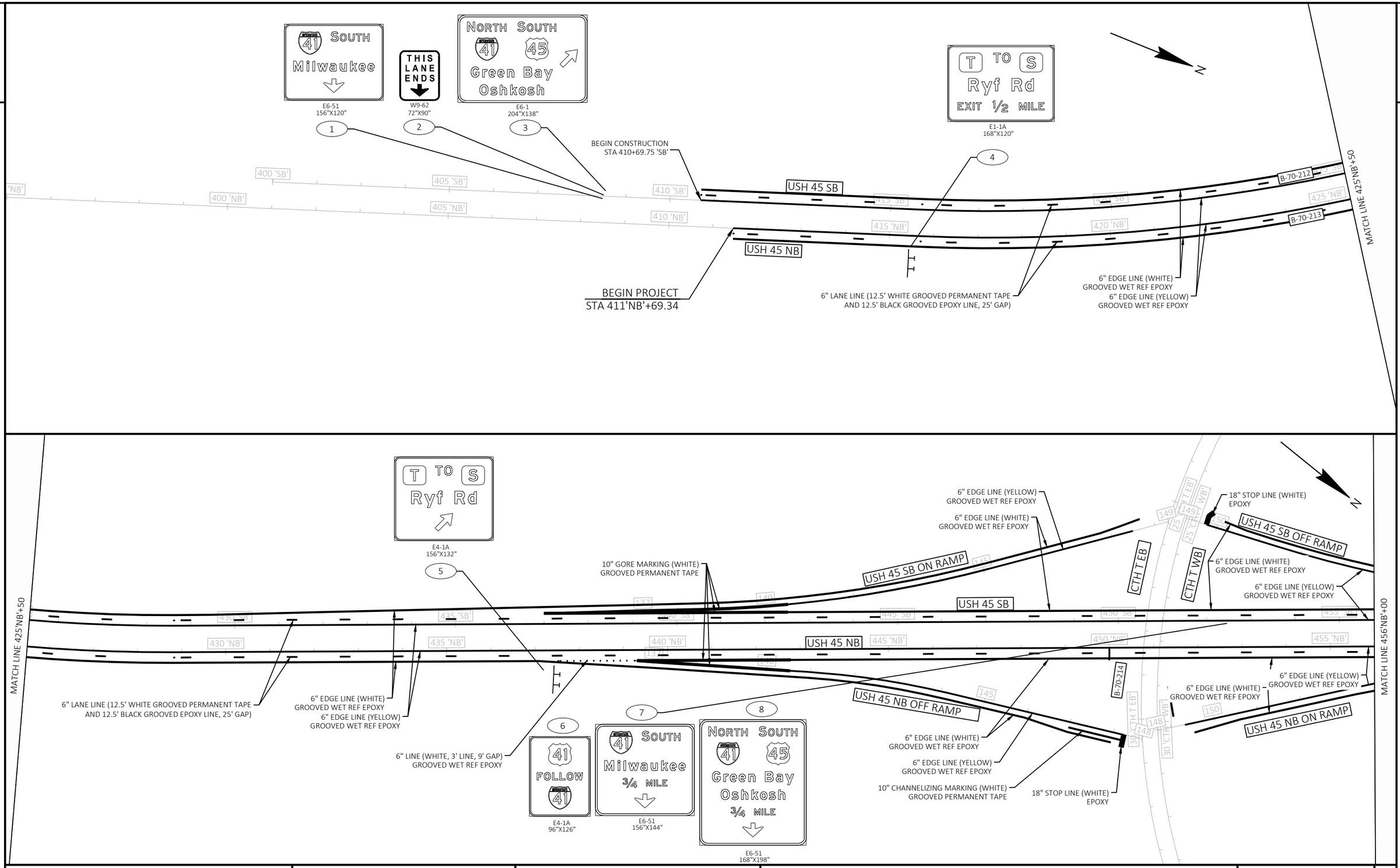
WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH A-449, OR ASTM.

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CONCRETE CONTROL CABINET BASES TYPE 10 NE REGION SPECIAL	SHEET 66	E



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 67	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024501-PM
PLOT DATE : 7/24/2026 10:53 AM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 456'NB'+00

T TO S
Ryf Rd

E4-1A
156"X132"
9

6" LINE (WHITE, 3' LINE, 9' GAP)
GROOVED WET REF EPOXY

10" GORE MARKING (WHITE)
GROOVED PERMANENT TAPE

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

10" GORE MARKING (WHITE)
GROOVED PERMANENT TAPE

USH 45 SB

USH 45 NB

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

4" EDGE LINE (WHITE)
MARKING LINE EPOXY

4" CENTERLINE LINE (YELLOW)
MARKING LINE EPOXY

W SUNNYVIEW RD

MATCH LINE 486'NB'+50

2

MATCH LINE 486'NB'+50

T TO S
Ryf Rd
EXIT 1 MILE

E1-1A
168"X120"
10

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

USH 45 SB

USH 45 NB

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

MATCH LINE 517'NB'+00

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 68	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024502-PM

PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

MATCH LINE 517'NB+00

MATCH LINE 547'NB+50

N

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

USH 45 SB

520 'SB'

525 'SB'

530 'SB'

535 'SB'

540 'SB'

545 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

520 'NB'

525 'NB'

530 'NB'

535 'NB'

540 'NB'

545 'NB'

USH 45 NB

MATCH LINE 547'NB+50

MATCH LINE 578'NB+00

N

USH 45 SB

550 'SB'

555 'SB'

560 'SB'

565 'SB'

570 'SB'

575 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

550 'NB'

555 'NB'

560 'NB'

565 'NB'

570 'NB'

575 'NB'

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

B-70-215

15 'BR'

20 'BR'

25 'BR'

BROOKS RD

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 69	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024503-PM

PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 578'NB'+00

SKELETON BRIDGE RD

B-70-218

B-70-219

B-70-220

USH 45 SB

USH 45 NB

580 'NB'

585 'NB'

590 'NB'

595 'NB'

600 'NB'

605 'NB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

N

MATCH LINE 608'NB'+50

MATCH LINE 639'NB'+00

USH 45 SB

USH 45 NB

610 'NB'

615 'NB'

620 'NB'

625 'NB'

630 'NB'

635 'NB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

KOLB RD

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

1

11

116 GG
Winneconne
EXIT 1 MILE

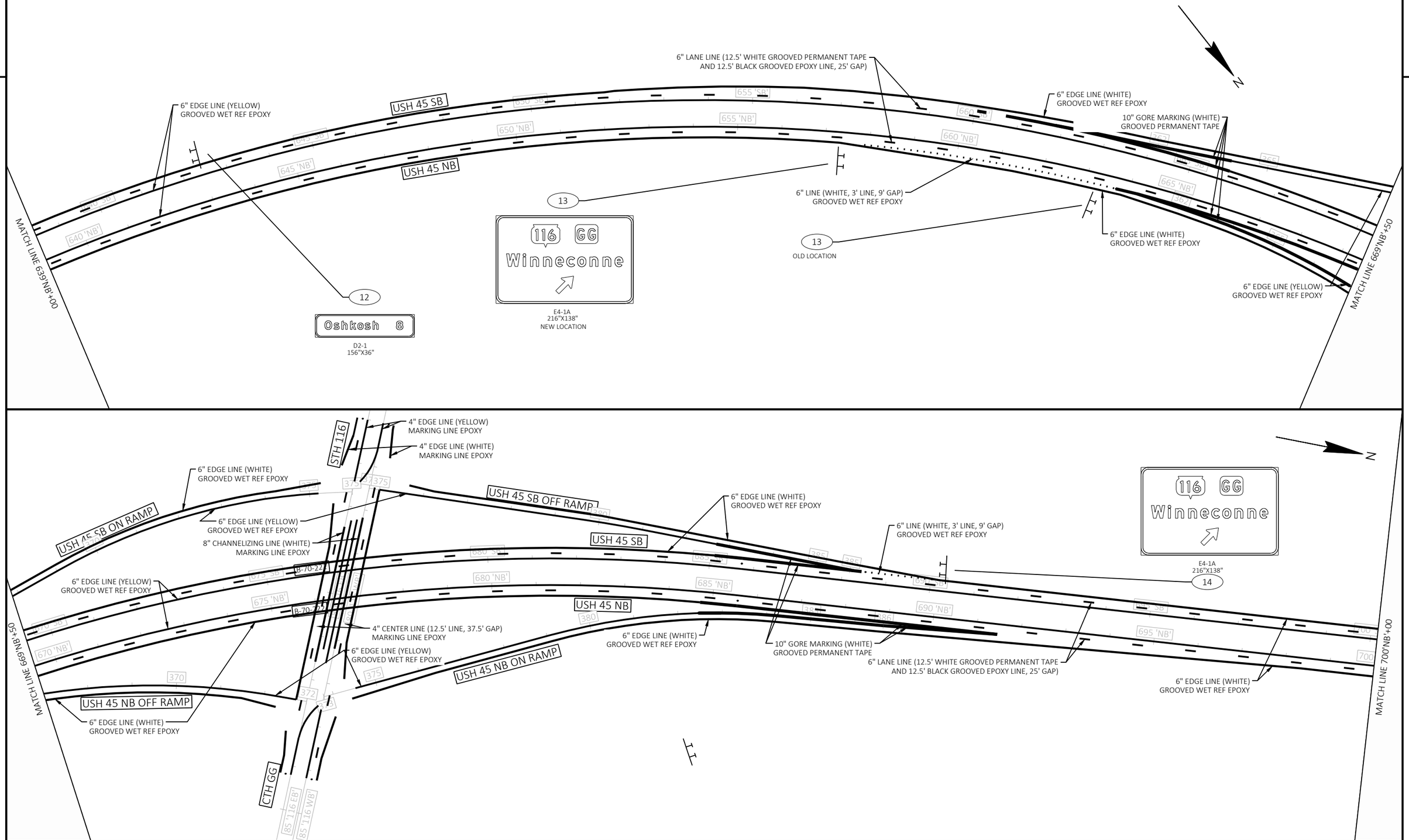
E1-1A
216"X126"

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 70	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024504-PM

PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 71	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024505-PM

PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

N

MATCH LINE 700'NB'+00

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

USH 45 SB

USH 45 NB

705 'NB'

710 'NB'

715 'NB'

720 'NB'

725 'NB'

730 'NB'

MATCH LINE 730'NB'+50

GRIMSON RD

15

New London 19
Clintonville 36
Antigo 89

D2-3
204"X84"

N

MATCH LINE 730'NB'+50

116 GG
Winneconne
EXIT 1 MILE

E1-1A
216"X126"

16

USH 45 SB

USH 45 NB

735 'NB'

740 'NB'

745 'NB'

750 'NB'

755 'NB'

760 'NB'

D2-3
204"X84"

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

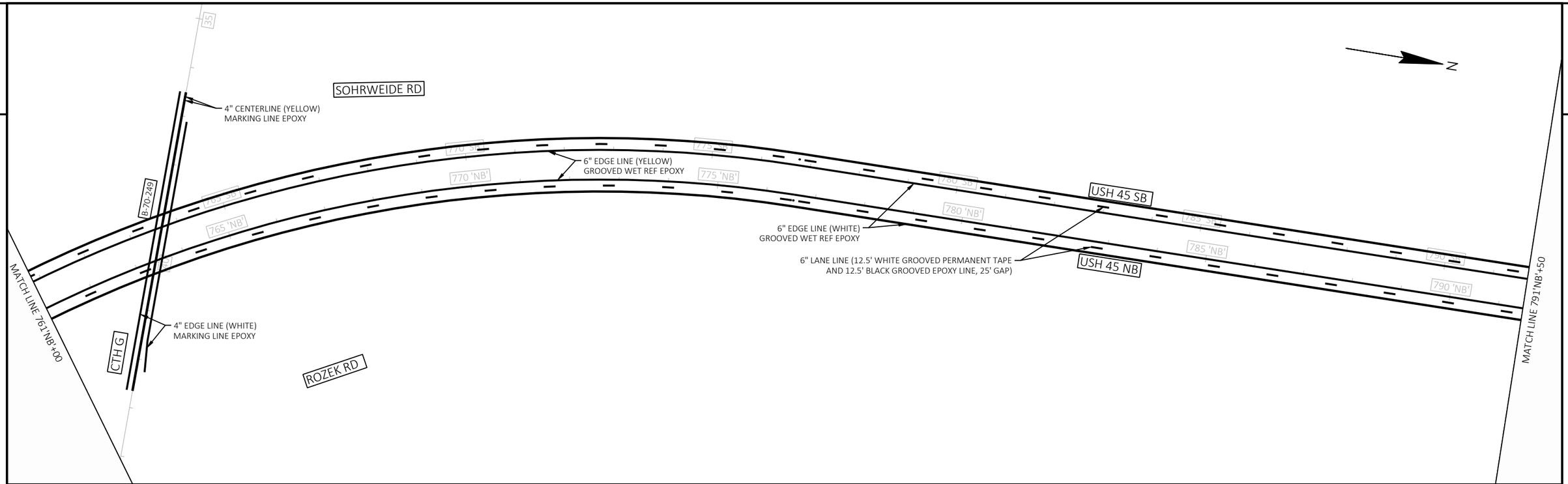
6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

MATCH LINE 761'NB'+00

45

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 72	E



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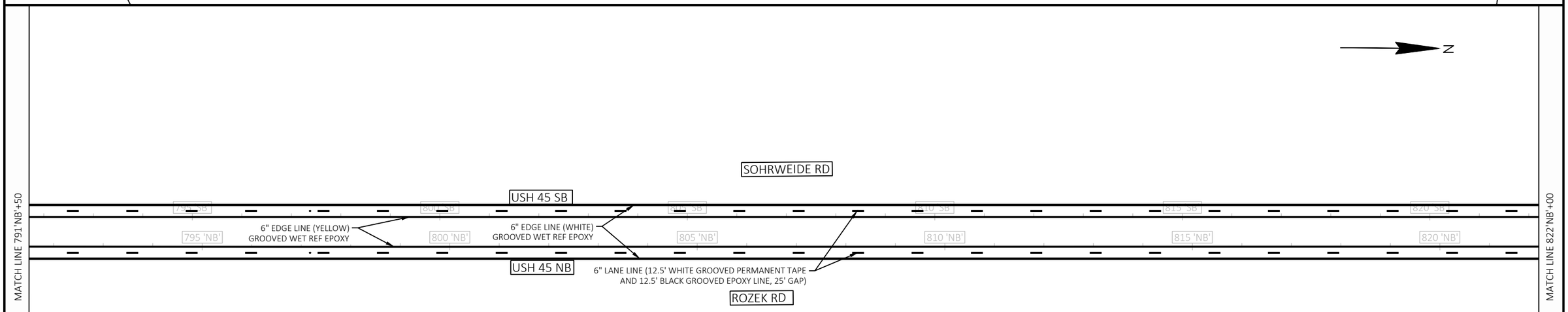


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 73	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024507-PM
PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 822'NB+00

N

SOHRWEIDE RD

WOODLAND RD

4" CENTERLINE (YELLOW)
MARKING LINE EPOXY

USH 45 SB

825 'SB' 830 'SB' 835 'SB' 840 'SB' 845 'SB' 850 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

825 'NB' 830 'NB' 835 'NB' 840 'NB' 845 'NB' 850 'NB'

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

ROZEK RD

B-70-309

BREEZEWOOD LN

MATCH LINE 852'NB+50

2

MATCH LINE 852'NB+50

N

SOHRWEIDE RD

USH 45 SB

855 'SB' 860 'SB' 865 'SB' 870 'SB' B-70-139 875 'SB' 880 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

855 'NB' 860 'NB' 865 'NB' 870 'NB' 875 'NB' 880 'NB'

B-70-244

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

ROZEK RD

MATCH LINE 883'NB+00

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 74	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024508-PM

PLOT DATE : 7/24/2026 10:53 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

MATCH LINE 883'NB'+00

LAKEVIEW RD

SOHRWEIDE RD

4" CENTERLINE (YELLOW)
MARKING LINE EPOXY

USH 45 SB

885 'SB' 890 'SB' 895 'SB' 900 'SB' 905 'SB' 910 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

885 'NB' 890 'NB' 895 'NB' 900 'NB' 905 'NB' 910 'NB'

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

B-70-310

ROZEK RD

OAK RIDGE RD

25 'OAK'

N

2

MATCH LINE 913'NB'+50

915 'SB' 920 'SB' 925 'SB' 930 'SB' 935 'SB' 940 'SB'

915 'NB' 920 'NB' 925 'NB' 930 'NB' 935 'NB' 940 'NB'

SOHRWEIDE RD

USH 45 SB

USH 45 NB

ROZEK RD

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

N

MATCH LINE 944'NB'+00

17

EXIT 1 MILE

E1-1A
144"X90"

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 75	E

2

MATCH LINE 944'NB'+00

Oshkosh 14
D2-1
156"X36"
18

4" CENTERLINE (YELLOW)
GROOVED WET REF EPOXY

40

45 GR

B-70-311

GRANDVIEW RD

50 GR

SOHRWEIDE RD

USH 45 SB

945 'SB' 950 'SB' 955 'SB' 960 'SB' 965 'SB' 970 'SB'

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

945 'NB' 950 'NB' 955 'NB' 960 'NB' 965 'NB' 970 'NB'

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

MATCH LINE 974'NB'+50

MATCH LINE 974'NB'+50

SOHRWEIDE RD

USH 45 SB

975 'SB' 980 'SB' 985 'SB' 990 'SB' 995 'SB' 1000 'SB' 1005

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

975 'NB' 980 'NB' 985 'NB' 990 'NB' 995 'NB' 1000 'NB' 1005

USH 45 NB

6" LANE LINE (12.5' WHITE GROOVED PERMANENT TAPE
AND 12.5' BLACK GROOVED EPOXY LINE, 25' GAP)

6" LINE (WHITE, 3' LINE, 9' GAP)
GROOVED WET REF EPOXY

425 426 430 435

USH 45 SB ON RAMP

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

10" GORE MARKING (WHITE)
GROOVED PERMANENT TAPE

6" EDGE LINE (WHITE)
GROOVED WET REF EPOXY

USH 45 NB OFF RAMP

6" EDGE LINE (YELLOW)
GROOVED WET REF EPOXY

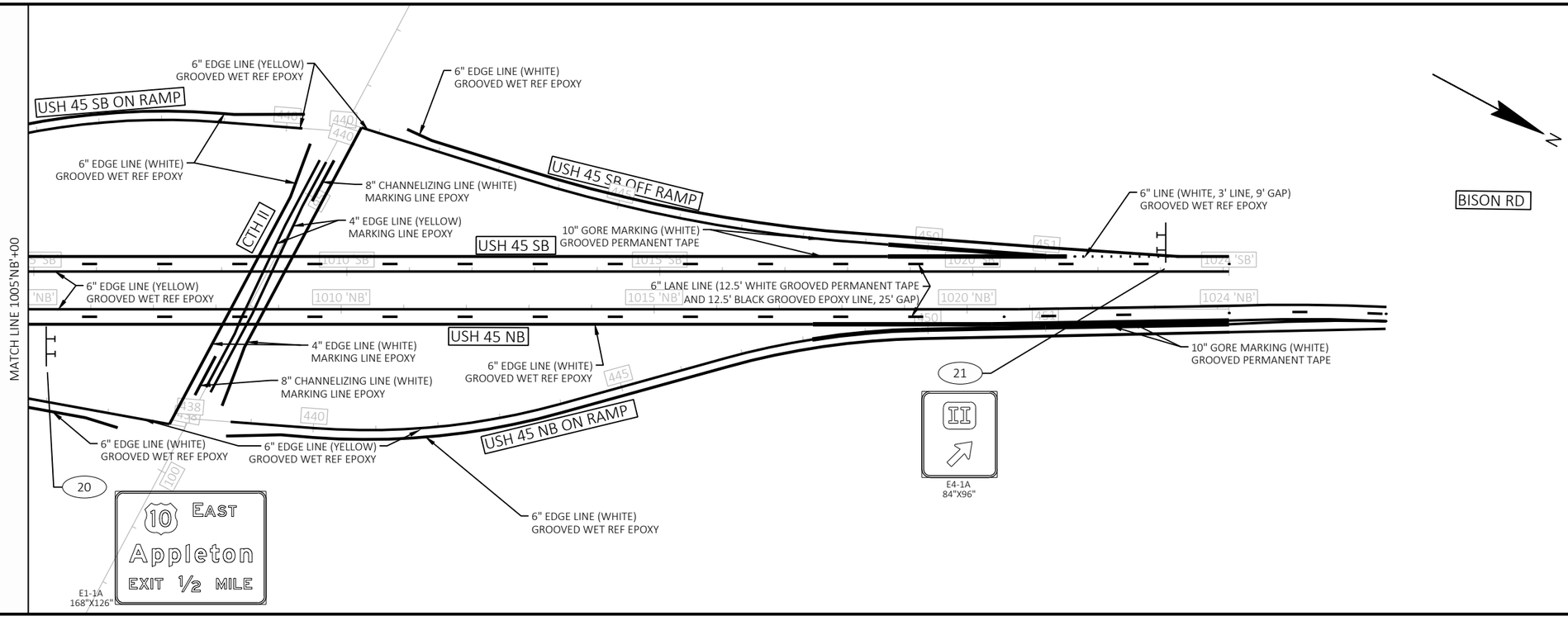
19

E4-1A
84"X96"

MATCH LINE 1005'NB'+00

2

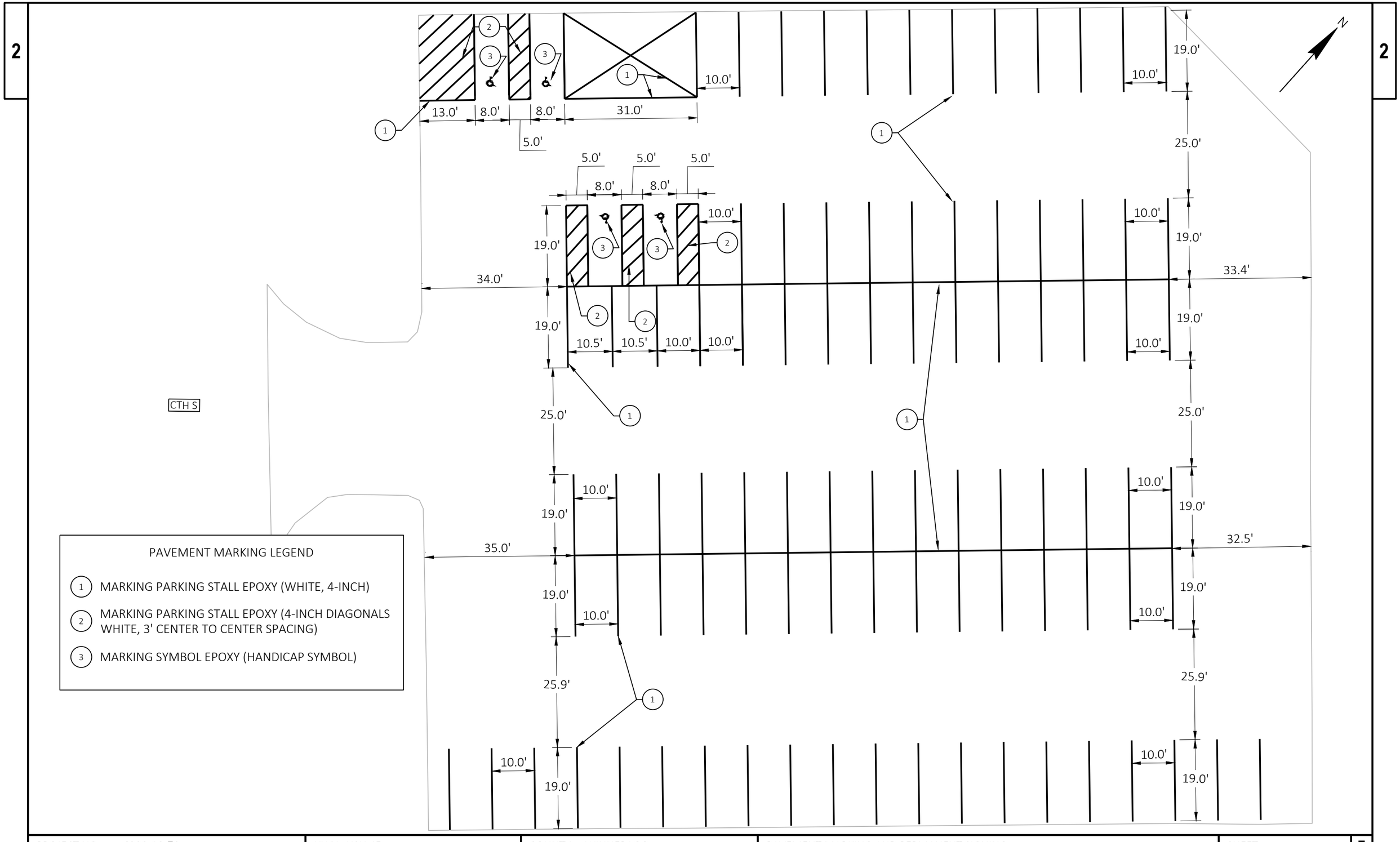
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 76	E



2

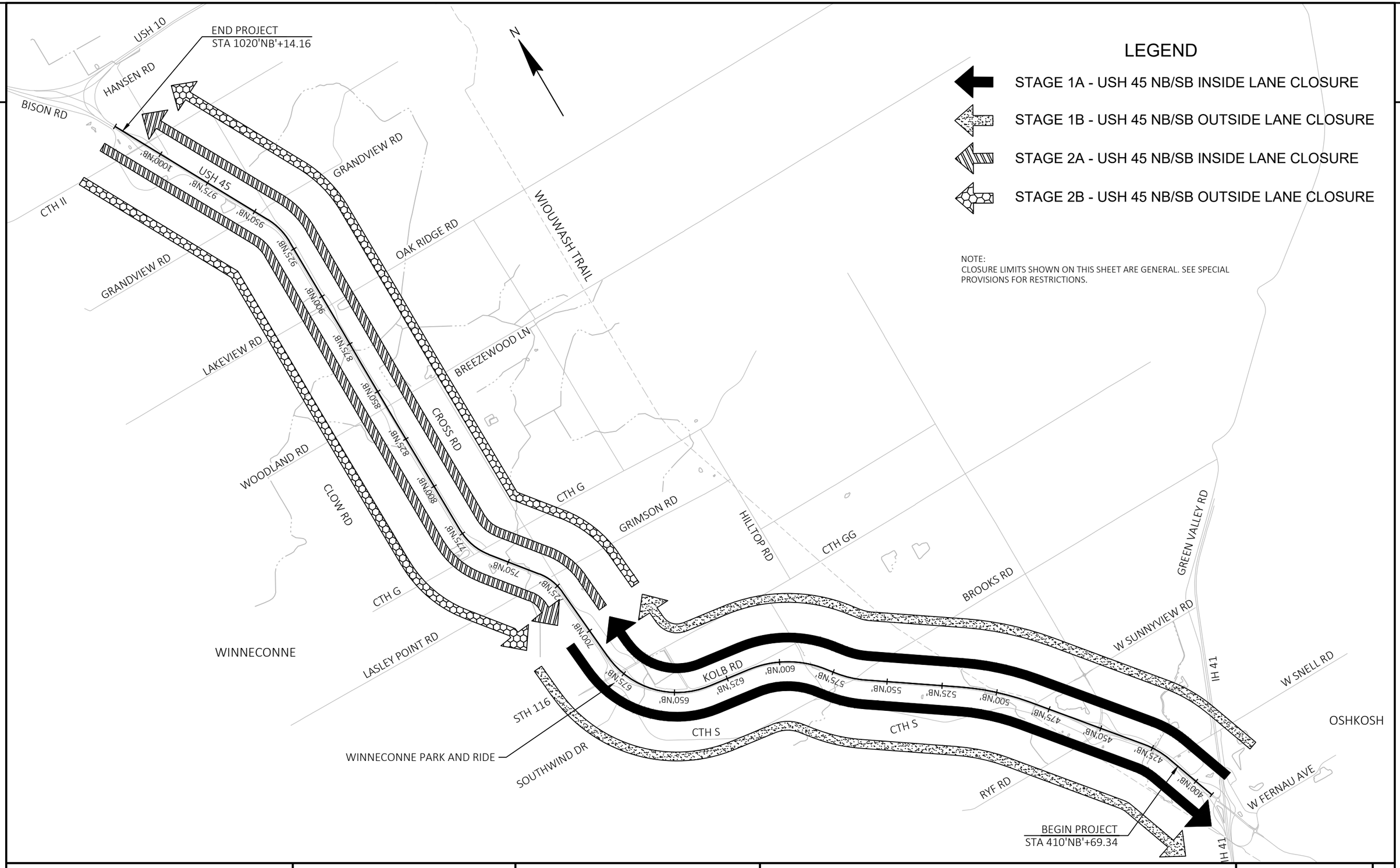
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 77	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\024501-PM.DWG
LAYOUT NAME - 024511-PM
PLOT DATE : 7/24/2026 10:54 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



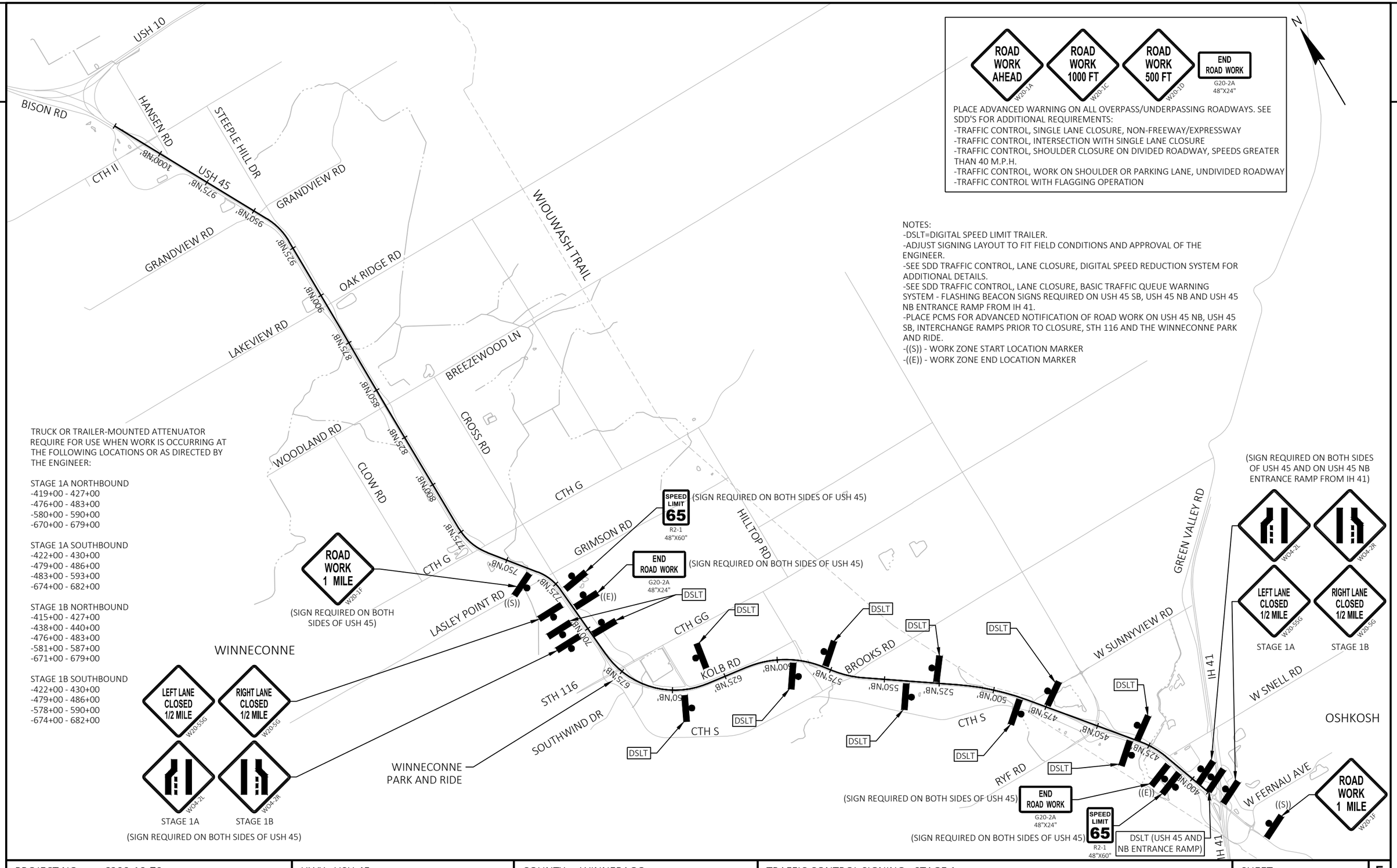
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 78	E

2

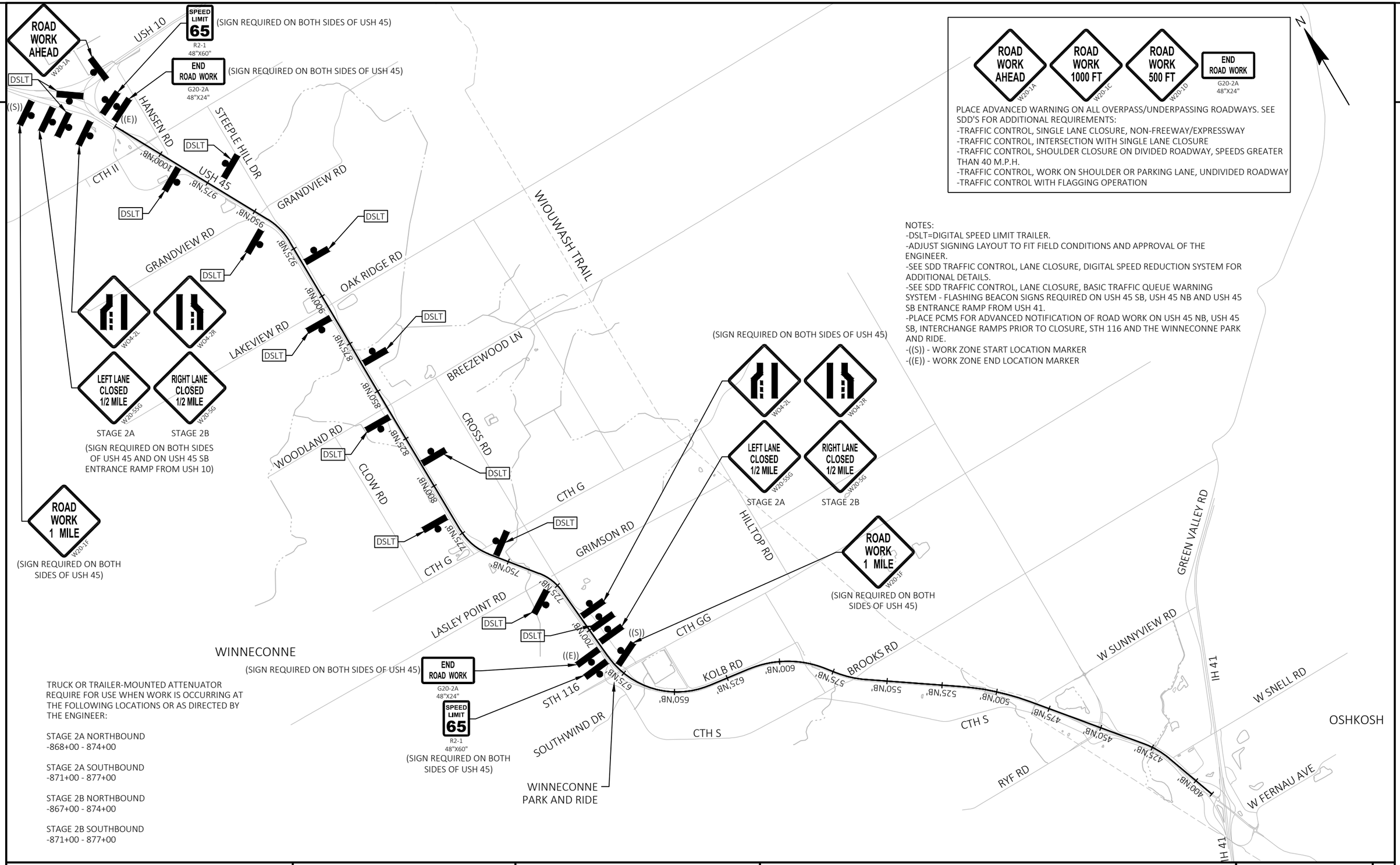


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL OVERVIEW	SHEET 79	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\026001-TC-OVERVIEW.DWG
LAYOUT NAME - 026001-tc-overview
PLOT DATE : 7/24/2026 11:13 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1:4000
WISDOT/CADDS SHEET 42



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL SIGNING - STAGE 1	SHEET 80	E



ROAD WORK AHEAD W20-1A | ROAD WORK 1000 FT W20-1C | ROAD WORK 500 FT W20-1D | END ROAD WORK G20-2A 48"X24"

PLACE ADVANCED WARNING ON ALL OVERPASS/UNDERPASSING ROADWAYS. SEE SDD'S FOR ADDITIONAL REQUIREMENTS:
-TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
-TRAFFIC CONTROL, INTERSECTION WITH SINGLE LANE CLOSURE
-TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.
-TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
-TRAFFIC CONTROL WITH FLAGGING OPERATION

NOTES:
-DSLT=DIGITAL SPEED LIMIT TRAILER.
-ADJUST SIGNING LAYOUT TO FIT FIELD CONDITIONS AND APPROVAL OF THE ENGINEER.
-SEE SDD TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM FOR ADDITIONAL DETAILS.
-SEE SDD TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM - FLASHING BEACON SIGNS REQUIRED ON USH 45 SB, USH 45 NB AND USH 45 SB ENTRANCE RAMP FROM USH 41.
-PLACE PCMS FOR ADVANCED NOTIFICATION OF ROAD WORK ON USH 45 NB, USH 45 SB, INTERCHANGE RAMPS PRIOR TO CLOSURE, STH 116 AND THE WINNECONNE PARK AND RIDE.
-((S)) - WORK ZONE START LOCATION MARKER
-((E)) - WORK ZONE END LOCATION MARKER

TRUCK OR TRAILER-MOUNTED ATTENUATOR REQUIRE FOR USE WHEN WORK IS OCCURRING AT THE FOLLOWING LOCATIONS OR AS DIRECTED BY THE ENGINEER:

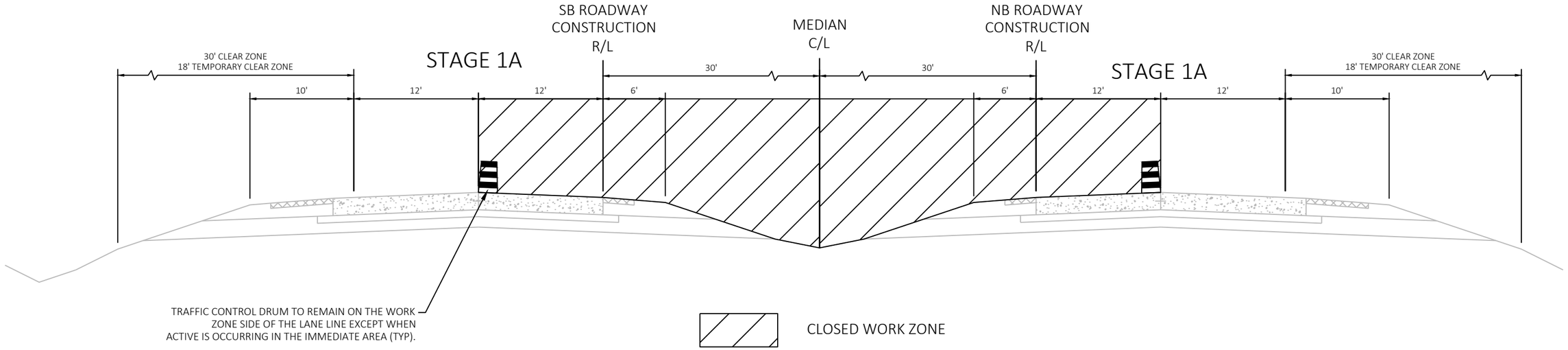
STAGE 2A NORTHBOUND
-868+00 - 874+00

STAGE 2A SOUTHBOUND
-871+00 - 877+00

STAGE 2B NORTHBOUND
-867+00 - 874+00

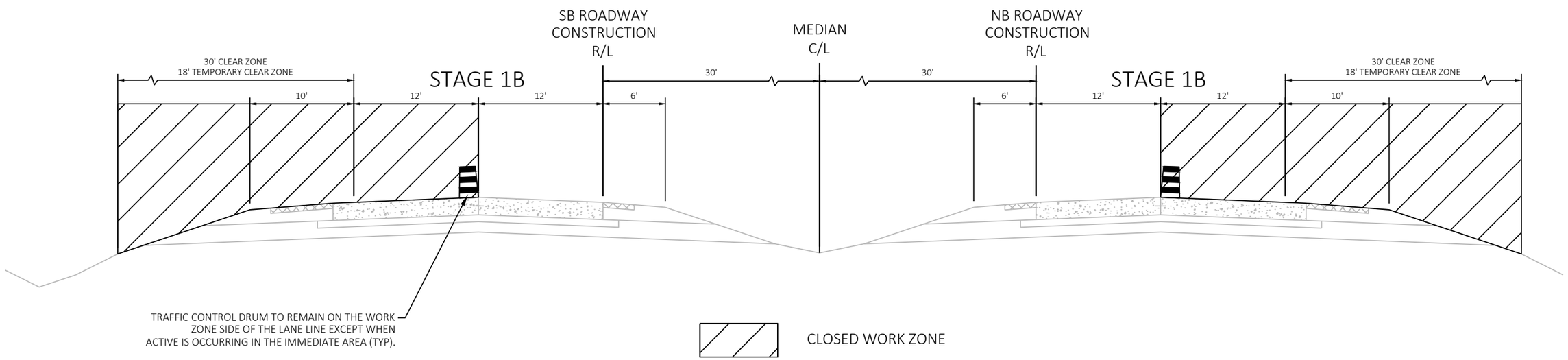
STAGE 2B SOUTHBOUND
-871+00 - 877+00

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL SIGNING - STAGE 2	SHEET 81	E



STAGE 1A WORK ZONE TYPICAL SECTION USH 45

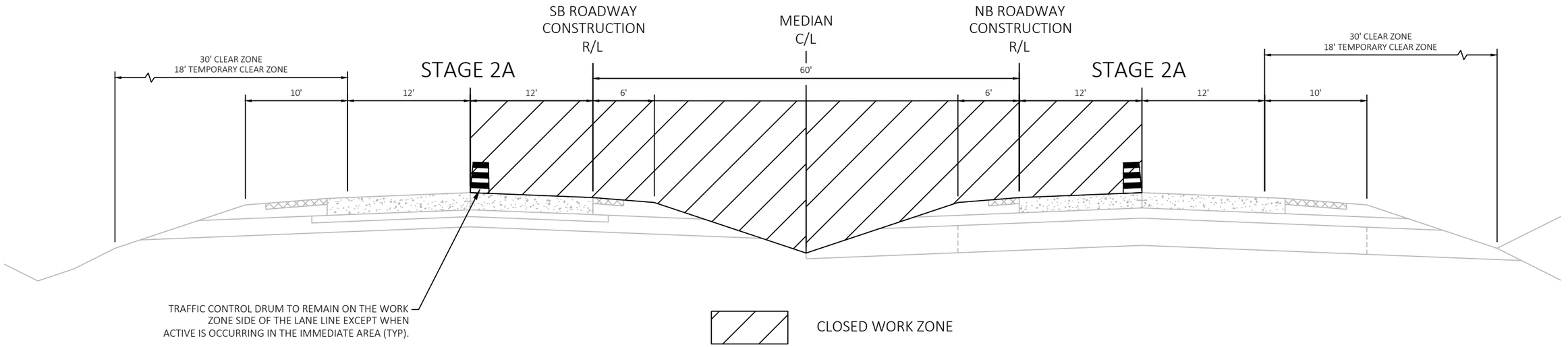
SOUTH PROJECT LIMITS TO STA 700+00 +/-



STAGE 1B WORK ZONE TYPICAL SECTION USH 45

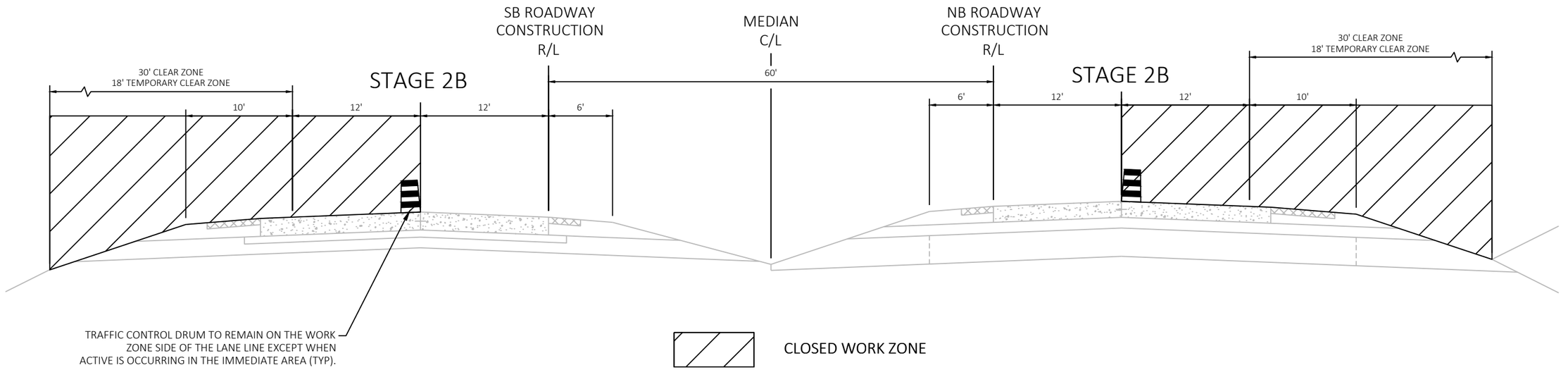
SOUTH PROJECT LIMITS TO STA 700+00 +/-

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL OVERVIEW	SHEET 82	E



STAGE 2A WORK ZONE TYPICAL SECTION USH 45

STA 700+00 +/- TO NORTH PROJECT LIMITS



STAGE 2B WORK ZONE TYPICAL SECTION USH 45

STA 700+00 +/- TO NORTH PROJECT LIMITS

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL OVERVIEW	SHEET 83	E

2

2

R11-3
60" X 30"
ROAD CLOSED TO THRU TRAFFIC 1 1/4 MILES AHEAD
ROAD CLOSED 500 FT W20-3D
ROAD CLOSED 1000 FT W20-3C
ROAD CLOSED AHEAD W20-3A
TYPE III BARRICADE
PLACE BARRICADE AT CTH II/CTH M INTERSECTION
CLOSURE SIGNAGE FOR WB CTH II TRAFFIC

MB
RT TURN AHEAD ONLY
USH 45 SB EXIT RAMP
USH 45 SB
USH 45 NB
USH 45 NB ENTRANCE RAMP

WO1-6
48" X 24"
TYPE III BARRICADE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

WO1-6
48" X 24"
TYPE III BARRICADE

LOOP ROAD
CTH II

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

CLOSE LEFT TURN LANE TO ALLOW APPROACH SLAB TO CURE

FRAME 1: ROAD TO CLOSE
FRAME 2: DATE XXPM TO XXAM
PLACE PCMS 7 DAYS PRIOR TO CLOSURE

USH 45 SB ENTRANCE RAMP

LEGEND
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD

USH 45 NB EXIT RAMP
HANSEN ROAD

MB
RT TURN AHEAD ONLY

R11-3
60" X 30"
ROAD CLOSED TO THRU TRAFFIC 1 1/4 MILES AHEAD
ROAD CLOSED AHEAD W20-3A
ROAD CLOSED 1000 FT W20-3C
ROAD CLOSED 500 FT W20-3D
TYPE III BARRICADE
PLACE BARRICADE AT CTH II/CTH M INTERSECTION
CLOSURE SIGNAGE FOR EB CTH II TRAFFIC

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	TRAFFIC CONTROL - CTH II CLOSURE	SHEET 84	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\026003-TC-CTHII.DWG
LAYOUT NAME - 020201-po
PLOT DATE : 7/28/2026 1:38 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

USH 45

CROSS RD

CTH GG

WORK ZONE

SKELETON BRIDGE RD

KOLB RD

BROOKS RD

CTH T

STH 116

USH 45

SPIEGELBERG RD

CTH S

CTH S

CTH Y

MAIN ST

WASHINGTON ST

PLUMMERS POINT RD

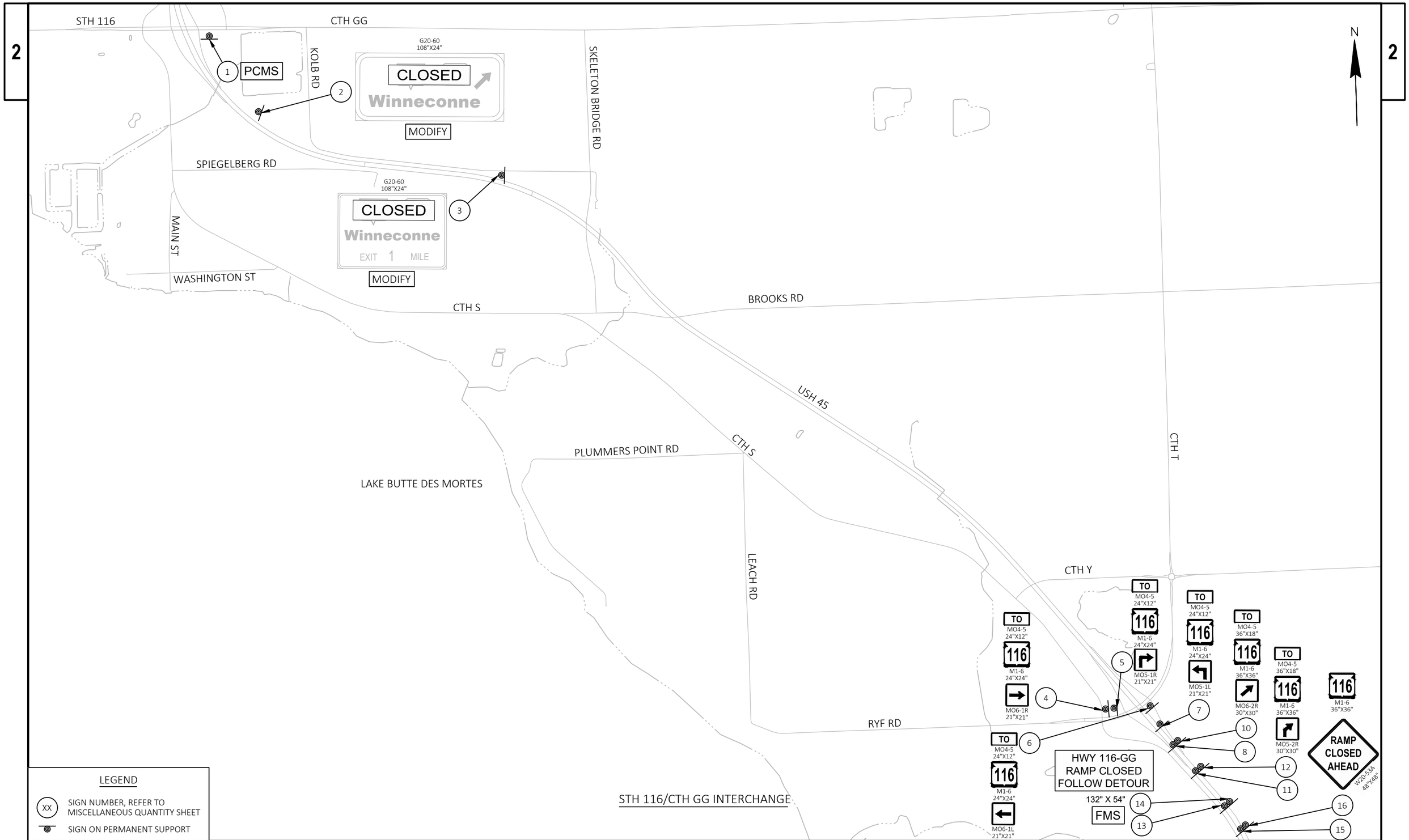
LEACH RD

RYF RD

LAKE BUTTE DES MORTES

STH 116/CTH GG INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-STH 116-CTH GG-USH 45 NB OFF RAMP ROUTE	SHEET 85	E



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - STH 116-CTH GG-USH 45 NB OFF RAMP	SHEET 86	E

2

2

N

CROSS RD

USH 45

WORK ZONE

CTH GG

SKELETON BRIDGE RD

KOLB RD

BROOKS RD

CTH T

STH 116

USH 45

SPIEGELBERG RD

CTH S

CTH S

CTH Y

MAIN ST

WASHINGTON ST

PLUMMERS POINT RD

LEACH RD

RYF RD

LAKE BUTTE DES MORTES

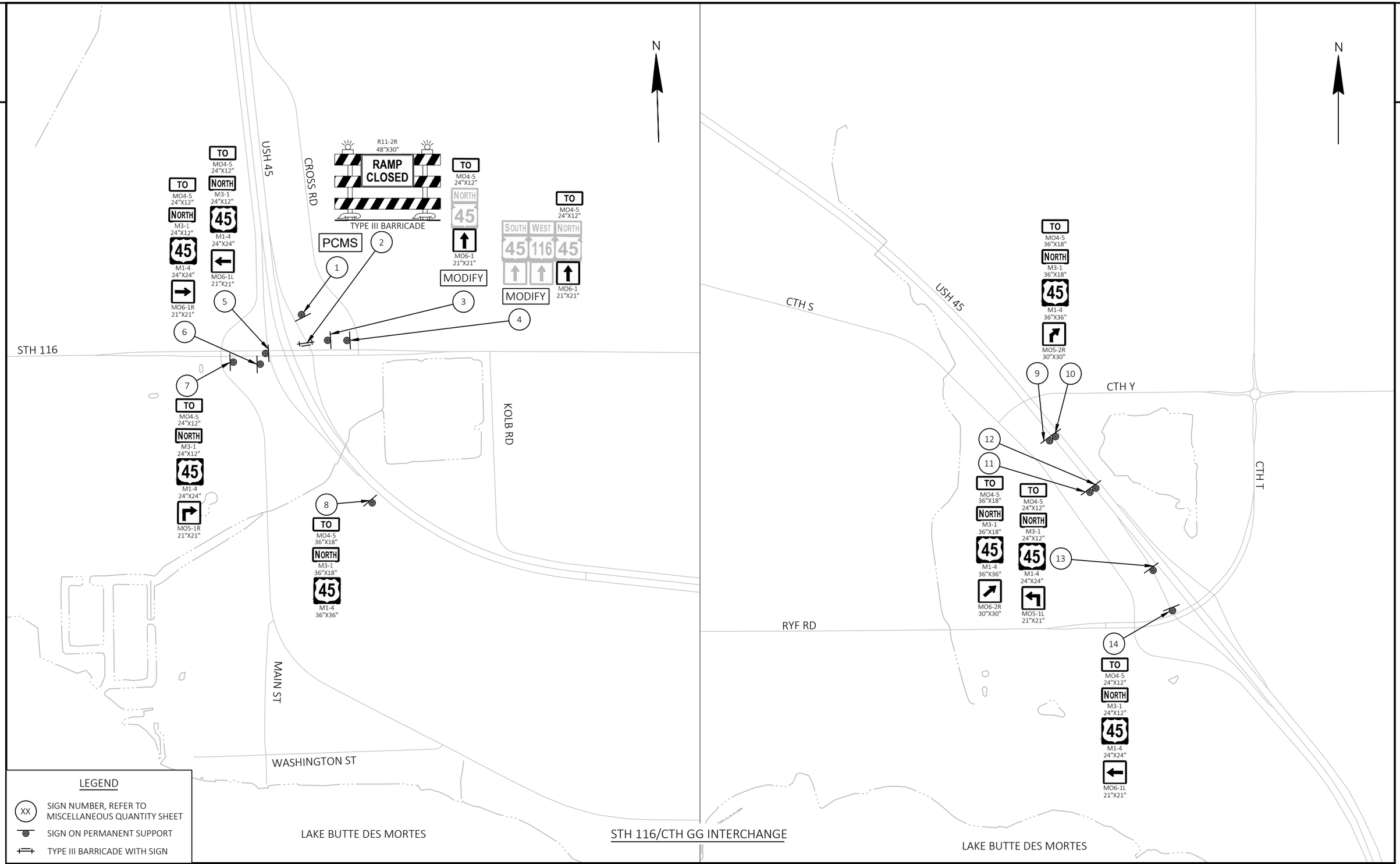
STH 116/CTH GG INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-STH 116-CTH GG-USH 45 NB ON RAMP ROUTE	SHEET 87	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027008-DT.DWG
LAYOUT NAME - 027008-dt

PLOT DATE : 6/18/2026 10:48 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1600

WISDOT/CADDS SHEET 42



LEGEND

- (XX) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH SIGN

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS- STH 116-CTH GG-USH 45 NB ON RAMP	SHEET 88 E

2

2

N

WORK ZONE

USH 45

CROSS RD

CTH GG

KOLB RD

STH 116

SKELETON BRIDGE RD

BROOKS RD

CTH T

USH 45

SPIEGELBERG RD

CTH S

CTH S

CTH Y

MAIN ST

WASHINGTON ST

PLUMMERS POINT RD

LEACH RD

RYF RD

LAKE BUTTE DES MORTES

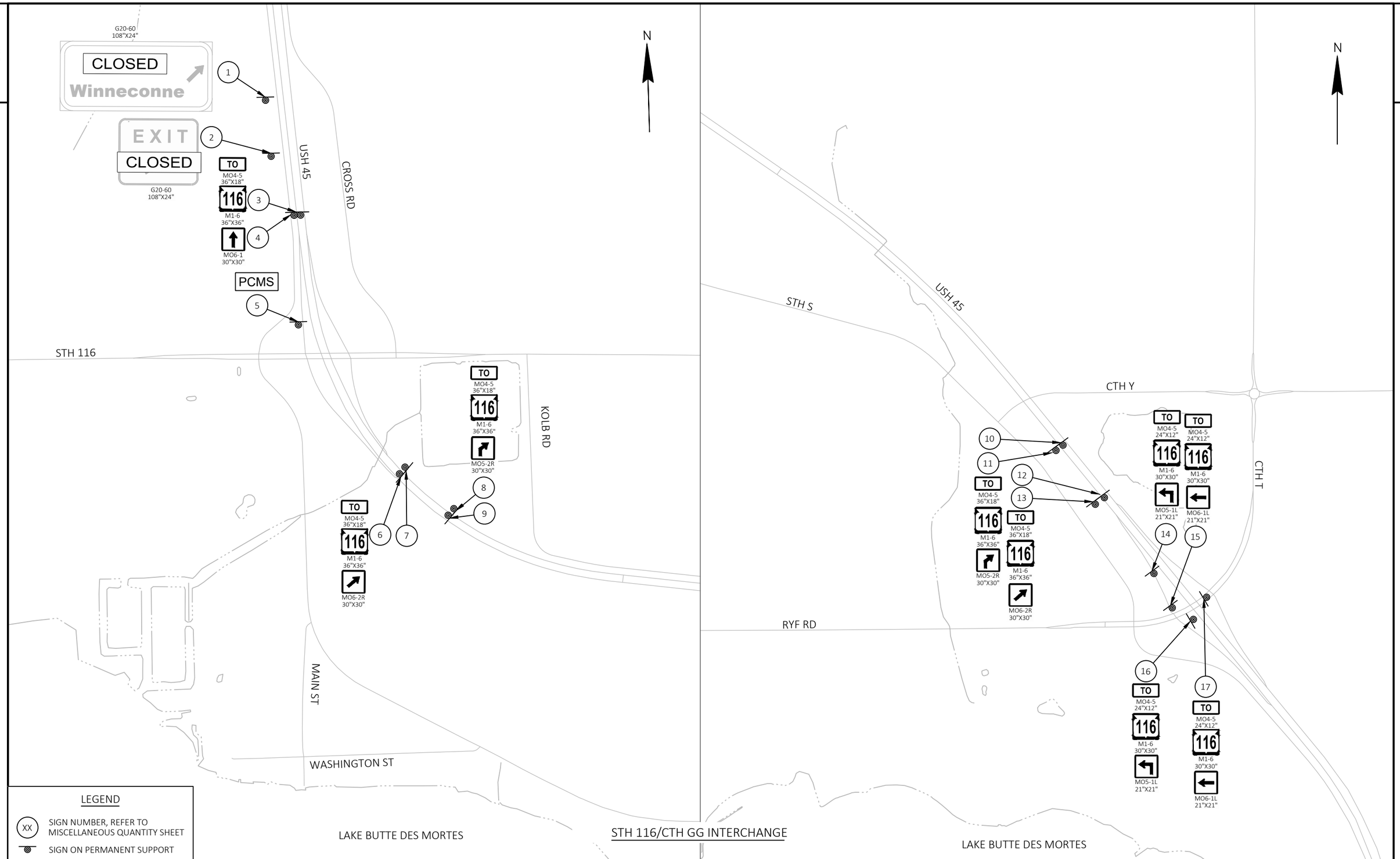
STH 116/CTH GG INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-STH 116-CTH GG-USH 45 SB OFF RAMP ROUTE	SHEET 89	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027006-DT.DWG
LAYOUT NAME - 027006-dt

PLOT DATE : 6/18/2026 10:49 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1600

WISDOT/CADDS SHEET 42



LEGEND

(XX) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - STH 116-CTH GG-USH 45 SB OFF RAMP	SHEET 90	E

2

2

N

USH 45

CROSS RD

CTH GG

SKELETON BRIDGE RD

KOLB RD

WORK ZONE

STH 116

BROOKS RD

CTH T

USH 45

SPIEGELBERG RD

CTH S

CTH S

CTH Y

MAIN ST

WASHINGTON ST

PLUMMERS POINT RD

LEACH RD

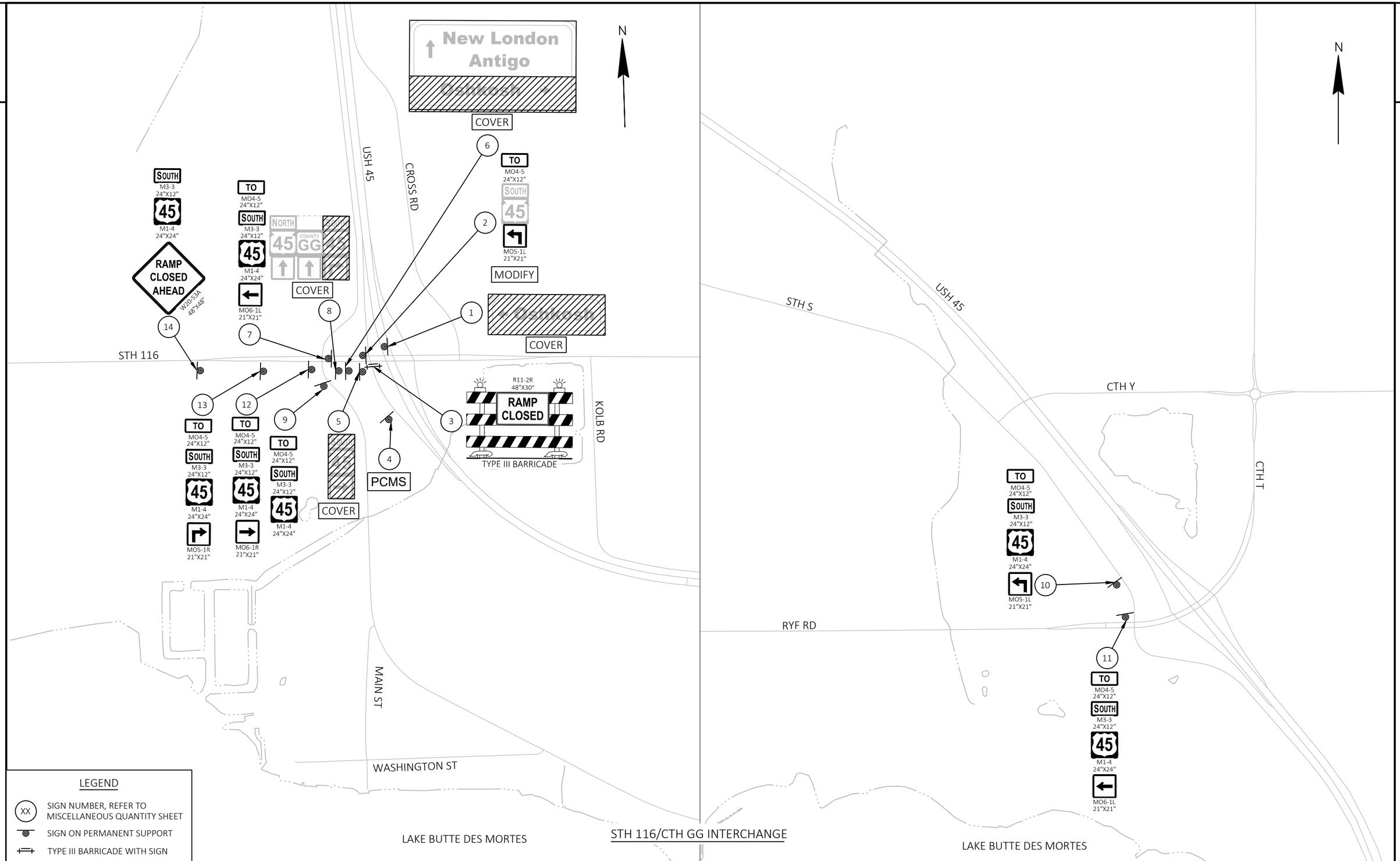
RYF RD

LAKE BUTTE DES MORTES

STH 116/CTH GG INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-STH 116-CTH GG-USH 45 SB ON RAMP ROUTE	SHEET 91	E

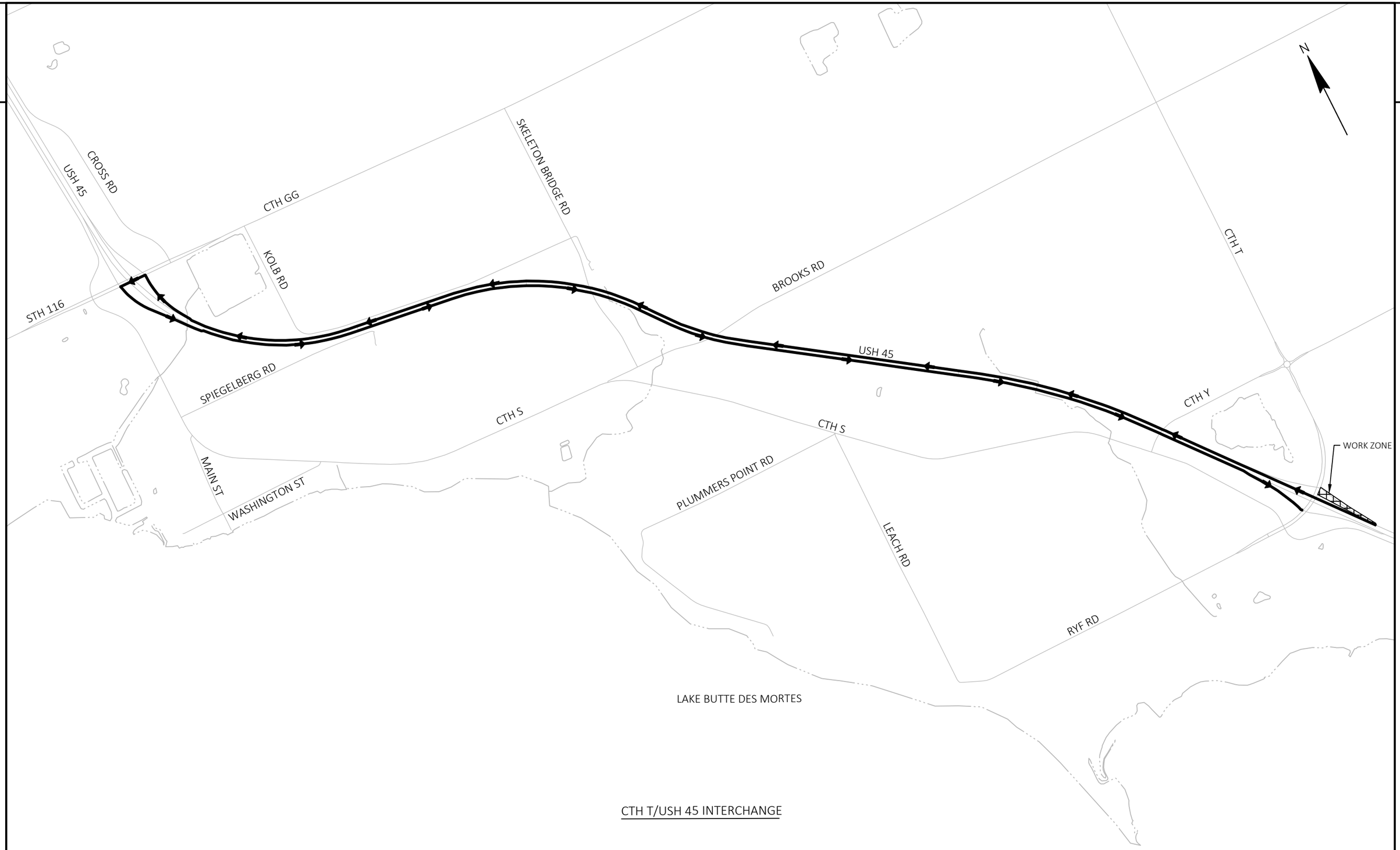
FILE NAME : N:\PDS\C3D\62001800\SHEETS\027009-DT.DWG
LAYOUT NAME - 027009-dt
PLOT DATE : 6/18/2026 10:50 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1600
WISDOT/CADDS SHEET 42



STH 116/CTH GG INTERCHANGE

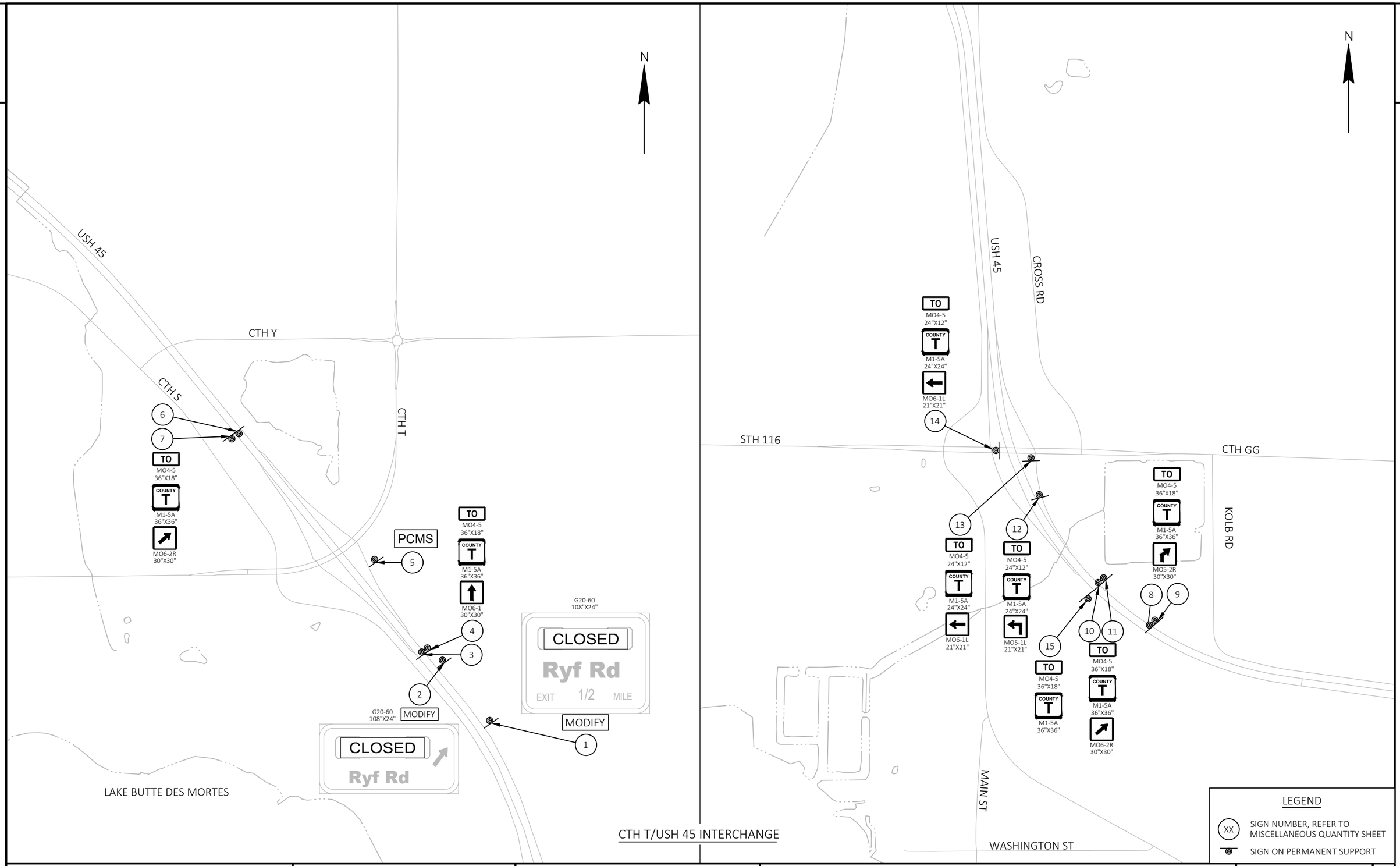
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - STH 116-CTH GG-USH 45 SB ON RAMP	SHEET 92	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027005-DT.DWG
LAYOUT NAME - 027005-dt
PLOT DATE : 6/18/2026 10:51 AM
PLOT BY : CRUSE, DEXTER A
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



CTH T/USH 45 INTERCHANGE

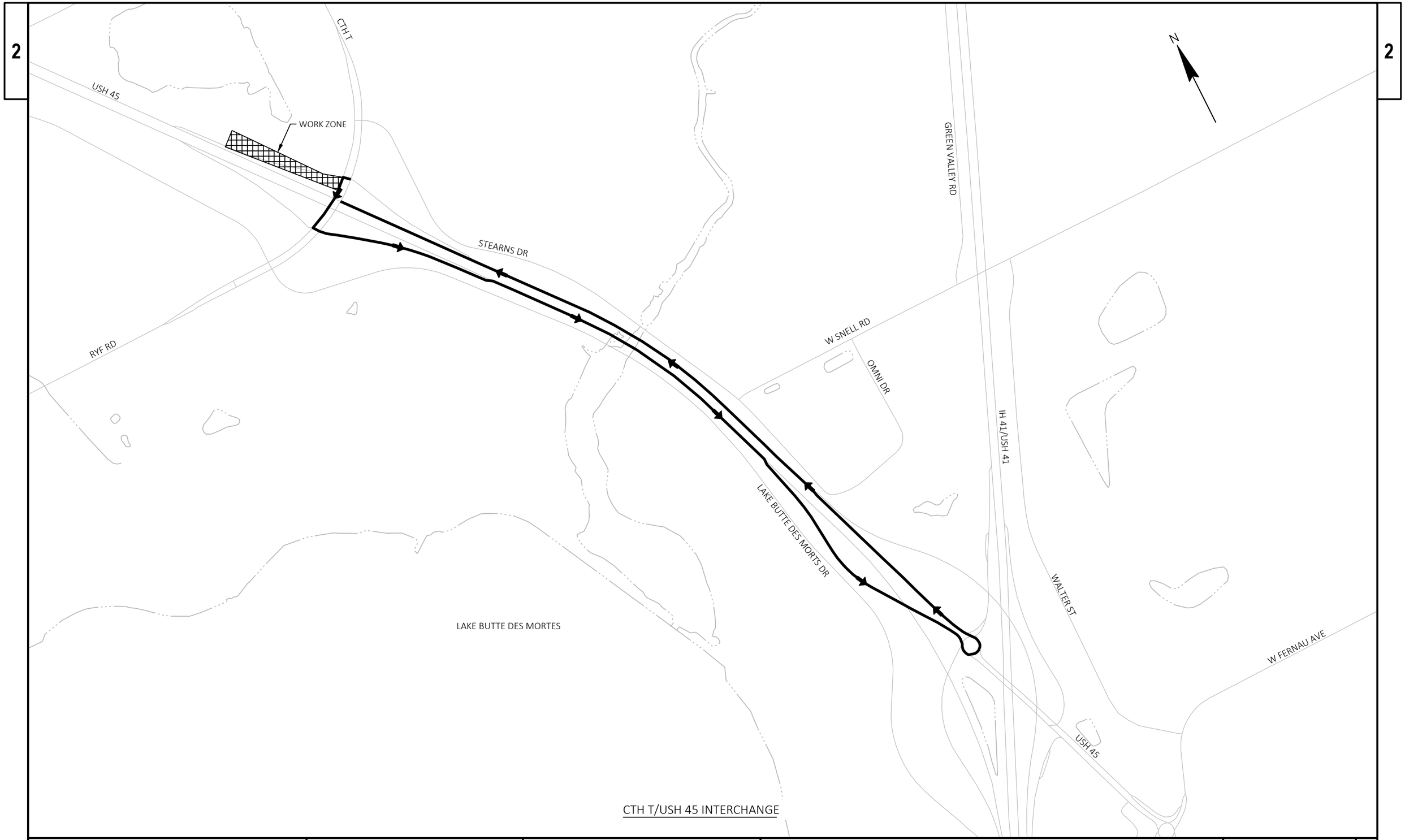
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH T - USH 45 NB OFF RAMP ROUTE	SHEET 93	E



CTH T/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - CTH T - USH 45 NB OFF RAMP	SHEET 94	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027011-DT.DWG
LAYOUT NAME - 0270011-dt
PLOT DATE : 6/18/2026 10:52 AM
PLOT BY : CRUSE, DEXTER A
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42



CTH T/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH T - USH 45 NB ON RAMP ROUTE	SHEET 95	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027012-DT.DWG
LAYOUT NAME - 027012-dt
PLOT DATE : 6/18/2026 10:53 AM
PLOT BY : CRUSE, DEXTER A
PLOT NAME :
PLOT SCALE : 1:700
WISDOT/CADDS SHEET 42

2

N

CTH T

TO
MO4-5
24"X12"
SOUTH 45 | SOUTH COUNTY T | NORTH 45
MO6-1
21"X21"

TO
MO4-5
24"X12"
NORTH 45
MO6-1
21"X21"

MODIFY
1

Oshkosh
New London
COVER
2

PCMS
5

MODIFY
3

STEARNS DR

USH 45

W SNELL RD

IH 41/USH 41

TO
MO4-5
24"X12"
NORTH
M3-1
24"X12"
45
M1-4
24"X24"
MO5-1L
21"X21"
6

7

TO
MO4-5
24"X12"
NORTH
M3-1
24"X12"
45
M1-4
24"X24"
MO6-1L
21"X21"

4
R11-2R
48"X30"
RAMP CLOSED
TYPE III BARRICADE

8
TO
MO4-5
36"X18"
NORTH
M3-1
36"X18"
45
M1-4
36"X36"

10 9
TO
MO4-5
36"X18"
NORTH
M3-1
36"X18"
45
M1-4
36"X36"
MO5-2R
30"X30"

12 11
TO
MO4-5
36"X18"
NORTH
M3-1
36"X18"
45
M1-4
36"X36"
MO6-2R
30"X30"

LAKE BUTTE DES MORTS DR

WALTER ST

RYF RD

14 13
TO
MO4-5
24"X12"
NORTH
M3-1
24"X12"
45
M1-4
24"X24"
MO5-52
21"X21"

15
TO
MO4-5
24"X12"
NORTH
M3-1
24"X12"
45
M1-4
36"X36"
MO6-2L
21"X21"

USH 45

LAKE BUTTE DES MORTES

CTH T/USH 45 INTERCHANGE

LEGEND

XX SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE WITH SIGN

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - CTH T - USH 45 NB ON RAMP	SHEET 96	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027013-DT.DWG
LAYOUT NAME - 0270013-dt

PLOT DATE : 6/18/2026 10:53 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : ############

2

2

N

USH 45

CROSS RD

CTH GG

SKELETON BRIDGE RD

CTH T

KOLB RD

BROOKS RD

STH 116

USH 45

SPIEGELBERG RD

CTH Y

CTH S

CTH S

MAIN ST

WASHINGTON ST

PLUMMERS POINT RD

LEACH RD

WORK ZONE

RYF RD

LAKE BUTTE DES MORTES

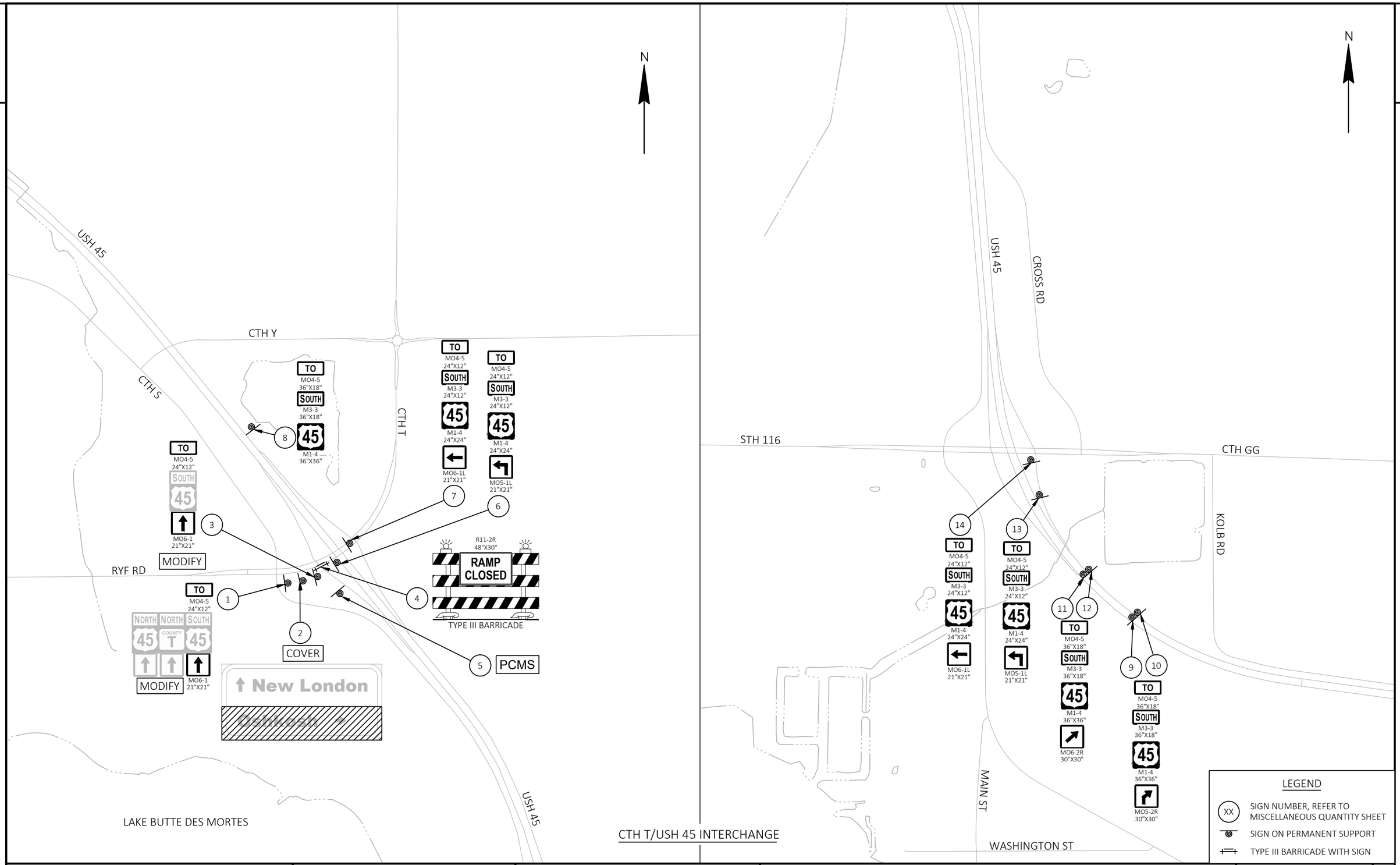
CTH T/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH T - USH 45 SB ON RAMP ROUTE	SHEET 97	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027014-DT.DWG
LAYOUT NAME - 027014-dt

PLOT DATE : 6/18/2026 10:54 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1600

WISDOT/CADDS SHEET 42



CTH T/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS - CTH T - USH 45 SB ON RAMP	SHEET 98	E

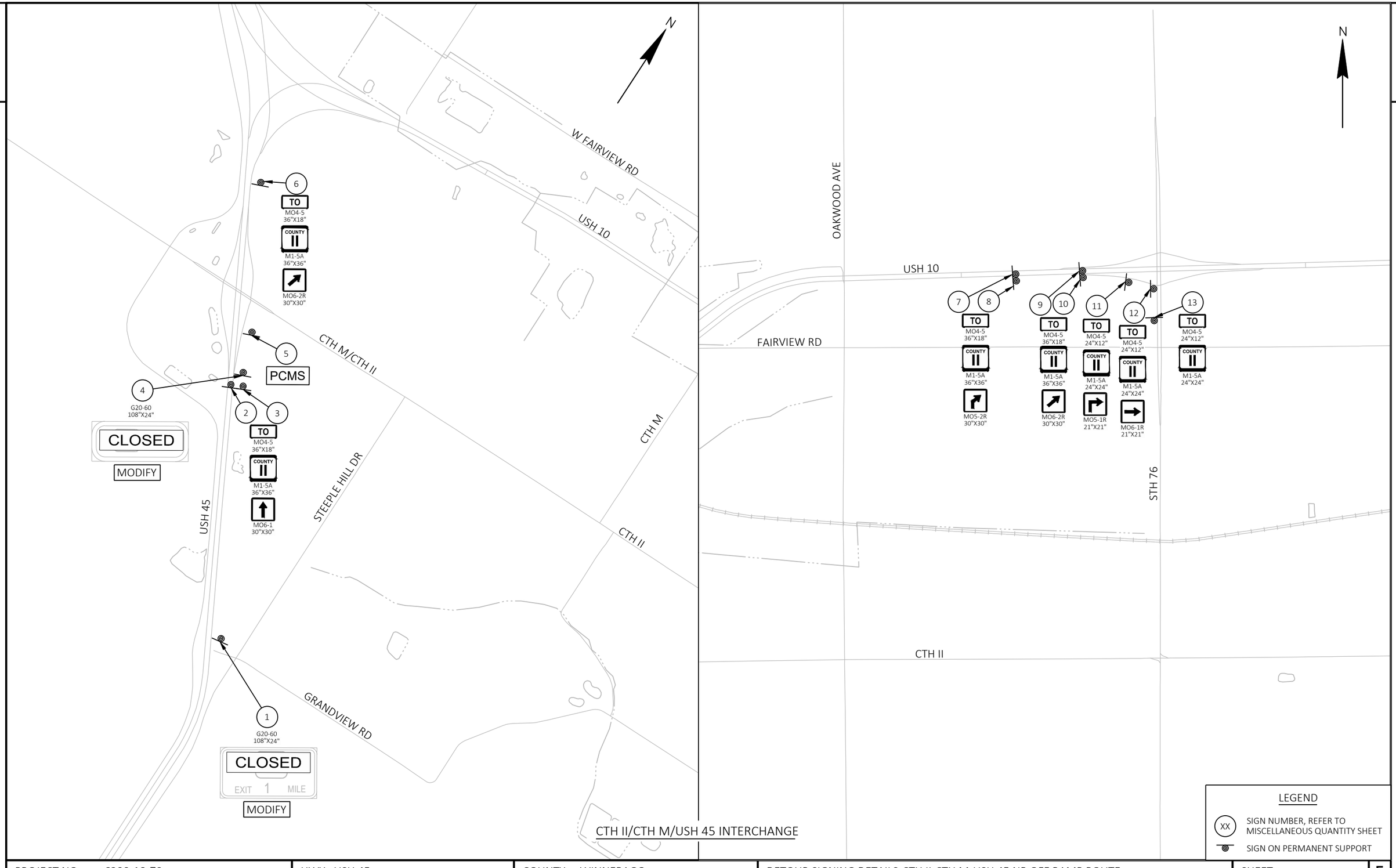
FILE NAME : N:\PDS\C3D\62001800\SHEETS\027015-DT.DWG
LAYOUT NAME - 0270015-dt
PLOT DATE : 6/18/2026 10:55 AM
PLOT BY : CRUSE, DEXTER A
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

CTH II/CTH M/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH II-CTH M-USH 45 NB OFF RAMP ROUTE	SHEET 99	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027016-DT.DWG
LAYOUT NAME - 027016-dt
PLOT DATE : 6/18/2026 10:56 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42



CTH II/CTH M/USH 45 INTERCHANGE

LEGEND

XX — SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS-CTH II-CTH M-USH 45 NB OFF RAMP ROUTE	SHEET 100	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027017-DT.DWG
LAYOUT NAME - 027017-dt

PLOT DATE : 6/18/2026 10:56 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1500

WISDOT/CADDS SHEET 42

2

2

N

W FAIRVIEW RD

CTH M

MEDINA JUNCTION RD

USH 10

WORK ZONE

CTH M/CTH II

CTH M

CENTER RD

OAKWOOD AVE

HICKORY AVE

CTH II

STEEPLE HILL DR

USH 45

CTH T

CN

FAIRVIEW RD

GRANDVIEW RD

STH 76

LARSEN RD

CTH II/CTH M/USH 45 INTERCHANGE

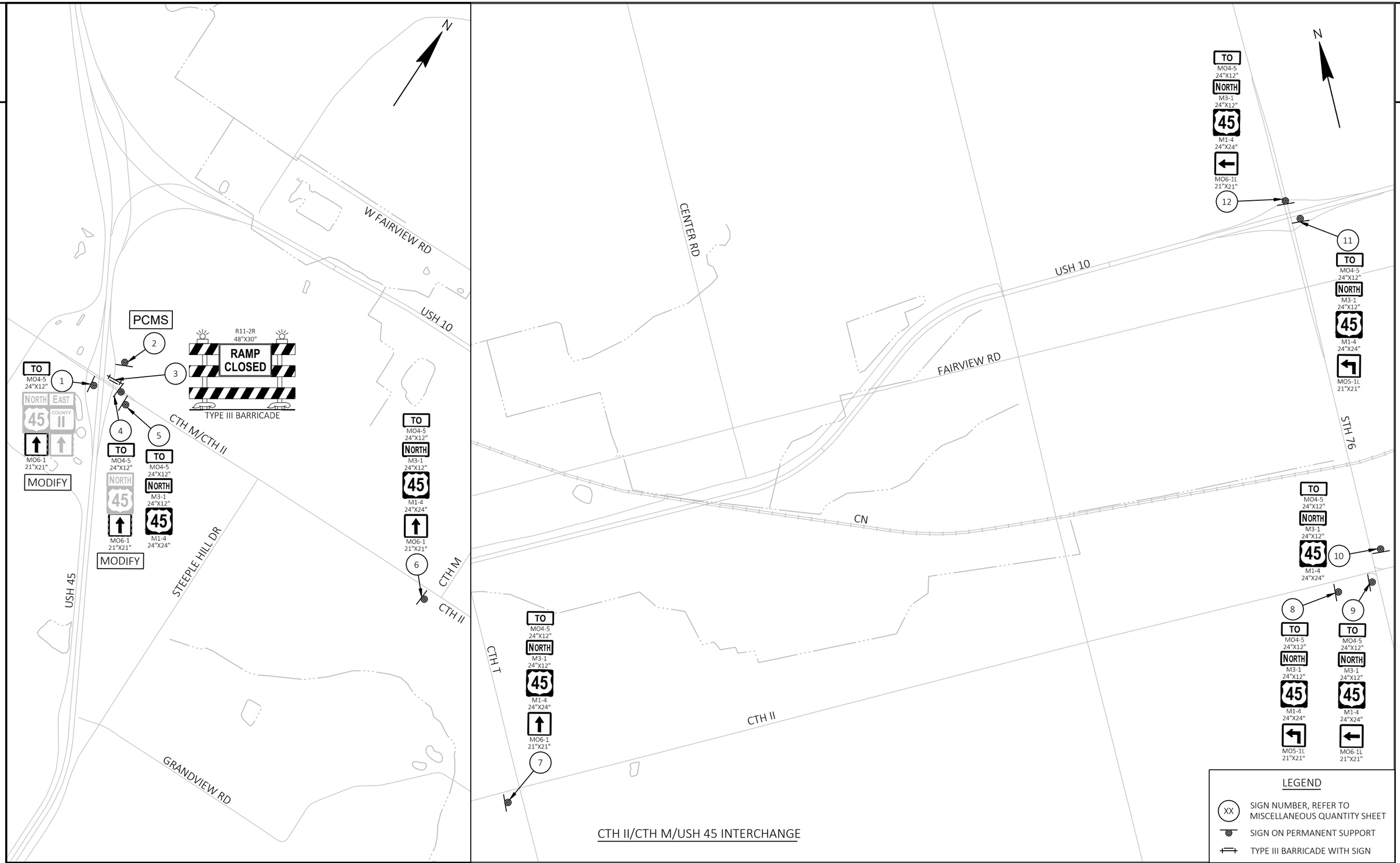
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH II-CTH M-USH 45 NB ON RAMP ROUTE	SHEET 101	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027018-DT.DWG
LAYOUT NAME - 027018-dt

PLOT DATE : 6/18/2026 10:57 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2



CTH II/CTH M/USH 45 INTERCHANGE

LEGEND

- (XX) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH SIGN

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS-CTH II-CTH M-USH 45 NB ON RAMP ROUTE	SHEET 102	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027019-DT.DWG
LAYOUT NAME - 027019-dt

PLOT DATE : 6/18/2026 10:58 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1600

WISDOT/CADDS SHEET 42

2

2

N

WORK ZONE

W FAIRVIEW RD

USH 10

CTH M

MEDINA JUNCTION RD

CTH II

CTH M

USH 45

STEEPLE HILL DR

HICKORY AVE

CENTER RD

OAKWOOD AVE

GRANDVIEW RD

CTH T

CN

FAIRVIEW RD

STH 76

LARSEN RD

CTH II

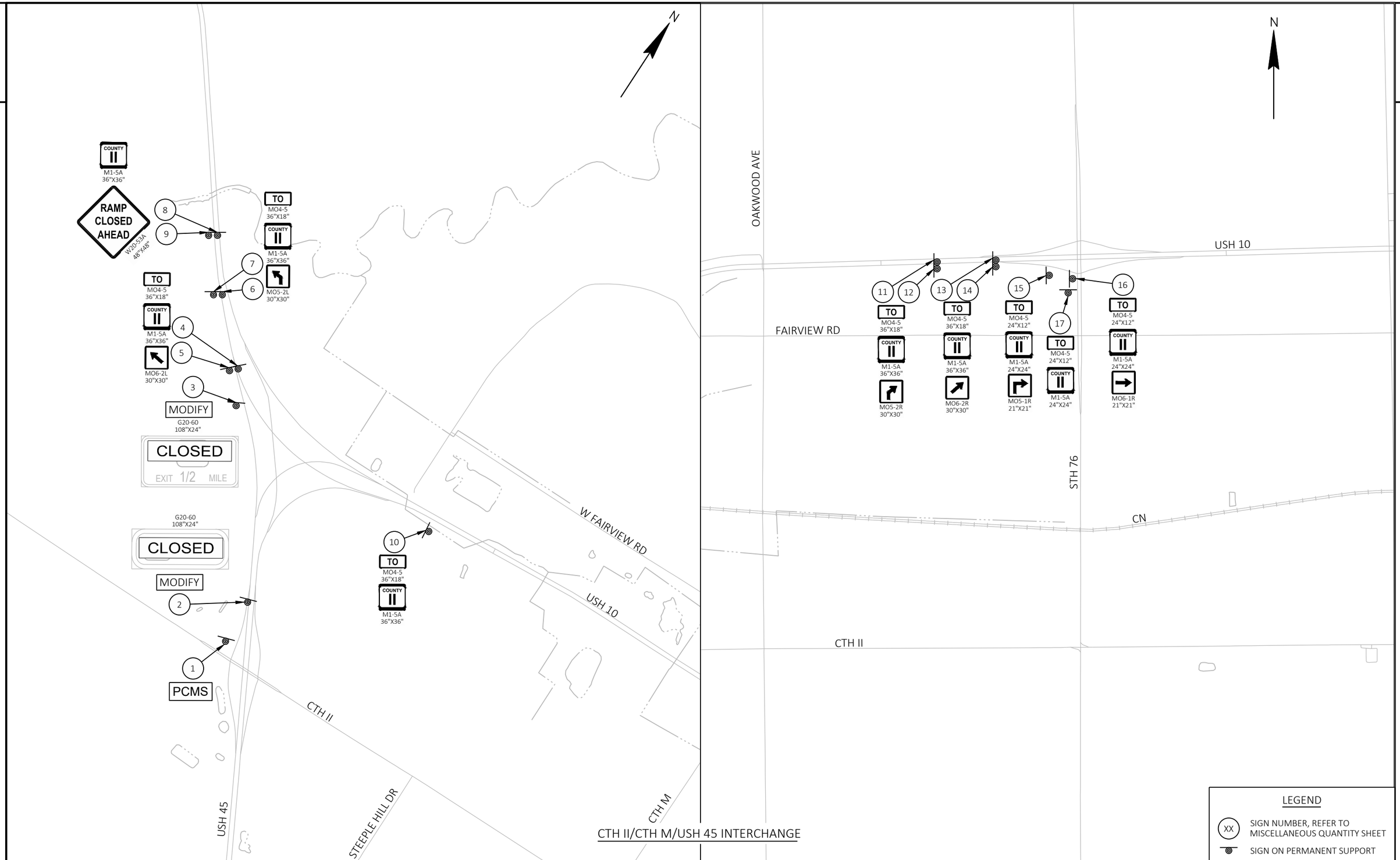
CTH II/CTH M/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH II-CTH M-USH 45 SB OFF RAMP ROUTE	SHEET 103	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027020-DT.DWG
LAYOUT NAME - 027020-dt

PLOT DATE : 6/18/2026 10:59 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42



CTH II/CTH M/USH 45 INTERCHANGE

LEGEND

XX — SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

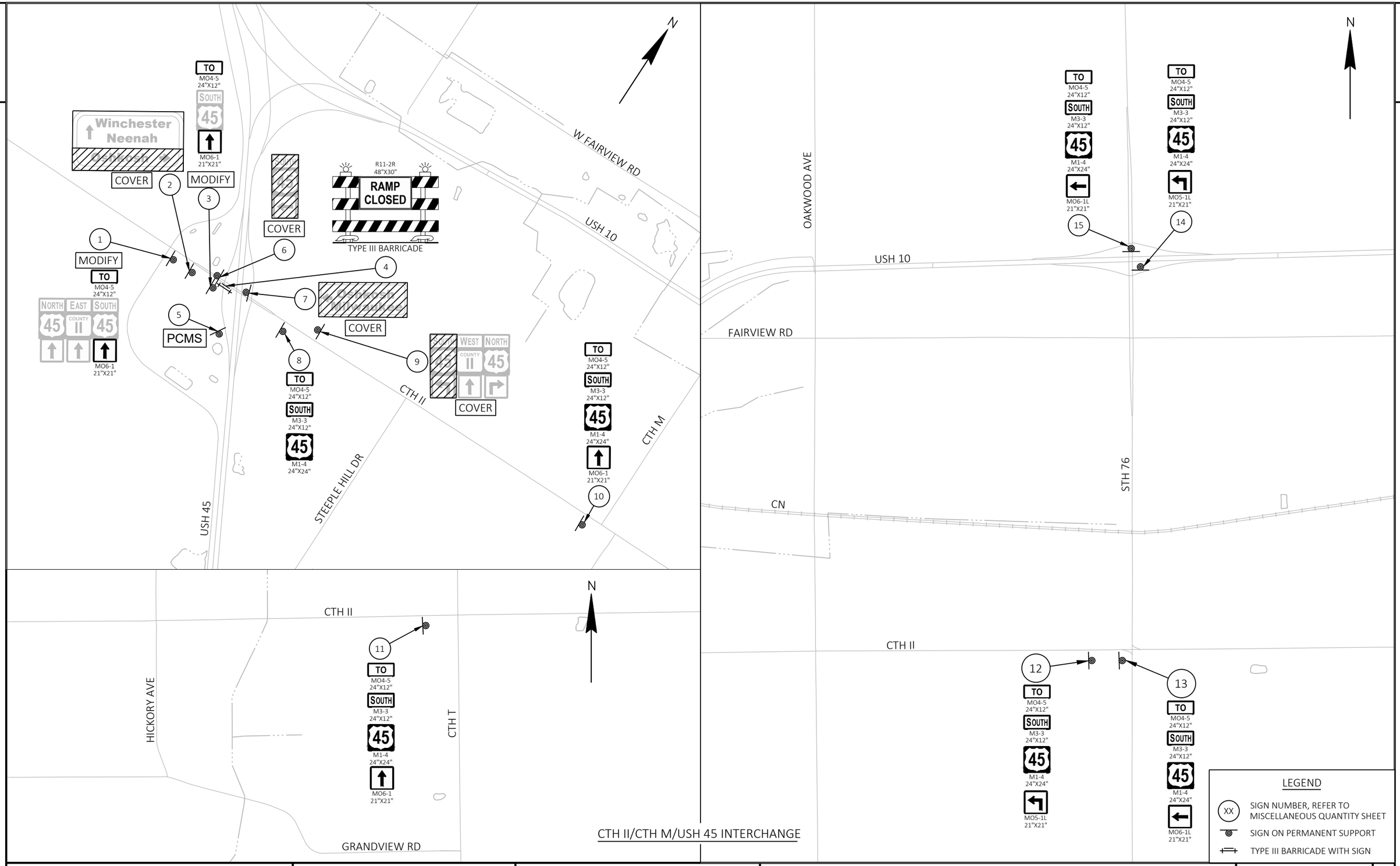
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS-CTH II-CTH M-USH 45 SB OFF RAMP ROUTE	SHEET 104	E

2

CTH II/CTH M/USH 45 INTERCHANGE

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING OVERVIEW-CTH II-CTH M-USH 45 SB ON RAMP ROUTE	SHEET 105	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027022-DT.DWG
LAYOUT NAME - 027022-dt
PLOT DATE : 6/18/2026 11:00 AM
PLOT BY : CRUSE, DEXTER A
PLOT NAME :
PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42



CTH II/CTH M/USH 45 INTERCHANGE

LEGEND

- XX — SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH SIGN

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS-CTH II-CTH M-USH 45 SB ON RAMP ROUTE	SHEET 106	E

FILE NAME : N:\PDS\C3D\62001800\SHEETS\027023-DT.DWG
LAYOUT NAME - 027023-dt

PLOT DATE : 6/18/2026 11:01 AM PLOT BY : CRUSE, DEXTER A PLOT NAME : PLOT SCALE : 1:1500

WISDOT/CADDS SHEET 42

2

2

CURVE 16 SB USH 45
PI STA = 422'SB'+22.59
Y = 492252.493
X = 782192.839
DELTA = 19°40'50"
D = 1°31'26"
T = 652.14'
L = 1291.42'
R = 3759.72'
PC STA = 415'SB'+70.45
Y = 491638.276
X = 782411.974
PT STA = 428'SB'+61.88
Y = 492757.031
X = 781779.652
BK = N19°38'06"W
AH = N39°18'56"W
SE = 3.0%

CURVE 1 NB USH 45
PI STA = 422'NB'+33.02
Y = 492282.456
X = 782245.853
DELTA = 19°40'50"
D = 1°30'00"
T = 662.54'
L = 1312.03'
R = 3819.72'
PC STA = 415'NB'+70.47
Y = 491658.438
X = 782468.485
PT STA = 428'NB'+82.51
Y = 492795.046
X = 781826.072
BK = N19°38'06"W
AH = N39°18'56"W
SE = 2.9%

STA 400+99.51
Y=490252.869
X=782906.248

N19°38'06"W

N39°18'56"W

USH 45 SB

USH 45 NB

USH 45 SB ON RAMP

USH 45 SB OFF RAMP

USH 45 NB OFF RAMP

USH 45 NB ON RAMP

CURVE 16 SB USH 45

CURVE 1 NB USH 45

PC: 415'SB'+70.45

PC: 415'NB'+70.47

PT: 428'SB'+61.88

PT: 428'NB'+82.51

MATCH LINE 425'NB'+50

MATCH LINE 456'NB'+00

CTH T EB

CTH T WB

25' CTH T EB

25' CTH T WB

30' CTH T EB

30' CTH T WB

B-70-212

B-70-214

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 107	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD.DWG
LAYOUT NAME - 027201-ad

PLOT DATE : 8/24/2026 9:26 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 456'NB'+00

155
160
160
460 'SB'
465 'SB'
USH 45 SB
470 'SB'
475 'SB'
480 'SB'
B-70-215
N39°18'56"W
485 'SB'
PC: 484'SB'+12.59
460 'NB'
465 'NB'
470 'NB'
475 'NB'
480 'NB'
B-70-216
N39°18'56"W
485 'NB'
USH 45 NB
160
160
155
PC: 484'NB'+33.22
MATCH LINE 486'NB'+50

CURVE 15 SB USH 45
PI STA = 500'SB'+24.23
Y = 498298.324
X = 777241.659
DELTA = 16°05'41"
D = 0°30'09"
T = 1611.64'
L = 3202.06'
R = 11399.16'
PC STA = 484'SB'+12.59
Y = 497051.445
X = 778262.780
PT STA = 516'SB'+14.65
Y = 499213.253
X = 775914.896
BK = N39°18'56"W
AH = N55°24'36"W
SE = 2.0%

MATCH LINE 486'NB'+50
490 'SB'
495 'SB'
500 'SB'
CURVE 15 SB USH 45
USH 45 SB
505 'SB'
510 'SB'
515 'SB'
PT: 516'SB'+14.65
490 'NB'
495 'NB'
CURVE 2 NB USH 45
500 'NB'
USH 45 NB
505 'NB'
510 'NB'
515 'NB'
PT: 516'NB'+52.13
MATCH LINE 517'NB'+00

CURVE 2 NB USH 45
PI STA = 500'NB'+53.34
Y = 498342.902
X = 777282.704
DELTA = 16°05'41"
D = 0°30'00"
T = 1620.13'
L = 3218.92'
R = 11459.16'
PC STA = 484'NB'+33.22
Y = 497089.460
X = 778309.200
PT STA = 516'NB'+52.13
Y = 499262.647
X = 775948.958
BK = N39°18'56"W
AH = N55°24'36"W
SE = 2.0%

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 108	E

2

2

MATCH LINE 517'NB+00

MATCH LINE 547'NB+50

N55°24'36"W

520 'SB'

525 'SB'

530 'SB'

USH 45 SB

535 'SB'

540 'SB'

545 'SB'

N55°24'36"W

520 'NB'

525 'NB'

530 'NB'

USH 45 NB

535 'NB'

540 'NB'

545 'NB'

N

MATCH LINE 547'NB+50

550 'SB'

555 'SB'

USH 45 SB

N55°24'36"W

560 'SB'

PC: 559'SB+35.78

565 'SB'

B-70-215

15 'BR'

CURVE 14 SB USH 45

570 'SB'

PT: 573'SB+43.89

575 'SB'

N38°02'10"W

550 'NB'

555 'NB'

USH 45 NB

N55°24'36"W

560 'NB'

PC: 559'NB+73.26

565 'NB'

CURVE 3 NB USH 45

570 'NB'

575 'NB'

N38°02'10"W

MATCH LINE 578'NB+00

70 'BR'

25 'BR'

BROOKS RD

PT: 573'NB+63.18

CURVE 3 NB USH 45	
PI STA =	566'NB+73.60
Y =	502113.327
X =	771815.111
DELTA =	17°22'26"
D =	1°15'00"
T =	700.33'
L =	1389.92'
R =	4583.66'
PC STA =	559'NB+73.26
Y =	501715.748
X =	772391.651
PT STA =	573'NB+63.18
Y =	502664.926
X =	771383.596
BK =	N55°24'36"W
AH =	N38°02'10"W
SE =	2.7%

CURVE 14 SB USH 45	
PI STA =	566'SB+45.28
Y =	502069.137
X =	771773.502
DELTA =	17°22'26"
D =	1°14'02"
T =	709.50'
L =	1408.11'
R =	4643.66'
PC STA =	559'SB+35.78
Y =	501666.354
X =	772357.589
PT STA =	573'SB+43.89
Y =	502627.956
X =	771336.338
BK =	N55°24'36"W
AH =	N38°02'10"W
SE =	2.7%

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 109	E

2

2

CURVE 13 SB USH 45
PI STA = 597'SB'+14.92
Y = 504495.432
X = 769875.412
DELTA = 44°05'58"
D = 1°16'00"
T = 1832.25'
L = 3481.78'
R = 4523.66'
PC STA = 578'SB'+82.67
Y = 503052.310
X = 771004.366
PT STA = 613'SB'+64.45
Y = 504746.137
X = 768060.396
BK = N38°02'10"W
AH = N82°08'08"W
SE = 2.7%

CURVE 4 NB USH 45
PI STA = 597'NB'+58.51
Y = 504551.542
X = 769907.696
DELTA = 44°05'58"
D = 1°15'00"
T = 1856.55'
L = 3527.96'
R = 4583.66'
PC STA = 579'NB'+01.96
Y = 503089.280
X = 771051.624
PT STA = 614'NB'+29.92
Y = 504805.573
X = 768068.606
BK = N38°02'10"W
AH = N82°08'08"W
SE = 2.7%

MATCH LINE 578'NB'+00

PC: 578'SB'+82.67

PC: 579'NB'+01.96

SKELETON BRIDGE RD

LIS SK

B-70-219

B-70-220

580 'SB'

580 'NB'

585 'SB'

585 'NB'

590 'SB'

590 'NB'

595 'SB'

595 'NB'

600 'SB'

600 'NB'

605 'SB'

605 'NB'

USH 45 SB

USH 45 NB

CURVE 13 SB USH 45

CURVE 4 NB USH 45

N

MATCH LINE 608'NB'+50

MATCH LINE 639'NB'+00

PT: 613'SB'+64.45

PT: 614'NB'+29.92

PC: 633'SB'+33.94

PC: 633'NB'+99.41

610 'SB'

610 'NB'

615 'SB'

615 'NB'

620 'SB'

620 'NB'

625 'SB'

625 'NB'

630 'SB'

630 'NB'

635 'SB'

635 'NB'

N82°08'08"W

USH 45 SB

USH 45 NB

KOLB RD

N

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 110	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD.DWG
LAYOUT NAME - 027204-ad

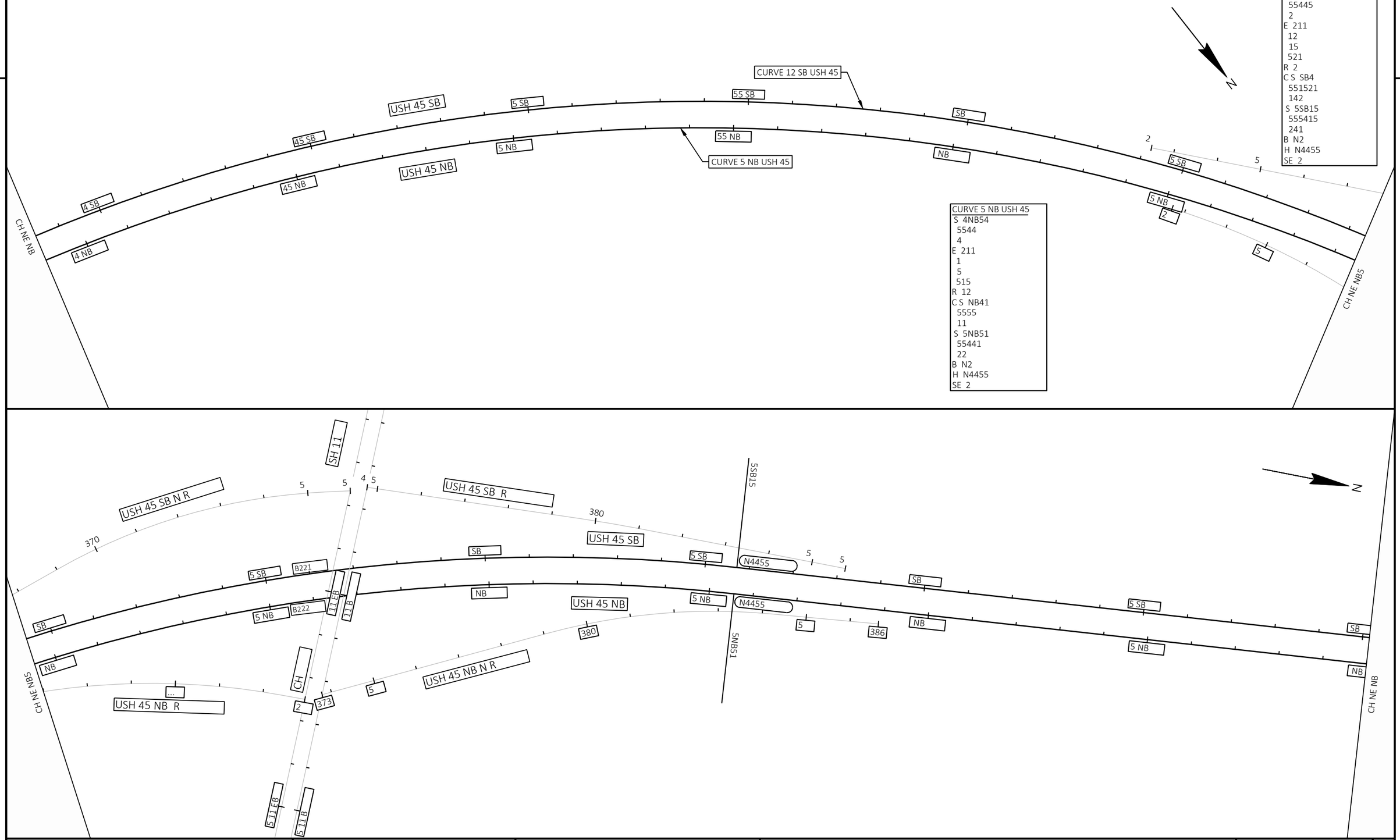
PLOT DATE : 8/24/2026 9:27 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

CURVE 12 SB USH 45
S 4SB
55445
2
E 211
12
15
521
R 2
C S SB4
551521
142
S 5SB15
555415
241
B N2
H N4455
SE 2

CURVE 5 NB USH 45
S 4NB54
5544
4
E 211
1
5
515
R 12
C S NB41
5555
11
S 5NB51
55441
22
B N2
H N4455
SE 2



REC N 21	HĀĀĀ USH 45	CUN NNEB	NEN	SHEE` 111 E

E NE RECSNNEB21 USH 45 2ESNCN SHEES221 U NE 225 E 2422 2 B N BC NE SCE 1 N2 SCS SHEE 44

2

2

CURVE 11 SB USH 45
PI STA = 728'SB'+41.10
Y = 512789.801
X = 762418.161
DELTA = 33°44'20"
D = 2°34'02"
T = 676.78'
L = 1314.22'
R = 2231.83'
PC STA = 721'SB'+64.32
Y = 512115.376
X = 762474.581
PT STA = 734'SB'+78.54
Y = 513319.302
X = 761996.661
BK = N04°46'55"W
AH = N38°31'15"W
SE = 3.7%

CURVE 6 NB USH 45
PI STA = 728'NB'+43.76
Y = 512812.934
X = 762476.435
DELTA = 33°44'20"
D = 2°30'00"
T = 694.98'
L = 1349.55'
R = 2291.83'
PC STA = 721'NB'+48.78
Y = 512120.378
X = 762534.372
PT STA = 734'NB'+98.34
Y = 513356.670
X = 762043.604
BK = N04°46'55"W
AH = N38°31'15"W
SE = 3.7%

N

MATCH LINE 700'NB'+00

MATCH LINE 730'NB'+50

N4°46'55"W

705 'SB'

710 'SB'

715 'SB'

USH 45 SB

720 'SB'

725 'SB'

730 'SB'

705 'NB'

710 'NB'

715 'NB'

USH 45 NB

720 'NB'

725 'NB'

730 'NB'

PC: 721'SB'+64.32

PC: 721'NB'+48.78

CURVE 11 SB USH 45

CURVE 6 NB USH 45

N

MATCH LINE 730'NB'+50

MATCH LINE 761'NB'+00

N38°31'15"W

735 'SB'

740 'SB'

745 'SB'

750 'SB'

755 'SB'

760 'SB'

735 'NB'

740 'NB'

745 'NB'

750 'NB'

755 'NB'

760 'NB'

USH 45 SB

USH 45 NB

PT: 734'SB'+78.54

PT: 734'NB'+98.34

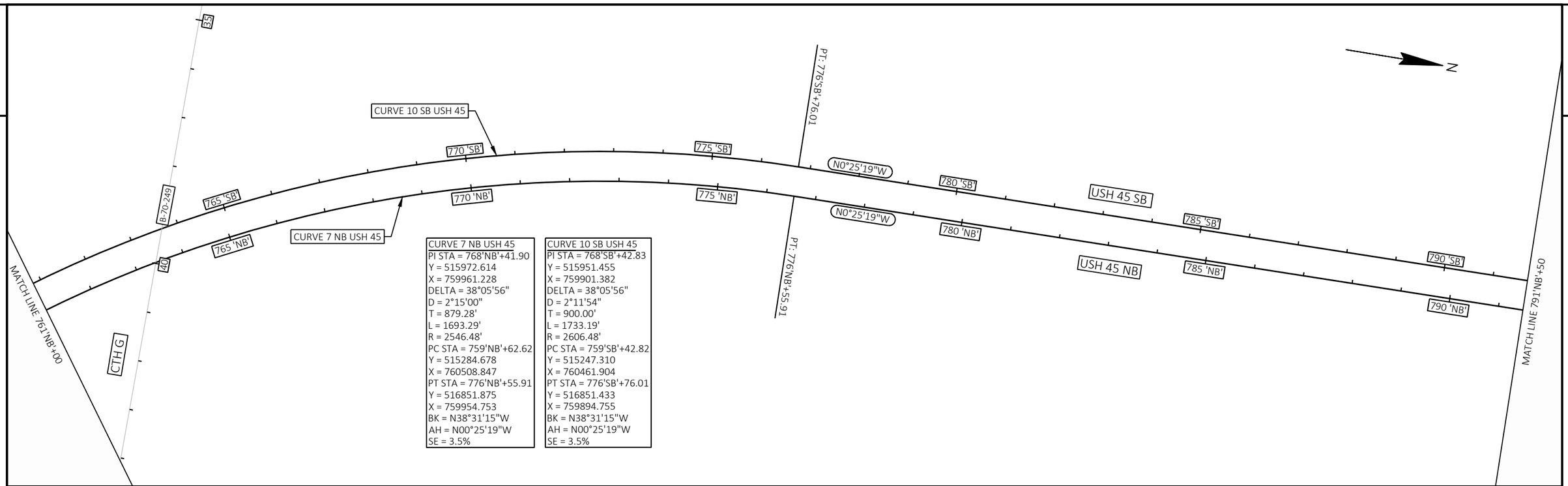
PC: 759'SB'+42.82

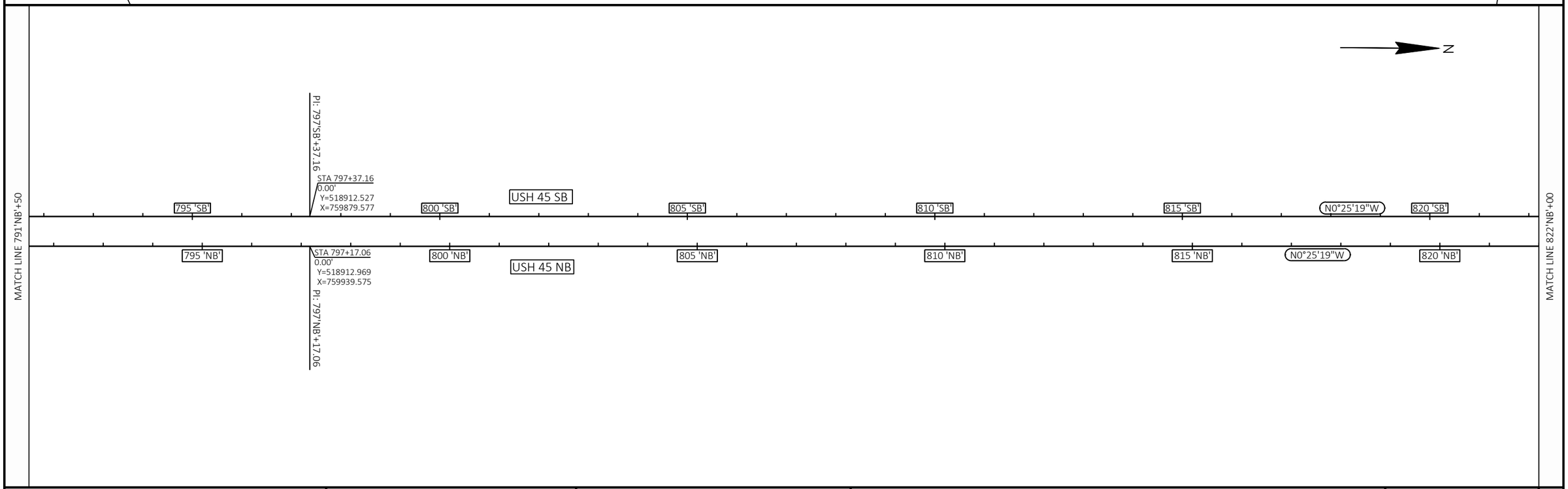
PC: 759'NB'+62.62

45

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 112	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD.DWG
LAYOUT NAME - 027206-ad
PLOT DATE : 8/24/2026 9:27 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 113	E

2

MATCH LINE 822'NB+00

N

WOODLAND RD

PI: 842'SB+08.73

STA 842+08.73
0.00'
Y=523383.978
X=759846.647

20' BREE

USH 45 SB

825 'SB' 830 'SB' 835 'SB' 840 'SB' 845 'SB' N0°06'15"W 850 'SB'

825 'NB' 830 'NB' 835 'NB' 840 'NB' 845 'NB' N0°06'15"W 850 'NB'

USH 45 NB

STA 841+88.46
0.00'
Y=523384.250
X=759906.647

B-70-309

PI: 841'NB+88.46

BREEZEWOOD LN

25' BREE

MATCH LINE 852'NB+50

2

MATCH LINE 852'NB+50

N

PI: 864'SB+28.38

STA 864+28.38
0.00'
Y=525603.625
X=759842.612

855 'SB' 860 'SB' 865 'SB' 870 'SB' B-70-139 N0°13'02"E 875 'SB' 880 'SB'

USH 45 SB

PI: 882'SB+30.15

STA 882+30.15
0.00'
Y=527405.375
X=759849.447

855 'NB' 860 'NB' 865 'NB' 870 'NB' B-70-244 N0°13'02"E 875 'NB' 880 'NB'

USH 45 NB

STA 864+07.78
0.00'
Y=525603.567
X=759902.612

PI: 864'NB+07.78

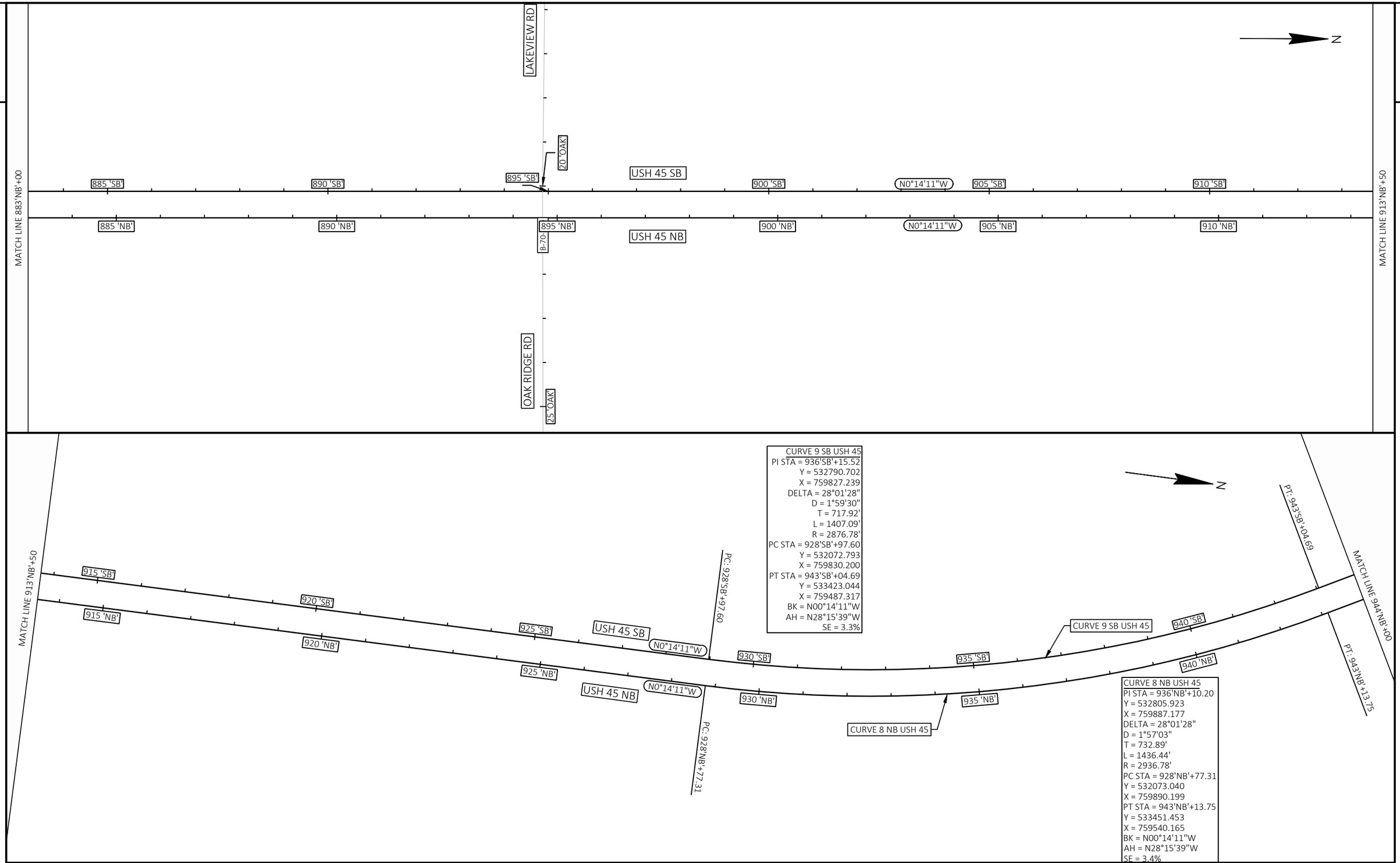
STA 882+09.61
0.00'
Y=527405.380
X=759909.447

PI: 882'NB+09.61

MATCH LINE 883'NB+00

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 114	E

2



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 115	E

2

MATCH LINE 944'NB'+00

N

40

45' GR

945 'SB'

N28°15'39"W

950 'SB'

USH 45 SB

955 'SB'

960 'SB'

965 'SB'

970 'SB'

945 'NB'

N28°15'39"W

B-70-311

950 'NB'

USH 45 NB

955 'NB'

960 'NB'

965 'NB'

970 'NB'

GRANDVIEW RD

50' GR

MATCH LINE 974'NB'+50

2

MATCH LINE 974'NB'+50

N

435

USH 45 SB ON RAMP

430

425

975 'SB'

980 'SB'

USH 45 SB

985 'SB'

N28°15'39"W

990 'SB'

995 'SB'

1000 'SB'

975 'NB'

980 'NB'

USH 45 NB

985 'NB'

N28°15'39"W

990 'NB'

995 'NB'

426

1000 'NB'

1005 'NB'

430

USH 45 NB OFF RAMP

435

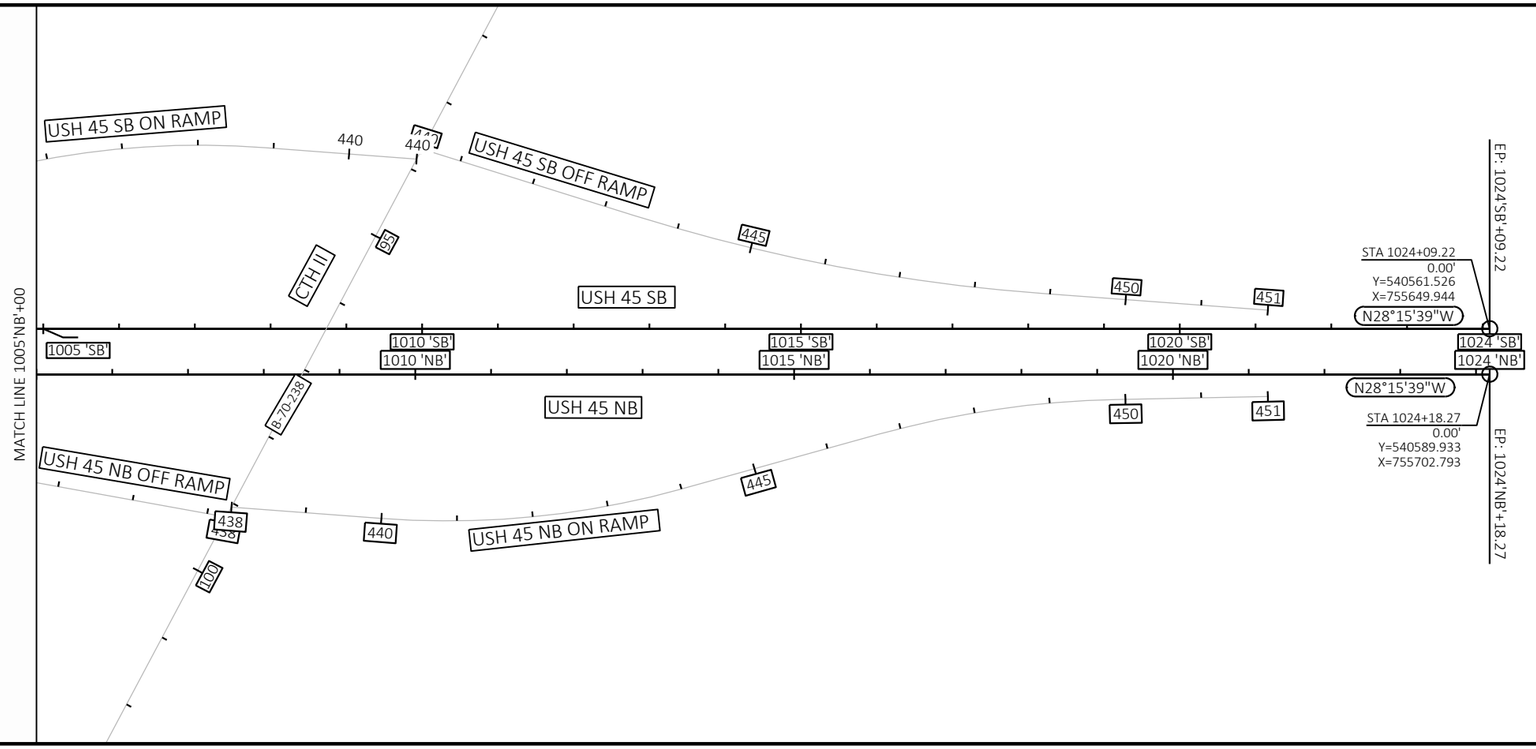
MATCH LINE 1005'NB'+00

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 116	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD.DWG
LAYOUT NAME - 027210-ad

PLOT DATE : 8/24/2026 9:28 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



2

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 117	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD.DWG
LAYOUT NAME - 027211-ad
PLOT DATE : 8/24/2026 9:28 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

2

CURVE 1 USH 45 SB ON RAMP 425
PI STA = 428+79.77
Y = 538253.369
X = 756849.525
DELTA = 14°20'28"
D = 4°17'50"
T = 167.74'
L = 333.73'
R = 1333.32'
PC STA = 427+12.03
Y = 538107.252
X = 756931.910
PT STA = 430+45.76
Y = 538374.526
X = 756733.514
BK = N29°24'56"W
AH = N43°45'25"W

CURVE 2 USH 45 SB ON RAMP 425
PI STA = 436+93.47
Y = 538842.354
X = 756285.559
DELTA = 19°48'03"
D = 5°00'00"
T = 200.00'
L = 396.02'
R = 1145.91'
PC STA = 434+93.47
Y = 538697.896
X = 756423.881
PT STA = 438+89.49
Y = 539025.128
X = 756204.351
BK = N43°45'25"W
AH = N23°57'21"W

CURVE USH 45 SB OFF RAMP 451
PI STA = 446+16.60
Y = 539767.547
X = 756000.660
DELTA = 13°09'20"
D = 2°23'42"
T = 275.85'
L = 549.28'
R = 2392.26'
PC STA = 443+40.75
Y = 539496.647
X = 756052.699
PT STA = 448+90.03
Y = 540019.492
X = 755888.330
BK = N10°52'26"W
AH = N24°01'46"W

MATCH LINE 994'NB+02.77

BP: 425+12.00
PC: 427+12.03
PT: 430+45.76
CURVE 1 USH 45 SB ON RAMP 425
SE = 4.0%
USH 45 SB ON RAMP
N43°45'25"W
PC: 434+93.47
CURVE 2 USH 45 SB ON RAMP 425
SE = 4.0%
PT: 438+89.49
EP: 440+89.47
BP: 440+46.58
STA 440+89.47
0.00'
Y=539207.885
X=756123.151
STA 440+46.58
0.00' LT
Y=539207.759
X=756108.194
N23°57'21"W
USH 45 SB OFF RAMP
N10°52'26"W
PC: 443+40.75
CURVE USH 45 SB OFF RAMP 451
SE = 3.6%
PT: 448+90.03
EP: 451+88.28
STA 451+88.28
0.00'
Y=540291.893
X=755766.882
N24°01'46"W
CTH II
USH 45 SB
995 'SB'
995 'NB'
1000 'SB'
1000 'NB'
1005 'SB'
1005 'NB'
1010 'SB'
1010 'NB'
1015 'SB'
1015 'NB'
1020 'SB'
1020 'NB'
1024 'SB'
1024 'NB'
N24°07'40"W
STA 426+12.00
0.00' RT
Y=538075.571
X=757084.690
BP: 426+12.00
PC: 429+10.76
CURVE USH 45 NB OFF RAMP 426
SE = 2.8%
PT: 433+47.30
N17°59'03"W
USH 45 NB OFF RAMP
STA 438+25.38
0.00'
Y=539210.145
X=756658.189
BP: 438+01.71
EP: 438+25.38
N23°56'24"W
STA 438+01.71
0.00' RT
Y=539210.080
X=756643.190
PC: 440+01.70
CURVE 1 USH 45 NB ON RAMP 451
SE = 4.0%
USH 45 NB
N43°44'26"W
PT: 443+97.70
USH 45 NB ON RAMP
PC: 446+71.63
CURVE 2 USH 45 NB ON RAMP 451
SE = 4.0%
PT: 449+87.94
N29°23'58"W
EP: 451+87.97
STA 451+87.97
0.00'
Y=540345.695
X=755867.056

CURVE USH 45 NB OFF RAMP 426
PI STA = 431+29.24
Y = 538547.620
X = 756873.256
DELTA = 6°08'37"
D = 1°24'26"
T = 218.48'
L = 436.54'
R = 4071.15'
PC STA = 429+10.76
Y = 538348.230
X = 756962.564
PT STA = 433+47.30
Y = 538755.422
X = 756805.800
BK = N24°07'40"W
AH = N17°59'03"W

CURVE 1 USH 45 NB ON RAMP 451
PI STA = 442+01.70
Y = 539575.655
X = 756480.882
DELTA = 19°48'01"
D = 5°00'00"
T = 200.00'
L = 396.01'
R = 1145.91'
PC STA = 440+01.70
Y = 539392.864
X = 756562.038
PT STA = 443+97.70
Y = 539720.149
X = 756342.606
BK = N23°56'24"W
AH = N43°44'26"W

CURVE 2 USH 45 ON RAMP 451
PI STA = 448+30.61
Y = 540032.917
X = 756043.295
DELTA = 14°20'27"
D = 4°32'02"
T = 158.98'
L = 316.30'
R = 1263.72'
PC STA = 446+71.63
Y = 539918.055
X = 756153.215
PT STA = 449+87.94
Y = 540171.426
X = 755965.250
BK = N43°44'26"W
AH = N29°23'58"W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 118	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD RAMPS.DWG
LAYOUT NAME - 027221-ad
PLOT DATE : 8/24/2026 9:29 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

2

CURVE USH 45 SB ON RAMP 362
PI STA = 372+27.14
Y = 507271.061
X = 762862.751
DELTA = 26°56'31"
D = 4°15'00"
T = 322.94'
L = 633.93'
R = 1348.14'
PC STA = 369+04.20
Y = 507026.044
X = 763073.121
PT STA = 375+38.13
Y = 507584.801
X = 762786.227
BK = N40°38'57"W
AH = N13°42'26"W

CURVE USH 45 SB OFF RAMP 385
PI STA = 380+34.85
Y = 508235.271
X = 762730.330
DELTA = 2°37'16"
D = 2°00'00"
T = 65.54'
L = 131.06'
R = 2864.79'
PC STA = 379+69.31
Y = 508169.806
X = 762733.480
PT STA = 381+00.37
Y = 508300.813
X = 762730.177
BK = N02°45'18"W
AH = N00°08'02"W

CURVE USH 45 NB OFF RAMP 362
PI STA = 368+04.13
Y = 507116.012
X = 763262.859
DELTA = 31°33'17"
D = 3°30'00"
T = 462.53'
L = 901.56'
R = 1637.02'
PC STA = 363+41.60
Y = 506725.003
X = 763509.934
PT STA = 372+43.16
Y = 507578.504
X = 763256.936
BK = N32°17'18"W
AH = N00°44'02"W

CURVE USH 45 NB ON RAMP 386
PI STA = 381+67.22
Y = 508374.861
X = 762888.526
DELTA = 20°31'24"
D = 4°00'00"
T = 259.32'
L = 513.08'
R = 1432.39'
PC STA = 379+07.90
Y = 508142.419
X = 763003.490
PT STA = 384+20.98
Y = 508632.855
X = 762862.349
BK = N26°19'00"W
AH = N05°47'36"W

STA 362+47.90
0.00' RT
Y=506528.102
X=763500.652

STA 362+70.20
0.00' RT
Y=506664.646
X=763548.077

STA 372+96.24
0.00'
Y=507631.581
X=763256.256

STA 373+78.57
0.00' RT
Y=507667.955
X=763238.159

STA 374+76.60
0.00'
Y=507677.665
X=762757.163

STA 375+96.30
0.00'
Y=507641.313
X=762772.444

STA 385+76.91
0.00'
Y=508777.351
X=762729.064

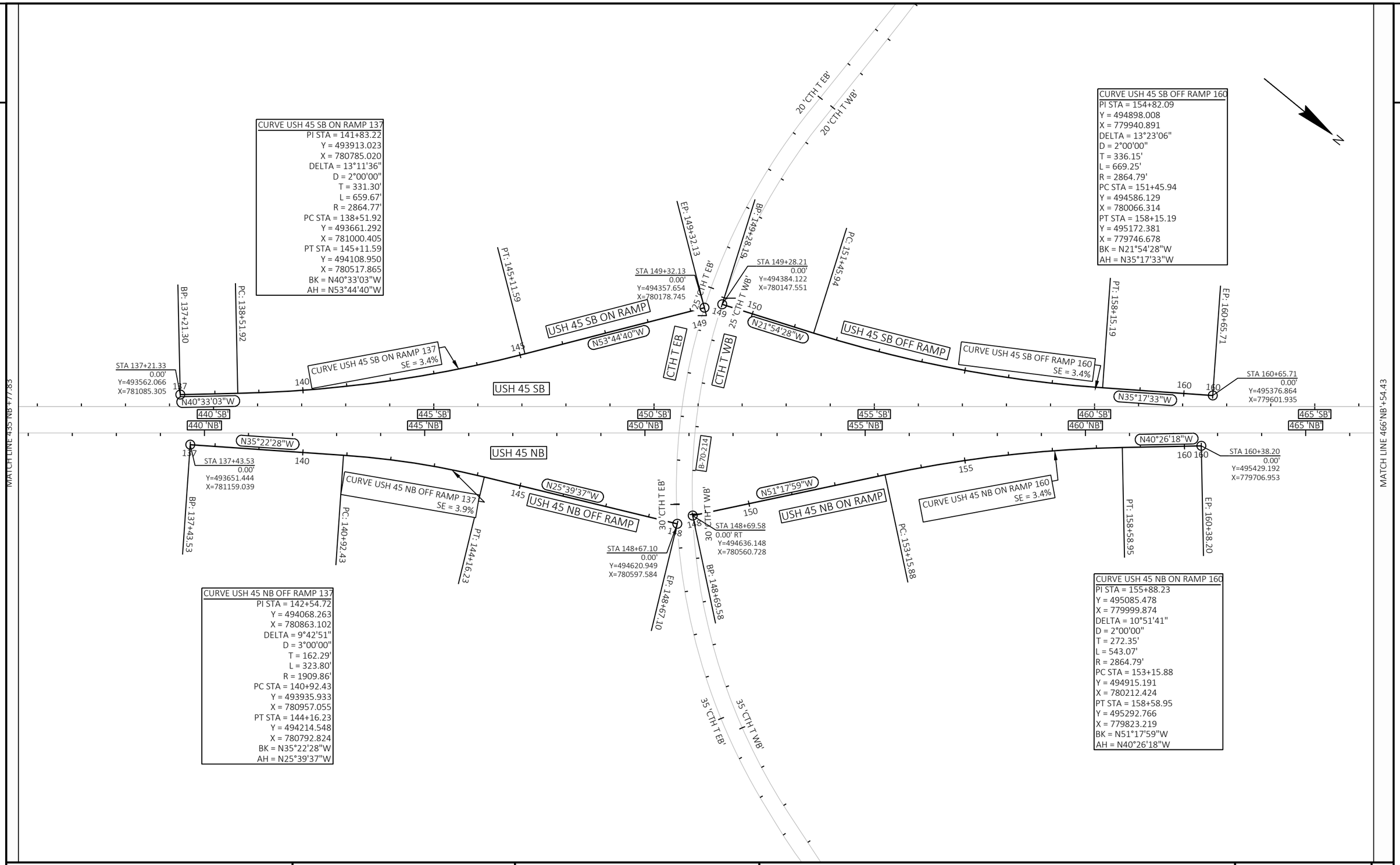
STA 386+64.57
0.00'
Y=508875.201
X=762837.761

USH 45 SB ON RAMP
USH 45 SB OFF RAMP
USH 45 NB OFF RAMP
USH 45 NB ON RAMP
USH 45 SB
USH 45 NB
STH 116
CTH GG
CURVE USH 45 NB OFF RAMP 362 SE = 4.0%
CURVE USH 45 SB ON RAMP 362 SE = 4.0%
CURVE USH 45 SB OFF RAMP 385 SE = 3.4%
CURVE USH 45 NB ON RAMP 386 SE = 4.0%
BP: 362+47.90
PC: 369+04.20
PT: 375+38.13
EP: 375+96.30
BP: 373+78.57
PC: 379+07.90
PT: 381+00.37
PC: 379+69.31
EP: 385+76.91
PT: 384+20.98
EP: 386+64.57
BP: 362+70.20
PC: 363+41.60
PT: 372+43.16
EP: 372+96.24
N40°38'57"W
N13°42'26"W
N2°45'18"W
N0°08'02"W
N0°44'02"W
N32°17'18"W
N26°19'00"W
N5°47'36"W
B-70-221
B-70-222
670 'SB'
670 'NB'
675 'SB'
675 'NB'
680 'SB'
680 'NB'
685 'SB'
685 'NB'
690 'SB'
690 'NB'
665 'SB'
665 'NB'
660 'SB'
60 'NB'
75' 116 EB
75' 116 WB
80' 116 EB
80' 116 WB
60' 116 EB
60' 116 WB
91' 116 EB
91' 116 WB
MATCH LINE 659'NB'+71.03
MATCH LINE 691'NB'+

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 119	E

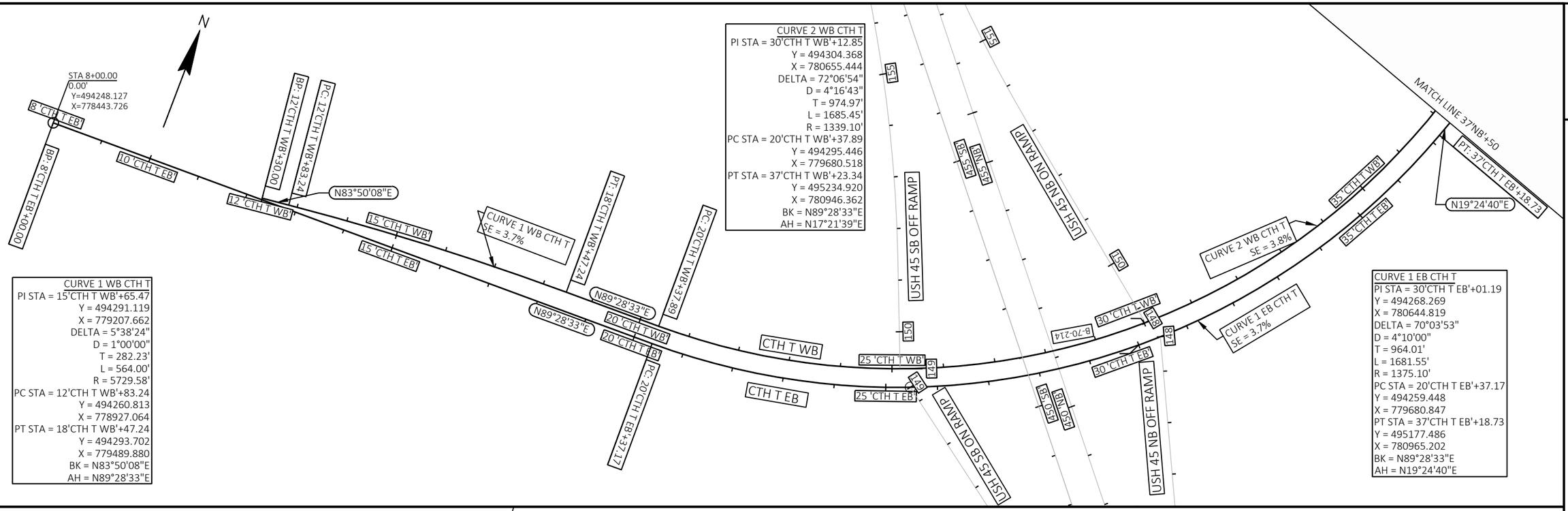
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD RAMPS.DWG
LAYOUT NAME - 027222-ad
PLOT DATE : 8/24/2026 9:29 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

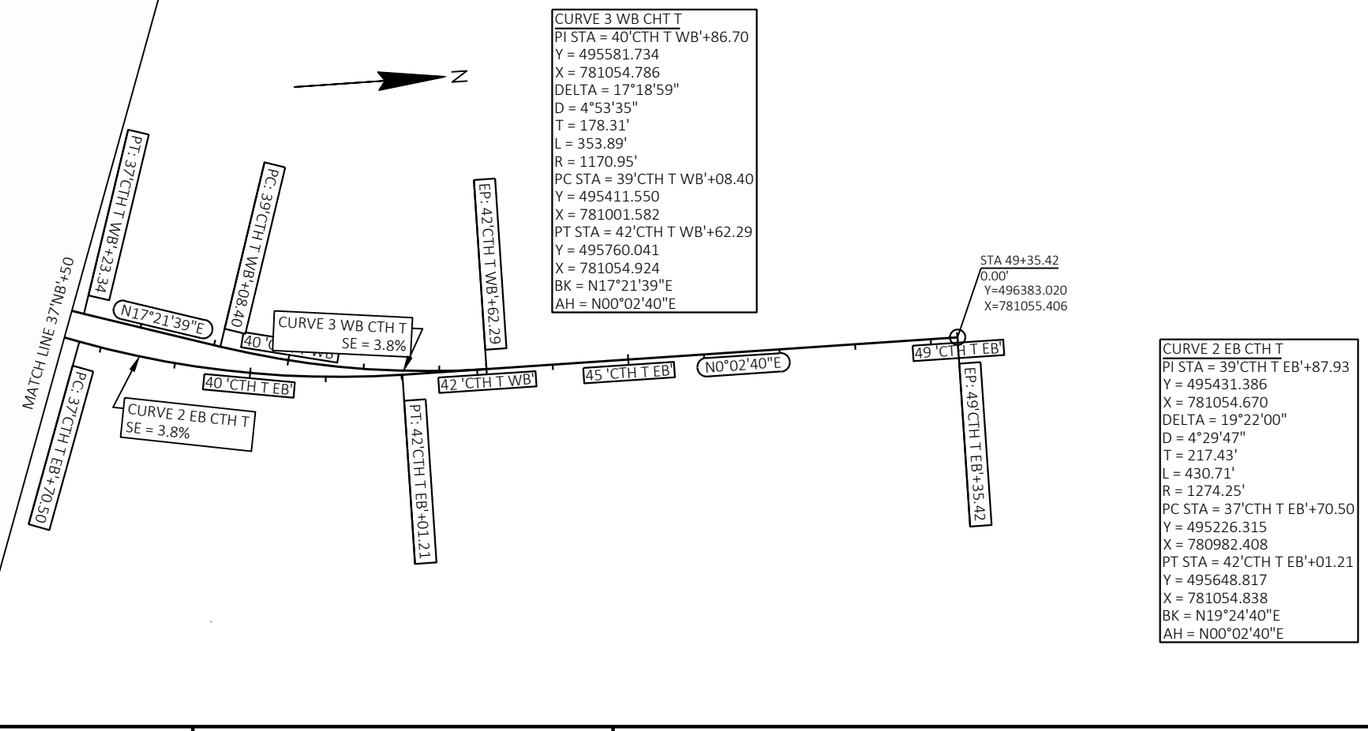
2



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 120	E

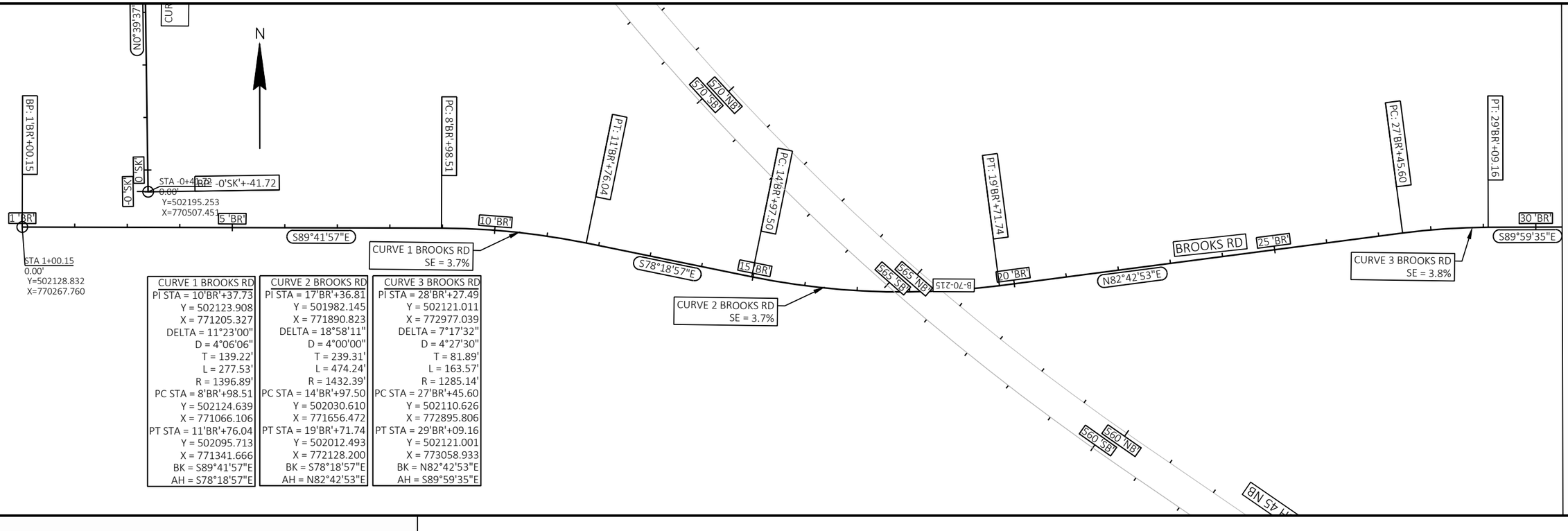
2



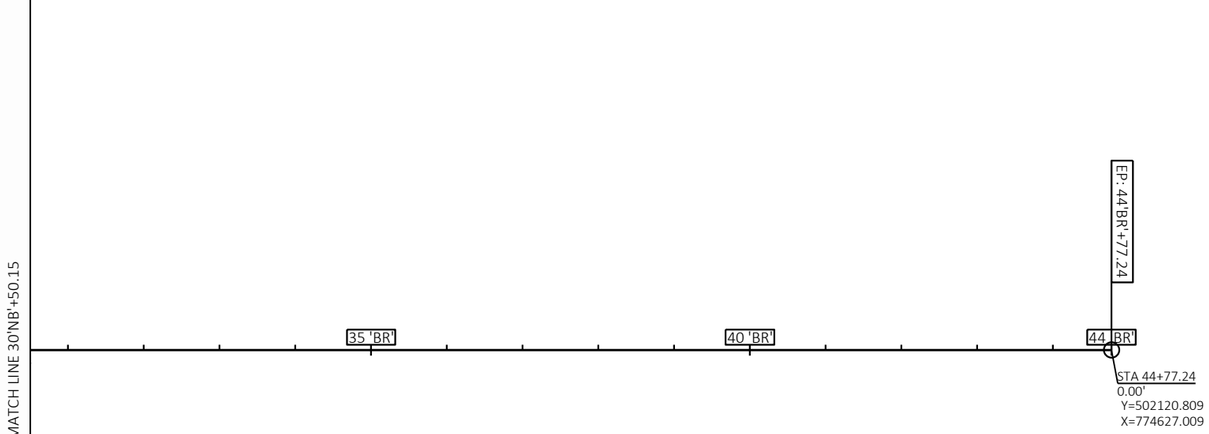


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 121	E

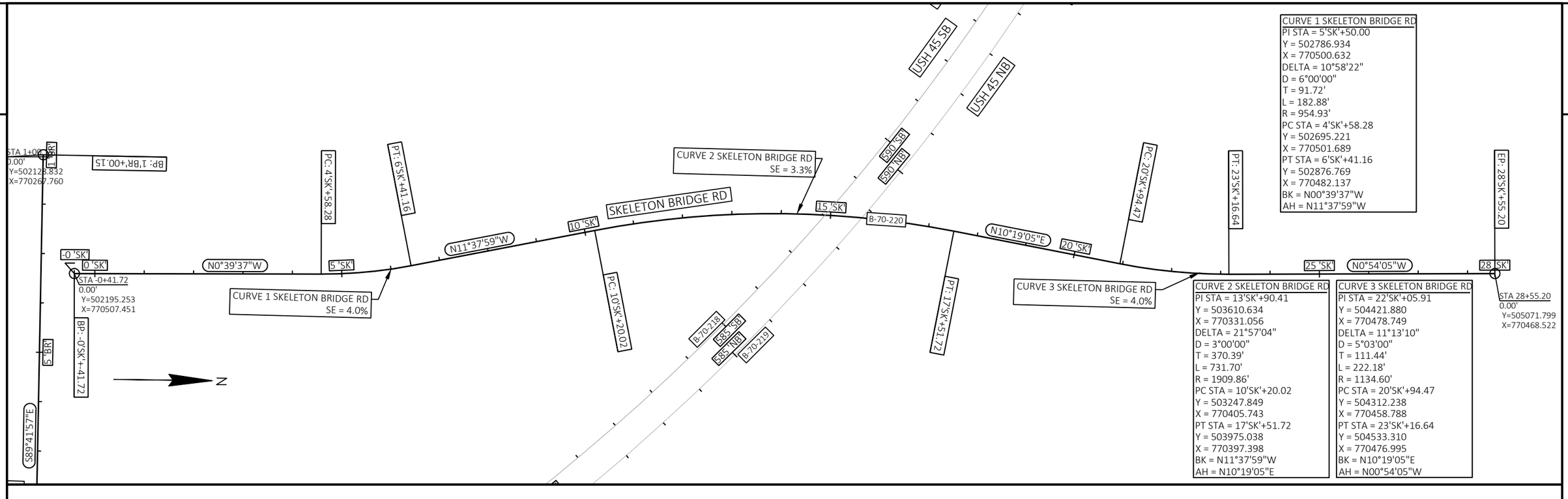
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\027201-AD SIDE ROADS.DWG
LAYOUT NAME - 027212-ad
PLOT DATE : 8/24/2026 9:30 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:200 FT



CURVE 1 BROOKS RD	CURVE 2 BROOKS RD	CURVE 3 BROOKS RD
PI STA = 10'BR'+37.73	PI STA = 17'BR'+36.81	PI STA = 28'BR'+27.49
Y = 502123.908	Y = 501982.145	Y = 502121.011
X = 771205.327	X = 771890.823	X = 772977.039
DELTA = 11°23'00"	DELTA = 18°58'11"	DELTA = 7°17'32"
D = 4°06'06"	D = 4°00'00"	D = 4°27'30"
T = 139.22'	T = 239.31'	T = 81.89'
L = 277.53'	L = 474.24'	L = 163.57'
R = 1396.89'	R = 1432.39'	R = 1285.14'
PC STA = 8'BR'+98.51	PC STA = 14'BR'+97.50	PC STA = 27'BR'+45.60
Y = 502124.639	Y = 502030.610	Y = 502110.626
X = 771066.106	X = 771656.472	X = 772895.806
PT STA = 11'BR'+76.04	PT STA = 19'BR'+71.74	PT STA = 29'BR'+09.16
Y = 502095.713	Y = 502012.493	Y = 502121.001
X = 771341.666	X = 772128.200	X = 773058.933
BK = S89°41'57"E	BK = S78°18'57"E	BK = N82°42'53"E
AH = S78°18'57"E	AH = N82°42'53"E	AH = S89°59'35"E



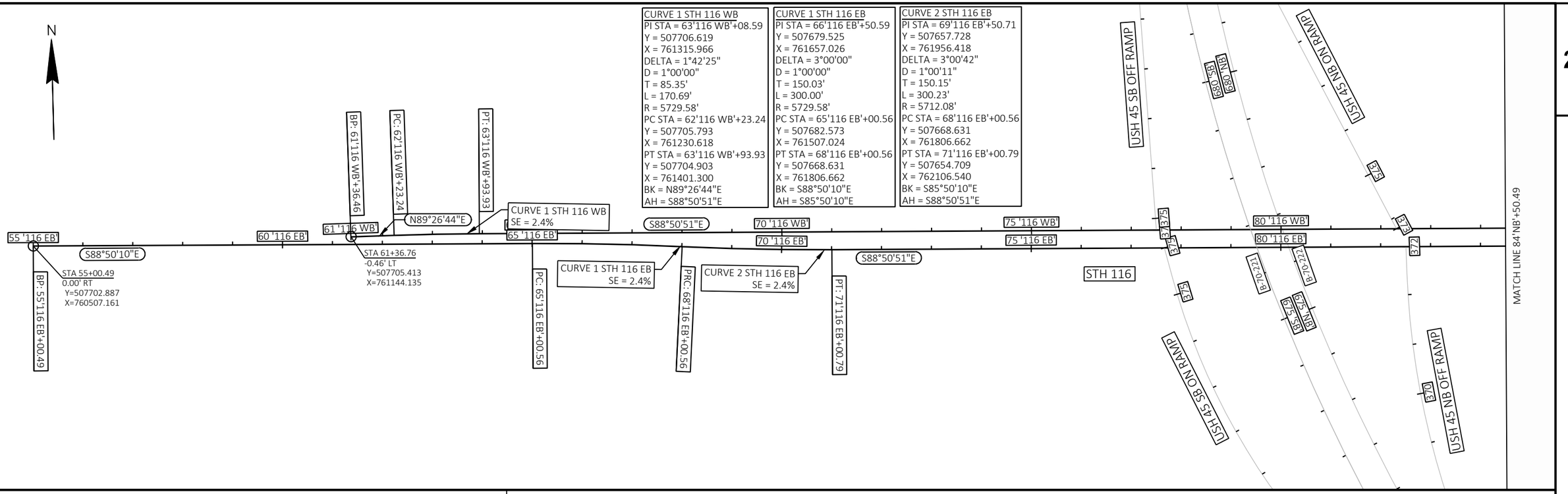
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 122	E

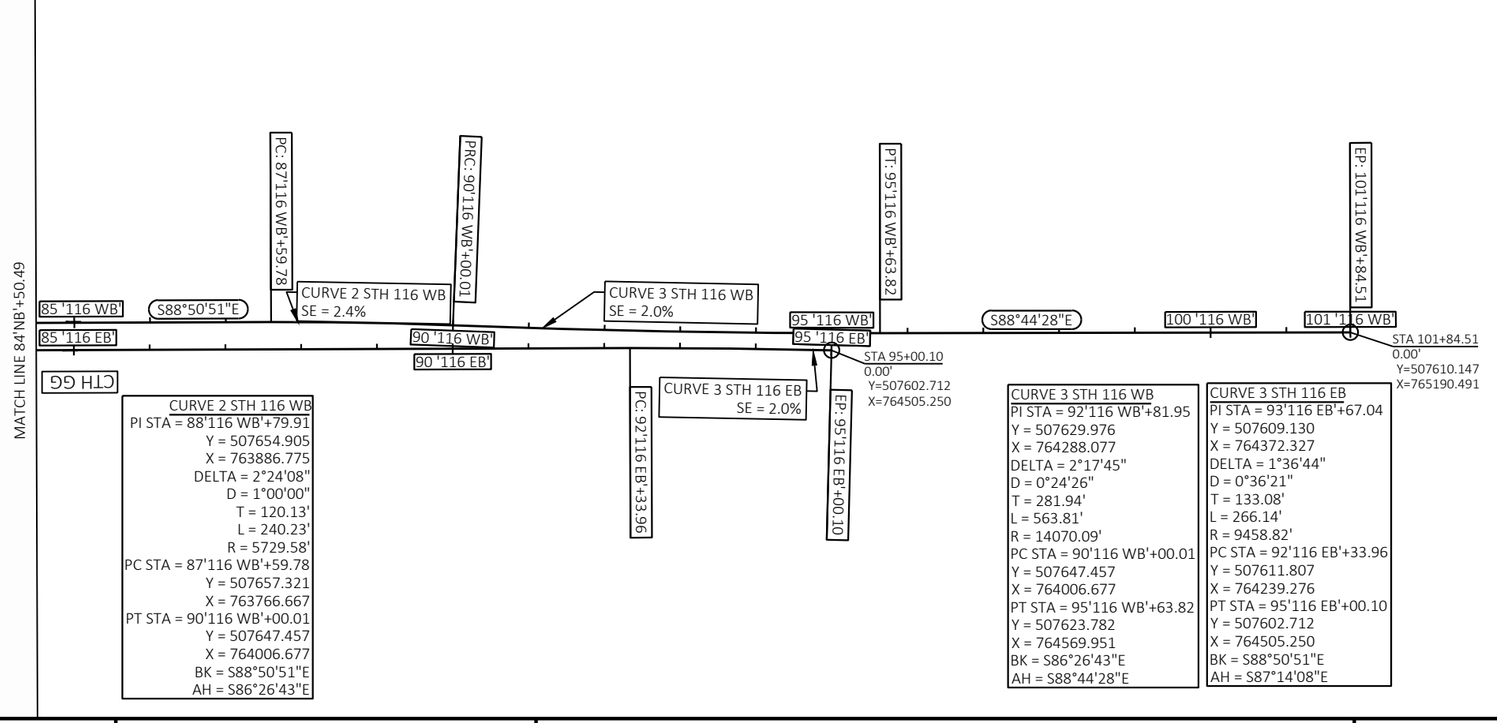


CURVE 1 SKELETON BRIDGE RD
PI STA = 5'SK'+50.00
Y = 502786.934
X = 770500.632
DELTA = 10°58'22"
D = 6°00'00"
T = 91.72'
L = 182.88'
R = 954.93'
PC STA = 4'SK'+58.28
Y = 502695.221
X = 770501.689
PT STA = 6'SK'+41.16
Y = 502876.769
X = 770482.137
BK = N00°39'37"W
AH = N11°37'59"W

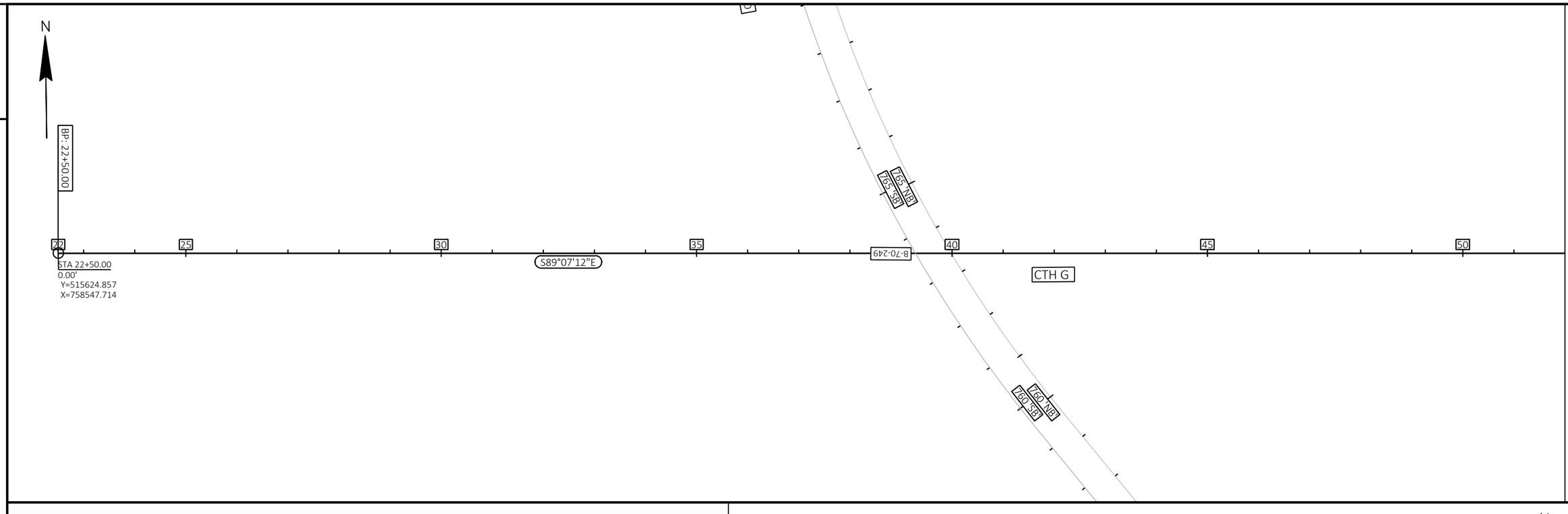
CURVE 2 SKELETON BRIDGE RD
PI STA = 13'SK'+90.41
Y = 503610.634
X = 770331.056
DELTA = 21°57'04"
D = 3°00'00"
T = 370.39'
L = 731.70'
R = 1909.86'
PC STA = 10'SK'+20.02
Y = 503247.849
X = 770405.743
PT STA = 17'SK'+51.72
Y = 503975.038
X = 770397.398
BK = N11°37'59"W
AH = N10°19'05"E

CURVE 3 SKELETON BRIDGE RD
PI STA = 22'SK'+05.91
Y = 504421.880
X = 770478.749
DELTA = 11°13'10"
D = 5°03'00"
T = 111.44'
L = 222.18'
R = 1134.60'
PC STA = 20'SK'+94.47
Y = 504312.238
X = 770458.788
PT STA = 23'SK'+16.64
Y = 504533.310
X = 770476.995
BK = N10°19'05"E
AH = N00°54'05"W





PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 124	E



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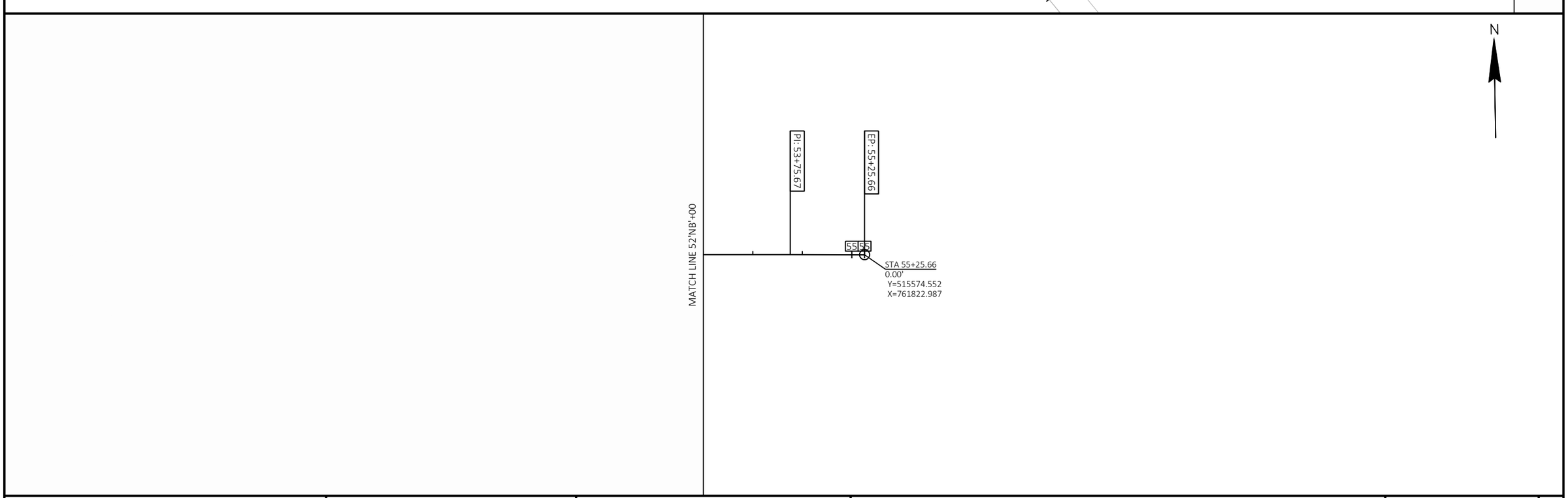


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 125	E

2

N

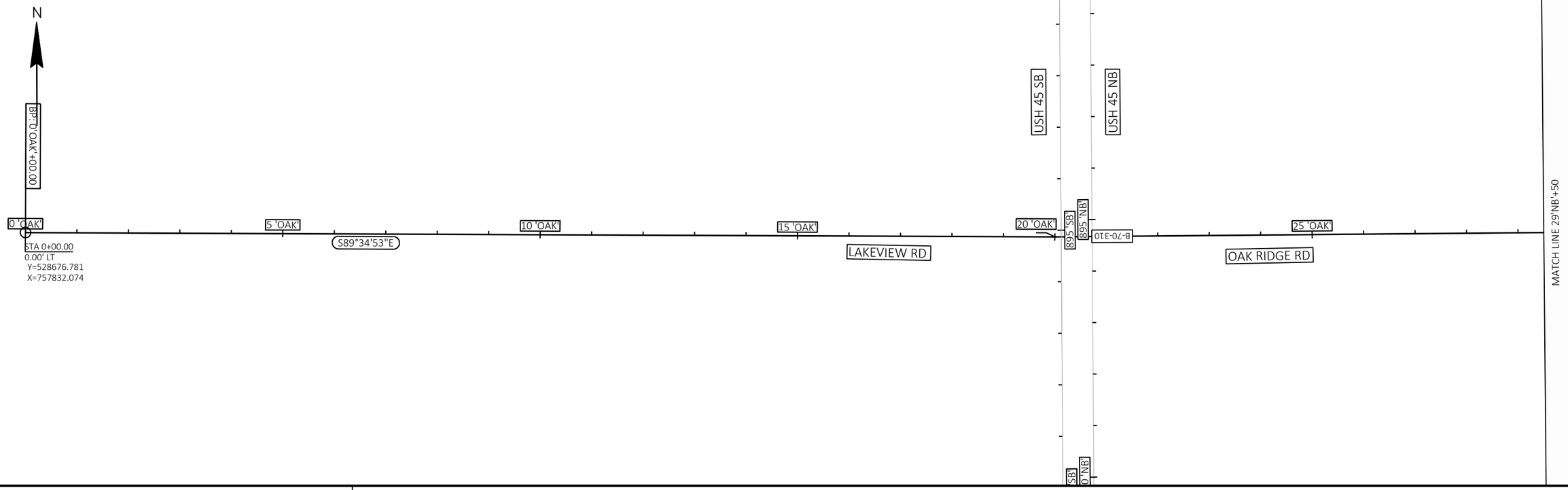
0 'BREE'
5 'BREE'
10 'BREE'
15 'BREE'
20 'BREE'
25 'BREE'
N89°41'52"E
B-70-309
WOODLAND RD
BREEZEWOOD LN
845 'SB
845 'NB
840 'SB
840 'NB
STA 0+00.00
0.00'
Y=523373.354
X=757834.663
BP: 0'BREE'+00.00
MATCH LINE 29'NB'+50

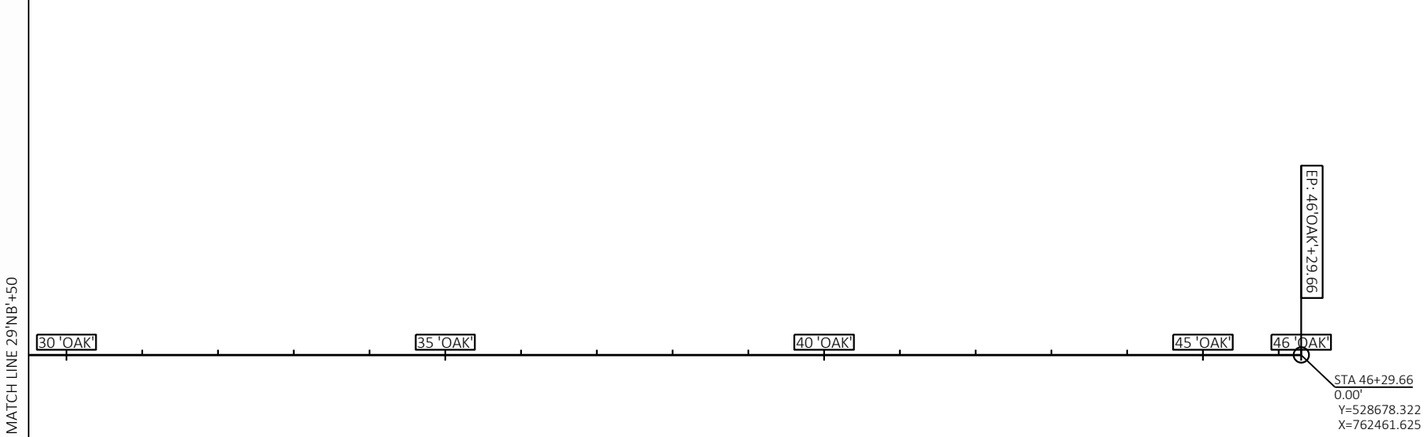
2

N

MATCH LINE 29'NB'+50
30 'BREE'
35 'BREE'
40 'BREE'
45 'BREE'
46 'BREE'
STA 46+35.05
0.00'
Y=523388.475
X=762469.677
EP: 46'BREE'+35.05

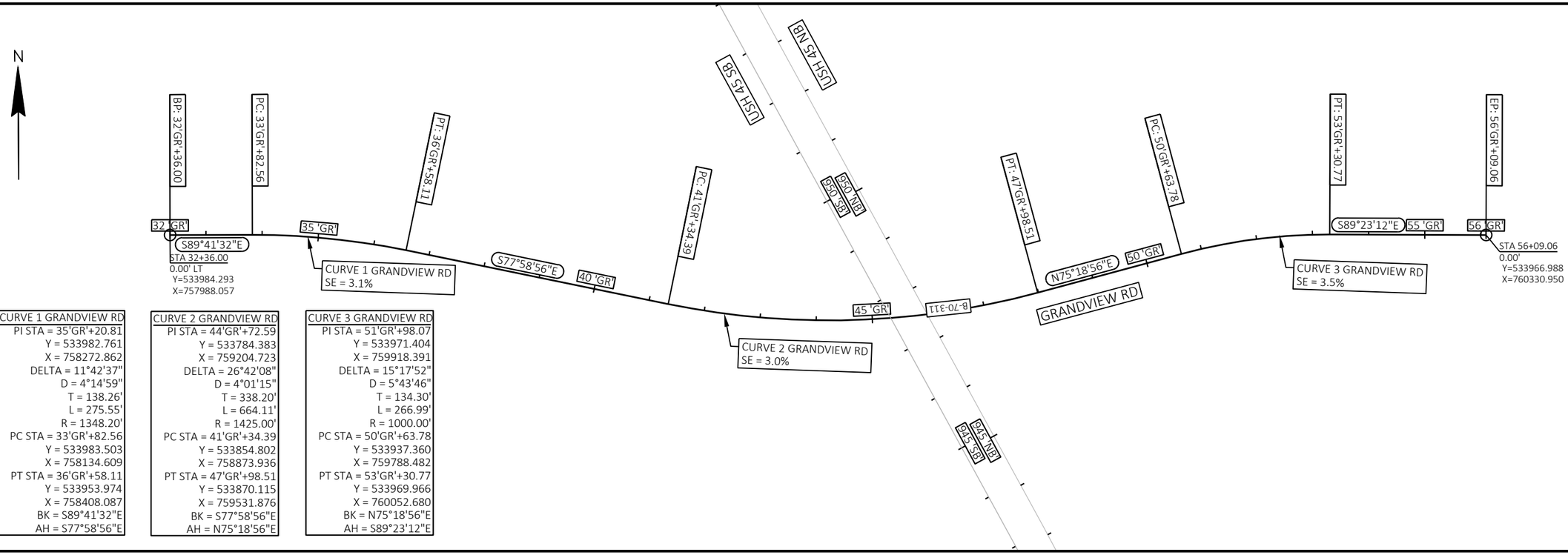
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 126	E





PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 127	E

2

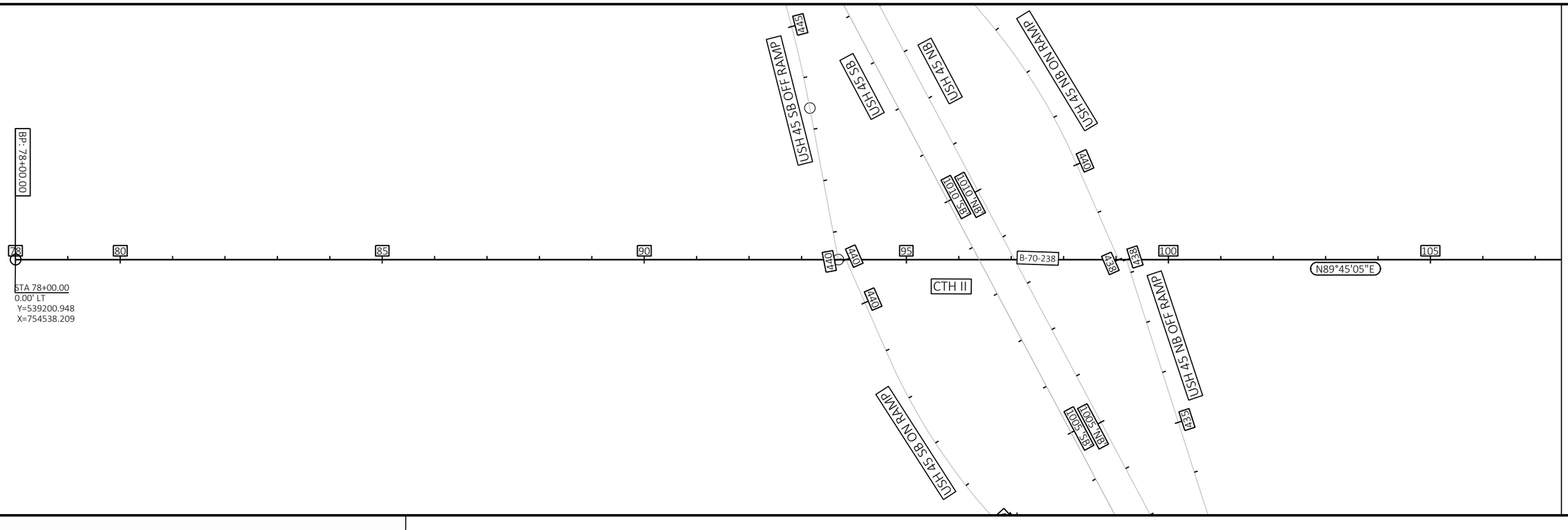


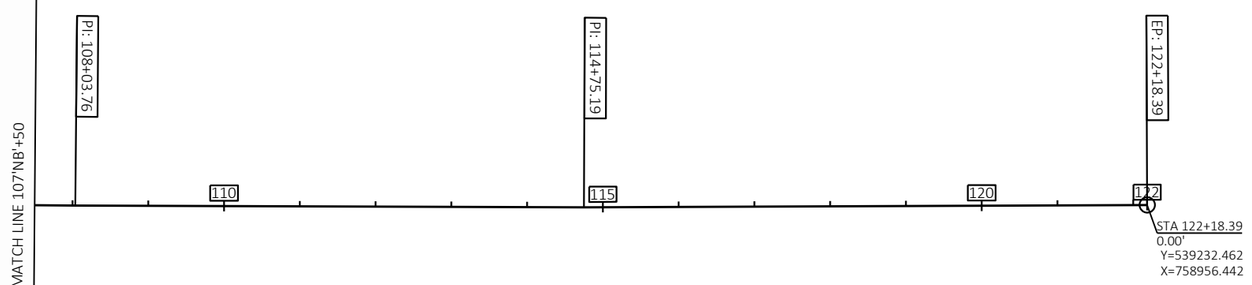
CURVE 1 GRANDVIEW RD	
PI STA =	35'GR'+20.81
Y =	533982.761
X =	758272.862
DELTA =	11°42'37"
D =	4°14'59"
T =	138.26'
L =	275.55'
R =	1348.20'
PC STA =	33'GR'+82.56
Y =	533983.503
X =	758134.609
PT STA =	36'GR'+58.11
Y =	533953.974
X =	758408.087
BK =	S89°41'32"E
AH =	S77°58'56"E

CURVE 2 GRANDVIEW RD	
PI STA =	44'GR'+72.59
Y =	533784.383
X =	759204.723
DELTA =	26°42'08"
D =	4°01'15"
T =	338.20'
L =	664.11'
R =	1425.00'
PC STA =	41'GR'+34.39
Y =	533854.802
X =	758873.936
PT STA =	47'GR'+98.51
Y =	533870.115
X =	759531.876
BK =	S77°58'56"E
AH =	N75°18'56"E

CURVE 3 GRANDVIEW RD	
PI STA =	51'GR'+98.07
Y =	533971.404
X =	759918.391
DELTA =	15°17'52"
D =	5°43'46"
T =	134.30'
L =	266.99'
R =	1000.00'
PC STA =	50'GR'+63.78
Y =	533937.360
X =	759788.482
PT STA =	53'GR'+30.77
Y =	533969.966
X =	760052.680
BK =	N75°18'56"E
AH =	S89°23'12"E

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 128	E





PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	ALIGNMENT	SHEET 129	E

Estimate Of Quantities

6200-18-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-70-212	EACH	1.000	1.000
0004	203.0220	Removing Structure (structure) 02. B-70-219	EACH	1.000	1.000
0006	204.0100	Removing Concrete Pavement	SY	520.000	520.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	15.000	15.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	21,016.000	21,016.000
0012	204.0150	Removing Curb & Gutter	LF	83.000	83.000
0014	204.0155	Removing Concrete Sidewalk	SY	140.000	140.000
0016	204.0165	Removing Guardrail	LF	12,549.000	12,549.000
0018	204.0175	Removing Concrete Slope Paving	SY	954.000	954.000
0020	204.0190	Removing Surface Drains	EACH	3.000	3.000
0022	206.1001	Excavation for Structures Bridges (structure) 01. B-70-212	EACH	1.000	1.000
0024	206.1001	Excavation for Structures Bridges (structure) 02. B-70-219	EACH	1.000	1.000
0026	210.1500	Backfill Structure Type A	TON	57.000	57.000
0028	213.0100	Finishing Roadway (project) 01. 6200-18-70	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	7,543.000	7,543.000
0032	415.0090	Concrete Pavement 9-Inch	SY	5.000	5.000
0034	415.0410	Concrete Pavement Approach Slab	SY	503.000	503.000
0036	416.0610	Drilled Tie Bars	EACH	4,957.000	4,957.000
0038	416.0620	Drilled Dowel Bars	EACH	10,295.000	10,295.000
0040	416.1710	Concrete Pavement Repair	SY	3,620.000	3,620.000
0042	416.1720	Concrete Pavement Replacement	SY	22,139.000	22,139.000
0044	416.1725	Concrete Pavement Replacement SHES	SY	117.000	117.000
0046	420.1000	Continuous Diamond Grinding Concrete Pavement	SY	80,978.000	80,978.000
0048	455.0605	Tack Coat	GAL	1,468.000	1,468.000
0050	460.2000	Incentive Density HMA Pavement	DOL	1,510.000	1,510.000
0052	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,345.000	2,345.000
0054	465.0105	Asphaltic Surface	TON	19.000	19.000
0056	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	32,778.000	32,778.000
0058	502.0100	Concrete Masonry Bridges	CY	9.000	9.000
0060	502.3205	Pigmented Surface Sealer Reseal	SY	3,435.000	3,435.000
0062	502.3210	Pigmented Surface Sealer	SY	13.000	13.000
0064	502.4205	Adhesive Anchors No. 5 Bar	EACH	22.000	22.000
0066	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,180.000	1,180.000
0068	509.1500	Concrete Surface Repair	SF	117.000	117.000
0070	509.9020.S	Epoxy Crack Sealing	LF	50.000	50.000
0072	509.9025.S	Epoxy Injection Crack Repair	LF	10.000	10.000
0074	509.9026.S	Cored Holes 2-Inch Diameter	EACH	4.000	4.000
0076	511.1200	Temporary Shoring (structure) 01. B-70-212	SF	141.000	141.000
0078	520.8700	Cleaning Culvert Pipes	EACH	11.000	11.000
0080	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	33.600	33.600
0082	531.1140	Steel Reinforcement HS Ancillary Structures Type NS	LB	4,776.000	4,776.000
0084	531.2024	Drilling Shaft 24-Inch	LF	280.000	280.000
0086	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	28.000	28.000
0088	601.0413	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	LF	67.000	67.000
0090	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	59.000	59.000
0092	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	495.000	495.000
0094	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	122.000	122.000
0096	602.0405	Concrete Sidewalk 4-Inch	SF	1,620.000	1,620.000
0098	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	80.000	80.000

6200-18-70

Line	Item	Item Description	Unit	Total	Qty
0100	602.3010	Concrete Surface Drains	CY	11.000	11.000
0102	604.0400	Slope Paving Concrete	SY	986.000	986.000
0104	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0106	612.0106	Pipe Underdrain 6-Inch	LF	185.000	185.000
0108	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	580.000	580.000
0110	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	2.000	2.000
0112	614.0010	Barrier System Grading Shaping Finishing	EACH	57.000	57.000
0114	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	3.000	3.000
0116	614.0200	Steel Thrie Beam Structure Approach	LF	207.000	207.000
0118	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	14.000	14.000
0120	614.0230	Steel Thrie Beam	LF	1,425.000	1,425.000
0122	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	10.000	10.000
0124	614.2300	MGS Guardrail 3	LF	5,662.500	5,662.500
0126	614.2330	MGS Guardrail 3 K	LF	187.500	187.500
0128	614.2350	MGS Guardrail Short Radius	LF	76.000	76.000
0130	614.2500	MGS Thrie Beam Transition	LF	1,536.600	1,536.600
0132	614.2610	MGS Guardrail Terminal EAT	EACH	37.000	37.000
0134	614.2620	MGS Guardrail Terminal Type 2	EACH	3.000	3.000
0136	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0138	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6200-18-70	EACH	1.000	1.000
0140	619.1000	Mobilization	EACH	1.000	1.000
0142	620.0300	Concrete Median Sloped Nose	SF	21.000	21.000
0144	624.0100	Water	MGAL	152.000	152.000
0146	628.1504	Silt Fence	LF	2,060.000	2,060.000
0148	628.1520	Silt Fence Maintenance	LF	4,120.000	4,120.000
0150	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0152	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0154	628.2002	Erosion Mat Class I Type A	SY	516.000	516.000
0156	628.7005	Inlet Protection Type A	EACH	9.000	9.000
0158	628.7010	Inlet Protection Type B	EACH	5.000	5.000
0160	628.7015	Inlet Protection Type C	EACH	17.000	17.000
0162	628.7504	Temporary Ditch Checks	LF	720.000	720.000
0164	635.0200	Sign Supports Structural Steel HS	LB	19,032.000	19,032.000
0166	637.1220	Signs Type I Reflective SH	SF	2,745.500	2,745.500
0168	638.2601	Removing Signs Type I	EACH	20.000	20.000
0170	638.2602	Removing Signs Type II	EACH	1.000	1.000
0172	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0174	638.3100	Removing Structural Steel Sign Supports	EACH	28.000	28.000
0176	642.5401	Field Office Type D	EACH	1.000	1.000
0178	643.0300	Traffic Control Drums	DAY	82,728.000	82,728.000
0180	643.0370.S	Digital Speed Reduction System (DSRS)	DAY	191.000	191.000
0182	643.0420	Traffic Control Barricades Type III	DAY	1,687.000	1,687.000
0184	643.0705	Traffic Control Warning Lights Type A	DAY	3,254.000	3,254.000
0186	643.0715	Traffic Control Warning Lights Type C	DAY	3,223.000	3,223.000
0188	643.0810	Traffic Control Connected Arrow Boards	DAY	382.000	382.000
0190	643.0900	Traffic Control Signs	DAY	14,087.000	14,087.000
0192	643.0910	Traffic Control Covering Signs Type I	EACH	1.000	1.000
0194	643.0920	Traffic Control Covering Signs Type II	EACH	22.000	22.000
0196	643.1000	Traffic Control Signs Fixed Message	SF	360.000	360.000

Estimate Of Quantities

6200-18-70

Line	Item	Item Description	Unit	Total	Qty
0198	643.1050	Traffic Control Signs PCMS	DAY	172.000	172.000
0200	643.1055.S	Truck or Trailer Mounted Attenuator	DAY	105.000	105.000
0202	643.1205.S	Basic Traffic Queue Warning System	DAY	573.000	573.000
0204	643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY	382.000	382.000
0206	643.5000	Traffic Control	EACH	1.000	1.000
0208	644.1810	Temporary Pedestrian Barricade	LF	132.000	132.000
0210	645.0111	Geotextile Type DF Schedule A	SY	50.000	50.000
0212	646.1020	Marking Line Epoxy 4-Inch	LF	12,002.000	12,002.000
0214	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	30,470.000	30,470.000
0216	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	264,020.000	264,020.000
0218	646.2050	Marking Line Grooved Permanent Tape 6-Inch	LF	30,791.000	30,791.000
0220	646.3020	Marking Line Epoxy 8-Inch	LF	760.000	760.000
0222	646.4050	Marking Line Grooved Permanent Tape 10-Inch	LF	11,984.000	11,984.000
0224	646.5220	Marking Symbol Epoxy	EACH	4.000	4.000
0226	646.6120	Marking Stop Line Epoxy 18-Inch	LF	64.000	64.000
0228	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	30,791.000	30,791.000
0230	646.8120	Marking Curb Epoxy	LF	16.000	16.000
0232	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0234	646.8320	Marking Parking Stall Epoxy	LF	2,495.000	2,495.000
0236	646.9400	Marking Removal Plowable Raised Pavement Markers	EACH	889.000	889.000
0238	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	771.000	771.000
0240	650.8000	Construction Staking Resurfacing Reference	LF	129,602.000	129,602.000
0242	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0244	650.9500	Construction Staking Sidewalk (project) 01. 6200-18-70	EACH	1.000	1.000
0246	650.9911	Construction Staking Supplemental Control (project) 01. 6200-18-70	EACH	1.000	1.000
0248	650.9920	Construction Staking Slope Stakes	LF	8,827.000	8,827.000
0250	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	45.000	45.000
0252	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	20.000	20.000
0254	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
0256	655.0230	Cable Traffic Signal 5-14 AWG	LF	2,166.000	2,166.000
0258	655.0615	Electrical Wire Lighting 10 AWG	LF	2,450.000	2,450.000
0260	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. F70-0431 (45 & II)	EACH	1.000	1.000
0262	656.0201	Electrical Service Meter Breaker Pedestal (location) 02. USH 45 & STH 116 Park & Ride	EACH	1.000	1.000
0264	657.0100	Pedestal Bases	EACH	4.000	4.000
0266	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
0268	658.0171	Traffic Signal Face 1S 12-Inch	EACH	4.000	4.000
0270	658.5070	Signal Mounting Hardware (location) 01. F70-0431 (45 & II)	EACH	1.000	1.000
0272	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	4.000	4.000
0274	690.0150	Sawing Asphalt	LF	1,330.000	1,330.000
0276	690.0250	Sawing Concrete	LF	65,828.000	65,828.000
0278	715.0502	Incentive Strength Concrete Structures	DOL	1,000.000	1,000.000
0280	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0282	740.0440	Incentive IRI Ride	DOL	19,705.000	19,705.000
0284	SPV.0060	Special 01. Steel Cast-In-Place Pile Spot Cleaning and Painting B-70-212	EACH	40.000	40.000
0286	SPV.0060	Special 02. Steel Cast-In-Place Pile Spot Cleaning and Painting B-70-213	EACH	32.000	32.000
0288	SPV.0060	Special 03. Concrete Control Cabinet Bases Type 10 NE Region Special	EACH	2.000	2.000
0290	SPV.0060	Special 04. Removing Electrical Service (USH 45 & STH 116)	EACH	1.000	1.000
0292	SPV.0060	Special 05. Remove Traffic Signal F70-0431 (45 & II)	EACH	1.000	1.000
0294	SPV.0090	Special 01. Joint Sealing	LF	3,523.000	3,523.000

6200-18-70

Line	Item	Item Description	Unit	Total	Qty
0296	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	14.000	14.000
0298	SPV.0195	Special 01. Traffic Bond Limestone 3/8-Inch	TON	35.000	35.000

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CONCRETE PAVEMENT REPAIR AND REPLACEMENT

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BAR5 EACH	* 416.0620 DRILLED DOWEL BAR5 EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 CONCRETE PAVEMENT REPLACEMENT 5HE5 SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	413+49.93	-	413+60.85	U5H 45 NB DRIVING	--	16	17	53	--	--	
0010	413+75.69	-	414+04.39	USH 45 NB DRIVING	12	16	--	127	--	45	
0010	422+80.91	-	423+14.63	USH 45 NB DRIVING	--	16	--	118	--	53	
0010	422+80.91	-	423+14.63	USH 45 NB PA55ING	--	16	--	106	--	45	
0010	426+43.74	-	426+66.43	U5H 45 NB DRIVING	--	16	--	93	--	35	
0010	426+43.74	-	426+66.43	U5H 45 NB PA55ING	--	16	--	83	--	30	
0010	431+98.40	-	432+16.89	U5H 45 NB PA55ING	8	16	--	67	--	25	
0010	434+16.55	-	434+52.88	U5H 45 NB DRIVING	15	16	--	134	--	57	
0010	439+41.89	-	439+47.89	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	445+34.41	-	445+70.19	USH 45 NB DRIVING	15	16	--	134	--	56	
0010	446+00.54	-	446+06.54	U5H 45 NB DRIVING	--	16	9	34	--	--	
0010	446+00.54	-	446+06.54	U5H 45 NB PA55ING	--	16	8	30	--	--	
0010	476+58.64	-	476+64.64	U5H 45 NB DRIVING	--	16	9	34	--	--	
0010	479+87.56	-	479+93.56	U5H 45 NB DRIVING	--	16	9	34	--	--	
0010	479+87.56	-	479+93.56	U5H 45 NB PA55ING	--	16	8	30	--	--	
0010	483+37.45	-	484+20.30	USH 45 NB DRIVING	14	16	--	117	--	51	
0010	490+42.97	-	490+79.68	USH 45 NB DRIVING	15	16	--	135	--	57	
0010	491+29.12	-	491+35.11	U5H 45 NB DRIVING	--	16	9	34	--	--	
0010	495+10.05	-	495+21.83	U5H 45 NB DRIVING	--	16	18	54	--	--	
0010	520+47.03	-	521+19.49	U5H 45 NB DRIVING	29	16	--	241	--	113	
0010	530+22.94	-	530+28.94	U5H 45 NB DRIVING	--	16	9	34	--	--	
0010	536+20.52	-	536+56.68	USH 45 NB DRIVING	15	16	--	134	--	56	
0010	541+69.56	-	542+05.92	U5H 45 NB DRIVING	15	16	--	134	--	57	
0010	552+33.85	-	552+51.55	U5H 45 NB DRIVING	8	16	--	74	--	27	
0010	558+28.80	-	559+01.33	U5H 45 NB DRIVING	30	16	--	241	--	113	
0010	567+82.07	-	568+18.09	USH 45 NB DRIVING	15	16	--	134	--	56	
0010	573+95.18	-	574+30.78	USH 45 NB DRIVING	15	16	--	134	--	55	
0010	584+24.17	-	584+42.04	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	584+42.04	-	584+60.15	USH 45 NB PA55ING	8	16	--	74	--	24	
0010	597+73.58	-	598+10.67	U5H 45 NB DRIVING	15	16	--	135	--	58	
				5UBTOTAL	237	480	107	2,860	0	1,040	

*ADDITIONAL QUANTITIE5 5HOWN EL5EWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	599+94.49	-	600+35.47	USH 45 NB DRIVING	17	16	--	139	--	64	
0010	600+49.65	-	600+68.35	USH 45 NB DRIVING	8	16	--	75	--	29	
0010	605+06.22	-	605+47.19	USH 45 NB DRIVING	17	16	--	139	--	64	
0010	606+76.35	-	607+13.51	USH 45 NB DRIVING	15	16	--	135	--	58	
0010	607+31.49	-	607+49.91	USH 45 NB DRIVING	8	16	--	75	--	29	
0010	608+42.10	-	608+60.40	USH 45 NB DRIVING	8	16	--	74	--	29	
0010	613+36.12	-	613+54.23	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	613+72.41	-	614+08.71	USH 45 NB DRIVING	15	16	--	135	--	57	
0010	615.76.62	-	616+13.56	USH 45 NB DRIVING	15	16	--	135	--	57	
0010	618+11.45	-	618+70.55	USH 45 NB DRIVING	24	16	--	199	--	92	
0010	621+67.87	-	622+22.30	USH 45 NB DRIVING	22	16	--	180	--	85	
0010	625+47.06	-	625+64.99	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	642+84.57	-	642+91.99	USH 45 NB DRIVING	--	16	12	49	--	--	
0010	642+84.57	-	642+91.99	USH 45 NB PASSING	--	16	10	43	--	--	
0010	656+85.35	-	656+92.83	USH 45 NB PASSING	--	16	10	44	--	--	
0010	661+17.61	-	661+23.63	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	661+35.87	-	661+41.89	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	663+75.59	-	663+98.26	USH 45 NB DRIVING	6	16	--	93	--	35	
0010	663+88.56	-	664+53.13	USH 45 NB PASSING	15	16	--	196	--	86	
0010	664+34.07	-	664+53.13	USH 45 NB DRIVING	--	16	--	75	--	29	
0010	674+82.39	-	674+88.39	USH 45 NB PASSING	--	16	8	30	--		
0010	674+99.98	-	675.17.63	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	677+70.42	-	677+87.80	USH 45 NB PASSING	7	16	--	73	--	23	
0010	688+50.77	-	688+56.77	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	689+45.70	-	689+63.73	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	695+72.97	-	695+78.97	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	696+96.28	-	697+04.78	USH 45 NB DRIVING	--	16	13	51	--	--	
0010	698+61.11	-	698.67.11	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	699+69.99	-	699+75.99	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	701+50.38	-	701+56.38	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	703+03.86	-	703+21.83	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	705+69.39	-	705+75.39	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	706+47.36	-	707+56.24	USH 45 NB DRIVING	44	16	--	347	--	169	
0010	713+33.39	-	713+39.39	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	713+70.72	-	713+76.72	USH 45 NB DRIVING	--	16	9	34	--	--	
				SUBTOTAL	261	560	146	2,997	0	1,046	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	* 416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	719+81.93	-	719+88.48	USH 45 NB DRIVING	--	16	10	35	--	--	
0010	720+01.30	-	720+07.30	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	721+47.26	-	721+88.07	USH 45 NB DRIVING	17	16	--	139	--	64	
0010	722+57.32	-	722+63.29	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	725+21.36	-	725+53.66	USH 45 NB DRIVING	13	16	--	117	--	51	
0010	729.02.87	-	729+40	USH 45 NB DRIVING	15	16	--	135	--	58	
0010	730+52.51	-	730+85.75	USH 45 NB DRIVING	14	16	--	118	--	52	
0010	735+05.80	-	735+24.52	USH 45 NB DRIVING	8	16	--	75	--	29	
0010	737+96.11	-	738+14.60	USH 45 NB DRIVING	--	16	--	75	--	29	
0010	737+96.11	-	738+14.60	USH 45 NB PASSING	--	16	--	67	--	25	
0010	739+00.10	-	739+06.10	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	741+75.12	-	742+06.81	USH 45 NB DRIVING	13	16	--	116	--	49	
0010	746+27.43	-	746+45.35	USH 45 NB DRIVING	8	16	--	74	--	28	
0010	748+03.86	-	748+09.86	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	752+24.11	-	752+42.54	USH 45 NB DRIVING	--	16	--	74	--	29	
0010	752+24.11	-	752+42.54	USH 45 NB PASSING	--	16	--	66	--	25	
0010	752+24.11	-	752+42.54	USH 45 NB DRIVING	--	16	--	74	--	29	
0010	752+24.11	-	752+42.54	USH 45 NB PASSING	--	16	--	66	--	25	
0010	754+41.21	-	754+59.53	USH 45 NB DRIVING	--	16	--	74	--	28	
0010	754+41.21	-	754+59.53	USH 45 NB PASSING	--	16	--	66	--	24	
0010	755+23.09	-	755+29.09	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	765+63.95	-	765+69.97	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	800+22.98	-	800+30.45	USH 45 NB DRIVING	--	16	12	50	--	--	
0010	800+22.98	-	800+30.45	USH 45 NB PASSING	--	16	10	44	--	--	
0010	805+99.16	-	806+08.49	USH 45 NB DRIVING	--	16	15	51	--	--	
0010	808+49.77	-	808+79.79	USH 45 NB DRIVING	6	16	--	114	--	47	
0010	808+64.62	-	808+79.79	USH 45 NB PASSING	--	16	20	63	--	--	
0010	815+41.21	-	815+55.98	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	819+75.69	-	819+90.58	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	822+00.58	-	822+15.61	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	822+00.58	-	822+15.61	USH 45 NB PASSING	--	16	20	63	--	--	
0010	823+94.60	-	824+09.55	USH 45 NB PASSING	--	16	20	63	--	--	
0010	824+09.55	-	824+15.55	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	830+19.72	-	830+25.72	USH 45 NB PASSING	--	16	8	30	--	--	
0010	833+18.91	-	833+48.77	USH 45 NB DRIVING	12	16	--	114	--	46	
				SUBTOTAL	106	528	249	2,274	0	584	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	833+93.55	-	834+23.40	USH 45 NB DRIVING	6	16	--	114	--	46	
0010	834+08.35	-	834+23.40	USH 45 NB PASSING	--	16	20	63	--	--	
0010	836+47.24	-	836+62.19	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	836+47.24	-	836+62.19	USH 45 NB PASSING	--	16	20	63	--	--	
0010	836+98.42	-	837+21.50	USH 45 NB DRIVING	10	16	--	93	--	36	
0010	838+85.10	-	838+99.90	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	838+85.10	-	838+99.90	USH 45 NB PASSING	--	16	20	63	--	--	
0010	839+14.63	-	839+79.30	USH 45 NB PASSING	26	16	--	197	--	86	
0010	840+18.52	-	840+33.46	USH 45 NB PASSING	--	16	20	63	--	--	
0010	844+30.83	-	844+89.88	USH 45 NB DRIVING	24	16	--	199	--	92	
0010	847+23.13	-	847+29.13	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	870+70.11	-	870+85.62	USH 45 NB DRIVING	--	16	24	72	--	--	
0010	873+33.26	-	873+39.26	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	875+38.70	-	875+54.23	USH 45 NB PASSING	--	16	21	64	--	--	
0010	919+24.56	-	919+39.54	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	919+24.56	-	919+39.54	USH 45 NB PASSING	--	16	20	63	--	--	
0010	941+80.32	-	941+86.29	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	941+80.32	-	941+86.29	USH 45 NB PASSING	--	16	8	30	--	--	
0010	947+81.04	-	948+41.11	USH 45 NB DRIVING	--	16	--	200	--	93	
0010	947+81.04	-	948+41.11	USH 45 NB PASSING	--	16	--	180	--	80	
0010	949+30.67	-	949+45.73	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	971+52.28	-	971+67.51	USH 45 NB DRIVING	--	16	24	71	--	--	
0010	971+78.26	-	971+84.26	USH 45 NB DRIVING	--	16	9	34	--	--	
0010	971+78.26	-	971+84.26	USH 45 NB PASSING	--	16	8	30	--	--	
0010	975+72.28	-	975+80.26	USH 45 NB DRIVING	--	16	12	50	--	--	
0010	975+72.28	-	975+80.26	USH 45 NB PASSING	--	16	11	44	--	--	
				SUBTOTAL	66	416	338	2,079	0	434	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	992+19.82	-	992+S1.12	USH 4S NB DRIVING	13	16	--	116	--	49	
0010	992+66.80	-	993+12.78	USH 45 NB DRIVING	19	16	--	130	--	72	
0010	995+31.21	-	99S+46.24	USH 45 NB DRIVING	--	16	23	71	--	--	
0010	995+92.46	-	996+22.98	USH 45 NB DRIVING	13	16	--	115	--	47	
0010	996+37.92	-	996+68.14	USH 45 NB DRIVING	13	16	--	114	--	47	
0010	998+90.60	-	999+3S.84	USH 4S NB DRIVING	19	16	--	1S7	--	70	
0010	999+50.69	-	1000+11.44	USH 45 NB DRIVING	25	16	--	201	--	94	
0010	1000+70.60	-	1001+01.13	USH 4S NB DRIVING	13	16	--	11S	--	47	
0010	1001+16.03	-	1001+91.36	USH 45 NB DRIVING	31	16	--	243	--	117	
0010	1002+06.04	-	1002+36.34	USH 45 NB DRIVING	13	16	--	114	--	47	
0010	1002+96.24	-	1003+S6.14	USH 4S NB DRIVING	24	16	--	200	--	93	
0010	1003+71.23	-	1004+61.04	USH 45 NB DRIVING	36	16	--	286	--	140	
0010	1004+7S.89	-	100S+36.29	USH 4S NB DRIVING	2S	16	--	200	--	94	
0010	1006+83.45	-	1007+14.20	USH 45 NB DRIVING	13	16	--	115	--	48	
0010	1009+24.31	-	1009+54.48	USH 4S NB DRIVING	13	16	--	114	--	47	
0010	1009+84.48	-	1010+60.24	USH 4S NB DRIVING	31	16	--	244	--	118	
0010	1011+05.4S	-	1011+50.6S	USH 45 NB DRIVING	19	16	--	157	--	70	
0010	1012+8S.60	-	1014+21.S4	USH 4S NB DRIVING	SS	16	--	430	--	211	
0010	1014+36.14	-	1015+26.51	USH 45 NB DRIVING	37	16	--	286	--	141	
0010	101S+41.67	-	1016+01.87	USH 4S NB DRIVING	2S	16	--	200	--	94	
0010	410+69.7S	-	411+0S.7S	USH 4S SB PASSING	1S	16	--	120	--	48	
0010	413+44.73	-	413+50.73	USH 45 SB PASSING	--	16	8	30	--	--	
0010	414+34.86	-	414+71.64	USH 4S SB PASSING	1S	16	--	121	--	49	
0010	416+35.85	-	416+55.50	USH 45 SB PASSING	8	16	--	68	--	26	
0010	416+60.43	-	416.73.72	USH 4S SB DRIVING	--	16	21	SS	--	--	
0010	422+83.88	-	422+99.02	USH 45 SB DRIVING	--	16	23	71	--	--	
0010	422+83.88	-	422+99.02	USH 4S SB PASSING	--	16	20	63	--	--	
0010	426+30.S1	-	426+40.44	USH 4S SB DRIVING	--	16	1S	S2	--	--	
0010	426+30.51	-	426+40.44	USH 45 SB PASSING	--	16	13	46	--	--	
0010	436+14.84	-	436+33.06	USH 4S SB DRIVING	8	16	--	74	--	28	
0010	436+51.18	-	436+69.11	USH 45 SB DRIVING	8	16	--	74	--	28	
				SUBTOTAL	491	496	124	4,382	0	1,826	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	437+60.75	-	437+78.89	USH 45 SB PASSING	8	16	--	66	--	24	
0010	438+31.97	-	438+37.97	USH 45 SB PASSING	--	16	8	30	--	--	
0010	441+08.77	-	441+14.77	USH 45 SB PASSING	--	16	8	30	--	--	
0010	443+07.34	-	443+16.34	USH 45 SB DRIVING	--	16	14	62	--	--	
0010	443+07.34	-	443+16.34	USH 45 SB PASSING	--	16	12	55	--	--	
0010	443+32.62	-	443+50.66	USH 45 SB DRIVING	8	16	--	74	--	28	
0010	444+05.34	-	444+23.01	USH 45 SB DRIVING	8	16	--	74	--	27	
0010	444+96.06	-	445+12.15	USH 45 SB DRIVING	7	16	--	72	--	25	
0010	445+12.15	-	445+18.15	USH 45 SB PASSING	--	16	8	30	--	--	
0010	445+67.01	-	445+73.01	USH 45 SB PASSING	--	16	8	30	--	--	
0010	449+50.37	-	449+68.45	USH 45 SB DRIVING	8	16	--	74	--	28	
0010	449+85.73	-	450+01.03	USH 45 SB PASSING	7	16	--	63	--	20	
0010	453+71.02	-	453+84.52	USH 45 SB PASSING	--	16	18	50	--	--	
0010	459+36.04	-	459+54.61	USH 45 SB DRIVING	8	16	--	75	--	29	
0010	462+96.91	-	463+02.91	USH 45 SB PASSING	--	16	8	30	--	--	
0010	479+91.33	-	479+97.33	USH 45 SB PASSING	--	16	8	30	--	--	
0010	489+70.28	-	489+88.33	USH 45 SB DRIVING	8	16	--	74	--	28	
0010	490+95.35	-	491+01.35	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	496+25.62	-	496+31.62	USH 45 SB DRIVING	--	16	10	30	--		
0010	498+10.15	-	498+29.17	USH 45 SB DRIVING	8	16	--	75	--	30	
0010	505+52.00	-	505+58.01	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	515+94.08	-	516+00.08	USH 45 SB PASSING	--	16	8	30	--	--	
0010	523+61.57	-	523+79.92	USH 45 SB DRIVING	8	16	--	74	--	29	
0010	524+14.32	-	524+34.27	USH 45 SB DRIVING	8	16	--	76	--	31	
0010	525+60.75	-	525+81.06	USH 45 SB DRIVING	9	16	--	76	--	32	
0010	535+53.18	-	535+89.95	USH 45 SB DRIVING	15	16	--	135	--	57	
0010	536+80.96	-	536+99.62	USH 45 SB PASSING	8	16	--	67	--	25	
0010	537+49.62	-	537+67.95	USH 45 SB DRIVING	8	16	--	74	--	29	
0010	540+57.48	-	540+63.48	USH 45 SB DRIVING	--	16	10	34	--	--	
				SUBTOTAL	126	464	139	1,658	0	442	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	545+91.91	-	546+28.49	USH 45 SB DRIVING	15	16	--	85	--	57	
0010	557+77.43	-	558+14.42	USH 45 SB DRIVING	15	16	--	135	--	58	
0010	560+72.02	-	561+08.84	USH 45 SB DRIVING	15	16	--	135	--	57	
0010	562+37.21	-	563+29.37	USH 45 SB DRIVING	37	16	--	302	--	144	
0010	565+86.00	-	566+78.25	USH 45 SB DRIVING	37	16	--	303	--	144	
0010	566+95.45	-	567+01.44	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	567+52.23	-	567+93.83	USH 45 SB DRIVING	17	16	--	140	--	65	
0010	568+06.70	-	568+12.69	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	569+15.51	-	569+72.10	USH 45 SB DRIVING	23	16	--	197	--	88	
0010	571+36.71	-	571+55.45	USH 45 SB DRIVING	8	16	--	75	--	29	
0010	575+72.07	-	575+78.07	USH 45 SB PASSING	--	16	8	30	--	--	
0010	576+22.30	-	576+44.89	USH 45 SB DRIVING	10	16	--	93	--	35	
0010	583+18.86	-	583+28.40	USH 45 SB DRIVING	--	16	15	52	--	--	
0010	583+18.86	-	583+28.40	USH 45 SB PASSING	--	16	13	46	--	--	
0010	583+45.68	-	583+51.60	USH 45 SB PASSING	--	16	8	30	--	--	
0010	583+64.89	-	583+82.58	USH 45 SB DRIVING	7	16	--	74	--	27	
0010	585+72.65	-	585+90.67	USH 45 SB DRIVING	7	8	--	133	--	55	
0010	585+72.65	-	585+90.67	USH 45 SB PASSING	--	16	--	66	--	24	
0010	590+02.13	-	590+20.39	USH 45 SB DRIVING	--	16	--	74	--	28	
0010	590+02.13	-	590+20.39	USH 45 SB PASSING	--	16	--	66	--	24	
0010	590+55.20	-	590+61.20	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	596+94.13	-	597+12.36	USH 45 SB DRIVING	8	16		74	--	28	
0010	622+54.96	-	622+74.46	USH 45 SB DRIVING	8	16	--	76	--	30	
0010	627+74.62	-	628+50.47	USH 45 SB DRIVING	31	16	--	244	--	118	
0010	631+67.47	-	631+99.53	USH 45 SB DRIVING	13	16	--	116	--	50	
0010	632+93.48	-	633.02.83	USH 45 SB DRIVING	--	16	15	51	--	--	
0010	635+04.67	-	635+10.65	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	635+63.44	-	636+02.50	USH 45 SB DRIVING	16	16	--	137	--	61	
0010	638+44.40	-	638+50.40	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	639+98.56	-	640+06.90	USH 45 SB DRIVING	--	16	13	50	--	--	
				SUBTOTAL	267	472	121	2,954	0	1,124	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	* 416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	643+64.27	-	643+84.19	USH 45 SB DRIVING	8	16	--	76	--	31	
0010	644+07.76	-	644+13.74	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	649+93.72	-	6S0+49.S0	USH 4S SB DRIVING	23	16	--	182	--	87	
0010	651+75.48	-	651+81.46	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	6S2+36.6S	-	6S2+74.12	USH 4S SB DRIVING	16	16	--	136	--	S9	
0010	653+48.65	-	653+54.64	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	6SS+34.64	-	6SS+40.62	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	657+94.59	-	658+00.58	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	658+13.24	-	658+19.22	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	660+00.49	-	660+18.62	USH 4S SB DRIVING	8	16	--	116	--	28	
0010	661+10.87	-	661+16.85	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	66S+1S.89	-	66S+21.88	USH 4S SB PASSING	--	16	8	30	--	--	
0010	665+17.91	-	655+42.90	USH 45 SB DRIVING	11	16	--	95	--	39	
0010	66S+S4.77	-	66S+70.82	USH 4S SB DRIVING	7	16	--	72	--	2S	
0010	668+02.53	-	668+20.99	USH 45 SB DRIVING	8	16	--	75	--	29	
0010	668+68.29	-	669+35.88	USH 4S SB DRIVING	28	16	--	221	--	106	
0010	669+98.00	-	670+3S.47	USH 4S SB DRIVING	16	16	--	136	--	59	
0010	67S+1S.32	-	67S+21.30	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	67S+33.36	-	67S+S0.99	USH 4S SB DRIVING	16	16	--	73	--	28	
0010	678+01.53	-	678+18.32	USH 45 SB DRIVING	--	16	--	73	--	26	
0010	678+01.S3	-	678+18.32	USH 4S SB PASSING	--	16	--	6S	--	22	
0010	681+1S.14	-	681+87.88	USH 4S SB DRIVING	30	16	--	241	--	114	
0010	682+95.16	-	683+01.14	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	682+95.16	-	683+01.14	USH 45 SB PASSING	--	16	8	30	--	--	
0010	686+96.80	-	687+20.63	USH 4S SB DRIVING	10	16	--	99	--	37	
0010	687+S0.69	-	687+S6.69	USH 4S SB DRIVING	--	16	10	34	--		
0010	688+04.95	-	688+59.91	USH 45 SB DRIVING	22	16	--	181	--	85	
0010	688+76.03	-	688+82.03	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	689+32.40	-	689+38.40	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	692+60.27	-	692+66.27	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	694+24.60	-	694+31.54	USH 45 SB DRIVING	--	16	11	35	--	--	
0010	69S+36.S7	-	69S+42.S7	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	69S+73.S1	-	69S+79.SS	USH 4S SB DRIVING	--	16	10	34	--	--	
0010	700+87.51	-	700+93.51	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	704+77.01	-	704+94.07	USH 4S SB DRIVING	7	16	--	73	--	27	
				SUBTOTAL	210	560	187	2,553	0	801	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	* 416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LE	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	706+13.97	-	706+19.97	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	707+49.39	-	707+75.08	USH 45 SB DRIVING	11	16	--	96	--	40	
0010	708+33.28	-	708+39.28	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	709+05.06	-	709+11.06	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	711+39.95	-	711+45.95	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	713+53.79	-	713+59.79	USH 45 SB PASSING	--	16	8	30	--	--	
0010	714+64.89	-	714+70.89	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	714+83.55	-	715+24.35	USH 45 SB DRIVING	17	16	--	139	--	63	
0010	715+55.28	-	715+61.28	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	715+73.32	-	715+79.32	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	716+62.80	-	716+68.80	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	718+43.68	-	718+49.68	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	721+85.32	-	721+91.35	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	722+56.93	-	722+62.96	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	723+65.93	-	723+71.96	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	726+92.37	-	727+28.79	USH 45 SB DRIVING	15	16	--	134	--	56	
0010	728+00.77	-	728+06.80	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	729+48.30	-	729+54.30	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	729+80.84	-	730+18.38	USH 45 SB DRIVING	15	16	--	135	--	58	
0010	731+10.31	-	731+16.31	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	734+06.59	-	734+43.49	USH 45 SB DRIVING	15	16	--	135	--	57	
0010	735+15.92	-	735+51.99	USH 45 SB DRIVING	15	16	--	134	--	56	
0010	736+61.57	-	736+70.03	USH 45 SB PASSING	--	16	11	45	--	--	
0010	738+75.29	-	738+81.29	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	739+03.63	-	739.+34.21	USH 45 SB DRIVING	13	16	--	73	--	48	
0010	741+32.41	-	741+41.01	USH 45 SB DRIVING	--	16	13	51	--	--	
0010	741+87.66	-	741+93.66	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	744+43.85	-	744+66.41	USH 45 SB DRIVING	10	16	--	93	--	35	
0010	745+67.51	-	745+73.51	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	745+86.36	-	745+92.36	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	748+55.28	-	748+61.28	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	750+92.64	-	750+98.64	USH 45 SB DRIVING	--	16	10	34	--	--	
0010	751+30.98	-	751+36.98	USH 45 SB DRIVING	--	16	10	34	--	--	
				SUBTOTAL	111	528	253	1,813	0	413	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	751+45.16	-	751+51.16	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	751+67.41	-	751+87.96	USH 45 SB DRIVING	9	16	--	77	--	32	
0010	754+02.36	-	754+20.67	USH 45 SB PASSING	5	16	--	66	--	24	
0010	754+14.43	-	754+60.98	USH 45 SB DRIVING	17	16	--	159	--	72	
0010	755+99.78	-	756+24.80	USH 45 SB DRIVING	10	16	--	95	--	39	
0010	756+91.85	-	757+27.97	USH 45 SB PASSING	4	16	--	120	--	48	
0010	756+97.98	-	757+26.03	USH 45 SB DRIVING	--	16	--	112	--	44	
0010	758+36.54	-	758+72.83	USH 45 SB DRIVING	15	16	--	134	--	56	
0010	759+99.73	-	760+36.55	USH 45 SB DRIVING	12	16	--	135	--	58	
0010	760+15.90	-	760+24.10	USH 45 SB PASSING	--	16	11	44	--	0	
0010	760+72.05	-	761+09.96	USH 45 SB DRIVING	16	16	--	136	--	59	
0010	761+21.48	-	761+28.31	USH 45 SB PASSING	--	16	9	27	--	--	
0010	761+63.72	-	761+69.72	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	762+80.84	-	763+09.25	USH 45 SB DRIVING	10	16		113	--	44	
0010	762+87.77	-	762+93.74	USH 45 SB PASSING	--	16	8	30	--	--	
0010	764+38.44	-	764+44.44	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	766+20.68	-	766+56.64	USH 45 SB DRIVING	15	16	--	134	--	19	
0010	767+11.99	-	767+17.96	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	767+48.35	-	767+57.49	USH 45 SB PASSING	--	16	12	45	--	--	
0010	768+03.61	-	768+76.91	USH 45 SB DRIVING	29	16	--	242	--	115	
0010	769+29.17	-	769+35.14	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	772+59.07	-	772+66.41	USH 45 SB DRIVING	--	16	11	49	--	--	
0010	772+59.07	-	772+66.41	USH 45 SB PASSING	--	16	10	43	--	--	
0010	773+32.54	-	773+43.38	USH 45 SB DRIVING	--	16	17	53	--	--	
0010	773+69.25	-	773+77.37	USH 45 SB DRIVING	--	16	13	50	--	--	
0010	773+69.25	-	773+77.37	USH 45 SB PASSING	--	16	11	44	--	--	
0010	774+78.08	-	774++84.05	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	775+76.91	-	775+89.55	USH 45 SB DRIVING	--	16	20	55	--	--	
0010	777+15.92	-	777+21.92	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	779+53.47	-	779+89.55	USH 45 SB PASSING	15	16	--	120	--	48	
				SUBTOTAL	157	480	187	2,321	0	659	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	781+15.32	-	781+21.32	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	785+99.63	-	786+05.63	USH 45 SB PASSING	--	16	8	30	--	--	
0010	786+40.55	-	786+46.55	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	786+80.12	-	786+86.12	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	788+21.38	-	788+28.80	USH 45 SB DRIVING	--	16	12	49	--	--	
0010	789+54.62	-	789+84.03	USH 45 SB DRIVING	12	16	--	113	--	46	
0010	798+31.38	-	798+37.38	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	798+31.38	-	798+37.38	USH 45 SB PASSING	--	16	8	30	--	--	
0010	798+48.26	-	798+54.26	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	798+48.26	-	798+54.26	USH 45 SB PASSING	--	16	8	30	--	--	
0010	798+65.65	-	798+71.65	USH 45 SB PASSING	--	16	8	30	--	--	
0010	799+00.36	-	799+06.36	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	799+00.36	-	799+06.36	USH 45 SB PASSING	--	16	8	30	--	--	
0010	799+33.70	-	799.39.70	USH 45 SB PASSING	--	16	8	30	--	--	
0010	804+20.67	-	804+59.36	USH 45 SB DRIVING	16	16	--	137	--	64	
0010	805+12.96	-	805+52.15	USH 45 SB DRIVING	16	16	--	137	--	65	
0010	807+88.46	-	808+26.72	USH 45 SB PASSING	16	16	--	143	--	64	
0010	809+13.54	-	809+19.54	USH 45 SB PASSING	--	16	10	36	--	--	
0010	810+41.43	-	810+81.24	USH 45 SB DRIVING	16	16	--	145	--	66	
0010	811+87.27	-	812+27.71	USH 45 SB DRIVING	14	16	--	145	--	67	
0010	812+07.72	-	812+13.72	USH 45 SB PASSING	--	16	10	36	--		
0010	812+60.21	-	813+03.14	USH 45 SB DRIVING	9	16	--	163	--	72	
0010	812+82.67	-	813+03.14	USH 45 SB PASSING	--	16	--	81	--	34	
0010	814+06.76	-	814+18.91	USH 45 SB DRIVING	--	16	20	57	--	--	
0010	815+63.75	-	816+23.90	USH 45 SB DRIVING	12	16	--	210	--	100	
0010	815+93.59	-	816+23.90	USH 45 SB PASSING	--	16	--	120	--	51	
0010	817+12.98	-	817+28.17	USH 45 SB DRIVING	--	16	24	71	--	--	
0010	830+81.57	-	830+95.05	USH 45 SB DRIVING	--	16	21	56	--	--	
0010	831+01.44	-	831+07.43	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	836+82.12	-	836+88.12	USH 45 SB DRIVING	--	16	9	34	--	--	
0010	836+93.68	-	837+23.37	USH 45 SB PASSING	12	16	--	102	--	40	
0010	838+72.70	-	838+87.46	USH 45 SB PASSING	--	16	20	63	--	--	
0010	839+02.57	-	839+12.19	USH 45 SB PASSING	--	16	13	46	--	--	
				SUBTOTAL	123	528	252	2,362	0	669	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	844+45.24	-	844+52.12	USH 45 SB DRIVING	--	16	11	35	--	--	
0010	844+45.24	-	844+52.12	USH 45 SB PASSING	--	16	9	31	--	--	
0010	848+19.81	-	848+49.95	USH 45 SB DRIVING	13	16	--	114	--	47	
0010	850+89.70	-	851+19.81	USH 45 SB DRIVING	7	16	--	114	--	47	
0010	851+04.97	-	851+19.81	USH 45 SB PASSING	--	16	--	63	--	20	
0010	853+58.88	-	854+12.79	USH 45 SB DRIVING	22	16	--	180	--	84	
0010	855+16.62	-	855+74.05	USH 45 SB DRIVING	23	16	--	207	--	96	
0010	857+18.10	-	857+57.02	USH 45 SB DRIVING	16	16	--	144	--	65	
0010	859+05.74	-	859+11.74	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	859+17.16	-	859+23.16	USH 45 SB PASSING	--	16	10	36	--	--	
0010	859+27.71	-	859+33.71	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	859+93.13	-	860+32.63	USH 45 SB PASSING	16	16	--	145	--	66	
0010	860+44.05	-	860+50.05	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	861+22.83	-	861+95.84	USH 45 SB DRIVING	30	16	--	253	--	122	
0010	862+47.99	-	862+85.50	USH 45 SB DRIVING	15	16	--	143	--	63	
0010	863+56.48	-	863+96.92	USH 45 SB DRIVING	17	16	--	145	--	67	
0010	864+65.81	-	864+71.81	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	865+05.06	-	865+42.54	USH 45 SB PASSING	15	16	--	143	--	62	
0010	866+13.15	-	866+86.15	USH 45 SB DRIVING	30	16	--	253	--	122	
0010	867+94.84	-	868+32.03	USH 45 SB DRIVING	15	16	--	142	--	62	
0010	868+67.60	-	868+87.29	USH 45 SB DRIVING	--	16	--	80	--	33	
0010	868+67.60	-	869+07.77	USH 45 SB PASSING	9	16	--	145	--	67	
0010	872+68.43	-	872+95.93	USH 45 SB PASSING	11	16	--	103	--	46	
0010	873+10.96	-	873+16.96	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	873+36.27	-	873+62.06	USH 45 SB DRIVING	11	16	--	101	--	43	
0010	875+35.29	-	875+41.29	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	875+47.37	-	875+81.63	USH 45 SB DRIVING	14	16	--	139	--	57	
0010	876+34.61	-	876+48+22	USH 45 SB DRIVING	--	16	23	59	--	--	
0010	877+45.50	-	877+81.20	USH 45 SB DRIVING	15	16	--	141	--	59	
0010	877+83.41	-	878+21.22	USH 45 SB PASSING	16	16	--	143	--	63	
0010	878+34.25	-	878+53.86	USH 45 SB DRIVING	8	16	--	80	--	33	
0010	879+29.75	-	879+67.34	USH 45 SB PASSING	16	16	--	143	--	63	
0010	880+59.32	-	880+95.35	USH 45 SB PASSING	15	16	--	141	--	60	
0010	881+09.91	-	881+15.91	USH 45 SB DRIVING	--	16	10	36	--		
				SUBTOTAL	334	544	123	3,675	0	1,445	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	881+88.67	-	882+05.33	USH 45 SB DRIVING	7	16	--	77	--	28	
0010	883+15.07	-	883+41.13	USH 45 SB DRIVING	11	16	--	101	--	44	
0010	887+12.45	-	887+23.24	USH 45 SB DRIVING	--	16	18	60	--	--	
0010	887+12.45	-	887+23.24	USH 45 SB PASSING	--	16	18	60	--	--	
0010	895+07.03	-	895+18.25	USH 45 SB PASSING	--	16	19	56	--	--	
0010	895+66.72	-	895+77.09	USH 45 SB PASSING	--	16	18	55	--	--	
0010	899+49.71	-	899+66.56	USH 45 SB DRIVING	7	16	--	77	--	28	
0010	900+16.54	-	900+34.79	USH 45 SB PASSING	8	16	--	78	--	30	
0010	900+74.09	-	900+92.03	USH 45 SB PASSING	8	16	--	78	--	30	
0010	903+77.23	-	903+83.23	USH 45 SB PASSING	--	16	10	36	--	--	
0010	905+60.54	-	905+66.54	USH 45 SB PASSING	--	16	10	36	--	--	
0010	906+36.28	-	906+56.01	USH 45 SB PASSING	8	16	--	80	--	33	
0010	907+04.70	-	907+10.70	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	908+79.92	-	908+93.23	USH 45 SB PASSING	--	16	22	58	--	--	
0010	909+64.97	-	909+70.97	USH 45 SB PASSING	--	16	10	36	--	--	
0010	910+58.49	-	910+95.57	USH 45 SB PASSING	15	16	--	142	--	62	
0010	918+50.26	-	918+65.66	USH 45 SB DRIVING	--	16	--	75	--	26	
0010	918+50.26	-	918+79.60	USH 45 SB PASSING	6	16	--	119	--	49	
0010	920+96.92	-	921+34.32	USH 45 SB DRIVING	--	16	--	142	--	62	
0010	920+96.92	-	921+34.32	USH 45 SB PASSING	--	16	--	142	--	62	
0010	930+71.57	-	930+77.60	USH 45 SB PASSING	--	16	10	36	--	--	
0010	933+44.29	-	933+50.31	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	939+77.81	-	940+00.23	USH 45 SB PASSING	9	16	--	97	--	37	
0010	943+77.69	-	943+83.69	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	944+38.14	-	944+44.14	USH 45 SB PASSING	--	16	10	36	--	--	
				SUBTOTAL	79	400	175	1,785	0	491	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	954+39.80	-	954+63.11	USH 45 SB PASSING	10	16	--	98	--	39	
0010	954+97.09	-	955+34.03	USH 45 SB DRIVING	15	16	--	142	--	62	
0010	956+42.23	-	956+78.89	USH 45 SB DRIVING	15	16	--	142	--	61	
0010	957+55.84	-	957+91.23	USH 45 SB PASSING	15	16	--	140	--	59	
0010	958+24.47	-	958+61.34	USH 45 SB DRIVING	15	16	--	142	--	61	
0010	959+15.80	-	959+50.29	USH 45 SB DRIVING	14	16	--	125	--	57	
0010	960+23.80	-	960+61.72	USH 45 SB DRIVING	16	16	--	143	--	63	
0010	961+33.96	-	961+69.90	USH 45 SB DRIVING	15	16	--	141	--	60	
0010	963+16.64	-	963+54.43	USH 45 SB DRIVING	16	16	--	143	--	63	
0010	964+99.44	-	965+35.78	USH 45 SB DRIVING	15	16	--	141	--	61	
0010	965+75.44	-	966+00.71	USH 45 SB PASSING	7	16	--	100	--	42	
0010	965+91.35	-	966+28.02	USH 45 SB DRIVING	11	16	--	142	--	61	
0010	966+32.57	-	966+47.83	USH 45 SB PASSING	--	16	25	97	--	--	
0010	967+20.76	-	967+60.27	USH 45 SB PASSING	7	16	--	145	--	66	
0010	967+36.81	-	967+91.28	USH 45 SB DRIVING	7	16	--	175	--	91	
0010	967+76.02	-	967+91.28	USH 45 SB PASSING	--	16	25	75	--	--	
0010	968+47.10	-	968+83.40	USH 45 SB DRIVING	--	16	--	141	--	61	
0010	968+47.10	-	968+83.40	USH 45 SB PASSING	--	16	--	141	--	61	
0010	970+13.57	-	970+47.65	USH 45 SB PASSING	14	16	--	124	--	57	
0010	970+65.19	-	970+82.39	USH 45 SB DRIVING	7	16	--	77	--	29	
0010	971+38.16	-	971+74.24	USH 45 SB DRIVING	15	16	--	141	--	60	
0010	971+93.35	-	972+00.01	USH 45 SB PASSING	--	16	11	37	--	--	
0010	972+15.50	-	973+20.99	USH 45 SB DRIVING	36	16	--	361	--	176	
0010	973+04.52	-	973+39.64	USH 45 SB PASSING	36	16	--	140	--	59	
0010	973+46.07	-	973+77.47	USH 45 SB DRIVING	--	16	--	121	--	52	
0010	973+46.07	-	973+77.47	USH 45 SB PASSING	--	16	--	121	--	52	
0010	974+12.30	-	974+12.30	USH 45 SB PASSING	16	16	--	143	--	63	
0010	975+56.35	-	975+93.88	USH 45 SB DRIVING	16	16	--	143	--	63	
0010	977+42.11	-	977+77.07	USH 45 SB DRIVING	14	16	--	125	--	58	
0010	977+97.19	-	978+33.53	USH 45 SB DRIVING	--	16	--	141	--	61	
0010	977+97.19	-	978+33.53	USH 45 SB PASSING	--	16	--	141	--	61	
0010	978+52.68	-	978+92.79	USH 45 SB PASSING	10	16	--	145	--	67	
0010	978+73.13	-	978+88.69	USH 45 SB DRIVING	--	16	--	76	--	26	
0010	980+25.62	-	980+39.02	USH 45 SB PASSING	--	16	22	58	--	--	
0010	980+39.02	-	980+90.77	USH 45 SB DRIVING	8	16	--	187	--	86	
				SUBTOTAL	350	560	84	4,654	0	1,936	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	980+58.91	-	980+92.50	USH 45 SB PASSING	1	16	--	124	--	56	
0010	981+25.65	-	981+31.65	USH 45 SB PASSING	--	16	10	38	--	--	
0010	981+44.95	-	981+82.64	USH 45 SB PASSING	16	16	--	143	--	63	
0010	983+18.17	-	983+45.67	USH 45 SB DRIVING	11	16	--	103	--	46	
0010	984+00.02	-	984+06.02	USH 45 SB PASSING	--	16	10	36	--	--	
0010	984+89.21	-	984+95.21	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	985+10.83	-	985+35.30	USH 45 SB PASSING	4	16	--	100	--	41	
0010	985+18.72	-	986+74.40	USH 45 SB DRIVING	27	16	--	516	--	259	
0010	985+84.42	-	986+21.91	USH 45 SB PASSING	--	16	--	143	--	62	
0010	986+39.87	-	986+74.40	USH 45 SB PASSING	--	16	--	125	--	58	
0010	986+91.71	-	987+27.82	USH 45 SB DRIVING	11	16	--	141	--	60	
0010	987+18.23	-	987+27.82	USH 45 SB PASSING	--	16	16	55	--	--	
0010	987+50.32	-	987+67.98	USH 45 SB PASSING	7	16	--	78	--	29	
0010	987+67.98	-	988+04.02	USH 45 SB DRIVING	15	16	--	141	--	60	
0010	991+05.45	-	991+11.45	USH 45 SB PASSING	--	16	10	36	--	--	
0010	992+73.69	-	992+76.69	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	994+69.48	-	994+75.48	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	995+77.74	-	995+84.86	USH 45 SB DRIVING	--	16	12	52	--	--	
0010	998+84.29	-	998+96.32	USH 45 SB PASSING	--	16	20	57	--	--	
0010	999+15.73	-	999+22.75	USH 45 SB DRIVING	--	16	12	52	--	--	
0010	999+29.47	-	999+35.47	USH 45 SB PASSING	--	16	10	36	--	--	
0010	999+58.59	-	999+72.46	USH 45 SB DRIVING	--	16	23	59	--	--	
0010	1000+32.99	-	1000+60.89	USH 45 SB PASSING	12	16	--	103	--	46	
0010	1000+92.75	-	1001+18.85	USH 45 SB DRIVING	--	16	--	101	--	44	
0010	1000+92.75	-	1001+18.85	USH 45 SB PASSING	--	16	--	101	--	44	
0010	1002+38.30	-	1002+44.30	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1002+58.57	-	1002+64.57	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1003+13.35	-	1003+48.05	USH 45 SB DRIVING	14	16	--	125	--	58	
0010	1003+87.79	-	1003+95.79	USH 45 SB PASSING	--	16	13	53	--	--	
0010	1004+57.37	-	1004+63.37	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1006+58.08	-	1006+70.47	USH 45 SB DRIVING	--	16	21	57	--	--	
0010	1006+58.08	-	1006+70.47	USH 45 SB PASSING	--	16	21	57	--	--	
0010	1007+69.35	-	1007+77.35	USH 45 SB DRIVING	--	16	13	53	--	--	
0010	1007+69.35	-	1007+94.85	USH 45 SB PASSING	5	16	--	101	--	43	
0010	1007+88.85	-	1007+94.85	USH 45 SB DRIVING	--	16	10	36	--	--	
				SUBTOTAL	123	560	261	3,038	0	968	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	1010+09.82	-	1010+15.82	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1010+25.58	-	1010+31.58	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	1010+25.58	-	1010+31.58	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1010+95.96	-	1011+01.96	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	1011+69.20	-	1011+75.20	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1011+75.20	-	1011+91.14	USH 45 SB DRIVING	7	16	--	76	--	27	
0010	1013+51.91	-	1013+57.91	USH 45 SB PASSING	--	16	10	36	--	--	
0010	1015+28.69	-	1015+34.69	USH 45 SB DRIVING	--	16	10	36	--	--	
0010	145+96.00	-	146+13.28	USH 45 NB OFF RAMP	--	16	--	96	--	29	
0010	147+86.60	-	147+98.49	USH 45 NB OFF RAMP	--	16	16	60	--	--	
0010	149+01.60	-	149+47.43	USH 45 NB ON RAMP	43	12	--	173	--	51	
0010	372+53.45	-	372+70.40	USH 45 NB OFF RAMP	23	--	21	70	--	--	
0010	374+13.01	-	374+38.39	USH 45 NB ON RAMP	12	45	--	161	--	44	
0010	376+66.02	-	378+44.58	USH 45 NB ON RAMP	--	16	--	762	--	297	
0010	380+52.96	-	380+82.49	USH 45 NB ON RAMP	--	16	--	149	--	49	
0010	381+12.22	-	381+42.17	USH 45 NB ON RAMP	--	16	--	150	--	50	
0010	383+53.91	-	383+59.98	USH 45 NB ON RAMP	--	16	10	42	--	--	
0010	434+26.68	-	434+56.89	USH 45 NB OFF RAMP	--	16	--	147	--	48	
0010	436+52.40	-	436+62.83	USH 45 NB OFF RAMP	--	16	17	58	--	--	
0010	434+73.48	-	436+81.60	USH 45 NB OFF RAMP	--	16	13	53	--	--	
0010	437+50.62	-	437+70.69	USH 45 NB OFF RAMP	26	--	--	91	--	27	
0010	439+19.93	-	439+34.58	USH 45 NB ON RAMP	6	4	4	35	--	--	
0010	447+87.49	-	448+03.81	USH 45 NB ON RAMP	--	16	--	89	--	25	
0010	145+94.03	-	146+24.20	USH 45 SB ON RAMP	--	16	--	150	--	50	
0010	146+69.27	-	146+75.27	USH 45 SB ON RAMP	--	16	10	42	--	--	
0010	147+74.50	-	147+59.50	USH 45 SB ON RAMP	--	16	25	74	--	--	
0010	364+47.03	-	364+92.00	USH 45 SB ON RAMP	--	16	--	210	--	75	
0010	368+06.20	-	368+81.00	USH 45 SB ON RAMP	--	16	--	330	--	124	
0010	373+09.32	-	373+24.00	USH 45 SB ON RAMP	--	16	25	90	--	--	
0010	374+12.48	-	375+42.18	USH 45 SB ON RAMP	50	18	--	559	--	215	
0010	375+00.09	-	375+65.76	USH 45 SB OFF RAMP	54	20	--	622	--	200	
				SUBTOTAL	221	483	211	4,541	0	1,310	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	* 690.0250 SAWING CONCRETE LF	416.1725 PAVEMENT REPLACEMENT SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	REMARKS
0010	433+06.39	-	433+66.93	USH 45 SB ON RAMP	--	16	--	265	--	96	
0010	439+01.68	-	439+21.11	USH 45 SB ON RAMP	--	16	--	100	--	33	
0010	439+30.53	-	439+56.92	USH 45 SB ON RAMP	--	16	--	133	--	46	
0010	439+56.92	-	439+71.09	USH 45 SB ON RAMP	5	2	4	34	--	--	
0010	440+01.04	-	440+15.62	USH 45 SB ON RAMP	--	16	23	86	--	--	
0010	441+78.36	-	442+46.90	USH 45 SB OFF RAMP	--	16	--	247		110	
0010	94+08.25	-	94+25.45	CTH II	25	--	--	78	26	26	
0010	94+96.93	-	95+11.50	CTH II	12	16	--	77	20	19	
0010	95+03.58	-	95+11.49	CTH II SHOULDER	3	--	--	41	7	7	
0010	95+15.77	-	95+30.25	CTH II	12	16	--	85	23	23	
0010	98+94.61	-	99+10.63	CTH II	12	28	--	109	41	71	
0010		UNDISTRIBUTED		USH 45	1070	1,800	576	13809	--	5310	
				SUBTOTAL	1,139	1,942	603	15,064	117	5,741	
				TOTAL 0010	4,401	10,001	3,559	61,010	117	20,931	
0015	77+09.75	-	77+51.43	STH 116 EB	15	32	--	317	--	110	
0015	77+09.75	-	77+51.95	STH 116 EB TURN LANE	19	16	--	133	--	67	
0015	77+26.15	-	78+03.27	STH 116 EB	119	36	--	384	--	122	
0015	78+91.26	-	79+47.25	STH 116 EB	17	16	--	220	--	75	
0015	79+33.01	-	79+75.00	STH 116 EB	22	16	--	168	--	56	
0015	79.32.53	-	79+46.52	STH 116 EB TURN LANE	--	16	19	64	--	--	
0015	81+10.01	-	81+36.30	STH 116 EB TURN LANE	17	16	--	113	--	35	
0015	81+25.42	-	81+36.30	STH 116 EB	--	16	15	58	--	--	
0015	81+60.50	-	82+92.35	STH 116 EB	93	14	--	505	--	163	
0015	76+46.90	-	78+19.15	STH 116 WB	46	44	--	1303	--	531	
0015	81+36.58	-	81+45.86	STH 116 WB TURN LANE	--	8	10	49	--	--	
0015	82+18.27	-	82+31.15	STH 116 WB	--	16	17	62	--	--	
0015	82+18.41	-	82+60.45	STH 116 WB	21	8	--	159		48	
				TOTAL 0015	369	254	61	3,535	0	1,208	
				PROJECT TOTAL	4,770	10,255	3,620	64,545	117	22,139	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

