EAU

FEBRUARY 2018

ORDER OF SHEETS

TOTAL SHEETS = 64

PROJECT ID: 7178-00-70

WITH: N/A

COUNTY: TREMPEALEAU

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 95 - CTH D

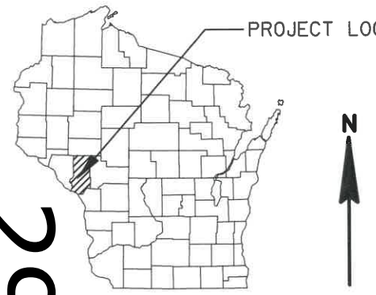
TURTON CREEK BRIDGE B-61-0224

CTH T

TREMPEALEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7178-00-70	WISC 2018101	1

STATE PROJECT NUMBER
7178-00-70



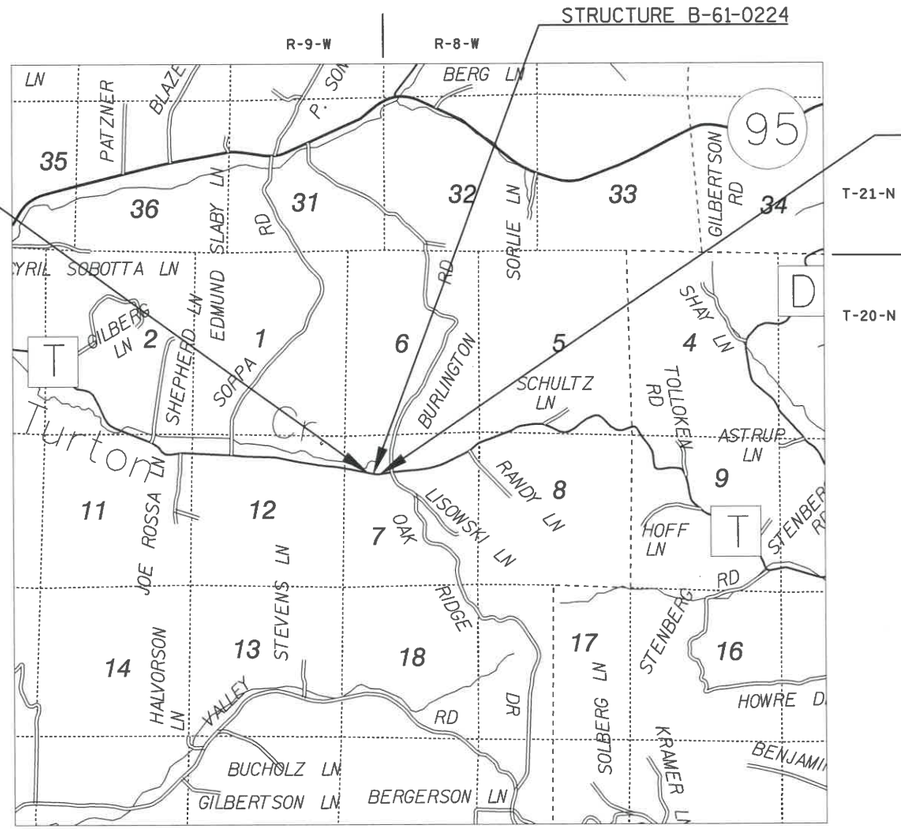
29

N

BEGIN PROJECT
STA 8+50
Y=388,075.413
X=837,618.511

STRUCTURE B-61-0224

END PROJECT
STA 11+50



LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.057

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, TREMPEALEAU COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

DESIGN DESIGNATION

A.A.D.T. (2018)	= 450
A.A.D.T. (2038)	= 500
D.H.V.	= 49
D.D.	= 60/40
T.	= 8.5%
DESIGN SPEED	= 45 MPH
ESALS	= N/A

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		CULVERT (Profile View)	
FENCE LINE		**UTILITIES**	
SLOPE INTERCEPT		ELECTRIC	E
REFERENCE LINE		FIBER OPTIC	FO
EXISTING CULVERT		OVERHEAD	OH
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
WOODED OR SHRUB AREA		TELEPHONE	T
		TELEVISION	TV
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

ACCEPTED FOR TREMPEALEAU COUNTY

DATE: 7/11/17 Dave Lupa (Signature)

Highway Comm (Title of Offical)

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING

WISCONSIN PROFESSIONAL ENGINEER
KEVIN L. MEYER
E-38309-006
ELK MOUND
WI

DATE: 7/10/17 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CORRE, INC.

Designer: CORRE, INC.

Management Consultant: KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/25/17

MANAGEMENT CONSULTANT SIGNATURE

E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\SHEETSPLAN\010101 TI.DWG
LAYOUT NAME - 010101 TI

PLOT DATE : 7/3/2017 1:11 PM

PLOT BY : BOBBY JONES

PLOT NAME :

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AGG	AGGREGATE
ASPH	ASPHALTIC
AVG	AVERAGE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BF	BACK FACE
BL or B/L	BASE LINE
BM	BENCH MARK
BLK	BLOCK
BR	BRIDGE
CL or C/L	CENTER LINE
CC	CENTER TO CENTER
CH	CHORD
CH BRG	CHORD BEARING
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CPCS	CULVERT PIPE CORRUGATED STEEL
CSAEW	CORRUGATED STEEL APRON END WALL
CR	CREEK
CR	CRUSHED
CABC	CRUSHED AGGREGATE BASE COURSE
CY or CUYD	CUBIC YARD
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
C&G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DWY	DRIVEWAY
E	EAST
EB	EASTBOUND
ELEC	ELECTRIC
EL or ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXP	EXPANSION
FF	FACE TO FACE OR FRONT FACE
FE	FIELD ENTRANCE
FG	FINISH GRADE
FAB	FLASHING ARROW BOARD
FL or F/L Flow	FLOW LINE
FT	FOOT
FTG	FOOTING
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM
HT	HEIGHT
HES	HIGH EARLY STRENGTH
CWT	HUNDREDWEIGHT
IP	IRON PIPE OR PIN
LT	LEFT
LIN FT or LF	LINEAR FOOT
LS	LUMP SUM
MH	MANHOLE
ML or M/L	MATCH LINE
MB	MESSAGE BOARD
NOM	NOMINAL
NOR	NORMAL
N	NORTH
NB	NORTHBOUND
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
PE	PRIVATE ENTRANCE
R	RADIUS
RL or R/L	REFERENCE LINE
RCAEW	REINFORCED CONCRETE APRON ENDWALL
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF or SQ FT	SQUARE FEET
SY of SQ YD	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SE	SUPERELEVATION
TEL	TELEPHONE
UG	UNDERGROUND
VC	VERTICAL CURVE
VPI	VERTICAL POINT OF INTERSECTION
W	WEST
WB	WESTBOUND

UTILITY CONTACTS

* RIVERLAND ELECTRIC ENERGY COOPERATIVE

ELECTRIC
ATTN: MR. JOSH ABRAMCZAK
N 28988 STATE ROAD 93
P.O. BOX 277
ARCADIA, WI 54612

TELEPHONE: (608) 323-3381
E-MAIL: jabramczak@riverlandenergy.com

* CENTURYLINK

COMMUNICATION
ATTN: MR. BRIAN STELPLUGH
333 NORTH FRONT STREET
LA CROSSE, WI 54601

TELEPHONE: (608) 796-5142
E-MAIL: brian.stelplugh@CenturyLink.

* DENOTES UTILITIES THAT ARE DIGGERS HOTLINE MEMBERS

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

CONSULTANT CONTACT

CORRE, INC.
1802 WARDEN STREET
EAU CLAIRE, WI 54703

ATTN: MR. KEVIN MEYER, P.E.
TELEPHONE: (715) 299-1894
E-MAIL: kmeyer@correinc.com

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
DNR SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 546

ATTN: MS. KAREN KALVELAGE
TELEPHONE: (608) 785-9115
E-MAIL: karen.kalvelage@wisconsin.gov

COUNTY CONTACT

TREMPEALEAU COUNTY HIGHWAY COMMISSIONER
DAVE LYGA
PO BOX 97, N36258 CTH QQ,
WHITEHALL, WI 54773

ATTN: MR. DAVE LYGA
TELEPHONE: (715) 538-4799
E-MAIL: lygad@triwest.net

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAVD 88.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOIL, FERTILIZED, AND SEEDED AND MULCHED. FINISHED SALVAGED TOPSOIL SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

4.5-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 2 LIFTS. CONSISTING OF A 2.5-INCH LOWER LIFT AND 2.0 -INCH SURFACE LIFT.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.

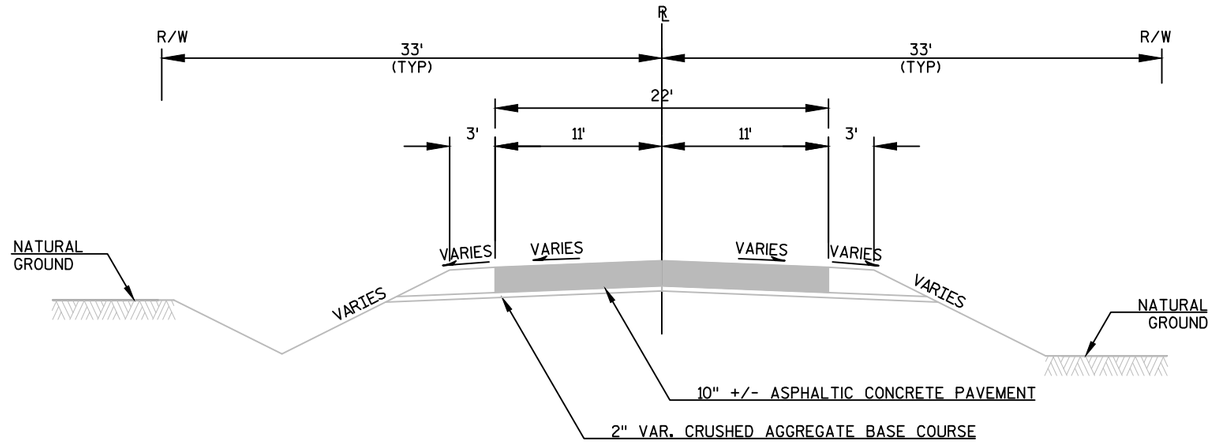
UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD.

RUNOFF COEFFICIENT TABLE

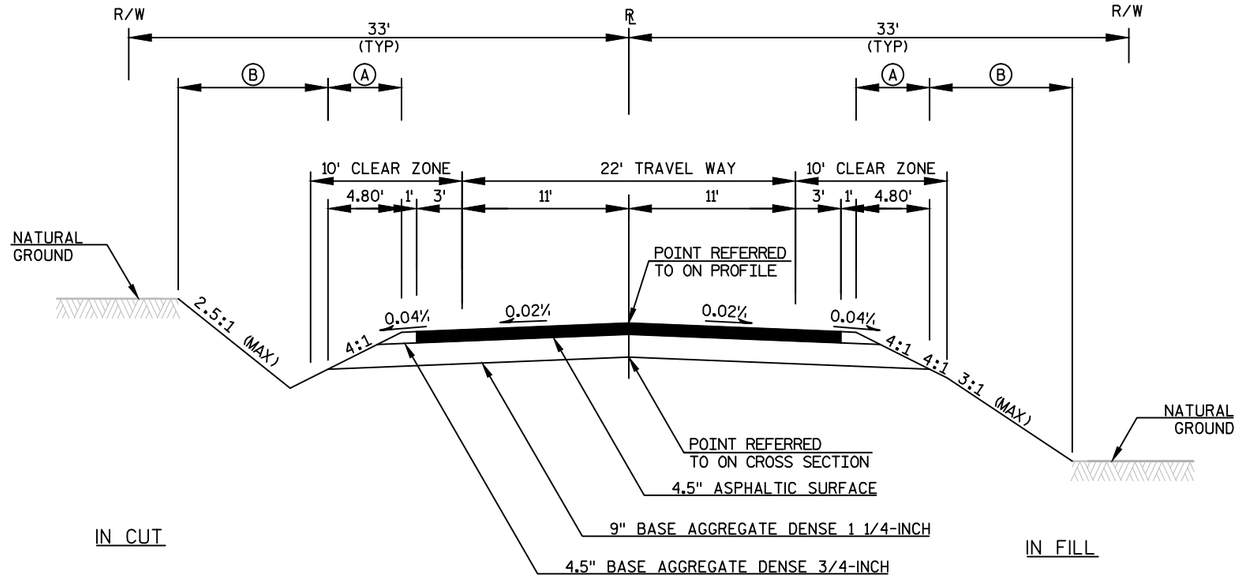
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.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 = 0.45 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.43 ACRES



TYPICAL EXISTING SECTION - CTH T

STA 8+50 - STA 9+88
STA 10+12 - STA 11+50



Ⓐ FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

Ⓑ SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

TYPICAL FINISHED SECTION - CTH T

STA 8+50 - STA 9+82
STA 10+18 - STA 11+50

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	TYPICAL SECTIONS: CTH T	SHEET 3	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\SHEETSPLAN\020301 TS.DWG
LAYOUT NAME - 020301 TS
PLOT DATE : 7/3/2017 1:11 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

BEGIN PROJECT
STA 8+50
SAWCUT REQ'D
MATCH EXISTING

EXISTING STRUCTURE
P-61-909

7+00
8+00
9+00
10+00
11+00
12+00
13+00
CTH T

BURLINGTON ROAD

OAK RIDGE DRIVE

TURTON CREEK

PROPOSED STRUCTURE
B-61-224

END PROJECT
STA 11+50
SAWCUT REQ'D
MATCH EXISTING

14	W5-52L 12"X36"			
13	REMOVE			
12		REMOVE		
11			W5-52R 12"X36"	
10				WEIGHT LIMIT 40 TONS REMOVE
9				W1-2R 36"X36"; 45 M.P.H. W13-1 18"X18"
8				REMOVE; 45 M.P.H. REMOVE

1	WEIGHT LIMIT 40 TONS REMOVE					
2		W5-52R 12"X36"				
3			REMOVE			
4				REMOVE		
5					REMOVE	
6						W5-52L 12"X36"
7						W2-1 30"X30"

LEGEND:

(A) MARKING LINE EPOXY 4-INCH (WHITE)

(B) MARKING LINE EPOXY 4-INCH (YELLOW)

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	PERMANENT SIGNING AND MARKING: CTH T	SHEET 4	E

2

BEGIN PROJECT
STA 8+50
SAWCUT REQ'D
MATCH EXISTING

JOHN & DIANE
BAIER

MICHAEL & DIANE
WALSKIE

N

R/W

BURLINGTON ROAD

WETLANDS
IMPACT 0.04 AC

EXISTING STRUCTURE
P-61-909

TLE

R/W

WETLANDS
IMPACT 0.05 AC

TLE

R/W

PC: 12+28.30

7+00

66'

CTH T

8+00

ASPH

9+00

10+00

11+00

℄ CTH T

ASPH

12+00

CTH T

99'

13+00

R/W

WETLANDS
IMPACT 0.04 AC

16.5' UTILTITY EASEMENT

PROPOSED STRUCTURE
B-61-224

R/W

TLE

WETLANDS
IMPACT 0.04 AC

END PROJECT
STA 11+50
SAWCUT REQ'D
MATCH EXISTING

CENTURYLINK

TURTON CREEK

JOHN & DIANE
BAIER

OAK RIDGE DRIVE

R/W

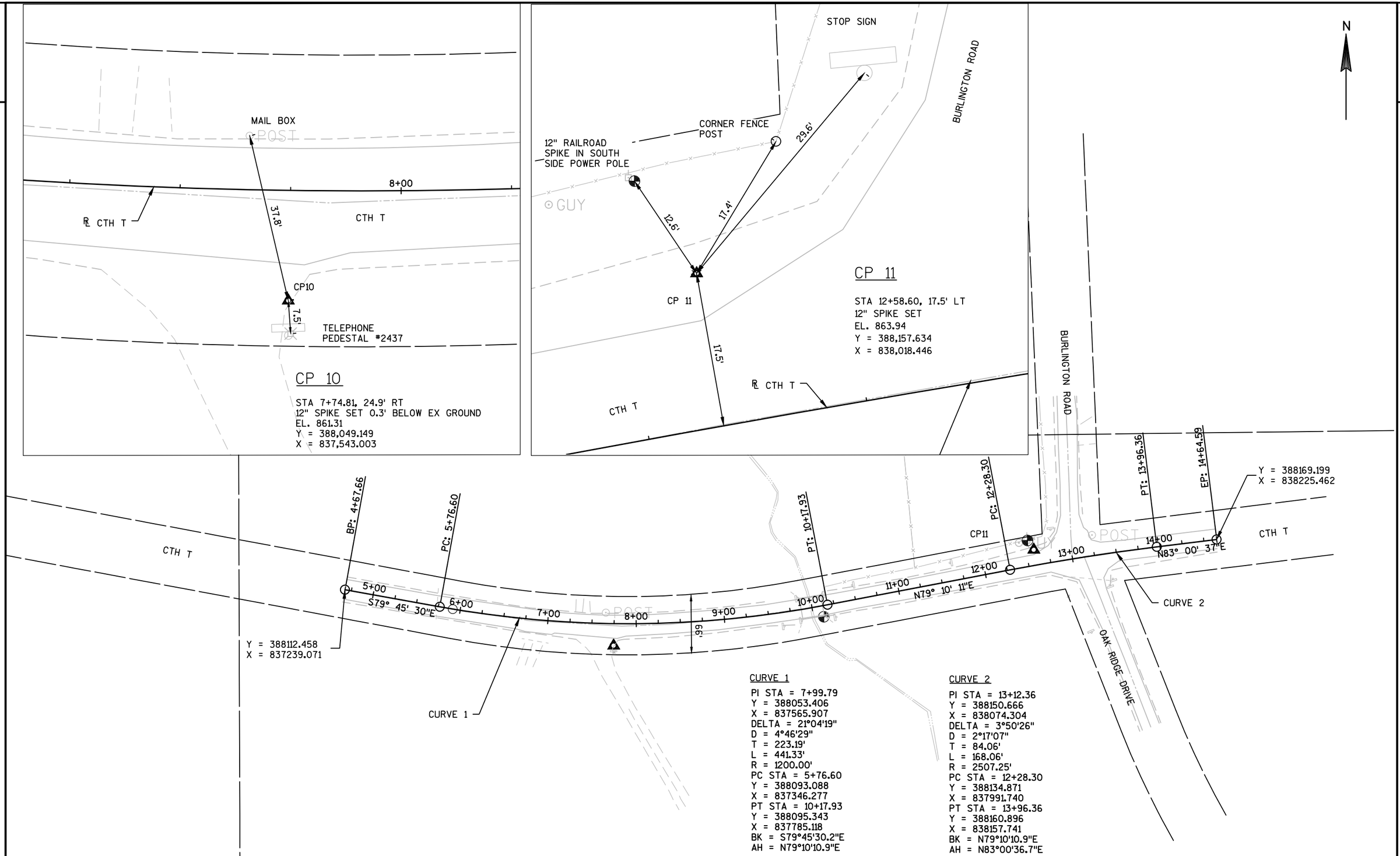
NOTES

HW_2 = EL. 857.83

LEGEND

- ###### EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIP RAP HEAVY
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- XXXX SAW CUT

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	EROSION CONTROL: CTH T	SHEET 5	E



CURVE 1

PI STA = 7+99.79
Y = 388053.406
X = 837565.907
DELTA = 21°04'19"
D = 4°46'29"
T = 223.19'
L = 441.33'
R = 1200.00'
PC STA = 5+76.60
Y = 388093.088
X = 837346.277
PT STA = 10+17.93
Y = 388095.343
X = 837785.118
BK = S79°45'30.2"E
AH = N79°10'10.9"E

CURVE 2

PI STA = 13+12.36
Y = 388150.666
X = 838074.304
DELTA = 3°50'26"
D = 2°17'07"
T = 84.06'
L = 168.06'
R = 2507.25'
PC STA = 12+28.30
Y = 388134.871
X = 837991.740
PT STA = 13+96.36
Y = 388160.896
X = 838157.741
BK = N79°10'10.9"E
AH = N83°00'36.7"E

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	ALIGNMENT AND CONTROL POINT DETAIL	SHEET 6	E

Estimate Of Quantities

7178-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. STA 10+00	LS	1.000	1.000
0004	205.0100	Excavation Common	CY	325.000	325.000
0006	206.1000	Excavation for Structures Bridges (structure) 01. B-61-0224	LS	1.000	1.000
0008	208.0100	Borrow	CY	443.000	443.000
0010	210.1500	Backfill Structure Type A	TON	335.000	335.000
0012	213.0100	Finishing Roadway (project) 01. 7178-00-70	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	46.000	46.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	790.000	790.000
0018	455.0605	Tack Coat	GAL	50.000	50.000
0020	465.0105	Asphaltic Surface	TON	257.000	257.000
0022	502.0100	Concrete Masonry Bridges	CY	155.000	155.000
0024	502.3200	Protective Surface Treatment	SY	130.000	130.000
0026	502.3210	Pigmented Surface Sealer	SY	48.000	48.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	4,240.000	4,240.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	20,320.000	20,320.000
0032	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0034	550.0500	Pile Points	EACH	10.000	10.000
0036	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	200.000	200.000
0038	606.0300	Riprap Heavy	CY	150.000	150.000
0040	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0042	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0044	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0046	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0048	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7178-00-70	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	8.000	8.000
0054	625.0500	Salvaged Topsoil	SY	1,120.000	1,120.000
0056	627.0200	Mulching	SY	260.000	260.000
0058	628.1504	Silt Fence	LF	840.000	840.000
0060	628.1520	Silt Fence Maintenance	LF	840.000	840.000
0062	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0066	628.2004	Erosion Mat Class I Type B	SY	970.000	970.000
0068	628.6005	Turbidity Barriers	SY	80.000	80.000
0070	629.0210	Fertilizer Type B	CWT	0.700	0.700
0072	630.0120	Seeding Mixture No. 20	LB	20.000	20.000
0074	630.0200	Seeding Temporary	LB	30.000	30.000

7178-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	2.000	2.000
0080	637.2230	Signs Type II Reflective F	SF	29.500	29.500
0082	638.2602	Removing Signs Type II	EACH	8.000	8.000
0084	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0086	642.5201	Field Office Type C	EACH	1.000	1.000
0088	643.0300	Traffic Control Drums	DAY	275.000	275.000
0090	643.0420	Traffic Control Barricades Type III	DAY	550.000	550.000
0092	643.0705	Traffic Control Warning Lights Type A	DAY	825.000	825.000
0094	643.0900	Traffic Control Signs	DAY	950.000	950.000
0096	643.5000	Traffic Control	EACH	1.000	1.000
0098	645.0111	Geotextile Type DF Schedule A	SY	90.000	90.000
0100	645.0120	Geotextile Type HR	SY	190.000	190.000
0102	646.1020	Marking Line Epoxy 4-Inch	LF	1,600.000	1,600.000
0104	650.4500	Construction Staking Subgrade	LF	350.000	350.000
0106	650.5000	Construction Staking Base	LF	350.000	350.000
0108	650.6500	Construction Staking Structure Layout (structure) 01. B-61-0224	LS	1.000	1.000
0110	650.9910	Construction Staking Supplemental Control (project) 01. 7178-00-70	LS	1.000	1.000
0112	650.9920	Construction Staking Slope Stakes	LF	350.000	350.000
0114	690.0150	Sawing Asphalt	LF	44.000	44.000
0116	715.0502	Incentive Strength Concrete Structures	DOL	882.000	882.000
0118	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0120	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	208.0100 Borrow
			Cut (2)	EBS Excavation (3)							
Division 1								Factor 1.25			
CTH T	8+50 - 11+50	Mainline	325	0	181	144	469	587	-443	0	443
Grand Total			325	0	181	144	469	587	-443	0	443
Total Common Exc			325								

Notes:

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

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

(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

(4) Salvaged/Unusable Pavement Material

(5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Expanded Fill Factor = 1.25

(7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY CODE 0010					
8+00	-	8+50	WIDENING	5	47
8+50	-	9+75	MAINLINE	13	328
10+25	-	11+50	MAINLINE	13	328
11+50	-	12+00	WIDENING	5	47
--	-	--	UNDISTRIBUTED	10	40
			TOTALS:	**46**	**790**

ASPHALTIC ITEMS

STATION	-	STATION	LOCATION	455.0605 TACK COAT GAL	460.1100 ASPHALTIC SURFACE TON
CATEGORY CODE 0010					
8+00	-	8+50	WIDENING	2	12
8+50	-	9+75	MAINLINE	23	116
10+25	-	11+50	MAINLINE	23	117
11+50	-	12+00	WIDENING	2	12
			TOTALS	**50**	**257**

MGS GUARDRAIL ITEMS

STATION	-	STATION	LOCATION	614.2500 THRIE BEAM TRANSITION LF	614.2610 TERMINAL EAT EACH
CATEGORY CODE 0010					
8+77	-	9+63	LT	39	1
8+77	-	9+63	RT	39	1
10+34	-	11+22	LT	39	1
10+34	-	11+22	RT	39	1
			TOTALS	**156**	**4**

MOBILIZATION

CATEGORY	619.1000 EACH
0010	0.2
0020	0.8
TOTALS	**1**

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	8
TOTALS	**8**

3

LANDSCAPING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEED MIX NO. 20 LBS	630.0200 SEED TEMPORARY LBS
CATEGORY CODE 0010									
8+00	-	9+75	LT	240	60	200	0.2	4	6.5
8+00	-	9+75	RT	240	40	220	0.2	4	6.5
10+25	-	12+00	LT	290	80	250	0.2	5	7.8
10+25	-	12+00	RT	350	80	300	0.2	6	9.5
			TOTALS	**1,120**	**260**	**970**	**0.7**	**20**	**30**

SILT FENCE

STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF
CATEGORY CODE 0010					
8+00	-	9+75	LT	210	210
8+00	-	9+75	RT	210	210
10+25	-	12+00	LT	210	210
10+25	-	12+00	RT	210	210
			TOTALS	**840**	**840**

TURBIDITY BARRIER

LOCATION	628.6005 TURBIDITY BARRIER SY
CATEGORY CODE 0020	
WEST ABUTMENT	40
EAST ABUTMENT	40
TOTALS	**80**

3

SIGNING ITEMS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6X12 EACH	634.0616 POSTS WOOD 4X6X16 EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
CATEGORY CODE 0010							
9+75	RT	2	W5-52R	12" X 36"	1	---	3.00
9+75	LT	14	W5-52L	12" X 36"	1	---	3.00
10+30	RT	6	W5-52L	12" X 36"	1	---	3.00
10+30	LT	11	W5-52R	12" X 36"	1	---	3.00
10+50	RT	7	W2-1	30" X 30"	---	1	6.25
11+60	LT	9	W13-1	18" X 18"	---	1	2.25
11+60	LT	9	W1-2R	36" X 36"	---	---	9.00
				TOTALS	**4**	**2**	**29.50**

REMOVING SIGN ITEMS

STATION	LOCATION	SIGN NUMBER	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY CODE 0010				
9+65	RT	1	1	1
9+85	LT	13	1	1
9+85	RT	3	1	1
10+15	LT	12	1	1
10+15	RT	4	1	1
10+25	RT	5	1	1
10+50	LT	10	1	1
11+65	LT	8	1	1
		TOTALS	**8**	**8**

EROSION CONTROL MOBILIZATIONS

STATION	-	STATION	LOCATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
CATEGORY CODE 0010					
PROJECT				2	2
			TOTALS	**2**	**2**

TRAFFIC CONTROL ITEMS

LOCATION	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.5000 TRAFFIC CONTROL EACH
CATEGORY CODE 0010									
PROJECT	4	275	8	550	12	825	14	950	1
TOTALS		**275**		**550**		**825**		**950**	**1**

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
8+50	CTH T	22
11+50	CTH T	22
	TOTALS	**44**

MARKING LINE ITEMS

STATION	-	STATION	LOCATION	646.102 MARKING LINE EPOXY 4-INCH WHITE LF	646.102 MARKING LINE EPOXY 4-INCH YELLOW LF
CATEGORY CODE 0010					
8+00	-	12+00	CL	---	800
8+00	-	12+00	EDGELINE	800	---
			TOTALS	**800**	**800**

CONSTRUCTION STAKING ITEMS

STATION	-	STATION	LOCATION	650.4500 STAKING SUBGRADE LF	650.5000 STAKING BASE LF	CAT 0020 650.6500 STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010								
8+00	-	9+75	MAINLINE	175	175	1	1	175
10+25	-	12+00	MAINLINE	175	175	---	---	175
			TOTALS	**350**	**350**	**1**	**1**	**350**

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPELEAU	MISCELLANEOUS QUANTITIES	SHEET NO: 10	E

R/W PROJECT NUMBER 7178-00-00	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

STH 95 - CTH D
TURTON CREEK BRIDGE B-61-0224

CTH T — TREMPEALEAU COUNTY

CONSTRUCTION PROJECT NUMBER 7178-00-70

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE (P.L.)
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL (10 / 23 24 / 16 15 / 9)
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — SIGN
OFF-PREMISE SIGN — I-25 — SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	●	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	✱	✱

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER (25) UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), TREMPEALEAU COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE REBAR AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

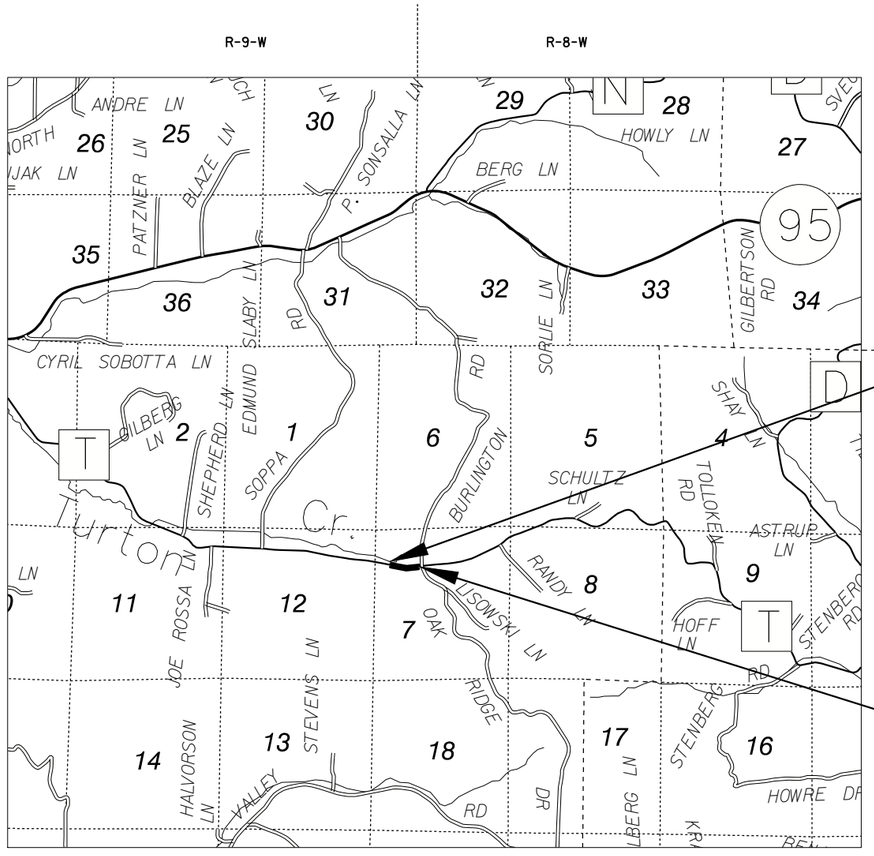
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

CONVENTIONAL UTILITY SYMBOLS

WATER —W—
GAS —G—
TELEPHONE —T—
OVERHEAD TRANSMISSION LINES —OH—
ELECTRIC —E—
CABLE TELEVISION —TV—
FIBER OPTIC —FO—
SANITARY SEWER —SAN—
STORM SEWER —SS—

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

N



BEGIN RELOCATION ORDER
STA 8+00.00
1,093.29' EAST AND 1,504.06' SOUTH OF THE NORTHEAST CORNER, SEC 7, T-20-N, R-08-W

END RELOCATION ORDER
STA 12+00.00
1,488.70' EAST AND 1,448.52' SOUTH OF THE NORTHEAST CORNER, SEC 7, T-20-N, R-08-W

LAYOUT
SCALE 0 — 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.076 MI

CORRE
1802 WARDEN STREET
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

I, BRYON J. MOTSZKO, REGISTERED LAND SURVEYOR, S-2846, HEREBY CERTIFY THAT I HAVE SURVEYED THE LAND DESCRIBED HEREON AND THAT THE MAP HEREON IS A CORRECT REPRESENTATION OF THAT SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

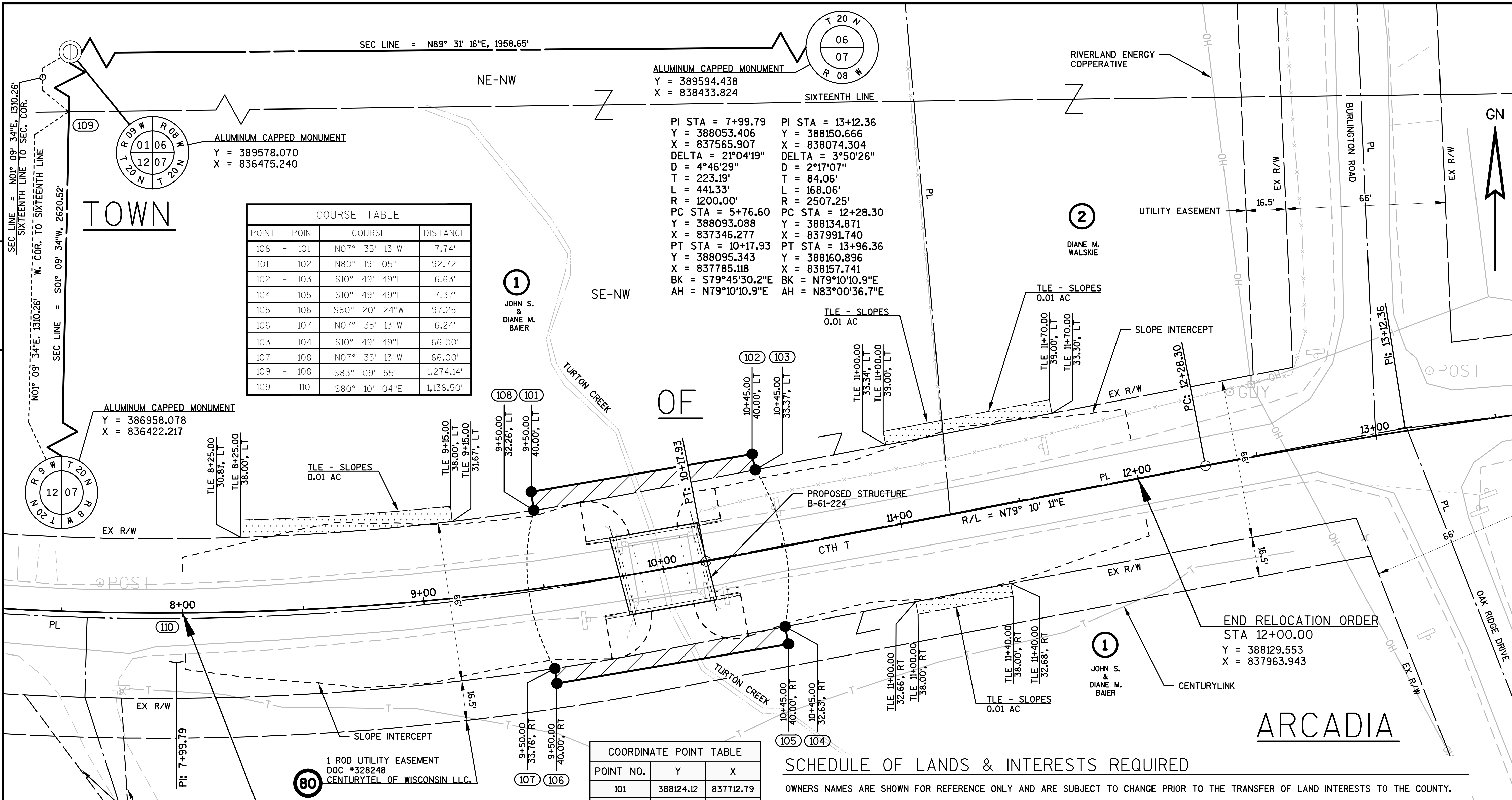
DATE: _____ _____ (Signature)

REVISION DATE

TREMPEALEAU COUNTY

APPROVED FOR THE COUNTY

DATE: _____ _____ (Signatu



SEC LINE = N89° 31' 16"E, 1958.65'
NE-NW
ALUMINUM CAPPED MONUMENT
Y = 389594.438
X = 838433.824
SIXTEENTH LINE
ALUMINUM CAPPED MONUMENT
Y = 389578.070
X = 836475.240
SEC LINE = N01° 09' 34"E, 1310.26' SIXTEENTH LINE TO SEC. COR.
SEC LINE = S01° 09' 34"W, 2620.52' W. COR. TO SIXTEENTH LINE
N01° 09' 34"E, 1310.26'
TOWN
OF
ARCADIA
SE-NW
RIVERLAND ENERGY COPPERATIVE
BURLINGTON ROAD
UTILITY EASEMENT
16.5'
66'
EX R/W
GN
DIANE M. WALSKIE
JOHN S. & DIANE M. BAIER
PI STA = 7+99.79
Y = 388053.406
X = 837565.907
DELTA = 21°04'19"
D = 4°46'29"
T = 223.19'
L = 441.33'
R = 1200.00'
PC STA = 5+76.60
Y = 388093.088
X = 837346.277
PT STA = 10+17.93
Y = 388095.343
X = 837785.118
BK = S79°45'30.2"E
AH = N79°10'10.9"E
PI STA = 13+12.36
Y = 388150.666
X = 838074.304
DELTA = 3°50'26"
D = 2°17'07"
T = 84.06'
L = 168.06'
R = 2507.25'
PC STA = 12+28.30
Y = 388134.871
X = 837991.740
PT STA = 13+96.36
Y = 388160.896
X = 838157.741
BK = N79°10'10.9"E
AH = N83°00'36.7"E
ALUMINUM CAPPED MONUMENT
Y = 386958.078
X = 836422.217
TLE - SLOPES 0.01 AC
SLOPE INTERCEPT
TURTON CREEK
PROPOSED STRUCTURE B-61-224
PT: 10+17.93
PC: 12+28.30
PI: 13+12.36
PI: 7+99.79
R/L = N79° 10' 11"E
CTH T
OAK RIDGE DRIVE
END RELOCATION ORDER
STA 12+00.00
Y = 388129.553
X = 837963.943
CENTURYLINK
BEGIN RELOCATION ORDER
STA 8+00.00
Y = 388074.001
X = 837568.535
1 ROD UTILITY EASEMENT
DOC #328248
CENTURYTEL OF WISCONSIN LLC.
INGRESS EGRESS EASEMENT
POST
GUY

NOTE:
EXISTING RIGHT OF WAY IS BASED ON EXISTING ROAD CENTERLINE (WISCONSIN STATUTE 82.31) AND FROM RECORDED DEEDS (DOC #358871 & 333089).

