(2018) = 550

(2038) = 650

= 7.8%

= 55 M.P.H.

STATE OF WISCONSIN **DEPARTMENT OF TRANSPORTATION**

PLAN OF PROPOSED IMPROVEMENT

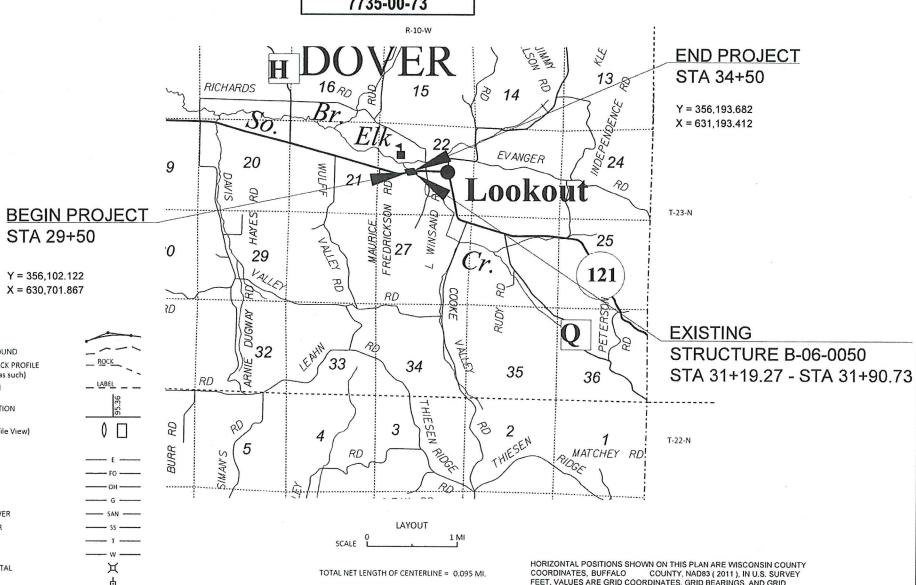
FEDERAL PROJECT STATE PROJECT PROJECT CONTRACT 7735-00-73 WISC 2018457

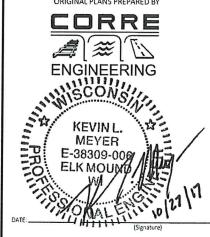
GILMANTON - INDEPENDENCE

S FORK ELK CREEK BRIDGE B-06-0050

STH 121 BUFFALO COUNTY

> STATE PROJECT NUMBER 7735-00-73





STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

REPARED B CORRE, INC. Designer NICOLE PASSUELLO, P.E. Project Manage TIM MASON, P.E. Regional Examiner

E

P:\WI - NW REGION\7735-00-03_BUFFALO CO_STH 121\500_CADD\501_C3D_2016\77350003\SHEETSPLAN\010101-TI.DWG

STA 29+50

Y = 356,102.122 X = 630,701,867

PROFILE

GRADE LINE

ORIGINAL GROUND

(To be noted as such)

SPECIAL DITCH

UTILITIES

ELECTRIC

FIBER OPTIC

OVERHEAD

SANITARY SEWER

UTILITY PEDESTAL

TELEPHONE POLE

POWER POLE

STORM SEWER TELEPHONE

GAS

WATER

GRADE ELEVATION

CULVERT (Profile View)

MARSH OR ROCK PROFILE

BOBBY JONES

DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STANDARD ABBREVIATIONS

ABUTMENT	MH	MANHOLE
ACRE	M	MARSH
AGGREGATE	ML or M/L	MATCH LINE
AHEAD	NC	NORMAL CROWN
ANGLE	NW or N/W	NORMAL WATER
ASPHALTIC	N	NORTH
	Υ	NORTH GRID COORDINATE
	NO	NUMBER
	OD	OUTSIDE DIAMETER
	PAVT	PAVEMENT
	PERM	PERMANENT
BACK FACE	PLE	PERMANENT LIMITED EASEMENT
BASE LINE	PT	POINT
BENCH MARK	PC	POINT OF CURVATURE
BRIDGE	PI	POINT OF INTERSECTION
CATCH BASIN	PRC	POINT OF REVERSE CURVATURE
CENTER LINE	PT	POINT OF TANGENCY
CENTRAL ANGLE OR DELTA	POT	POINT ON TANGENT
CHORD	PVC	POLYVINYL CHLORIDE
CHORD BEARING	PE	PRIVATE ENTRANCE
COMMERCIAL ENTRANCE	PROJ	PROJECT
	ACRE AGGREGATE AHEAD ANGLE ASPHALTIC ASPHALTIC PLANT MIX AVERAGE ANNUAL AVERAGE DAILY TRAFFIC BACK BACK FACE BASE LINE BENCH MARK BRIDGE CATCH BASIN CENTER LINE CENTRAL ANGLE OR DELTA CHORD CHORD BEARING	ACRE AGGREGATE AGGREGATE AHEAD ANC ANGLE ASPHALTIC ASPHALTIC ASPHALTIC PLANT MIX AVERAGE ANNUAL AVERAGE DAILY TRAFFIC BACK BACK BACK PERM BACK FACE BASE LINE BASE LINE BENCH MARK BENCH MARK BENCH MARK BENCH BASIN CENTER LINE CENTRAL ANGLE OR DELTA CHORD CHORD BEARING

CONC

CORR

CACP

CAPA

CSCP

CO

CTH

CRK

CARC

CULV

C & G

DHV

DIA

DWY

ELEC

FMB

FNT

FXC

EBS

EXP

FFRT

FL or F/L

FTG

FDN

FTMS

GN

HYD

INV

LHF

LIN FT or LF

INTERS

FX or FXIST

ESALS

EL or ELEV

CY or CUYD

CONCRETE

CREEK

CUBIC YARD

CULVERT PIPE

DIAMETER

DRIVEWAY

EASTBOUND

ELECTRIC (AL)

EMBANKMENT

ELEVATION

ENDWALL

ENTRANCE

FXCAVATION

FXISTING

EXPANSION

FENCE POST

FIELD ENTRANCE

FINISH GRADE

FOUNDATION

FLOW LINE

FOOTING

GARAGE

HOUSE

INVERT

JOINT

LEFT

JUNCTION

HYDRANT

GRID NORTH

INTERSECTION

IRON PIPE OR PIN

LEFT-HAND FORWARD

LENGTH OF CURVE

LINEAR FOOT LONG CHORD OF CURVE

FFRTII IZF

FILL

FOOT

EAST

DEGREE OF CURVE

CULVERT

CORRUGATED

CORRUGATED ALUMINUM CULVERT PIPE

CORRUGATED ALUMINUM PIPE ARCH

CORRUGATED STEEL CULVERT PIPE

CRUSHED AGGREGATE BASE COURSE

COUNTY TRUNK HIGHWAY

C & G CURB AND GUTTER

DESIGN HOUR VOLUME

FAST GRID COORDINATE

EQUIVALENT SINGLE AXLE LOADS

EXCAVATION BELOW SUBGRADE

FACE TO FACE OR FRONT FACE

FREEWAY TRAFFIC MANAGEMENT SYSTEM

PL

RP

RR

RP

RCCP

RCPSS

REOD

RT

RHF

R/W

RD

RDWY

SALV

SSS

SANS

SEC

SW

STD

SDD

STH

STA

SS

SE

TEL

ΤI

TLE

TC

TYP

UG

USH

VAR

VPC

VPT

VOL

VPI

T or TN

TFMP

STR

SHI DR

SF or SQ FT

SY or SO YD

RL or R/L

Culvert Pipe

PROPERTY LINE

RADIUS POINT

REFERENCE LINE

CUI VERT PIPE

RIGHT-OF-WAY

SANITARY SEWER

REQUIRED

RIGHT

ROAD

ROADWAY

SALVAGED

SECTION

SHOULDER.

SIDEWALK

STANDARD

STATION

TANGENT

TELEPHONE

TEMPORARY

TOP OF CURB

UNDERGROUND

TOWN

TYPICAL

VARIABLE

CURVE

VOLUME

WEST

YARD

SQUARE YARD

STORM SEWER

SUPERFLEVATION

TEMPORARY INTEREST

TRUCKS (PERCENT OF)

UNITED STATES HIGHWAY

VELOCITY OR DESIGN SPEED

VERTICAL POINT OF CURVE

VERTICAL POINT OF INTERSECTION

VERTICAL POINT OF TANGENCY

TEMPORARY LIMITED EASEMENT

SOUTH SQUARE FEET

REFERENCE POINT

RIGHT-HAND FORWARD

SANITARY AND STORM SEWER

STANDARD DETAIL DRAWINGS

STRUCTURE OR STRUCTURAL

STATE TRUNK HIGHWAYS

REINFORCED CONCRETE CULVERT PIPE

REINFORCED CONCRETE PIPE STORM SEWER

RADIUS

RAII ROAD

RANGE

DNR CONTACT

AMY LESIK 1300 WEST CLAIREMONT STREET EAU CLAIRE, WI 54702 (715) 836-6571 AMYL.LESIK@WISCONSIN.GOV

CONSULTANT CONTACT

CORRE, INC. KEVIN MEYER. P.E. 1802 WARDEN ST EAU CLAIRE, WI 54703 (715) 299-1894 KMEYER@CORREINC.COM

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, 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

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

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 TOPSOILED, FERTILIZED, AND SEEDED AND MULCHED. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT PAVEMENT

BEARINGS SHOWN ON THE PLANS ARE GRID/GROUND/PROJECT BEARINGS TO THE NEAREST SECOND.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS

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.

ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2 $\frac{1}{4}$ - INCH LOWER LAYER AND 1 $\frac{3}{4}$ - INCH

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

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE

UTILITY CONTACTS

COMMUNICATION LINE

EMAIL: MATT@NTEC.NET

NELSON COMMUNICATIONS COOPERATIVE MATT HOYT 318 3rd AVENUE W P.O. BOX 228 DURAND, WI 54736 PHONE: (715) 672-4204

ELECTRICITY

RIVERLAND ENERGY COOPERATIVE TIM HOLTAN 625 W MAIN STREET P.O. BOX 277 ARCADIA, WI 54612-0277 PHONE: (608) 323-3381

www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

						HYDROLOGIC S	SOIL GROL	JP						
		А			В			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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38		
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56		
MEDIAN STRIP-	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30		
TURF	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40		
SIDE SLOPE-			.25			.27			.28			.30		
TURF			.32			.34			.36			.38		
PAVEMENT:														
ASPHALT						.7095								
CONCRETE						.8095								
BRICK						.7080								
DRIVES, WALKS						.7585								
R00FS						.7595								
GRAVEL ROADS,	SHOULDE	ERS				.4060								

TOTAL PROJECT AREA = 1.25 ACRES TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.40 ACRES

PROJECT NO: 7735-00-73 HWY: STH 121 FILE NAME

COUNTY: BUFFALO

PLOT DATE ·

8/21/2018 8:13 AM

GENERAL NOTES

SHEET

P:\WI - NW REGION\7735-00-03_BUFFALO CO_STH 121\500_CADD\501_C3D_2016\77350003\SHEETSPLAN\020101-GN.DWG LAYOUT NAME - 020101-gn

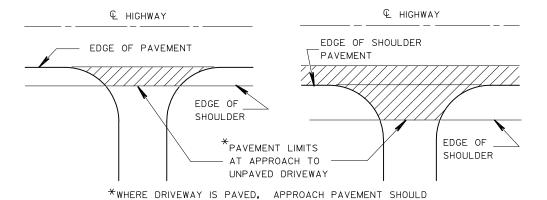
NICHOLAS WATHKE

PLOT NAME

PLOT SCALE :

WISDOT/CADDS SHEET 42

Ε

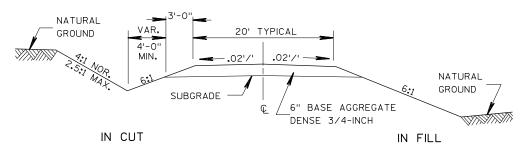


PLAN VIEW

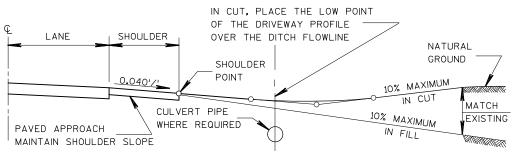
PLAN VIEW (PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL

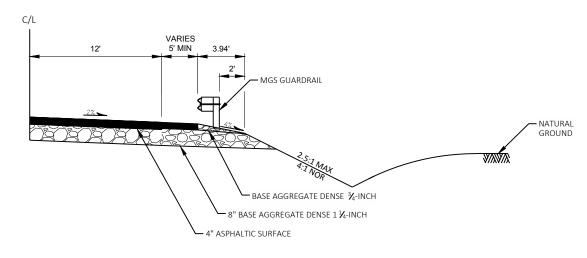
BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE

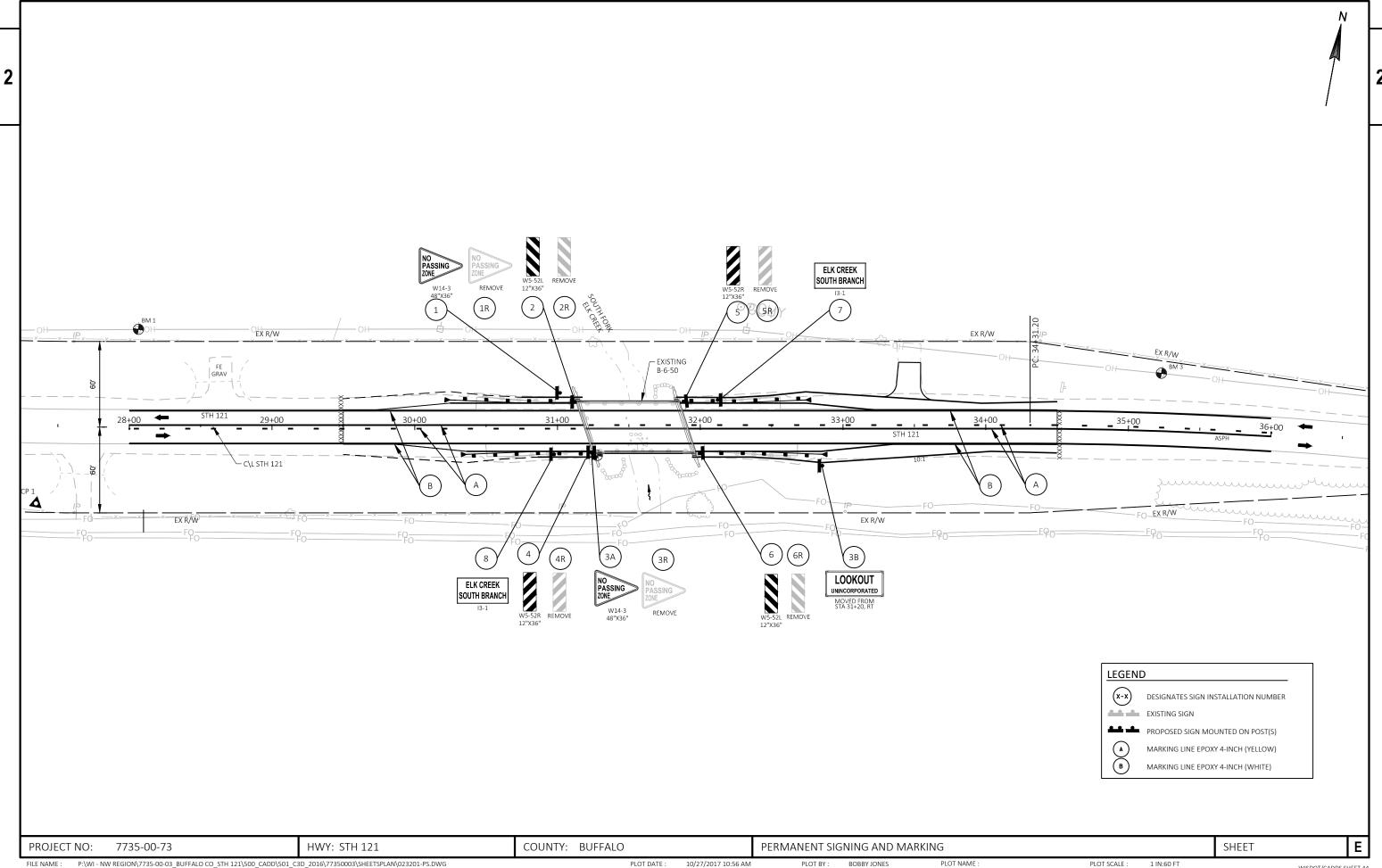


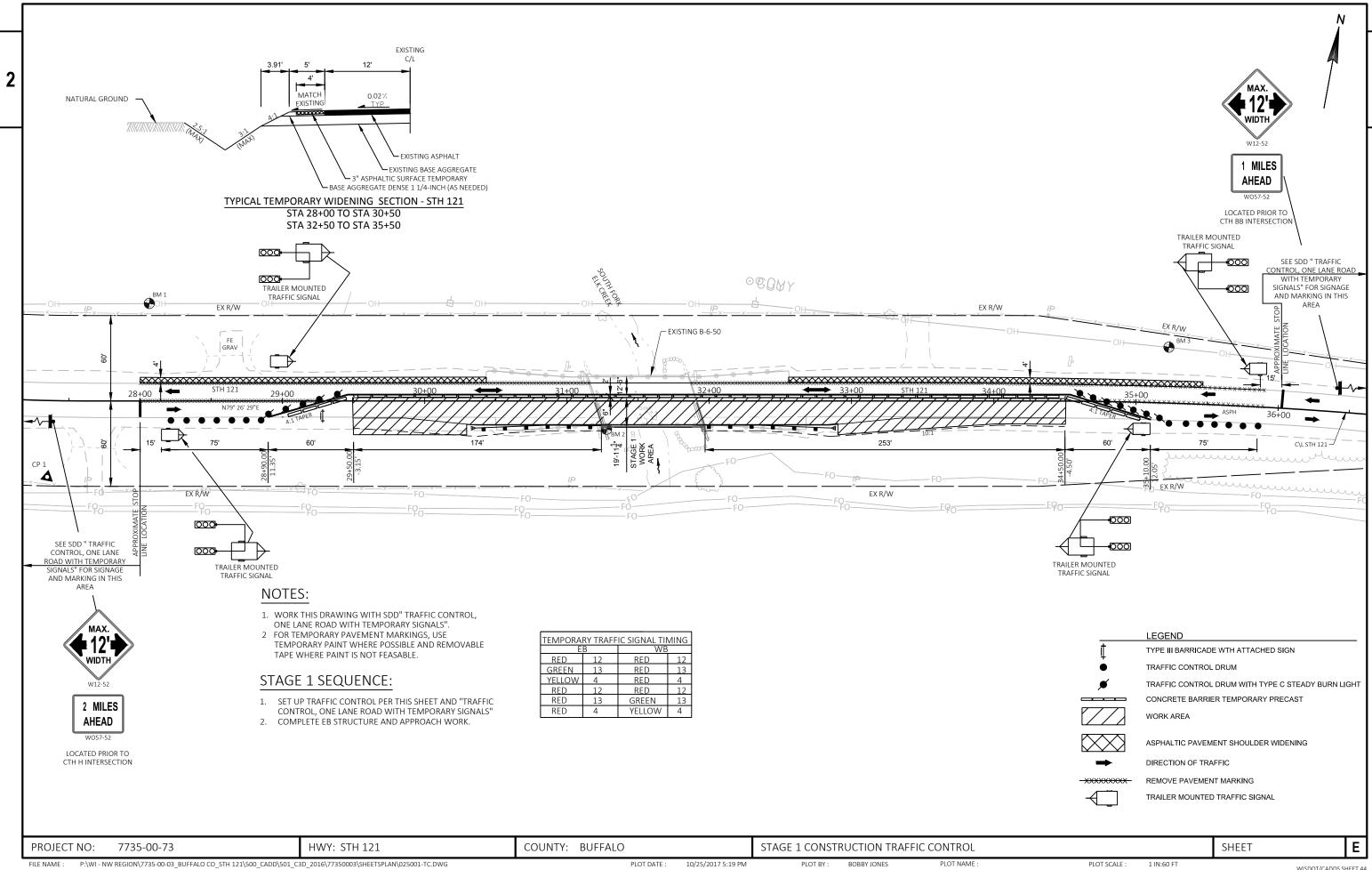
TYPICAL DRIVEWAY PROFILES

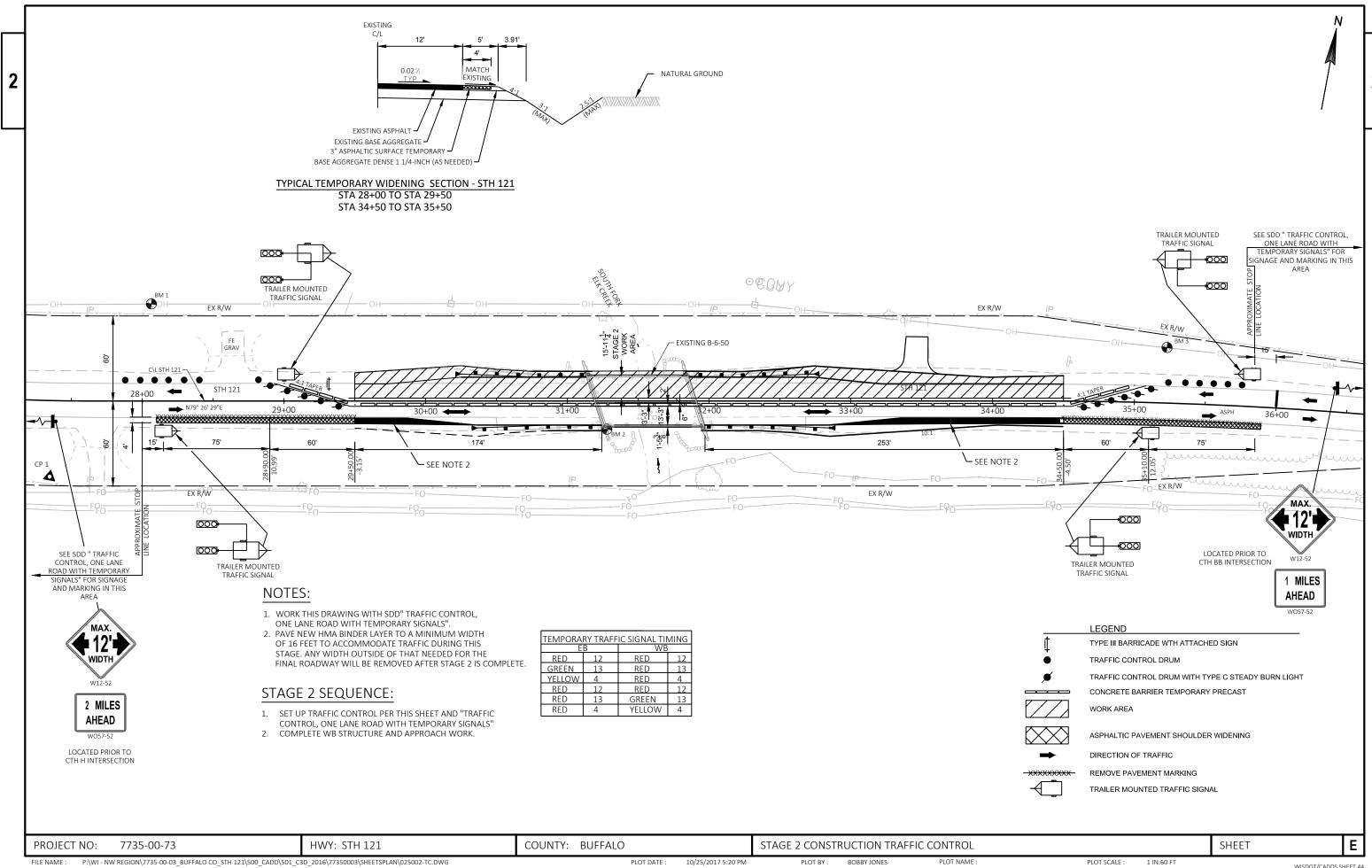


HALF TYPICAL FINISHED BEAMGUARD SECTION

Ε PROJECT NO: 7735-00-73 HWY: STH 121 COUNTY: BUFFALO CONSTRUCTION DETAIL SHEET FILE NAME :







LAYOUT NAME - 025002-tc

					7735-00-73
Line	Item	Item Description	Unit	Total	Qty
0002	203.0210.S	Abatement of Asbestos Containing Material (structure)	LS	1.000	1.000
2224		01. B-06-0050		4.000	
0004	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 31+50	LS	1.000	1.000
0006	204.0110	Removing Asphaltic Surface	SY	356.000	356.000
8000	204.0165	Removing Guardrail	LF	276.000	276.000
0010	205.0100	Excavation Common	CY	756.000	756.000
0012	208.0100	Borrow	CY	20.000	20.000
0014	213.0100	Finishing Roadway (project) 01. 7735-00-73	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	156.000	156.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	951.000	951.000
0020	455.0605	Tack Coat	GAL	70.000	70.000
0022	465.0105	Asphaltic Surface	TON	316.000	316.000
0024	465.0125	Asphaltic Surface Temporary	TON	70.000	70.000
0026	502.0100	Concrete Masonry Bridges	CY	95.000	95.000
0028	502.3200	Protective Surface Treatment	SY	270.000	270.000
0030	502.3210	Pigmented Surface Sealer	SY	60.000	60.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,880.000	17,880.000
0034	506.4000	Steel Diaphragms (structure) 01. B-06-0050	EACH	3.000	3.000
0034	603.8000	Concrete Barrier Temporary Precast Delivered	LF	600.000	600.000
0038	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,200.000	1,200.000
0030	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0040	614.0130	Crash Cushions Temporary	EACH	4.000	4.000
0042	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0044	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0048	618.0100	Maintenance And Repair of Haul Roads (project) 01.	EACH	1.000	1.000
0040	010.0100	7735-00-73	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	10.000	10.000
0054	625.0500	Salvaged Topsoil	SY	1,560.000	1,560.000
0056	627.0200	Mulching	SY	1,560.000	1,560.000
0058	628.1504	Silt Fence	LF	860.000	860.000
0060	628.1520	Silt Fence Maintenance	LF	860.000	860.000
	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0062					
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0066	628.2004	Erosion Mat Class I Type B	SY	500.000	500.000
0068	629.0210	Fertilizer Type B	CWT	1.200	1.200
0070	630.0120	Seeding Mixture No. 20	LB	52.000	52.000
0072	630.0200	Seeding Temporary	LB	52.000	52.000
0074	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000

Page 2

					7735-00-73
Line	Item	Item Description	Unit	Total	Qty
0076	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000
0078	637.2210	Signs Type II Reflective H	SF	26.000	26.000
0800	637.2230	Signs Type II Reflective F	SF	23.120	23.120
0082	638.2102	Moving Signs Type II	EACH	1.000	1.000
0084	638.2602	Removing Signs Type II	EACH	6.000	6.000
0086	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
8800	642.5001	Field Office Type B	EACH	1.000	1.000
0090	643.0300	Traffic Control Drums	DAY	1,700.000	1,700.000
0092	643.0420	Traffic Control Barricades Type III	DAY	85.000	85.000
0094	643.0715	Traffic Control Warning Lights Type C	DAY	850.000	850.000
0096	643.0900	Traffic Control Signs	DAY	2,040.000	2,040.000
0098	643.5000	Traffic Control	EACH	1.000	1.000
0100	646.1020	Marking Line Epoxy 4-Inch	LF	2,600.000	2,600.000
0102	646.9000	Marking Removal Line 4-Inch	LF	1,480.000	1,480.000
0104	649.0105	Temporary Marking Line Paint 4-Inch	LF	500.000	500.000
0106	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	3,200.000	3,200.000
0108	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	22.000	22.000
0110	650.4500	Construction Staking Subgrade	LF	430.000	430.000
0112	650.5000	Construction Staking Base	LF	430.000	430.000
0114	650.6500	Construction Staking Structure Layout (structure) 01. B-06-0050	LS	1.000	1.000
0116	650.9910	Construction Staking Supplemental Control (project) 01. 7735-00-73	LS	1.000	1.000
0118	650.9920	Construction Staking Slope Stakes	LF	430.000	430.000
0120	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-06-0050	LS	1.000	1.000
0122	690.0150	Sawing Asphalt	LF	295.000	295.000
0124	715.0502	Incentive Strength Concrete Structures	DOL	570.000	570.000
0126	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0128	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000

Estimate Of Quantities

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1	٠	ı	,

Stage	From/To Station	Location	Common	.0100 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)				Factor 1.25			
1	29+50 - 31+25	RT	157	0	12	145	27	34	111	111	0
1	32+00 - 34+50	RT	221	0	17	204	124	155	49	49	0
Stage 1 Subtotal			378	0	29	349	151	189		160	0
2	29+50 - 31+15	LT	122	0	11	111	44	55	56	56	0
2	31+90 - 34+50	LT	256	0	18	238	4	5	233	233	0
Stage 2 Subtotal			378	0	29	349	48	60		289	0
Undistributed											20
Grand Total			756	0	58	698	199	249		449	20
	Total Comm	on Exc	7	7 56							

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 Borrow material.
- (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 Stage.

