

WIS AUG 2013

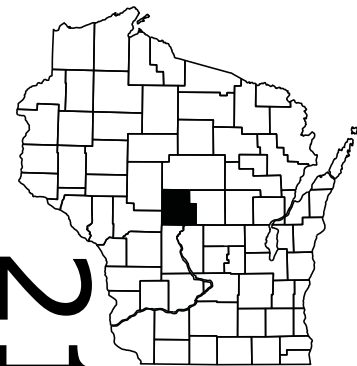
PROJECT ID: 6350-07-84

WITH: N/A

COUNTY: WOOD

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 = 66



DESIGN DESIGNATION

A.A.D.T. 2010	=	< 500
A.A.D.T. 2030	=	< 500
D.H.V. 2030	=	< 500
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	60 MPH
ESALS	=	N/A

CONVENTIONAL SYMBOLS

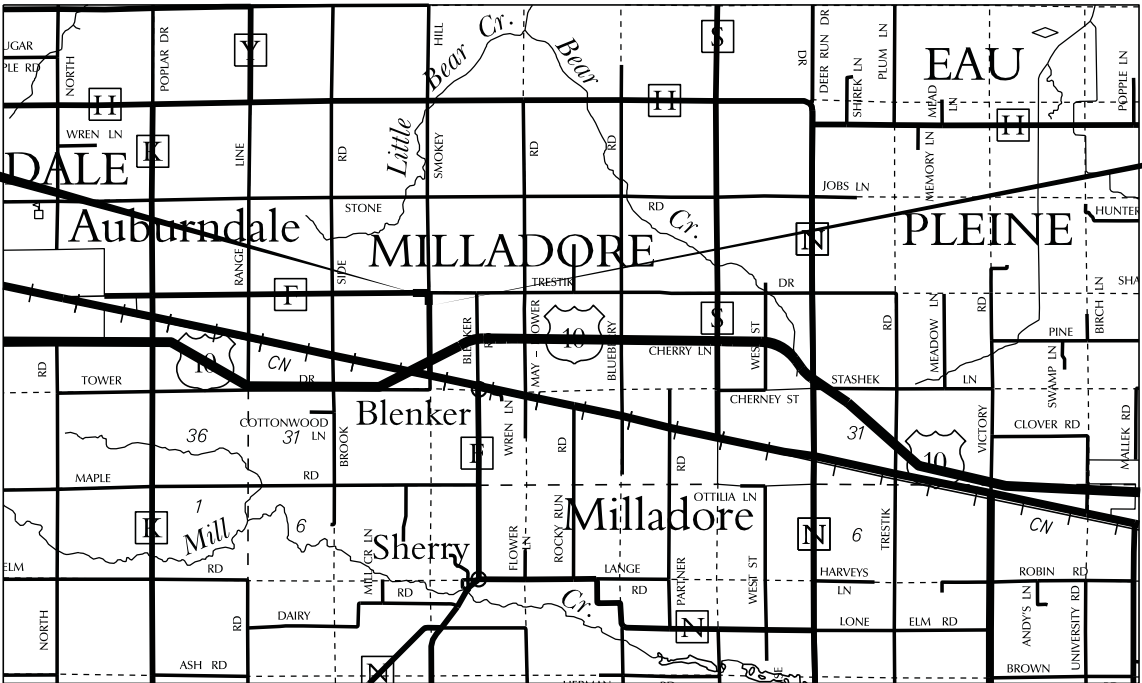
PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

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	

	ROCK
	LABEL
	95.36
	E
	FO
	G
	SAN
	SS
	T
	W

BEGIN PROJECT
STA. 93+00 TK
Y = 538096.870
X = 701966.859

END PROJECT
STA. 11+00 SH
Y = 536826.387
X = 703164.204



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WOOD COUNTY, NAD 1983 (2007).

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2007).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MARSHFIELD - STEVENS POINT

TRESTIK DR & SMOKEY HILL RD INSCN

USH 10

WOOD COUNTY

STATE PROJECT NUMBER
6350-07-84

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6350-07-84		

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	NC REGION
Designer	ERIN CHRISTIANSON
Project Manager	JEFF STEWART
Regional Examiner	NC REGION
Regional Supervisor	MICHAEL KRETSCHMER
APPROVED FOR THE DEPARTMENT	
DATE: 04/18/2013	(Signature)

GENERAL NOTES

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

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

SECTIONS AS SHOWN ON THE CROSS SECTION SHEETS INCLUDE THE THICKNESS OF TOPSOIL.

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

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.



Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

UTILITIES

ALLIANT ENERGY - FIELD CONTACT - ELECTRICITY

TRUDI BAKKEN
2710 JEFFERSON STREET
WISCONSIN RAPIDS, WI 54495
PHONE: (715) 424-7048
MOBILE: (715) 460-4121
E-MAIL: trudibakken@alliantenergy.com

SEND ALL ALLIANT CORRESPONDENCE TO:

JASON HOGAN
SUITE 1000
4902 N BILTMORE LANE
MADISON, WI 53718
PHONE: (608) 458-4871
MOBILE: (608) 395-7395
E-MAIL: jasonhogan@alliantenergy.com

TDS TELECOM - COMMUNICATION LINE

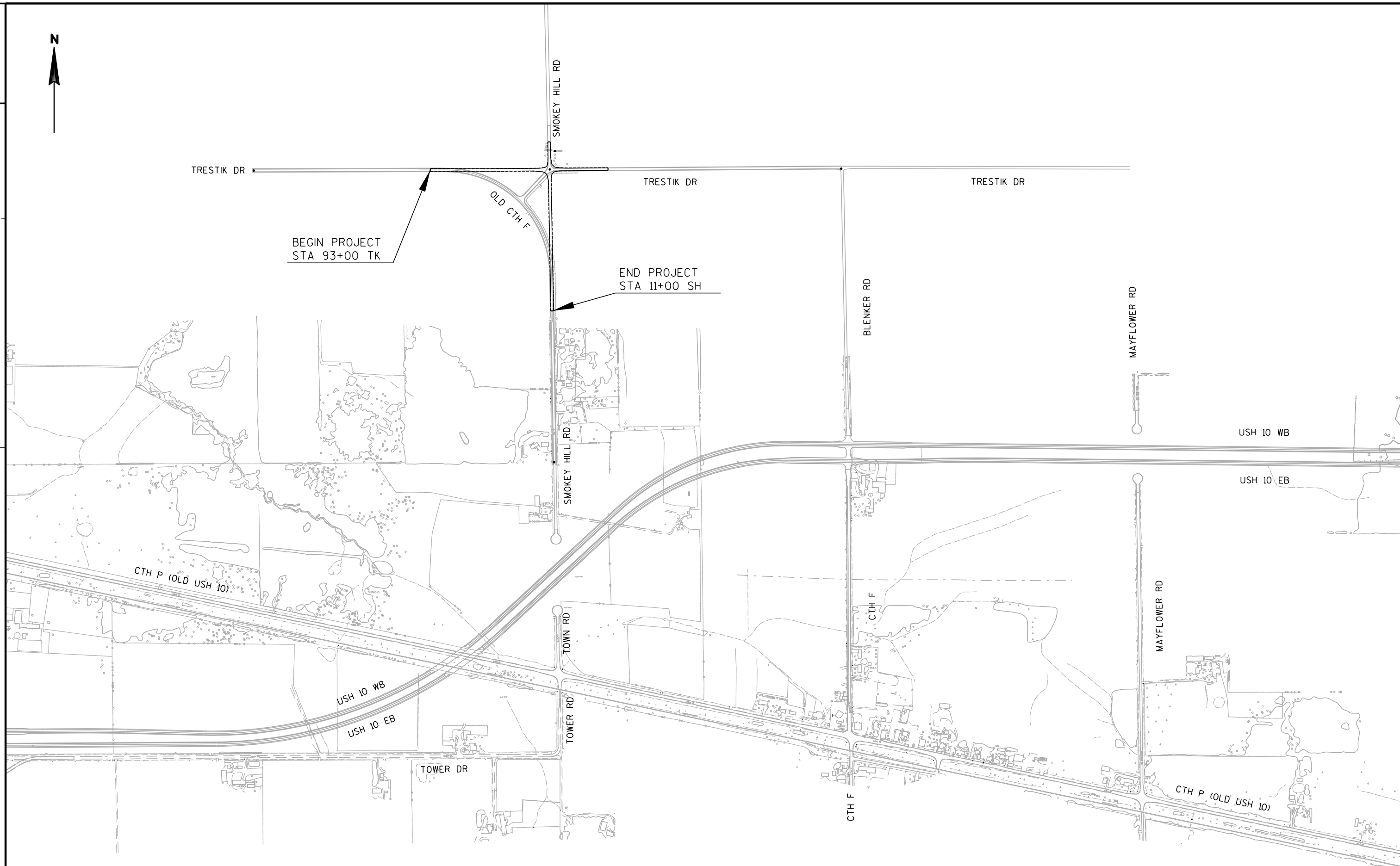
JEREMIAH LUBEN
1130 HILLCREST LANE
SEYMOUR, WI 54165
PHONE: (920) 655-8748
MOBILE: (920) 655-8748
E-MAIL: jeremiah.luben@tdstelecom.com