APPROACH SLAB

CATEGORY	STATION	TO	STATION	LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	* 204.0100 REMOVING CONCRETE PAVEMENT SY	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	* 690.0250 SAWING CONCRETE LF	REMARKS
0010	423+35.88	-	423+48.81	USH 45 NB DRIVING SHOULDER	15	15	6	--	24	
0010	423+36.87	-	423+48.28	USH 45 NB PASSING SHOULDER	7	7	5	--	17	
0010	480+10.54	-	480+38.43	USH 45 NB DRIVING SHOULDER	21	21	9	--	49	
0010	480+19.51	-	480+25.52	USH 45 NB DRIVING LANE	10	10	3	16	35	
0010	480+26.05	-	480+49.08	USH 45 NB PASSING SHOULDER	12	12	9	--	37	
0010	481+85.69	-	482+03.96	USH 45 NB DRIVING SHOULDER	16	16	7	--	32	
0010	584+55.09	-	584+74.81	USH 45 NB PASSING SHOULDER	11	11	8	--	30	
0010	584+82.58	-	584+94.95	USH 45 NB DRIVING SHOULDER	9	9	4	--	16	
0010	674+93.42	-	675+33.92	USH 45 NB DRIVING SHOULDER	13	13	--	--	82	PAYING FOR CONCRETE REMOVAL UP TO THE ASPHALT
0010	675+17.63	-	675+39.35	USH 45 NB DRIVING LANE	29	29	--	--	78	
0010	675+17.67	-	675.44.04	USH 45 NB PASSING LANE	32	32	--	8	74	
0010	675+28.13	-	675+46.63	USH 45 NB PASSING SHOULDER	15	15	--	--	32	
0010	677+45.24	-	677+58.75	USH 45 NB DRIVING SHOULDER	10	10	5	--	18	
0010	677+56.68	-	677+78.38	USH 45 NB PASSING SHOULDER	17	17	6	--	44	
0010	425+96.99	-	426+16.65	USH 45 SB DRIVING SHOULDER	14	14	8	--	32	
0010	480+16.75	-	480+41.44	USH 45 SB PASSING SHOULDER	18	18	10	--	45	
0010	481+81.01	-	481+99.77	USH 45 SB PASSING SHOULDER	14	14	8	--	31	
0010	481+87.44	-	482+07.06	USH 45 SB DRIVING SHOULDER	17	17	8	--	35	
0010	583+76.25	-	583+97.94	USH 45 SB DRIVING SHOULDER	17	17	9	--	47	
0010	584+04.01	-	584+17.54	USH 45 SB PASSING SHOULDER	8	8	4	--	16	
0010	585+24.88	-	585+55.35	USH 45 SB DRIVING LANE	41	41	10	--	79	
0010	677+78.25	-	677+89.54	USH 45 SB PASSING SHOULDER	7	7	--	--	16	
0010	677+80.12	-	678+0153	USH 45 SB PASSING LANE	26	26	--	--	54	
0010	677+83.74	-	678+01.53	USH 45 SB DRIVING LANE	24	24	6	--	74	
0010	872+51.90	-	872+61.23	USH 45 SB PASSING SHOULDER	7	7	--	--	16	
0010	872+51.91	-	872+66.86	USH 45 SB PASSING LANE	25	25	--	--	54	
0010	872+51.92	-	872+66.86	USH 45 SB DRIVING LANE	25	25	--	8	55	
0010	872+51.93	-	872+61.59	USH 45 SB DRIVING SHOULDER	8	8	--	--	17	
0010	97+91.17	-	98+20.69	CTH II	35	35	21	8	112	
				TOTAL 0010	503	503	146	40	1,252	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

HMA SHOULDER REPAIR

CATEGORY	STATION	TO	STATION	LOCATION	* 4S5.0605 TACK COAT GAL	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY LF	* 460.S224 HMA PAVEMENT 4 LT 58-28 S TON	* 690.0150 SAWING ASPHALT LF	REMARKS
0010	411+SS.62	-	416+33.S3	USH 4S NB DRIVING SHOULDER	27	3SS	478	44	17	
0010	411+SS.62	-	423+36.87	USH 4S NB PASSING SHOULDER	38	S11	1,181	61	117	
0010	421+55.22	-	423+36.37	USH 45 NB DRIVING SHOULDER	16	228	181	26	23	
0010	426+29.38	-	471+51.20	USH 4S NB PASSING SHOULDER	106	1,509	4,S22	169	29	
0010	429+86.S0	-	433+36.61	USH 45 NB DRIVING SHOULDER	16	233	350	26	12	
0010	4S7+83.93	-	4S9+04.26	USH 45 NB DRIVING SHOULDER	6	80	120	9	12	
0010	472+01.21	-	472+76.21	USH 4S NB PASSING SHOULDER	2	2S	7S	3	18	
0010	479+69.12	-	480+10.S4	USH 4S NB DRIVING SHOULDER	2	40	41	3	17	
0010	479+81.S8	-	480+26.20	USH 4S NB PASSING SHOULDER	2	33	4S	3	13	
0010	499+00.00	-	S27+49.80	USH 4S NB PASSING SHOULDER	66	9S0	2,8S0	106	108	
0010	579+12.43	-	578+10.32	USH 45 NB PASSING SHOULDER	2	34	102	4	6	
0010	581+79.5S	-	584+55.03	USH 45 NB PASSING SHOULDER	16	249	275	26	13	
0010	586+06.44	-	S93+8S.21	USH 4S NB PASSING SHOULDER	28	409	779	4S	11	
0010	S97+67.11	-	S98+66.11	USH 4S NB PASSING SHOULDER	2	33	99	4	6	
0010	631+84.44	-	632+74.48	USH 4S NB PASSING SHOULDER	19	269	90	30	6	INCLUDES MIDDLE UP TO THE EDGE OF THE SB SHOULDER
0010	632+23.95	-	660+00.00	USH 45 NB DRIVING SHOULDER	118	1,826	2,776	188	12	
0010	673+12.82	-	673+43.02	USH 45 NB DRIVING SHOULDER	2	28	30	3	17	
0010	674+61.6S	-	674+93.S0	USH 4S NB DRIVING SHOULDER	3	28	32	4	8	
0010	74S+00.00	-	75S+00.00	USH 4S NB DRIVING SHOULDER	47	667	S00	7S	12	
0010	411+SS.60	-	414+4S.S8	USH 4S SB PASSING SHOULDER	7	97	290	11	6	
0010	41S+29.9S	-	423+20.66	USH 4S SB DRIVING SHOULDER	37	S2S	791	S9	14	
0010	426+16.6S	-	426+61.96	USH 4S SB DRIVING SHOULDER	2	40	45	3	16	
0010	4S8+00.00	-	471+69.82	USH 4S SB PASSING SHOULDER	32	4S7	1,370	S1	77	
0010	463+00.00	-	468+00.00	USH 45 SB DRIVING SHOULDER	22	308	500	34	12	
0010	485+88.17	-	494+84.88	USH 45 SB DRIVING SHOULDER	42	596	897	67	12	
0010	S17+00.00	-	S29+00.00	USH 4S SB PASSING SHOULDER	28	400	1,200	4S	130	
0010	S43+00.00	-	S76+00.00	USH 4S SB PASSING SHOULDER	77	1,100	3,300	123	6	
0010	SS0+97.82	-	SS4+81.02	USH 4S SB DRIVING SHOULDER	18	2SS	383	29	12	
0010	S83+76.2S	-	S83+24.90	USH 4S SB DRIVING SHOULDER	3	4S	S1	S	16	
0010	622+01.13	-	629+1S.09	USH 4S SB DRIVING SHOULDER	33	476	714	53	12	
0010	631+06.50	-	640+16.61	USH 4S SB PASSING SHOULDER	21	303	1,010	34	101	
0010	6S3+00.00	-	67S+40.45	USH 4S SB PASSING SHOULDER	53	75S	2,240	8S	10	
0010	683+00.00	-	704+00.00	USH 4S SB PASSING SHOULDER	49	700	2,100	78	6	
0010	697+00.7S	-	699.99.8S	USH 4S SB DRIVING SHOULDER	14	199	299	22	12	
0010	714+00.00	-	719+00.00	USH 4S SB DRIVING SHOULDER	23	333	S00	37	12	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

HMA SHOULDER REPAIR CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 455.0605 TACK COAT GAL	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY LF	* 460.5224 HMA PAVEMENT 4 LT 58-28 S TON	* 690.0150 SAWING ASPHALT LF	REMARKS
0010	751+00.00	-	756+00.00	USH 45 SB DRIVING SHOULDER	23	333	500	37	12	
0010	790+00.00	-	800+00.00	USH 45 SB DRIVING SHOULDER	44	626	1,000	70	12	
0010	870+29.00	-	871+78.60	USH 45 SB DRIVING SHOULDER	7	99	150	11	6	
0010	870+62.00	-	871+78.60	USH 45 PASSING SHOULDER	4	62	115	7	--	
0010	156+02.85	-	160+29.65	USH 45 NB ON RAMP FROM CTH T, RT	17	236	---	26	10	
0010	374+40.98	-	375+16.84	USH 45 NB ON RAMP FROM STH 116, RT	2	34	---	4	7	
0010	374+52.38	-	374+67.51	USH 45 NB ON RAMP FROM STH 116, LT	1	5	--	1	6	
0010	383+09.19	-	386+39.75	USH 45 NB ON RAMP FROM STH 116, RT	13	183	331	20	10	
0010	378+00.00	-	690+23.00	USH 45 SB EXIT RAMP TO STH 116 LT	38	549	465	62	--	
0010	366+00.00	-	371+00.00	USH 45 NB EXIT RAMP TO STH 116, RT	19	276	--	31	10	
				TOTAL 0010	1,148	16,501	32,778	1,835	981	

PARK AND RIDE HMA PAVEMENT

CATEGORY	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 455.0605 TACK COAT GAL	* 460.5224 HMA PAVEMENT 4 LT 58-28 S TON	* 624.0100 WATER MGAL	REMARKS
0015	STH 116 PARK AND RIDE	15	4,515	100	320	510	2	
	TOTAL 0015	15	4,515	100	320	510	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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CLEANING CULVERT PIPES

CATEGORY	STATION	TO	STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	REMARKS
0010	431+22.12	-	431+22.12	USH 45 NB	1	
0010	445+00.00	-	446+00.00	USH 45 NB/SB	3	
0010	653+19.85	-	653+19.85	USH 45 NB	1	
0010	699+23.46	-	699+23.46	USH 45 NB	1	
0010	980+37.10	-	980+37.10	USH 45 NB	1	
0010	989+33.31		989+33.31	USH 45 NB	1	
0010	506+12.20	-	506.12.20	USH 45 SB	1	
0010	592+86.68	-	592+86.68	USH 45 SB	1	
0010	600+74.17	-	600+74.17	USH 45 SB	1	
				TOTAL 0010	11	

DIAMOND GRINDING

CATEGORY	STATION	TO	STATION	LOCATION	420.1000 CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT SY	REMARKS
0010	764+00	-	854+47	USH 45 SB	26,136	
0010	854+47	-	871+79	USH 45 SB	5,773	
0010	872+51	-	1016+91	USH 45 SB	48,133	
0010	1016+91	-	1020+15	USH 45 SB	936	
			TOTAL 0010		80,978	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

3

CONCRETE SIDEWALK

CATEGORY	STATION	STATION	LOCATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0405 CONCRETE SIDEWALK 4-INCH SF	204.0155 REMOVING CONCRETE SIDEWALK SY	REMARKS
0015	372+47	LT	STH 116 NB Off Ramp	20	175	--	
0015	372+36	RT	STH 116 NB Off Ramp	20	155	--	
0015	374+92	LT	STH 116 SB Entrance Ramp	20	190	--	
0015	374+95	RT	STH 116 SB Entrance Ramp	20	135	--	
0010	34+00	LT	Sunnyview North	--	--	--	
0010	34+00	RT	Sunnyview South	--	965	140	
			TOTAL 0010	0	965	140	
			TOTAL 0015	80	655	0	
			PROJECT TOTAL	80	1,620	140	

CONCRETE SURFACE DRAINS

CATEGORY	STATION	TO	STATION	LOCATION	204.0190 REMOVING SURFACE DRAINS EACH	602.3010 CONCRETE SURFACE DRAINS CY	REMARKS
0010	479+69.11	-	480+25.00	USH 45 NB DRIVING	--	1	
0010	479+81.58	-	480+37.42	USH 45 NB PASSING	1	1	
0010	584+09.60	-	584+65.53	USH 45 NB PASSING	1	1	
0010	674+61.65	-	675+15.75	USH 45 NB DRIVING	--	1	
0010	426+08.29	-	426+62.43	USH 45 SB DRIVING	1	1	
0010	583+24.90	-	583+81.20	USH 45 SB DRIVING	--	1	
0010	15+60.60	-	16+17.17	BROOKS RD WB	--	1	
0010	13+02.70	-	13+59.05	SKELETON BRIDGE RD NB	--	1	
0010	41+03.27	-	41+58.78	CTH G WB	--	1	
0010	41+24.30	-	41+82.19	CTH G EB	--	1	
0010	95+01.28	-	95+59.38	CTH II EB	--	1	
				TOTAL 0010	3	11	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CURB AND GUTTER

CATEGORY	STATION		TO STATION	LOCATION	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0413 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	465.0105 ASPHALTIC SURFACE TON	* 416.0610 DRILLED TIE BARS EACH	204.0150 REMOVING CURB & GUTTER LF	* 204.0100 REMOVING CONCRETE PAVEMENT SY	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT LF	415.0090 CONCRETE PAVEMENT 9-INCH SY	* 690.0150 SAWING ASPHALT	* 690.0250 SAWING CONCRETE	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	REMARKS
0010	479+59.11	-	480+25.00	USH 45 NB DRIVING	--	--	--	--	--	--	--	42	12	--	--	--	--	
0010	479+81.58	-	480+37.42	USH 45 NB PASSING	--	--	--	--	--	--	--	45	12	--	--	--	--	
0010	584+09.60		584+65.53	USH 45 NB PASSING								45	8					
0010	674+61.65		675+15.75	USH 45 NB DRIVING								54						
0010	426+08.29	-	426+62.43	USH 45 SB DRIVING	--	--	--	--	--	--	--	45	9	--	--	--	--	
0010	583+24.90	-	583+81.20	USH 45 SB DRIVING	--	--	--	--	--	--	--	51	9	--	--	--	--	
0010	25+16.49	-	25+30.96	CTH T WB	--	18	--	--	11	--	8	--	--	3	--	--	--	
0010	25+30.96	-	25+55.34	CTH T WB	--	24	--	--	10	24	--	--	--	--	--	--	--	
0010	15+60.60	-	16+17.17	BROOKS RD WB	--	--	--	3	--	--	--	56	--	--	65	--	--	
0010	13+02.70	-	13+59.05	SKELETON BRIDGE RD NB	--	--	--	3	--	--	--	--	56	--	64	--	--	
0010	36+91.52	-	37+07.11	CTH G WB	16	--	--	2	--	--	--	--	--	--	20	--	--	
0010	41+03.27	-	41+58.78	CTH G WB	--	--	--	3	--	--	--	56	--	--	64	--	--	
0010	41+24.30		41+82.19	CTH G EB				3				58			64			
0010	42+27.37	-	42+51.04	CTH G WB	23	--	--	2	--	--	--	--	--	--	27	--	--	
0010	92+83.14	-	92+97.15	CTH II WB	--	--	14	--	6	14	--	--	--	--	--	--	--	
0010	92+97.15	-	93+10.74	CTH II WB	--	--	14	--	8	--	6	--	--	2	--	--	--	
0010	95+01.28	-	95+59.38	CTH II EB	--	--	--	3	--	--	--	43	16	--	45	--	--	
0010	99+46.90	-	99+51.44	CTH II MIDDLE	--	--	--	--	--	--	3	--	--	--	--	--	21	
0010	372+30.6	-	372+46.9	STH 116 NB EXIT RAMP	20	--	--	--	6	20	--	--	--	--	--	26	--	
0015	76+47.00	-	76+73.00	STH 116	--	25	--	--		25	--	--	--	--	--	5	--	
				TOTAL 0010	59	42	28	19	41	58	17	495	122	5	349	26	21	
				TOTAL 0015	0	25	0	0	0	25	0	0	0	0	0	5	0	
				PROJECT TOTAL	59	67	28	19	41	83	17	495	122	5	349	31	21	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PIPE UNDERDRAIN

CATEGORY	STATION	STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	REMARKS
0010	34+00	LT	Sunnyview North	145	1	
0010	34+00	RT	Sunnyview South	40	1	
			TOTAL	185	2	

ADJUSTING INLET COVERS

CATEGORY	STATION	LOCATION	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
0010	674+98.42	USH 45 NB DRIVING SIDE	1	
0010	675+07.64	USH 45 NB DRIVING SIDE	1	
0010	25+29.60	CTH T WB	1	
0010	16+00.00	BROOKS RD LT	1	
0010	16+09.00	BROOKS RD LT	1	
0015	76+60.00	STH 116 WB	1	
		TOTAL 0010	5	
		TOTAL 0015	1	
		PROJECT TOTAL	6	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

GUARDRAIL REPLACEMENT

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2300 MGS GUARDRAIL 3 LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	* 614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2500 MGS THRIE BEAM TRANSITION LF	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	416+01.75	-	423+38.72	USH 45 NB DRIVING SIDE	732	--	650.0	--	--	--	--	**1**	39.4	--	--	1	
0010	420+44.30	-	423+39.27	USH 45NB PASSING SIDE	295	--	200.0	--	--	--	--	**1**	39.4	--	--	1	
0010	438+45.71	-	439+52.41	USH 45 NB DRIVING SIDE	83	--	12.5	--	--	--	--	**1**	39.4	--	--	1	
0010	449+84.57	-	453+42.43	USH 45 MIDDLE	773	--	--	--	525	2	--	**1**	--	--	--	--	
0010	477+30.47	-	480+37.43	USH 45NB PASSING SIDE	295	--	212.5	--	--	--	--	**1**	39.4	--	--	1	
0010	477+80.48	-	480+25.00	USH 45 NB DRIVING SIDE	245	--	150.0	--	--	--	--	**1**	39.4	--	--	1	
0010	563+85.39	-	565+65.86	USH 45 MIDDLE	377	--	--	--	150	2	--	**1**	--	--	--	--	
0010	581+83.10	-	584+65.54	USH 45NB PASSING SIDE	283	--	187.5	--	--	--	--	**1**	39.4	--	--	1	
0010	582+42.35	-	584+84.95	USH 45 NB DRIVING SIDE	233	--	150.0	--	--	--	--	**1**	39.4	--	--	1	
0010	586+07.51	-	588+98.65	USH 45NB PASSING SIDE	293	--	237.5	--	--	--	--	**1**	39.4	--	1	--	
0010	671+86.48	-	675+30.26	USH 45NB PASSING SIDE	285	--	250	--	--	--	--	**1**	39.4	--	--	1	
0010	672+58.60	-	675+18.01	USH 45 NB DRIVING SIDE	235	--	162.5	--	--	--	--	**1**	39.4	--	--	1	
0010	762+70.01	-	764+49.47	USH 45 MIDDLE	373	--	--	--	150	2	--	**1**	--	--	--	--	
0010	841+03.74	-	842+72.71	USH 45 MIDDLE	374	--	--	--	125	2	--	**1**	--	--	--	--	
0010	868+51.01	-	870+93.61	USH 45 NB DRIVING SIDE	246	--	150.0	--	--	--	--	**1**	39.4	--	--	1	
0010	869+44.21	-	871+11.80	USH 45NB PASSING SIDE	171.5	--	75.0	--	--	--	--	**1**	39.4	--	--	1	
0010	893+82.57	-	895+51.73	USH 45 MIDDLE	373	--	--	--	125	2	--	**1**	--	--	--	--	
0010	946+73.60	-	948+42.76	USH 45 MIDDLE	347	--	--	--	125	2	--	**1**	--	--	--	--	
0010	1007+63.89	-	1009+83.04	USH 45 MIDDLE	449	--	--	--	225	2	--	**1**	--	--	--	--	
0010	426+05.76	-	428+63.06	USH 45 SB DRIVING SIDE	233	--	162.5	--	--	--	--	**1**	39.4	--	--	1	
0010	426+06.02	-	428+98.35	USH 45 SB PASSING SIDE	284	--	200.0	--	--	--	--	**1**	39.4	--	--	1	
0010	452+29.22	-	454+33.73	USH 45 SB DRIVING SIDE	175	--	137.5	--	--	--	--	**1**	--	--	1	1	
0010	481+97.36	-	485+02.33	USH 45 SB PASSING SIDE	296	--	212.5	--	--	--	--	**1**	39.4	--	--	1	
0010	482+04.97	-	484+60.11	USH 45 SB DRIVING SIDE	233	--	162.5	--	--	--	--	**1**	39.4	--	--	1	
0010	579+62.96	-	583+81.20	USH 45 SB DRIVING SIDE	411	--	175.0	--	--	--	--	**1**	39.4	--	1	--	
0010	585+26.35	-	588+21.19	USH 45 SB DRIVING SIDE	285	--	200.0	--	--	--	--	**1**	39.4	--	--	1	
0010	585+53.49	-	591+45.05	USH 45 SB PASSING SIDE	585	--	500.0	--	--	--	--	**1**	39.4	--	--	1	
0010	677+87.24	-	680+80.26	USH 45 SB PASSING SIDE	285	--	200.0	--	--	--	--	**1**	39.4	--	--	1	
0010	678+06.36	-	680+34.16	USH 45 SB DRIVING SIDE	235	--	137.5	--	--	--	--	**1**	39.4	--	--	1	
0010	872+58.58	-	874+99.15	USH 45 SB DRIVING SIDE	159	--	150.0	--	--	--	--	**1**	39.4	--	--	1	
0010	872+58.74	-	875+24.30	USH 45 SB PASSING SIDE	284	--	175.0	--	--	--	--	**1**	39.4	--	--	1	
0010	13+87.84	-	16+77.99	BROOKS RD EB	158	--	200.0	--	--	--	--	**1**	39.4	--	--	1	
0010	15+10.80	-	16+17.17	BROOKS RD WB	83	--	12.5	--	--	--	--	**1**	39.4	--	--	1	
0010	19+57.59	-	21+87.75	BROOKS RD WB	120	--	137.5	--	--	--	--	**1**	39.4	--	--	1	
0010	20+05.91	-	21+10.89	BROOKS RD EB	83	--	12.5	--	--	--	--	**1**	39.4	--	--	1	

*-SEE FOLLOWING TABLES FOR ESTIMATED QUANTITIES ASSOCIATED WITH BID ITEM 614.0100

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

GUARDRAIL REPLACEMENT CONT.

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2300 MGS GUARDRAIL 3 LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	* 614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2500 MGS THRIE BEAM TRANSITION LF	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	12+27.79	-	13+59.07	SKELETON BRIDGE RD NB	121	--	37.5	--	--	--	--	1	39.4	--	--	1	
0010	12+84.40	-	13+88.42	SKELETON BRIDGE RD SB	83	--	12.5	--	--	--	--	1	39.4	--	--	1	
0010	16+56.01	-	18+61.91	SKELETON BRIDGE RD NB	283	--	112.5	--	--	--	--	1	39.4	--	--	1	
0010	16+83.41	-	18+12.75	SKELETON BRIDGE RD SB	121	--	37.5	--	--	--	--	1	39.4	--	--	1	
0010	36+65.42	-	38+20.40	CTH G EB	133	--	62.5	--	--	--	--	1	39.4	--	--	1	
0010	37+27.15	-	37+97.75	CTH G WB	83	--	--	1	--	--	20.7	1	--	--	--	--	
0010	41+00.89	-	42+18.37	CTH G WB	122	--	12.5	--	--	--	--	1	39.4	--	--	1	
0010	41+24.30	-	42+41.78	CTH G EB	108	--	12.5	--	--	--	--	1	39.4	--	--	1	
0010	18+47.98	-	19+18.59	WOODLAND RD EB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	18+48.07	-	19+18.68	WOODLAND RD WB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	21+67.74	-	22+38.35	BREEZEWOOD LN EB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	21+67.67	-	22+38.02	BREEZEWOOD LN WB	71	--	--	1	--	--	20.7	1	--	--	--	--	
0010	18+48.39	-	19+19.00	LAKEVIEW RD EB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	18+48.09	-	19+18.70	LAKEVIEW RD WB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	21+65.91	-	22+36.24	OAKRIDGE RD EB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	21+66.07	-	22+36.68	OAKRIDGE RD WB	72	--	--	1	--	--	20.7	1	--	--	--	--	
0010	43+56.61	-	44+42.40	MJD CREEK RD/GRANDVIEW RD	170	39	50.0	--	--	--	--	1	39.4	--	--	1	CONTINJES ONTO GRANDVIEW RD EB
0010	43+55.22	-	44+26.72	GRANDVIEW RD WB	67	--	--	1	--	--	20.7	1	--	--	--	--	
0010	46+90.66	-	47+96.95	GRANDVIEW RD WB	120	--	12.5	--	--	--	--	1	39.4	--	--	1	
0010	47+03.58	-	48+07.41	GRANDVIEW RD EB	83	--	12.5	--	--	--	--	1	39.4	--	--	1	
0010	94+30.21	-	95+59.38	CTH M/CTH II EB	110	--	37.5	--	--	--	--	1	39.4	--	--	1	
0010	97+89.83	-	98+71.89	CTH M/CTH II WB	97	37	50.0	--	--	--	--	1	39.4	1	--	--	CONTINJES ONTO CTH M/CTH II WB
				TOTAL 0010	12,549	76	5,662.5	10	1,425	14	207.0	57	1,536.6	1	3	37	

*SEE FOLLOWING TABLES FOR ESTIMATED QUANTITIES ASSOCIATED WITH BID ITEM 614.0100

MGS GUARDRAIL 3K

CATEGORY	STATION	TO	STATION	LOCATION	614.2330 LF	REMARKS
0010	580+13	-	582+01	USH 45 SB LT	187.5	
				TOTAL 0010	187.5	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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614.0010 BARRIER SYSTEM GRADING AND SHAPING ASSOCIATED ITEMS AND QUANTITIES FOR INFORMATION ONLY

Location	OFFSET	Excavation Common*	Borrow*	Salv.Topsoil*	Fertilizer Type B*	Seeding*	Seed Water*	Mulching*
		C.Y.	C.Y.	S.Y.	CWT.	L.B.	MGAL	S.Y.
Sta. 414+75 to Sta. 423+37 NB	RT	0.00	149.93	1339	0.8	60	30	1339
Sta. 420+44 to Sta. 423+40 NB	LT	0.00	11.80	288	0.2	13	6	288
Sta. 438+45 to Sta. 439+52 NB	RT	0.00	14.05	180	0.1	8	4	180
Sta. 449+85 to Sta. 453+42	MID	0.00	88.81	195	0.1	9	4	195
Sta. 477+30 to Sta. 480+37 NB	LT	0.00	10.96	228	0.1	10	5	228
Sta. 477+80 to Sta. 480+25 NB	RT	0.00	9.31	531	0.3	24	12	531
Sta. 563+85 to Sta. 565+66	MID	0.00	39.23	506	0.3	23	11	506
Sta. 581+83 to Sta. 584+66 NB	LT	1.01	57.26	267	0.2	12	6	267
Sta. 582+42 to Sta. 584+85 NB	RT	2.37	0.57	287	0.2	13	6	287
Sta. 586+08 to Sta. 588+99 NB	LT	0.00	8.72	131	0.1	6	3	131
Sta. 671+86 to Sta. 675+30 NB	LT	2.53	4.66	364	0.2	16	8	364
Sta. 672+59 to Sta. 675+18 NB	RT	0.00	16.62	220	0.1	10	5	220
Sta. 762+70 to Sta. 764+50	MID	0.80	51.12	399	0.3	18	9	399
Sta. 841+04 to Sta. 842+73	MID	0.00	0.00	813	0.5	37	18	813
Sta. 868+51 to Sta. 870+94 NB	RT	0.00	66.97	145	0.1	7	3	145
Sta. 869+44 to Sta. 871+12 NB	LT	0.00	30.08	116	0.1	5	3	116
Sta. 893+83 to Sta. 895+52	MID	0.00	26.37	1923	1.2	87	43	1923
Sta. 946+74 to Sta. 948+43	MID	5.03	71.31	1772	1.1	80	40	1772
Sta. 1007+64 to Sta. 1009+83	MID	16.60	46.91	1125	0.7	51	25	1125
Sta. 426+06 to Sta. 428+63 SB	LT	0.00	10.03	168	0.1	8	4	168
Sta. 426+06 to Sta. 428+95 SB	RT	0.00	3.23	197	0.1	9	4	197
Sta. 452+29 to Sta. 480+37 SB	LT	0.00	5.60	72	0.0	3	2	72
Sta. 481+97 to Sta. 485+02 SB	RT	2.29	8.36	374	0.2	17	8	374
Sta. 482+05 to Sta. 484+60 SB	LT	0.90	14.41	233	0.1	10	5	233
Sta. 579+63 to Sta. 583+81 SB	LT	0.00	0.00	792	0.5	36	18	792
Sta. 585+26 to Sta. 588+21 SB	LT	0.00	3.68	271	0.2	12	6	271
Sta. 585+53 to Sta. 591+45 SB	RT	0.00	3.82	495	0.3	22	11	495
Sta. 677+87 to Sta. 680+80 SB	RT	0.00	4.57	221	0.1	10	5	221
Sta. 678+06 to Sta. 680+34 SB	LT	2.18	0.00	246	0.2	11	6	246
Totals		34	758	13898	8.8	625	312	13898

*ITEMS AND QUANTITIES FOR INFORMATION ONLY

614.0010 BARRIER SYSTEM GRADING AND SHAPING ASSOCIATED ITEMS AND QUANTITIES FOR INFORMATION ONLY

Location	OFFSET	Excavation Common*	Borrow*	Salv.Topsoil*	Fertilizer Type B*	Seeding*	Seed Water*	Mulching*
		C.Y.	C.Y.	S.Y.	CWT.	L.B.	MGAL	S.Y.
Sta. 872+59 to Sta. 874+99 SB	LT	2.20	48.50	169	0.1	8	4	169
Sta. 872+59 to Sta. 875+24 SB	RT	13.89	55.68	252	0.2	11	6	252
Sta. 13+88 to Sta. 16+78	RT	0.00	176.20	899	0.6	40	20	899
Sta. 15+11 to Sta. 16+17	LT	23.25	605.89	563	0.4	25	13	563
Sta. 19+58 to Sta. 21+88	LT	21.61	205.15	732	0.5	33	16	732
Sta. 20+06 to Sta. 21+11	RT	0.00	410.00	513	0.3	23	12	513
Sta. 12+28 to Sta. 13+59	RT	0.00	149.12	442	0.3	20	10	442
Sta. 12+84 to Sta. 13+88	LT	0.00	11.35	87	0.1	4	2	87
Sta. 16+56 to Sta. 18+62	RT	0.00	189.90	697	0.4	31	16	697
Sta. 16+83 to Sta. 18+13	LT	0.00	20.94	217	0.1	10	5	217
Sta. 36+65 to Sta. 38+20	RT	10.24	0.00	157	0.1	7	4	157
Sta. 37+27 to Sta. 37+98	LT	0.00	3.55	58	0.0	3	1	58
Sta. 41+01 to Sta. 42+18	LT	0.00	16.89	146	0.1	7	3	146
Sta. 41+24 to Sta. 42+42	RT	0.00	51.81	253	0.2	11	6	253
Sta. 18+48 to Sta. 19+19	RT	0.00	15.00	80	0.1	4	2	80
Sta. 18+48 to Sta. 19+19	LT	0.00	5.85	68	0.0	3	2	68
Sta. 21+68 to Sta. 22+38	RT	0.00	14.49	87	0.1	4	2	87
Sta. 21+68 to Sta. 22+39	LT	0.00	21.09	84	0.1	4	2	84
Sta. 18+48 to Sta. 19+19	RT	0.00	15.83	58	0.0	3	1	58
Sta. 18+48 to Sta. 19+20	LT	0.00	22.96	72	0.0	3	2	72
Sta. 21+66 to Sta. 22+36	RT	0.00	0.00	65	0.0	3	1	65
Sta. 21+65 to Sta. 22+37	LT	0.00	0.00	78	0.0	4	2	78
Sta. 43+57 to Sta. 44+42	RT	6.15	1.86	83	0.1	4	2	83
Sta. 43+55 to Sta. 44+27	LT	0.00	22.96	52	0.0	3	1	62
Sta. 46+92 to Sta. 47+97	LT	0.00	8.09	98	0.1	4	2	98
Sta. 47+04 to Sta. 48+07	RT	0.00	57.01	187	0.1	8	4	187
Sta. 94+30 to Sta. 95+59	RT	0.00	16.48	100	0.1	4	2	100
Sta. 97+90 to Sta. 98+72	LT	3.46	0.00	116	0.1	5	3	116
Totals		81	2098	6423	4	289	144	6423

*ITEMS AND QUANTITIES FOR INFORMATION ONLY

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	REMARKS
0010	414+75.27	-	423+37.18	USH 45 NB LEFT AND RIGHT	456	912	--	--	--	--	45	
0010	431+09.92	-	431+33.03	USH 45 NB RIGHT, FOR CULVERT	--	--	21	--	--	--	--	
0010	437+47.01	-	439+49.83	USH 45 RIGHT	212	424	--	--	--	--	--	
0010	476+23.92	-	480+49.57	USH 45 NB LEFT AND RIGHT	--	--	--	--	1	--	90	
0010	580+58.09	-	584+82.68	USH 45 NB LEFT AND RIGHT	--	--	--	--	--	--	135	
0010	587+63.19	-	589+59.30	USH 45 NB RIGHT, FOR CULVERT	--	--	42	--	--	--	--	
0010	588+00.50	-	590+37.20	USH 45 NB LEFT, FOR CULVERT	--	--	42	--	--	--	--	
0010	653+06.30	-	653+29.17	USH 45 NB RIGHT, FOR CULVERT	--	--	21	--	--	--	--	
0010	670+63.71	-	675+30.26	USH 45 NB LEFT AND RIGHT	--	--	--	--	2	--	--	
0010	699+11.74	-	699+34.84	USH 45 NB RIGHT, FOR CULVERT	--	--	21	--	--	--	--	
0010	867+33.97	-	871+11.80	USH 45 NB LEFT AND RIGHT	--	--	--	--	--	--	90	
0010	980+25.58	-	980+48.67	USH 45 NB RIGHT, FOR CULVERT	--	--	21	--	--	--	--	
0010	989+31.68	-	989+53.49	USH 45 NB RIGHT, FOR CULVERT	--	--	21	--	--	--	--	
0010	561+74.12	-	567+76.00	USH 45 MIDDLE	--	--	--	1	--	--	--	
0010	760+60.00	-	766+60.00	USH 45 MIDDLE	--	--	--	1	--	--	--	
0010	838+94.00	-	844+82.57	USH 45 MIDDLE	--	--	--	2	--	--	--	
0010	891+71.93	-	897+81.74	USH 45 MIDDLE	--	--	--	1	--	--	--	
0010	944+63.00	-	950+53.00	USH 45 MIDDLE	--	--	--	--	--	--	--	
0010	1005+53.00	-	1011+93.05	USH 45 MIDDLE	--	--	--	1	--	--	--	
0010	425+98.57	-	430+17.42	USH 45 SB LEFT AND RIGHT	--	--	--	--	--	--	90	
0010	447+53.37	-	455+50.29	USH 45 SB LEFT AND RIGHT	--	--	--	2	--	--	--	
0010	481+99.81	-	486+22.04	USH 45 SB LEFT AND RIGHT	--	--	--	--	--	--	90	
0010	489+90.59	-	490+13.91	USH 45 SB LEFT, FOR CULVERT	--	--	21	--	--	--	--	
0010	506+00.33	-	506+23.61	USH 45 SB LEFT, FOR CULVERT	--	--	21	--	--	--	--	
0010	583+26.35	-	592+62.29	USH 45 SB LEFT AND RIGHT	--	--	--	--	--	--	90	
0010	585+86.35	-	588+74.24	USH 45 SB LEFT, FOR CULVERT	--	--	42	--	--	--	--	
0010	592+75.00	-	592+98.52	USH 45 SB LEFT, FOR CULVERT	--	--	21	--	--	--	--	
0010	600+62.04	-	600+85.89	USH 45 SB LEFT, FOR CULVERT	--	--	21	--	--	--	--	
0010	677+87.24	-	681+88.95	USH 45 SB LEFT AND RIGHT	--	--	--	1	--	--	--	
0010	821+09.90	-	821+32.97	USH 45 SB LEFT, FOR CULVERT	--	--	21	--	--	--	--	
0010	872+58.58	-	876+18.37	USH 45 SB LEFT AND RIGHT	--	--	--	--	--	--	90	
0010	145+10.11	-	145+53.61	USH 45 NB OFF RAMP, FOR CULVERT	--	--	90	--	--	--	--	
0010	142+42.46	-	142+89.44	USH 45 SB ON RAMP, FOR CULVERT	--	--	90	--	--	--	--	
0010	25+08.61	-	25+56.86	CTH T WB	--	--	--	--	--	1	--	
0010	13+02.14	-	16+76.52	BROOKS RD LEFT AND RIGHT	409	818	--	--	--	--	--	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

EROSION CONTROL CONT.

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	REMARKS
0010	11+00.59	-	13+85.22	SKELETON BRIDGE RD SOUTH LEFT AND RIGHT	367	734	--	--	2	--	--	
0010	16+56.00	-	19+78.45	SKELETON BRIDGE RD NORTH LEFT AND RIGHT	616	1,232	--	--	--	--	--	
0010	76+00.00	-	82+00.00	STH 116 EB	--	--	--	--	--	4	--	
0010	76+00.00	-	82+00.00	STH 116 WB	--	--	--	--	--	4	--	
0010	35+46.37	-	43+32.75	COUNTY RD G LEFT AND RIGHT	--	--	--	--	--	--	--	
0010	18+43.60	-	22+57.45	BREEZEWOOD LANE LEFT AND RIGHT	--	--	--	--	--	--	--	
0010	18+46.54	-	22+38.09	LAKEVIEW RD LEFT AND RIGHT	--	--	--	--	--	--	--	
0010	43+53.69	-	49+19.59	GRANDVIEW RD LEFT AND RIGHT	--	--	--	--	--	--	--	
0010	94+15.00	-	98+70.90	CTH II LEFT AND RIGHT	--	--	--	--	--	--	--	
				TOTAL 0010	2,060	4,120	516	9	5	9	720	
0015	76+90.00	-	81+25.00	STH 116	0	0	0	0	0	8	0	
				TOTAL 0015	0	0	0	0	0	8	0	
				TOTAL	2,060	4,120	516	9	5	17	720	

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
0010	410+69	-	1020+14		8	6	
				TOTAL 0010	8	6	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

MARKING REMOVAL PLOWABLE RAISED PAVEMENT MARKERS

CATEGORY	STATION	TO	STATION	LOCATION	646.9400 MARKING REMOVAL PLOWABLE RAISED PAVEMENT MARKERS EACH	REMARKS
0010	410+69.34	-	4S1+00.00	USH 4S NB	38	
0010	451+00.00	-	481+09.89	USH 4S NB	29	
0010	481+09.89	-	S64+44.49	USH 4S NB	83	
0010	564+44.49	-	588+78.45	USH 45 NB	23	
0010	588+78.45	-	676+50.50	USH 45 NB	119	
0010	676+50.50	-	763+42.0S	USH 4S NB	76	
0010	763+42.0S	-	841+88.24	USH 4S NB	0	
0010	841+88.24	-	894+66.8S	USH 4S NB	0	
0010	894+66.8S	-	947+47.02	USH 4S NB	0	
0010	947+47.02	-	1008+S0.71	USH 4S NB	3S	
0010	1008+S0.71	-	1020+14.16	USH 4S NB	12	
0010	410+69.34	-	4S0+81.48	USH 4S SB	36	
0010	450+81.48	-	481+04.76	USH 45 SB	29	
0010	481+04.76	-	564+80.33	USH 45 SB	84	
0010	564+80.33	-	588+02.17	USH 45 SB	21	
0010	S88+02.17	-	676+91.40	USH 45 SB	87	
0010	676+91.40	-	763+67.21	USH 45 SB	99	
0010	763+67.21	-	842+08.68	USH 45 SB	24	
0010	842+08.68	-	894+87.02	USH 4S SB	0	
0010	894+87.02	-	947+63.37	USH 4S SB	0	
0010	947+63.37	-	1008+73.S7	USH 4S SB	26	
0010	1008+73.S7	-	1020+14.16	USH 45 SB	17	
0010	664+17.S3	-	669+4S.S0	USH 4S NB OFF RAMP	21	
0010	99S+09.29	-	997+86.93	USH 4S NB OFF RAMP	11	
0010	688+42.18	-	685+30.39	USH 45 SB OFF RAMP	13	
0010	1018+82.12	-	1020+14.16	USH 45 SB OFF RAMP	6	
				TOTAL 0010	889	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF WHITE	646.1020 MARKING LINE EPOXY 4-INCH LF YELLOW	646.3020 MARKING LINE EPOXY 8-INCH LF WHITE	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF WHITE	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF YELLOW	646.2050 MARKING LINE GROOVED PERMANENT TAPE 6-INCH LF	646.4050 MARKING LINE GROOVED PERMANENT TAPE 10-INCH LF	646.5220 MARKING SYMBOL EPOXY EACH	646.8220 MARKING ISLAND NOSE EPOXY EACH	646.8120 MARKING CURB EPOXY LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.8320 MARKING PARKING STALL EPOXY LF	REMARKS
0010	410+69.34	-	450+00.00	USH 45 NB	--	--	--	984	3,627	3,931	984	360	--	--	--	984	--	--	
0010	437+52.34	-	439+30.89	USH 45 NB	--	--	--	--	--	--	45	--	--	--	--	45	--	--	3' LINE 9' GAP FOR NB OFF RAMP
0010	450+00.00	-	565+00.00	USH 45 NB	--	--	--	2,876	11,118	11,500	2,876	630	--	--	--	2876	--	--	
0010	565+00.00	-	590+00.00	USH 45 NB	--	--	--	625	2,500	2,500	625	--	--	--	--	625	--	--	
0010	590+00.00	-	676+00.00	USH 45 NB	--	--	--	2,148	8,150	8,600	2,148	580	--	--	--	2148	--	--	
0010	657+71.90	-	663+68.45	USH 45 NB	--	--	--	--	--	--	150	--	--	--	--	150	--	--	3' LINE 9' GAP FOR NB OFF RAMP
0010	676+00.00	-	763+00.00	USH 45 NB	--	--	--	2,176	8,287	8,700	2,176	680	--	--	--	2176	--	--	
0010	763+00.00	-	842+00.00	USH 45 NB	--	--	--	1,973	7,890	7,900	1,973	--	--	--	--	1973	--	--	
0010	842+00.00	-	895+00.00	USH 45 NB	--	--	--	1,325	5,300	5,300	1,325	--	--	--	--	1325	--	--	
0010	895+00.00	-	948+00.00	USH 45 NB	--	--	--	1,326	5,311	5,300	1,326	--	--	--	--	1326	--	--	
0010	948+00.00	-	1009+00.00	USH 45 NB	--	--	--	1,525	5,838	6,100	1,525	300	--	--	--	1525	--	--	
0010	995+09.67	-	993+48.14	USH 45 NB	--	--	--	--	--	--	39	--	--	--	--	39	--	--	3' LINE 9' GAP FOR NB OFF RAMP
0010	1009+00.00	-	1020+14.16	USH 45 NB	--	--	--	279	855	1,114	279	925	--	--	--	279	--	--	
0010	410+69.75	-	450+00.00	USH 45 SB	--	--	--	982	3,599	3,930	982	560	--	--	--	982	--	--	
0010	450+00.00	-	565+00.00	USH 45 SB	--	--	--	2,874	11,168	11,500	2,874	370	--	--	--	2874	--	--	
0010	463+05.95	-	465+05.37	USH 45 SB	--	--	--	--	--	--	48	--	--	--	--	48	--	--	3' LINE 9' GAP FOR SB OFF RAMP
0010	565+00.00	-	588+00.00	USH 45 SB	--	--	--	575	2,299	2,300	575	--	--	--	--	575	--	--	
0010	588+00.00	-	676+00.00	USH 45 SB	--	--	--	2,202	8,645	8,800	2,202	520	--	--	--	2202	--	--	
0010	676+00.00	-	763+00.00	USH 45 SB	--	--	--	2,174	8,388	8,700	2,174	280	--	--	--	2174	--	--	
0010	688+42.96	-	690+03.98	USH 45 SB	--	--	--	--	--	--	39	--	--	--	--	39	--	--	3' LINE 9' GAP FOR SB OFF RAMP
0010	763+00.00	-	842+00.00	USH 45 SB	--	--	--	1,977	7,911	7,900	1,977	--	--	--	--	1977	--	--	
0010	842+00.00	-	895+00.00	USH 45 SB	--	--	--	1,325	5,300	5,300	1,325	--	--	--	--	1325	--	--	
0010	895+00.00	-	948+00.00	USH 45 SB	--	--	--	1,324	5,289	5,300	1,324	--	--	--	--	1324	--	--	
0010	948+00.00	-	1009+00.00	USH 45 SB	--	--	--	1525	5,730	6,100	1525	603	--	--	--	1525	--	--	
0010	1009+00.00	-	1020+14.16	USH 45 SB	--	--	--	277	963	1,114	277	290	--	--	--	277	--	--	
0010	137+43.53	-	148+24.57	USH 45 NB ON RAMP	--	--	--	--	1,181	771	--	352	--	--	--	--	30	--	
0010	149+22.43	-	160+38.19	USH 45 NB OFF RAMP	--	--	--	--	1,086	720	--	620	--	--	--	--	--	--	
0010	362+70.34	-	372+72.15	USH 45 NB ON RAMP	--	--	--	--	951	576	--	525	--	--	--	--	--	--	
0010	374+39.00	-	386+64.57	USH 45 NB OFF RAMP	--	--	--	--	1,221	795	--	675	--	--	--	--	--	--	
0010	426+12.00	-	438+00.18	USH 45 NB ON RAMP	--	--	--	--	1,106	928	--	300	--	--	--	--	--	--	
0010	438+62.13	-	450+75.85	USH 45 NB OFF RAMP	--	--	--	--	1,215	947	--	920	--	--	--	--	--	--	
0010	137+21.30	-	148+71.82	USH 45 SB OFF RAMP	--	--	--	--	1,146	801	--	510	--	--	--	--	--	--	
0010	149+76.12	-	160+65.71	USH 45 SB ON RAMP	--	--	--	--	1,049	762	--	364	--	--	--	--	34	--	
0010	362+47.97	-	375+26.69	USH 45 SB OFF RAMP	--	--	--	--	1,286	1,103	--	410	--	--	--	--	--	--	
0010	375+00.72	-	385+76.91	USH 45 SB ON RAMP	--	--	--	--	1,013	770	--	320	--	--	--	--	--	--	
				SUBTOTALS	0	0	0	30,470	129,423	130,060	30,791	11,094	0	0	0	30,791	64	0	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PAVEMENT MARKINGS CONT.

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF		646.3020 MARKING LINE EPOXY 8-INCH LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF		646.2050 MARKING LINE GROOVED PERMANENT TAPE 6-INCH LF	646.4050 MARKING LINE GROOVED PERMANENT TAPE 10-INCH LF	646.5220 MARKING SYMBOL EPOXY EACH	646.8220 MARKING ISLAND NOSE EPOXY EACH	646.8120 MARKING CURB EPOXY LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.8320 MARKING PARKING STALL EPOXY LF	REMARKS
					WHITE	YELLOW	WHITE		WHITE	YELLOW									
0010	425+12.00	-	440+22.60	USH 45 SB OFF RAMP	--	--	--	--	1,511	1,142	--	600	--	--	--	--	--	--	
0010	440+71.00	-	450+79.17	USH 45 SB ON RAMP	--	--	--	--	1,018	865	--	290	--	--	--	--	--	--	
0010	33+00.00	-	35+35.00	CTH Y	470	470	--	--	--	--	--	--	--	--	--	--	--	--	
0010	35+50.00	-	43+00.00	CTH G	1,314	1,600	--	--	--	--	--	--	--	--	--	--	--	--	
0010	18+00.00	-	22+79.51	BREEZEWOOD LN	--	960	--	--	--	--	--	--	--	--	--	--	--	--	
0010	18+00.00	-	23+00.00	OAK RIDGE RD	--	1,000	--	--	--	--	--	--	--	--	--	--	--	--	
0010	43+00.00		49+50.00	GRANDVIEW RD	--	1,000	--	--	--	--	--	--	--	--	--	--	--	--	
0010	93+50.00	-	99+30.00	CTH II EB	572	203	75	--	--	--	--	--	--	--	--	--	--	--	
0010	93+50.00	-	99+30.00	CTH II WB	572	206	75	--	--	--	--	--	--	--	--	--	--	--	
0010	92+83.08	-	93+10.74	CTH II WB				--	--	--	--	--	--	--	16	--	--	--	
0010	99+46.90	-	99+51.44	CTH II WB				--	--	--	--	--	--	1	--	--	--	--	
				SUBTOTAL	4,088	5,701	150	0	2,529	2,008	0	890	0	1	16	0	0	0	
				TOTAL 0010	9,789		150	30,470	264,020		30,791	11,984	0	1	16	30,791	64	0	
0015	76+00.00	-	84+00.00	STH 116 EB	951	205	305	--	--	--	--	--	--	--	--	--	--	--	
0015	76+00.00	-	84+00.00	STH 116 WB	848	209	305	--	--	--	--	--	--	--	--	--	--	--	
0015	---	-	---	STH 116 PARK AND RIDE				--	--	--	--	--	4	--	--	--	--	2495	
				TOTAL 0015	1,799	414	610	0	0	0	0	0	4	0	0	0	0	2495	
					2,213														
				PROJECT TOTAL	12,002		760	30,470	264,020		30,791	11,984	4	1	16	30,791	64	2,495	

JOINT SEALING

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090.01 JOINT SEALING LF	REMARKS
0010	423+25	-	426+25	B-70-212	38	
0010	423+25	-	426+25	B-70-213	48	
0010	480+00	-	482+25	B-70-215	122	
0010	480+00	-	482+25	B-70-216	152	
0010	675+25	-	678+25	B-70-221	147	
0010	675+00	-	678+00	B-70-222	181	
0010	871+50	-	873+00	B-70-139	197	
0010	870+50	-	873+00	B-70-244	276	
0010	95+00	-	98+50	B-70-238	263	
				TOTAL 0010	1,424	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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TRAFFIC CONTROL

						*643.0420		643.0300		*643.0705		643.0715	
						TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C	
CATEGORY	STATION	TO	STATION	LOCATION	APPROX SERVICE DAYS	NO. IN SERVICE	DAYS	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY
0010	410+69.34	-	705+00	Stage 1A	38	2	76	420	15,960	4	152	13	494
0010	410+69.35	-	705+00	Stage 1B	51	2	102	420	21,420	4	204	13	663
0010	705+00	-	1020+14.16	Stage 2A	40	2	80	434	17,360	4	160	13	520
0010	705+00	-	1020+14.18	Stage 2B	62	2	124	434	26,908	4	248	13	806
0010	Park and Ride				25	5	125	--	--	6	150	--	--
0010	CTH T				39	9	351	--	--	18	702	--	--
0010	STH 116				39	9	351	--	--	18	702	--	--
0010	CTH II				37	6	222	--	--	12	444	--	--
0010	CTH II CLOSURE				2	20	40	60	120	30	60	60	120
0010	SIDE ROADS				48	3	144	20	960	6	288	13	620
				TOTAL 0010			1,615		82,728		3,110		3,223

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL CONT.

						644.1810	*643.1050		*643.0900		
						TEMPORARY PEDESTRIAN BARRICADE	TRAFFIC CONTROL SIGNS PCMS		TRAFFIC CONTROL SIGNS		
CATEGORY	STATION	TO	STATION	LOCATION	APPROX SERVICE DAYS	LF	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	REMARKS
0010	410+69.34	-	705+00	Stage 1A	38	--	2	14	14	532	
0010	410+69.35	-	705+00	Stage 1B	51	--	2	14	14	714	
0010	705+00	-	1020+14.16	Stage 2A	40	--	2	14	15	600	
0010	705+00	-	1020+14.18	Stage 2B	62	--	2	14	15	930	
0010	Park and Ride				25	--	1	7	1	125	
0010	CTH T				90	--	--	--	4	360	
0010	STH 116				190	60	--	--	8	1,520	
0010	CTH II				105	--	2	14	4	420	
0010	CTH II CLOSURE				2	--	4	18	15	30	
0010	SIDE ROADS				50	72	--	--	85	4,080	TEMP. PED. BARRICADE FOR WIOWAUSH TRAIL
				TOTAL 0010		132		95		9,311	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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643.0370.S DIGITAL SPEED REDUCTION SYSTEM			
LOCATION	STAGE	DIGITAL SPEED LIMIT TRAILERS (DSLT)	DIGITAL SPEED REDUCTION SYSTEM (DAY)
USH 45	1A	12	38
USH 45	1B	12	51
USH 45	2A	14	40
USH 45	2B	14	62
0010 TOTAL			191

CONNECTED WORK ZONES

STAGE	DURATION DAYS	#	643.0810 CONNECTED ARROW BOARD (DAY)	#	643.1220 CONNECTED WORK ZONE START AND END LOCATION MARKERS (DAY)	COMMENTS
1A	38	2	76	2	76	
1B	51	2	102	2	102	
2A	40	2	80	2	80	
2B	62	2	124	2	124	
TOTAL 0010			382		382	

*Only one set of connected work zone start and end arkers is required for a series of closures

TRAFFIC CONTROL COVERING SIGNS						
	643.0910 TYPE I			*643.0920 TYPE II		
STAGE/LOCATION	EACH	NUMBER OF CYCLES	NUMBER OF SIGNS	EACH	NUMBER OF CYCLES	NUMBER OF SIGNS
1A USH 45 NB	--	--	--	2	1	2
1B USH 45 NB	--	--	--	2	1	2
1A USH 45 SB	--	--	--	2	1	2
1B USH 45 SB	--	--	--	2	1	2
2A USH 45 NB	--	--	--	1	1	1
2B USH 45 NB	--	--	--	1	1	1
2A USH 45 SB	--	--	--	1	1	1
2B USH 45 SB	--	--	--	1	1	1
USH 45 SB ENTRANCE AT STH 116	1	1	1	--	--	--
TOTAL 0010	1			12		

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM				
LOCATION	STAGE	FLASHING BEACON SIGNS (FBS)	PORTABLE TRAFFIC SENSORS (PTS)	BASIC QUEUE WARNING SYSTEM (DAY)
USH 45 NB	1A	3	3	38
USH 45 SB	1A	3	3	38
USH 45 NB ENTRANCE RAMP FROM IH 41	1A	3	2	38
USH 45 NB	1B	3	3	51
USH 45 SB	1B	3	3	51
USH 45 NB ENTRANCE RAMP FROM IH 41	1B	3	2	51
USH 45 NB	2A	3	3	40
USH 45 SB	2A	3	3	40
USH 45 SB ENTRANCE RAMP FROM USH 10	2A	3	2	40
USH 45 NB	2B	3	3	62
USH 45 SB	2B	3	3	62
USH 45 SB ENTRANCE RAMP FROM USH 10	2B	3	2	62
TOTAL 0010				573

*These items are part of the QWS and are paid for one complete system per roadway

TRAILER ATTENUATOR

CATEGORY	STATION	TO	STATION	LOCATION	643.1055.S TRUCK OR TRAILER MOUNTED ATTENUATOR DAY	REMARKS
0010	419+00	-	427+00	USH 45 NB, STAGE 1A	5	
0010	476+00	-	483+00	USH 45 NB, STAGE 1A	5	
0010	580+00	-	590+00	USH 45 NB, STAGE 1A	5	
0010	670+00	-	679+00	USH 45 NB, STAGE 1A	5	
0010	422+00	-	430+00	USH 45 SB, STAGE 1A	5	
0010	479+00	-	486+00	USH 45 SB, STAGE 1A	5	
0010	483+00	-	593+00	USH 45 SB, STAGE 1A	5	
0010	674+00	-	682+00	USH 45 SB, STAGE 1A	5	
0010	415+00	-	427+00	USH 45 NB, STAGE 1B	5	
0010	438+00	-	440+00	USH 45 NB, STAGE 1B	5	
0010	476+00	-	483+00	USH 45 NB, STAGE 1B	5	
0010	581+00	-	587+00	USH 45 NB, STAGE 1B	5	
0010	671+00	-	679+00	USH 45 NB, STAGE 1B	5	
0010	422+00	-	430+00	USH 45 SB, STAGE 1B	5	
0010	479+00	-	486+00	USH 45 SB, STAGE 1B	5	
0010	578+00	-	590+00	USH 45 SB, STAGE 1B	5	
0010	674+00	-	682+00	USH 45 SB, STAGE 1B	5	
0010	868+00	-	874+00	USH 45 NB, STAGE 2A	5	
0010	871+00	-	877+00	USH 45 SB, STAGE 2A	5	
0010	867+00	-	874+00	USH 45 NB, STAGE 2B	5	
0010	871+00	-	877+00	USH 45 SB, STAGE 2B	5	
				TOTAL 0010	105	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

BASE AGGREGATE DENSE

CATEGORY	STATION	TO	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 624.0100 WATER MGAL	REMARKS
0010	411+55.62	-	416+33.53	USH 45 NB DRIVING SHOULDER	25	0.5	
0010	411+55.62	-	423+36.87	USH 45 NB PASSING SHOULDER	61	1.2	
0010	421+55.22	-	423+36.37	USH 45 NB DRIVING SHOULDER	9	0.2	
0010	426+29.38	-	471+51.20	USH 45 NB PASSING SHOULDER	234	4.7	
0010	429+86.50	-	433+36.61	USH 45 NB DRIVING SHOULDER	18	0.4	
0010	458+83.93	-	459+04.26	USH 45 NB DRIVING SHOULDER	1	0.1	
0010	472+01.21	-	472+76.21	USH 45 NB PASSING SHOULDER	4	0.1	
0010	479+69.12	-	480+10.54	USH 45 NB DRIVING SHOULDER	2	0.1	
0010	479+81.58	-	480+26.20	USH 45 NB PASSING SHOULDER	2	0.1	
0010	499+00.00	-	527+49.80	USH 45 NB PASSING SHOULDER	148	3.0	
0010	579+12.43	-	578+10.32	USH 45 NB PASSING SHOULDER	5	0.1	
0010	581+79.55	-	584+55.03	USH 45 NB PASSING SHOULDER	14	0.3	
0010	586+06.44	-	593+85.21	USH 45 NB PASSING SHOULDER	40	0.8	
0010	597+67.11	-	598+66.11	USH 45 NB PASSING SHOULDER	5	0.1	
0010	631+84.44	-	632+74.48	USH 45 NB PASSING SHOULDER	5	0.1	
0010	632+23.95	-	657+59.37	USH 45 NB DRIVING SHOULDER	132	2.6	
0010	673+12.82	-	673+43.02	USH 45 NB DRIVING SHOULDER	2	0.1	
0010	674+61.65	-	674+93.50	USH 45 NB DRIVING SHOULDER	2	0.1	
0010	411+55.60	-	414+45.58	USH 45 SB PASSING SHOULDER	15	0.3	
0010	415+29.95	-	423+20.66	USH 45 SB DRIVING SHOULDER	41	0.8	
0010	426+16.65	-	426+61.96	USH 45 SB DRIVING SHOULDER	2	0.1	
0010	458+00.00	-	471+69.82	USH 45 SB PASSING SHOULDER	71	1.4	
0010	485+88.17	-	494+84.88	USH 45 SB DRIVING SHOULDER	46	0.9	
0010	517+00.00	-	529+00.00	USH 45 SB PASSING SHOULDER	62	1.2	
0010	543+00.00	-	576+00.00	USH 45 SB PASSING SHOULDER	172	3.3	
0010	550+97.82	-	554+81.02	USH 45 SB DRIVING SHOULDER	20	0.4	
0010	583+76.25	-	583+24.90	USH 45 SB DRIVING SHOULDER	3	0.1	
0010	622+01.13	-	629+15.09	USH 45 SB DRIVING SHOULDER	37	0.7	
0010	631+06.50	-	640+16.61	USH 45 SB PASSING SHOULDER	47	0.9	
0010	653+00.00	-	675+40.45	USH 45 SB PASSING SHOULDER	116	2.3	
0010	683+00.00	-	704+00.00	USH 45 SB PASSING SHOULDER	109	2.2	
0010	697+00.75	-	699+99.85	USH 45 SB DRIVING SHOULDER	16	0.3	
0010	871+49.52	-	871+78.60	USH 45 SB DRIVING SHOULDER	2	0.1	
0010	157+02.85	-	160+29.65	USH 45 NB ON RAMP FROM CTH T, RIGHT	17	0.3	
0010	374+40.98	-	375+16.84	USH 45 NB ON RAMP FROM STH 116, RIGHT	4	0.1	
				SUBTOTAL 0010	1,489	30	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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BASE AGGREGATE DENSE CONT.

CATEGORY	STATION	TO	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 624.0100 WATER MGAL	REMARKS
0010	374+52.38	-	374+67.51	USH 45 NB ON RAMP FROM STH 116, LT	1	0.1	
0010	383+09.19	-	386+39.75	USH 45 NB ON RAMP FROM STH 116, RT	17	0.3	
0010	41+03.27	-	41+58.78	CTH G WB	3	0.1	
0010	41+24.30	-	41+82.19	CTH G EB	3	0.1	
0010	36+91.52	-	37+07.11	CTH G WB	1	0.1	
0010	42+27.37	-	42+51.04	CTH G WB	1	0.1	
0010		PROJECT LIMITS		UNDISTRIBUTED	5,928	119.2	REMAINDER OF PROJECT LENGTH AND RAMPS
				TOTAL 0010	7,443	150	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC BOND LIMESTONE 3/8-INCH

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.01 TON	REMARKS
0010	33+00	-	35+00	CTH Y/SUNNYVIEW ROAD	25	RESTORATION OF WIOWAUSH TRAIL FOLLOWING STRUCTURE AND DRAINTILE WORK - MATCH EXISTING TRAIL WIDTH
				TOTAL 0010	25	
0015	77+60	-	83+00	STH 116	10	RESTORATION OF WOLF WILDERNESS TRAIL - BLEND BACK TO EXISTING TRAIL WIDTH
				TOTAL 0015	10	
				PROJECT TOTAL	35	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.8000 RESURFACING REFERENCE LF	650.9000 CURB RAMPS EACH	650.9500 SIDEWALK EACH	650.9911 SUPPLEMENTAL CONTROL EACH	650.9920 SLOPE STAKES LF	REMARKS
0010	410+69	-	1020+14	USH 45 NB	238	60,945	---	---	---	4,089	
0010	410+70	-	1026+70	USH 45 SB	114	61,600	---	---	---	2,626	
0010	24+66	-	30+97	CTH T	42	631	---	---	---	---	
0010	32+00	-	36+00	SUNNYVIEW RD	---	400	---	---	---	---	
0010	13+00	-	23+49	BROOKS RD	56	1,049	---	---	---	520	
0010	11+00	-	19+28	SKELETON BRIDGE RD	56	828	---	---	---	366	
0010	76+47	-	82+92	STH 116	25	1,290	4	---	---	---	
0010	35+46	-	43+33	CTH G	153	787	---	---	---	296	
0010	18+35		22+57	BREEZEWOOD LN/WOODLAND RD	---	422	---	---	---	142	
0010	18+40		22+54	OAK RIDGE RD/LAKEVIEW RD	---	414	---	---	---	143	
0010	43+50		49+16	GRANDVIEW RD.	---	566	---	---	---	203	
0010	92+82		99+52	CTH II	87	670	---	---	---	442	
0010	UNDISTRIBUTED				---	---	---	1	1	---	
				TOTAL 0010	771	129,602	4	1	1	8,827	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

Conduit (CAT 0010)

Location			
F70-0431 (45 & II)		652.0225	652.0235
		Conduit Rigid Nonmetallic Schedule 40 2-Inch	Conduit Rigid Nonmetallic Schedule 40 3-Inch
FROM	TO	LF	LF
CB1	PB11		20
FB1	PB4	10	
FB2	PB3	10	
FB3	PB7	5	
FB4	PB12	10	
	TOTALS	35	20

Signals (CAT 0010)

LOCATION			654.0101	657.0100	657.0420	658.0171	SPV.0060.03
F70-0431 (45 & II)							
			Concrete Bases Type 1	Pedestal Bases	Traffic Signal Standards Aluminum 13-FT	Traffic Signal Face 1S 12-Inch	Concrete Control Cabinet Bases Type 10 NE Region Special F70-0431 (45 & II)
	Station	Offset	EACH	EACH	EACH	EACH	
CB1	92+91	60' LT					1
FB1	99+56	40' LT	1	1	1	1	
FB2	99+56	5' LT	1	1	1	1	
FB3	93+27	40' RT	1	1	1	1	
FB4	93+29	3' RT	1	1	1	1	
	TOTALS		4	4	4	4	1

TRAFFIC SIGNALS (CAT 0010)

	656.0201	658.5070	SPV.0060.05	659.5000.S
		Signal	Remove	Lamp, Ballast, LED,
	Electrical Service	Mounting	Traffic	Switch Disposal by
	Meter Breaker Pedestal	Hardware	Signal	Contractor
	F70-0431 (45 & II)	F70-0431 (45 & II)	F70-0431 (45 & II)	F70-0431 (45 & II)
LOCATION	EACH	EACH	EACH	EACH
F70-0431 (45 & II)	1	1	1	4
TOTALS	1	1	1	4

CABLE & WIRE (CAT 0010)

LOCATION		655.0230		655.0230
F70-0431 (45 & II)				
				Base to Head
		Cable		Cable
		Traffic		Traffic
		Signal		Signal
		5-14		5-14
		AWG		AWG
FROM	TO	LF	Head No.	LF
CB1	FB1	843	1	21
CB1	FB2	898	2	21
CB1	FB3	198	3	21
CB1	FB4	143	4	21
Sub Total		2,082		84
TOTALS		2,166		

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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Conduit Rigid Nonmetallic Schedule 40 (CAT 0015)		
LOCATION		652.0225
L70-562 (45 & 116)(Park & Ride)		2-Inch
FROM	TO	LF
CB1	PB1	10
	TOTAL	10

Electrical Wire Lighting (CAT 0015)			
			10AWG
LOCATION			
			655.0615
L70-562 (45 & 116)(Park & Ride)			Ungrounded
(240 VOLT SYSTEM)			Conductor
			(see Circuit Color)
Circuit	FROM	TO	LF
A	CB1	LB1	250
(Black)	LB1	Luminaires	
B	CB1	LB2	410
(Red)	LB2	Luminaires	
C	CB1	LB3	520
(Blue)	LB3	Luminaires	
D	CB1	LB4	680
(Brown)	LB4	Luminaires	
		TOTAL	1,860

BASES, METER BREAKER PEDESTAL AND REMOVING ELECTRICAL SERVICE (CAT 0015)			
	SPV.0060.03	656.0201	SPV.0060.04
	Concrete Control	Meter Breaker Pedestal	Removing Electric
	Cabinet Bases	USH 45 & STH 116	Service
	Type 10 NE Region Special	Park & Ride	(USH 45 & STH 116)
LOCATION	EACH	EACH	EACH
L70-562 (45 & 116)(Park & Ride)	1	1	1

Electrical Wire Lighting 10AWG (CAT 0015)		
LOCATION		655.0615
L70-562 (45 & 116)(Park & Ride)		Equipment
		Grounding
(240 VOLT SYSTEM)		Conductor
		(Green)
FROM	TO	LF
CB1	LB1	125
LB1	LB2	140
LB1	LB3	190
LB3	LB4	135
	TOTAL	590

Signal Indication		Conductor Color
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White
Yellow Flashing Arrow	=	White w/Black
Green Arrow	=	Blue w/Black

PEDS		
Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE I

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH S.F.	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.3100 REMOVING STRUCTURAL STEEL SUPPORTS EACH	TYPE/SIZE OF STEEL *	531.1100 CONCRETE MASONRY ANC. STR TYPE NS CY*	531.1140 STEEL REINF. HS ANC. STRUCTURES TYPE NS LB*	531.2024 DRILLING SHAFT 24-INCH LF*	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB*	INFO ONLY - POST LENGTH TO BE VERIFIED BY CONTRACTOR			REMARKS
														POST NO. 1 LENGTH (ROAD SIDE) FT	POST NO. 2 LENGTH (DITCH) FT	DISTANCE BETWEEN POSTS (S) FT	
1	USH 45 SB @ IH 41 INTERCHANGE	E6-51	156" X 120"	130.0	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER LEFT LANE
2	"	W9-62	72" X 90"	45.0	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER CENTER LANE
3		E6-1	204" X 138"	195.5	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER RIGHT LANE
4	USH 45 NB, N. OF IH 41 INTERCHANGE	E1-1A	168" X 120"	140.0	---	---	1	2	W12X26	2.4	360	20	1,437	20.7	22.8	8.4	
5	USH 45, NB, S. OF CTH T INTERCHANGE	E4-1A	156" X 132"	143.0	---	---	1	2	W12X26	2.4	360	20	1,482	21.7	23.6	7.8	
6	USH 45 SB, N, OF CTH T	E4-1A	96" X 126"	84.0	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER LEFT SHOULDER
7	"	E6-51	156" X 144"	156.0	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER LEFT LANE
8	"	E6-51	168" X 198"	231.0	---	---	1	---	---	---	---	---	---	---	---	---	OVERHEAD SIGN STRUCTURE, MOUNT OVER RIGHT LANE
9	"	E4-1A	156" X 132"	143.0	---	---	1	2	W12X26	2.4	360	20	1,482	21.7	23.6	7.8	
10	"	E1-1A	168" X 120"	140.0	---	---	1	2	W12X26	2.4	360	20	1,437	20.7	22.8	8.4	
11	SKELETON BRIDGE RD	E1-1A	216" X 126"	189.0	---	---	1	2	W12X26	2.4	360	20	1,489	21.4	24.1	10.8	
12	USH 45 SB, S. OF STH 116	D2-1	156" X 36"	39.0	---	---	1	2	W8X18	1.8	204	15	694	13.7	15.6	7.8	
13	USH 45 NB, S. OF STH 116	E4-1A	216" X 138"	207.0	---	---	1	2	W12X26	2.4	360	20	1,541	22.4	25.1	10.8	
14	USH 45 SB, N. OF STH 116	E4-1A	216" X 138"	207.0	---	---	1	2	W12X26	2.4	360	20	1,541	22.4	25.1	10.8	
15	USH 45 NB, N. OF STH 116	D2-3	204" X 84"	119.0	1	3	---	---	W12X26	2.4	360	20	1,300	17.9	20.4	10.2	
16	USH 45 SB, N. OF STH 116	E1-1A	216" X 126"	189.0	---	---	1	2	W12X26	2.4	360	20	1,489	21.4	24.1	10.8	
17	USH 45 NB, S. OF CTH II	E1-1A	144" X 90"	90.0	---	---	1	2	W12X26	2.4	360	20	1,294	18.1	19.9	7.2	
18	USH 45 SB, S. OF CTH II	D2-1	156" X 36"	39.0	---	---	1	2	W8X18	1.8	204	15	694	13.7	15.6	7.8	
19	USH 45 NB, S. OF CTH II	E4-1A	84" X 96"	56.0	---	---	1	2	W8X18	1.8	204	15	847	18.2	19.7	6.0	
20	"	E1-1A	168" X 126"	147.0	---	---	1	2	W12X26	2.4	360	20	1,463	21.2	23.3	8.4	
21	USH 45 SB, N. OF CTH II	E4-1A	84" X 96"	56.0	---	---	1	2	W8X18	1.8	204	15	847	18.2	19.7	6.0	
	PROJECT TOTALS			2745.5	1	3	20	28		33.6	4776	280	19032				

*THESE QUANTITIES ARE ESTIMATES.
ACTUAL SIZE/NUMBER/LENGTH/WEIGHT OF STEEL SUPPORTS/REINFORCEMENT/CONCRETE BASES
ARE TO BE DETERMINED BY CONTRACTOR, BASED ON SURVEY OF FIELD CONDITIONS, FINAL GRADE AND SIGN LOCATION.
SURVEY REQUIRED FOR DETERMINATION IS THE RESPONSIBILITY OF THE CONTRACTOR, INCIDENTAL TO THE CONTRACT.
FOLLOW SIGN DETAIL A-PLATES - A3-1, A3-2, A3-3, A4-1

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 NB RAMP TO STH 116								
1	US 45 NB RAMP TO STH 116, PLACE ON RIGHT SHOULDER	PCMS		1				7	PLACE IN ADVANCE OF CLOSURE
2	US 45, AT STH 116, PLACE ON EXISTING TYPE I EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
3	US 45, AT STH 116, PLACE ON EXISTING TYPE I ADVANCE EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
4	CTH T, AT CTH S, PLACE RIGHT OF EXISTING J3-1 SIGN AT CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1R	21"X21"	1	12	12			
5	CTH T, E. OF CTH S, PLACE 200' E. OF CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1R	21"X21"	1	12	12			
6	US 45, AT CTH T RAMP INTERSECTION, PLACE LEFT OF R5-1 SIGN ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1L	21"X21"	1	12	12			
7	US 45 NB TO CTH T RAMP, PLACE 500' PRIOR TO RAMP INTERSECTION ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1L	21"X21"	1	12	12			
8	US 45, AT CTH T EXIT, PLACE 250' PRIOR TO EXIT TO STH 116 IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
10	US 45, AT CTH T EXIT, PLACE 250' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
11	US 45, S. OF CTH T EXIT, PLACE 1000' PRIOR TO EXIT TO STH 116 IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
12	US 45, S. OF CTH T EXIT, PLACE 1000' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
13	US 45, S. OF CTH T EXIT, PLACE 1750' PRIOR TO EXIT TO STH 116 IN MEDIAN	FMS	132"X54"	1			49.5		SEE SIGN DETAIL SHEET
14	US 45, S. OF CTH T EXIT, PLACE 1750' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	FMS	132"X54"	1			49.5		SEE SIGN DETAIL SHEET
15	US 45, S. OF CTH T EXIT, PLACE 2500' PRIOR TO EXIT TO STH 116 IN MEDIAN	M 1-6	36"X36"	1	12	12			116
	"	W 20-53A	48"X48"	1	12	12			
16	US 45, S. OF CTH T EXIT, PLACE 2500' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	M 1-6	36"X36"	1	12	12			116
	"	W 20-53A	48"X48"	1	12	12			

US 45 NB TO STH 116 RAMP CLOSURE TOTALS **336** **135** **7**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 NB RAMP TO STH 116								
1	US 45 NB RAMP TO STH 116, PLACE ON RIGHT SHOULDER	PCMS		1				7	PLACE IN ADVANCE OF CLOSURE
2	US 45, AT STH 116, PLACE ON EXISTING TYPE I EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
3	US 45, AT STH 116, PLACE ON EXISTING TYPE I ADVANCE EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
4	CTH T, AT CTH S, PLACE RIGHT OF EXISTING J3-1 SIGN AT CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1R	21"X21"	1	12	12			
5	CTH T, E. OF CTH S, PLACE 200' E. OF CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1R	21"X21"	1	12	12			
6	US 45, AT CTH T RAMP INTERSECTION, PLACE LEFT OF R5-1 SIGN ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1L	21"X21"	1	12	12			
7	US 45 NB TO CTH T RAMP, PLACE 500' PRIOR TO RAMP INTERSECTION ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1L	21"X21"	1	12	12			
8	US 45, AT CTH T EXIT, PLACE 250' PRIOR TO EXIT TO STH 116 IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
10	US 45, AT CTH T EXIT, PLACE 250' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
11	US 45, S. OF CTH T EXIT, PLACE 1000' PRIOR TO EXIT TO STH 116 IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
12	US 45, S. OF CTH T EXIT, PLACE 1000' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
13	US 45, S. OF CTH T EXIT, PLACE 1750' PRIOR TO EXIT TO STH 116 IN MEDIAN	FMS	132"X54"	1			49.5		SEE SIGN DETAIL SHEET
14	US 45, S. OF CTH T EXIT, PLACE 1750' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	FMS	132"X54"	1			49.5		SEE SIGN DETAIL SHEET
15	US 45, S. OF CTH T EXIT, PLACE 2500' PRIOR TO EXIT TO STH 116 IN MEDIAN	M 1-6	36"X36"	1	12	12			116
	"	W 20-53A	48"X48"	1	12	12			
16	US 45, S. OF CTH T EXIT, PLACE 2500' PRIOR TO EXIT TO STH 116 ON RIGHT SHOULDER	M 1-6	36"X36"	1	12	12			116
	"	W 20-53A	48"X48"	1	12	12			

US 45 NB TO STH 116 RAMP CLOSURE TOTALS **336** **135** **7**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 SB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 SB TO STH 116 RAMP								
1	US 45, N. OF STH 116, PLACE ON EXISTING TYPE I ADVANCE EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
2	US 45, AT STH 116 EXIT, PLACE ON EXISTING TYPE I EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
3	US 45, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-1	30"X30"	1	12	12			AHEAD
4	US 45, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-1	30"X30"	1	12	12			AHEAD
5	US 45 SB TO STH 116 RAMP, PLACE ON RIGHT SHOULDER	PCMS		1				7	PLACE IN ADVANCE OF CLOSURE
6	US 45 NB, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
7	US 45 NB, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
8	US 45 NB, S. OF STH 116, PLACE 1000' PRIOR TO STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
9	US 45 NB, S. OF STH 116, PLACE 1000' PRIOR TO STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
10	US 45, N. OF CTH T, PLACE 1000' N. OF CTH T EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
11	US 45, N. OF CTH T, PLACE 1000' N. OF CTH T EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 5-2R	30"X30"	1	12	12			
12	US 45, AT CTH T, PLACE 250' PRIOR TO CTH T EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
13	US 45, AT CTH T, PLACE 250' PRIOR TO CTH T EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-6	36"X36"	1	12	12			116
	"	MO 6-2R	30"X30"	1	12	12			
14	US 45 SB TO CTH T RAMP, PLACE 500' PRIOR TO RAMP INTERSECTION ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1L	21"X21"	1	12	12			
15	US 45 SB TO CTH T RAMP, PLACE LEFT OF EXISTING R5-1 SIGN ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1L	21"X21"	1	12	12			
16	CTH T, BETWEEN US 45 RAMPS, PLACE RIGHT OF EXISTING J2-2 SIGN	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 5-1L	21"X21"	1	12	12			
17	CTH T, AT US 45 NB, PLACE NEXT TO EXISTING J3-1 SIGN IN MEDIAN	MO 4-5	24"X12"	1	12	12			
	"	M 1-6	24"X24"	1	12	12			116
	"	MO 6-1L	21"X21"	1	12	12			
	US 45 SB TO STH 116 RAMP CLOSURE TOTALS					**504**	**36**	**7**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 SB ON RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.0420 BARRICADES TYPE III DAYS	*643.0705 WARNING LIGHTS TYPE A DAYS	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 SIGNS COVERING TYPE II EACH
	STH 116 TO US 45 SB RAMP										
1	STH 116, BETWEEN US 45 RAMPS, COVER EXISTING D1-1 SIGN AS SHOWN									1	1
2	STH 116, AT US 45 SB RAMP, MODIFY EXISTING J3-1 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12					
	"	MO 5-1L	21"X21"	1	12	12					
3	STH 116, AT US 45 SB RAMP, PLACE IN RAMP ROADWAY	R 11-2R	48"X30"	1	12	12	12	24			
4	STH 116 TO US 45 SB RAMP, PLACE ON RIGHT SHOULDER	PCMS		1					7		
5	STH 116, W. OF US 45 SB RAMP, COVER EXISTING J3-1 SIGN AS SHOWN									1	1
6	STH 116, W. OF US 45 SB RAMP, COVER EXISTING D1-3 SIGN AS SHOWN									1	1
7	STH 116, AT CTH S, PLACE IN MEDIAN NEXT TO J13-1 SIGN AT CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	MO 6-1L	21"X21"	1	12	12					
8	STH 116, E. OF CTH S, COVER EXISTING J2-3 SIGN AS SHOWN									1	1
9	CTH S, S. OF STH 116, PLACE 250' S. OF STH 116 INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
10	CTH S, N. OF CTH T, PLACE 500' N. OF CTH T INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	MO 5-1L	21"X21"	1	12	12					
11	CTH S, AT CTH T, PLACE RIGHT OF EXISTING R1-1 SIGN AT CTH T INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	MO 6-1L	21"X21"	1	12	12					
12	STH 116, AT CTH S, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	MO 6-1R	21"X21"	1	12	12					
13	STH 116, W. OF CTH S, PLACE 500' W. OF CTH S INTERSECTION	MO 4-5	24"X12"	1	12	12					
	"	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	MO 5-1R	21"X21"	1	12	12					
14	STH 116, W. OF CTH S, PLACE 1000' W. OF CTH S INTERSECTION	M 3-3	24"X12"	1	12	12					
	"	M 1-4	24"X24"	1	12	12					
	"	W 20-53A	48"X48"	1	12	12					
	STH 116 TO US 45 SB RAMP CLOSURE TOTALS					**348**	**12**	**24**	**7**		**4**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 NB TO CTH T RAMP								
1	US 45, S. OF CTH T, PLACE ON EXISTING TYPE I ADVANCE EXIT SIGN AS SHOWN	G 20-60	108"X24"	1			18		CLOSED
2	US 45, AT CTH T, PLACE ON EXISTING TYPE I EXIT SIGN AS SHOWN	G 20-60	108"X24"	1			18		CLOSED
3	US 45, AT CTH T, PLACE 250' PRIOR TO CTH T EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-1	30"X30"	1	12	12			AHEAD
4	US 45, AT CTH T, PLACE 250' PRIOR TO CTH T EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-1	30"X30"	1	12	12			AHEAD
5	US 45 NB TO CTH T RAMP, PLACE ON RIGHT SHOULDER	PCMS		1				7	PLACE IN ADVANCE OF CLOSURE
6	US 45, AT CTH T, PLACE 250' PRIOR TO EXIT RAMP TO CTH T IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-2R	30"X30"	1	12	12			
7	US 45, AT CTH T, PLACE 250' PRIOR TO EXIT RAMP TO CTH T ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-2R	30"X30"	1	12	12			
8	US 45, S. OF STH 116, PLACE 1000' S. OF STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 5-2R	30"X30"	1	12	12			
9	US 45, S. OF STH 116, PLACE 1000' S. OF STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 5-2R	30"X30"	1	12	12			
10	US 45, AT STH 116, PLACE 250' PRIOR TO STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-2R	30"X30"	1	12	12			
11	US 45, AT STH 116, PLACE 250' PRIOR TO STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T
	"	MO 6-2R	30"X30"	1	12	12			
12	US 45 TO STH 116 RAMP, PLACE 500' PRIOR TO RAMP INTERSECTION ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			T
	"	MO 5-1L	21"X21"	1	12	12			
13	US 45 TO STH 116 RAMP, PLACE LEFT OF EXISTING R5-1 SIGN ON LEFT SIDE	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			T
	"	MO 6-1L	21"X21"	1	12	12			
14	STH 116, AT US 45 SB RAMP INTERSECTION, PLACE NEXT TO EXISTING J3-1 SIGN IN MEDIAN	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			T
	"	MO 6-1L	21"X21"	1	12	12			
15	US 45, S. OF STH 116, PLACE 250' S. OF STH 116 ON-RAMP	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			T

US 45 NB TO CTH T RAMP CLOSURE TOTALS 420 36 7

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB ON RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.0420 BARRICADES TYPE III DAYS	*643.0705 WARNING LIGHTS TYPE A DAYS	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	*643.0920 SIGNS COVERING TYPE II EACH	REMARKS
	CTH T TO US 45 NB RAMP											
1	CTH T, E. OF US 45, MODIFY EXISTING J2-3 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
2	CTH T, E. OF US 45, COVER EXISTING D1-2 SIGN AS SHOWN									1	1	COVER "NEW LONDON"
3	CTH T, AT US 45 NB RAMP, MODIFY EXISTING J3-1 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
4	CTH T, AT US 45 NB RAMP, PLACE IN ROADWAY IN FRONT OF RAMP OPENING	R 11-2R	48"X30"	1	12	12	12	24				
5	CTH T TO US 45 NB RAMP, PLACE ON RIGHT SHOULDER	PCMS		1					7			PLACE IN ADVANCE OF CLOSURE
6	CTH T, BETWEEN US 45 RAMPS, PLACE RIGHT OF EXISTING J2-2 SIGN	MO 4-5	24"X12"	1	12	12						
	"	M 3-1	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 5-1L	21"X21"	1	12	12						
7	CTH T, AT US 45 SB RAMP, PLACE NEXT TO EXISTING J3-1 SIGN IN MEDIAN	MO 4-5	24"X12"	1	12	12						
	"	M 3-1	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1L	21"X21"	1	12	12						
8	US 45, S. OF CTH T, PLACE 250' S. OF EXISTING CTH T ON-RAMP	MO 4-5	36"X18"	1	12	12						
	"	M 3-1	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
9	US 45, N. OF I-41 SPLIT, PLACE 1000' N. OF I-41 SPLIT POINT IN MEDIAN	MO 4-5	36"X18"	1	12	12						
	"	M 3-1	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
10	US 45, N. OF I-41 SPLIT, PLACE 1000' N. OF I-41 SPLIT POINT ON RIGHT SHOULDER	MO 5-2R	30"X30"	1	12	12						
	"	MO 4-5	36"X18"	1	12	12						
	"	M 3-1	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
11	US 45, N. OF I-41 SPLIT, PLACE 250' PRIOR TO I-41 SPLIT POINT IN MEDIAN	MO 5-2R	30"X30"	1	12	12						
	"	MO 4-5	36"X18"	1	12	12						
	"	M 3-1	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
12	US 45, N. OF I-41 SPLIT, PLACE 250' PRIOR TO I-41 SPLIT POINT ON RIGHT SHOULDER	MO 6-2R	30"X30"	1	12	12						
	"	MO 4-5	36"X18"	1	12	12						
	"	M 3-1	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
13	US 45 SB TO I-41 NB RAMP, PLACE 250' PRIOR TO RAB RAMP INTERSECTION ON LEFT SIDE	MO 6-2R	30"X30"	1	12	12						
	"	MO 4-5	24"X12"	1	12	12						
	"	M 3-1	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
14	US 45 SB TO I-41 NB RAMP, PLACE 250' PRIOR TO RAB RAMP INTERSECTION ON RIGHT SHOULDER	MO 5-52	21"X21"	1	12	12						
	"	MO 4-5	24"X12"	1	12	12						
	"	M 3-1	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
15	US 45 SB, AT I-41 SB RAMP, PLACE NEXT TO EXISTING SPLITTER ISLAND SIGN AT SOUTH LEG EXIT	MO 5-52	21"X21"	1	12	12						
	"	MO 4-5	24"X12"	1	12	12						
	"	M 3-1	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-2L	21"X21"	1	12	12						
	CTH T TO US 45 NB RAMP CLOSURE TOTALS					**528**	**12**	**24**	**7**		**1**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 SB ON RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.0420 BARRICADES TYPE III DAYS	*643.0705 WARNING LIGHTS TYPE A DAYS	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 SIGNS COVERING TYPE II EACH	REMARKS
	CTH T TO US 45 SB RAMP											
1	CTH T, W. OF US 45, MODIFY EXISTING J2-3 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
2	CTH T, W. OF US 45, COVER EXISTING D1-2 SIGN AS SHOWN									1	1	COVER "OSHKOSH"
3	CTH T, AT US 45 SB RAMP INTERSECTION, MODIFY EXISTING J3-1 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
4	CTH T, AT US 45 SB RAMP, PLACE IN ROADWAY IN FRONT OF RAMP OPENING	R 11-2R	48"X30"	1	12	12	12	24				
5	CTH T TO US 45 SB RAMP, PLACE ON RIGHT SHOULDER	PCMS		1					7			PLACE IN ADV. OF CLOSURE
6	CTH T, BETWEEN US 45 RAMPS, PLACE RIGHT OF EXISTING J2-2 SIGN	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 5-1L	21"X21"	1	12	12						
7	CTH T, AT US 45 NB RAMP, PLACE NEXT TO EXISTING J3-1 SIGN IN MEDIAN	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1L	21"X21"	1	12	12						
8	US 45, N. OF CTH T, PLACE 250' N. OF CTH T ON-RAMP	MO 4-5	36"X18"	1	12	12						
	"	M 3-3	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
9	US 45, S. OF STH 116, PLACE 1000' S. OF STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12						
	"	M 3-3	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
	"	MO 5-2R	30"X30"	1	12	12						
10	US 45, S. OF STH 116, PLACE 1000' S. OF STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12						
	"	M 3-3	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
	"	MO 5-2R	30"X30"	1	12	12						
11	US 45, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12						
	"	M 3-3	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
	"	MO 6-2R	30"X30"	1	12	12						
12	US 45, AT STH 116 EXIT, PLACE 250' PRIOR TO STH 116 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12						
	"	M 3-3	36"X18"	1	12	12						
	"	M 1-4	36"X36"	1	12	12						45
	"	MO 6-2R	30"X30"	1	12	12						
13	US 45 NB TO STH 116, PLACE 500' PRIOR TO STH 116 RAMP INTERSECTION ON LEFT SIDE	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 5-1L	21"X21"	1	12	12						
14	US 45 NB TO STH 116, PLACE LEFT OF EXISTING R5-1 SIGN AT INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1L	21"X21"	1	12	12						
	CTH T TO US 45 SB RAMP CLOSURE TOTALS					**480**	**12**	**24**	**7**		**1**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 NB RAMP TO CTH II								
1	US 45 NB, S. OF CTH II, PLACE ON EXISTING TYPE I ADVANCED EXIT SIGN	G 20-60	108"X24"	1			18		CLOSED
2	US 45 NB, S. OF CTH II, PLACE 500' S. OF CTH II EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-1	30"X30"	1	12	12			AHEAD
3	US 45 NB, S. OF CTH II, PLACE 500' S. OF CTH II EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-1	30"X30"	1	12	12			AHEAD
4	US 45 NB, S. OF CTH II, PLACE ON EXISTING TYPE I AT-GORE EXIT SIGN	G 20-60	108"X24"	1	12	12			CLOSED
5	US 45 NB OFF-RAMP TO CTH II, PLACE ON RIGHT SHOULDER OF RAMP	PCMS		1				7	PLACE IN ADVANCE OF CLOSURE
6	US 45 NB, S. OF US 10, PLACE 200' S. OF US 10 SPLIT POINT	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2R	30"X30"	1	12	12			
7	US 10 EB, W. OF STH 76, PLACE 1000' W. OF STH 76 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2R	30"X30"	1	12	12			
8	US 10 EB, W. OF STH 76, PLACE 1000' W. OF STH 76 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2R	30"X30"	1	12	12			
9	US 10 EB, W. OF STH 76, PLACE AT STH 76 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2R	30"X30"	1	12	12			
10	US 10 EB, W. OF STH 76, PLACE AT STH 76 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2R	30"X30"	1	12	12			
11	US 10 EB OFF-RAMP TO STH 76, PLACE 500' FROM RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II
	"	MO 5-1R	21"X21"	1	12	12			
12	US 10 EB OFF-RAMP TO STH 76, PLACE AT STH 76 RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II
	"	MO 6-1R	21"X21"	1	12	12			RIGHT
13	STH 76, S. OF US 10, PLACE 250' S. OF US 10 EB RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II

45 NB TO CTH II RAMP CLOSURE TOTALS **360** **18** **7**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 NB ON RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.0420 BARRICADES TYPE III DAYS	*643.0705 WARNING LIGHTS TYPE A DAYS	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	CTH II TO US 45 NB RAMP									
1	CTH II, W. OF US 45, MODIFY EXISTING J2-2 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12				
	"	MO 6-1	21"X21"	1	12	12				AHEAD
2	CTH II ON-RAMP TO US 45 NB, PLACE ON RIGHT SHOULDER	PCMS		1					7	PLACE IN ADVANCE OF CLOSURE
3	CTH II ON-RAMP TO US 45 NB, AT RAMP INTERSECTION	R 11-2R	48"X30"	1	12	12	12	24		
4	CTH II, AT US 45 NB INTERSECTION, MODIFY EXISTING J3-1 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12				
	"	MO 6-1	21"X21"	1	12	12				AHEAD
5	CTH II, E. OF US 45, PLACE 250' E. OF US 45 NB RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
6	CTH II, W. OF CTH M, PLACE 250' W. OF CTH M INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 6-1	21"X21"	1	12	12				AHEAD
7	CTH II, W. OF CTH T, PLACE 250' W. OF CTH T INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 6-1	21"X21"	1	12	12				AHEAD
8	CTH II, W. OF STH 76, PLACE 750' W. OF STH 76 INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 5-1L	21"X21"	1	12	12				
9	CTH II, AT STH 76, PLACE RIGHT OF EXISTING R1-1 SIGN AT INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 6-1L	21"X21"	1	12	12				LEFT
10	STH 76, N. OF CTH II, PLACE 250' N. OF CTH II INTERSECTION	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
11	STH 76, AT US 10, PLACE BETWEEN US 10 RAMPS	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 5-1L	21"X21"	1	12	12				
12	STH 76, AT US 10, PLACE AT US 10 WB RAMP INTERSECTION IN MEDIAN	MO 4-5	24"X12"	1	12	12				
	"	M 3-1	24"X12"	1	12	12				
	"	M 1-4	24"X24"	1	12	12				45
	"	MO 6-1L	21"X21"	1	12	12				

CTH II TO US 45 NB RAMP CLOSURE TOTALS 420 12 24 7

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 SB OFF RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
	US 45 SB RAMP TO CTH II								
1	US 45 SB RAMP TO CTH II, PLACE ON RIGHT SHOULDER	PCMS		1	12	12		7	PLACE IN ADVANCE OF CLOSURE
2	US 45 SB, N. OF CTH II, PLACE ON EXISTING TYPE I EXIT SIGN AS SHOWN	G 20-60	108"x24"	1			18		CLOSED
3	US 45 SB, AT US 10, PLACE ON EXISTING TYPE I ADVANCE EXIT SIGN AS SHOWN	G 20-60	108"x24"	1			18		CLOSED
4	US 45 SB, AT US 10 EB, PLACE 250' PRIOR TO 45/10 SPLIT POINT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2L	30"X30"	1	12	12			
5	US 45 SB, AT US 10 EB, PLACE 250' PRIOR TO 45/10 SPLIT POINT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2L	30"X30"	1	12	12			
6	US 45 SB, N. OF US 10 SPLIT, PLACE 1000' N. OF US 10/45 SPLIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2L	30"X30"	1	12	12			
7	US 45 SB, N. OF US 10 SPLIT, PLACE 1000' N. OF US 10/45 SPLIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2L	30"X30"	1	12	12			
8	US 45 SB, N. OF US 10 SPLIT, PLACE 2000' N. OF US 10/45 SPLIT IN MEDIAN	M 1-5A	36"X36"	1	12	12			II
	"	W 20-53A	48"X48"	1	12	12			
9	US 45 SB, N. OF US 10 SPLIT, PLACE 2000' N. OF US 10/45 SPLIT ON RIGHT SHOULDER	M 1-5A	36"X36"	1	12	12			II
	"	W 20-53A	48"X48"	1	12	12			
10	US 10, E. OF US 45, PLACE RIGHT OF EXISTING J4-1 SIGN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
11	US 10, W. OF STH 76, PLACE 1000' W. OF STH 76 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2R	30"X30"	1	12	12			
12	US 10, W. OF STH 76, PLACE 1000' W. OF STH 76 EXIT ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 5-2R	30"X30"	1	12	12			
13	US 10, AT STH 76, PLACE AT EXIT TO STH 76 EXIT IN MEDIAN	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2R	30"X30"	1	12	12			
14	US 10, AT STH 76, PLACE AT EXIT TO STH 76 ON RIGHT SHOULDER	MO 4-5	36"X18"	1	12	12			
	"	M 1-5A	36"X36"	1	12	12			II
	"	MO 6-2R	30"X30"	1	12	12			
15	US 10 EXIT TO STH 76, PLACE 500' PRIOR TO RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II
	"	MO 5-1R	21"X21"	1	12	12			
16	US 10 EXIT TO STH 76, PLACE AT RAMP INTERSECTION RIGHT OF EXISTING ONE WAY SIGN	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II
	"	MO 6-1R	21"X21"	1	12	12			
17	STH 76, S. OF US 10, PLACE 250' S. OF US 10 EB RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12			
	"	M 1-5A	24"X24"	1	12	12			II
	US 45 SB OFF TO CTH II RAMP CLOSURE TOTALS					**468**	**36**	**7**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

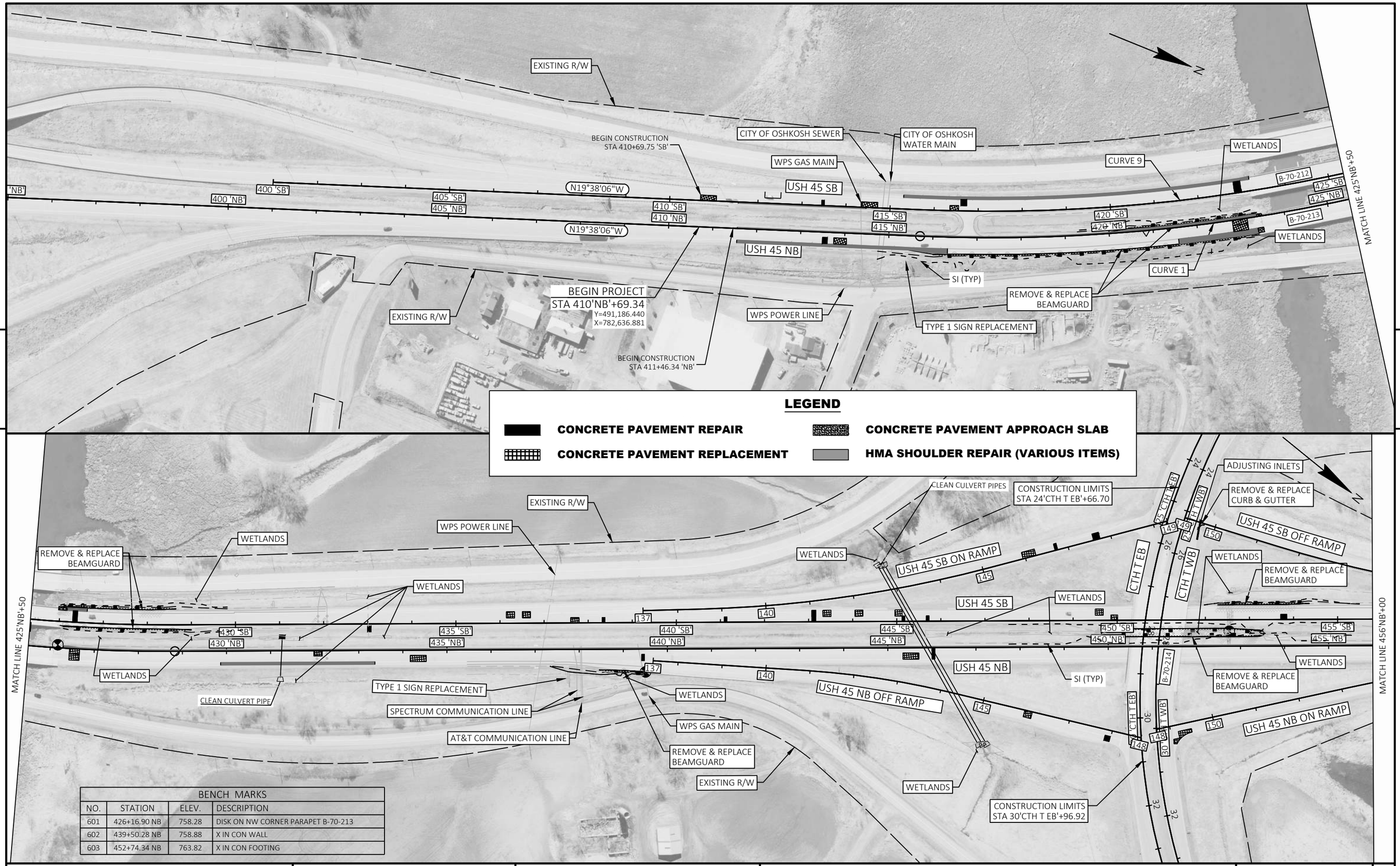
TRAFFIC CONTROL DETOUR SIGN SUMMARY - 45 SB ON RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 12 DAYS	*643.0900 SIGNS DAYS	*643.0420 BARRICADES TYPE III DAYS	*643.0705 WARNING LIGHTS TYPE A DAYS	*643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	*643.0920 SIGNS COVERING TYPE II EACH	REMARKS
	CTH II TO US 45 SB RAMP											
1	CTH II, W. OF US 45 SB RAMP INTERSECTION, MODIFY EXISTING J2-3 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
2	CTH II, W. OF US 45 SB RAMP INTERSECTION, COVER EXISTING D1-3 SIGN AS SHOWN									1	1	COVER "OSHKOSH"
3	CTH II, W. OF US 45 SB RAMP INTERSECTION, MODIFY EXISTING J2-3 SIGN AS SHOWN	MO 4-5	24"X12"	1	12	12						
	"	MO 6-1	21"X21"	1	12	12						AHEAD
4	CTH II, AT US 45 SB ON-RAMP, PLACE ON RAMP AT RAMP INTERSECTION	R 11-2R	48"X30"	1	12	12	12	24				
5	CTH II ON-RAMP TO US 45, PLACE ON RIGHT SHOULDER	PCMS		1					7			PLACE IN ADVANCE OF CLOSURE
6	CTH II, AT US 45 SB ON-RAMP, COVER ENTIRE J3-1 SIGN IN MEDIAN									1	1	COVER ENTIRE SIGN
7	CTH II, BETWEEN US 45 RAMPS, COVER EXISTING D1-2 SIGN									1	1	COVER ENTIRE SIGN
8	CTH II, E. OF US 45, PLACE 750' E. OF US 45 NB RAMP INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
9	CTH II, E. OF US 45, COVER EXISTING J2-3 SIGN AS SHOWN									1	1	COVER "SOUTH 45 ADV LEFT"
10	CTH II, W. OF CTH M, PLACE 250' W. OF CTH M INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1	21"X21"	1	12	12						AHEAD
11	CTH II, W. OF CTH T, PLACE 250' W. OF CTH T INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1	21"X21"	1	12	12						AHEAD
12	CTH II, W. OF STH 76, PLACE 750' W. OF STH 76 INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 5-1L	21"X21"	1	12	12						
13	CTH II, AT STH 76, PLACE RIGHT OF EXISTING R1-1 SIGN AT STH 76 INTERSECTION	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1L	21"X21"	1	12	12						LEFT
14	STH 76, AT US 10, PLACE RIGHT OF EXISTING J2-2 SIGN BETWEEN US 10 RAMP INTERSECTIONS	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 5-1L	21"X21"	1	12	12						
15	STH 76, AT US 10 WB, PLACE IN MEDIAN NEXT TO EXISTING J3-1 SIGN	MO 4-5	24"X12"	1	12	12						
	"	M 3-3	24"X12"	1	12	12						
	"	M 1-4	24"X24"	1	12	12						45
	"	MO 6-1L	21"X21"	1	12	12						LEFT

CTH II TO US 45 SB RAMP CLOSURE TOTALS	**384**	**12**	**24**	**7**	**4**
TRAFFIC CONTROL DETOUR SUBTOTALS	**4,776**	**72**	**144**	**77**	**10**
PROJECT TOTALS	**14,087**	**1,687**	**3,254**	**172**	**22**

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE NOTED

PLAN SHEET PRODUCED
BY WisDOT - NE REGION



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
601	426+16.90 NB	758.28	DISK ON NW CORNER PARAPET B-70-213
602	439+50.28 NB	758.88	X IN CON WALL
603	452+74.34 NB	763.82	X IN CON FOOTING

MATCH LINE 456'NB'+00

MATCH LINE 486'NB'+50

MATCH LINE 486'NB'+50

MATCH LINE 517'NB'+00

5

5

TYPE 1 SIGN REPLACEMENT

EXISTING R/W

REMOVE & REPLACE BEAMGUARD

WETLANDS

B-70-215

B-70-216

USH 45 SB

USH 45 NB

N39°18'56"W

N39°18'56"W

155

155

160

160

160

160

460 'SB'

460 'NB'

465 'SB'

465 'NB'

470 'SB'

470 'NB'

475 'SB'

475 'NB'

480 'SB'

480 'NB'

485 'SB'

485 'NB'

WETLANDS

REMOVE & REPLACE BEAMGUARD

SI (TYP)

WETLANDS

WIOUWASH TRAIL

EXISTING R/W

W SUNNYVIEW RD

32

34

36

38

40

N

N

BENCH MARKS

NO.	STATION	ELEV.	DESCRIPTION
604	482+17.66 NB	807.02	X NW COR WW NB
603	34+53.13 SUNNY	784.98	X IN WALL

LEGEND

- **CONCRETE PAVEMENT REPAIR**
- **CONCRETE PAVEMENT REPLACEMENT**
- **CONCRETE PAVEMENT APPROACH SLAB**
- **HMA SHOULDER REPAIR (VARIOUS ITEMS)**

EXISTING R/W

CLEAN CULVERT PIPE

CURVE 10

TYPE 1 SIGN REPLACEMENT

USH 45 SB

USH 45 NB

490 'SB'

490 'NB'

495 'SB'

495 'NB'

500 'SB'

500 'NB'

505 'SB'

505 'NB'

510 'SB'

510 'NB'

515 'SB'

515 'NB'

CURVE 2

WETLANDS

WETLANDS

WETLANDS

EXISTING R/W

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 185	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050202-pn

PLOT DATE : 7/24/2026 10:58 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

MATCH LINE 517'NB+00

MATCH LINE 547'NB+50

MATCH LINE 547'NB+50

MATCH LINE 578'NB+00

5

5

LEGEND

- **CONCRETE PAVEMENT REPAIR**
- **CONCRETE PAVEMENT REPLACEMENT**
- **CONCRETE PAVEMENT APPROACH SLAB**
- **HMA SHOULDER REPAIR (VARIOUS ITEMS)**

EXISTING R/W

WETLANDS

USH 45 SB

520 'SB'

525 'SB'

530 'SB'

535 'SB'

N55°24'36"W

540 'SB'

545 'SB'

520 'NB'

525 'NB'

530 'NB'

535 'NB'

540 'NB'

545 'NB'

USH 45 NB

WETLANDS

N55°24'36"W

WETLANDS

WETLANDS

EXISTING R/W

REMOVE & REPLACE BEAMGUARD

ADJUSTING INLETS

CONSTRUCTION LIMITS STA 13'BR'+00.00

PC: 8'BR+

PT: 11'BR+76.04

15' BR

EXISTING R/W

REMOVE & REPLACE BEAMGUARD

CURVE 11

WPS GAS MAIN

WETLANDS

PC: 14'BR+97.50

USH 45 SB

560 'SB'

565 'SB'

565 'NB'

570 'SB'

560 'NB'

570 'NB'

N38°02'10"W

555 'SB'

555 'NB'

550 'SB'

550 'NB'

USH 45 NB

WETLANDS

SI (TYP)

B-70-217

20' BR

CURVE 3

WETLANDS

575 'SB'

575 'NB'

N38°02'10"W

WPS ELECTRICITY

PT: 19'BR+71.74

EXISTING R/W

US INTERNET COMMUNICATION LINE

CONSTRUCTION LIMITS STA 23'BR'+48.79

BROOKS RD

25' BR

BENCH MARKS

NO.	STATION	ELEV.	DESCRIPTION
697	16+80.22 BROOKS	807.65	DISK ON NE CORNER R-70-7
698	19+55.40 BROOKS	805.65	DISK ON SW CORNER

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 186	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050203-pn

PLOT DATE : 7/24/2026 10:58 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
607	584+91.55 NB	771.17	DISK IN WALL
608	585+22.10 SB	769.58	DISK IN PWALL
606	13+61.19 SK BR RD	793.91	ALUM DISK

MATCH LINE 578'NB'+00

CONSTRUCTION LIMITS STA 11'SK'+00.00

SI (TYP)

WPS ELECTRICITY

WETLANDS

PC: 10'SK+20.02

10'SK SKELETON BRIDGE RD

REMOVE & REPLACE BEAMGUARD

580 'SB'

580 'NB'

B-70-218

585 'SB'

585 'NB'

B-70-219

REMOVE & REPLACE BEAMGUARD

WETLANDS

REMOVE & REPLACE BEAMGUARD

WPS GAS MAIN

PT: 17'SK+51.72

REMOVE & REPLACE BEAMGUARD

US INTERNET COMMUNICATION LINE

WETLANDS

CLEAN CULVERT PIPE

EXISTING R/W

CURVE 12

USH 45 SB

15'SK

590 'SB'

590 'NB'

B-70-220

16'SK

USH 45 NB

SI (TYP)

CURVE 4

WETLANDS

CONSTRUCTION LIMITS STA 19'SK'+28.01

EXISTING R/W

CLEAN CULVERT PIPE

WETLANDS

595 'SB'

595 'NB'

600 'SB'

600 'NB'

605 'SB'

605 'NB'

MATCH LINE 609'NB'+50

LEGEND

- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT APPROACH SLAB
- HMA SHOULDER REPAIR (VARIOUS ITEMS)

MATCH LINE 608'NB'+50

EXISTING R/W

WETLANDS

WETLANDS

610 'SB'

610 'NB'

615 'SB'

615 'NB'

620 'SB'

620 'NB'

N82°08'08"W

USH 45 SB

WETLANDS

625 'SB'

625 'NB'

N82°08'08"W

630 'SB'

630 'NB'

WETLANDS

635 'SB'

635 'NB'

N

USH 45 NB

KOLB RD

TYPE 1 SIGN REPLACEMENT

EXISTING R/W

MATCH LINE 639'NB'+00

5

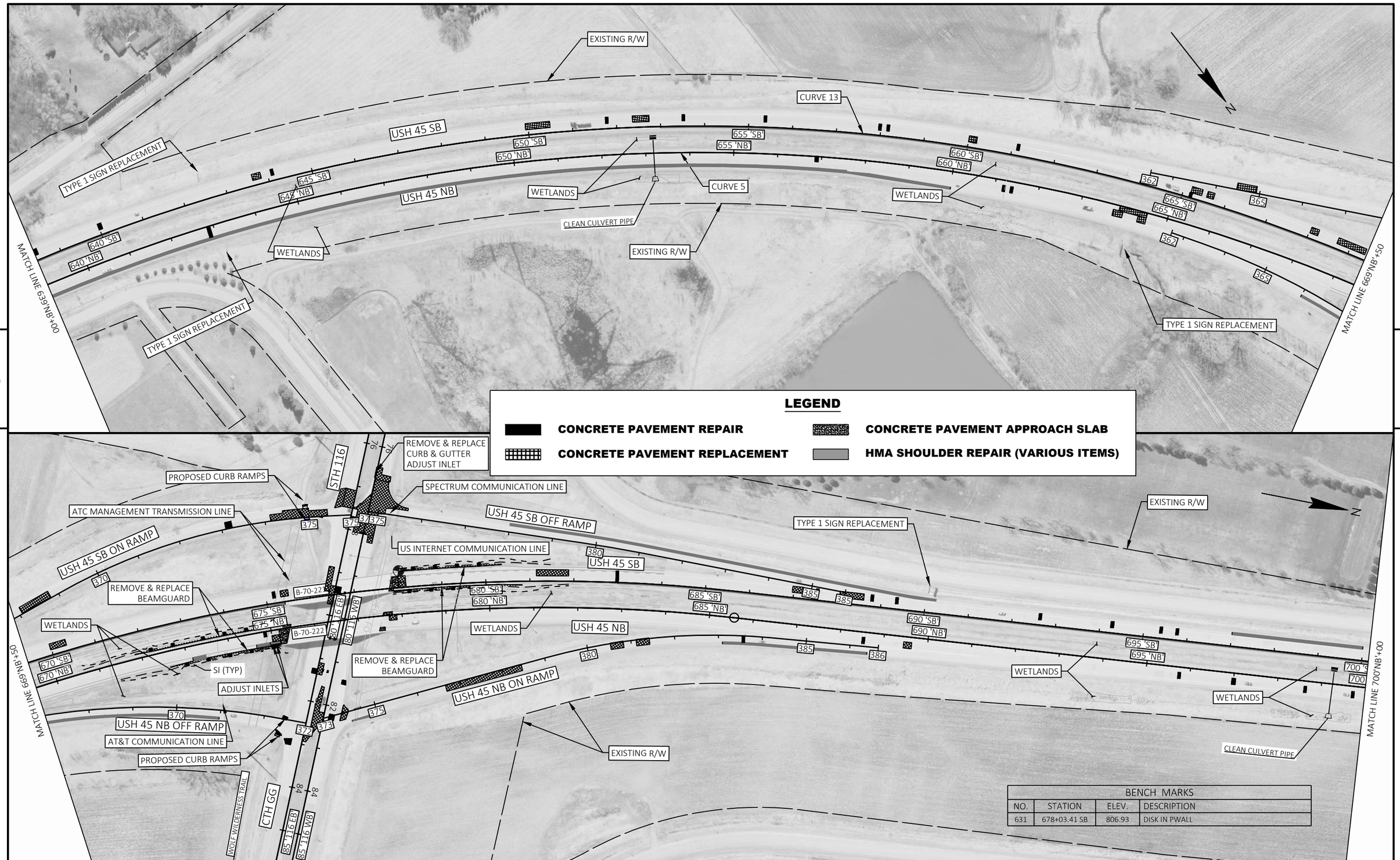
5

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 187	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050204-pn

PLOT DATE : 7/28/2026 2:06 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

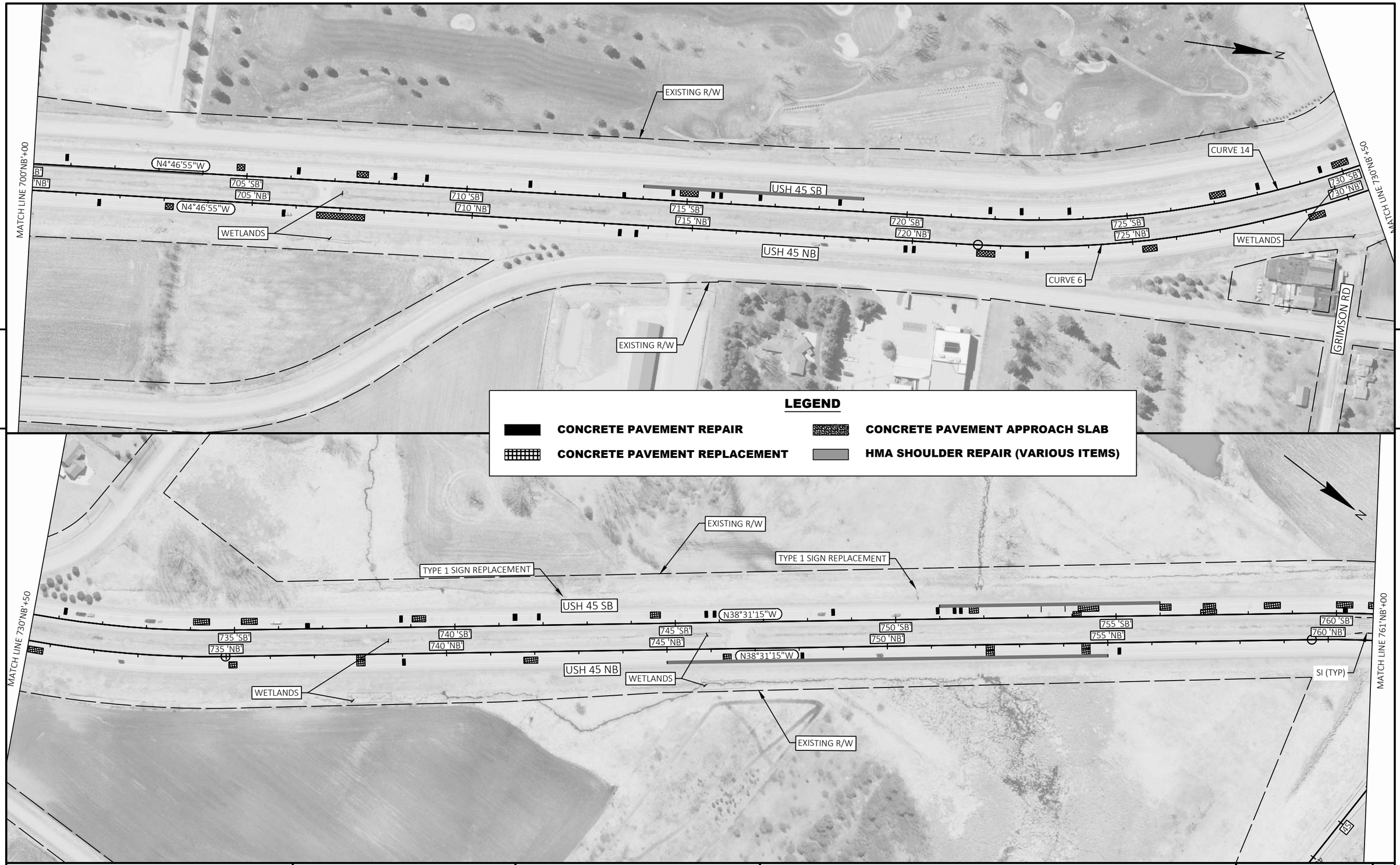


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 188 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050205-pn

PLOT DATE : 7/24/2026 10:58 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



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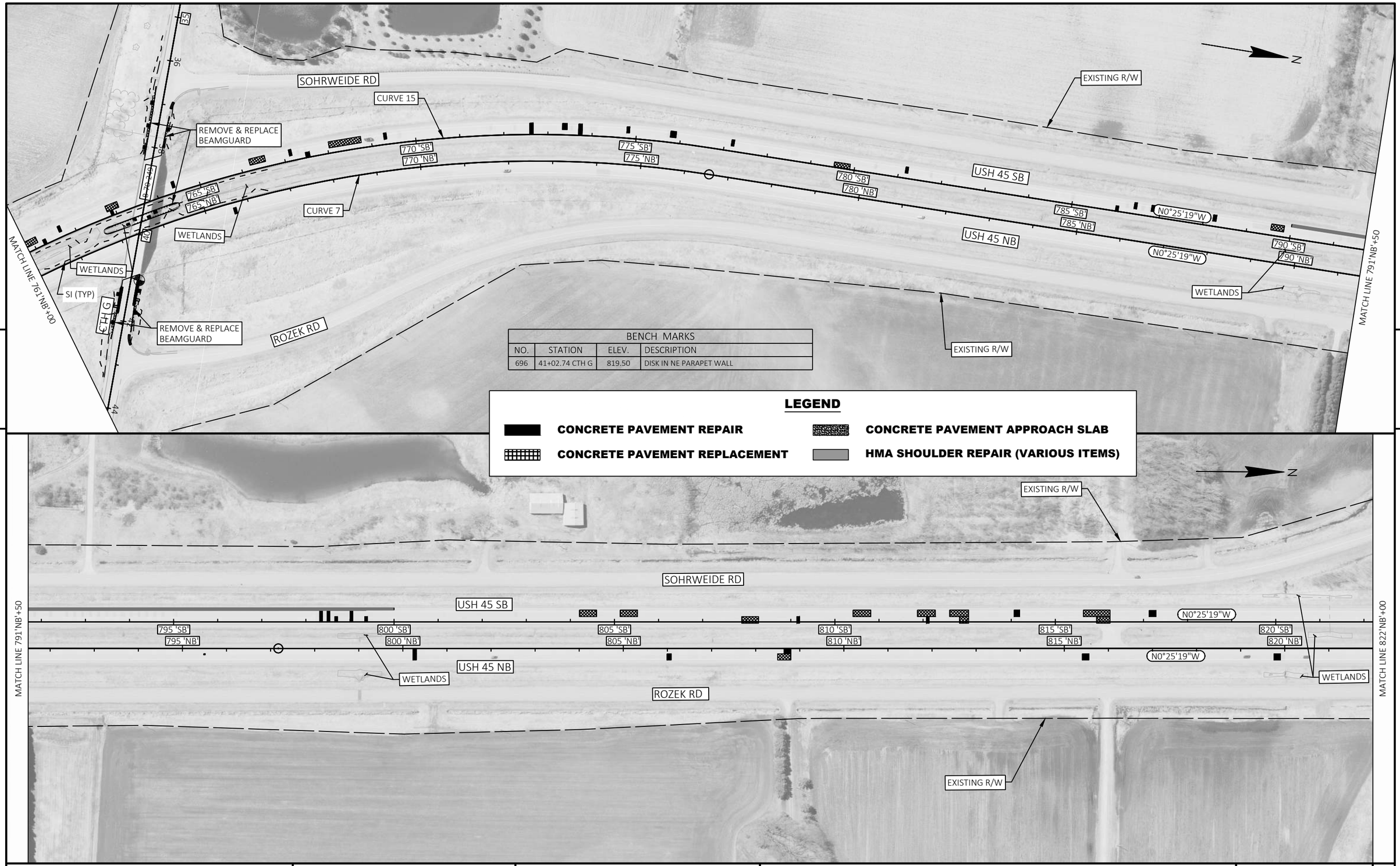
5

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 189	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050206-pn

PLOT DATE : 7/24/2026 10:59 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 190	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050207-pn
PLOT DATE : 7/24/2026 10:59 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

MATCH LINE 822'NB+00

MATCH LINE 852'NB+50

5

5

EXISTING R/W

SOHRWEIDE RD

WOODLAND RD

BREEZEWOOD LN

REMOVE & REPLACE BEAMGUARD

USH 45 SB

USH 45 NB

ROZEK RD

825 'SB'
825 'NB'
830 'SB'
830 'NB'
835 'SB'
835 'NB'
840 'SB'
840 'NB'
845 'SB'
845 'NB'
850 'SB'
850 'NB'

N0°06'15"W

PI: 20+00.00

WETLANDS

SI (TYP)

B-70-300

B-70-299

EXISTING R/W

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
630	19+20.80 WOOD	804.43	DISK IN PWALL

LEGEND

- **CONCRETE PAVEMENT REPAIR**
- **CONCRETE PAVEMENT REPLACEMENT**
- **CONCRETE PAVEMENT APPROACH SLAB**
- **HMA SHOULDER REPAIR (VARIOUS ITEMS)**

MATCH LINE 852'NB+50

MATCH LINE 883'NB+00

EXISTING R/W

SOHRWEIDE RD

USH 45 SB

USH 45 NB

ROZEK RD

855 'SB'
855 'NB'
860 'SB'
860 'NB'
865 'SB'
865 'NB'
870 'SB'
870 'NB'
875 'SB'
875 'NB'
880 'SB'
880 'NB'

N0°13'02"E

B-70-139

B-70-244

WETLANDS

SI (TYP)

REMOVE & REPLACE BEAMGUARD

EXISTING R/W

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
632	871+78.62 SB	759.88	DISK IN SE DECK CORN 45SB

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 191	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 7/24/2026 10:59 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

MATCH LINE 883'NB+00

MATCH LINE 913'NB+50

MATCH LINE 913'NB+50

MATCH LINE 944'NB+00

LAKEVIEW RD

OAK RIDGE RD

SOHRWEIDE RD

ROZEK RD

USH 45 SB

USH 45 NB

PI: 20+00.00

N0°14'11"W

N0°14'11"W

885 'SB'
885 'NB'
890 'SB'
890 'NB'
895 'SB'
895 'NB'
900 'SB'
900 'NB'
905 'SB'
905 'NB'
910 'SB'
910 'NB'
915 'SB'
915 'NB'
920 'SB'
920 'NB'
925 'SB'
925 'NB'
930 'SB'
930 'NB'
935 'SB'
935 'NB'
940 'SB'
940 'NB'

16 'OAK'
18 'OAK'
24 'OAK'
25 'OAK'

0.30 316

REMOVE & REPLACE BEAMGUARD

REMOVE & REPLACE BEAMGUARD

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

SI (TYP)

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

ATC MANAGEMENT TRANSMISSION LINE

CURVE 8

CURVE 16

TYPE 1 SIGN REPLACEMENT

N

N

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
634	19+20.99 LAKE	789.309	DISK ON SE WALL

LEGEND

- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT APPROACH SLAB
- HMA SHOULDER REPAIR (VARIOUS ITEMS)

5

5

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 192	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050201-PN.DWG
LAYOUT NAME - 050209-pn

PLOT DATE : 7/24/2026 10:59 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:200 FT

MATCH LINE 944'NB+00

MATCH LINE 974'NB+50

MATCH LINE 974'NB+50

MATCH LINE 1005'NB+00

5

5

TYPE 1 SIGN REPLACEMENT

REMOVE & REPLACE BEAMGUARD

SI (TYP)

REMOVE & REPLACE BEAMGUARD

WPS GAS MAIN

PT: 47'GR+98.51

GRANDVIEW RD

50' GR

PC: 41'GR+34.39

42

45' GR

B-70-311

USH 45 SB

USH 45 NB

SOHRWEIDE RD

945 'SB'
945 'NB'
950 'SB'
950 'NB'
955 'SB'
955 'NB'
960 'SB'
960 'NB'
965 'SB'
965 'NB'
970 'SB'
970 'NB'

WETLANDS

WETLANDS

WETLANDS

EXISTING R/W

EXISTING R/W

N

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
695	44+45.80 GRAND	835.09	DOT DISK IN SW PARAPET

LEGEND

- **CONCRETE PAVEMENT REPAIR**
- **CONCRETE PAVEMENT REPLACEMENT**
- **CONCRETE PAVEMENT APPROACH SLAB**
- **HMA SHOULDER REPAIR (VARIOUS ITEMS)**

EXISTING R/W

SOHRWEIDE RD

USH 45 SB

USH 45 NB

975 'SB'
975 'NB'
980 'SB'
980 'NB'
985 'SB'
985 'NB'
990 'SB'
990 'NB'
995 'SB'
995 'NB'
1000 'SB'
1000 'NB'

N28°15'39"W

N28°15'39"W

WETLANDS

WETLANDS

WETLANDS

CLEAN CULVERT PIPE

CLEAN CULVERT PIPE

TYPE 1 SIGN REPLACEMENT

TYPE 1 SIGN REPLACEMENT

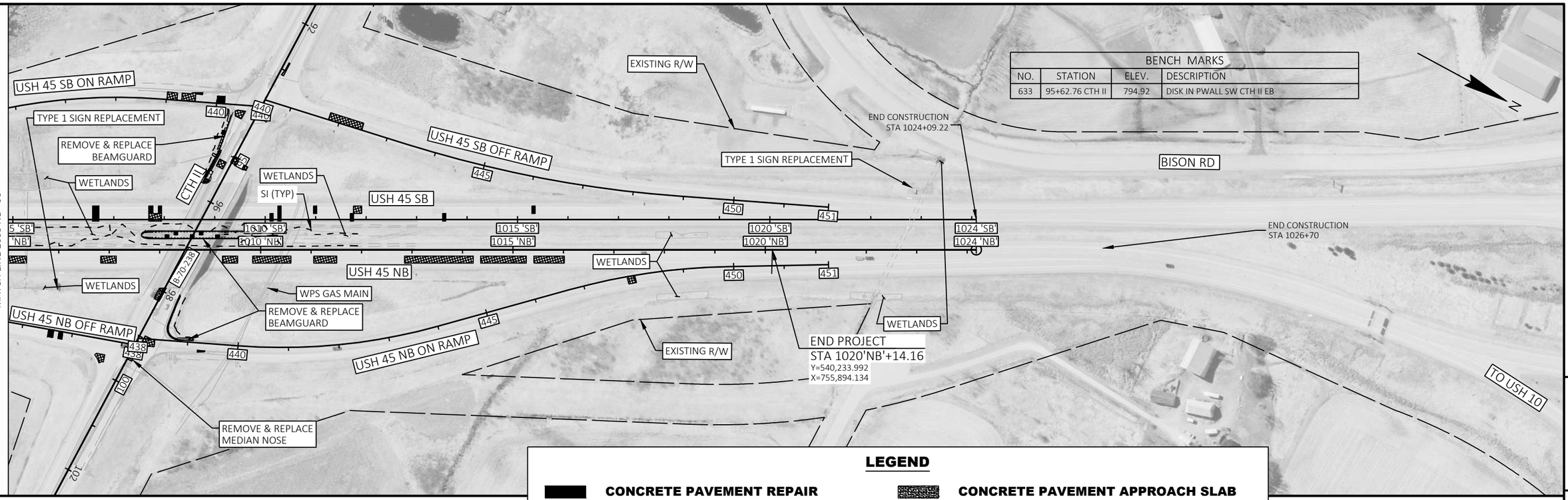
EXISTING R/W

USH 45 SB ON RAMP

USH 45 NB OFF RAMP

425
426
430
430
435
435

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 193	E



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
633	95+62.76 CTH II	794.92	DISK IN PWALL SW CTH II EB

LEGEND

- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT APPROACH SLAB
- HMA SHOULDER REPAIR (VARIOUS ITEMS)

5

5

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET	SHEET 194	E

5

5

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PLAN SHEET - PARK AND RIDE	SHEET 195	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\050202-PN.DWG
LAYOUT NAME - 050212-pn

PLOT DATE : 7/24/2026 11:00 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

Standard Detail Drawing List

08D01-24A	CONCRETE CURB AND GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES
08D05-23A	CURB RAMPS TYPES 1 AND 1-A
08D05-23B	CURB RAMPS TYPES 2 AND 3
08D05-23C	CURB RAMPS TYPES 4A AND 4A1
08D05-23D	CURB RAMPS TYPES 4B AND 4B1
08D05-23E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-23F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD
08D05-23G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPES A, B, C AND D
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09B02-10	CONDUIT
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-10	CONCRETE CONTROL CABINET BASES
09C11-11	CONCRETE BASE TYPE 10
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09H03-01	2 CIRCUIT METER BREAKER PEDESTAL
11A01-06	MAINTENANCE CROSSOVER FOR FREEWAYS
11B02-02	CONCRETE MEDIAN NOSE
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-18A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-18B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-18C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-18D	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-15A	RURAL DOWELED CONCRETE PAVEMENT
13C11-15B	RURAL DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION AND ELEMENTS
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-12C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-12D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-12E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-12F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-12G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-12H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B26-05A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05H	STEEL THRIE BEAM BULLNOSE TERMINAL

6

Standard Detail Drawing List

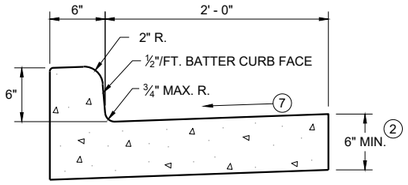
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST 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)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-06A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B53-03A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-10G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-16A	PAVEMENT MARKING SYMBOLS
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24C	PAVEMENT MARKING (TURN LANES)
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C11-11B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C19-11A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-11B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-11C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-08A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-08C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-17A	TRAFFIC CONTROL, LANE CLOSURE
15D12-17B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-17D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D12-17G	TRAFFIC CONTROL, LANE CLOSURE , DIGITAL SPEED REDUCTION SYSTEM
15D15-08B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-08C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-08D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-07	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-12A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

6

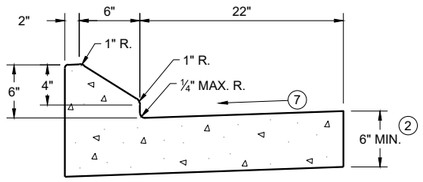
Standard Detail Drawing List

15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE
15D27-06	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-06	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

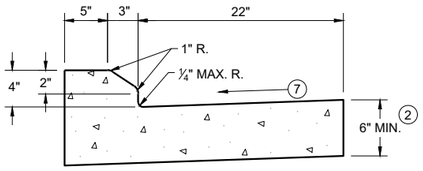
6



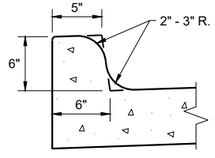
TYPES A (1) & D



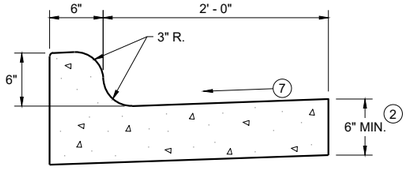
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

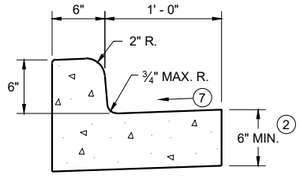


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



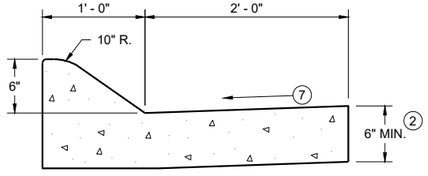
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

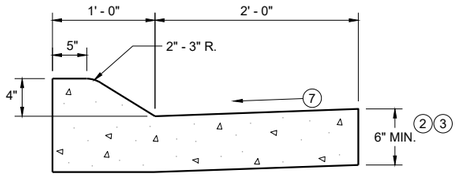


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

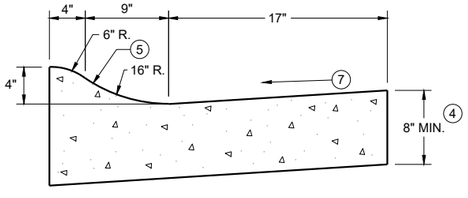


6" SLOPED CURB TYPES A (1) & D



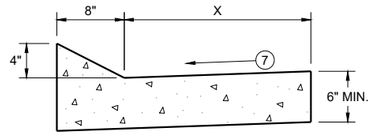
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



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

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

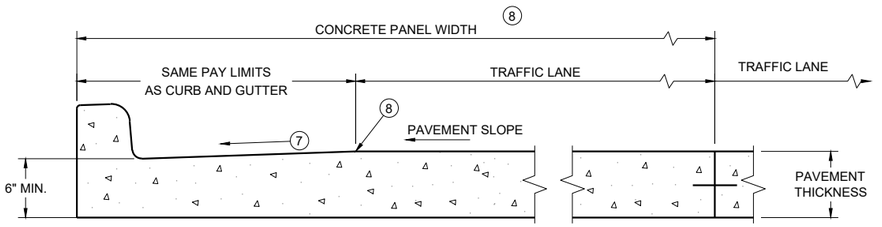


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

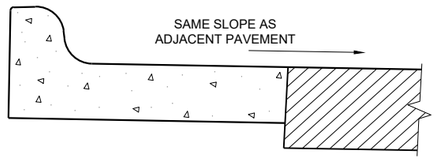
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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

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

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

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

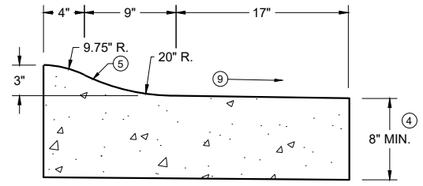
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

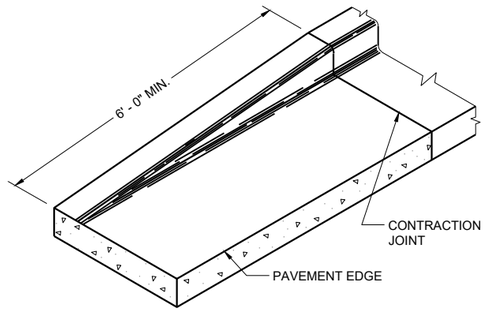
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



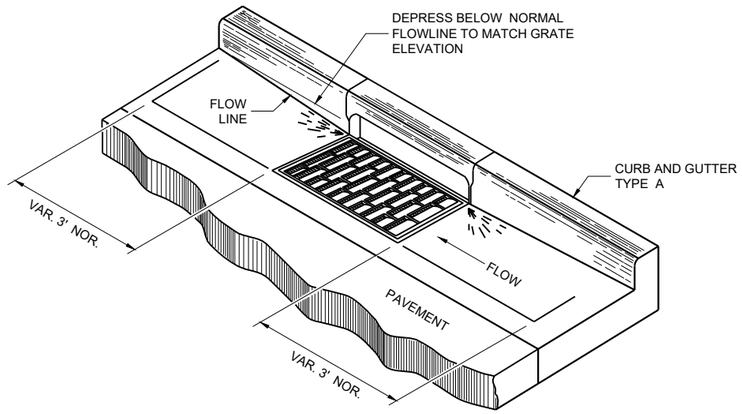
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

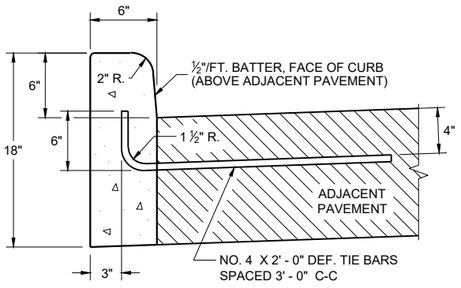
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

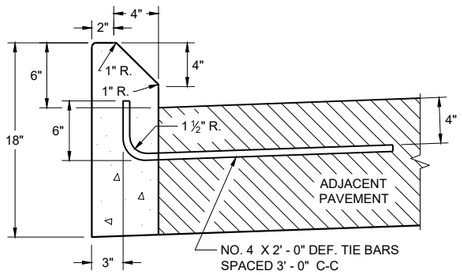
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

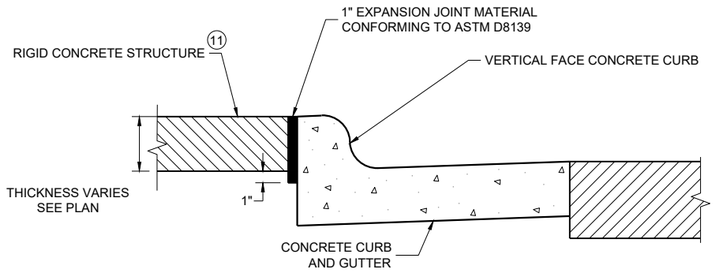


TYPES A (1) & D

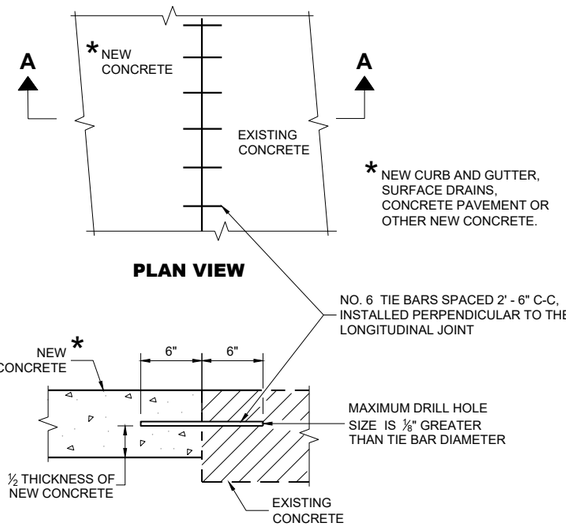


TYPES G (1) & J

CONCRETE CURB



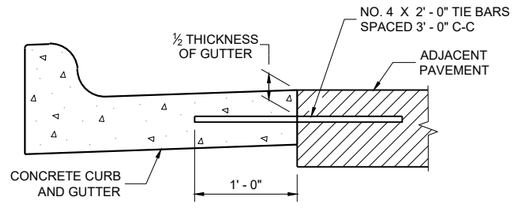
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



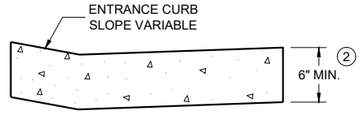
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08D01-24b

6

SDD 08D01-24b

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

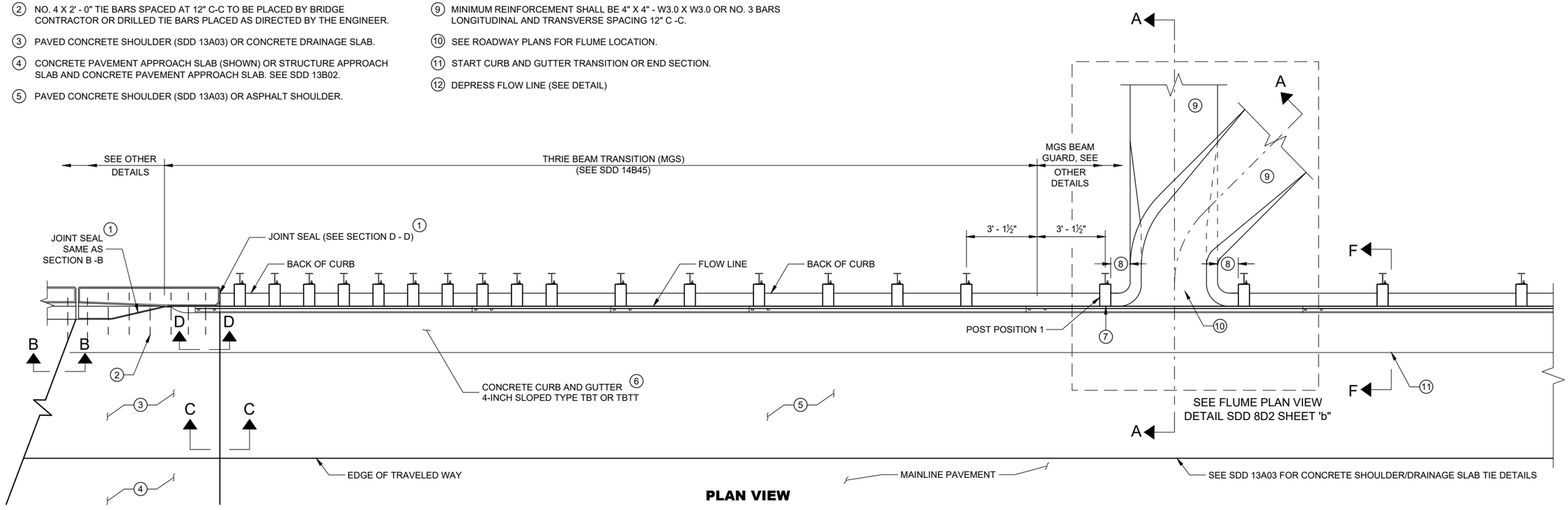
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

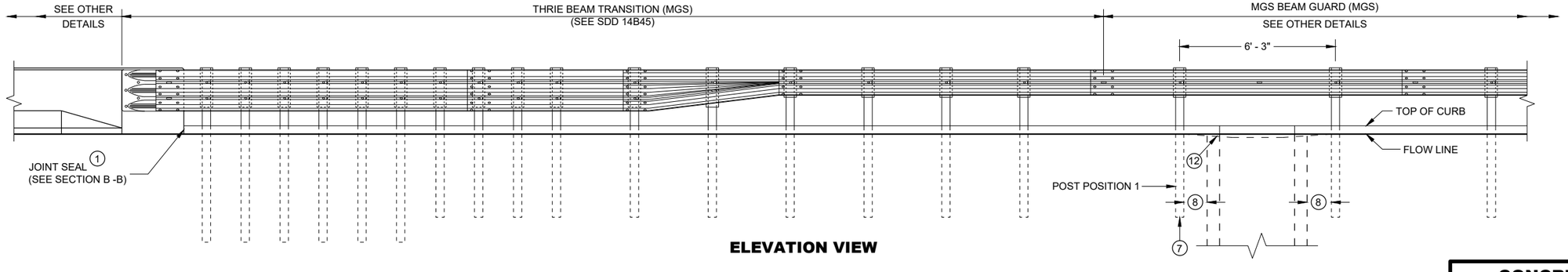
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW

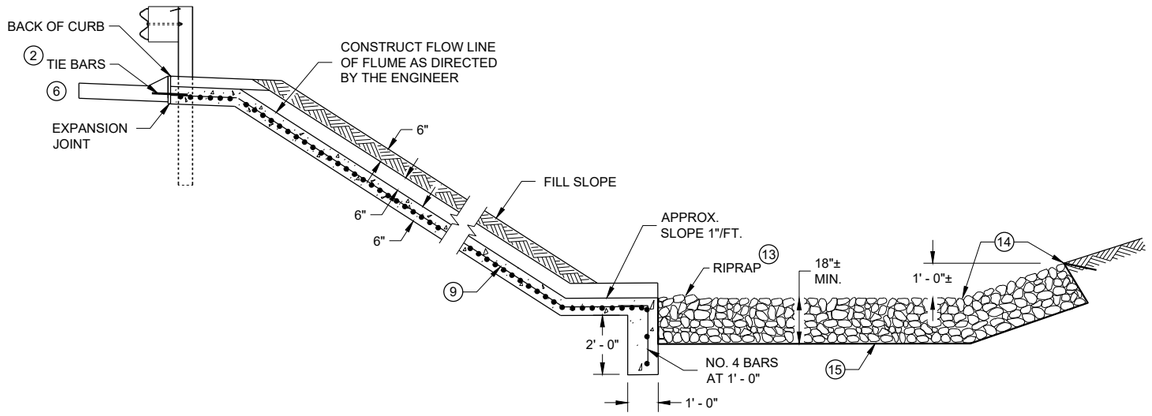


ELEVATION VIEW

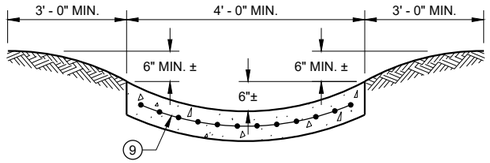
CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

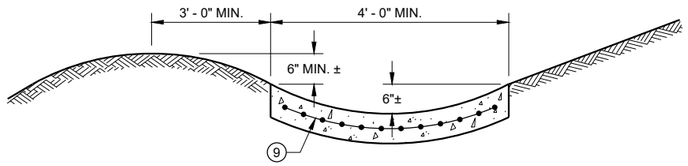
6
SDD 08D02 - 08a



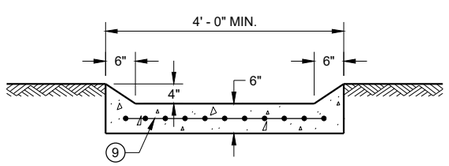
SECTION A - A



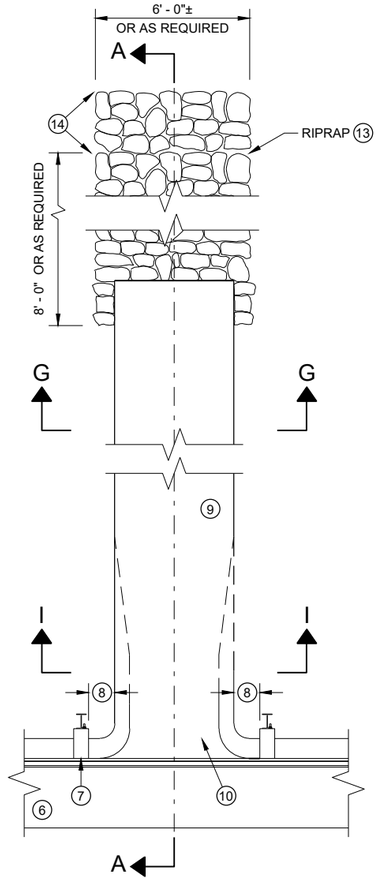
SECTION G - G



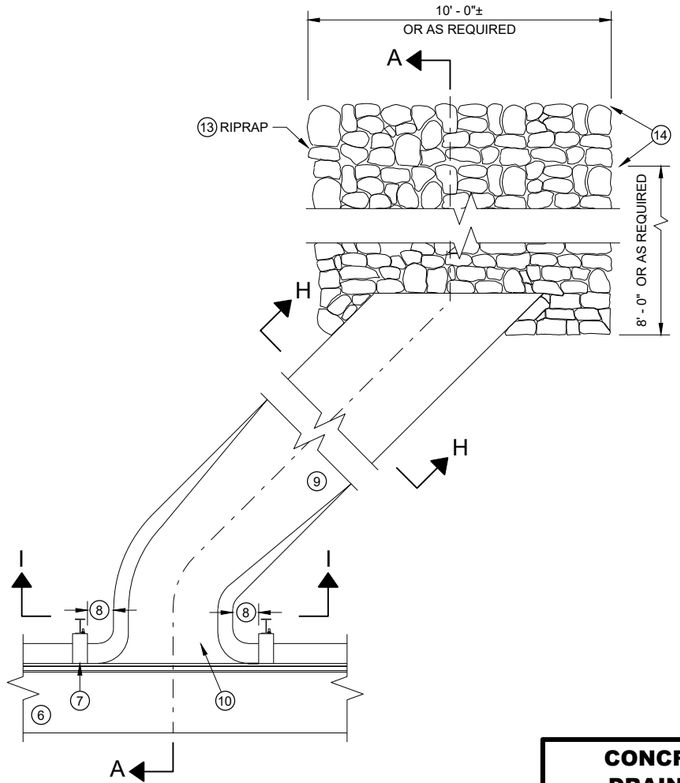
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

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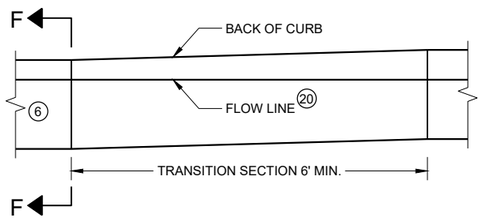
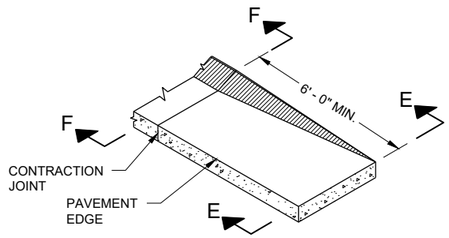
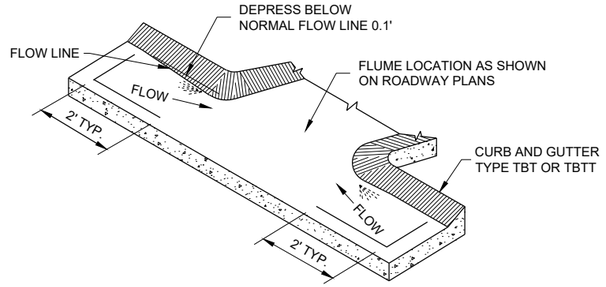
SDD 08D02 - 08b



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

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(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

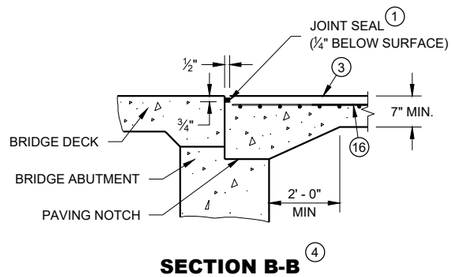
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

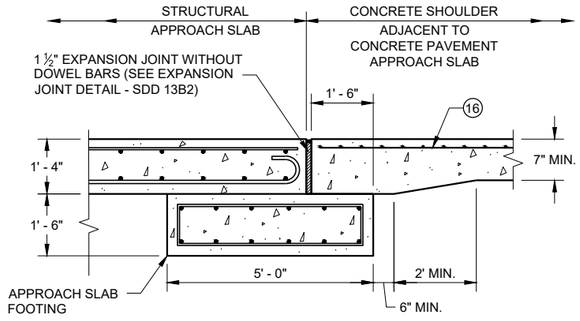
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

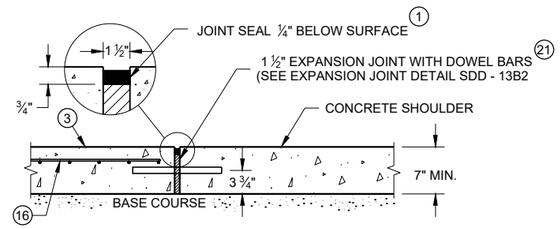
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



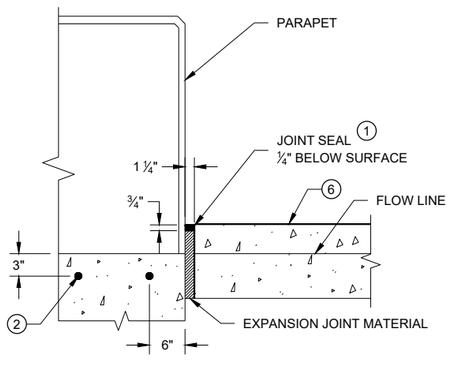
SECTION B-B



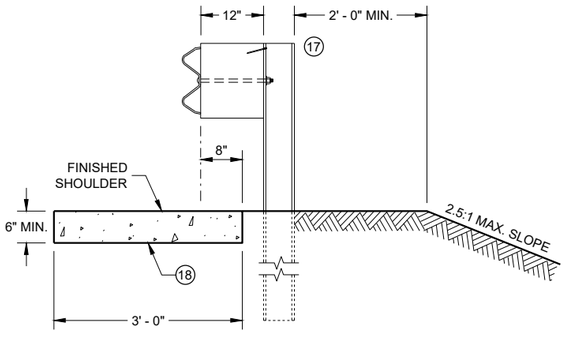
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



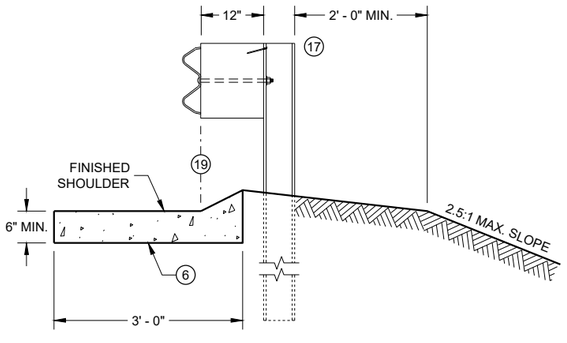
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08D02 - 08c

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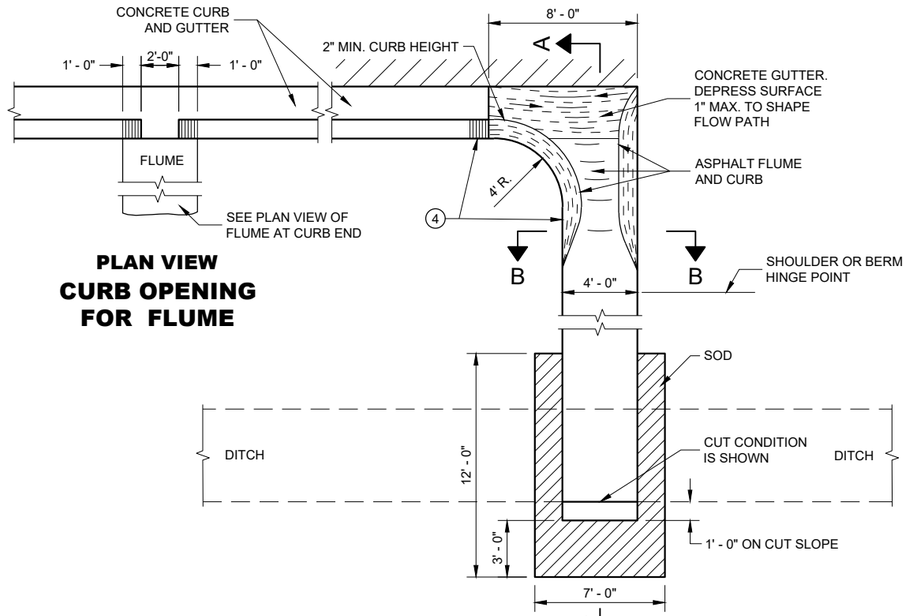
SDD 08D02 - 08c

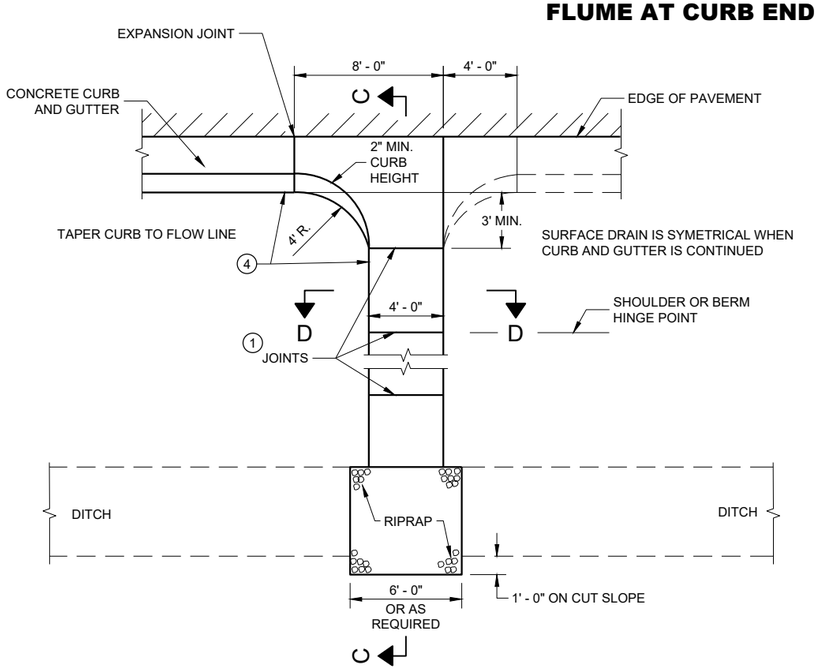
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



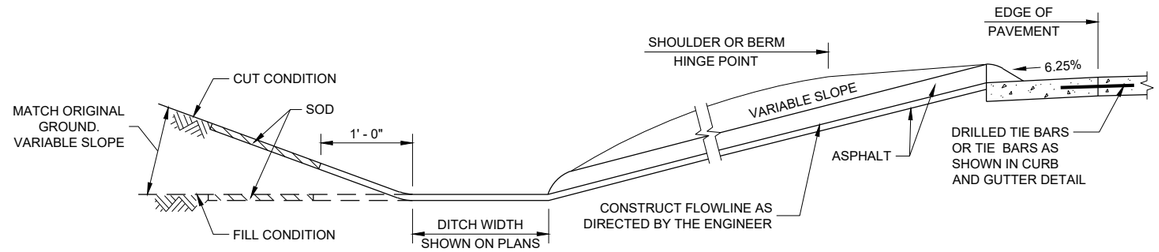
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

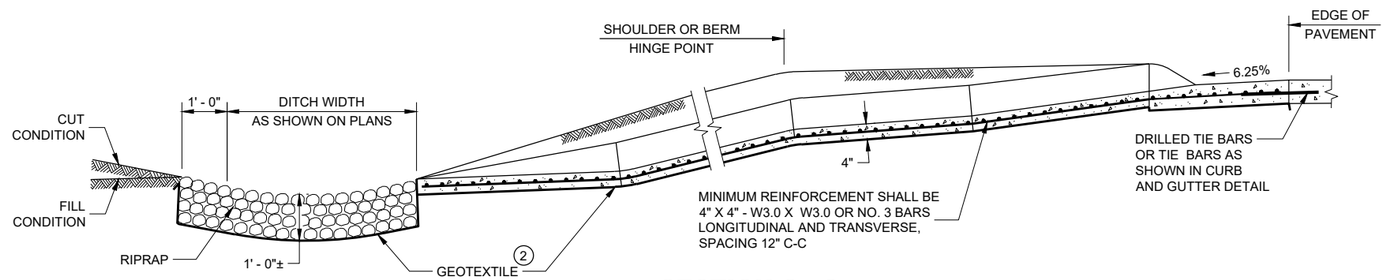
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

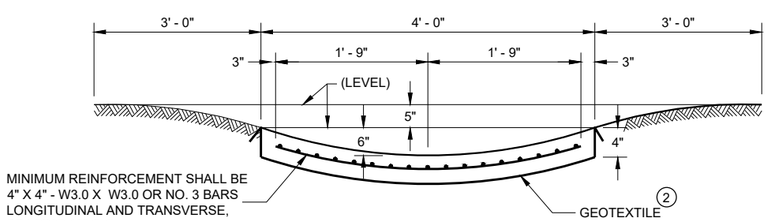


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

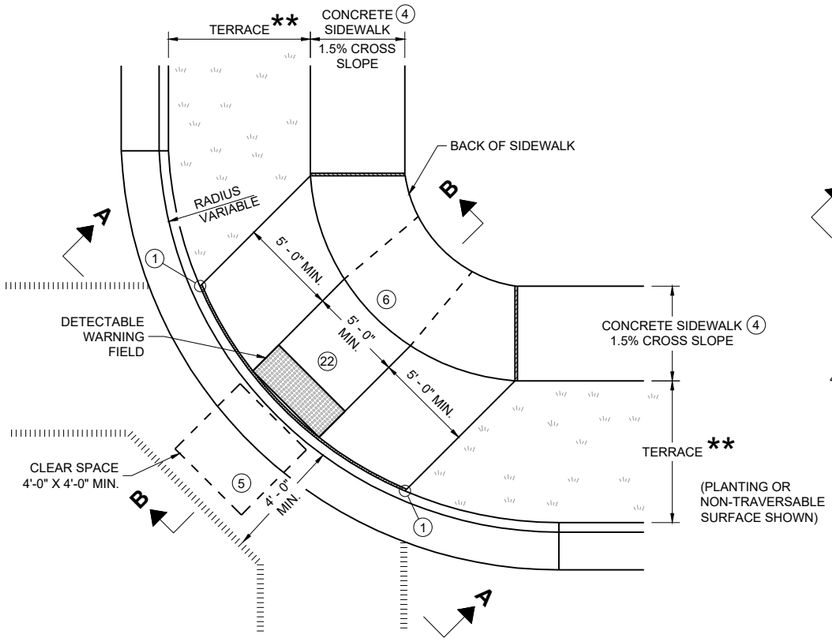
FHWA

6

SDD 08D04 - 07

6

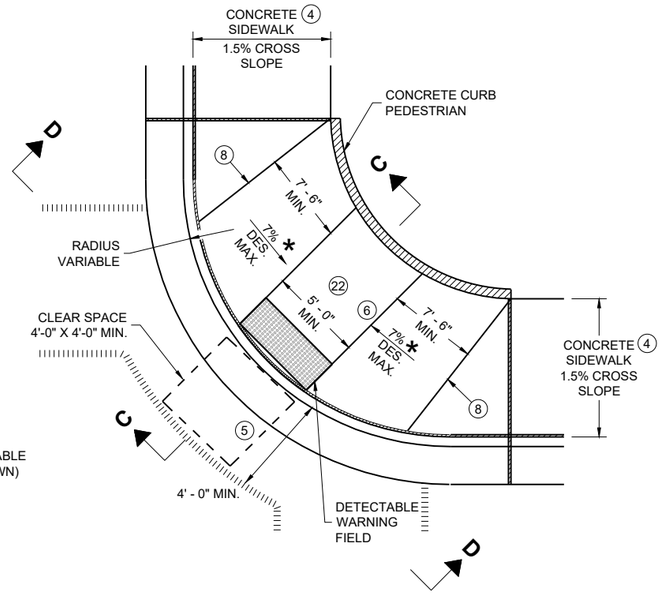
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

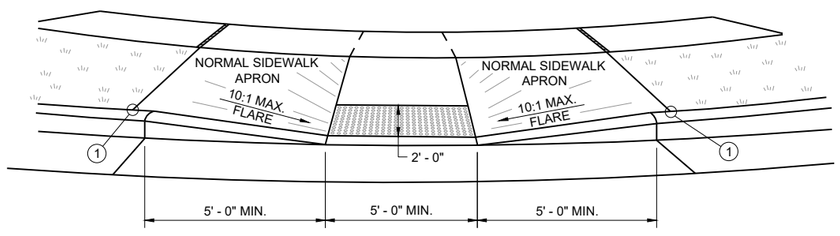
(CENTER OF CORNER RADIUS)



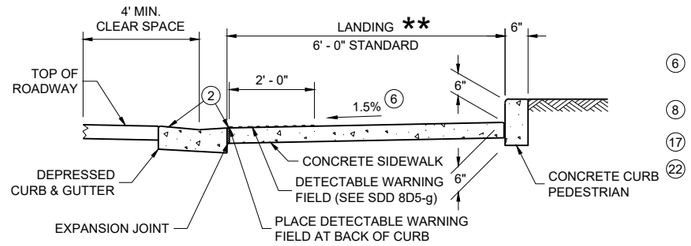
PLAN VIEW

CURB RAMP TYPE 1 - A

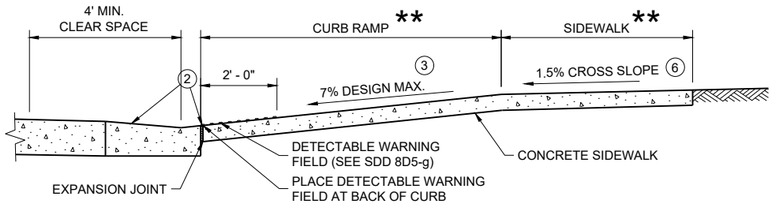
(NO TERRACE)



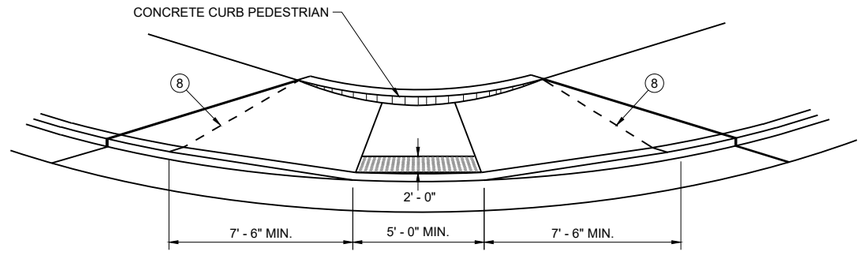
VIEW A - A FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

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

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

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

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

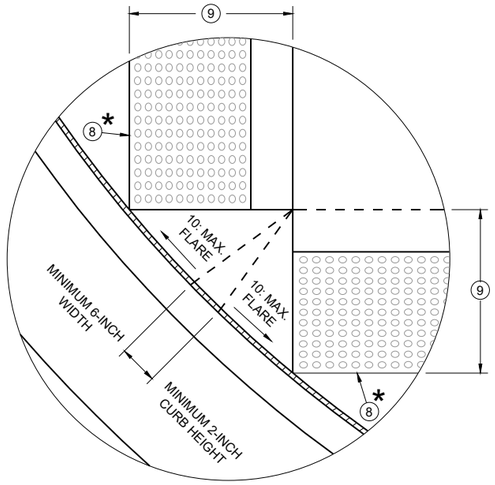
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

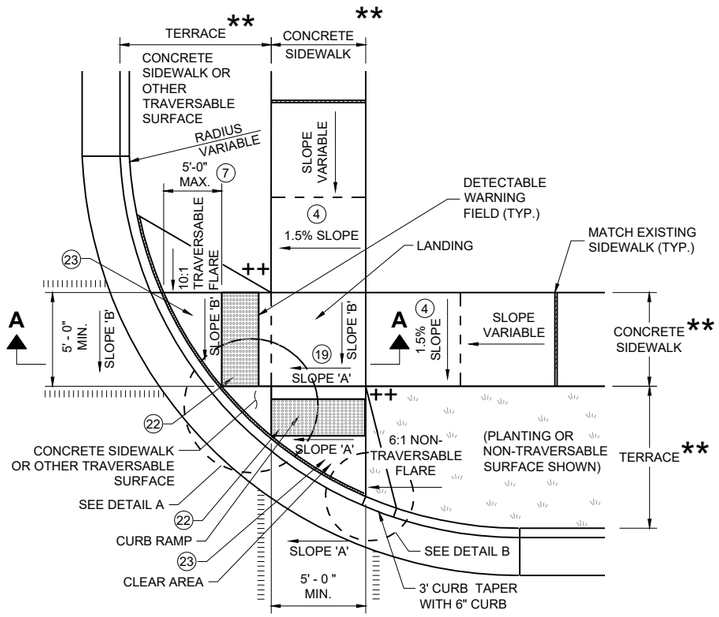
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



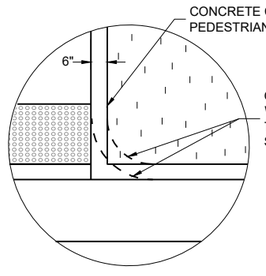
DETAIL A



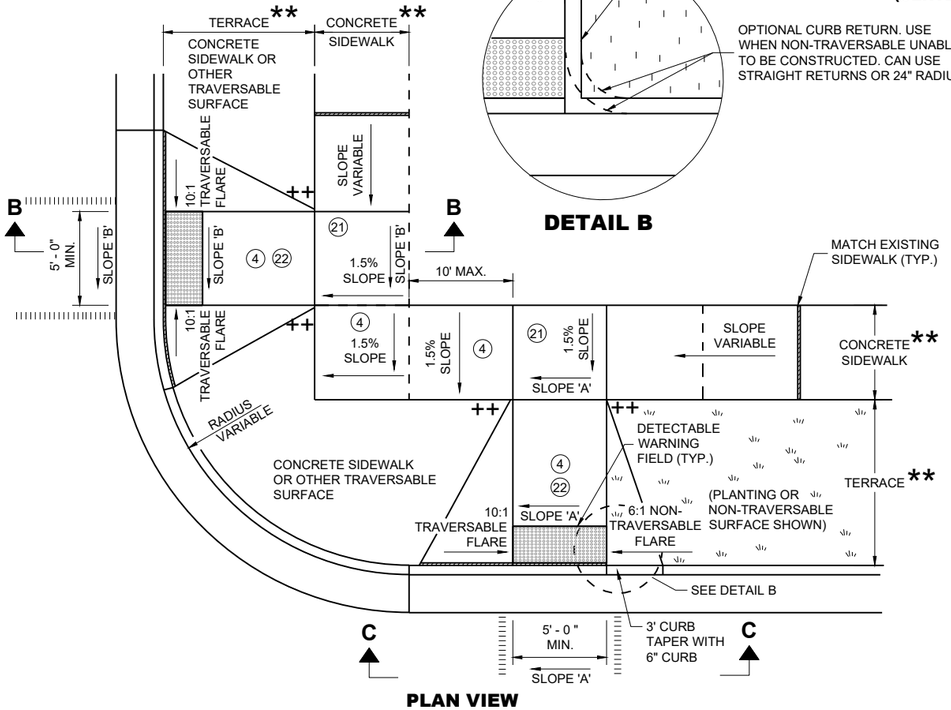
PLAN VIEW

CURB RAMP TYPE 2

(CENTER OF CORNER RADIUS)



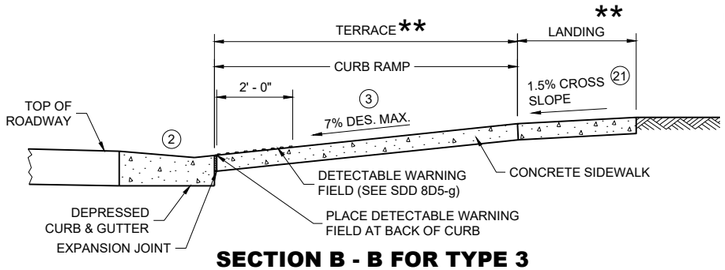
DETAIL B



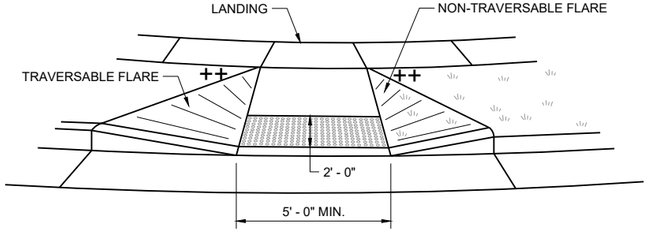
PLAN VIEW

CURB RAMP TYPE 3

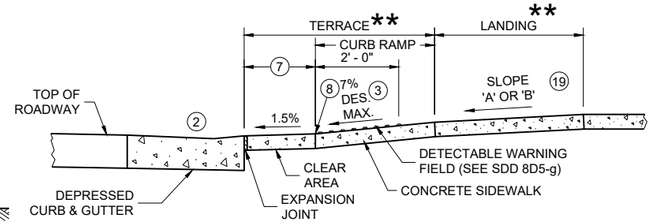
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3



SECTION A - A FOR TYPE 2

GENERAL NOTES

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

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.

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

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

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

(21) PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

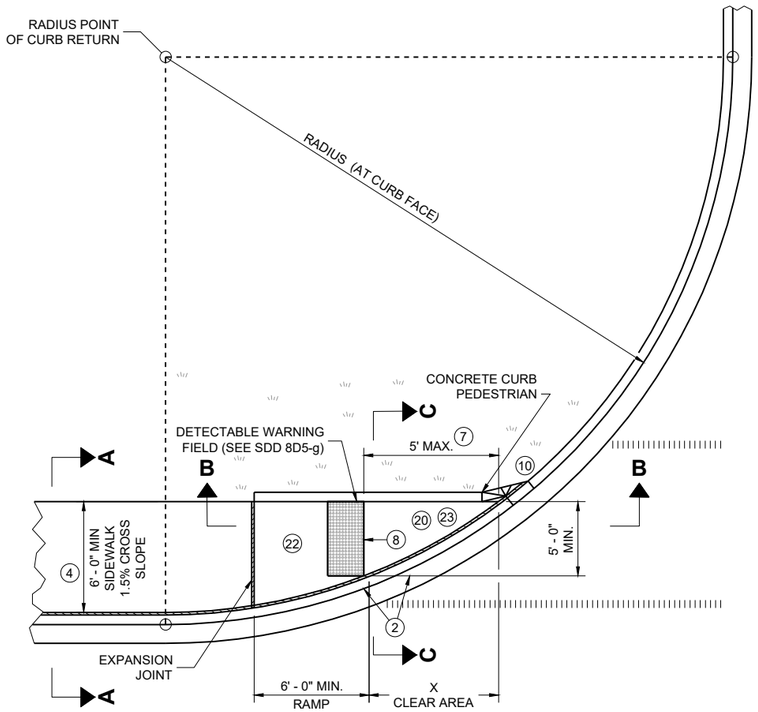
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

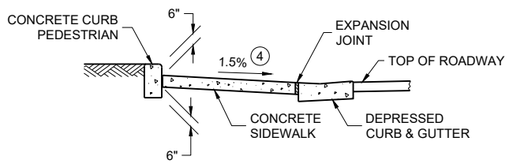
CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

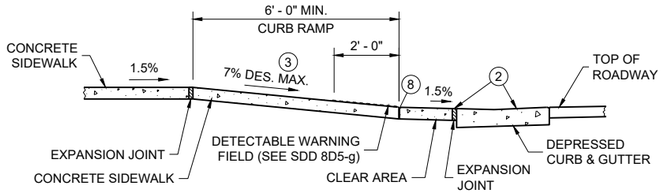


PLAN VIEW

CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A



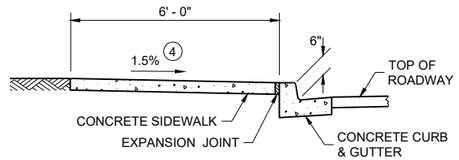
SECTION B - B FOR TYPE 4A AND TYPE 4A1

LEGEND

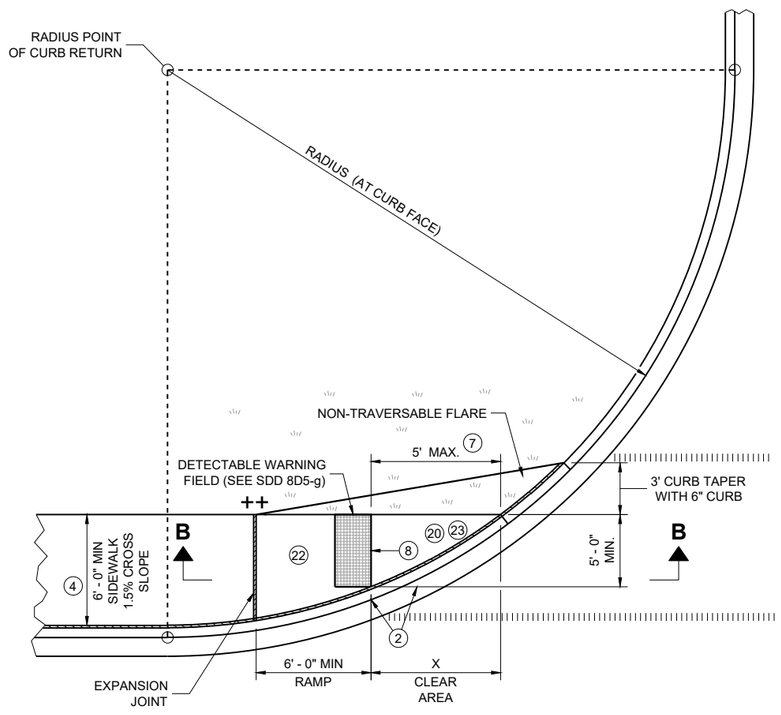
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



PLAN VIEW

CURB RAMP TYPE 4A1

GENERAL NOTES

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

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.

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

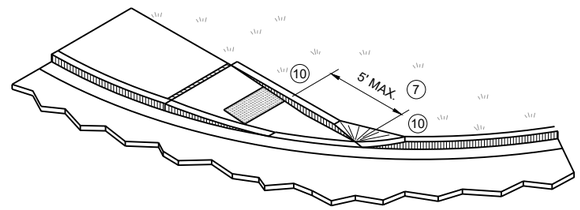
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

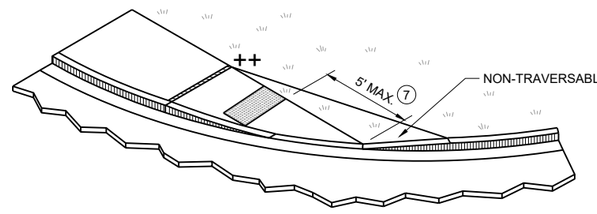
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



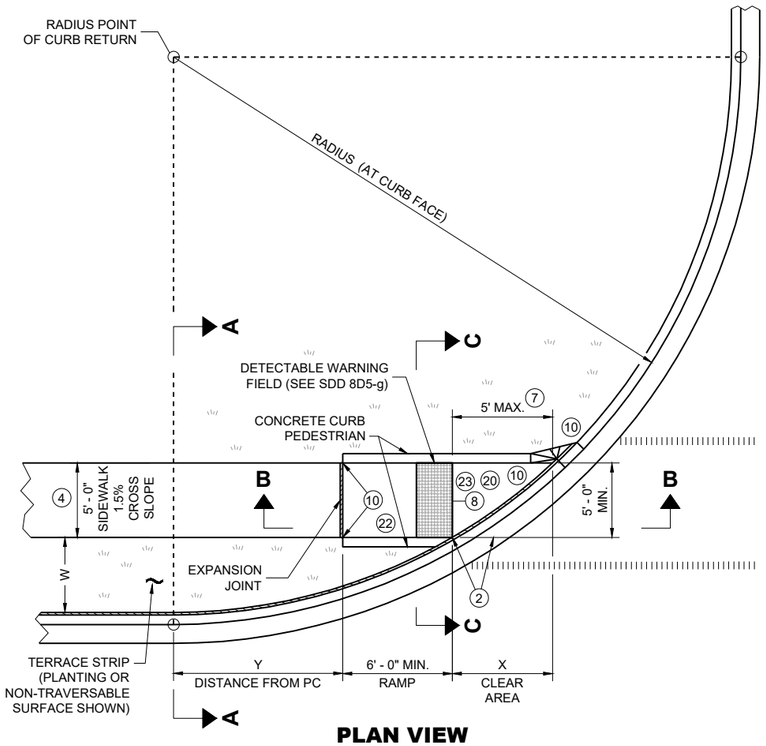
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

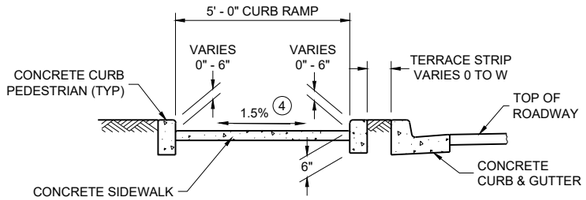
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET			4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET									4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET															4' - 10 ¾"	19' - 8 ¼"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

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

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.

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

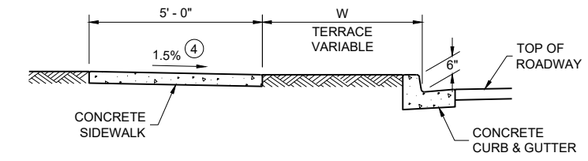
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

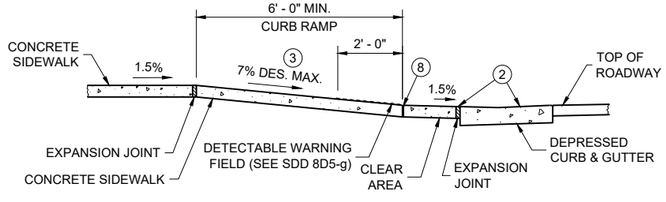
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

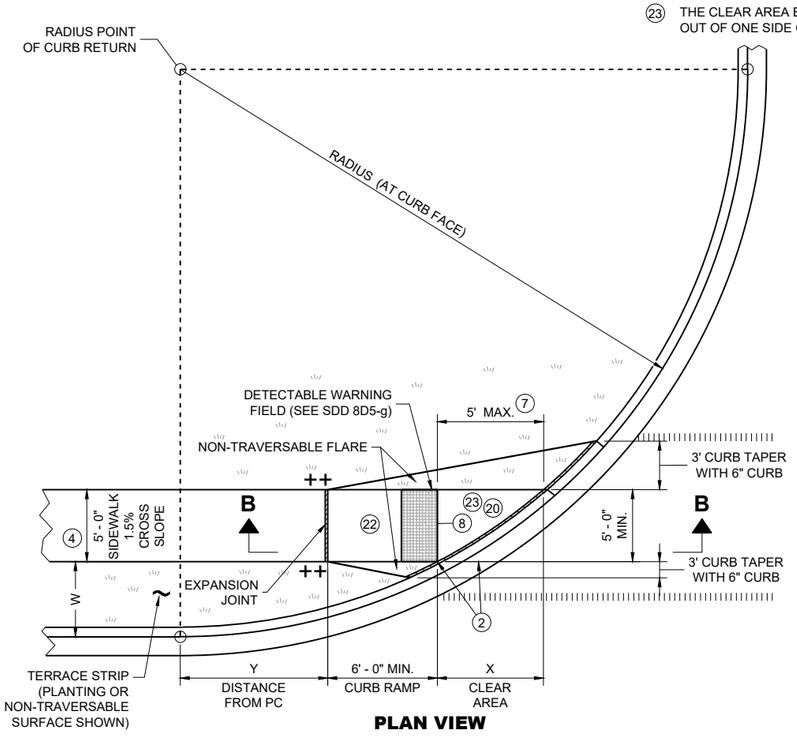
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



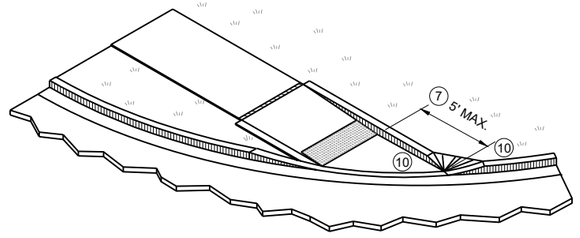
SECTION A - A FOR TYPE 4B



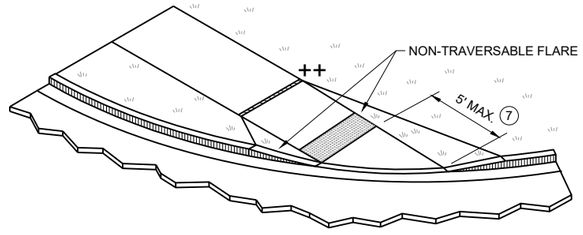
SECTION B - B FOR TYPE 4B AND TYPE 4B1



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



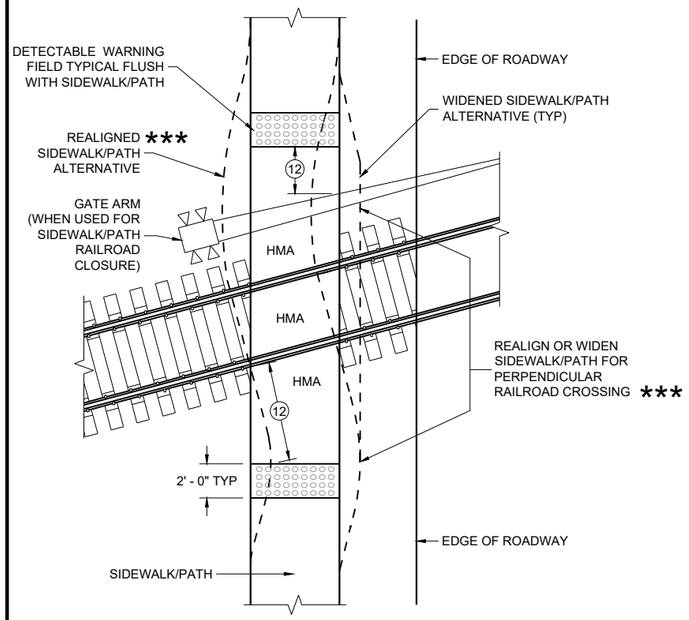
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

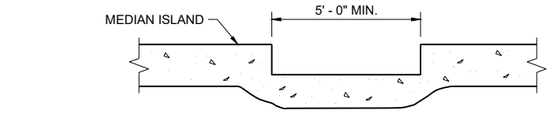
6

SDD 08D05-23d

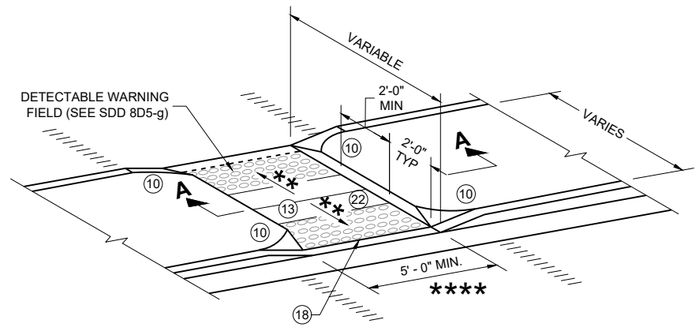


CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

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

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

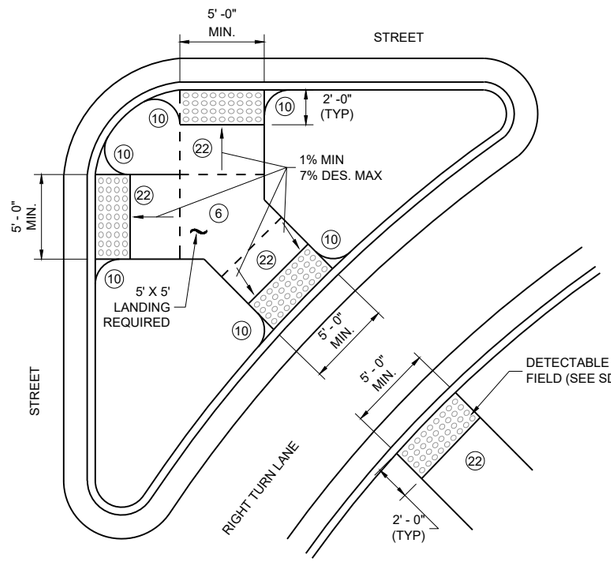
(12) THE DOWNSTREAM EDGE OF THE DETECTABLE WARNING SHOULD BE LOCATED AT LEAST 2 FEET UPSTREAM FROM THE AUTOMATIC GATE, COUNTERWEIGHT, FLASHING-LIGHT SIGNALS, OR CROSSBUCK ASSEMBLY SPECIFIC TO THE PATHWAY OR SIDEWALK (IF ANY ARE PRESENT) AND AT LEAST 12 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.

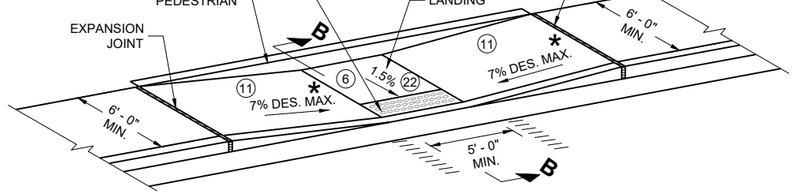
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.



CURB RAMP TYPE 6

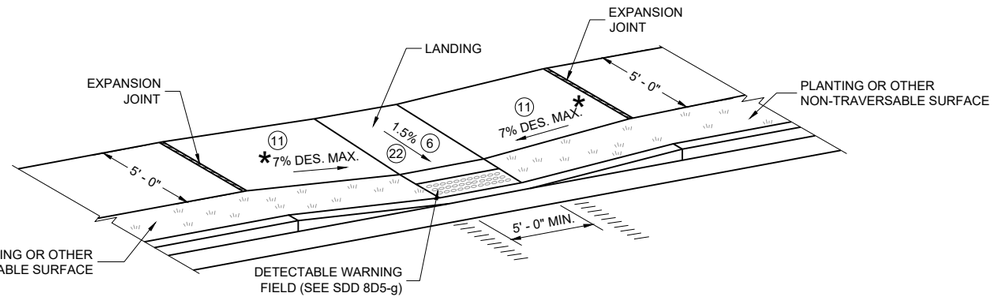
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

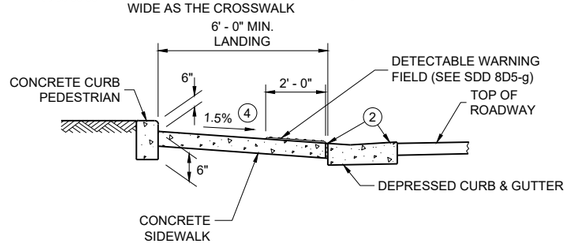


CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

LEGEND

═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT FIELD LOCATED
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 8.3%
**	1% MINIMUM (PROVIDE DRAINAGE)
***	DETAILS TO BE DETERMINED BY ENGINEER
****	FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK



SECTION B - B FOR TYPE 7A

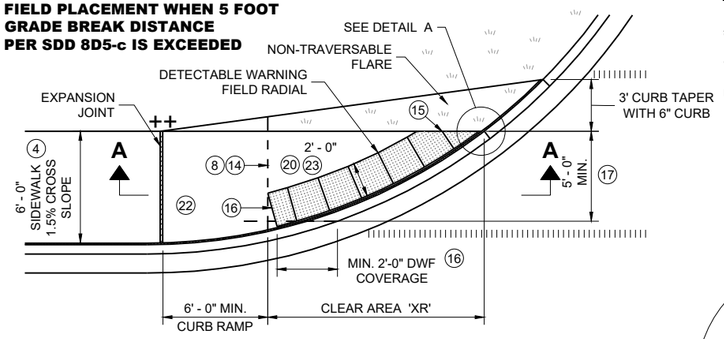
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

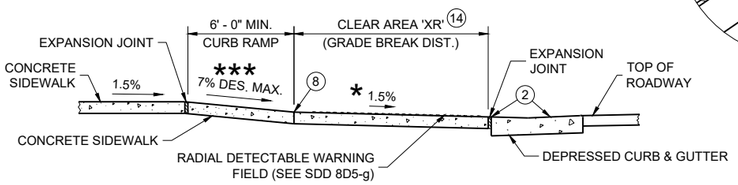
SDD 08D05-23e

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

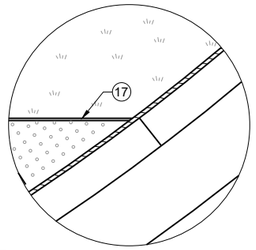
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION A - A FOR TYPE 4A1

LEGEND

═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT SIDEWALK
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
**	WIDTH SHOWN ELSEWHERE IN THE PLANS
***	MAXIMUM 8.3%
++	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL A

GENERAL NOTES

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

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.

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

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

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

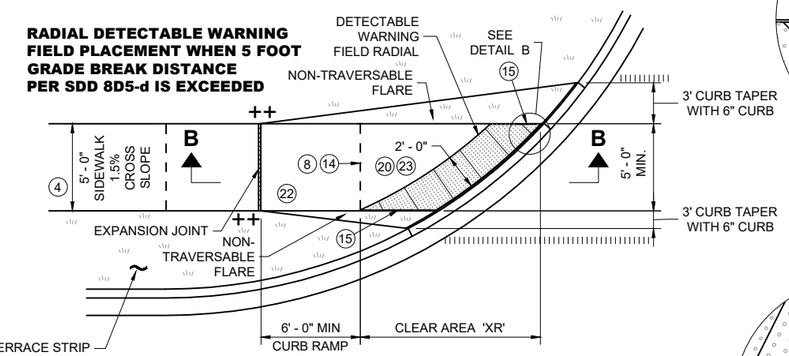
(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

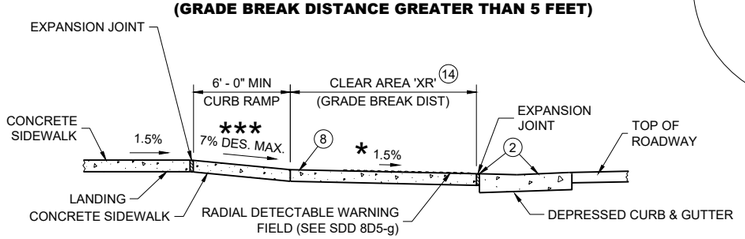
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED

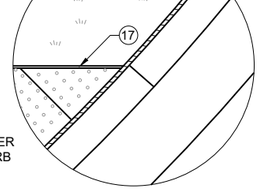


PLAN VIEW

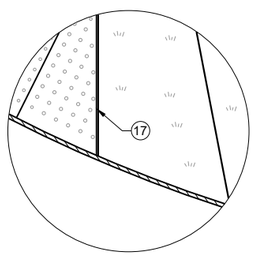
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B - B FOR TYPE 4B1

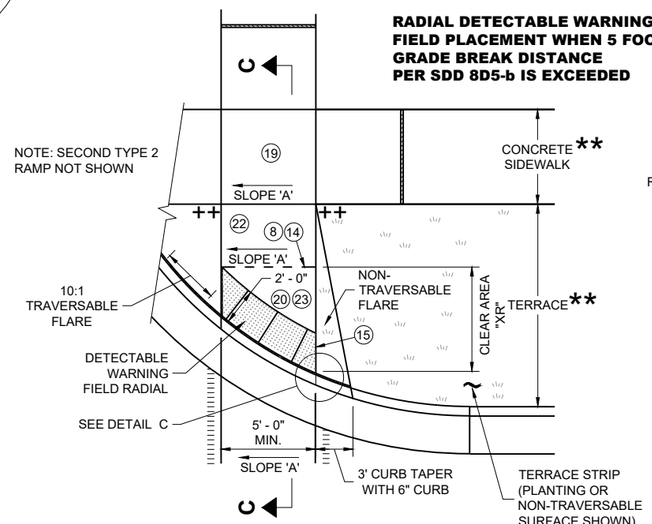


DETAIL B



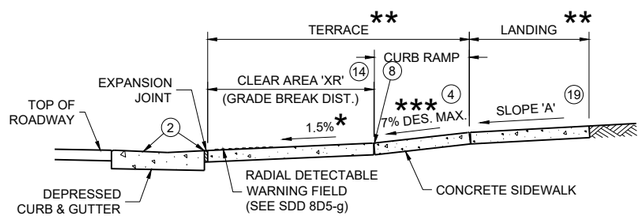
DETAIL C

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



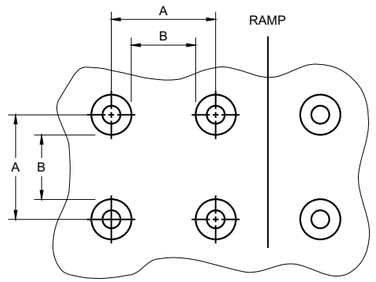
SECTION C - C FOR TYPE 2

CURB RAMPS
RADIAL DETECTABLE WARNING

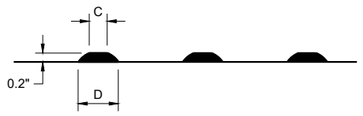
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

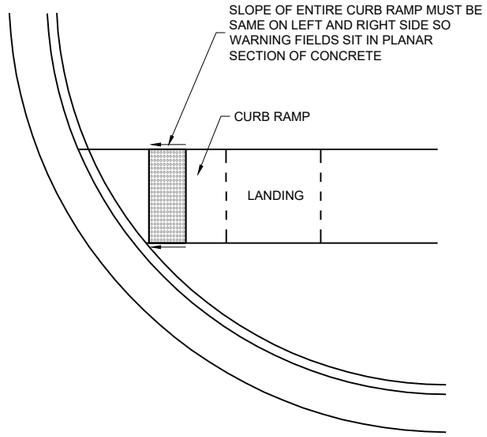
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

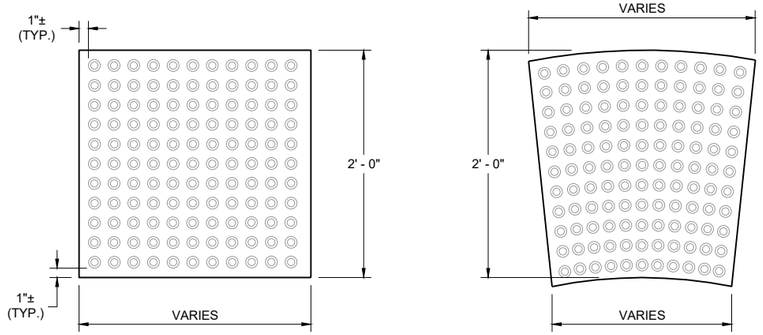
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

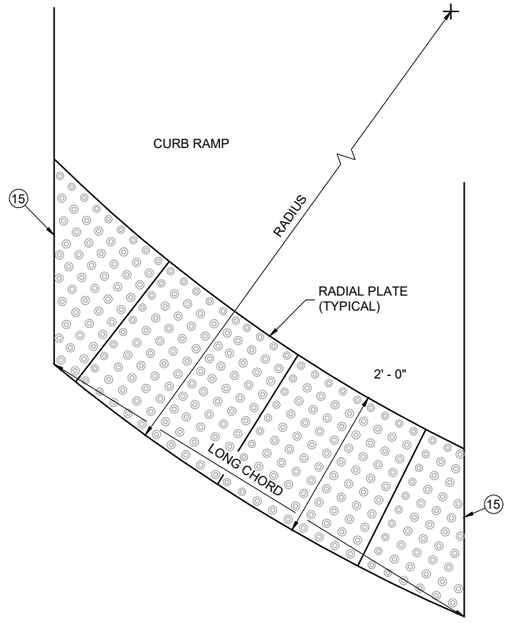
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



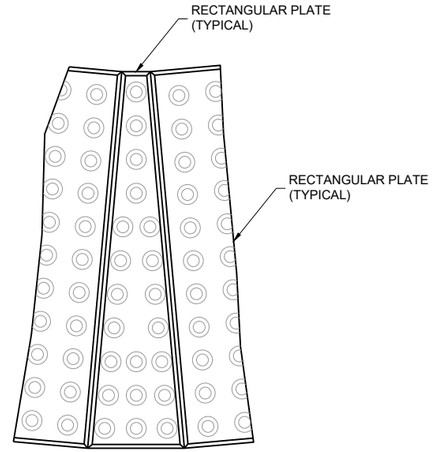
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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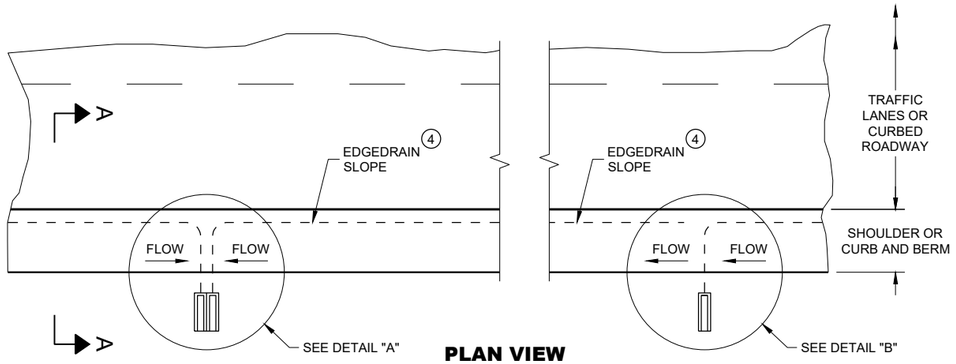
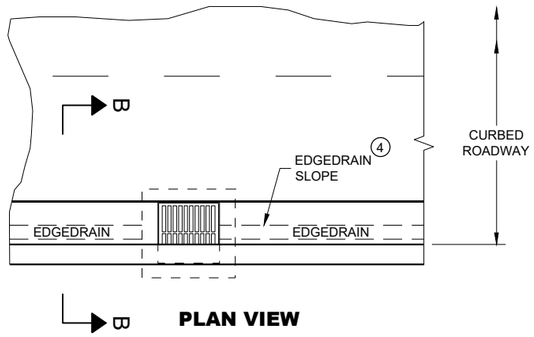
SDD 08D05-23g



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

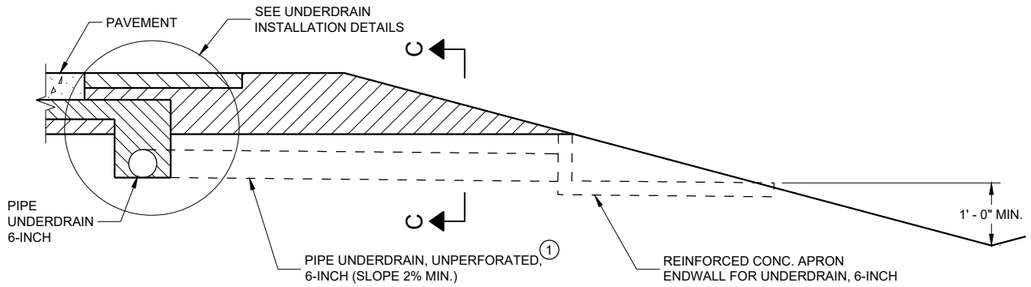
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

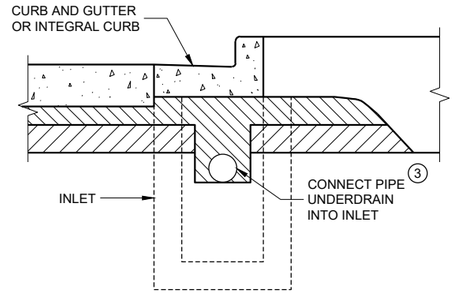
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



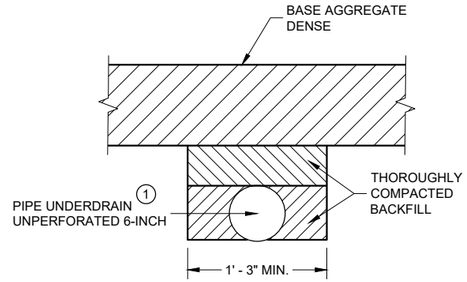
SECTION A - A

RURAL CROSS SECTION



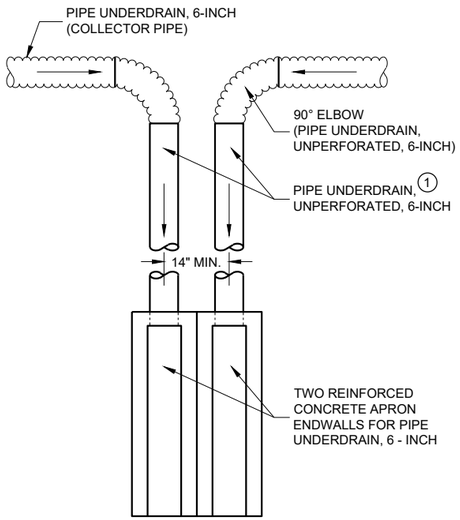
SECTION B - B

URBAN CROSS SECTION

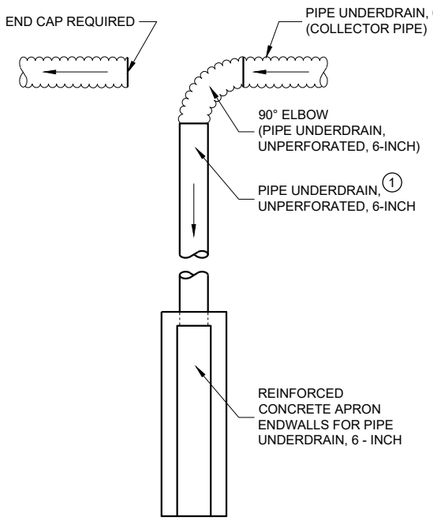


SECTION C - C

TRENCH FOR OUTFALL PIPE

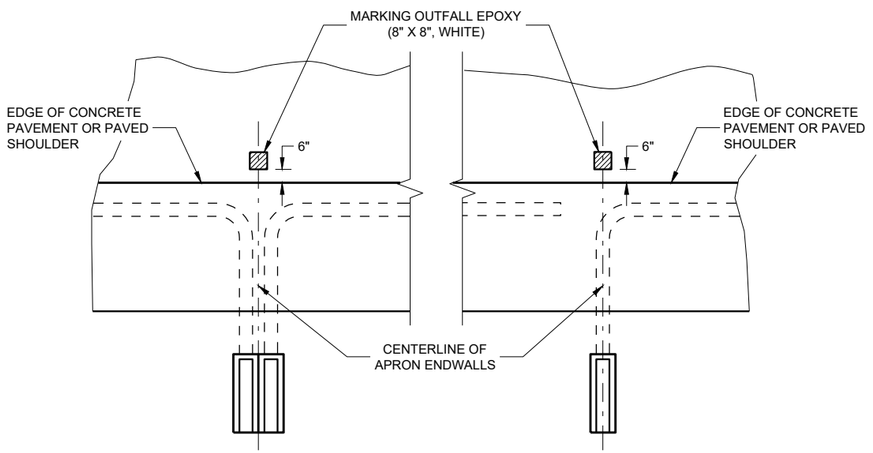


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

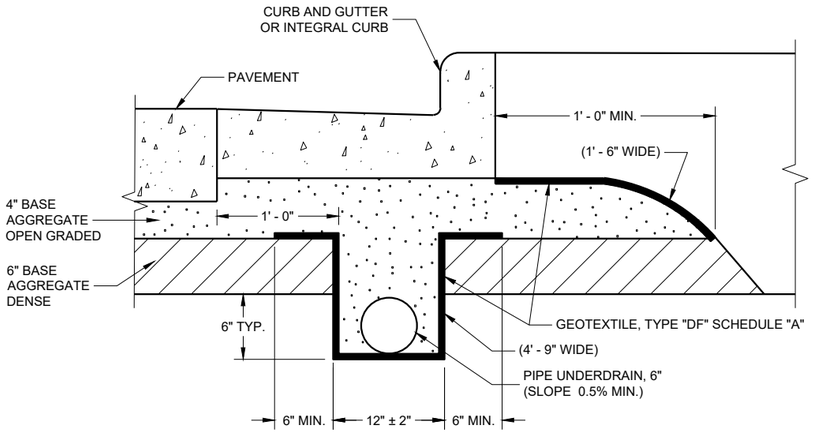
PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD08D15 - 05a
SDD08D15 - 05a



EDGEDRAIN IN URBAN ROADWAY

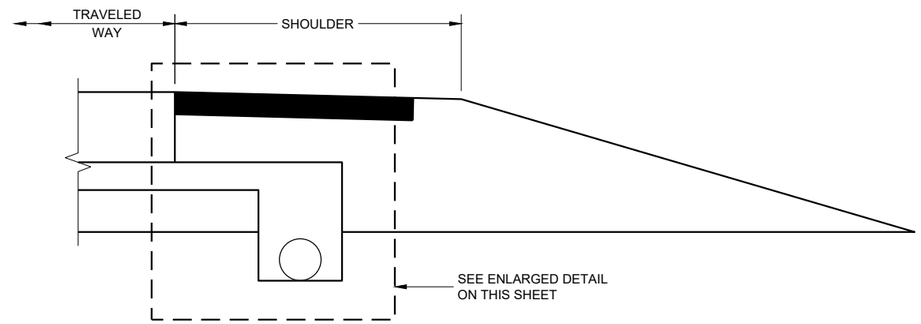
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

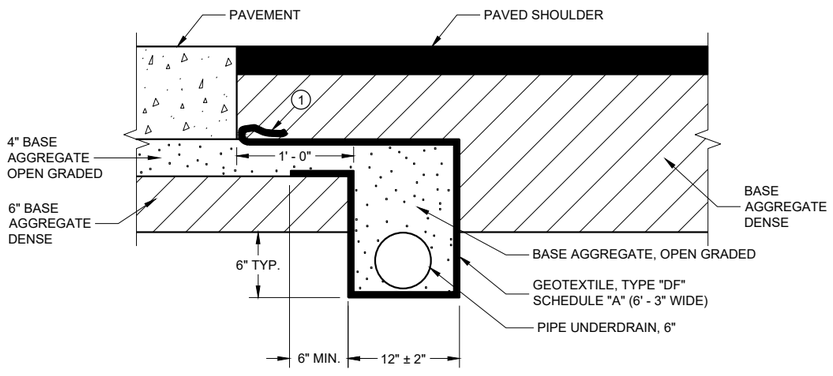
(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.