REMOVING GUARDRAIL

204.016	ວ	
REMOVING F	ENCE	

STATION	TO	STATION	LOCATION	LF
CATEGORY C	CODE	E 0010		
30+58	-	31+26	RT	68
31+97	-	32+67	RT	70
30+44	-	31+15	LT	71
31+85	-	32+52	LT	67
			TOTALS	276

FINISHING ROADWAY (7735-00-73)

TOTALS

BASE AGGREGATE DENSE

		305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH
STATION - STATION	LOCATION	TON	TON
CATEGORY CODE 0010			
29+50 - 30+36.26	RT	10	89
30+36.26 - 31+25.66	RT	8	96
31+95.86 - 32+85.26	RT	8	101
32+85.26 - 34+50	RT	19	165
29+50 - 30+24.74	LT	8	78
30+24.74 - 31+14.14	LT	8	101
31+84.54 - 32+73.94	LT	8	96
32+73.94 - 34+50	LT	20	175
33+46.69	DRIVEWAY	17	-
Temporary Widening	-	50	50
	TOTALS	: 156	951

REMOVING ASPHALTIC SURFACE

204.0110 REMOVING ASPHALTIC SURFACE

STATION	10	STATION	LOCATION	Sï	COMMENTS
CATEGORY	COD	E 0010			
28+00	-	29+50	LT	67	TEMP. WIDENING
34+50	-	35+50	LT	44	TEMP. WIDENING
28+00	-	30+36	RT	105	TEMP. WIDENING
32+85	-	36+00	RT	140	TEMP. WIDENING

TOTALS 356

PROJECT NO: 7735-00-73 HWY: STH 121 COUNTY: BUFFALO MISCELLANEOUS QUANTITIES SHEET NO: E

FILE NAME : PLOT DATE : _11/2/2017 PLOT BY : _CORRE INC. PLOT NAME : _____ PLOT NAME : _____

				LANDSCA	PING ITEMS													
STATION - S		625.0500 SALVAGEL TOPSOIL ION SY		628.2004 EROSION MAT CLASS I TYPE E SY		630.0120 SEED MIX NO. 20 LBS	630.0200 SEED TEMPORARY LBS	628.1905 MOBILIZATION EROSION CONTROI EACH	628.19 EMERGE MOBILIZA L EROSION CO EAC	ENCY ATION ONTROL			STATION L		614.2500 THRIE BEAM TRANSITION LF	614.2610 TERMINAL EAT EACH	MOBIL! CATEGORY	2ATION 619.1000 EACH
31+90 - 29+50 -	31+20 RT 34+50 RT 31+20 LT 34+50 LT	275 668 209 408	275 668 209 408	- - - - 500	0.2 0.5 0.2 0.3	10 21 8 14	10 21 8 14	 2	 2		30 30 31 32 30	EGORY CO 0+36.26 - 0+86.26 - +95.86 - 0+35.26 - 0+24.74 - 0+74.74 -	30+86.26 31+25.66 32+35.26 32+85.26 30+74.74	RT RT RT RT LT LT	- 39 39 - - 39	1 - - 1 1	0010 0020 TOT	
	тот	ALS 1,560	1,560	500	1.2	52	52	2	2		31	+84.84 - 2+23.94 -	32+23.94	LT LT	39 -	- 1	LOCATION	624.0100 MGAL
	- STATION	LOCATION	455.0605 TACK COAT GAL	T ITEMS 465.0105 ASPHALTIC SURFACE TON	465.01 ASPHA SURFACE TEI TON	LTIC Mporary	REMARKS_							TOTALS	156	4	CATEGORY CODE BASE COMPACE	0010
31+89.5 29+50 31+89.5 29+50 31+89.5 Stage 1	- 31+20.5	RT RT LT LT LT/RT LT/RT	- - - - 30 40 -	42 55 35 50 56 78	- - - - - - 45		LOWER LIFT LOWER LIFT LOWER LIFT LOWER LIFT UPPER LIFT		TEMP. PRECA DELIVERED	AST TE	603.8125 NCRETE BARRIE EMP. PRECAST INSTALLED	ER 6° CRASI TEM	14.0905 H CUSHIONS E IPORARY V	RY BARRIER BACK OBJECT WIDTH MARKIN	T CRASH IG TEST	TRAFFIC		CRASH CUSHION
Stage 2		TOTA TOTA TON - STATION DRY CODE 0010	SILT FE	628.1504	25 70 628.1520 MAINTENANC LF			PHASE 1 PHASE 1 PHASE 2 PHASE 2 TOTALS	600 600 600 600		600 600 1,200		1 1 1 1 1	4 OM-3R 4 OM-3L 4 OM-3L 4 OM-3R	R TL-3 UN . TL-3 UN . TL-3 UN	NIDIRECTIONA L NIDIRECTIONA L NIDIRECTIONA L NIDIRECTIONA L NIDIRECTIONA L	RT BLUNT EN RT BLUNT EN	D OF TEMP BARRIER
	29+ 31+ 29+ 31+	90 - 34+50 50 - 31+20	RT RT LT LT TOTALS	170 260 170 260	170 260 170 260	_								SIGNI	NG ITEMS 634.0612 POSTS WOO	634.061 DD POSTS W		637.2230 SIGNS TYPE II
CTATION	LOCATION	SIGN	638.2602 MOVING SIGN TYPE II	SIGN SUP	000 SMALL PORTS	638.2102 MOVING SIGNS	cic			ATEGORY 31+00	LOCATION CODE 0010	SIGN NUMBE	W14-3	SIZE 48" X 36"	4X6X12 EACH	4X6X1 4 EACH	4 REFLECTIVE H SF	SF 5.56
STATION CATEGORY CODE 31+00 31+10 31+20 31+20 31+25 31+90	LT LT RT RT RT LT	1R 2R 3R 3B 4R 5R	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ın .	1 - 1 1	NO PASSINO BRIDGE HAS NO PASSINO LOOKOUT T BRIDGE HAS BRIDGE HAS	SH MARKS G FOWN LIMITS SH MARKS SH MARKS	=	31+00 31+10 31+20 31+25 31+90 32+00 32+15 32+80	RT LT RT RT LT RT LT RT	8 2 3A 4 5 6 7 3B	3-1 W5-52L W14-3 W5-52R W5-52R W5-52L 	12" X 36" 12" X 36" 78" X 24" IGN	1 1 1 1 	2 1 2 1	13.00 13.00	3.00 5.56 3.00 3.00 3.00
PROJECT NO	TOTALS: 773	6R 5-00-73	6	7	HWY: STI	1 1 121	BRIDGE HAS	COUNTY:	BUFFAL	.0		MI	SCELLAN	TOTALS		7	SHEET NO:	23.12

TRA	FF	IC	CON	TROL	. ITEMS
-----	----	----	-----	------	---------

		.0300 JMS	BARRI	0420 CADES PE III	WAF	.0715 RNING GHTS PE C		0900 GNS
LOCATION	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
CATEGORY CODE 0010								
STAGE 1 STAGE 2	20 20	840 860	1 1	42 43	10 10	420 430	24 24	1,008 1,032
TOTALS		1,700		85		850		2,040

FIELD OFFICE TYPE B

		642.5001
STATION TO STATION	LOCATION	EACH
CATEGORY CODE 0010		
STH 121		1
	TOTALS	1

MARKING LINE ITEMS

646.102
MARKING LINE EPOXY
4-INCH

				WHITE	YELLOW	
STATION	۱ -	STATION	LOCATION	LF	LF	REMARKS
CATEGORY	CC	DE 0010				
28+00	-	31+20	CL		400	WESTBOUND NO PASS / EASTBOUND PASS
31+20	-	36+00	CL		600	WESTBOUND PASS / EASTBOUND NO PASS
28+00	_	36+00	EDGELINE	1.600		

TOTALS 1,600 1,000 2,600

TEMPORARY MARKING LINE ITEMS

CTATION CTATION		649.0850 STOP LINE REMOVEABLE TAPE 18-INCH	649.0105 MARKING LINE PAINT 4-INCH	649.0150 MARKING LINE REMOVEABLE TAPE 4-INCH
STATION - STATION	LOCATION	LF	LF	<u>LF</u>
CATEGORY CODE 0010				
STAGE 1 STAGE 2		22 -	500 -	1,800 1,400
	TOTAL	.S 22	500	3,200

SAWING PAVEMENT ITEMS

690.0150 **ASPHALT** STATION LOCATION LF CATEGORY CODE 0010 29+50 STH 121 22 34+50 STH 121 22 29+50 - 30+36 RT 86 32+85 - 34+50 RT 165 **TOTALS** 295

MARKING REMOVAL LINE

				646.9000 4-INCH
STATION	-	STATION	LOCATION	LF
CATEGORY	C	ODE 0010		
28+00	-	29+50	CENTERLINE	190
34+50	-	36+00	CENTERLINE	190
28+00	-	36+00	LT EDGE LINE	800
28+00	-	29+50	RT EDGE LINE	150
34+50	-	36+00	RT EDGE LINE	150
			TOTALS	1,480

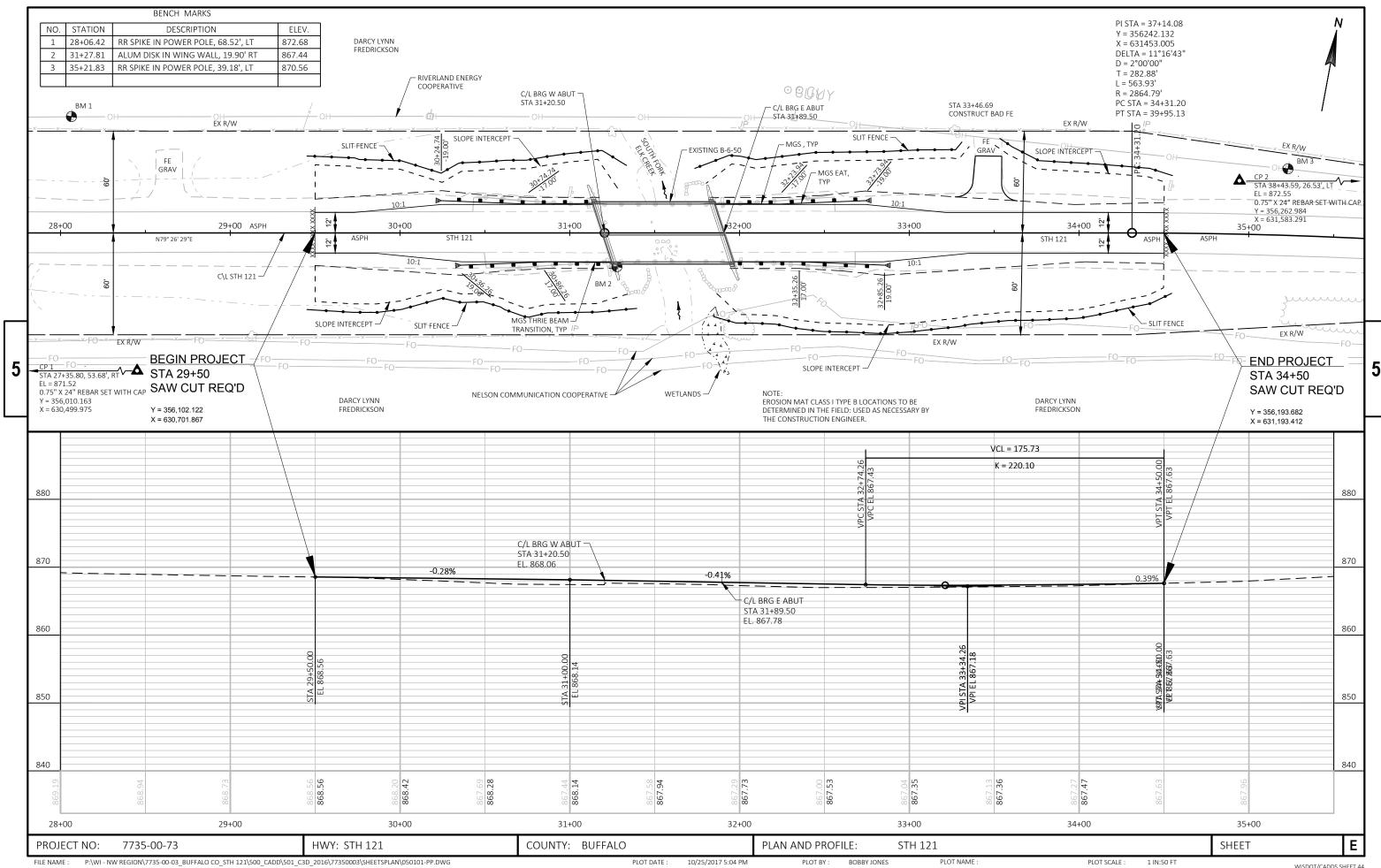
TEMPORARY TRAFFIC SIGNALS FOR BRIDGES

	661.0100 B-05-0050	
LOCATION	LS	
CATEGORY CODE 0010		
STH 121	1	
TOTALS	1	

CONSTRUCTION STAKING ITEMS

				CAT 0020		
		650.4500 STAKING SUBGRADE	650.5000 STAKING BASE	650.6500 STRUCTURE LAYOUT	650.9910 SUPPLEMENTAL CONTROL	650.9920 SLOPE STAKES
STATION - STATION	LOCATION	LF	LF	LS	LS	LF
CATEGORY CODE 0010						
29+50 - 31+20	MAINLINE	170	170	1	1	170
31+90 - 34+50	MAINLINE	260	260			260
	TOTALS	430	430	1	1	430

PROJECT NO: 7735-00-73 HWY: STH 121 COUNTY: BUFFALO MISCELLANEOUS QUANTITIES SHEET NO: E



Standard Detail Drawing List

08E09-06	SILT FENCE
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B42-05A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-03A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-03B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-03C	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)
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

TYPICAL APPLICATION OF SILT FENCE

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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.

- \bigcirc 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 11/8" X 11/8" 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 TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

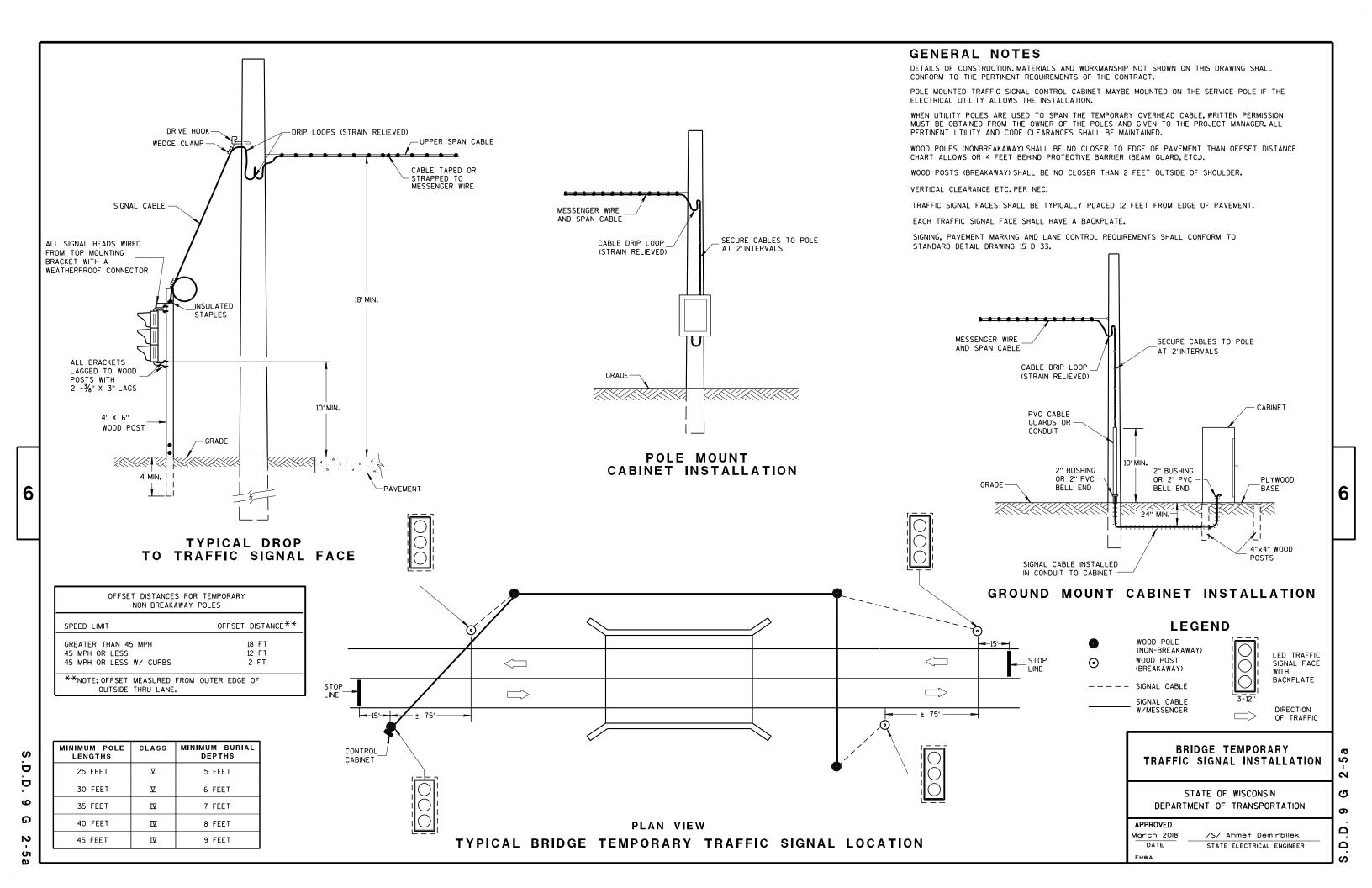
APPROVED
4-29-05 /S/ Beth Cannestra

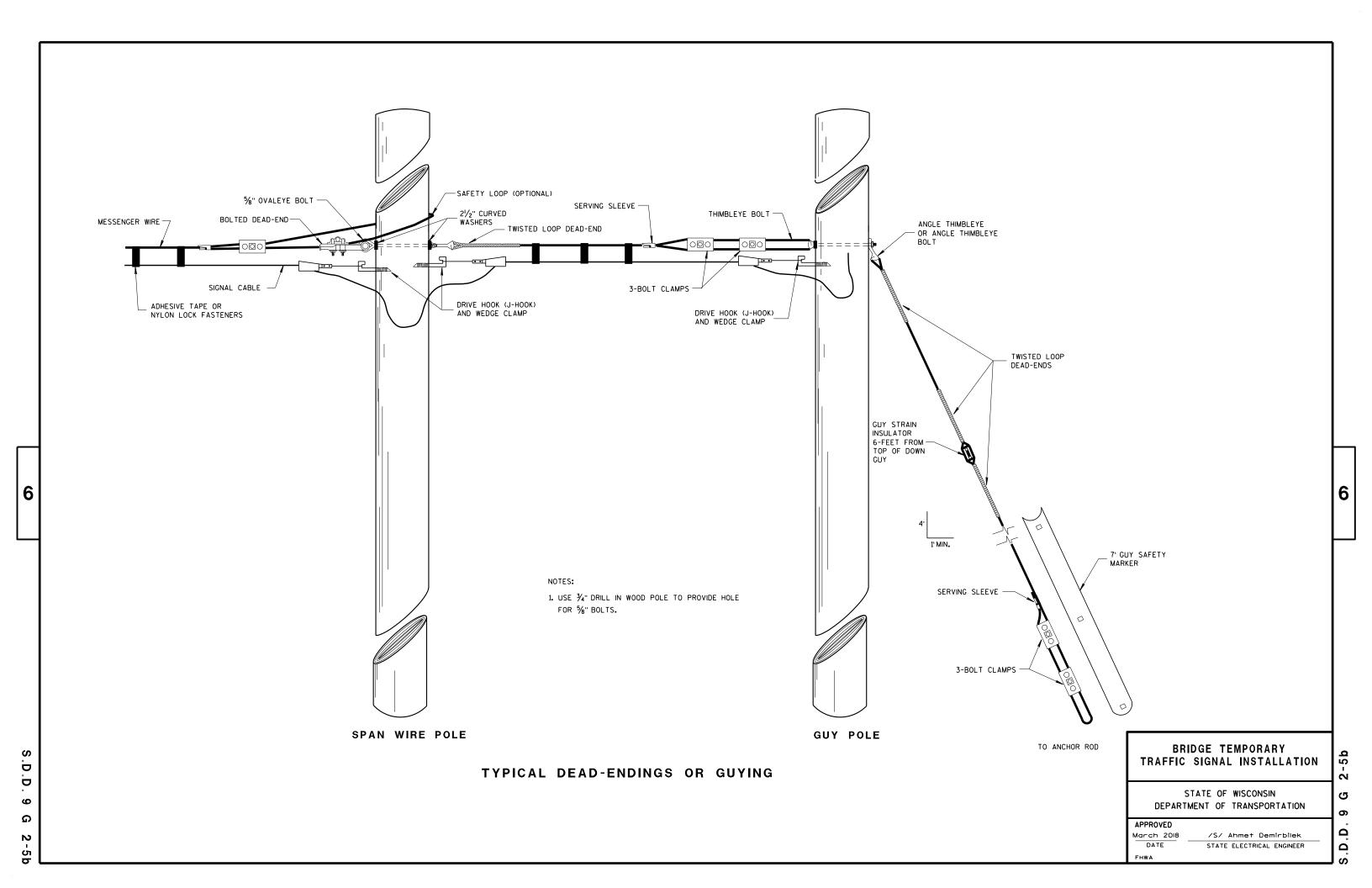
29-05 /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

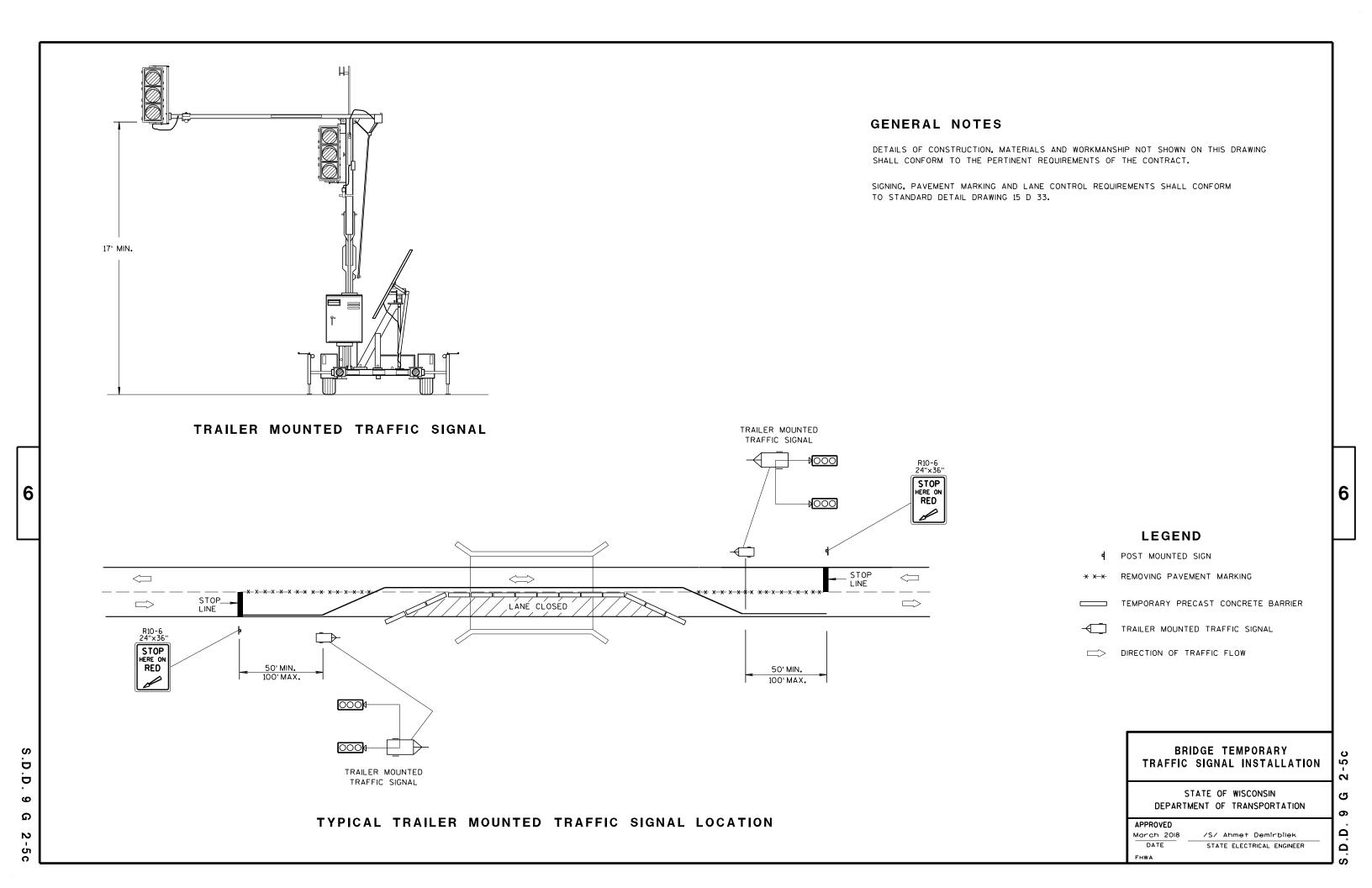
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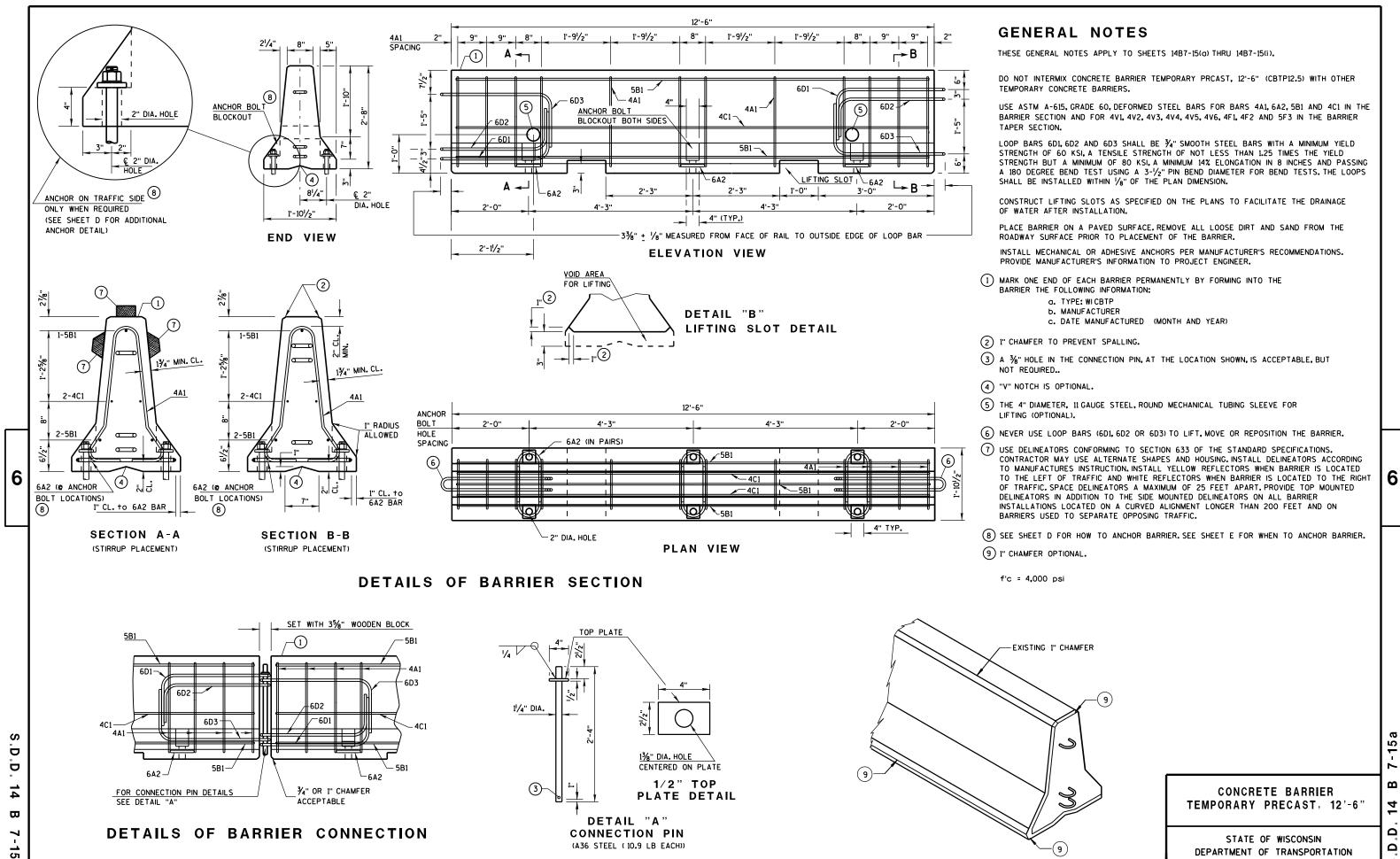
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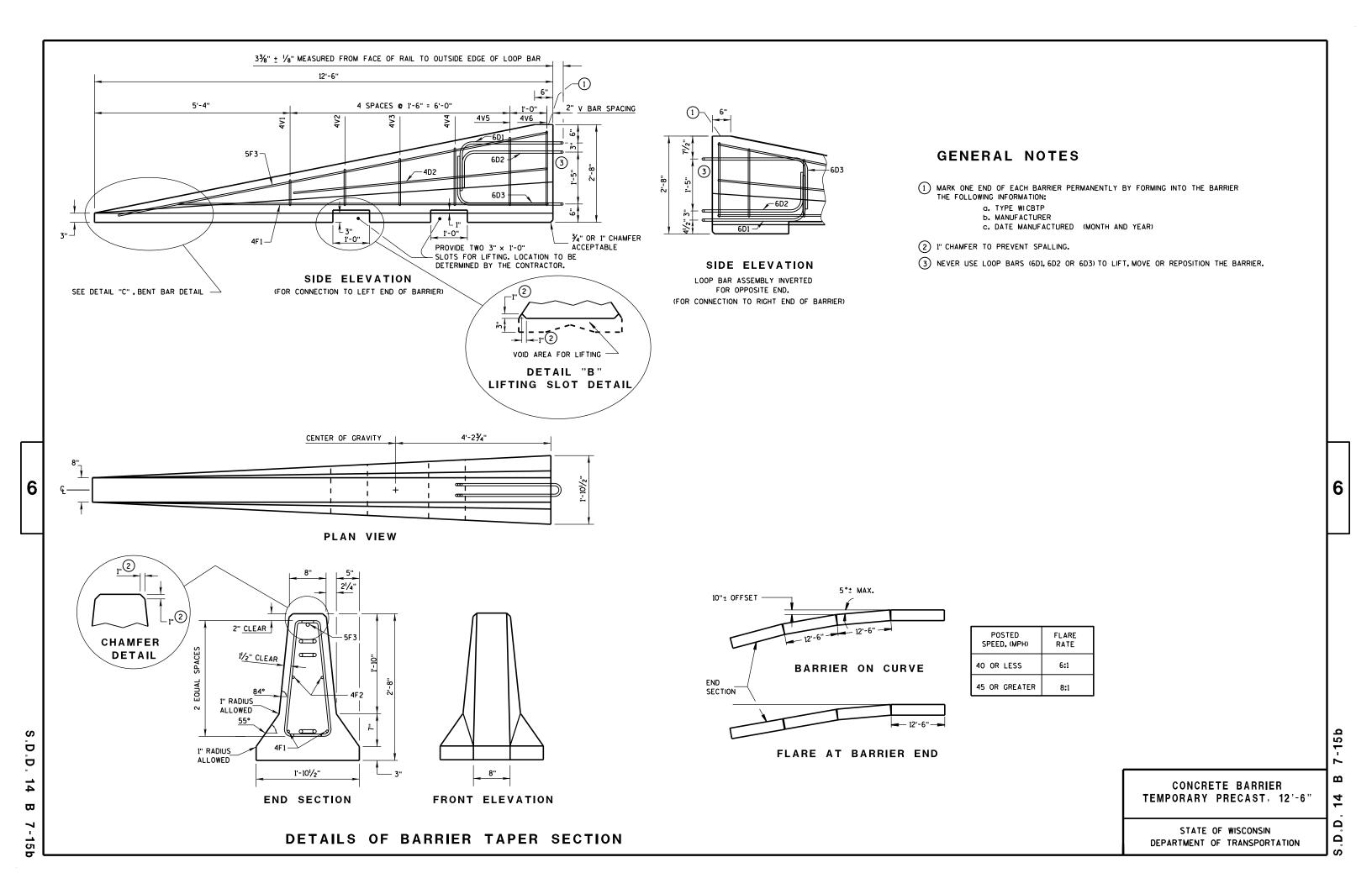






