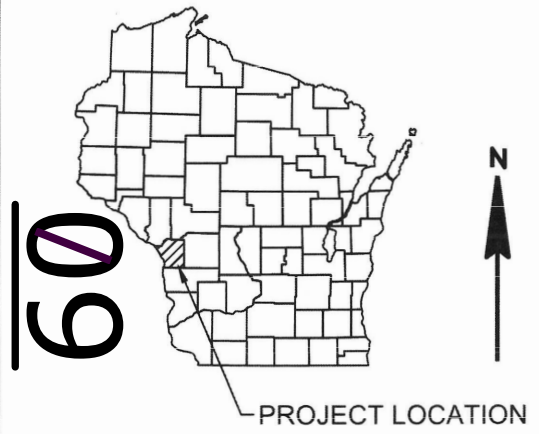


LAX
PROJECT ID: 5436-00-77
WITH: N/A
COUNTY: LA CROSSE

MARCH 2026
ORDER OF SHEETS

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

TOTAL SHEETS = 130



DESIGN DESIGNATION	5436-00-07
A.A.D.T. 2026	= 1,300
A.A.D.T. 2046	= 1,590
D.H.V.	= 185
D.D.	= 60/40
T.	= 22.5%
DESIGN SPEED	= 55 MPH
ESALS	= 500,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

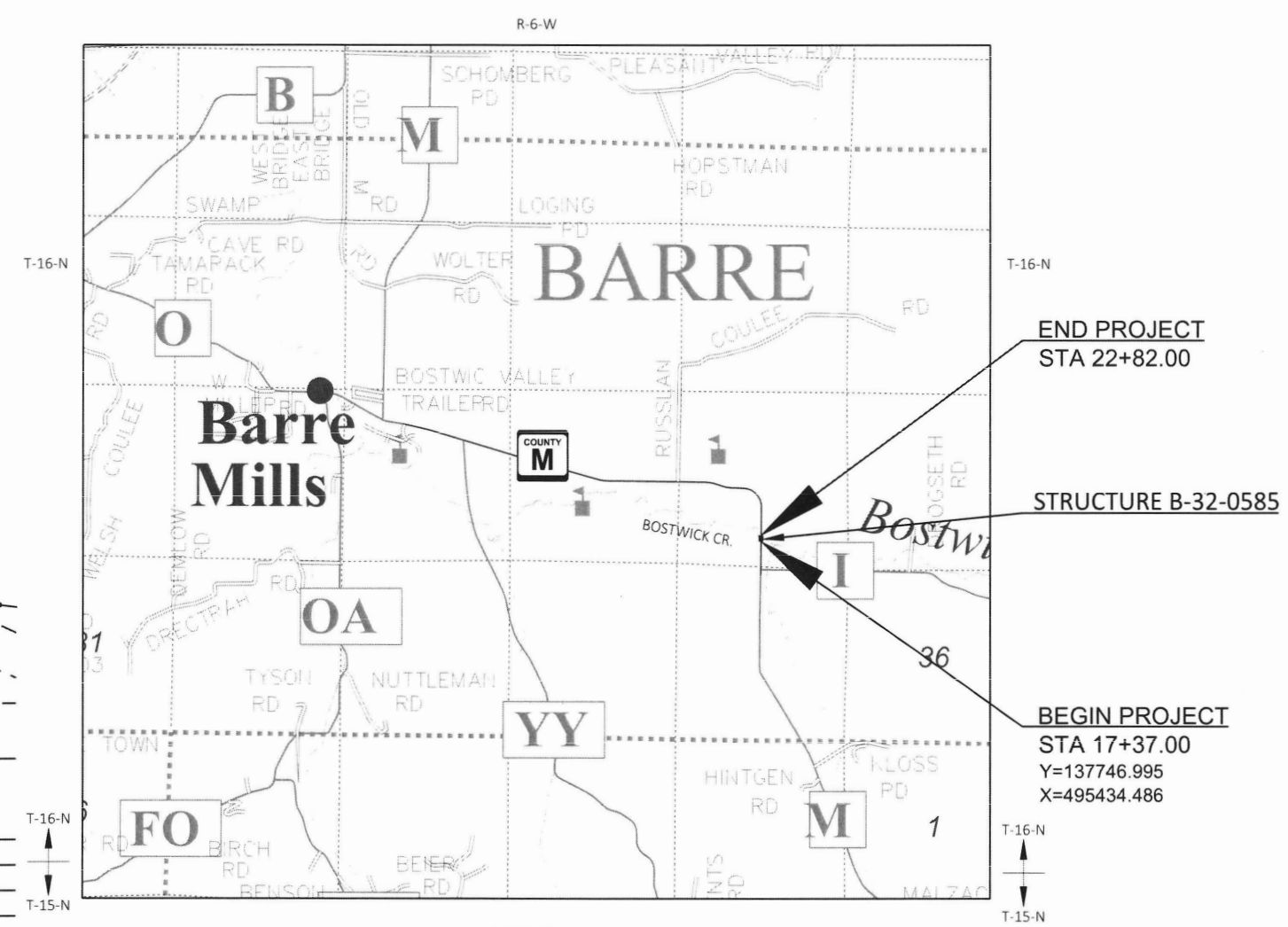
PLAN OF PROPOSED IMPROVEMENT

CTH I - CTH YY (CTH M)

BOSTWICK CREEK BRIDGE B-32-0585

CTH M
LA CROSSE COUNTY

STATE PROJECT NUMBER
5436-00-77



END PROJECT
STA 22+82.00

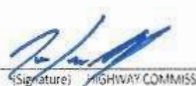
STRUCTURE B-32-0585

BEGIN PROJECT
STA 17+37.00
Y=137746.995
X=495434.486

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN
COORDINATE REFERENCE SYSTEM (WISCRS). LA CROSSE COUNTY,
NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID
COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES
ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED
TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12B.

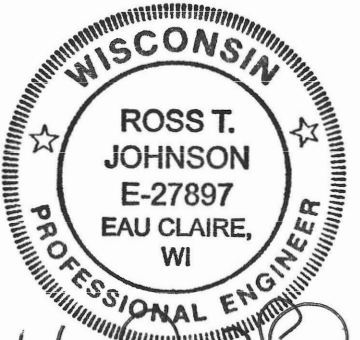
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5436-00-77	WISC 2026219	1

ACCEPTED FOR
COUNTY of LA CROSSE

10-13-25
(Date) 
(Signature) HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY





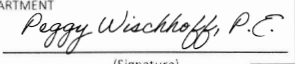
DATE: 10/13/2025
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS SQUARED, INC.
Designer	CBS SQUARED, INC.
Project Manager	PEGGY WISCHHOFF, PE
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, PE

APPROVED FOR THE DEPARTMENT

10/14/2025 
DATE: (Signature)

E

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED 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.

TREE CUTTING WILL BE PERFORMED BY LA CROSSE COUNTY PRIOR TO CONSTRUCTION. DO NOT CLEAR ADDITIONAL TREES WITHOUT THE APPROVAL OF THE ENGINEER.

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

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN THE DRIVING, TURNING, PASSING OR PARKING LANE.

DISTURBED AREAS WITHIN THE RIGHT OF WAY EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, AND MULCHED OR EROSION MAT.

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN. TACK COAT QUANTITY IS BASED ON AN APPLICATION RATE OF 0.07 GAL/SY.

CONTROL POINT TABLE			
3/4-INCH REBAR			
POINT NO.	ELEVATION	Y	X
2	743.9100	138054.1470	495418.6920
3	743.8300	137963.5760	495450.1890

BRIGHTSPEED - COMMUNICATION

1905 WARD AVENUE
LA CROSSE, WI 54601
BRIAN STELPLUGH
(980) 376-1557 (OFFICE)
(608) 780-1238 (CELL)
BRIAN.STELPLUGH@LUMEN.COM

CHARTER - COMMUNICATION

1228 12TH AVE SOUTH
ONALASKA, WI 54650
PERRY MCCLELLAN
(608) 317-6213 (OFFICE)
PERRY.MCCLELLAN@CHARTER.COM

XCEL ENERGY - ELECTRICITY DISTRIBUTION

3215 COMMERCE STREET
LA CROSSE, WI 54603
NATHAN ABBOTT
(608) 789-3790 (OFFICE)
(608) 487-0444 (CELL)

LA CROSSE COUNTY

JOSEPH LANGEBERG
HIGHWAY COMMISSIONER
301 CARLSON ROAD
WEST SALEM, WI 54669
(608) 786-3813 (OFFICE)
JLANGEBERG@LACROSSECOUNTY.ORG

WISCONSIN DNR

KAREN KALVELAGE
DNR LIAISON
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 406-7880
KAREN.KALVELAGE@WISCONSIN.GOV

DESIGN CONSULTANT

ROSS JOHNSON
CBS SQUARED, INC.
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729
(715) 861-2236 OFFICE
(715) 579-4179 MOBILE
RJOHNSON@CBSSQUAREDINC.COM

WISDOT CONTACT (SW REGION)

PEGGY WISCHHOFF
2101 WRIGHT STREET
MADISON, WI 53704
(608) 893-4944 MOBILE
(608) 246-5328 OFFICE
PEGGYF.WISCHHOFF@DOT.WI.GOV

RUNOFF COEFFICIENT TABLE

A	HYDROLOGIC SOIL GROUP											
	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	.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- TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE: TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 2.30 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.26 ACRES

ORDER OF SECTION 2 DETAIL SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- EROSION CONTROL
- MARKING AND SIGNING
- TRAFFIC CONTROL

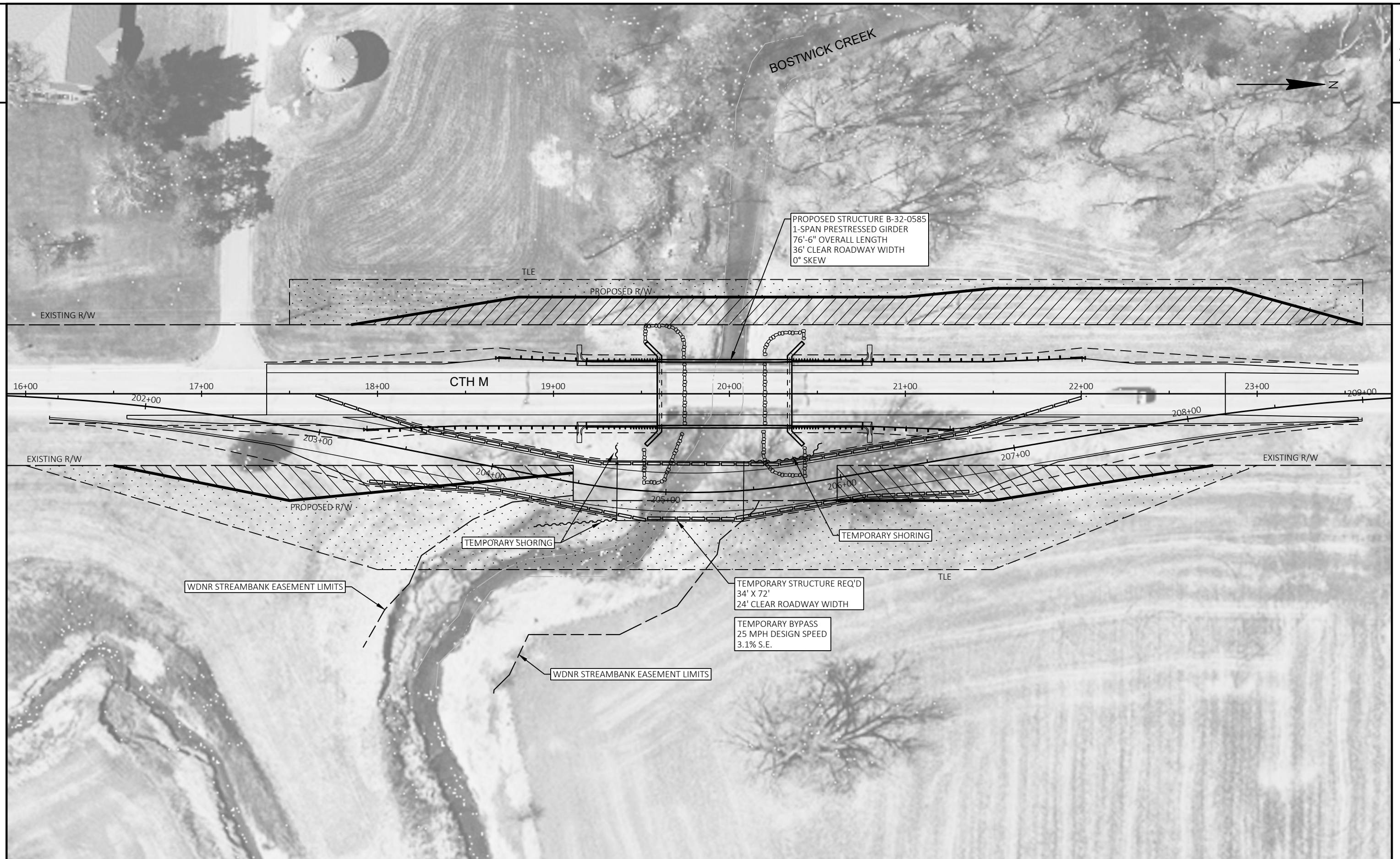
DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	LT	LEFT
AC	ACRE	LHF	LEFT HAND FORWARD
AGG	AGGREGATE	L	LENGTH OF CURVE
AH	AHEAD	LF	LINEAR FOOT
	ANGLE	LC	LONG CHORD OF CURVE
AADT	ANNUAL AVERAGE DAILY TRAFFIC	LS	LUMP SUM
AEW	APRON ENDWALL	MGAL	ONE THOUSAND GALLONS
ASPH	ASPHALTIC	MH	MANHOLE
BK	BACK	ML OR M/L	MATCH LINE
BC	BACK OF CURB	NOM	NOMINAL
BAD	BASE AGGREGATE DENSE	NC	NORMAL CROWN
BL OR B/L	BASE LINE	NB	NORTHBOUND
BM	BENCH MARK	NO	NUMBER
CB	CATCH BASIN	OD	OUTSIDE DIAMETER
CL OR C/L	CENTER LINE	PAVT	PAVEMENT
Δ	CENTRAL ANGLE OR DELTA	PLE	PERMANENT LIMITED EASEMENT
CE	COMMERCIAL ENTRANCE	PC	POINT OF CURVATURE
CONC	CONCRETE	PI	POINT OF INTERSECTION
CSW	CONCRETE SIDEWALK	PT	POINT OF TANGENCY
CONST	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CP	CONTROL POINT	LB	POUND
CO	COUNTY	PSI	POUNDS PER SQUARE INCH
CTH	COUNTY TRUCK HIGHWAY	PE	PRIVATE ENTRANCE
CY	CUBIC YARD	PROJ	PROJECT
CP	CULVERT PIPE	PL	PROPERTY LINE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM	PRW	PROPOSED RIGHT OF WAY
CPCPE	CULVERT PIPE CORRUGATED POLYETHYLENE	R	RADIUS
CPCPP	CULVERT PIPE CORRUGATED POLYPROPYLENE	RL OR R/L	REFERENCE LINE
CPCS	CULVERT PIPE CORRUGATED STEEL	REQD	REQUIRED
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED	RT	RIGHT
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED	RHF	RIGHT HAND FORWARD
CPRC	CULVERT PIPE REINFORCED CONCRETE	R/W	RIGHT OF WAY
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	RD	ROAD
CPS	CULVERT PIPE SALVAGED	RDWY	ROADWAY
CPT	CULVERT PIPE TEMPORARY	SHLDR	SHOULDER
C & G	CURB AND GUTTER	SW	SIDEWALK
D	DEGREE OF CURVE	SB	SOUTHBOUND
DHV	DESIGN HOUR VOLUME	SPECS	SPECIFICATIONS
DIA	DIAMETER	SF	SQUARE FEET
DD	DIRECTIONAL DISTRIBUTION	SY	SQUARE YARD
DE	DRAINAGE EASEMENT	SDD	STANDARD DETAIL DRAWINGS
DWY	DRIVEWAY	STH	STATE TRUNK HIGHWAY
EA	EACH	STA	STATION
EB	EASTBOUND	SSPC	STORM SEWER PIPE COMPOSITE
EL OR ELEV	ELEVATION	SSCPE	STORM SEWER PIPE CORRUGATED POLYETHYLENE
EMB	EMBANKMENT	SSCPP	STORM SEWER PIPE CORRUGATED POLYPROPYLENE
EW	ENDWALL	SSPNRC	STORM SEWER PIPE NON-REINFORCED CONCRETE
EAT	ENERGY ABSORBING TERMINAL	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
ESALS	EQUIVALENT SINGLE AXLE LOADS	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EXC	EXCAVATION	SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION
EXIST	EXISTING	SL OR S/L	SURVEY LINE
FERT	FERTILIZER	TEMP	TEMPORARY
FE	FIELD ENTRANCE	TI	TEMPORARY INTEREST
FL OR F/L	FLOW LINE	TLE	TEMPORARY LIMITED EASEMENT
FT	FOOT	TC	TOP OF CURB
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM	TL OR T/L	TRANSIT LINE
HES	HIGH EARLY STRENGTH	T	TRUCKS (PERCENT OF)
HE	HIGHWAY EASEMENT	TYP	TYPICAL
CWT	HUNDRED WEIGHT	USH	UNITED STATES HIGHWAY
IN DIA	INCH DIAMETER	VAR	VARIABLE
INL	INLET	VC	VERTICAL CURVE
ID	INSIDE DIAMETER	VPC	VERTICAL POINT OF CURVATURE
INTERS	INTERSECTION	VPI	VERTICAL POINT OF INTERSECTION
IH	INTERSTATE HIGHWAY	VPT	VERTICAL POINT OF TANGENCY
INV	INVERT	W	WEST
JT	JOINT	WB	WESTBOUND



PROJECT NO: 5436-00-77

HWY: CTH M

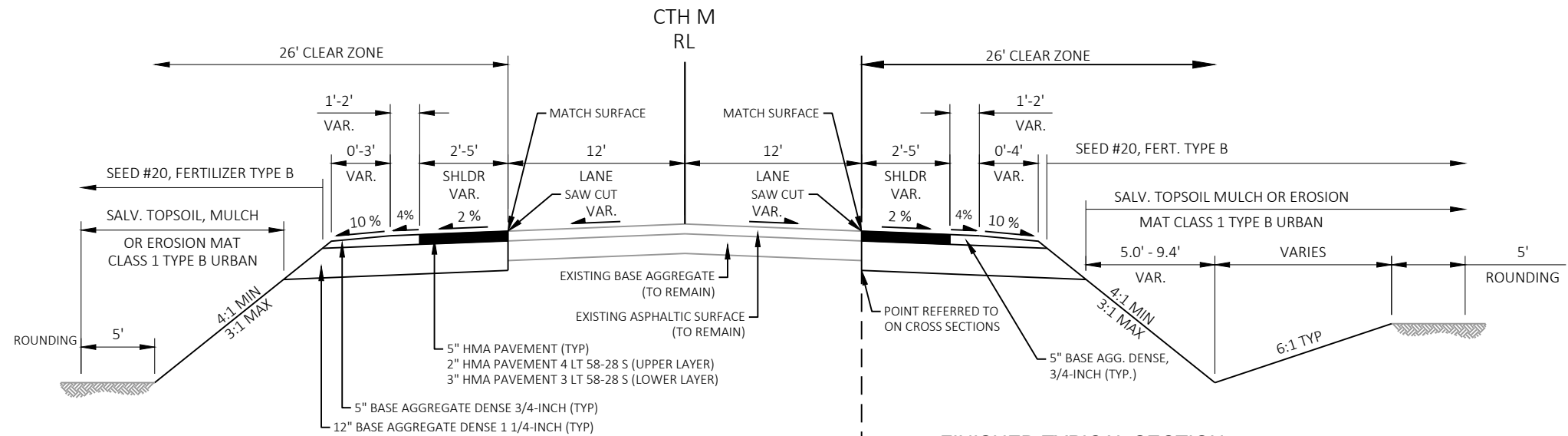
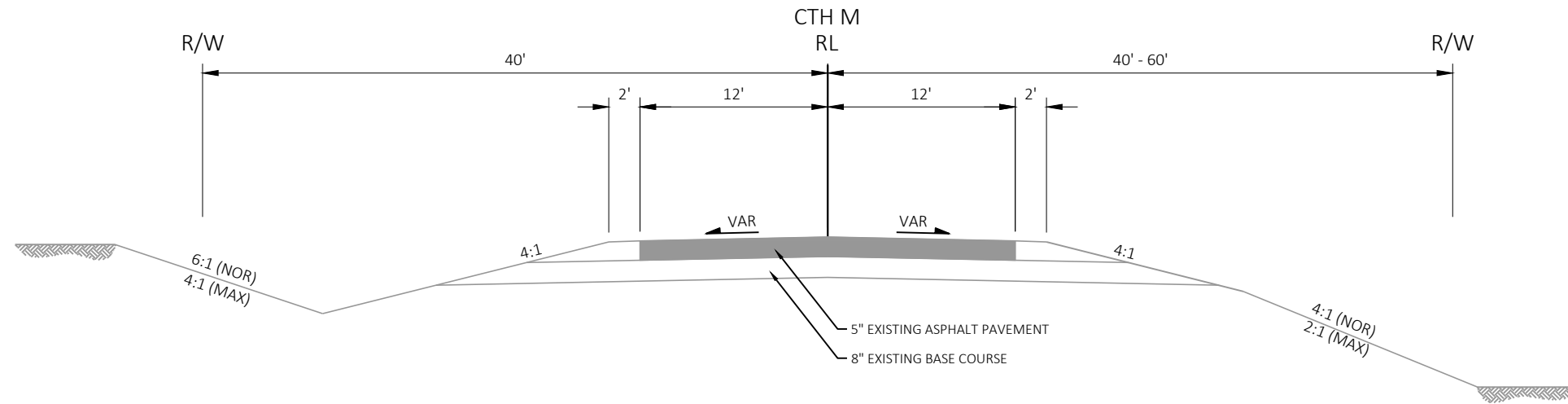
COUNTY: LA CROSSE

PROJECT OVERVIEW

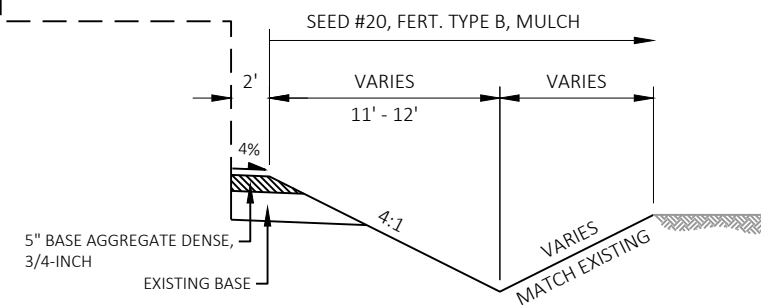
SHEET

4

E

**FINISHED TYPICAL SECTION**

STA 16+58 - STA 17+37, RT
STA 22+82 - STA 23+57, RT

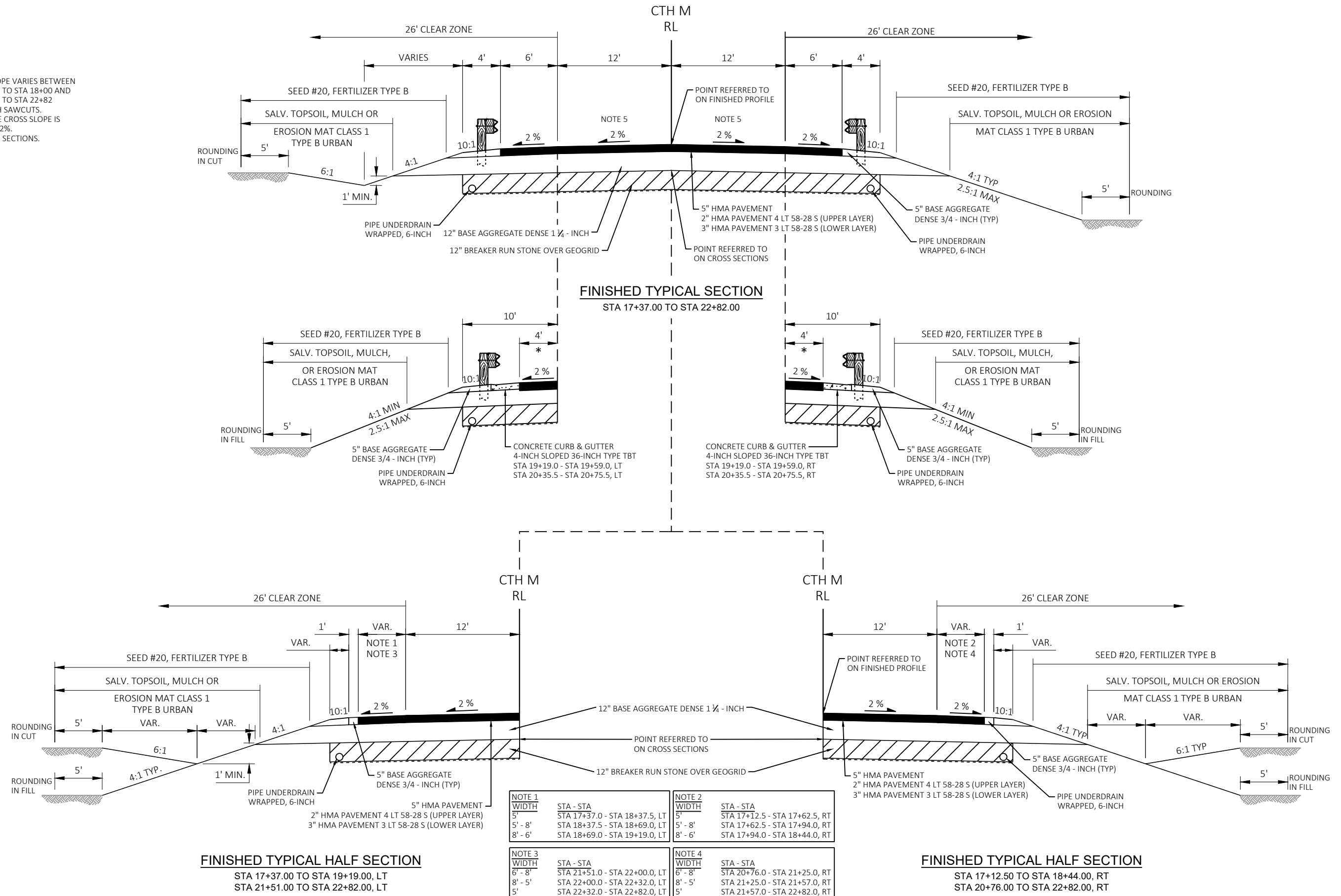
**FINISHED TYPICAL SECTION**

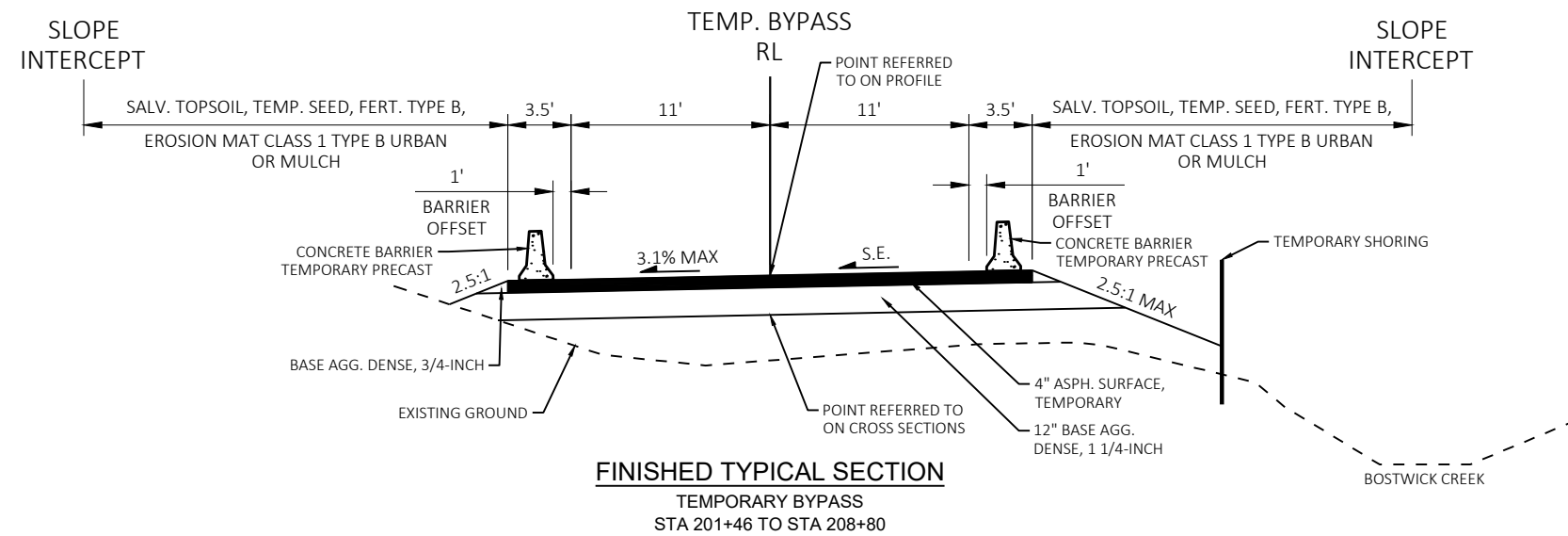
STA 16+14 - STA 16+58, RT

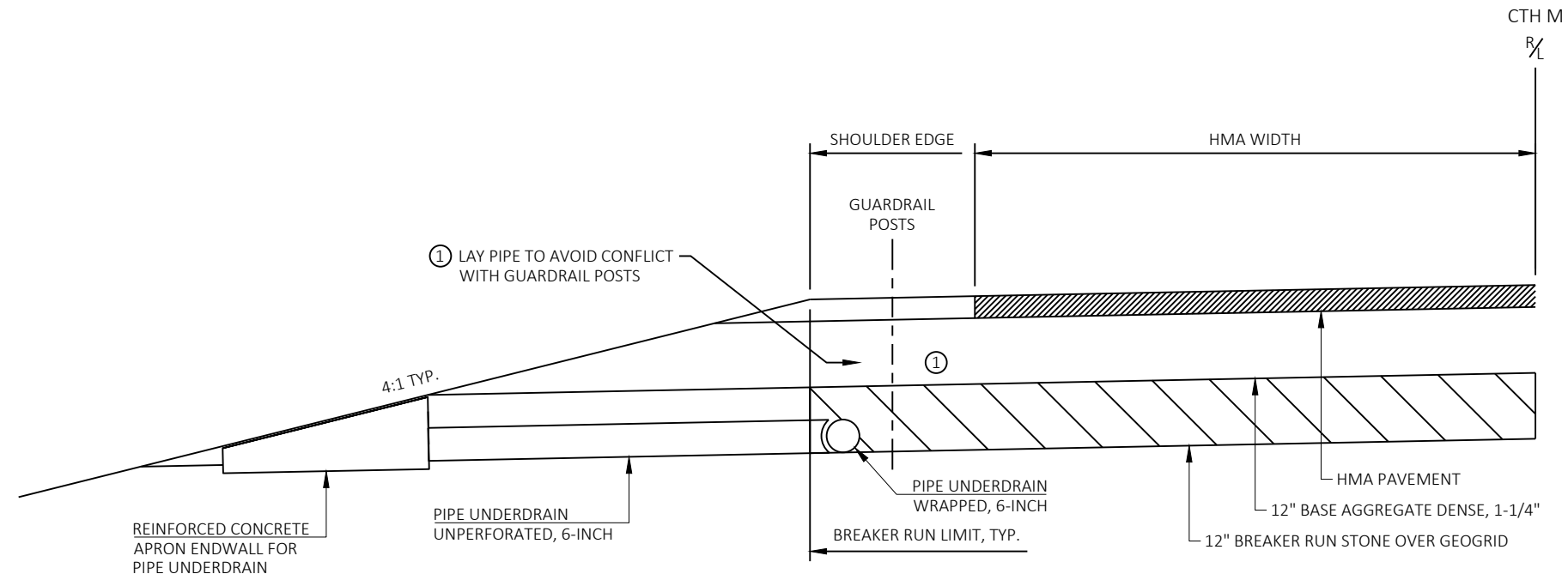
2

NOTE 5:
CROSS SLOPE VARIES BETWEEN
STA 17+37 TO STA 18+00 AND
STA 22+00 TO STA 22+82
TO MATCH SAWCUTS.
SUBGRADE CROSS SLOPE IS
UNIFORM 2%.
SEE CROSS SECTIONS.

2 |



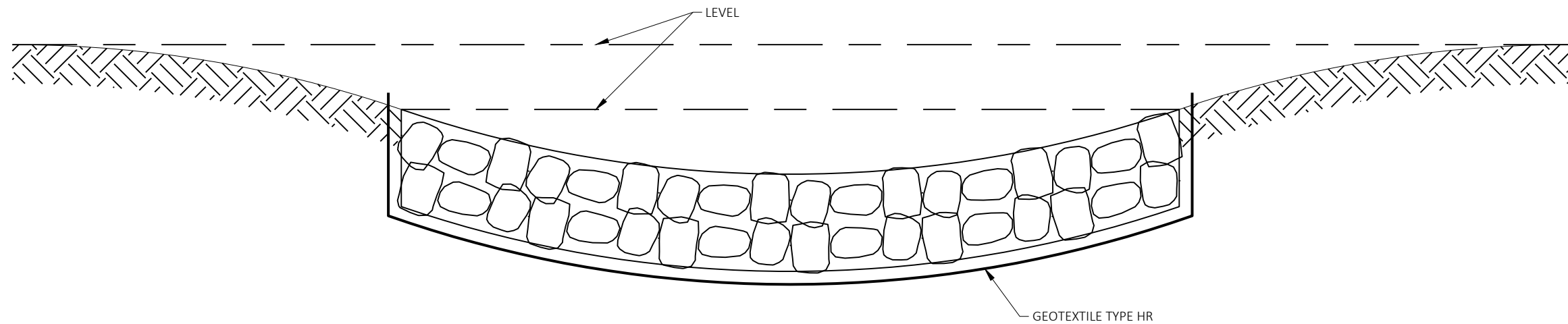




UNDERDRAIN DETAIL

CTH M

STA 17+37 TO STA 22+82
SPACED AT 250' MAX, AND LOW POINTS
SEE PLAN SHEETS



RIPRAP MEDIUM FLUME

STA 19+22, LT & RT
STA 20+72, LT & RT

PROJECT NO: 5436-00-77

HWY: CTH M

COUNTY: LA CROSSE

PLAN: CONSTRUCTION DETAILS

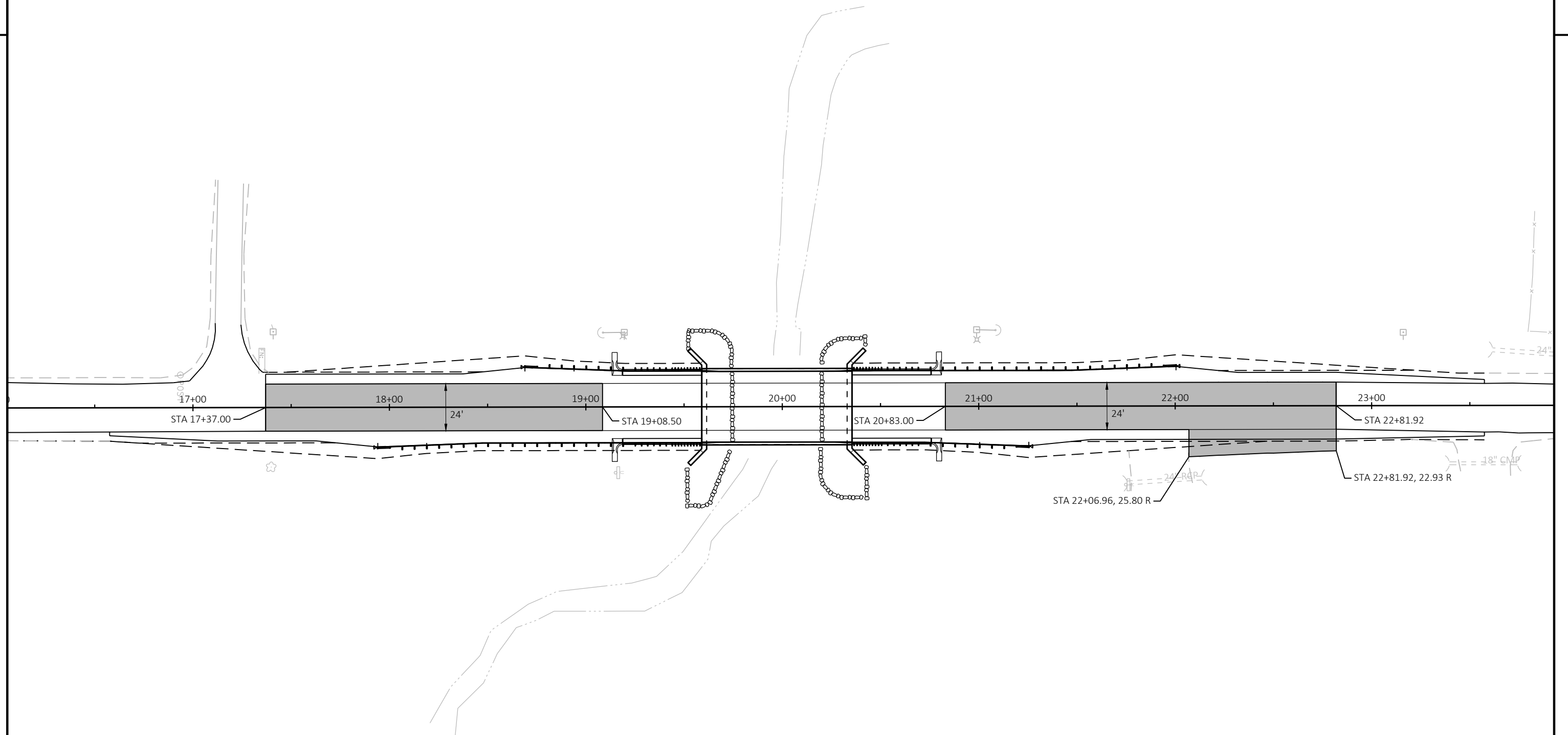
SHEET

8

E

2

2 |

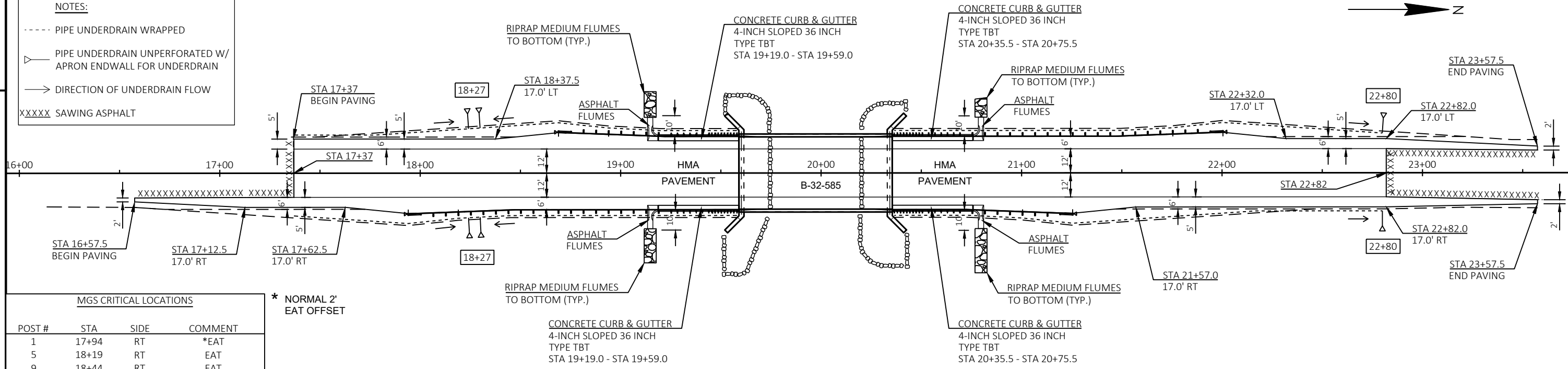


CATEGORY 0030 PAY LIMITS
FOR INFORMATIONAL PURPOSES ONLY

11/11/2019

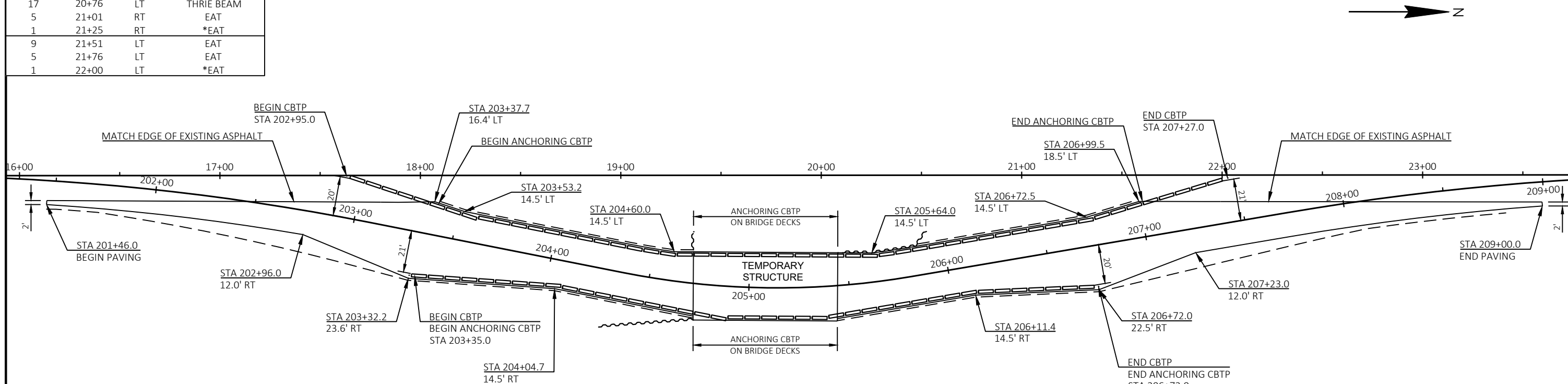
EXCAVATION COMMON, BASE AGGREGATE,
AND HMA AREA PAID UNDER CATEGORY 0030

- NOTES:
- PIPE UNDERDRAIN WRAPPED
 - △ PIPE UNDERDRAIN UNPERFORATED W/ APRON ENDWALL FOR UNDERDRAIN
 - DIRECTION OF UNDERDRAIN FLOW
 - XXXXX SAWING ASPHALT

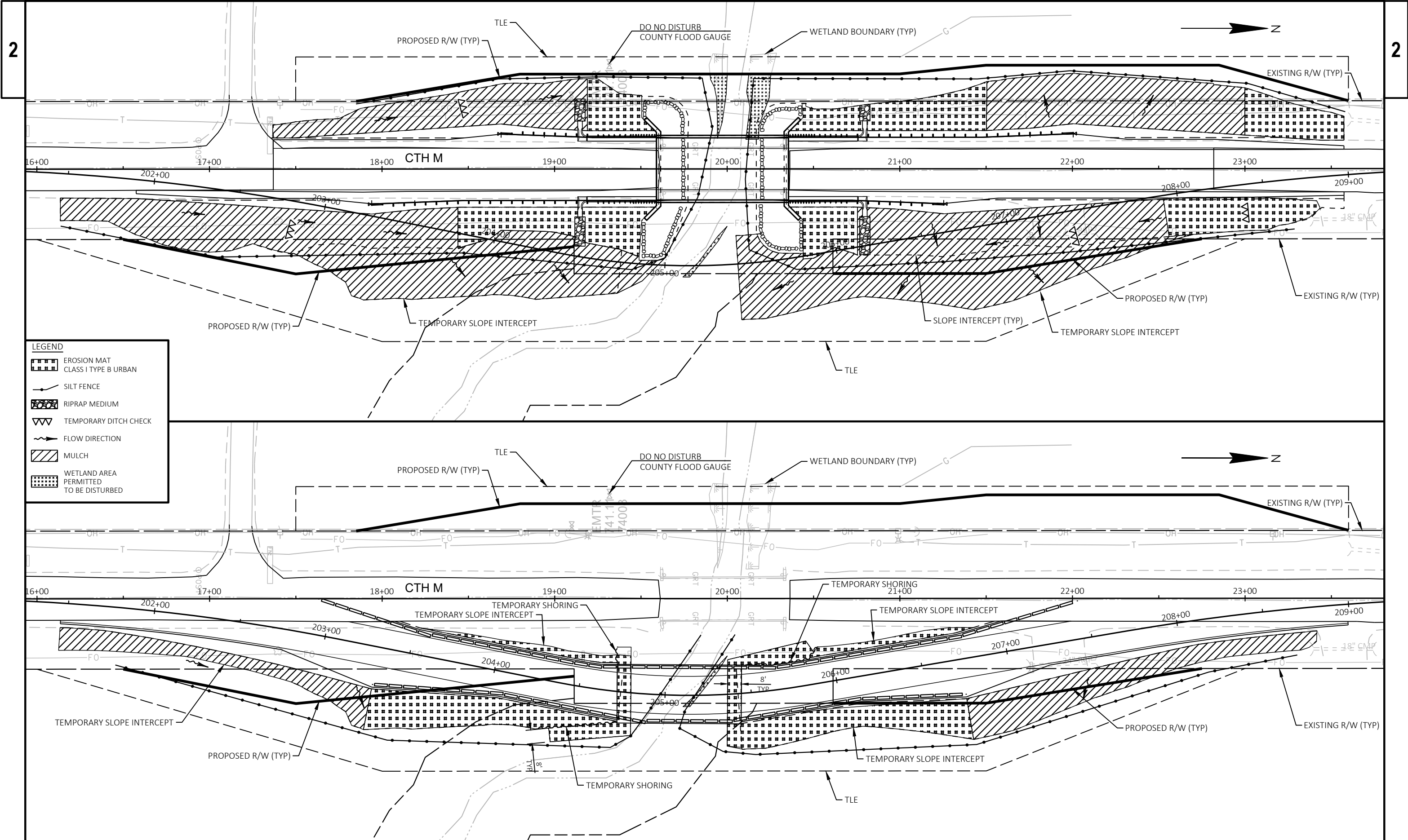


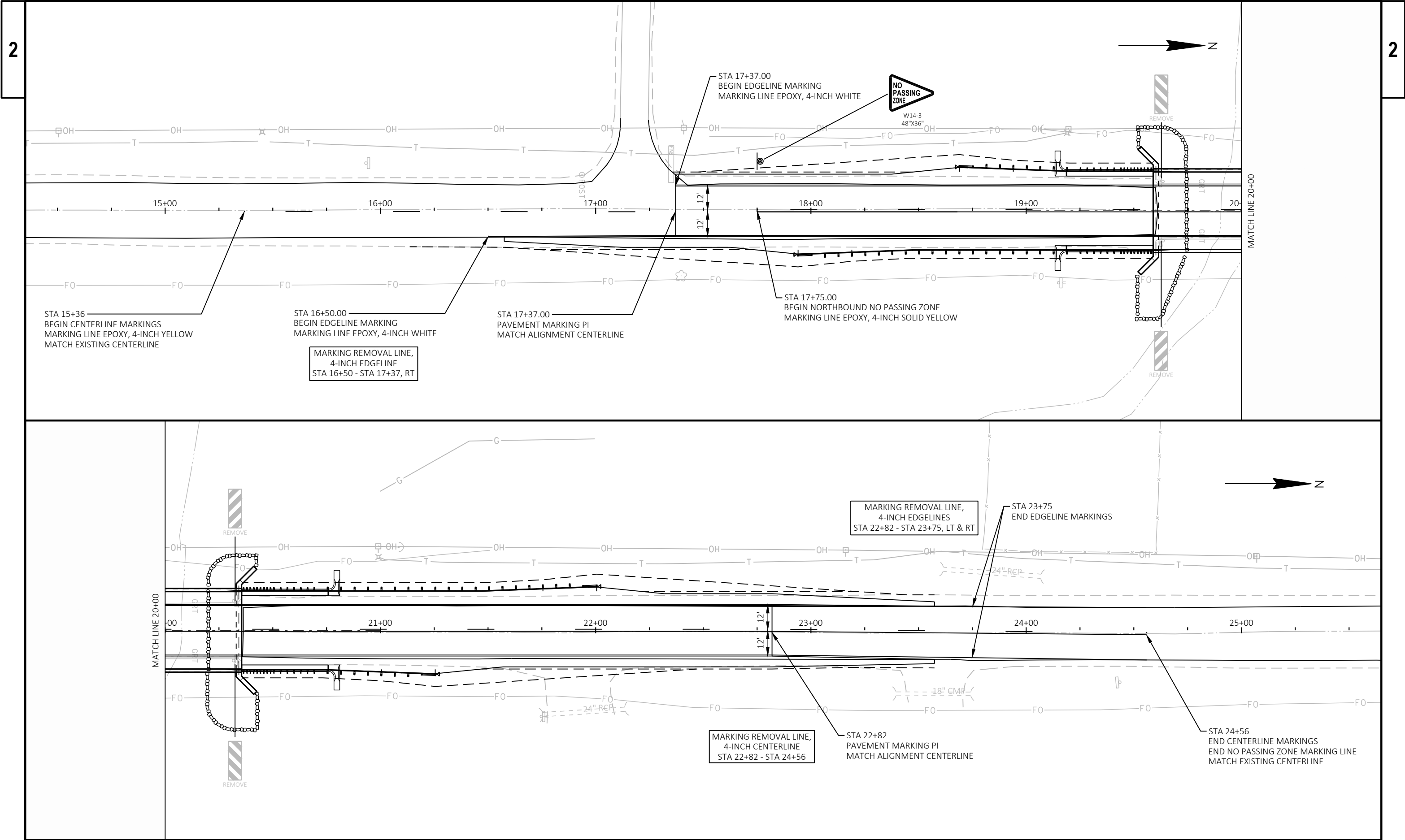
MGS CRITICAL LOCATIONS			
POST #	STA	SIDE	COMMENT
1	17+94	RT	*EAT
5	18+19	RT	EAT
9	18+44	RT	EAT
1	18+69	LT	*EAT
5	18+94	LT	EAT
9/17	19+19	LT	EAT/THRIE BEAM
17	19+19	RT	THRIE BEAM
1	19+58	RT	THRIE BEAM
1	19+58	LT	THRIE BEAM
1	20+36	RT	THRIE BEAM
1	20+36	LT	THRIE BEAM
9/17	20+76	RT	EAT/THRIE BEAM
17	20+76	LT	THRIE BEAM
5	21+01	RT	EAT
1	21+25	RT	*EAT
9	21+51	LT	EAT
5	21+76	LT	EAT
1	22+00	LT	*EAT

* NORMAL 2' EAT OFFSET



CBTP: CONCRETE BARRIER TEMPORARY PRECAST





GENERAL NOTES FOR TRAFFIC CONTROL

FOR TRAFFIC CONTROL OF STAGE 1 AND STAGE 3 OF CONSTRUCTION SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION," AND "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY."

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

A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS NOTED.

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

EXISTING AND ADVANCE WARNING TRAFFIC SIGNS MAY REQUIRE RELOCATION DURING CONSTRUCTION STAGING AND ARE INCIDENTAL TO THE CONTRACT.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) ARE TO BE PLACED AT PLAN LOCATIONS ONE WEEK PRIOR TO THE START OF CONSTRUCTION, AND REMOVED ONCE CONSTRUCTION BEGINS.

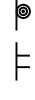
TRAFFIC CONTROL SIGNS - PCMS MESSAGES		
	PRIOR TO CONSTRUCTION	
PCMS LOCATION	PHASE 1	PHASE 2
200' N OF STH 33	ROADWORK AT CTH I	BEGINS (DAY)(DATE)
200' E OF CTH YY	ROADWORK AT CTH I	BEGINS (DAY)(DATE)



TYPE III BARRICADE



TYPE III BARRICADE WITH ATTACHED SIGN



TRAFFIC CONTROL DRUM



TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT



SIGN ON PERMANENT SUPPORT



SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPE A WARNING LIGHT (FLASHING)



CONCRETE BARRIER TEMPORARY PRECAST



MARKING REMOVAL LINE



WORK AREA



TEMPORARY RAISED PAVEMENT MARKER (TWO WAY YELLOW)



TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)

CONSTRUCTION STAGING OPERATIONS

- STAGE 1

CONSTRUCTION OPERATIONS:

 - INSTALL ADVANCED WARNING SIGNS
 - CONSTRUCT TEMPORARY BYPASS

TRAFFIC OPERATIONS:

 - CONTROL TRAFFIC BY FLAGGING OPERATIONS AND SHOULDER CLOSURES ON CTH M

- STAGE 2

CONSTRUCTION OPERATIONS:

 - CONSTRUCT B-32-0585
 - CONSTRUCT ROADWAY APPROACHES

TRAFFIC OPERATIONS:

 - CLOSE CTH M
 - OPEN THE TEMPORARY BYPASS
 - MAINTAIN BIDIRECTIONAL TRAFFIC USING THE TEMPORARY BYPASS

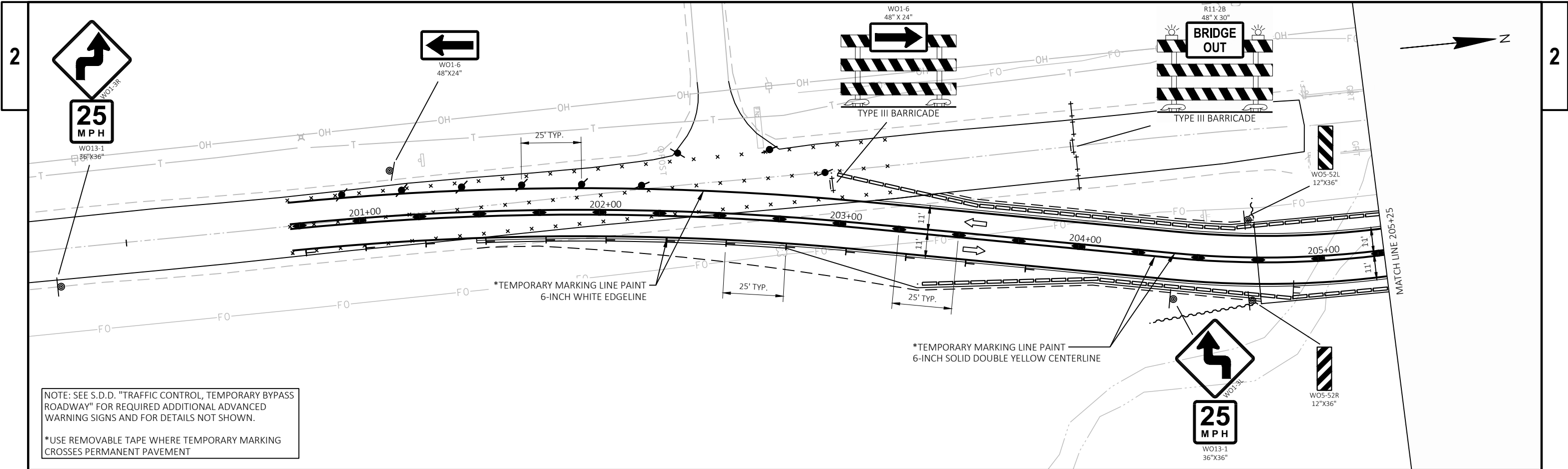
- STAGE 3

CONSTRUCTION OPERATIONS:

 - COMPLETE GUARDRAIL GRADING AND GUARDRAIL INSTALLATION
 - REMOVE THE TEMPORARY BYPASS

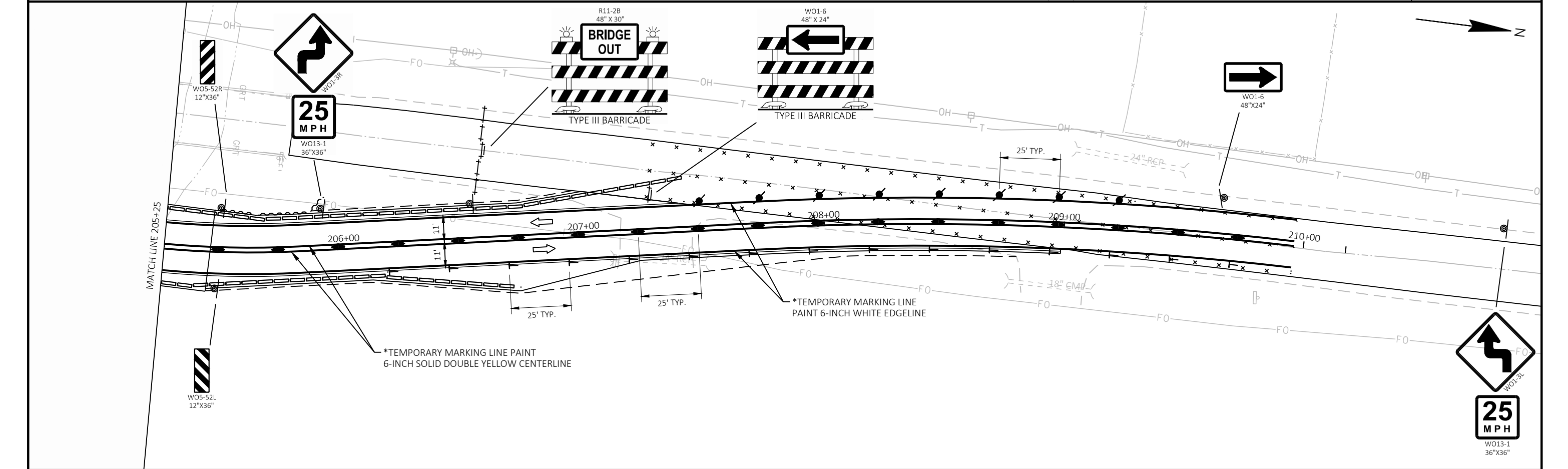
TRAFFIC OPERATIONS:

 - RE-OPEN CTH M TO TRAFFIC
 - CONTROL TRAFFIC BY FLAGGING OPERATIONS AND SHOULDER CLOSURES ON CTH M



NOTE: SEE S.D.D. "TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY" FOR REQUIRED ADDITIONAL ADVANCED WARNING SIGNS AND FOR DETAILS NOT SHOWN.

*USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT



Estimate Of Quantities

5436-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	5.000	5.000
0004	201.0205	Grubbing	STA	5.000	5.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-32-007	EACH	1.000	1.000
0010	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-32-007	EACH	1.000	1.000
0012	205.0100	Excavation Common	CY	4,240.000	4,240.000
0014	205.0506.S	Excavation, Hauling, and Disposal of Creosote Contaminated Soil	TON	200.000	200.000
0016	206.1001	Excavation for Structures Bridges (structure) 01. B-32-585	EACH	1.000	1.000
0018	208.0100	Borrow	CY	2,966.000	2,966.000
0020	210.1500	Backfill Structure Type A	TON	748.000	748.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	160.000	160.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,304.000	3,304.000
0026	311.0110	Breaker Run	TON	1,473.000	1,473.000
0028	455.0605	Tack Coat	GAL	142.000	142.000
0030	460.2000	Incentive Density HMA Pavement	DOL	360.000	360.000
0032	460.5223	HMA Pavement 3 LT 58-28 S	TON	334.000	334.000
0034	460.5224	HMA Pavement 4 LT 58-28 S	TON	223.000	223.000
0036	465.0125	Asphaltic Surface Temporary	TON	370.000	370.000
0038	465.0315	Asphaltic Flumes	SY	20.000	20.000
0040	502.0100	Concrete Masonry Bridges	CY	216.000	216.000
0042	502.3200	Protective Surface Treatment	SY	306.000	306.000
0044	502.3210	Pigmented Surface Sealer	SY	76.000	76.000
0046	503.0137	Prestressed Girder Type I 36W-Inch	LF	375.000	375.000
0048	505.0400	Bar Steel Reinforcement HS Structures	LB	6,020.000	6,020.000
0050	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	26,120.000	26,120.000
0052	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	10.000	10.000
0054	506.4000	Steel Diaphragms (structure) 01. B-32-585	EACH	4.000	4.000
0056	511.1100	Temporary Shoring	SF	539.000	539.000
0058	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0060	526.0101	Temporary Structure (station) 01. STA 205+00	EACH	1.000	1.000
0062	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	760.000	760.000
0064	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	160.000	160.000
0066	603.8000	Concrete Barrier Temporary Precast Delivered	LF	800.000	800.000
0068	603.8125	Concrete Barrier Temporary Precast Installed	LF	800.000	800.000
0070	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	656.000	656.000
0072	603.8505	Anchoring Concrete Barrier Temporary Precast on Bridge Decks	LF	144.000	144.000
0074	606.0200	Riprap Medium	CY	23.000	23.000
0076	606.0300	Riprap Heavy	CY	255.000	255.000
0078	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	24.000	24.000
0080	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	1,126.000	1,126.000
0082	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	6.000	6.000
0084	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0086	614.2300	MGS Guardrail 3	LF	150.000	150.000
0088	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0090	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0092	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5436-00-77	EACH	1.000	1.000
0094	619.1000	Mobilization	EACH	1.000	1.000
0096	624.0100	Water	MGAL	56.000	56.000
0098	625.0500	Salvaged Topsoil	SY	6,740.000	6,740.000

Estimate Of Quantities

5436-00-77

Line	Item	Item Description	Unit	Total	Qty
0100	627.0200	Mulching	SY	4,705.000	4,705.000
0102	628.1504	Silt Fence	LF	2,800.000	2,800.000
0104	628.1520	Silt Fence Maintenance	LF	2,800.000	2,800.000
0106	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0108	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0110	628.2008	Erosion Mat Urban Class I Type B	SY	2,035.000	2,035.000
0112	628.7504	Temporary Ditch Checks	LF	32.000	32.000
0114	629.0210	Fertilizer Type B	CWT	4.800	4.800
0116	630.0120	Seeding Mixture No. 20	LB	72.000	72.000
0118	630.0200	Seeding Temporary	LB	45.000	45.000
0120	630.0500	Seed Water	MGAL	158.000	158.000
0122	633.1100	Delineators Temporary	EACH	30.000	30.000
0124	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0126	637.2230	Signs Type II Reflective F	SF	5.600	5.600
0128	638.2602	Removing Signs Type II	EACH	4.000	4.000
0130	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0132	642.5001	Field Office Type B	EACH	1.000	1.000
0134	643.0300	Traffic Control Drums	DAY	2,592.000	2,592.000
0136	643.0420	Traffic Control Barricades Type III	DAY	1,488.000	1,488.000
0138	643.0705	Traffic Control Warning Lights Type A	DAY	496.000	496.000
0140	643.0715	Traffic Control Warning Lights Type C	DAY	2,232.000	2,232.000
0142	643.0900	Traffic Control Signs	DAY	2,332.000	2,332.000
0144	643.1051	Traffic Control Signs PCMS with TMC Communications	DAY	14.000	14.000
0146	643.3165	Temporary Marking Line Paint 6-Inch	LF	2,316.000	2,316.000
0148	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	1,394.000	1,394.000
0150	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	38.000	38.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0111	Geotextile Type DF Schedule A	SY	120.000	120.000
0156	645.0120	Geotextile Type HR	SY	581.000	581.000
0158	645.0220	Geogrid Type SR	SY	2,345.000	2,345.000
0160	646.1020	Marking Line Epoxy 4-Inch	LF	2,619.000	2,619.000
0162	646.5520	Marking Outfall Epoxy	EACH	4.000	4.000
0164	646.9000	Marking Removal Line 4-Inch	LF	1,560.000	1,560.000
0166	650.4500	Construction Staking Subgrade	LF	1,304.000	1,304.000
0168	650.5000	Construction Staking Base	LF	1,304.000	1,304.000
0170	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	160.000	160.000
0172	650.6501	Construction Staking Structure Layout (structure) 01. B-32-585	EACH	1.000	1.000
0174	650.9911	Construction Staking Supplemental Control (project) 01. 5436-00-77	EACH	1.000	1.000
0176	650.9920	Construction Staking Slope Stakes	LF	1,348.000	1,348.000
0178	690.0150	Sawing Asphalt	LF	1,071.000	1,071.000
0180	715.0502	Incentive Strength Concrete Structures	DOL	1.000	1.000
0182	999.2005.S	Maintaining Bird Deterrent System (station) 01. STA 20+00	EACH	1.000	1.000
0184	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0186	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0188	SPV.0090	Special 01. Removing Existing Timber Piling	LF	140.000	140.000

Estimate Of Quantities

5436-00-77

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)				FACTOR 1.30				
DIVISION 1											
BYPASS CONSTRUCTION (CAT 0010)	201+45.92/208+79.62		105	0	105	2,362	3,071	-2,966	0	2,966	
DIVISION 1 SUBTOTAL			105	0	105	2,362	3,071	-2,966	0	2,966	
DIVISION 2											
CTH M (CAT 0010)	16+13.62/23+57.40		542	180	1,204	717	932	272	272	0	SEE CONSTRUCTION DETAIL FOR CAT 0030 NON-PARTICIPATING AREA
CTH M (CAT 0030)	16+13.62/23+57.40		842								
DIVISION 2 SUBTOTAL			1,384	180	1,204	717	932	272	272	0	
DIVISION 3											
BYPASS REMOVAL (CAT 0010)	201+45.92/208+79.62		2,751	192	2,559	0	0	2,559	2,559	0	
DIVISION 3 SUBTOTAL			2,751	192	2,559	0	0	2,559	2,559	0	
GRAND TOTAL			4,240	372	3,868	3,079	4,003	-135	2,831	2,966	

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.30
EXPANDED FILL = UNEXPANDED FILL* FILL FACTOR
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	17+00	-	21+00	RT	4	4
0010	19+50	-	20+50	LT	1	1
TOTAL 0010					5	5

205.0506.S
EXCAVATION, HAULING, AND DISPOSAL OF
CREOSOTE CONTAMINATED SOIL

CATEGORY	LOCATION	TON
0010	PROJECT	200
TOTAL 0010		200

465.0315
ASPHALTIC FLUMES
SY

CATEGORY	STATION	LOCATION	SY
0010	19+16	RT	5
0010	19+16	LT	5
0010	20+78	RT	5
0010	20+78	LT	5
TOTAL 0010			20

203.0100
REMOVING SMALL PIPE
CULVERTS
EACH

CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	21+93	RT	1	24-INCH RCCP
TOTAL 0010			1	

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	16+58	-	19+59	CTY M	43	566	10
0010	20+35	-	23+57	CTY M	46	575	10
0010	201+46	-	204+74	BYPASS	36	702	12
0010	205+42	-	208+99	BYPASS	32	746	12
TOTAL 0010					157	2,589	44
0030	17+37	-	19+09	CTY M	-	305	5
0030	20+83	-	22+82	RT	3	410	7
TOTAL 0030					3	715	12
PROJECT TOTAL					160	3304	56

BREAKER RUN

CATEGORY	STATION	TO	STATION	LOCATION	311.0110 BREAKER RUN TON	645.0220 GEOGRID TYPE SR SY
0010	17+37	-	19+09	RT	130	216
0010	17+37	-	19+09	LT	118	197
0010	19+09	-	19+59	-	150	249
0010	20+36	-	20+83	-	141	234
0010	20+83	-	22+82	RT	160	160
0010	20+83	-	22+82	LT	147	245
TOTAL 0010					846	1,301
0030	17+37	-	19+09	-	275	458
0030	20+83	-	22+82	-	352	586
TOTAL 0030					627	1044
PROJECT TOTAL					1473	2345

HMA									
CATEGORY	STATION	TO	STATION	LOCATION	455.0605	460.5223	460.5224	465.0125	REMARKS
					TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 S TON	ASPHALTIC SURFACE TEMPORARY TON	
0010	201+46	-	204+74	BYPASS	-	-	-	175	SOUTH BYPASS
0010	205+43	-	208+99	BYPASS	-	-	-	195	NORTH BYPASS
0010	16+58	-	19+59	CTY M	34	80	53	-	SOUTH OF BRIDGE
0010	20+36	-	23+57	CTY M	34	80	53	-	NORTH OF BRIDGE
TOTAL 0010					68	160	106	370	
0030	17+37	-	19+09	CTY M	33	77	52	-	
0030	20+83	-	22+82	CTY M	41	97	65	-	
TOTAL 0030					74	174	117	0	
PROJECT TOTAL					142	334	223	370	

						TEMPORARY CONCRETE BARRIER								
601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT						603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED		603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED		603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST		603.8505 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST ON BRIDGE DECKS		
CATEGORY	STATION	TO	STATION	LOCATION	LF	CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF
0010	19+19	-	19+59	RT	40	0010	202+92	-	207+45	BYPASS, LT	450	450	378	72
0010	19+19	-	19+59	LT	40	0010	203+32	-	206+73	BYPASS, RT	350	350	278	72
0010	20+36	-	20+76	RT	40									
0010	20+36	-	20+76	LT	40									
TOTAL 0010					160	TOTAL 0010					800	800	656	144

PIPE UNDERDRAIN							
CATEGORY	STATION	TO	STATION	LOCATION	612.0206	612.0406	612.0806
					PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	PIPE UNDERDRAIN WRAPPED 6-INCH LF	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH
0010	17+37	-	19+59	CTH M, LT	8	222	2
0010	17+37	-	19+59	CTH M, RT	8	222	2
0010	20+36	-	22+80	CTH M, LT	4	244	1
0010	20+36	-	22+80	CTH M, RT	4	244	1
TOTAL 0010					24	932	6

MGS GUARDRAIL									
CATEGORY	STATION	TO	STATION	LOCATION	614.2300	614.2500	614.2610		
					MGS GUARDRAIL 3 LF	MGS THRIE BEAM TRANSITION LF	MGS GUARDRAIL TERMINAL EAT EACH		
0010	17+94	-	19+62	RT	75	39.4	1		
0010	18+69	-	19+62	LT	-	39.4	1		
0010	20+33	-	21+25	RT	-	39.4	1		
0010	20+33	-	22+00	LT	75	39.4	1		
TOTAL 0010					150	157.6	4		

EROSION CONTROL																
CATEGORY	STATION	TO	STATION	LOCATION	625.0500	627.0200	628.1504	628.1520	628.1905	628.1910	628.2008	628.7504	629.0210	630.0120	630.0200	630.0500
					SALVAGED TOPSOIL SY	MULCHING SY	SILT FENCE LF	SILT FENCE MAINTENANCE LF	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	EROSION MAT URBAN CLASS I TYPE B SY	TEMPORARY DITCH CHECKS LF	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
0010	200+68	-	204+74	BYPASS, RT	507	211	378	378	-	-	296	-	0.4	-	14	12
0010	200+68	-	204+74	BYPASS, LT	56	-	-	-	-	-	56	-	0.1	-	2	2
0010	205+43	-	209+96	BYPASS, RT	610	346	432	432	-	-	264	-	0.4	-	17	14
0010	205+43	-	209+96	BYPASS, LT	96	-	-	-	-	-	96	-	0.1	-	3	3
0010	16+14	-	19+59	RT	1404	1190	410	410	-	-	214	8	0.9	19	-	32
0010	17+37	-	19+59	LT	457	367	256	256	-	-	90	8	0.3	7	-	11
0010	20+33	-	23+41	RT	1450	1175	366	366	-	-	275	16	1.0	20	-	33
0010	20+33	-	23+57	LT	812	475	398	398	-	-	337	-	0.6	11	-	19
0010				PROJECT	-	-	-	-	4	4	-	-	-	-	-	-
0010				UNDISTRIBUTED	1348	941	560	560	-	-	407	-	1.0	15	9	32
TOTAL 0010					6,740	4,705	2,800	2,800	4	4	2,035	32	4.80	72	45	158

PERMANENT SIGNING											
CATEGORY	STATION	LOCATION	SIGN CODE	SIGN SIZE (IN)			634.0616	637.2230	638.2602	638.3000	REMARKS
				W	X	H	POSTS WOOD 4X6-INCH X 16-FT EACH	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	17+75	LT	W14-3	48	X	36	1	5.6	-	-	NO PASSING ZONE
0010	19+63	LT	W5-52-L	-	-	-	-	-	1	1	OBJECT MARKER
0010	19+63	RT	W5-52-R	-	-	-	-	-	1	1	OBJECT MARKER
0010	20+32	LT	W5-52-R	-	-	-	-	-	1	1	OBJECT MARKER
0010	20+32	RT	W5-52-L	-	-	-	-	-	1	1	OBJECT MARKER
TOTAL 0010							1	5.6	4	4	

3

3

TRAFFIC CONTROL																	
		633.1100		643.0300		643.0420		643.0705		643.0715		643.0900		643.1051		643.5000	
		DELINEATORS		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS		TRAFFIC CONTROL	
CATEGORY	LOCATION	DURATION DAYS	TEMPORARY EACH	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	REMARKS
0010	PROJECT	7	-	-	-	-	-	-	-	-	-	-	-	2	14	1	7 DAY ADVANCED CONSTRUCTION NOTICE
0010	STAGE 1	5	-	18	90	-	-	-	-	-	-	5	25	-	-	-	MAINLINE
0010	STAGE 2	124	30	18	2232	12	1488	4	496	18	2232	18	2232	-	-	-	BYPASS
0010	STAGE 3	15	-	18	270	-	-	-	-	-	-	5	75	-	-	-	MAINLINE
TOTAL 0010			30		2,592		1,488		496		2,232		2,332		14	1	

TEMPORARY MARKINGS							
		643.3165		643.3180		643.3760	
		TEMPORARY MARKING LINE PAINT 6-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH		TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I	
		WHITE	YELLOW	WHITE	YELLOW	EACH	LF
CATEGORY	LOCATION	LF	LF	LF	LF		
0010	BYPASS	1191	1125	664	730	38	1560
SUBTOTAL 0010		1191	1125	664	730		
TOTAL 0010		2,316		1,394		38	1,560

PAVEMENT MARKING								
			646.1020		646.5520			
			MARKING LINE EPOXY 4-INCH		MARKING OUTFALL EPOXY			
			WHITE	YELLOW				
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	EACH	REMARKS
0010	15+37	-	24+56	CTY M	1838	-	-	LANE LINE
0010	15+37	-	24+56	CTY M	-	551	-	SOLID CENTERLINE
0010	15+37	-	24+56	CTY M	-	230	-	DASHED CENTERLINE
0010		18+27		CTY M, LT	-	-	1	
0010		18+27		CTY M, RT	-	-	1	
0010		22+80		CTY M, LT	-	-	1	
0010		22+80		CTY M, RT	-	-	1	
SUBTOTAL 0010					1838	781		
TOTAL 0010					2619		4	

3

3

CONSTRUCTION STAKING											
		650.4500		650.5000		650.5500		650.9920		650.6501.01	
		CONSTRUCTION STAKING		CONSTRUCTION		CONSTRUCTION STAKING		CONSTRUCTION		CONSTRUCTION STAKING	
		SUBGRADE		STAKING BASE		CURB GUTTER AND CURB &		STAKING SLOPE		STRUCTURE LAYOUT (STRUCTURE)	
		LF		LF		LF		LF		(01. B-32-585)	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	EACH	EACH	EACH
0010	201+46	-	204+72	BYPASS	326	326	-	326	-	-	-
0010	205+44	-	208+99	BYPASS	355	355	-	355	-	-	-
0010	16+14	-	19+59	CTY M	301	301	80	345	-	-	-
0010	20+36	-	23+57	CTY M	322	322	80	322	-	-	-
				PROJECT	-	-	-	-	1	1	1
TOTAL 0010					1,304	1,304	160	1,348	1	1	1

RIPRAP				
		606.0200		645.0120
		RIPRAP MEDIUM		GEOTEXTILE TYPE HR
CATEGORY	STATION	LOCATION	CY	SY
0010	19+22	RT	6	20
0010	19+22	LT	5	16
0010	20+72	RT	8	25
0010	20+72	LT	4	13
TOTAL 0010			23	74

						690.0150	REMARKS
						SAWING ASPHALT	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	
0010	16+14	-	19+09	RT	295		BYPASS REMOVAL AND GUARDRAIL SHOULDER PAVING
0010	17+37	-	19+09	LT	177		GUARDRAIL SHOULDER PAVING
0010		19+09		CTY M	24		FULL ROADWAY WIDTH
0010		20+83		CTY M	24		FULL ROADWAY WIDTH
0010	20+83	-	23+60	RT	277		BYPASS REMOVAL AND GUARDRAIL SHOULDER PAVING
0010	20+83	-	23+57	LT	274		GUARDRAIL SHOULDER PAVING
TOTAL 0010						1,071	

999.2005.S.01 MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. STA 20+00)		
CATEGORY	LOCATION	EACH
0010	PROJECT	1
TOTAL 0010		1

TRANSPORTATION PROJECT PLAT NO: 5436-00-07-4.01
AMENDMENT NO: 1

AMENDS PARCEL 2 OF TRANSPORTATION PROJECT PLAT NO: 5436-00-07 - 4.01 RECORDED AS DOCUMENT NUMBER 1824811 AND FILED IN VOLUME TPPCAB, PAGE 129A.

THAT PART OF THE SE 1/4 OF THE SW 1/4, AND PART OF THE SW 1/4 OF THE SE 1/4, SECTION 26, TOWNSHIP 16 NORTH, RANGE 6 WEST, TOWN OF BARRE, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER CTH M, TOWN OF BARRE, CTH I TO CTH YY, LA CROSSE COUNTY.

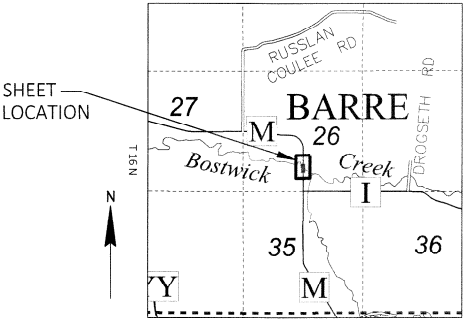
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, LA CROSSE COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 83.07 AND 83.08, WISCONSIN STATUTES, THE COUNTY HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 83.07 AND 83.08, WISCONSIN STATUTES.