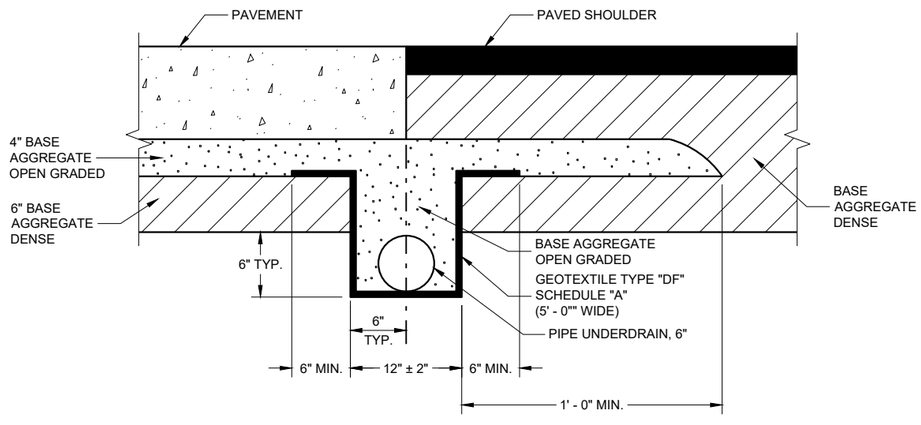
RURAL CROSS SECTION

6



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

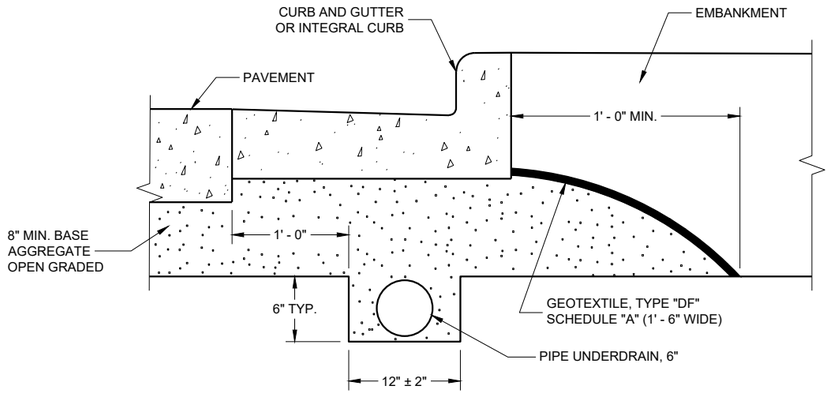
EDGEDRAIN IN RURAL ROADWAY

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

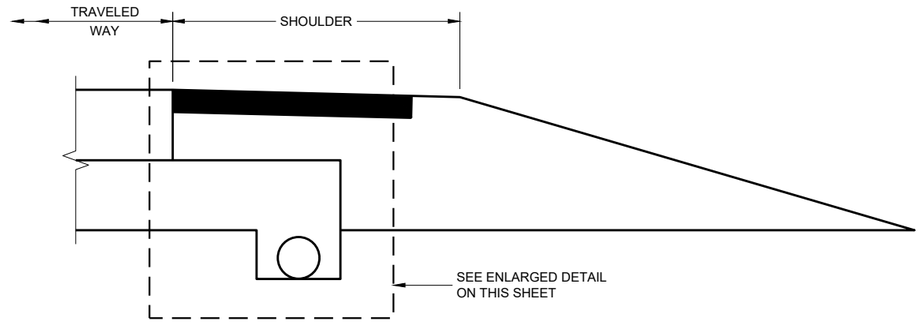
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

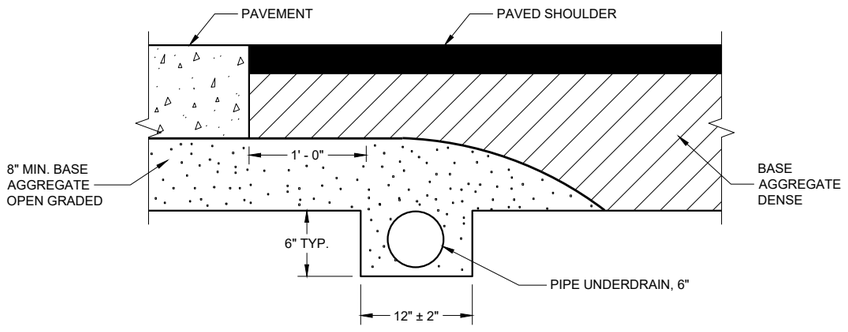
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY

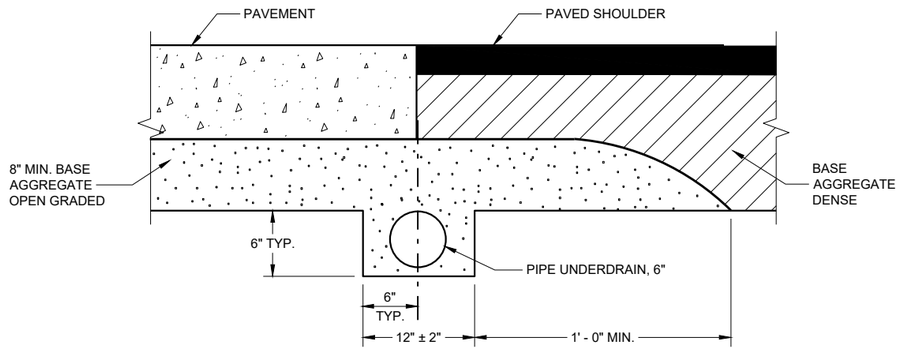


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2015
DATE

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

FHWA

6

SDD 08D15 - 05c

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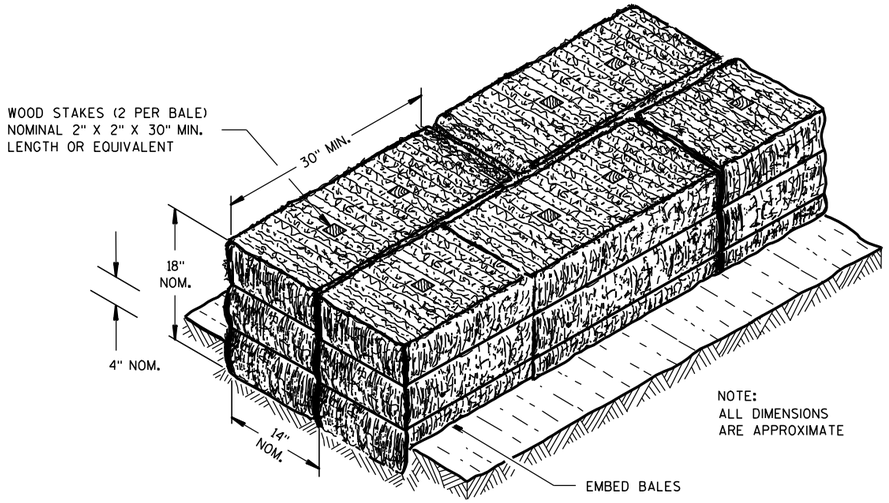
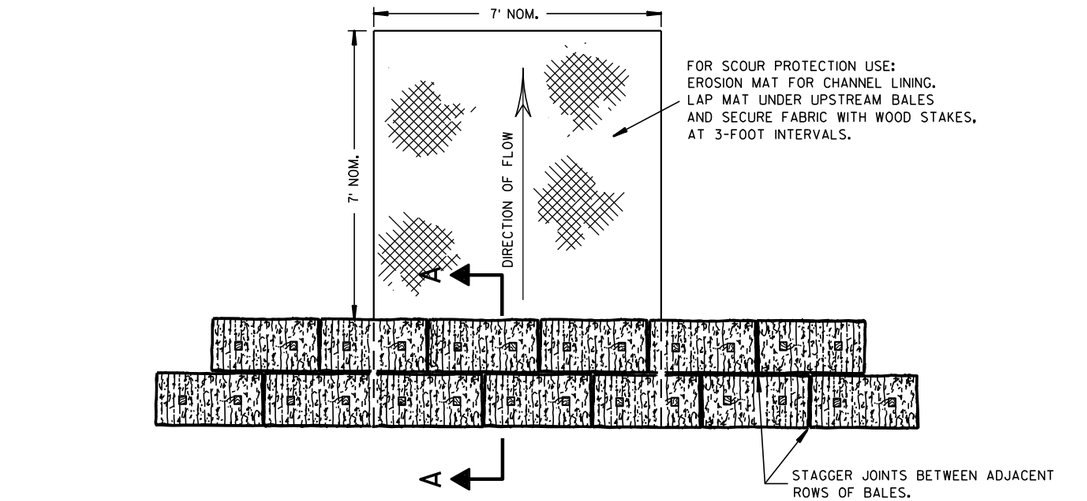
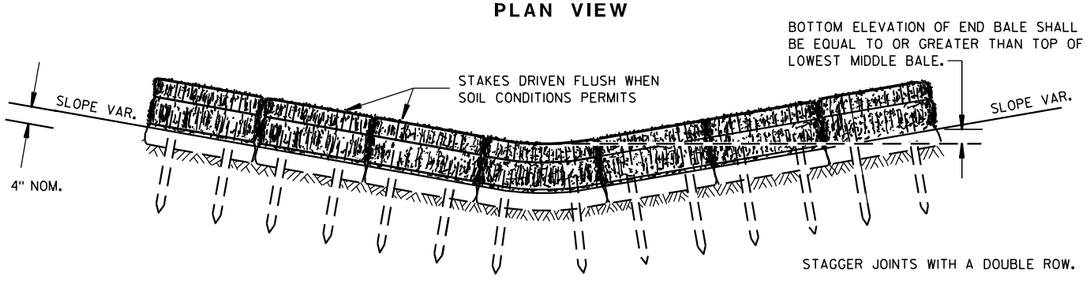
SDD 08D15 - 05c



SECTION A-A



PLAN VIEW



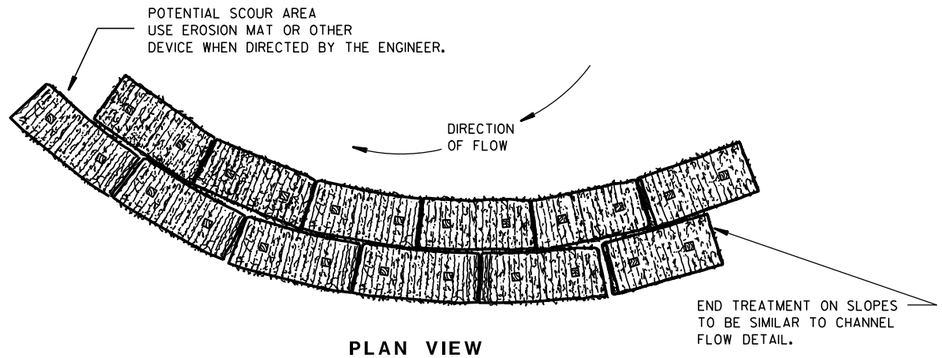
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

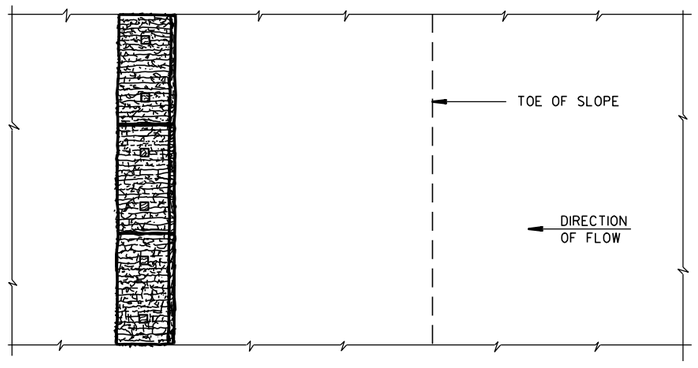
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

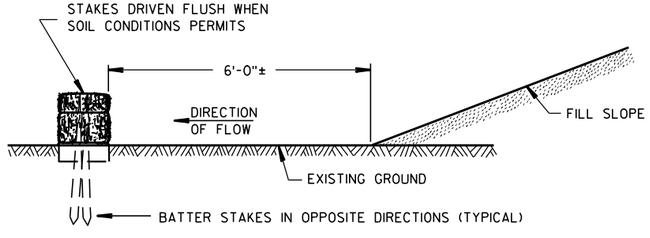


PLAN VIEW

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

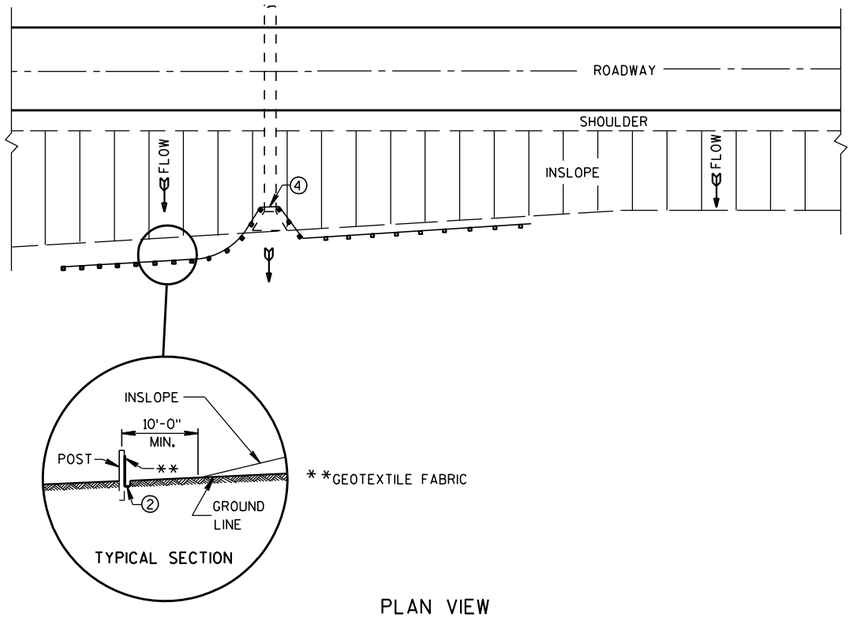
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

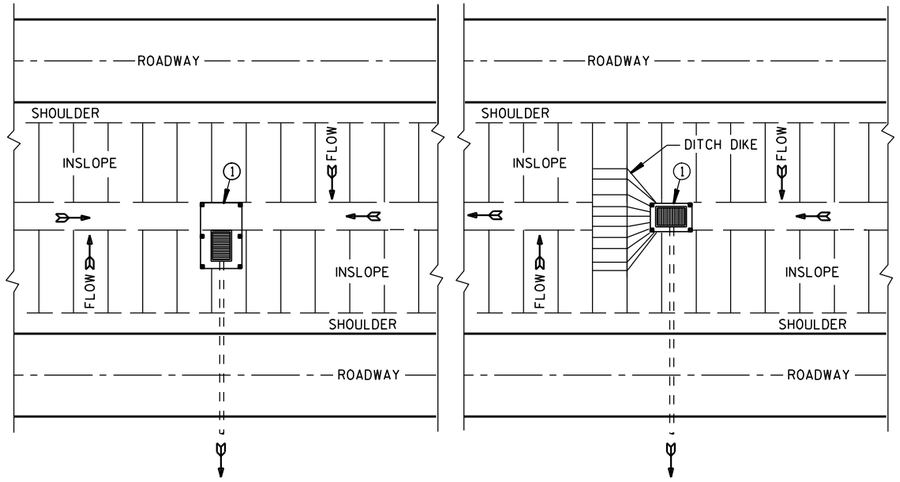
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



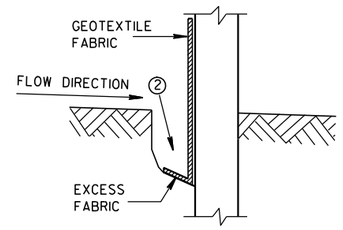
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

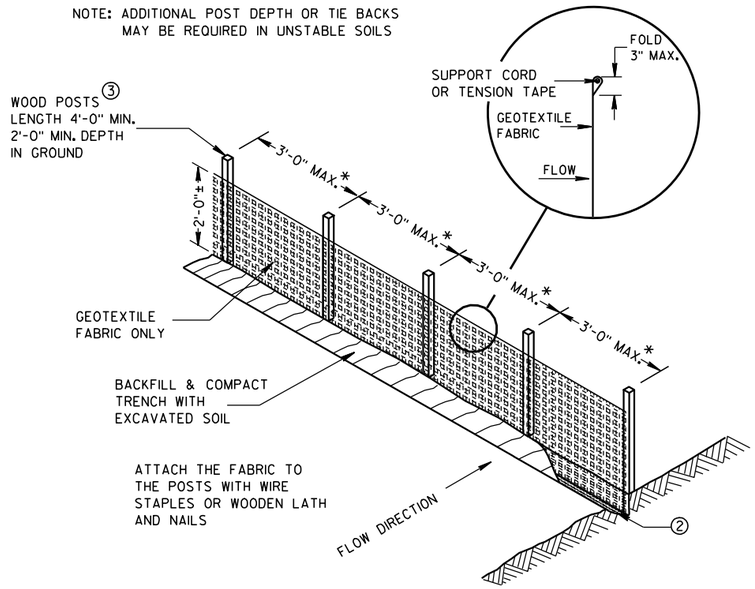
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

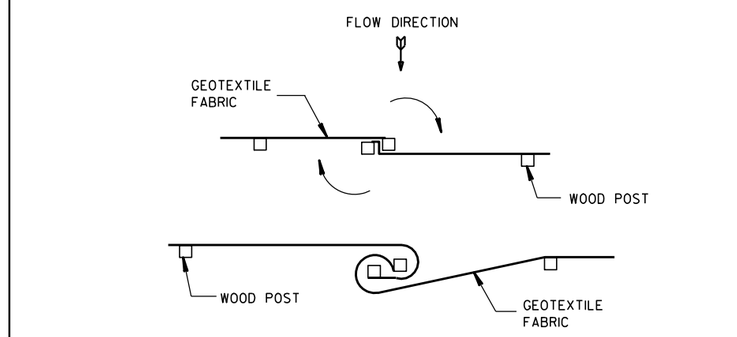


TRENCH DETAIL

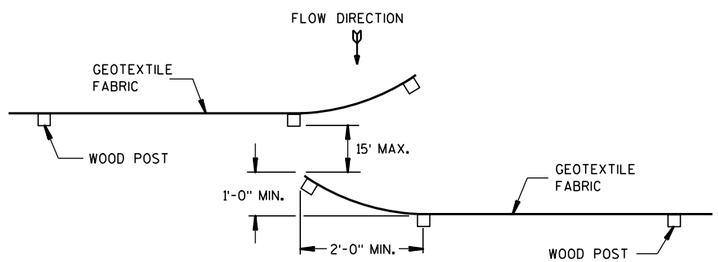


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

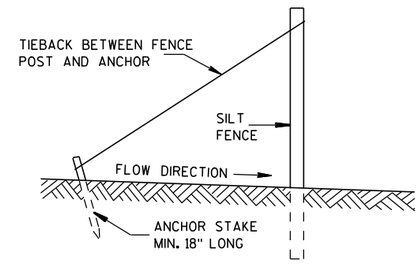


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

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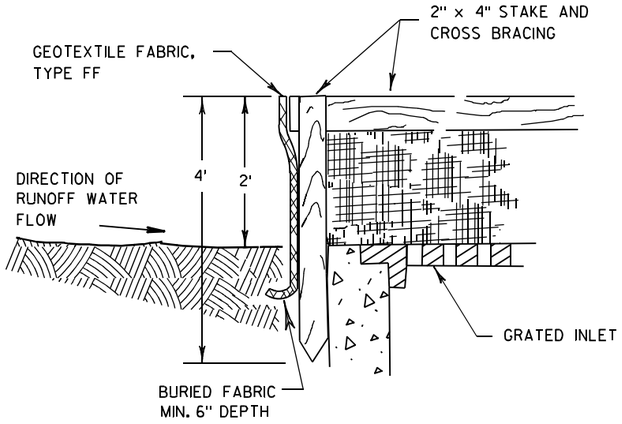
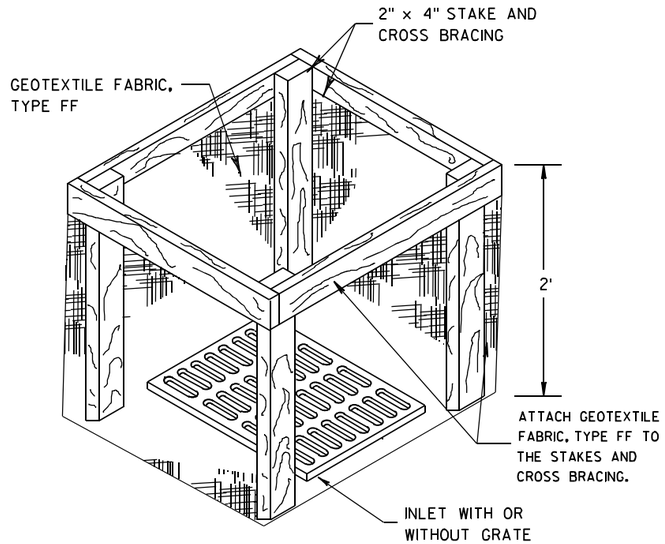
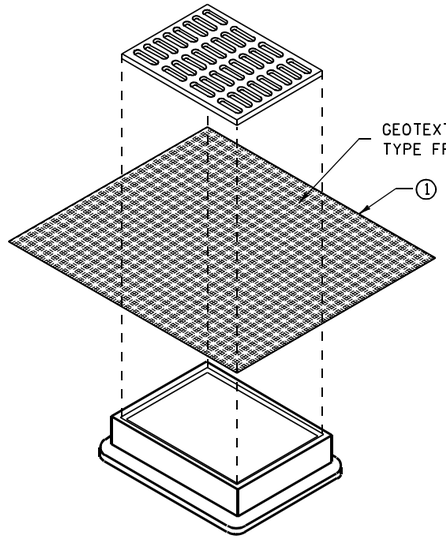
S.D.D. 8 E 9-6



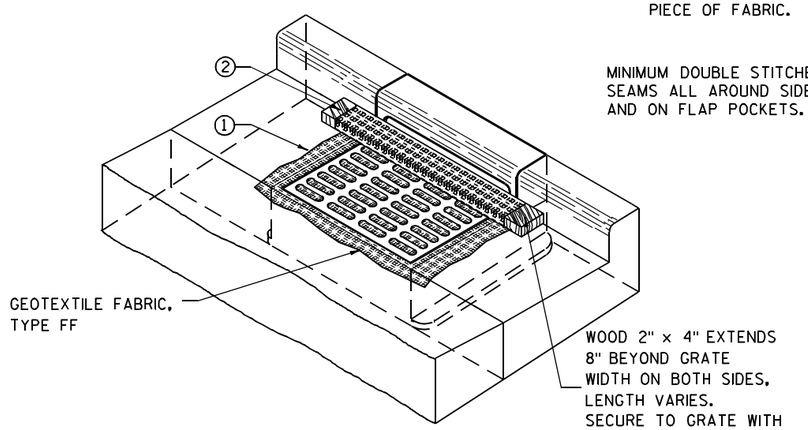


INLET PROTECTION, TYPE A

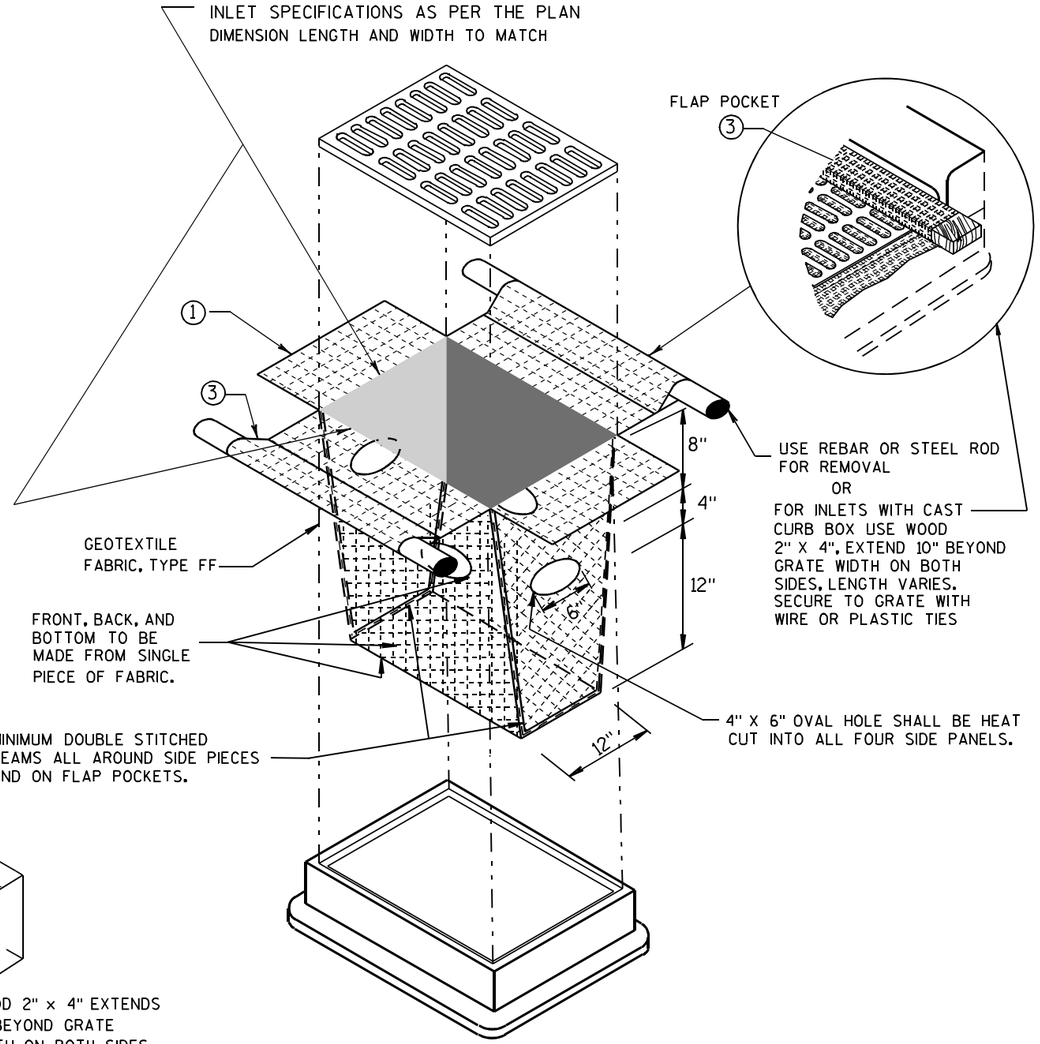


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

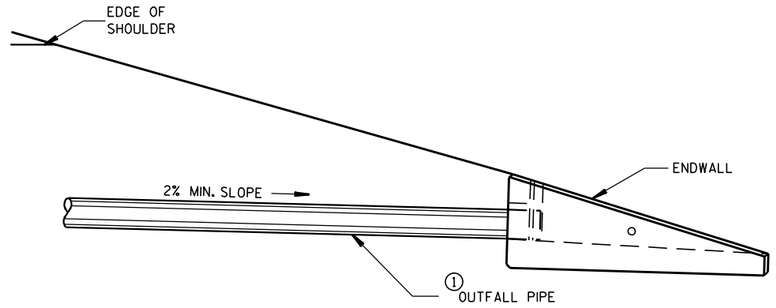
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

GENERAL NOTES

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

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

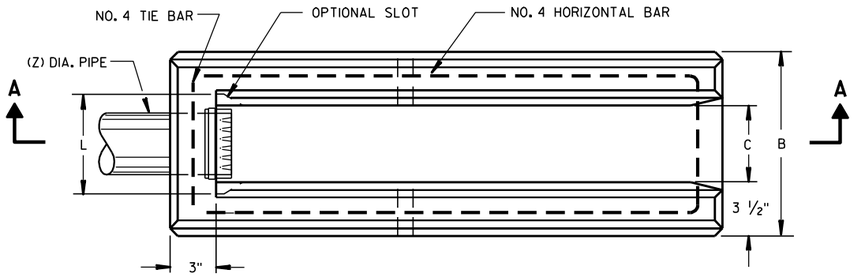
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

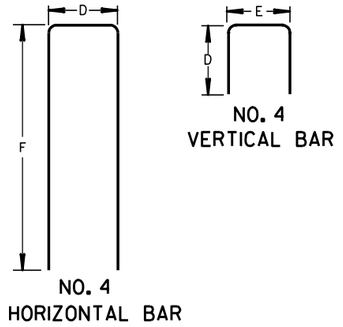
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

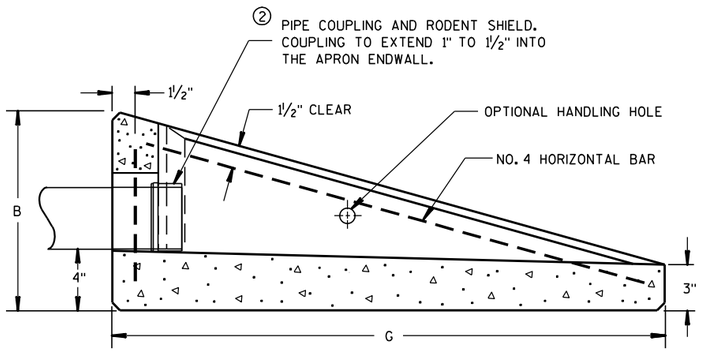
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



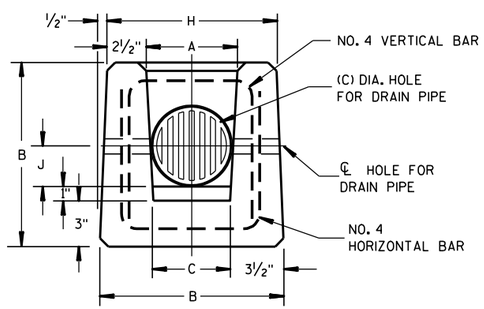
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

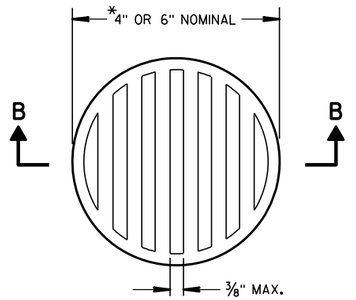


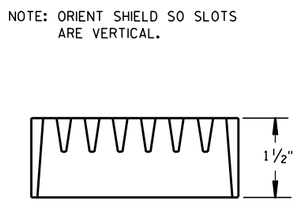
SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN





SECTION B-B

② RODENT SHIELD

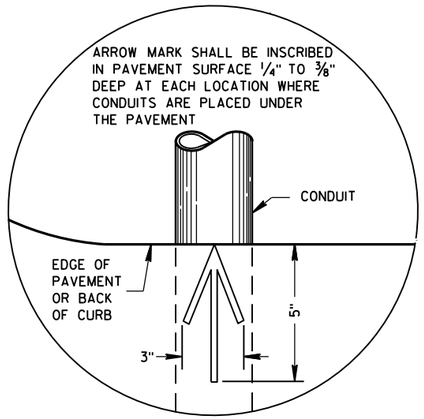
*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

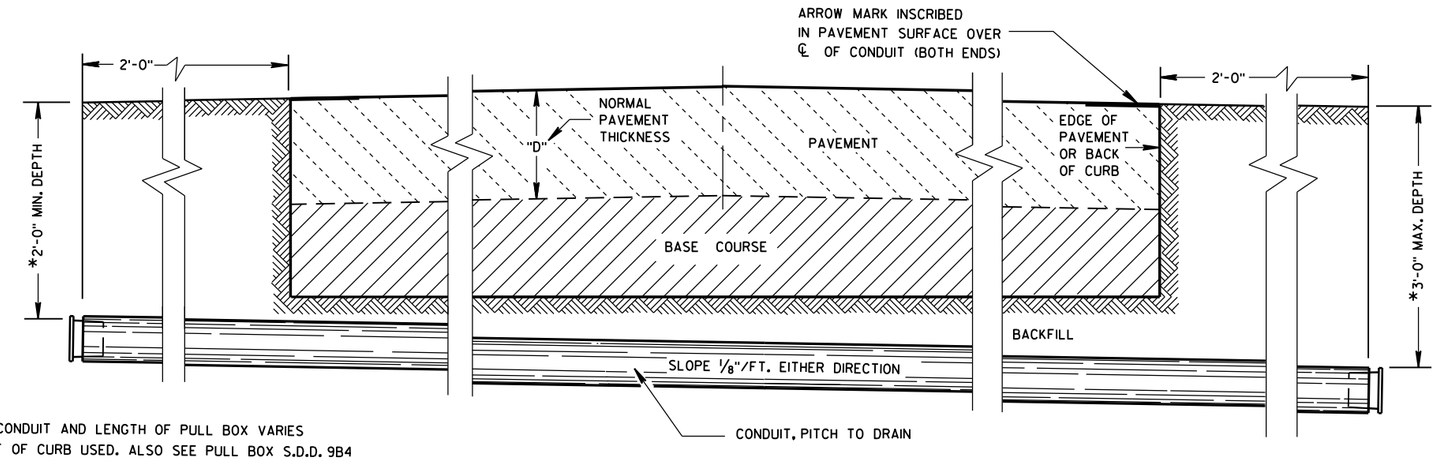
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 6-4



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

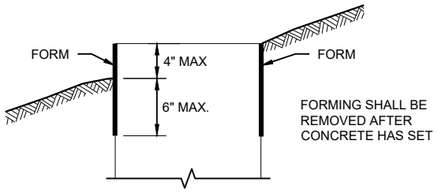
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-10

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 ENDS 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.

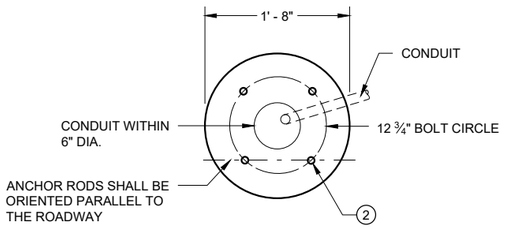
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

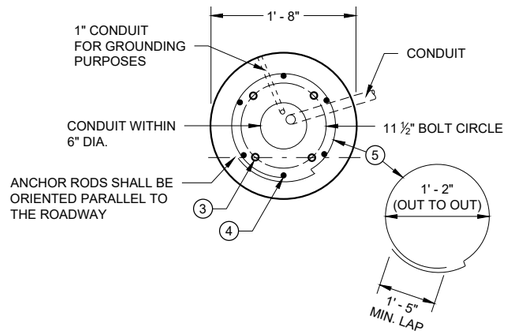
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

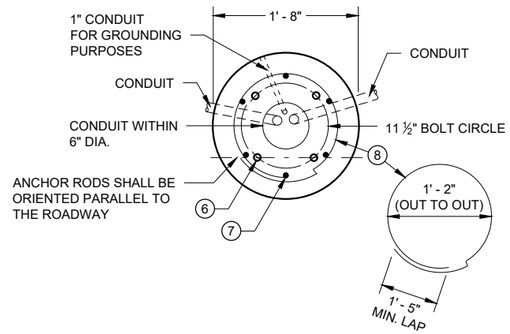
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

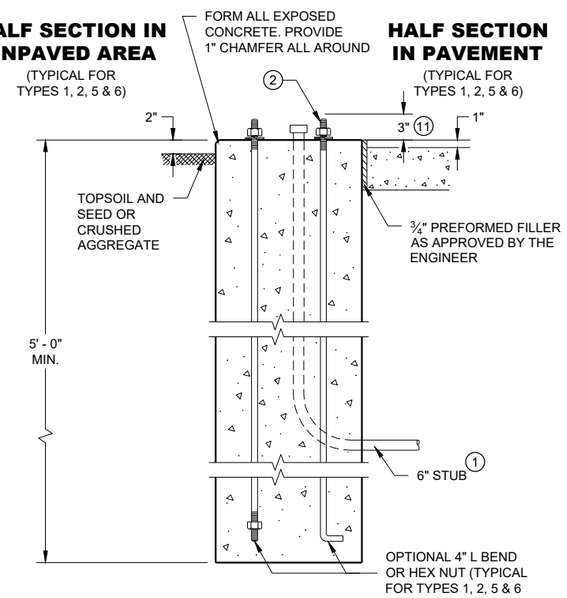
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

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.

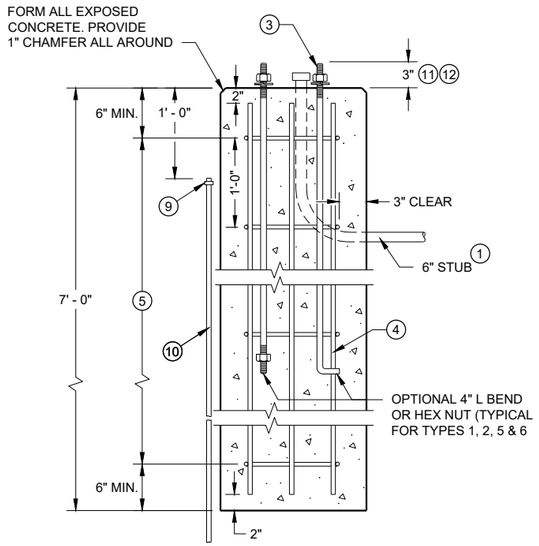
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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



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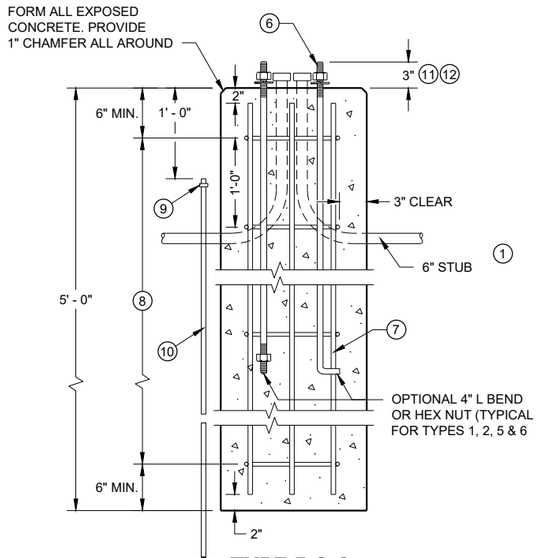


TYPE 5 & 6

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 220

FHWA

6

SDD 09C02 - 09

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

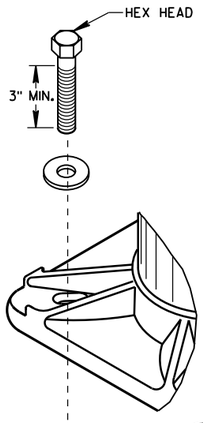
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

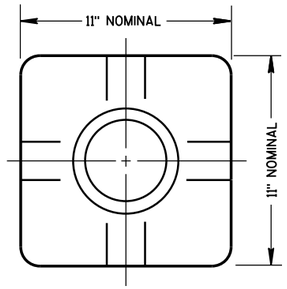
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

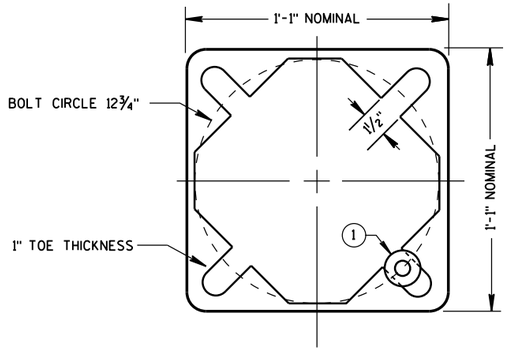
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

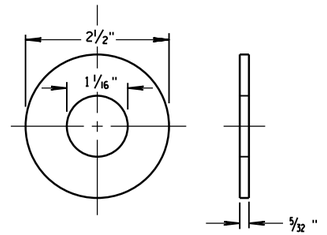




TOP VIEW
(PEDESTAL BASE)

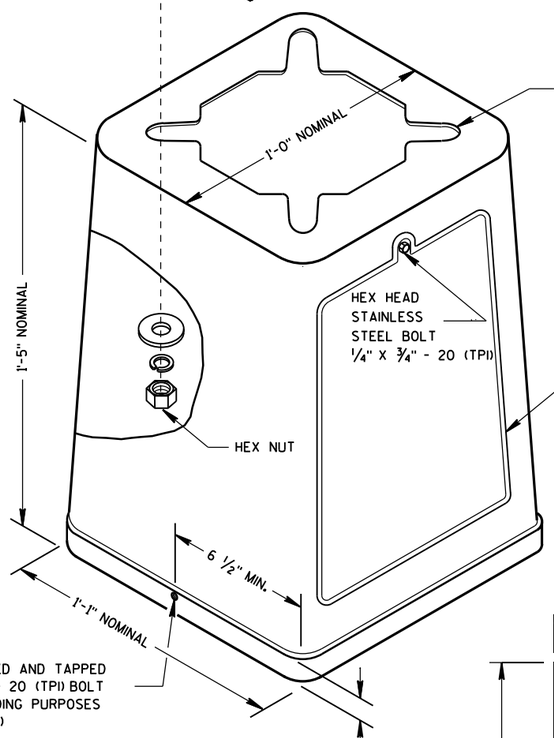


BOTTOM VIEW
(PEDESTAL BASE)

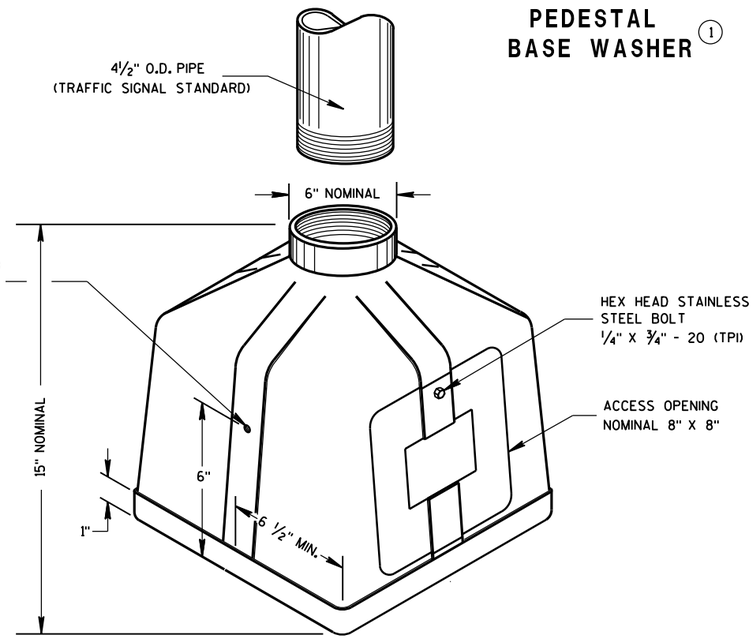


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

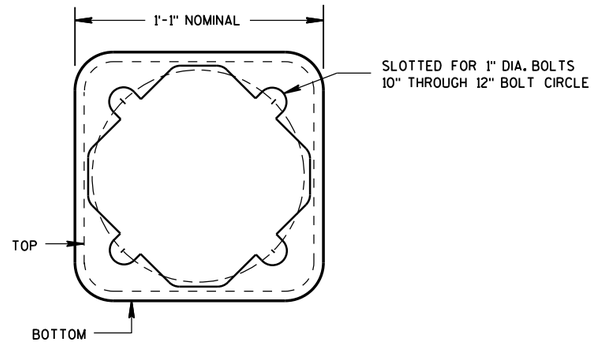


ISOMETRIC VIEW

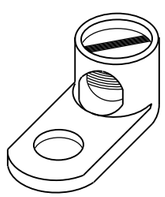


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

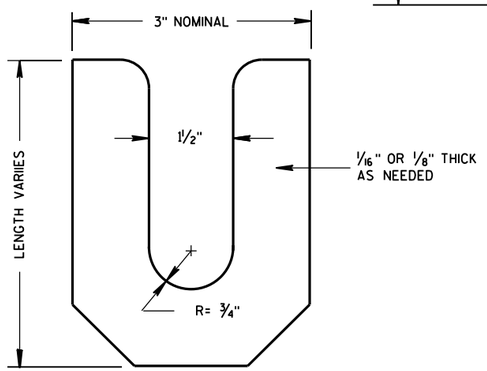


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

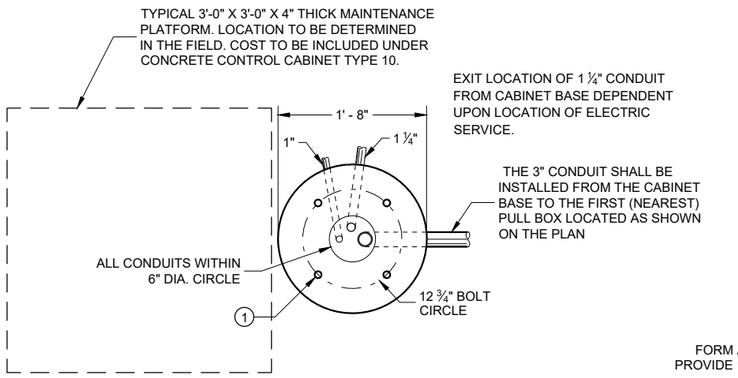
S.D.D. 9 C 3-4

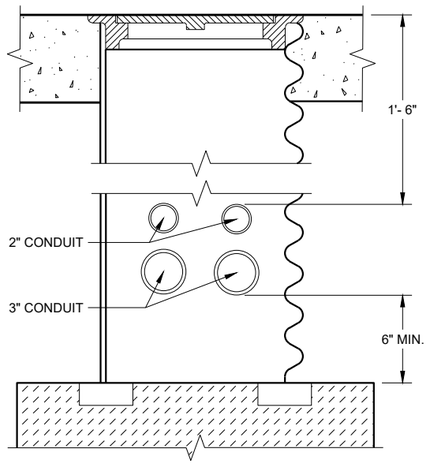
6

S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				CUBIC YARD CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65*

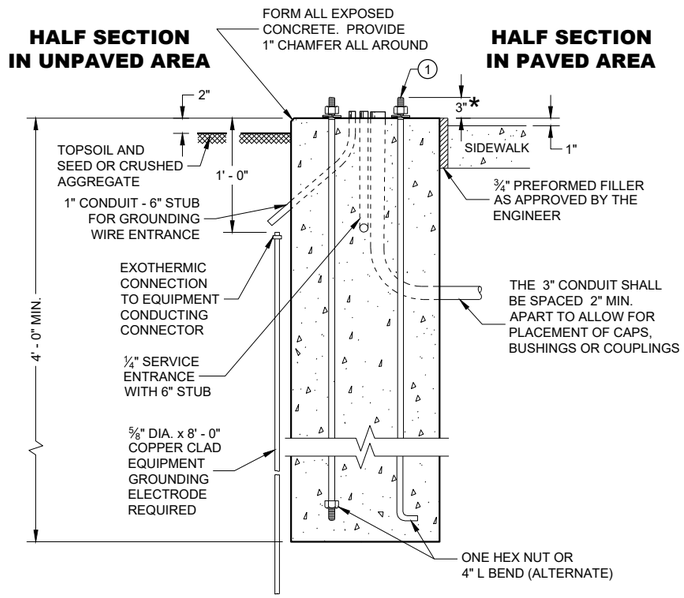
* INCLUDES MAINTENANCE PLATFORM.





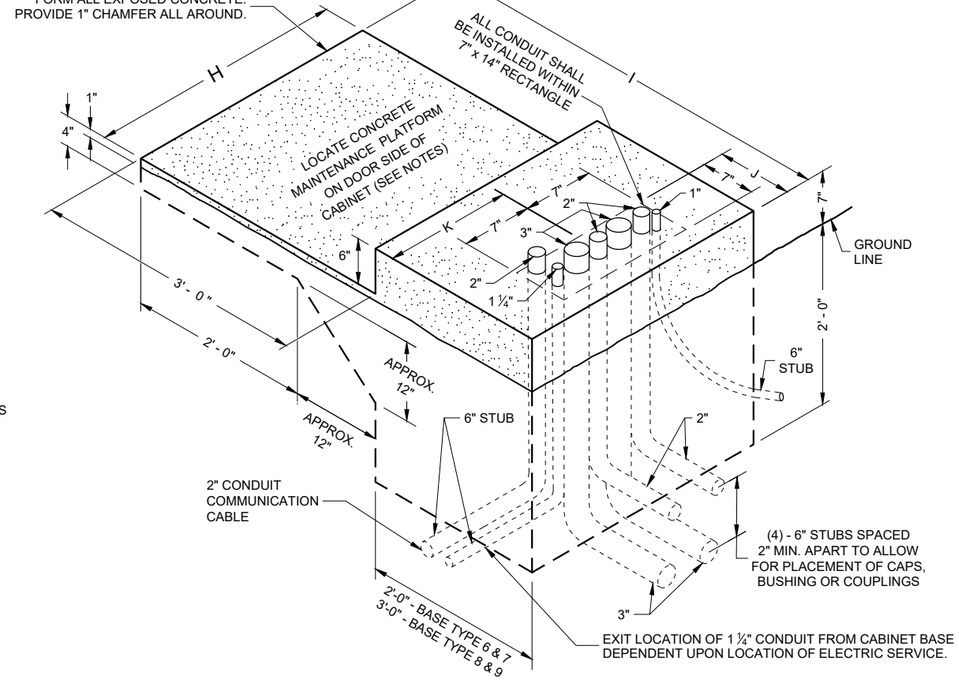
CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10

* 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.



ISOMETRIC VIEW
TYPE 6, 7, 8 AND 9

GENERAL NOTES

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

INSTALL FOUR (4) ½" INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

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

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CABINET CONTROL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2016
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 222
FHWA

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

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

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

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

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.

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

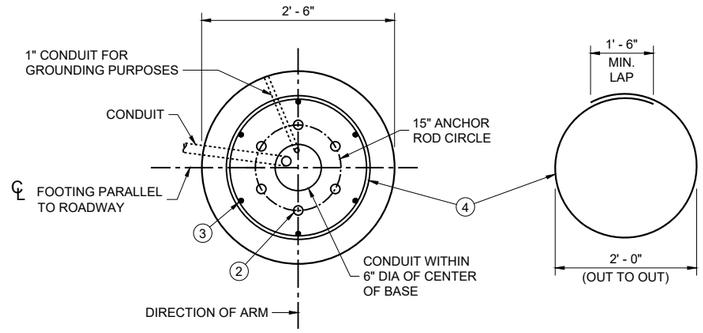
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

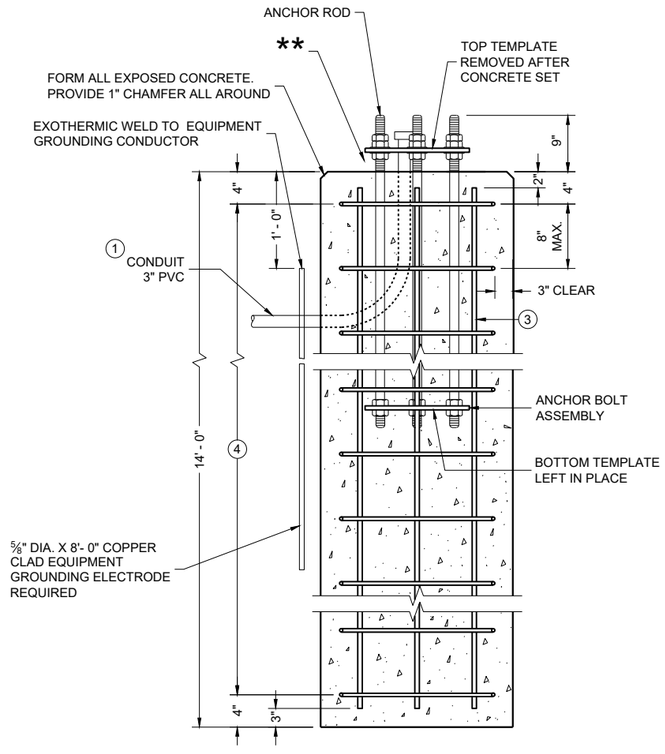
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

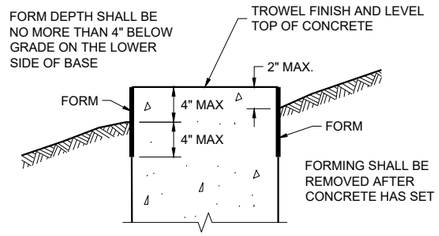
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



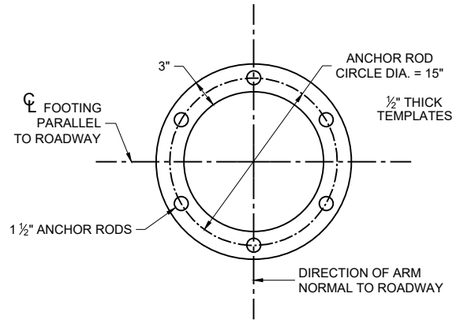


CONCRETE BASE, TYPE 10 SPECIAL OVER HEIGHT (FOR OVER HEIGHT TYPE 9 & OVER HEIGHT TYPE 10 SPECIAL POLES ONLY)

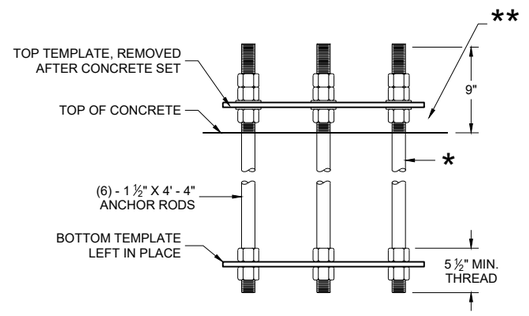
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

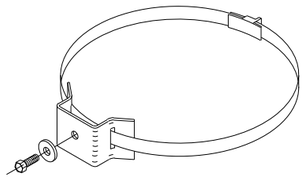
** RODENT PROTECTION REQUIRED

CONCRETE BASE TYPE 10

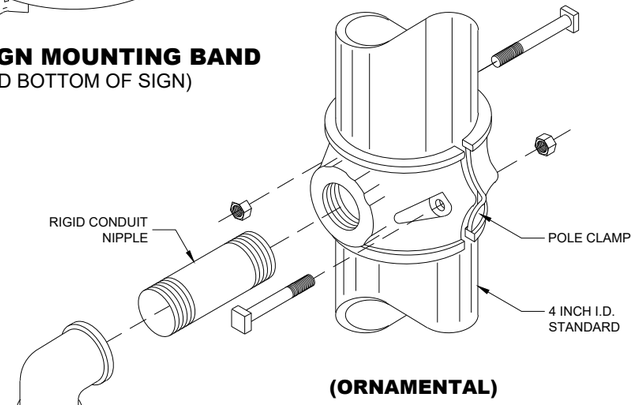
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTURES PROGRAM LEADER
FHWA

6
SDD 09C11-11



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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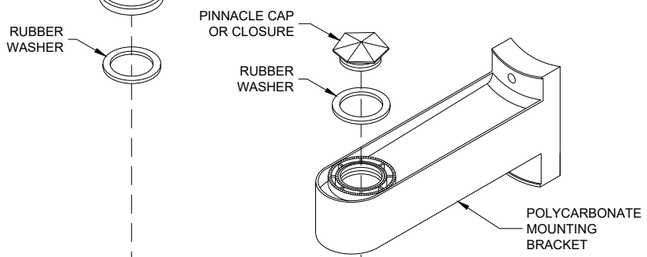

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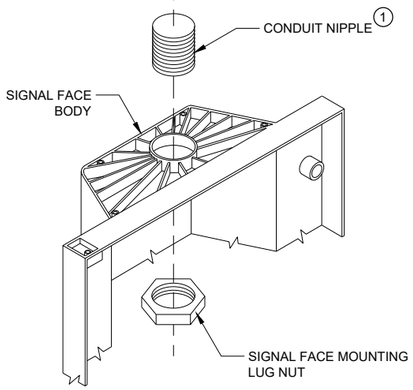
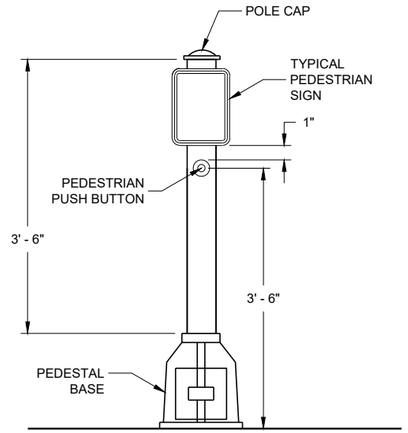


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

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.

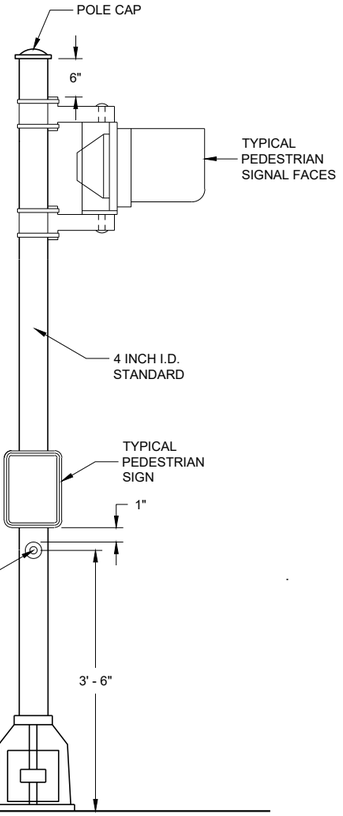
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

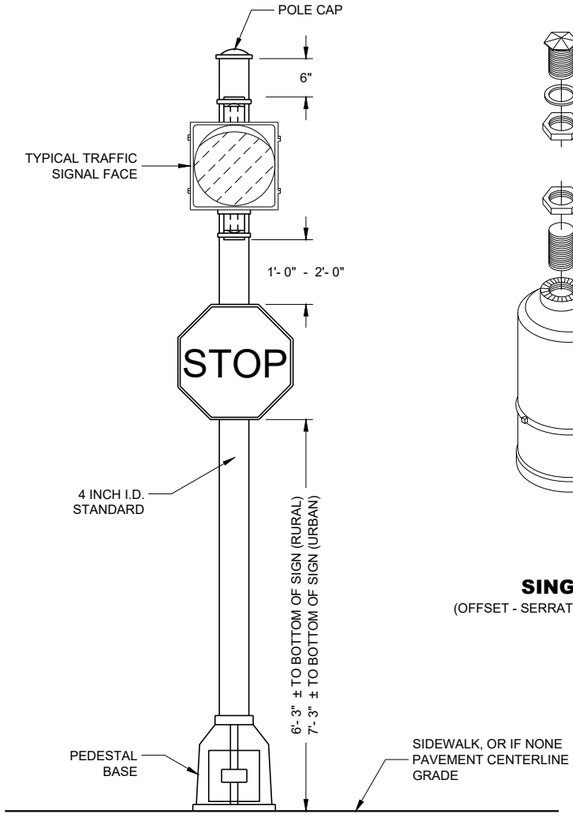
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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

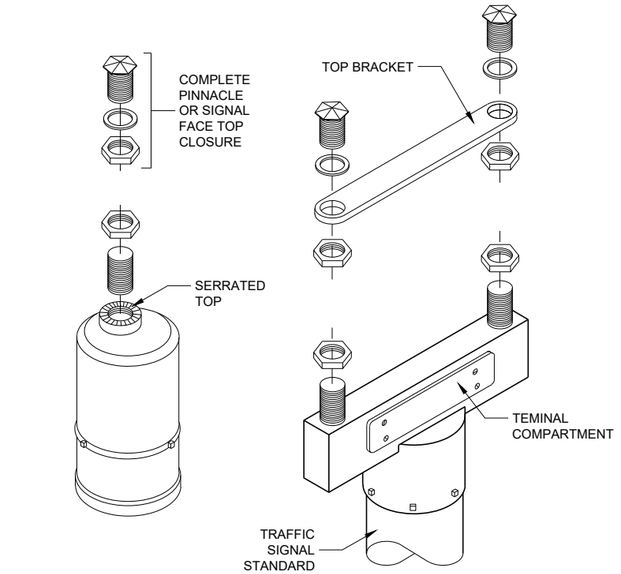
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

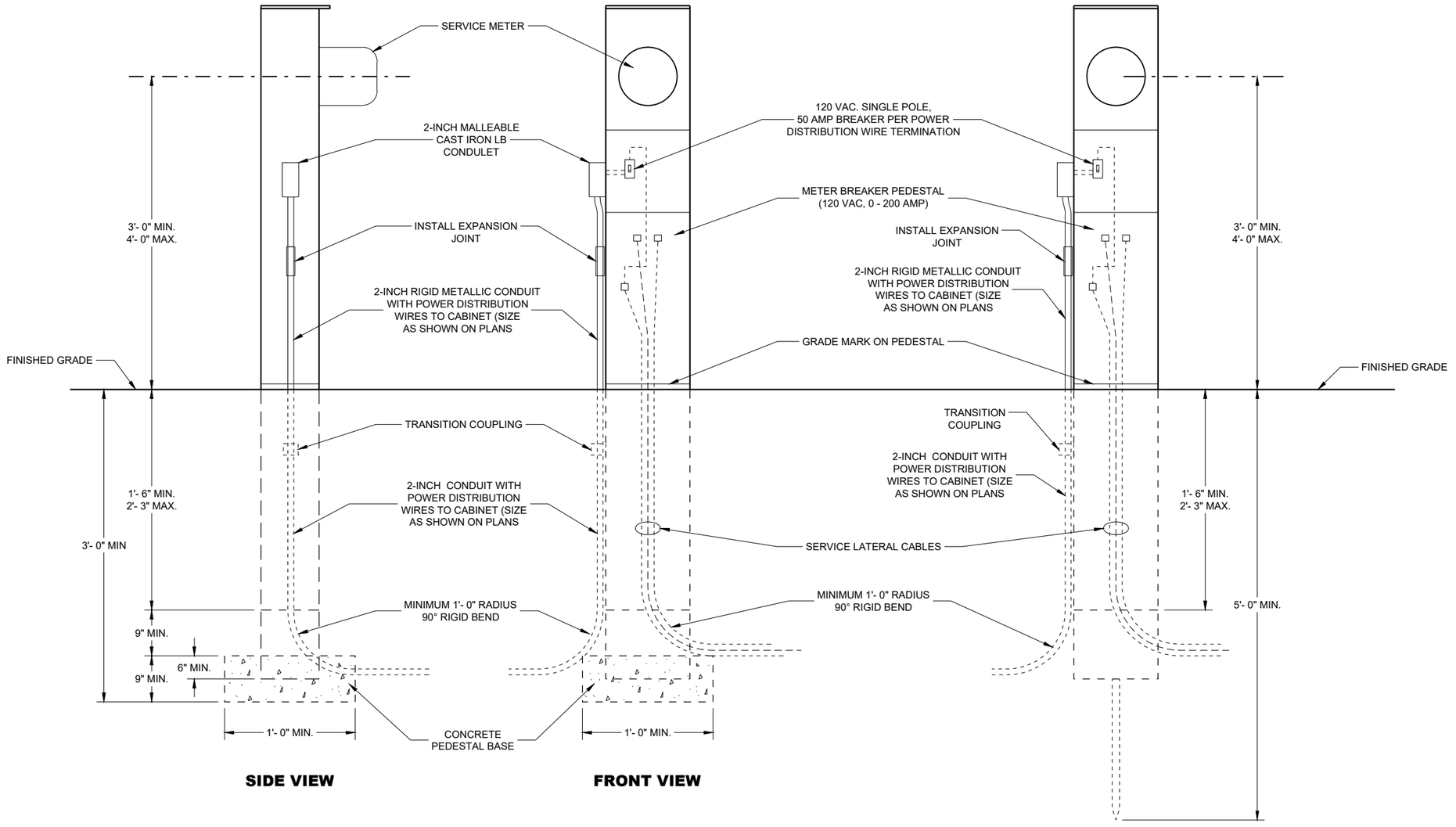
APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 224

FHWA

6

SDD 09E07 - 06



2 CIRCUIT METER BREAKER PEDESTAL

ALTERNATE SUPPORTING STAKE
(IF APPROVED BY UTILITY)

2 CIRCUIT METER BREAKER PEDESTAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 225
FHWA

SDD 09H03 - 01

SDD 09H03 - 01

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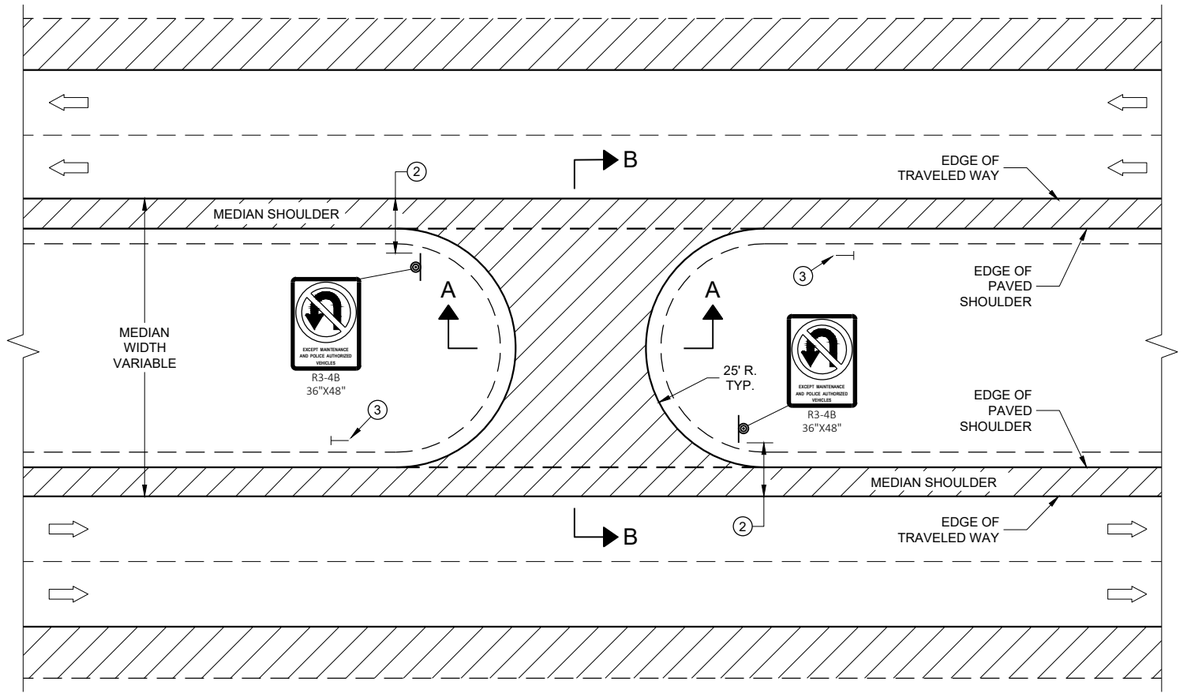
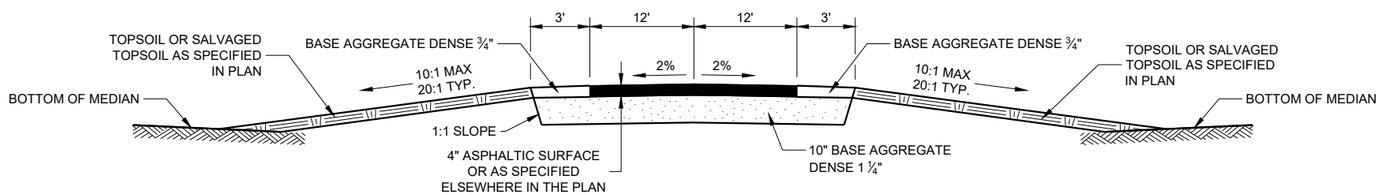
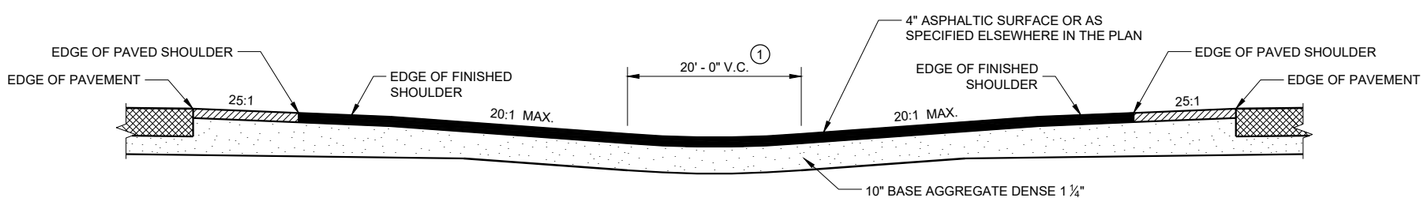


PLAN VIEW



SECTION A-A



SECTION B-B

GENERAL NOTES

1. ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.
2. SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.
3. INSTALL DELINEATOR. SEE STANDARD DETAIL DRAWING 15A4.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR
- DIRECTION OF TRAFFIC

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

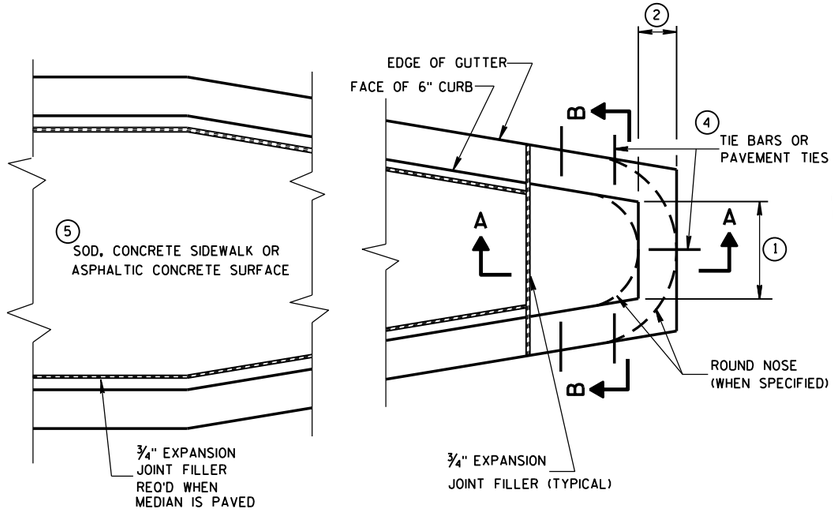
APPROVED
November 2019
DATE

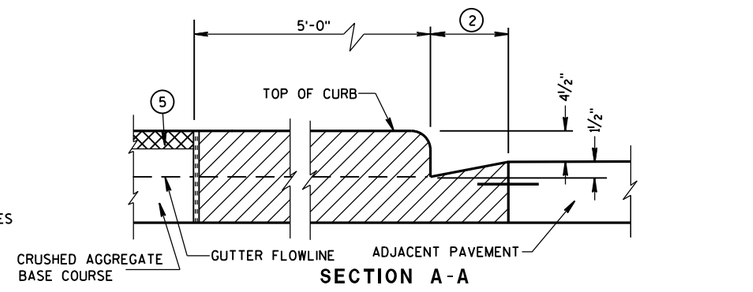
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 11A01 - 06
SDD 11A01 - 06





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.

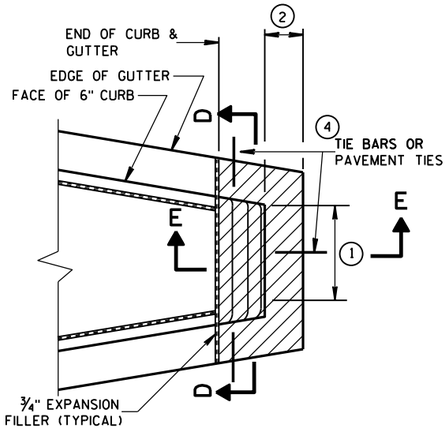
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

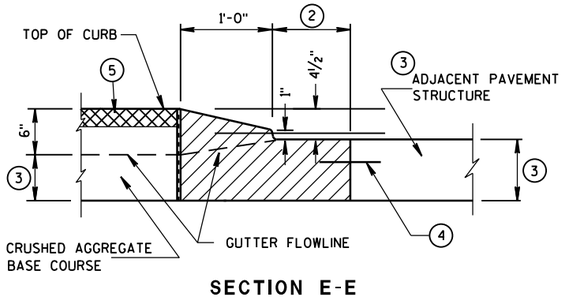
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

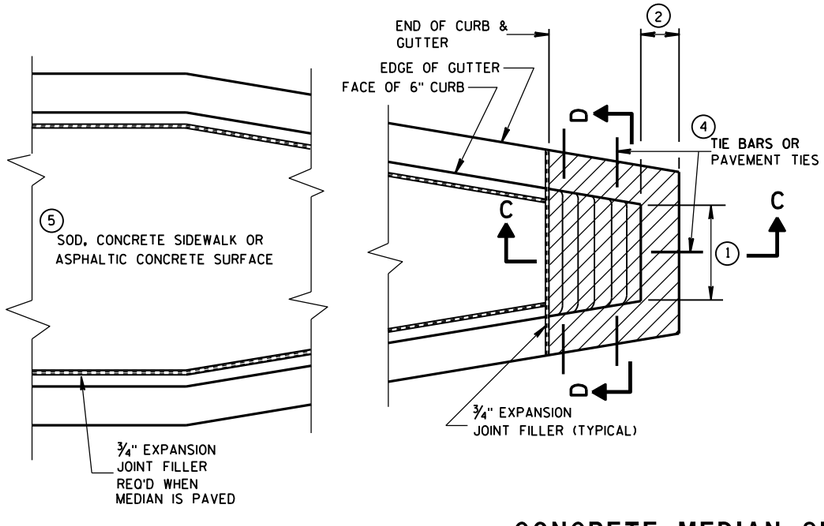
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

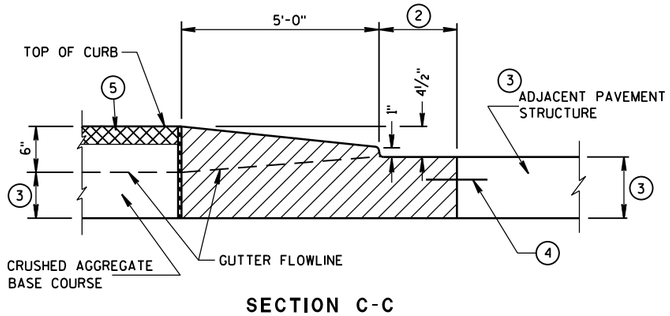




SECTION E-E

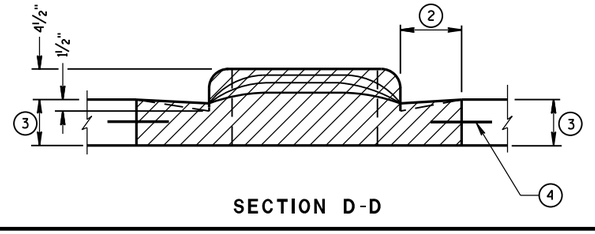
CONCRETE MEDIAN SLOPED NOSE TYPE 2





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 DEVELOPMENT ENGINEER

FHWA

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S.D.D. 11 B 2-2

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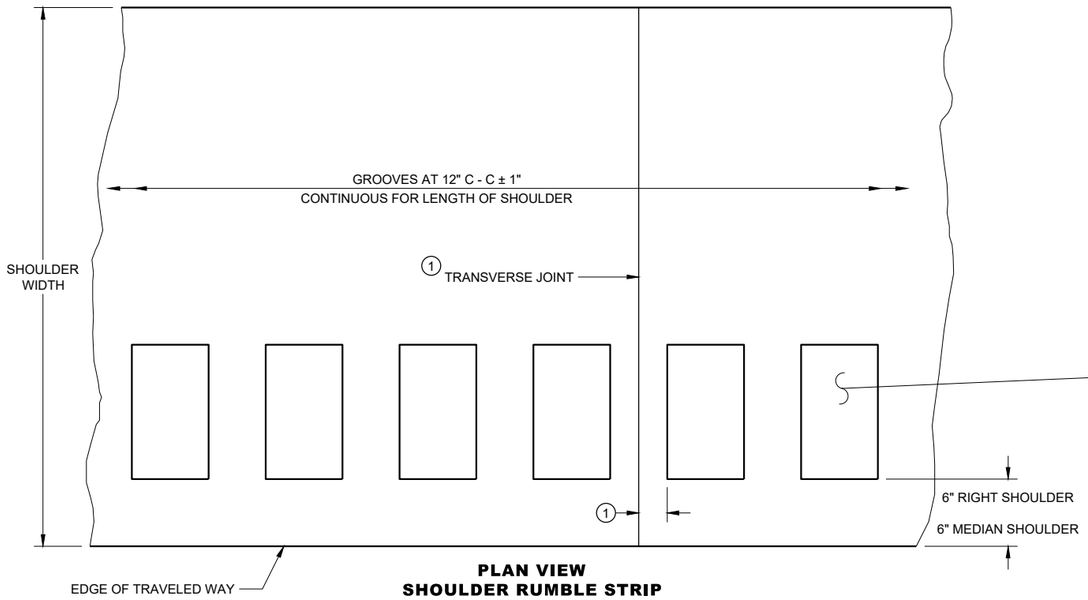
S.D.D. 11 B 2-2

GENERAL NOTES

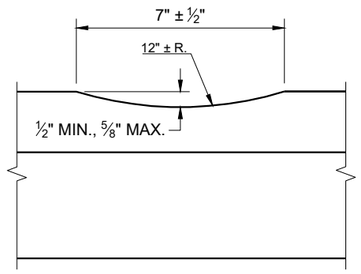
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

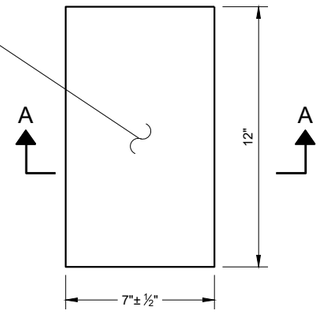
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



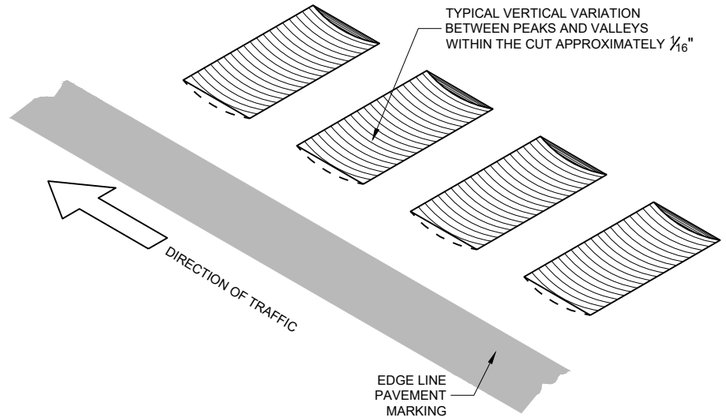
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

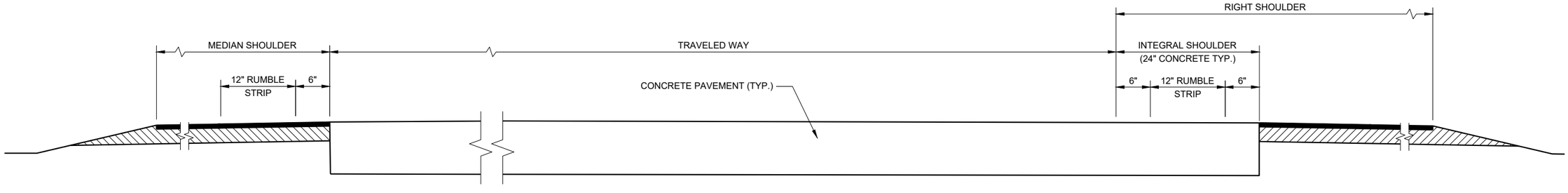


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

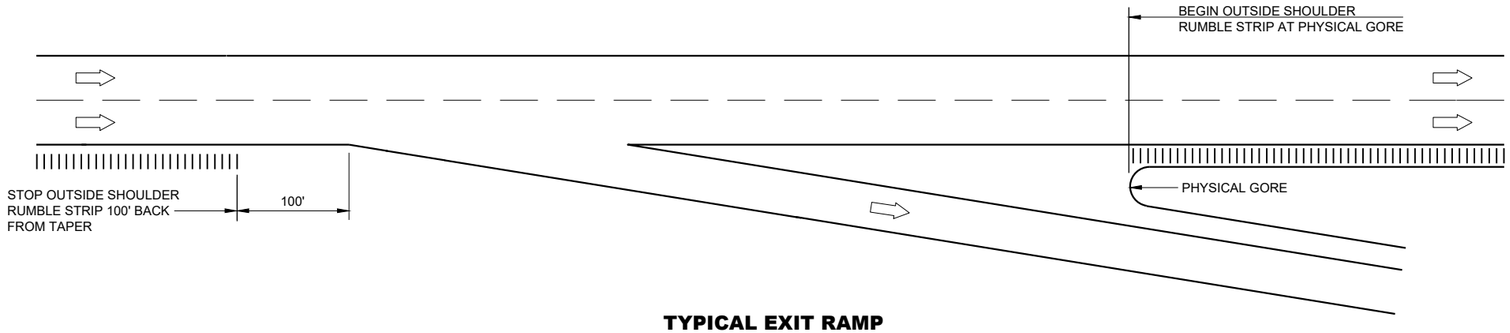
TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

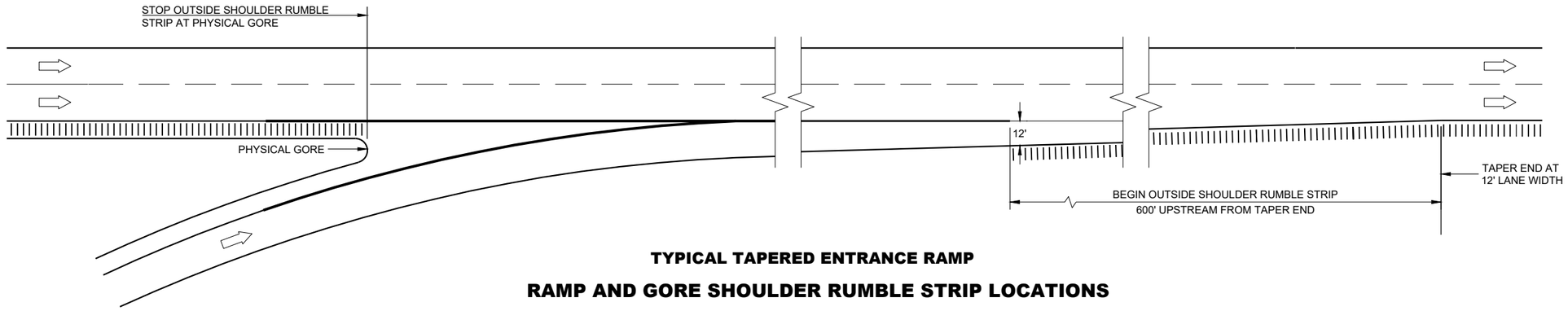
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A05-06a

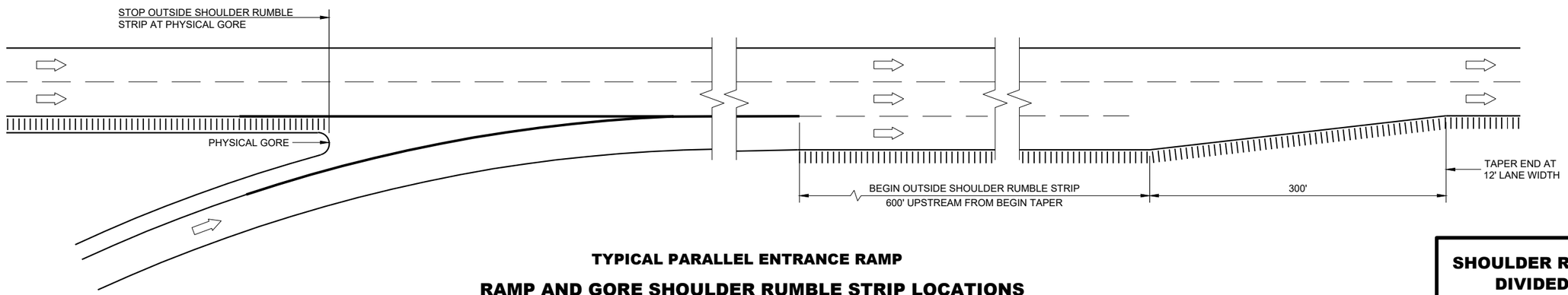


TYPICAL EXIT RAMP



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

GENERAL NOTES

NO RUMBLE STRIP ON EXIT, DIRECTIONAL OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

LEGEND

DIRECTION OF TRAFFIC

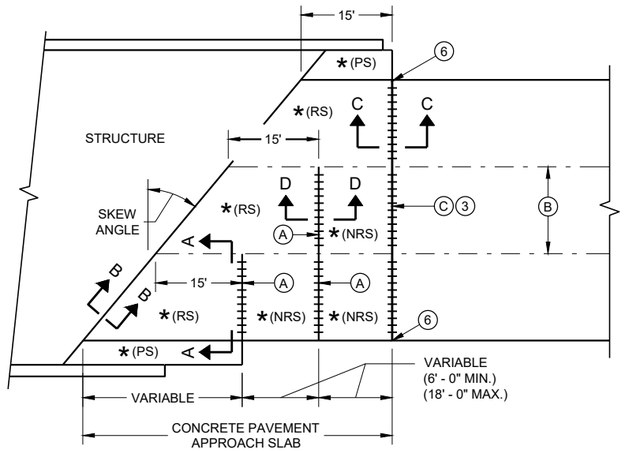
SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY DESIGN STANDARDS UNIT SUPERVISOR
FHWA

6

SDD 13A05-06b



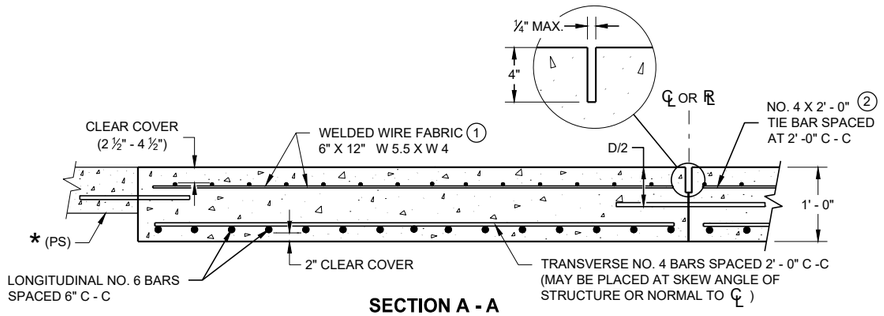
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

(RS) = REINFORCED CONCRETE SLAB

(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

(NRS) - NON - REINFORCED CONCRETE SLAB

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



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

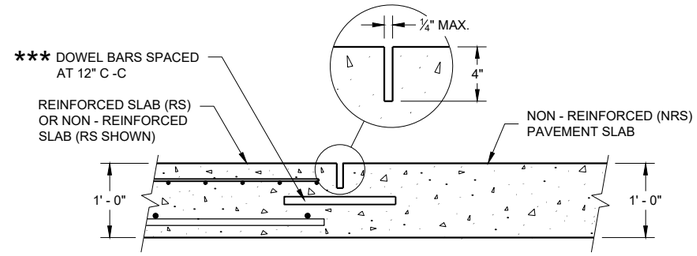
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

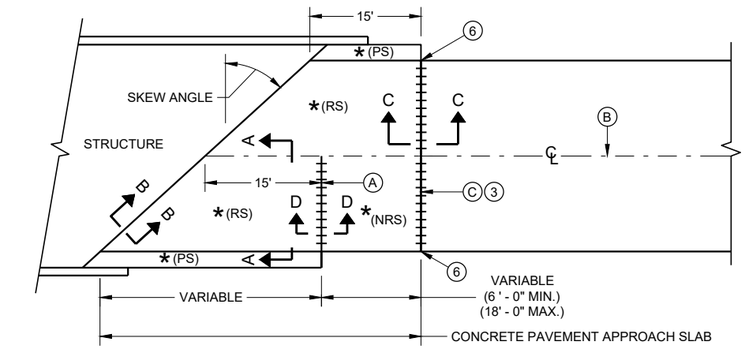
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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

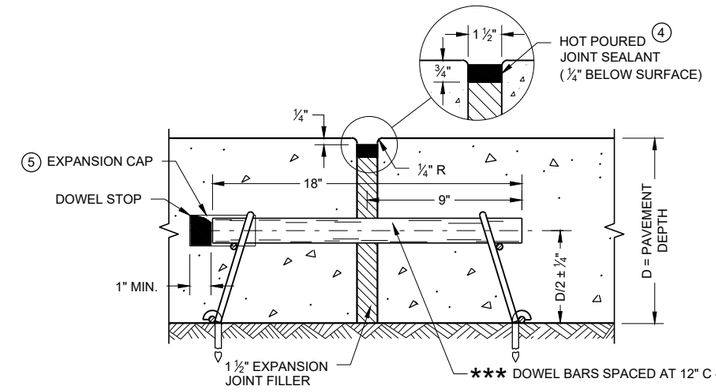


SECTION D - D
CONTRACTION JOINT

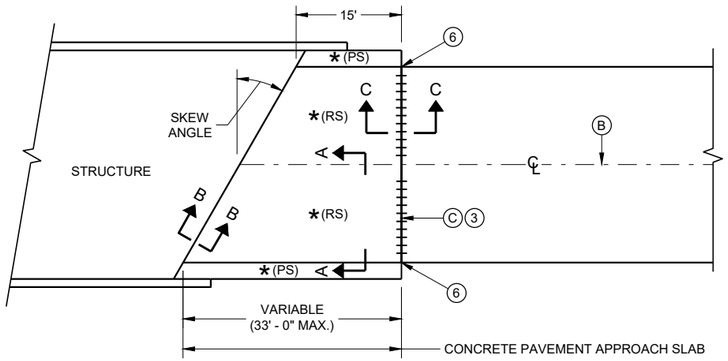


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

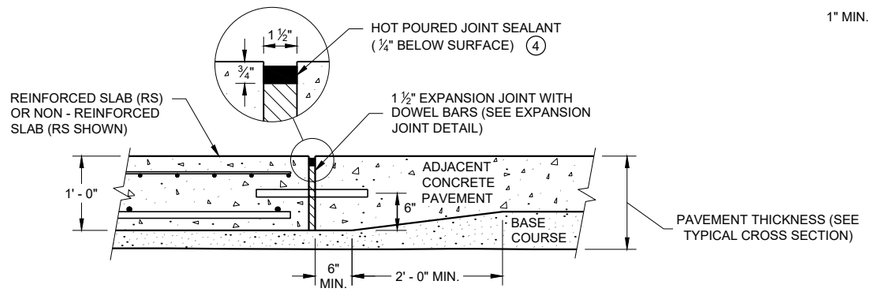


EXPANSION JOINT DETAIL



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 SUPERVISO

FHWA

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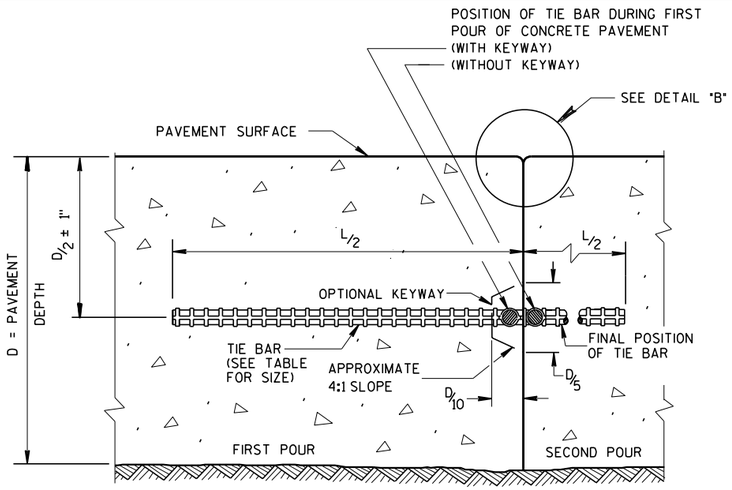
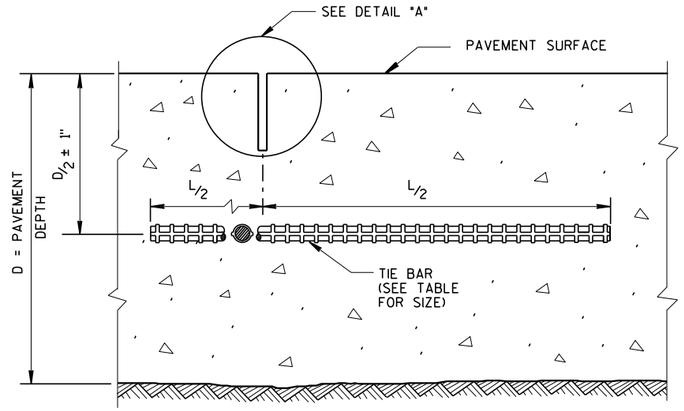
SDD 13B02 - 09a

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.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

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

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

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

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

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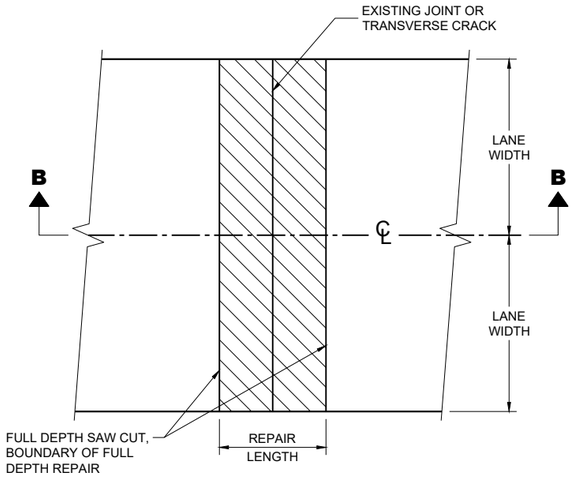
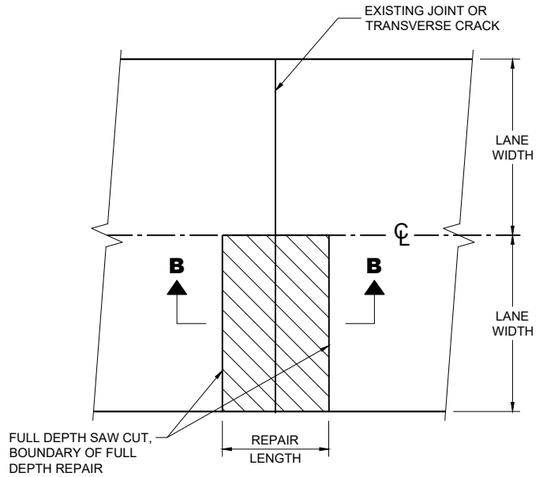
S.D.D. 13 C 1-19

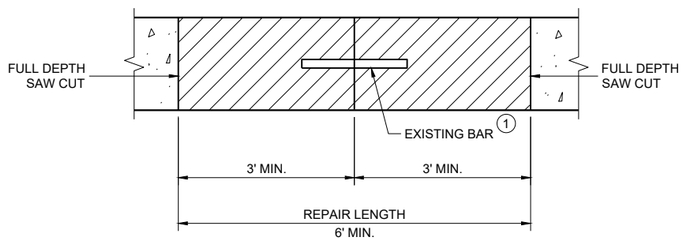


PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B

CONCRETE REMOVAL

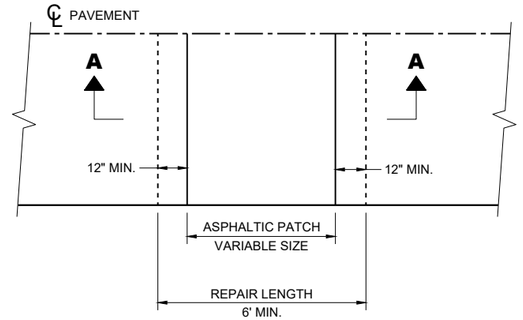
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

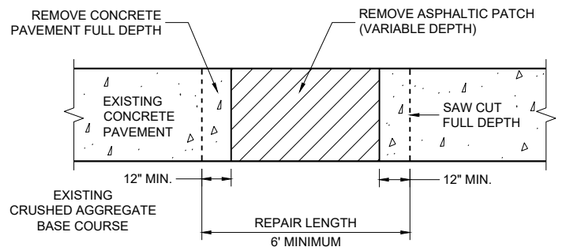
PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.



PLAN VIEW

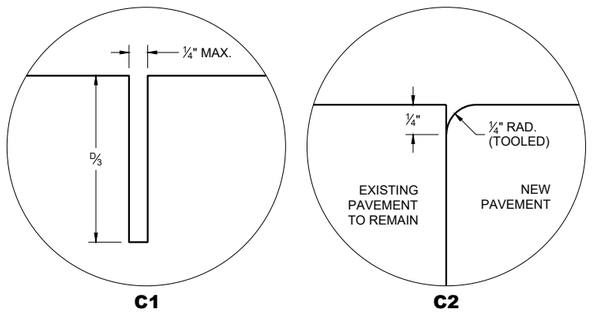


SECTION A - A

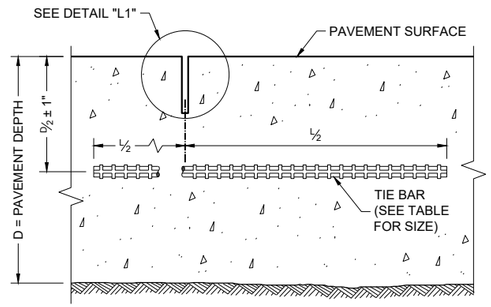
HMA PATCH REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

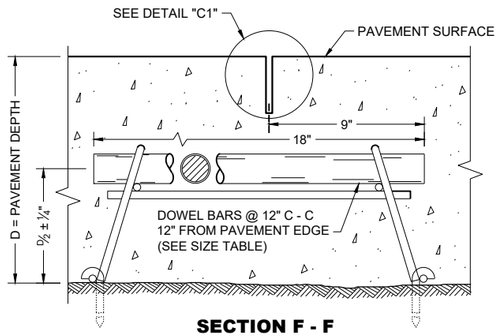


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

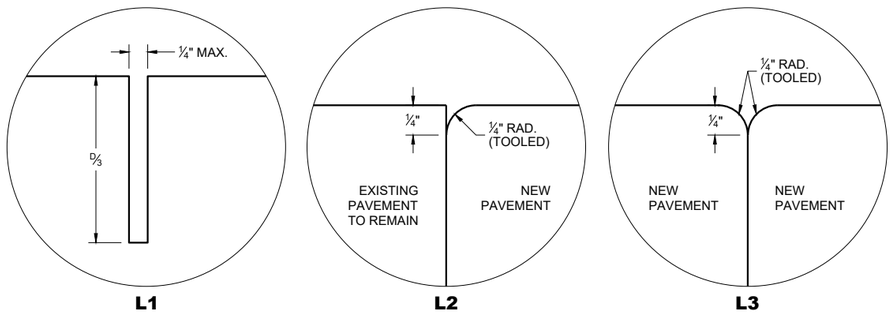
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

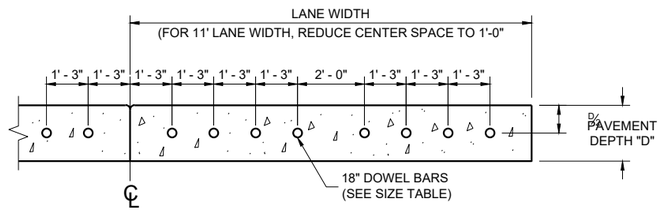
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

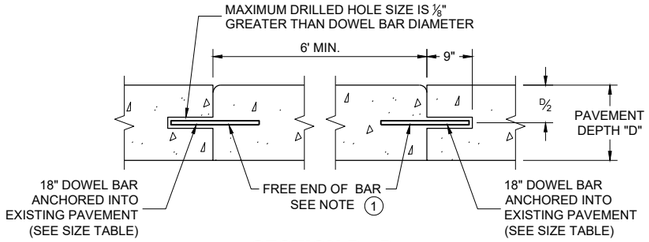


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

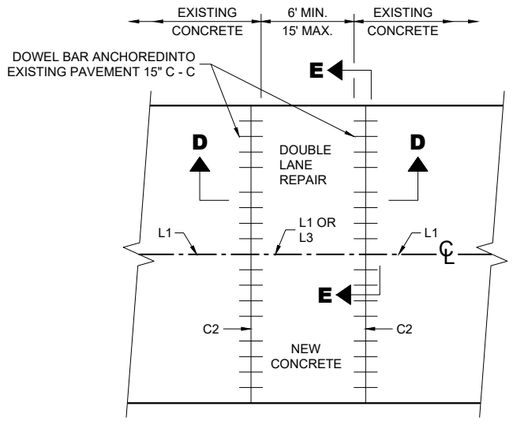
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

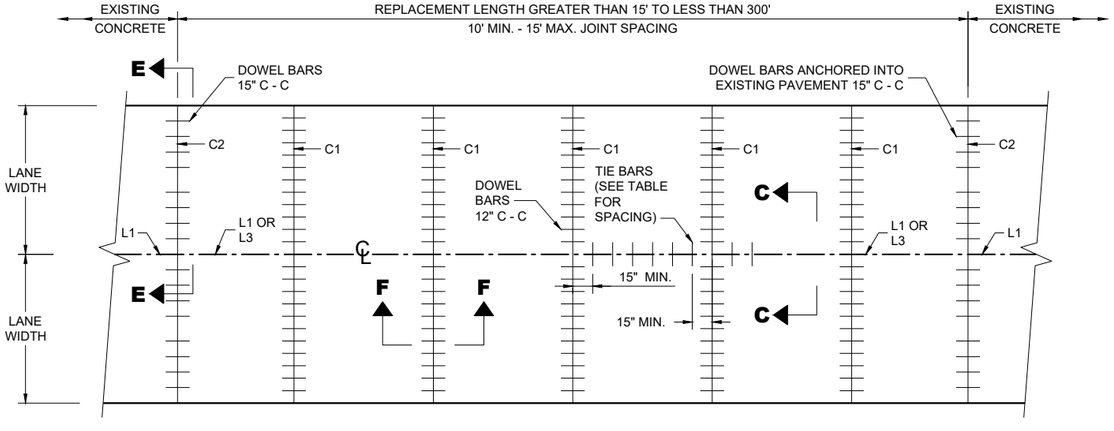
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR

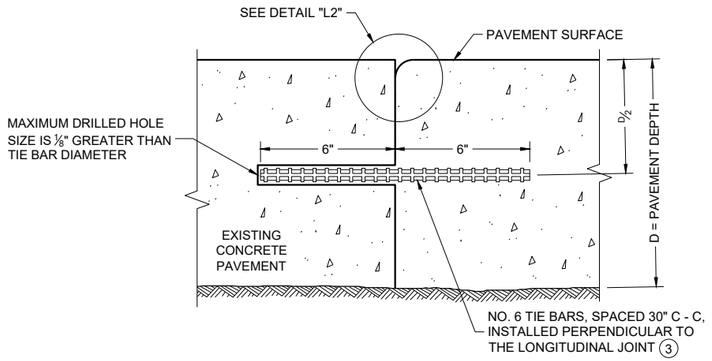


PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

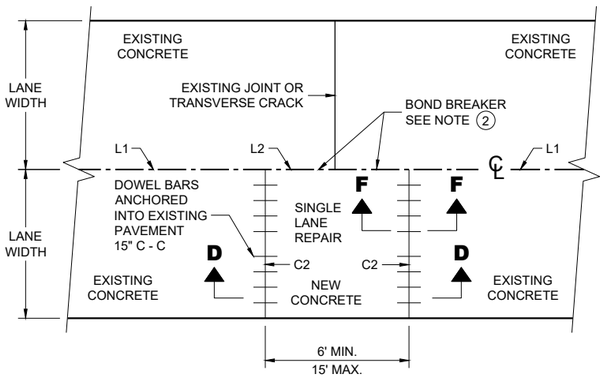


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

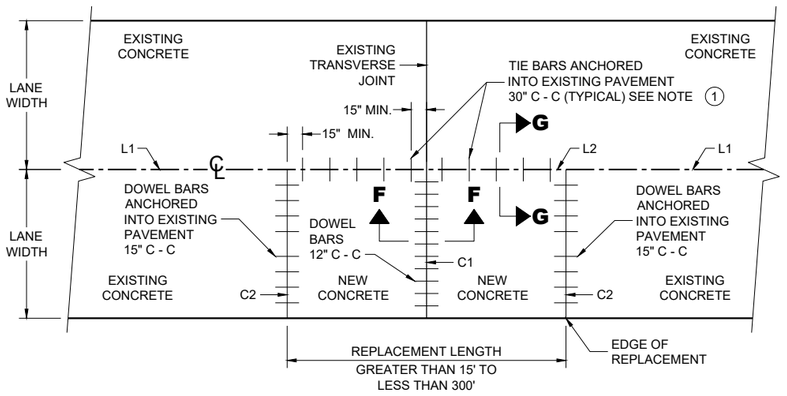
GENERAL NOTES

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

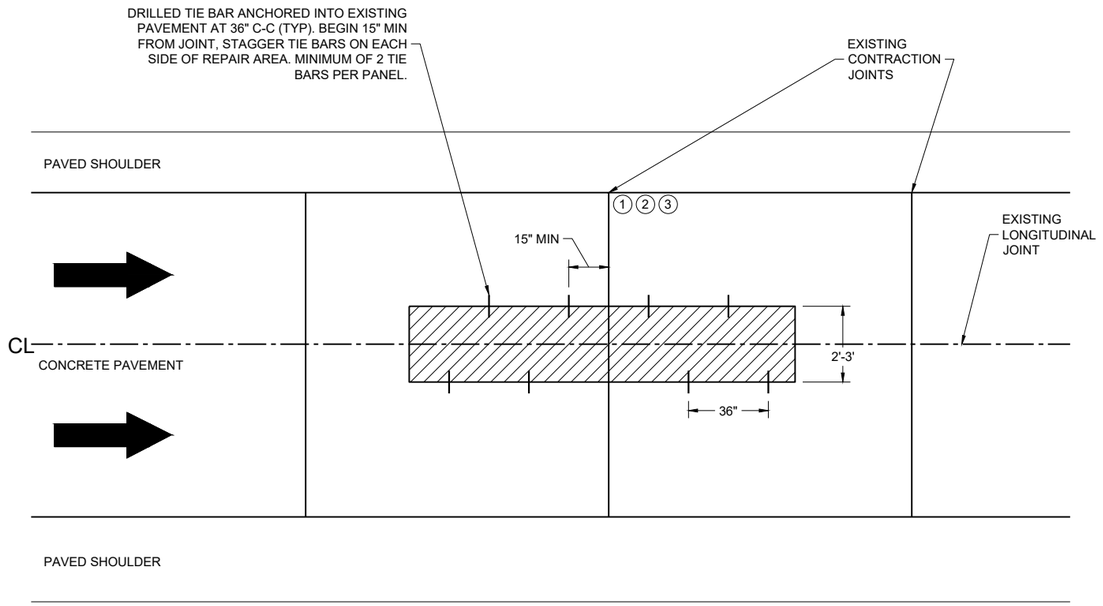
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

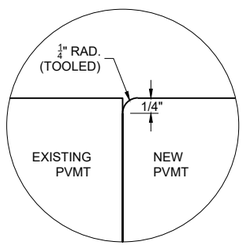
SDD 13C09-18c



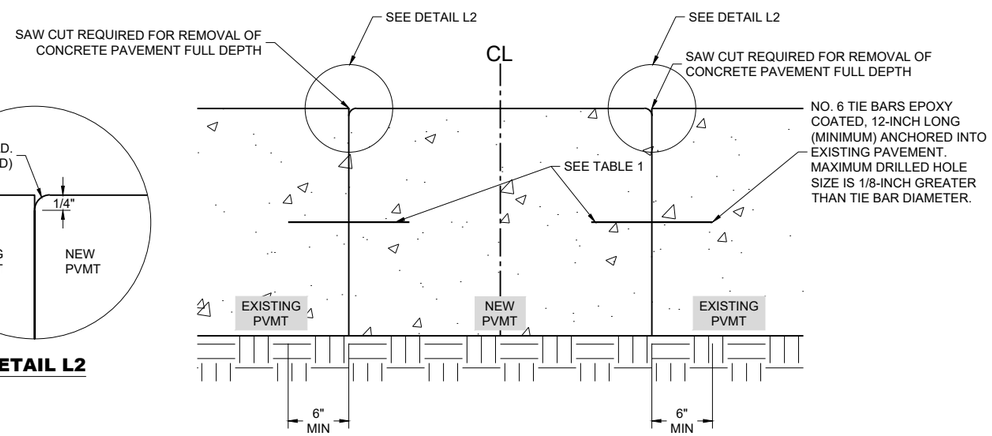
PLAN VIEW

GENERAL NOTES

1. TIE BARS MIN 15" FROM JOINT.
2. LOCATION AND WIDTH OF PATCH ARE VARIABLE DEPENDING ON FIELD CONDITION
3. PRESERVE OR REESTABLISH EXISTING CONTRACTION JOINTS, KEEPING PATCH MATERIALS OUT OF REMAINING CONTRACTION JOINT.



DETAIL L2



SECTION VIEW

TABLE 1	
PATCH WIDTH	TIE BAR LENGTH
24"	12"
36"	18"

CONCRETE PAVEMENT CENTERLINE JOINT REPAIR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

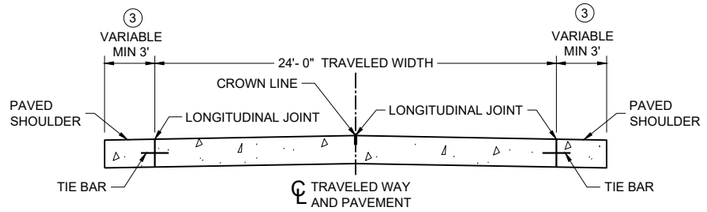
APPROVED
NOVEMBER 2025 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR

FHWA

6

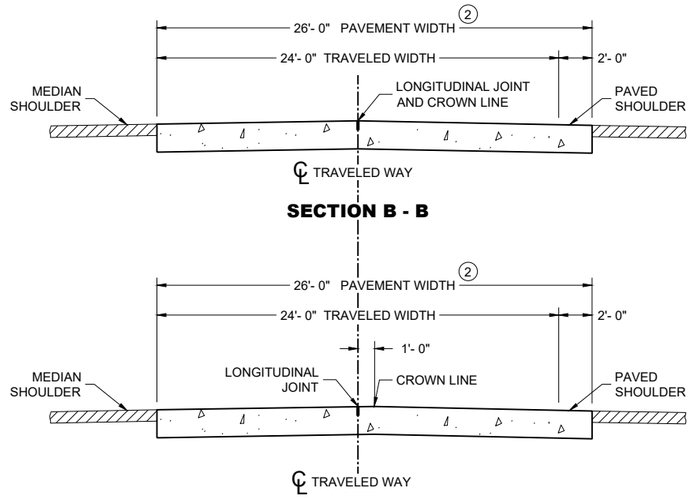
SDD 13C09-18d

SDD 13C09-18d



SECTION A - A

TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B - B

ALTERNATIVE SECTION B - B

DIVIDED HIGHWAY (1)

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

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

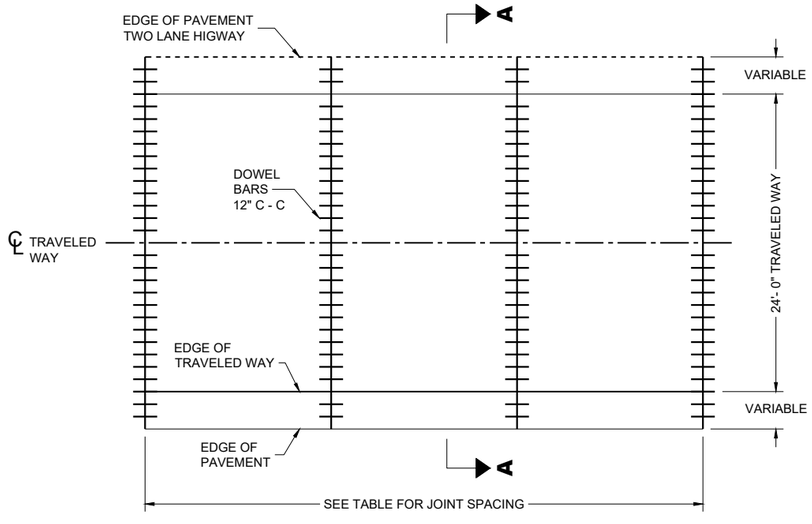
(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

(2) MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.

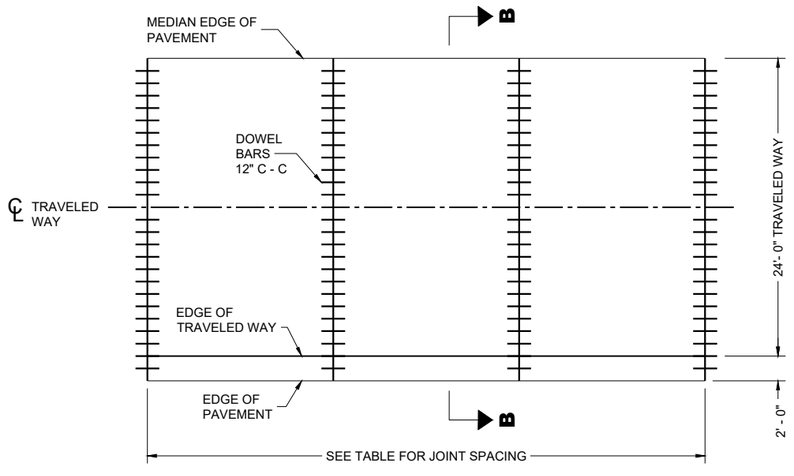
(3) SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

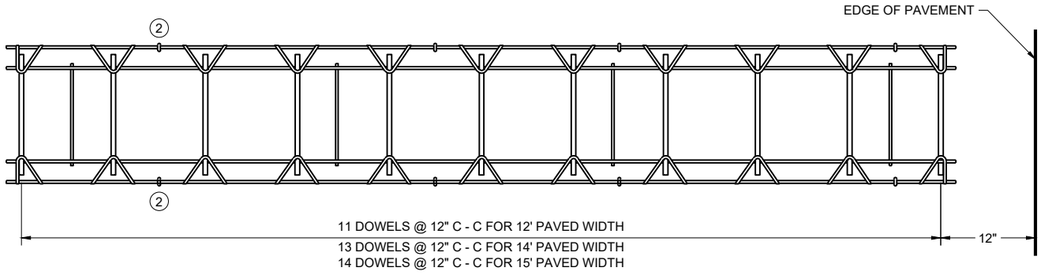
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C11-15a

6

SDD 13C11-15a



PLAN VIEW

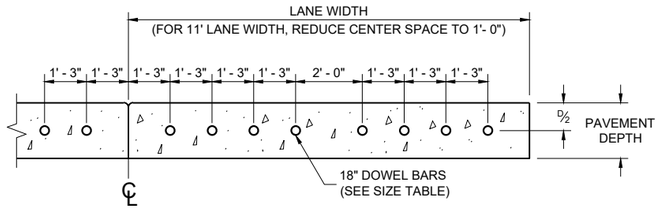
SIDE VIEW

(NORMAL TO CENTERLINE)

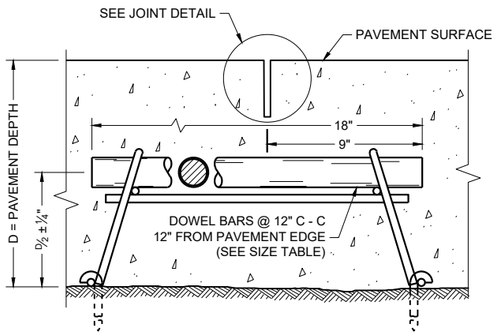
CONTRACTION JOINT DOWEL ASSEMBLY (1)

GENERAL NOTES

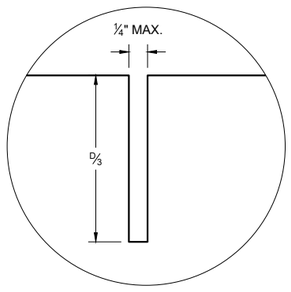
1. OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
2. SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
3. FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.
4. PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
5. INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
6. APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
7. ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



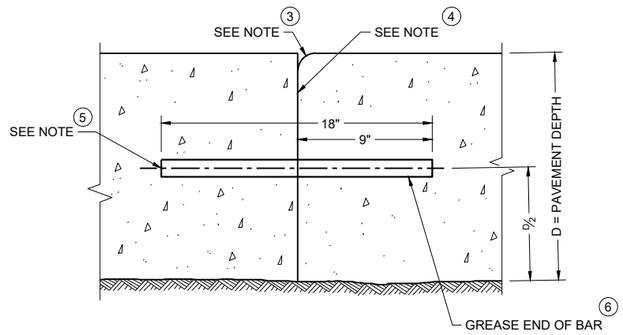
DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



DOWELED CONTRACTION JOINT



JOINT DETAIL



TRANSVERSE CONSTRUCTION JOINT

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR

FHWA

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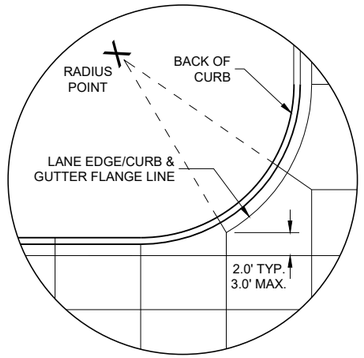
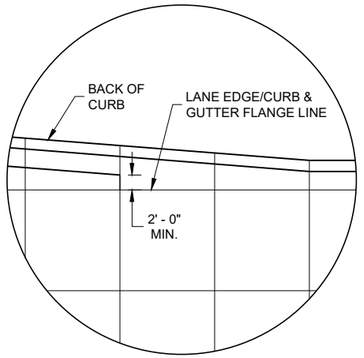
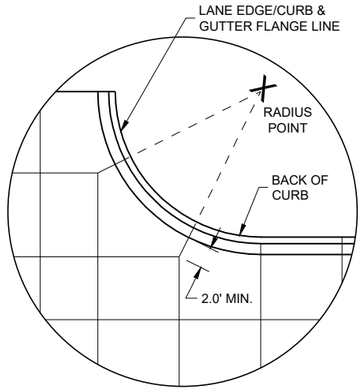
SDD 13C11-15b



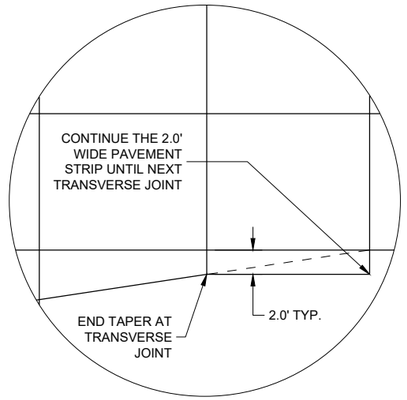
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

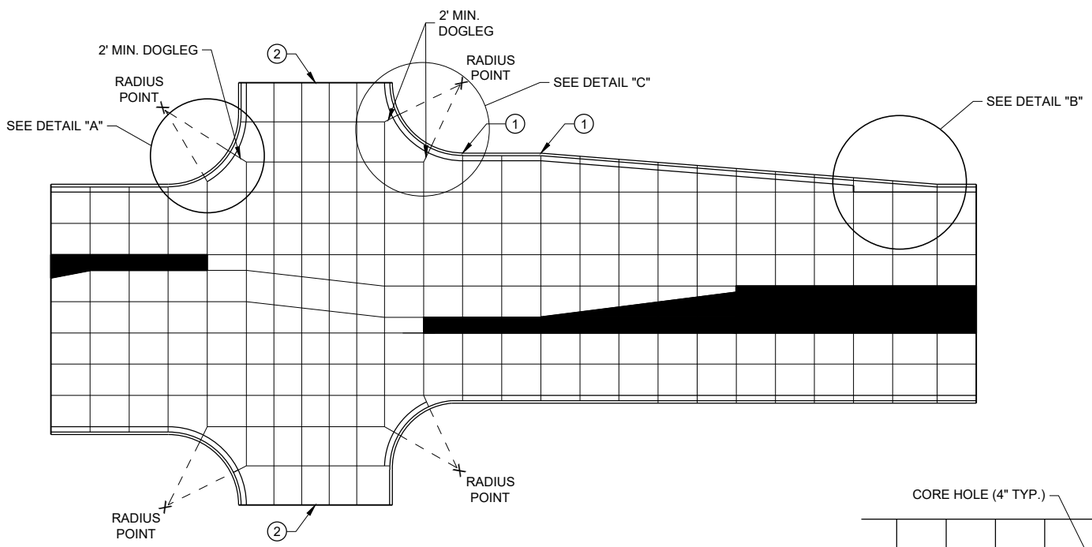
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

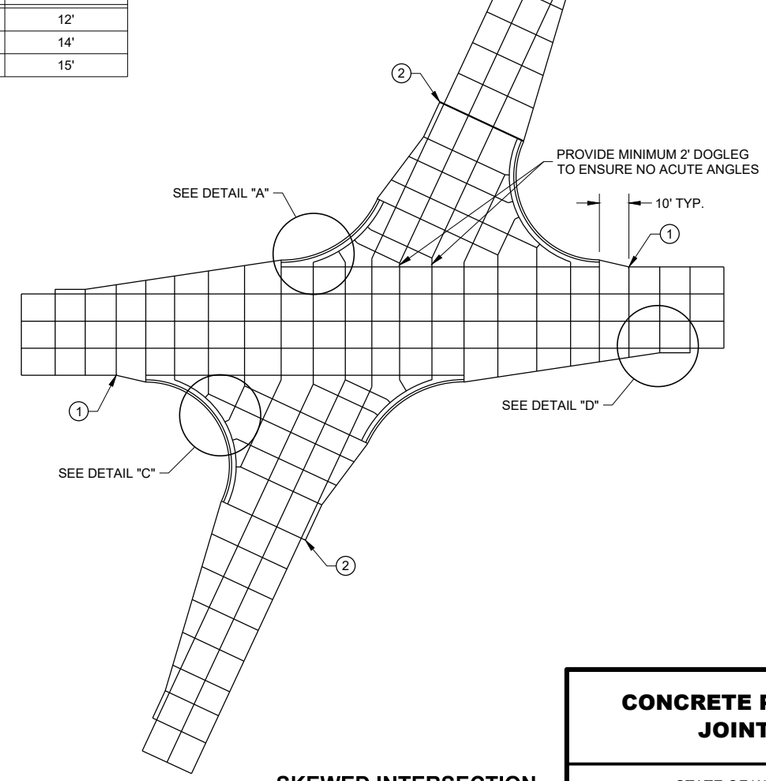
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



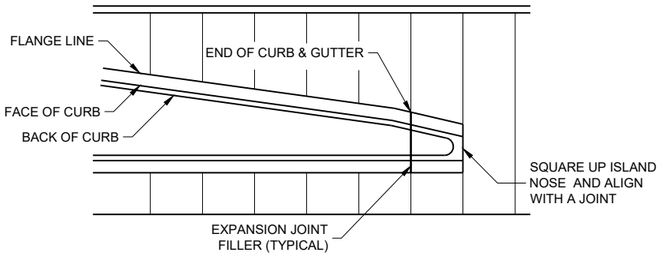
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

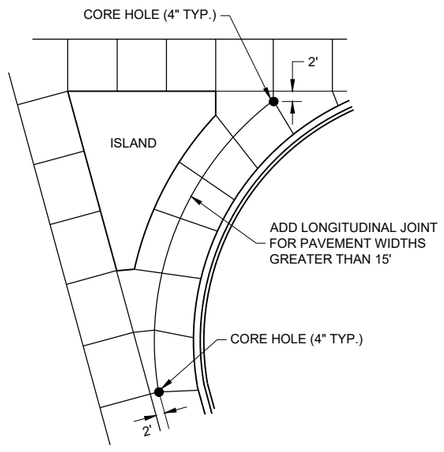
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

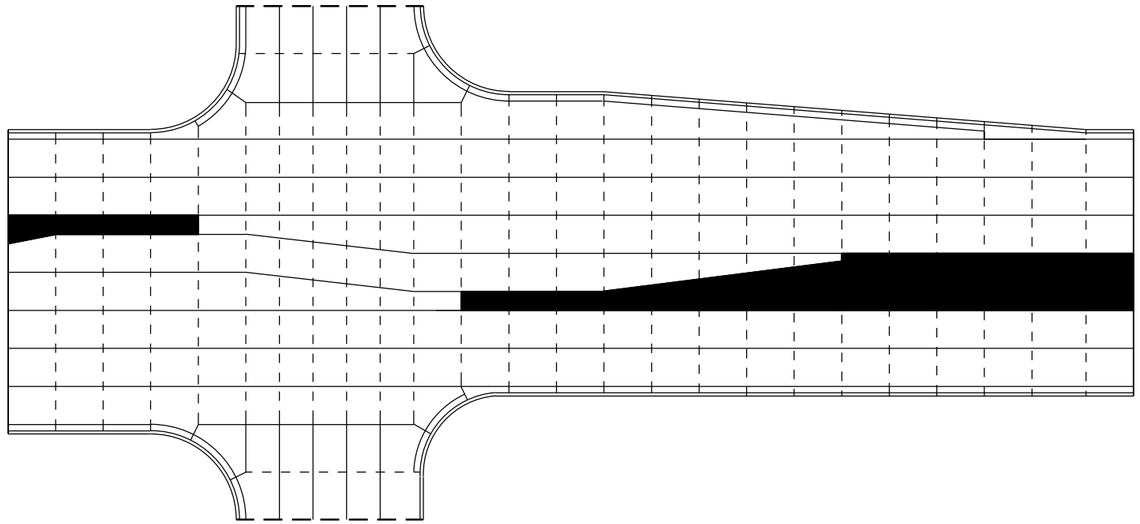
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

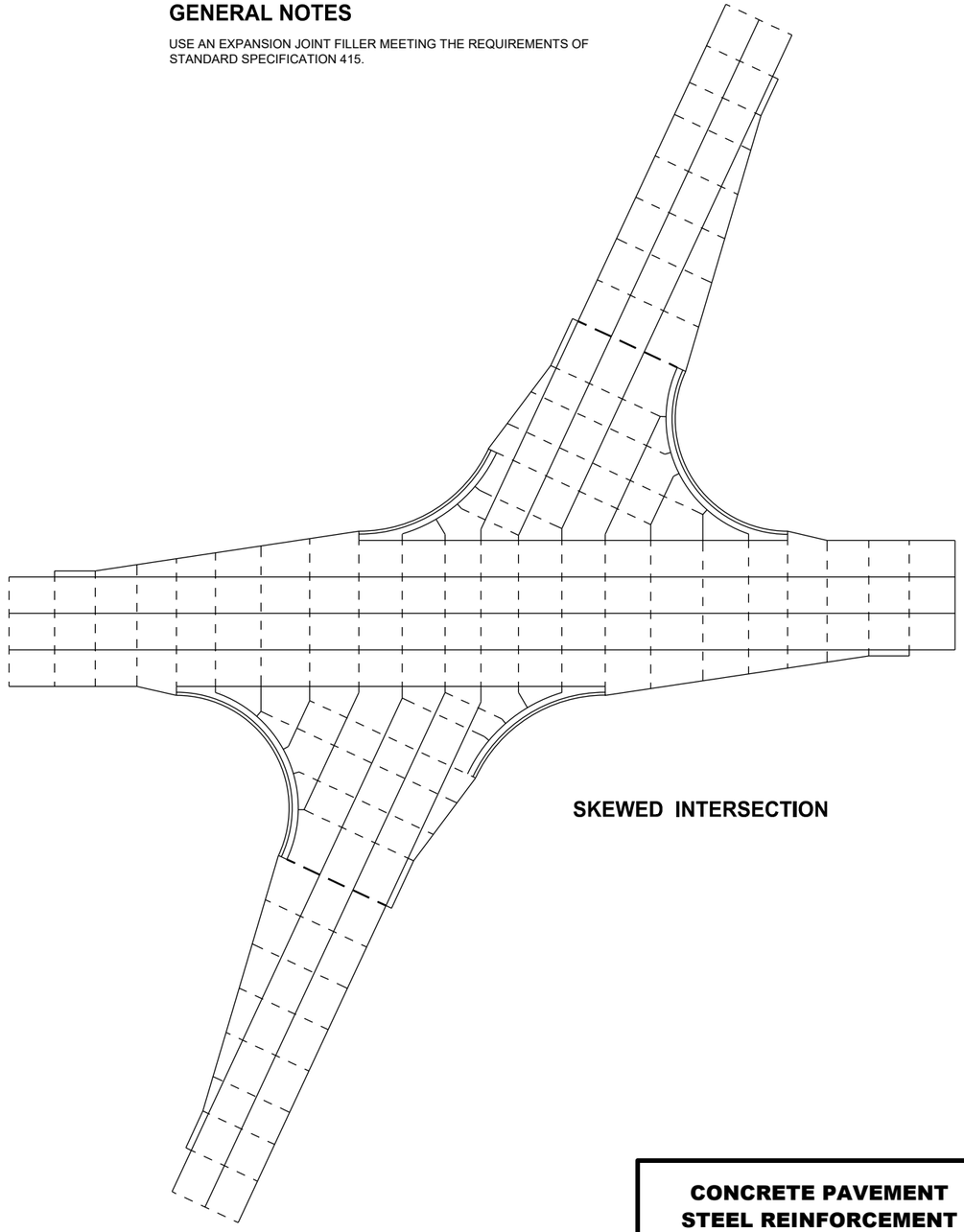
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

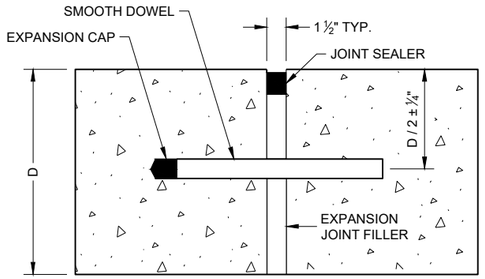
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

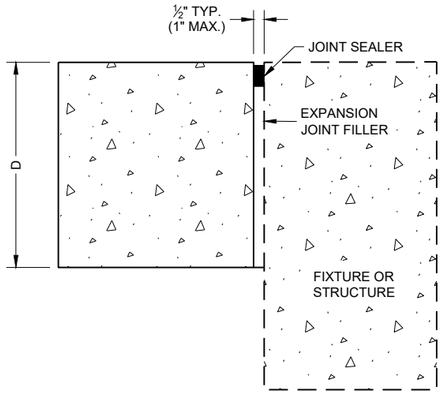
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

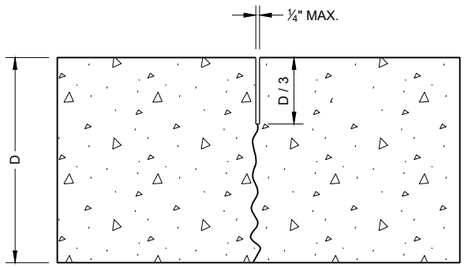
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

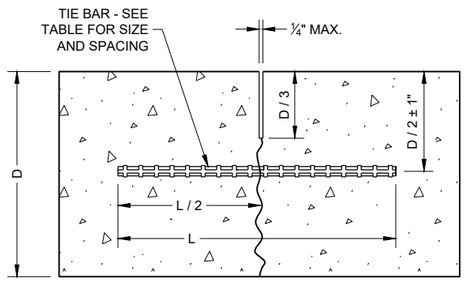
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

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



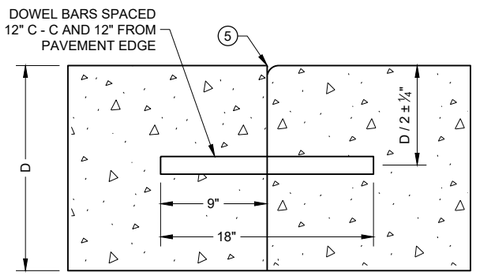
UNDOWELED TRANSVERSE



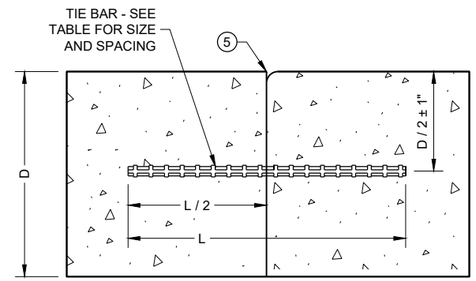
TIED LONGITUDINAL

DOWELED TRANSVERSE

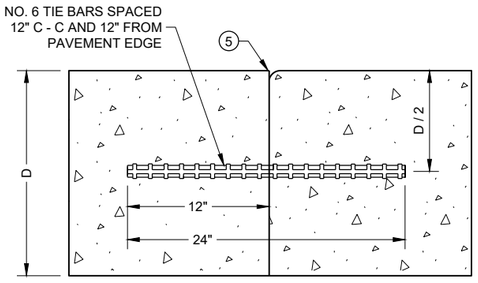
CONTRACTION JOINTS (2)



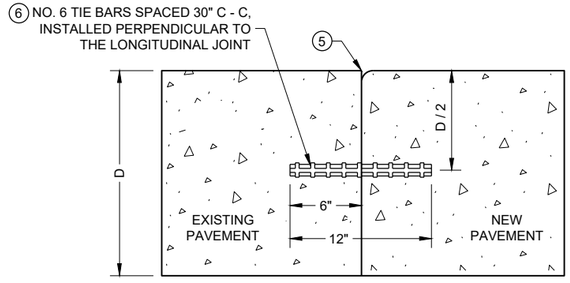
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



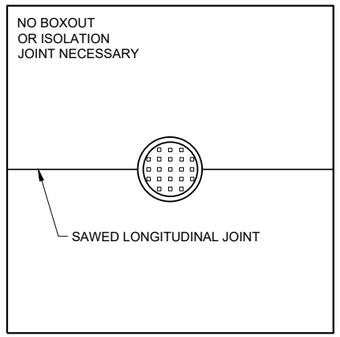
TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



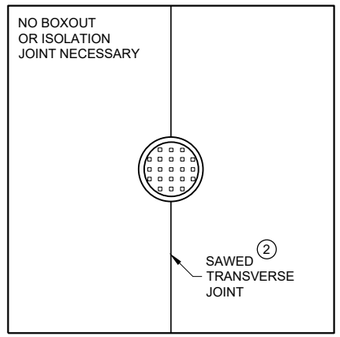
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

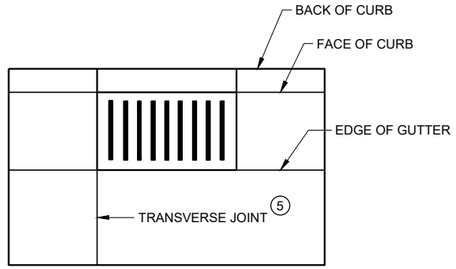
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



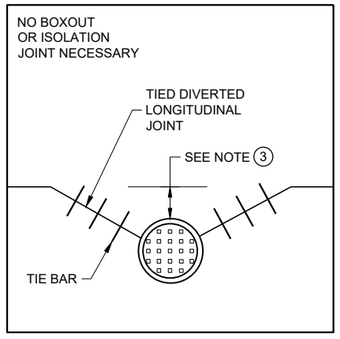
MANHOLE WITH TRANSVERSE JOINT



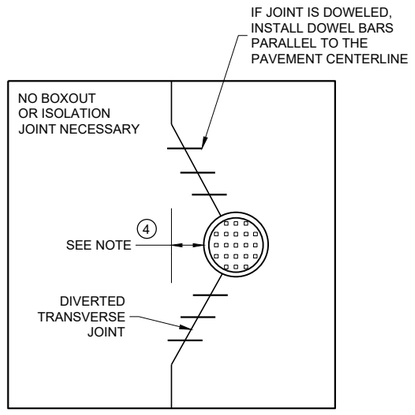
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

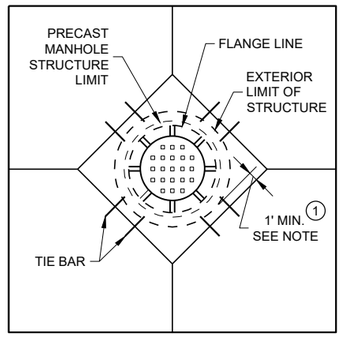
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF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



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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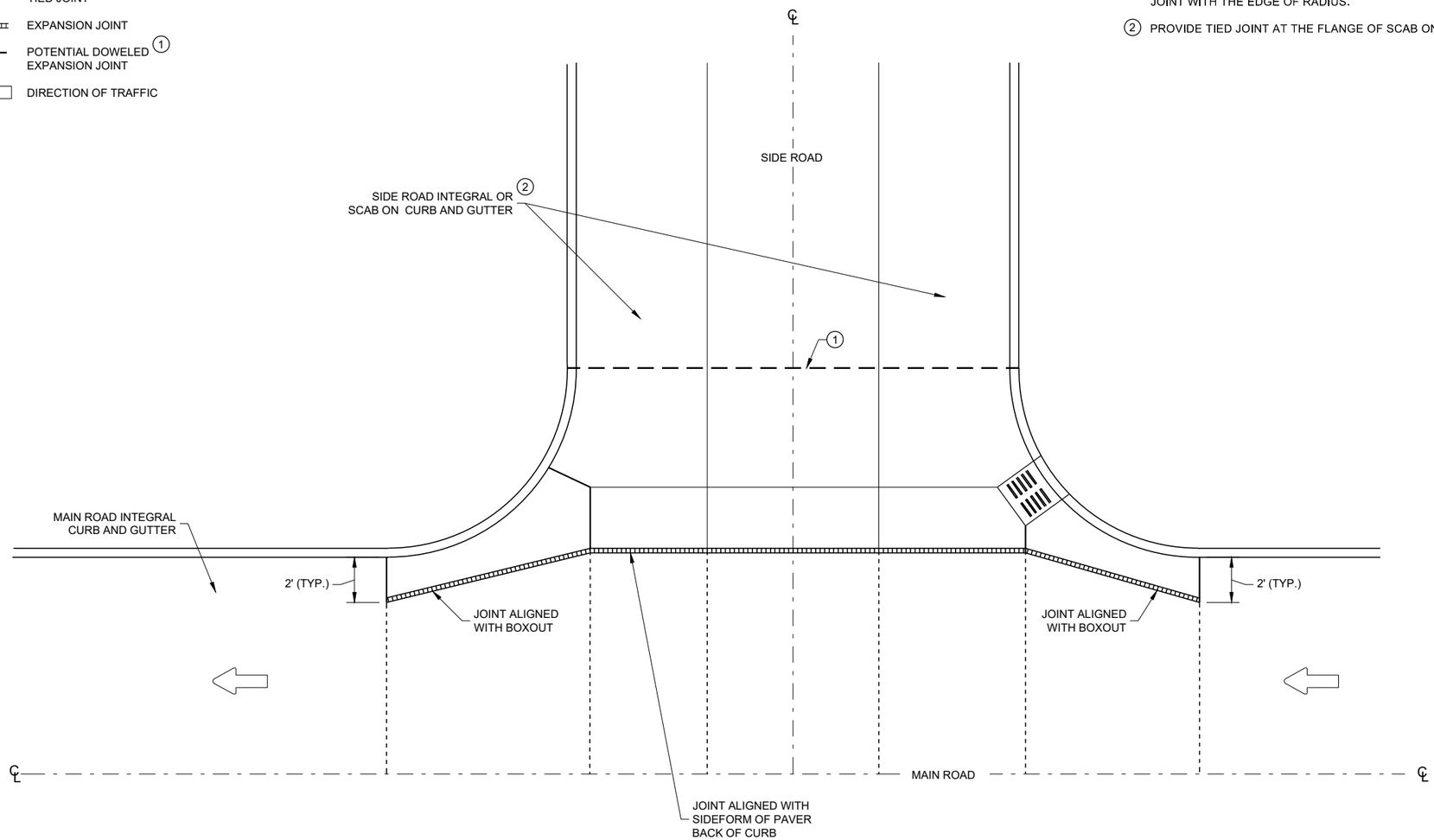
SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

6

SDD 13C18 - 08f

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SDD 13C18 - 08f

SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.

2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.

3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

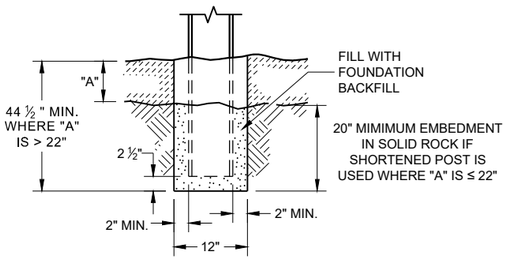
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE 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 ADEQUATELY.

7. 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.

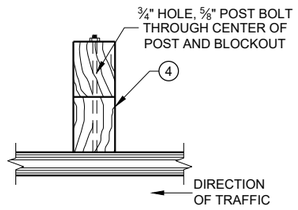
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



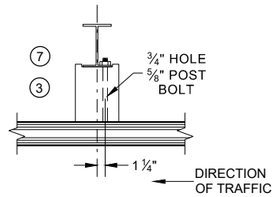
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (6)



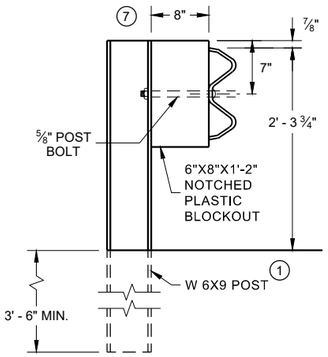
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



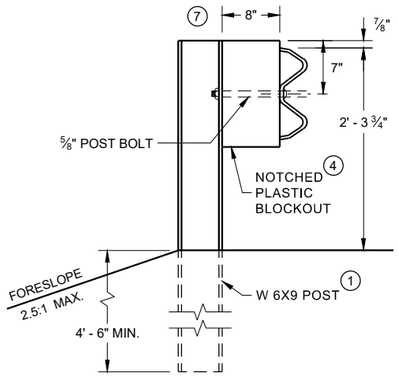
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



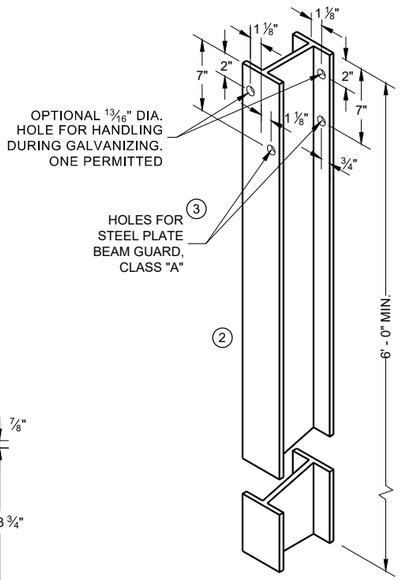
END VIEW

STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



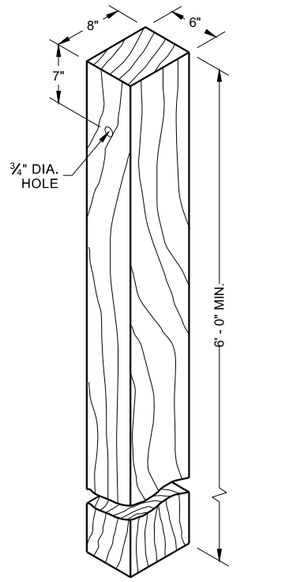
END VIEW

LONGER POST AT HALF POST SPACING W BEAM (LHW)

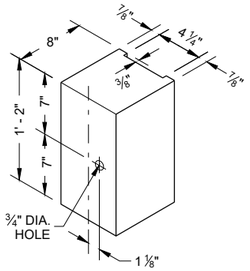


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)

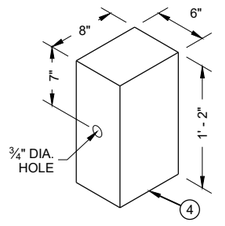
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



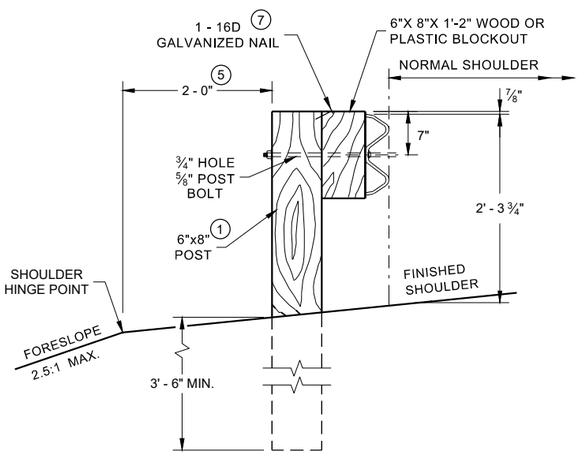
WOOD POST (6" X 8") NOMINAL (1)



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS

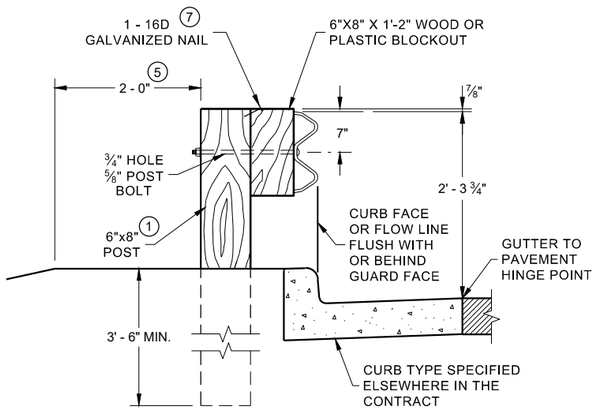


WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



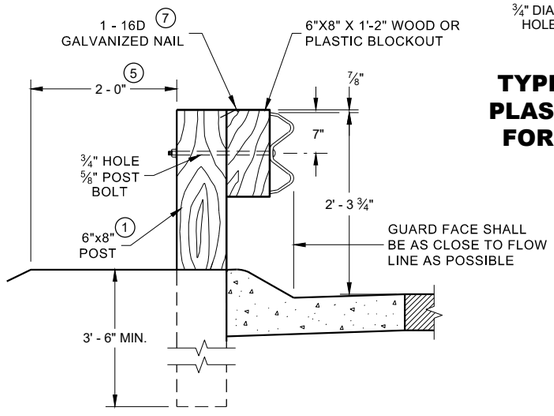
END VIEW

LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW

LOCATED ALONG A CURBED ROADWAY



END VIEW

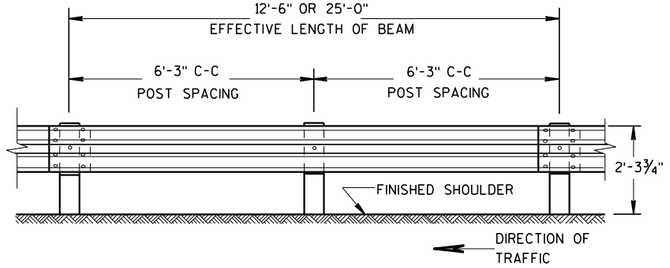
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

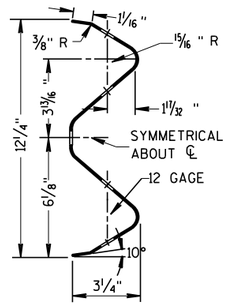
6

SDD 14B15 -11a

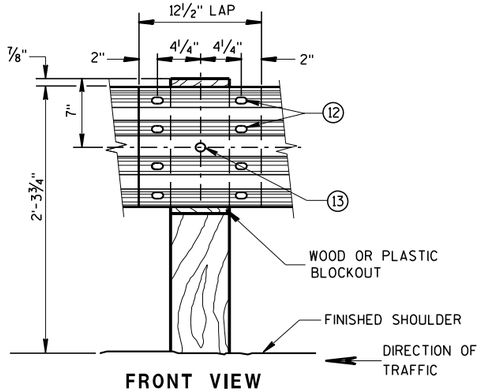


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

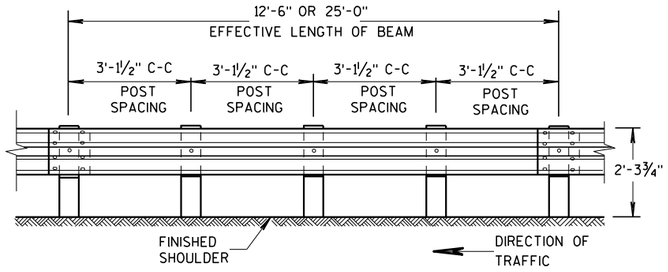
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

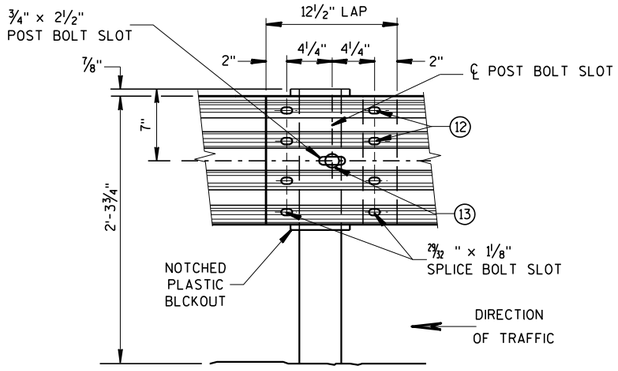
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



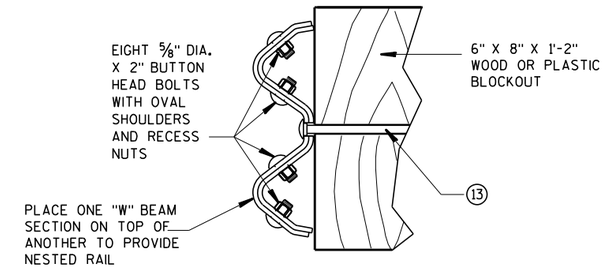
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

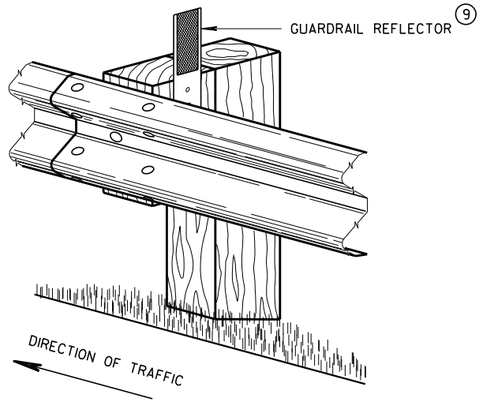


NESTED W BEAM (NW)

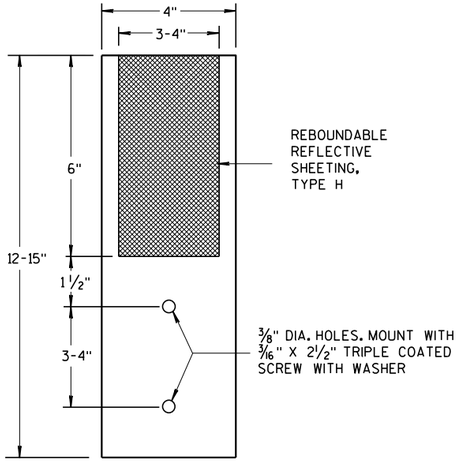
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCO 244
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 15-11b

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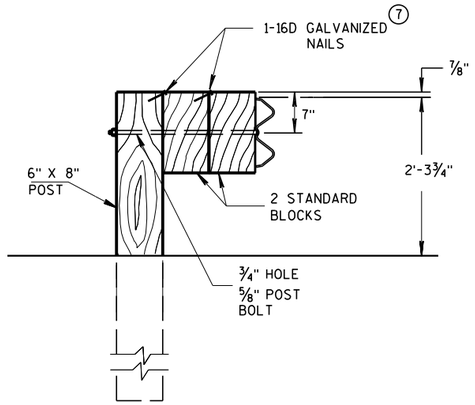
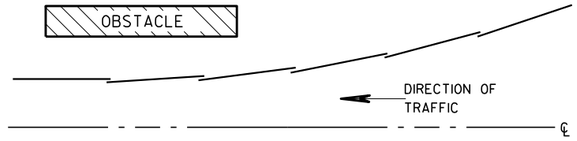
S.D.D. 14 B 15-11b

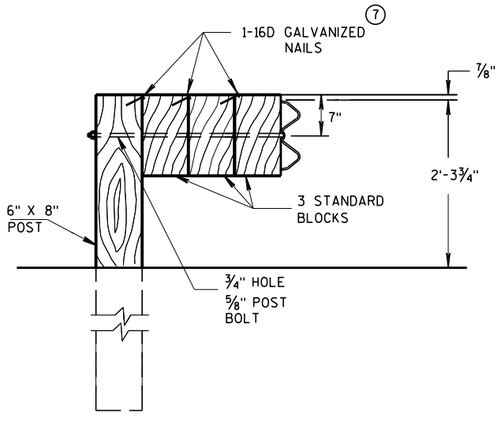


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

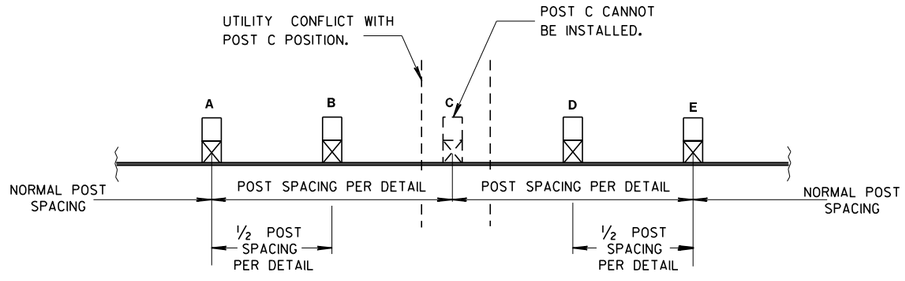


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
245
FHWA

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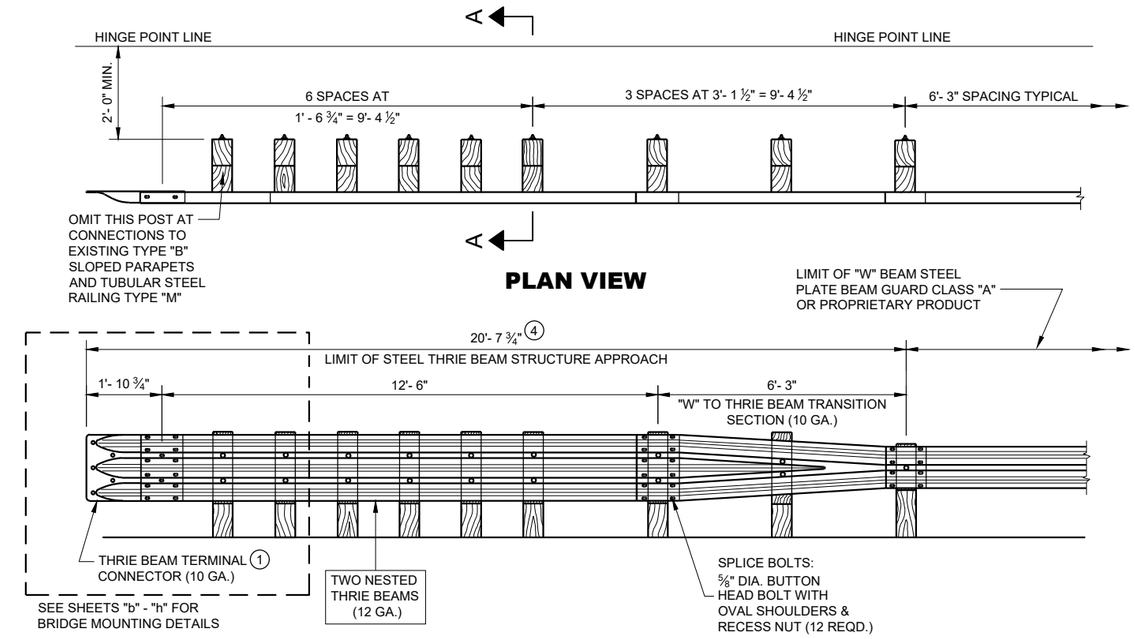
S.D.D. 14 B 15-11c



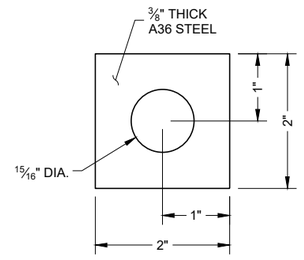


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

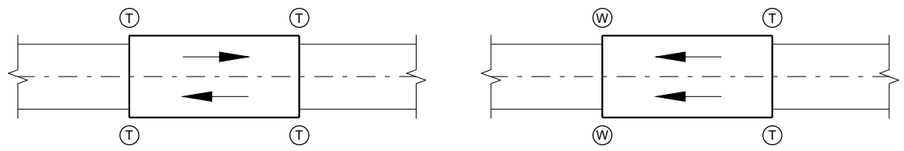
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



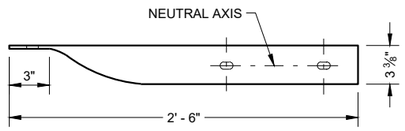
TWO WAY TRAFFIC

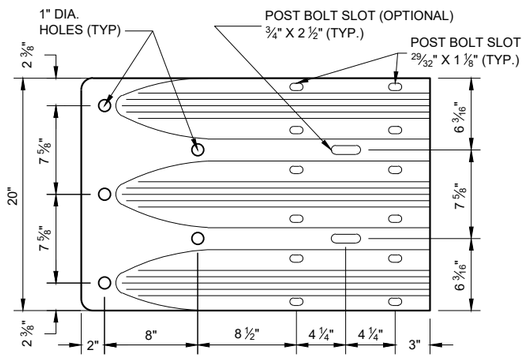
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

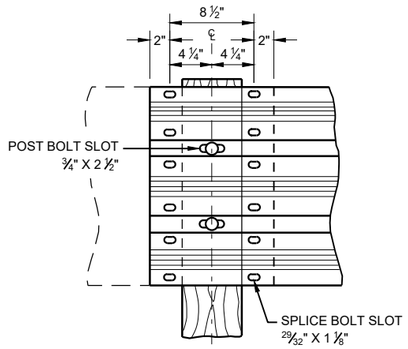
(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

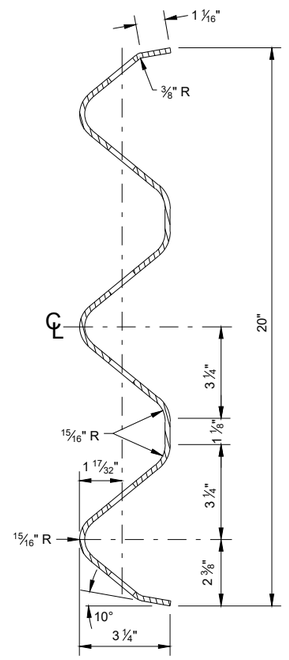




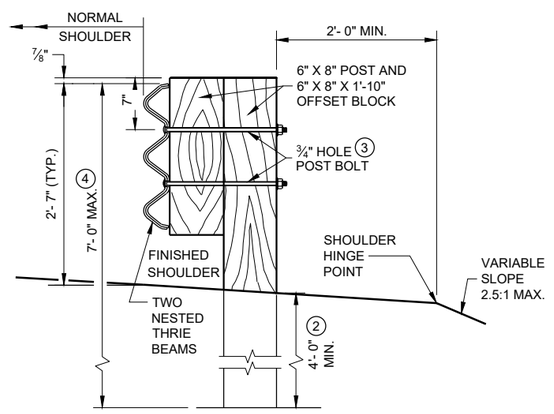
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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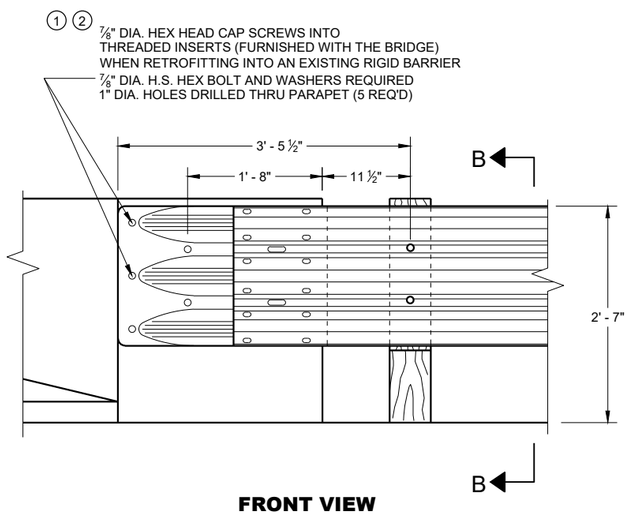
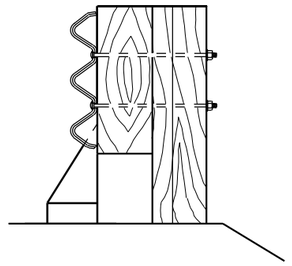
SDD 14B20 - 12a



FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

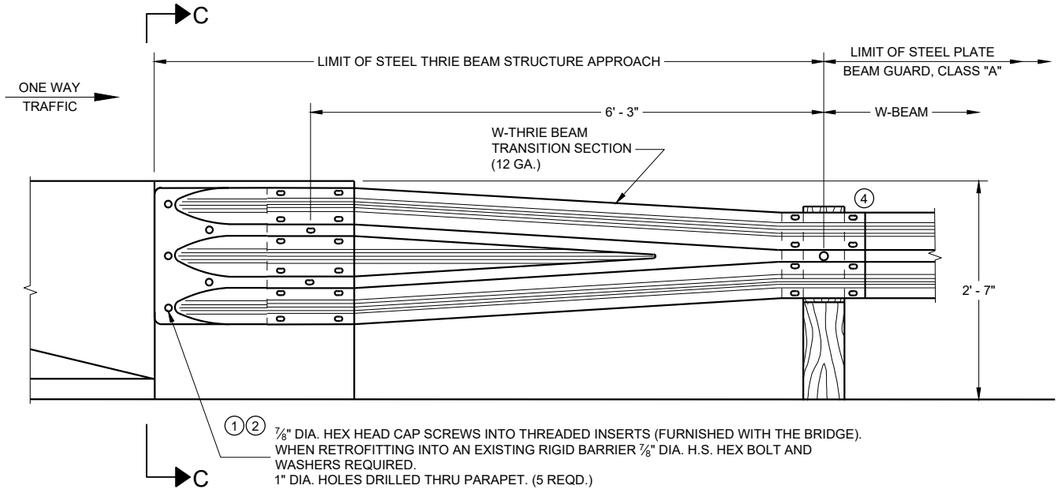
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

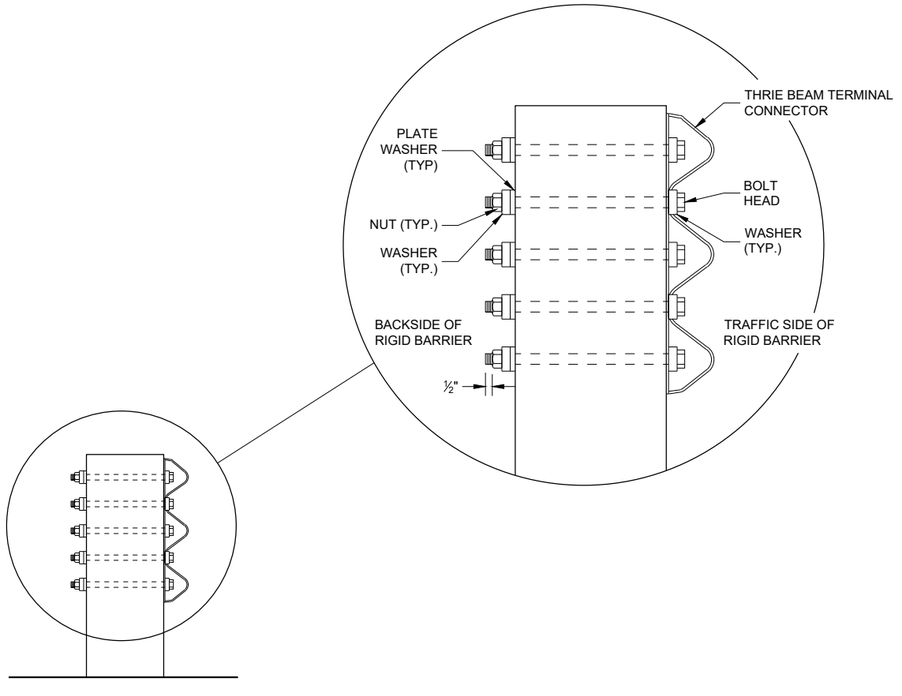
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGE)



SECTION C - C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B20 - 12b

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

(1) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

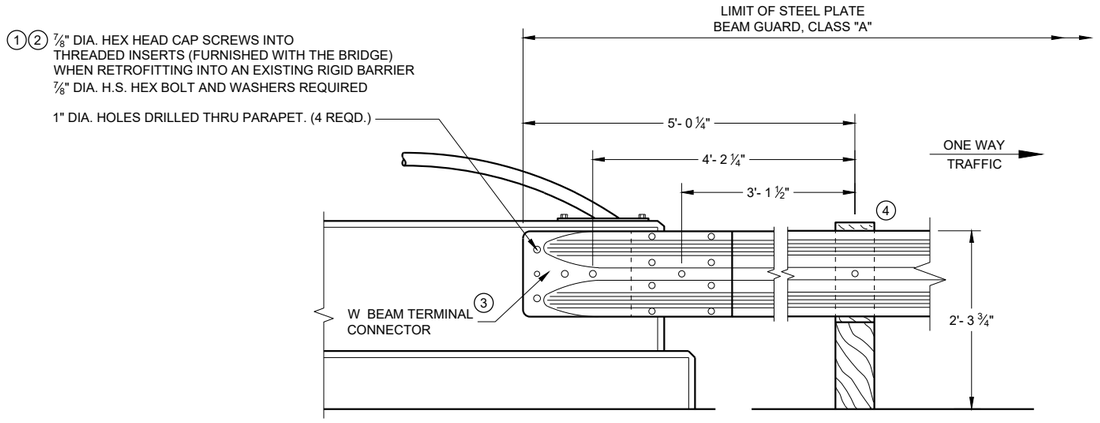
(2) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

(3) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(4) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

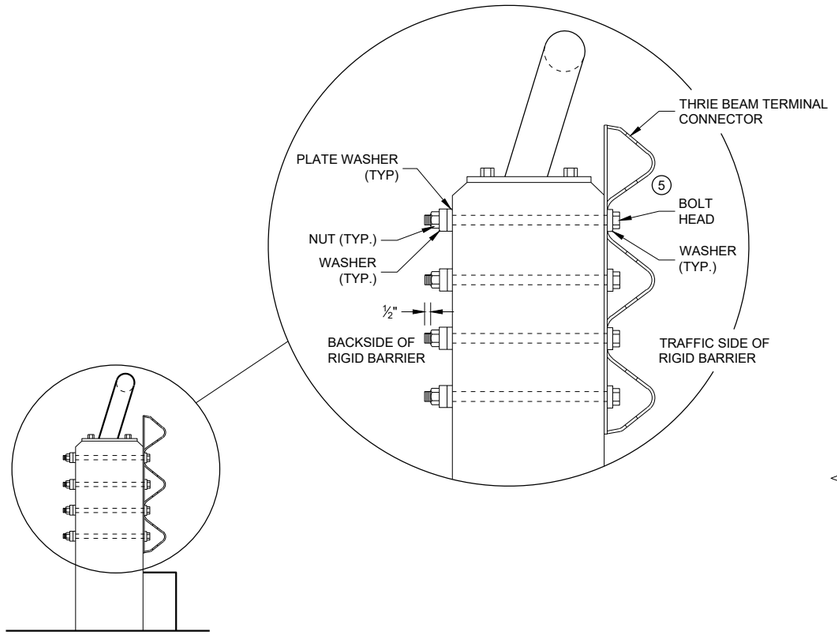
(5) BOLT, NUT AND WASHERS NO REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PARAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

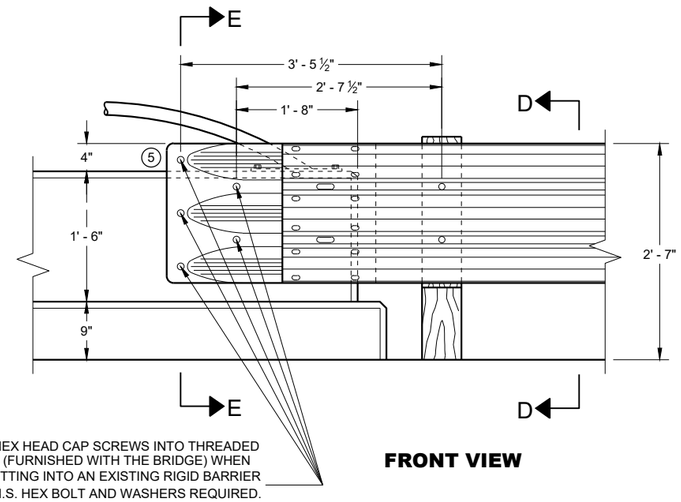


FRONT VIEW

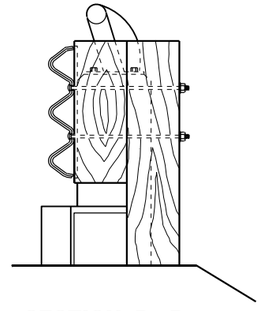
W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION E - E



FRONT VIEW



SECTION D - D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

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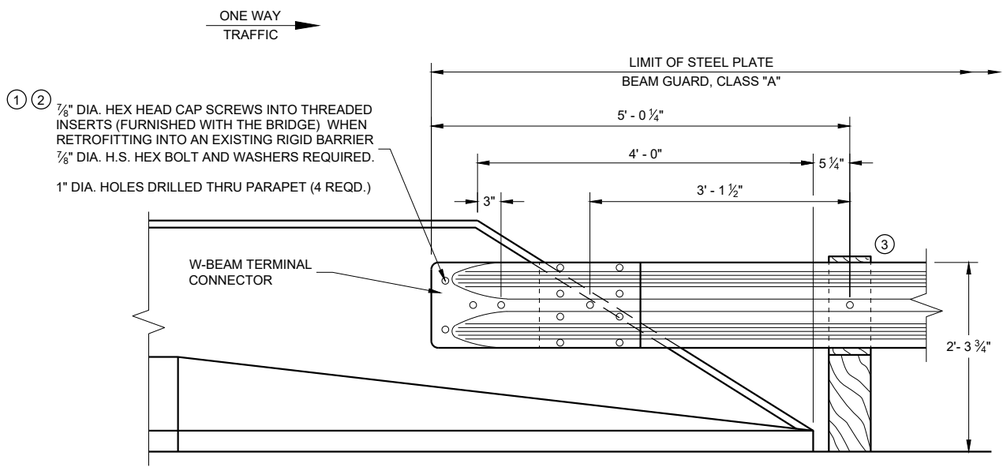

FRONT VIEW

W BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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3. W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

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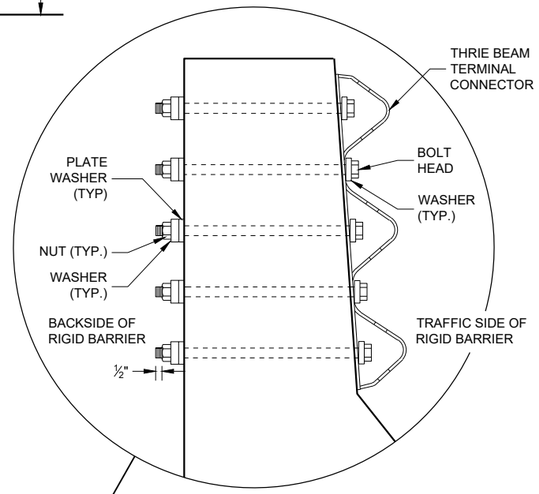
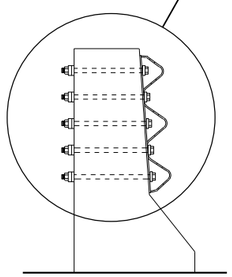
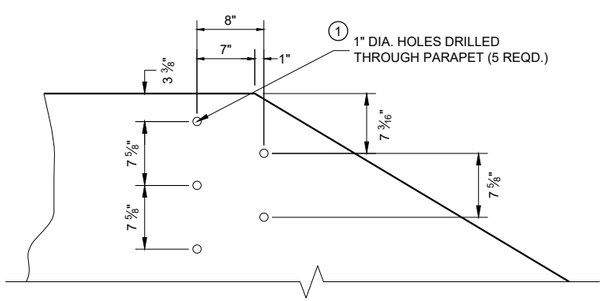
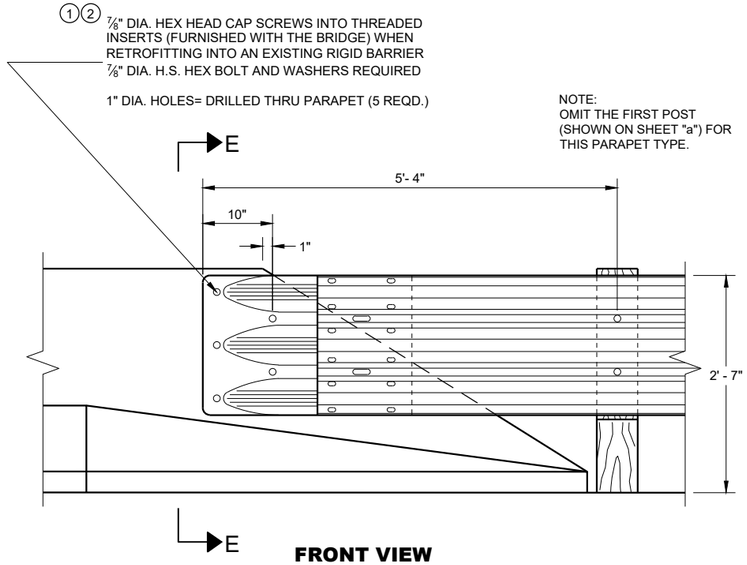




SECTION E - E



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

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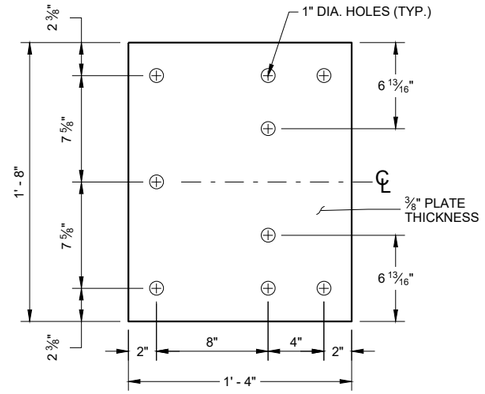
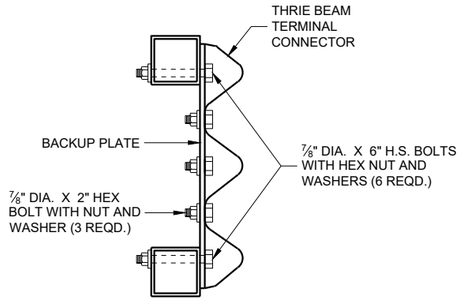
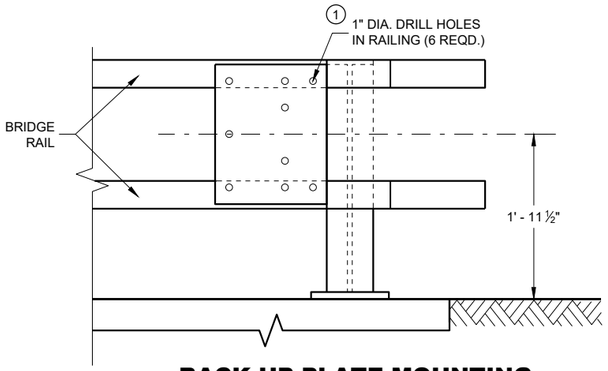


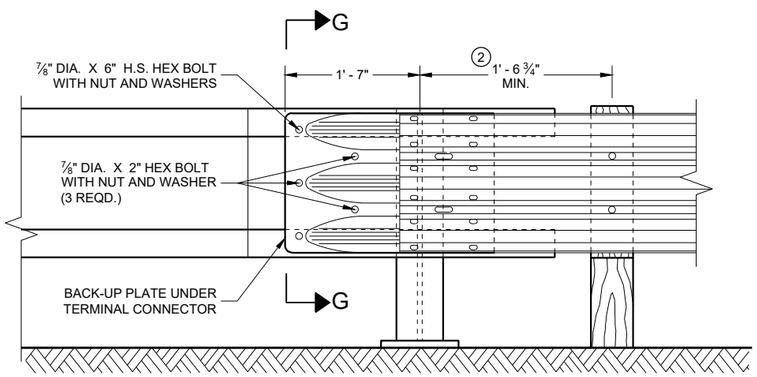
BACK-UP PLATE DETAIL



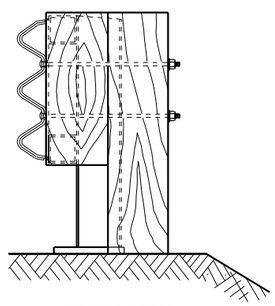
SECTION G - G



BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW



END VIEW

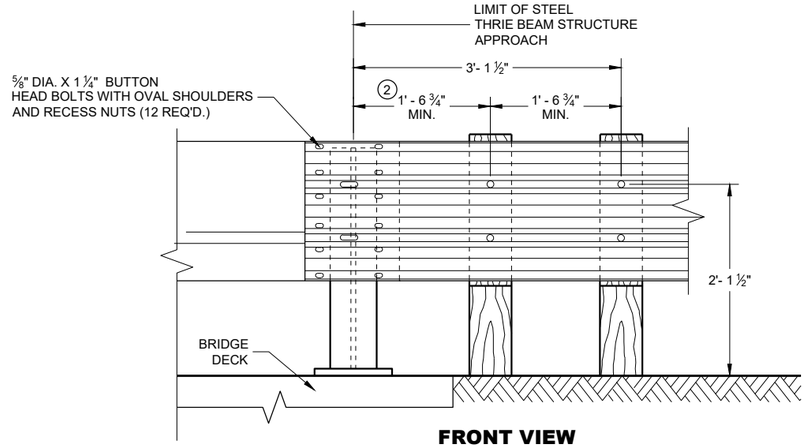
THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

(1) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" & "W"

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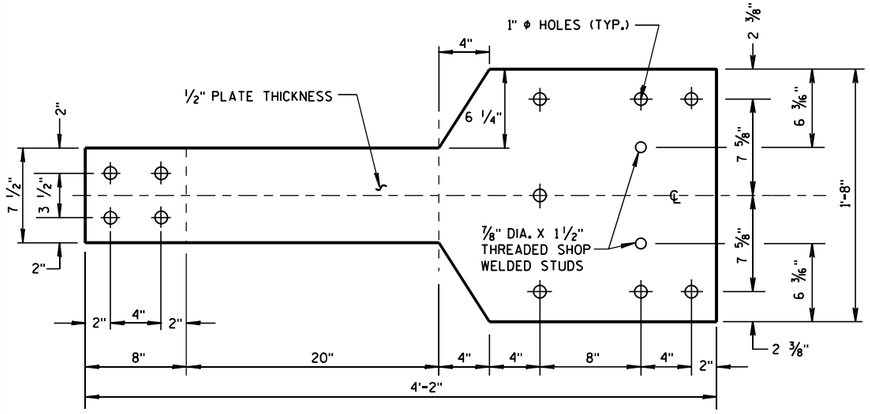
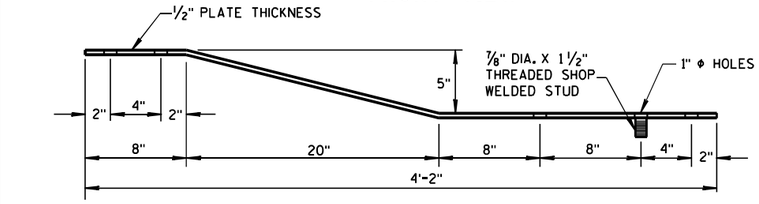
GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

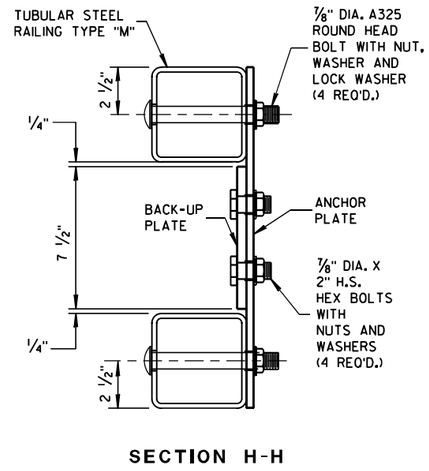


FRONT VIEW

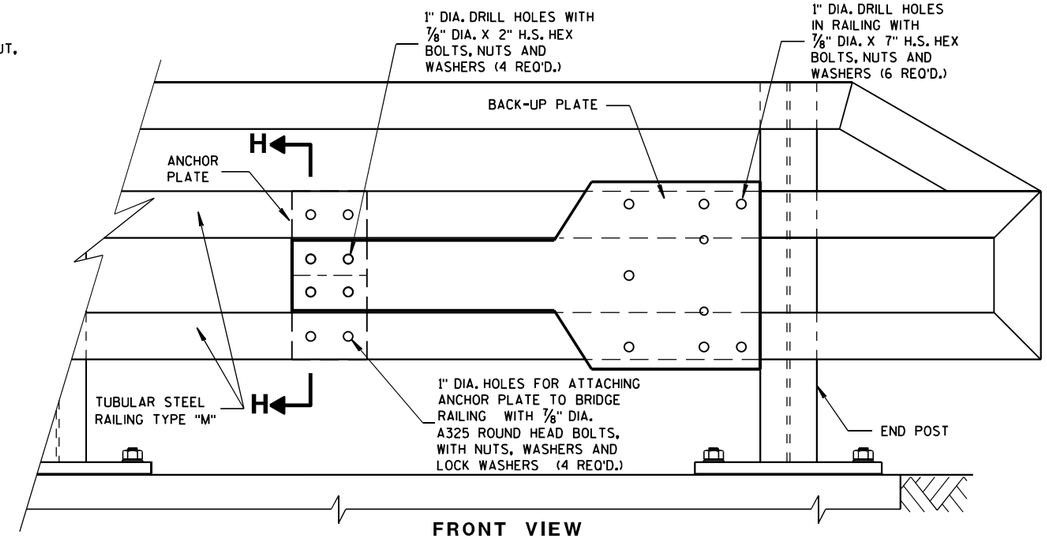


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

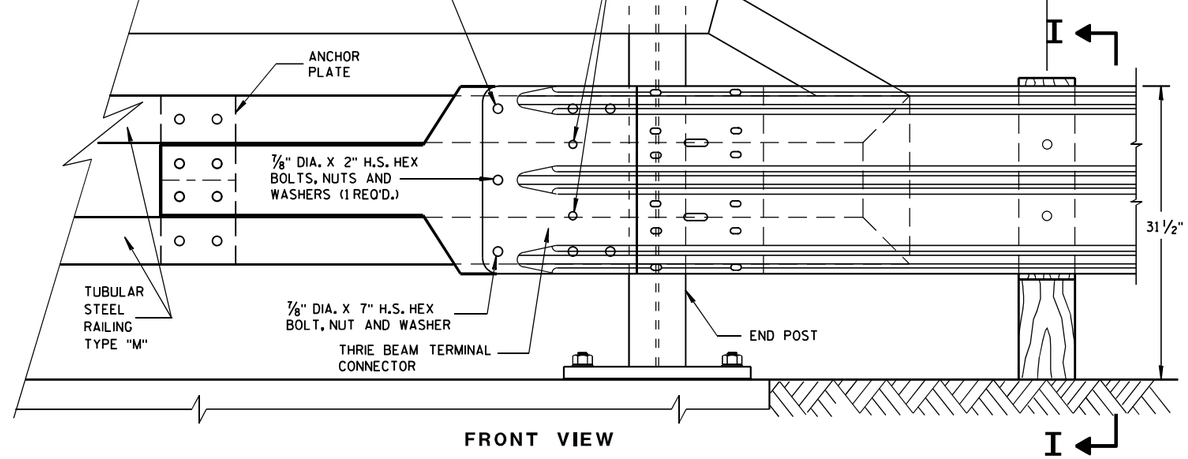


SECTION H-H

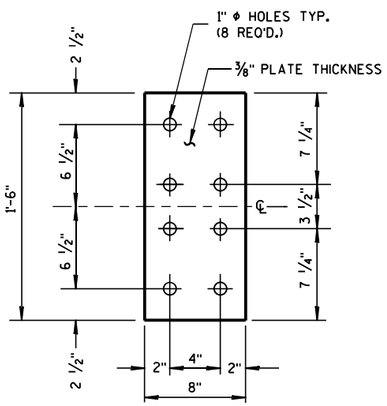


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

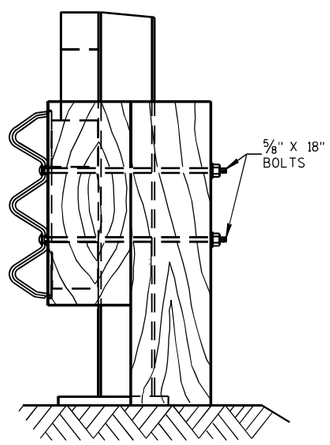


FRONT VIEW

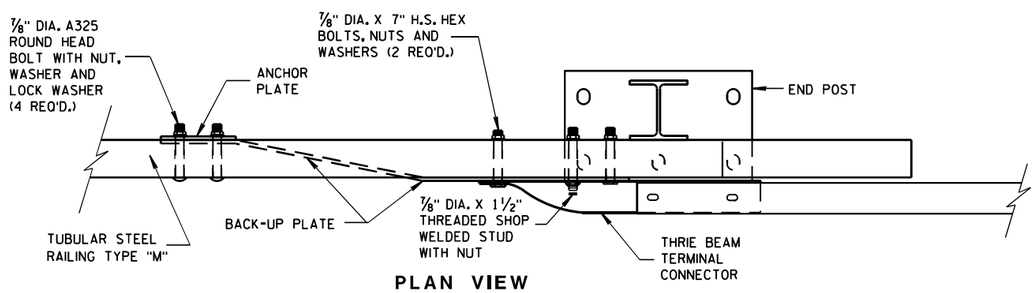


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

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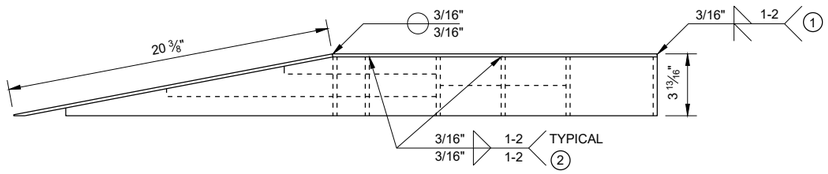
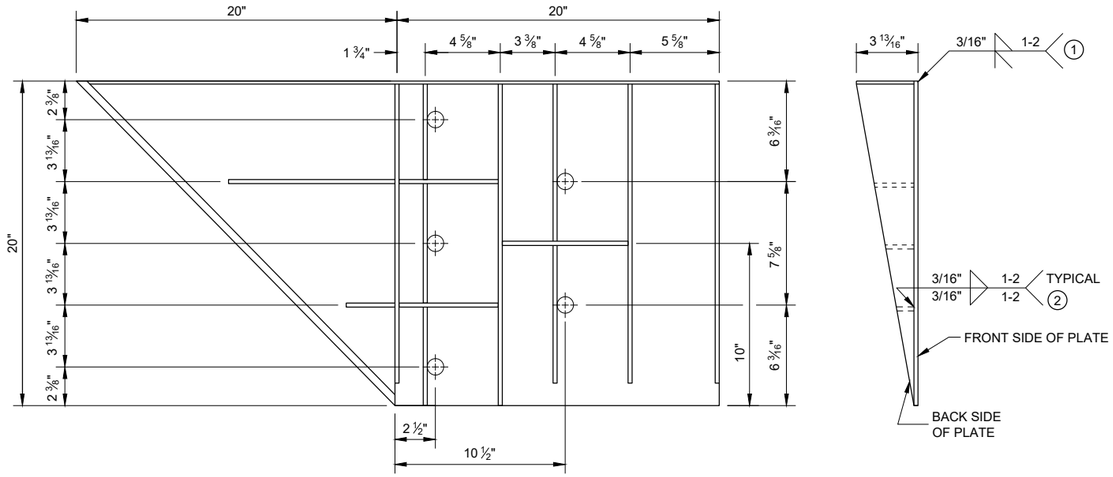
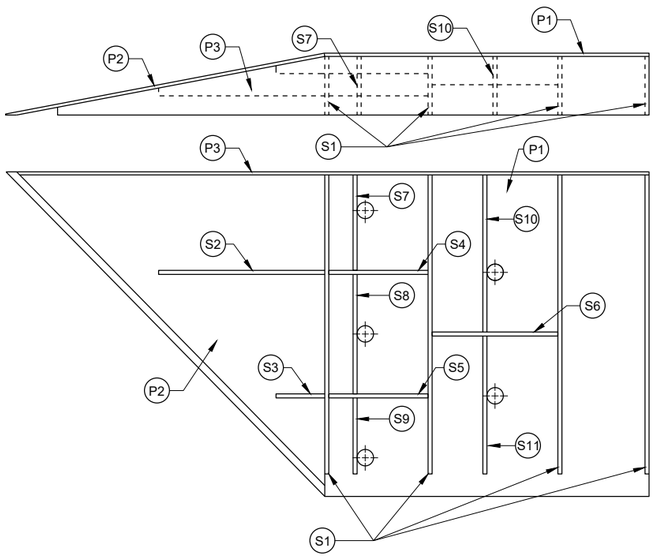




WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)



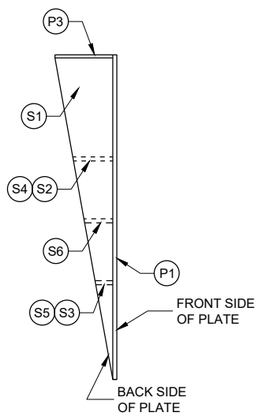


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION, MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATED DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

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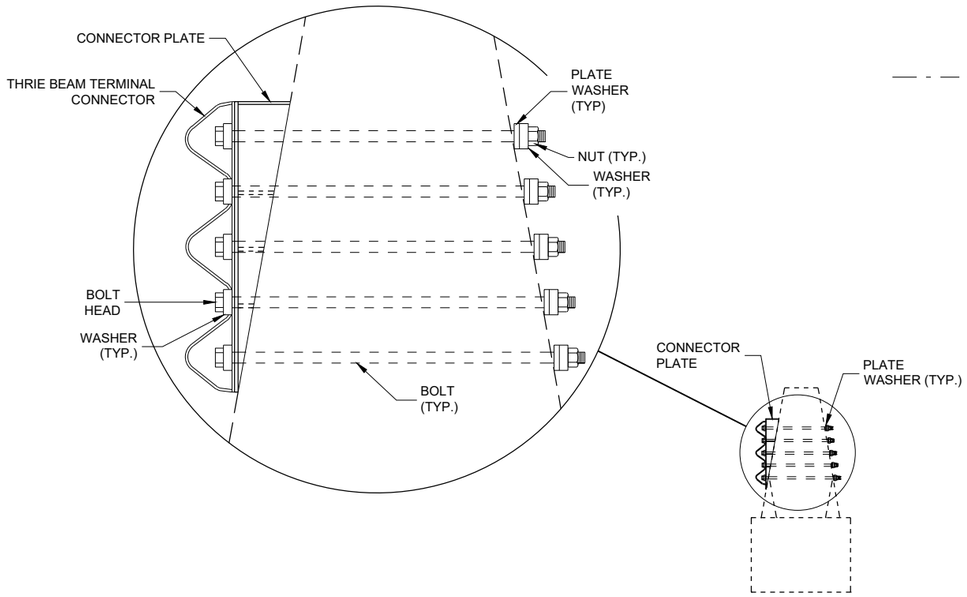
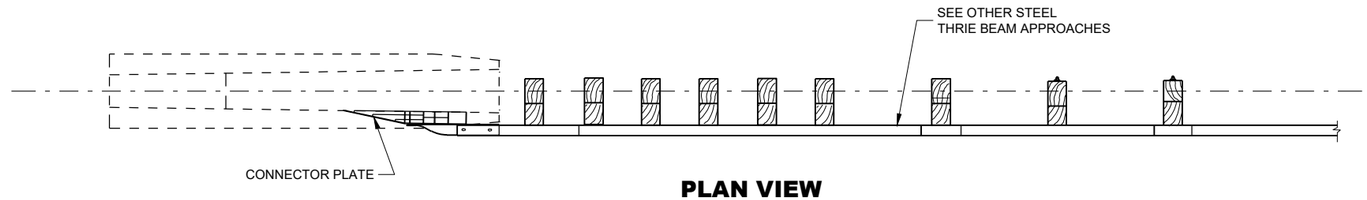
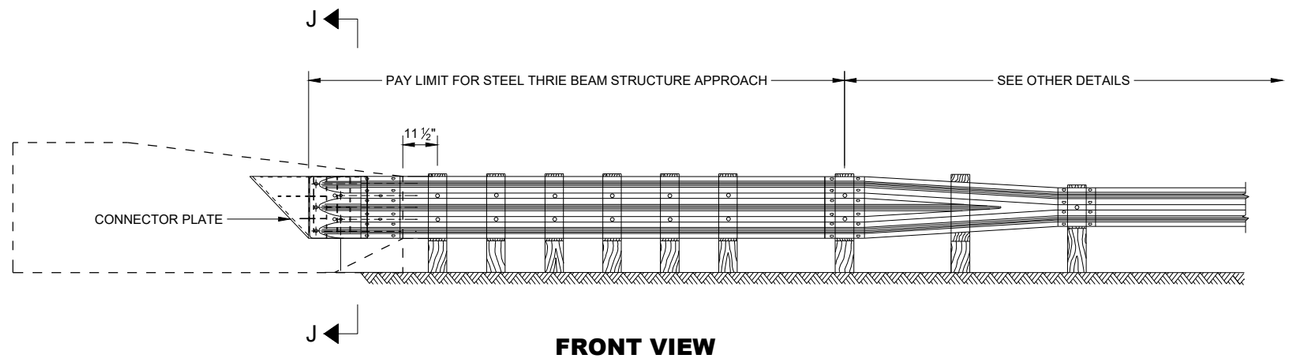


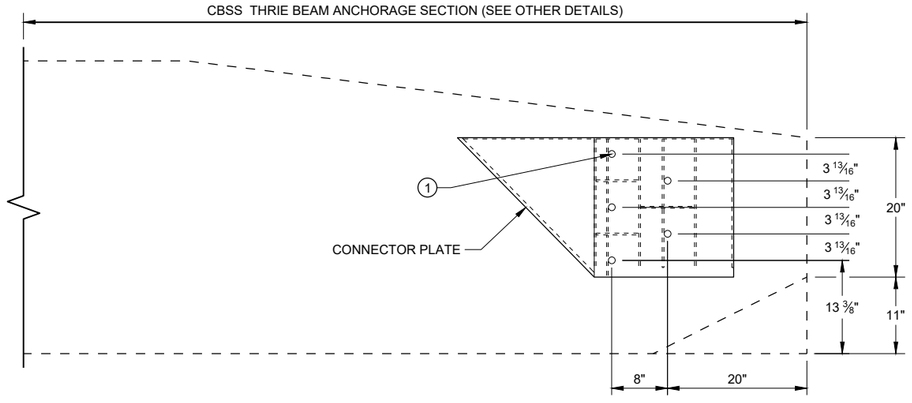
SECTION J - J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE PLACEMENT

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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STEEL THRIE BEAM STRUCTURE APPROACH

MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION

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BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

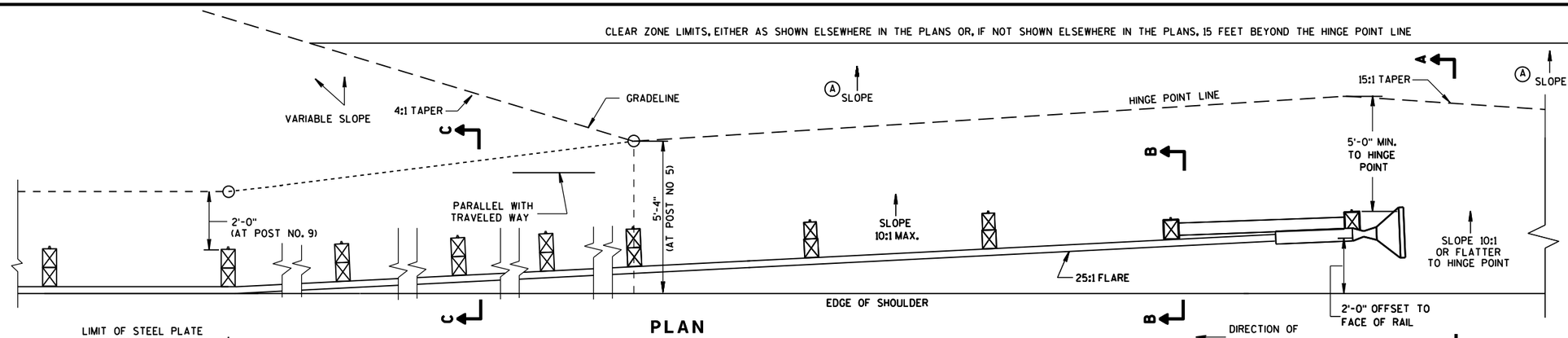
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

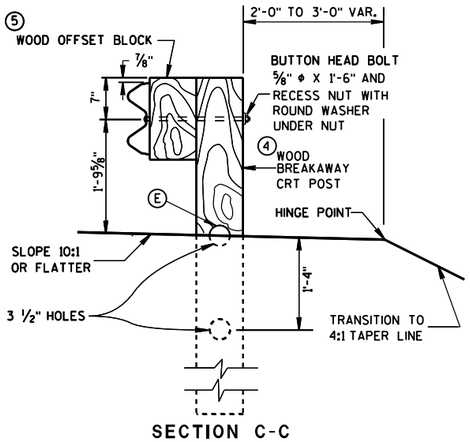
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

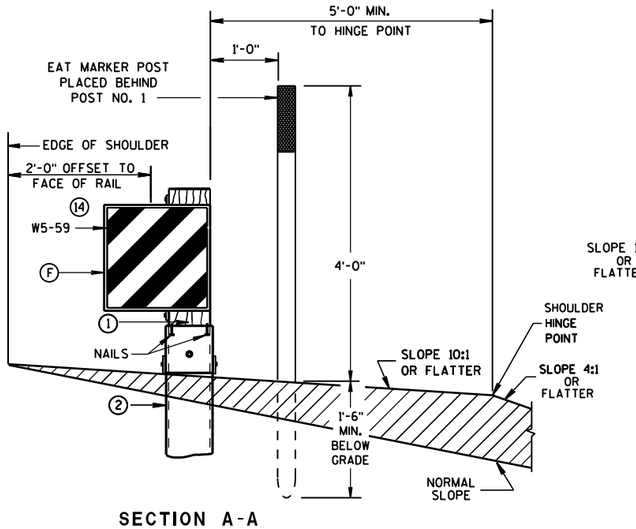
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

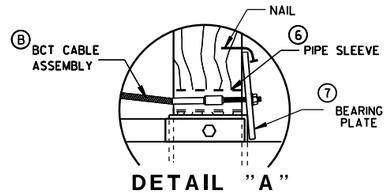




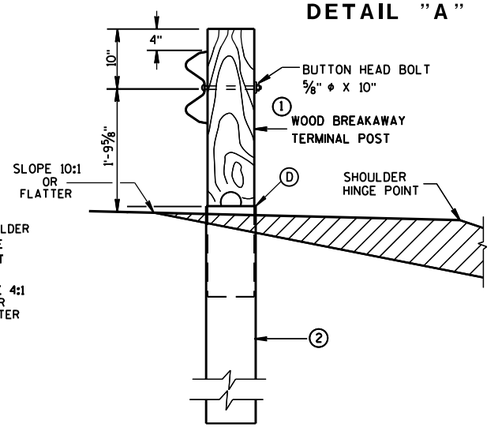
SECTION C-C
TYPICAL AT POST NOS. 6, 8



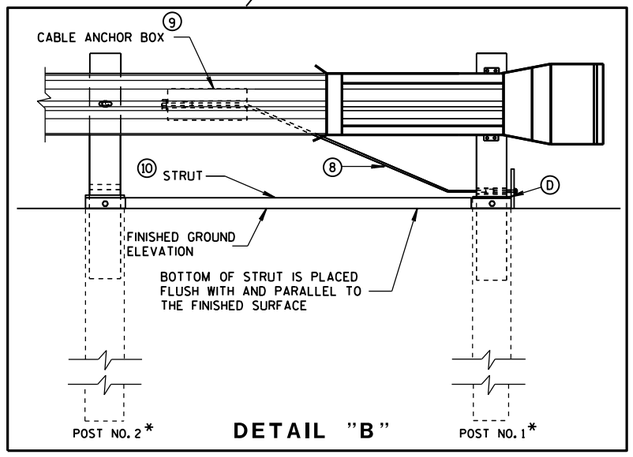
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*



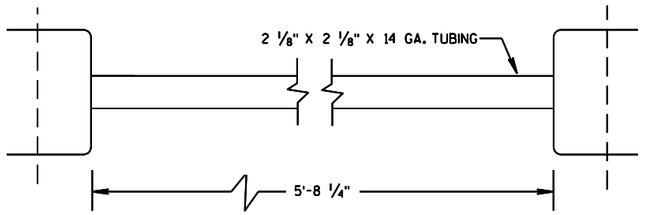
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

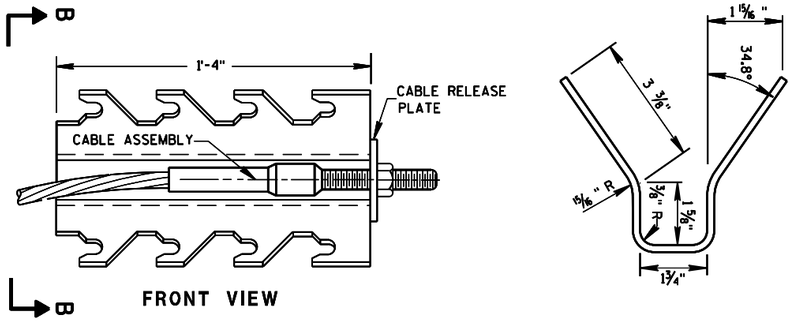
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

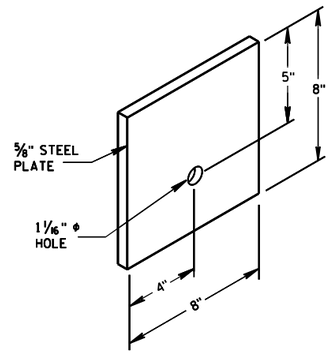
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

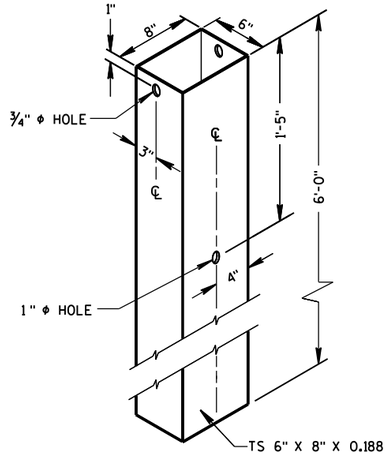
6

S.D.D. 14 B 24-9b

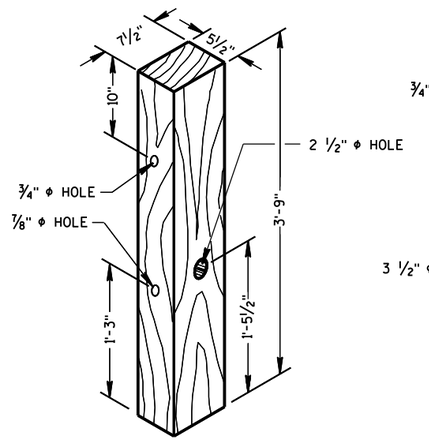
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

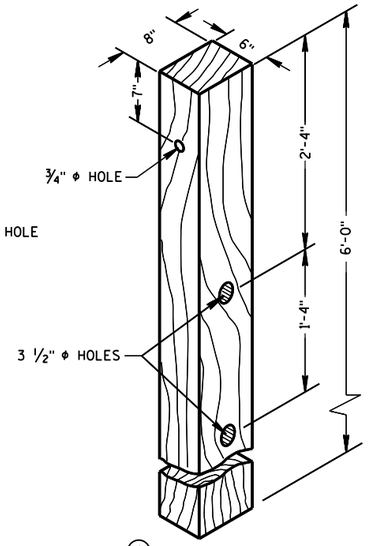
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

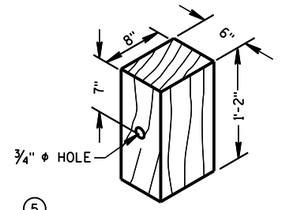


④ CRT POST
(POSTS NO'S 5-8

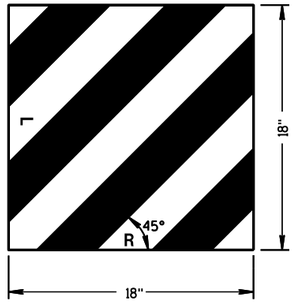
WOOD BREAKAWAY POSTS

GENERAL NOTES

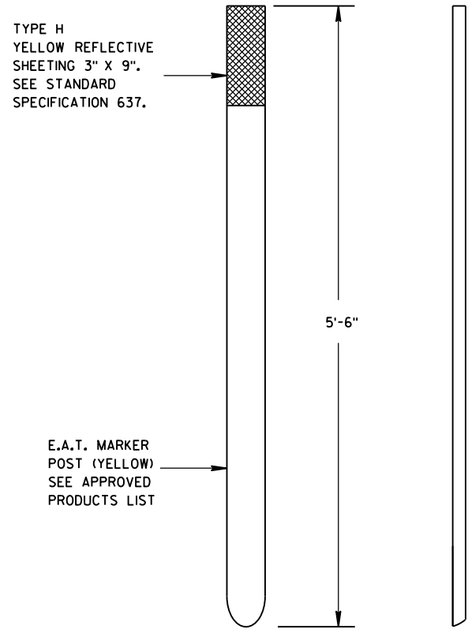
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV...
ENT

6

S.D.D. 14 B 24-9c

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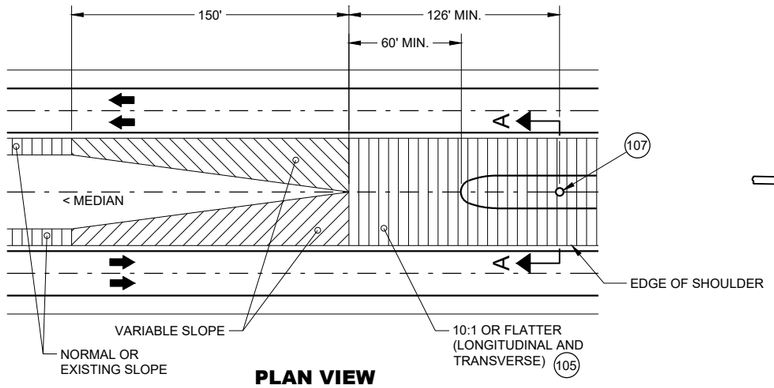
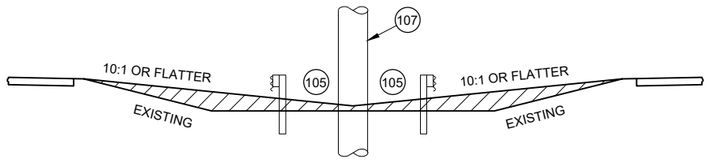
S.D.D. 14 B 24-9c



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

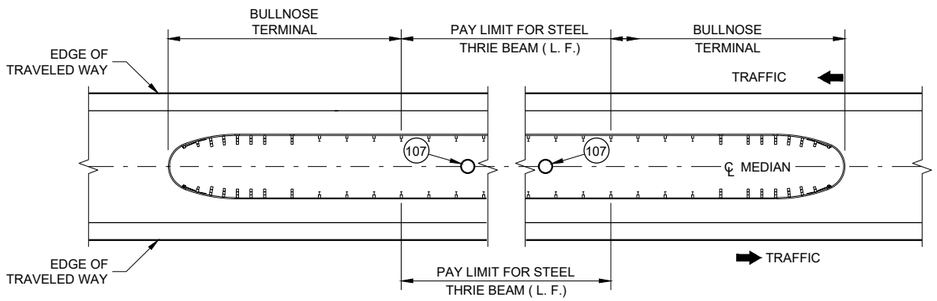
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

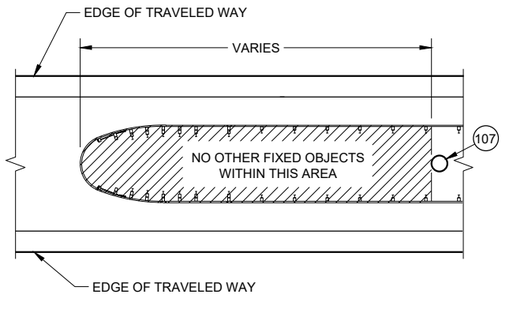
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

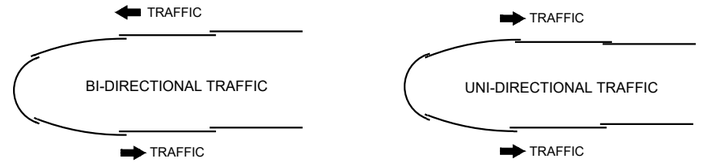
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



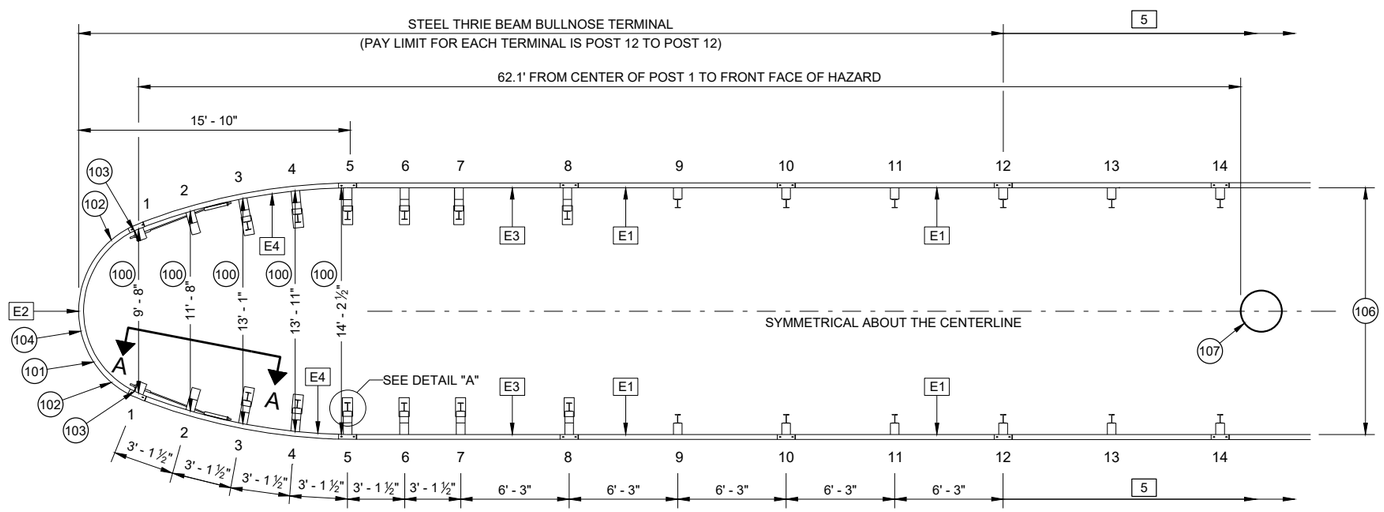
MEDIAN HAZARD PROTECTION PAY LIMITS



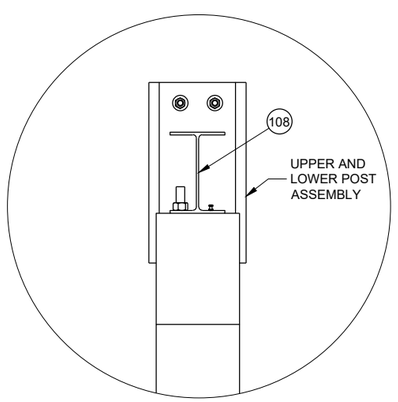
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



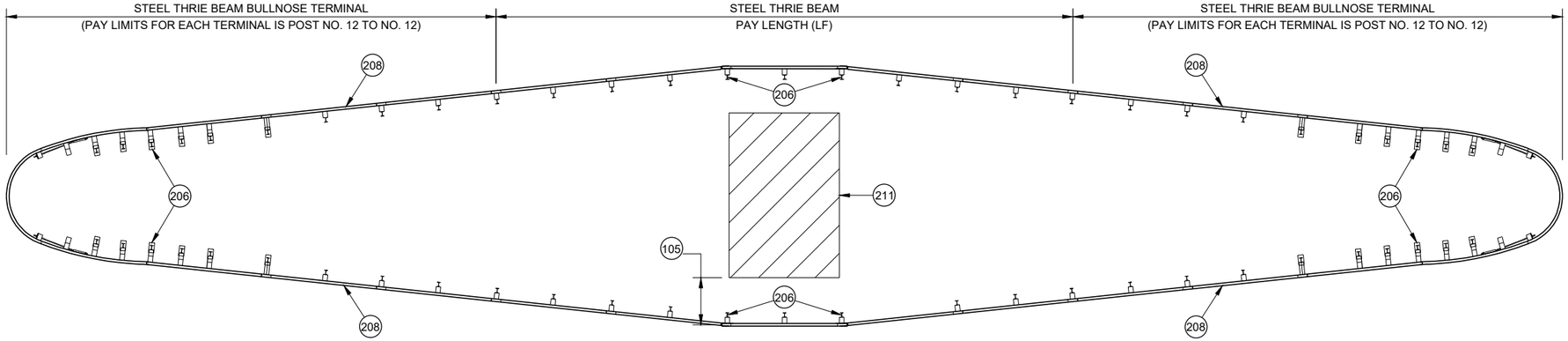
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 05a

SDD 14B26 - 05a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

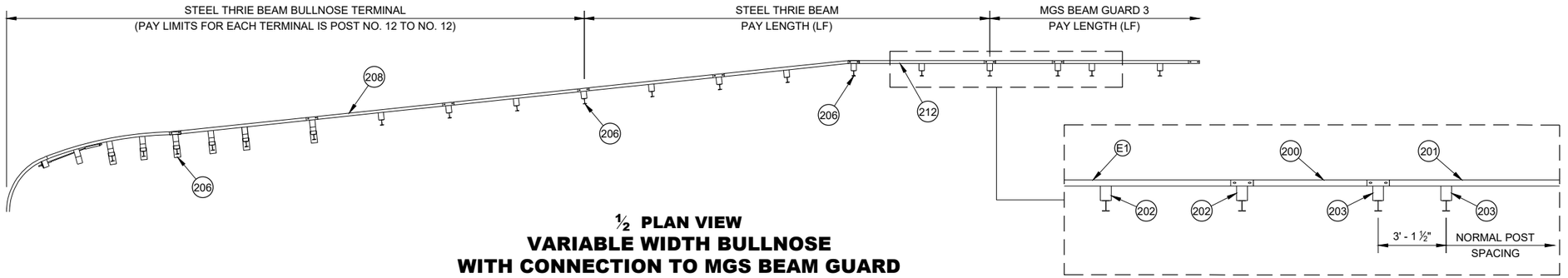
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

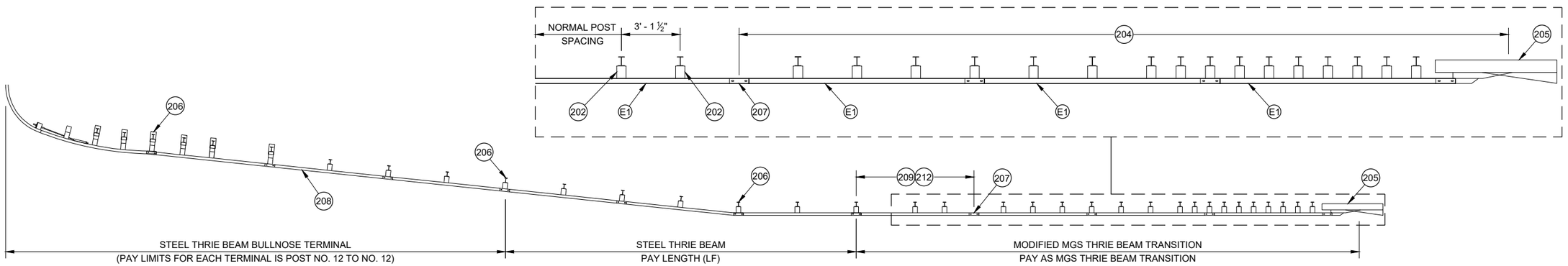
211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW

VARIABLE WIDTH BULLNOSE WITH CONNECTION TO MGS BEAM GUARD



½ PLAN VIEW

VARIABLE WIDTH BULLNOSE WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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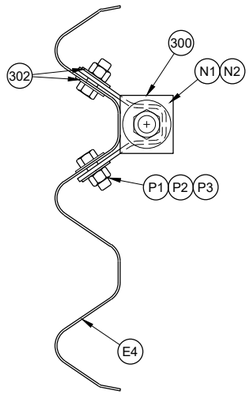
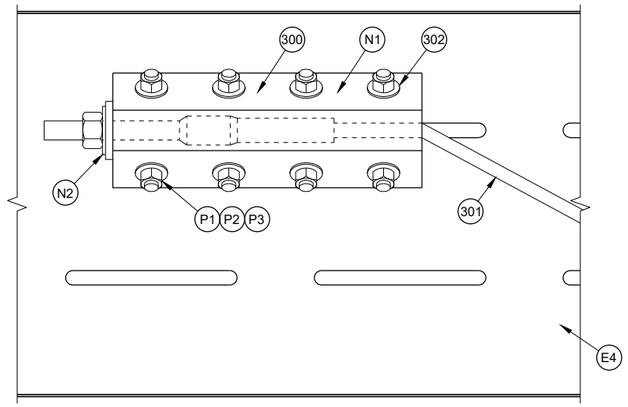
SDD 14B26 - 05b

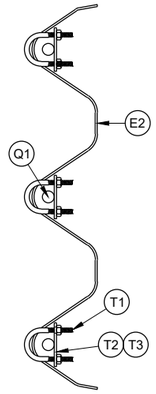


PROFILE VIEW

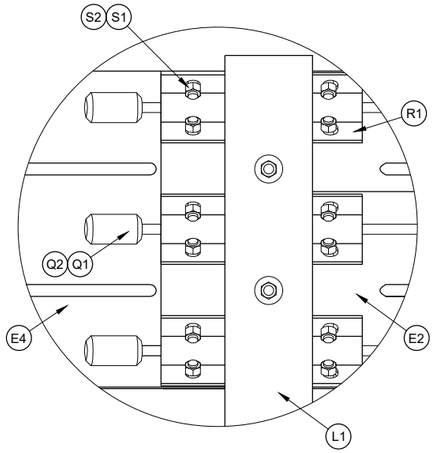
CABLE ANCHOR ASSEMBLY CONNECTION



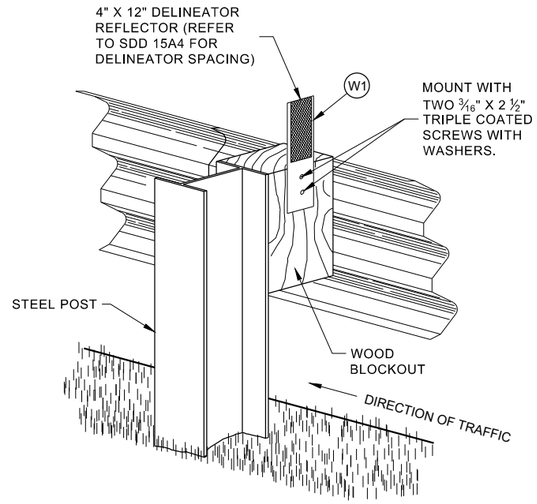
CABLE ANCHOR ASSEMBLY



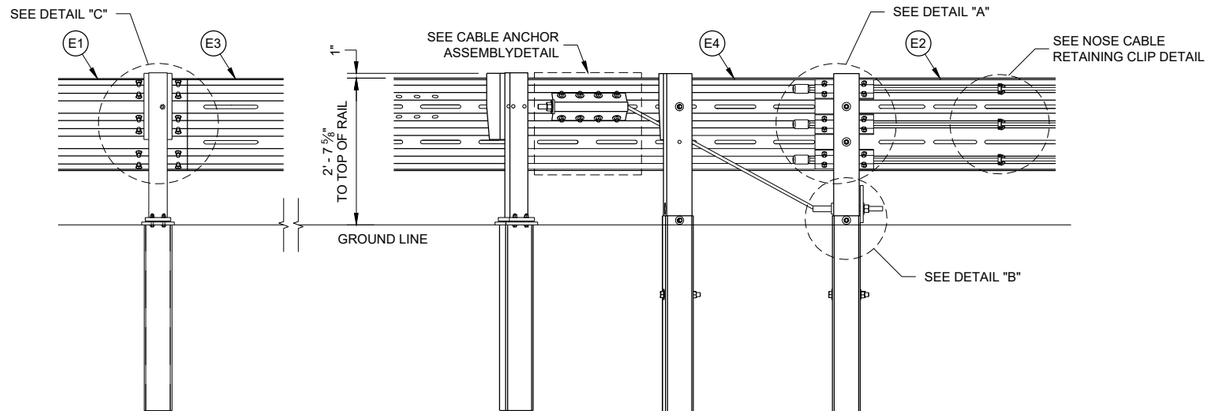
NOSE CABLE RETAINING CLIP



DETAIL "A"



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



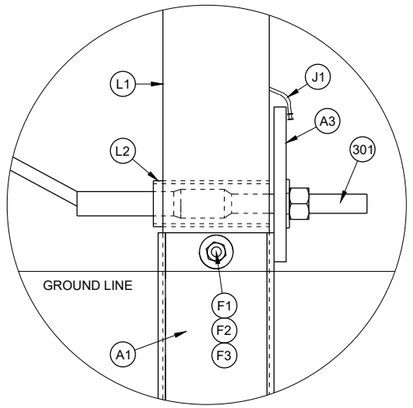
POST 8

POST 3

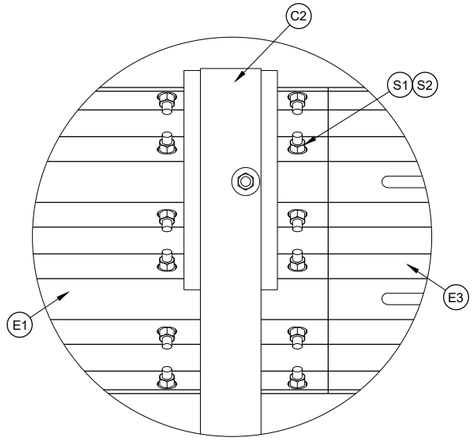
POST 2

POST 1

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 05c

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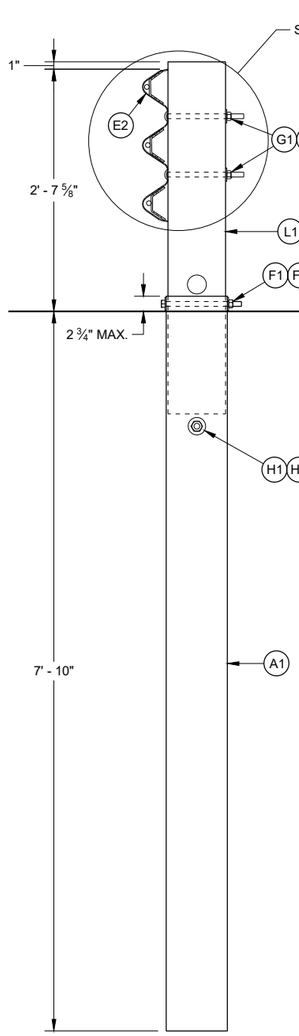
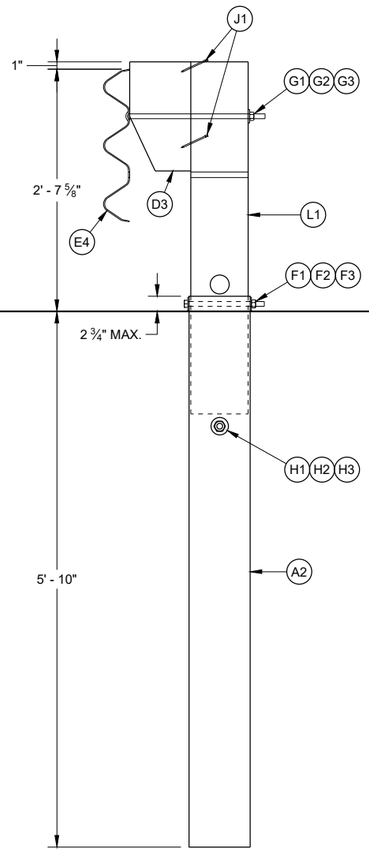
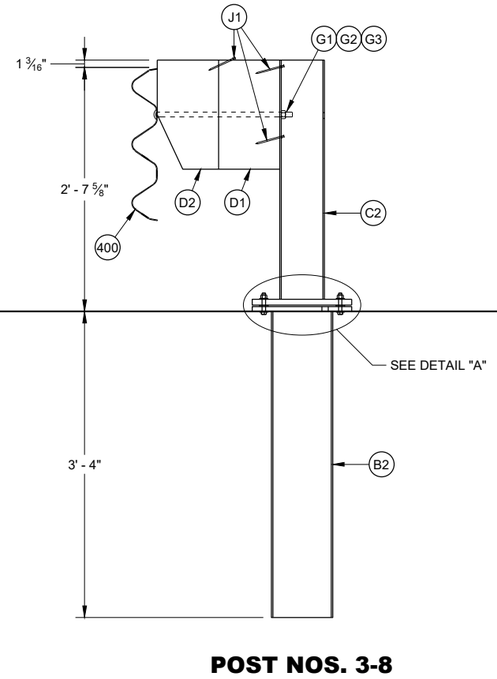
SDD 14B26 - 05c



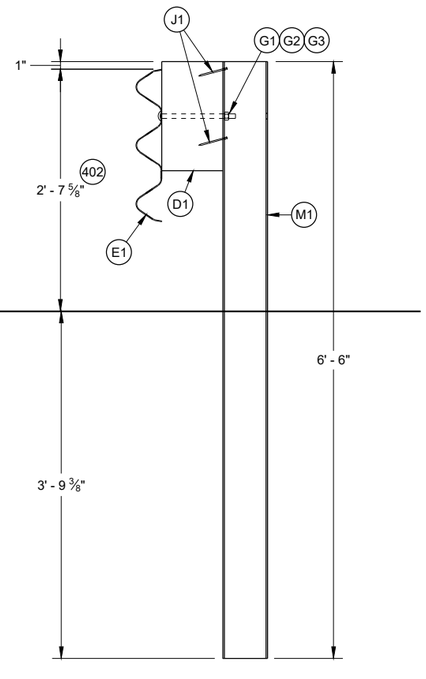
POST NO. 1



POST NO. 2



POST NOS. 3-8



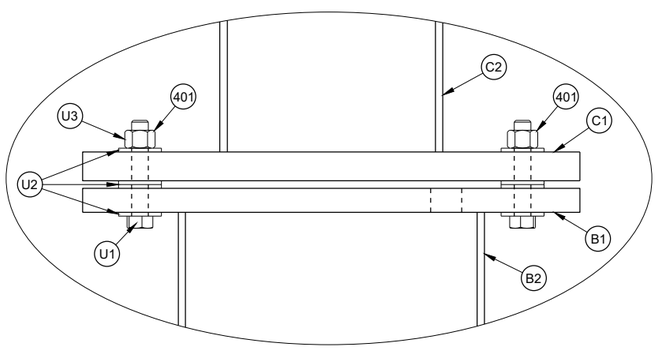
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

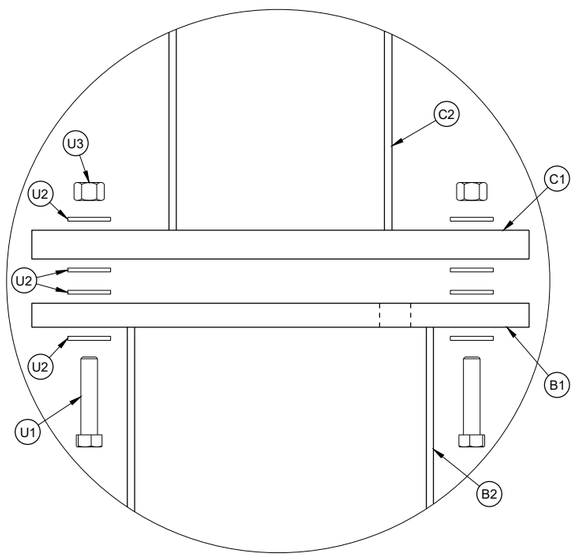
(400) RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

(401) TORQUE BOLD BETWEEN 60-75 FT-LB

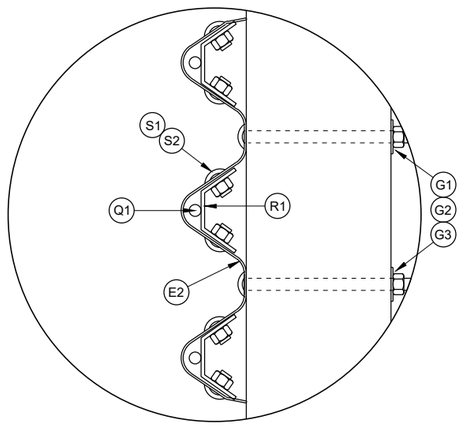
(402) HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



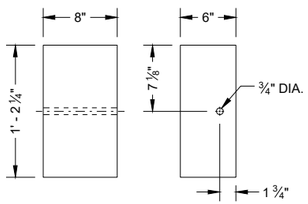
DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

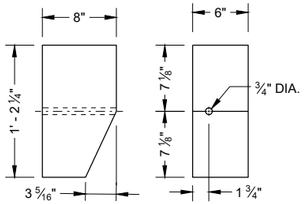
6

SDD 14B26 - 05d



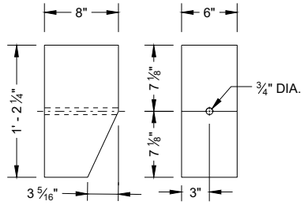
ELEVATION PROFILE

BLOCKOUT (D1)



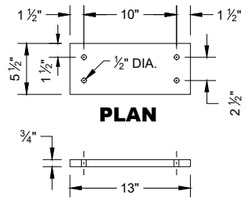
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

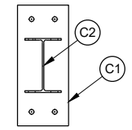
BLOCKOUT (D3)



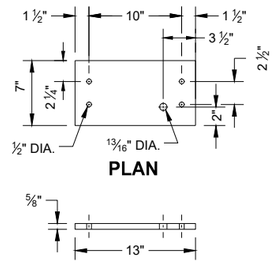
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



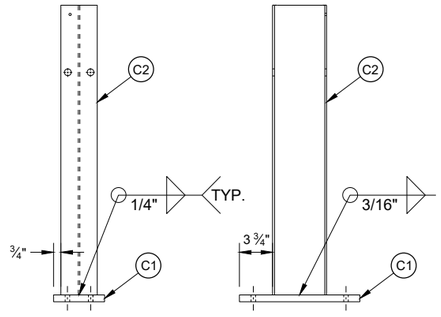
PLAN



PLAN

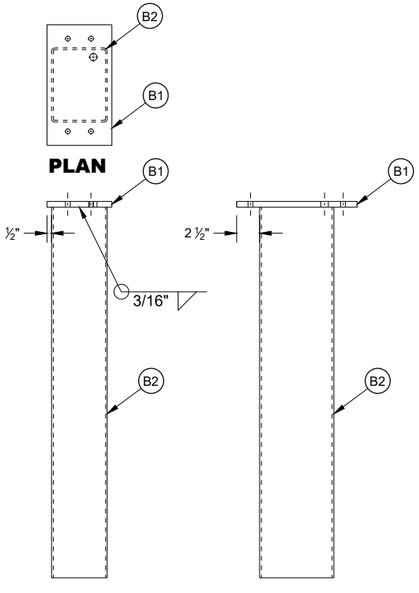
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

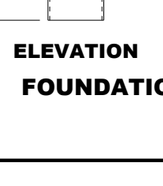
UPPER POST ASSEMBLY



PLAN

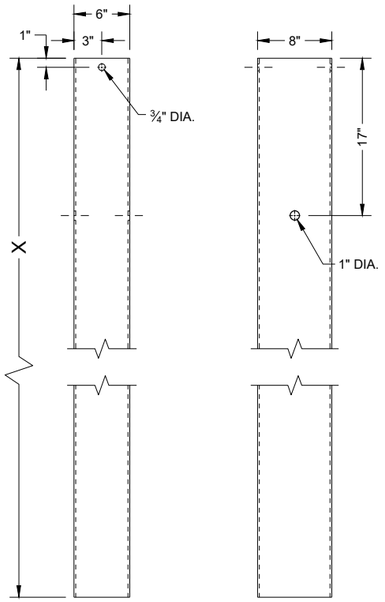
ELEVATION PROFILE

LOWER POST ASSEMBLY



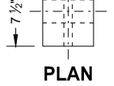
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 4"

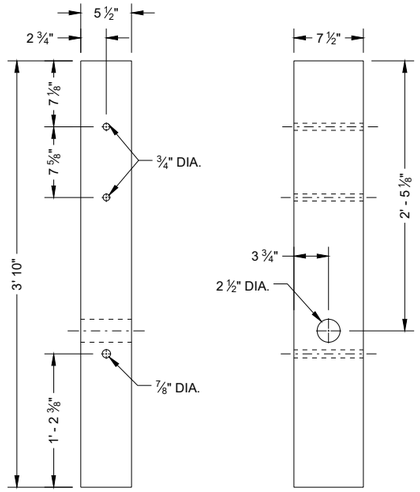


ELEVATION PROFILE

FOUNDATION TUBE

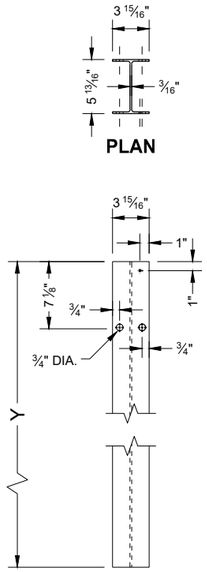


PLAN



ELEVATION PROFILE

BCT POST (L1)



PLAN

ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 7 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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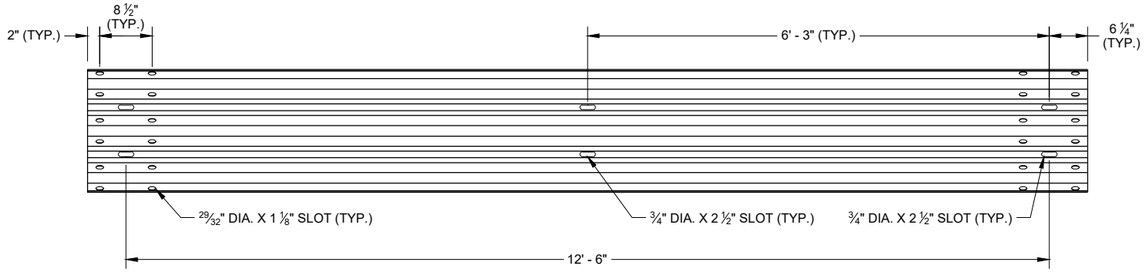
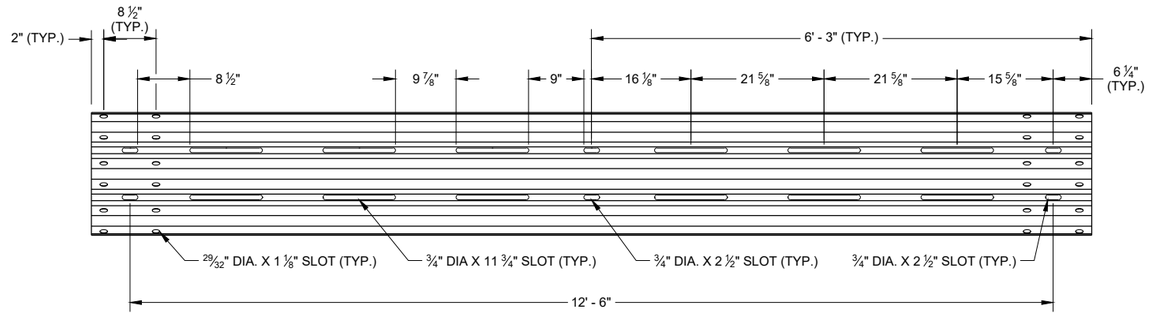
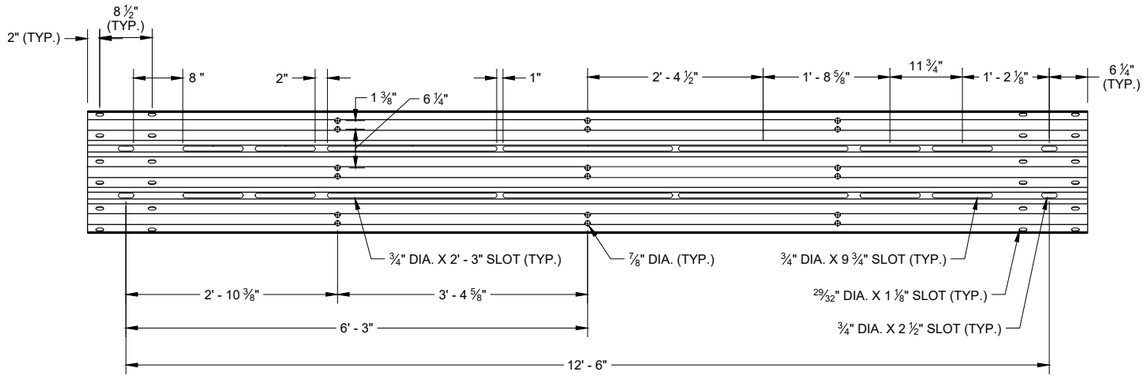


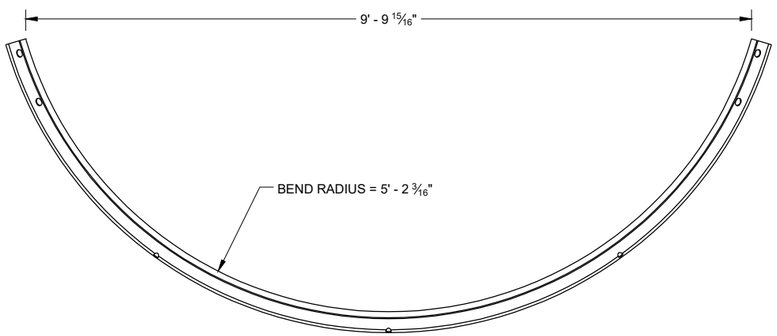
SLOTTED THRIE BEAM RAIL E1



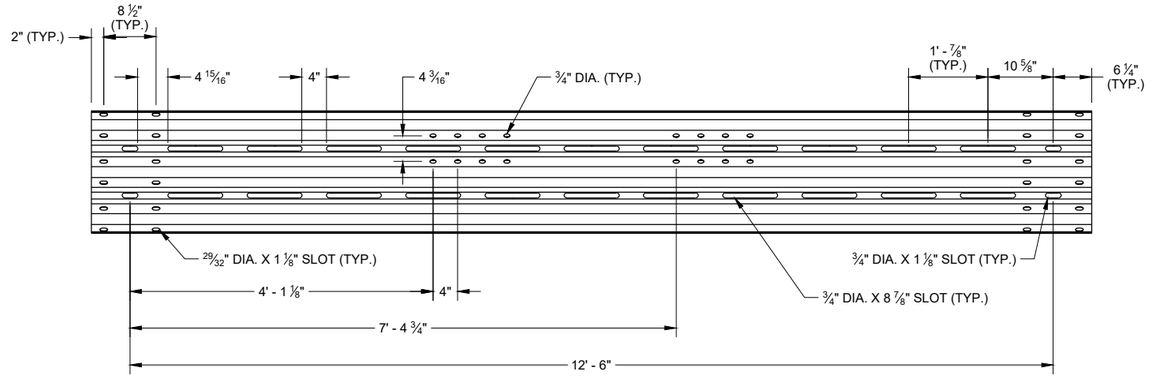
SLOTTED THRIE BEAM RAIL E3



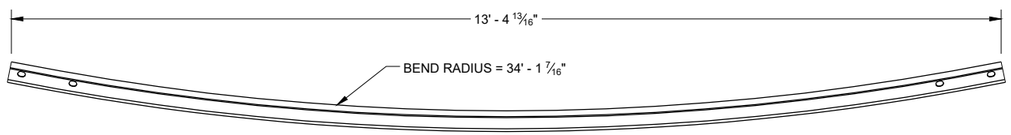
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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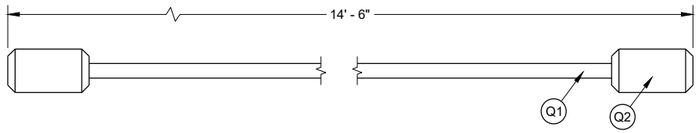
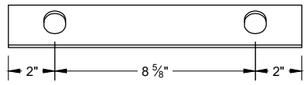
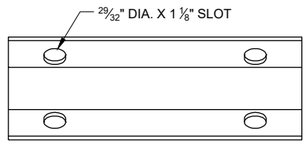


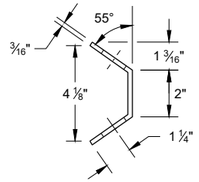
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

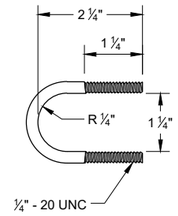


ELEVATION VIEW

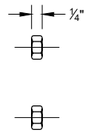


PROFILE VIEW

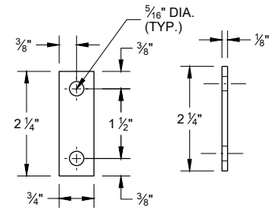
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

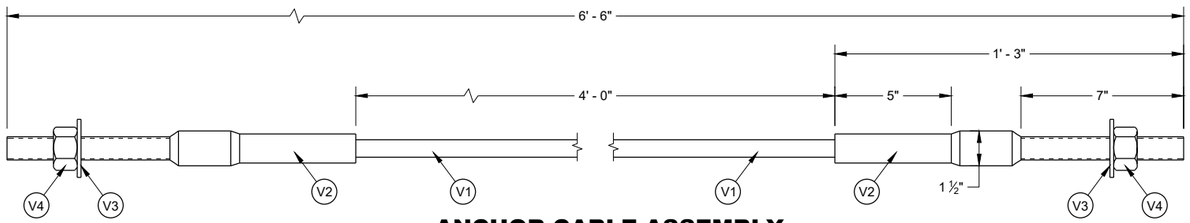


U - BOLT NUT (T3)

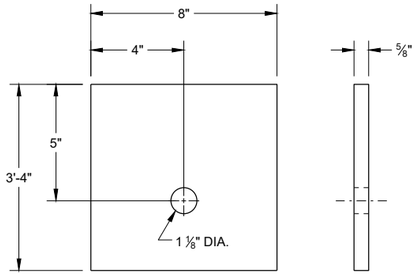


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

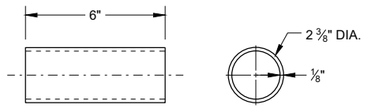


ANCHOR CABLE ASSEMBLY



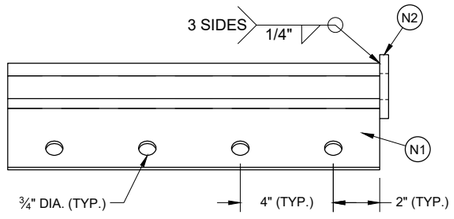
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

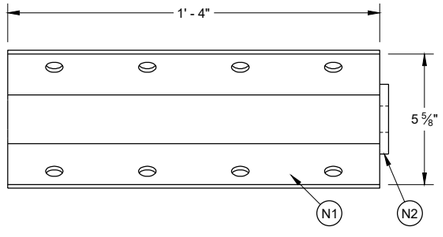


ELEVATION VIEW **PROFILE VIEW**

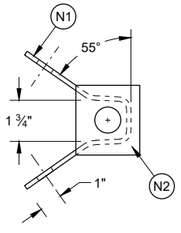
BCT POST SLEEVE (L2)



PLAN VIEW

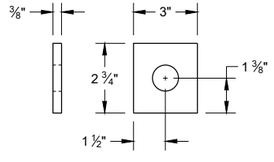


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B26 - 05g

BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B1	LOWER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N1	ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N2	ANCHOR BRACKET - BEARING PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
W1	REFLECTOR	SEE SDD 15A4

6

SDD 14B26 - 05h

6

SDD 14B26 - 05h

STEEL THRIE BEAM BULLNOSE TERMINAL

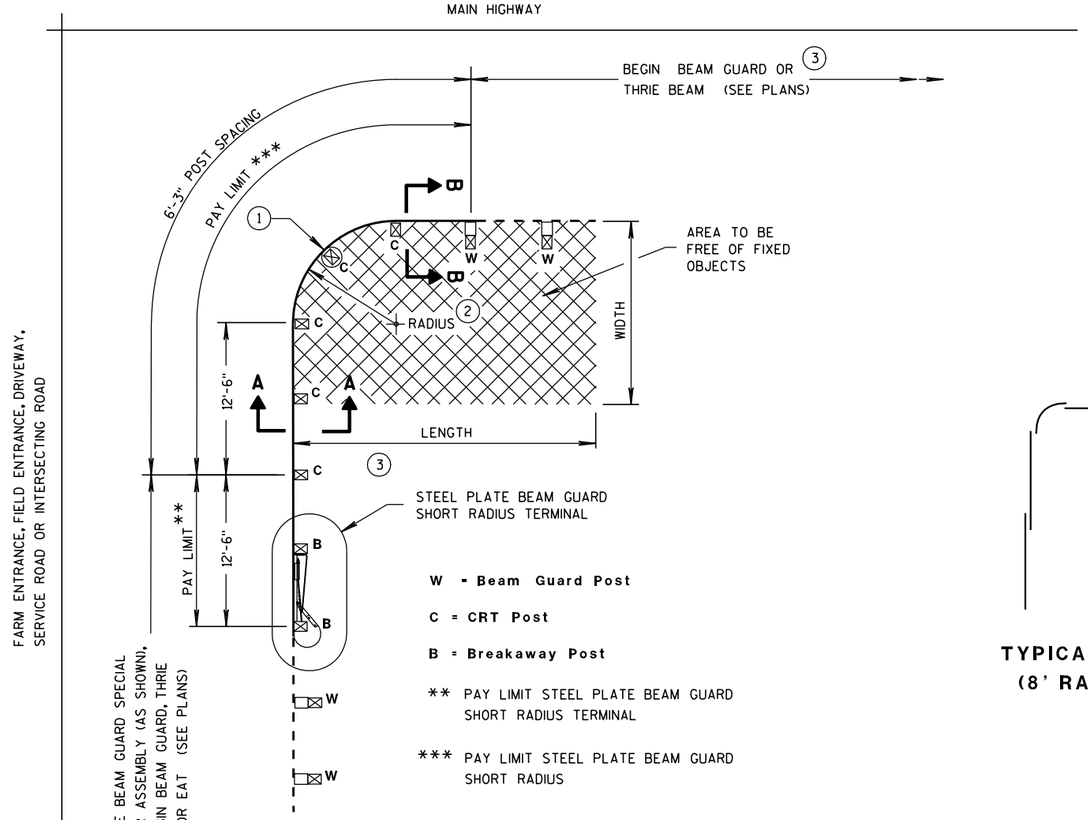
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

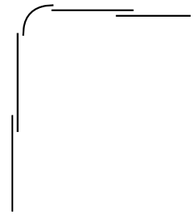
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

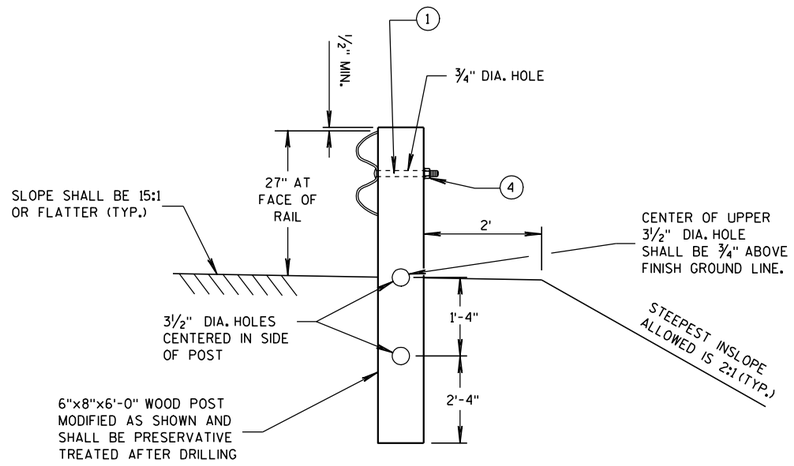
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

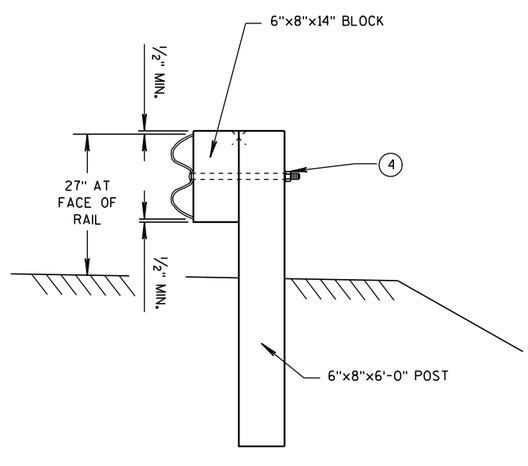
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	265

6

S.D.D. 14 B 27-1a

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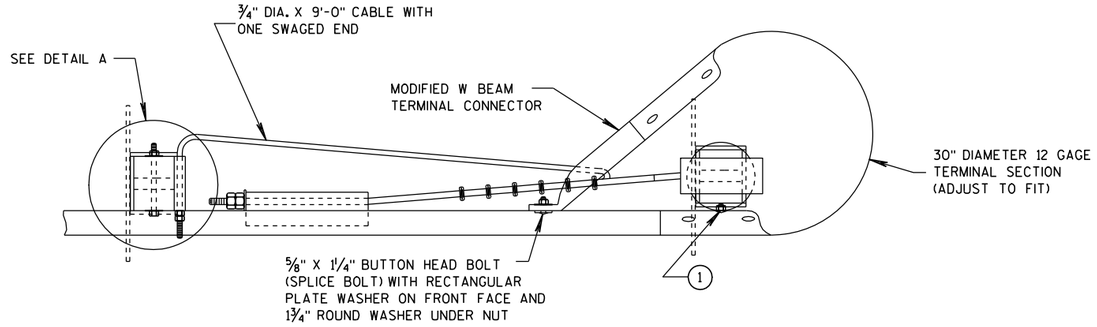
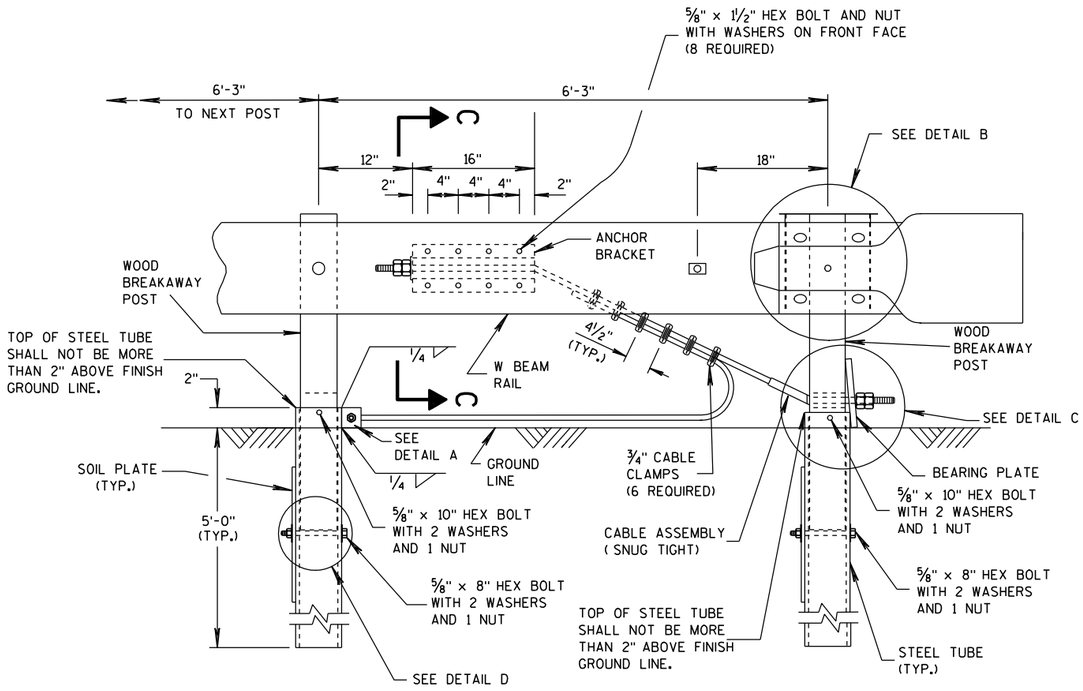
S.D.D. 14 B 27-1a



PLAN VIEW



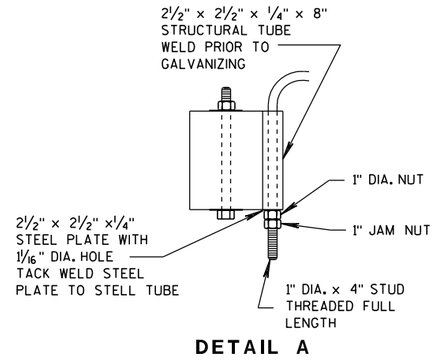
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

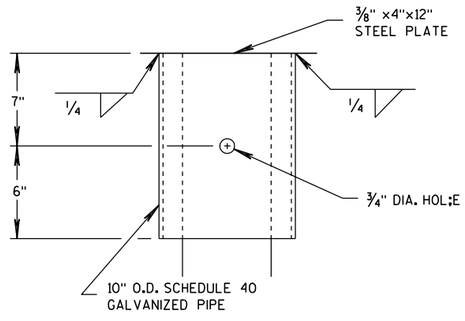
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 27-1b

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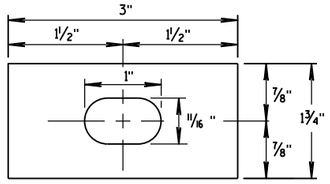
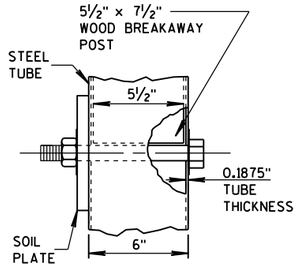
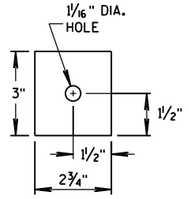
S.D.D. 14 B 27-1b



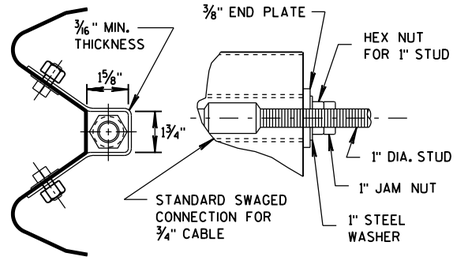
RECTANGULAR PLATE WASHER



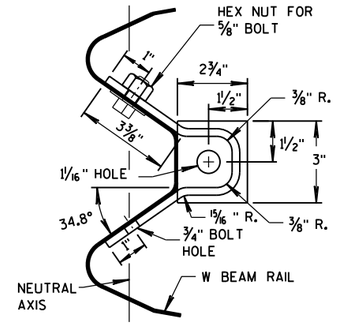
DETAIL D



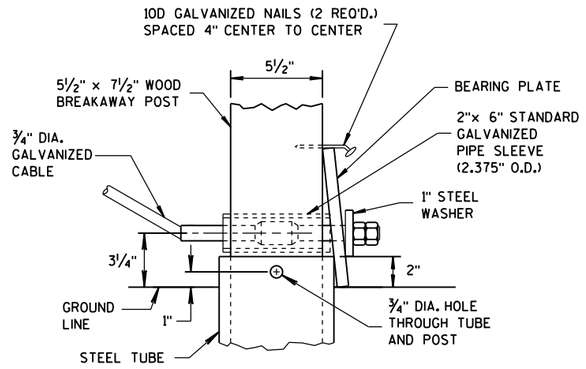
END PLATE



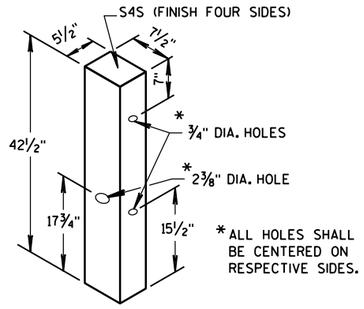
SECTION C-C
(END PLATE REMOVED)



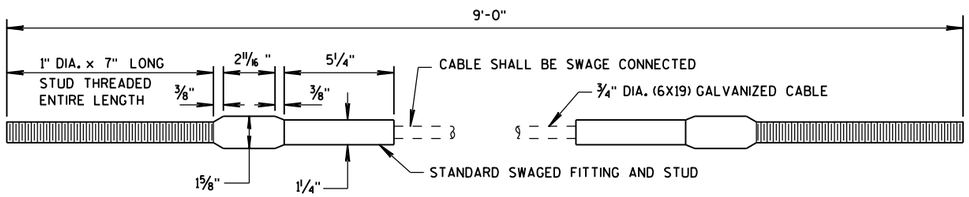
ANCHOR BRACKET



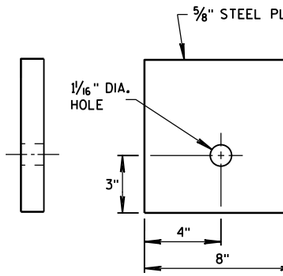
DETAIL C



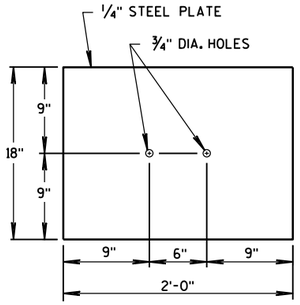
WOOD BREAKAWAY POST



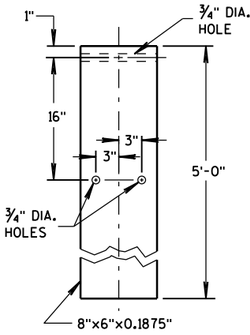
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

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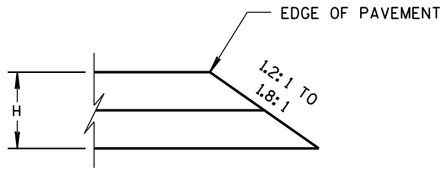
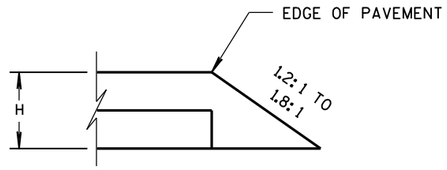
S.D.D. 14 B 27-1c



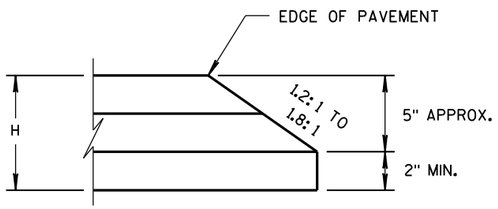
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



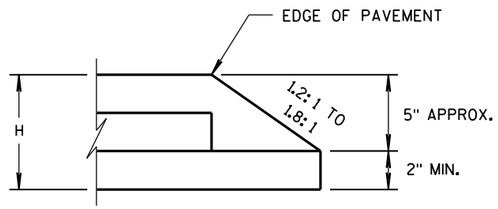
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

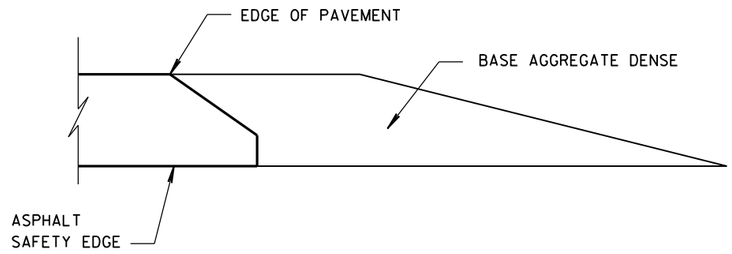
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(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.