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DEPARTMENT OF TRANSPORTATION

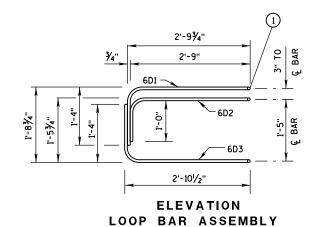


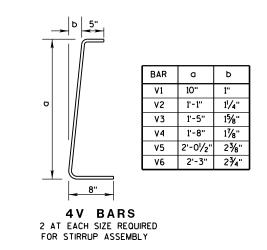
1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

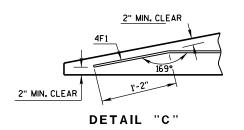
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

	WENTE O BANNEN TATEN SECTION					
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.			
4V1	4	2	1'-11"			
4V2	4	2	2'-2"			
4٧3	4	2	2'-6"			
4V4	4	2	2'-9"			
4V5	4	2	3'-2"			
4V6	4	2	3'-4"			
4F1	4	2	12'-0"			
4F2	4	2	7'-6"			
5F3	5	1	11'-9"			
L	LOOP ASSEMBLY					
6D1	6	1	8'-5"			
6D2	6	1	7'-7"			
6D3	6	1	8'-6"			
		•	•			





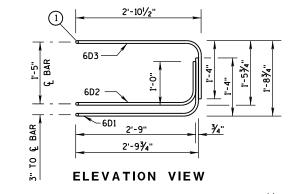


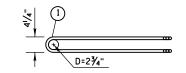
BENT BAR DETAIL

TAPER BARRIER SECTION



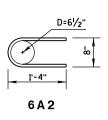
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
L	OOP AS	SSEMBL	Υ
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

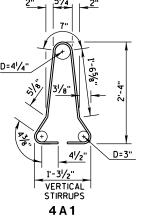




PLAN VIEW LOOP BAR ASSEMBLY

(MARKED END SHOWN, INVERT FOR OTHER END)





BARRIER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

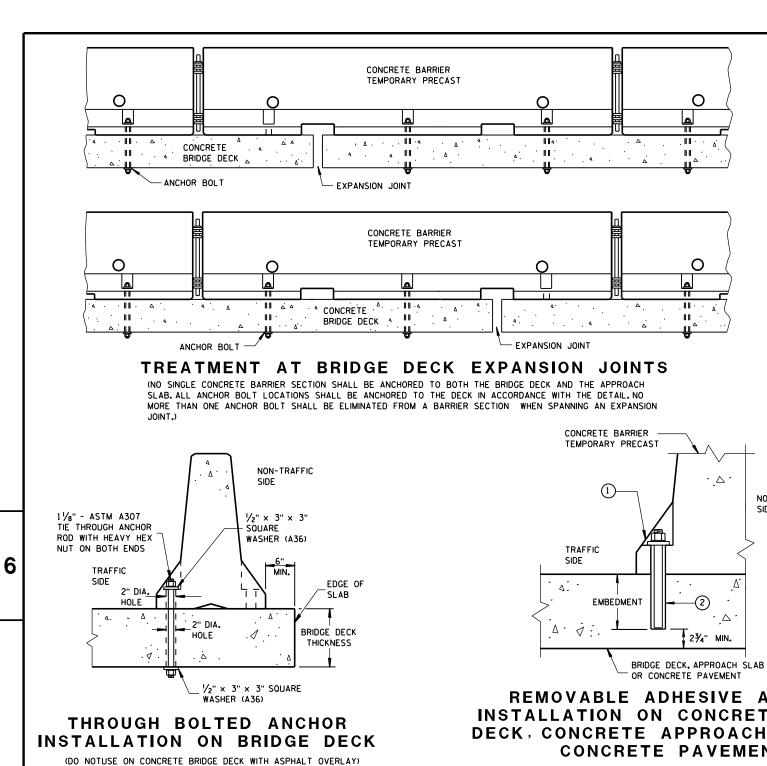
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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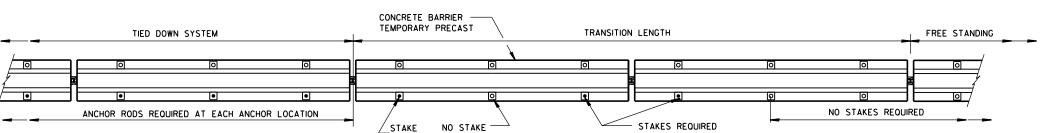
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REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR **CONCRETE PAVEMENT**

NON-TRAFFIC

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



DIRECTION OF TRAFFIC

PLAN VIEW

REQUIRED

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

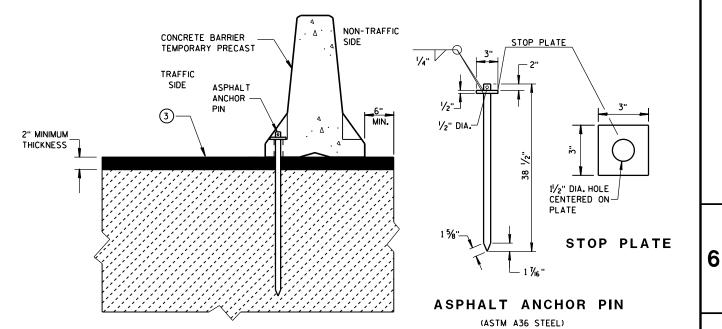
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN,)

GENERAL NOTES

SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

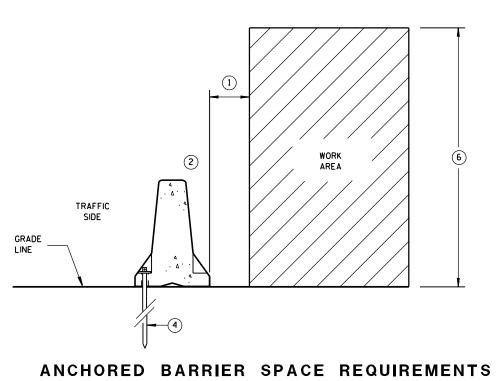
- 1 1/8" DIAMENTER A307 THREADED ROD, 1/2" X 3" X 3" SOUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- 2 ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 51/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- (3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



STAKE DOWN INSTALLATION FOR **ASPHALTIC SURFACE**

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION -15d $\mathbf{\omega}$ Ω



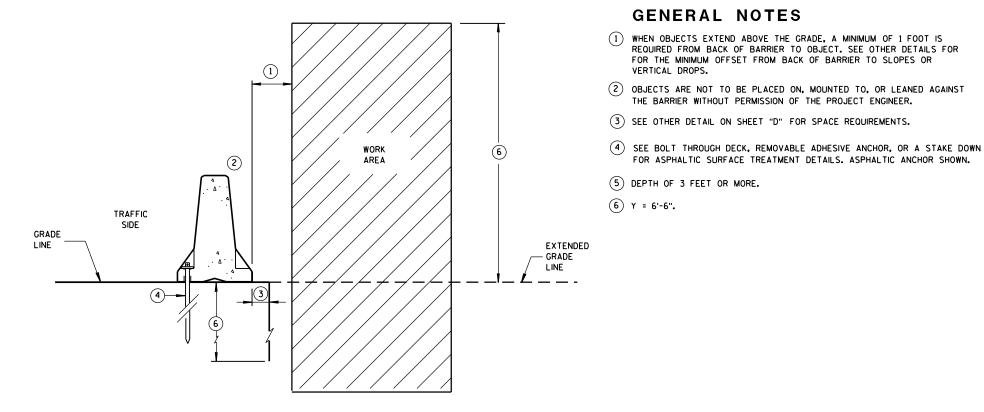
FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

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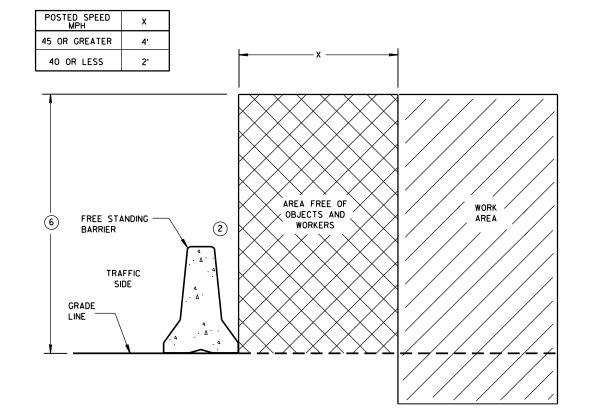
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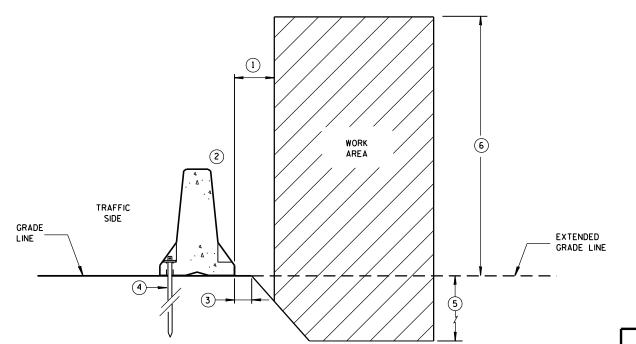
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ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

GENERAL NOTES

FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR

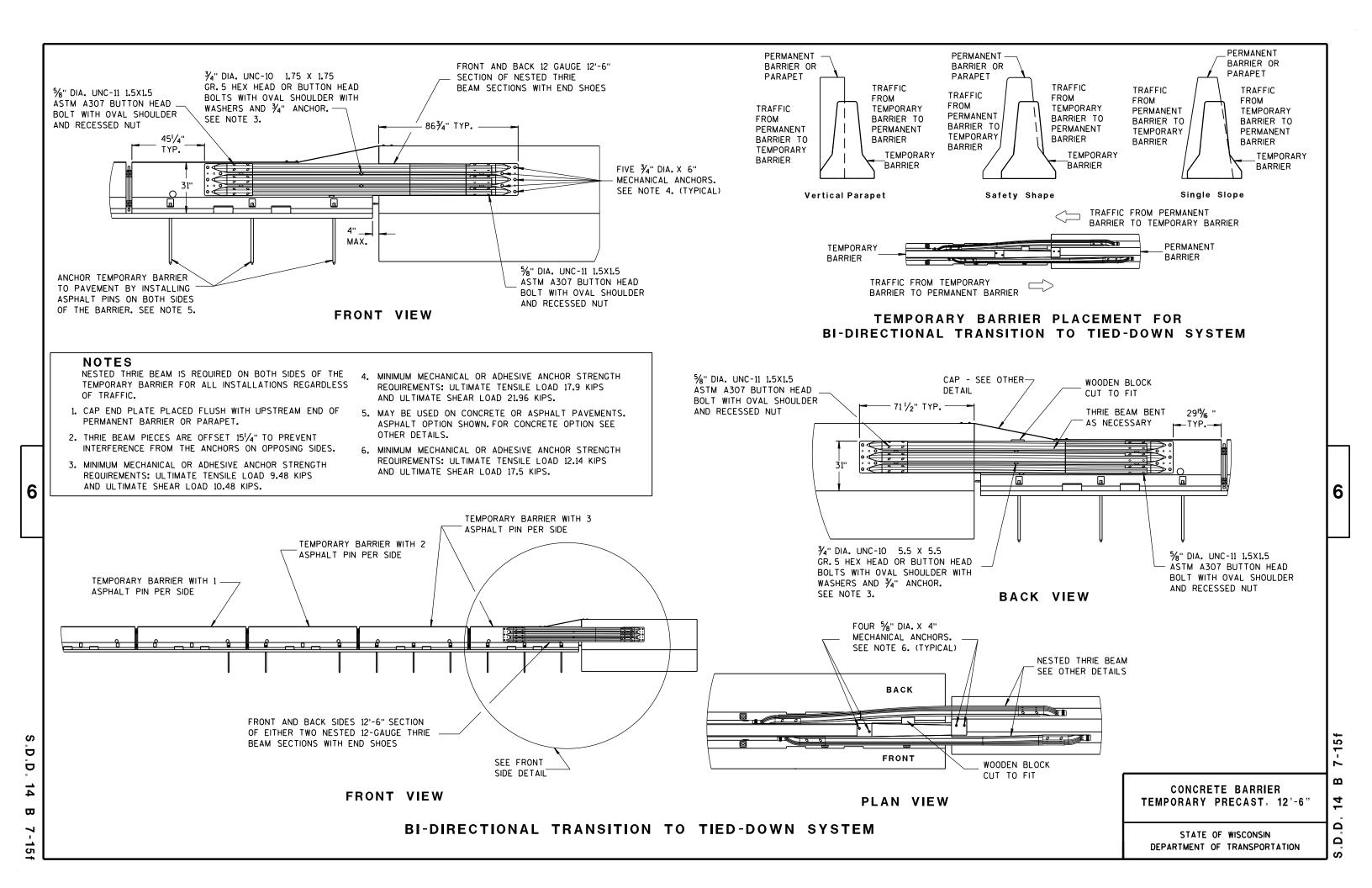
FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.

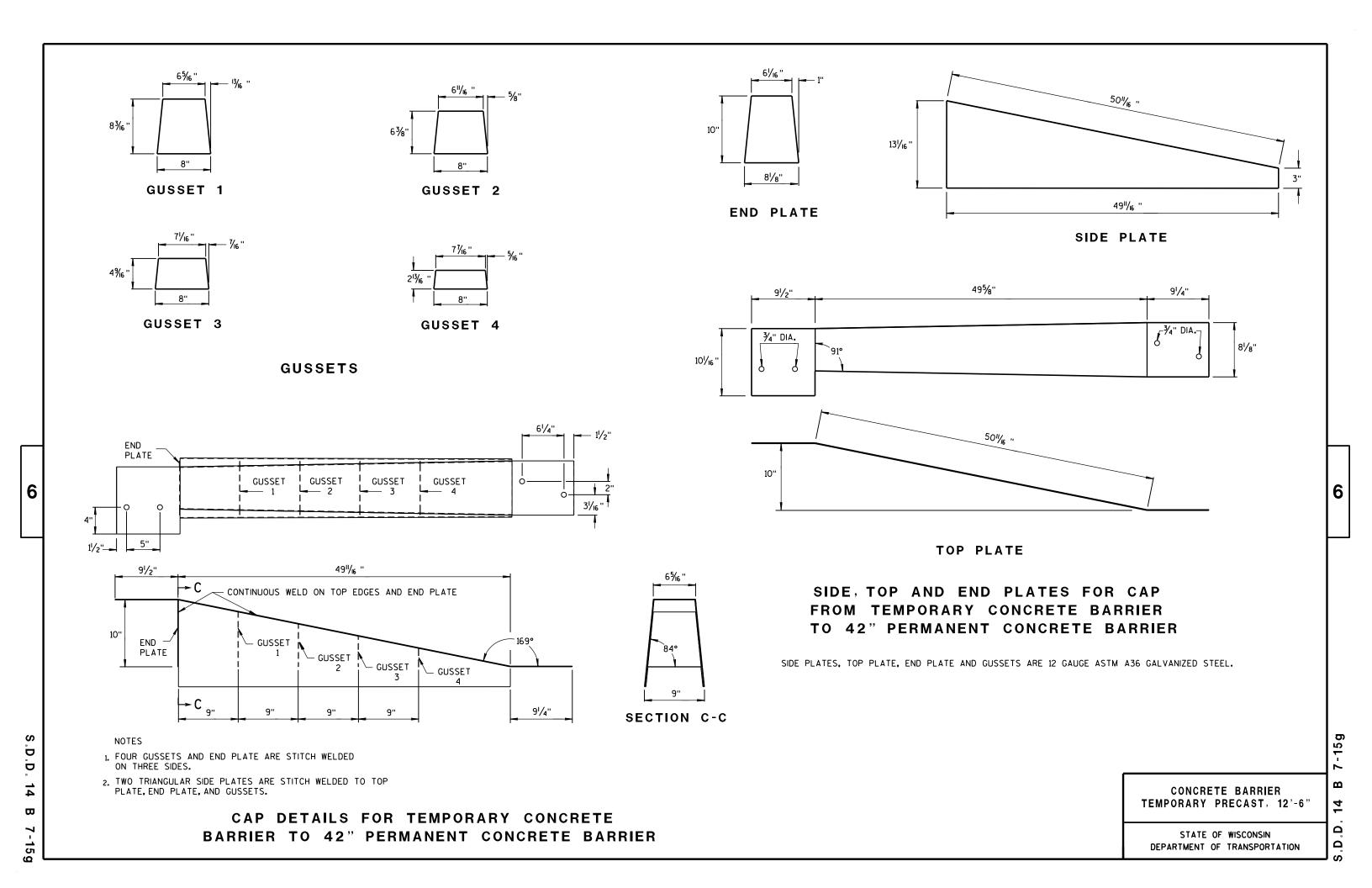
THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.

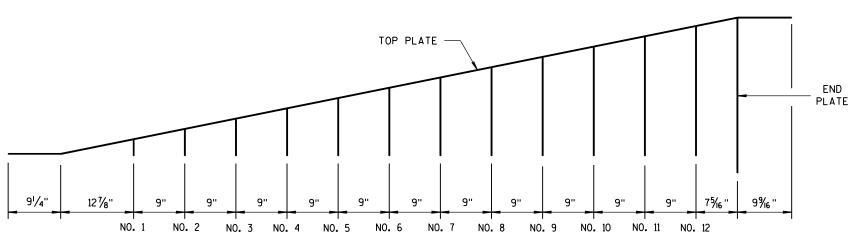
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 6

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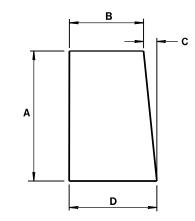




GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE

BARRIER TO 56" PERMANENT CONCRETE BARRIER



GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS							
GUSSET No.	A	В	С	D			
1	21/8"	73/4"	1/4"	8			
2	4"/16 "	7% "	1/2"	8			
3	61/2"	73/8"	11/16 "	81/16"			
4	85/6"	73//6"	7∕8"	81/16 "			
5	101/8"	7''	1 ½ ₆ "	81/16"			
6	11 ¹⁵ / ₁₆ ''	6 ¹³ // ₆ "	1 1/4"	81/16"			
7	13¾"	65%"	1 1/6"	81/16"			
8	15% "	6¾6"	1 % "	81/16"			
9	173/8"	6 ¹ /4"	1 ¹³ / ₁₆ "	8½ ₆ "			
10	193/6"	6½ ₆ "	1 15/16 "	81/16 "			
11	21"	57/8"	23/6"	81/16"			
12	22 ¹³ / ₁₆ "	5 ¹¹ / ₁₆ "	2% "	8½ ₆ "			

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

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

> CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

DEPARTMENT OF TRANSPORTATION

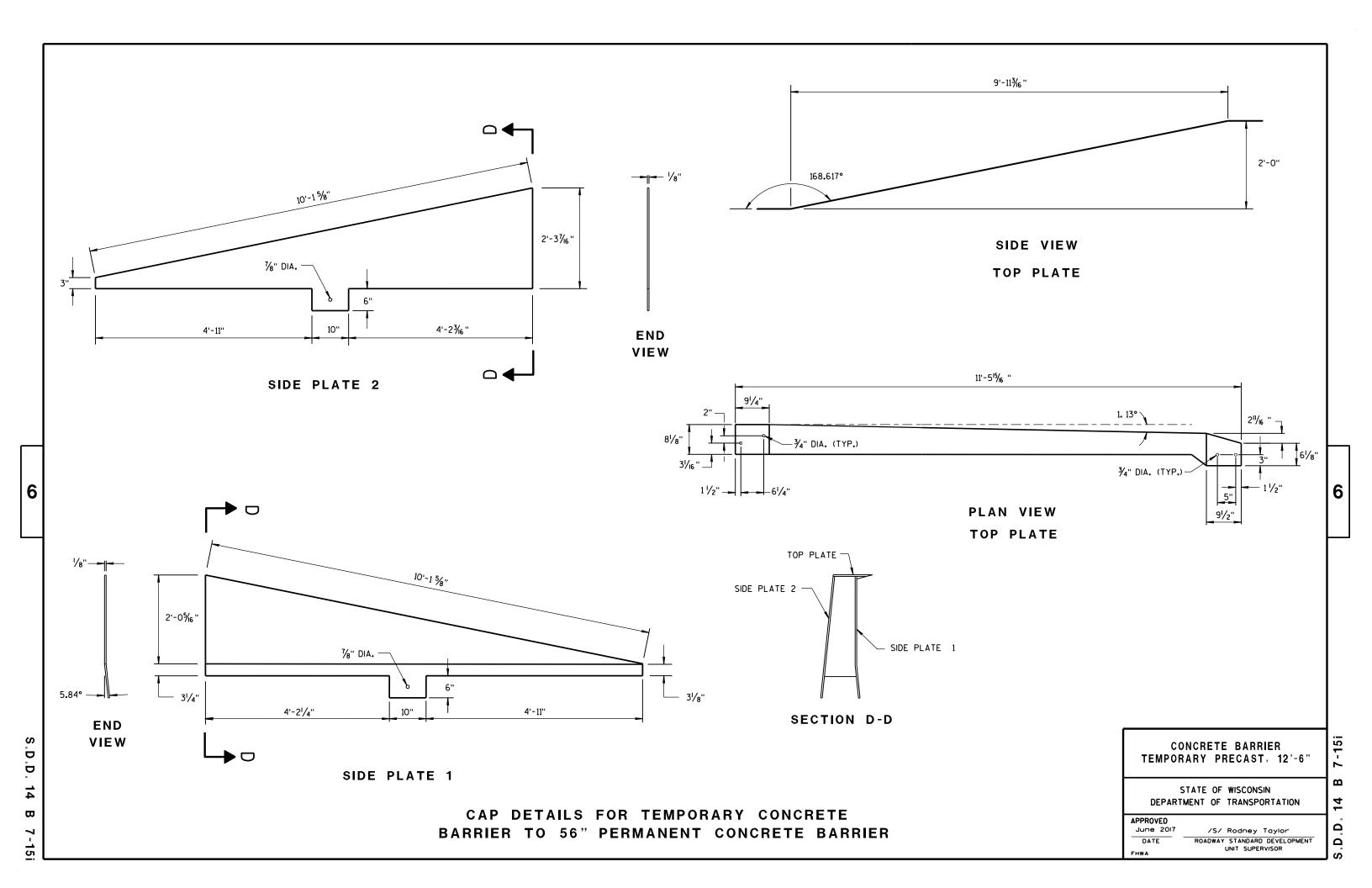
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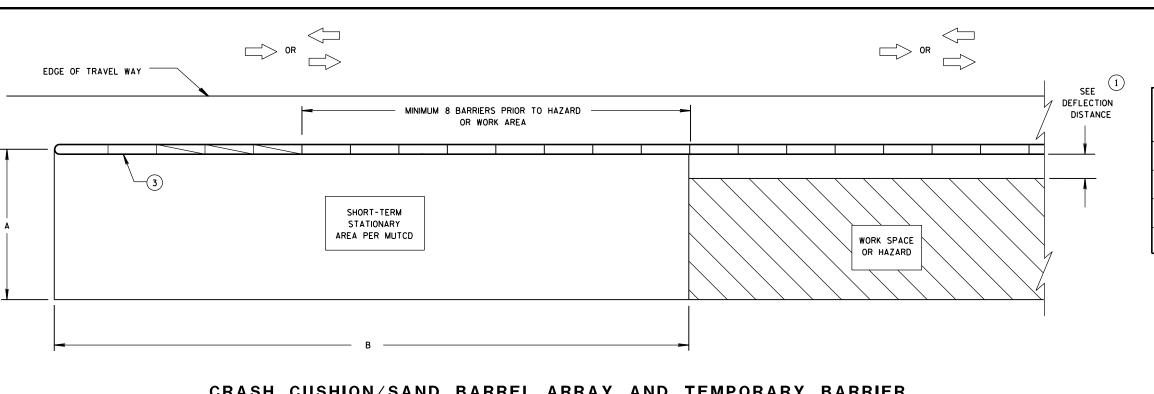
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STATE OF WISCONSIN

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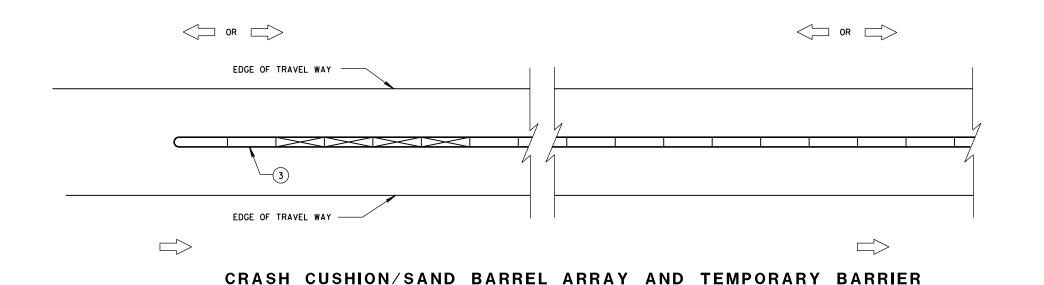
DIMENSION A TABLE (2)

		DIMENSION A		
FACILITY	POSTED SPEED MPH	MIN. FT	MAX. FT	
FREEWAY/EXPRESSWAY	ALL	15	20	
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15	
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10	
AADT LESS THAN 1,500	ALL	8	10	

DIMENSION B TABLE (2)

POSTED	DIMENSION
SPEEDS	В
MPH	FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

LEGEND

PERMANENT CONCRETE BARRIER

GENERAL NOTES

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SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS, DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

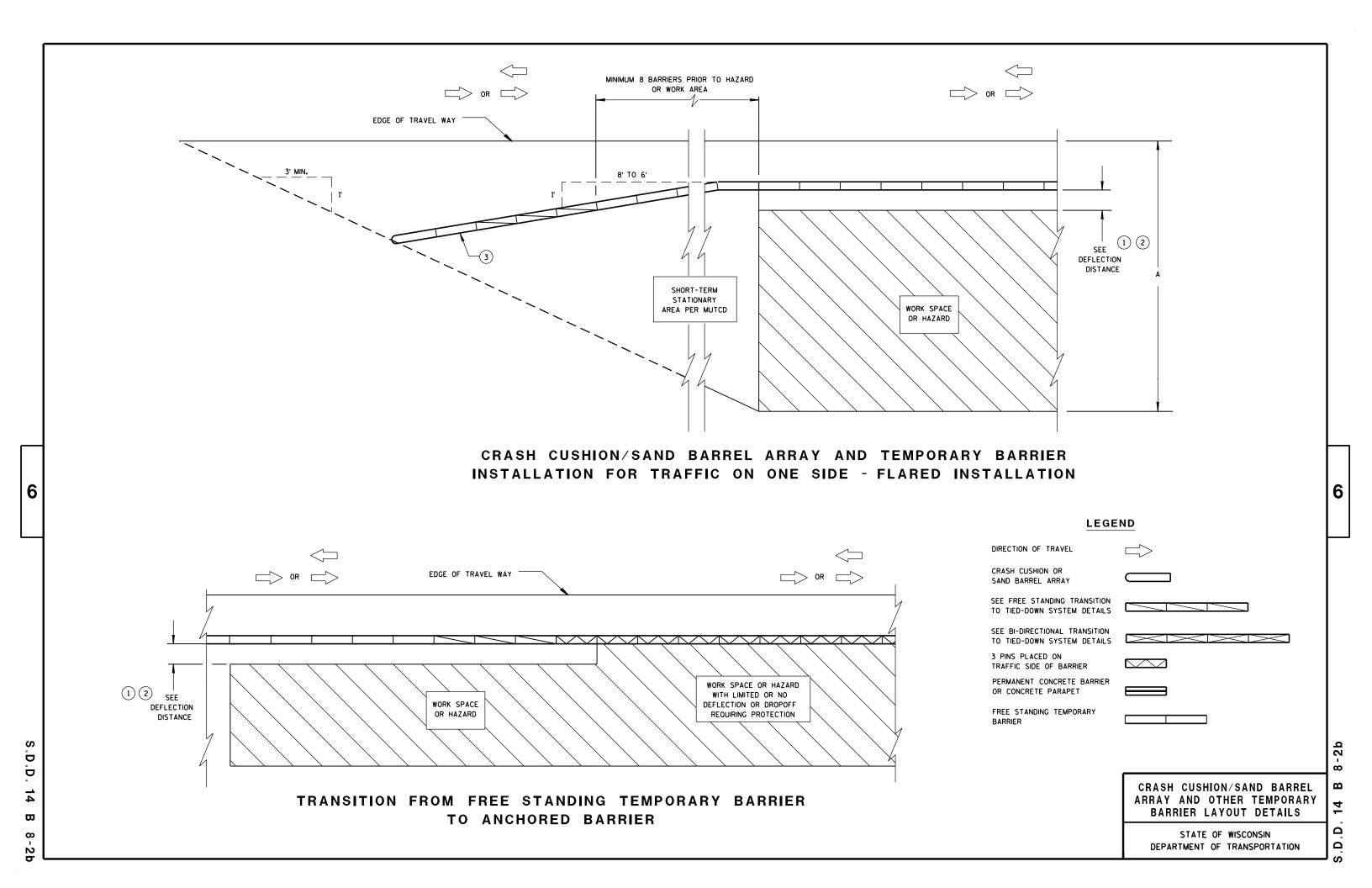
- (1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- (2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- (3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