LOCATION SKETCH

NOT TO SCALE



ROAD NAME	BASIS OF EXISTING R/W	YEAR
CTH M	LA CROSSE COUNTY PROJECT S 0123(2)	1951

COURSE TABLE

FROM	TO	BEARING	DISTANCE
21606260020	700	N 00° 12' 58" W	537.77'
700	701	N 00° 12' 58" W	150.00'
701	702	S 89° 54' 00" W	6.51'
702	300	S 89° 54' 00" W	39.25'
300	100	N 00° 06' 21" W	35.00'
100	101	N 00° 30' 44" W	96.30'
101	102	N 00° 06' 00" W	220.00'
102	103	N 05° 48' 38" W	50.25'
103	104	N 00° 06' 00" W	135.00'
104	105	N 15° 19' 15" E	77.80'
105	703	N 89° 54' 00" E	39.31'
703	704	N 89° 54' 00" E	5.27'
704	705	S 00° 12' 58" E	60.00'
705	306	N 89° 54' 00" E	35.30'
306	111	S 00° 06' 21" E	25.00'
111	110	S 09° 11' 46" E	126.59'
110	109	S 00° 06' 21" E	88.76'
109	108	S 00° 06' 21" E	150.00'
108	112	S 89° 53' 39" W	15.73'
112	107	S 05° 40' 46" E	162.01'
107	106	S 11° 12' 15" W	101.98'
106	303	S 00° 06' 21" E	50.00'
303	700	S 89° 54' 00" W	33.96'
700	21606260020	S 00° 12' 58" E	537.77'

SCHEDULE OF LANDS & INTERESTS REQUIRED

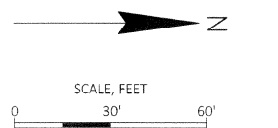
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQUARE FEET REQUIRED		TLE SQUARE FEET
			NEW	TOTAL	
1	RODGER H. & CAROL L. SCHOMBERG	FEE/TLE	8689	-	7000
2	GOLDEN ACRES GRAIN FARMS, LLC	FEE/TLE	5981	-	72137

UTILITY NUMBER	PARCEL	UTILITY EASEMENT TABLE	
		RECORDING INFORMATION	NAME
100	1	VOL. 236, PG. 512 DOC 564675	NORTHERN STATES POWER COMPANY (ELECTRIC)

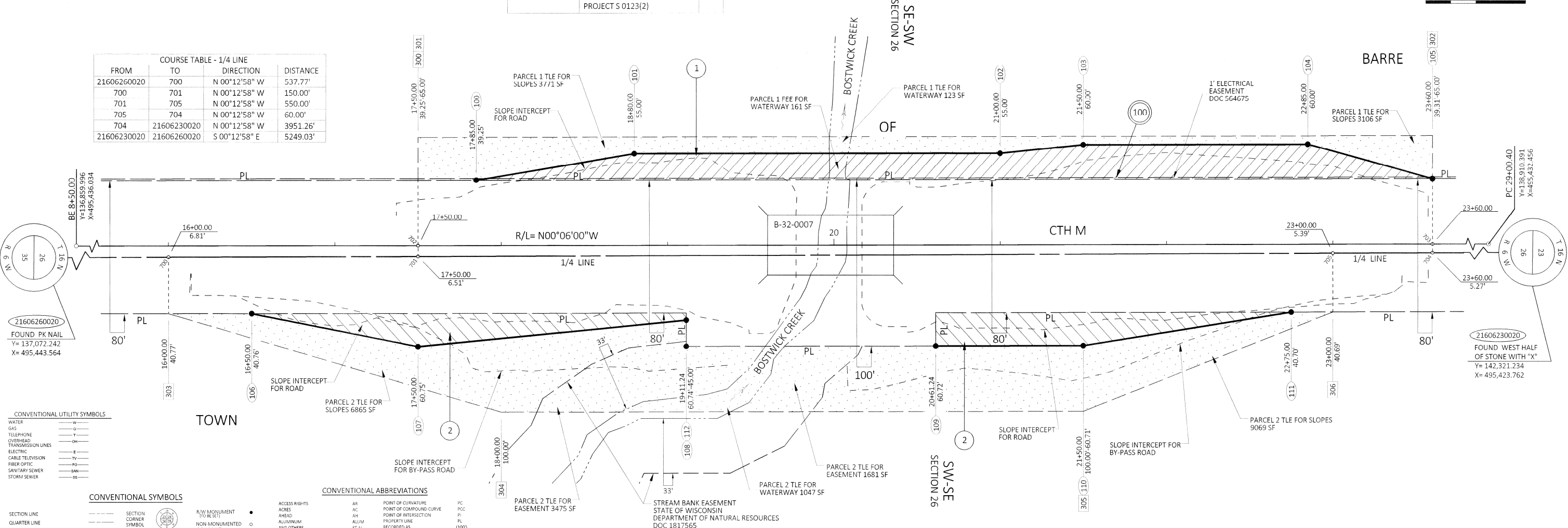
UTILITY NUMBER	UTILITY INTERESTS REQUIRED	
	OWNER (S)	INTEREST REQUIRED
100	NORTHERN STATES POWER COMPANY	RELEASE OF RIGHTS

RECEIVED FOR RECORDING THIS 15th DAY OF April 2025 AT 11:40 O'CLOCK A.M. AND FILED AS DOCUMENT # 182222 IN VOLUME 182222 OF BARRE PLATS ON PAGE 130A
Robin Kadomas
LACROSSE COUNTY REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5436-00-07-4.01
AMENDMENT NO: 1



COURSE TABLE - 1/4 LINE			
FROM	TO	DIRECTION	DISTANCE
21606260020	700	N 00° 12' 58" W	537.77'
700	701	N 00° 12' 58" W	150.00'
701	705	N 00° 12' 58" W	550.00'
705	704	N 00° 12' 58" W	60.00'
704	21606230020	N 00° 12' 58" W	3951.26'
21606230020	21606260020	S 00° 12' 58" E	5249.03'



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—

CONVENTIONAL SYMBOLS

SECTION LINE	—S—	SECTION CORNER (TO BE SET)	●
QUARTER LINE	—Q—	NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	—SIX—	FOUND IRON PIN (UNLESS NOTED)	IP
NEW REFERENCE LINE	—NEW—	OFF-PREMISE SIGN	—SIGN—
NEW R/W LINE	—R/W—	COMPENSABLE	—C—
EXISTING R/W OR HE LINE	—EX—	NON-COMPENSABLE	—NC—
PROPERTY LINE	—PL—	ACCESS RESTRICTED BY ACQUISITION	—ACQ—
LOT, TIE & OTHER MINOR LINES	—LOT—	NO ACCESS (BY STATUTORY AUTHORITY)	—NOA—
SLOPE INTERCEPT	—SLO—	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	—ACC—
CORPORATE LIMITS	—COR—	NO ACCESS (NEW HIGHWAY)	—NOA—
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	—UGF—	PARCEL NUMBER	25
NEW R/W (FEE OR HE) (MATCHING VARIES BY OWNER)	—NEW—	UTILITY NUMBER	40
TEMPORARY LIMITED EASEMENT AREA	—TEM—	PARALLEL OFFSETS	—OFF—
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	—EAS—		
TRANSMISSION STRUCTURES	—STR—		
BUILDING	—BLD—		
BRIDGE	—BRG—		

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF CURVATURE	PC
ACRES	AC	POINT OF COMPOUND CURVE	PCC
ALUMINUM	ALUM	POINT OF INTERSECTION	PI
AND OTHERS	ET AL	PROPERTY LINE	PL
BACK	BK	RECORDED AS	(BOOK)
BLOCK	BLOCK	REEL / IMAGE	R/I
BUILDING	BUILDING	REFERENCE LINE	R/L
CORNER	COR	REMAINING	REM
CENTERLINE	CEN	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	EAS
COUNTY	CO	RIGHT-OF-WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DIST	DIST	SEPTIC TANK	SEP
DISTANCE	DIST	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TEL
FRACTIONAL	FRAC	TEMPORARY LIMITED EASEMENT	TLE
LEFT	LT	TRANSPORTATION PROJECT	TPP
MONUMENT	MON	PLAT	PLAT
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	VOL
OUTLET	OUT		
PAGE	PG		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5436-00-07.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), LA CROSSE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. NGS POINT UTILIZED WAS BARRE GPS DH5431.

ALL NEW RIGHT-OF-WAY AND PERMANENT EASEMENT MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF LA CROSSE COUNTY.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED.

I, NEIL C. BOWE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Neil C. Bowe* DATE: 4/14/2025

PRINT NAME: NEIL C. BOWE

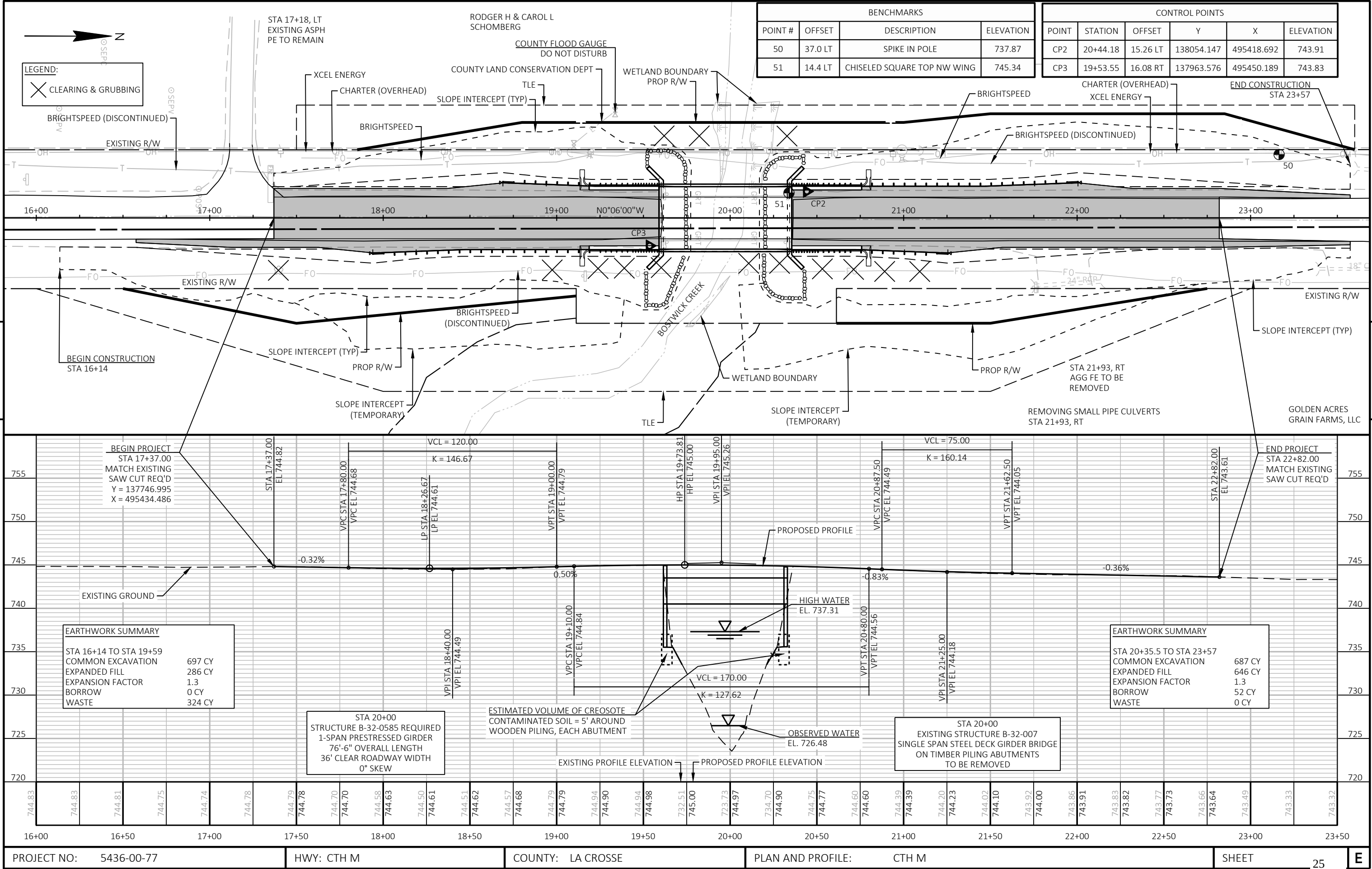
REGISTRATION NUMBER: S-2827

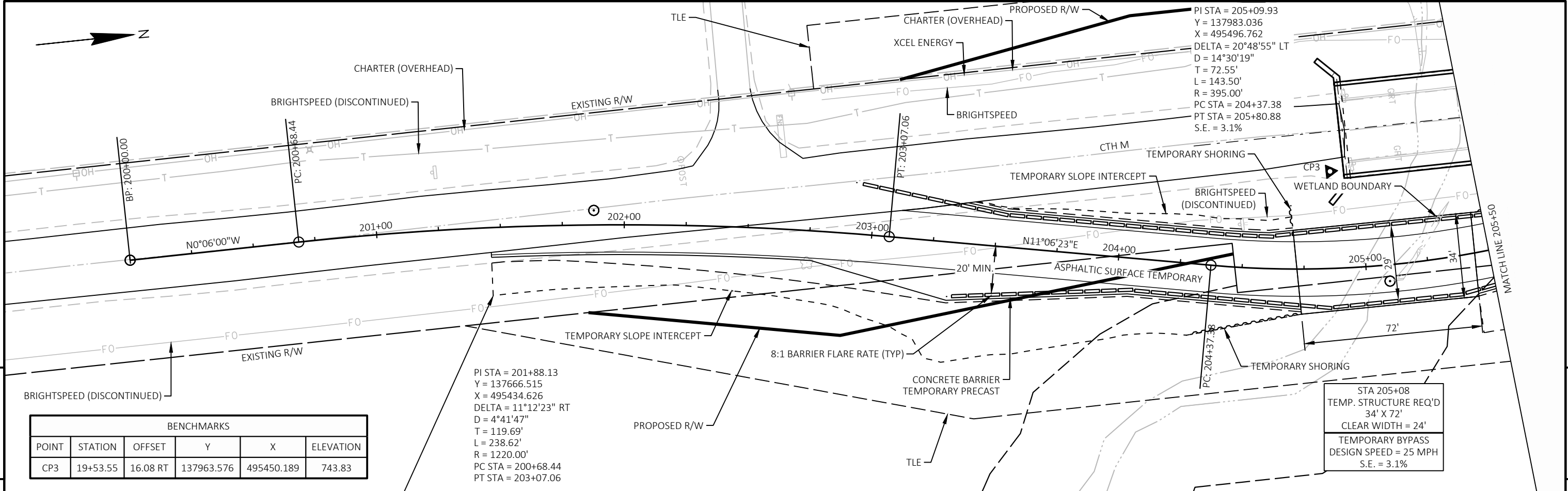
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR LA CROSSE COUNTY.

SIGNATURE: *Joe Langeberg* DATE: 4-15-25

PRINT NAME: JOE LANGEBERG, HIGHWAY 24

VER



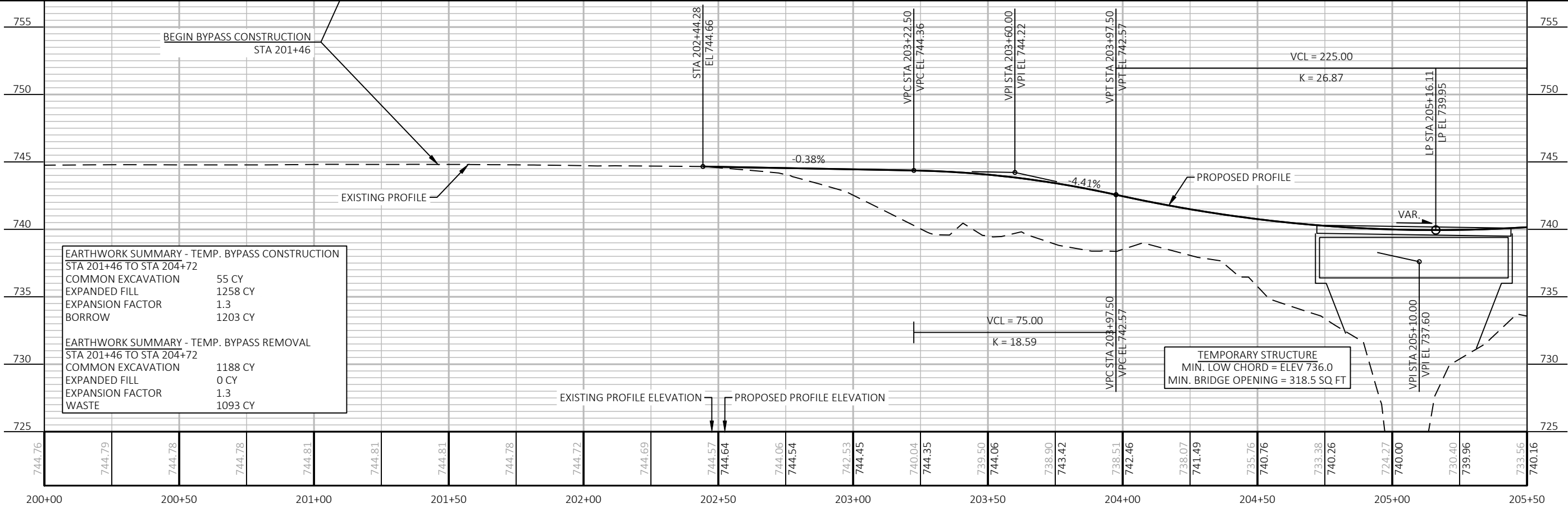


BENCHMARKS					
POINT	STATION	OFFSET	Y	X	ELEVATION
CP3	19+53.55	16.08 RT	137963.576	495450.189	743.83

PI STA = 201+88.13
Y = 137666.515
X = 495434.626
DELTA = 11°12'23" RT
D = 4°41'47"
T = 119.69'
L = 238.62'
R = 1220.00'
PC STA = 200+68.44
PT STA = 203+07.06

PI STA = 205+09.93
Y = 137983.036
X = 495496.762
DELTA = 20°48'55" LT
D = 14°30'19"
T = 72.55'
L = 143.50'
R = 395.00'
PC STA = 204+37.38
PT STA = 205+80.88
S.E. = 3.1%

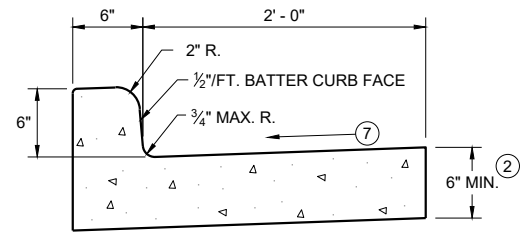
STA 205+08
TEMP. STRUCTURE REQ'D
34' X 72'
CLEAR WIDTH = 24'
TEMPORARY BYPASS
DESIGN SPEED = 25 MPH
S.E. = 3.1%



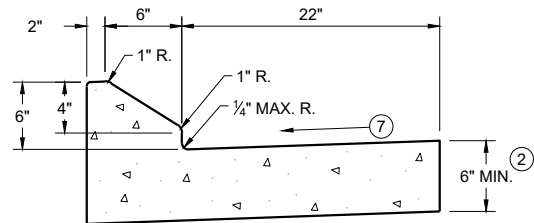
EARTHWORK SUMMARY - TEMP. BYPASS CONSTRUCTION	
STA 201+46 TO STA 204+72	
COMMON EXCAVATION	55 CY
EXPANDED FILL	1258 CY
EXPANSION FACTOR	1.3
BORROW	1203 CY
EARTHWORK SUMMARY - TEMP. BYPASS REMOVAL	
STA 201+46 TO STA 204+72	
COMMON EXCAVATION	1188 CY
EXPANDED FILL	0 CY
EXPANSION FACTOR	1.3
WASTE	1093 CY

Standard Detail Drawing List

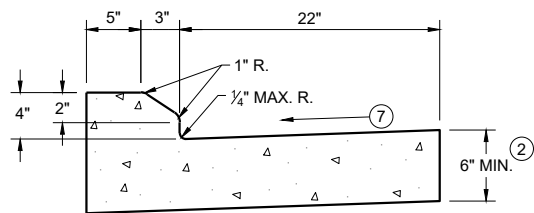
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D31-05	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



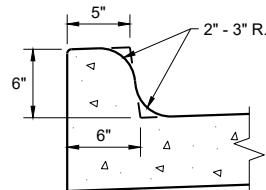
TYPES A^① & D



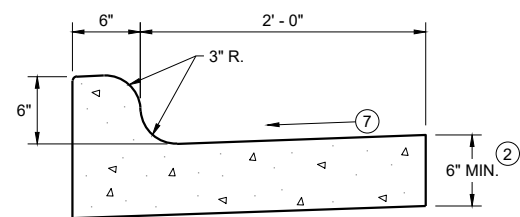
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

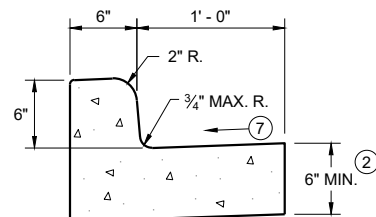


TYPES K^① & L
(OPTIONAL CURB SHAPE)



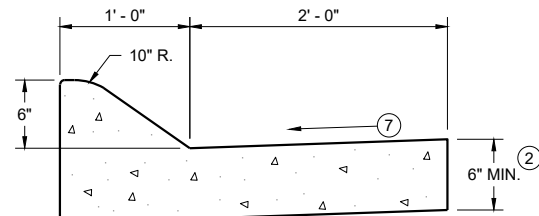
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

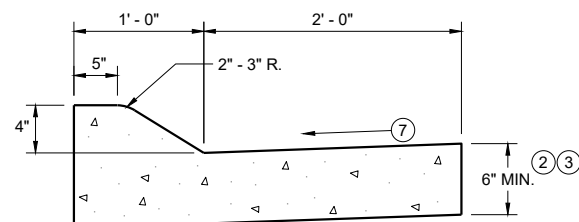


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

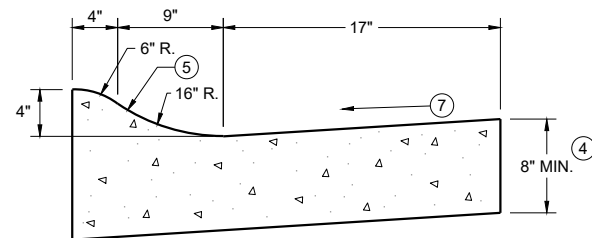


6" SLOPED CURB TYPES A^① & D



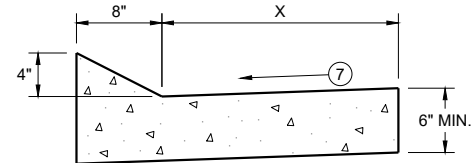
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



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

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

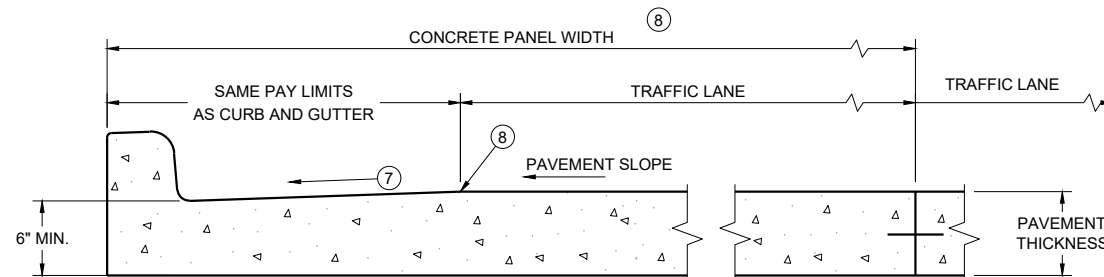


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

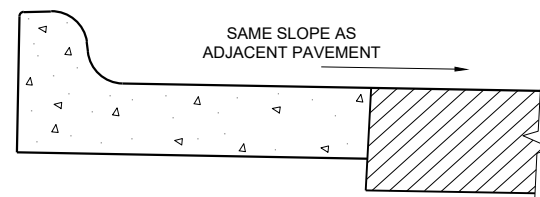
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

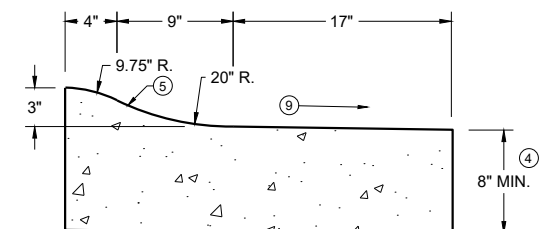


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

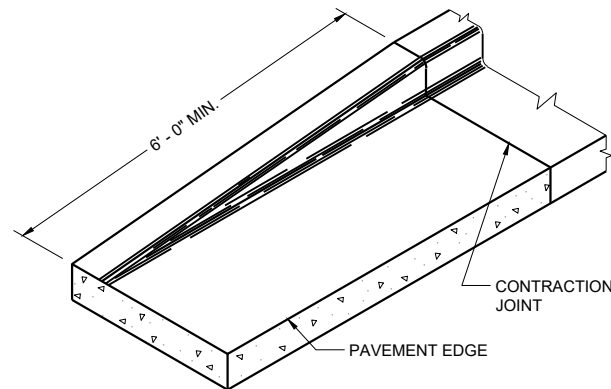
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

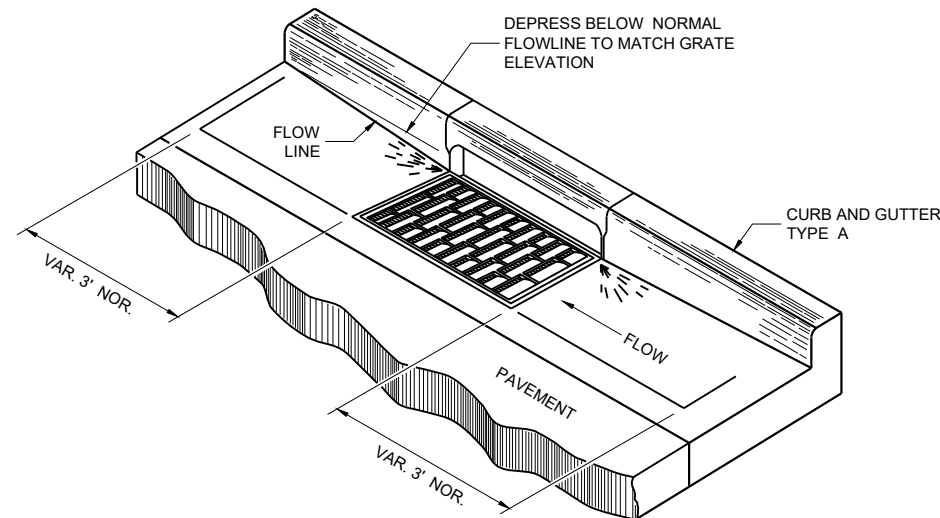
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

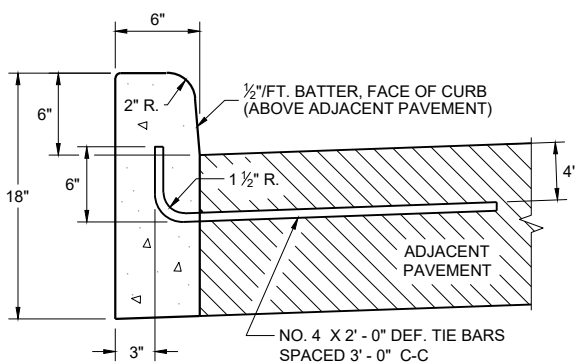


END SECTION CURB AND GUTTER

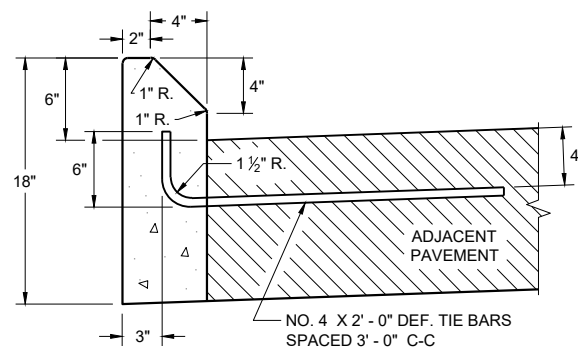


DETAIL OF CURB AND GUTTER AT INLETS

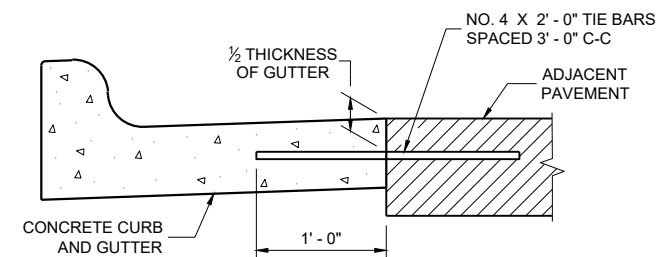
(TYPICAL H INLET COVER SHOWN)



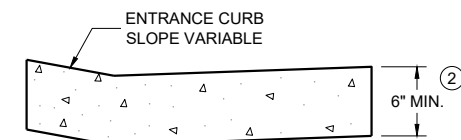
TYPES A^① & D



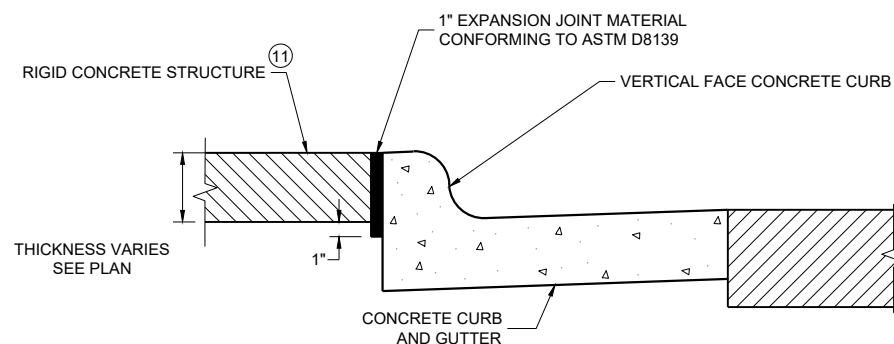
**TYPES G^① & J
CONCRETE CURB**



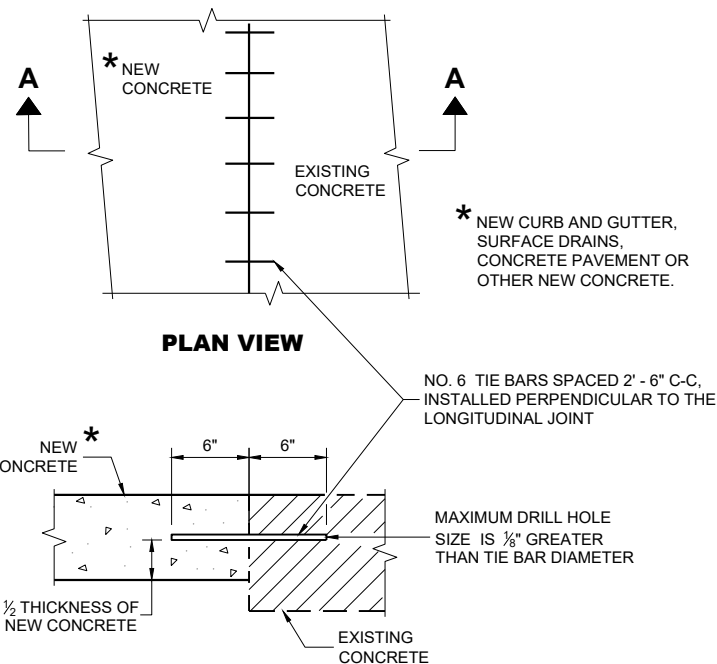
TYPICAL TIE BAR LOCATION^①



**DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

GENERAL NOTES

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

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

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

6

SDD 08D01-24b

6

SDD 08D01-24b

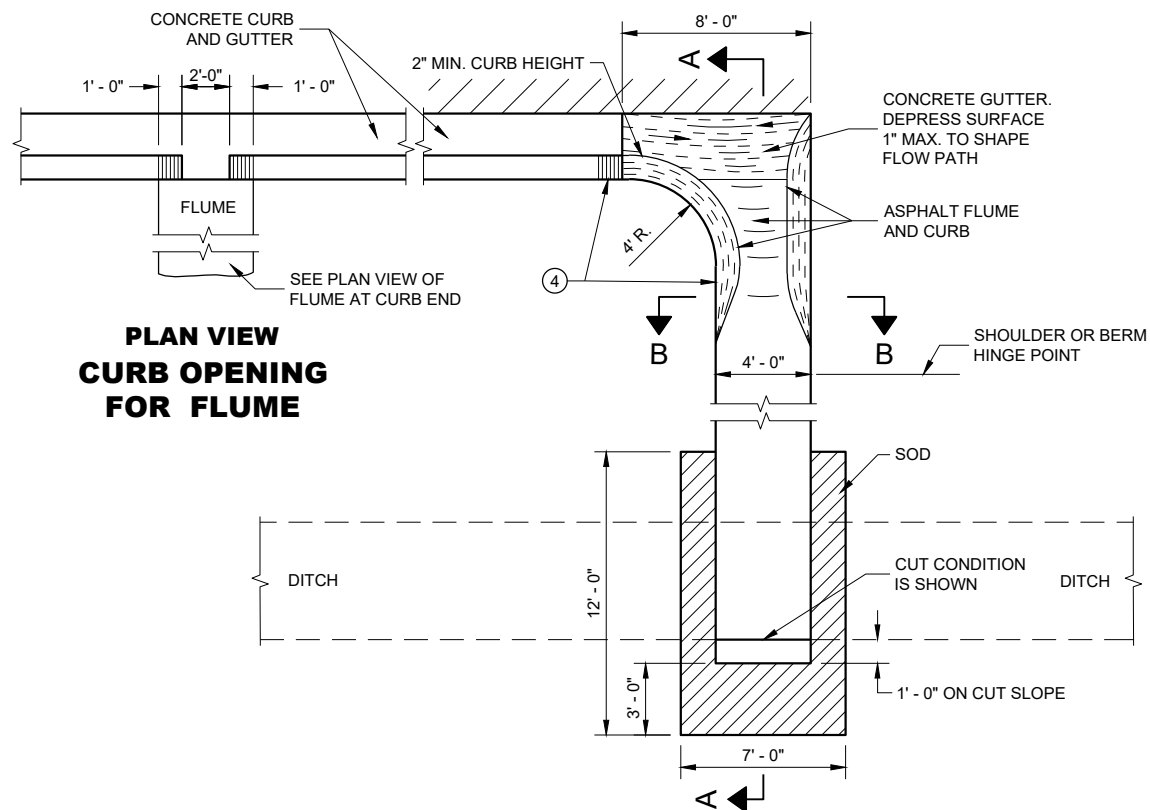
**CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

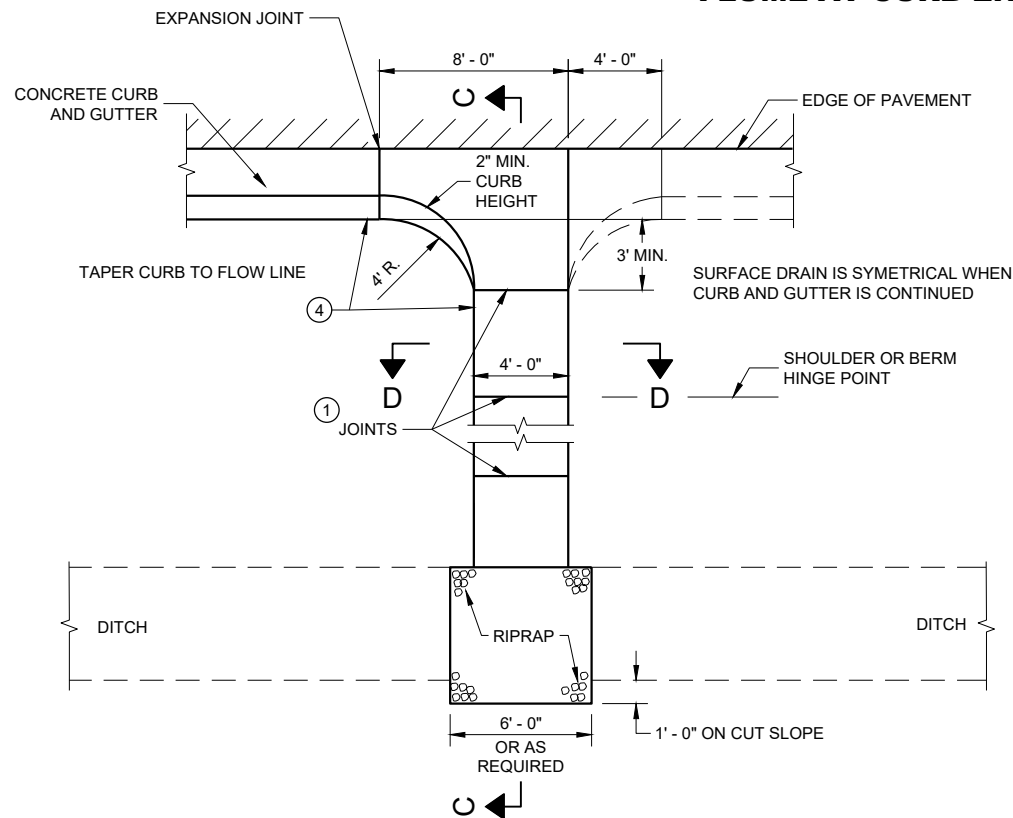
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



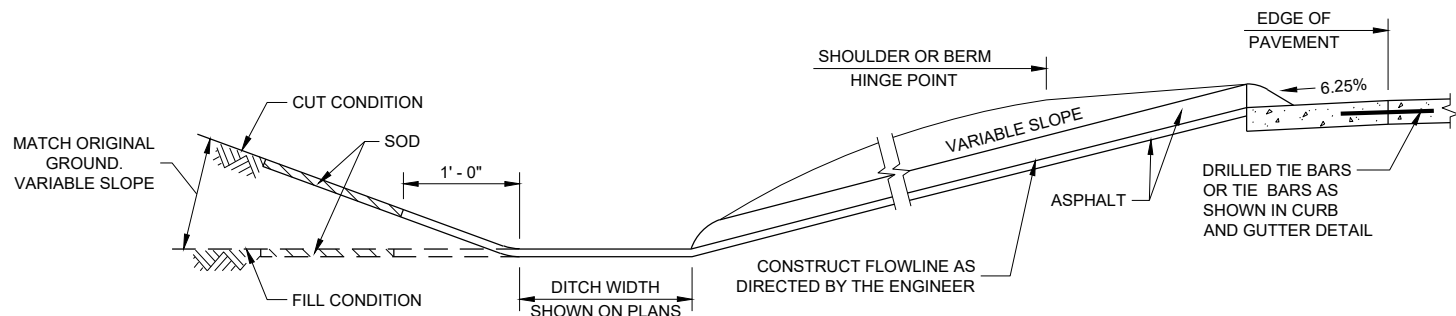
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

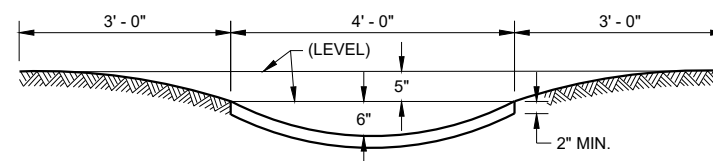
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

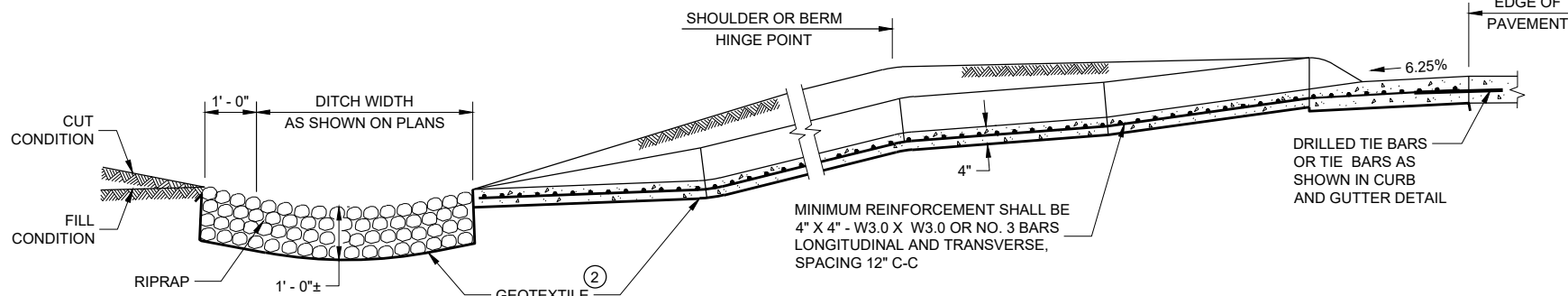
- JOINTS SHALL BE $\frac{1}{8}$ " TO $\frac{1}{4}$ " WIDE BY $\frac{1}{2}$ " DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



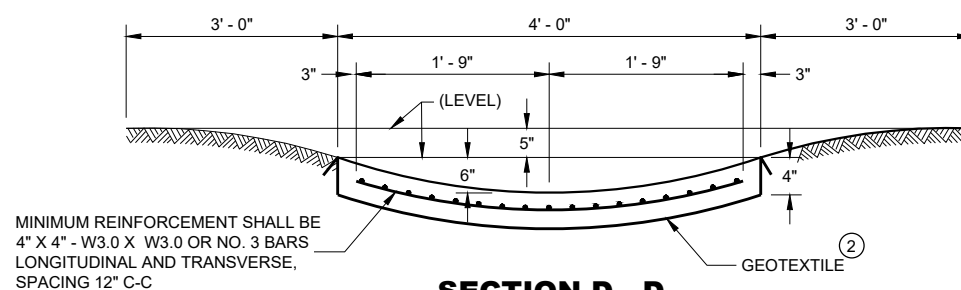
SECTION A - A



SECTION B - B



SECTION C - C

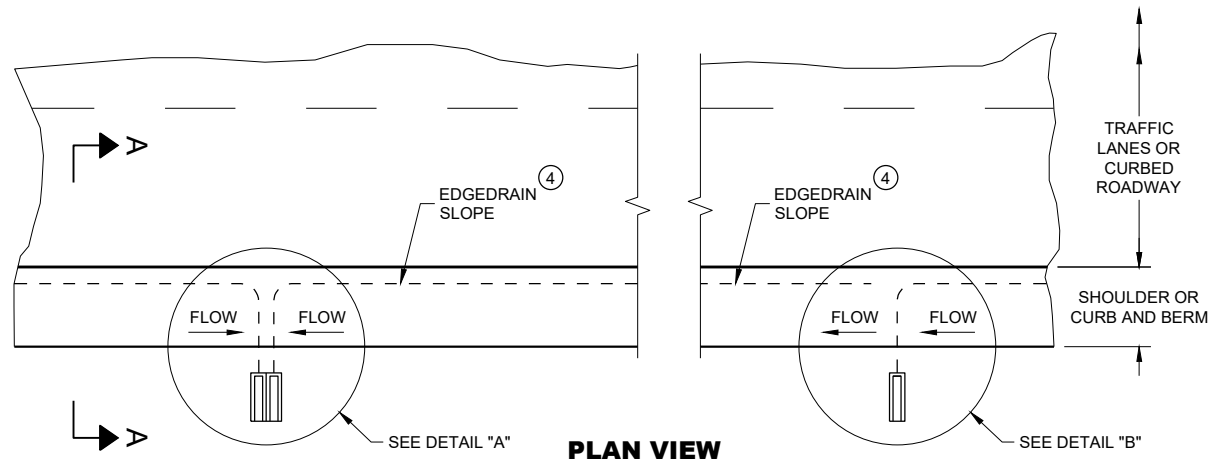


SECTION D - D

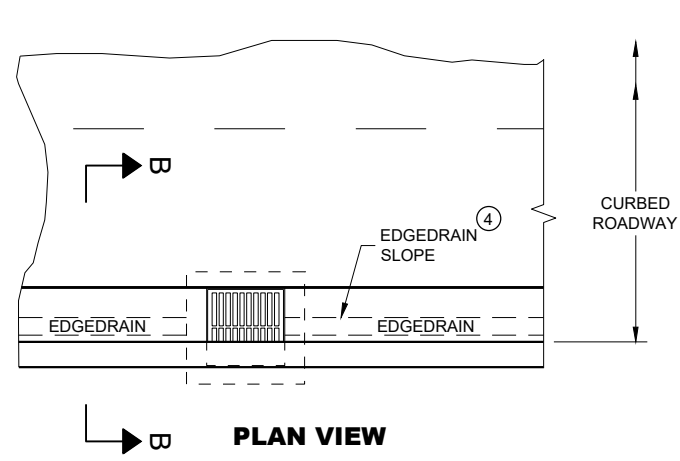
CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

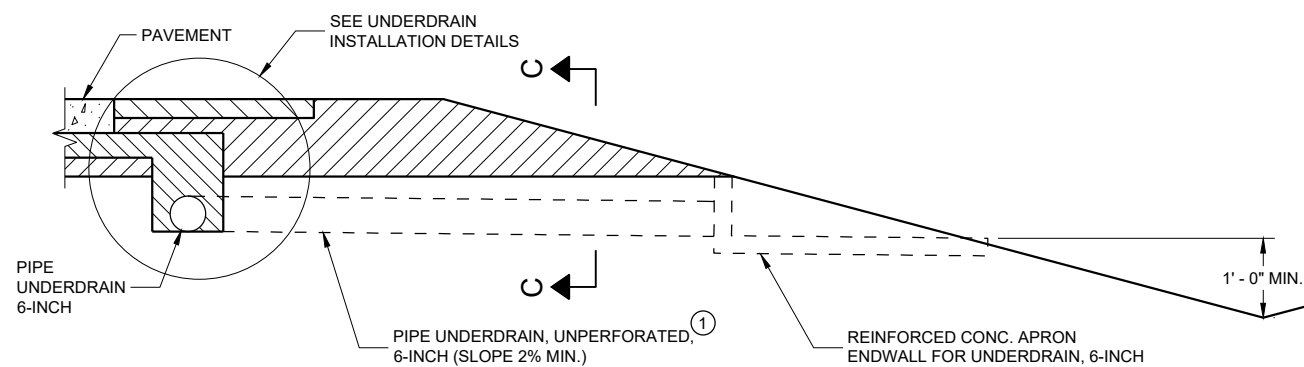
APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER
31
FHWA



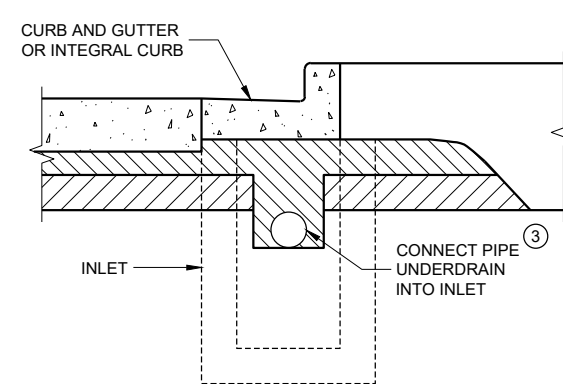
**ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) ②**



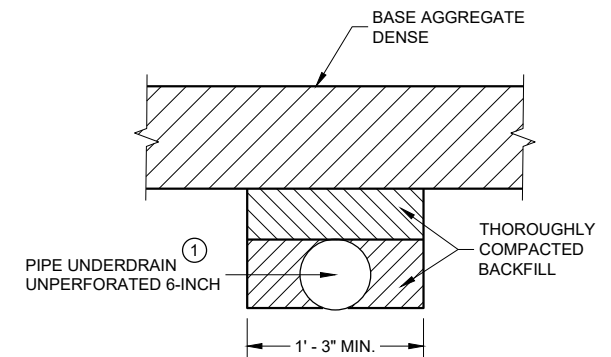
**ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)**



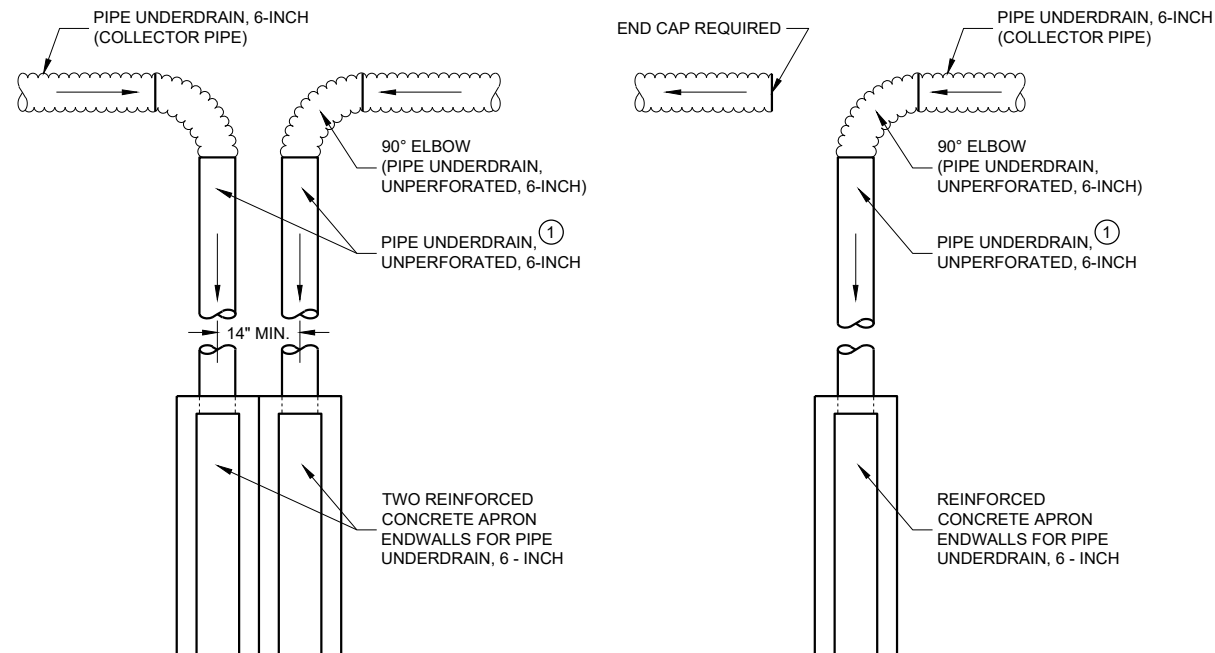
**SECTION A - A
RURAL CROSS SECTION**



**SECTION B - B
URBAN CROSS SECTION**



**SECTION C - C
TRENCH FOR OUTFALL PIPE**



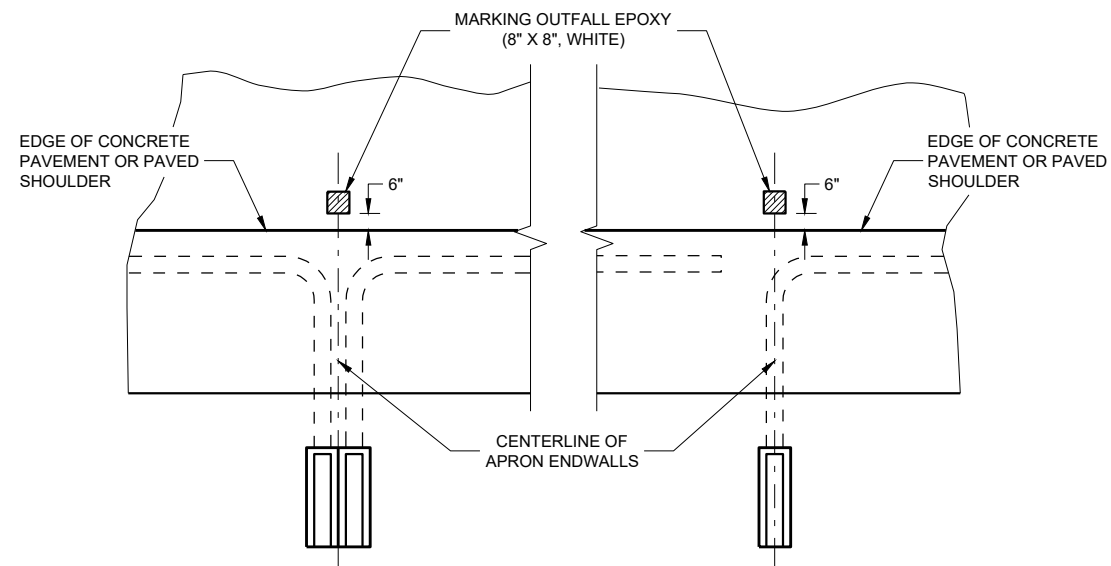
DETAIL "A"

TO BE USED AT LOW POINT LOCATIONS

DETAIL "B"

TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS

INTERMEDIATE LOCATIONS

PAVEMENT MARKINGS FOR OUTFALL MARKERS

**EDGEDRAIN OUTLET
AND OUTFALL MARKERS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

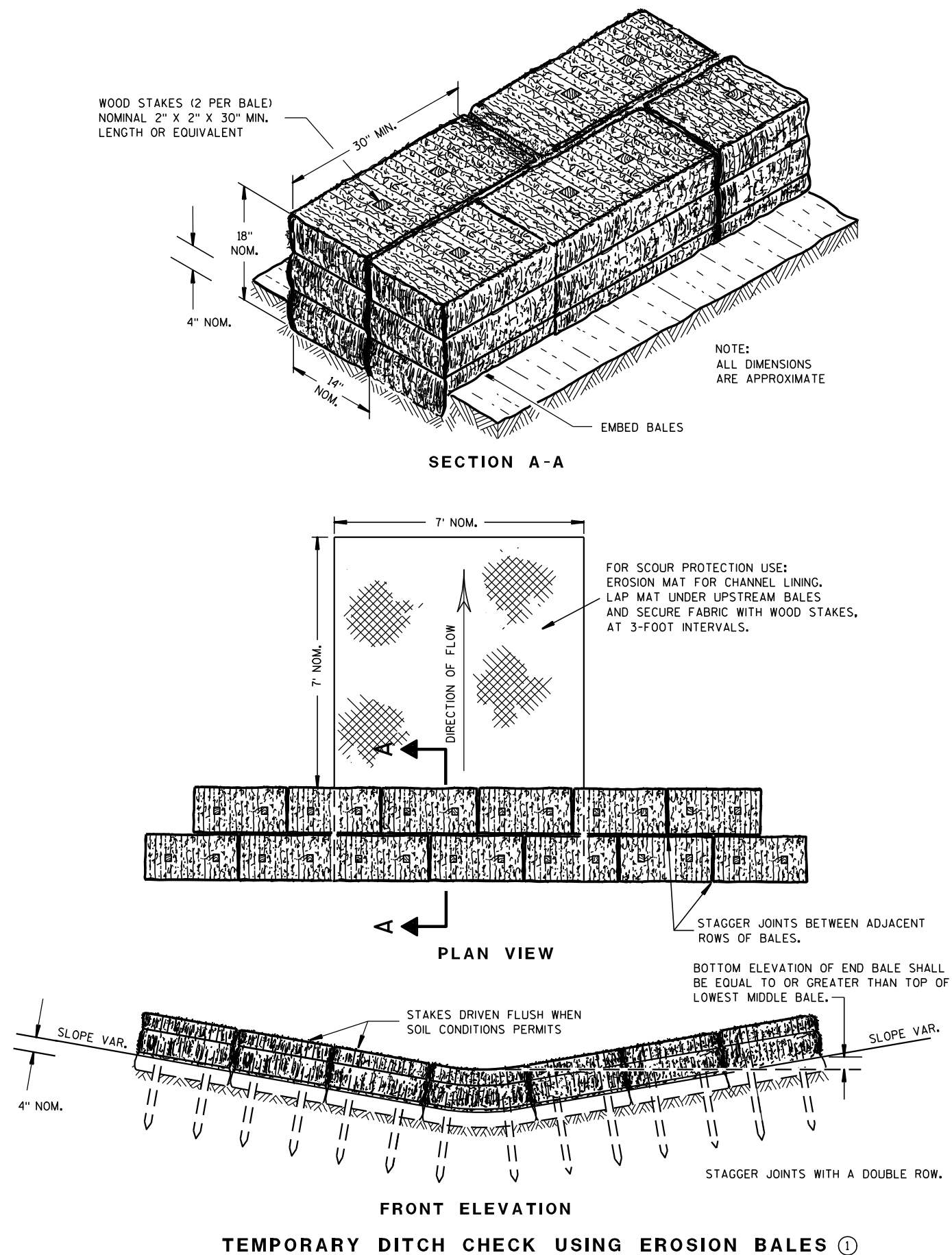
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

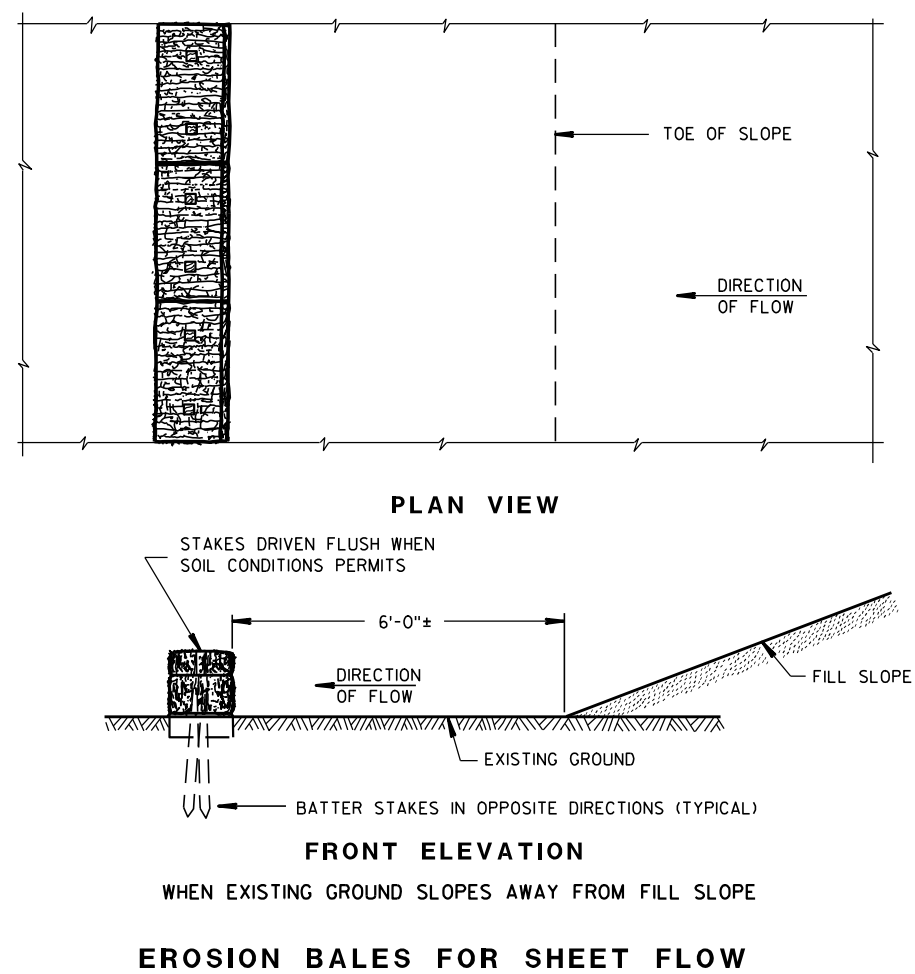
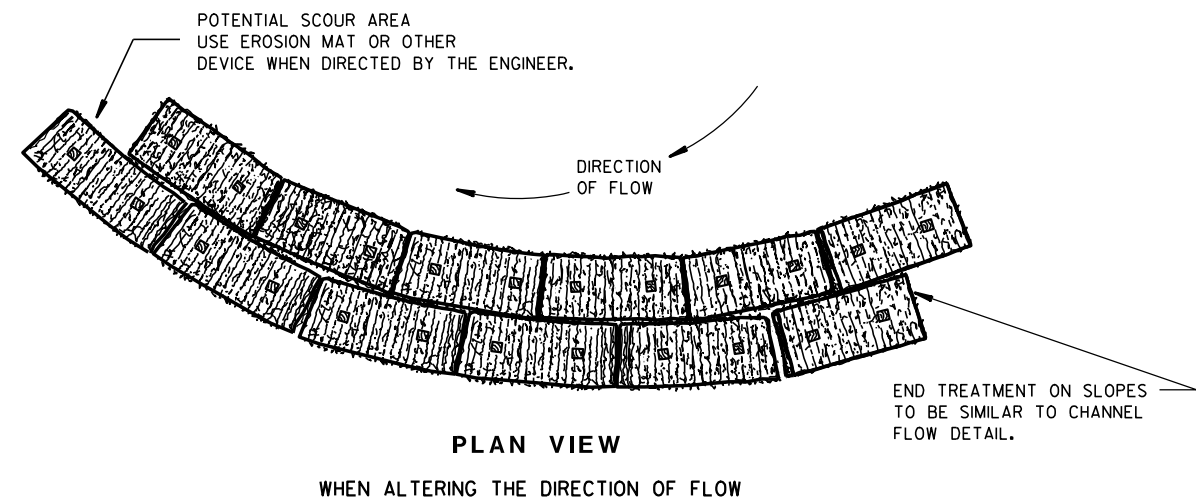
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Connors
CHIEF ROADWAY DEVELOPER

ENGINEER

FHWA



- 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 1½" X 1½" 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.

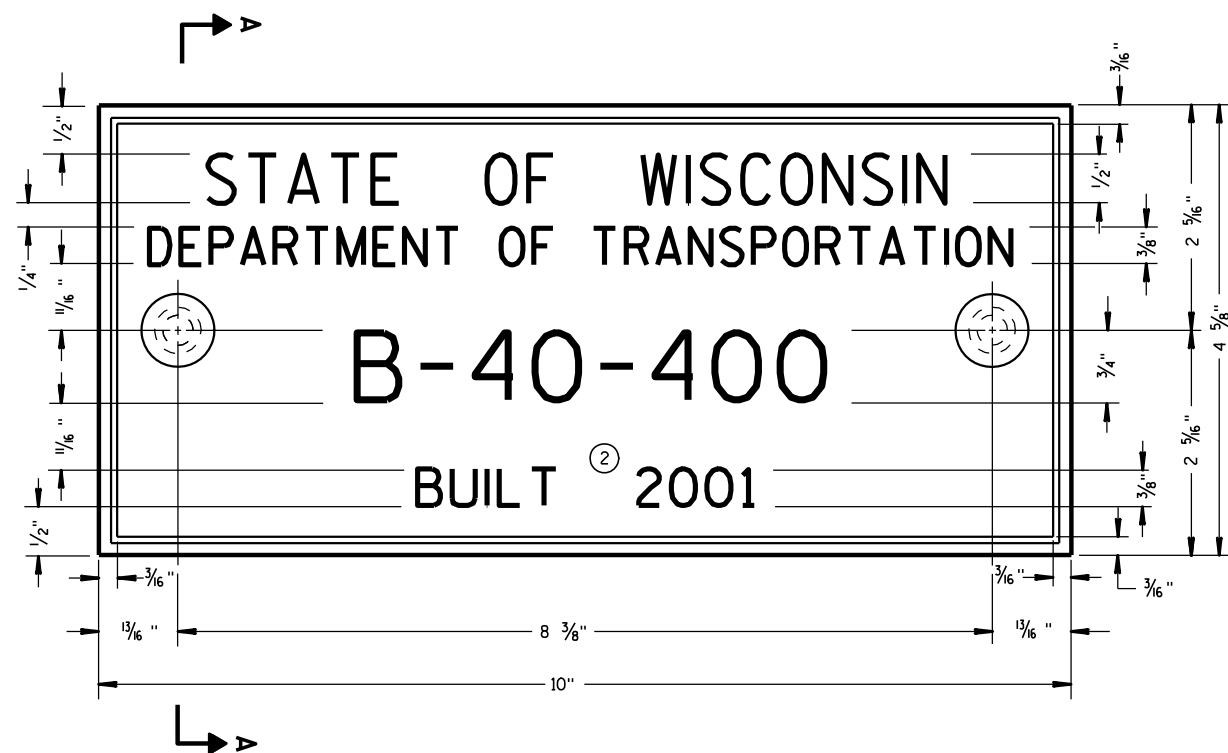


SILT FENCE

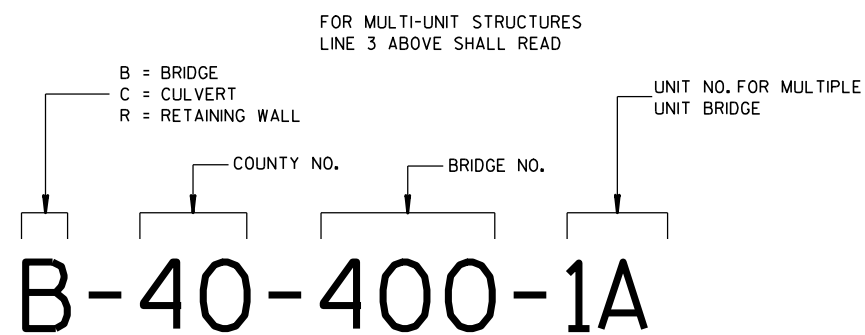
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOP 34 INEER

FHWA



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



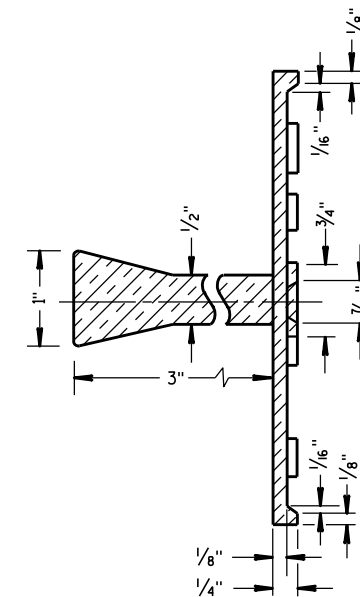
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

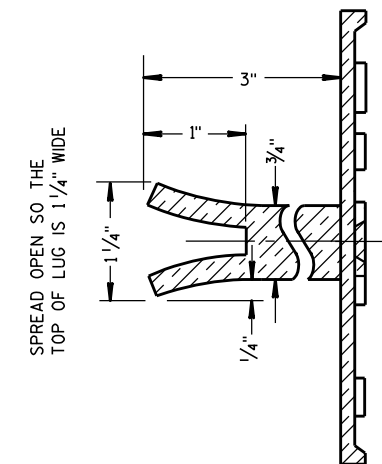
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



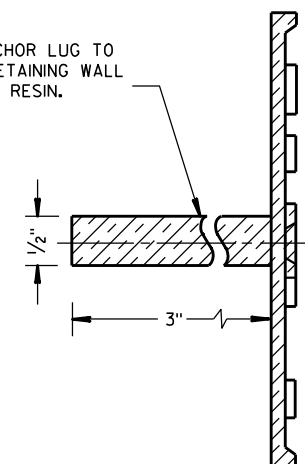
SECTION A-A



SPREAD OPEN SO THE
TOP OF LUG IS 1 1/4" WIDE

ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

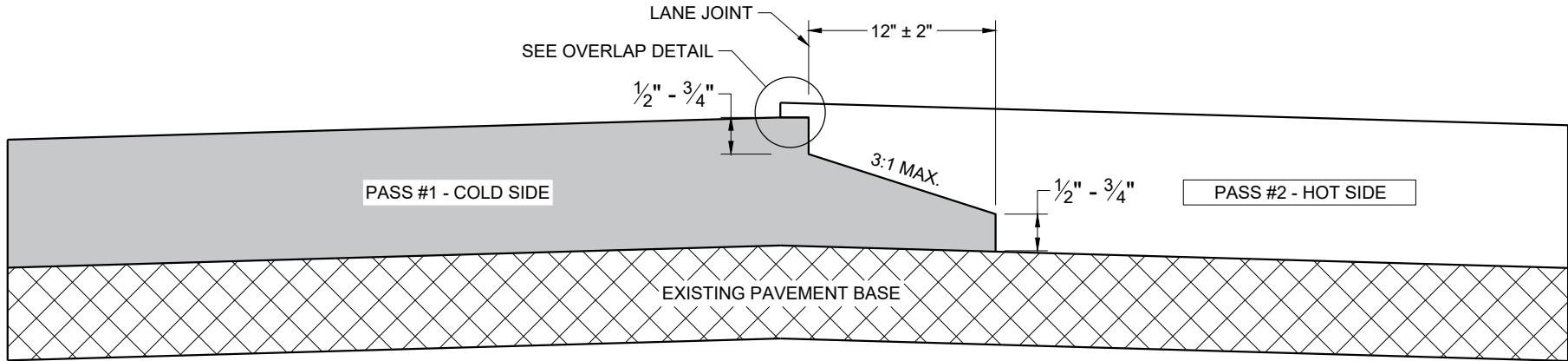
APPROVED

3/26/10
DATE

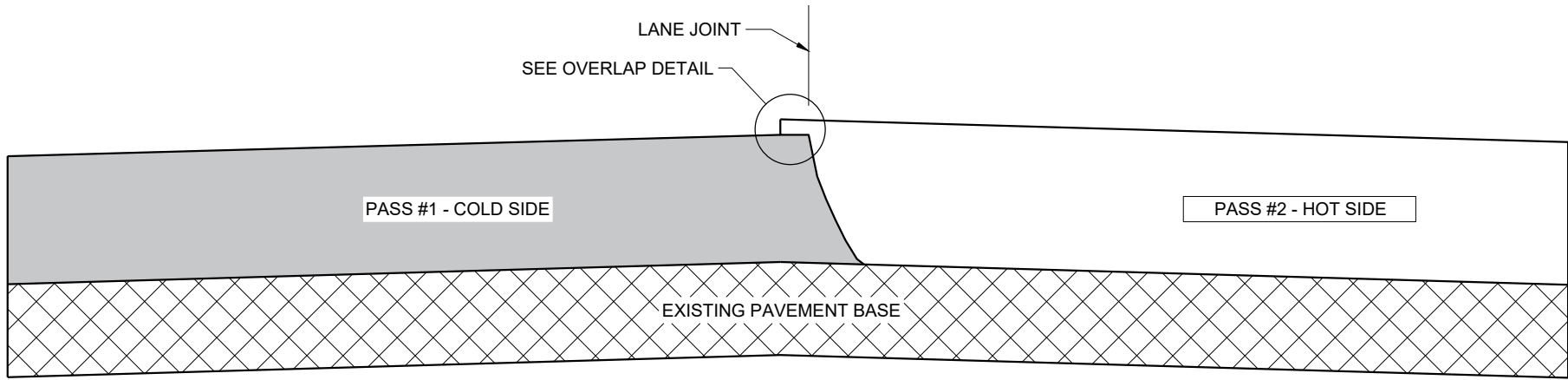
FHWA

/S/ Scot Beck
CHIEF STRUCTURAL DEVELOPER

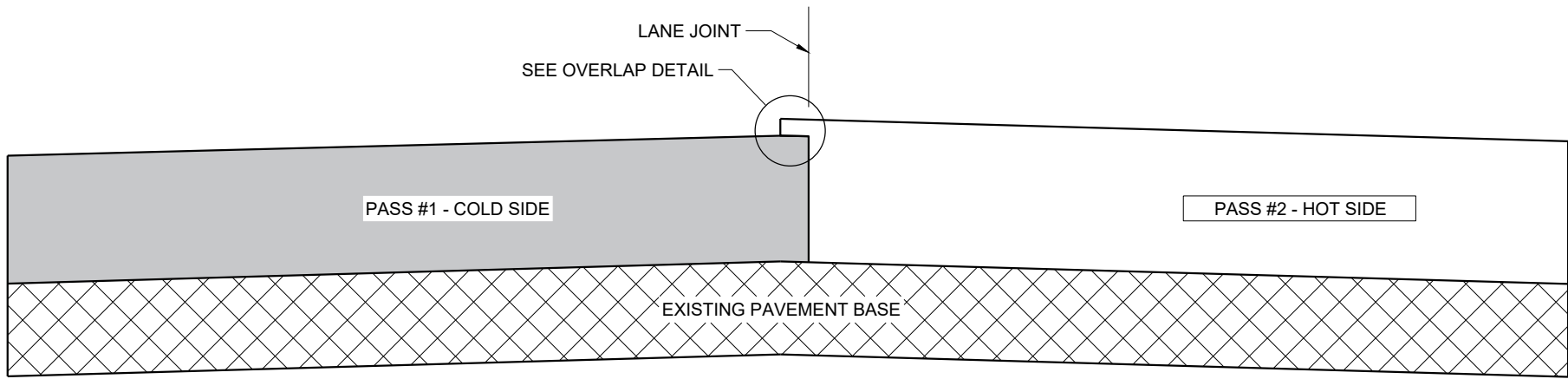
JEER



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

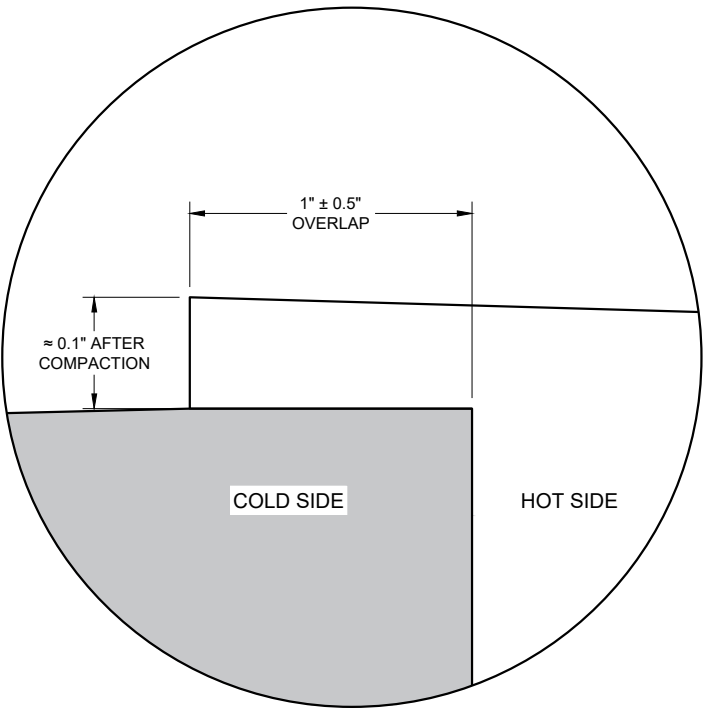
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



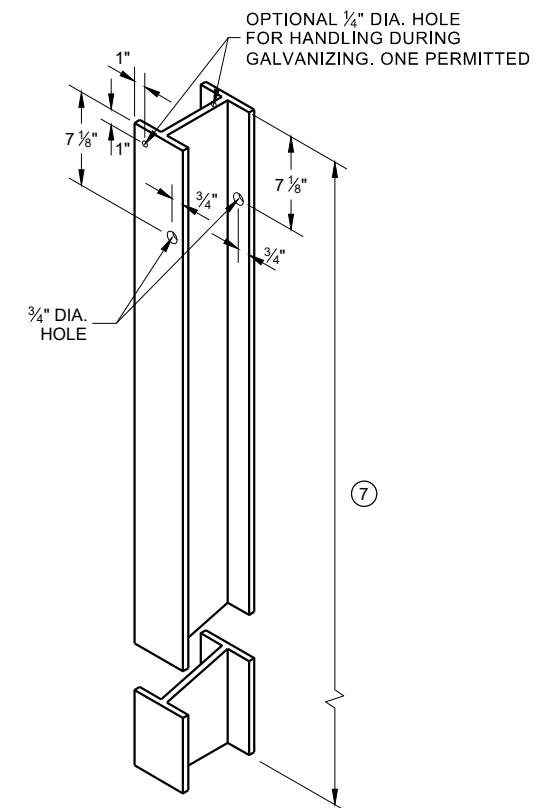
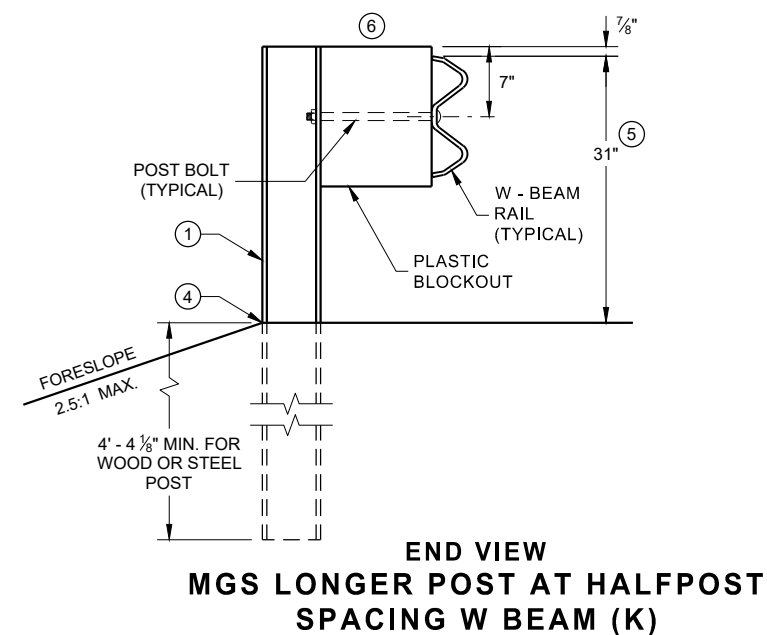
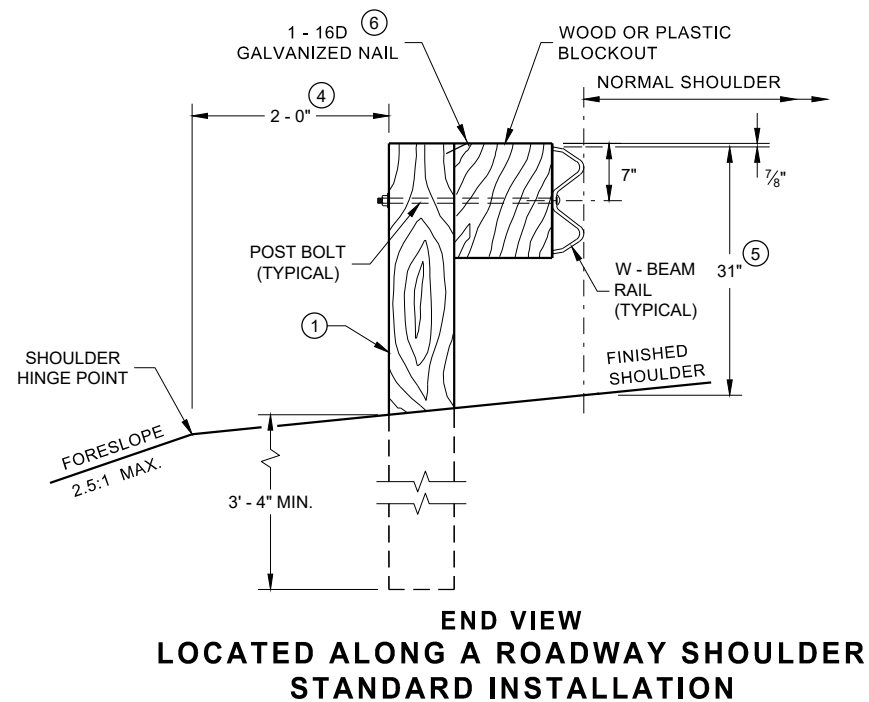
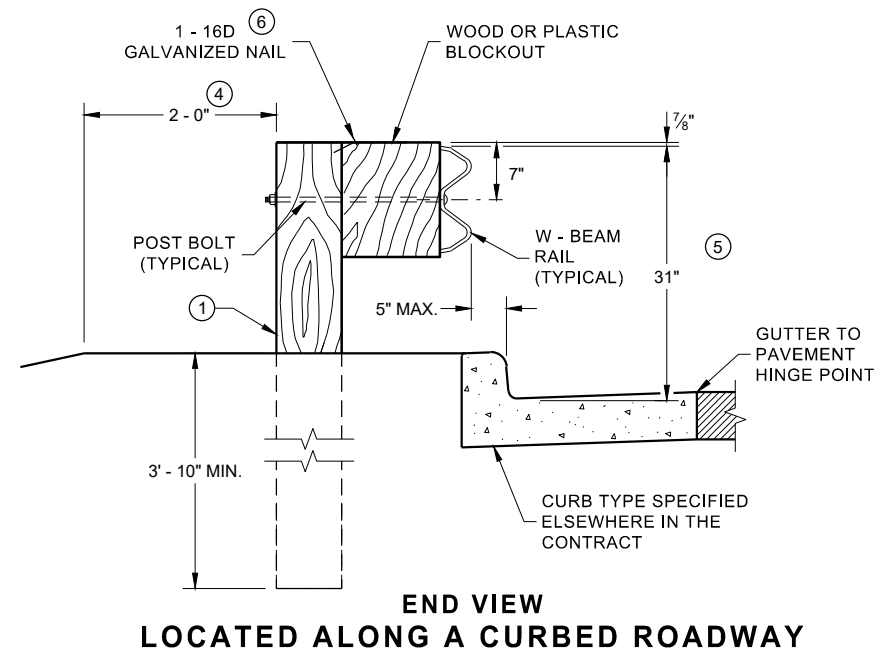
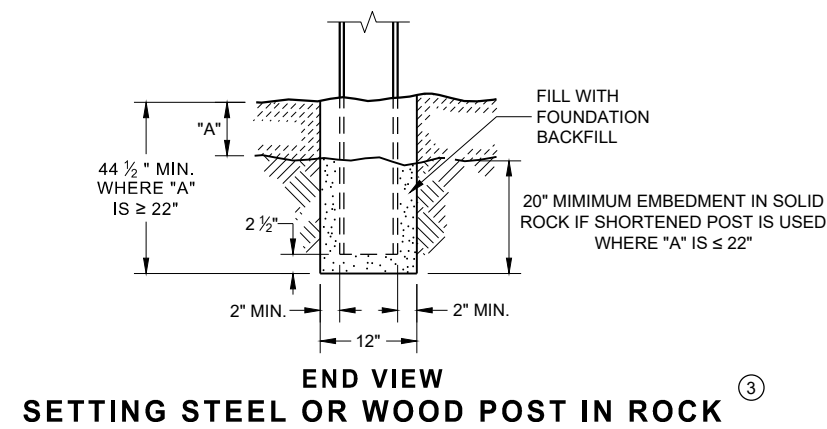
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

