

GRE
WITH: NA

PROJECT ID:
4307-02-71

COUNTY:
MANITOWOC

MARCH 2025
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 = 106



DESIGN DESIGNATION

A A.D.T.	2025	=	1515
A A.D.T.	2045	=	1675
D.H.V		=	200
D.D		=	50/50
T		=	6.2%
DESIGN SPEED		=	45 mph
ESALS		=	260,000

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T MISHICOT, SAMZ ROAD

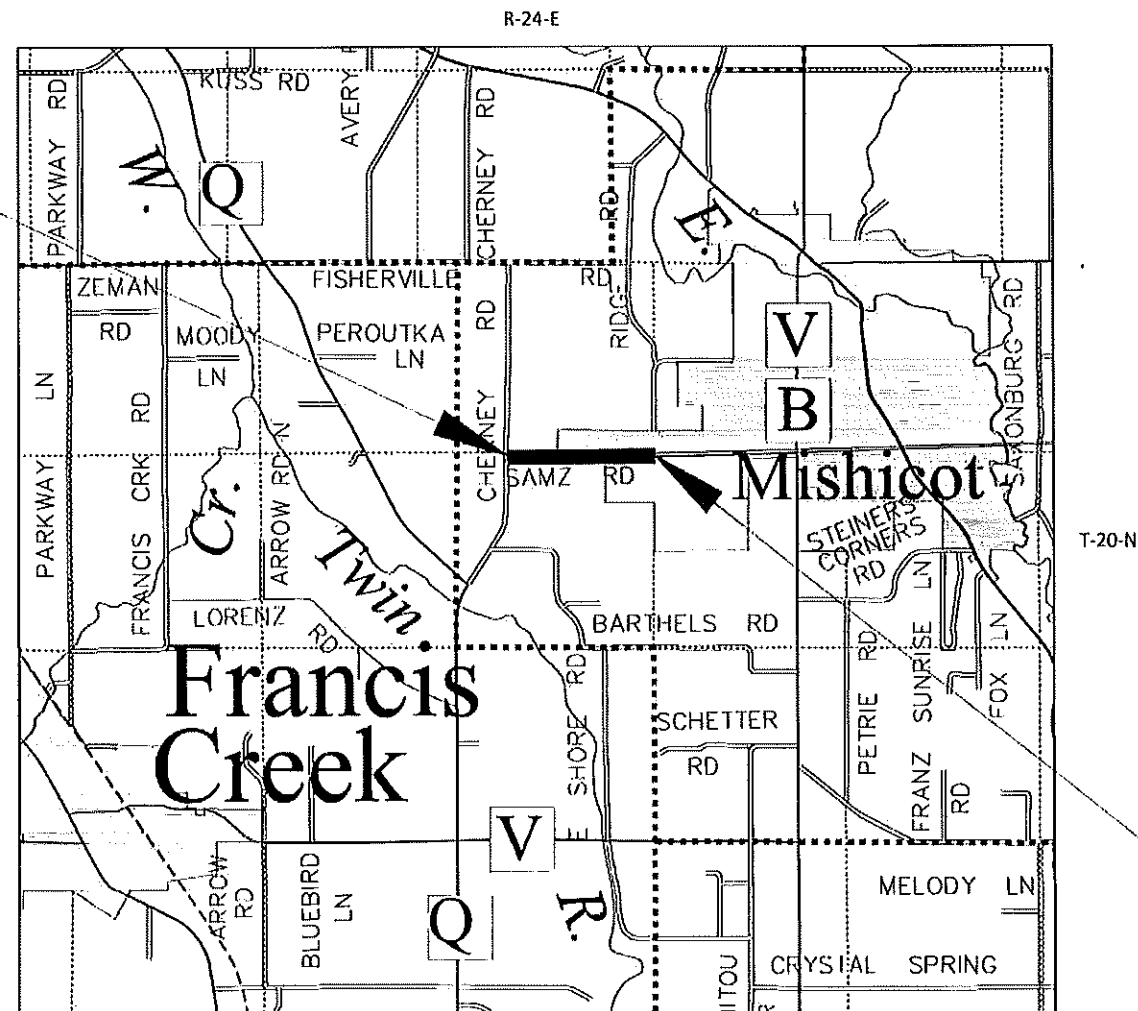
CHERNEY ROAD - RIDGE ROAD

LOCAL STREET
MANITOWOC COUNTY

STATE PROJECT NUMBER

4307-02-71

BEGIN PROJECT
STA 10+00
Y:349682.397
X:229000.946



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.795 Miles

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MANITOWOC 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 18.

STATE PROJECT

4307-02-71

FEDERAL PROJECT

PROJECT

WISC 2025381

CONTRACT

1

APPROVED FOR
TOWN OF MISHICOT

10-16-24
Date

Dean Amthor
(Signature and Title of Official)
SUPERVISOR

ORIGINAL PLANS PREPARED BY

it ENGINEERING
SALISBURY, MA



DATE 10/15/24

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	IT ENGINEERING
Designer	IT ENGINEERING
Project Manager	MICHAEL COHEN
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	KIMBERLY SLEZAK

APPROVED FOR THE DEPARTMENT

DATE 10/22/24

Marka Lohm
(Signature)

E

GENERAL NOTES

IF THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS, THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

ANY UTILITY WHICH IS NOT A MEMBER OF DIGGER'S HOTLINE MUST BE CONTRACTED SEPARATELY.

THERE IS EXISTING DRAIN TILE ADJACENT TO SAMZ ROAD THAT MAY BE ENCOUNTERED. IF DRAIN TILE IS ENCOUNTERED, NOTIFY THE ENGINEER.

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

SAW CUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED ARE TO BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH MULCH OR EROSION MAT.

THE LOCATIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION OF 0.05 GAL/SY AND SHALL BE PLACED BETWEEN THE LAYERS OF ASPHALTIC PAVEMENT

AGENCY/ PROJECTS CONTACTS

WISCONSIN DOT CONTACT
MICHAEL COHEN
NORTHEAST REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: (920) 360-1476
EMAIL: MICHAEL.COHEN@DOT.WI.GOV

WISCONSIN DNR LIAISON
MR. MATT SCHAEVE
NORTHEAST REGION
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920) 366-1544
EMAIL: MATTHEW.SCHAEVE@WISCONSIN.GOV

TOWN OF MISHICOT
DEAN ANHALT
1900 EAST TAPAWINGO ROAD
PO BOX 272
MISHICOT, WI 54228
PHONE: (920) 775-4128

DESIGN CONTACTS

JT ENGINEERING, INC.
RICH GLEN
1077 CENTENNIAL CENTRE BLVD
HOBART, WI 54155
PHONE: (920) 468-4771
EMAIL: RICHG@JT-ENGINEERING.COM

SEQUENCE OF SECTION 2

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
PERMANENT SIGNING & PAVEMENT MARKING

UTILITY CONTACTS

FRONTIER COMMUNICATIONS
CHRISTOPHER POLLACK
521 N 4TH STREET
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: CHRISTOPHER.POLLACK@FTR.COM

WISCONSIN PUBLIC SERVICE - ELECTRIC
CHUCK WINDUS
227 W CALUMET STREET
CHILTON, WI 53014
PHONE: (920) 606-1141
EMAIL: CHARLES.WINDUS@WISCONSINPUBLICSERVICE.COM

WISCONSIN PUBLIC SERVICE - GAS
JOEL SAWICKI
800 COLUMBUS STREET
PO BOX 236
TWO RIVERS, WI 54241-0236
PHONE: (920) 657-1862
EMAIL: JOEL.SAWICKI@WISCONSINPUBLICSERVICE.COM

RUNOFF COEFFICIENT TABLE.

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.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 = 8.52 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 7.72 ACRES

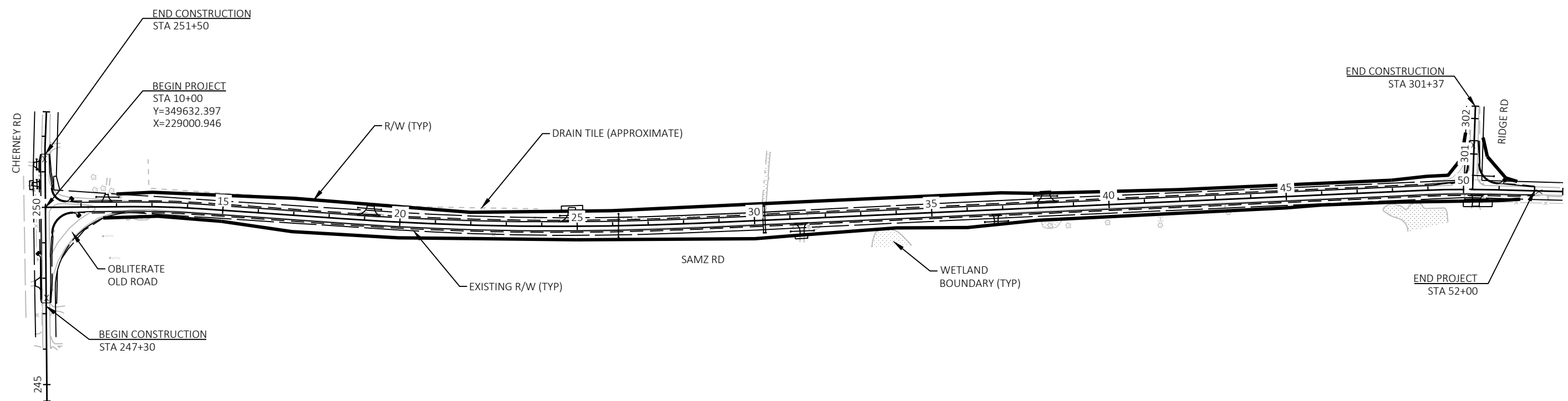
STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	NC
AC	ASPHALT CEMENT	PT
AGG	AGGREGATE	PC
ASPH	ASPHALT	PI
BM	BENCHMARK	PE
C/L	CENTERLINE	R
CONC	CONCRETE	REM
CMP	CORRUGATED METAL PIPE	R/L OR RL
CR	CREEK	RCCP
D	DEGREE OF CURVE	RCPPSS
DHV	DESIGN HOUR VOLUME	RO
ESALS	EQUIVALENT SINGLE AXIS LOADS	R/W
EXIST	EXISTING	STA
FE	FIELD ENTRANCE	SE
HYD	HYDRANT	SS
IP	IRON PIPE	T
L	LENGTH OF CURVE	TEL
LC	LONG CHORD OF CURVE	TLE
LR	LENGTH OF RUN OFF	T
MH	MANHOLE	VC
		W

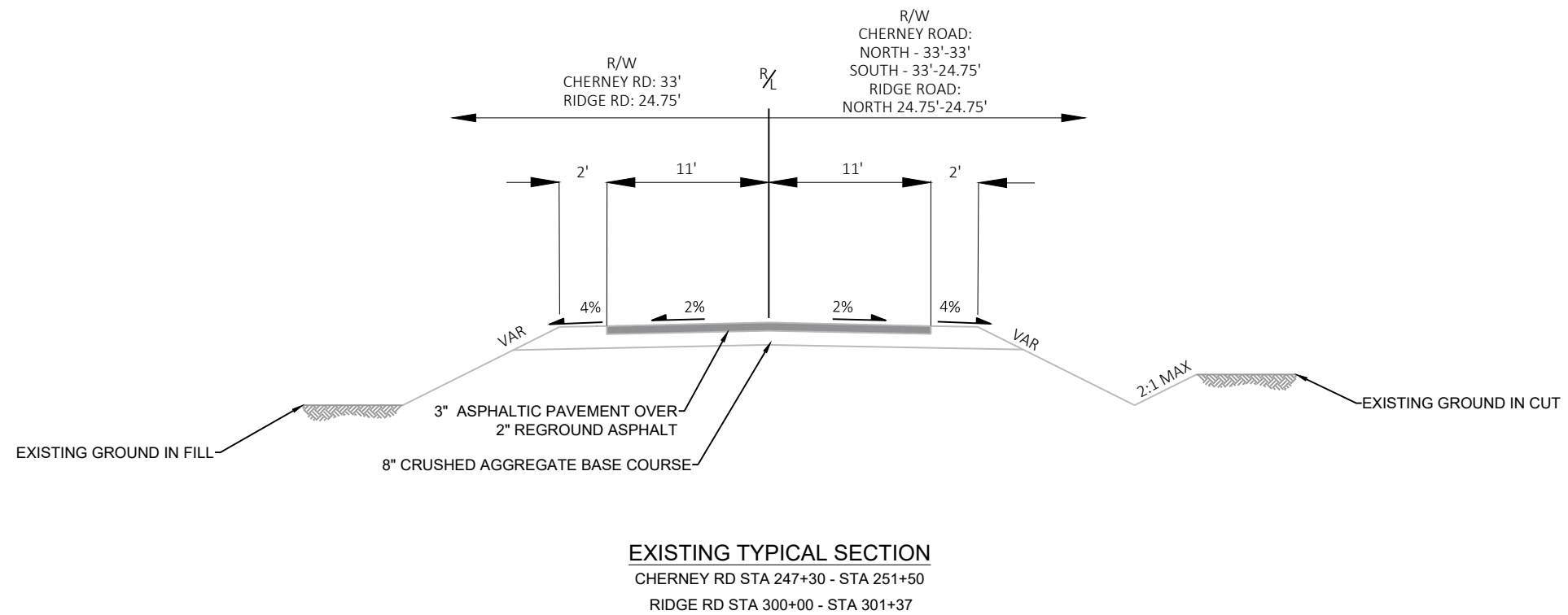
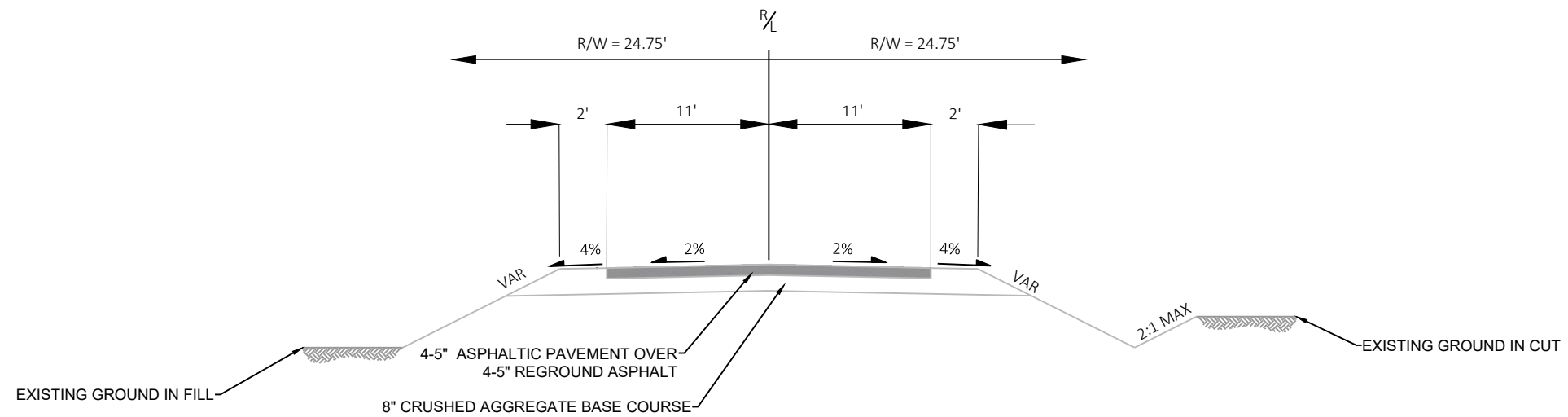
DIGGERSHOTLINE

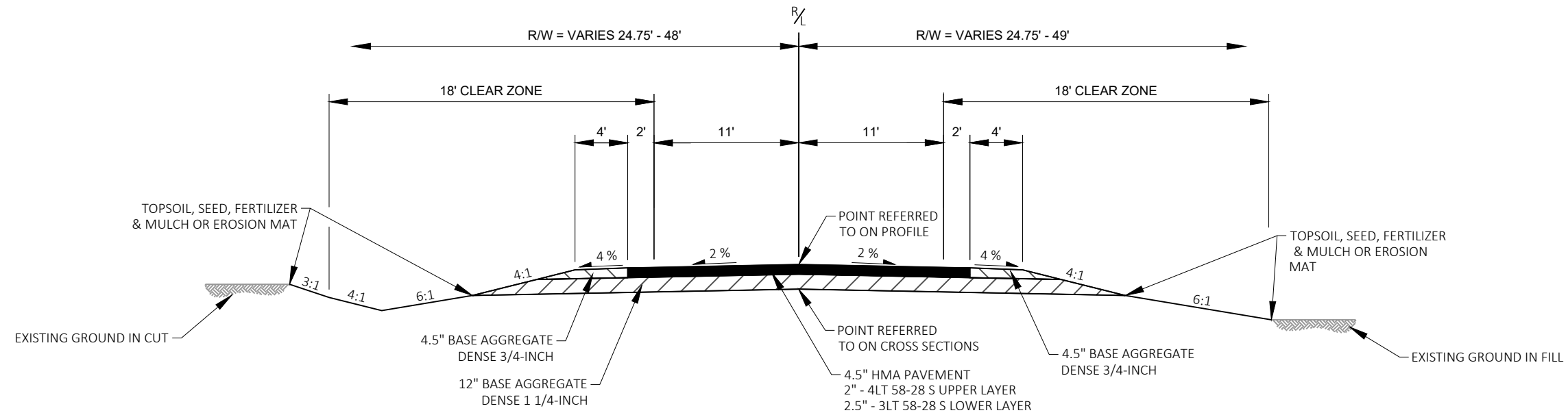
Dial 811 or (800)242-8511

www.DiggersHotline.com

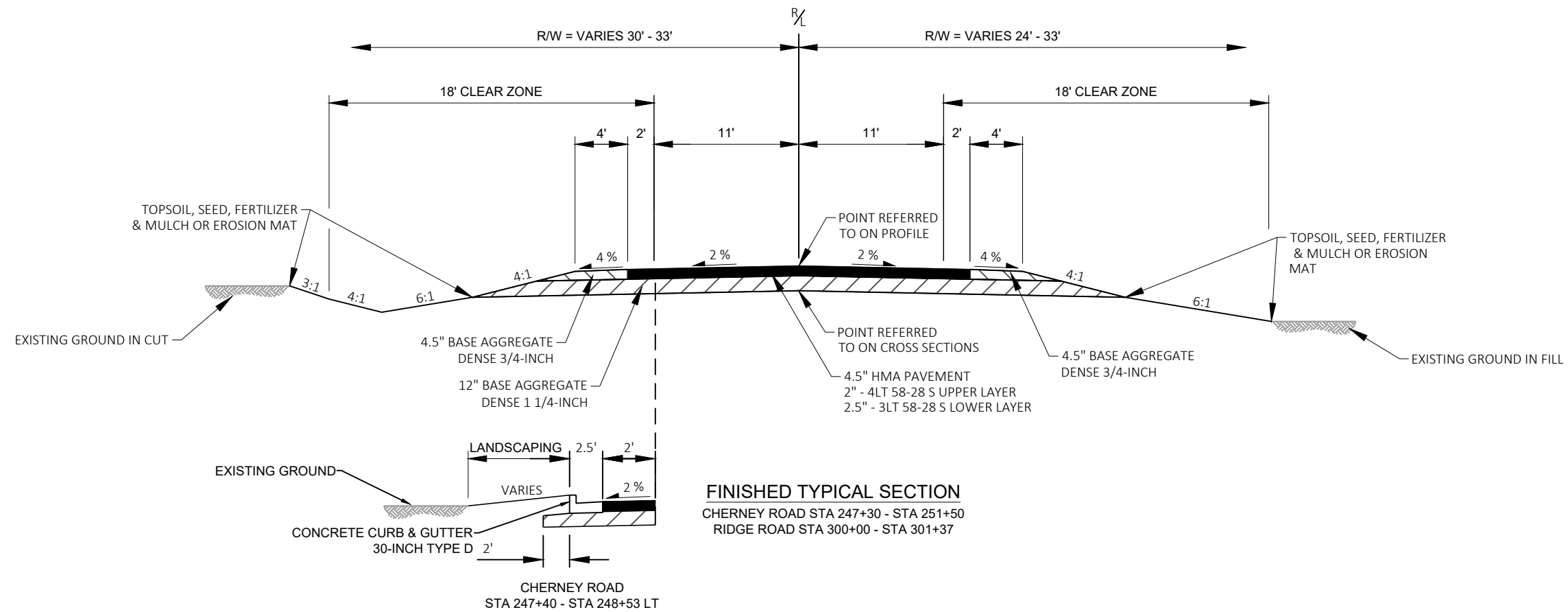


PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PROJECT OVERVIEW	SHEET	E
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**FINISHED TYPICAL SECTION**

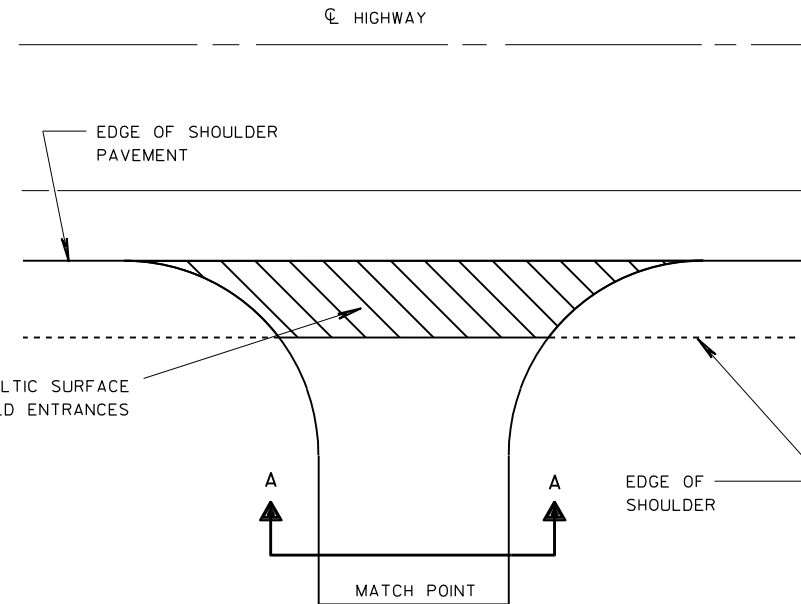
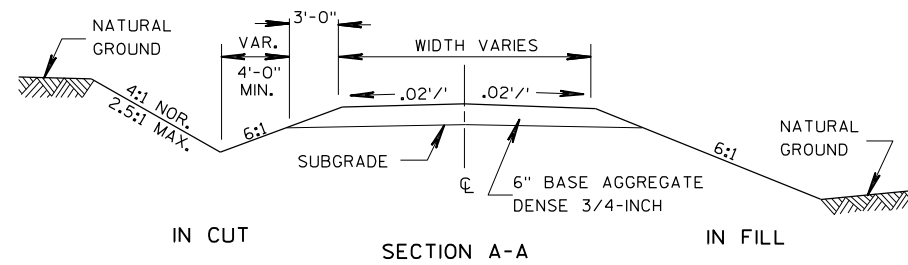
SAMZ ROAD STA 10+00 - STA 52+00

**FINISHED TYPICAL SECTION**CHERNEY ROAD STA 247+30 - STA 251+50
RIDGE ROAD STA 300+00 - STA 301+37

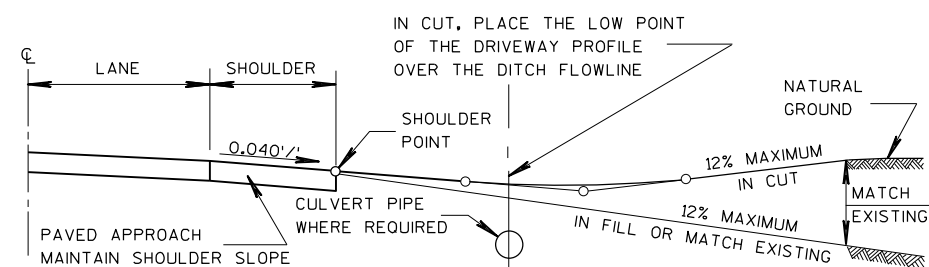
SUPERELEVATION DATA

STA	LOCATION	LT UNPAVED SHLDR	LT LANE	RT LANE	RT UNPAVED SHLDR
11+05.58	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
11+50.29	END NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
11+95.00	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
12+39.70	REVERSE CROWN	2.00%	2.00%	-2.00%	-4.00%
12+71.00	BEGIN FULL SUPER	3.40%	3.40%	-3.40%	-4.00%
14+20.33	END FULL SUPER	3.40%	3.40%	-3.40%	-4.00%
14+51.63	REVERSE CROWN	2.00%	2.00%	-2.00%	-4.00%
14+96.33	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
15+41.04	BEGIN NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
15+85.75	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%

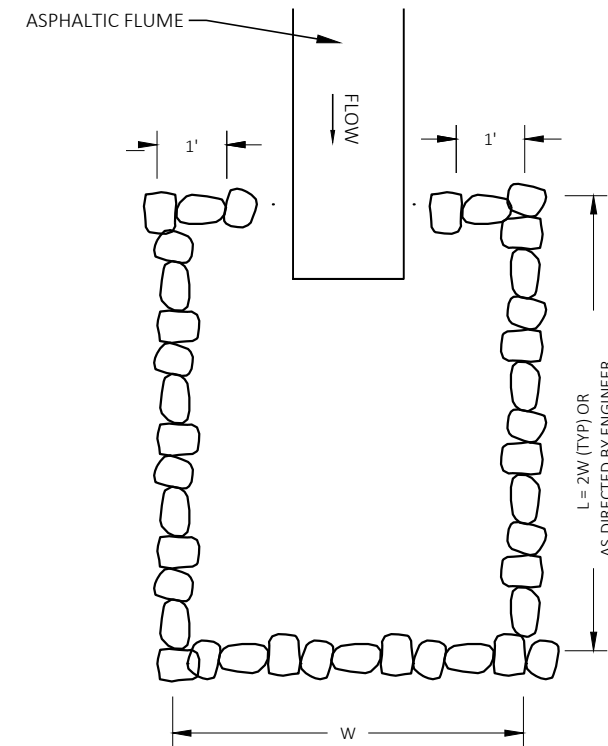
47+72.85	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
48+11.85	END NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
48+50.85	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
48+89.85	BEGIN FULL SUPER	2.00%	2.00%	-2.00%	-4.00%
50+74.98	END FULL SUPER	2.00%	2.00%	-2.00%	-4.00%
51+13.95	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
51+52.98	BEGIN NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
51+91.98	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%



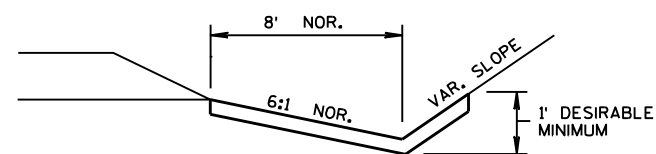
* PAID FOR AS ASPHALTIC SURFACE
DRIVEWAYS AND FIELD ENTRANCES
4.5" THICKNESS



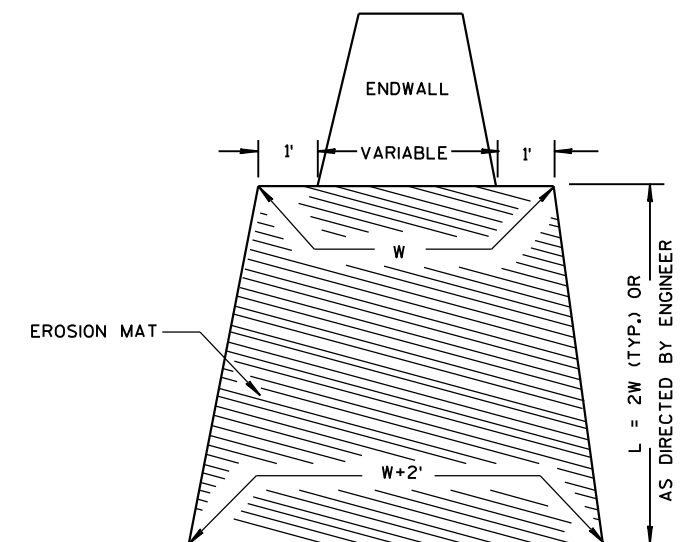
PROFILE
DETAIL FOR RURAL DRIVEWAY



MEDIUM RIPRAP FLUME DETAIL



DETAIL FOR EROSION MAT PLACEMENT
LOCATIONS SHOWN ON EROSION CONTROL PLAN



EROSION MAT TREATMENT AT CULVERTS

STA 251+21 LT
RECONSTRUCT CABC PE
1 - REM SMALL PIPE CULVERT
1 - 17X13-INCH CPCS REQ'D
2 - 17X13-INCH AEWS REQ'D

STA 250+66 LT
RECONSTRUCT CABC PE
1 - 17X13-INCH CPCS REQ'D
2 - 17X13-INCH CPS ARCH PIPE AEWS REQ'D

STA 10+00 SAMZ RD=
STA 250+00 CHERNEY RD
CONSTRUCT TYPE D
INTERSECTION

STA 247+85 LT
RECONSTRUCT CABC PE

PI: 251+69.91

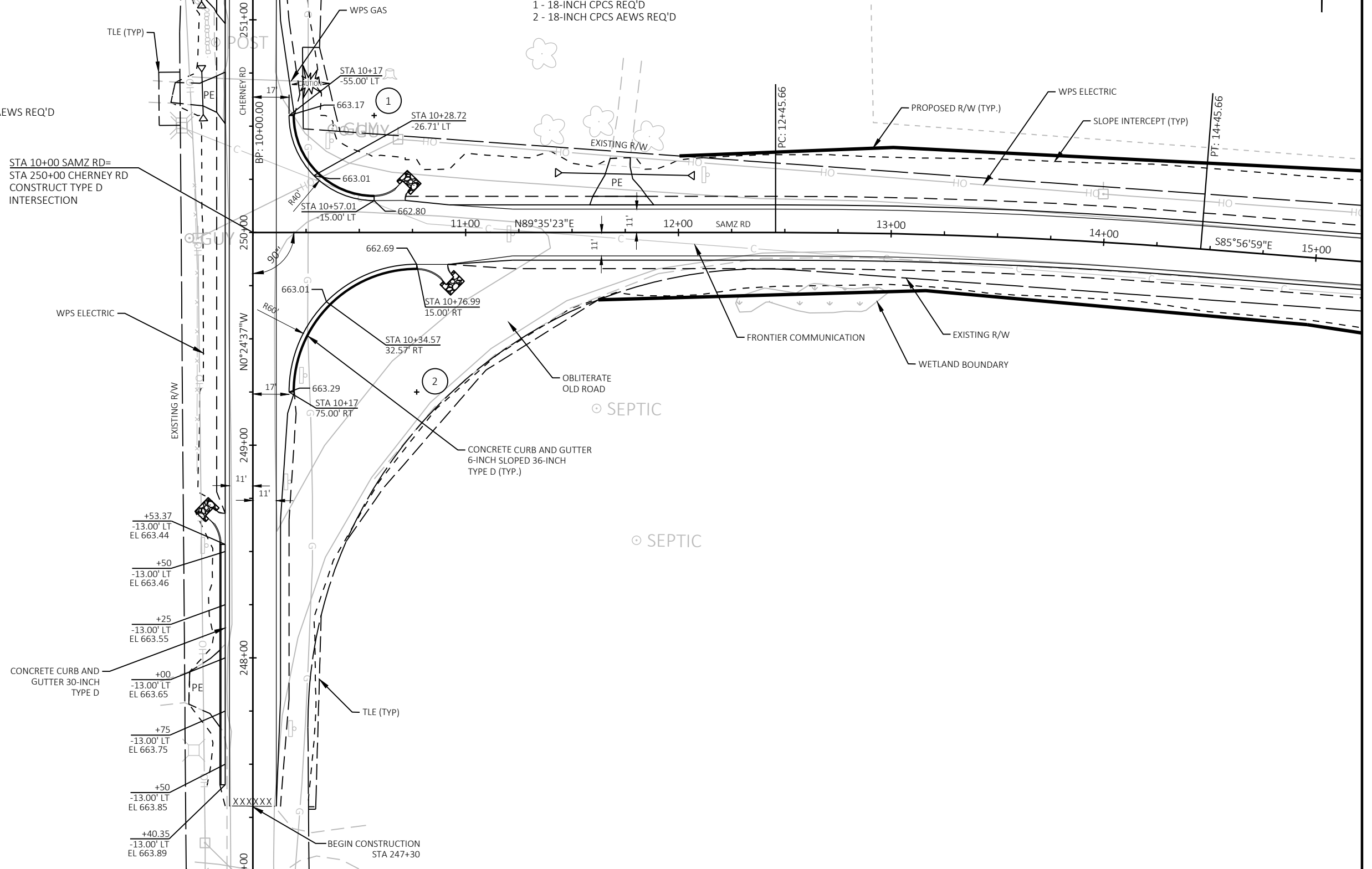
END CONSTRUCTION
STA 251+50

STA 11+75, LT
RECONSTRUCT CABC PE
1 - REM SMALL PIPE CULVERT
1 - 18-INCH CPCS REQ'D
2 - 18-INCH CPCS AEWS REQ'D

STATION & OFFSET TABLE

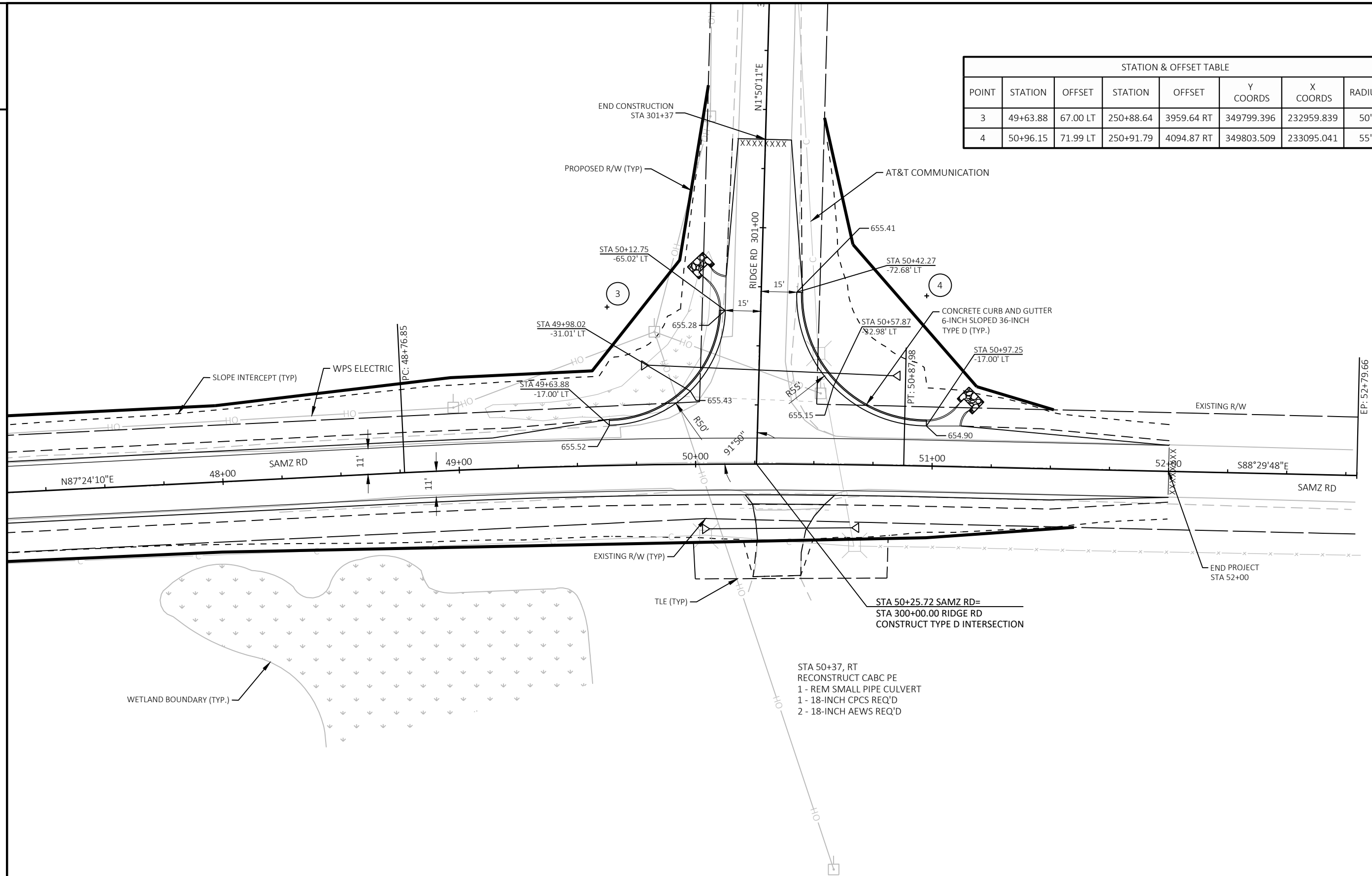
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
1	10+57.00	55.00 LT	250+55.00	57.00 RT	349737.814	229057.541	40'
2	10+77.00	75.00 RT	249+25.00	77.00 RT	349607.960	229078.471	60'

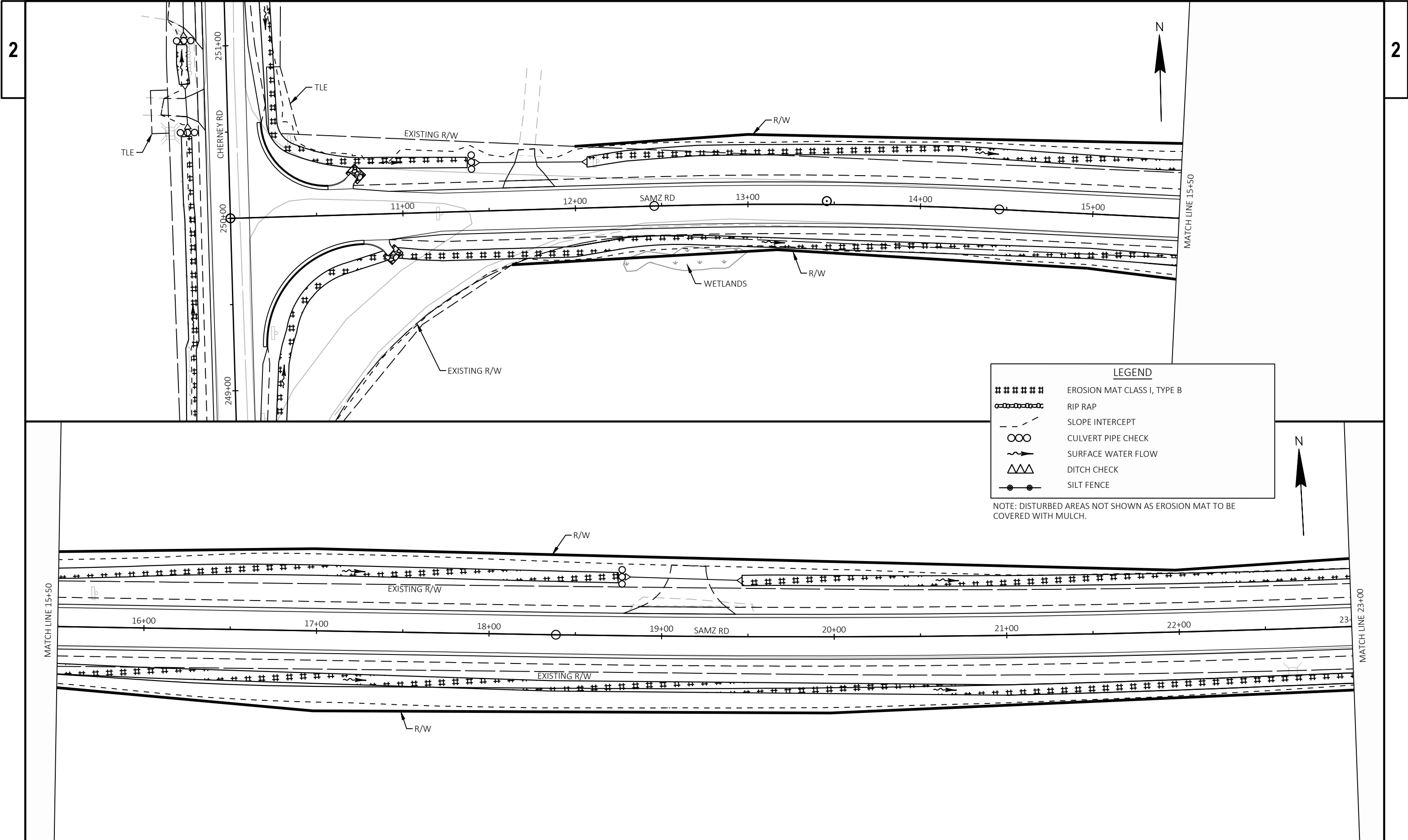
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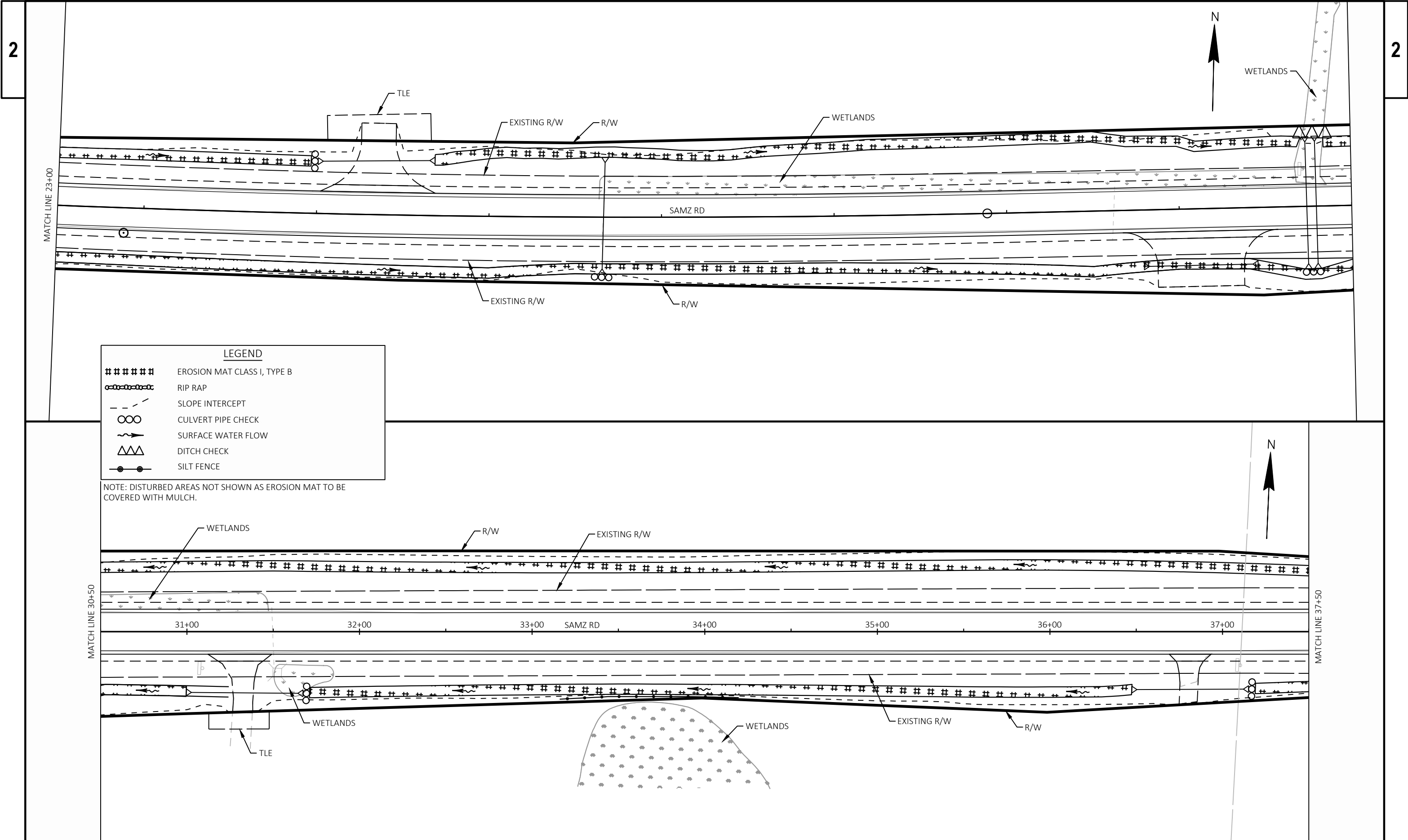




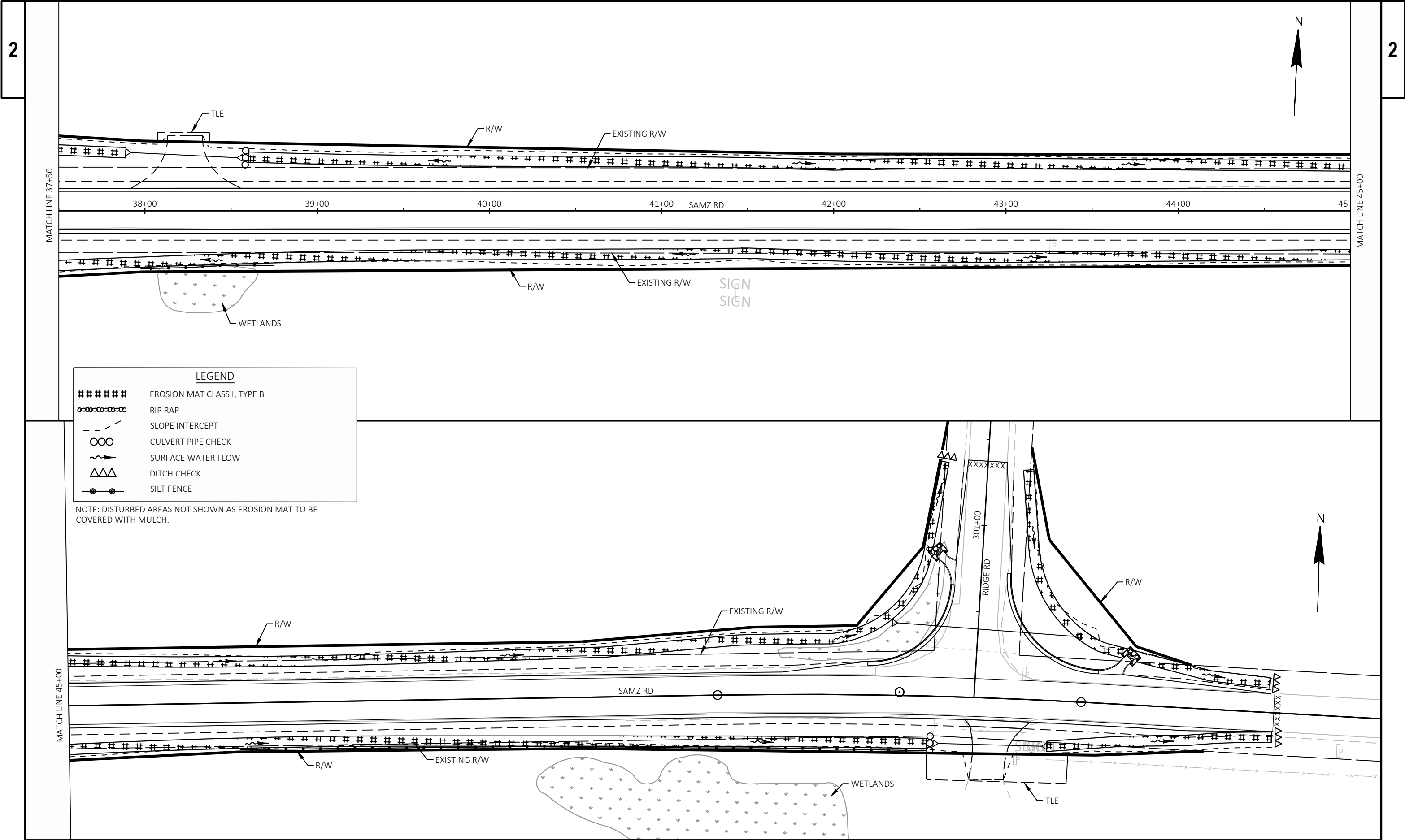
STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
3	49+63.88	67.00 LT	250+88.64	3959.64 RT	349799.396	232959.839	50'
4	50+96.15	71.99 LT	250+91.79	4094.87 RT	349803.509	233095.041	55'



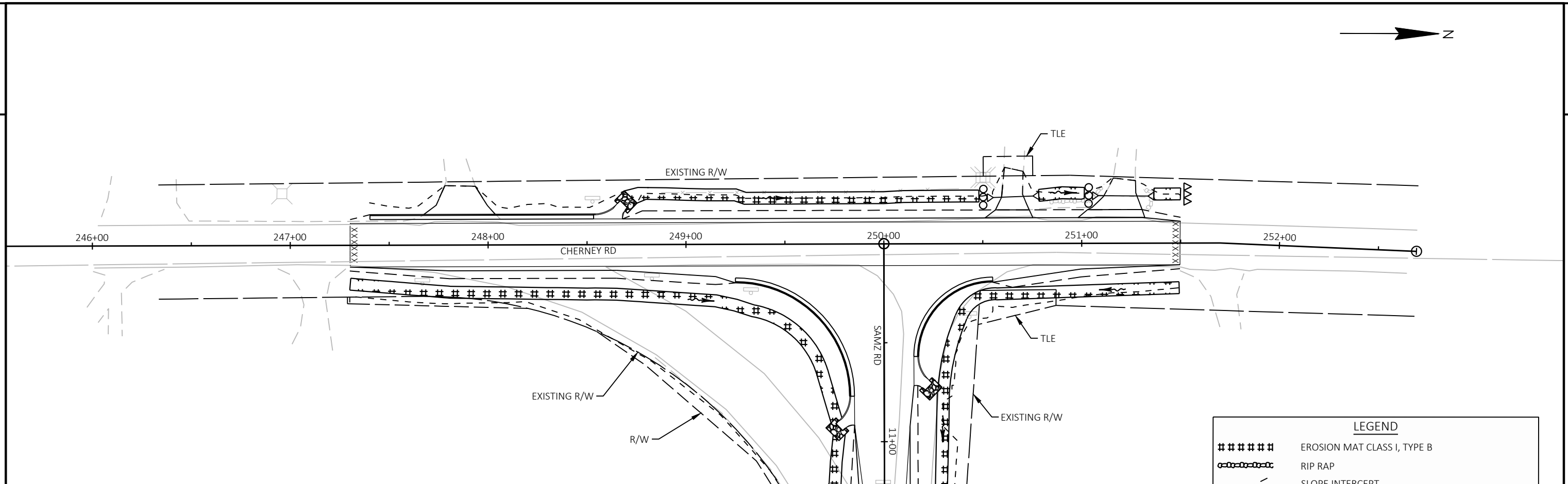


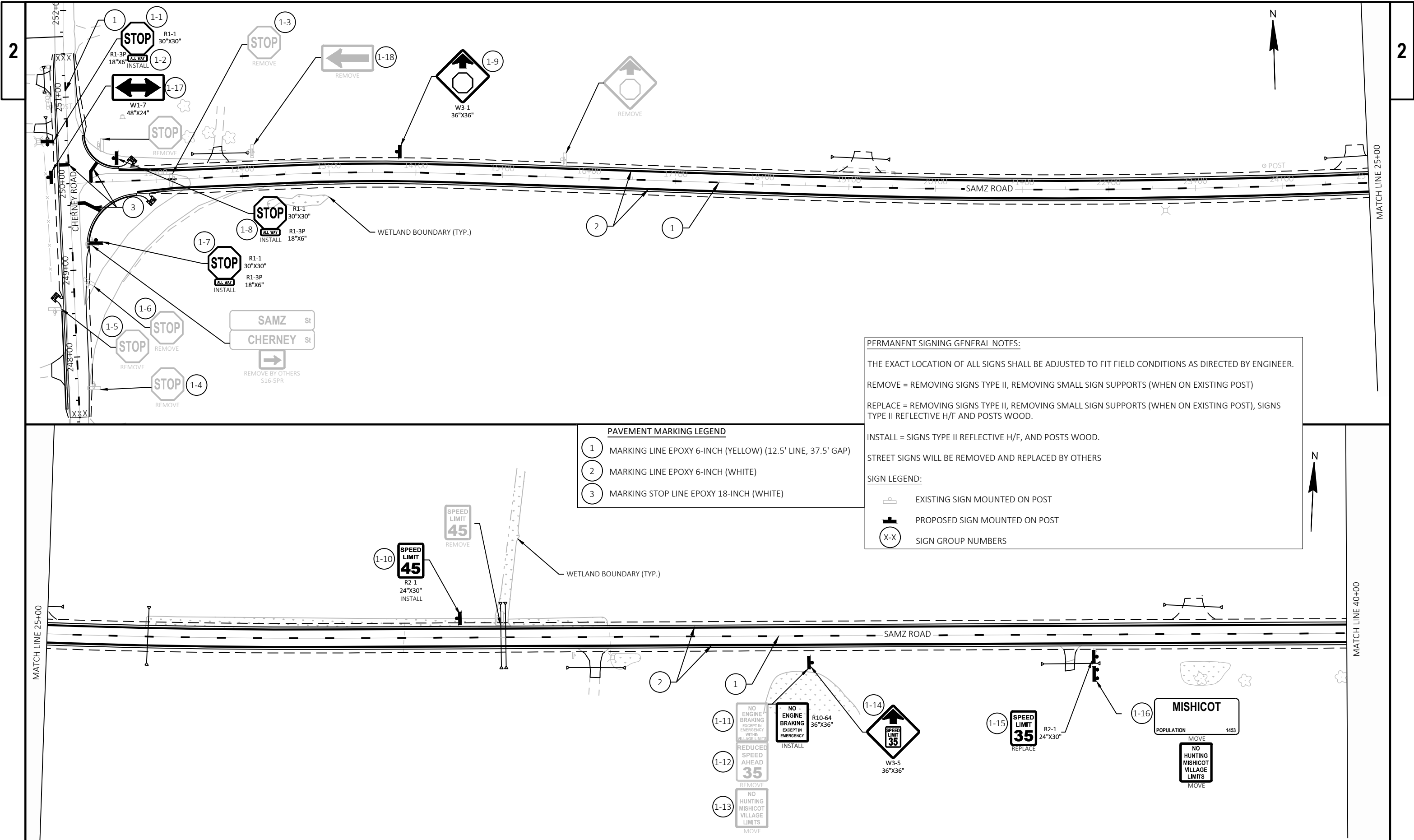


PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	EROSION CONTROL	SHEET	E
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PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	EROSION CONTROL	SHEET	E
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PERMANENT SIGNING GENERAL NOTES:

THE EXACT LOCATION OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER.

REMOVE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST)

REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST), SIGNS TYPE II REFLECTIVE H/F AND POSTS WOOD.

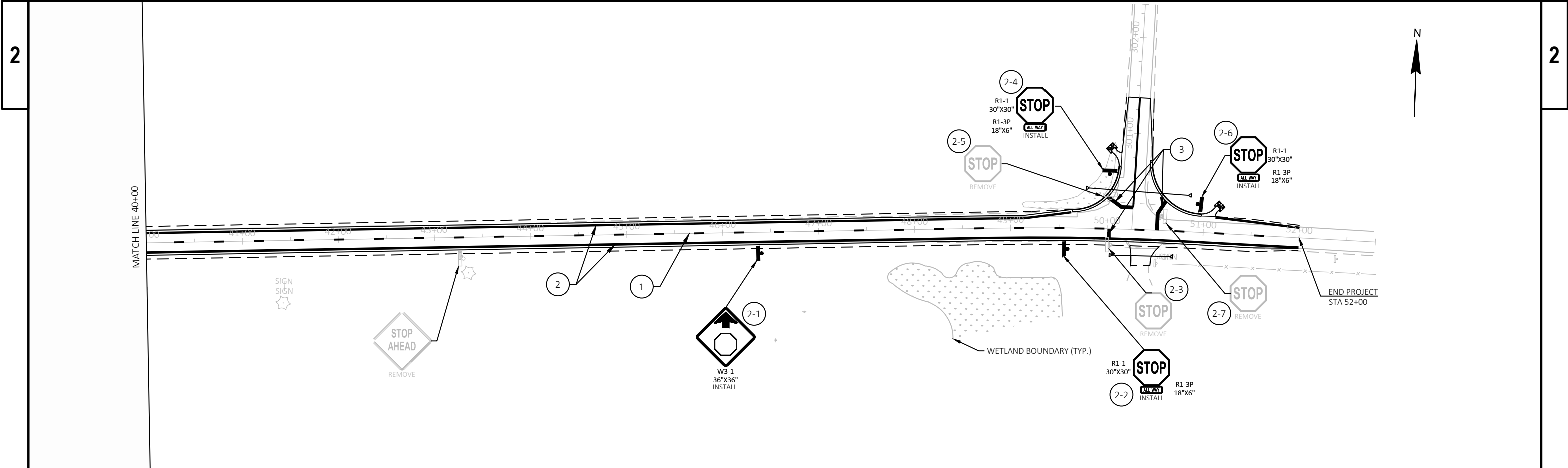
INSTALL = SIGNS TYPE II REFLECTIVE H/F, AND POSTS WOOD.