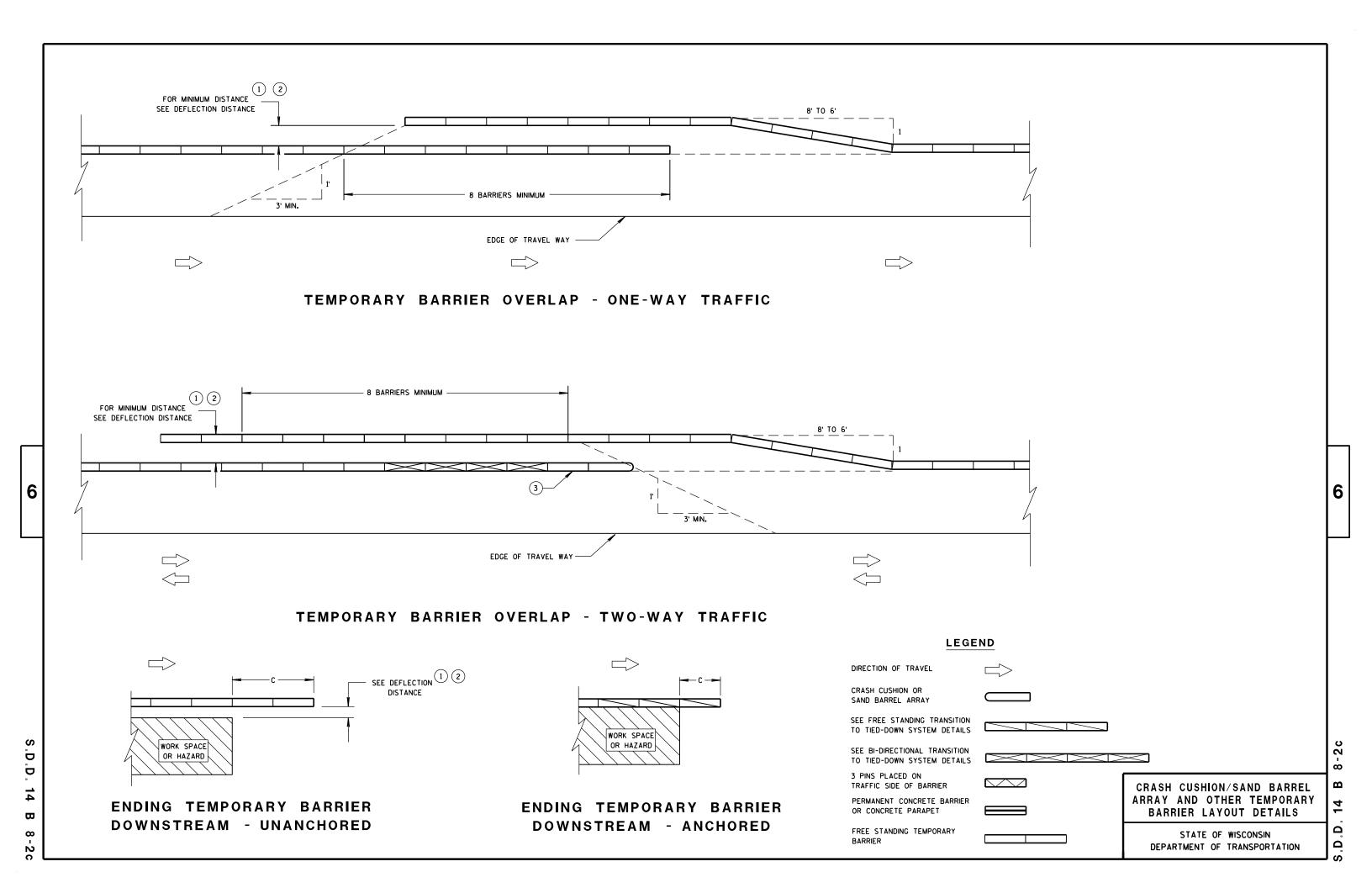
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

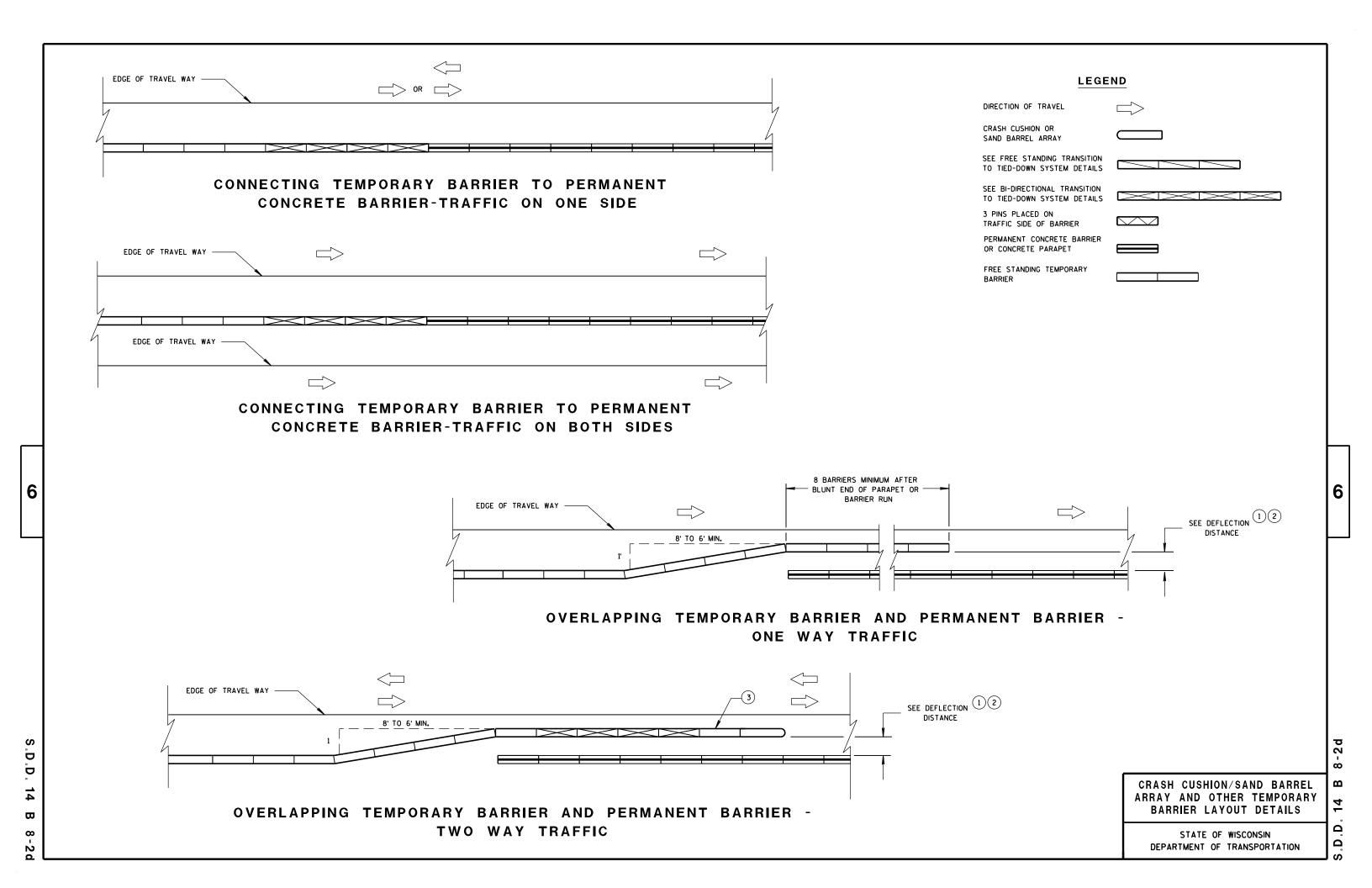
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 6

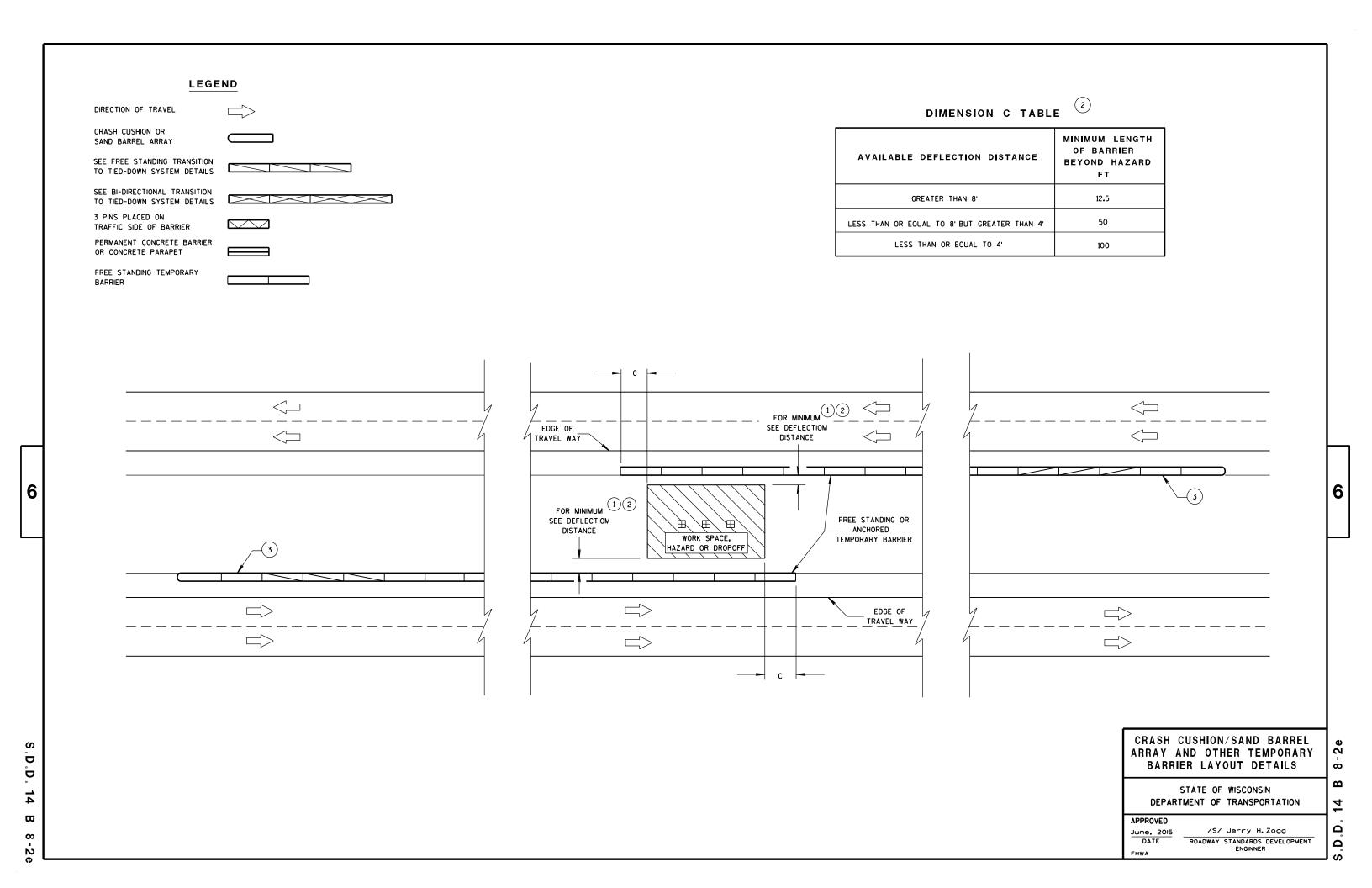
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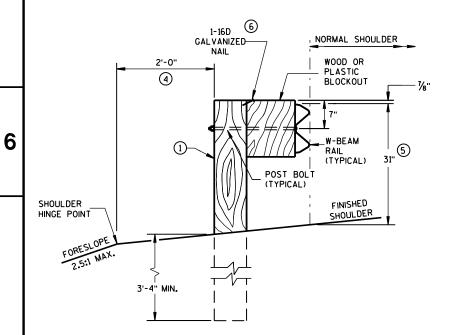






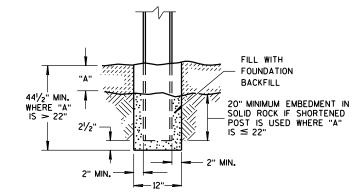


- 2 USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- (3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES 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 273/4" 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.

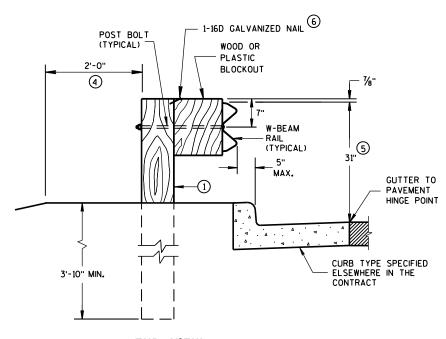


END VIEW

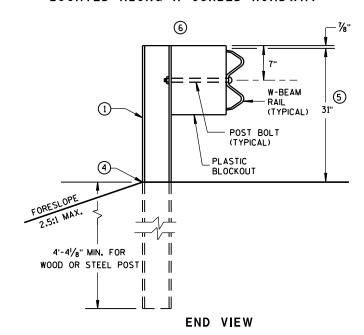
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



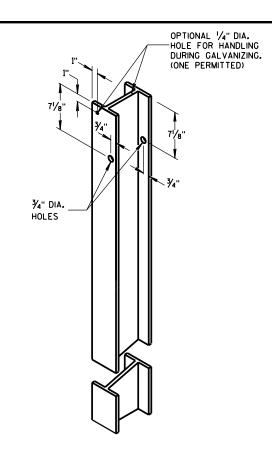
SETTING STEEL OR WOOD POST IN ROCK $^{\scriptsize{\textcircled{3}}}$



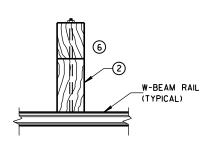
END VIEW
LOCATED ALONG A CURBED ROADWAY



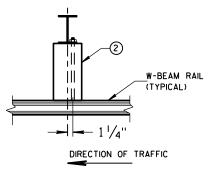
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



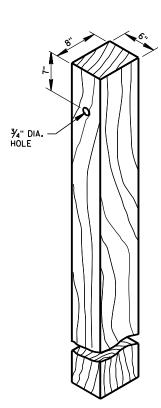
STEEL POST & HOLE PUNCHING DETAIL (w6X9)



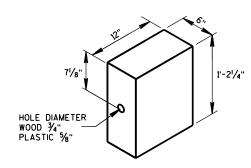
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL



WOOD OR PLASTIC BLOCKOUT

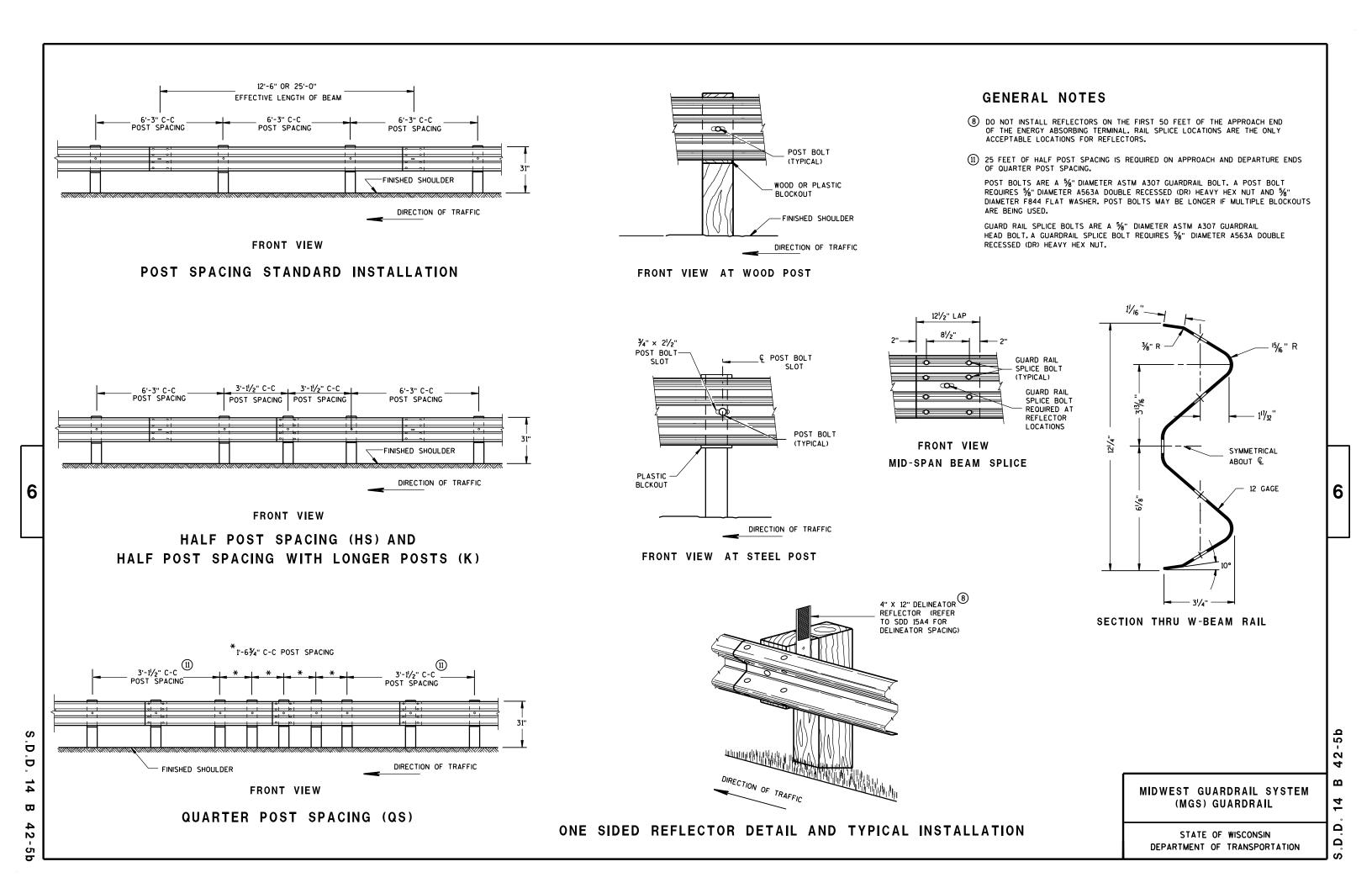
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 42-5

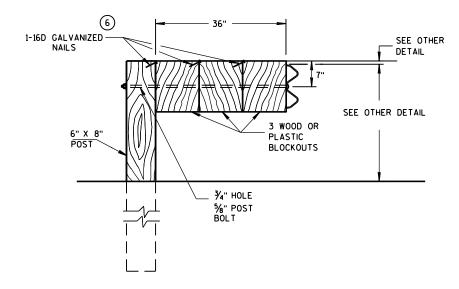
.D.D. 14 B 42

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DETAIL FOR 16" BLOCKOUT DEPTH

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

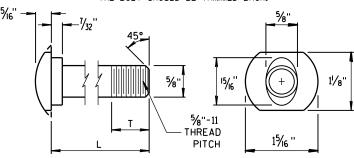


DETAIL FOR 36" BLOCKOUT DEPTH

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

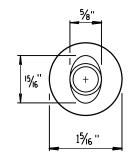
> DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

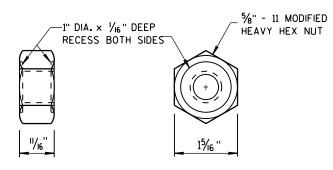


POST BOLT TABLE

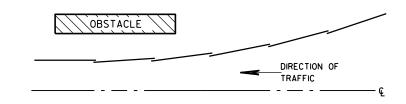
L	T (MIN.)
11/4"	11/8"
2"	13/4"
10"	4"
14"	41/16"
18"	4"
21"	41/16"
25"	4"
25"	4"



ALTERNATE BOLT HEAD

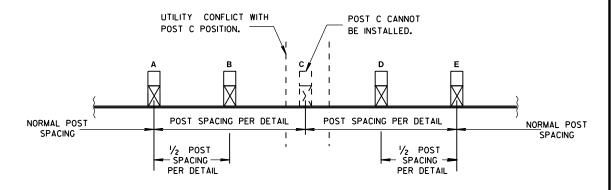


POST BOLT, SPLICE BOLT AND RECESS NUT

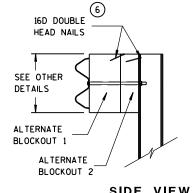


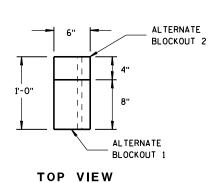
PLAN VIEW

BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

ALTERNATE WOOD **BLOCKOUT DETAIL**

> MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

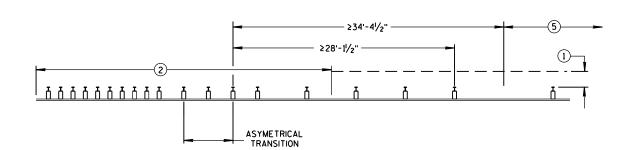
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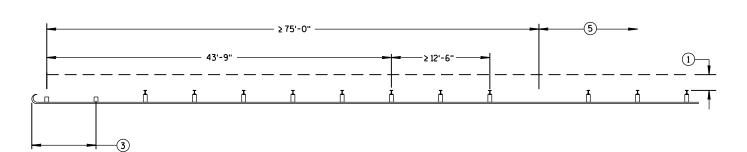
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MISSING POST IN NORMAL BEAM GUARD RUN

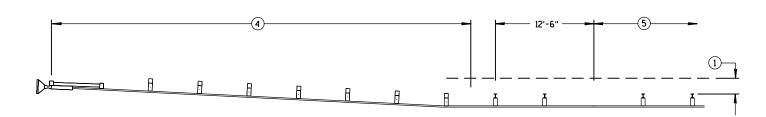


MISSING POST NEAR APPROACH THRIE BEAM TRANSITION

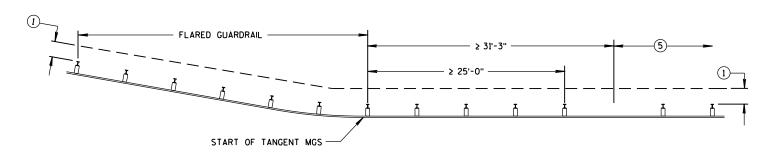


MISSING POST IN NORMAL BEAM GUARD RUN **NEAR TYPE 2 TERMINAL**

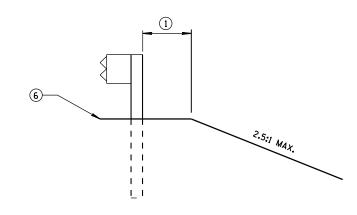
- 1 MINIMUM OF 2 FEET OF GRADING BEHIND POST.
- (2) SEE SDD 14B45 FOR MORE DETAILS.
- 3 SEE SDD 14B47 FOR MORE DETAILS.
- 4 SEE SDD 14B44 FOR MORE DETAILS.
- (5) SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
- 6 SEE PLAN FOR SHOULDER DESIGN.



MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



CROSS SECTION VIEW

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PPROVED	
lune 2017	/S/ Rodney Tayl
DATE	ROADWAY STANDARDS DEV

Y STANDARDS DEVELOPMENT UNIT SUPERVISOR

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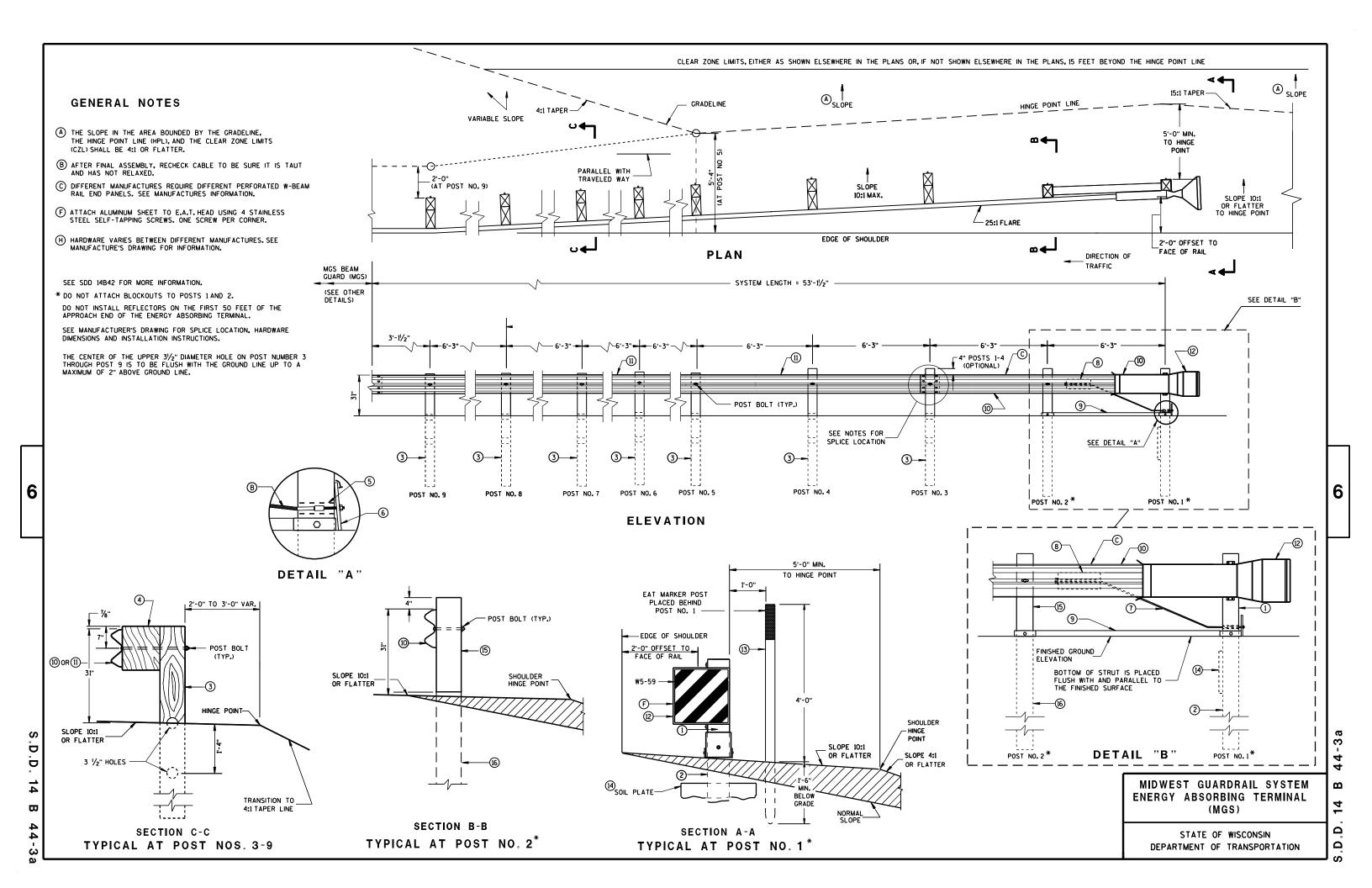
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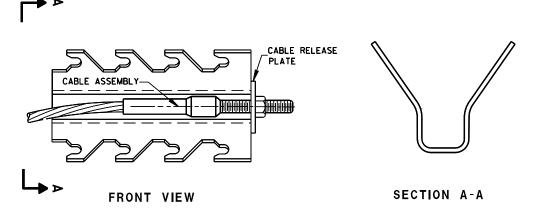
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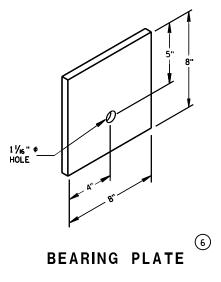
9 H GENERIC GROUND STRUT



GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

PART	DESCRIPTION
NO.	MATERIALS PROVIDED BY MGS EAT MANUFACTURER.
	SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO.1 6" X 6" TUBE
2	LOWER POST NO.1
3	WOOD CRT
4	WOOD BLOCKOUT
(5)	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL.MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
12	IMPACT HEAD
(13)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
(14)	SOIL PLATE
(15)	UPPER POST NO. 2
(16)	LOWER POST NO. 2