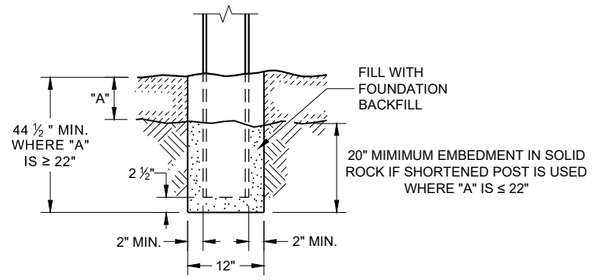
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

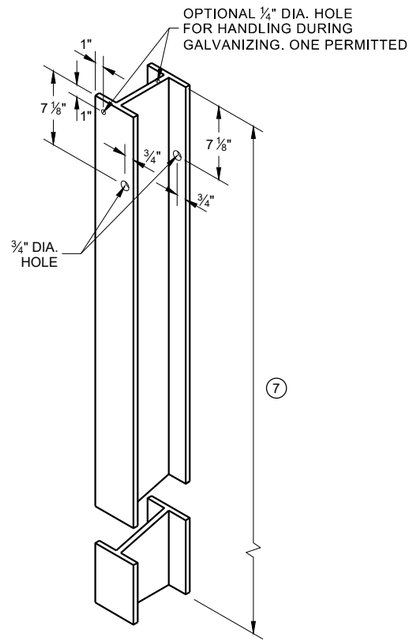
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

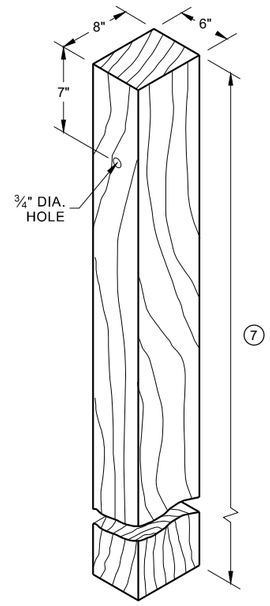
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



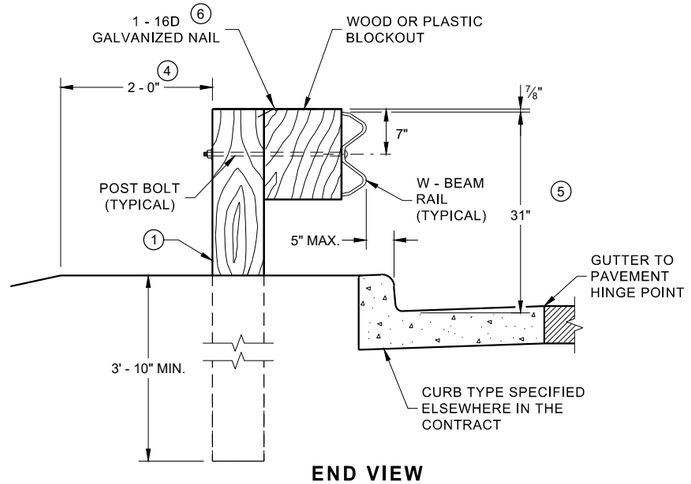
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



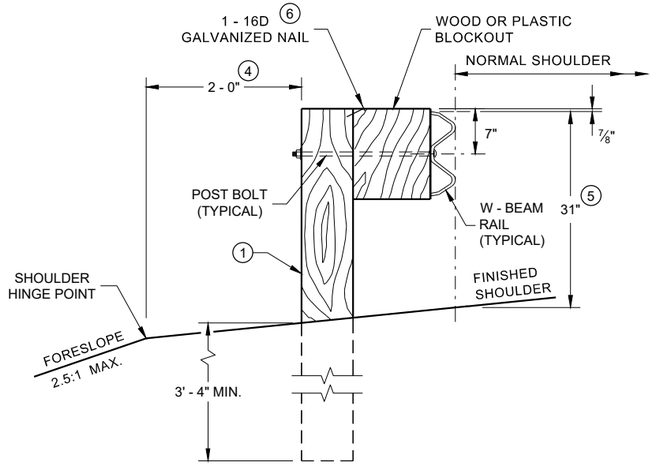
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



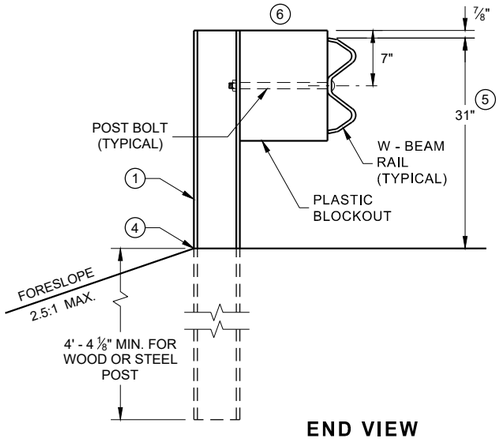
WOOD POST (6" X 8") NOMINAL (1)



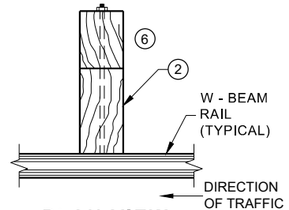
END VIEW
LOCATED ALONG A CURBED ROADWAY



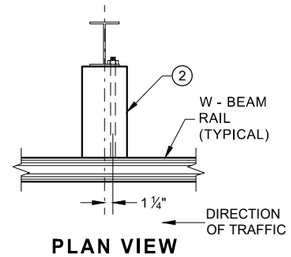
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



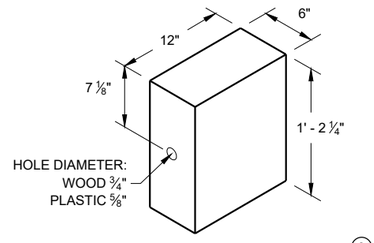
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

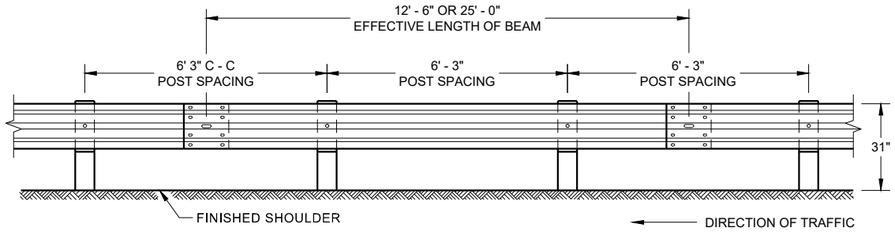
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

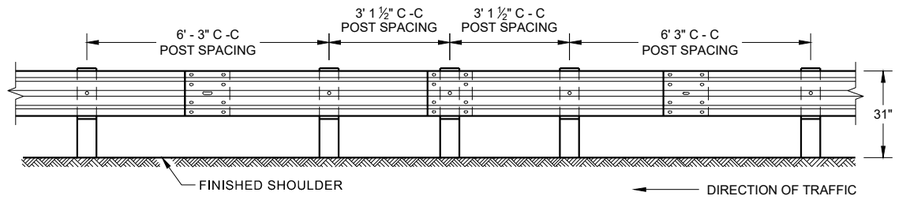
SDD 14B42 - 07a

6

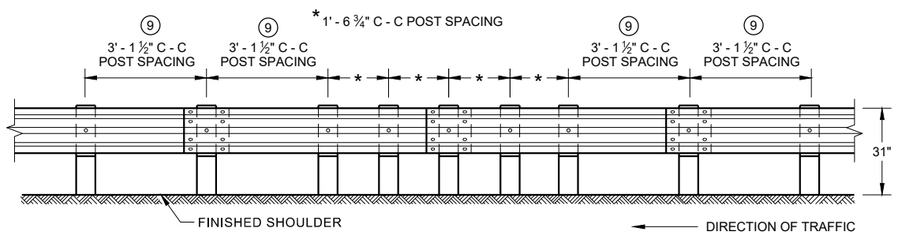
SDD 14B42 - 07a



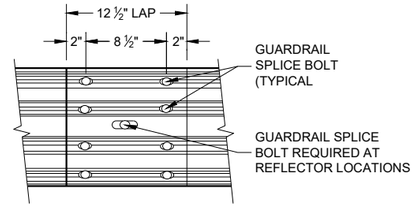
FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

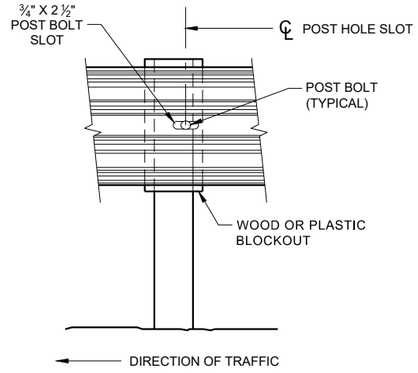
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

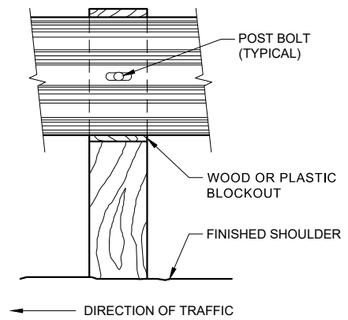
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" 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.

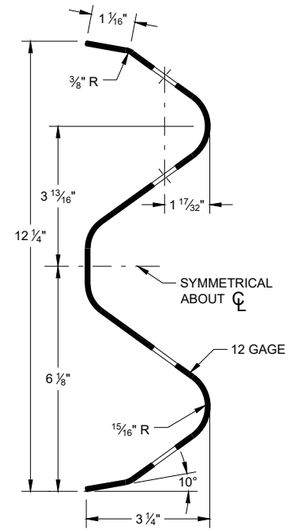
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



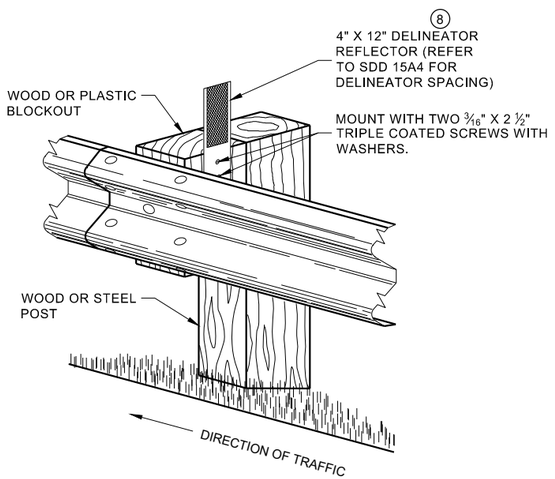
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

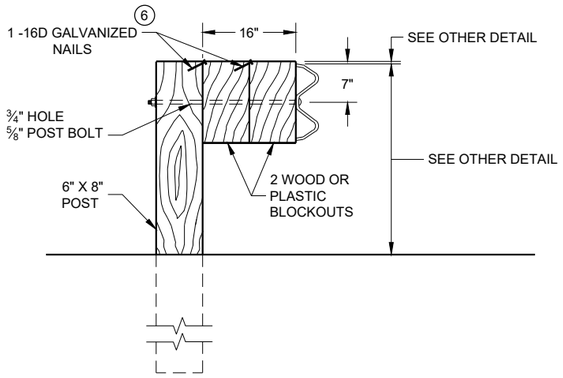


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

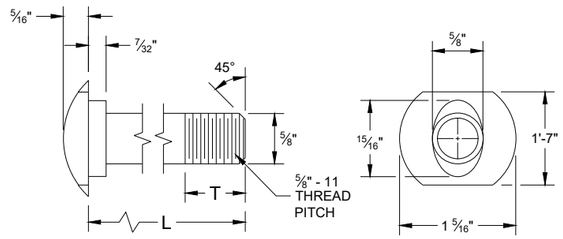


DETAIL FOR 16" BLOCKOUT DEPTH

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.

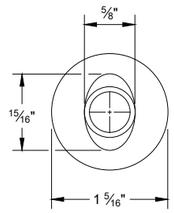
NOTE:

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.

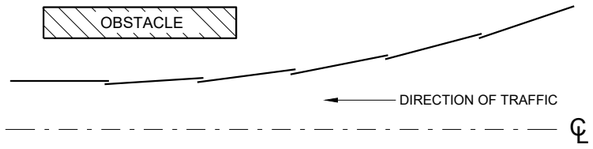


POST BOLT TABLE

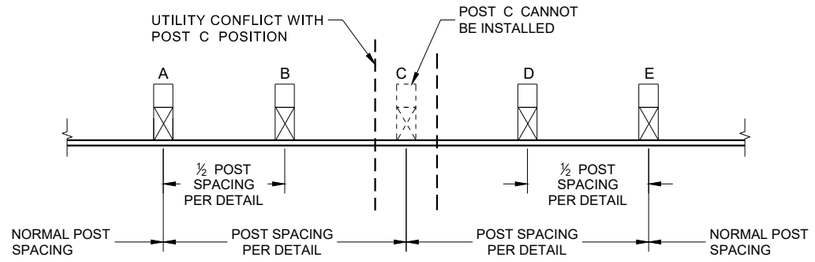
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



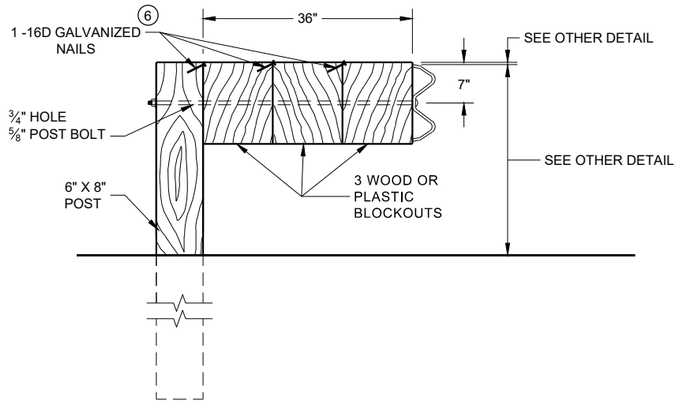
ALTERNATE BOLT HEAD



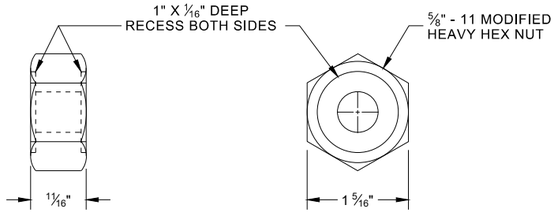
PLAN VIEW
BEAM LAPPING DETAIL



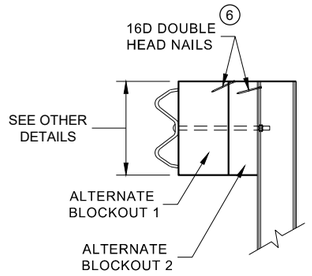
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



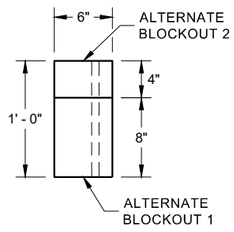
DETAIL FOR 36" BLOCKOUT DEPTH



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

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.

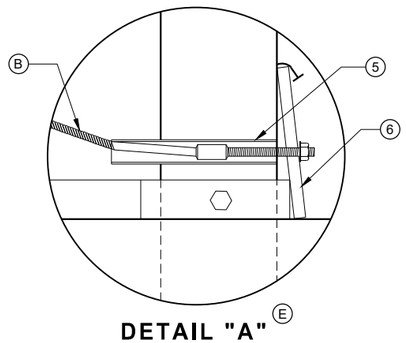
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

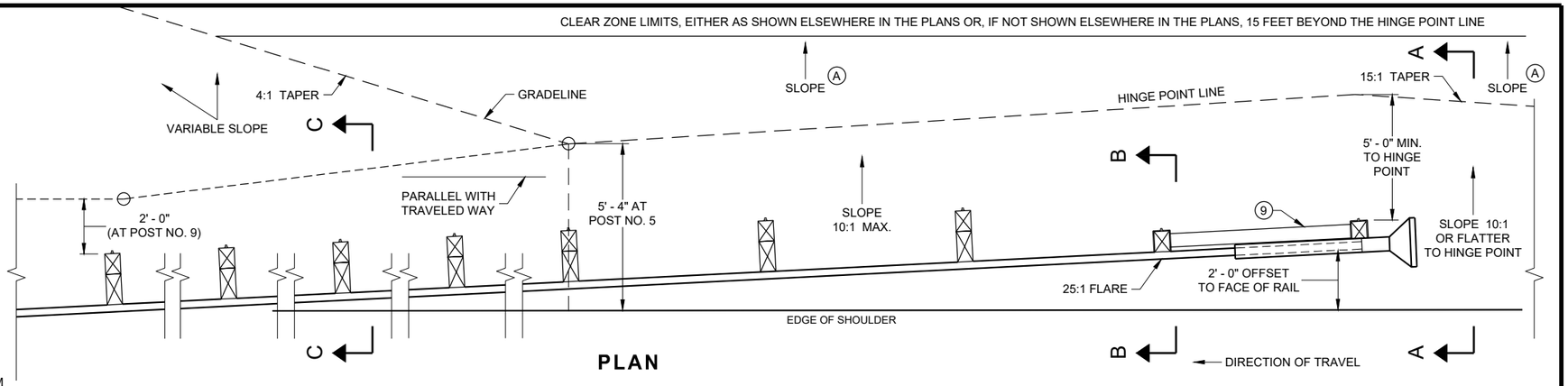
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

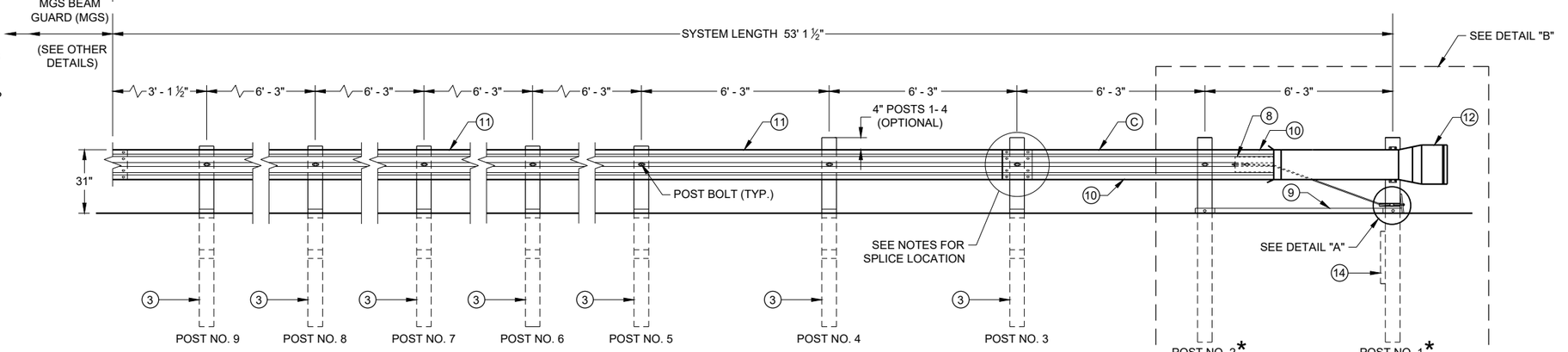
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



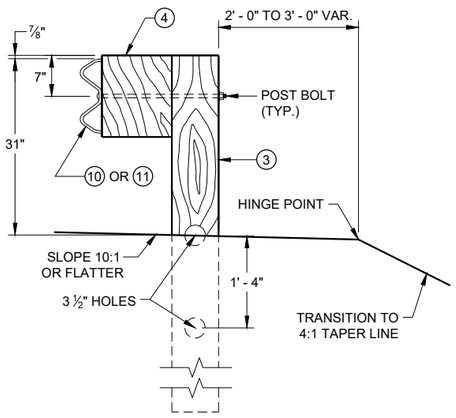
DETAIL "A" (E)



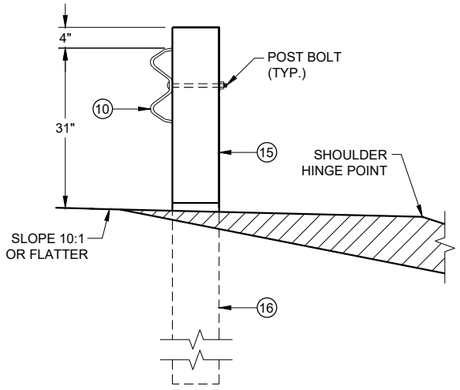
PLAN



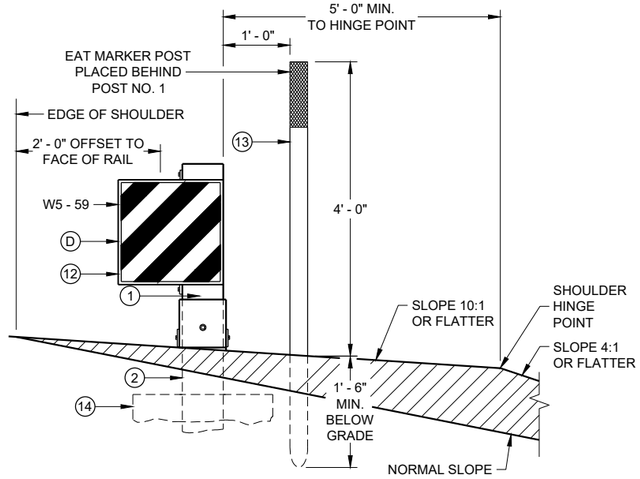
ELEVATION



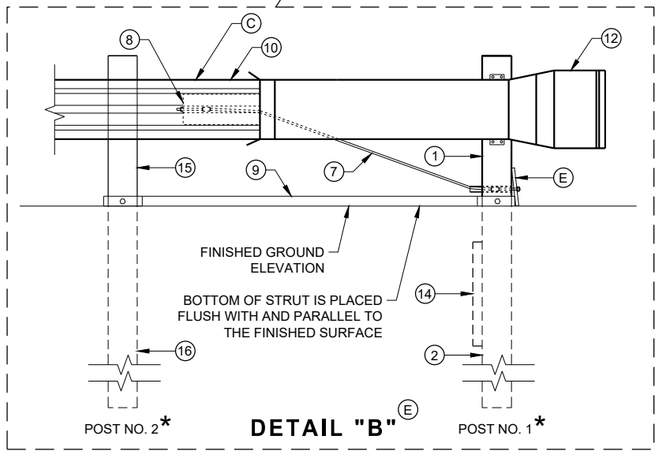
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



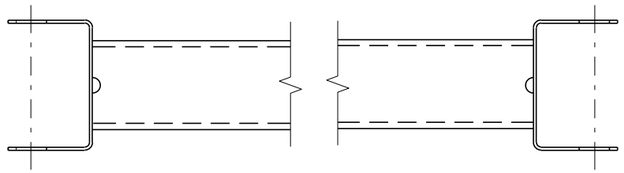
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

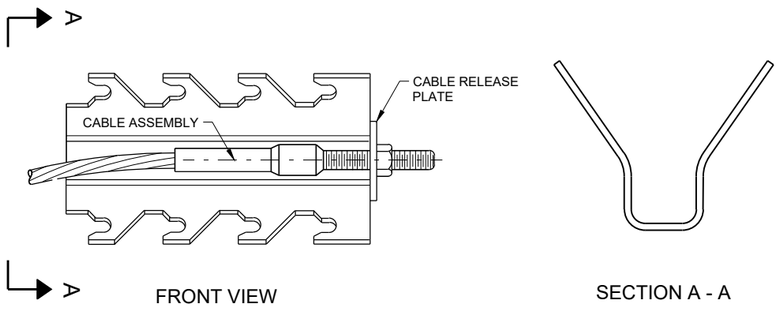
SDD 14B44 - 04a



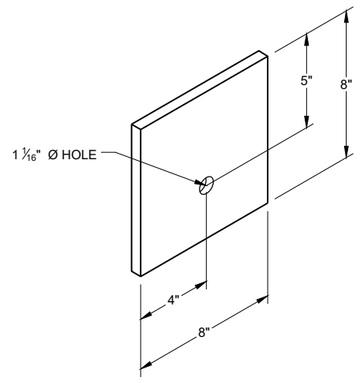
GENERIC GROUND STRUT (9) (E)

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) (E)



BEARING PLATE (6) (E)

6

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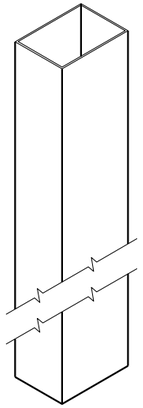
SDD 14B44 - 04b

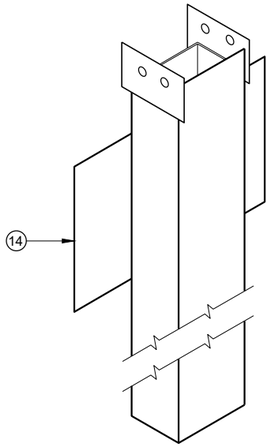
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

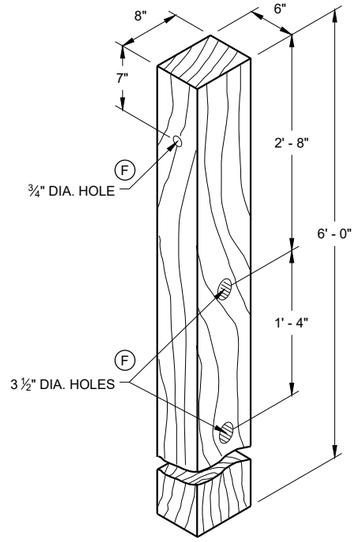
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



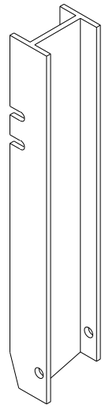
UPPER POST NO. 1 (1) (E)



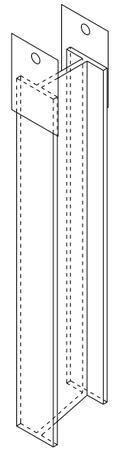
LOWER POST NO. 1 (2) (E)



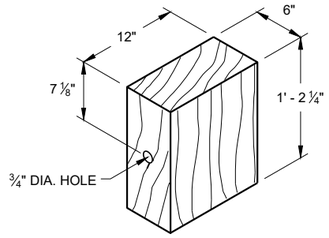
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



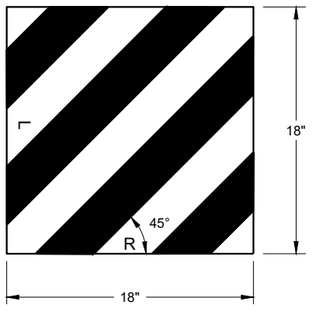
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

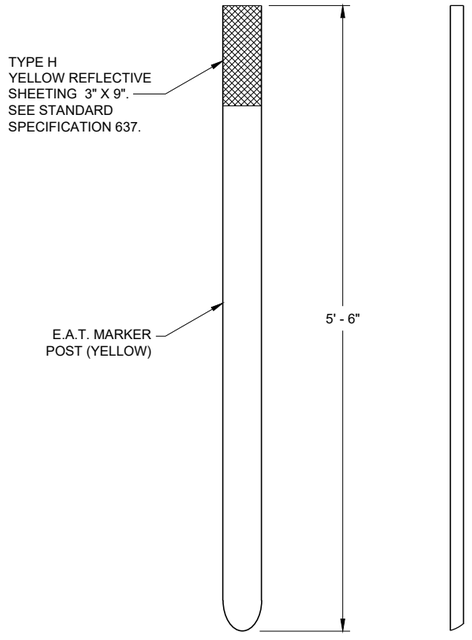


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



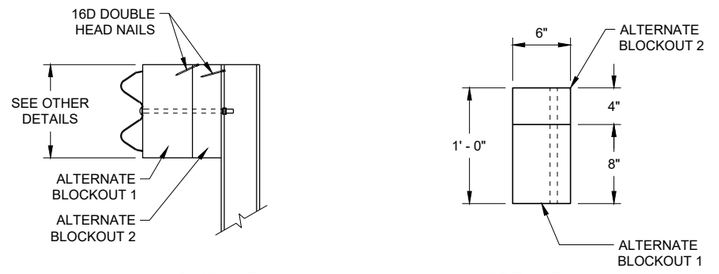
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

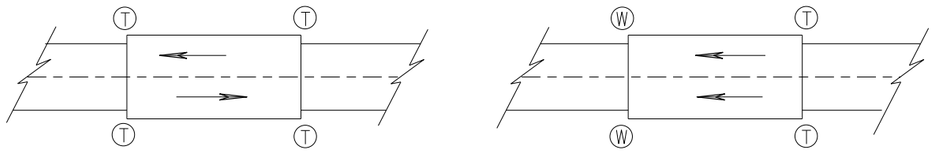
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

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.

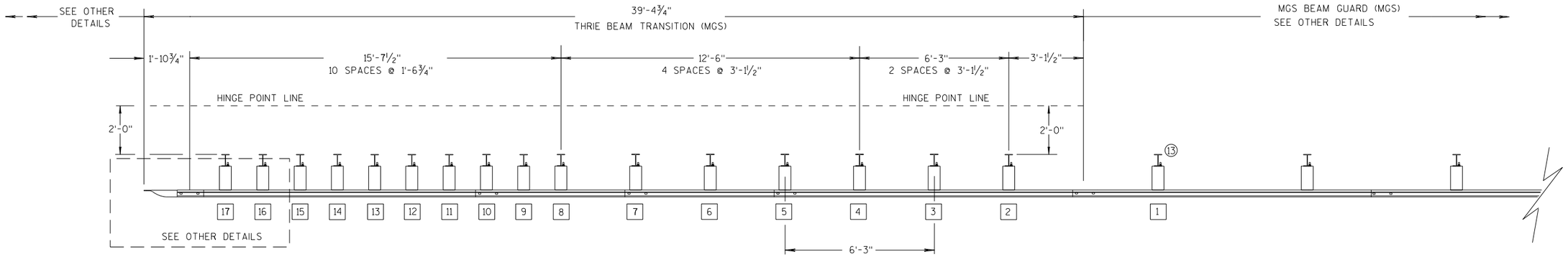
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

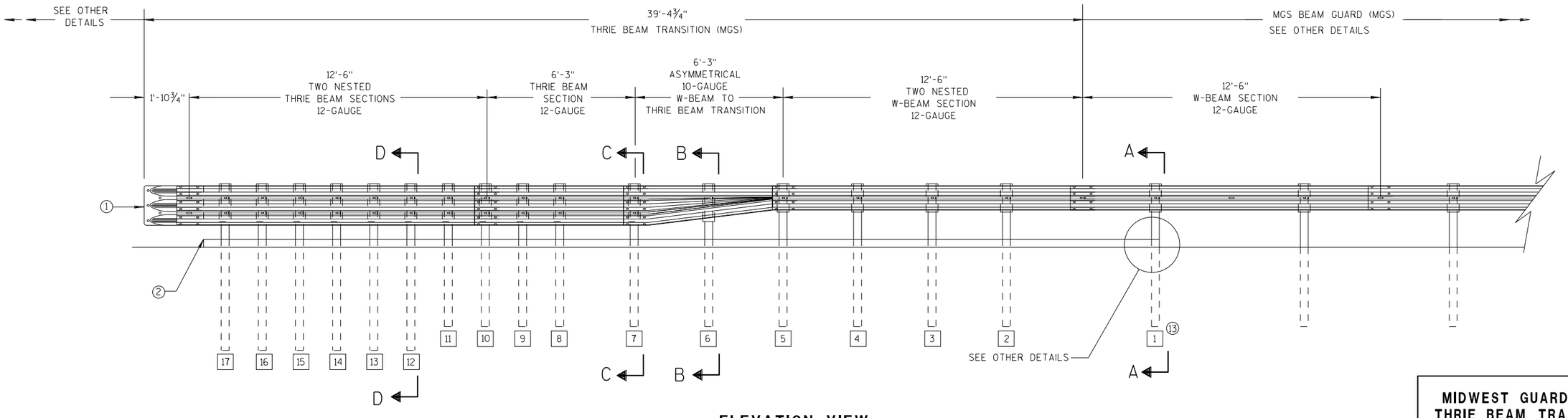
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 275

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

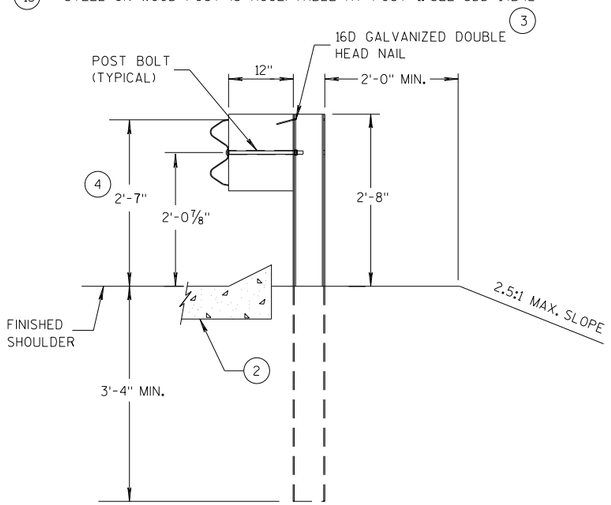
GENERAL NOTES

(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.

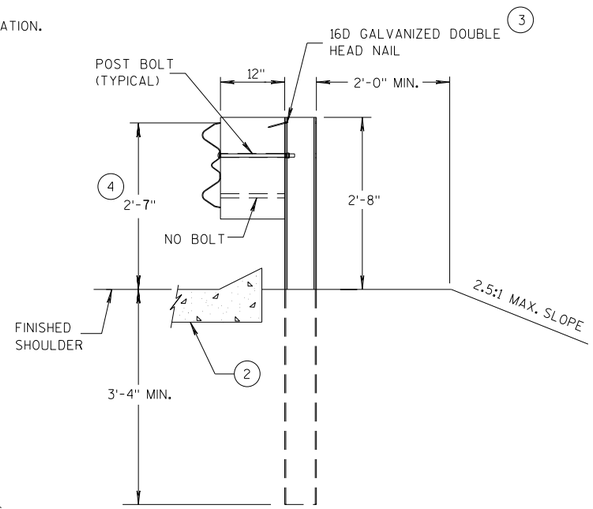
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



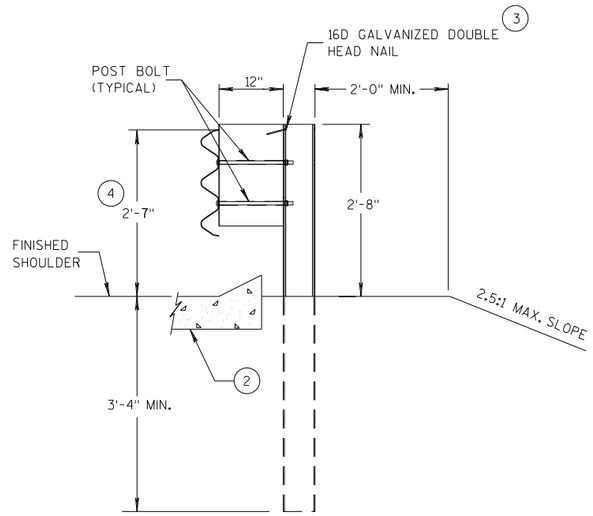
SECTION A-A (13)

POSTS 1-5



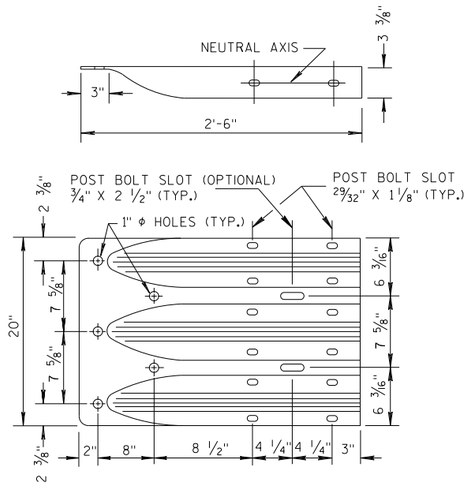
SECTION B-B

POST 6

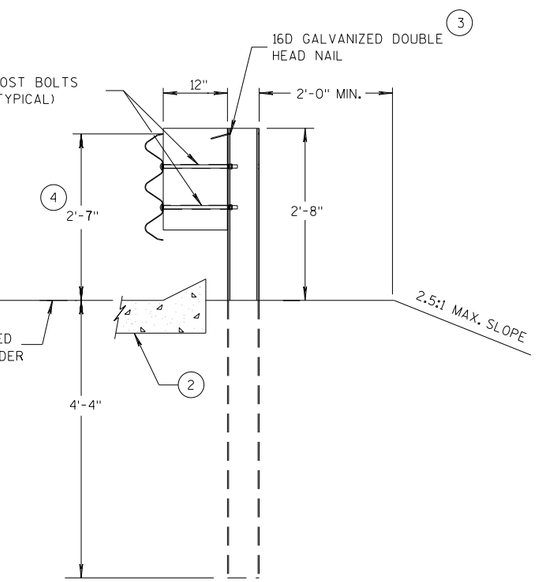


SECTION C-C

POSTS 7-11

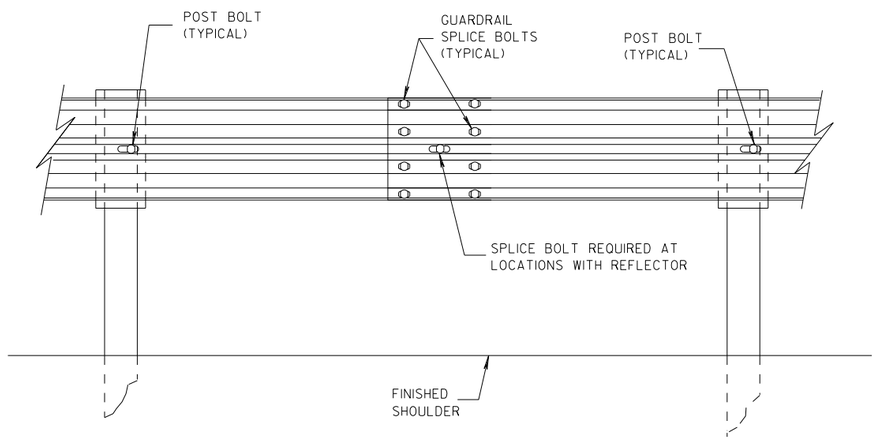


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

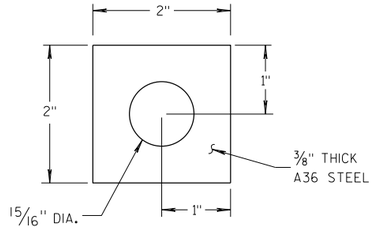
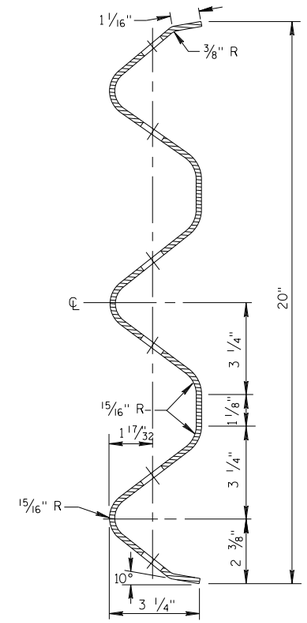


PLATE WASHER DETAIL



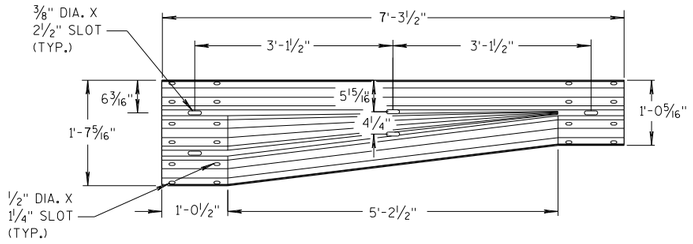
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

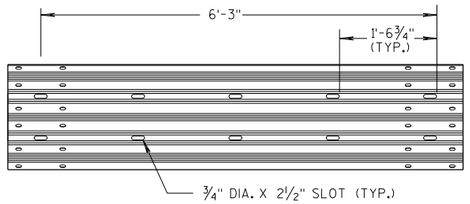
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

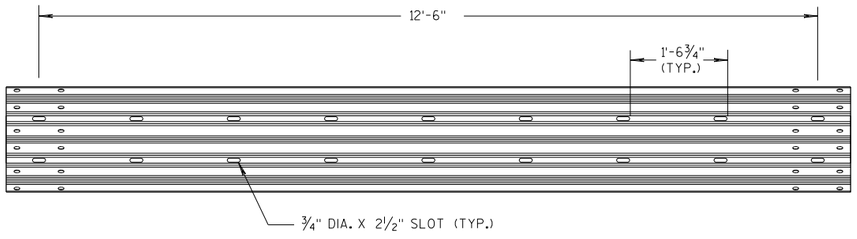
S.D.D. 14 B 45-5b



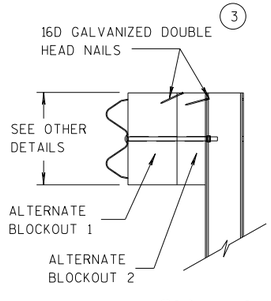
W-BEAM TO THRIE BEAM TRANSITION SECTION



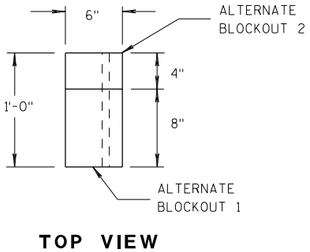
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

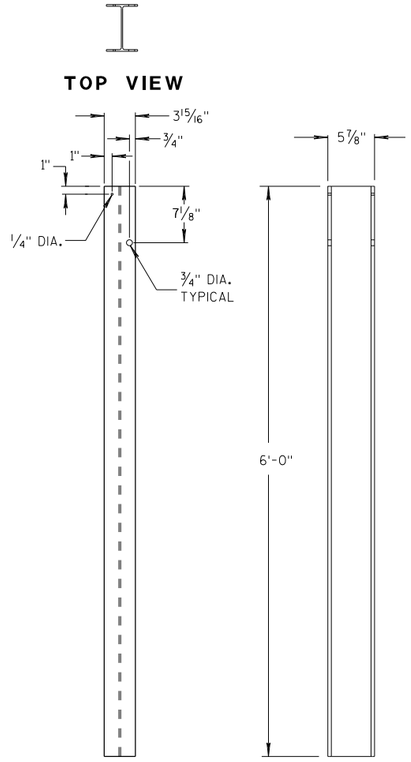


SIDE VIEW



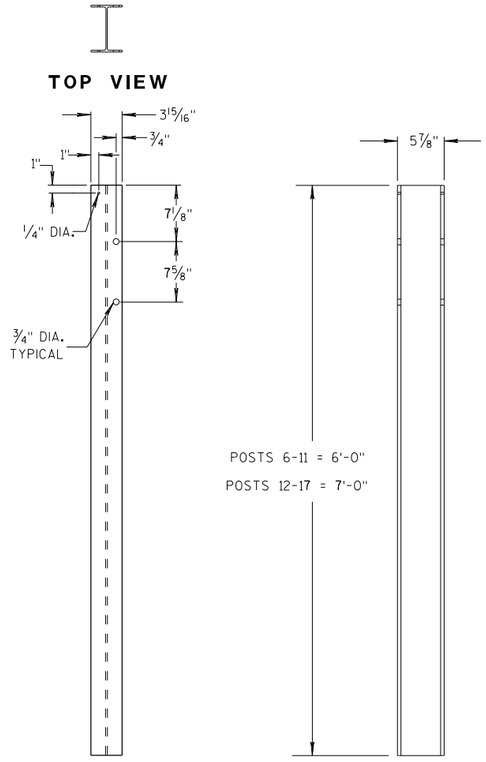
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



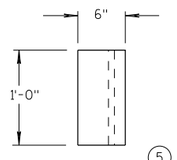
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

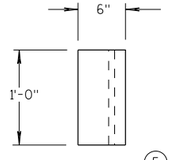


FRONT VIEW SIDE VIEW

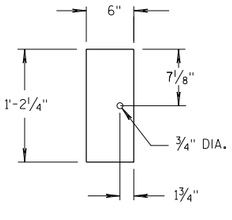
STEEL POSTS 6-17



TOP VIEW (5)

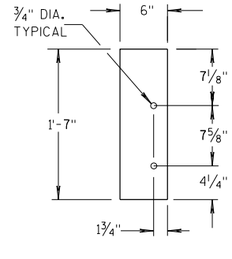


TOP VIEW (5)



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.

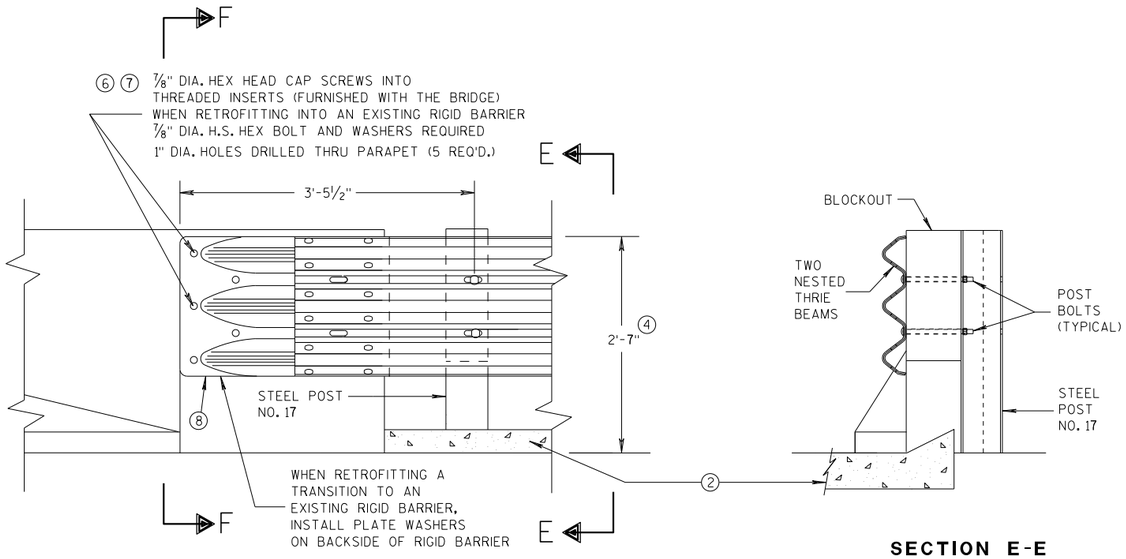
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(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 277

6
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.

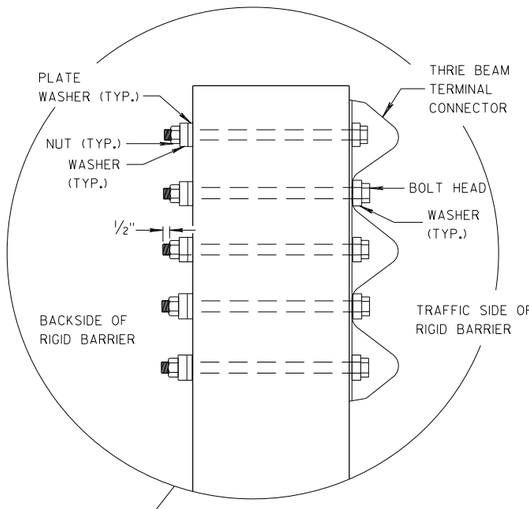
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

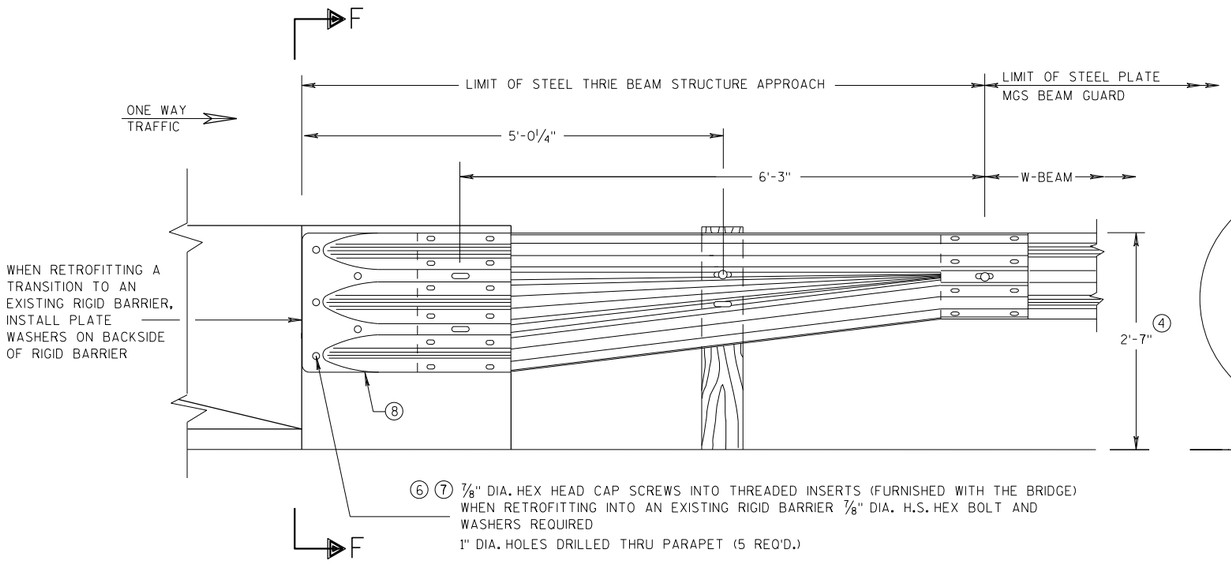
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

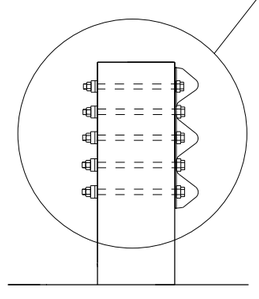
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" 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".

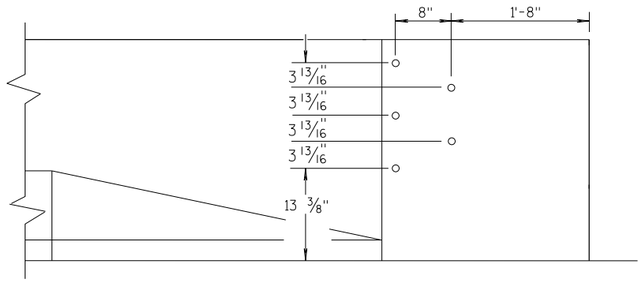




FRONT VIEW



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 UNIT SUPERVI NT
FHWA

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S.D.D. 14 B 45-5d

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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.

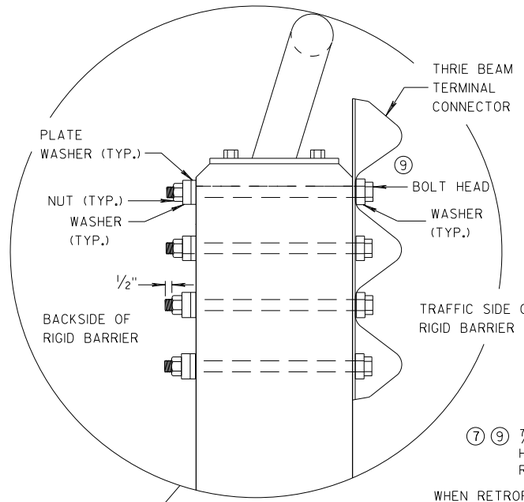
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

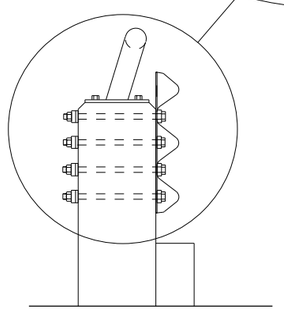
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

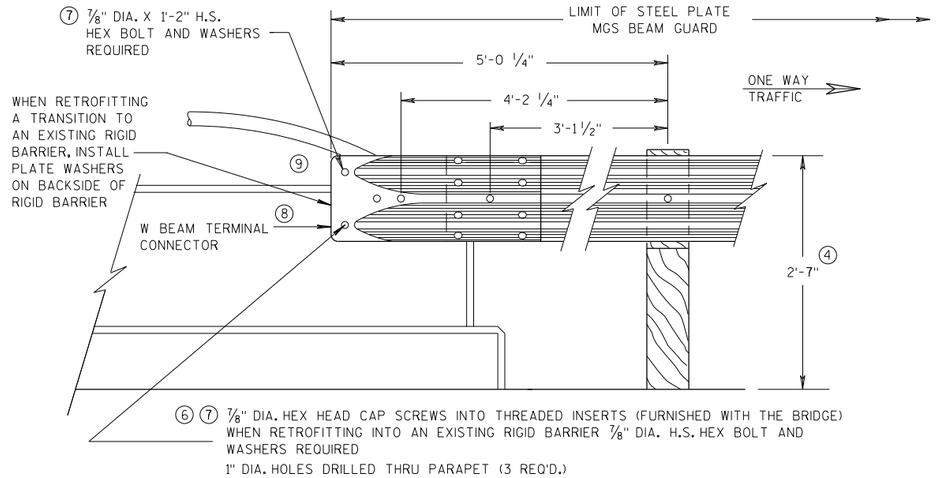
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





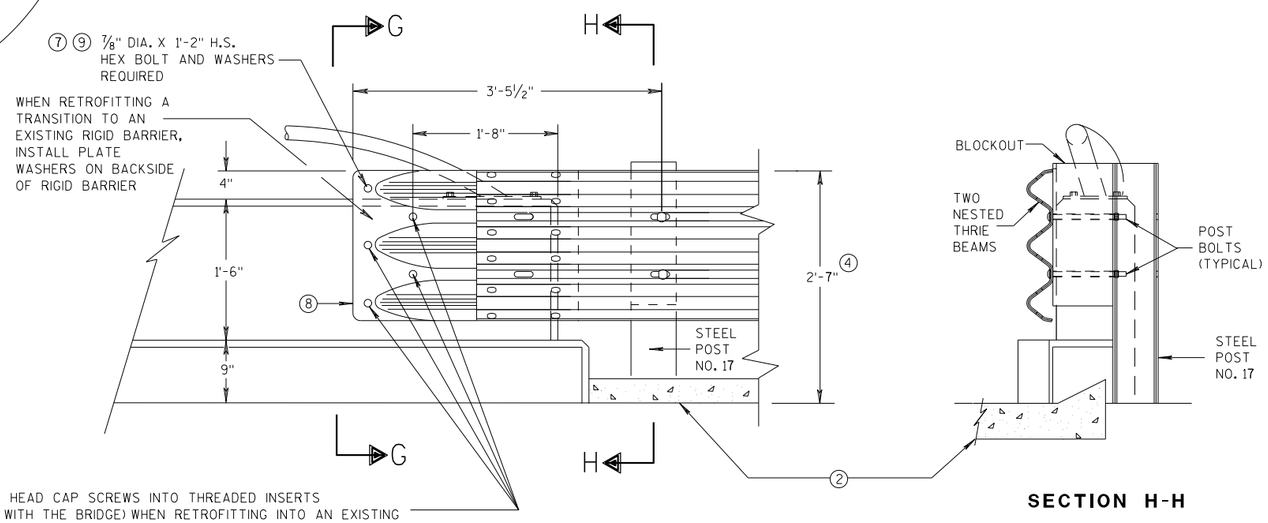
SECTION G-G



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
FHWA

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S.D.D. 14 B 45-5e

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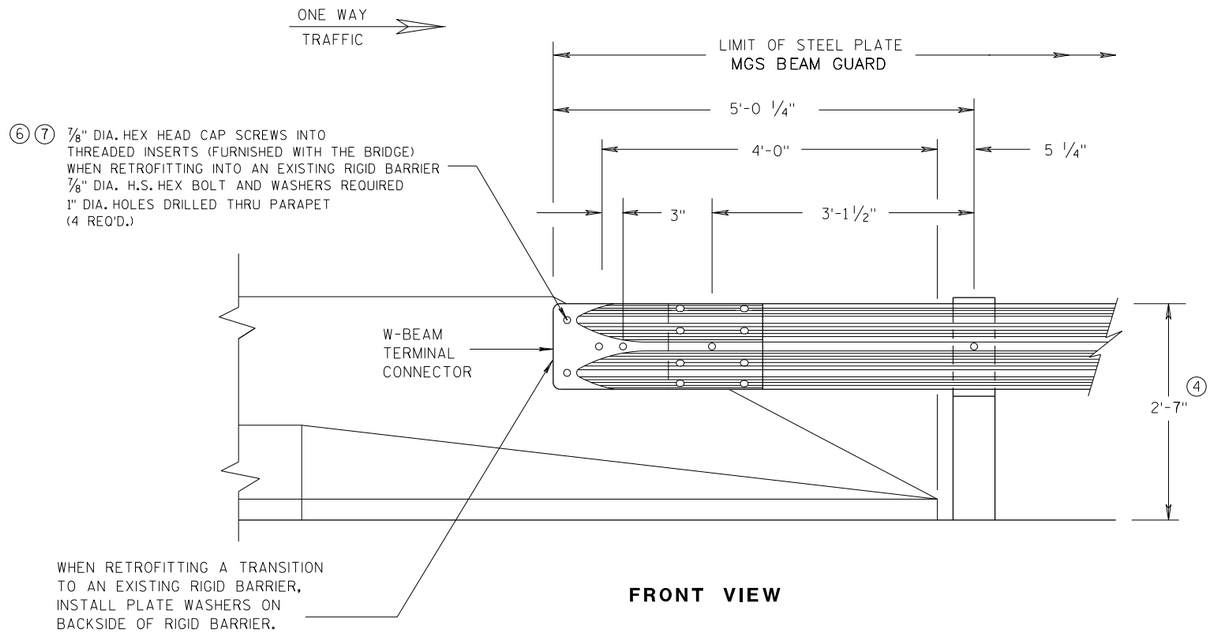
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

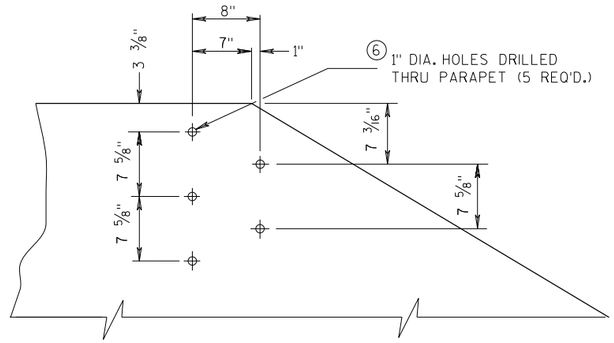
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

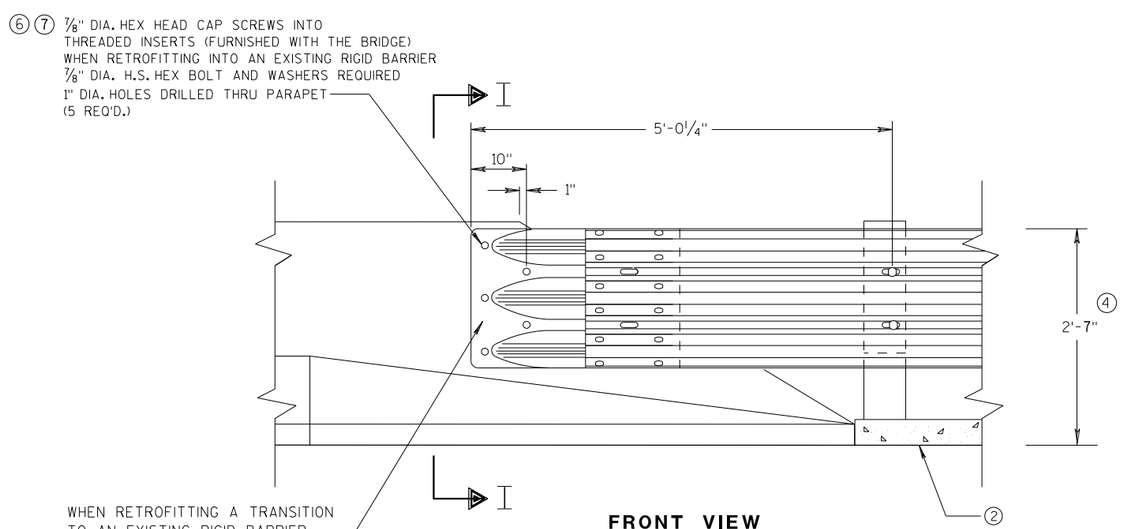
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

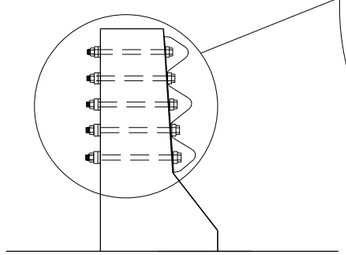
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



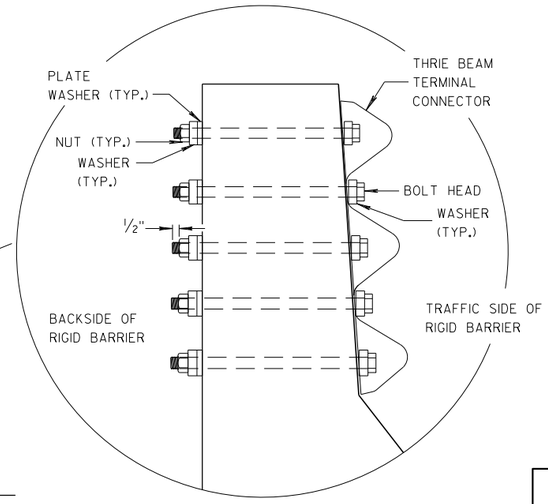
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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
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UNIT SUPERVI
FHWA

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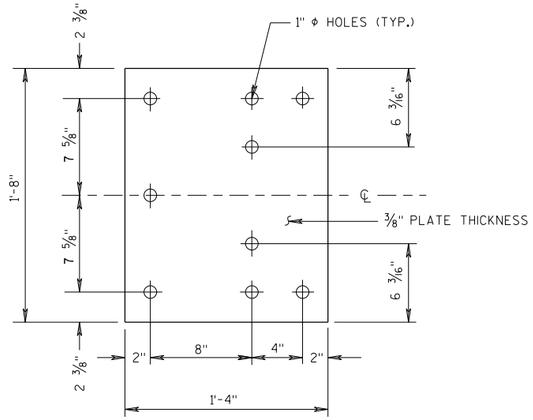
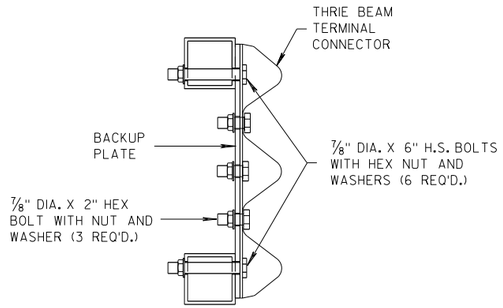
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL

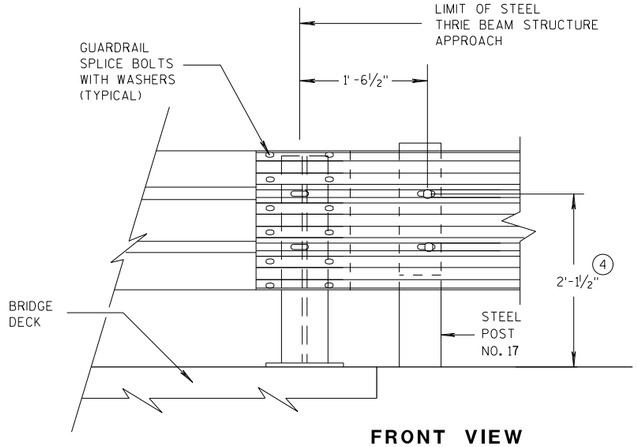


SECTION J-J

GENERAL NOTES

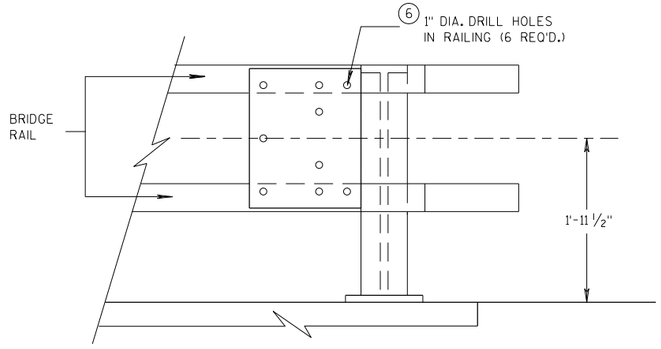
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(6) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

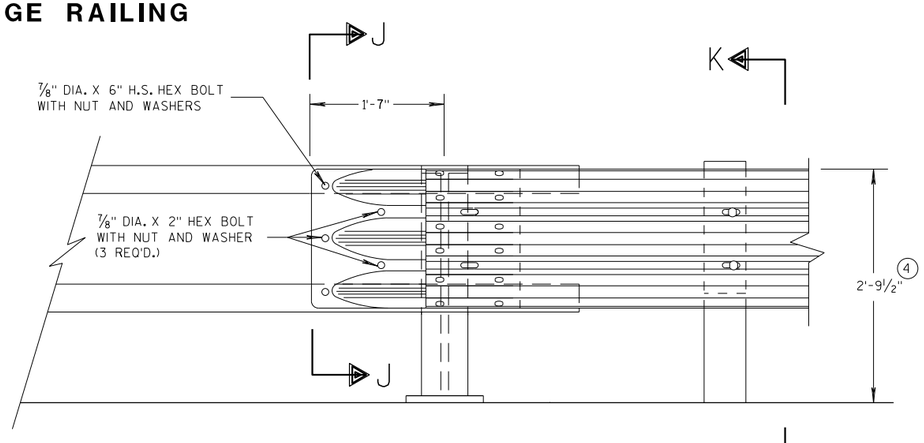


FRONT VIEW

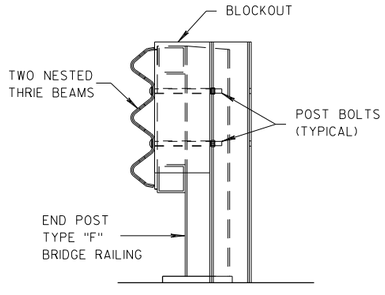
THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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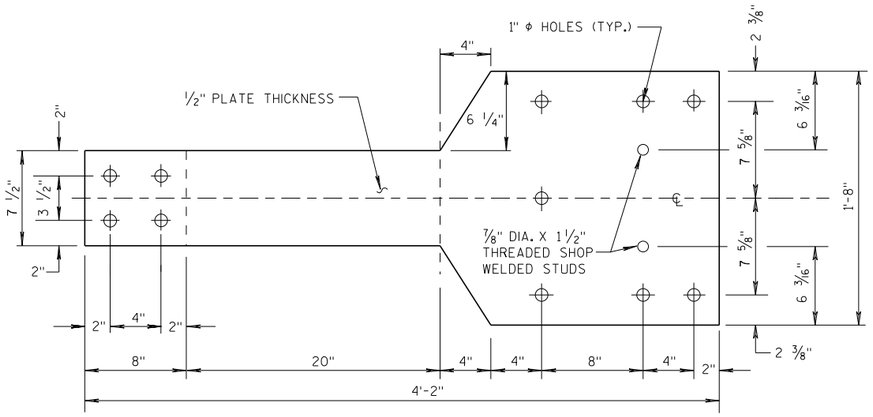
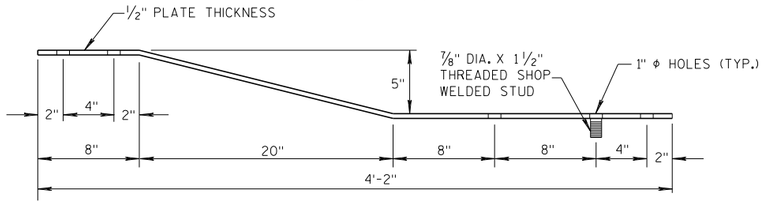
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

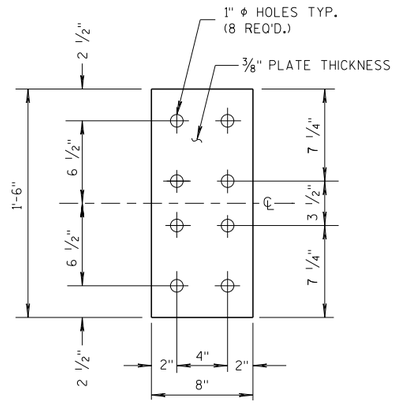


FRONT VIEW



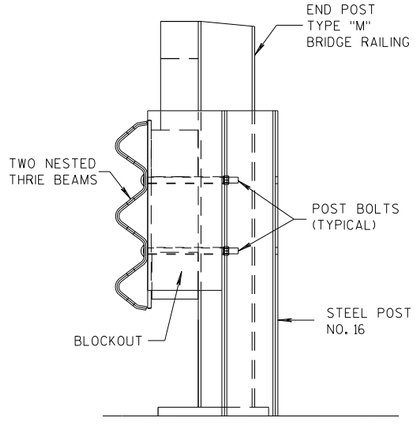
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

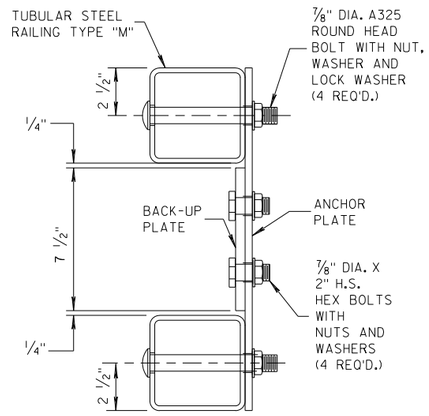


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



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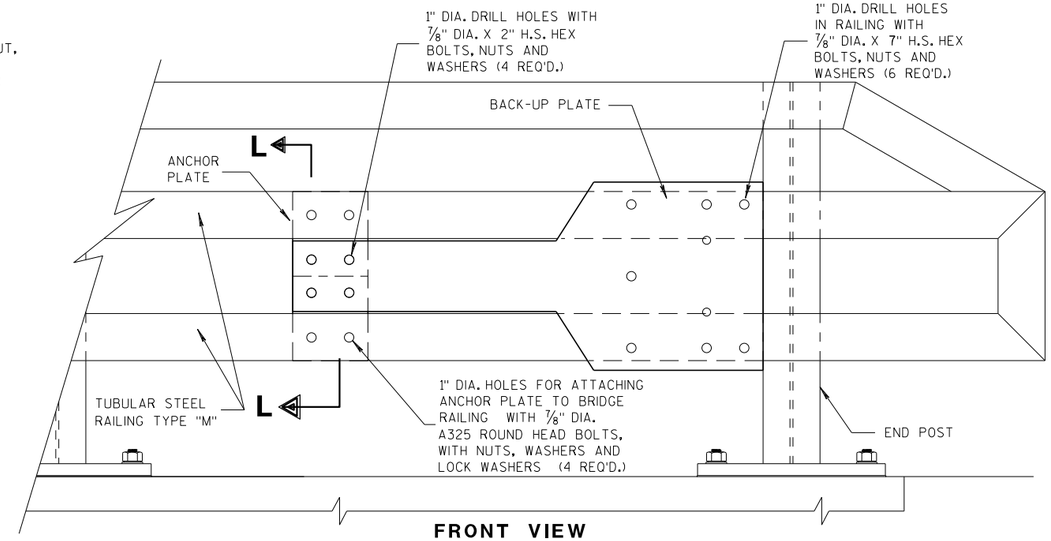
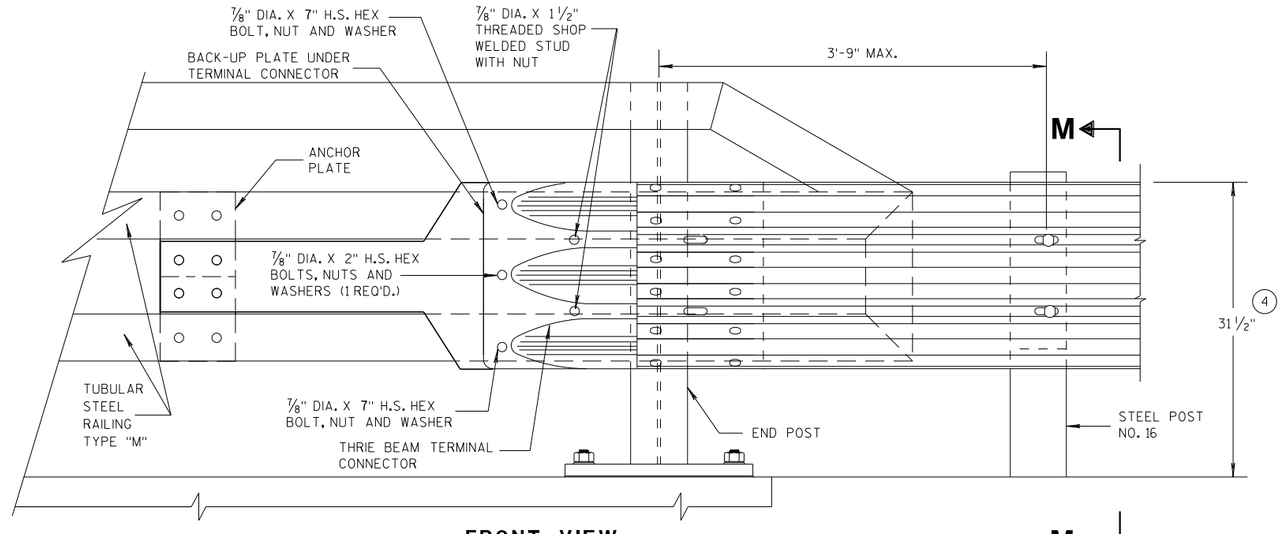
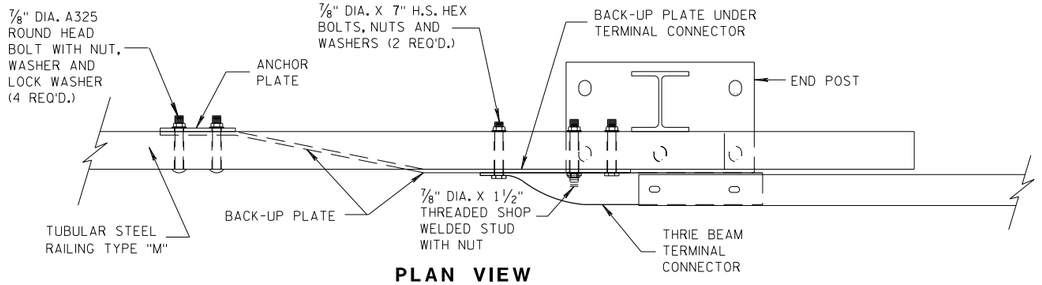


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

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S.D.D. 14 B 45-5h

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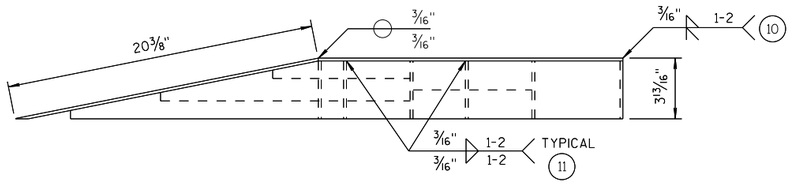
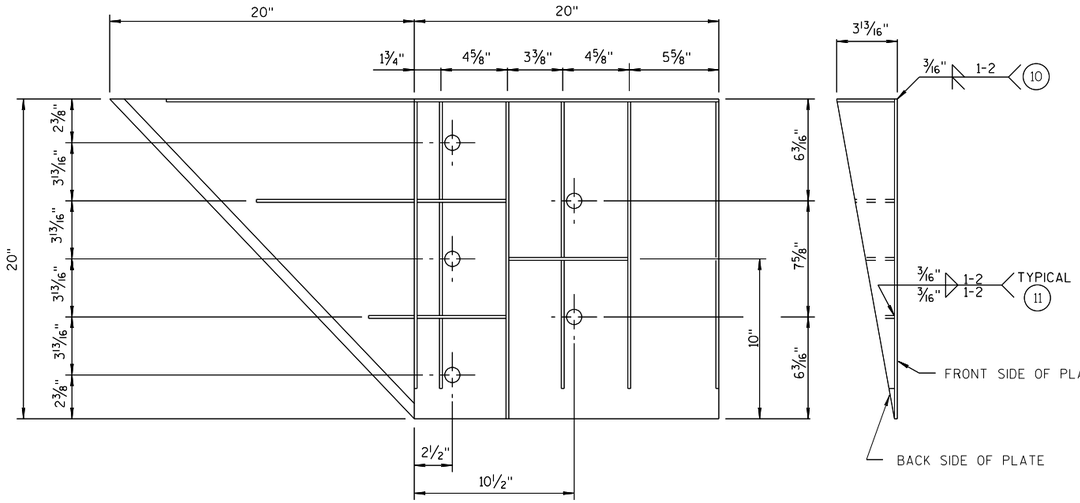
S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

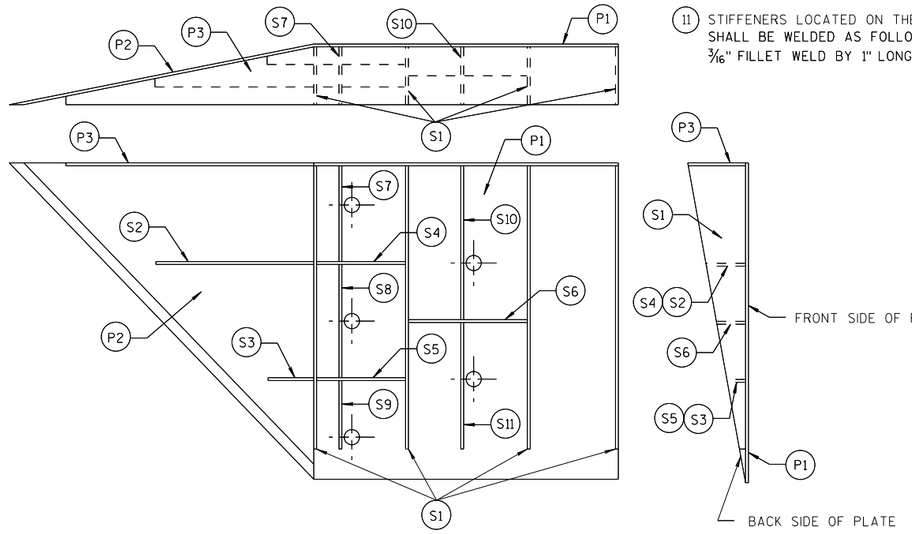


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
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ROADWAY STANDARDS I
UNIT SUPERVI

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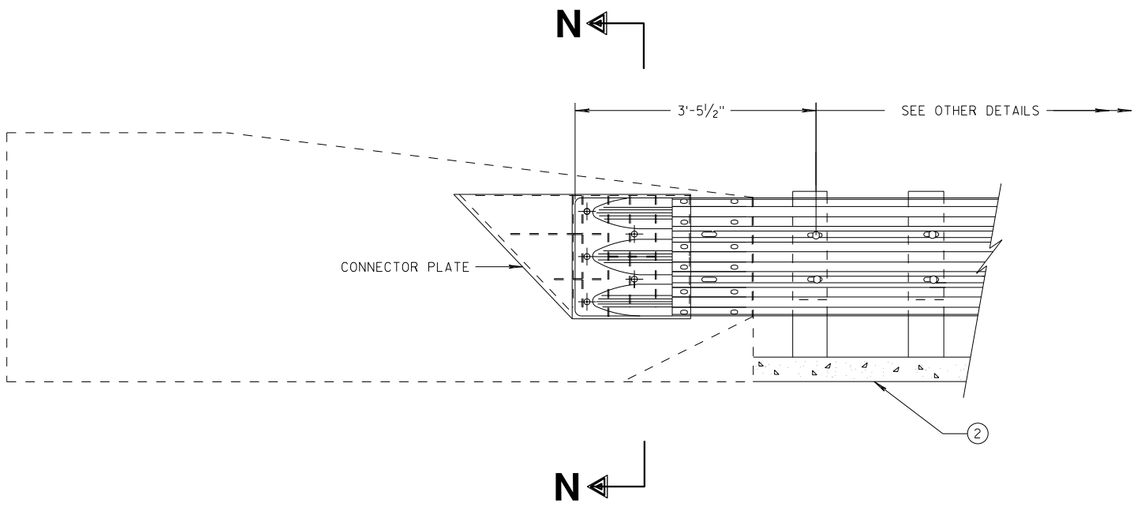
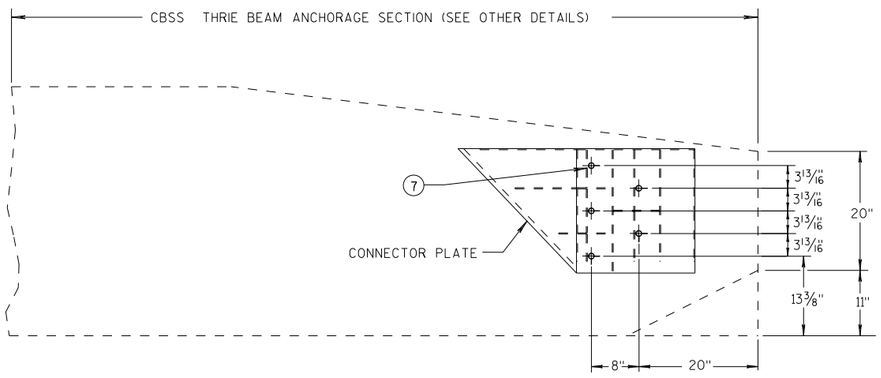
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



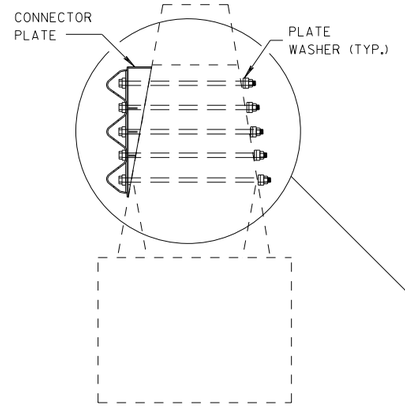
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

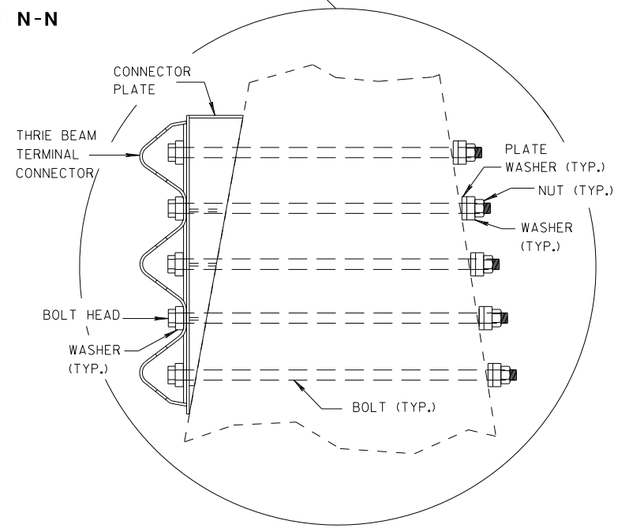
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI UNIT SUPERVIS NT
FHWA

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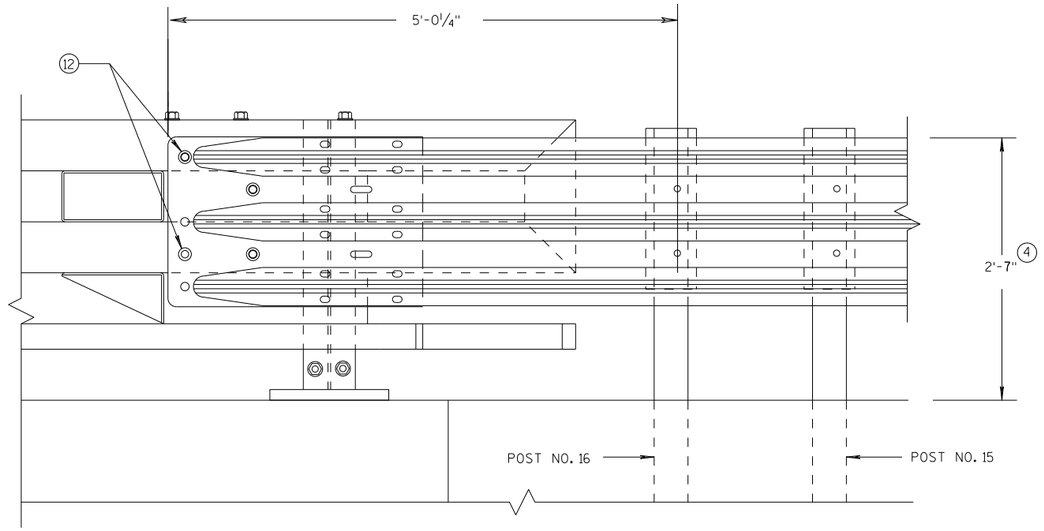
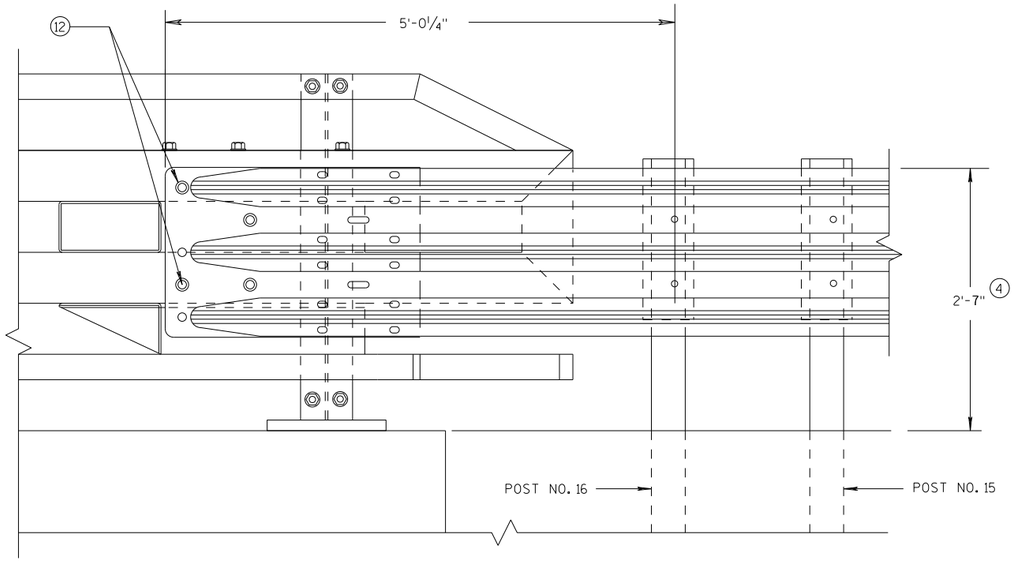
S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
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UNIT SUPERVIS
285
NT
FHWA

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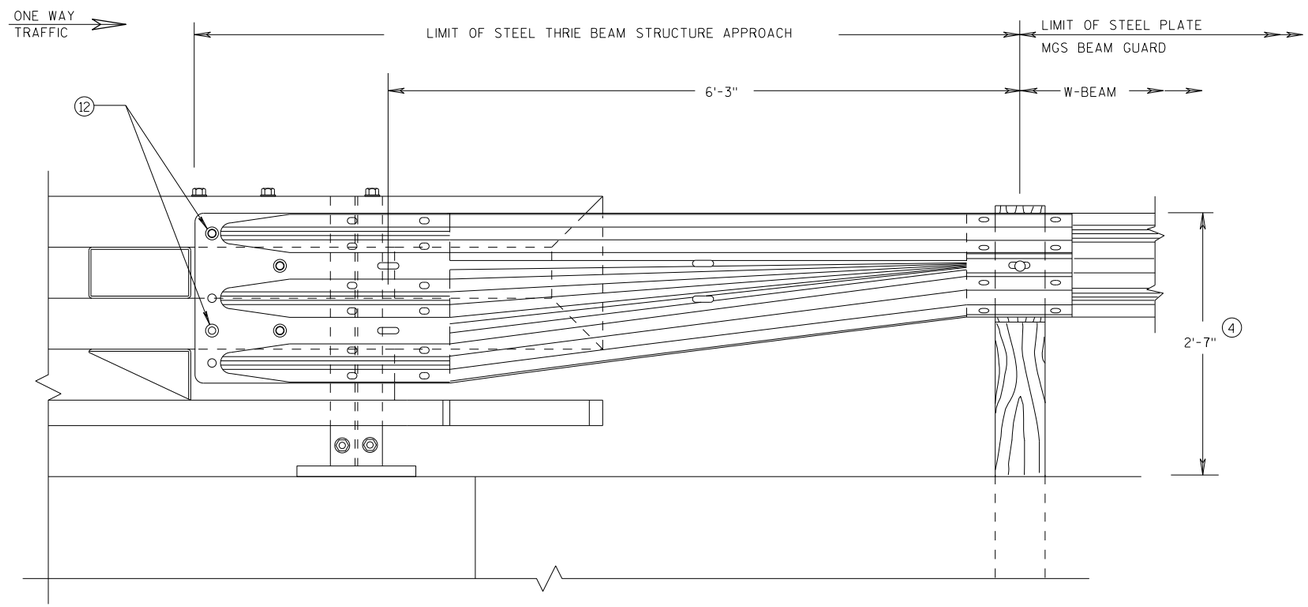
S.D.D. 14 B 45-5k



FRONT VIEW

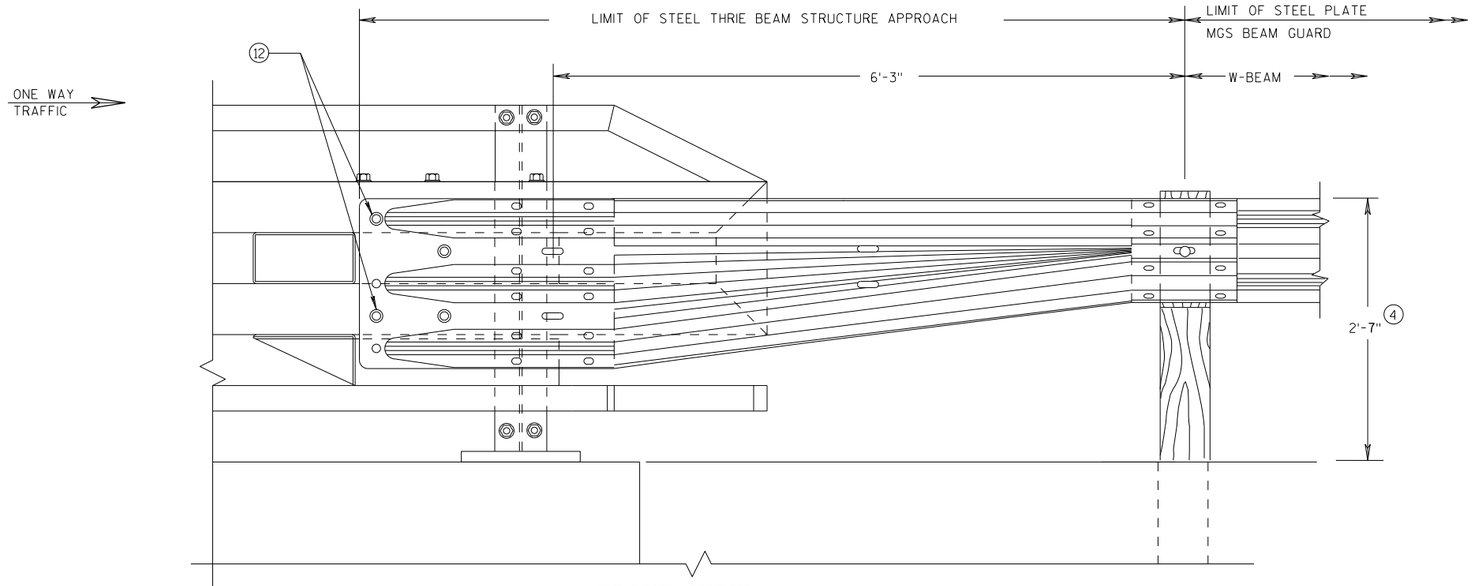
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(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
7/2018 DATE
FHWA

/S/ Rodney Taylor
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UNIT SUPERVIS

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S.D.D. 14 B 45-5L

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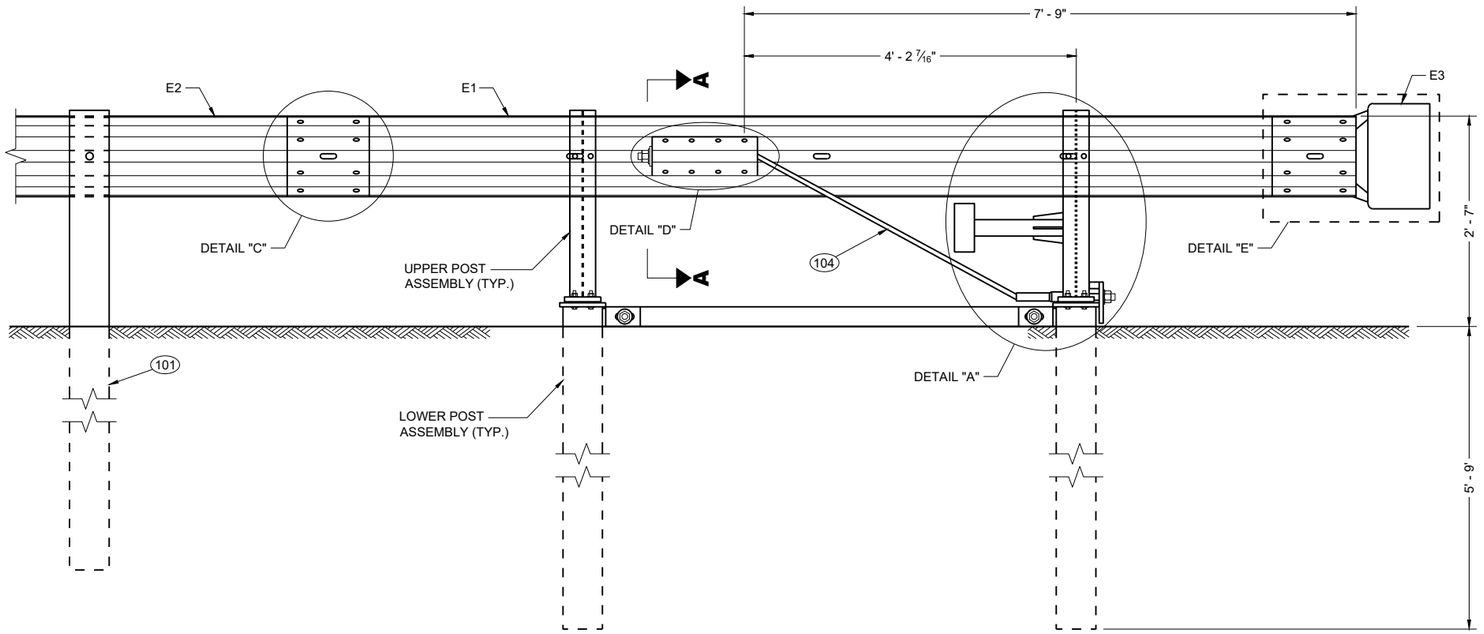
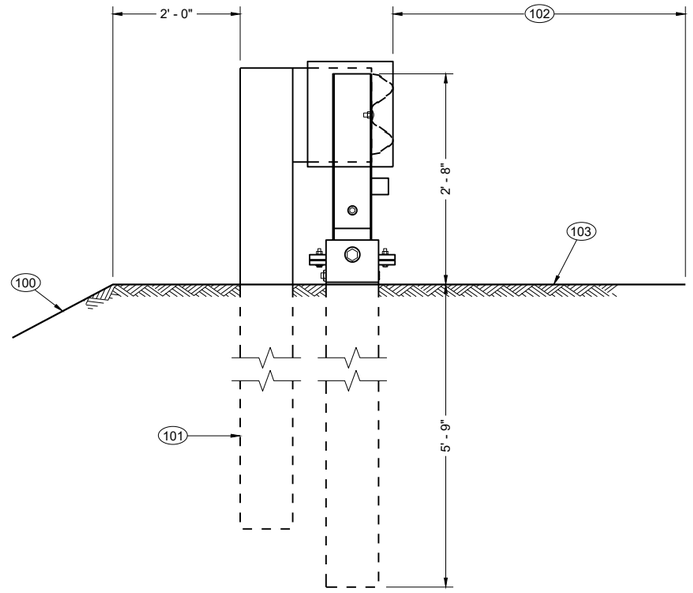
S.D.D. 14 B 45-5L



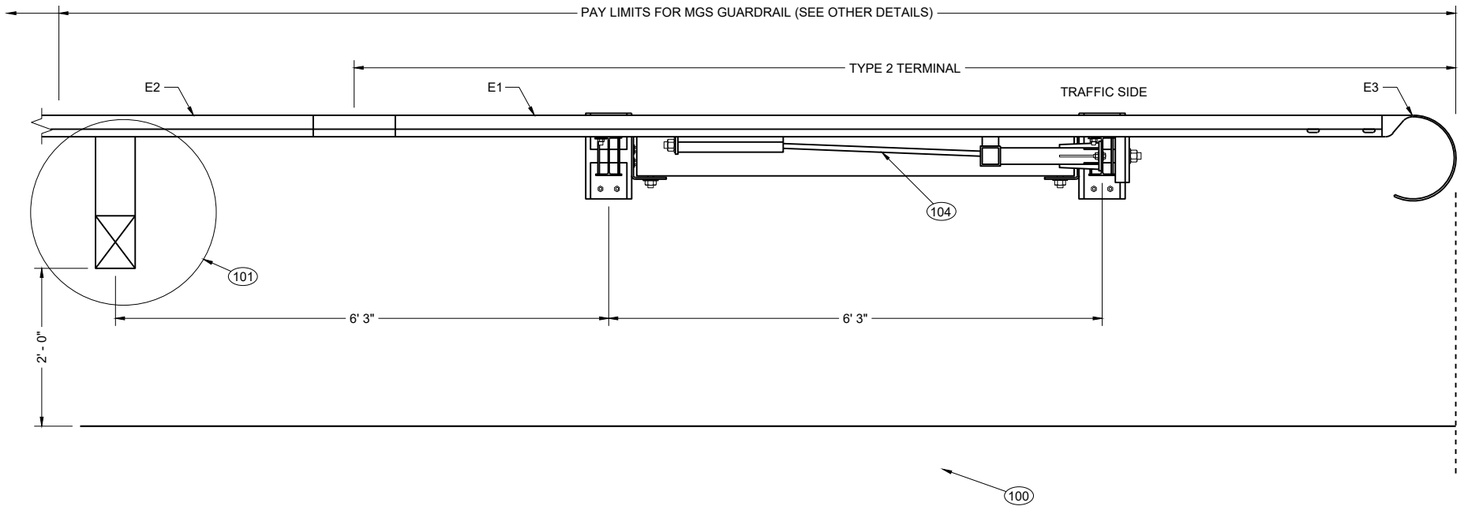
BACK VIEW

TYPE 2 TERMINAL



SIDE VIEW

TYPE 2 TERMINAL



TOP VIEW

TYPE 2 TERMINAL

GENERAL NOTES

SEE SDD 14B42 FOR MORE INFORMATION

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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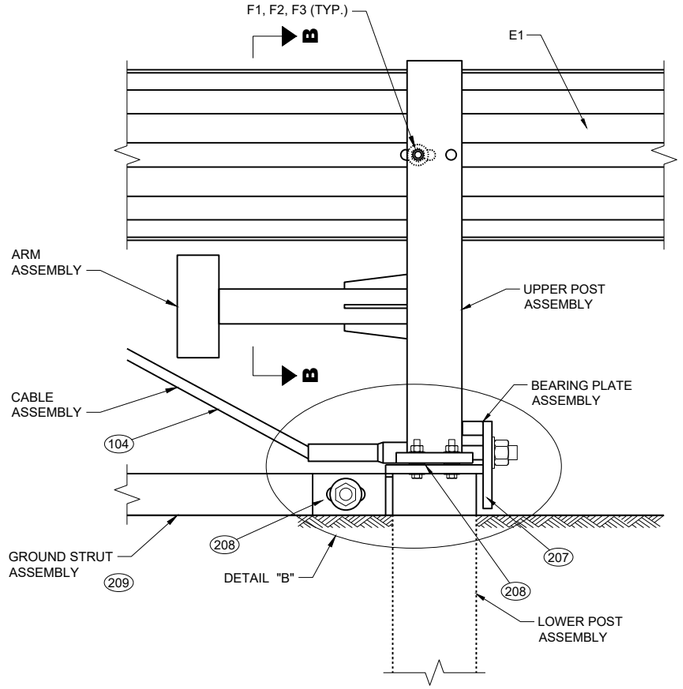
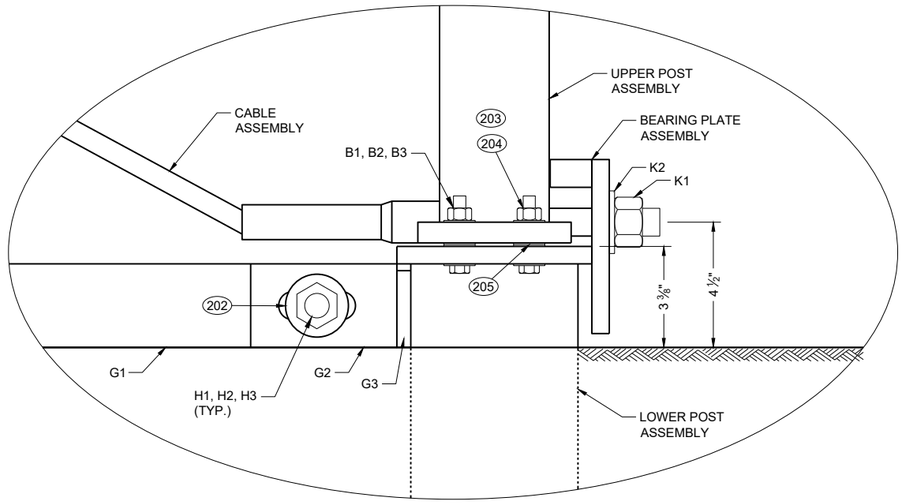
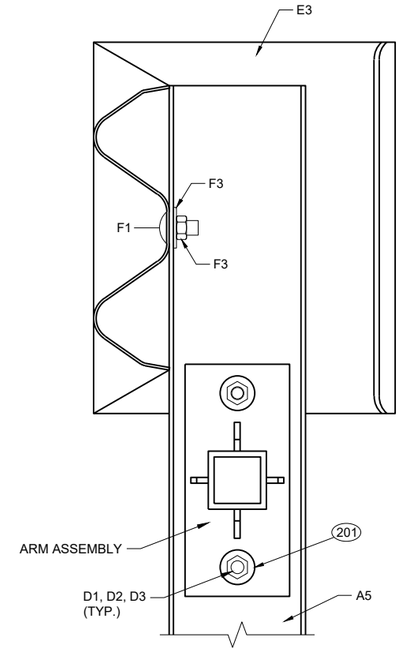
SDD 14B47-07a



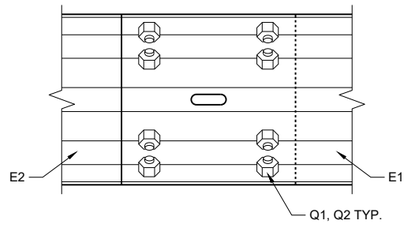
DETAIL "A"



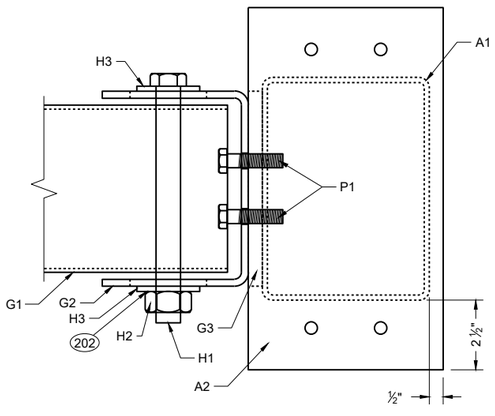
DETAIL "B"



SECTION B - B

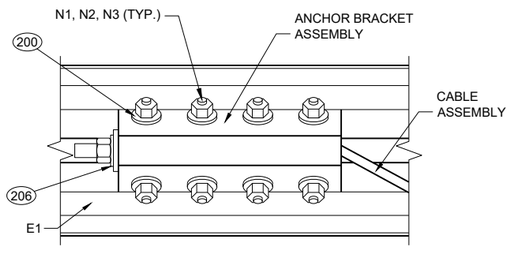


DETAIL "C"

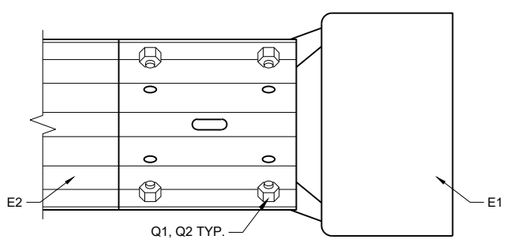


TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

207 NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

208 PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST ASSEMBLIES AND GROUND STRUT.

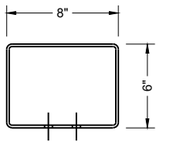
209 PREVENT OR REMOVE MATERIALS THAT IMPEDE REMOVAL OF GROUND STRUT.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

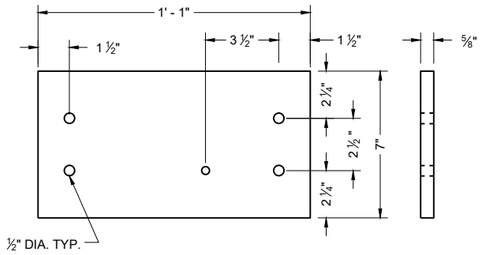
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

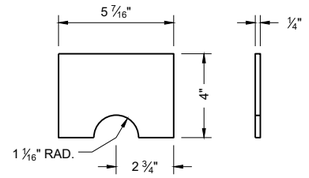
(300) TAP FOR 1/2" AFTER GALVANIZATION



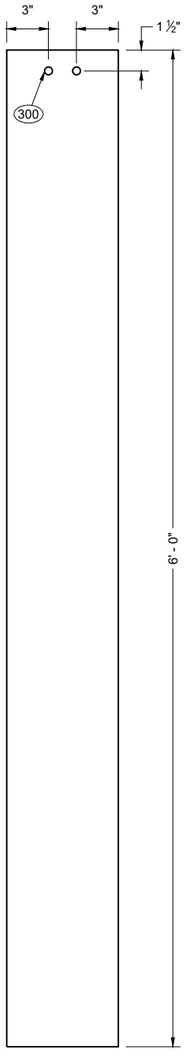
TOP VIEW



LOWER PLATE (A2)

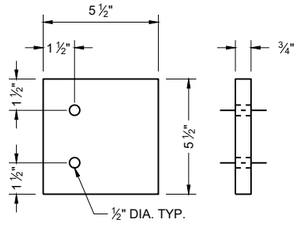


POST GUSSET (A3)

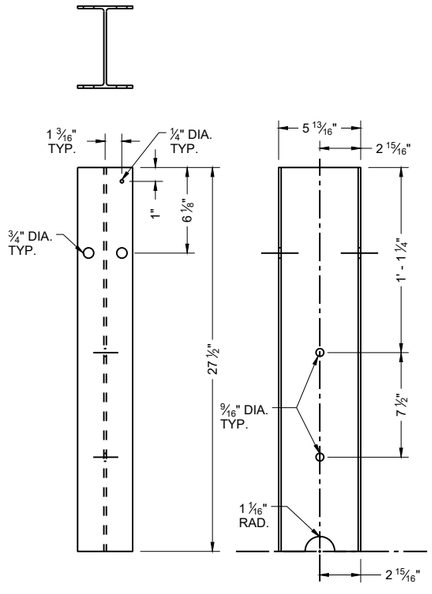


SIDE VIEW

FOUNDATION TUBE (A1)

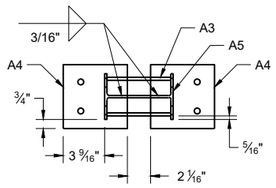


UPPER PLATE (A4)

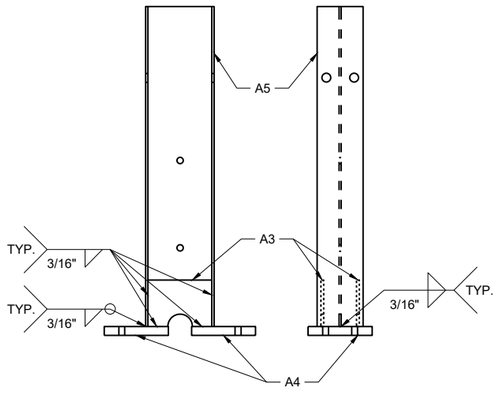


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

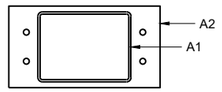


PLAN VIEW

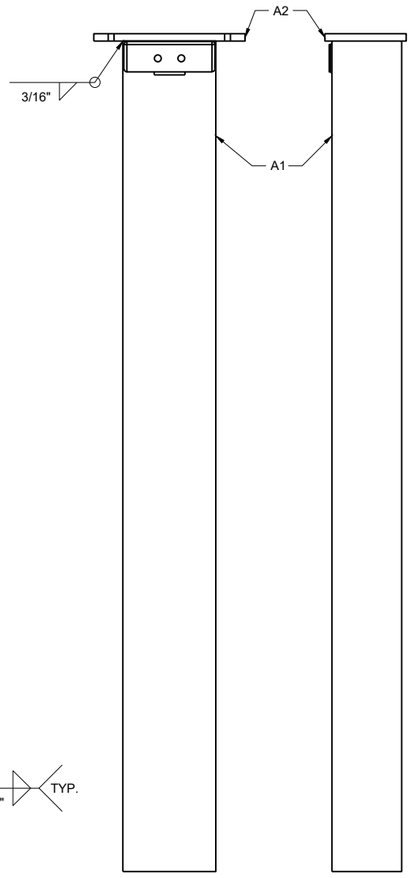


SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

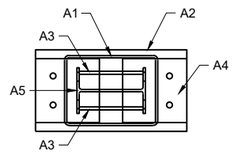


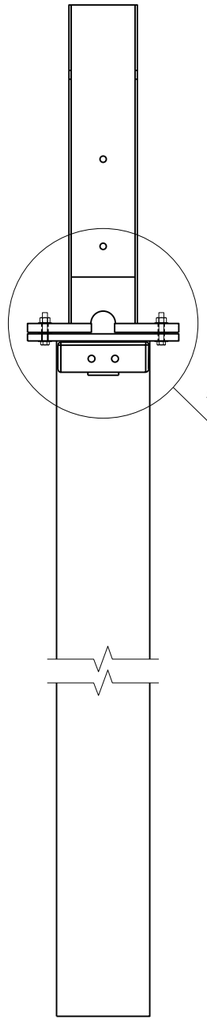
PLAN VIEW



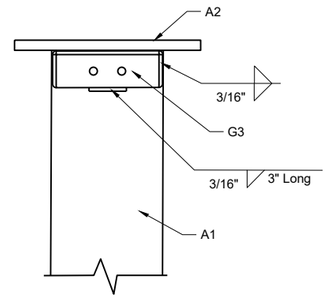
FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY

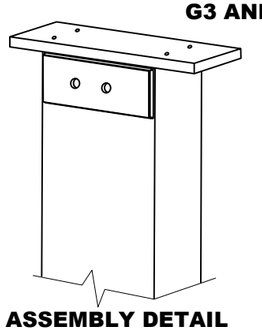




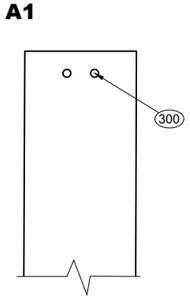
ASSEMBLED POST



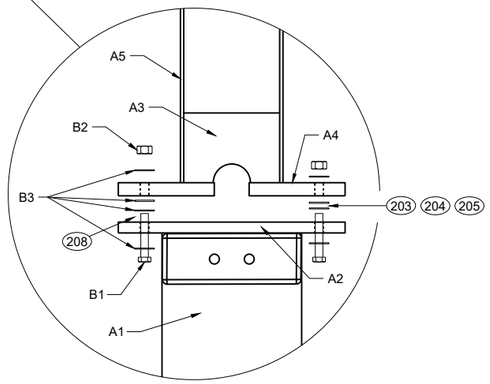
WELDING DETAIL G3 AND A1



ASSEMBLY DETAIL ISOMETRIC



A1



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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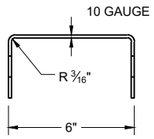
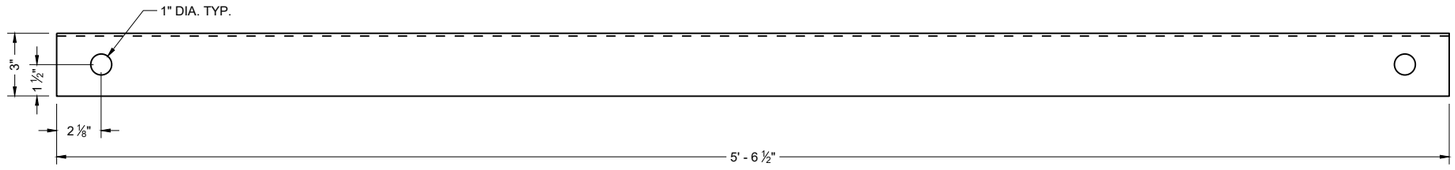
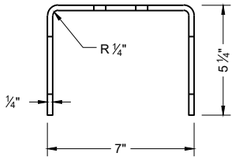


SIDE VIEW

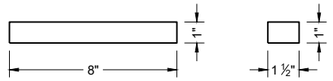


FRONT VIEW

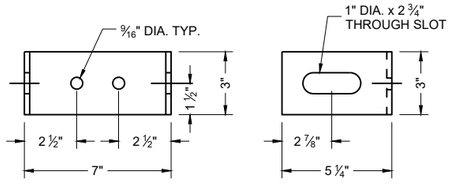
GROUND STRUT CHANNEL (G1)



TOP VIEW



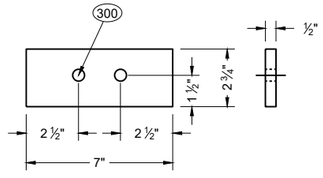
BEARING PLATE FLANGE (L2)



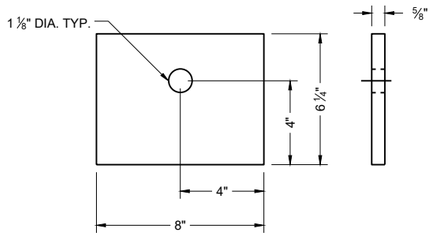
FRONT VIEW

SIDE VIEW

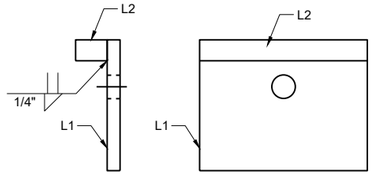
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)



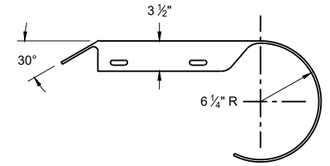
BEARING PLATE (L1)



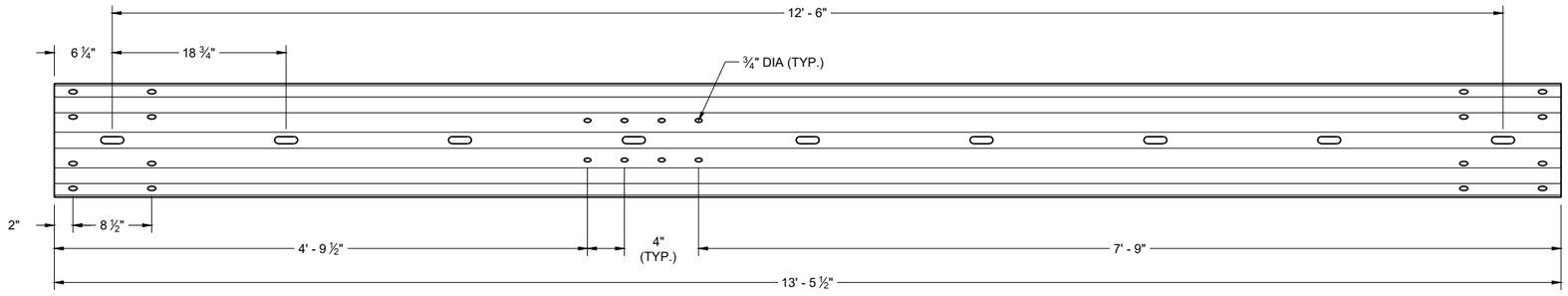
SIDE VIEW

FRONT VIEW

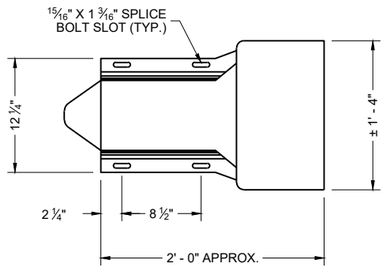
BEARING PLATE ASSEMBLY



PLAN VIEW

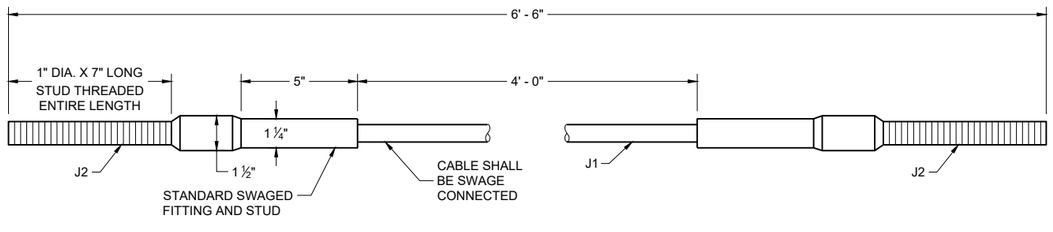


TYPE 2 GUARDRAIL (E1)



ELEVATION VIEW

ROUNDED BUFFER END (E3)



CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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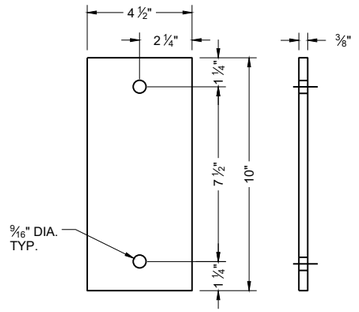
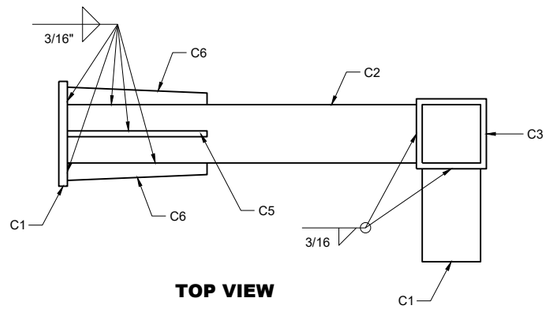
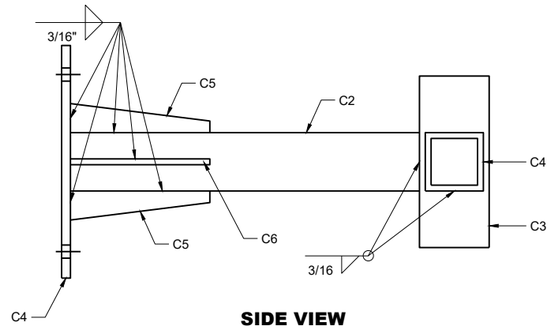
SDD 14B47-07d



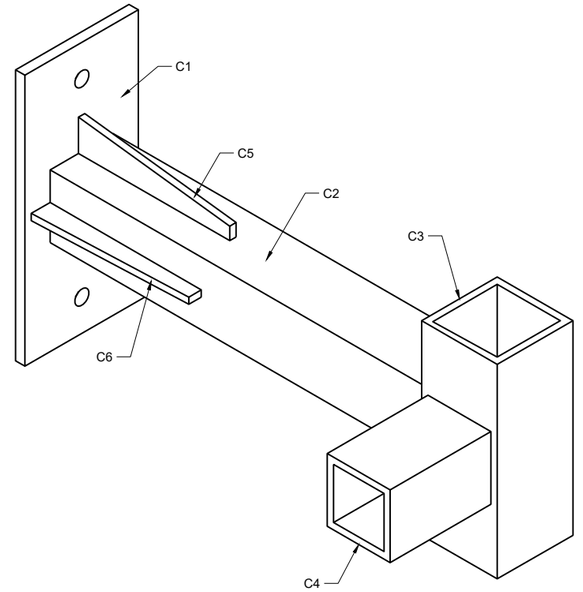
ARM PLATE (C1)



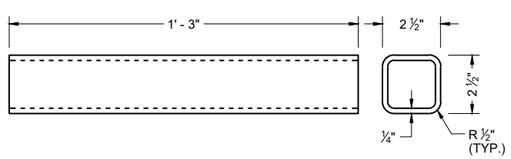
TOP VIEW
ARM ASSEMBLY



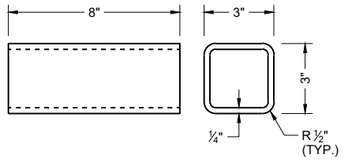
SIDE VIEW
ARM ASSEMBLY



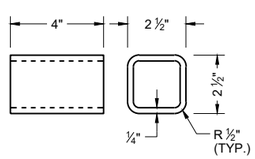
ISOMETRIC VIEW
ARM ASSEMBLY



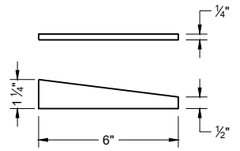
ARM TUBE 1 (C2)



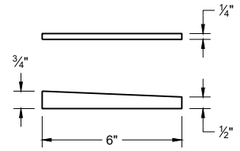
ARM TUBE 2 (C3)



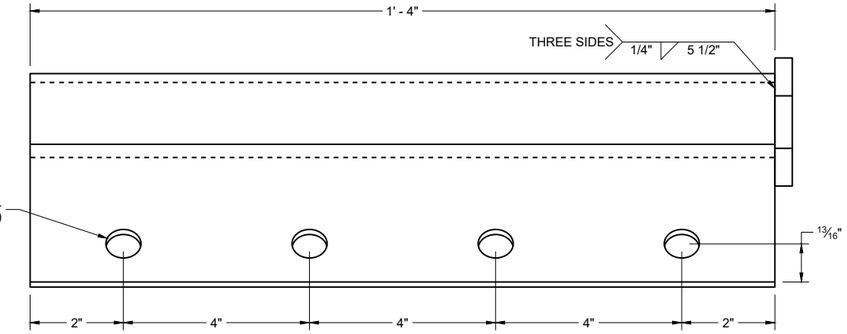
ARM TUBE 3 (C4)

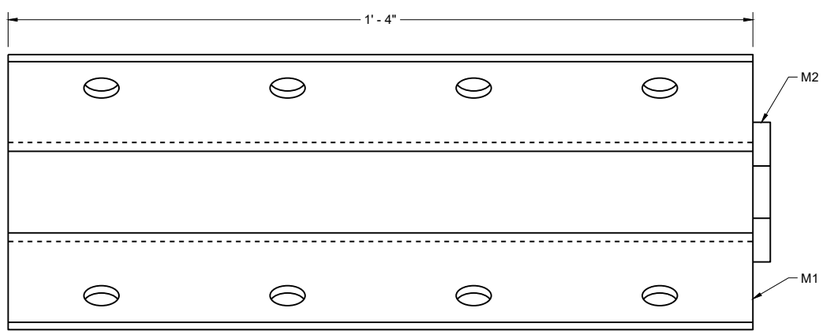


ARM GUSSET PLATE 1 (C5)

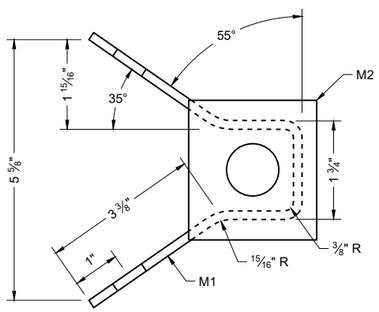


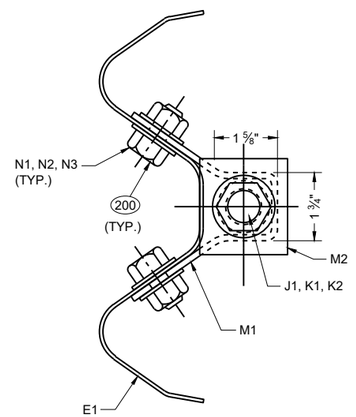
ARM GUSSET PLATE 2 (C6)

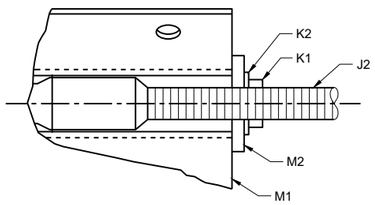




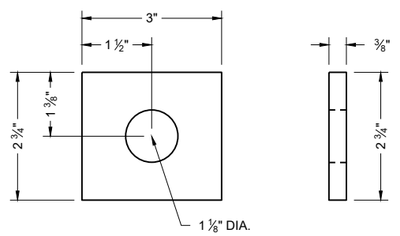
ANCHOR BRACKET (M1, M2)







SECTION A - A



ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	3/4" DIA.
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2025 — DATE
/S/ Rodney Taylor — <position>

FHWA

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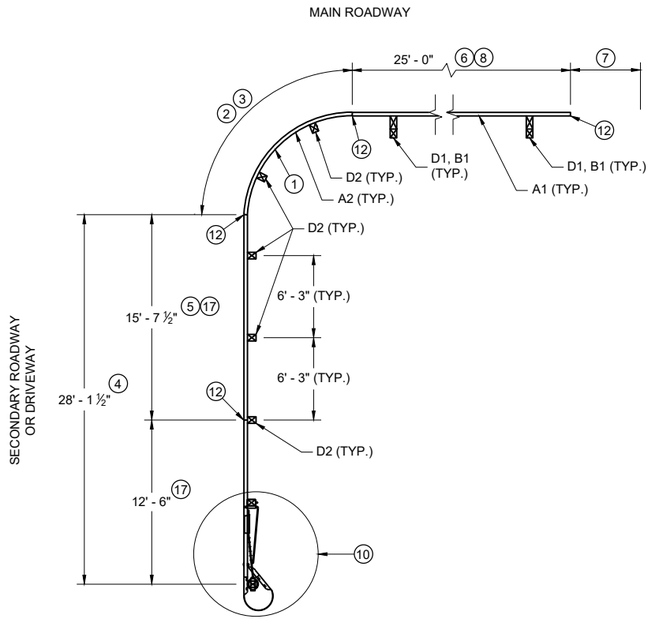
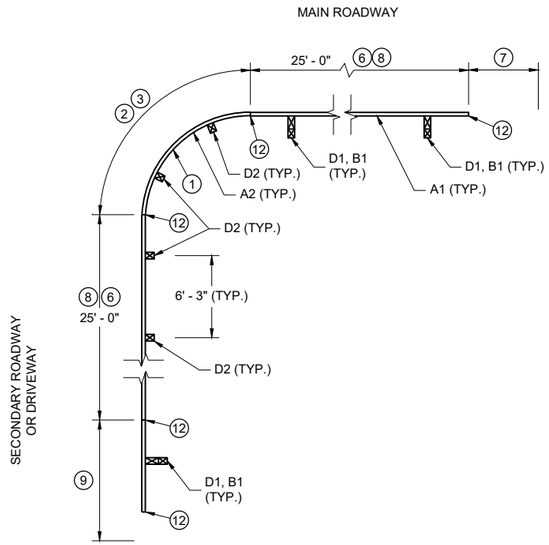
SDD 14B47-07g



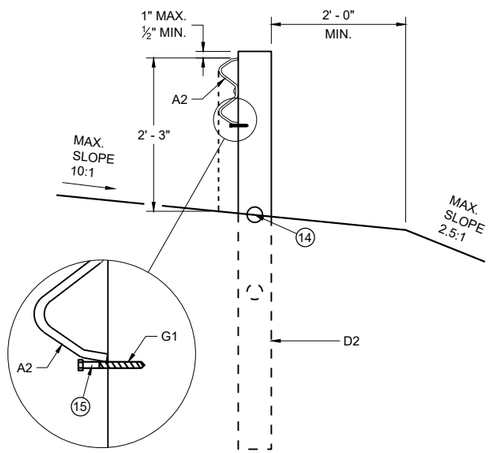
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

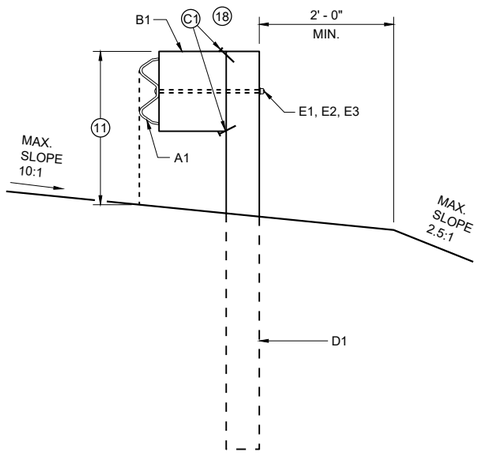


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



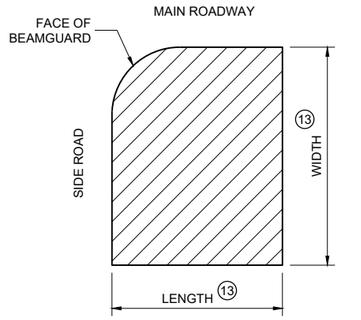
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION

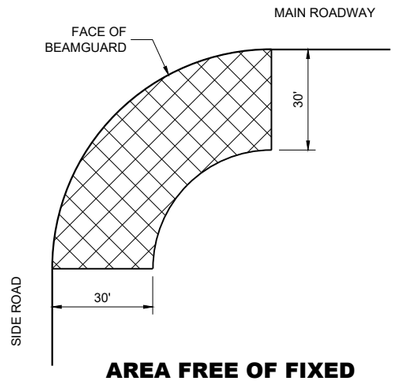
TABLE FOR RADIUS OF 32' AND LESS

RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30

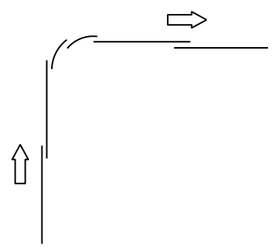


16

AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (17).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾ " ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$ " DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

(18) INITIAL 1 NAIL AT EACH CORNER OF THE BLOCK TO CONNECT BLOCKS.

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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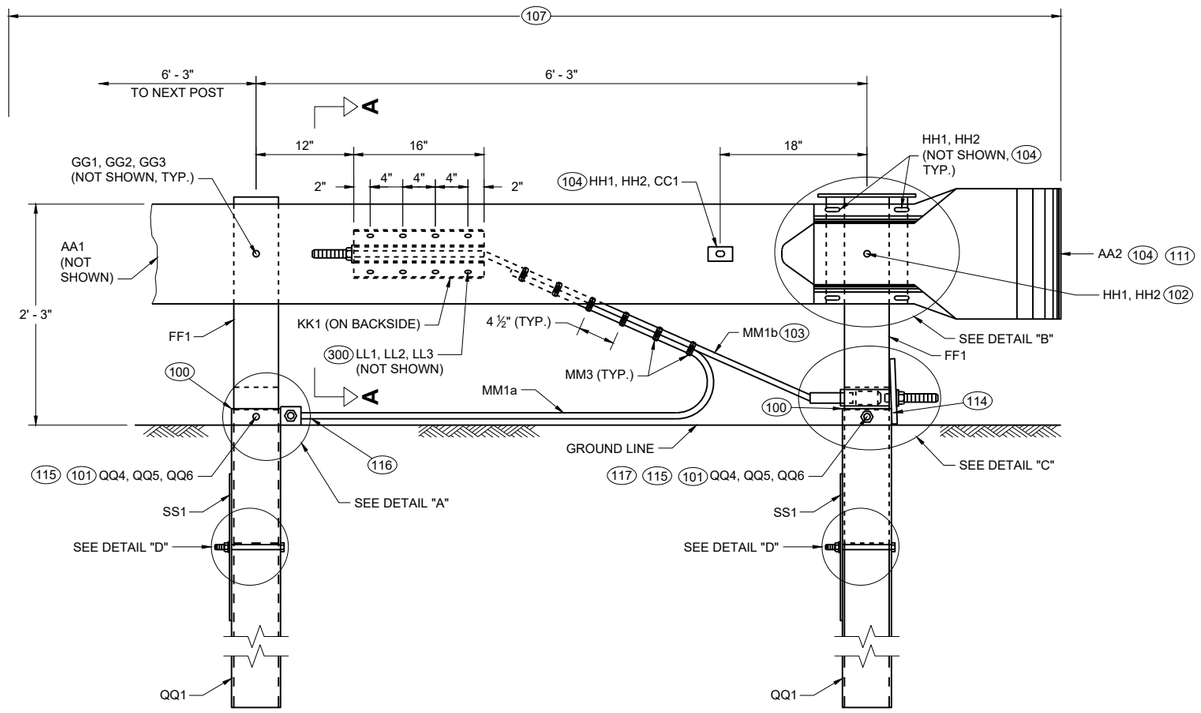
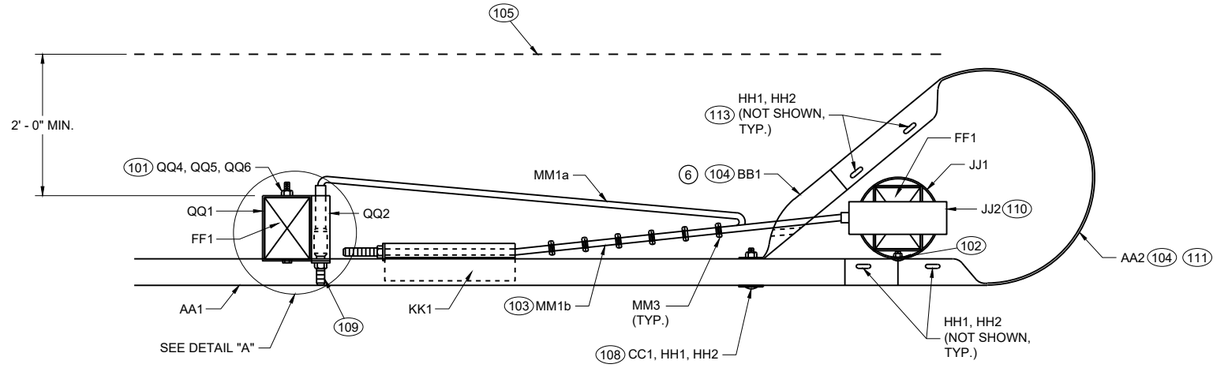
SDD 14B53-04a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

(100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

(101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

(102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

(103) CABLE IS TAUT.

(104) ADJUST AA2 AND BB1 TO FIT.

(105) BREAK POINT OF SHOULDER.

(106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

(107) PAY LIMIT FOR BEAM GUARD.

(108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

(109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.

(110) SEE STEEL PIPE ASSEMBLY DETAILS.

(111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

(112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

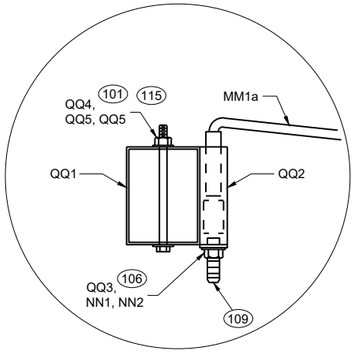
(113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.

(114) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

(115) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.

(116) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.

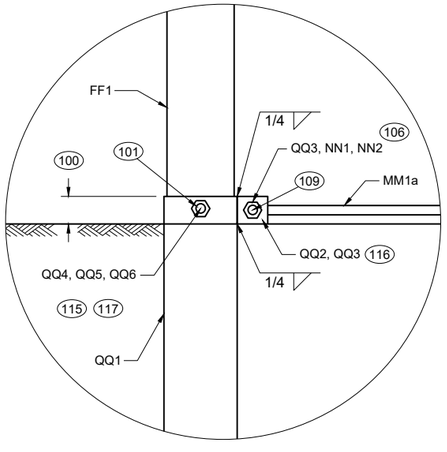
(117) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

6

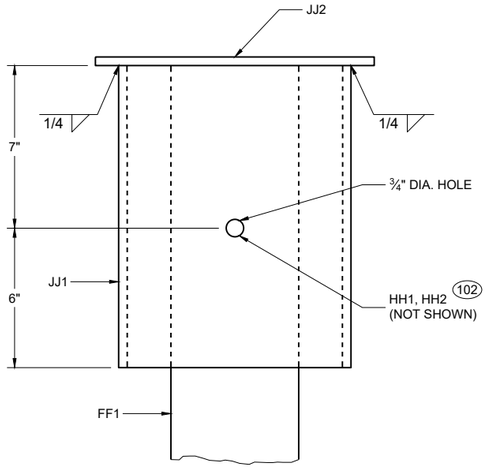
SDD 14B53-04b

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

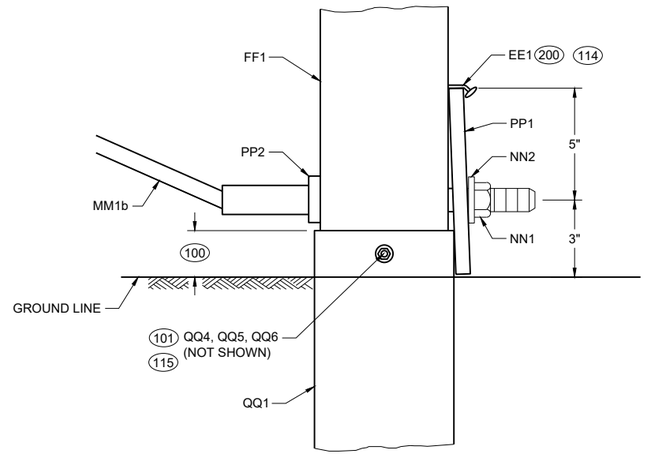
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



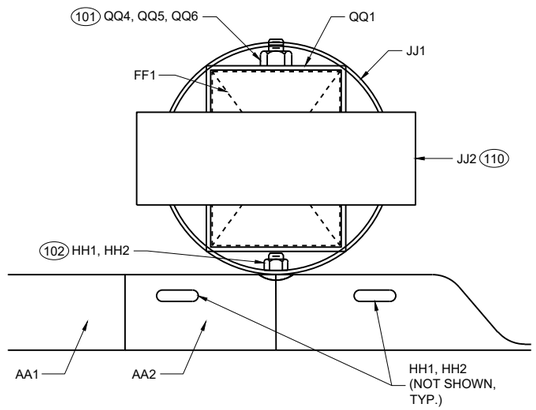
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



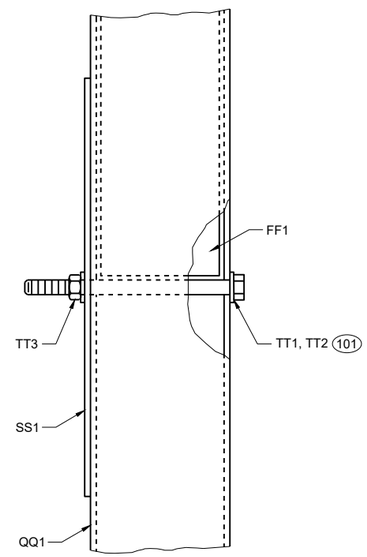
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04c

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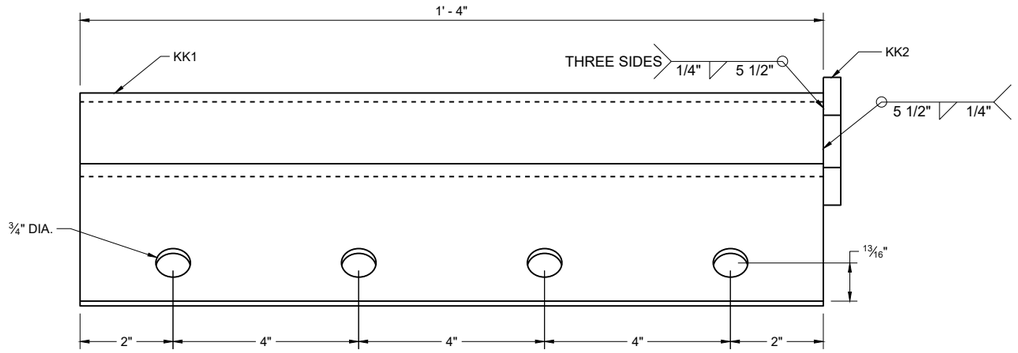
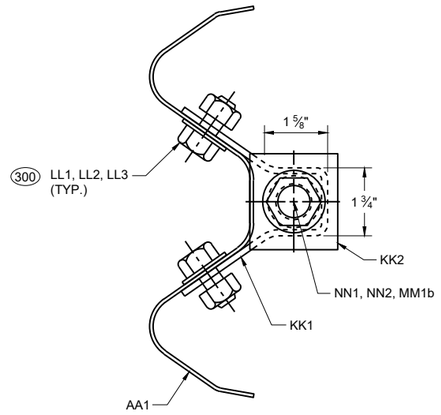
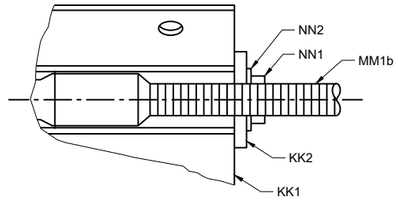
SDD 14B53-04c

GENERAL NOTES

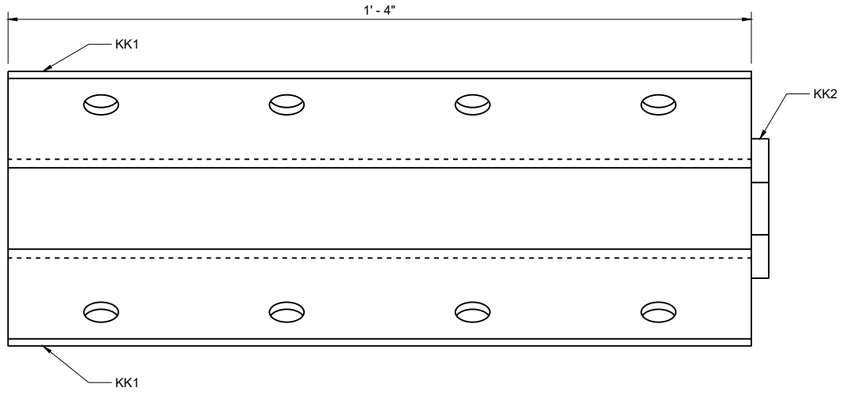
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

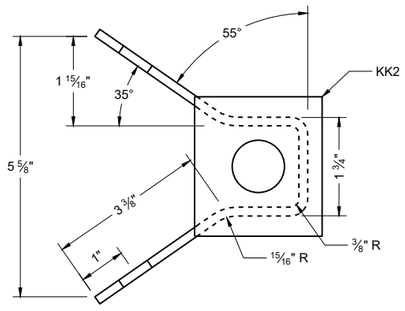




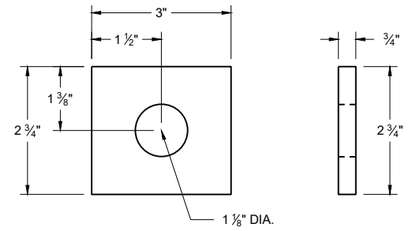


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

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SDD 14B53-04d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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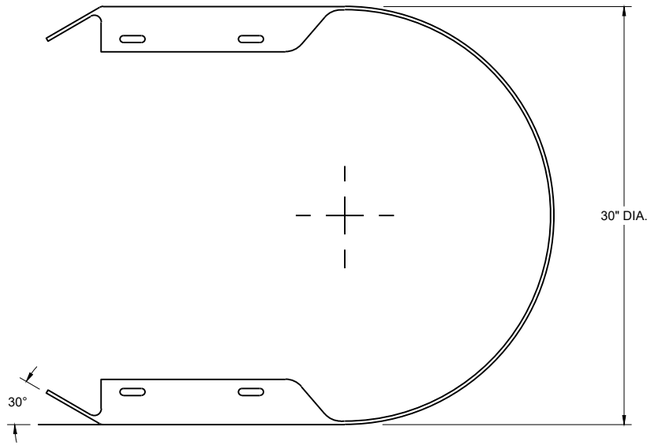
SDD 14B53-04d

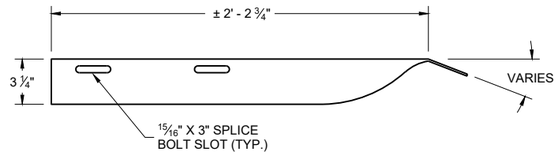
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

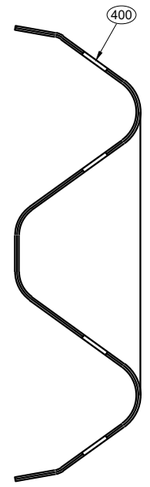
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



TOP VIEW

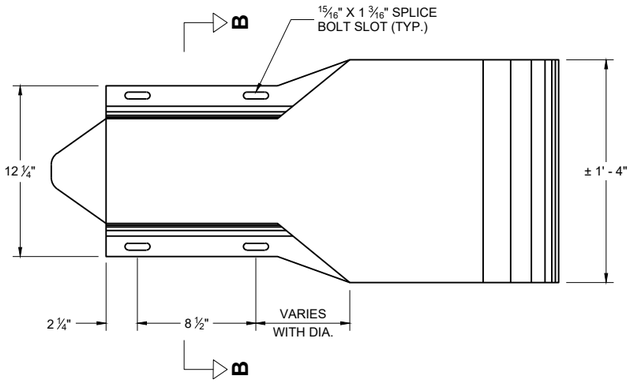


TOP VIEW



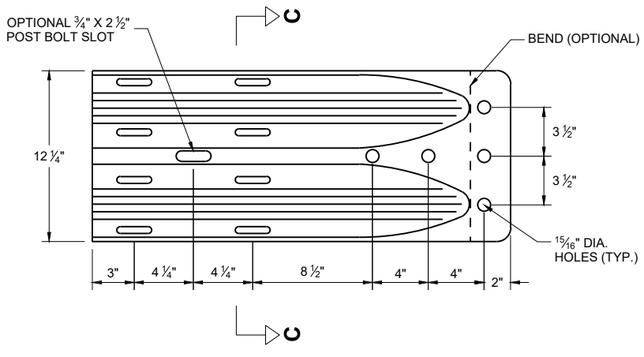
SECTION B -B

SECTION C -C



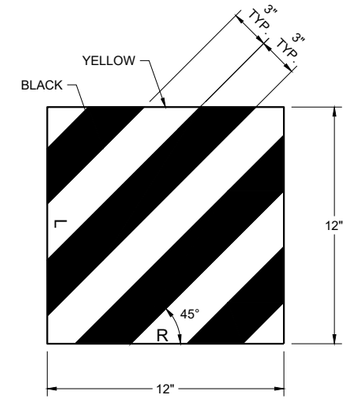
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)

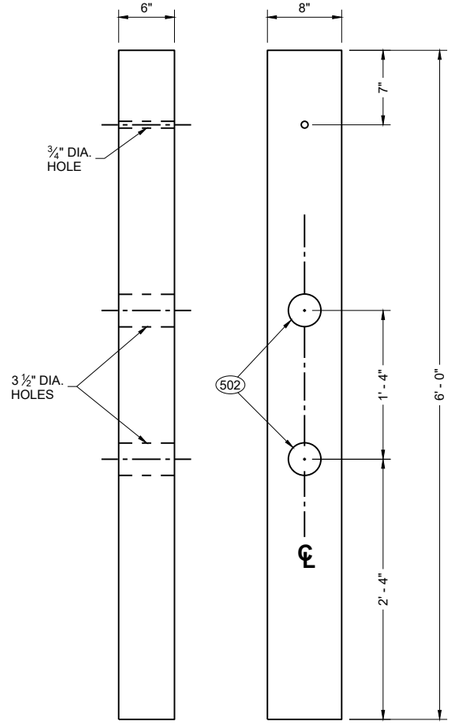


REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

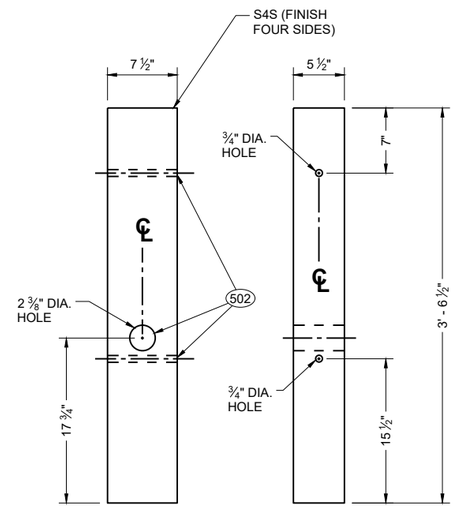
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B53-04e



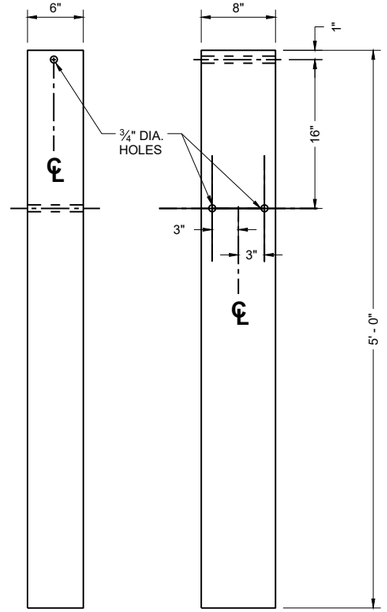
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

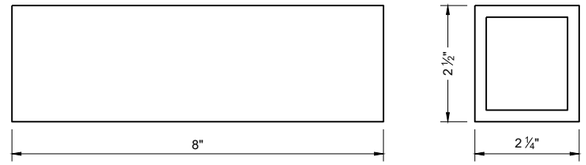
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

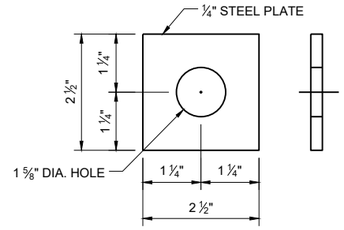
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

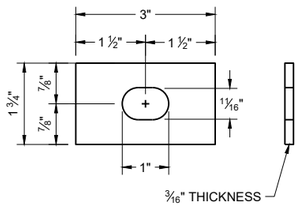
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109)



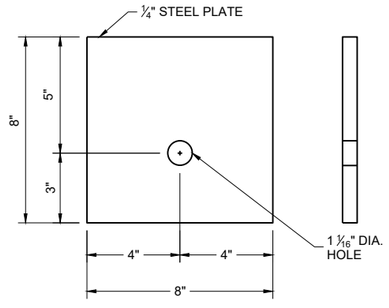
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



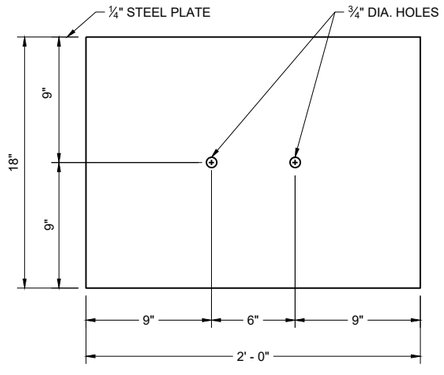
ANCHOR CABLE TUBE END PLATE (QQ3)



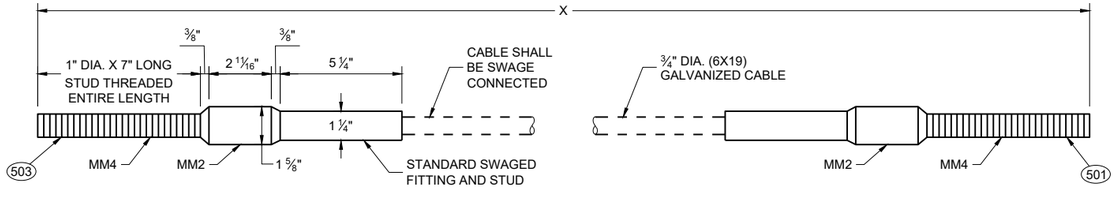
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B53-04g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53-04h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

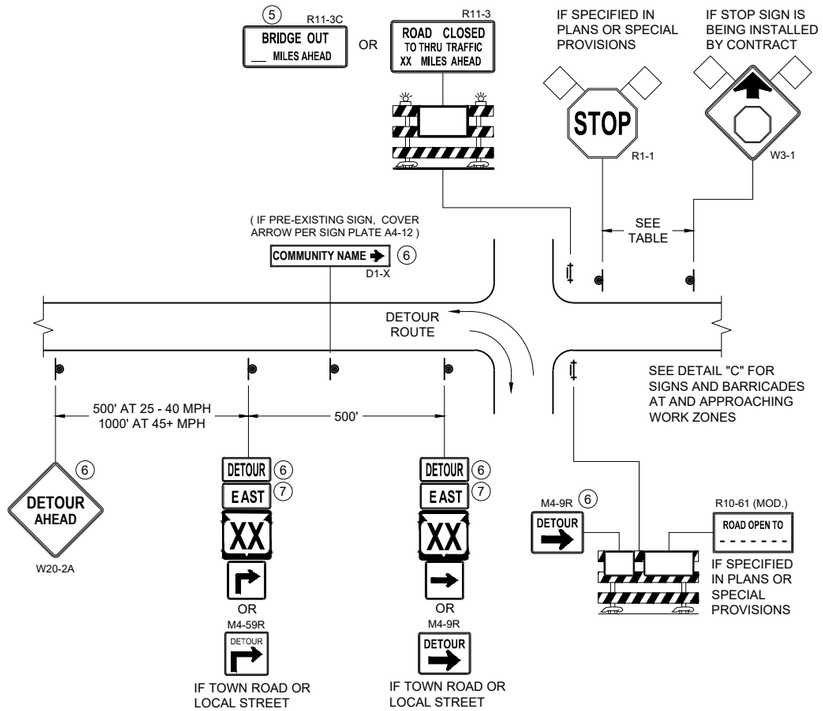
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER

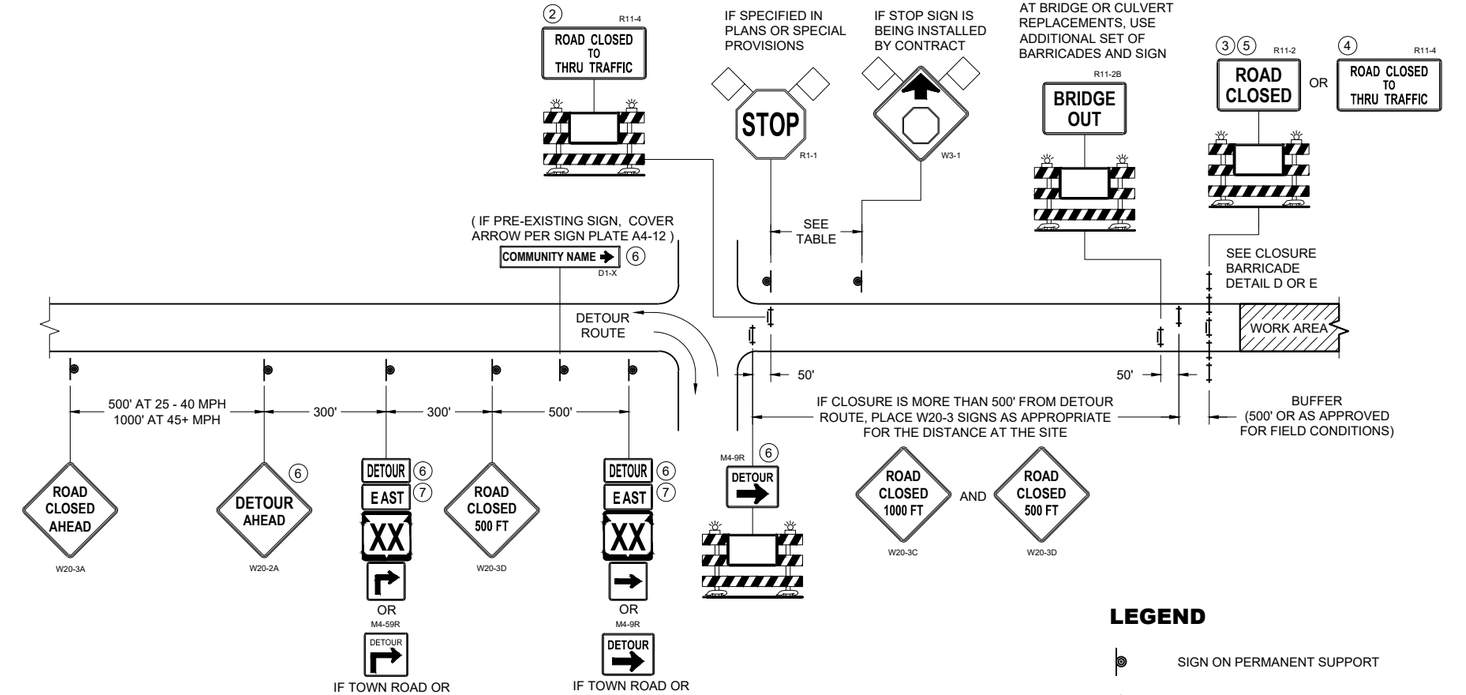
FHWA

6 SDD 14B53-04i



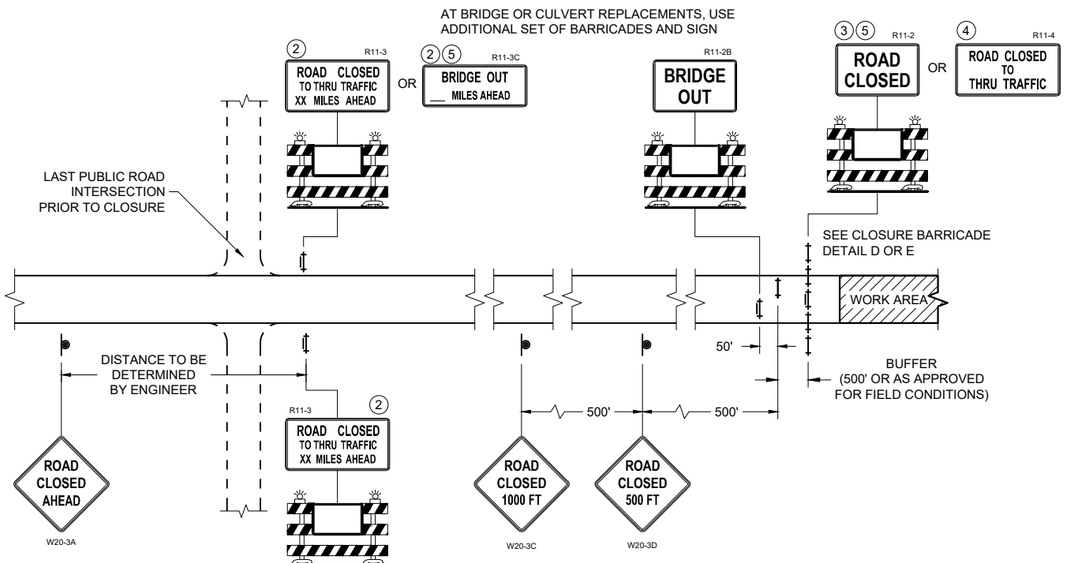
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

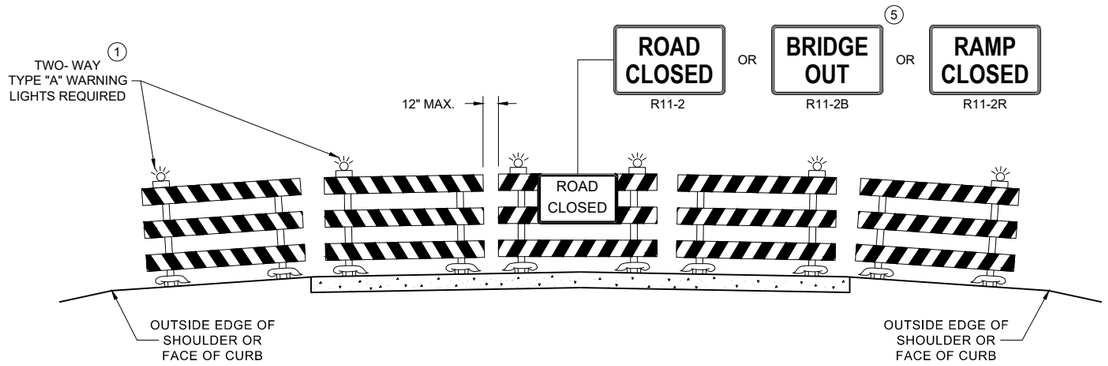
DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

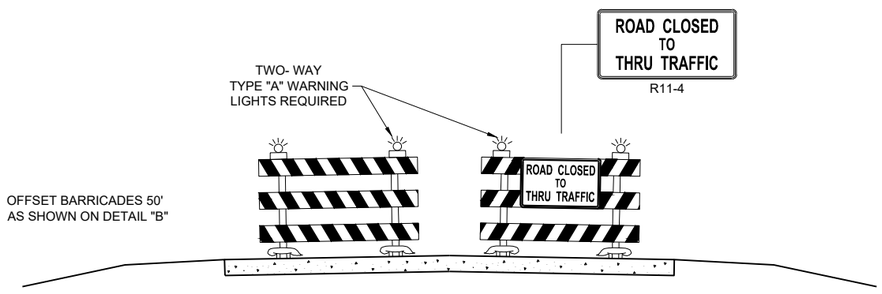
6
SDD 15C02-10a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

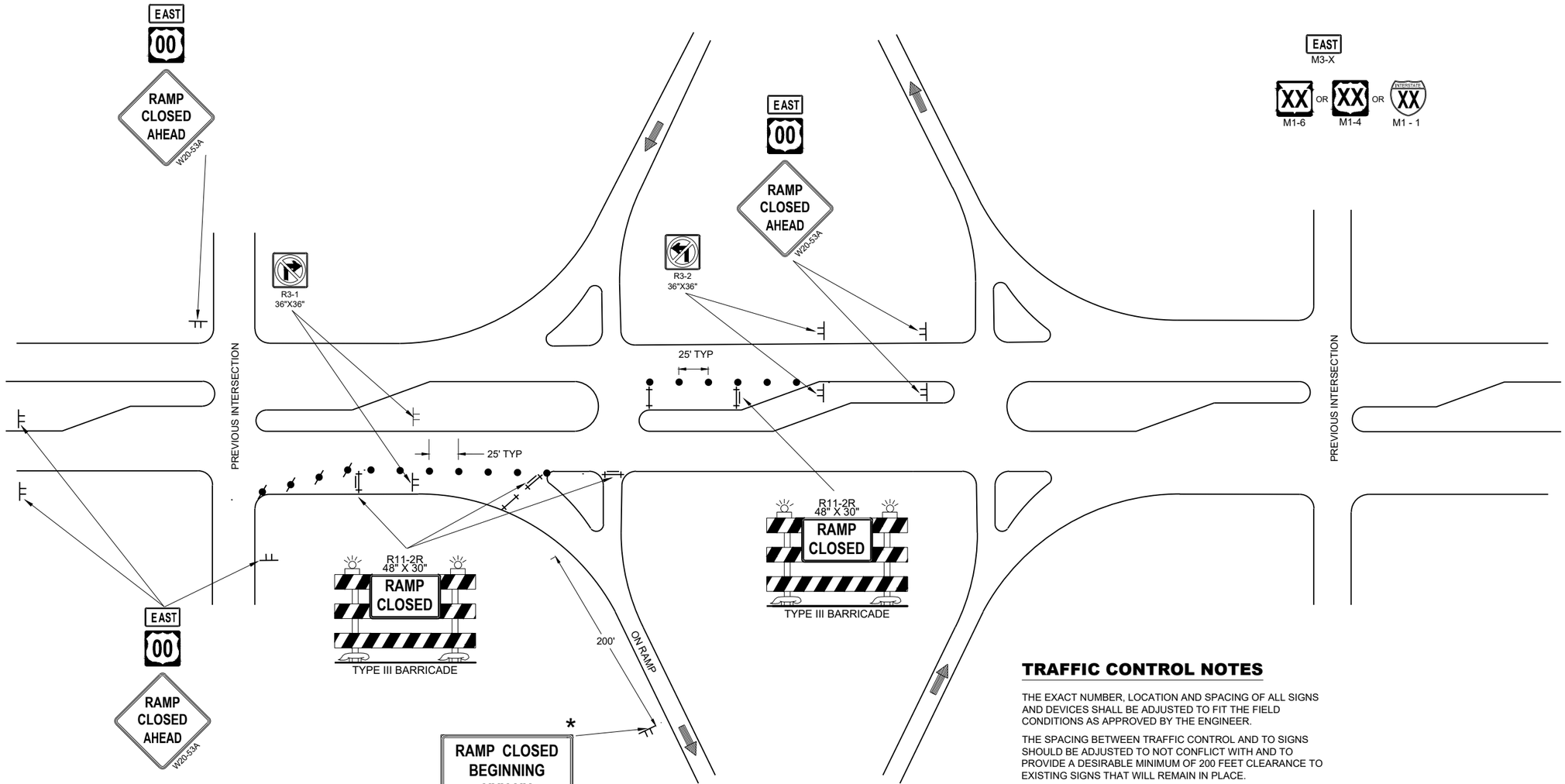
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C02-10b



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

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 THE 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.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02-10g

GENERAL NOTES

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

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

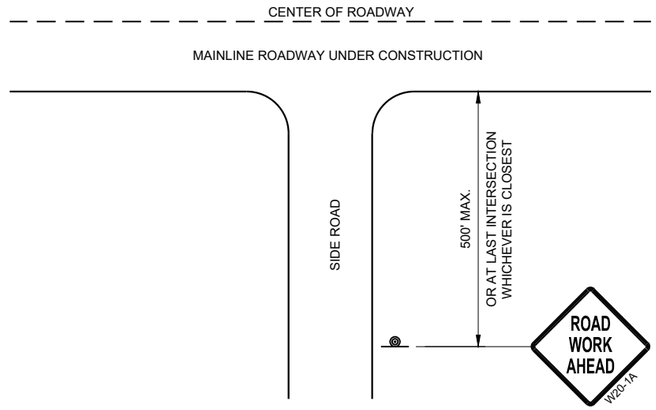
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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 REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



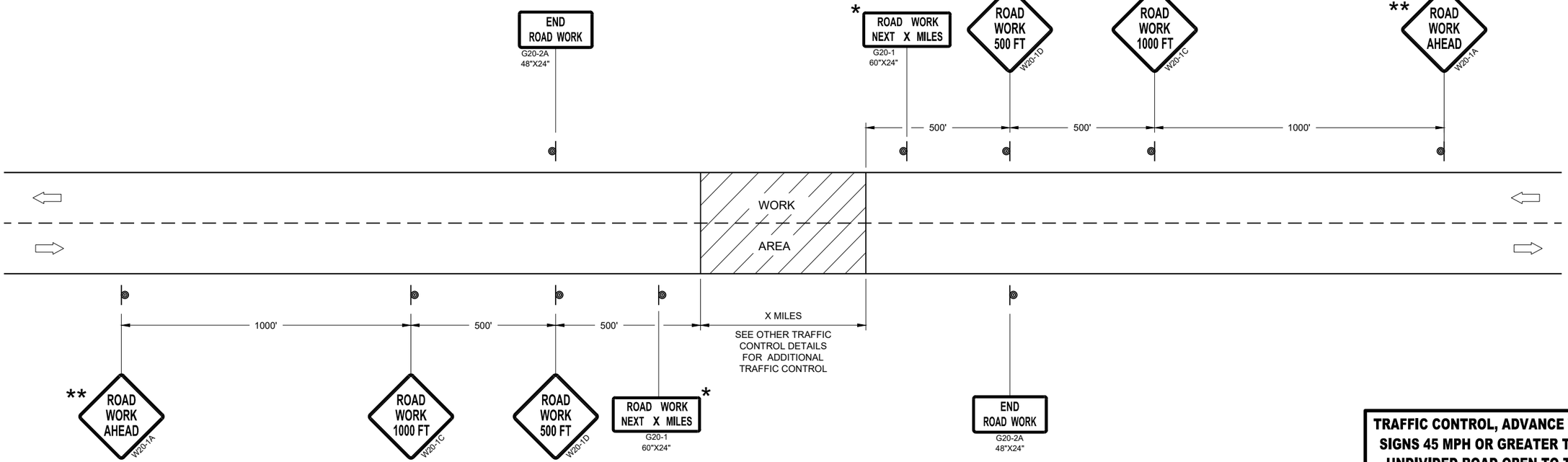
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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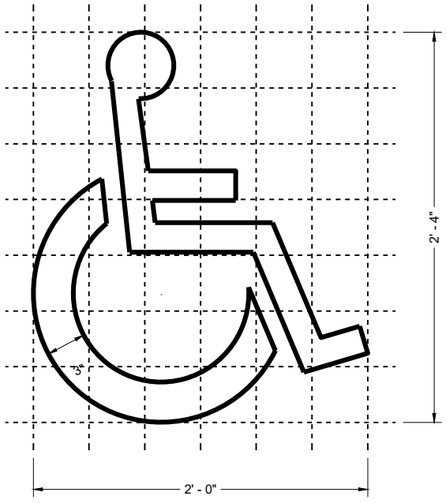
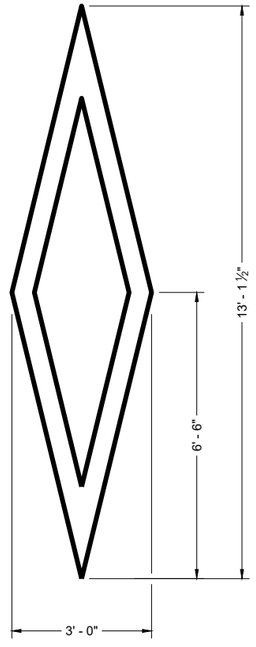
SDD 15C04 - 05

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.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

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SDD 15C07-16a

SDD 15C07-16a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2024
DATE

/S/ Jeannie Silver
STATE SIGNING AND MARKING ENGINEER

FHWA

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

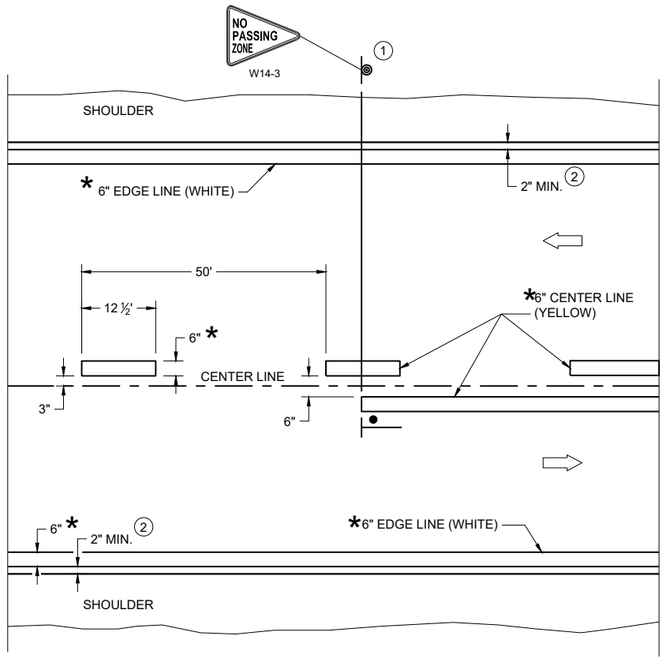
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

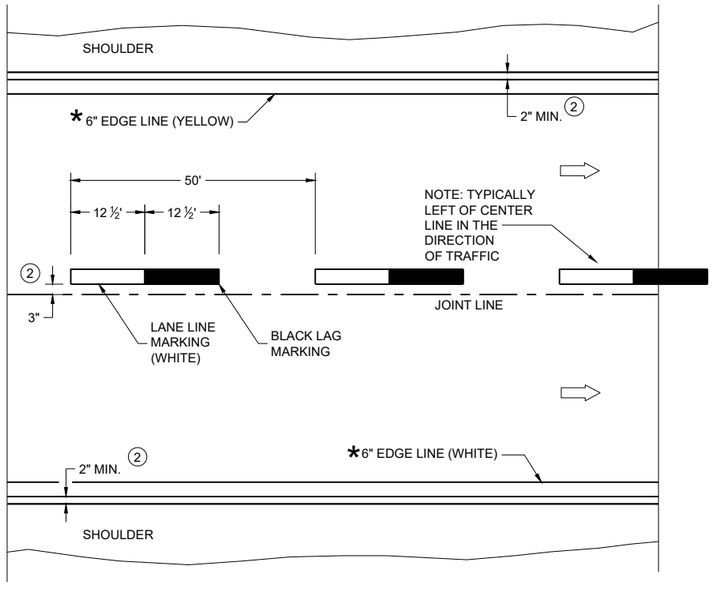
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

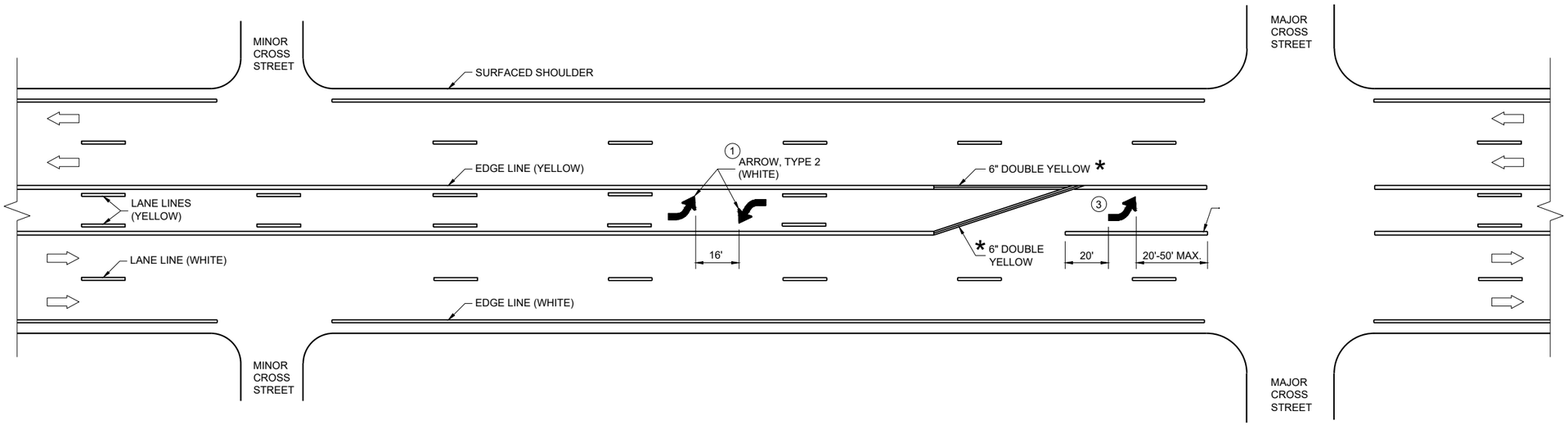
SDD 15C08-24a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



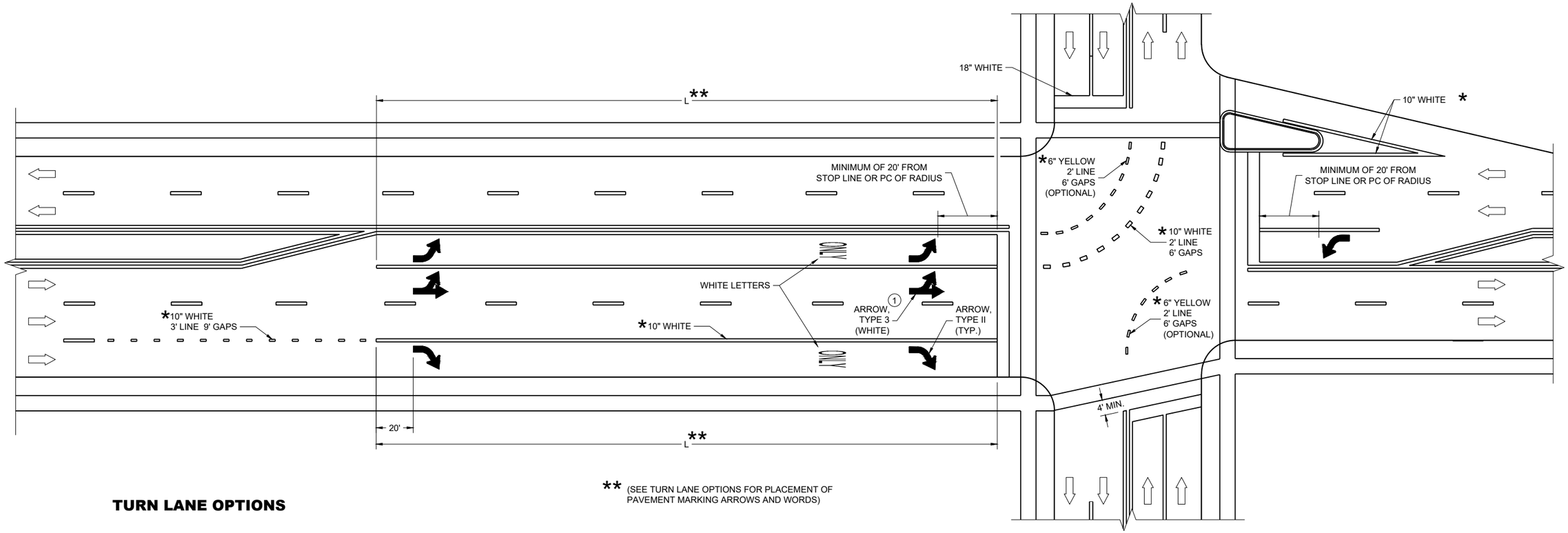
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

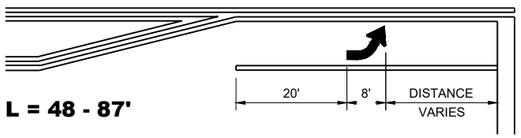
SDD 15C08-24c



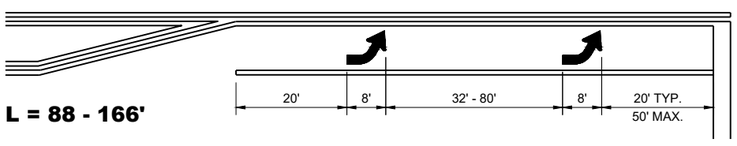
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

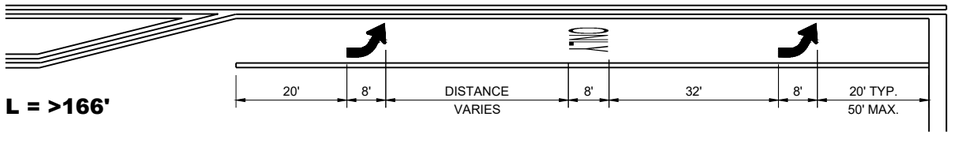
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT
REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

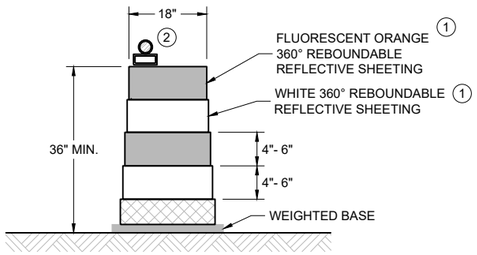
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

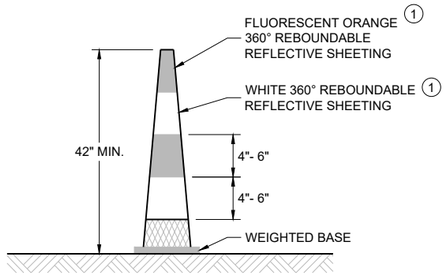
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

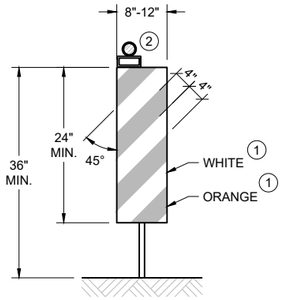
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

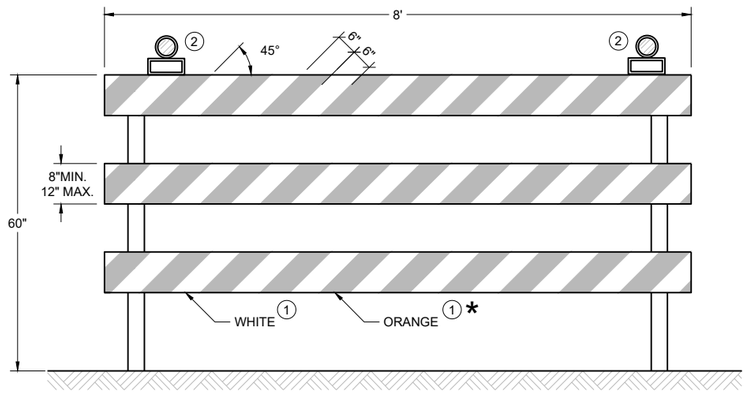
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL

THE 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
February 2026 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

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SDD 15C11-11b

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.

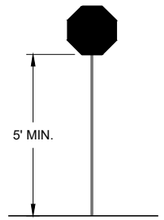
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM 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.



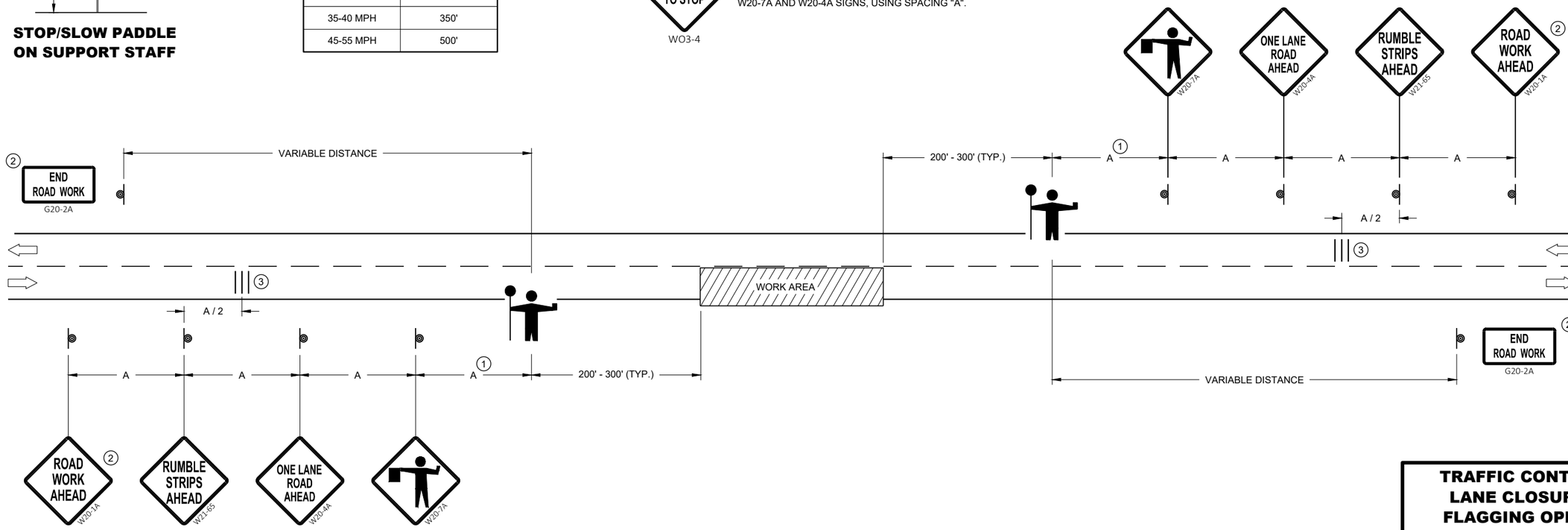
STOP/SLOW PADDLE ON SUPPORT STAFF

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

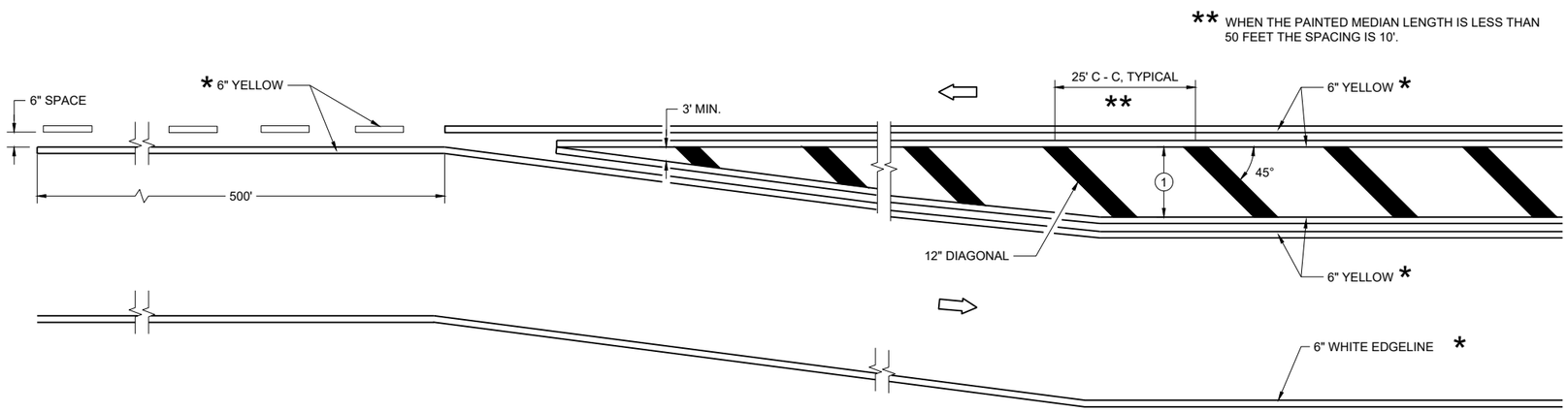
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a



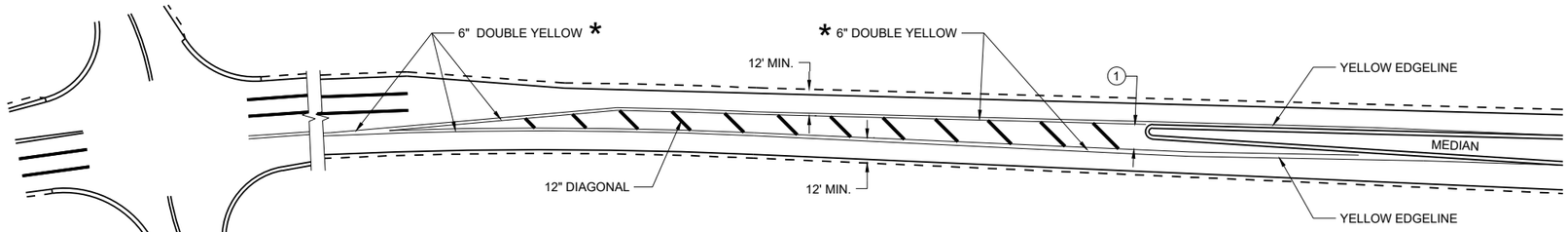
MEDIAN ISLAND DETAIL

GENERAL NOTES

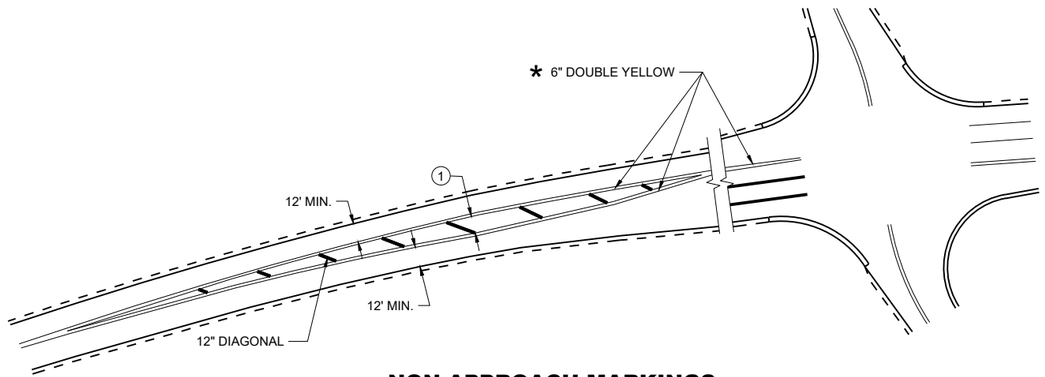
(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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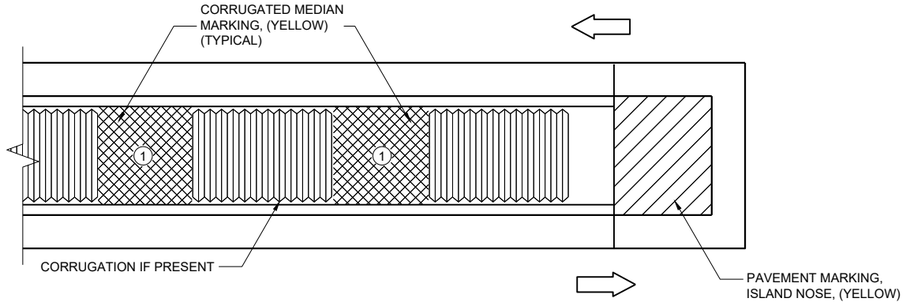
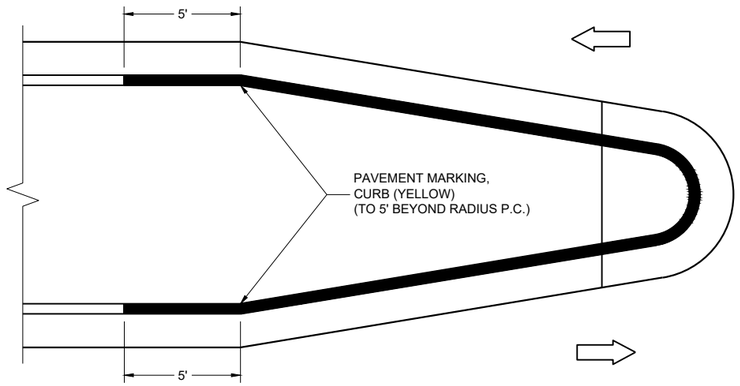
SDD 15C18-09a

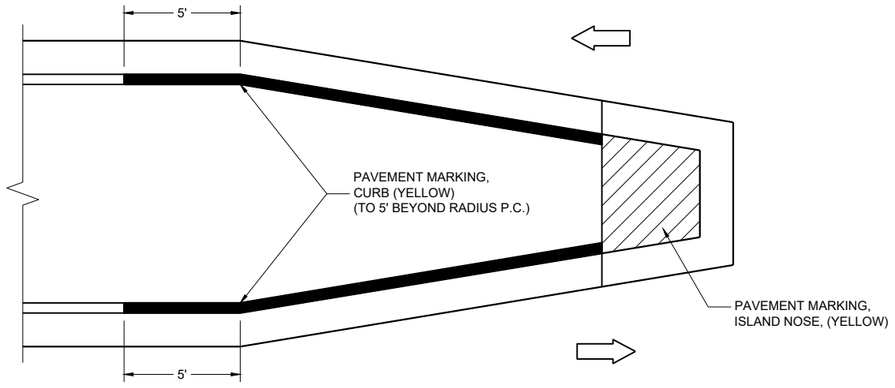
SDD 15C18-09a



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.

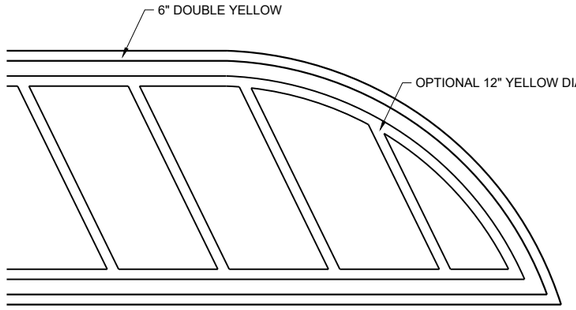
(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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SDD 15C18-09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

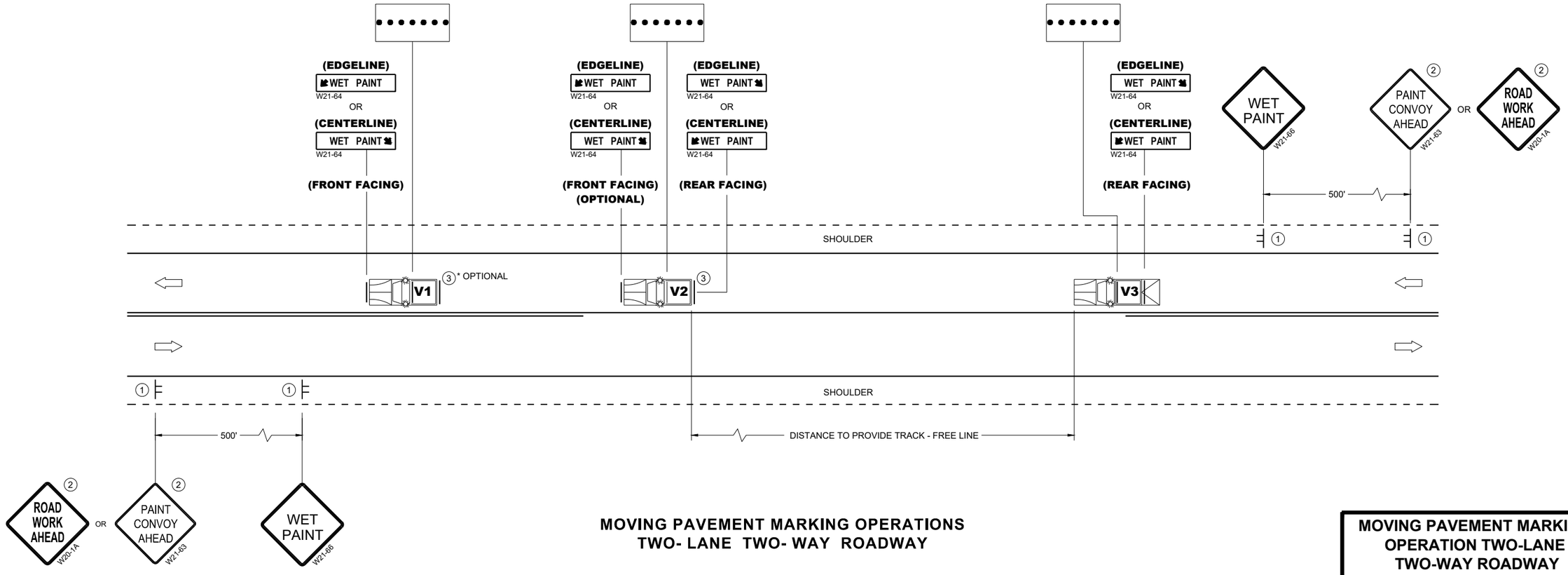
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER

FHWA

6

SDD 15C19-11a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

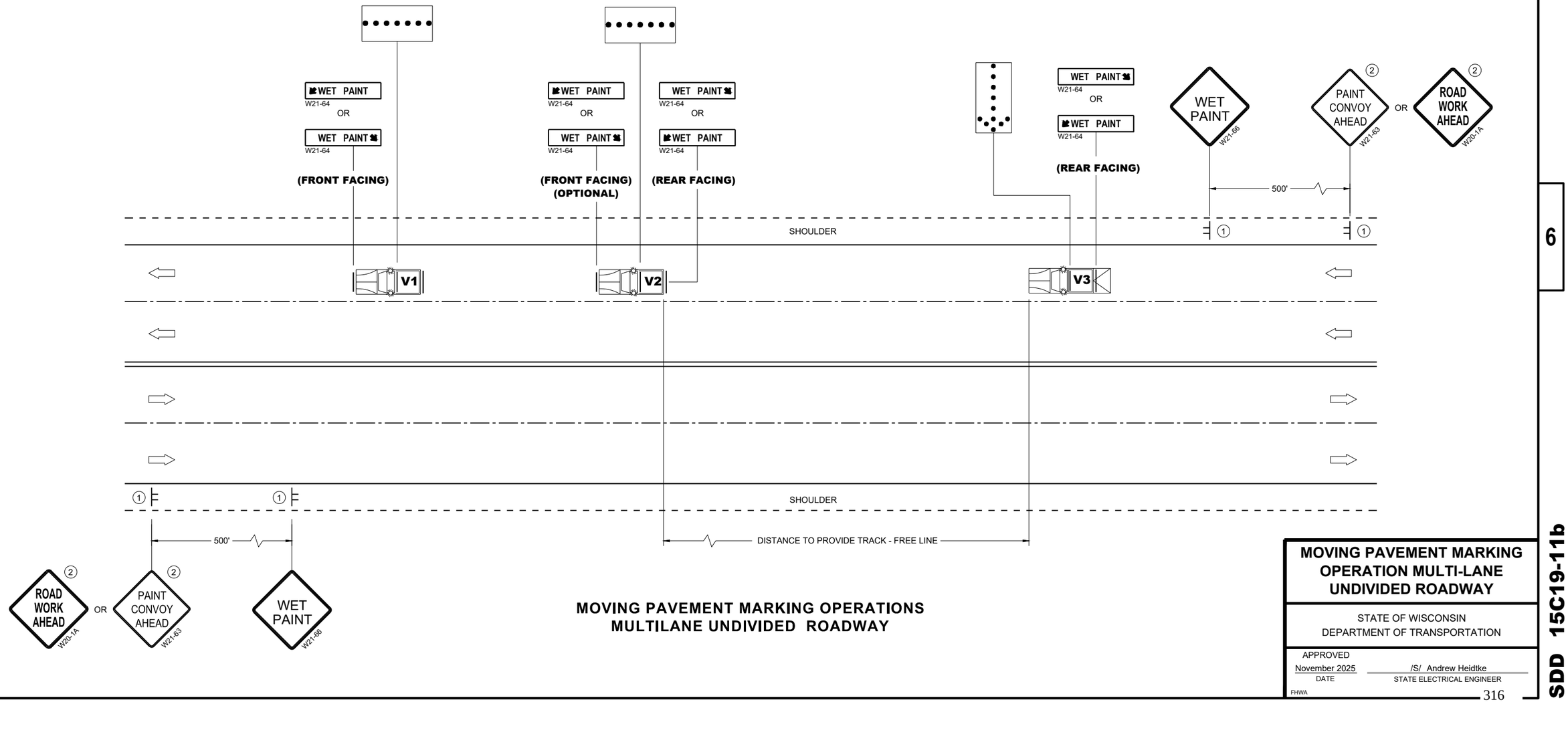
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER
FHWA

6

SDD 15C19-11b

6

SDD 15C19-11b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

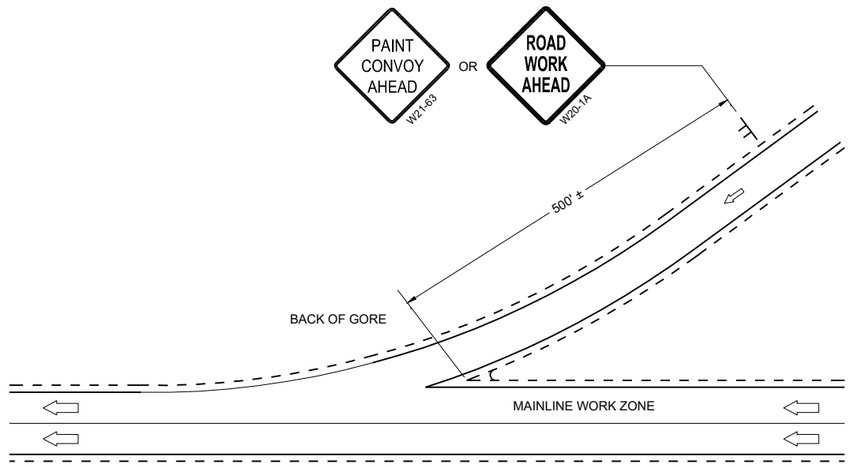
V3 TRAIL VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

ARROW PANEL (CAUTION)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

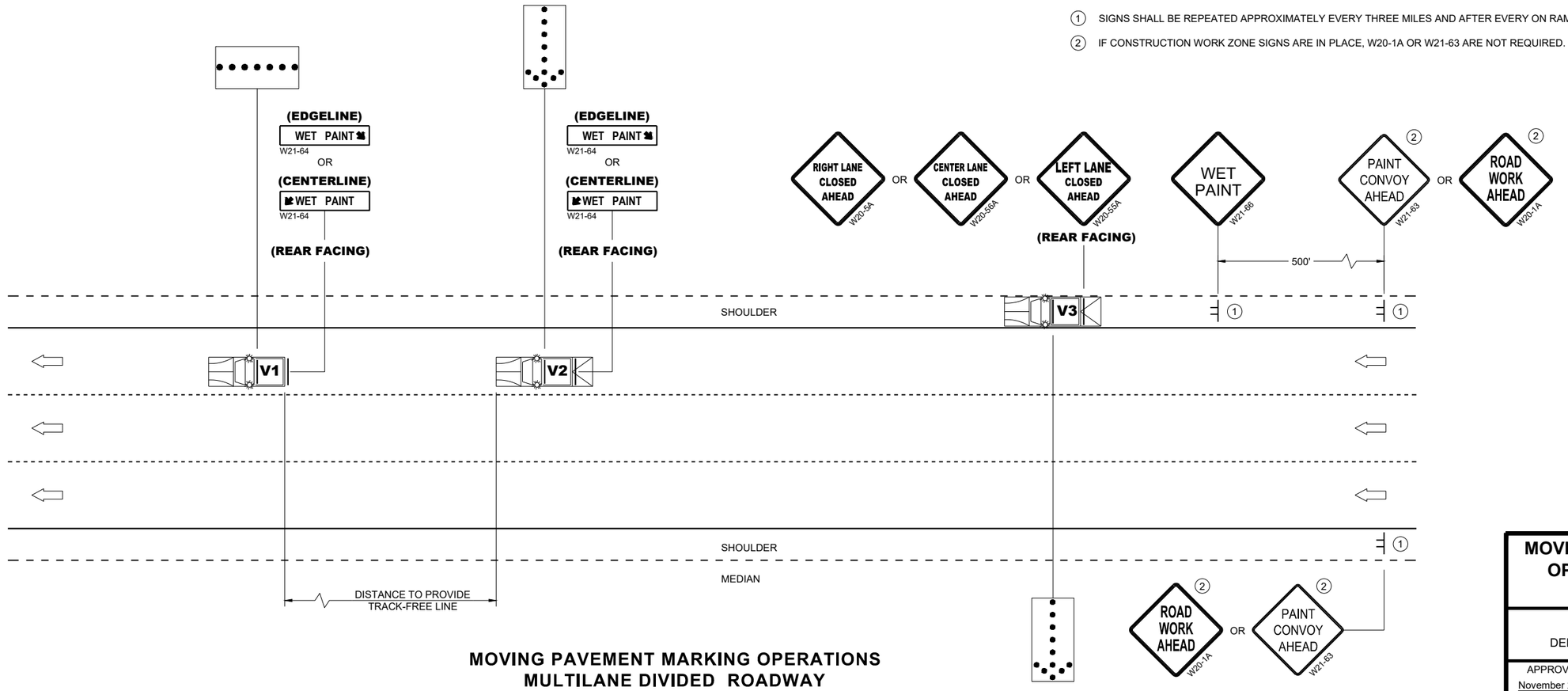
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025
DATE

/S/ Andrew Heidtke
STATE ELECTRICAL ENGINEER

FHWA

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SDD 15C19-11c

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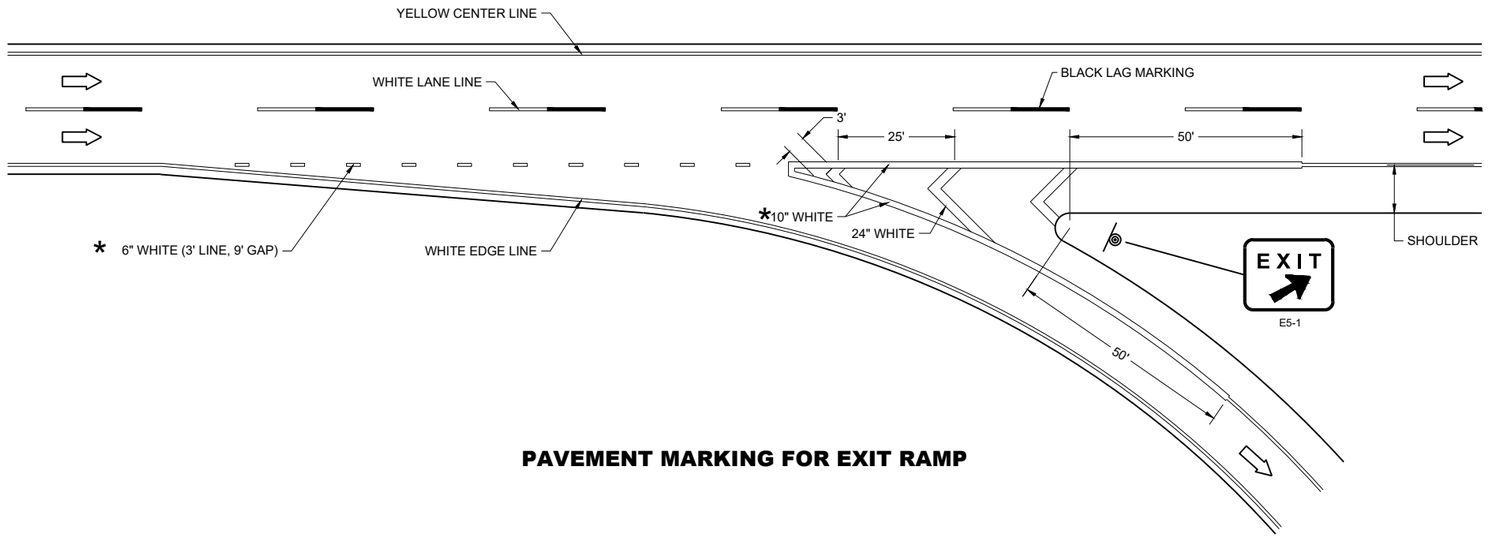
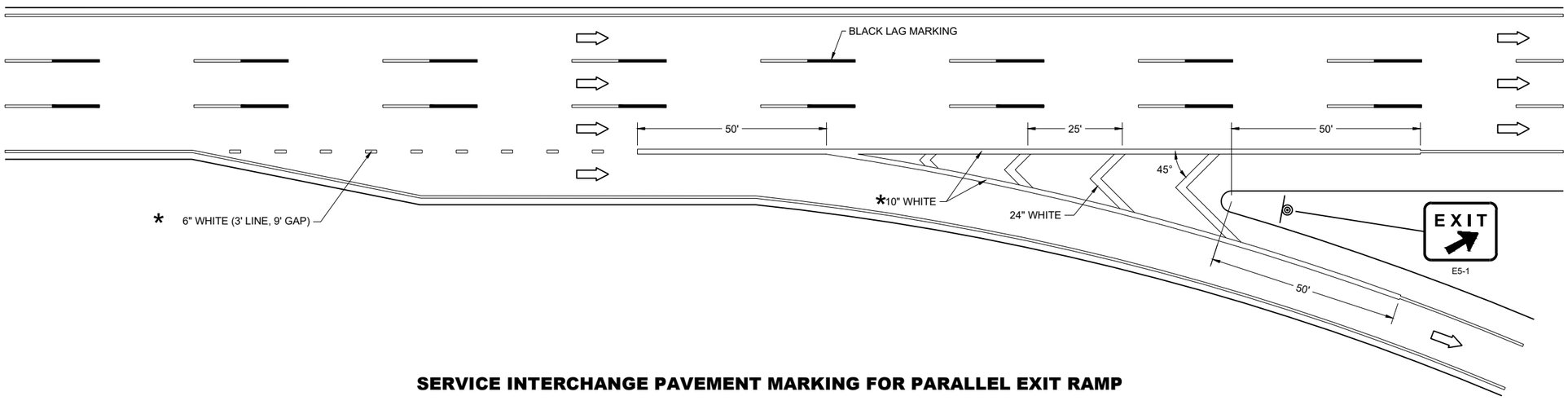
SDD 15C19-11c



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15C31-08a

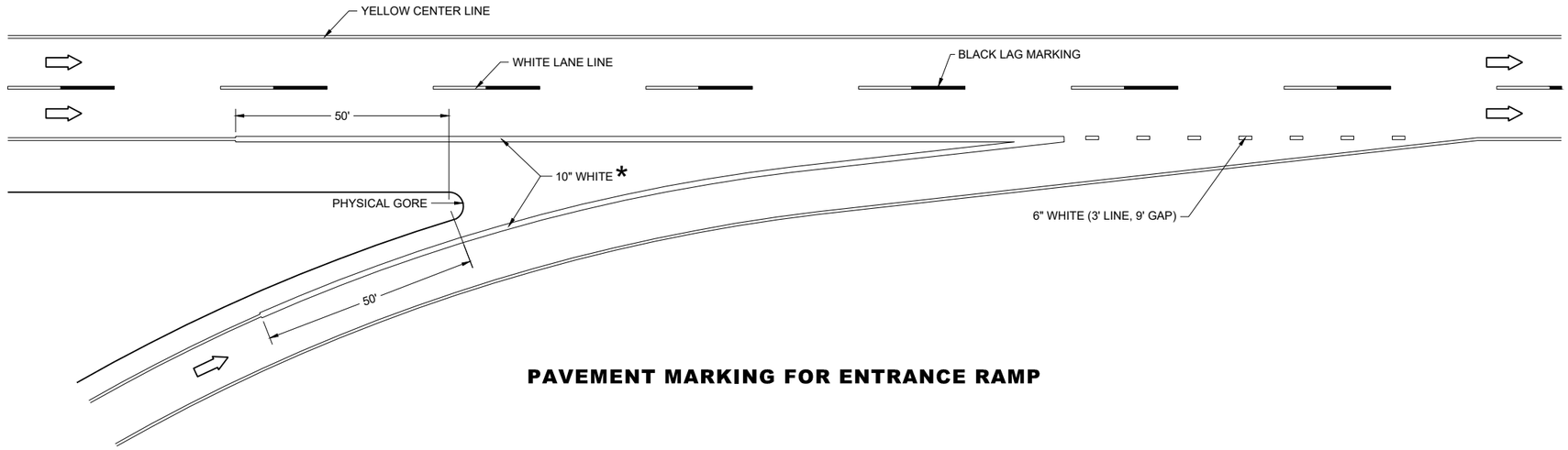
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

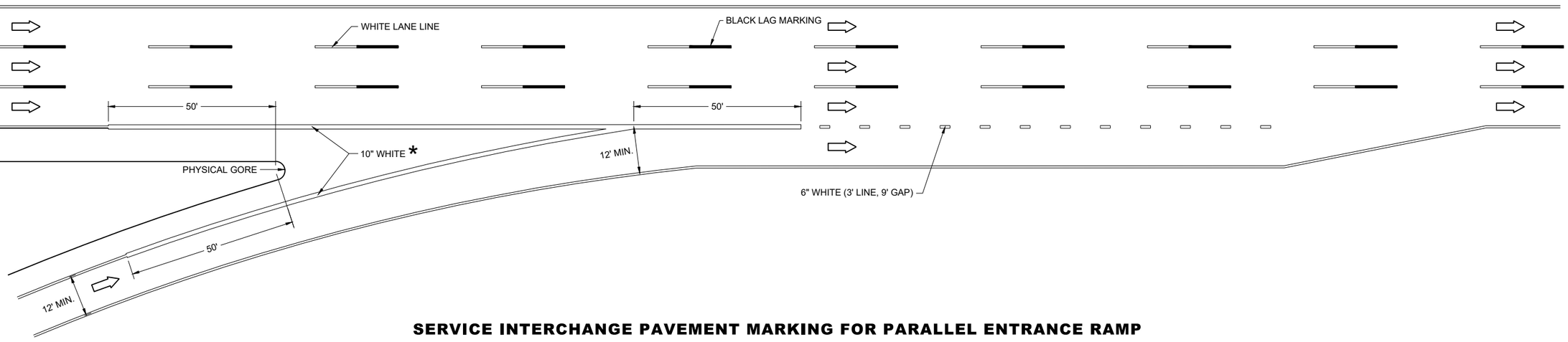
LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



PAVEMENT MARKING FOR ENTRANCE RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

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SDD 15C31-08c

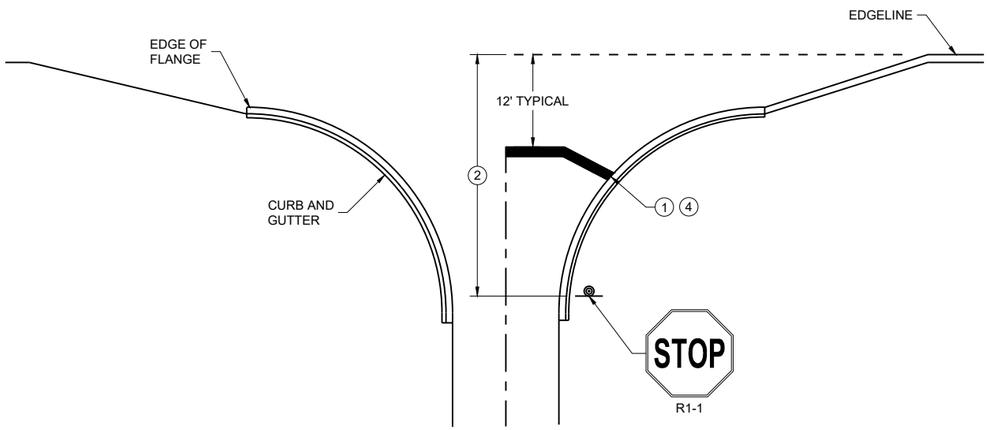
PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

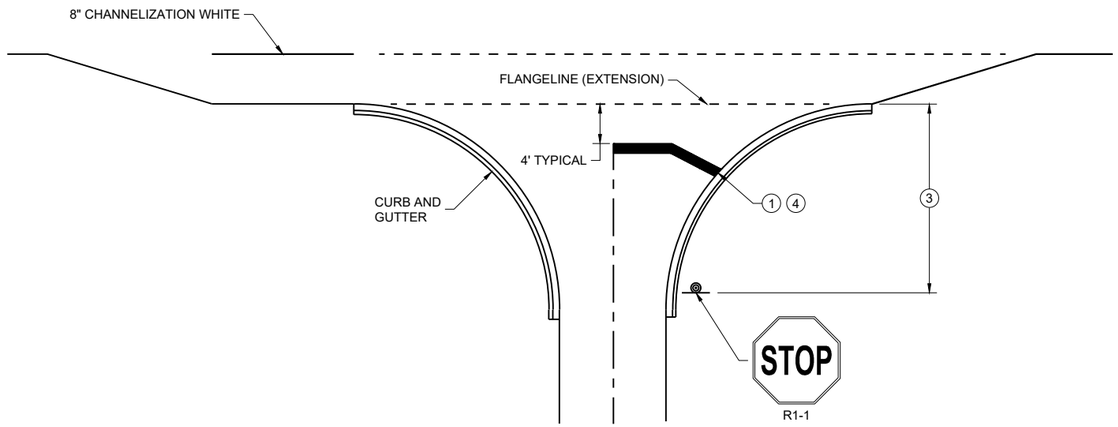
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

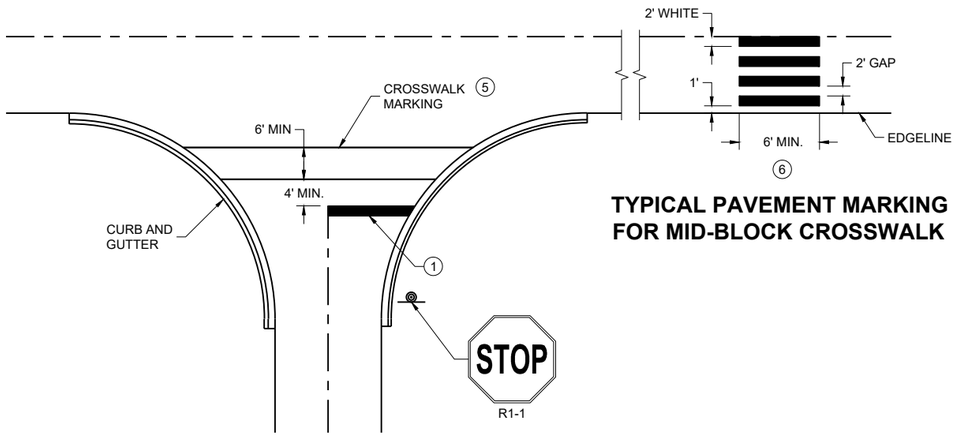
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

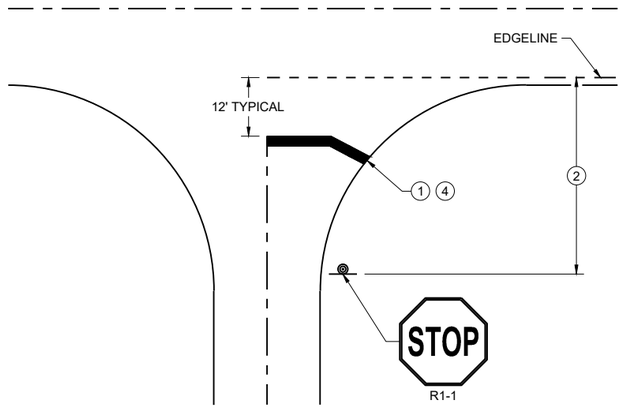


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK (5)

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C33-05

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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.