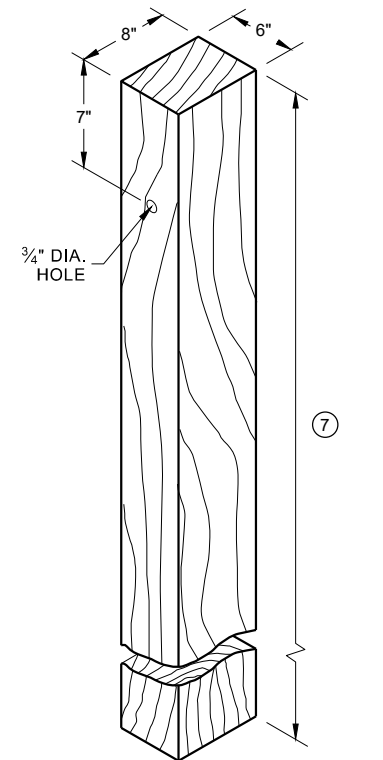
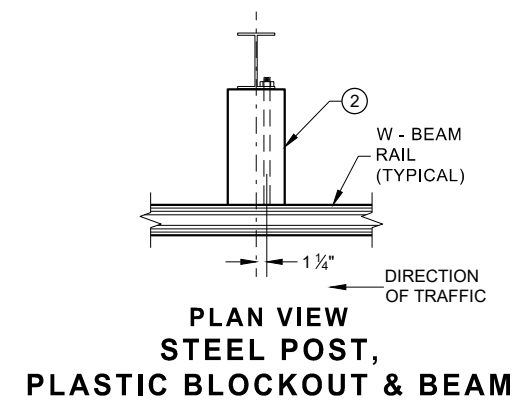
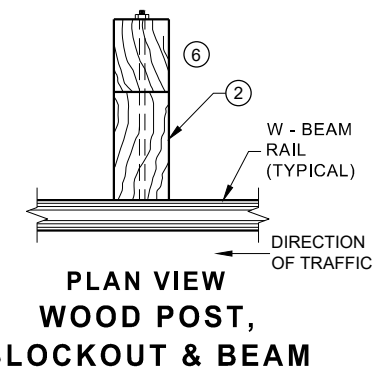
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 36
FHWA

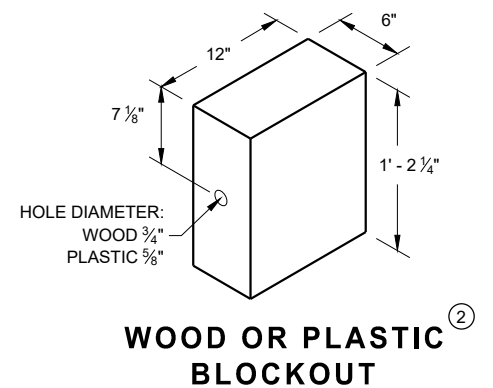
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND 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 $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" 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.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**



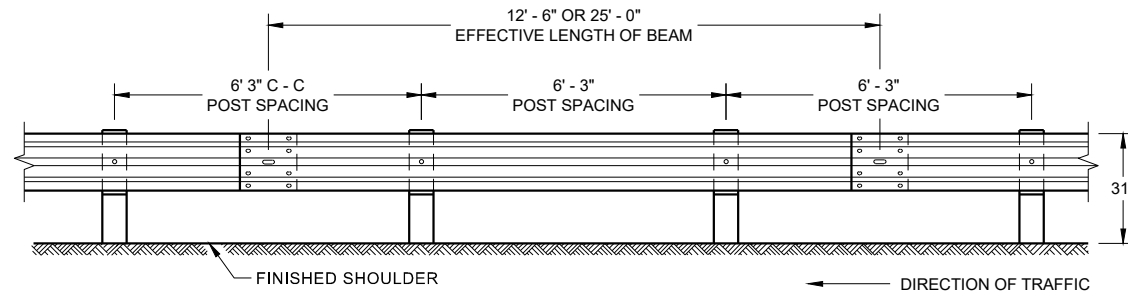
WOOD POST (6" X 8") NOMINAL ⁽¹⁾



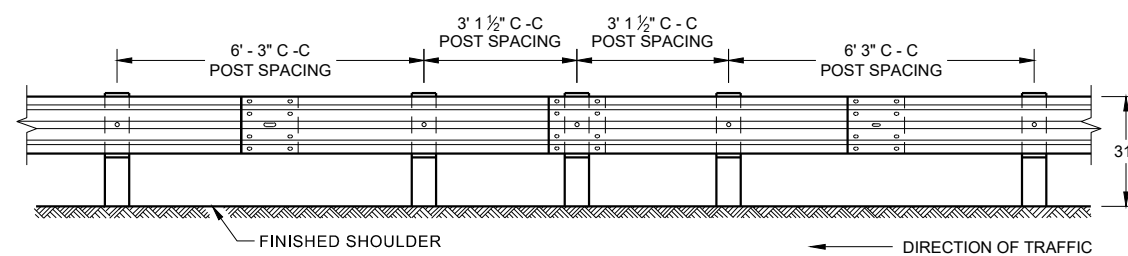
**WOOD OR PLASTIC
BLOCKOUT**

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

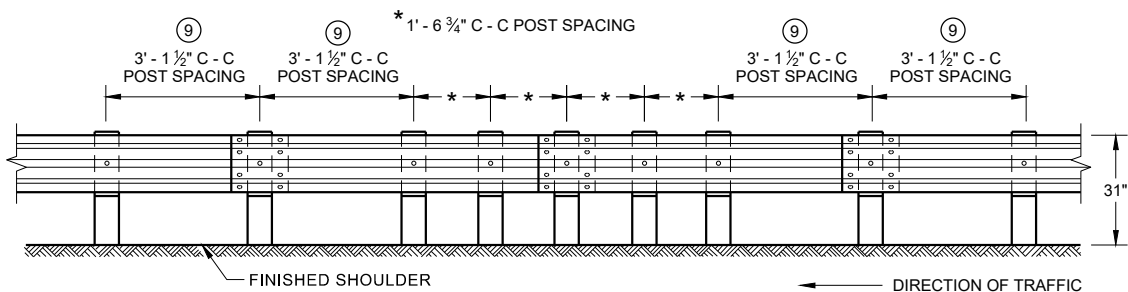
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 37



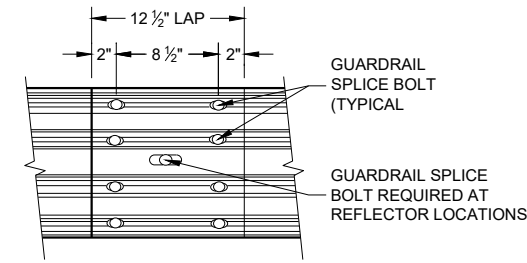
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



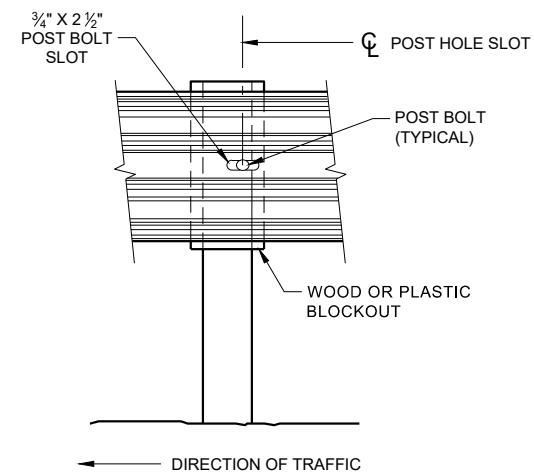
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



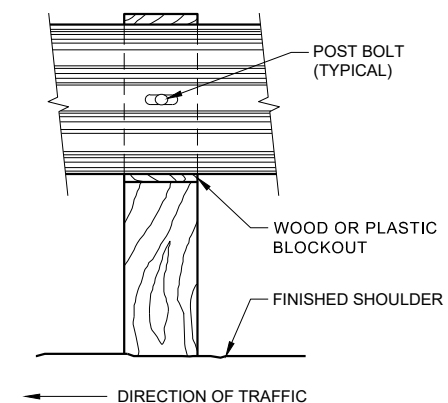
**FRONT VIEW
QUARTER POST SPACING (QS)**



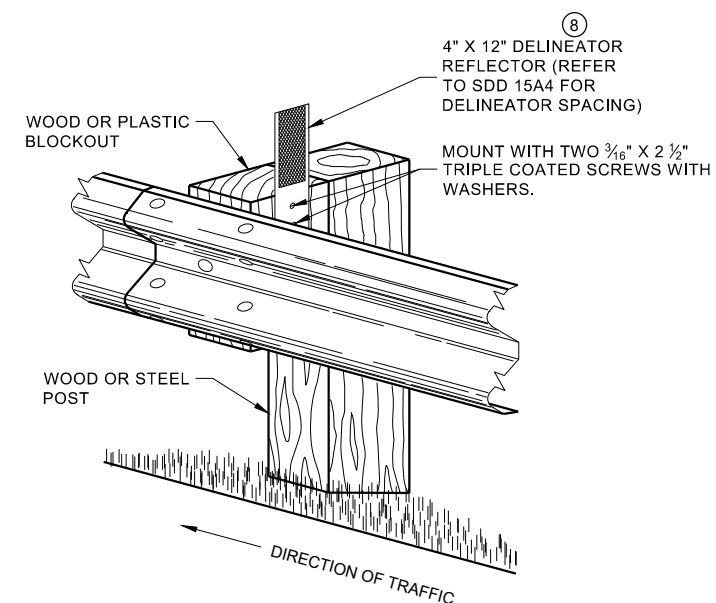
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



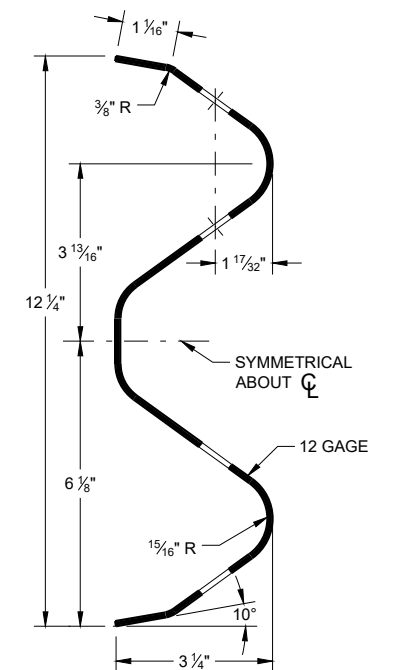
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- 9 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

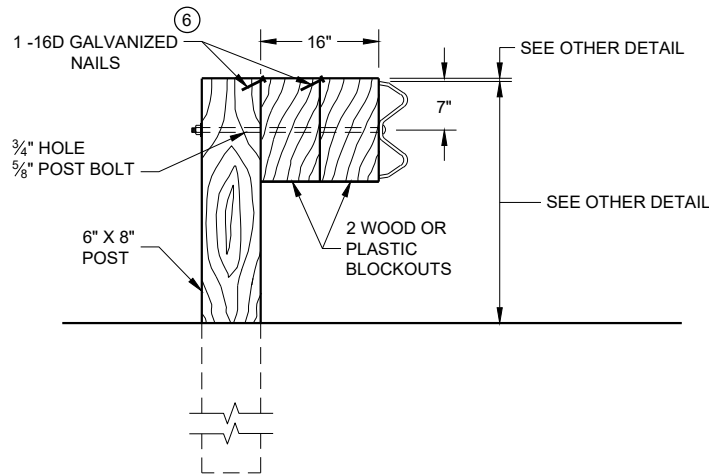
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

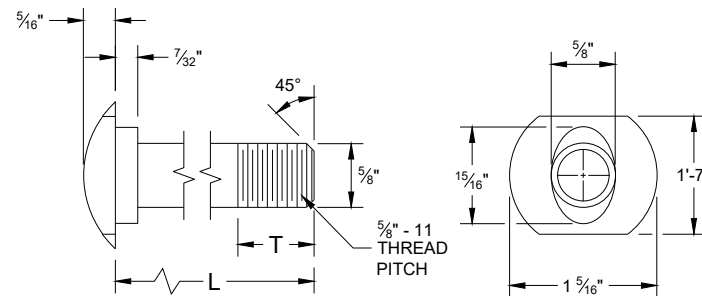
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

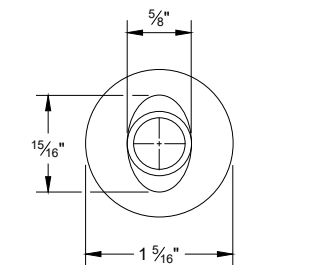
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

- NOTE:
1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
 2. IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

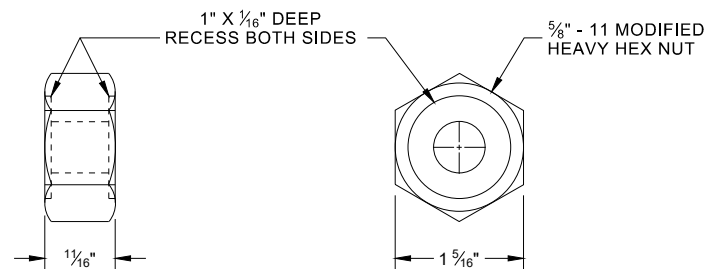


POST BOLT TABLE

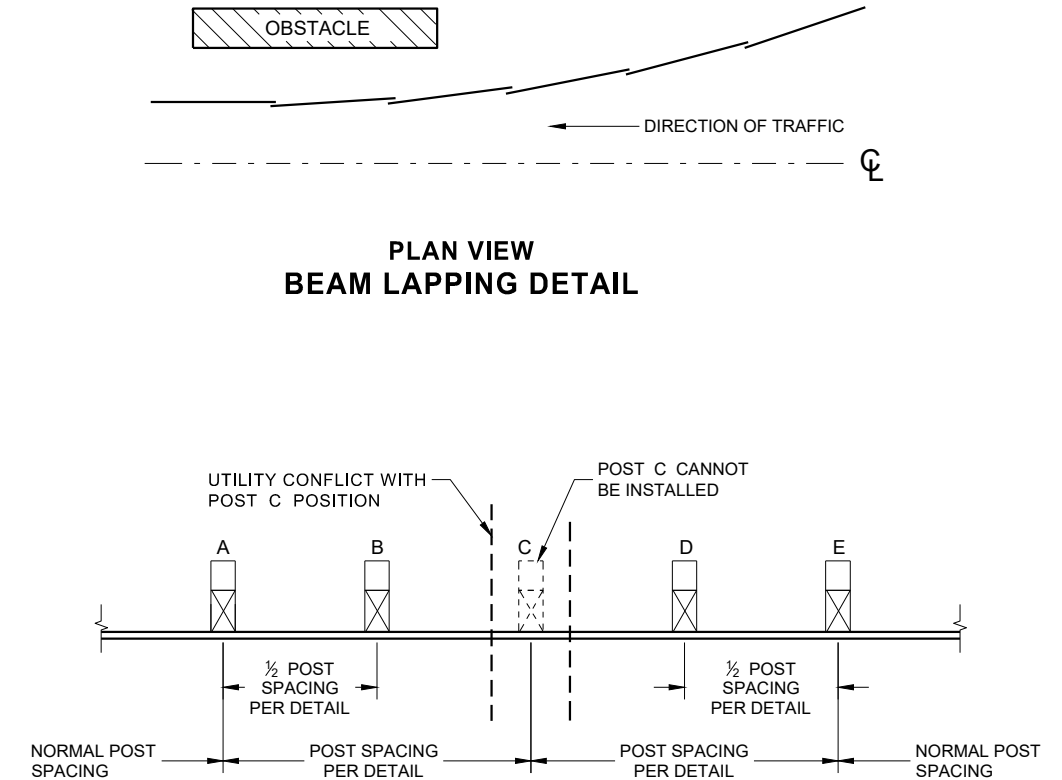
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



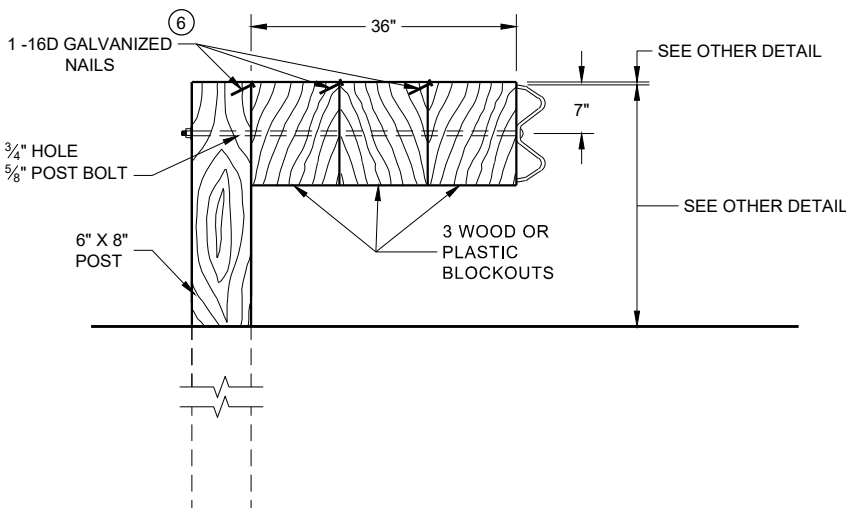
ALTERNATE BOLT HEAD



POST BOLT, SPLICE BOLT AND RECESS NUT



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

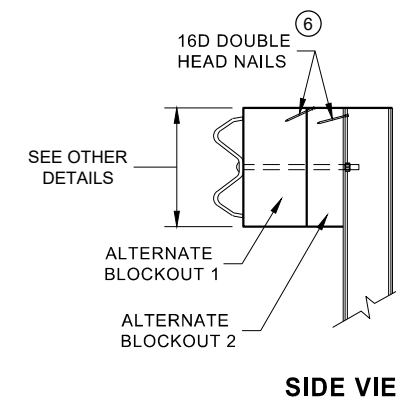


DETAIL FOR 36" BLOCKOUT DEPTH

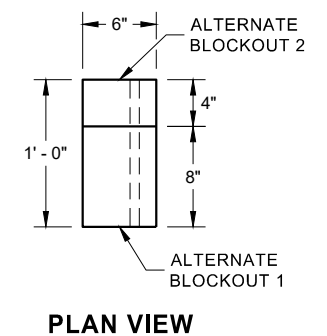
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

- ⑥ WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

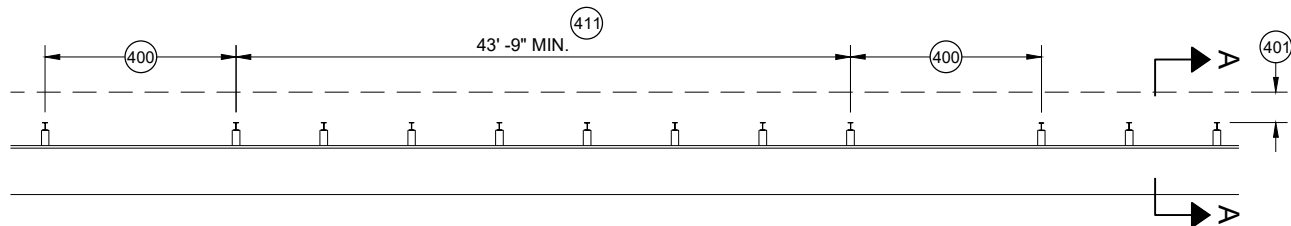


ALTERNATE WOOD BLOCKOUT DETAIL

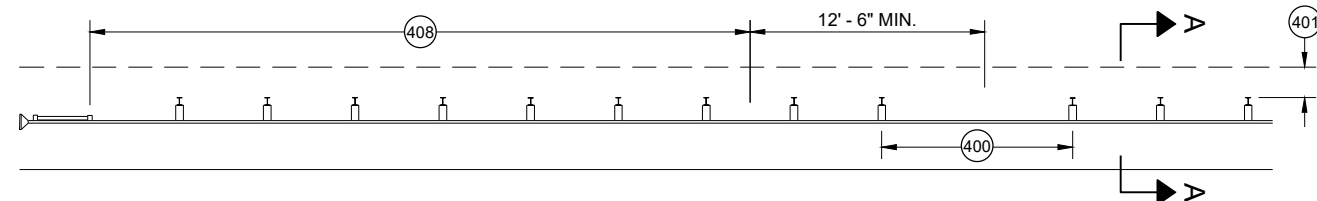


MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

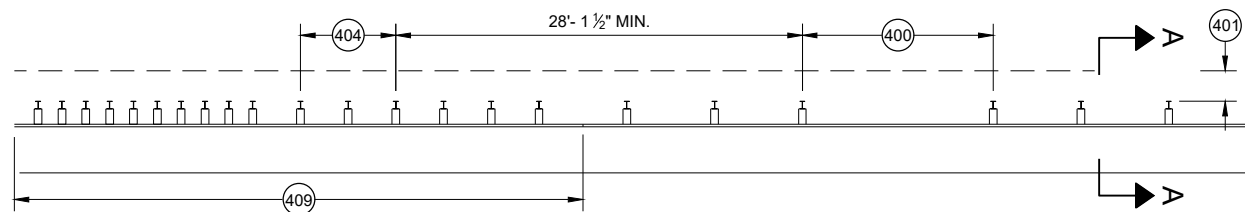
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 39



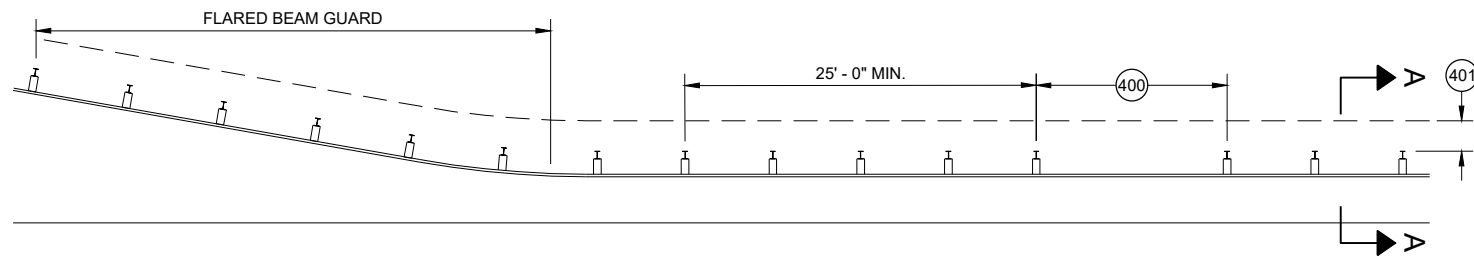
MISSING POST IN MGS GUARDRAIL



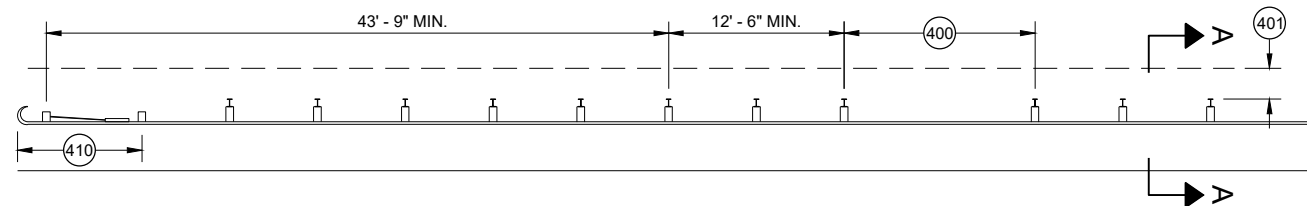
MISSING POST IN MGS GUARDRAIL NEAR EAT



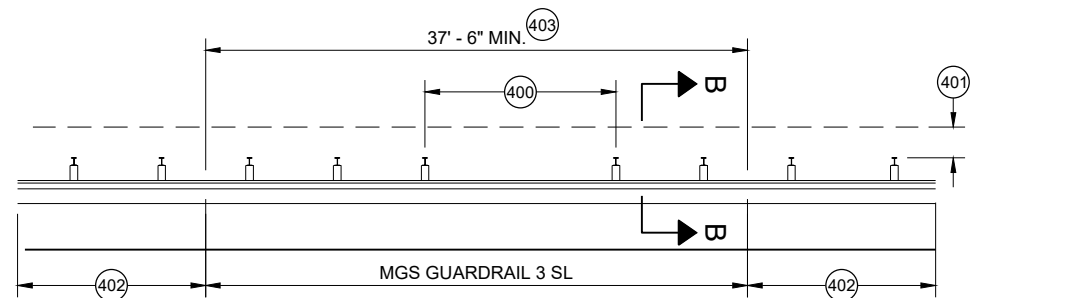
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

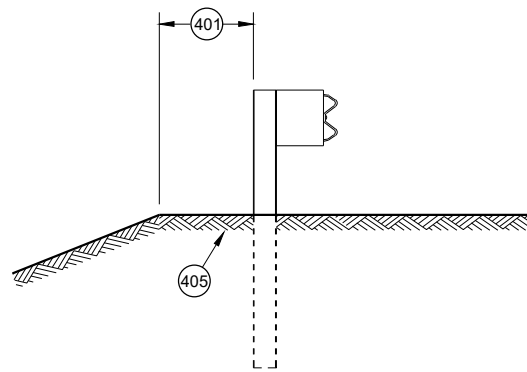


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

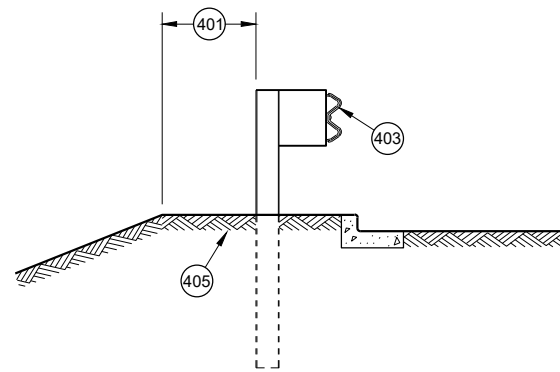


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (400) MAX SPAN 12' - 6"
- (401) 2' MIN.
- (402) MGS GUARDRAIL 3
- (403) NESTING BEAM GUARD
- (404) ASYMMETRIC TRANSITION
- (405) SOIL WELL DRAINED AND COMPACTED
- (406) SEE OTHER DRAWINGS IN THIS SDD
- (407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- (408) SEE SDD 14B44
- (409) SEE SDD 14B45
- (410) SEE SDD 14B47
- (411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

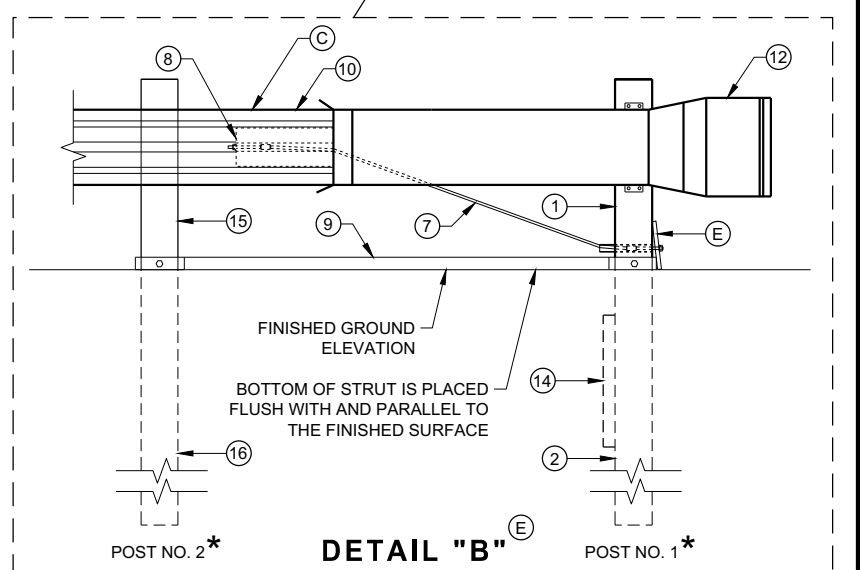
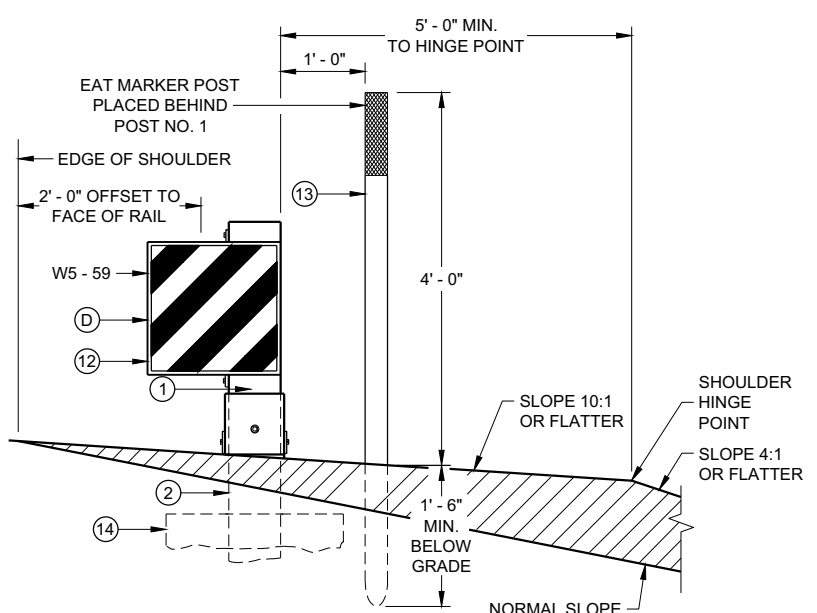
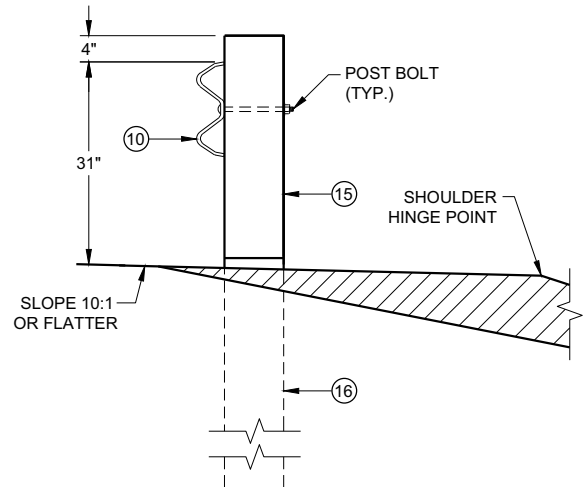
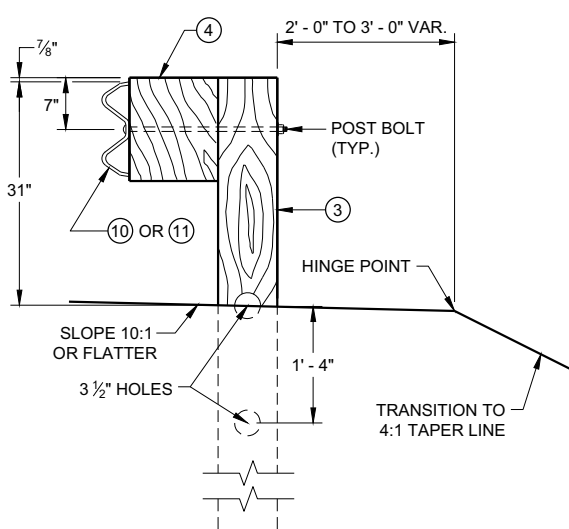
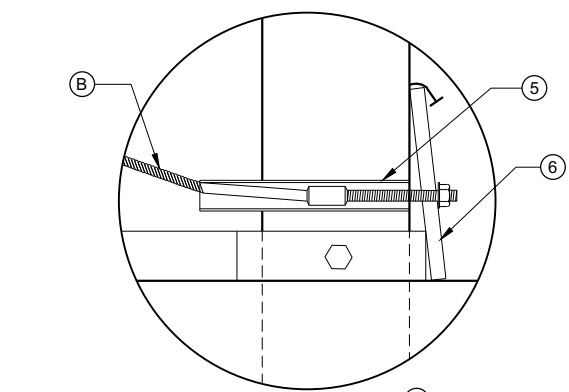
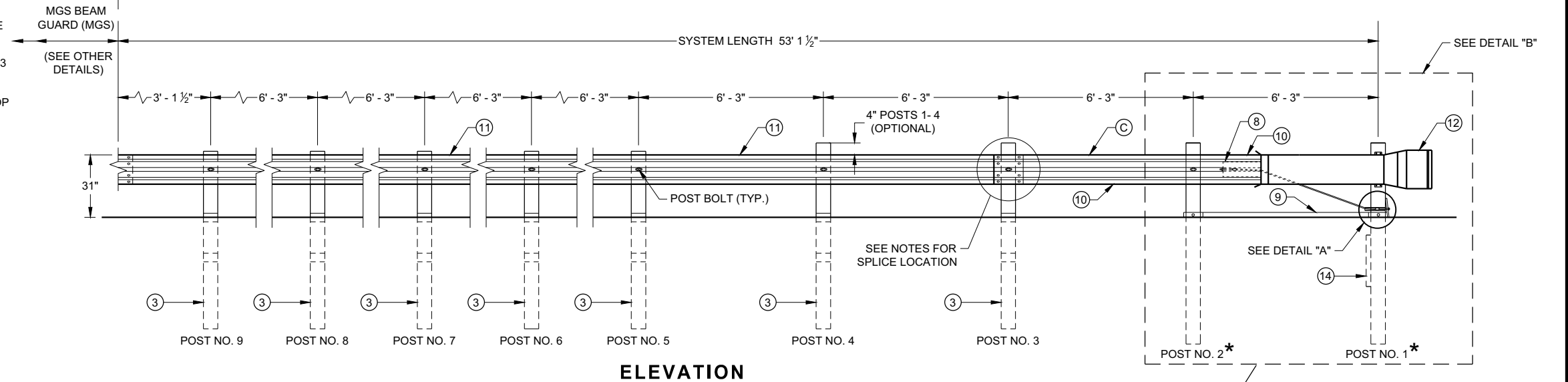
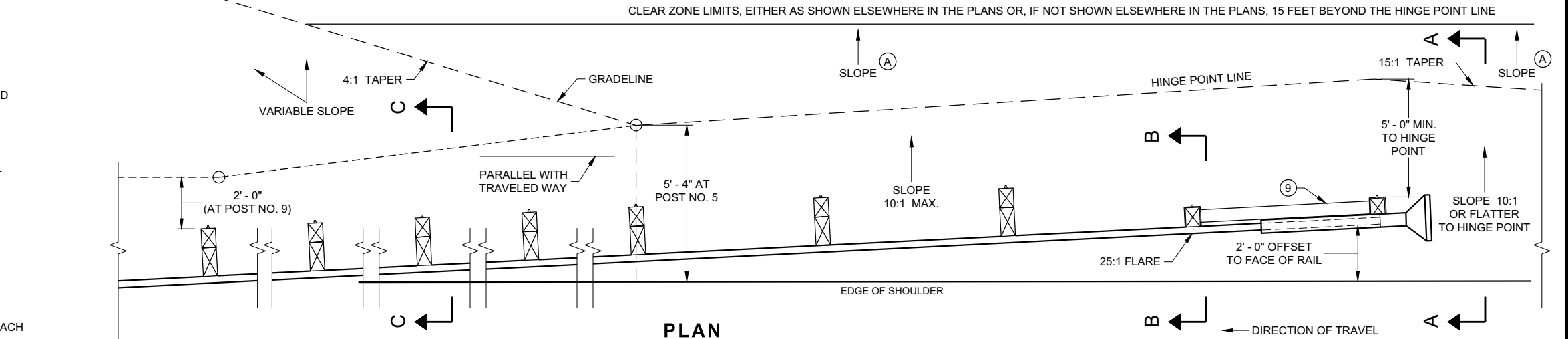
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

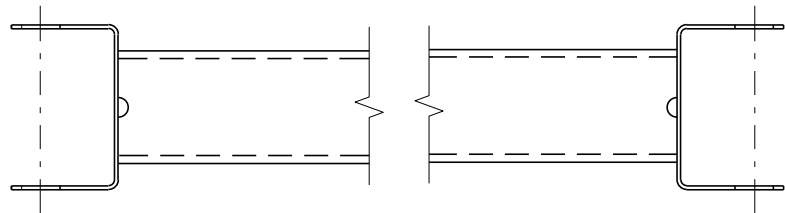
FHWA

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
- (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
- (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

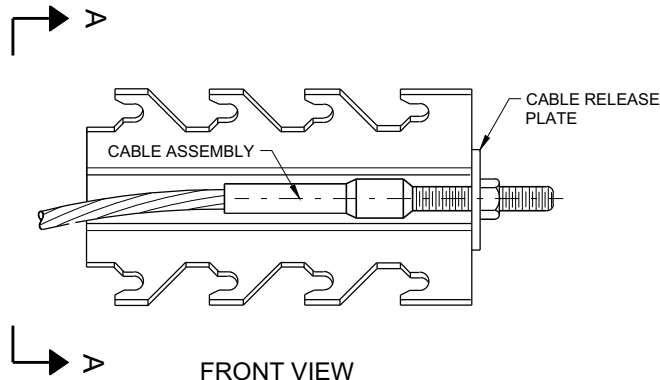


MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

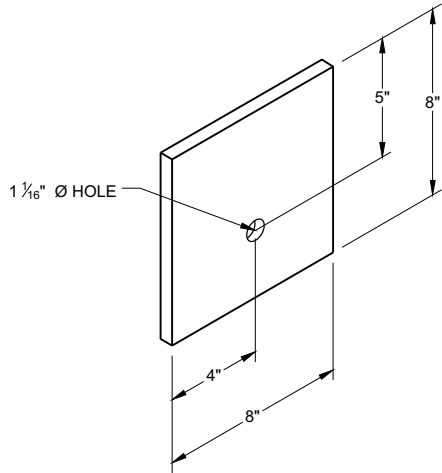
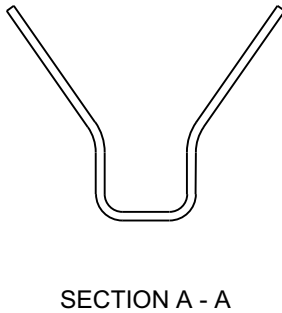


GENERIC GROUND STRUT⁹ ^E

BILL OF MATERIALS	
PART NO.	DESCRIPTION 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



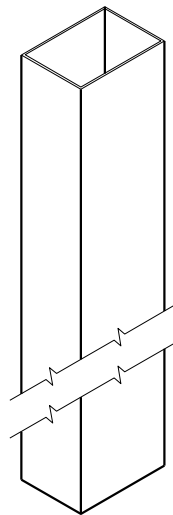
GENERIC ANCHOR CABLE BOX⁹ ^E



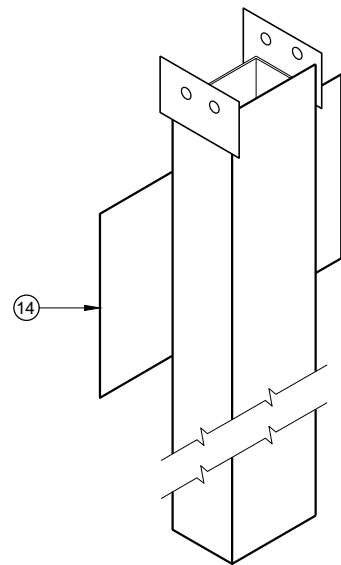
BEARING PLATE⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

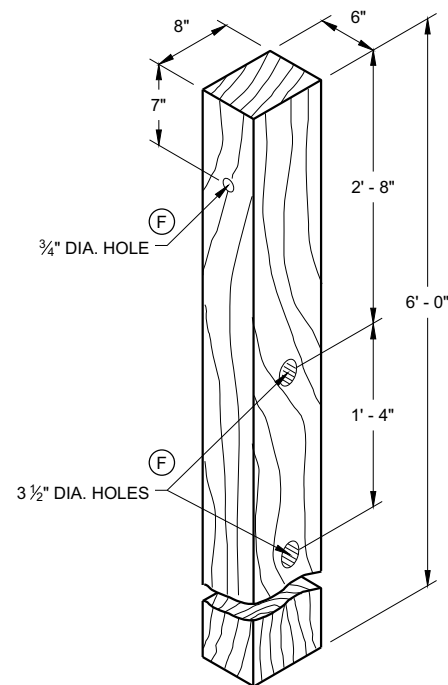
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



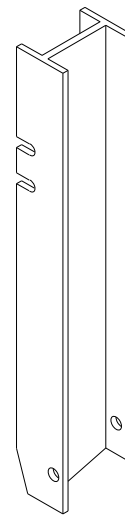
UPPER POST NO. 1 ⁽¹⁾ (E)



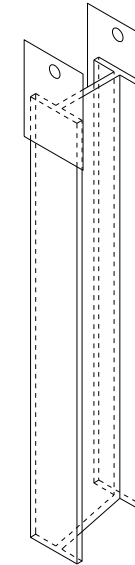
LOWER POST NO. 1 ⁽²⁾ (E)



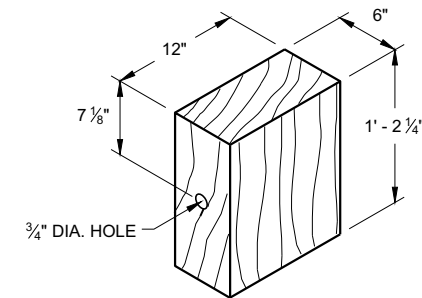
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



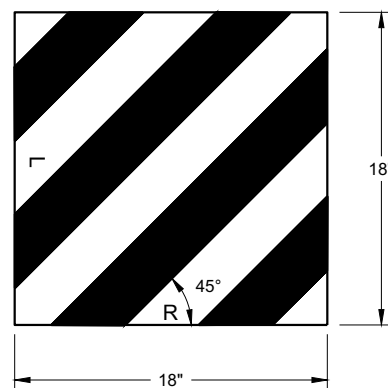
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



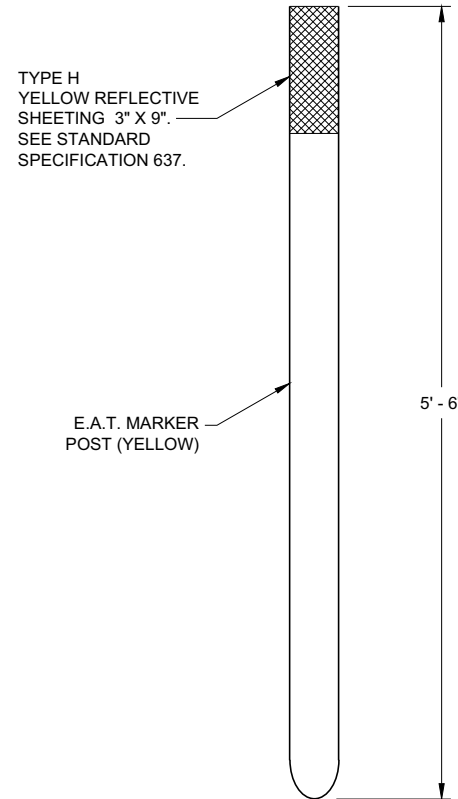
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



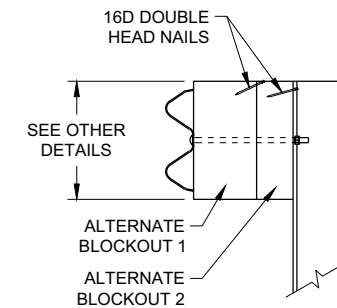
WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



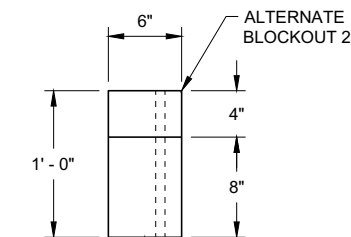
W5 - 59
REFLECTIVE SHEETING DETAIL ^(E)



FRONT VIEW
SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



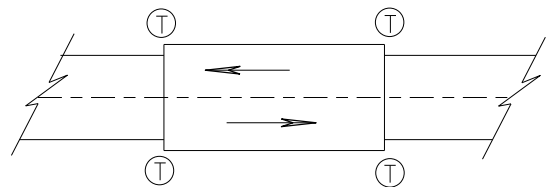
SIDE VIEW



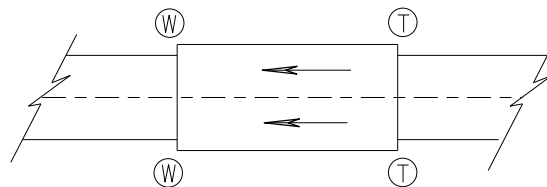
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	43



TWO WAY TRAFFIC



ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

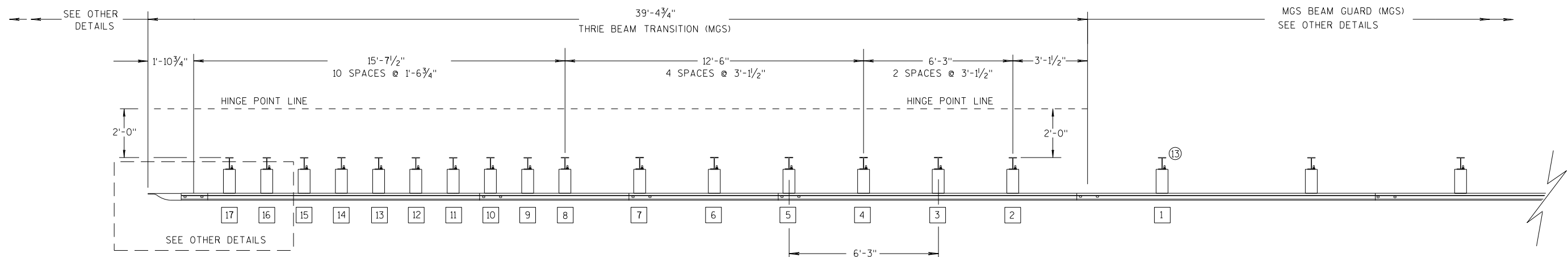
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

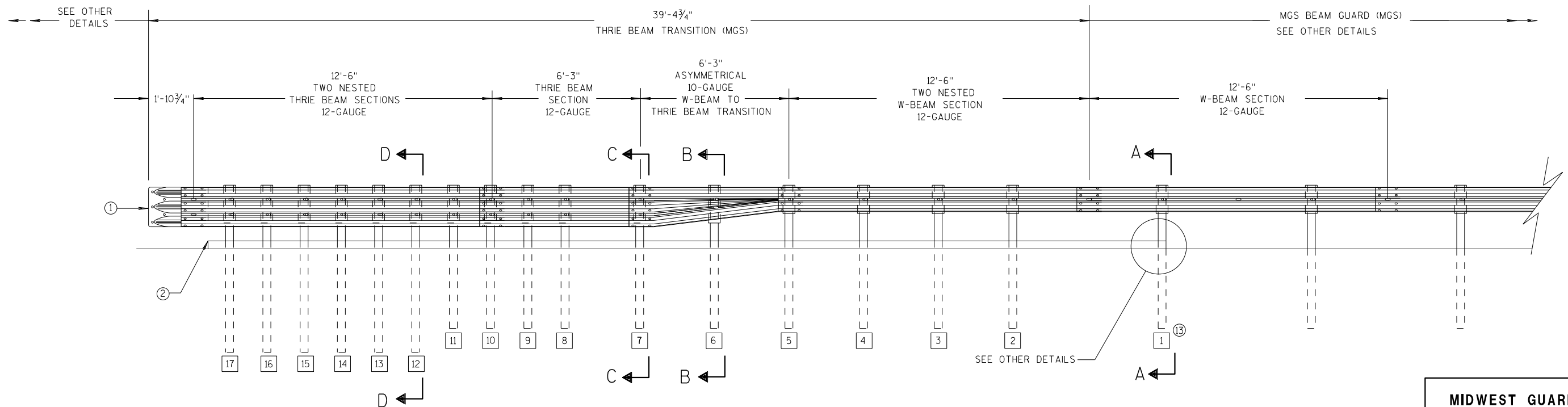
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

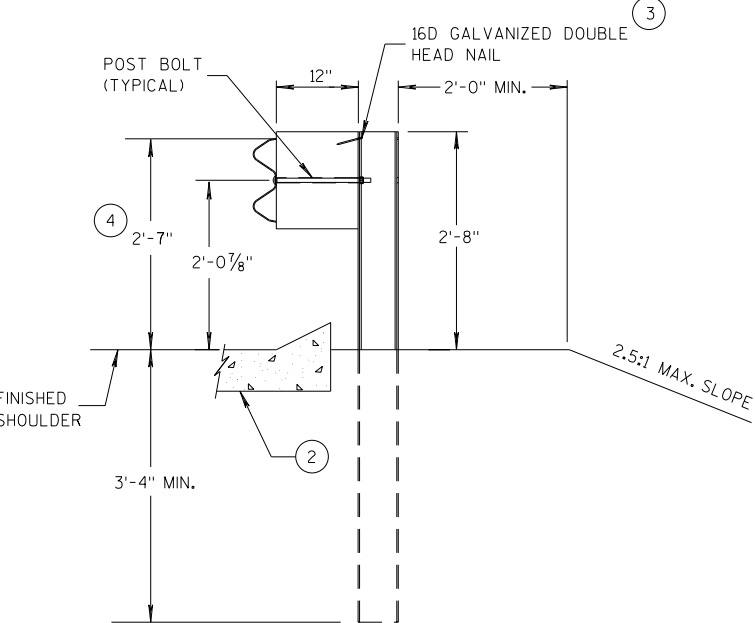
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

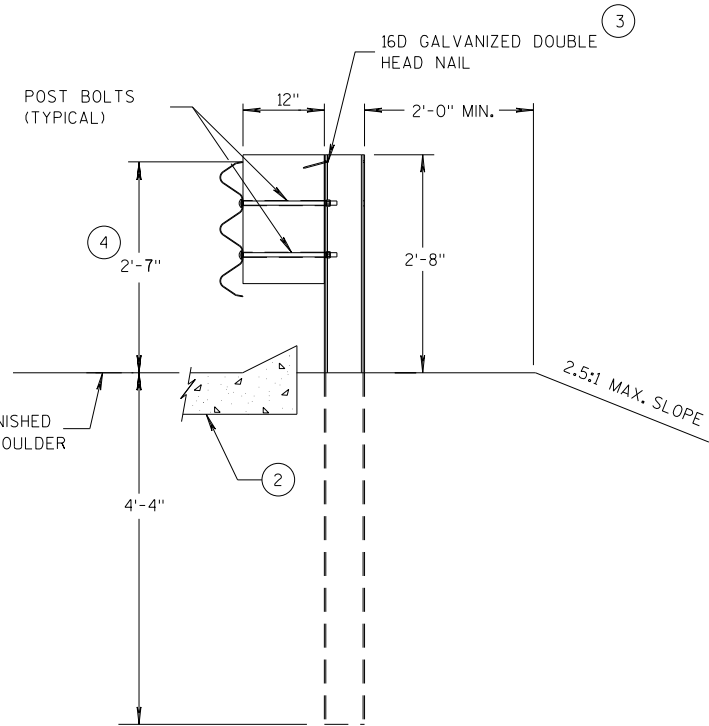
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

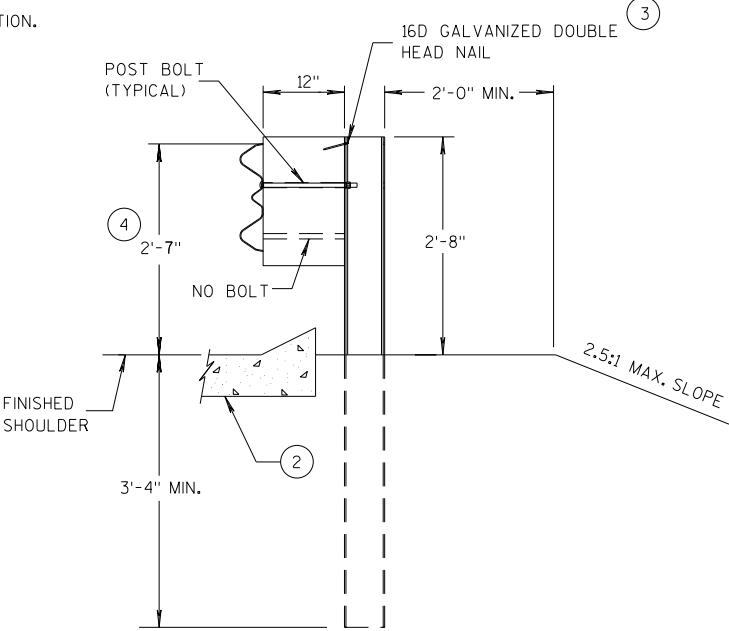
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



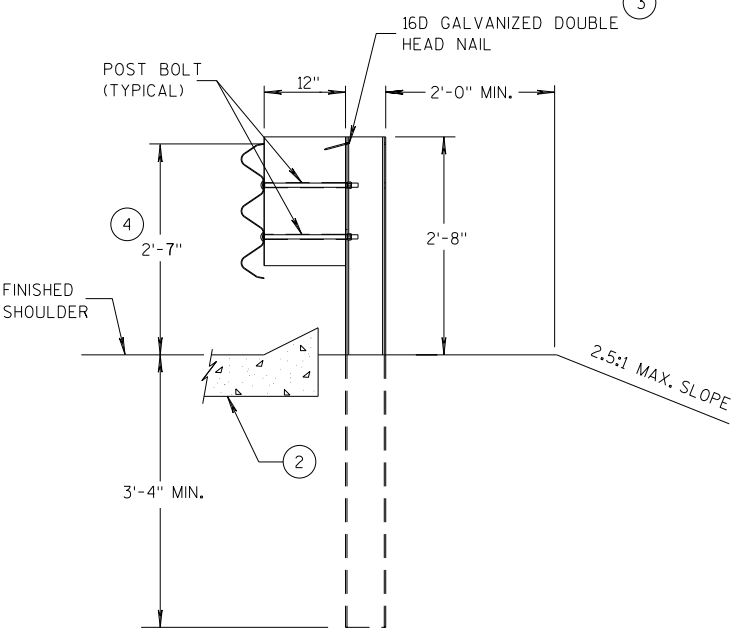
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

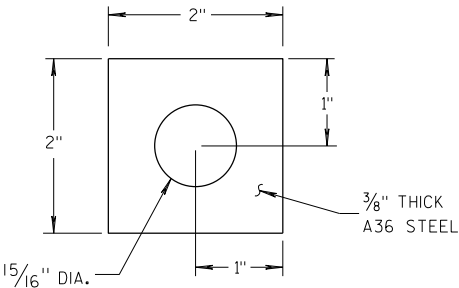
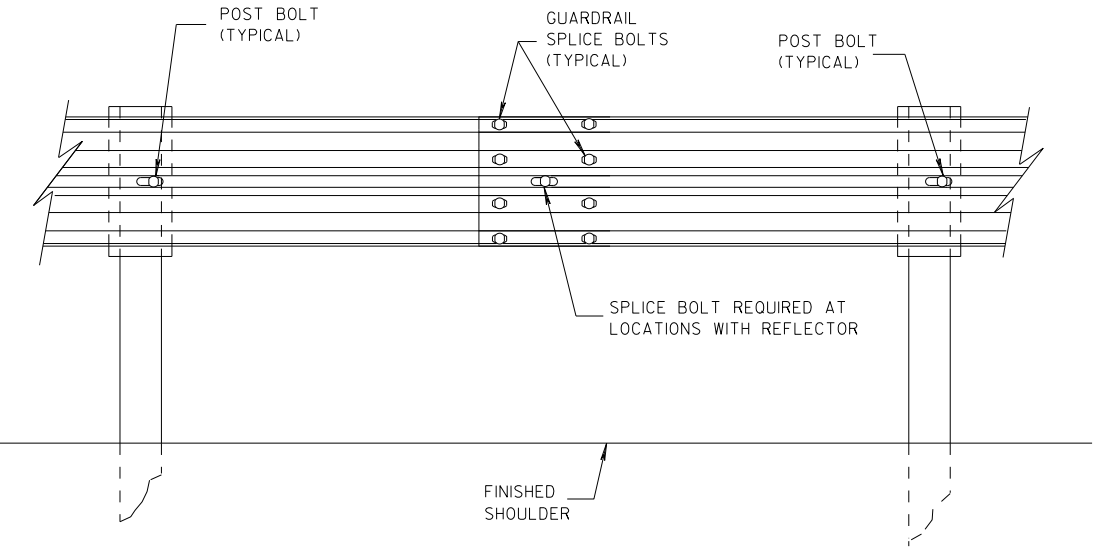
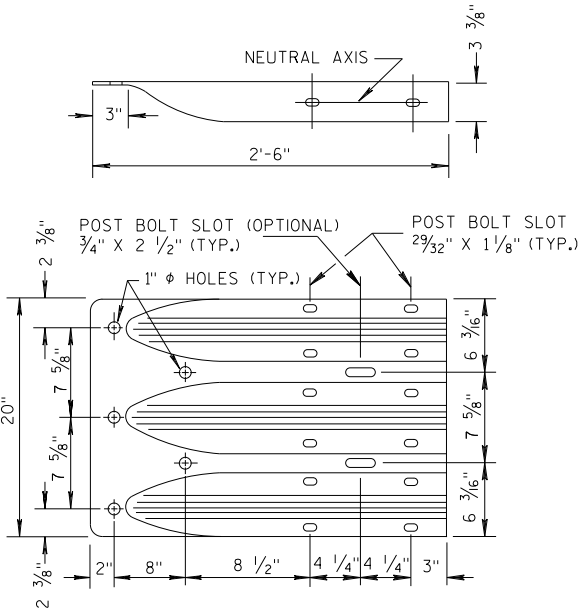


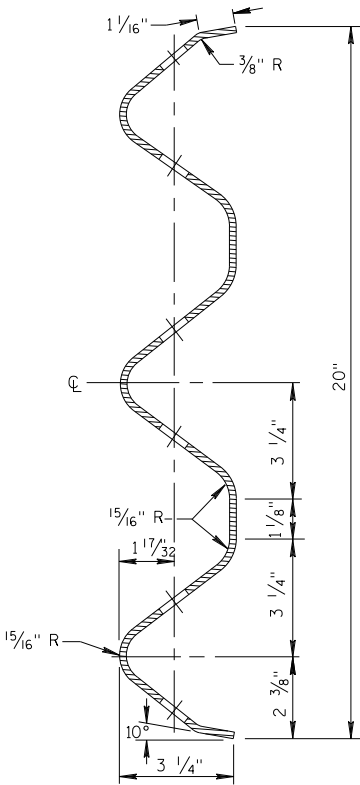
PLATE WASHER DETAIL



SPLICE DETAIL



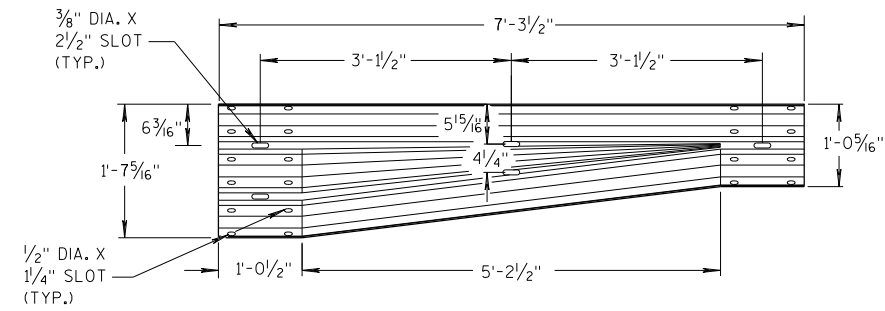
THRIE BEAM
TERMINAL CONNECTOR



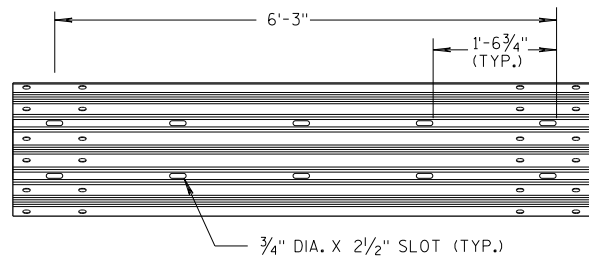
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

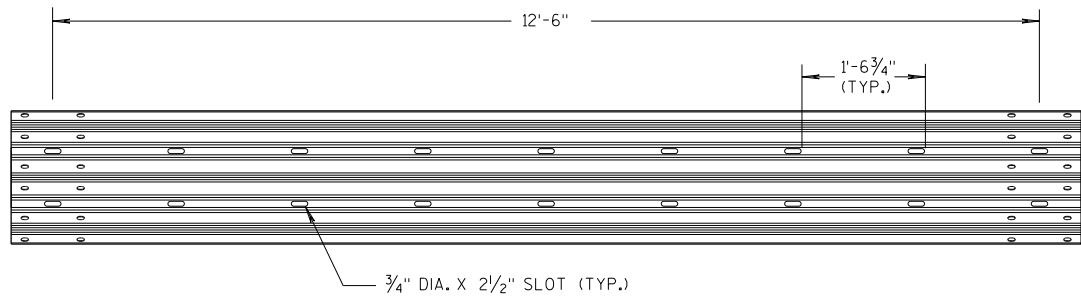
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



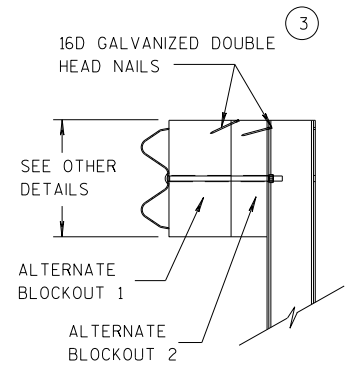
W-BEAM TO THRIE BEAM TRANSITION SECTION



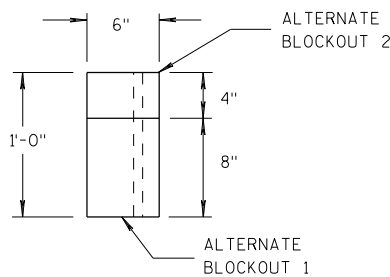
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

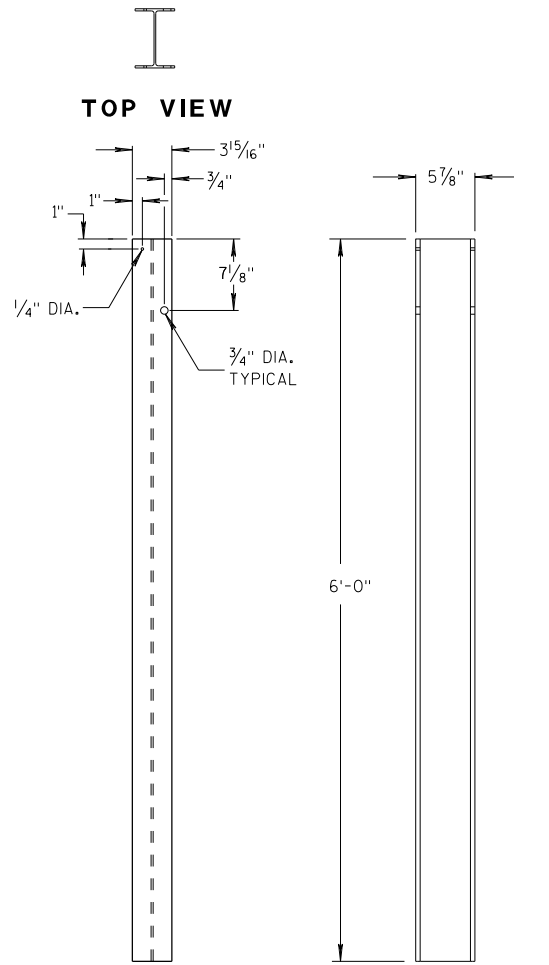


SIDE VIEW



TOP VIEW

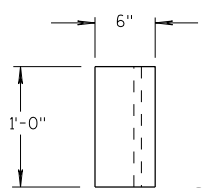
ALTERNATE WOOD BLOCKOUT DETAIL



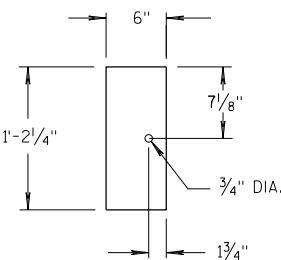
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

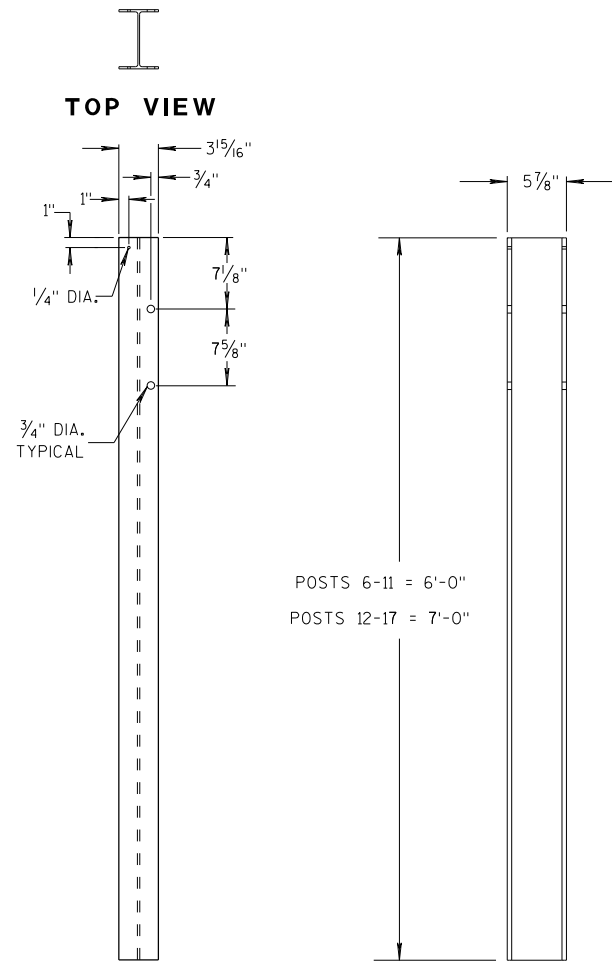


TOP VIEW



FRONT VIEW

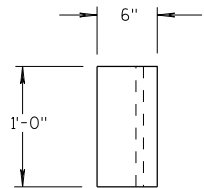
BLOCKOUT POSTS 1-5



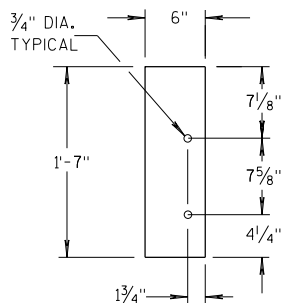
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

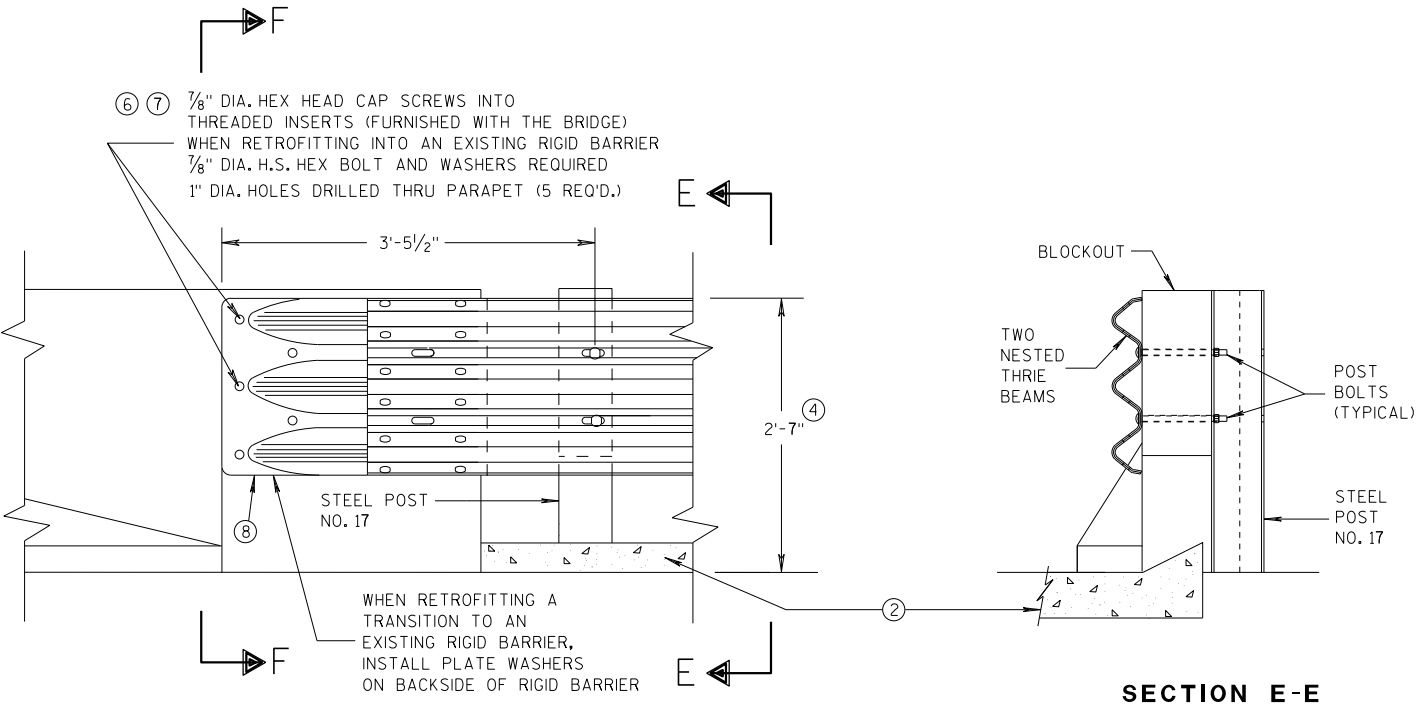
3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

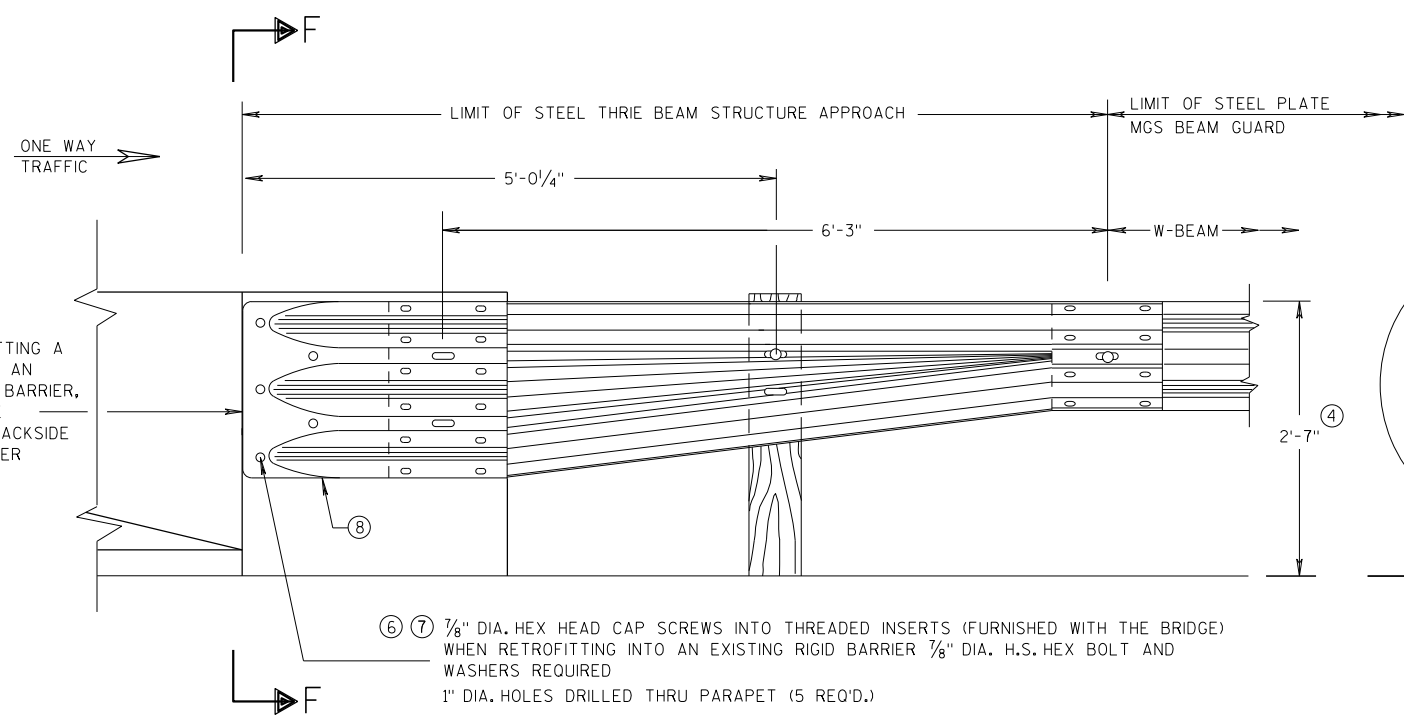
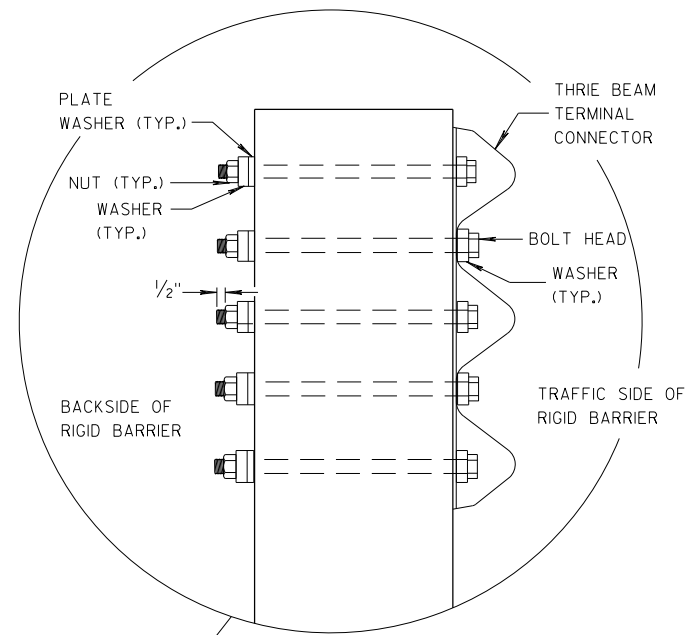
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

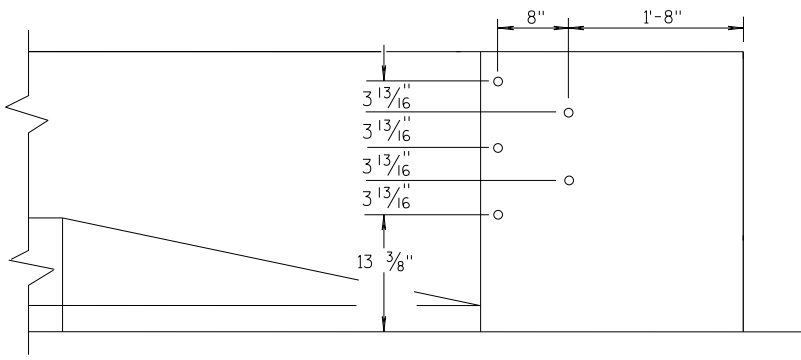


GENERAL NOTES

- 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 $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".