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

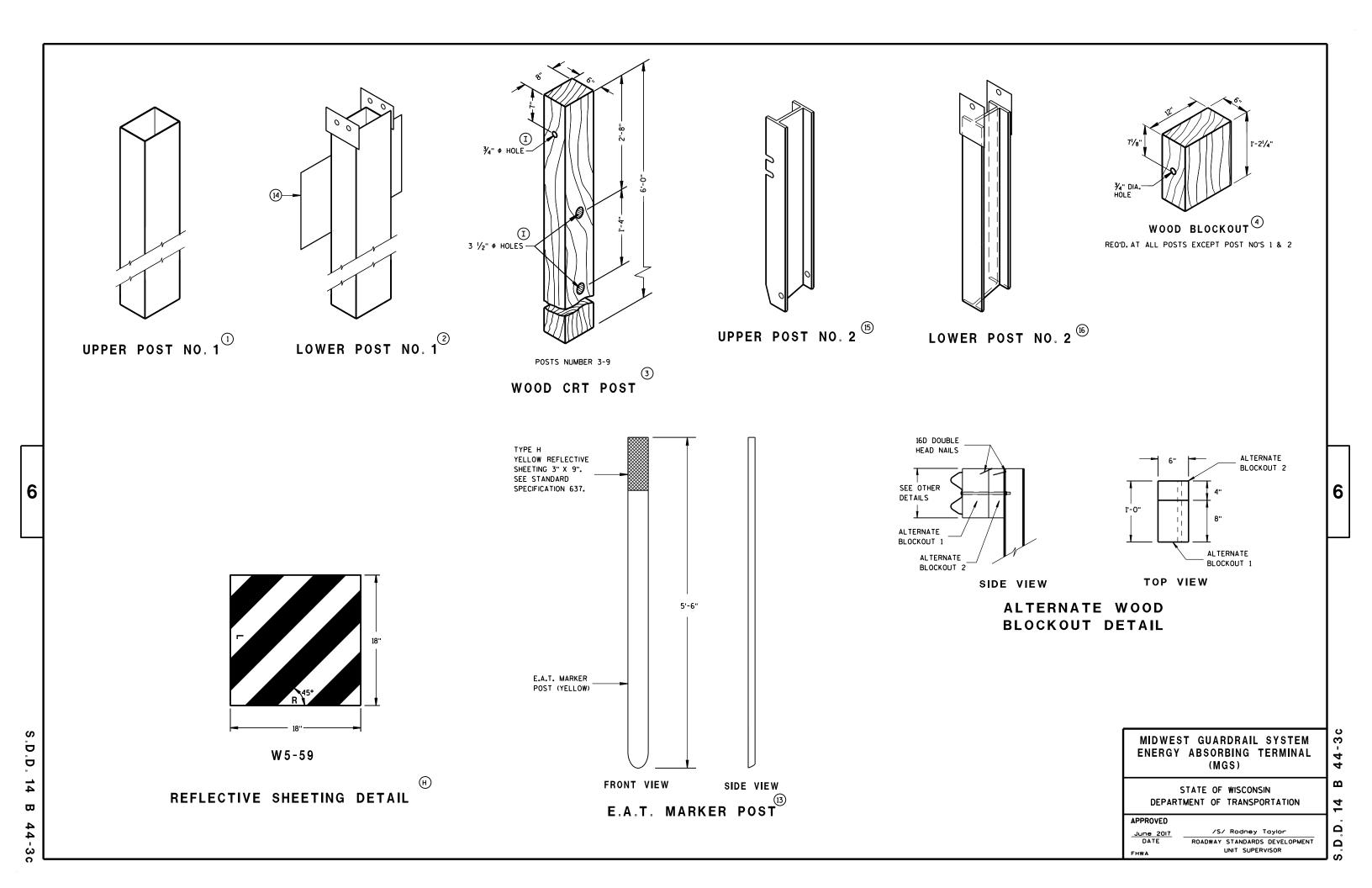
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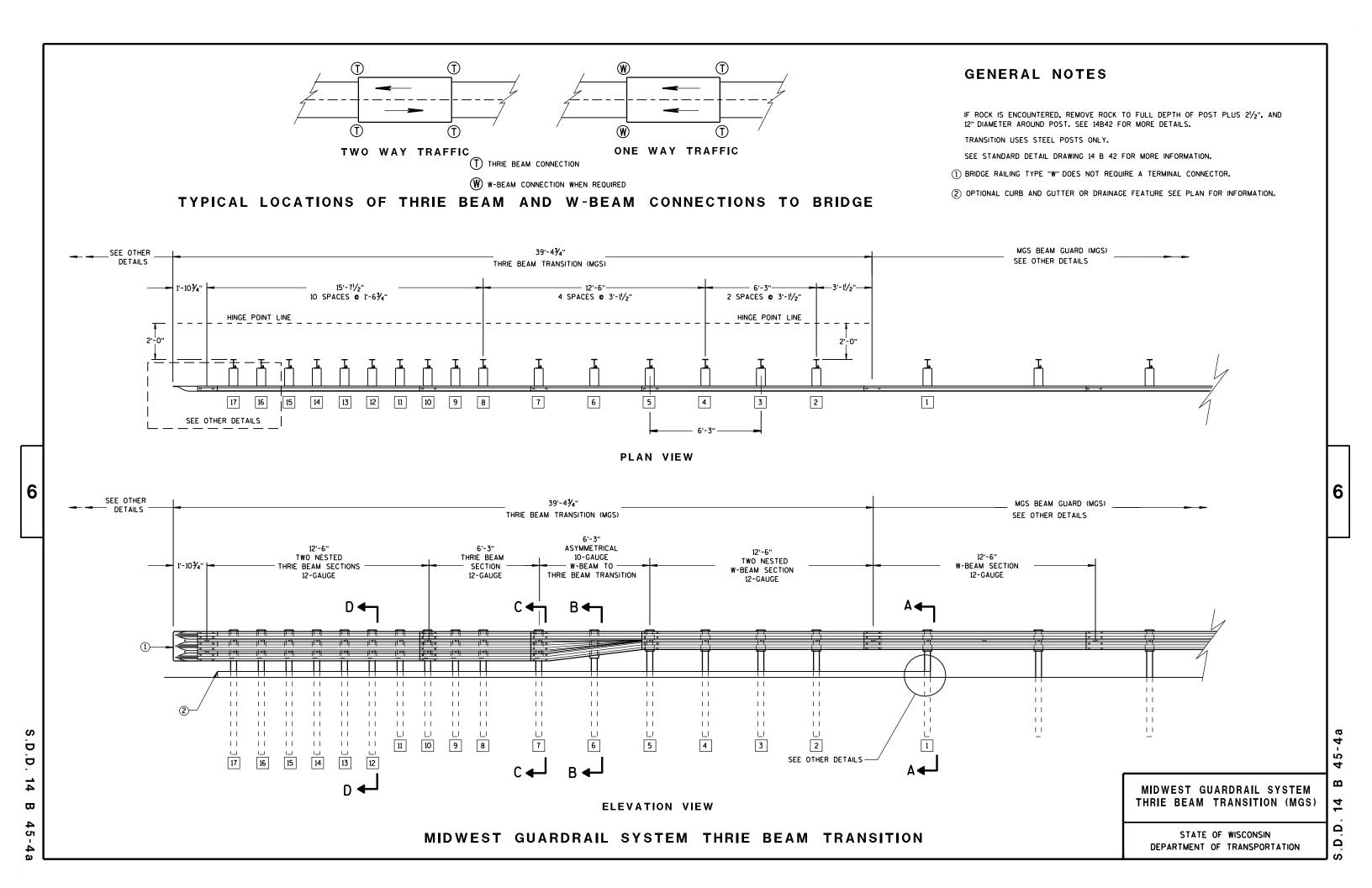
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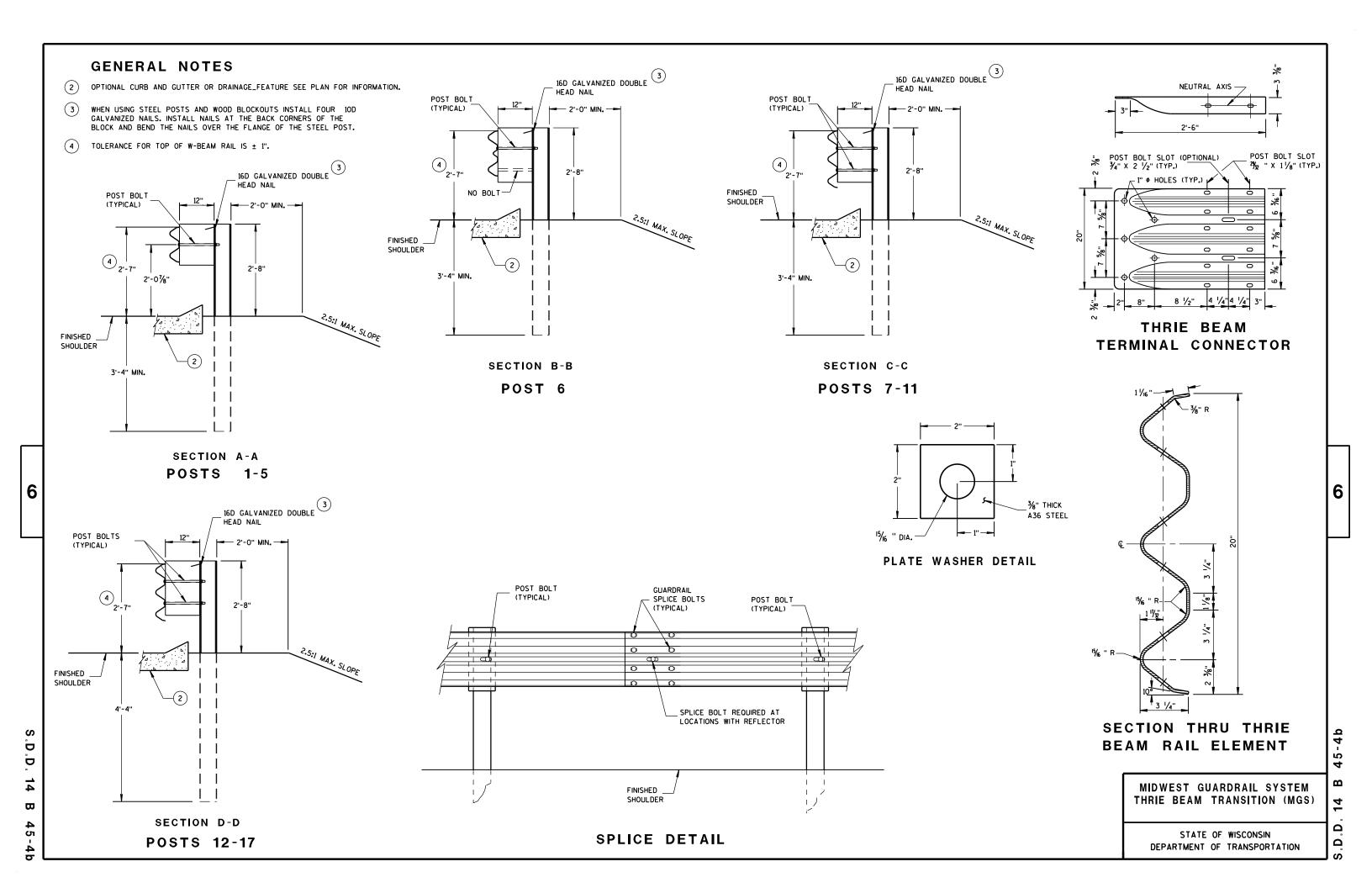
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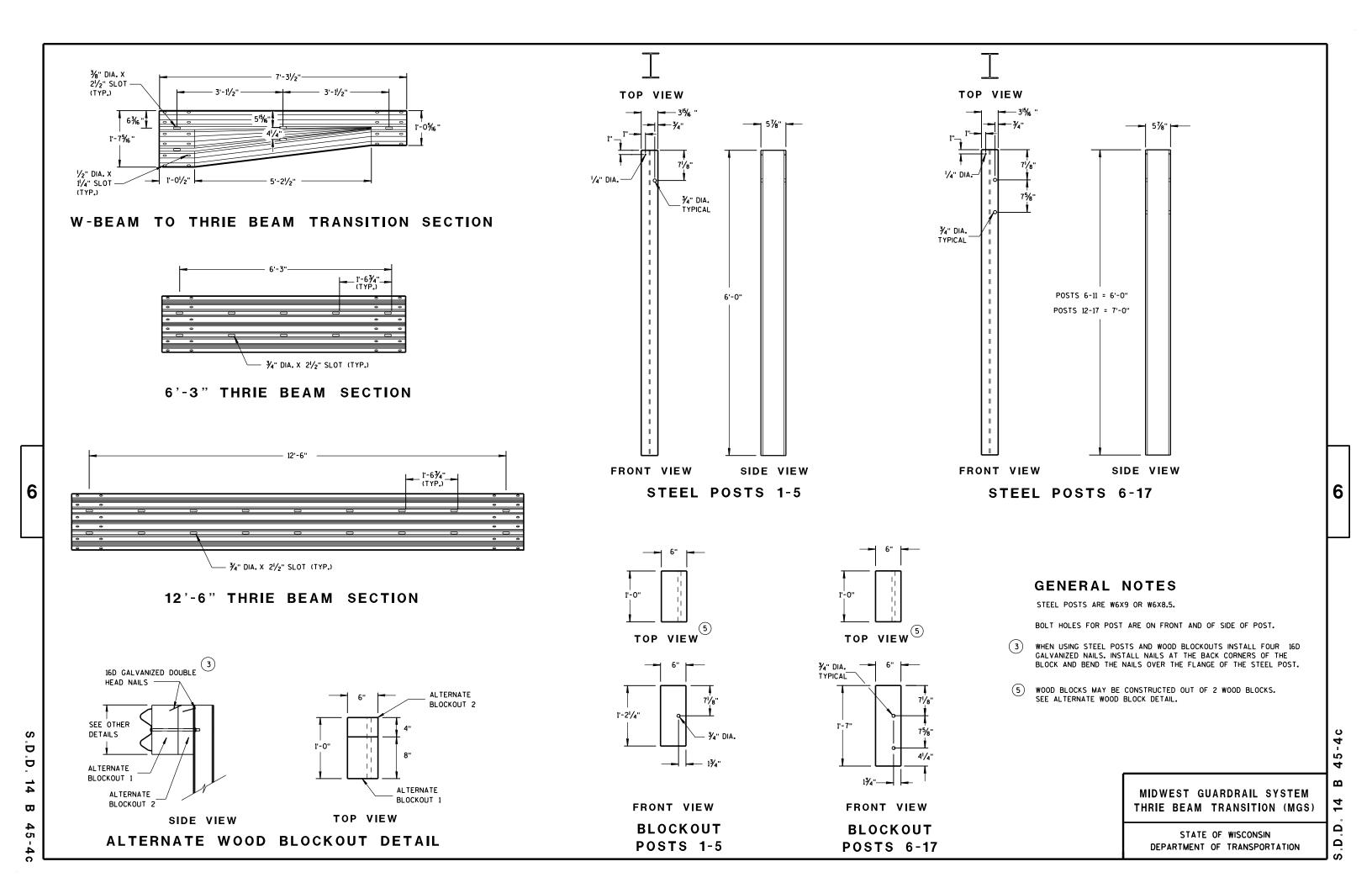
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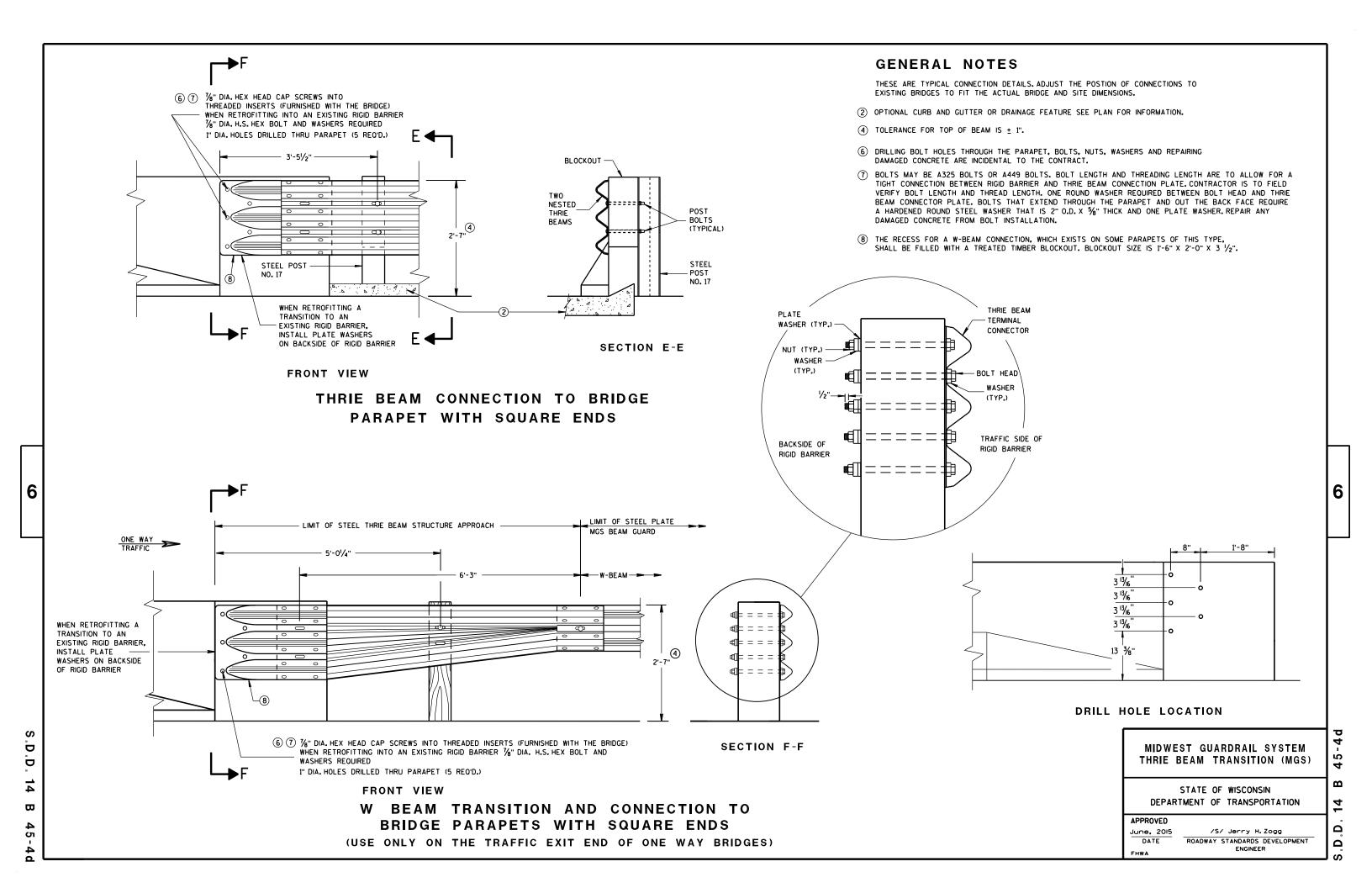
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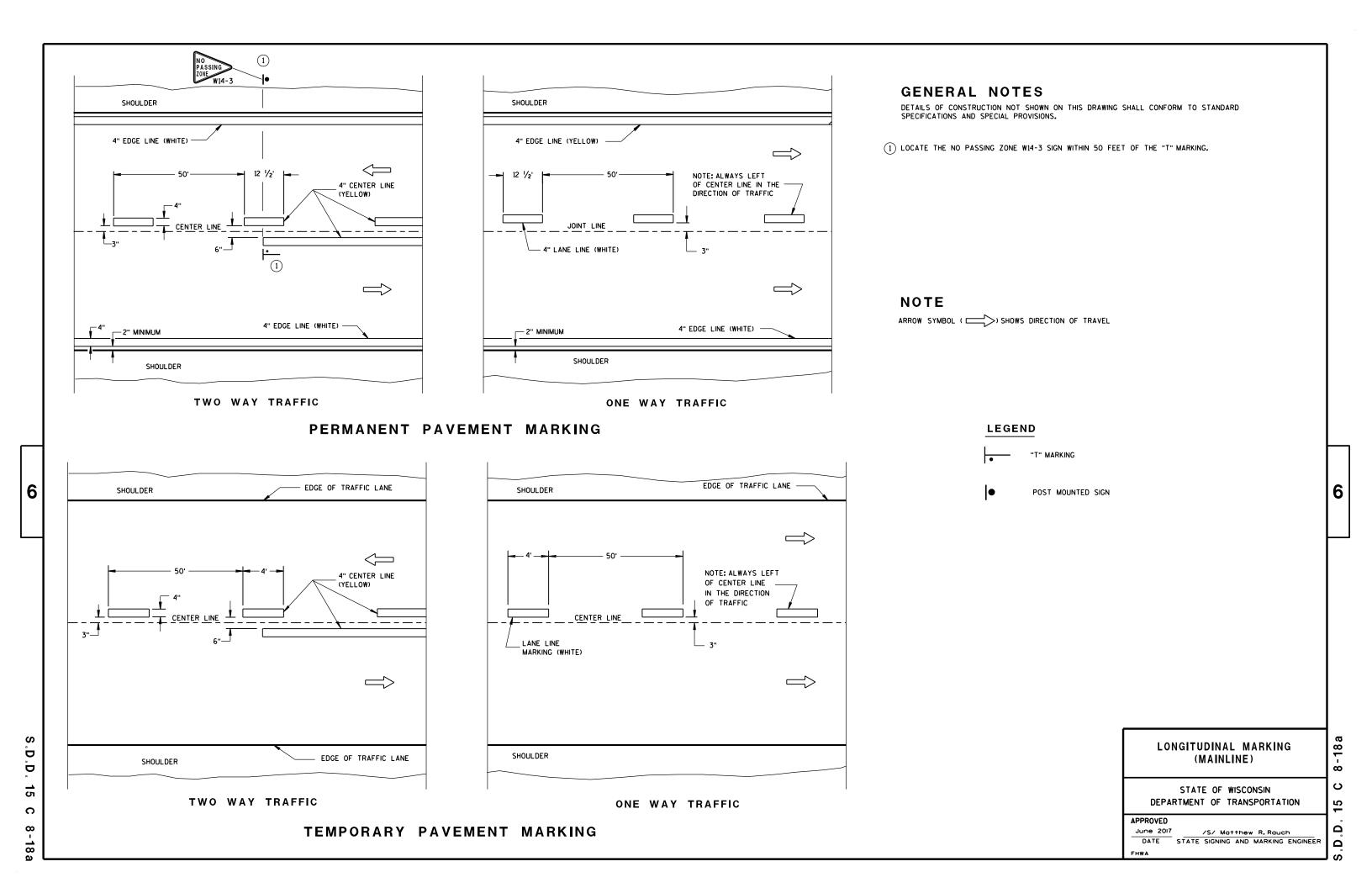












TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STOP/SLOW PADDLE ON SUPPORT STAFF

5' MIN.

WORK

AHEAD

48" X 24"

END ROAD WORK G20-2A

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W20-1A

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT. REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

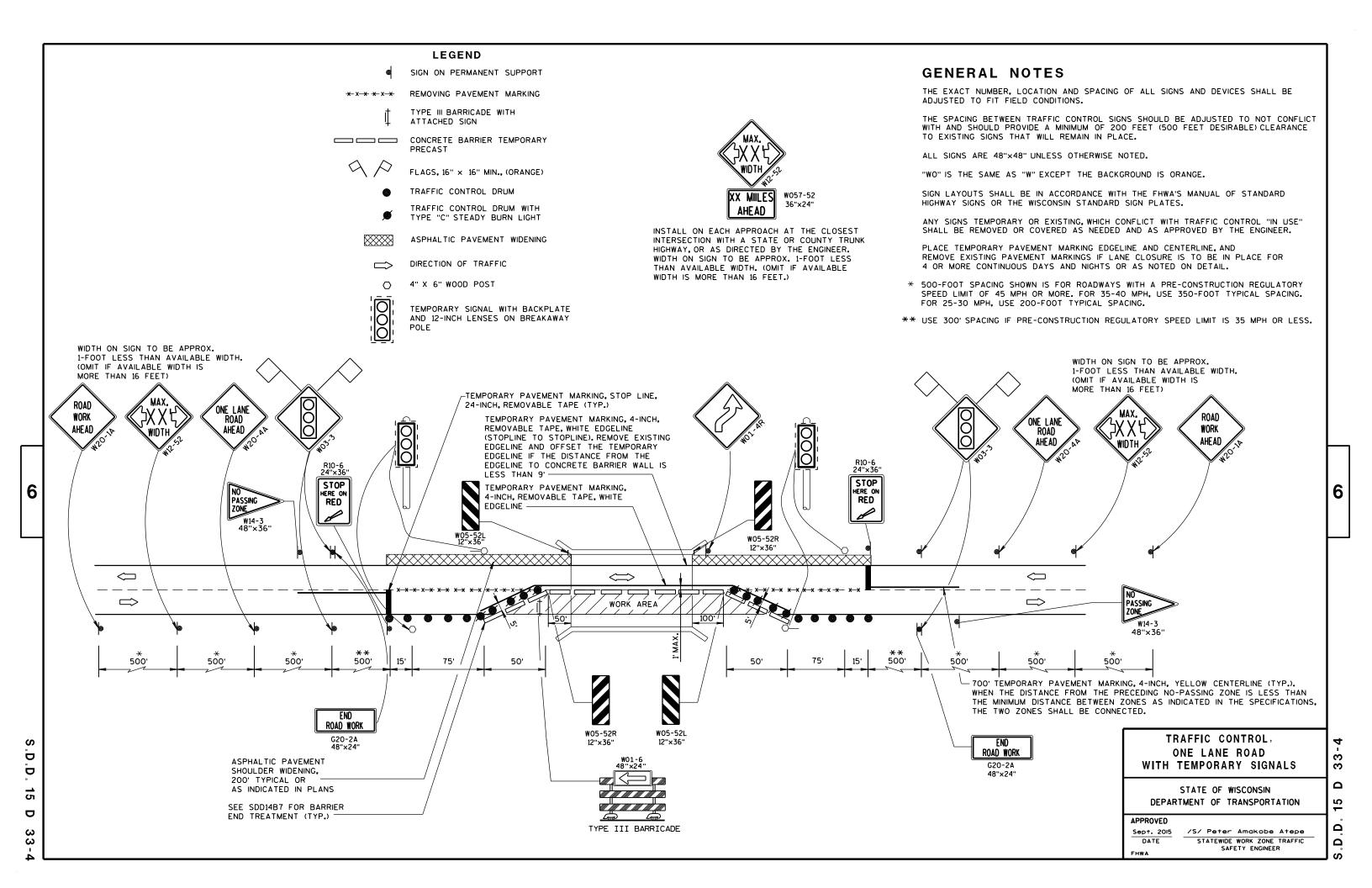
- 1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED	
June 2017	/S/ Andrew Heidtke
DATE	WORK ZONE ENGINEER
FHWA	

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TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SO. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH**

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

4" X 6" WOOD POST

POST SPACING REQUIREM	MENTS	NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	٤
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

RURAL AREA

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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- 11/2" DIAMETER HOLES

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NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

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

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 1/6" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

> ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 /S/ Andrew Heidtke DATE WORK ZONE ENGINEER FHWA

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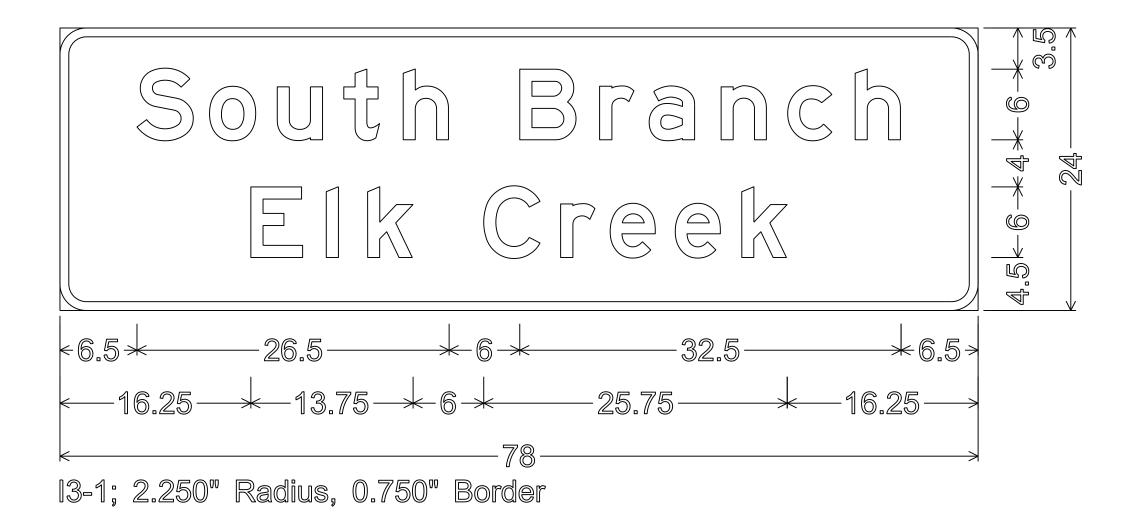
NOTES

- 1. Signs are Type II- Type H Reflective
- 2. Color:

Background - Green

Message - White

3. Message Series - E



PROJECT NO: 7335-00-73

HWY:STH 121

COUNTY: BUFFALO

PERMANENT SIGNING

SHEET NO:

PLOT SCALE : 8.152975:1.000000 WISDOI

FILE NAME : C:\CAEfiles\Projects\tr_d6\6061ao17.DGN

PLOT DATE: 01-NOV-2017 10:00

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:

Ε

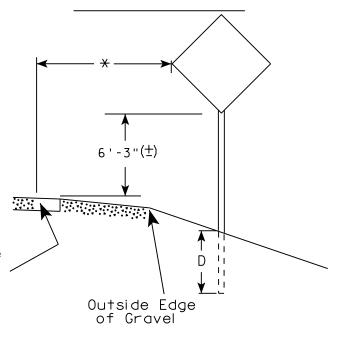
urban area

2' Min - 4' Max (See Note 6)

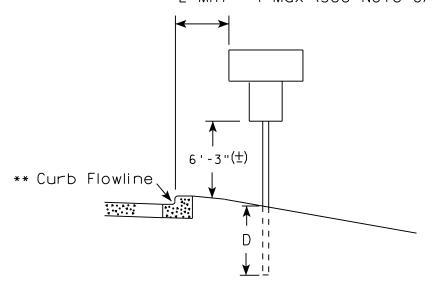
** Curb Flowline

D | White Edgeline Location

RURAL AREA (See Note 2)



2' Min - 4' Max (See Note 6)



White Edgeline
Location

Outside Edge
of Gravel

PLOT DATE: 21-AUG-2017 16:04

** 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.

POST EMBEDMENT DEPTH

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

* 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" (\pm) or 6'-3" (\pm) depending upon existence of a sub-sign.
- 4. J-Assemblies are considered to be one sign for mounting height.
- 5. Minimum mounting height for signs mounted on traffic signal poles is $5'-3''(\pm)$.
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. The (\pm) tolerance for mounting height is 3 inches.
- 8. Folding signs shall be mounted at a height of 5'-3'' (\pm) or as directd by the Engineer.
- 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch

For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

SHEET NO:

PROJECT NO:

HWY:

COUNTY:

NTY:

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:

PLOT SCALE : 100.601251:1.000000



NOTES: 1. ALL MATERIAL TO BE APPROVED

BY ENGINEER PRIOR TO INSTALLATION

- 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
- 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

HWY:



PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

GENERAL NOTES

- 1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- 2. See tables below for required number of posts.
- 3. For expressways and freeways, mounting height is 7'-3'' (±) or 6'-3'' (±) depending upon existence of sub-sign.
- 4. The (±) tolerance for mounting height is 3 inches.
- 5. J-Assemblies are considered to be one sign for mounting height.
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. Folding signs shall be mounted at a height of 5'-3'' (\pm) or as directed by the engineer.
- 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8). Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4''-3'' (±).
- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- ** * See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

D
(Min)
4'
5'

WISCONSIN DEPT OF TRANSPORTATION APPROVED For State Traffic Engineer DATE 8/21/17 PLATE NO. <u>A4-4.15</u>





	SIGN SHAPE OTHER THAN (TWO POSTS REQUIRE)		
	L	E	
***	Greater than 48" Less than 60"	12"	
	60" to 108"	L/5	

HWY:

SIGN SHAPE OTHER THAN (THREE POSTS REQUIR	
L	E
Greater than 108" to 144"	12''

COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 21-AUG-2017 15:54

PLOT SCALE: 108.188297:1.000000

WISDOT/CADDS SHEET 42

OF TYPE II SIGNS ON MULTIPLE POSTS

TYPICAL INSTALLATION

SHEET NO:

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:



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

Nather R Raw
For State Traffic Engineer

DATE <u>8/11/16</u>

PLATE NO. <u>44-8.8</u>

PROJECT NO:

FILE NAME : C:\CAFfiles\Projects\tr stdplote\A48 DCN

PLOT DATE . 11-416-2016 11:35

PINT RY * \$\$ nintuser \$\$

SHEET NO:

| | |



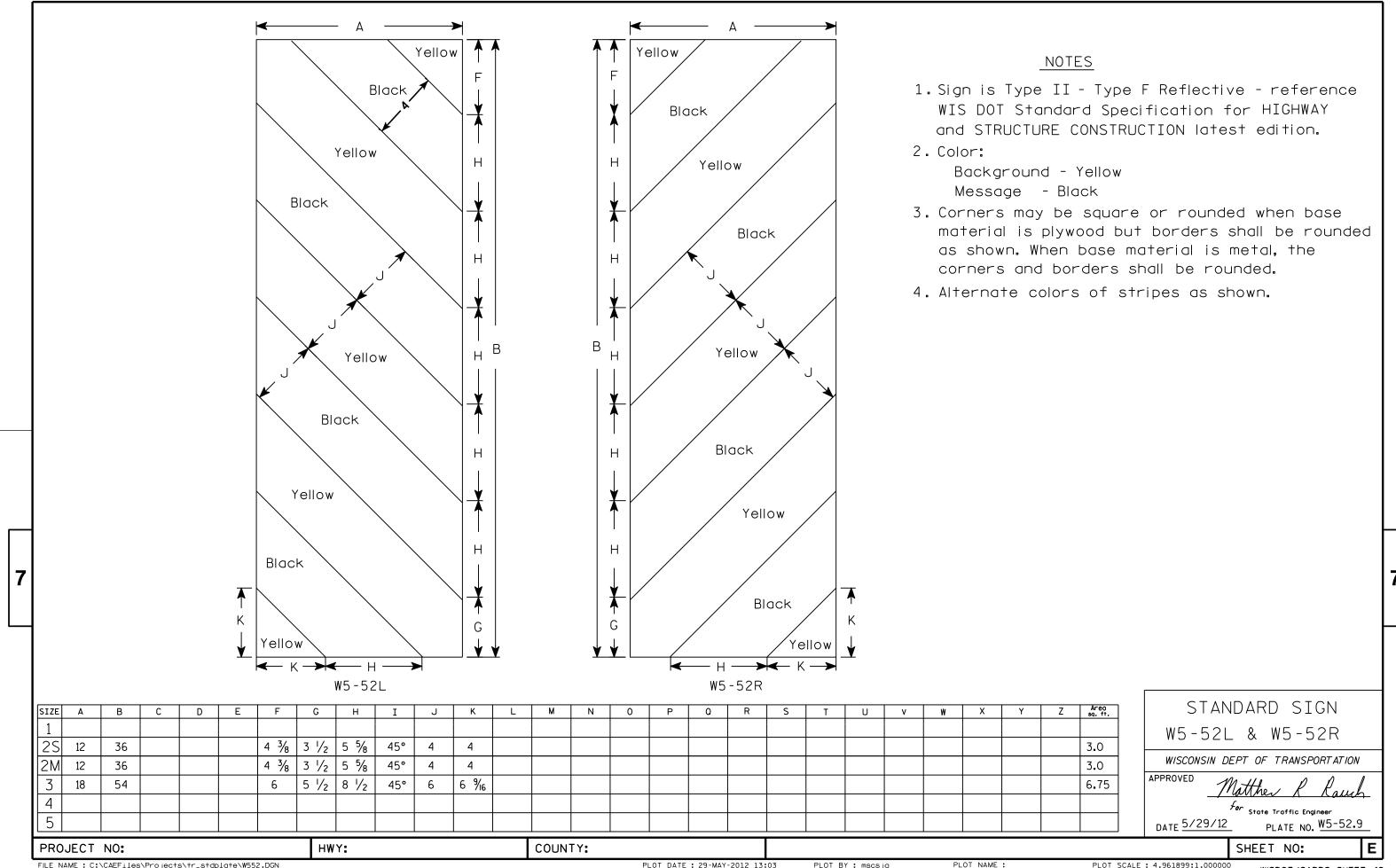
PROJECT NO: HWY: COUNTY: SHEET NO: FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE: 05-FEB-2015 17:09 PLOT BY: mscsja PLOT NAME : PLOT SCALE: 13.659812:1.000000

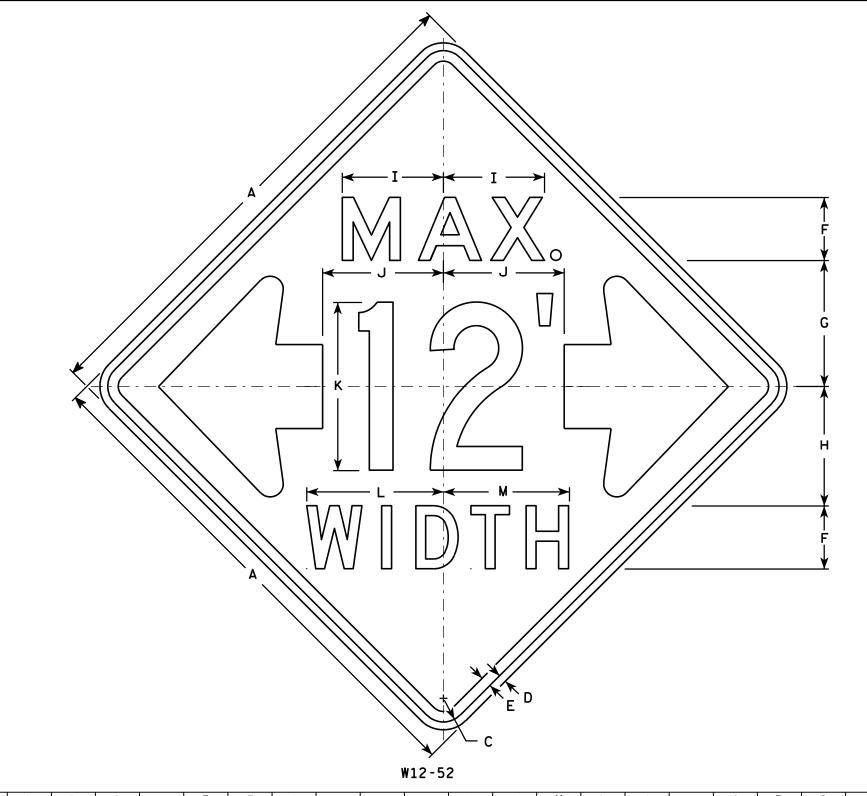
DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer





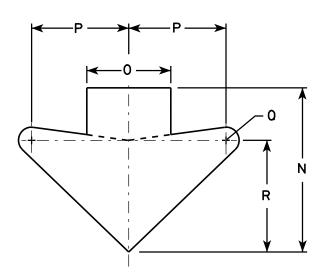


NOTES

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Orange Message - Black

- 3. Message Series See note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. The top line is series E, the numerals are series C, and the bottom line is series D.
- 6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

CT TE			T					ш			1/		1.4		_		_		_					· ·	·	7	Area
SIZE	Α	В	L	ט	-	-	G	Н	l I	J	K	L	M	N	U	P	U	R	>	1	U	V	W	X	T		Area sq. ft.
1																											
25	48		2 1/4	₹4	1	6	12	11 3/8	9 %	11 1/2	16	13	12	15 %	8	9 1/4	1 1/4	10 %									16.0
2M	48		2 1/4	₹4	1	6	12	11 3/8	9 %	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 %									16.0
3																											
4																											
5																											

COUNTY:

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

SHEET NO:

HWY:

PROJECT NO:

PLOT NAME :



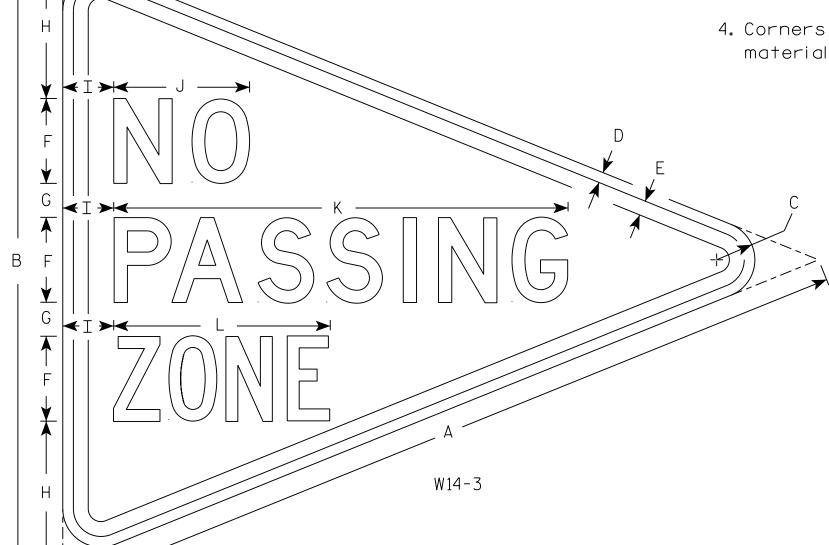
- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Yellow

Message – Black

3. Message Series - Lines 1 and 2 are Series D. Line 3 is series C.

4. Corners and borders shall be rounded on all base materials for this sign.



			,																								
SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	<i>7</i> ⁄8	5	2	8 ½	3	8	26 ¾	12 3/4															5.56
2M																											
3																											
4																											
5																											
PRC	JECT	NO:					Н	WY:					COL	INTY:													

STANDARD SIGN W14-3

WISCONSIN DEPT OF TRANSPORTATION

500 3/21/17

E 3/21/17 PLATE NO. W14-3

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W143.DGN

PLOT DATE: 21-MAR-2017 08:48

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:

PLOT SCALE : 5.650195:1.000000

WISDOT/CADDS SHEET 42

NOTES

- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Orange Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

W057-52

HWY:

* See note 5

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 %	10 %	11 3/8	2	12													6.0
25	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 ½	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 ½	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 ½	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 ½	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 ½	14	15	2 3/4	16 3/8													12.0

COUNTY:

STANDARD SIGN W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

SHEET NO:

DATE 3/21/17

PLATE NO. W057-52.2

....

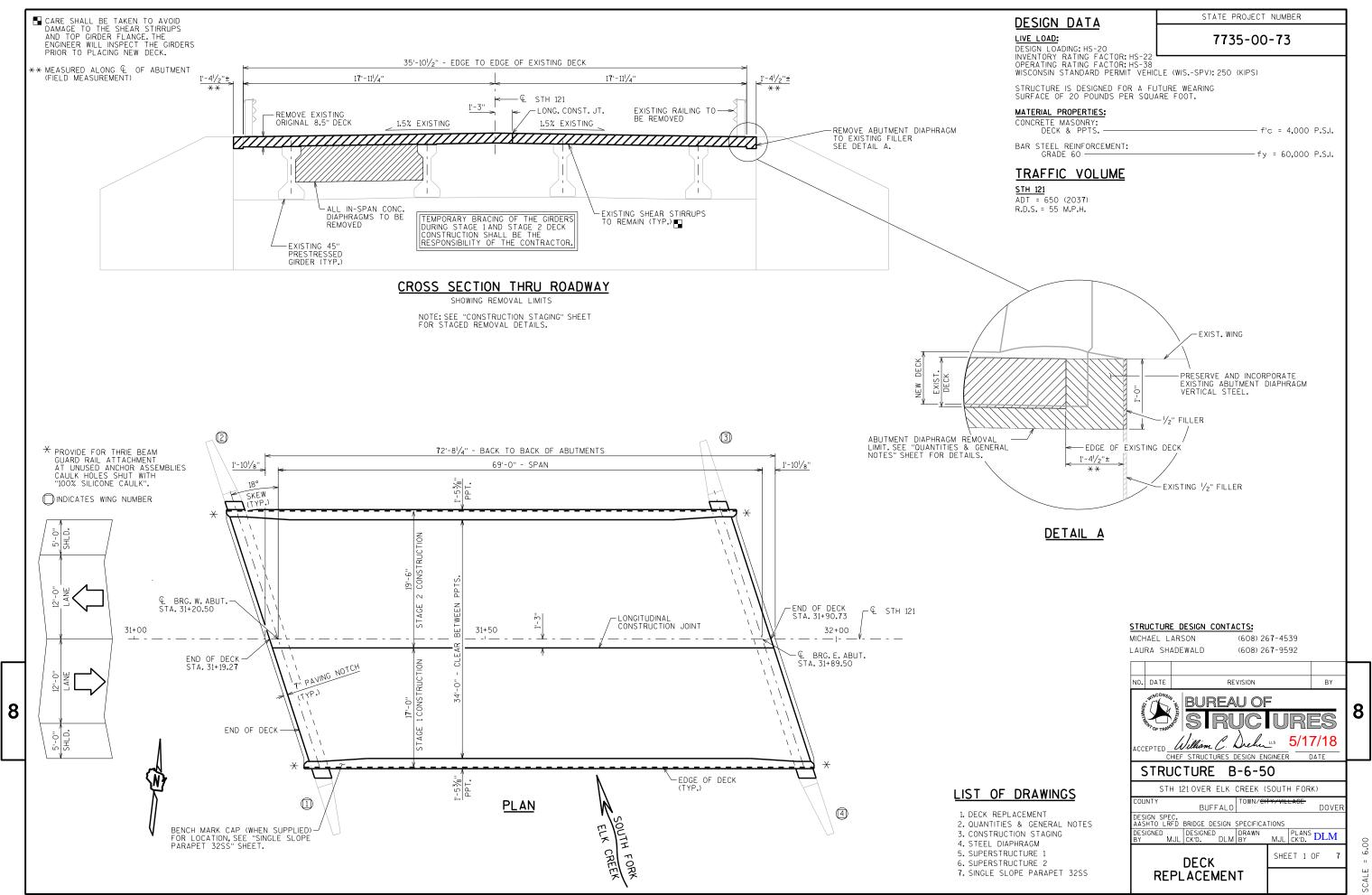
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN

PROJECT NO:

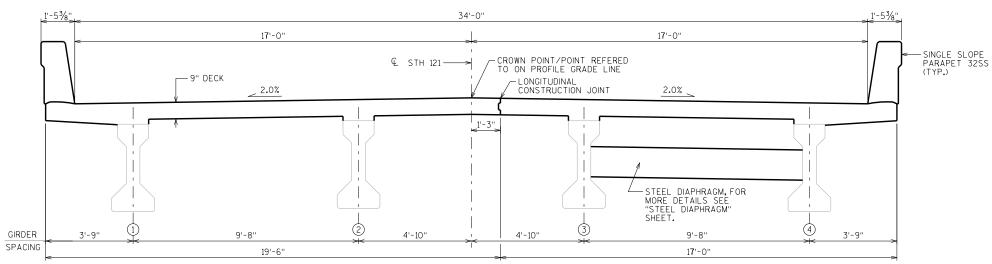
PLOT DATE: 21-MAR-2017 08:53

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:

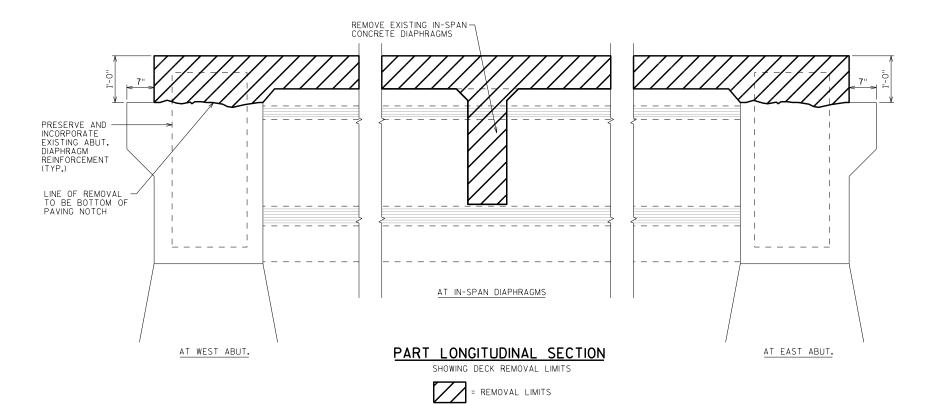
PLOT SCALE: 8.139174:1.000000



7735-00-73



PROPOSED SECTION THRU ROADWAY



TOTAL ESTIMATED QUANTITIES

8

BID ITEM NUMBER	BID ITEMS	UNIT	STAGE 1	STAGE 2	TOTALS
203.0210.5	ABATEMENT OF ASBESTOS CONTAINING MATERIALS B-6-50	LS			1
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 31+50	LS			1
502.0100	CONCRETE MASONRY BRIDGES	CY	45	50	95
502.3200	PROTECTIVE SURFACE TREATMENT	SY	125	145	2 7 0
502.3210	PIGMENTED SURFACE SEALER	SY	30	30	60
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	8,910	8,970	17,880
506.4000	STEEL DIAPHRAGMS B-6-50	EACH	1	2	3
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	2	4
	NON-BID ITEMS				
	FILLER	SIZE			1/2"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "SUPERSTRUCTURE I" SHEET.

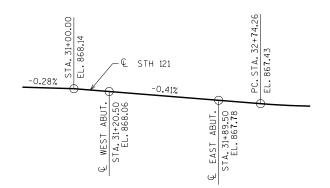
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS.

ANY EXCAVATION NECESSARY TO COMPLETE THE CONSTRUCTION OF THE NEW DECK SHALL BE CONSIDERED INCIDENTAL TO "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 31+50."

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

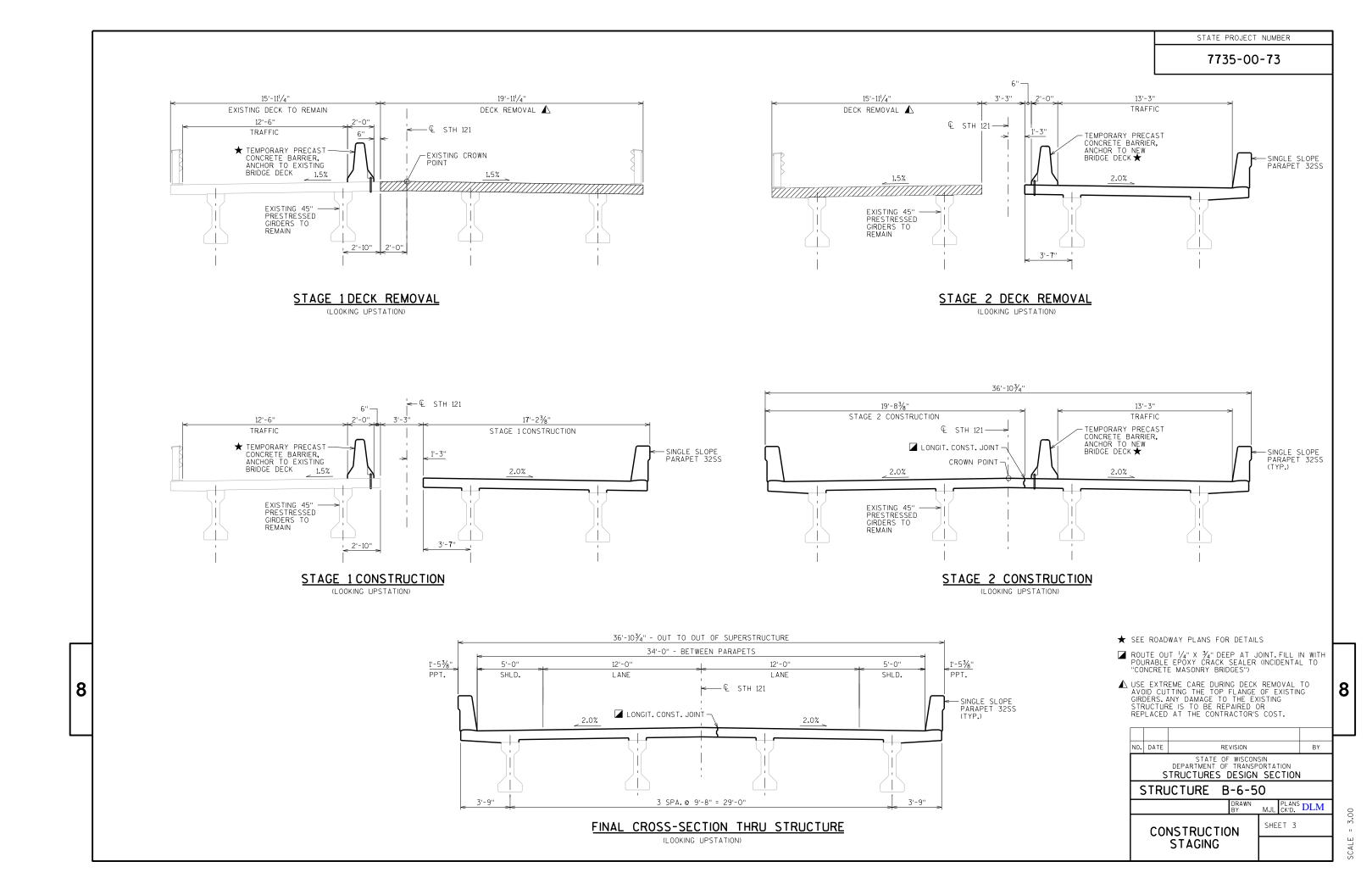
THE CAULK LOCATED ON THE ABUTMENT AND WINGWALL JOINTS TESTED POSITIVE FOR ASBESTOS GREATER THAN 1%. THIS MATERIAL SHALL BE REMOVED AND PAID FOR UNDER THE BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIALS B-6-50."



PROFILE GRADE LINE - STH 121

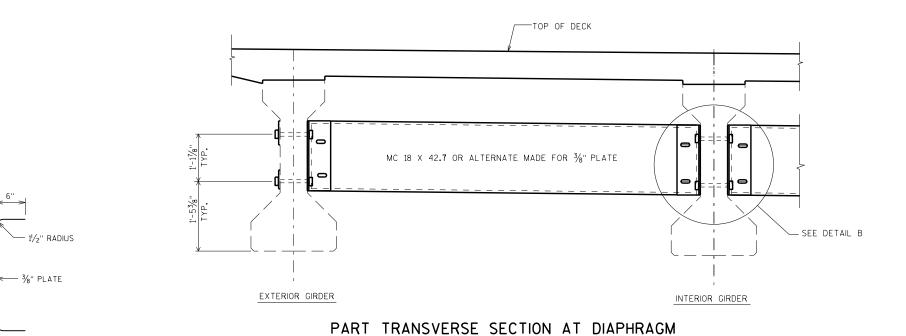
NO.	DATE		BY									
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION											
0,	STRUCTURE B-6-50											
	DRAWN BY MJL CK'D. DLM											
	Ω	UANTITIE	SHEET 2									
&	-	NERAL N										

CALE = 1.00



STATE PROJECT NUMBER

7735-00-73



NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-6-50", EACH.

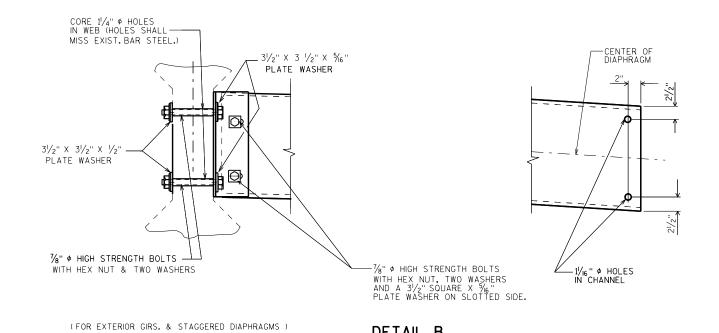
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

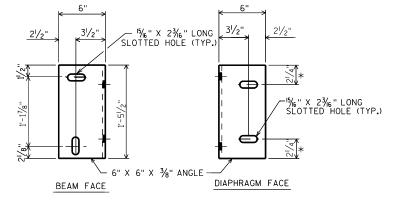
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE, HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

SECTION THRU ALTERNATE DIAPHRAGM

8

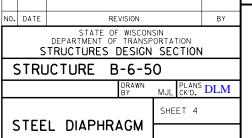


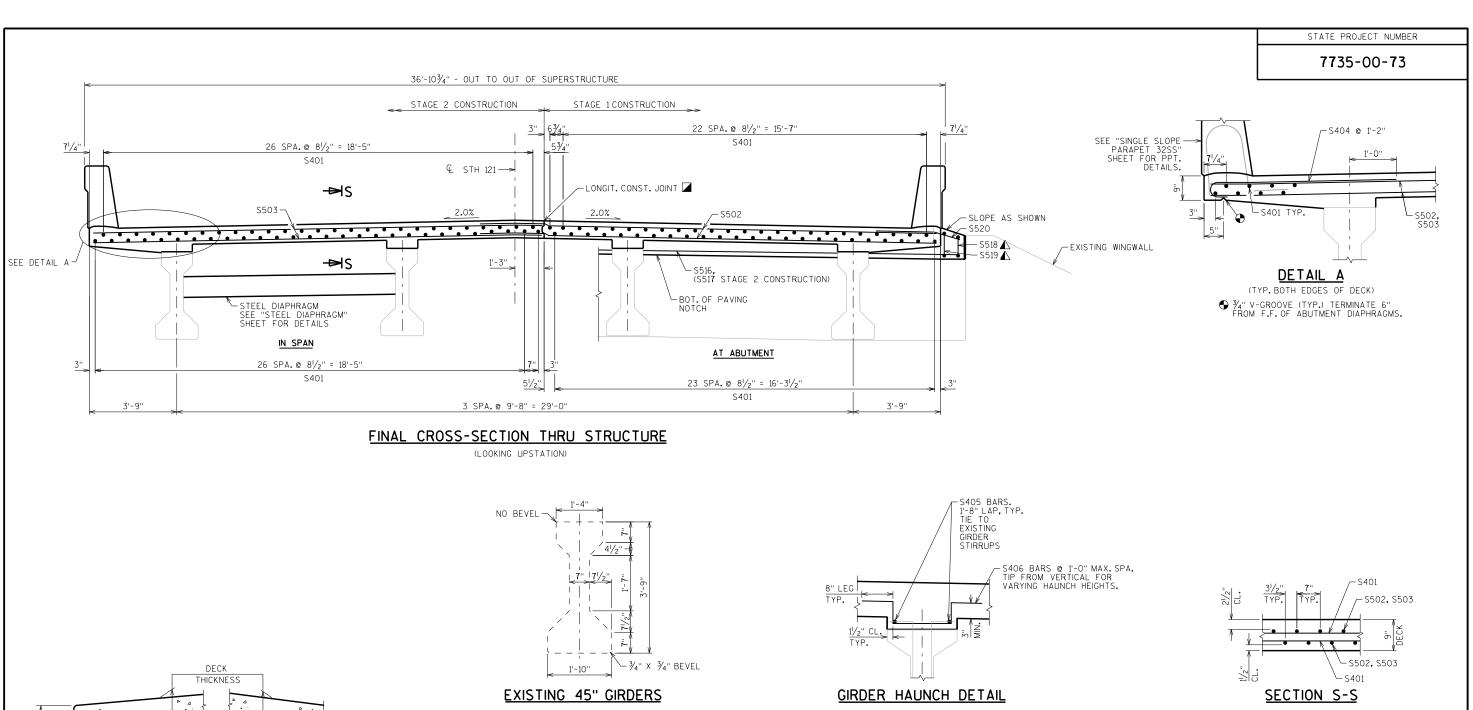
DETAIL B



DIAPHRAGM SUPPORT

* DIM "X" = 21/2" FOR ALTERNATE PLATE DIAPHRAGM





- (1^l/₄" MIN.) INT. GIR.