STREET SIGNS WILL BE REMOVED AND REPLACED BY OTHERS

SIGN LEGEND:

- EXISTING SIGN MOUNTED ON POST
- PROPOSED SIGN MOUNTED ON POST
- SIGN GROUP NUMBERS

- PAVEMENT MARKING LEGEND**
- 1 MARKING LINE EPOXY 6-INCH (YELLOW) (12.5' LINE, 37.5' GAP)
 - 2 MARKING LINE EPOXY 6-INCH (WHITE)
 - 3 MARKING STOP LINE EPOXY 18-INCH (WHITE)



PAVEMENT MARKING LEGEND 1 MARKING LINE EPOXY 6-INCH (YELLOW) (12.5' LINE, 37.5' GAP) 2 MARKING LINE EPOXY 6-INCH (WHITE) 3 MARKING STOP LINE EPOXY 18-INCH (WHITE)				
PERMANENT SIGNING GENERAL NOTES: THE EXACT LOCATION OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER. REMOVE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST) REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST), SIGNS TYPE II REFLECTIVE H/F AND POSTS WOOD. INSTALL = SIGNS TYPE II REFLECTIVE H/F, AND POSTS WOOD. STREET SIGNS WILL BE REMOVED AND REPLACED BY OTHERS SIGN LEGEND: EXISTING SIGN MOUNTED ON POST PROPOSED SIGN MOUNTED ON POST X-X SIGN GROUP NUMBERS				
PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PERMANENT SIGNING AND PAVEMENT MARKINGS	SHEET E

Estimate Of Quantities

4307-02-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	8.000	8.000
0004	205.0100	Excavation Common	CY	11,030.000	11,030.000
0006	213.0100	Finishing Roadway (project) 01. 4307-02-71	EACH	1.000	1.000
0008	214.0100	Obliterating Old Road	STA	3.000	3.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,560.000	1,560.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	14,590.000	14,590.000
0014	311.0110	Breaker Run	TON	608.000	608.000
0016	450.4000	HMA Cold Weather Paving	TON	1,766.000	1,766.000
0018	455.0605	Tack Coat	GAL	990.000	990.000
0020	460.2000	Incentive Density HMA Pavement	DOL	2,260.000	2,260.000
0022	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,963.000	1,963.000
0024	460.5224	HMA Pavement 4 LT 58-28 S	TON	1,568.000	1,568.000
0026	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	38.000	38.000
0028	465.0315	Asphaltic Flumes	SY	49.000	49.000
0030	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	12.000	12.000
0032	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0034	521.1217	Apron Endwalls for Pipe Arch Steel 17x13-Inch	EACH	4.000	4.000
0036	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	360.000	360.000
0038	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	120.000	120.000
0040	521.3717	Pipe Arch Corrugated Steel 17x13-Inch	LF	45.000	45.000
0042	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	46.000	46.000
0044	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	96.000	96.000
0046	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0048	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0050	522.2314	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 14x23-Inch	LF	90.000	90.000
0052	522.2614	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000
0054	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	114.000	114.000
0056	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	321.000	321.000
0058	606.0200	Riprap Medium	CY	10.000	10.000
0060	619.1000	Mobilization	EACH	1.000	1.000
0062	624.0100	Water	MGAL	323.000	323.000
0064	625.0100	Topsoil	SY	20,610.000	20,610.000
0066	627.0200	Mulching	SY	14,500.000	14,500.000
0068	628.1504	Silt Fence	LF	900.000	900.000
0070	628.1520	Silt Fence Maintenance	LF	900.000	900.000
0072	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0076	628.2004	Erosion Mat Class I Type B	SY	6,120.000	6,120.000
0078	628.7504	Temporary Ditch Checks	LF	48.000	48.000
0080	628.7555	Culvert Pipe Checks	EACH	33.000	33.000
0082	629.0210	Fertilizer Type B	CWT	24.000	24.000
0084	630.0130	Seeding Mixture No. 30	LB	868.000	868.000
0086	630.0140	Seeding Mixture No. 40	LB	65.000	65.000
0088	630.0200	Seeding Temporary	LB	560.000	560.000
0090	630.0500	Seed Water	MGAL	572.000	572.000
0092	633.5200	Markers Culvert End	EACH	8.000	8.000
0094	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	15.000	15.000
0096	637.2210	Signs Type II Reflective H	SF	67.510	67.510
0098	637.2230	Signs Type II Reflective F	SF	35.000	35.000

Estimate Of Quantities

4307-02-71

Line	Item	Item Description	Unit	Total	Qty
0100	638.2102	Moving Signs Type II	EACH	2.000	2.000
0102	638.2602	Removing Signs Type II	EACH	16.000	16.000
0104	638.3000	Removing Small Sign Supports	EACH	15.000	15.000
0106	642.5201	Field Office Type C	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	1,800.000	1,800.000
0110	643.0420	Traffic Control Barricades Type III	DAY	1,440.000	1,440.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	1,728.000	1,728.000
0114	643.0900	Traffic Control Signs	DAY	2,016.000	2,016.000
0116	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0118	643.5000	Traffic Control	EACH	1.000	1.000
0120	645.0120	Geotextile Type HR	SY	64.000	64.000
0122	646.2020	Marking Line Epoxy 6-Inch	LF	9,295.000	9,295.000
0124	646.6120	Marking Stop Line Epoxy 18-Inch	LF	126.000	126.000
0126	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	9,295.000	9,295.000
0128	650.4500	Construction Staking Subgrade	LF	4,682.000	4,682.000
0130	650.5000	Construction Staking Base	LF	4,682.000	4,682.000
0132	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	435.000	435.000
0134	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0136	650.9911	Construction Staking Supplemental Control (project) 01. 4307-02-71	EACH	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	4,682.000	4,682.000
0140	690.0150	Sawing Asphalt	LF	88.000	88.000
0142	740.0440	Incentive IRI Ride	DOL	3,180.000	3,180.000
0144	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0146	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0148	SPV.0060	Special 01. Reestablish Section Corner Monuments	EACH	2.000	2.000

REMOVALS				
203.0100 REMOVING SMALL PIPE CULVERTS				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	11+75 LT	SAMZ ROAD	1	12" X 20' CPCS
0010	19+08 LT	SAMZ ROAD	1	18" X 72' CPCS
0010	26+17	SAMZ ROAD	1	18" X 32' CPCS
0010	29+12	SAMZ ROAD	1	18" X 35' CPCS
0010	31+50	SAMZ ROAD	1	24" X 33' CPCS
0010	50+27 LT	SAMZ ROAD	1	18" X 57' CPCS
0010	50+37 RT	SAMZ ROAD	1	18" X 37' CPCS
0010	251+51 LT	CHERNEY ROAD	1	15" X 23' CPCS
TOTAL 0010			8	

OBLITERATING ROAD					
214.0100 OBLITERATING OLD ROAD					
CATEGORY	STATION	TO	STATION	LOCATION	STA
0010	10+00	-	13+00	SAMZ ROAD RT	3
TOTAL 0010					3

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE MATERIAL (4)	AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (6)	EXPANDED EBS BACKFILL (7)	UNEXPANDED FILL	EXPANDED FILL (8)	MASS ORDINATE +/- (9)	WASTE	311.0110 BREAKER RUN TON	COMMENT
		CUT (2)	EBS EXCAVATION (3)			FACTOR 1.00	FACTOR 1.25		FACTOR 1.25				
DIVISION 1													
SAMZ ROAD	10+00/52+00	9,730	0	2,600	7,130	0	0	924	1,155	5,975	5,975	0	
CHERNEY ROAD	247+30/251+50	810	0	170	640	0	0	0	0	640	640	0	
RIDGE ROAD	300+00/301+37	220	0	45	175	0	0	30	38	138	138	0	
UNDISTRIBUTED	10+00/52+00	0	270	270	0	0	338	0	0	270	270	608	EBS
DIVISION 1 SUBTOTAL		10,760	270	3,085	7,945	0	338	954	1,193	7,023	7,023	608	
GRAND TOTAL		10,760	270	3,085	7,945	0	338	954	1,193	7,023	7,023	608	
TOTAL COMMON EXC		11,030											

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION IS ANTICIPATED IN THE EXISTING DITCHLINE, TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE MATERIAL

(6) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 1.00

(7) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.25. ITEM NUMBER 208.1100

(8) EXPANDED FILL FACTOR = 1.25

(9) 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.

3

BASE AGGREGATE								
CATEGORY	STATION	TO	STATION	LOCATION	305.0110	305.0120	624.0100	REMARKS
					BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4- TON	WATER MGAL	
0010	10+75	-	52+00	SAMZ ROAD	1,140	12,530	273	DRIVEWAYS AND FIELD ENTRANCES
0010	247+30	-	251+50	CHERNEY ROAD	160	1,570	35	
0010	300+16	-	301+37	RIDGE ROAD	30	490	10	
0010	10+75	-	52+00	SAMZ ROAD	230	-	5	
TOTAL 0010					1,560	14,590	323	

ASPHALT PAVEMENT									
CATEGORY	STATION	TO	STATION	LOCATION	450.4000	455.0605	460.5223	460.5224	465.0120
					HMA COLD WEATHER PAVING TON	TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 S TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	10+75	-	52+00	SAMZ ROAD	1,500	835	1,670	1,330	-
0010	247+30	-	251+50	CHERNEY ROAD	200	110	220	180	-
0010	300+16	-	301+37	RIDGE ROAD	66	35	73	58	-
0010	10+75	-	52+00	SAMZ ROAD	-	10	-	-	38
TOTAL 0010					1,766	990	1,963	1,568	38

3

ASPHALTIC FLUMES					
CATEGORY	STATION	LOCATION	465.0315	606.0200	645.0120
			ASPHALTIC FLUMES SY	RIPRAP MEDIUM CY	GEOTEXTILE TYPE HR SY
0010	10+57	SAMZ ROAD, LT	9	2	12
0010	10+77	SAMZ ROAD, RT	9	2	12
0010	50+13	SAMZ ROAD, LT	11	2	14
0010	50+97	SAMZ ROAD, RT	11	2	14
0010	248+53	CHERNEY ROAD, LT	9	2	12
TOTAL 0010			49	10	64

CURB AND GUTTER							
CATEGORY	STATION	TO	STATION	LOCATION	601.0411	601.0557	
					CONCRETE CURB & GUTTER 30- INCH TYPE D LF	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	
0010	10+19	-	10+57	SAMZ ROAD, LT	-	63	
0010	10+19	-	10+77	SAMZ ROAD, RT	-	94	
0010	300+17	-	300+65	RIDGE ROAD, LT	-	76	
0010	300+18	-	300+73	RIDGE ROAD, RT	-	88	
0010	247+40	-	248+53	CHERNEY ROAD, LT	114	-	
TOTAL 0010					114	321	

CULVERT PIPES																				
								520.1018	520.1024	521.1217	521.3118	521.3124	521.3717	522.0418	522.0424	522.1018	522.1024	522.2314	522.2614	633.5200
								APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	APRON ENDWALLS FOR PIPE ARCH STEEL 17X13-INCH EACH	CULVERT PIPE CORRUGATED STEEL 18-INCH LF	CULVERT PIPE CORRUGATED STEEL 24-INCH LF	PIPE ARCH CORRUGATED STEEL 17X13- INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS IV 18- INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24- INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18- INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24- INCH EACH	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 14X23-INCH LF	ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH EACH	MARKERS CULVERT END EACH
CATEGORY	STATION	OFFSET	INLET		OUTLET		LOCATION													
			OFFSET	ELEV	OFFSET	ELEV.														
0010	11+75	LT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	19+08	LT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	24+85	LT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	26+17	-	22' RT	652.35	24' LT	652.04	SAMZ ROAD	-	-	-	-	-	-	46	-	2	-	-	-	2
0010	29+62	RT	-	-	-	-	SAMZ ROAD	-	2	-	-	60	-	-	-	-	-	-	-	-
0010	30+24	-	23' RT	650.74	25' LT	650.55	SAMZ ROAD	-	-	-	-	-	-	-	48	-	2	-	-	2
0010	30+30	-	23' RT	650.75	25' LT	650.55	SAMZ ROAD	-	-	-	-	-	-	-	48	-	2	-	-	2
0010	31+32	RT	-	-	-	-	SAMZ ROAD	-	2	-	-	60	-	-	-	-	-	-	-	-
0010	36+80	RT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	38+23	LT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	50+37	RT	-	-	-	-	SAMZ ROAD	2	-	-	60	-	-	-	-	-	-	-	-	-
0010	250+65	LT	-	-	-	-	CHERNEY ROAD	-	-	2	-	-	20	-	-	-	-	-	-	-
0010	251+21	LT	-	-	-	-	CHERNEY ROAD	-	-	2	-	-	25	-	-	-	-	-	-	-
0010	300+40	-	50' RT	652.47	40' RT	652.34	RIDGE RIDGE	-	-	-	-	-	-	-	-	-	-	90	2	2
TOTAL 0010								12	4	4	360	120	45	46	96	2	4	90	2	8

PROJECT NO: 4307-02-71			HWY: SAMZ ROAD			COUNTY: MANITOWOC			MISCELLANEOUS QUANTITIES						SHEET:		E
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LANDSCAPING

					625.0100	627.0200	628.2004	629.0210	630.0130	630.0140	630.0200	630.0500
					TOPSOIL	MULCHING	EROSION MAT	FERTILIZER TYPE	SEEDING	SEEDING	SEEDING	
					SY	SY	CLASS I TYPE B	B	MIXTURE NO. 30	MIXTURE NO. 40	TEMPORARY	SEED WATER
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY	SY	CWT	LB	LB	LB	MGAL
0010	10+75	-	31+26	SAMZ ROAD, RT	4,750	3,490	1,260	3	214	-	130	130
0010	31+44	-	36+75	SAMZ ROAD, RT	1,330	1,010	320	1	60	-	36	37
0010	36+89	-	50+24	SAMZ ROAD, RT	1,920	1,070	850	2	86	-	52	54
0010	50+46	-	52+00	SAMZ ROAD, RT	170	80	90	1	7	-	4	5
0010	10+72	-	11+67	SAMZ ROAD, LT	170	20	150	1	8	-	5	5
0010	11+77	-	19+05	SAMZ ROAD, LT	1,820	1,370	450	2	82	-	49	51
0010	19+25	-	24+75	SAMZ ROAD, LT	1,100	770	330	1	50	-	30	31
0010	24+95	-	38+13	SAMZ ROAD, LT	3,680	2,840	840	3	170	-	100	100
0010	38+33	-	50+02	SAMZ ROAD, LT	1,910	1,110	800	2	86	-	51	54
0010	50+56	-	52+00	SAMZ ROAD, LT	160	110	50	1	7	-	4	4
0010	300+38	-	301+37	RIDGE ROAD, LT	220	220	0	1	10	-	6	6
0010	300+41	-	301+37	RIDGE ROAD, RT	200	110	90	1	9	-	6	6
0010	247+40	-	251+50	CHERNEY ROAD, LT	240	100	140	1	-	11	7	7
0010	247+30	-	251+49	CHERNEY ROAD, RT	1,070	880	190	1	-	48	29	30
0010	UNDISTRIBUTED				1,870	1,320	560	3	79	6	51	52
TOTAL 0010					20,610	14,500	6,120	24	868	65	560	572

EROSION CONTROL

					628.1504	628.1520	628.1905	628.1910	628.7504	628.7555
							MOBILIZATIONS	MOBILIZATIONS		
							EROSION	EROSION	TEMPORARY	CULVERT PIPE
					SILT FENCE	SILT FENCE	CONTROL	CONTROL	DITCH CHECKS	CHECKS
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	EACH	EACH	LF	EACH
0010	11+75	-	11+75	SAMZ ROAD	-	-	-	-	-	2
0010	19+08	-	19+08	SAMZ ROAD	-	-	-	-	-	2
0010	24+85	-	24+85	SAMZ ROAD	-	-	-	-	-	2
0010	26+17	-	26+17	SAMZ ROAD	-	-	-	-	-	2
0010	30+24	-	30+24	SAMZ ROAD	-	-	-	-	19	3
0010	30+30	-	30+30	SAMZ ROAD	-	-	-	-	-	3
0100	31+32	-	31+32	SAMZ ROAD	-	-	-	-	-	3
0010	36+80	-	36+80	SAMZ ROAD	-	-	-	-	-	2
0010	38+23	-	38+23	SAMZ ROAD	-	-	-	-	-	2
0010	46+00	-	50+00	SAMZ ROAD	400	400				
0010	50+37	-	50+37	SAMZ ROAD	-	-	-	-	-	2
0010	52+00	-	52+00	SAMZ ROAD	-	-	-	-	16	-
0010	250+65	-	250+65	CHERNEY ROAD	-	-	-	-	-	2
0010	251+21	-	251+21	CHERNEY ROAD	-	-	-	-	-	2
0010	300+40	-	300+40	RIDGE RIDGE	-	-	-	-	-	3
0010	301+37	-	301+37	RIDGE RIDGE	-	-	-	-	8	-
0010	UNDISTRIBUTED				500	500	5	5	5	3
TOTAL 0010					900	900	5	5	48	33

PERMANENT SIGNING												
CATEGORY	SIGN NO	LOCATION	SIGN MESSAGE	SIGN CODE	SIZE	634.0616	637.2210	637.2230	638.2102	638.2602	638.3000	REMARKS
						POSTS WOOD 4X6-INCH X 16- FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	1-1	CHERNEY ROAD LT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	MOUNT WITH 1-1
0010	-	CHERNEY ROAD LT	ALL WAY	R1-3P	18" X 6"	-	0.75	-	-	-	-	
0010	1-2	SAMZ ROAD LT	STOP	-	-	-	-	-	-	1	1	
0010	1-3	SAMZ ROAD RT	STOP	-	-	-	-	-	-	1	1	
0010	1-4	CHERNEY ROAD RT	STOP	-	-	-	-	-	-	1	1	
0010	1-5	CHERNEY ROAD LT	STOP	-	-	-	-	-	-	1	1	MOUNT WITH 1-7
0010	1-6	CHERNEY ROAD RT	STOP	-	-	-	-	-	-	1	1	
0010	1-7	CHERNEY ROAD RT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	
0010	-	CHERNEY ROAD RT	ALL WAY	R1-3P	18" X 6"	-	0.75	-	-	-	-	
0010	1-8	SAMZ ROAD LT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	
0010	-	SAMZ ROAD LT	ALL WAY	R1-3P	18" X 6"	-	0.75	-	-	-	-	MOUNT WITH 1-8
0010	1-9	SAMZ ROAD LT	STOP AHEAD	W3-1	36" X 36"	1	-	9.00	-	1	1	
0010	1-10	SAMZ ROAD LT	45 MPH	R2-1	24" X 30"	1	5.00	-	-	1	1	
0010	1-11	SAMZ ROAD RT	NO ENGINE BRAKING	R10-64	36" X 36"	1	9.00	-	-	1	1	
0010	1-12	SAMZ ROAD RT	REDUCED SPEED	-	-	-	-	-	-	1	-	
0010	1-13	SAMZ ROAD RT	NO HUNTING	-	-	-	-	-	1	-	-	MOUNT WITH 1-16
0010	1-14	SAMZ ROAD RT	SPEED REDUCTION 35 MPH	W3-5	36" X 36"	1	-	9.00	-	1	-	
0010	1-15	SAMZ ROAD RT	35 MPH	R2-1	24" X 30"	1	5.00	-	-	1	-	
0010	1-16	SAMZ ROAD RT	MISHICOT	-	-	2	-	-	1	-	2	
0010	1-17	CHERNEY ROAD LT	TWO-DIRECTION LARGE ARROW	W1-7	48" X 24"	1	-	8.00	-	-	-	
0010	1-18	SAMZ ROAD LT	ONE-DIRECTION LARGE ARROW	-	-	-	-	-	-	1	1	MOUNT WITH 2-2
0010	2-1	SAMZ ROAD RT	STOP AHEAD	W3-1	36" X 36"	1	-	9.00	-	1	1	
0010	2-2	SAMZ ROAD RT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	
0010	-	SAMZ ROAD RT	ALL WAY	R1-3P	18" X 6"	-	0.00	-	-	-	-	
0010	2-3	SAMZ ROAD RT	STOP	-	-	-	-	-	-	1	1	
0010	2-4	RIDGE ROAD RT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	MOUNT WITH 2-4
0010	-	RIDGE ROAD RT	ALL WAY	R1-3P	18" X 6"	-	0.75	-	-	-	-	
0010	2-5	RIDGE ROAD RT	STOP	-	-	-	-	-	-	1	1	
0010	2-6	RIDGE ROAD LT	STOP	R1-1	36" X 36"	1	7.46	-	-	-	-	
0010	-	RIDGE ROAD LT	ALL WAY	R1-3P	18" X 6"	-	0.75	-	-	-	-	
0010	2-7	SAMZ ROAD RT	STOP	-	-	-	-	-	-	1	1	
TOTAL 0010						15	67.51	35.00	2	16	15	

TRAFFIC CONTROL														
CATEGORY	LOCATION	DURATION**	643.0300		643.0420		643.0705		643.0900		643.1050		643.5000	REMARKS
			TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC	
			DRUMS		BARRICADES TYPE		WARNING LIGHTS		SIGNS		SIGNS		PCMS	
			DAY	EACH*	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	EACH	
0010	SAMZ ROAD	72	1,800	25	360	5	432	6	504	7	14	1		SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C
0010	CHERNEY ROAD	72	-	-	720	10	864	12	1,008	14	-	-		SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C
0010	RIDGE ROAD	72	-	-	360	5	432	6	504	7	-	-		SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C
TOTAL 0010			1,800		1,440		1,728		2,016		14	1		

* FOR USE AT PCMS SIGNS AND PROTECTING WORK AREAS (UNDISTRIBUTED)
** FOR INFORMATION ONLY

PAVEMENT MARKING

					646.2020		646.6120	646.6466
					MARKING LINE EPOXY 6-INCH		MARKING STOP	COLD WEATHER
					WHITE		LINE EPOXY 18-	MARKING EPOXY
					YELLOW		INCH	6-INCH
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF
0010	10+23	-	52+00	SAMZ ROAD	-	1,040	-	1,040
0010	10+92	-	52+00	SAMZ ROAD	8,030	-	-	8,030
0010	51+11	-	52+00	SAMZ ROAD	90	-	-	90
0010	247+30	-	251+50	CHERNEY ROAD	-	105	61	105
0010	300+22	-	301+37	RIDGE ROAD	-	30	65	30
TOTAL 0010					9,295		126	9,295

STAKING

CATEGORY	LOCATION	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING PIPE CULVERTS EACH	CONSTRUCTION STAKING SLOPE STAKES LF
0010	SAMZ ROAD	4,125	4,125	157	3	4,125
0010	CHERNEY ROAD	420	420	114	-	420
0010	RIDGE ROAD	137	137	164	1	137
TOTAL 0010		4,682	4,682	435	4	4,682

SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	52+00	SAMZ ROAD	22
0010	247+30	CHERNEY ROAD	22
0010	251+00	CHERNEY ROAD	22
0010	301+37	RIDGE ROAD	22
TOTAL 0010			88

REESTABLISH SECTION CORNERS

CATEGORY	STATION	LOCATION	SPV.0060.01 SPECIAL (01. REESTABLISH SECTION CORNER MONUMENTS) EACH	REMARKS
0010	50+34	SAMZ ROAD RT	1	SW SEC 5-20-24
0010	250+87	CHERNEY ROAD RT	1	SE-SW 1/4 SW 1/4 SEC 6-20-24
TOTAL 0010			2	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

4307-02-00

T. MISHICOT, SAMZ ROAD

CHERNEY ROAD - RIDGE ROAD

LOCAL STREET

MANITOWOC COUNTY

REGISTERS OFFICE
MANITOWOC COUNTY, WI
RECEIVED FOR RECORD
April 11, 2024 @ 2:00 PM
PLAT CANCELED / NOT

KRISTIN TUFESBERG, REGISTER

CONVENTIONAL SYMBOLS

SECTION LINE	SECTION CORNER SYMBOL	R/W MONUMENT (TO BE SET)
QUARTER LINE	SECTION CORNER MONUMENT	NON-MONUMENTED R/W POINT
SIXTEENTH LINE	SECTION CORNER MONUMENT	FOUNDED IRON PIN (TO BE SET)
NEW REFERENCE LINE	SECTION CORNER MONUMENT	OFF-PREMISE SIGN
NEW R/W LINE	SECTION CORNER MONUMENT	UTILITY NUMBER
EXISTING R/W OR HF LINE	SECTION CORNER MONUMENT	PARALLEL OFFSETS
PROPERTY LINE	SECTION CORNER MONUMENT	
BOY, TIE & OTHER MINOR LINES	SECTION CORNER MONUMENT	
SLOPE INTERCEPT	SECTION CORNER MONUMENT	
CORPORATE LIMITS	SECTION CORNER MONUMENT	
UNDERGROUND FACILITY (COMMUNICATIONS, ETC., ETC.)	SECTION CORNER MONUMENT	
NEW R/W (SEE OR HE) (BUT THE VARIOUS OWNERS)	SECTION CORNER MONUMENT	
TEMPORARY LIMITED EASEMENT AREA	SECTION CORNER MONUMENT	
EASEMENT AREA (PERMANENT LIMITED OR R/W STRICED DEVELOPMENT)	SECTION CORNER MONUMENT	
TRANSMISSION STRUCTURES	SECTION CORNER MONUMENT	
BUILDING TO BE REMOVED	SECTION CORNER MONUMENT	
BRIDGE	SECTION CORNER MONUMENT	
CULVERT	SECTION CORNER MONUMENT	

CONVENTIONAL ABBREVIATIONS

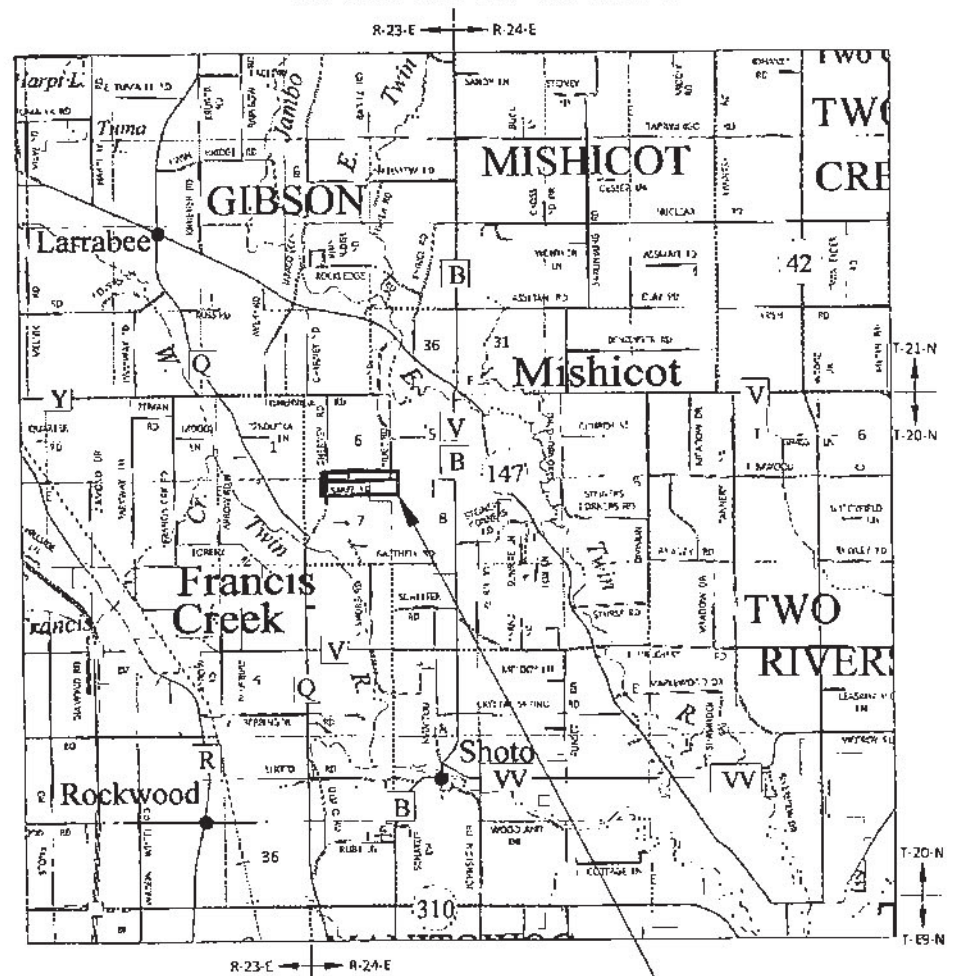
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PE
ALUMINUM AND OTHERS	ALUM	RECORD AS	(100)
BACK	BA	REF / IMAGE	R/I
BLOCK	BL	REFERENCE LINE	R/L
CENTERLINE	CL	REMANING	REM
CERTIFIED SURVEY MAP	CSM	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CONCRETE	CO	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIS	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	ST
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EAS	STATION	STA
EXISTING	EX	TELEPHONE PEDestal	TP
GAS VALVE	GV	TEMPORARY LIMITED EASEMENT	TLE
GRID NORTH	GN	TEMPORARY LIMITED EASEMENT	TLE
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	EC	VOLUME	V
LEFT	ET		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	REE		
POINT OF BEGINNING	PDB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

WATER	—
GAS	—
TELEPHONE	—
OVERHEAD TRANSMISSION LINES	—
ELECTRIC CABLE TELEVISION	—
FIBER OPTIC	—
SANITARY SEWER	—
STORM SEWER	—



PROJECT LOCATION

LAYOUT

SCALE 0 1 MI.

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 4307-02-00.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MANITOWOC COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1/2" 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 RECORDS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPANCY LINES.

RIGHT-OF-WAY BOUNDARIES ARE DERIVED 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 (TLE) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO PLANT, TRIM, OR MAINTAIN SAID VEGETATION WITHIN THE RIGHT-OF-WAY OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA OBTAINED FROM PUBLIC RECORDS 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 TOWN OF MISHICOT.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT OF WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 4307-02-00 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 4307-02-00 - 4.01

THAT PART OF TRACT 1, CERTIFIED SURVEY MAP RECORDED IN VOLUME 12 CSM ON PAGE 315 AS DOCUMENT 672691, BEING IN AND INCLUDING THAT PART OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4, AND THAT PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 7, TOWNSHIP 20 NORTH, RANGE 24 EAST, TOWN OF MISHICOT, MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER TOWN OF MISHICOT SAMZ ROAD CHERNEY ROAD-RIDGE ROAD MANITOWOC COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 82.10 AND 82.14, WISCONSIN STATUTES, THE TOWN OF MISHICOT 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 TOWN FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF MISHICOT, PURSUANT TO THE PROVISIONS OF SECTION 82.10 AND 82.14, WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MANITOWOC COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY 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.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

FOUND IRON PINS ARE 1" IRON PIPE WITH PLASTIC CAP, UNLESS OTHERWISE NOTED.

EXISTING RIGHT OF WAY FOR SAMZ ROAD ESTABLISHED FROM CSM V12 P315, DOCUMENT 204995, AND STATE STATUTE WITH AN ASSUMED WIDTH OF 3 RODS CENTERED ON THE EXISTING CENTERLINE OF SAMZ ROAD.

EXISTING RIGHT OF WAY FOR CHANEY ROAD ESTABLISHED FROM DOCUMENT 299429, DOCUMENT 204995, DOCUMENT 299432, CSM V12 P315.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN.

PARCEL NUMBER	OWNER (S)	INTEREST(S) REQUIRED	R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
1	SANDY BAY REAL ESTATE LLC	FEE, TLE	19188	73890	93078	1723
2	KEVIN L SHEDAL & TAMMY A SHEDAL	FEE	17276	27324	44600	---

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. THE PURPOSE FOR ALL TLE'S IS GRADING UNLESS OTHERWISE NOTED.

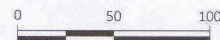
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
200	WISCONSIN PUBLIC SERVICE - GAS	RELEASE OF RIGHTS
201	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

- 200 WISCONSIN PUBLIC SERVICE - GAS
NO RECORDED EASEMENT - PARCEL 1
- 201 FRONTIER COMMUNICATIONS
DOC 446136 - PARCEL 1
DOC 446513 - PARCEL 1

GN

SCALE, FEET



REGISTERS OFFICE
MANITOWOC COUNTY, WI
RECEIVED FOR RECORD

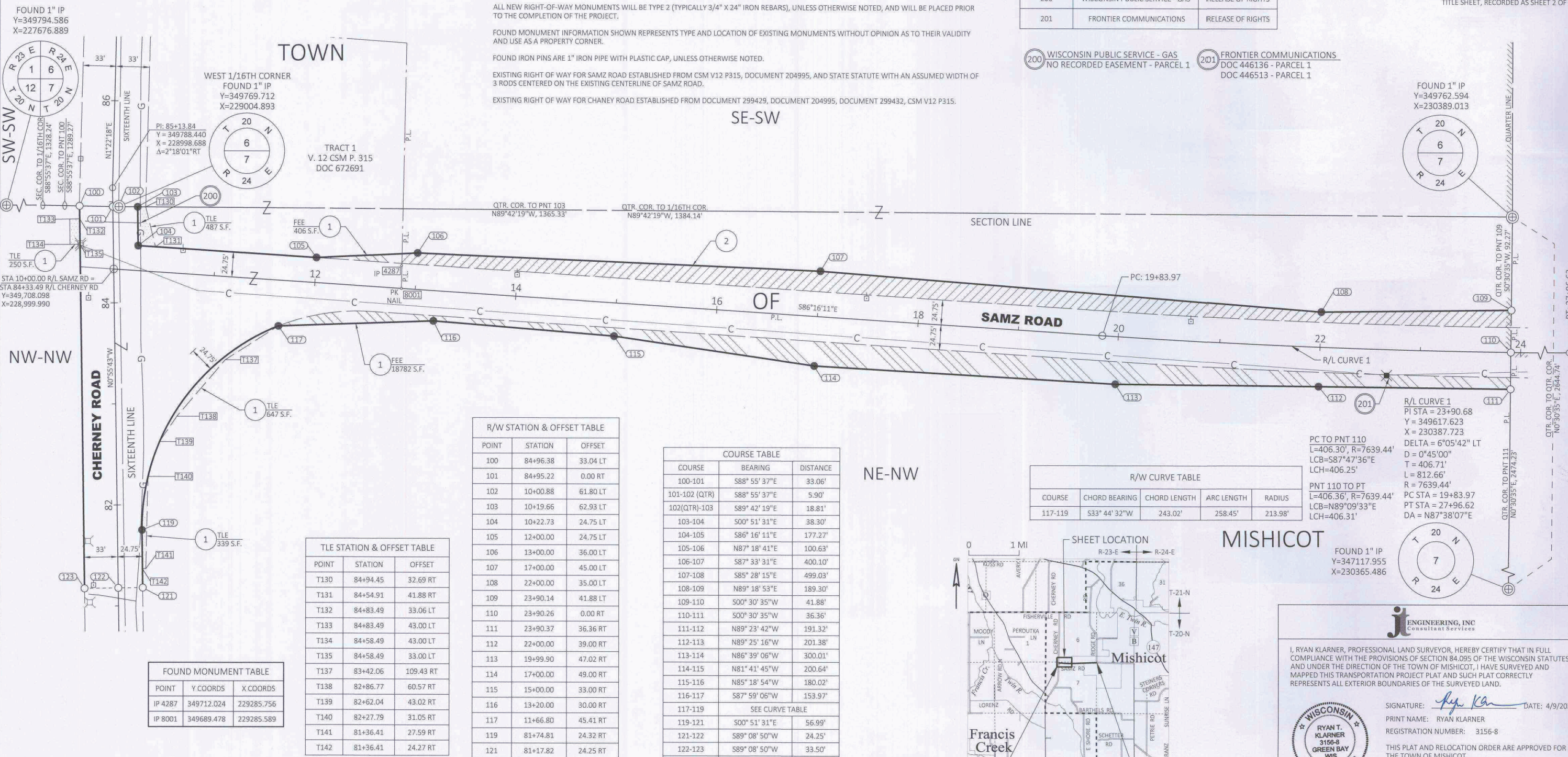
April 11, 2024 @ 2:00 PM

PLAT CABINET D / JKT 93

Kristi Tuesburg
KRISTI TUESBURG, REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 4307-02-00 - 4.01
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO
TITLE SHEET, RECORDED AS SHEET 2 OF 2.



TRANSPORTATION PROJECT PLAT NO: 4307-02-00 - 4.02

THAT PART OF LOT 1, CERTIFIED SURVEY MAP RECORDED IN VOLUME 35 CSM ON PAGE 351 AS DOCUMENT 1249606, BEING IN AND INCLUDING PART OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4, SECTION 7, TOWNSHIP 20 NORTH, RANGE 24 EAST, TOWN OF MISHICOT, AND THAT PART OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4, SECTION 7, TOWNSHIP 20 NORTH, RANGE 24 EAST, VILLAGE OF MISHICOT, ALL IN MANITOWOC COUNTY, WISCONSIN.

RELOCATION ORDER TOWN OF MISHICOT SAMZ ROAD CHERNEY ROAD-RIDGE ROAD MANITOWOC COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 82.10 AND 82.14, WISCONSIN STATUTES, THE TOWN OF MISHICOT AND THE VILLAGE OF MISHICOT 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 TOWN AND VILLAGE FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF MISHICOT OR THE VILLAGE OF MISHICOT, PURSUANT TO THE PROVISIONS OF SECTION 82.10 AND 82.14, WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MANITOWOC COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY 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.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

FOUND IRON PINS ARE 1" IRON PIPE WITH PLASTIC CAP, UNLESS OTHERWISE NOTED.

EXISTING RIGHT OF WAY FOR SAMZ ROAD ESTABLISHED FROM STATE STATUTE WITH AN ASSUMED WIDTH OF 3 RODS CENTERED ON THE EXISTING CENTERLINE OF SAMZ ROAD.

FOUND MONUMENT TABLE			
POINT	Y COORDS	X COORDS	
IP 5010	349671.201	231577.781	
IP 5011	349638.139	231577.595	
IP 8002	349643.215	231005.780	
IP 8003	349610.230	231005.627	

COURSE TABLE		
COURSE	BEARING	DISTANCE
109-200	N89° 18' 53"E	208.69'
200-201	N87° 21' 08"E	598.48'
201-202	N87° 25' 26"E	500.00'
202-203	S89° 07' 59"E	15.68'
203-204	S00° 23' 31"W	45.07'
204-205	S00° 23' 31"W	41.20'
205-206	S84° 10' 00"W	110.99'
206-207	S89° 46' 17"W	200.20'
207-208	S85° 40' 02"W	300.11'
208-209	S85° 31' 15"W	100.42'
209-210	S89° 40' 01"W	501.68'
210-111	N89° 23' 42"W	110.16'
111-110	N00° 30' 35"E	36.36'
110-109	N00° 30' 35"E	41.88'

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
109	23+90.14	41.88 LT
110	23+90.26	0.00 RT
111	23+90.37	36.36 RT
200	26+00.00	44.00 LT
201	32+00.00	48.00 LT
202	37+00.00	46.00 LT
203	37+15.42	45.01 LT
204	37+13.13	0.00 RT
205	37+10.83	41.14 RT
206	36+00.00	47.00 RT
207	34+00.00	38.00 RT
208	31+00.00	46.00 RT
209	30+00.00	49.00 RT
210	25+00.00	37.00 RT

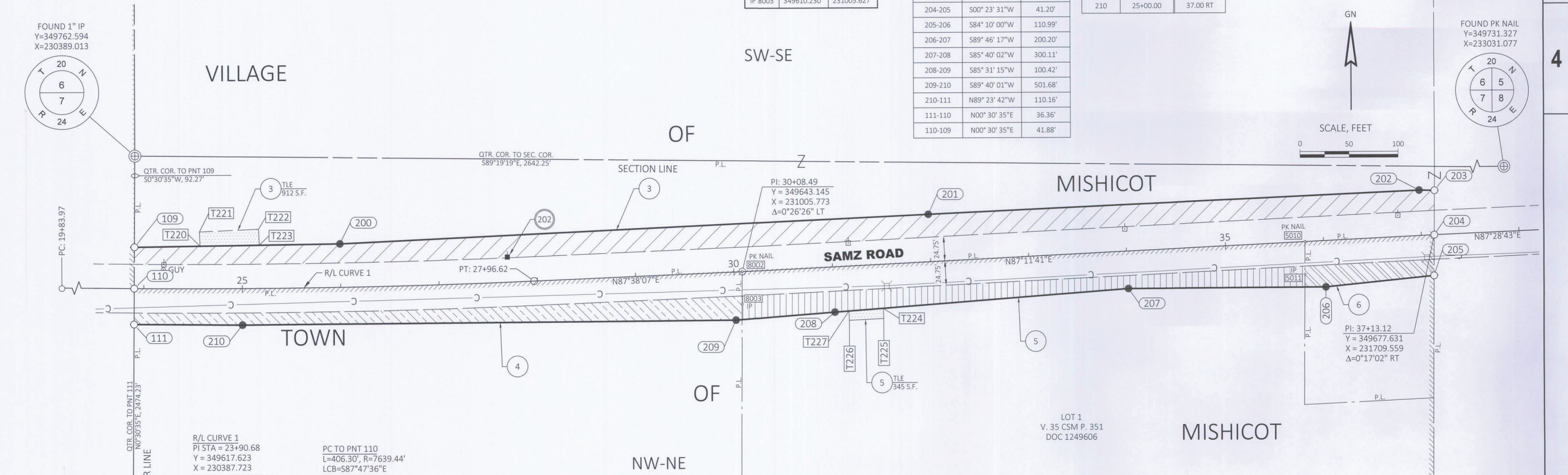
TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
T220	24+57.22	43.18 LT
T221	24+56.59	57.49 LT
T222	25+17.00	59.92 LT
T223	25+17.59	43.85 LT
T224	31+49.24	44.69 RT
T225	31+49.24	55.00 RT
T226	31+14.24	55.00 RT
T227	31+14.24	45.62 RT

REGISTERS OFFICE
MANITOWOC COUNTY, WI
RECEIVED FOR RECORD
April 15, 2024 @ 8:40 AM
PLAT CABINET D / JKT 94
Kristi Tuesburg
KRISTI TUESBURG, REGISTER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 4307-02-00 - 4.02
AMENDMENT NO:

FOR ADDITIONAL INFORMATION
REFER TO TITLE SHEET, RECORDED AS
SHEET 2 OF 2 OF

Doc 12713605



R/L CURVE 1
PI STA = 23+90.68
Y = 349617.623
X = 230387.723
DELTA = 6°05'42" LT
D = 0°45'00"
T = 406.71'
L = 812.66'
R = 7639.44'
PC STA = 19+83.97
PT STA = 27+96.62
DB = S86°16'11"E

PC TO PNT 110
L=406.30', R=7639.44'
LCB=S87°47'36"E
LCH=406.25'
PNT 110 TO PT
L=406.36', R=7639.44'
LCB=N89°09'33"E
LCH=406.31'

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
201	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS
202	WISCONSIN PUBLIC SERVICE- ELECTRIC	RELEASE OF RIGHTS

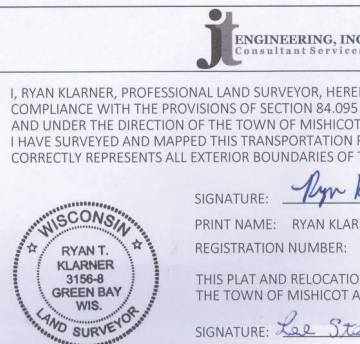
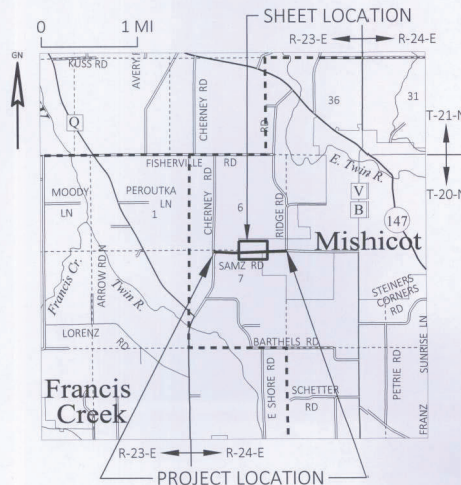
201 FRONTIER COMMUNICATIONS
DOC 446509 - PARCELS 4, 5, & 6
DOC 1249606 - PARCELS 5 & 6

202 WISCONSIN PUBLIC SERVICE - ELECTRIC
NO RECORDED EASEMENT - PARCEL 3

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN OR VILLAGE.						
PARCEL NUMBER	OWNER (S)	INTEREST(S) REQUIRED	R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
3	DONALD J FUNK & DEBORAH A FUNK	FEE, TLE	28953	32738	61691	912
4	CURT M BRADLEY & CORY L BRADLEY	FEE	9733	15302	25035	---
5	LYNNE DIRKMANN BY VIRTUE OF DECEDENTS INTEREST AUG 23, 2021	FEE, TLE	10390	14164	24554	345
6	FH HOSPITALITY LLC	FEE	2603	3266	5869	---

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. THE PURPOSE FOR ALL TLE'S IS GRADING UNLESS OTHERWISE NOTED.



I, RYAN KLARNER, 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 TOWN OF MISHICOT AND THE VILLAGE OF MISHICOT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Ryan Klarner* DATE: 4/9/2024

PRINT NAME: RYAN KLARNER
REGISTRATION NUMBER: 3156-8

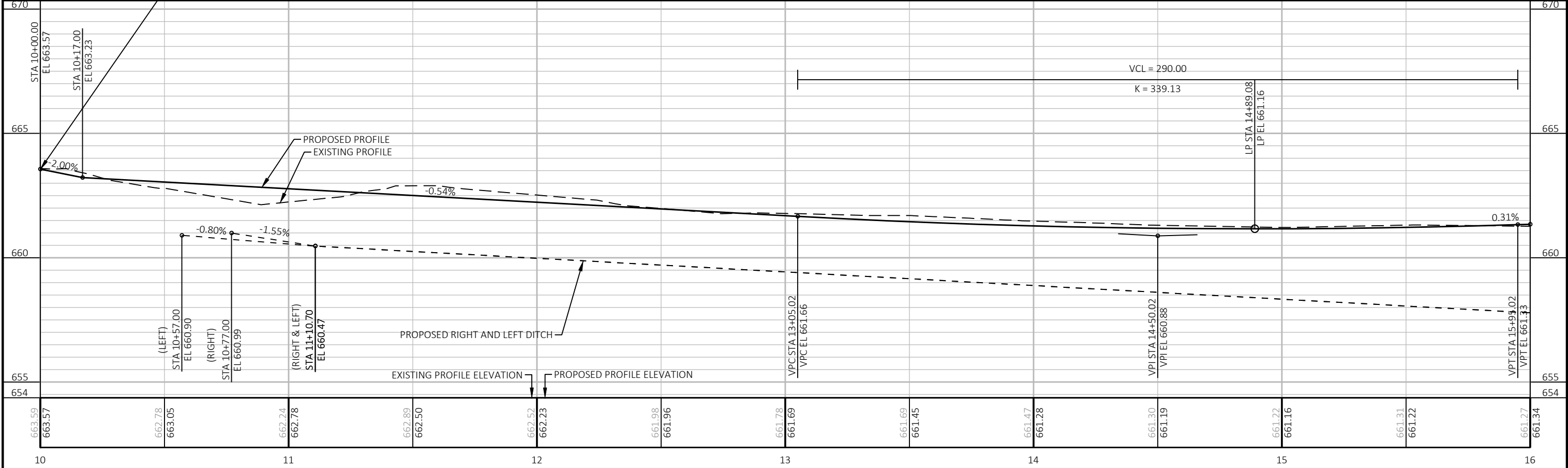
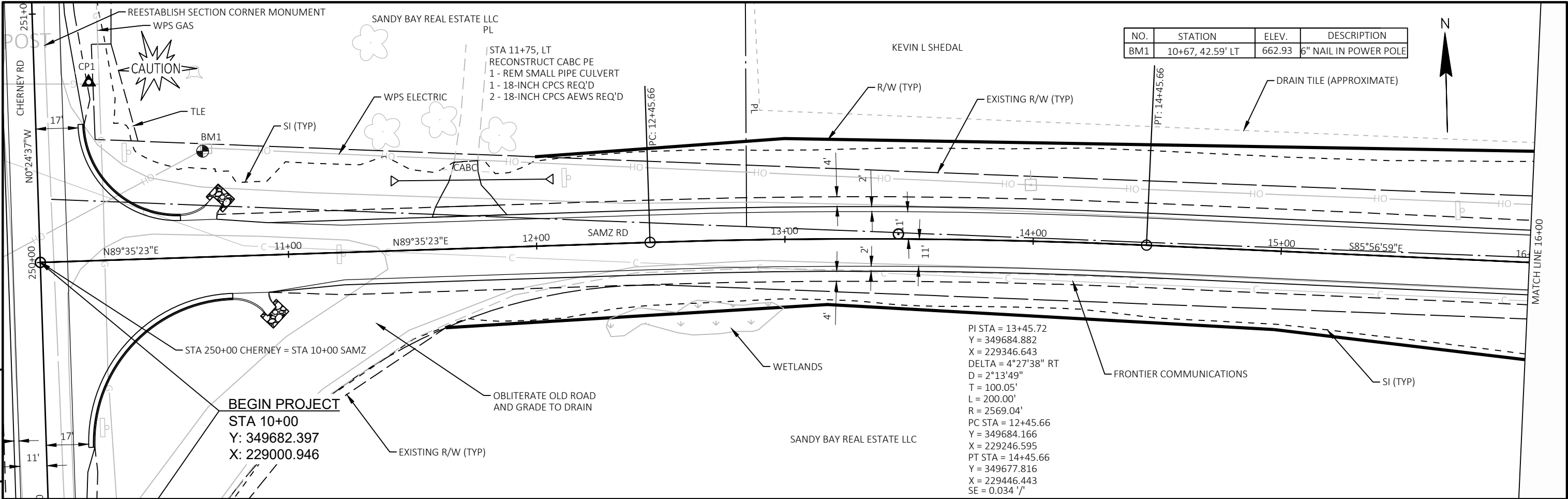
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE TOWN OF MISHICOT AND THE VILLAGE OF MISHICOT.