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 AND PLACE TEMPORARY PAVEMENT MARKING LINE 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.

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

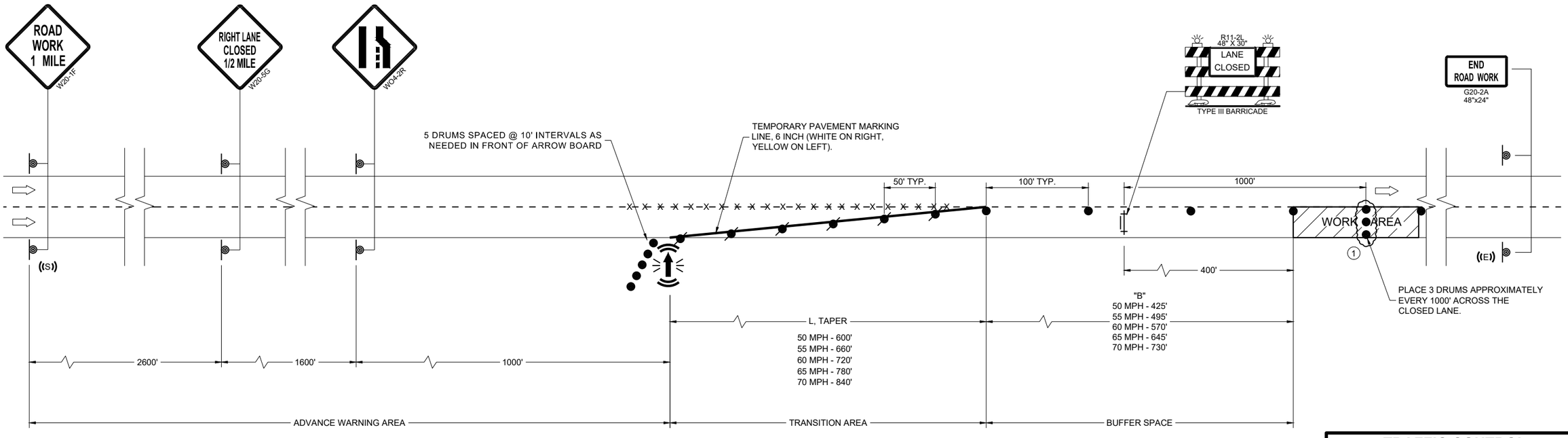
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

(1) DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER



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SDD 15D12-17a

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SDD 15D12-17a

TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2026
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A 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 AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS 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 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.

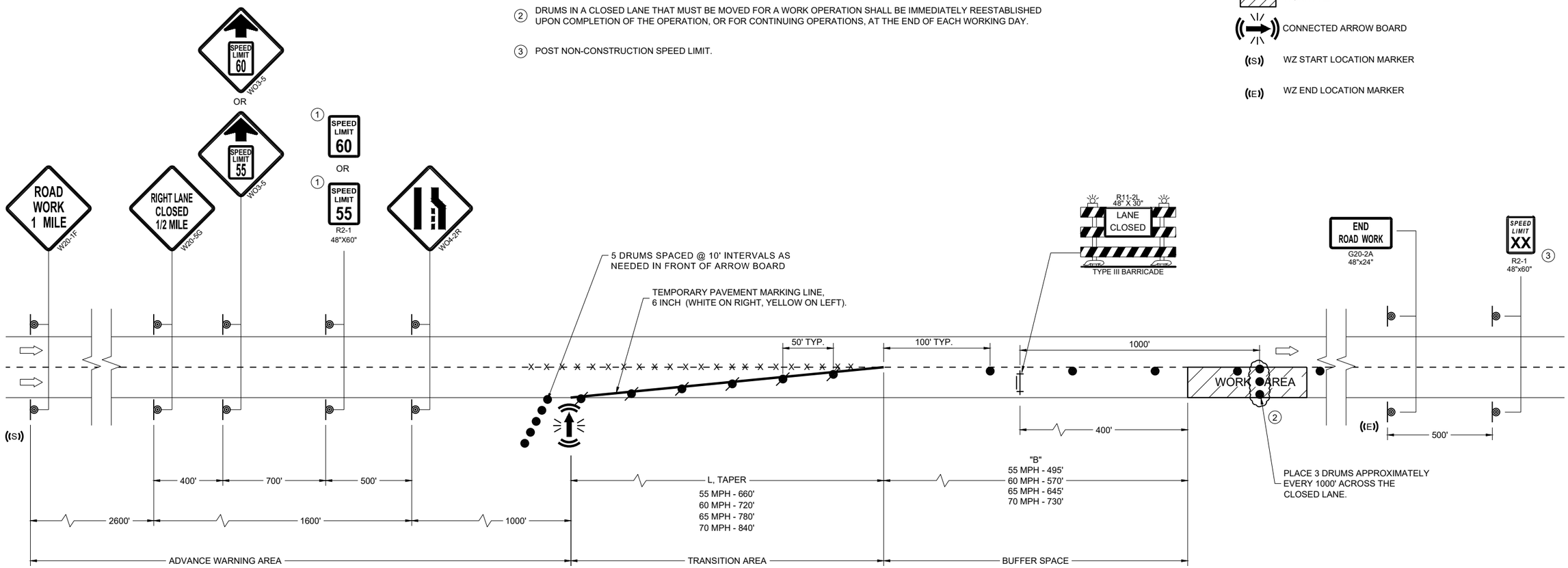
① A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES.

② DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

③ POST NON-CONSTRUCTION SPEED LIMIT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-17b

SDD 15D12-17b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER
- CONNECTED ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- (S) — PORTABLE TRAFFIC SENSOR (PTS)
- FBS — FLASHING BEACON SIGNS
- STOPPED OR SLOW TRAFFIC WHEN FLASHING — WO8-76, 96" x 48"

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS 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.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

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 AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

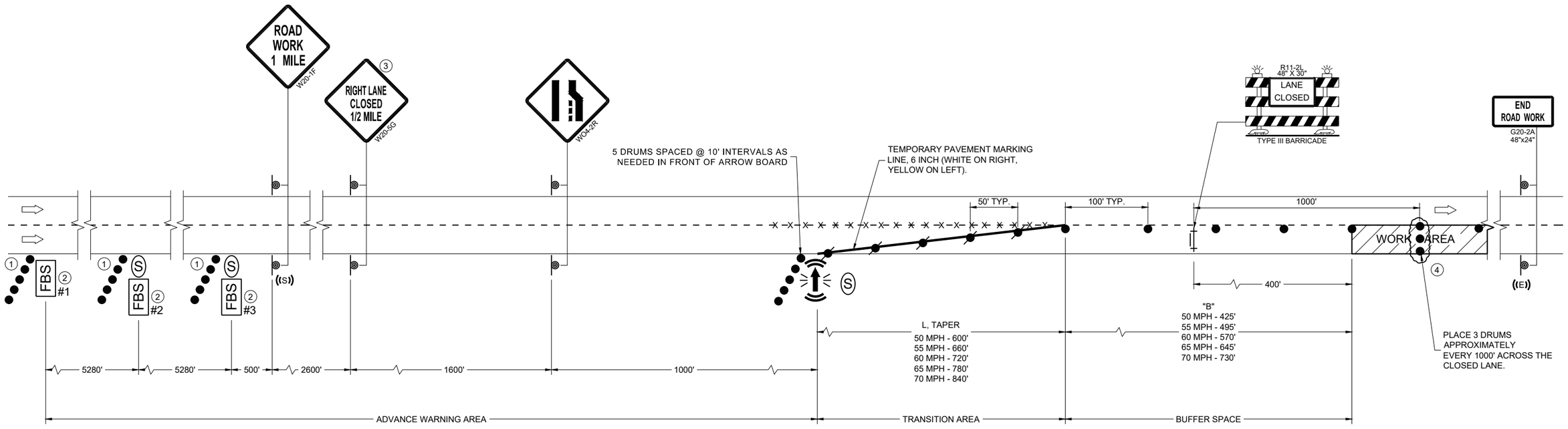
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

1. 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
2. IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.
3. IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. 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. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN
4. DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6 SDD 15D12-17d

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A 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 AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS 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 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.

IF THE SPEED LIMIT WILL CHANGE BASED ON THE PRESENCE OF WORKERS, USE THE TAPER LENGTH THAT MATCHES THE HIGHER OF THE TWO SPEEDS FOR A CONTINUOUS LANE CLOSURE.

EXISTING POST MOUNTED SPEED LIMIT SIGNS SHOULD BE COVERED OR REMOVED.

(1) POST NON-CONSTRUCTION SPEED LIMIT.

(2) IF THE LANE CLOSURE MOVES DOWNSTREAM, LEAVE DSLT IN PLACE.

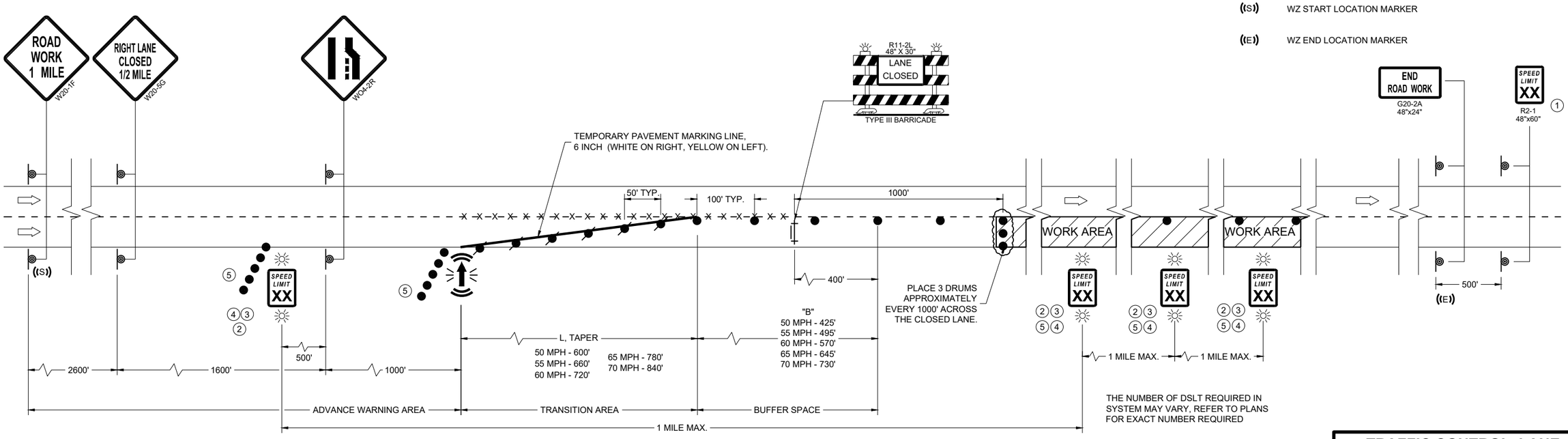
(3) PLACE DSLT AT EXISTING POST MOUNTED SPEED LIMIT SIGN AFTER THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. IF THERE IS NOT AN EXISTING SIGN, PLACE 1,500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP

(4) FOR LEFT LANE CLOSURES, DSLT REMAINS ON RIGHT SHOULDER.

(5) 5 DRUMS SPACED @ 10' INTERVALS AS NEEDED.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- DIGITAL SPEED LIMIT TRAILER (DSLT)
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER



TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6
SDD 15D12-17g

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.

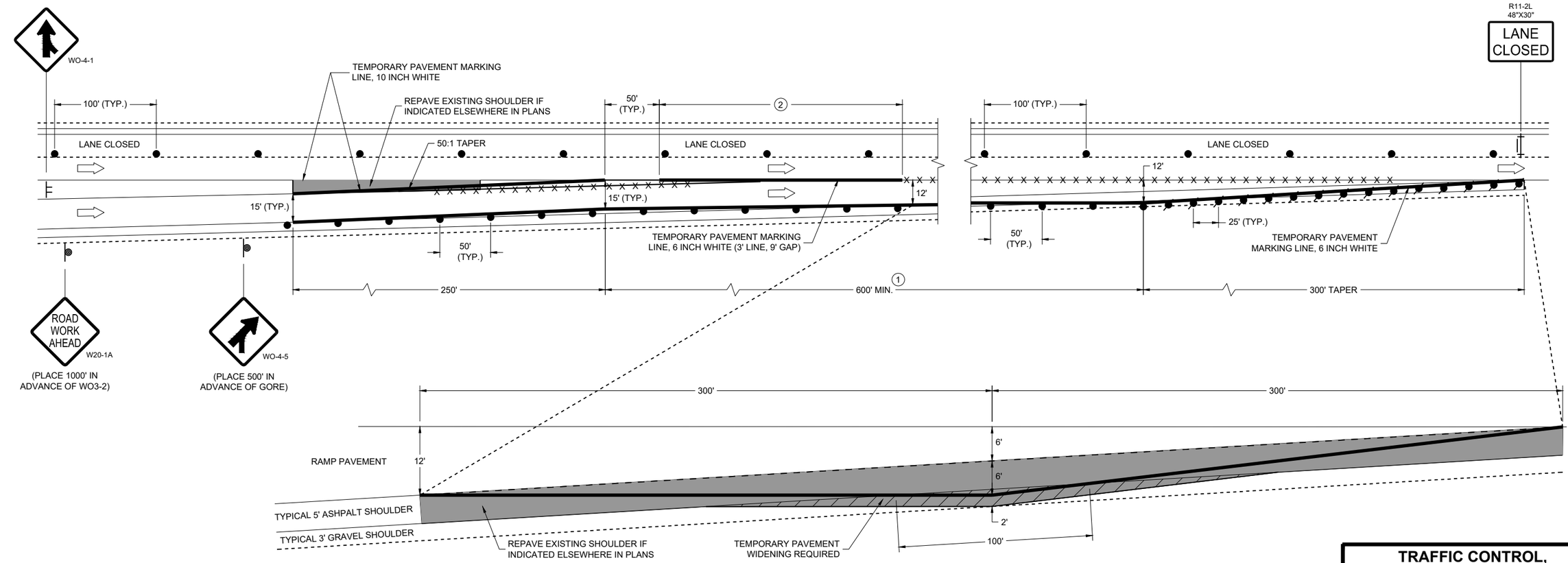
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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 LINES 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 AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 15D15-08b

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.

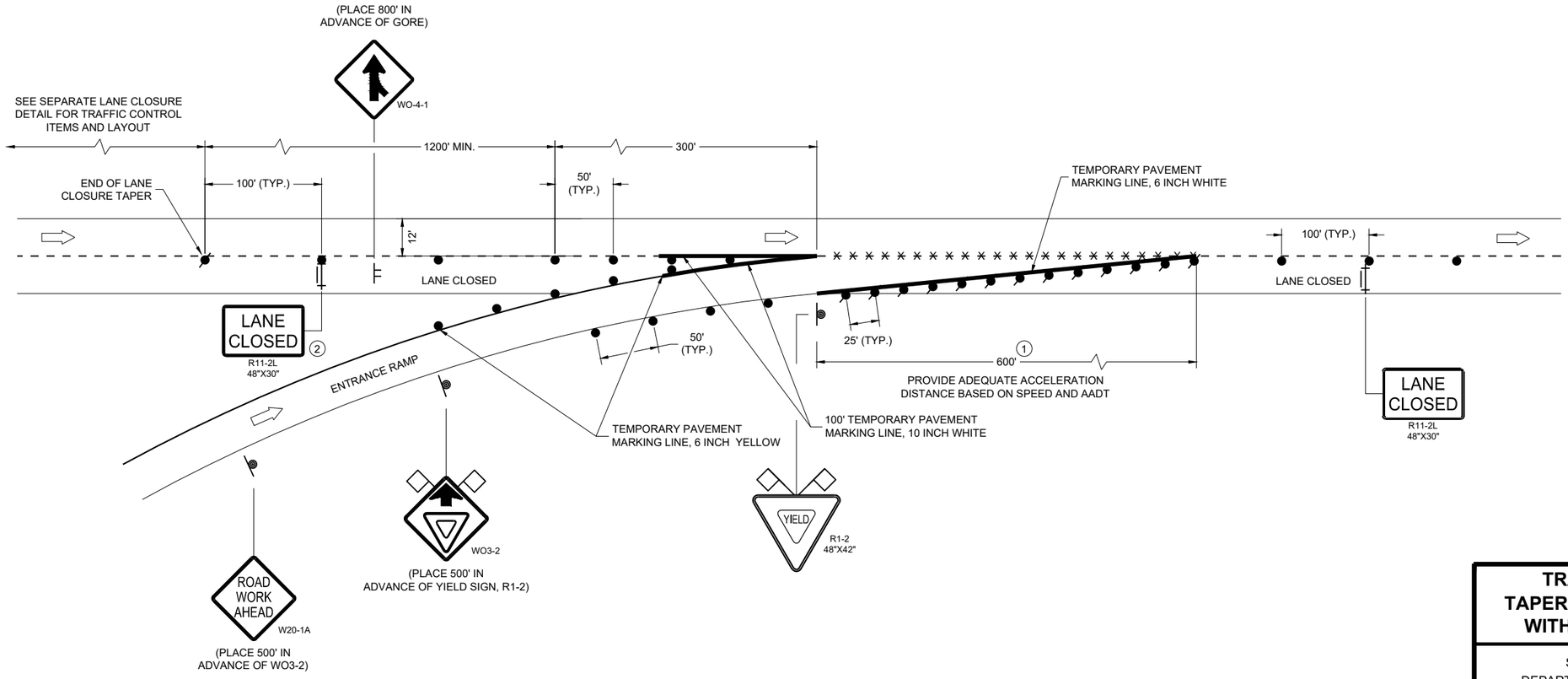
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES 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.

(2) IF LOCATED AFTER INITIAL LANE CLOSURE BARRICADE AND "LANE CLOSED" SIGN, USE 3 DRUMS IN PLACE OF BARRICADE AND SIGN.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — <position>
FHWA

6

SDD 15D15-08c

6

SDD 15D15-08c

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.

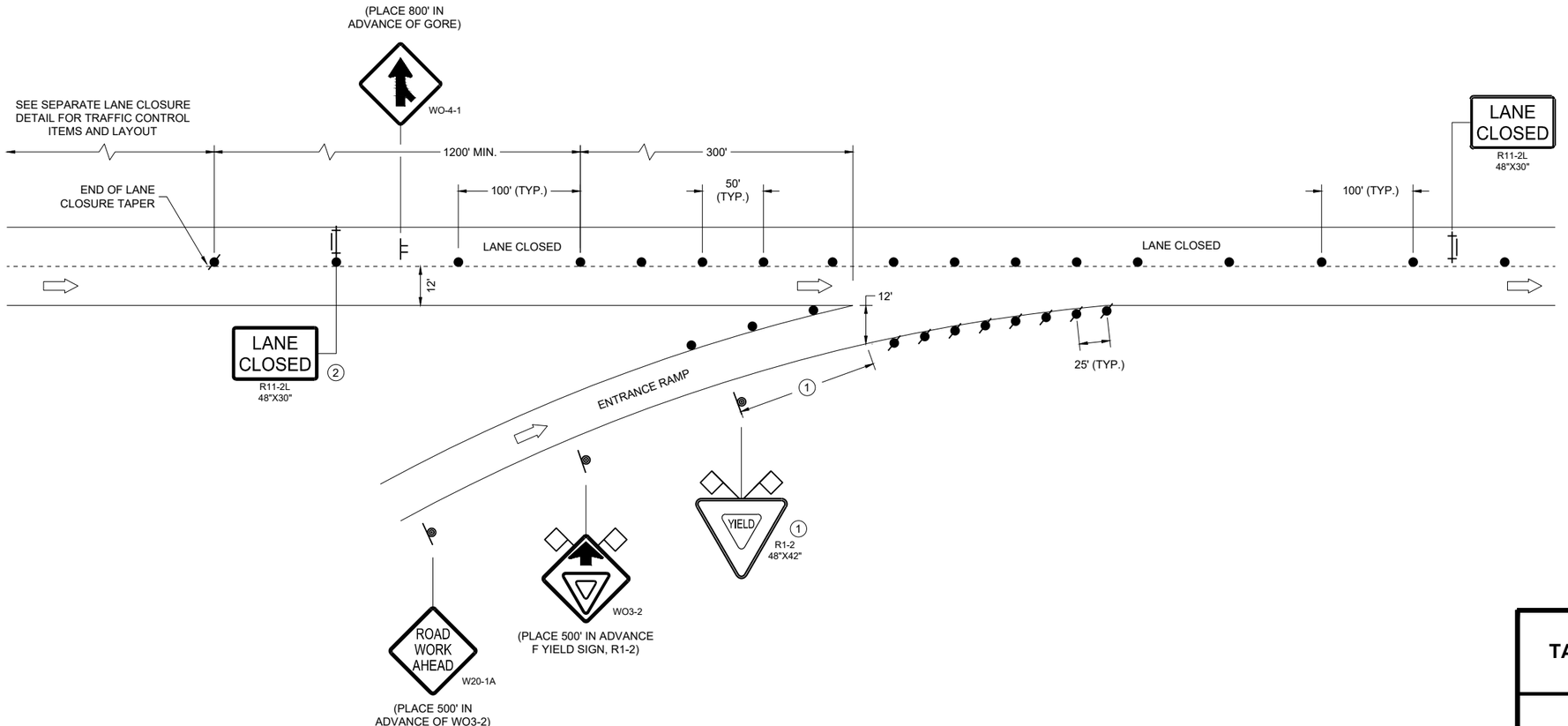
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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.

(2) IF LOCATED AFTER INITIAL LANE CLOSURE BARRICADE AND "LANE CLOSED" SIGN, USE 3 DRUMS IN PLACE OF BARRICADE AND SIGN.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6 SDD 15D15-08d

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.

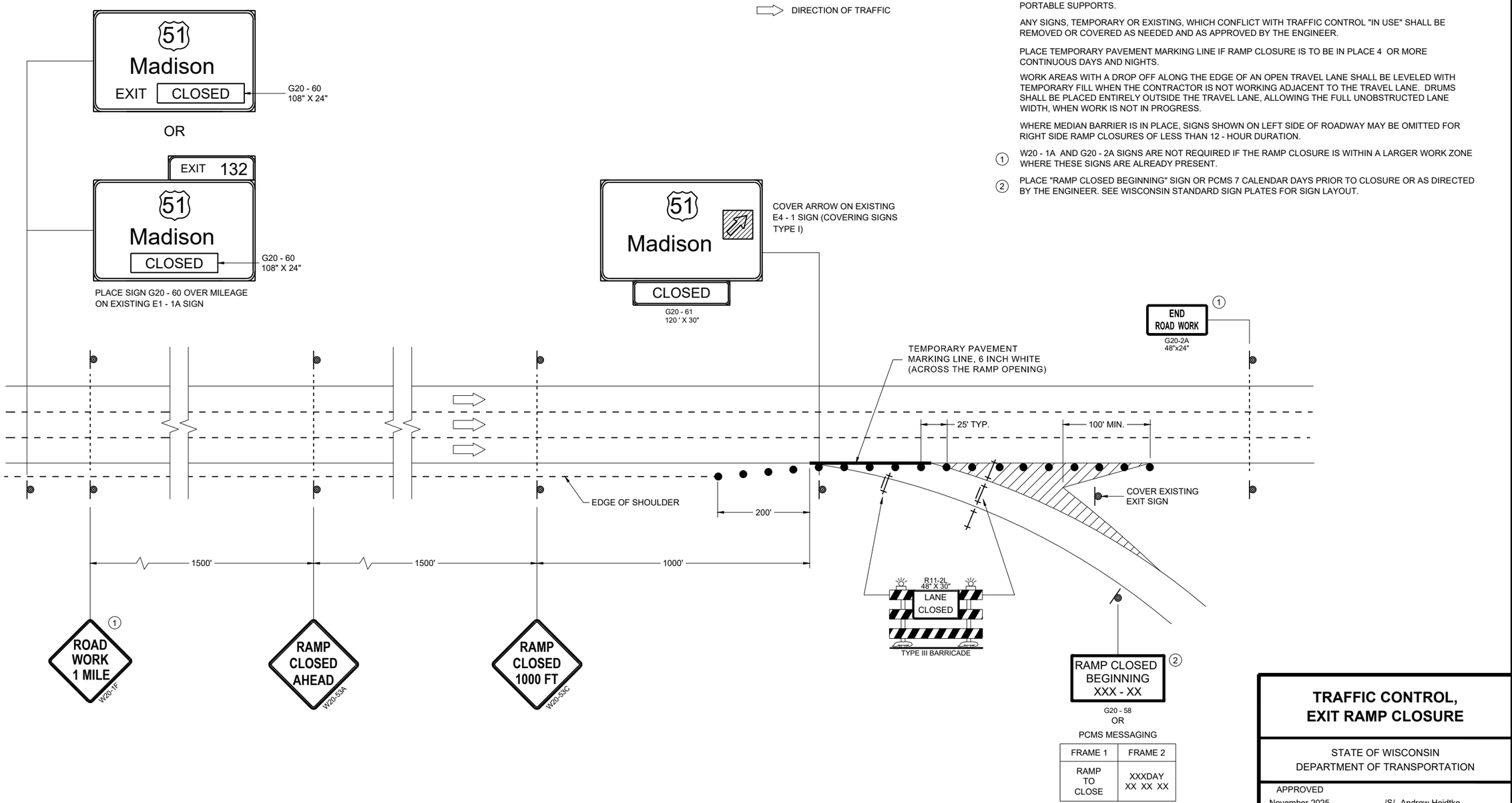
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.

(1) 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.

(2) 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.



TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — <position>
FHWA

6 SDD 15D16-07

6 SDD 15D16-07

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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.

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 REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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 TEMPORARY SUPPORTS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

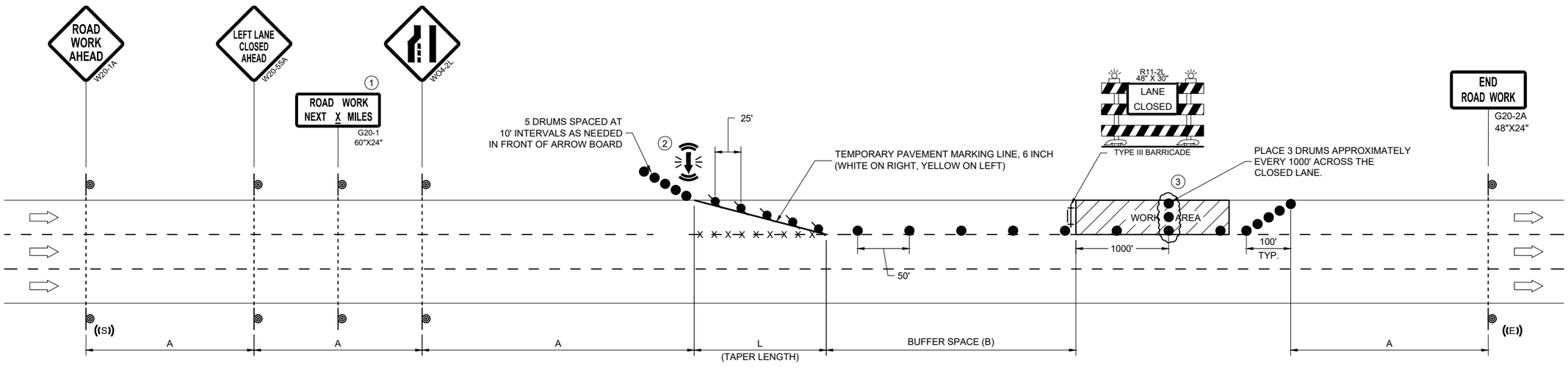
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.

(3) DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

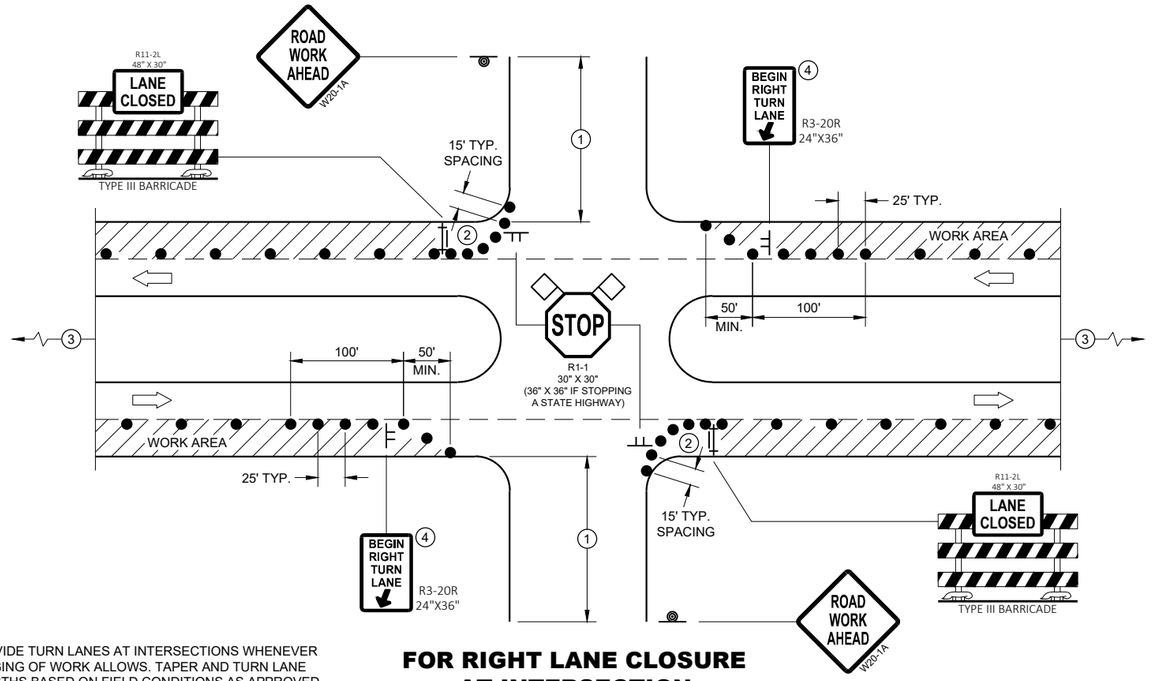


POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D20-12a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

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

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

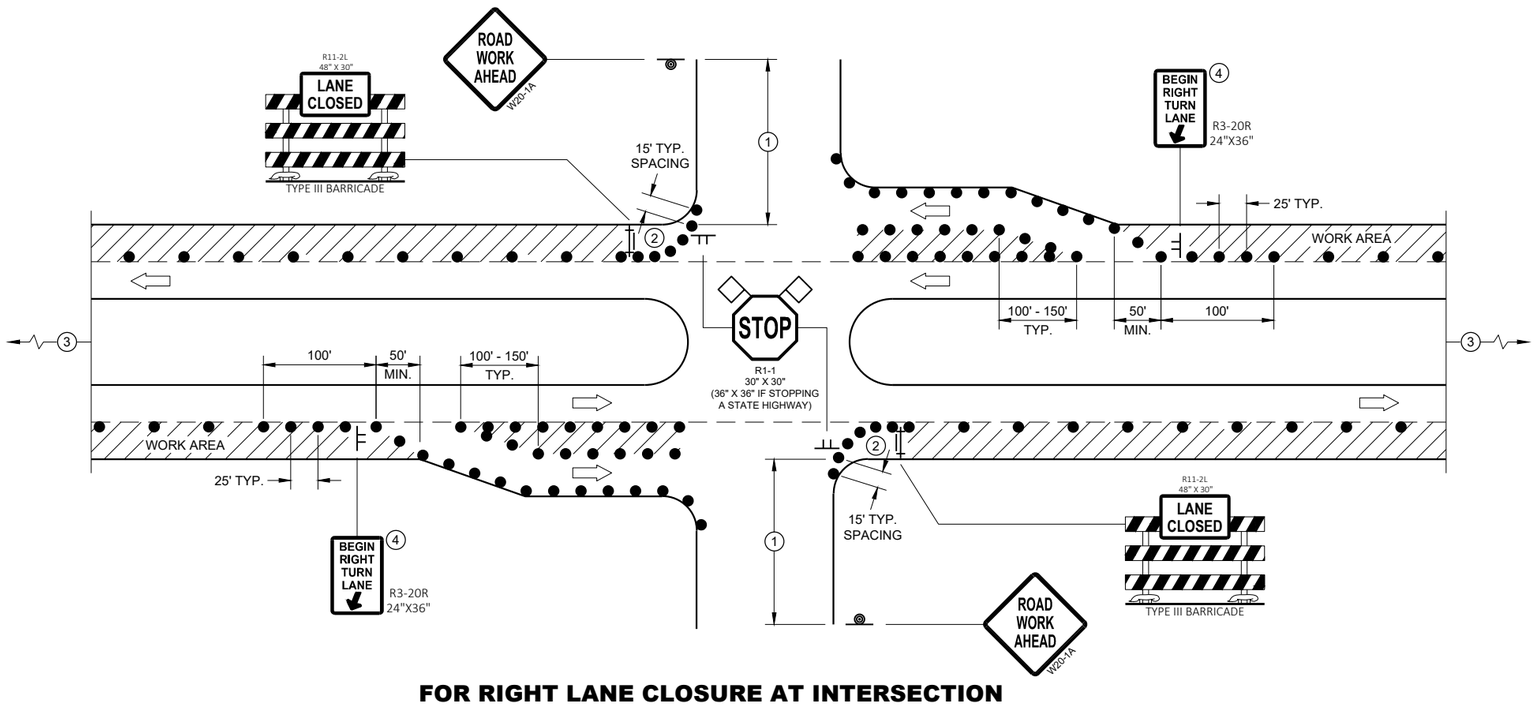
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

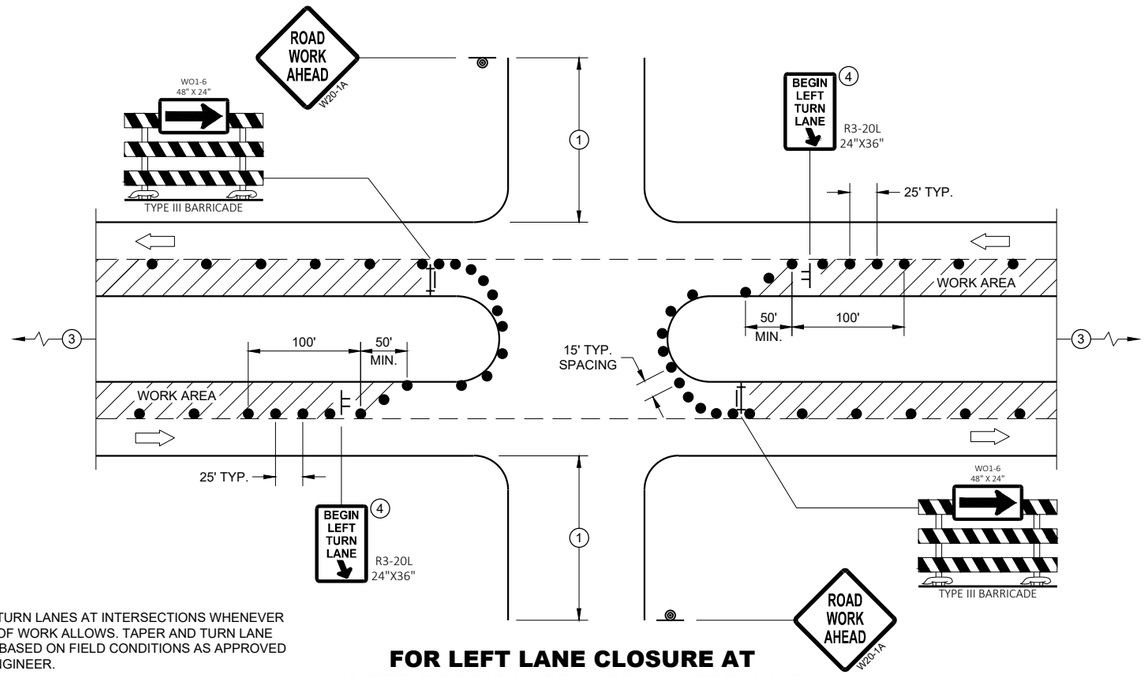
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

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

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

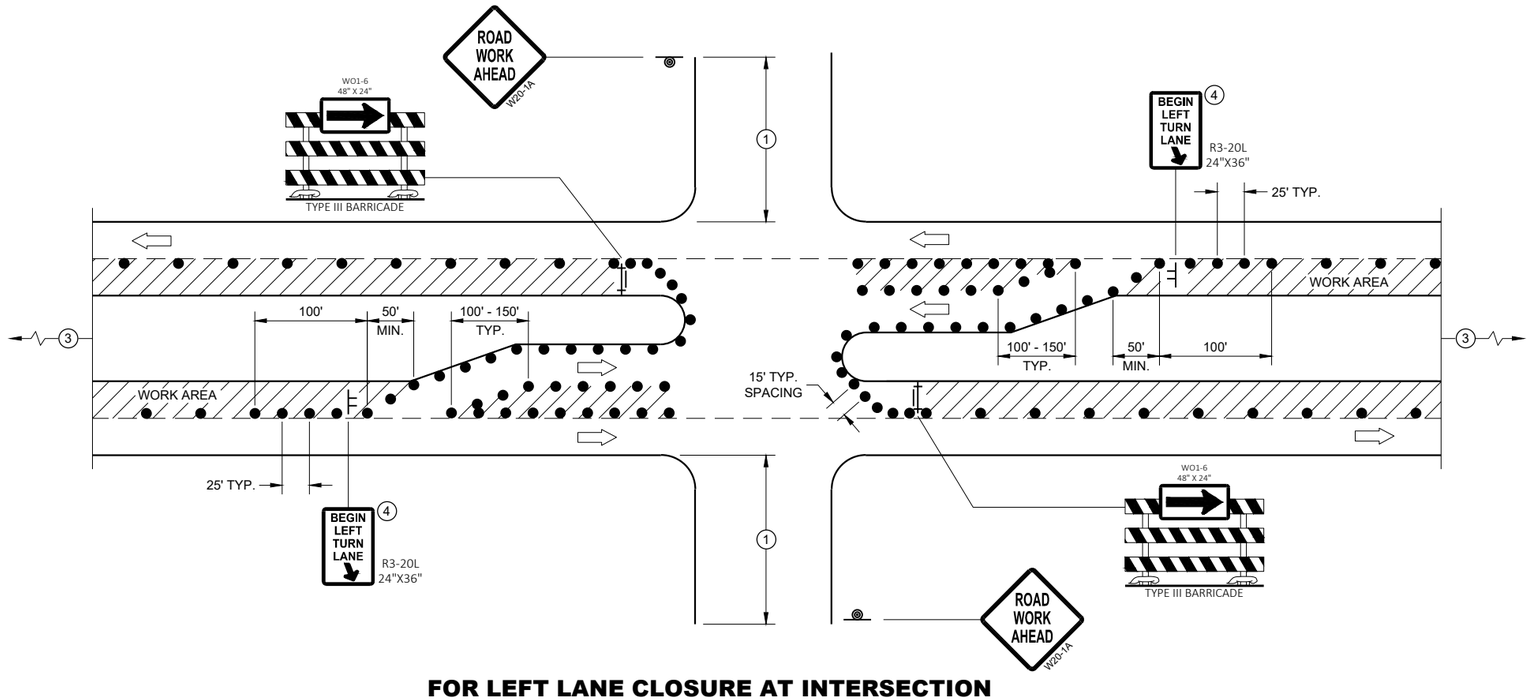
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- CONNECTED ARROW BOARD
- WORK AREA
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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.

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

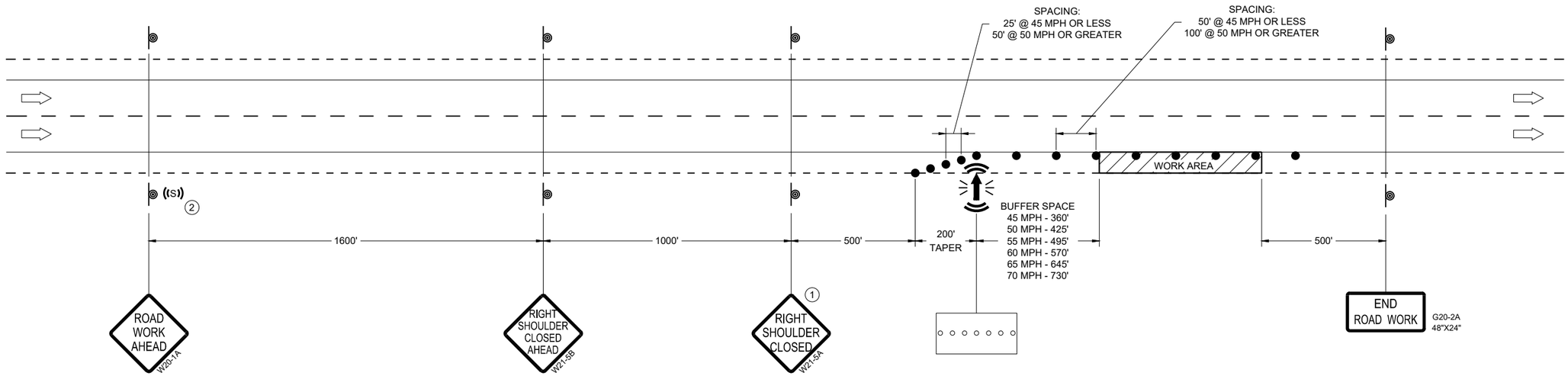
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(1) FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR THE W21-5A SIGN MAY BE OMITTED.

(2) IF ALREADY PRESENT WITHIN PROJECT , DO NOT INCLUDE ADDITIONAL DEVICE.



TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

6
SDD 15D27-06

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

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

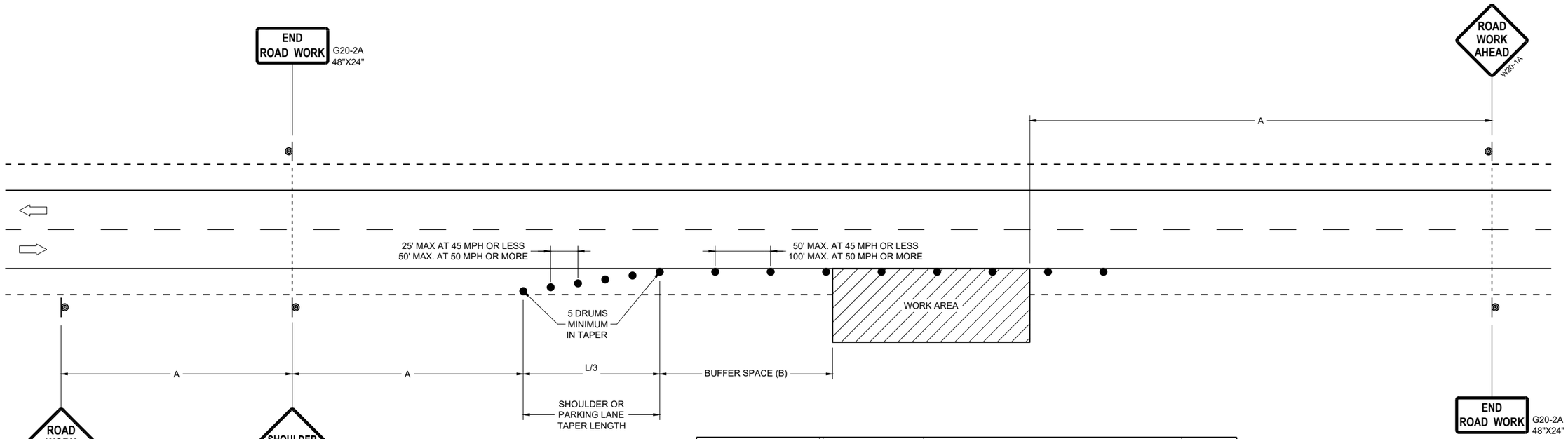
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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 WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	155
30	200'	15	20	25	30	35	40	200
35	350'	20	27	34	40	47	54	250
40	350'	26	35	44	53	62	70	305
45	500'	45	59	74	89	104	119	360
50	500'	50	66	83	99	116	132	425
55	500'	54	73	91	109	127	145	495

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2026
DATE

/S/ ANDREW HEIDTKE
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

6

SDD 15D28-06

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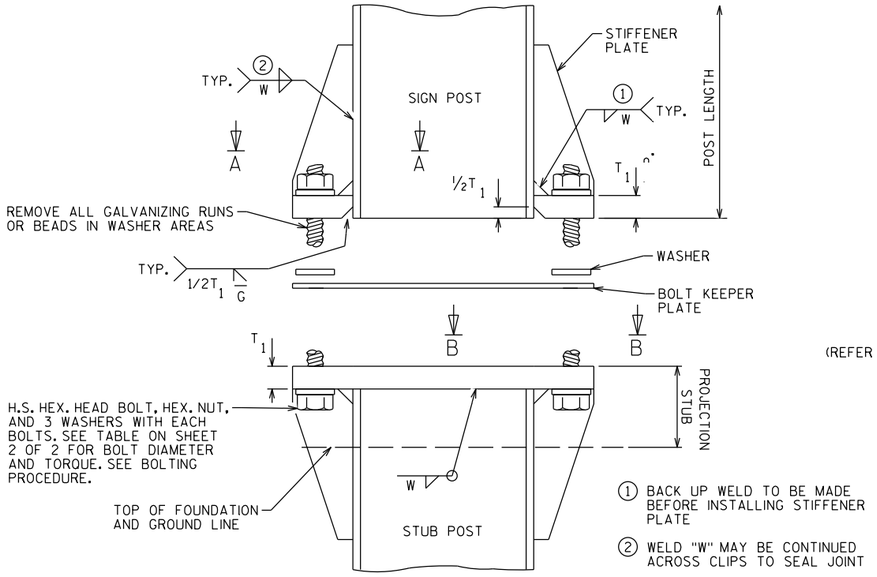
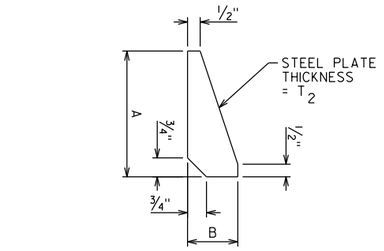
SDD 15D28-06



① BACK UP WELD TO BE MADE BEFORE INSTALLING STIFFENER PLATE

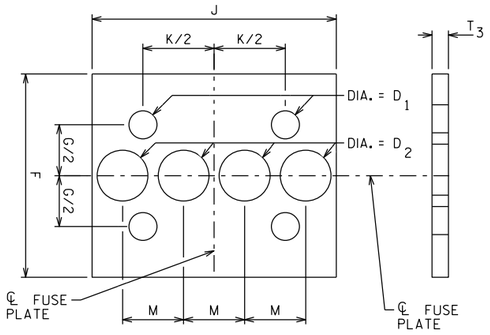
② WELD "W" MAY BE CONTINUED ACROSS CLIPS TO SEAL JOINT

SIGN POST & STUB POST ELEVATION



STIFFENER PLATE DETAIL

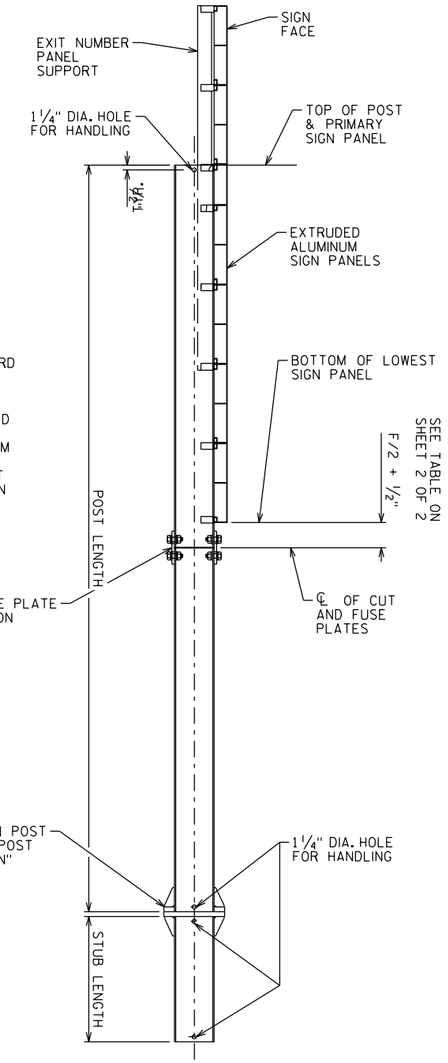
(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



PERFORATED FUSE PLATE DETAIL

USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. INSTALL BOLTS PER THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 506.3.12.3.

ALL HOLES SHALL BE DRILLED, SUB-PUNCHED AND REAMED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36. ASTM A572 GRADE 50 OR ASTM A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. MILL TEST REPORTS SHALL BE SUBMITTED FOR FUSE PLATES. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.



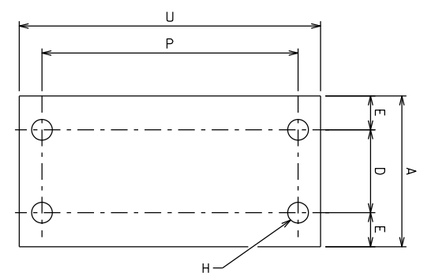
POST DETAIL

☆ WELD THICKNESS = FLANGE THICKNESS - 1/16"

SECTION A-A

SECTION B-B

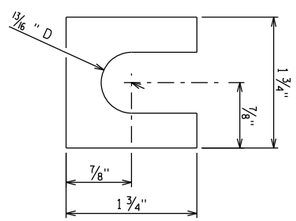
FUSE PLATE CONNECTION DETAIL



H = BOLT DIA. + 1/8"

BOLT KEEPER PLATE DETAIL

30 GA GALVANIZED SHEET STEEL



SHIM DETAIL

FURNISH TWO .012"± THICK AND TWO .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B36.

BOLTING PROCEDURE FOR BASE CONNECTION

1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING, LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.20

334

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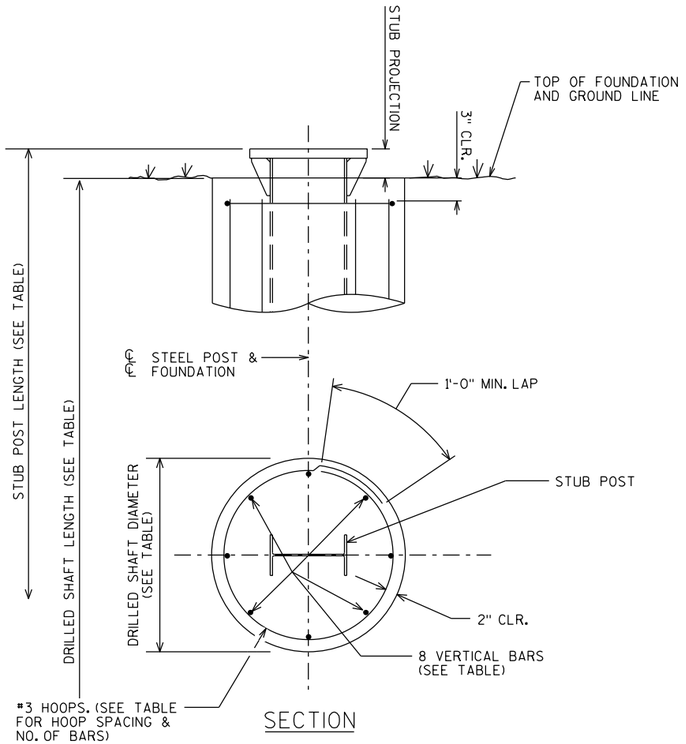
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN

PLOT DATE : 3-MAR-2020

PLOT BY : dotc4c



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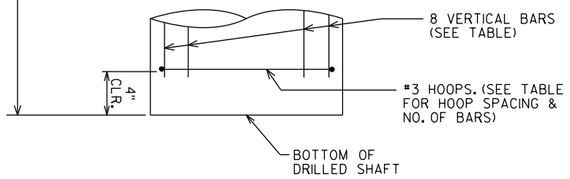
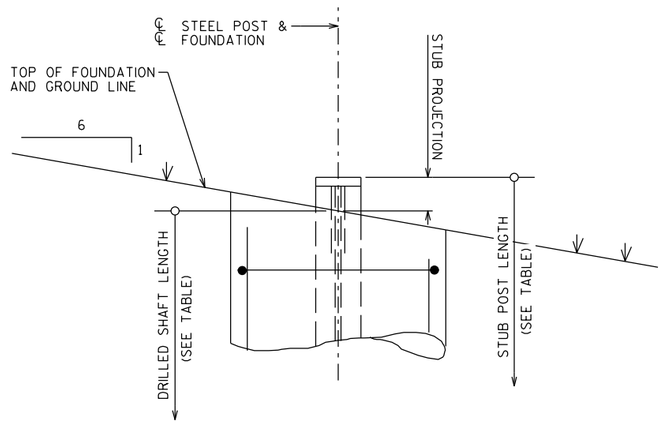


FOUNDATION DETAIL



SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME ◆	TOTAL REINF. WEIGHT ◆
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA: BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	BOLT KEEPER PLATE DATA: P	U	PERFORATED FUSE PLATE DATA: F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V ◪
W6X15	15 LB	⅝" DIA. X 4" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	1¼"	½"	¼"	11/32"	8½"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2	73.0 LB
W8X18	18 LB											10⅝"	12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2	83.0 LB
W8X21	21 LB	¾" DIA. X 4¾" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1½"	¾"	5/16"	13/32"	11"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	124.0 LB
W10X22	22 LB											12⅞"	14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	134.0 LB
W12X26	26 LB											15"	16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	152.0 LB

◪ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST = V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST, FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.

H.S. BOLTS, WASHERS, & NUTS SHALL BE A325 GALVANIZED.

FOUNDATION MATERIAL PROPERTIES

CONCRETE MASONRY	F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60	FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRANCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE SAND) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 2 OF 2

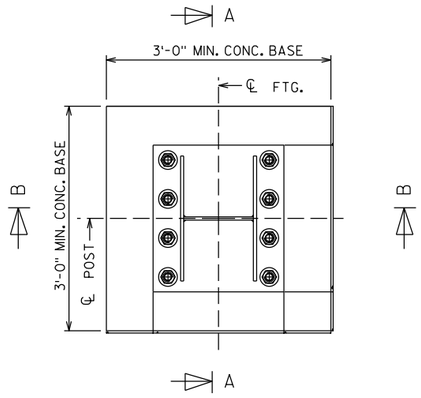
SHEET A3-1.20

335

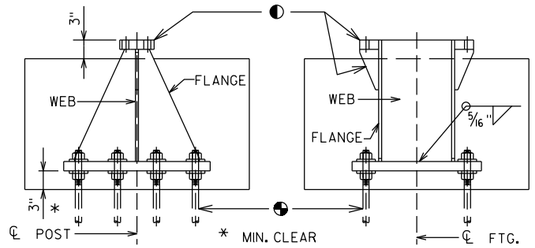
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 3-MAR-2020 PLOT BY : dotc4c

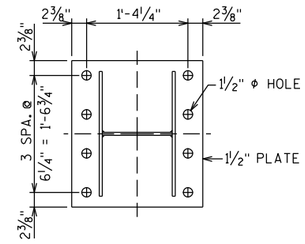
STUB AND ADHESIVE ANCHOR DETAILS



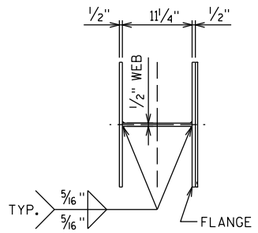
STUB SECTION



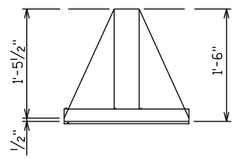
SECTION A-A SECTION B-B



BASE PLATE



STUB



FLANGE

◐ SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.

◔ ADHESIVE ANCHORS 1¼-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

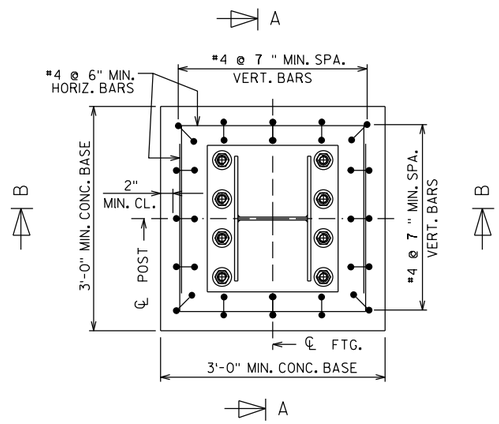
GENERAL NOTES:

QUANTITIES PER BASE:
REINFORCING STEEL = 62 LB
CONCRETE = 0.6 CY
STRUCTURAL STEEL = 335 LB

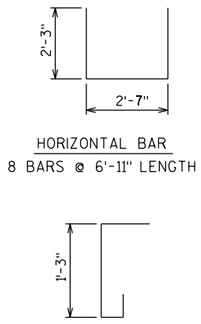
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

CONCRETE BASE DETAILS

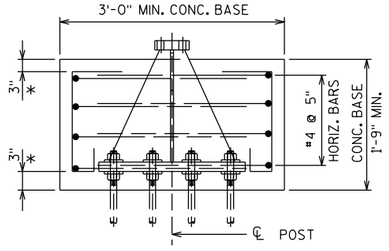


CONCRETE BASE PLAN

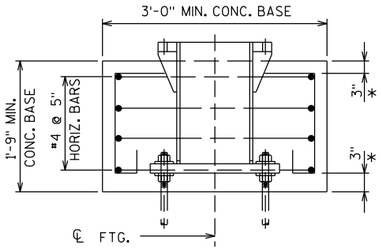


HORIZONTAL BAR
8 BARS @ 6'-11" LENGTH

VERTICAL BARS
16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A-A



SECTION B-B

* MIN. CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

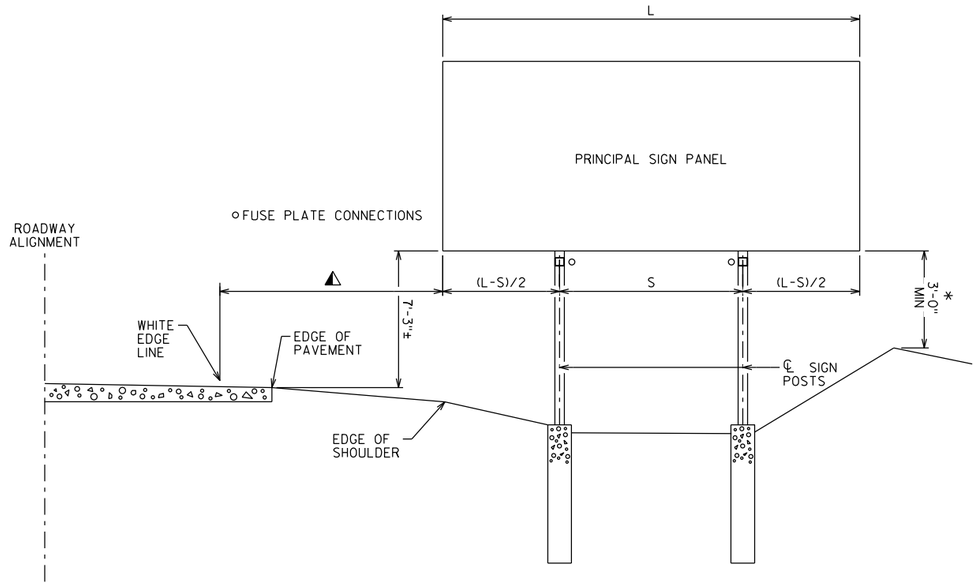
STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

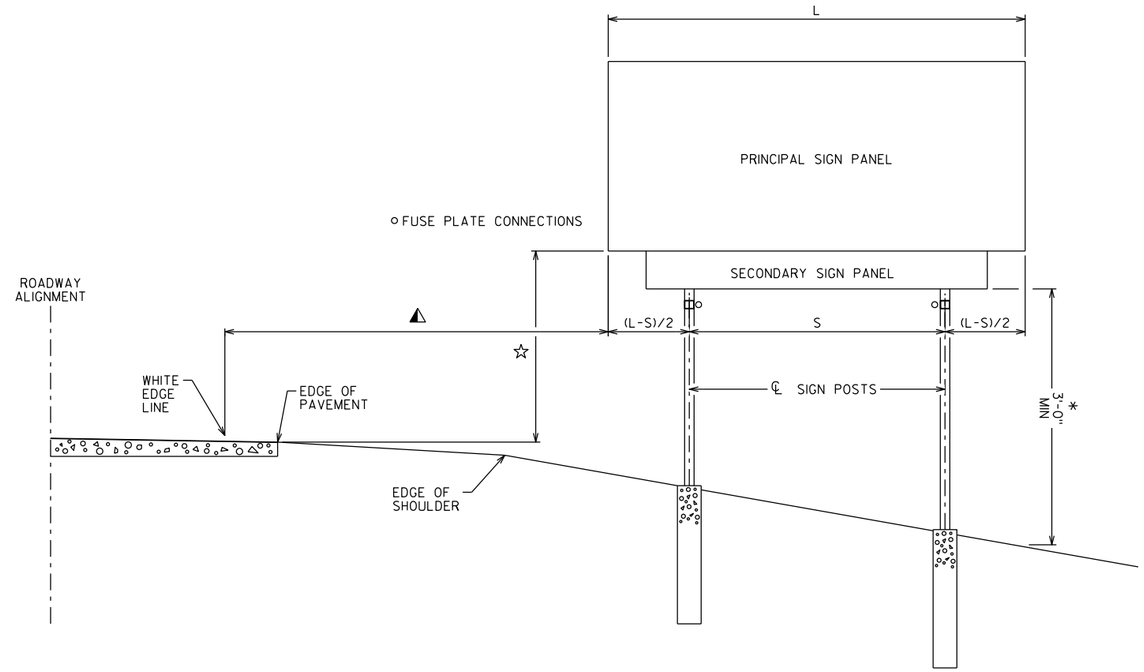
ALTERNATE BREAK-AWAY BASE ON ROCK

SHEET A3-1M.2

336



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

◭ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

WHERE SIGNS ARE MOUNTED BEHIND CRASH WORTHY PROTECTION SUCH AS GUARDRAIL OR BARRIER WALL, THE LATERAL OFFSET MAY BE 4'-6" BEHIND THE GUARDRAIL OR BARRIER WALL.

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

○ FOR 2-POST SIGNS, IF THERE IS A SECONDARY SIGN THAT IS NOT AS WIDE AS THE POSTS, INSTALL FUSE PLATES BENEATH PRINCIPAL SIGN.

FOR SECONDARY SIGNS THAT ARE NOT AS WIDE AS THE EXTERIOR POSTS, SECURE SIGN WITH CHANNEL STEEL AS DESCRIBED IN A4-6.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY
	2/29/24		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

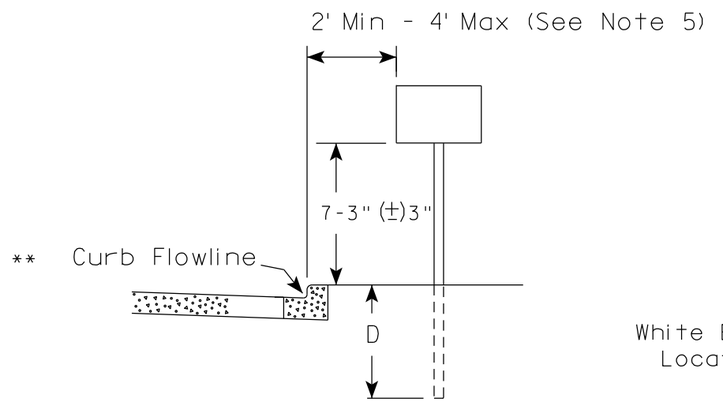
DRAWN BY	PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

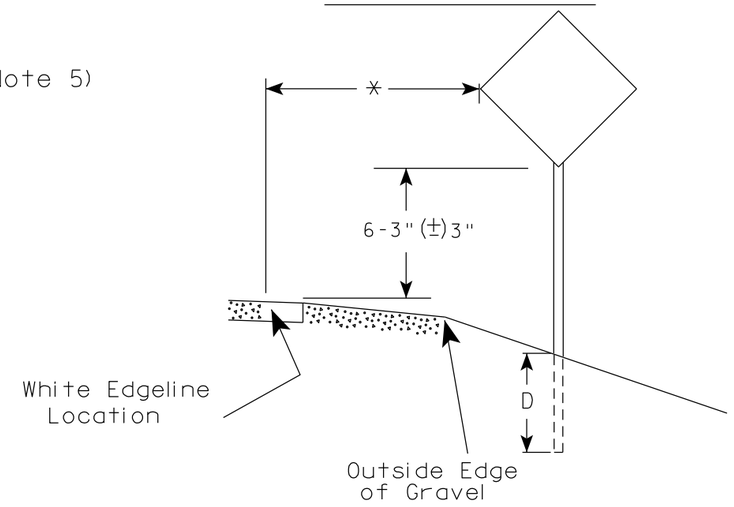
SHEET A4-1.11

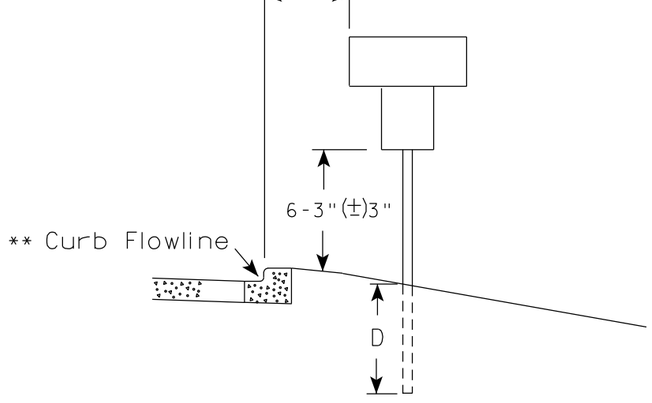
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 337	E

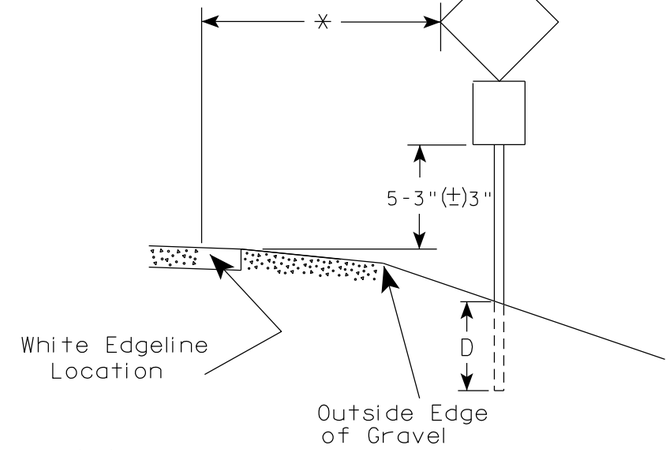
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

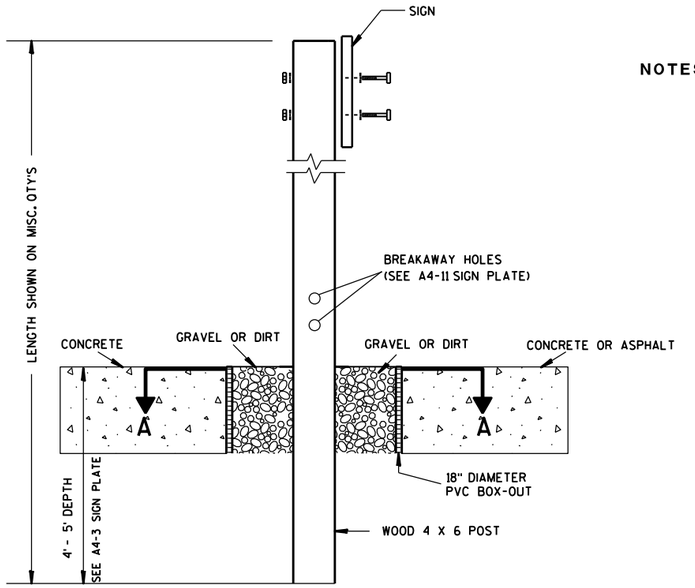
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

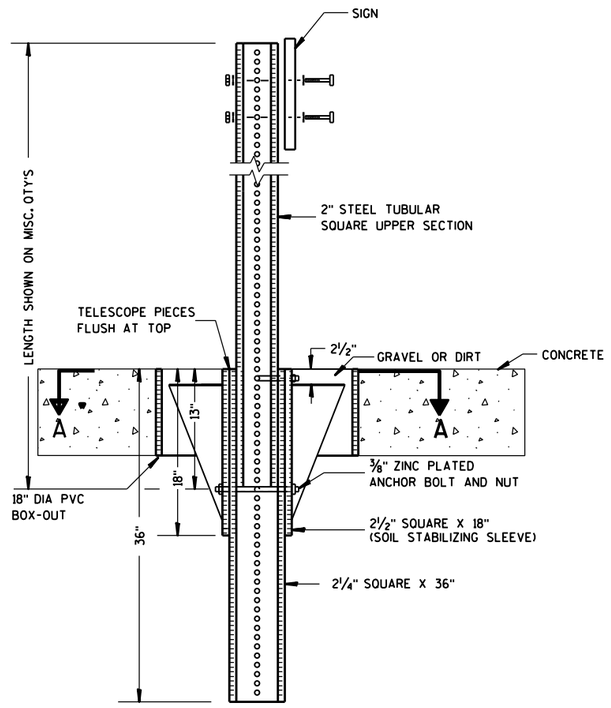
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 338	E



ELEVATION VIEW

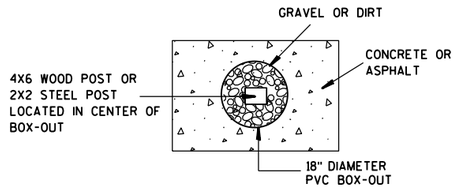
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

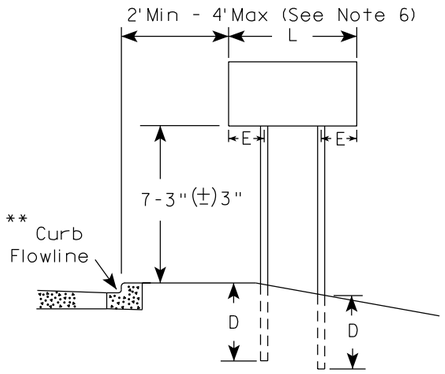
APPROVED Matthew R Rauch
for State Traffic Engineer

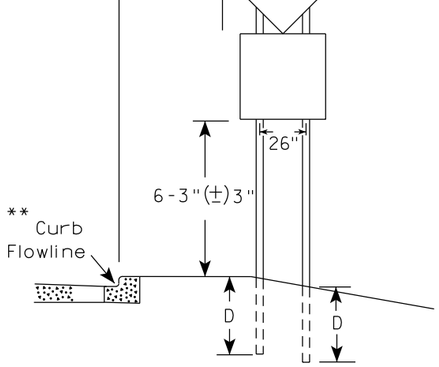
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

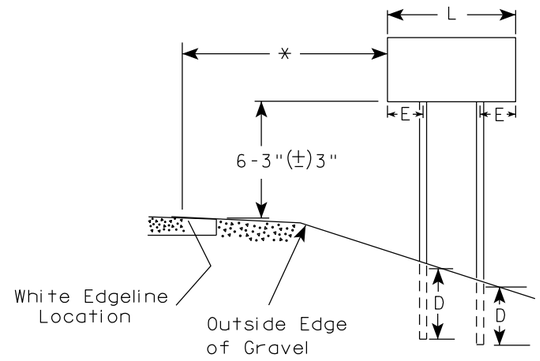
URBAN AREA

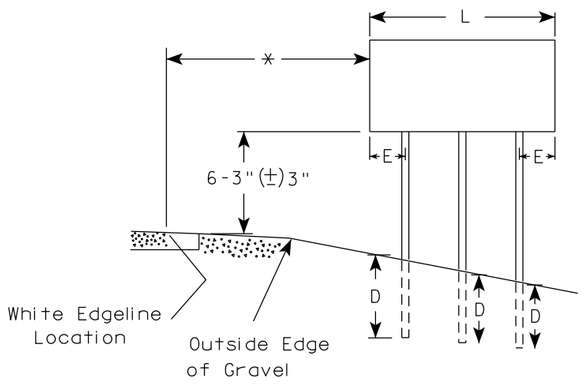


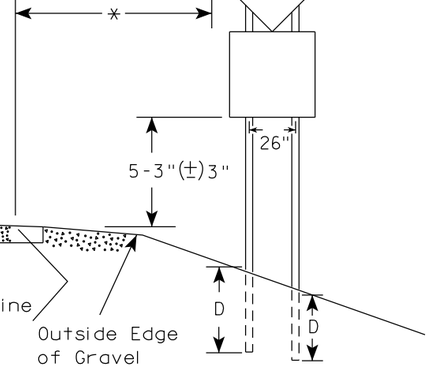


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

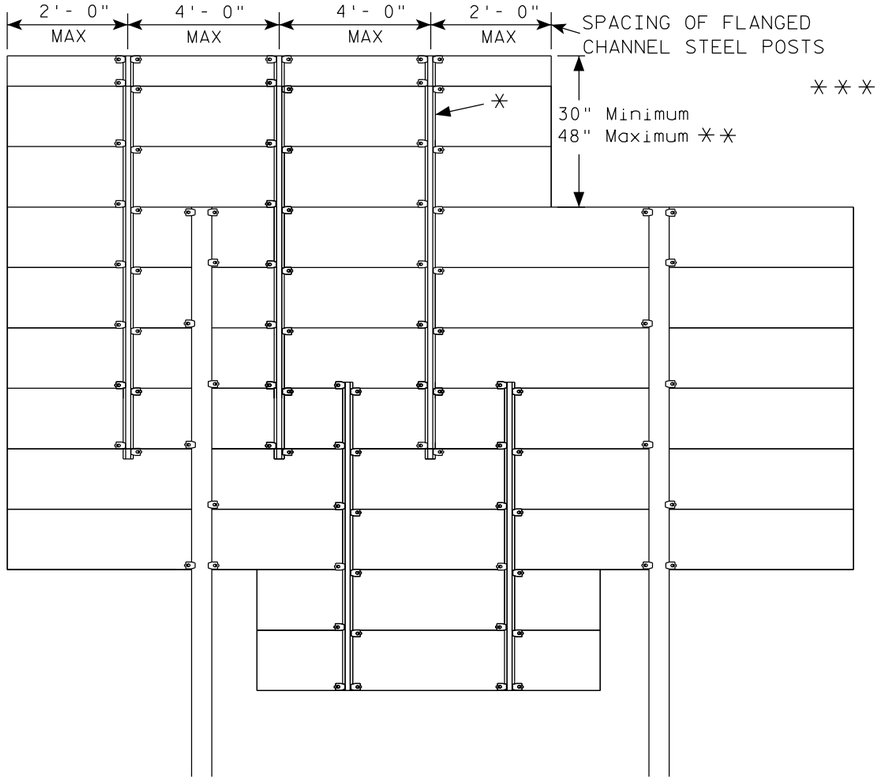
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 340	E

GROUND MOUNTED SIGN



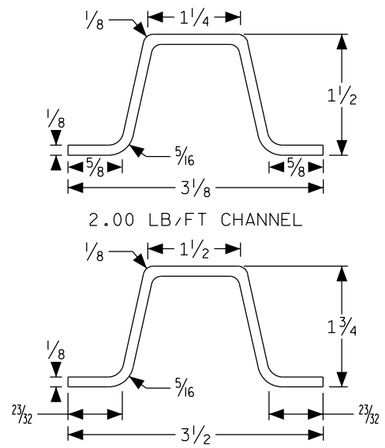
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

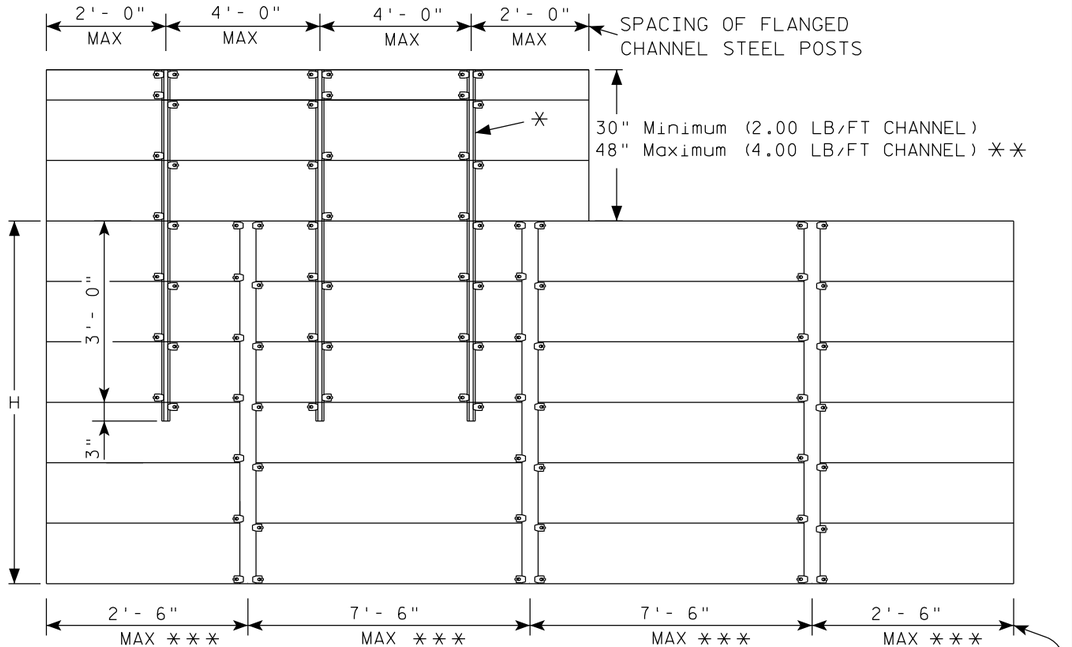
NOT TO SCALE



2.00 LB/FT CHANNEL

4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

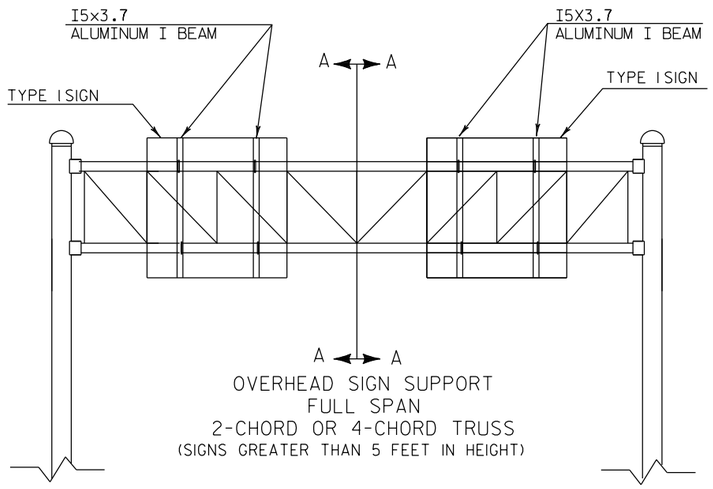
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

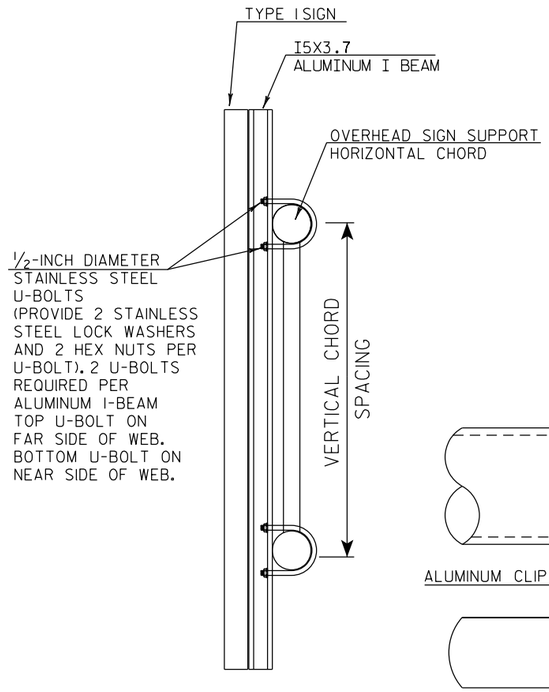
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

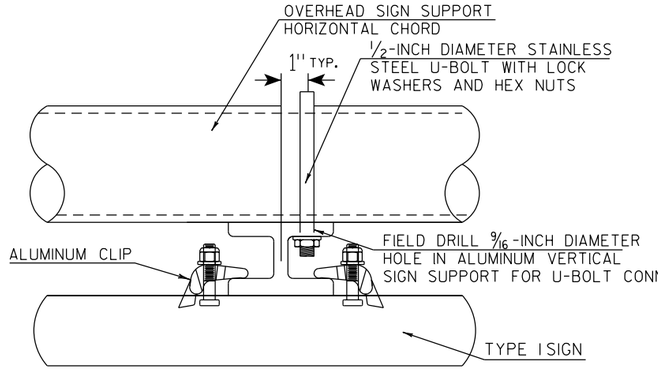
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



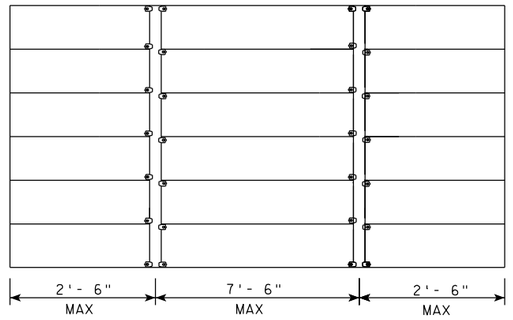
CUT SECTION A-A



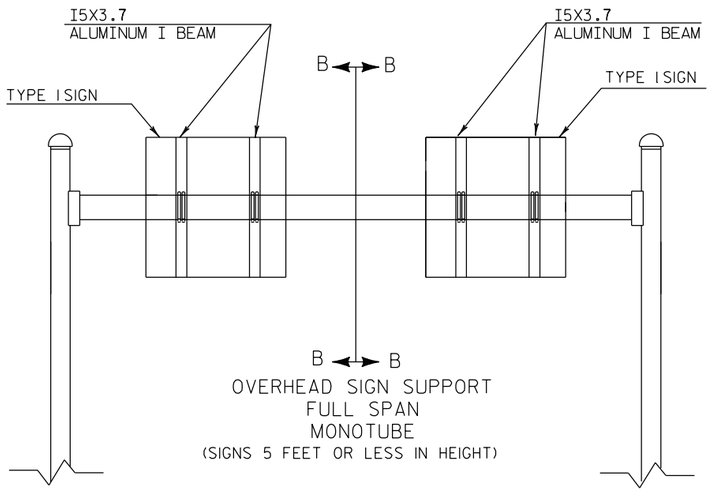
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

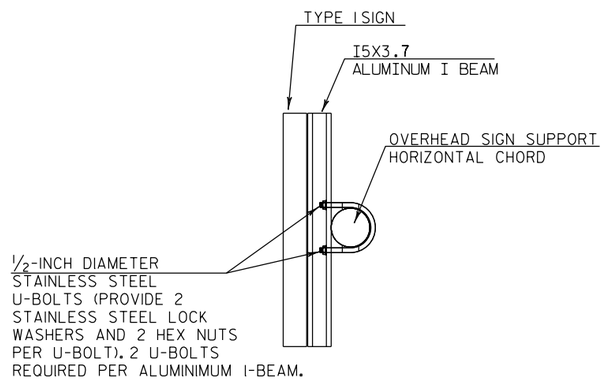
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



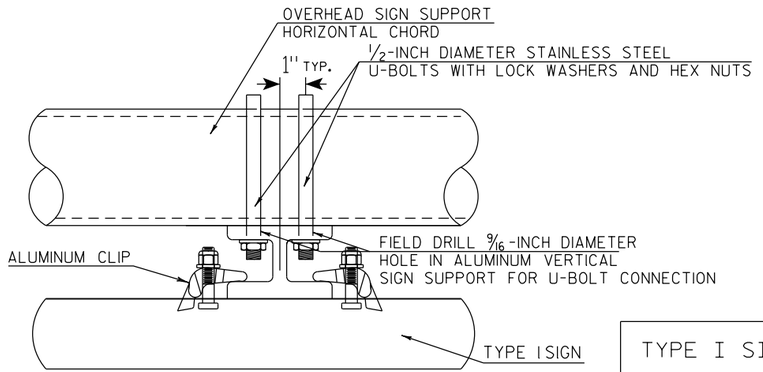
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

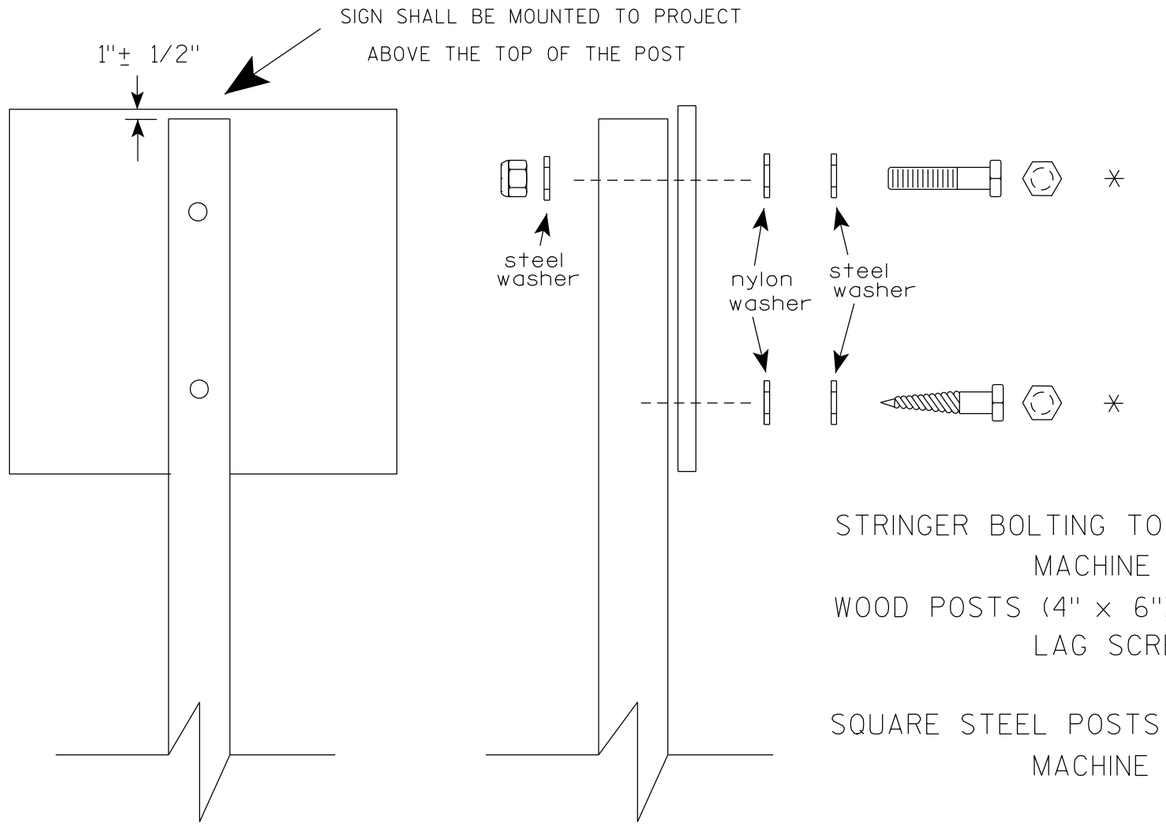
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 342	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

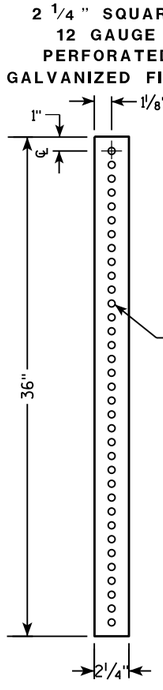
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

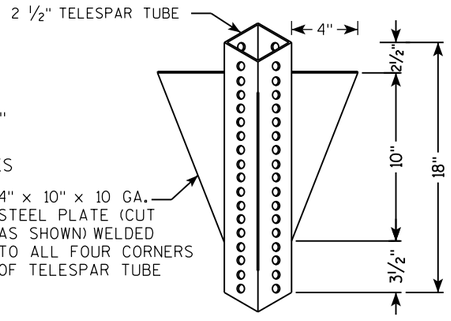
SHEET NO: 343 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

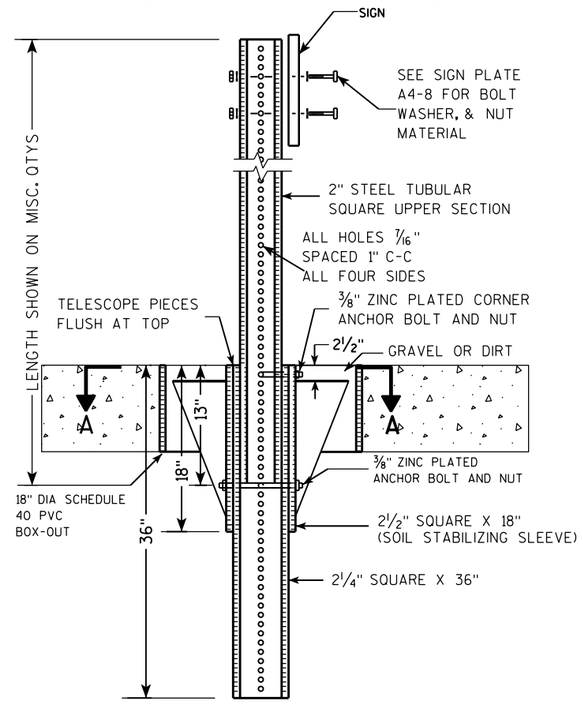
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



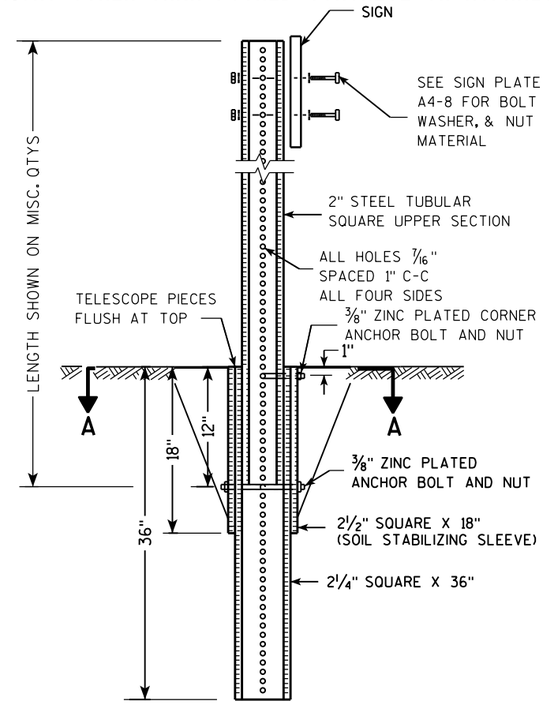
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

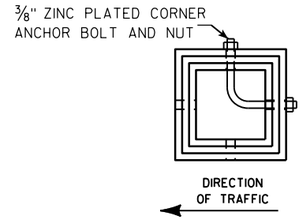


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

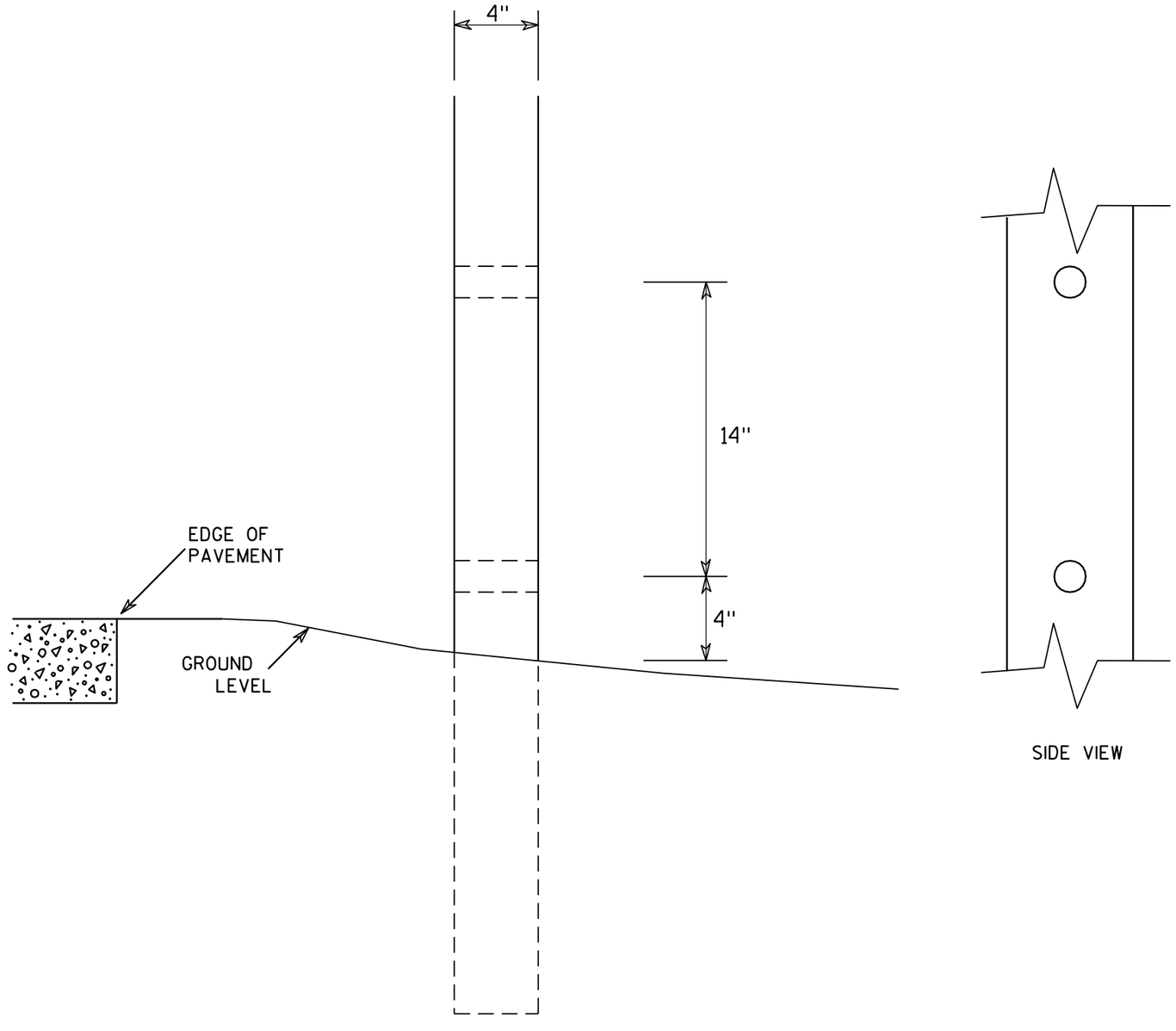
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 344 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

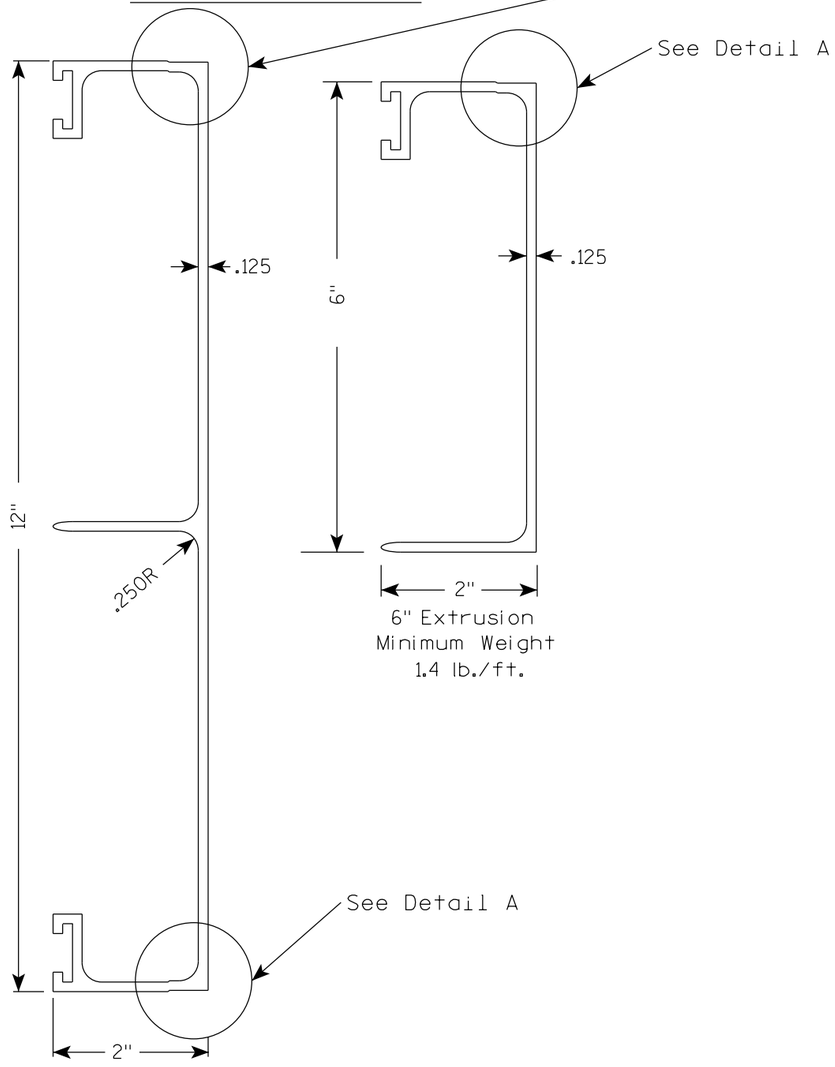
WISCONSIN DEPT OF TRANSPORTATION

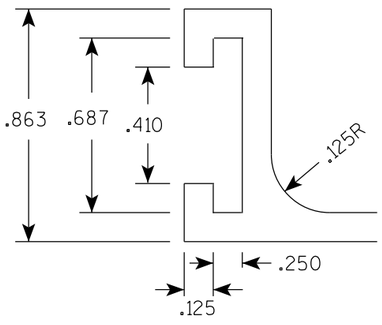
APPROVED Chester J Spang for State Traffic Engineer

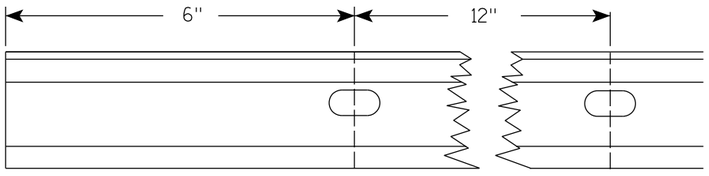
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345	E

Extruded Shape







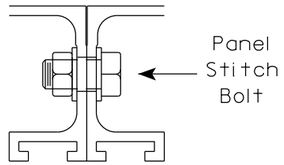
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

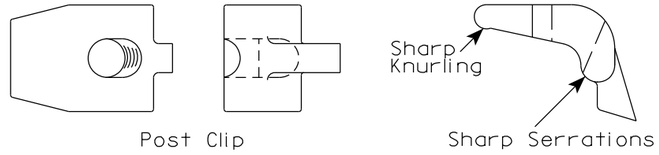
The hardware includes:

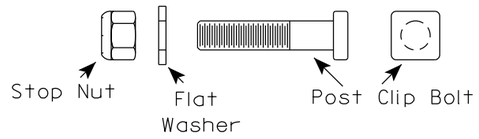
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

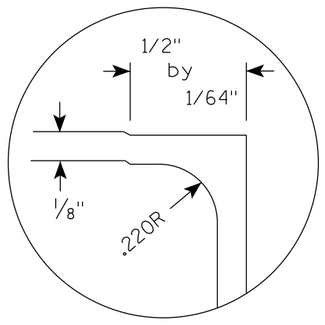
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

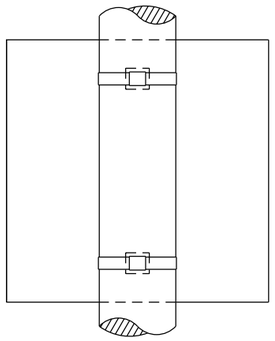
DATE 1/07/20 PLATE NO. A5-2.10

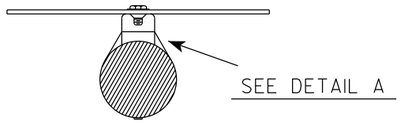
PROJECT NO:

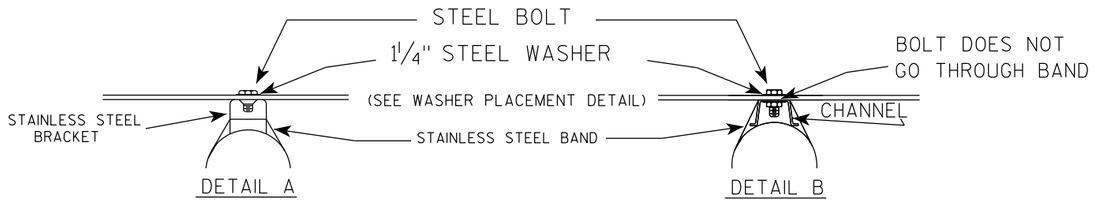
SHEET NO: 346 E

BANDING

SINGLE SIGN



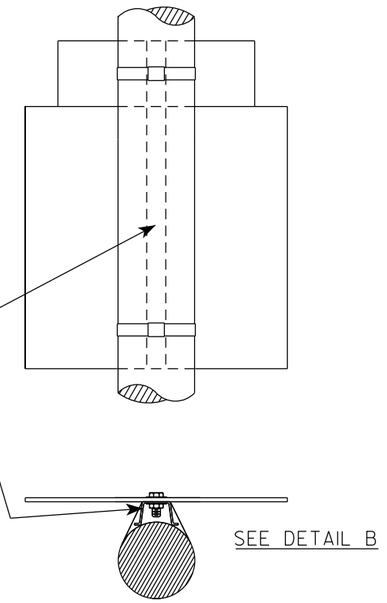




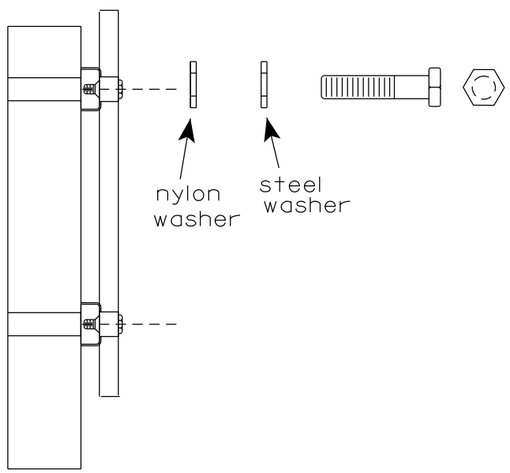
GENERAL NOTES

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: 347	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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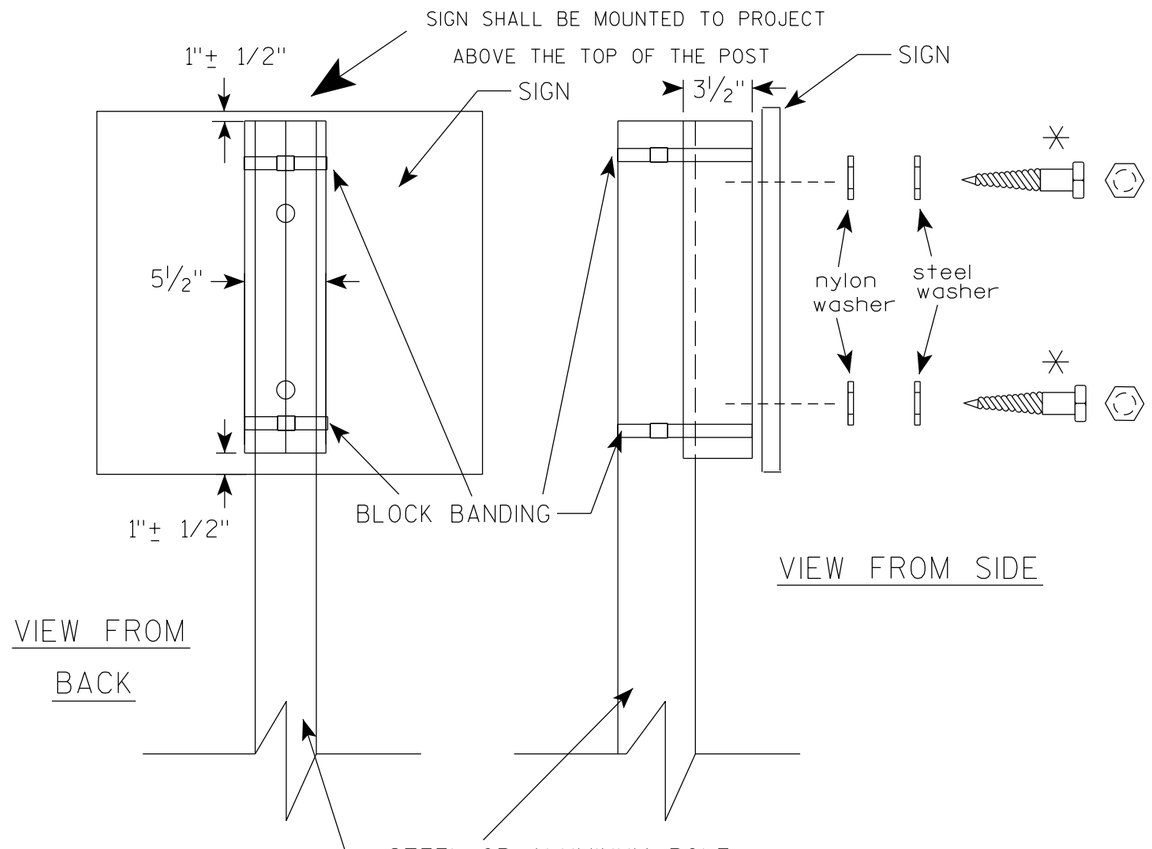
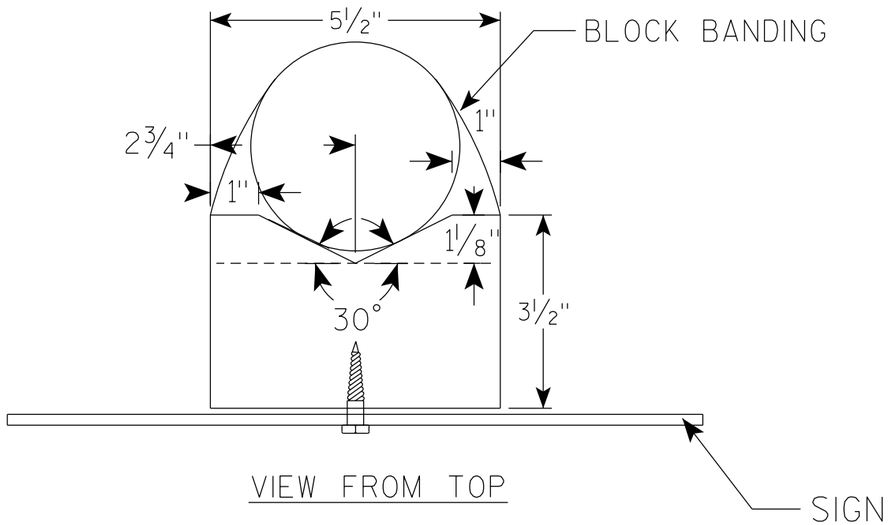




GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

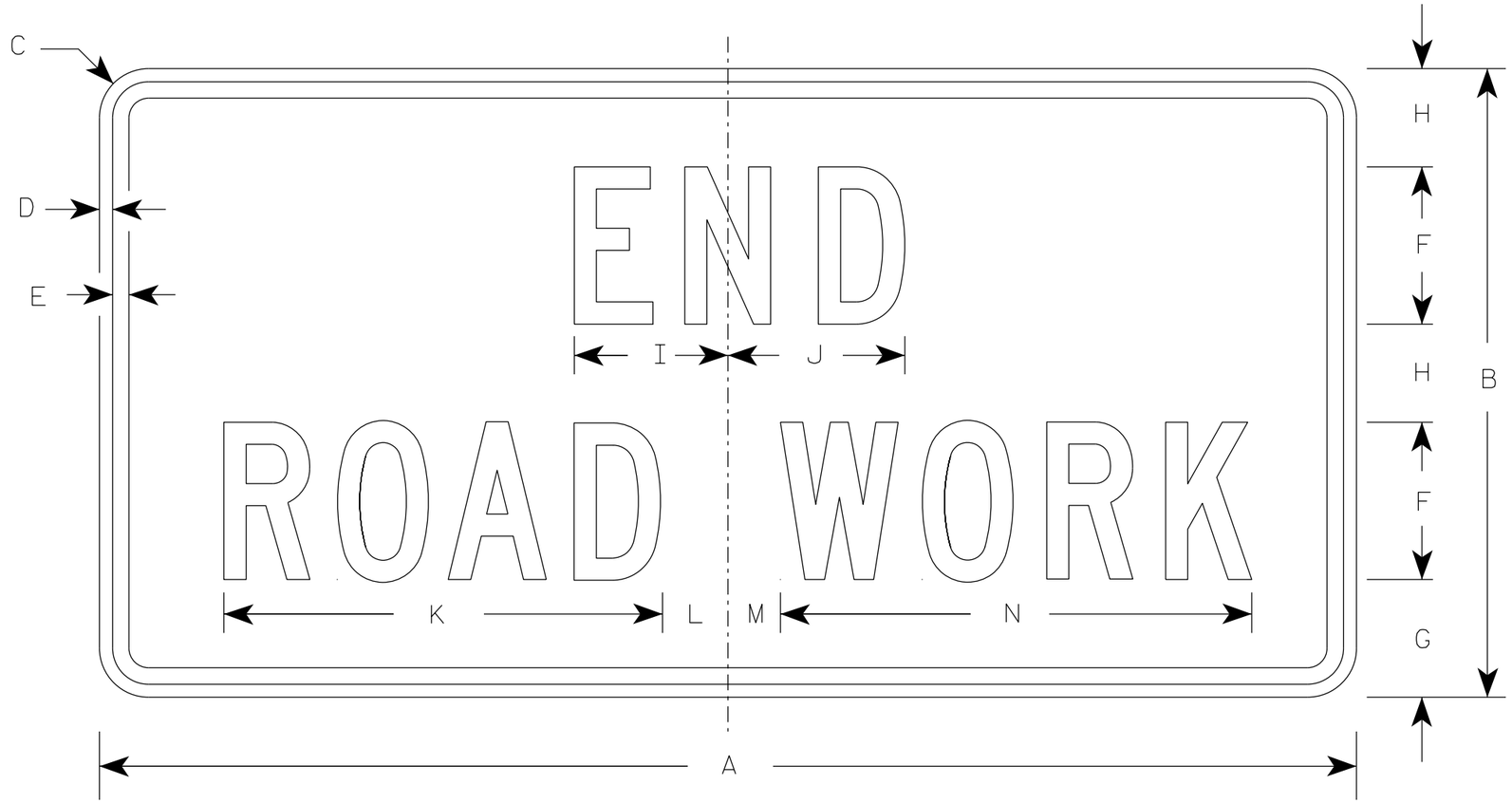
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 348 E



G20-2A

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	18	1 1/2	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
2	48	24	1 7/8	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
2M	48	24	1 7/8	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
3	48	24	1 7/8	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
4	48	24	1 7/8	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
5	48	24	1 7/8	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

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 349 E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Material shall be .040 aluminmum

G20-60

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	108	24				12	6	14 7/8	78 1/4																		18.0
5																											

STANDARD SIGN
G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/15 PLATE NO G20-60.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2060.DGN PLOT DATE : 13-MAY-2015 08:46 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 20.431338:1.000000
WISDOT/CADDS SHEET 42

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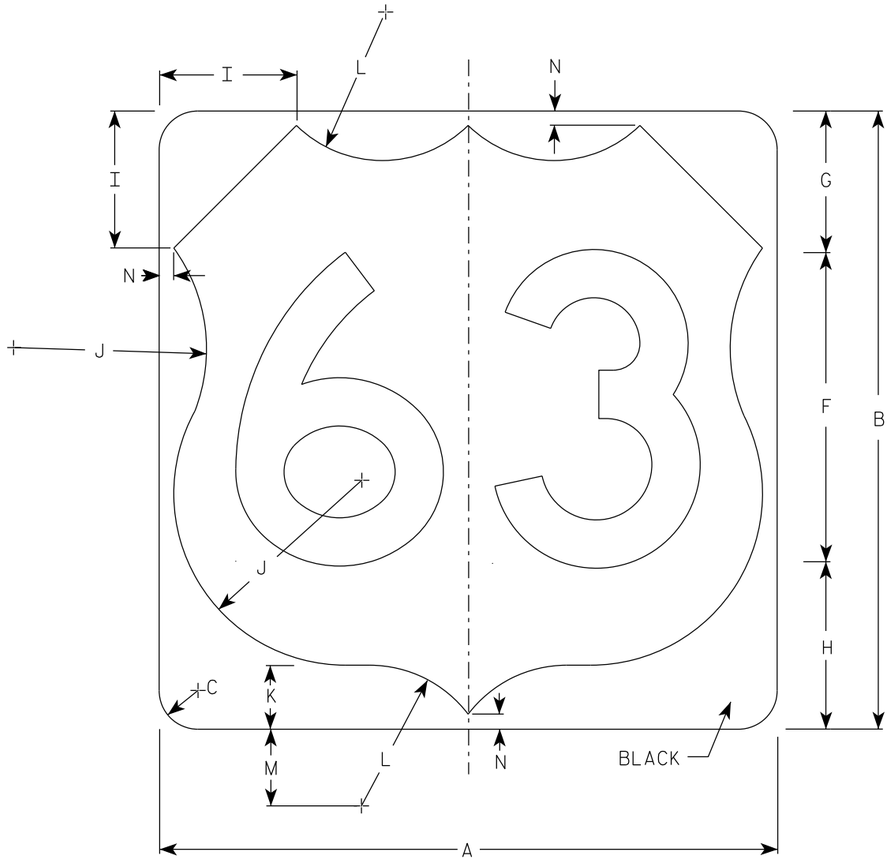
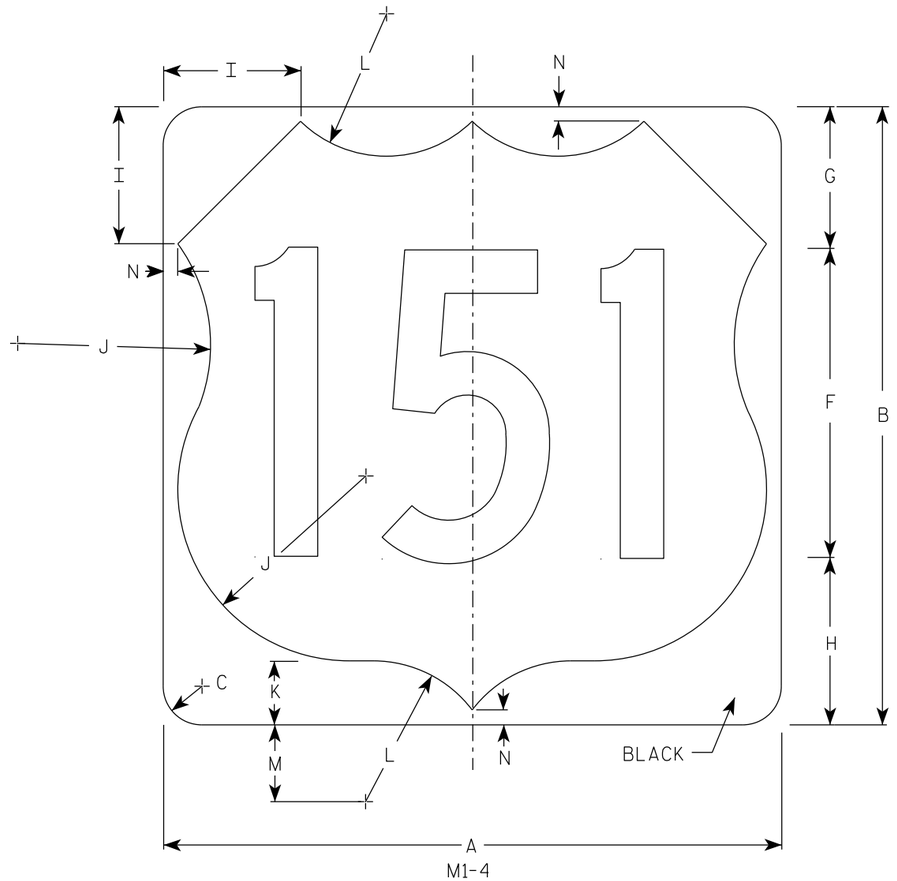
NOTES

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



M1-4



M1-4

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	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
2M	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

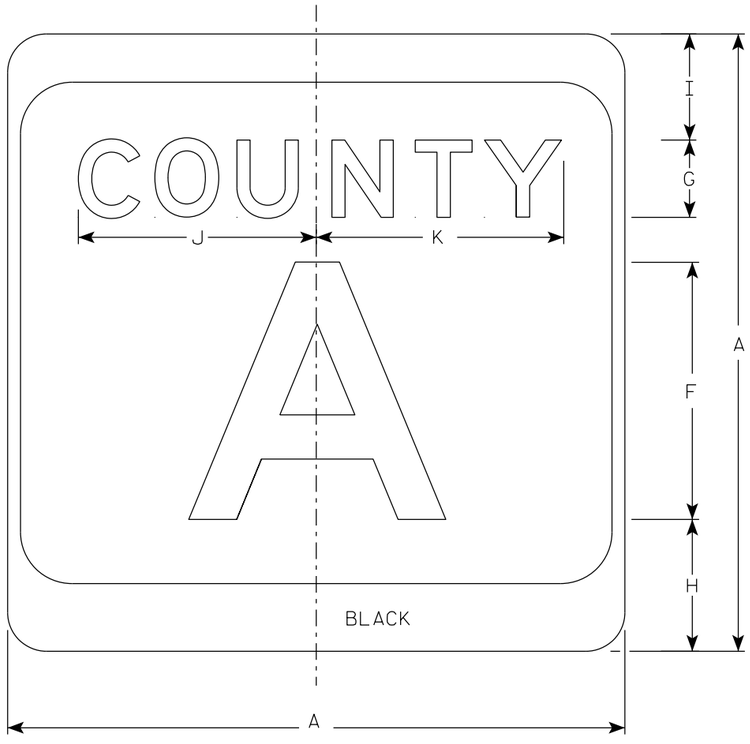
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

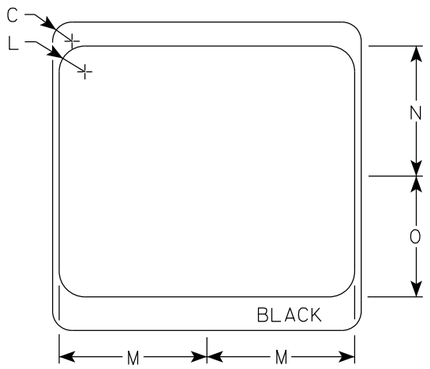
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/22 PLATE NO. M1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 351 E

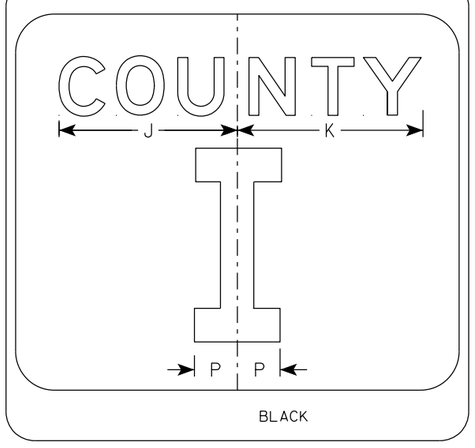


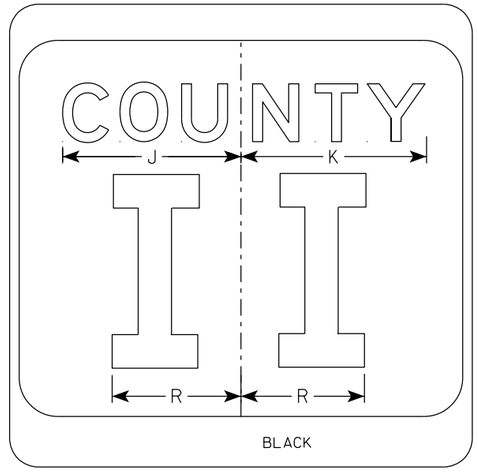
M1-5A



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White & Black
   Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center to achieve proper balance.





SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M15A.dgn PLOT DATE : 8-NOV 2022 8:26 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

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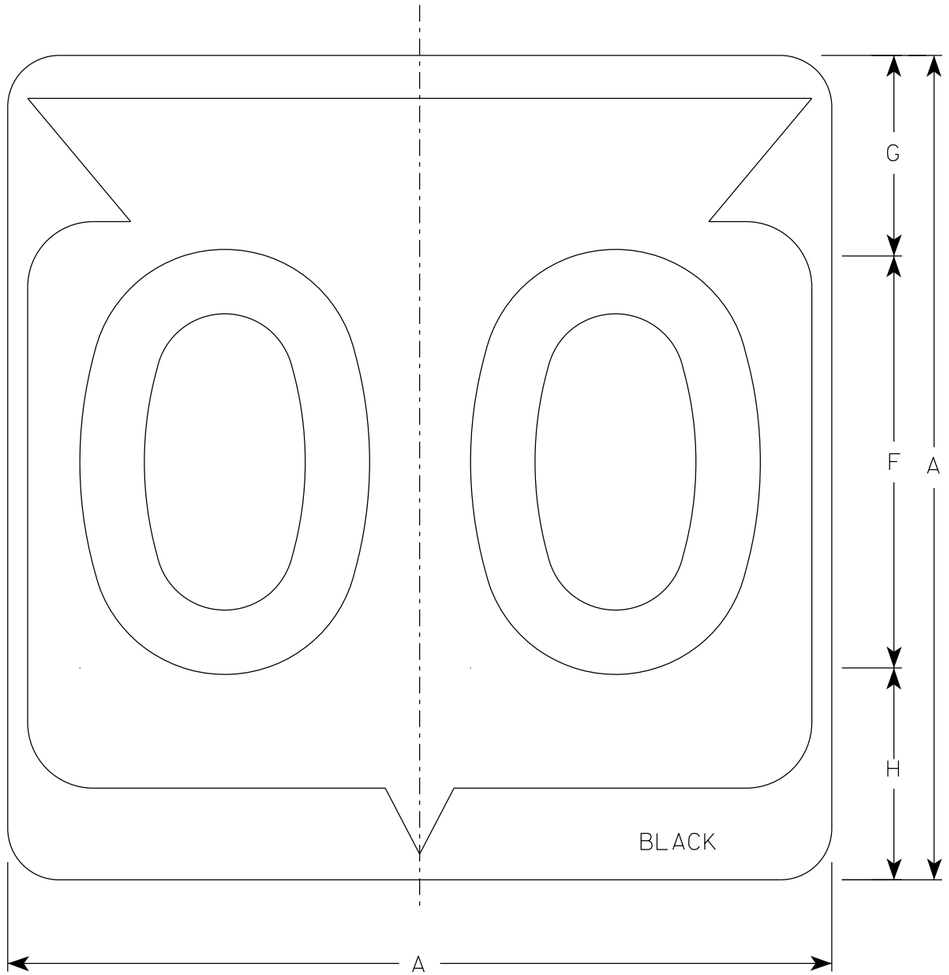
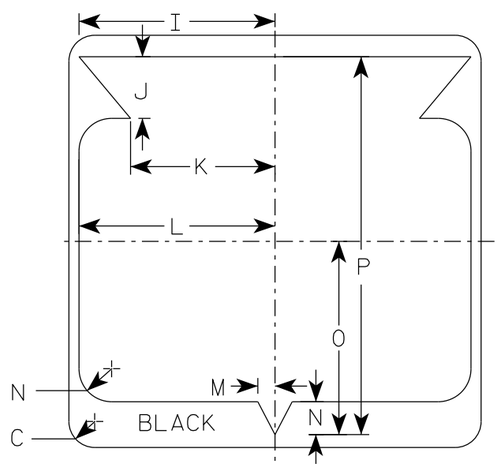


M1-6



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

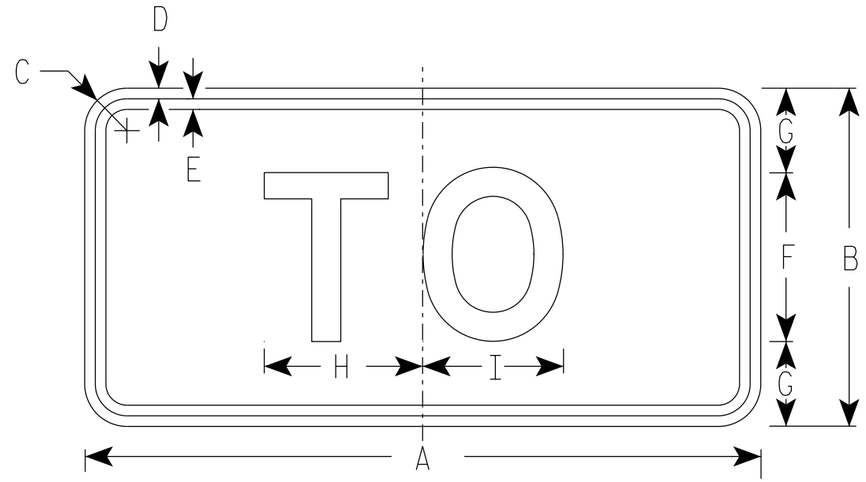
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

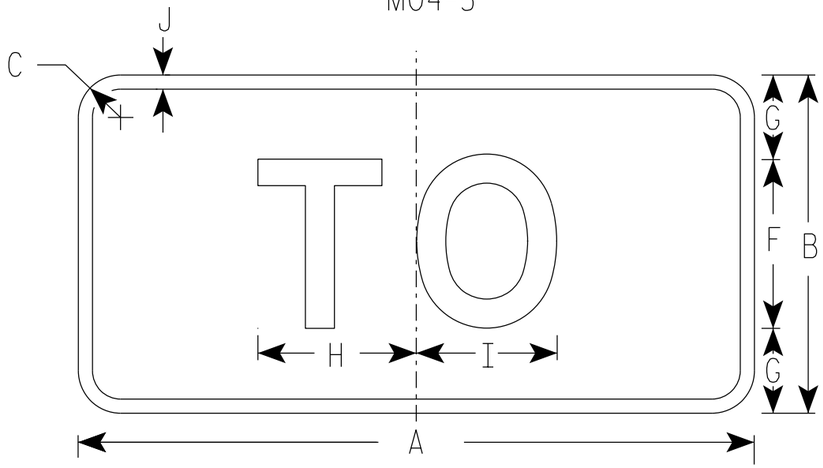
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 353	E



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black
   MB4-5 Background - Blue
   Message - White
   MK4-5 Background - Green
   Message - White
   MM4-5 Background - White
   Message - Green
   MN4-5 Background - Brown
   Message - White
   MP4-5 Background - White
   Message - Blue
   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
2M	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
3	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5

STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 354 E

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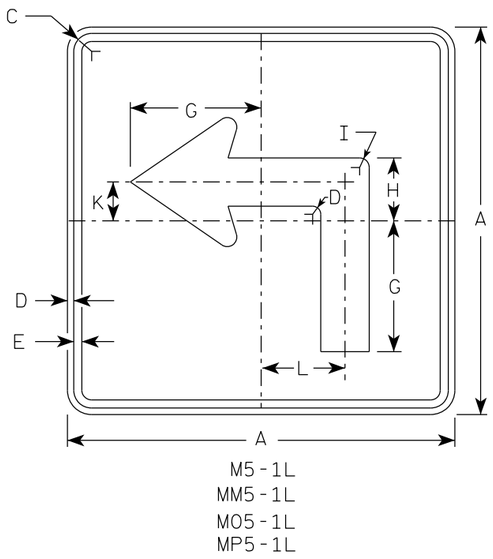
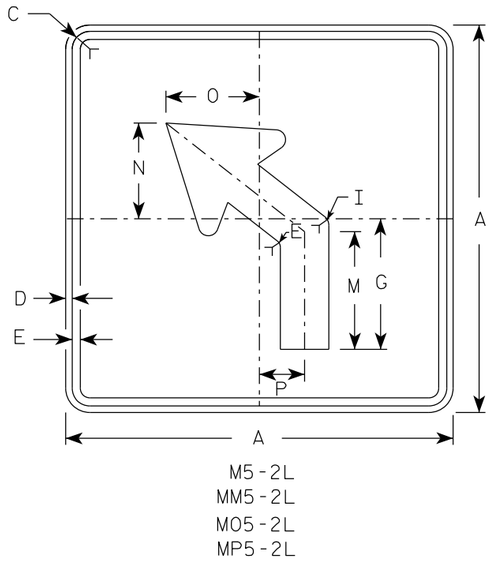
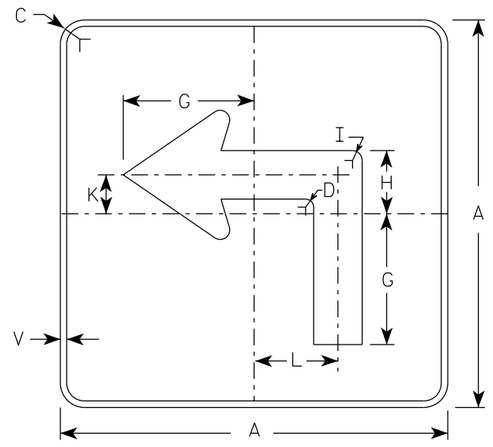


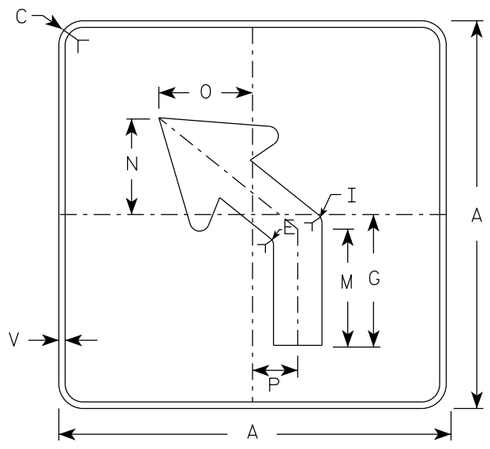
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

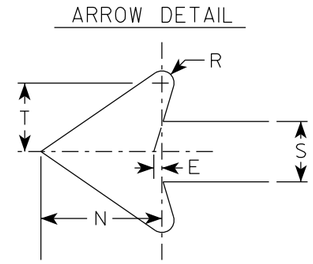


MB5-2L
MK5-2L
MN5-2L
MR5-2L

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
   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.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

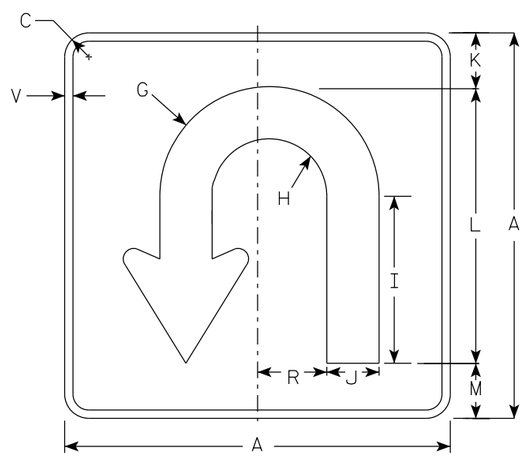
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

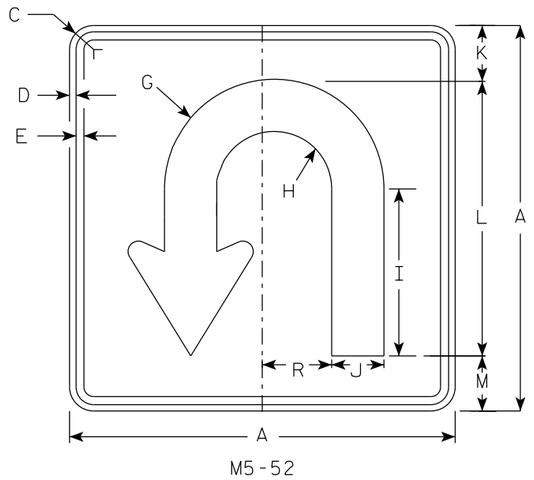
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 355 | E



M5-52



M5-52

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See Note 4
   Message - See note 4
3. M5-52 Background - White
   Message - Black

   MB5-52 Background - Blue
   Message - White

   MK5-52 Background - Green
   Message - White

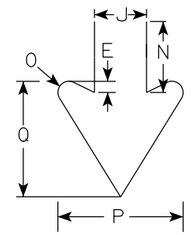
   MM5-52 Background - White
   Message - Green

   MN5-52 Background - Brown
   Message - White

   MO5-52 Background - Orange - Type F Reflective
   Message - Black

   MP5-52 Background - White
   Message - Blue

   MR5-52 Background - Brown
   Message - Yellow



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4				1/2					3.06
2M	21		1 1/2	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4				1/2					3.06
3	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25
4	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25
5	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25

STANDARD SIGN
M5-52
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-52.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 356 E

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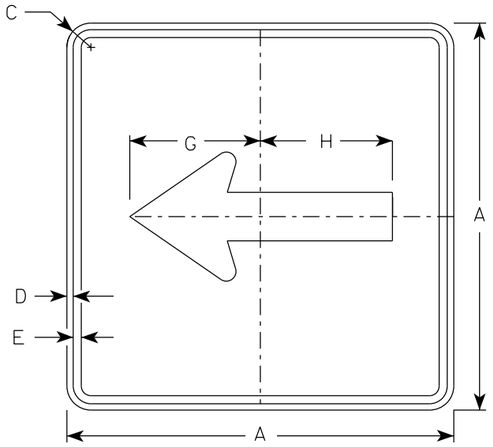
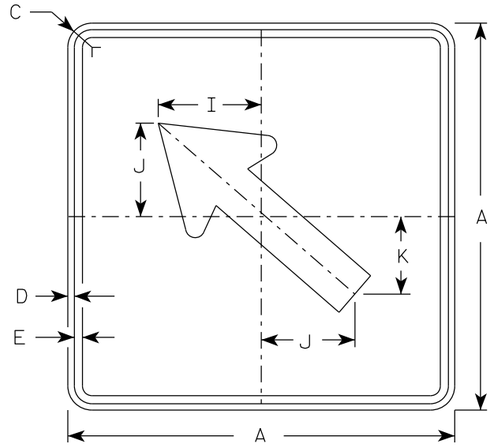
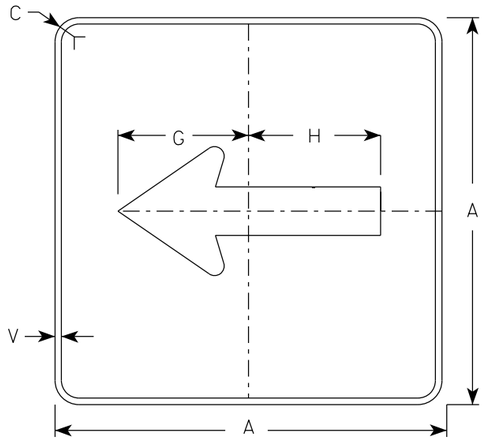


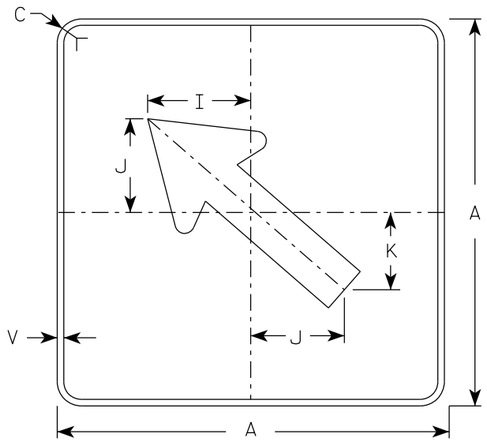
M6-1
MM6-1
MO6-1
MP6-1



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



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

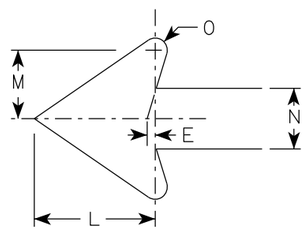


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 357 | E

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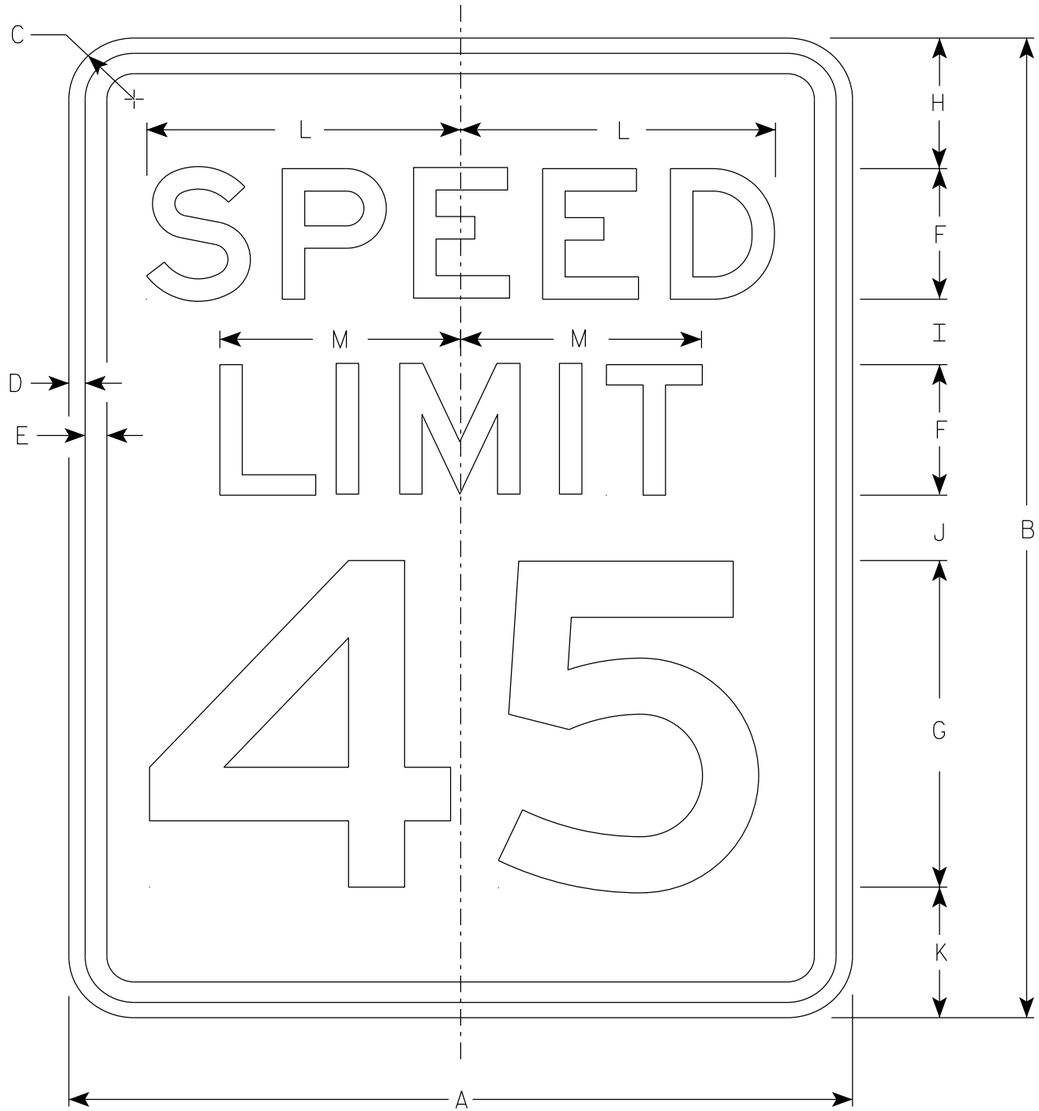


R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

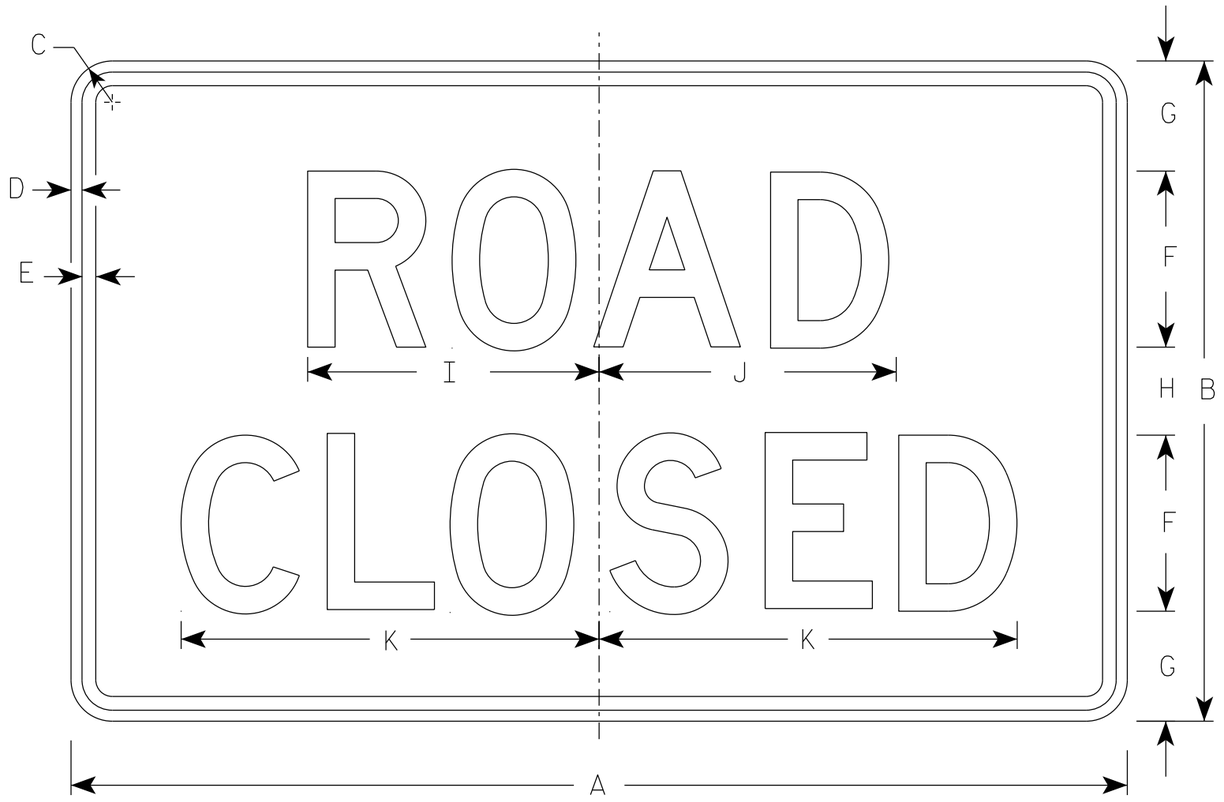
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

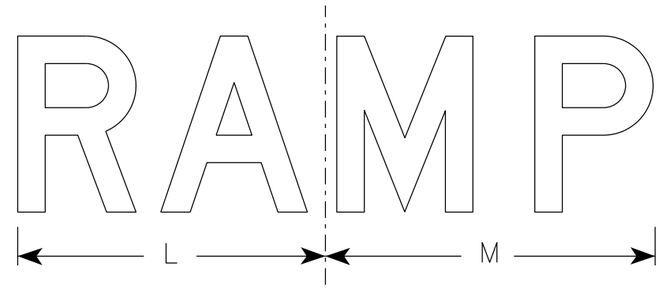
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 358 | E



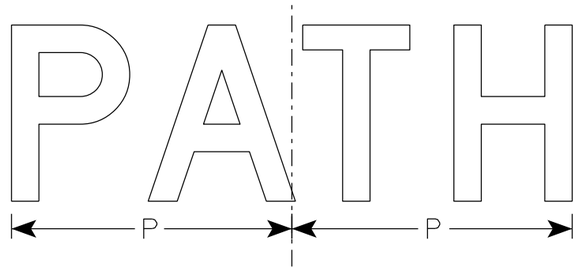
R11-2

NOTES

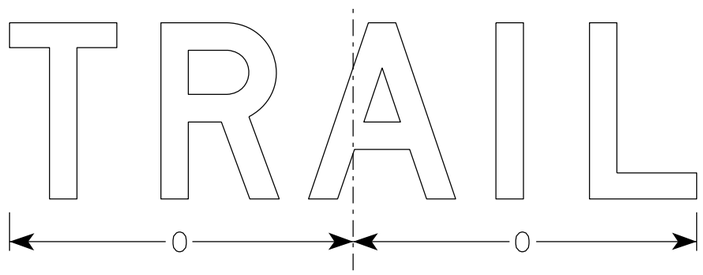
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



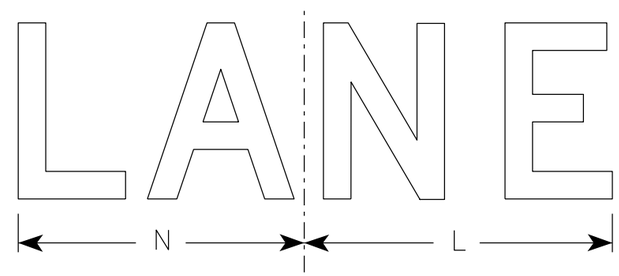
R11-2R



R11-2C



R11-2T



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 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

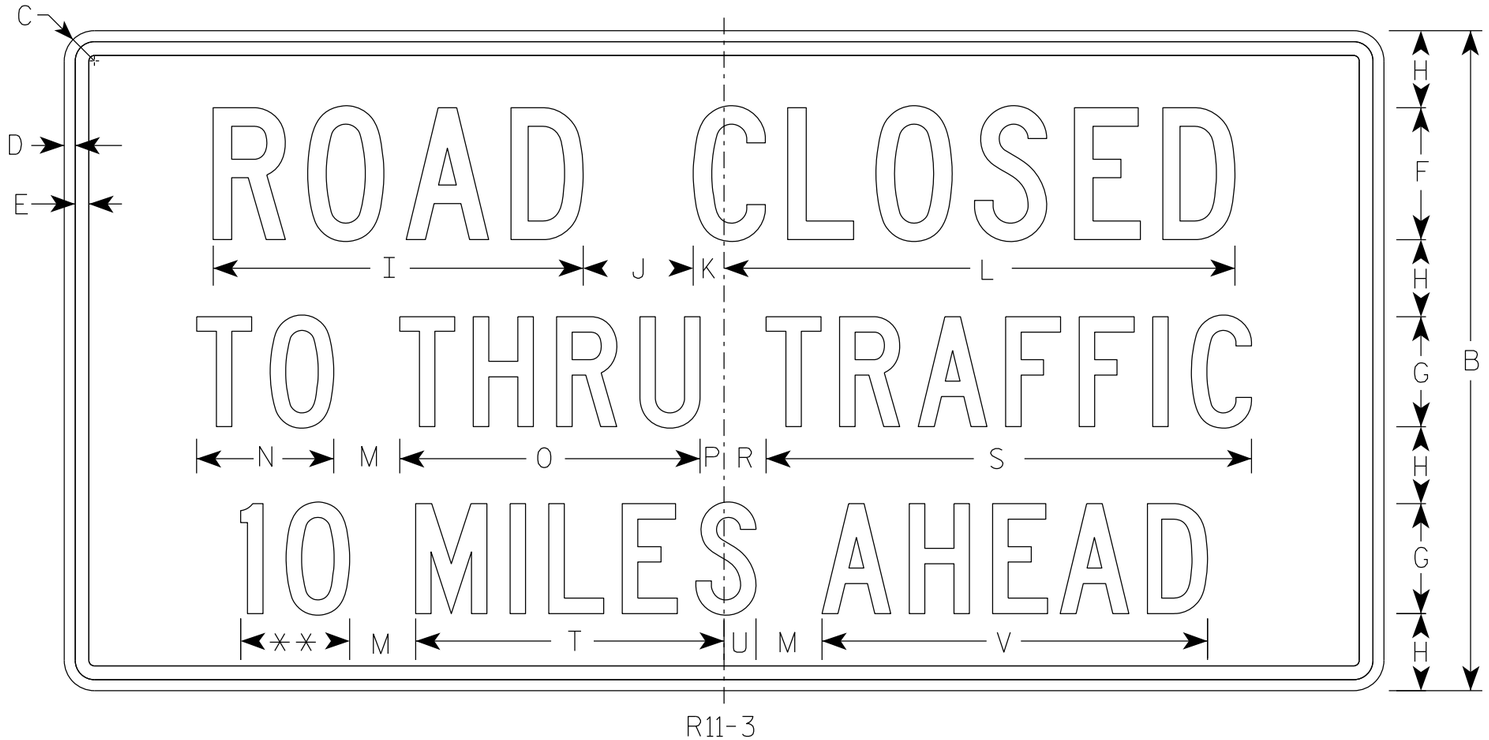
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/3/26 PLATE NO. R11-2.13

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

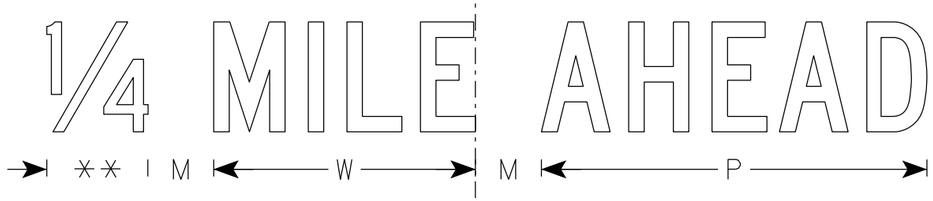
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

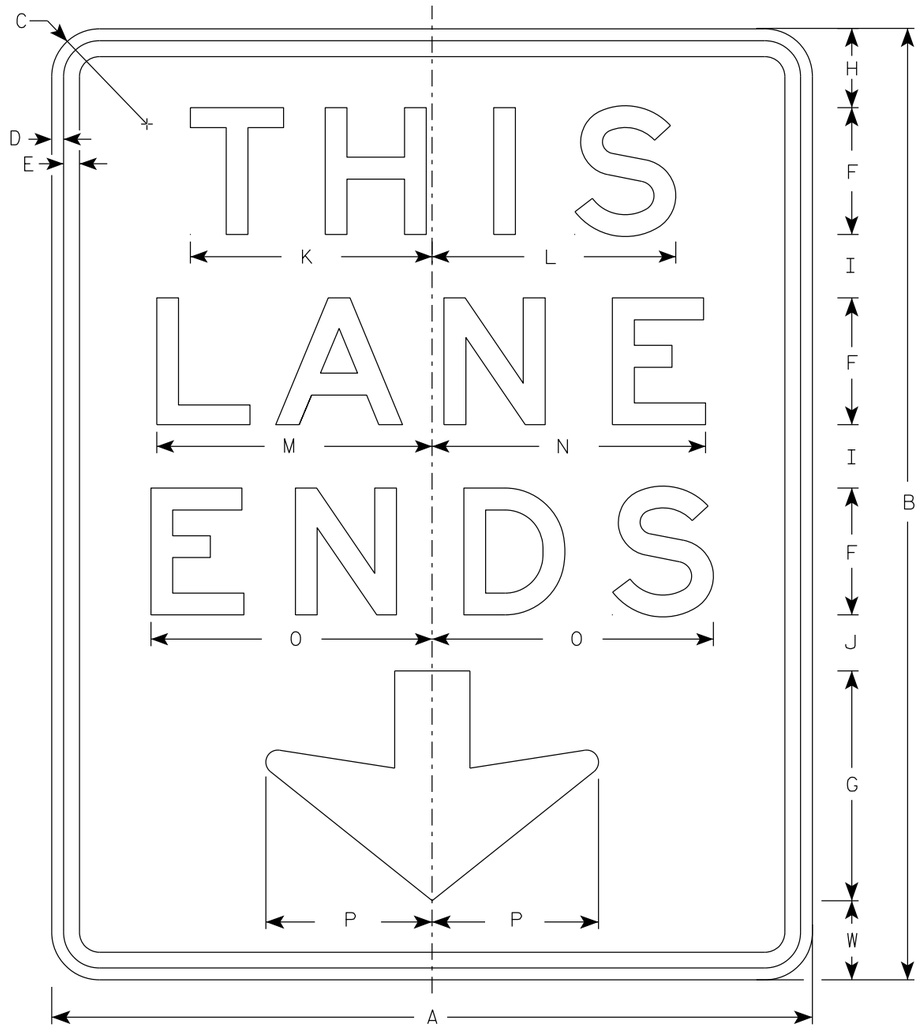
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

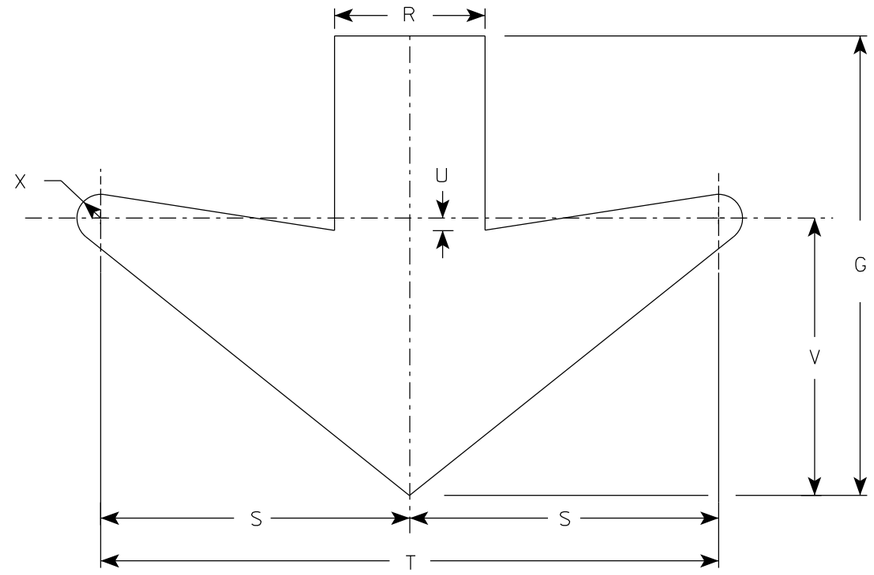
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 360	E



W9-62

NOTES

1. Sign is Type II - Type F Reflective except see Note 5
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Size 4 and 5 shall be Type I - Type F Reflective



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	48	60	3	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2S	48	60	3	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2M	48	60	3	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
3	48	60	3	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
4	72	90	6	1	1 1/2	12	22	8	6	5	23	23	26 1/8	26 1/8	26 5/8	16		6 1/2	15	30	2	15	7	1			45.0
5	72	90	6	1	1 1/2	12	22	8	6	5	23	23	26 1/8	26 1/8	26 5/8	16		6 1/2	15	30	2	15	7	1			45.0

STANDARD SIGN
W9-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

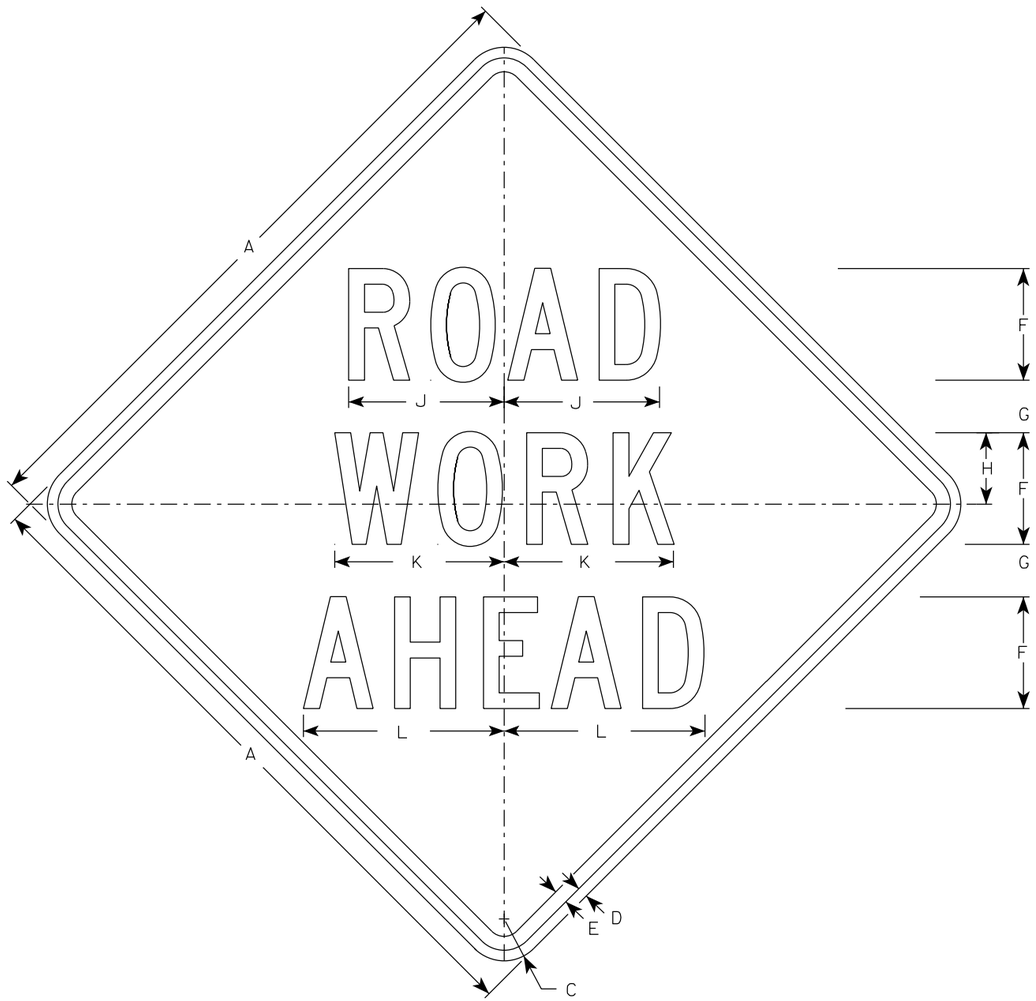
DATE 11/13/2023 PLATE NO. W9-62.12

PROJECT NO:

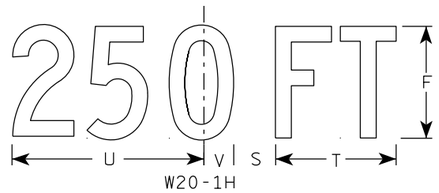
SHEET NO: 361 **E**

NOTES

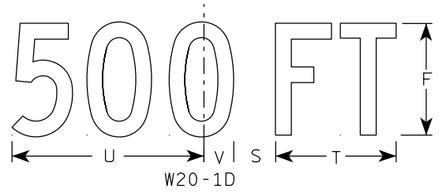
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A

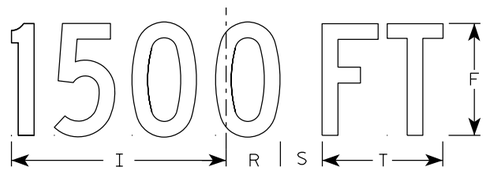


W20-1H

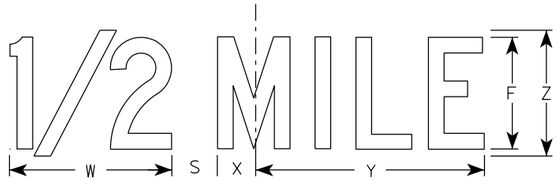


W20-1D

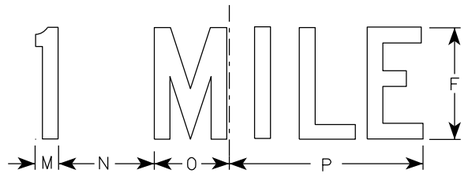
W20-1C



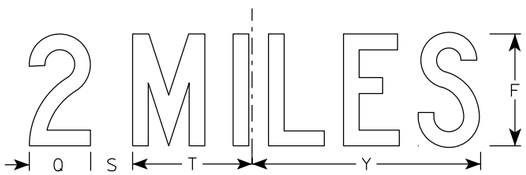
W20-1B



W20-1G



W20-1F



W20-1E

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		2 1/4	5/8	3/4	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	3 1/4	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		3	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		3	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		3	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		3	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		3	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, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

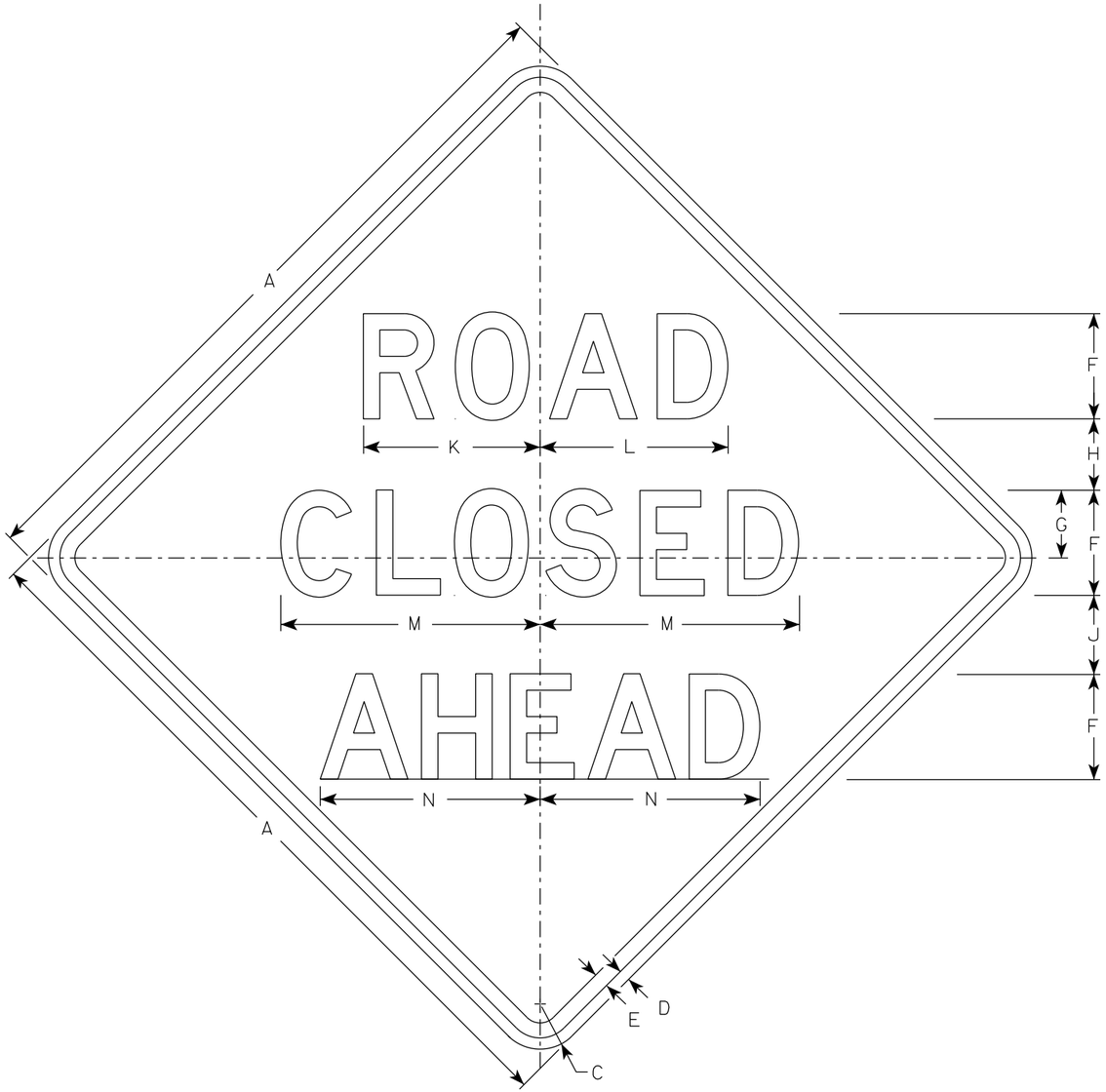
SHEET NO: 362 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

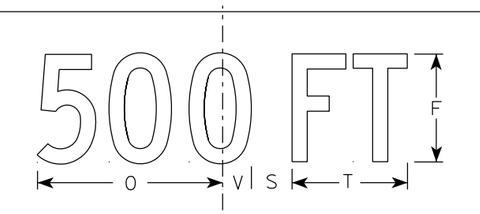
WISDOT/CADDS SHEET 42

7

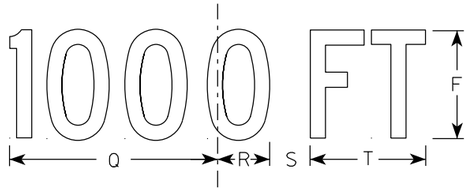
7



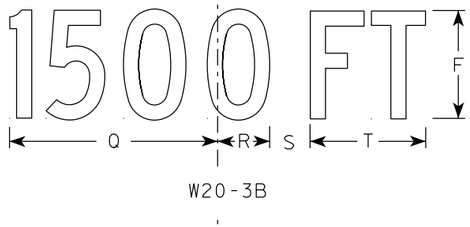
W20-3A



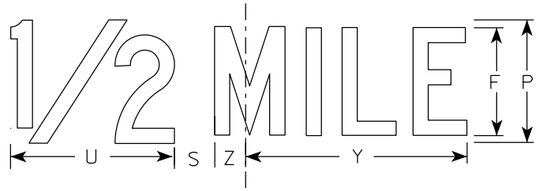
W20-3D



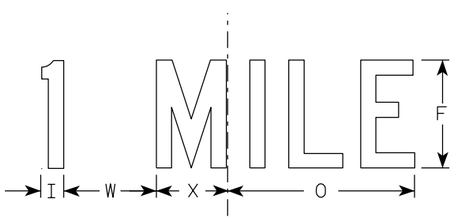
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

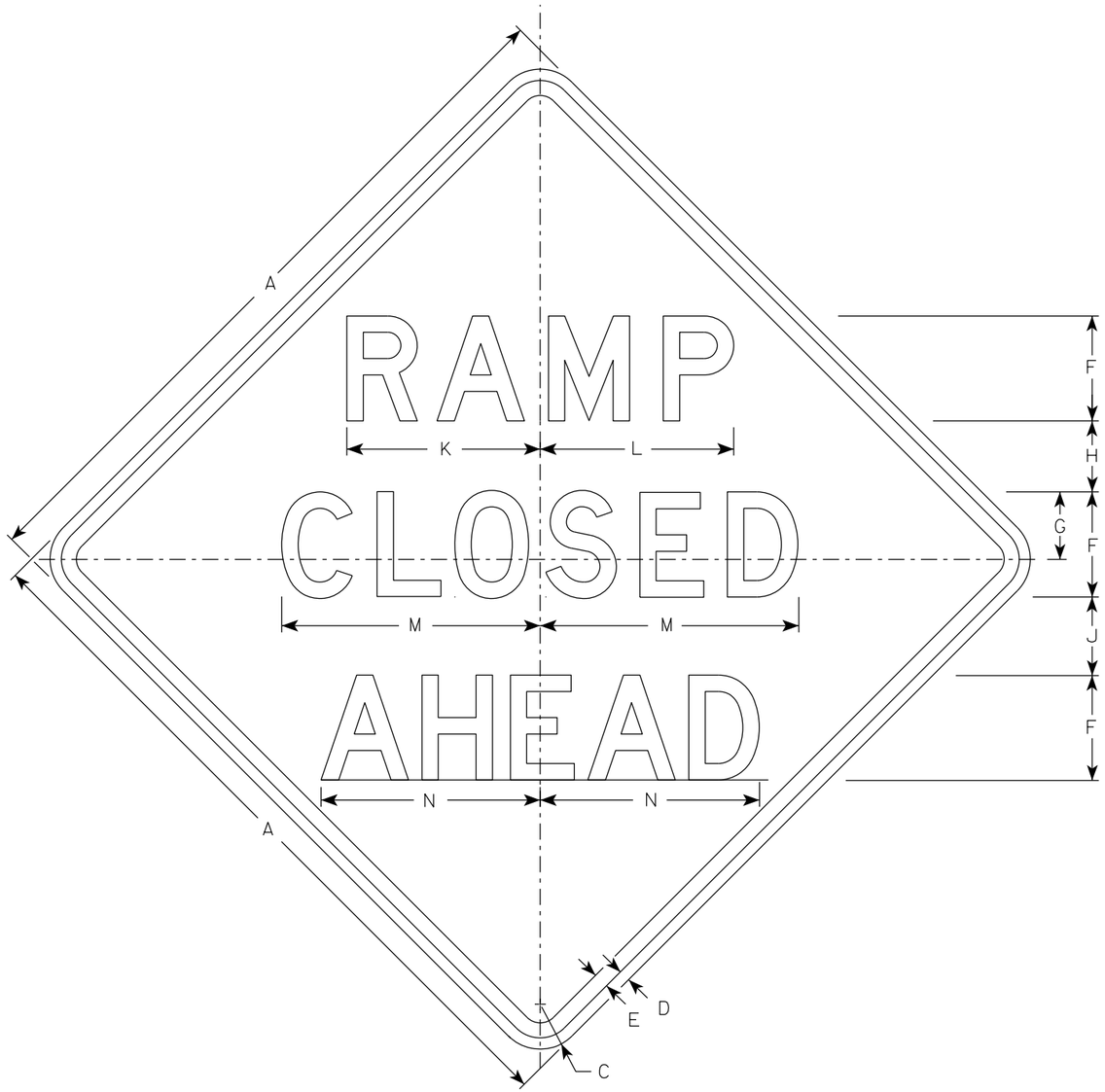
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

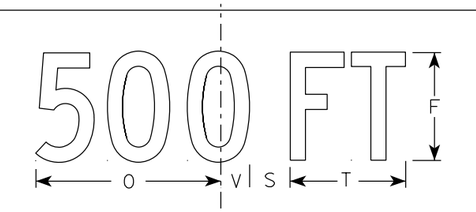
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

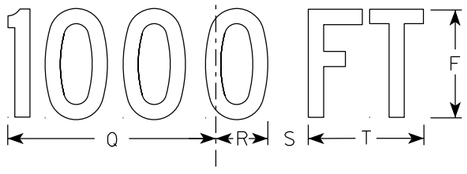
7



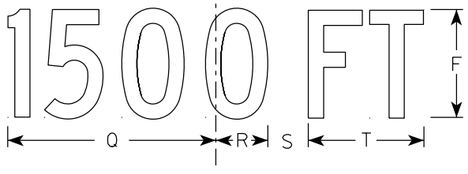
W20-53A



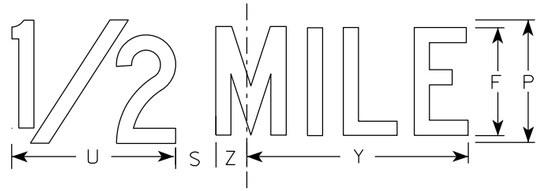
W20-53D



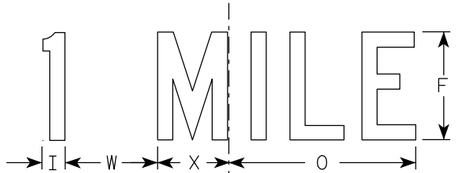
W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective
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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	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		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	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		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	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		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	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		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	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		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	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

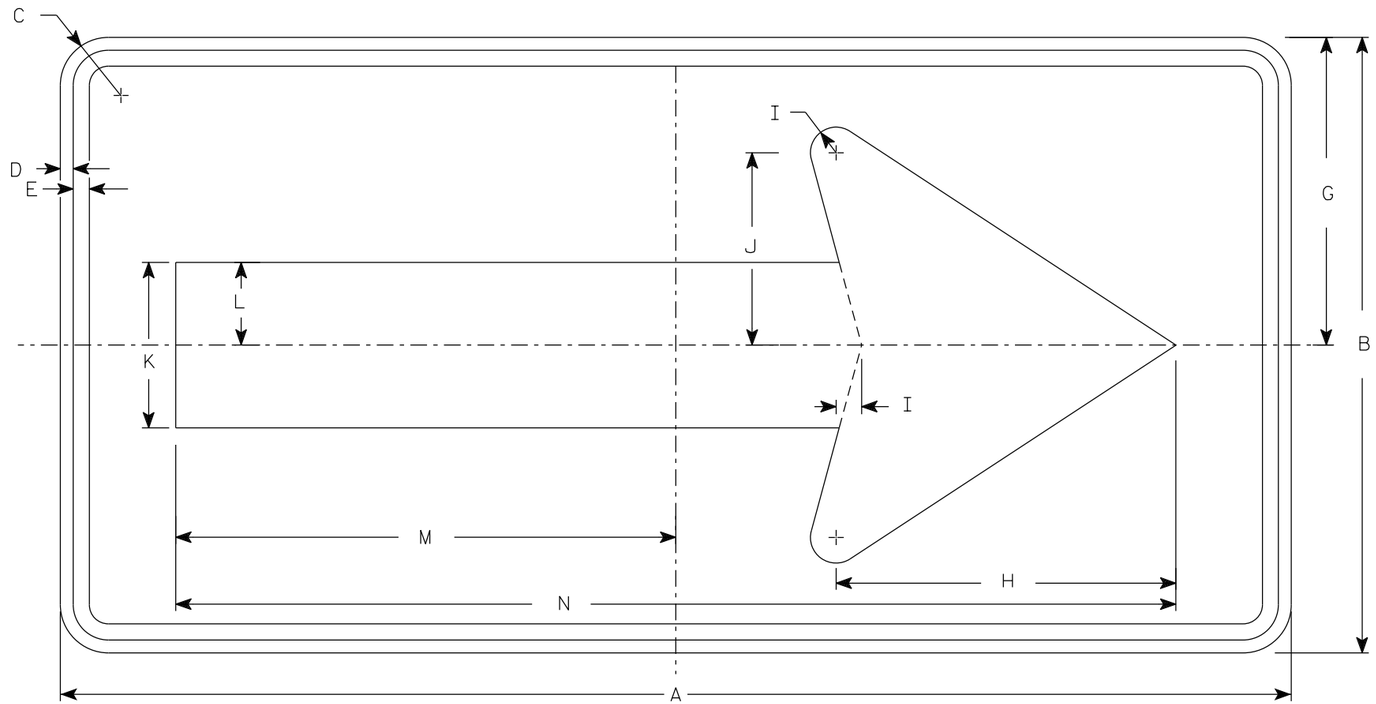
STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

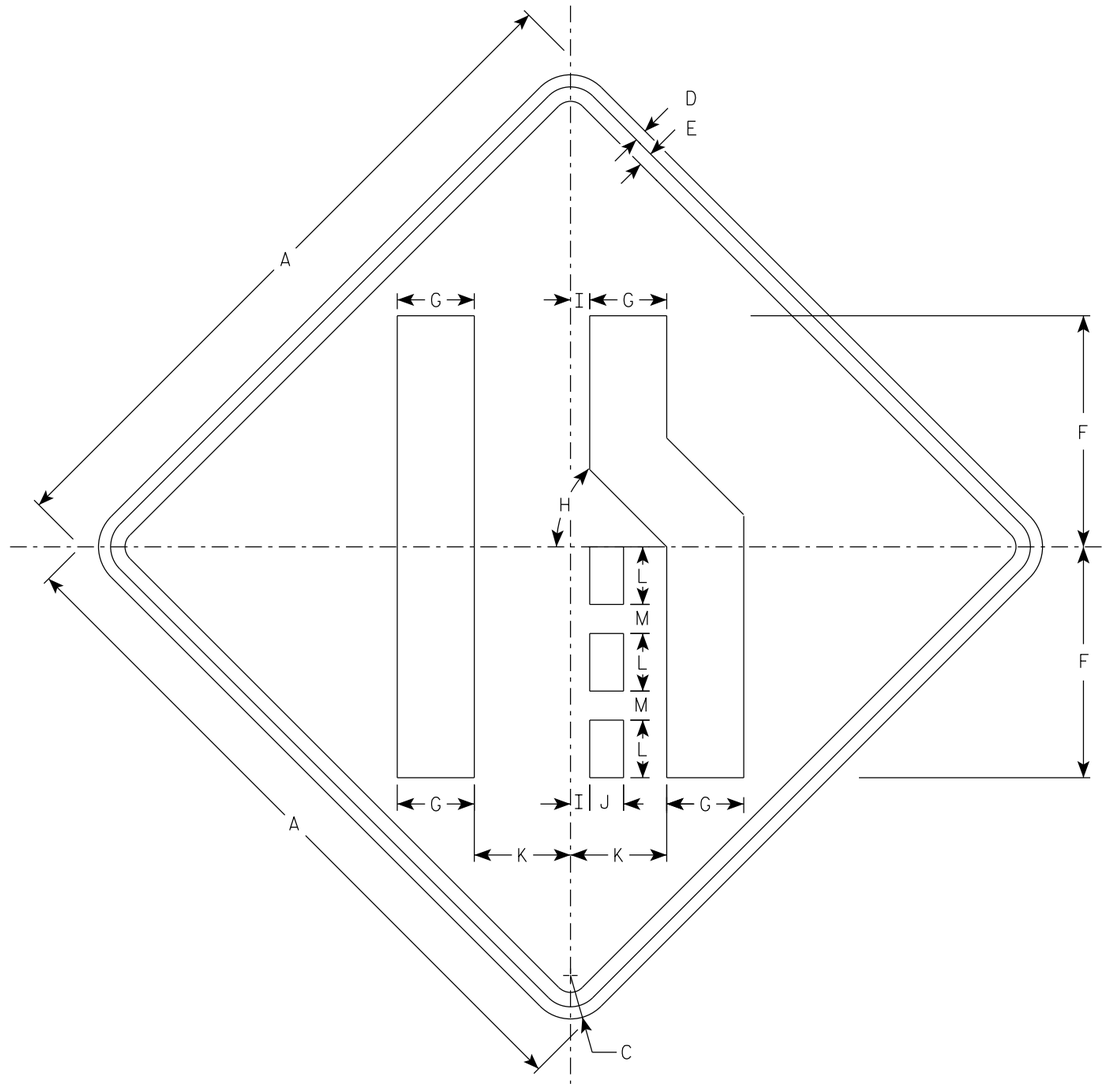
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

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



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
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		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	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

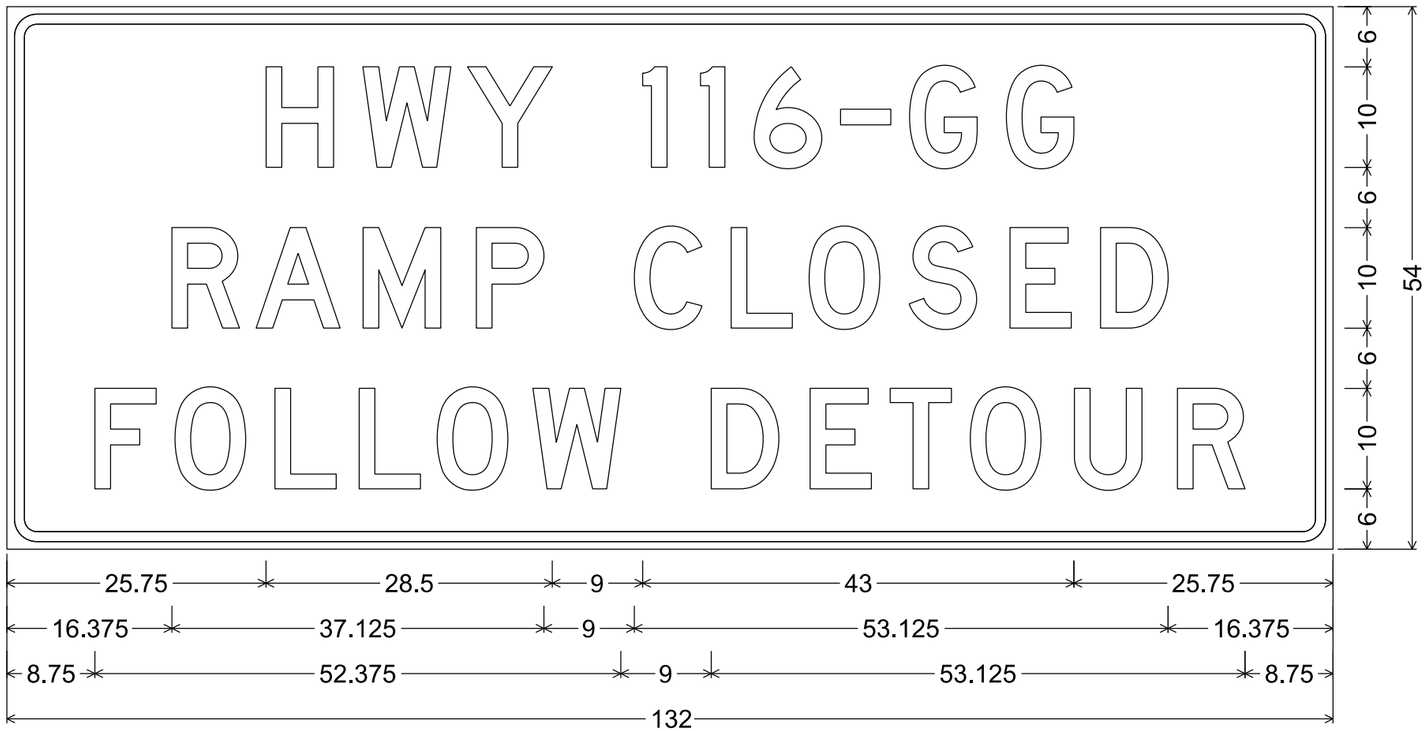
DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: E

NOTES

1. Fixed Message Sign Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



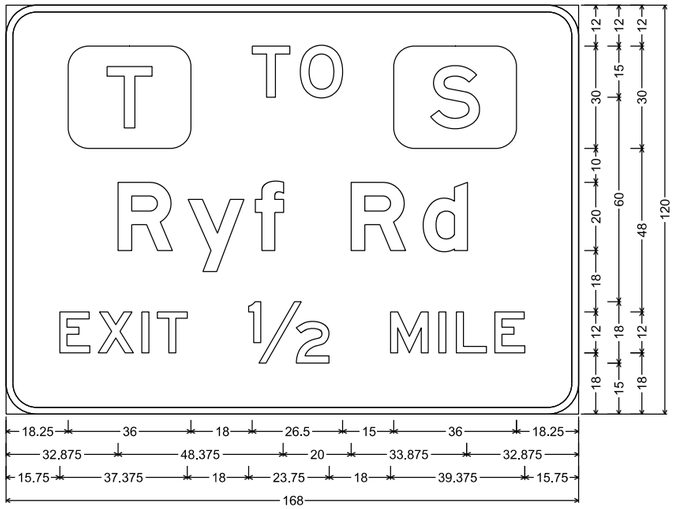
3.000" Radius, 1.000" Border, 0.750" Indent

7

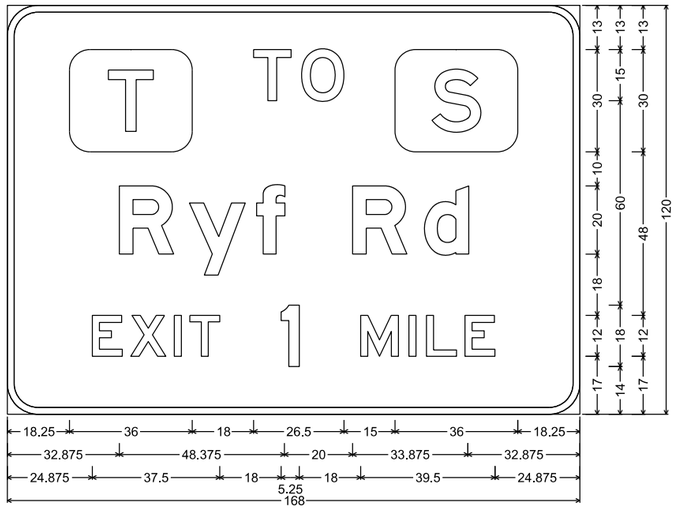
7

NOTES

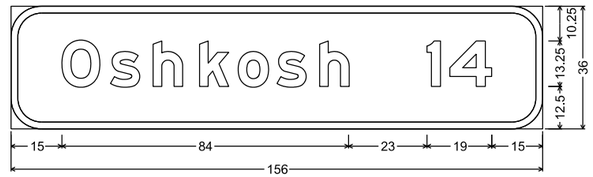
1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all CAP words Series E



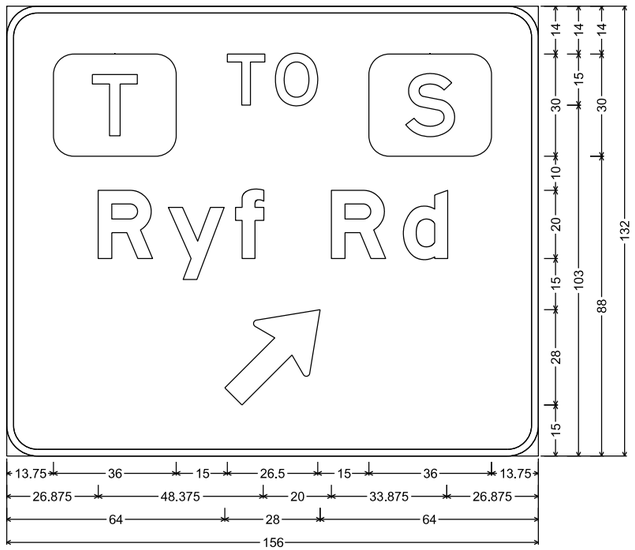
E1-1A; 9.000" Radius, 2.000" Border



E1-1A; 9.000" Radius, 2.000" Border



D2-1; 9.000" Radius, 2.000" Border



E4-1A; 9.000" Radius, 2.000" Border

D2-3; 9.000" Radius, 2.000" Border

7

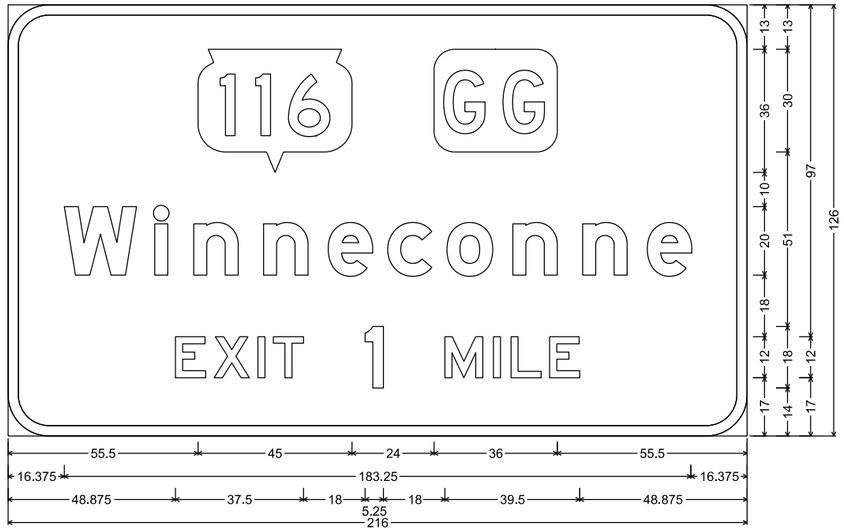
7

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET NO: 368	E

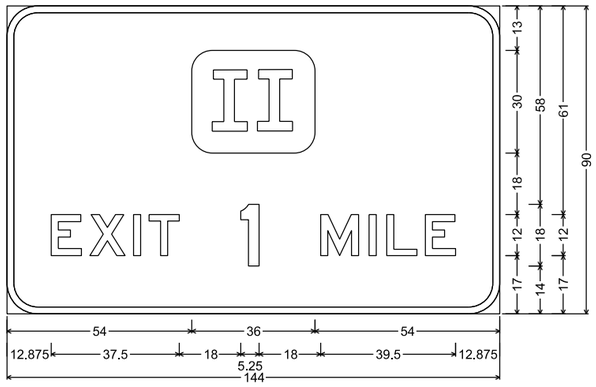
FILE NAME : C:\CAEfiles\Projects\tr_d3\3701o526.dgn PLOT DATE : 27-MAY 2026 11:30 PLOT BY : dotc4c PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

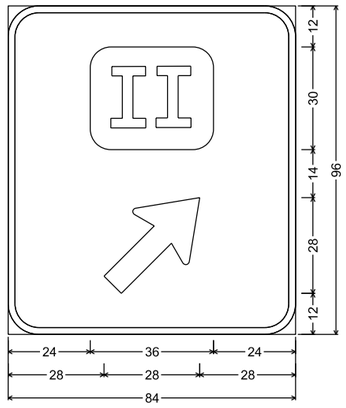
1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all CAP words Series E



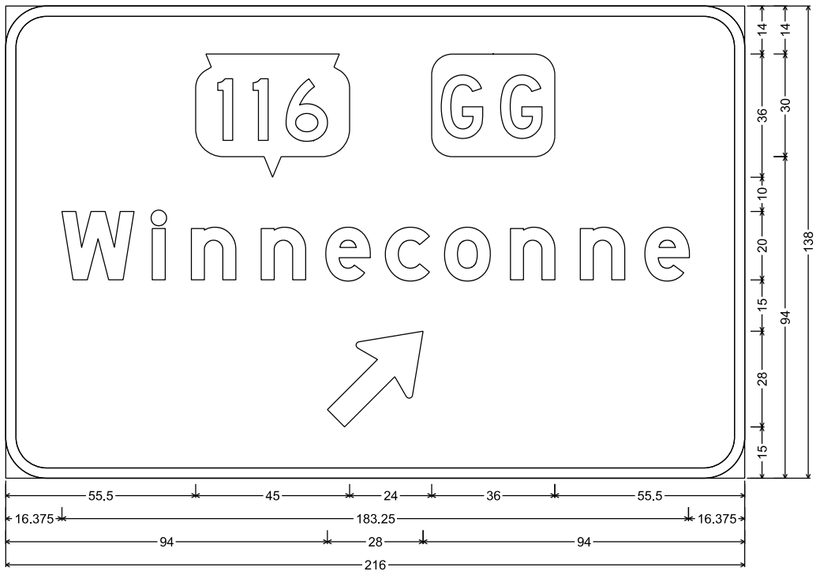
E1-1A; 12.000" Radius, 3.000" Border



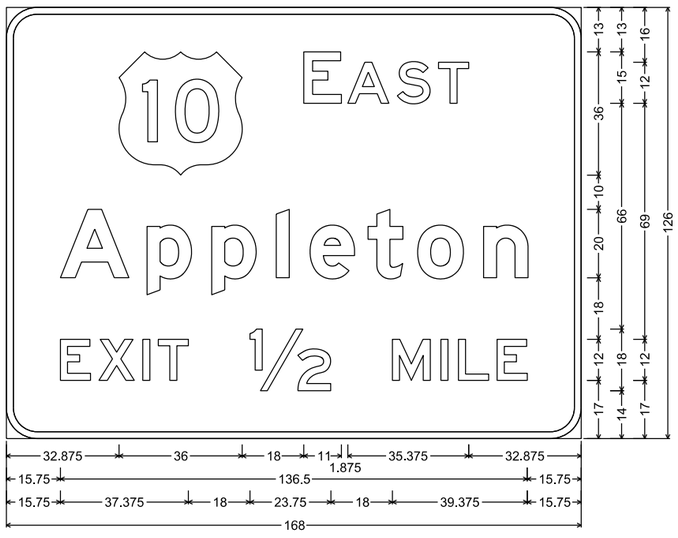
E1-1A; 9.000" Radius, 2.000" Border



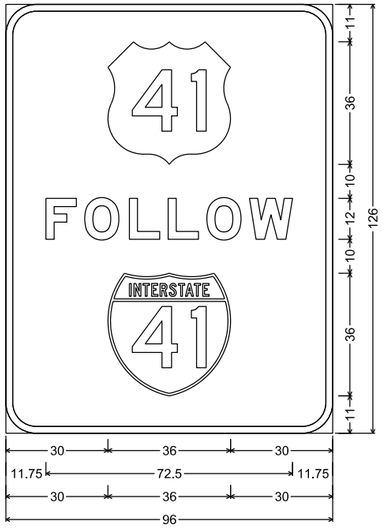
E1-1A; 9.000" Radius, 2.000" Border



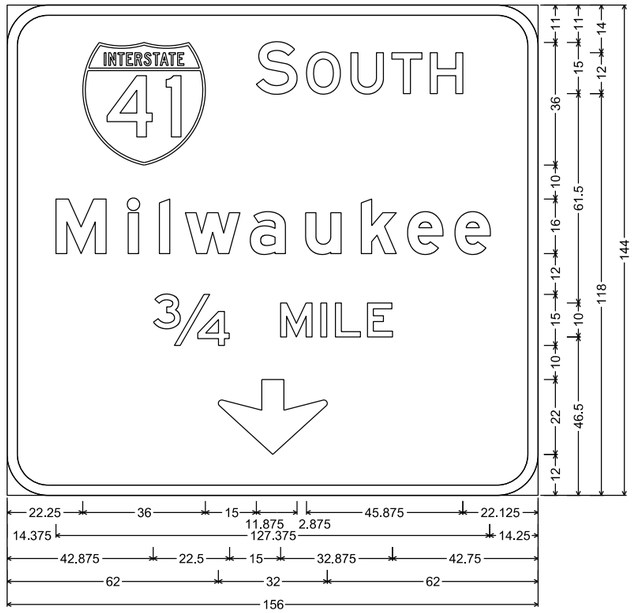
E4-1A; 12.000" Radius, 3.000" Border



E1-1A; 9.000" Radius, 2.000" Border



9.000" Radius, 2.000" Border



E6-51; 12.000" Radius, 3.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
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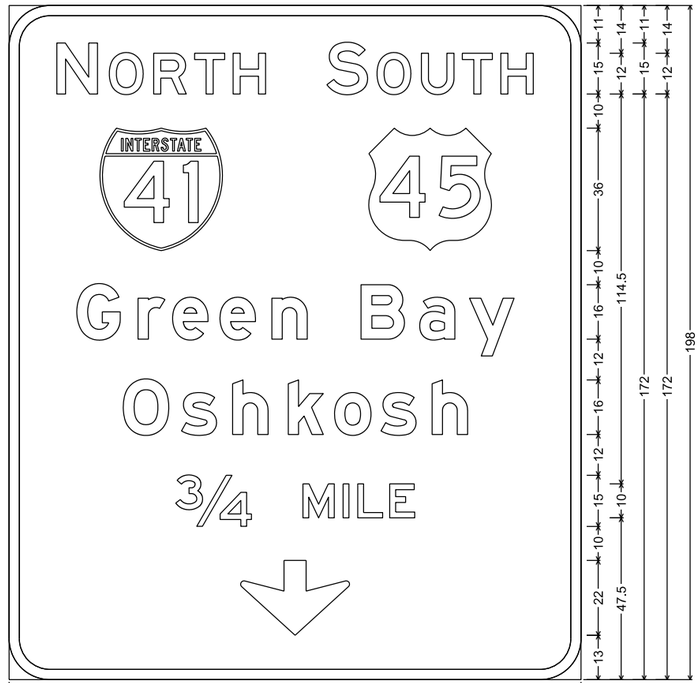
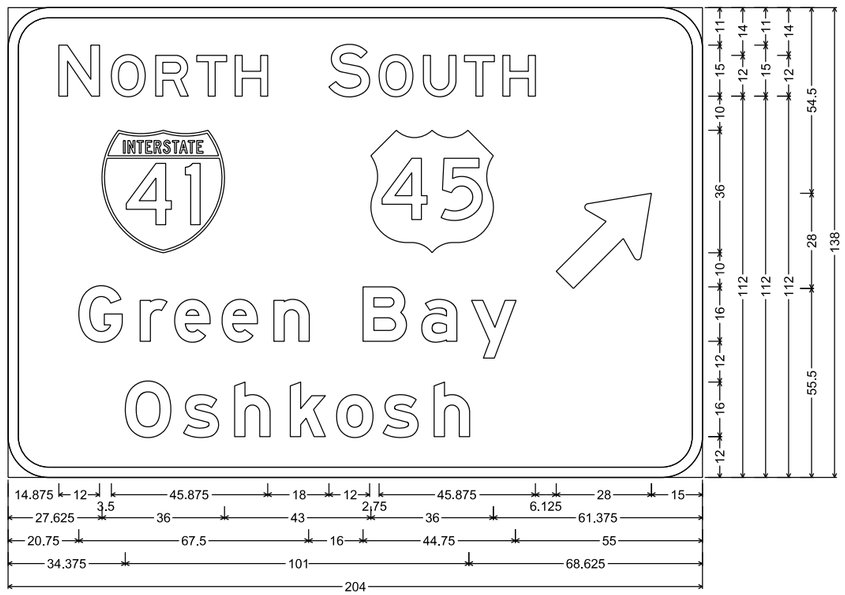
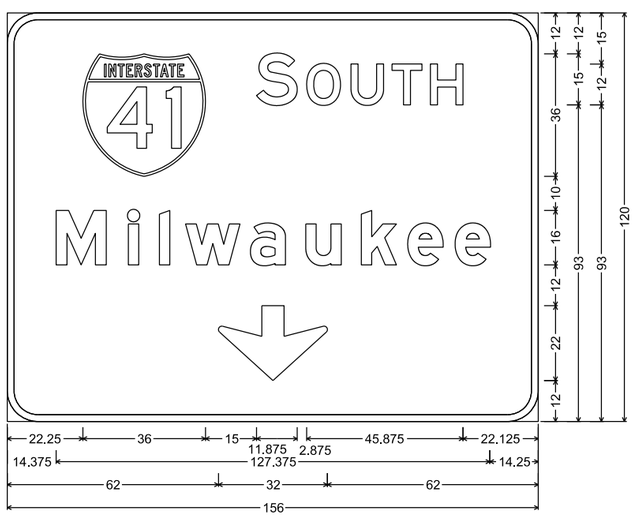
   Message - White
3. Message Series - E Modified except all CAP words Series E



E6-51; 12.000" Radius, 3.000" Border



E6-1; 12.000" Radius, 3.000" Border



E6-51; 9.000" Radius, 2.000" Border

7

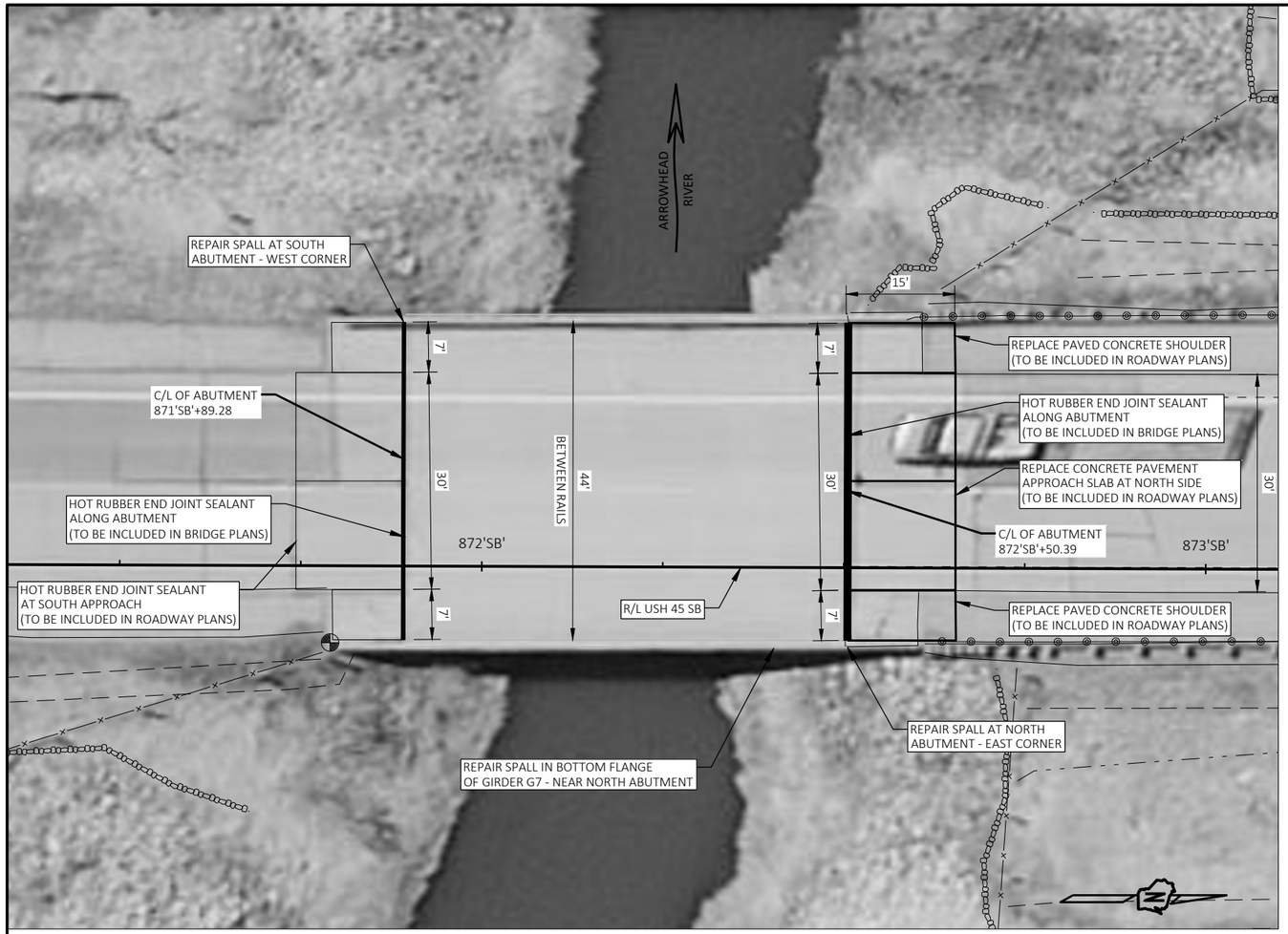
7

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET NO: 370	E

FILE NAME : C:\CAEfiles\Projects\tr_d3\3701o526.dgn PLOT DATE : 27-MAY 2026 11:30 PLOT BY : dotc4c PLOT SCALE : $$.....plotscale.....$$

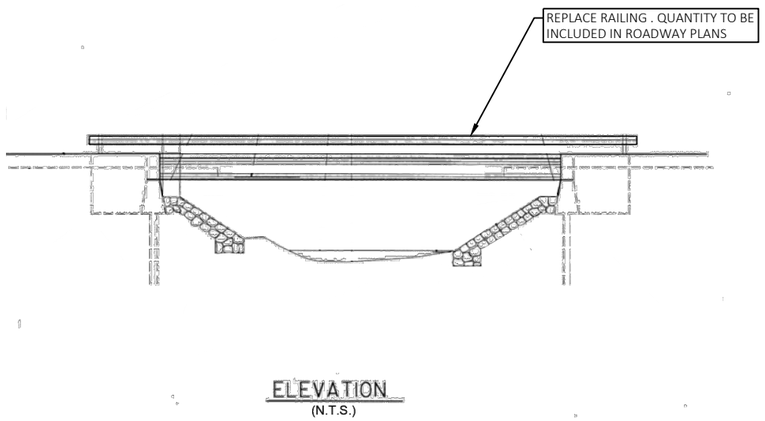
STATE PROJECT NUMBER

6200-18-70



PLAN

1" = 20 FEET



ELEVATION

(N.T.S.)

SCOPE OF WORK

1. SEAL JOINTS ALONG BOTH ABUTMENTS WITH HOT RUBBER JOINT AND CRACK SEALANT. SEE DETAILS ON SHEET 2.
2. REPLACE CONCRETE APPROACH PAVEMENT AT NORTH APPROACH.
3. REPAIR CONCRETE SPALL IN BOTTOM FLANGE OF GIRDER G7 NEAR NORTH ABUTMENT. SEE DETAILS ON SHEET 2.
4. REPAIR CONCRETE SPALLS AT SOUTH ABUTMENT - WEST CORNER AND AT NORTH ABUTMENT - EAST CORNER.
5. REPLACE ONLY RAILING. QUANTITY TO BE INCLUDED IN ROADWAY PLANS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER.

JOINT SEALING ITEM TO BE APPLIED AT THE INTERFACE BETWEEN THE APPROACH SLAB AND STRUCTURE PAVING NOTCHES. DO NOT APPY THE JOINT SEALANT AT MECHANICAL JOINTS OR STRIP SEAL JOINTS. DO NOT APPLY UNTIL AFTER INSTALLATION OF CONCRETE PAVEMENT APPROACH SLABS.

SEE ROADWAY PLANS FOR TRAFFIC STAGING DETAILS.

LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN.

SEE WISDOT SDD 13B02-A CONCRETE PAVEMENT APPROACH SLAB SHEETS FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

TRAFFIC DATA

USH 45 SB (ARROWHEAD RIVER)
USH 45 SB ADT = 7,600 (2024)

DESIGN DATA

MATERIAL PROPERTIES:

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

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION

2. CROSS-SECTION QUANTITIES AND DETAILS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.1500	CONCRETE SURFACE REPAIR	SF	5
SPV.0090	JOINT SEALING	LF	101
SPV.0165	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	14

WISCONSIN
ROBERT F. SISTO
E-38092-006
APPLETON, WI
PROFESSIONAL ENGINEER

7/24/2026

STRUCTURE DESIGN CONTACTS:
CONSULTANT: ROB SISTO (920) 830-6108
BRIDGE OFFICE: AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Westwood

ACCEPTED JLR 08/11/26
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-70-139

U.S.H. 45 SB OVER ARROWHEAD RIVER

COUNTY	TOWN
WINNEBAGO	WINCHESTER

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
RFS	ADW	CRK	RFS

GENERAL PLAN AND ELEVATION

SHEET 1 OF 2
371

I.D. 6200-18-70 DATE: 07/24/2026

8

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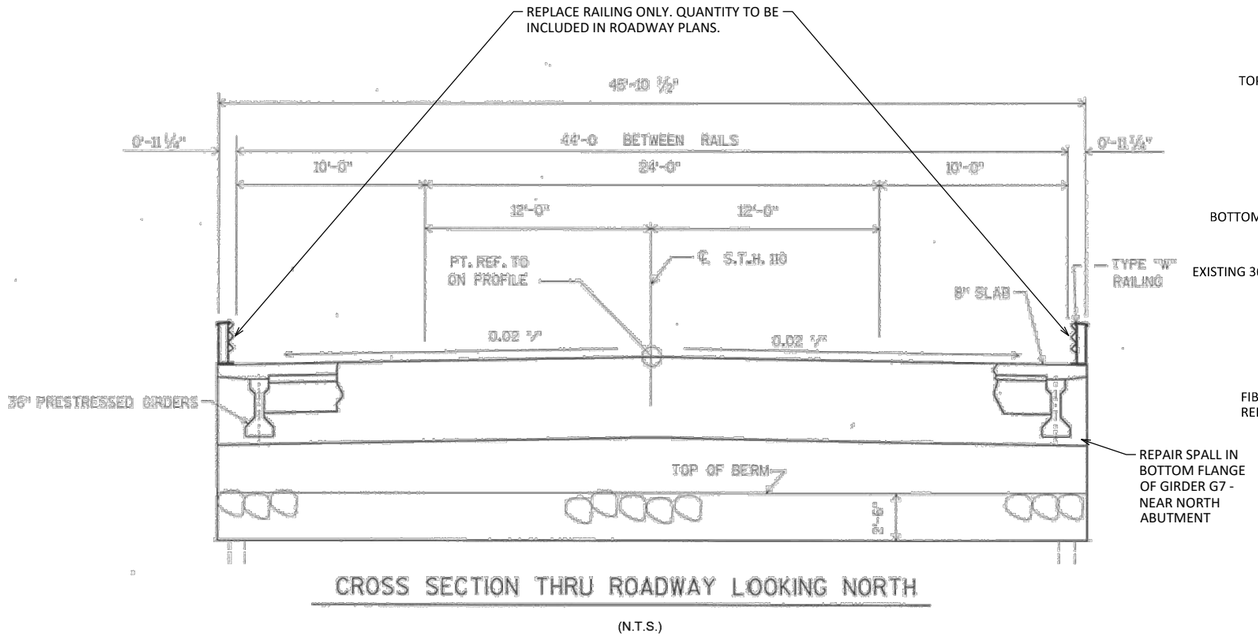
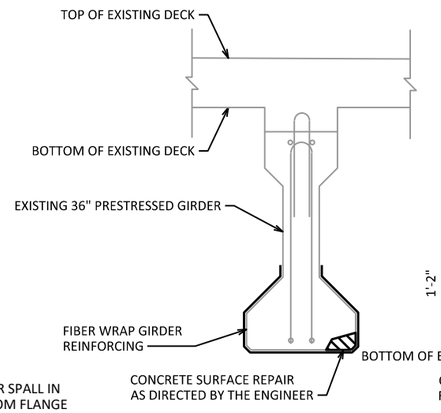
STATE PROJECT NUMBER

6200-18-70



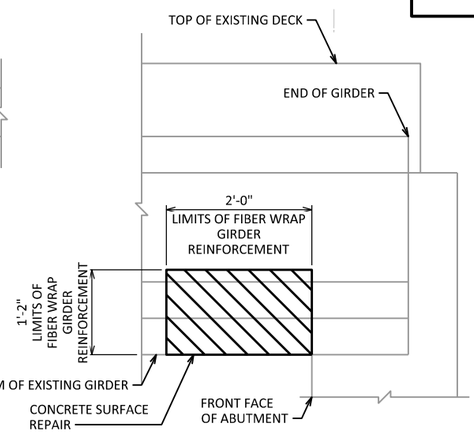
CROSS SECTION THRU ROADWAY LOOKING NORTH

(N.T.S.)



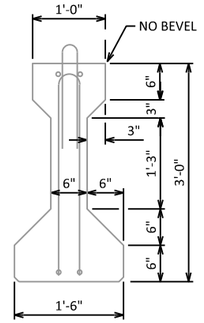
GIRDER SECTION

(NTS)



GIRDER END SECTION REPAIR

(NTS)

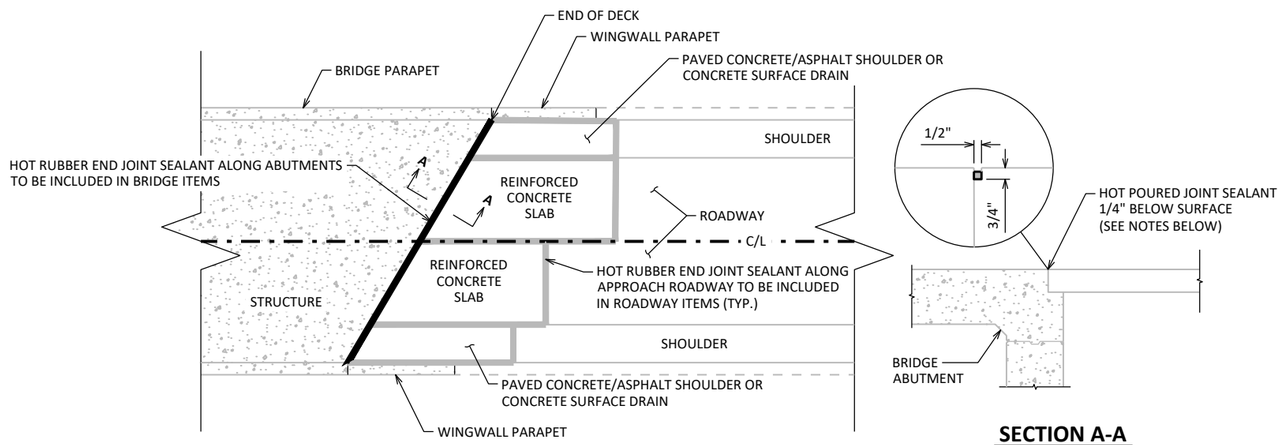


EXISTING GIRDER SECTION

(SHOWING EXISTING DIMENSIONS)

(NTS)

GIRDER REPAIR DETAILS



PLAN: HOT RUBBER END JOINT SEALING LIMITS

(CONCRETE APPROACH SLAB)

(NTS)

SECTION A-A

(NTS)

GIRDER END SURFACE REPAIR NOTES

1. WORK PERFORMED FOR GIRDER END REPAIR SHALL BE INCLUDED IN THE BID ITEMS "CONCRETE SURFACE REPAIR" AND " FIBER WRAP GIRDER REINFORCING NON-STRUCTURAL".
2. PERFORM "CONCRETE SURFACE REPAIR" PRIOR TO INSTALLATION OF "FIBER WRAP GIRDER REINFORCING" AS DIRECTED BY THE FIELD ENGINEER AT THE LOCATIONS INDICATED IN THE PLANS.
3. FIBER WRAP REINFORCING SHAL BE IN ACCORDANCE WITH THE " FIBER WRAP

GIRDER REPAIR NOTES

1. ALL INCIDENTAL COSTS ASSOCIATED WITH THE PRECAST GIRDER REPAIR SHALL BE INCLUDED IN THE UNIT BID PRICE.

FLANGE REPAIR PROCEDURE

1. REMOVE SPALLED OR DELAMINATED SECTION OF CONCRETE.
2. CLEAN EXPOSED REINFORCING STRANDS ACCORDING TO EPOXY CORROSION INHIBITOR MANUFACTURER'S INSTRUCTIONS.
3. APPLY EPOXY CORROSION INHIBITOR TO EXPOSED REINFORCING STRANDS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

HOT RUBBER END JOINT SEALING NOTES

TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE CLEANED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-139

DRAWN BY CRK | PLANS CK'D RFS

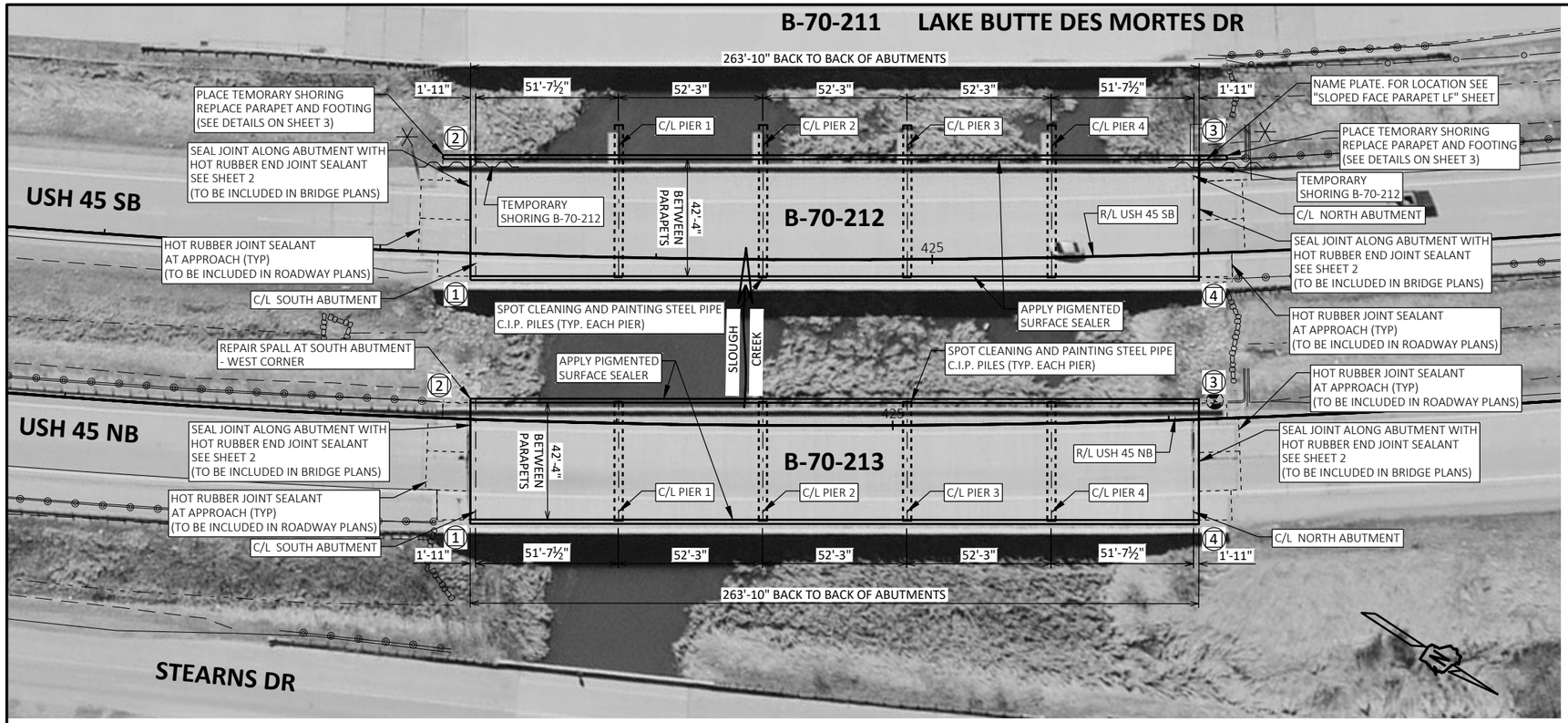
CROSS-SECTION QUANTITIES AND DETAILS

SHEET 2 OF 2

372

8

8

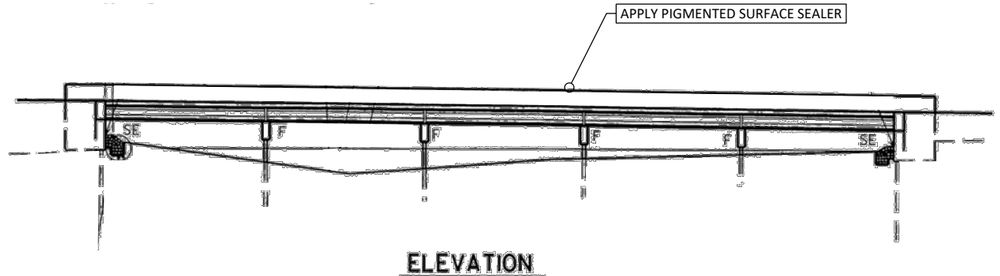


PLAN

5 SPAN - 28" PRESTRESSED GIRDERS
(N.T.S.)

SUMMARY OF LOCATIONS

STRUCTURE ID	MUNICIPALITY	LOCATION
B-70-212	OSHKOSH	USH 45 SB OVER SLOUGH CREEK
B-70-213	OSHKOSH	USH 45 NB OVER SLOUGH CREEK



ELEVATION

NORMAL TO SLOUGH CREEK
(N.T.S.)

LEGEND

(X) INDICATES WING NUMBER

PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

TRAFFIC DATA

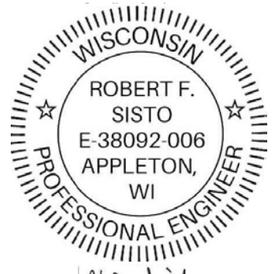
USH 45 SB (SLOUGH CREEK)
ADT = 9,650 (2022)

USH 45 NB (SLOUGH CREEK)
ADT = 7,050 (2022)

DESIGN DATA

MATERIAL PROPERTIES:

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



8/12/2026

STATE PROJECT NUMBER

6200-18-70

SCOPE OF WORK

SEAL JOINTS ALONG EACH ABUTMENT AT BRIDGE B-70-212 AND BRIDGE B-70-213 WITH HOT RUBBER JOINT AND CRACK SEALANT, SEE DETAILS ON SHEET 2.

APPLY PIGMENTED SURFACE SEALER TO TOP FACE AND ROADWAY SIDE FACE OF PARAPET AT BRIDGE B-70-212 AND BRIDGE B-70-213. SEE DETAILS ON SHEET 2.

SPOT PAINT STEEL PIPE C.I.P. PILE AT PIERS OF BRIDGE B-70-212 AND BRIDGE B-70-213.