SECTION F-F



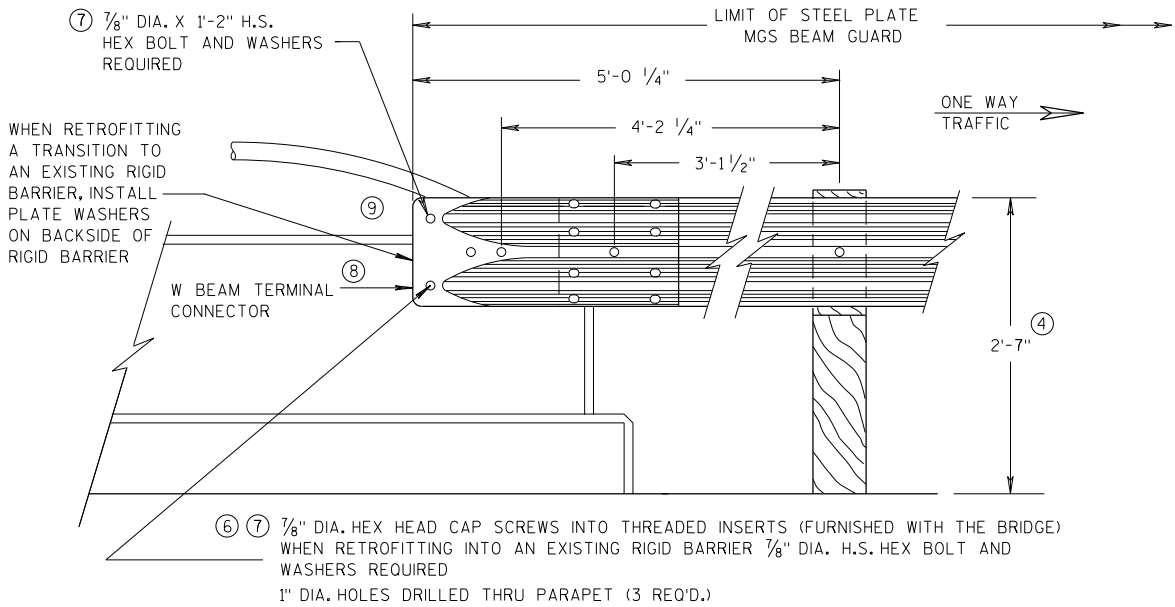
DRILL HOLE LOCATION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 07/2018	/S/ Rodney Taylor		
DATE	ROADWAY STANDARDS	47	NT
FHWA	UNIT SUPERVISOR		

GENERAL NOTES

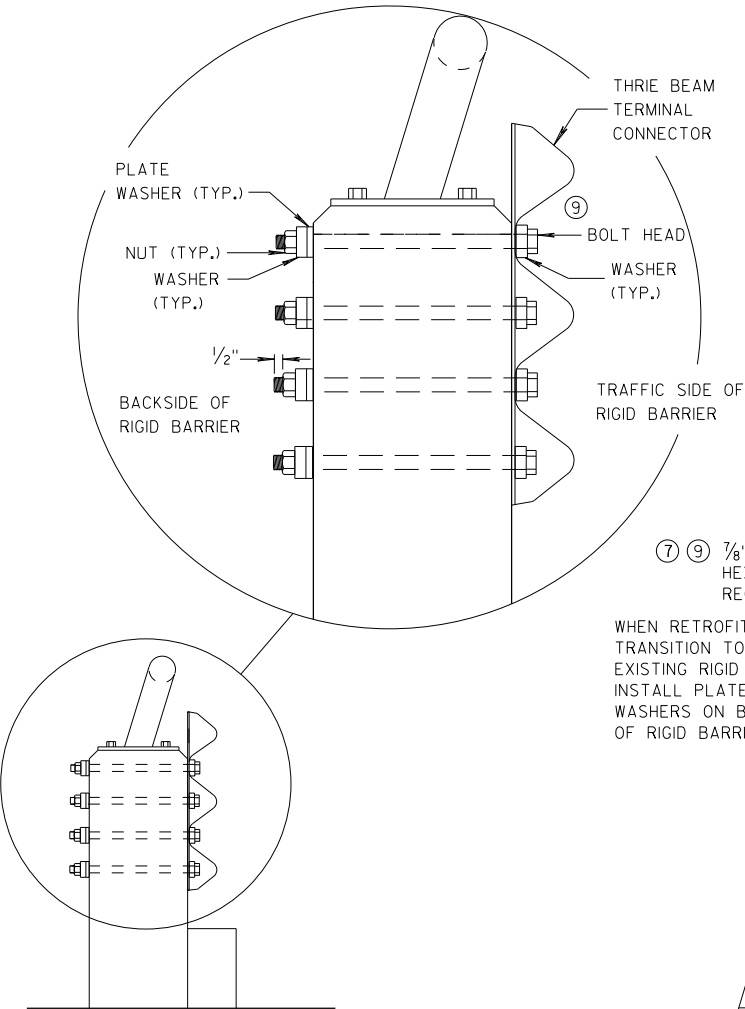
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ②
- OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④
- TOLERANCE FOR TOP OF BEAM IS ± 1".
- ⑥
- DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦
- BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧
- THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ⑨
- BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

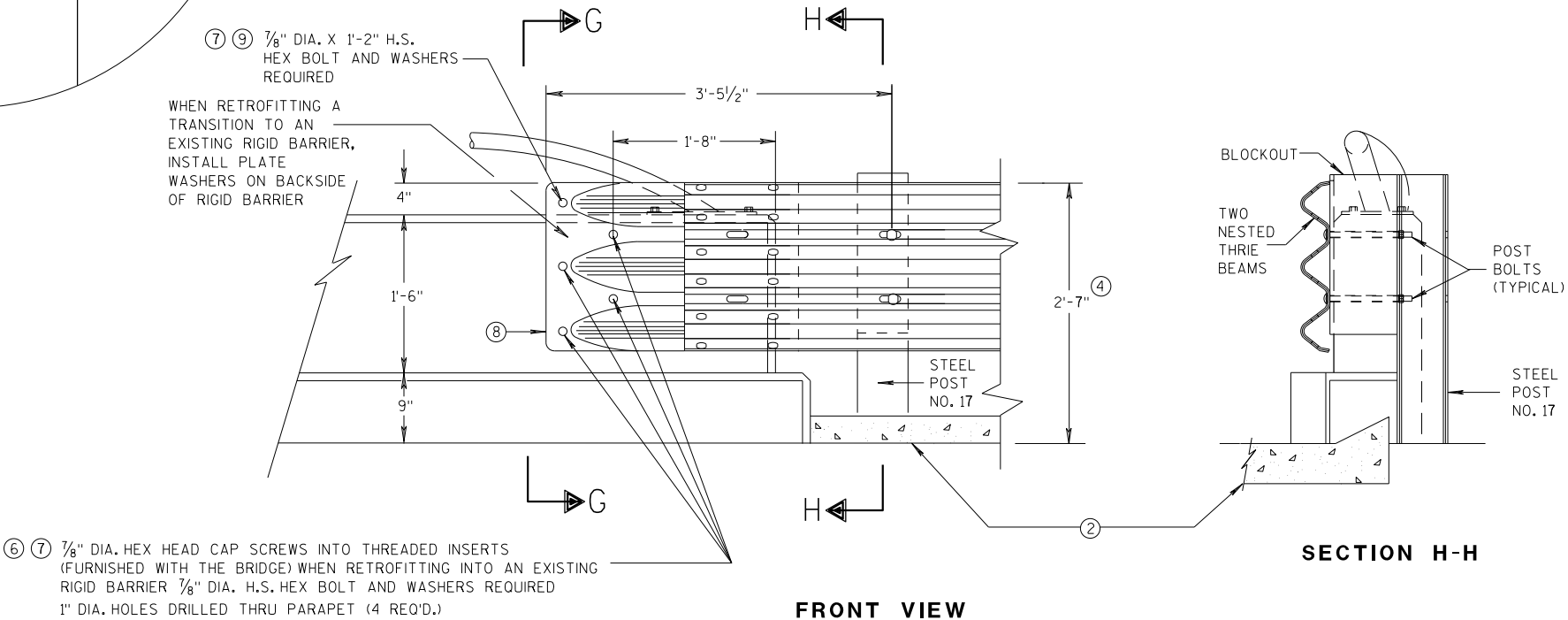


FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION G-G



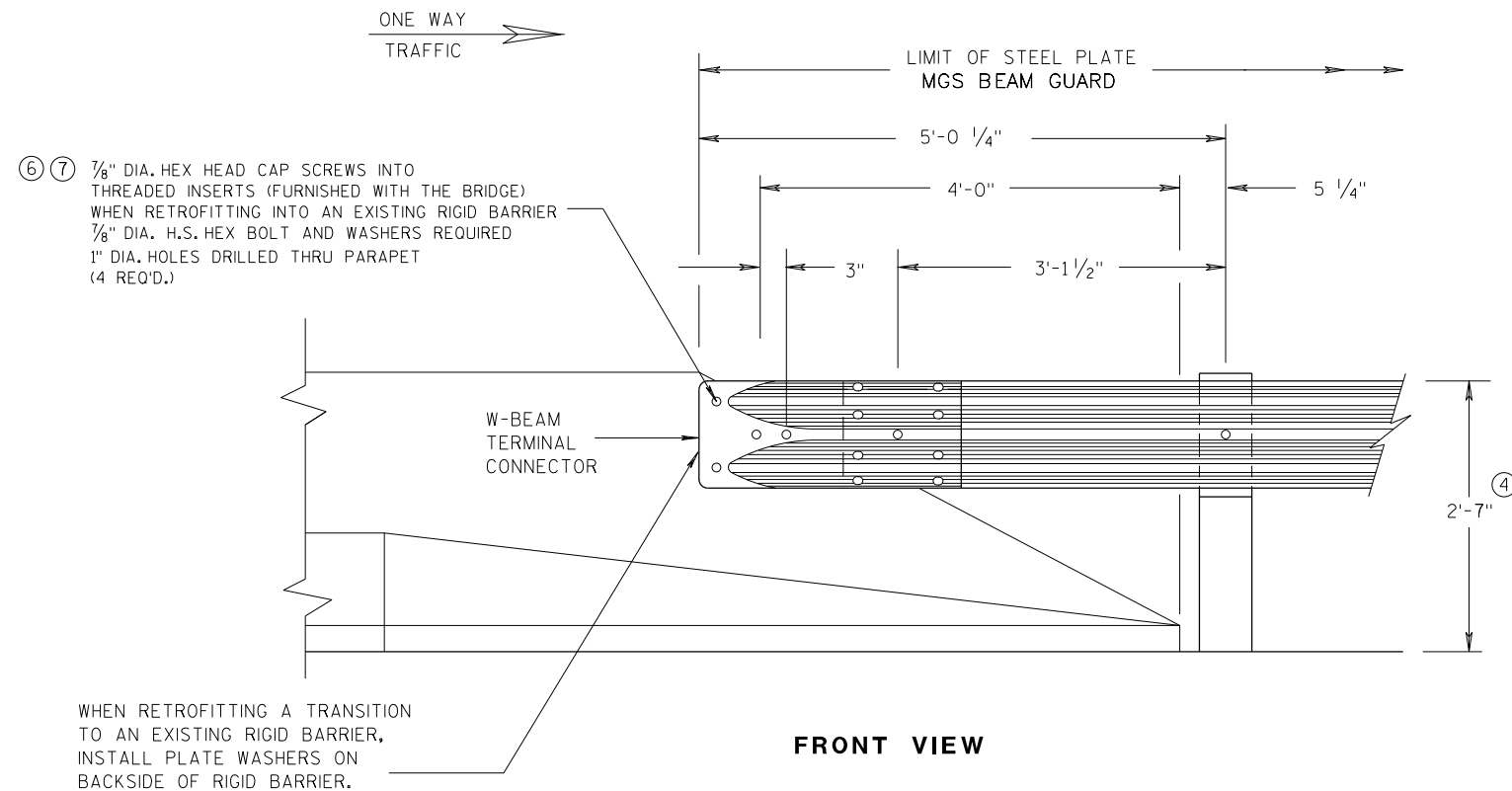
FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

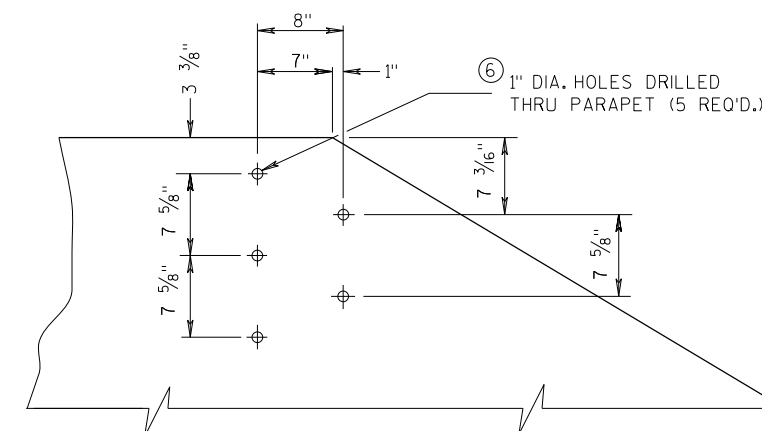
APPROVED
07/2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA 48



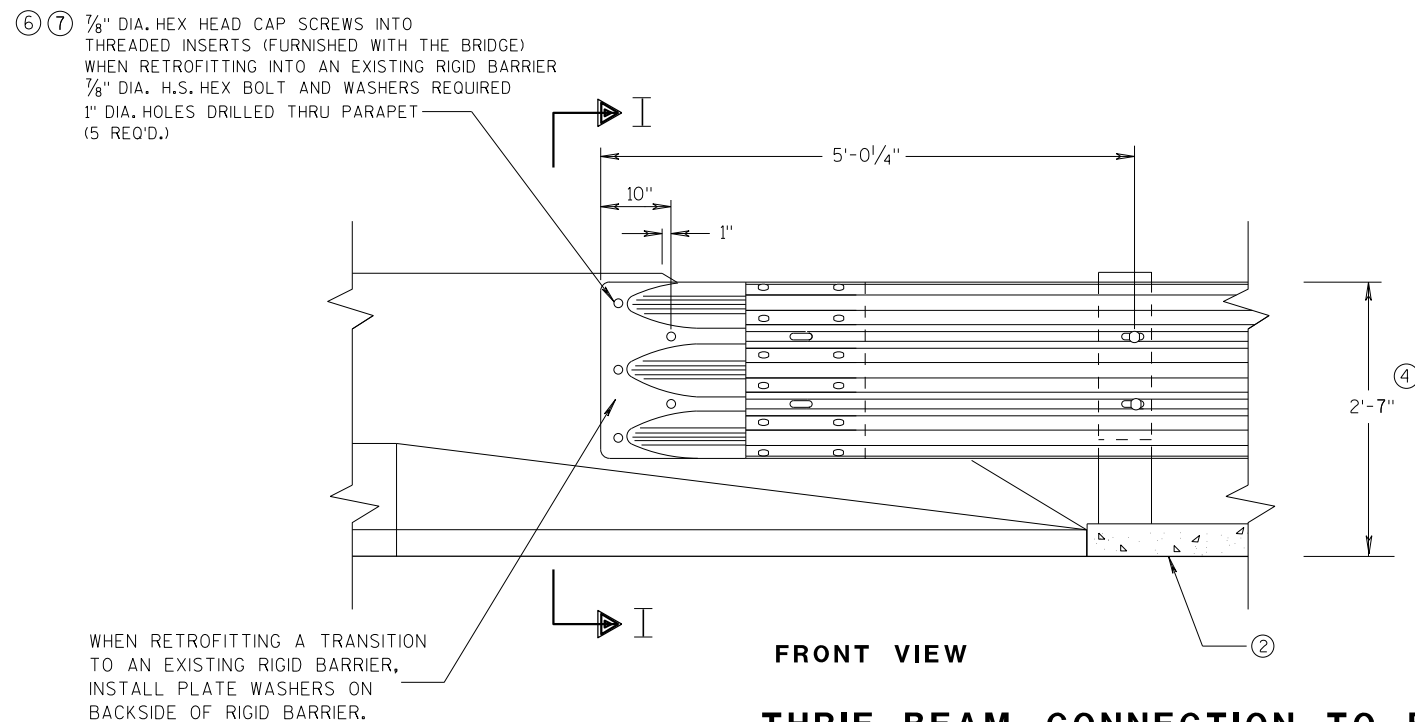
**W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS**
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

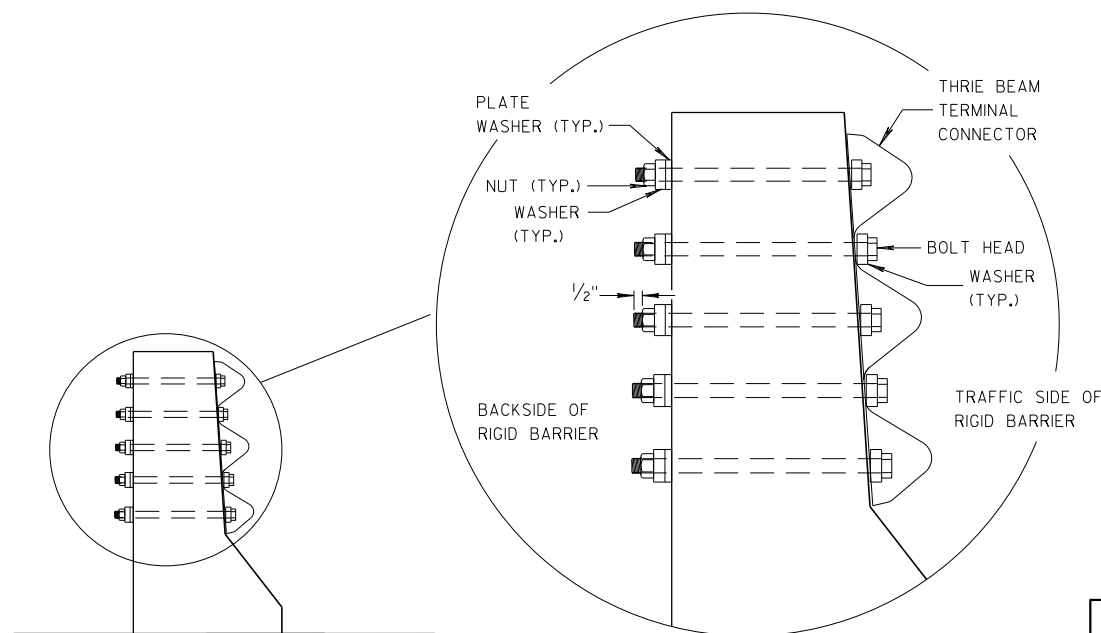
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



**DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION**



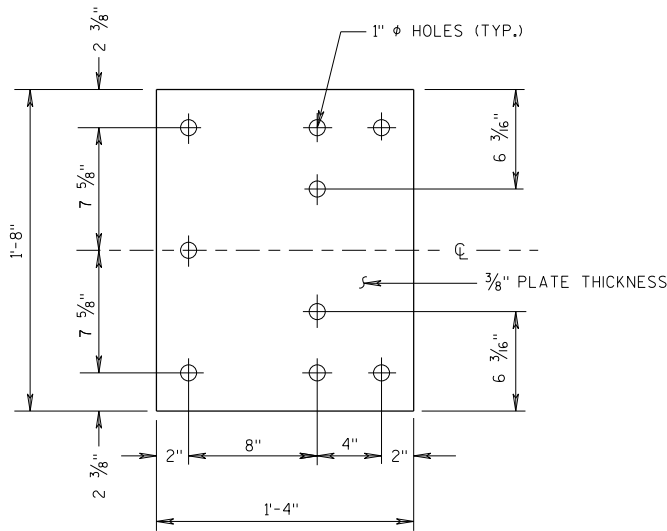
**THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS**



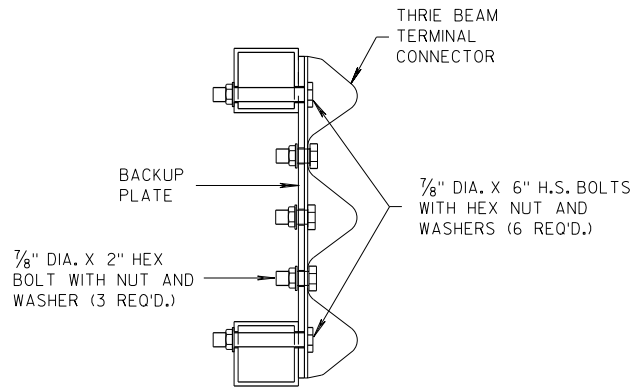
**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

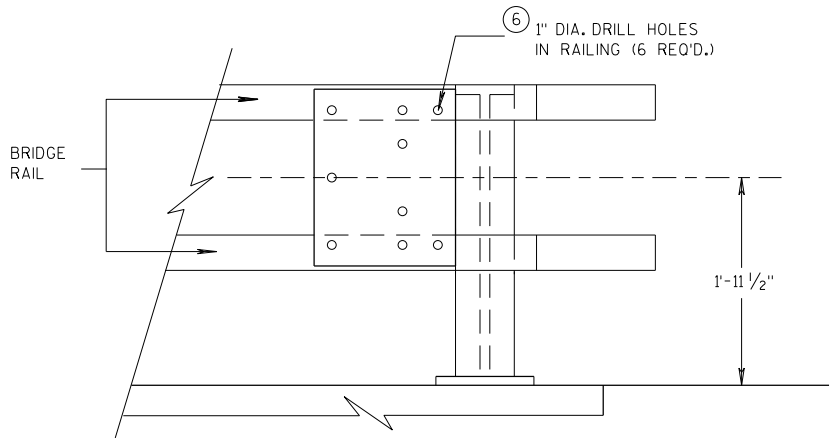
APPROVED
DATE 07/2018 /S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR 49
FHWA



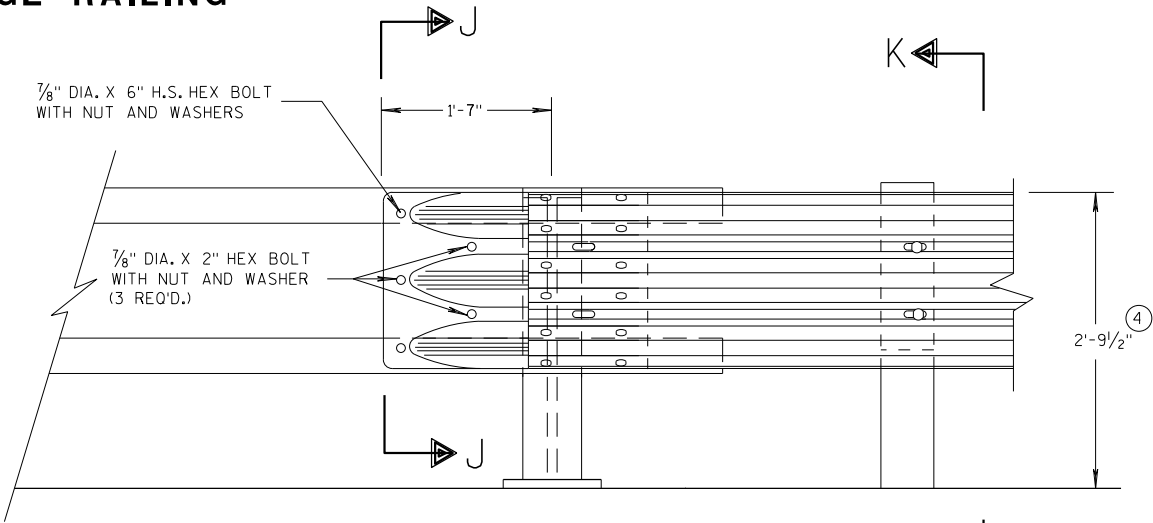
BACK-UP PLATE DETAIL



SECTION J-J

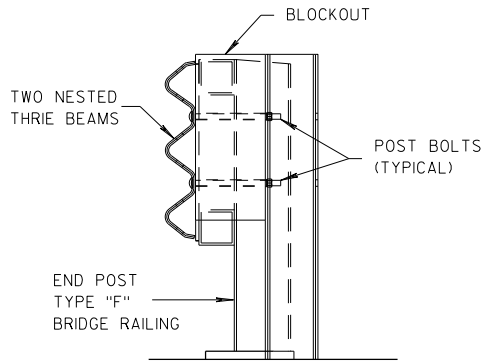


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

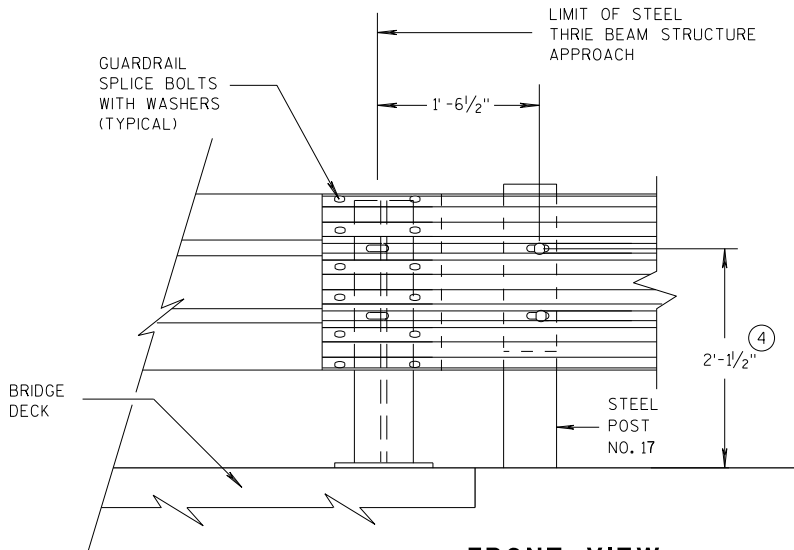
THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



SECTION K-K

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.



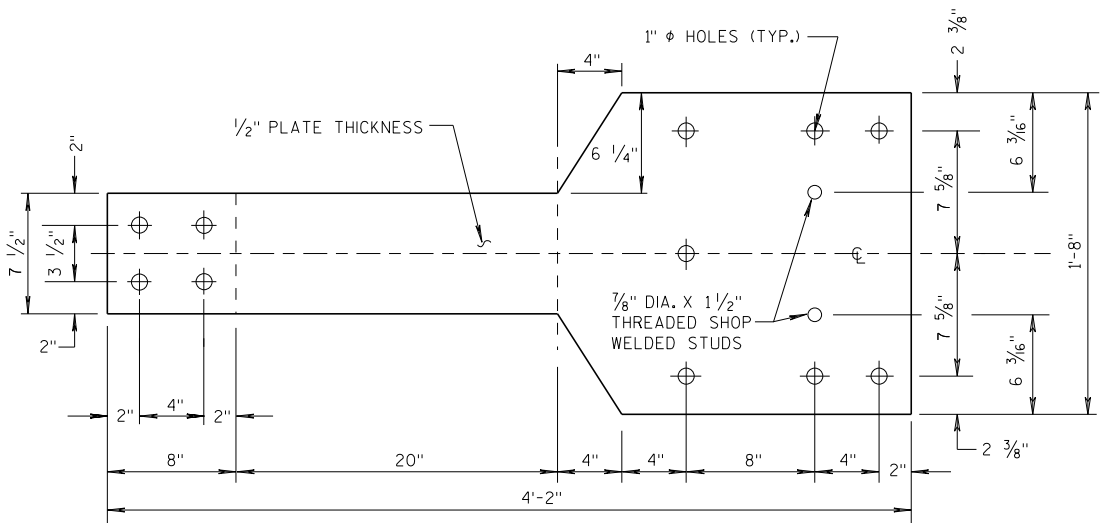
FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

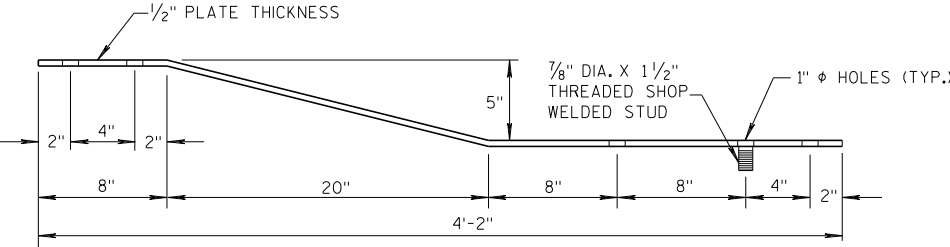
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 07/2018	/S/ Rodney Taylor	50
DATE	ROADWAY STANDARDS DEVELOPMENT	UNIT SUPERVISOR
FHWA		

GENERAL NOTES

④ TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.

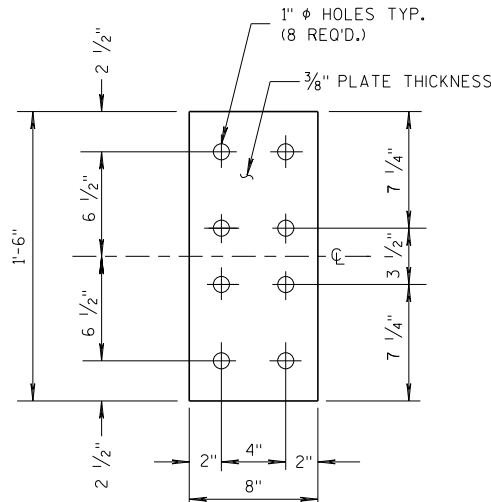


FRONT VIEW



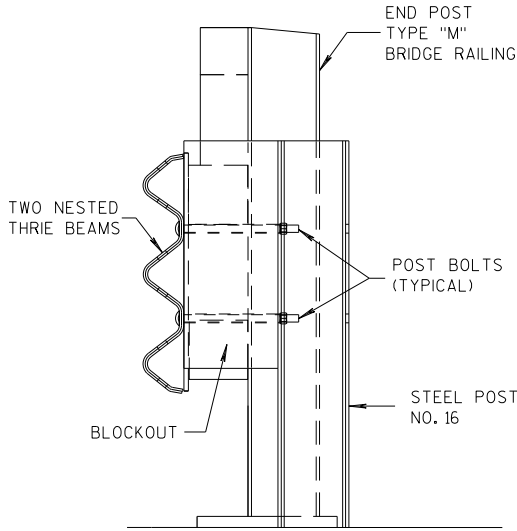
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

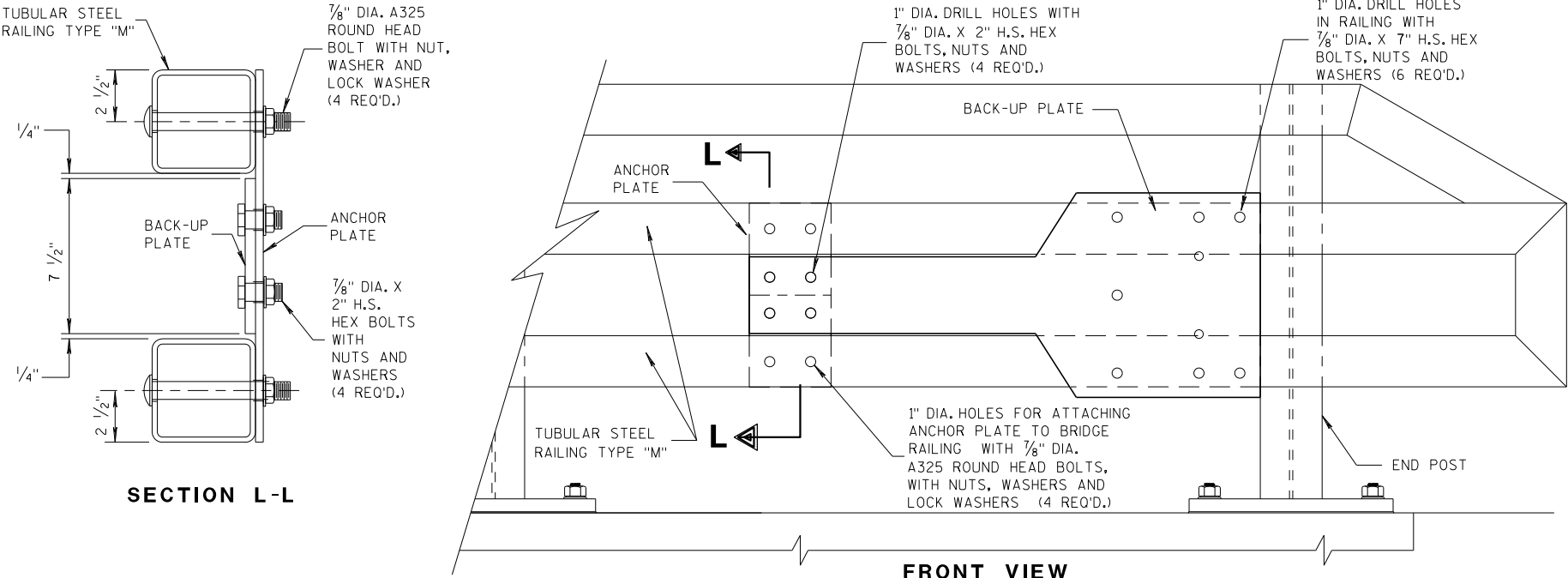


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



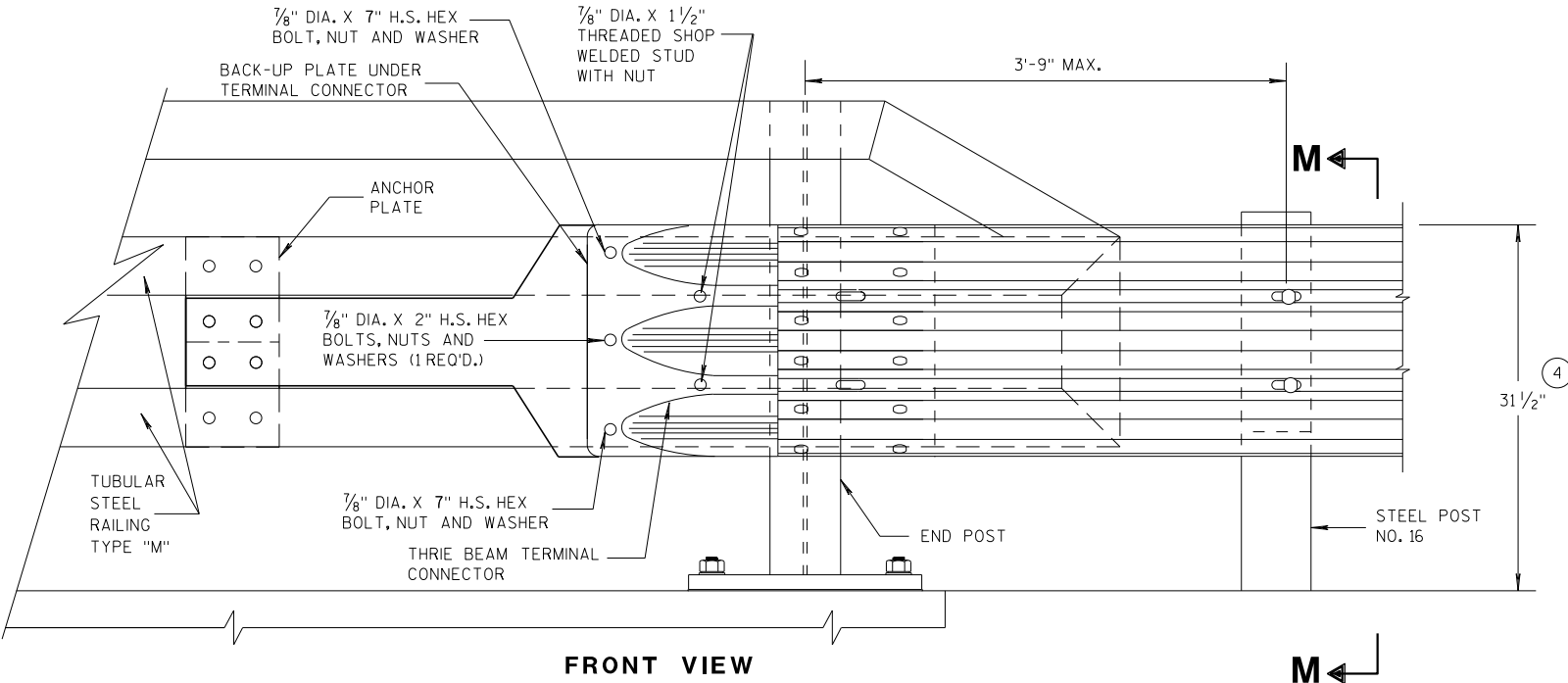
SECTION M-M



SECTION L-L

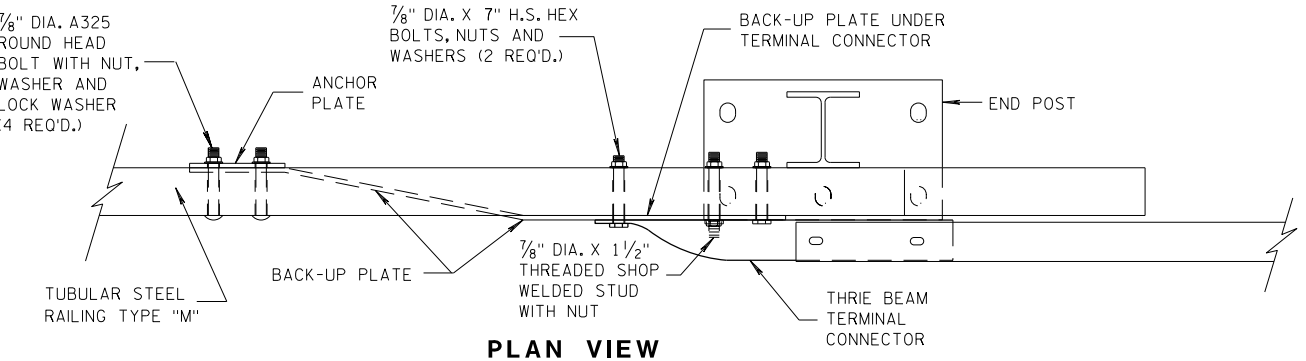
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW

M



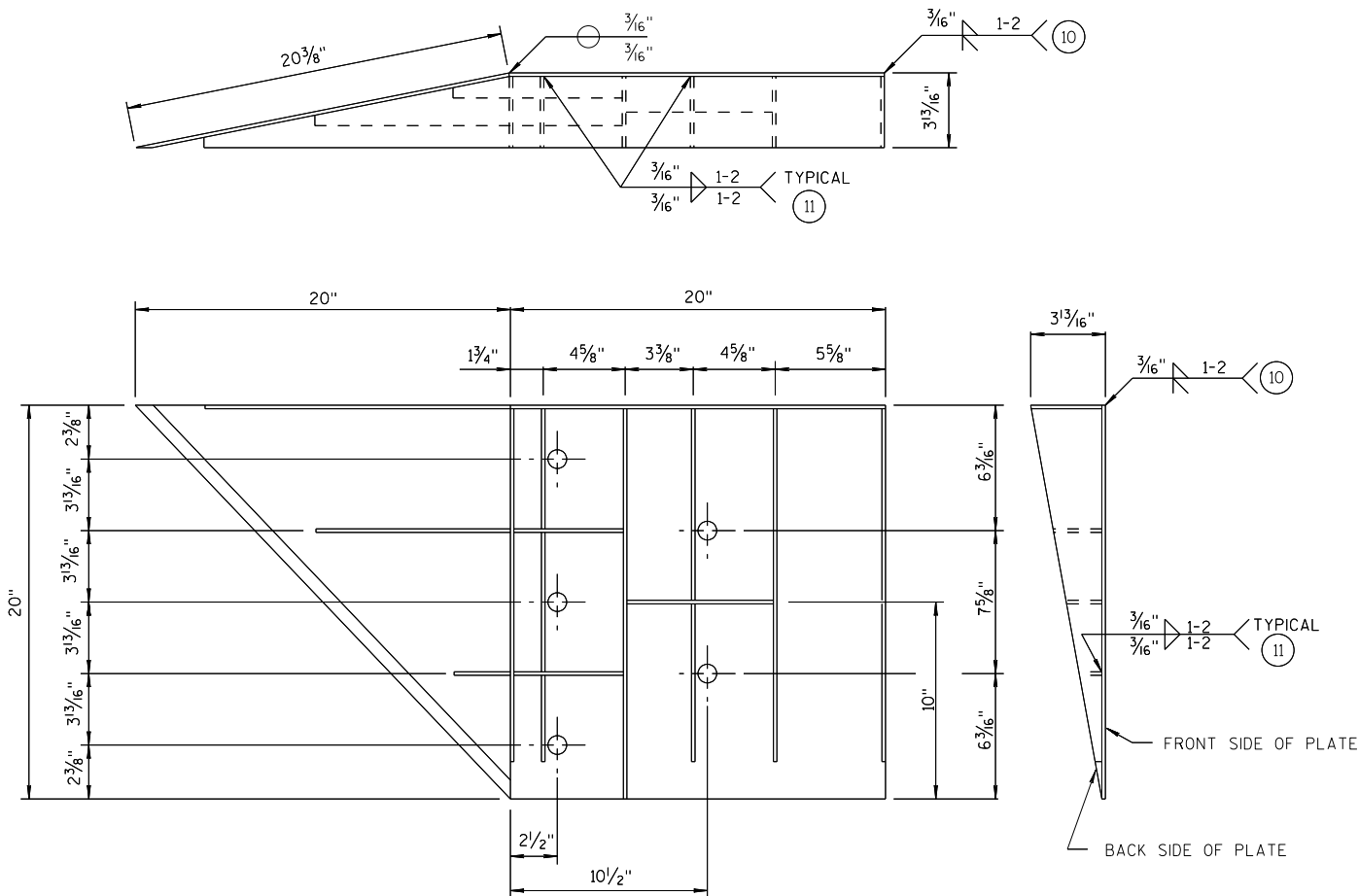
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA 51 ENT



WELDING INSTRUCTION
(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 3/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 1/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 3/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 3/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 3/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

GENERAL NOTES

- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

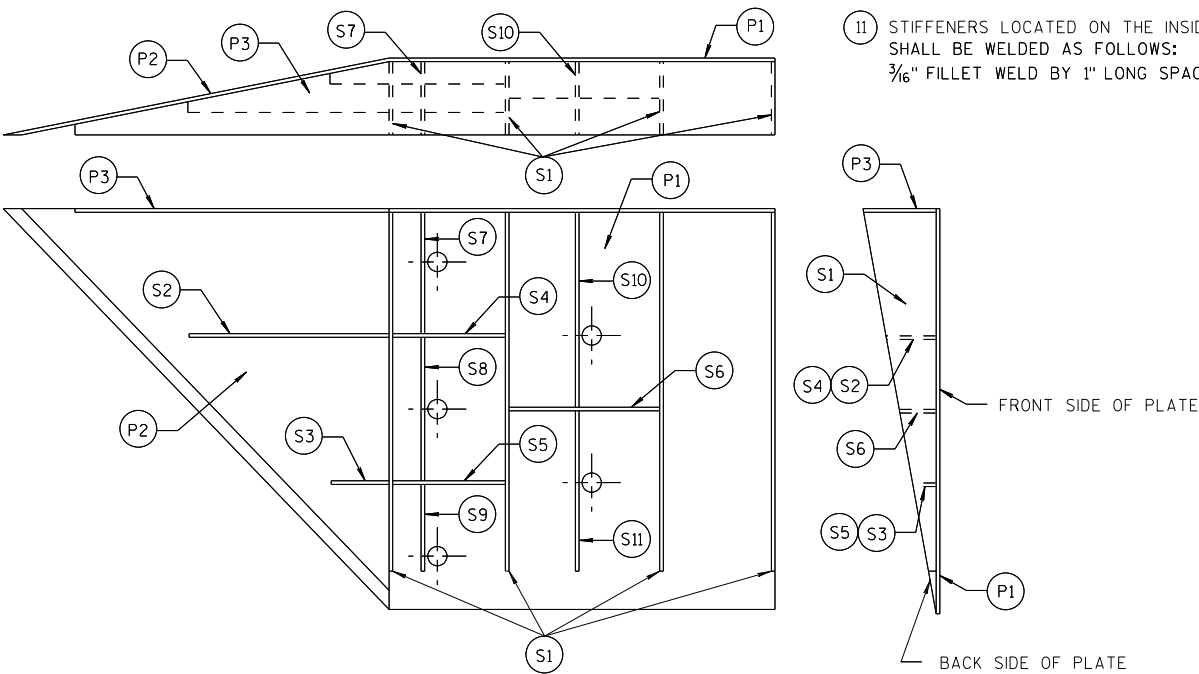
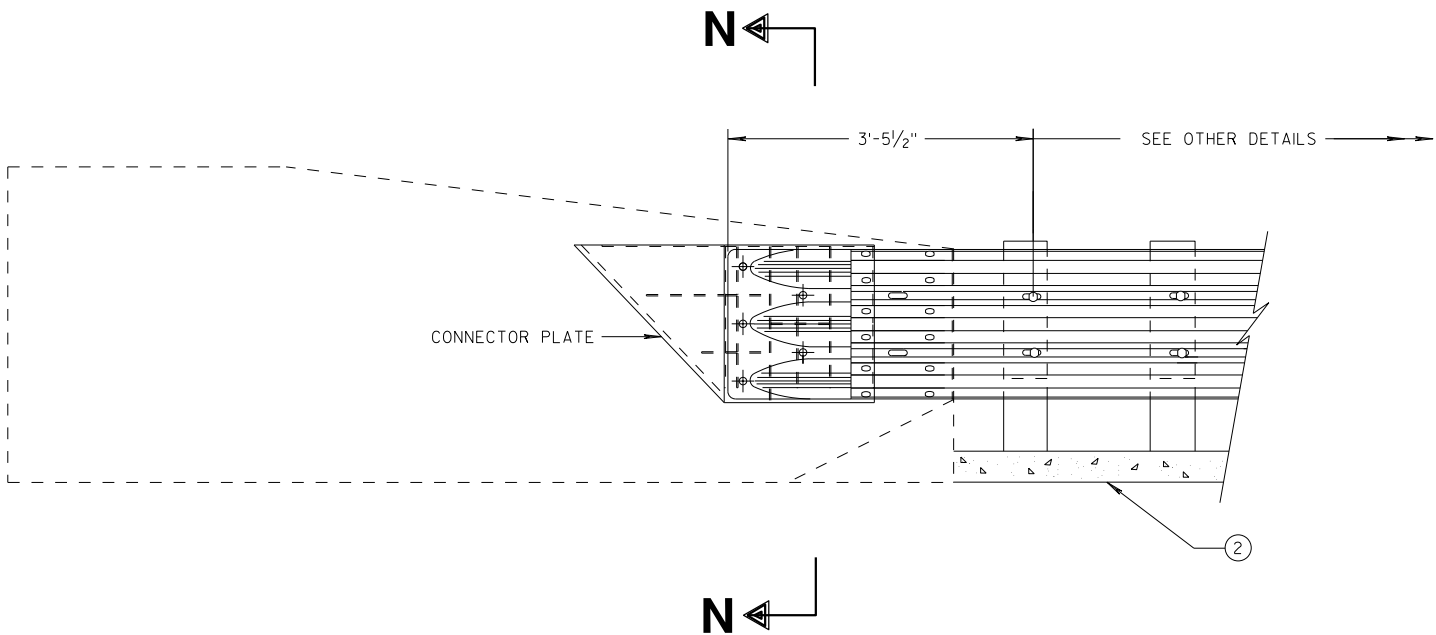


PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)

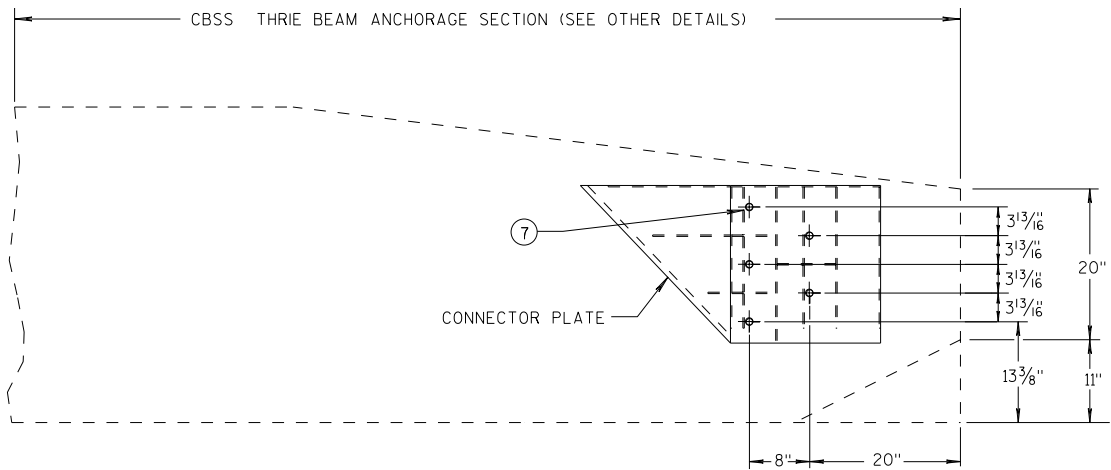
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
52
ENT



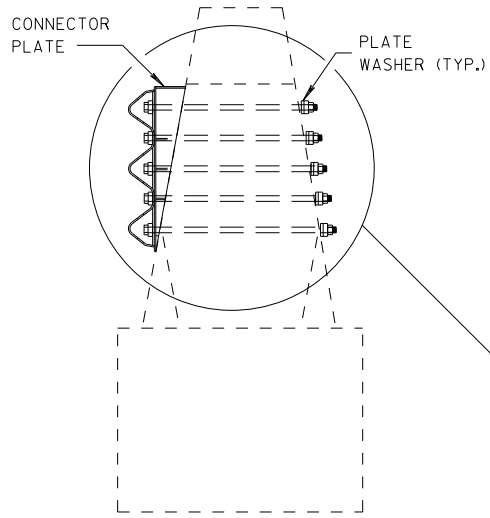
THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



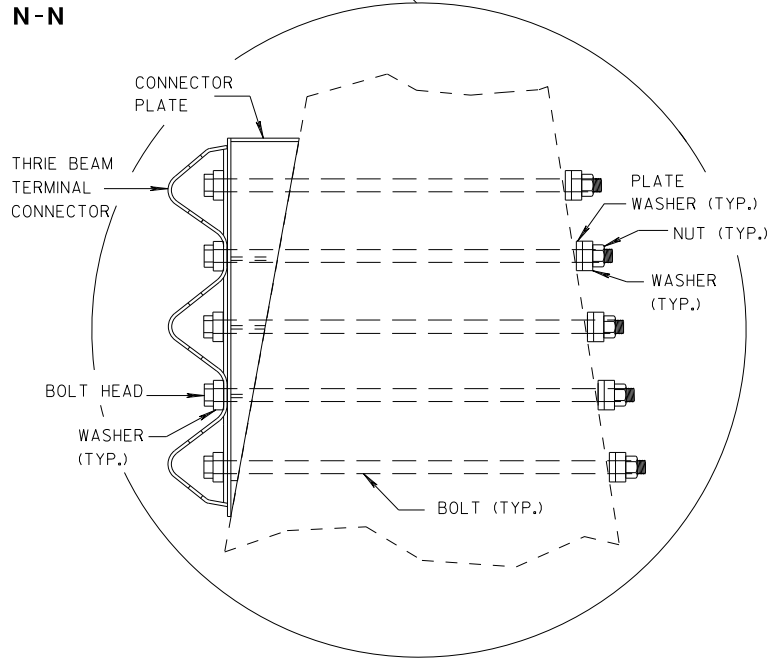
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

- CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTION PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



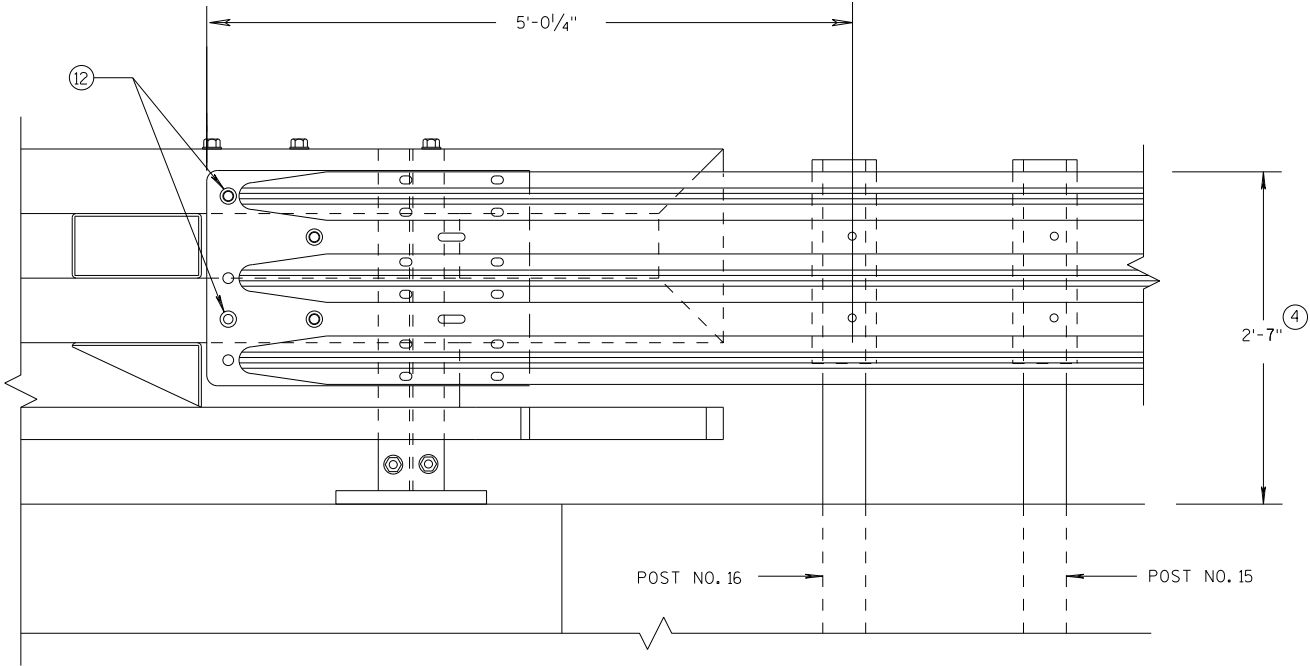
SECTION N-N



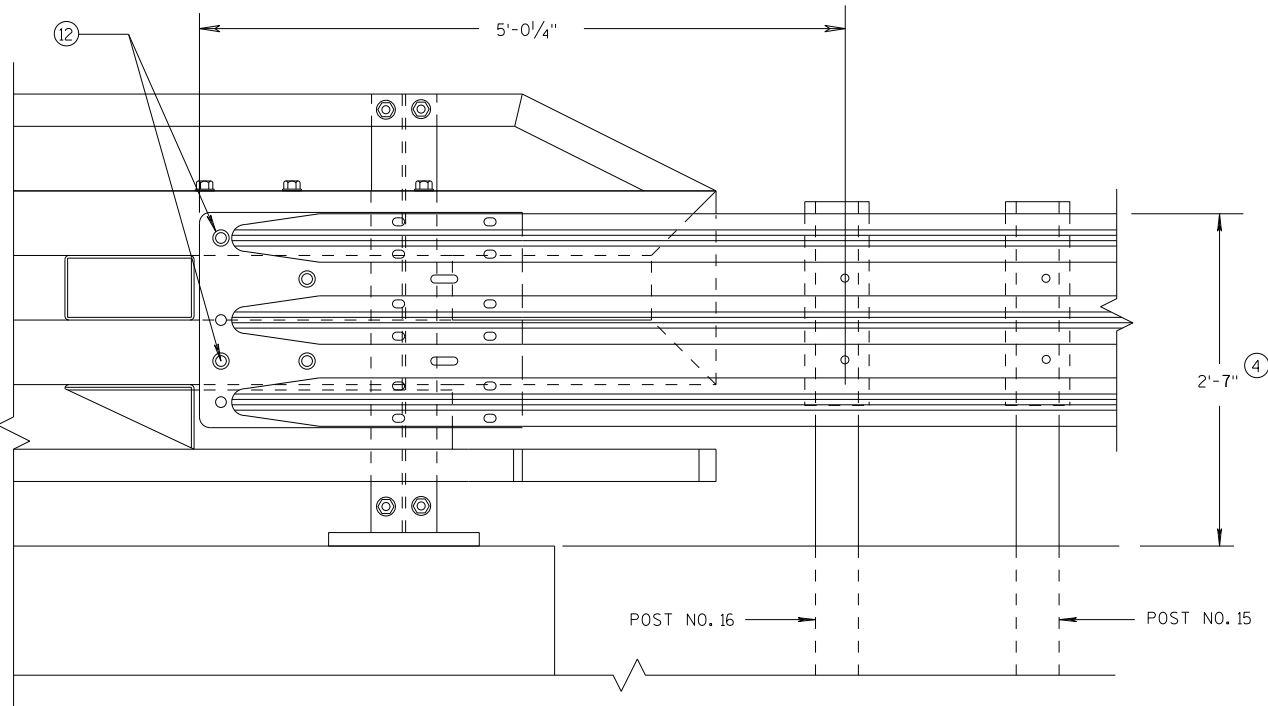
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DISTRICT SUPERVISOR UNIT SUPERVISOR		
FHWA	53		

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND $\frac{1}{2}$ -INCH BEYOND NUT.



ELEVATION OF DETAIL AT NY3 END POST
THRIE BEAM RAIL ATTACHMENT

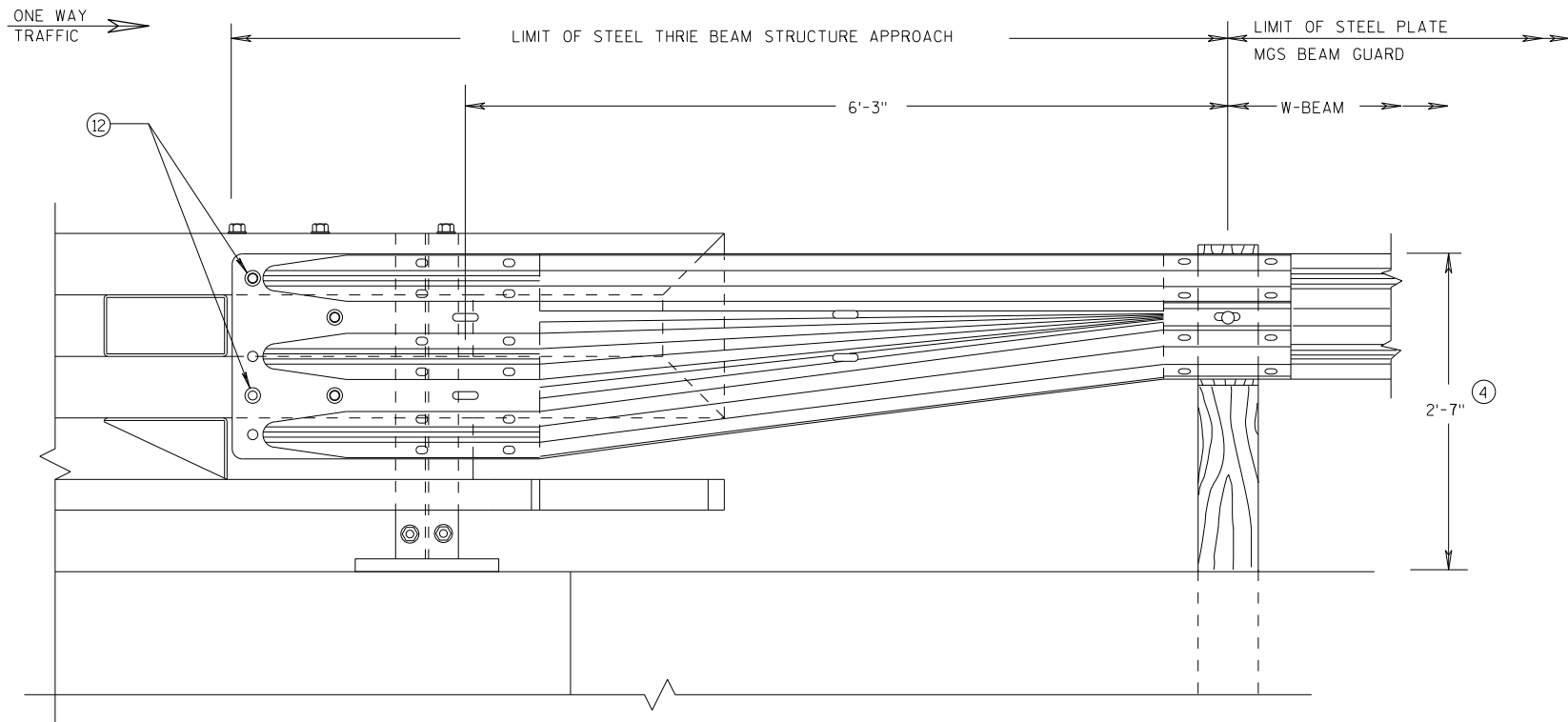


ELEVATION OF DETAIL AT NY4 END POST
THRIE BEAM RAIL ATTACHMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Rodney Taylor
DATE	7/2018
FHWA	ROADWAY STANDARDS C 54 UNIT SUPERVISOR NT



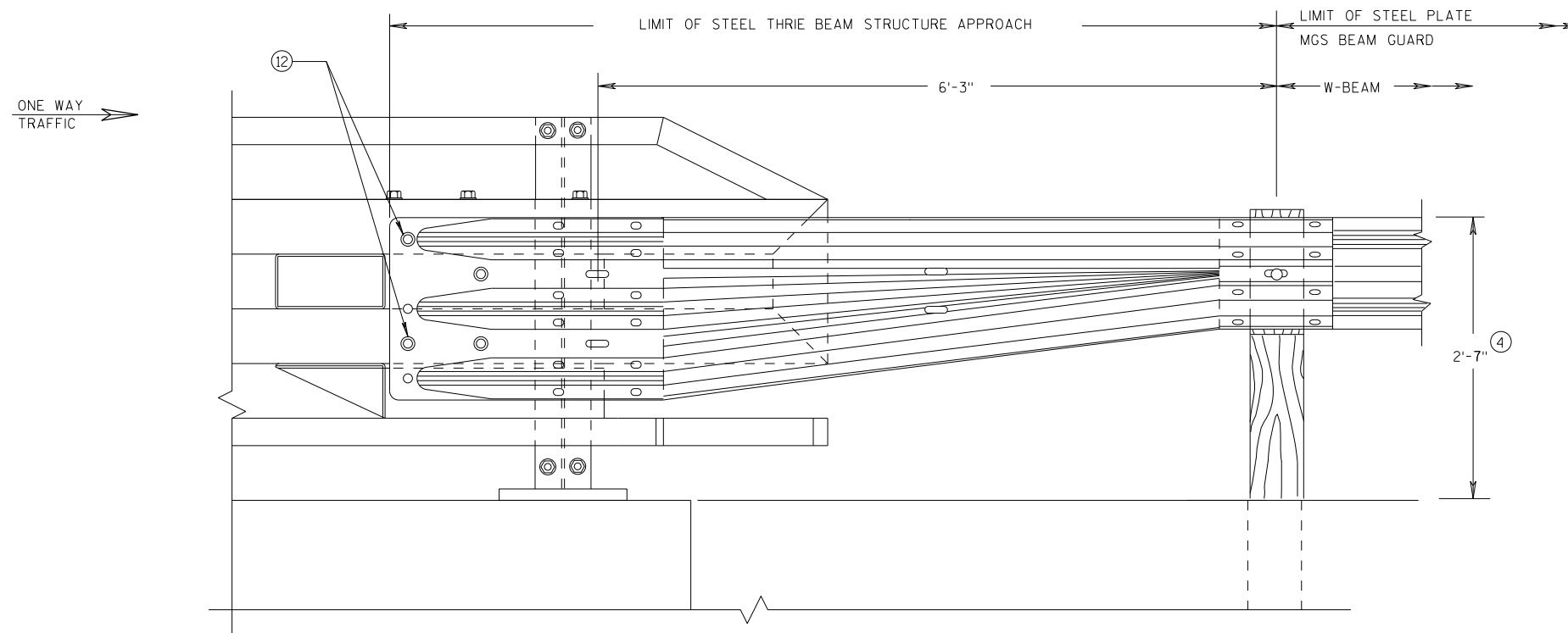
GENERAL NOTES

④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND $\frac{1}{2}$ -INCH BEYOND NUT.

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3" (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4" (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

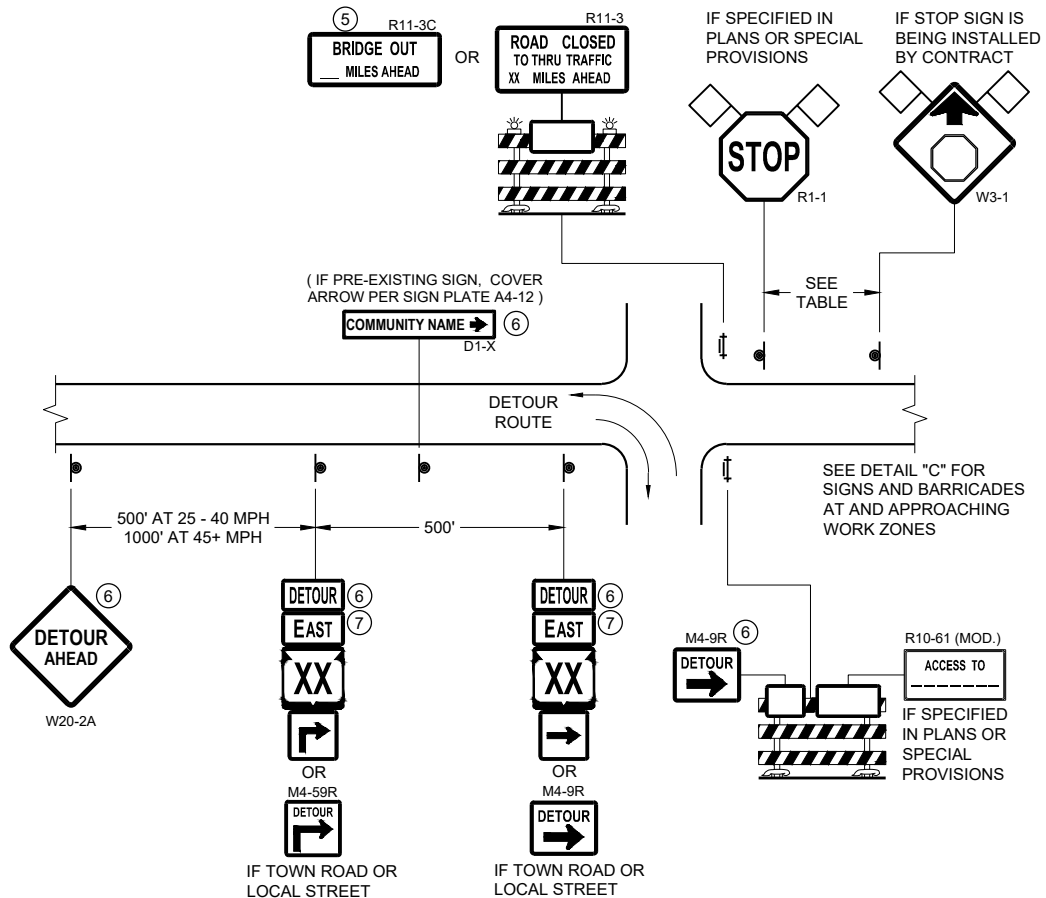
APPROVED

7/2018
DATE

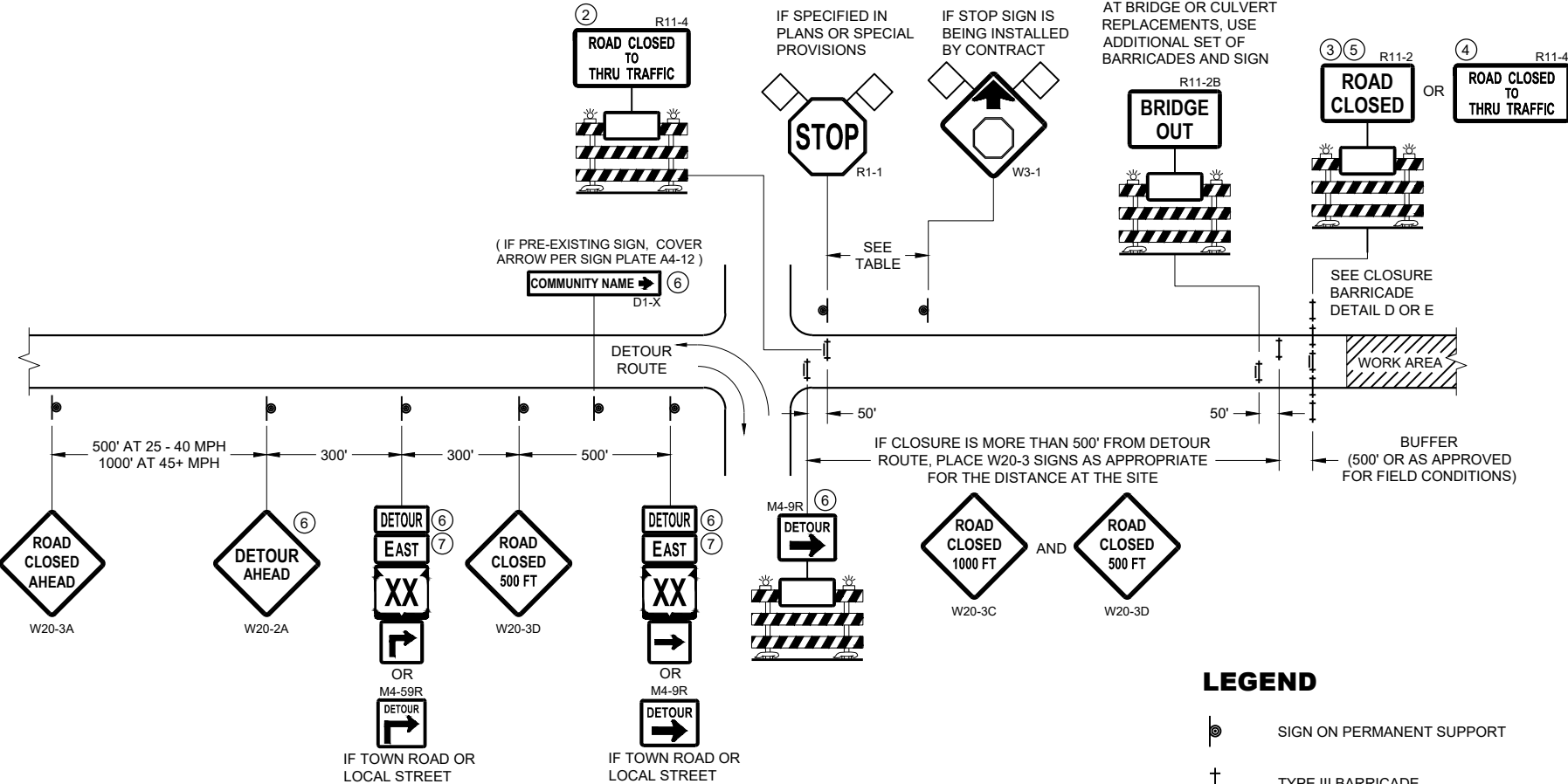
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS C 55
UNIT SUPERVISOR

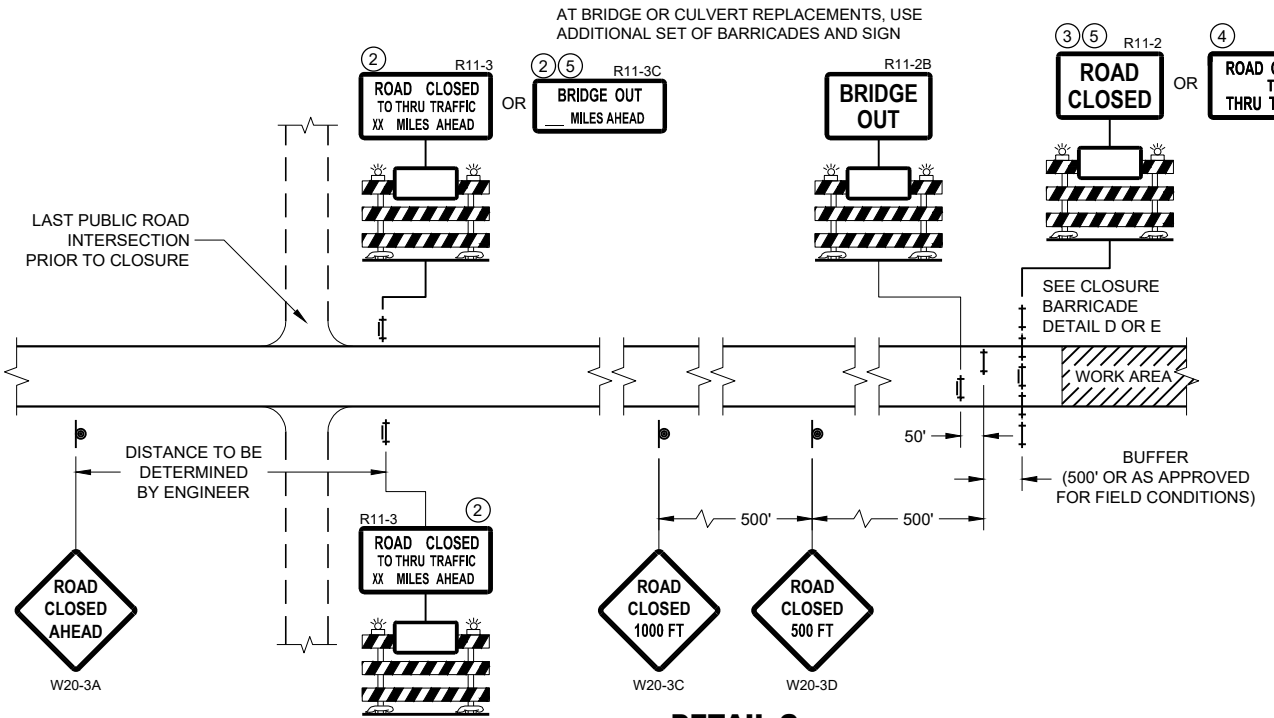
NT



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

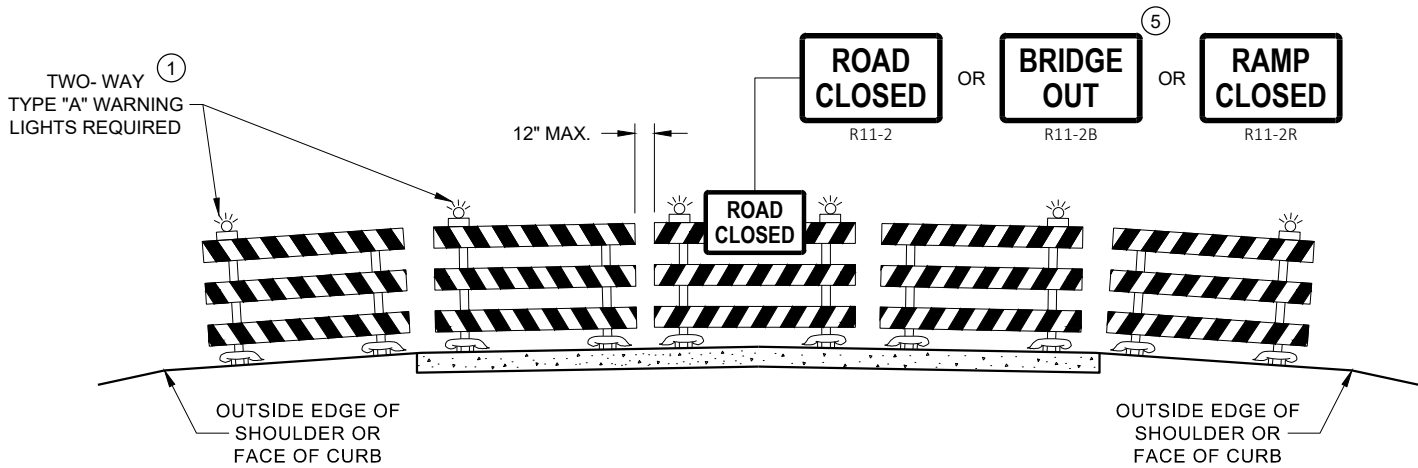
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

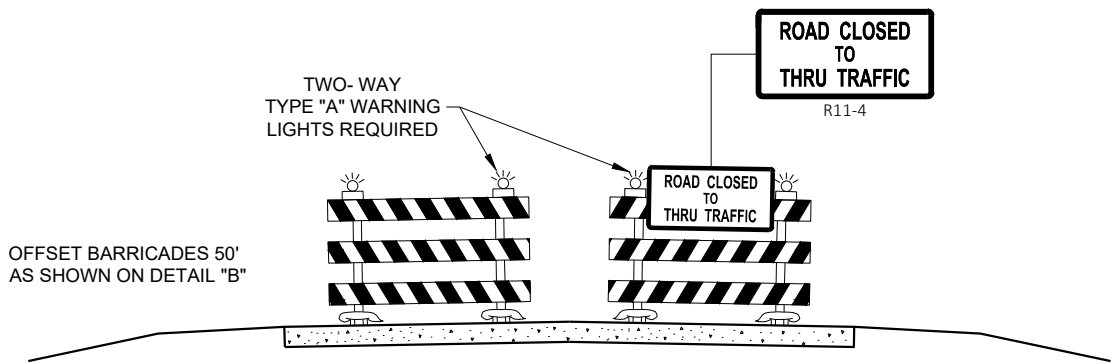
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 56
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

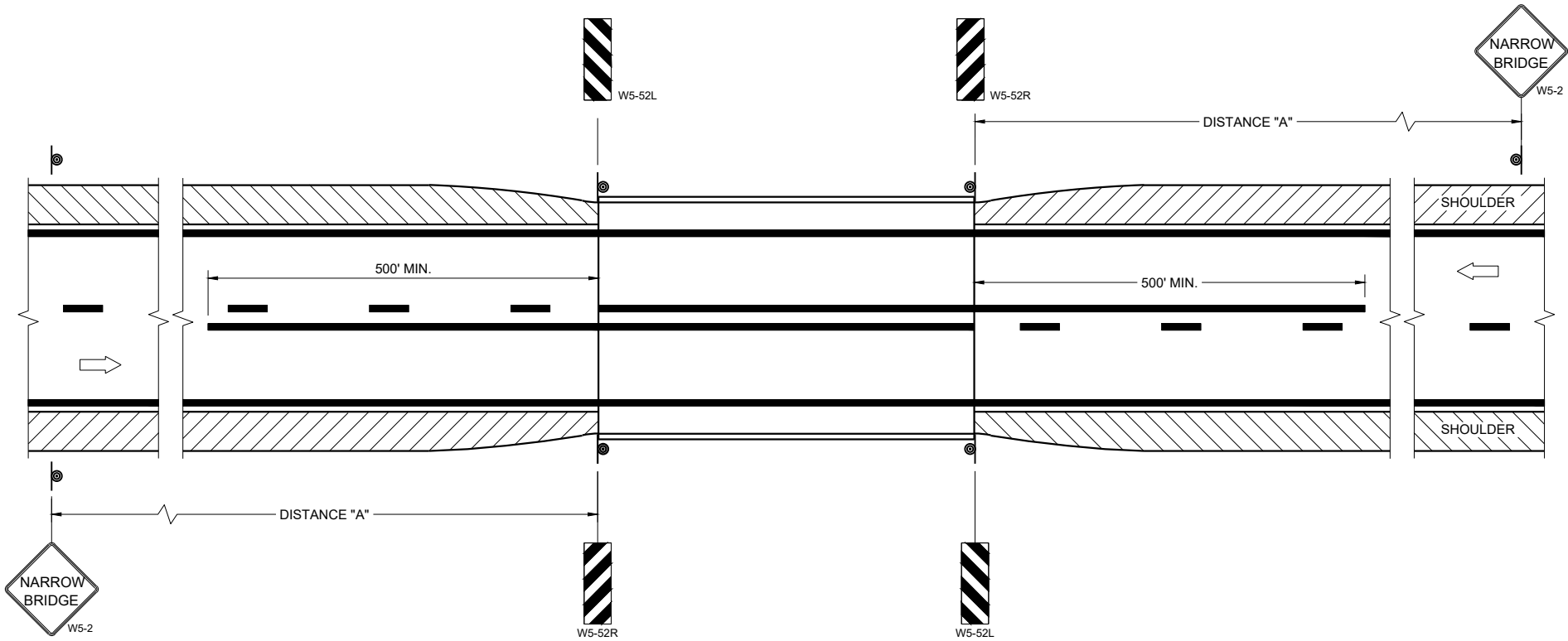
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

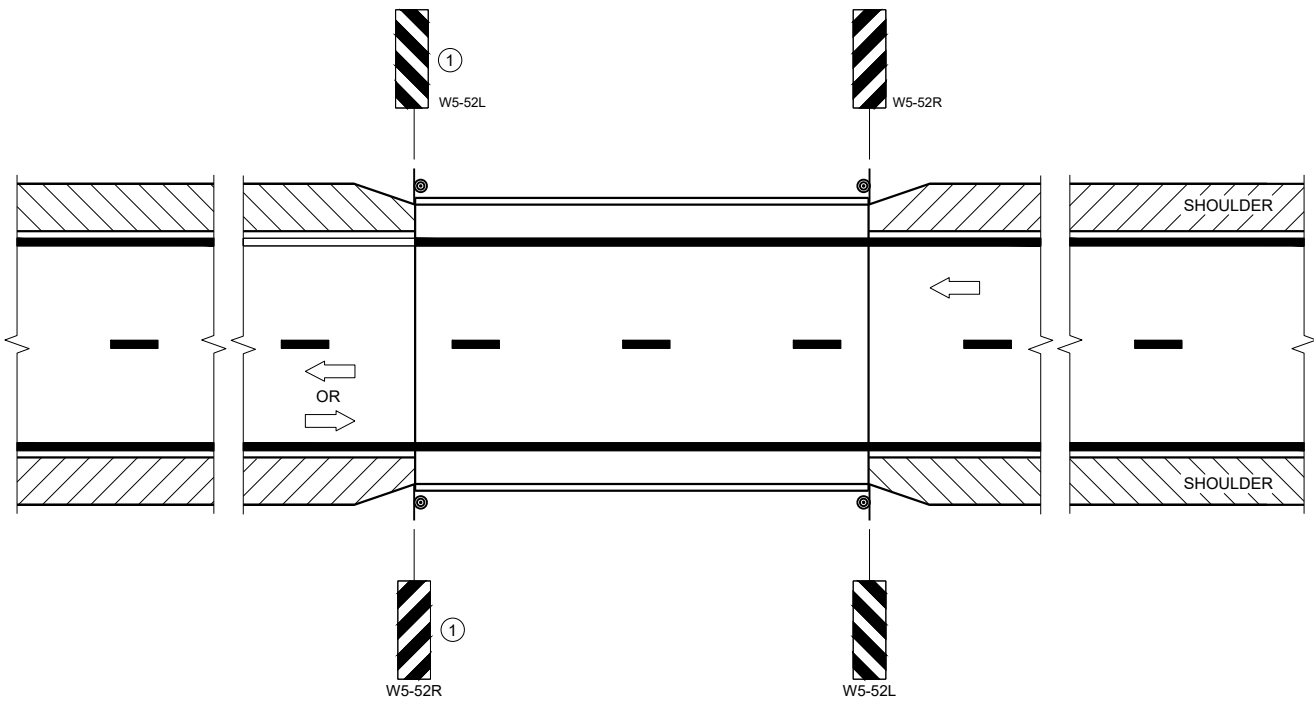
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 57

FHWA



SITUATION 1
WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



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 THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

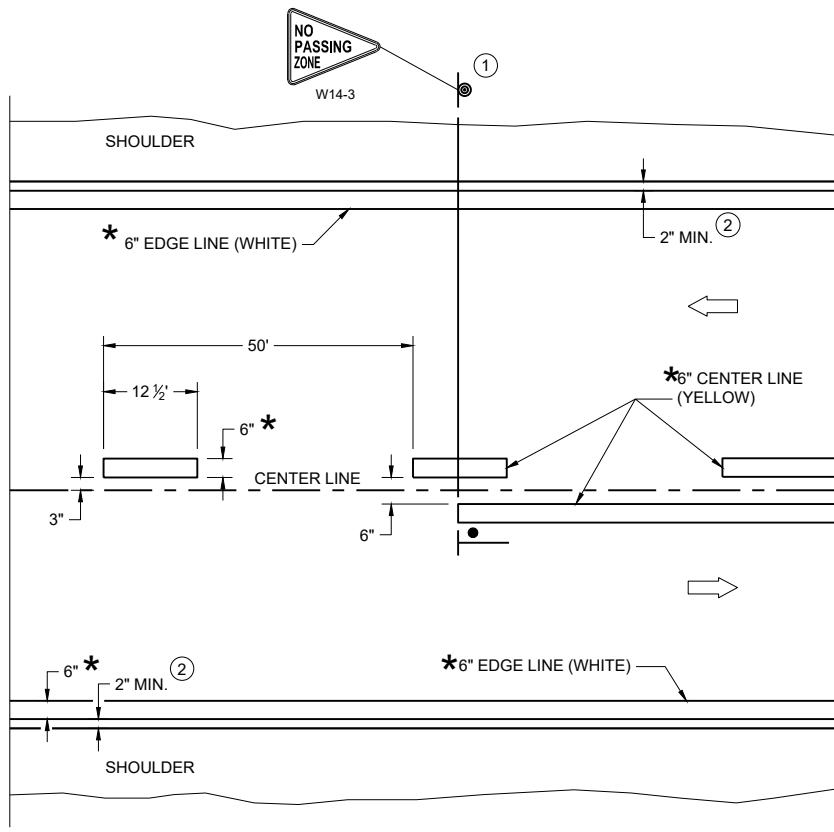
**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