WISCONSIN DNR LIAISON

MARC HERSHFIELD
473 GRIFFITH AVENUE
WISCONSIN RAPIDS, WI 54494
PHONE: (715) 421-7867
E-MAIL: marc.hershfield@wisconsin.gov

US ARMY CORPS OF ENGINEERS

KYLE ZIBUNG
1314 CONTRACTOR'S BLVD
PLOVER, WI 54467
PHONE: (715) 345-7911
E-MAIL: Kyle.D.Zibung@usace.army.mil



PROJECT NO: 6350-07-84

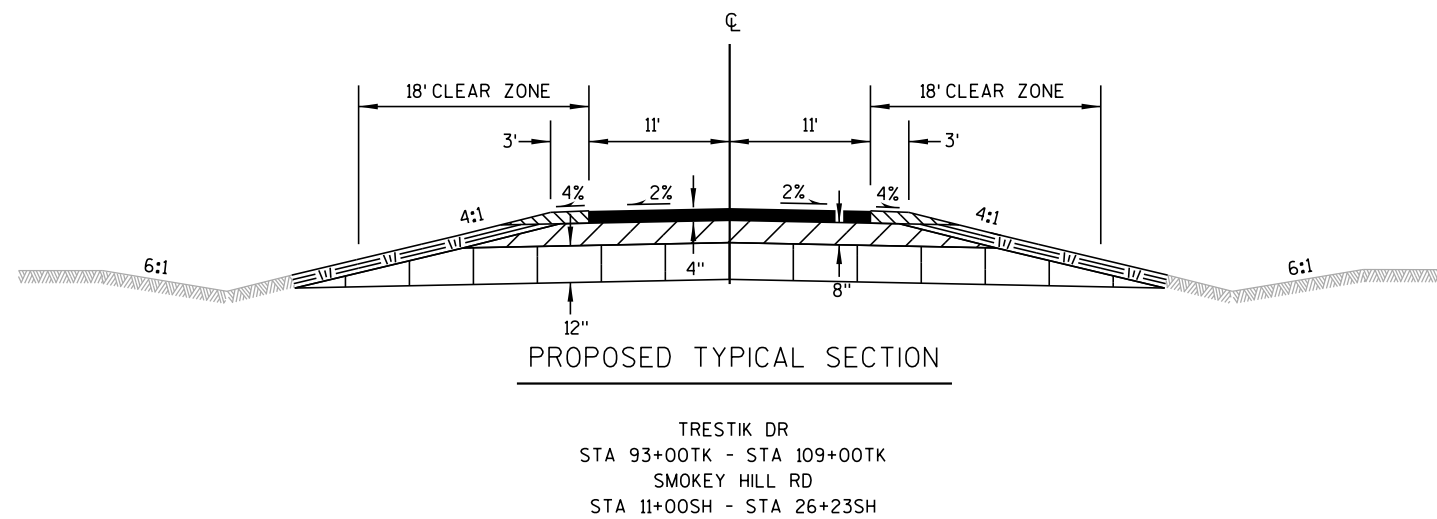
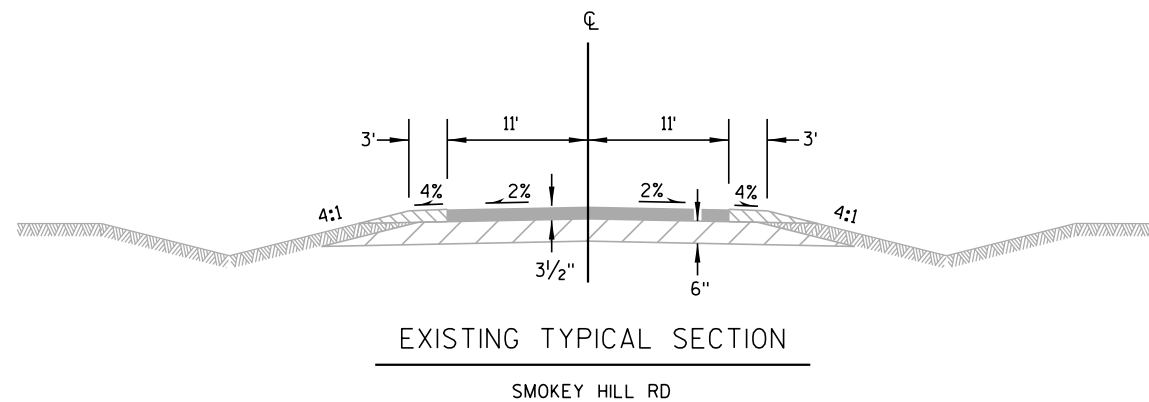
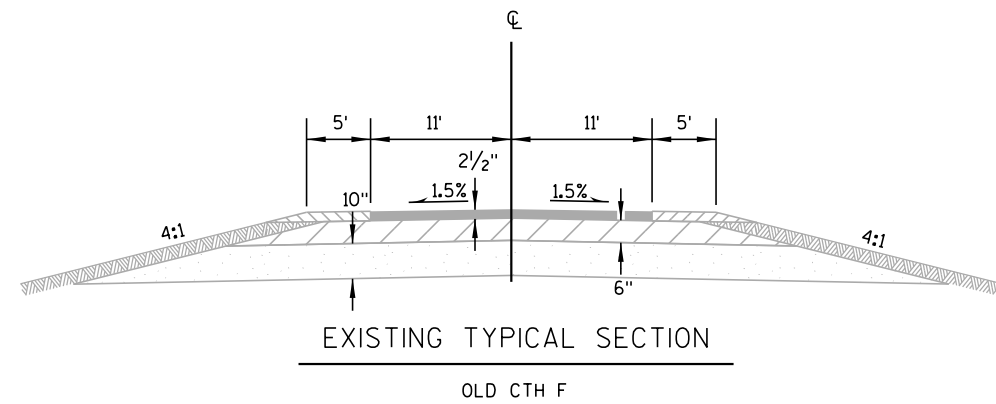
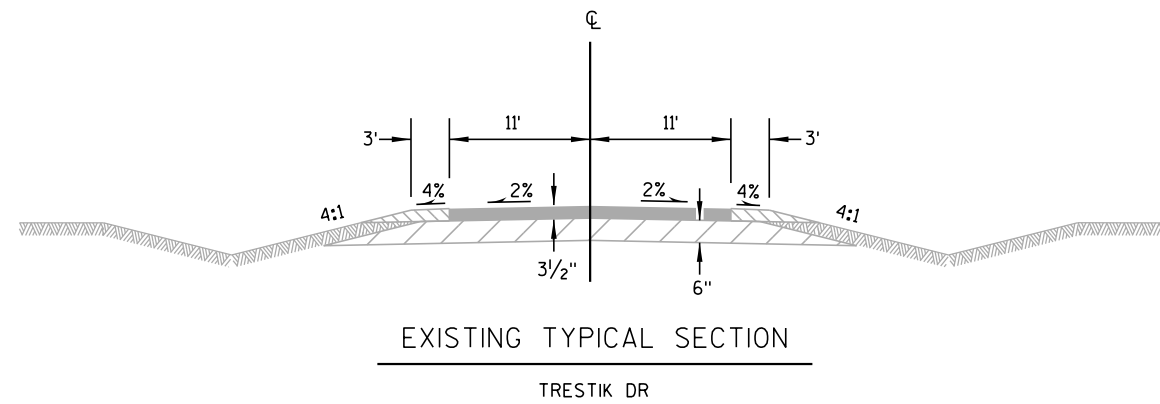
HWY: USH 10