REPLACE PARAPET AND FOOTING AT WINGWALLS 2 AND 3 OF BRIDGE B-70-212. SEE DETAILS ON SHEET 3 AND 4.

REPAIR CONCRETE SPALL AT SOUTH ABUTMENT - WEST CORNER OF BRIDGE B-70-213.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP AND FRONT OF PARAPETS.

SURFACE PREPARATION IS INCLUDED IN THE ITEM "PIGMENTED SURFACE SEALER RESEAL".

CONCRETE SURFACE REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER.

JOINT SEALING ITEM TO BE APPLIED AT THE INTERFACE BETWEEN THE APPROACH SLAB AND STRUCTURE PAVING NOTCHES. DO NOT APPY THE JOINT SEALANT AT MECHANICAL JOINTS OR STRIP SEAL JOINTS. DO NOT APPLY UNTIL AFTER INSTALLATION OF CONCRETE PAVEMENT APPROACH SLABS.

SEE ROADWAY PLANS FOR TRAFFIC STAGING DETAILS.

LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN.

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, 2002.

REMOVAL OF THE EXISTING SOUTHWEST AND NORTHWEST PARAPETS AND PARAPET FOOTINGS AT B-70-212 TO BE INCLUDED IN THE REMOVING STRUCTURE BID ITEM.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. PARAPET FOOTING
4. SLOPE FACE PARAPET LF

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK
(608) 261-0261

CONSULTANT:
ROB SISTO
(920)830-6108

NO.	DATE	REVISION	BY

Westwood

ACCEPTED JLR 08/13/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-212/213

U.S.H. 45 OVER SLOUGH CREEK

COUNTY	TOWN
WINNEBAGO	OSHKOSH

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
RFS	RFS	CRK	RFS

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
373

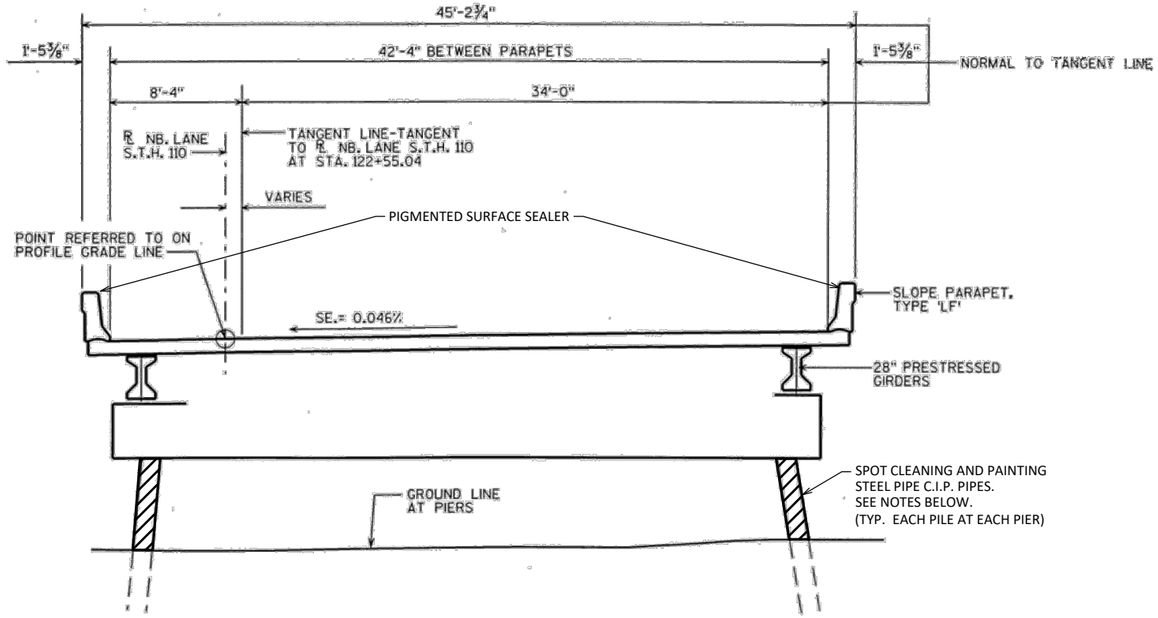
I.D. 6200-18-70 DATE: 04/02/2026

8

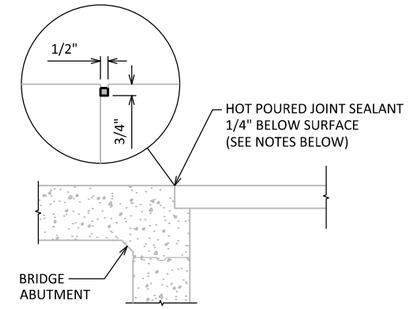
8

STATE PROJECT NUMBER

6200-18-70

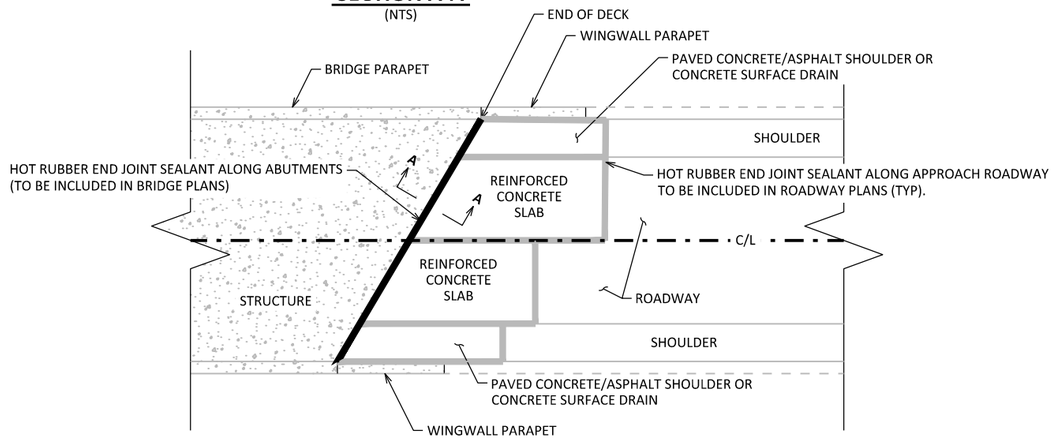


CROSS SECTION THRU ROADWAY LOOKING NORTH



SECTION A-A

(NTS)



PLAN: HOT RUBBER END JOINT SEALING LIMITS

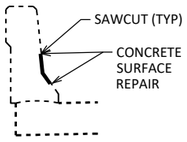
(CONCRETE APPROACH SLAB)

(NTS)

JOINT SEALING NOTES

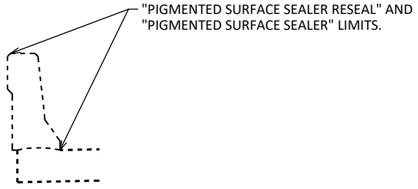
TRANSVERSE JOINTS ALONG ABUTMENTS SHALL BE CLEANED AND SEALED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6 AND BE IN CONFORMANCE WITH THE SPECIAL PROVISIONS..



PARAPET REPAIR DETAIL

(NTS)



PIGMENTED SURFACE SEALER DETAIL

(NTS)

PARAPET REPAIR NOTES

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE TOP FACE AND ROADWAY SIDE FACE OF THE PARAPETS. SURFACE PREPARATION IS INCLUDED. BID ITEMS SHALL BE "PIGMENTED SURFACE SEALER" AT THE SOUTHWEST AND NORTHWEST APPROACH PARAPETS (WINGS 2 AND 3) OF B-70-212 AND "PIGMENTED SURFACE SEALER RESEAL" AT THE BRIDGE PARAPETS AND THE SOUTHEAST AND NORTHEAST WINGWALL PARAPETS (WINGS 1 AND 4) OF B-70-212, AND AT ALL PARAPETS OF B-70-213.

CONCRETE SURFACE REPAIR SHALL CONFORM TO SECTION 509.3.7 AND OTHER APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.

STEEL PIPE CAST-IN PLACE SPOT CLEANING AND PAINTING NOTES

WORK PERFORMED FOR SPOT CLEANING AND PAINT STEEL PIPE C.I.P. PILES SHALL BE INCLUDED IN THE BID ITEM "STEEL PIPE CAST-IN PLACE SPOT CLEANING AND PAINTING B-70-0212 OR STEEL PIPE CAST-IN PLACE SPOT CLEANING AND PAINTING B-70-0213".

PERFORM CLEANING OF STEEL PIPE PILES PRIOR TO APPLYING PAINT AS DIRECTED BY THE FIELD ENGINEER AT LOCATIONS INDICATED ON THE PLANS.

SEE SECTIONS "STEEL PIPE CAST-IN PLACE SPOT CLEANING AND PAINTING B-70-0212, ITEM SPV.0060" AND "STEEL PIPE CAST-IN PLACE SPOT CLEANING AND PAINTING B-70-0213, ITEM SPV.0060" OF THE SPECIAL PROVISIONS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	DESCRIPTION	UNIT	B-70-212	B-70-213
203.0220	REMOVING STRUCTURE B-70-212	EACH	1	------
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-70-212	EACH	1	------
210.1500	BACKFILL STRUCTURE TYPE A	TON	56	------
502.0100	CONCRETE MASONRY BRIDGES	CY	7	------
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	240	254
502.3210	PIGMENTED SURFACE SEALER	SY	9	------
505.0600	BAR STEEL REINFORCEMENT HS COATED	LB	780	------
509.1500	CONCRETE SURFACE REPAIR	SF	3	3
511.1200	TEMPORARY SHORING B-70-212	SF	141	------
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	------
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	------
SPV.0060	STEEL CAST-IN-PLACE PILE SPOT CLEANING AND PAINTING B-70-212	EACH	40	------
SPV.0060	STEEL CAST-IN-PLACE PILE SPOT CLEANING AND PAINTING B-70-213	EACH	------	32
SPV.0090	JOINT SEALING	LF	126	99

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-212/213

DRAWN BY CRK | PLANS CK'D RFS

CROSS-SECTIONS QUANTITIES AND DETAILS

SHEET 2 OF 4

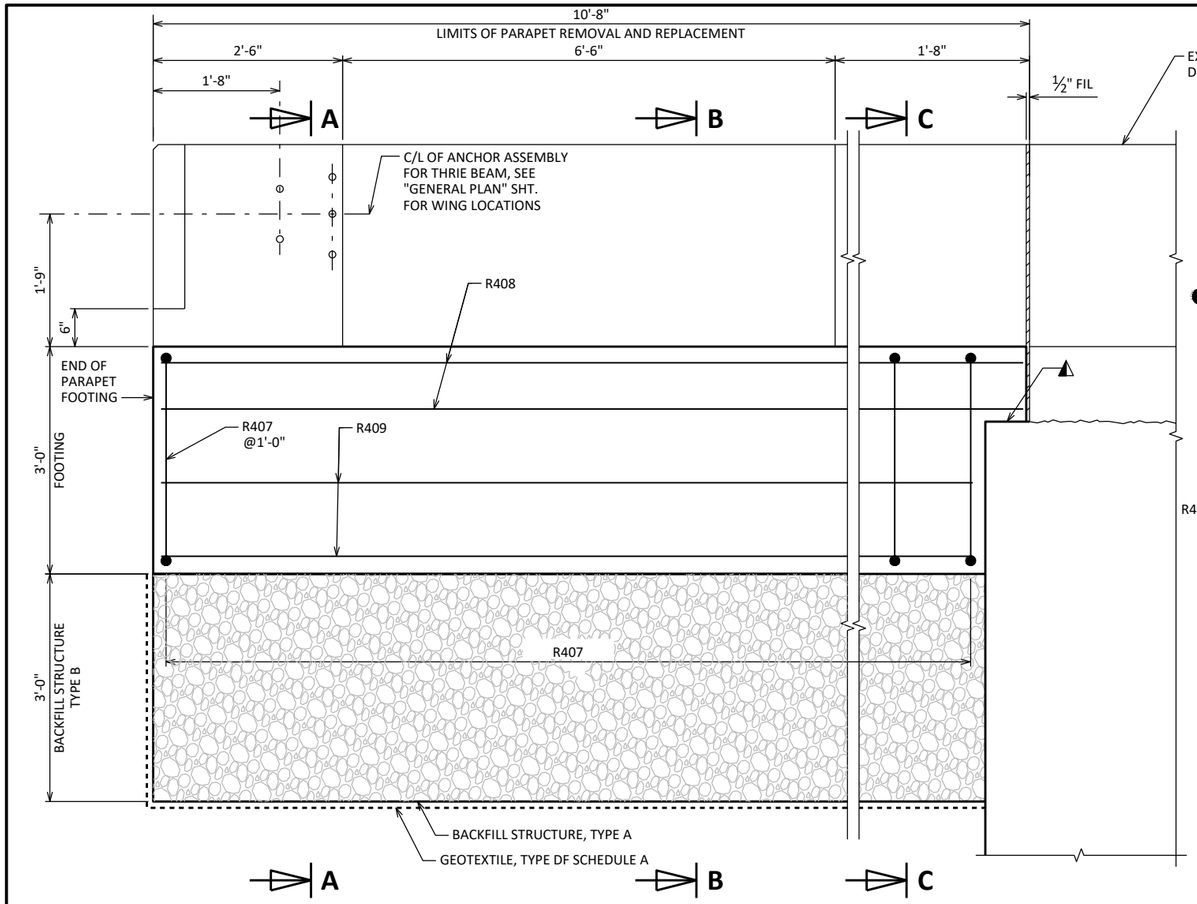
374

8

8

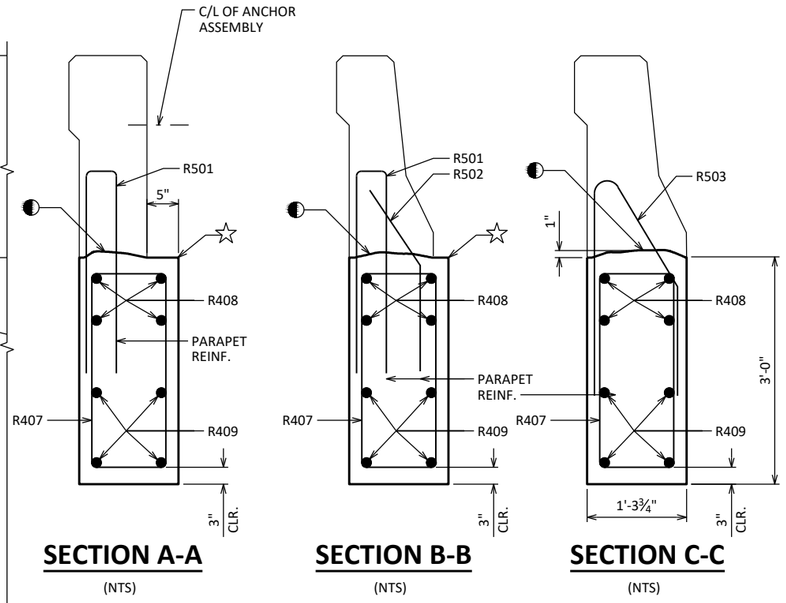
STATE PROJECT NUMBER

6200-18-70



INSIDE ELEVATION

(NTS)



SECTION A-A

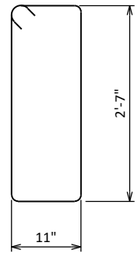
(NTS)

SECTION B-B

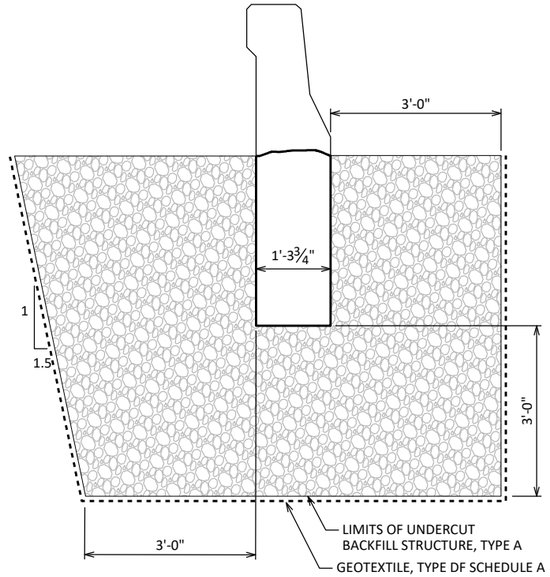
(NTS)

SECTION C-C

(NTS)

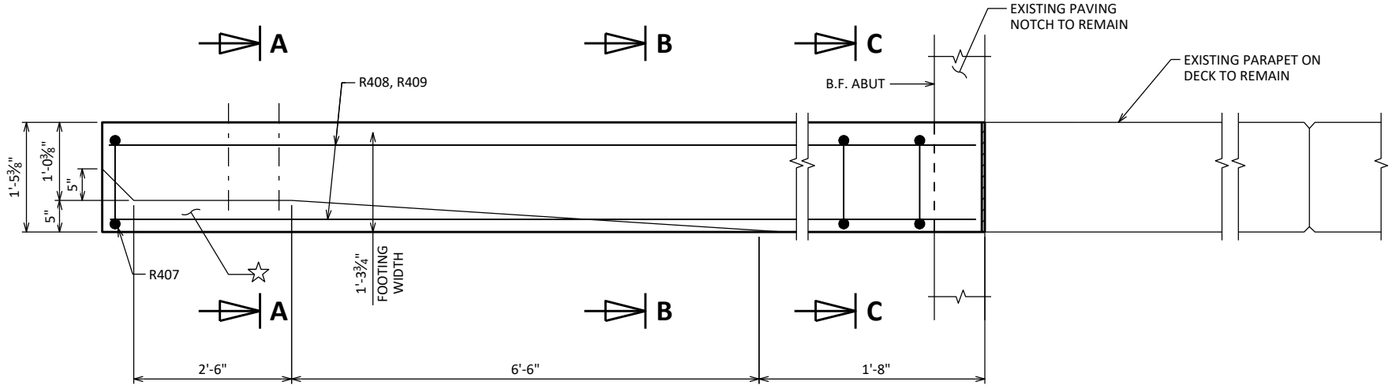


R407



TYPICAL SECTION

(NTS)



PLAN

(NTS)

BRIDGE B-70-0212: PARAPET REPLACEMENT LIMITS

NOTE

PARAPET SHOWN FOR INFORMATION ONLY. SEE PARAPET SHEETS FOR PARAPET DETAILS AND REINFORCEMENT.

◭ PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

◐ CONSTR. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

☆ FINISH SURFACE NOT COVERED BY PARAPET SAME AS ROADWAY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-212/213

DRAWN BY CRK | PLANS CK'D RFS

PARAPET FOOTING

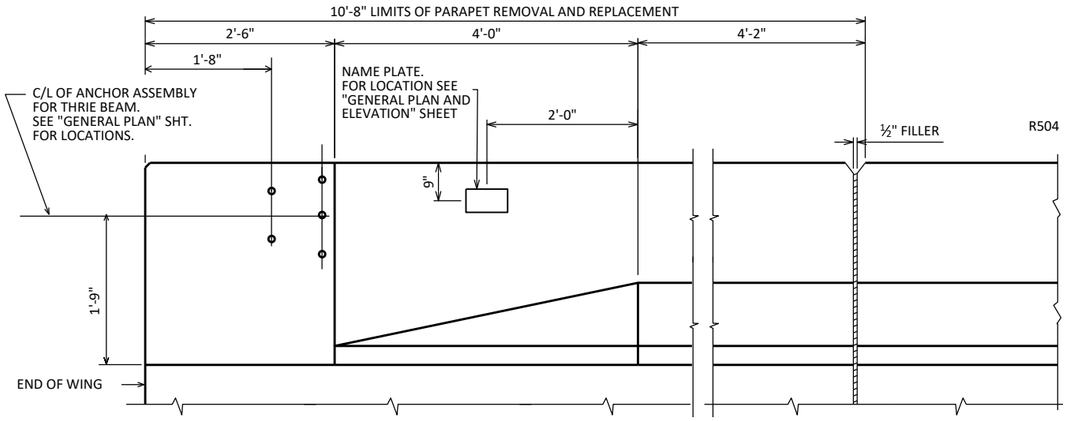
SHEET 3 OF 4
375

8

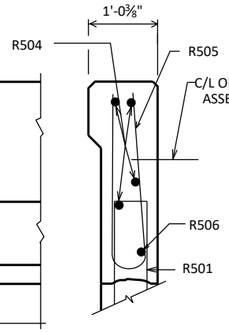
8

STATE PROJECT NUMBER

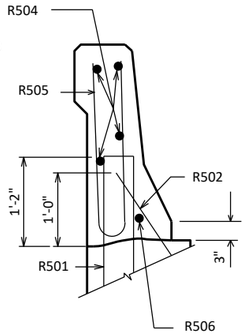
6200-18-70



INSIDE ELEVATION
(NTS)

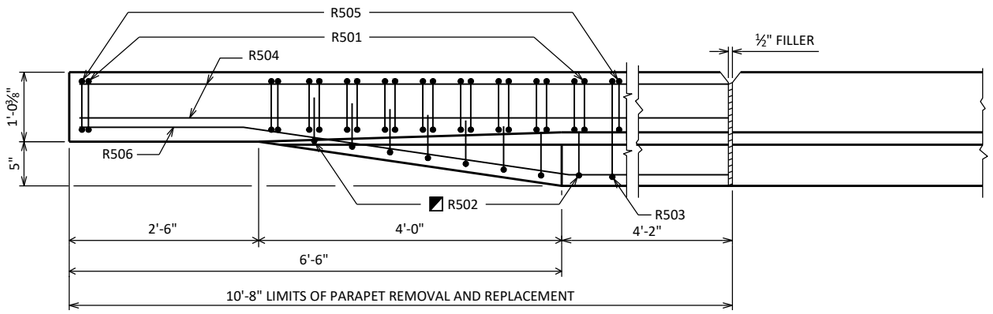


SECTION A
(NTS)

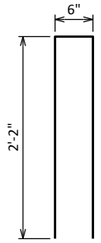


SECTION B
(NTS)

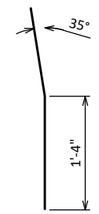
BAR MARK	COAT	SOUTH ABUTMENT	NORTH ABUTMENT	LENGTH	BENT	LOCATION
R501	X	14	14	4'-7"	X	PARAPET - VERTICAL
R502	X	9	9	2'-4"	X	PARAPET - VERTICAL
R503	X	7	7	4'-7"	X	PARAPET - VERTICAL
R504	X	4	4	10'-4"		PARAPET - HORIZONTAL
R505	X	21	21	4'-10"	X	PARAPET - VERTICAL
R506	X	1	1	10'-4"	X	PARAPET - HORIZONTAL
R407	X	11	11	7'-1"	X	FOOTING - VERTICAL
R408	X	4	4	10'-4"		FOOTING - HORIZONTAL
R409	X	4	4	9'-8"		FOOTING - HORIZONTAL



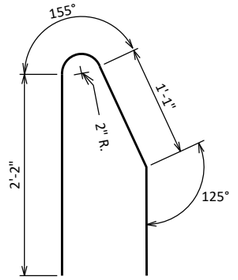
PLAN
(NTS)



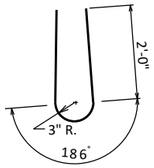
R501



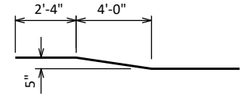
R502



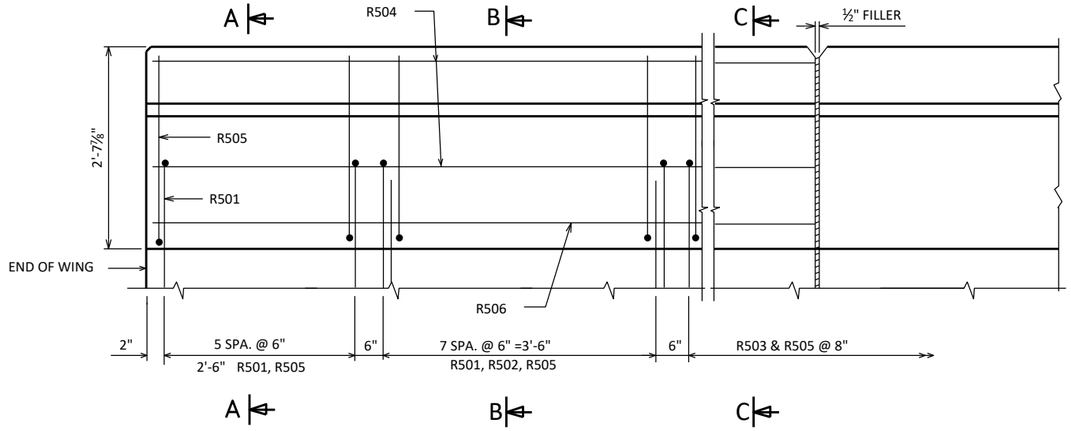
R503



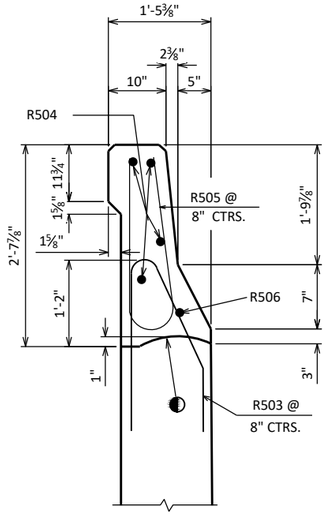
R505



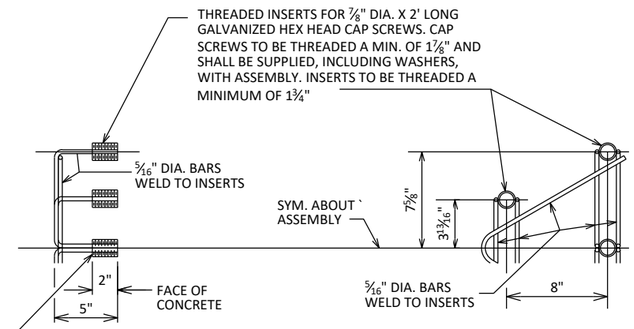
R506



OUTSIDE ELEVATION
(NTS)



SECTION C
(NTS)



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.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◩ USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-212-213

DRAWN BY CRK | PLANS CK'D RFS

SLOPED FACE PARAPET LF

SHEET 4 OF 4
376

8

8

STATE PROJECT NUMBER

6200-18-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	DESCRIPTION	UNIT	B-70-214	B-70-217	B-70-218	B-70-220	B-70-221	B-70-222	B-70-238	B-70-241	B-70-244	B-70-249	B-70-309	B-70-310	B-70-311
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	230	226	131	267	218	218	245	------	------	274	226	224	237
509.1500	CONCRETE SURFACE REPAIR	SF	5	5	------	2	4	2	10	------	------	31	7	3	3
509.9020.S	EPOXY CRACK SEALING	LF	------	------	------	------	------	------	------	50	------	------	------	------	------
SPV.0090	JOINT SEALING	LF	277	124	111	101	104	104	194	------	103	99	81	81	88

TRAFFIC DATA

USH 45 (CTH T)
USH 45 ADT = 19,600 (2022)
CTH T ADT = 1,900 (2022)

USH 45 (BROOKS ROAD)
USH 45 ADT = 17,100 (2022)
BROOKS RD ADT = 1,400 (2022)

USH 45 SB (DAGGET CREEK)
ADT = 8,800 (2024)

USH 45 (SKELETON BRIDGE ROAD)
USH 45 ADT = 17,600 (2024)
SKELETON BRIDGE RD ADT = 500 (2024)

USH 45 SB (STH 116 / CTH GG)
USH 45 SB ADT = 8,800 (2024)
STH 116 / CTH GG ADT = 8,500 (2024)

USH 45 NB (STH 116 / CTH GG)
USH 45 NB ADT = 8,550 (2022)
STH 116 / CTH GG ADT = 8,500 (2024)

USH 45 (CTH II)
USH 45 ADT = 15,200 (2024)
CTH II ADT = 2,200 (2024)

USH 45 (DRAINAGE WAY)
ADT = 15,200 (2022)

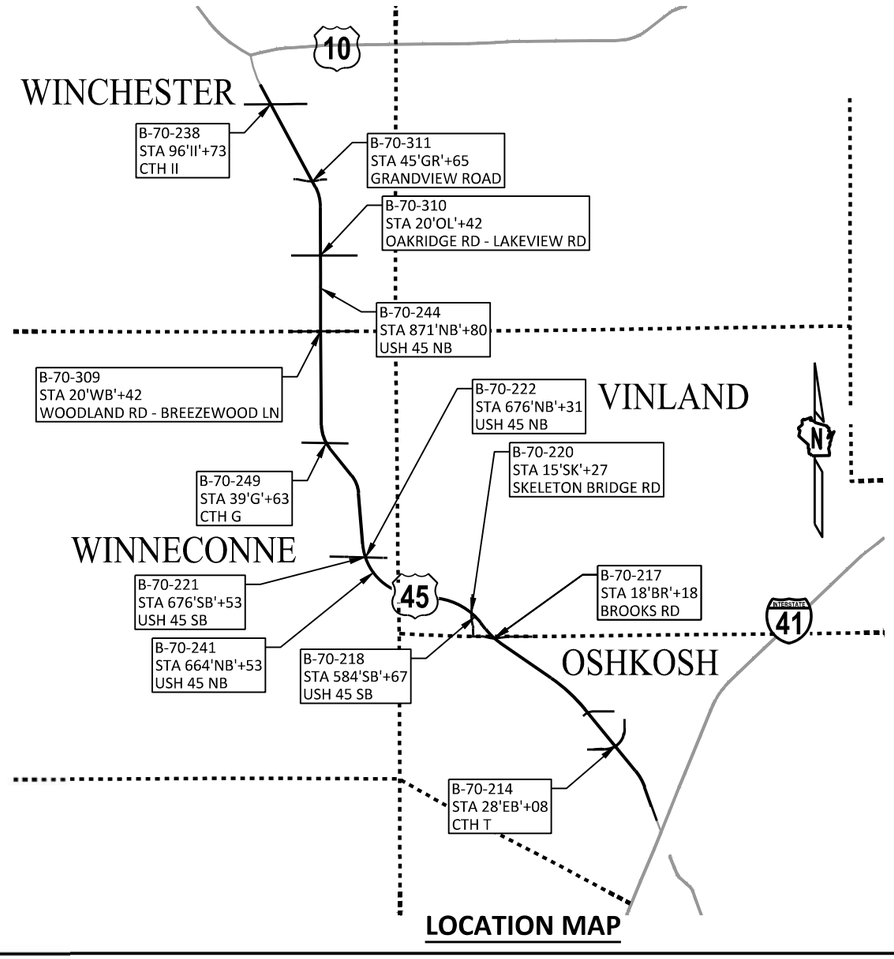
USH 45 NB (ARROWHEAD ROAD)
USH 45 ADT = 7,600 (2022)
ARROWHEAD RD ADT = UNKNOWN

USH 45 (CTH G)
USH 45 ADT = 15,200 (2024)
CTH G ADT = 700 (2024)

USH 45 (WOODLAND ROAD)
USH 45 ADT = 15,200 (2024)
WOODLAND RD ADT = 1,050 (2024)

USH 45 (LAKEVIEW ROAD)
USH 45 ADT = 15,200 (2024)
LAKEVIEW RD ADT = 380 (2024)

USH 45 (GRANDVIEW ROAD)
USH 45 ADT = 15,200 (2024)
GRANDVIEW RD ADT = 1,120 (2024)



LOCATION MAP

SUMMARY OF LOCATIONS

STRUCTURE ID	MUNICIPALITY	LOCATION
B-70-214	OSHKOSH	CTH T OVER USH 45
B-70-217	VINLAND	BROOKS ROAD OVER USH 45
B-70-218	OSHKOSH	USH 45 SB OVER DAGGET CREEK
B-70-220	VINLAND	SKELETON BRIDGE ROAD OVER USH 45
B-70-221	WINNECONNE	USH 45 SB OVER STH 116 / CTH GG
B-70-222	WINNECONNE	USH 45 NB OVER STH 116 / CTH GG
B-70-238	WINCHESTER	CTH II OVER USH 45
B-70-241	OSHKOSH	USH 45 OVER DRAINAGE WAY
B-70-244	WINCHESTER	USH 45 NB OVER ARROWHEAD RIVER
B-70-249	WINNECONNE	CTH G OVER USH 45
B-70-309	WINCHESTER	WOODLAND ROAD OVER USH 45
B-70-310	WINCHESTER	LAKEVIEW ROAD OVER USH 45
B-70-311	WINCHESTER	GRANDVIEW ROAD OVER USH 45

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER.

LOCATION OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN.

DESIGN DATA

MATERIAL PROPERTIES:

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

LIST OF DRAWINGS:

1. BRIDGE REPAIR SUMMARY
2. B-70-214/217/218/220/221/222/238/241/244 /249/309/310/311 REPAIRS
3. JOINT SEALING DETAILS

STRUCTURE DESIGN CONTACTS:
CONSULTANT: ROB SISTO (920) 830-6108
BRIDGE OFFICE: AARON BONK (608) 261-0261

WISCONSIN
ROBERT F. SISTO
E-38092-006
APPLETON, WI
PROFESSIONAL ENGINEER

7/29/2026

NO.	DATE	REVISION	BY

Westwood

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 08/11/26
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-70-VARIES

OSHKOSH-NEW LONDON: IH 41-USH 10,USH 45 BRIDGE REPAIRS

COUNTY WINNEBAGO | TOWN / ~~CITY~~ /~~VILLAGE~~ VARIES

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	RFS	DESIGN CK'D	MAM	DRAWN BY	CRK	PLANS CK'D	RFS

BRIDGE REPAIR SUMMARY

SHEET 1 OF 3
377

I.D. 6200-18-00 DATE: 07/29/2026

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8

STATE PROJECT NUMBER

6200-18-70

B-70-214

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE ALONG DIAPHRAGMS AT WEST ABUTMENT BETWEEN GIRDERS G-14 AND G-15
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-217

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT EAST ABUTMENT - NORTH END AND NORTH PARAPET - EAST END
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-218

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-220

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT NORTH ABUTMENT - EAST CORNER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-221

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT WEST PARAPET - SOUTH AND NORTH CORNERS
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-222

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT WEST PARAPET - SOUTH CORNER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-238

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT WEST ABUTMENT - BETWEEN GIRDERS G-7 AND G-8, AT EAST ABUTMENT AT G-4, AND AT NORTH PARAPET - EAST END
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-241

BID ITEM NUMBER	DESCRIPTION	COMMENTS
509.9025.S	EPOXY CRACK INJECTION	INJECT EPOXY INTO MODERATE TO WIDE VERTICAL CRACKS WITH EFFLORESCENSE AND RUST STAINING

B-70-244

BID ITEM NUMBER	DESCRIPTION	COMMENTS
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-249

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT BOTH ABUTMENTS AND AT DIAPHRAGMS AT PIER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-309

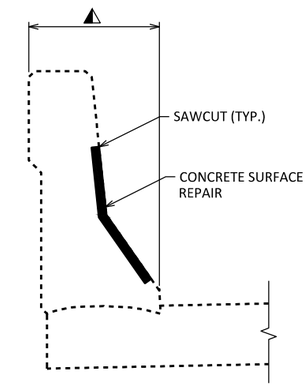
BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT EAST - SOUTH CORNER AND WEST ABUTMENT - NORTH CORNER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-310

BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT WEST ABUTMENT - NORTH CORNER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS

B-70-311

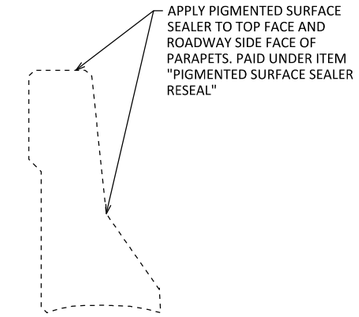
BID ITEM NUMBER	DESCRIPTION	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	APPLY TO FRONT AND TOP FACE FOR FULL LENGTH OF BOTH PARAPETS
509.1500	CONCRETE SURFACE REPAIR	REPAIR CONCRETE SPALLS AT EAST ABUTMENT - SOUTH CORNER
SPV.0090	JOINT SEALING	SEAL JOINTS AT ABUTMENTS



⚠ "PIGMENTED SURFACE SEALER RESEAL" LIMITS. SEE DETAIL BELOW

PARAPET REPAIR DETAIL

(NTS)



PIGMENTED SURFACE SEALER DETAIL

(NTS)

NOTES

PIGMENTED SURFACE SEALER RESEAL SHALL BE APLLIED TO THE TOP FACE AND ROADWAY SIDE FACE OF THE PARAPETS. SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "PIGMENTED SURFACE SEALER RESEAL".

CONCRETE SURFACE REPAIR SHALL CONFORM TO SECTION 509.3.7 AND OTHER APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-VARIES

DRAWN BY CRK | PLANS CK'D RFS

B-70-214/217/218/220/221/222/238/241/244/249/309/310/311 REPAIRS

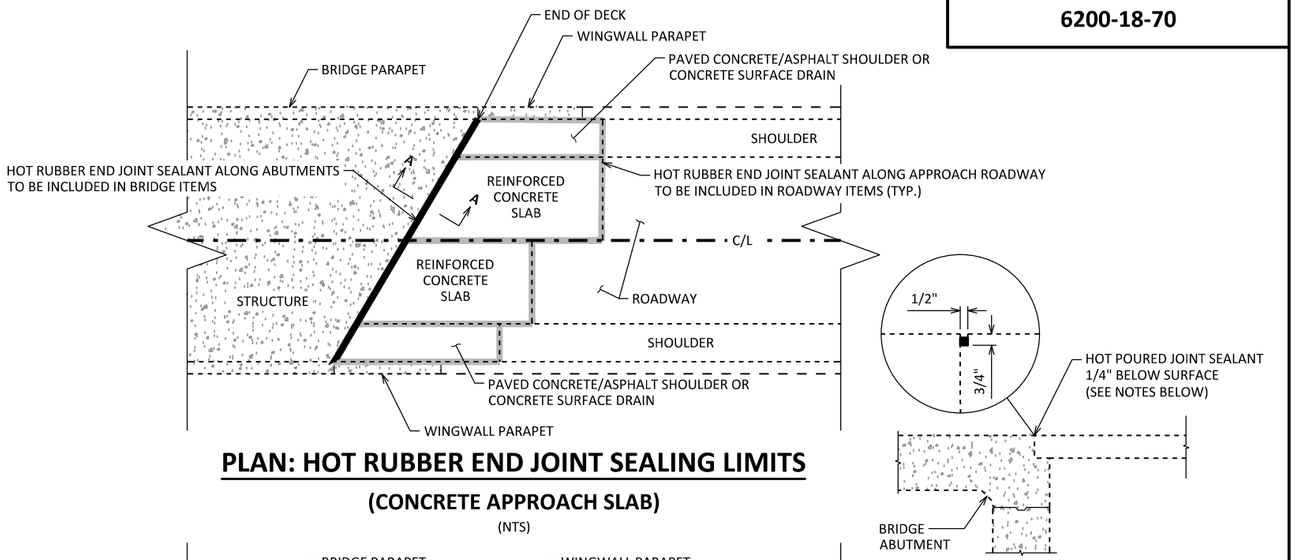
SHEET 2 OF 3

8

8

STATE PROJECT NUMBER

6200-18-70



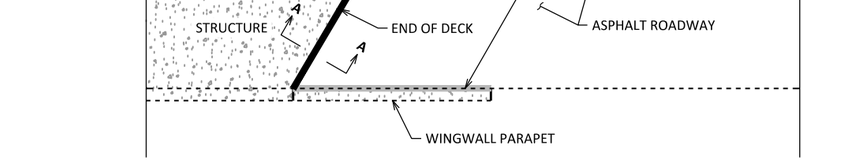
PLAN: HOT RUBBER END JOINT SEALING LIMITS

(CONCRETE APPROACH SLAB)

(NTS)

SECTION A-A

(NTS)



PLAN: HOT RUBBER END JOINT SEALING LIMITS

(ASPHALT APPROACH PAVEMENT)

(NTS)

NOTES

TRANSVERSE JOINTS ALONG ABUTMENTS SHALL BE CLEANED AND SEALED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-VARIES

DRAWN BY CRK | PLANS CK'D RFS

JOINT SEALING DETAILS

SHEET 3 OF 3

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8

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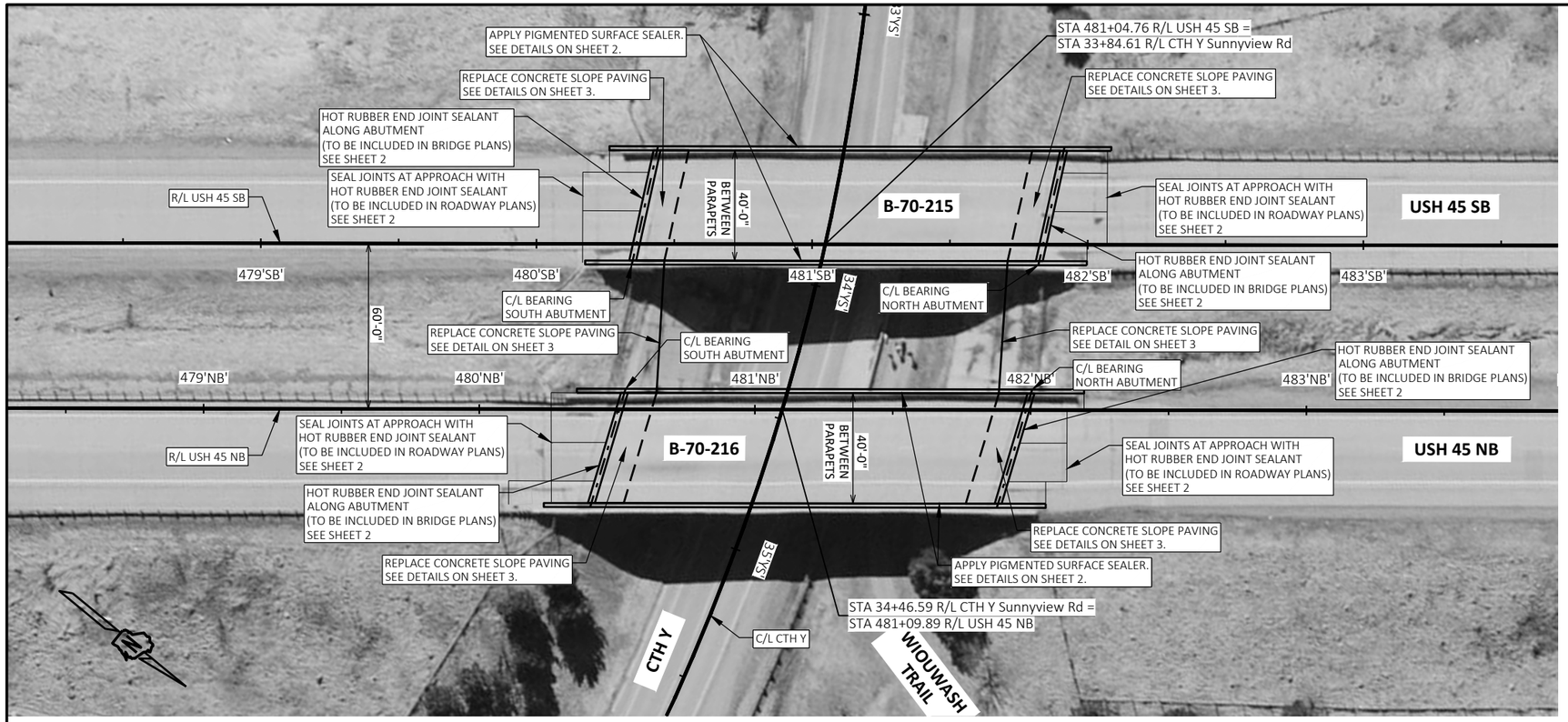
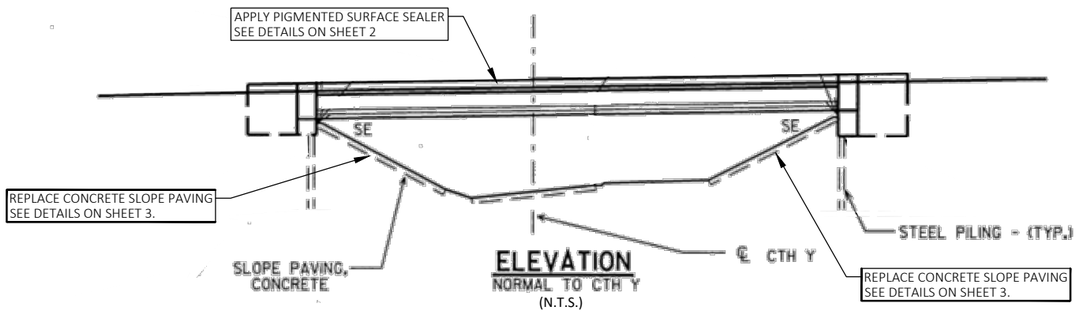


PLAN

SINGLE SPAN - 70" PRESTRESSED GIRDERS
(N.T.S.)



(N.T.S.)

STATE PROJECT NUMBER

6200-18-70

SCOPE OF WORK

SEAL JOINTS ALONG EACH APPROACH AT BRIDGE B-70-215 AND BRIDGE B-70-216 WITH HOT RUBBER JOINT AND CRACK SEALANT, SEE DETAILS ON SHEET 2.

APPLY PIGMENTED SURFACE SEALER TO TOP FACE AND ROADWAY SIDE FACE OF PARAPET AT BRIDGE B-70-215 AND BRIDGE B-70-216. SEE DETAILS ON SHEET 2.

REPLACE CONCRETE SLOPE PAVING ON BOTH SIDES OF BRIDGE B-70-215 AND BRIDGE B-70-216. SEE DETAILS ON SHEET 3.

TRAFFIC DATA

USH 45 SB (CTH Y)
USH 45 ADT = 9,800 (2020)
CTH Y ADT = 470 (2022)

USH 45 NB (CTH Y)
USH 45 ADT = 9,800 (2022)
CTH Y ADT = 470 (2022)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. CONCRETE SLOPE PAVEMENT REPLACEMENT DETAILS
4. CONCRETE SIDEWALK DETAILS

SUMMARY OF LOCATIONS

STRUCTURE ID	MUNICIPALITY	LOCATION
B-70-215	OSHKOSH	USH 45 SB OVER CTH Y
B-70-216	OSHKOSH	USH 45 NB OVER CTH Y

WISCONSIN
ROBERT F. SISTO
E-38092-006
APPLETON, WI
PROFESSIONAL ENGINEER

8/11/2026

STRUCTURE DESIGN CONTACTS
BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
ROB SISTO (920) 830-6108

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND EXISTING SURVEY INFORMATION. DIMENSIONS TO BE VERIFIED IN THE FIELD.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP AND FRONT OF PARAPETS.

SURFACE PREPARATION IS INCLUDED IN THE ITEM "PIGMENTED SURFACE SEALER RESEAL".

JOINT SEALING ITEM TO BE APPLIED AT THE INTERFACE BETWEEN THE APPROACH SLAB AND STRUCTURE PAVING NOTCHES. DO NOT APPY THE JOINT SEALANT AT MECHANICAL JOINTS OR STRIP SEAL JOINTS. DO NOT APPLY UNTIL AFTER INSTALLATION OF CONCRETE PAVEMENT APPROACH SLABS.

SEE ROADWAY PLANS FOR TRAFFIC STAGING DETAILS.

LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN.

NO.	DATE	REVISION	BY

Westwood

ACCEPTED JLR 08/12/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-215/216

U.S.H. 45 OVER CTH Y

COUNTY	TOWN
WINNEBAGO	OSHKOSH

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
RFS	EJH	CRK	RFS

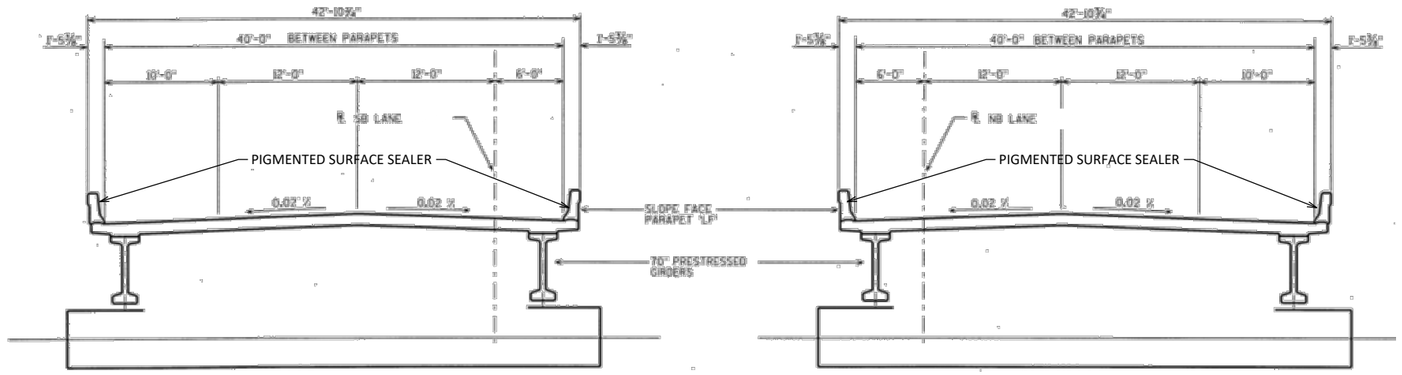
GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
380

I.D. 6200-18-70 DATE: 10/2025

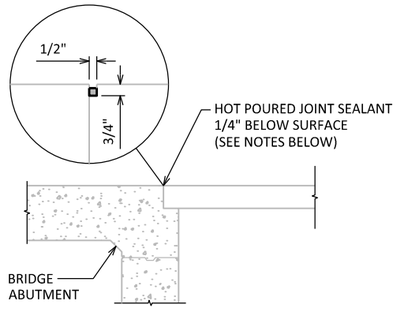
STATE PROJECT NUMBER

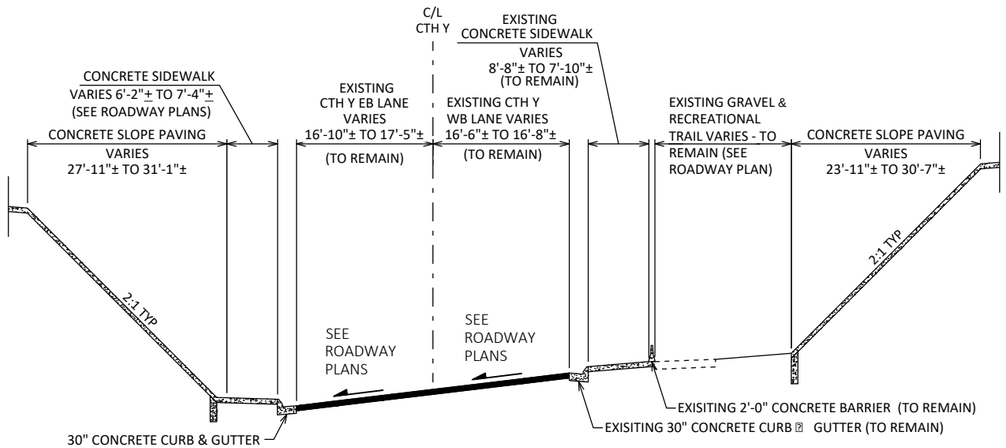
6200-18-70



SOUTHBOUND LANE (B-70-215) NORTHBOUND LANE (B-70-216)

CROSS SECTION THRU ROADWAY LOOKING NORTH





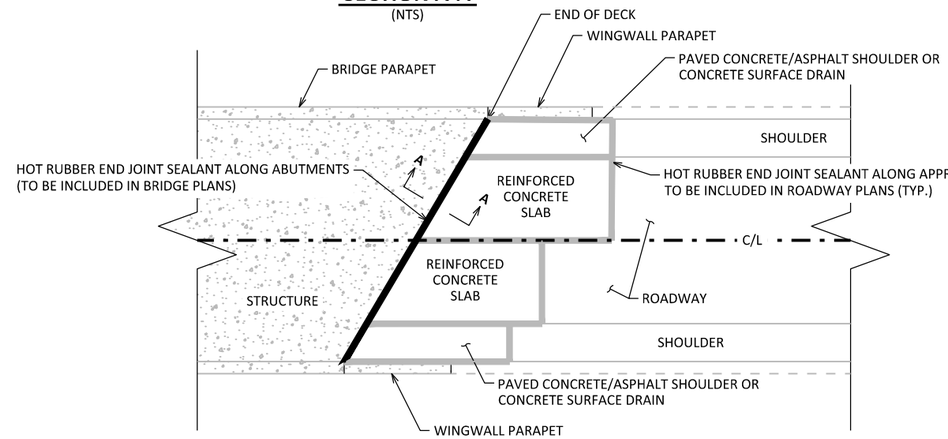
TYPICAL SECTION THRU CTH Y AND WIOUWASH TRAIL UNDER USH 45

(LOOKING WEST)

(NTS)

SECTION A-A

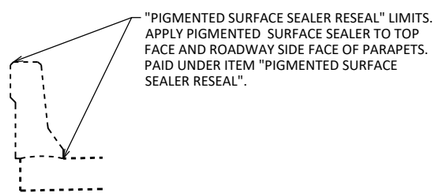
(NTS)



PLAN: HOT RUBBER END JOINT SEALING LIMITS

(CONCRETE APPROACH SLAB)

(NTS)



PIGMENTED SURFACE SEALER DETAIL

(NTS)

JOINT SEALING NOTES

TRANSVERSE JOINTS ALONG ABUTMENTS SHALL BE CLEANED AND SEALED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6.

HOT RUBBER END JOINT SEALING NOTES

TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE CLEANED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6 AND IN CONFORMANCE WITH THE SPECIAL PROVISIONS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	DESCRIPTION	UNIT	B-70-215	B-70-216
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	477	477
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	155	163
604.0400	SLOPE PAVING CONCRETE	SY	493	493
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	290	290
SPV.0090	JOINT SEALING	LF	99	99

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-215/216

DRAWN BY CPK | PLANS CK'D RFS

CROSS-SECTIONS AND QUANTITIES

SHEET 2 OF 4

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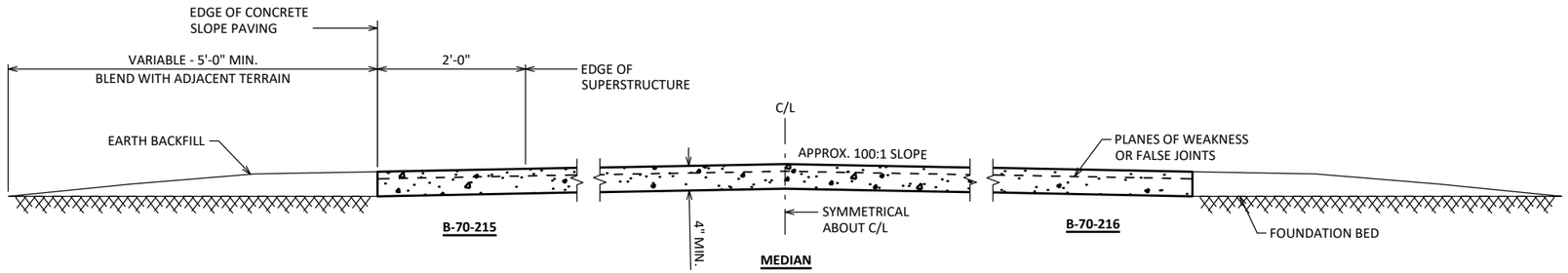
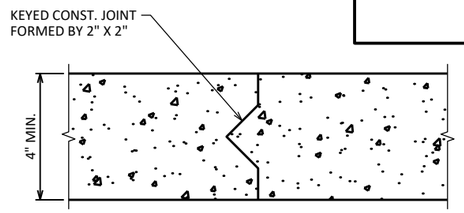
8

STATE PROJECT NUMBER

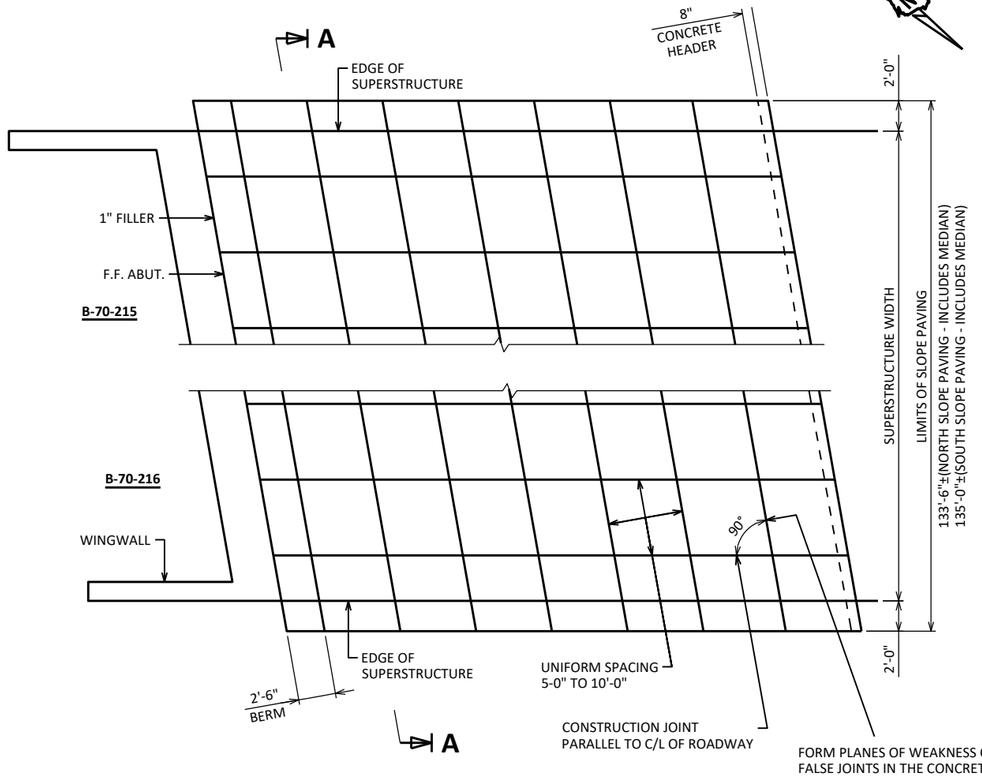
6200-18-70



SECTION A-A

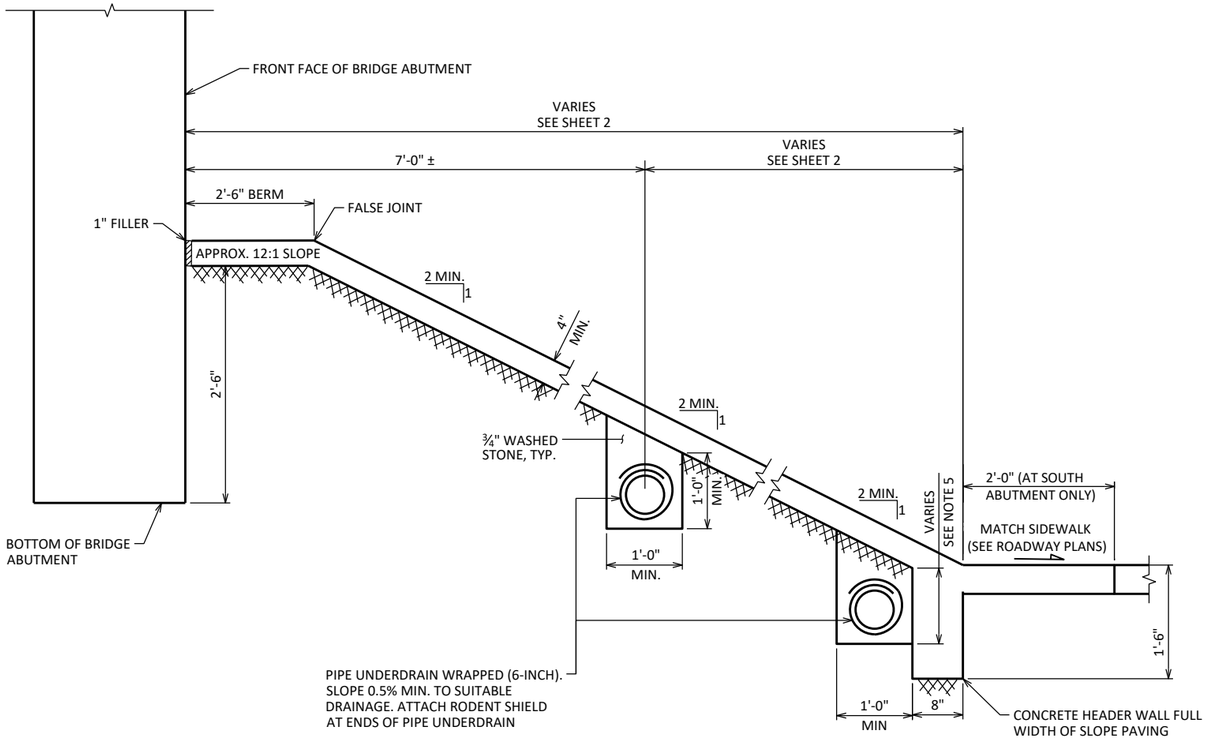


CONSTRUCTION JOINT



PLAN

(SOUTH ABUTMENT SHOWN - NORTH ABUTMENT SIMILAR)



TYPICAL SECTION: CONCRETE SLOPE PAVING

CONCRETE SLOPE PAVING REPLACEMENT NOTES

1. FINISHED GRADING AND SLOPE RESTORATION SHALL BE INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE"
2. CONCRETE SLOPE PAVING REPLACEMENT SHALL BE TO THE LIMITS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER AND IT SHALL INCLUDE ALL MATERIALS AND FINISH WORK TO CONSTRUCT THE NEW CONCRETE SLOPE PAVING.
3. JOINT FILLER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE 1,2, OR 3 OR AASHTO DESIGNATION M213.
4. 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.
5. DEPTH VARIES 1'-0" TO 2'-8" TO OUTLET TO EAST. SEE ROADWAY PLANS.

NOTE

BID ITEMS SHALL BE "SLOPE PAVING CONCRETE" AND "PIPE UNDERDRAIN WRAPPED 6-INCH"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-215/216

DRAWN BY CRK | PLANS CK'D RFS

CONCRETE SLOPE PAVING REPLACEMENT DETAILS

SHEET 3 OF 4

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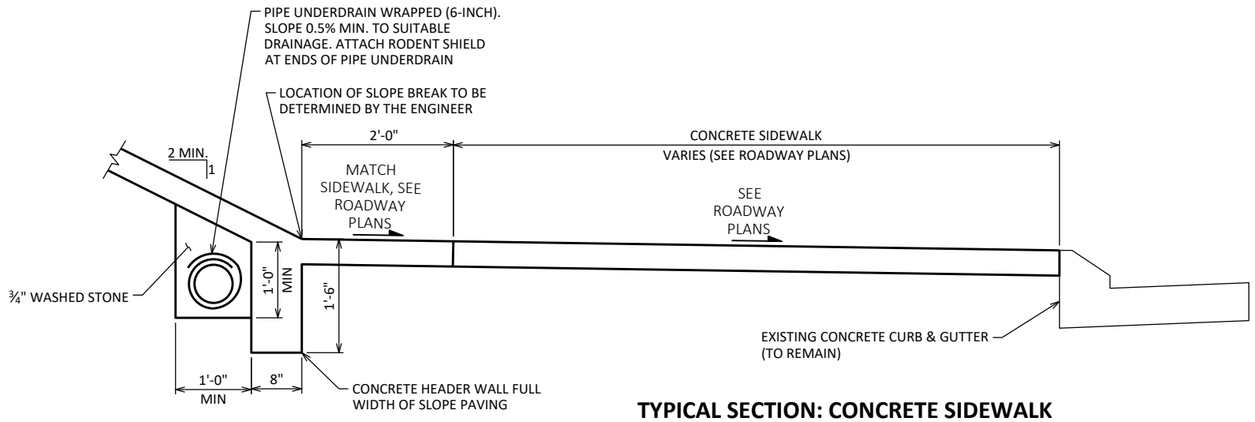
8

8

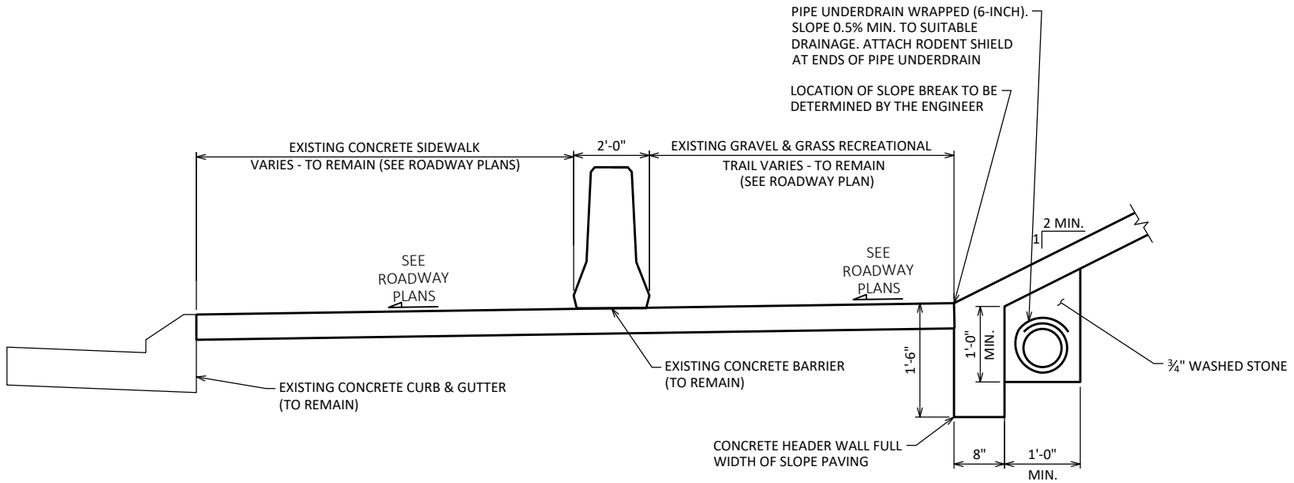
STATE PROJECT NUMBER

6200-18-70



TYPICAL SECTION: CONCRETE SIDEWALK

(AT SOUTH ABUTMENT)



TYPICAL SECTION: CONCRETE SIDEWALK

(AT NORTH ABUTMENT)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-215/216

DRAWN BY ECD | PLANS CK'D RFS

CONCRETE SIDEWALK DETAILS

SHEET 4 OF 4

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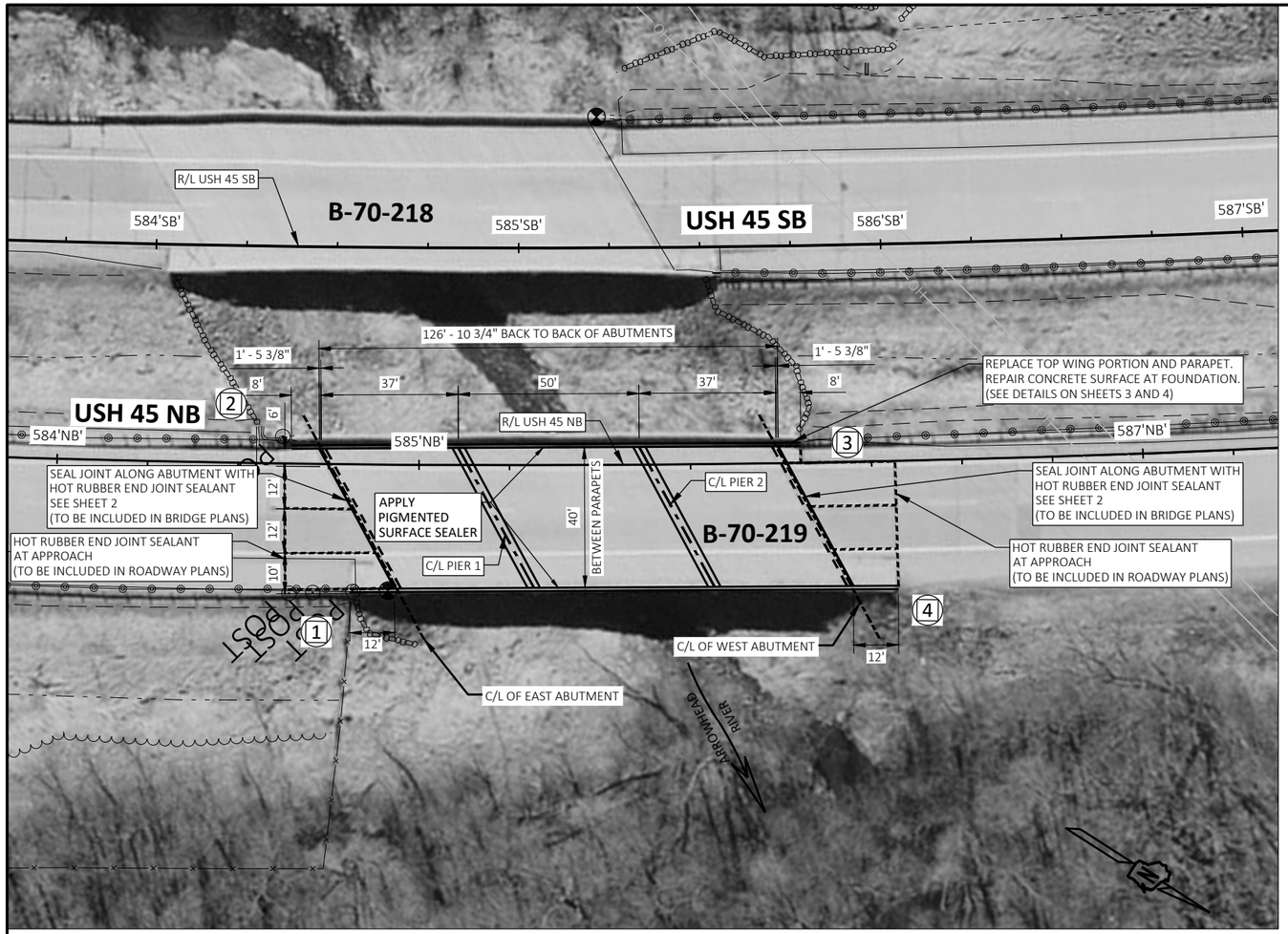
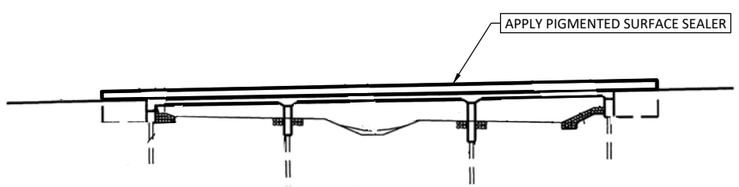


PLAN

3 SPAN - HAUNCHED SLAB
(N.T.S.)



ELEVATION

NORMAL TO DAGGETS CREEK
(N.T.S.)

WISCONSIN
ROBERT F. SISTO
E-38092-006
APPLETON, WI
PROFESSIONAL ENGINEER

8/11/2026

STATE PROJECT NUMBER

6200-18-70

SCOPE OF WORK

SEAL JOINTS ALONG EACH ABUTMENT AT BRIDGE B-70-219 WITH HOT RUBBER JOINT AND CRACK SEALANT, SEE DETAILS ON SHEET 2.

APPLY PIGMENTED SURFACE SEALER TO TOP FACE AND ROADWAY SIDE FACE OF PARAPET AT BRIDGE B-70-219. SEE DETAILS ON SHEET 2.

REPLACE PARAPET AND FOOTING AT WINGWALL 3 OF BRIDGE B-70-219. SEE DETAILS ON SHEET 3 AND 4.

REPAIR CONCRETE SPALL AT WINGWALL 3 FOUNDATION. SEE SHEET 3.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP AND FRONT OF PARAPETS.

SURFACE PREPARATION IS INCLUDED IN THE ITEM "PIGMENTED SURFACE SEALER RESEAL".

CONCRETE SURFACE REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER.

JOINT SEALING ITEM TO BE APPLIED AT THE INTERFACE BETWEEN THE APPROACH SLAB AND STRUCTURE PAVING NOTCHES. DO NOT APPY THE JOINT SEALANT AT MECHANICAL JOINTS OR STRIP SEAL JOINTS. DO NOT APPLY UNTIL AFTER INSTALLATION OF CONCRETE PAVEMENT APPROACH SLABS.

SEE ROADWAY PLANS FOR TRAFFIC STAGING DETAILS.

LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. WING REPAIR
4. SLOPE FACE PARAPET LF

LEGEND

(X) INDICATES WING NUMBER

STRUCTURE DESIGN CONTACTS:
CONSULTANT: ROB SISTO (920) 830-6108
BRIDGE OFFICE: AARON BONK (608) 261-0261

TRAFFIC DATA

USH 45 NB (DAGGET CREEK)
USH 45 NB ADT = 8,550 (2022)

DESIGN DATA

MATERIAL PROPERTIES:

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

NO.	DATE	REVISION	BY

Westwood

ACCEPTED JLR 08/12/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-219

U.S.H.45 NB OVER DAGGET CREEK

COUNTY	TOWN
WINNEBAGO	WINCHESTER

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
RFS	EJH	CPR	RFS

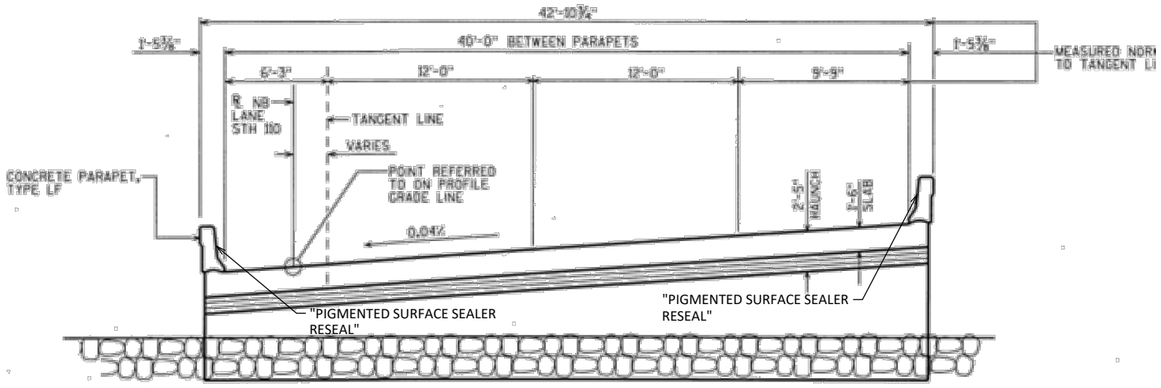
GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
384

I.D. 6200-18-70 DATE: 01/19/2026

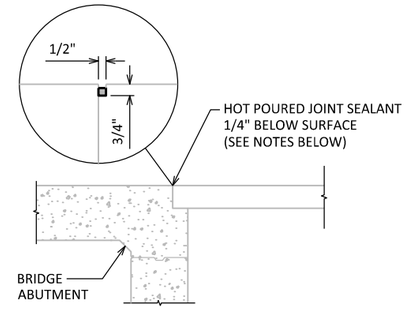
STATE PROJECT NUMBER

6200-18-70



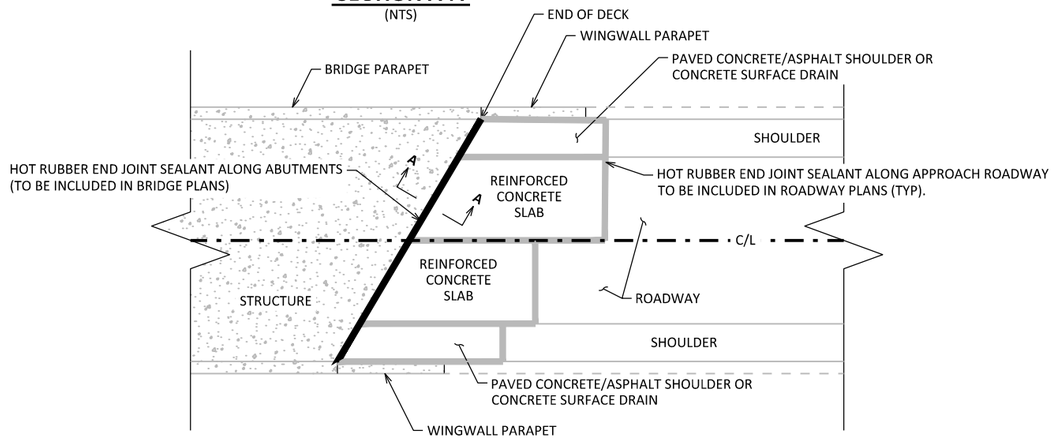
NORTHBOUND LANE (B-70-219)

CROSS SECTION THRU USH 45 LOOKING WEST



SECTION A-A

(NTS)



PLAN: HOT RUBBER END JOINT SEALING LIMITS

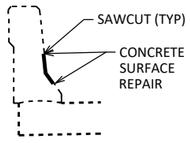
(CONCRETE APPROACH SLAB)

(NTS)

JOINT SEALING NOTES

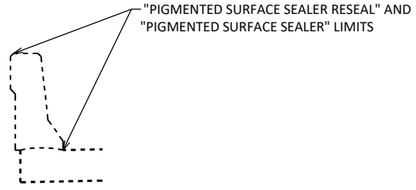
TRANSVERSE JOINTS ALONG ABUTMENTS SHALL BE CLEANED AND SEALED WITH CRAFCO ROADSAVER 231 HOT RUBBER OR COMPARABLE HOT APPLIED TYPE IV JOINT AND CRACK SEALANT.

JOINT SEALANT SHALL CONFORM TO STANDARD SPECIFICATION 415.2.6 AND BE IN CONFORMANCE WITH THE SPECIAL PROVISIONS..



PARAPET REPAIR DETAIL

(NTS)



PIGMENTED SURFACE SEALER DETAIL

(NTS)

PARAPET REPAIR NOTES

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE TOP FACE AND ROADWAY SIDE FACE OF THE PARAPETS. SURFACE PREPARATION IS INCLUDED. BID ITEMS SHALL BE "PIGMENTED SURFACE SEALER" AT THE WING 3 PARAPET AND "PIGMENTED SURFACE SEALER RESEAL" AT THE BRIDGE PARAPETS AND ON WINGS 1, 2, AND 4.

CONCRETE SURFACE REPAIR SHALL CONFORM TO SECTION 509.3.7 AND OTHER APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
203.0220	REMOVING STRUCTURE B-70-219	EACH	1
206.1001	EXCAVATION FOR STRUCTURES B-70-219	EACH	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	1
502.0100	CONCRETE MASONRY BRIDGES	CY	2
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	127
502.3210	PIGMENTED SURFACE SEALER	SY	4
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	22
505.0600	BAR STEEL REINFORCEMENT HS COATED	LB	400
509.1500	CONCRETE SURFACE REPAIR	SF	4
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
SPV.0090	JOINT SEALING	LF	108

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-219

DRAWN BY CPR | PLANS CK'D RFS

CROSS-SECTIONS AND QUANTITIES

SHEET 2 OF 4

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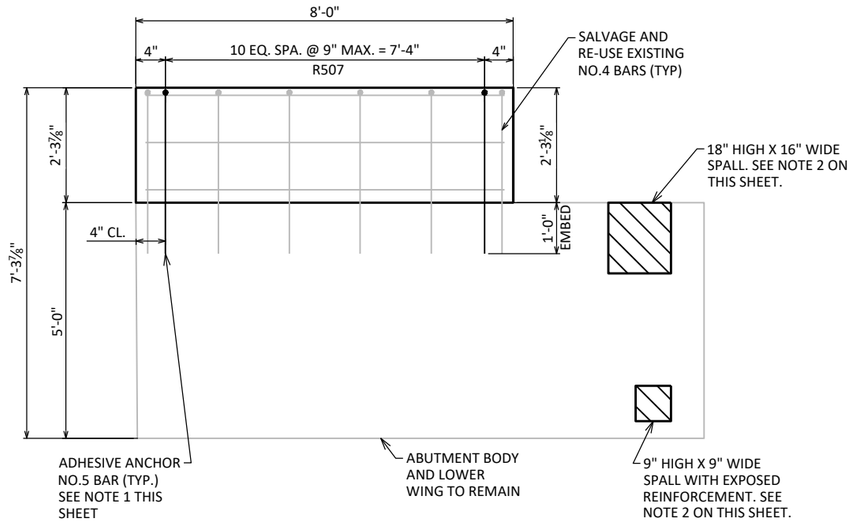
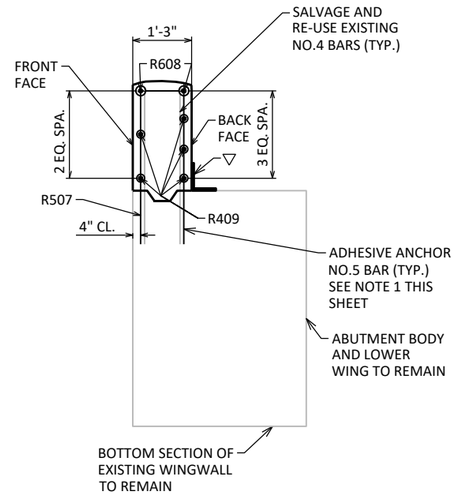
STATE PROJECT NUMBER

6200-18-70



ELEVATION: FRONT FACE WINGWALL 3

(NTS)



SECTION: WINGWALL 3

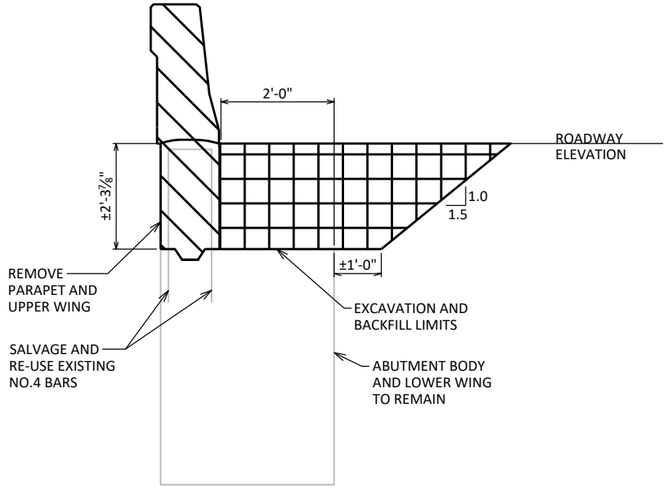
(NTS)

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

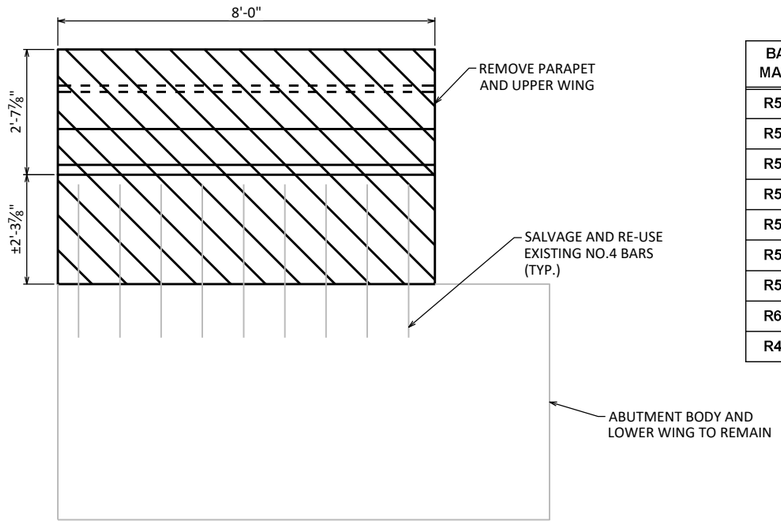
NOTES

1. ADHESIVE ANCHORS NO.5 BAR. EMBED 1'-0" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
2. LIMITS AND LOCATION OF SPALLS ARE APPROXIMATE. ACTUAL LIMITS AND LOCATION OF SPALLS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.



TYPICAL WING REMOVAL SECTION

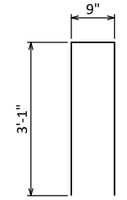
(NTS)



TYPICAL WING REMOVAL ELEVATION

(NTS)

BAR MARK	COAT	NUMBER REQUIRED	LENGTH	BENT	LOCATION
R501	X	14	4'-7"	X	PARAPET - VERTICAL
R502	X	8	3'-4"	X	PARAPET - VERTICAL
R503	X	3	5'-1"	X	PARAPET - VERTICAL
R504	X	4	7'-8"		PARAPET - HORIZONTAL
R505	X	17	4'-10"	X	PARAPET - VERTICAL
R506	X	1	7'-8"	X	PARAPET - HORIZONTAL
R507	X	11	6'-8"	X	FOOTING - VERTICAL
R608	X	2	7'-8"		FOOTING - HORIZONTAL
R409	X	5	7'-8"		FOOTING - HORIZONTAL



R507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-219

DRAWN BY CPR | PLANS CK'D RFS

WING REPAIR

SHEET 3 OF 4

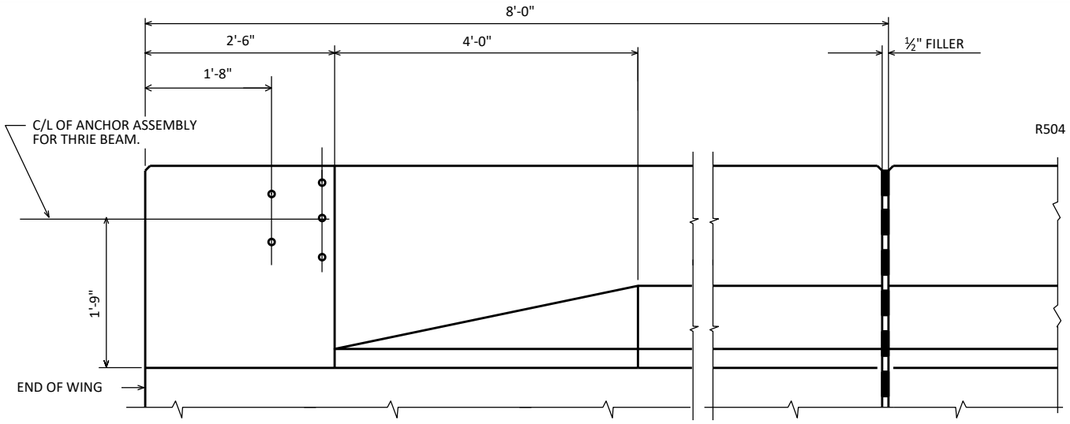
386

8

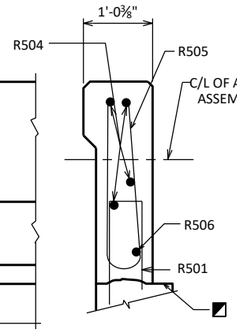
8

STATE PROJECT NUMBER

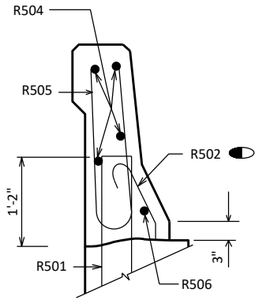
6200-18-70



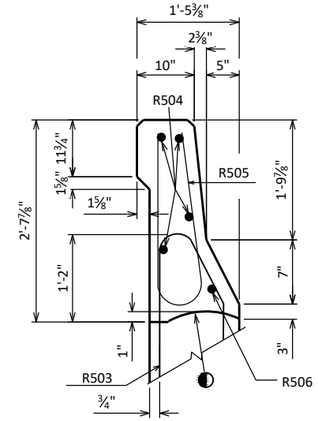
INSIDE ELEVATION
(NTS)



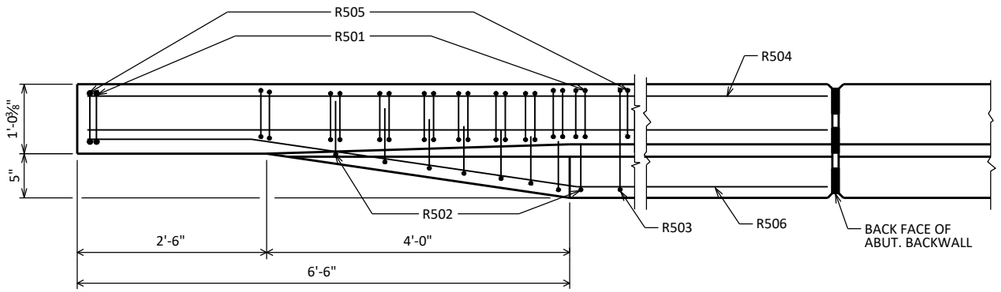
SECTION A
(NTS)



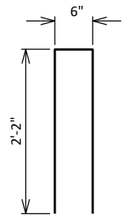
SECTION B
(NTS)



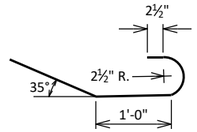
SECTION C
(NTS)



PLAN
(NTS)



R501



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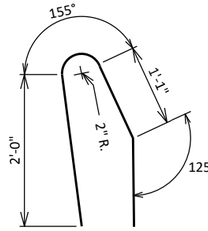

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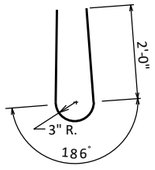

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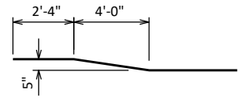
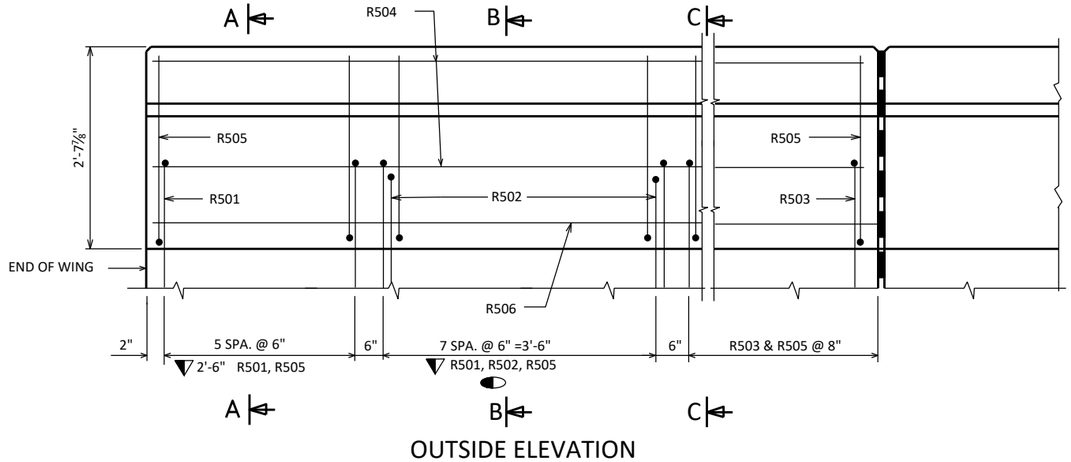


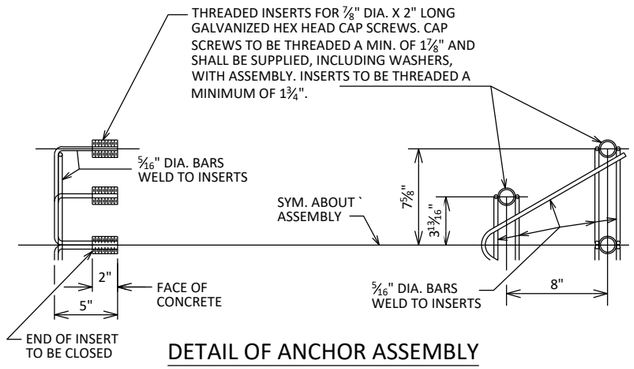
R506



OUTSIDE ELEVATION
(NTS)

NOTE

- CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- FINISH SURFACE NOT COVERED BY PARAPET SAME AS ROADWAY
- R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET
- R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-219

DRAWN BY CPR | PLANS CK'D RFS

SLOPED FACE PARAPET LF

SHEET 4 OF 4
387

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8

STATE PROJECT NUMBER

6200-18-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	COMMENTS
509.1500	CONCRETE SURFACE REPAIR	SF	30	REPAIR CONCRETE SPALLS AT SOUTHWEST AND NORTHWEST CORNERS OF WALL AND BRIDGE
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	10	INJECT EPOXY INTO CRACKS AT NORTHWEST CORNER
509.9026.S	CORE HOLES 2-INCH DIAMETER	EACH	4	CORE HOLES AT LOCATIONS OF EPOXY INJECTIONS CRACK REPAIR

SUMMARY OF LOCATIONS

STRUCTURE ID	MUNICIPALITY	LOCATION
R-70-8	VINLAND	BROOKS ROAD OVERPASS - WEST ABUTMENT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER.

LOCATION OF EXISTING UTILITY INSTALLATIONS. ARE NOT SHOWN.

CLEAN AND FILL EXISTING CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. CRACK REPAIR PAID UNDER BID ITEM "EPOXY INJECTION CRACK REPAIR".

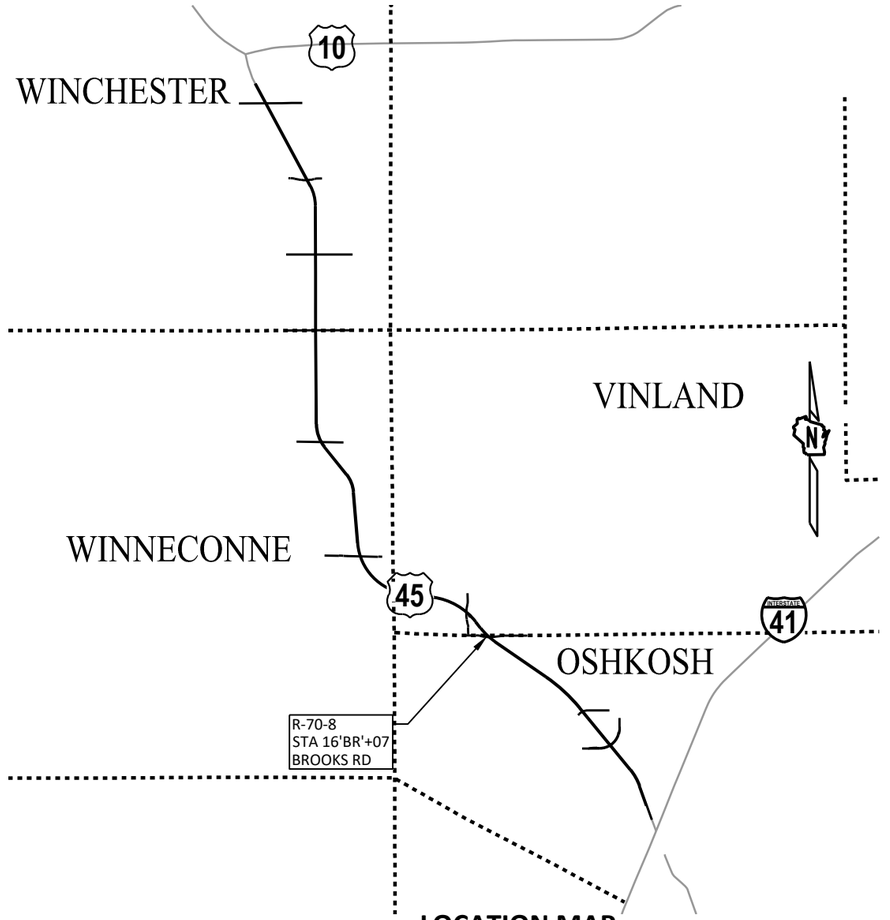
DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY:
ALL ——— f'_c = 3,500 PSI

TRAFFIC DATA

USH 45 (BROOKS ROAD)
USH 45 ADT = 17,100 (2022)
BROOKS RD ADT = 1,400 (2022)



LOCATION MAP

LIST OF DRAWINGS:

1. RETAINING WALL REPAIR SUMMARY

STRUCTURE DESIGN CONTACTS:
CONSULTANT: ROB SISTO (920) 830-6108
BRIDGE OFFICE: AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN
ROBERT F. SISTO
E-38092-006
APPLETON, WI
PROFESSIONAL ENGINEER

7/29/2026

Westwood

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 08/11/26
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-70-8

OSHKOSH-NEW LONDON: IH 41-USH 10,USH 45 BRIDGE REPAIRS

COUNTY	TOWN / ~~CITY~~ / ~~VILLAGE~~
WINNEBAGO	VINLAND

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
RFS	ADW	CRK	RFS

RETAINING WALL REPAIR SUMMARY

SHEET 1 OF 1
388

I.D. 6200-18-00 DATE: 07/29/2026

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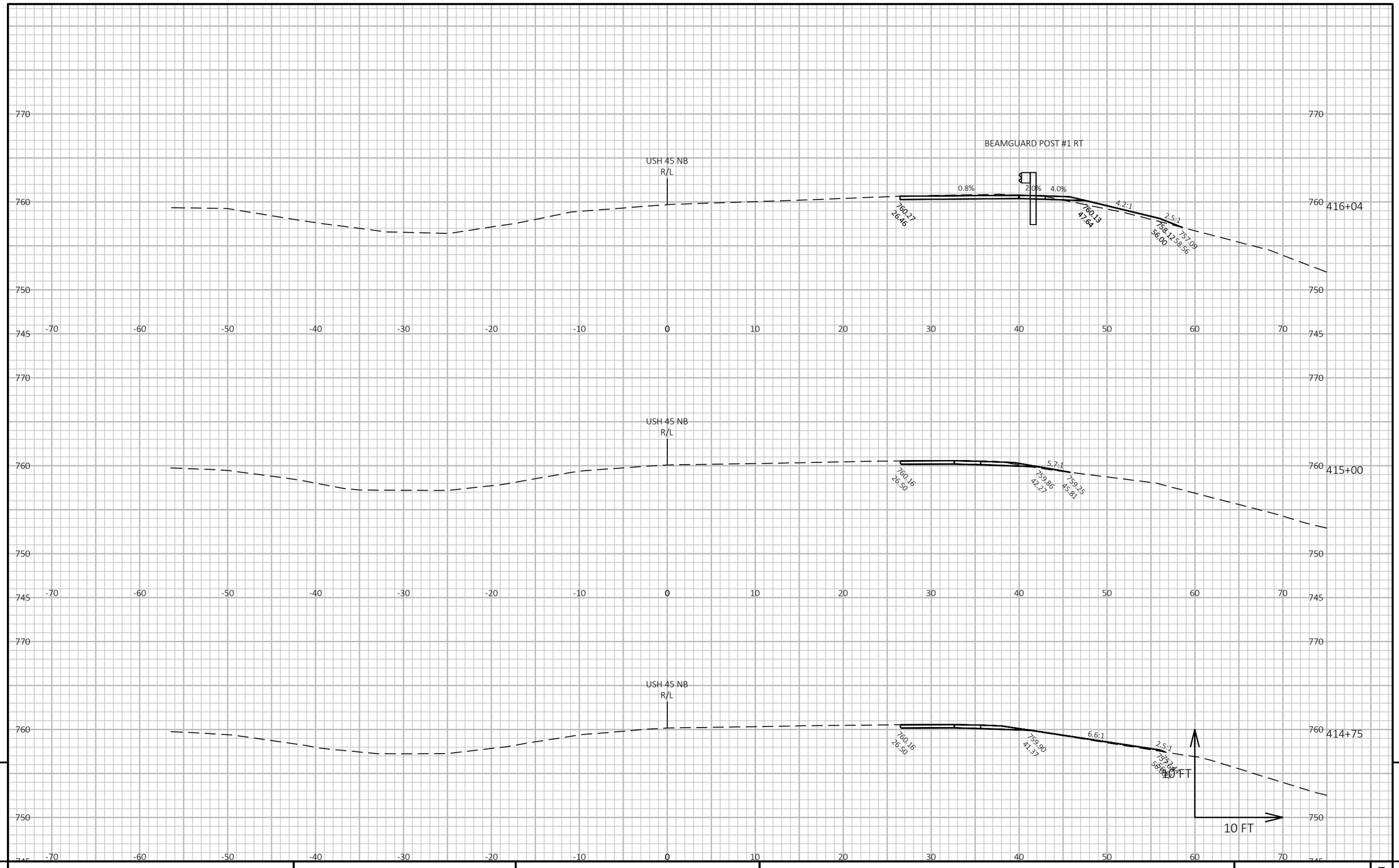

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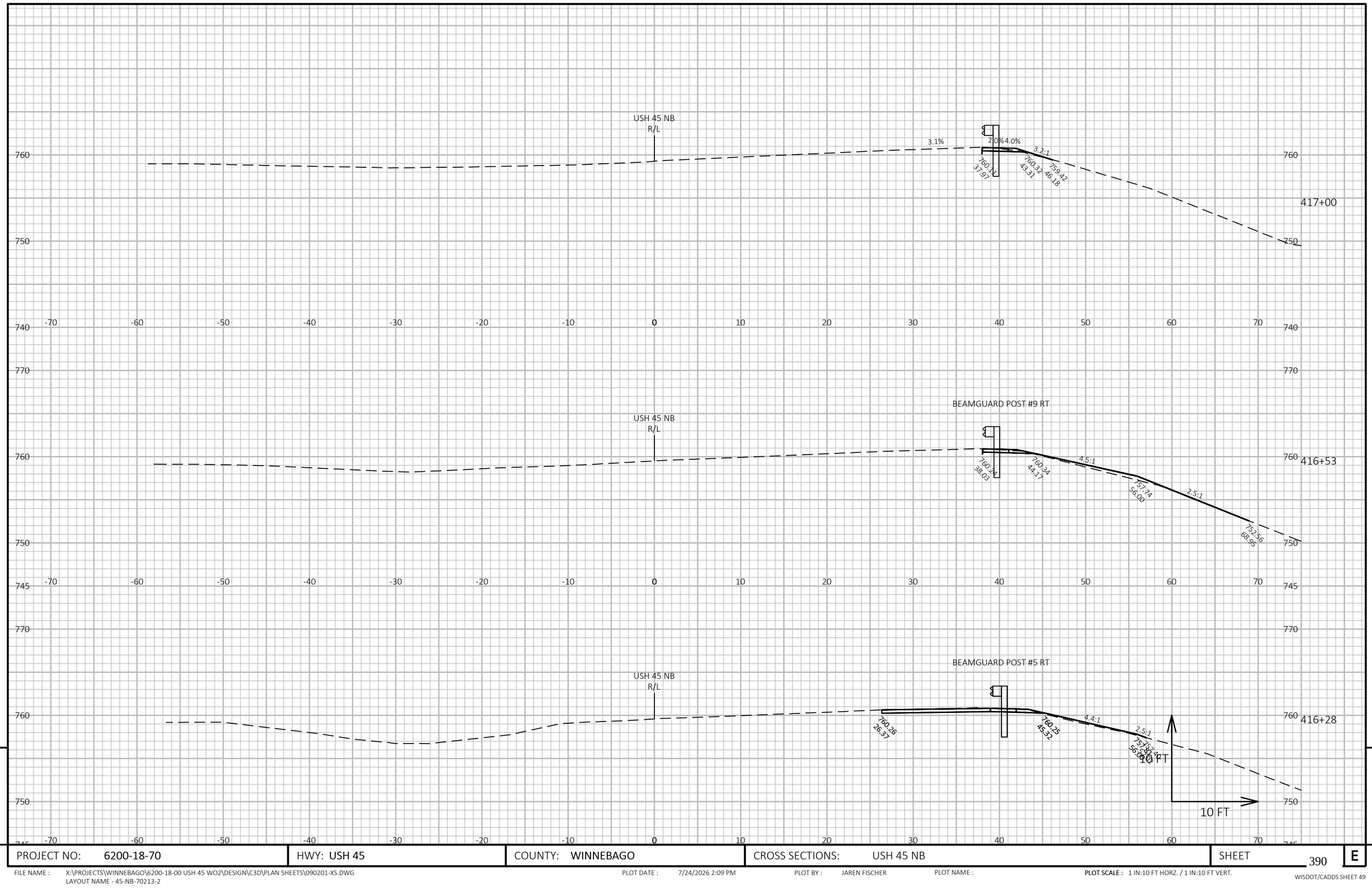
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 389	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70213-1

PLOT DATE : 7/24/2026 2:09 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

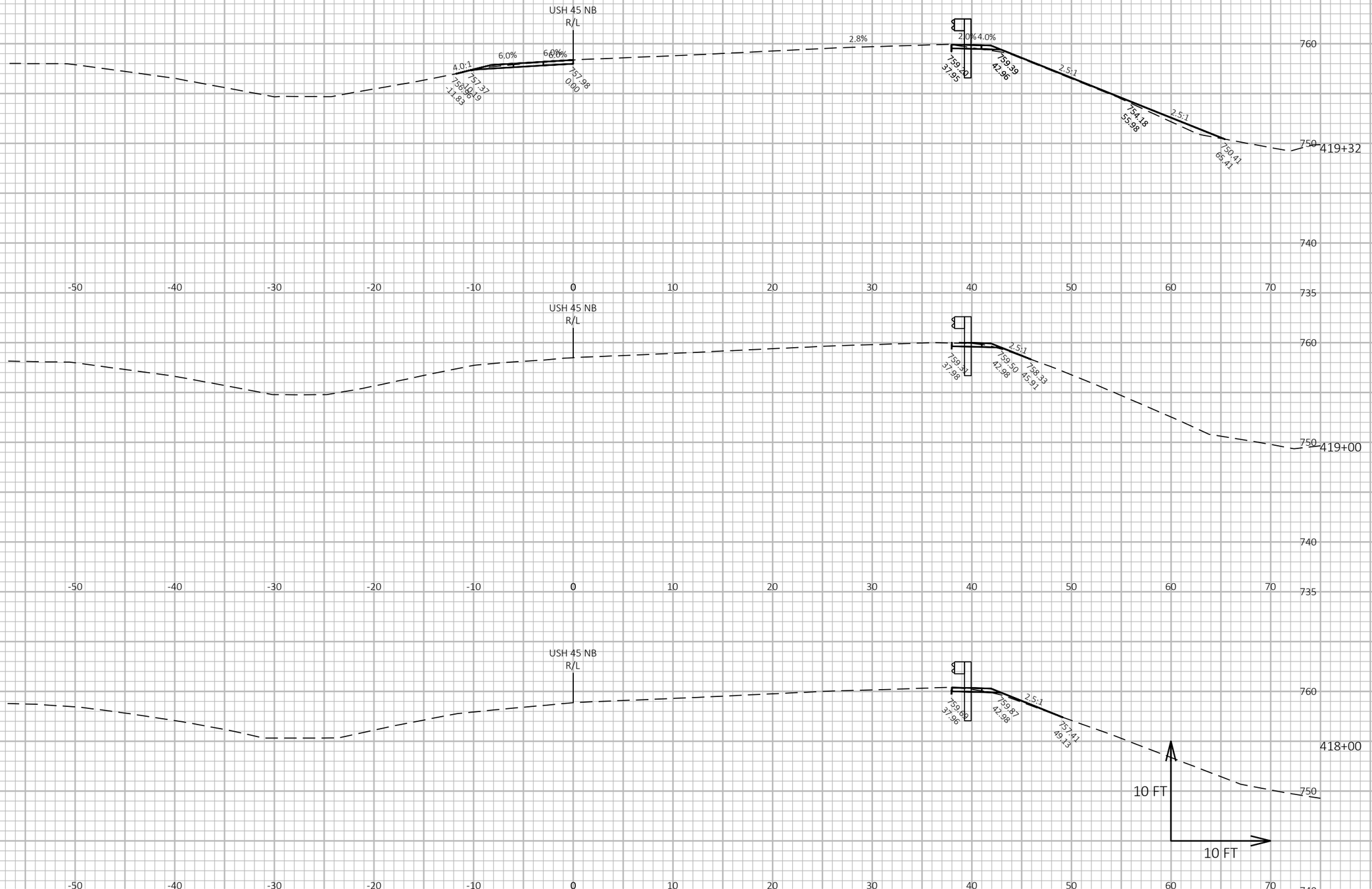


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 390	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70213-2

PLOT DATE : 7/24/2026 2:09 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 391	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70213-3

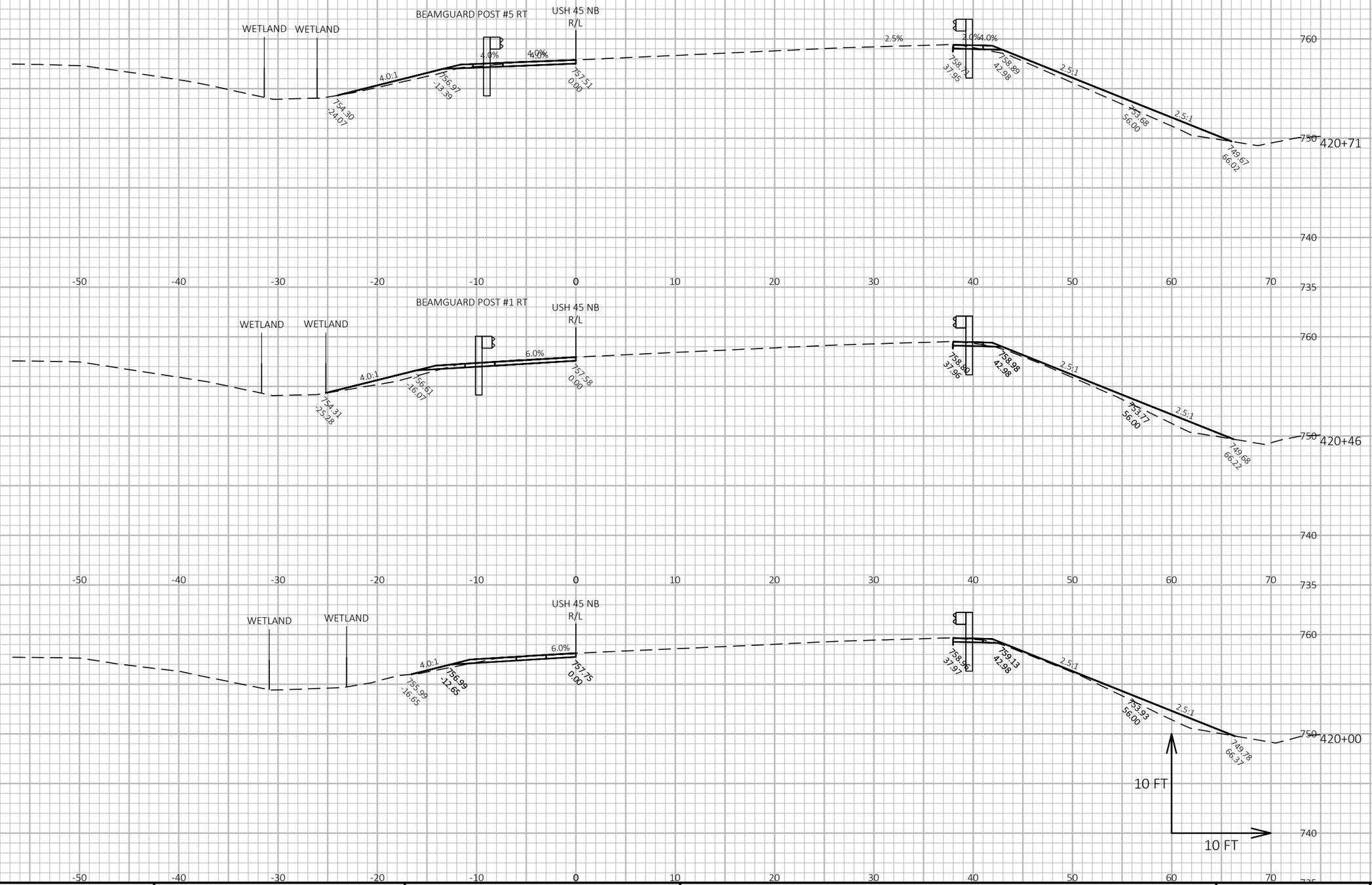
PLOT DATE : 7/24/2026 2:09 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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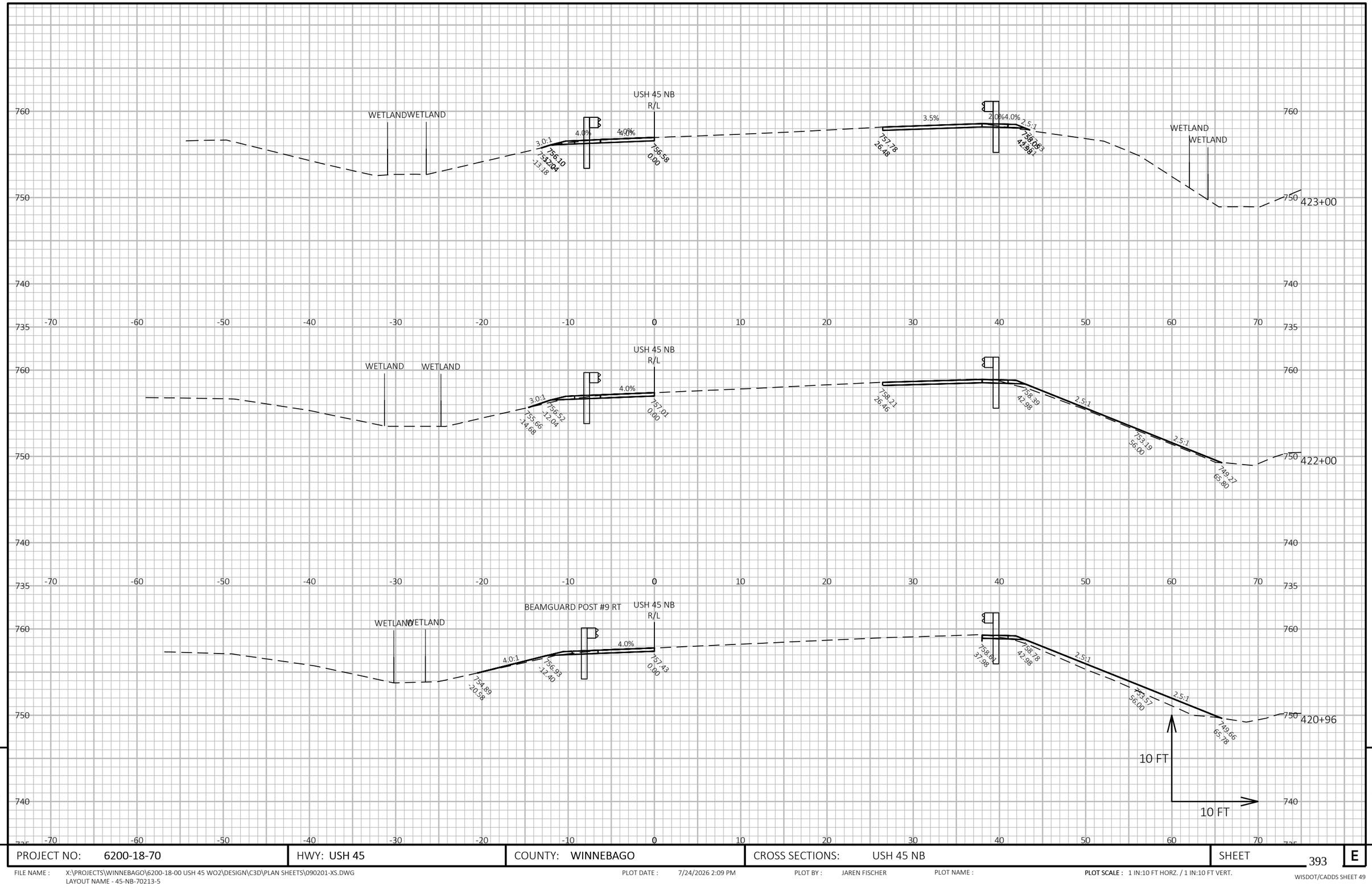
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 392	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70213-4

PLOT DATE : 7/24/2026 2:09 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 393	E

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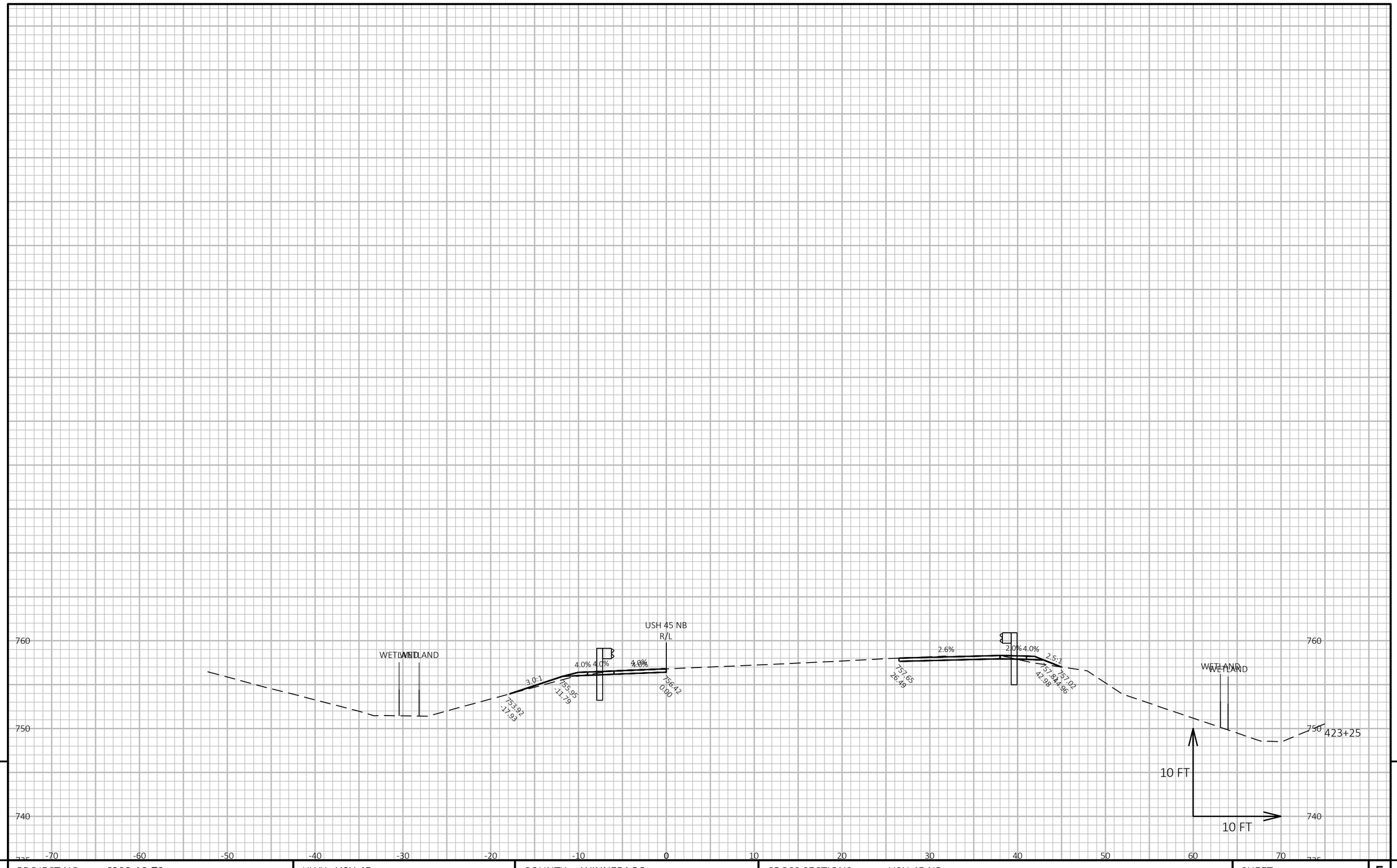
LAYOUT NAME - 45-NB-70213-5

PLOT DATE : 7/24/2026 2:09 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 394	E

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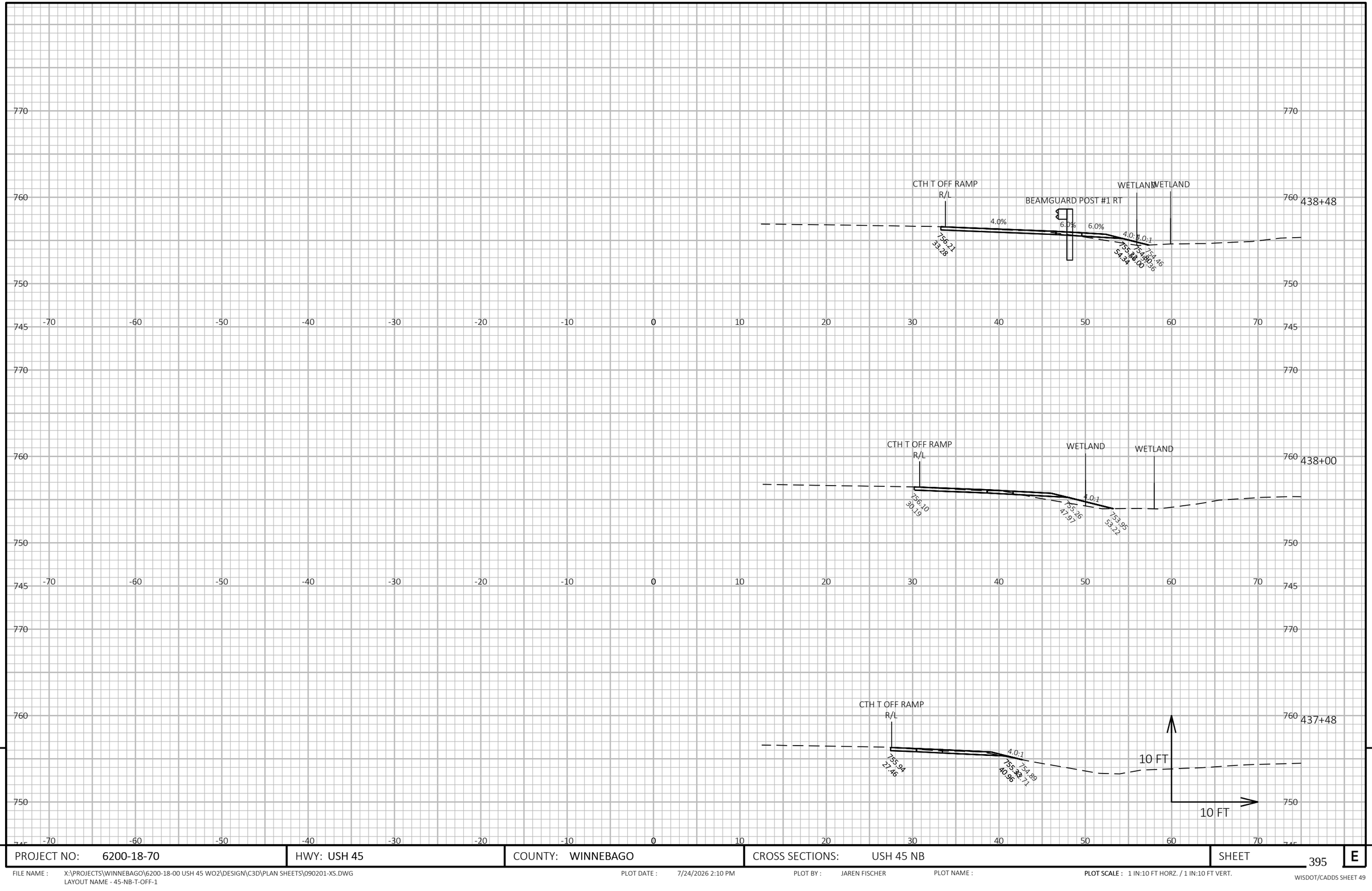
LAYOUT NAME - 45-NB-70213-6

PLOT DATE : 7/24/2026 2:09 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 395	E

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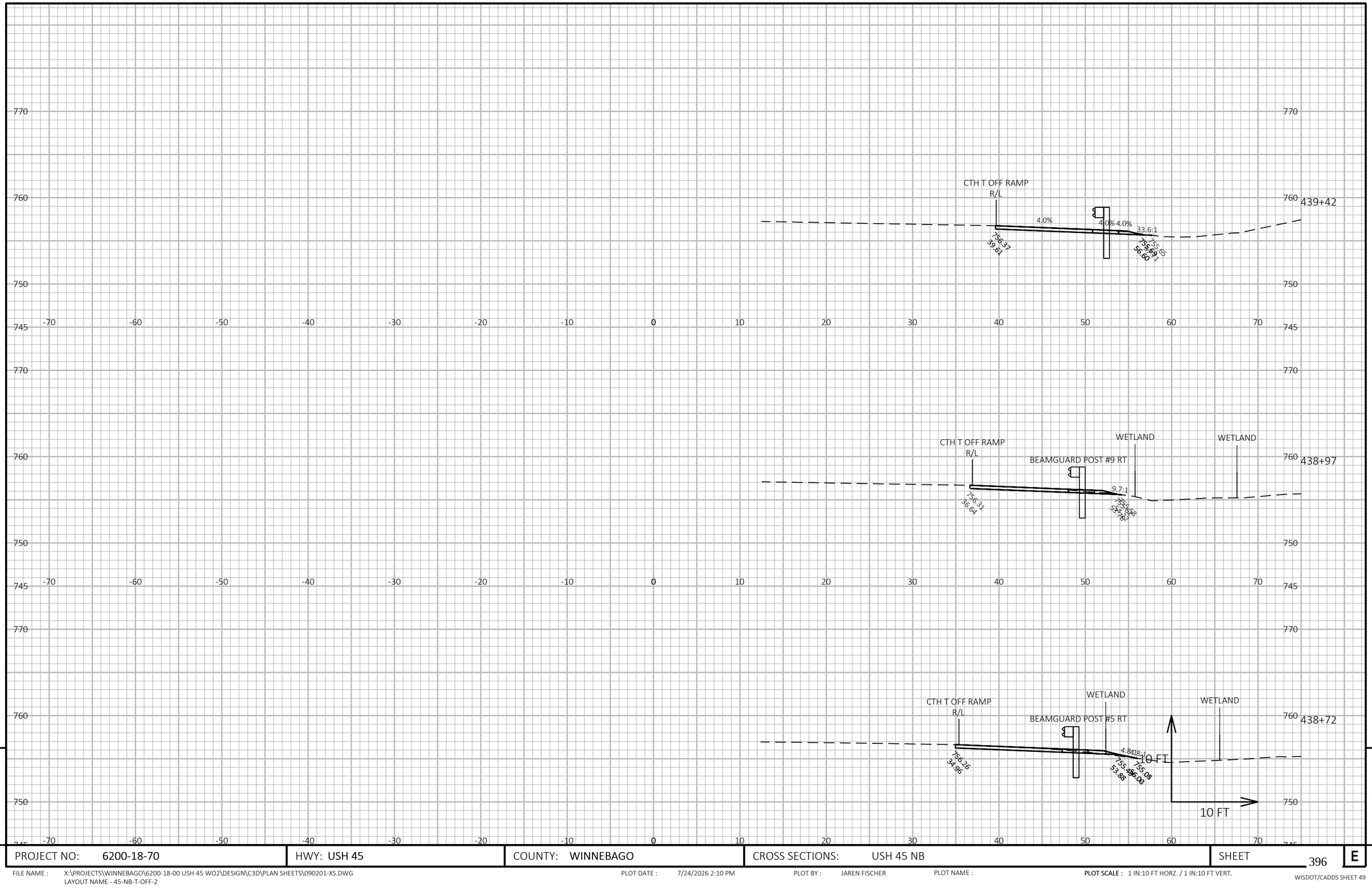
LAYOUT NAME - 45-NB-T-OFF-1

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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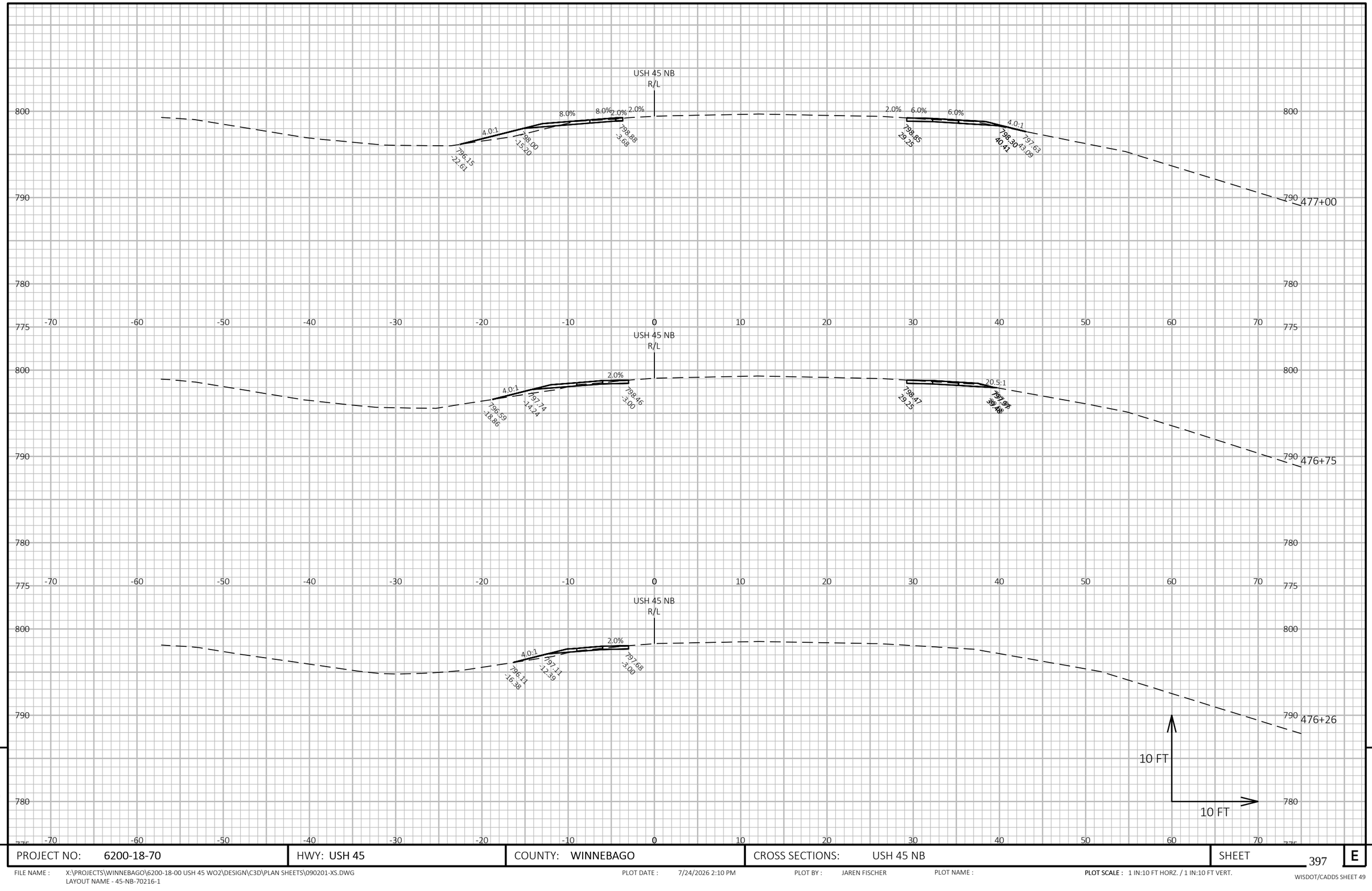
LAYOUT NAME - 45-NB-T-OFF-2

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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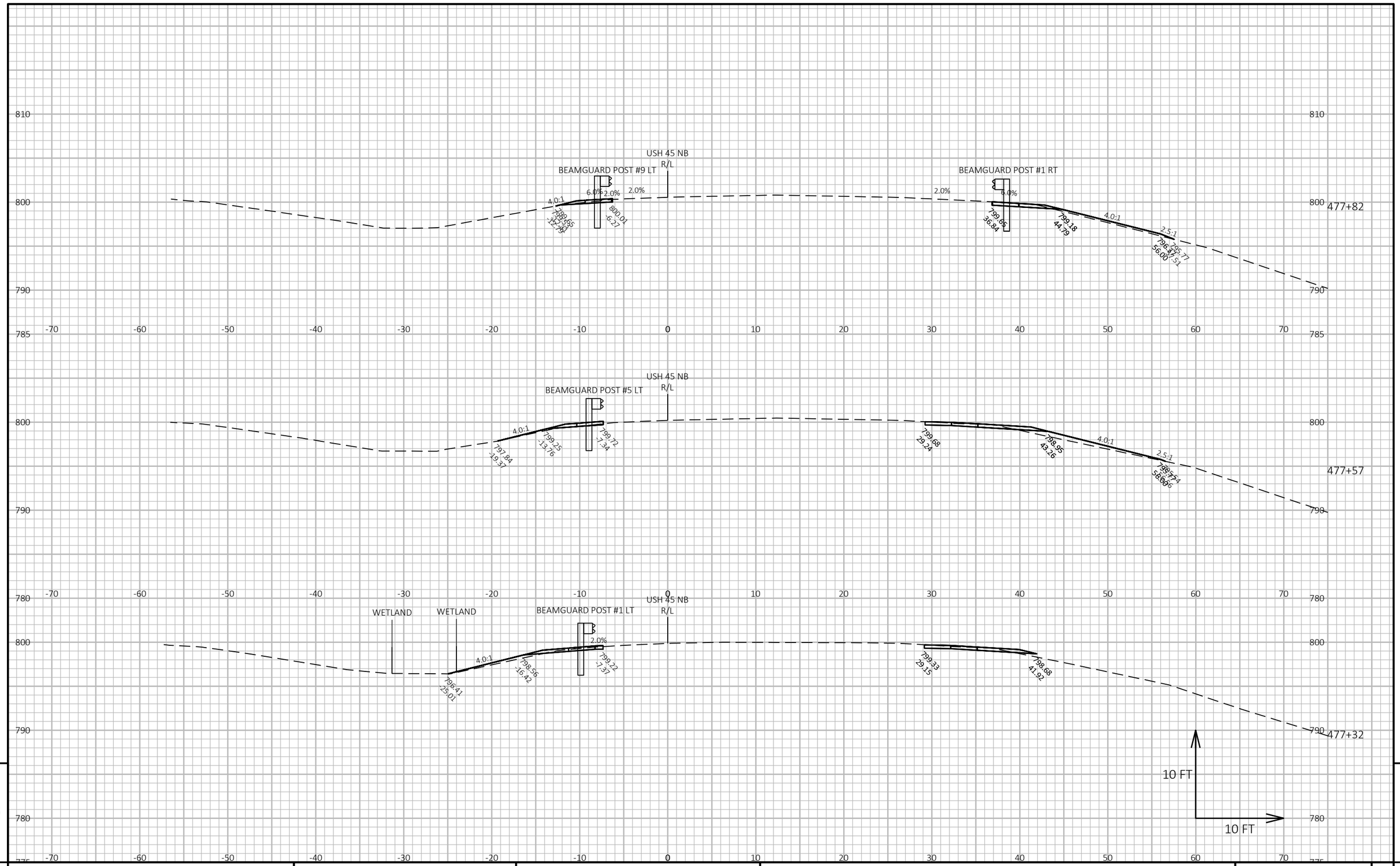
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 397	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70216-1

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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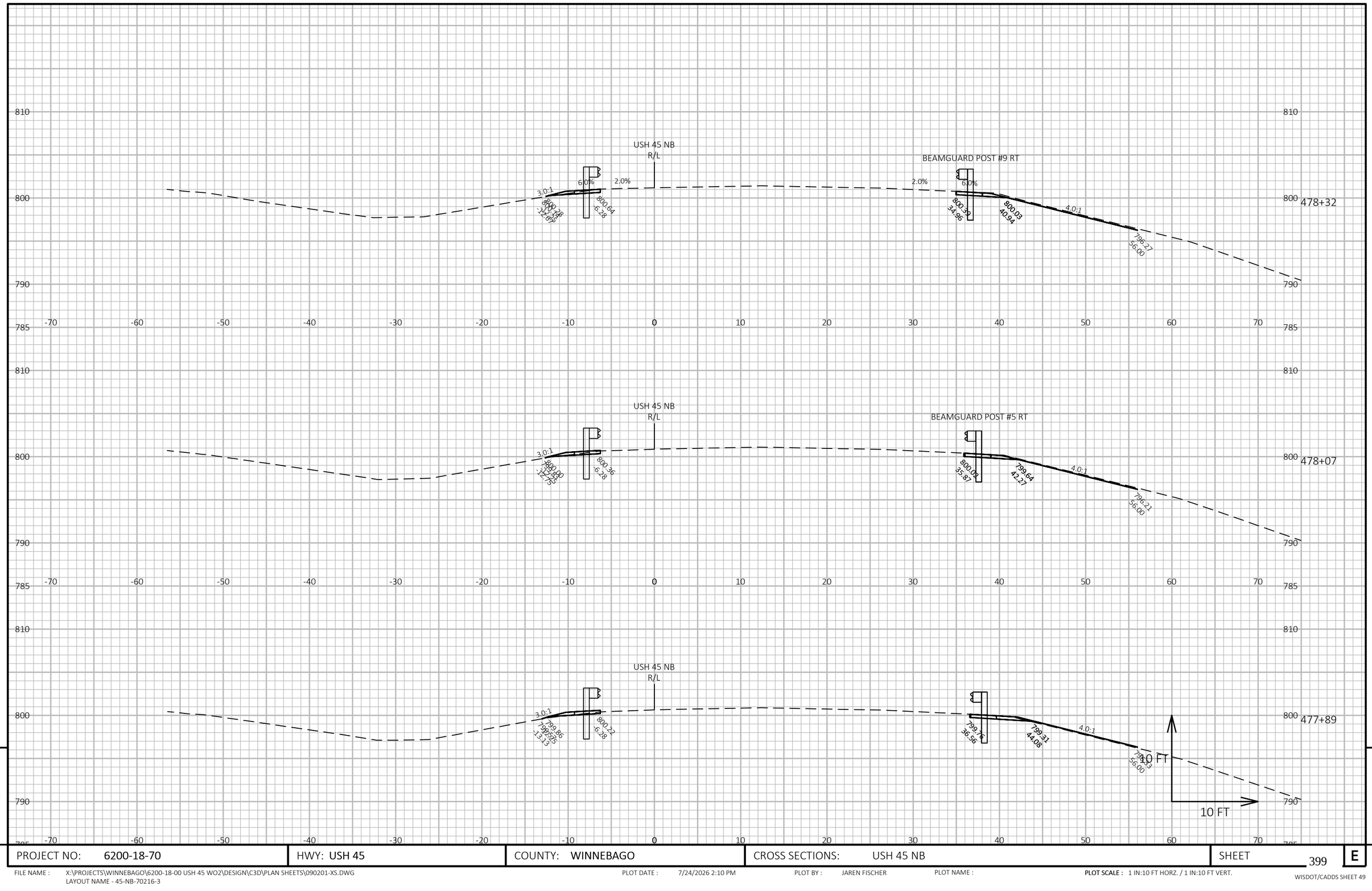
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 398	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70216-2

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 399	E

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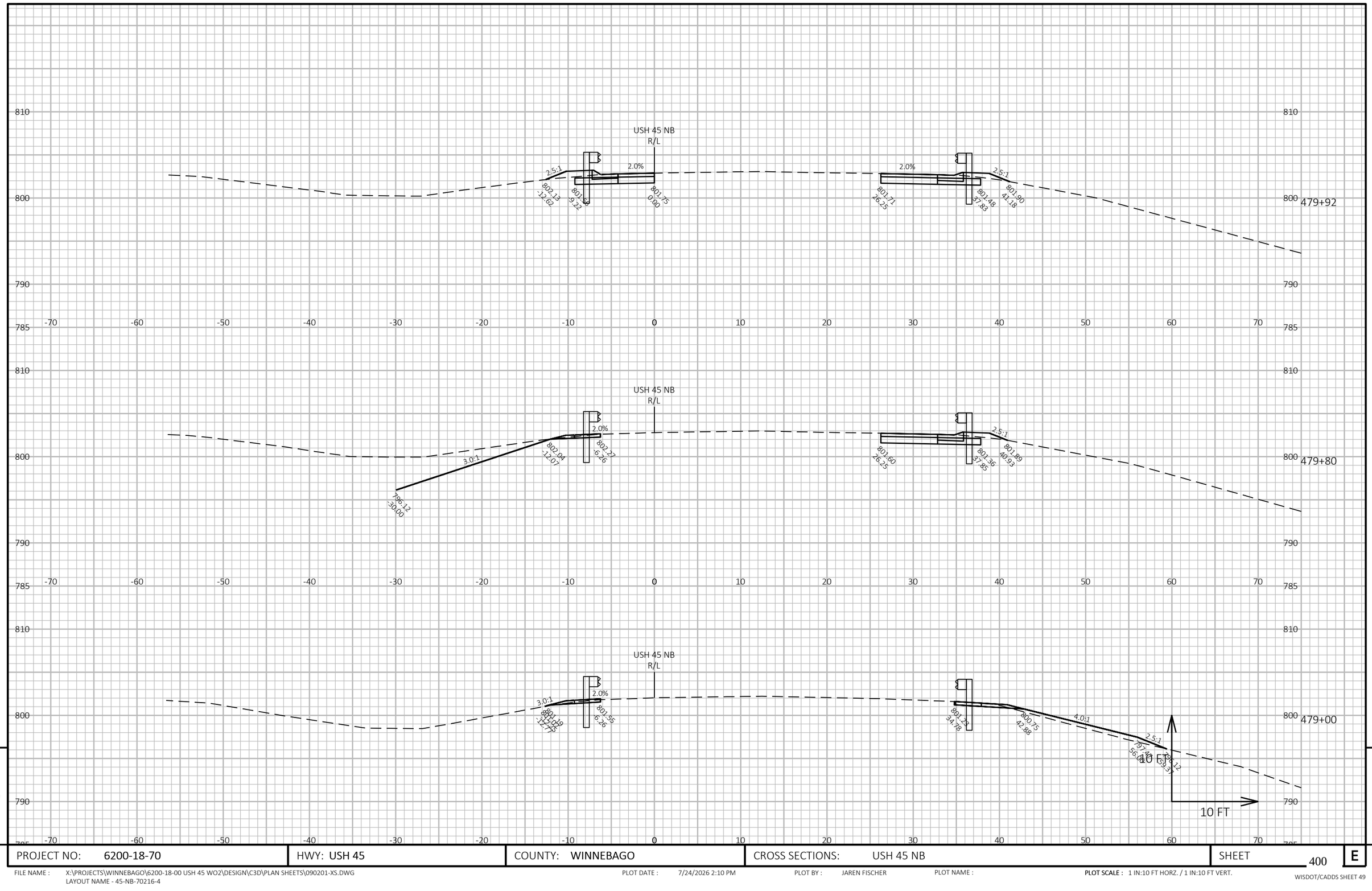
LAYOUT NAME - 45-NB-70216-3

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 400	E

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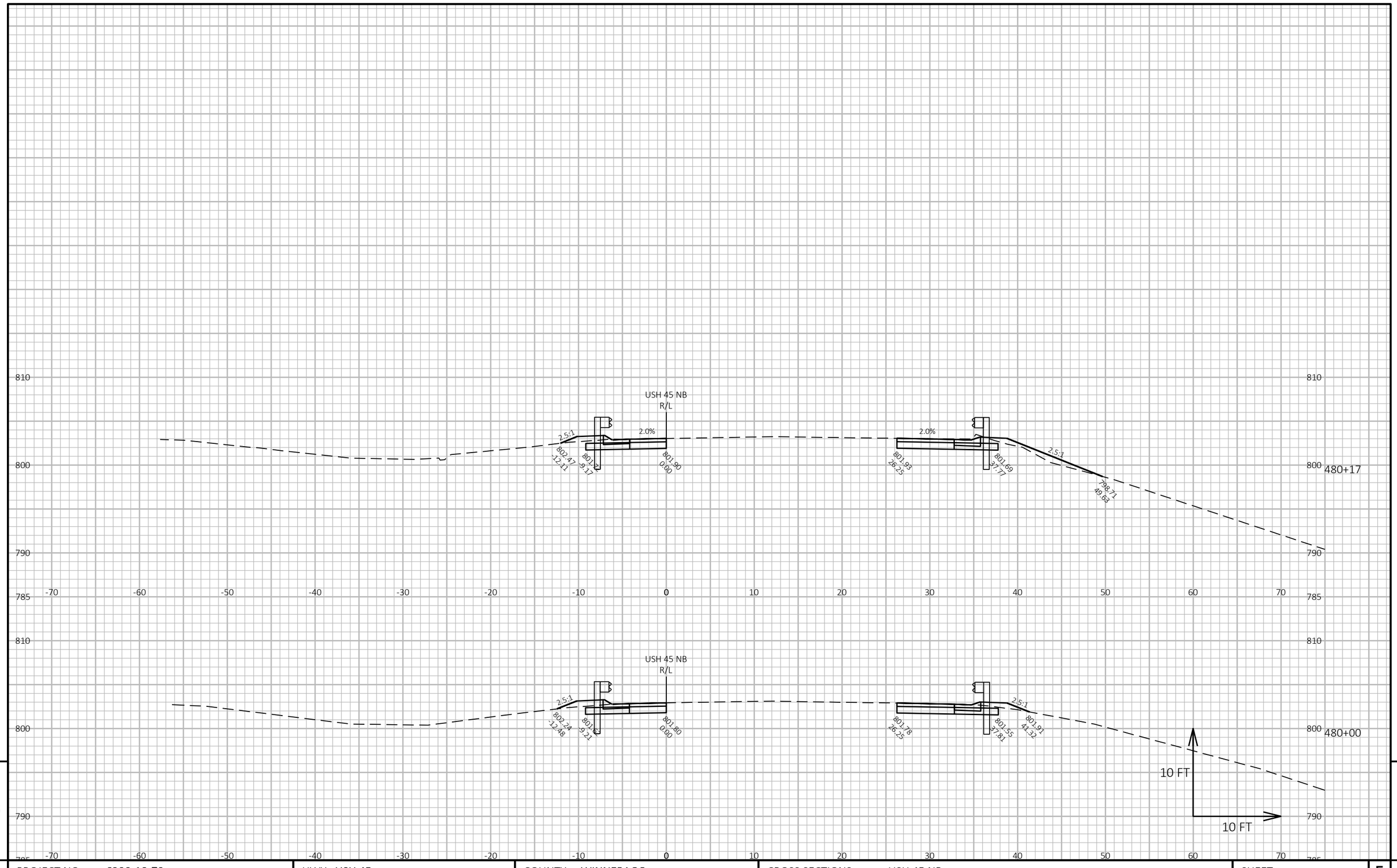
LAYOUT NAME - 45-NB-70216-4

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME :

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

WISDOT/CADDS SHEET 49

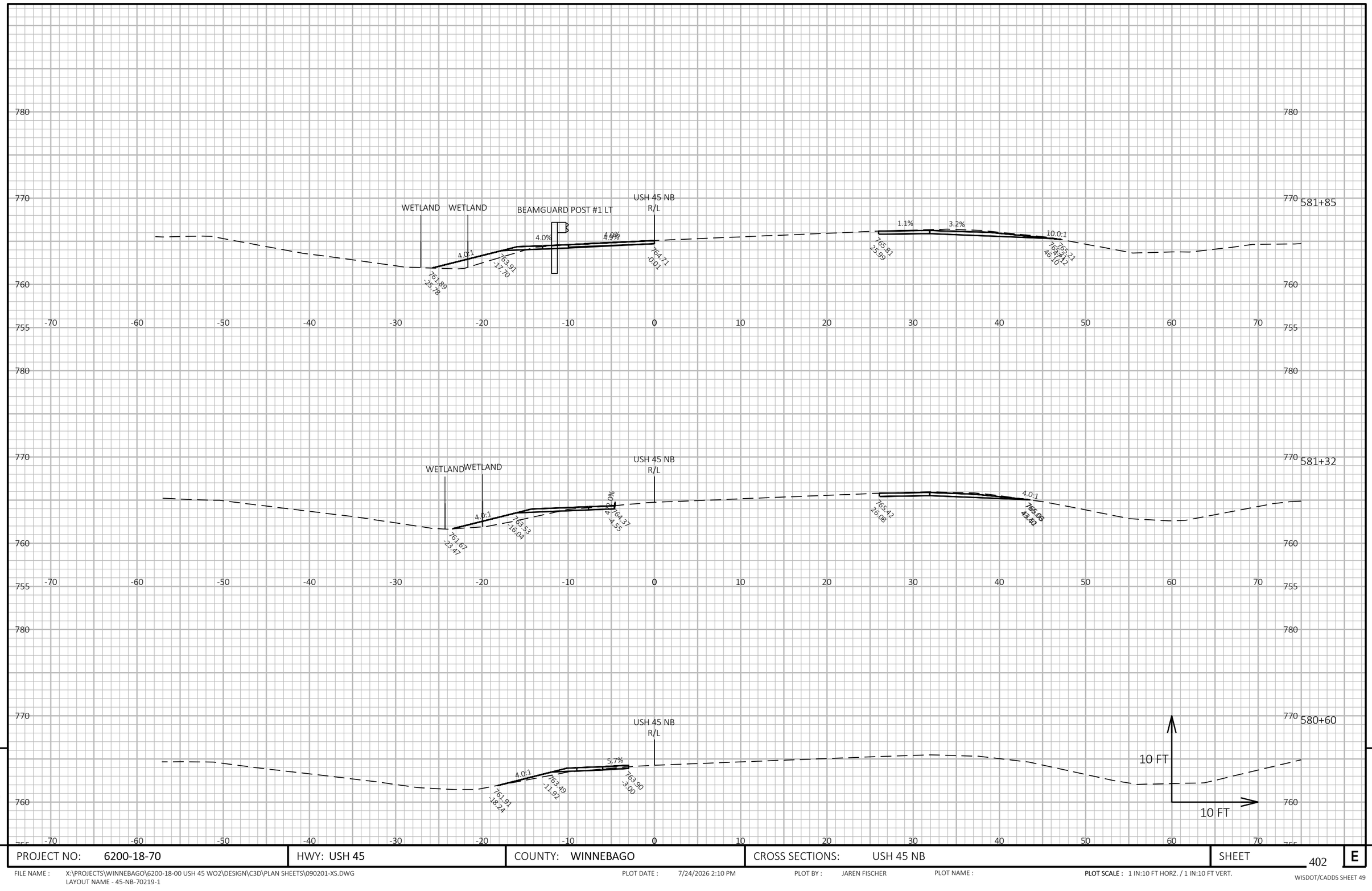


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 401	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70216-5

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

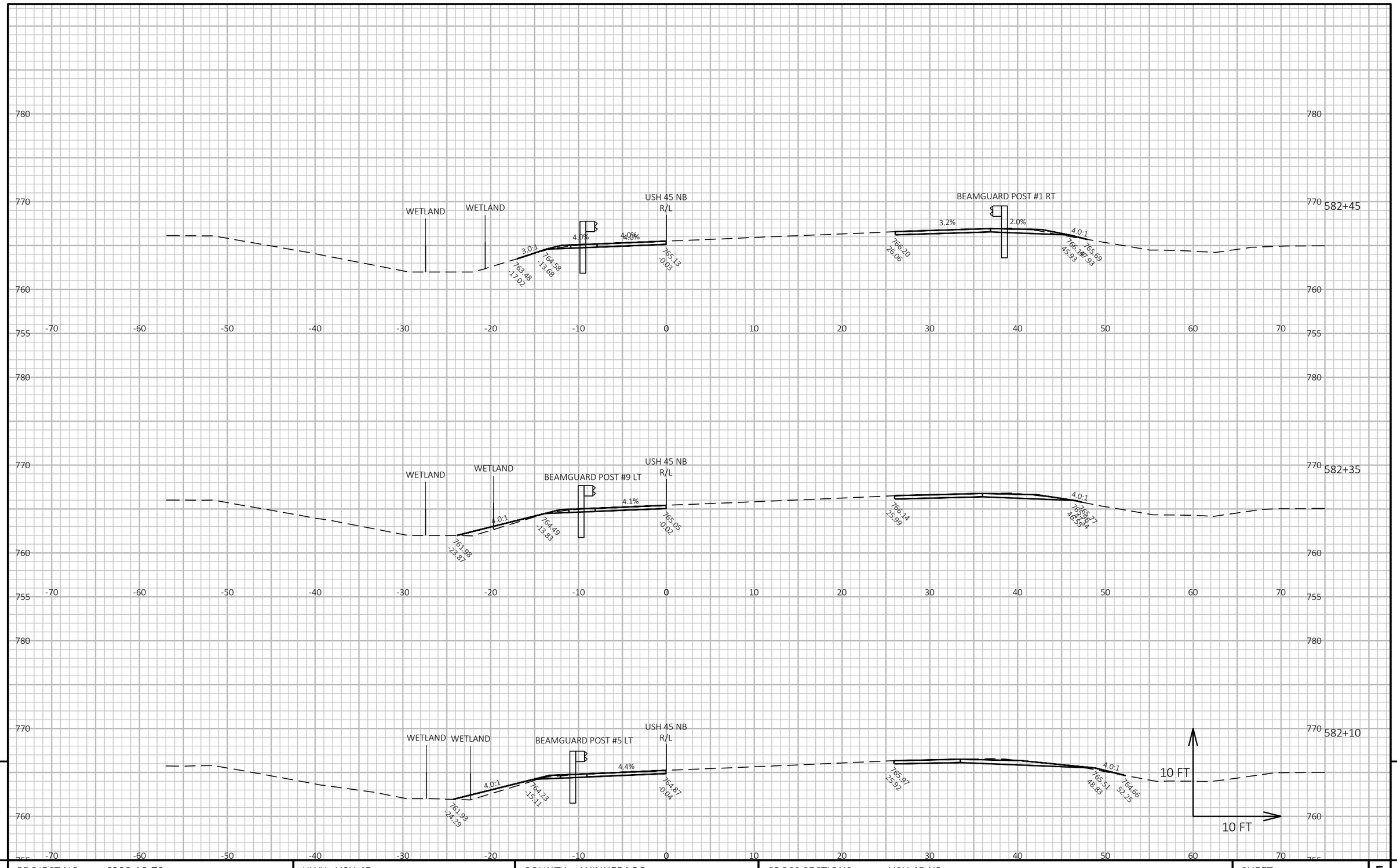


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 402	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-1

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

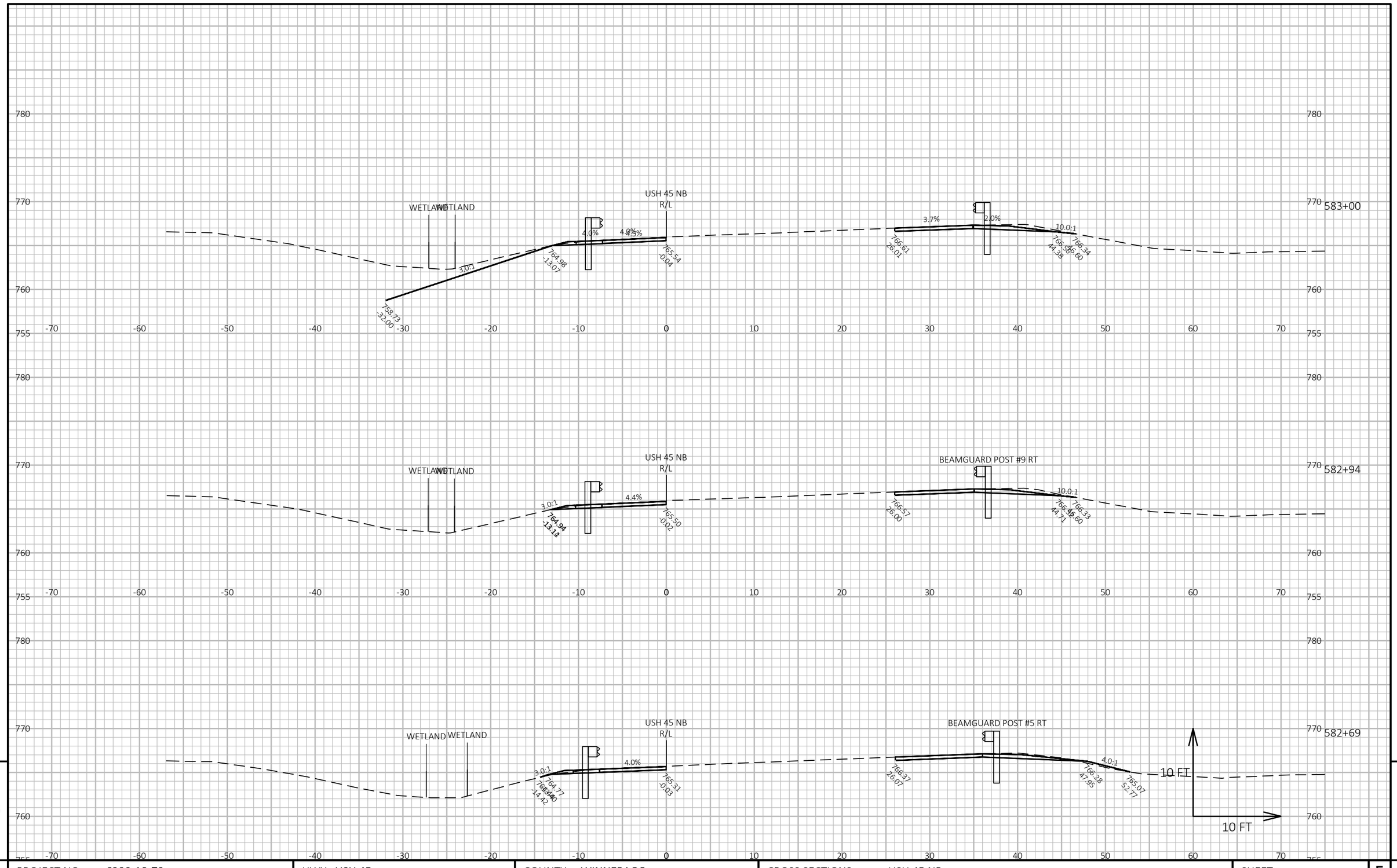


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 403	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-2

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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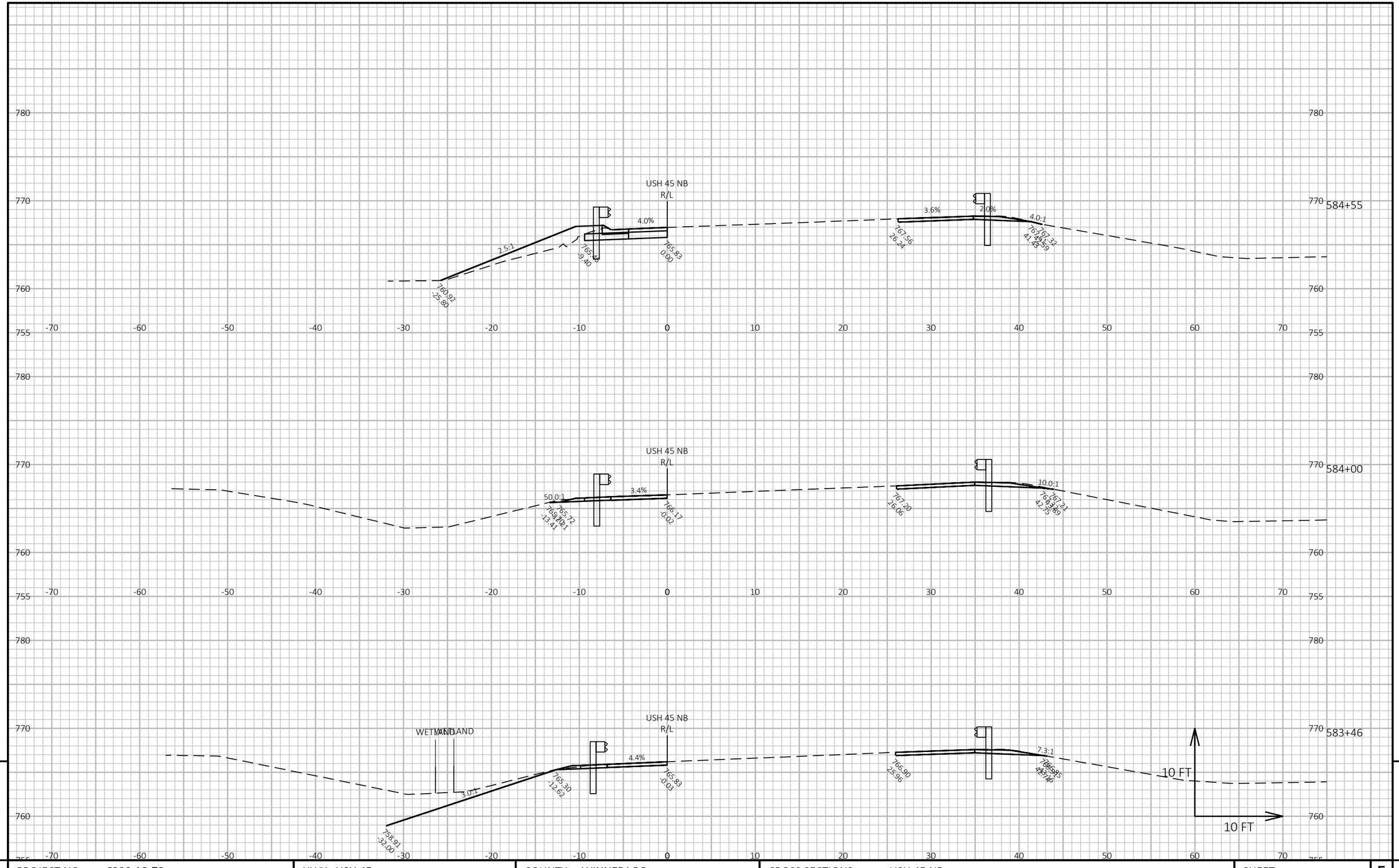
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 404	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-3

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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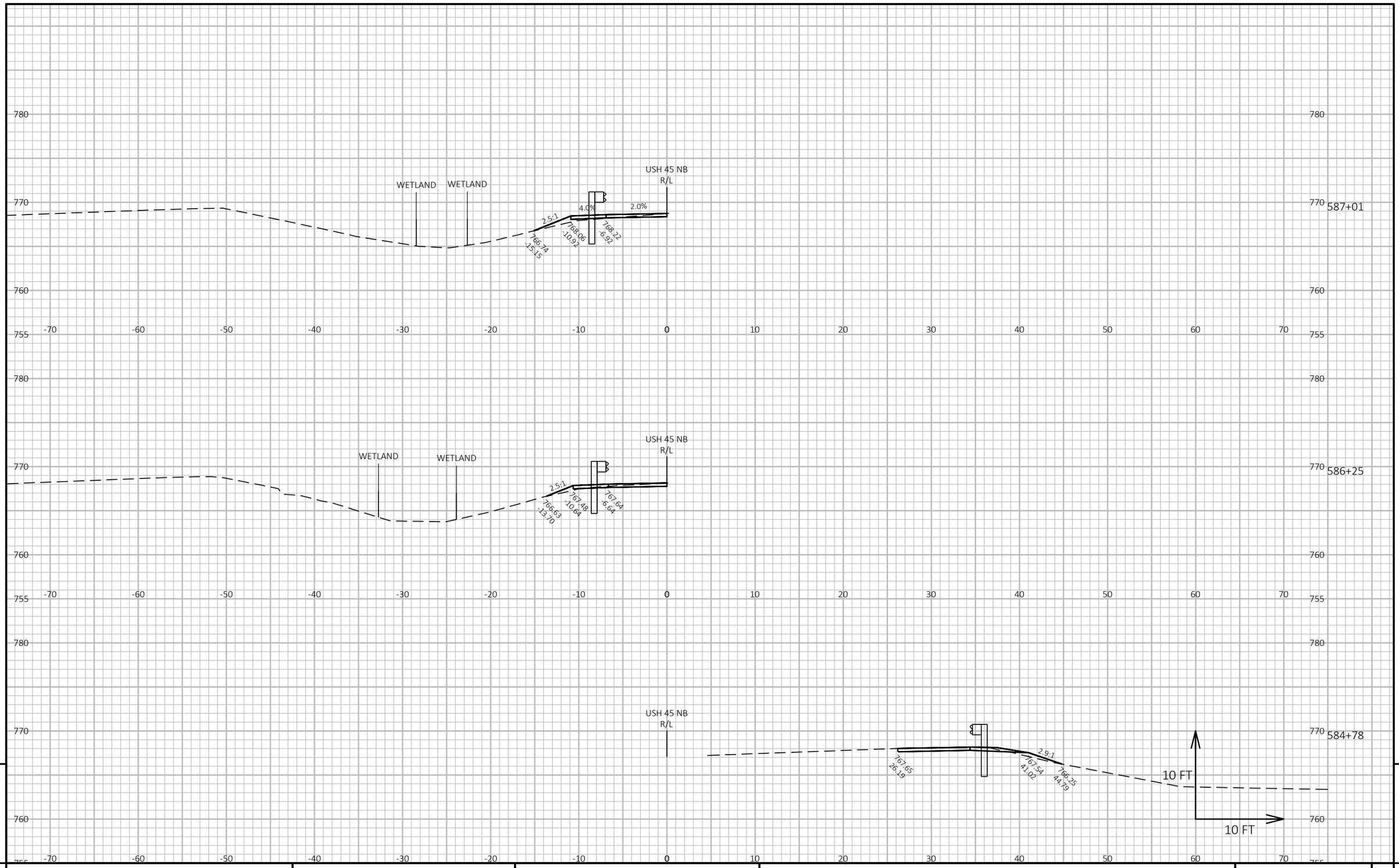
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 405	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-4

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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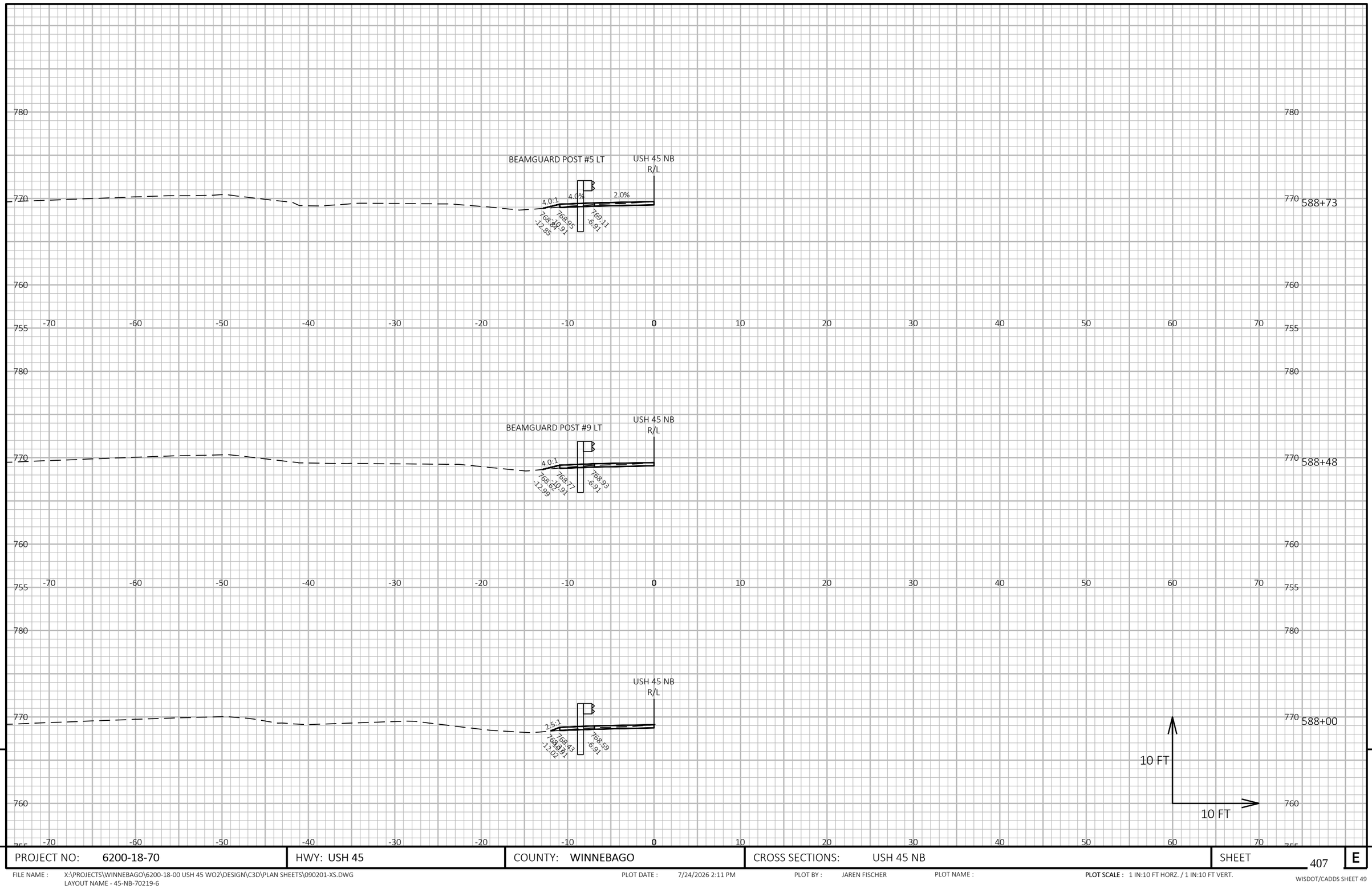
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 406	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-5

PLOT DATE : 7/24/2026 2:10 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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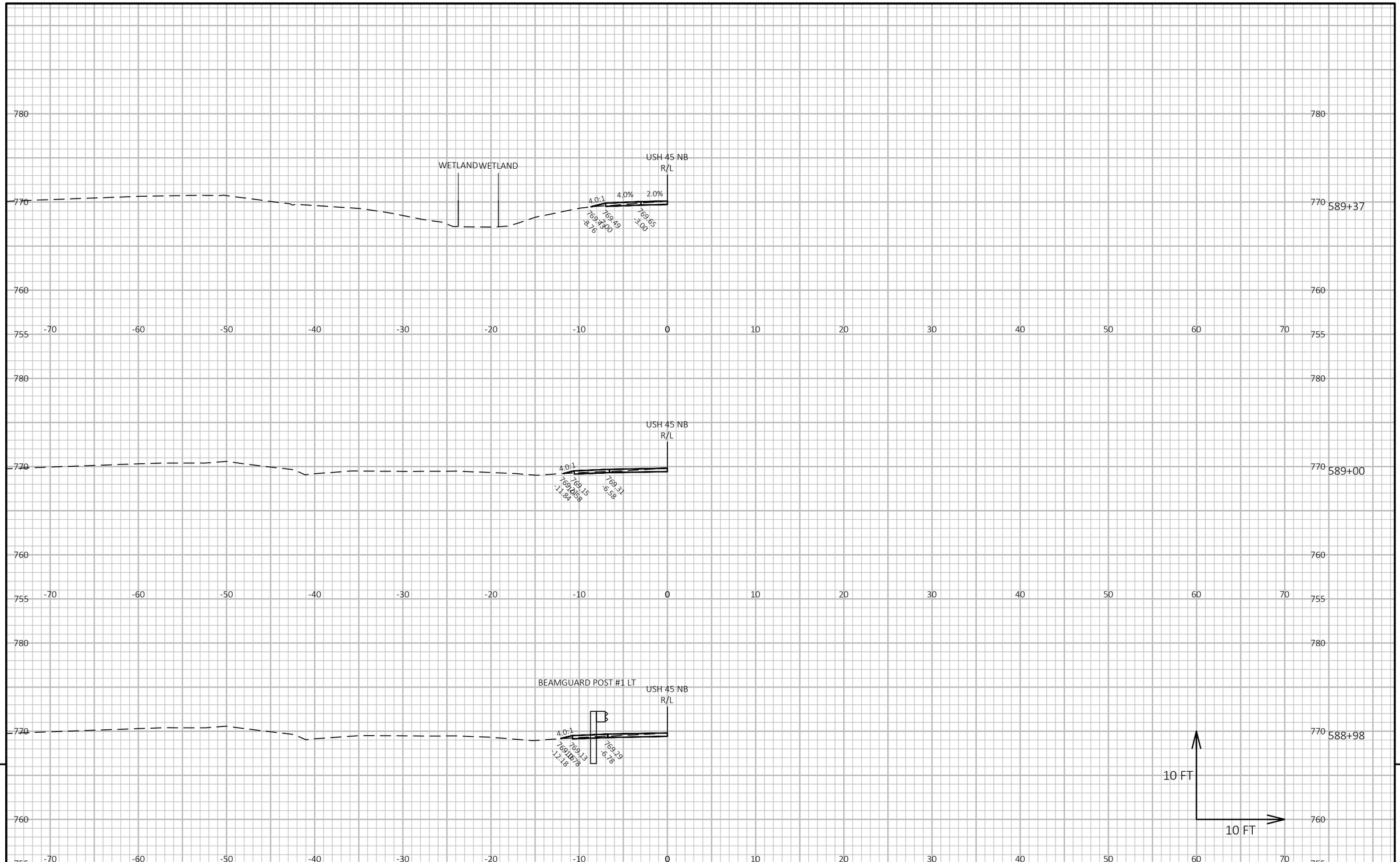
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 407	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-6

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

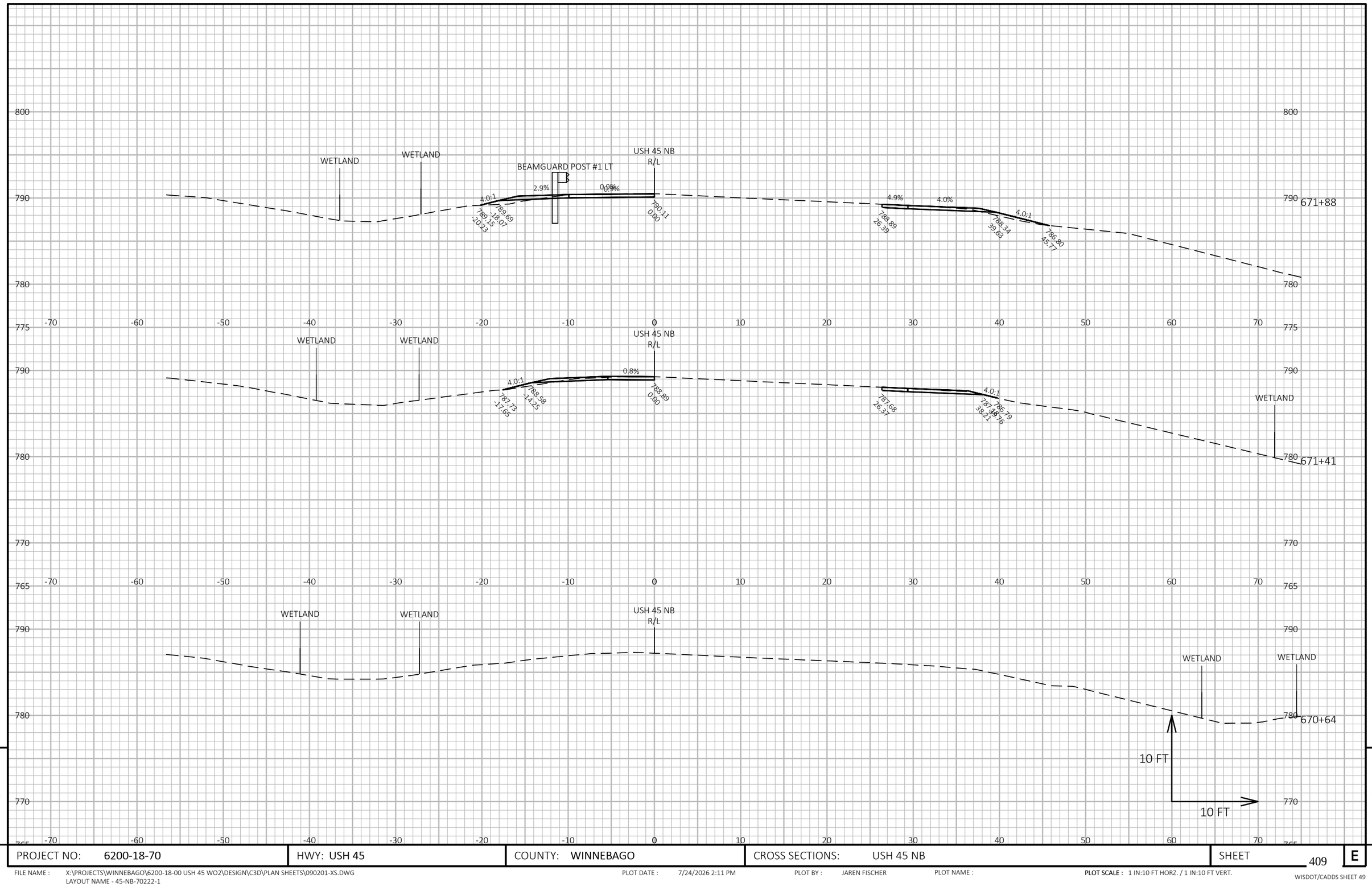


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 408	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70219-7

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

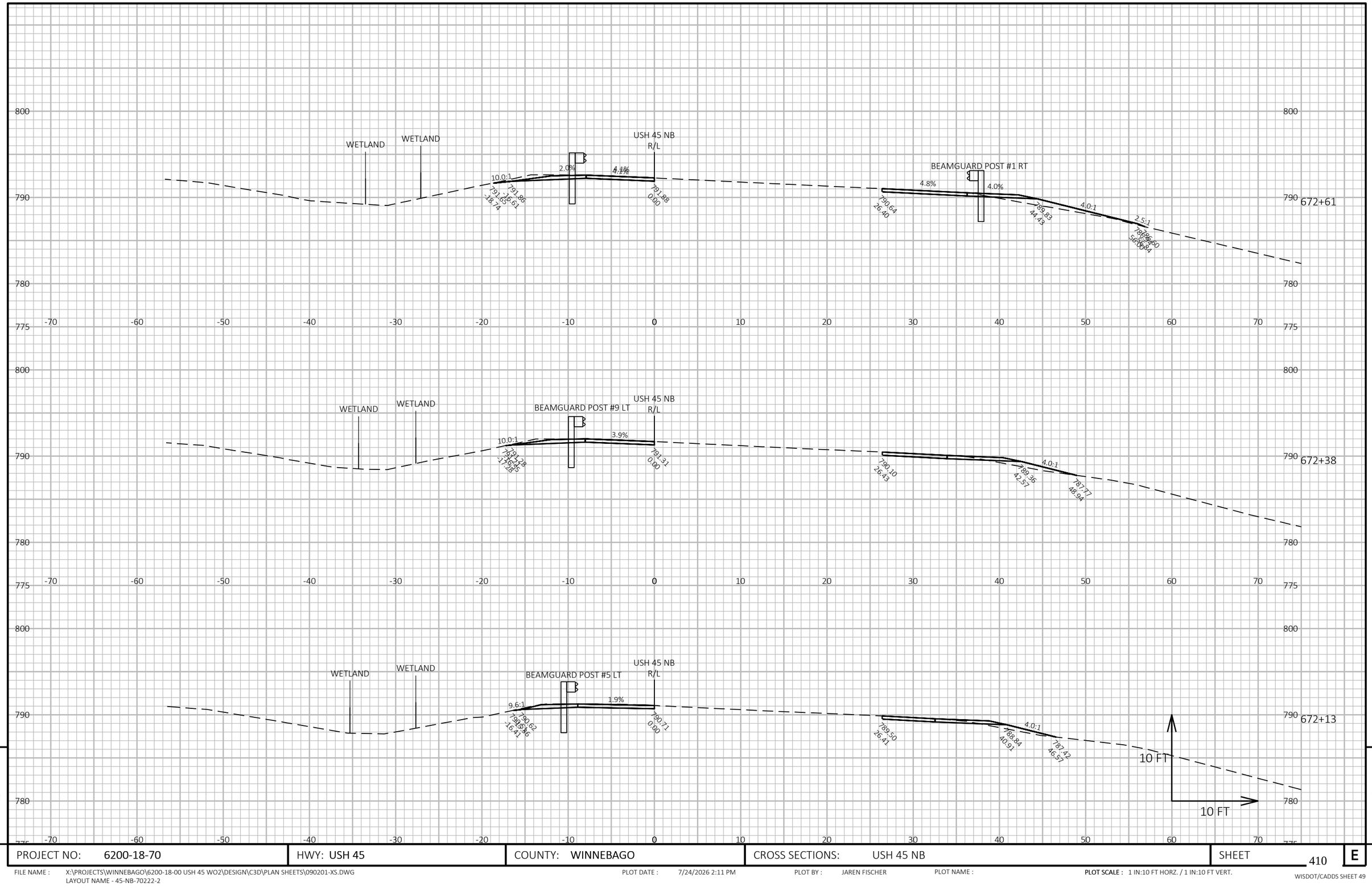


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 409	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70222-1

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 410	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70222-2

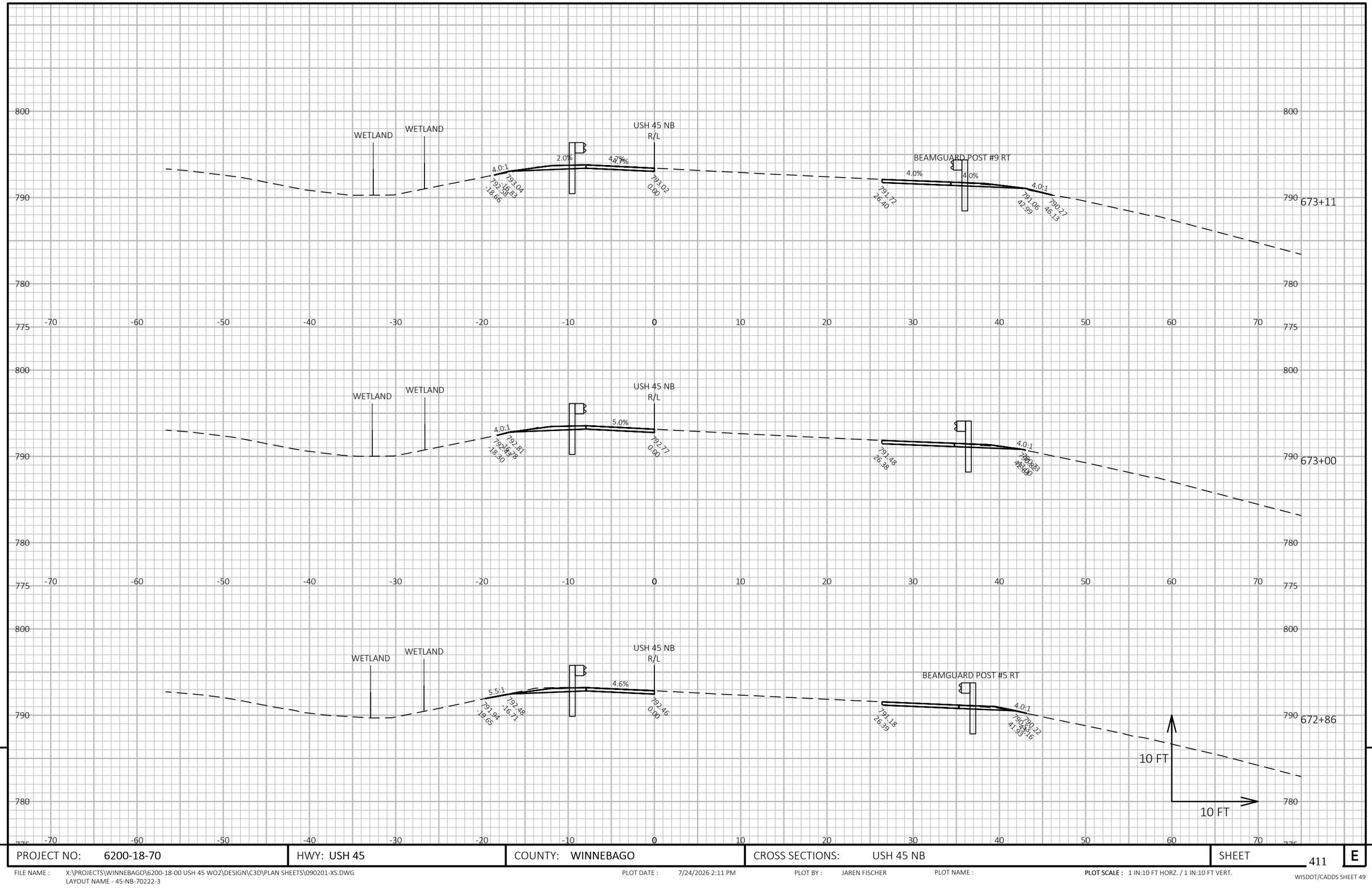
PLOT DATE : 7/24/2026 2:11 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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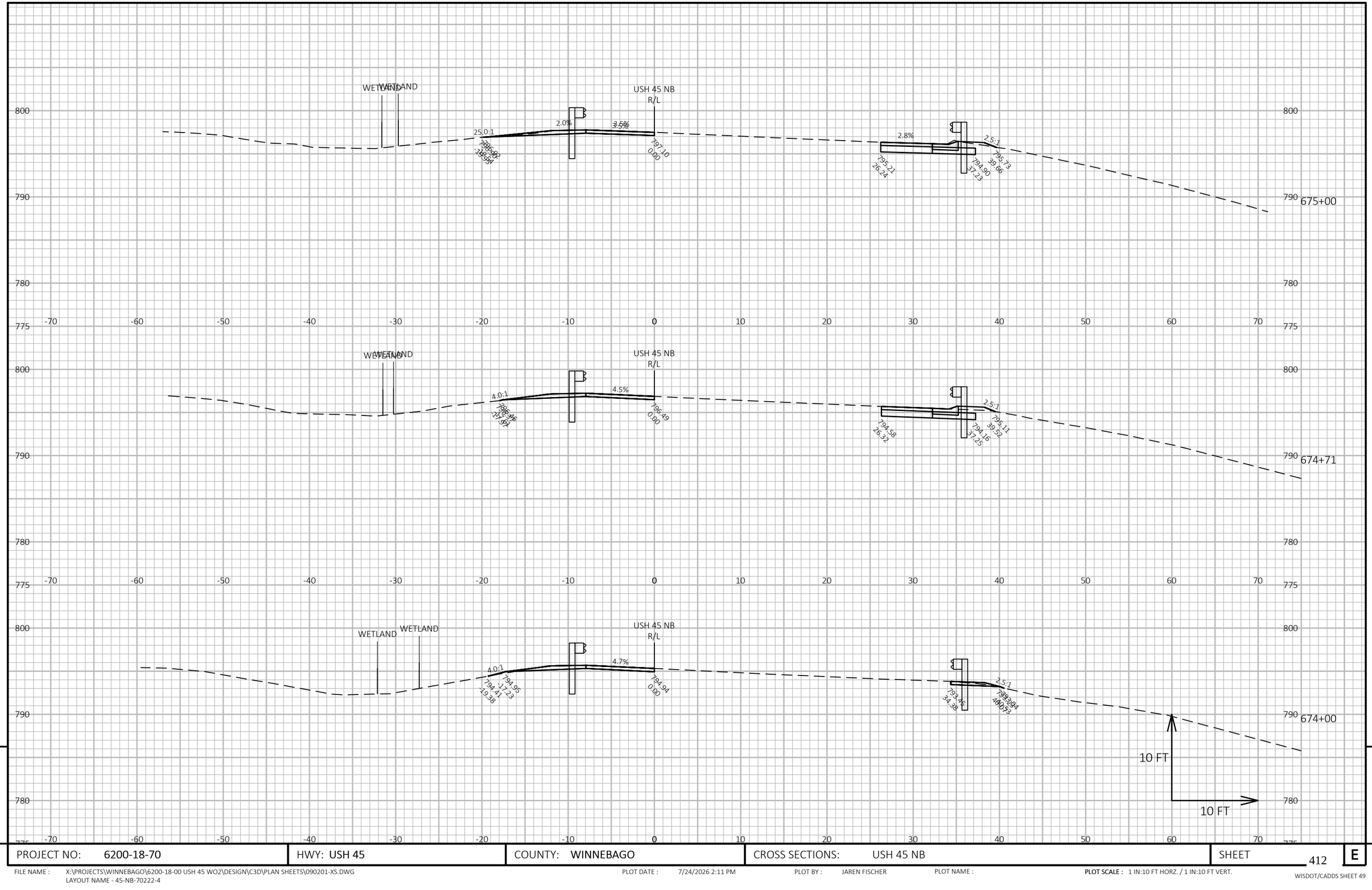
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 411	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70222-3

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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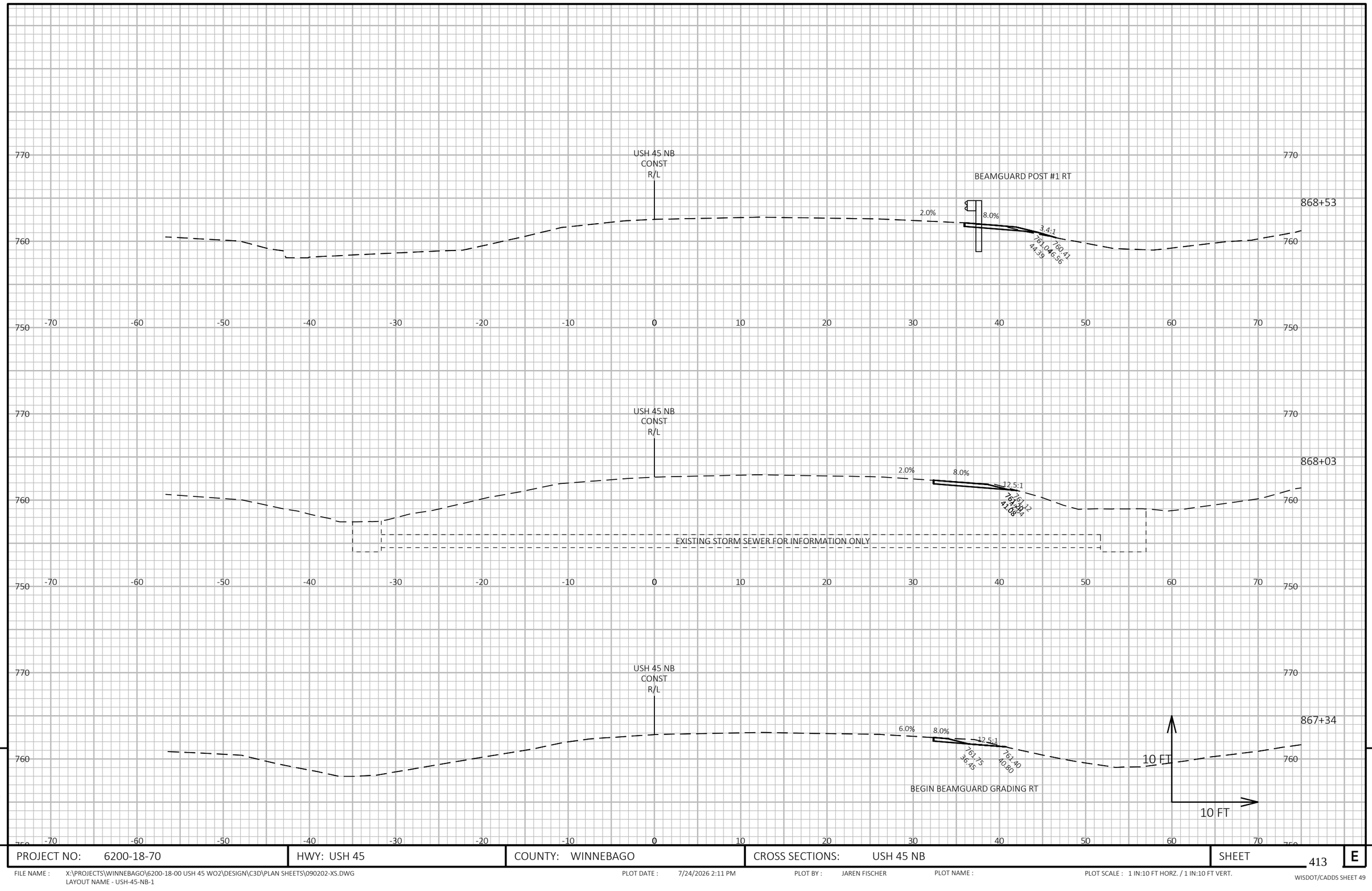
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 412	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-NB-70222-4

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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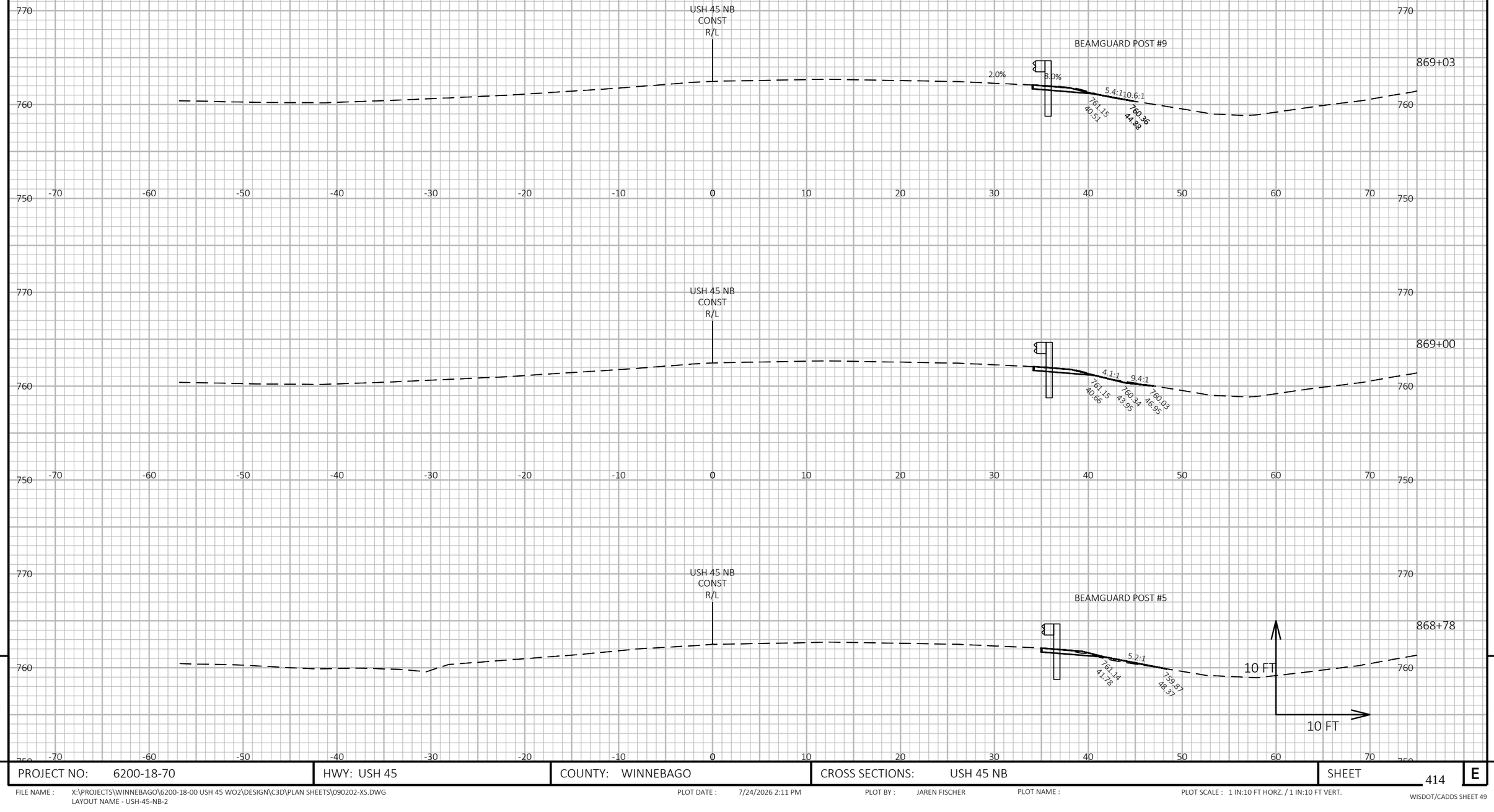
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 413	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-NB-1

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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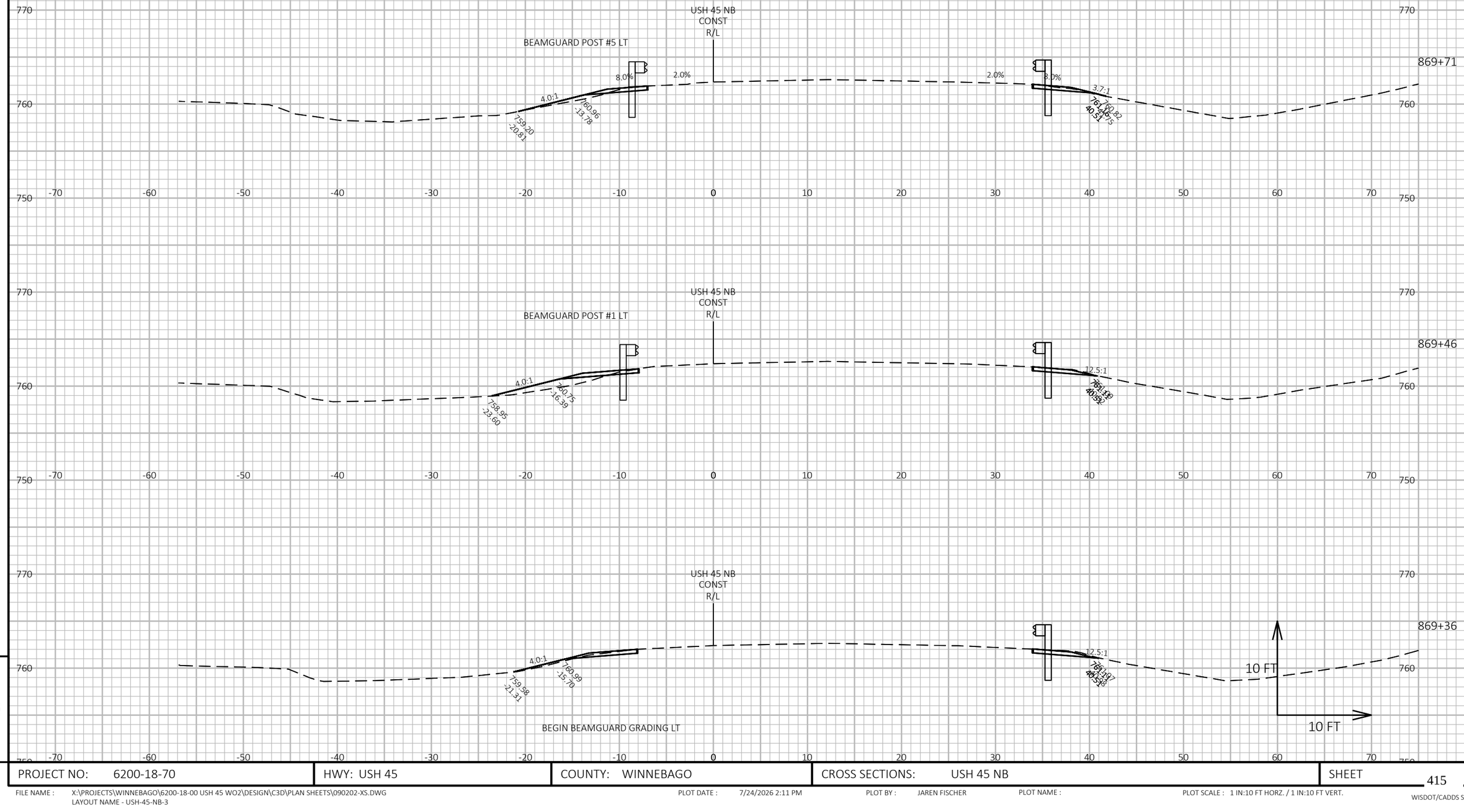
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 414	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-NB-2

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

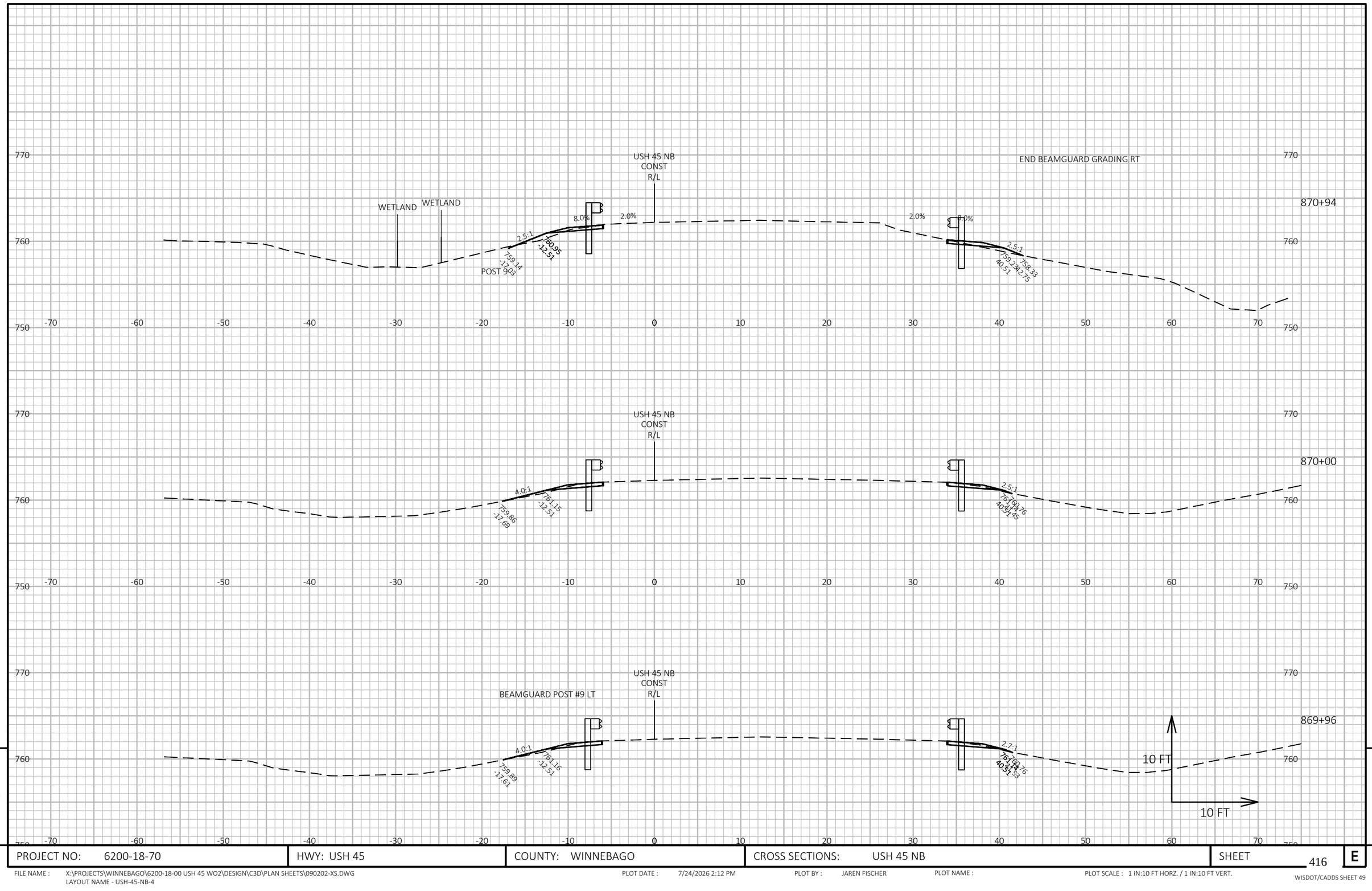


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 415	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-NB-3

PLOT DATE : 7/24/2026 2:11 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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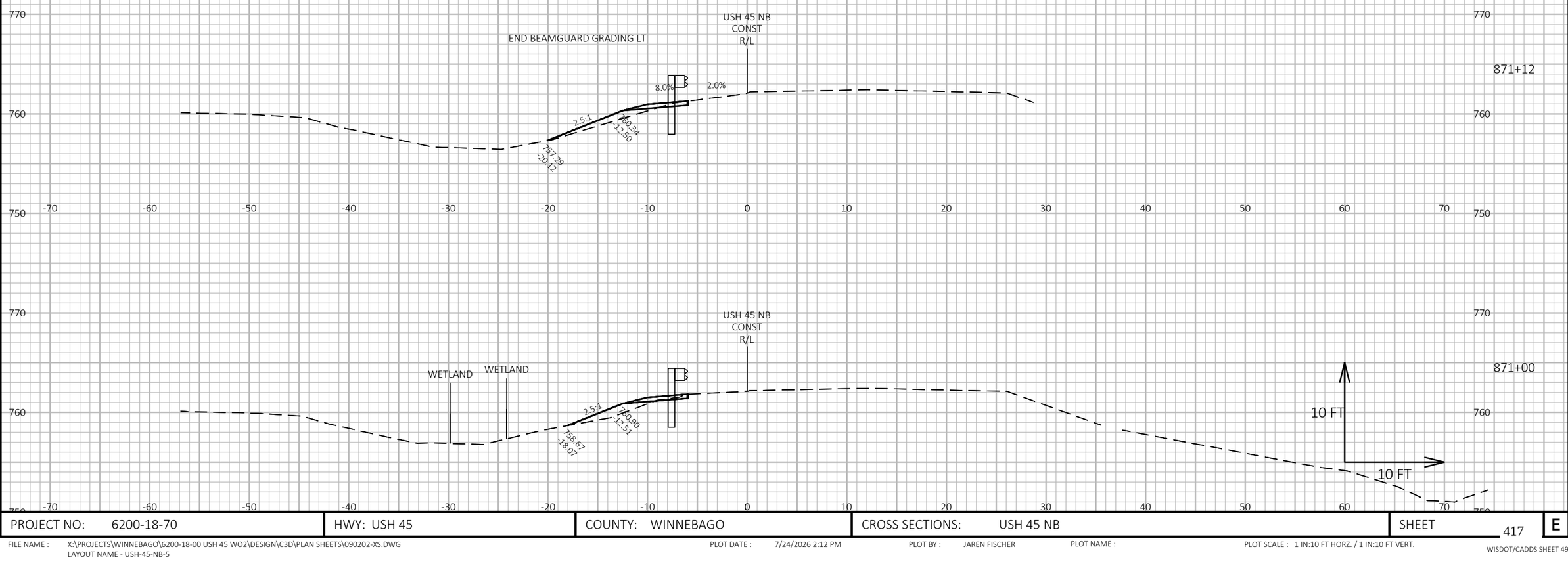
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 416	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-NB-4

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

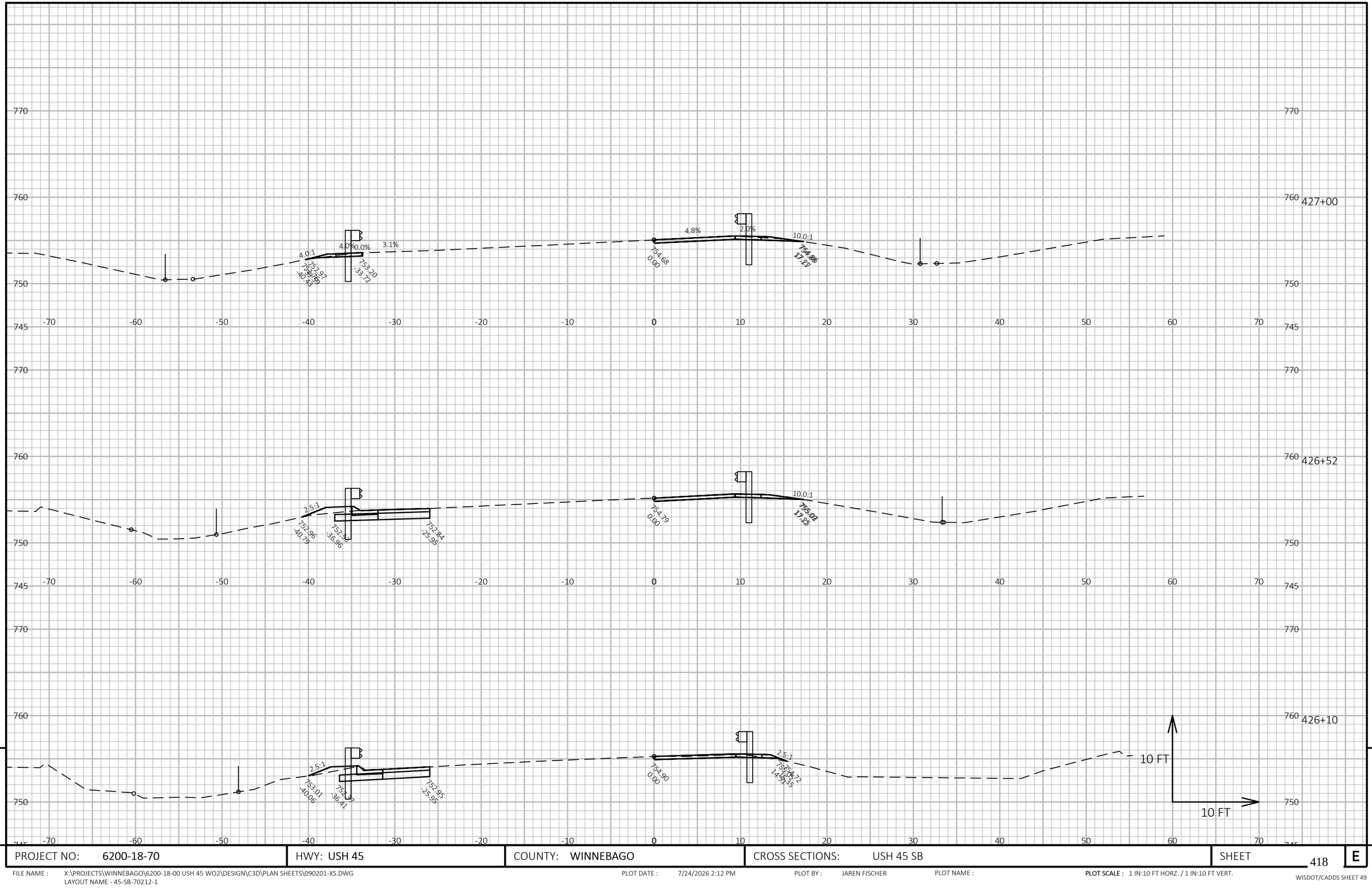


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB	SHEET 417 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-NB-5

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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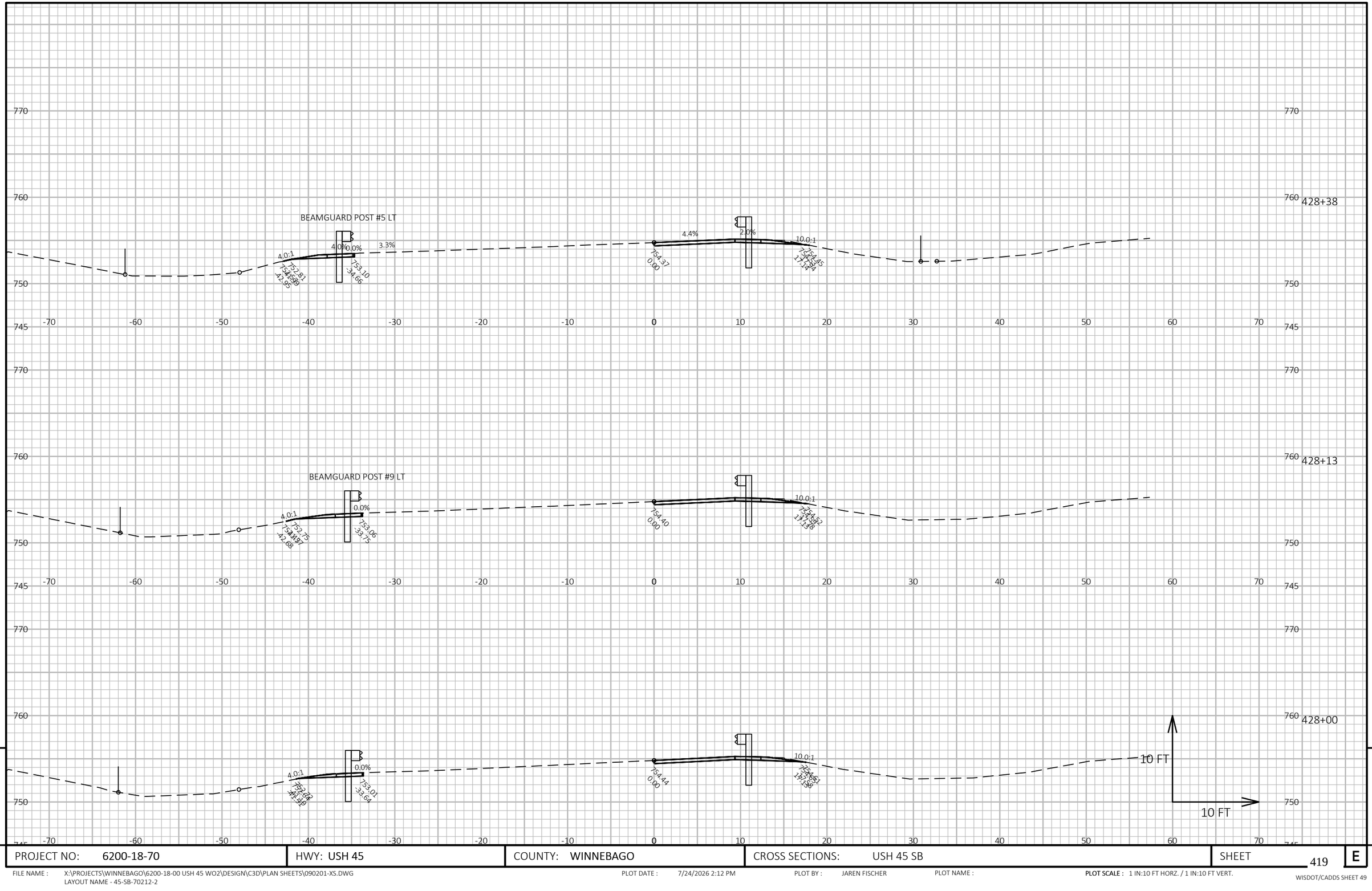
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 418	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70212-1

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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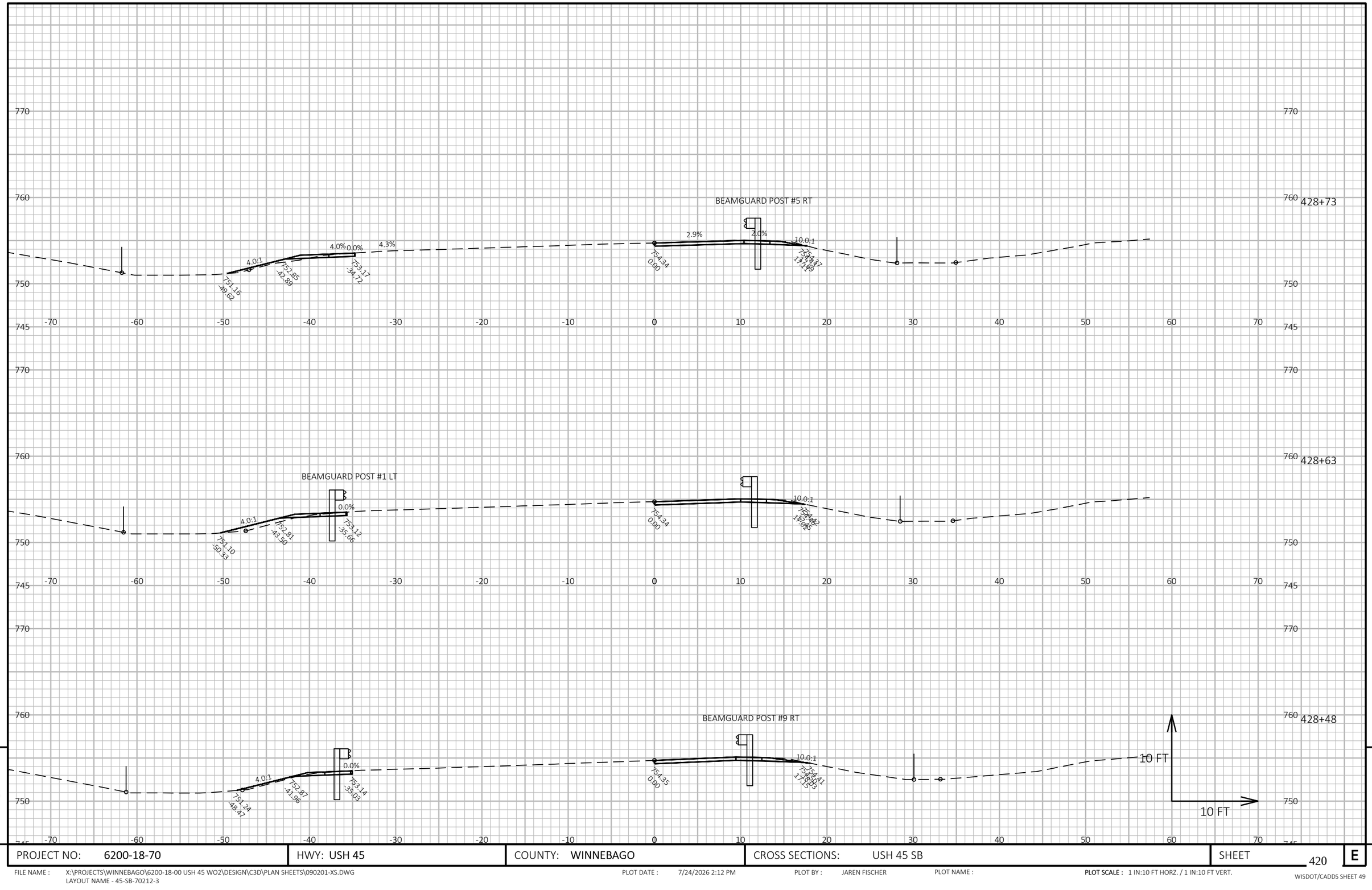
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 419	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70212-2

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

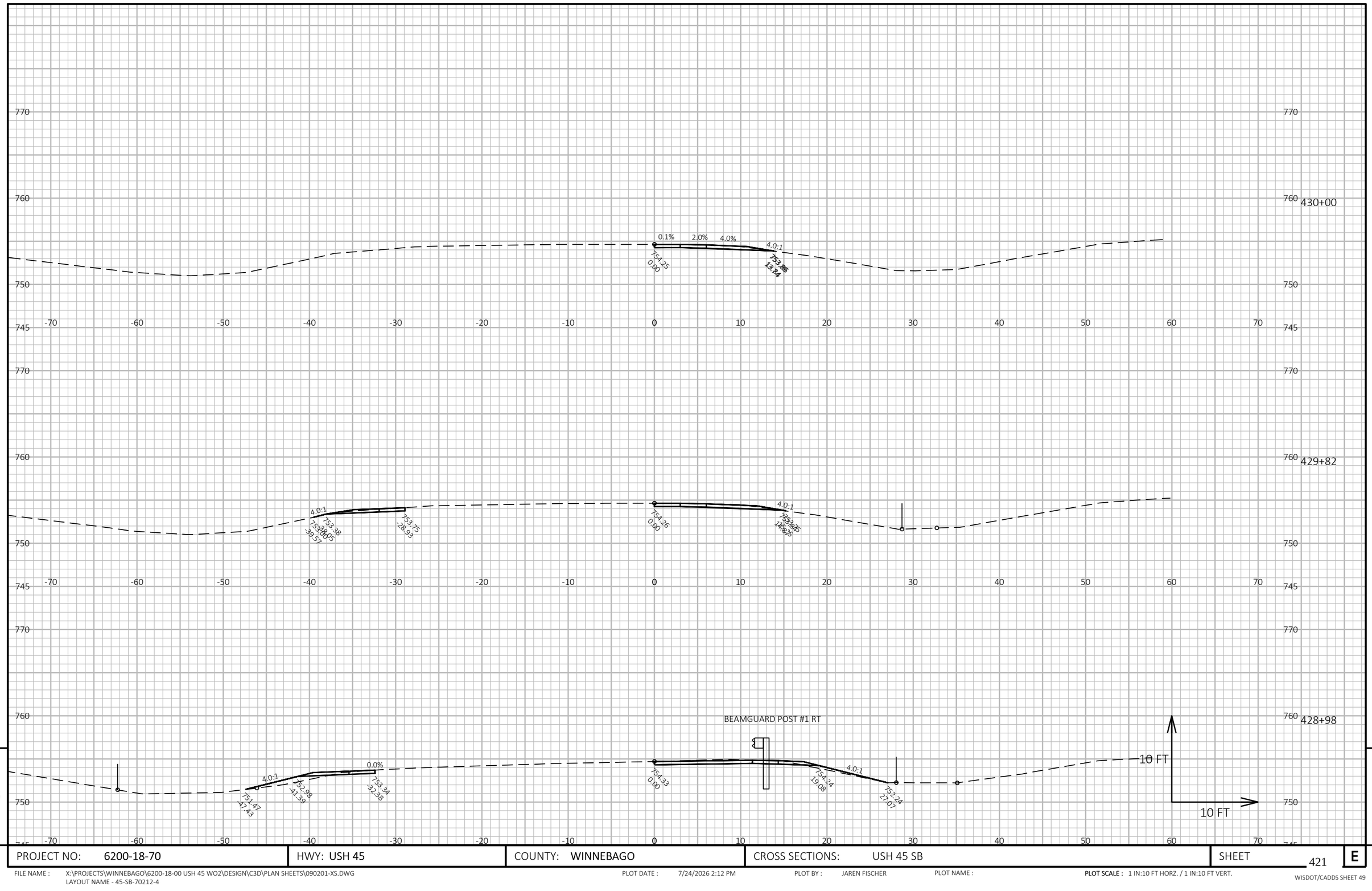


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 420	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70212-3

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

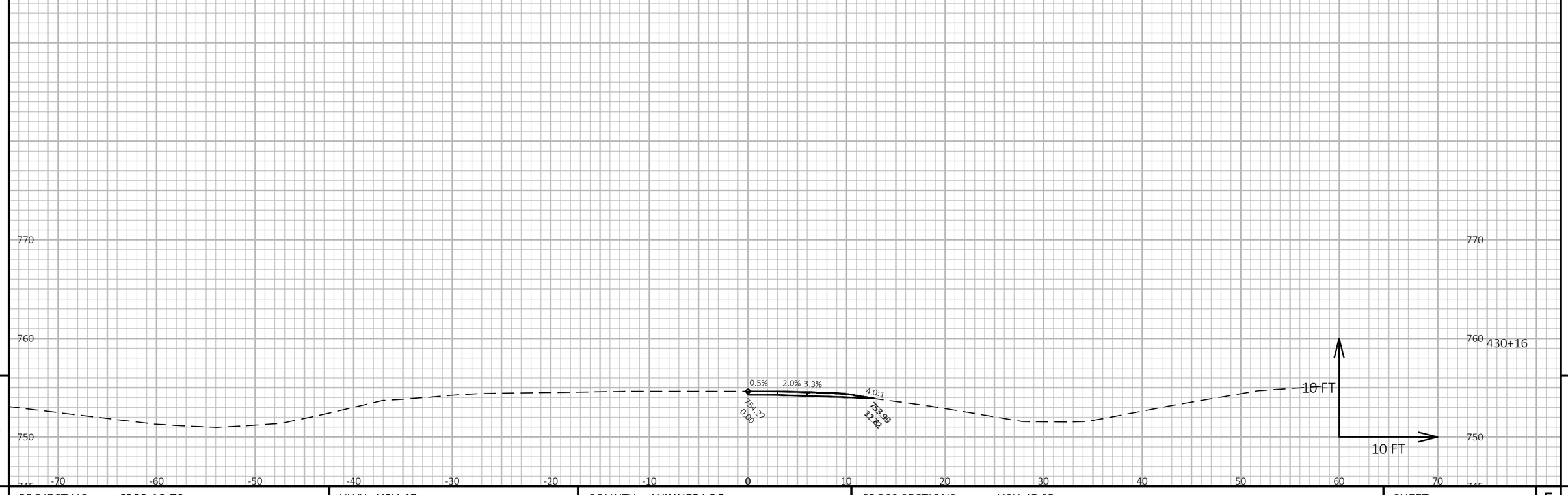


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 421	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70212-4

PLOT DATE : 7/24/2026 2:12 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 422	E

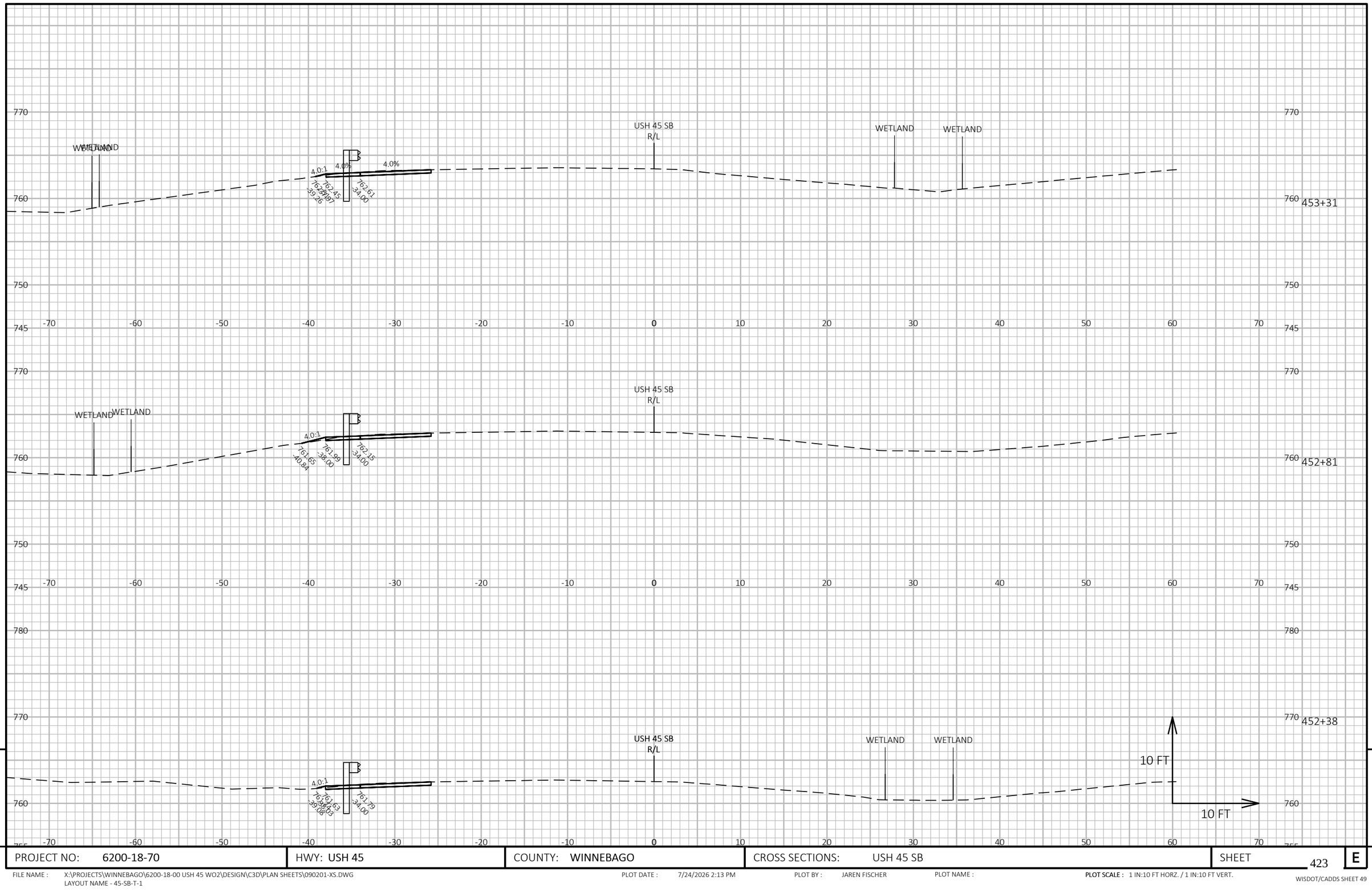
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70212-5

PLOT DATE : 7/24/2026 2:13 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

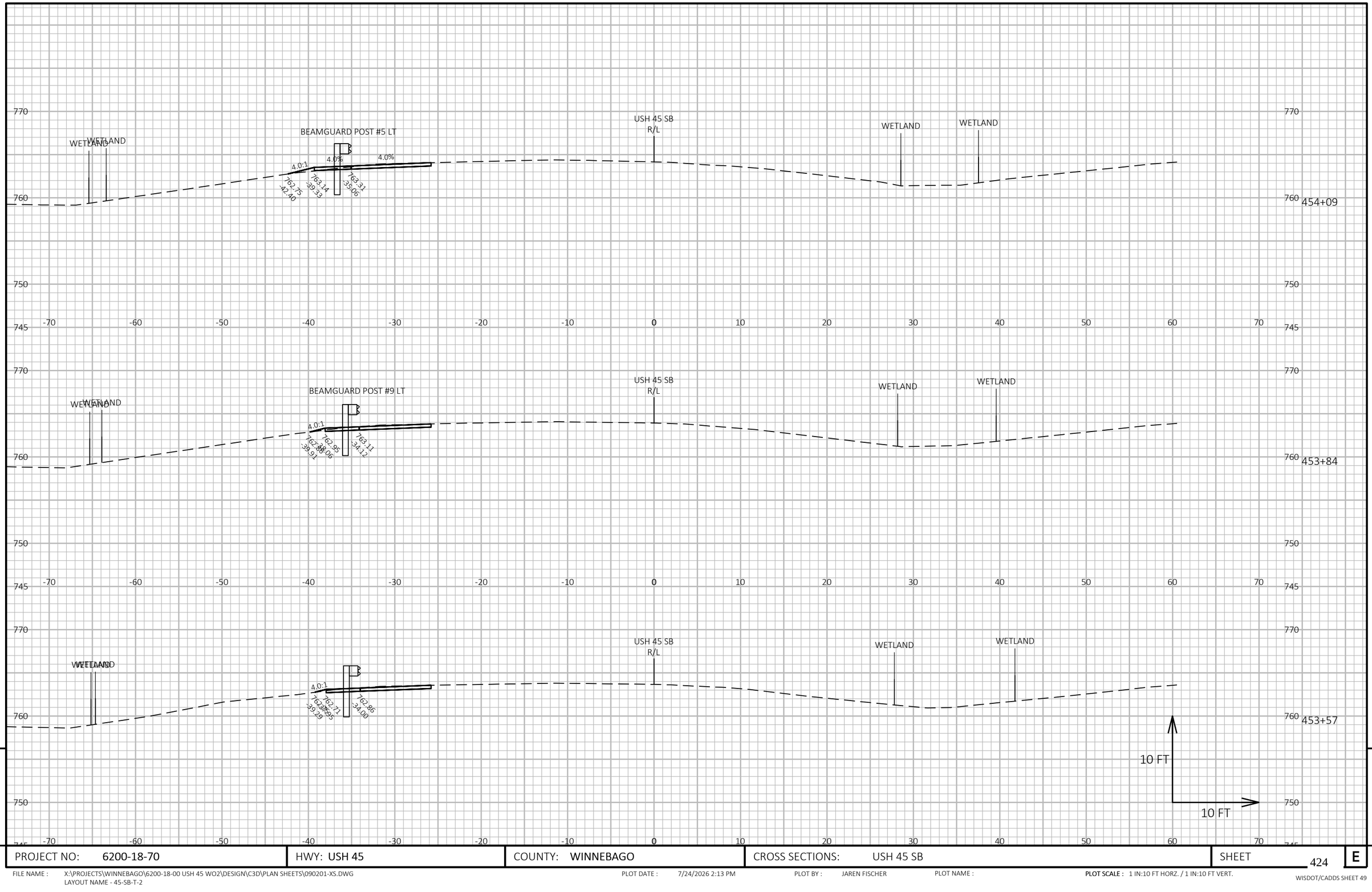


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 423	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-T-1