SIGNATURE: *Lee Stefaniak* DATE: 4-9-24

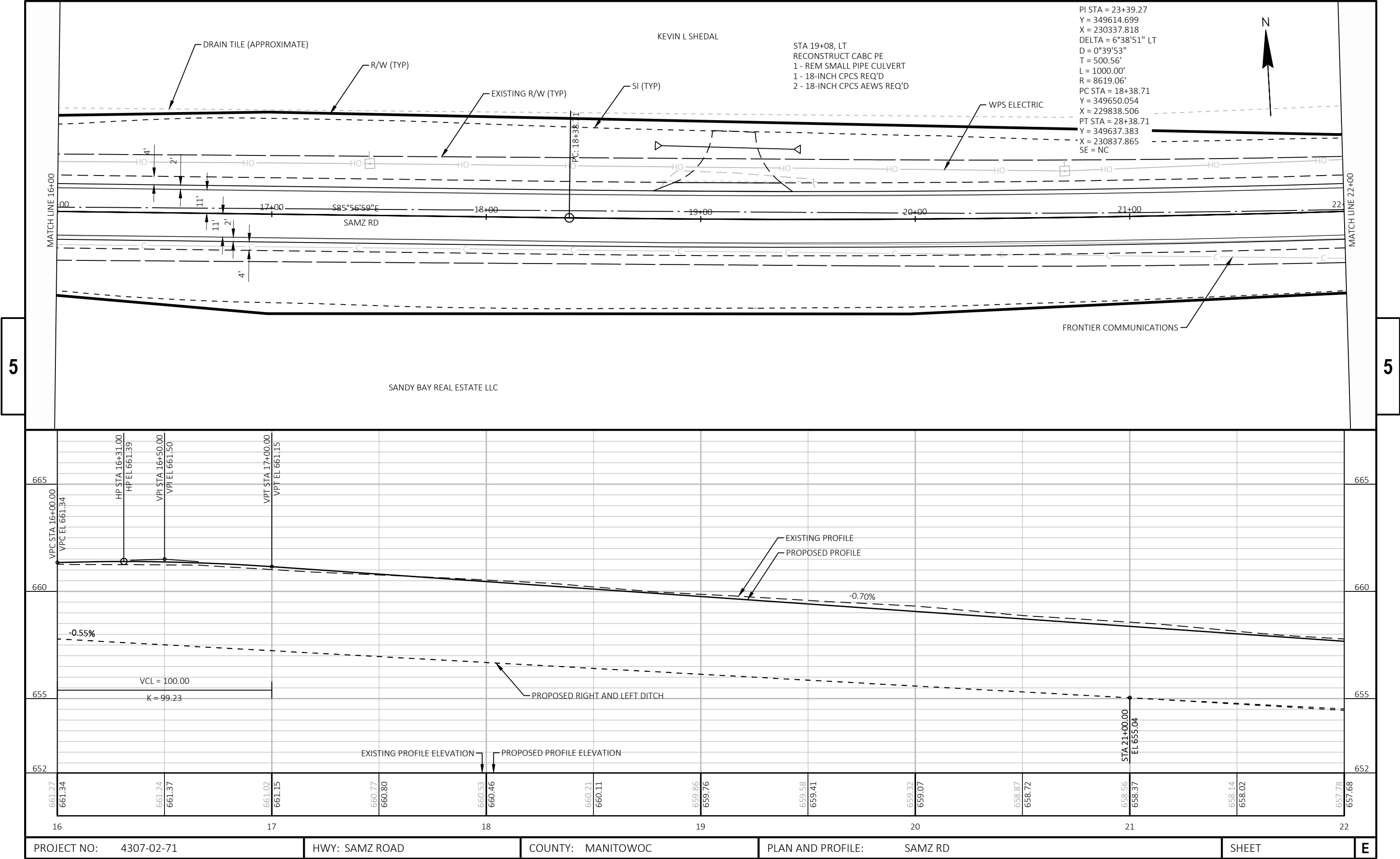
PRINT NAME: LEE STEFANIAK

SIGNATURE: *Bernie J. Same* DATE: 4-9-24

PRINT NAME: Bernie J. Same



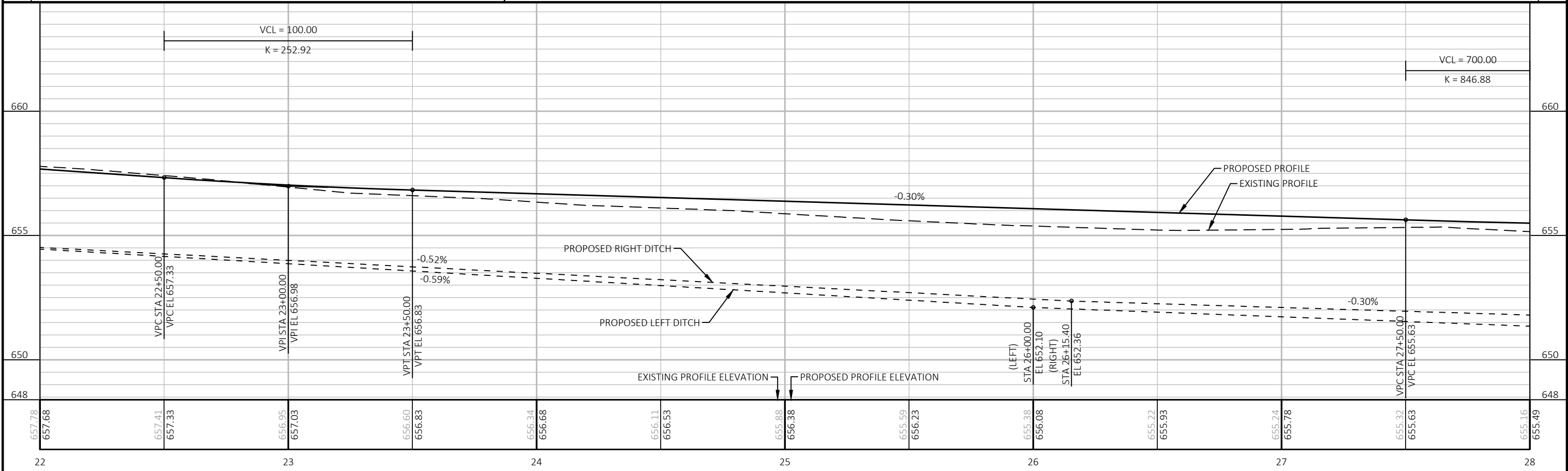
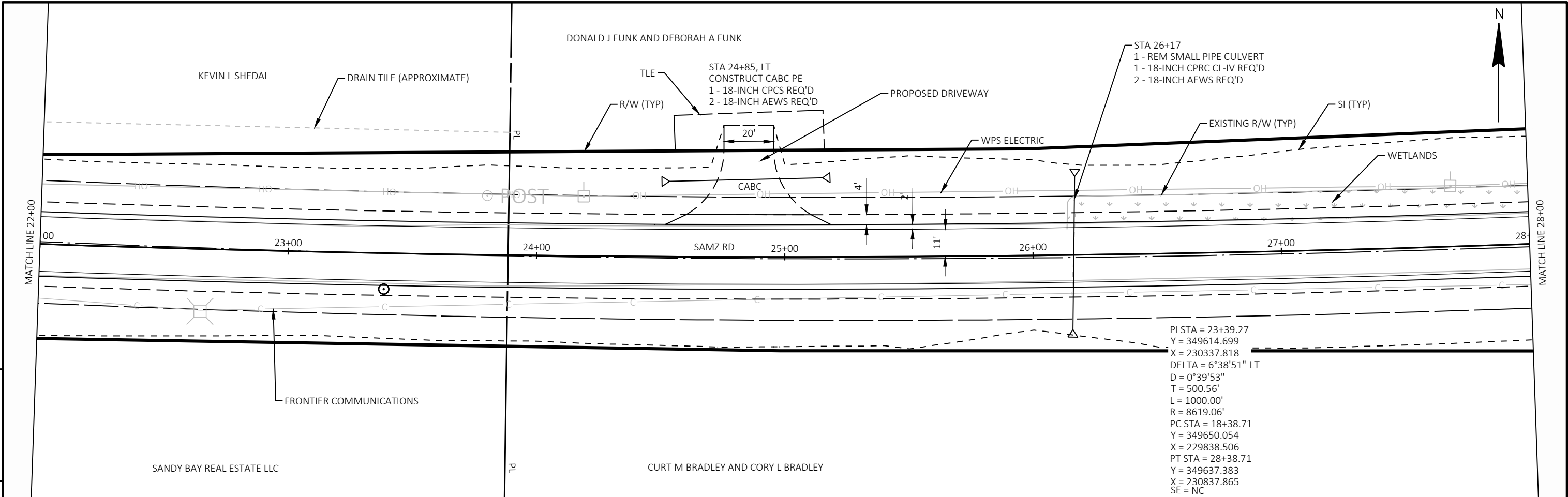
PROJECT NO:	4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PLAN AND PROFILE: SAMZ RD	SHEET	E
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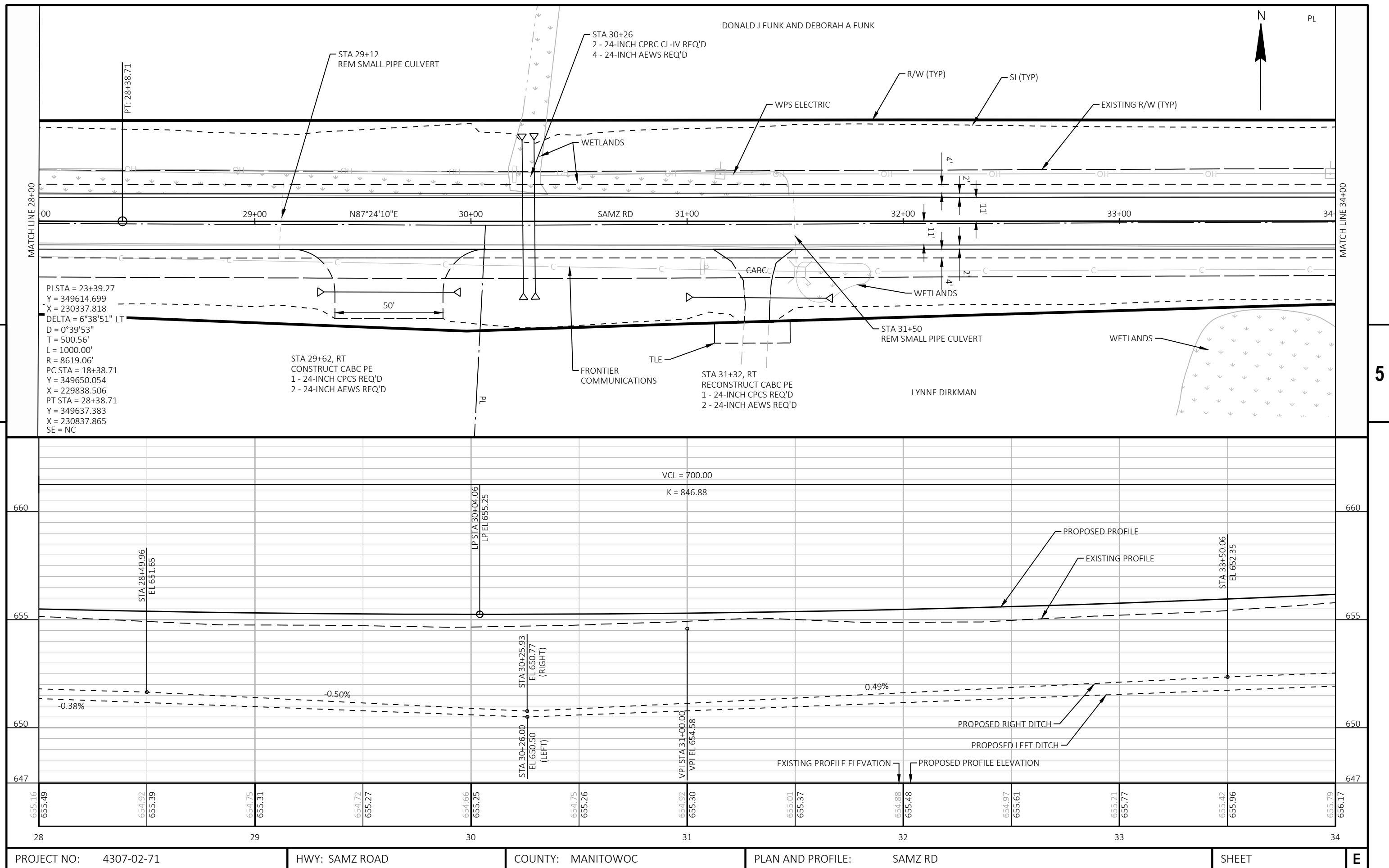
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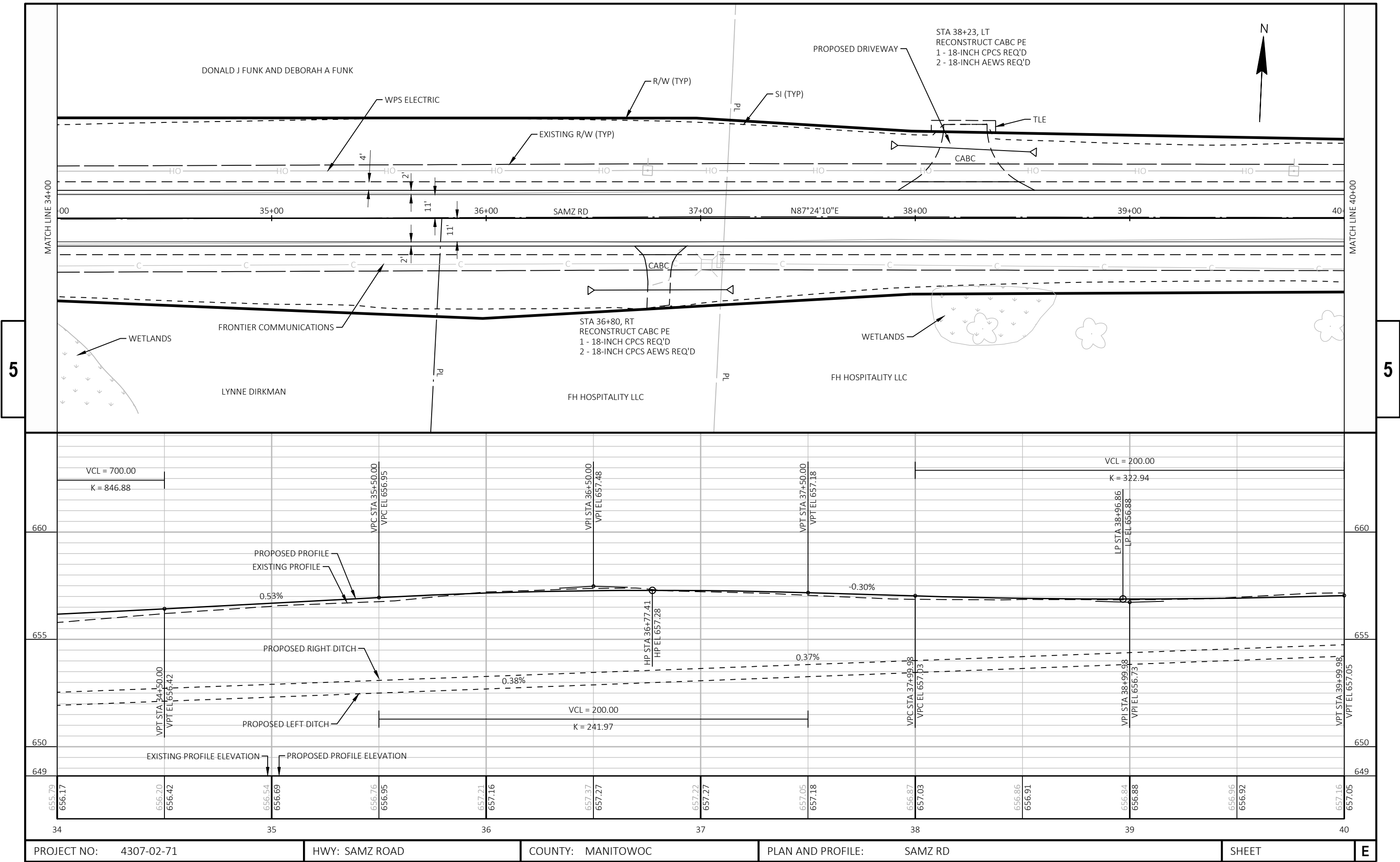
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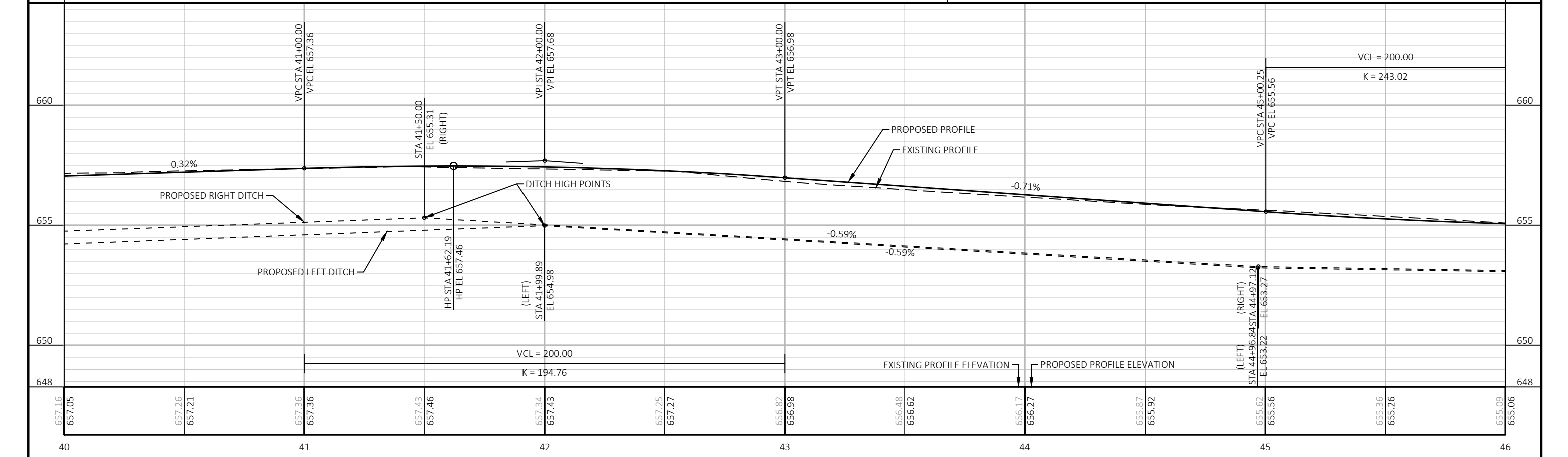
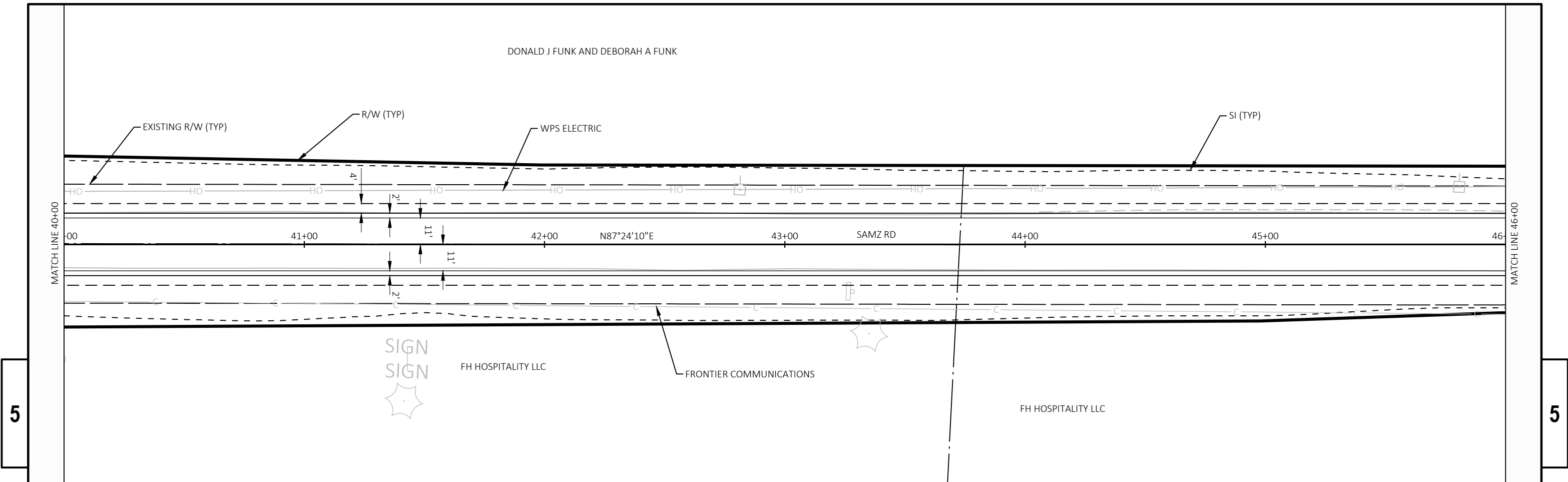
PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PLAN AND PROFILE: SAMZ RD	SHEET	E
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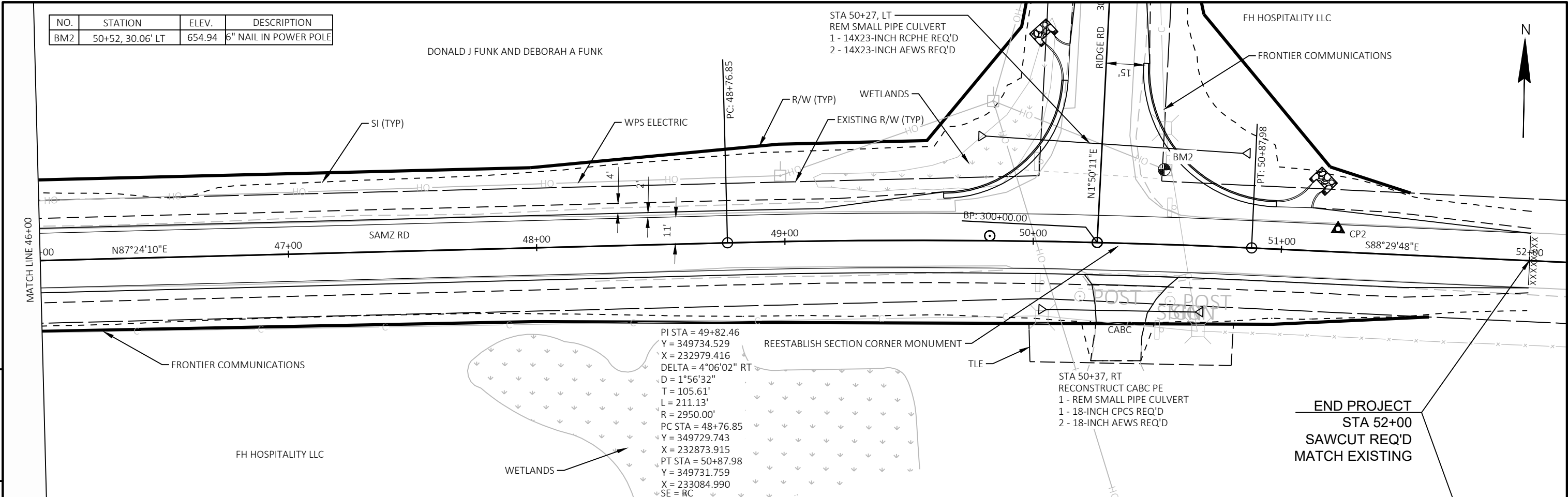


PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PLAN AND PROFILE: SAMZ RD	SHEET	E
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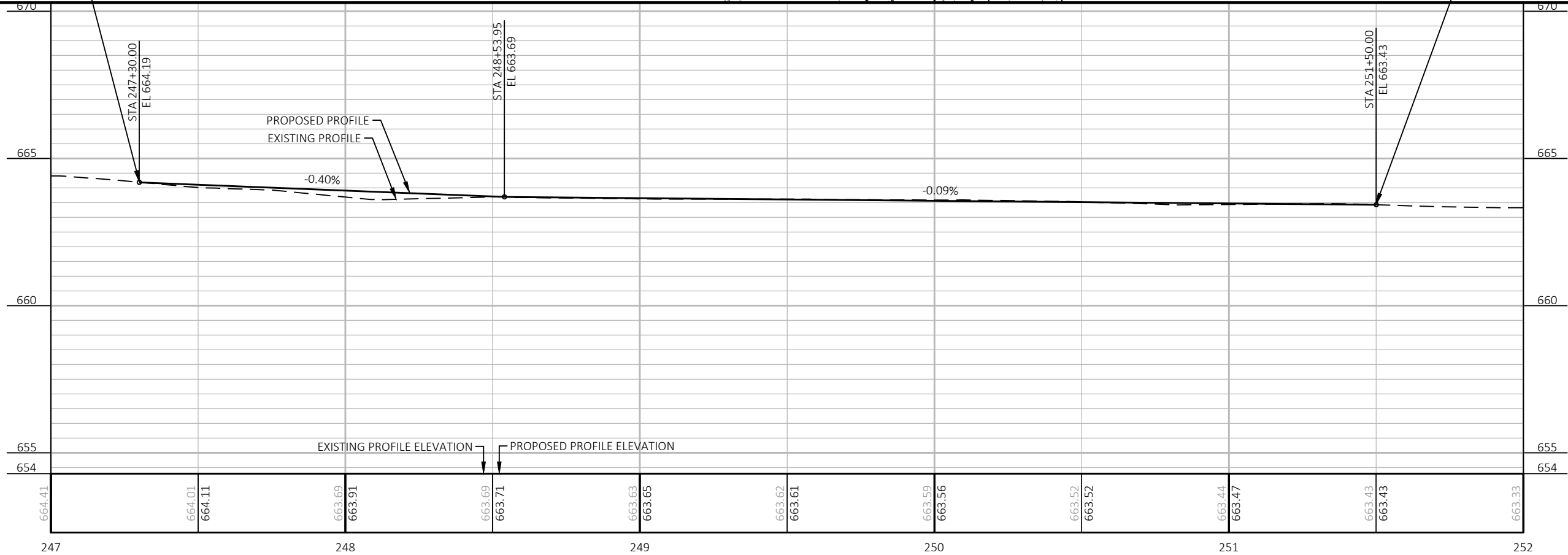
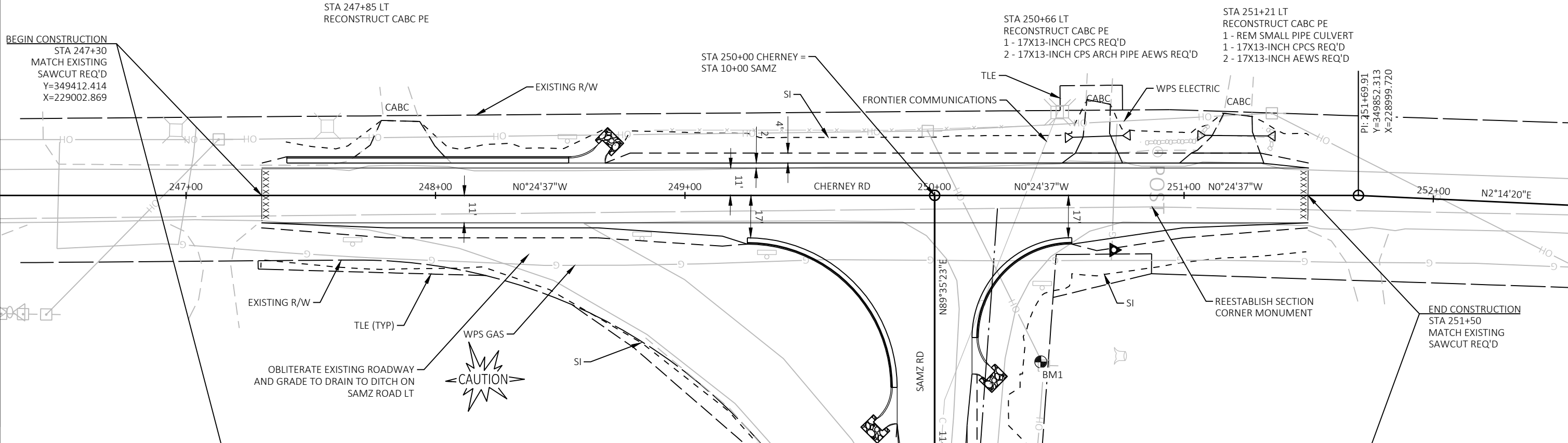




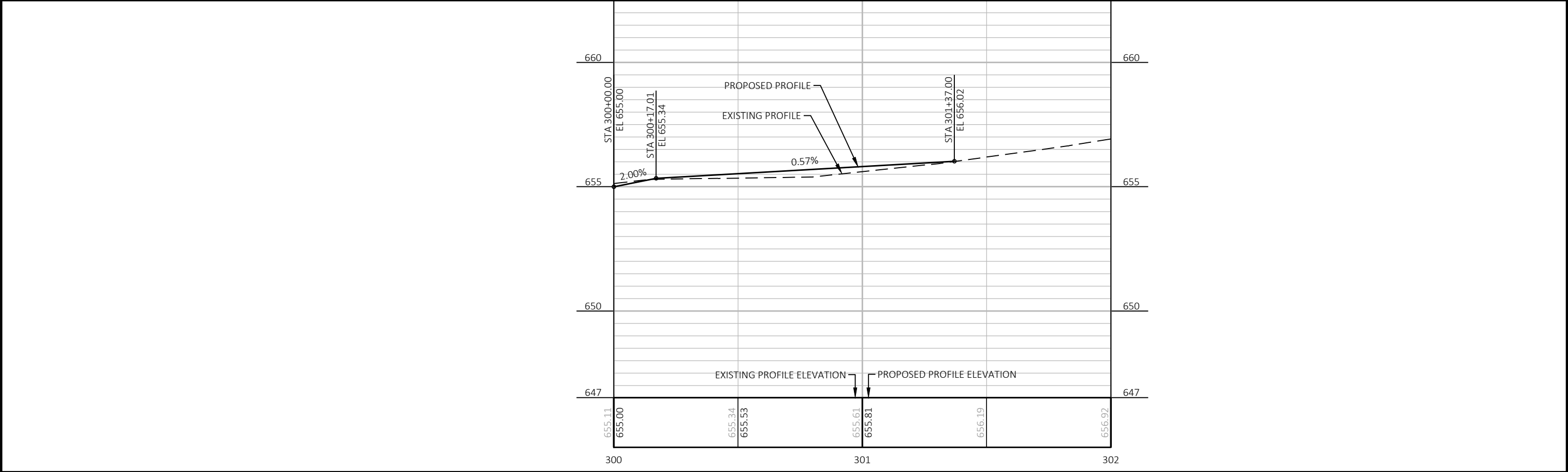
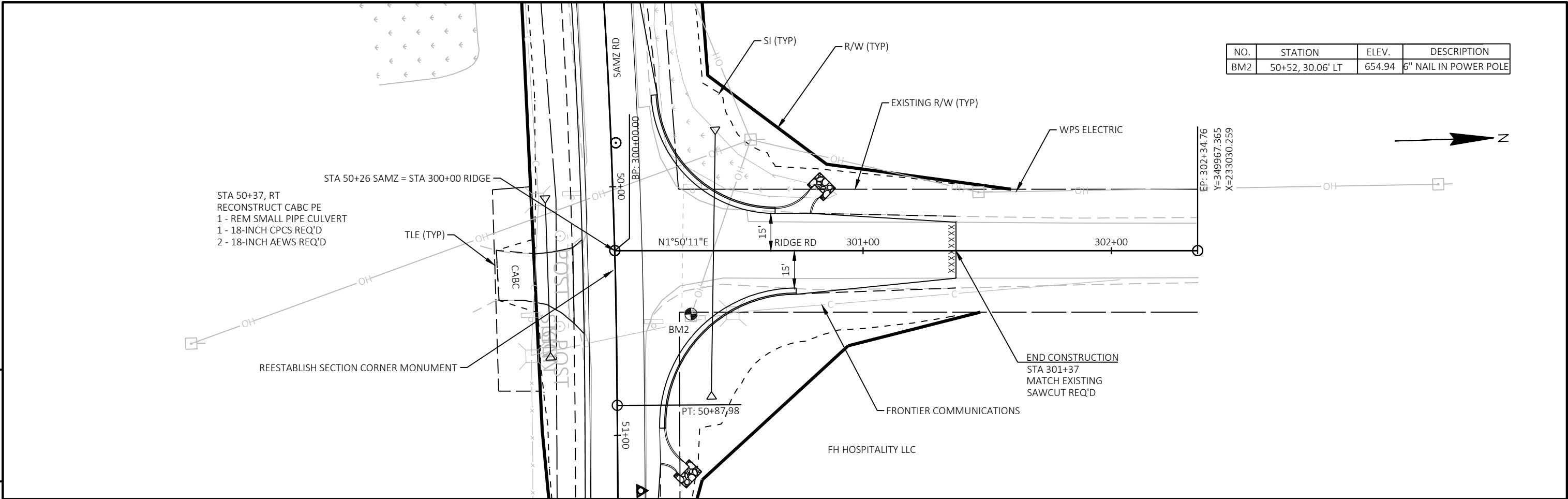




NO.	STATION	ELEV.	DESCRIPTION
BM1	10+67, 42.59' LT	662.93	6" NAIL IN POWER POLE

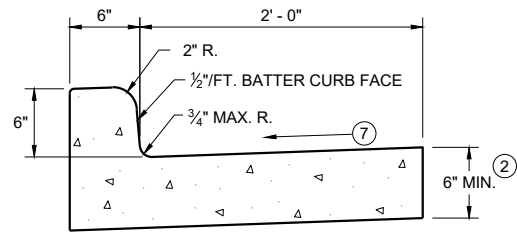


PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	PLAN AND PROFILE: CHERNEY RD	SHEET	E
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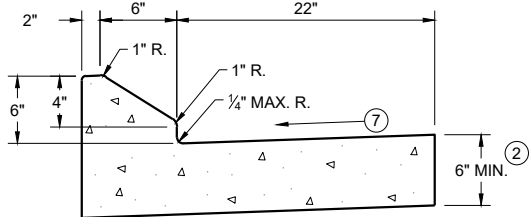


Standard Detail Drawing List

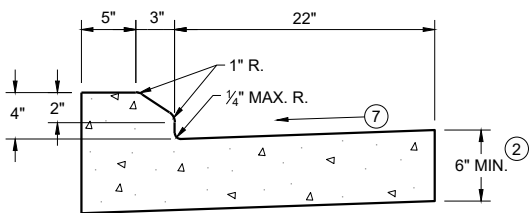
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)



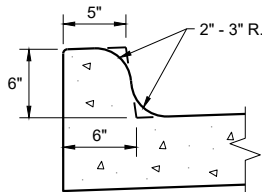
TYPES A^① & D



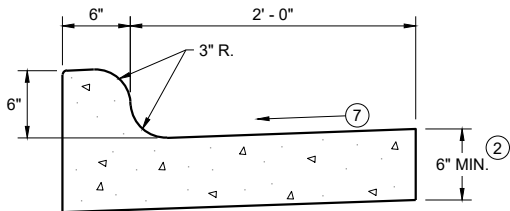
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

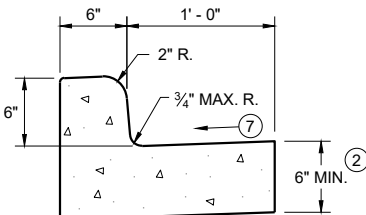


TYPES K^① & L
(OPTIONAL CURB SHAPE)



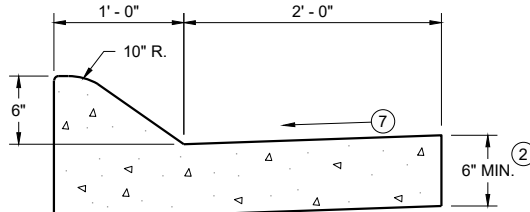
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

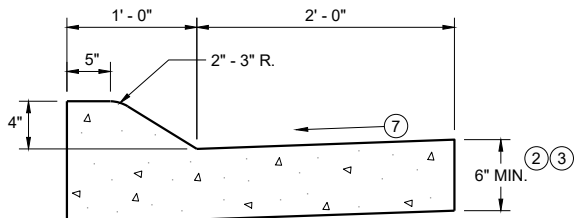


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

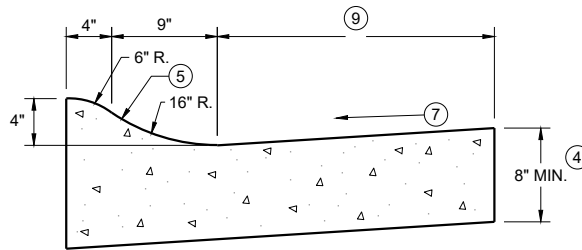


6" SLOPED CURB TYPES A^① & D



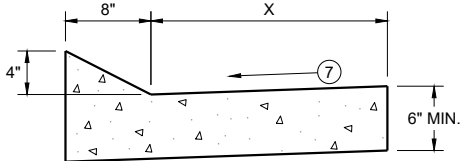
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

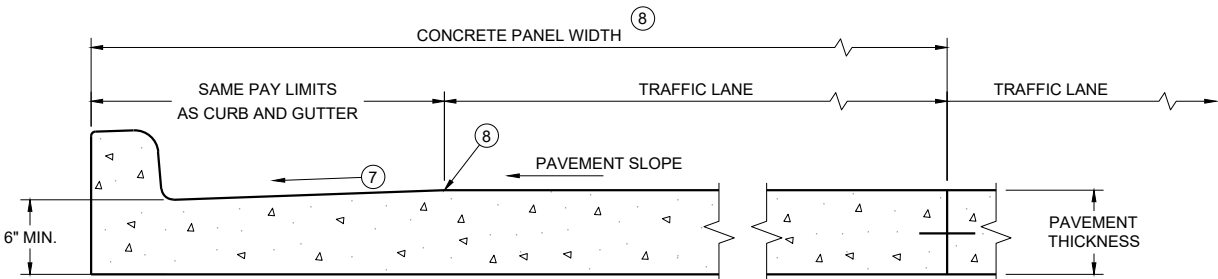


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

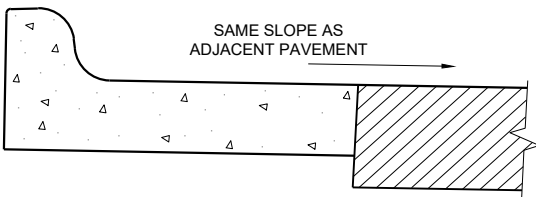
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

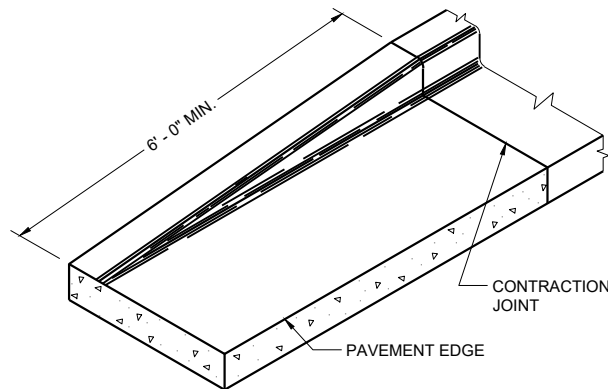
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

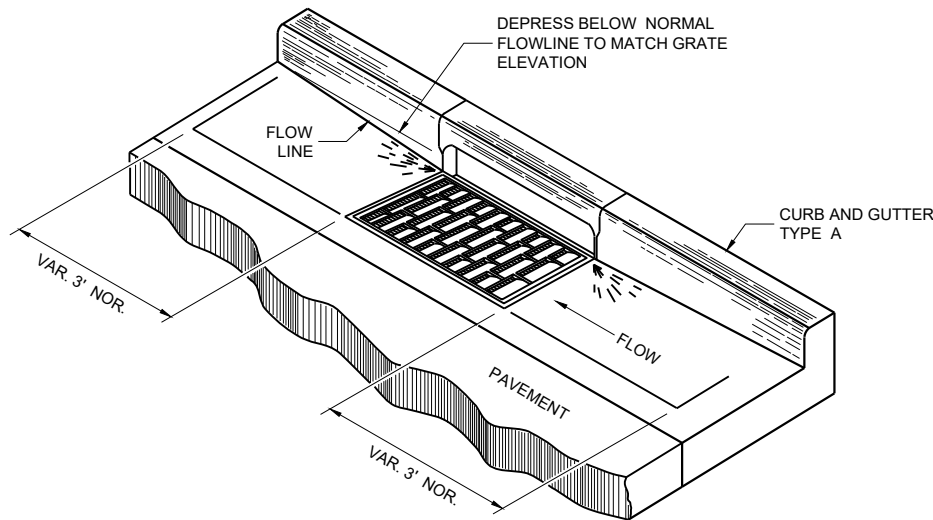
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

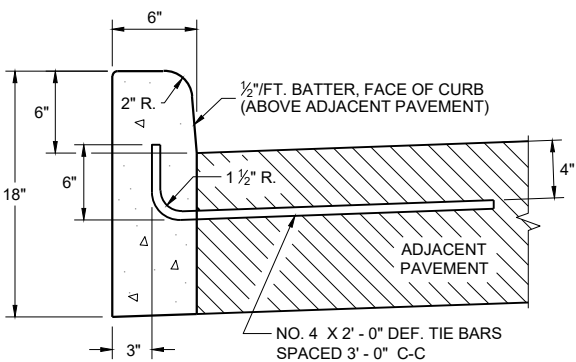


END SECTION CURB AND GUTTER

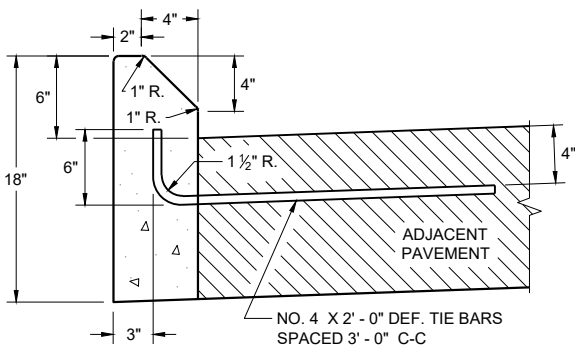


DETAIL OF CURB AND GUTTER AT INLETS

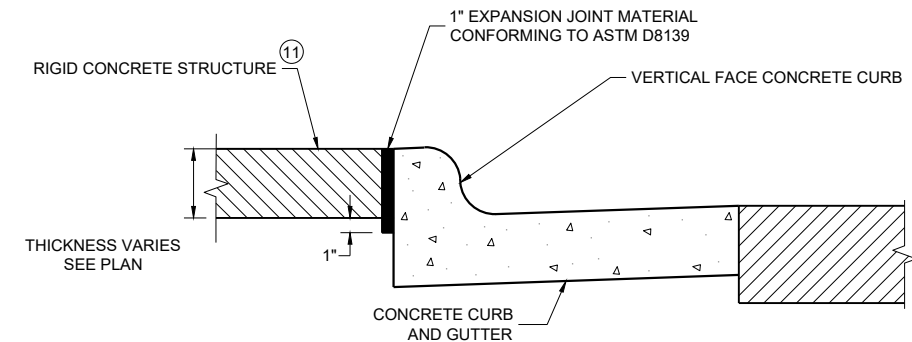
(TYPICAL H INLET COVER SHOWN)



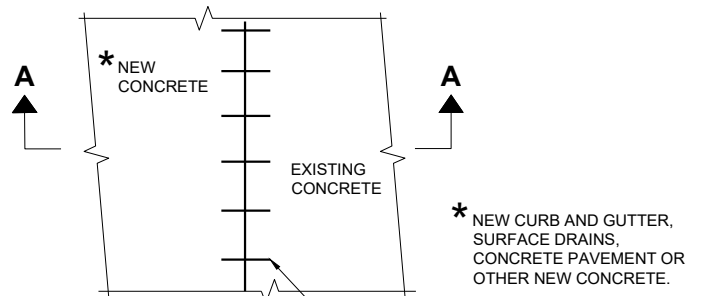
TYPES A^① & D



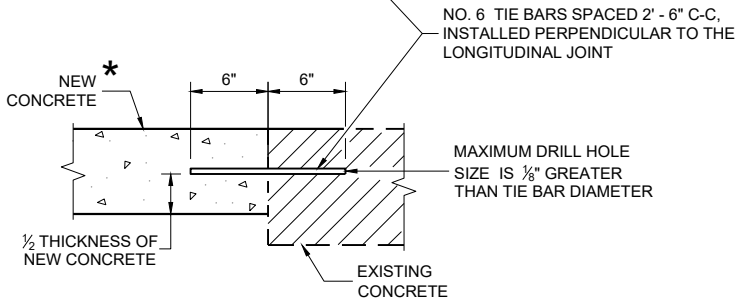
TYPES G^① & J
CONCRETE CURB



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



PLAN VIEW



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

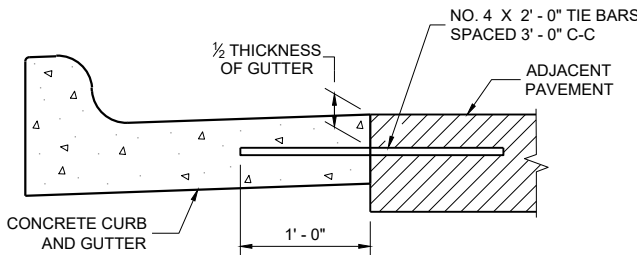
GENERAL NOTES

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

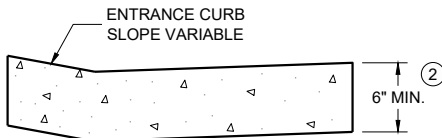
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.



TYPICAL TIE BAR LOCATION^①



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

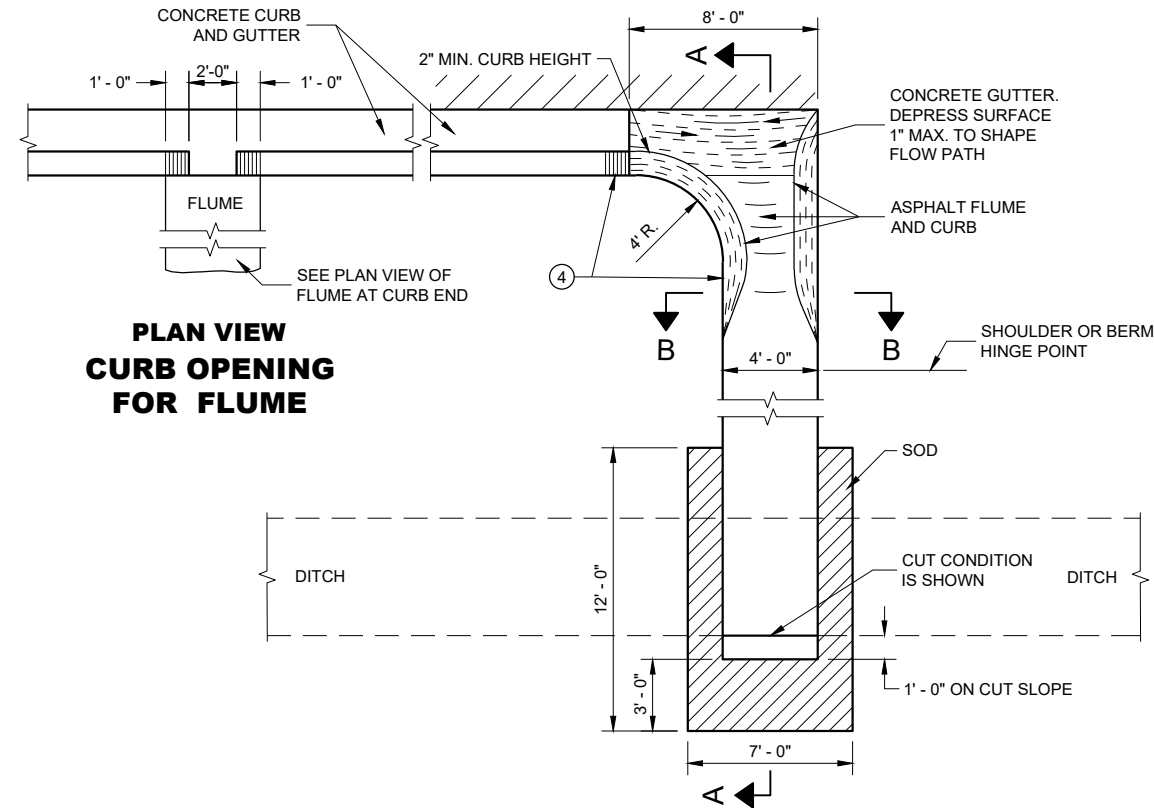
CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

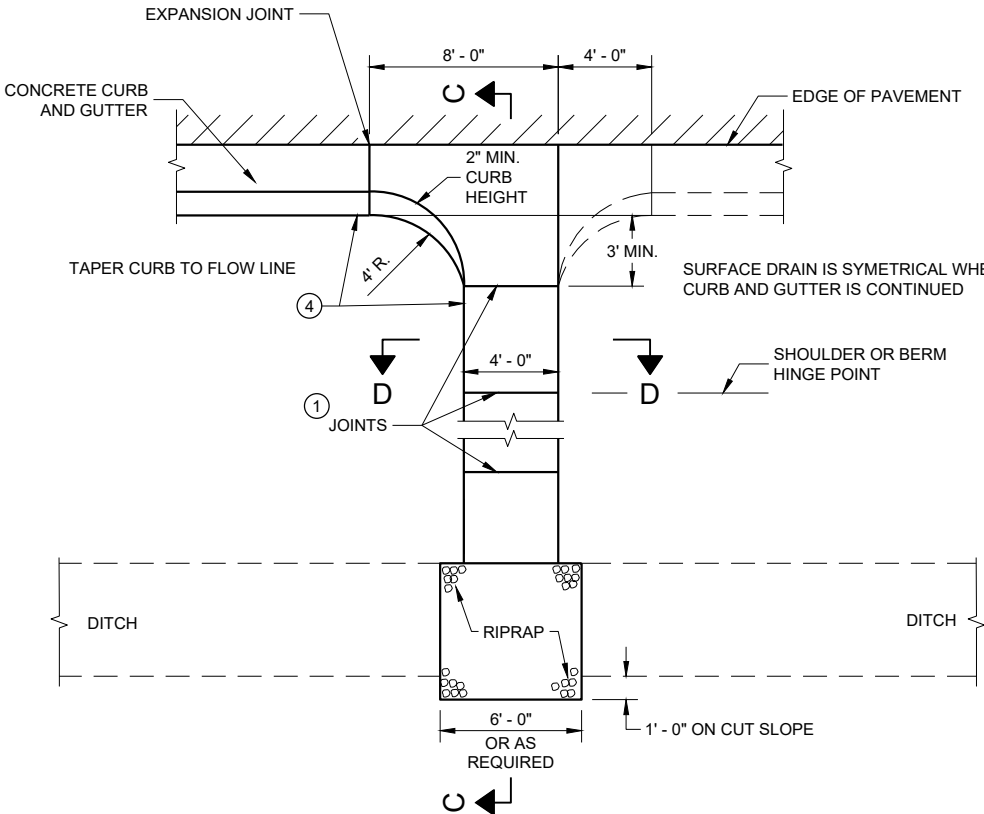
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



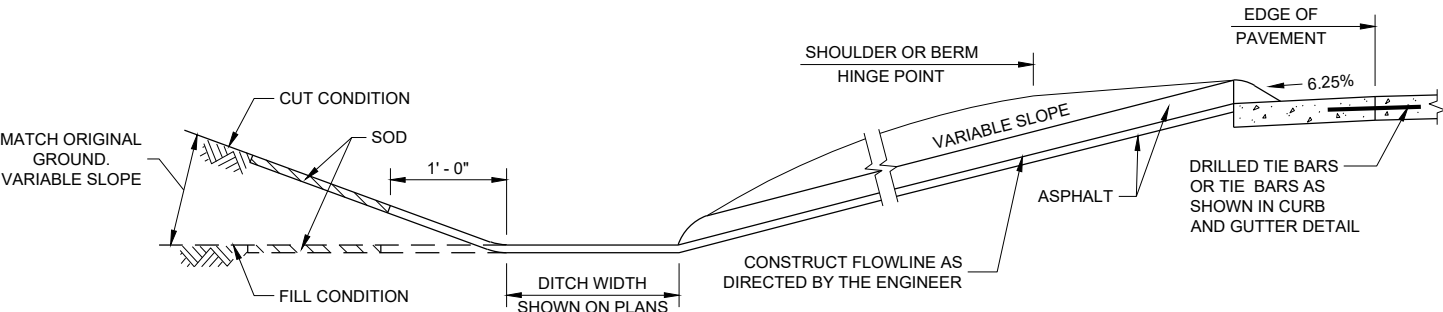
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

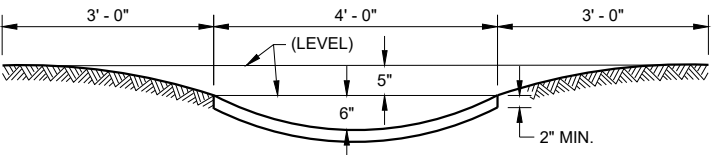
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

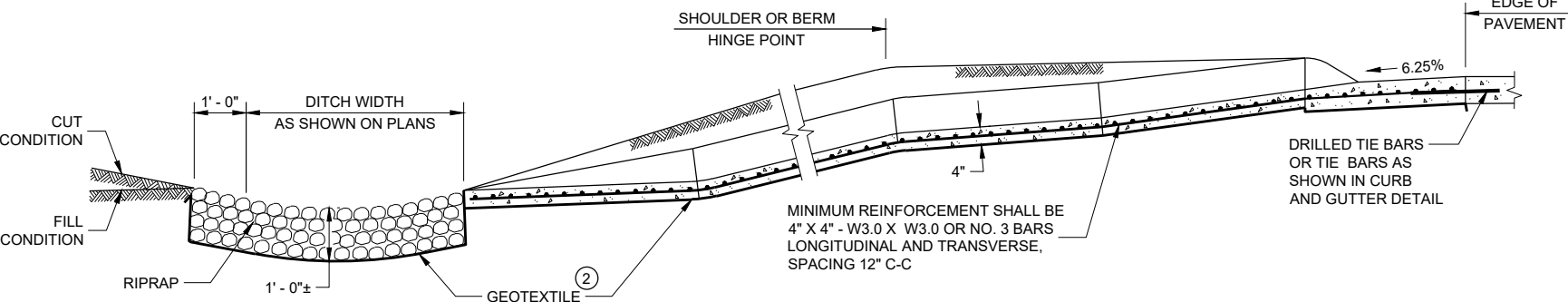
- JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- 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.



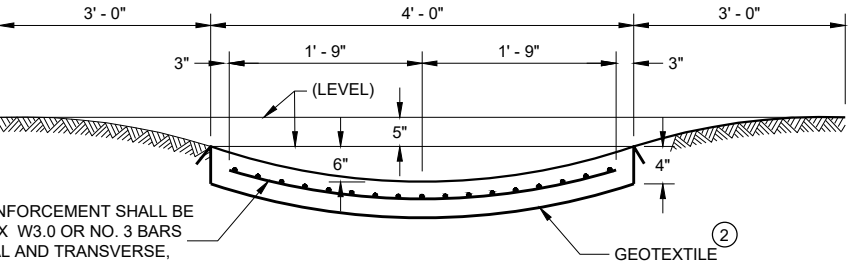
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

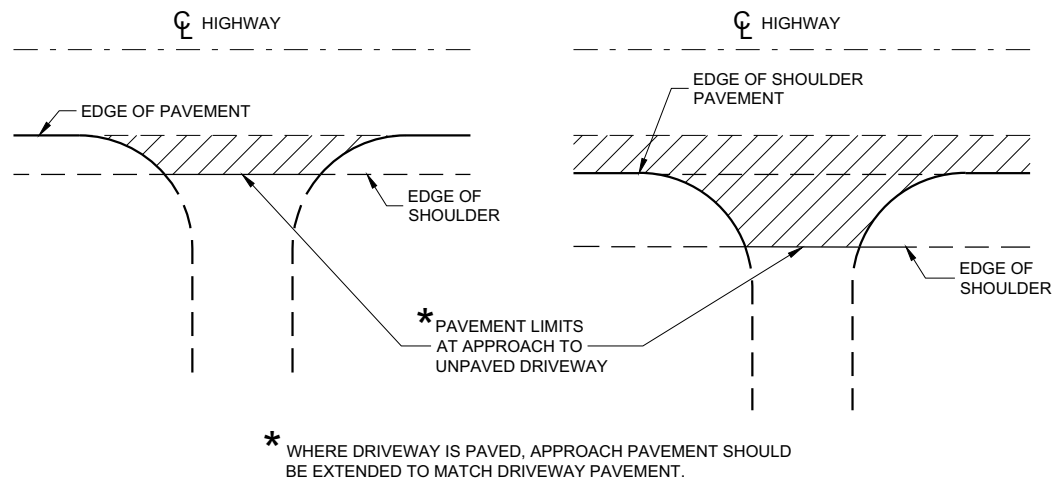
May 2023

DATE

FHWA

/S/ Rodney Taylor

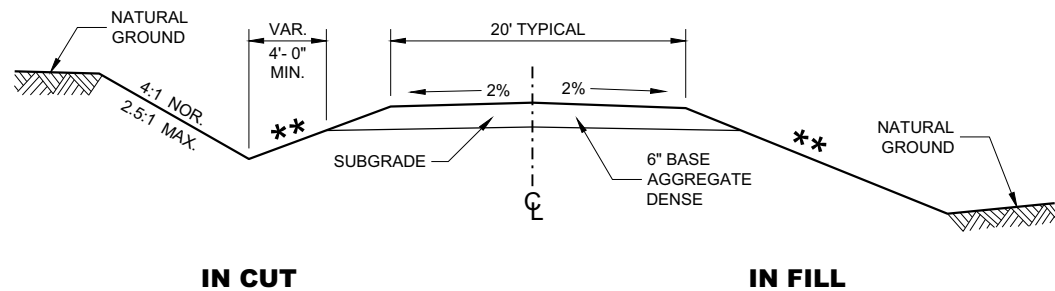
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

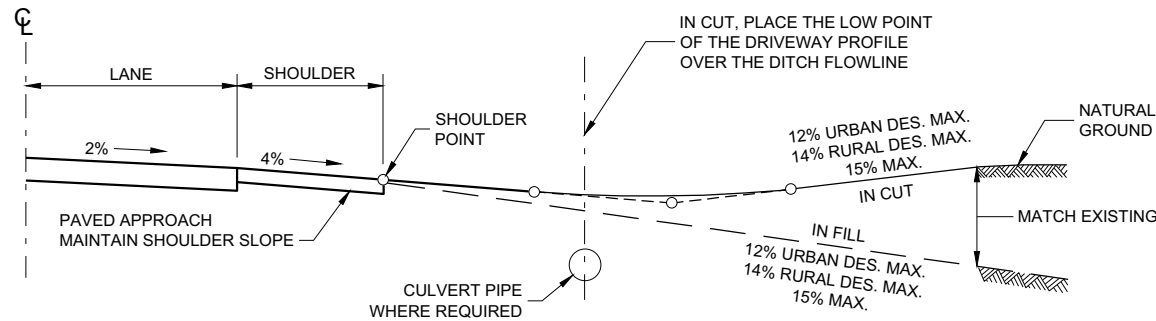
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



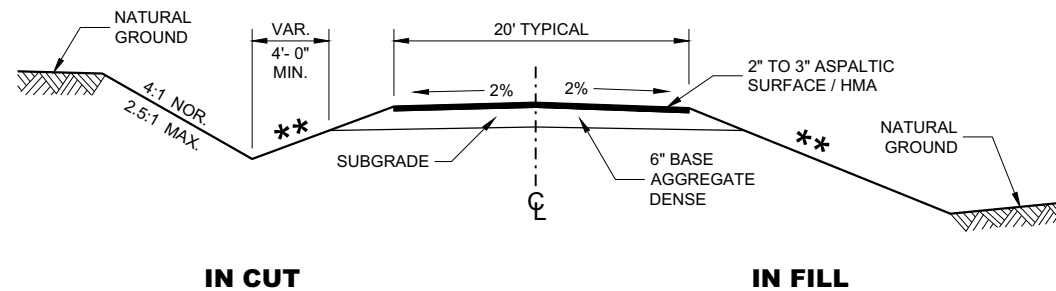
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES

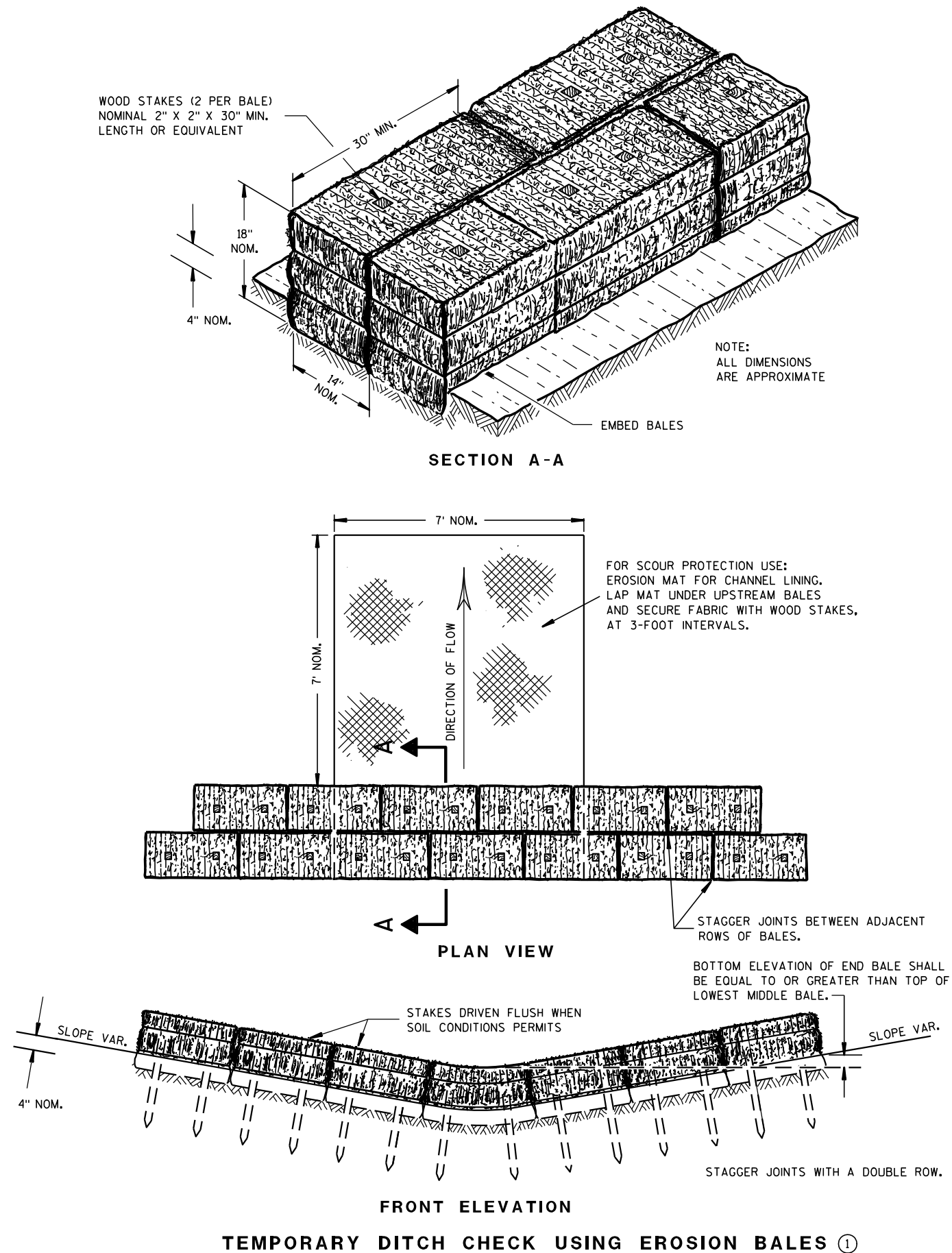


**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

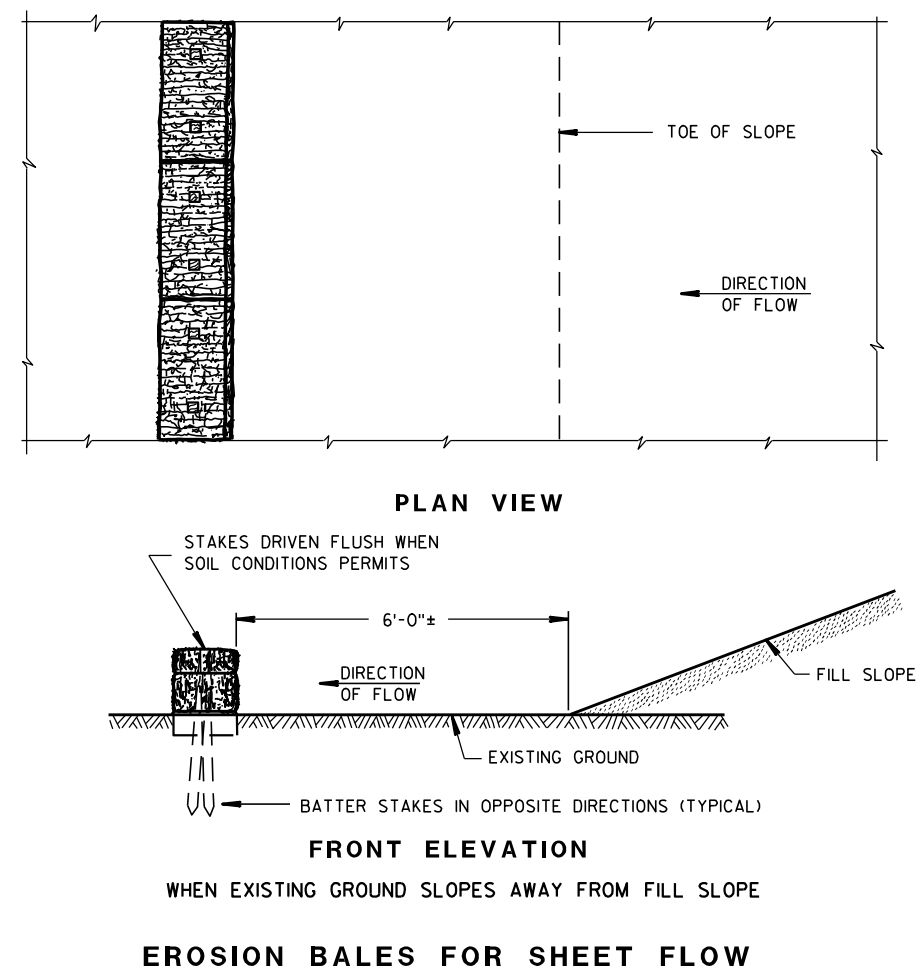
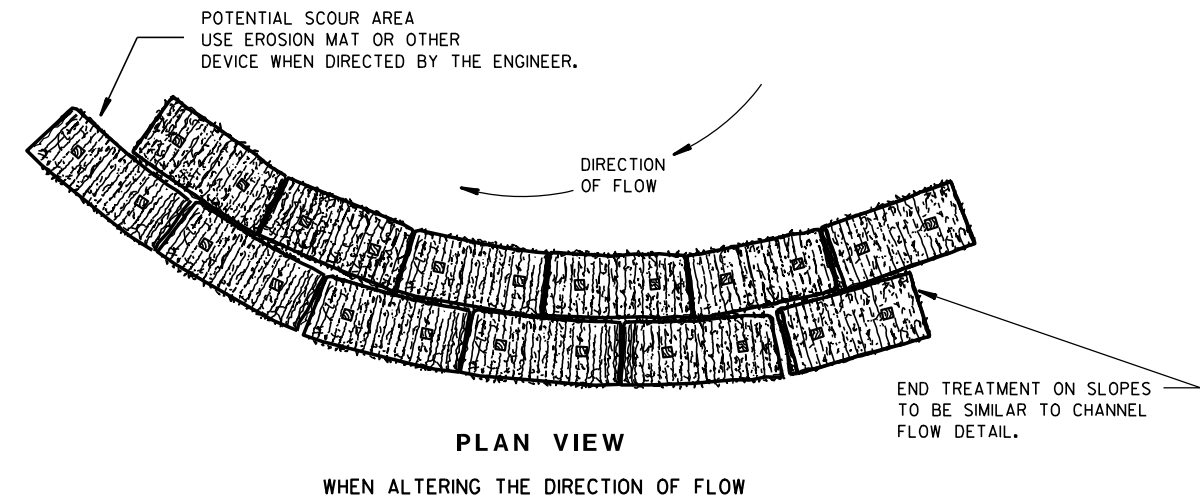
APPROVED
December 2017
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



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 Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

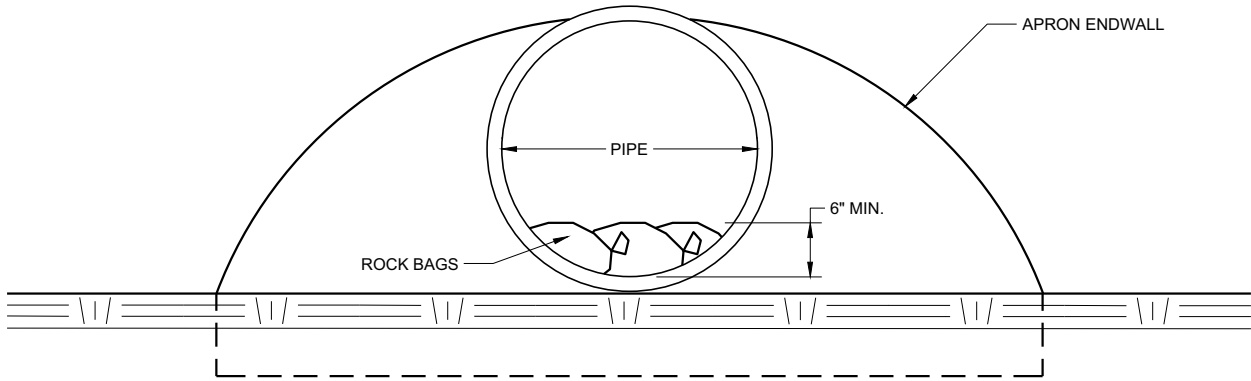
FHWA



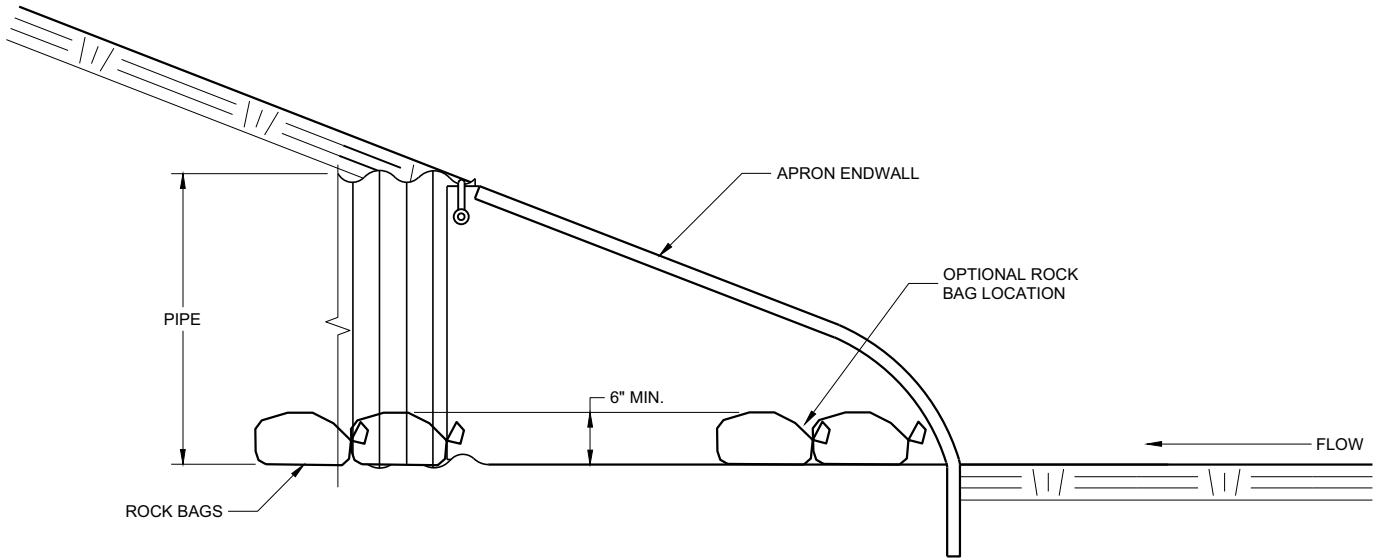
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS 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 DATE	/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



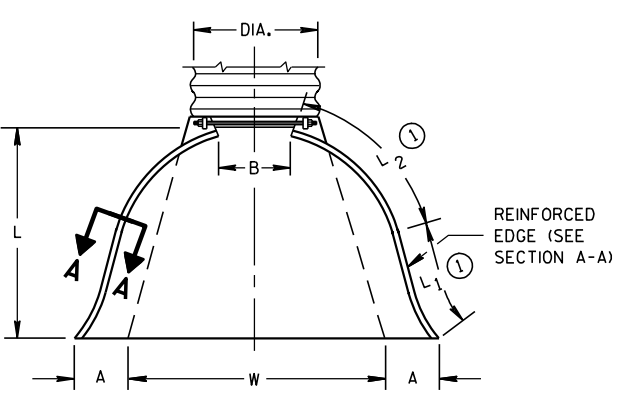
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
FHWA	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.	
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.	
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.	
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.	
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.	
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.	
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.	
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.	
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.	
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.	
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.	
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.	
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.	
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.	
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.	
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.	
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.	