COURSE TABLE

POINT		POINT	COURSE	DISTANCE
108	-	101	N07° 35' 13"W	7.74'
101	-	102	N80° 19' 05"E	92.72'
102	-	103	S10° 49' 49"E	6.63'
104	-	105	S10° 49' 49"E	7.37'
105	-	106	S80° 20' 24"W	97.25'
106	-	107	N07° 35' 13"W	6.24'
103	-	104	S10° 49' 49"E	66.00'
107	-	108	N07° 35' 13"W	66.00'
109	-	108	S83° 09' 55"E	1,274.14'
109	-	110	S80° 10' 04"E	1,136.50'

COORDINATE POINT TABLE

POINT NO.	Y	X
101	388124.12	837712.79
102	388139.72	837804.19
103	388133.21	837805.43
104	388068.38	837817.83
105	388061.14	837819.22
106	388044.82	837723.35
107	388051.01	837722.53
108	388116.45	837713.81

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE AREA (AC)
			NEW (AC)	EXISTING (AC)	TOTAL (AC)	
1	JOHN S. & DIANE M. BAIER	FEE & TLE	0.03	0.14	0.17	0.03
2	DIANE M. WALSKIE	TLE	---	---	---	0.01
80	CENTURYTEL OF CENTRAL WISCONSIN LLC.	RELEASE OF RIGHTS				

REVISION DATE	DATE ----	SCALE, FEET 0 20 40	HWY: CTH T	STATE R/W PROJECT NUMBER 7178-00-00	PLAT SHEET 4.02	E
	GRID FACTOR N/A		COUNTY: TREMPEALEAU	CONSTRUCTION PROJECT NUMBER 7178-00-70	PS&E SHEET --12	

BENCH MARKS / CONTROL POINTS					
NO.	STATION	DESCRIPTION	ELEV.	NORTHING	EASTING
2	10+11.66	PK NAIL SE BRIDGE COR, 13.08' RT	862.42	---	---
3	12+53.67	SET 12" SPIKE, 29.02' LT	862.28	---	---
CP10	7+74.81	SET 12" SPIKE 0.3' BELOW EX GROUND, 24.9' RT	861.31	388,049.149	837,543.003
CP11	12+58.60	SET 12" SPIKE 17.5', LT	863.94	388,157.634	838,018.446

PI STA = 7+99.79
Y = 388053.406
X = 837565.907
DELTA = 21°04'19"
D = 4°46'29"
T = 223.19'
L = 441.33'
R = 1200.00'
PC STA = 5+76.60
PT STA = 10+17.93

PI STA = 13+12.36
Y = 388150.666
X = 838074.304
DELTA = 3°50'26"
D = 2°17'07"
T = 84.06'
L = 168.06'
R = 2507.25'
PC STA = 12+28.30
PT STA = 13+96.36

MICHAEL & DIANE WALSKIE

JOHN & DIANE BAIER

BURLINGTON ROAD

OAK RIDGE DRIVE

SLOPE INTERCEPTS

+66.16 17.4 LT TLE +91.48 16.4 LT +16.81 15.4 LT

+79.67 15.4 LT +04.67 16.4 LT +29.68 17.4 LT TLE

+72.21 17.7 RT +96.88 16.7 RT +21.56 15.7 RT

+81.86 15.7 RT +06.86 16.7 RT +31.86 17.7 RT TLE

R/W 31' 35' CTH T ASPH

7+00 8+00 9+00 10+00 11+00 12+00 13+00

PI: 10+17.93 PC: 12+28.30

BM 2 BM 3 CP10 CP11

N79° 10' 11"E

BEGIN CONSTRUCTION STA 8+00.00

EASEMENT EASEMENT PI: 7+99.79 UTILITY EASEMENT UTILITY EASEMENT

BEGIN PROJECT
STA 8+50
SAWCUT REQ'D
MATCH EXISTING
Y = 388,075.413
X = 837,618.511

PROPOSED STRUCTURE B-61-224
EXISTING STRUCTURE P-61-909
CENTURYLINK
TURTON CREEK

MGS THRIE BEAM TRANSITION
MGS GUARDRAIL TERMINAL EAT

END CONSTRUCTION STA 12+00.00

END PROJECT
STA 11+50
SAWCUT REQ'D
MATCH EXISTING

5 5

YARDAGE SUMMARY - WEST
EXCAVATION COMMON = 165 CY
EXPANDED FILL = 278 CY
BORROW = 204 CY

YARDAGE SUMMARY - EAST
EXCAVATION COMMON = 160 CY
EXPANDED FILL = 309 CY
BORROW = 239 CY

K=117.66
VCL 230.00

VPI STA 8+50.00 VPI EL 861.88
VPC EL 862.47 VPC 8+85.00
VPI 10+00.00 VPI EL 864.43
VPT EL 864.13 VPT 11+15.00
VPI STA 11+50.00 VPI EL 864.04

OBSERVED WATER EL 855.70 (4/16/2015)
HIGH WATER 100 YR EL 860.58

1.70% -0.25%

EXISTING GROUND
PROPOSED PROFILE ON ℄

EXISTING ℄ ELEVATION
PROPOSED ℄ ELEVATION

872 868 864 860 856 852 848 844

860.84 861.01 861.15 861.26 861.43 861.61 861.86 861.88 862.22 862.30 862.60 862.72 863.03 863.08 863.45 863.40 863.91 863.66 854.77 863.86 864.22 864.02 864.18 864.12 864.07 864.17 863.96 864.16 863.98 864.11 864.04 864.04 864.12 864.21 864.40 864.64 864.98 865.37

7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00

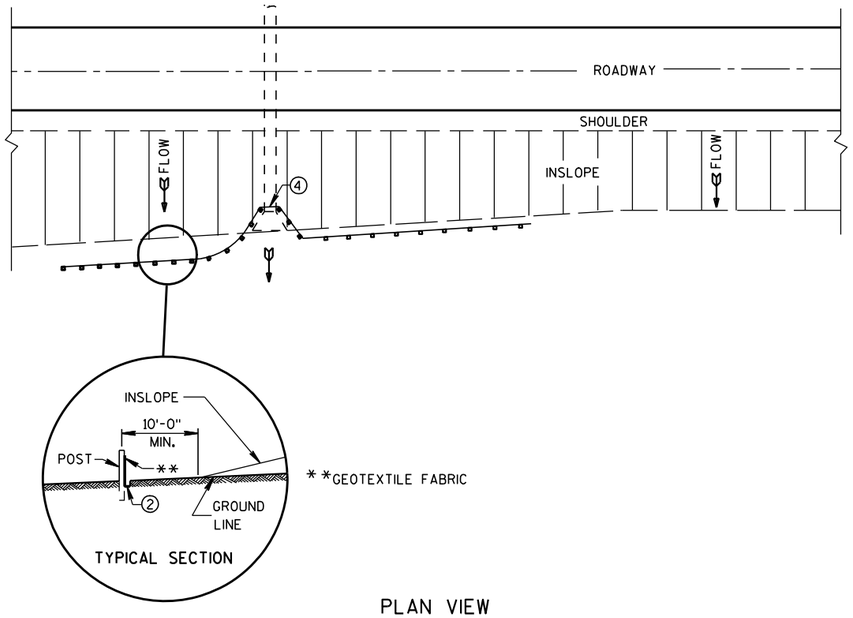
STATION 10+00
REMOVE STRUCTURE P-61-909
SINGLE SPAN BRIDGE
24.0' OVERALL LENGTH
24.0' OVERALL WIDTH

STATION 10+00
STRUCTURE B-61-224 REQ'D
34.0' SINGLE SPAN CONCRETE FLAT SLAB
30.0' CLEAR ROADWAY WIDTH
5° SKEW RHF

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	PLAN AND PROFILE: CTH T	SHEET 13	E

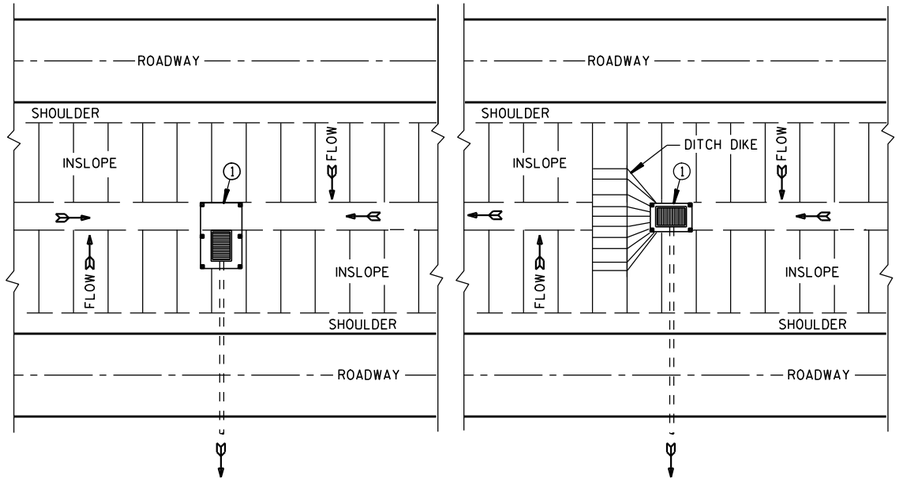
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



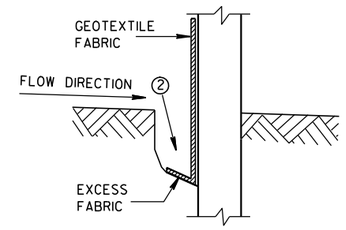
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

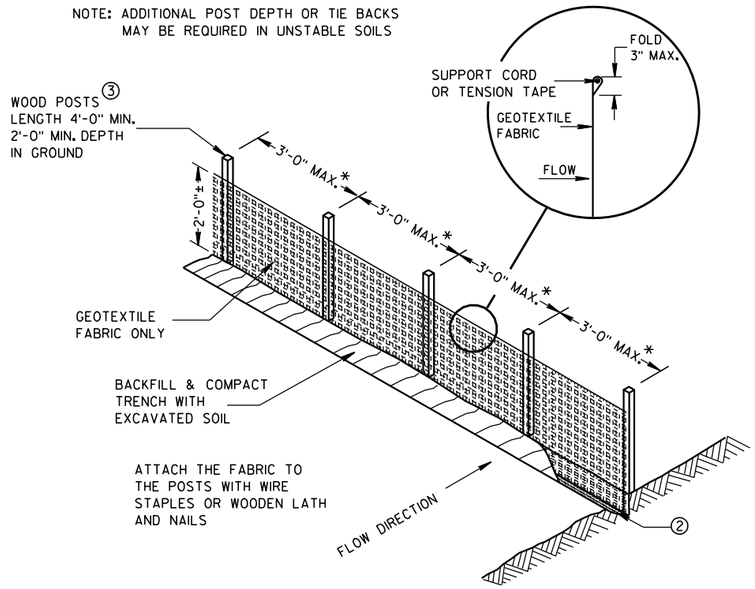
GENERAL NOTES

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

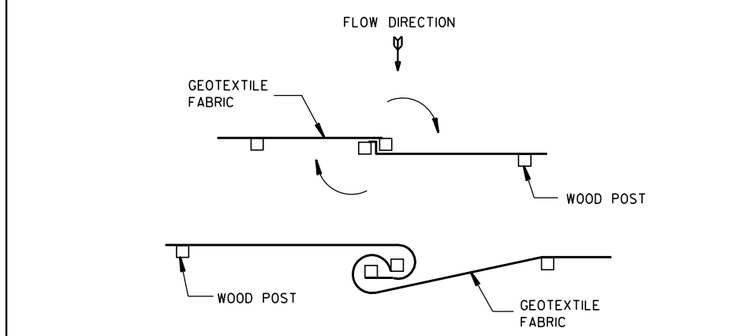
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



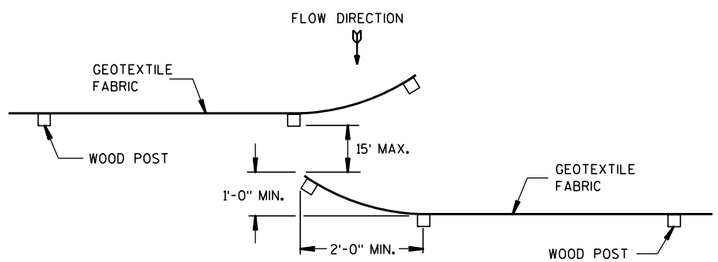
TRENCH DETAIL



SILT FENCE

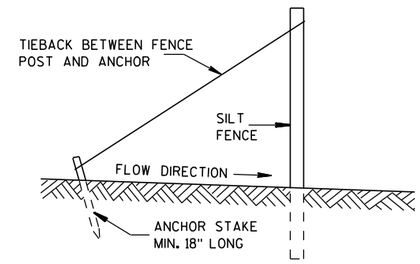


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

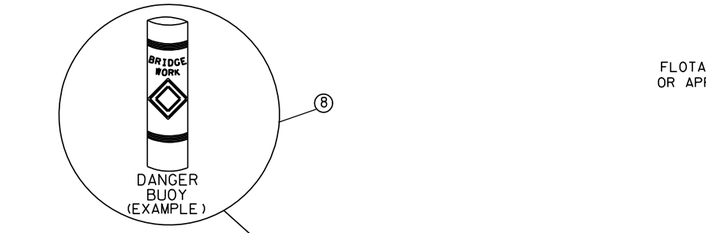
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

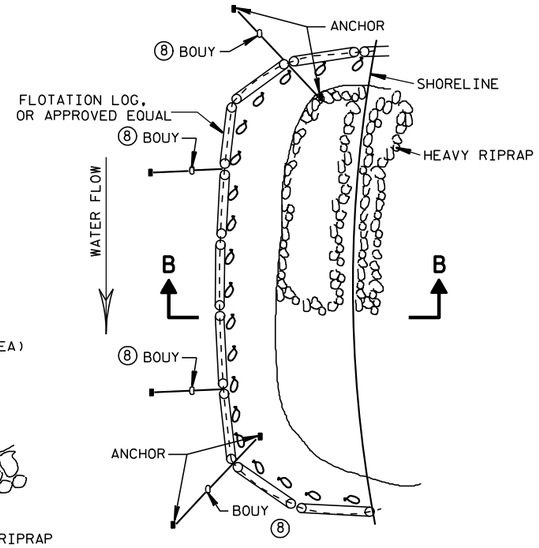
S.D.D. 8 E 9-6

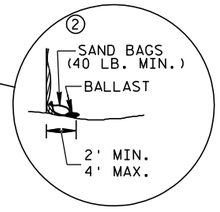
6

S.D.D. 8 E 9-6

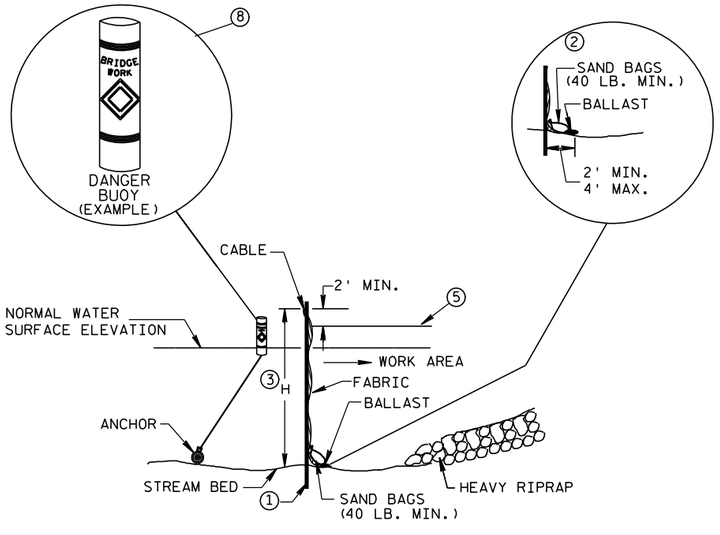


SECTION B-B

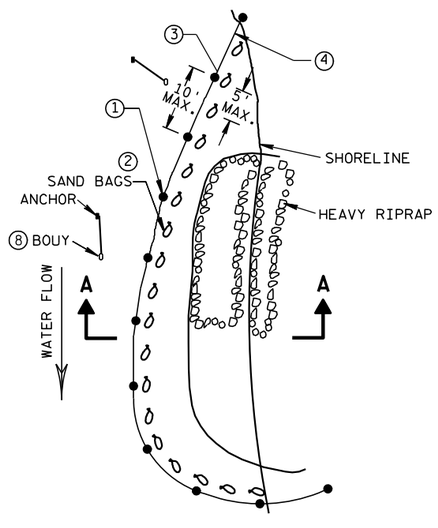




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

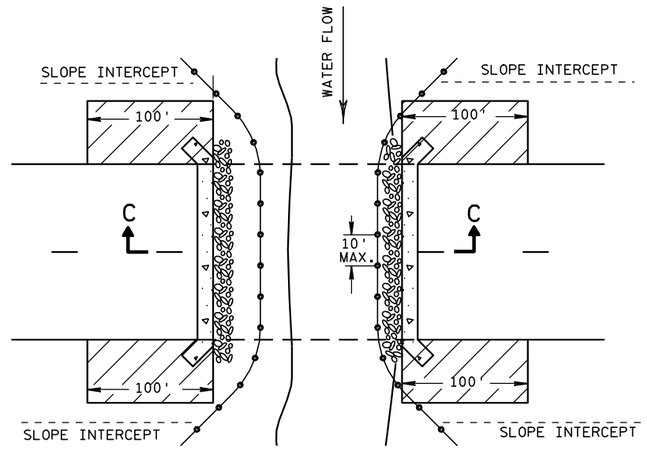
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

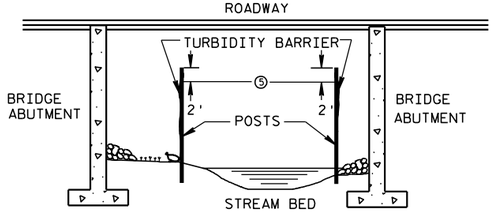
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

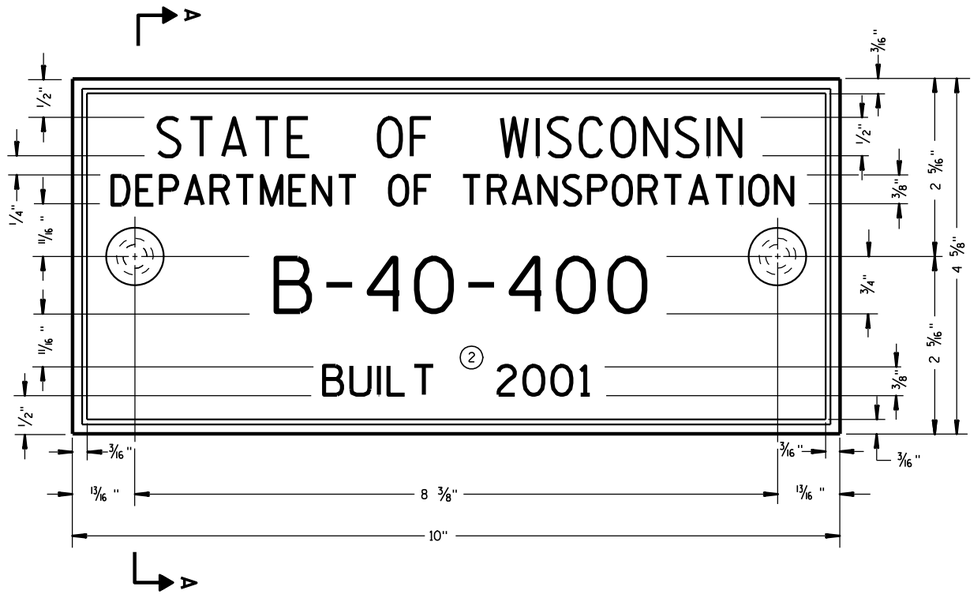
TURBIDITY BARRIER

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 11-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

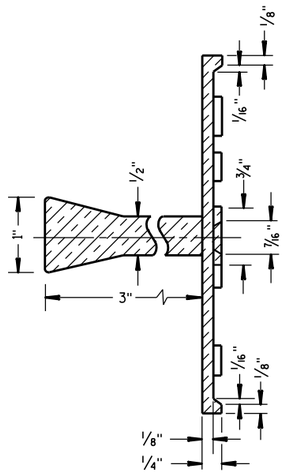
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

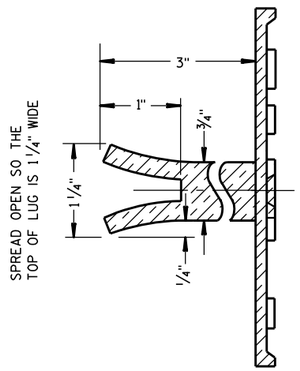
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

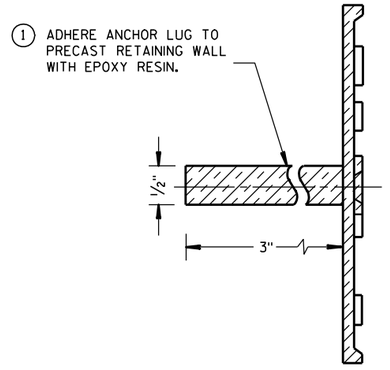
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

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.

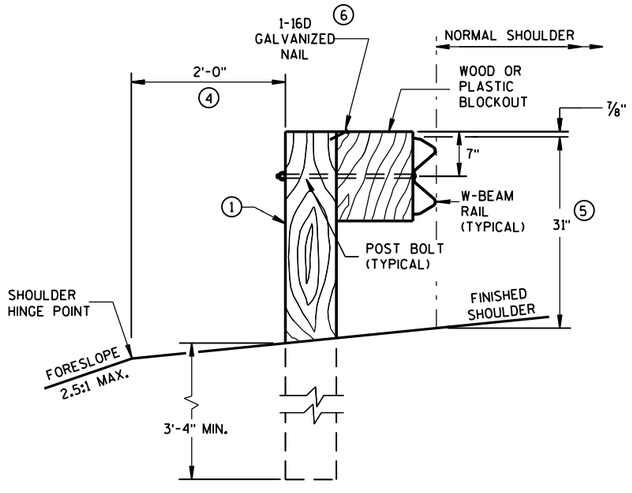
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ 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).

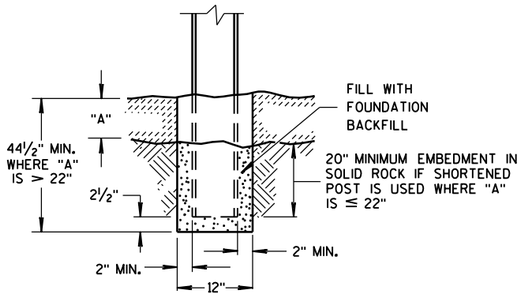
⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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.



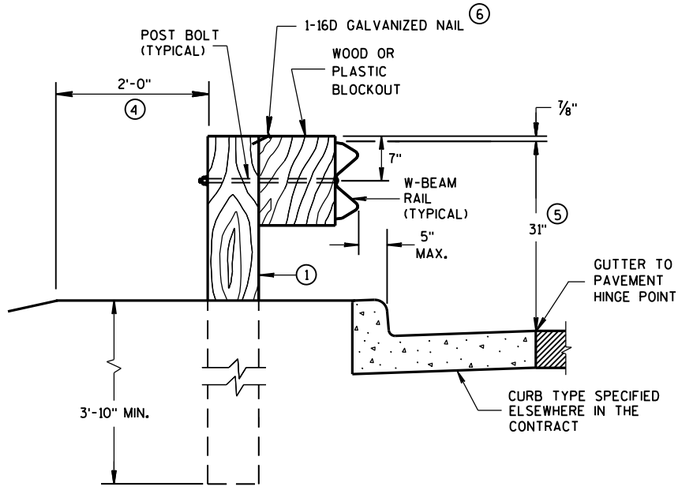
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



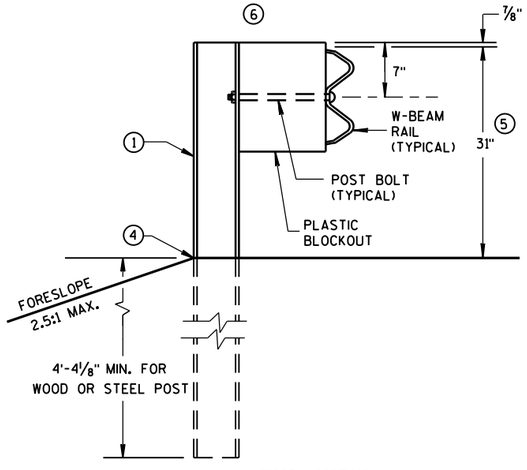
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



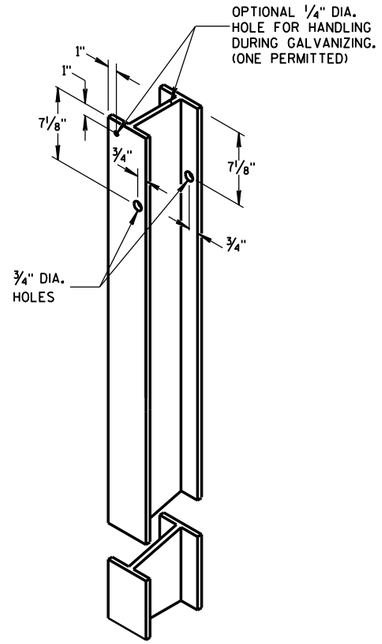
END VIEW

LOCATED ALONG A CURBED ROADWAY

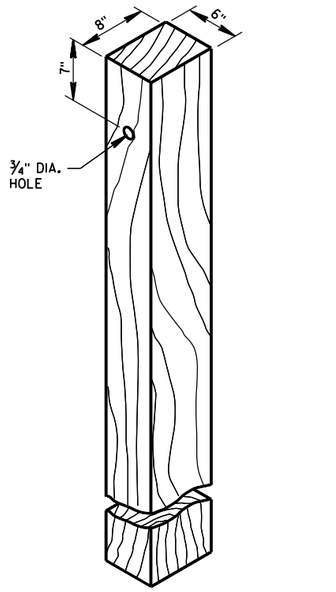


END VIEW

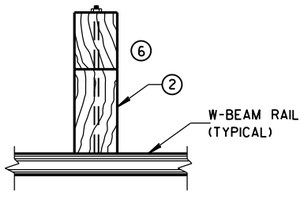
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



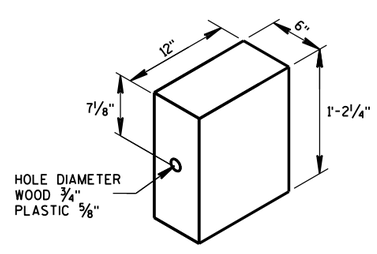
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



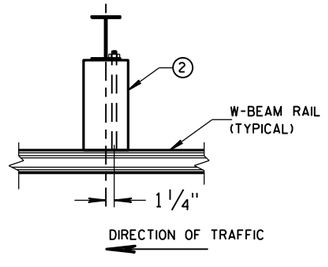
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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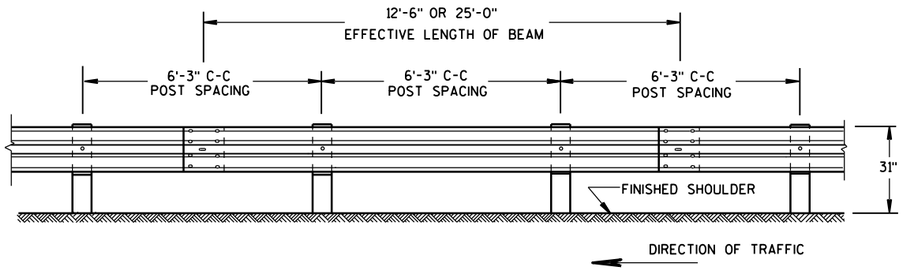
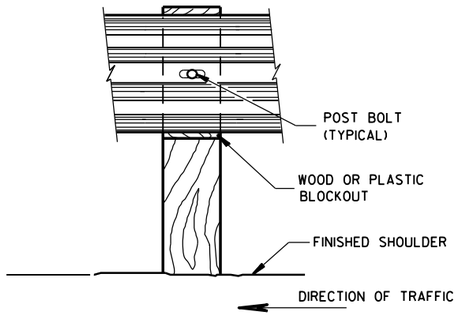
S.D.D. 14 B 42-4a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

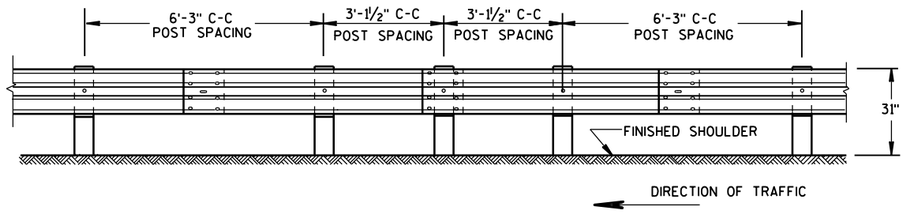
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

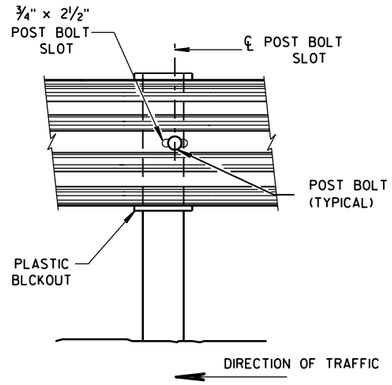
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

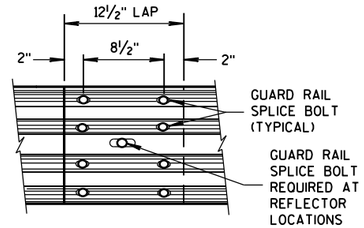


FRONT VIEW

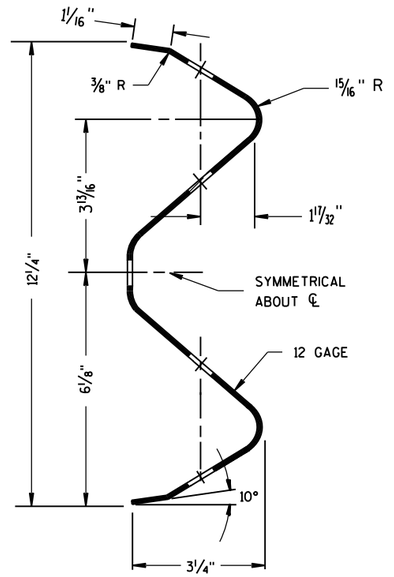
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