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

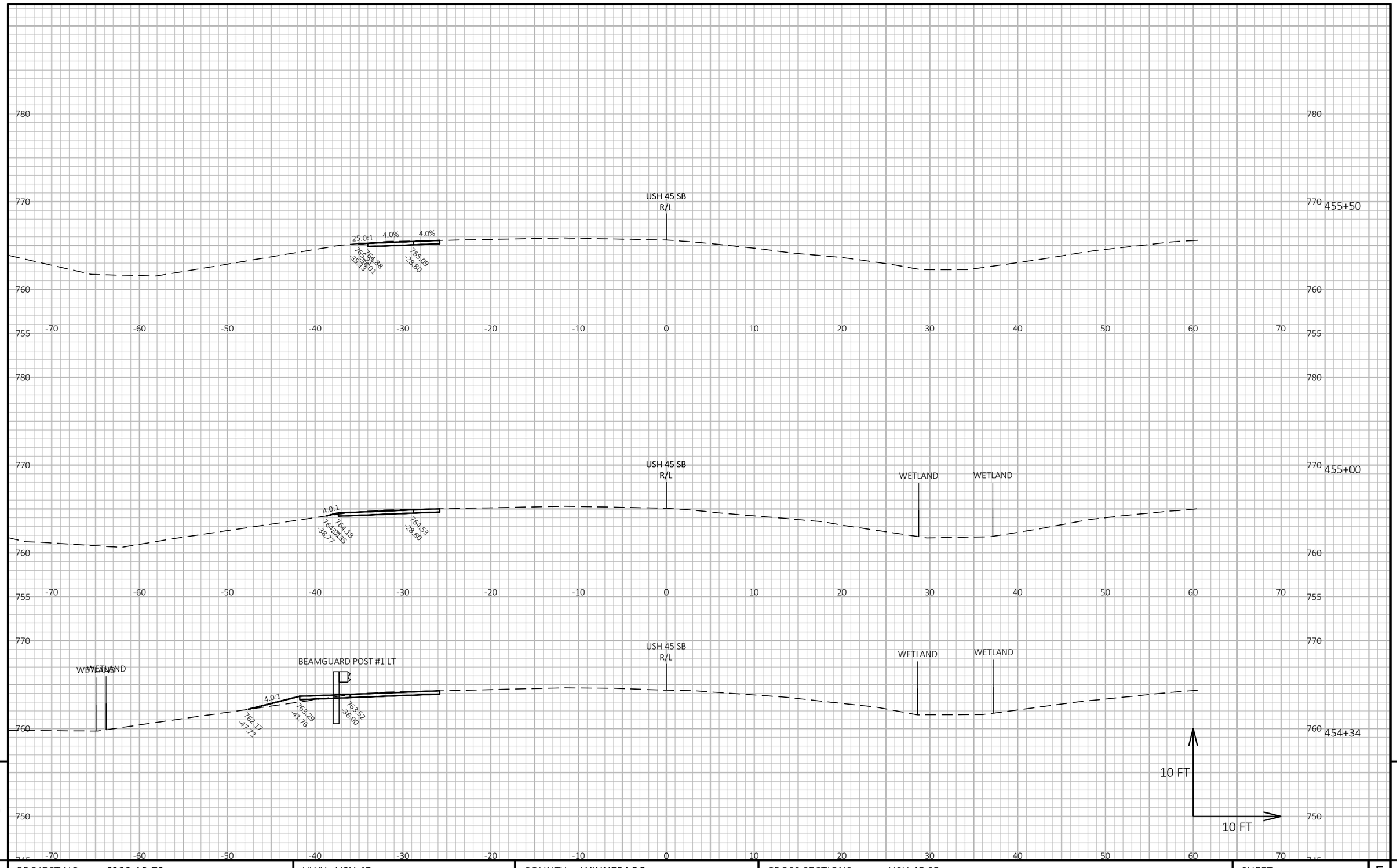
WISDOT/CADDS SHEET 49



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 424	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-T-2

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 425	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-T-3

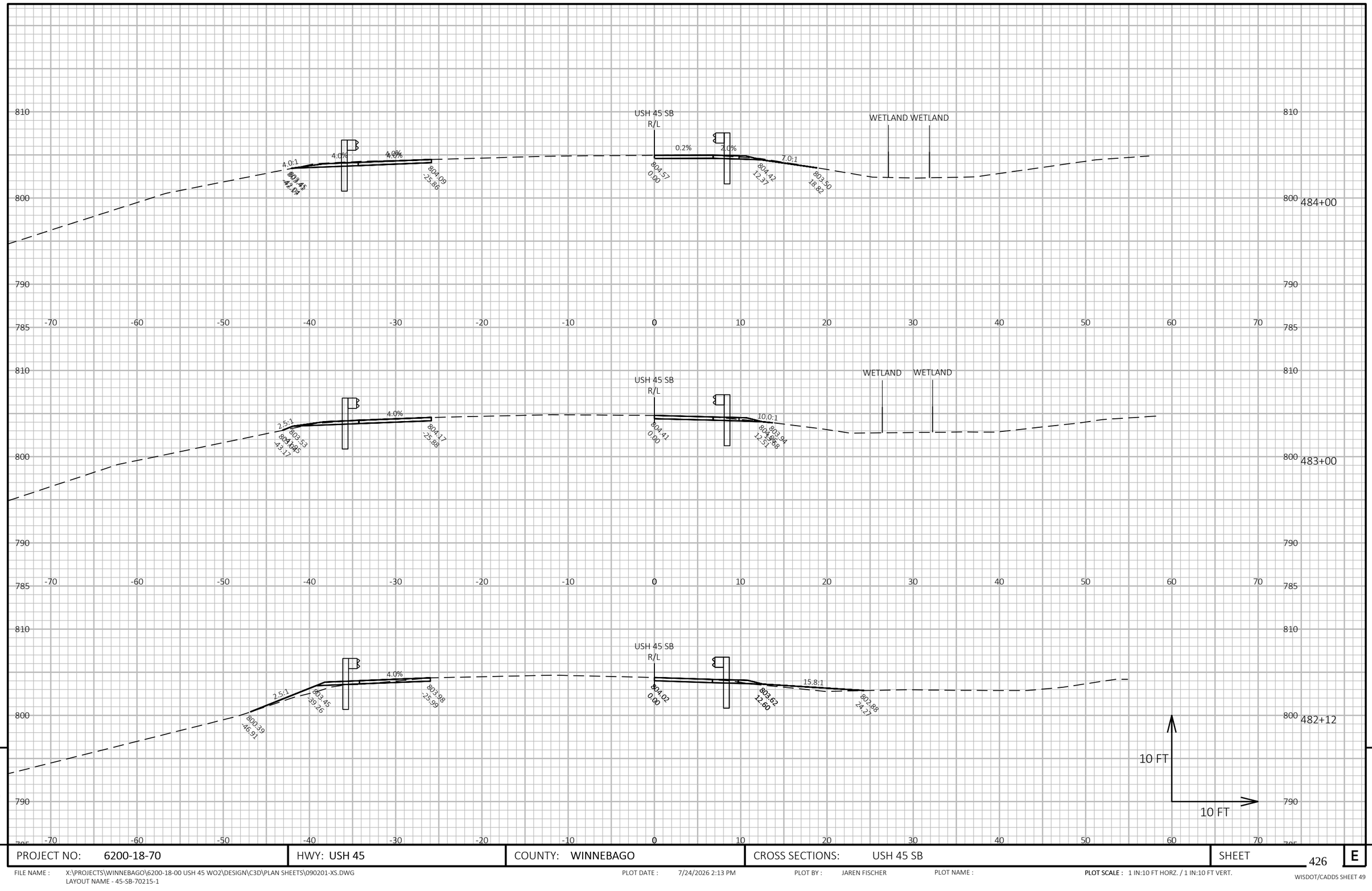
PLOT DATE : 7/24/2026 2:13 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

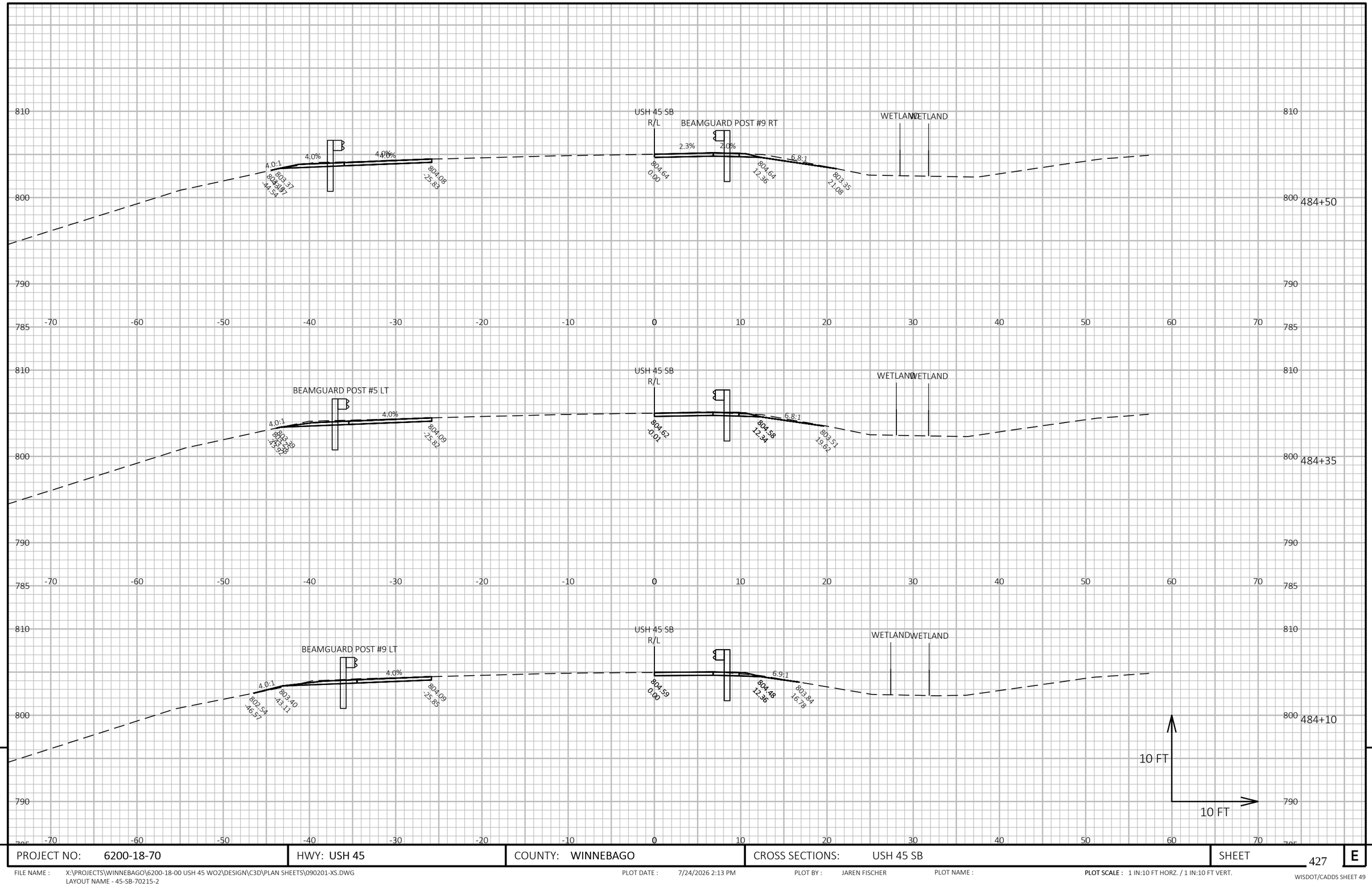


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 426	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70215-1

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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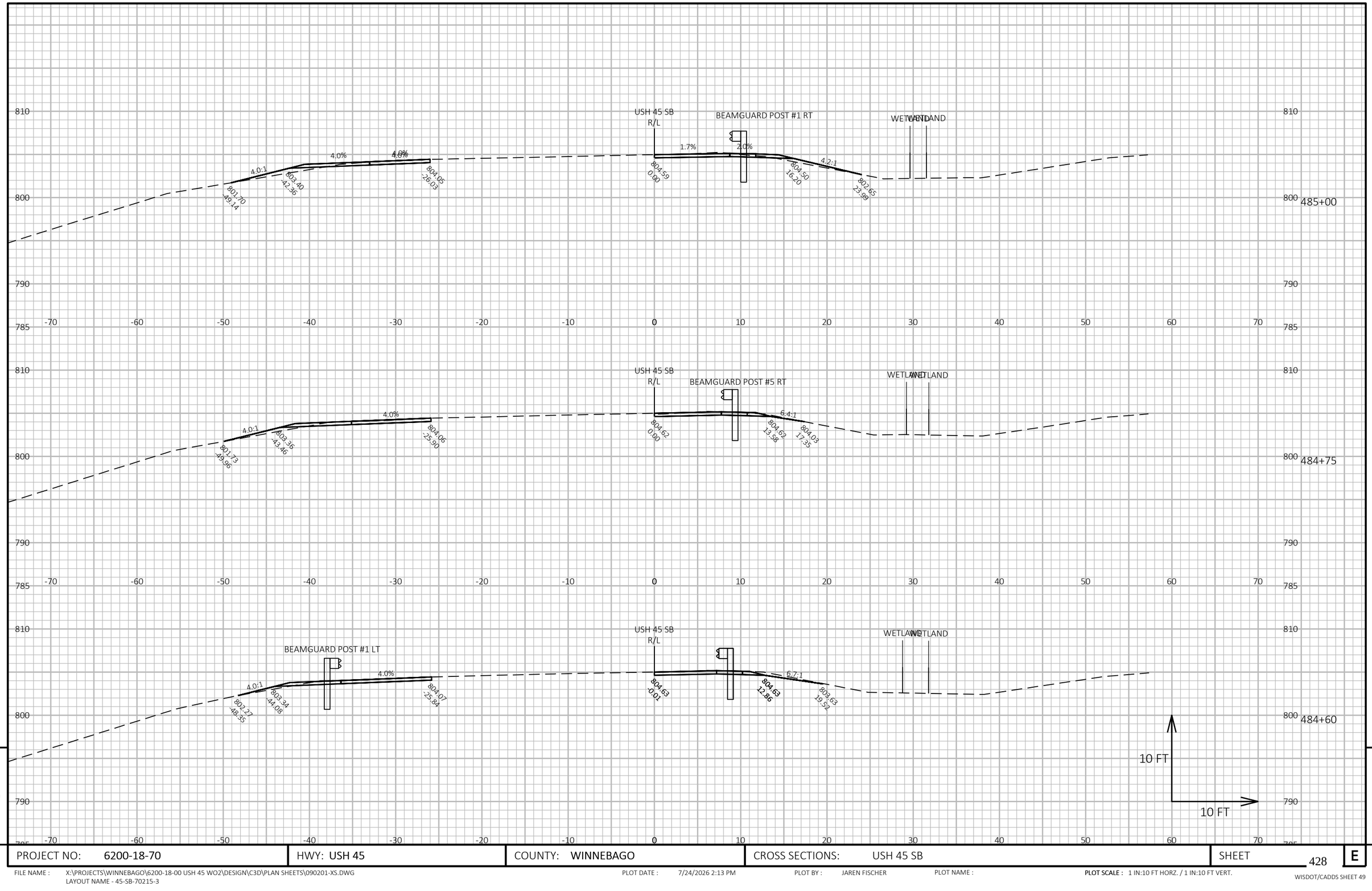
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 427	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70215-2

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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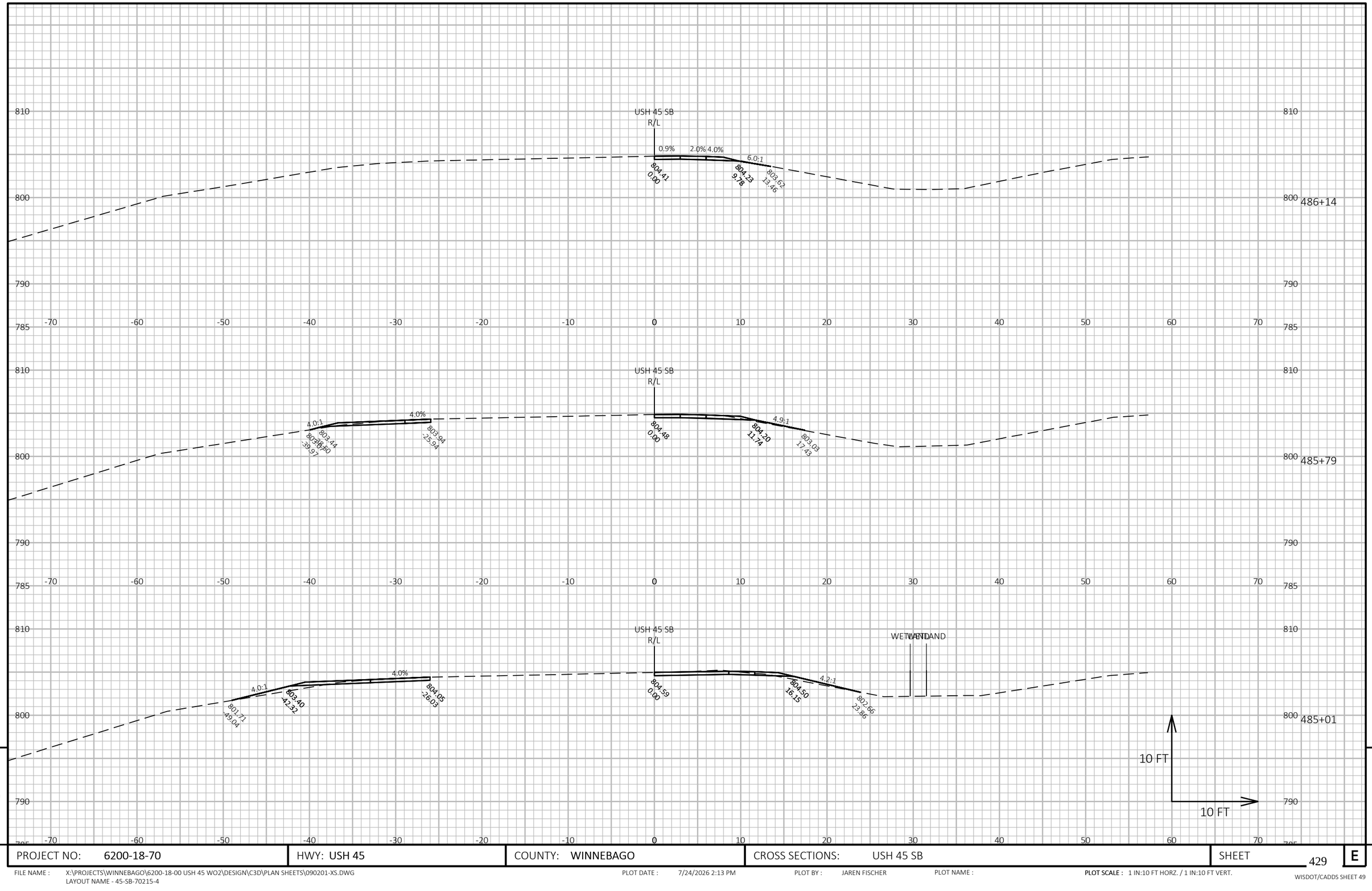
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 428	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70215-3

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

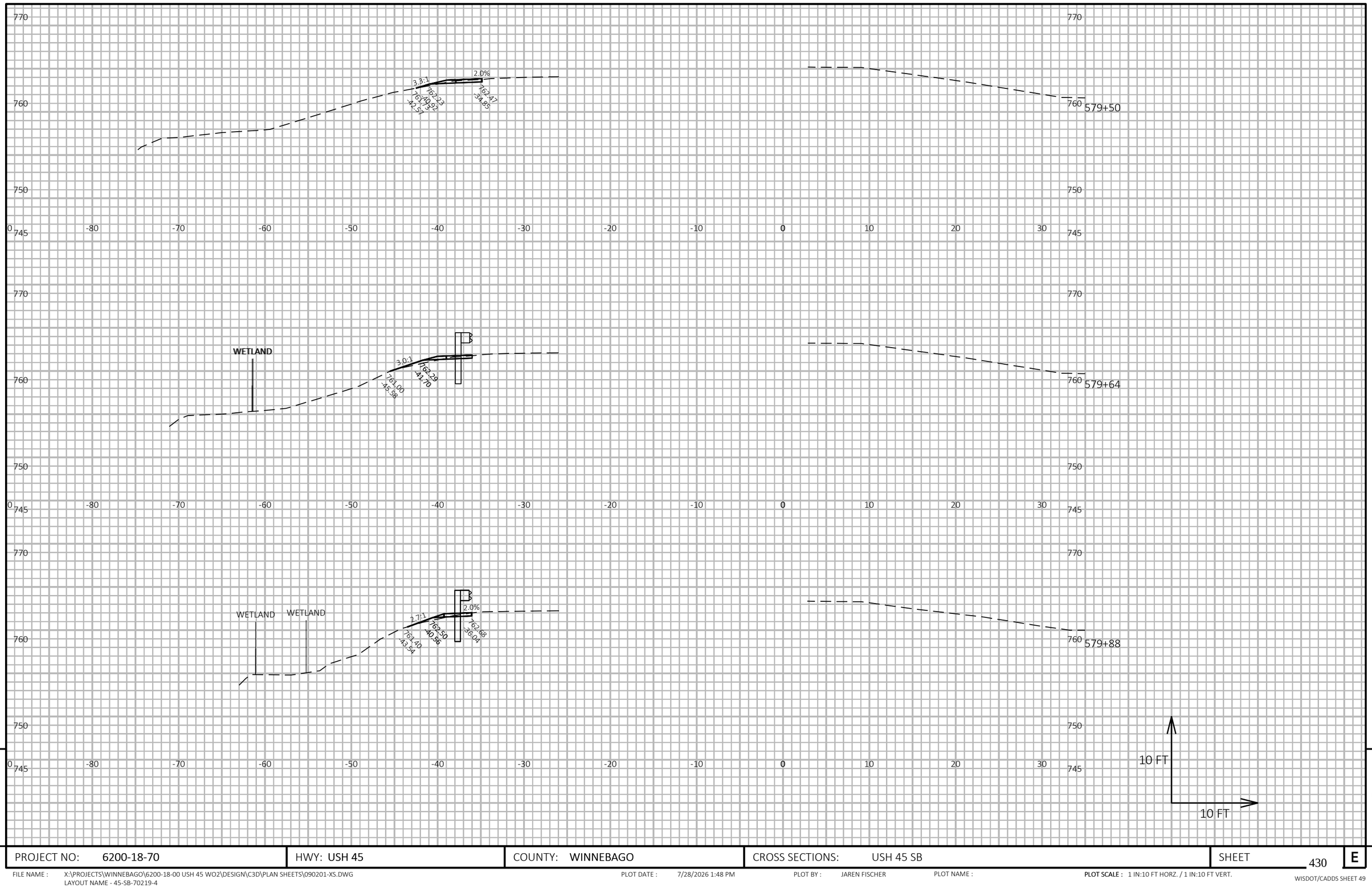


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 429 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70215-4

PLOT DATE : 7/24/2026 2:13 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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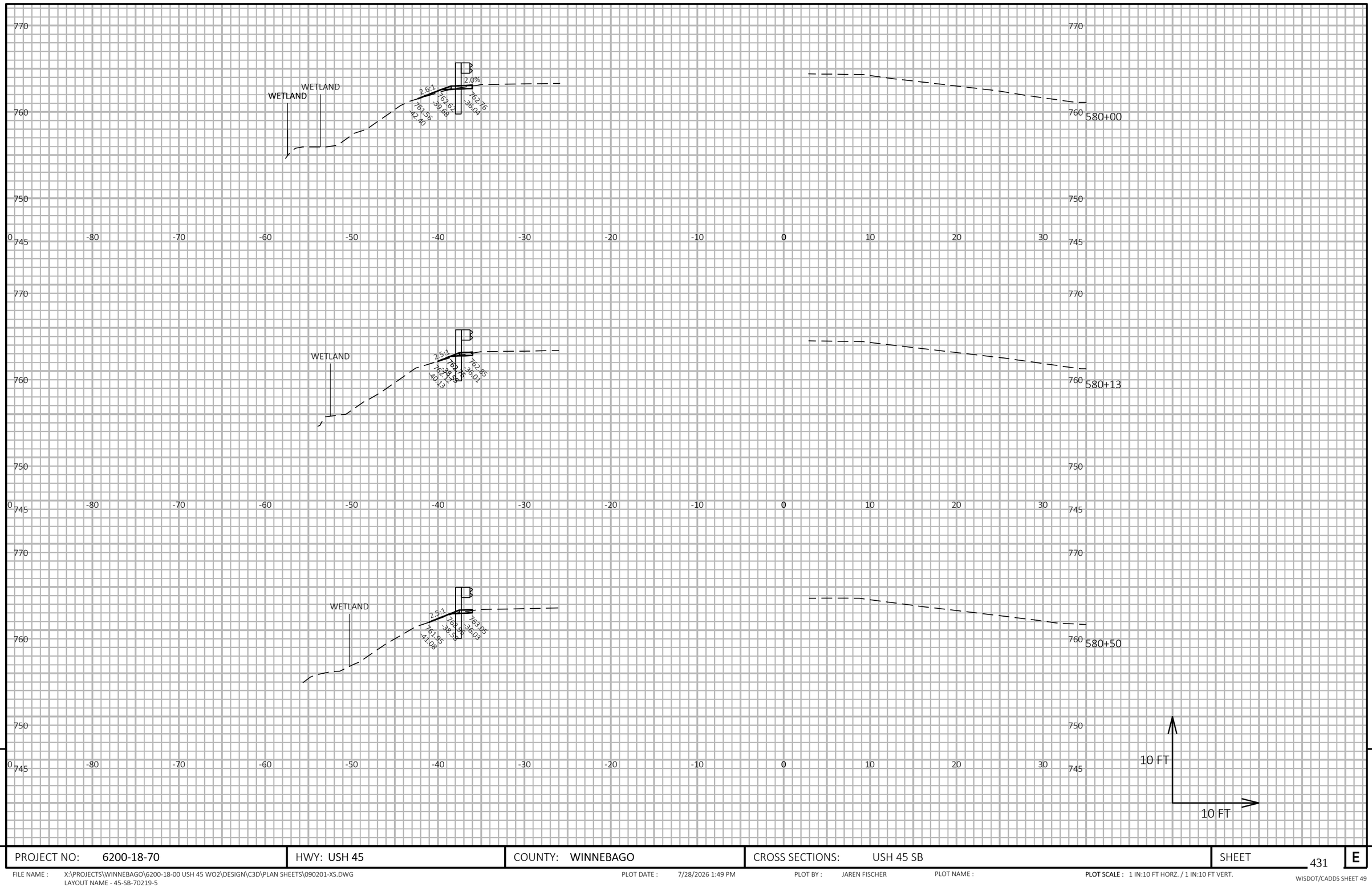
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 430	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70219-4

PLOT DATE : 7/28/2026 1:48 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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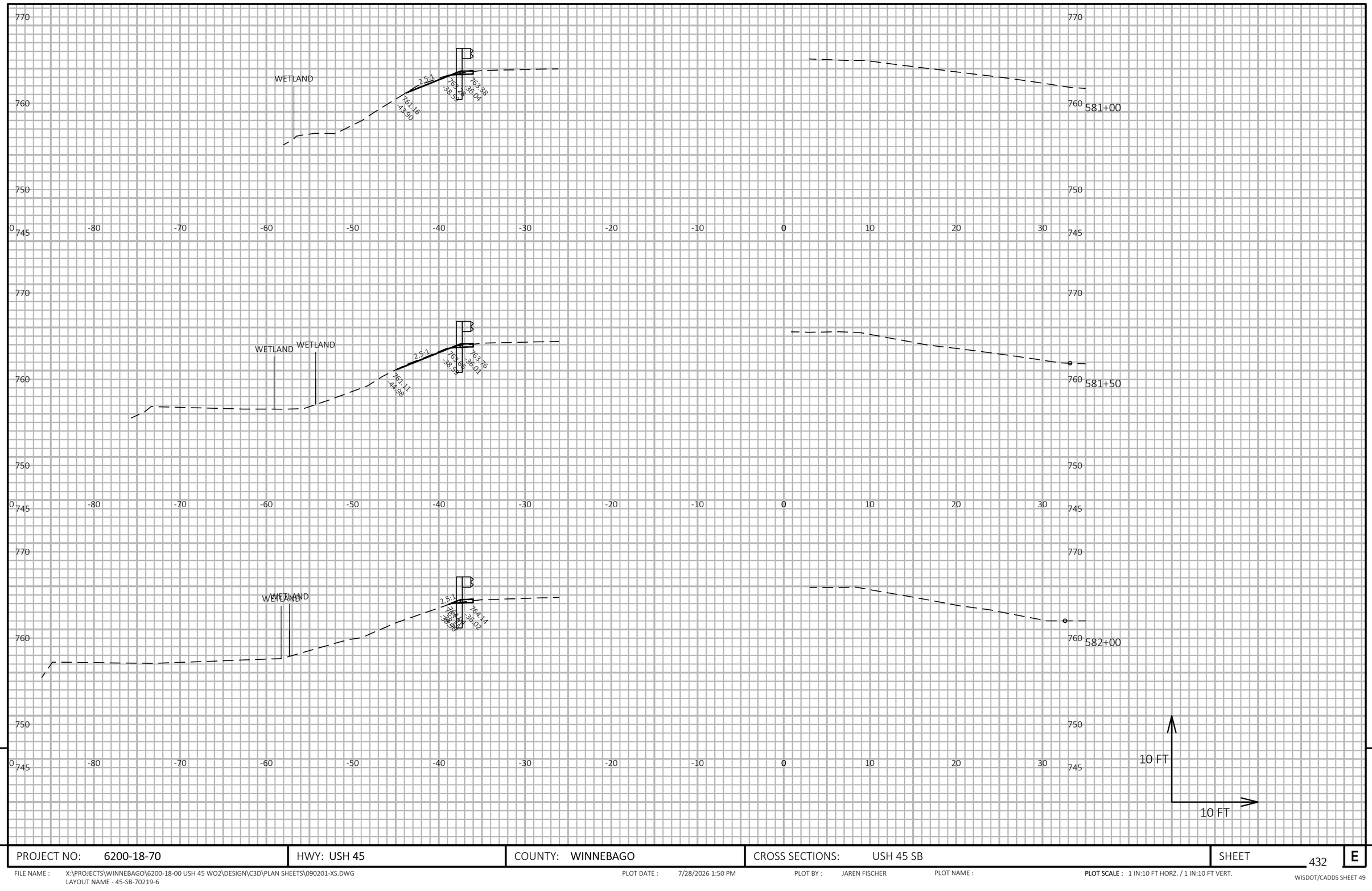
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 431	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70219-5

PLOT DATE : 7/28/2026 1:49 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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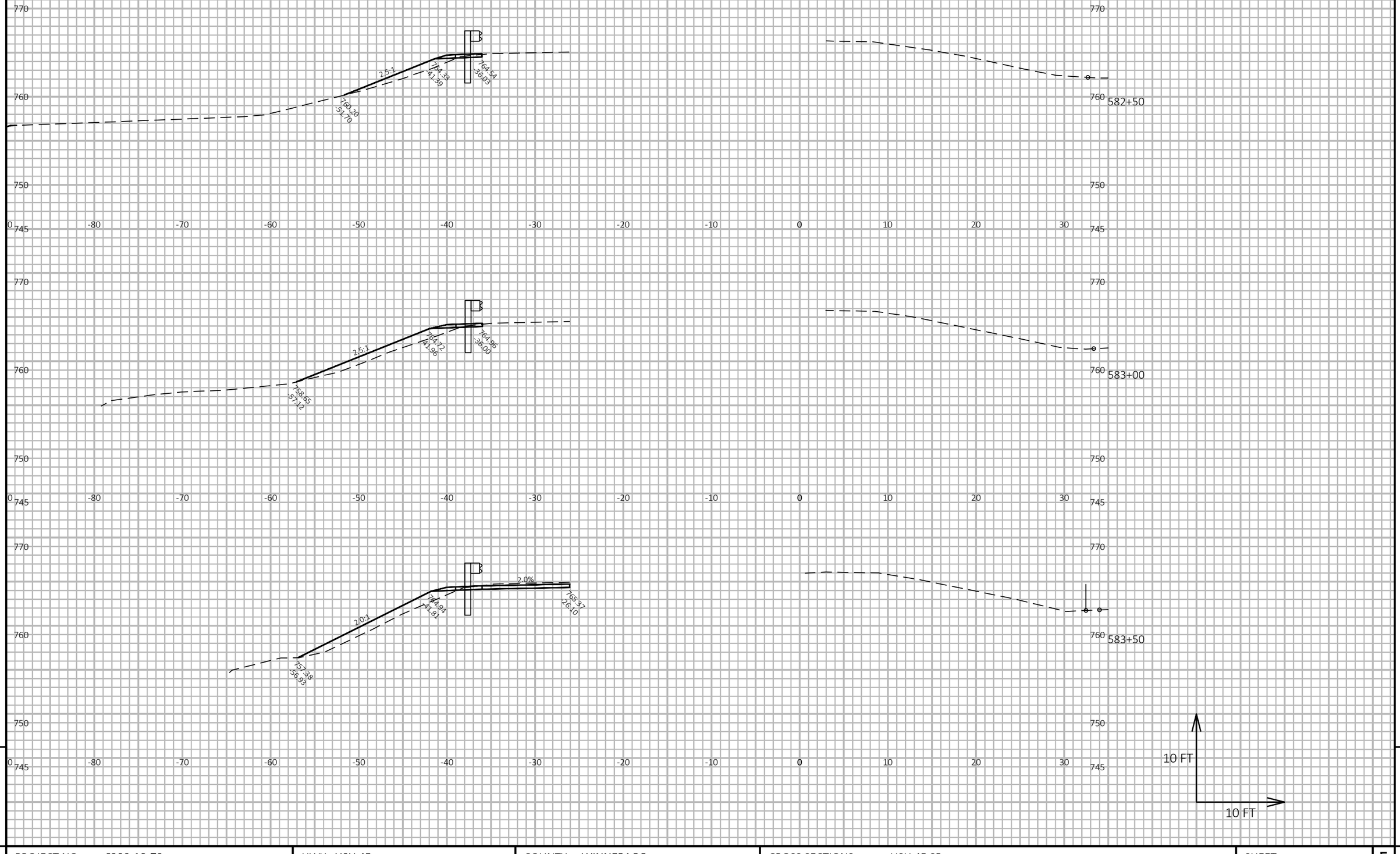
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 432	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70219-6

PLOT DATE : 7/28/2026 1:50 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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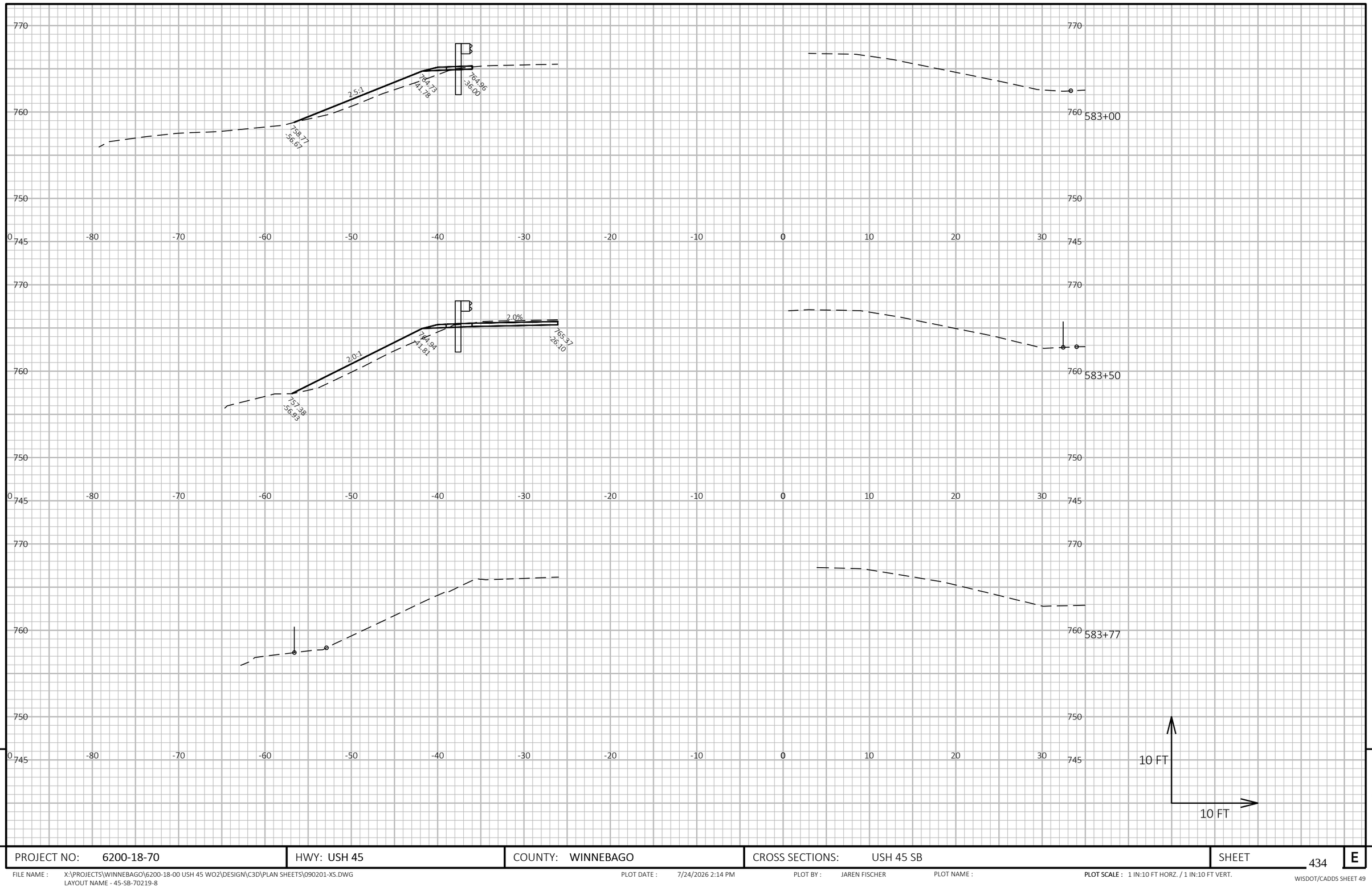
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 433	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70219-7

PLOT DATE : 7/28/2026 1:51 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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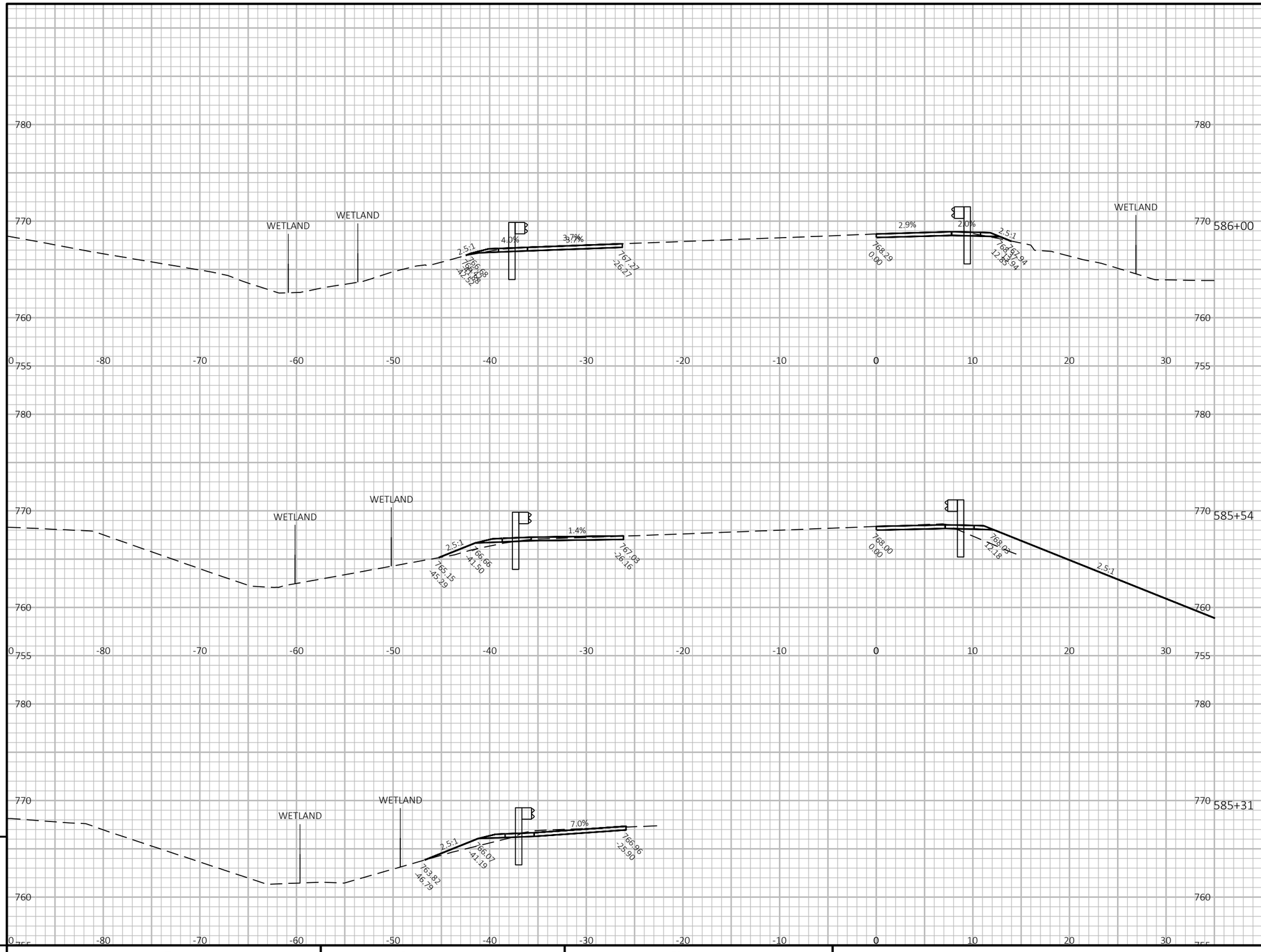
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 434	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70219-8

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 435	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70218-1

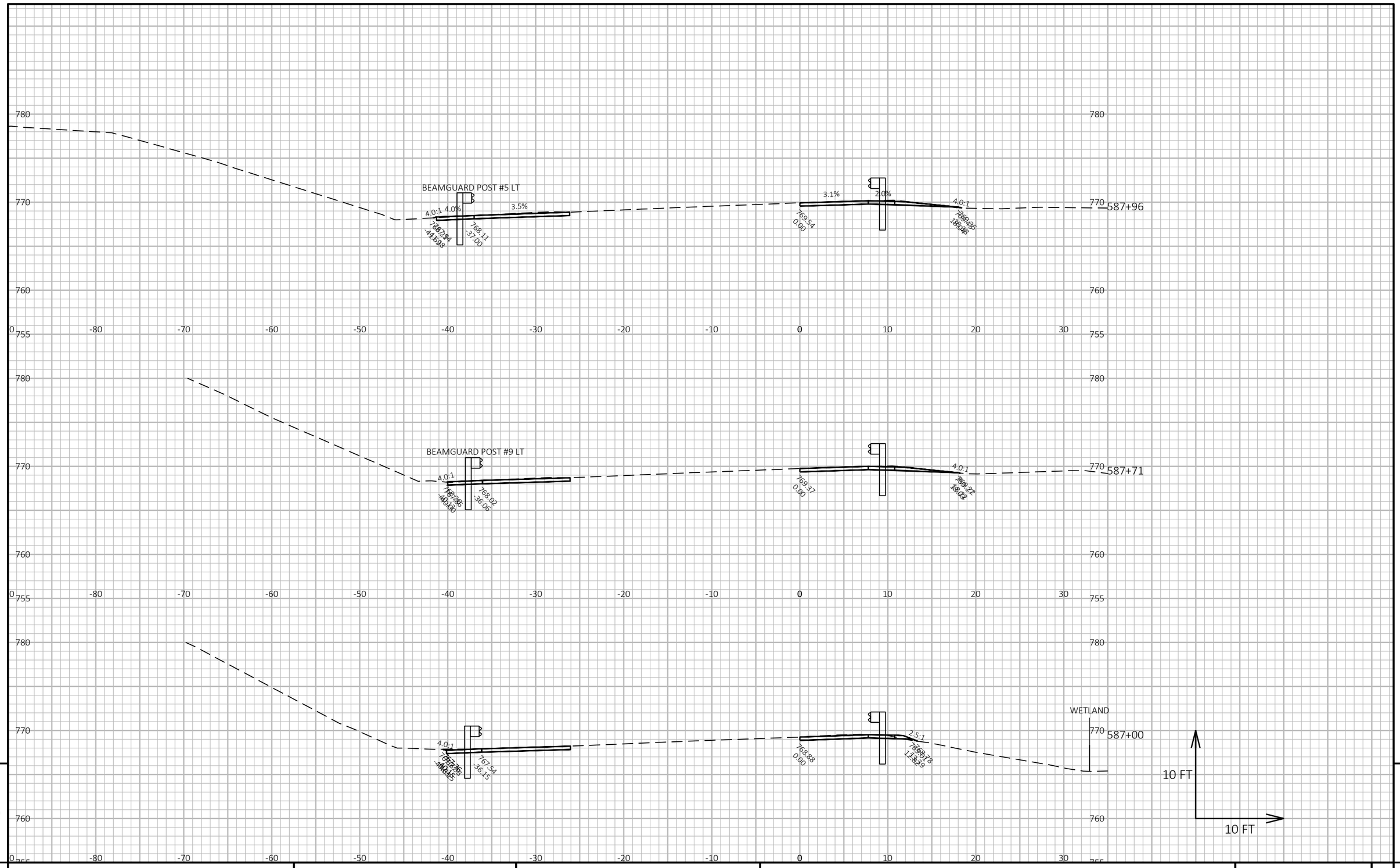
PLOT DATE : 7/24/2026 2:14 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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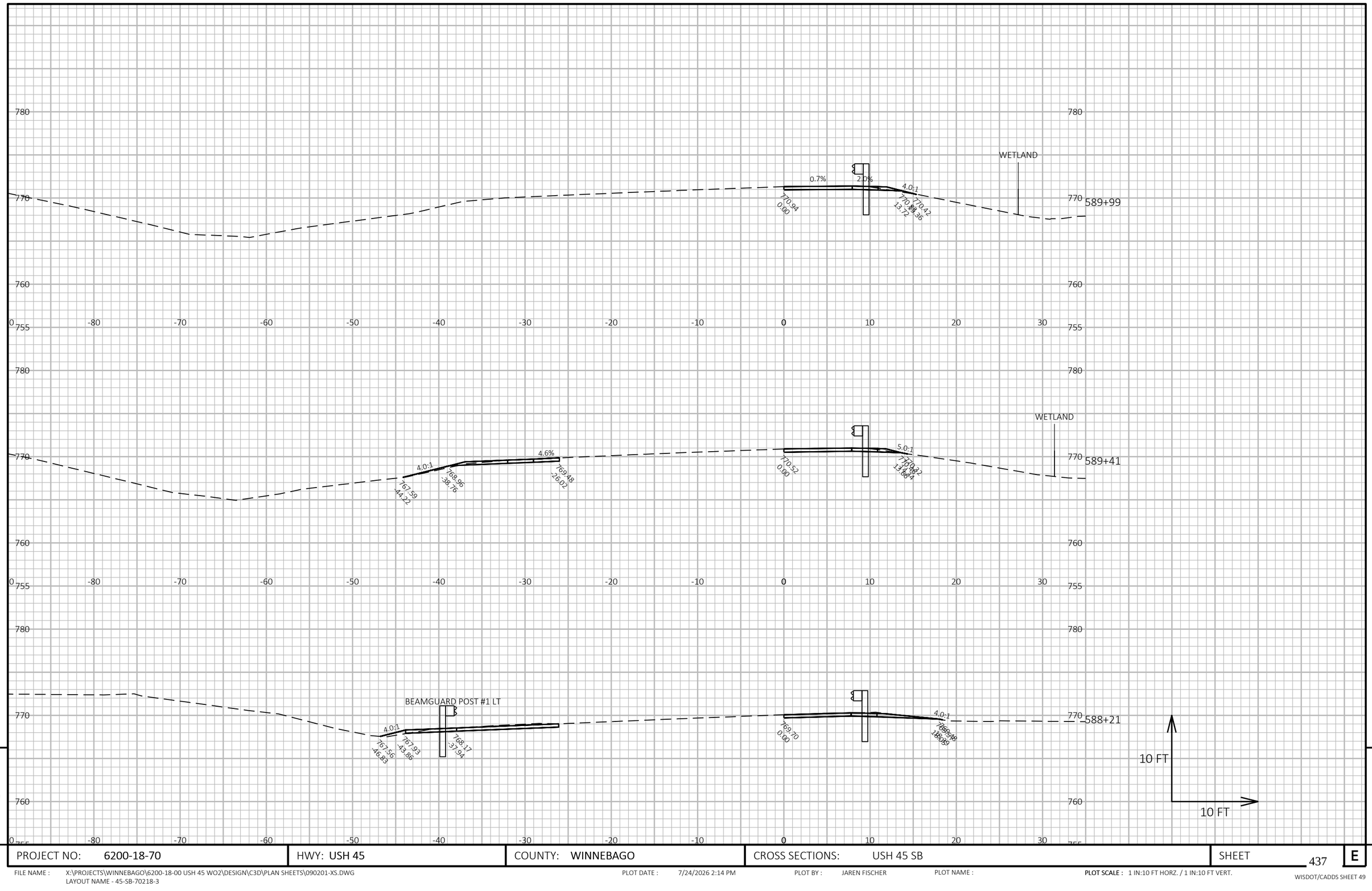
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 436	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70218-2

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

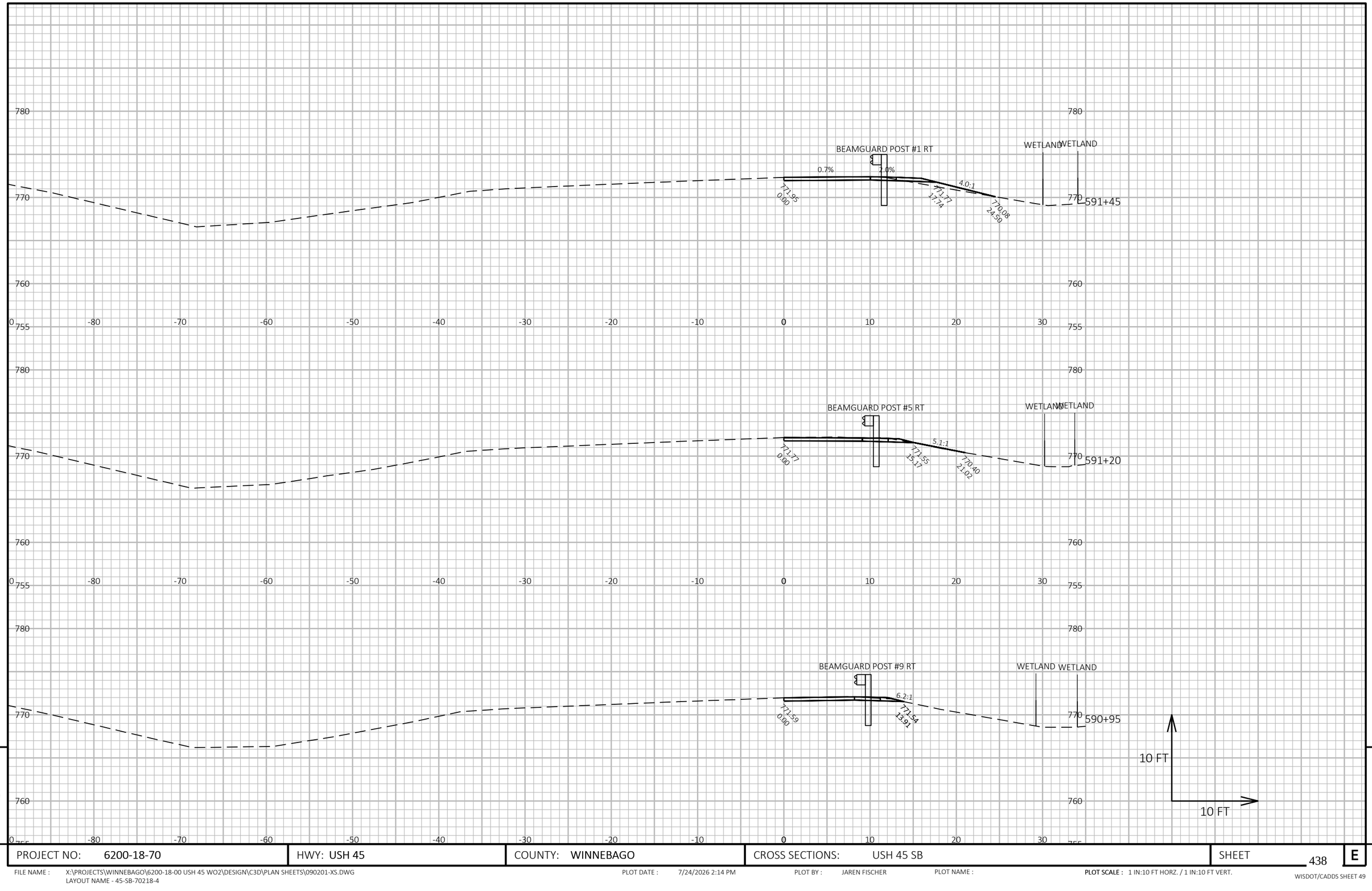


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 437	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70218-3

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 438	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70218-4

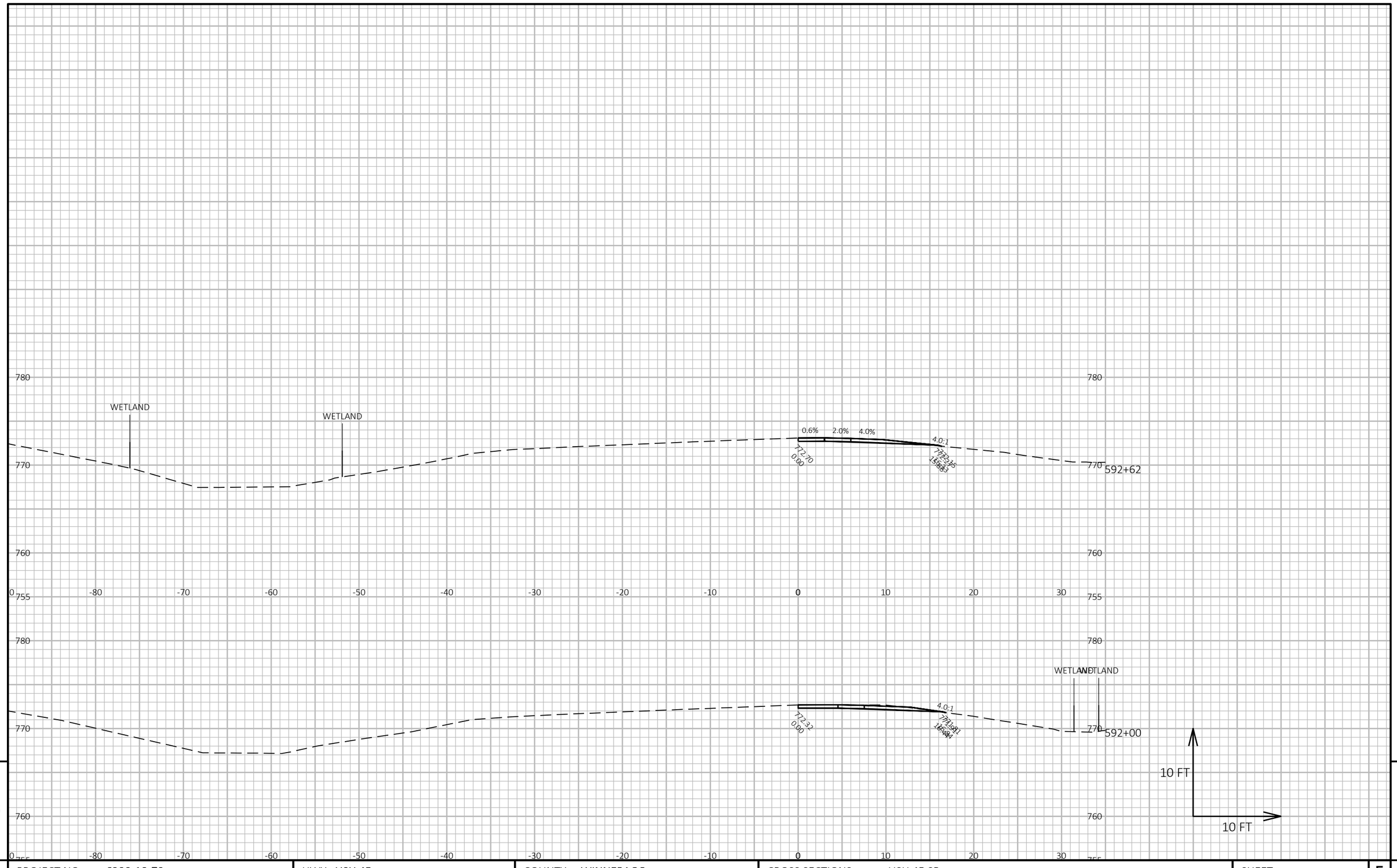
PLOT DATE : 7/24/2026 2:14 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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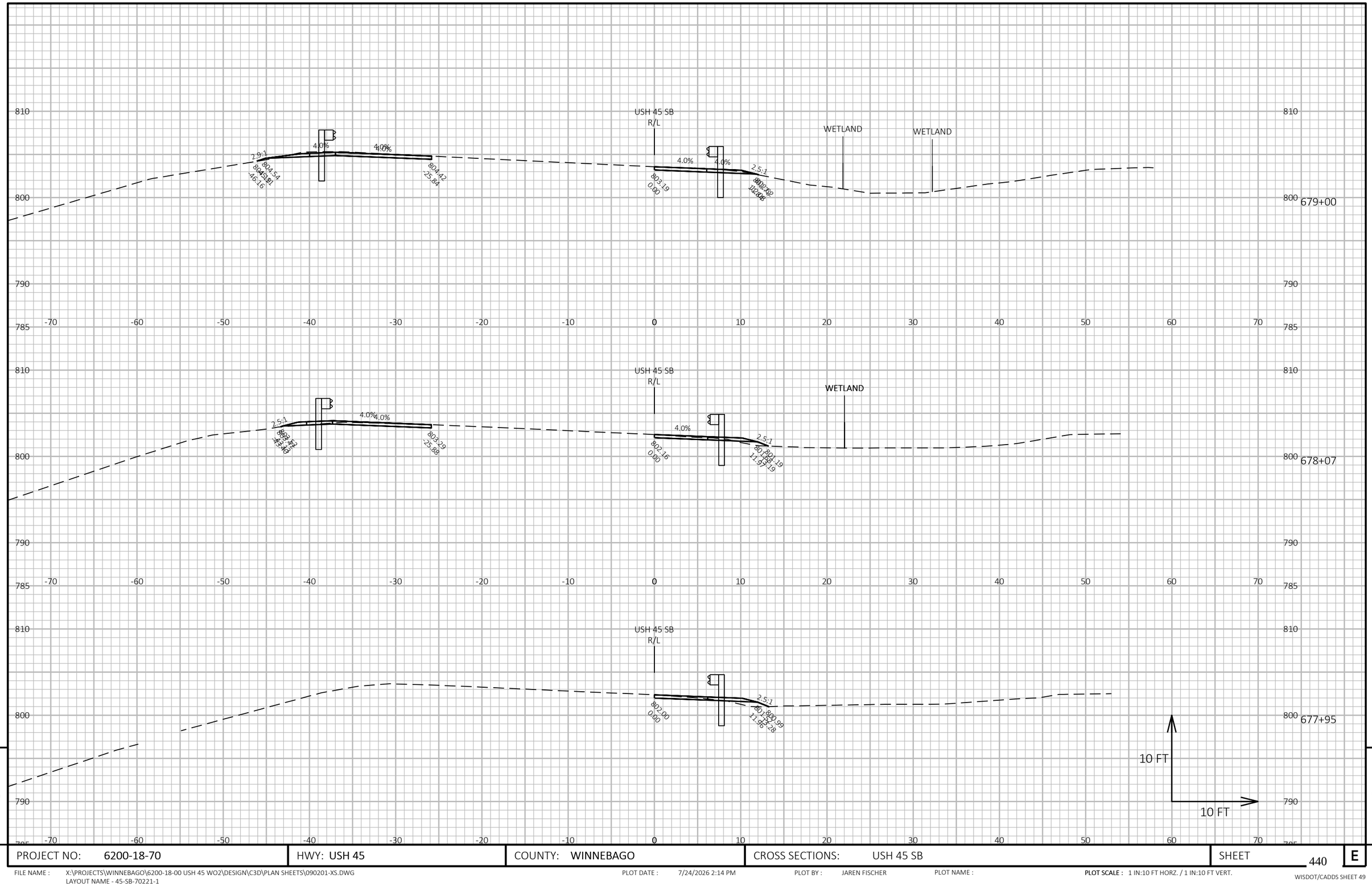
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 439	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70218-5

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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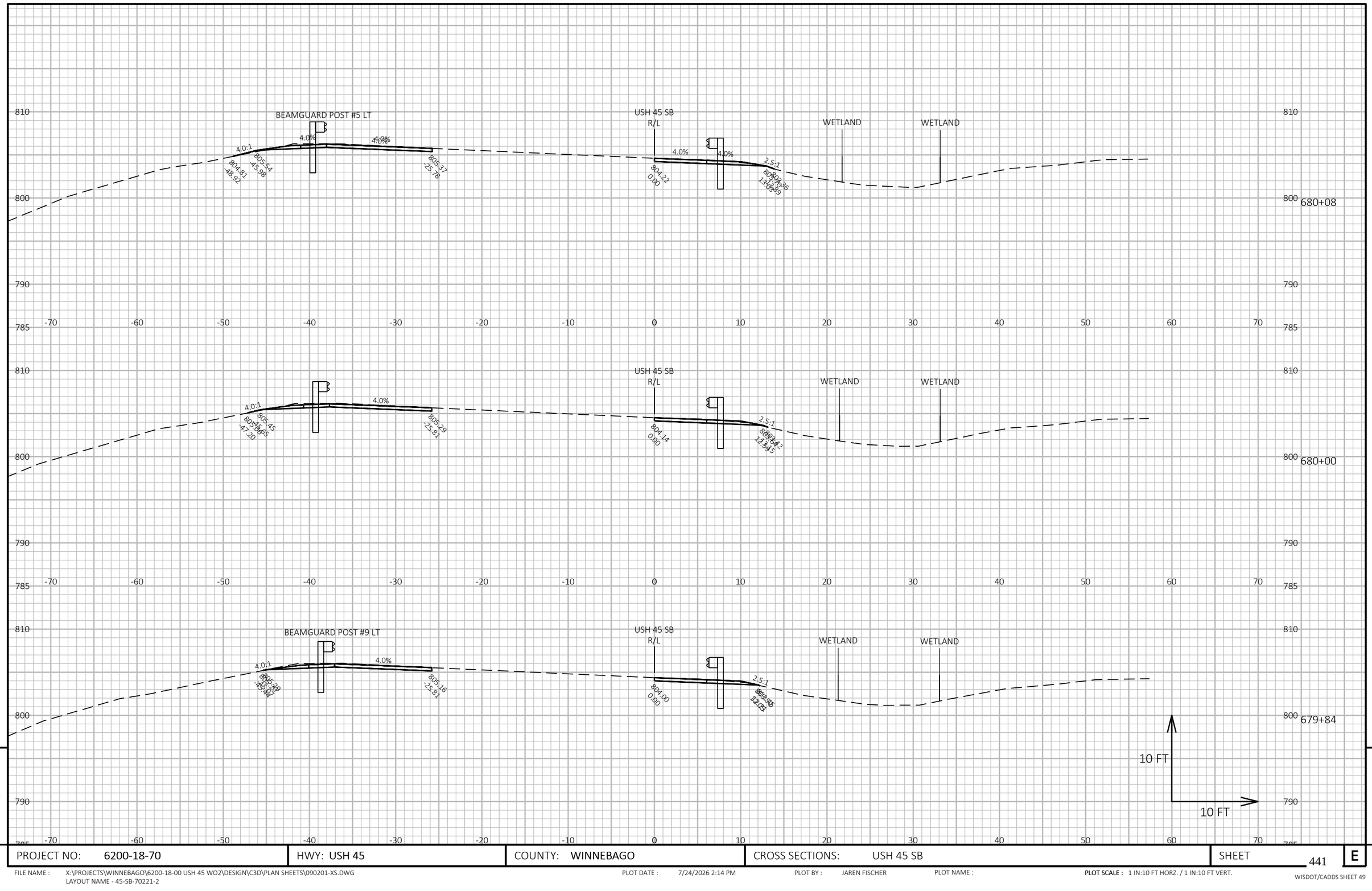
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 440	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70221-1

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

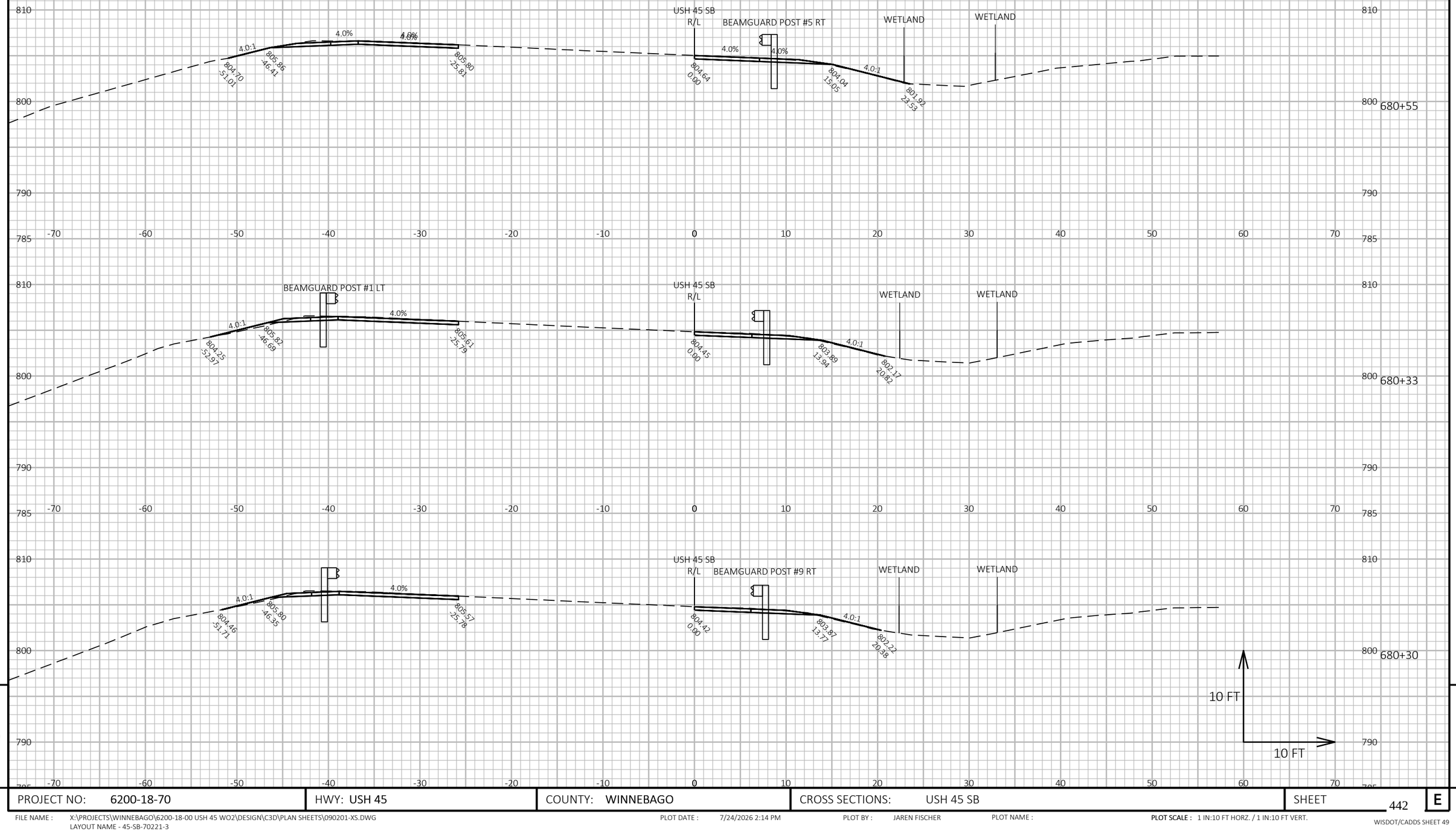


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 441	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70221-2

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

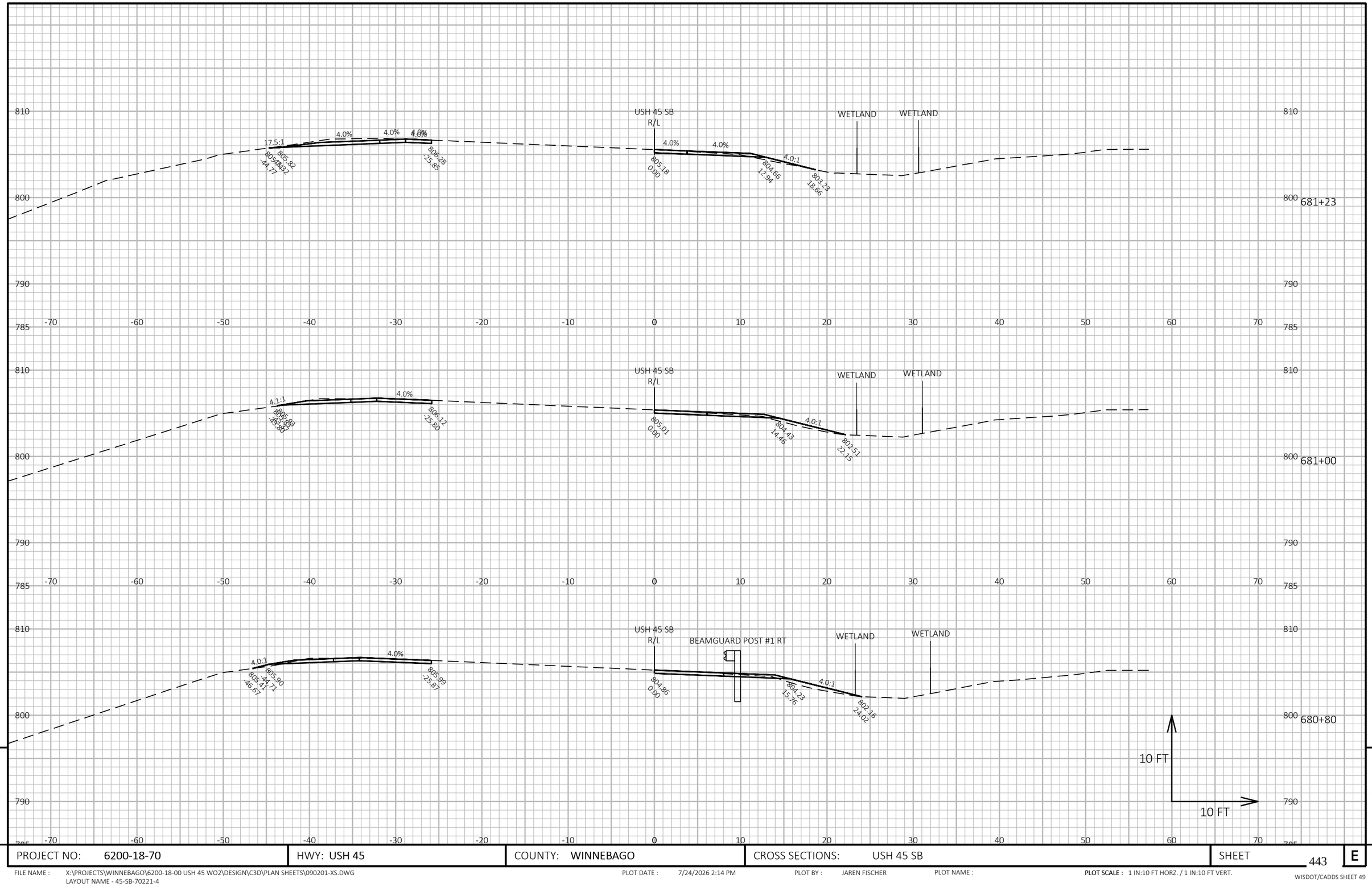


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 442	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70221-3

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

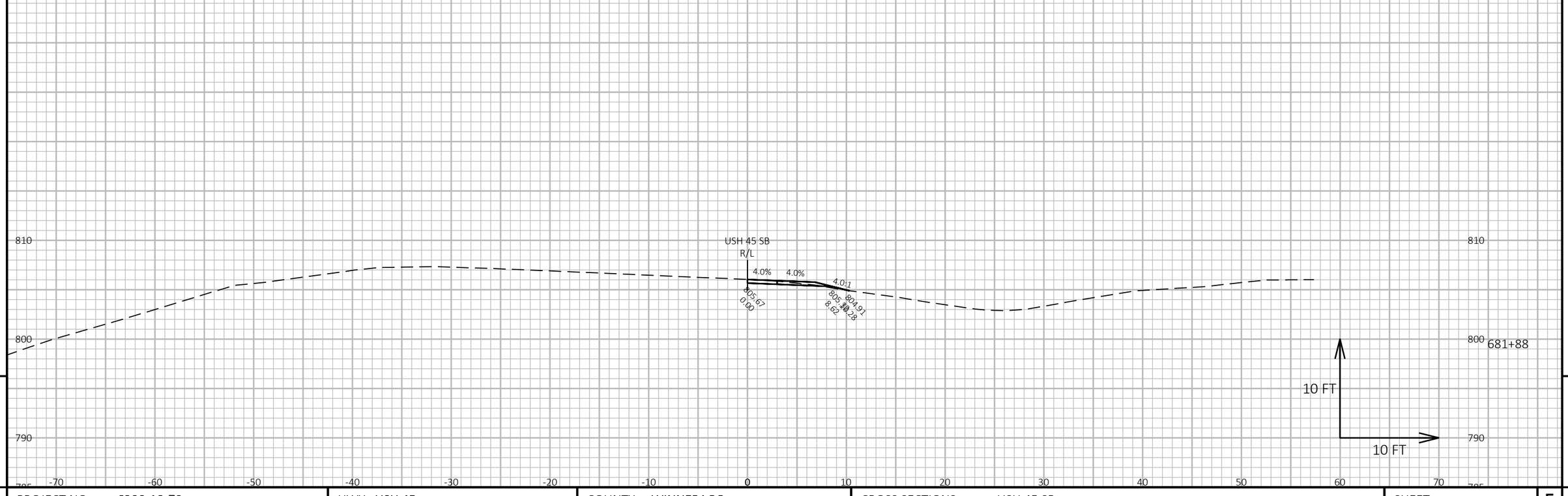


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 443 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70221-4

PLOT DATE : 7/24/2026 2:14 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 444	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - 45-SB-70221-5

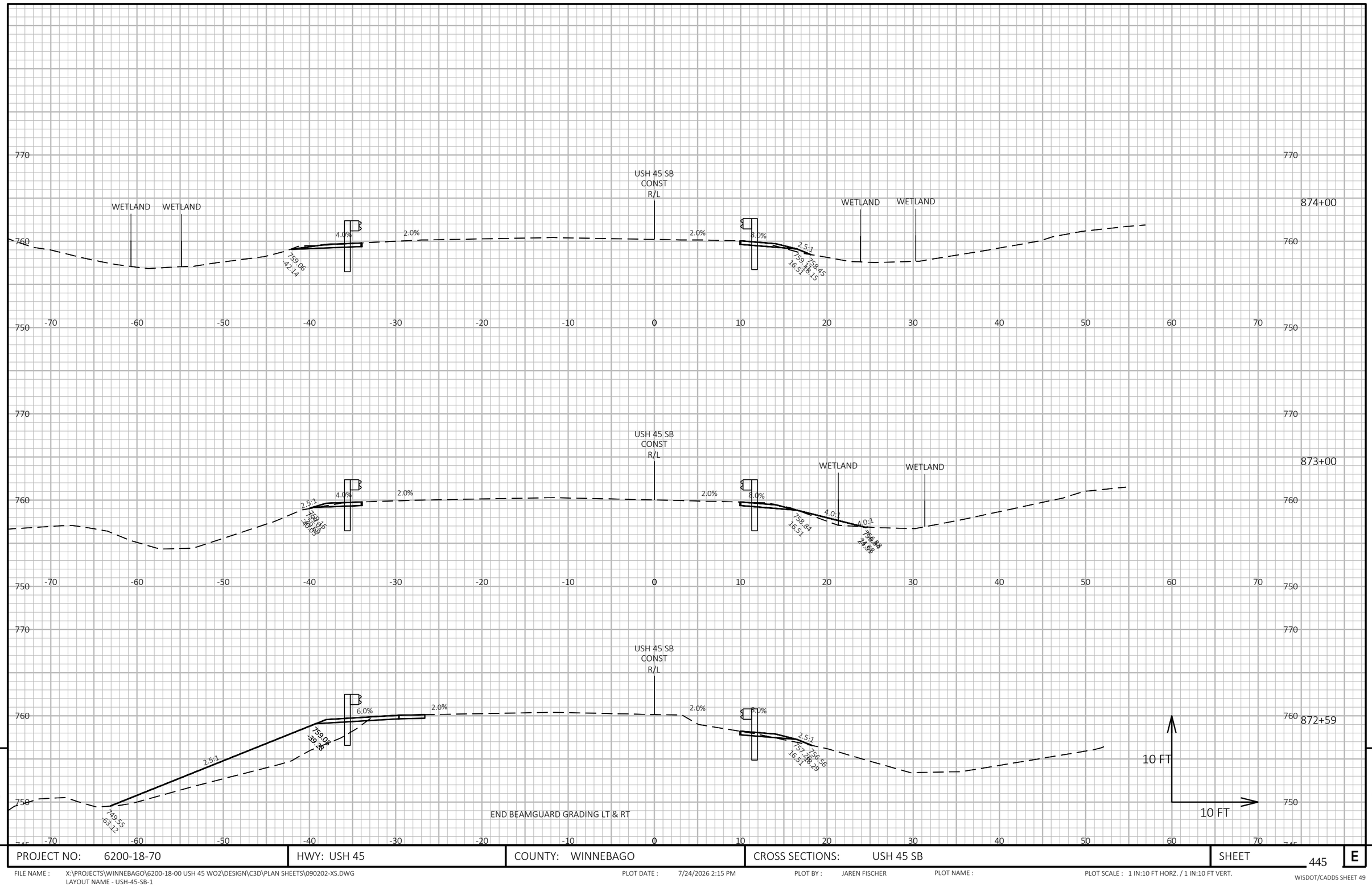
PLOT DATE : 7/24/2026 2:14 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

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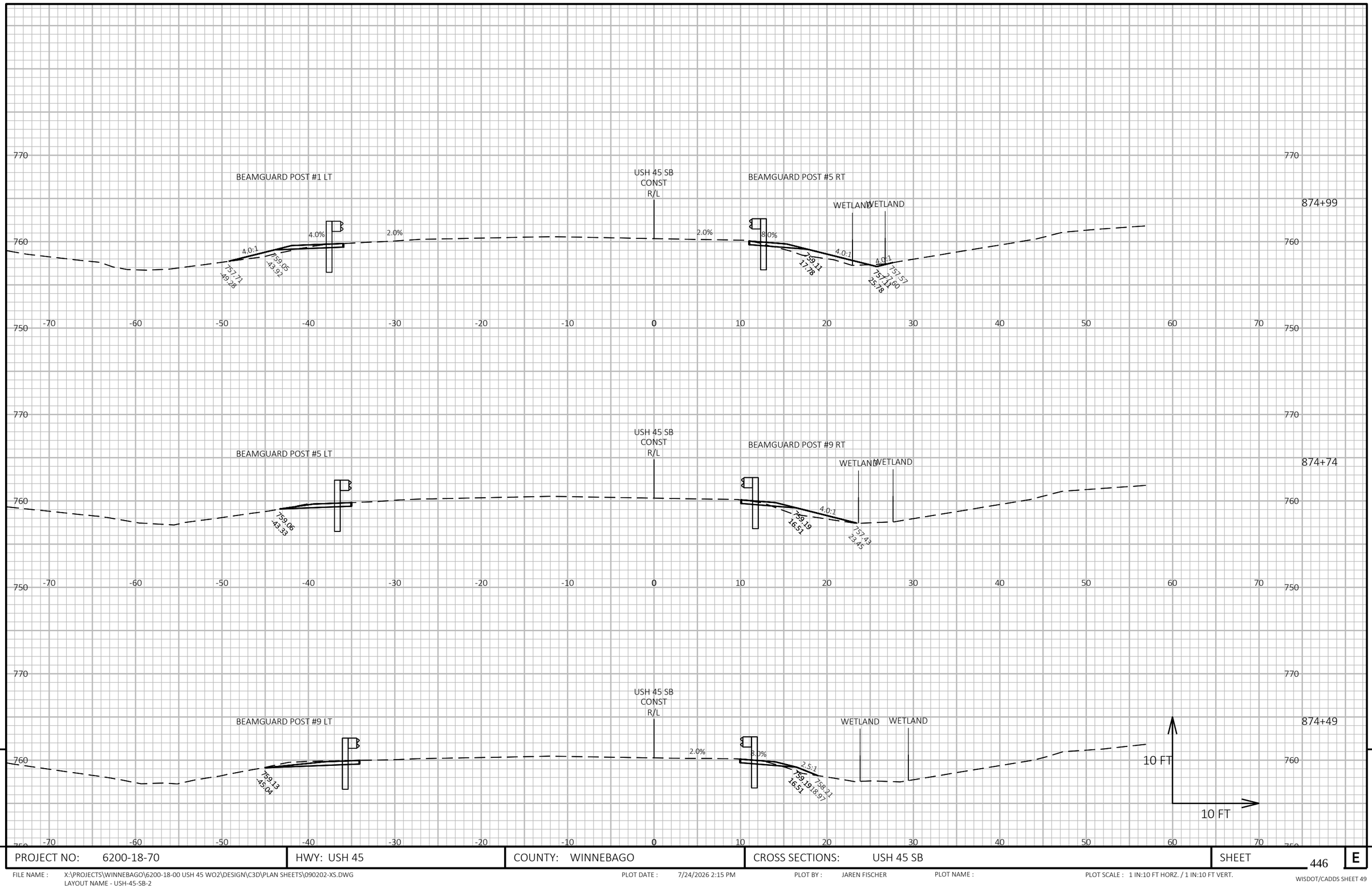
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 445	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-SB-1

PLOT DATE : 7/24/2026 2:15 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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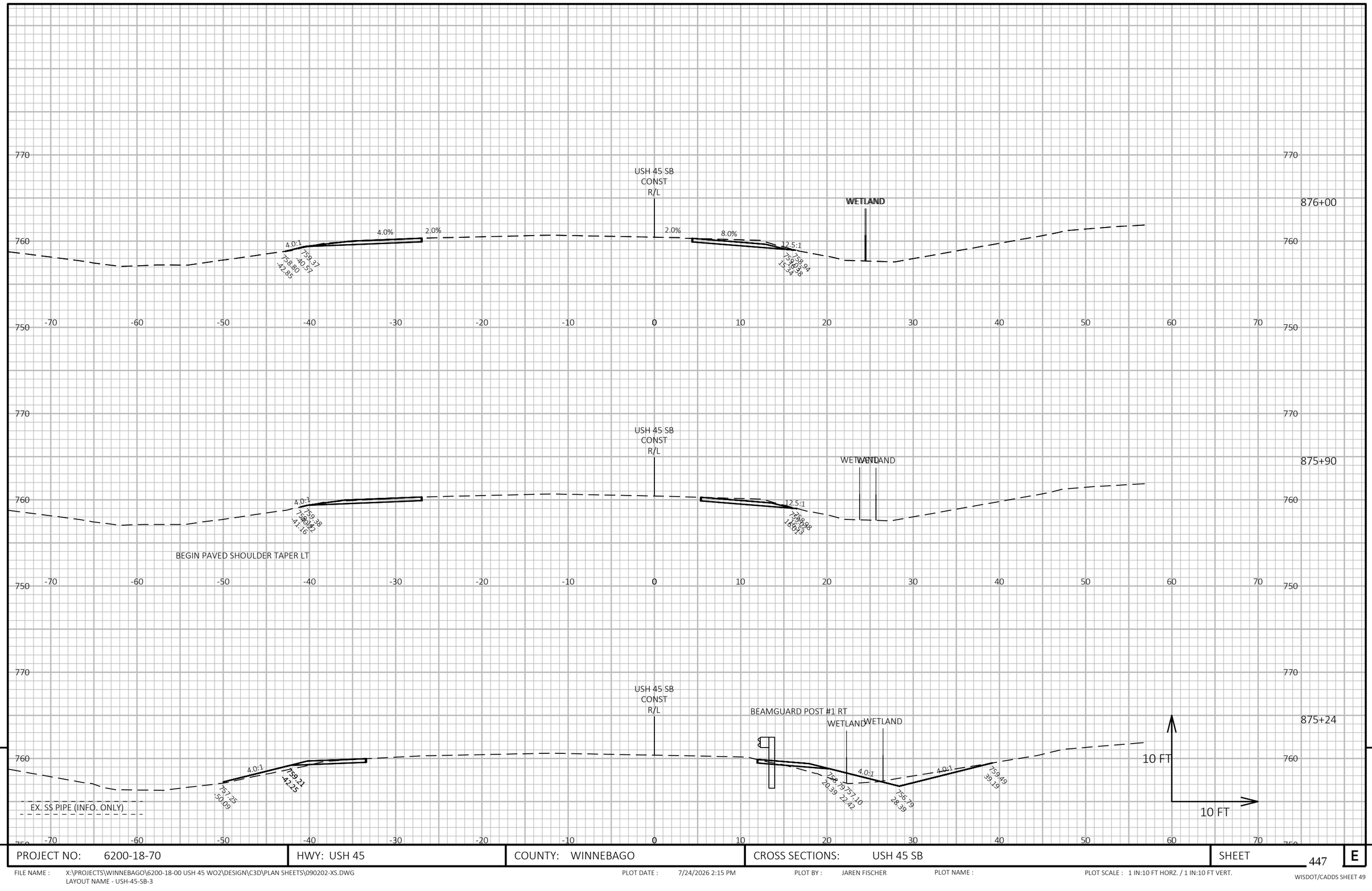
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 446	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-SB-2

PLOT DATE : 7/24/2026 2:15 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

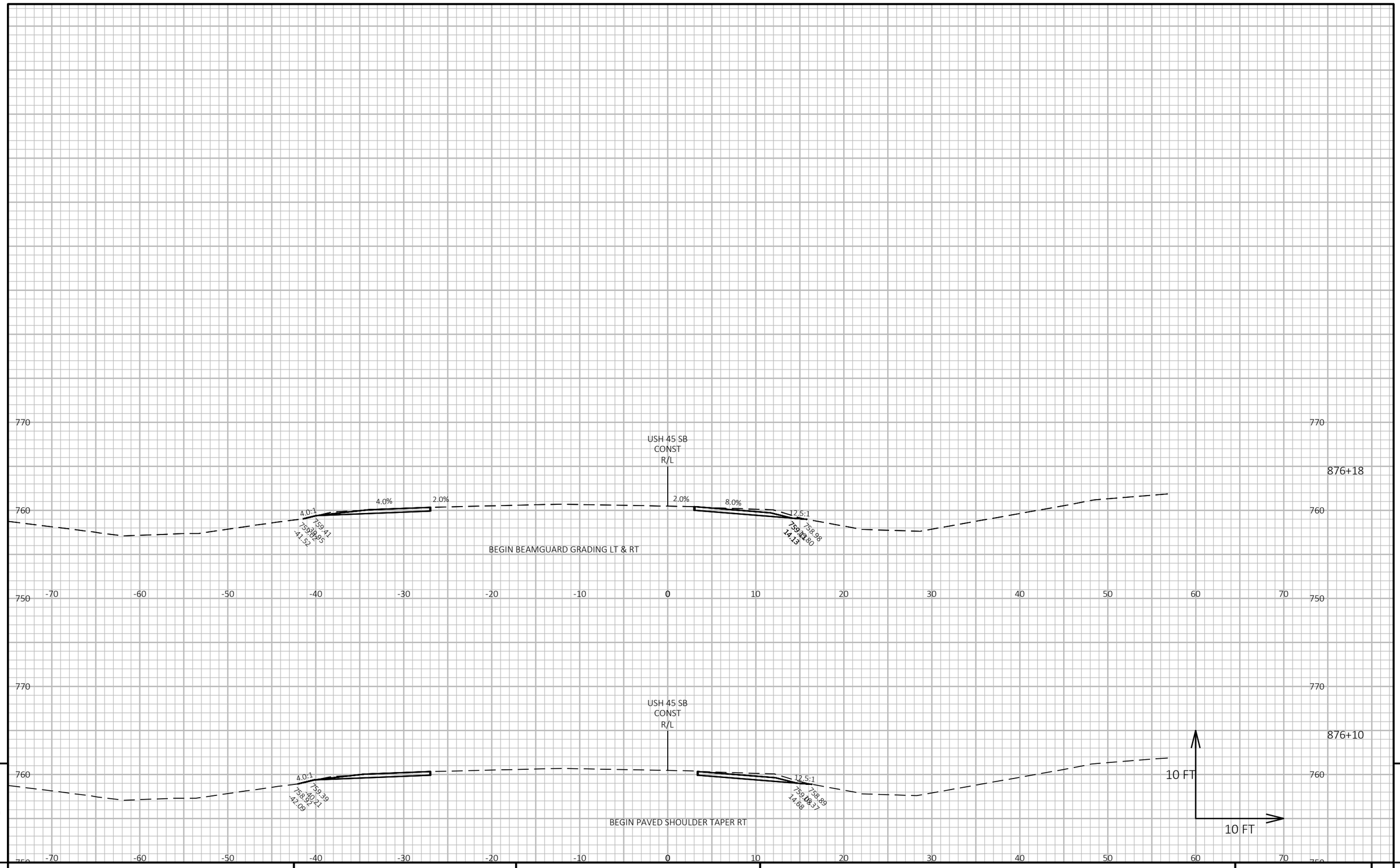


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 447	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-SB-3

PLOT DATE : 7/24/2026 2:15 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

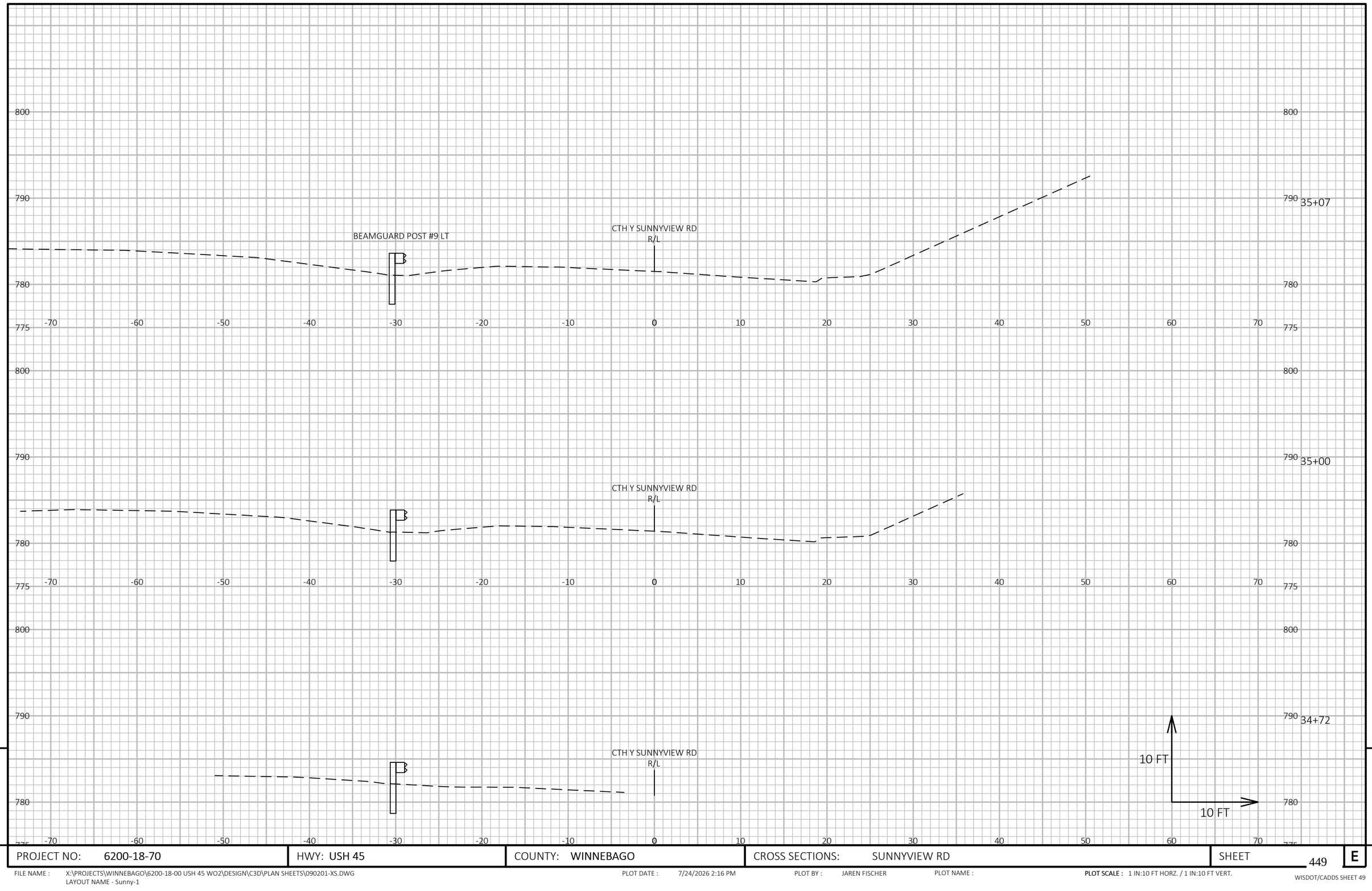


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 SB	SHEET 448	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - USH-45-SB-4

PLOT DATE : 7/24/2026 2:15 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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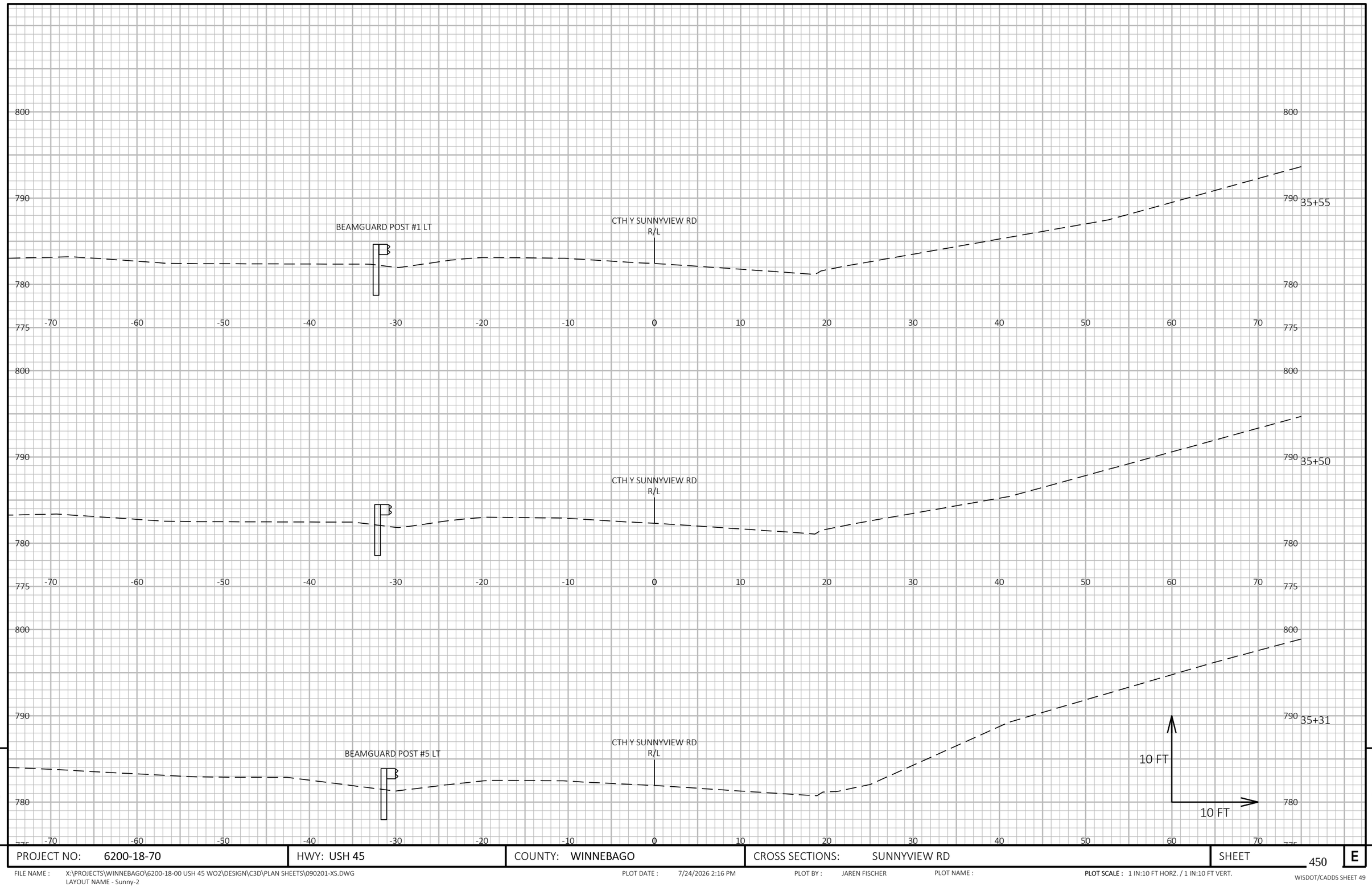
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SUNNYVIEW RD	SHEET 449	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Sunny-1

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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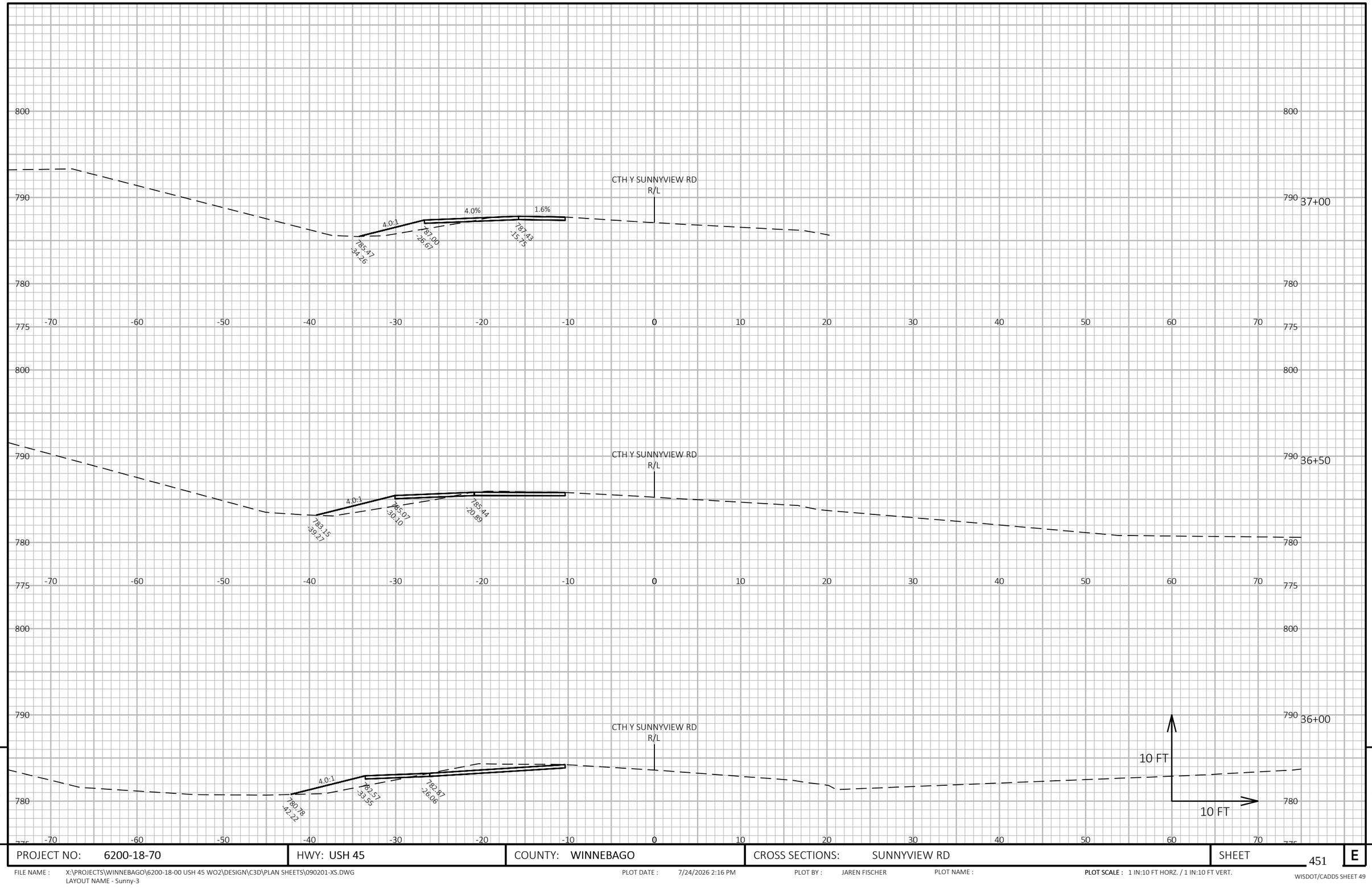
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SUNNYVIEW RD	SHEET 450	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Sunny-2

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

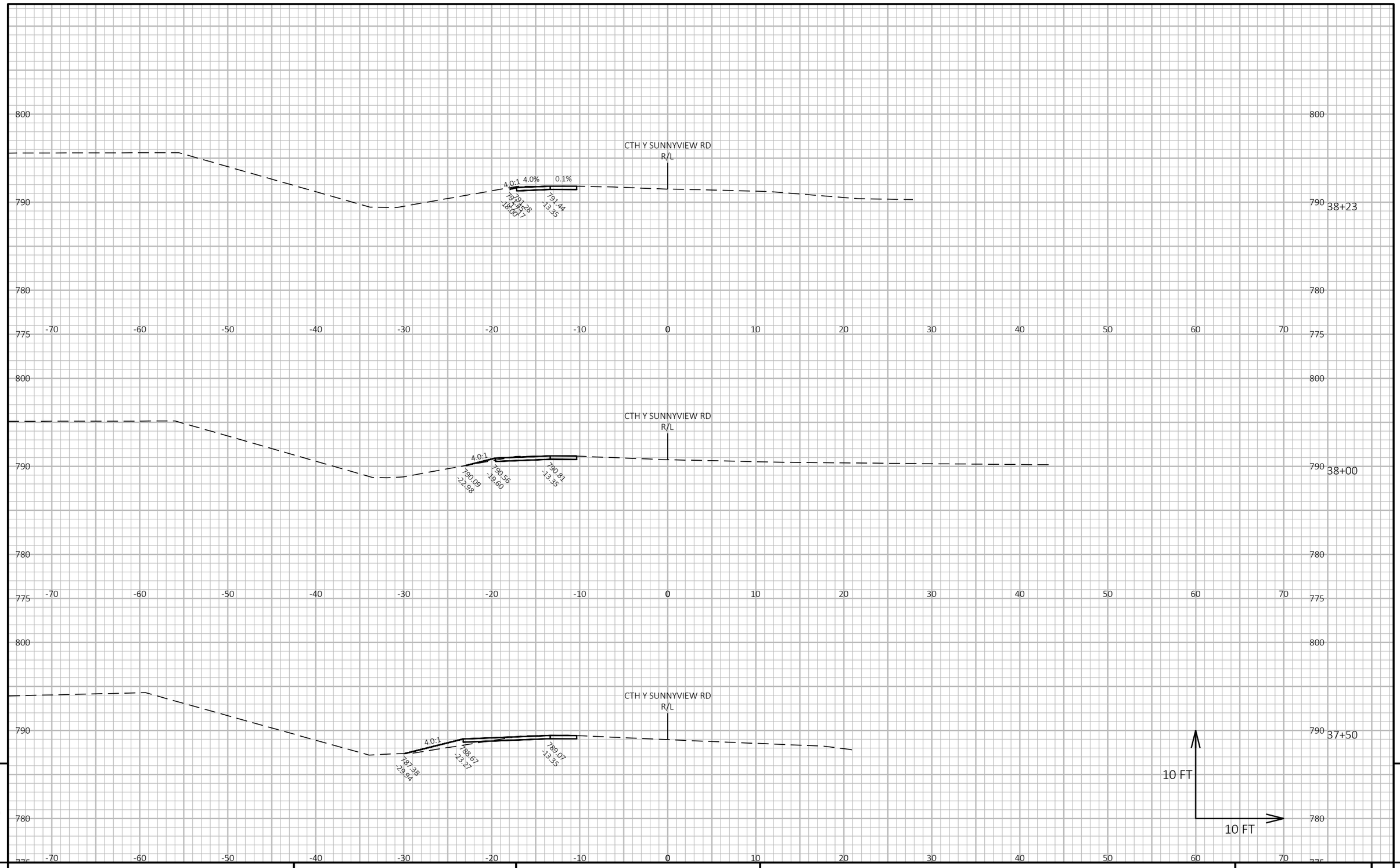


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SUNNYVIEW RD	SHEET 451	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Sunny-3

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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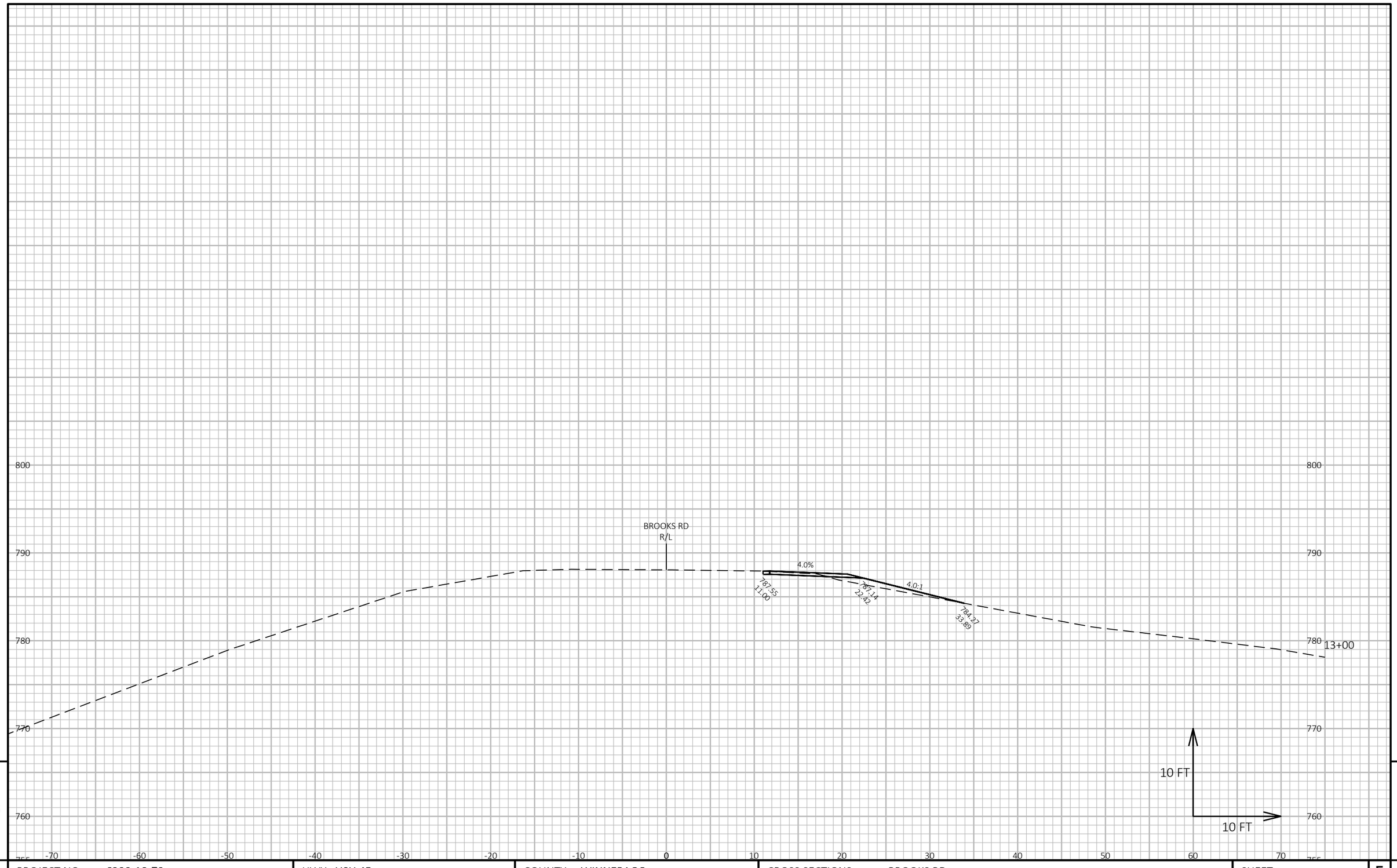
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SUNNYVIEW RD	SHEET 452	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Sunny-4

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME :

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

WISDOT/CADDS SHEET 49



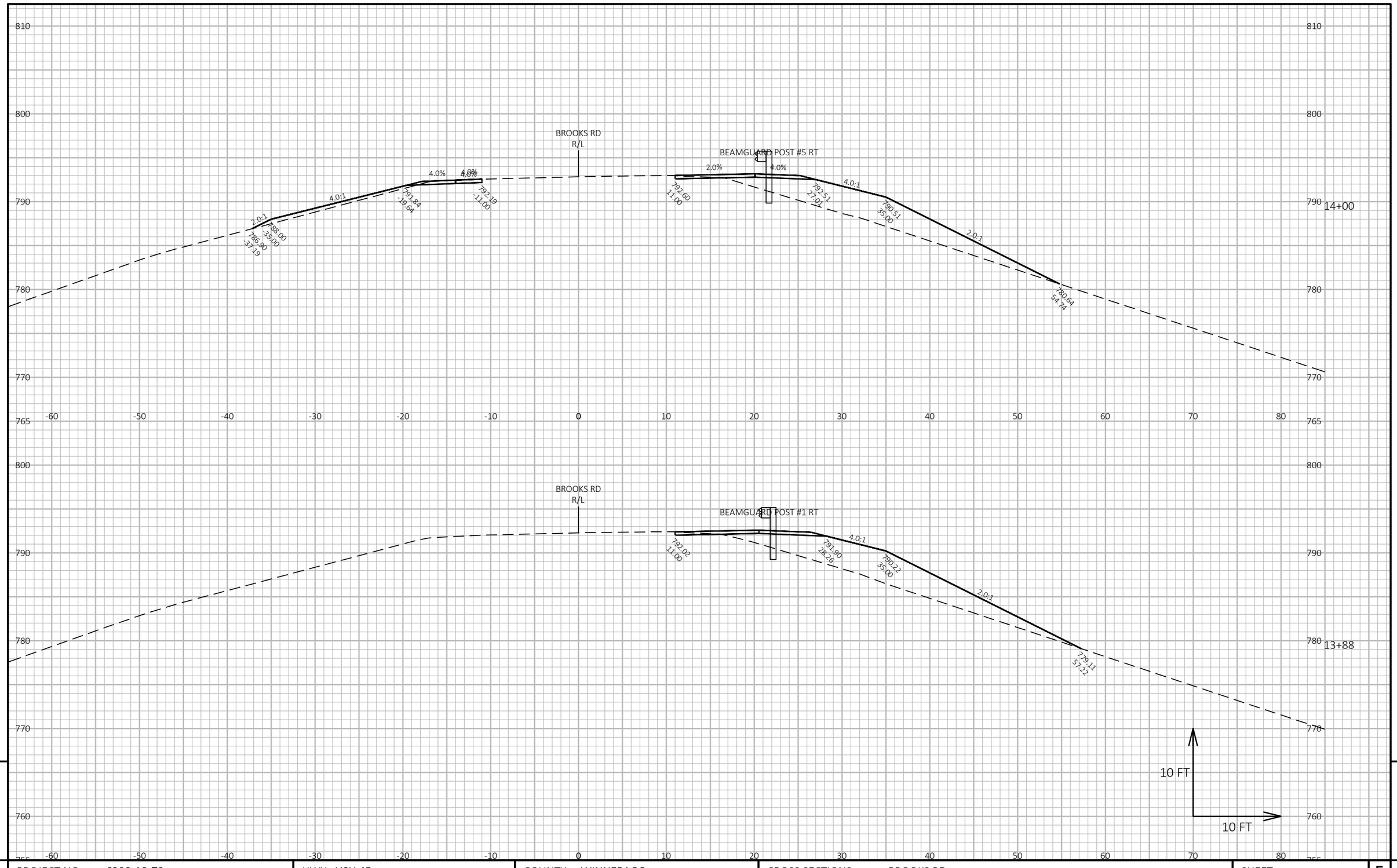
9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 453	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-1

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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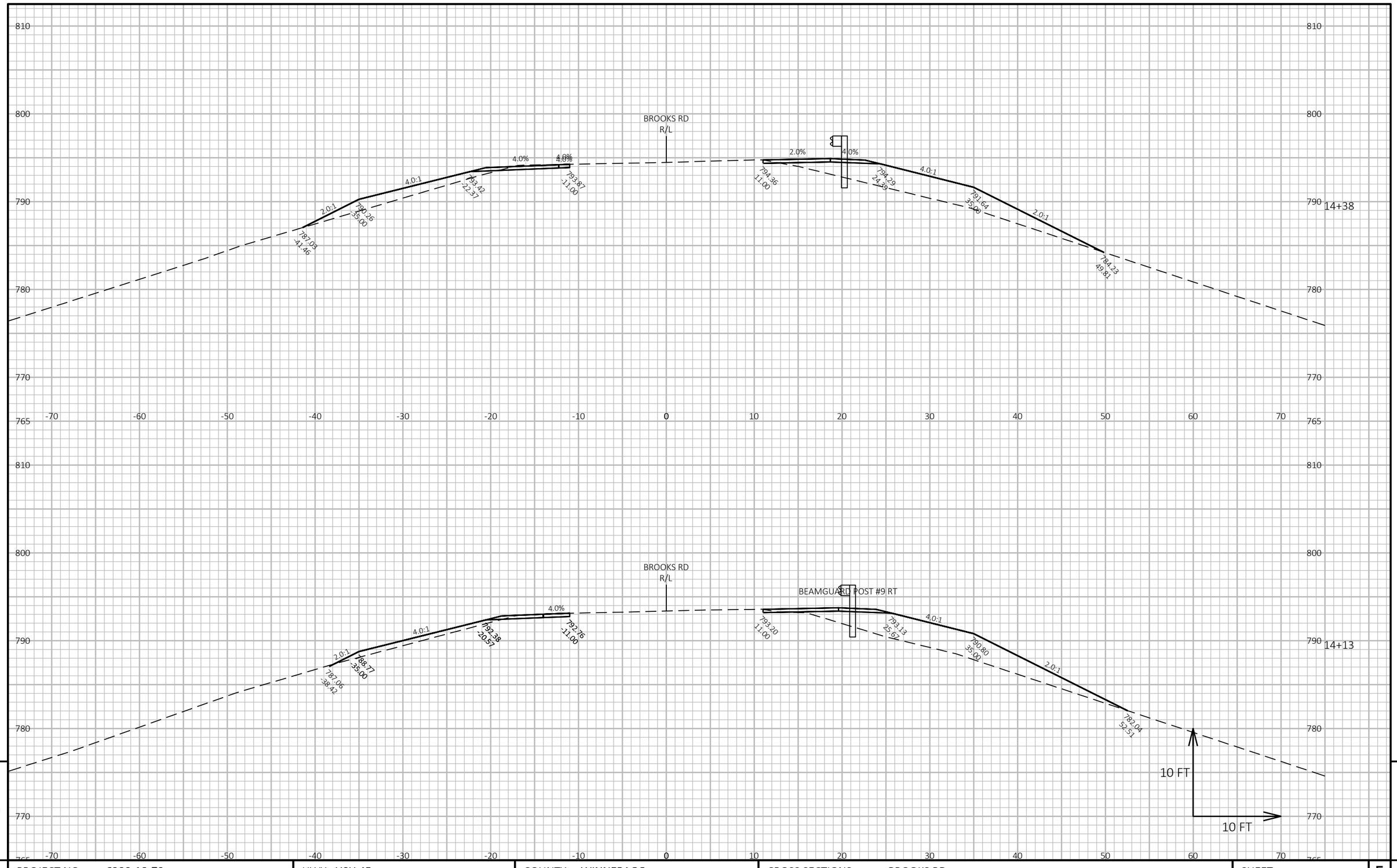
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 454	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-2

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 455	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-3

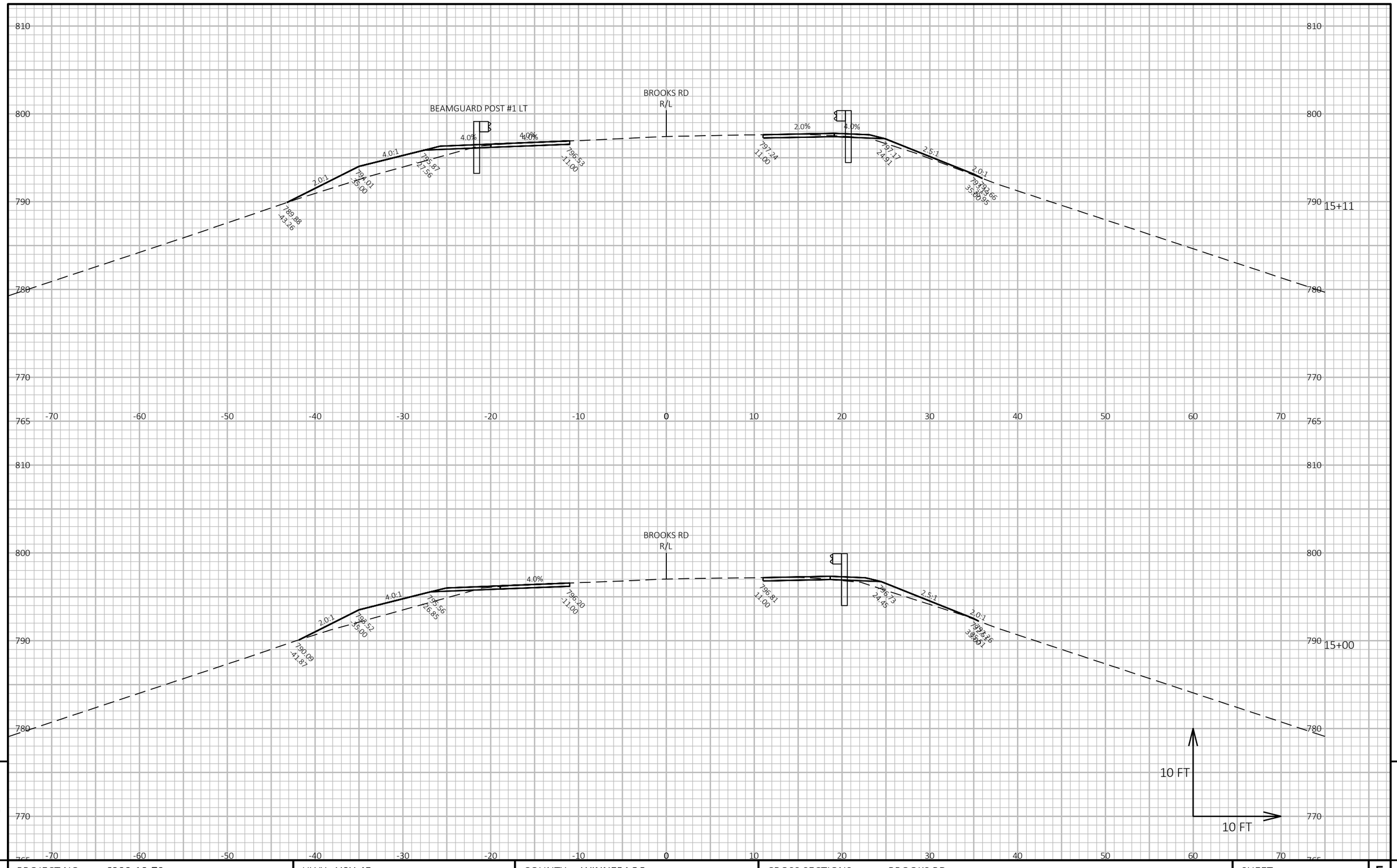
PLOT DATE : 7/24/2026 2:16 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 456	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-4

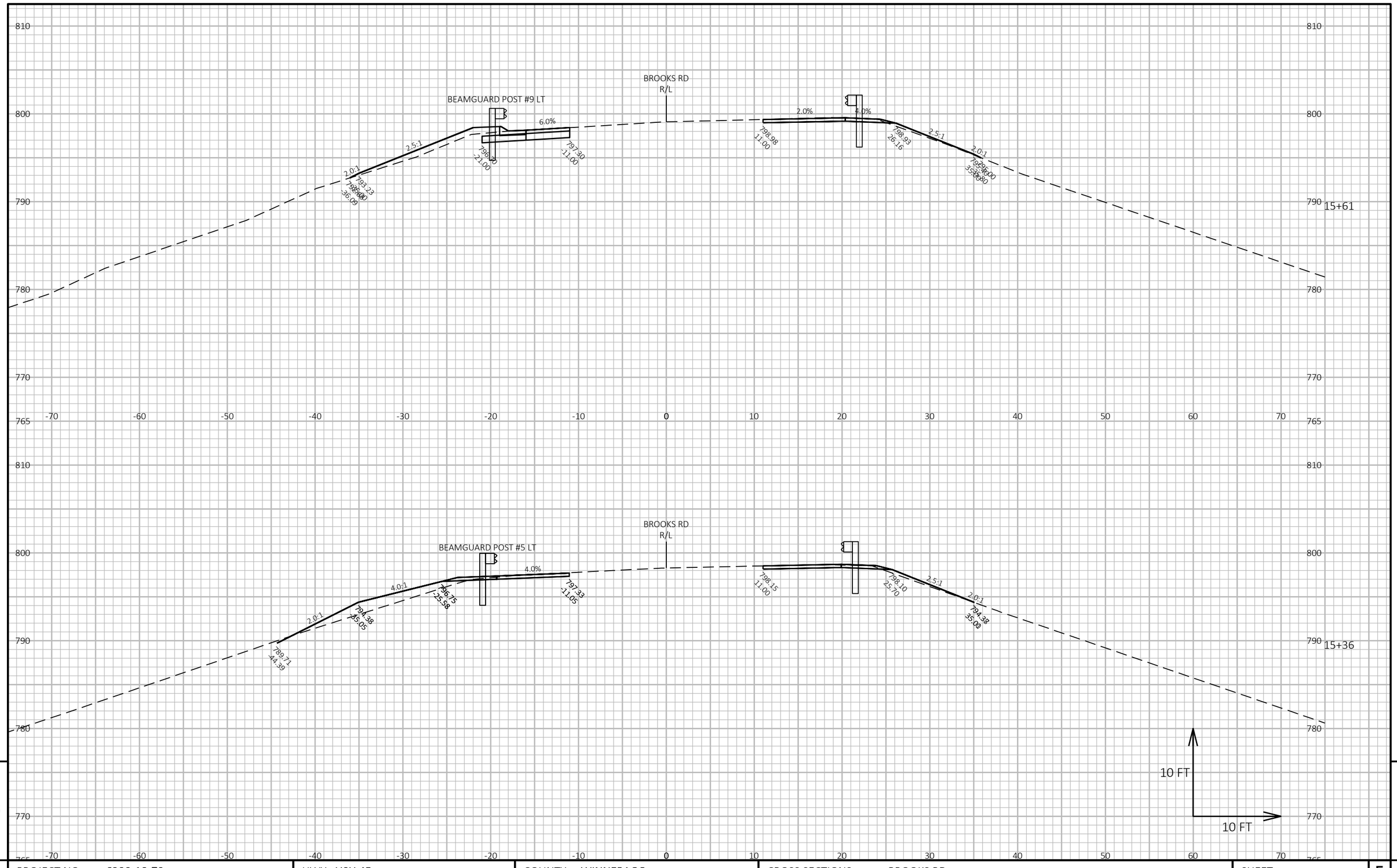
PLOT DATE : 7/24/2026 2:16 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 457	E

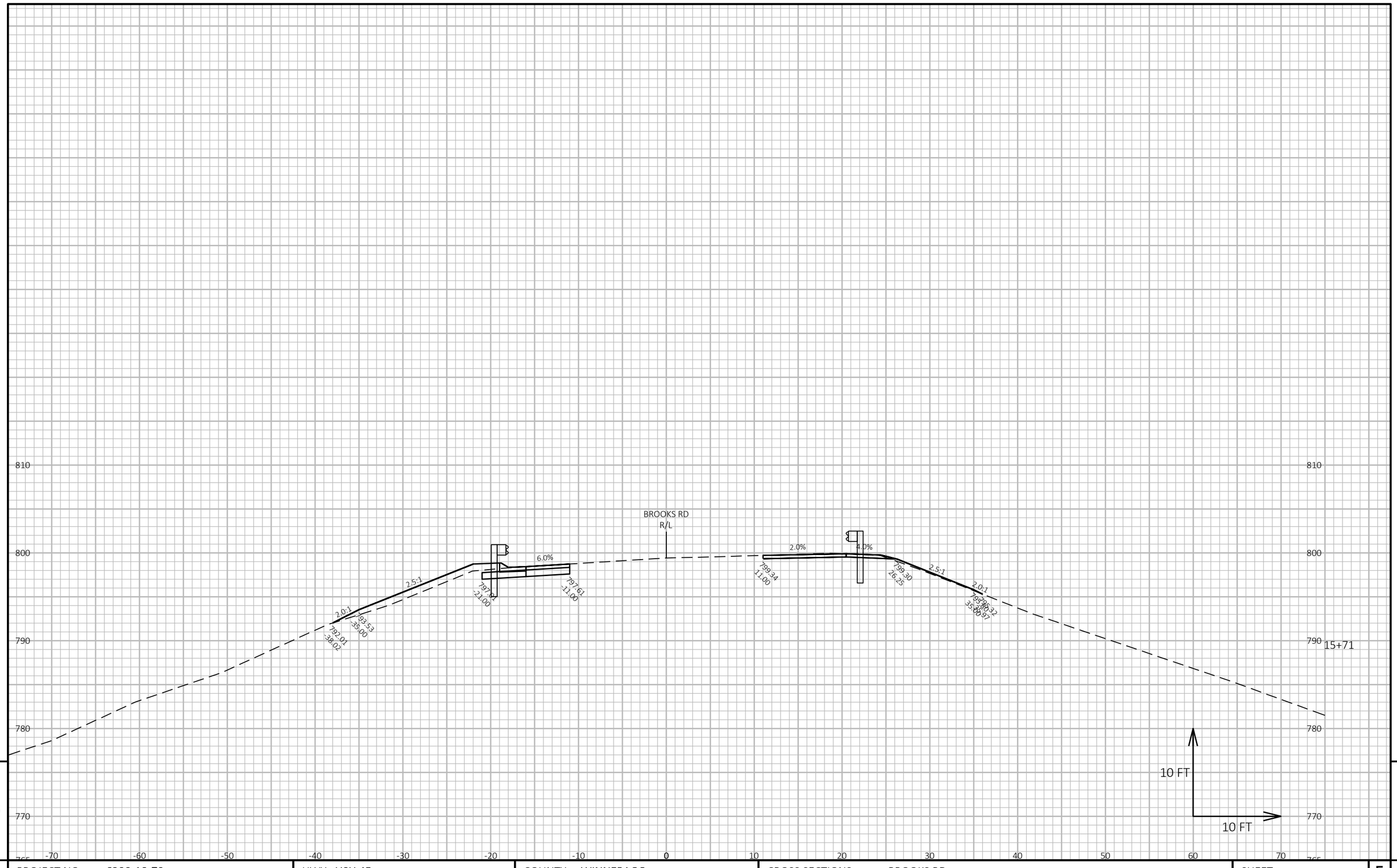
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-5

PLOT DATE : 7/24/2026 2:16 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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



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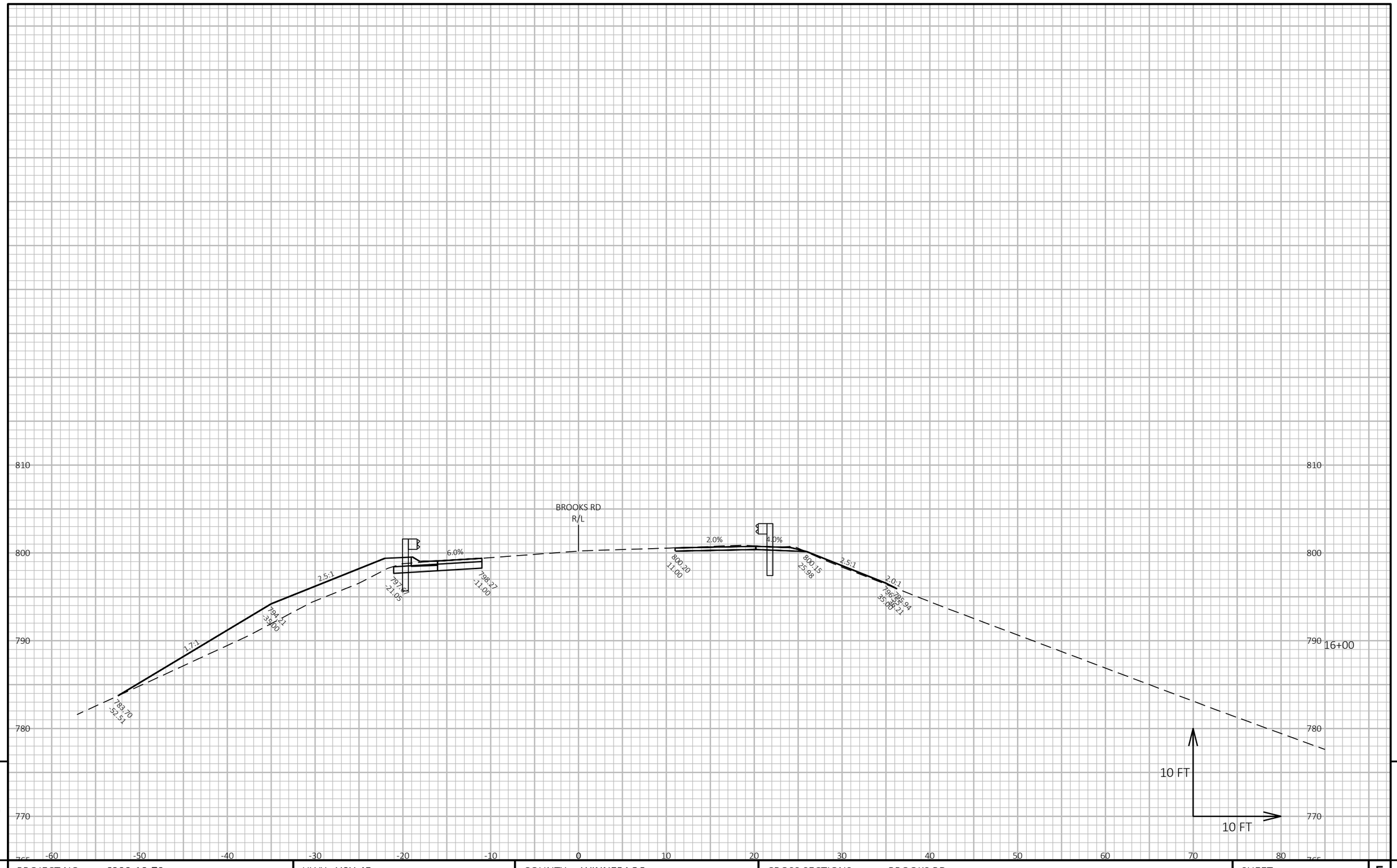
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 458	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-6

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

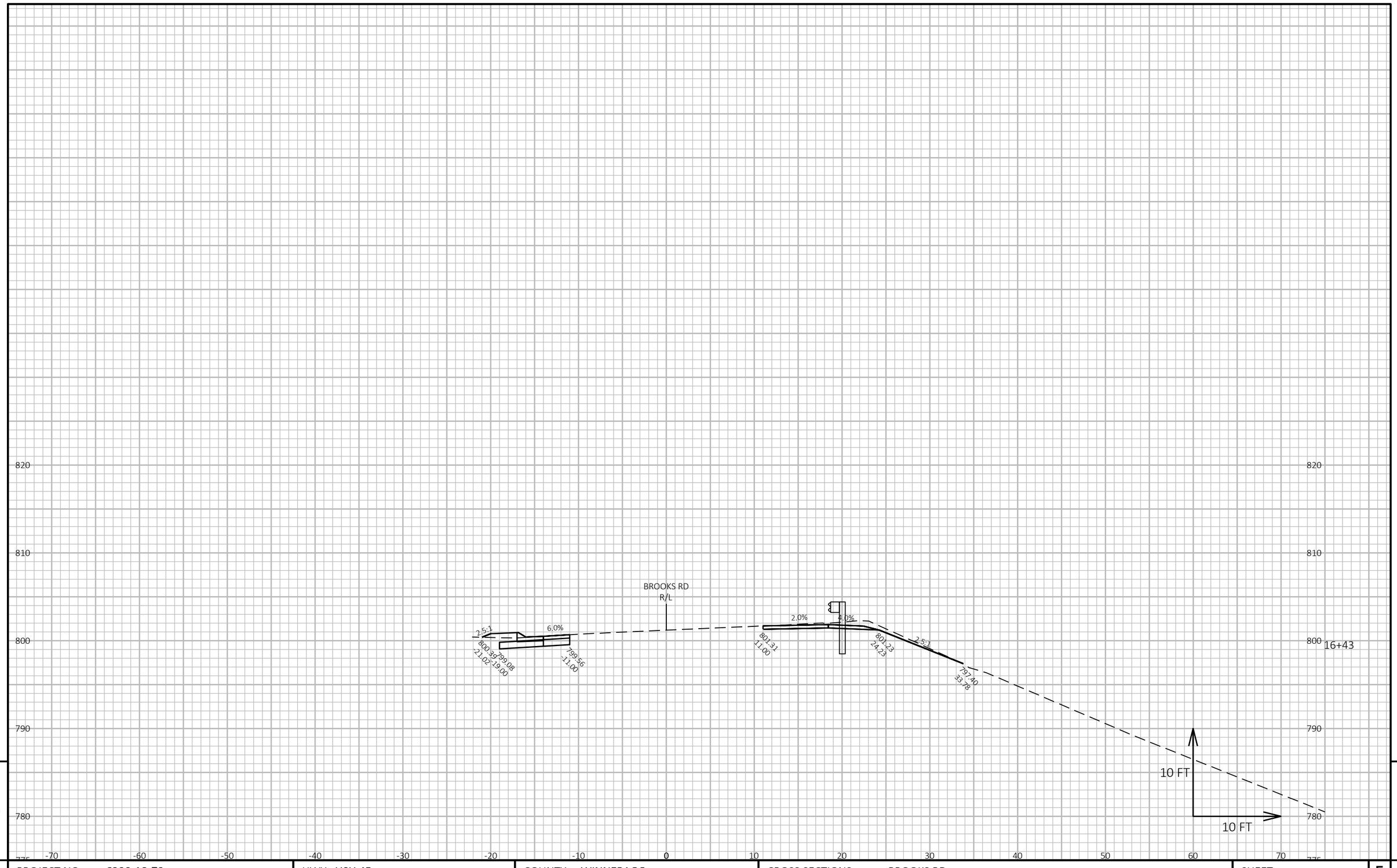


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 459	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-7

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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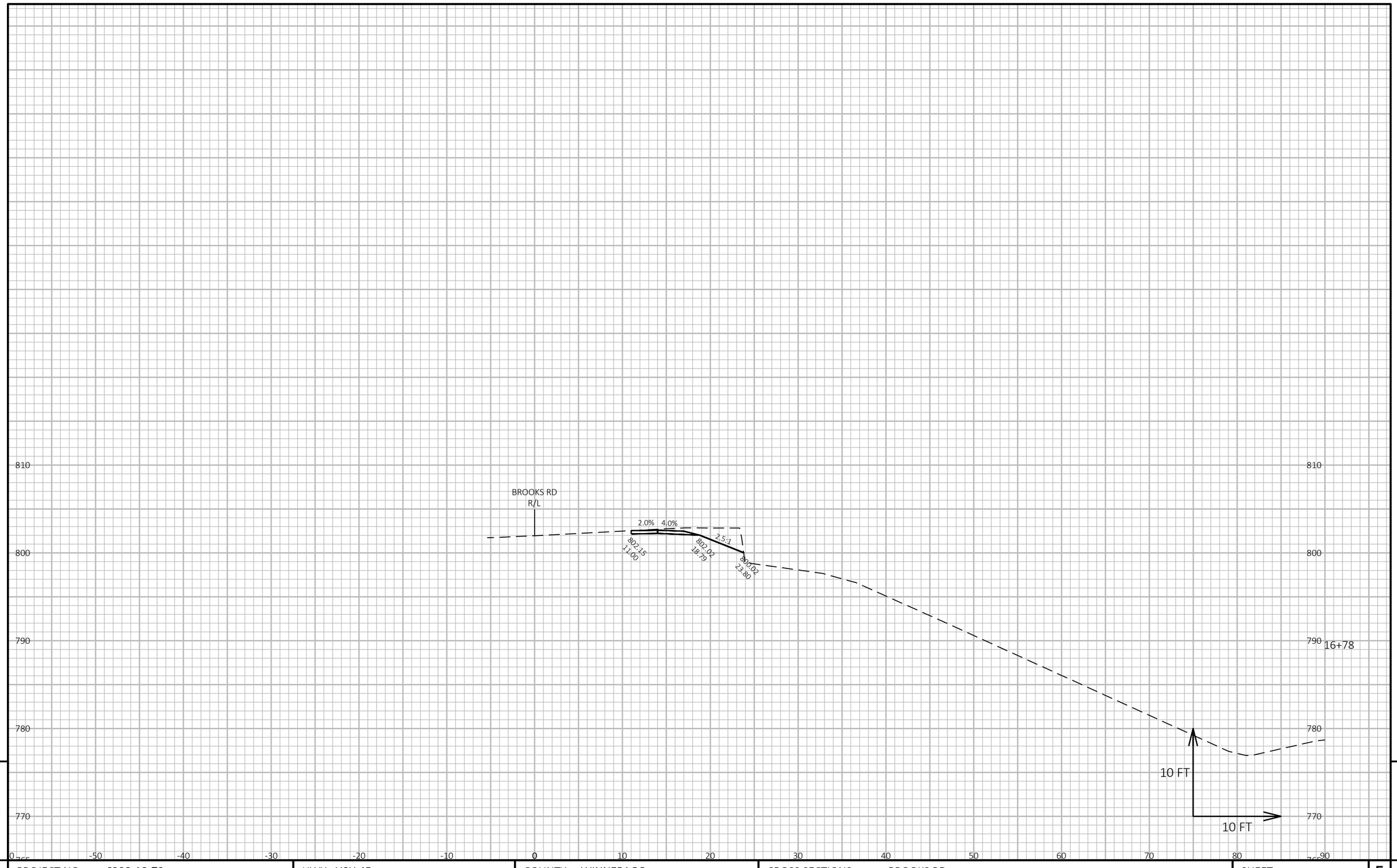
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 460	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-8

PLOT DATE : 7/24/2026 2:16 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

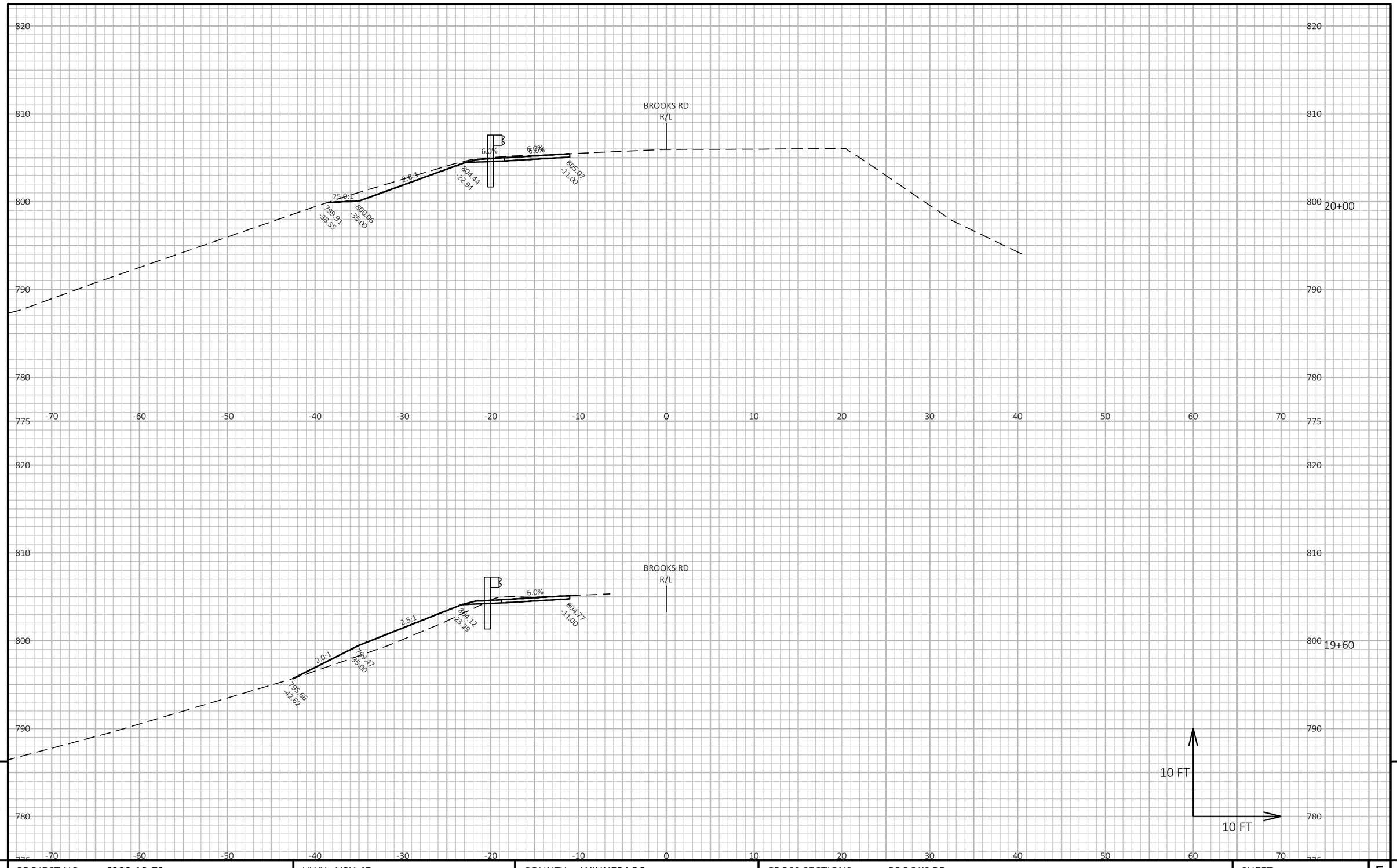


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 461	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-9

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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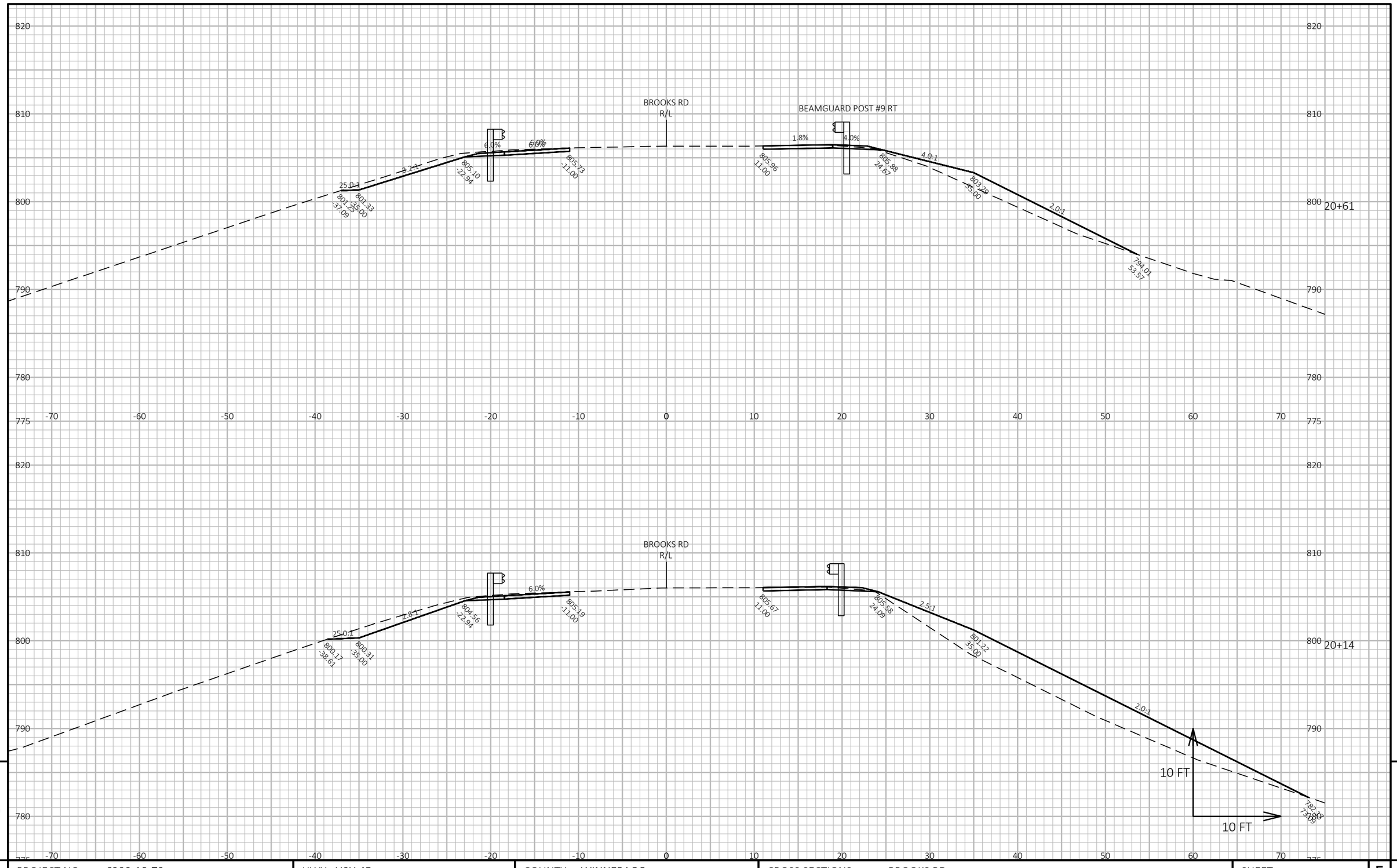
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 462	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-10

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

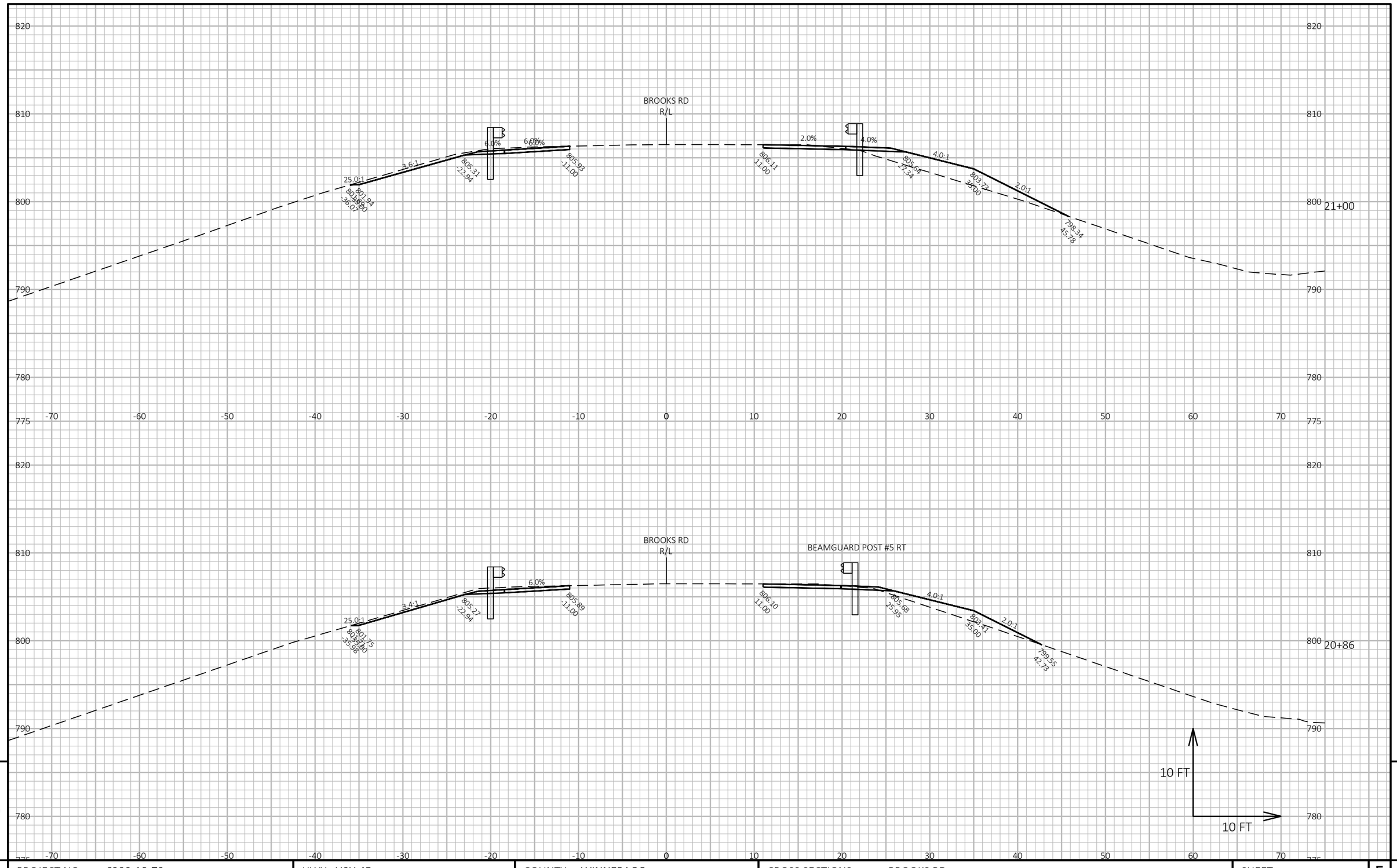


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 463	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-11

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

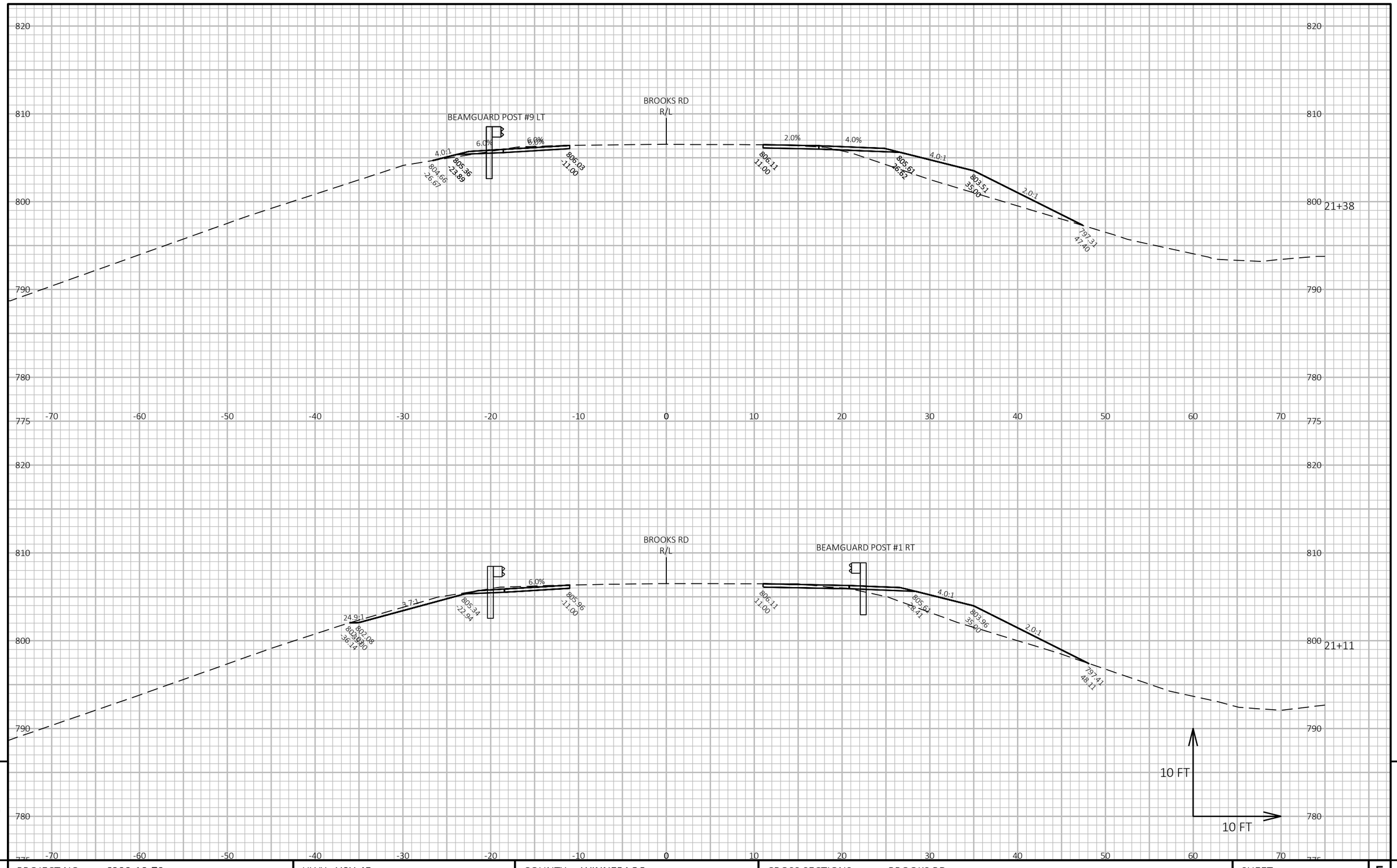


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 464	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-12

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 465	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-13

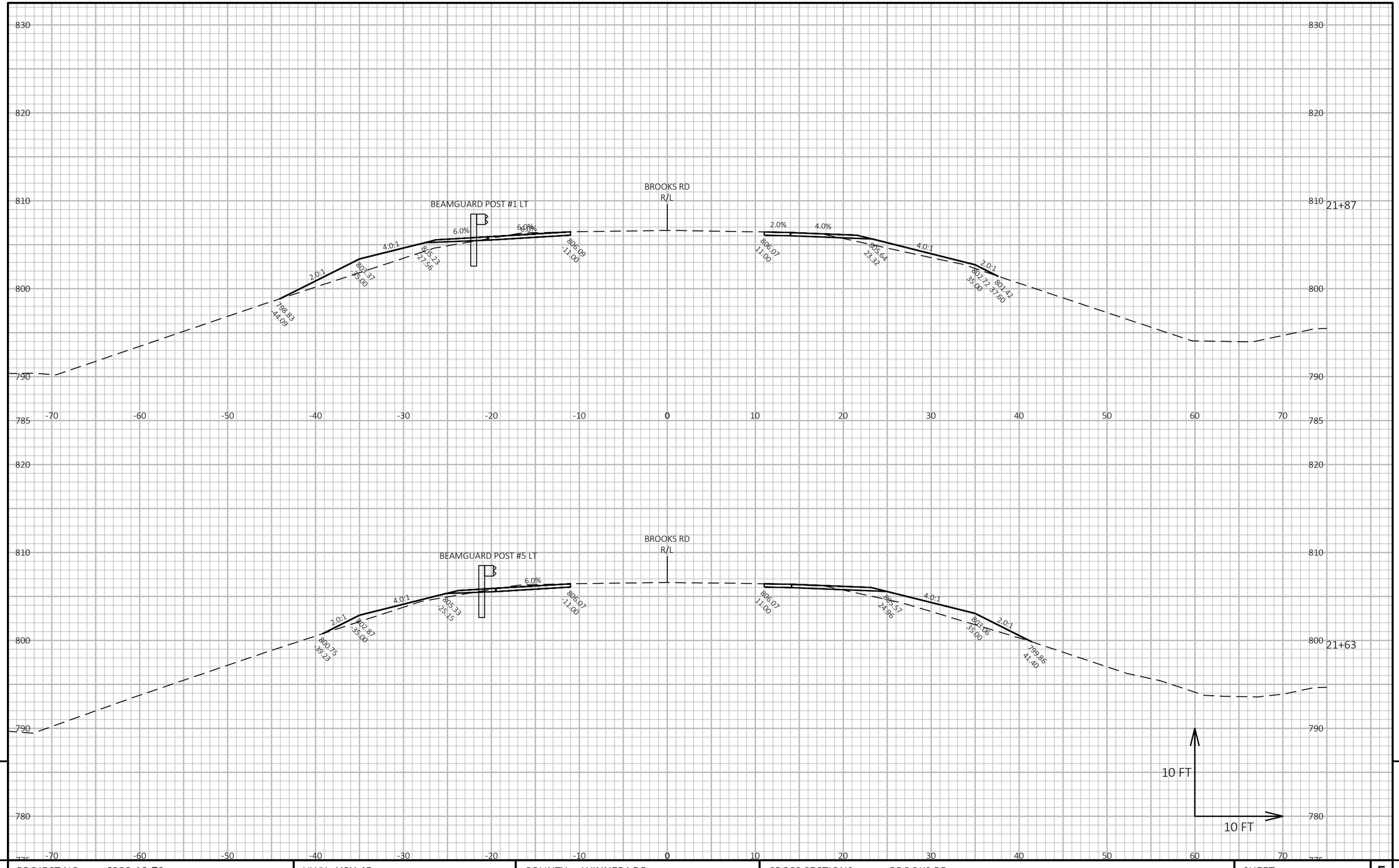
PLOT DATE : 7/24/2026 2:17 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

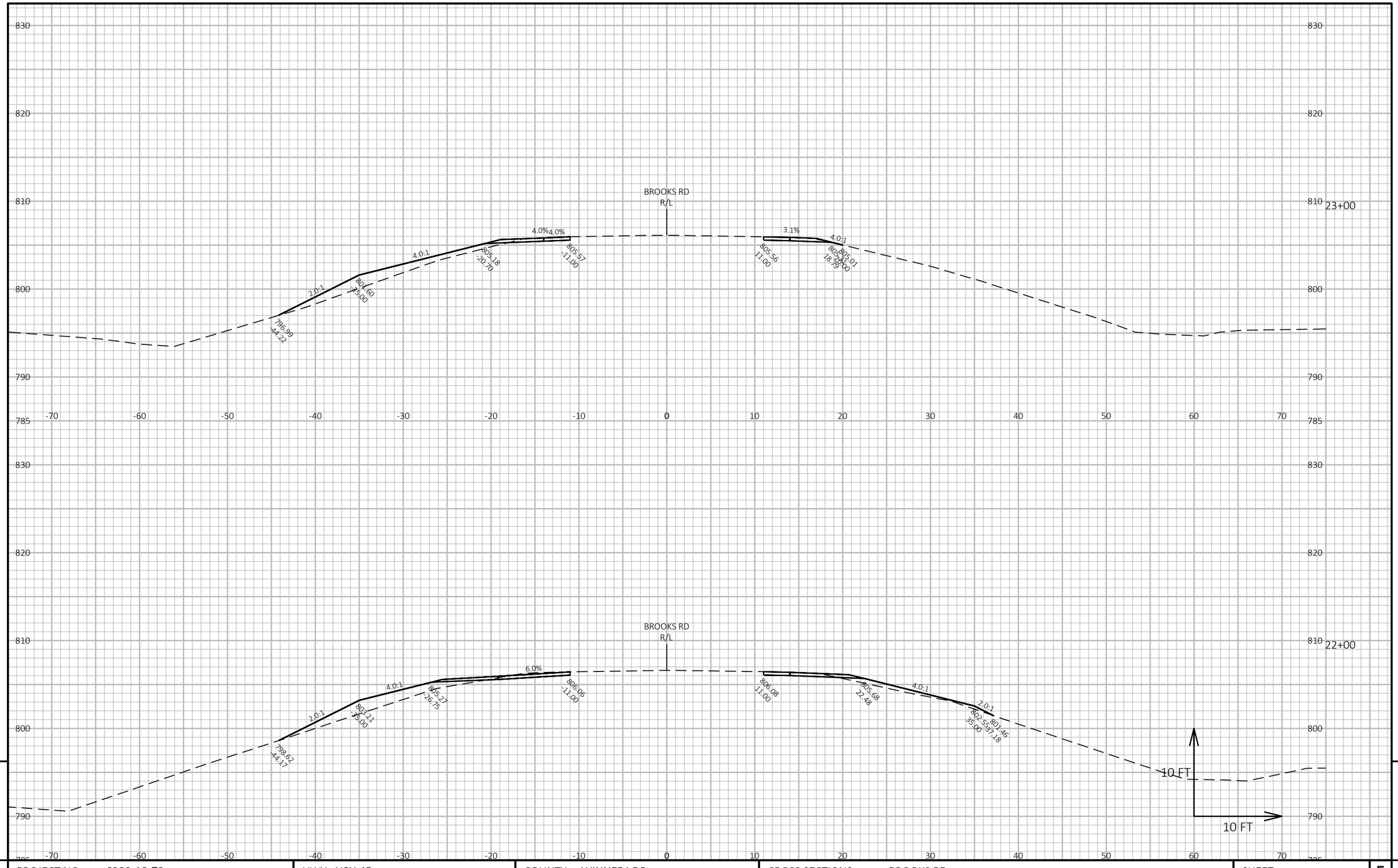


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 466 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-14

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 467	E

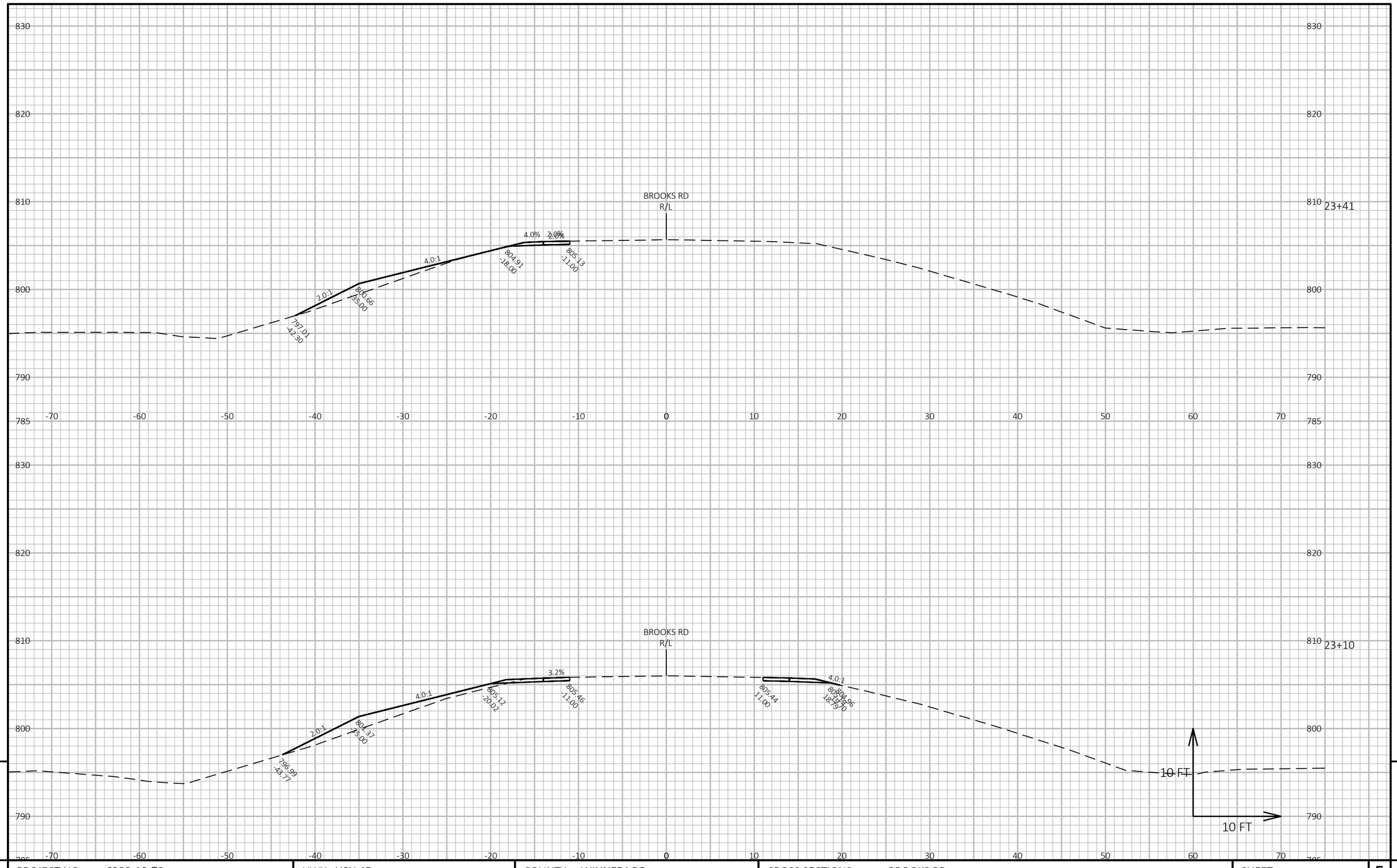
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-15

PLOT DATE : 7/24/2026 2:17 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

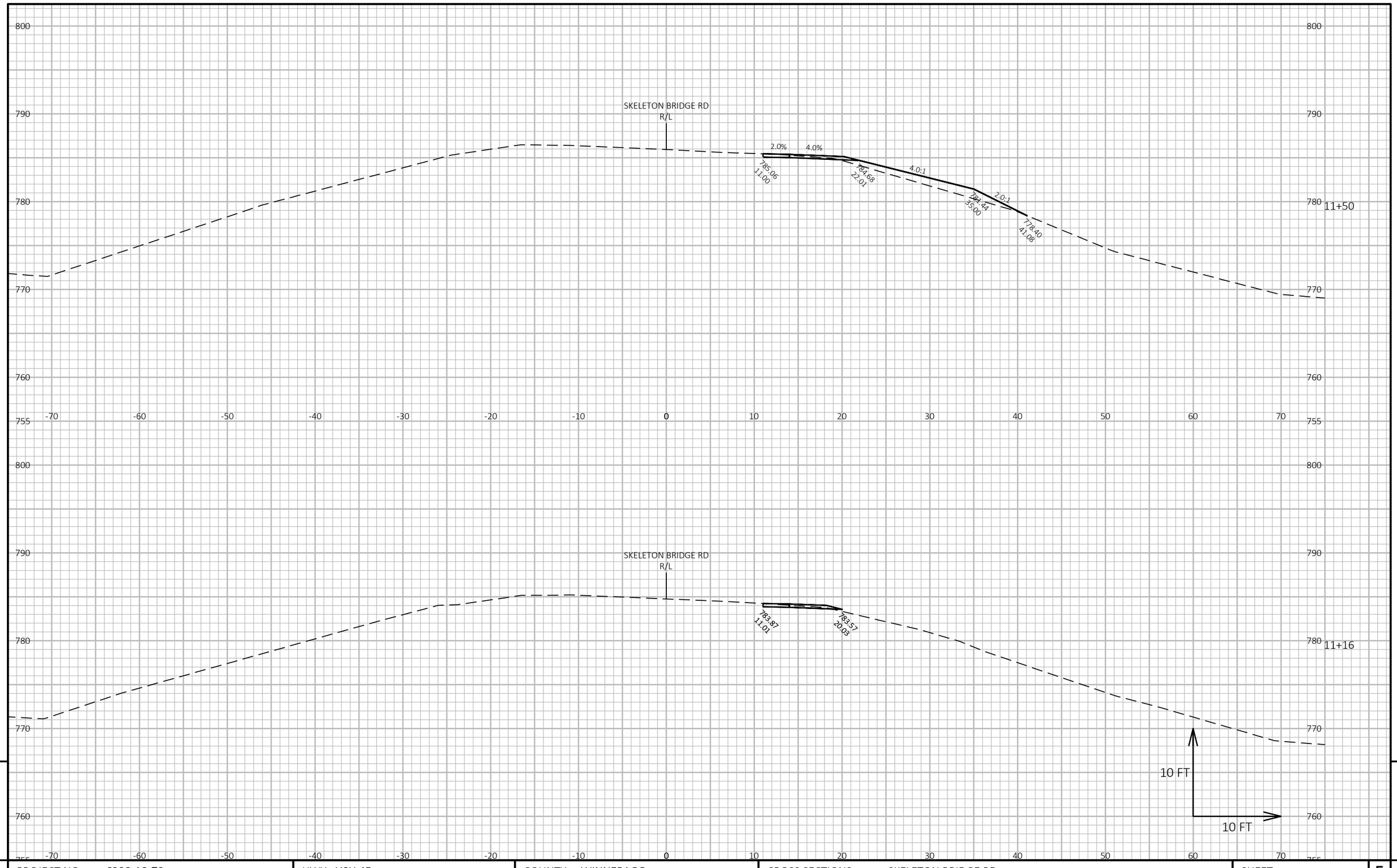


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BROOKS RD	SHEET 468	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Brooks-16

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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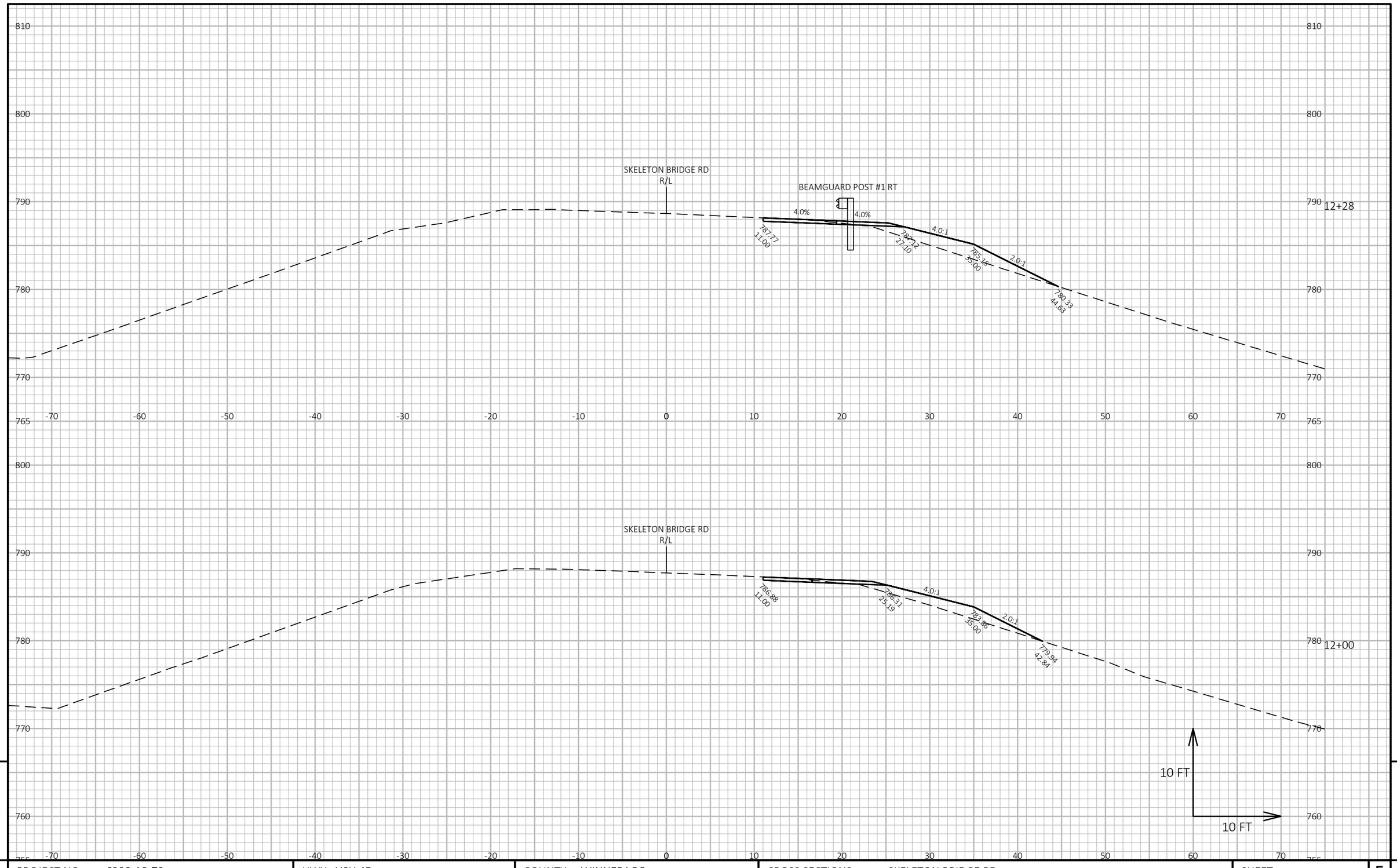
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 469	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-1

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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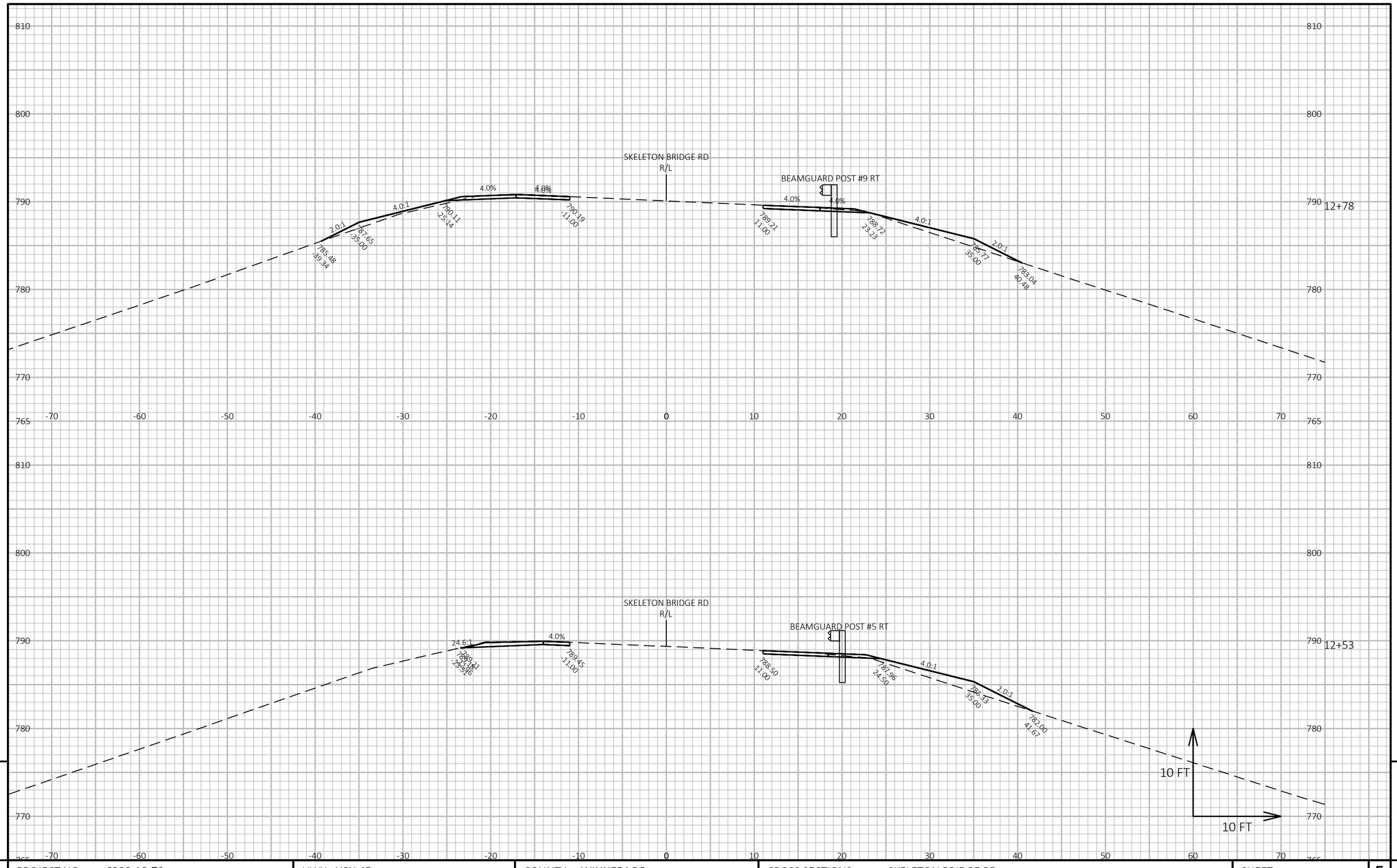
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 470	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-2

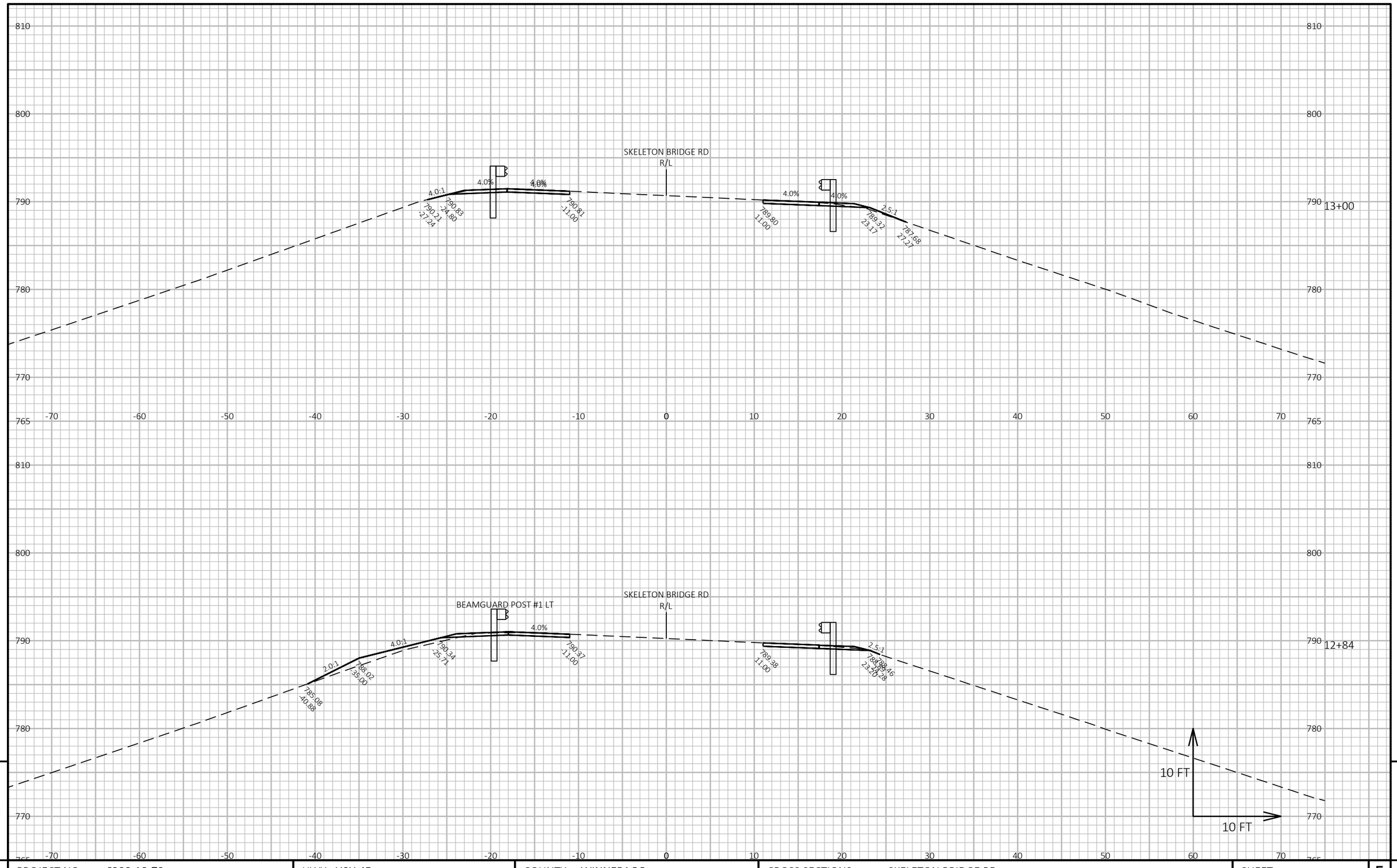
PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 471	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-3

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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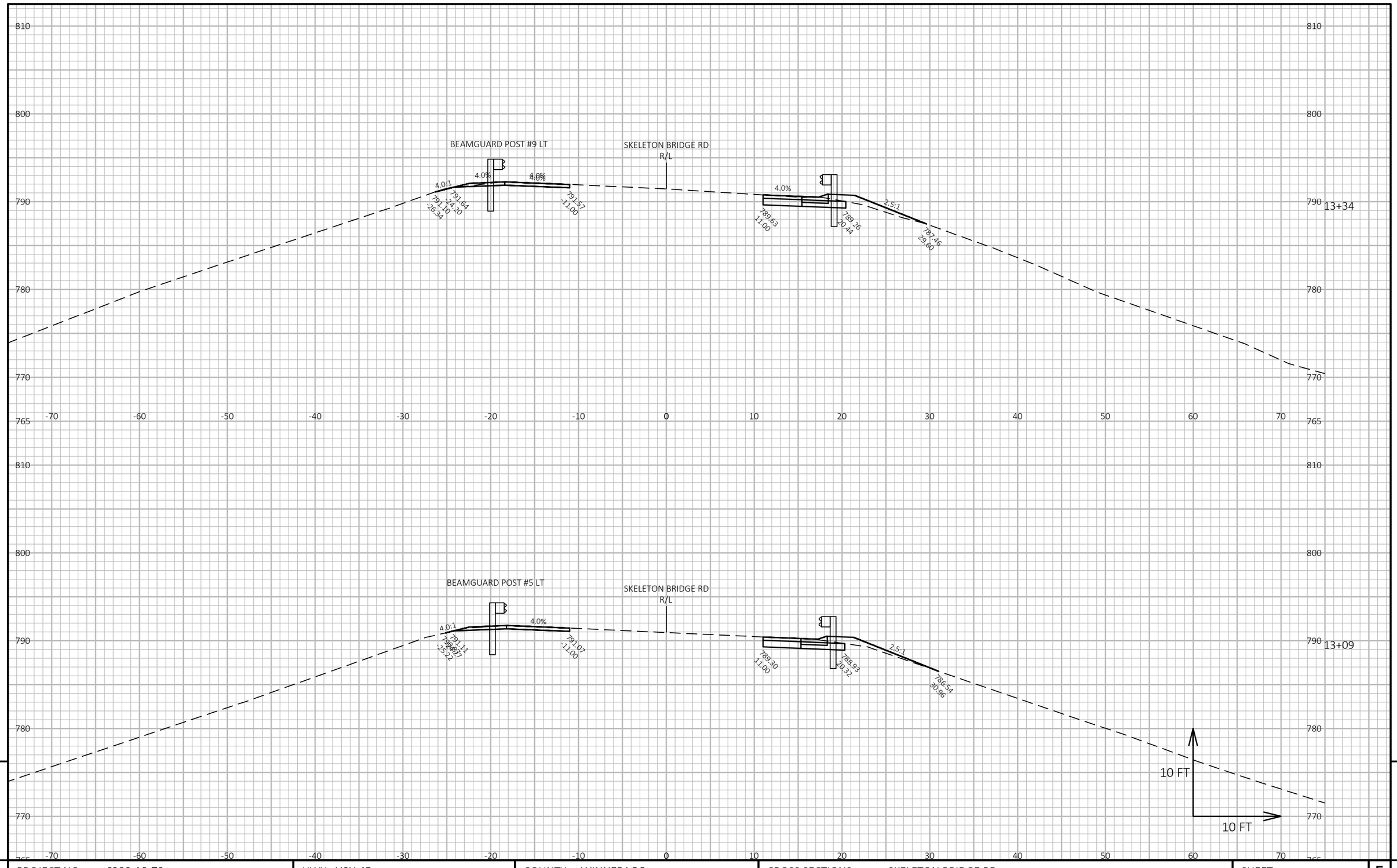
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 472	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-4

PLOT DATE : 7/24/2026 2:17 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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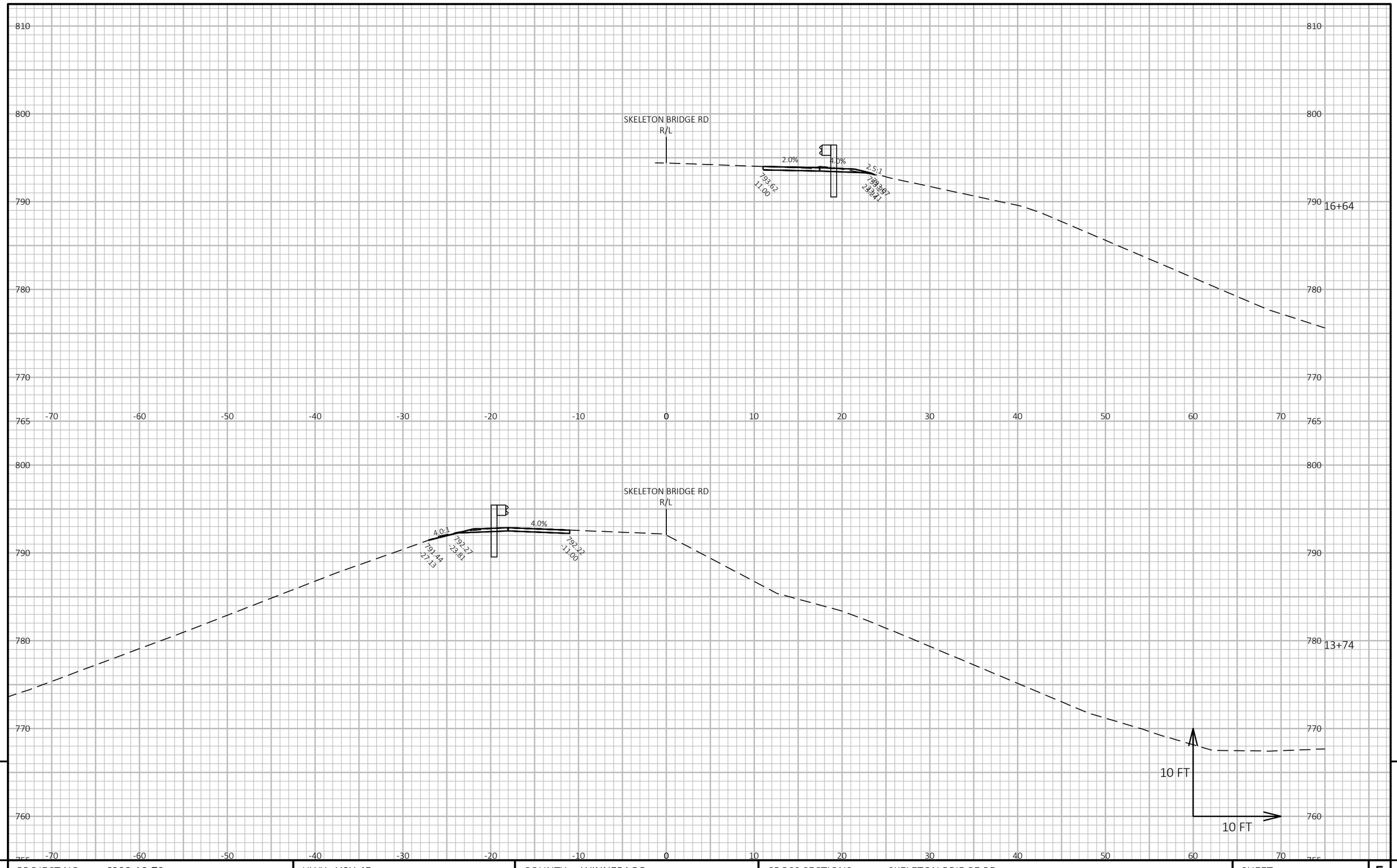
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 473	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-5

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 474	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-6

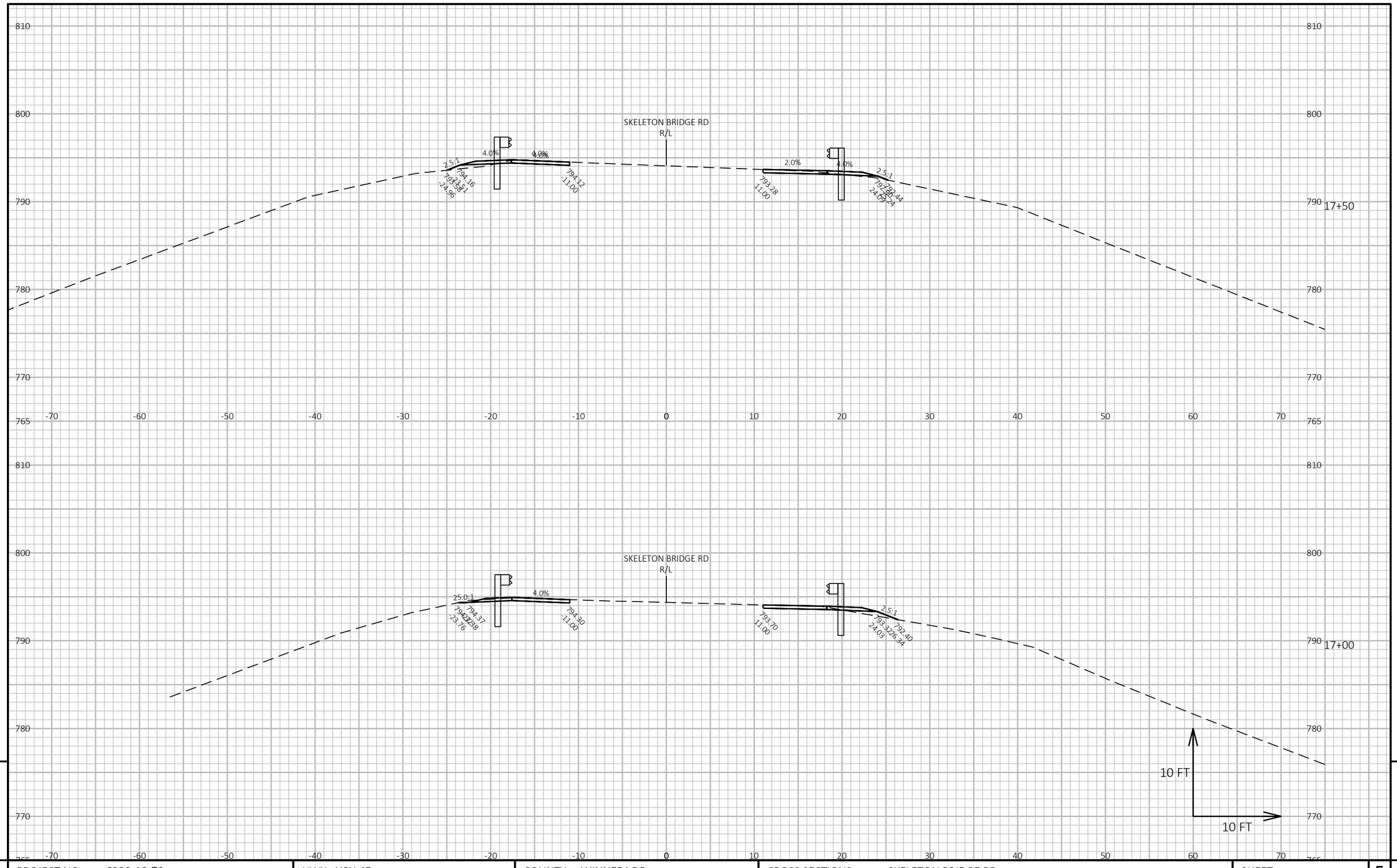
PLOT DATE : 7/24/2026 2:18 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

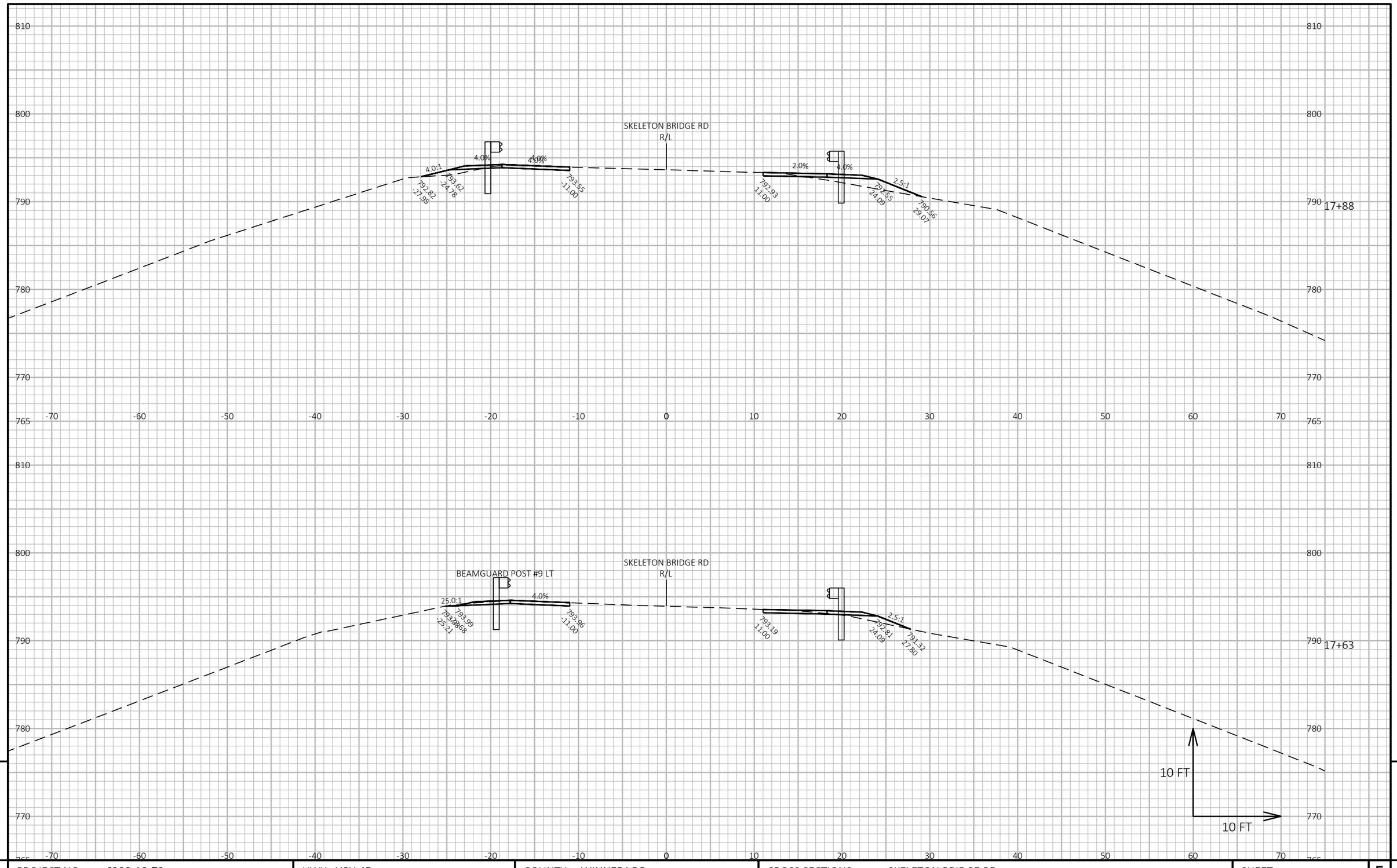


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 475 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-7

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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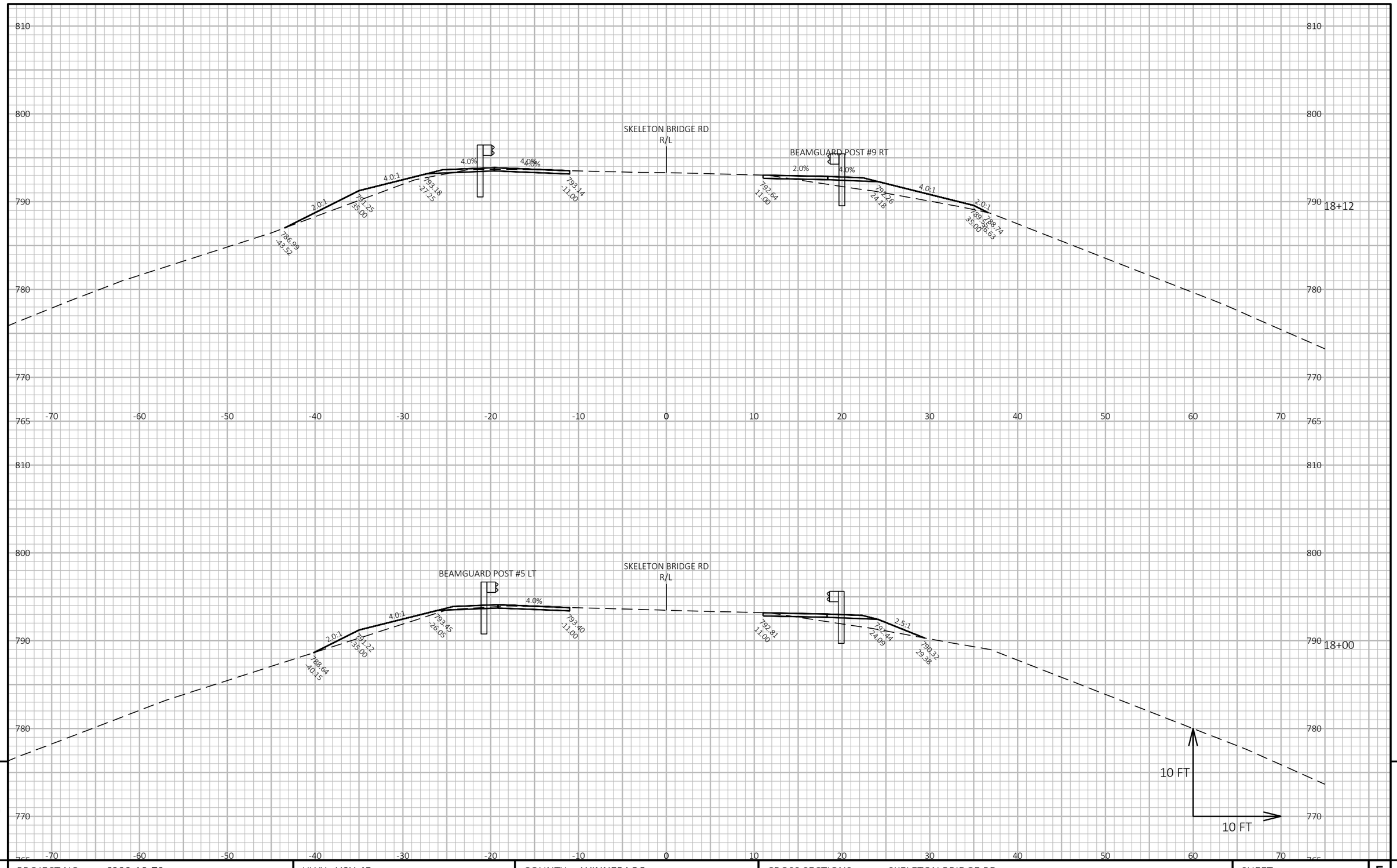
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 476	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-8

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME :

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

WISDOT/CADDS SHEET 49

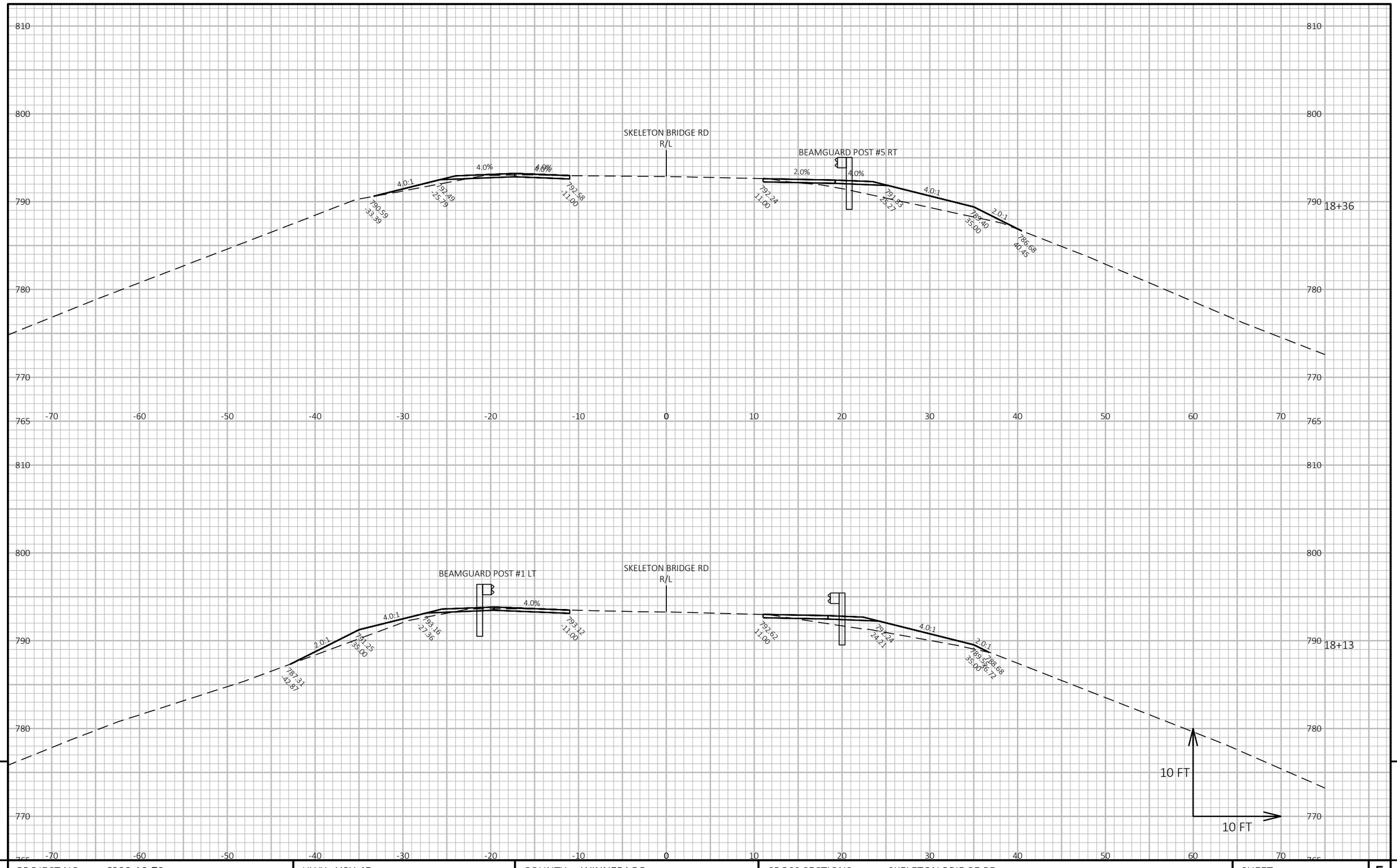


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 477	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-9

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

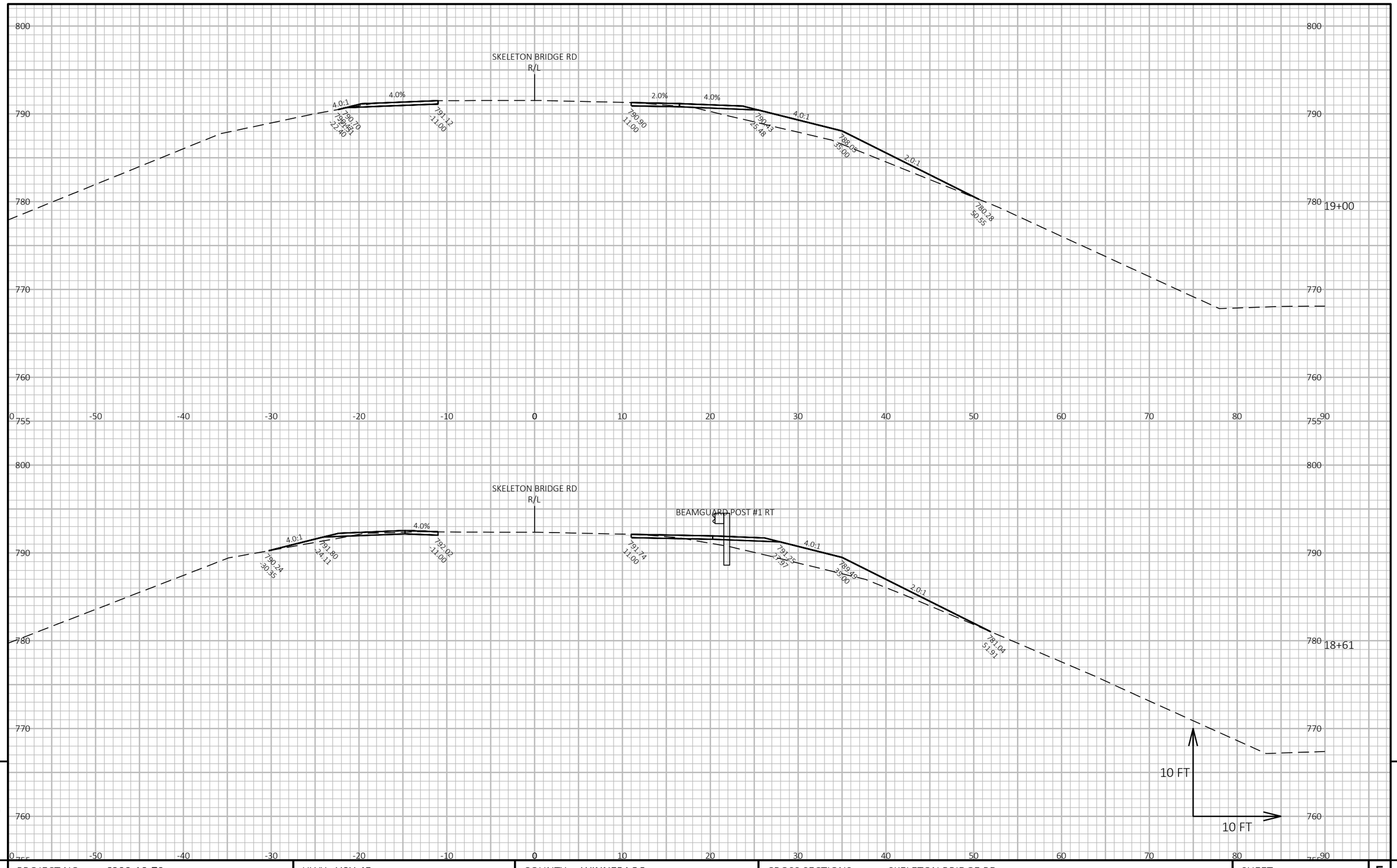


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 478	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-10

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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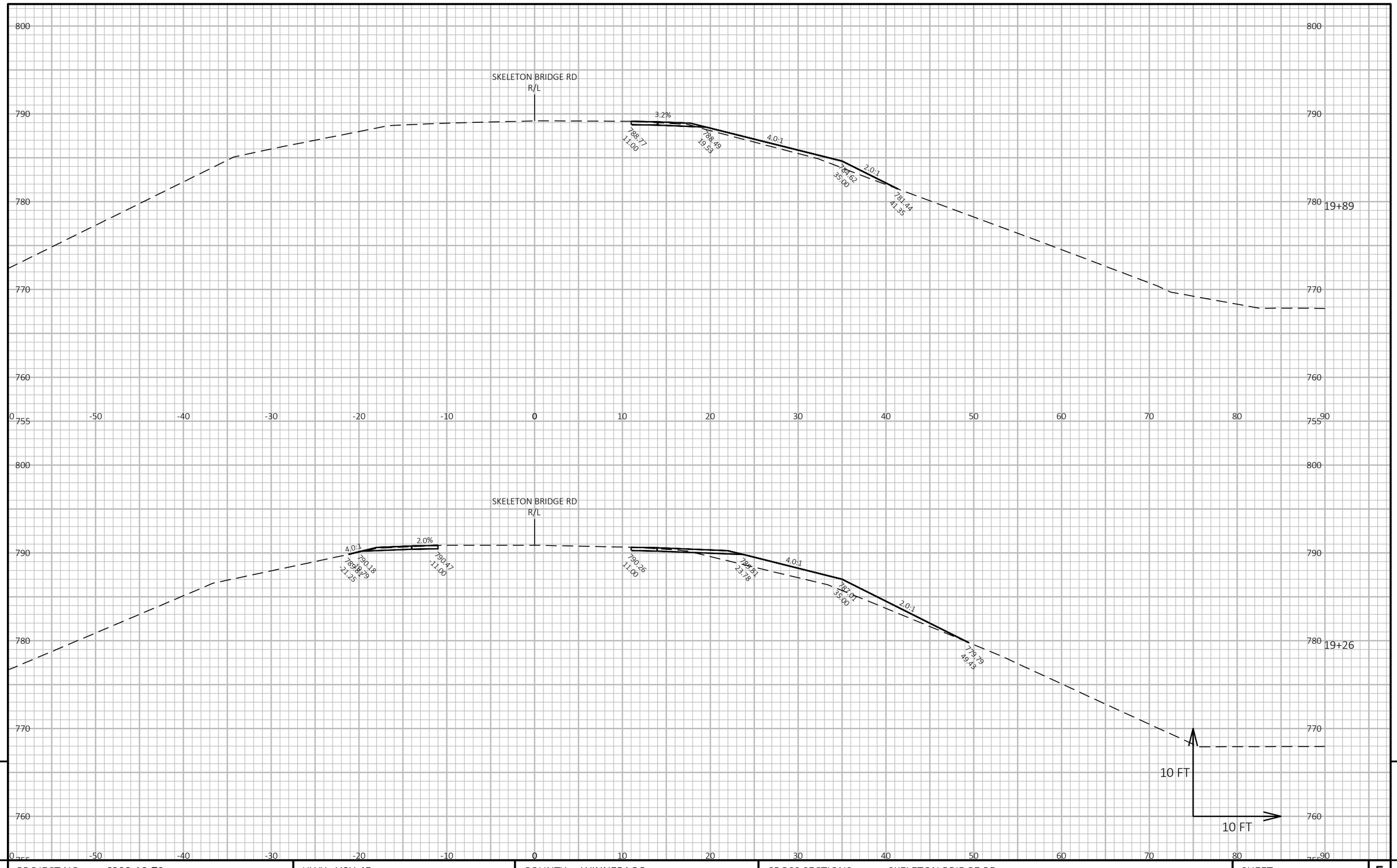
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 479	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-11

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

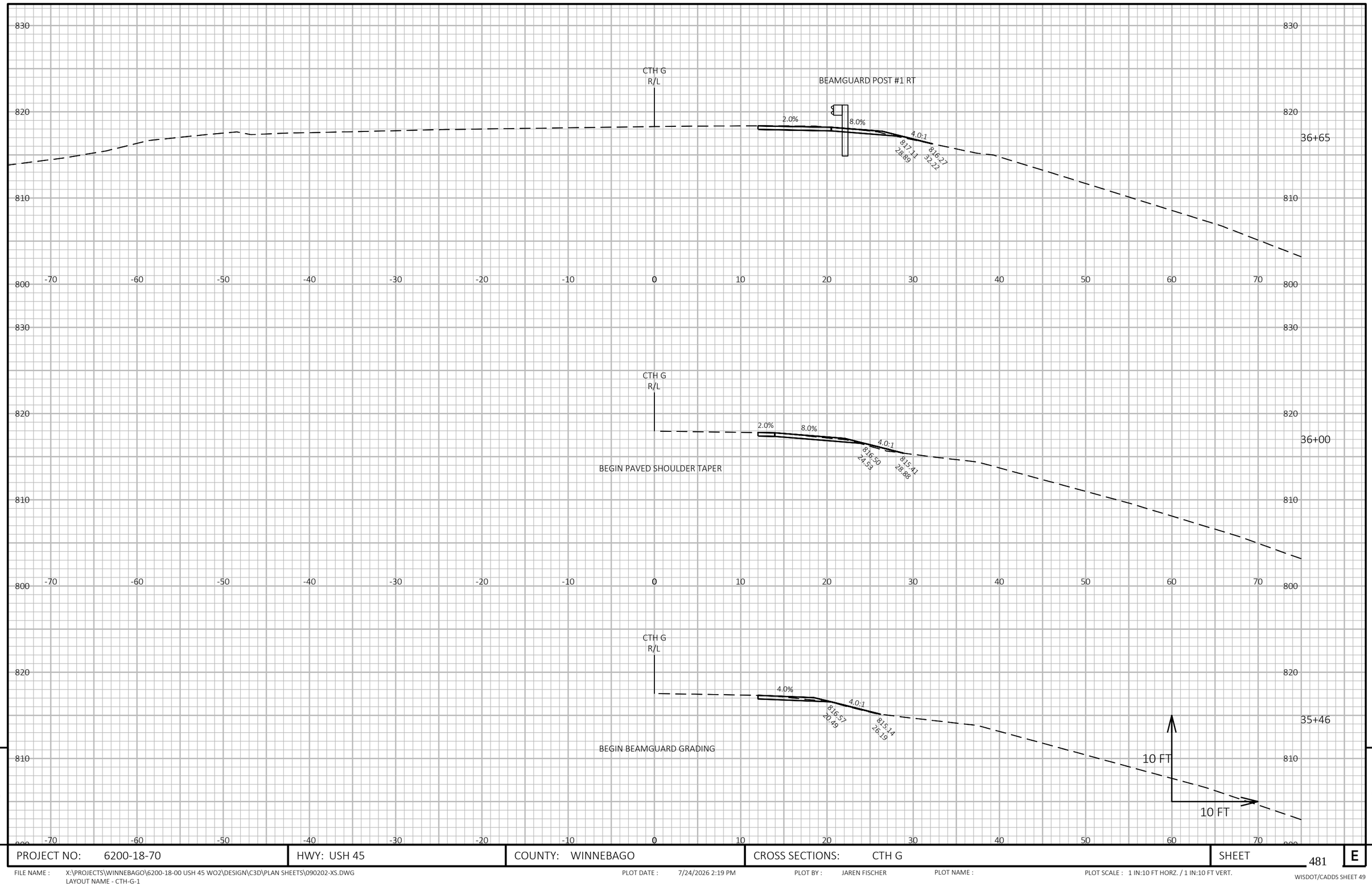


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: SKELETON BRIDGE RD	SHEET 480 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090201-XS.DWG
LAYOUT NAME - Skel-12

PLOT DATE : 7/24/2026 2:18 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

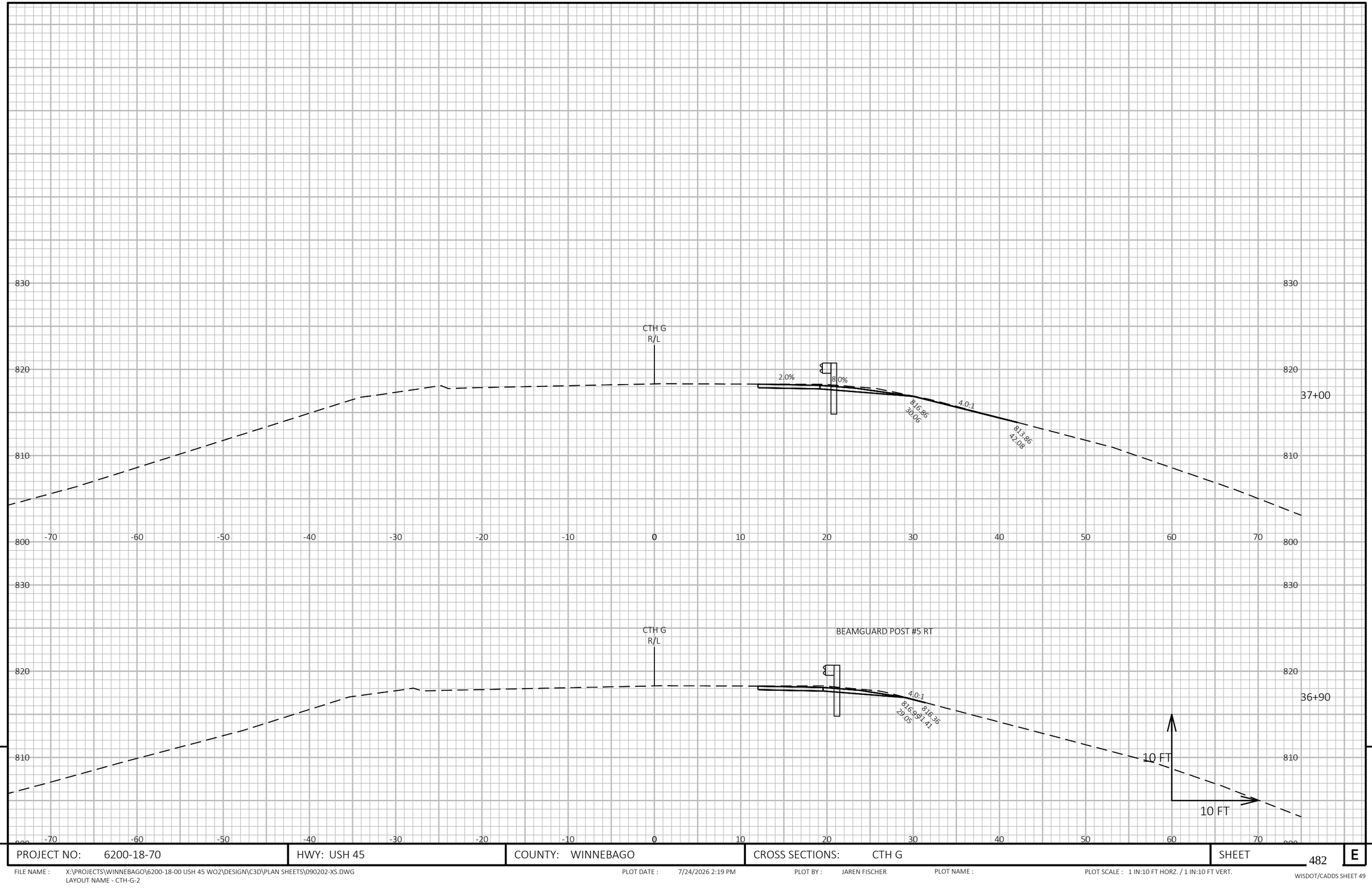
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 481	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-1

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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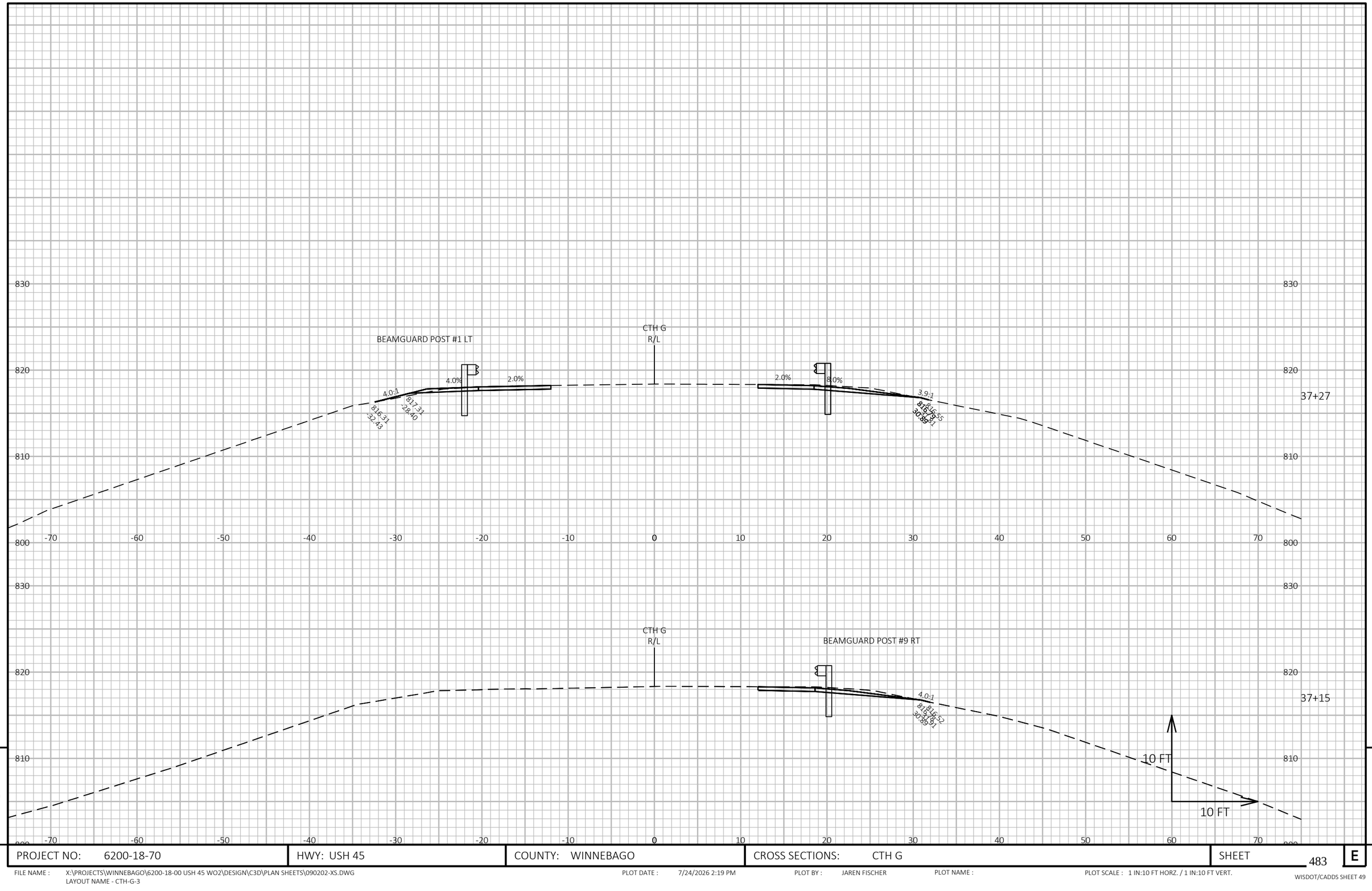
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 482	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-2

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

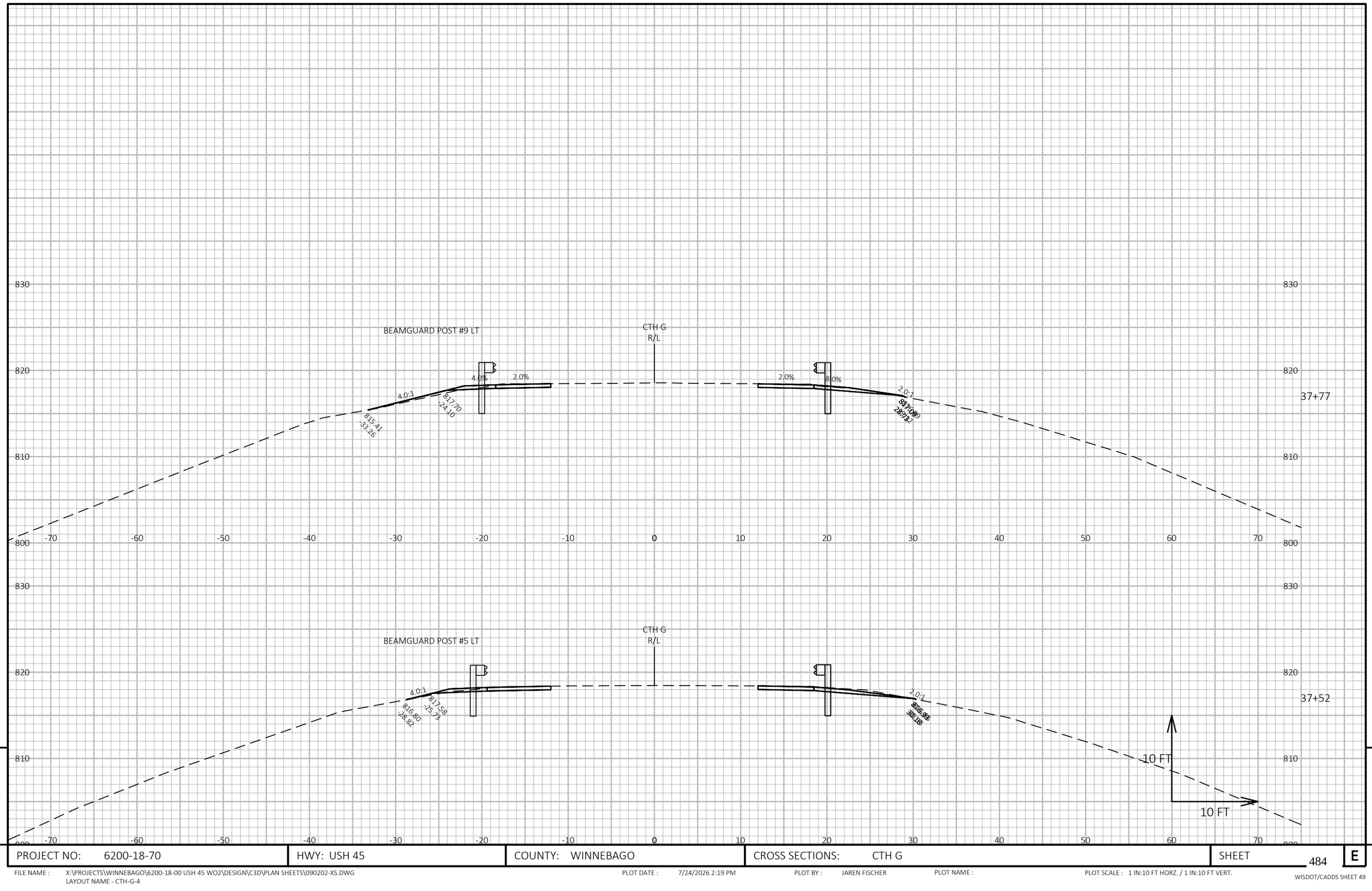


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 483	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-3

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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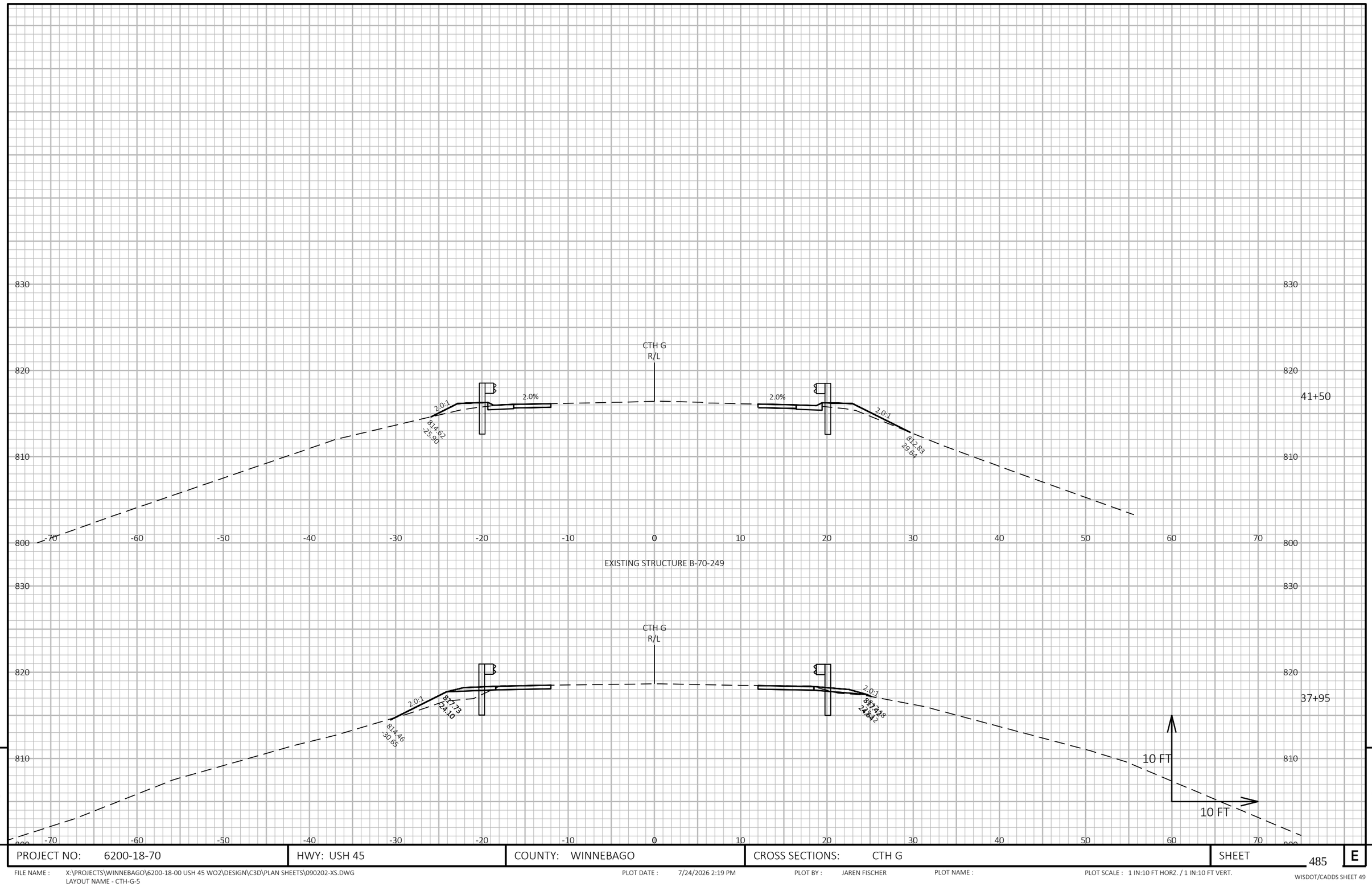
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 484	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-4