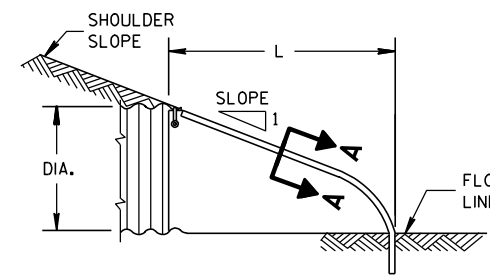
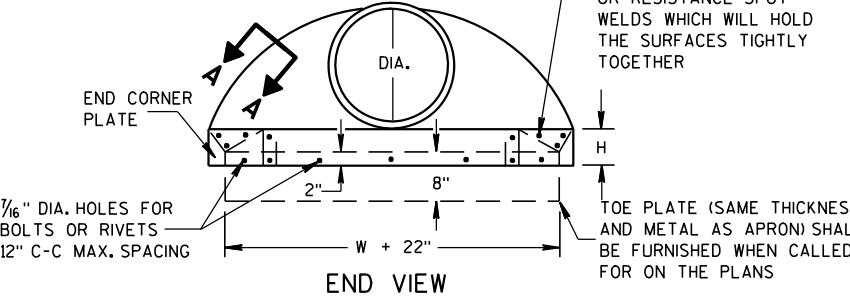
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



REINFORCED
EDGE (SEE
SECTION A-A)

END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER

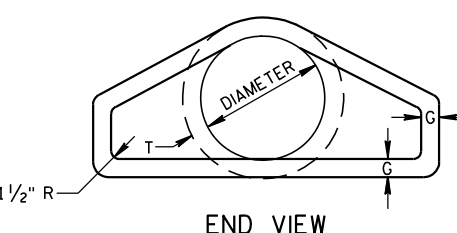
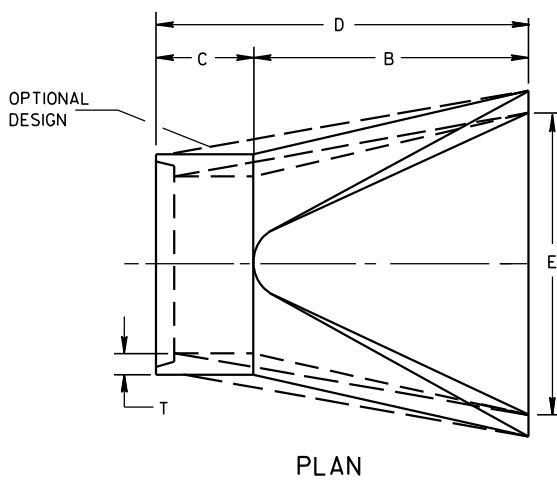
TOE PLATE (SAME THICKNESS
AND METAL AS APRON) SHALL
BE FURNISHED WHEN CALLED
FOR ON THE PLANS



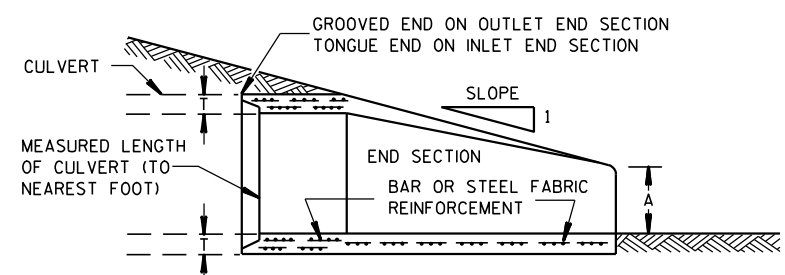
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ² / ₂	9	27	46	73	36	2 ² / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	^{**} 33 ¹ / ₄ - ^{**} 35	^{**} 98 ¹ / ₄ - ^{**} 100	90	5 ¹ / ₂	2 ² / ₅ to 1
60	6	^{**} 30- ^{**} 35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	^{**} 24- ^{**} 30	^{**} 72- ^{**} 78	^{**} 21- ^{**} 27	99	102	5 ¹ / ₂	2 to 1
72	7	^{**} 24- ^{**} 36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	^{**} 24- ^{**} 36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

*MINIMUM
**MAXIMUM

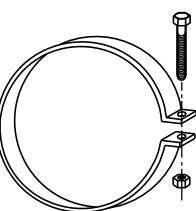


END VIEW

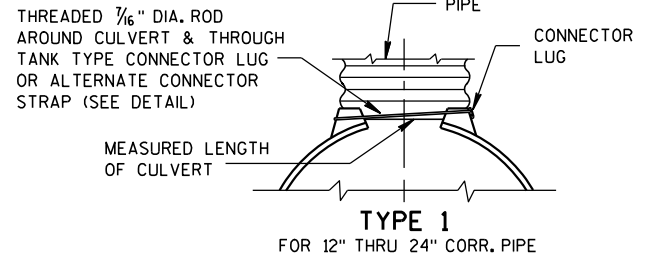


LONGITUDINAL SECTION
CONCRETE ENDWALLS

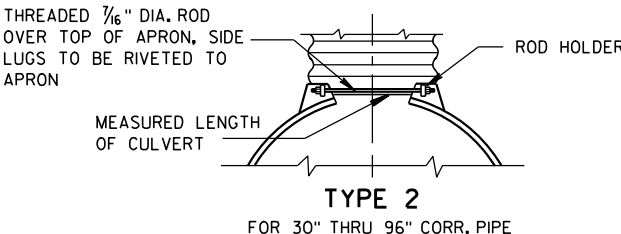
1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



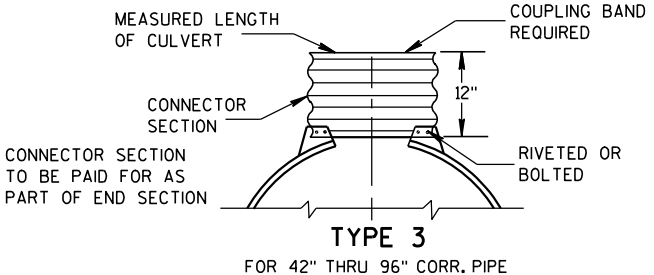
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



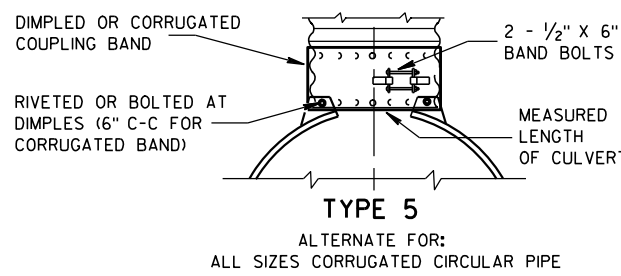
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



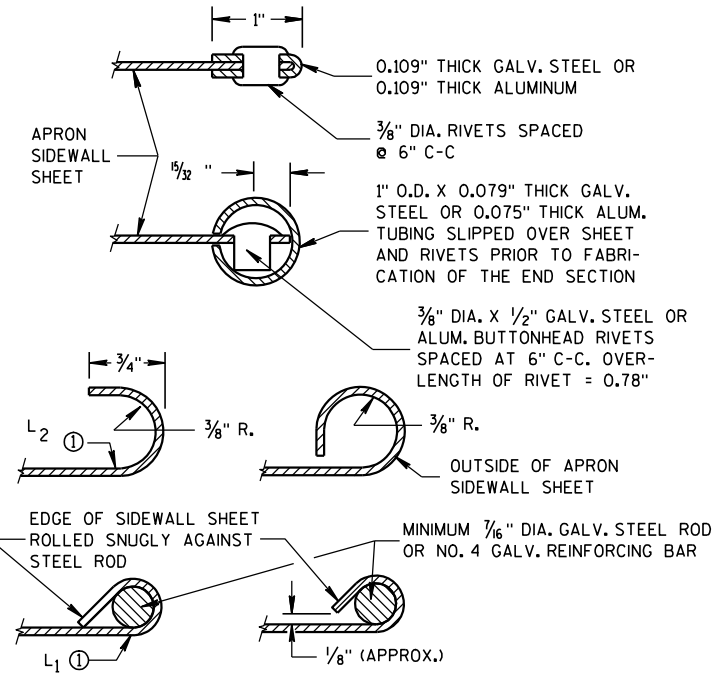
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE
ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5
AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL
CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO
CIRCUMFERENTIAL CORRUGATIONS AT EACH END
USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

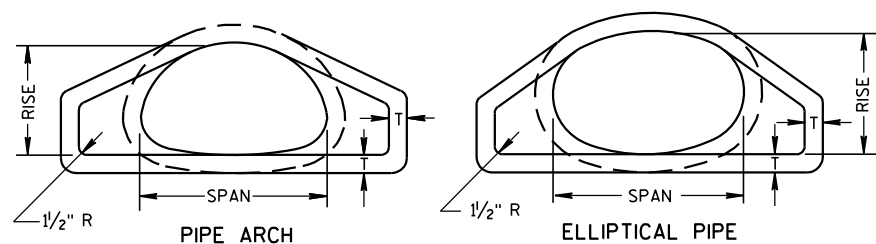
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

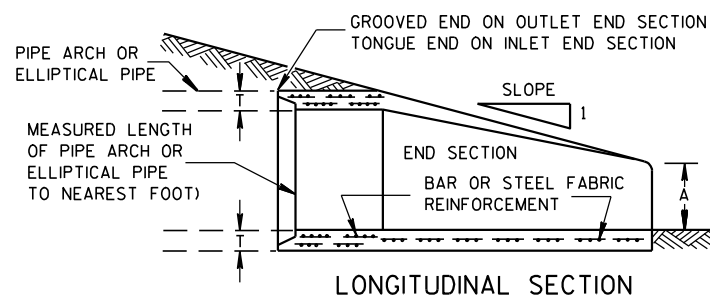
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

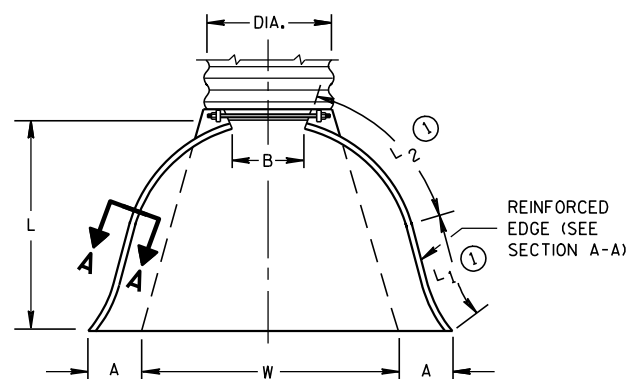
APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



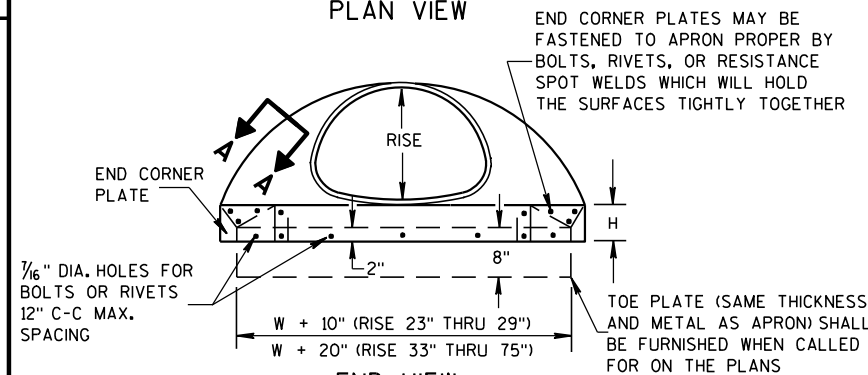
END VIEW



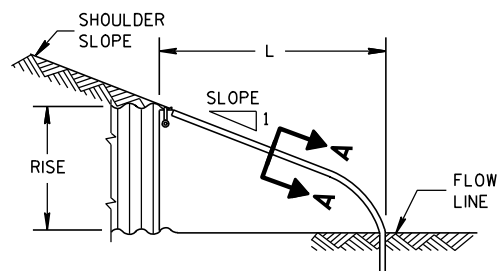
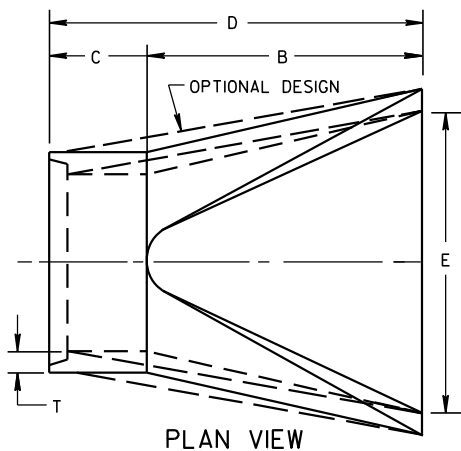
CONCRETE ENDWALLS



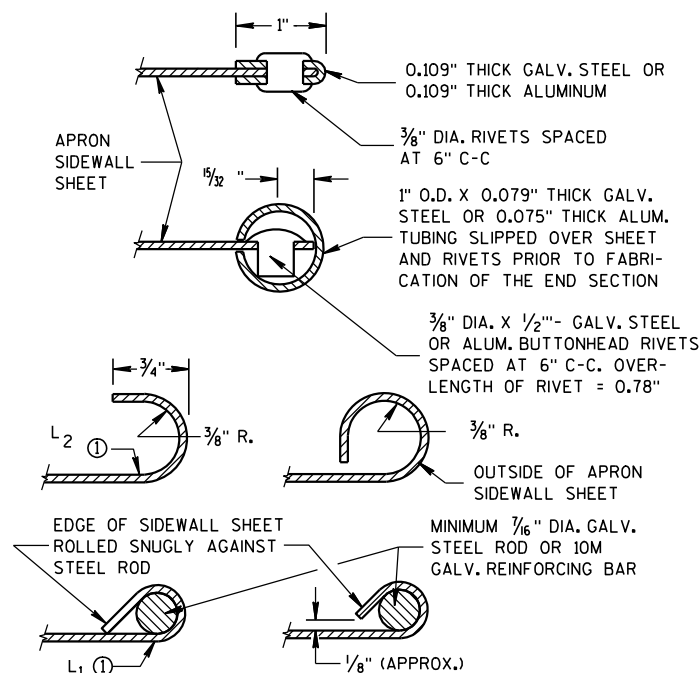
PLAN VIEW



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW

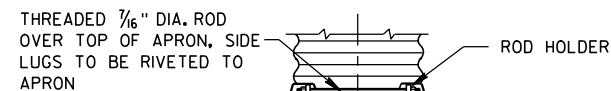


SECTION A-A

2- 2 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

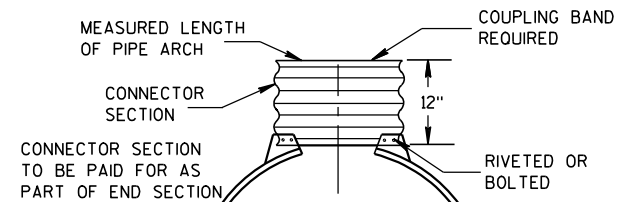
3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

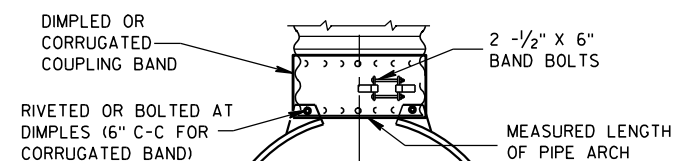
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 5/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 5/16	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

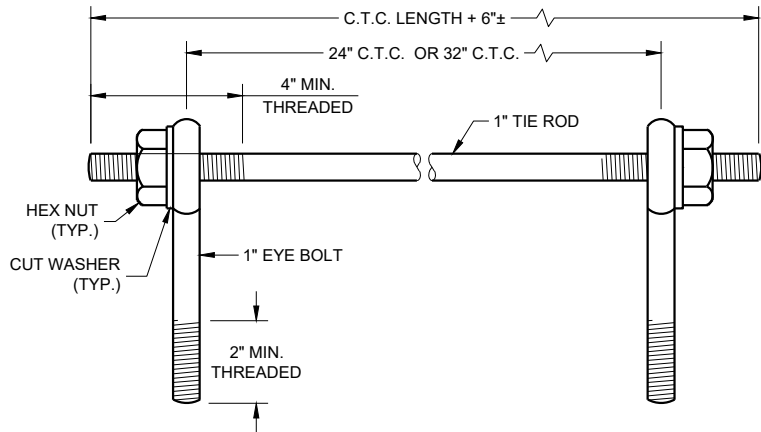
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

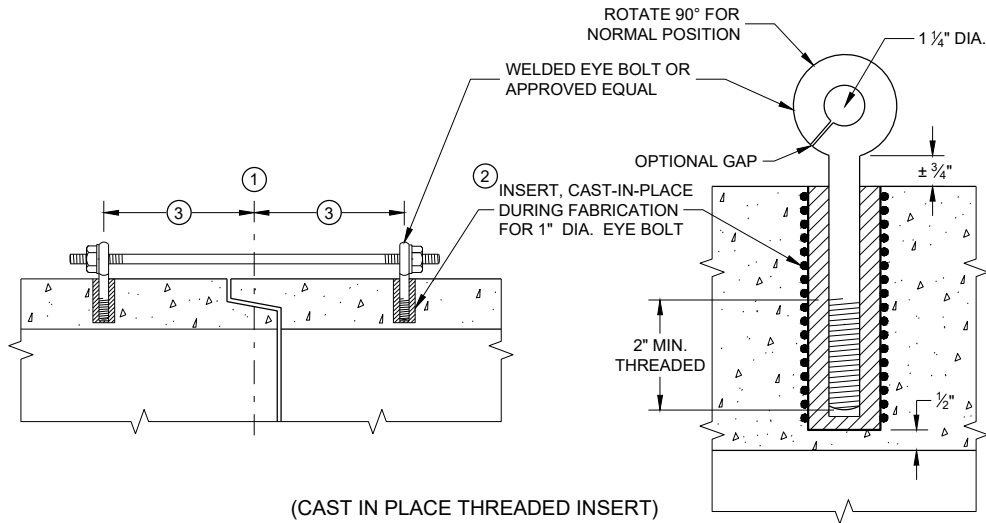
11/30/94
DATE/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

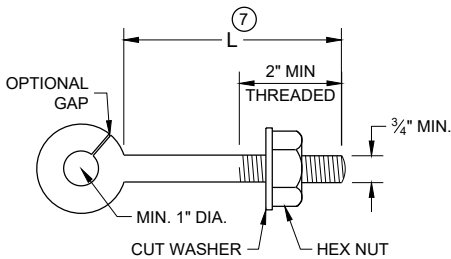
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

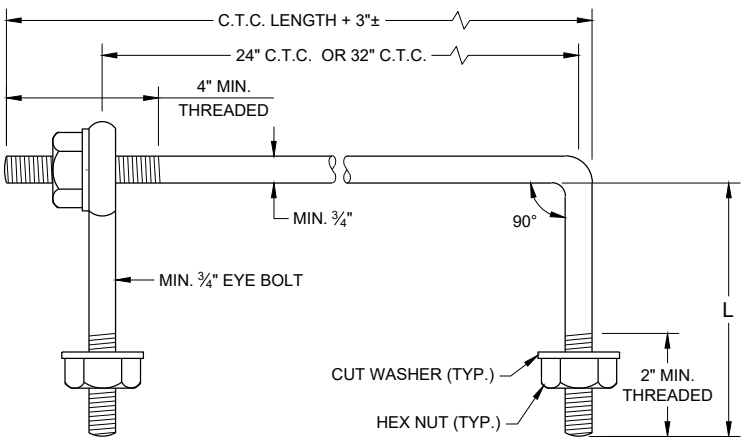
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

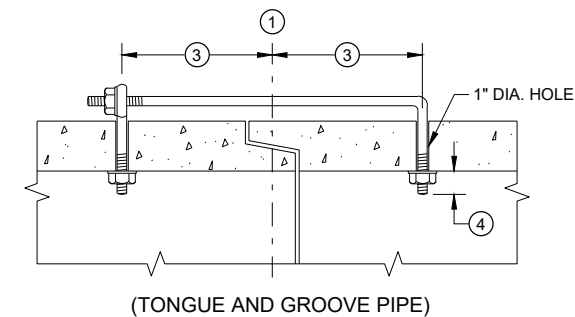


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

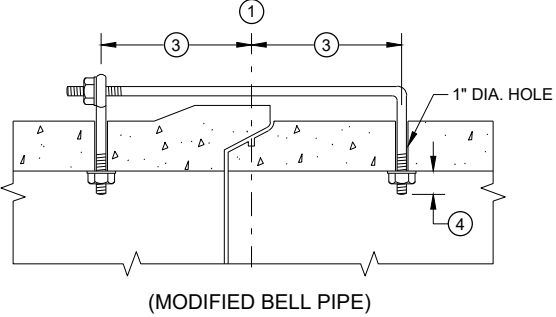


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

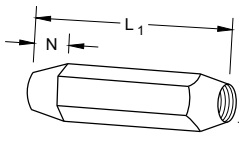


(MODIFIED BELL PIPE)

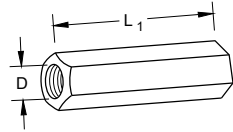
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

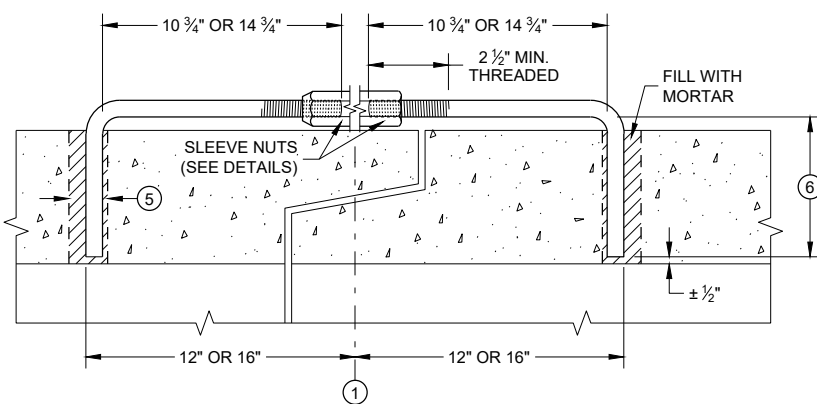


TAPERED



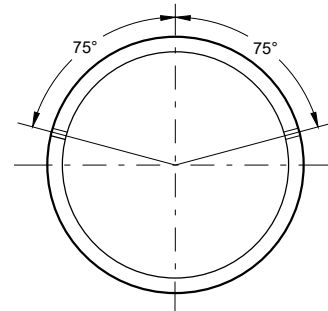
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



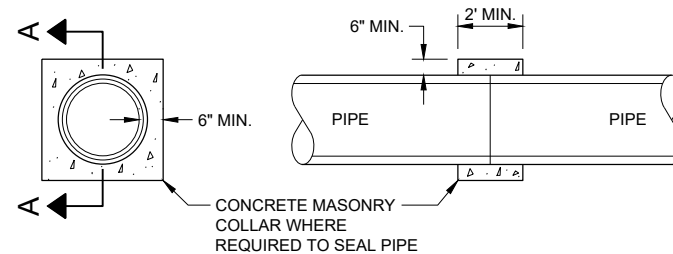
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



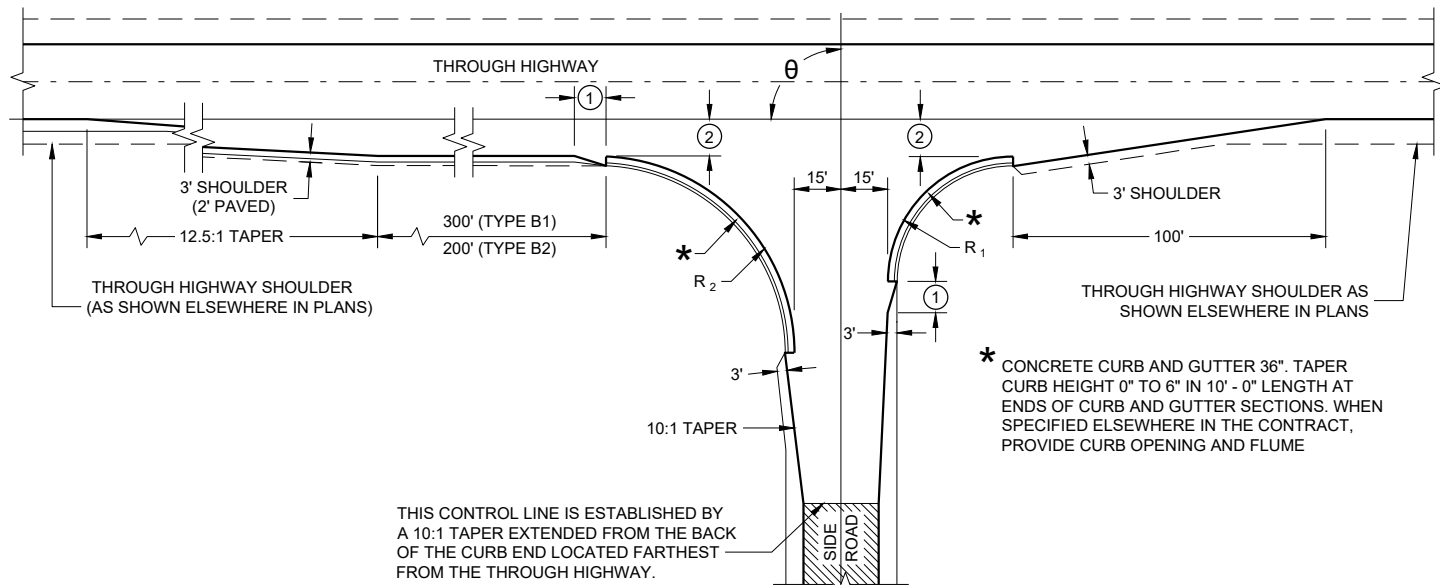
SECTION A - A

CONCRETE COLLAR DETAIL

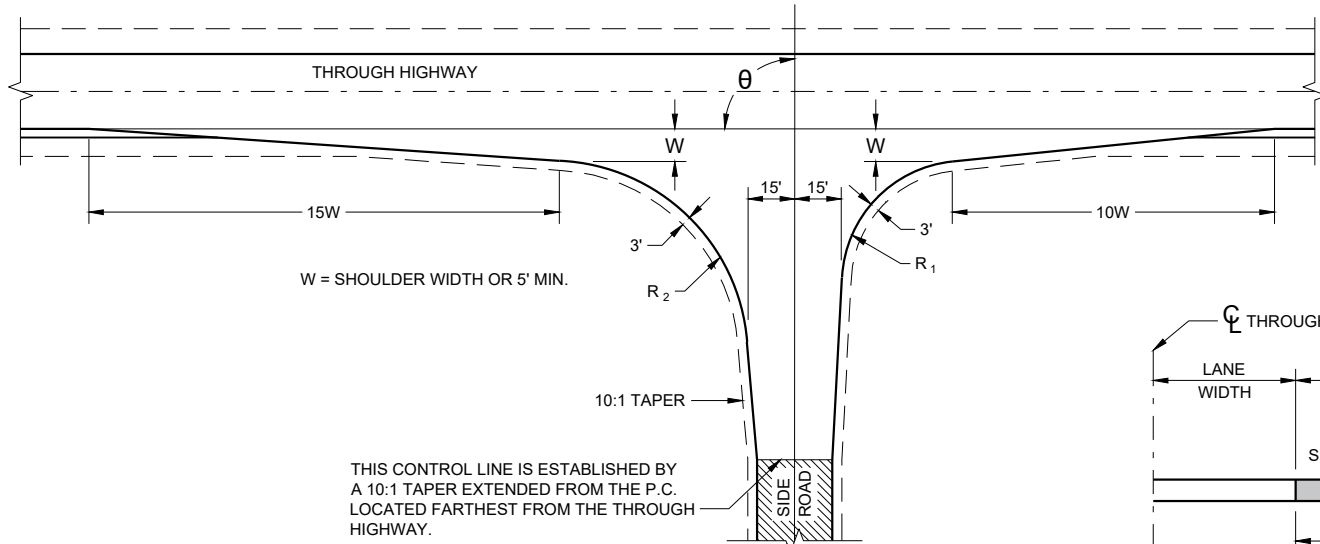
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

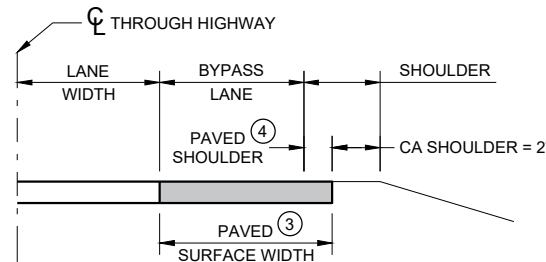
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



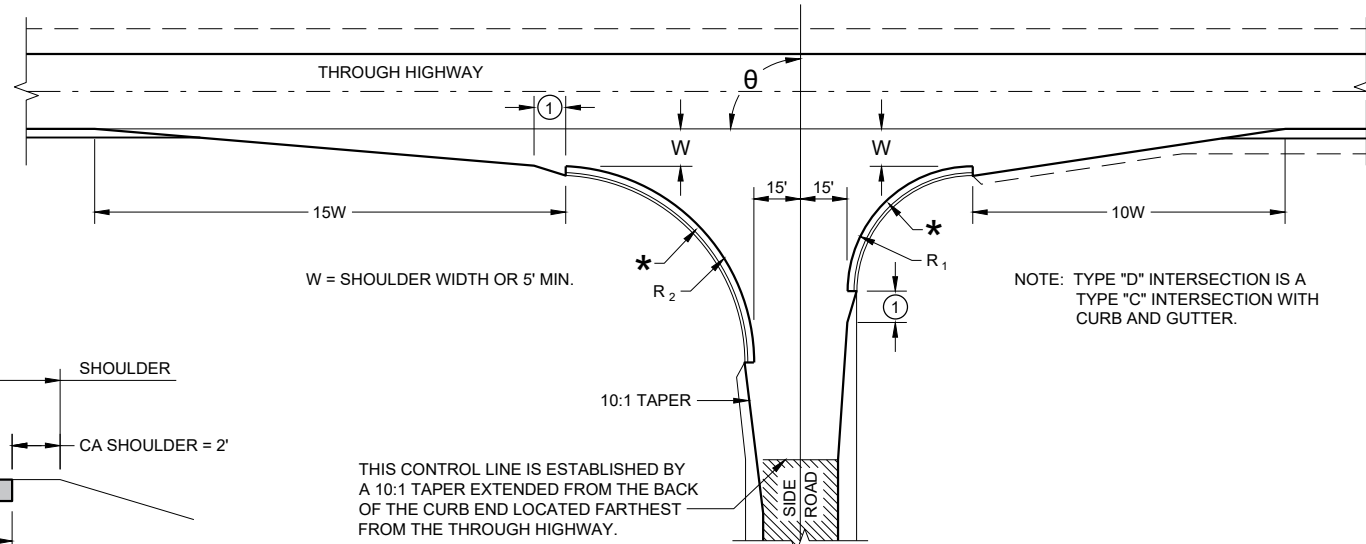
TYPE "B1" AND "B2"



TYPE "C"



SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



TYPE "D"

RADII DIMENSIONS FOR TYPES "B1",
"B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

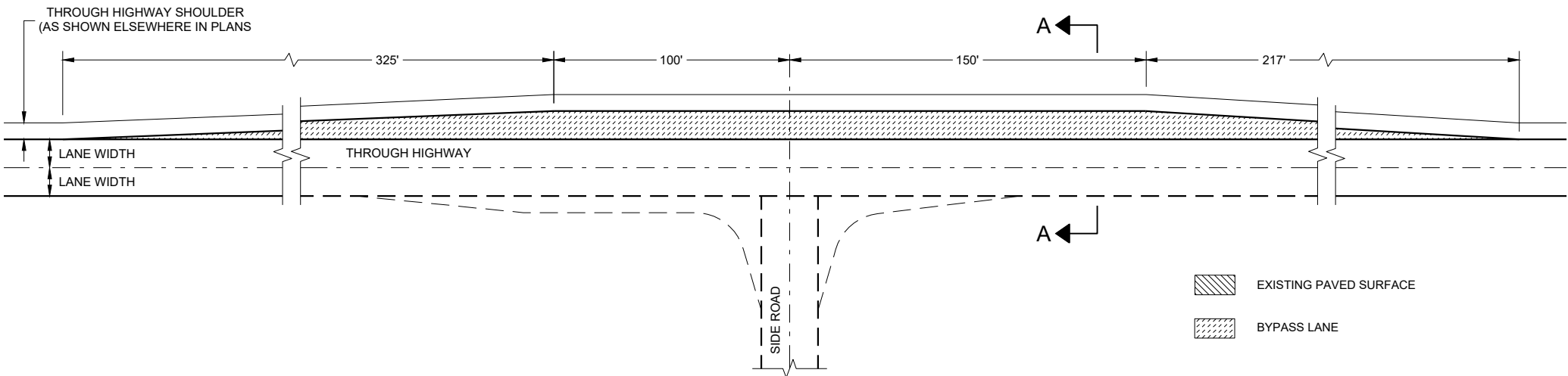
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

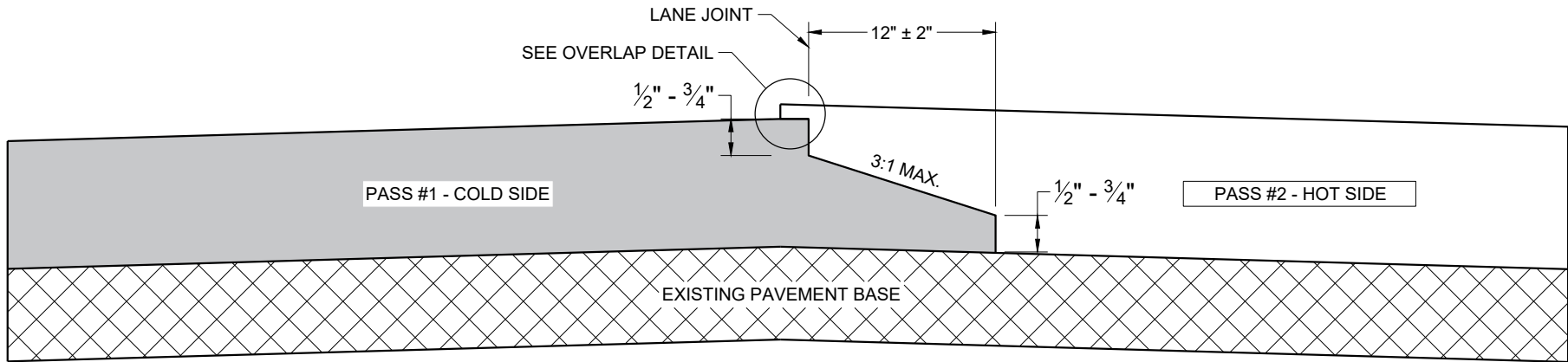
- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
** 10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



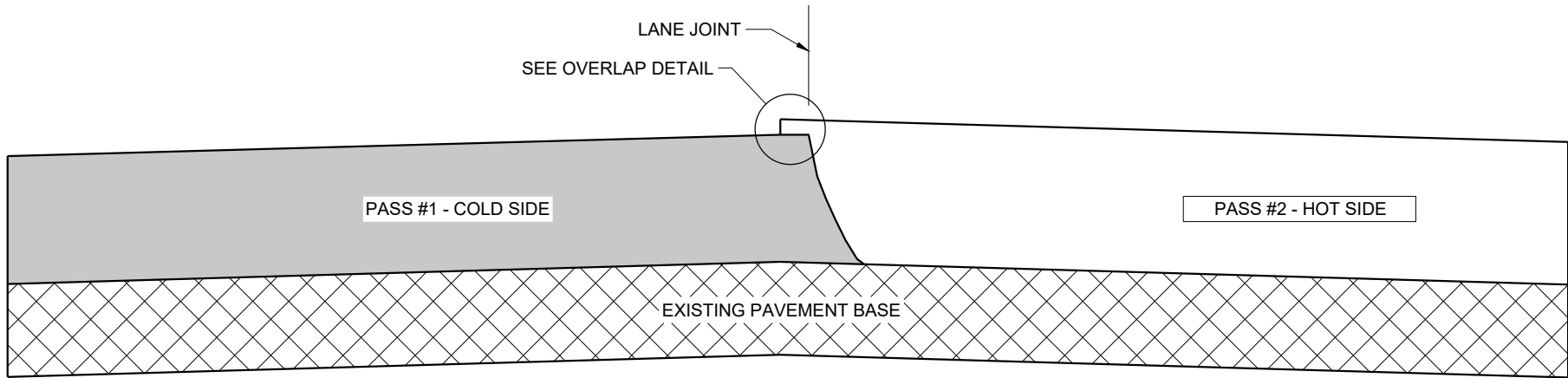
TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD
INTERSECTION TYPES "B1",
"B2", "C", "D" AND TEE
INTERSECTION BYPASS LANE

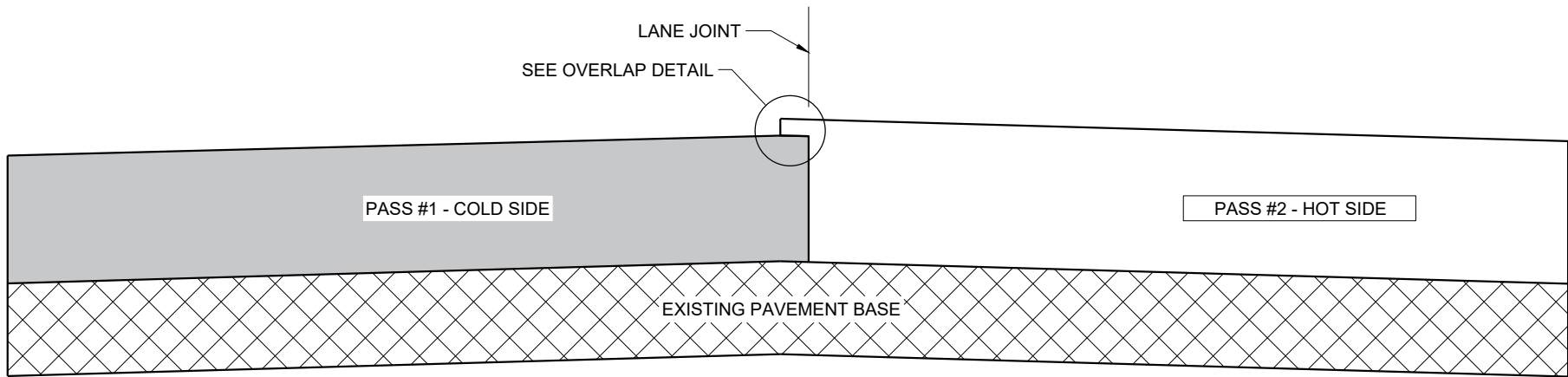
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

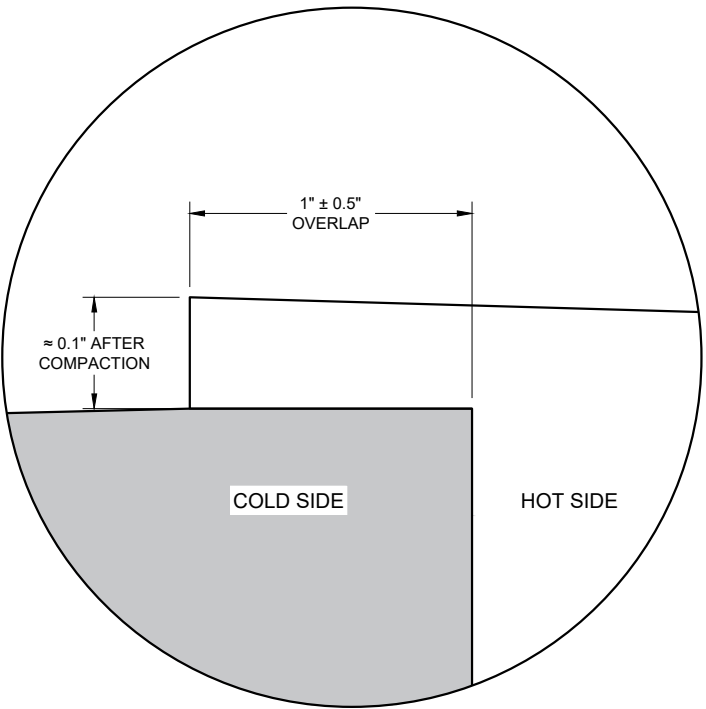
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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.

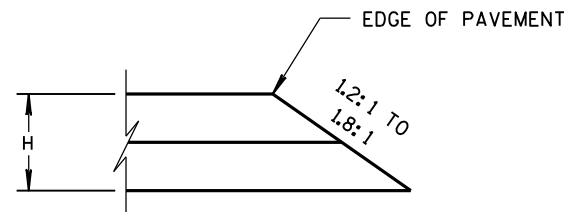


OVERLAP DETAIL (TYPICAL)

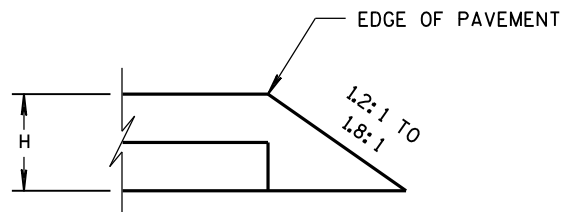
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

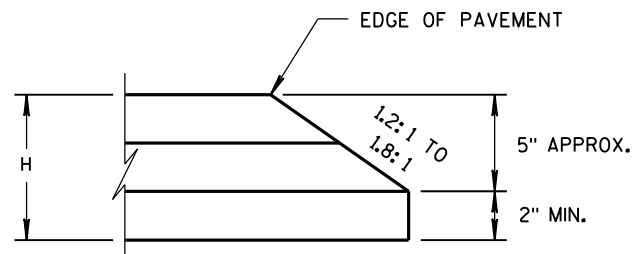
APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA



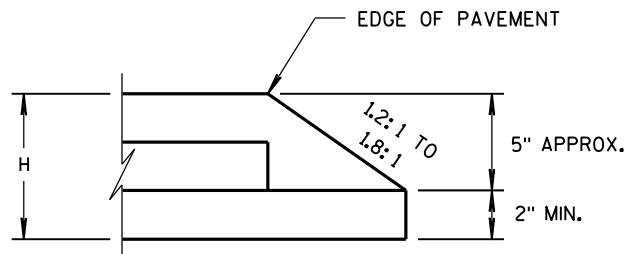
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

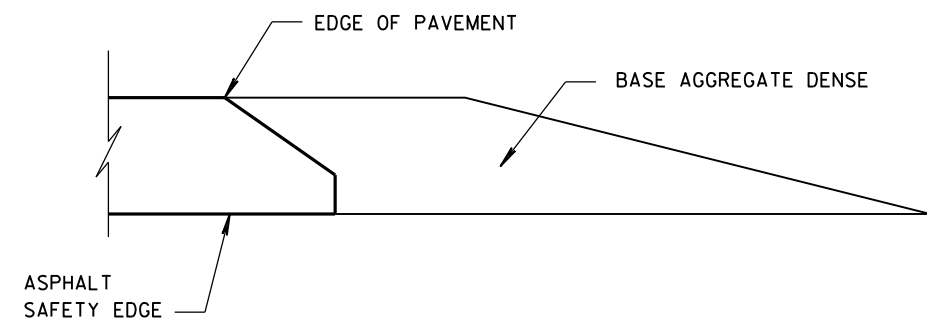


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



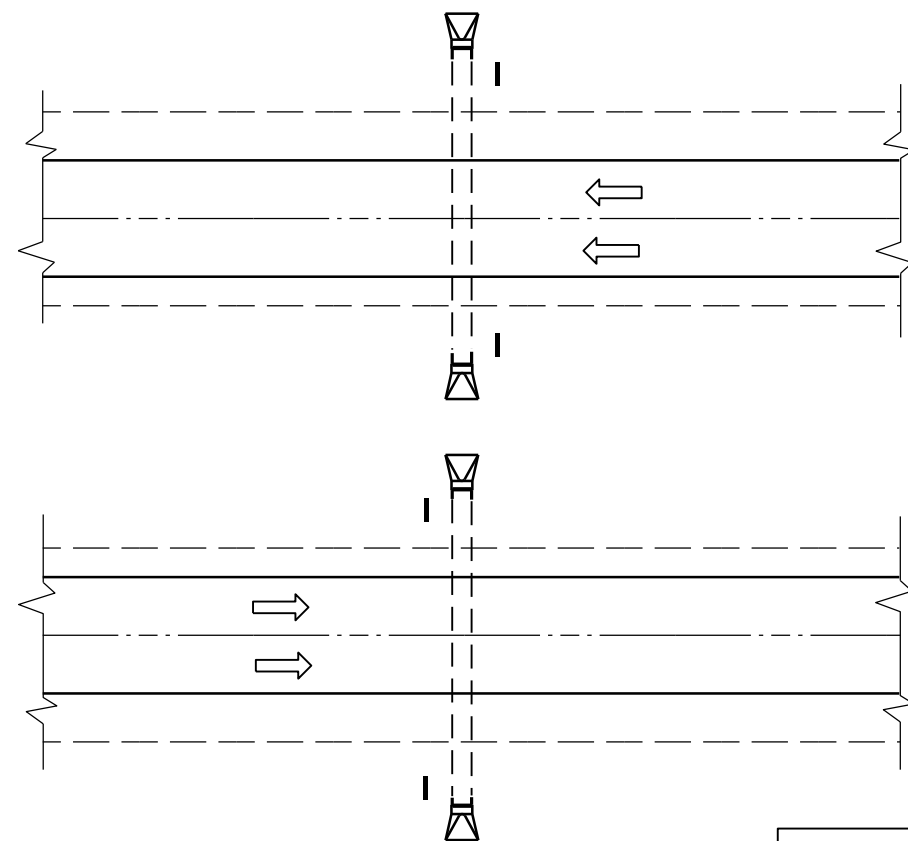
FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

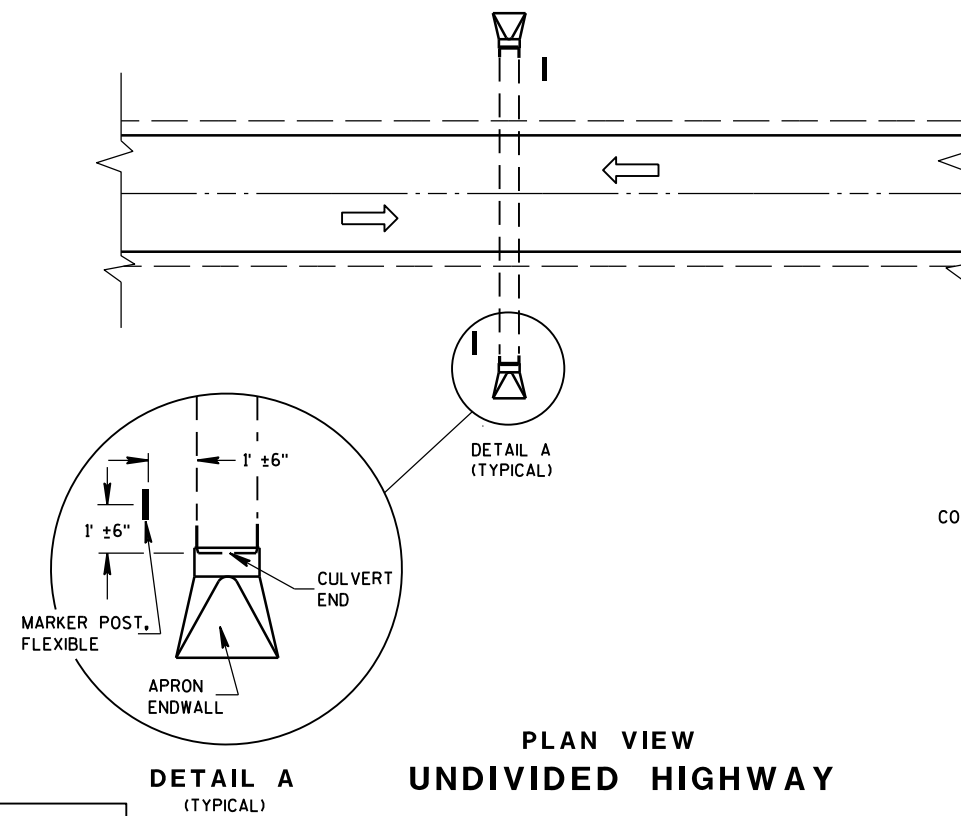
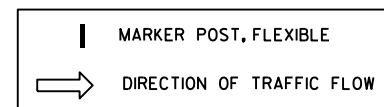
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

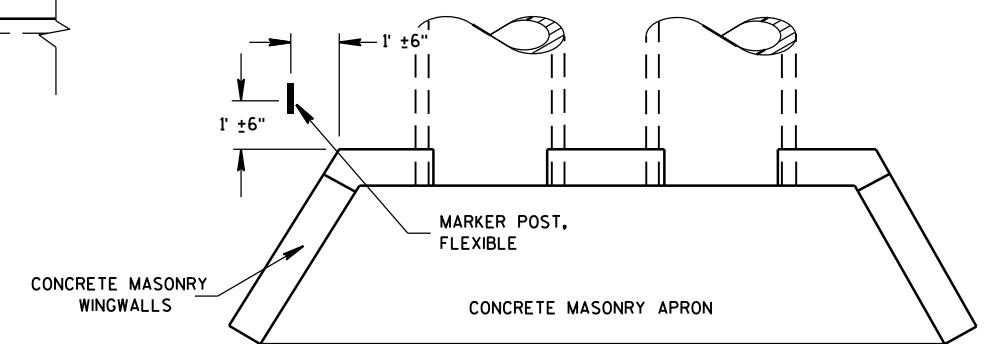


PLAN VIEW
UNDIVIDED HIGHWAY

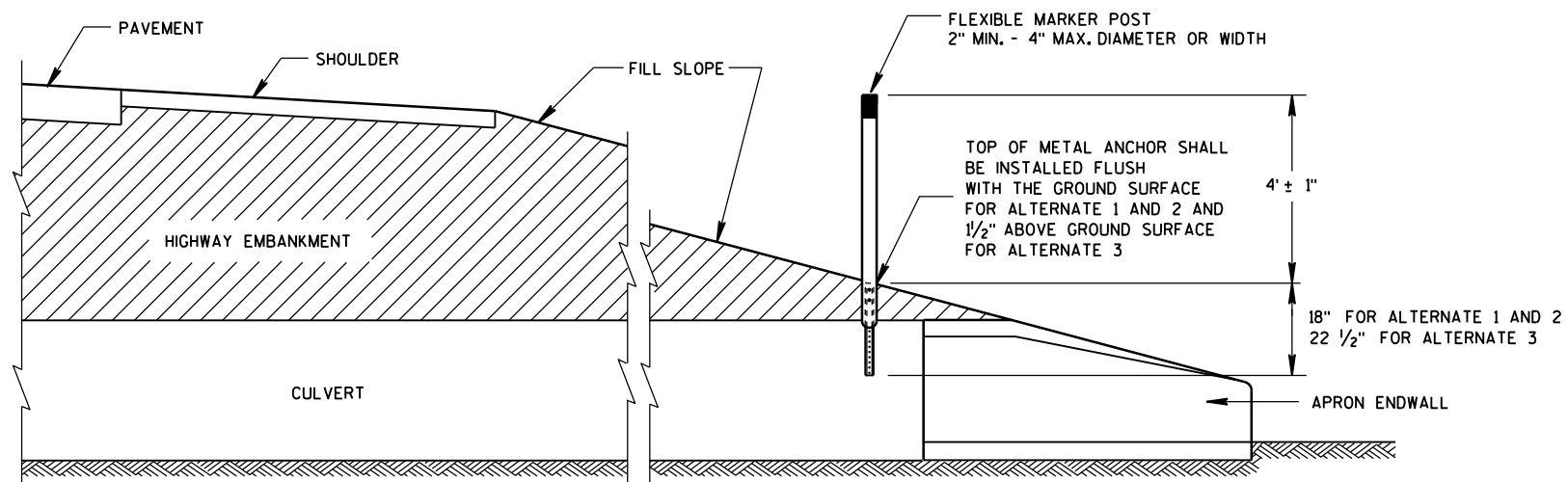
FLEXIBLE MARKER POST LOCATION

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.