COUNTY: WOOD

PROJECT OVERVIEW

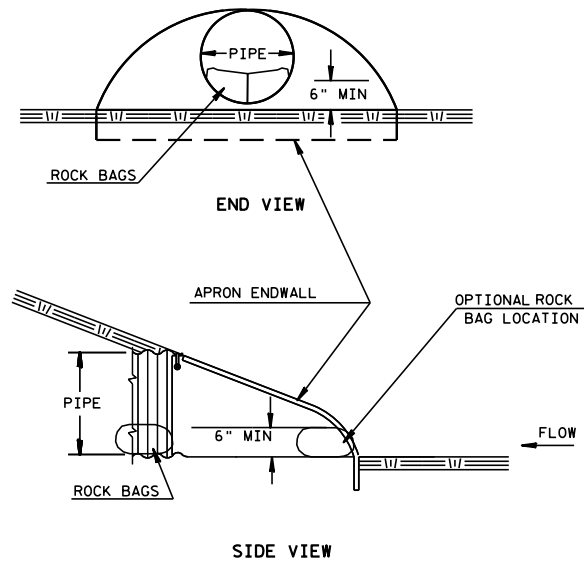
SHEET

E

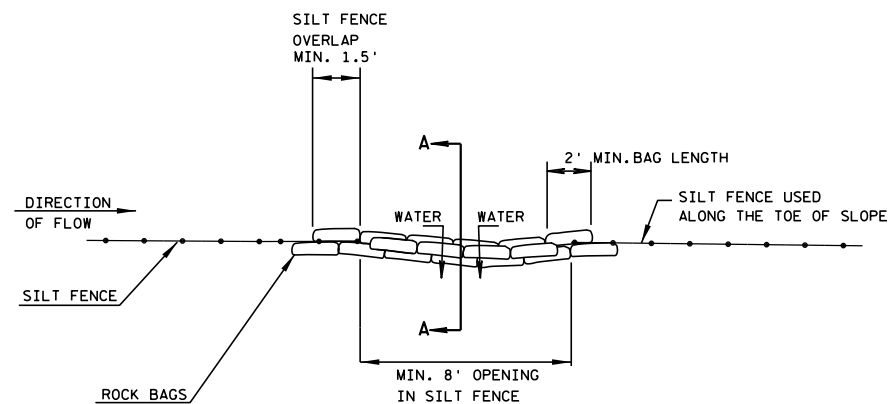


LEGEND

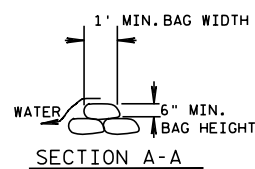
	HMA PAVEMENT TYPE E-1
	BASE AGGREGATE DENSE 3/4-INCH
	BASE AGGREGATE DENSE 1 1/4-INCH
	SELECT CRUSHED MATERIAL
	SALVAGED TOPSOIL, SEED, FERTILIZE & MULCH
	HMA PAVEMENT TYPE E-1
	BASE AGGREGATE DENSE 3/4-INCH
	BASE AGGREGATE DENSE 1 1/4-INCH
	GRANULAR SUBBASE COURSE
	EXISTING GROUND



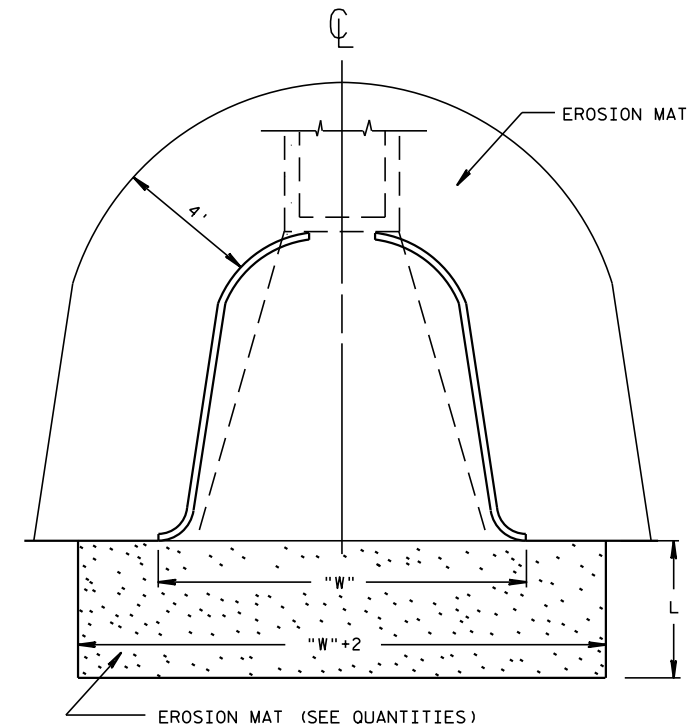
CULVERT PIPE CHECKS DETAIL
(INSTALL ON INLET END ONLY)