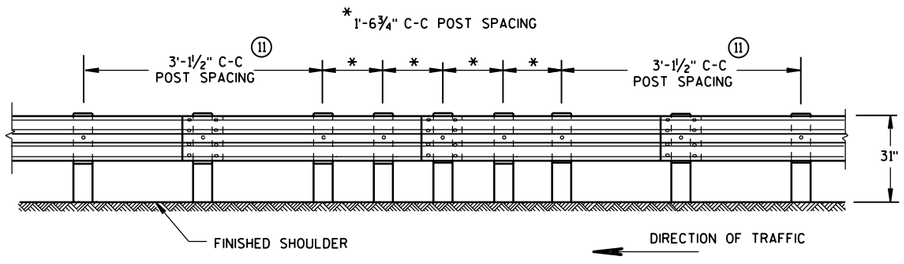
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

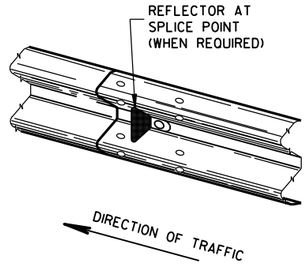


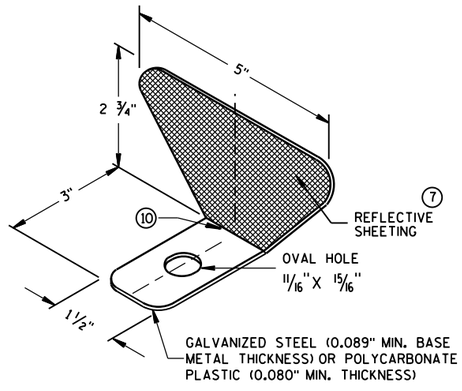
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

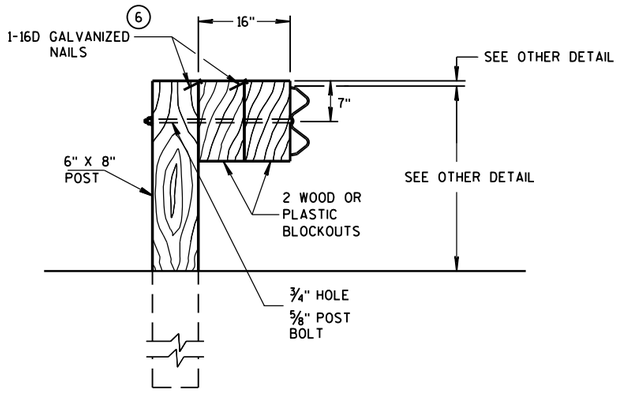
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

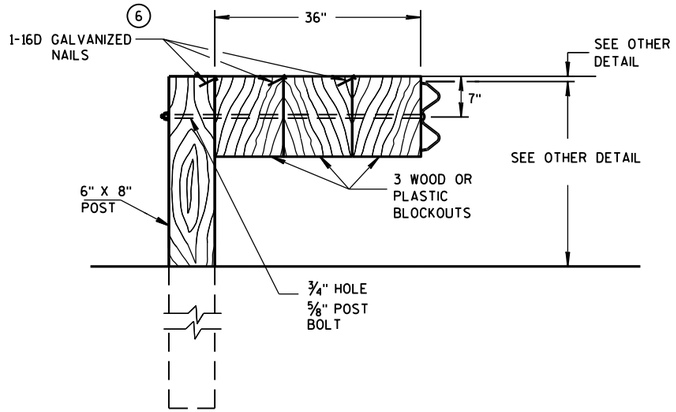
6

S.D.D. 14 B 42-4b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

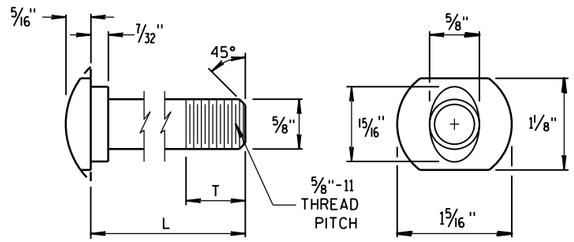


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

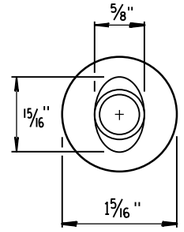
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

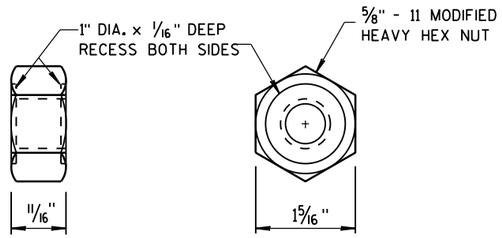


POST BOLT TABLE

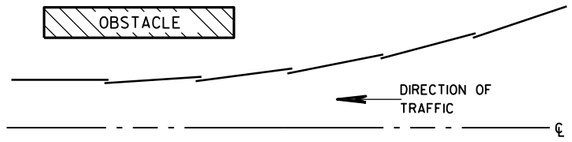
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

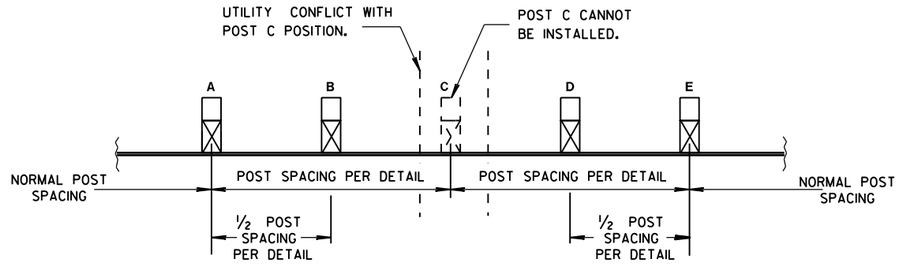


POST BOLT, SPLICE BOLT AND RECESS NUT

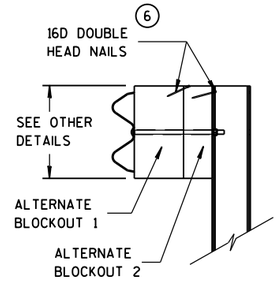


PLAN VIEW

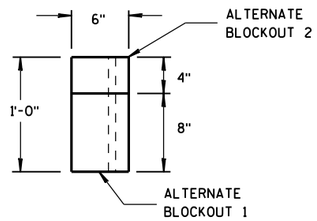
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

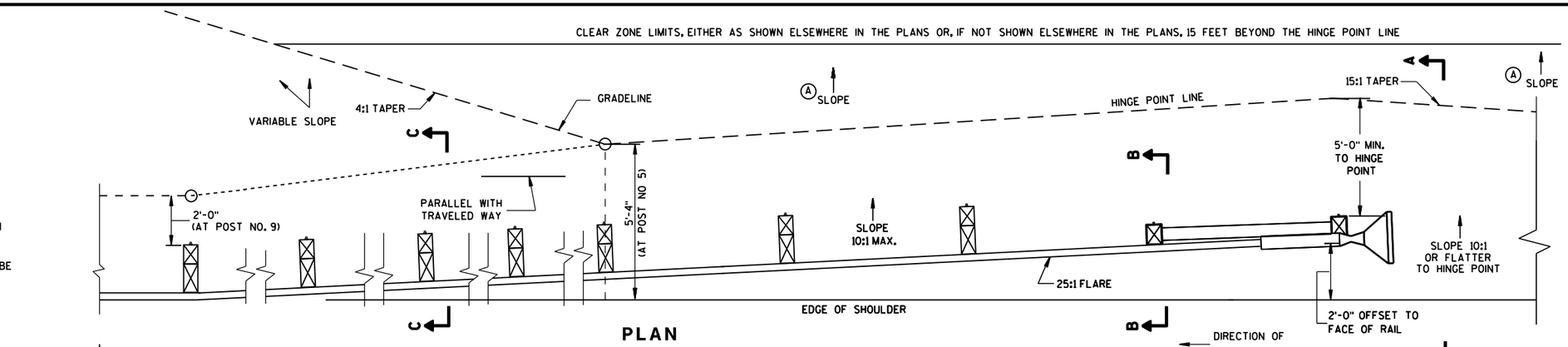
SEE SDD 14B42 FOR MORE INFORMATION.

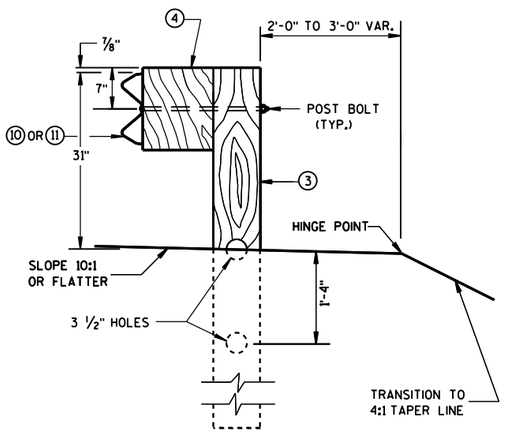
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

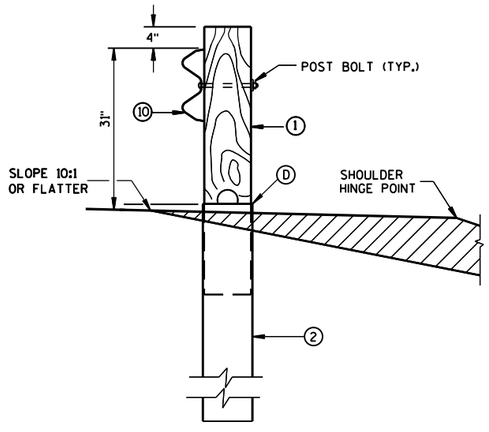
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" 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.

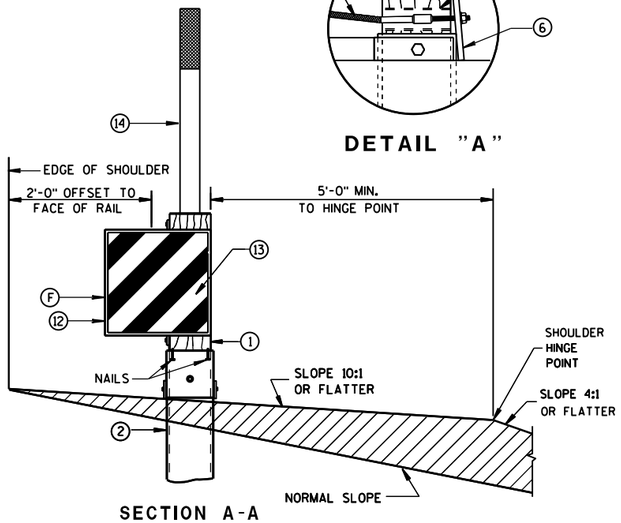




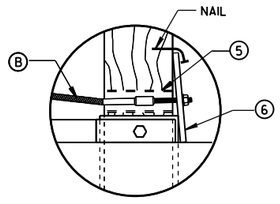
SECTION C-C
TYPICAL AT POST NOS. 3-9



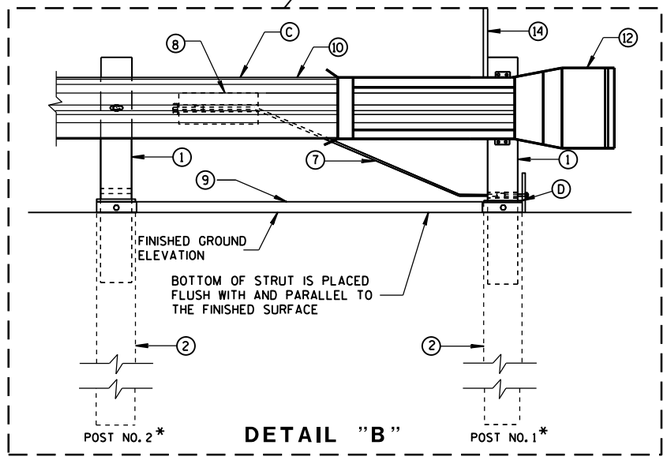
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



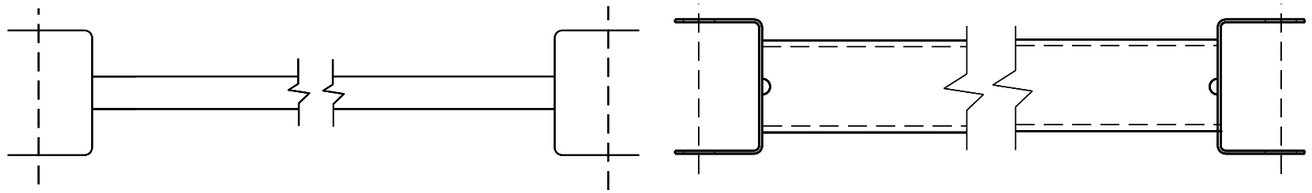
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

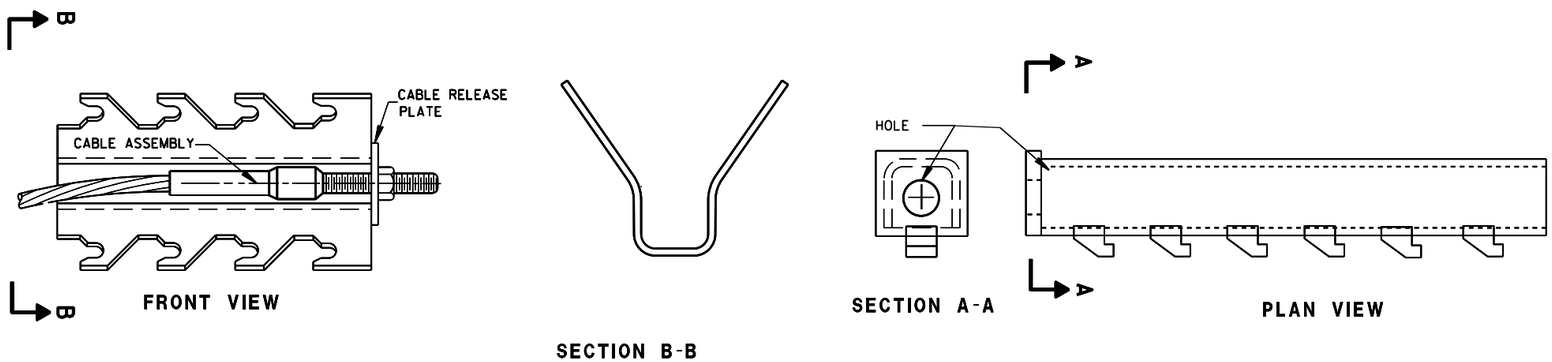
S.D.D. 14 B 44-2a



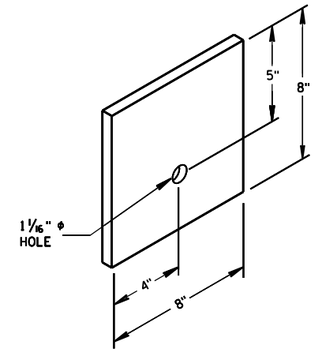
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



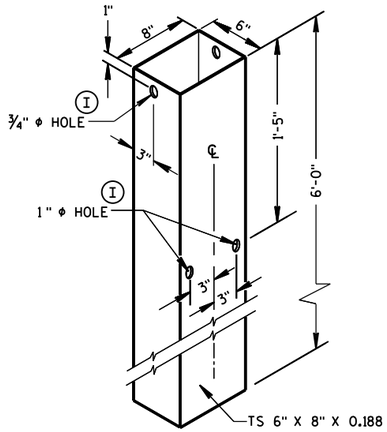
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

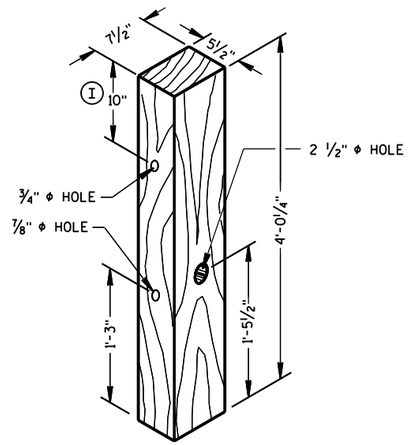
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

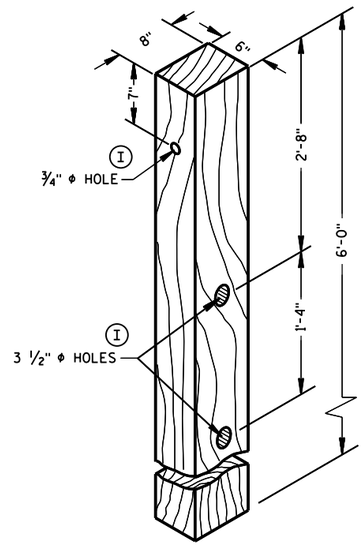


FOUNDATION TUBE (2)



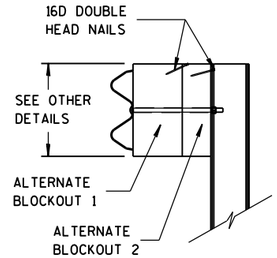
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

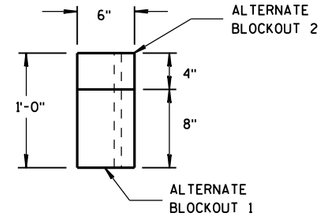


POSTS NUMBER 3-9

WOOD CRT POST (3)

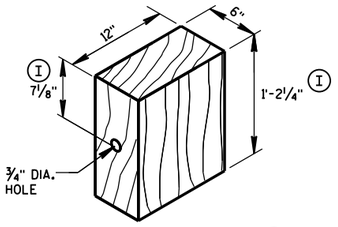


SIDE VIEW



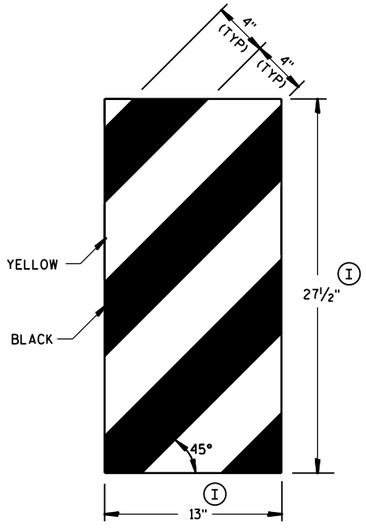
TOP VIEW

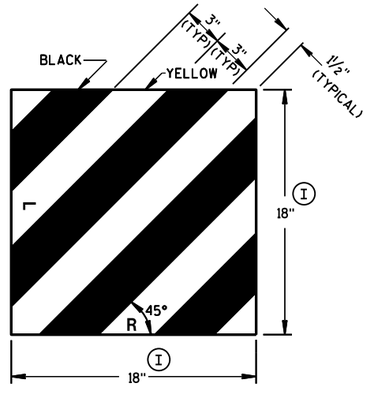
ALTERNATE WOOD BLOCKOUT DETAIL



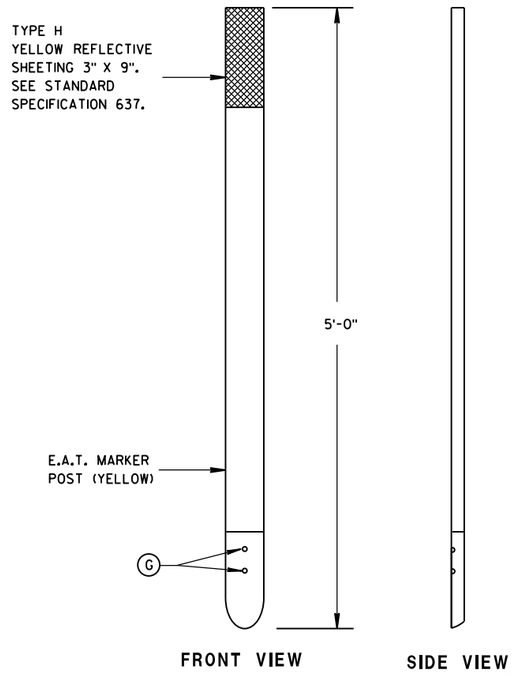
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





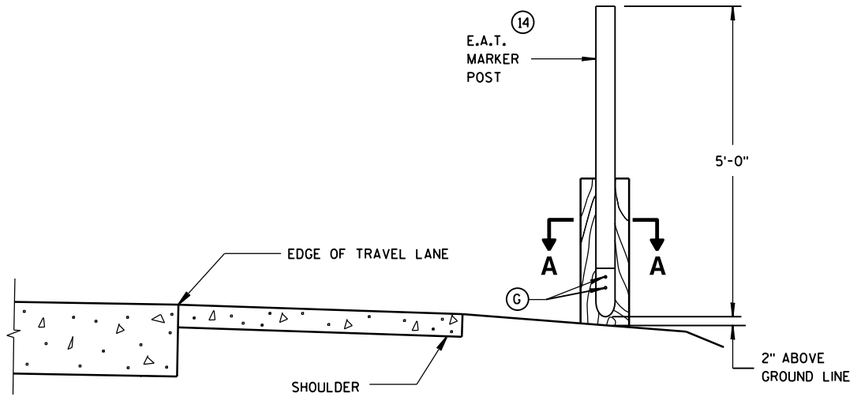
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

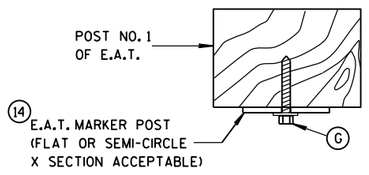
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

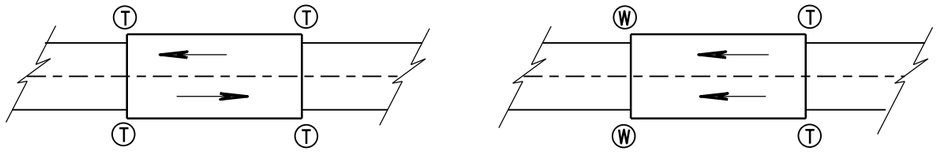
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

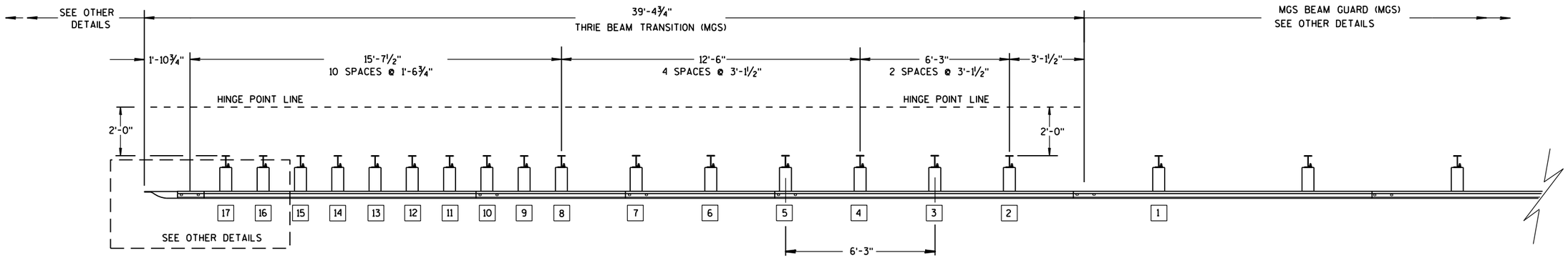
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

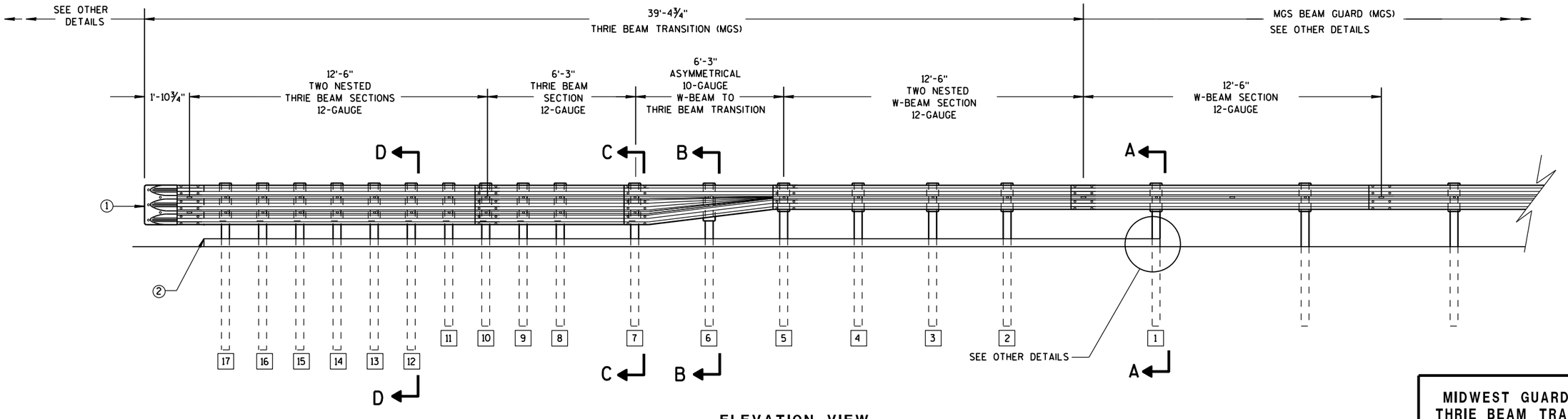
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

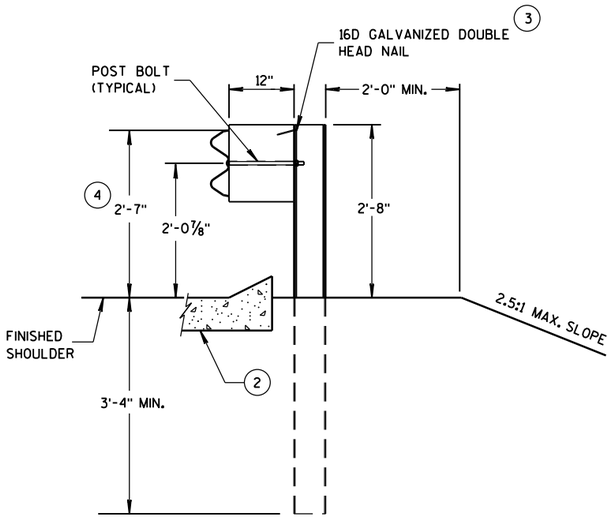
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

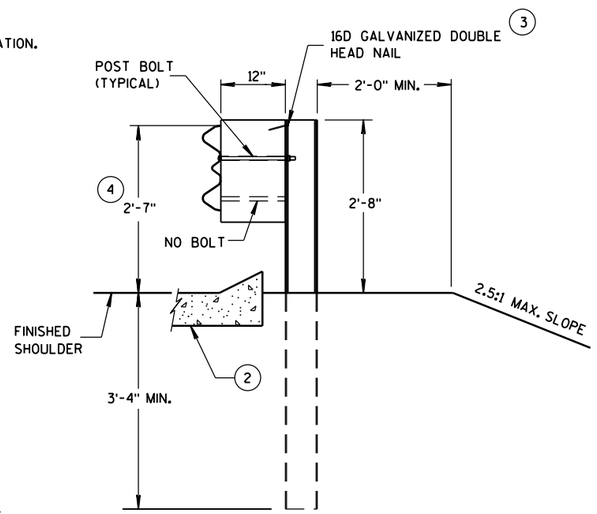
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



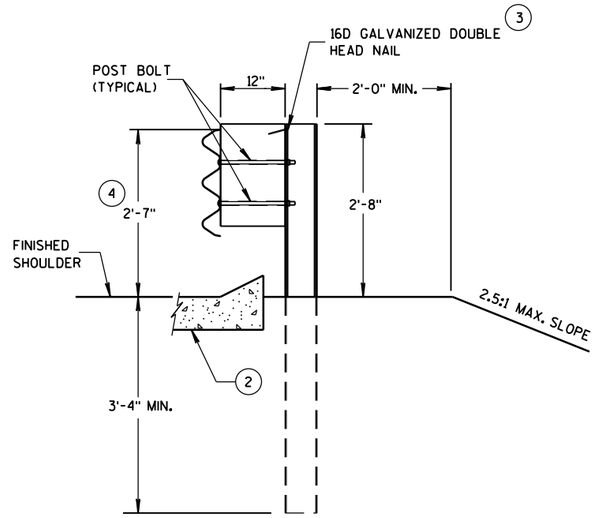
SECTION A-A

POSTS 1-5



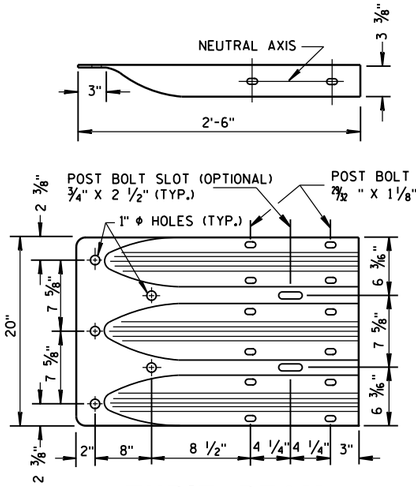
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

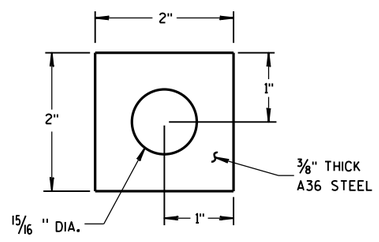
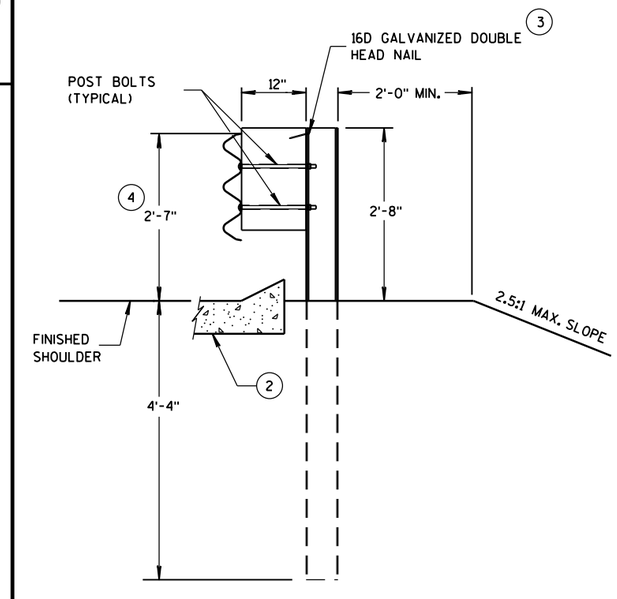
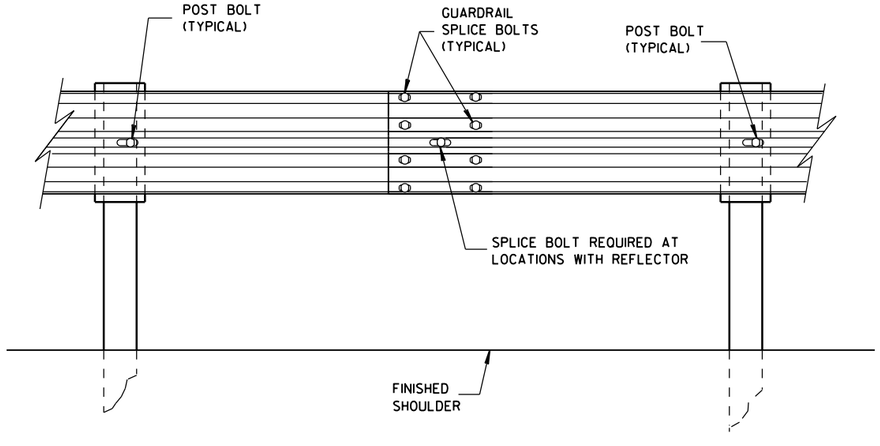


PLATE WASHER DETAIL

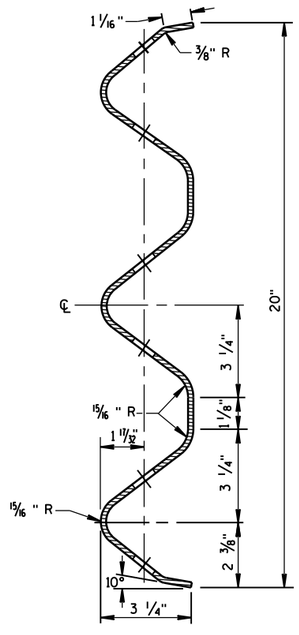


SECTION D-D

POSTS 12-17



SPLICE DETAIL



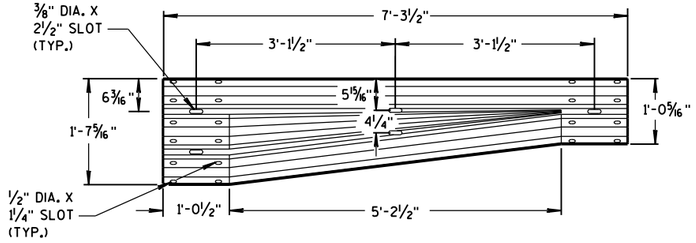
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

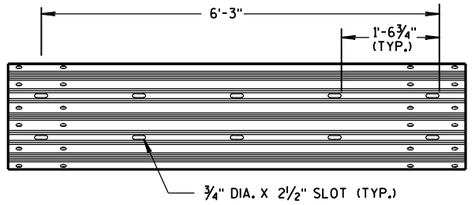
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

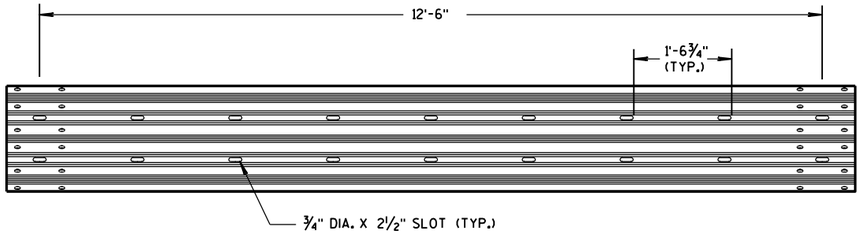
S.D.D. 14 B 45-4b



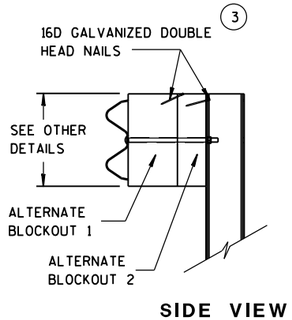
W-BEAM TO THRIE BEAM TRANSITION SECTION



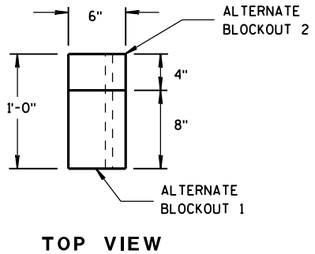
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

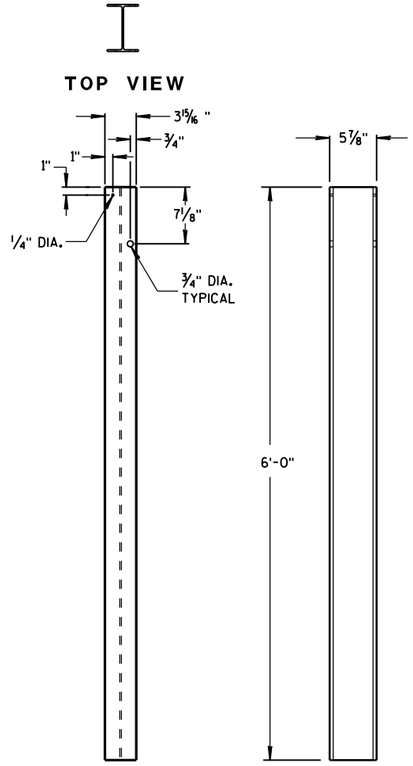


SIDE VIEW



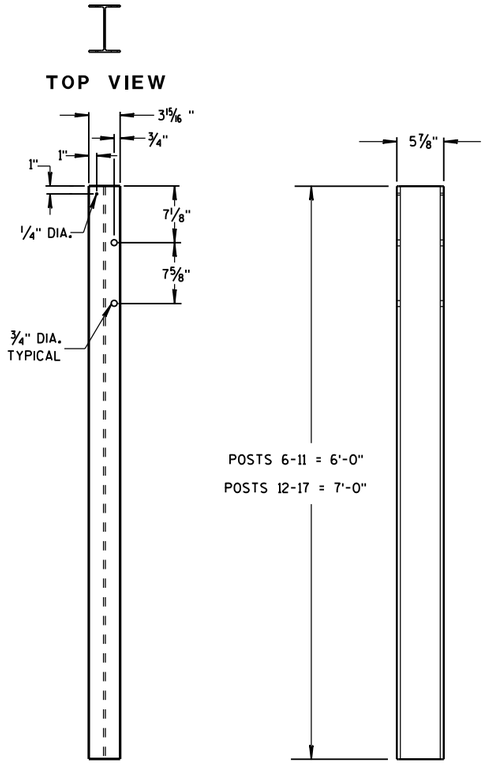
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



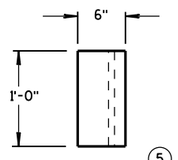
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

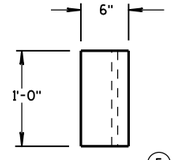


FRONT VIEW SIDE VIEW

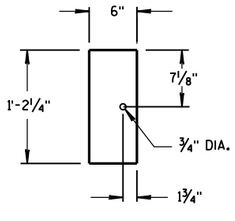
STEEL POSTS 6-17



TOP VIEW (5)

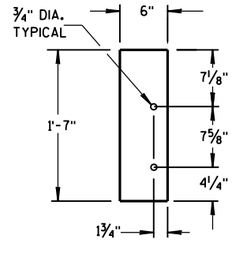


TOP VIEW (5)



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.