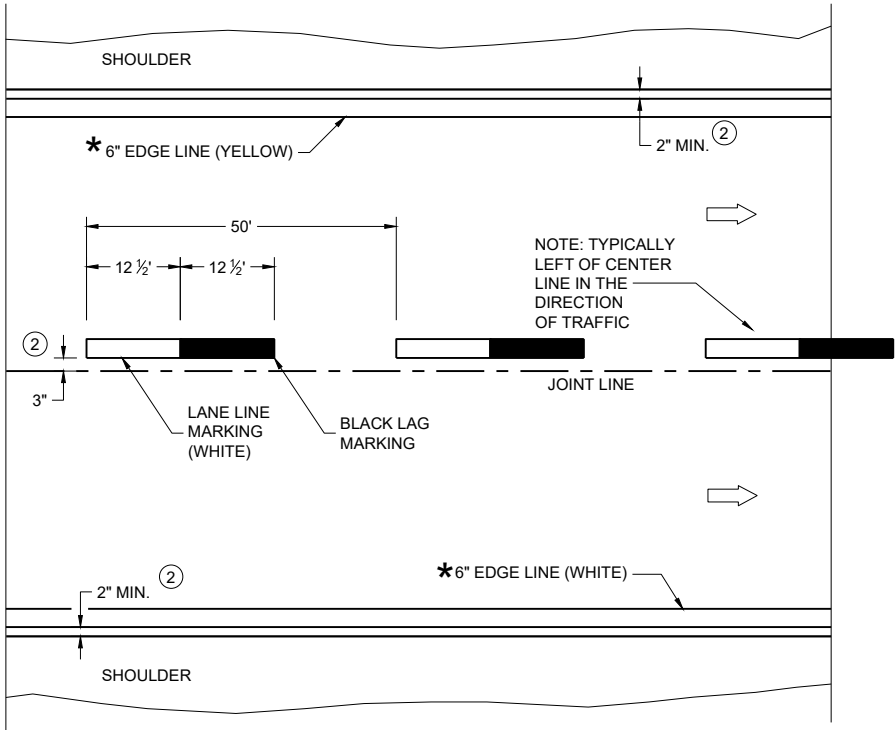
APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA 58



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

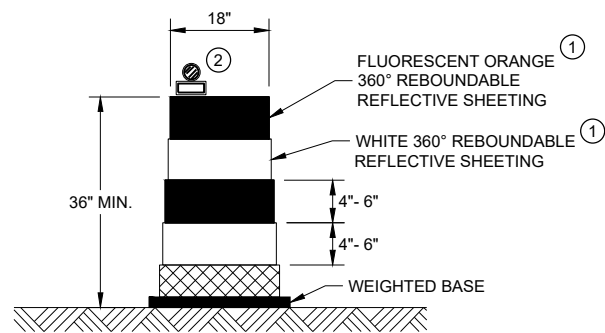
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

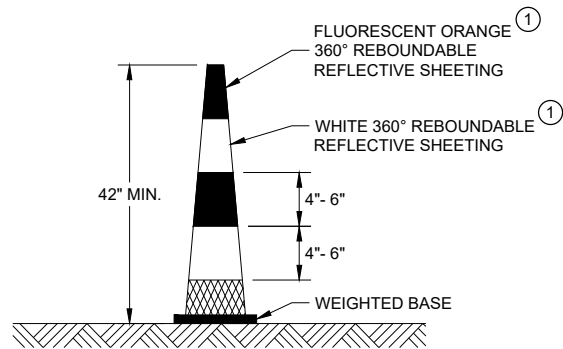
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	59



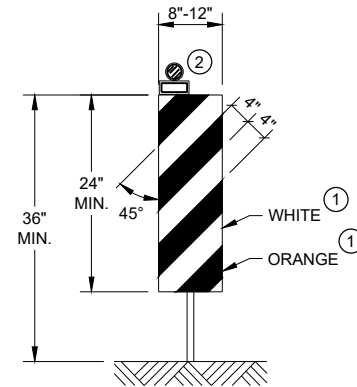
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



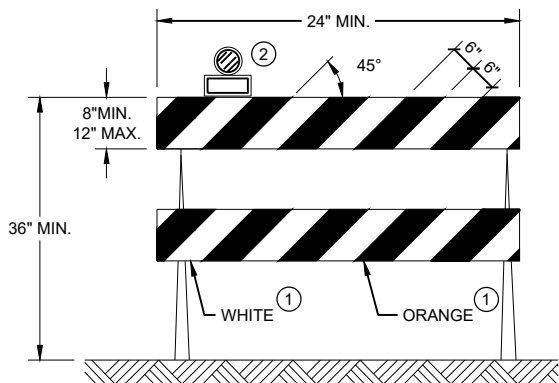
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



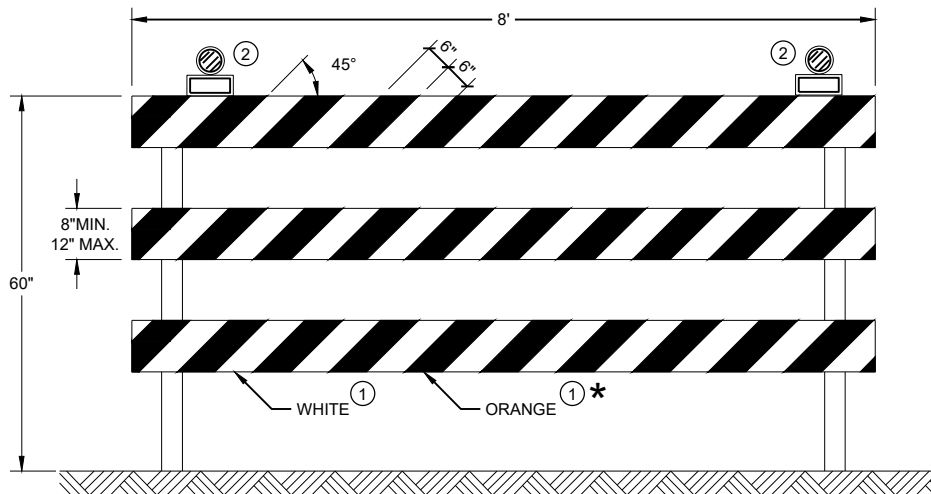
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 60
FHWA

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

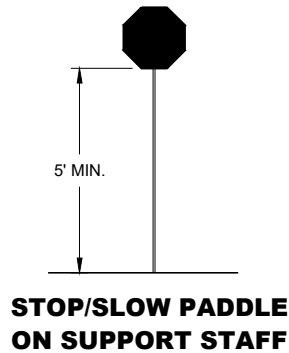
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

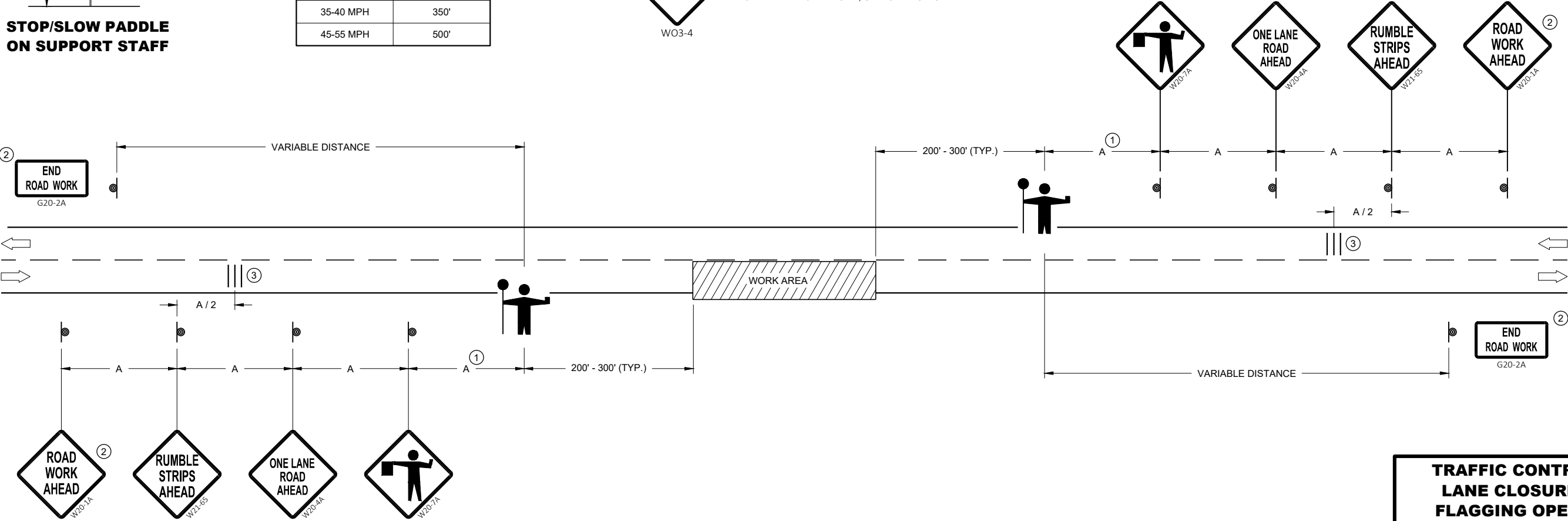


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 61
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
-  TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKINGS
-  WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

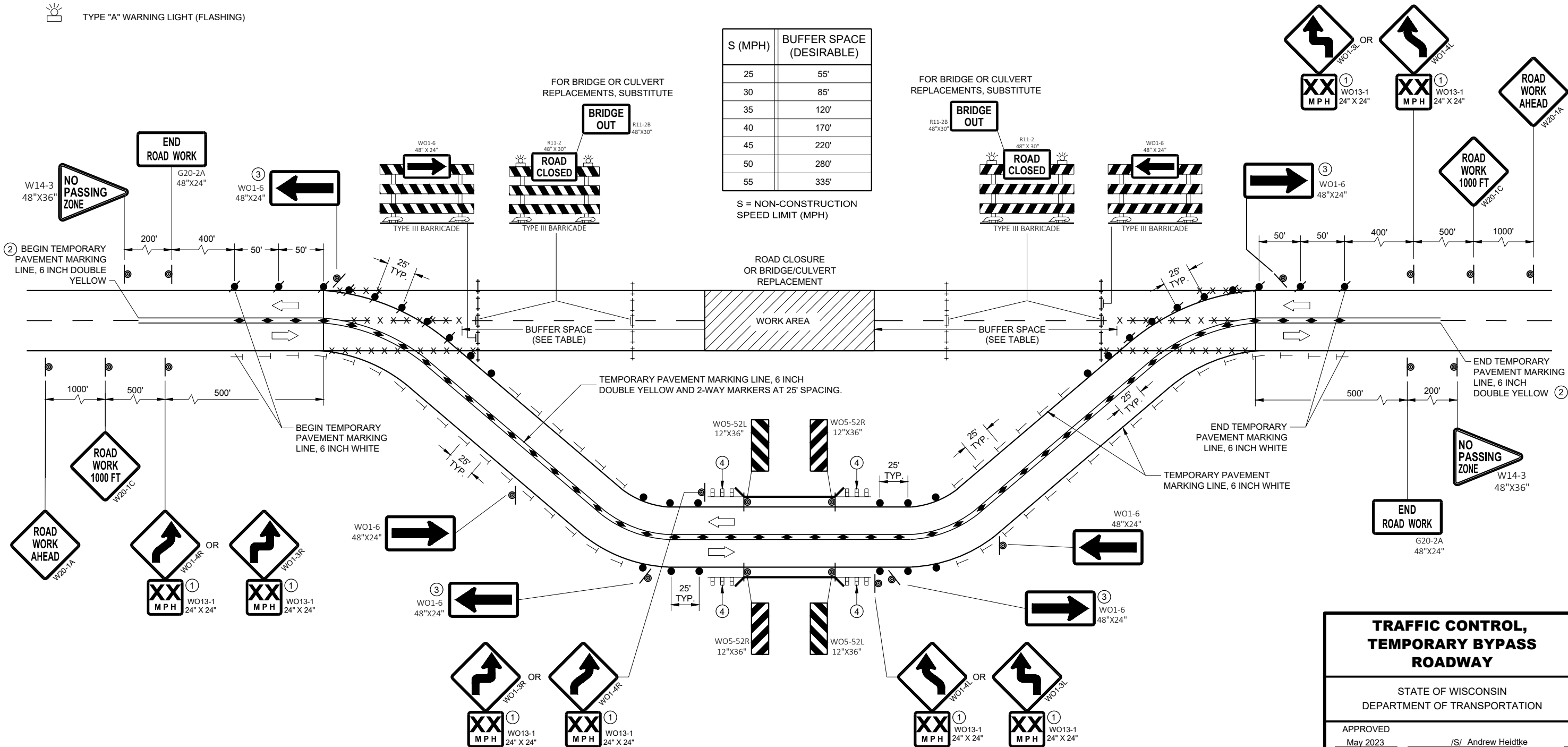
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

- ① IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.
- ② WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ③ OMIT THESE WO1-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.
- ④ TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.



TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 62
FHWA	

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- 1

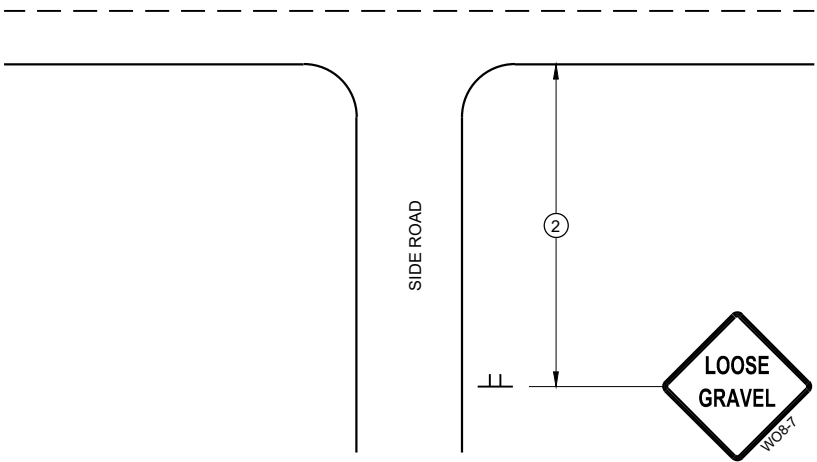
PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2

PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3

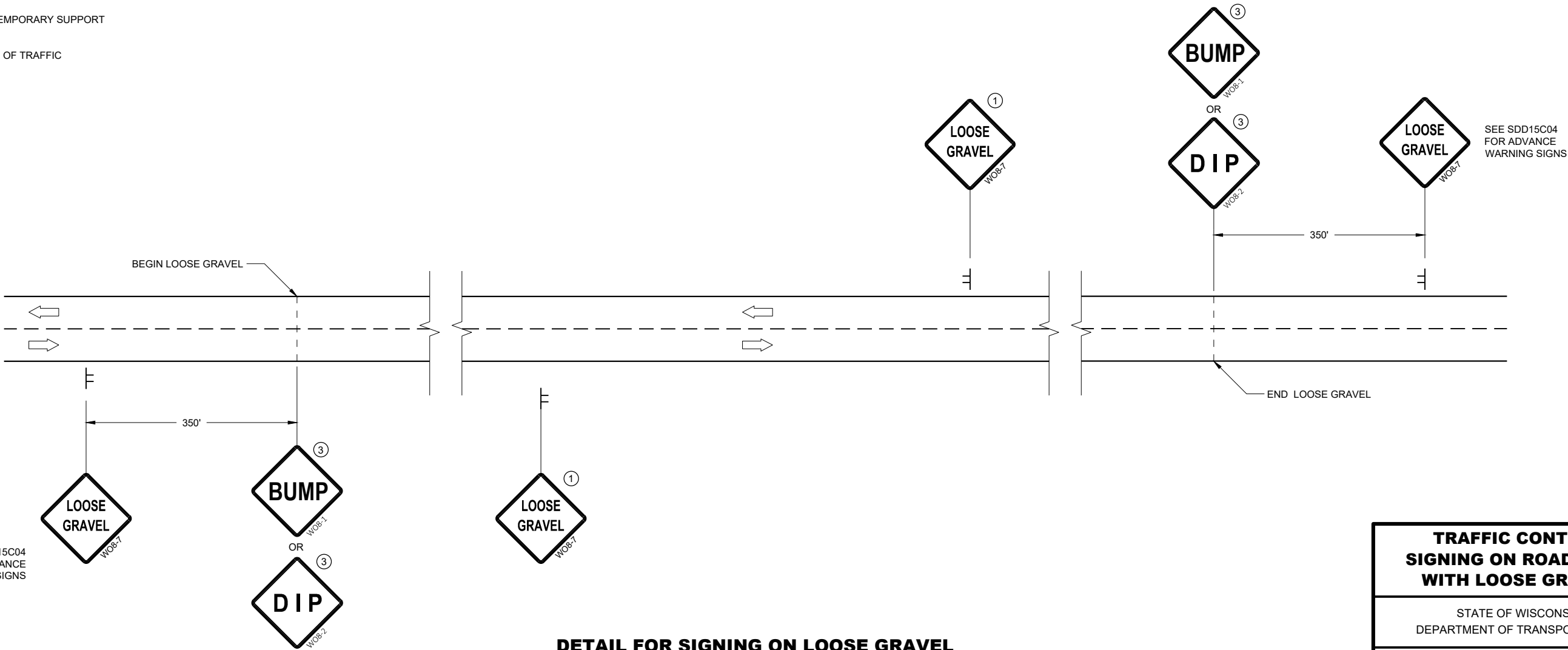
ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



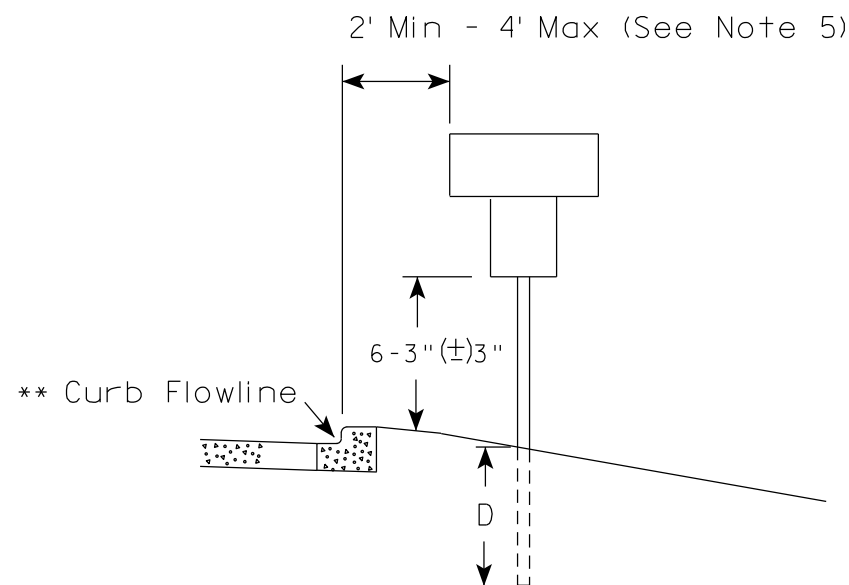
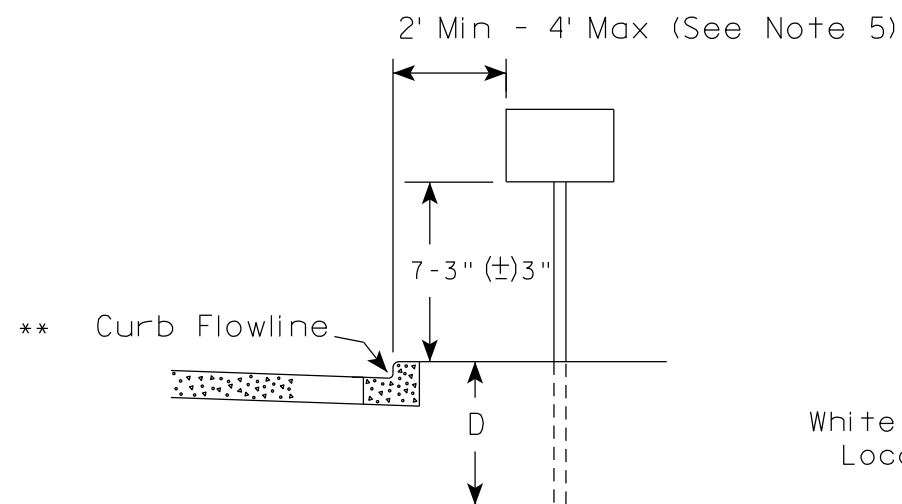
DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

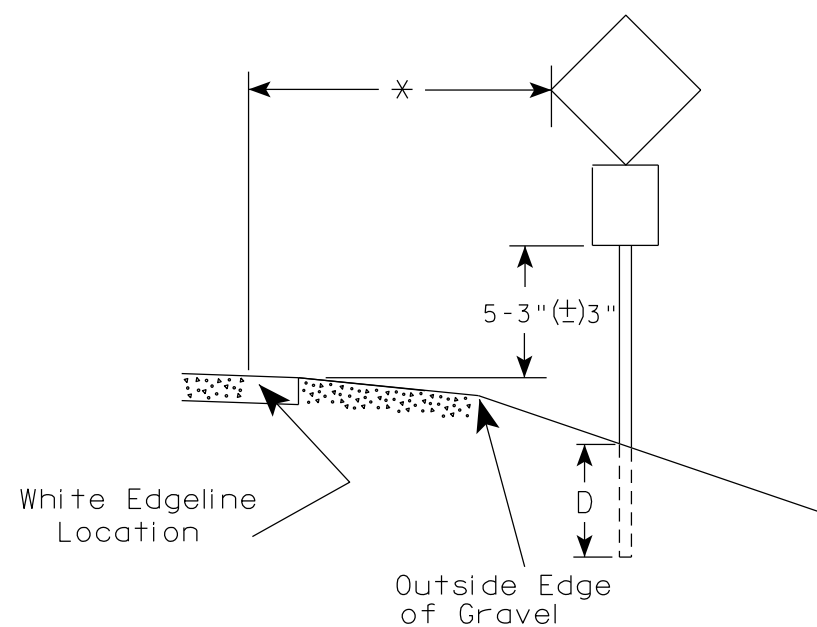
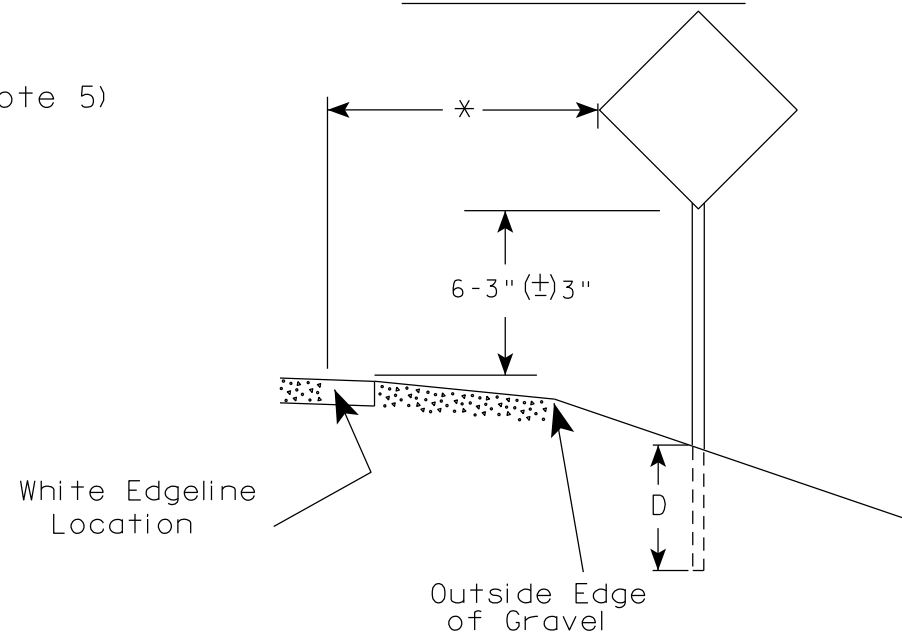
APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 63
FHWA

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



* 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 or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

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 12/6/23

PLATE NO. A4-3.23

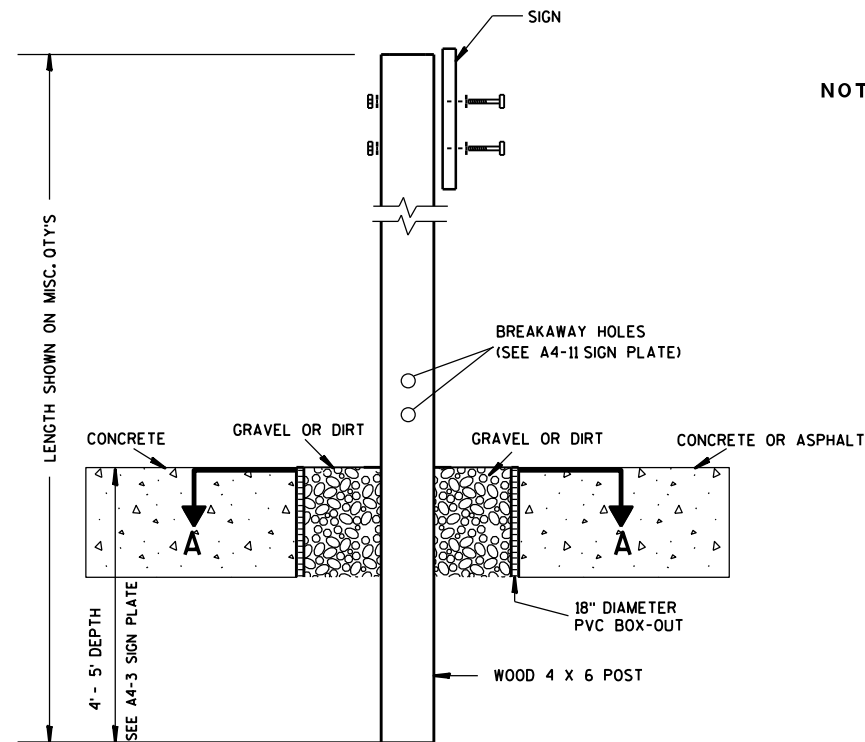
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 64

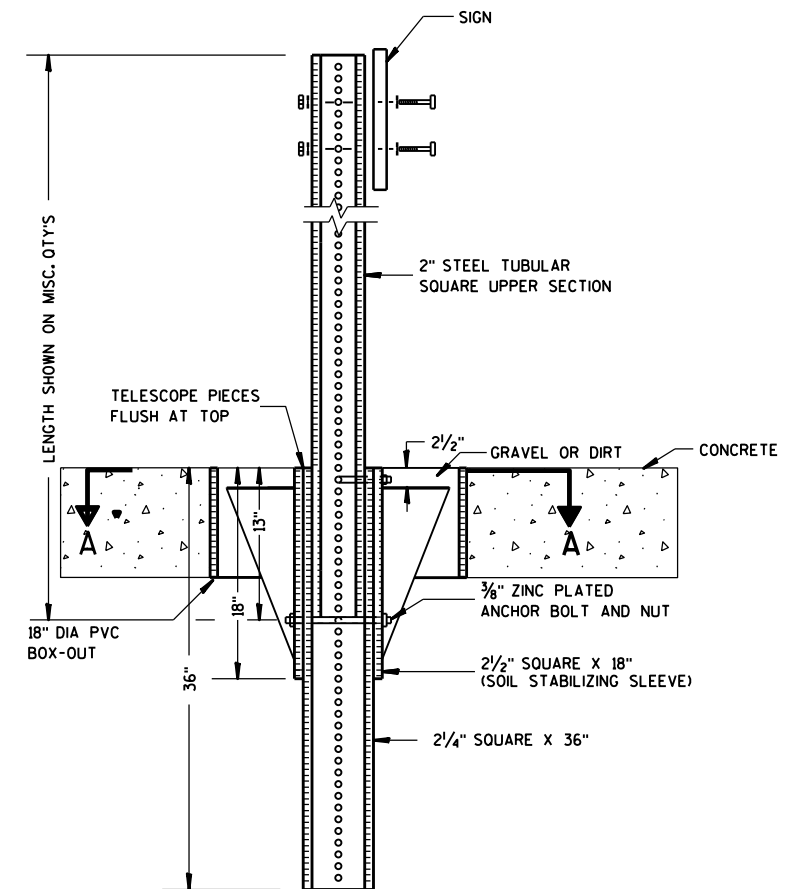
E



ELEVATION VIEW

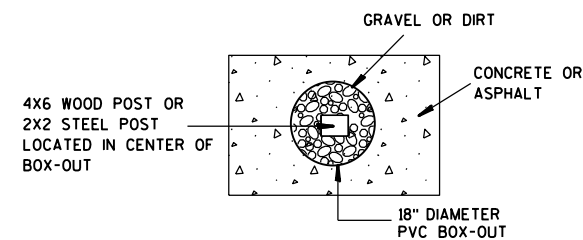
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 65 A4-3B.1

PROJECT NO:

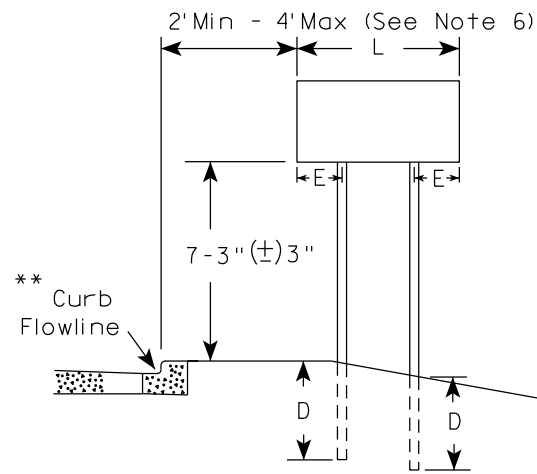
HWY:

COUNTY:

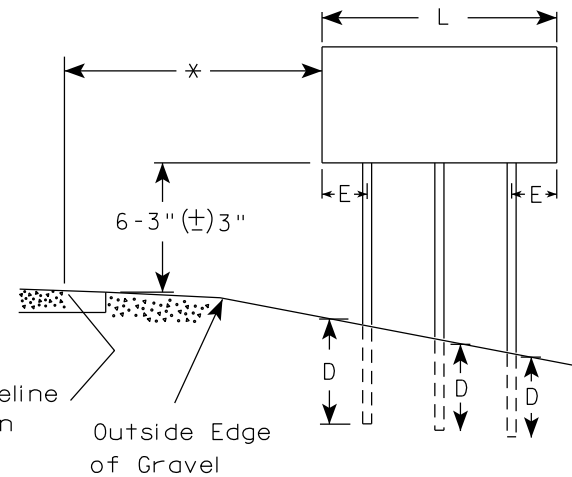
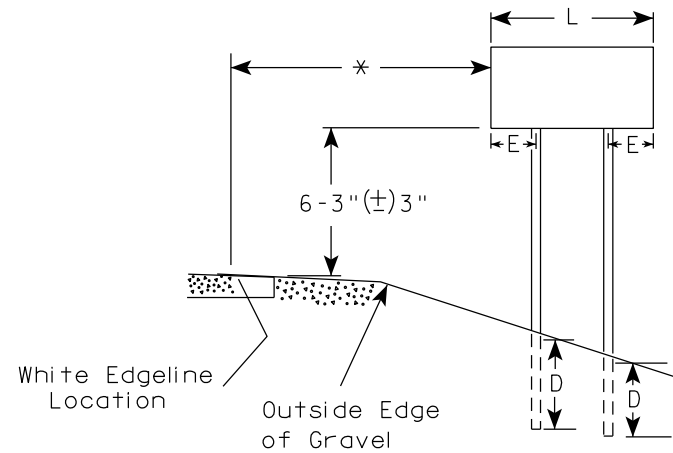
SHEET NO:

E

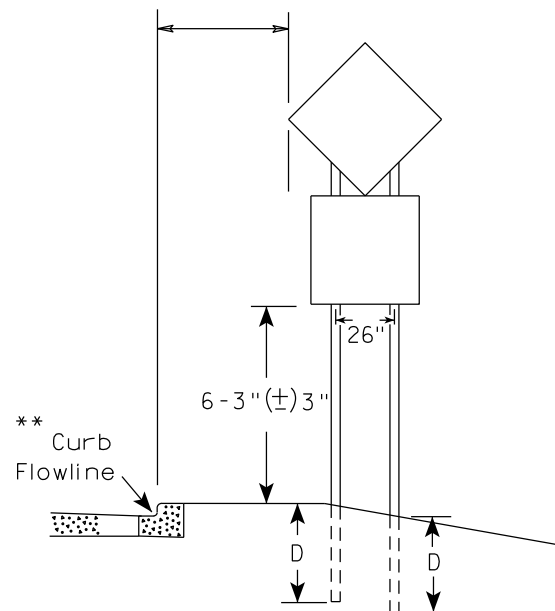
URBAN AREA



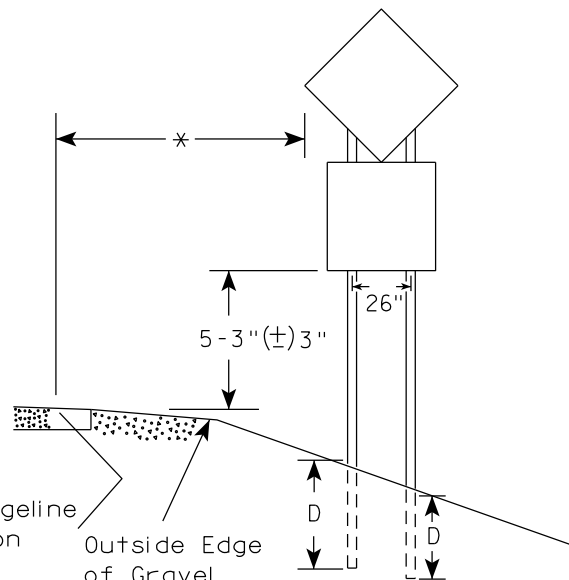
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

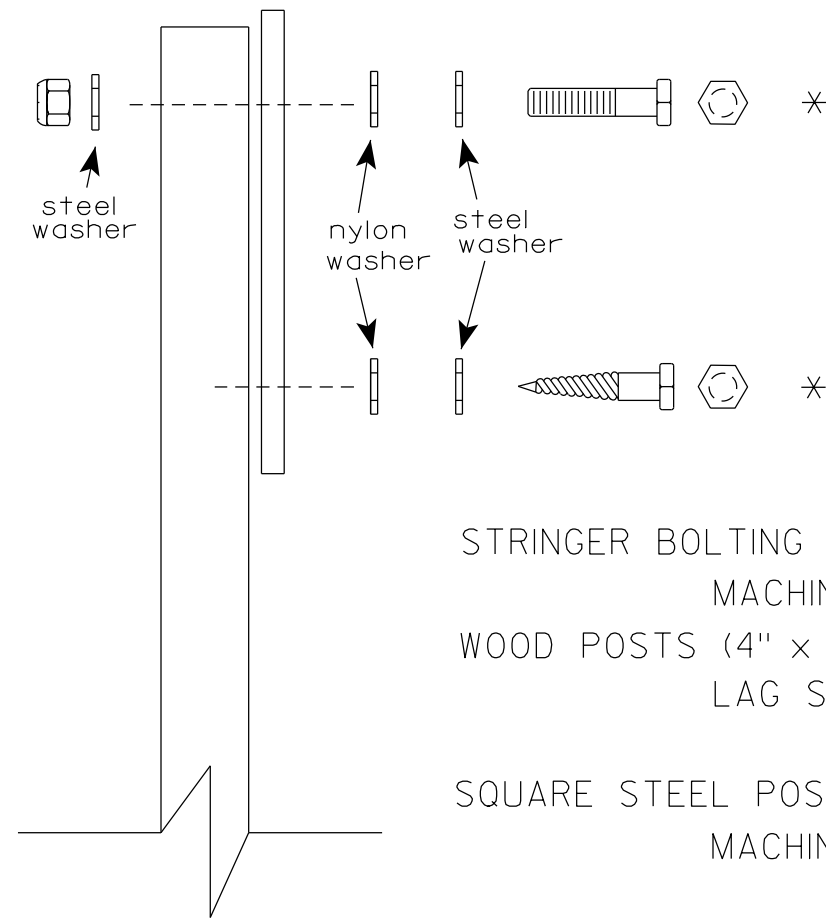
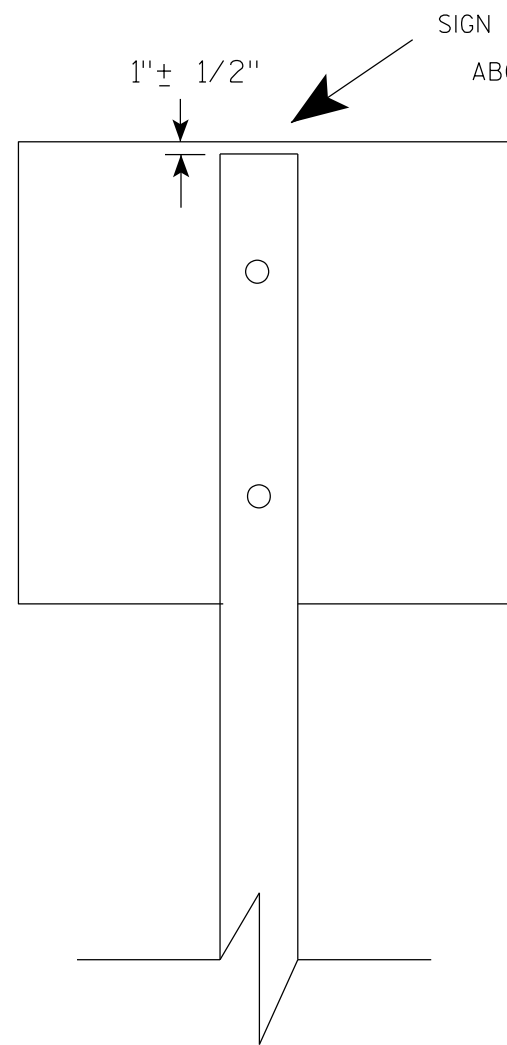
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 66

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.

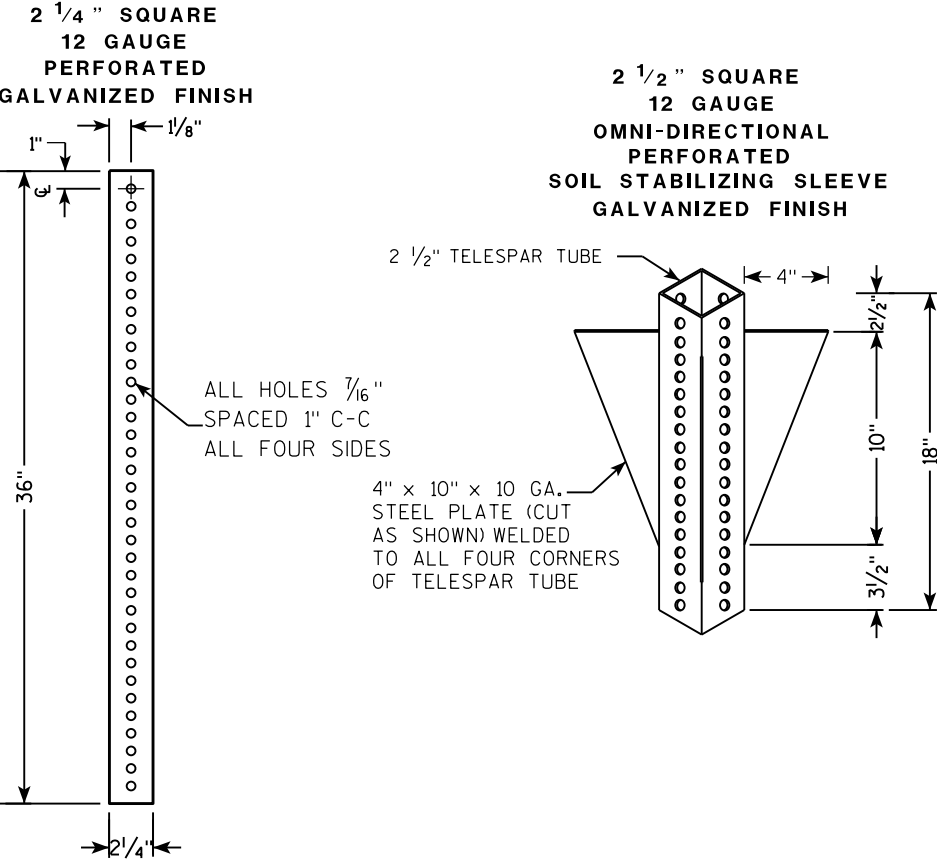
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

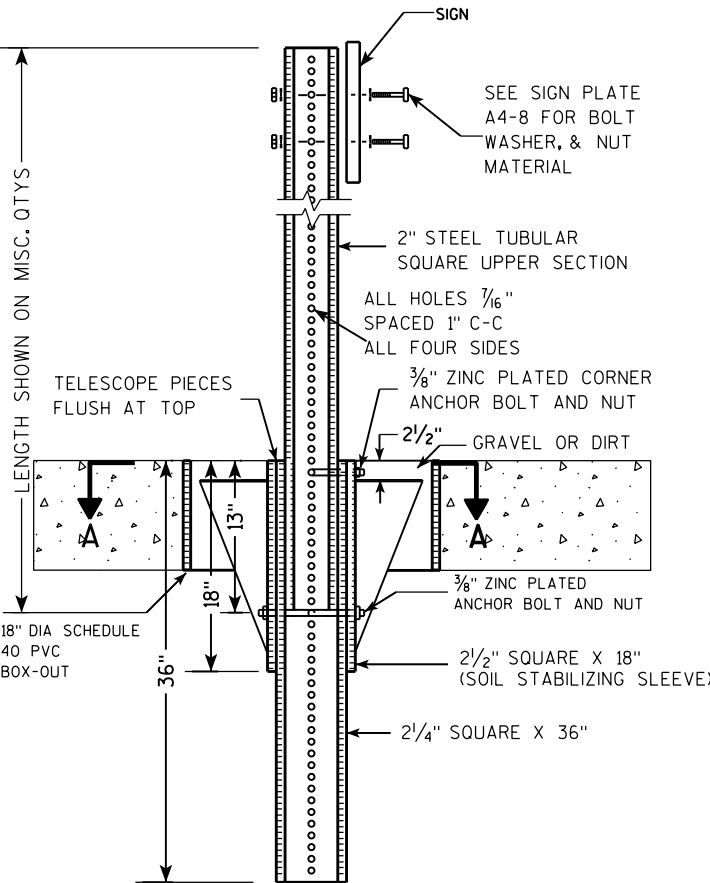
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

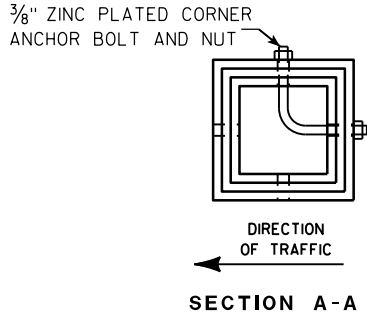
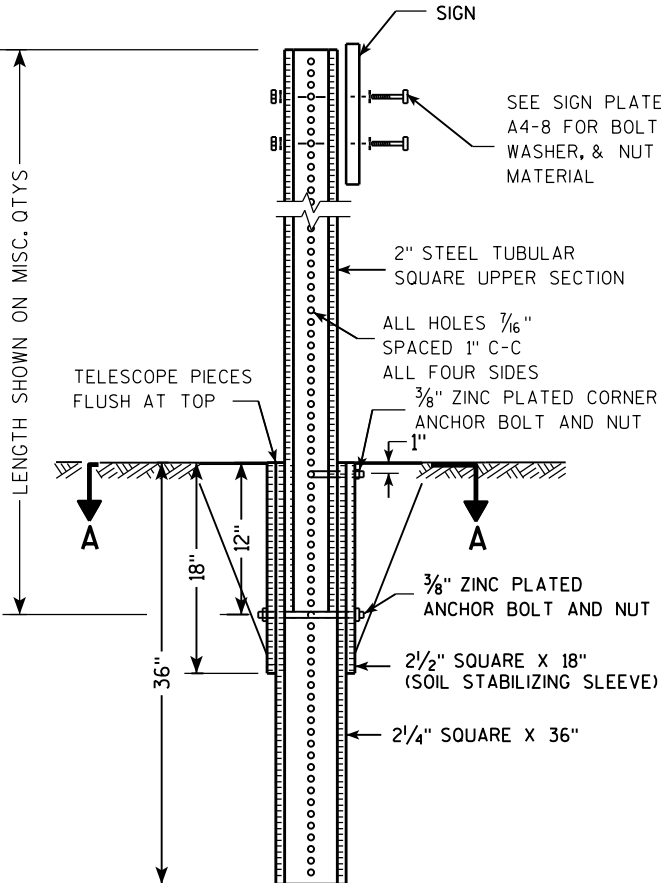
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

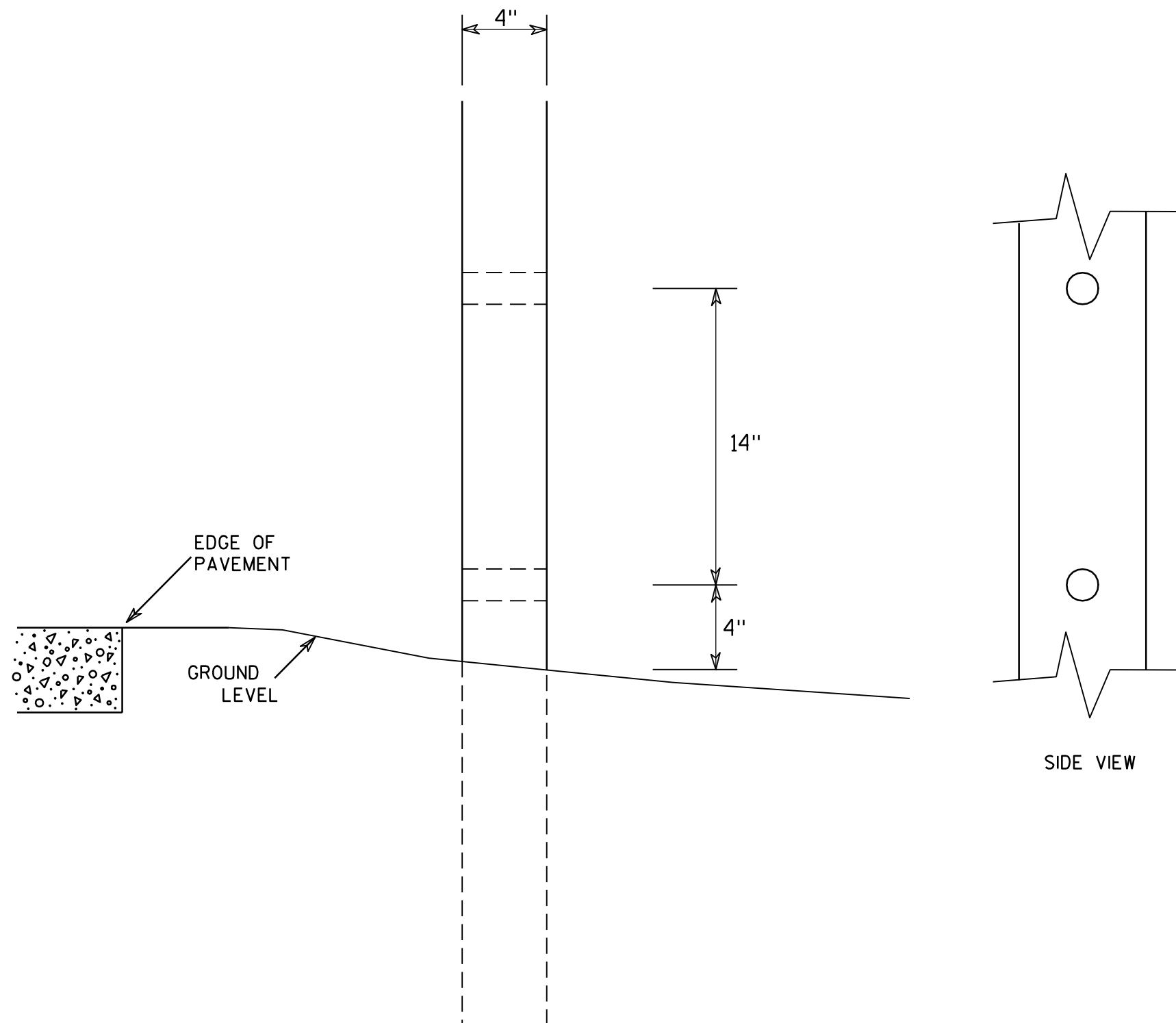
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 68 14-9.9

7

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

**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:

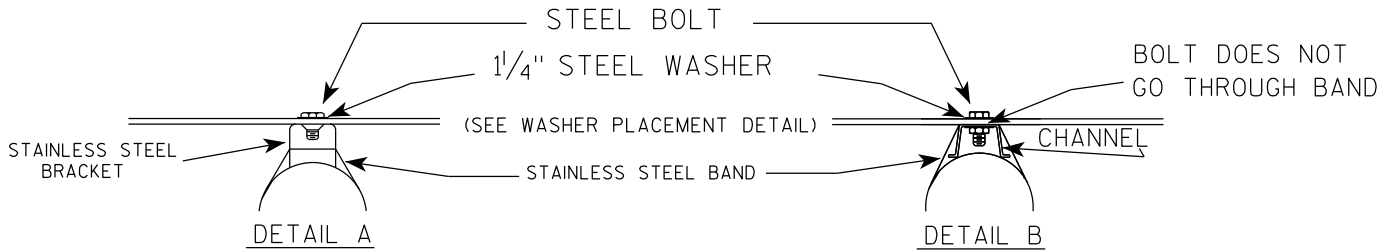
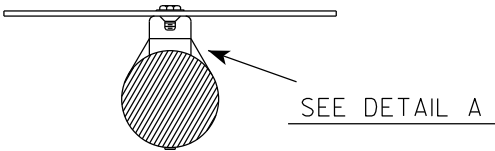
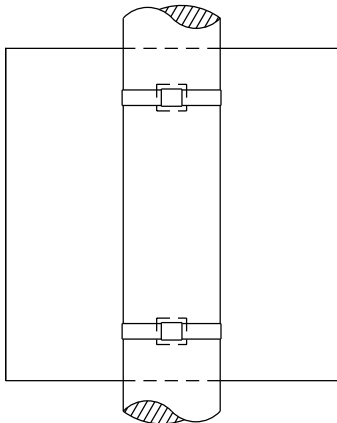
COUNTY:

SHEET NO: 69

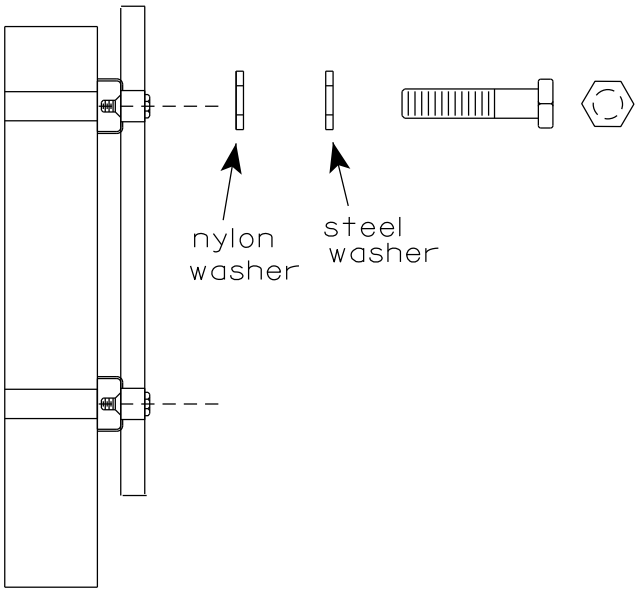
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

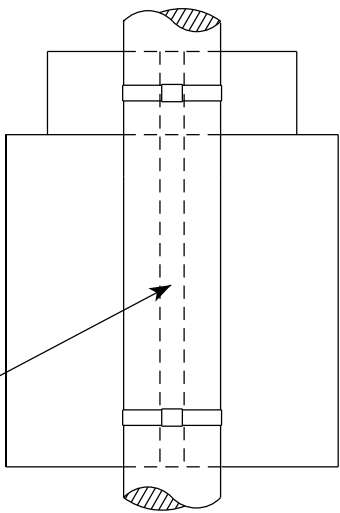


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

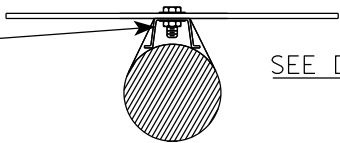
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



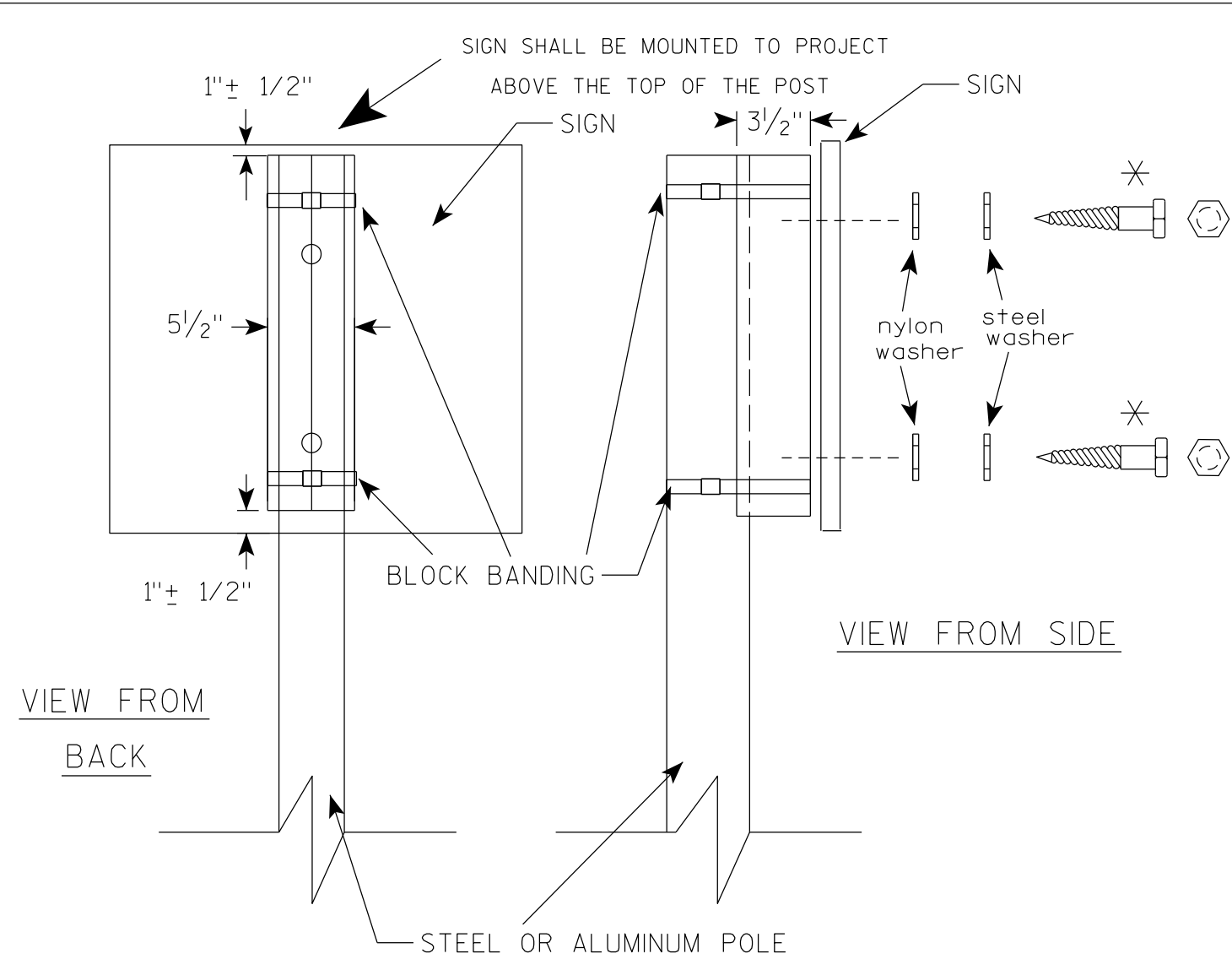
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



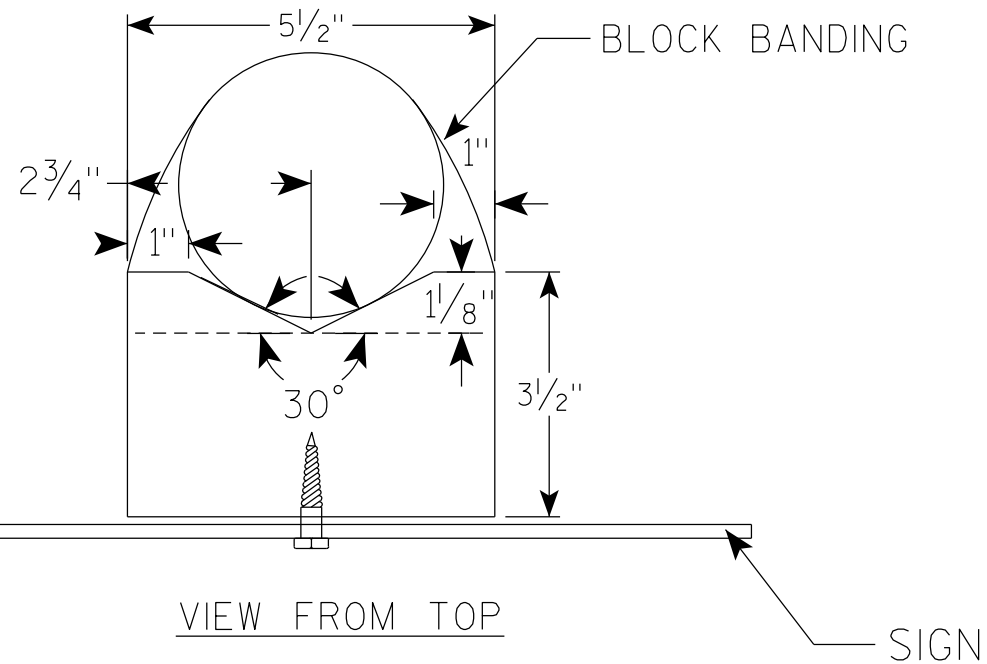
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

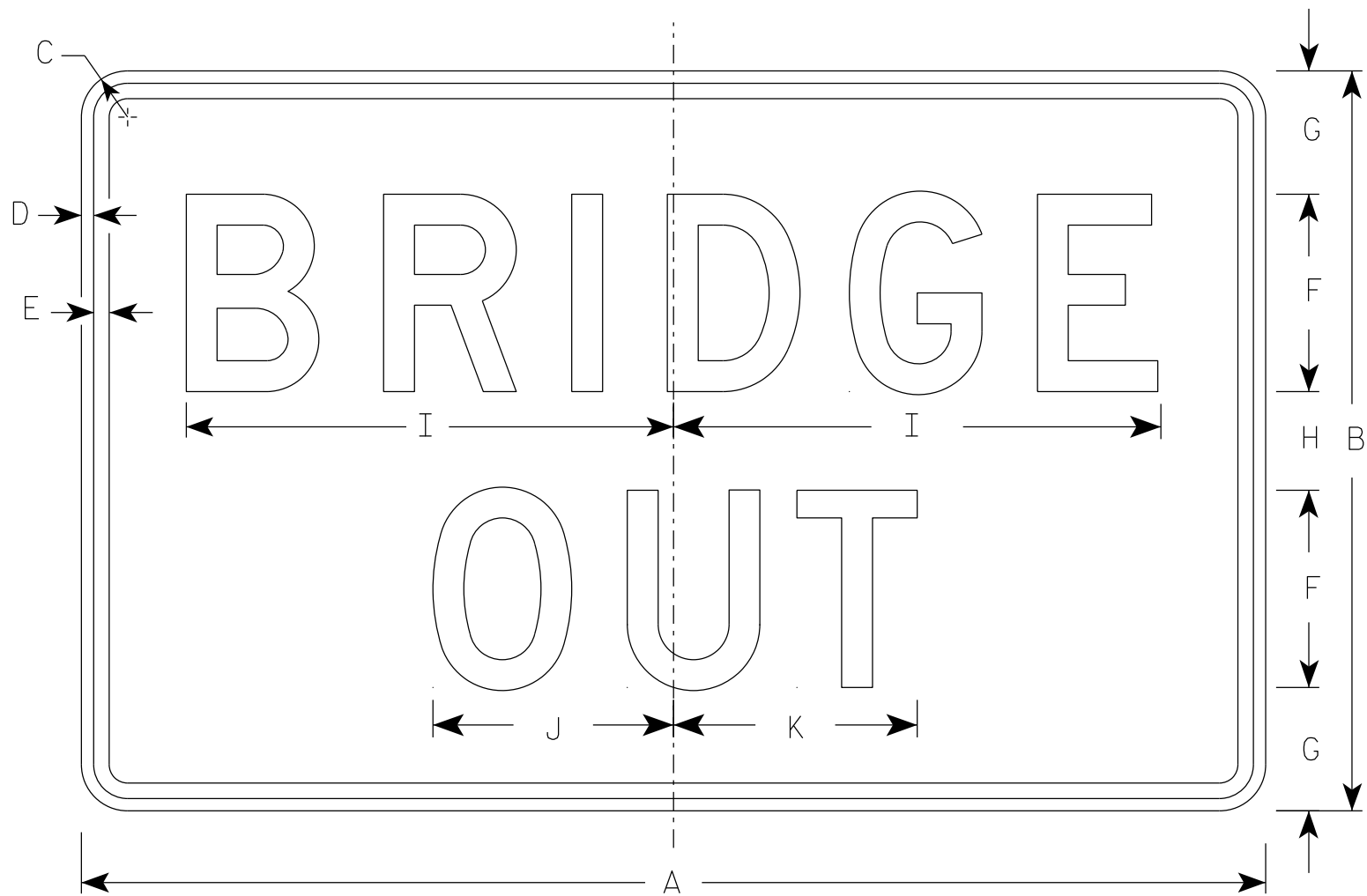
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 71

E

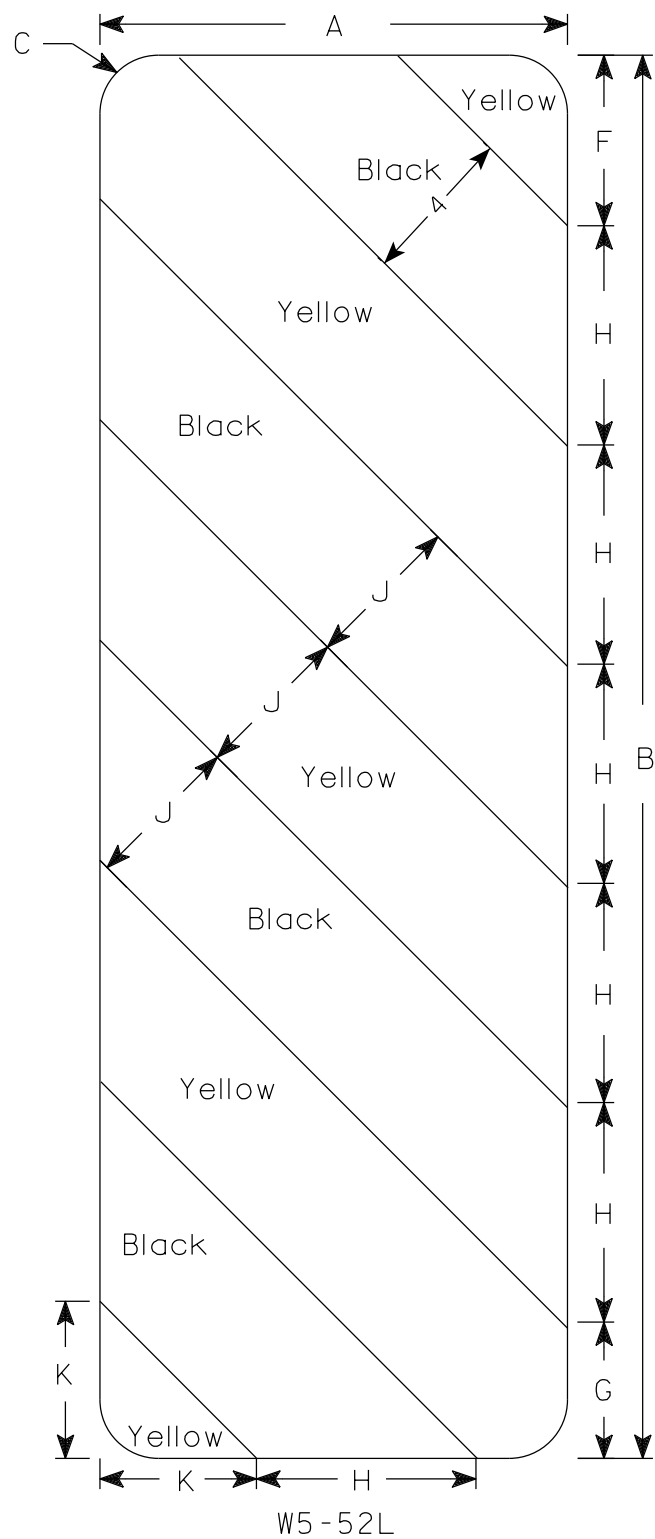


R11-2B

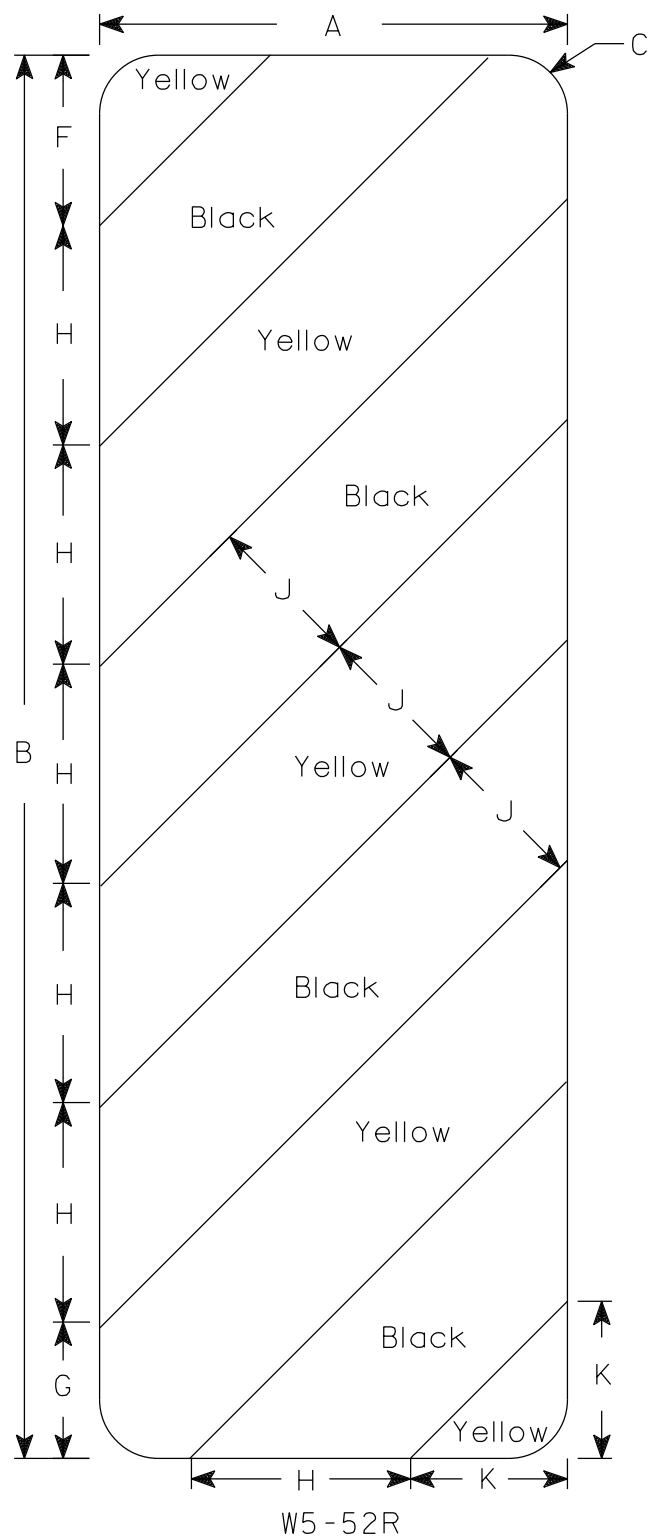
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0



W5-52L



W5-52R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. 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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 5/16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

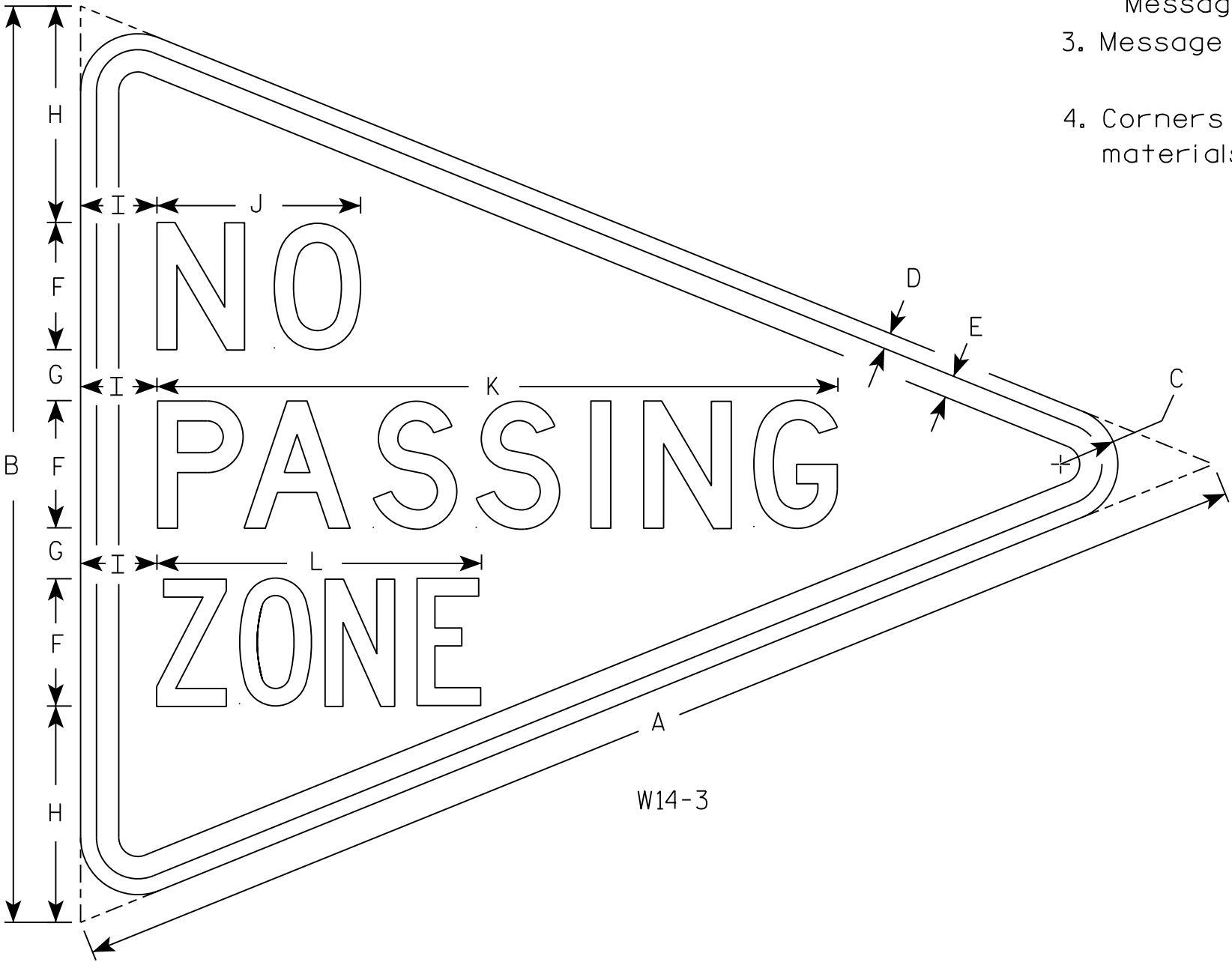
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

NOTES

- 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.