TOP VIEW

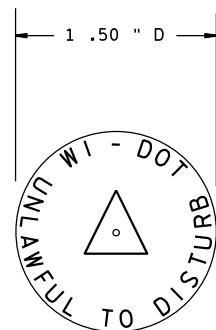


ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL



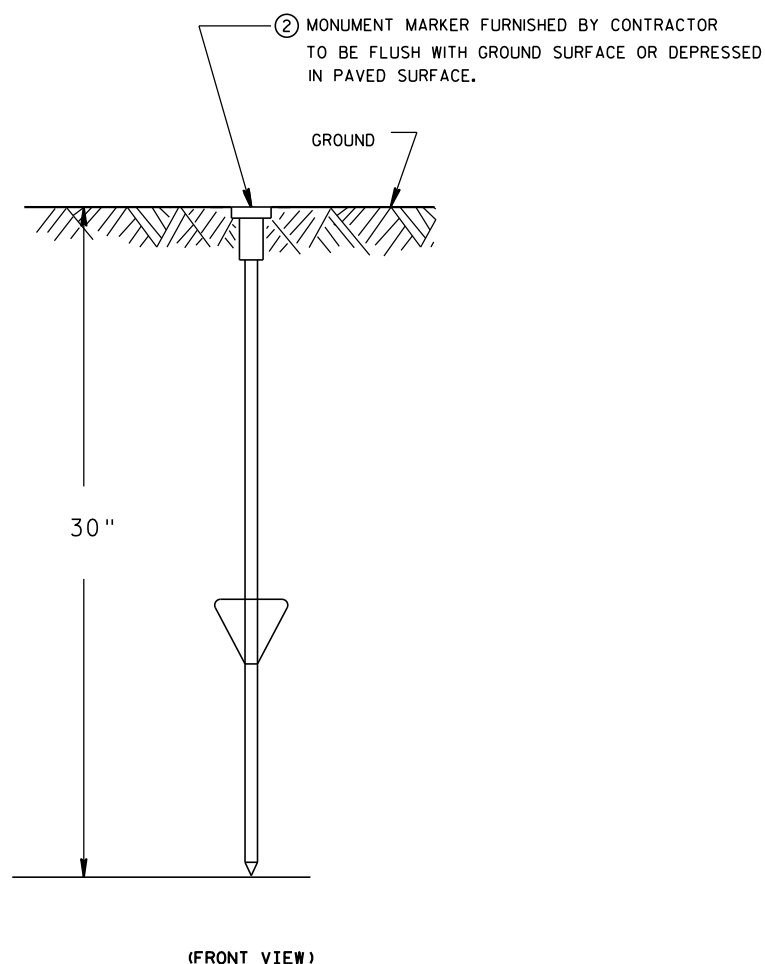
EROSION CONTROL AT PIPE ENDS

L = 3 TIMES DIAMETER OR 10' MIN.



② WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

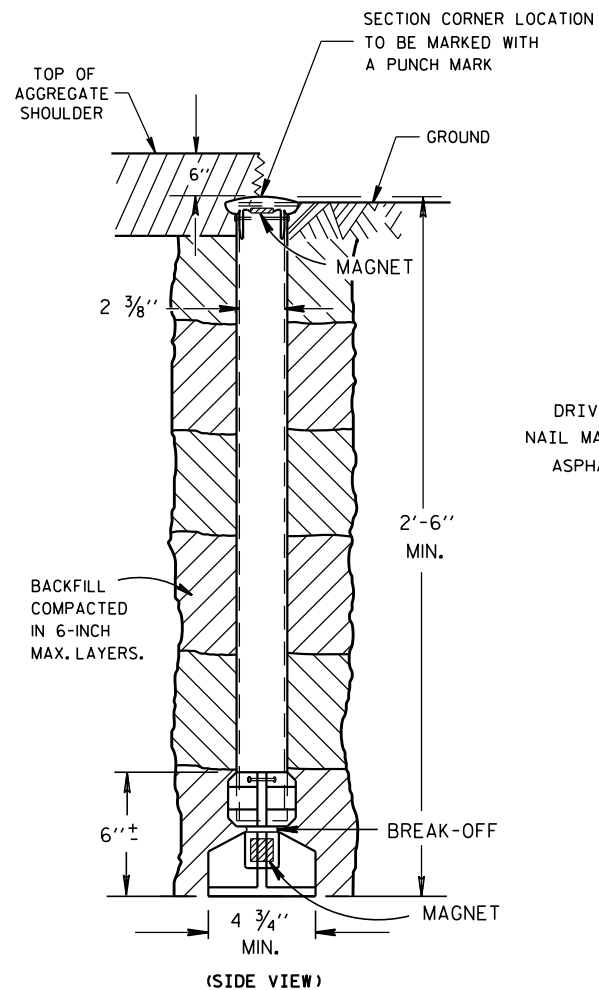
CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING



BERNSTEN DRIVABLE MONUMENT SSDR130

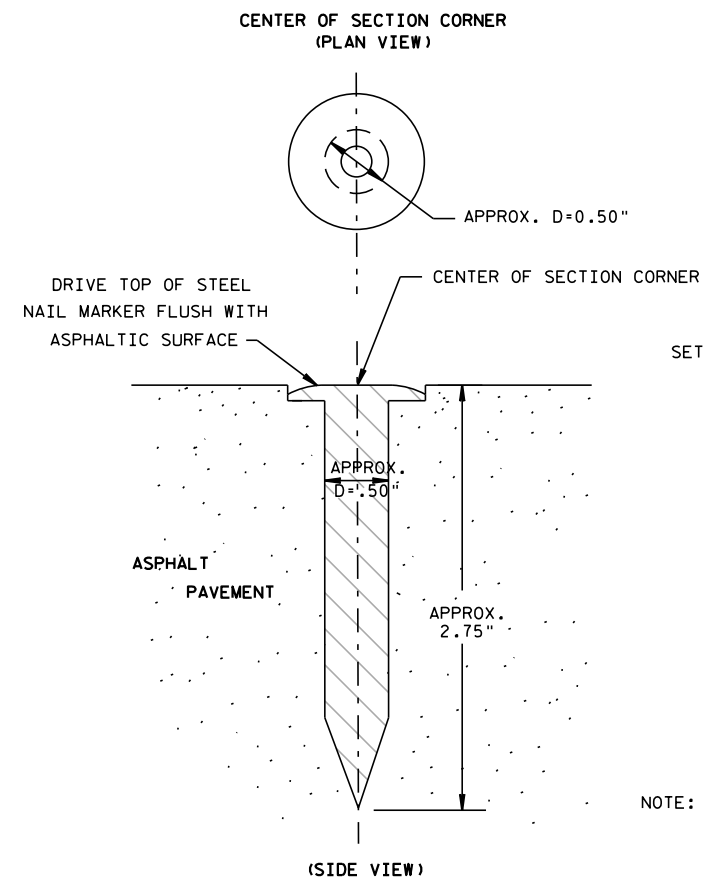
LANDMARK REFERENCE MONUMENT (TIES ONLY)

SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL



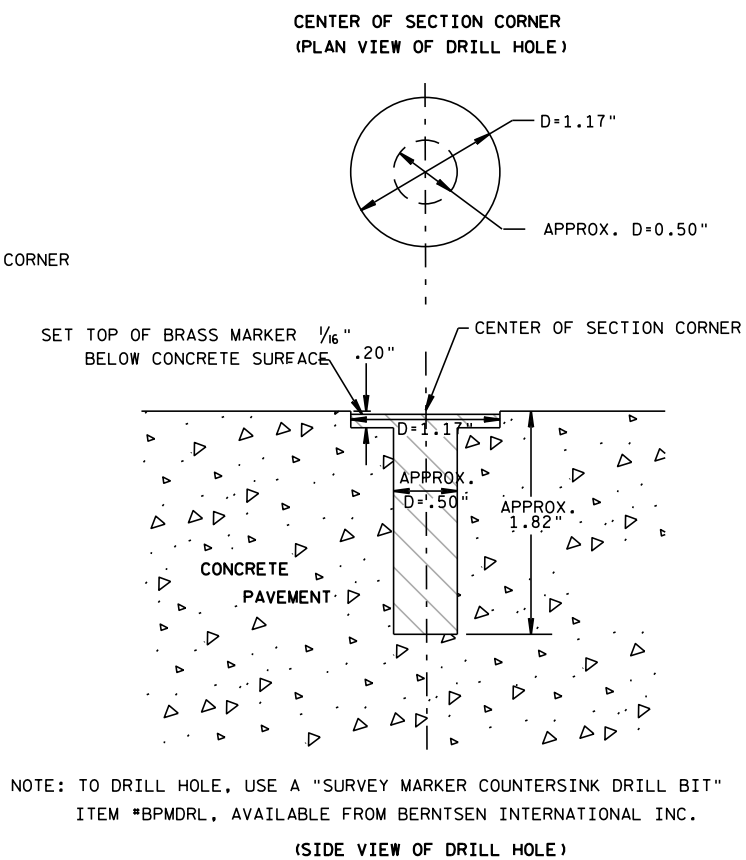
OUTSIDE OF PAVEMENT

① BERNSTEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



IN ASPHALTIC PAVEMENT

① BERNSTEN SNM1 STEEL NAIL MARKER



IN CONCRETE PAVEMENT

① BERNSTEN BP -1 BRASS MARKER WITH ANCHOR PLUG

NOTE: TO DRILL HOLE, USE A "SURVEY MARKER COUNTERSINK DRILL BIT" ITEM #BPMRDL, AVAILABLE FROM BERNSTEN INTERNATIONAL INC.