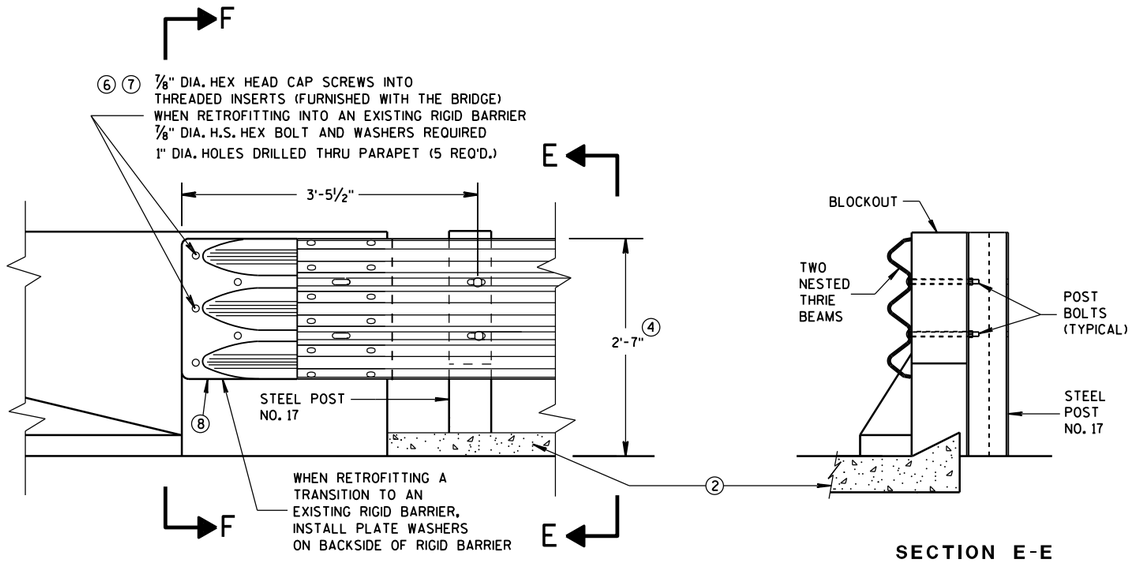
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

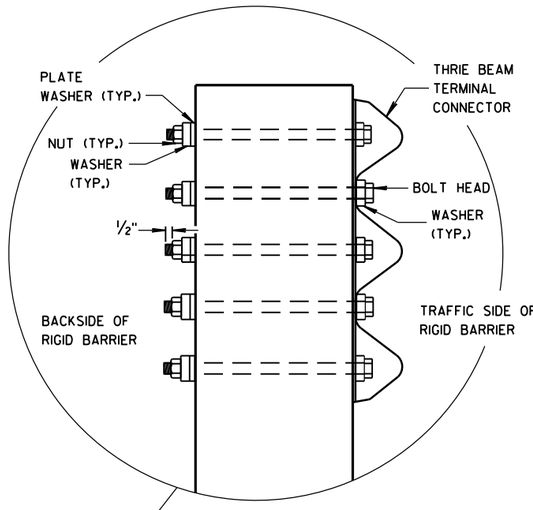
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

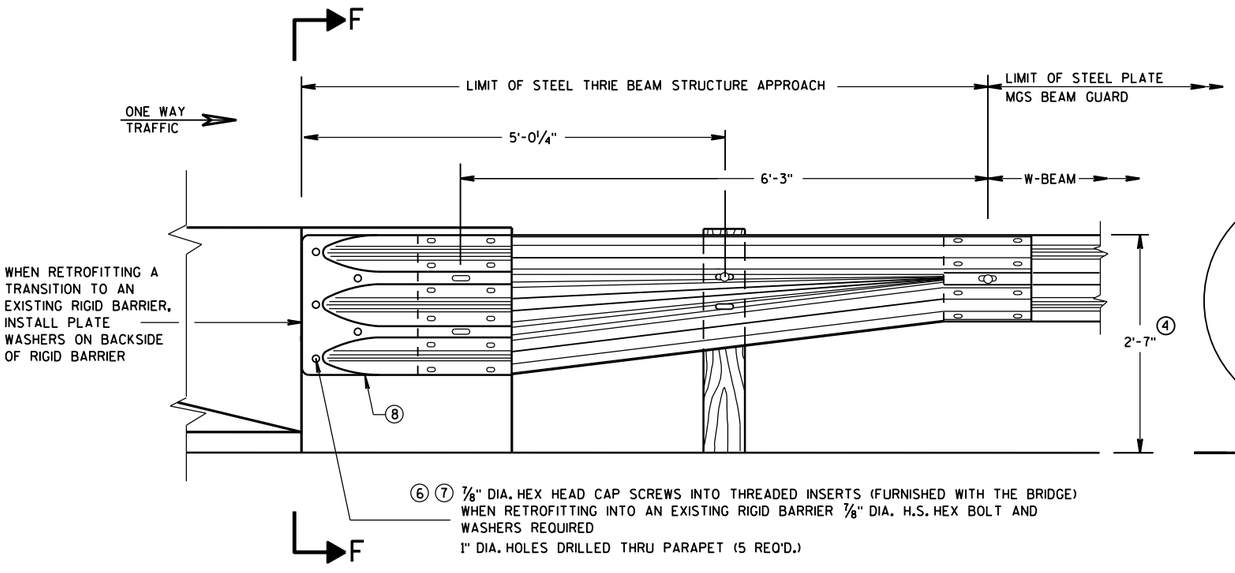
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

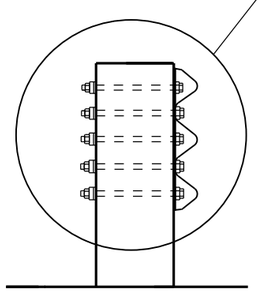
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

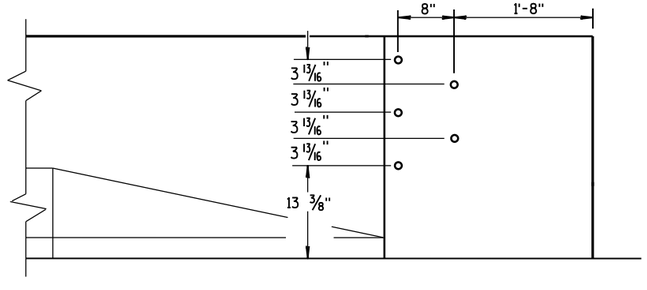




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

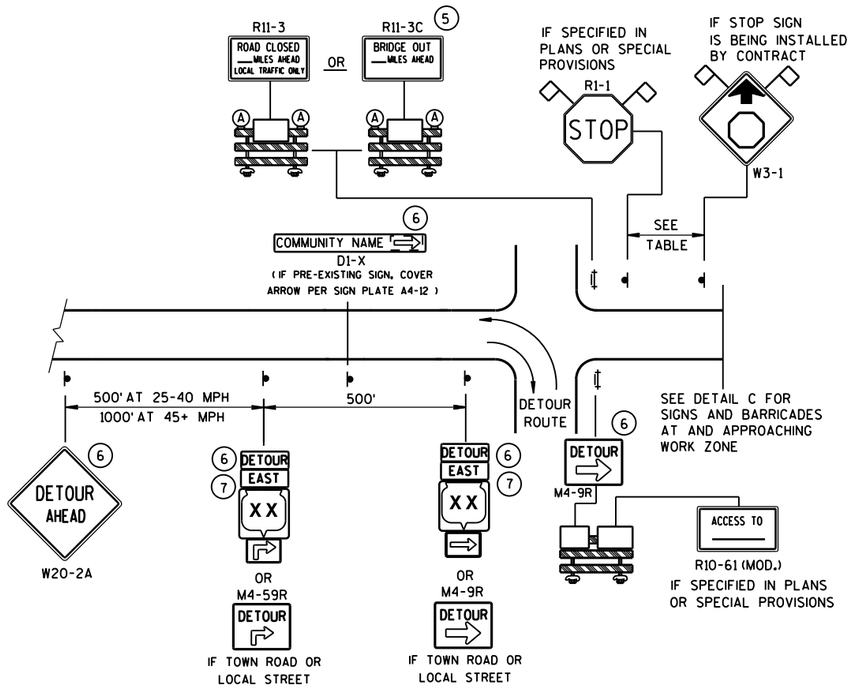
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA
27
NT

6

S.D.D. 14 B 45-4d

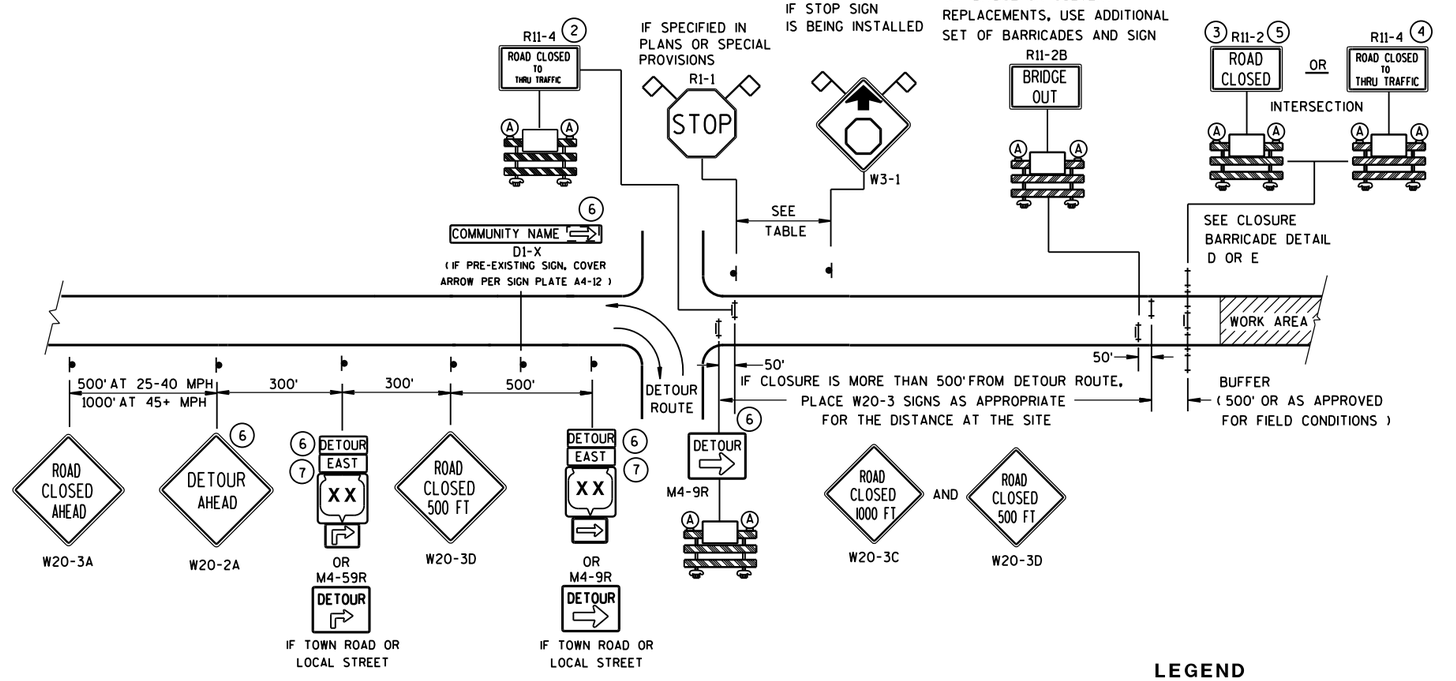
6

S.D.D. 14 B 45-4d



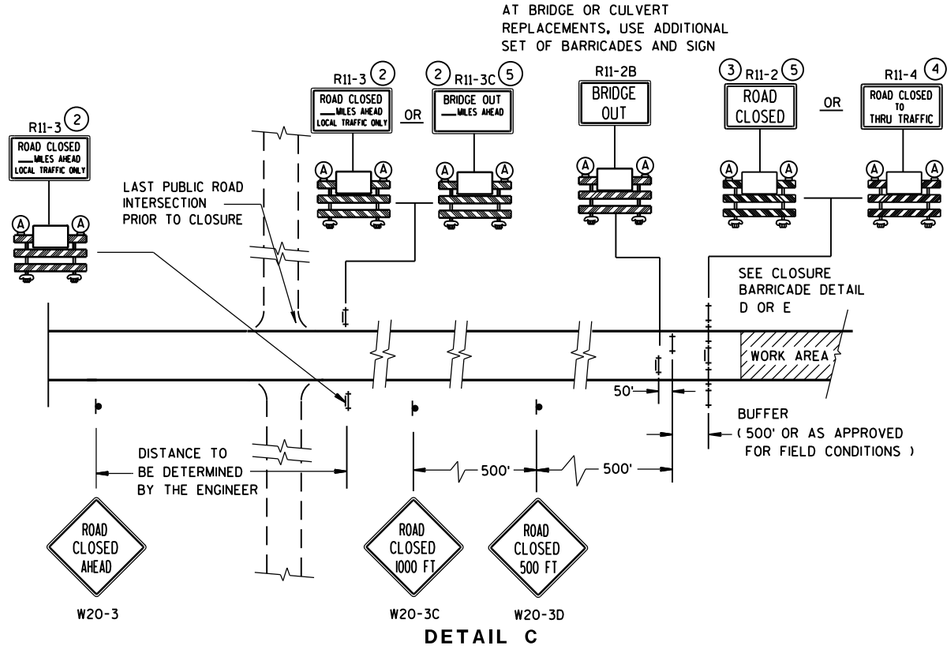
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

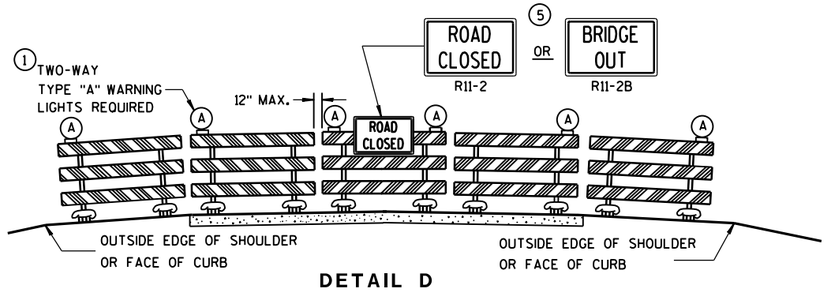
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

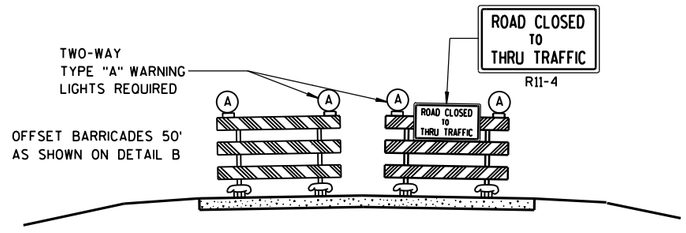
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

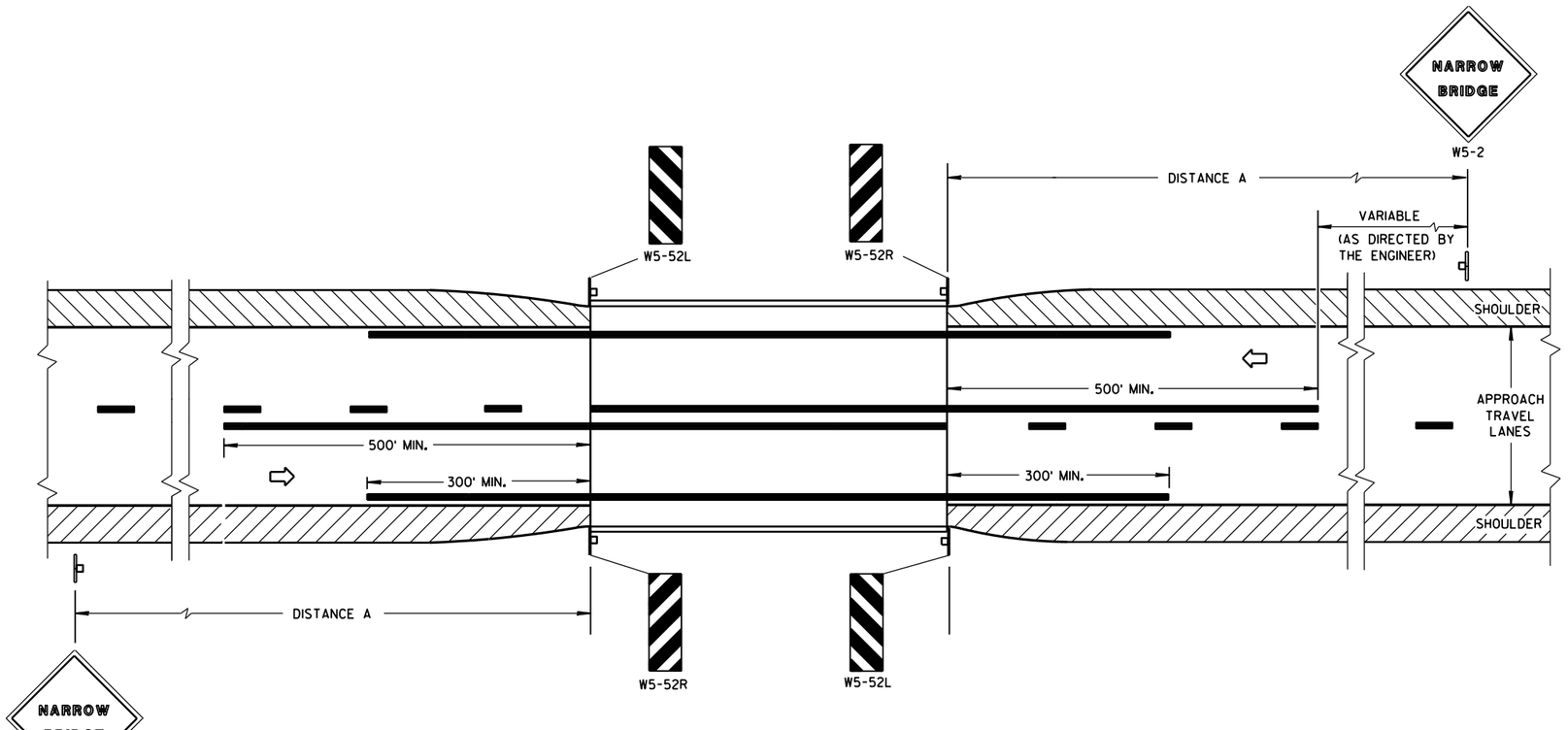
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

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

6

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

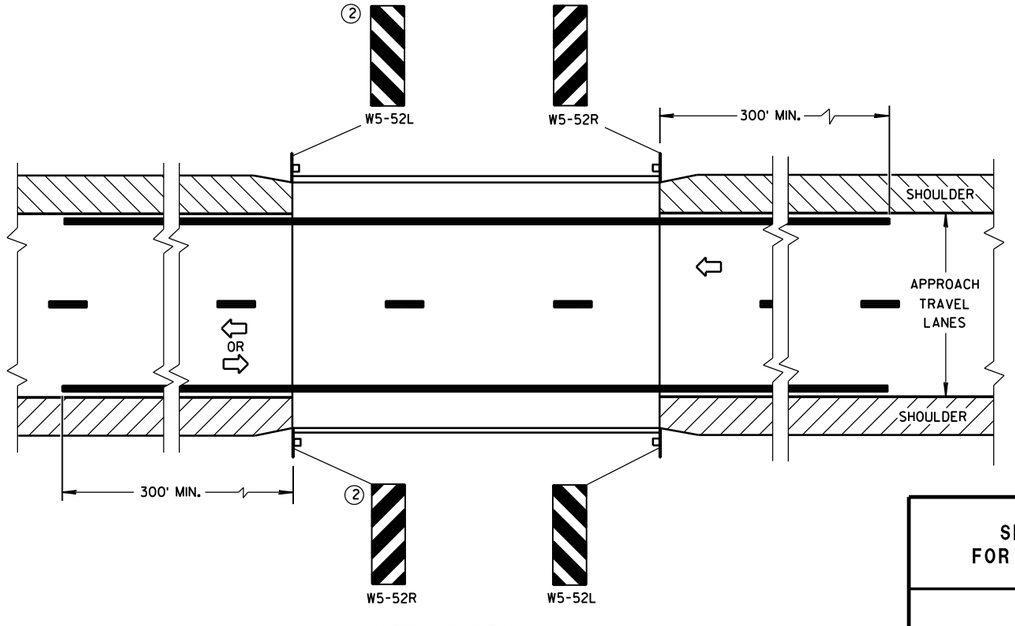


SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

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



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

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.

① LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

② OMIT ON ONE-WAY TRAVELLED WAYS.

③ EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.

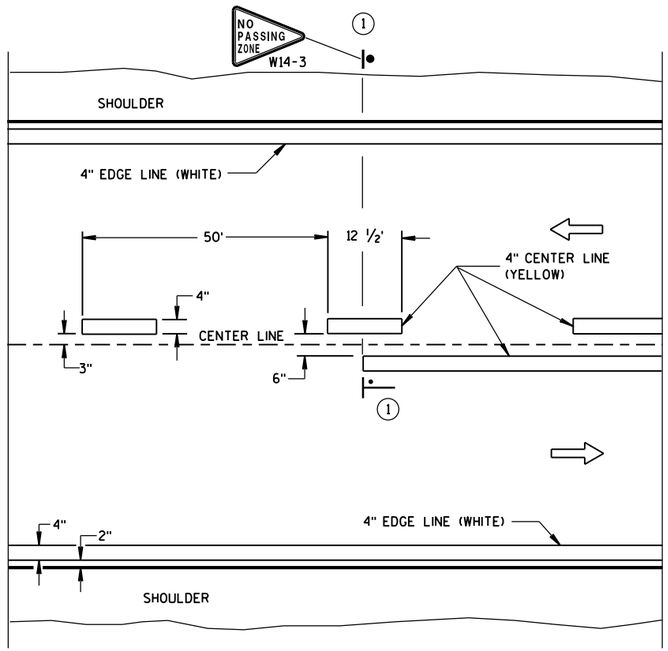
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

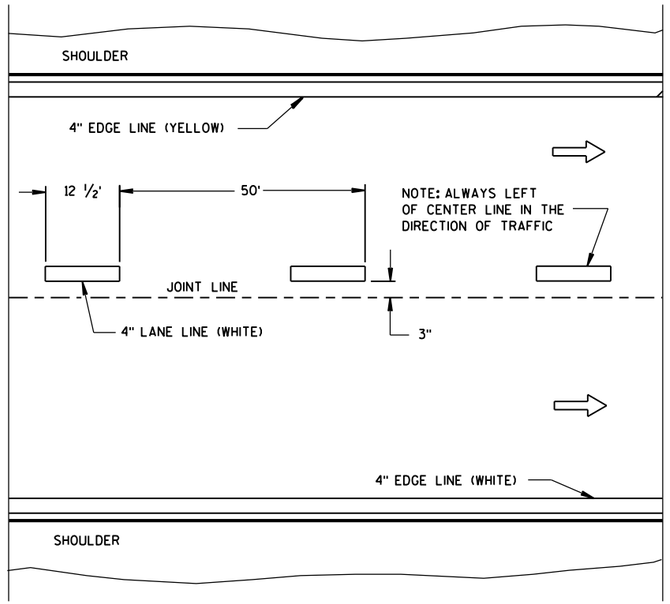
APPROVED
4-18-16 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

S.D.D. 15 C 6-8



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

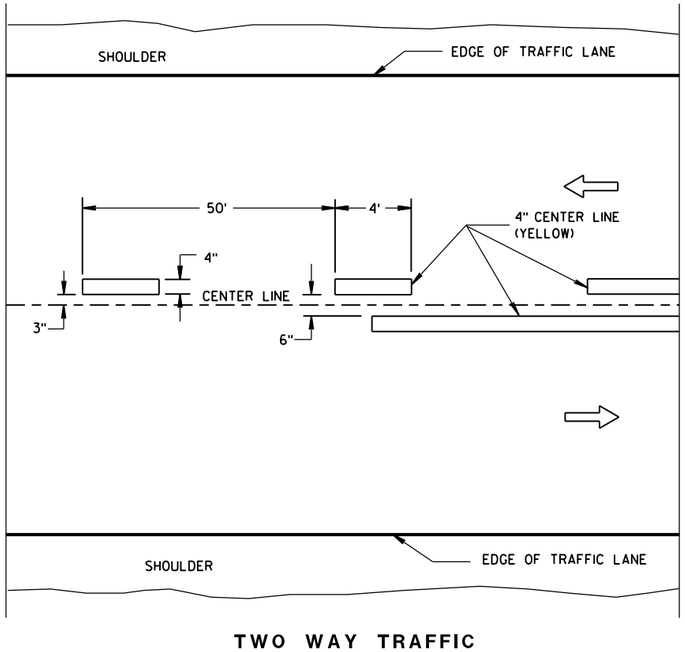
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

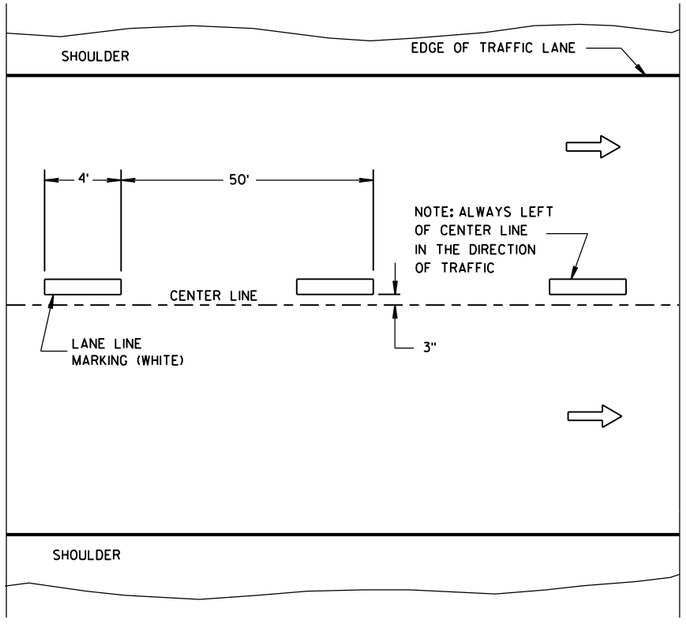
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2016	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MAR ENGINEER
FHWA	

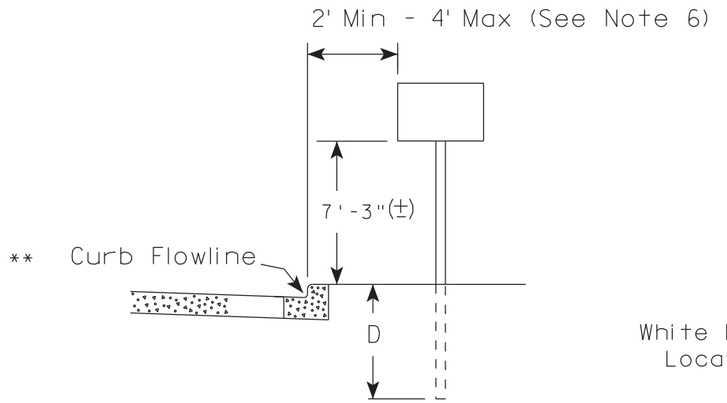
6

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

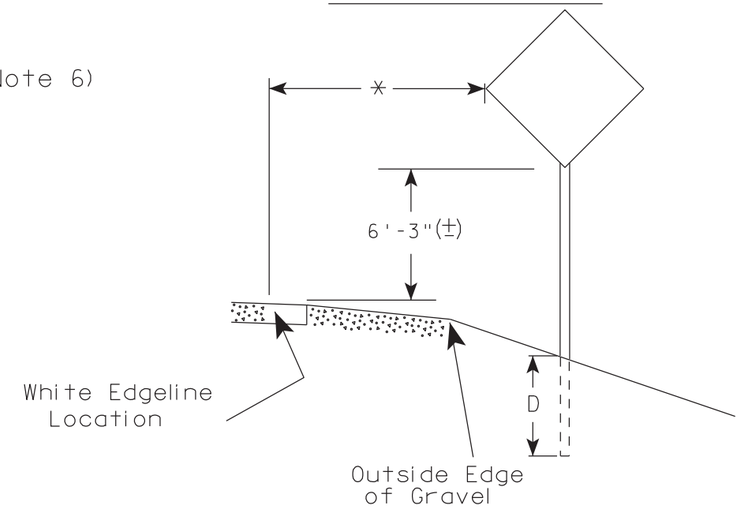
6

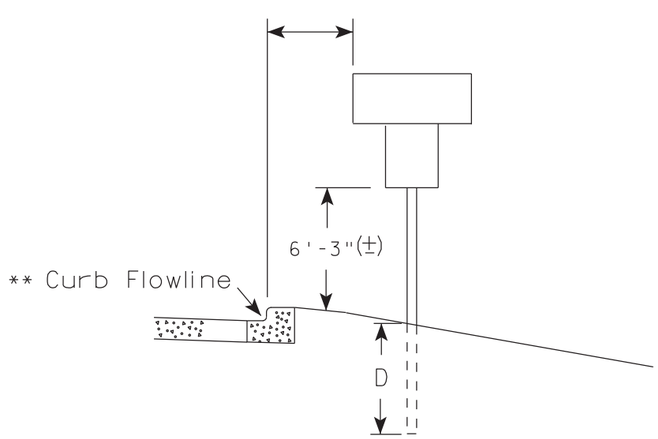
S.D.D. 15 C 8-17a

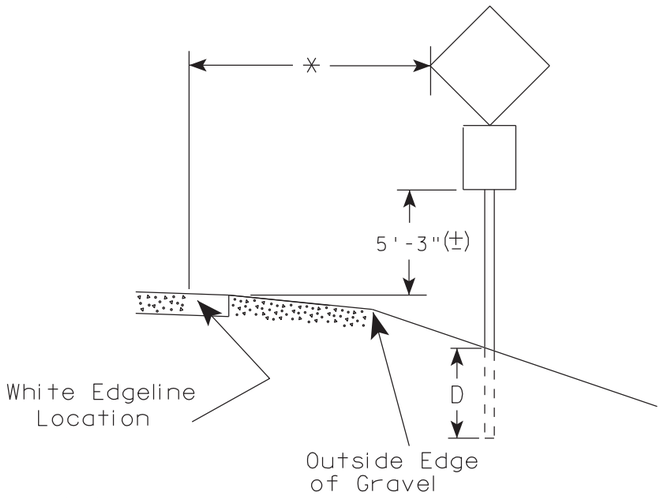
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