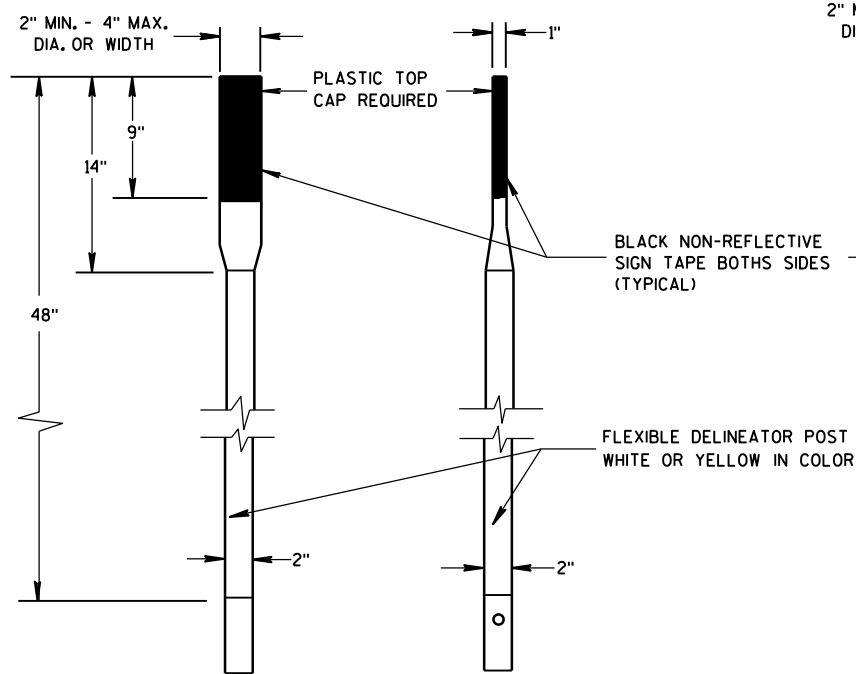
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



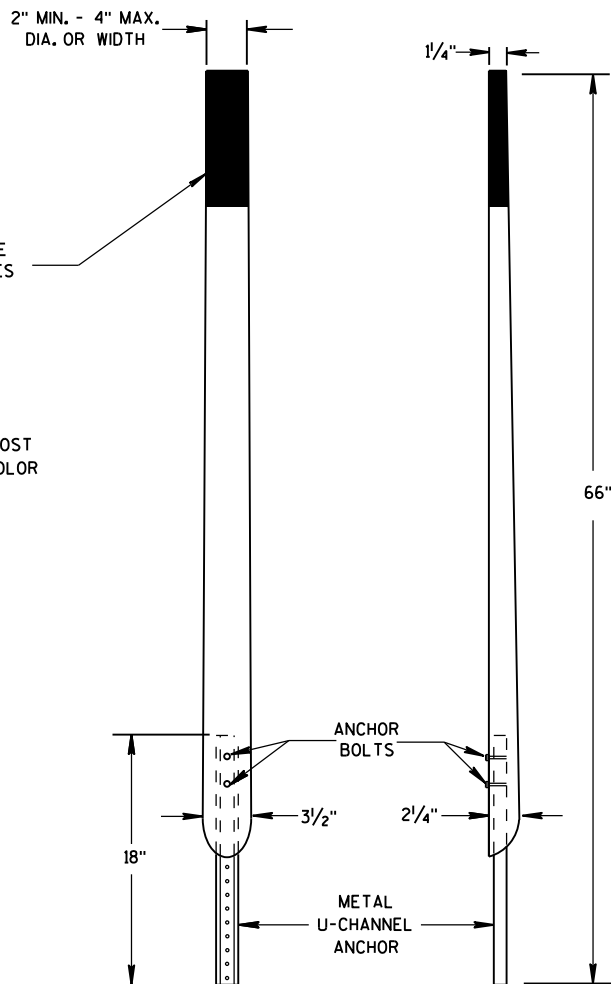
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

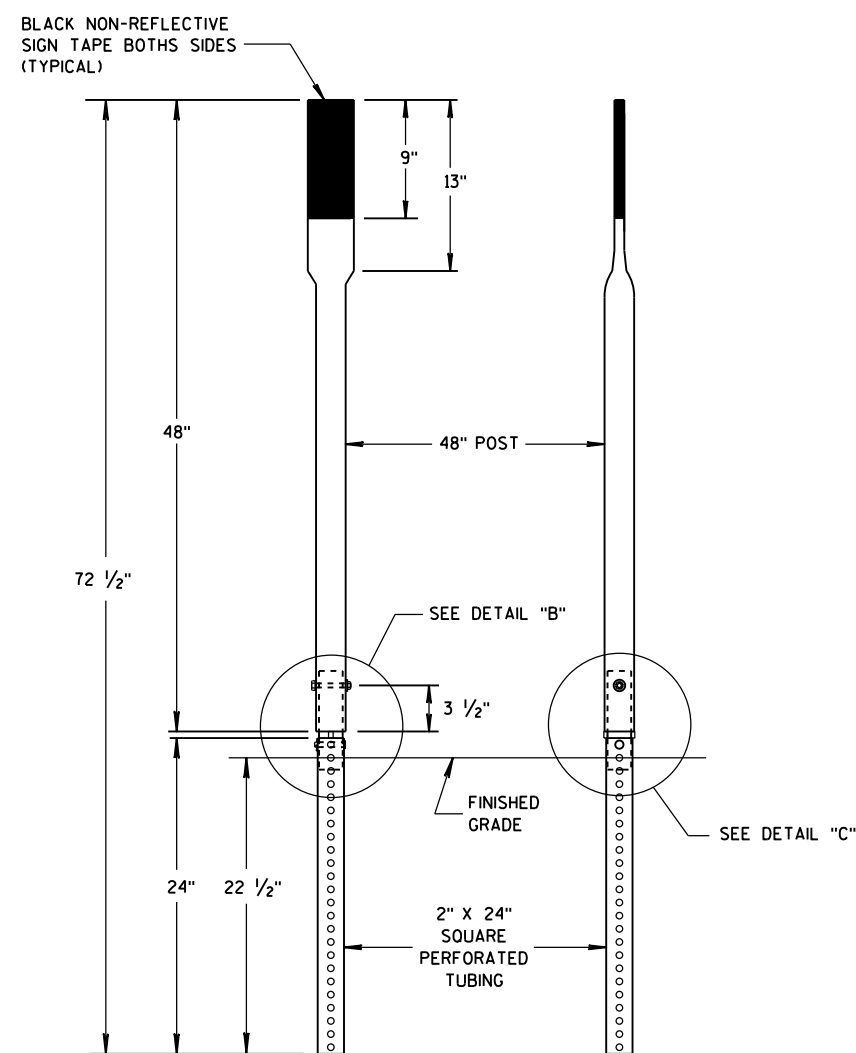
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



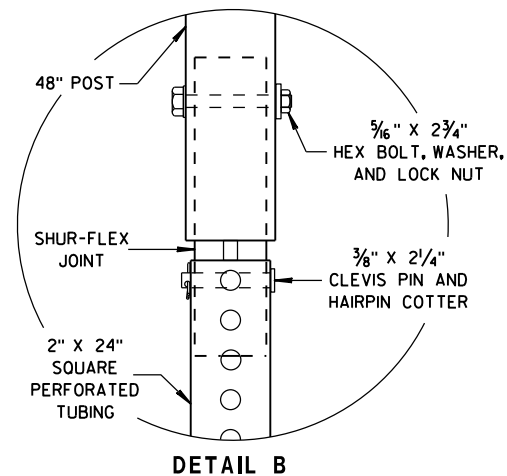
FRONT VIEW SIDE VIEW
ALTERNATE 1



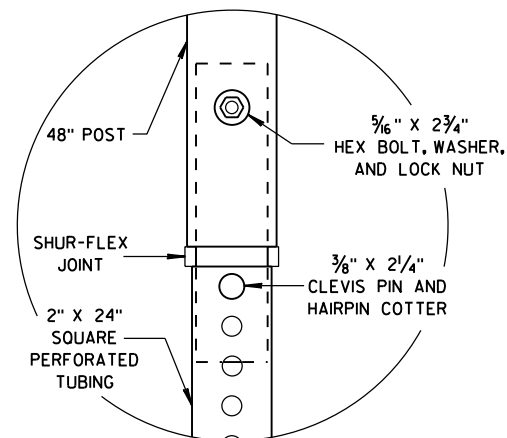
FRONT VIEW SIDE VIEW
ALTERNATE 2



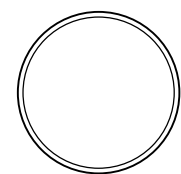
FRONT VIEW SIDE VIEW
ALTERNATE 3



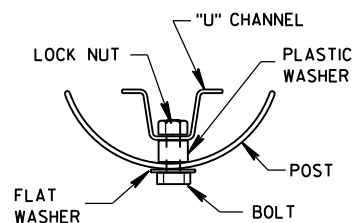
DETAIL B



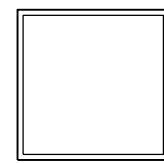
DETAIL C



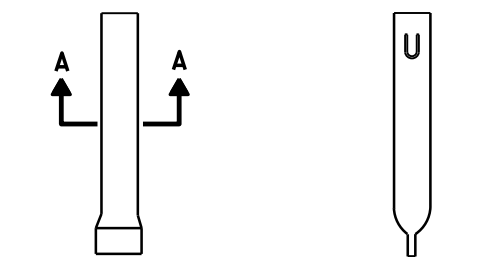
SECTION A-A



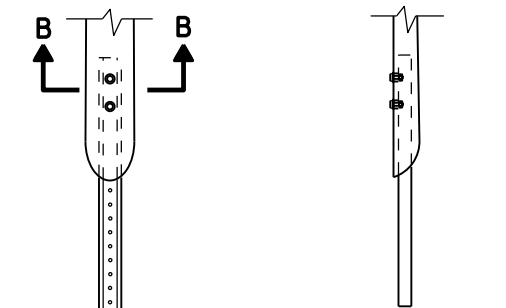
SECTION B-B



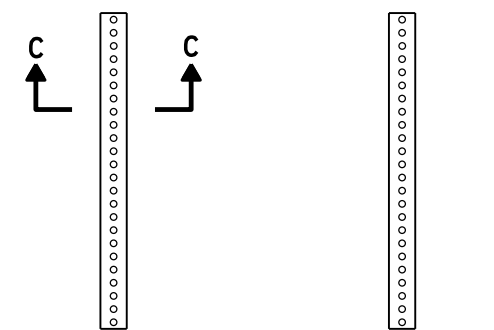
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



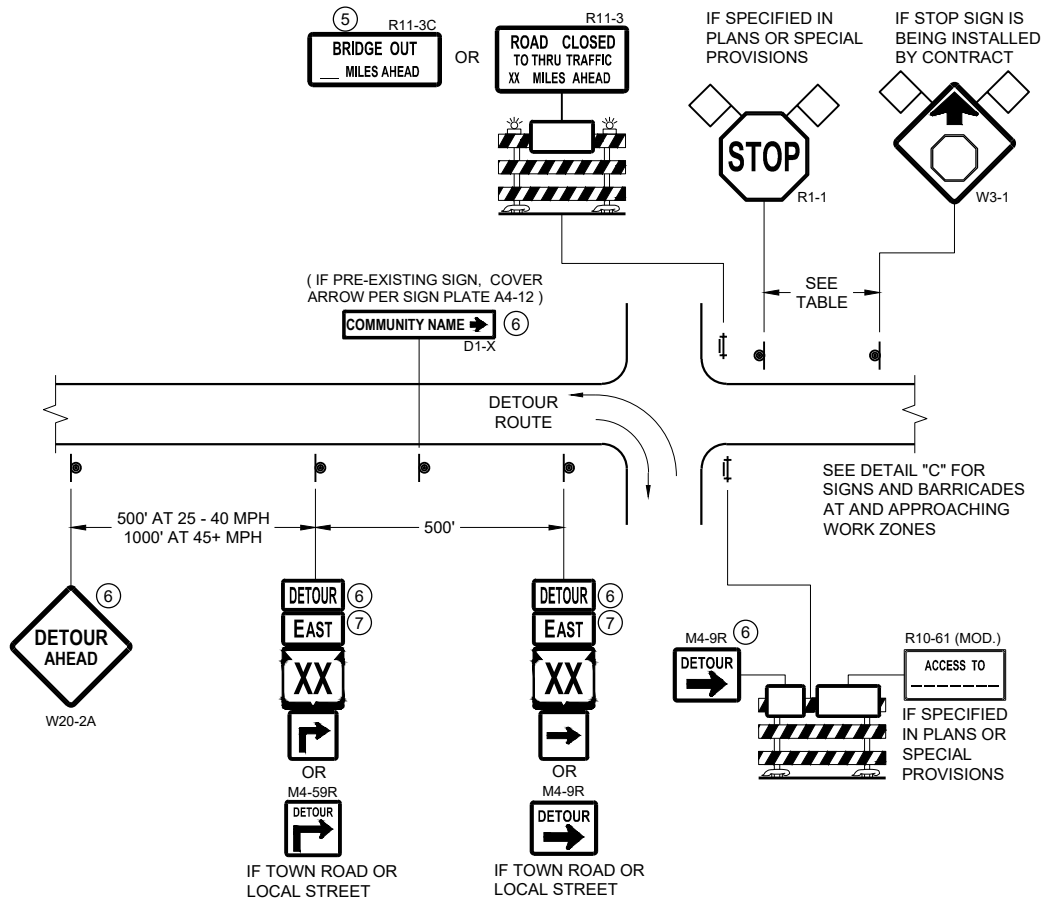
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

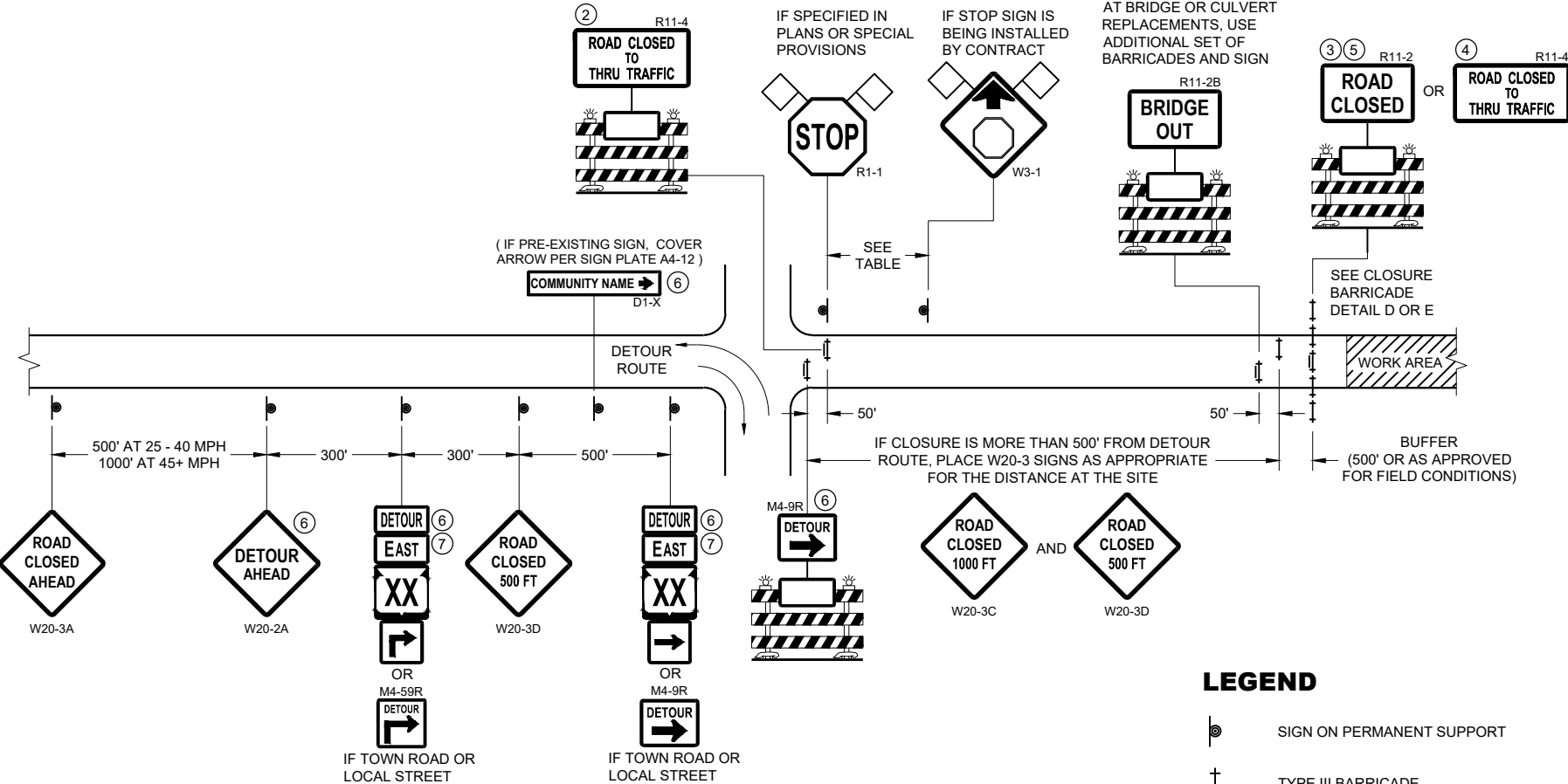
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

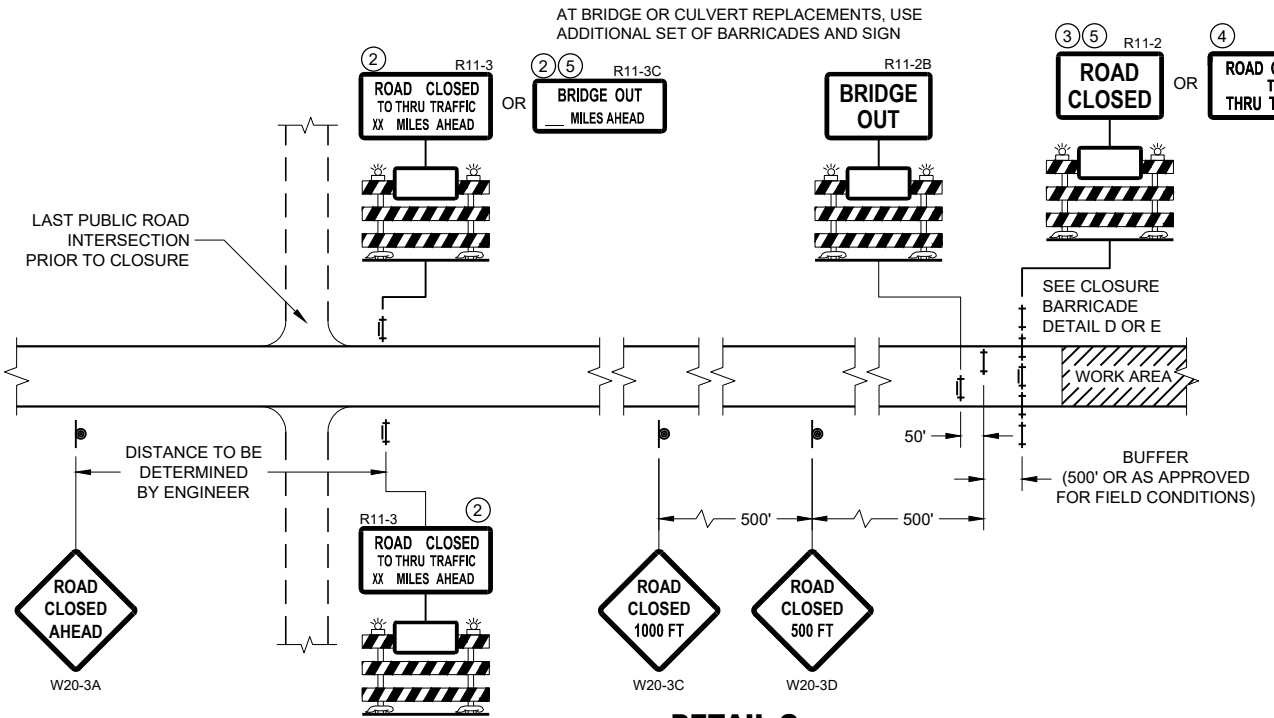
APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



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

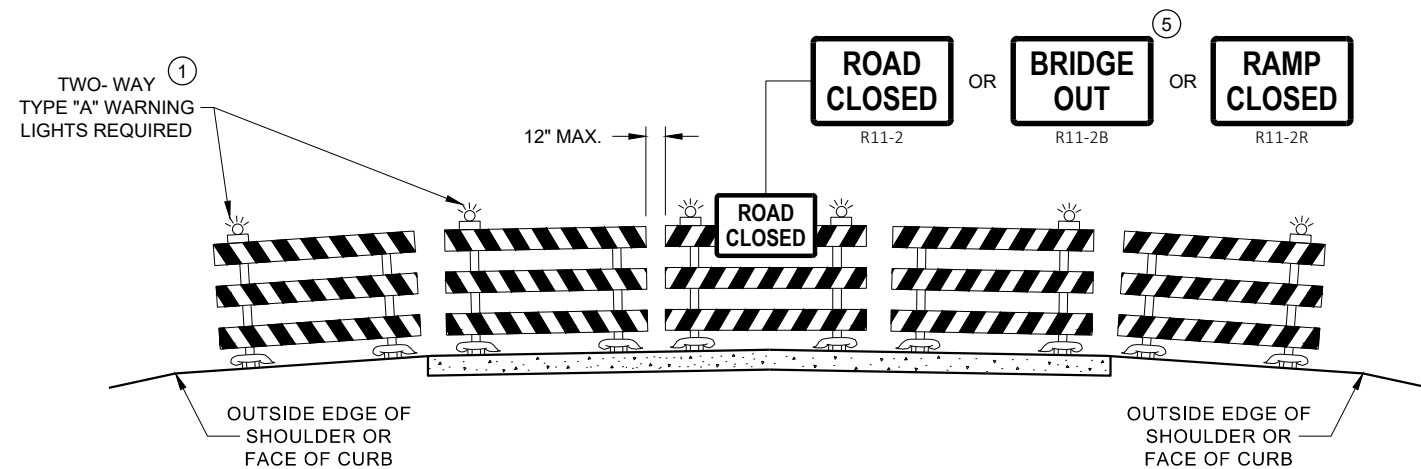
LEGEND

- 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

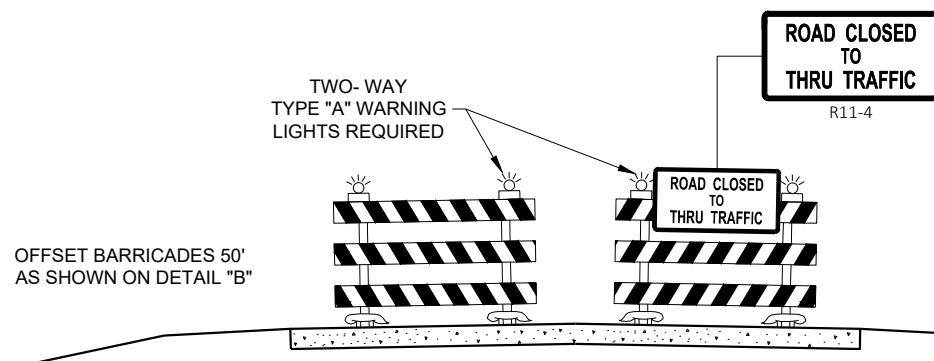
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

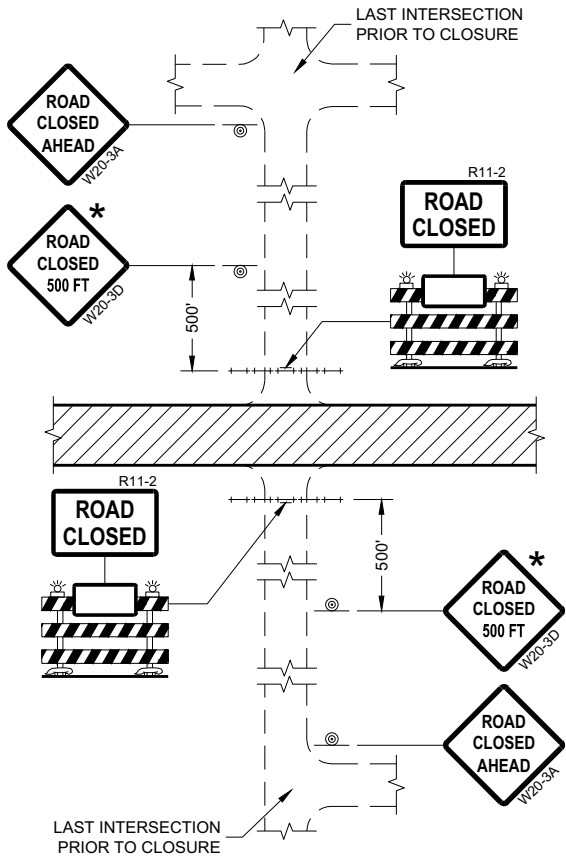
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

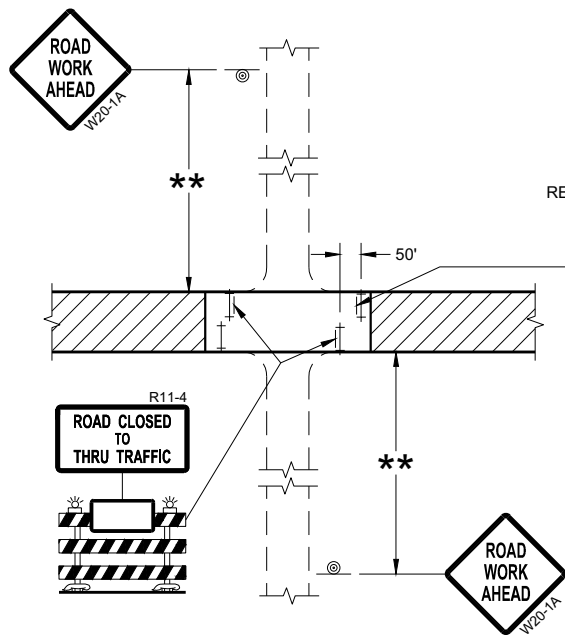
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

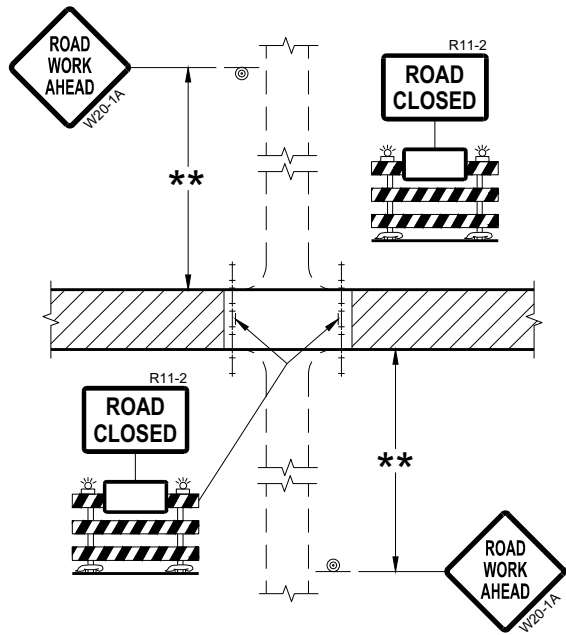
FHWA



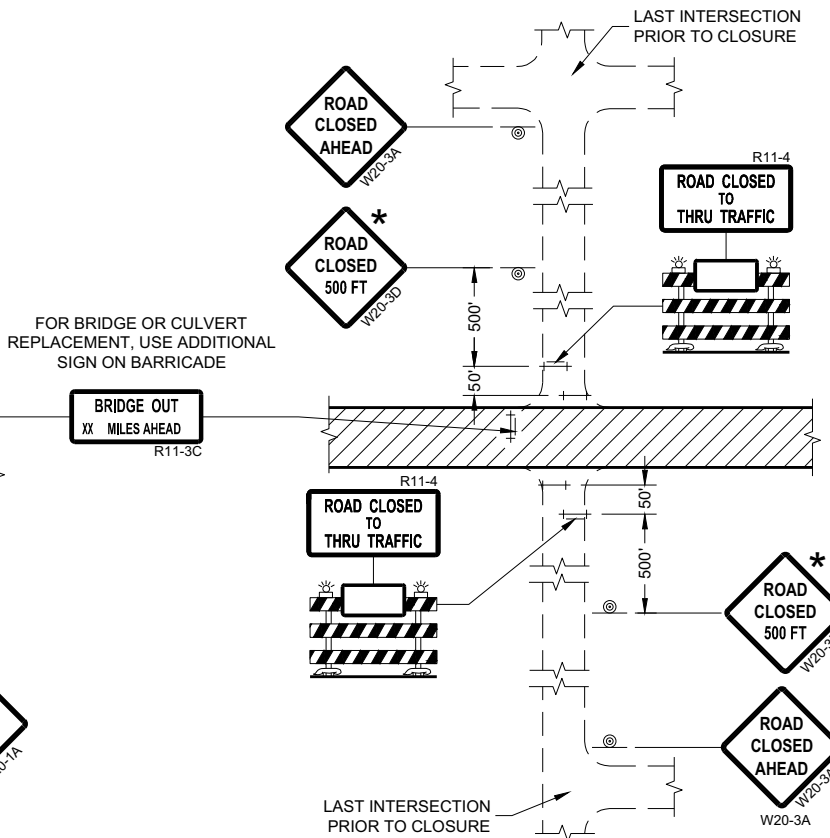
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

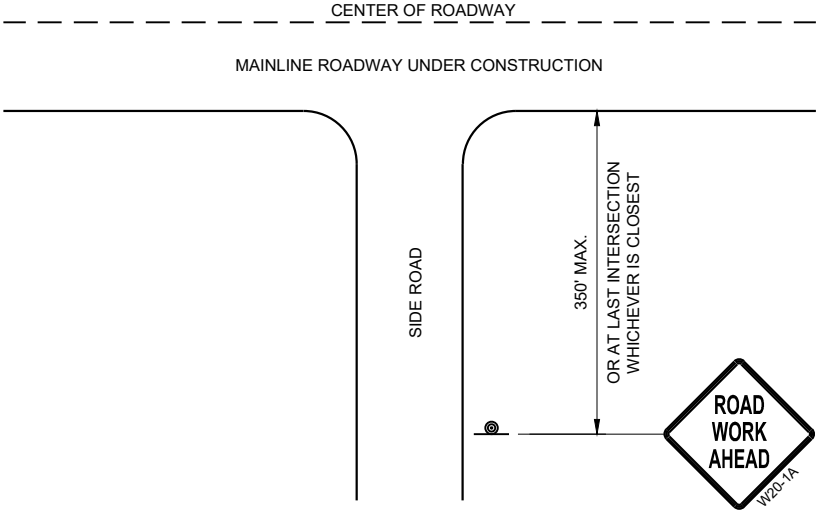
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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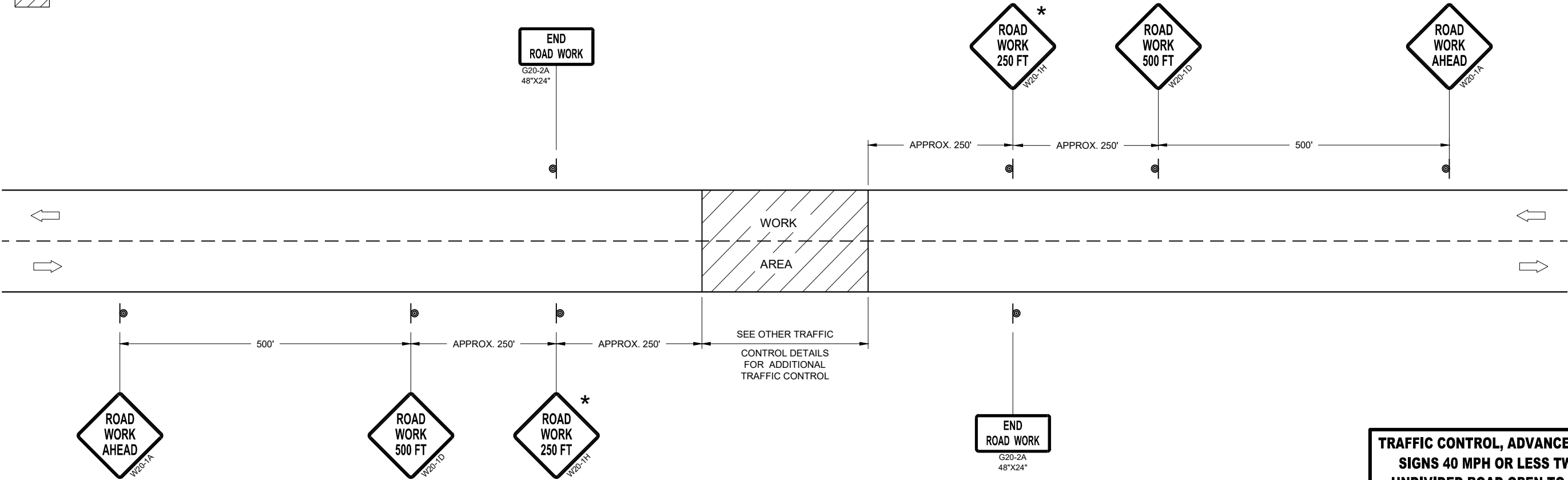
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

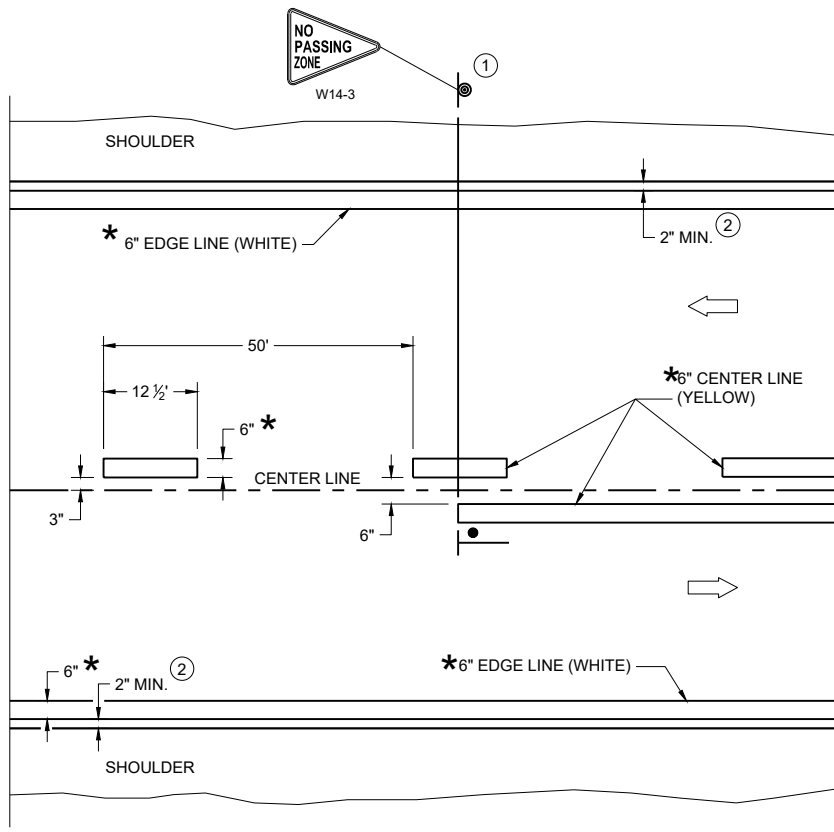


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

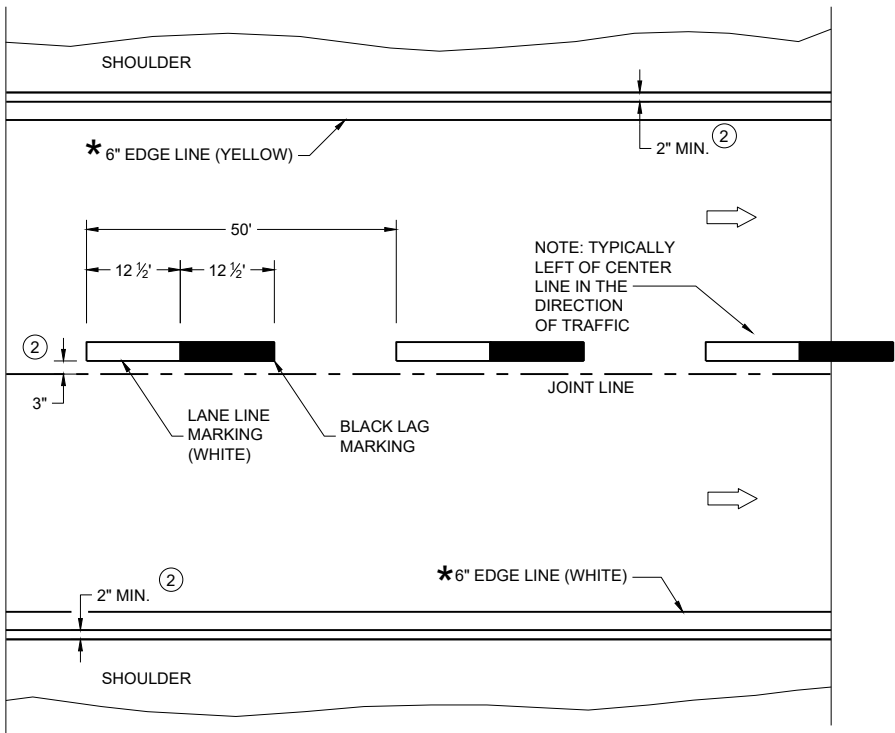
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



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

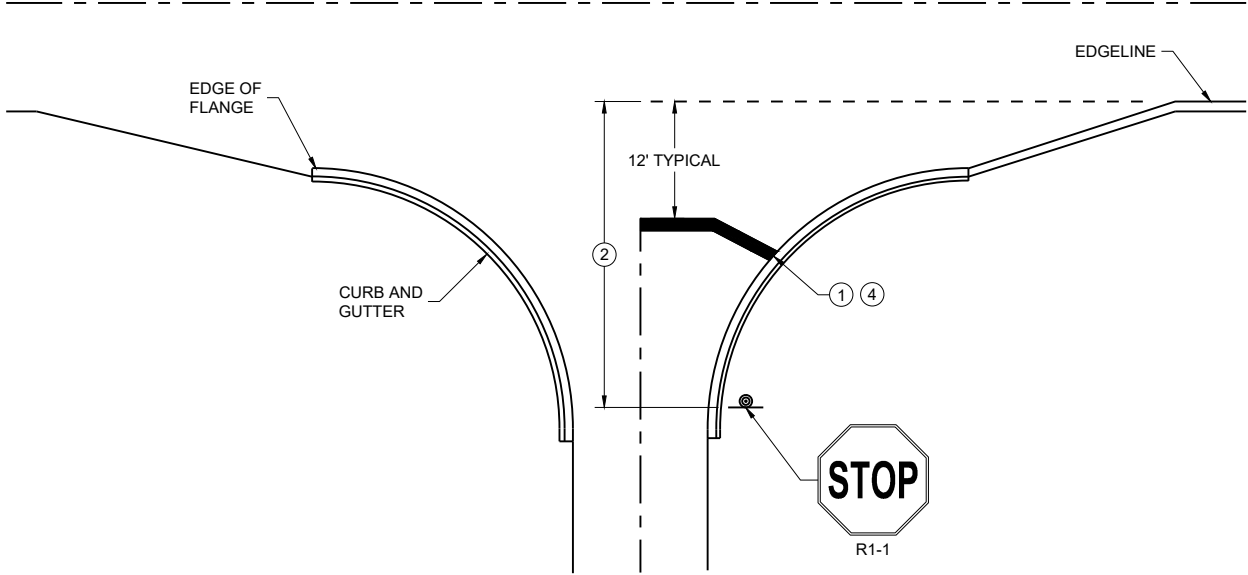
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

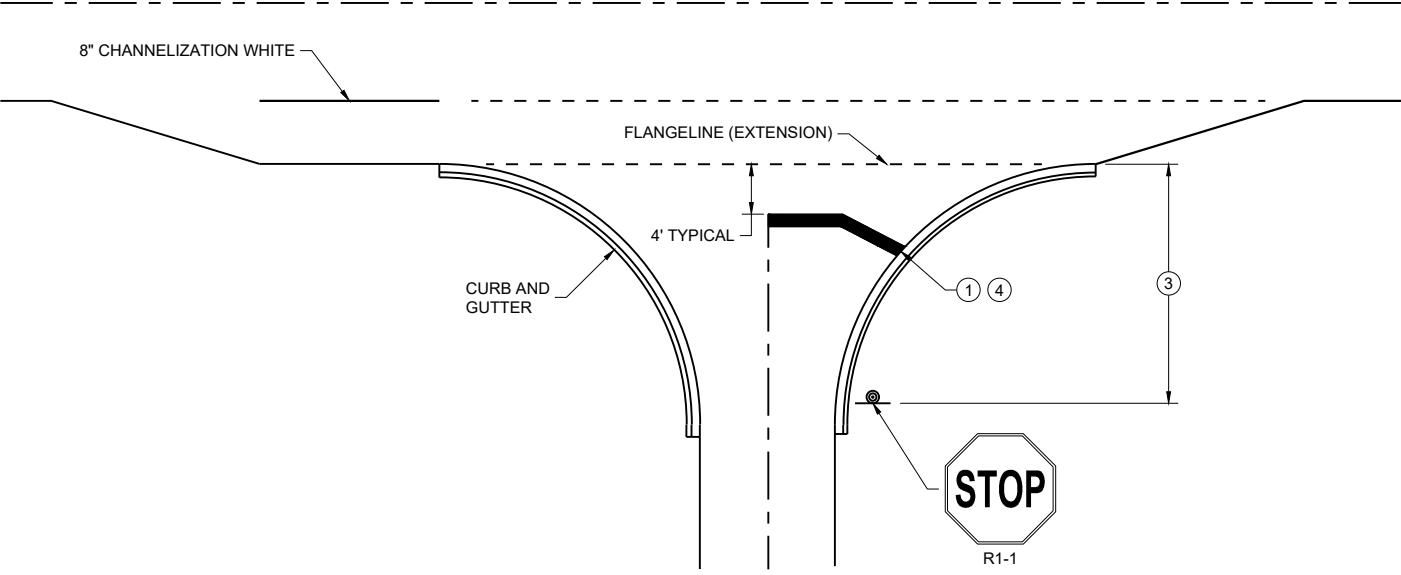
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

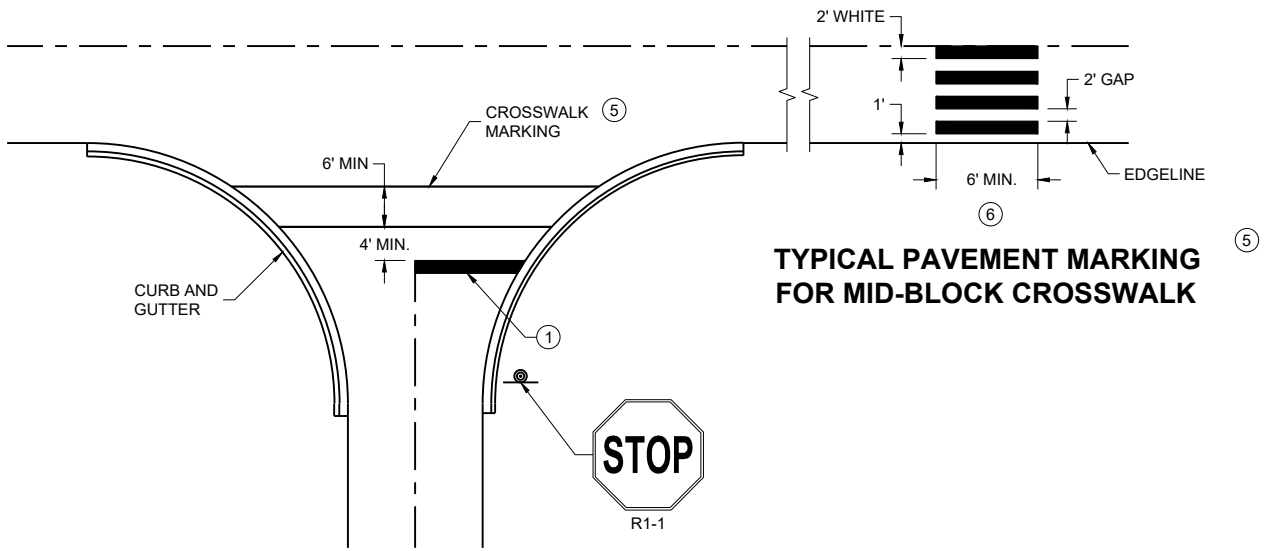
FHWA



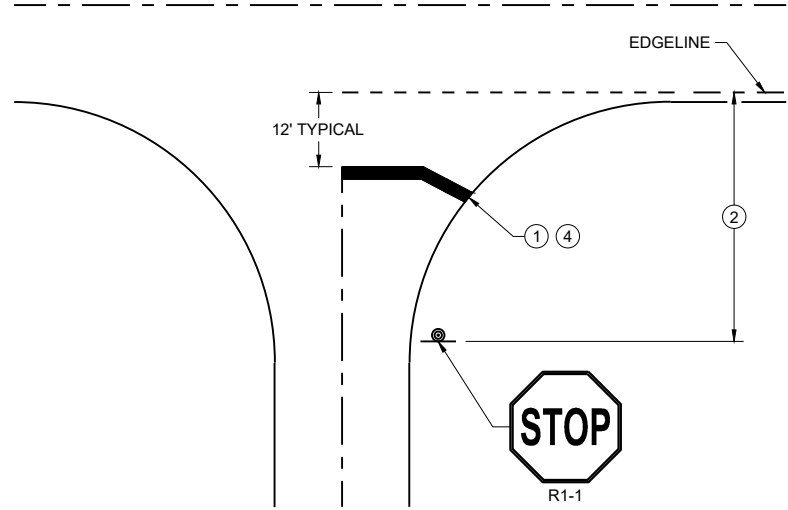
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

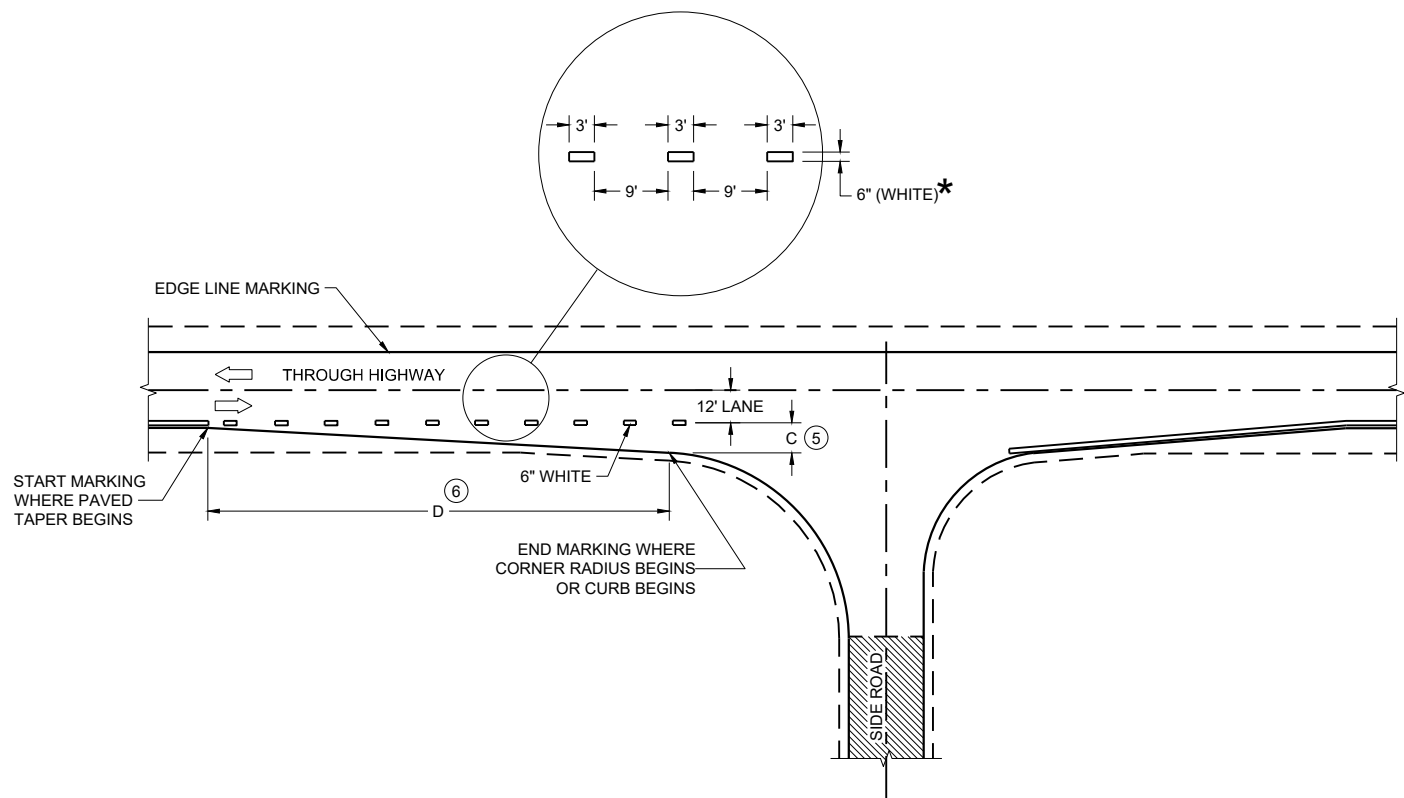
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

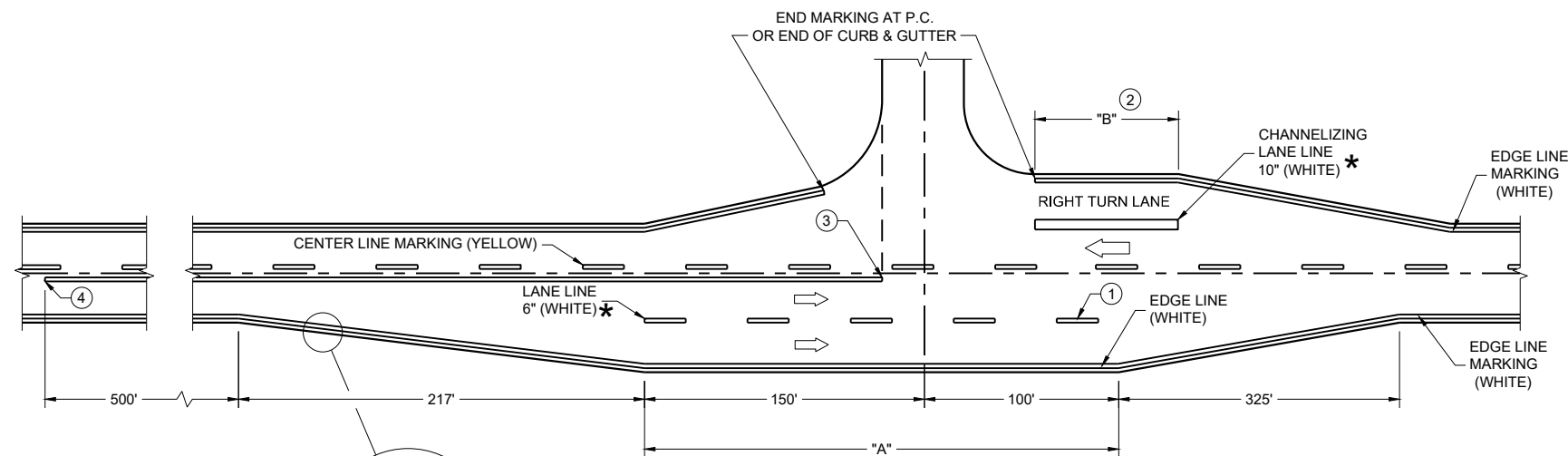
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

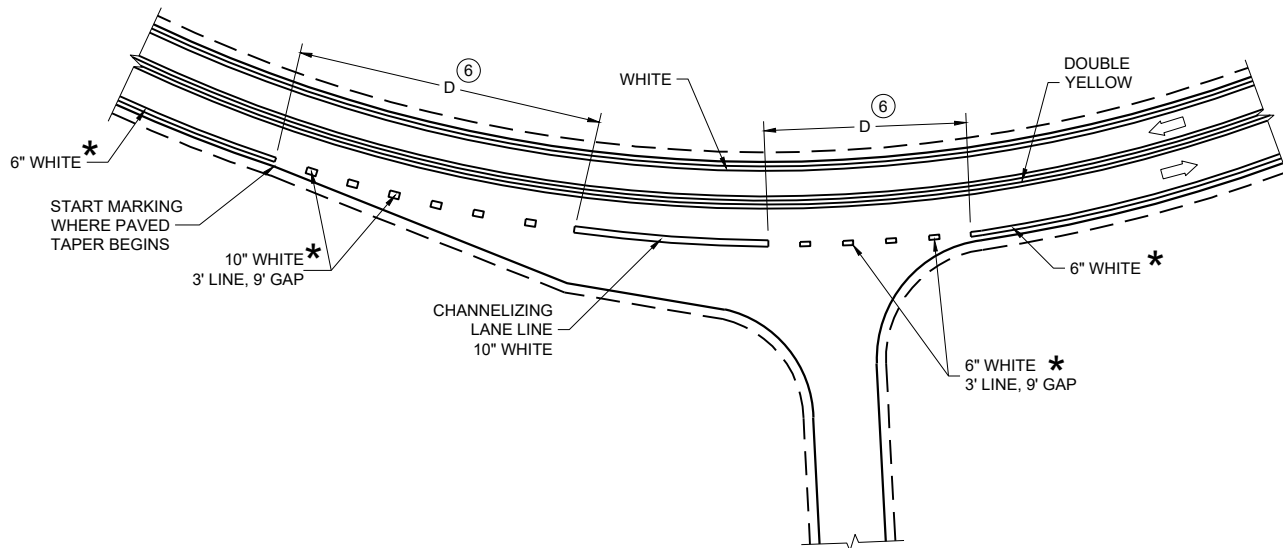
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

➡ DIRECTION OF TRAVEL

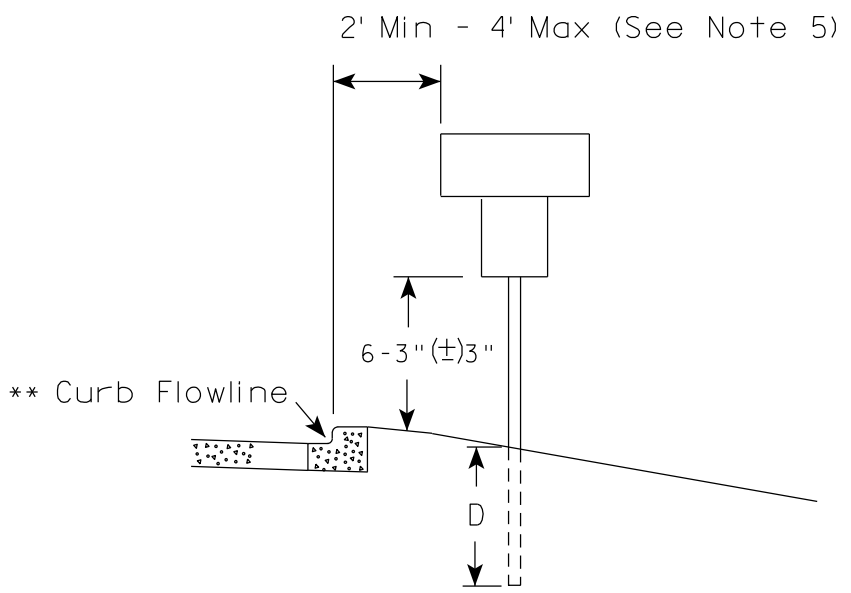
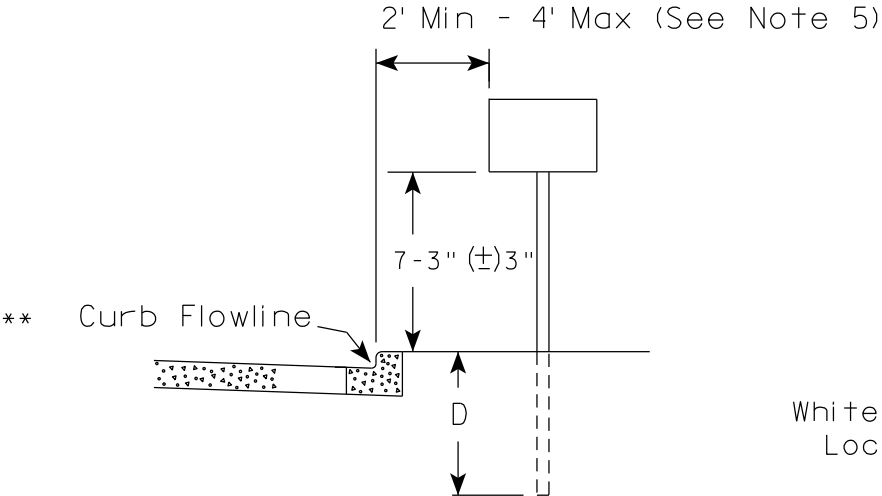


INTERSECTION ON OUTSIDE OF CURVE

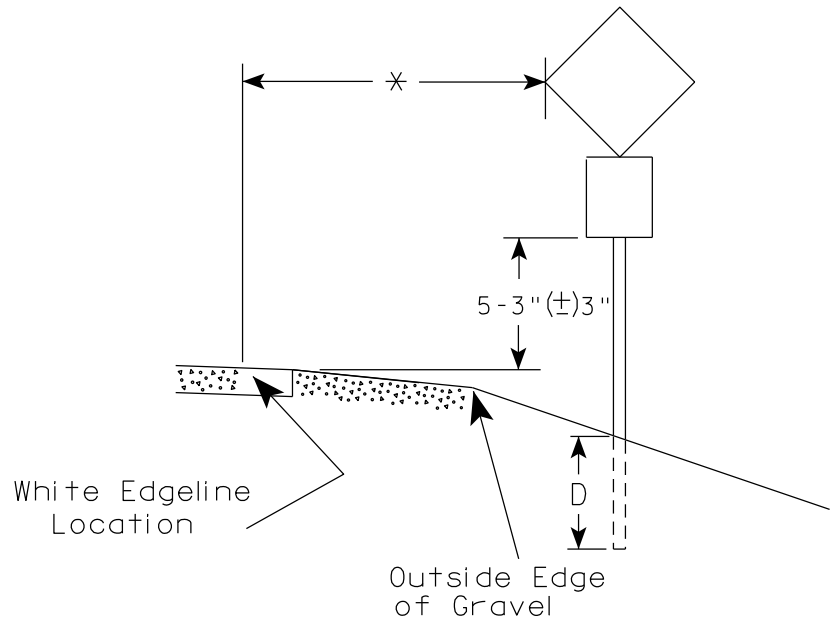
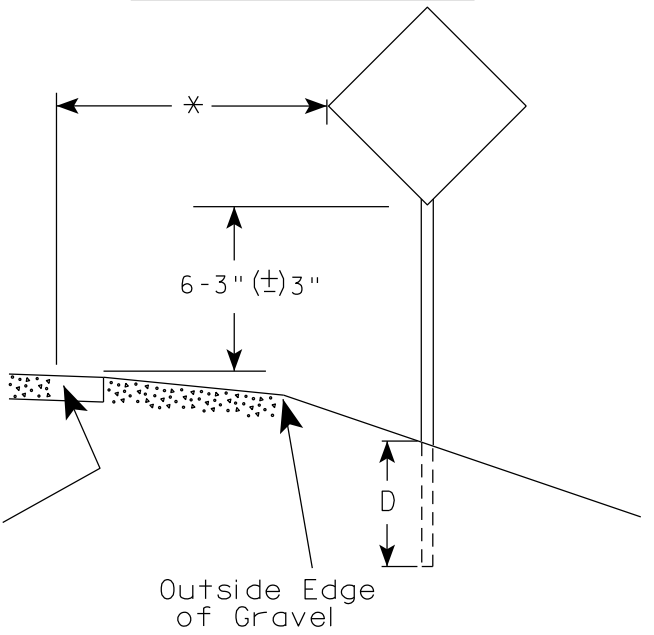
PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