SECTION CORNER MONUMENTS

GENERAL NOTES

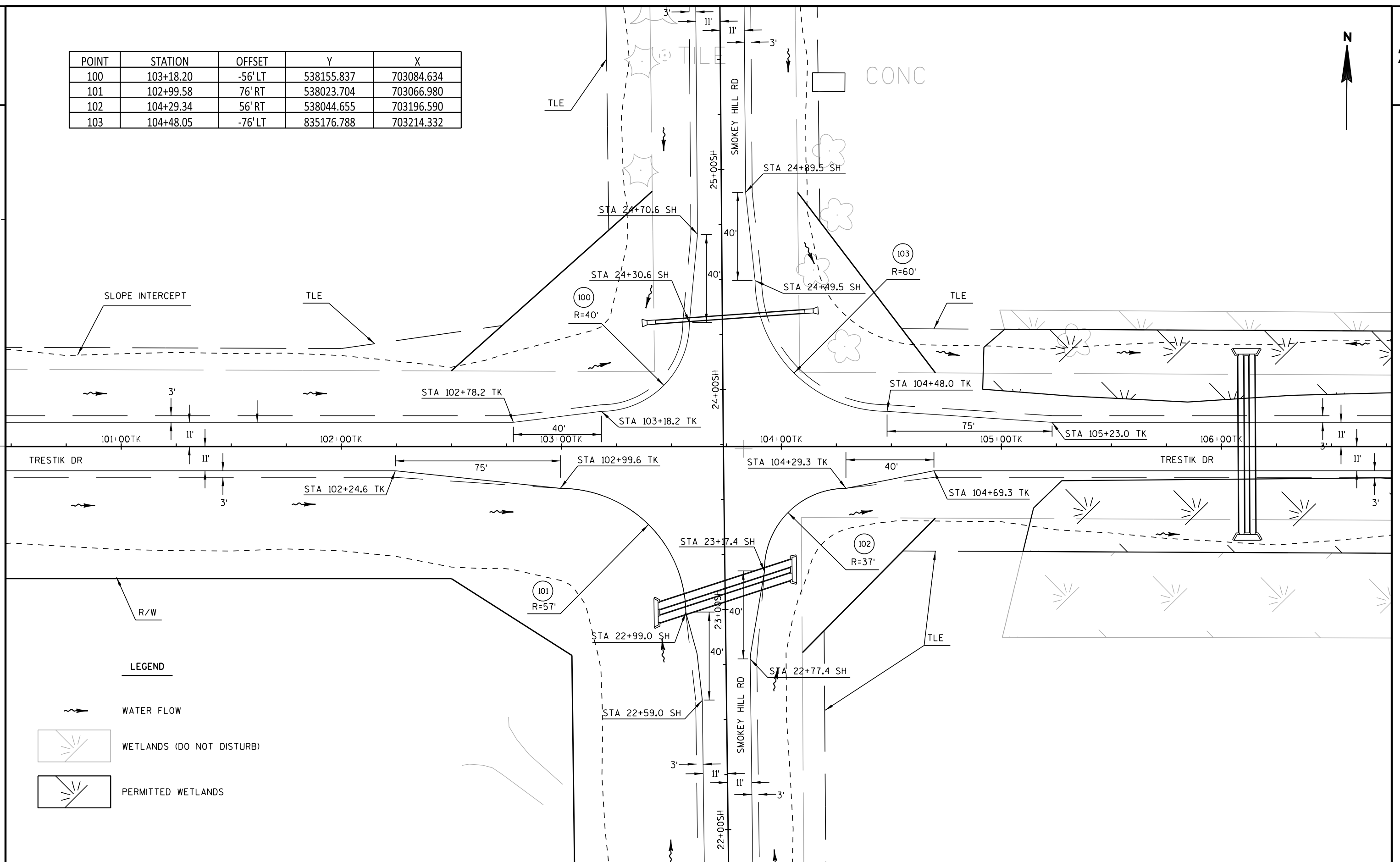
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

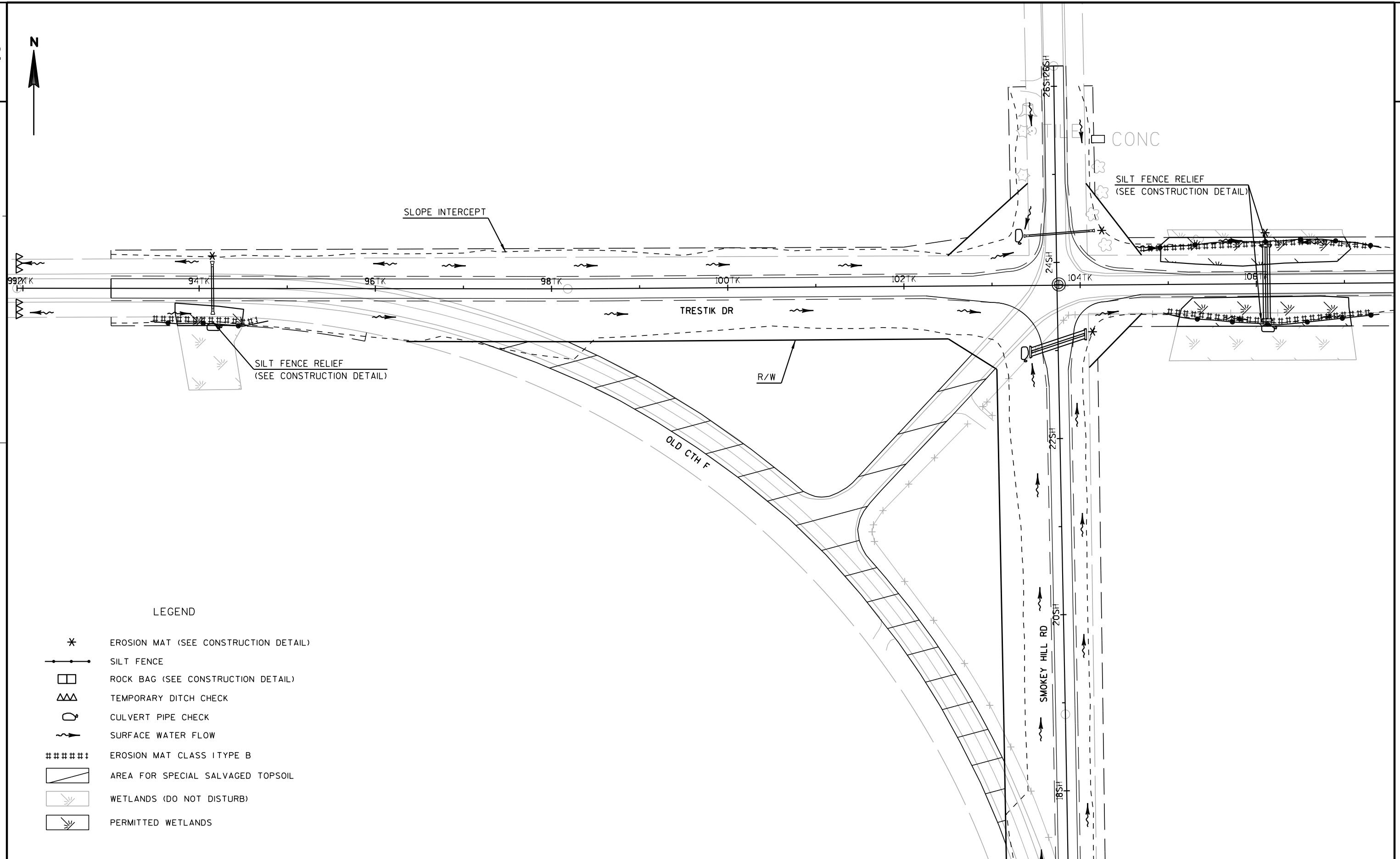
LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① = THE REGION SURVEY COORDINATOR WILL SUPPLY.