SLAB HAUNCH DETAIL

IF 11/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, IF 3" MINIMUM DECK EMBEDMENT OF HAT BAR CANNOT BE OBTAINED.

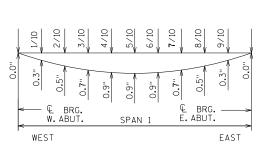
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT \P . OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- TOP OF DECK ELEV. AT FINAL GRADE
 TOP OF GIRDER ELEVATION
 + DEAD LOAD DEFLECTION
 DECK THICKNESS

- = HAUNCH HEIGHT 'T'

8

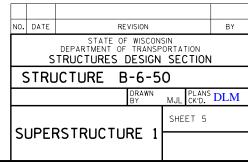
NOTE: AN AVERAGE HAUNCH ('T') OF $2^{1}/_{2}$ " WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

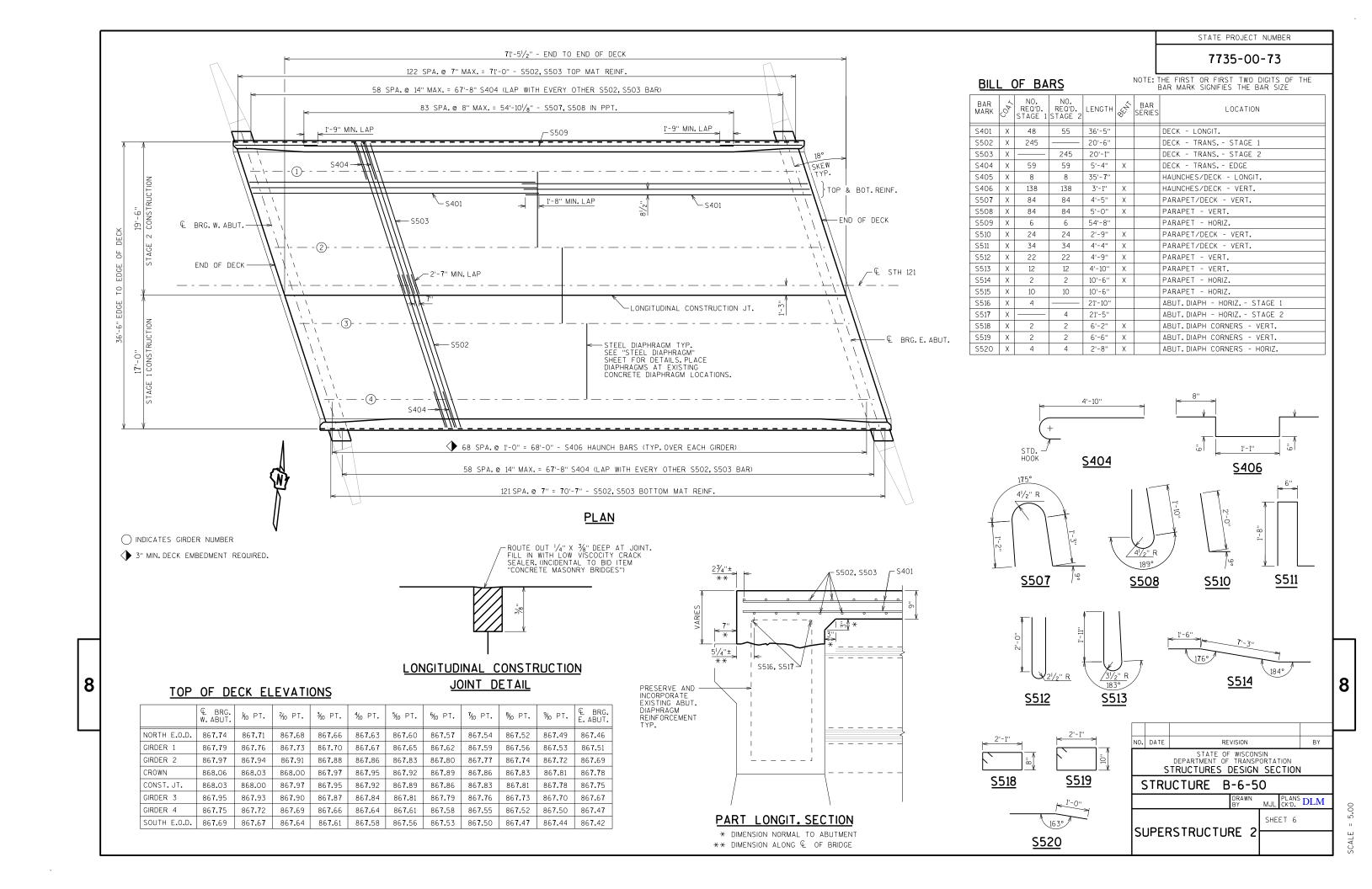


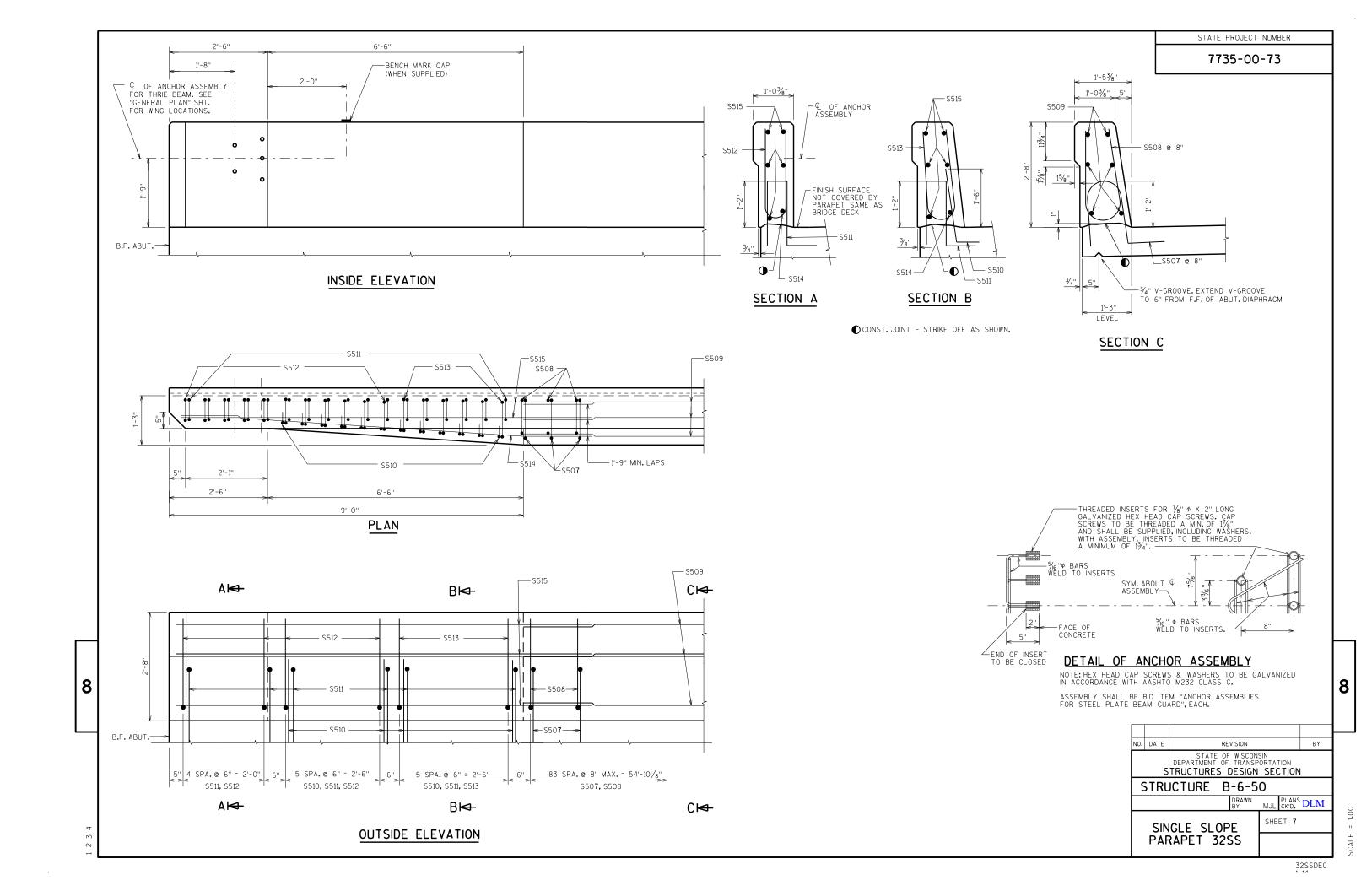
DEFLECTION DIAGRAM

NOTE: DEFLECTIONS USED FOR COMPUTING GIRDER ELEVATION SHALL BE CALCULATED BY TAKING GIRDER ELEVATION BEFORE & AFTER THE EXISTING DECK IS REMOVED. THE DEFLECTIONS GIVEN ON THIS PLAN SHALL BE USED AS A REFERENCE ONLY. FIELD MEASURED DEFLECTION DATA SHALL BE PROPORTIONED TO ACCOUNT FOR THE NEW 9" DECK THICKNESS VERSUS THE EXISTING DECK THICKNESS. EXISTING DECK THICKNESS SHALL BE FIELD VERIFIED.

- ⚠ PLACED PARALLEL TO € OF SUPERSTRUCTURE
- ✓ ROUTE OUT 1/4" X ¾4" DEEP AT JOINT. FILL IN WITH POURABLE EPOXY CRACK SEALER (INCIDENTAL TO "CONCRETE MASONRY BRIDGES")







STAGE 1			AREA (SF)	Increme	ental Vol (CY) (Unadju									
			Salvaged/Unusable				Salvaged/Unusable				Expanded	Expanded	Reduced EBS	
		Cut	Pavement Material	Fill	EBS	Cut	Pavement Material	Fill	EBS	Cut	Fill	EBS Backfill	in Fill	Mass Ordinate
STATION	Distance					Note 1	Note 2	Note 3		1.00 Note 1	1.25	1.30 Note 5	0.80 Note 7	Note 8
29+50 RT	0.00	37.51	1.83	-	-	-	-	-	-	-	-	-	-	0
30+00 RT	50.00	30.23	1.83	-	-	63	3	-	-	63	-	-	-	59
30+25 RT	25.00	25.78	1.83	-	-	26	2	-	-	89	-	-	-	84
30+36 RT	11.00	23.68	1.83	1.22	-	10	1	0	-	99	0	-	-	93
30+50 RT	14.00	22.09	1.83	2.27	-	12	1	1	-	111	1	-	-	102
30+61 RT	11.00	18.98	1.83	4.02	-	8	1	1	-	119	3	-	-	108
30+75 RT	14.00	16.84	1.83	7.54	-	9	1	3	-	128	7	-	-	113
30+86 RT	11.00	16.07	1.83	8.40	-	7	1	3	-	135	11	-	-	115
31+00 RT	14.00	15.31	1.83	12.42	-	8	1	5	-	143	18	-	-	115
31+25 RT	25.00	15.22	1.83	15.88	-	14	2	13	-	157	34	-	-	111
					TOTAL =	157	12	27	0					
	JCTURE B-06													
32+00 RT	0.00	18.02	1.83	40.98	-		-	-	-	-	-	-	-	0
32+24 RT	24.00	16.85	1.83	18.30	-	15	2	16	-	15	20	-	-	-7
32+35 RT	11.00	16.47	1.83	23.00	-	7	1	8	-	22	31	-	-	-11
32+50 RT	15.00	17.03	1.83	31.77	-	9	1	15	-	31	50	-	-	-22
32+60 RT	10.00	18.84	1.83	30.89	-	7	1	12	-	38	64	-	-	-31
32+74 RT	14.00	19.75	1.83	34.05	-	10	1	17	-	48	85	-	-	-43
32+85 RT	11.00	20.70	1.83	37.20	-	8	1	15	-	56	104	-	-	-53
33+00 RT	15.00	22.55	1.83	26.44	-	12	1	18	-	68	126	-	-	-64
33+47 RT	47.00	31.73	1.83	-	-	47	3	23	-	115	154	-	-	-49
33+50 RT	3.00	30.90	1.83	-	-	3	0	-	-	119	154	-	-	-46
34+00 RT	50.00	24.29	1.83	-	-	51	3	-	-	170	154	-	-	2
34+50 RT	50.00	30.78	1.83	-		51	3	-	-	221	154	-	-	49
					TOTAL =	221	17	124	0					
			- -	STAG	E TOTAL =	378	29	151	0	<u>.</u>				

(NOTE 1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(NOTE 2) DOES NOT SHOW UP IN CROSS SECTIONS.

(NOTE 3) DOES NOT INCLUDE UNUSABLE PAVEMENT VOLUME.

(NOTE 5) WILL BE BACKFILLED WITH BORROW.

(NOTE 7) REDUCED EBS IN FILL: EXCAVATED EBS MATERIAL IS USABLE IN FILLS OUTSIDE THE 1:1 SLOPE.

(NOTE 8) THE MASS ORDINATE +/- QTY CALCLATED FOR EACH SECTION. + QTY INDICATES AN EXCESS OF MATERIAL. - INDICATED A SHORTAGE OF MATERIAL. M.O. INCLUDES UNUSABLE MATERIAL.

9

PROJECT NO: 7735-00-73 HWY: STH 121 COUNTY: BUFFALO EARTHWORK DETAIL – STH 121 SHEET NO: E

FILE NAME : PLOT DATE : _10/27/2017 PLOT BY : _CORRE INC. PLOT NAME : _____ ORG DATE : ORIGINATOR : PLOT SCALE : 1:1

|8

STAGE 2			AREA (SF)) Inc			Incremental Vol (CY) (Unadjusted)							
		Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS	Mass Ordinate
STATION	Distance					Note 1	Note 2	Note 3		1.00 Note 1	1.25	1.30 Note 5	0.80 Note 7	Note 8
29+50 LT	0.00	32.81	1.83		_	14016 1	Note 2	14016 3	_	Note 1	_	14016 5	- Note 7	0
30+00 LT	50.00	26.93	1.83	_	_	55	3	_	_	55	_	_	_	52
30+25 LT	25.00	18.82	1.83	_	_	21	2	_	_	76	_	_	_	71
30+36 LT	11.00	15.28	1.83	3.96	_	7	1	1	_	83	1	_	_	77
30+50 LT	14.00	13.45	1.83	4.36	-	7	1	2	_	91	4	_	_	80
30+61 LT	11.00	11.50	1.83	6.74	-	5	1	2	-	96	7	-	-	82
30+75 LT	14.00	11.62	1.83	8.66	-	6	1	4	_	102	12	-	-	82
30+86 LT	11.00	11.98	1.83	14.82	-	5	1	5	_	107	18	-	-	80
31+00 LT	14.00	13.29	1.83	23.88	-	7	1	10	_	113	30	-	-	73
31+15 LT	15.00	17.34	1.83	46.36	-	9	1	20	-	122	54	-	-	56
				_	TOTAL =	122	11	44	0					
	JCTURE B-06-													
31+90 LT	0.00	19.00	1.83	10.00	-	-	-	-	-	-	-	-	-	0
32+00 LT	10.00	18.94	1.83	5.89	-	7	1	2	-	7	3	-	-	4
32+24 LT	34.00	20.12	1.83	0.84	-	25	2	1	-	32	4	-	-	25
32+35 LT	11.00	20.71	1.83	0.37	-	8	1	0	-	41	4	-	-	33
32+50 LT	15.00	22.08	1.83	-	-	12	1	0	-	53	4	-	-	43
32+60 LT	10.00	24.74	1.83	-	-	9	1	-	-	61	4	-	-	51
32+74 LT	14.00	26.87	1.83	-	-	13	1	-	-	75	4	-	-	64
32+85 LT	11.00	29.47	1.83	-	-	11	1	-	-	86	4	-	-	74
33+00 LT	15.00	33.10	1.83	-	-	17	1	-	-	103	4	-	-	91
33+47 LT	47.00	31.55	1.83	-	-	56	3	-	-	160	4	-	-	144
33+50 LT	3.00	31.79	1.83	-	-	4	0	-	-	163	4	-	-	147
34+00 LT	50.00	23.52	1.83	-	-	51	3	-	-	214	4	-	-	195
34+50 LT	50.00	21.23	1.83	-	-	41	3	-	-	256	4	-	-	233
					TOTAL =	256	18	4	-					
			_	STAG	E TOTAL =	378	29	47	0					

(NOTE 1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(NOTE 2) DOES NOT SHOW UP IN CROSS SECTIONS.

(NOTE 3) DOES NOT INCLUDE UNUSABLE PAVEMENT VOLUME.

(NOTE 5) WILL BE BACKFILLED WITH BORROW.

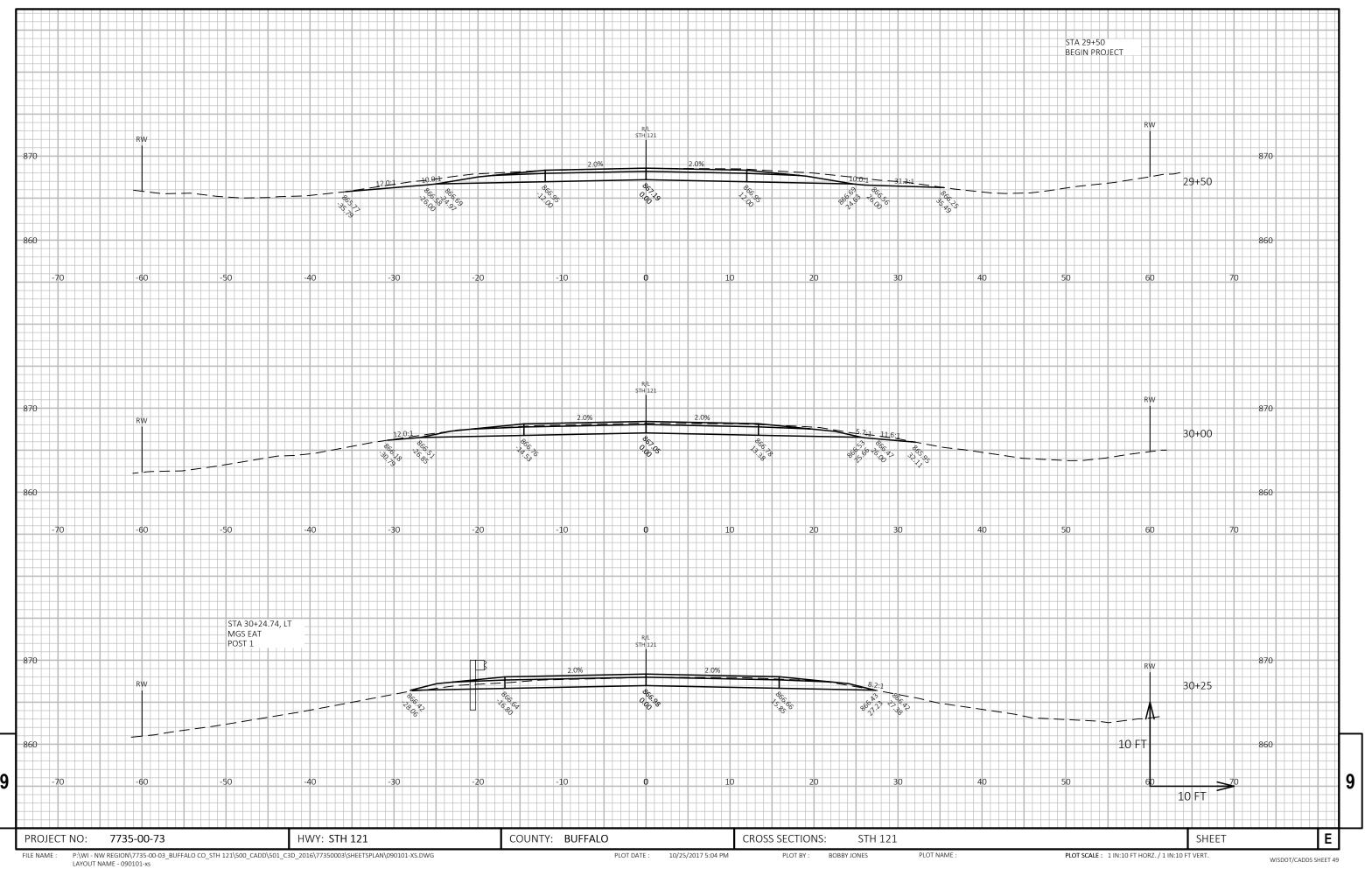
(NOTE 7) REDUCED EBS IN FILL: EXCAVATED EBS MATERIAL IS USABLE IN FILLS OUTSIDE THE 1:1 SLOPE.

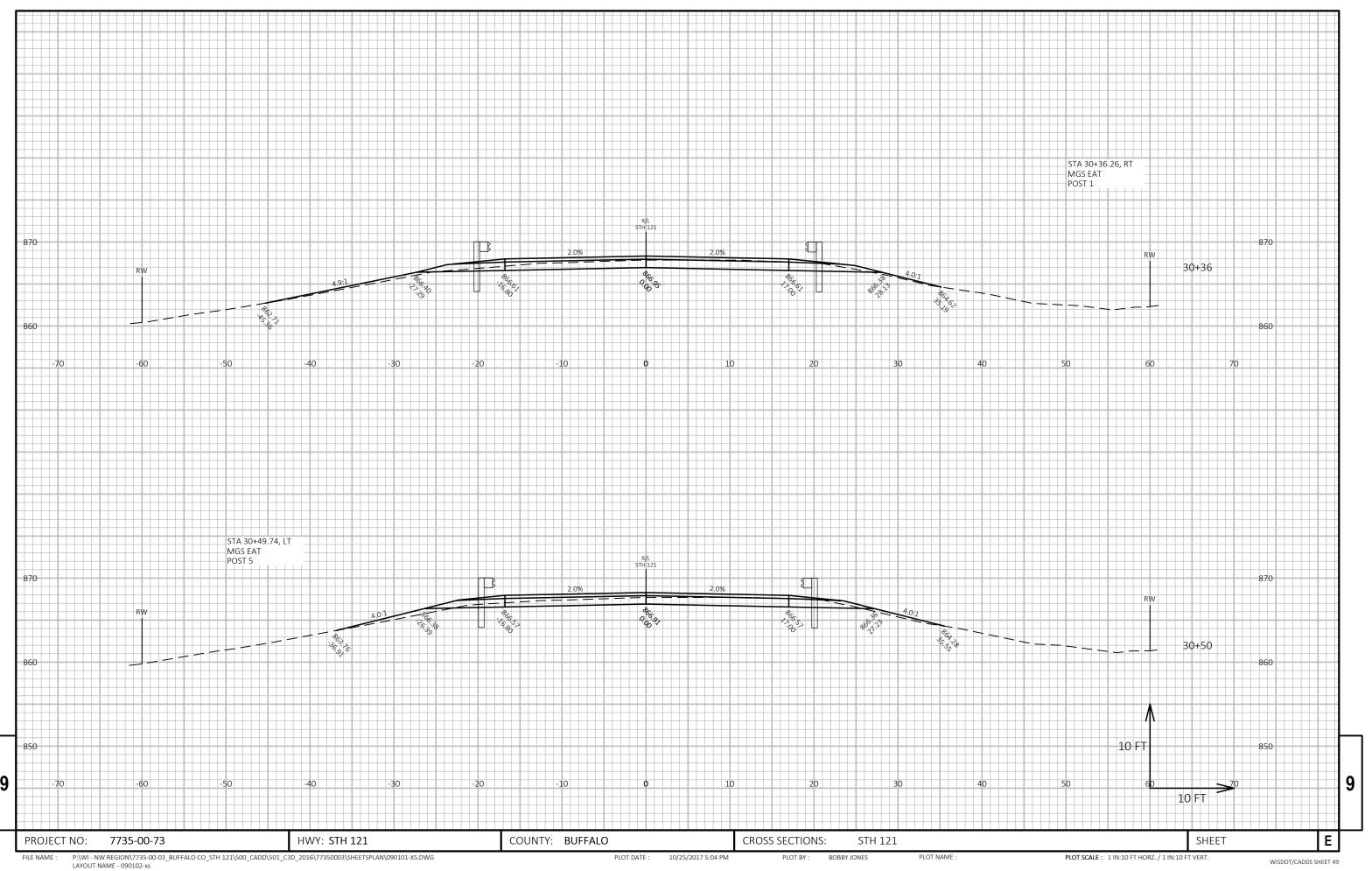
(NOTE 8) THE MASS ORDINATE +/- QTY CALCLATED FOR EACH SECTION. + QTY INDICATES AN EXCESS OF MATERIAL. - INDICATED A SHORTAGE OF MATERIAL. M.O. INCLUDES UNUSABLE MATERIAL.