URBAN AREA



RURAL AREA (See Note 2)



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

GENERAL NOTES

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

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

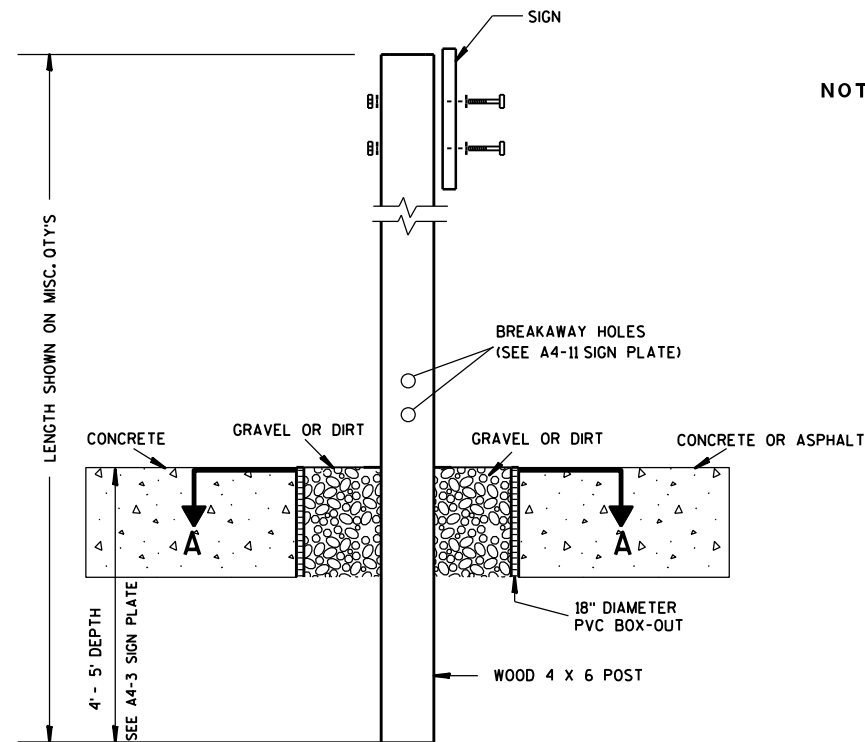
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

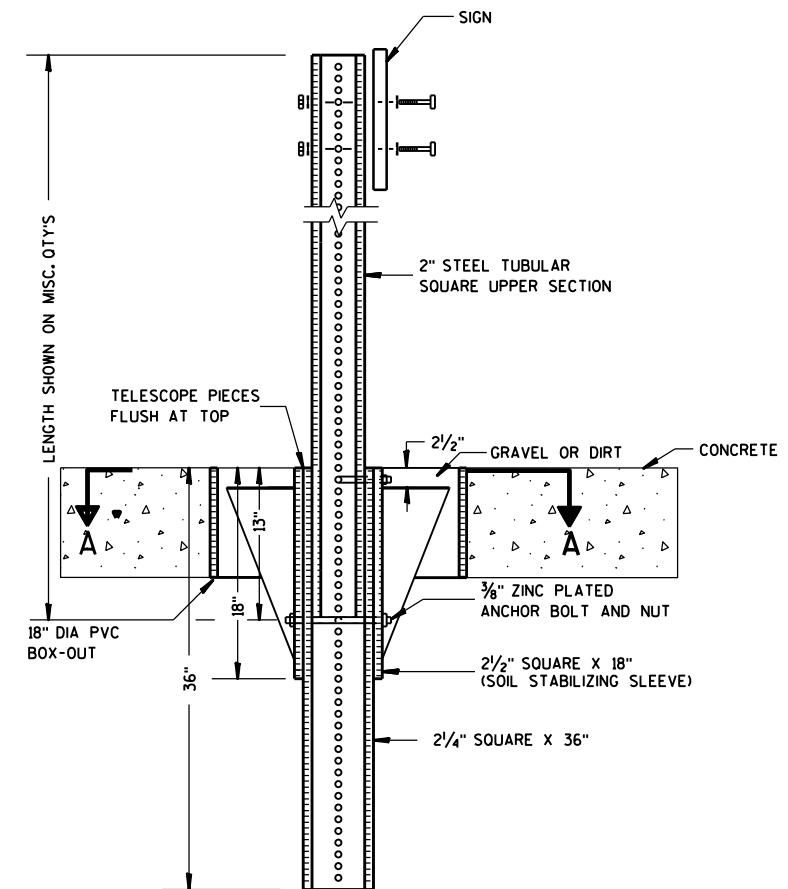
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

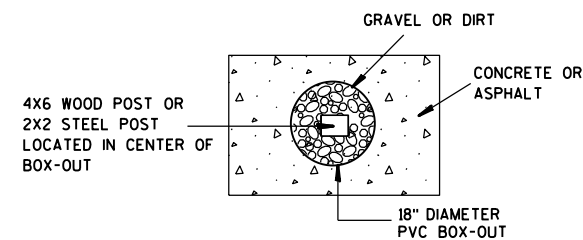
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

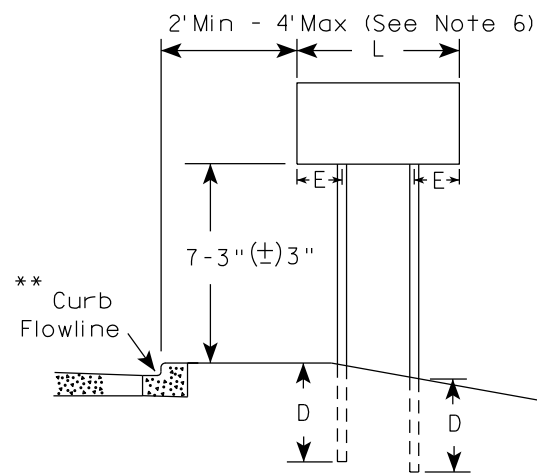
HWY:

COUNTY:

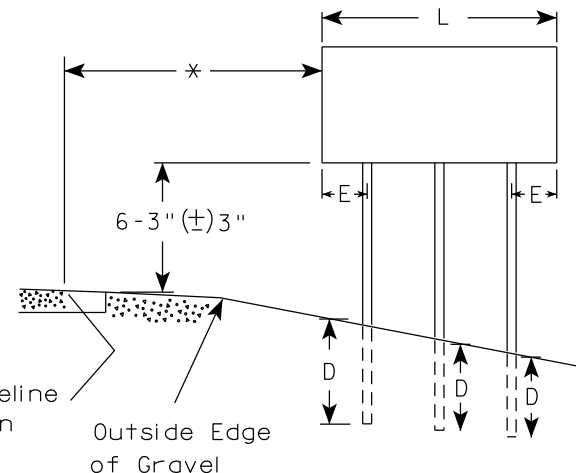
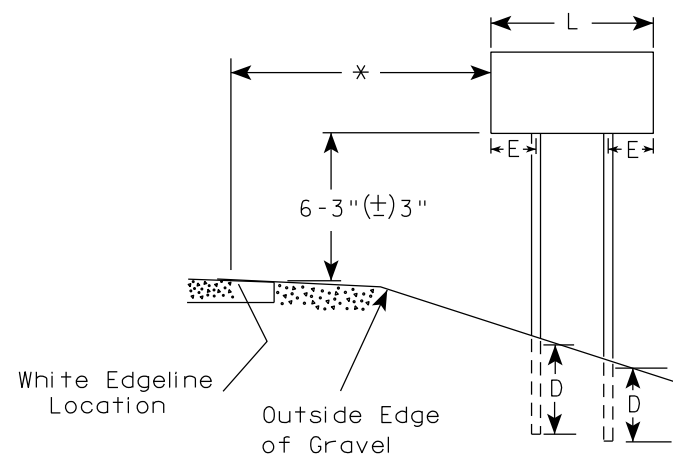
SHEET NO:

E

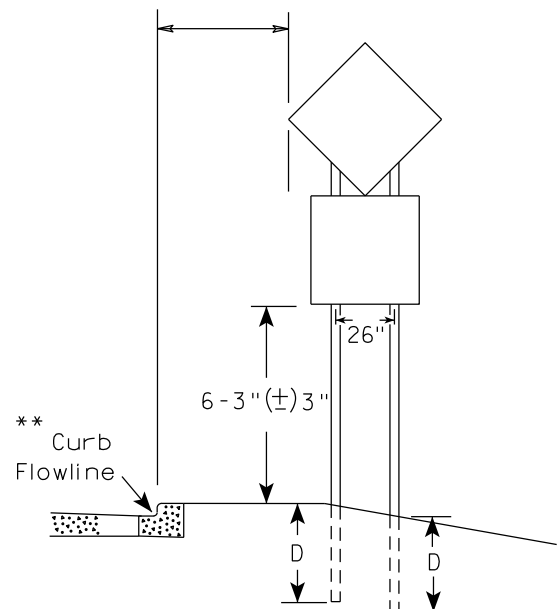
URBAN AREA



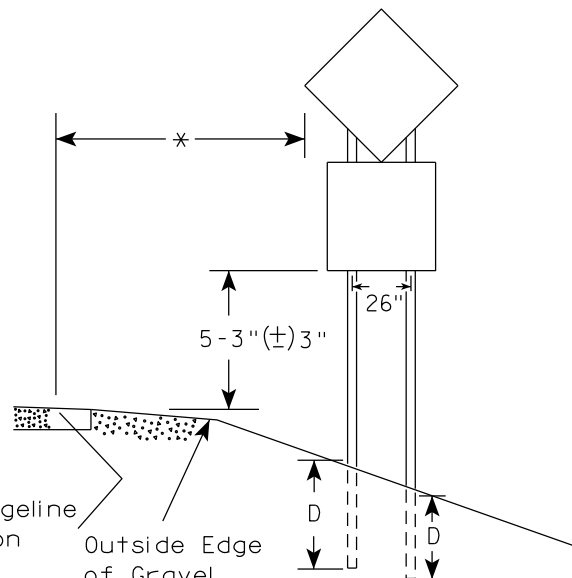
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

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

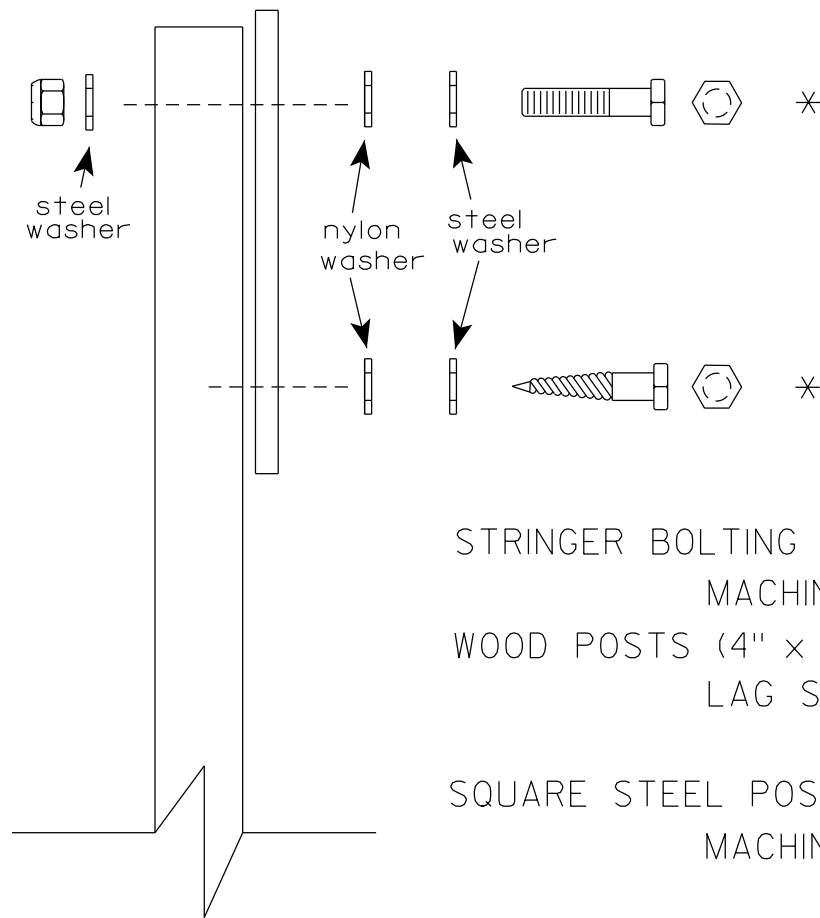
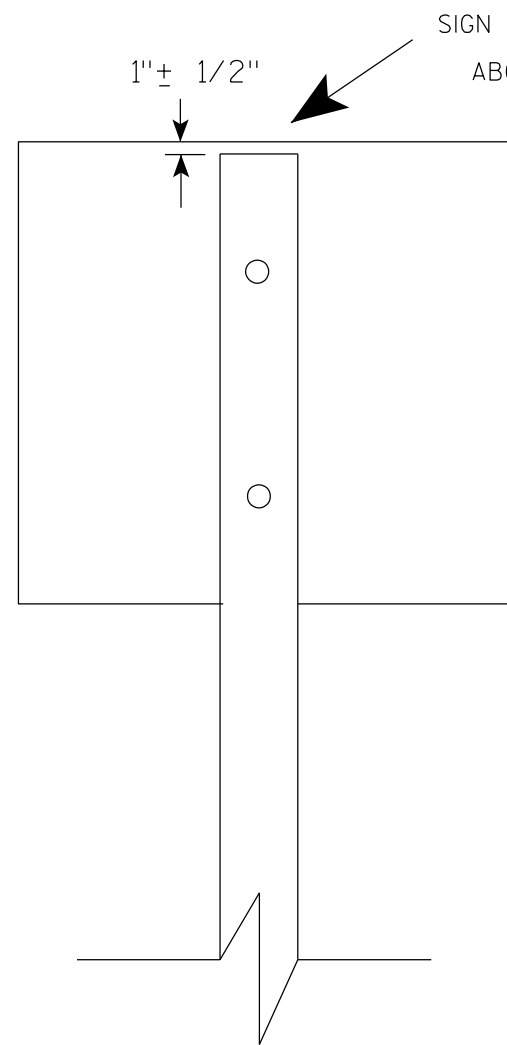
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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



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.

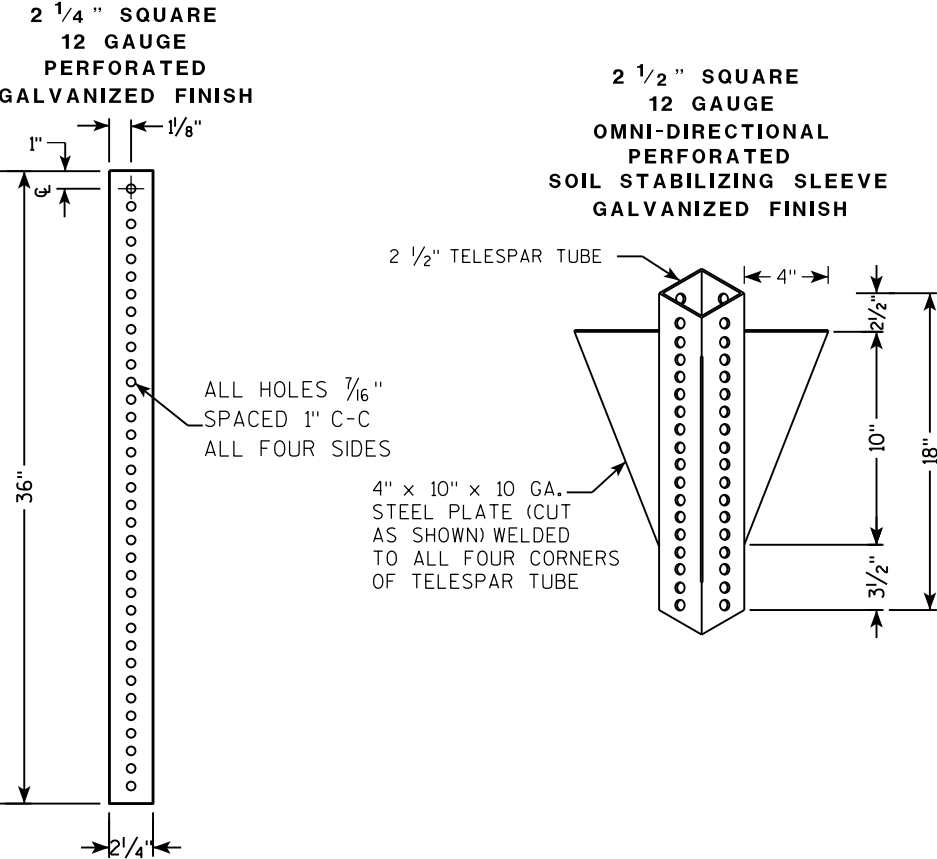
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

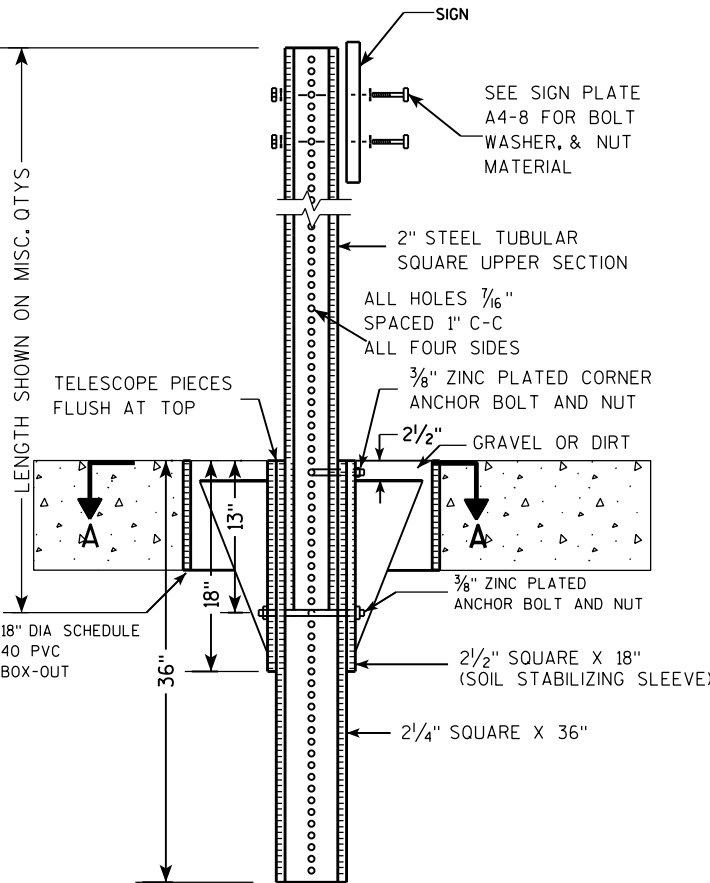
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

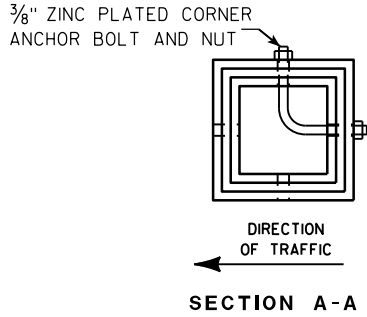
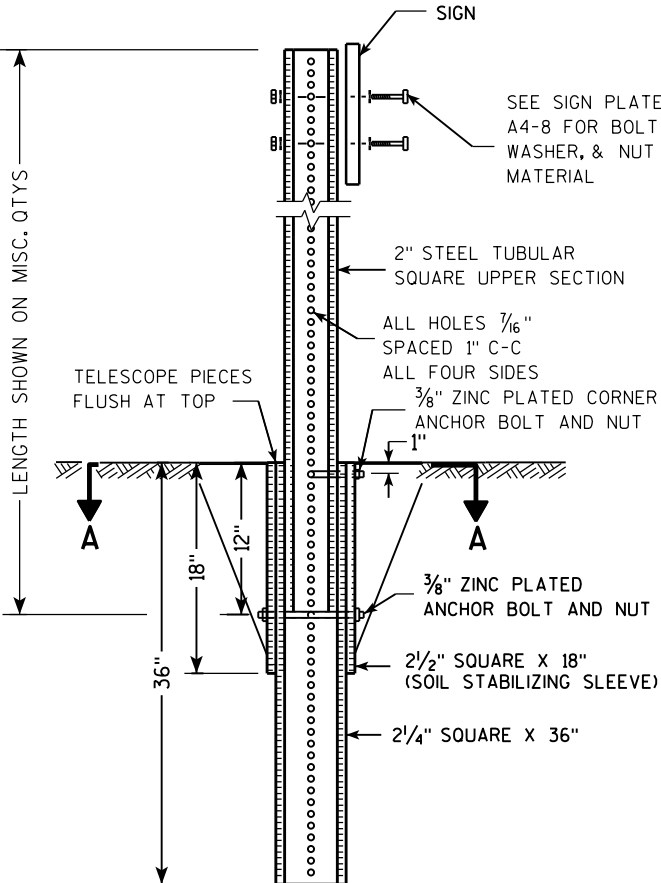
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

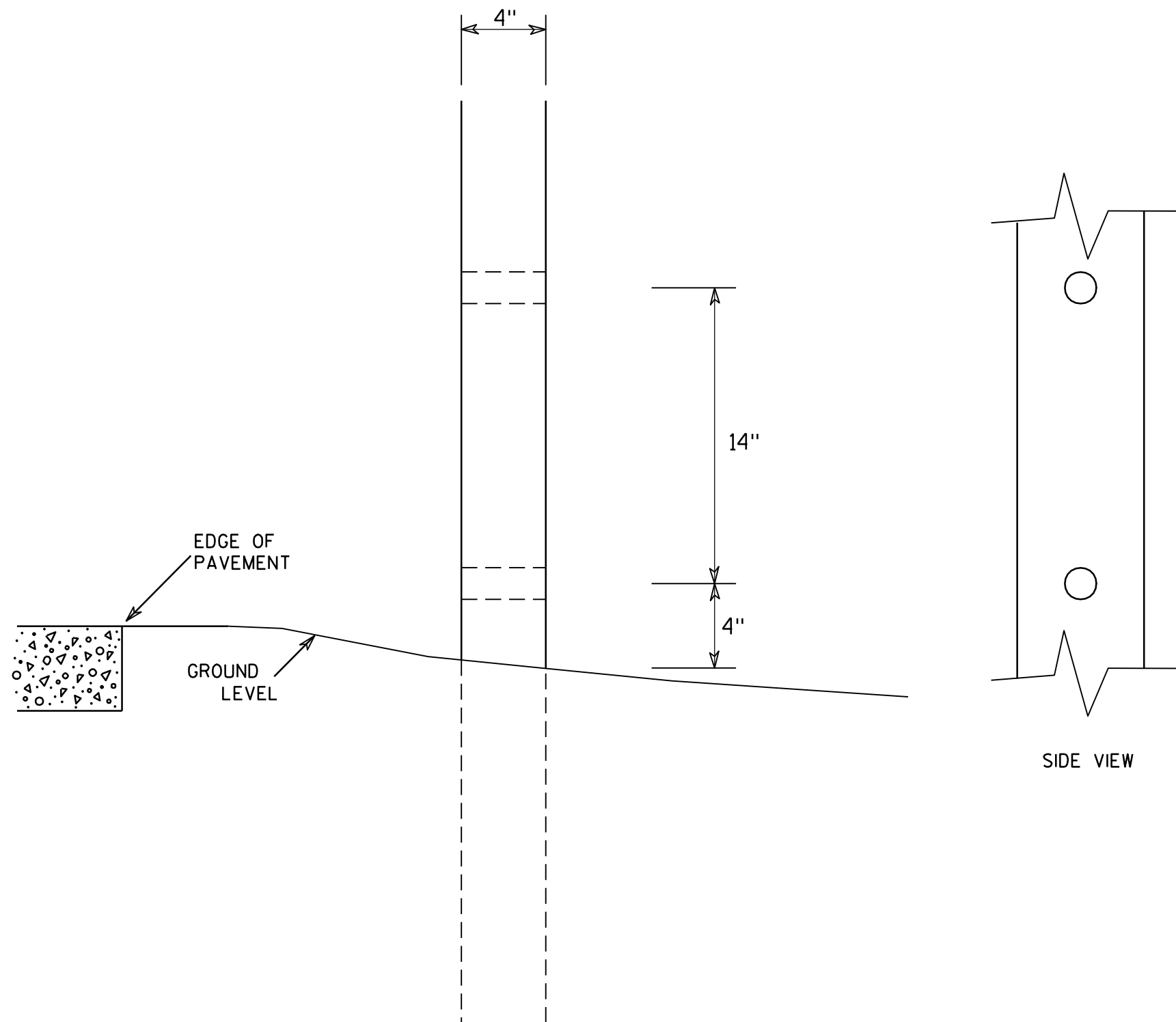
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

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:

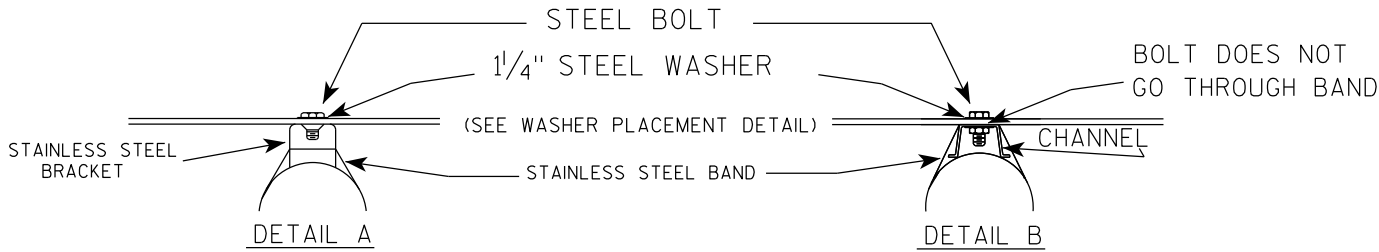
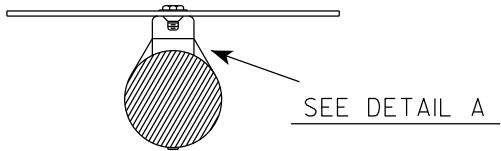
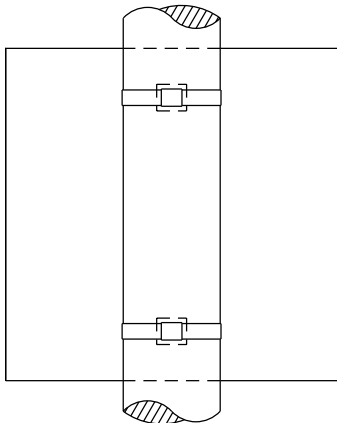
COUNTY:

SHEET NO:

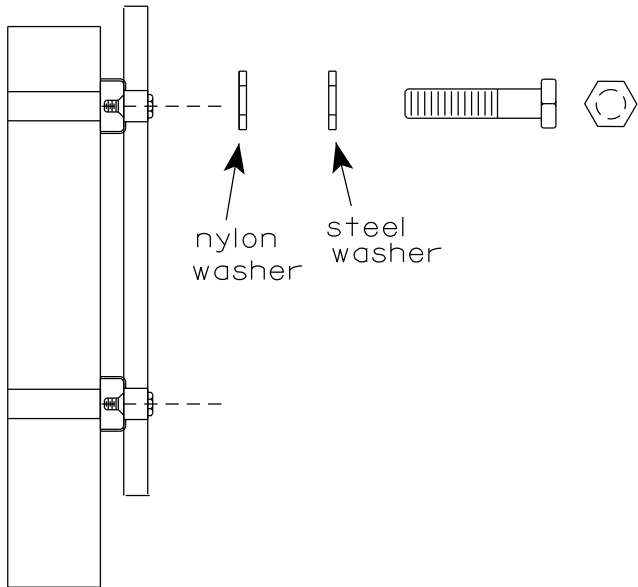
E

BANDING

SINGLE SIGN



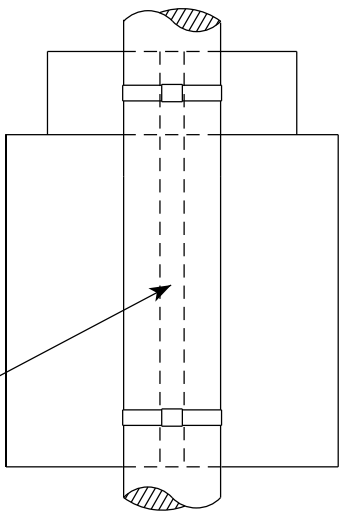
WASHER PLACEMENT



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

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

"J" ASSEMBLY



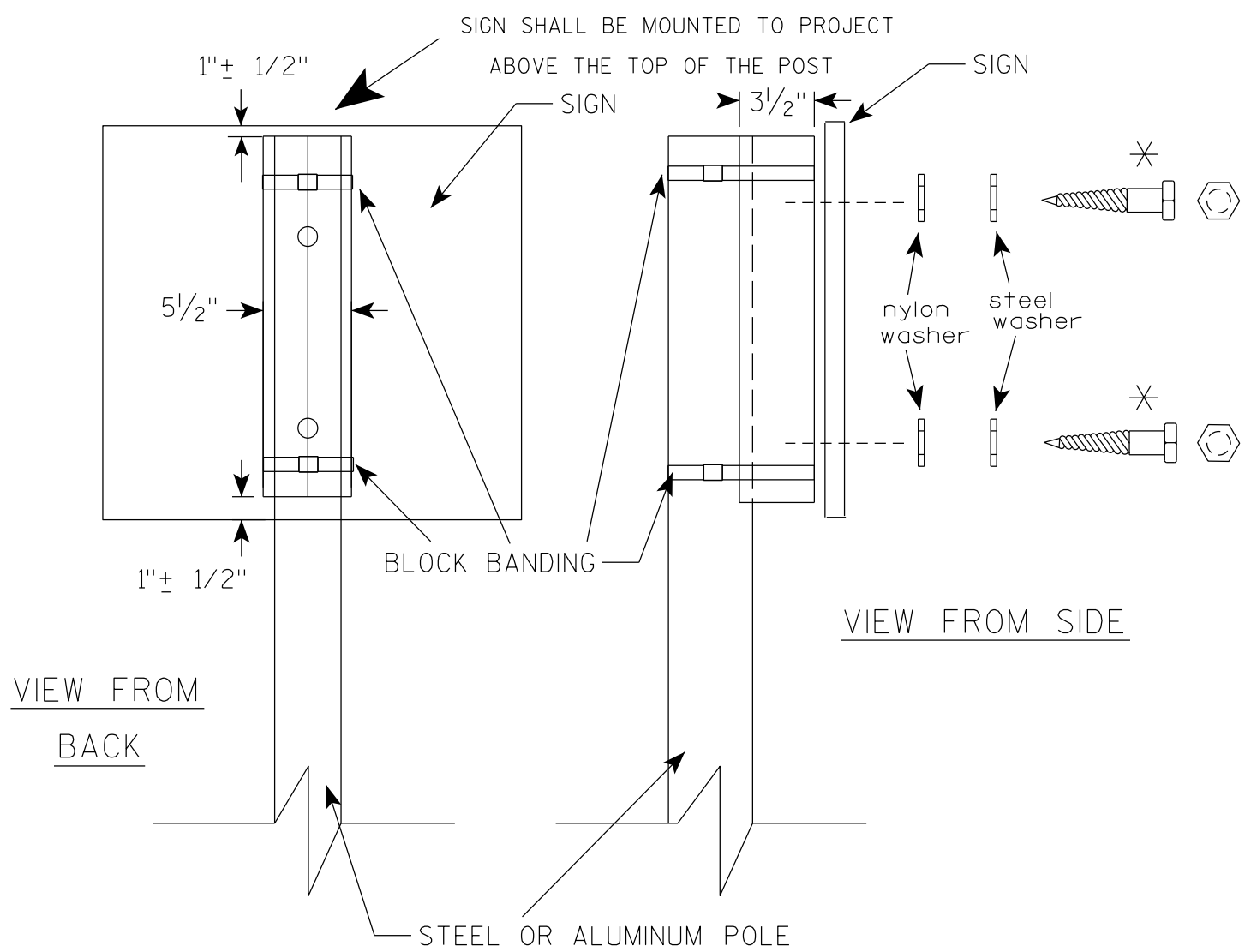
SEE DETAIL B

- 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

STANDARD SIGN
SIGN BANDING DETAILS

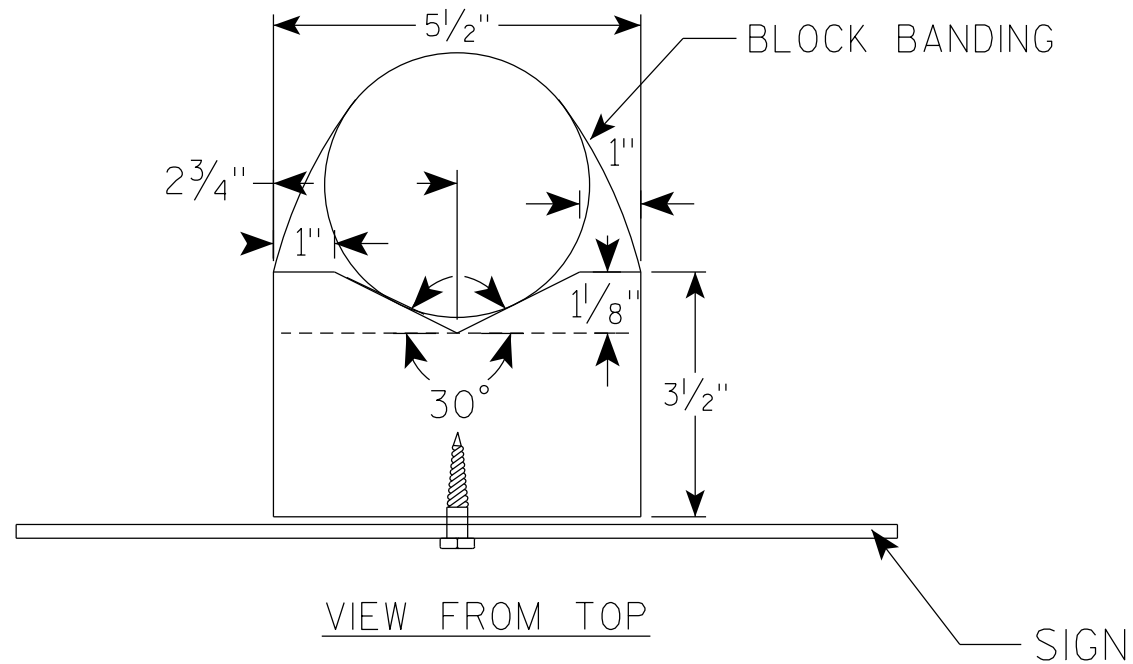
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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, $\frac{3}{4}$ " 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

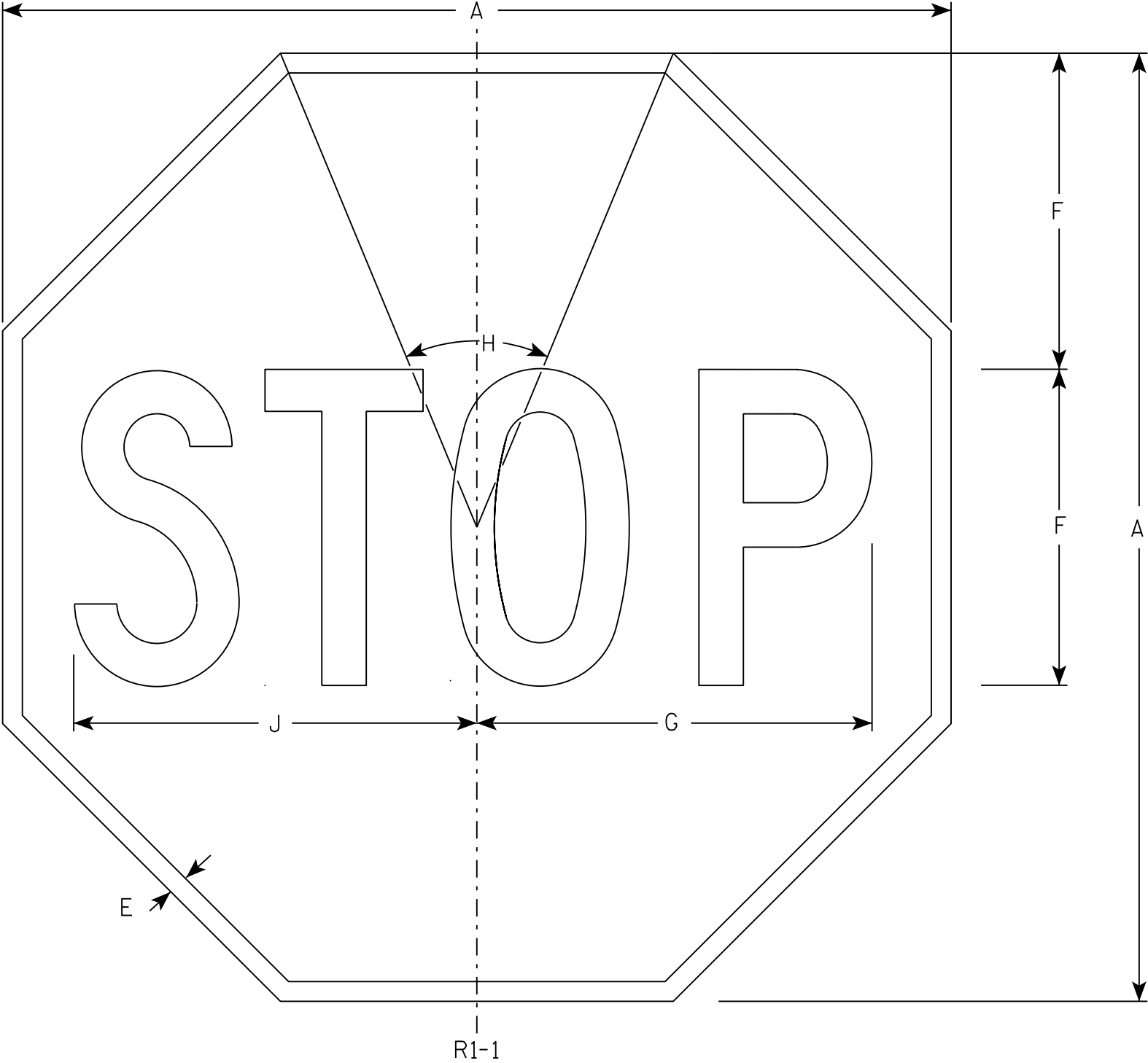
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

E

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

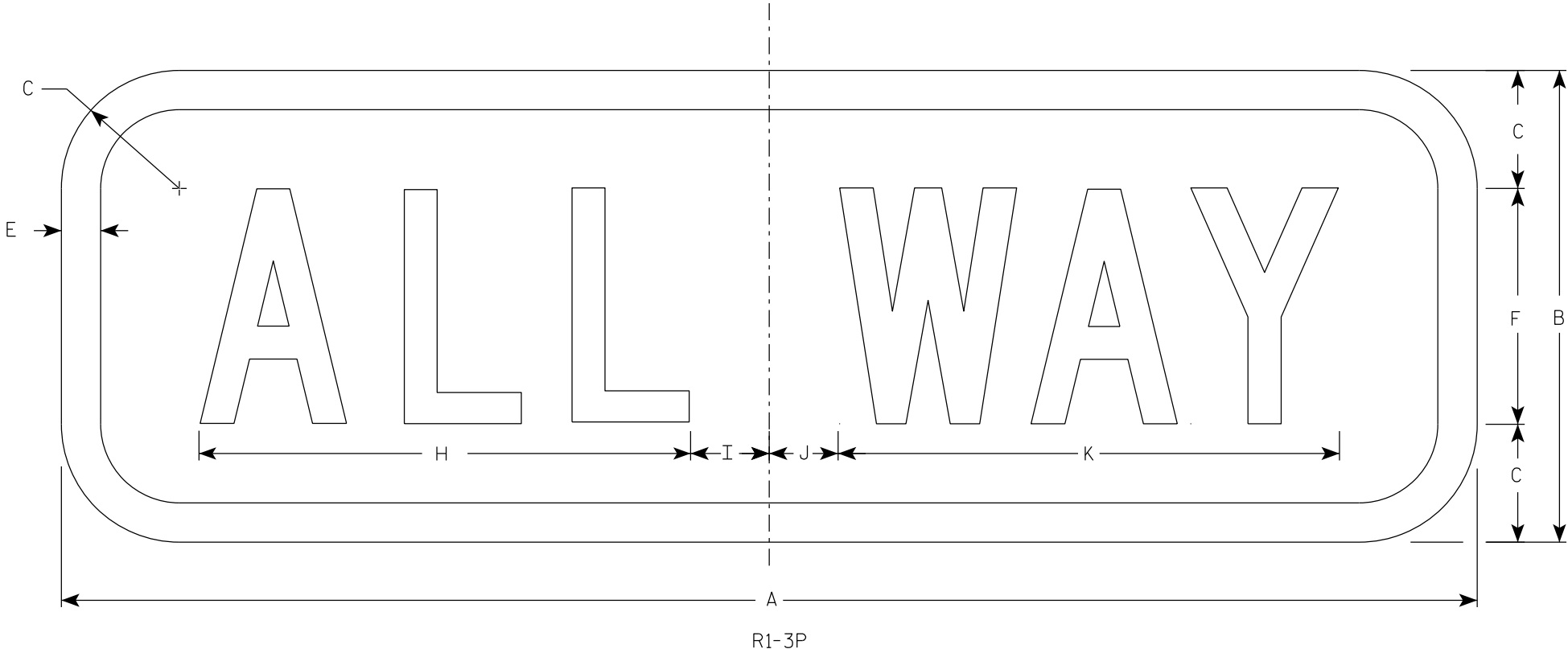
DATE 11/12/15 PLATE NO. R1-1.13

7

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C
- 4. For 30"x30" R1-1 use 18"x6" R1-3P sign
For 36"x36" R1-1 use 24"x9" R1-3P sign
For 48"x48" R1-1 use 30"x12" R1-3P 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	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	1 1/2		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	1 1/2		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

PROJECT NO:

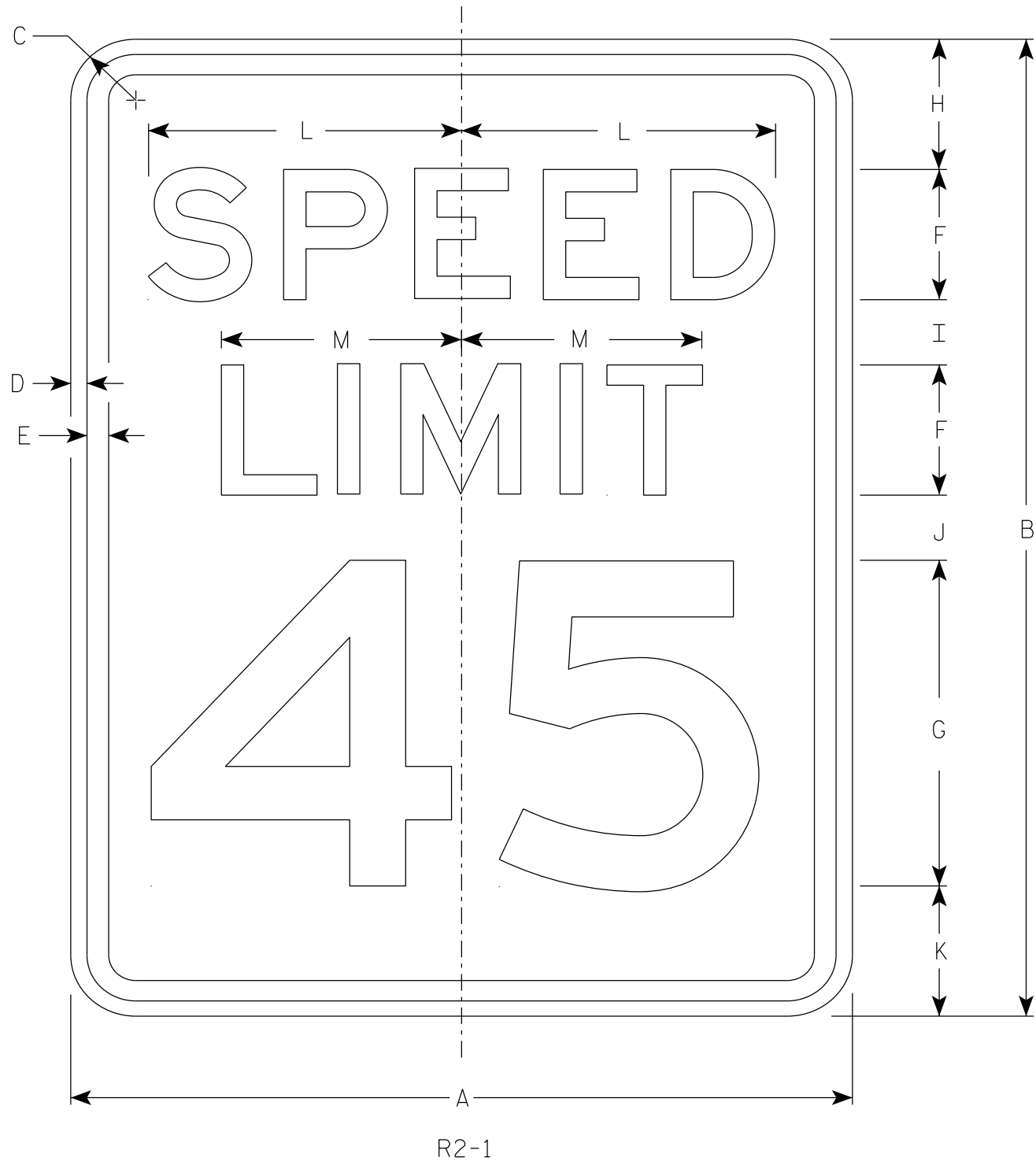
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN

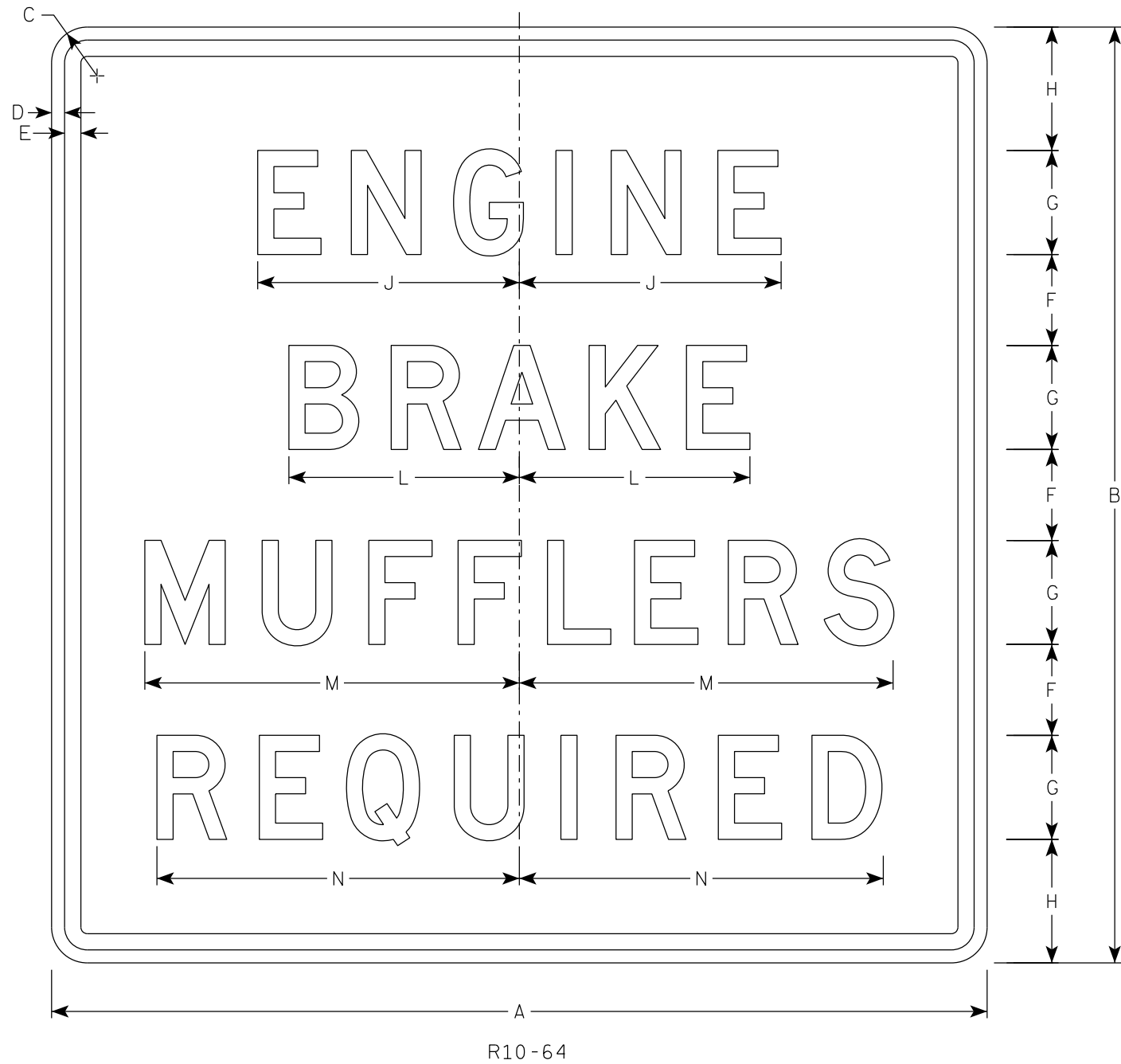
R2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

7



NOTES

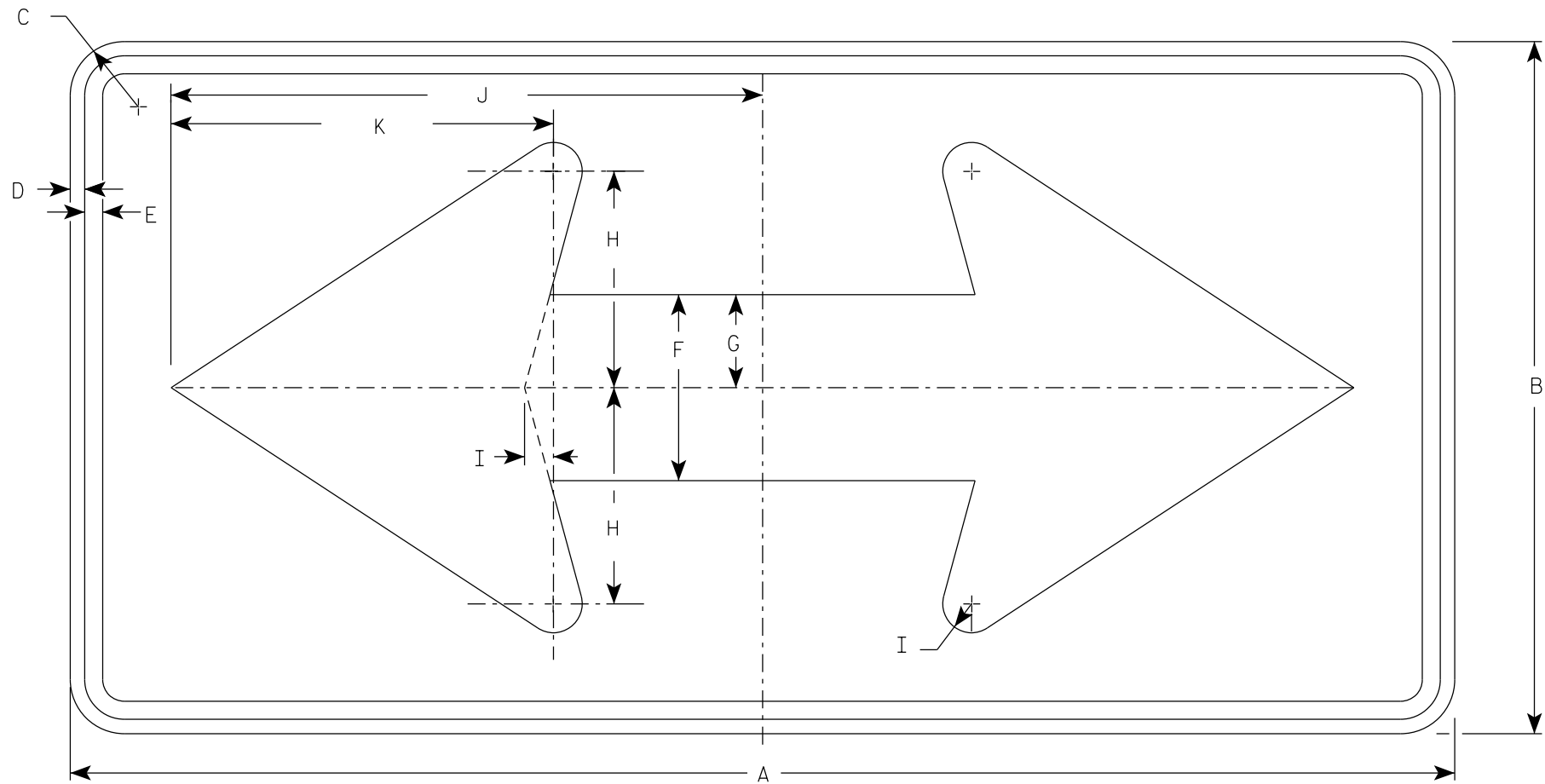
1. Signs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D See note 5
4. Corners shall be rounded when base material is metal

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	36	36	2 1/4	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2S	36	36	2 1/4	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2M	36	36	2 1/4	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
3	42	42	1 7/8	1/2	5/8	4	5	5	3	12 5/8	4	11 1/8	18	17 3/8													12.25
4																											
5																											

PROJECT NO:		HWY:		COUNTY:		SHEET NO:		E
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7



W1-7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black

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	36	18	1 1/2	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	3	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/10/2023 PLATE NO. W1-7.8

PROJECT NO:

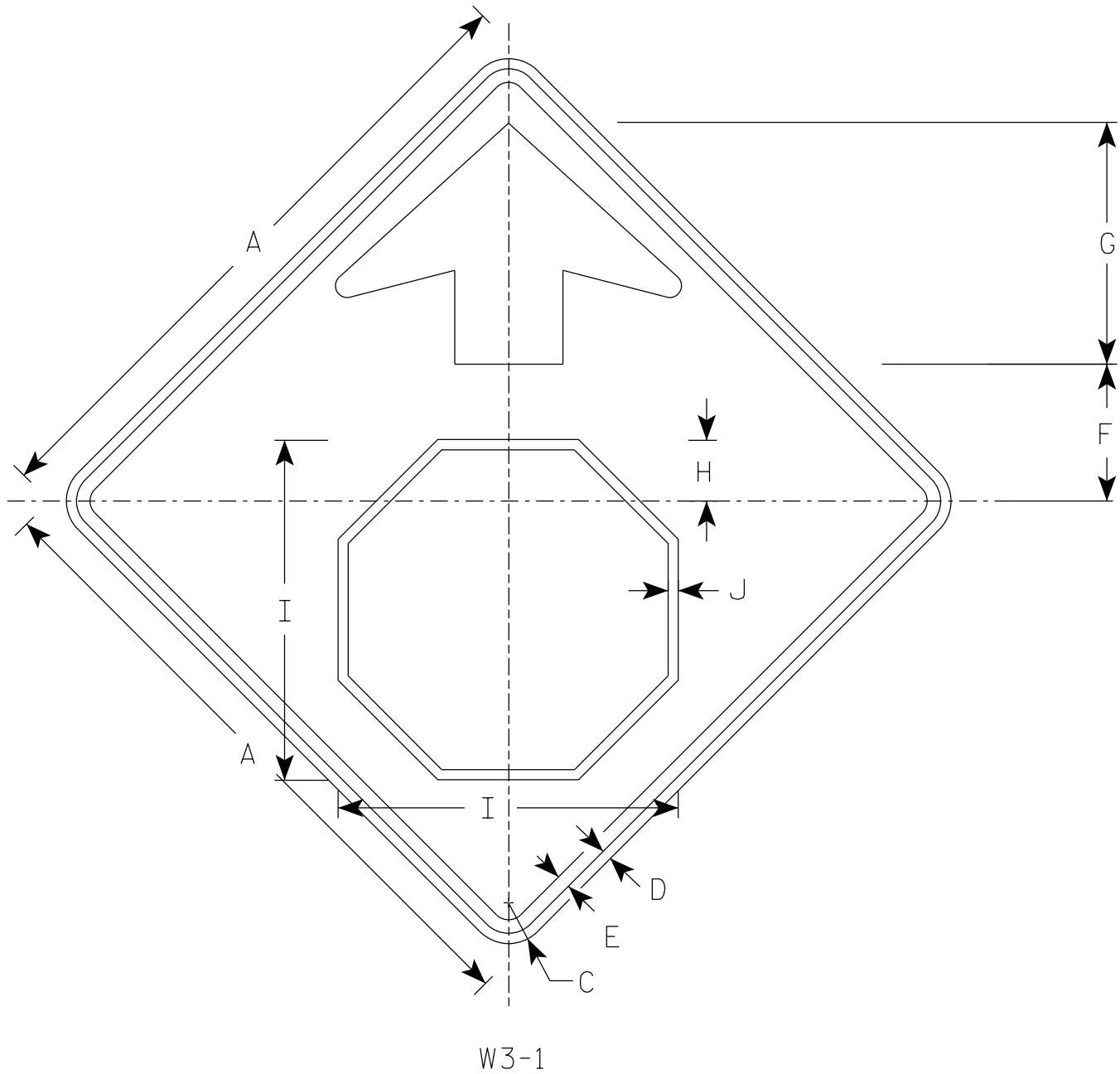
HWY:

COUNTY:

SHEET NO:

E

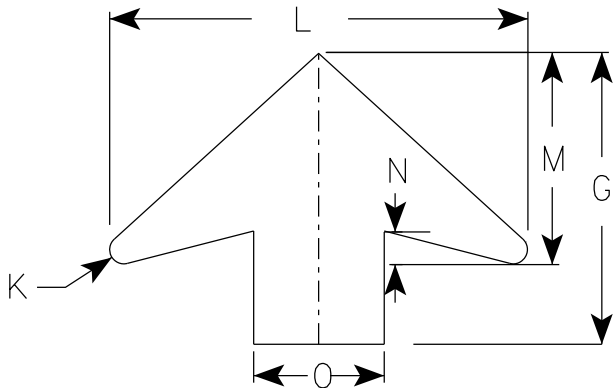
7



W3-1

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Arrow & Border - Black
 - Stop Symbol - White Border on Red Background



ARROW DETAIL

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	30		1 7/8	1/2	5/8	6 1/4	11 1/4	2 3/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN

W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

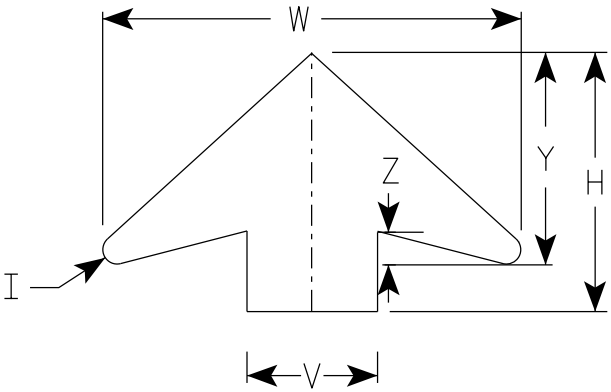
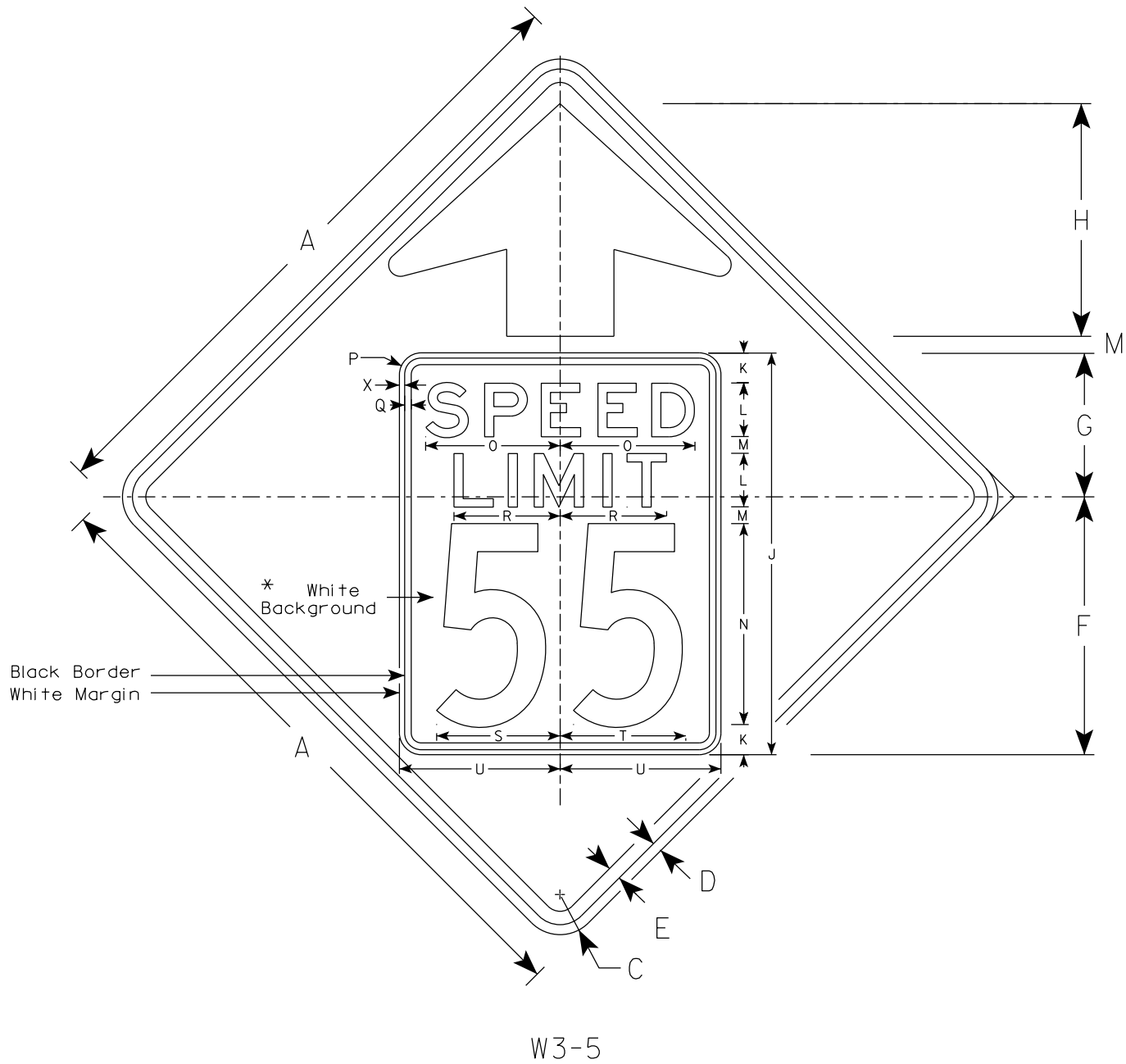
DATE 8/17/2023

PLATE NO. W3-1.13

NOTES

- 1. Sign is Type II - See Note 2 for Sheeting Type
- 2. Color: *
Background - Yellow* (Type F Reflective)
Message - Black
- 3. Message Series - C for numbers Series E for wording
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/30/2023 PLATE NO. W3-5.7

PROJECT NO:

SHEET NO:

E

DIVISION - SAMZ ROAD

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 1.00	EXPANDED FILL 1.25	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		
10+20	1020.00	0.00	11.60	16.50	0.00	0	0	0	0	0	0
10+25	1025.00	5.00	29.13	16.50	0.00	4	3	0	4	0	1
10+30	1030.00	5.00	47.50	16.50	0.00	7	3	0	11	0	5
10+35	1035.00	5.00	65.62	16.50	0.00	10	3	0	21	0	12
10+40	1040.00	5.00	73.90	16.50	1.10	13	3	0	34	0	22
10+45	1045.00	5.00	79.09	16.50	2.34	14	3	0	48	0	33
10+50	1050.00	5.00	86.18	16.50	2.23	15	3	0	63	0	45
10+55	1055.00	5.00	86.76	16.50	1.65	16	3	0	79	0	58
10+60	1060.00	5.00	101.38	16.50	1.36	17	3	0	96	0	72
10+65	1065.00	5.00	97.62	16.50	1.13	18	3	0	114	0	87
10+70	1070.00	5.00	94.82	16.50	0.93	18	3	0	132	0	102
10+75	1075.00	5.00	92.82	16.50	0.12	17	3	0	149	0	116
11+00	1100.00	25.00	87.73	16.50	0.00	84	15	0	233	0	185
11+50	1150.00	50.00	97.42	16.50	0.00	171	31	0	404	0	325
11+99.934	1199.93	49.93	73.76	16.50	0.00	158	31	0	562	0	452
12+47.998	1248.00	48.06	54.54	16.50	0.73	114	29	1	676	1	536
13+00	1300.00	52.00	52.02	16.50	2.45	103	32	3	779	5	603
13+50	1350.00	50.00	56.02	16.50	2.84	100	31	5	879	11	666
14+00	1400.00	50.00	54.97	16.50	4.10	103	31	6	982	19	730
14+50	1450.00	50.00	54.77	16.50	3.62	102	31	7	1,084	28	793
15+00	1500.00	50.00	60.84	16.50	1.42	107	31	5	1,191	34	862
15+50	1550.00	50.00	73.01	16.50	0.78	124	31	2	1,315	36	953
16+00	1600.00	50.00	69.70	16.50	2.56	132	31	3	1,447	40	1,050
16+50	1650.00	50.00	80.63	16.50	5.08	139	31	7	1,586	49	1,149
17+00	1700.00	50.00	91.79	16.50	6.19	160	31	10	1,746	61	1,266
17+50	1750.00	50.00	108.99	16.50	3.31	186	31	9	1,932	73	1,410
18+00	1800.00	50.00	116.35	16.50	1.94	209	31	5	2,141	79	1,581
18+50	1850.00	50.00	113.53	16.50	1.63	213	31	3	2,354	83	1,760
19+00	1900.00	50.00	117.76	16.50	1.29	214	31	3	2,568	86	1,939
19+20	1920.00	20.00	115.90	16.50	1.76	87	12	1	2,655	88	2,013
19+50	1950.00	30.00	107.34	16.50	3.18	124	18	3	2,779	91	2,115
20+00	2000.00	50.00	93.59	16.50	3.80	186	31	6	2,965	99	2,262
20+50	2050.00	50.00	85.02	16.50	4.37	165	31	8	3,130	109	2,386
21+00	2100.00	50.00	74.40	16.50	4.16	148	31	8	3,278	119	2,493
21+50	2150.00	50.00	67.44	16.50	4.03	131	31	8	3,409	129	2,583
22+00	2200.00	50.00	67.02	16.50	3.46	125	31	7	3,534	138	2,669
22+50	2250.00	50.00	66.00	16.50	2.25	123	31	5	3,657	144	2,754
23+00	2300.00	50.00	56.07	16.50	2.99	113	31	5	3,770	150	2,830
23+50	2350.00	50.00	47.25	16.50	4.62	96	31	7	3,866	159	2,886
24+00	2400.00	50.00	41.65	16.50	7.52	82	31	11	3,948	173	2,924
24+50	2450.00	50.00	37.49	16.50	10.14	73	31	16	4,021	193	2,946
24+85	2485.00	35.00	38.16	16.50	10.40	49	21	13	4,070	209	2,957
25+37.485	2537.48	52.48	34.87	16.50	12.67	71	32	22	4,141	236	2,969
25+99.036	2599.04	61.55	22.70	16.50	32.73	66	38	52	4,207	301	2,932
26+50	2650.00	50.96	32.02	16.50	19.40	52	31	49	4,259	363	2,892
27+00	2700.00	50.00	52.33	16.50	9.79	78	31	27	4,337	396	2,905
27+50	2750.00	50.00	70.64	16.50	7.84	114	31	16	4,451	416	2,968
28+00	2800.00	50.00	64.69	16.50	10.25	125	31	17	4,576	438	3,041
28+50	2850.00	50.00	49.75	16.50	16.02	106	31	24	4,682	468	3,086
29+00	2900.00	50.00	36.88	16.50	25.50	80	31	38	4,762	515	3,087
29+50	2950.00	50.00	52.76	16.50	16.42	83	31	39	4,845	564	3,090
30+00	3000.00	50.00	64.83	16.50	17.33	109	31	31	4,954	603	3,130

DIVISION - SAMZ ROAD (CONTINUED)

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	1.25	
30+49.442	3049.44	49.44	78.84	16.50	10.11	132	30	25	5,086	634	3,200
31+00	3100.00	50.56	82.70	16.50	8.45	151	31	17	5,237	655	3,299
31+33	3133.00	33.00	102.00	16.50	9.28	113	20	11	5,350	669	3,378
32+00	3200.00	67.00	57.04	16.50	11.53	197	41	26	5,547	701	3,502
32+50	3250.00	50.00	54.65	16.50	11.28	103	31	21	5,650	728	3,548
33+00	3300.00	50.00	51.89	16.50	12.53	99	31	22	5,749	755	3,588
33+50	3350.00	50.00	45.40	16.50	13.50	90	31	24	5,839	785	3,617
34+00	3400.00	50.00	54.41	16.50	8.70	92	31	21	5,931	811	3,652
34+50	3450.00	50.00	69.74	16.50	3.36	115	31	11	6,046	825	3,722
35+00	3500.00	50.00	80.34	16.50	4.86	139	31	8	6,185	835	3,820
35+50	3550.00	50.00	91.88	16.50	5.60	159	31	10	6,344	848	3,936
36+00	3600.00	50.00	97.46	16.50	6.06	175	31	11	6,519	861	4,066
36+43.458	3643.46	43.46	97.98	16.50	7.18	157	27	11	6,676	875	4,182
37+00	3700.00	56.54	92.83	16.50	4.26	200	35	12	6,876	890	4,332
37+50	3750.00	50.00	66.86	16.50	11.25	148	31	14	7,024	908	4,432
38+00	3800.00	50.00	55.29	16.50	9.66	113	31	19	7,137	931	4,490
38+56.142	3856.14	56.14	56.68	16.50	6.16	116	34	16	7,253	951	4,552
39+00	3900.00	43.86	56.50	16.50	4.63	92	27	9	7,345	963	4,606
39+50	3950.00	50.00	61.35	16.50	3.54	109	31	8	7,454	973	4,674
40+00	4000.00	50.00	71.56	16.50	3.10	123	31	6	7,577	980	4,758
40+50	4050.00	50.00	69.64	16.50	4.08	131	31	7	7,708	989	4,849
41+00	4100.00	50.00	65.09	16.50	1.59	125	31	5	7,833	995	4,937
41+50	4150.00	50.00	57.98	16.50	0.21	114	31	2	7,947	998	5,018
42+00	4200.00	50.00	54.94	16.50	4.01	105	31	4	8,052	1,003	5,087
42+50	4250.00	50.00	57.09	16.50	4.34	104	31	8	8,156	1,013	5,150
43+00	4300.00	50.00	50.00	16.50	3.31	99	31	7	8,255	1,021	5,209
43+50	4350.00	50.00	49.64	16.50	3.04	92	31	6	8,347	1,029	5,262
44+00	4400.00	50.00	47.84	16.50	3.36	90	31	6	8,437	1,036	5,314
44+50	4450.00	50.00	50.66	16.50	2.79	91	31	6	8,528	1,044	5,366
45+00	4500.00	50.00	56.09	16.50	0.97	99	31	3	8,627	1,048	5,431
45+50	4550.00	50.00	51.34	16.50	0.47	99	31	1	8,726	1,049	5,497
46+00	4600.00	50.00	48.70	16.50	0.17	93	31	1	8,819	1,050	5,558
46+50	4650.00	50.00	45.19	16.50	0.10	87	31	0	8,906	1,050	5,614
47+00	4700.00	50.00	45.66	16.50	0.16	84	31	0	8,990	1,050	5,667
47+50	4750.00	50.00	44.60	16.50	0.54	84	31	1	9,074	1,051	5,719
48+00	4800.00	50.00	47.75	16.50	1.00	86	31	1	9,160	1,053	5,773
48+50	4850.00	50.00	50.77	16.50	2.08	91	31	3	9,251	1,056	5,829
49+00	4900.00	50.00	48.30	16.50	5.16	92	31	7	9,343	1,065	5,881
49+50	4950.00	50.00	49.60	16.50	6.49	91	31	11	9,434	1,079	5,927
49+63.882	4963.88	13.88	23.74	16.50	6.24	19	8	3	9,453	1,083	5,935
49+65	4965.00	1.12	34.30	16.50	16.16	1	1	0	9,454	1,083	5,935
49+70	4970.00	5.00	30.29	16.50	20.82	6	3	3	9,460	1,086	5,934
49+75	4975.00	5.00	29.68	16.50	21.80	6	3	4	9,466	1,091	5,932
49+80	4980.00	5.00	28.92	16.50	24.30	5	3	4	9,471	1,096	5,929
49+85	4985.00	5.00	24.94	16.50	27.38	5	3	5	9,476	1,103	5,925
49+90	4990.00	5.00	24.54	16.50	28.40	5	3	5	9,481	1,109	5,920
49+95	4995.00	5.00	30.85	16.50	8.83	5	3	3	9,486	1,113	5,919
50+00	5000.00	5.00	36.34	16.50	0.00	6	3	1	9,492	1,114	5,920
50+05	5005.00	5.00	34.87	16.50	0.00	7	3	0	9,499	1,114	5,924
50+10	5010.00	5.00	31.37	16.50	0.00	6	3	0	9,505	1,114	5,927
50+15	5015.00	5.00	27.34	16.50	0.00	5	3	0	9,510	1,114	5,929
50+20	5020.00	5.00	22.74	16.50	0.00	5	3	0	9,515	1,114	5,931

DIVISION - SAMZ ROAD (CONTINUED)

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	1.25	
50+25	5025.00	5.00	17.26	16.50	0.00	4	3	0	9,519	1,114	5,932
50+30	5030.00	5.00	20.00	16.50	0.00	3	3	0	9,522	1,114	5,932
50+35	5035.00	5.00	24.53	16.50	0.00	4	3	0	9,526	1,114	5,933
50+40	5040.00	5.00	28.85	16.50	0.00	5	3	0	9,531	1,114	5,935
50+45	5045.00	5.00	32.55	16.50	0.00	6	3	0	9,537	1,114	5,938
50+50	5050.00	5.00	26.13	16.50	2.29	5	3	0	9,542	1,114	5,940
50+55	5055.00	5.00	21.75	16.50	9.59	4	3	1	9,546	1,115	5,940
50+60	5060.00	5.00	19.86	16.50	13.81	4	3	2	9,550	1,118	5,939
50+65	5065.00	5.00	17.83	16.50	20.80	3	3	3	9,553	1,121	5,935
50+70	5070.00	5.00	27.35	16.50	20.01	4	3	4	9,557	1,126	5,931
50+75	5075.00	5.00	33.37	16.50	19.04	6	3	4	9,563	1,131	5,929
50+80	5080.00	5.00	31.61	16.50	17.83	6	3	3	9,569	1,135	5,928
50+85	5085.00	5.00	29.56	16.50	16.78	6	3	3	9,575	1,139	5,927
50+90	5090.00	5.00	28.59	16.50	15.57	5	3	3	9,580	1,143	5,926
50+95	5095.00	5.00	26.28	16.50	33.48	5	3	5	9,585	1,149	5,921
51+00	5100.00	5.00	19.92	16.50	2.09	4	3	3	9,589	1,153	5,919
51+50	5150.00	50.00	43.27	16.50	0.02	59	31	2	9,648	1,155	5,944
52+00	5200.00	50.00	47.11	16.50	0.00	84	31	0	9,732	1,155	5,997

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

DIVISION - CHERNEY ROAD

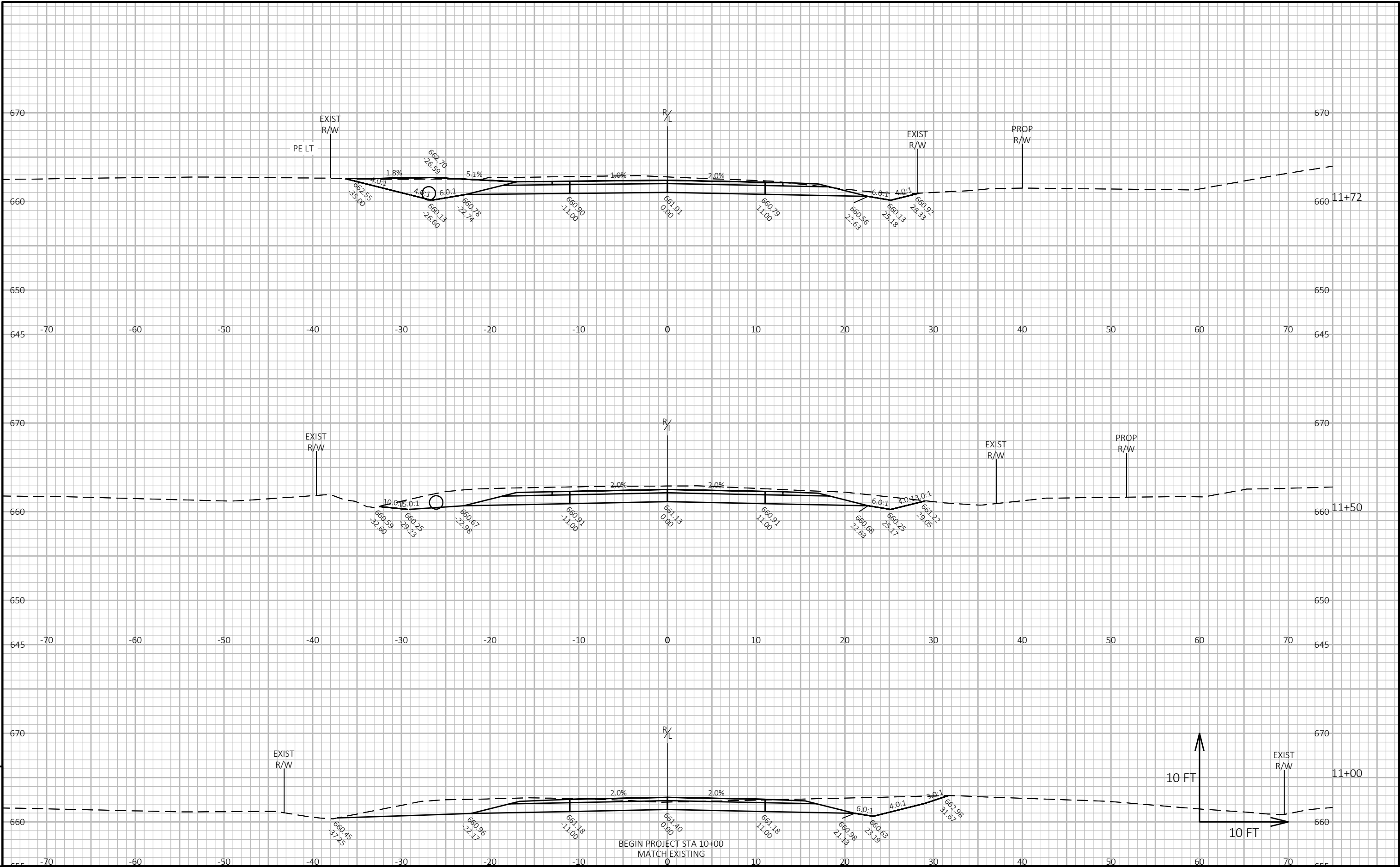
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UN USABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE
247+30	24730.00	0.00	36.47	9.17	0.00	0	0	0	0	0	0
247+86	24786.00	56.00	60.90	9.17	0.00	101	19	0	101	0	82
248+50	24850.00	64.00	53.74	9.17	0.00	136	22	0	237	0	196
249+00	24900.00	50.00	75.39	9.17	0.00	120	17	0	357	0	299
249+25	24925.00	25.00	51.15	9.17	0.00	59	8	0	416	0	350
249+30	24930.00	5.00	53.19	9.17	0.78	10	2	0	426	0	358
249+35	24935.00	5.00	53.74	9.17	0.99	10	2	0	436	0	366
249+40	24940.00	5.00	55.63	9.17	1.01	10	2	0	446	0	374
249+45	24945.00	5.00	58.36	9.17	1.06	11	2	0	457	0	383
249+50	24950.00	5.00	22.55	9.17	0.00	7	2	0	464	0	388
249+50	24950.00	0.00	62.16	9.17	1.14	0	0	0	464	0	388
249+55	24955.00	5.00	65.05	9.17	1.27	12	2	0	476	0	398
249+60	24960.00	5.00	58.96	9.17	1.45	11	2	0	487	0	407
249+65	24965.00	5.00	56.75	9.17	1.77	11	2	0	498	0	416
249+70	24970.00	5.00	58.27	9.17	0.00	11	2	0	509	0	425
249+75	24975.00	5.00	52.26	9.17	0.00	10	2	0	519	0	433
249+80	24980.00	5.00	46.47	9.17	0.00	9	2	0	528	0	440
249+85	24985.00	5.00	40.76	13.61	0.00	8	2	0	536	0	446
249+90	24990.00	5.00	35.71	13.61	0.00	7	3	0	543	0	450
249+95	24995.00	5.00	31.16	13.61	0.00	6	3	0	549	0	453
250+00	25000.00	5.00	21.84	13.61	0.00	5	3	0	554	0	455
250+00	25000.00	0.00	25.94	13.61	0.00	0	0	0	554	0	455
250+05	25005.00	5.00	32.13	13.61	0.00	5	3	0	559	0	457
250+10	25010.00	5.00	38.60	13.61	0.00	7	3	0	566	0	461
250+15	25015.00	5.00	45.45	13.61	0.00	8	3	0	574	0	466
250+20	25020.00	5.00	52.47	13.61	0.00	9	3	0	583	0	472
250+25	25025.00	5.00	58.25	13.61	0.00	10	3	0	593	0	479
250+30	25030.00	5.00	50.42	13.61	1.94	10	3	0	603	0	486
250+35	25035.00	5.00	52.73	13.61	1.71	10	3	0	613	0	493
250+40	25040.00	5.00	48.30	13.61	1.53	9	3	0	622	0	499
250+45	25045.00	5.00	41.53	13.61	1.68	8	3	0	630	0	504
250+50	25050.00	5.00	38.10	13.61	1.89	7	3	0	637	0	508
250+55	25055.00	5.00	37.76	13.61	0.00	7	3	0	644	0	512
251+00	25100.00	45.00	52.88	9.17	0.34	76	19	0	720	0	569
251+50	25150.00	50.00	44.62	9.17	1.00	90	17	1	810	1	641

Notes:	
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2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

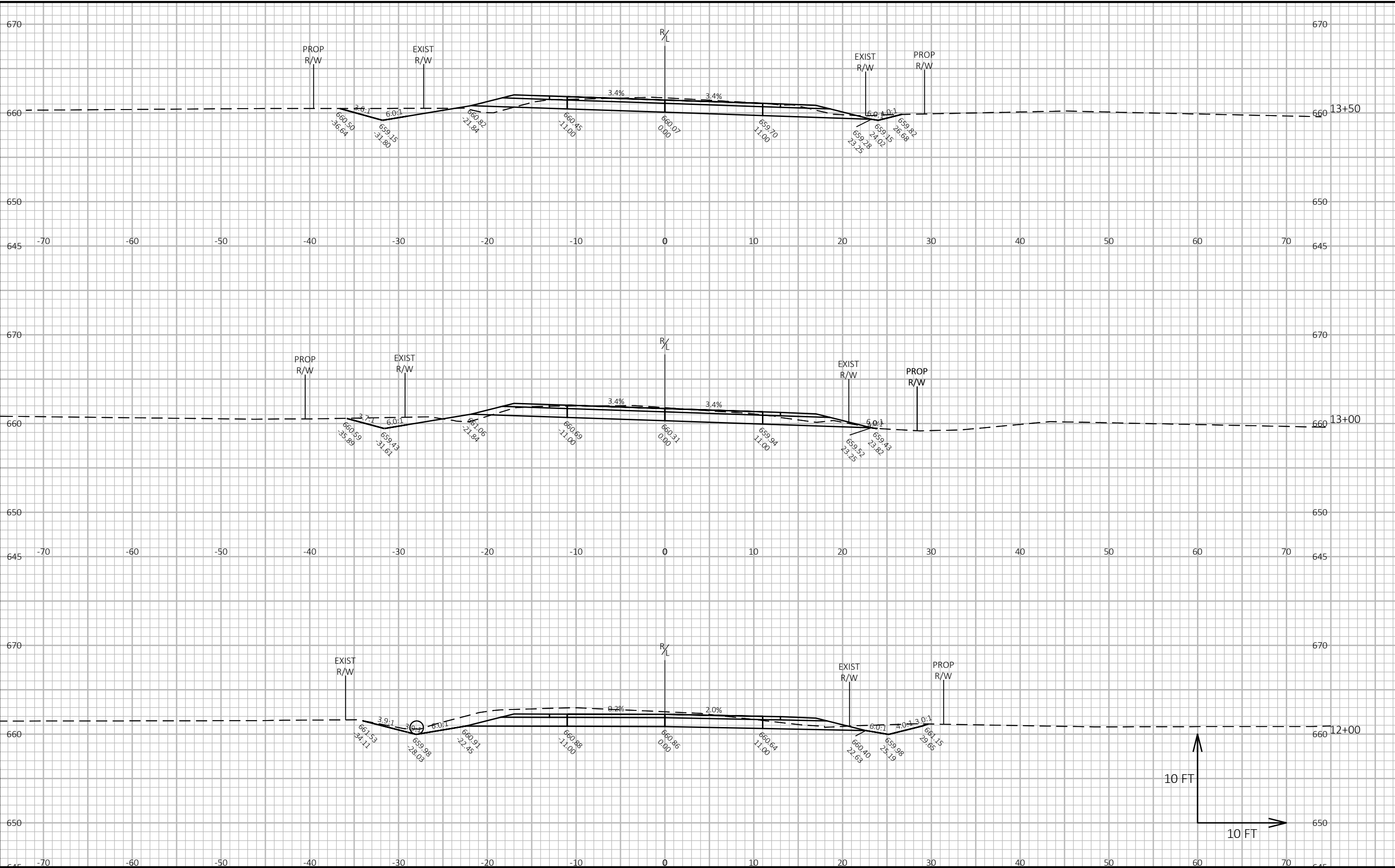
DIVISION - RIDGE ROAD

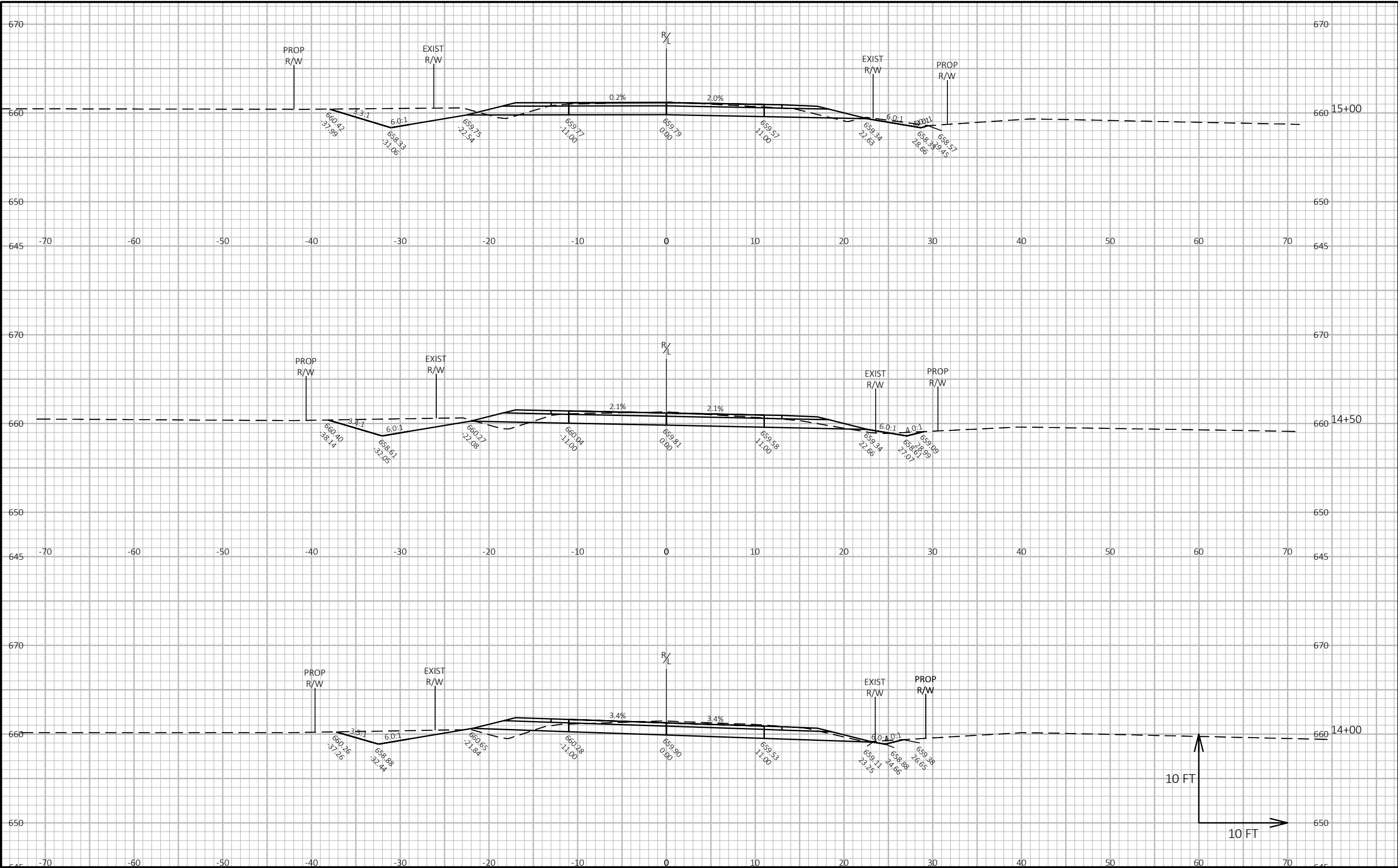
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE
300+15	30015.00	0.00	12.79	9.17	0.00	0	0	0	0	0	0
300+20	30020.00	5.00	27.13	9.17	0.00	4	2	0	4	0	2
300+25	30025.00	5.00	41.30	9.17	0.00	6	2	0	10	0	6
300+30	30030.00	5.00	51.31	9.17	0.00	9	2	0	19	0	13
300+35	30035.00	5.00	51.24	9.17	1.91	9	2	0	28	0	20
300+40	30040.00	5.00	47.44	9.17	19.66	9	2	2	37	3	25
300+45	30045.00	5.00	46.17	9.17	26.68	9	2	4	46	8	27
300+50	30050.00	5.00	59.17	9.17	23.35	10	2	5	56	14	28
300+55	30055.00	5.00	58.05	9.17	20.22	11	2	4	67	19	32
300+60	30060.00	5.00	54.89	9.17	18.28	10	2	4	77	24	35
300+65	30065.00	5.00	50.74	9.17	12.50	10	2	3	87	28	40
300+70	30070.00	5.00	48.89	9.17	9.47	9	2	2	96	30	44
300+75	30075.00	5.00	46.49	9.17	9.39	9	2	2	105	33	49
301+00	30100.00	25.00	48.30	9.17	0.06	44	8	4	149	38	80
301+37	30137.00	37.00	54.58	9.17	0.00	70	13	0	219	38	137

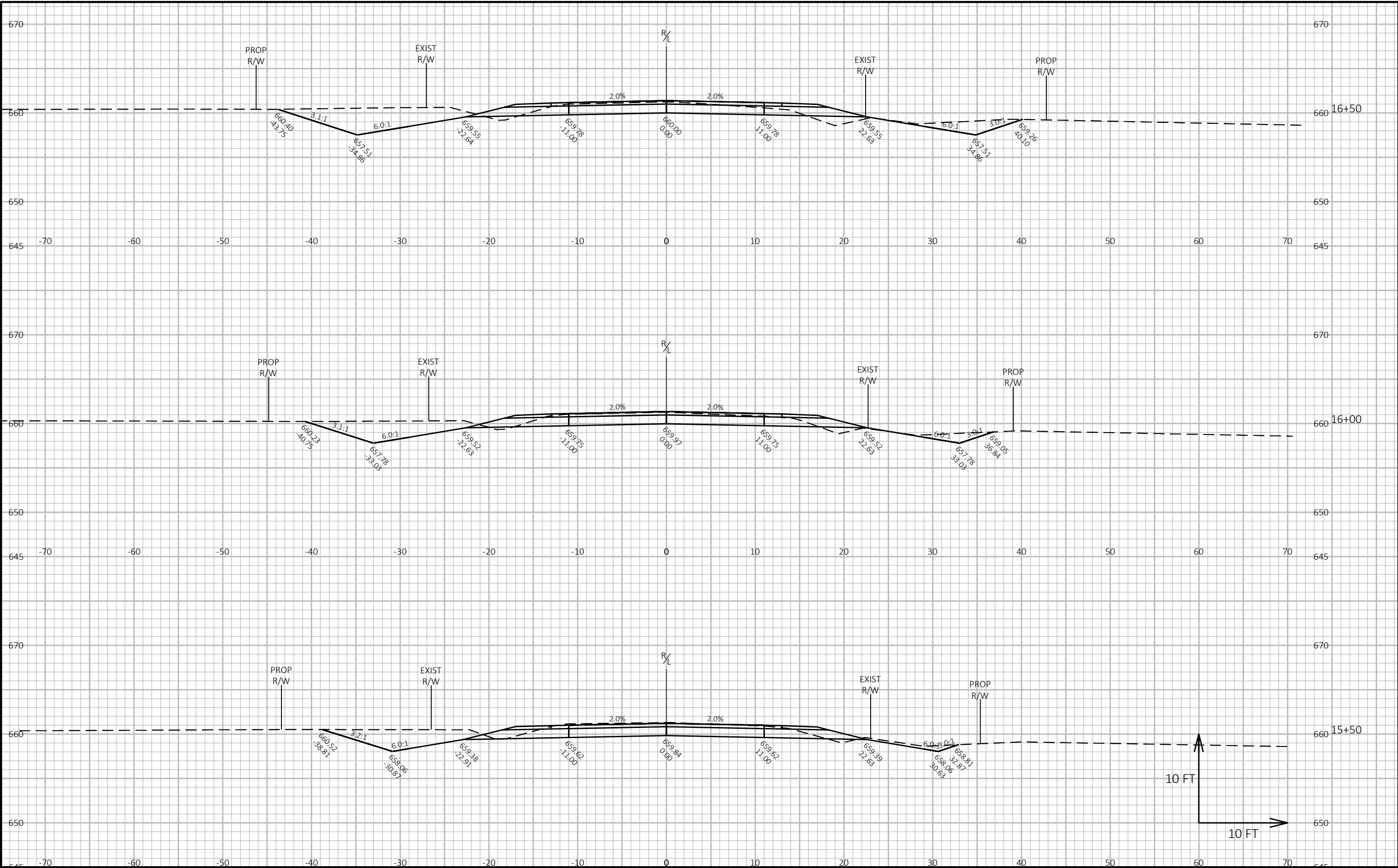
Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
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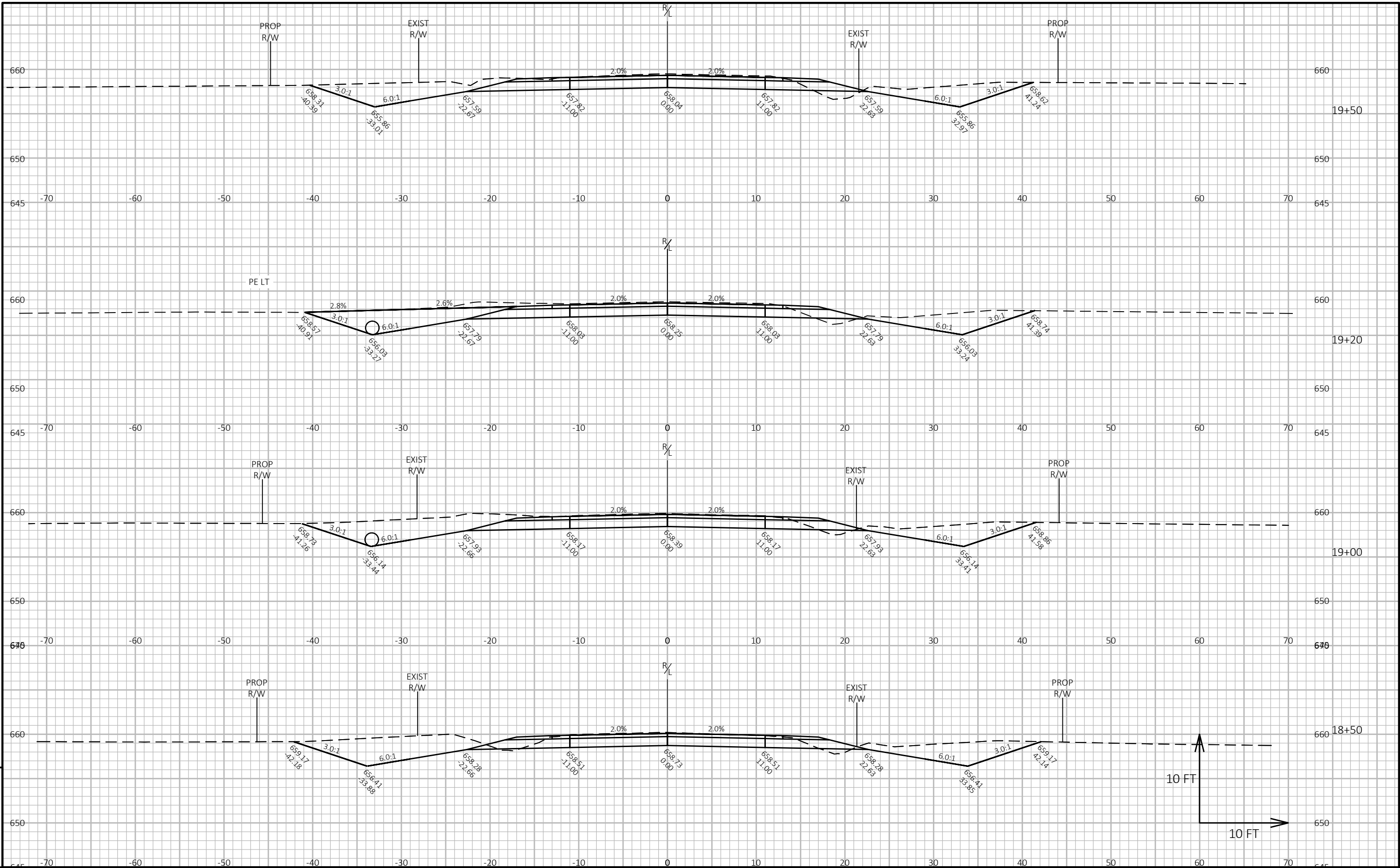


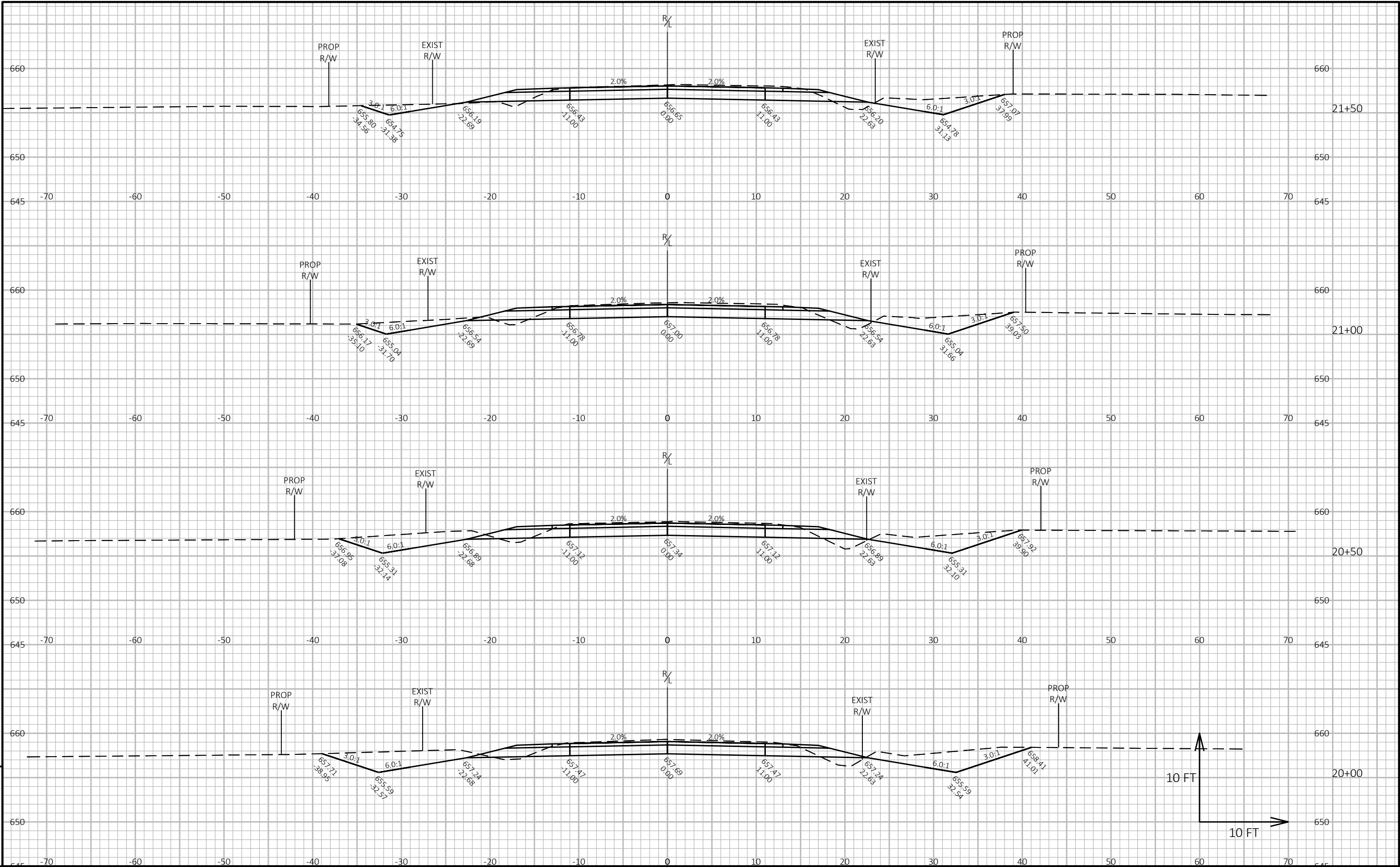
PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	CROSS SECTIONS: MAINLINE	SHEET E
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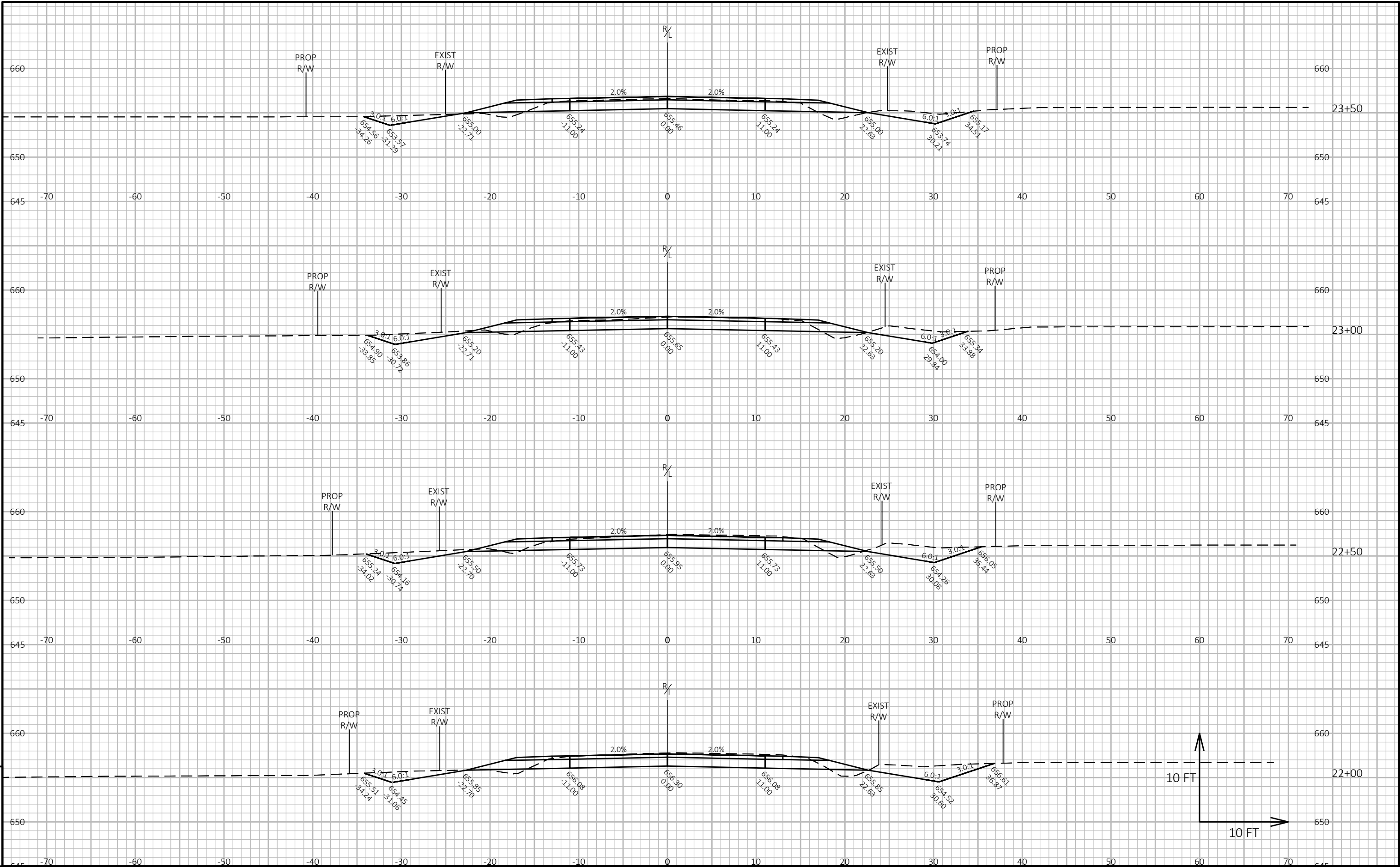