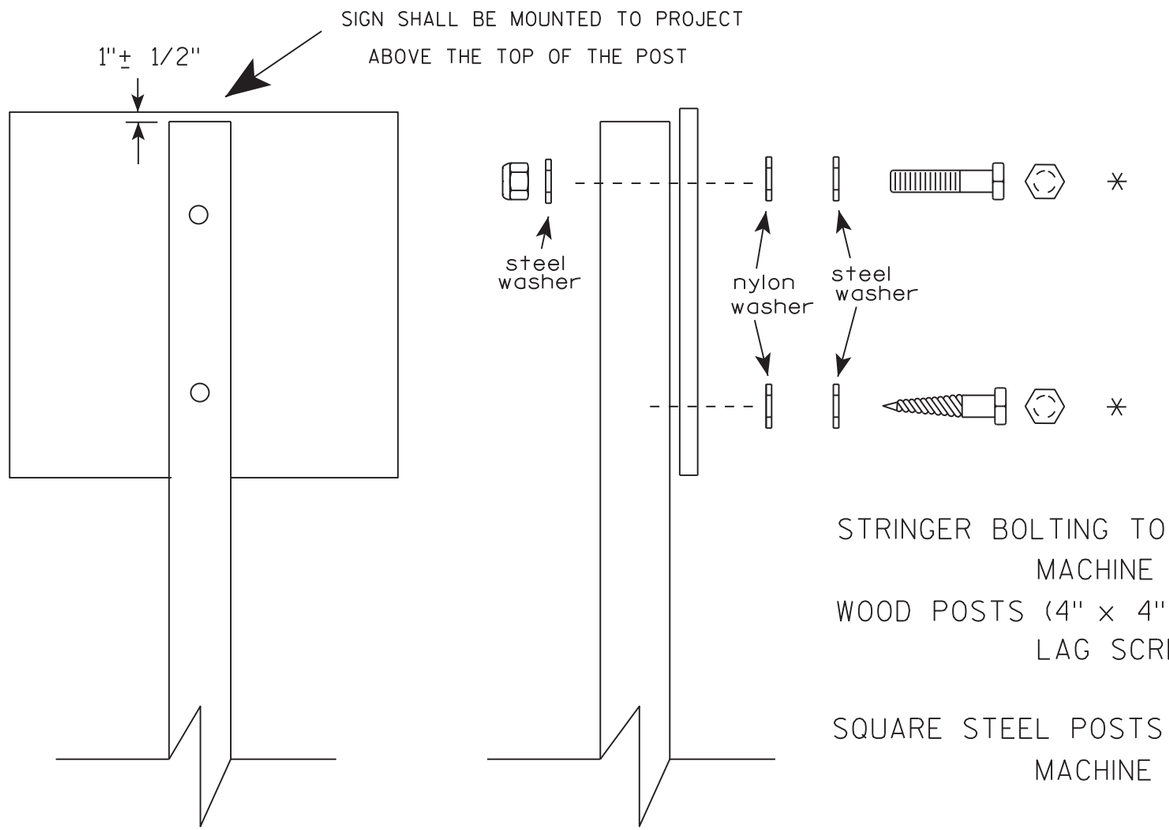
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

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

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

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

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

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

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

SQUARE STEEL POSTS (2" x 2")

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

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

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

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

ATTACHMENT OF SIGNS TO POSTS

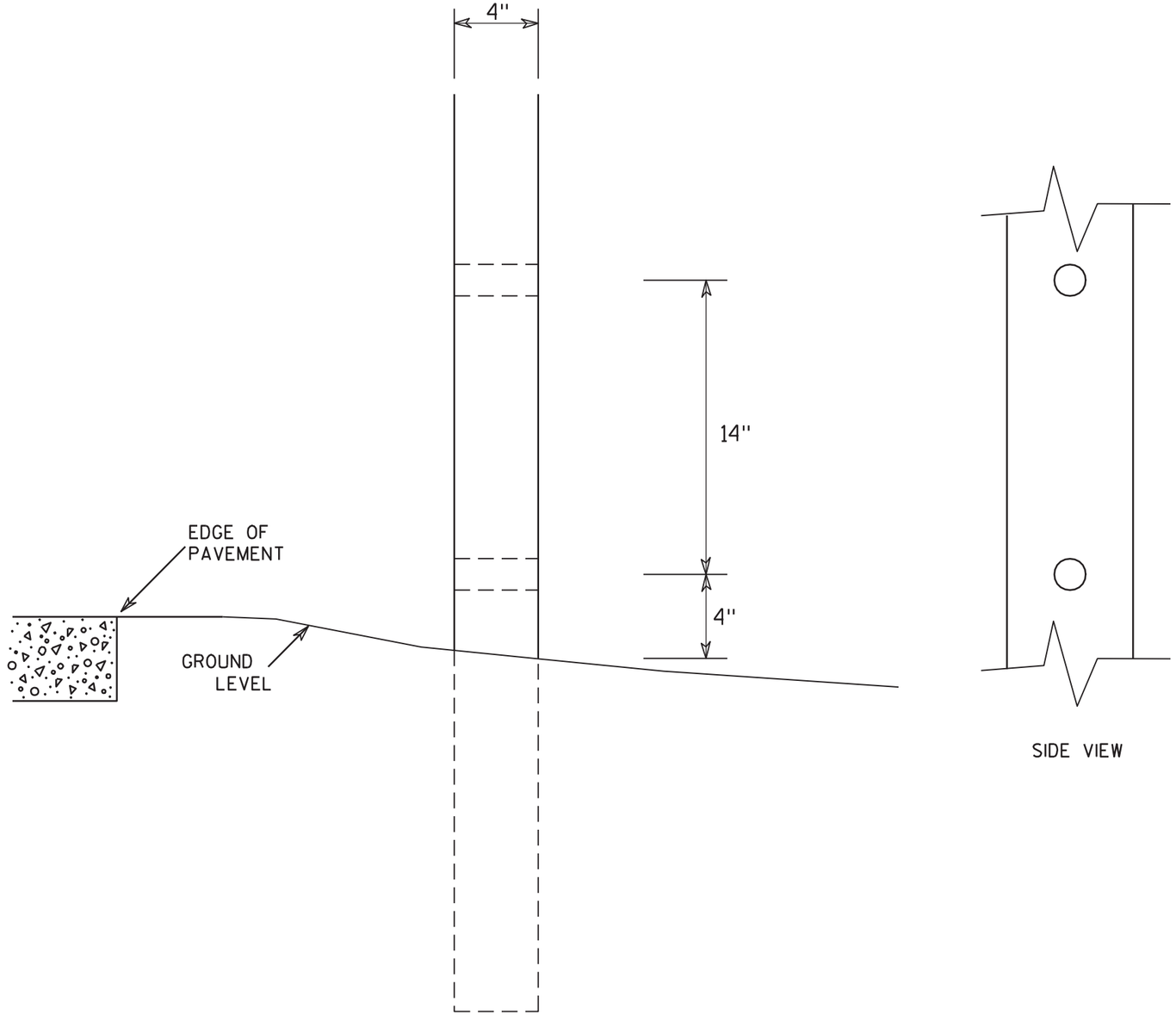
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



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

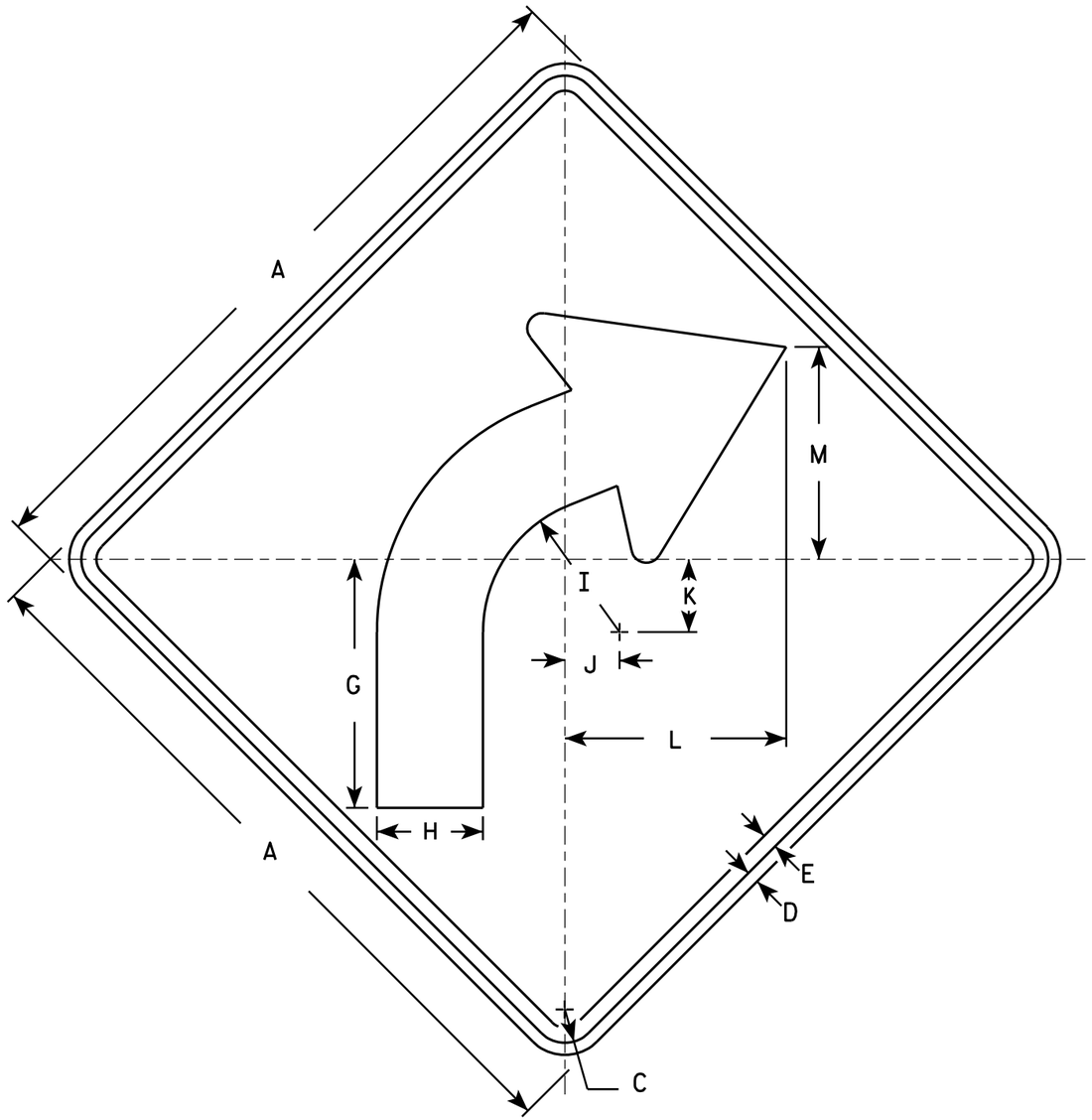
APPROVED Chester J Spang for State Traffic Engineer

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

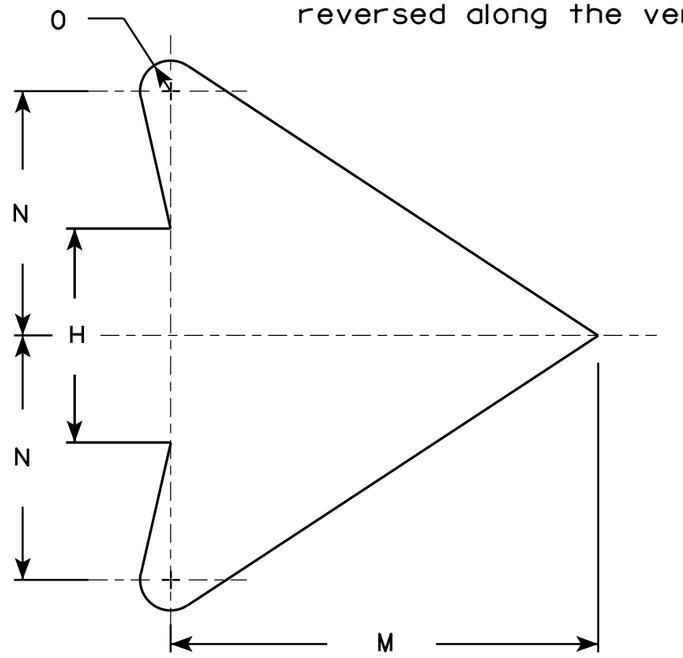
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 34	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

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

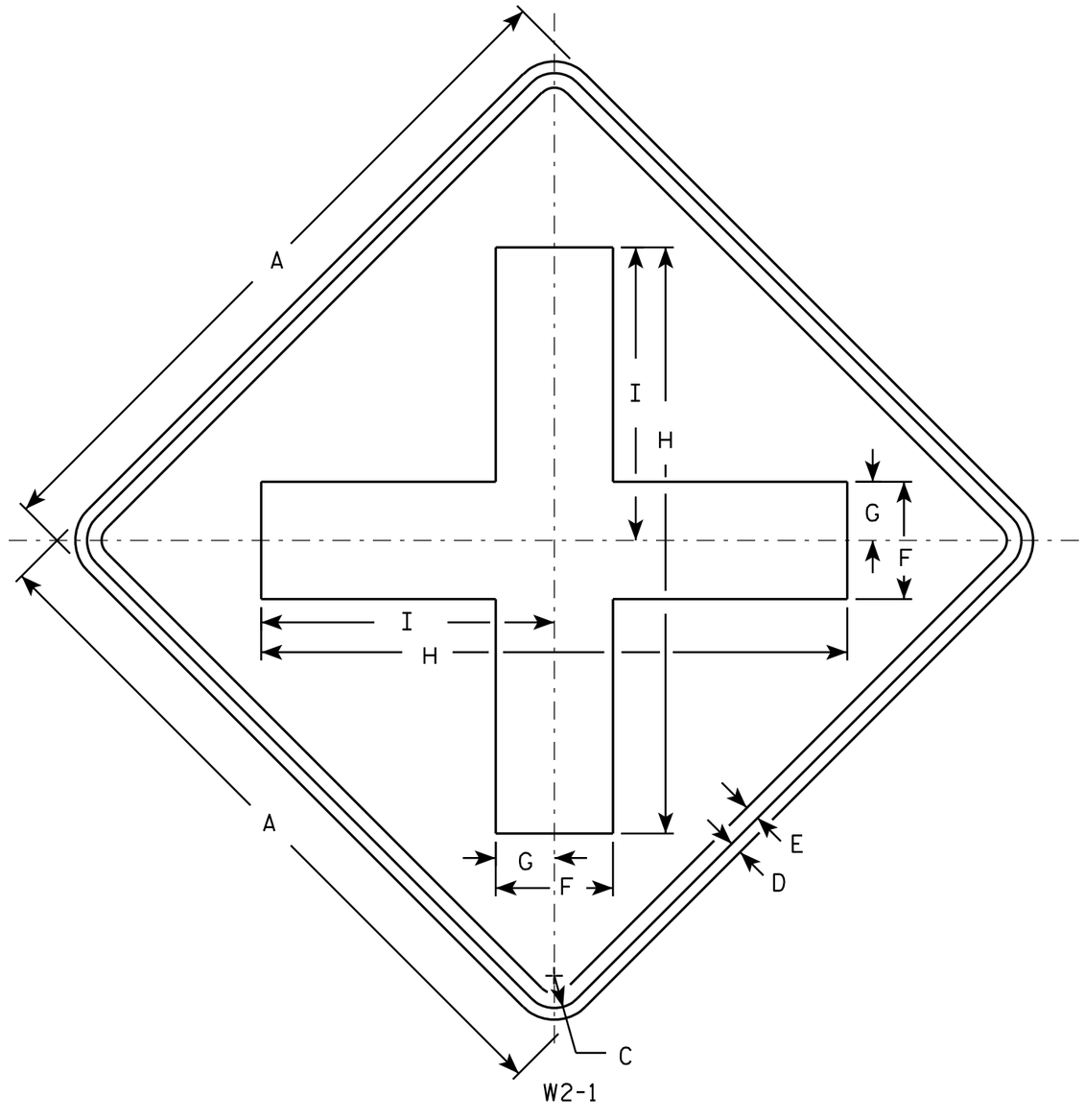
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 35	E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

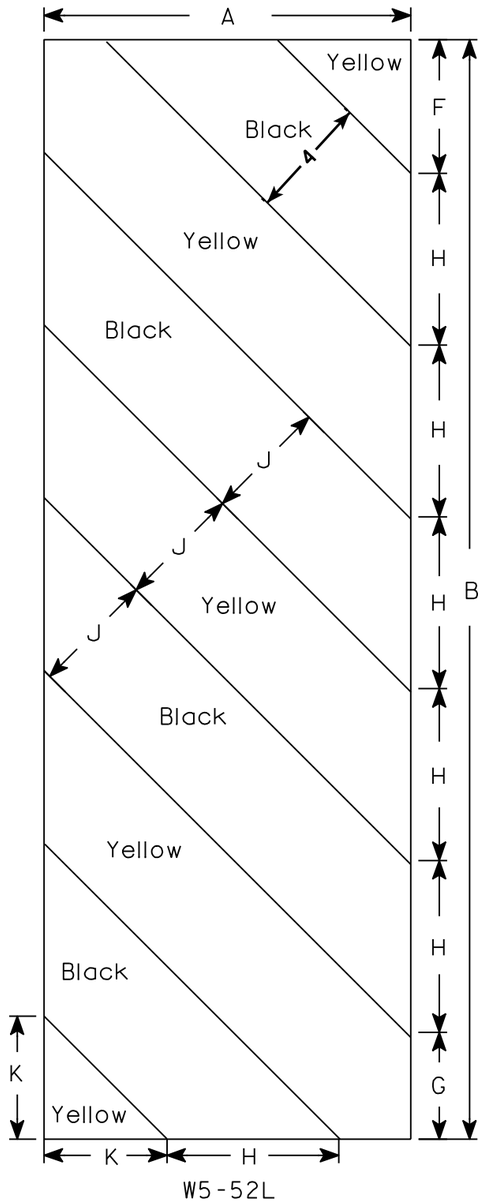
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

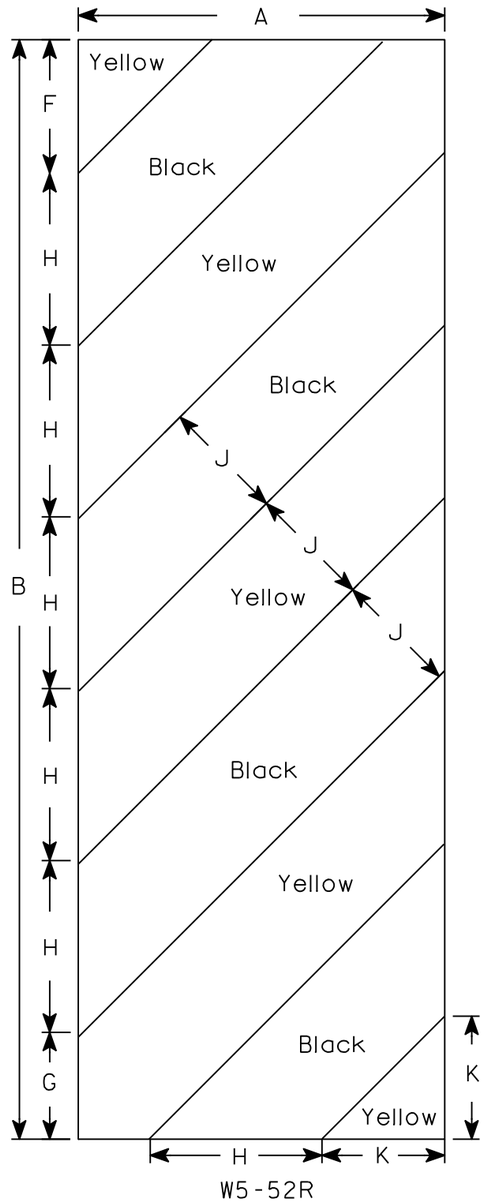
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 36	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

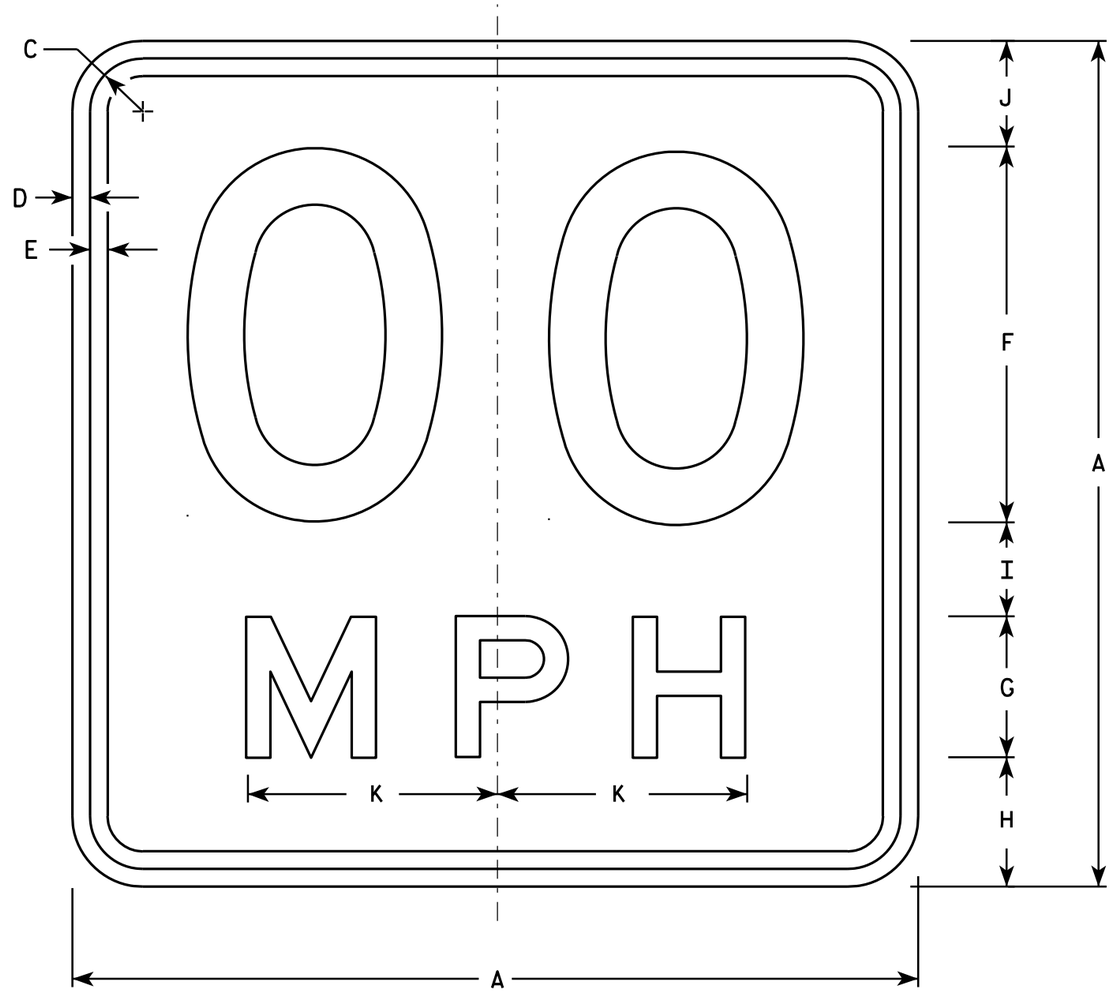
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 37	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

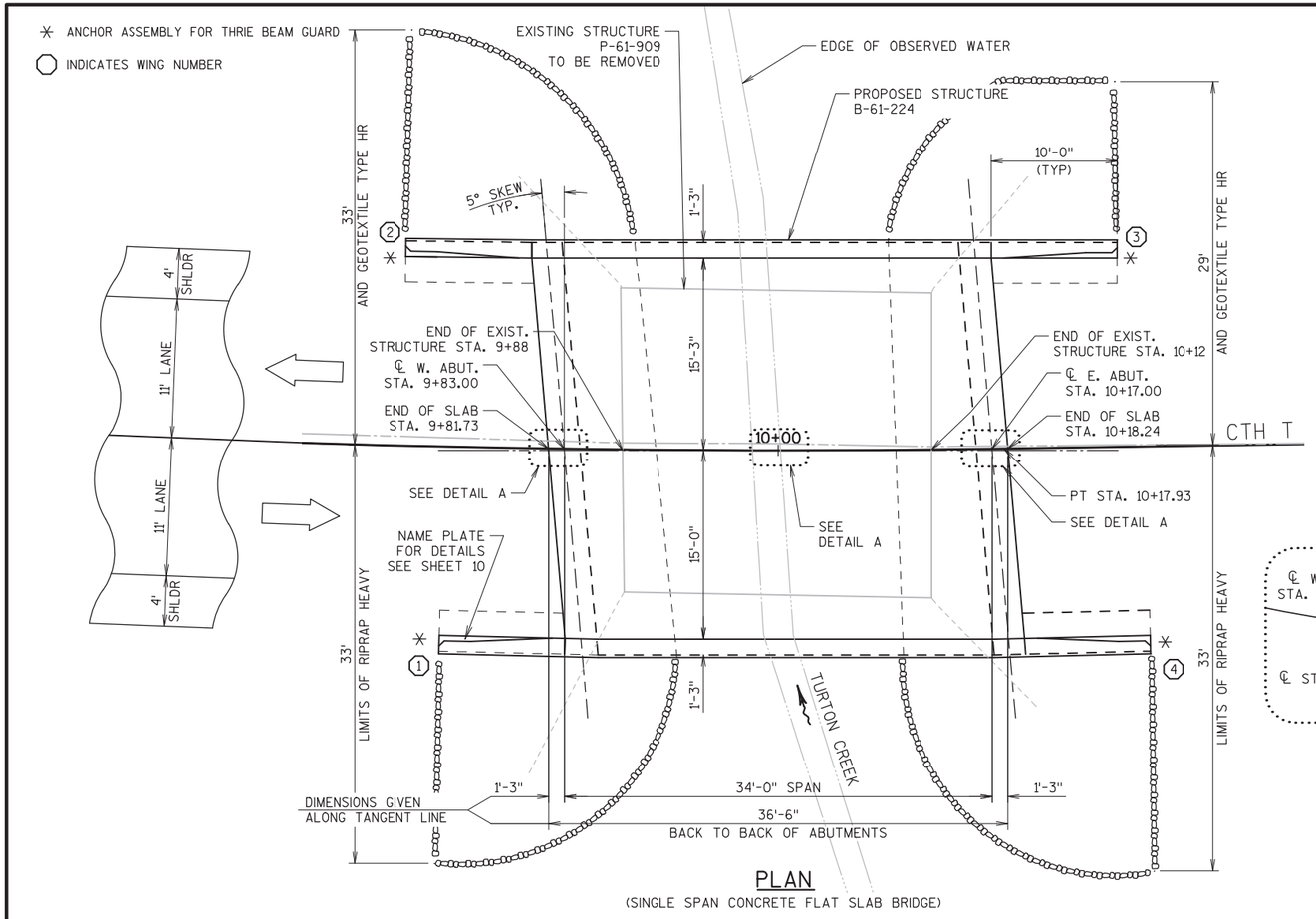
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

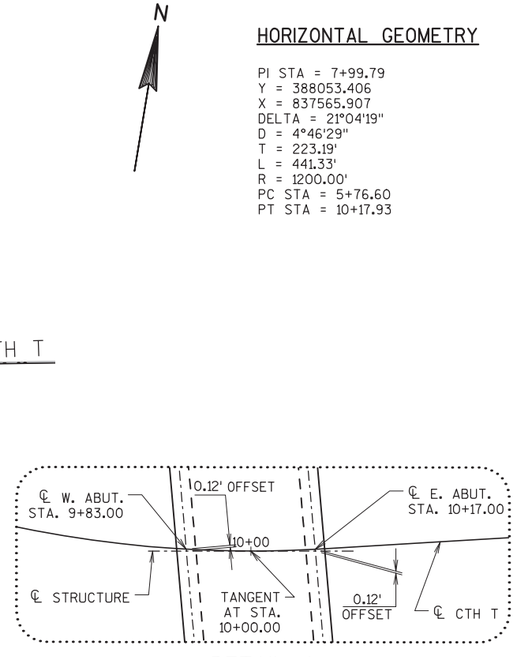
DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 38	E

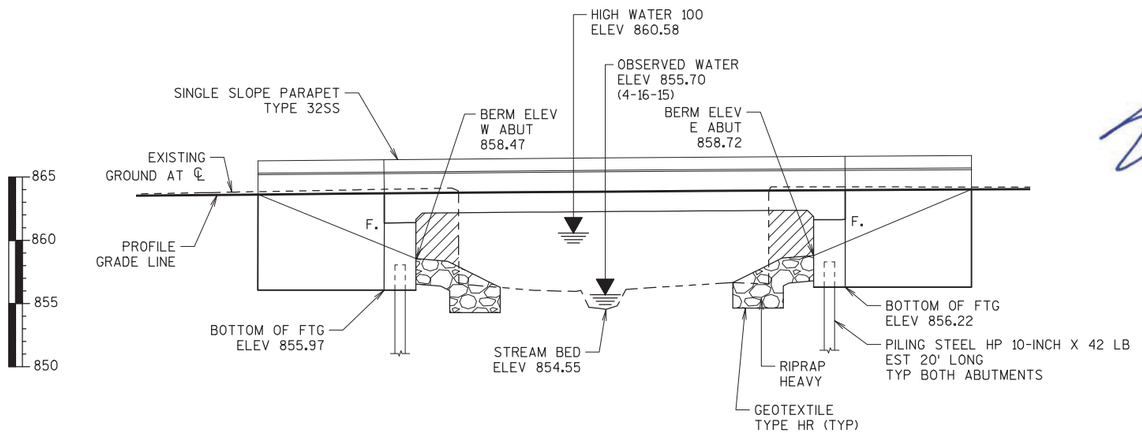


PLAN

(SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)



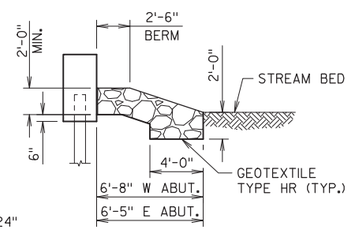
DETAIL A



ELEVATION

(LOOKING NORTH)

AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES B-61-224"



RIPRAP DETAIL

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	10+11.66	PK NAIL SE BRIDGE COR, 13.08' RT	862.42
2	12+53.67	MARK, 29.02' LT	862.28

HORIZONTAL GEOMETRY

PI STA = 7+99.79
Y = 388053.406
X = 837565.907
DELTA = 21°04'19"
D = 4°46'29"
T = 223.19'
L = 441.33'
R = 1200.00'
PC STA = 5+76.60
PT STA = 10+17.93

DESIGN DATA

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — 1.10
OPERATIONAL RATING FACTOR — 1.43
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTURCUTURE — f'c = 4,000 psi
ALL OTHER — f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 psi

TRAFFIC DATA

ADT (2018) = 450
ADT (2038) = 500
DESIGN SPEED = 45 MPH

FOUNDATION DATA

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* TONS PER PILE AS REQUIRED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 20' LONG AT BOTH ABUTMENTS.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 560 C.F.S.
VEL. = 8.2 F.P.S.
HW_{100} = EL. 860.58
WATERWAY AREA = 68 SQ. FT.
DRAINAGE AREA = 1.2 SQ. MI.
SCOUR CRITICAL CODE = 5
OVERTOPPING FREQUENCY = N/A

2 YEAR FREQUENCY

Q_2 = 90 C.F.S.
VEL. = 3.6 F.P.S.
HW_2 = EL. 857.83

WISCONSIN
ERIC T. PRICE
E-39027
MADISON
WI
PROFESSIONAL ENGINEER

November 29, 2017

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. SINGLE SLOPE PARAPET 32SS

BRIDGE OFFICE CONTACT
BILL DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

STATE PROJECT NUMBER

7178-00-70

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 12/01/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-61-224

CTH T OVER TURTON CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
TREMPEALEAU	ARCADIA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ERA	ETP	PKF	ETP

GENERAL PLAN

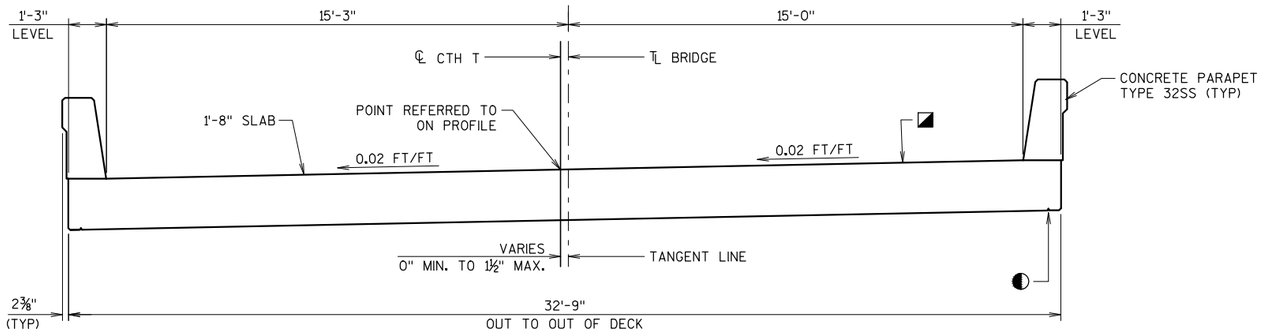
SHEET 1 OF 10

39

8

8

FILE NAME : P:±WI - NW REGION±7178-00-00_TREMP CO_CTH T±500_CADD±503_STRUCTURES±502.4_FINAL±080101 GP_CTH T.DWG PLOT DATE : 6/1/2017 7:54 PM PLOT BY : PAULETTE FENSKE

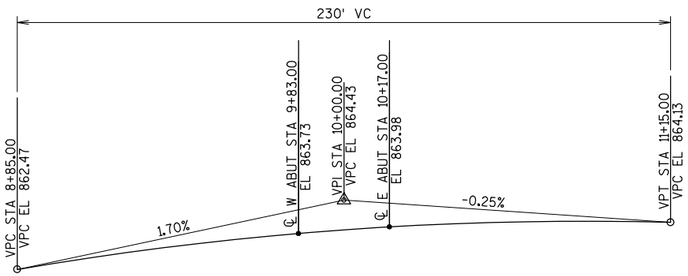


CROSS SECTION THRU BRIDGE

(LOOKING EAST)

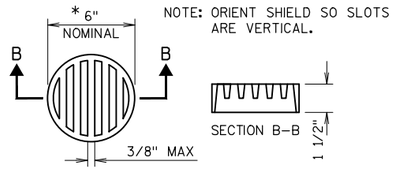
LEGEND

- 3/4" V-GROOVE REQ'D. EXTEND 6" FROM F.F. OF ABUTMENTS.
- COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.



PROFILE GRADE LINE

(CTH T)



* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

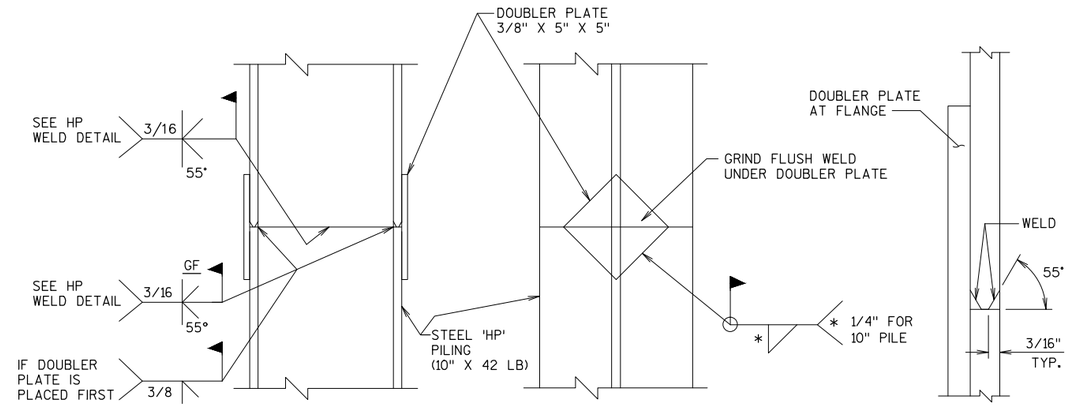
RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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.