② = CONTRACTOR WILL SUPPLY.

POINT	STATION	OFFSET	Y	X
100	103+18.20	-56' LT	538155.837	703084.634
101	102+99.58	76' RT	538023.704	703066.980
102	104+29.34	56' RT	538044.655	703196.590
103	104+48.05	-76' LT	835176.788	703214.332





LEGEND

*	EROSION MAT (SEE CONSTRUCTION DETAIL)
—+—+—+—	SILT FENCE
□	ROCK BAG (SEE CONSTRUCTION DETAIL)
△△	TEMPORARY DITCH CHECK
○	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
#####	EROSION MAT CLASS I TYPE B
▨	AREA FOR SPECIAL SALVAGED TOPSOIL
▨	WETLANDS (DO NOT DISTURB)
▨	PERMITTED WETLANDS

PROJECT NO: 6350-07-84

HWY: USH 10

COUNTY: WOOD

EROSION CONTROL

SHEET

E

FILE NAME : \\WIS31FP1\3public\pds\design_id\CADD\projects\D4_63500704EC\022001-ec.dgn

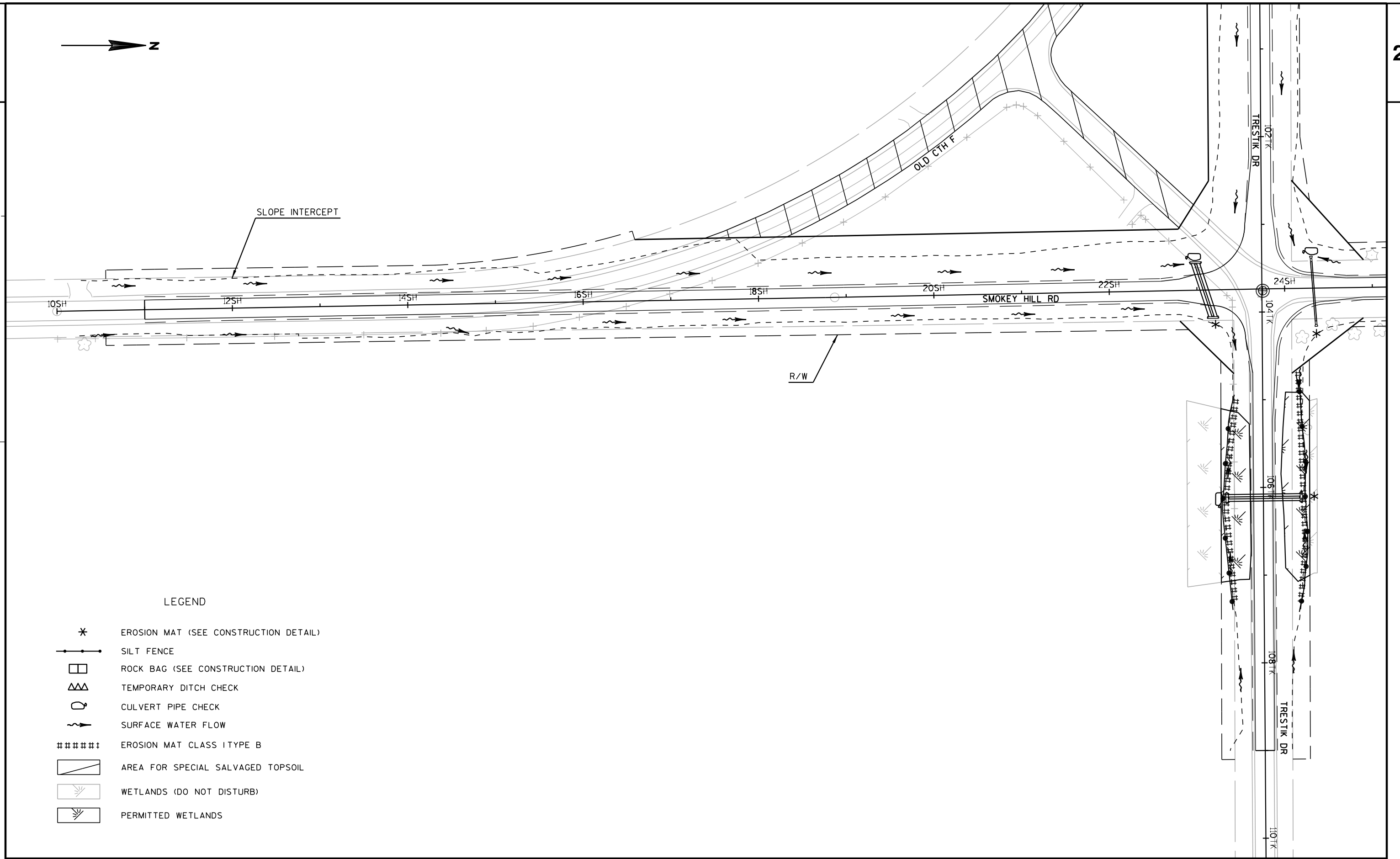
PLOT DATE : 12-APR-2013 13:06

PLOT BY : dotemm

PLOT NAME :

PLOT SCALE : 100:1

WISDOT/CADD SHEET 42



LEGEND

- * EROSION MAT (SEE CONSTRUCTION DETAIL)
- SILT FENCE
- ▢ ROCK BAG (SEE CONSTRUCTION DETAIL)
- △△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ~ SURFACE WATER FLOW
- ##### EROSION MAT CLASS I TYPE B
- ▨ AREA FOR SPECIAL SALVAGED TOPSOIL
- ~ WETLANDS (DO NOT DISTURB)
- ~ PERMITTED WETLANDS