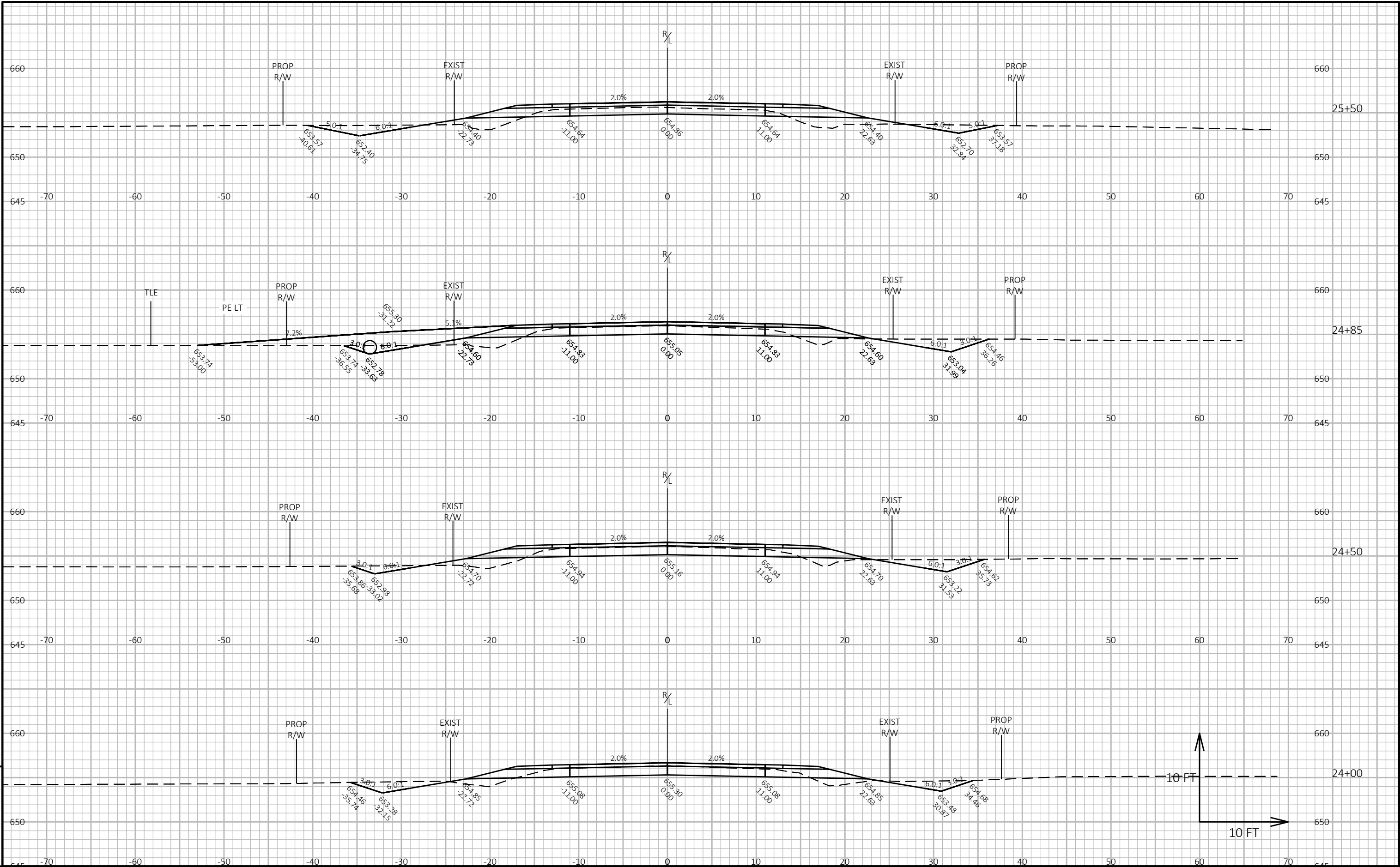


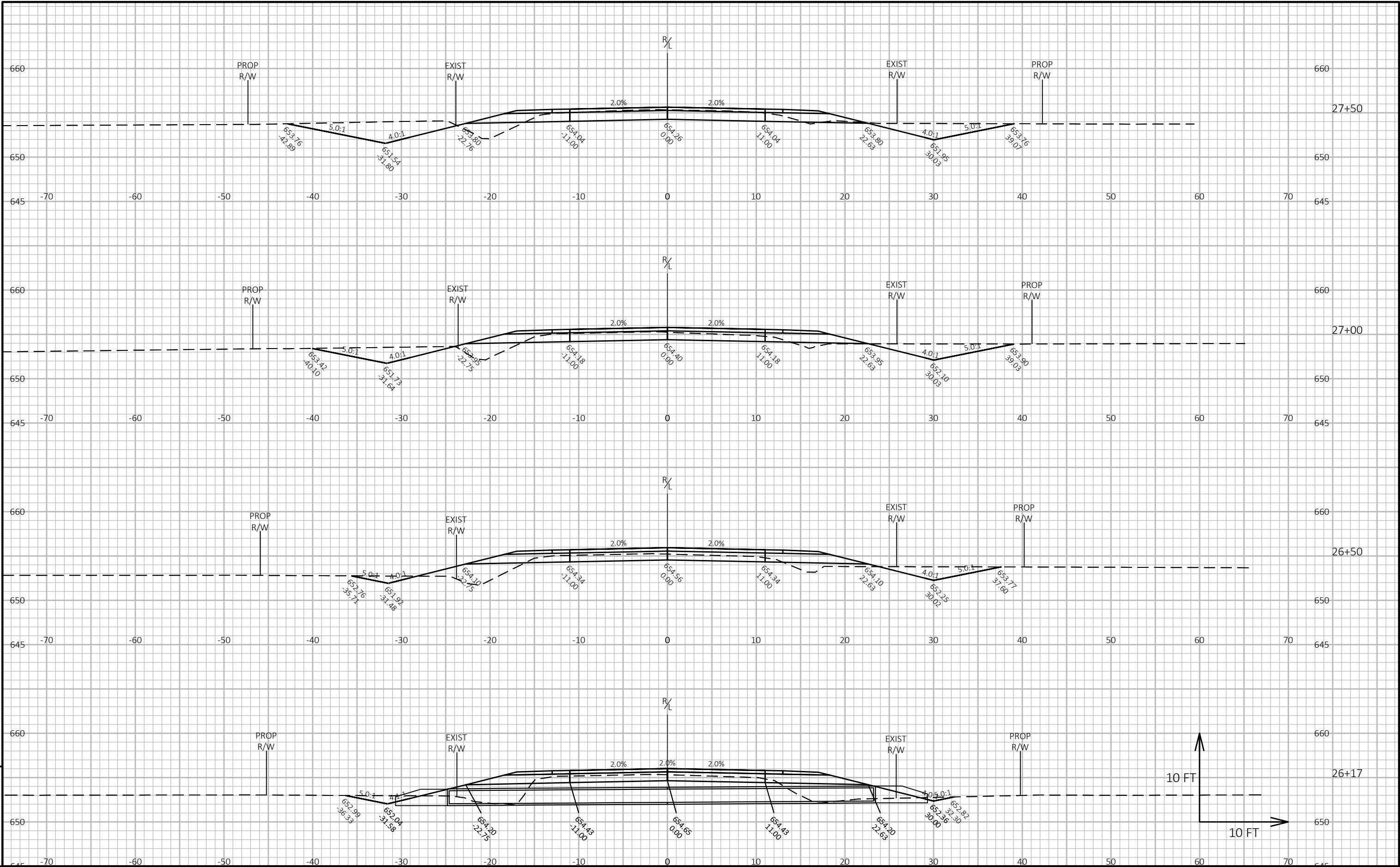


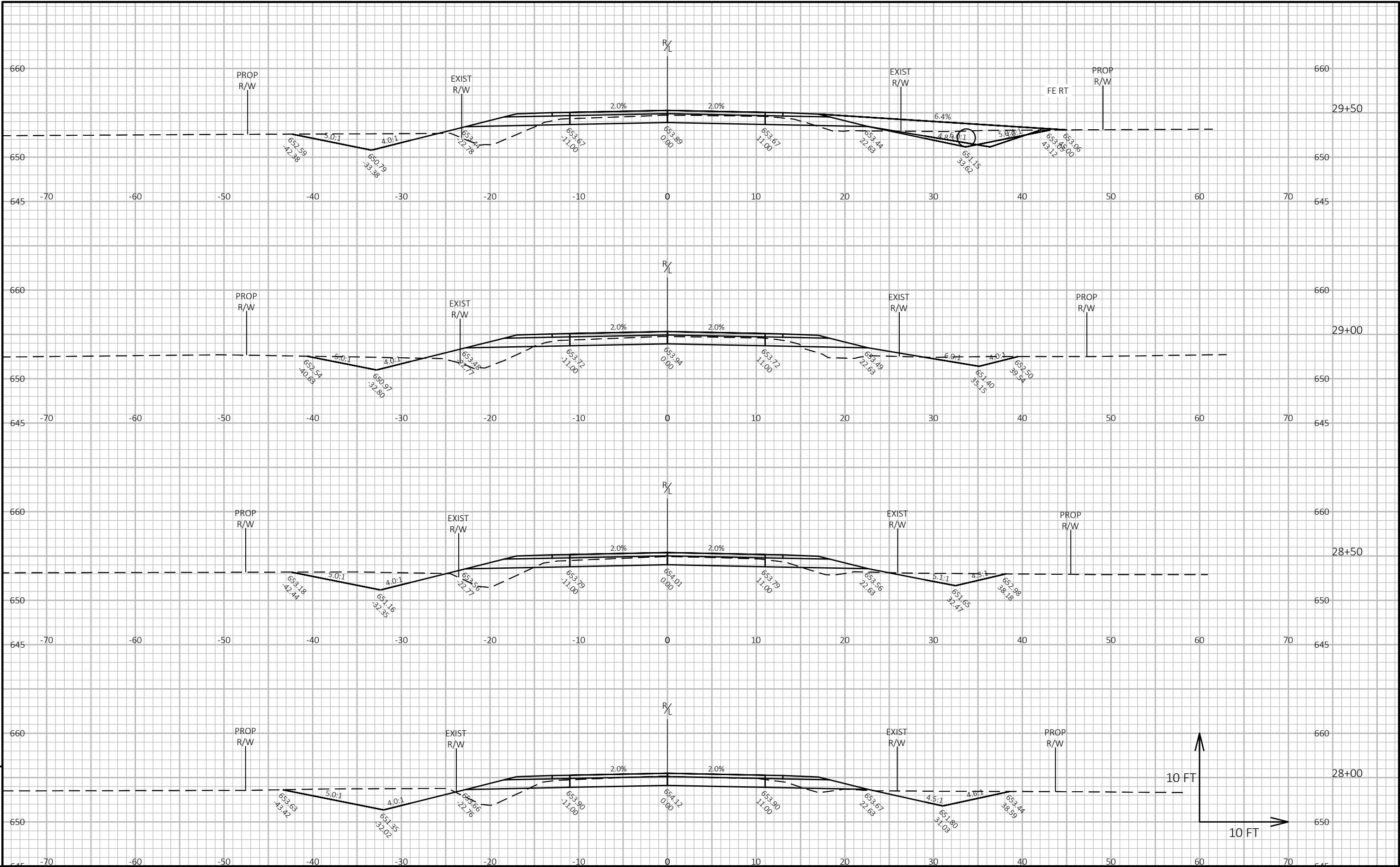


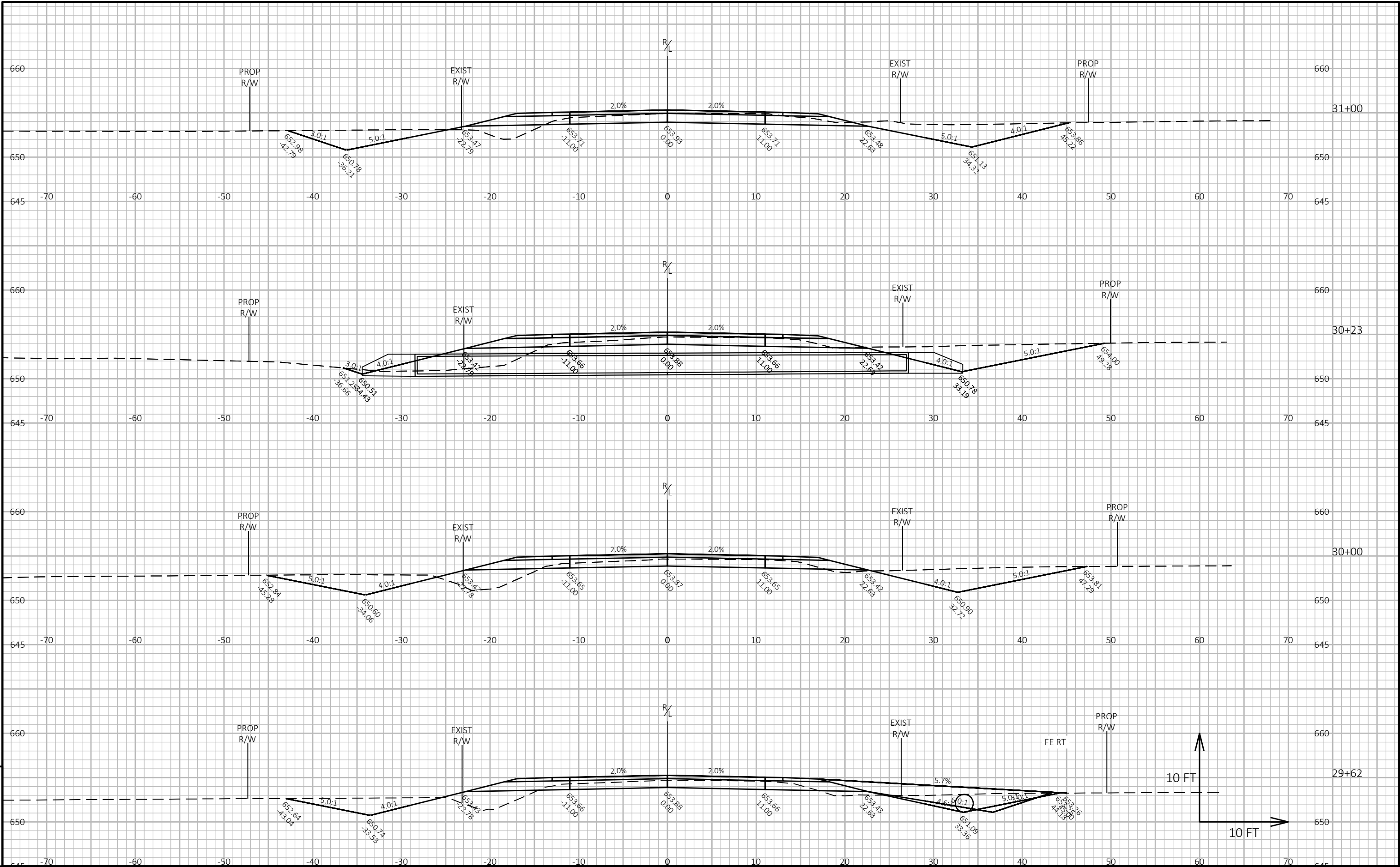


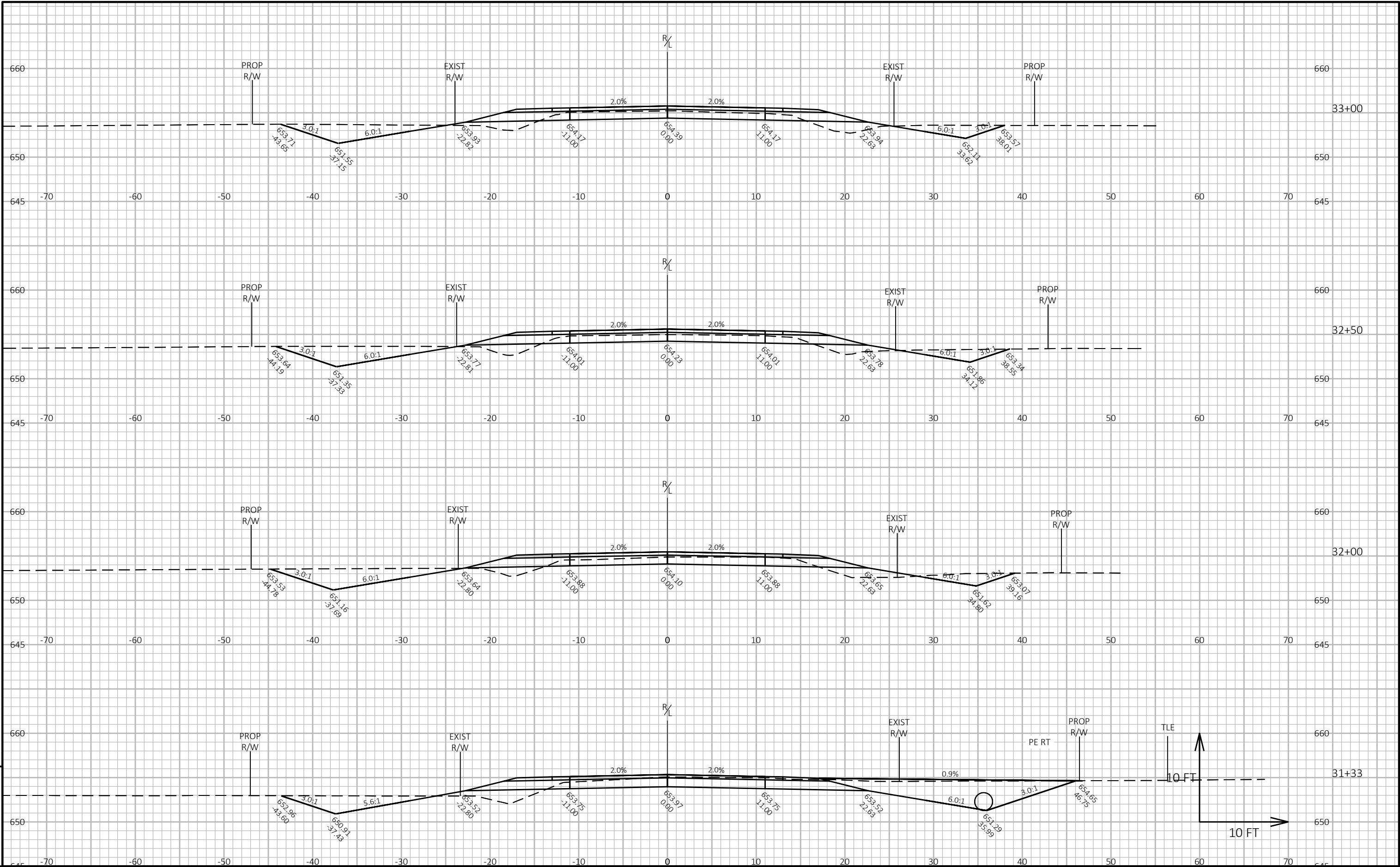


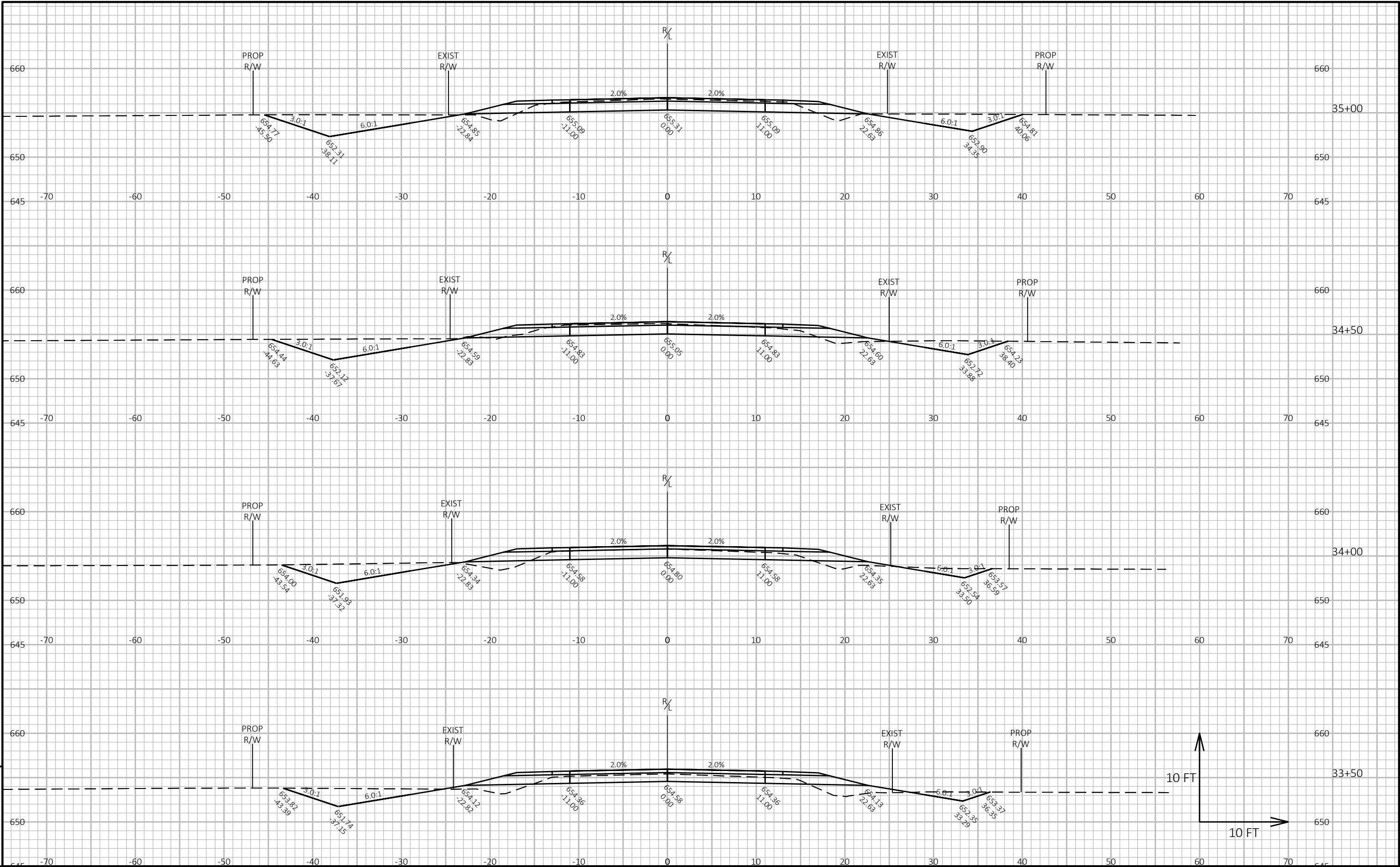


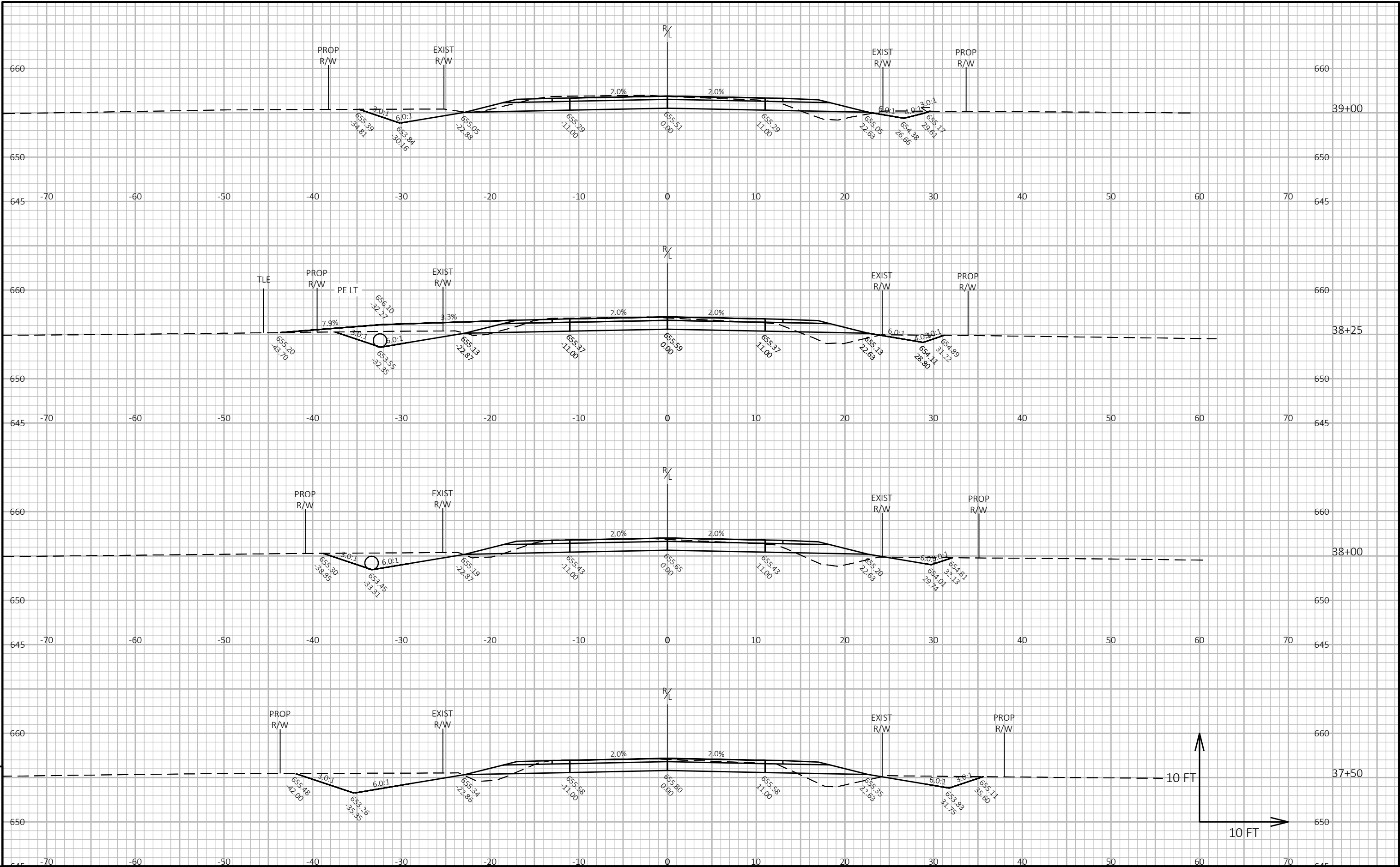


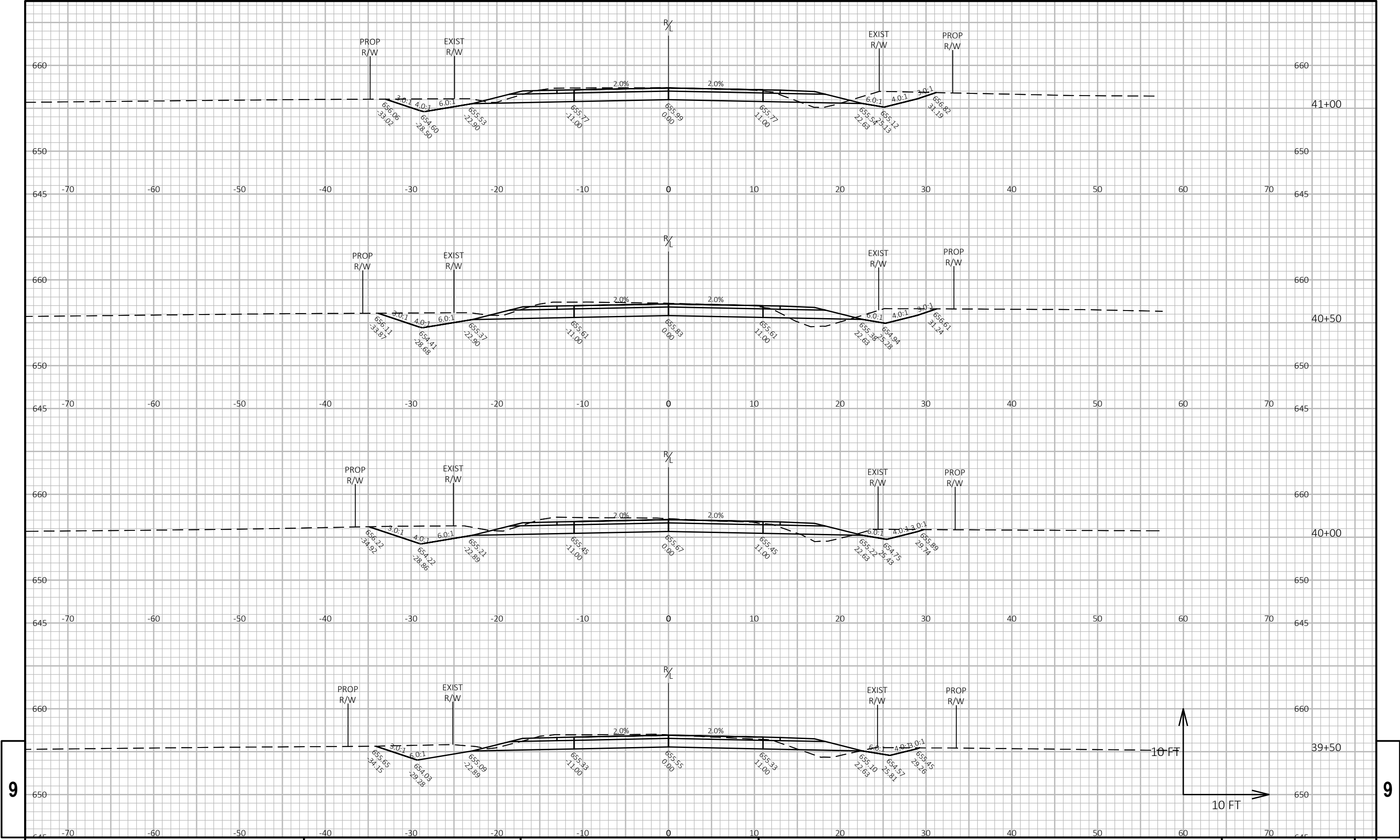


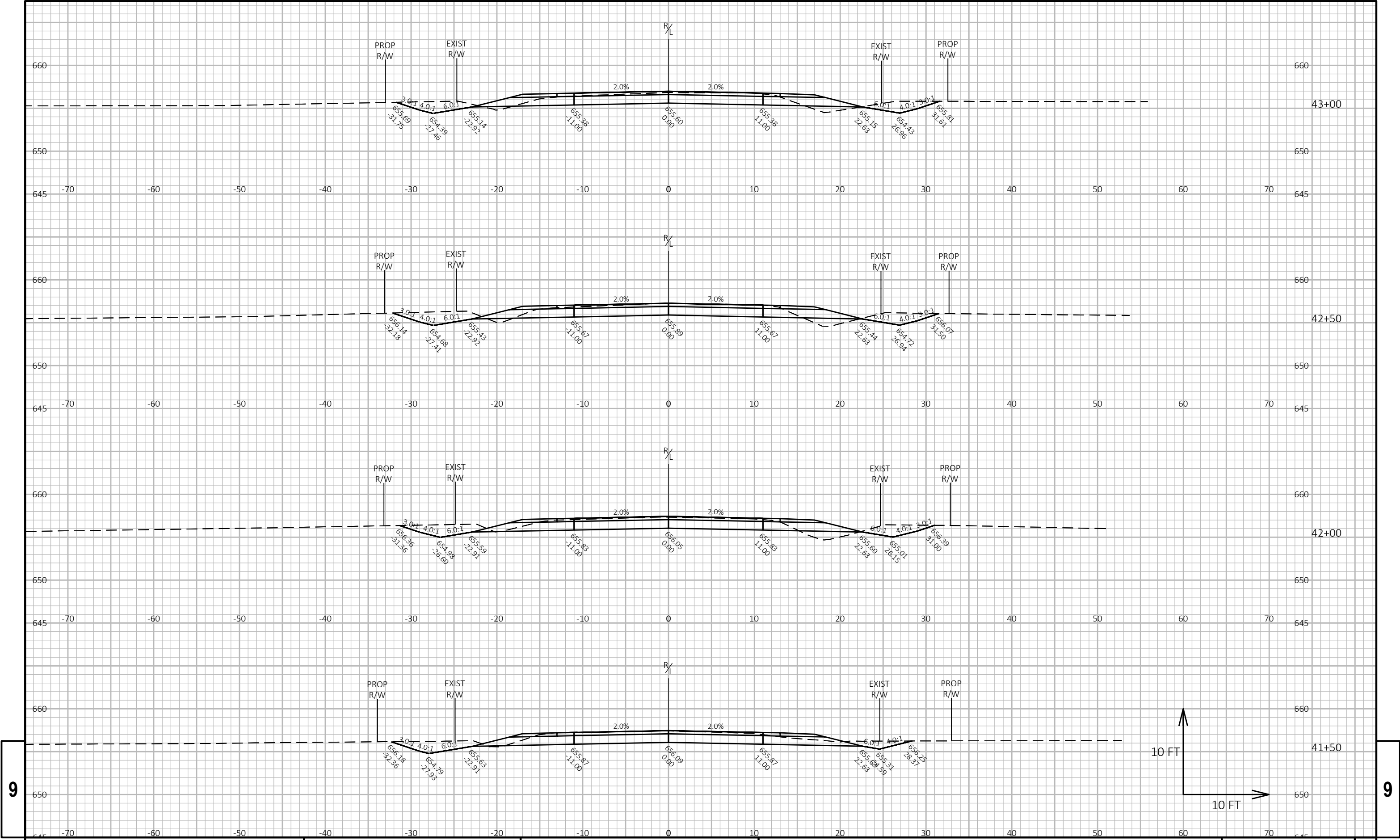


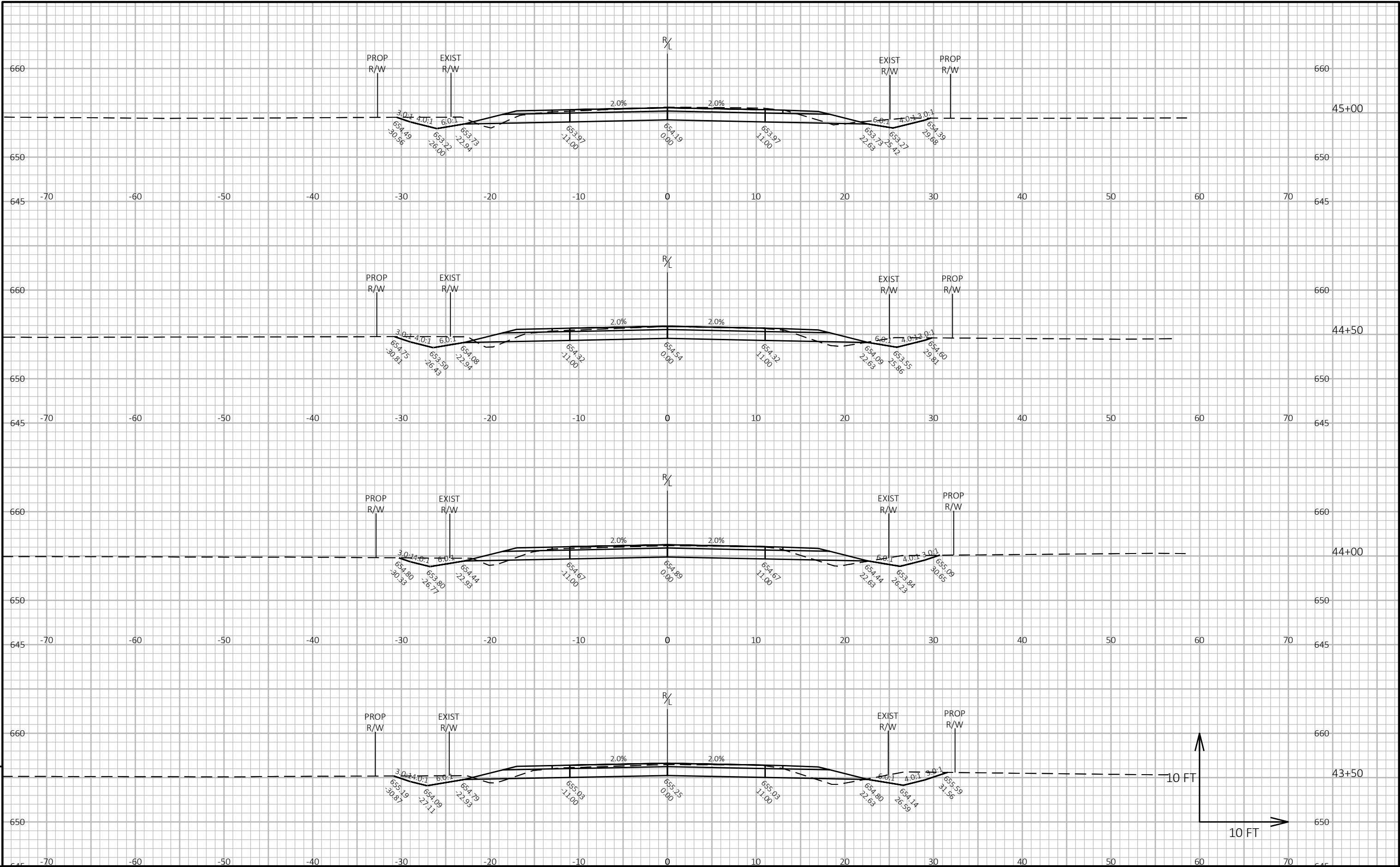


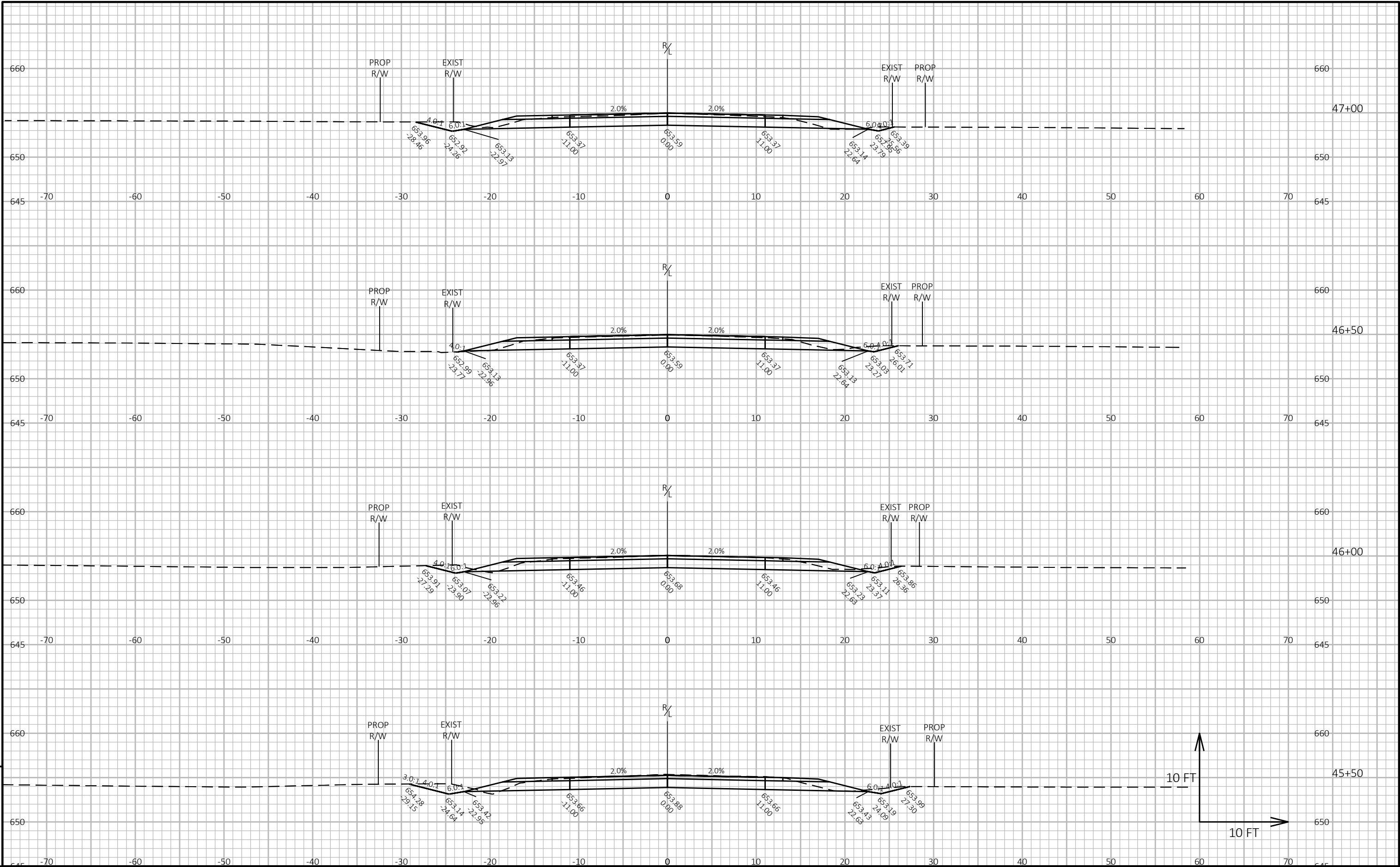


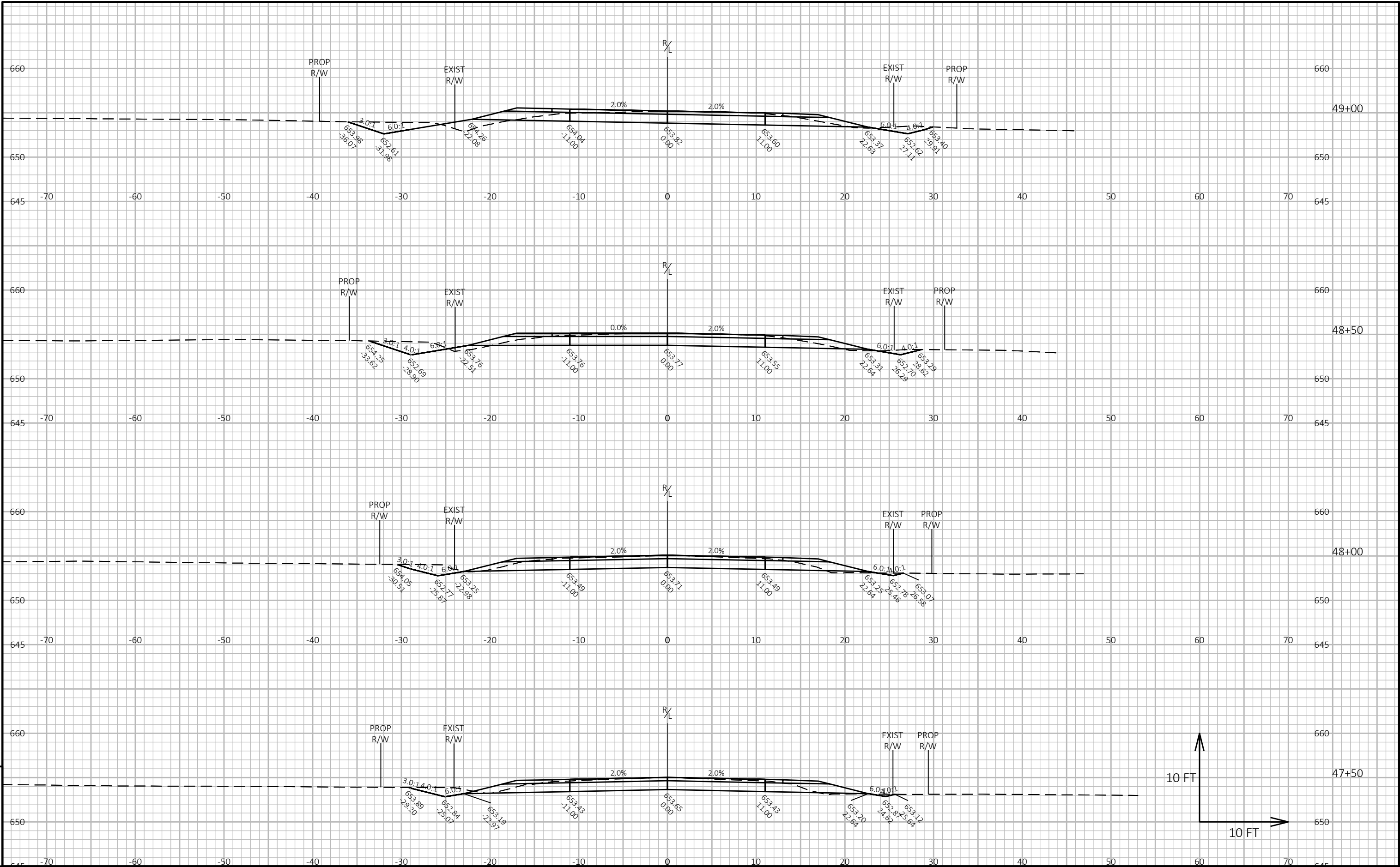


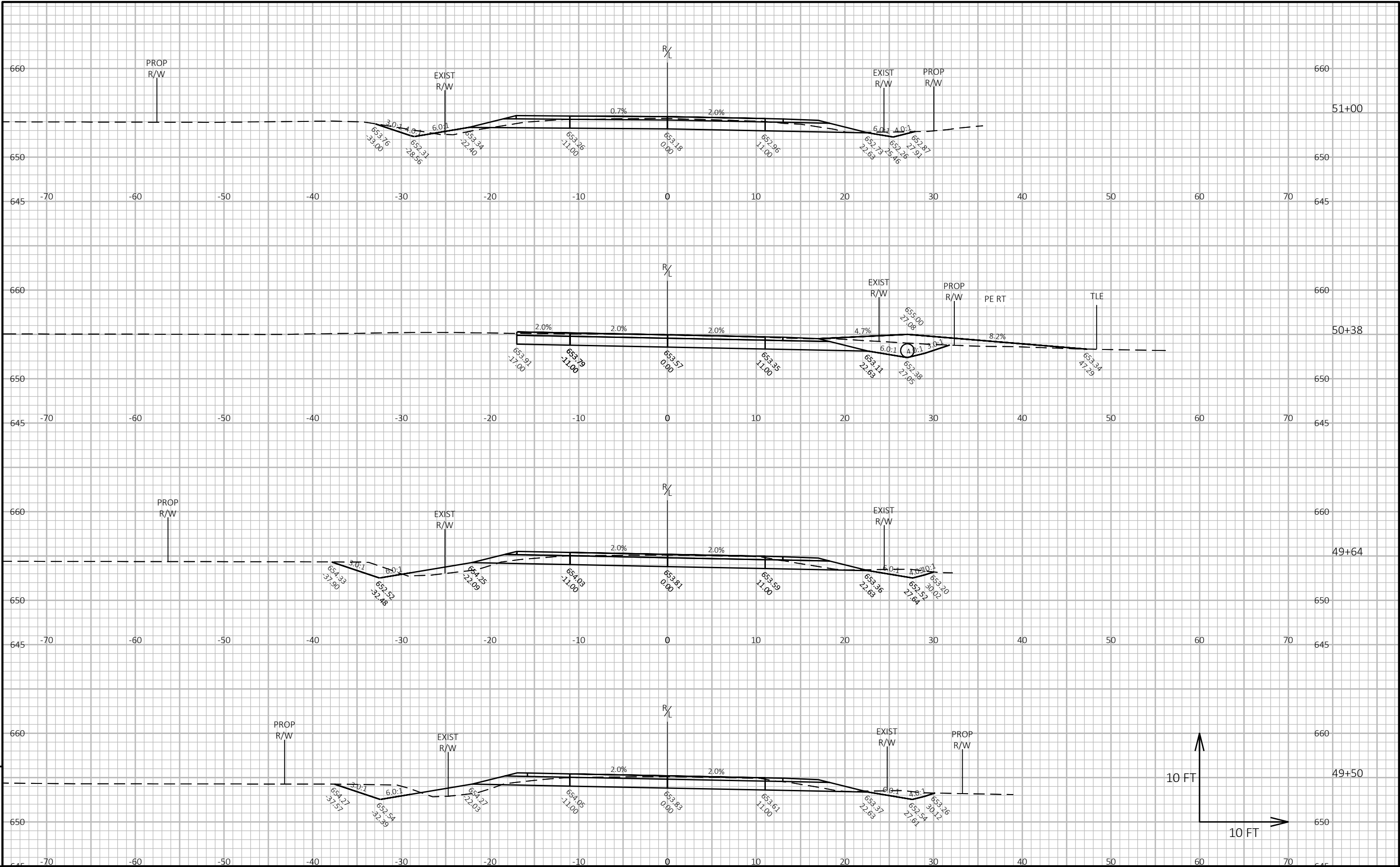


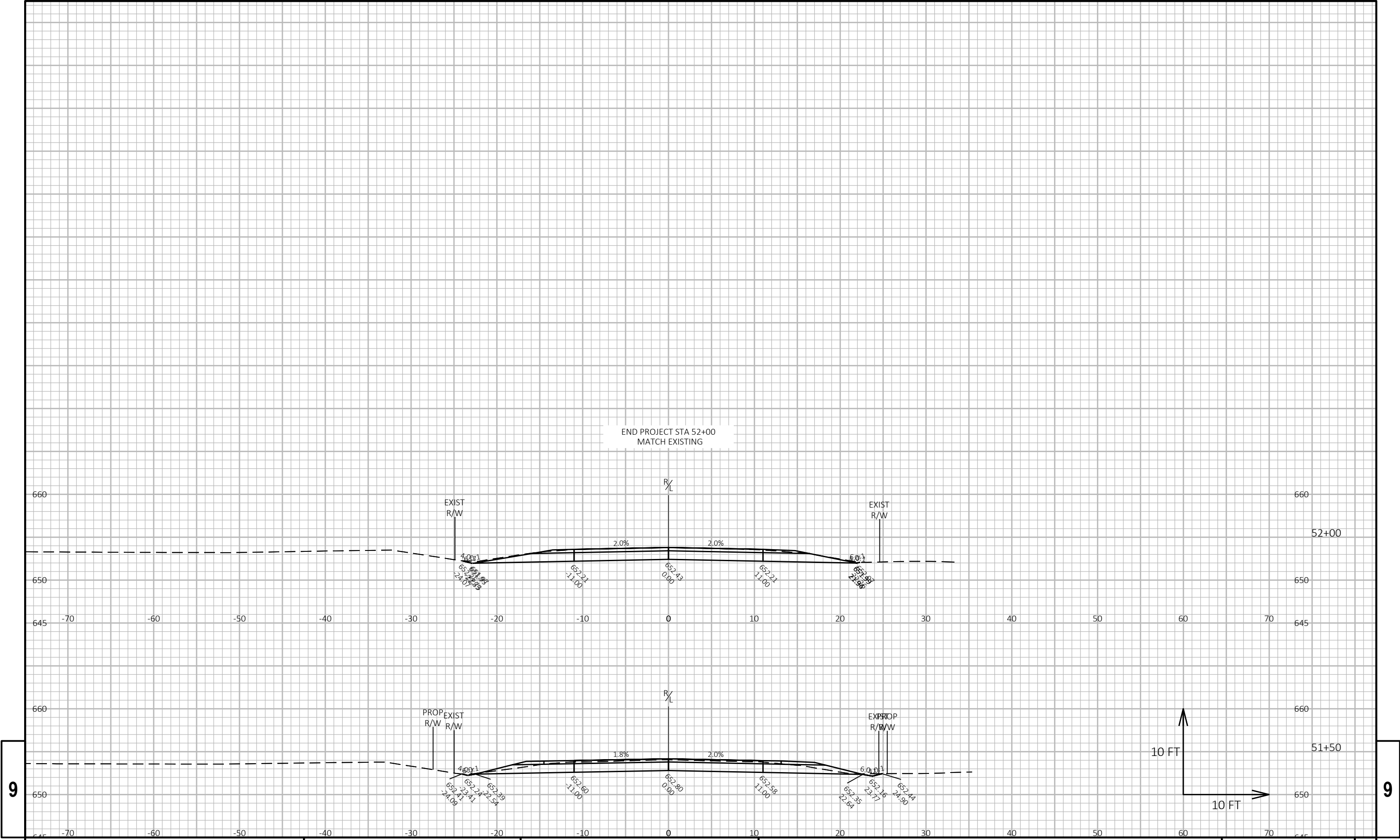






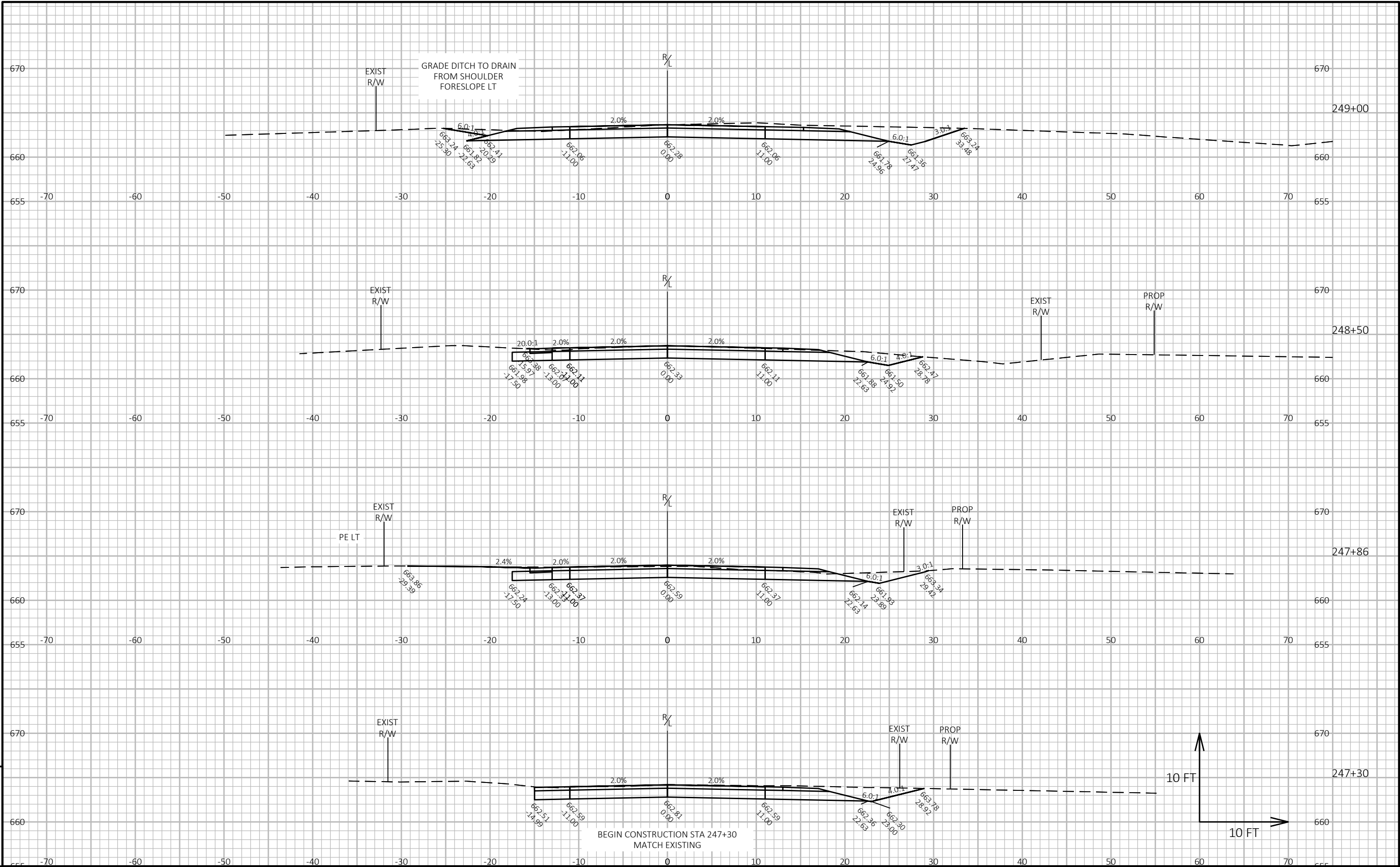


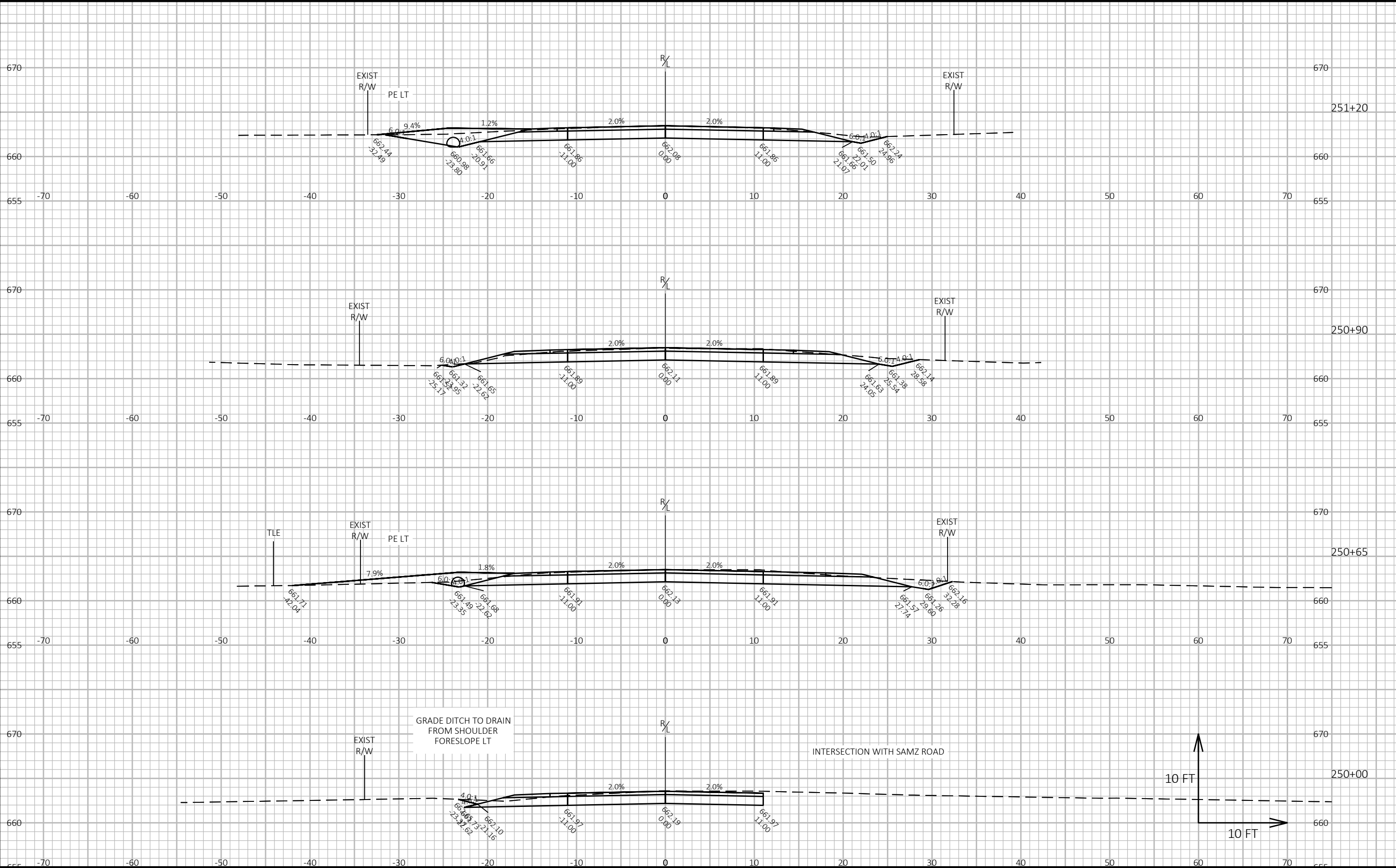




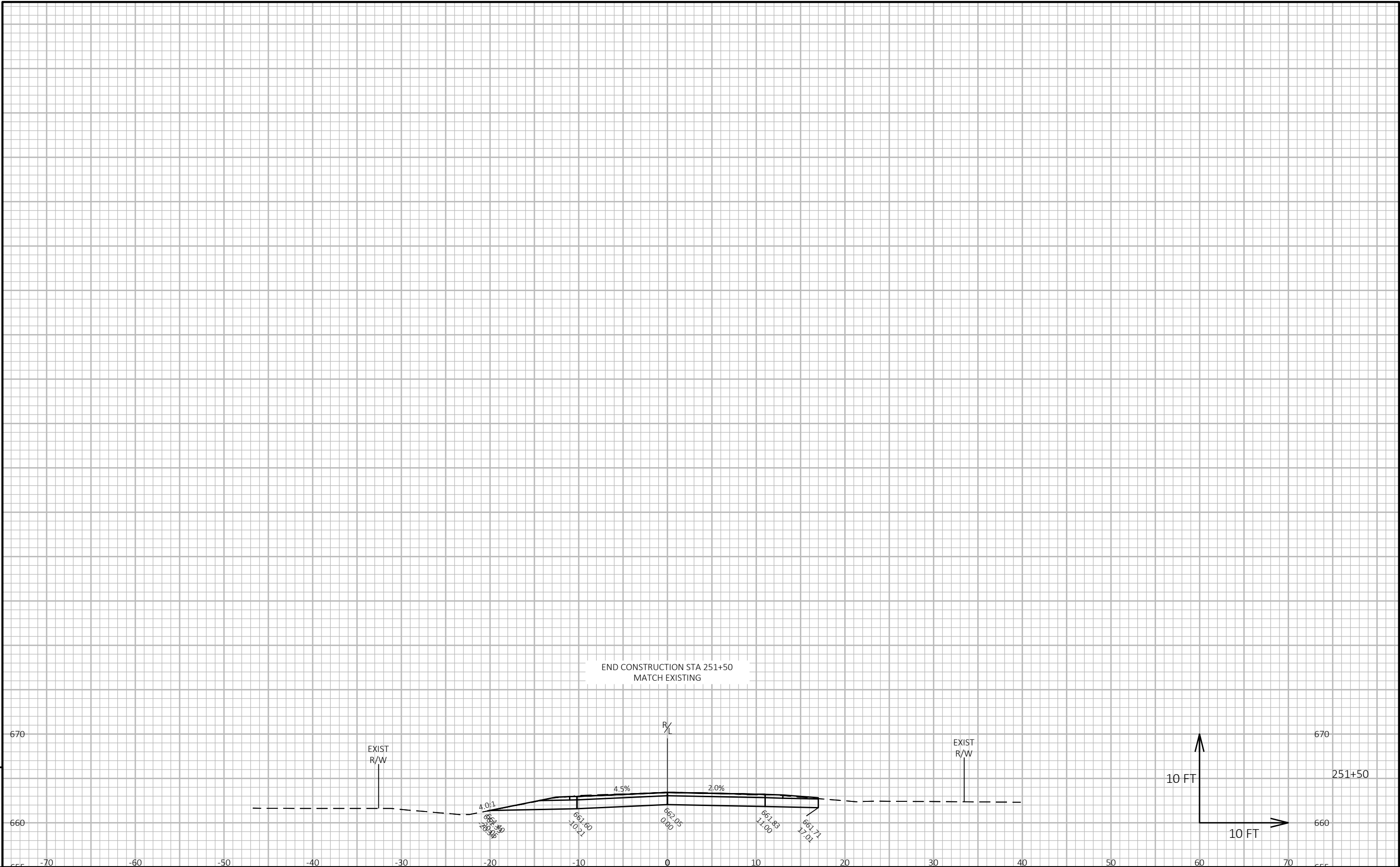
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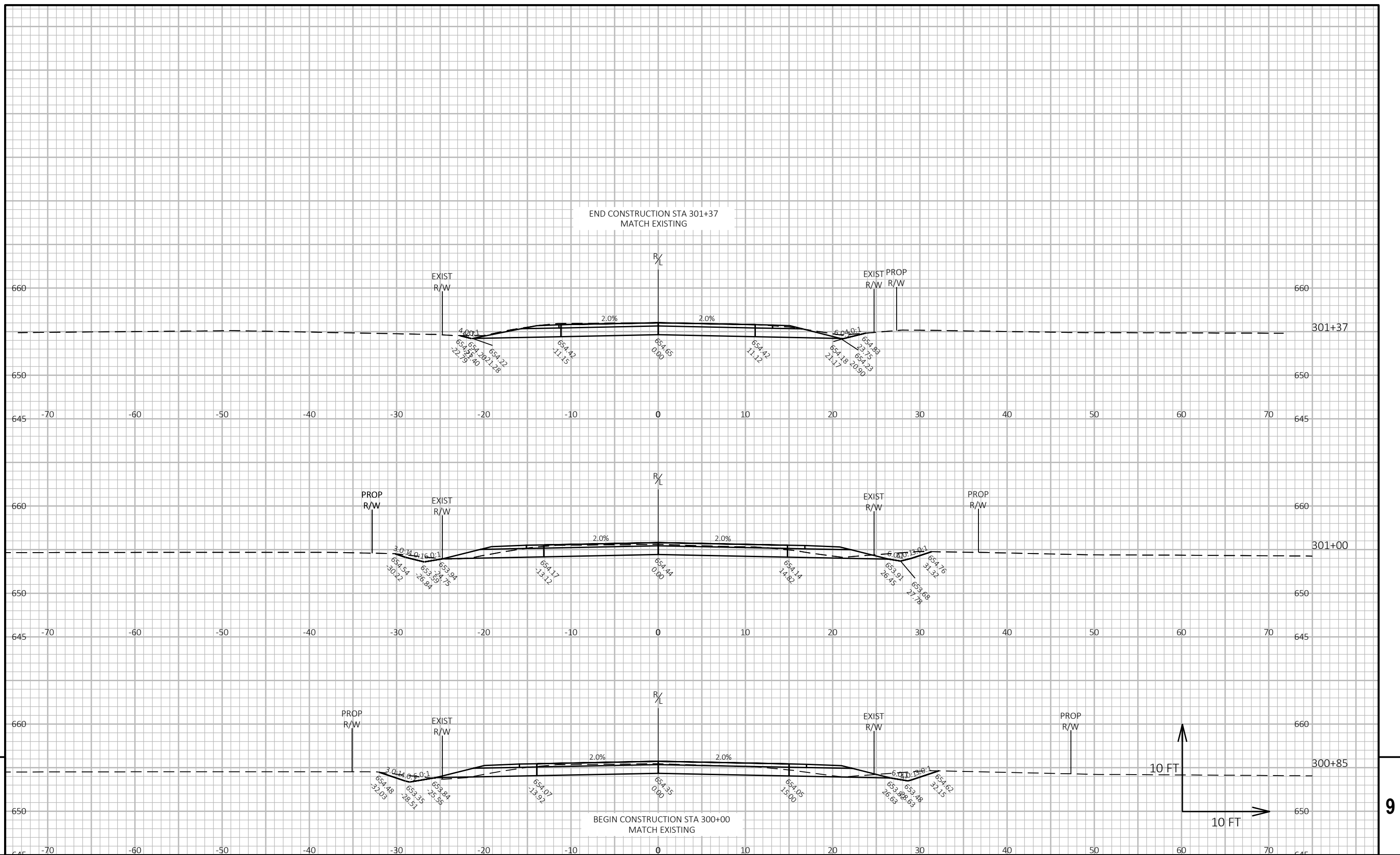


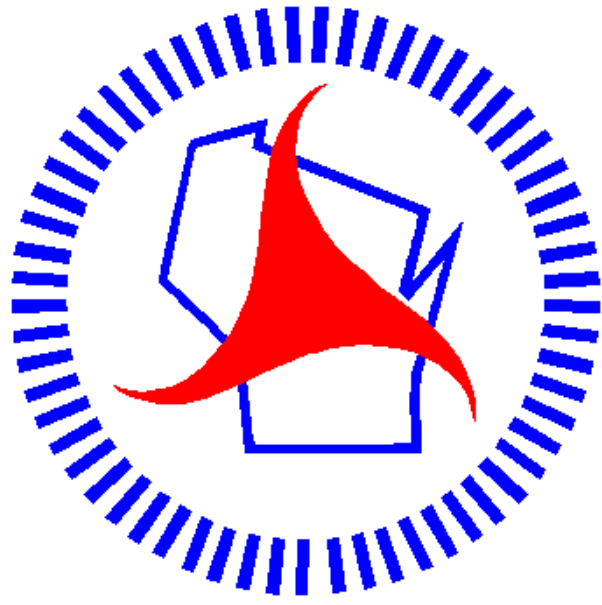
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PROJECT NO: 4307-02-71	HWY: SAMZ ROAD	COUNTY: MANITOWOC	CROSS SECTIONS: CHERNEY RD	SHEET E
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Wisconsin Department of Transportation

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