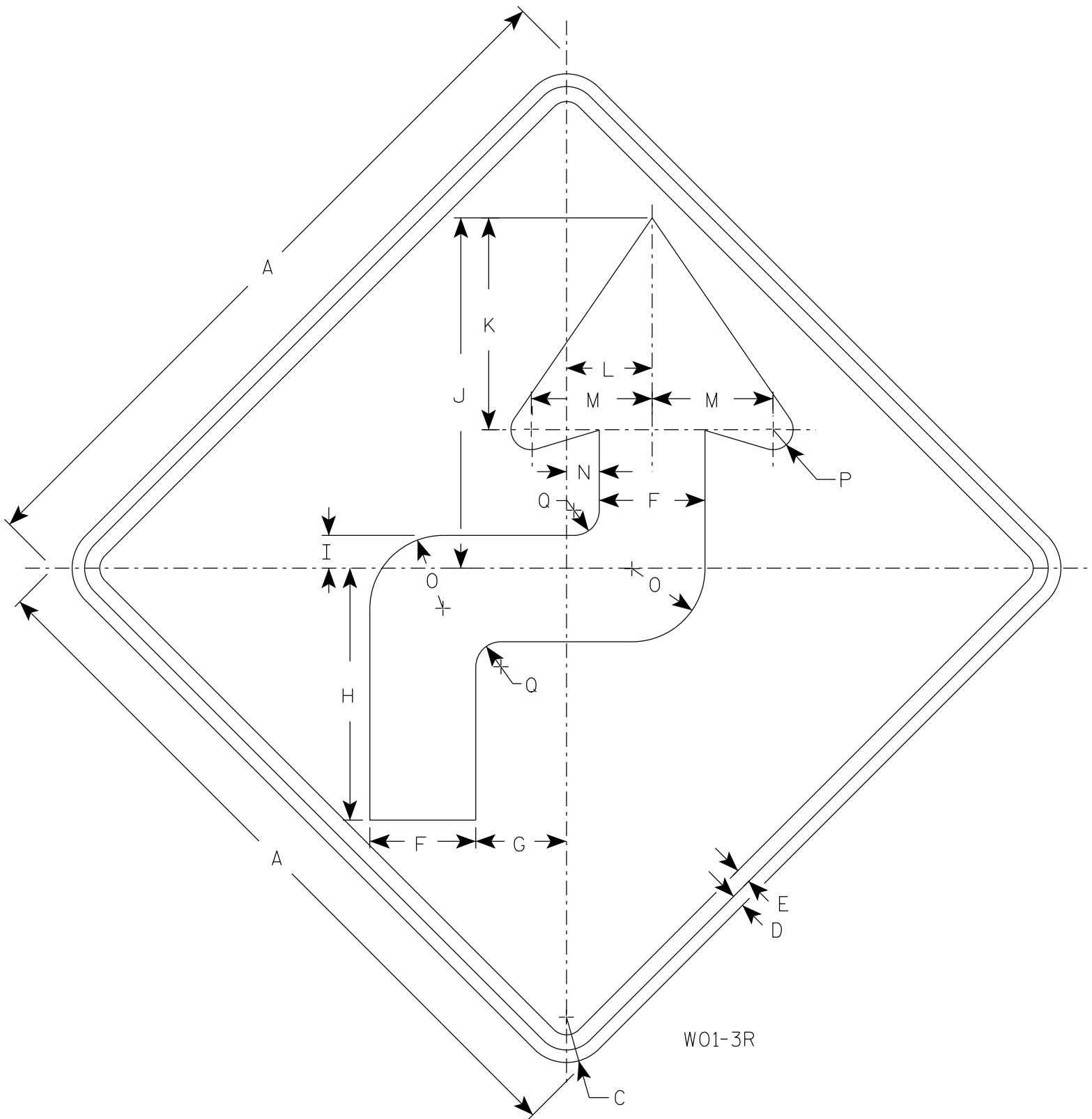
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-3L is the same as W01-3R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2S	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
2M	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
3	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
4	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
5	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

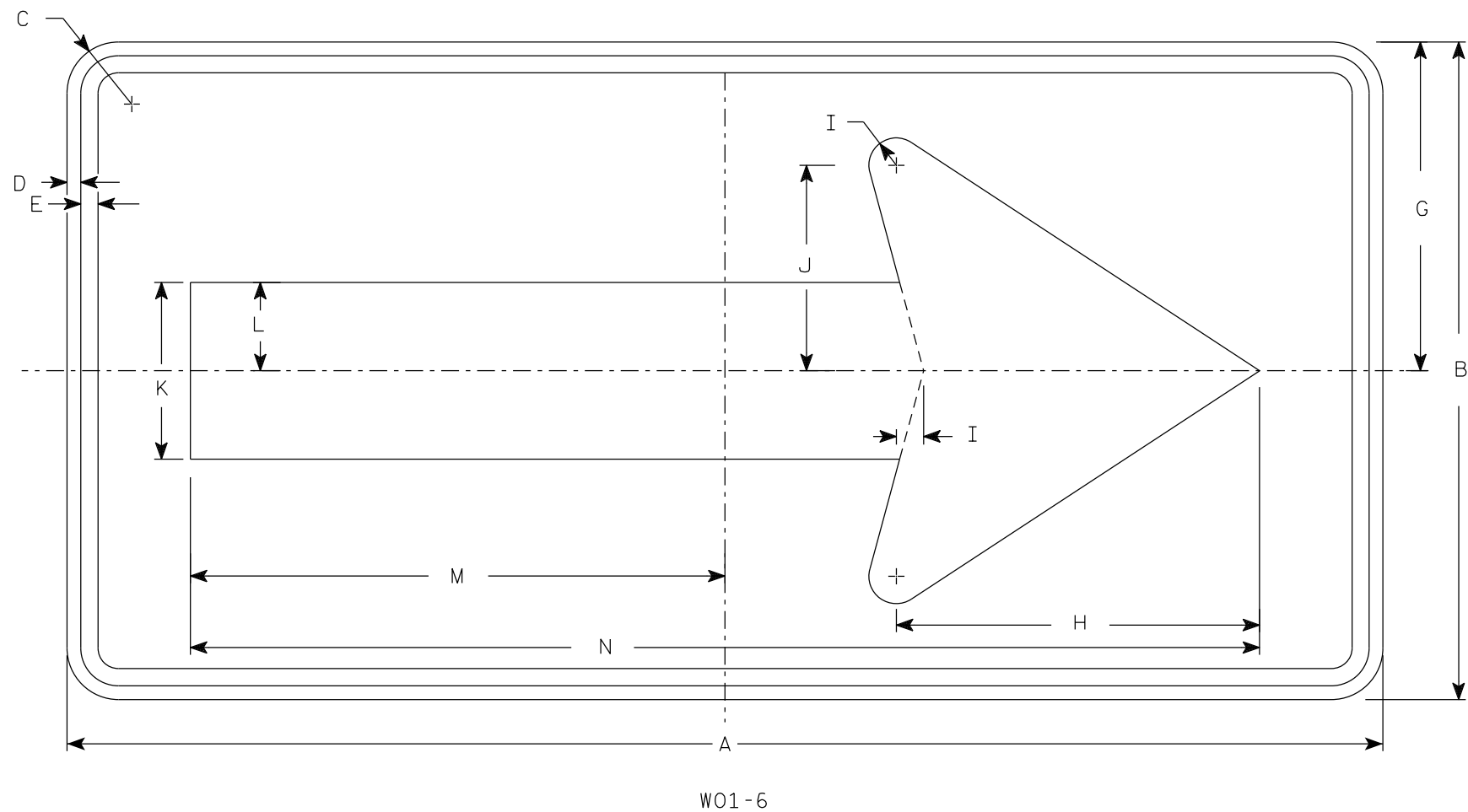
STANDARD SIGN
W01-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-3.2

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN

W01-6

WISCONSIN DEPT OF TRANSPORTATION

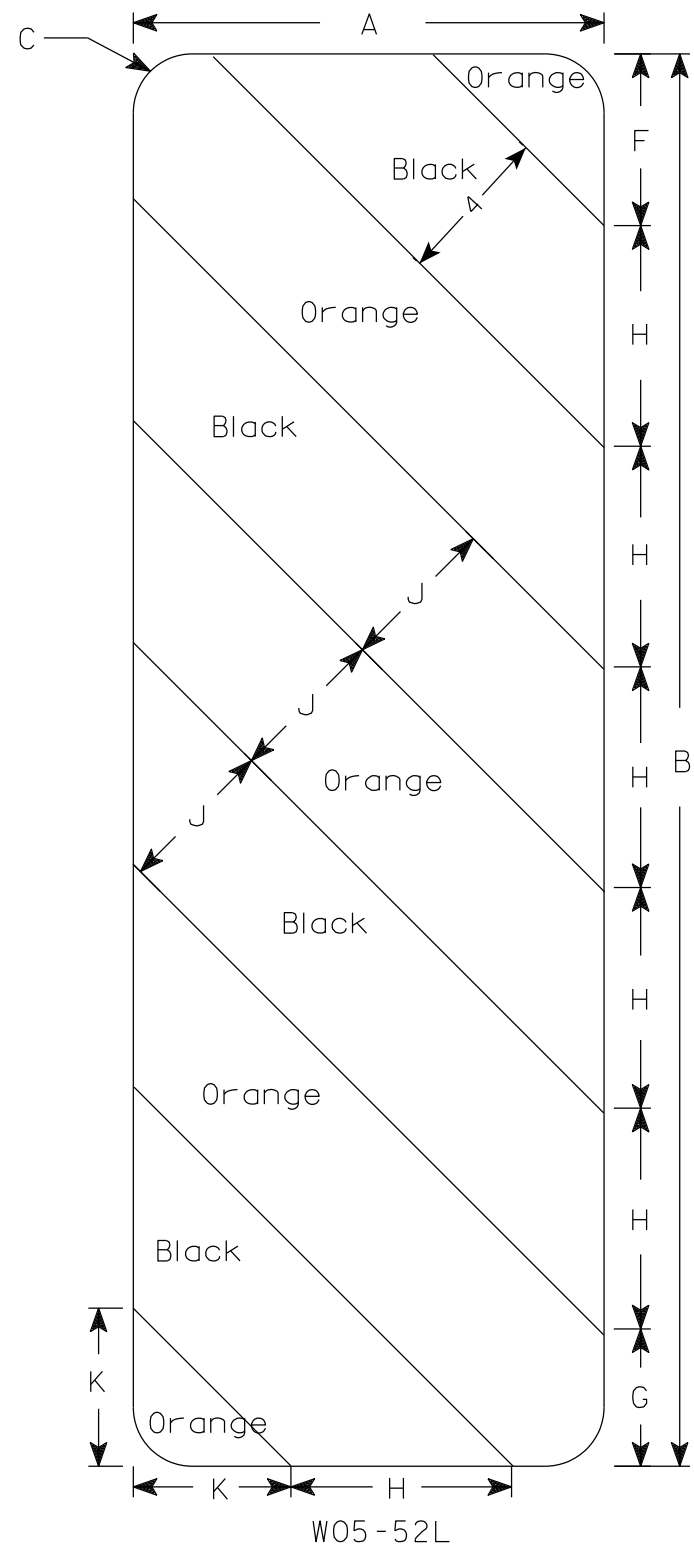
APPROVED

Matthew R. Rauch

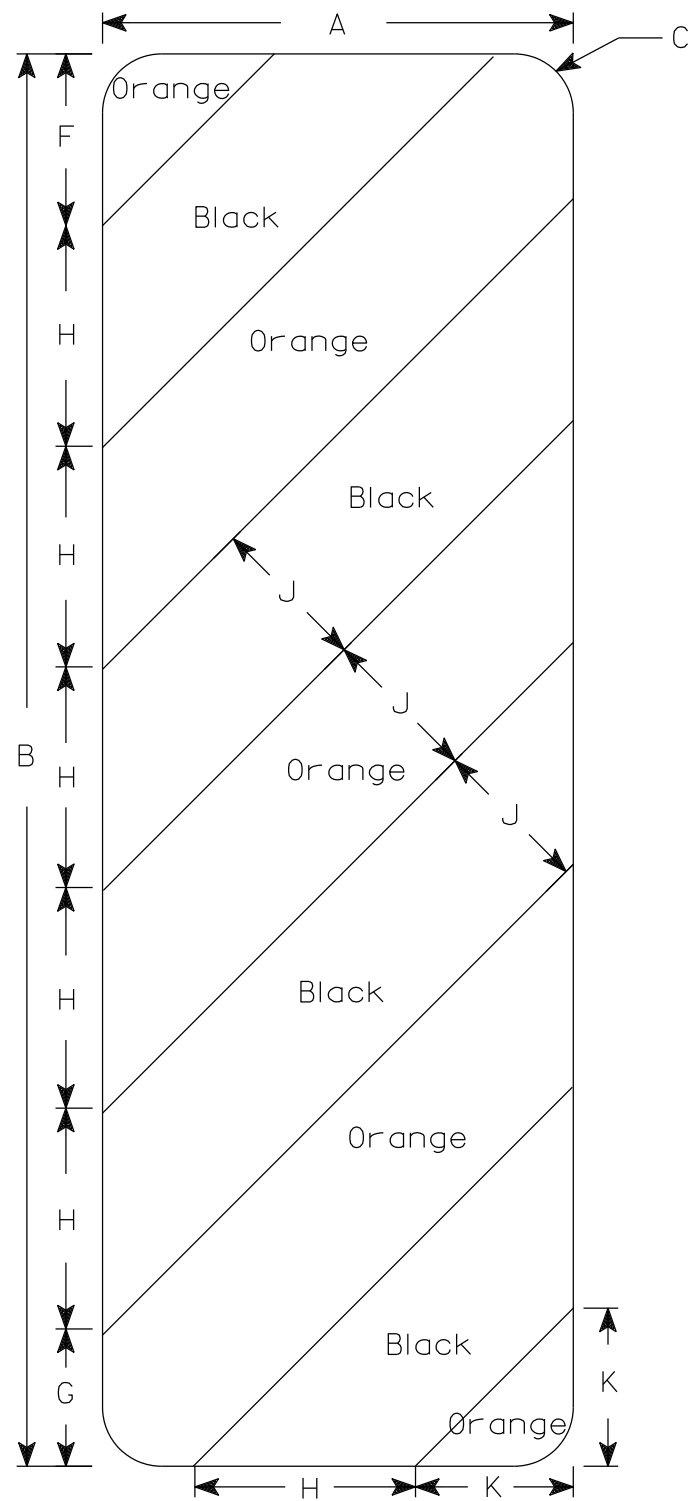
for State Traffic Engineer

DATE 1/24/2024

PLATE NO. W01-6.2



W05-52L



W05-52R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

PROJECT NO:

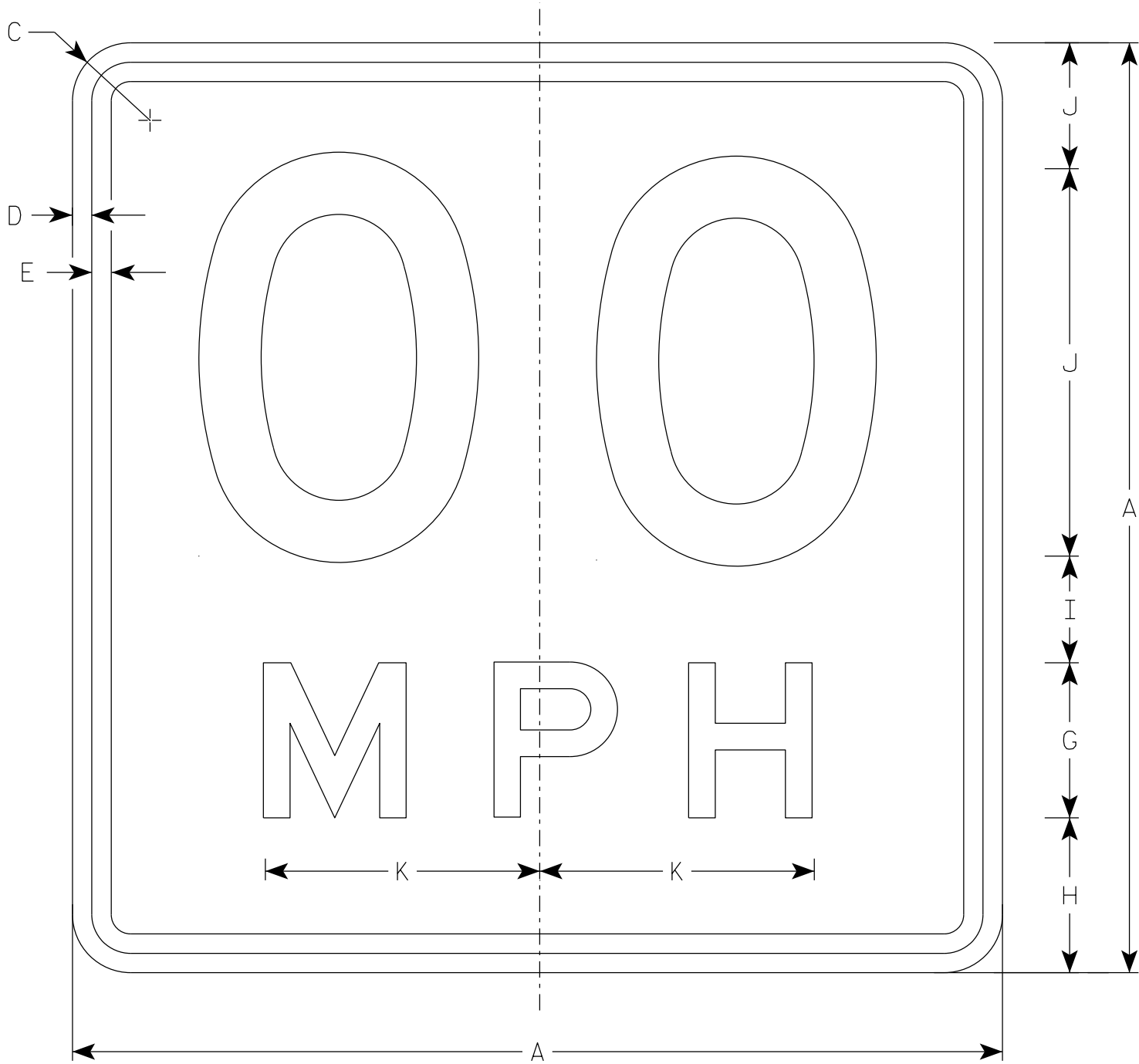
HWY:

COUNTY:

SHEET NO: 77

E

7



W013-1

NOTES

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

7

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 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.0
2S	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
2M	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
3	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0

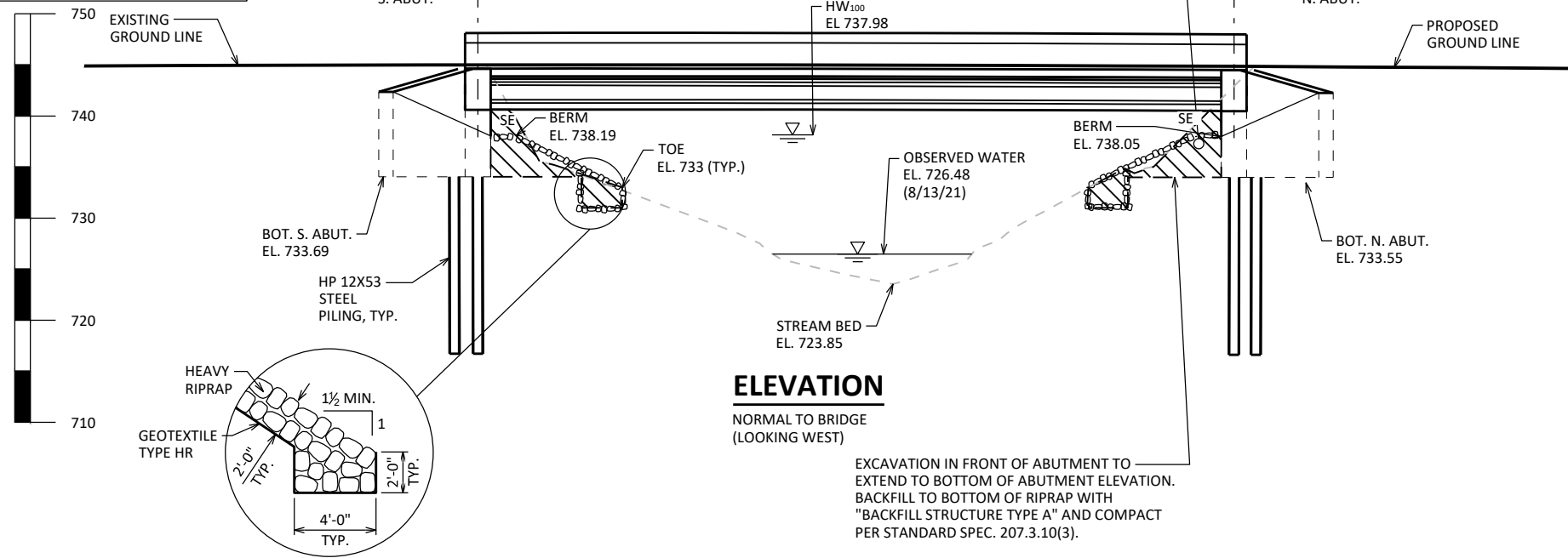
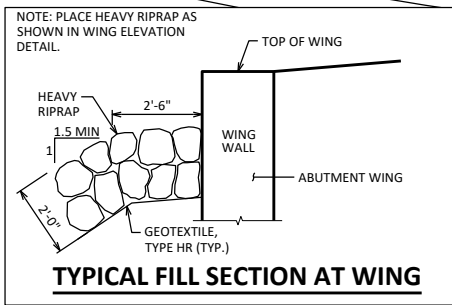
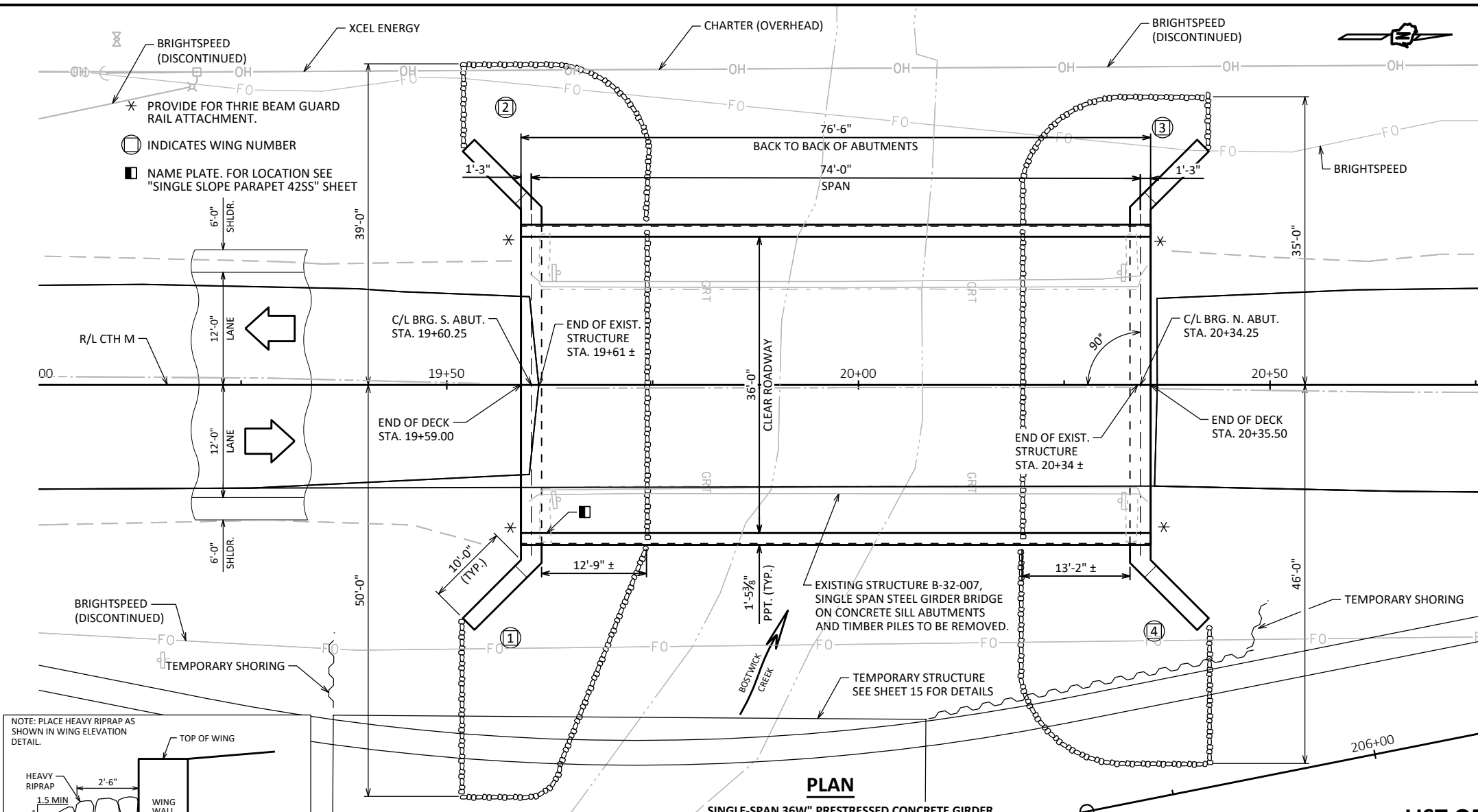
STANDARD SIGN

W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W013-1.2



DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.16
OPERATING RATING: RF = 1.51
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY: _____
SUPERSTRUCTURE _____
ALL OTHER _____

BAR STEEL REINFORCEMENT
GRADE 60 _____

36W" PRESTRESSED GIRDERS:
CONCRETE MASONRY _____
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12 X 53 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 50'-0" LONG AT SOUTH ABUTMENT.
ESTIMATED 45'-0" LONG AT NORTH ABUTMENT.

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

HYDRAULIC DATA

100-YEAR FREQUENCY (DESIGN):
Q₁₀₀ = 3,600 C.F.S.
VEL = 8.39 F.P.S.
HW₁₀₀ = EL. 737.98
WATERWAY AREA = 429.08 SQ. FT.
DRAINAGE AREA = 19.3 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:
Q₂ = 670 C.F.S.
VEL = 5.70 F.P.S.
HW₂ = EL. 730.90

5-YEAR FREQUENCY:
Q₅ = 1,260 C.F.S.
HW₅ = EL. 733.04
WATERWAY AREA = 318.5 SQ. FT.

TRAFFIC DATA

FEATURE ON CTH M:
ADT = 1,590 (2046)
R.D.S. = 55 MPH

LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. 36W" PRESTRESSED GIRDER DETAILS 1
9. 36W" PRESTRESSED GIRDER DETAILS 2
10. STEEL DIAPHRAGM
11. SUPERSTRUCTURE
12. SUPERSTRUCTURE DETAILS 1
13. SUPERSTRUCTURE DETAILS 2
14. SINGLE SLOPE PARAPET 42SS
15. RIGHT OF WAY LIMITS

STRUCTURE DESIGN CONTACTS:

BUREAU OF STRUCTURES: AARON BONK 608-261-0261
CONSULTANT: MATT BUCKLI 608-443-0441



NO.	DATE	REVISION	BY
Mead & Hunt 2440 Deming Way Middleton, WI 53562 phone: 608-273-6380 meadhunt.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	CHIEF STRUCTURES DESIGN ENGINEER		DATE
STRUCTURE B-32-585		CTH M OVER BOSTWICK CREEK	
COUNTY	LA CROSSE	TOWN	BARRE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	JLA	DESIGNED CK'D	RCP
DRAWN BY	JLA	PLANS CK'D	RCP
GENERAL PLAN		SHEET 1 OF 15 79	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-32-585" SHALL BE THE EXISTING GROUNDLINE.

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

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.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

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

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "36W PRESTRESSED GIRDER DETAILS 2" SHEET.

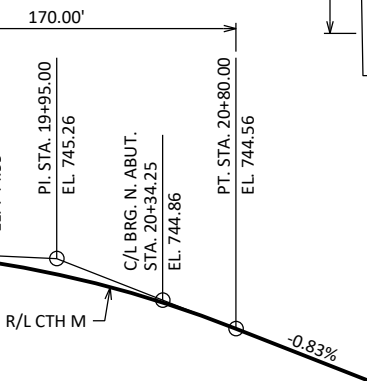
NEW SOUTH ABUTMENT IS LOCATED ON TOP OF THE EXISTING SOUTH ABUTMENT. EXISTING ABUTMENT IS SUPPORTED ON TIMBER PILING WITH UNKNOWN CONDITION. THERE IS A POTENTIAL FOR ANY EXISTING PILING LEFT IN PLACE TO CONFLICT WITH THE NEW PILING. SEE THE ABUTMENT PLAN SHEETS APPROXIMATE EXISTING PILE LOCATIONS AND "REMOVING EXISTING TIMBER PILING" IF NEEDED.

INDICATES GIRDER NUMBER

SINGLE SLOPE PARAPET 42SS,
SEE "SINGLE SLOPE PARAPET 42SS"
SHEET FOR DETAILS. (TYP.)

TOP OF BERM

PER LA CROSSE COUNTY REQUEST



PROFILE GRADE LINE - CTH M

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	NORTH ABUT.	TOTALS
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-32-007	EACH	----	----	----	1
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-32-007	EACH	----	----	----	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-32-585	EACH	----	----	----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	----	374	374	748
502.0100	CONCRETE MASONRY BRIDGES	CY	125.9	44.8	44.8	216
502.3200	PROTECTIVE SURFACE TREATMENT	SY	306	----	----	306
502.3210	PIGMENTED SURFACE SEALER	SY	76	----	----	76
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	375	----	----	375
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	----	3010	3010	6020
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	22980	1570	1570	26120
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	10	----	----	10
506.4000	STEEL DIAPHRAGMS B-32-585	EACH	4	----	----	4
511.1100	TEMPORARY SHORING	SF	----	----	----	539
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	----	8	8	16
526.0101	TEMPORARY STRUCTURE STA 205+00	EACH	----	----	----	1
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	----	400	360	760
606.0300	RIPRAP HEAVY	CY	----	128	127	255
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	----	97	97	194
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	----	----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	----	60	60	120
645.0120	GEOTEXTILE TYPE HR	SY	----	255	252	507
SPV.0090	REMOVING EXISTING TIMBER PILING	LF	----	70	70	140
	NON-BID ITEMS					
	FILLER	SIZE	----	----	----	$\frac{1}{2}$ ", $\frac{3}{4}$ "

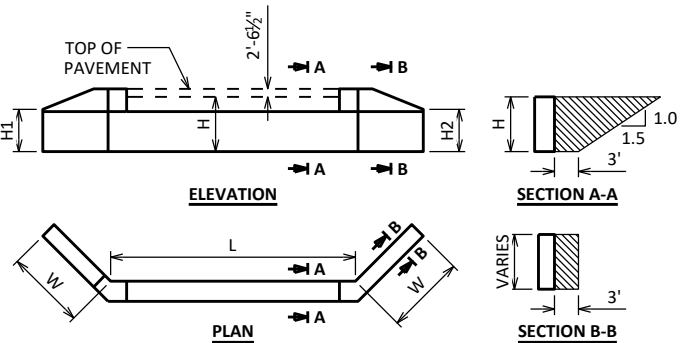
SECTION THRU ROADWAY

LOOKING UPSTATION
(PILING NOT SHOWN FOR CLARITY)

EXCAVATION IN FRONT OF ABUTMENT TO EXTEND TO BOTTOM OF ABUTMENT ELEVATION. BACKFILL TO BOTTOM OF RIPRAP WITH "BACKFILL STRUCTURE TYPE A" AND COMPACT PER STANDARD SPEC. 207.3.10(3).

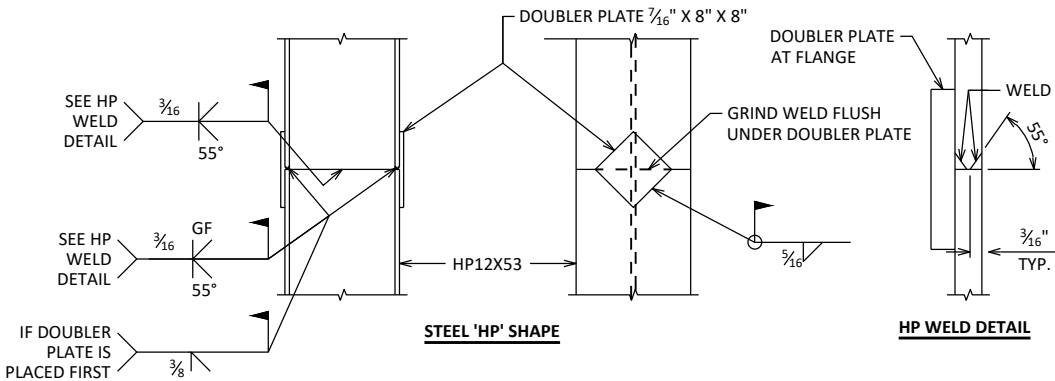
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP2	20+44.18	3/4" REBAR, 15.26' LT OFFSET	743.95
CP3	19+53.55	3/4" REBAR, 16.08' RT OFFSET	743.83

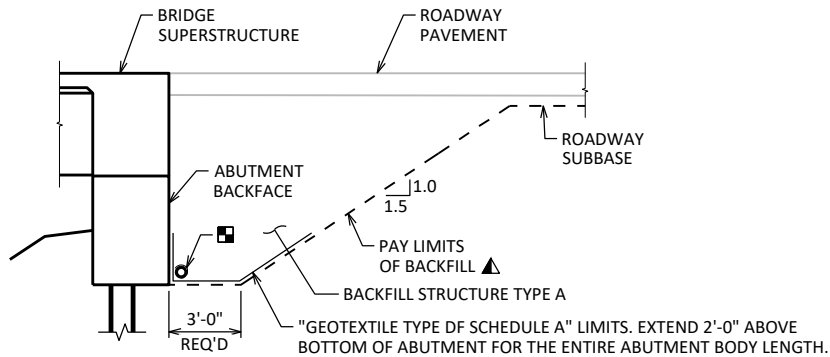


ABUTMENT BACKFILL DIAGRAM

L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
H1 = WING 1 HEIGHT AT TIP (FT)
H2 = WING 2 HEIGHT AT TIP (FT)
W = WING LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
 $V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)$
 $V_{CY} = V_{CF}(EF)/27$
 $V_{TON} = V_{CY}(2.0)$



'HP' PILE SPICE DETAILS



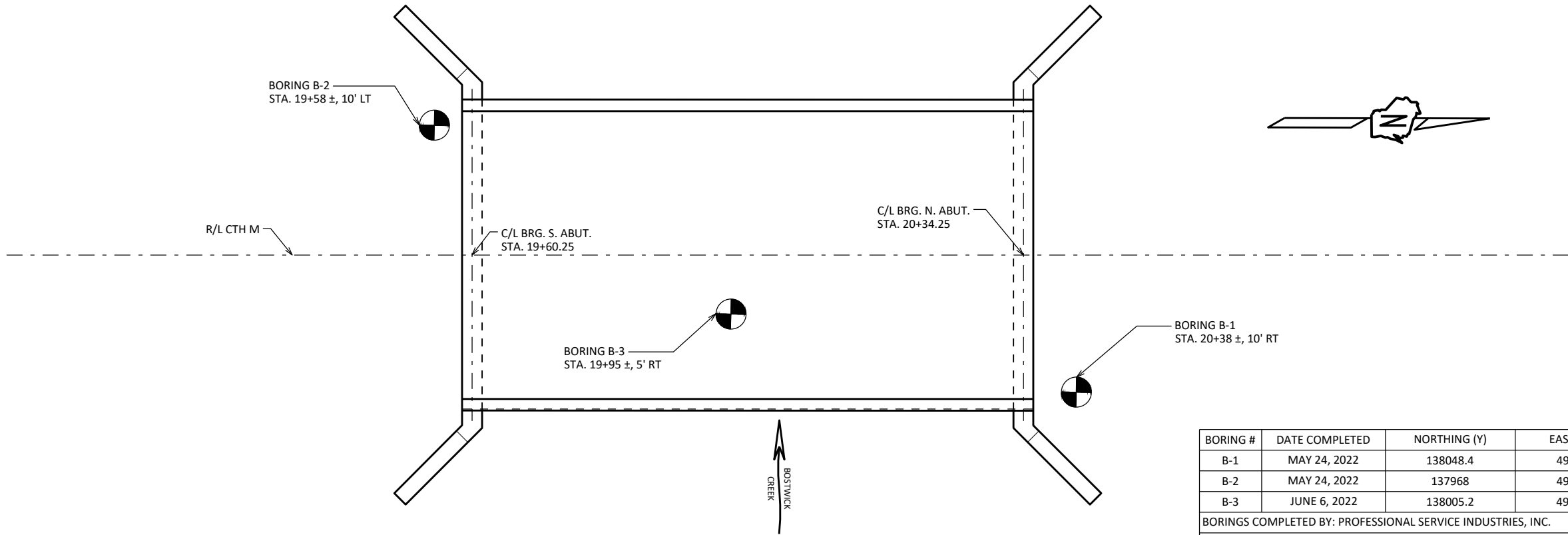
TYPICAL SECTION THRU ABUTMENT

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY		JLA	PLANS CK'D RCP
CROSS SECTION & QUANTITIES		SHEET 2 80	

SCALE =

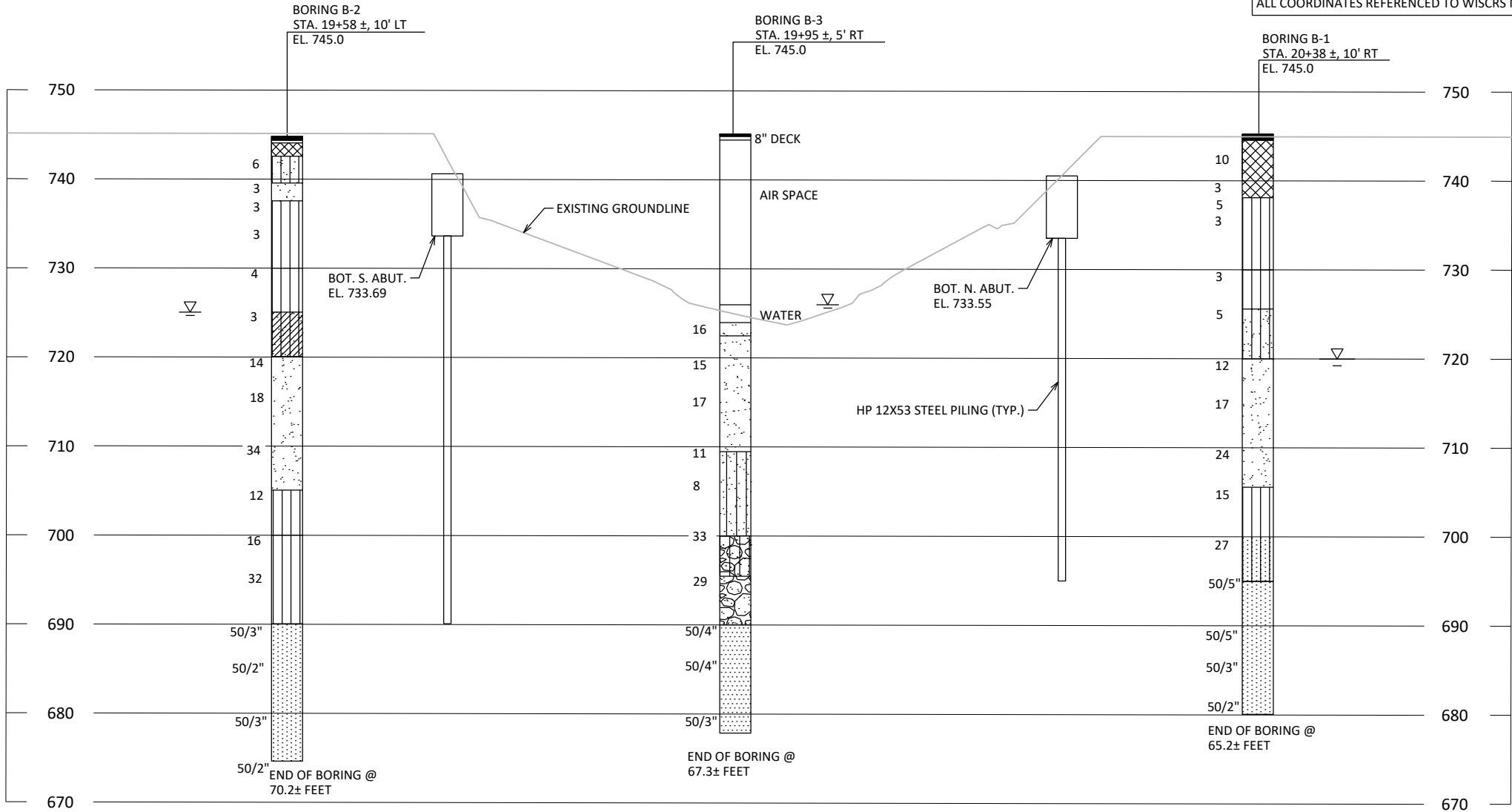


BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	MAY 24, 2022	138048.4	495451.1
B-2	MAY 24, 2022	137968	495417.9
B-3	JUNE 6, 2022	138005.2	495441.4

BORINGS COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.

REPORT COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.

ALL COORDINATES REFERENCED TO WISCRS NAD 83(1991) LA CROSSE COUNTY



STATE PROJECT NUMBER

5436-00-77

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

LEGEND OF BORING

BORING #/EL.
STA./OFFSET

ST

0.25

17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, RQD=72%

(1)

(2)

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-32-585

DRAWN BY

JLA

PLANS CK'D

MJB

SUBSURFACE EXPLORATION

SHEET 3

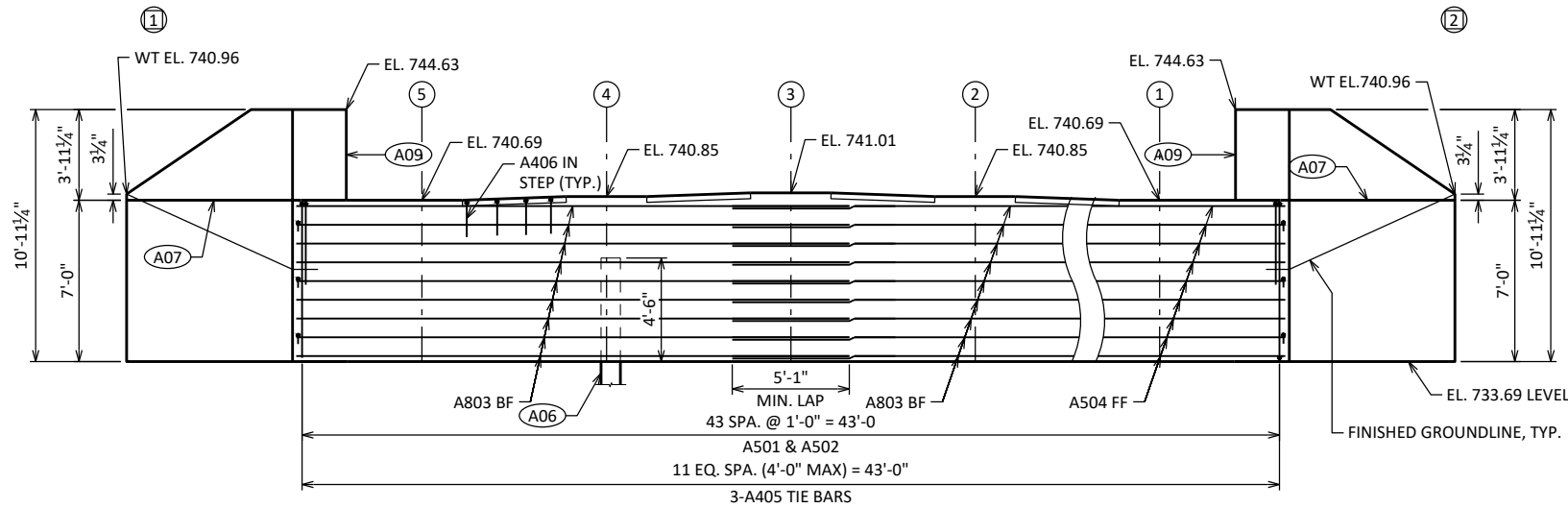
81

8

- INDICATES WING NUMBER
- INDICATES GIRDER NUMBER

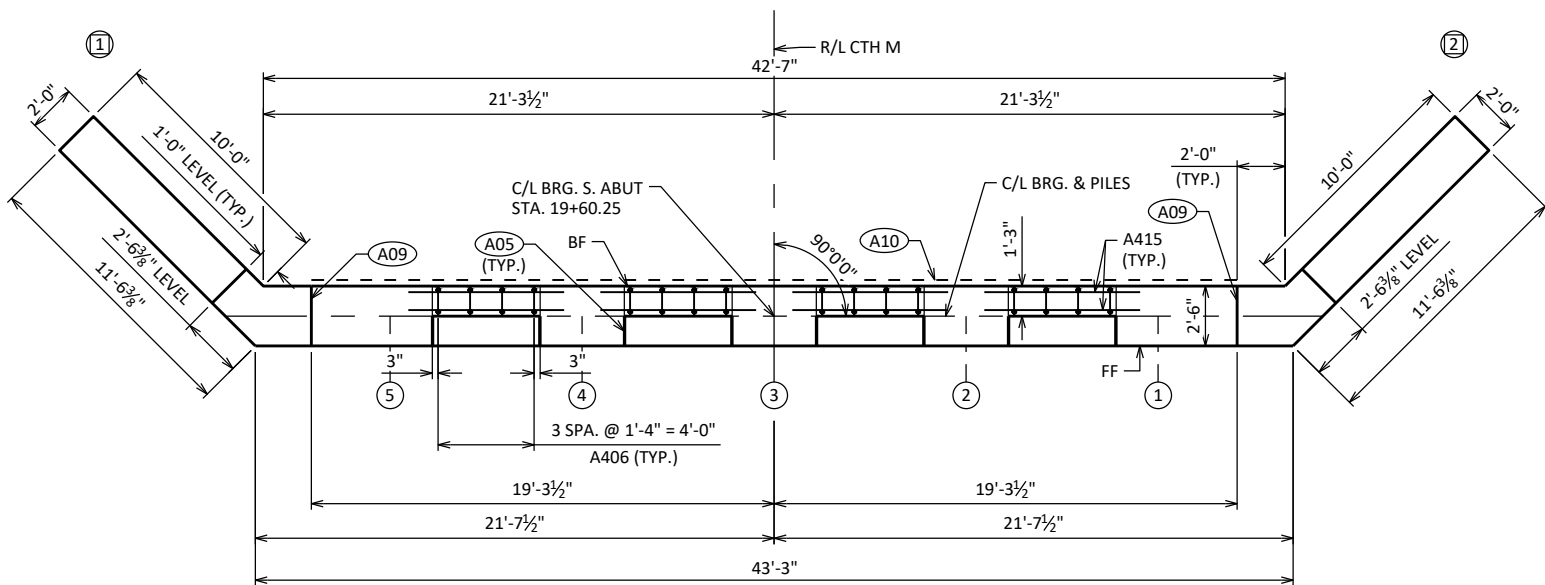
STATE PROJECT NUMBER

5436-00-77

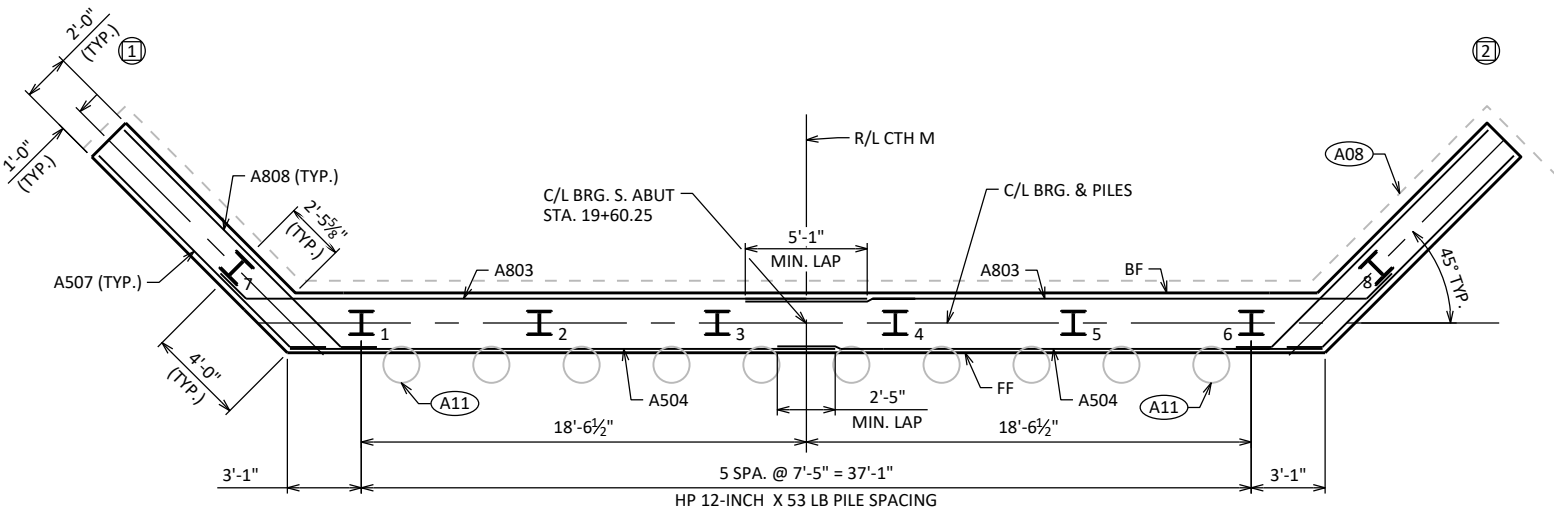


ELEVATION

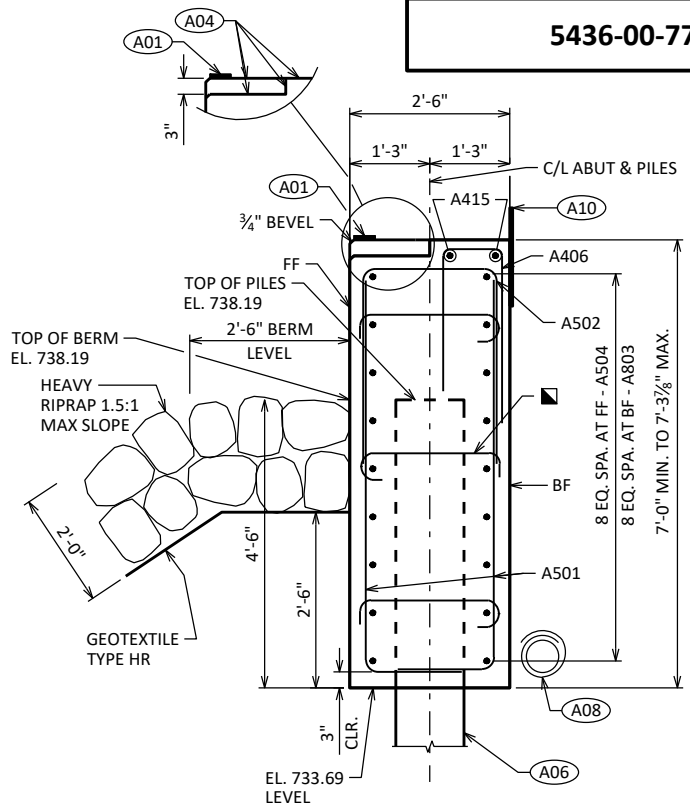
SOUTH ABUTMENT LOOKING SOUTH



PLAN



PILE PLAN



SECTION THRU BODY

3-A405 TIE BARS EQUALLY SPACED AT 4'-0" MAX. HORIZONTAL SPACING. ALTERNATE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

4" x 1/2" PREFORMED FILLER LENGTH OF ABUTMENT.

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

3/4" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 50'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY BEVELED 2" X 6" (18" RWM AT BF & 3/4" "V" GROOVE AT FF IF JOINT IS USED), COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

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

1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

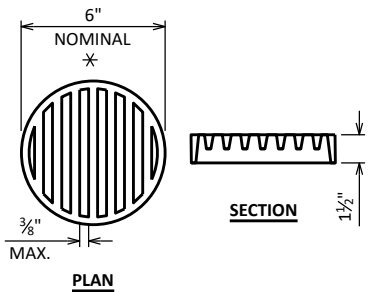
18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING, SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

"REMOVING EXISTING TIMBER PILE" LOCATION BASED ON LESS THAN 1'-0" CLEAR.

NOTES

BF = BACK FACE
FF = FRONT FACE
WT = WING TIP

APPROXIMATE LOCATION OF EXISTING TIMBER PILING.



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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 COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
SOUTH ABUTMENT		SHEET 4	82

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		88	7'-9"	X		ABUTMENT BODY VERT
A502		44	8'-9"	X		ABUTMENT BODY - TOP VERT
A803		18	27'-8"	X		ABUTMENT BODY - BF HORIZ
A504		18	22'-10"			ABUTMENT BODY - FF HORIZ
A405		36	3'-0"	X		ABUTMENT BODY - TIES HORIZ
A406		16	3'-3"	X		ABUTMENT BODY - SEAT STEP VERT
A507	X	18	12'-9"	X		WINGWALL BODY - FF HORIZ
A808	X	18	14'-3"	X		WINGWALL BODY - BF HORIZ
A409	X	48	11'-1"	X	▲	WINGWALL - EF VERT
A410	X	8	13'-0"	X		WINGWALL - EF VERT
A411	X	12	7'-4"	X		WINGWALL - TOP EF VERT
A412	X	12	8'-9"	X	▲	WING - TOP FF HORIZ
A413	X	12	7'-4"	X	▲	WING - TOP BF HORIZ
A414	X	4	12'-0"	X		WINGWALL - TOP HORIZ
A415		8	6'-6"			ABUTMENT BODY - SEAT STEP HORIZ

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

▲ LENGTH SHOWN IS AN AVERAGE LENGTH USED FOR CALCULATING BAR WEIGHT ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
A409	4 SERIES OF 12	9'-5" TO 12'-9"
A412	2 SERIES OF 6	4'-5" TO 13'-0"
A413	2 SERIES OF 6	3'-0" TO 11' - 7"

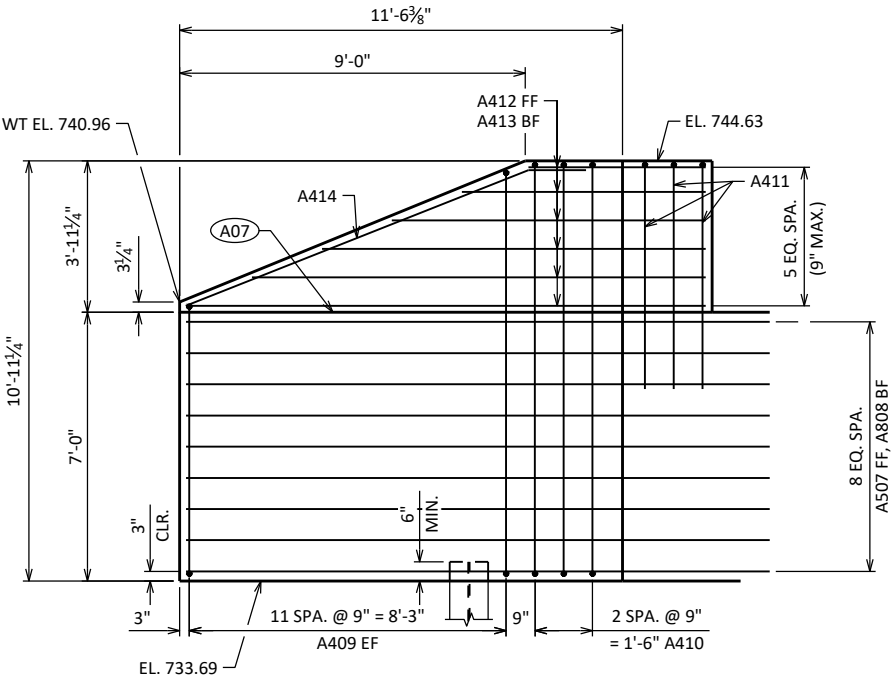
- (A06) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 50'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A07) OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY BEVELED 2" X 6" (18" RWM AT BF & ¾" "V" GROOVE AT FF IF JOINT IS USED), COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

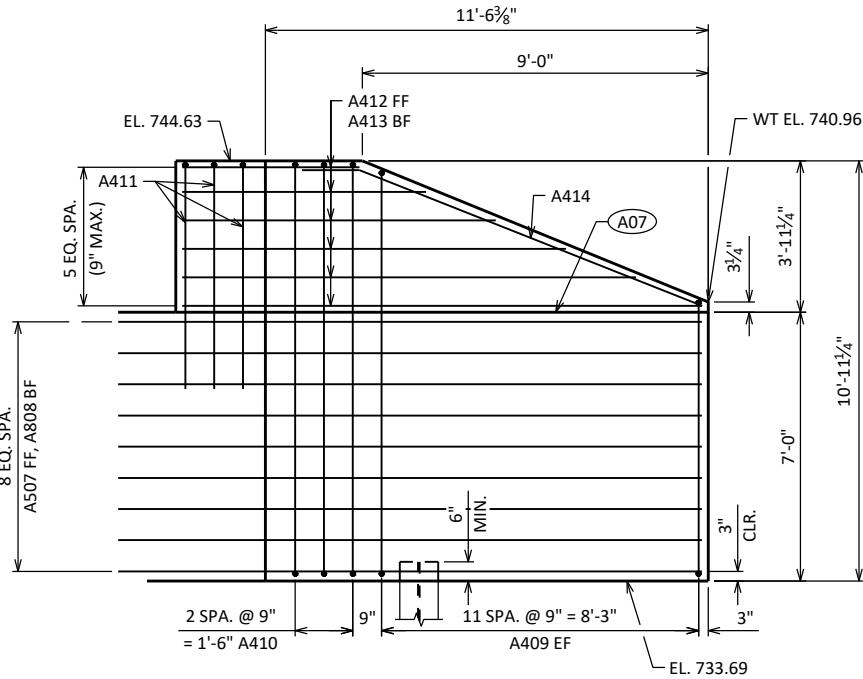
(A08) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A09) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ½" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

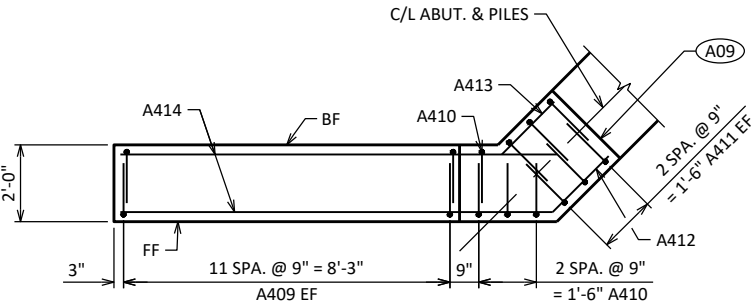
FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE
WT - WING TIP



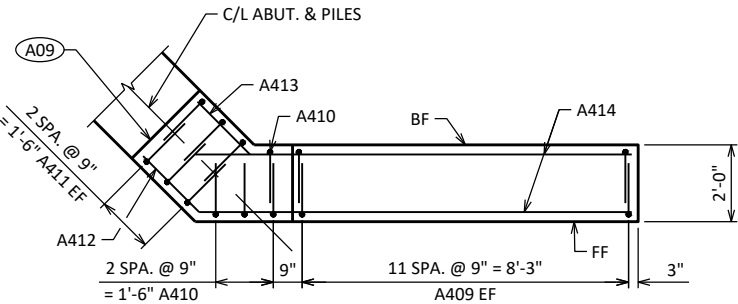
WING 1 ELEVATION
SHOWING F.F. WING



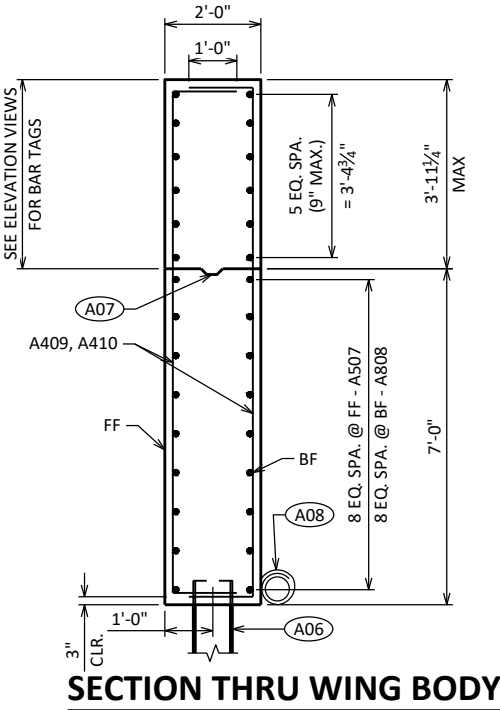
WING 2 ELEVATION
SHOWING F.F. WING



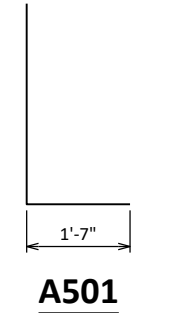
WING 1 PLAN



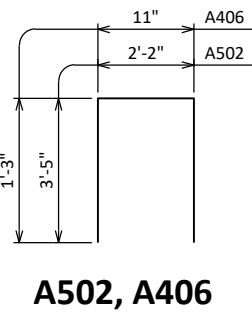
WING 2 PLAN



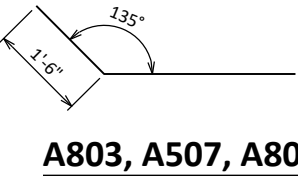
SECTION THRU WING BODY



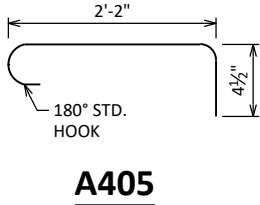
A501



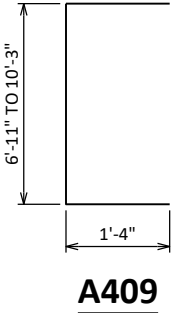
A502, A406



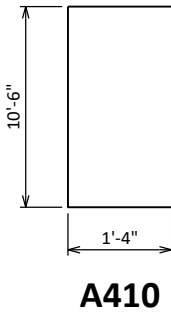
A803, A507, A808



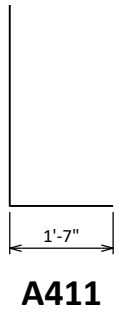
A405



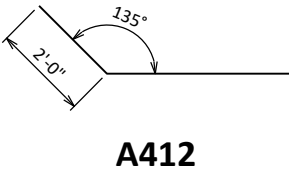
A409



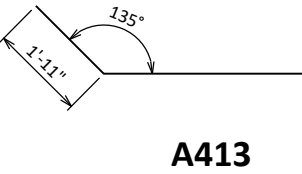
A410



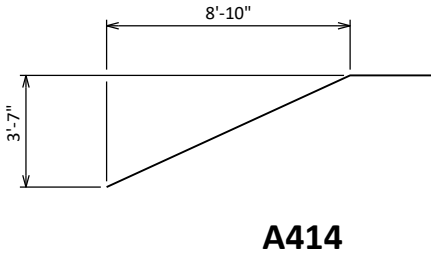
A411



A412



A413



A414

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
SOUTH ABUTMENT DETAILS		SHEET 5 83	

5436-00-77



NORTH ABUTMENT LOOKING NORTH



BF = BACK FACE
FF = FRONT FACE
WT = WING TIP



8

3-B405 TIE BARS EQUALLY SPACED AT 4'-0" MAX.
HORIZONTAL SPACING. ALTERNATE POSITION OF THE
90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

- A04

$\frac{3}{4}$ " CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING,
ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING
RESISTANCE OF 180 TONS PER PILE.

OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY BEVELED 2" X 6" (18" RWM AT BF & ¾" "V" GROOVE AT FF IF JOINT IS USED), COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

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

1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING,
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

"REMOVING EXISTING TIMBER PILE" LOCATION BASED
ON LESS THAN 1'-0" CLEAR.

NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-585

	DRAWN BY JLA	PLANS CK'D RCP
--	-----------------	-------------------

NORTH ABUTMENT	SHEET 6
	84



* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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 COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

8

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		88	7'-9"	X		ABUTMENT BODY VERT
B502		44	8'-9"	X		ABUTMENT BODY - TOP VERT
B803		18	27'-8"	X		ABUTMENT BODY - BF HORIZ
B504		18	22'-10"			ABUTMENT BODY - FF HORIZ
B405		36	3'-0"	X		ABUTMENT BODY - TIES HORIZ
B406		16	3'-3"	X		ABUTMENT BODY - SEAT STEP VERT
B507	X	18	12'-9"	X		WINGWALL BODY - FF HORIZ
B808	X	18	14'-3"	X		WINGWALL BODY - BF HORIZ
B409	X	48	11'-1"	X	▲	WINGWALL - EF VERT
B410	X	8	13'-0"	X		WINGWALL - EF VERT
B411	X	12	7'-4"	X		WINGWALL - TOP EF VERT
B412	X	12	8'-9"	X	▲	WING - TOP FF HORIZ
B413	X	12	7'-4"	X	▲	WING - TOP BF HORIZ
B414	X	4	12'-0"	X		WINGWALL - TOP HORIZ
B415		8	6'-6"			ABUTMENT BODY - SEAT STEP HORIZ

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

▲ LENGTH SHOWN IS AN AVERAGE LENGTH USED FOR CALCULATING BAR WEIGHT ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
B409	4 SERIES OF 12	9'-5" TO 12'-9"
B412	2 SERIES OF 6	4'-5" TO 13'-0"
B413	2 SERIES OF 6	3'-0" TO 11' - 7"

- A06

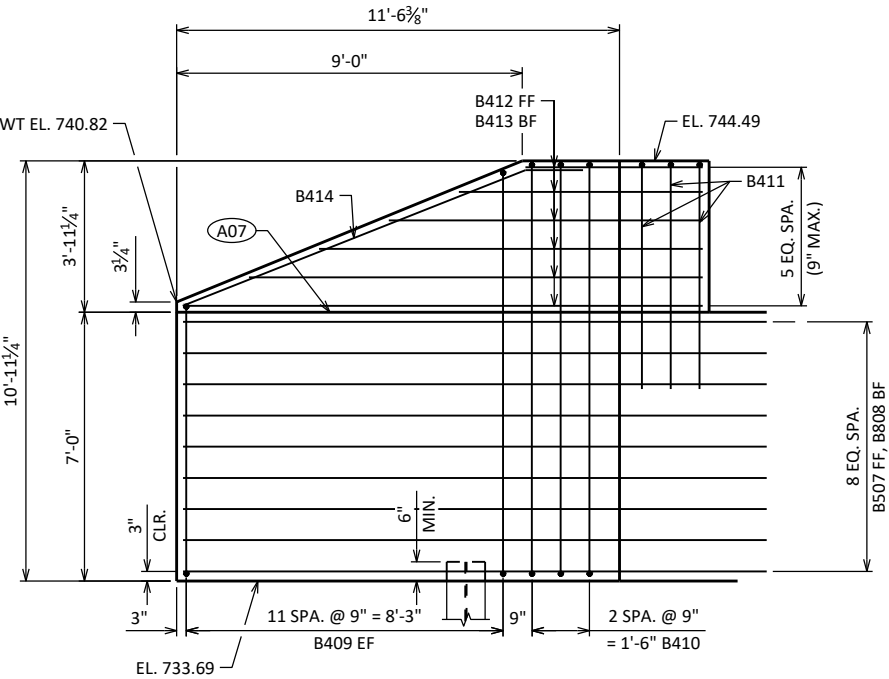
SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- A07

OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY BEVELED 2" X 6" (18" RWM AT BF & ¾" "V" GROOVE AT FF IF JOINT IS USED), COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".
- A08

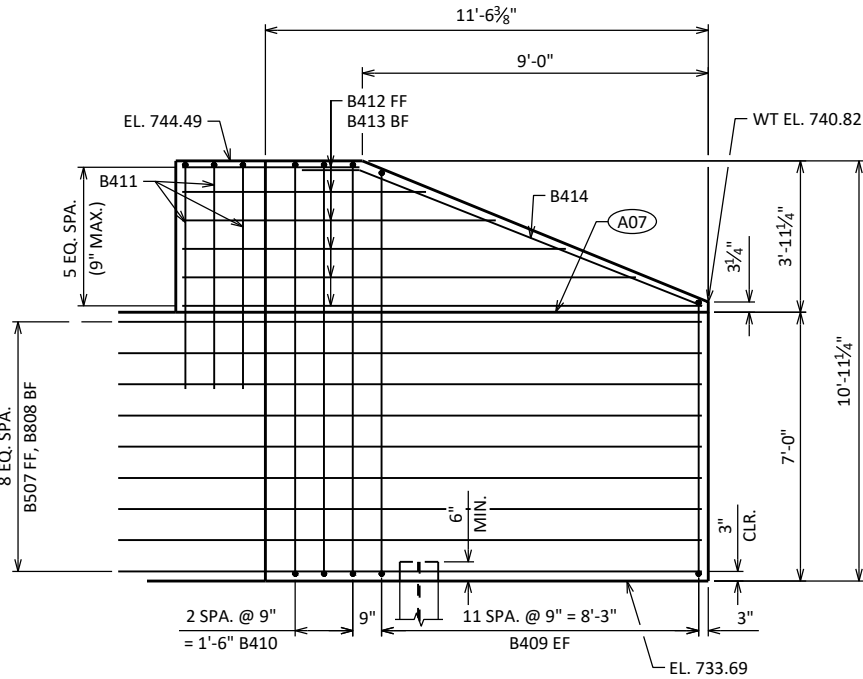
PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.
- A09

½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ½" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

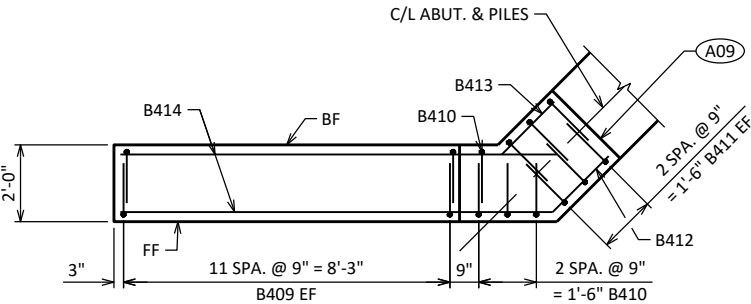
FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE
WT - WING TIP



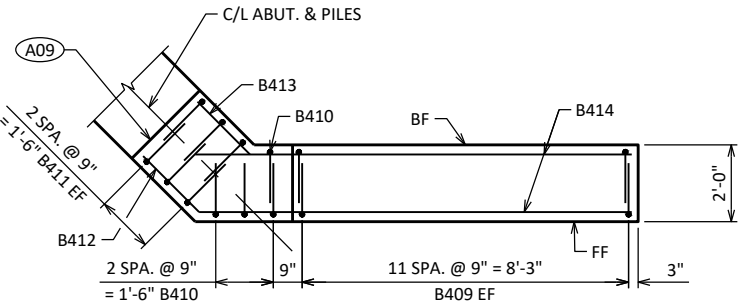
WING 3 ELEVATION
SHOWING FF WING



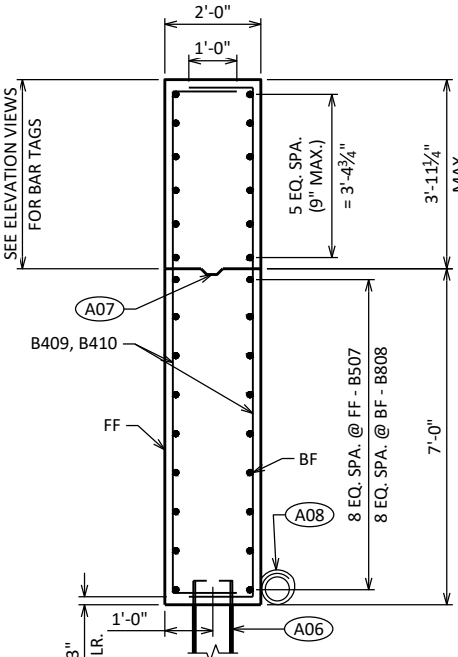
WING 4 ELEVATION
SHOWING FF WING



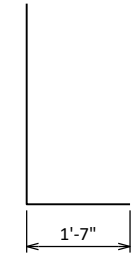
WING 3 PLAN



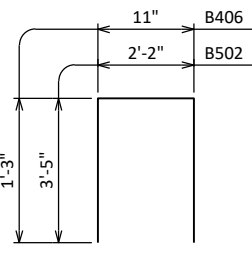
WING 4 PLAN



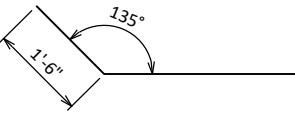
SECTION THRU WING BODY



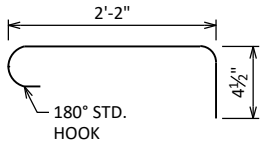
B501



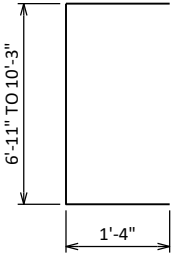
B502, B406



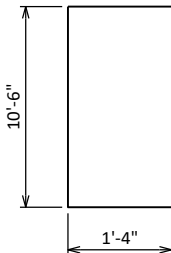
B803, B507, B808



B405



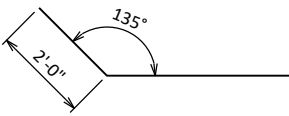
B409



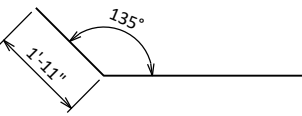
B410



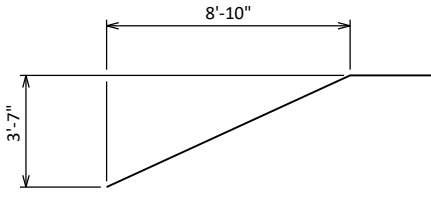
B411



B412



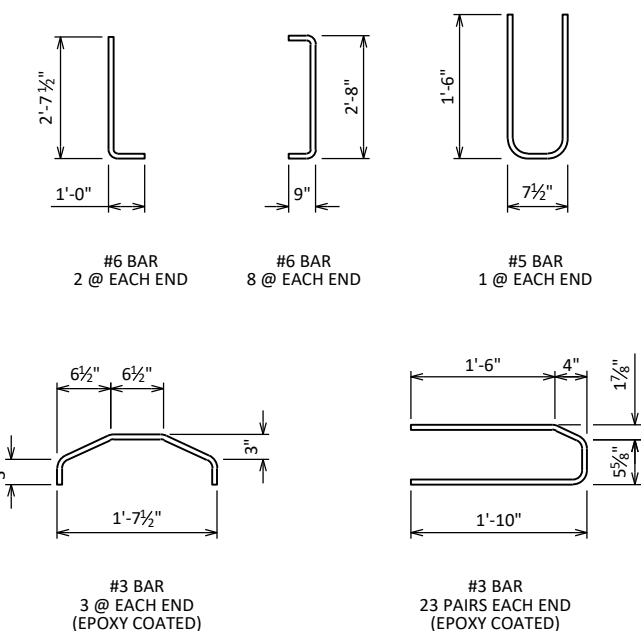
B413



B414

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
NORTH ABUTMENT DETAILS		SHEET 7 85	

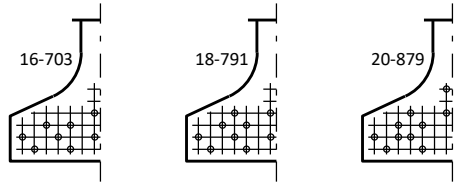
FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



(A) DETAIL TYP. AT EACH END
 (B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"
 Δ INSERTS/HOLES SPACING FOR STEEL DIAPHRAGM TO GIRDER WEB CONNECTION. FOR ALL GIRDERS

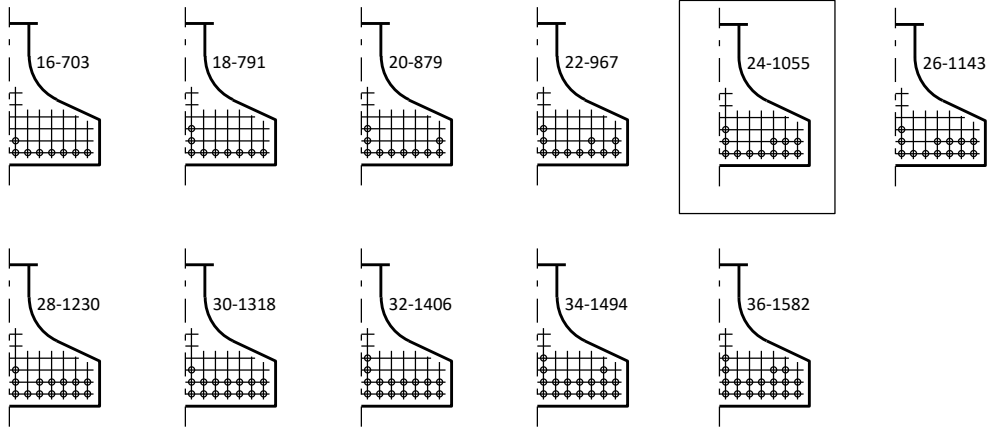
[illegible]

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-585	
		DRAWN BY	PLANS CK'D
		JLA	RCP
36W" PRESTRESSED GIRDER DETAILS 1		SHEET 8	
		86	



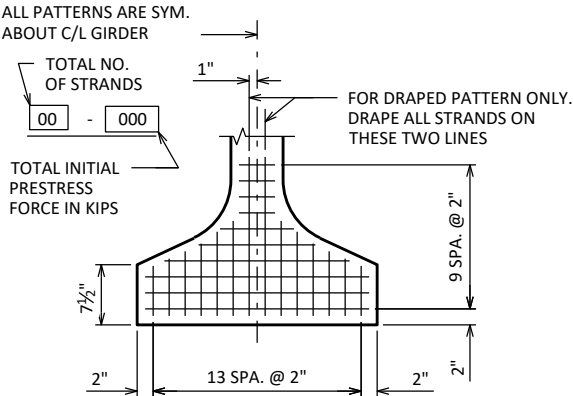
**STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY
TO AVOID DRAPING OF STRANDS**

0.6" DIA. STRANDS

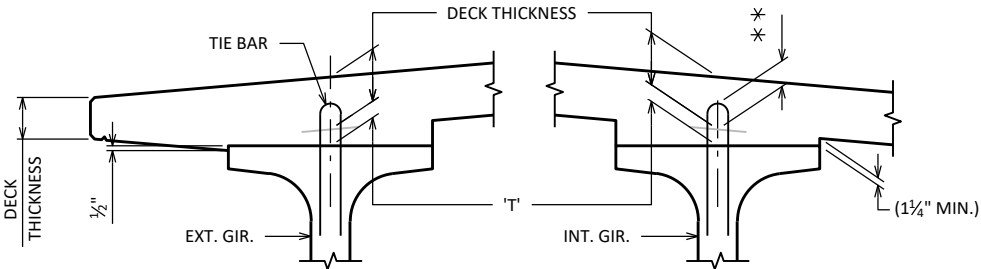


ARRANGEMENT AT C/L SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA. STRANDS



TYP. STRAND PATTERN



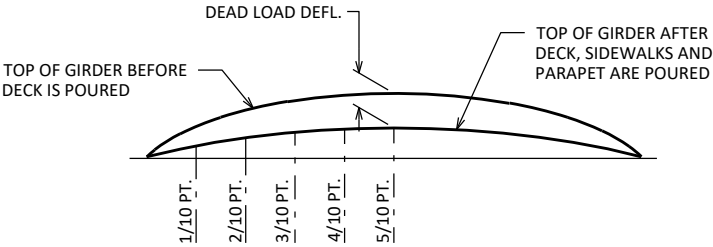
DECK HAUNCH DETAIL

IF 1 1/4" 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 TIE BAR CANNOT BE OBTAINED.