PROJECT NO: 6350-07-84

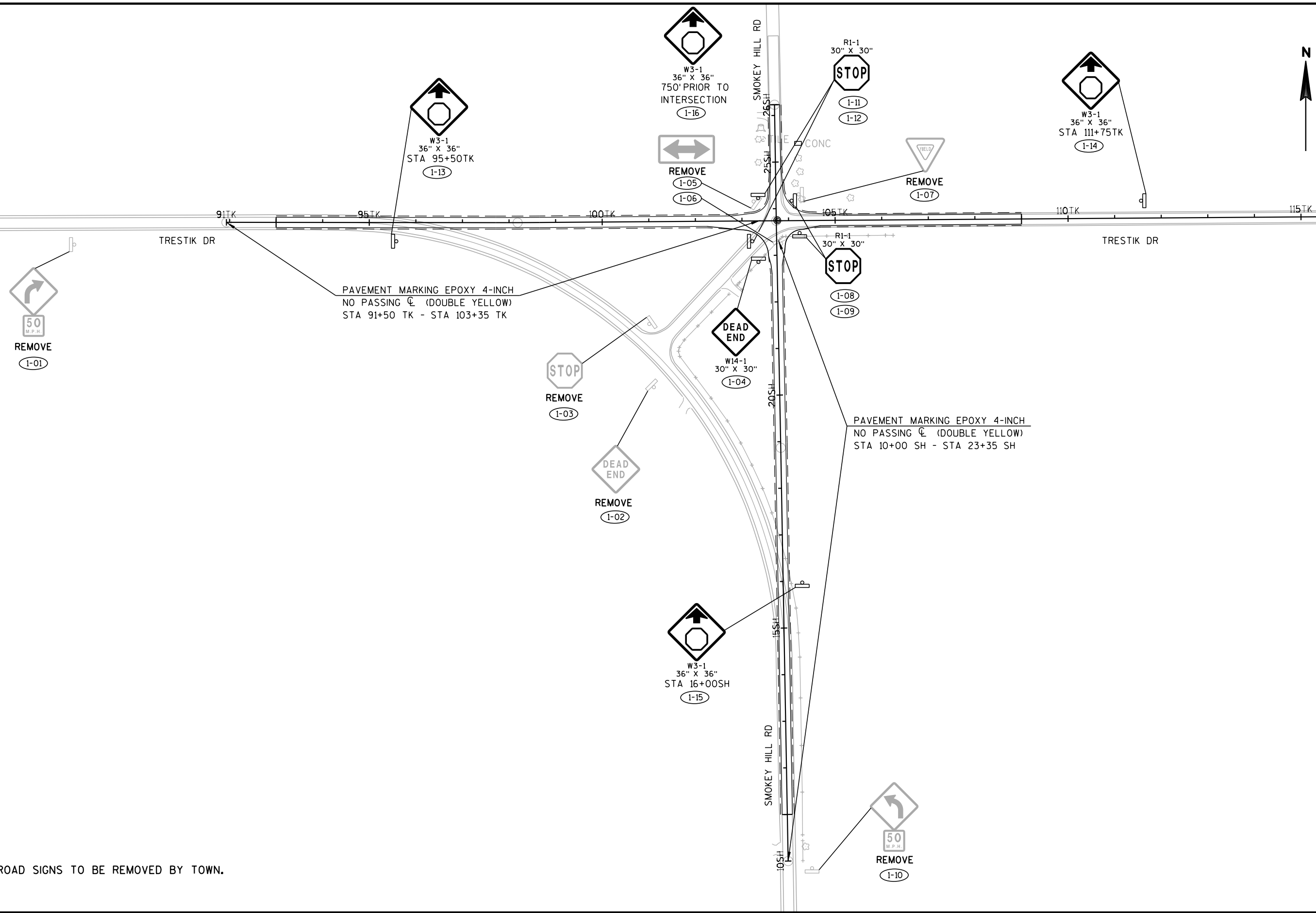
HWY: USH 10

COUNTY: WOOD

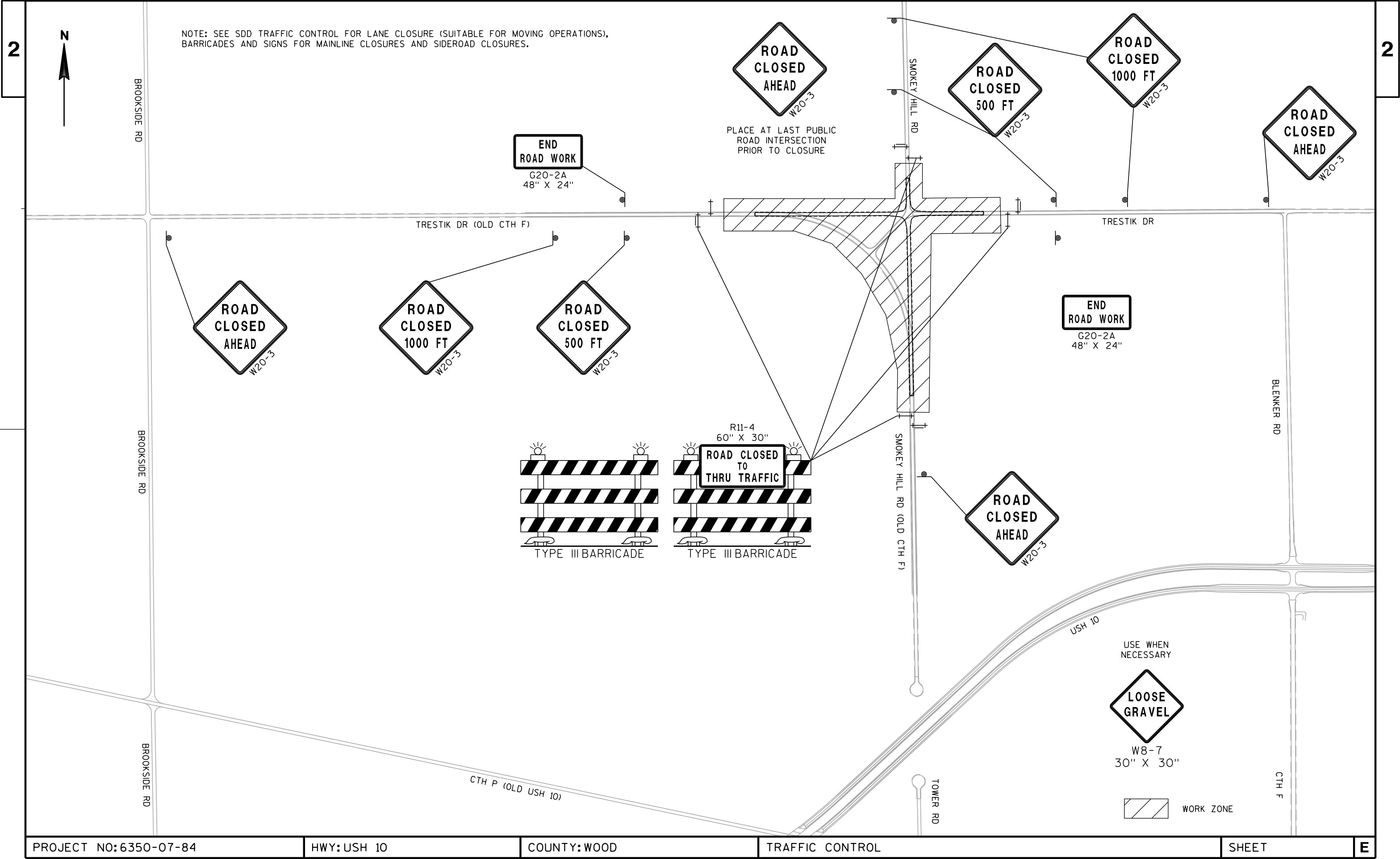
EROSION CONTROL

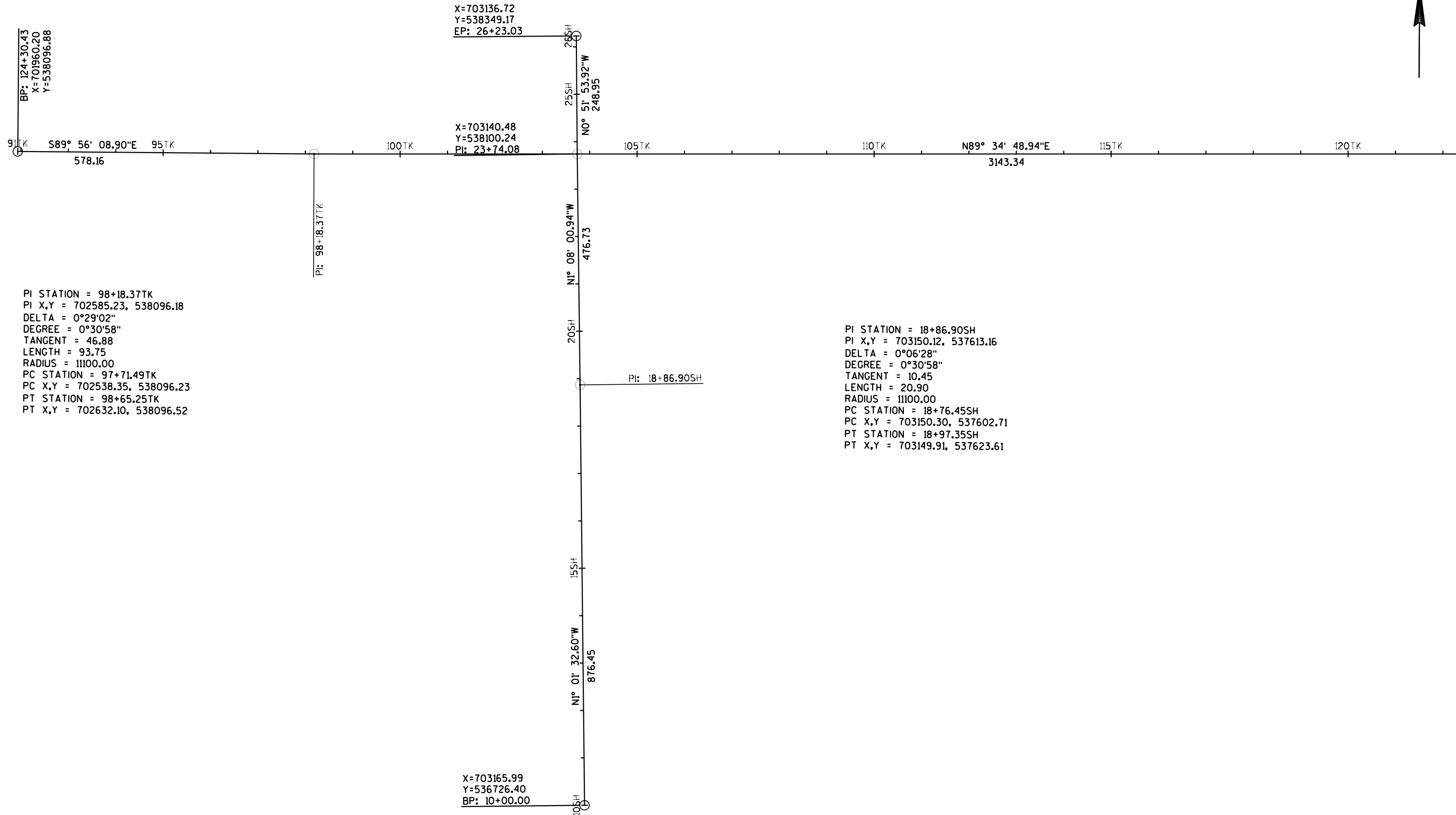
SHEET

E



NOTE: TOWN ROAD SIGNS TO BE REMOVED BY TOWN.





DATE 24JUN13		E S T I M A T E O F Q U A N T I T I E S			
LINE					6350-07-84
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	205.0100	EXCAVATION COMMON	CY	12,500.000	12,500.000
0020	213.0100	FINISHING ROADWAY (PROJECT) 01. 6350-07-84	EACH	1.000	1.000
0030	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	650.000	650.000
0040	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	5,050.000	5,050.000
0050	312.0110	SELECT CRUSHED MATERIAL	TON	8,100.000	8,100.000
0060	455.0105	ASPHALTIC MATERIAL PG58-28	TON	104.000	104.000
0070	455.0605	TACK COAT	GAL	205.000	205.000
0080	460.1101	HMA PAVEMENT TYPE E-1	TON	1,890.000	1,890.000
0090	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	1,210.000	1,210.000
0100	504.0900	CONCRETE MASONRY ENDWALLS	CY	7.500	7.500
0110	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	68.000	68.000
0120	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	48.000	48.000
0130	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	164.000	164.000
0140	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	2.000	2.000
0150	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	2.000	2.000
0160	523.0124	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH	LF	128.000	128.000
0170	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 6350-07-84	EACH	1.000	1.000
0180	619.1000	MOBILIZATION	EACH	1.000	1.000
0190	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	4.000	4.000
0200	625.0500	SALVAGED TOPSOIL	SY	16,400.000	16,400.000
0210	627.0200	MULCHING	SY	21,800.000	21,800.000
0220	628.1504	SILT FENCE	LF	750.000	750.000
0230	628.1520	SILT FENCE MAINTENANCE	LF	750.000	750.000
0240	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0250	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0260	628.2004	EROSION MAT CLASS I TYPE B	SY	850.000	850.000