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	WEST ABUT.	EAST ABUT.	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-61-224	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	165	170	-----	335
502.0100	CONCRETE MASONRY BRIDGES	CY	34	34	87	155
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	130	130
502.3210	PIGMENTED SURFACE SEALER	SY	9	9	30	48
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,120	2,120	-----	4,240
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,970	1,900	16,450	20,320
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-----	20
550.0500	PILE POINTS	EACH	5	5	-----	10
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	100	100	-----	200
606.0300	RIPRAP HEAVY	CY	75	75	-----	150
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	95	-----	190
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	45	45	-----	90
645.0120	GEOTEXTILE TYPE HR	SY	95	95	-----	190
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"



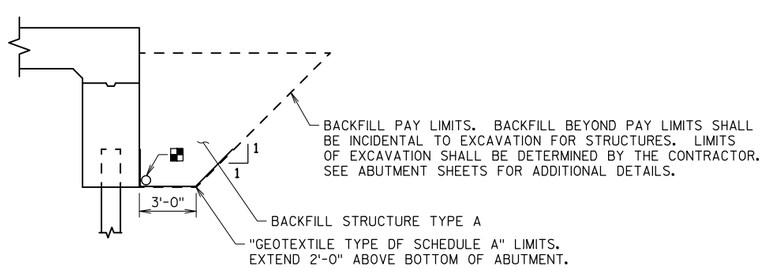
STEEL 'HP' PILING

STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



STRUCTURE BACKFILL LIMITS

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-61-224" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING STRUCTURE P-61-909, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 24.0 FT. LONG WITH A 23.5 FT. CLEAR ROADWAY WIDTH.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE WINGS AND SUPERSTRUCTURE.

STATE PROJECT NUMBER

7178-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

CROSS SECTION & QUANTITIES

SHEET 2 OF 10

40

8

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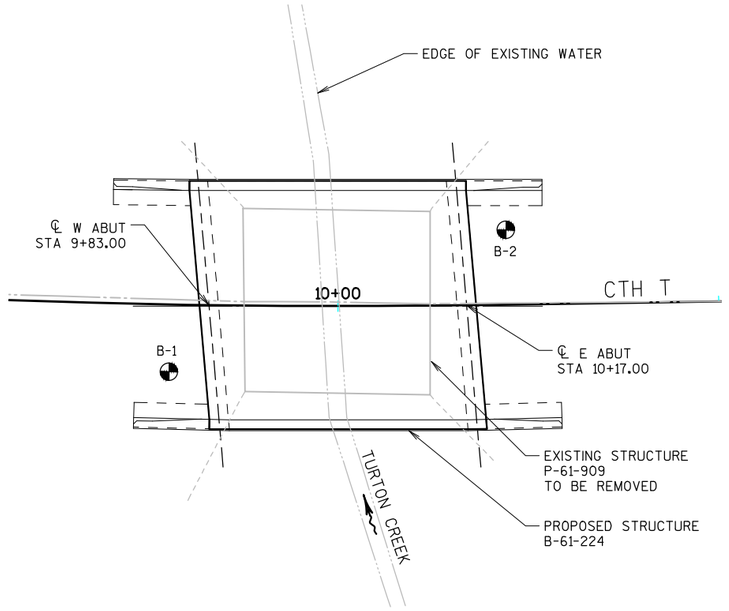


SOIL BORINGS COMPLETED BY:

CHOSEN VALLEY TESTING, INC.
135 BUCHER PLACE
LA CROSSE, WI 54603
(608) 782-5505

JUNE 17, 2015

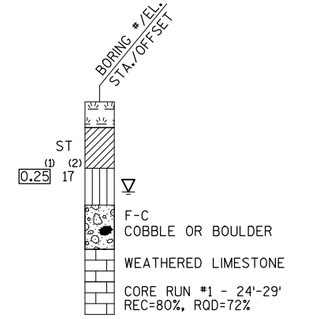
STATE PROJECT NUMBER

7178-00-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

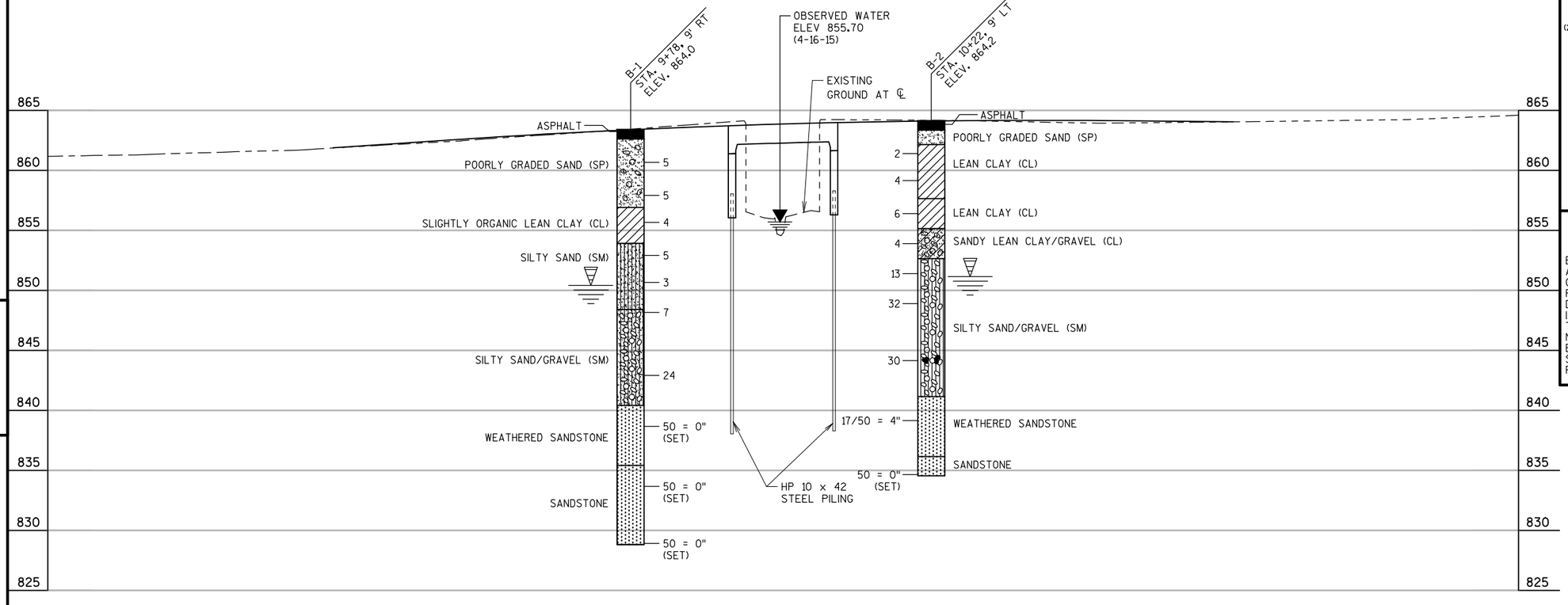
- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-Fine M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

SHEET 3 OF 10

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8

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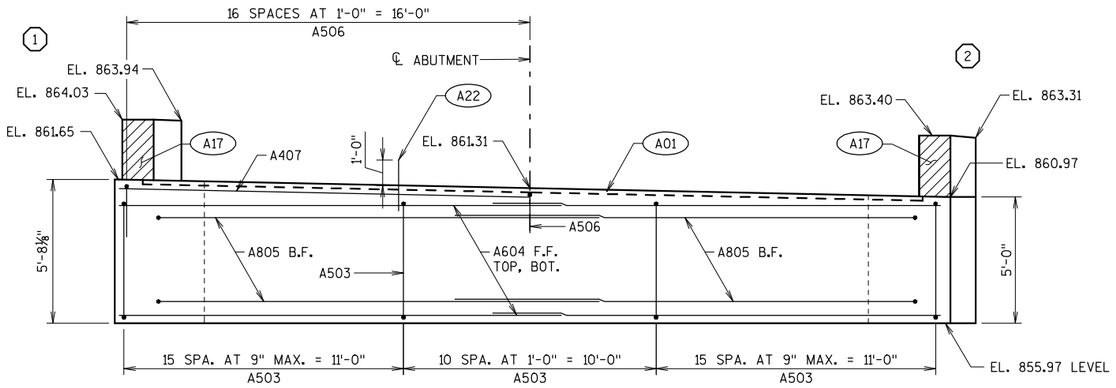
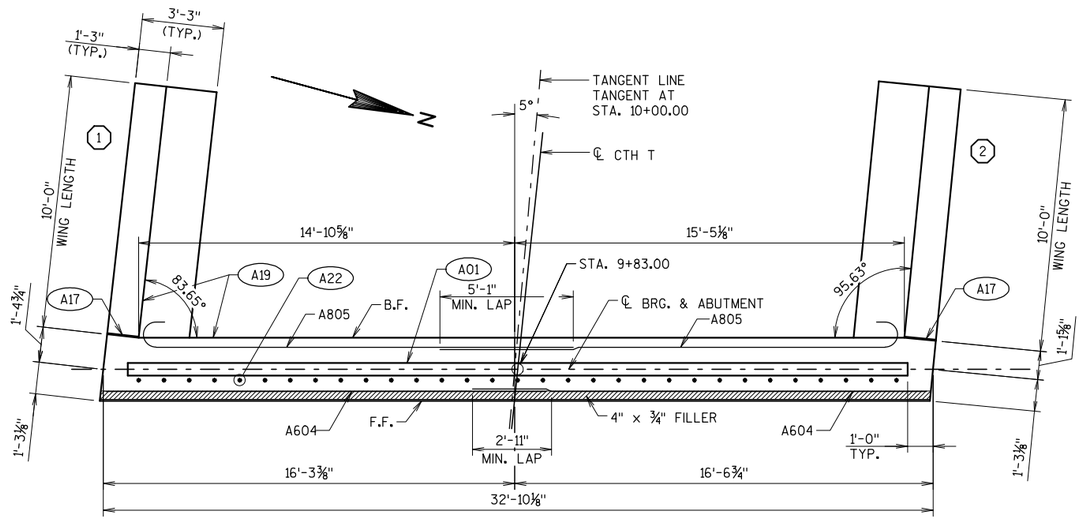
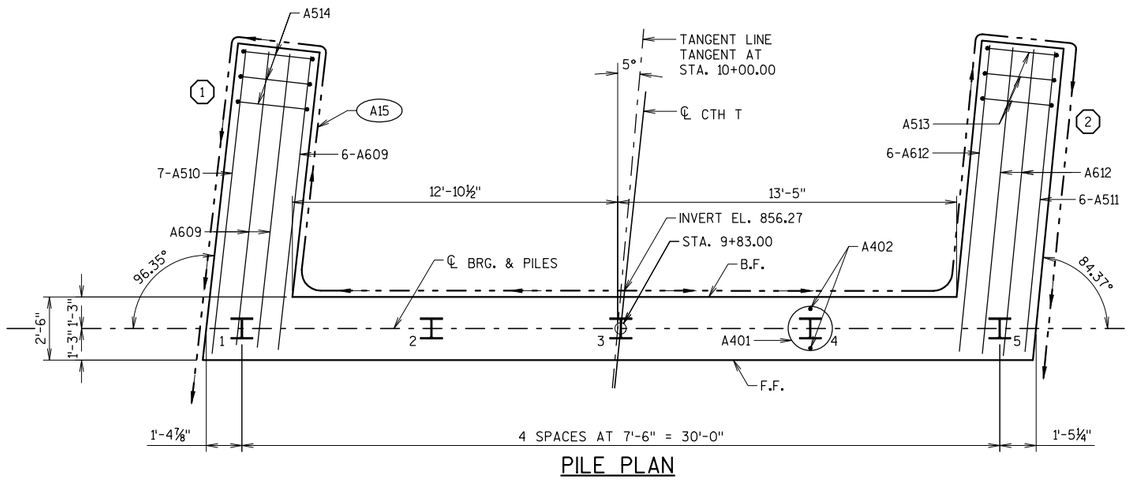


ELEVATION
(LOOKING WEST)



PLAN



PILE PLAN

LEGEND

⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB, ESTIMATED 20 FEET LONG, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

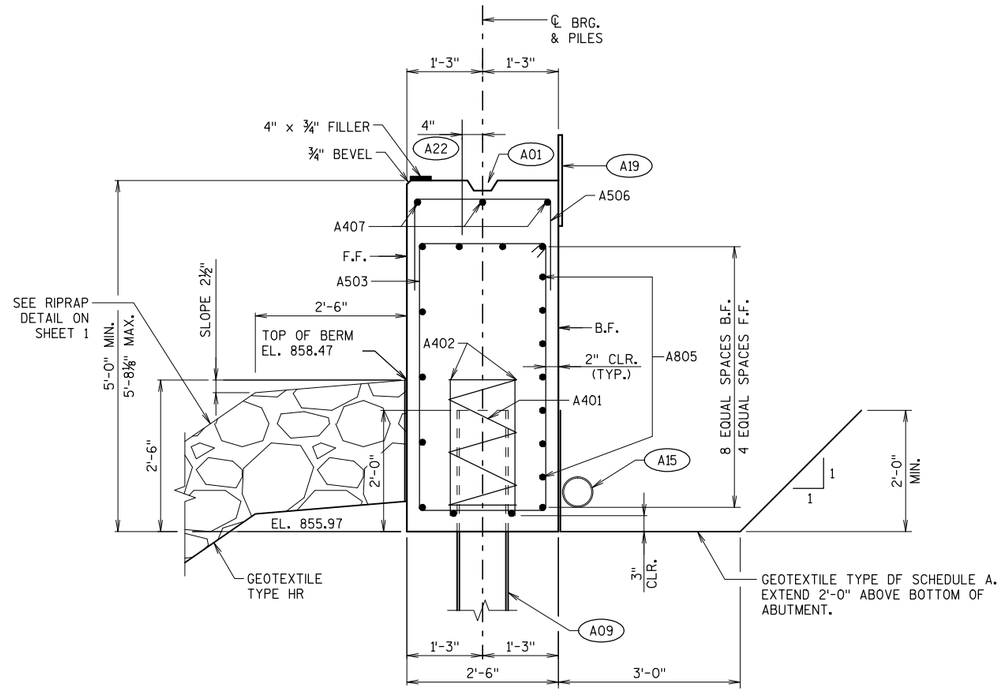
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A508 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

STATE PROJECT NUMBER

7178-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

WEST ABUTMENT

SHEET 4 OF 10

42

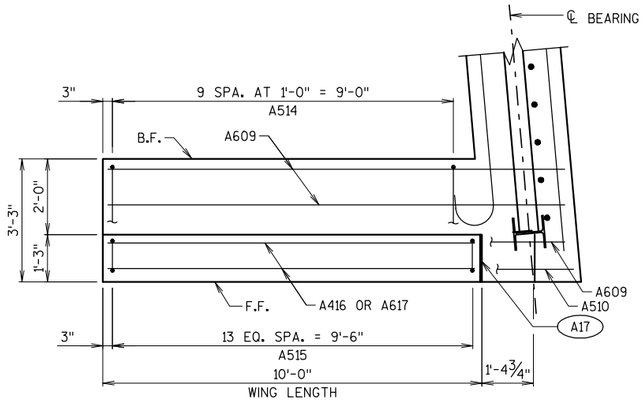
8

8

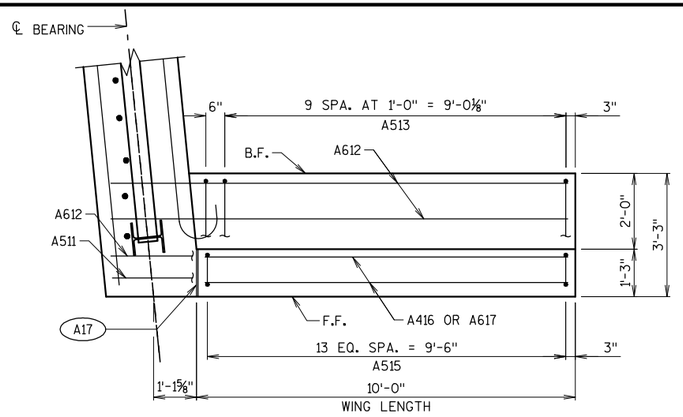
FILE NAME : P:±WI - NW REGION±7178-00-00_TREMP CO_CTH T±500_CADD±503_STRUCTURES±502.4_FINAL±080401 WA_CTH T.DWG

PLOT DATE : 6/1/2017 7:54 PM

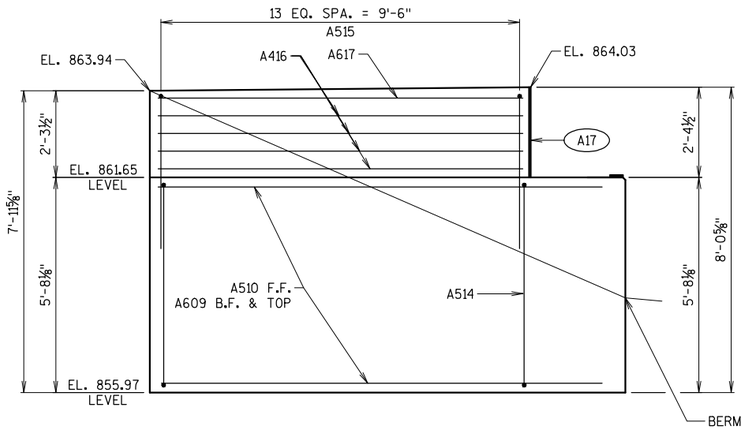
PLOT BY : PAULETTE FENSKE



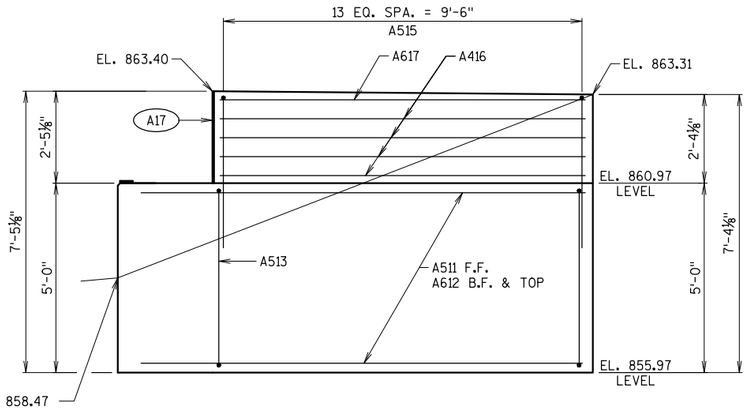
PLAN - WING 1



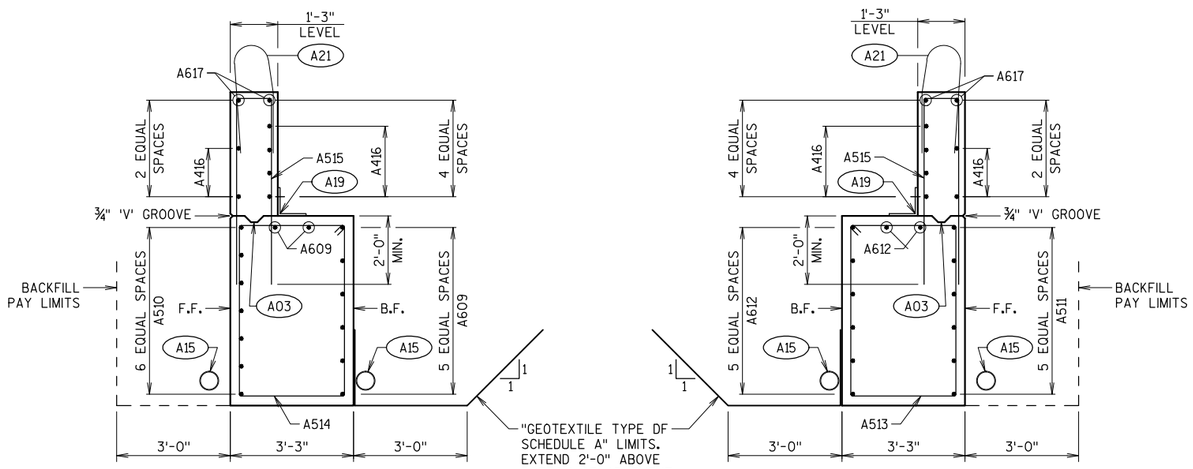
PLAN - WING 2



ELEVATION - WING 1



ELEVATION - WING 2



SECTION THRU WING 1

SECTION THRU WING 2

STATE PROJECT NUMBER

7178-00-70

BILL OF BARS - WEST ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 2,120 LBS	
A401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
A402	10	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
A503	41	14'-2"	X		BODY - STIRRUPS	TRANS.
A604	22	17'-9"			BODY - F.F. TOP, BOT.	HORIZ.
A805	14	18'-5"	X		BODY - B.F.	HORIZ.
A506	17	4'-11"	X		BODY - ABUT SEAT	TRANS.
A407	3	16'-4"			BODY - ABUT SEAT	HORIZ.
COATED BARS					TOTAL WEIGHT = 1,360 LBS	
A508	31	2'-0"			BODY - TOP	VERT.
A609	8	11'-8"			WING 1 - B.F.	HORIZ.
A510	7	12'-3"			WING 1 - F.F.	HORIZ.
A511	6	12'-0"			WING 2 - F.F.	HORIZ.
A612	8	12'-2"			WING 2 - B.F.	HORIZ.
A513	11	15'-8"	X		WING 2 - STIRRUPS	TRANS.
A514	10	17'-0"	X		WING 1 - STIRRUPS	TRANS.
A515	28	9'-2"	X		WINGS 1 & 2	VERT.
A416	12	9'-8"			WINGS 1 & 2 - B.F. & F.F.	VERT.
A617	4	9'-8"			WINGS 1 & 2 - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & ¾" "V" GROOVE AT F.F. IF JOINT IS USED).

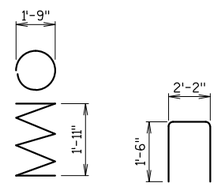
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

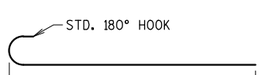
(A21) FOR PPT. BARS & DIMENSIONS SEE SHEET NO. 10.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE

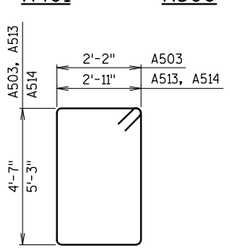


A401

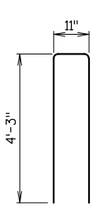
A506



A805



A503, A513, A514



A515

ORIGINAL PLAN PREPARED BY
CORRE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

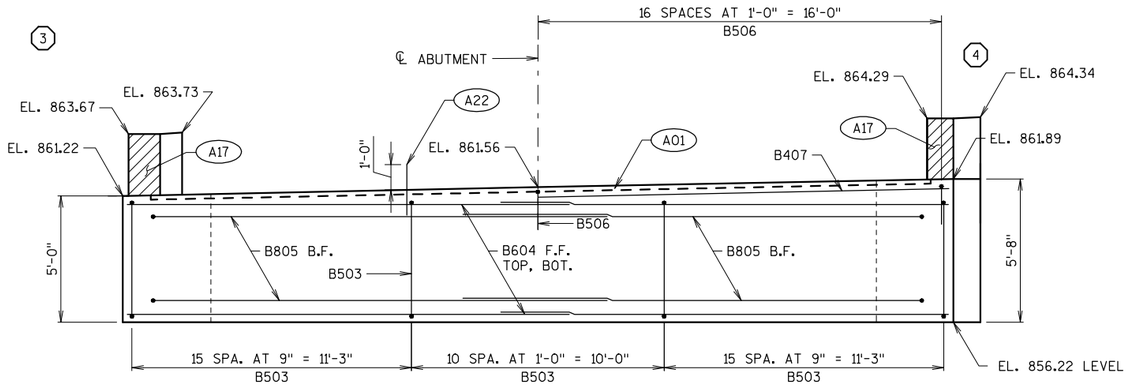
WEST ABUTMENT DETAILS

SHEET 5 OF 10

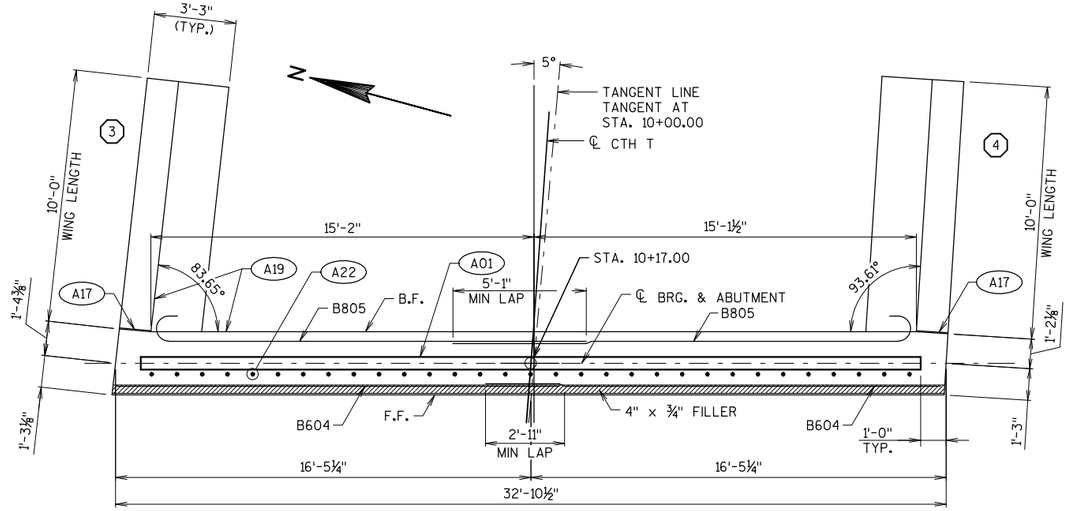
43

8

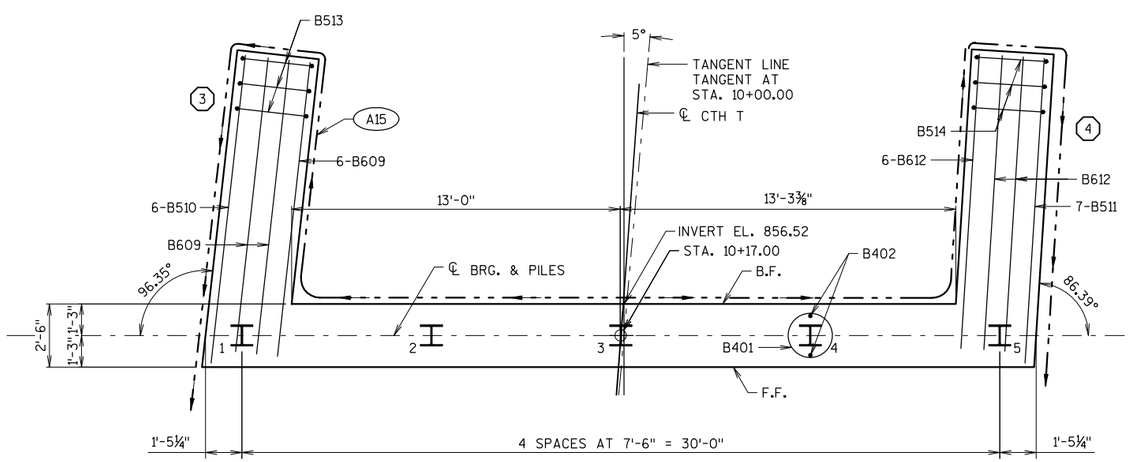
8



ELEVATION
(LOOKING EAST)



PLAN



PILE PLAN

LEGEND

⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" × 6".

(A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB, ESTIMATED 20 FEET LONG, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

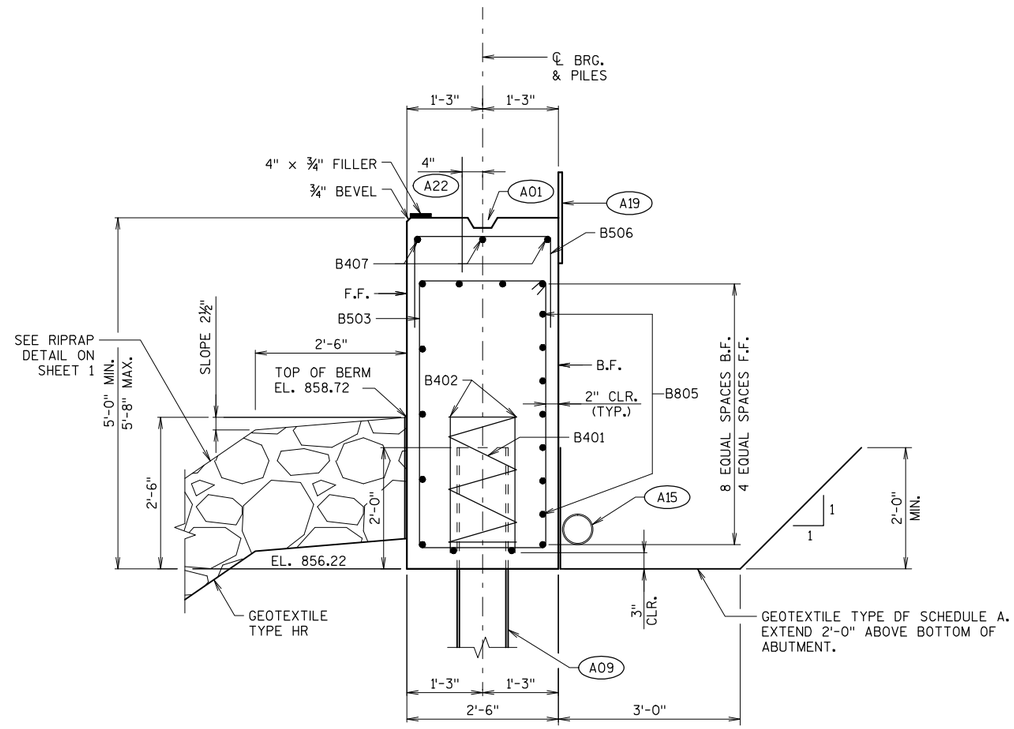
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) B508 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE B604 BARS

STATE PROJECT NUMBER

7178-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

EAST ABUTMENT

SHEET 6 OF 10

44

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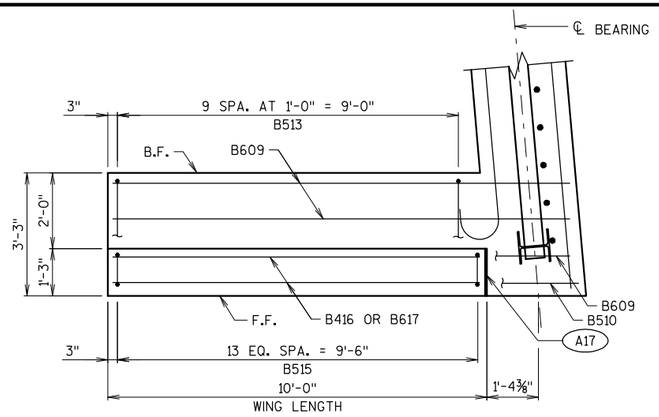
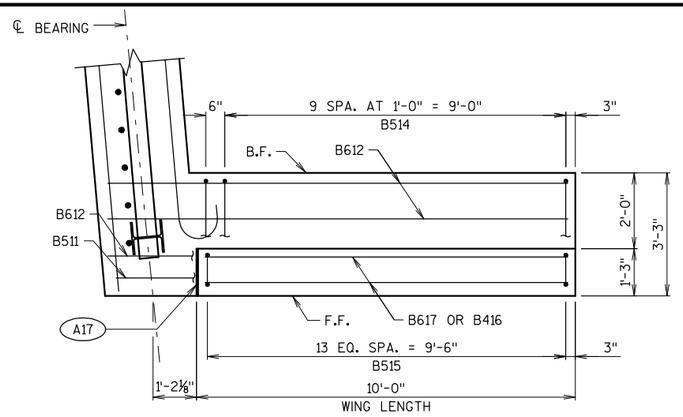
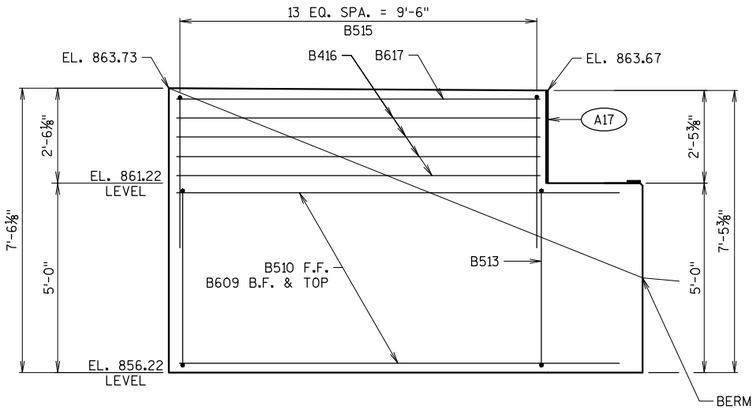
8



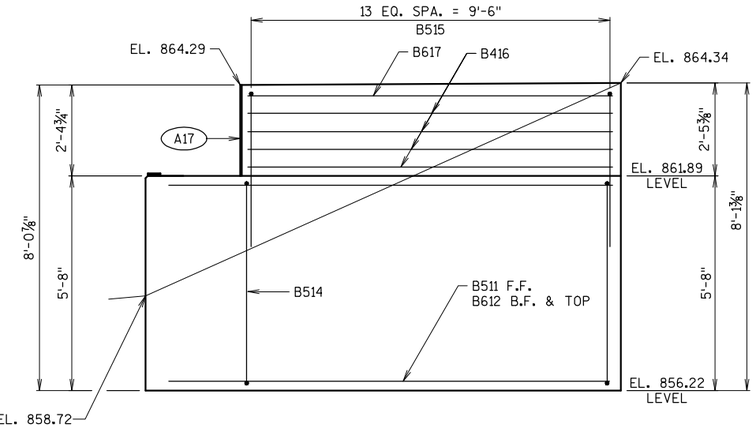
PLAN - WING 3



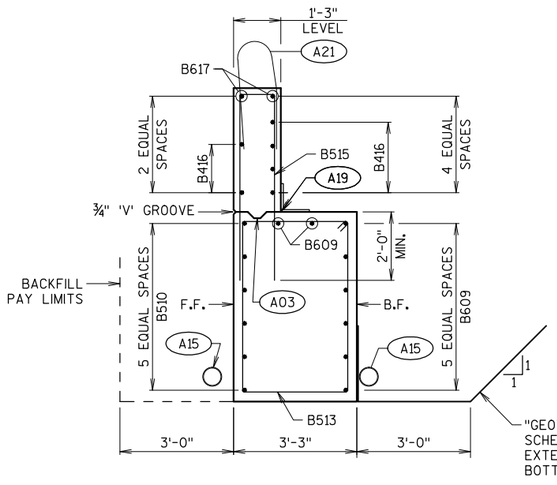
PLAN - WING 4



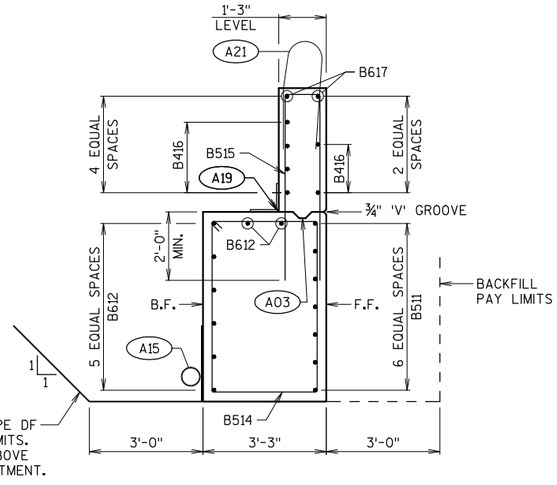
ELEVATION - WING 3



ELEVATION - WING 4



SECTION THRU WING 3



SECTION THRU WING 4

STATE PROJECT NUMBER

7178-00-70

BILL OF BARS - EAST ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,120 LBS
B401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
B402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
B503	41	14'-2"	X		BODY - STIRRUPS TRANS.
B604	22	17'-9"			BODY - F.F. TOP, BOT. HORIZ.
B805	14	18'-5"	X		BODY - B.F. HORIZ.
B506	17	4'-11"	X		BODY - ABUT SEAT TRANS.
B407	3	16'-4"			BODY - ABUT SEAT HORIZ.
COATED BARS					TOTAL WEIGHT = 1,290 LBS
B508	31	2'-0"			BODY - TOP VERT.
B609	8	11'-9"			WING 3 - B.F. HORIZ.
B510	6	12'-3"			WING 3 - F.F. HORIZ.
B511	7	12'-0"			WING 4 - F.F. HORIZ.
B612	8	12'-2"			WING 4 - B.F. HORIZ.
B513	10	15'-8"	X		WING 3 - STIRRUPS TRANS.
B514	11	17'-0"	X		WING 4 - STIRRUPS TRANS.
B515	28	9'-4"	X		WINGS 3 & 4 VERT.
B416	12	9'-8"			WING 3 - B.F. & F.F. VERT.
B617	4	9'-8"			WINGS 3 & 4 - TOP HORIZ.