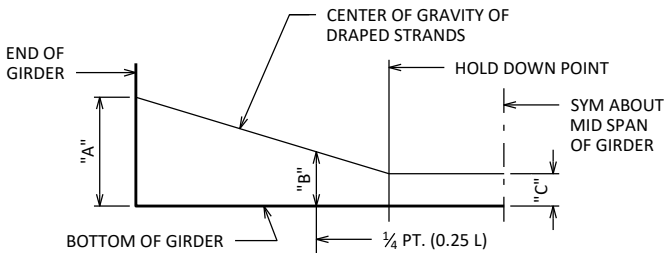
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT C/L OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
- + DEAD LOAD DEFLECTION
- DECK THICKNESS
- = HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.0" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	2.07

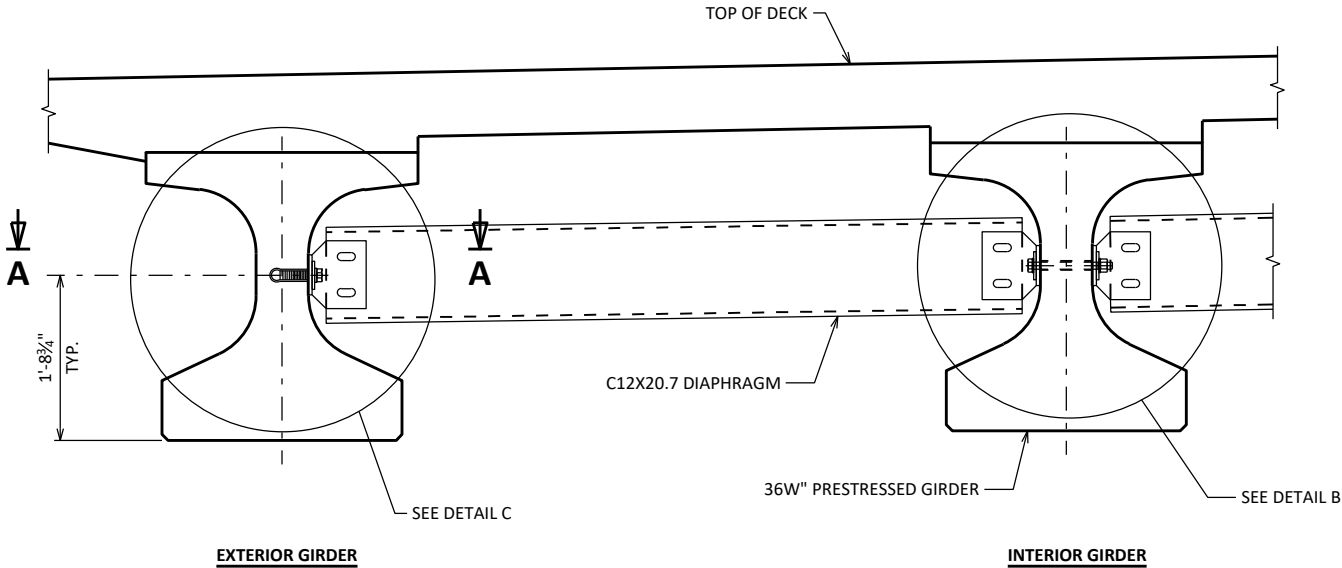
THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

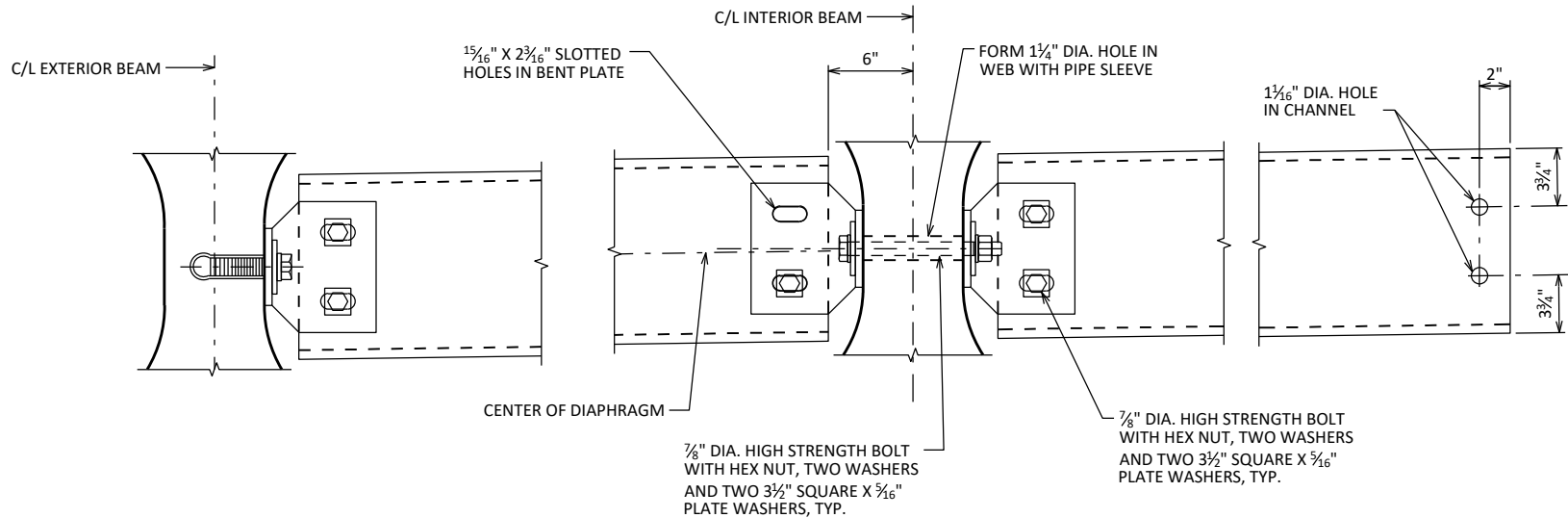
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
	DRAWN BY	JLA	PLANS CK'D RCP
36W" PRESTRESSED GIRDER DETAILS 2		SHEET 9	87

NOTES

- ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-32-585", 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 ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

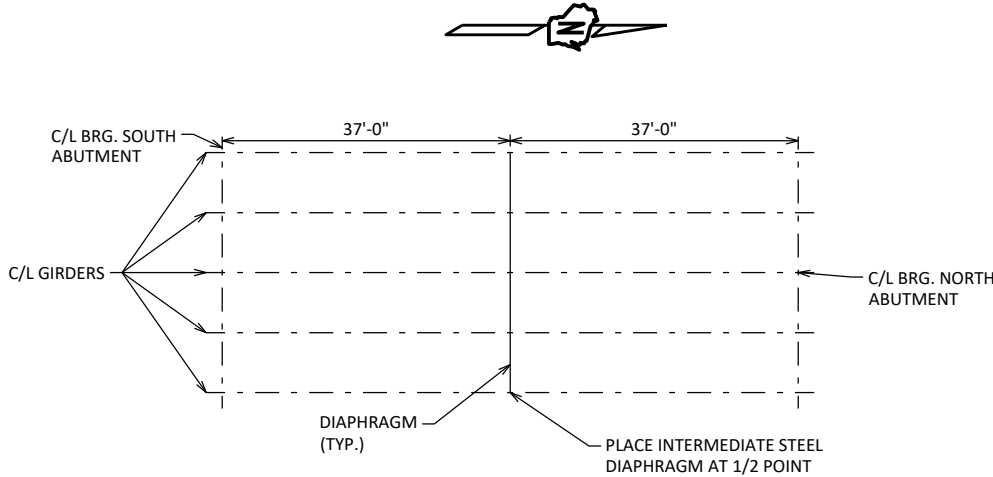


PART TRANSVERSE SECTION AT DIAPHRAGM

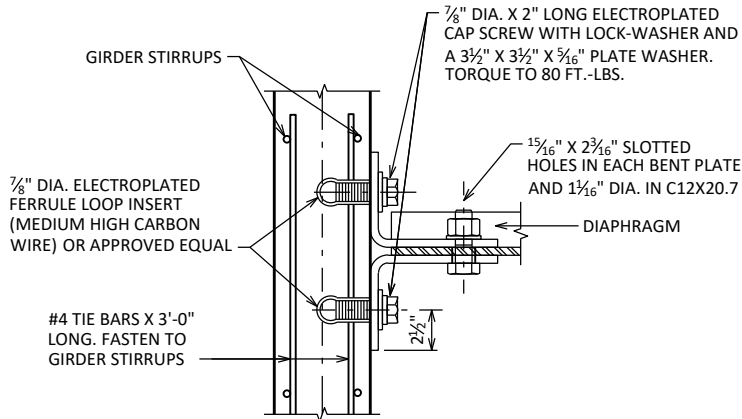


DETAIL C

DETAIL B

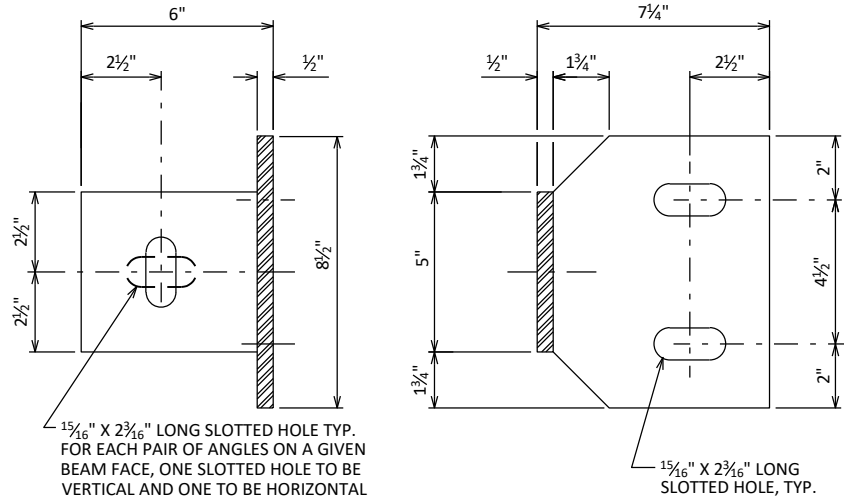


PLAN VIEW OF DIAPHRAGM



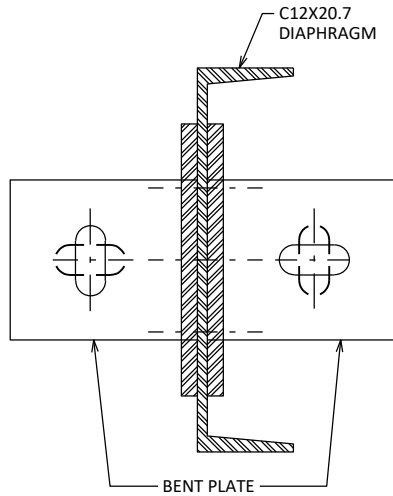
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



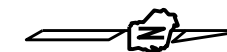
BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY		JLA	PLANS CK'D RCP
STEEL DIAPHRAGM		SHEET 10	88



○ INDICATES GIRDER NUMBER

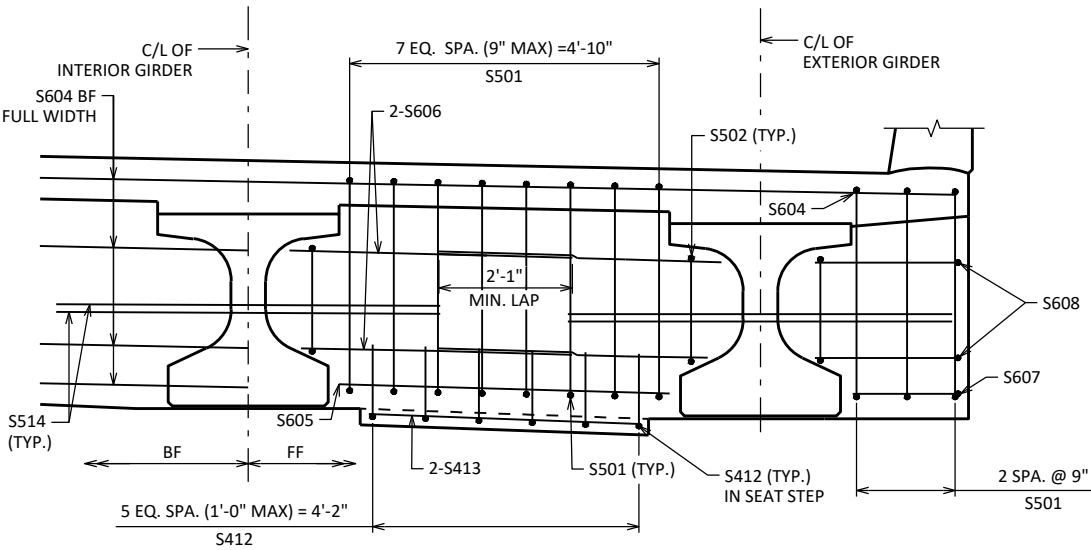
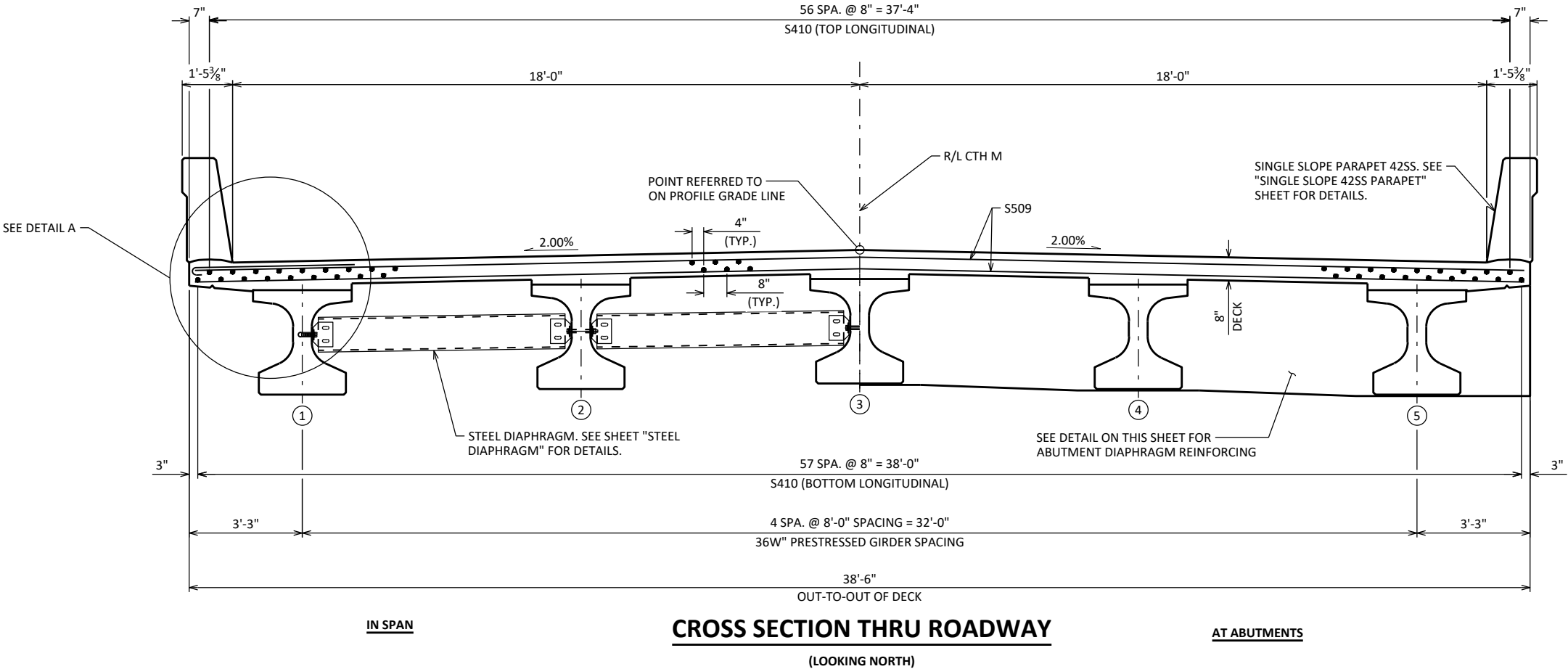


- (A01) 4" x ½" PREFORMED FILLER LENGTH OF ABUTMENT.
- (A02) ½" PREFORMED FILLER UNDER GIRDERS.
- (A03) NON-LAMINATED ELASTOMERIC BEARING PAD ½" x 8" x 2'-10".
- (A04) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- (A05) ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-585	
DRAWN BY		JLA	PLANS CK'D RCL
SUPERSTRUCTURE		SHEET 11 — 89 —	

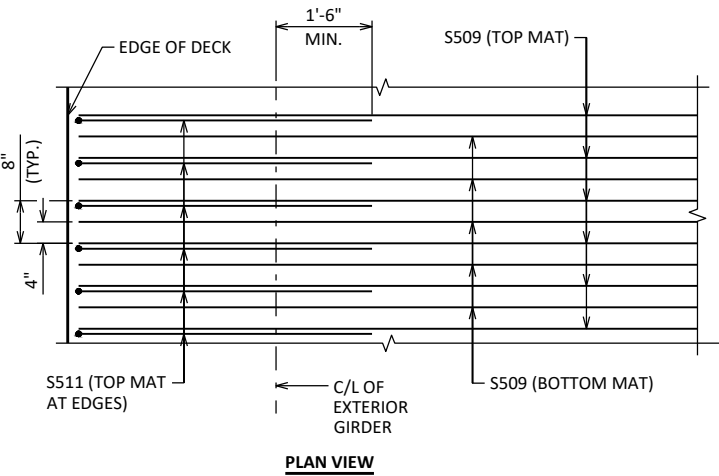
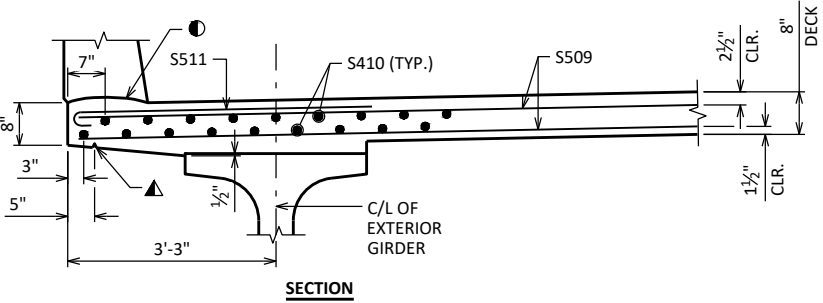
NOTES:

- ▲ 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM FF OF ABUTMENT DIAPHRAGM.
 - HORIZONTAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- FF - FRONT FACE
BF - BACK FACE

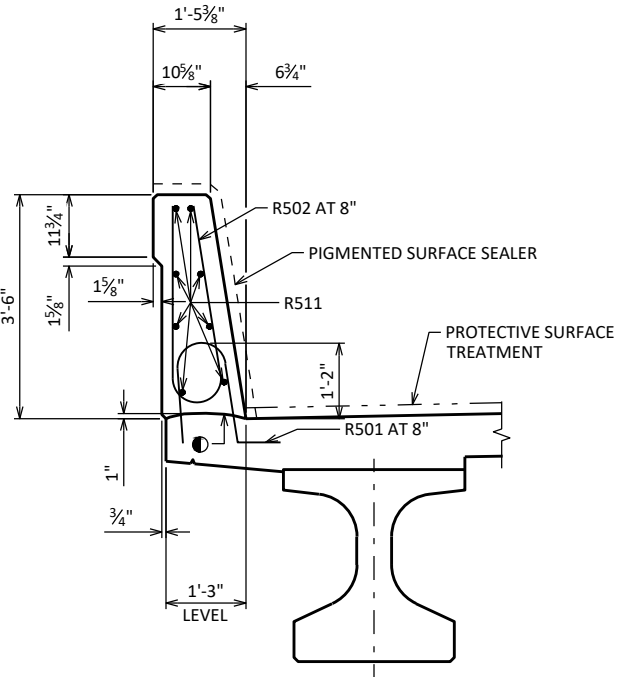


ABUTMENT DIAPHRAGMS

DECK STEEL NOT SHOWN FOR CLARITY



DETAIL A



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
SUPERSTRUCTURE DETAILS 1		SHEET 12	90

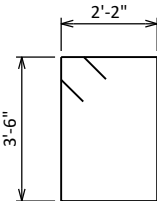
TOP OF DECK ELEVATIONS

LOCATION	C/L S. ABUT	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L N. ABUT
W. EOD	744.63	744.64	744.64	744.64	744.63	744.62	744.60	744.58	744.56	744.53	744.50
GIRDER 1	744.67	744.68	744.68	744.68	744.67	744.66	744.64	744.62	744.60	744.57	744.54
GIRDER 2	744.83	744.84	744.84	744.84	744.83	744.82	744.80	744.78	744.76	744.73	744.70
R/L CTH M / GIRDER 3	744.99	745.00	745.00	745.00	744.99	744.98	744.96	744.94	744.92	744.89	744.86
GIRDER 4	744.83	744.84	744.84	744.84	744.83	744.82	744.80	744.78	744.76	744.73	744.70
GIRDER 5	744.67	744.68	744.68	744.68	744.67	744.66	744.64	744.62	744.60	744.57	744.54
E. EOD	744.63	744.64	744.64	744.64	744.63	744.62	744.60	744.58	744.56	744.53	744.50

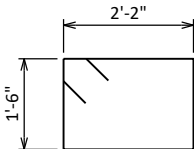
BILL OF BARS

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

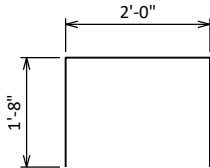
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	76	12'-0"	X		DIAPHRAGM - STIRRUPS VERT
S502	X	20	8'-0"	X		DIAPHRAGM - STIRRUPS VERT
S604	X	10	38'-2"			DIAPHRAGM - BF TRANS
S605	X	8	5'-2"			DIAPHRAGM - FF BETWEEN GIRDERS TRANS
S606	X	32	4'-5"			DIAPHRAGM - FF BETWEEN GIRDERS TRANS
S607	X	4	5'-0"	X		DIAPHRAGM - AT ENDS HORIZ
S608	X	8	6'-0"	X		DIAPHRAGM - AT ENDS HORIZ
S509	X	229	38'-2"			SLAB - TOP & BOTTOM TRANS
S410	X	230	38'-11"			SLAB - TOP & BOTTOM LONGIT
S511	X	230	5'-2"	X		SLAB - TOP AT EDGES TRANS
S412	X	48	3'-5"	X		DIAPHRAGM - SEAT STEP VERT
S413	X	16	4'-2"			DIAPHRAGM - BETWEEN SEATS HORIZ
S514	X	20	6'-0"			DIAPHRAGM - THRU GIRDERS HORIZ



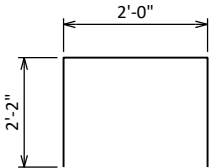
S501



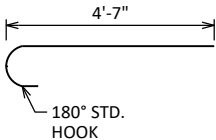
S502



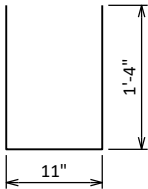
S607



S608



S511



S412

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
		DRAWN BY	PLANS CK'D RCP
SUPERSTRUCTURE DETAILS 2		SHEET 13 91	

BILL OF BARS

FOR DECK PARAPETS

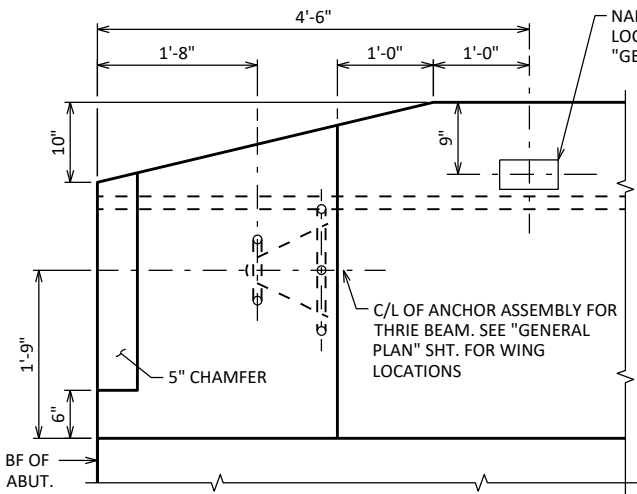
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	178	4'-5"	X		PARAPET VERT.
R502	X	178	6'-8"	X		PARAPET VERT.
R503	X	48	2'-9"	X		PARAPET VERT.
R504	X	68	4'-4"	X		PARAPET VERT.
R505	X	20	6'-5"	X		PARAPET VERT.
R506	X	24	6'-6"	X		PARAPET VERT.
R507	X	4	10'-10"	X		PARAPET HORIZ.
R508	X	20	10'-9"			PARAPET HORIZ.
R509	X	24	5'-5"	X	▲	PARAPET VERT.
R510	X	8	10'-11"	X		PARAPET HORIZ.
R511	X	32	30'-0"			PARAPET HORIZ.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

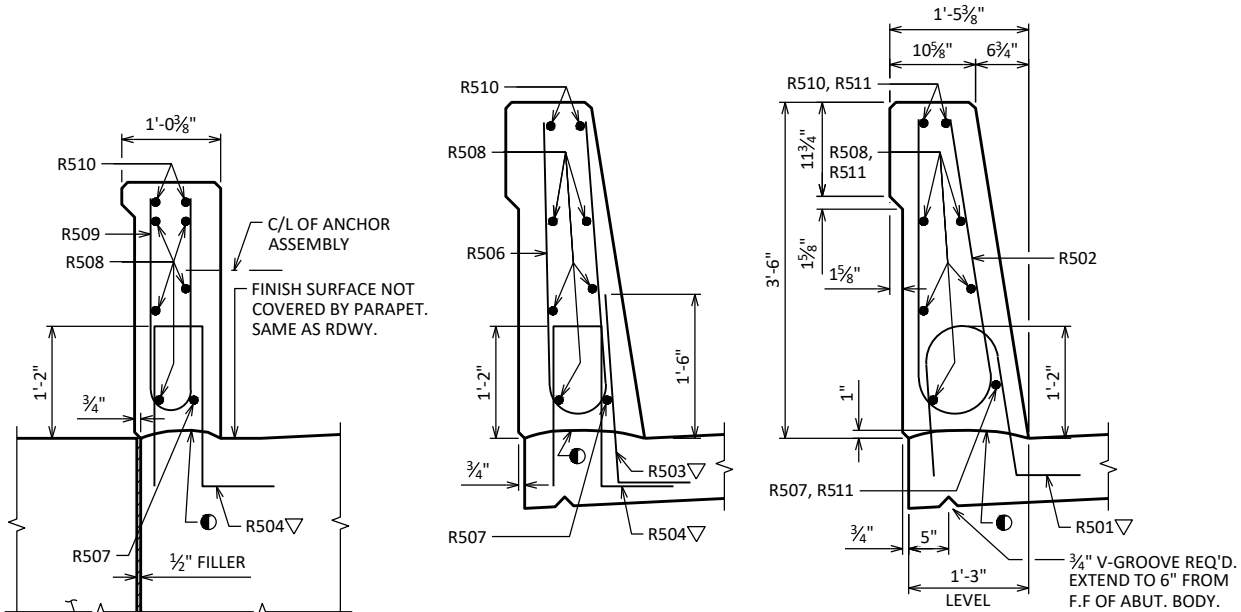
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



PARAPET END TREATMENT DETAIL

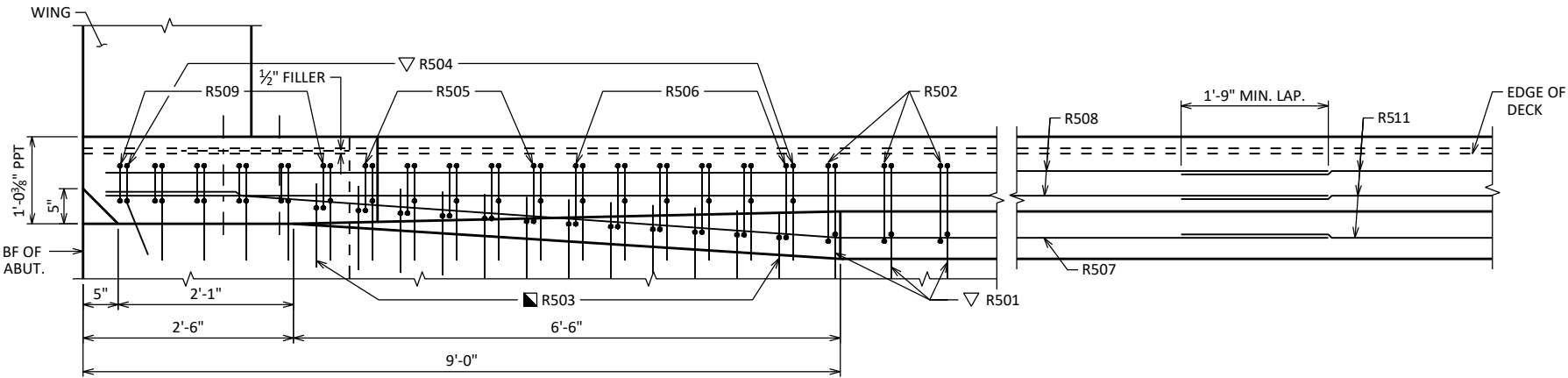
LOOKING AT INSIDE FACE OF PARAPET



SECTION A-A

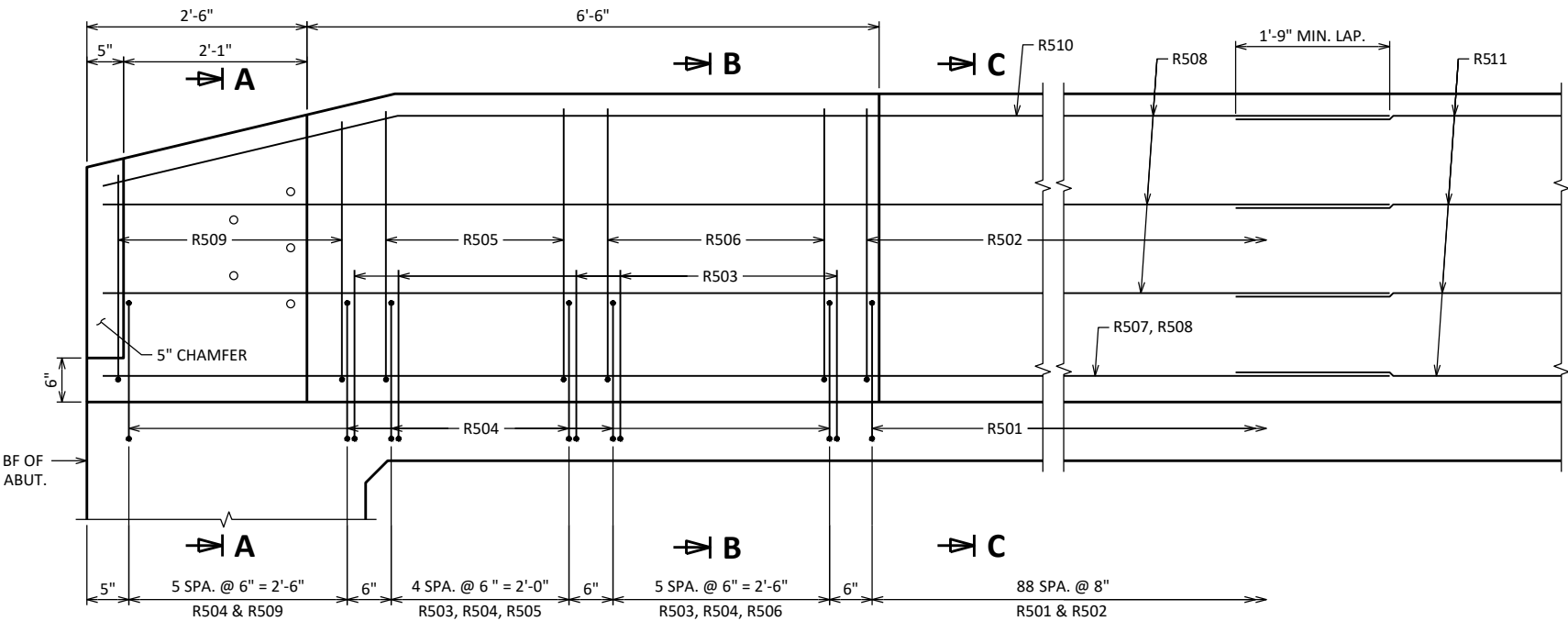
SECTION B-B

SECTION C-C



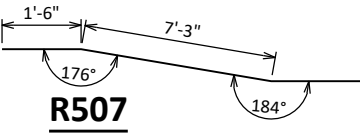
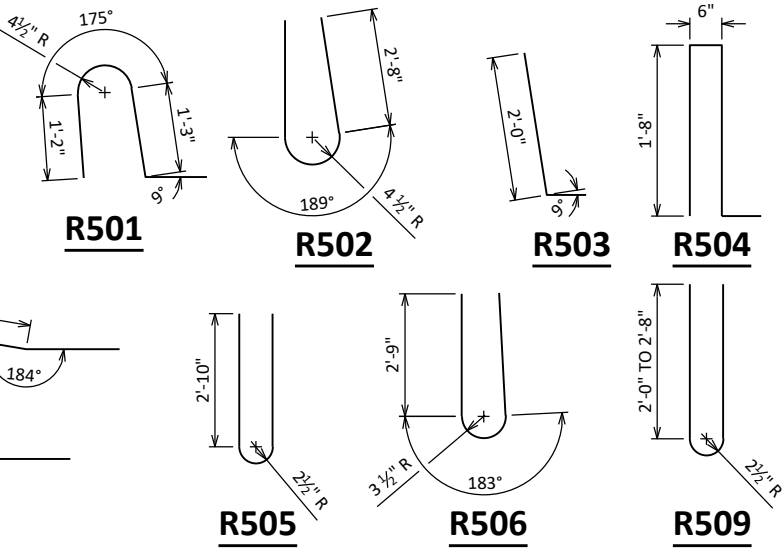
PLAN

SW CORNER SHOWN, OTHERS SIMILAR

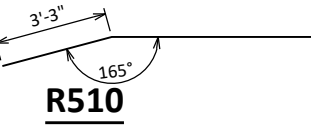


INSIDE ELEVATION

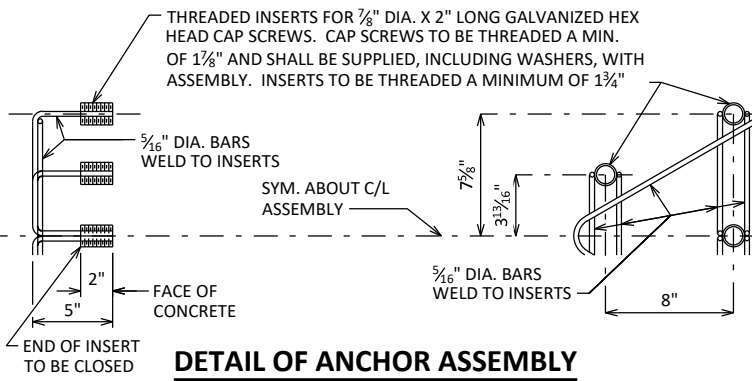
SW CORNER SHOWN, OTHERS SIMILAR



R507



R510



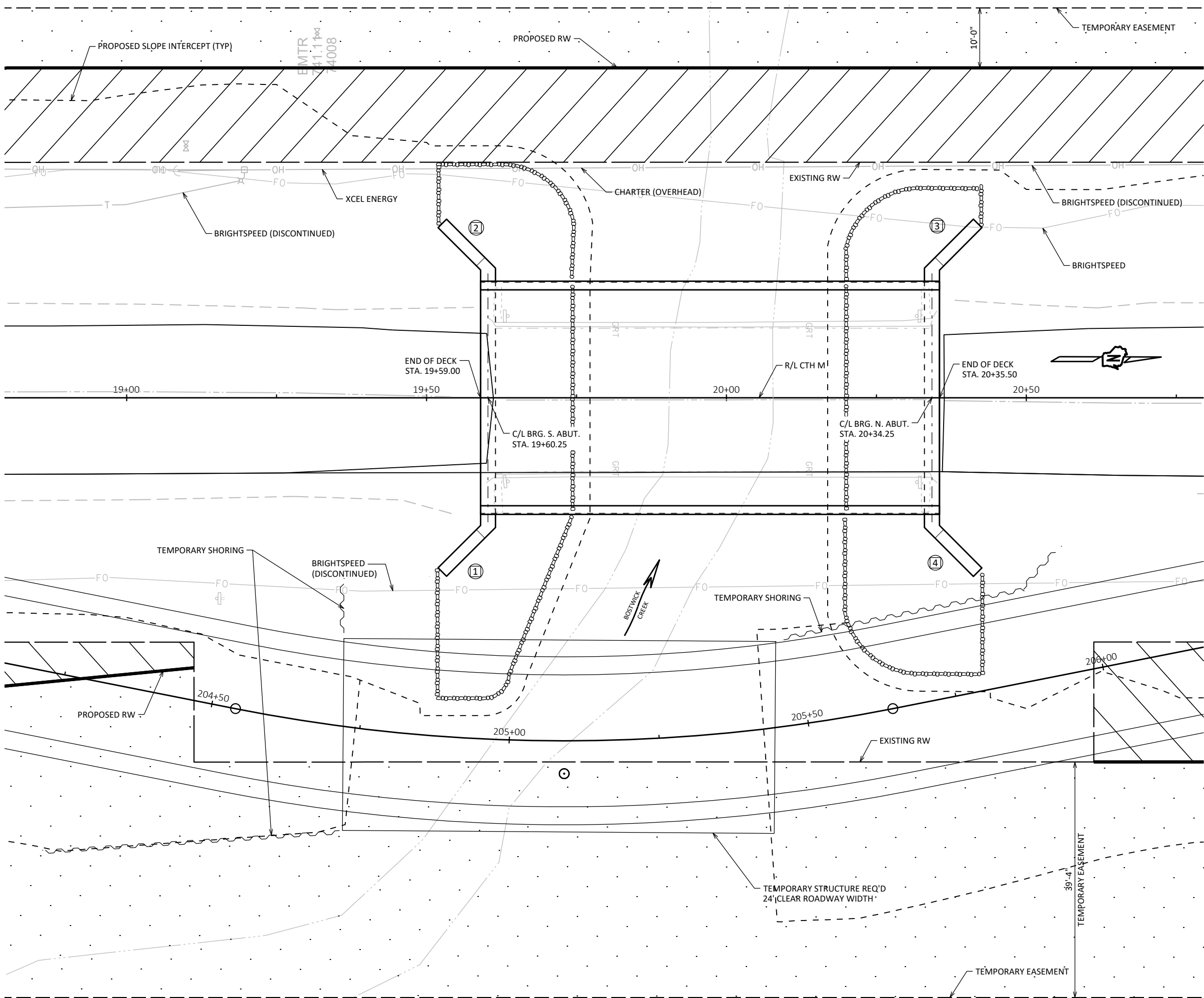
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
SINGLE SLOPE PARAPET 42SS		SHEET 14 92	

⊙ INDICATES WING NUMBER



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-585			
DRAWN BY JLA		PLANS CK'D RCP	
RIGHT OF WAY LIMITS		SHEET 15 93	

DIVISION 1 - CTH-M-BYPASS CONSTRUCTION											
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.30	NOTE 4
201+45.92	20145.92	0.00	6.89	0.00	3.77	0	0	0	0	0	0
201+50.00	20150.00	4.08	6.83	0.00	3.88	1	0	1	1	1	0
201+50.79	20150.79	0.79	6.83	0.00	3.90	0	0	0	1	1	0
201+71.97	20171.97	21.18	6.80	0.00	6.18	5	0	4	6	7	-1
201+75.00	20175.00	3.03	6.88	0.00	6.66	1	0	1	7	8	-1
202+00.00	20200.00	25.00	7.57	0.00	9.36	7	0	7	14	17	-3
202+25.00	20225.00	25.00	7.85	0.00	11.25	7	0	10	21	30	-9
202+44.29	20244.29	19.29	7.15	0.00	18.75	5	0	11	26	44	-18
202+50.00	20250.00	5.71	7.02	0.00	20.97	1	0	4	27	49	-22
202+75.00	20275.00	25.00	6.67	0.00	31.16	6	0	24	33	81	-48
202+76.00	20276.00	1.00	6.66	0.00	31.58	0	0	1	33	82	-49
203+00.00	20300.00	24.00	5.93	0.00	68.78	6	0	45	39	140	-101
203+11.37	20311.37	11.37	5.29	0.00	99.03	2	0	35	41	186	-145
203+25.00	20325.00	13.63	5.22	0.00	148.13	3	0	62	44	267	-223
203+32.17	20332.17	7.17	5.76	0.00	164.93	1	0	42	45	321	-276
203+37.71	20337.71	5.54	6.40	0.00	168.88	1	0	34	46	365	-319
203+40.68	20340.68	2.97	7.29	0.00	171.03	1	0	19	47	390	-343
203+50.00	20350.00	9.32	3.77	0.00	175.02	2	0	60	49	468	-419
203+53.16	20353.16	3.16	2.86	0.00	174.70	0	0	20	49	494	-445
203+75.00	20375.00	21.84	1.97	0.00	160.17	2	0	135	51	670	-619
204+00.00	20400.00	25.00	2.14	0.00	113.83	2	0	127	53	835	-782
204+04.63	20404.63	4.63	1.88	0.00	101.81	0	0	18	53	858	-805
204+25.00	20425.00	20.37	0.88	0.00	92.95	1	0	73	54	953	-899
204+50.00	20450.00	25.00	0.60	0.00	122.65	1	0	100	55	1083	-1028
204+60.60	20460.60	10.60	0.00	0.00	170.30	0	0	58	55	1158	-1103
204+72.14	20472.14	11.54	0.00	0.00	188.13	0	0	77	55	1258	-1203
TEMPORARY STRUCTURE											
205+44.24	20544.24	0.00	0.00	0.00	213.15	0	0	0	55	1258	-1203
205+50.00	20550.00	5.76	0.00	0.00	222.01	0	0	46	55	1318	-1263
205+64.09	20564.09	14.09	0.00	0.00	213.39	0	0	114	55	1466	-1411
205+75.00	20575.00	10.91	0.00	0.00	213.71	0	0	86	55	1578	-1523
205+86.02	20586.02	11.02	0.00	0.00	194.51	0	0	83	55	1686	-1631
205+92.27	20592.27	6.25	0.00	0.00	175.23	0	0	43	55	1742	-1687
206+00.00	20600.00	7.73	0.00	0.00	145.05	0	0	46	55	1802	-1747
206+11.49	20611.49	11.49	0.00	0.00	136.11	0	0	60	55	1880	-1825
206+25.00	20625.00	13.51	0.00	0.00	156.48	0	0	73	55	1975	-1920
206+50.00	20650.00	25.00	0.57	0.00	192.73	0	0	162	55	2185	-2130
206+72.62	20672.62	22.62	1.93	0.00	218.37	1	0	172	56	2409	-2353
206+75.00	20675.00	2.38	2.01	0.00	217.76	0	0	19	56	2434	-2378
206+95.95	20695.95	20.95	8.31	0.00	192.39	4	0	159	60	2640	-2580
206+99.55	20699.55	3.60	7.47	0.00	183.10	1	0	25	61	2673	-2612
207+00.00	20700.00	0.45	7.44	0.00	181.69	0	0	3	61	2677	-2616
207+23.22	20723.22	23.22	8.42	0.00	91.79	7	0	118	68	2830	-2762
207+25.00	20725.00	1.78	8.47	0.00	85.02	1	0	6	69	2838	-2769
207+39.72	20739.72	14.72	7.16	0.00	56.59	4	0	39	73	2889	-2816
207+50.00	20750.00	10.28	5.49	0.00	57.16	2	0	22	75	2917	-2842
207+75.00	20775.00	25.00	7.18	0.00	39.01	6	0	45	81	2976	-2895
208+00.00	20800.00	25.00	6.61	0.00	24.65	6	0	29	87	3013	-2926
208+06.50	20806.50	6.50	6.42	0.00	22.24	2	0	6	89	3021	-2932
208+09.98	20809.98	3.48	6.31	0.00	21.11	1	0	3	90	3025	-2935
208+25.00	20825.00	15.02	6.05	0.00	17.50	3	0	11	93	3039	-2946
208+50.00	20850.00	25.00	5.88	0.00	13.48	6	0	14	99	3058	-2959
208+75.00	20875.00	25.00	5.64	0.00	7.03	5	0	9	104	3069	-2965
208+79.62	20879.62	4.62	6.10	0.00	0.20	1	0	1	105	3071	-2966

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	CUT - SALVAGED PAVT - (FILL * FILL FACTOR)]

DIVISION 2 - CTH-M

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.30	NOTE 8
16+13.62	1613.62	0.00	0.00	0.00	0.00	0	0	0	0	0	0
16+50.00	1650.00	36.38	0.00	0.00	0.00	0	0	0	0	0	0
16+57.54	1657.54	7.54	0.00	0.00	0.00	0	0	0	0	0	0
16+72.79	1672.79	15.25	0.00	0.00	0.00	0	0	0	0	0	0
17+00.00	1700.00	27.21	0.00	0.00	0.00	0	0	0	0	0	0
17+12.58	1712.58	12.58	0.00	0.00	0.00	0	0	0	0	0	0
17+37.00	1737.00	24.42	70.63	10.00	0.00	32	5	0	32	0	27
17+47.76	1747.76	10.76	66.33	9.96	1.13	27	4	0	59	0	50
17+50.00	1750.00	2.24	66.77	9.97	1.98	6	1	0	65	0	55
17+62.58	1762.58	12.58	69.04	10.10	3.50	32	5	1	97	1	81
17+72.58	1772.58	10	69.41	10.15	4.67	26	4	2	123	4	100
17+94.02	1794.02	21.44	69.84	10.32	7.16	55	8	5	178	10	141
18+00.00	1800.00	5.98	70.28	10.54	7.44	16	2	2	194	13	152
18+19.00	1819.00	19	78.27	10.60	8.80	52	7	6	246	21	189
18+37.54	1837.54	18.54	88.32	10.46	10.39	57	7	7	303	30	230
18+43.98	1843.98	6.44	92.28	10.42	10.91	22	2	3	325	34	246
18+47.54	1847.54	3.56	92.75	10.39	11.17	12	1	1	337	35	256
18+50.00	1850.00	2.46	93.48	10.38	11.38	8	1	1	345	36	262
18+69.02	1869.02	19.02	95.38	10.30	18.46	67	7	11	412	51	307
18+94.00	1894.00	24.98	94.53	10.31	27.30	88	10	21	500	78	358
19+00.00	1900.00	6	95.23	10.32	28.67	21	2	6	521	86	369
19+18.73	1918.73	18.73	90.96	10.27	35.40	65	7	22	586	114	399
19+18.98	1918.98	0.25	90.85	10.27	35.56	1	0	0	587	114	400
19+50.00	1950.00	31.02	64.66	9.36	145.64	89	11	104	676	250	342
19+58.04	1958.04	8.04	59.78	9.07	32.54	19	3	27	695	285	323
19+59.00	1959.00	0.96	59.36	9.04	27.51	2	0	1	697	286	324
STRUCTURE											
20+35.50	2035.50	0	62.70	0.00	18.42	0	0	0	697	286	324
20+36.46	2036.46	0.96	61.87	9.51	21.21	2	0	1	699	287	325
20+50.00	2050.00	13.54	70.51	9.88	45.88	33	5	17	732	309	331
20+75.52	2075.52	25.52	80.78	10.32	24.90	71	10	33	803	352	349
20+75.77	2075.77	0.25	80.84	10.32	24.79	1	0	0	804	352	350
21+00.00	2100.00	24.23	82.70	10.41	17.15	73	9	19	877	377	389
21+00.50	2100.50	0.5	82.78	10.41	17.33	2	0	0	879	377	391
21+25.48	2125.48	24.98	83.30	10.32	32.61	77	10	23	956	407	428
21+46.96	2146.96	21.48	70.23	10.30	50.77	61	8	33	1017	450	438
21+50.00	2150.00	3.04	68.02	10.26	54.46	8	1	6	1025	458	437
21+50.52	2150.52	0.52	87.73	10.24	55.37	1	0	1	1026	459	437
21+56.96	2156.96	6.44	64.77	9.86	57.60	18	2	13	1044	476	436
21+75.50	2175.50	18.54	63.34	9.81	66.51	44	7	43	1088	532	417
22+00.00	2200.00	24.5	63.70	9.77	79.29	58	9	66	1146	618	381
22+00.48	2200.48	0.48	63.73	9.77	79.56	1	0	1	1147	619	380
22+21.92	2221.92	21.44	65.72	9.72	69.98	51	8	59	1198	696	347
22+31.92	2231.92	10	66.37	9.71	64.61	24	4	25	1222	728	334
22+46.78	2246.78	14.86	67.61	9.68	56.60	37	5	33	1259	771	323
22+50.00	2250.00	3.22	67.99	9.68	54.79	8	1	7	1267	780	321
22+81.92	2281.92	31.92	66.00	9.62	41.81	79	11	57	1346	854	315
23+00.00	2300.00	18.08	6.74	0.00	34.22	24	3	25	1370	887	303
23+21.71	2321.71	21.71	6.82	0.00	17.90	5	0	21	1375	914	281
23+44.54	2344.54	22.83	6.49	0.00	8.17	6	0	11	1381	928	273
23+50.00	2350.00	5.46	6.77	0.00	6.87	1	0	2	1382	931	271
23+57.40	2357.40	7.4	7.15	0.00	3.73	2	0	1	1384	932	272

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	CUT - SALVAGED PAVT - (FILL * FILL FACTOR)]

PROJECT NO: 5436-00-77

HWY: CTH M

COUNTY: LA CROSSE

EARTHWORK DATA

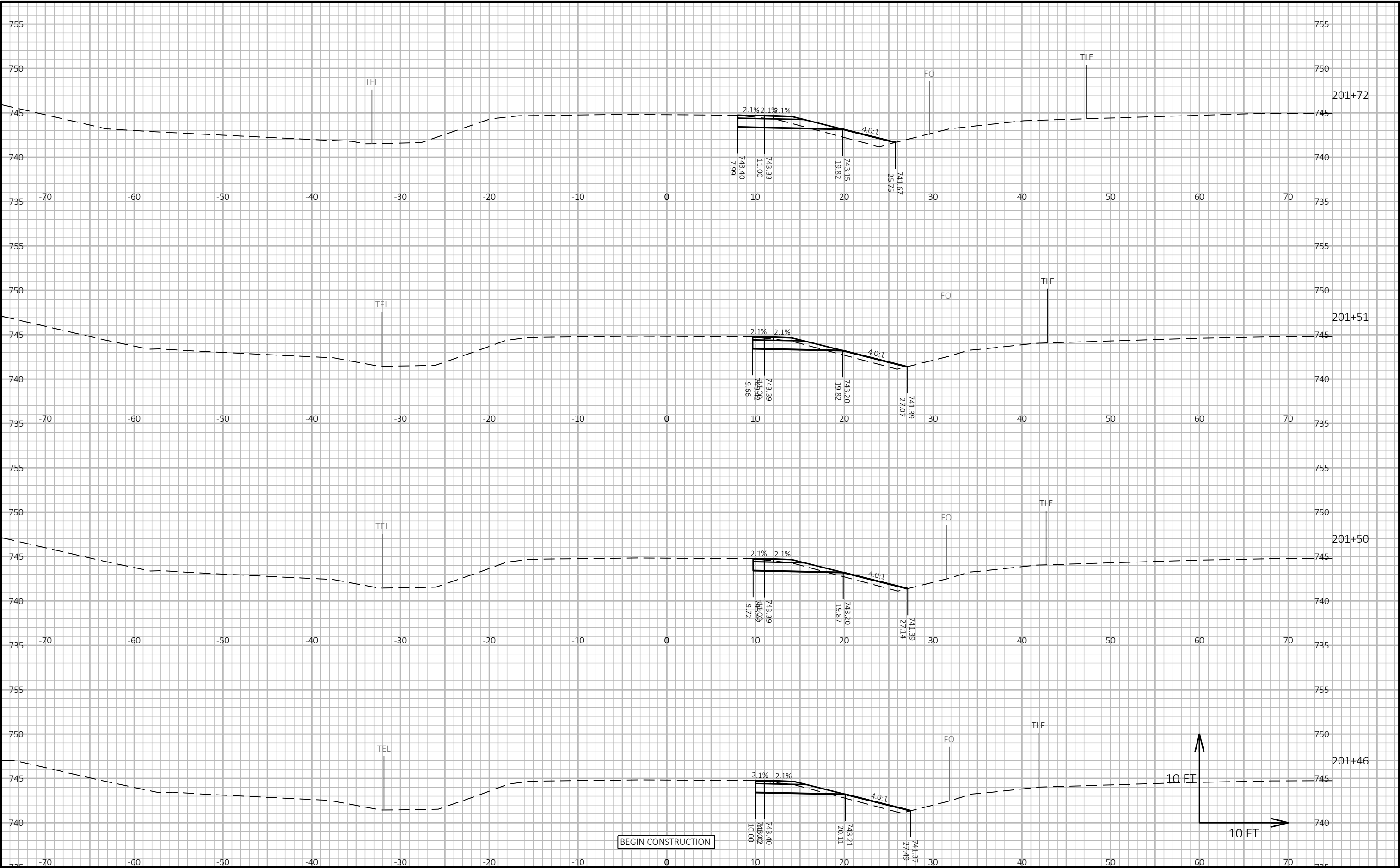
SHEET

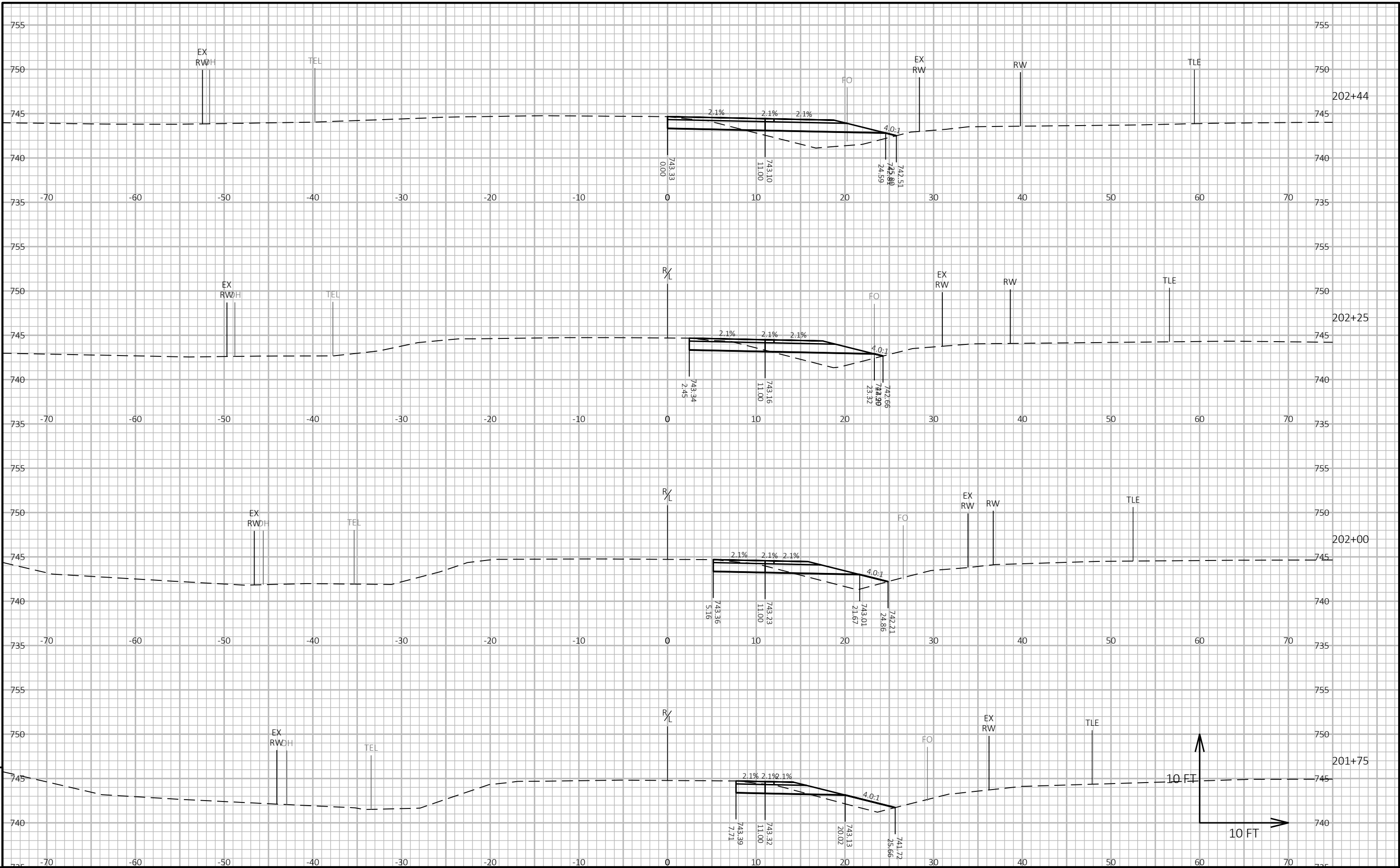
95

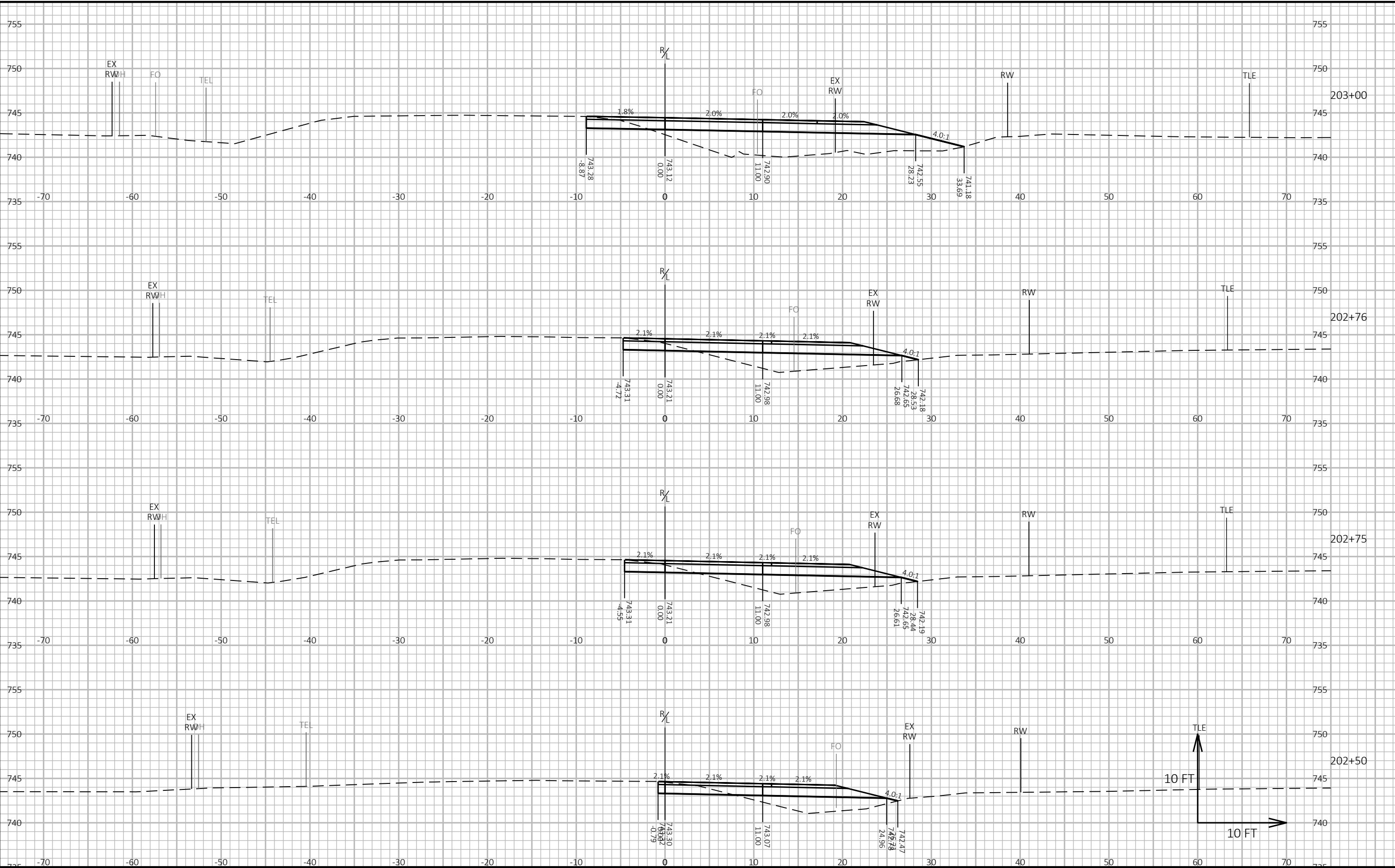
E

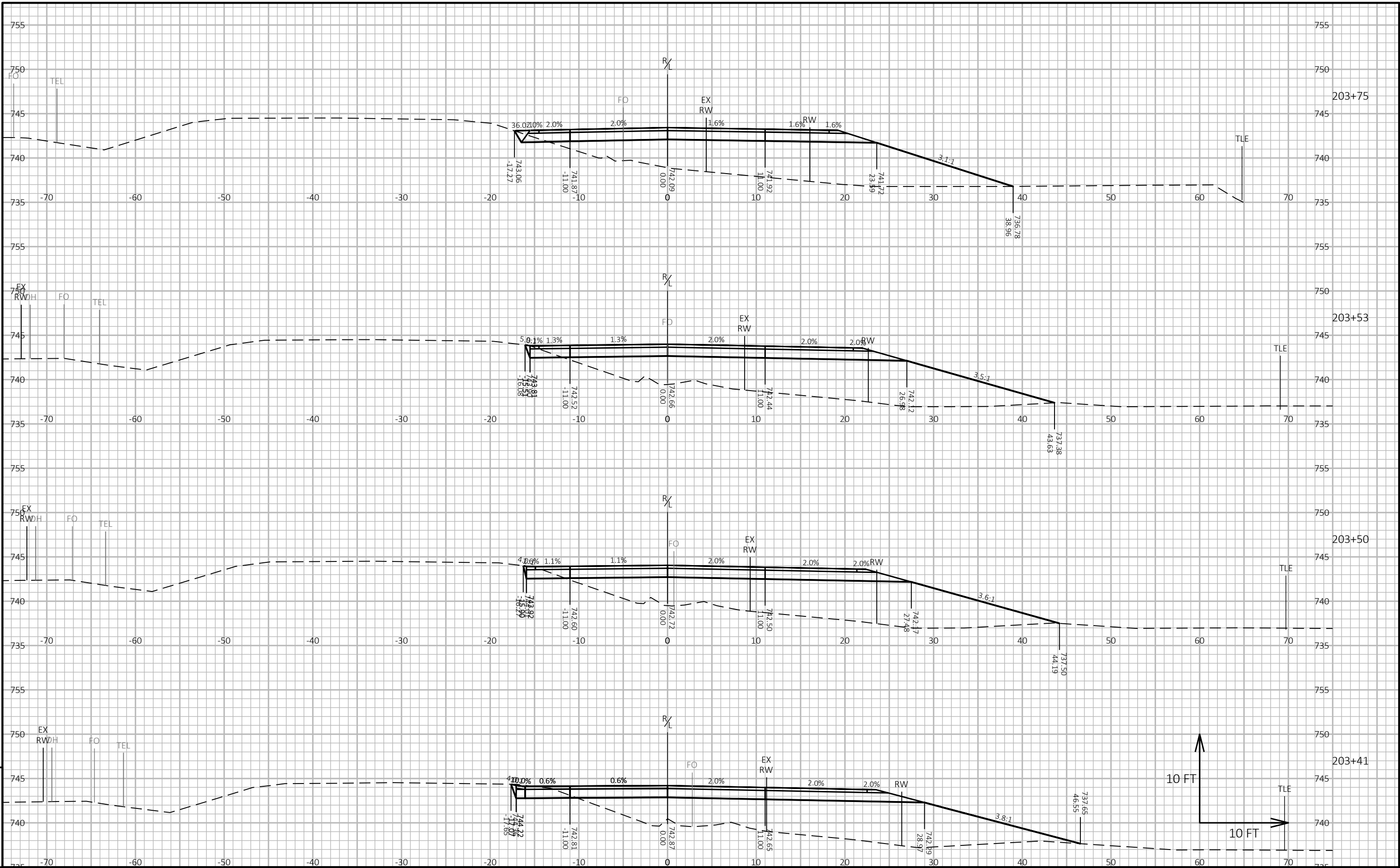
DIVISION 3 - CTH-M-BYPASS REMOVAL											
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.30	NOTE 8
201+45.92	20145.92	0.00	0.00	0.00	0.00	0	0	0	0	0	0
201+50.00	20150.00	4.08	0.00	4.84	0.00	0	0	0	0	0	0
201+50.79	20150.79	0.79	0.00	4.78	0.00	0	0	0	0	0	0
201+71.97	20171.97	21.18	0.00	7.03	0.00	0	5	0	0	0	-5
201+75.00	20175.00	3.03	0.00	7.90	0.00	0	1	0	0	0	-6
202+00.00	20200.00	25.00	26.93	2.47	0.00	12	5	0	12	0	1
202+25.00	20225.00	25.00	41.56	3.31	0.00	32	3	0	44	0	30
202+44.29	20244.29	19.29	43.76	3.96	0.00	30	3	0	74	0	57
202+50.00	20250.00	5.71	44.12	4.24	0.00	9	1	0	83	0	65
202+75.00	20275.00	25.00	68.05	5.52	0.00	52	5	0	135	0	112
202+76.00	20276.00	1.00	69.00	5.57	0.00	3	0	0	138	0	115
203+00.00	20300.00	24.00	98.10	8.67	0.00	74	6	0	212	0	183
203+11.37	20311.37	11.37	117.92	10.13	0.00	45	4	0	257	0	224
203+25.00	20325.00	13.63	168.21	11.99	0.00	72	6	0	329	0	290
203+32.17	20332.17	7.17	179.45	12.96	0.00	46	3	0	375	0	333
203+37.71	20337.71	5.54	180.89	13.11	0.00	37	3	0	412	0	367
203+40.68	20340.68	2.97	181.40	12.85	0.00	20	1	0	432	0	386
203+50.00	20350.00	9.32	174.94	12.08	0.00	62	4	0	494	0	444
203+53.16	20353.16	3.16	173.23	11.81	0.00	20	1	0	514	0	463
203+75.00	20375.00	21.84	157.44	10.90	0.00	134	9	0	648	0	588
204+00.00	20400.00	25.00	135.78	9.52	0.39	136	9	0	784	0	715
204+04.63	20404.63	4.63	121.68	9.49	0.19	22	2	0	806	0	735
204+25.00	20425.00	20.37	120.90	9.67	0.00	92	7	0	898	0	820
204+50.00	20450.00	25.00	164.33	9.79	0.00	132	9	0	1030	0	943
204+60.60	20460.60	10.60	196.30	9.90	0.00	71	4	0	1101	0	1010
204+72.14	20472.14	11.54	211.72	10.67	0.00	87	4	0	1188	0	1093
TEMPORARY STRUCTURE											
205+44.24	20544.24	0.00	257.69	10.94	0.00	0	0	0	1188	0	1093
205+50.00	20550.00	5.76	242.61	10.57	0.00	53	2	0	1241	0	1144
205+64.09	20564.09	14.09	249.84	9.80	0.00	128	5	0	1369	0	1267
205+75.00	20575.00	10.91	256.46	9.71	0.00	102	4	0	1471	0	1365
205+86.02	20586.02	11.02	206.23	9.67	0.00	94	4	0	1565	0	1455
205+92.27	20592.27	6.25	174.31	9.67	0.00	44	2	0	1609	0	1497
206+00.00	20600.00	7.73	133.80	9.67	0.00	44	3	0	1653	0	1538
206+11.49	20611.49	11.49	122.71	9.33	0.26	55	4	0	1708	0	1589
206+25.00	20625.00	13.51	137.10	9.63	0.64	65	5	0	1773	0	1649
206+50.00	20650.00	25.00	168.94	11.27	0.00	142	10	0	1915	0	1781
206+72.62	20672.62	22.62	208.90	12.21	0.00	158	10	0	2073	0	1929
206+75.00	20675.00	2.38	211.02	12.15	0.00	19	1	0	2092	0	1947
206+95.95	20695.95	20.95	204.98	11.63	0.00	161	9	0	2253	0	2099
206+99.55	20699.55	3.60	195.76	11.52	0.00	27	2	0	2280	0	2124
207+00.00	20700.00	0.45	194.65	11.46	0.00	3	0	0	2283	0	2127
207+23.22	20723.22	23.22	142.55	8.60	0.00	145	9	0	2428	0	2263
207+25.00	20725.00	1.78	138.72	8.50	0.00	9	1	0	2437	0	2271
207+39.72	20739.72	14.72	111.71	7.67	0.00	68	4	0	2505	0	2335
207+50.00	20750.00	10.28	96.68	7.08	0.00	40	3	0	2545	0	2372
207+75.00	20775.00	25.00	63.86	5.66	0.00	74	6	0	2619	0	2440
208+00.00	20800.00	25.00	46.03	4.34	0.00	51	5	0	2670	0	2486
208+06.50	20806.50	6.50	42.81	4.02	0.00	11	1	0	2681	0	2496
208+09.98	20809.98	3.48	41.01	3.85	0.00	5	1	0	2686	0	2500
208+25.00	20825.00	15.02	31.05	3.15	0.00	20	2	0	2706	0	2518
208+50.00	20850.00	25.00	23.46	2.14	0.00	25	2	0	2731	0	2541
208+75.00	20875.00	25.00	15.20	1.29	0.04	18	2	0	2749	0	2557
208+79.62	20879.62	4.62	11.59	1.16	0.05	2	0	0	2751	0	2559

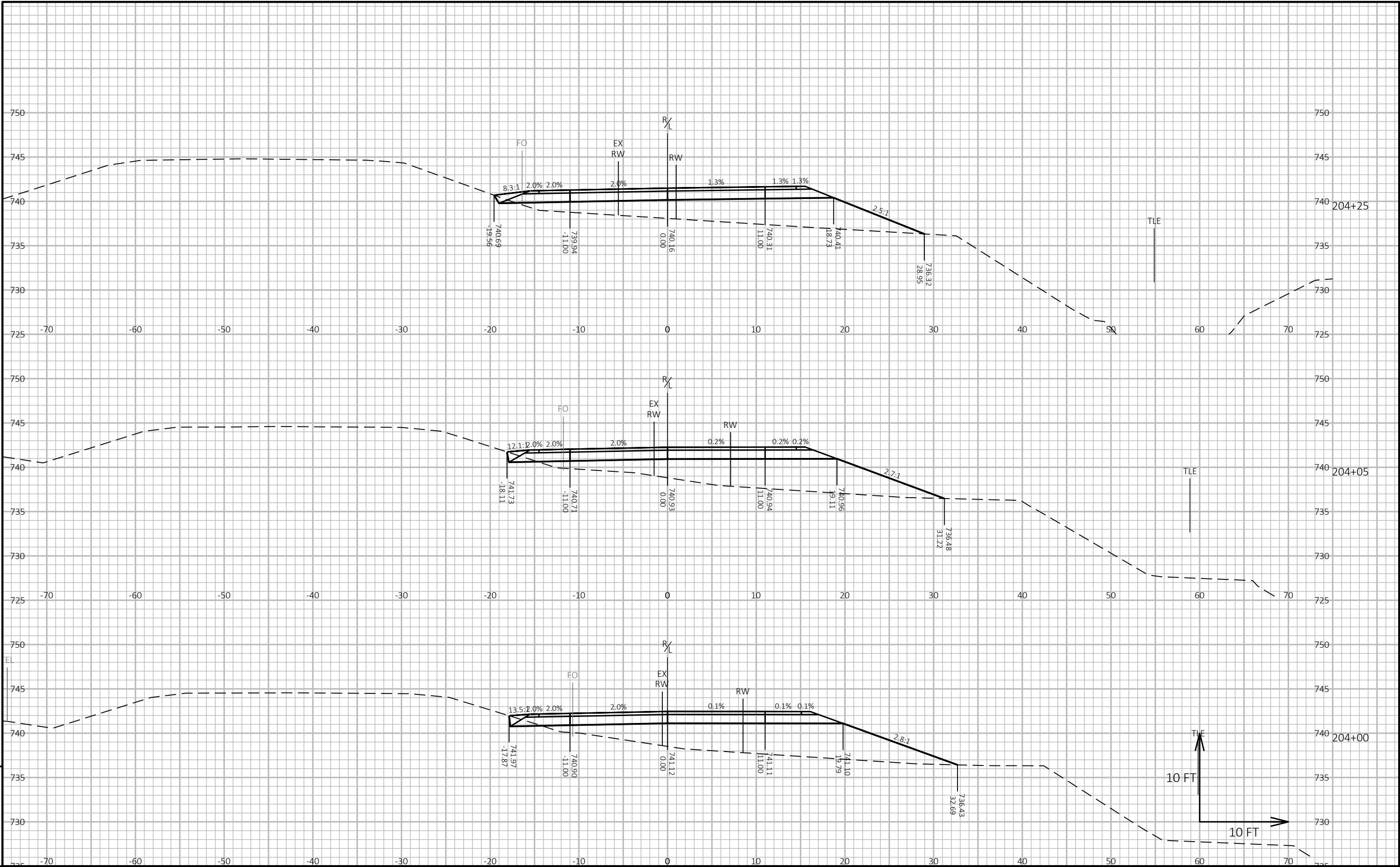
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	CUT - SALVAGED PAVT - (FILL * FILL FACTOR)]