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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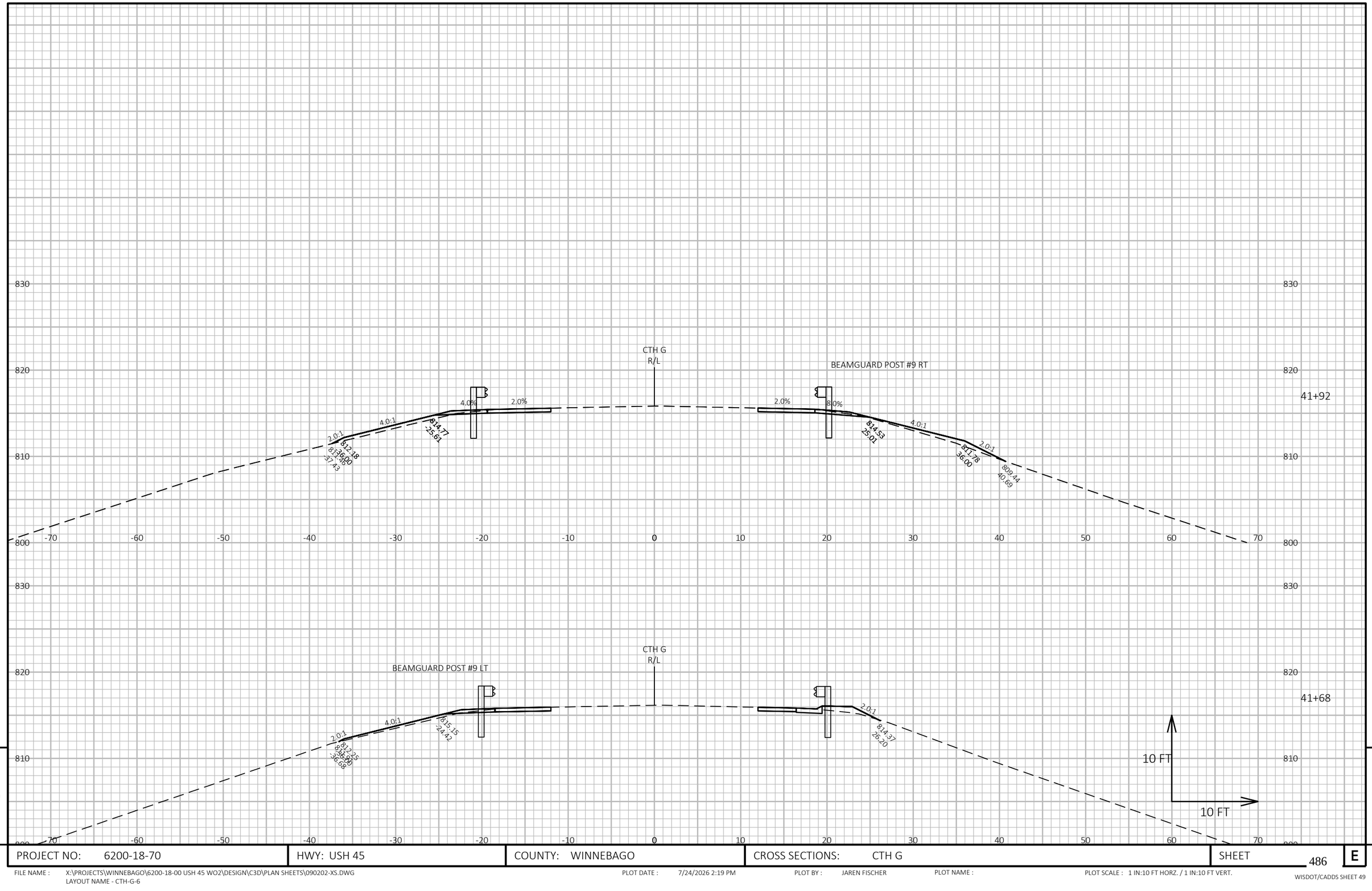
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 485	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-5

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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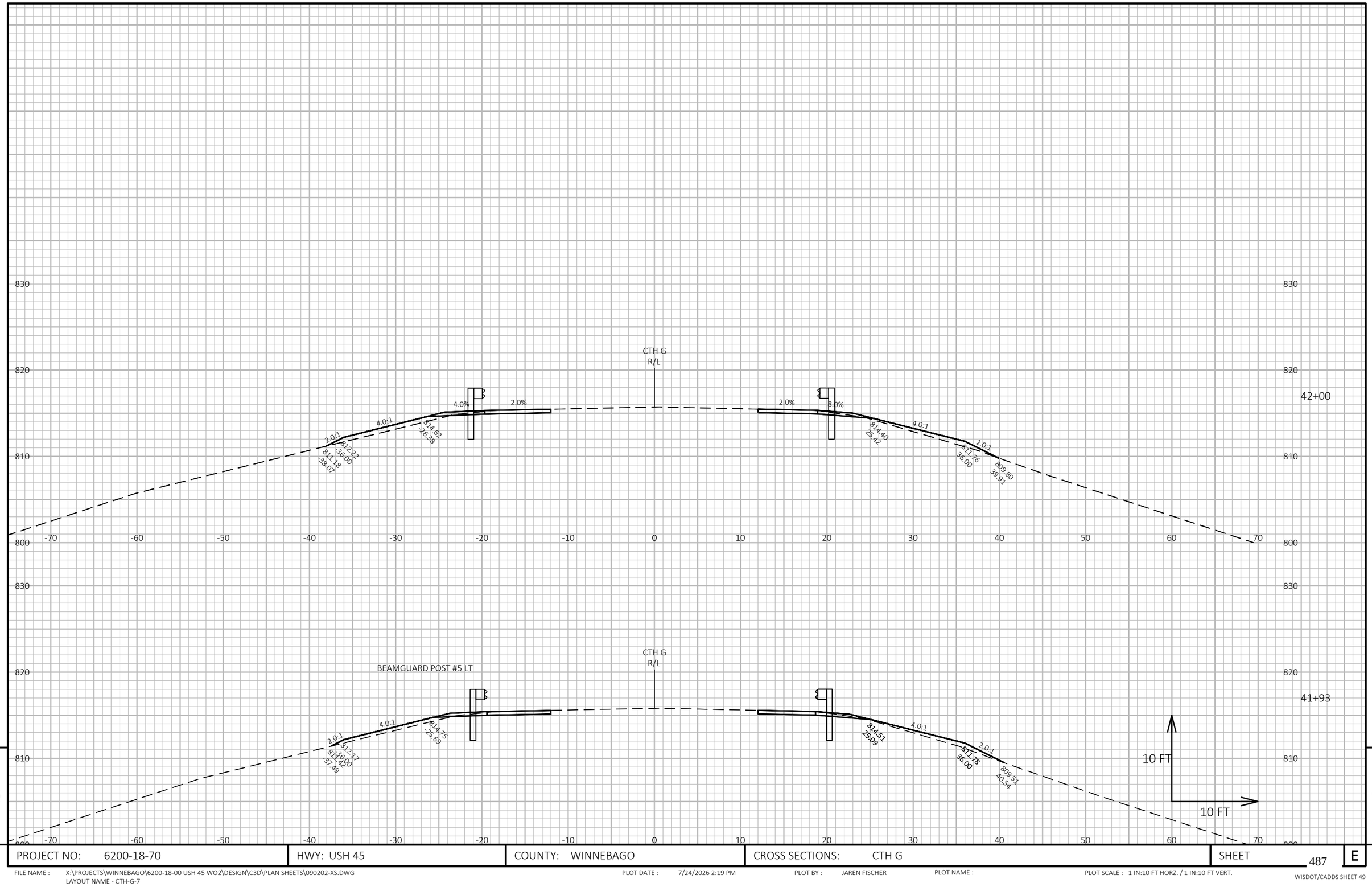
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 486	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-6

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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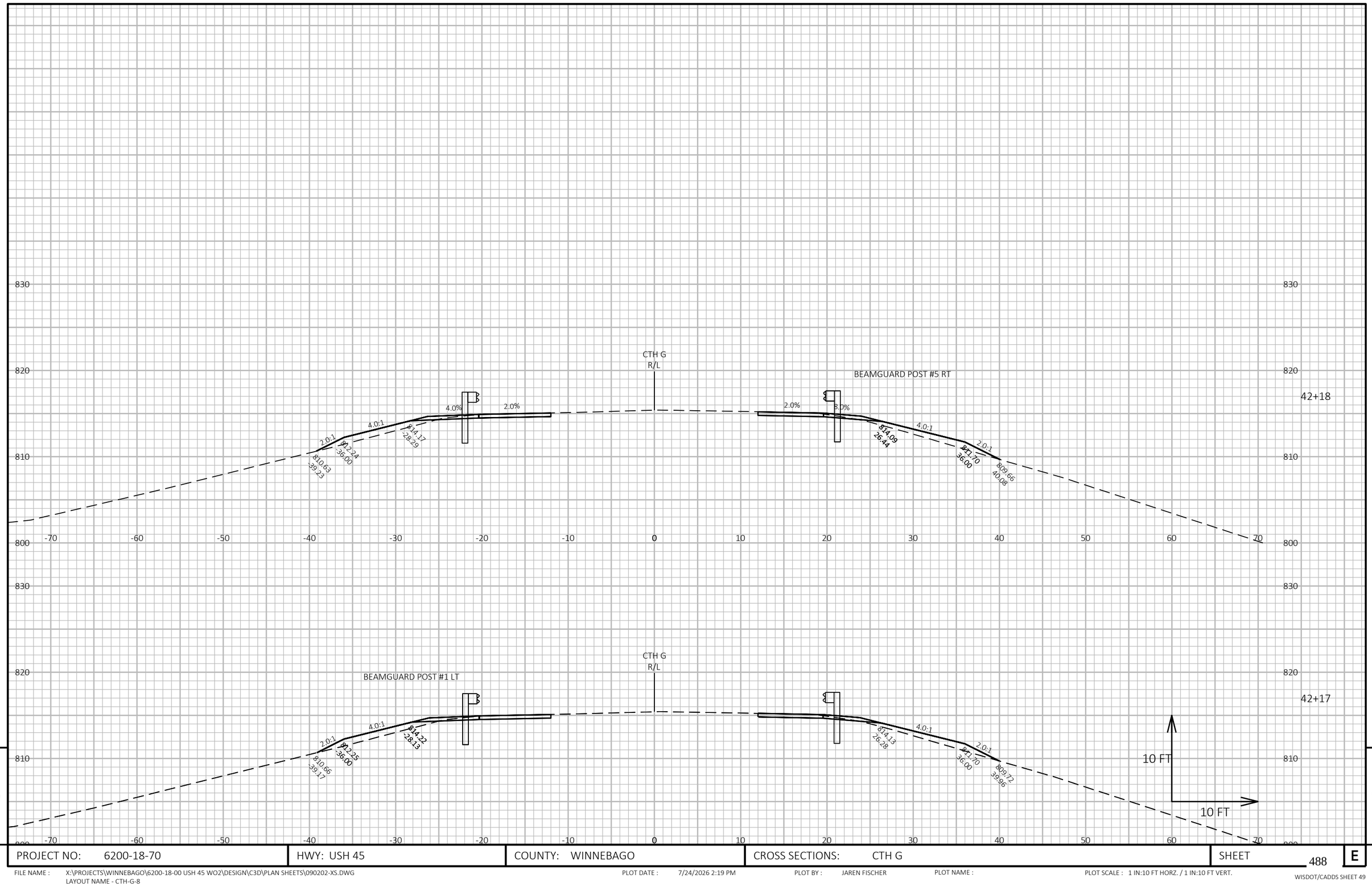
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 487	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-7

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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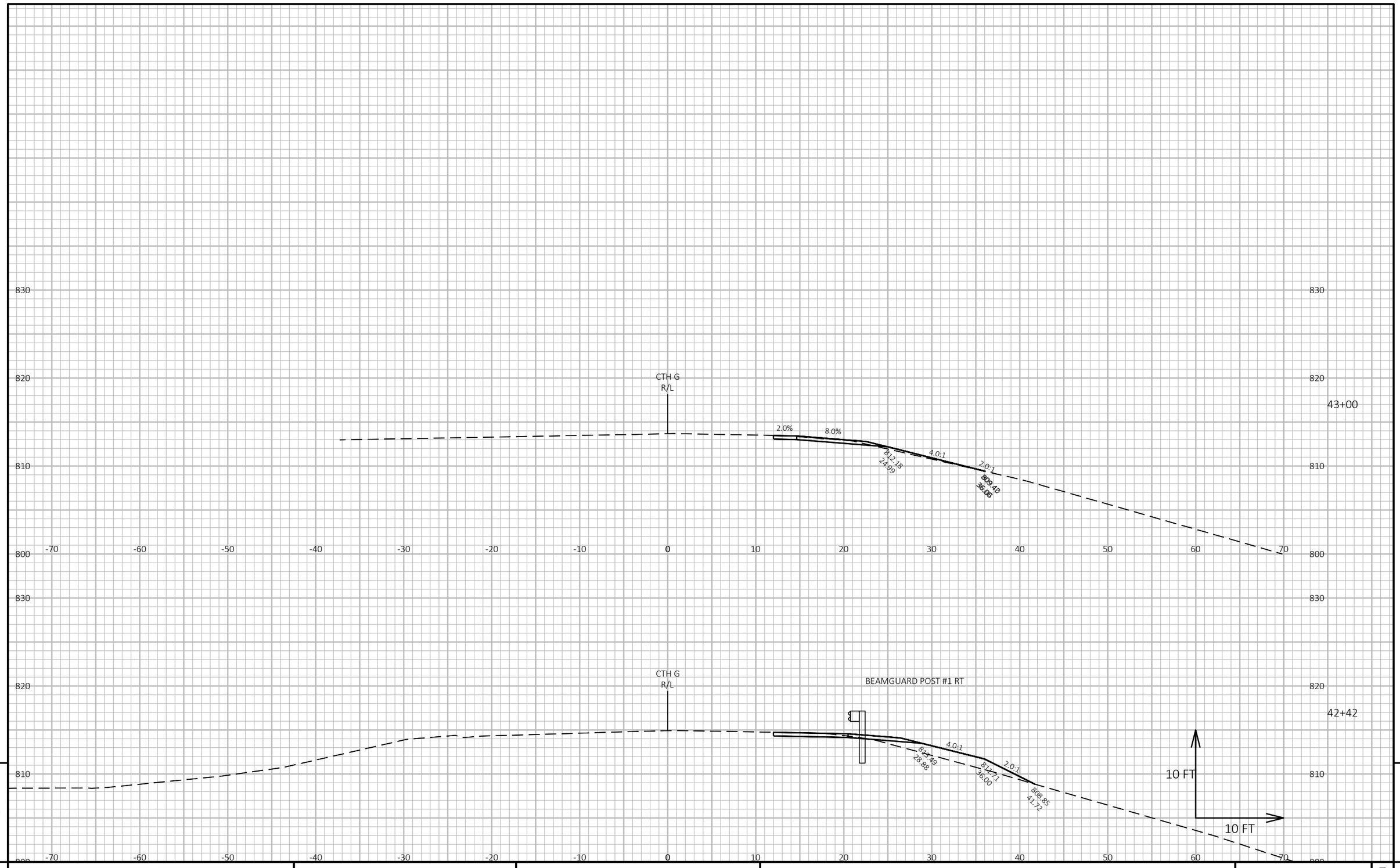
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 488	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-8

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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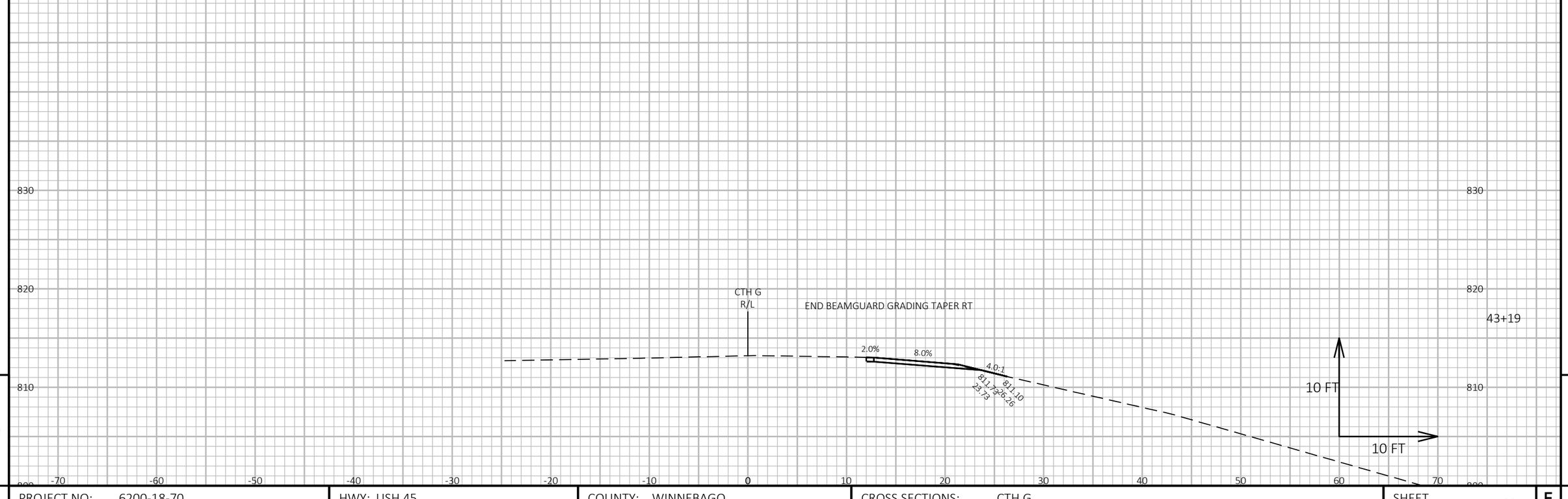
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 489	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-9

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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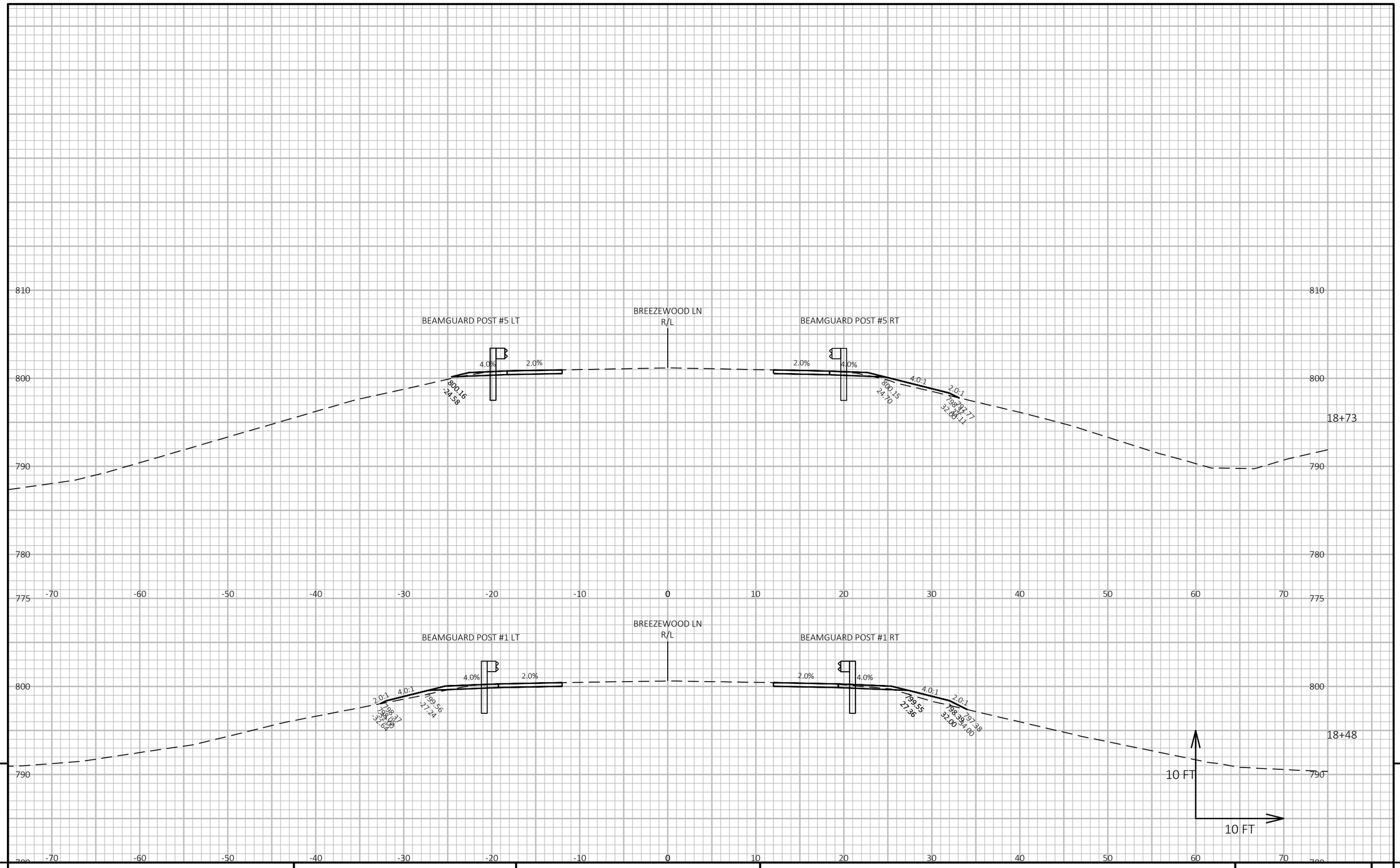
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH G	SHEET 490	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-G-10

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

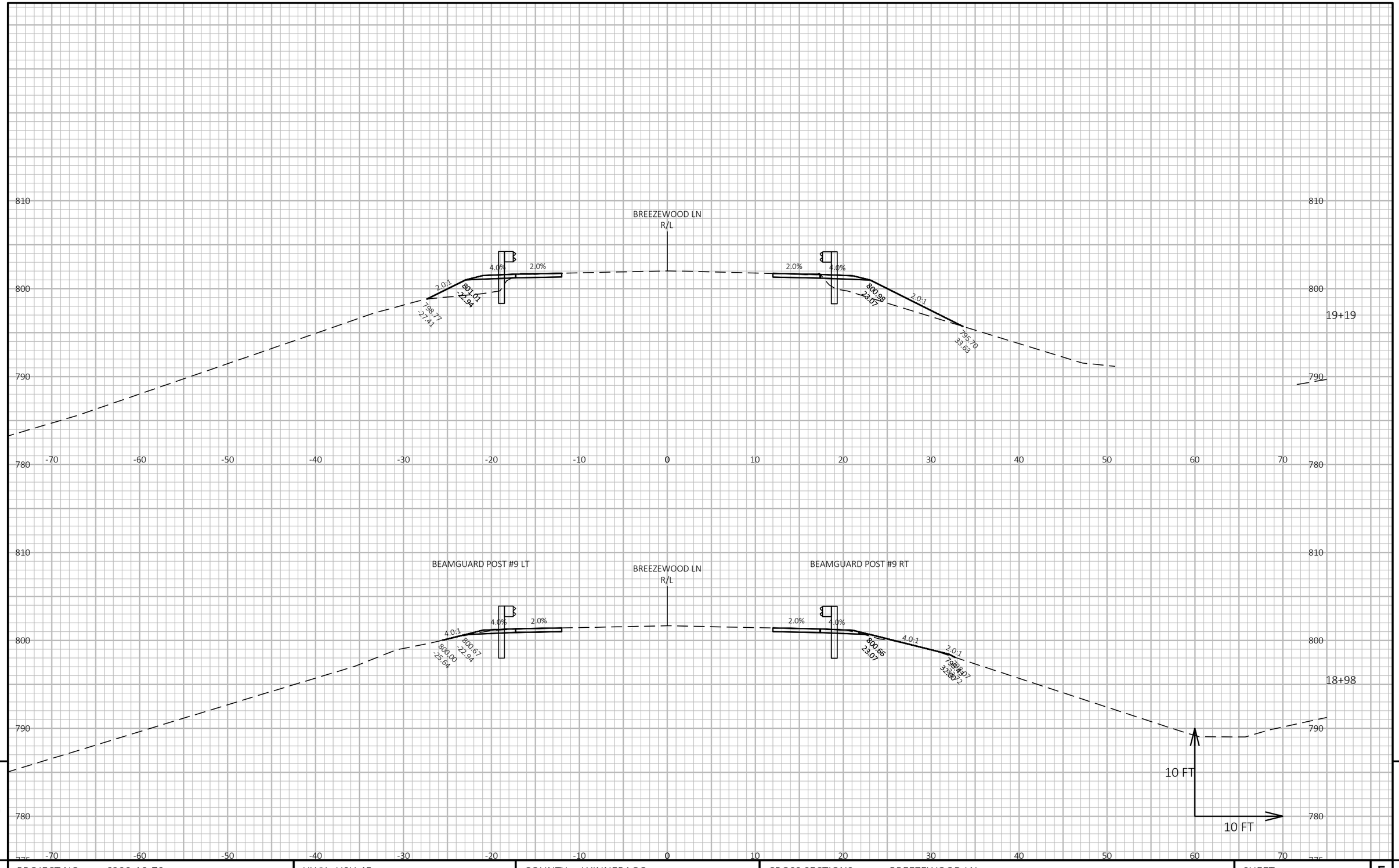


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BREEZEWOOD LN	SHEET 491	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Breeze-1

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

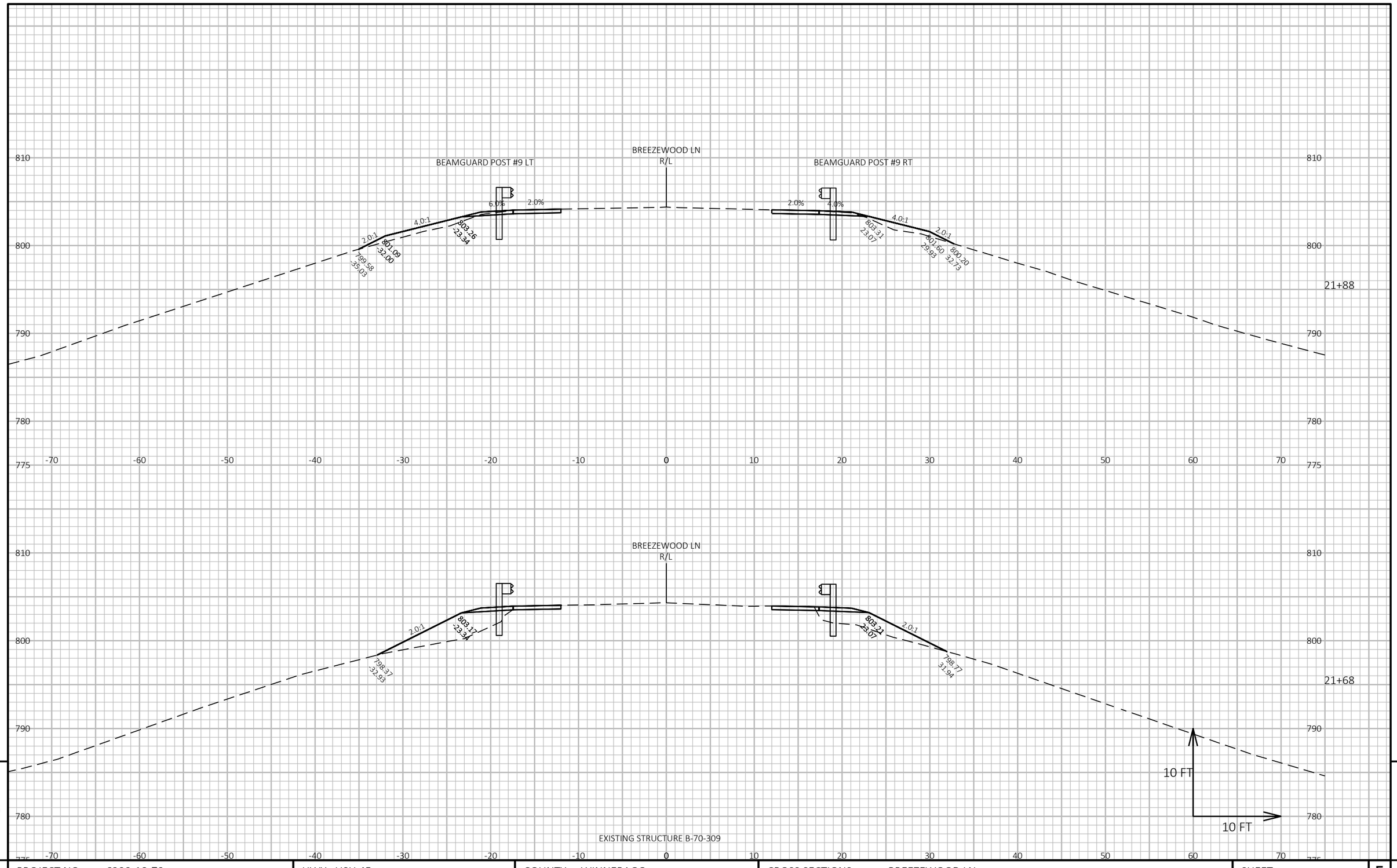
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BREEZEWOOD LN	SHEET 492	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Breeze-2

PLOT DATE : 7/24/2026 2:19 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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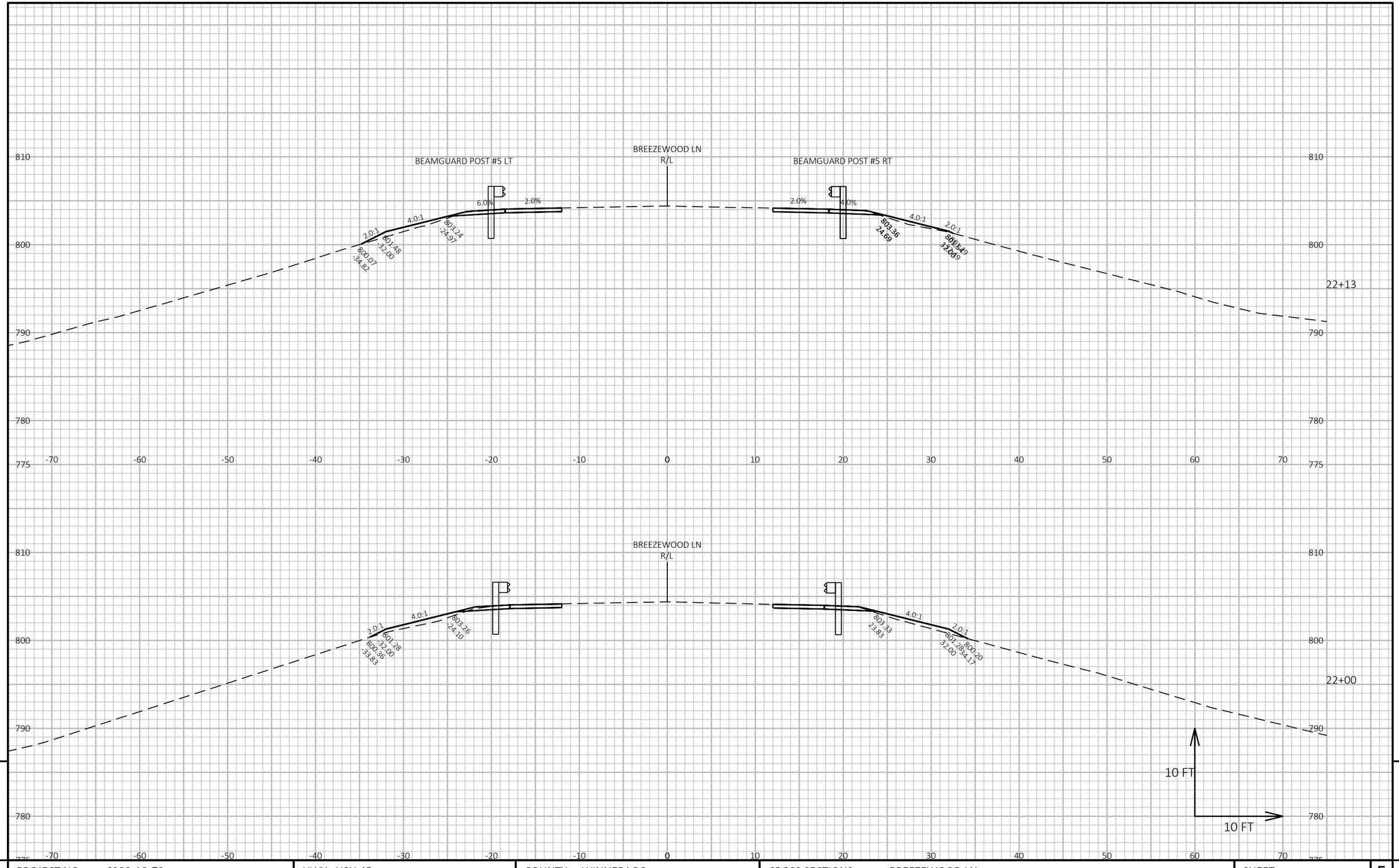
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BREEZEWOOD LN	SHEET 493	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Breeze-3

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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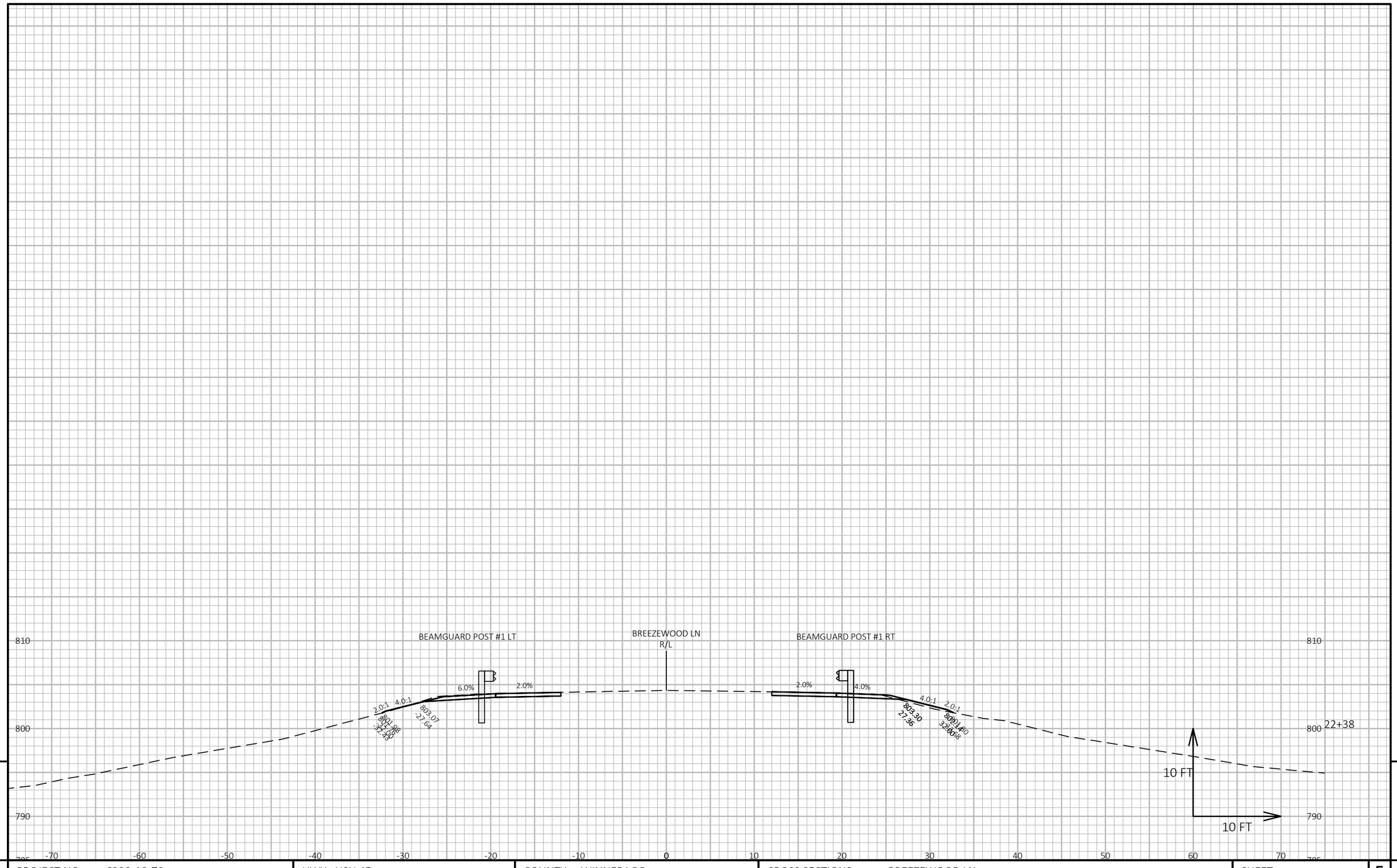
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BREEZEWOOD LN	SHEET 494	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Breeze-4

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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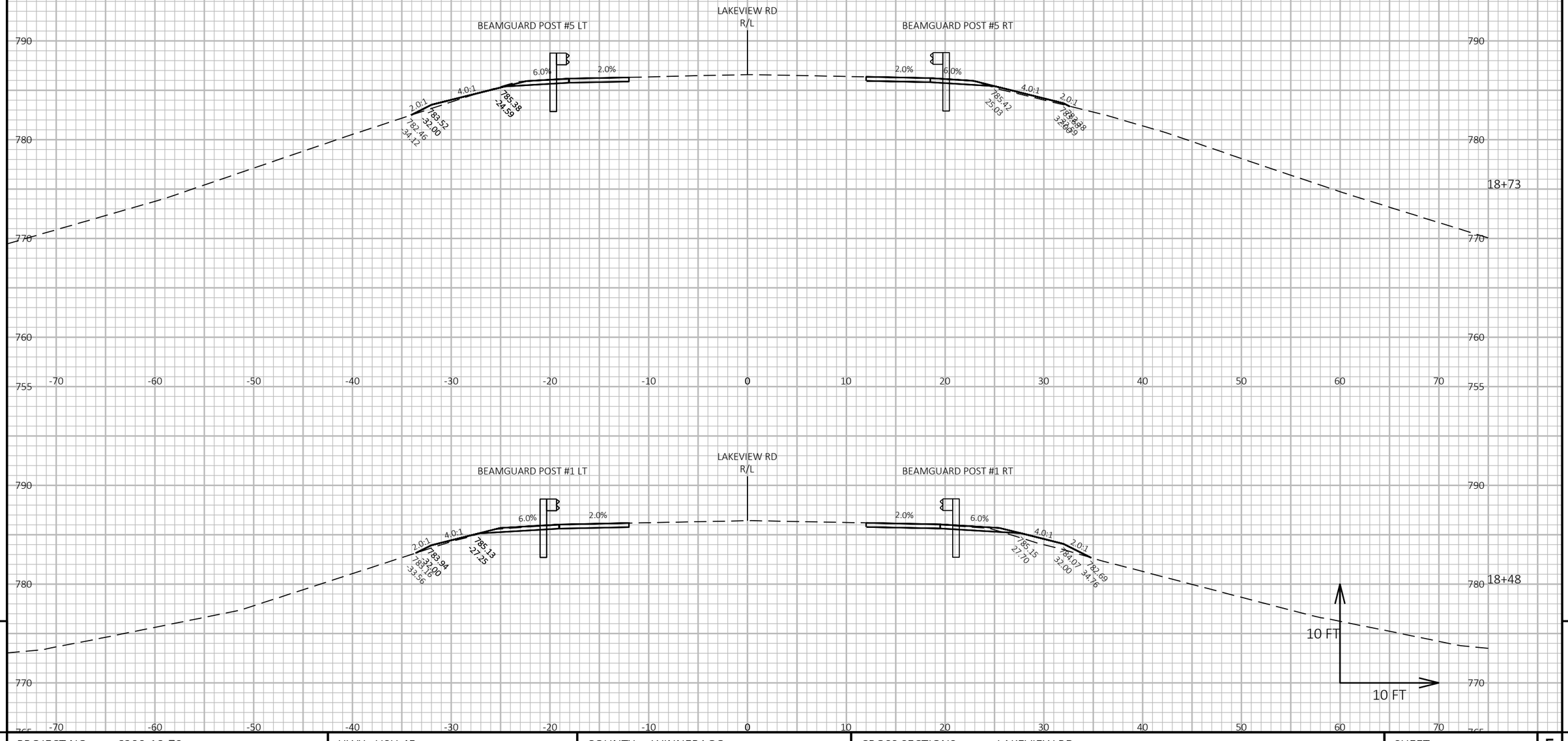
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: BREEZEWOOD LN	SHEET 495	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Breeze-5

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: LAKEVIEW RD	SHEET 496	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - LAKEVIEW-1

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

EXISTING STRUCTURE B-70-310

LAKEVIEW RD
R/L

790
780
770
760
755

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

6.0%
2.0%
2.0%
6.0%
2.0:1
785.41
22.98
782.88
28.16
785.56
22.40
2.0:1
781.92
30.67

19+19

BEAMGUARD POST #9 LT

LAKEVIEW RD
R/L

BEAMGUARD POST #9 RT

790
780
770
760
755

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

2.0:1
4.0:1
785.53
22.98
783.27
32.00
781.29
35.96
785.57
23.42
4.0:1
2.0:1
781.00
32.00

18+98

10 FT
10 FT

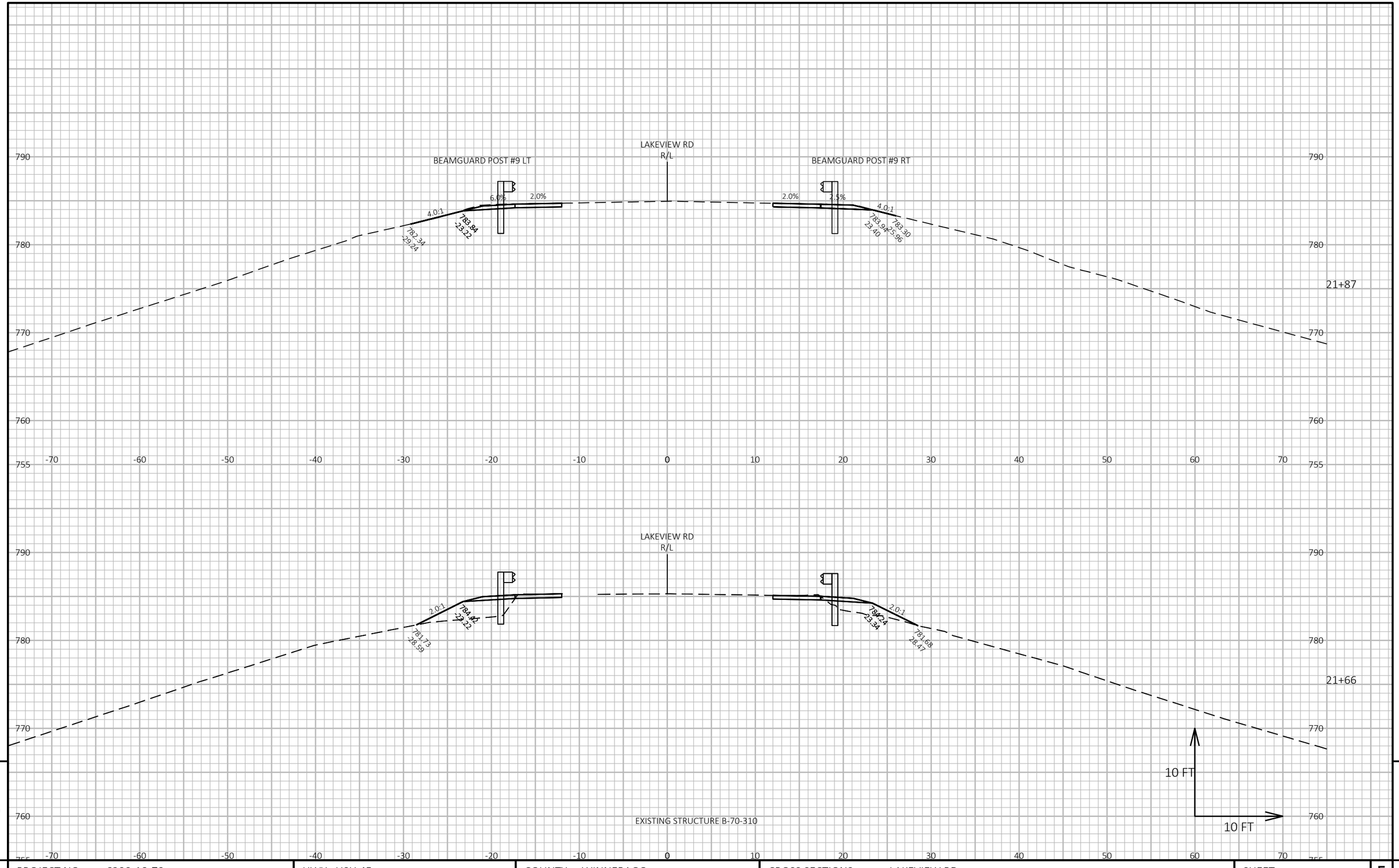
9 9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: LAKEVIEW RD	SHEET 497	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - LAKEVIEW-2

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



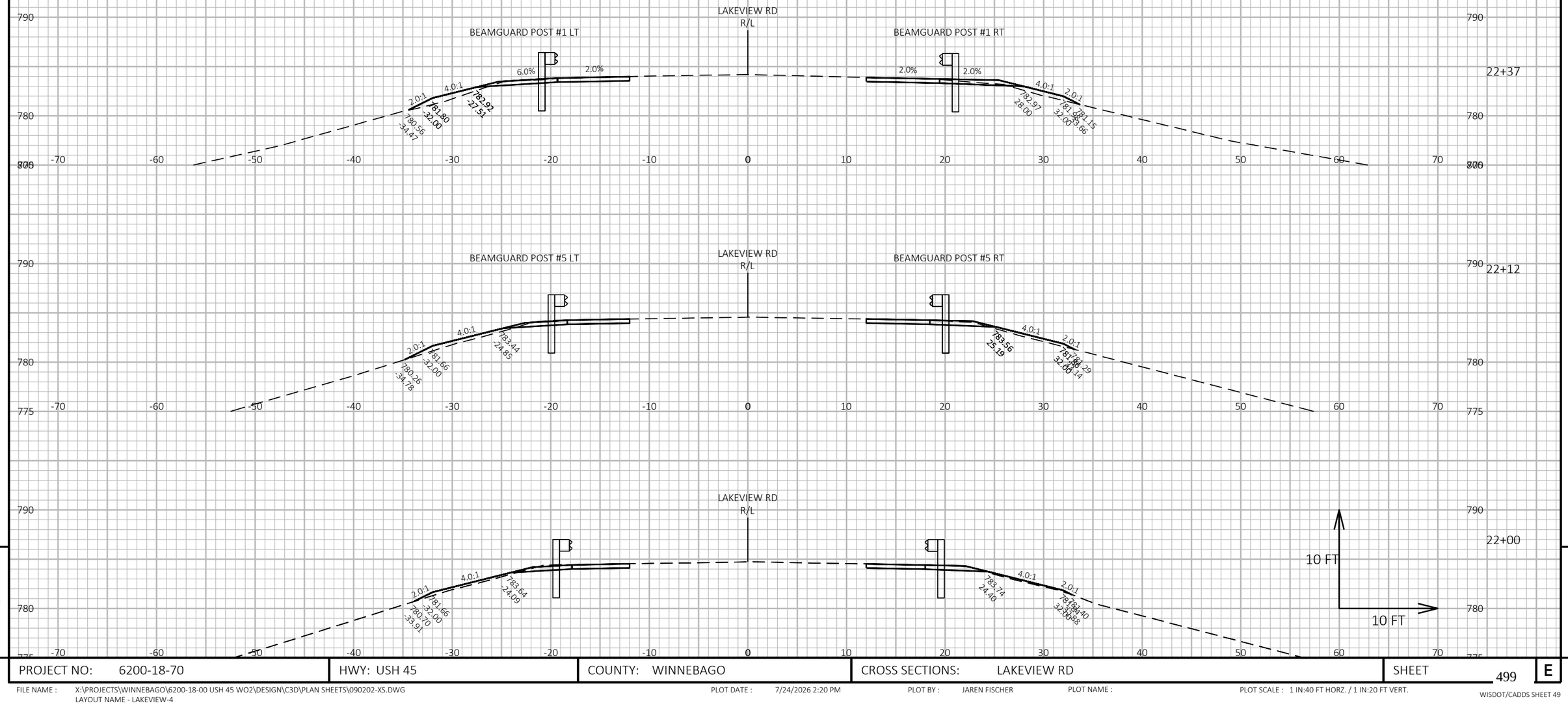
9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: LAKEVIEW RD	SHEET 498	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - LAKEVIEW-3

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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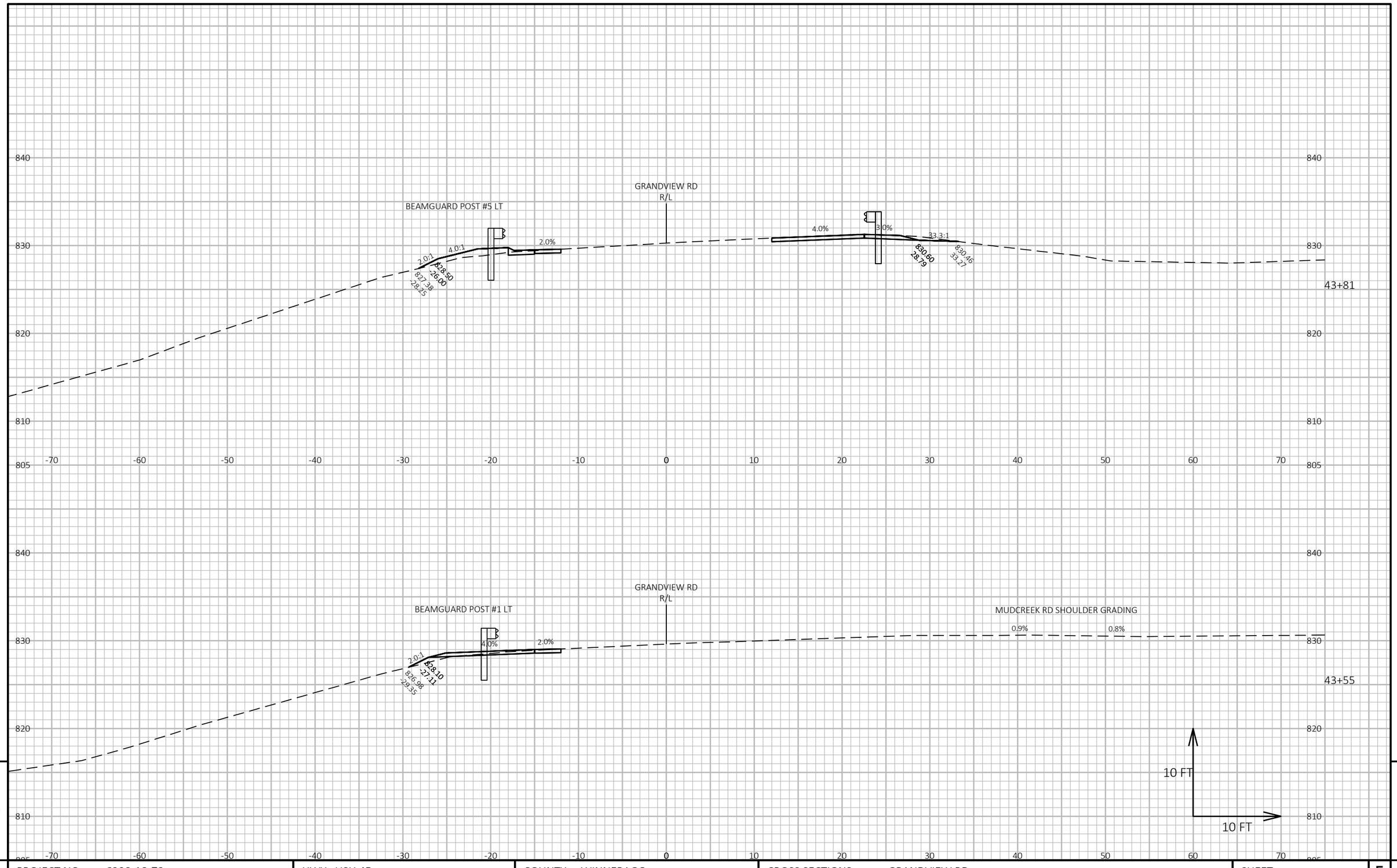
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: LAKEVIEW RD	SHEET 499	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - LAKEVIEW-4

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:40 FT HORZ. / 1 IN:20 FT VERT.

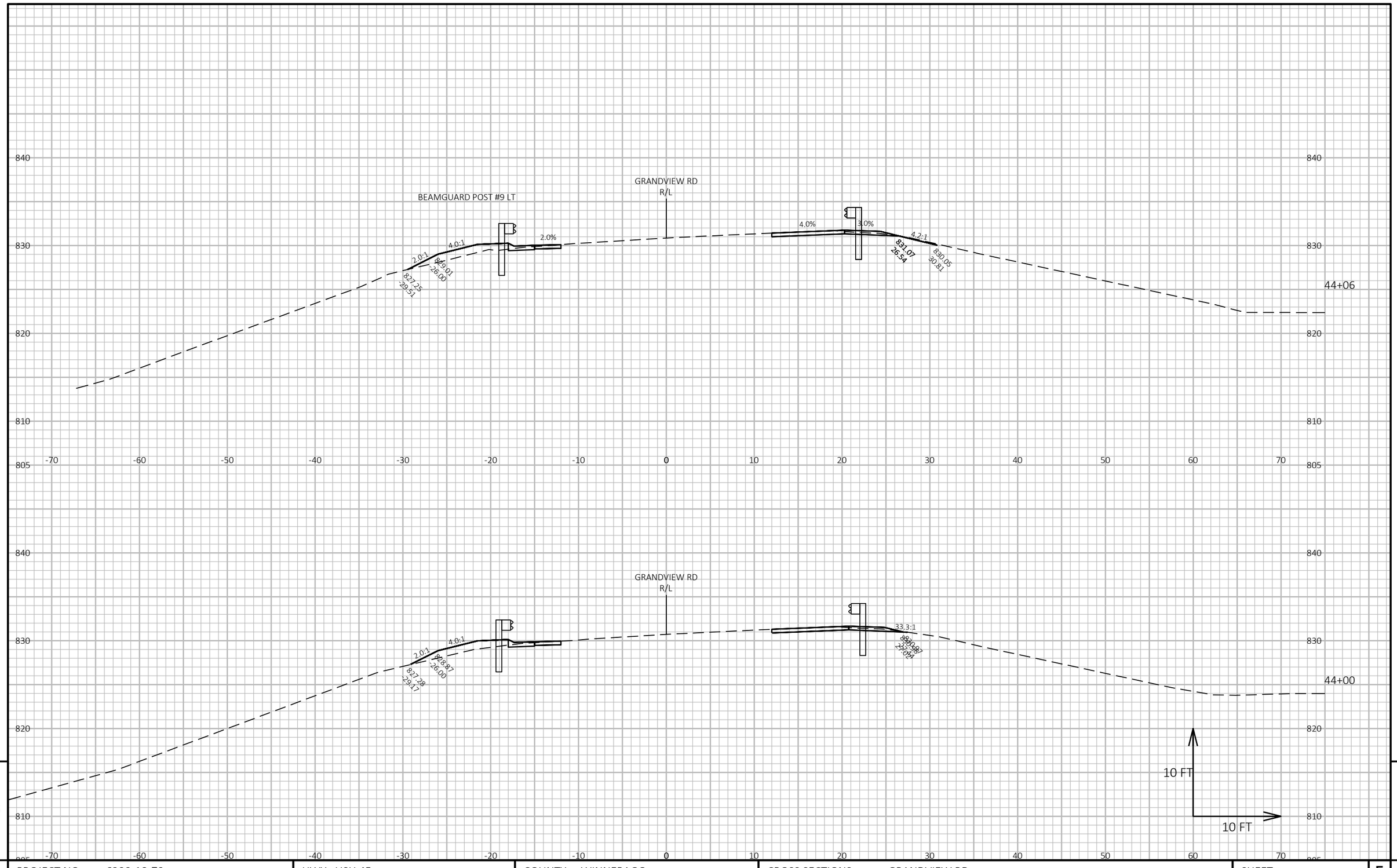


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 500	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-1

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

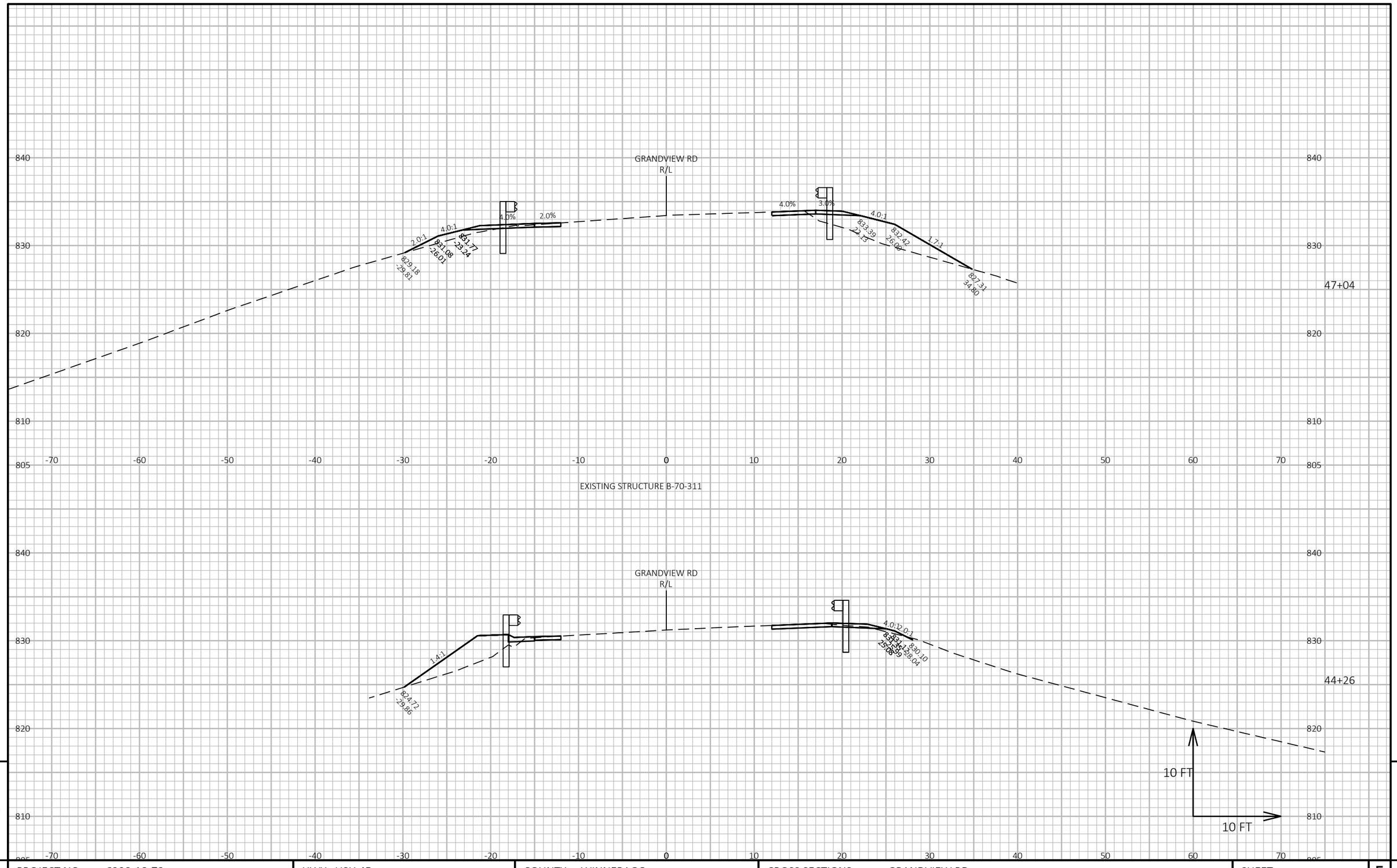
WISDOT/CADDS SHEET 49



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 501	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-2

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

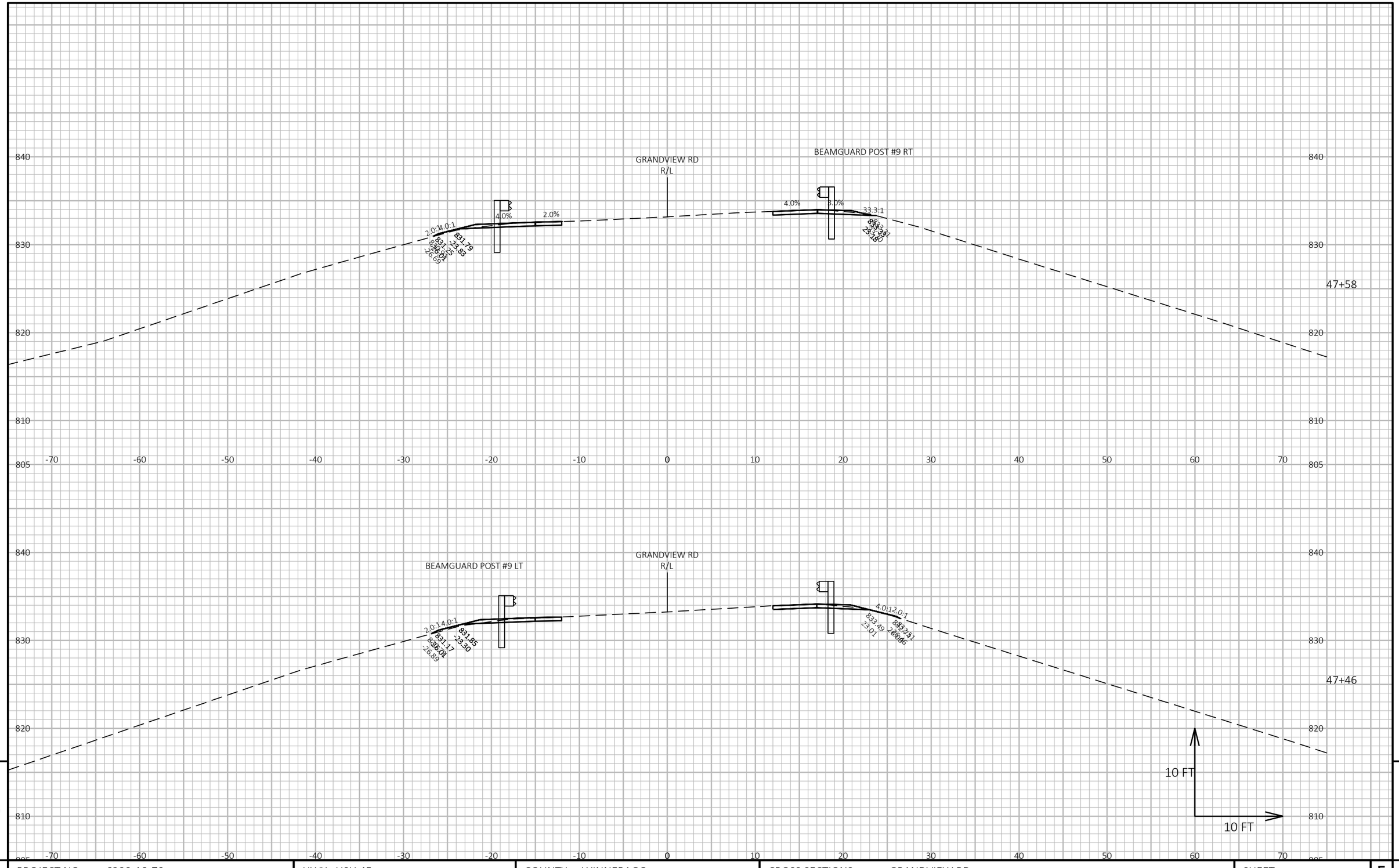


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 502	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-3

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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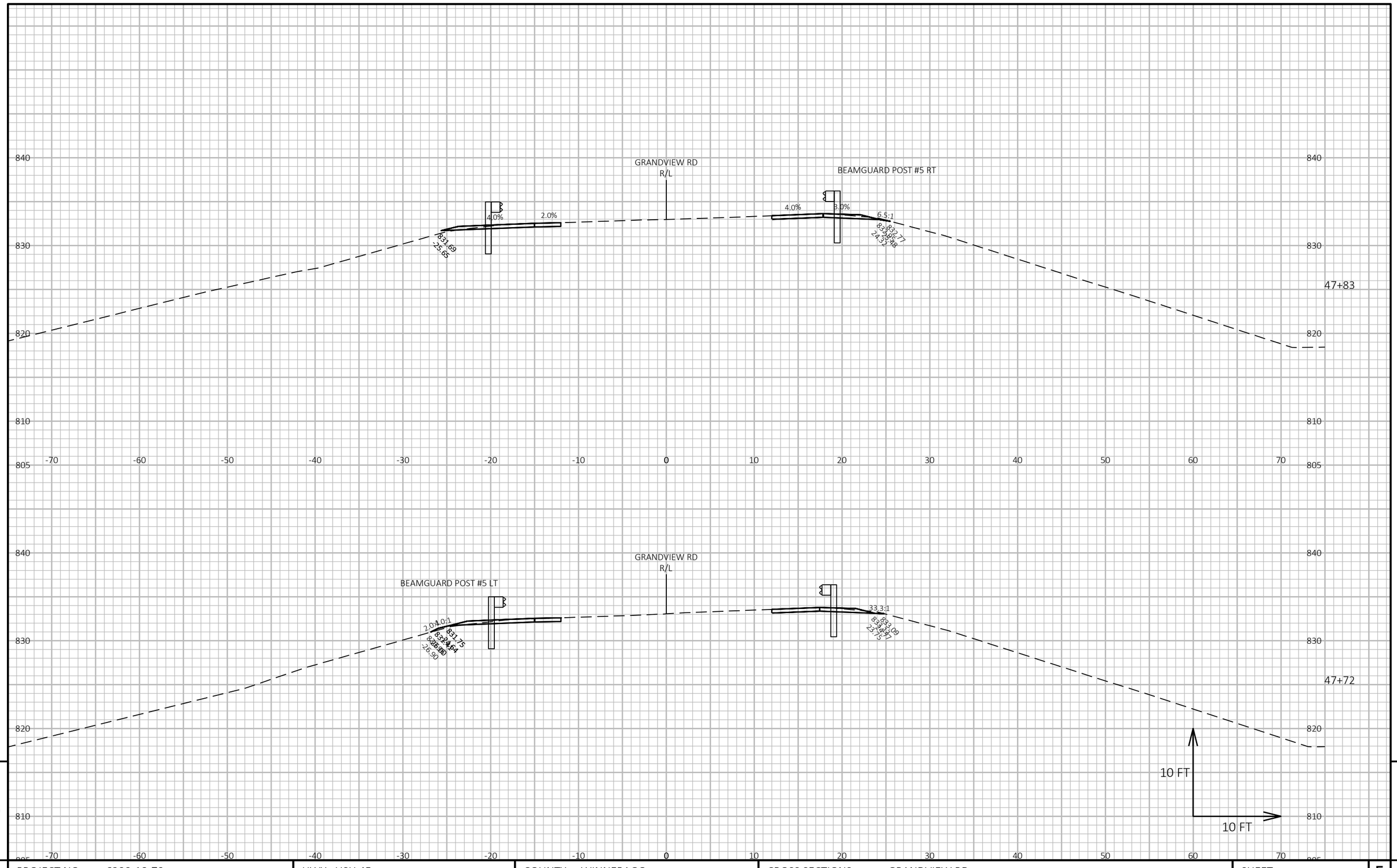
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 503	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-4

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



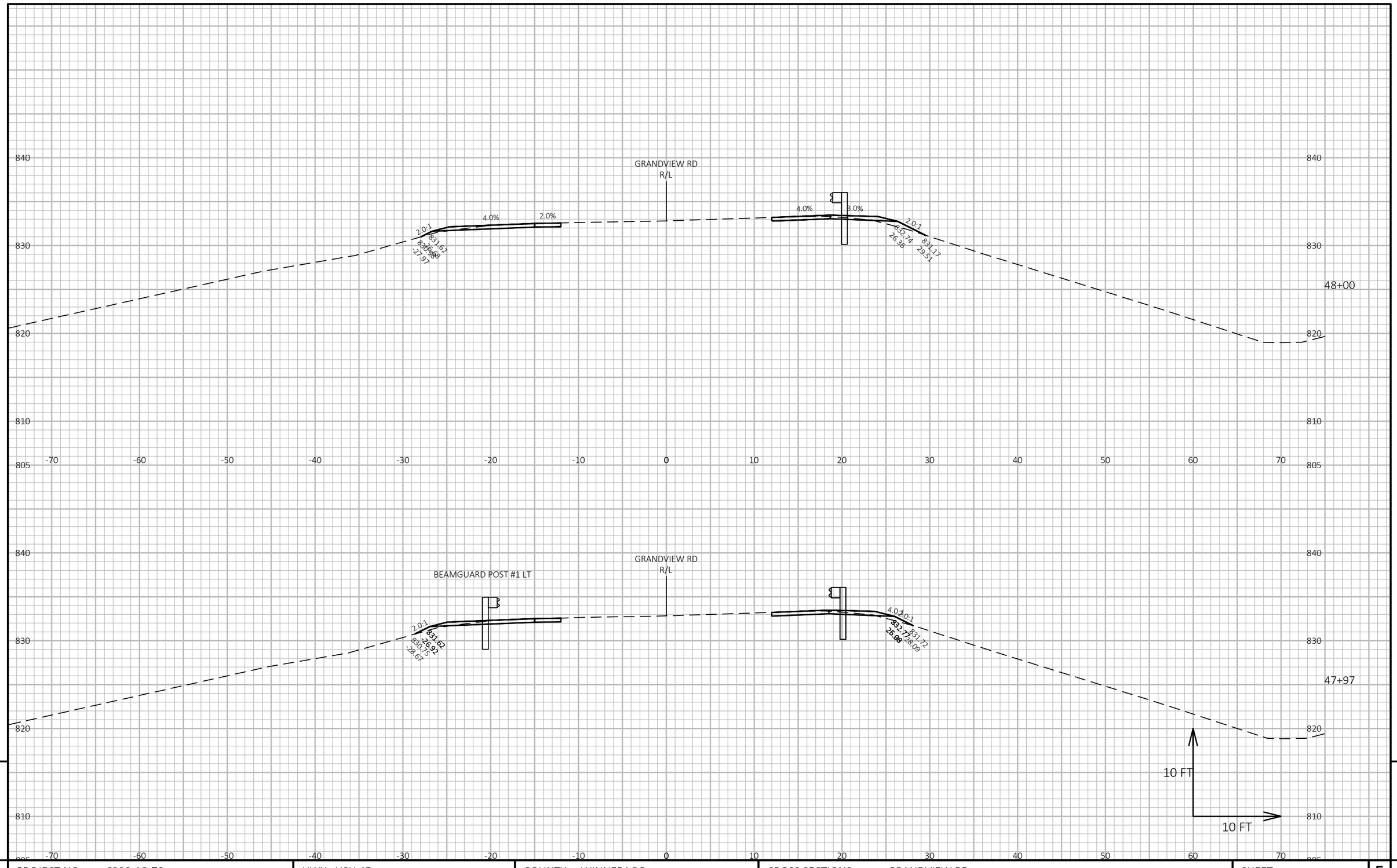
9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 504	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-5

PLOT DATE : 7/24/2026 2:20 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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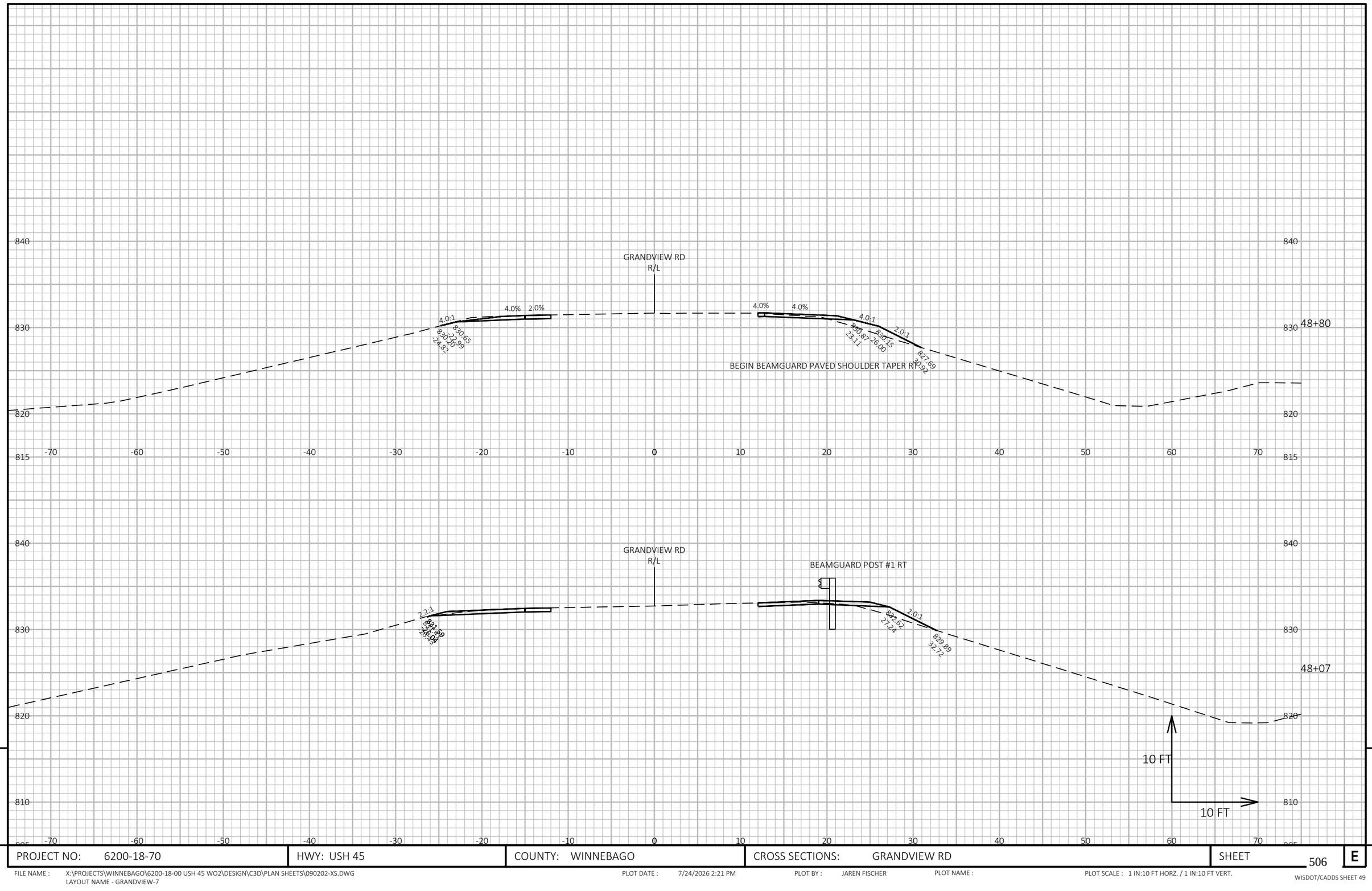
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 505	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-6

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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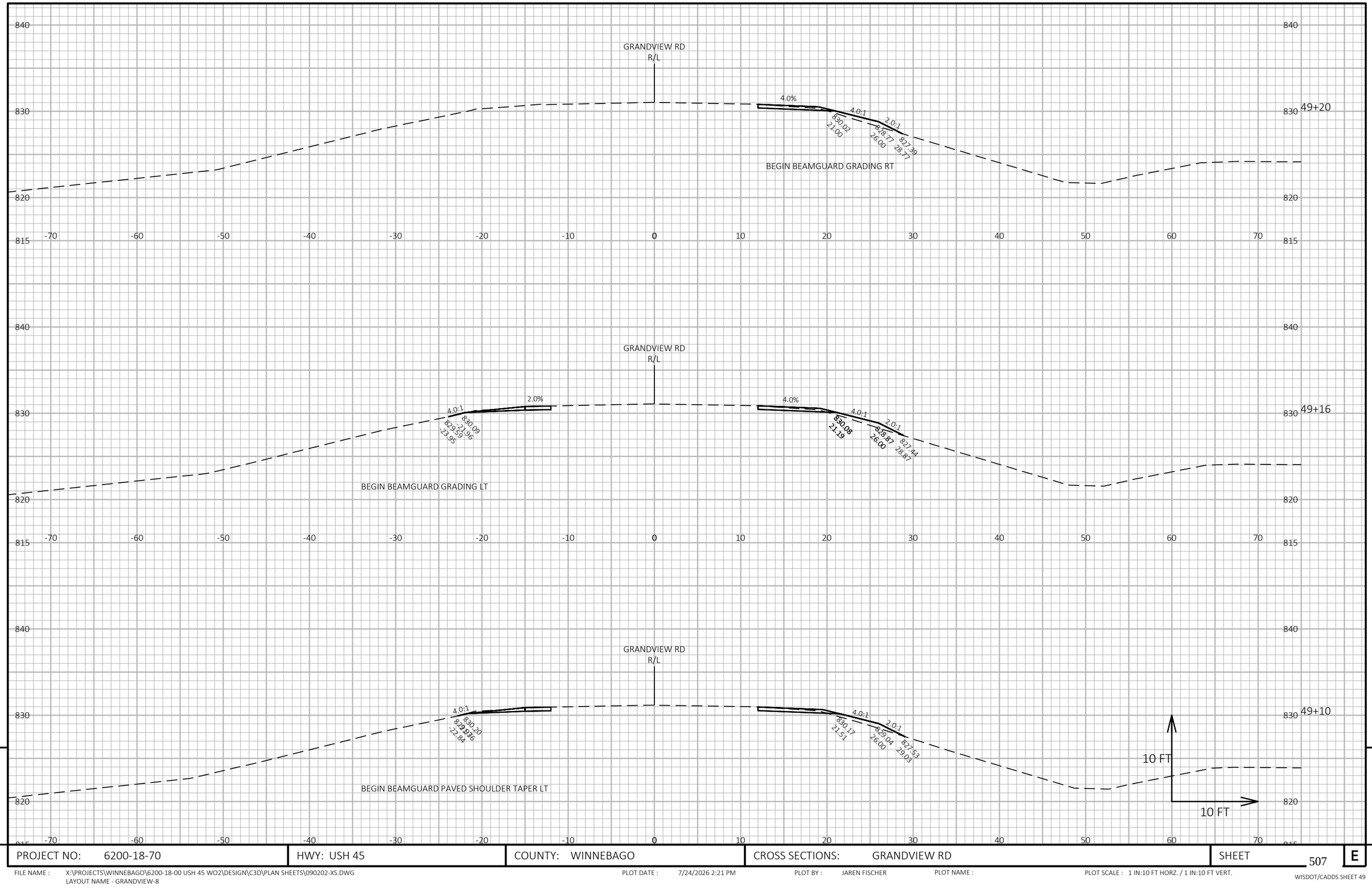
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 506	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-7

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

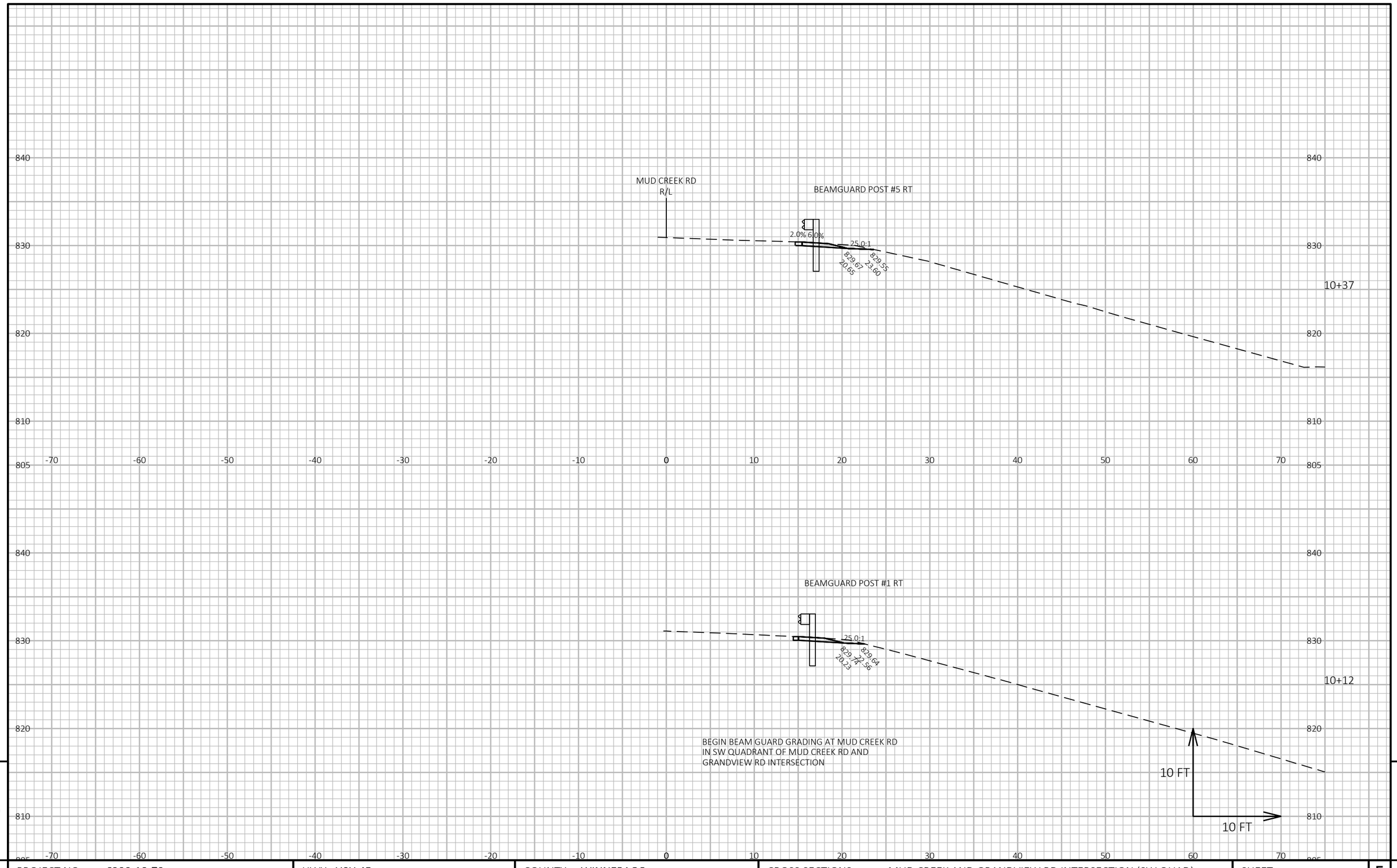
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: GRANDVIEW RD	SHEET 507	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - GRANDVIEW-8

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

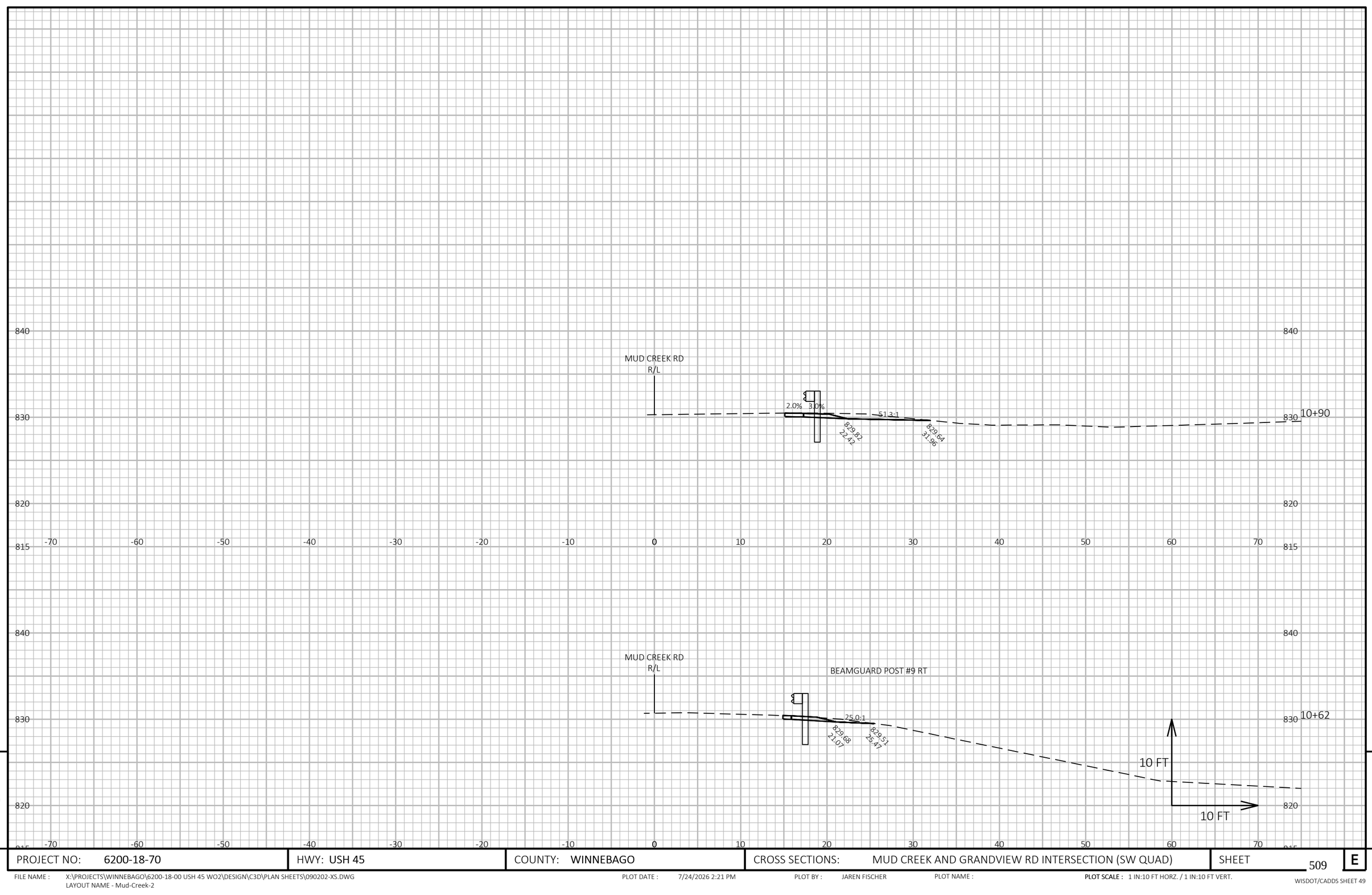
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: MUD CREEK AND GRANDVIEW RD INTERSECTION (SW QUAD)	SHEET 508	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Mud-Creek-1

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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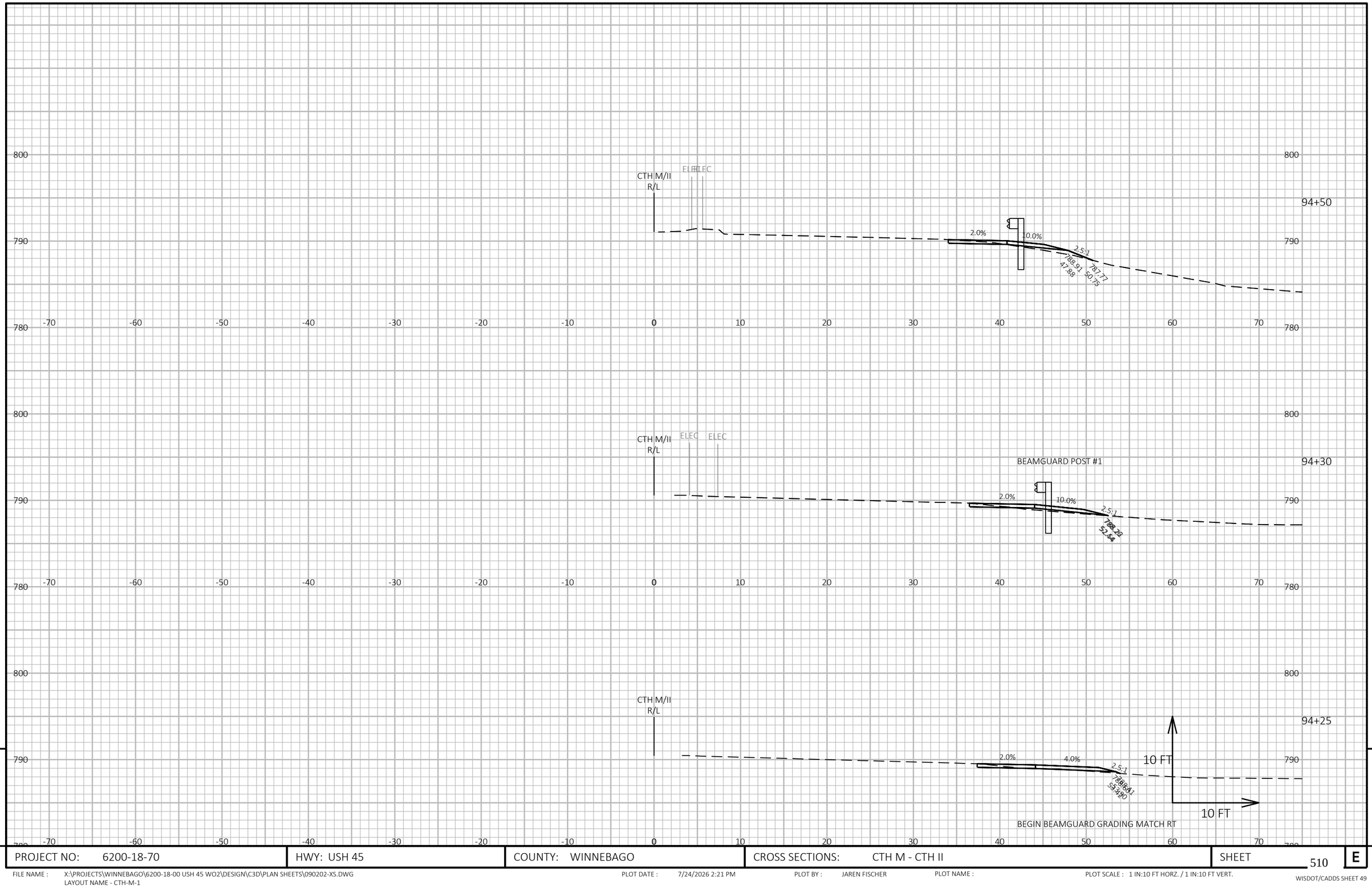
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: MUD CREEK AND GRANDVIEW RD INTERSECTION (SW QUAD)	SHEET 509	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - Mud-Creek-2

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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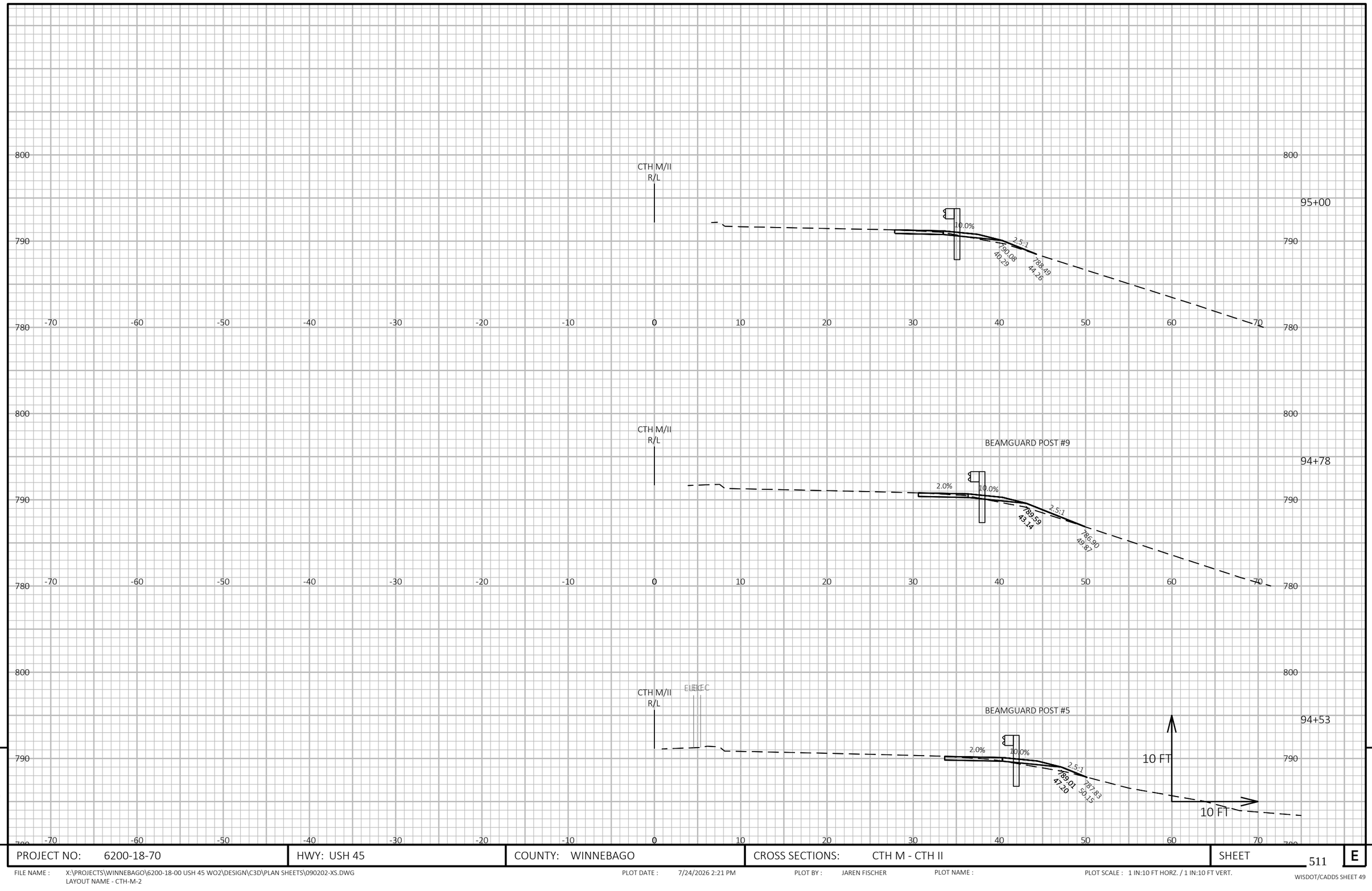
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH M - CTH II	SHEET 510	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-M-1

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

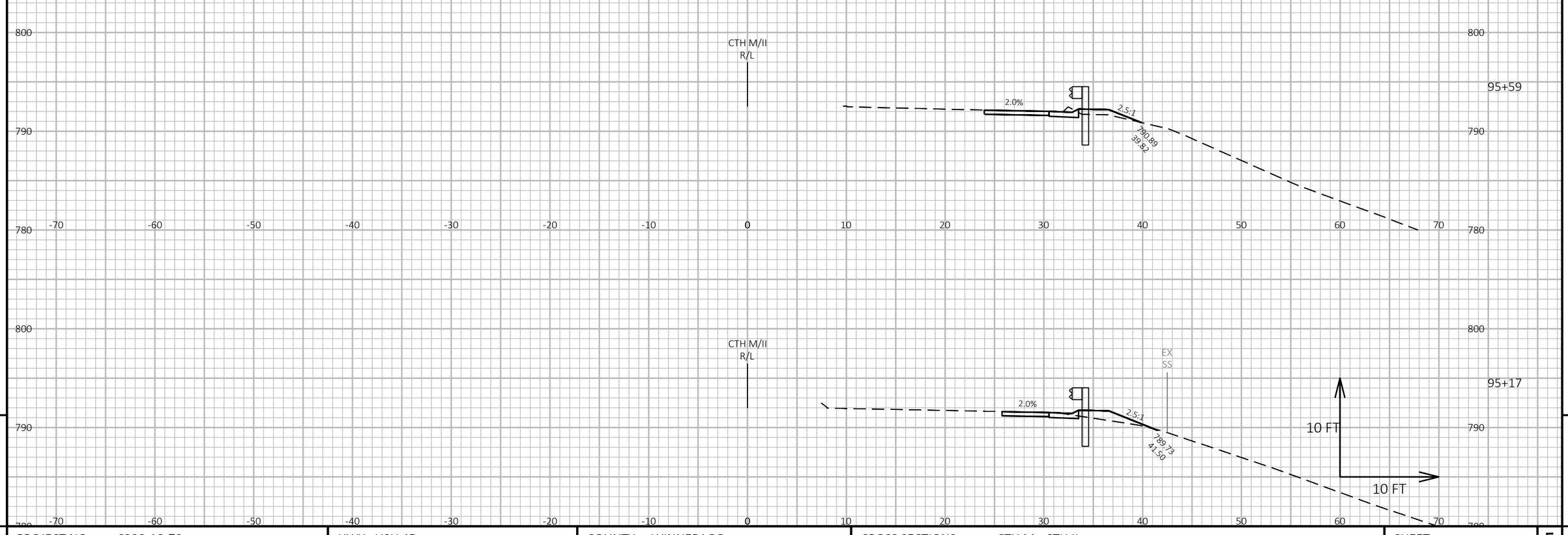
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH M - CTH II	SHEET 511	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-M-2

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

EXISTING STRUCTURE B-70-238



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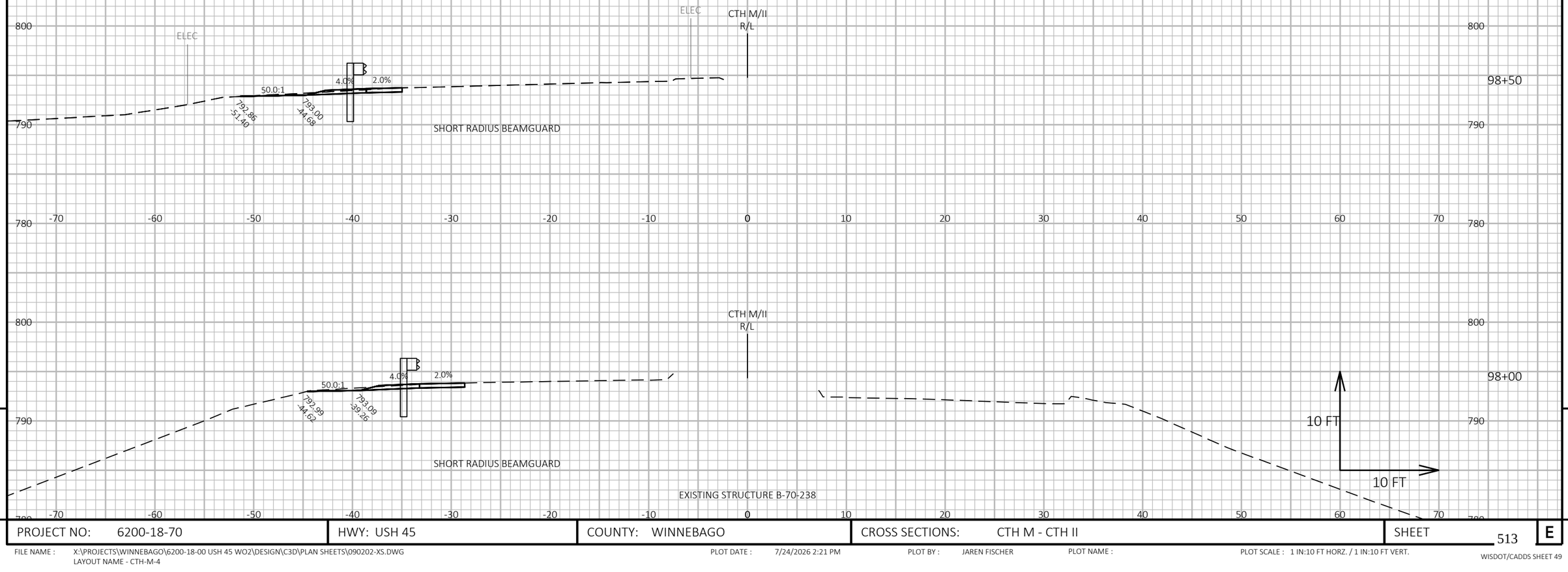
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH M - CTH II	SHEET 512	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-M-3

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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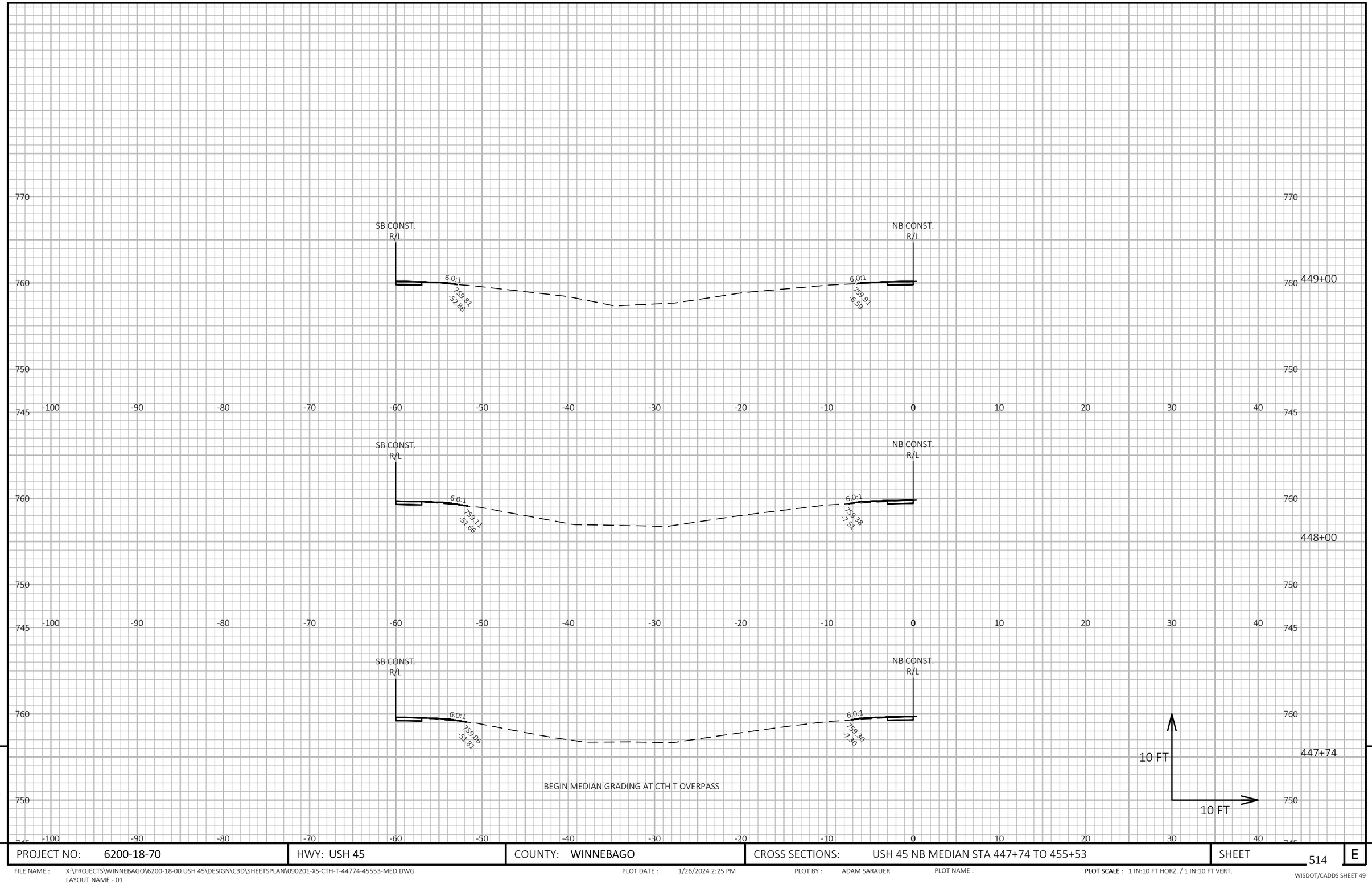
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: CTH M - CTH II	SHEET 513	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45 WO2\DESIGN\C3D\PLAN SHEETS\090202-XS.DWG
LAYOUT NAME - CTH-M-4

PLOT DATE : 7/24/2026 2:21 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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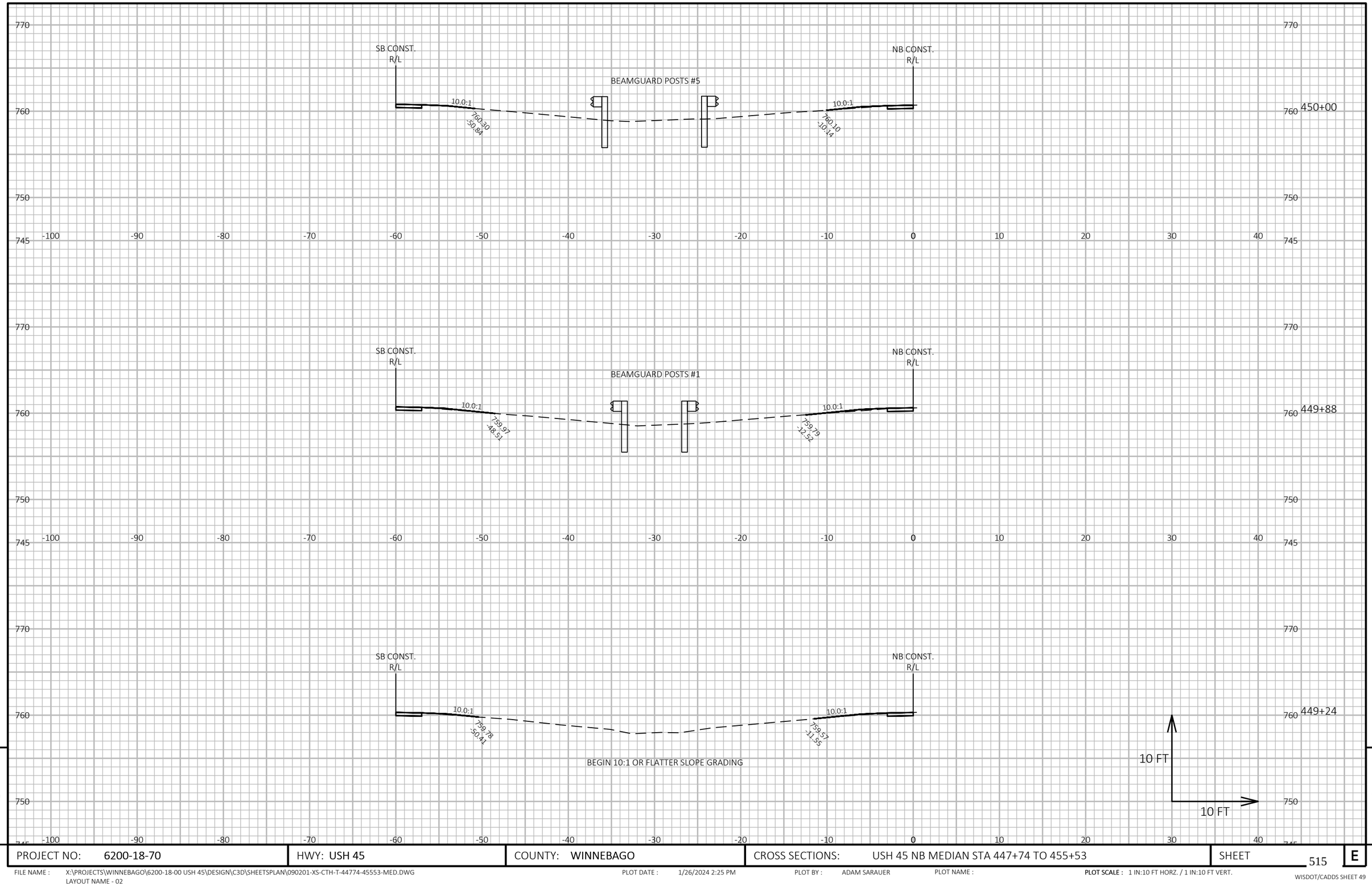
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 514	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 01

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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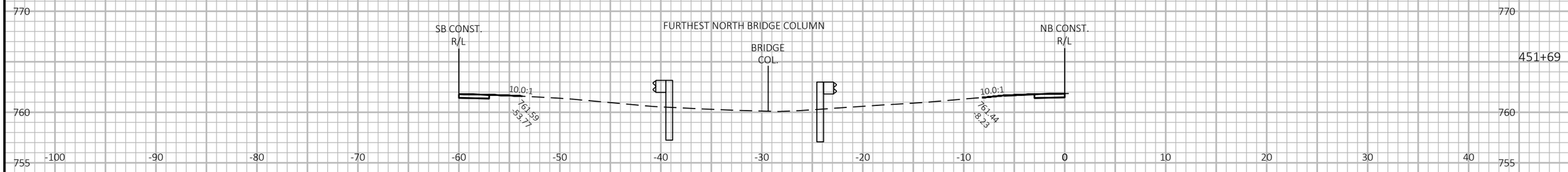
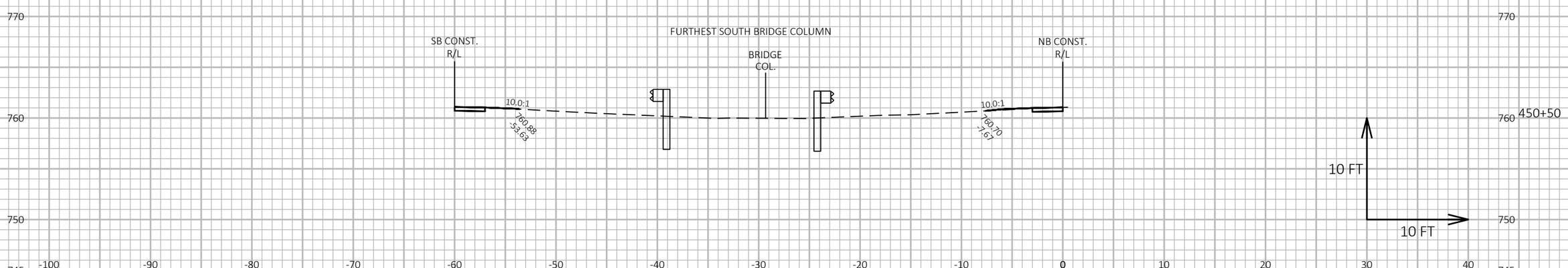
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 515	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 02
PLOT DATE : 1/26/2024 2:25 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49





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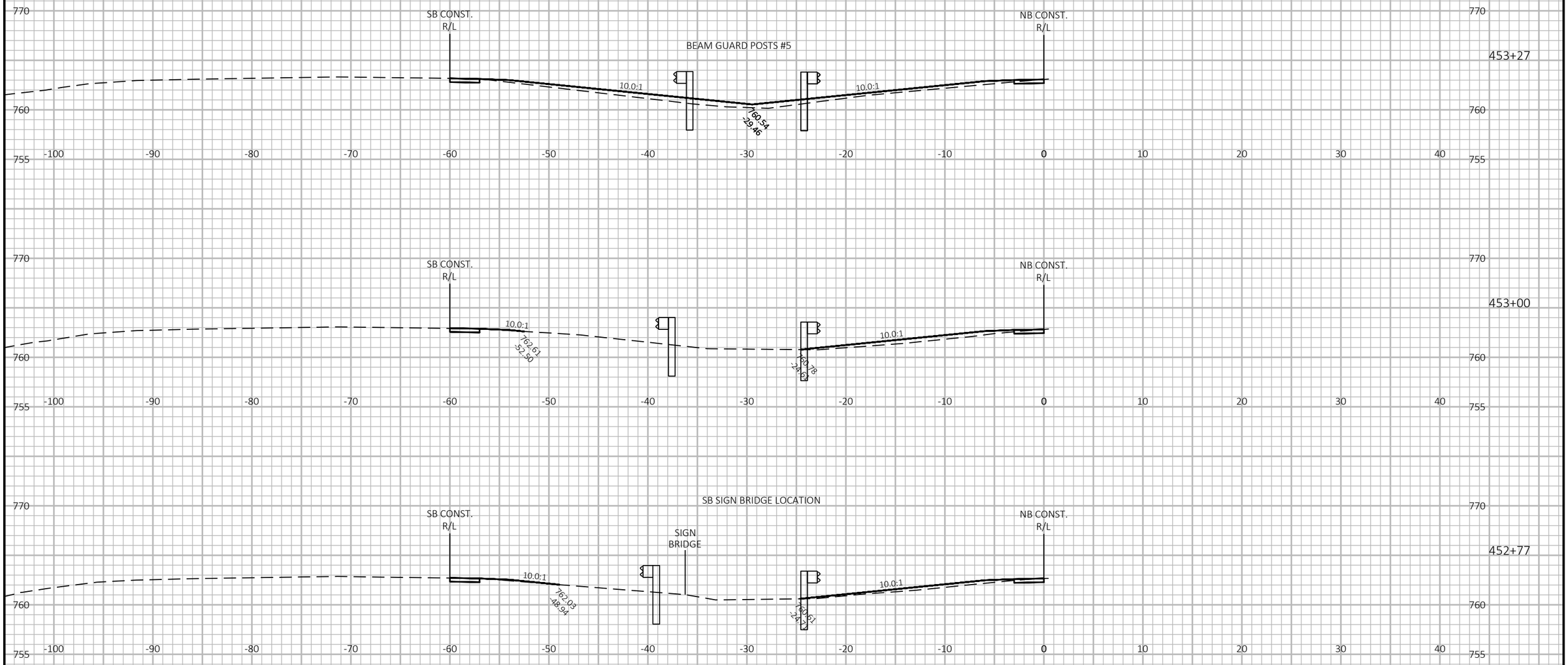
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 516	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 03

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

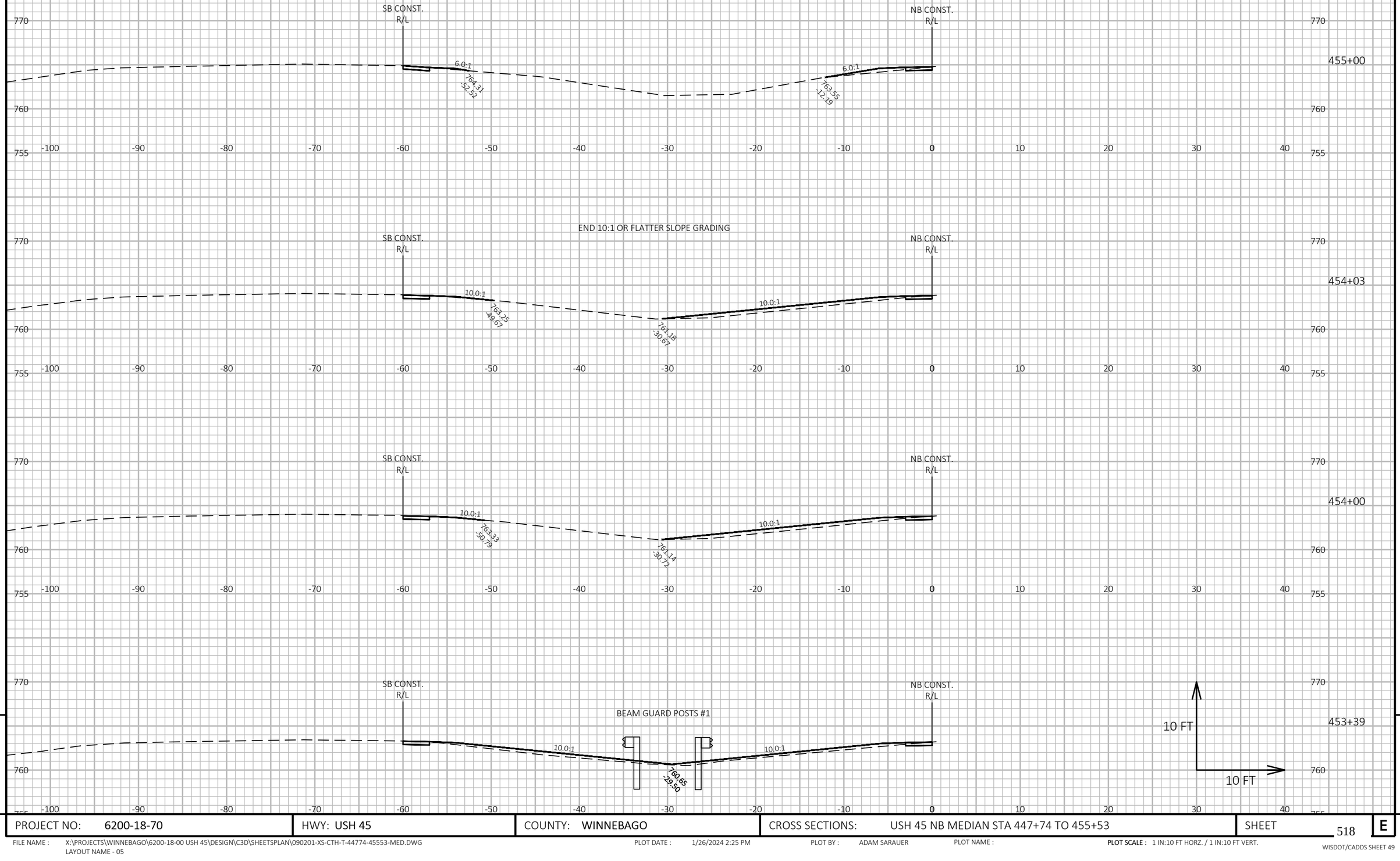


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 517	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 04

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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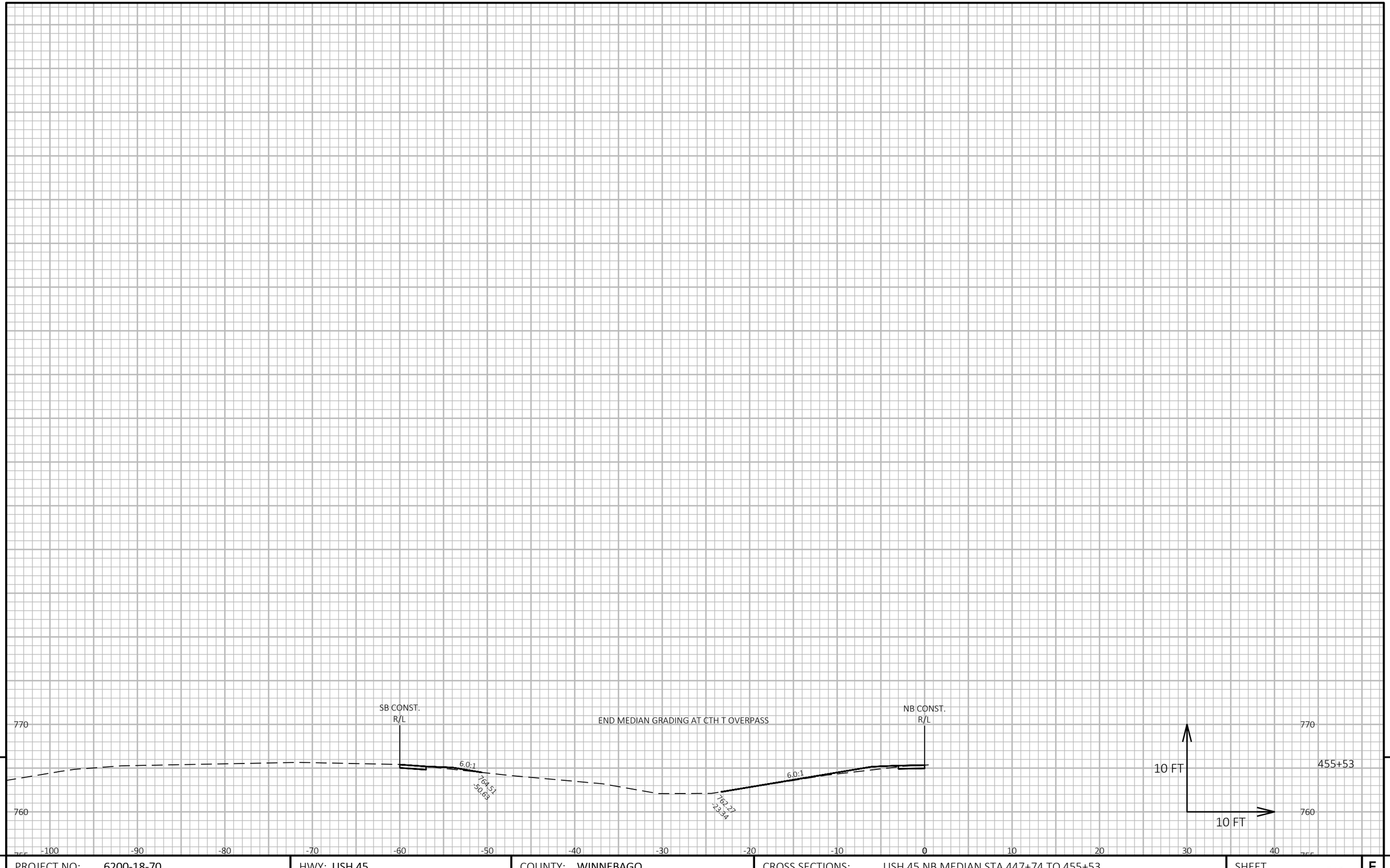
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 518	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 05
PLOT DATE : 1/26/2024 2:25 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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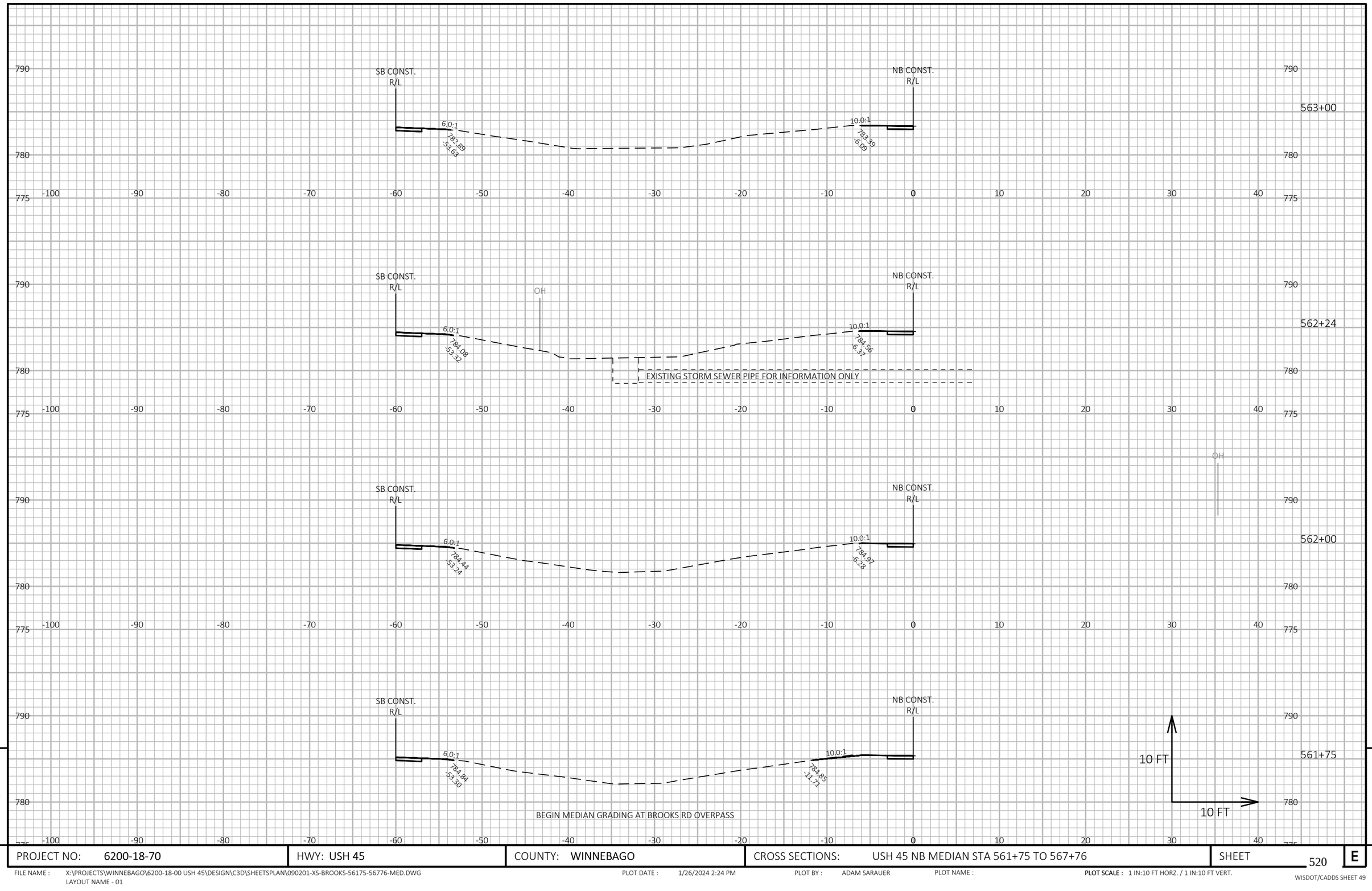
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 447+74 TO 455+53	SHEET 519	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-T-44774-45553-MED.DWG
LAYOUT NAME - 06

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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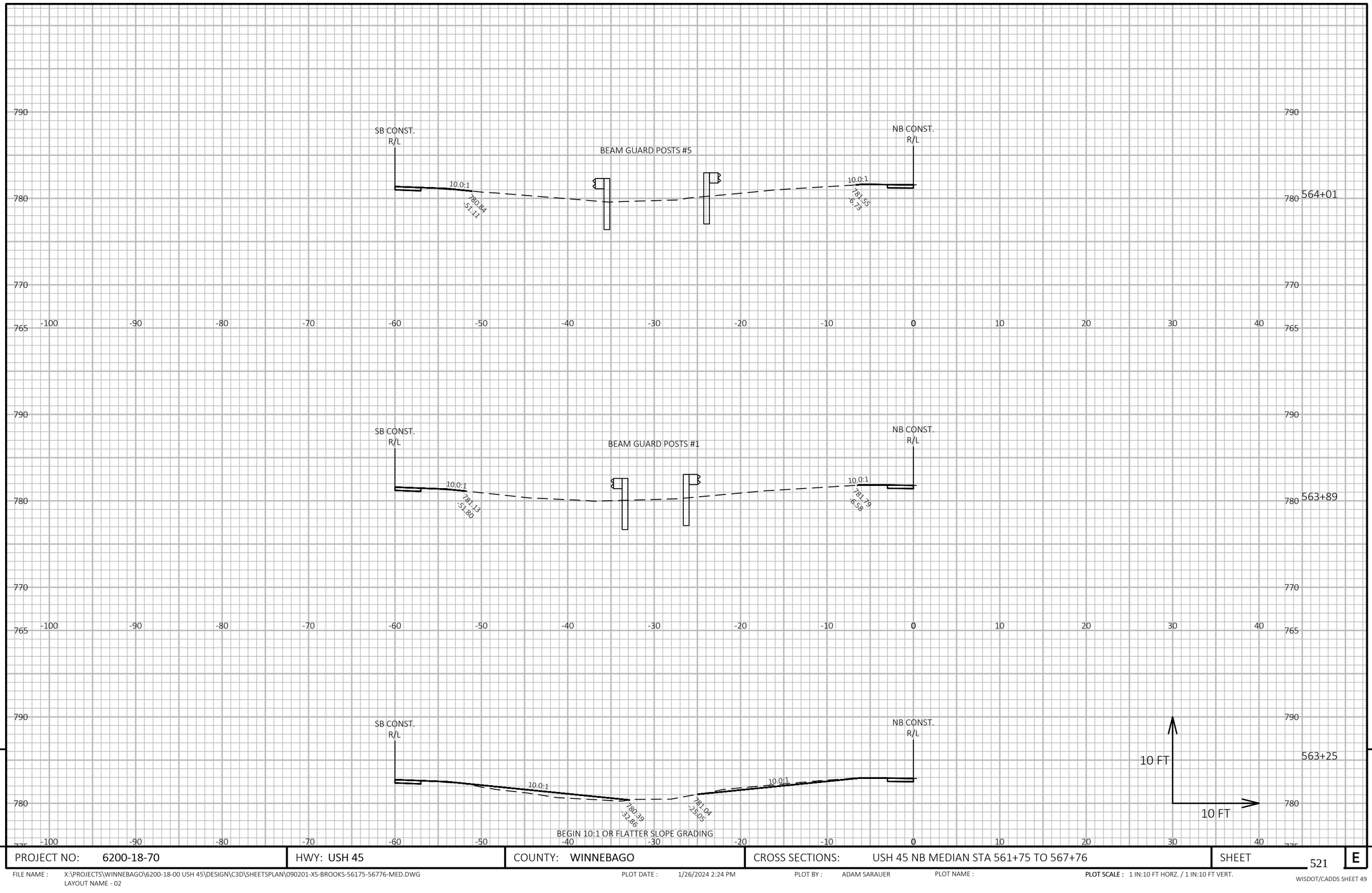
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 561+75 TO 567+76	SHEET 520	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BROOKS-56175-56776-MED.DWG
LAYOUT NAME - 01
PLOT DATE : 1/26/2024 2:24 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 561+75 TO 567+76	SHEET 521	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BROOKS-56175-56776-MED.DWG
LAYOUT NAME - 02

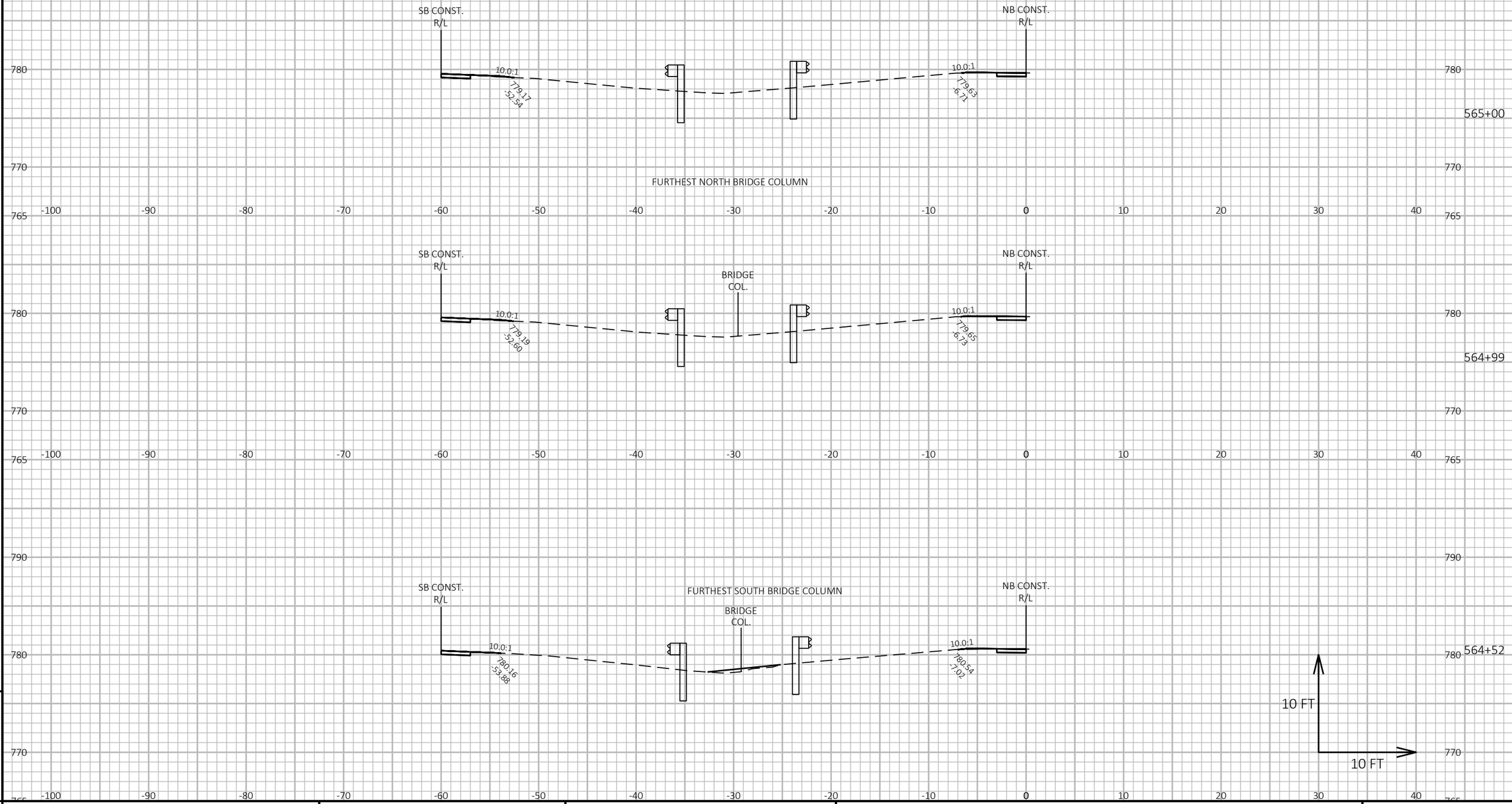
PLOT DATE : 1/26/2024 2:24 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

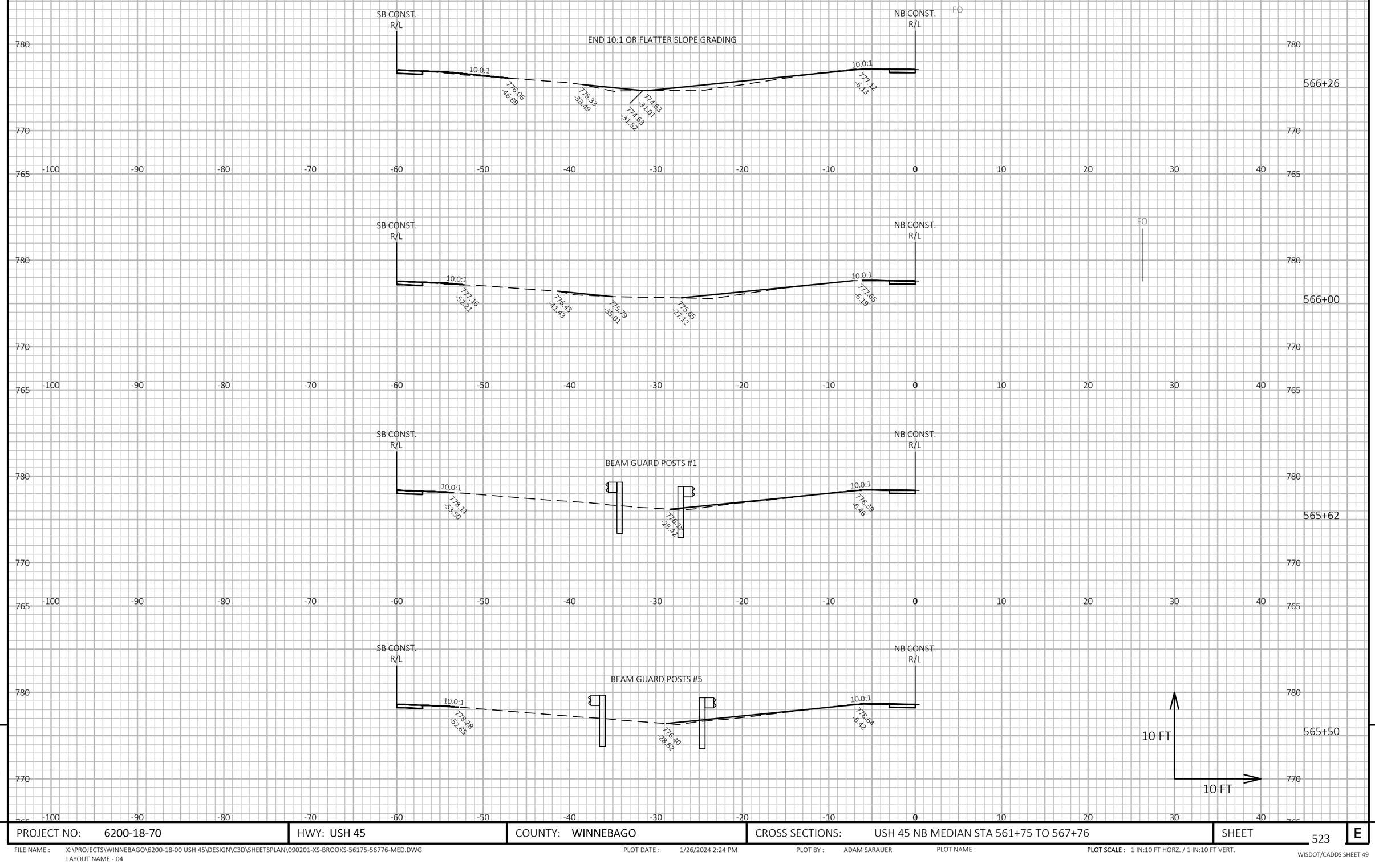


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 561+75 TO 567+76	SHEET 522 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BROOKS-56175-56776-MED.DWG
LAYOUT NAME - 03

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 561+75 TO 567+76	SHEET 523	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BROOKS-56175-56776-MED.DWG
LAYOUT NAME - 04

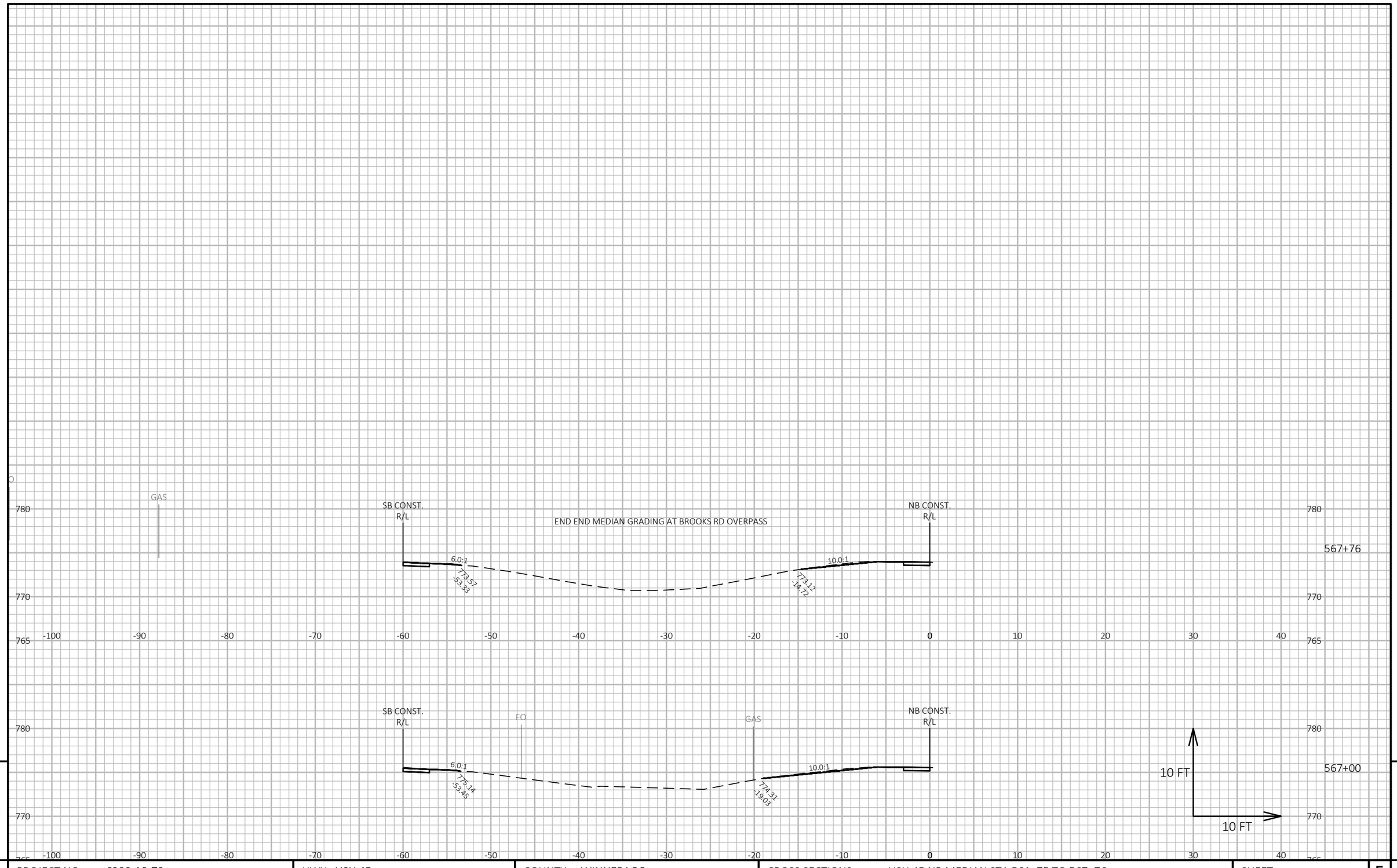
PLOT DATE : 1/26/2024 2:24 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 561+75 TO 567+76	SHEET 524	E

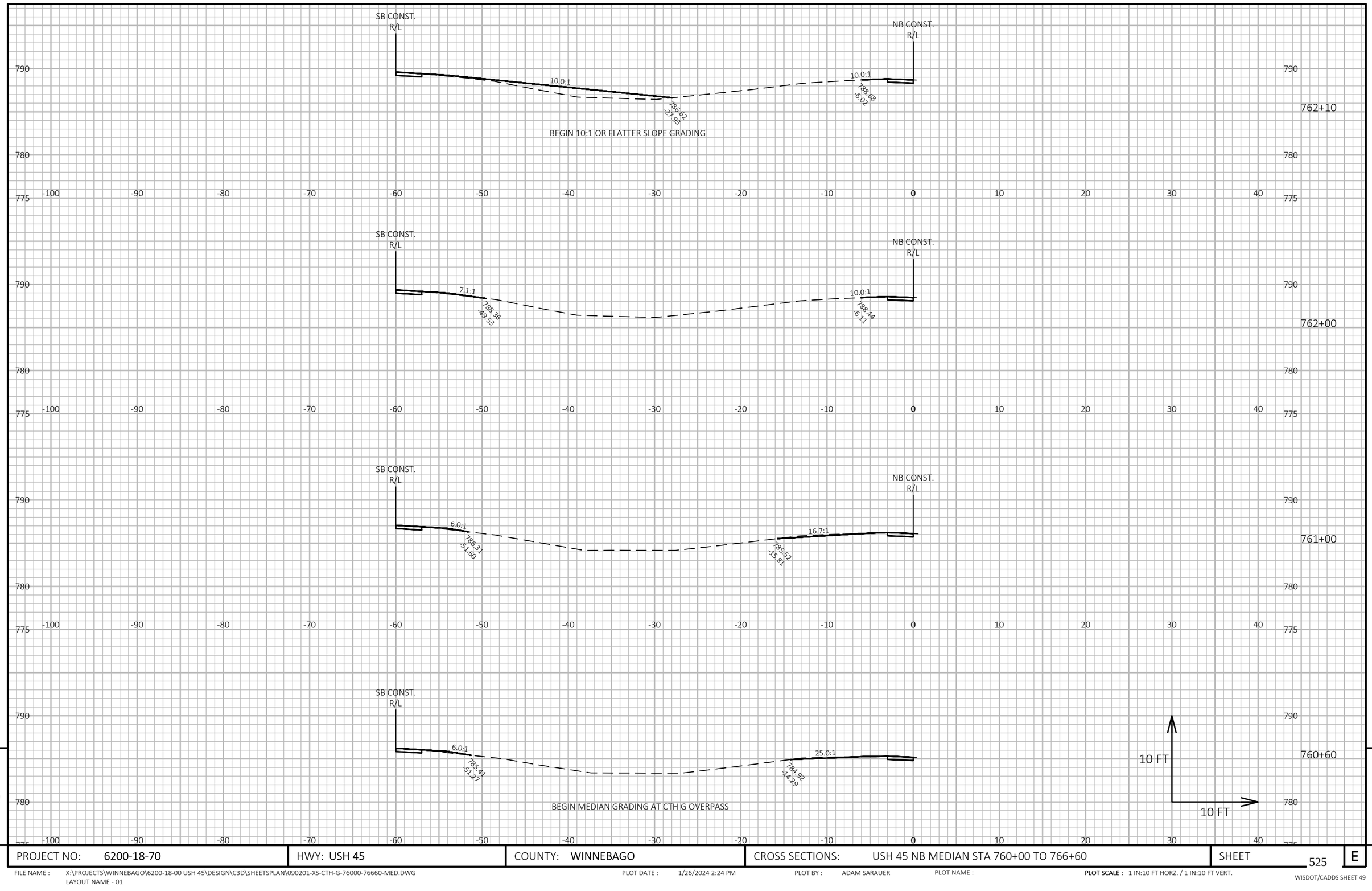
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BROOKS-56175-56776-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:24 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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



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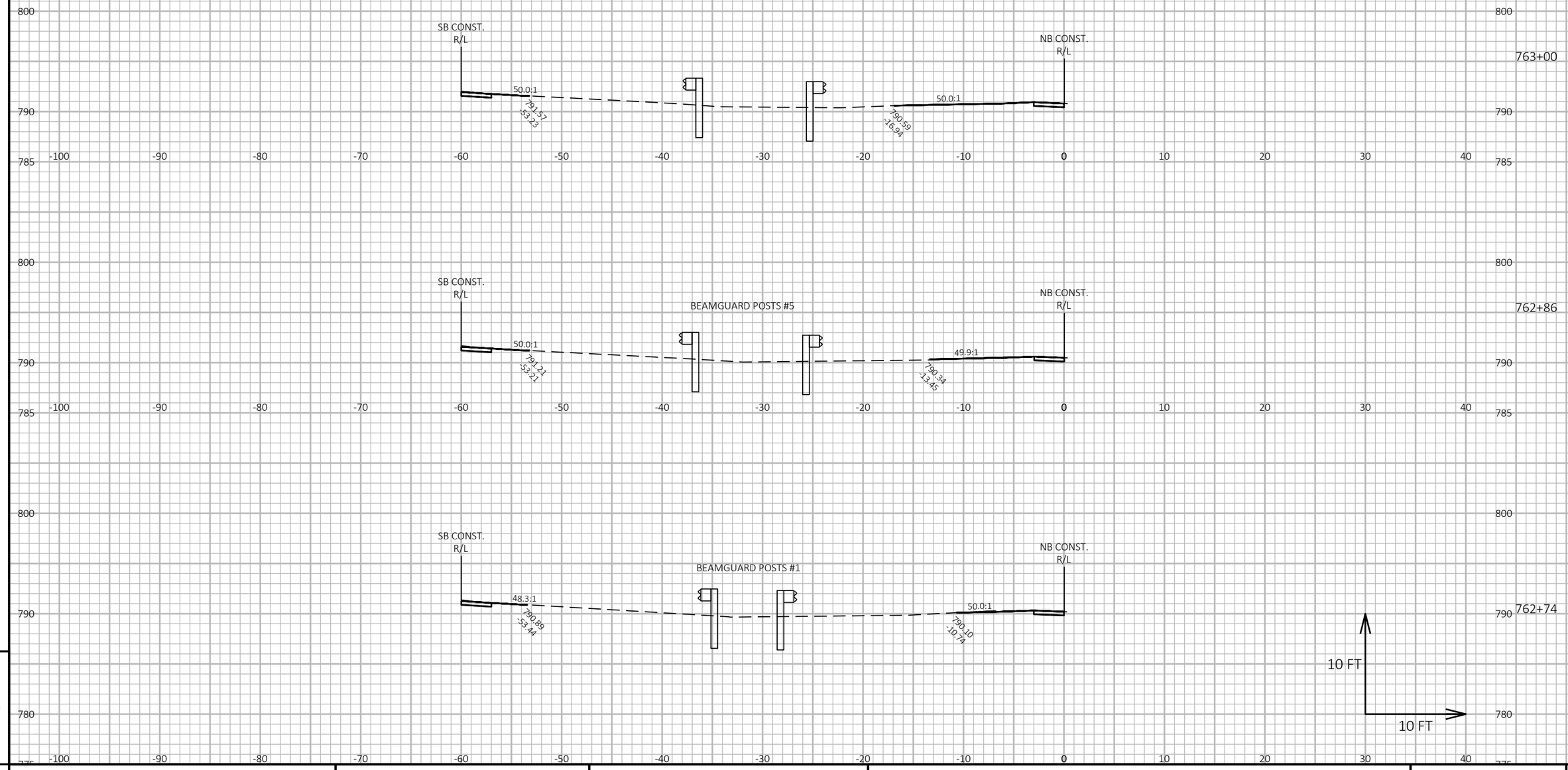
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 760+00 TO 766+60	SHEET 525	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-G-76000-76660-MED.DWG
LAYOUT NAME - 01
PLOT DATE : 1/26/2024 2:24 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

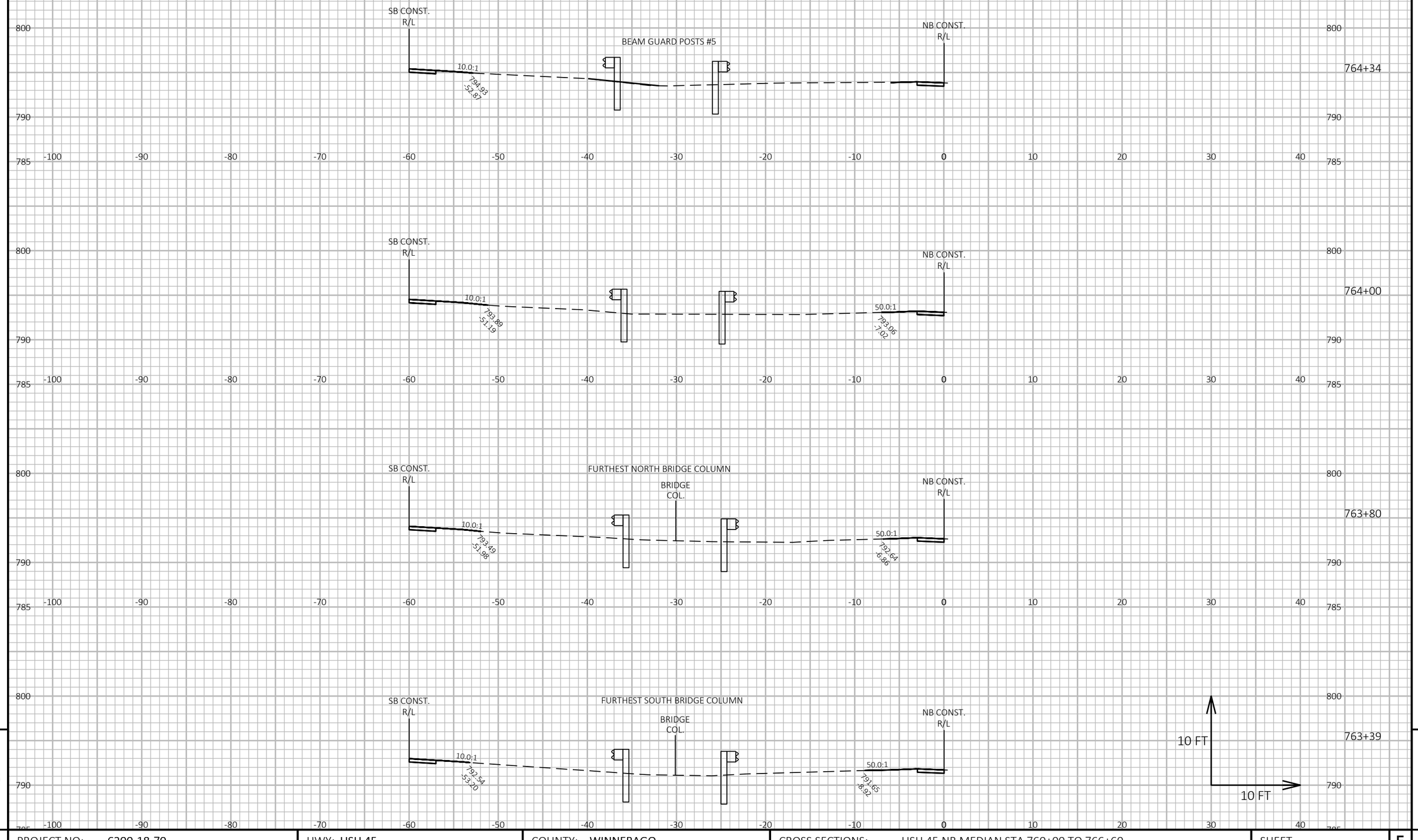


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 760+00 TO 766+60	SHEET 526	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-G-76000-76660-MED.DWG
LAYOUT NAME - 02

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 760+00 TO 766+60	SHEET 527	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-G-76000-76660-MED.DWG
LAYOUT NAME - 03

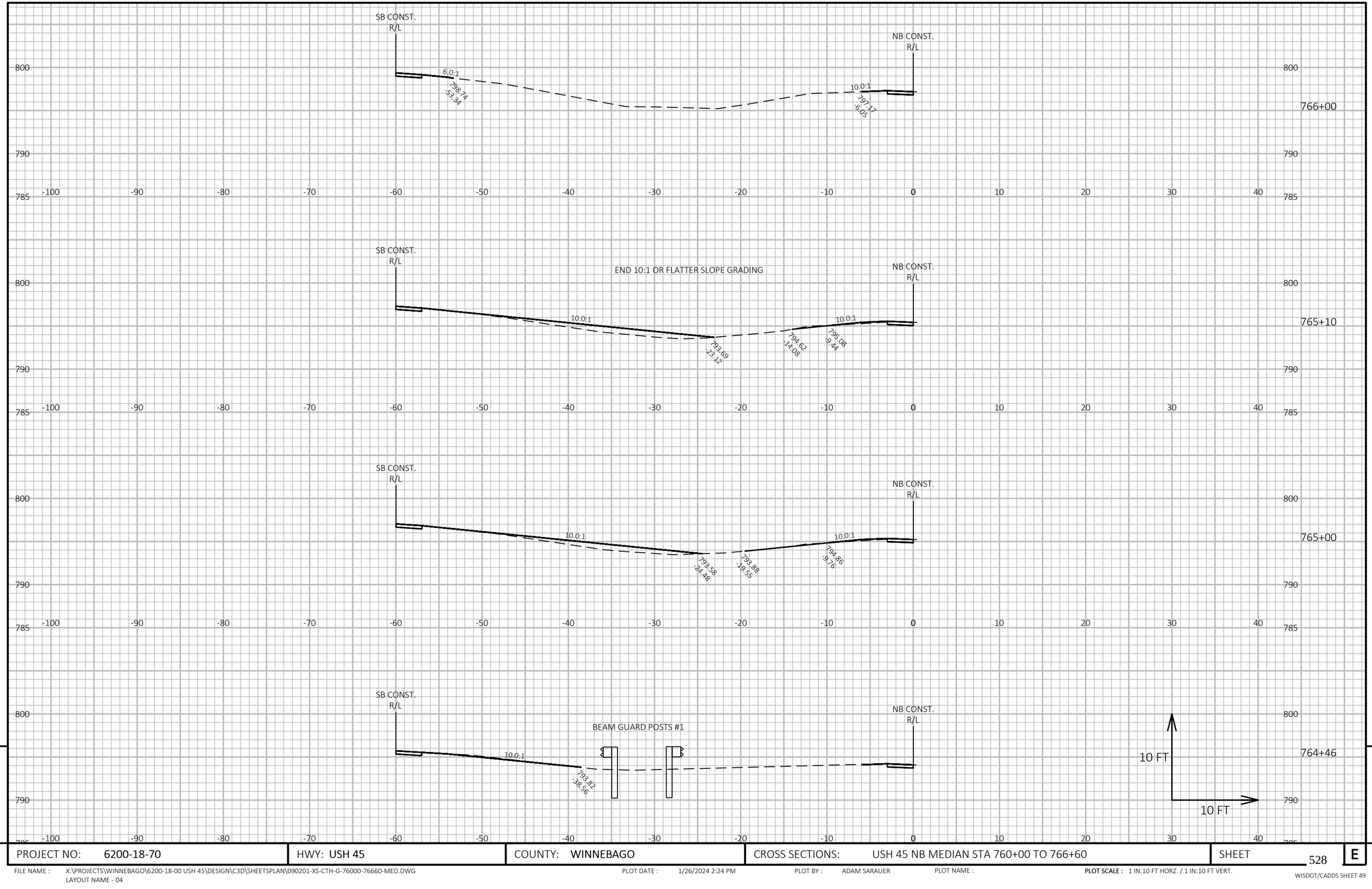
PLOT DATE : 1/26/2024 2:24 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



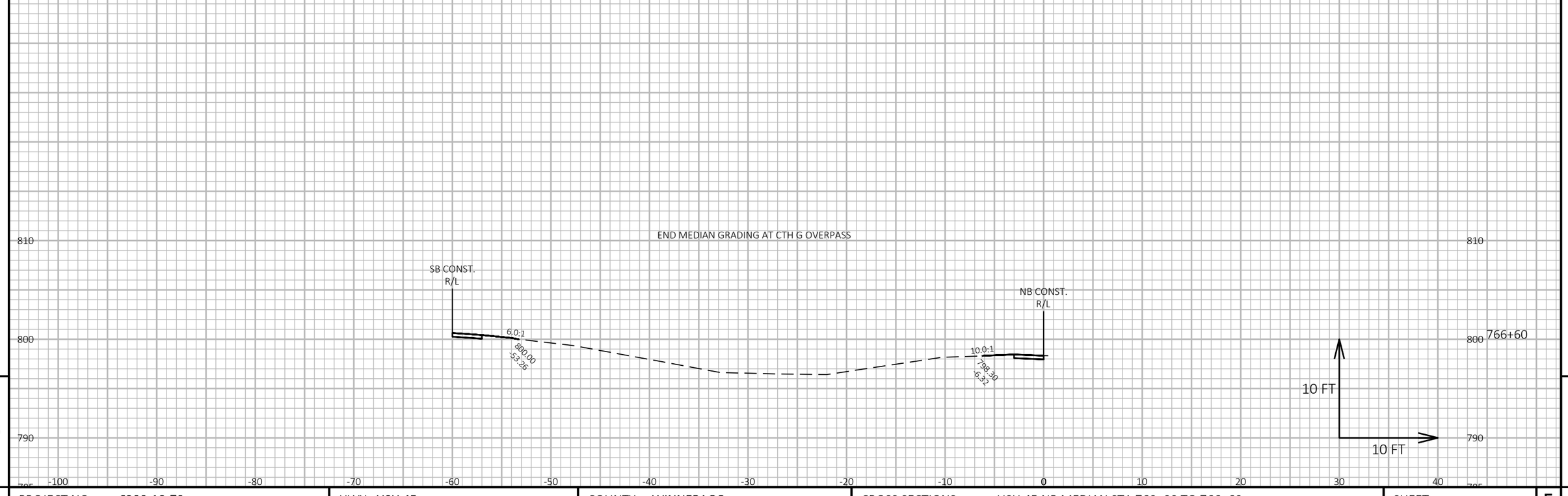
9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 760+00 TO 766+60	SHEET 528	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-G-76000-76660-MED.DWG
LAYOUT NAME - 04
PLOT DATE : 1/26/2024 2:24 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

END MEDIAN GRADING AT CTH G OVERPASS

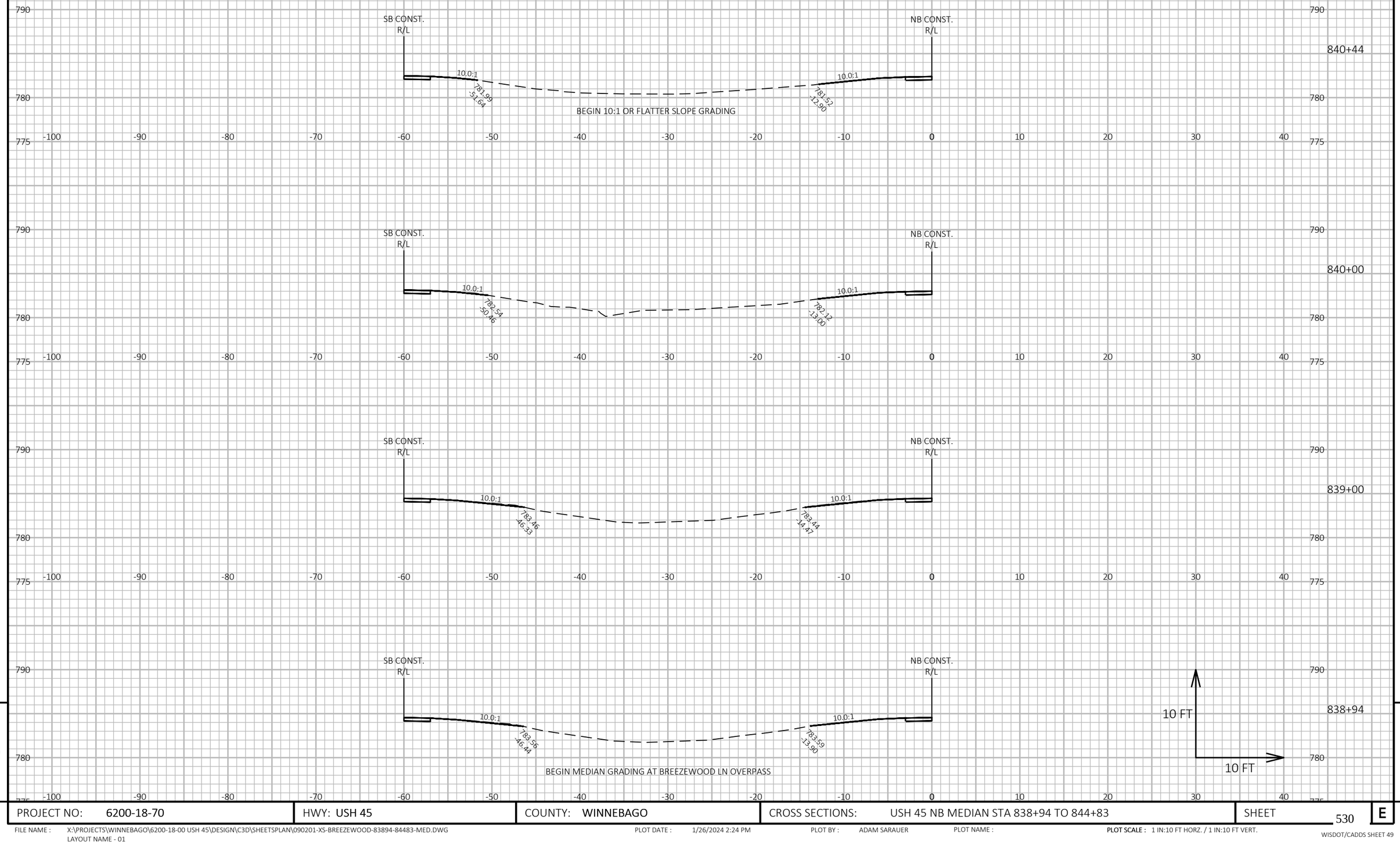


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 760+00 TO 766+60	SHEET 529	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-G-76000-76660-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



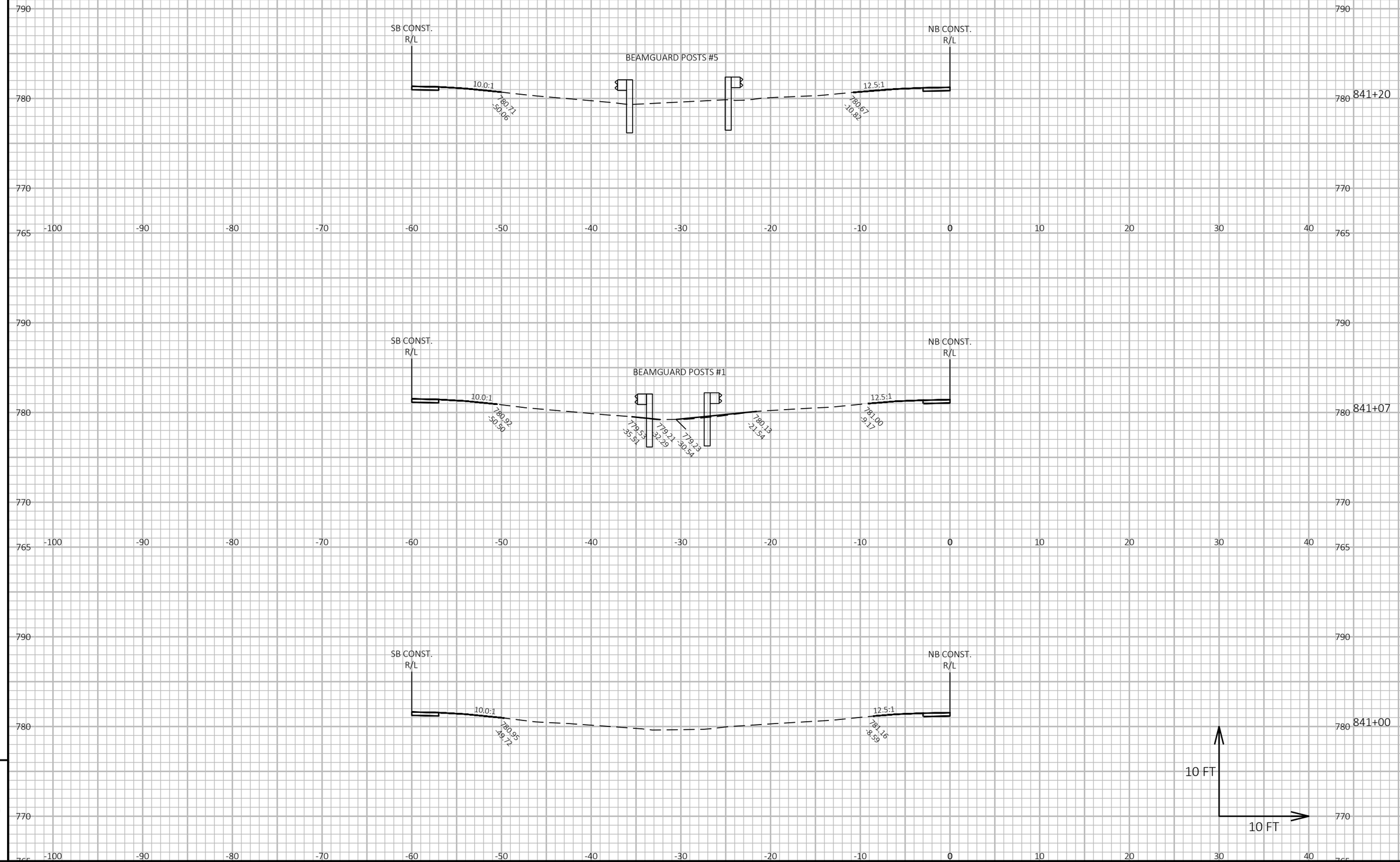
9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 838+94 TO 844+83	SHEET 530	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BREEZEWOOD-83894-84483-MED.DWG
LAYOUT NAME - 01

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 838+94 TO 844+83	SHEET 531	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BREEZEWOOD-83894-84483-MED.DWG
LAYOUT NAME - 02

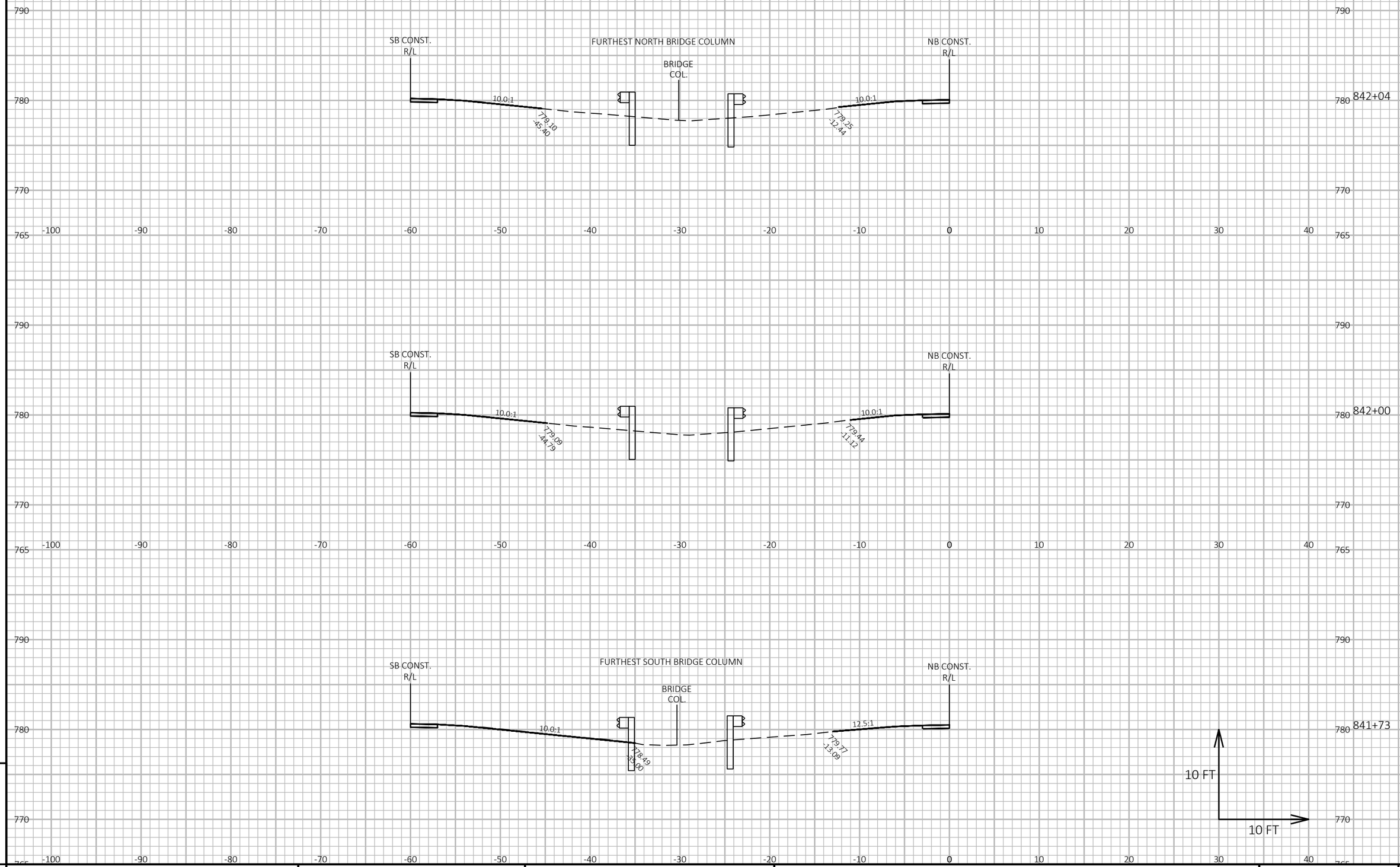
PLOT DATE : 1/26/2024 2:24 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

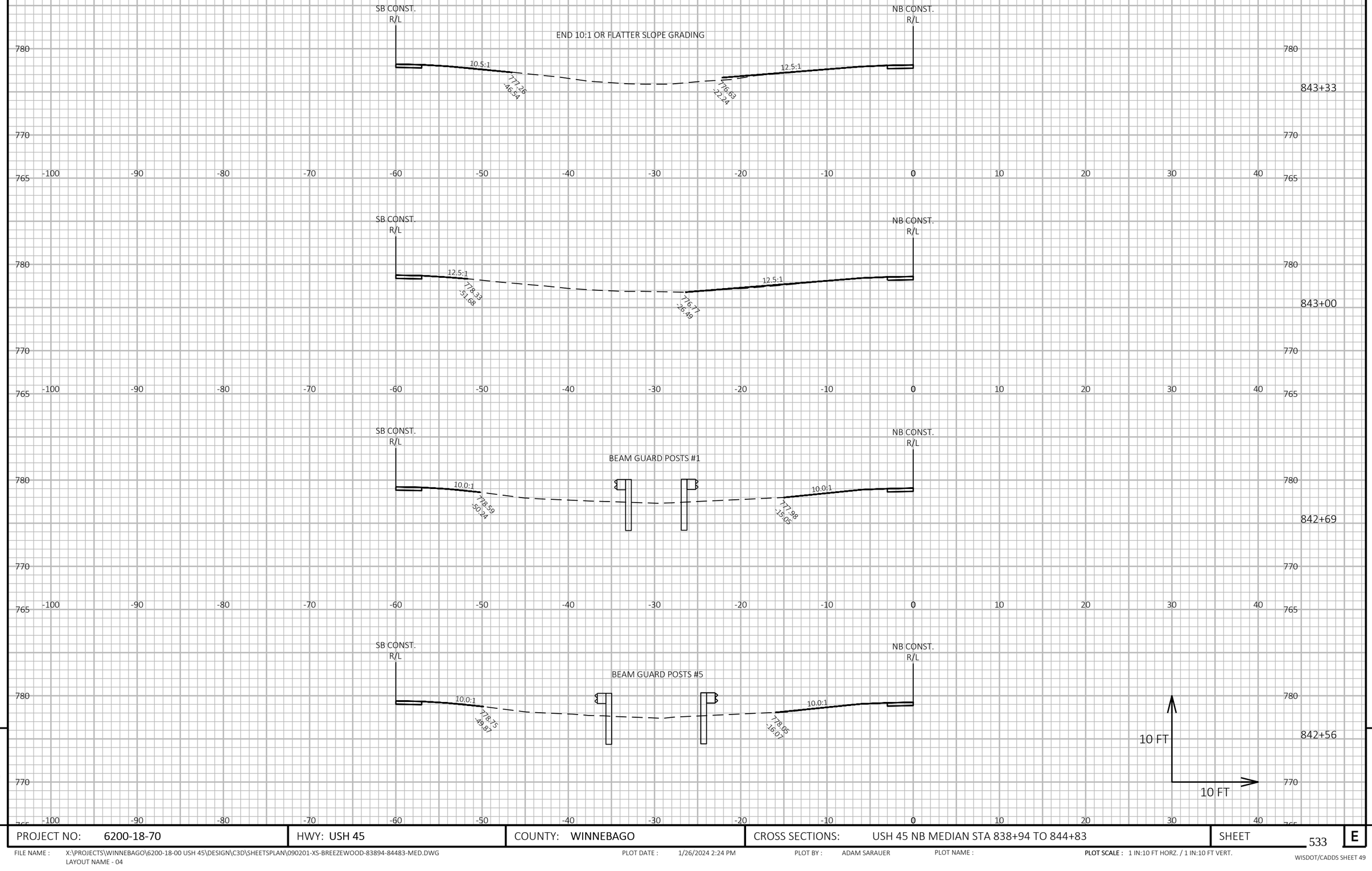


PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 838+94 TO 844+83	SHEET 532 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BREEZEWOOD-83894-84483-MED.DWG
LAYOUT NAME - 03

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



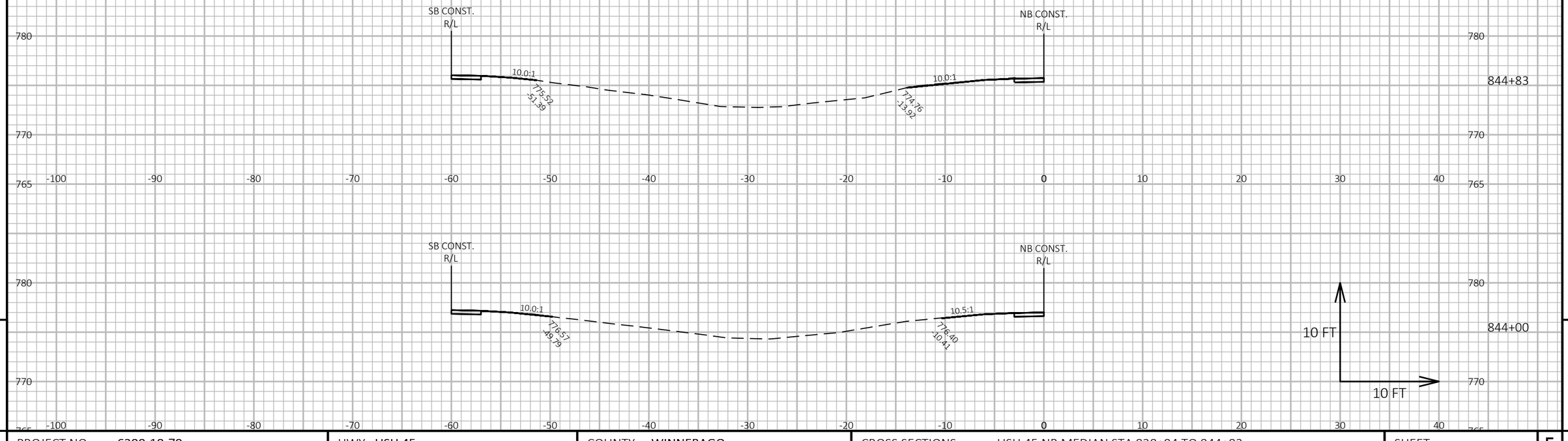
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 838+94 TO 844+83	SHEET 533	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BREEZEWOOD-83894-84483-MED.DWG
LAYOUT NAME - 04

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END MEDIAN GRADING AT BREEZEWOOD LN OVERPASS



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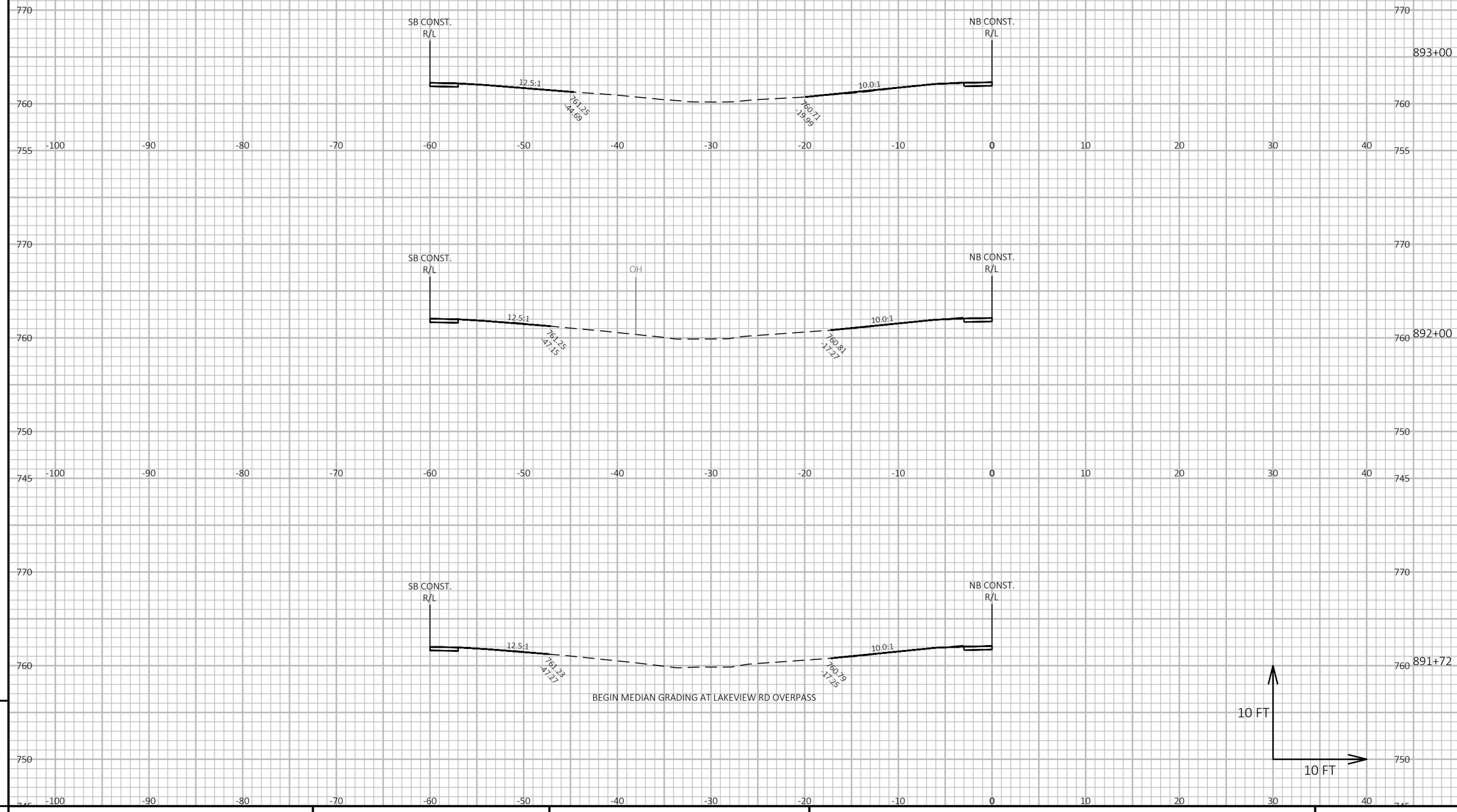
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 838+94 TO 844+83	SHEET 534	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-BREEZEWOOD-83894-84483-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 891+72 TO 897+63	SHEET 535	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-LAKEVIEW-89172-89763-MED.DWG
LAYOUT NAME - 01

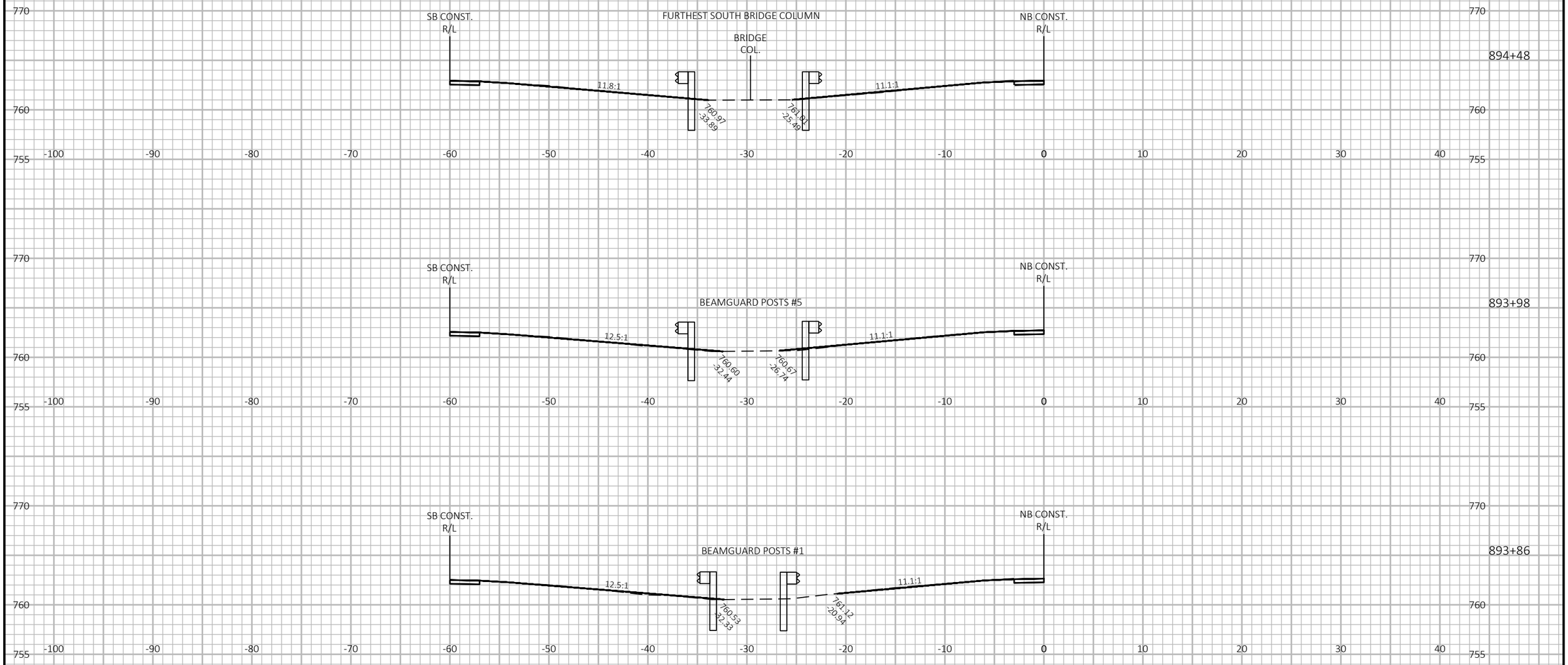
PLOT DATE : 1/26/2024 2:25 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 891+72 TO 897+63	SHEET 536	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-LAKEVIEW-89172-89763-MED.DWG
LAYOUT NAME - 02

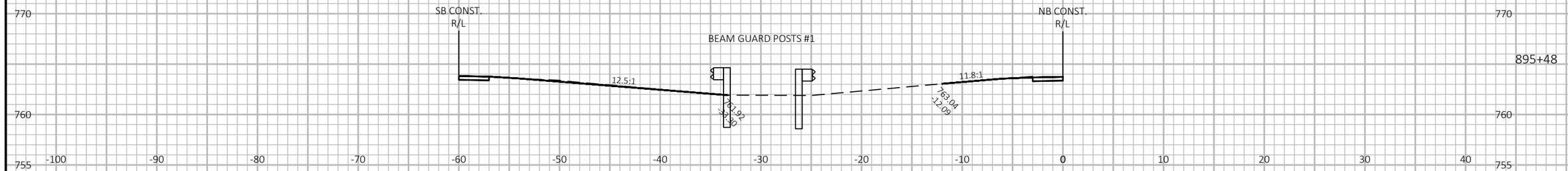
PLOT DATE : 1/26/2024 2:25 PM

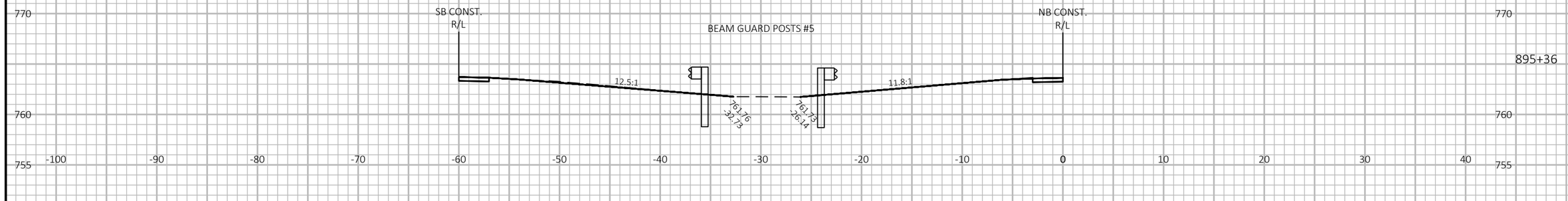
PLOT BY : ADAM SARAUER

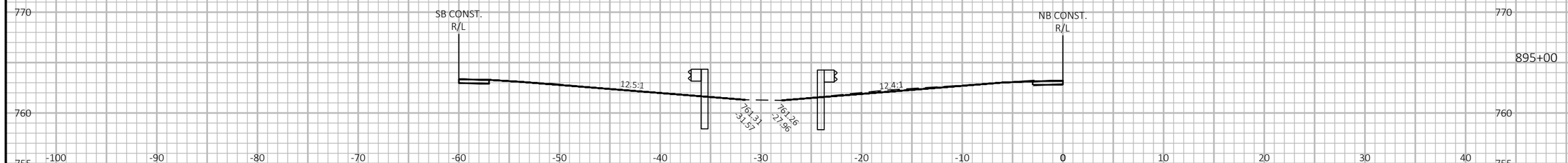
PLOT NAME :

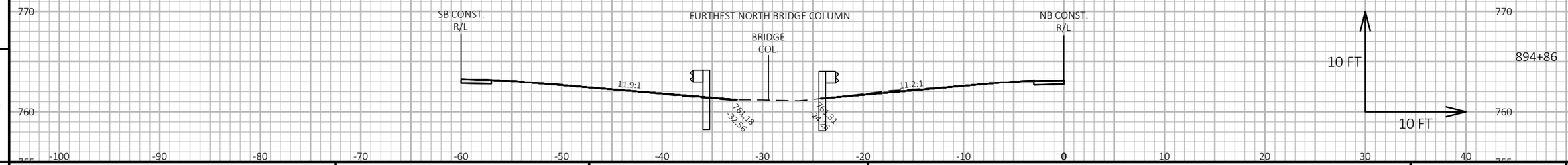
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 891+72 TO 897+63	SHEET 537	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-LAKEVIEW-89172-89763-MED.DWG
LAYOUT NAME - 03

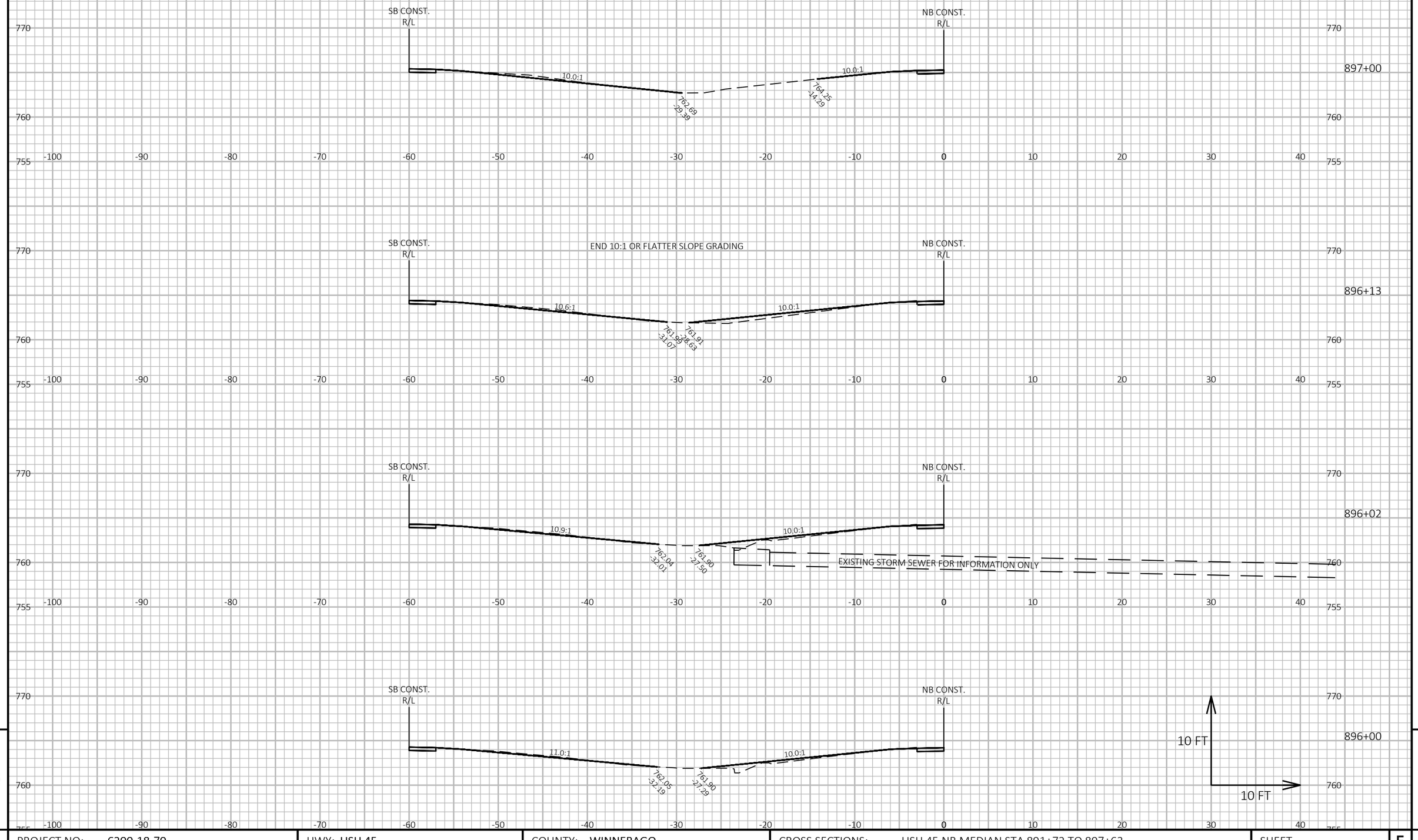
PLOT DATE : 1/26/2024 2:25 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 891+72 TO 897+63	SHEET 538	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-LAKEVIEW-89172-89763-MED.DWG
LAYOUT NAME - 04

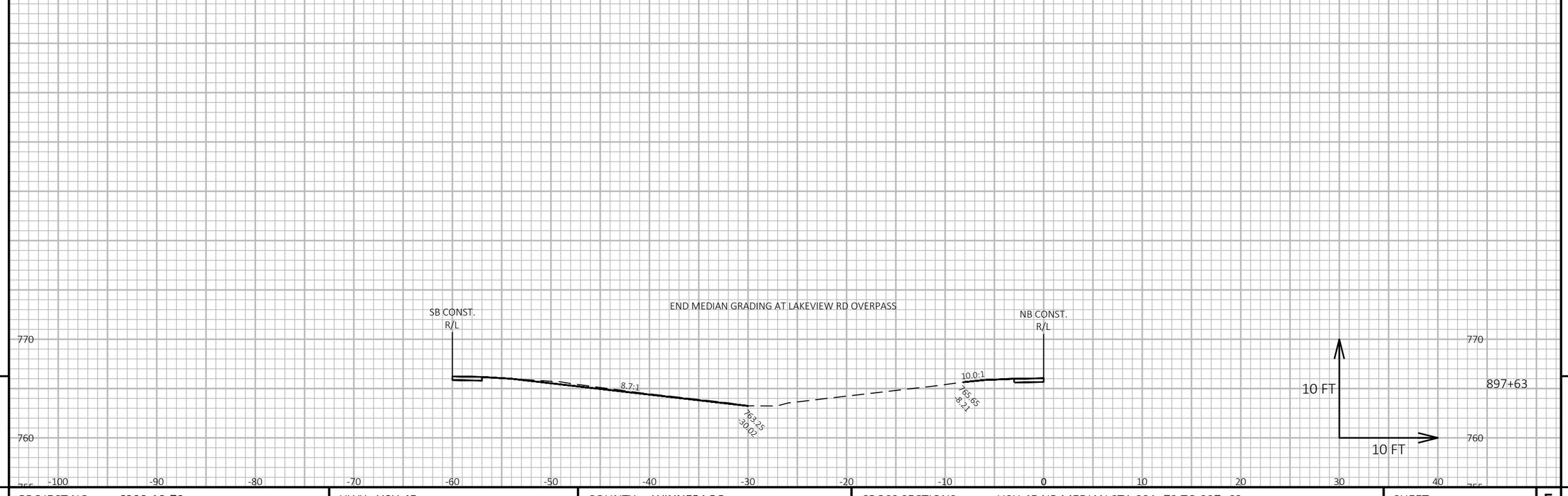
PLOT DATE : 1/26/2024 2:25 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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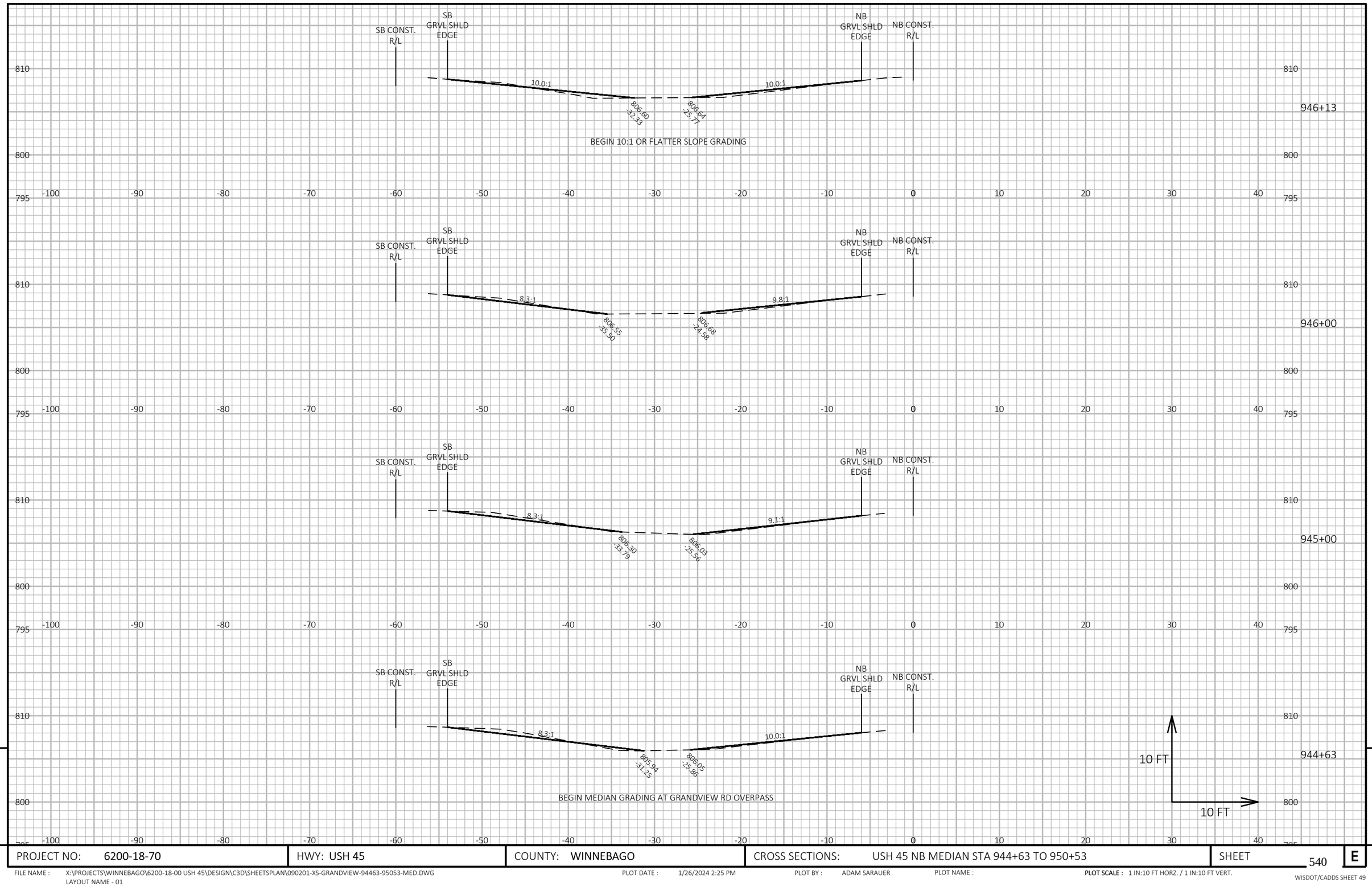
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 891+72 TO 897+63	SHEET 539	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-LAKEVIEW-89172-89763-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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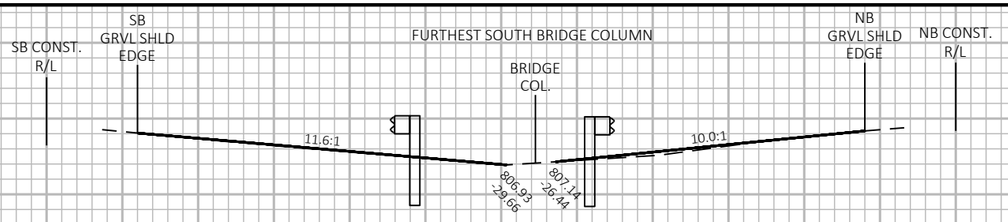
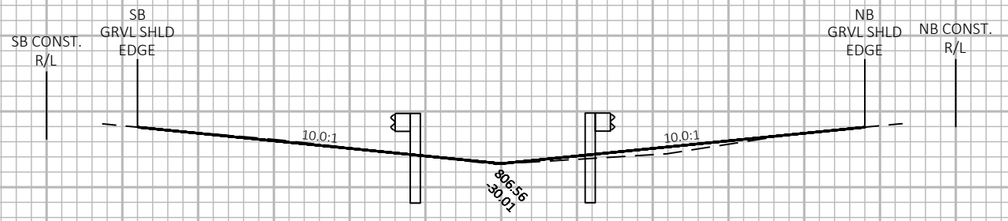
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 944+63 TO 950+53	SHEET 540	E

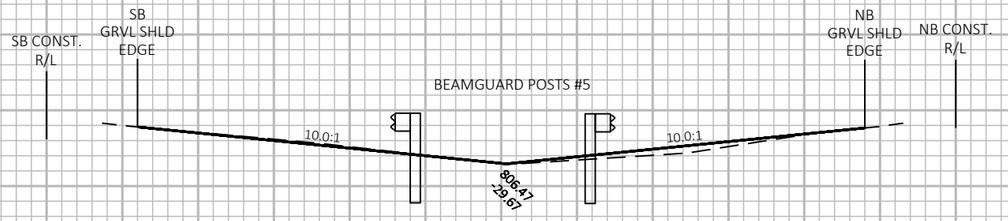
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-GRANDVIEW-94463-95053-MED.DWG
LAYOUT NAME - 01
PLOT DATE : 1/26/2024 2:25 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



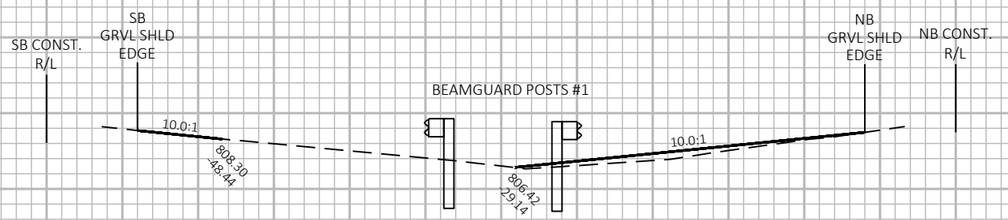
947+40



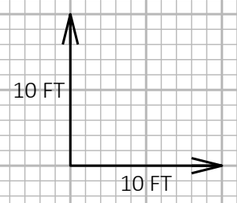
947+00



946+89



946+77



9

9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 944+63 TO 950+53	SHEET 541	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-GRANDVIEW-94463-95053-MED.DWG
LAYOUT NAME - 02

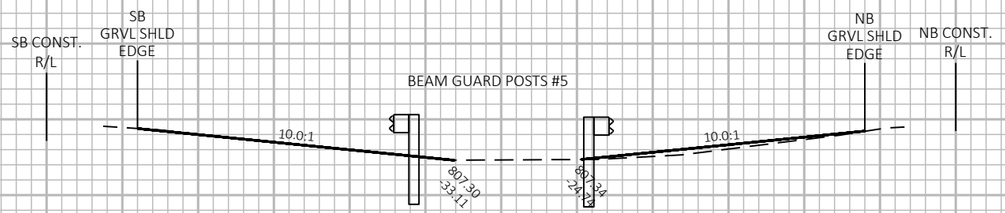
PLOT DATE : 1/26/2024 2:25 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

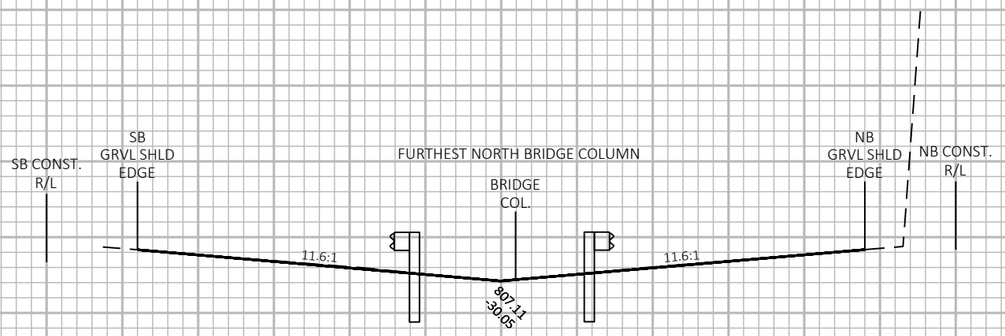
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

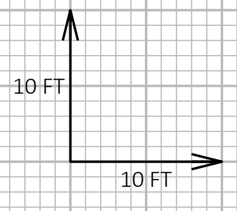


948+27

948+00



947+76



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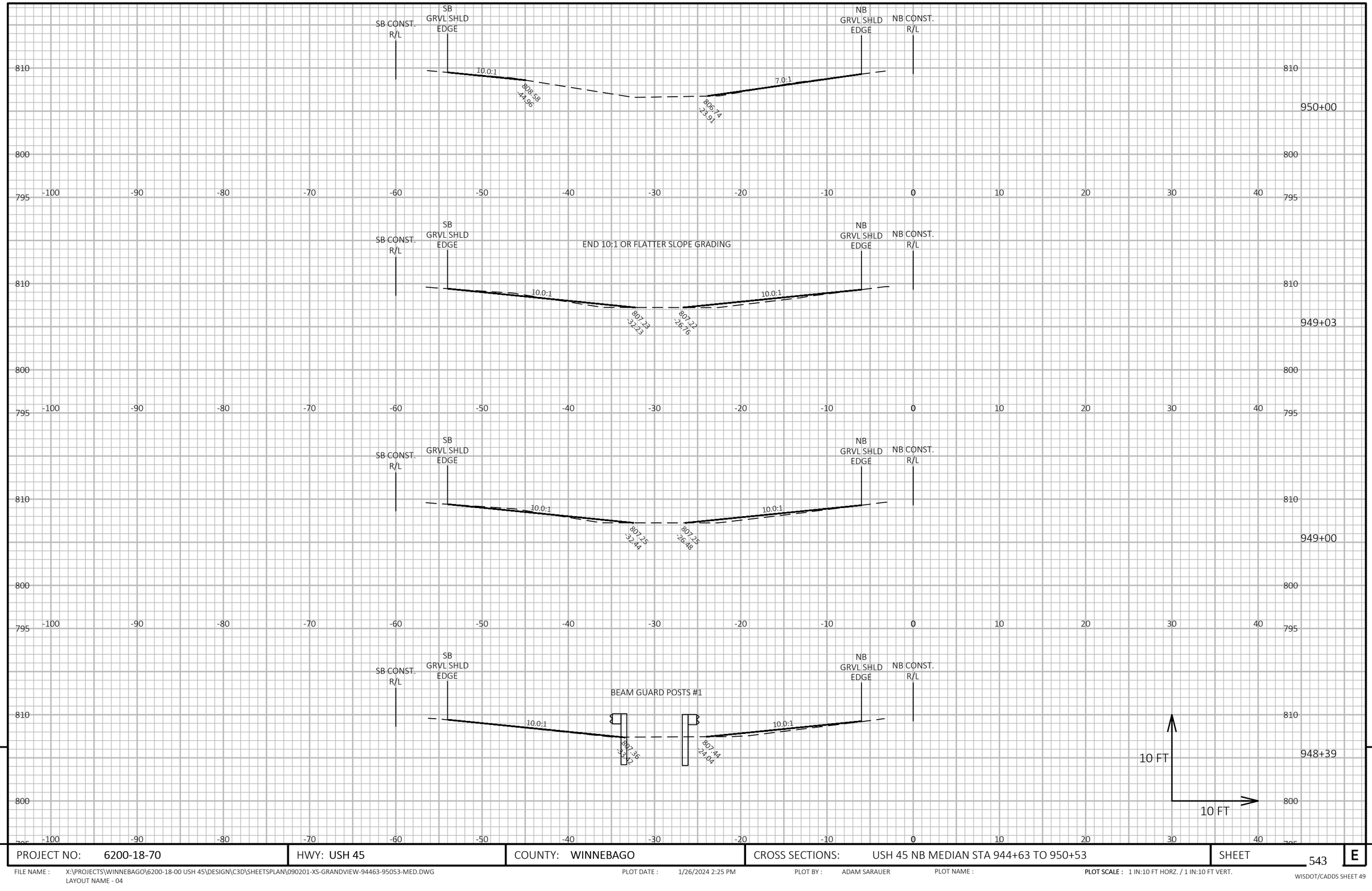
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 944+63 TO 950+53	SHEET 542	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-GRANDVIEW-94463-95053-MED.DWG
LAYOUT NAME - 03

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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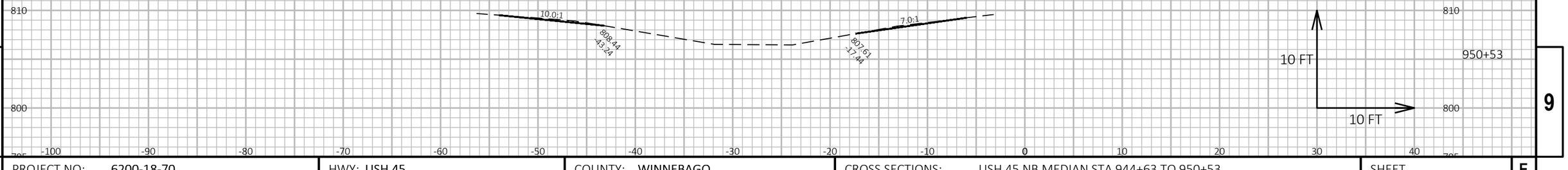
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 944+63 TO 950+53	SHEET 543	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-GRANDVIEW-94463-95053-MED.DWG
LAYOUT NAME - 04

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

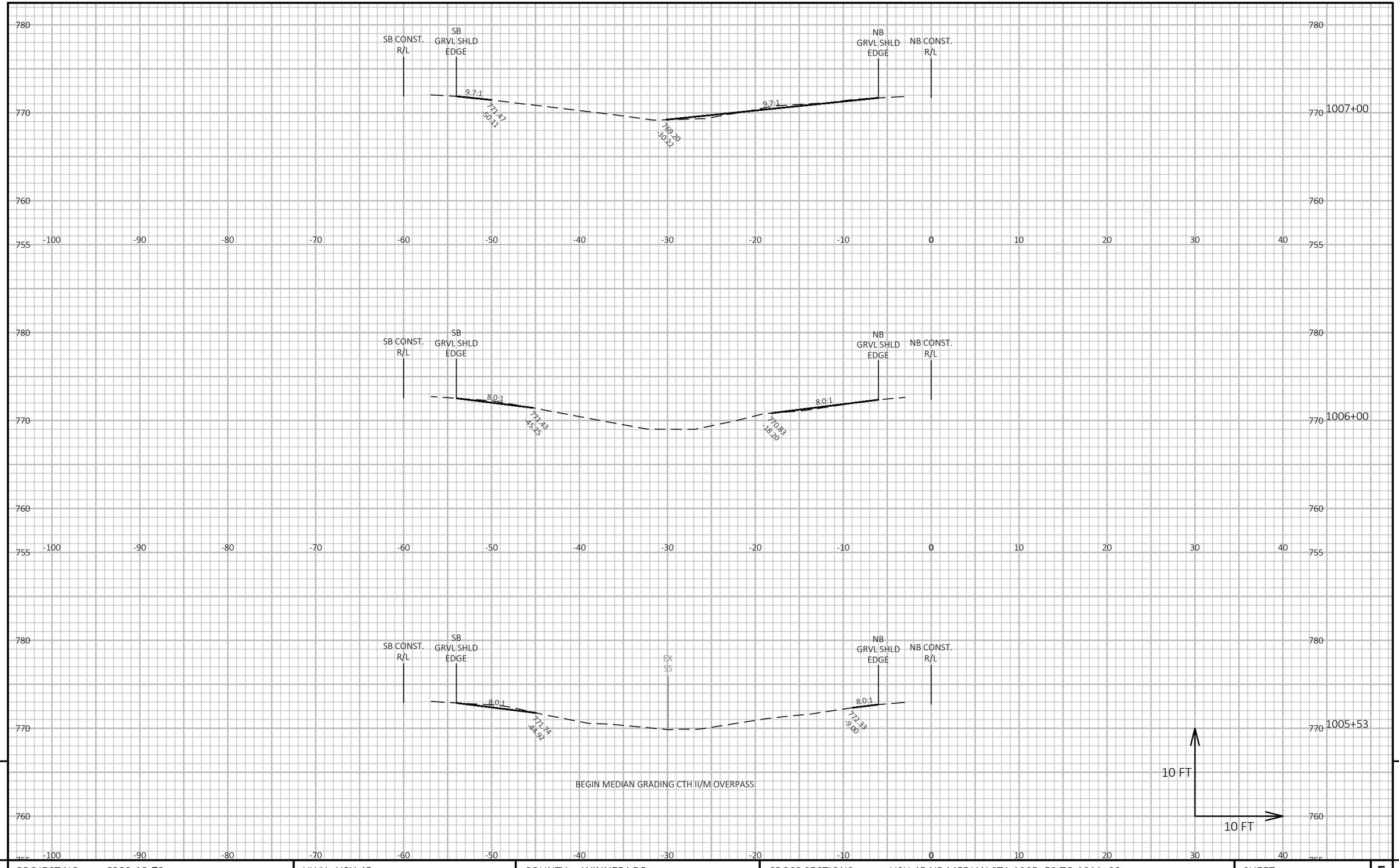
END GRANDVIEW RD MEDIAN GRADING



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 944+63 TO 950+53	SHEET 544	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-GRANDVIEW-94463-95053-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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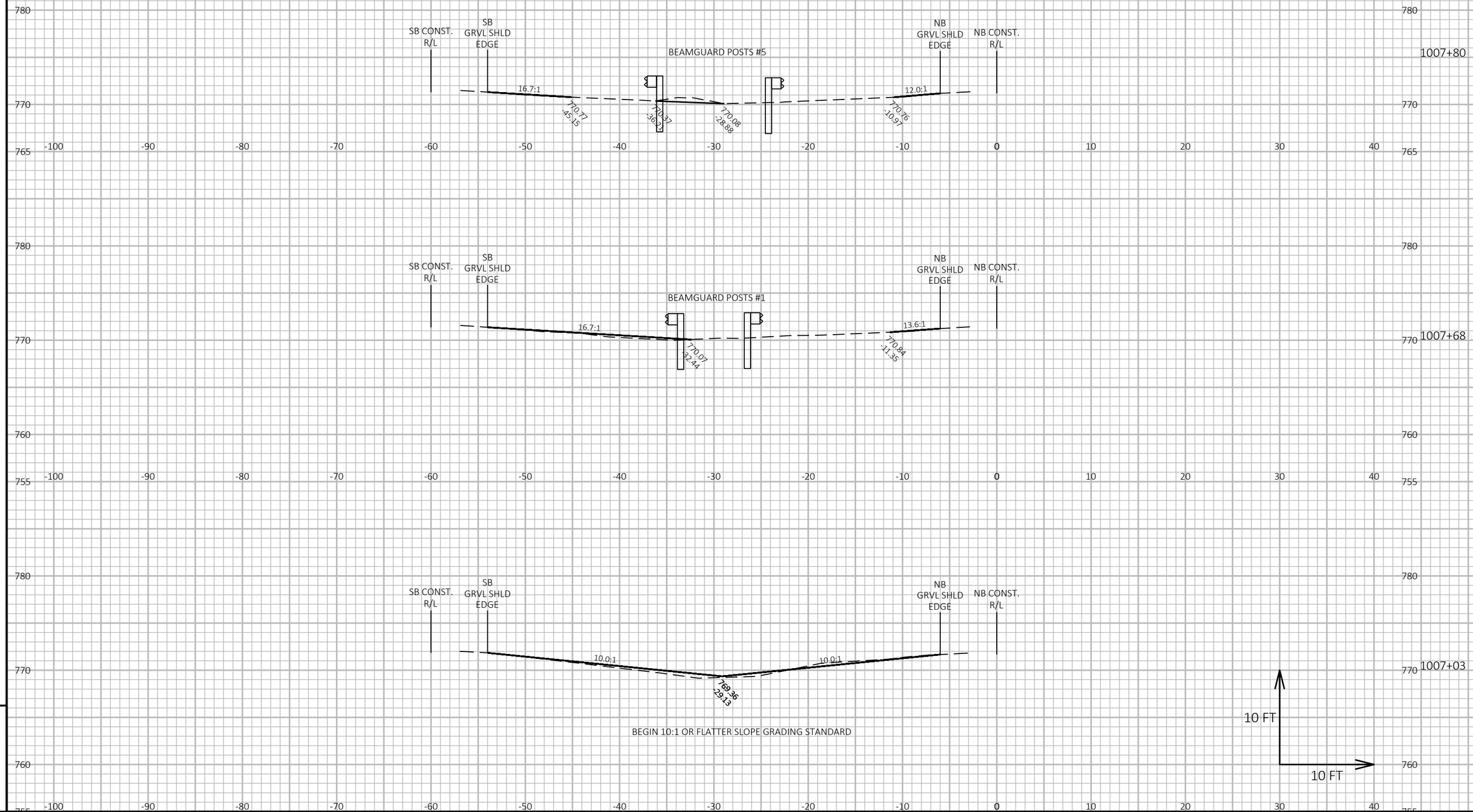
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 545	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 01

PLOT DATE : 1/26/2024 2:24 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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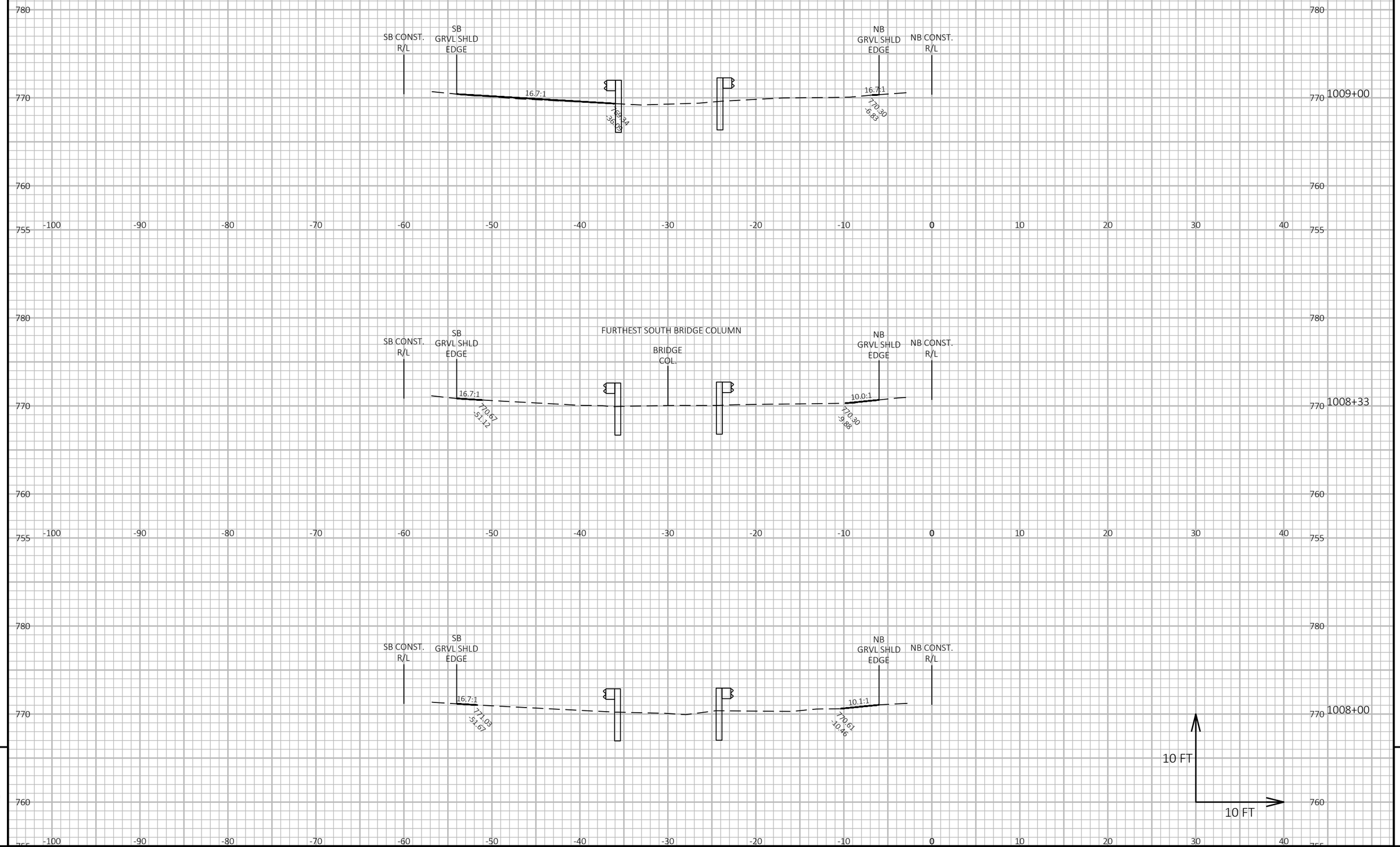
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 546	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 02

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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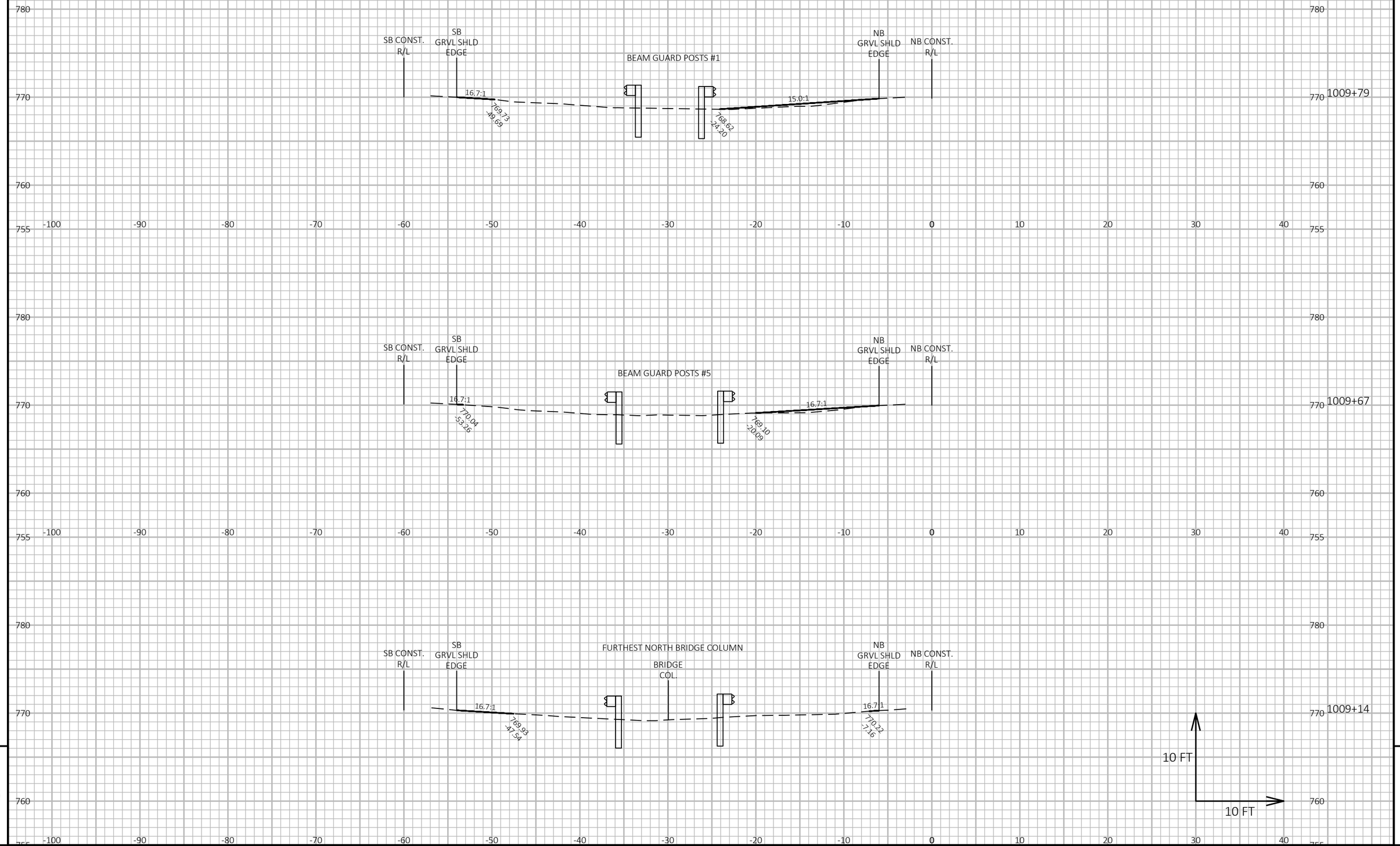
9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 547	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 03

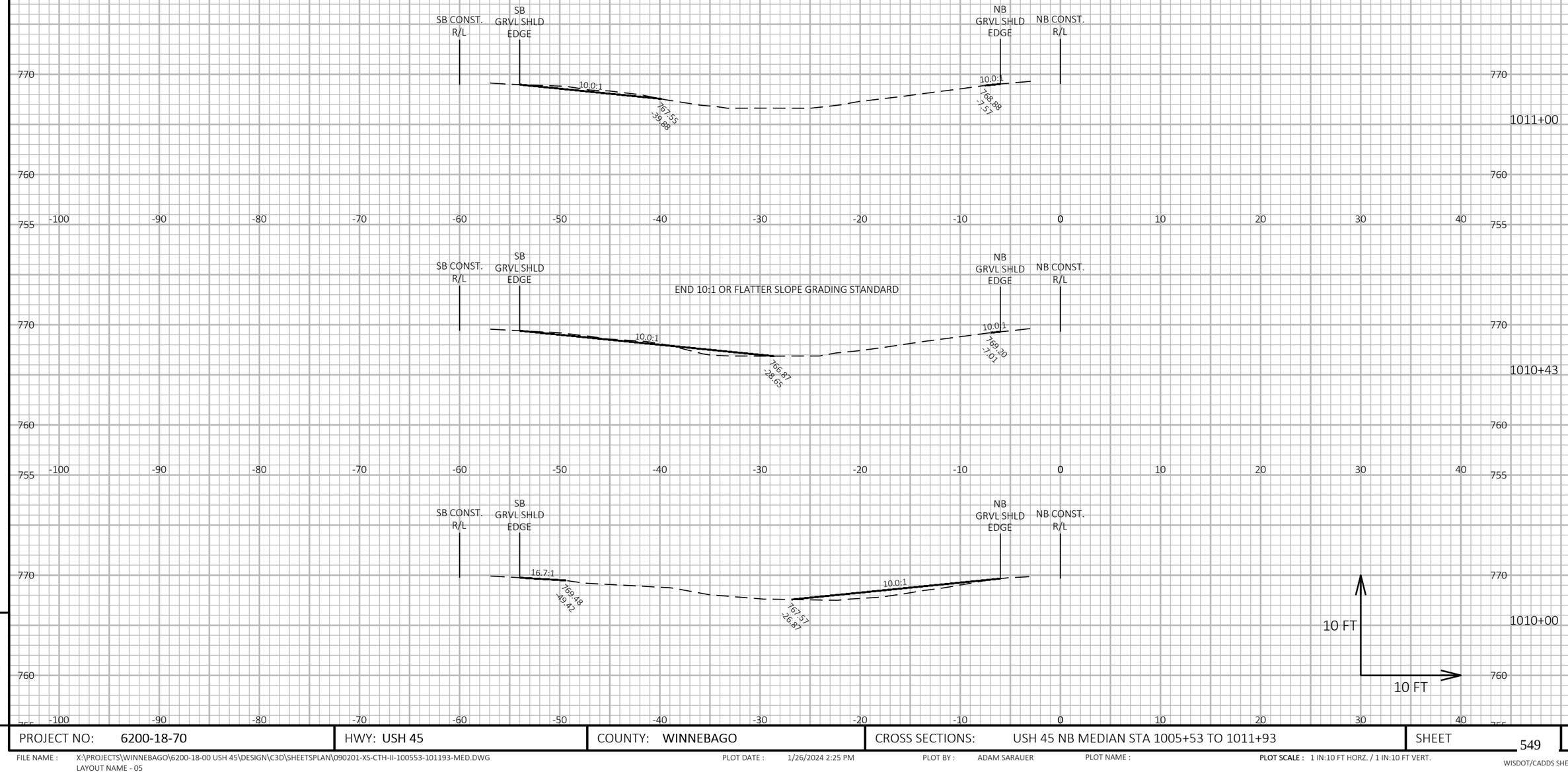
PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 548 E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 04
PLOT DATE : 1/26/2024 2:25 PM
PLOT BY : ADAM SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



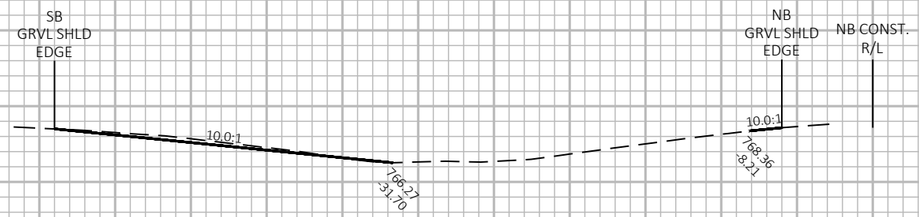
PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 549 E

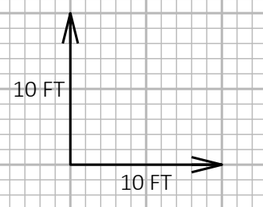
FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END MEDIAN GRADING CTH II/M OVERPASS





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9

PROJECT NO: 6200-18-70	HWY: USH 45	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 45 NB MEDIAN STA 1005+53 TO 1011+93	SHEET 550	E

FILE NAME : X:\PROJECTS\WINNEBAGO\6200-18-00 USH 45\DESIGN\C3D\SHEETSPLAN\090201-XS-CTH-II-100553-101193-MED.DWG
LAYOUT NAME - 06

PLOT DATE : 1/26/2024 2:25 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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