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & ¾" "V" GROOVE AT F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

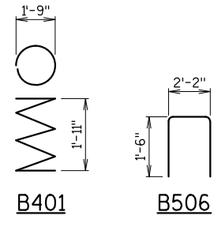
(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE SHEET NO. 10.

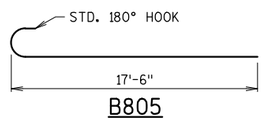
B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE

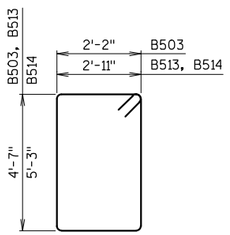


B401

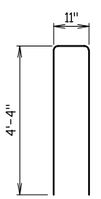
B506



B805



B503, B513, B514



B515

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

EAST ABUTMENT DETAILS

SHEET 7 OF 10

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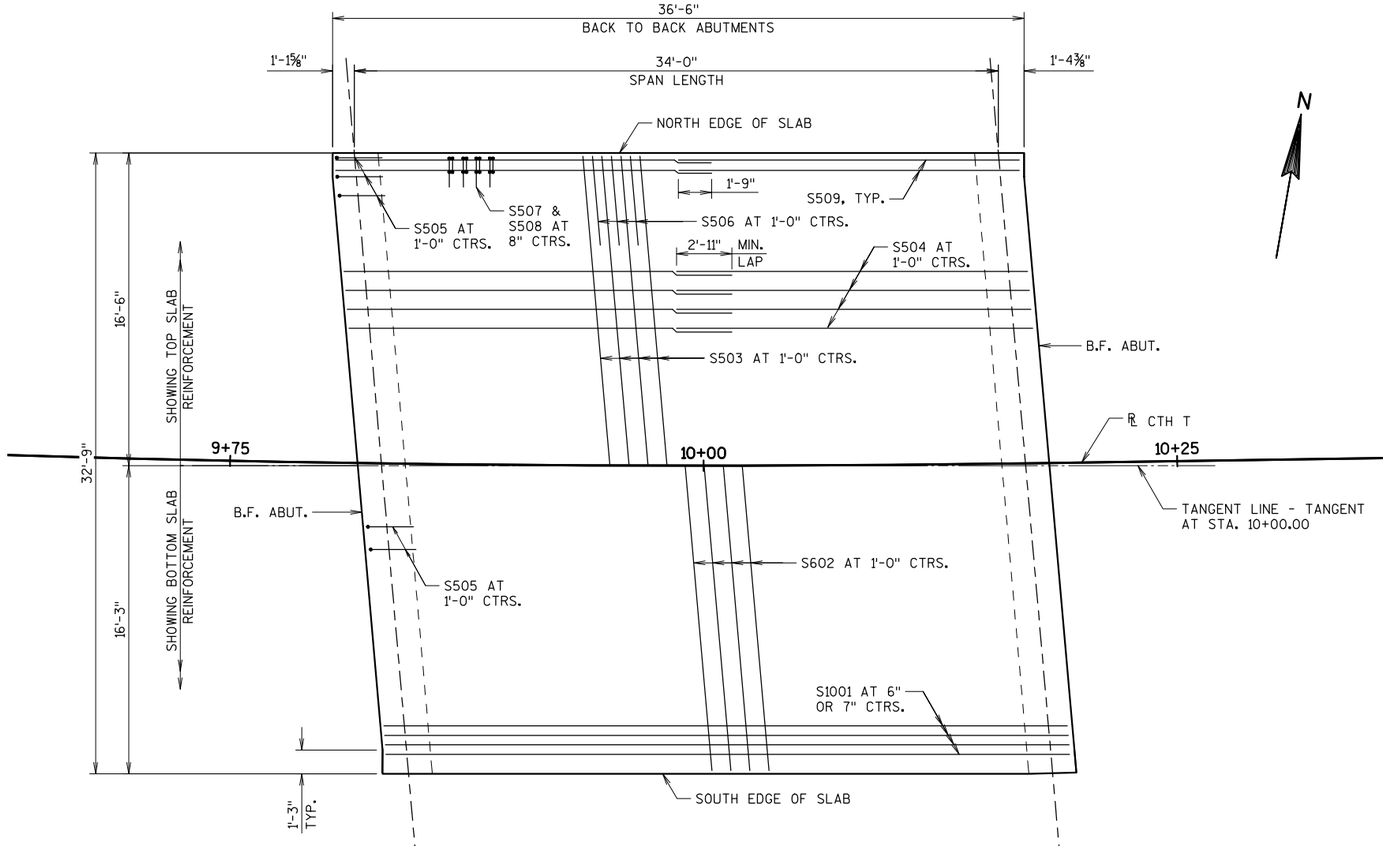
8

8

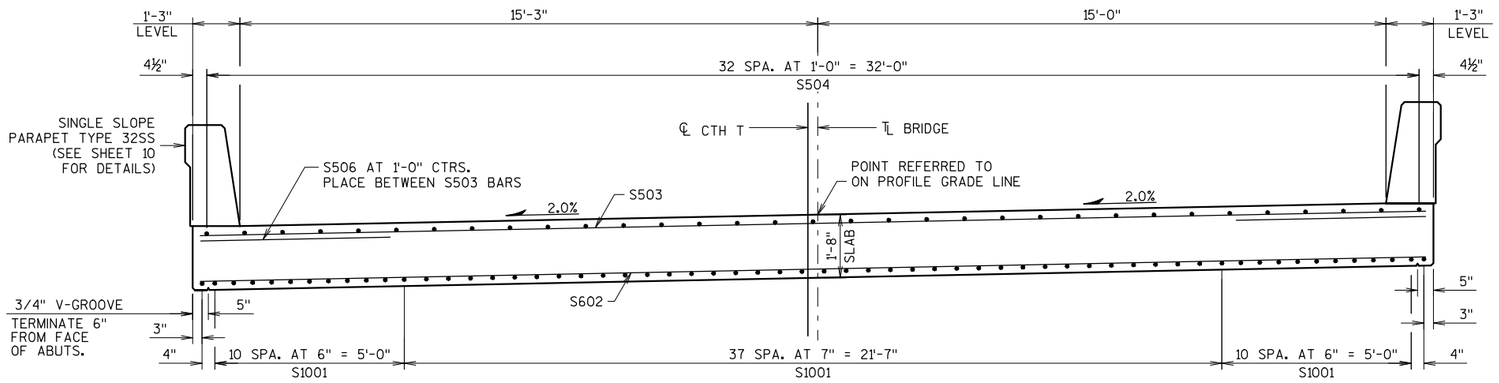
FILE NAME : P:±WI - NW REGION±7178-00-00_TREMP CO_CTH T±500_CADD±503_STRUCTURES±502.4_FINAL±080402 EA_CTH T.DWG

PLOT DATE : 6/1/2017 7:54 PM

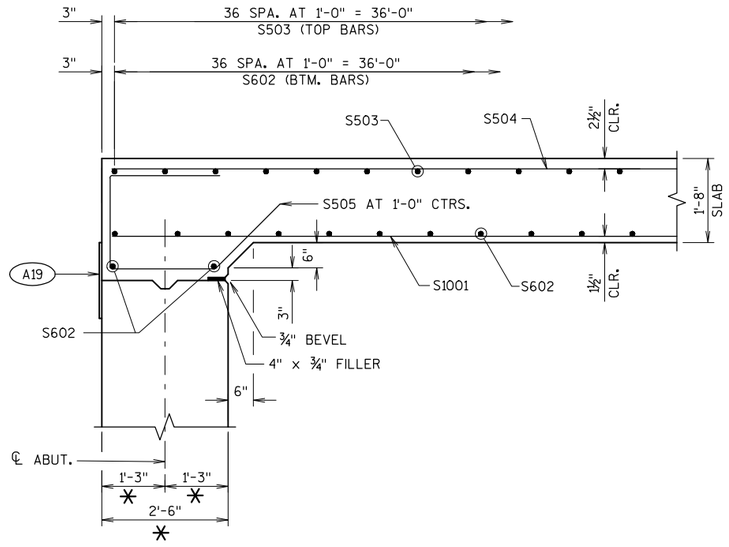
PLOT BY : PAULETTE FENSKE



PLAN



TYPICAL SECTION THRU SLAB



PARTIAL LONGITUDINAL SECTION

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

✳ DIMENSION IS NORMAL TO ℄ SUBSTRUCTURE.

STATE PROJECT NUMBER

7178-00-70

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

SUPERSTRUCTURE

SHEET 8 OF 10

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ORIGINAL PLAN PREPARED BY
CORRE

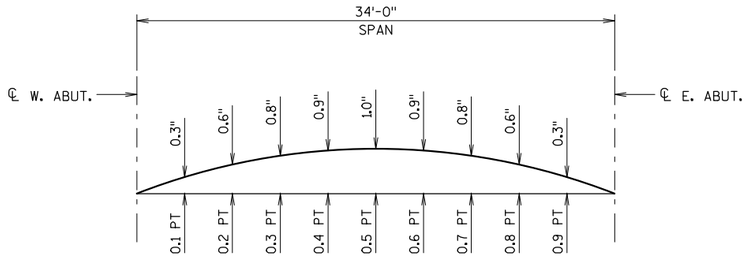
FILE NAME : P:\±WI - NW REGION±7178-00-00_TREMP CO_CTH T±500_CADD±503_STRUCTURES±502.4_FINAL±080601 SS_CTH T.DWG

PLOT DATE : 6/1/2017 7:55 PM

PLOT BY : PAULETTE FENSKE

STATE PROJECT NUMBER

7178-00-70



CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

BILL OF BARS - SUPERSTRUCTURE

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 16,410 LBS
S1001	60	36'-2"			SLAB - BTM	LONGIT.
S602	41	32'-6"			SLAB - BTM	TRANS.
S503	37	32'-6"			SLAB - TOP	TRANS.
S504	66	19'-7"			SLAB - TOP	LONGIT.
S505	66	7'-4"	X		SLAB - AT ABUTMENTS	TRANS.
S506	72	5'-0"			SLAB - TOP	TRANS.
S507	110	4'-5"	X		PARAPETS	VERT.
S508	110	5'-0"	X		PARAPETS	VERT.
S509	24	19'-3"			PARAPETS	LONGIT.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

TOP OF DECK ELEVATIONS

LOCATION	℄ OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF E. ABUT.
NORTH EDGE OF SLAB	863.41	863.44	863.47	863.50	863.52	863.55	863.57	863.60	863.62	863.64	863.67
℄ STRUCTURE (ALONG TANGENT LINE)	863.73	863.76	863.79	863.82	863.84	863.87	863.89	863.91	863.93	863.96	863.98
SOUTH EDGE OF SLAB	864.04	864.07	864.10	864.12	864.15	864.17	864.20	864.22	864.24	864.26	864.28

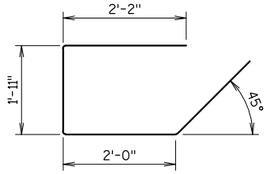
ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

ELEVATIONS ACCOUNT FOR 1'-3" LEVEL AREA UNDER PARAPETS.

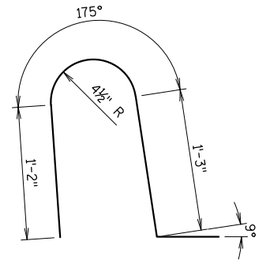
SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	W. ABUT.	0.5	E. ABUT.
NORTH EDGE OF SLAB			
℄ STRUCTURE			
SOUTH EDGE OF SLAB			

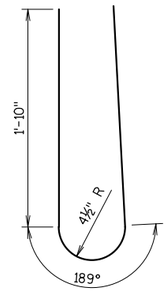
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



S505



S507



S508

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

SUPERSTRUCTURE DETAILS

SHEET 9 OF 10

47

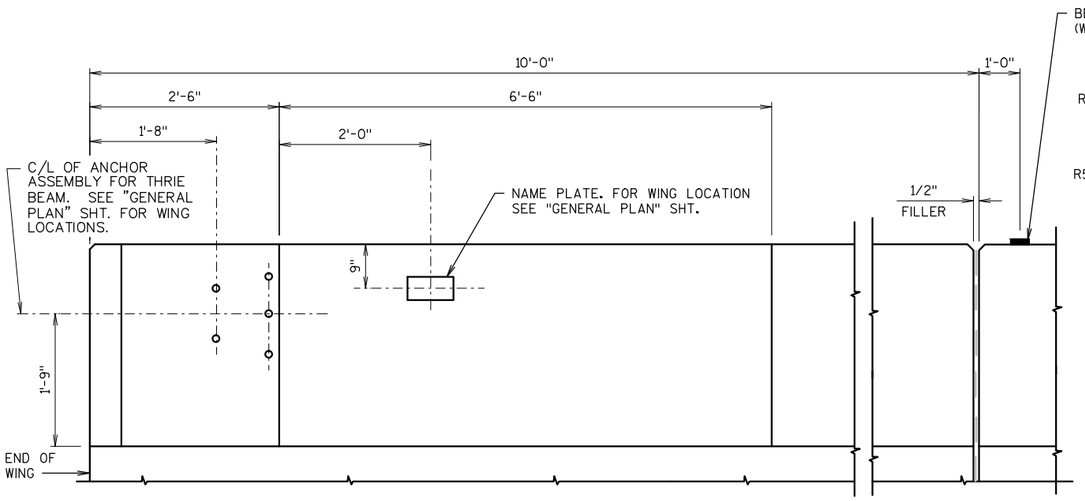
ORIGINAL PLAN PREPARED BY
CORRE

8

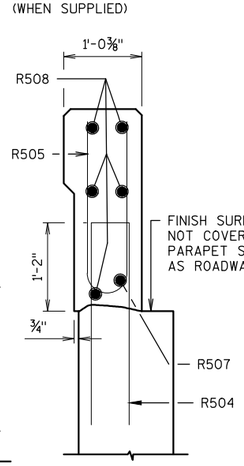
8

STATE PROJECT NUMBER

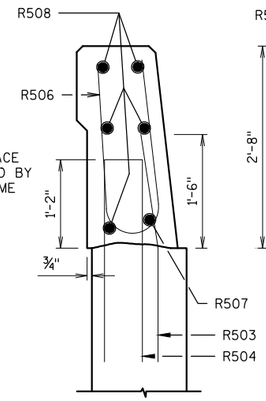
7178-00-70



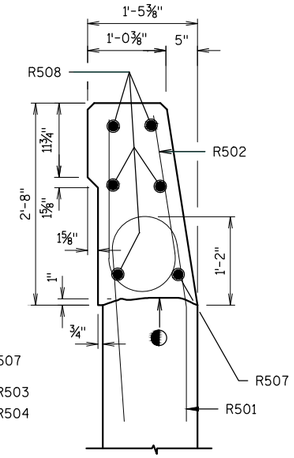
INSIDE ELEVATION



SECTION A



SECTION B



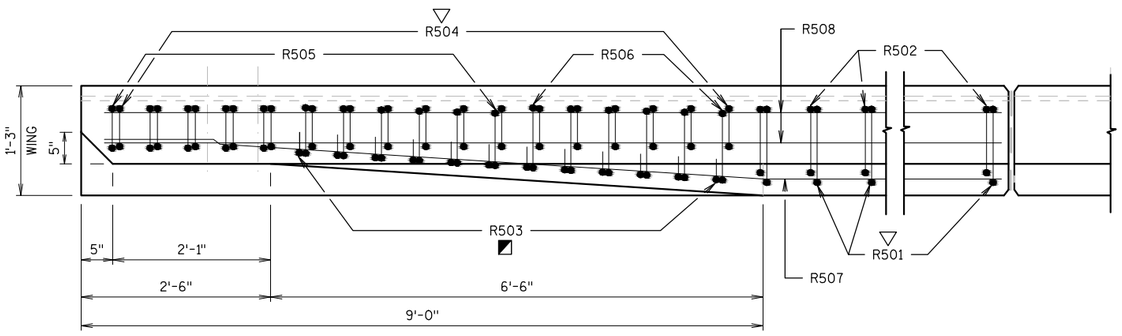
SECTION C

BILL OF BARS - PARAPETS

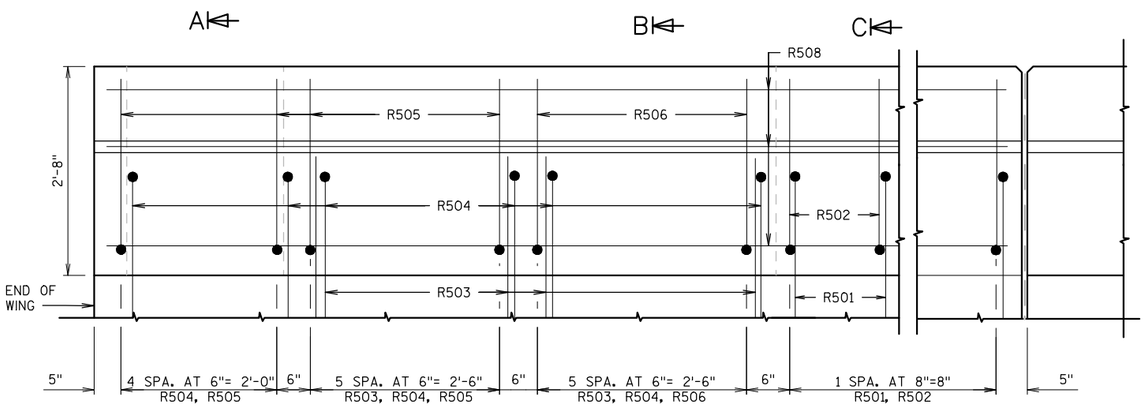
BARS SHOWN ARE FOR ALL 4 WINGS.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 1,220 LBS
R501	8	5'-10"	X		PARAPET	VERT.
R502	8	5'-0"	X		PARAPET	VERT.
R503	48	3'-0"	X		PARAPET	VERT.
R504	68	5'-7"	X		PARAPET	VERT.
R505	44	4'-9"	X		PARAPET	VERT.
R506	24	4'-10"	X		PARAPET	VERT.
R507	4	9'-6"	X		PARAPET	HORIZ.
R508	20	9'-6"			PARAPET	HORIZ.

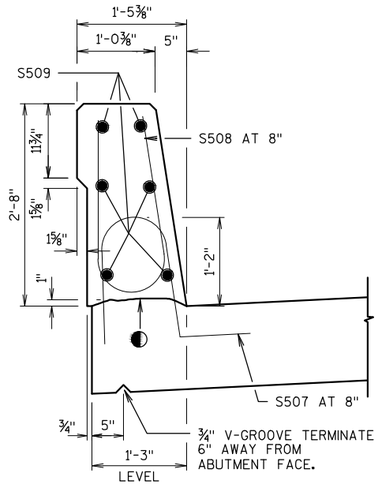
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.



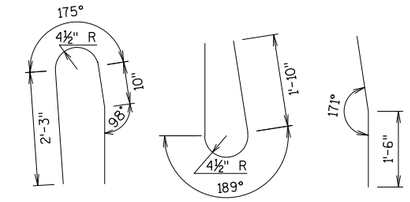
PLAN

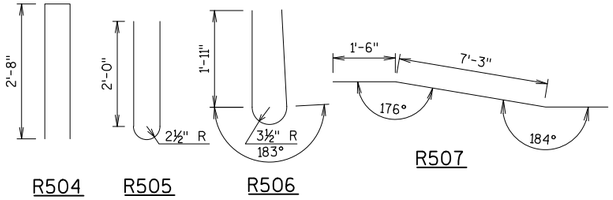


OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE





- ◐ CONST. JOINT - STRIKE OFF AS SHOWN.
- ◩ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-224

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

SINGLE SLOPE PARAPET 32SS

SHEET 10 OF 10

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8

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1,2	Salvaged/Unusable Pavement Material	Fill	EBS Note 3	Cut 1.00	Expanded Fill 1.25 Note 6	Expanded EBS Backfill 1.30 Note 5	Reduced EBS in Fill 0.80 Note 4	Note 7
08+00	0.00	2.89	0.00	3.78	0	0	0	0	0	0	0	0	0
08+25	25.00	9.26	0.00	14.66	6	0	9	0	6	11	0	0	-5
08+50	25.00	34.51	18.00	23.02	20	8	17	0	26	32	0	0	-15
08+66.16	16.16	31.74	18.00	35.47	20	11	18	0	46	54	0	0	-28
08+72.21	6.05	30.61	18.00	38.45	7	4	8	0	53	65	0	0	-35
08+91.48	19.28	27.37	18.00	45.70	21	13	30	0	73	102	0	0	-65
08+96.88	5.40	27.33	18.00	45.28	5	4	9	0	79	114	0	0	-74
09+00	3.12	27.40	18.00	44.49	3	2	5	0	82	120	0	0	-80
09+16.81	16.81	28.52	18.00	39.46	17	11	26	0	99	153	0	0	-106
09+21.56	4.75	28.86	18.00	38.91	5	3	7	0	104	161	0	0	-113
09+50	28.44	31.67	18.00	41.32	32	19	42	0	136	214	0	0	-153
09+70.02	20.02	33.09	18.00	77.95	24	13	44	0	160	269	0	0	-197
09+73.39	3.37	34.26	18.00	36.89	4	2	7	0	165	278	0	0	-204
		STRUCTURE B-61-0224											
10+27.15	0.00	35.89	18.00	10.32	0	0	0	0	165	278	0	0	-204
10+29.34	2.19	35.50	18.00	55.47	3	1	3	0	167	282	0	0	-206
10+50	20.66	31.64	18.00	46.01	26	14	39	0	193	330	0	0	-243
10+79.67	29.67	27.21	18.00	36.93	32	20	46	0	225	387	0	0	-287
10+81.79	2.12	27.01	18.00	36.69	2	1	3	0	228	391	0	0	-290
11+00	18.21	25.62	18.00	47.86	18	12	29	0	245	427	0	0	-320
11+04.67	4.67	25.42	18.00	50.79	4	3	9	0	250	437	0	0	-330
11+06.77	2.09	25.68	18.00	51.15	2	1	4	0	252	442	0	0	-334
11+29.68	22.91	29.23	18.00	45.10	23	15	41	0	275	493	0	0	-377
11+31.86	2.19	29.60	18.00	43.87	2	1	4	0	277	498	0	0	-381
11+50	18.14	32.80	18.00	36.15	21	12	27	0	298	531	0	0	-405
11+75	25.00	7.79	0.00	23.35	19	8	28	0	317	566	0	0	-429
12+00	25.00	8.60	0.00	12.84	8	0	17	0	325	587	0	0	-443
TOTALS					325	181	469	0					

Notes:

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

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

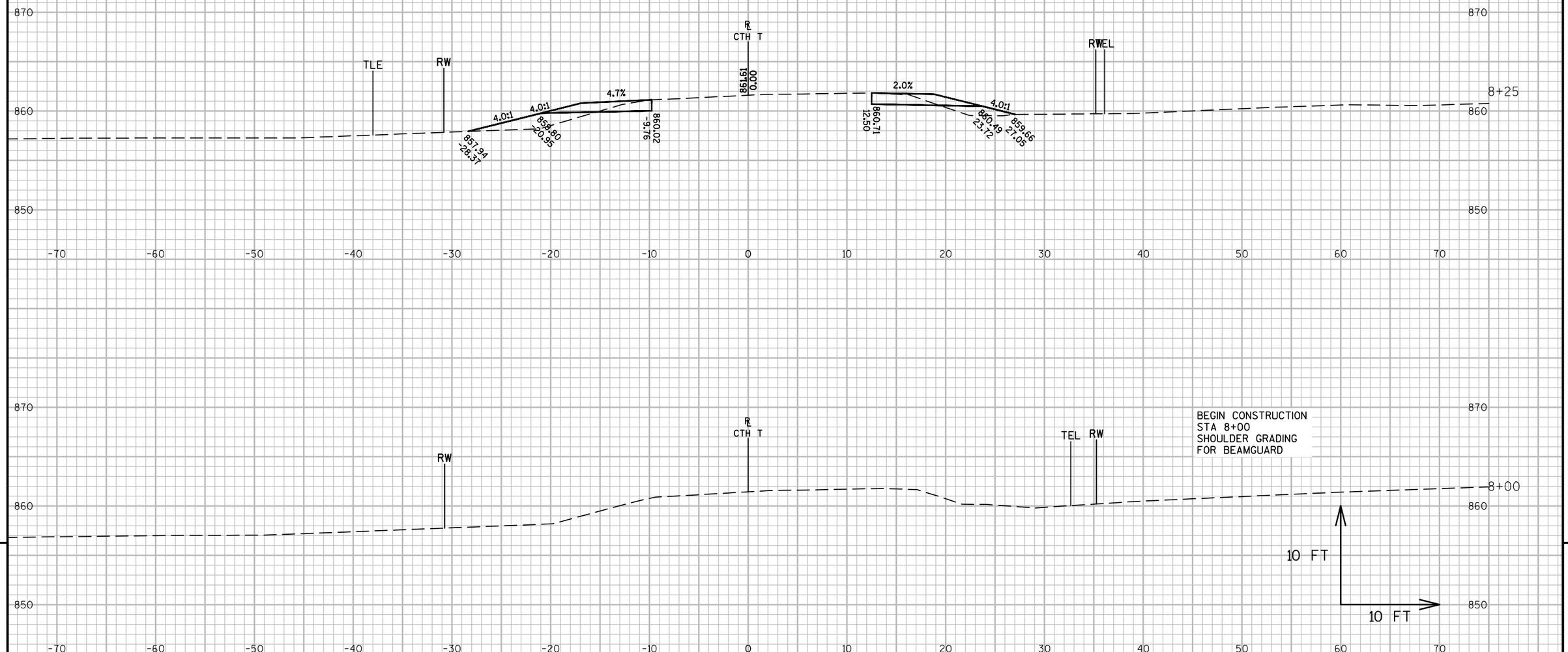
(3) EBS Excavation to be backfilled w ith Select Borrow material. Note: this is designers choice, can be backfilled w ith Borrow , or Cut as w ell.

(4) Reduced EBS in Fill - Excavated EBS material is ususable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8

(5) Expanded EBS Backfill - This is to be filled w ith Borrow material. EBS Backfill Factor = 1.30. Item number 208.0100

(6) Expanded Fill Factor = 1.25

(7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material w ithin the Division. Minus indicates a shortage of material w ithin the Division.

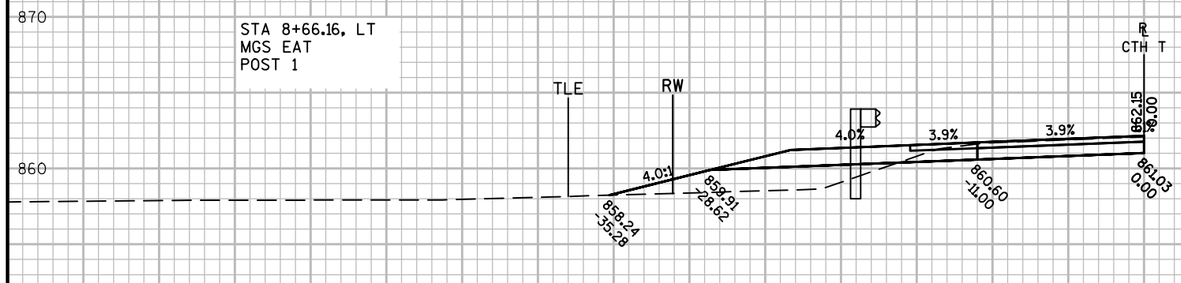


PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 50	E

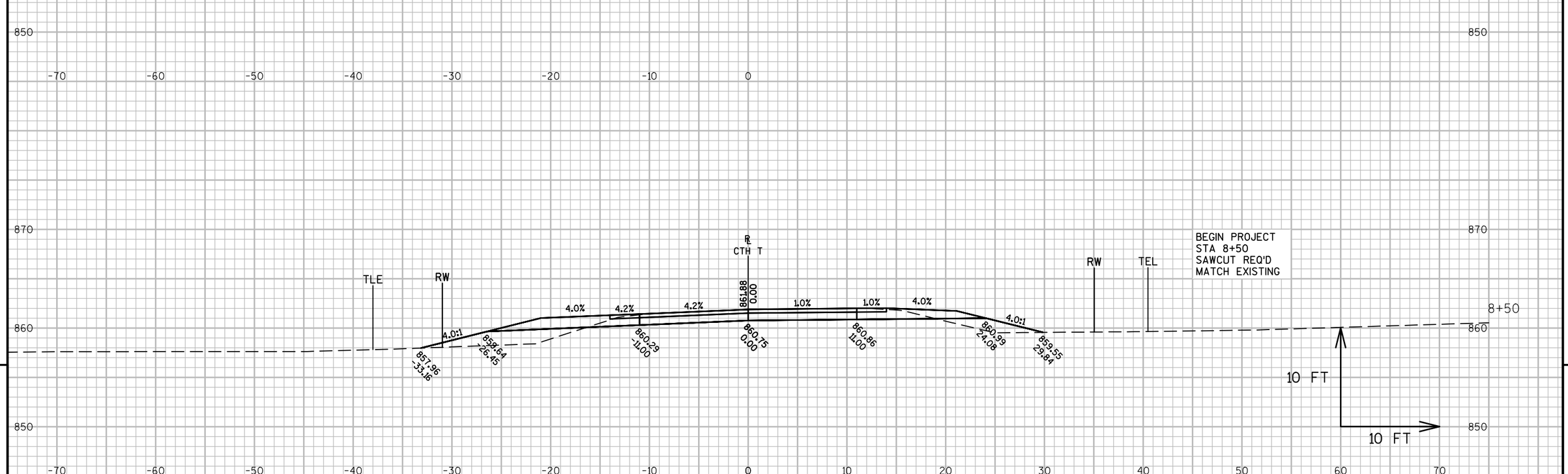
FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090101-XS

PLOT DATE : 7/3/2017 1:14 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 8+66.16, LT
MGS EAT
POST 1



8+66



9

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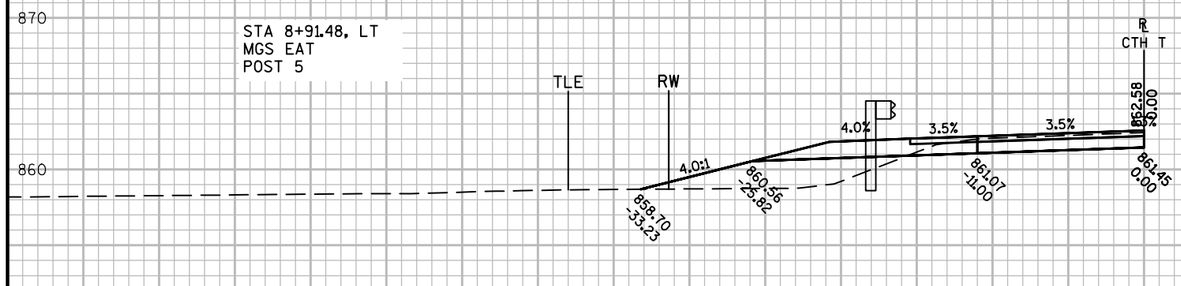
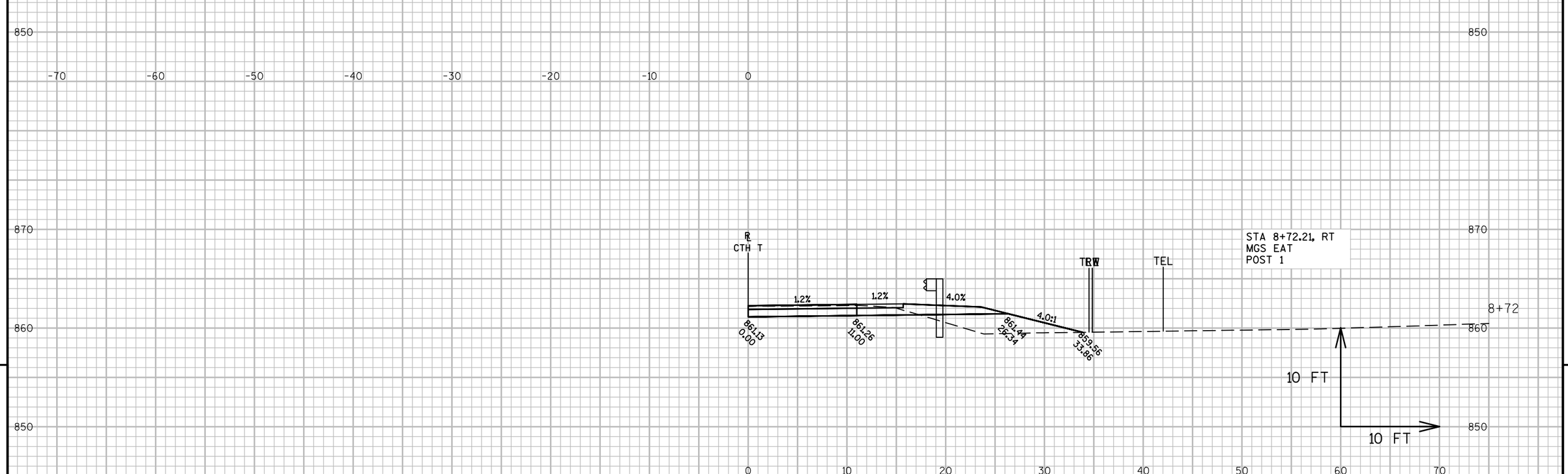
PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 51	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090102-XS