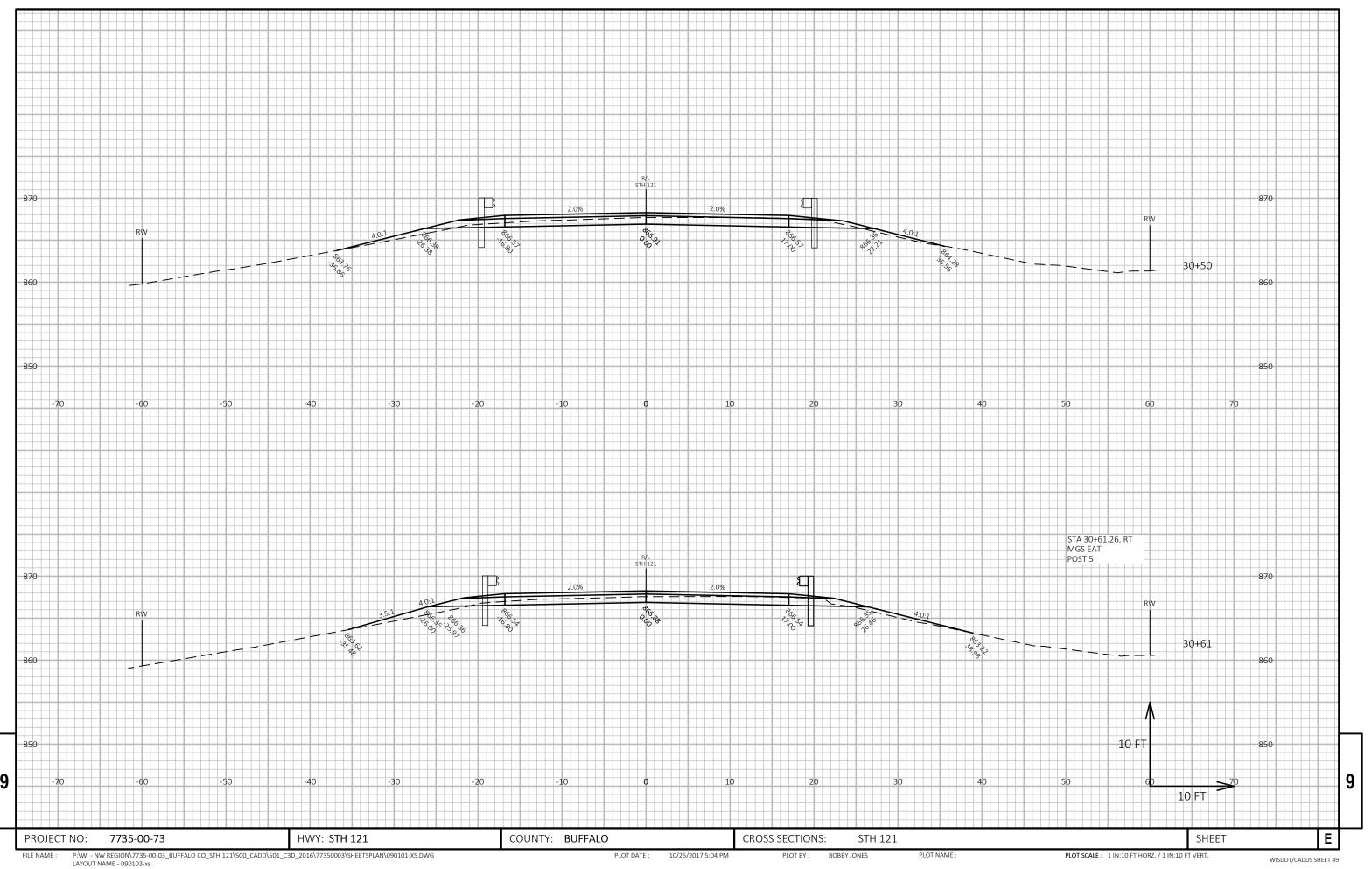
9

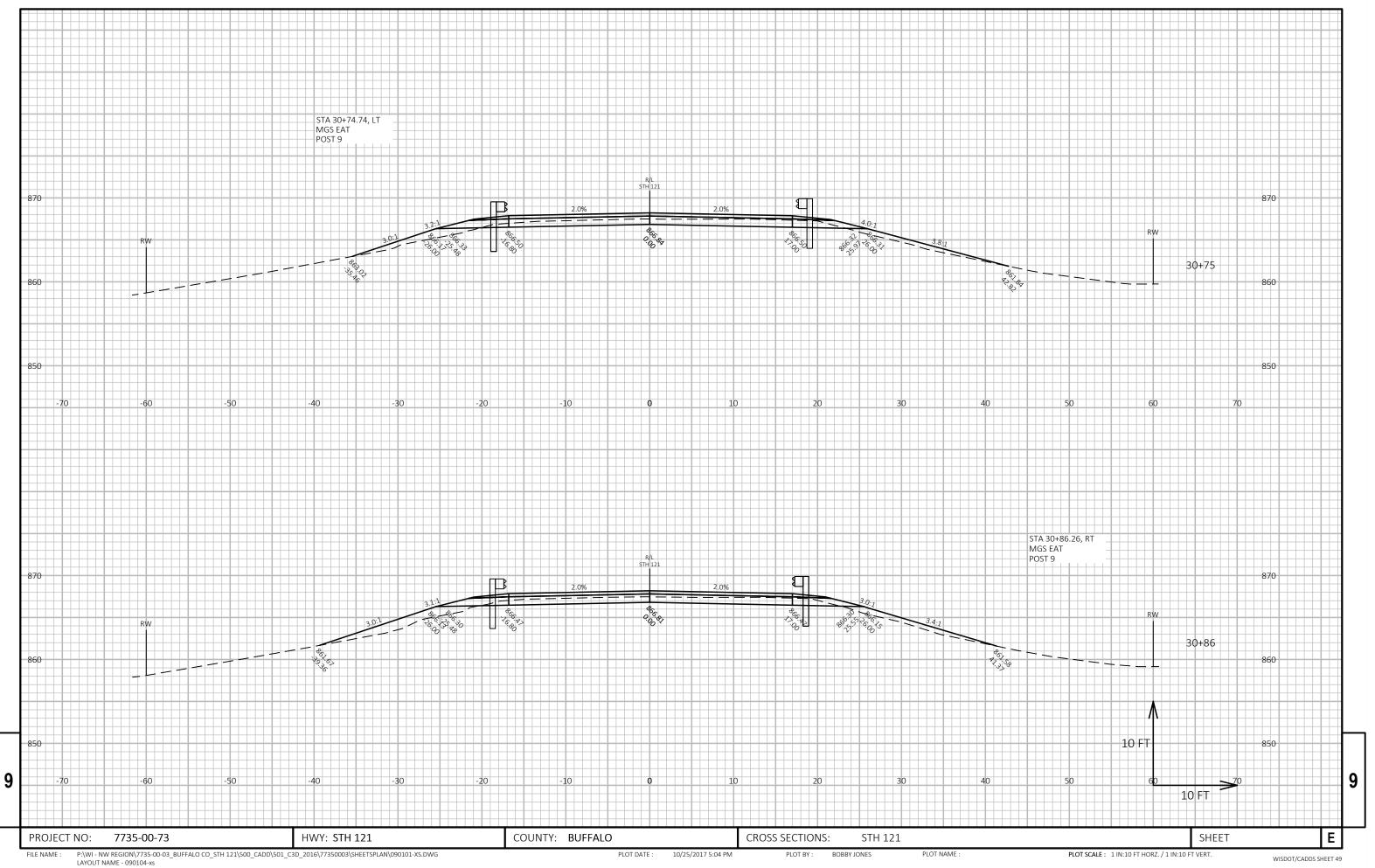
PROJECT NO: 7735-00-73 HWY: STH 121 COUNTY: BUFFALO EARTHWORK DETAIL – STH 121 SHEET NO:

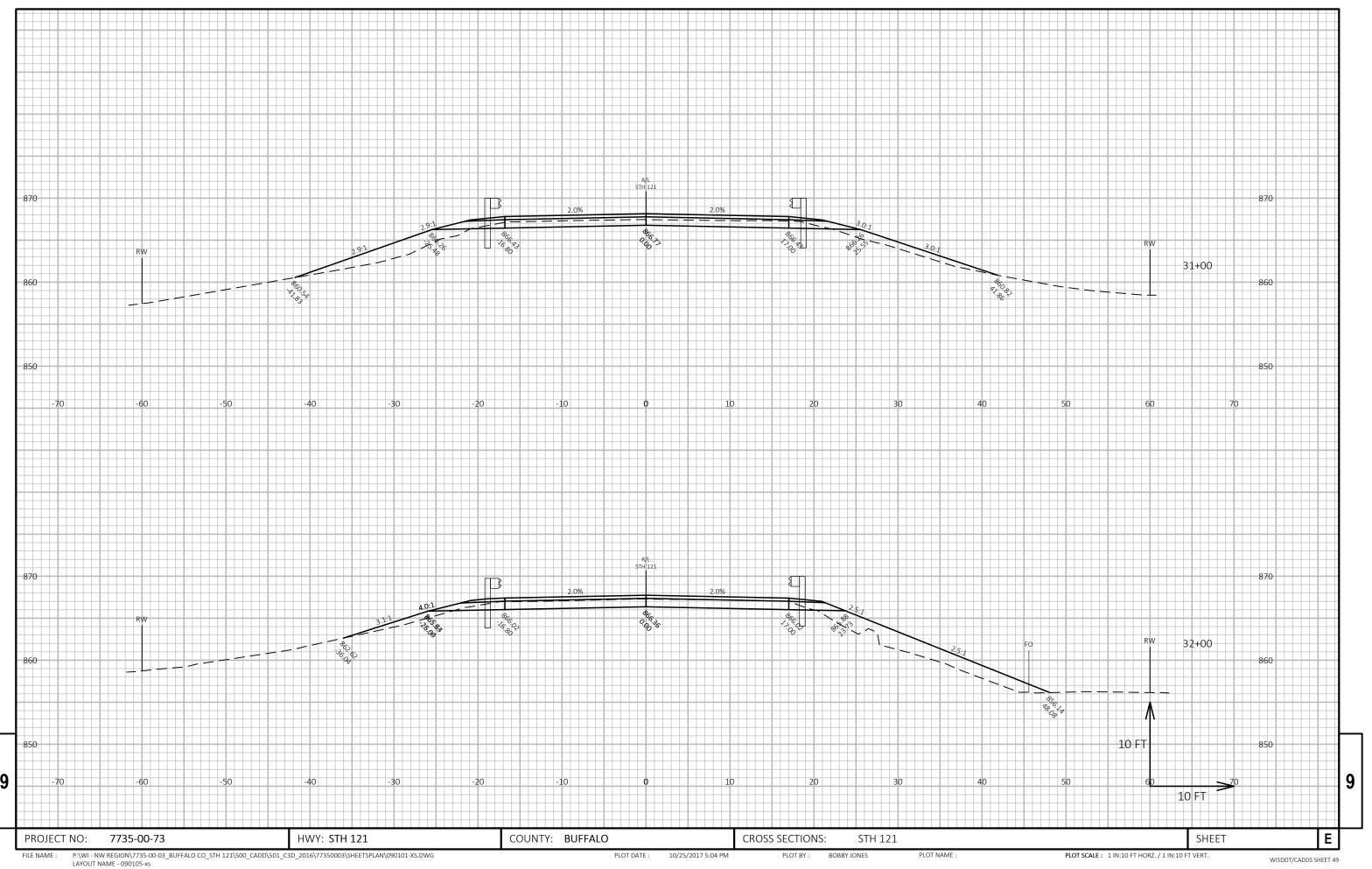
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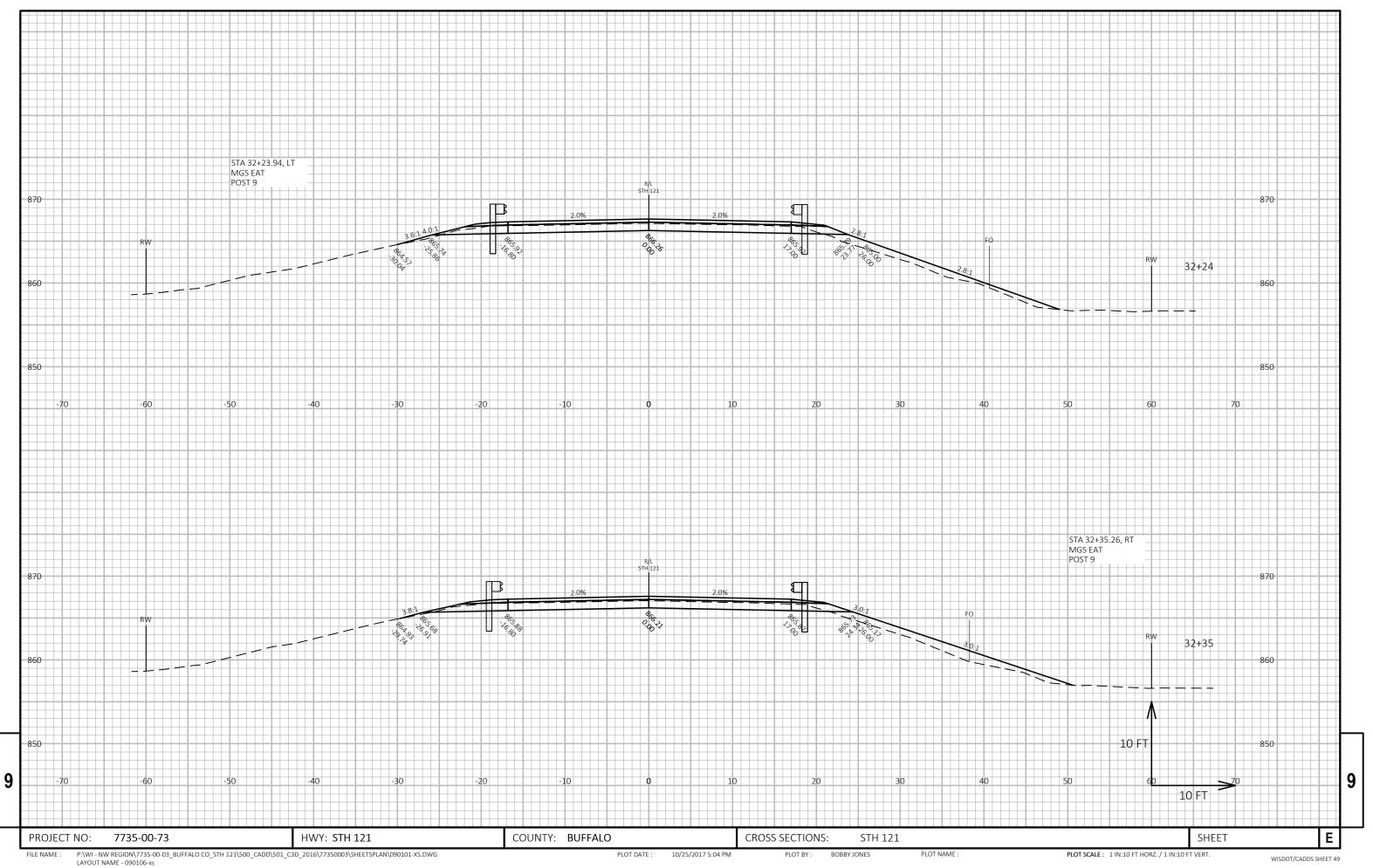


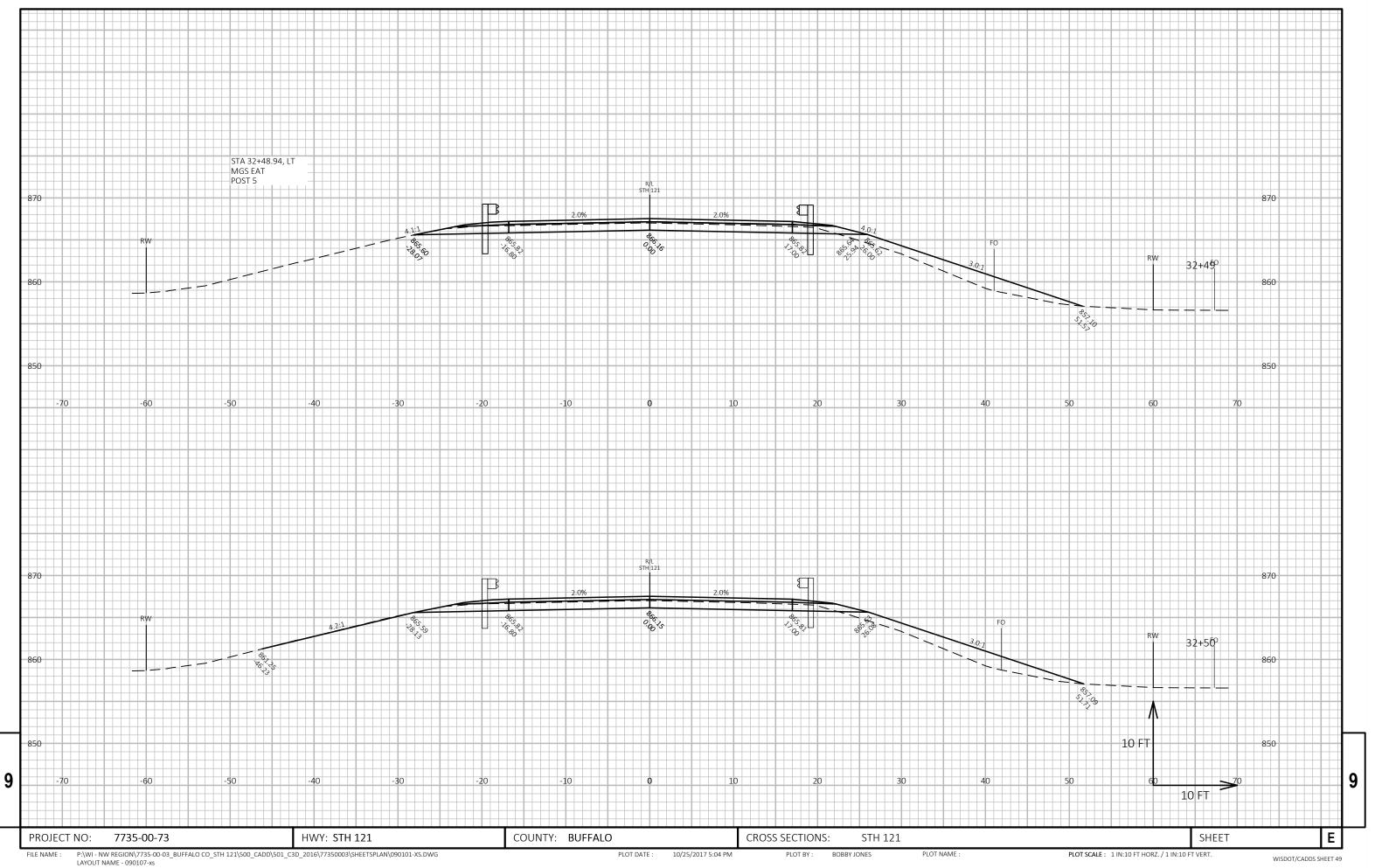


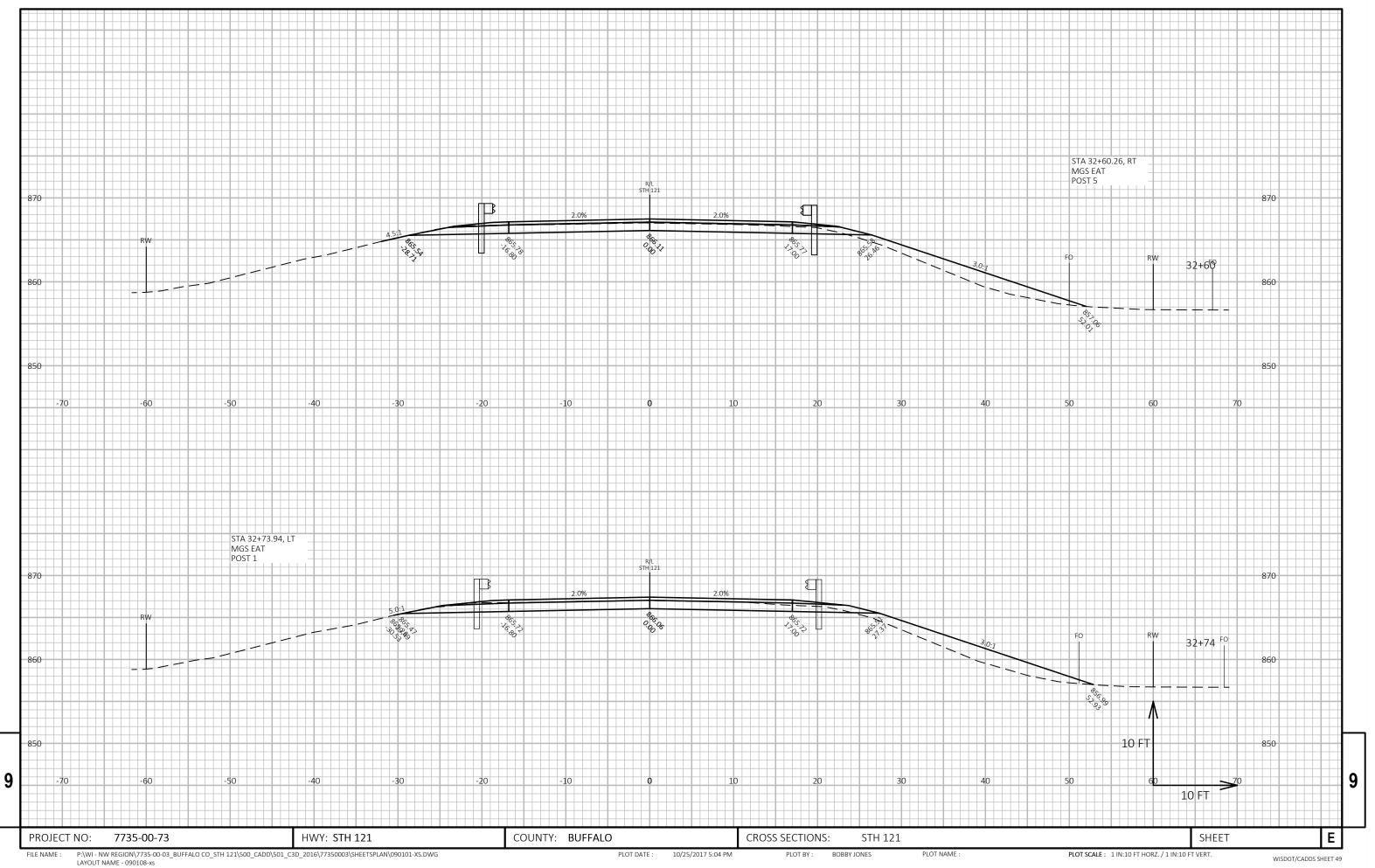


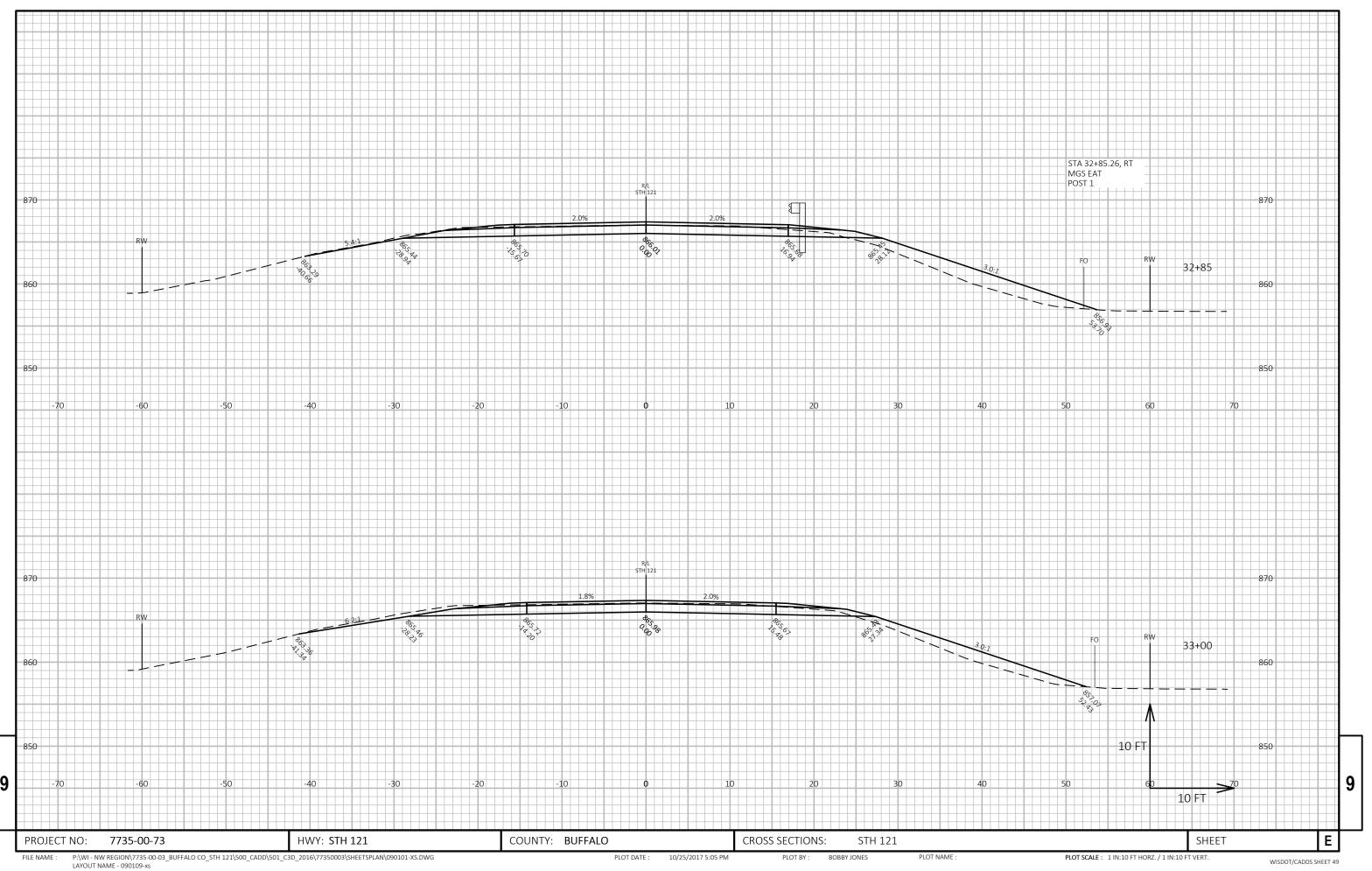


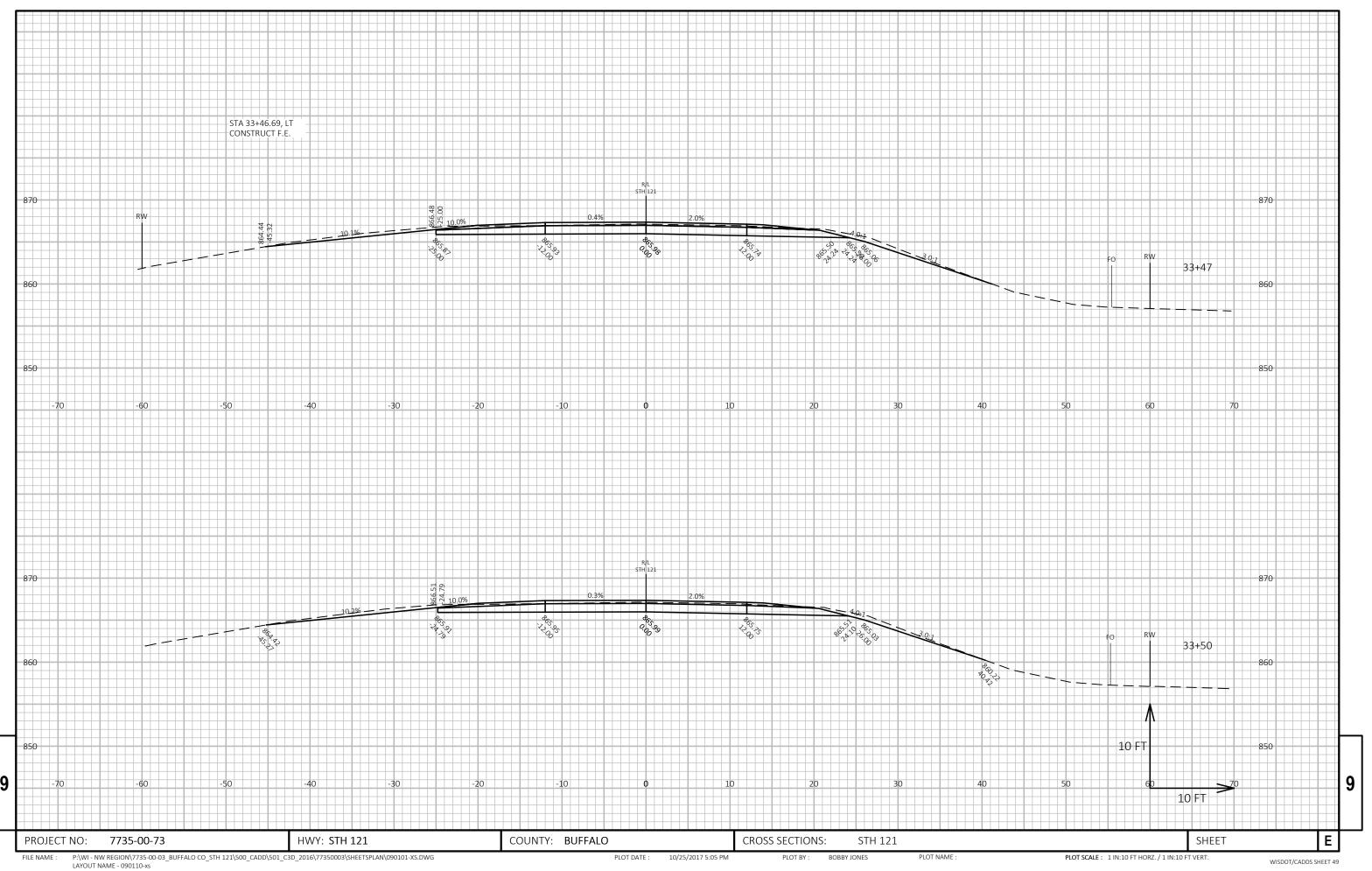


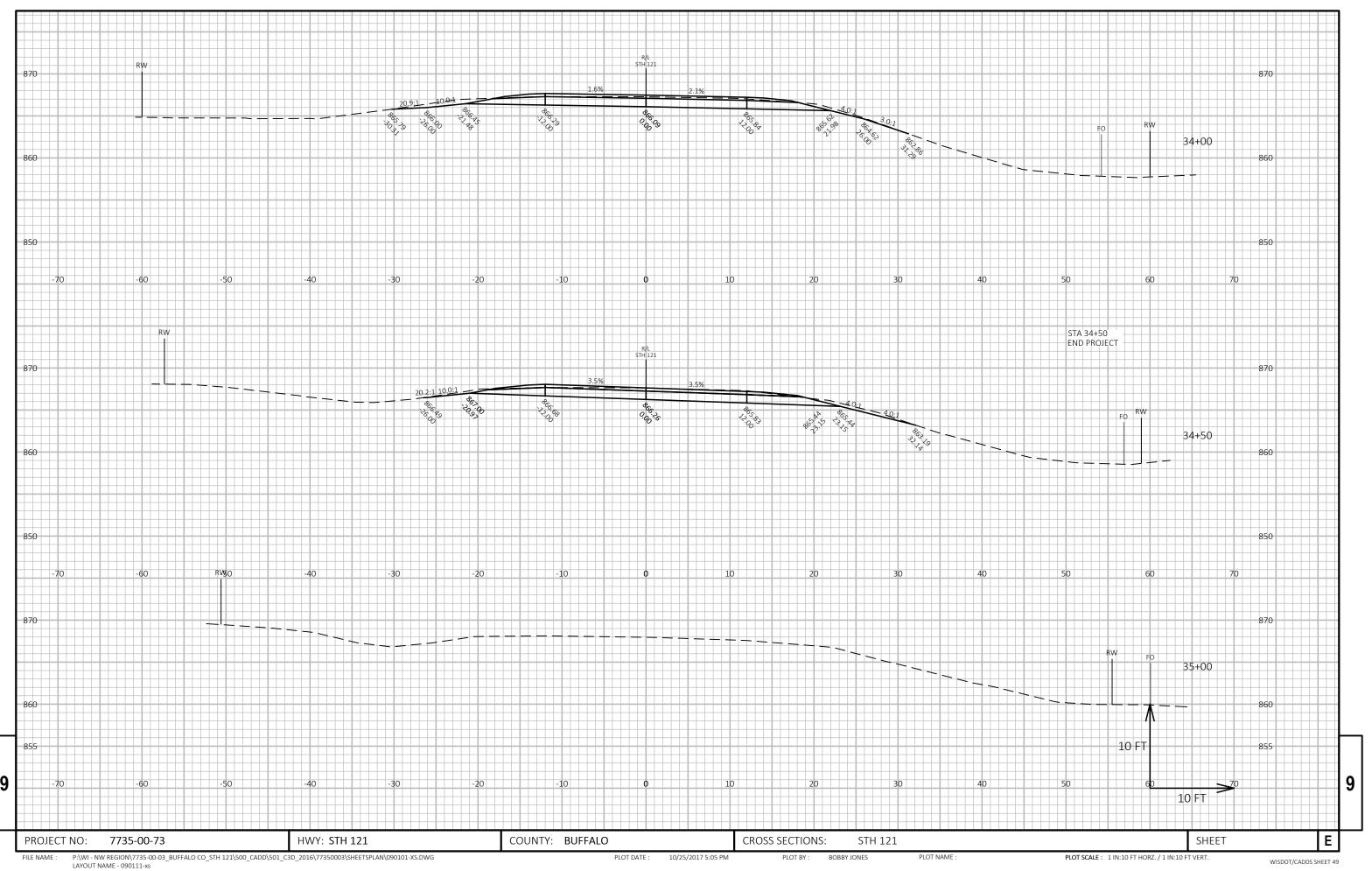














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