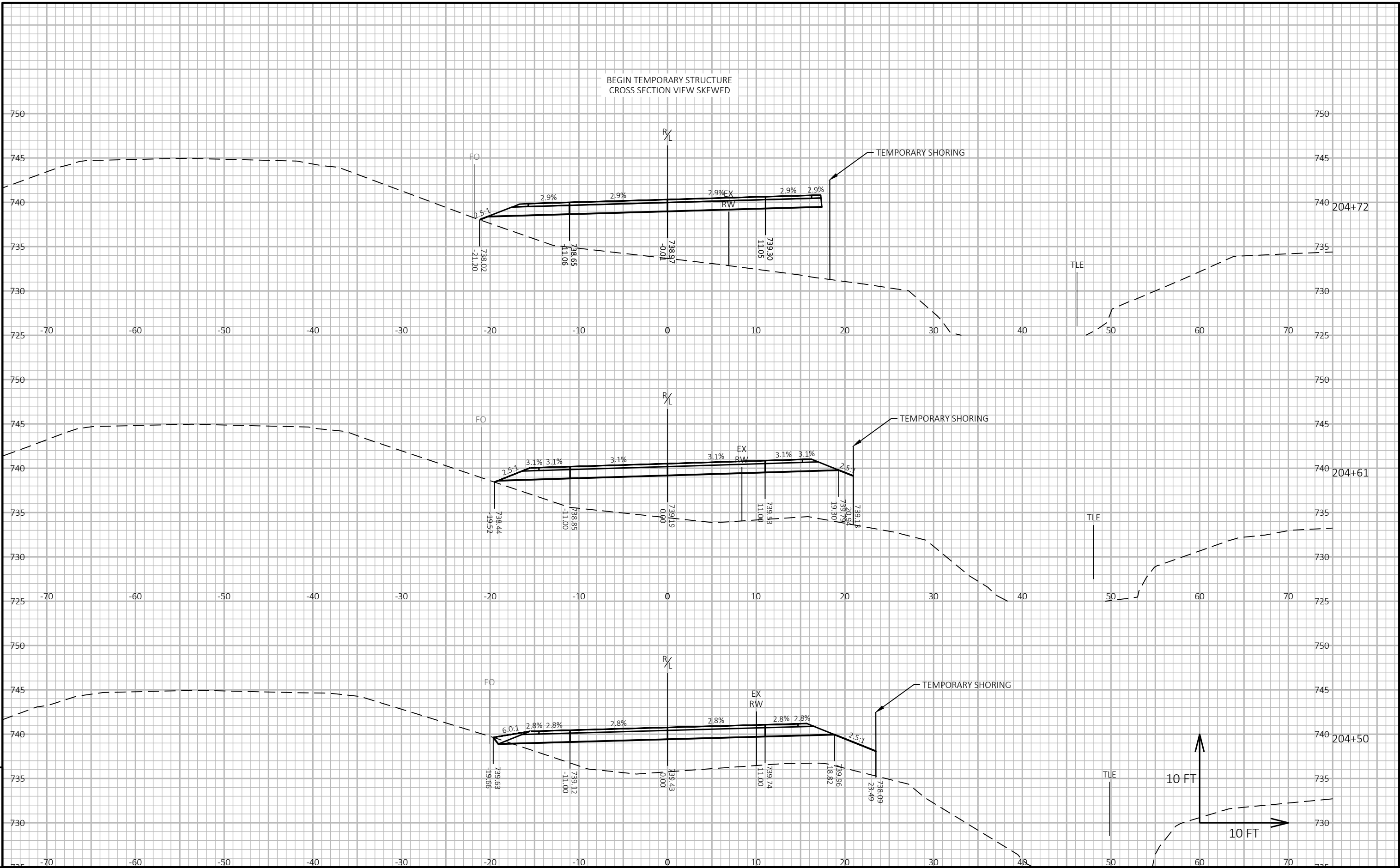


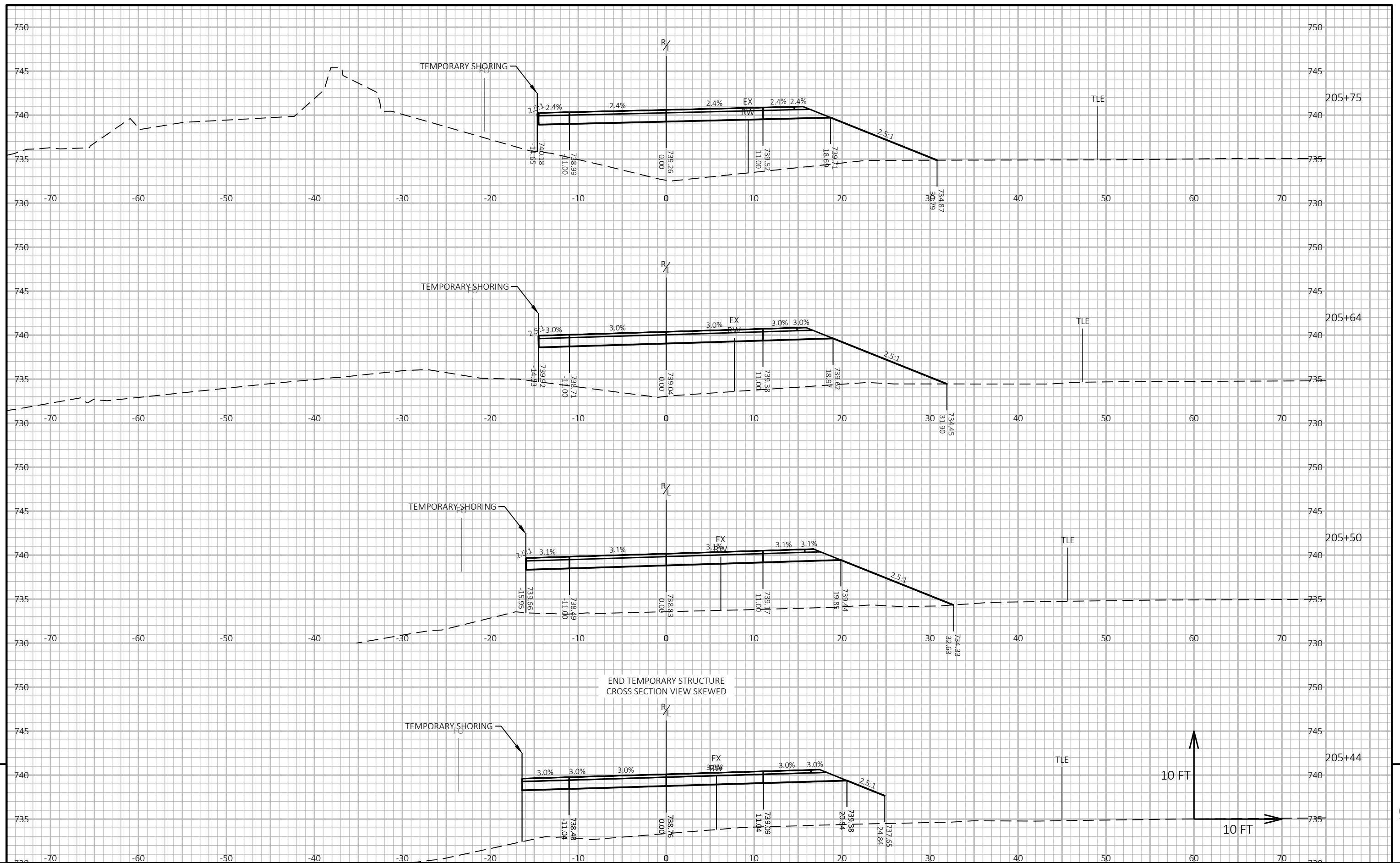


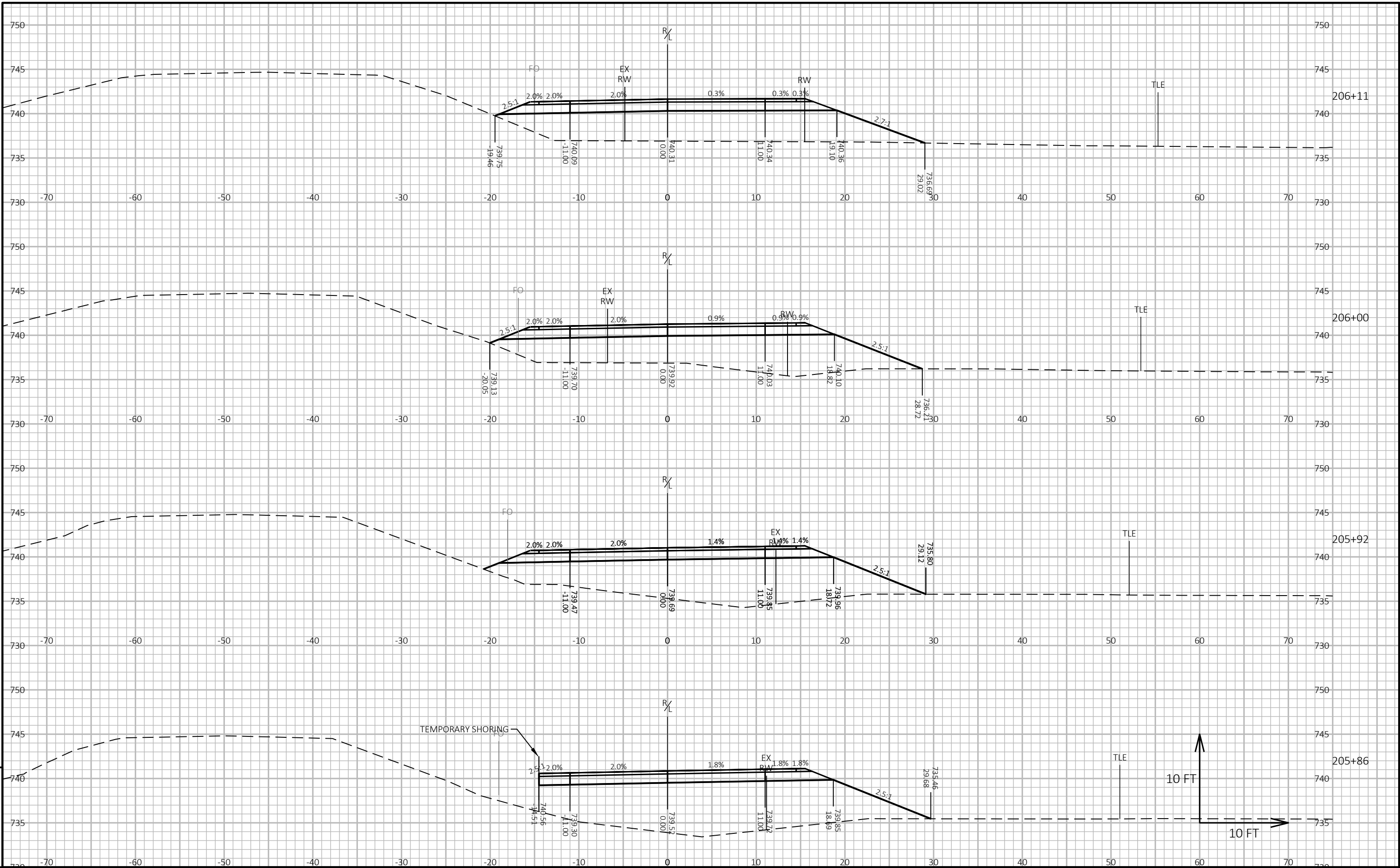


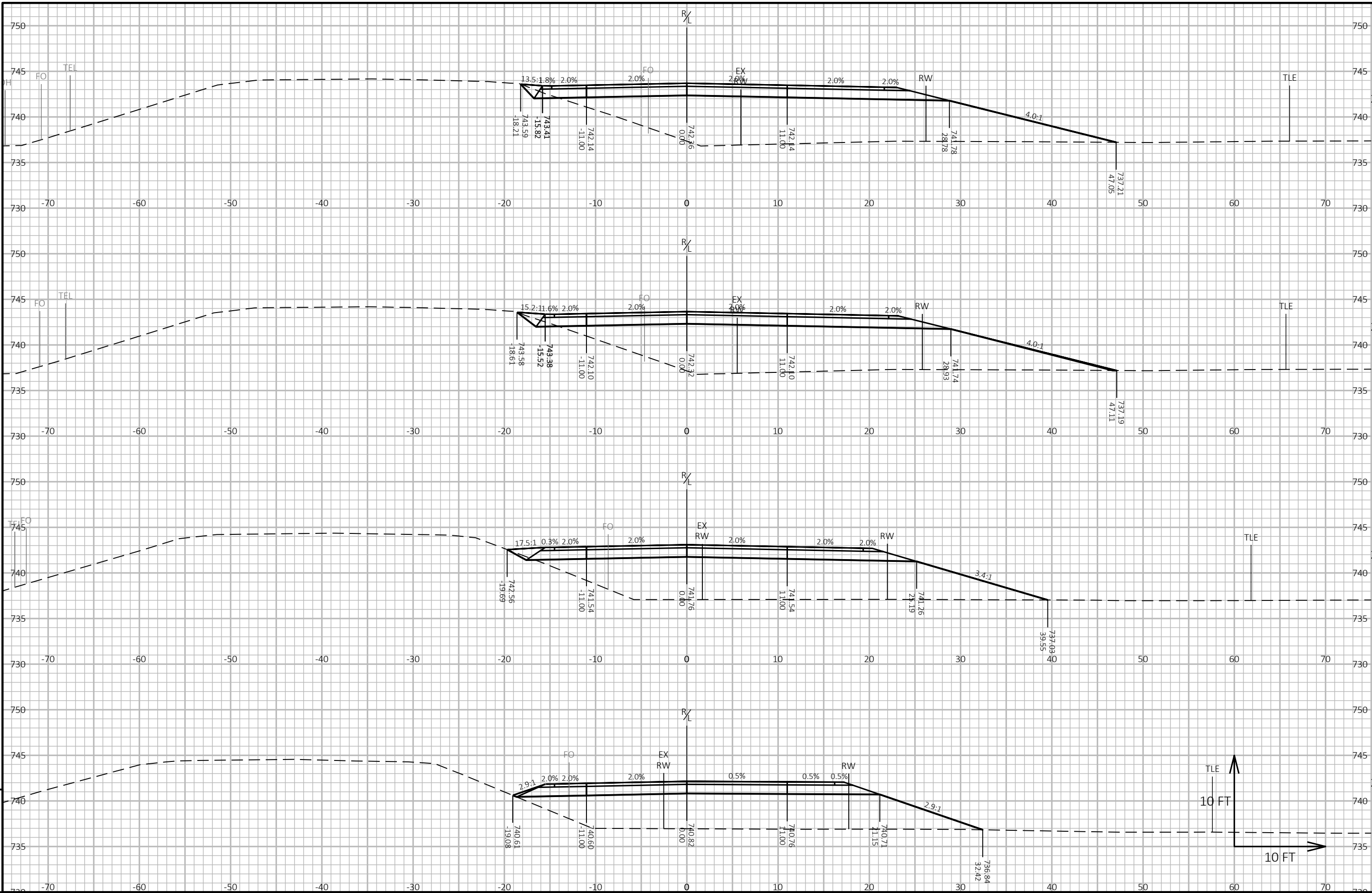


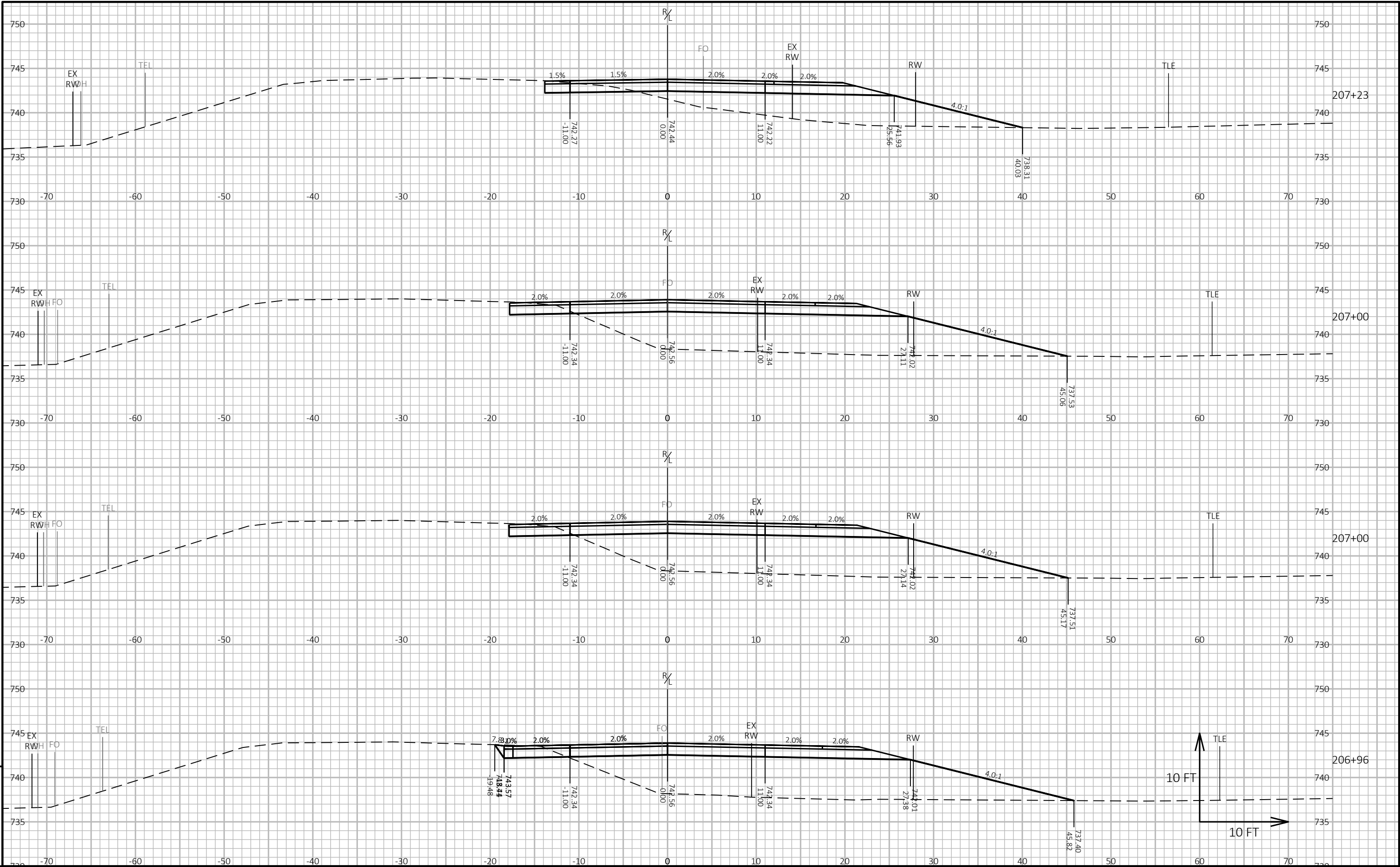


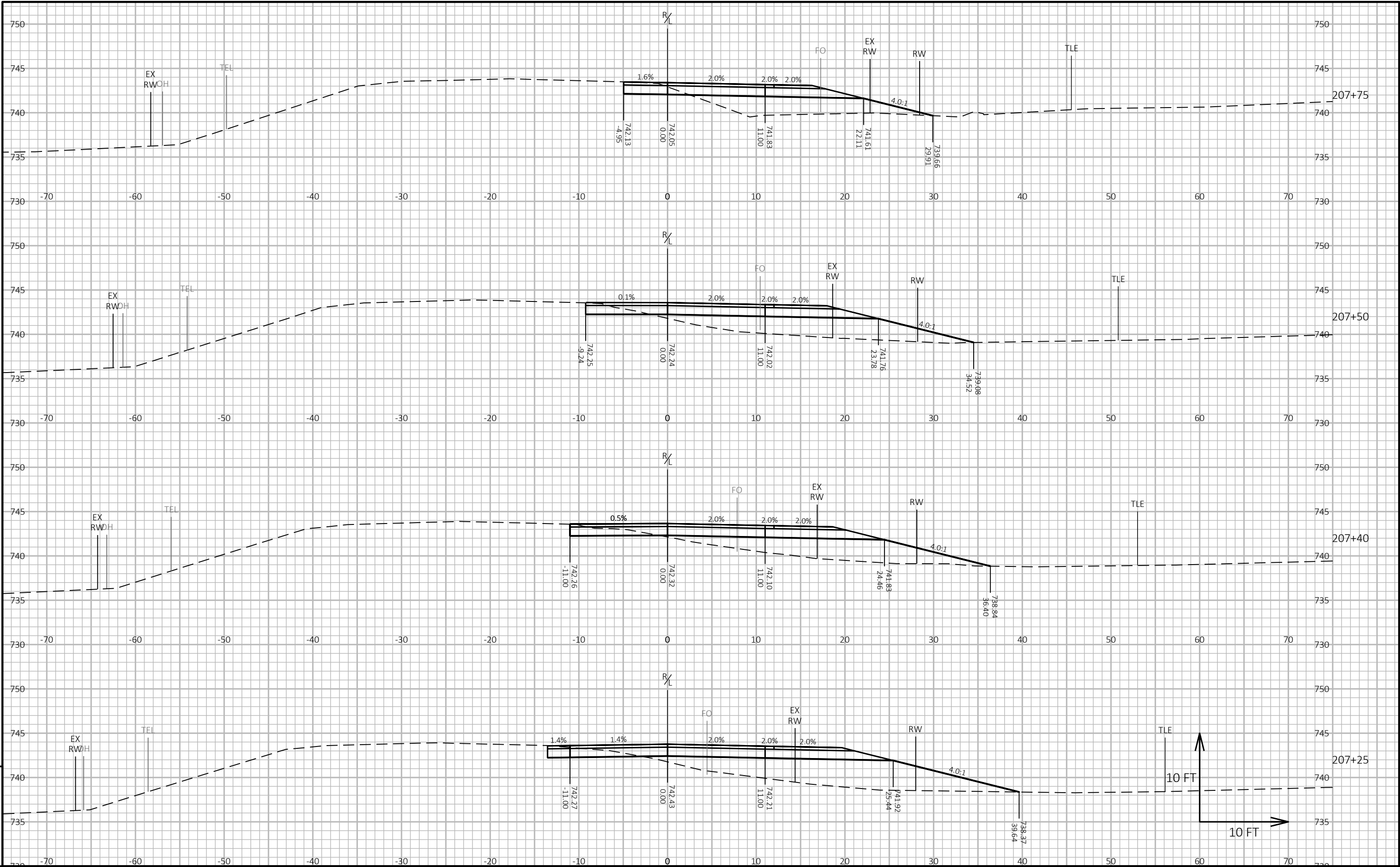


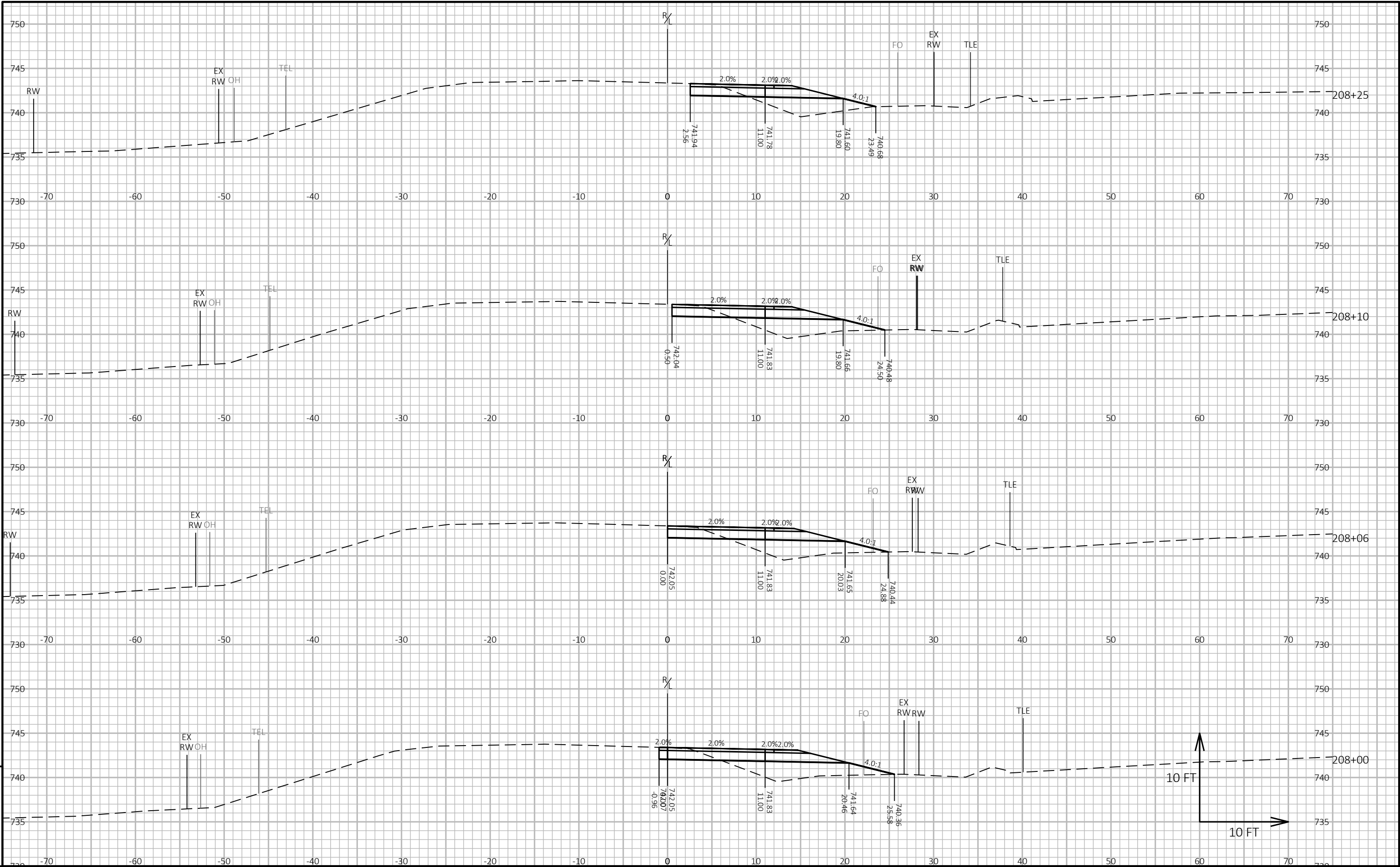


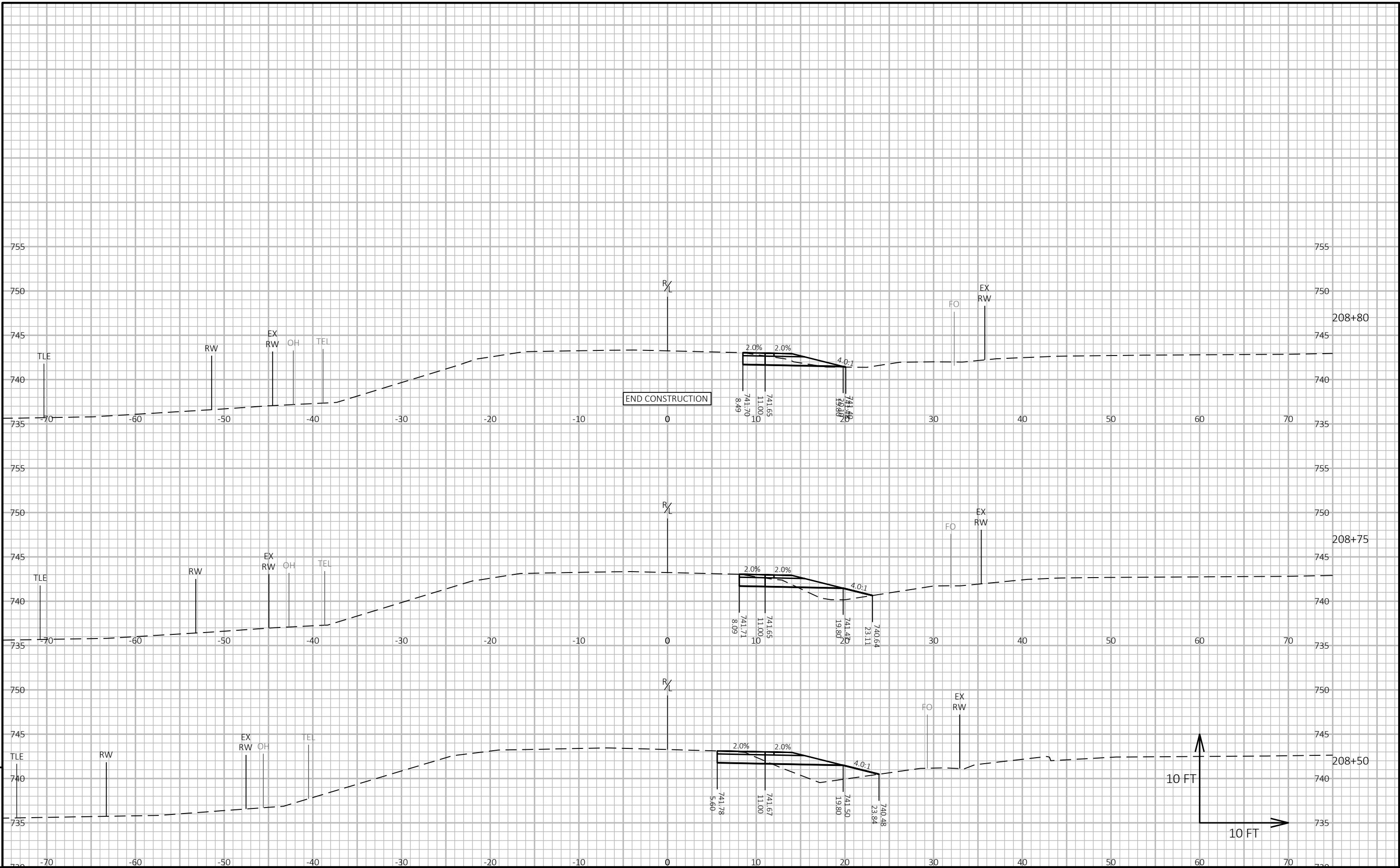


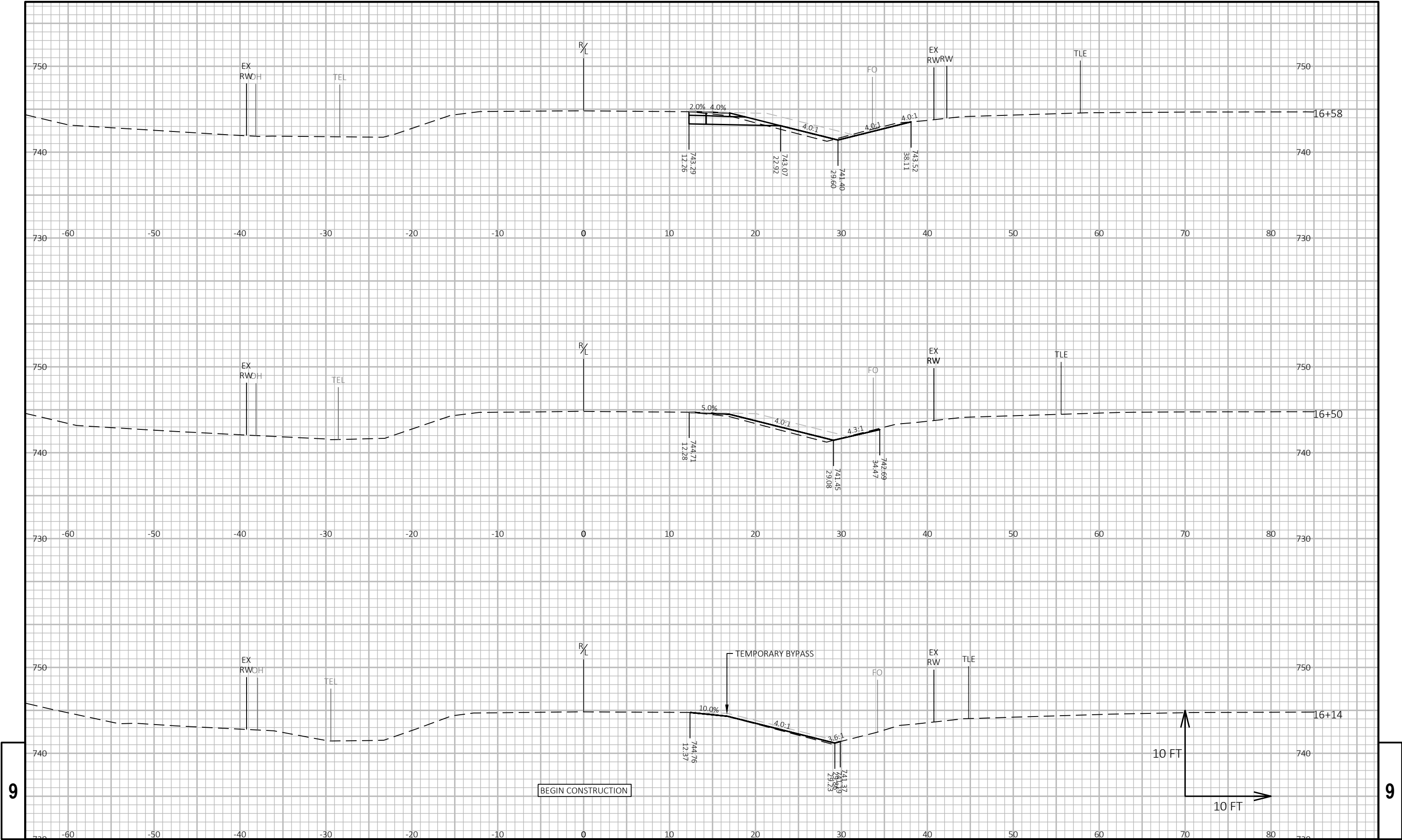


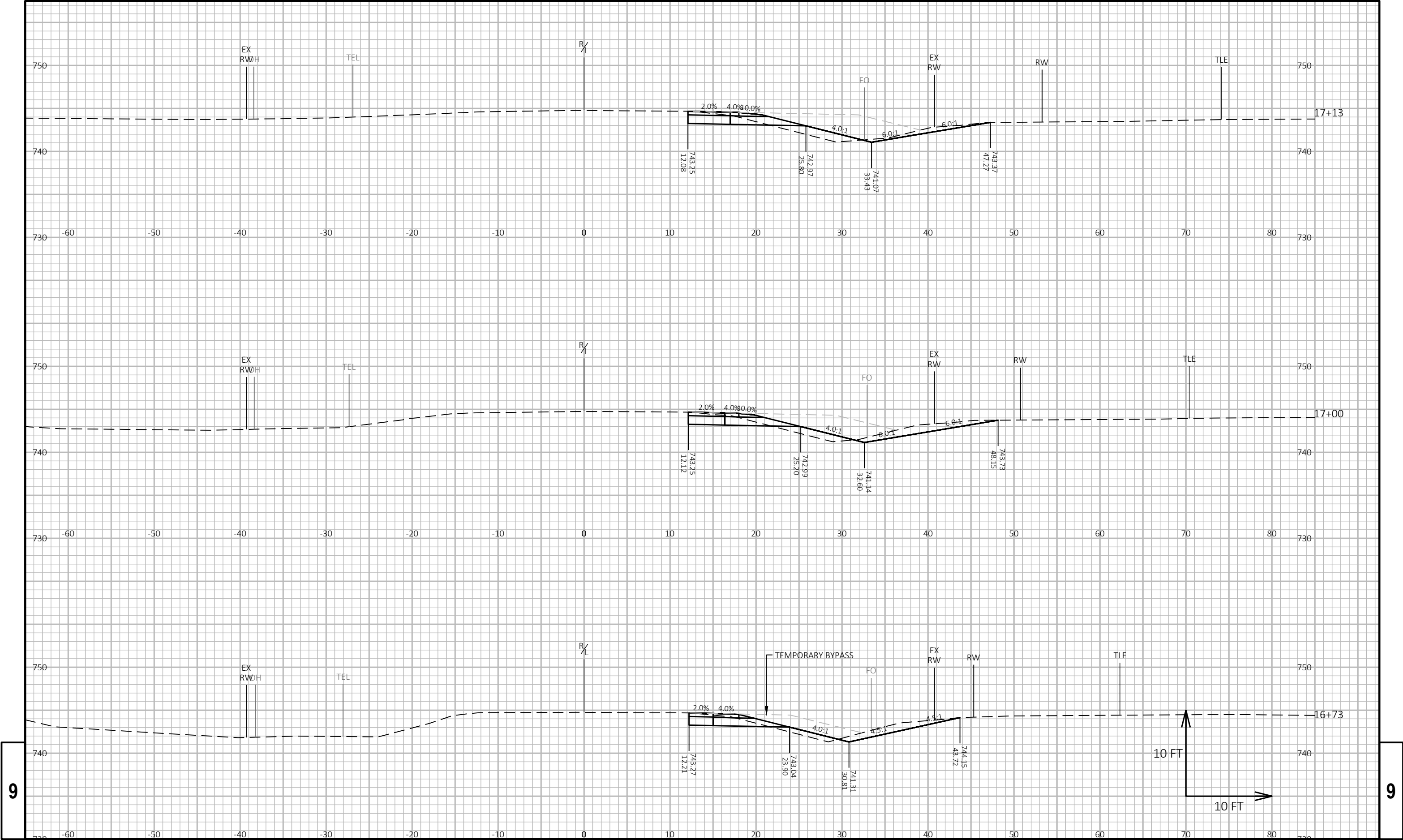


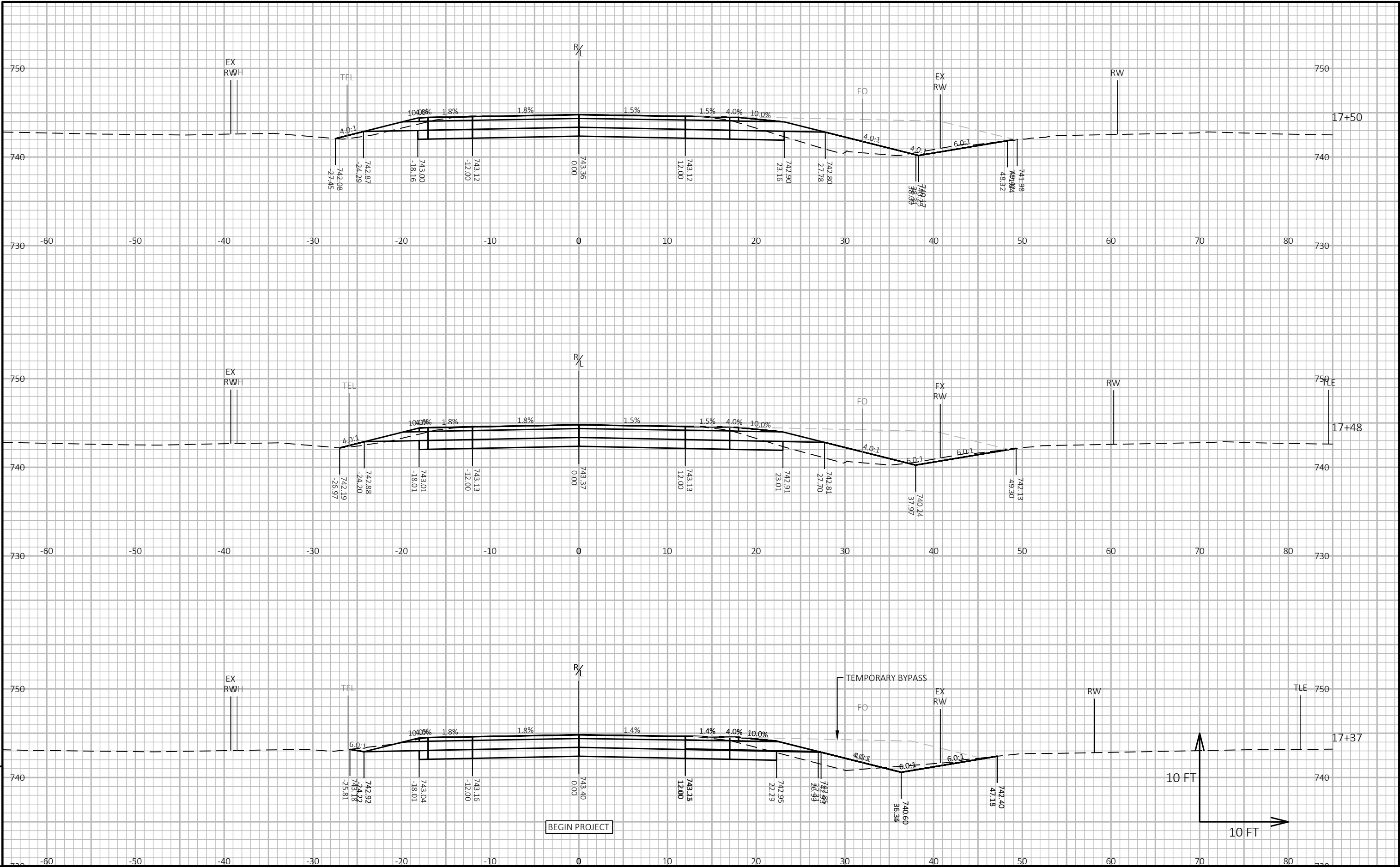


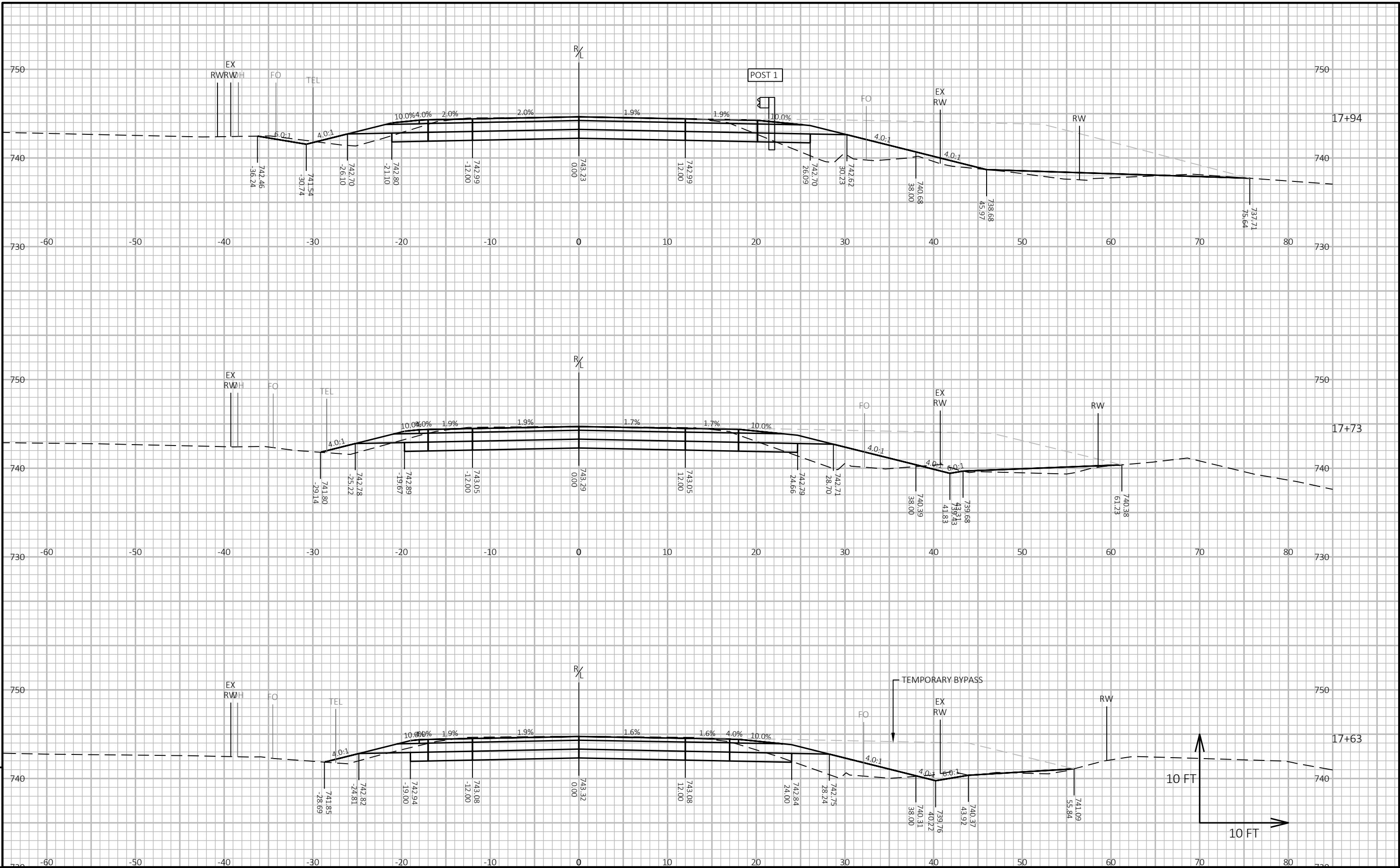


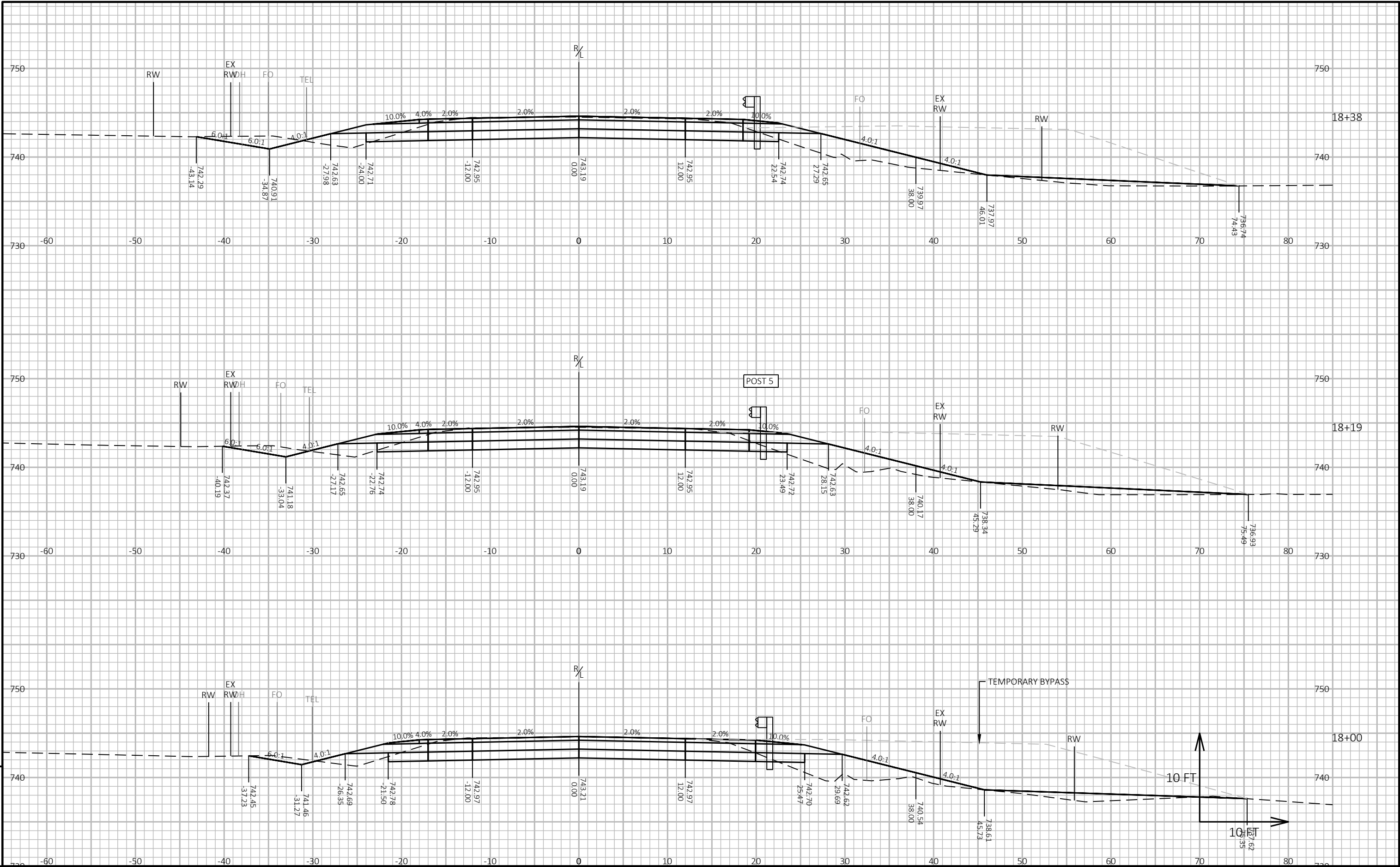


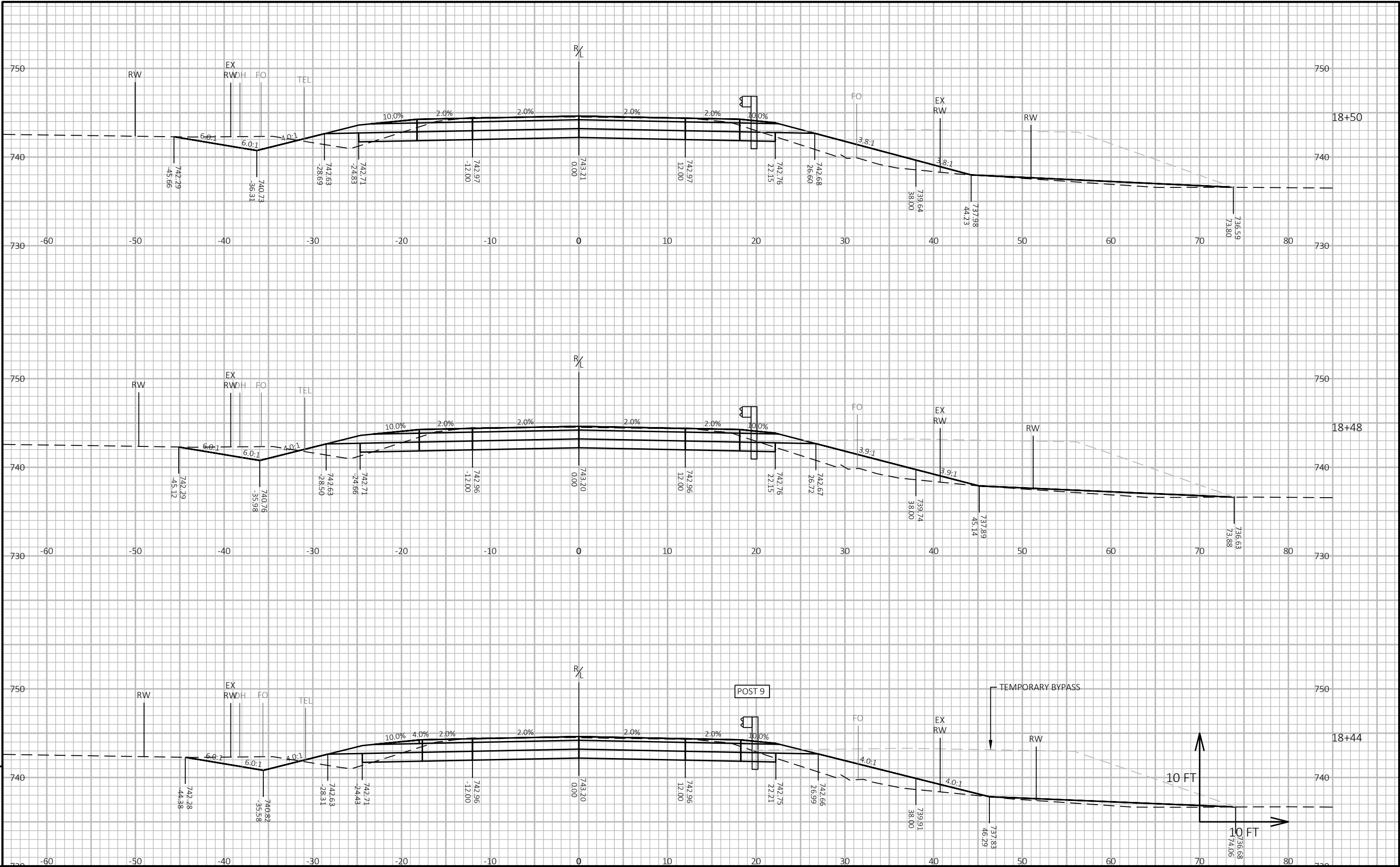


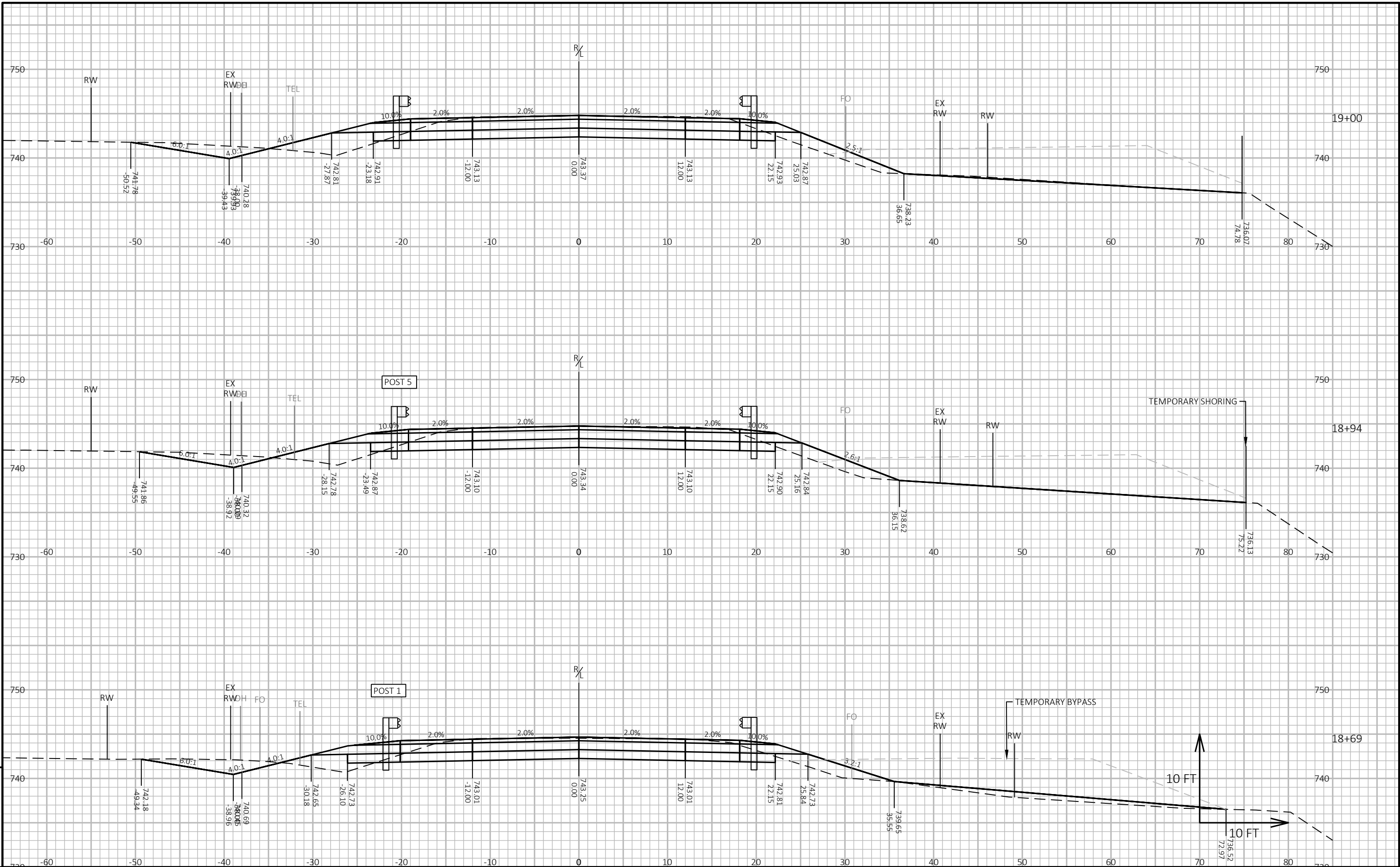


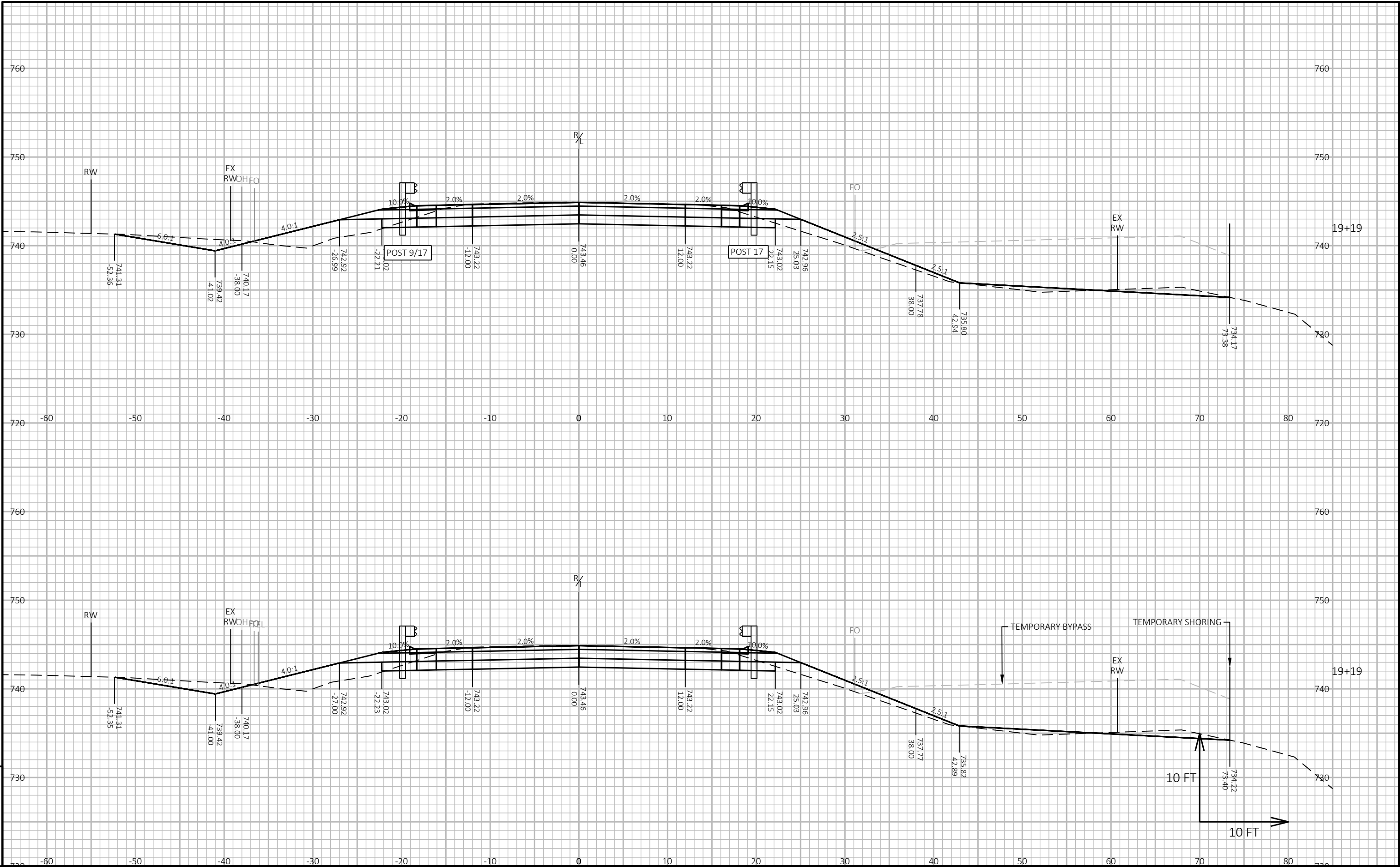


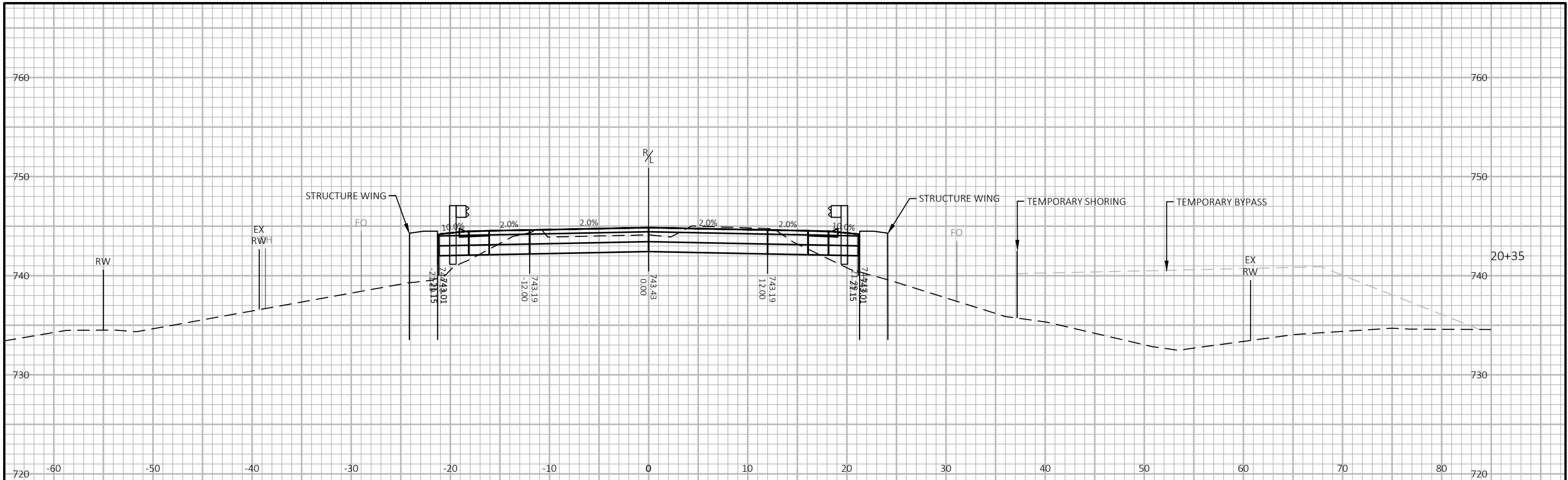




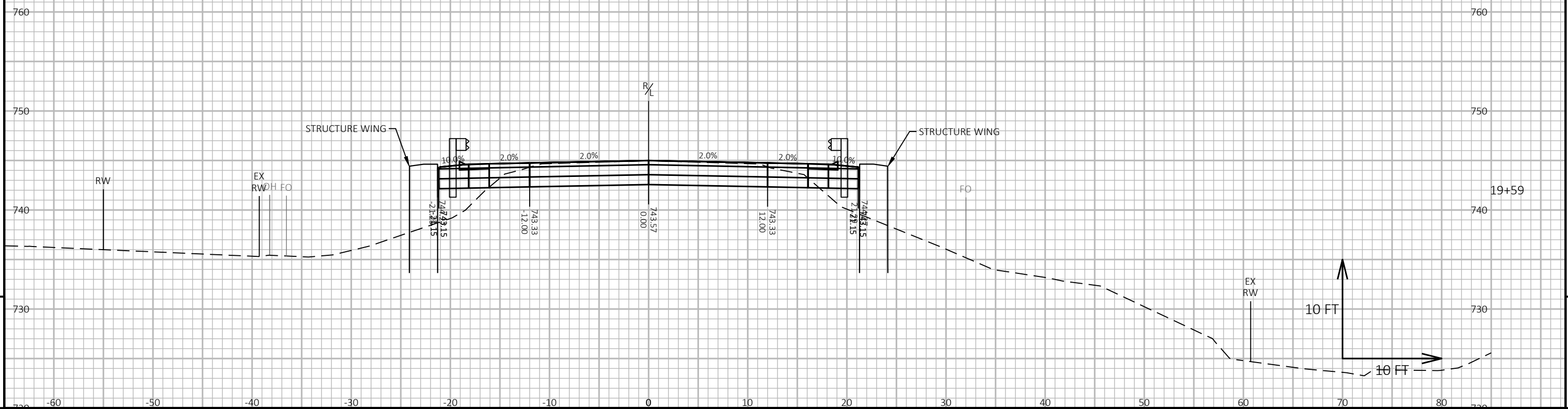


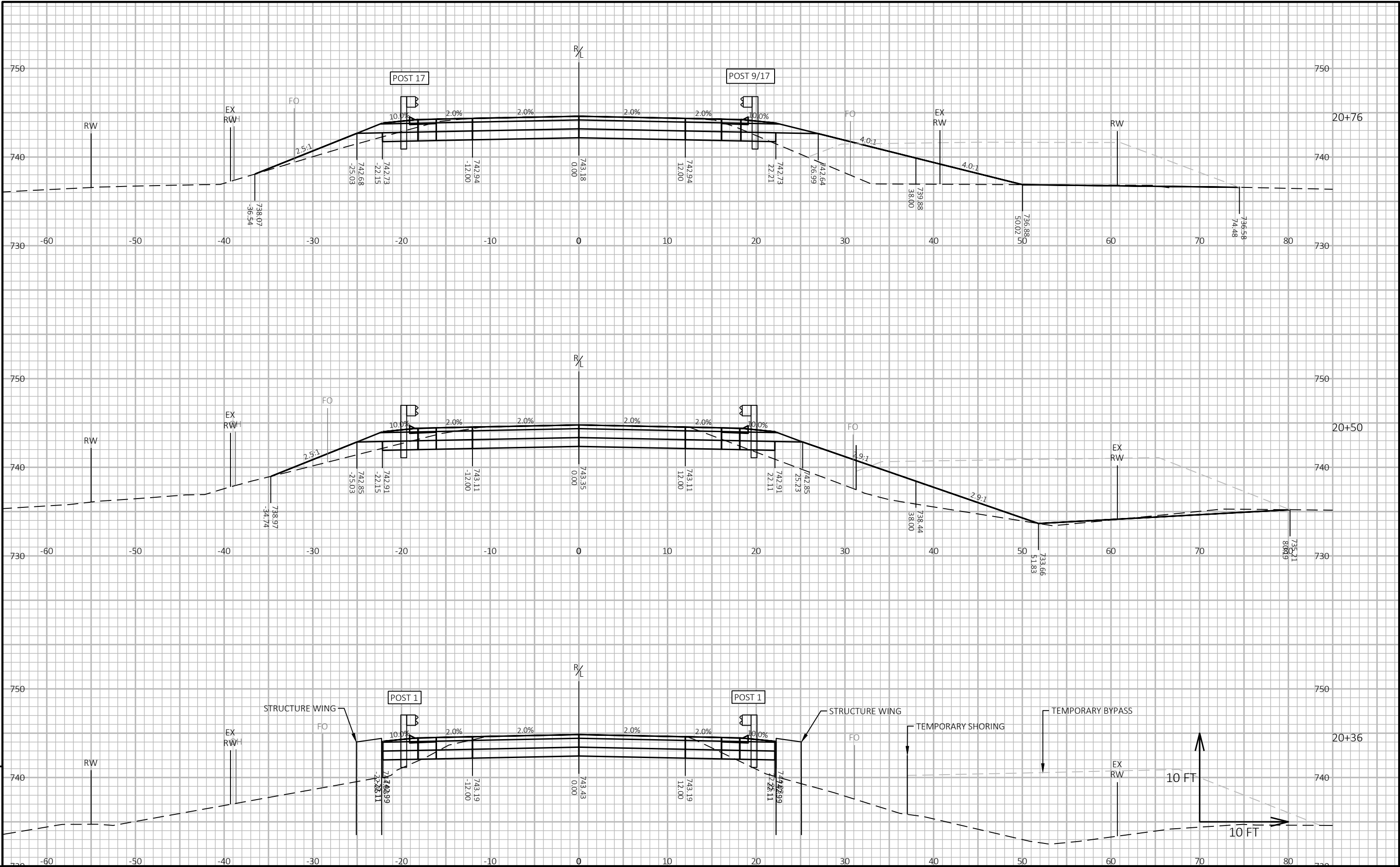


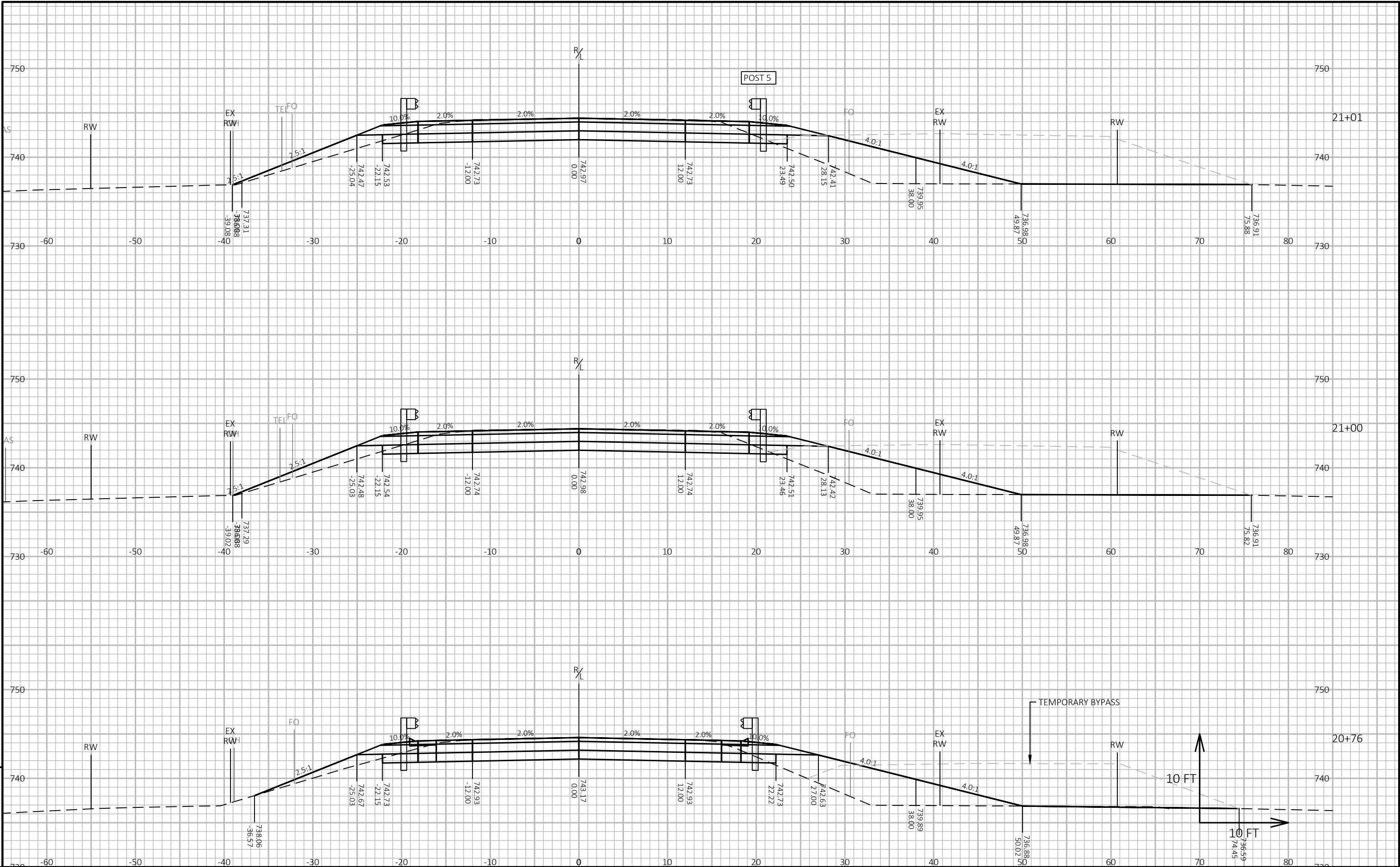


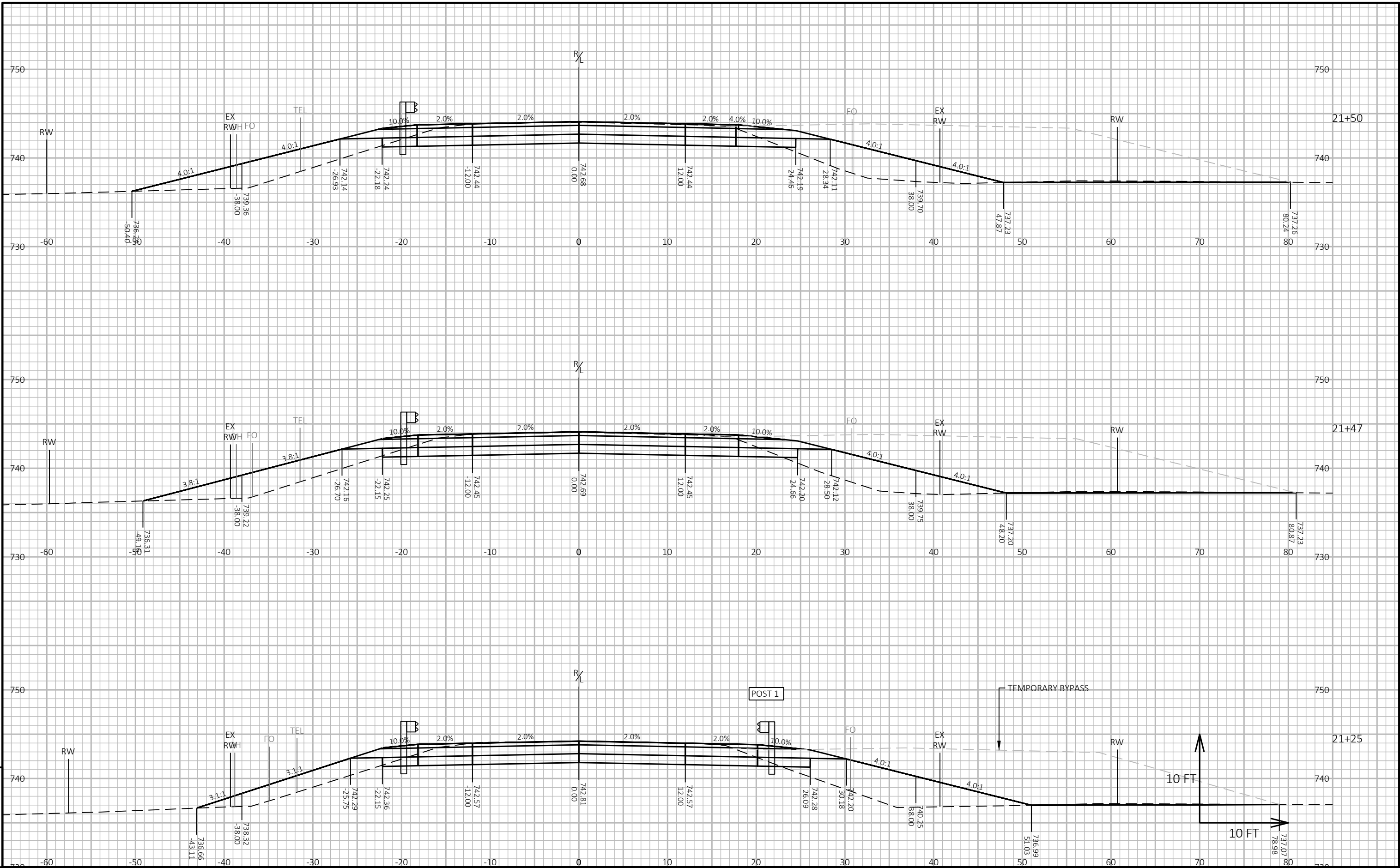


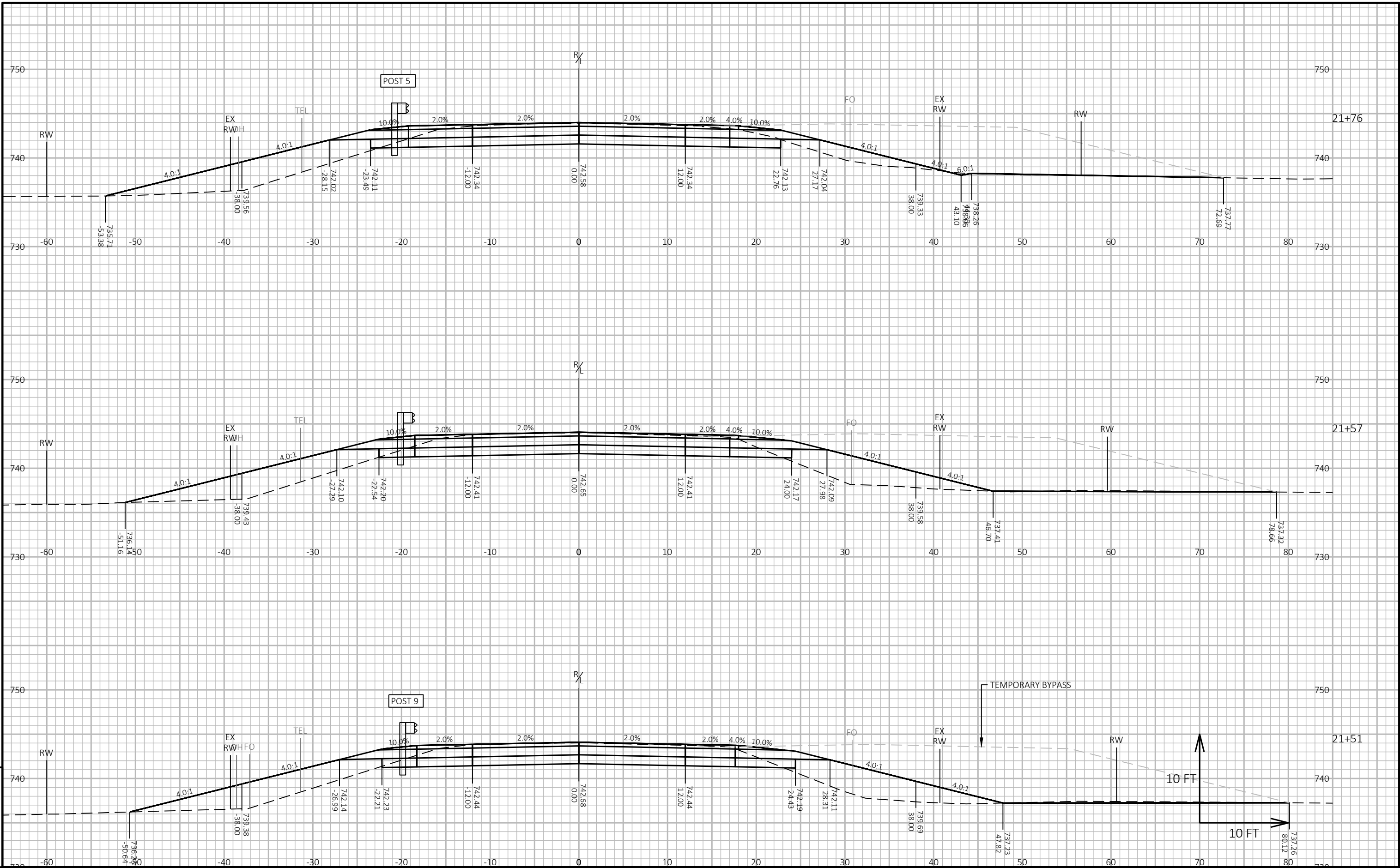
STRUCTURE B-32-585
STA 19+59.00 - STA 20+35.50

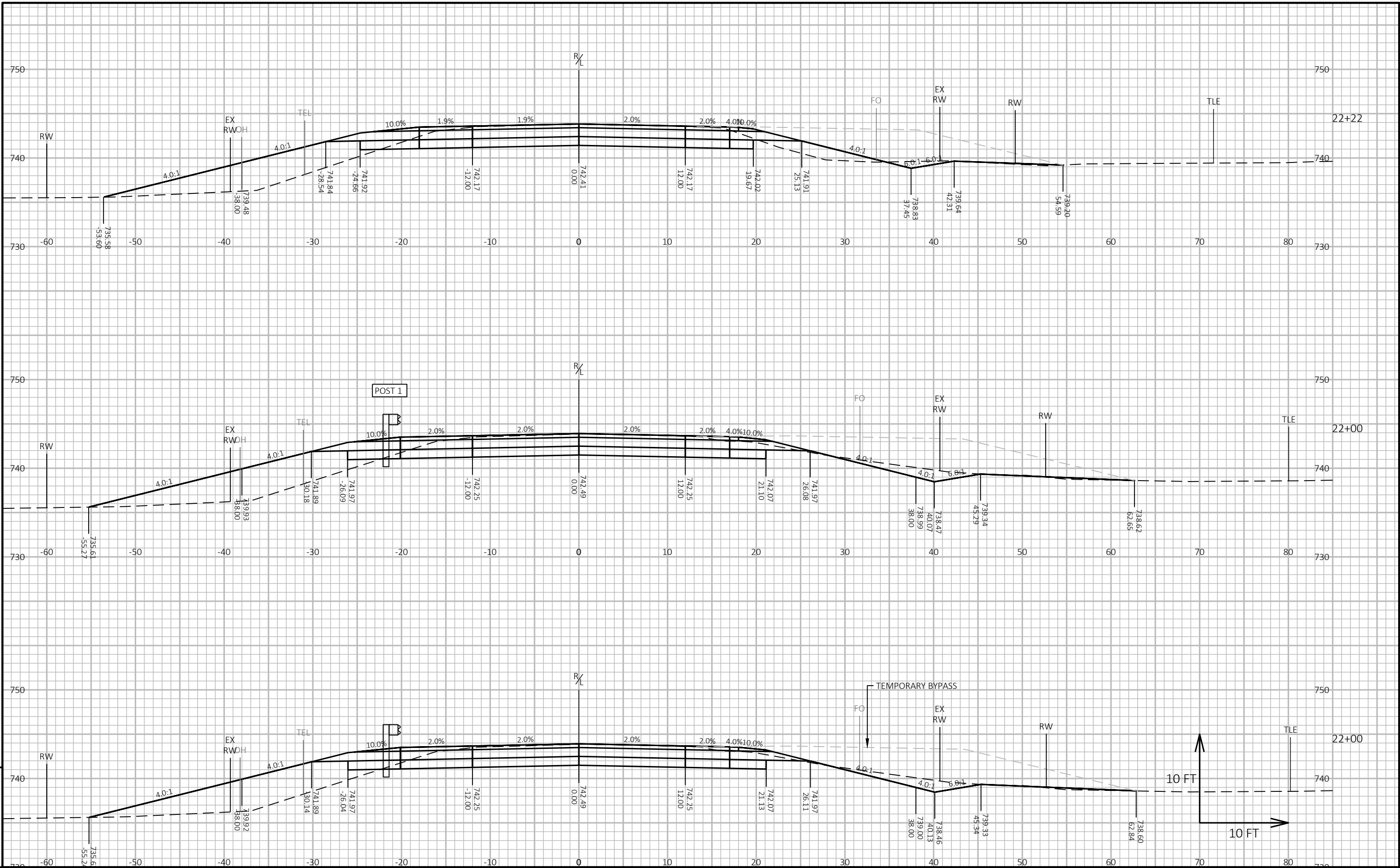


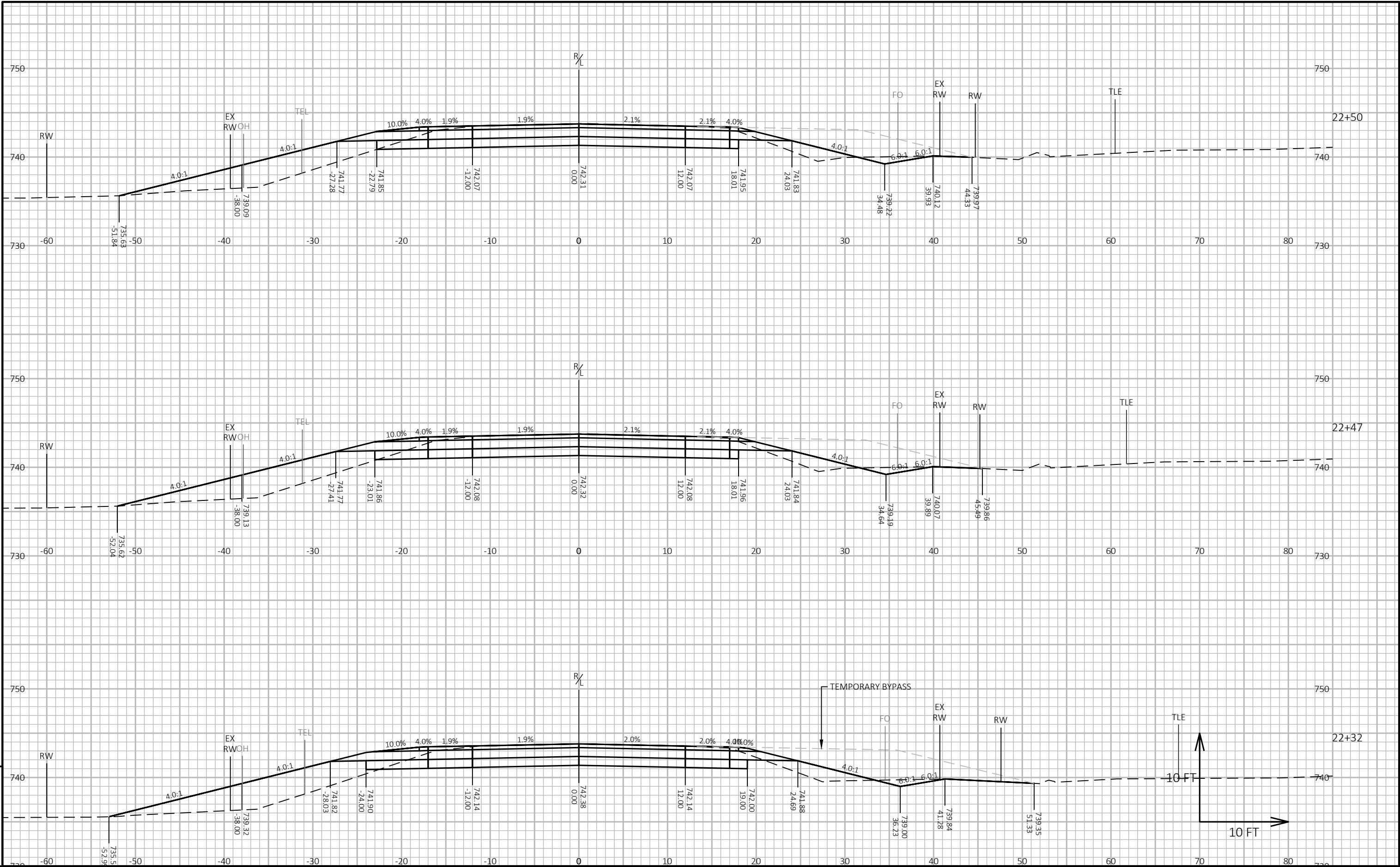


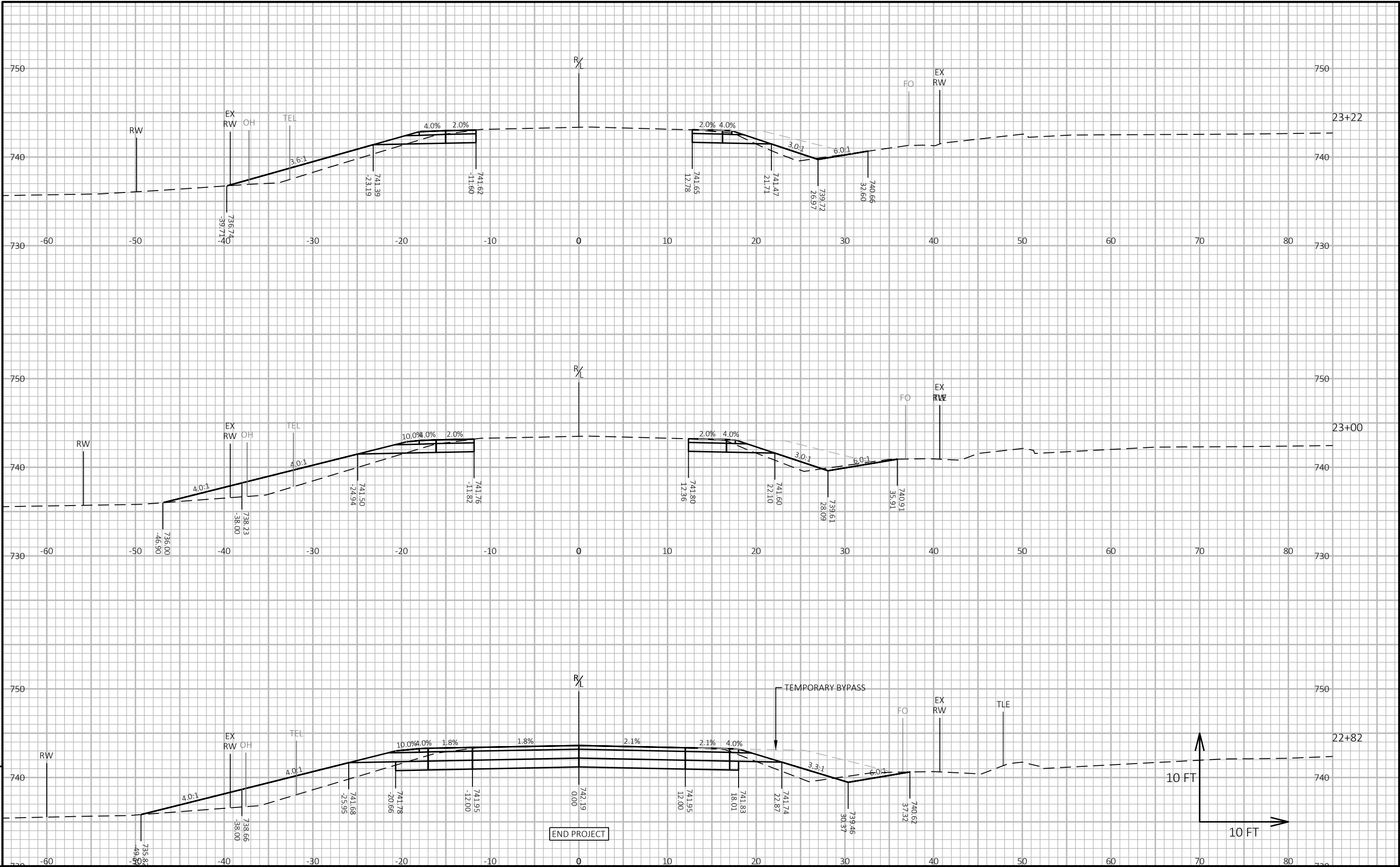


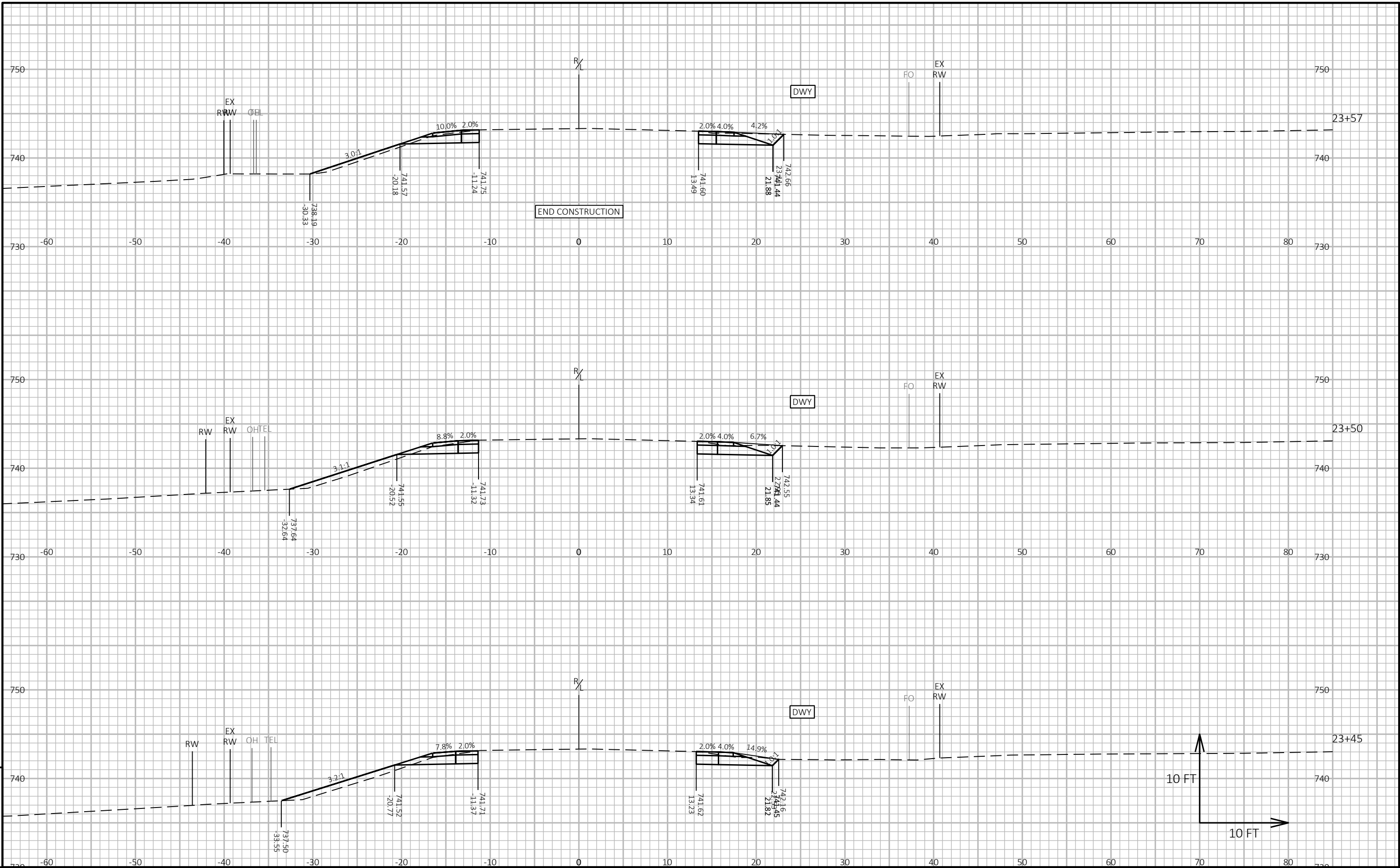




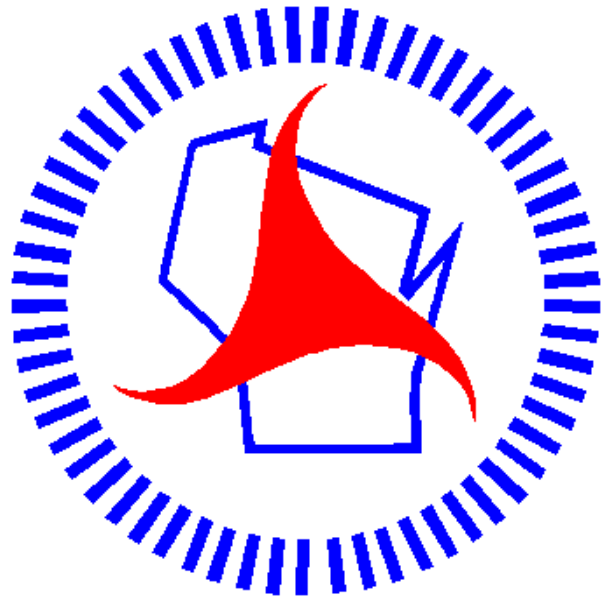








Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>