PLOT DATE : 7/3/2017 1:14 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT





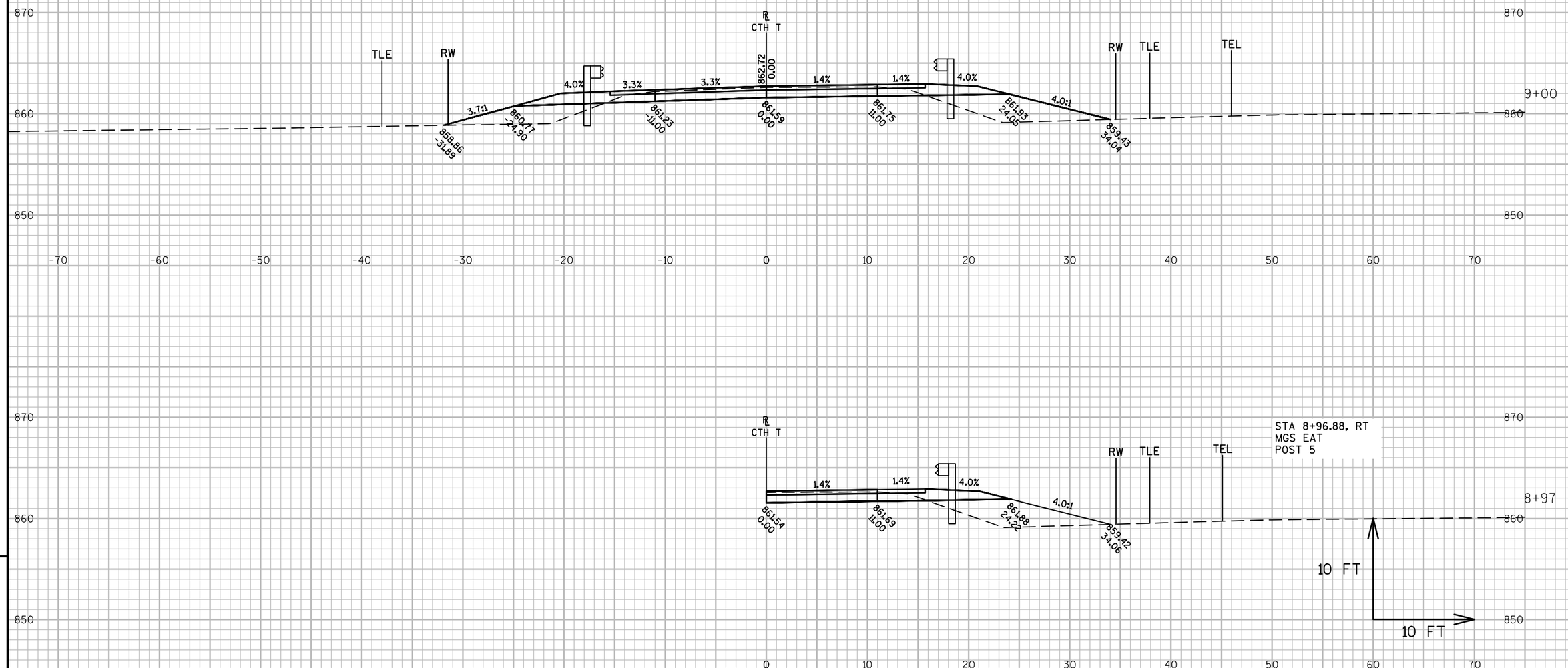
9

9

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 52	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090103-XS

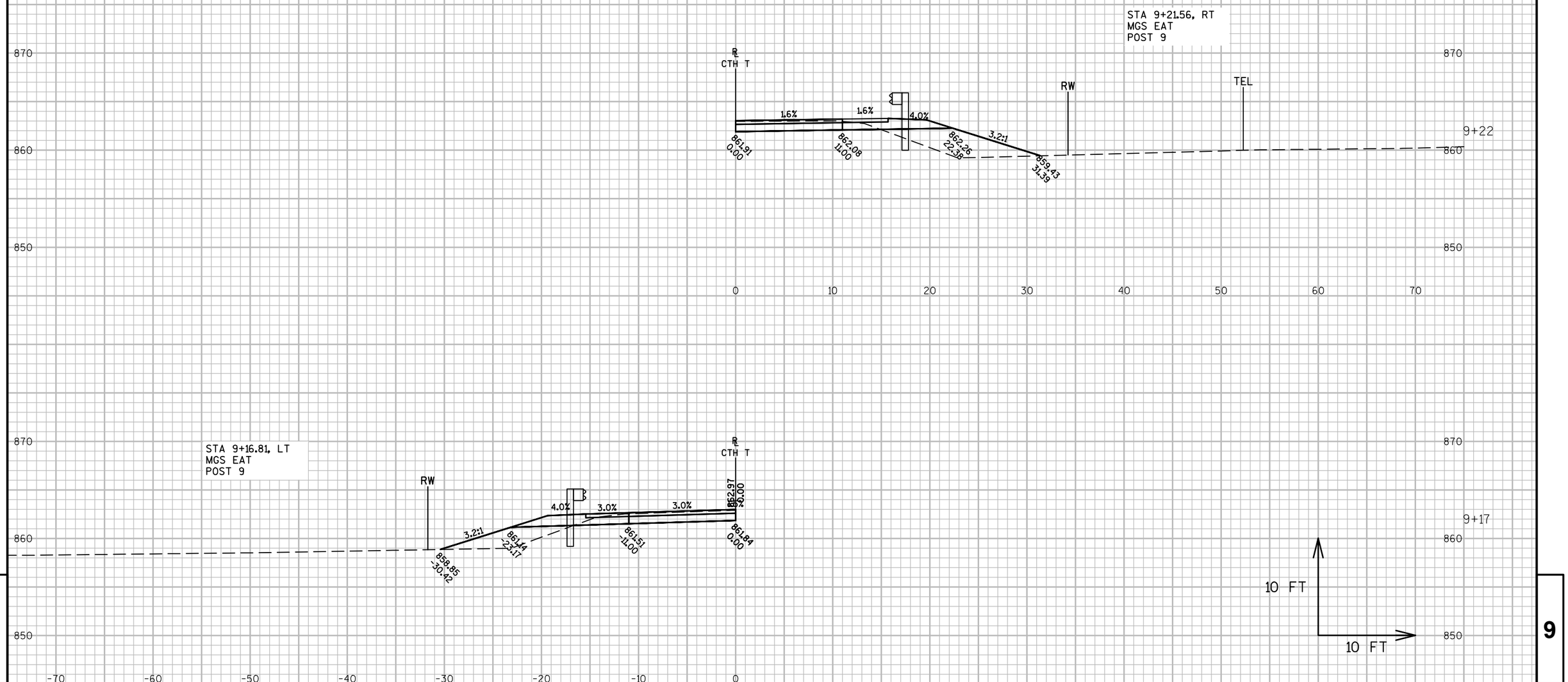
PLOT DATE : 7/3/2017 1:14 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 53	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090104-XS

PLOT DATE : 7/3/2017 1:14 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

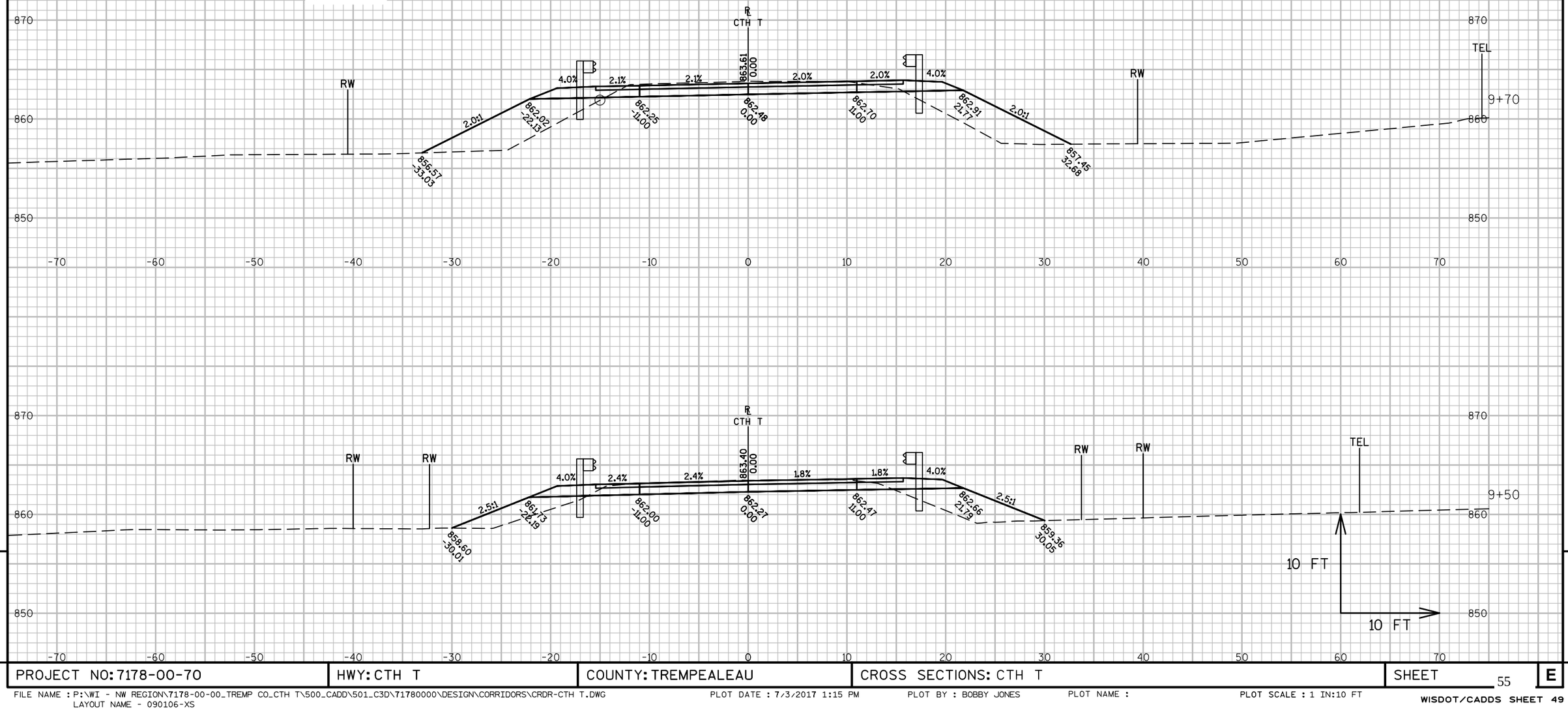


PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 54	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090105-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

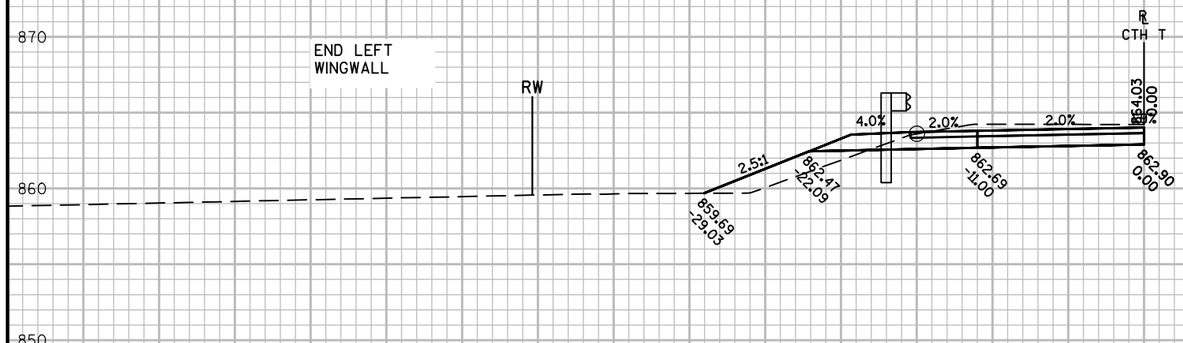
START LEFT WINGWALL

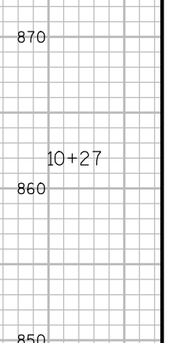


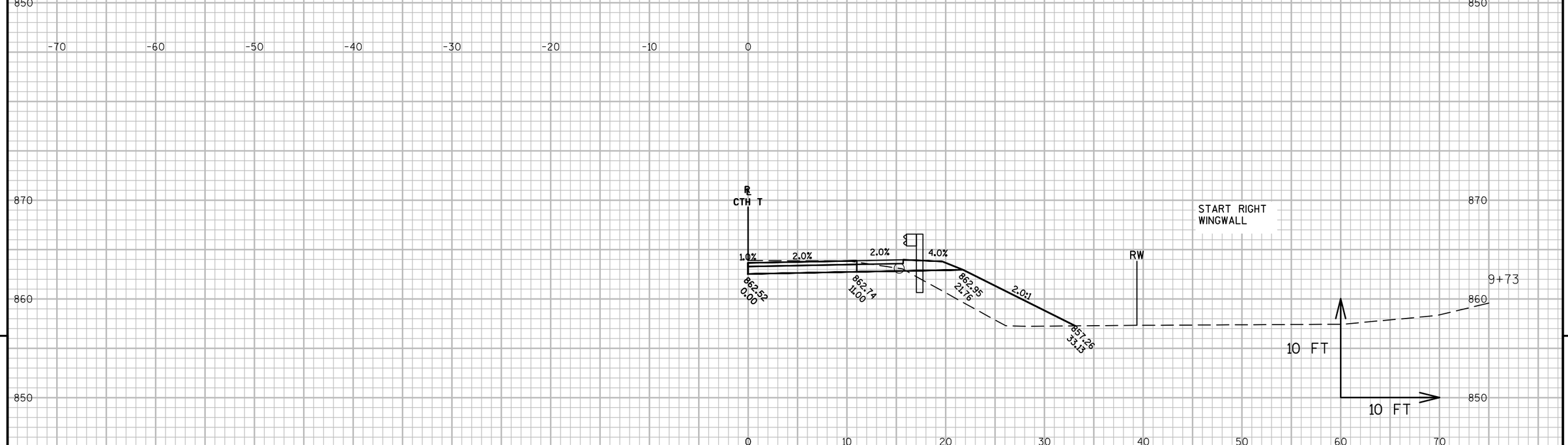
PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 55	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090106-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



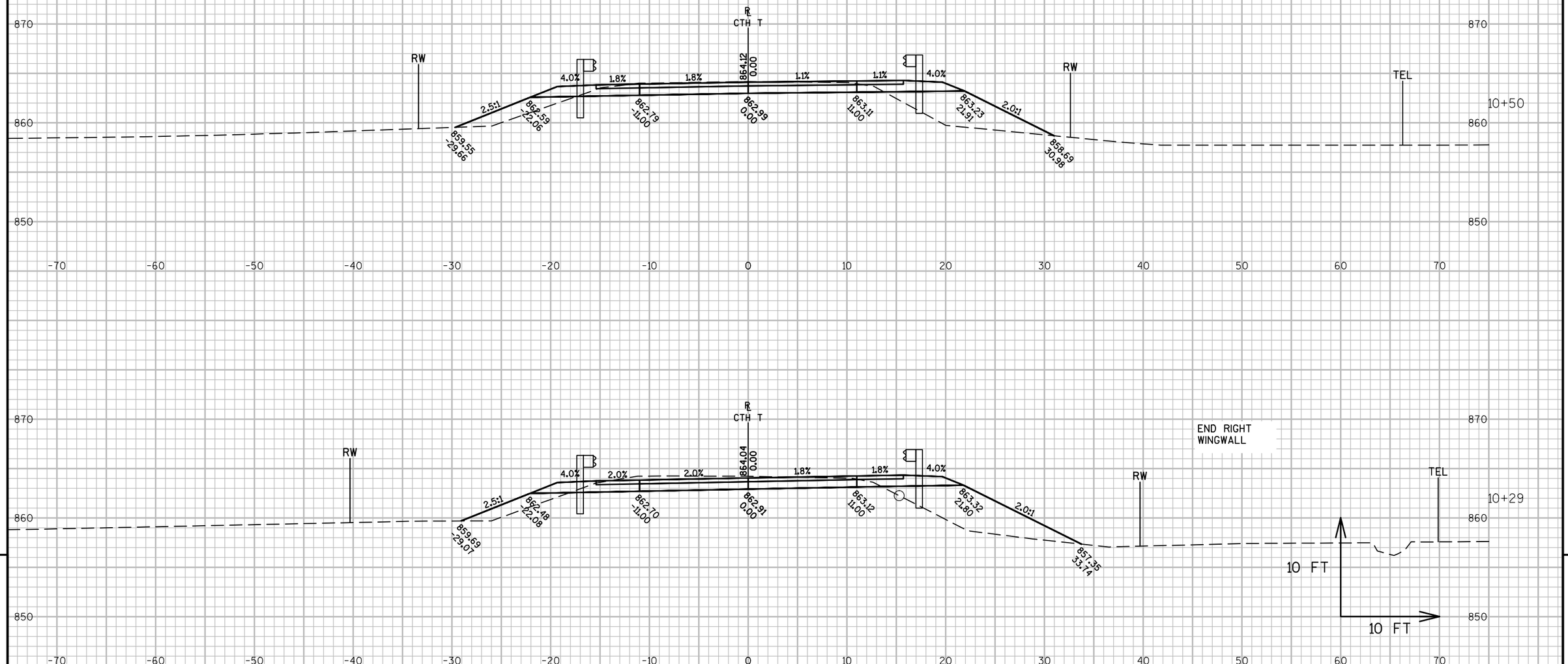




9

9

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 56	E



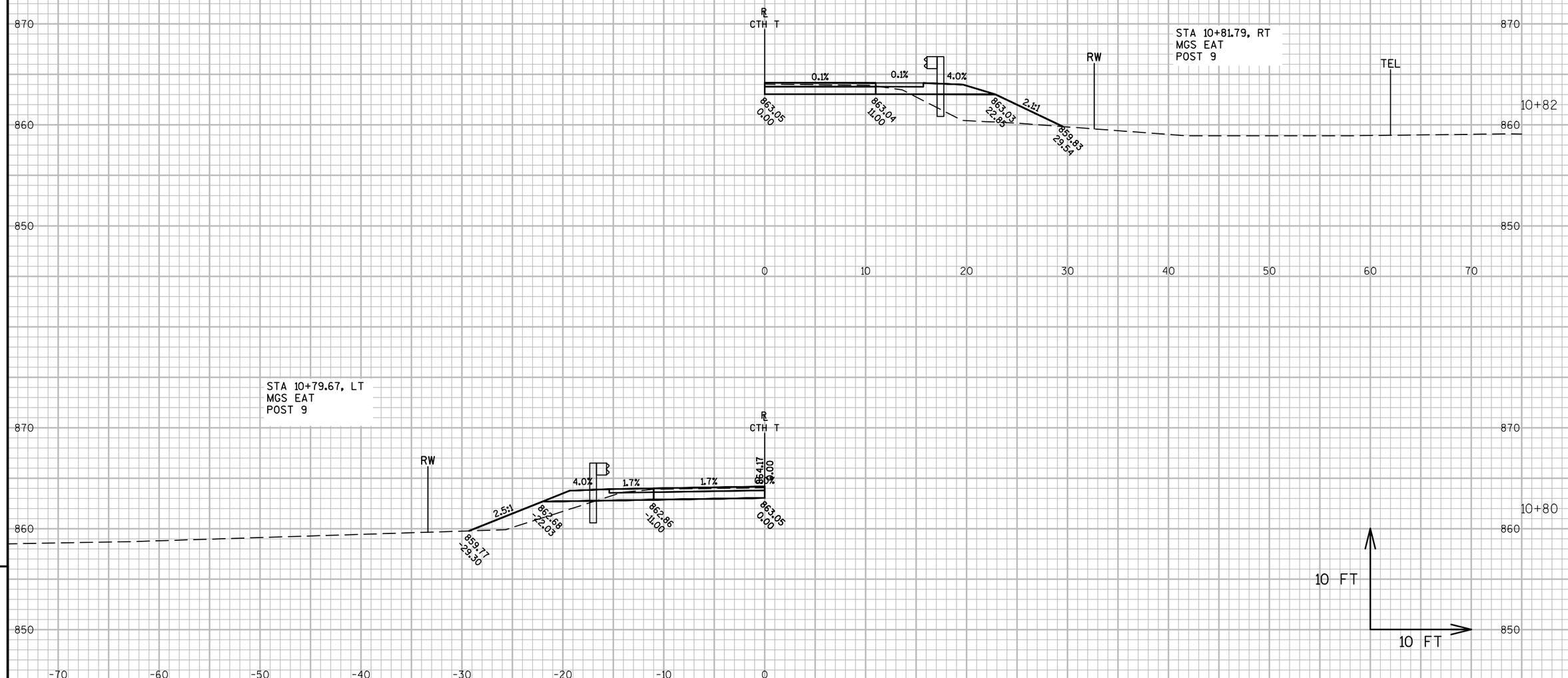
9 9

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 57	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090108-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

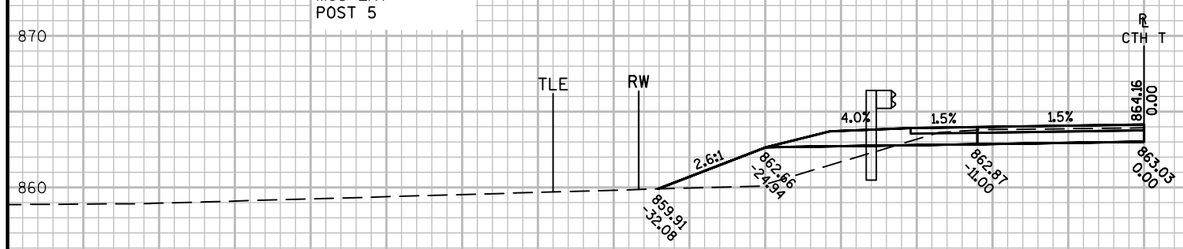


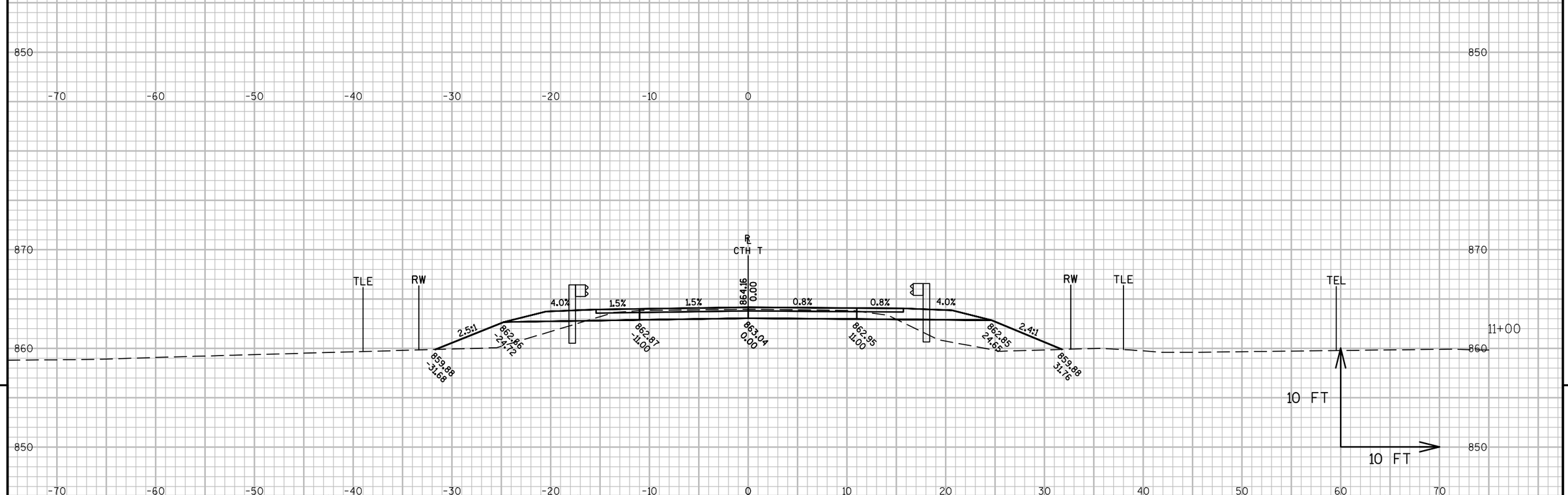
PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 58	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090109-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 11+04.67, LT
MGS EAT
POST 5

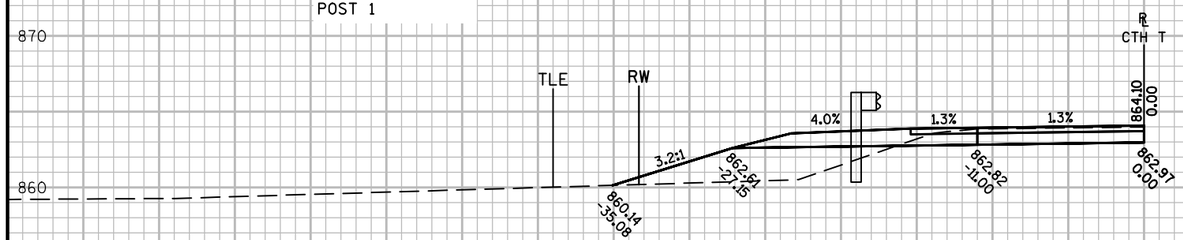




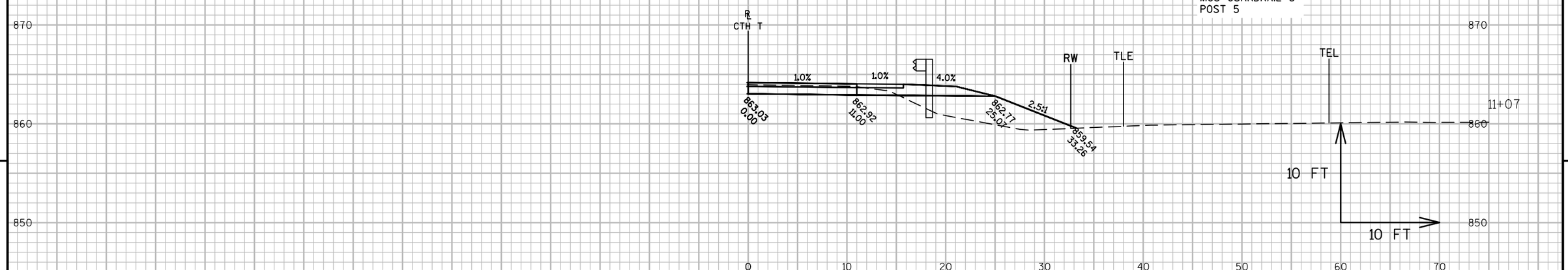
PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 59	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090110-XS
PLOT DATE : 7/3/2017 1:15 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

STA 11+29.68, LT
MGS EAT
POST 1

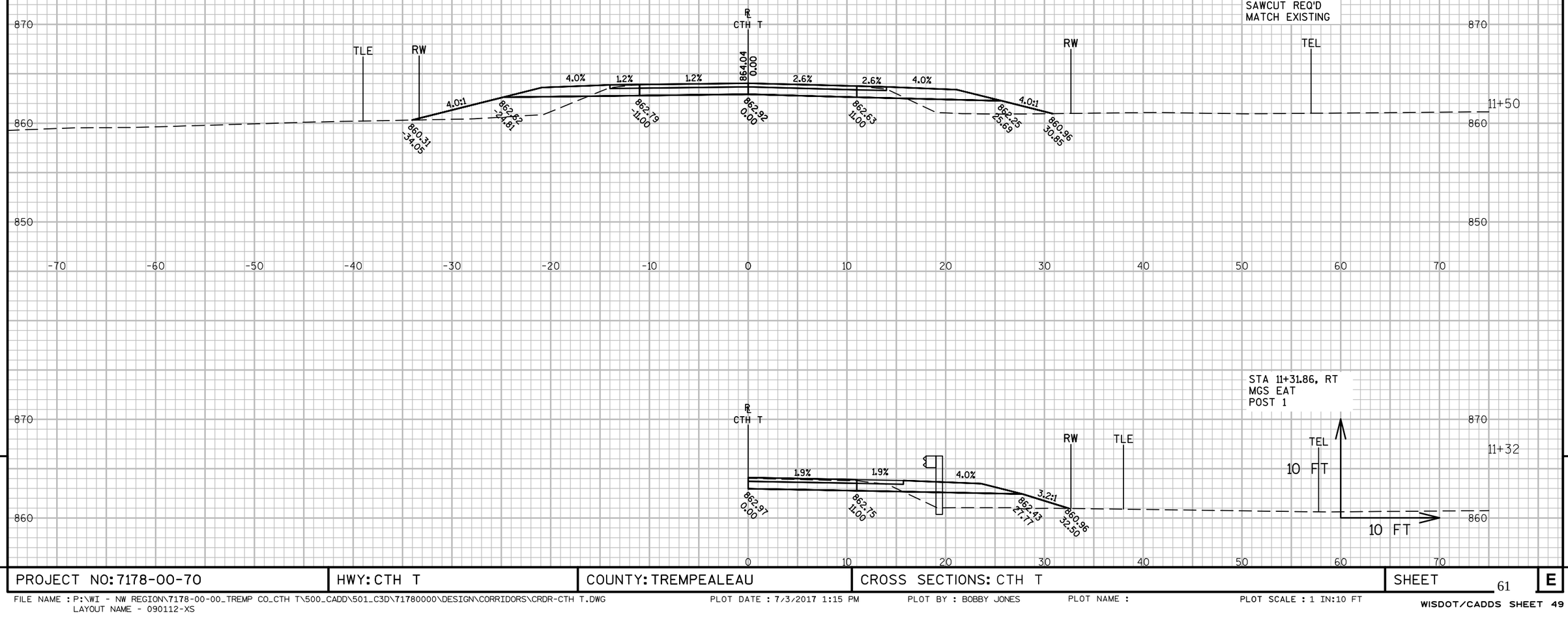


STA 10+94.96, RT
MGS GUARDRAIL 3
POST 5



PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 60	E

END PROJECT
STA 11+50
SAWCUT REQ'D
MATCH EXISTING



STA 11+31.86, RT
MGS EAT
POST 1

9

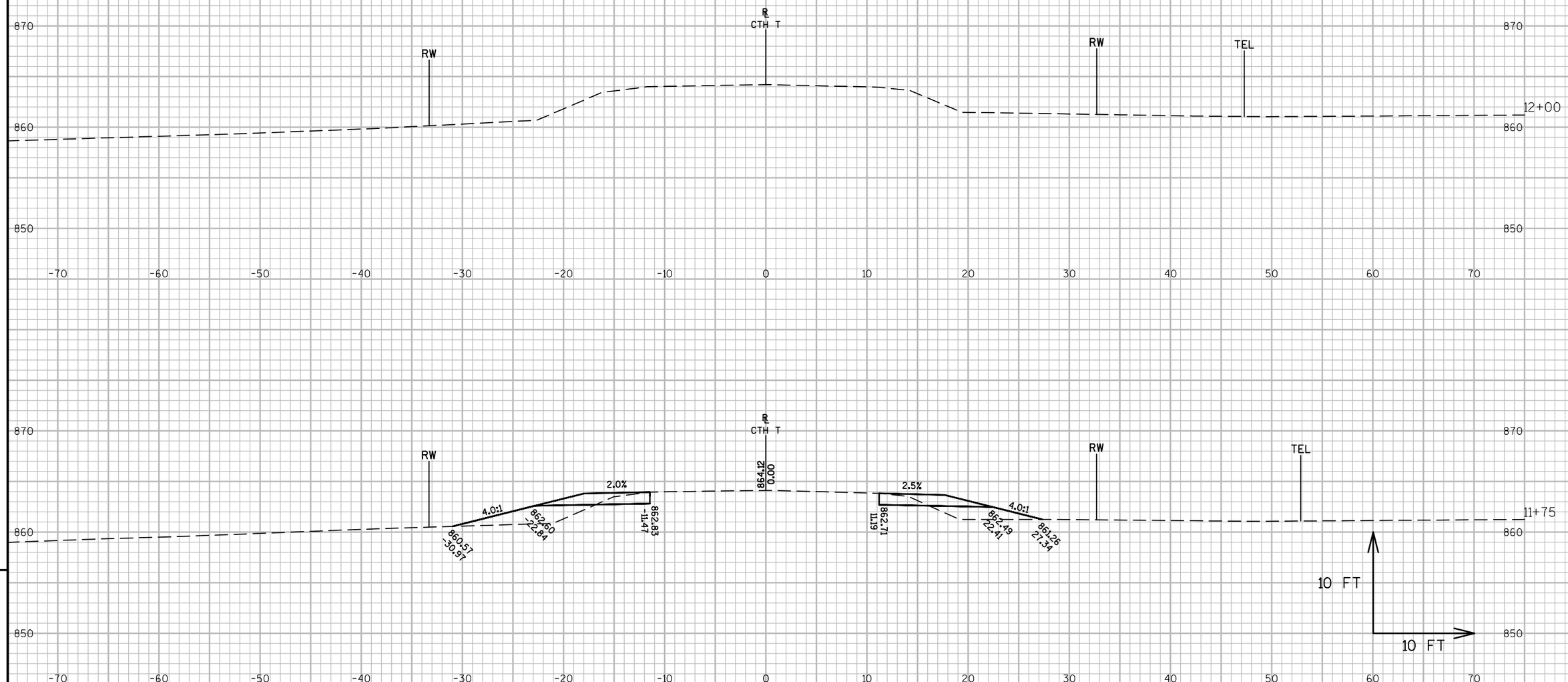
9

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET 61	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090112-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

END CONSTRUCTION
STA 12+00
SHOULDER GRADING
FOR BEAMGUARD



9

9

PROJECT NO: 7178-00-70	HWY: CTH T	COUNTY: TREMPEALEAU	CROSS SECTIONS: CTH T	SHEET	E

FILE NAME : P:\WI - NW REGION\7178-00-00_TREMP CO_CTH T\500_CADD\501_C3D\71780000\DESIGN\CORRIDORS\CRDR-CTH T.DWG
LAYOUT NAME - 090113-XS

PLOT DATE : 7/3/2017 1:15 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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