0270	628.7504	TEMPORARY DITCH CHECKS	LF	35.000	35.000
0280	628.7555	CULVERT PIPE CHECKS	EACH	15.000	15.000
0290	628.7570	ROCK BAGS	EACH	65.000	65.000
0300	629.0210	FERTILIZER TYPE B	CWT	14.000	14.000
0310	630.0120	SEEDING MIXTURE NO. 20	LB	590.000	590.000
0320	630.0200	SEEDING TEMPORARY	LB	300.000	300.000
0330	633.5100	MARKERS ROW	EACH	9.000	9.000
0340	633.5200	MARKERS CULVERT END	EACH	8.000	8.000
0350	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	4.000	4.000
0360	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	5.000	5.000
0370	637.0202	SIGNS REFLECTIVE TYPE II	SF	62.970	62.970
0380	638.2602	REMOVING SIGNS TYPE II	EACH	9.000	9.000
0390	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	7.000	7.000
0400	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0410	643.0100	TRAFFIC CONTROL (PROJECT) 01. 6350-07-84	EACH	1.000	1.000
0420	643.0300	TRAFFIC CONTROL DRUMS	DAY	400.000	400.000
0430	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	160.000	160.000
0440	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	320.000	320.000
0450	643.0900	TRAFFIC CONTROL SIGNS	DAY	360.000	360.000
0460	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	5,040.000	5,040.000

DATE 24JUN13		E S T I M A T E O F Q U A N T I T I E S			
LINE		6350-07-84			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0470	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	3,123.000	3,123.000
0480	650.5000	CONSTRUCTION STAKING BASE	LF	3,123.000	3,123.000
0490	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	6.000	6.000
0500	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL	LS	1.000	1.000
CONTROL (PROJECT) 01. 6350-07-84					
0510	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	3,123.000	3,123.000
0520	690.0150	SAWING ASPHALT	LF	88.000	88.000
0530	SPV.0060	SPECIAL 01. REESTABLISH SECTION CORNER	EACH	1.000	1.000
		MONUMENTS			
0540	SPV.0180	SPECIAL 01. SPECIAL SALVAGED TOPSOIL	SY	4,800.000	4,800.000

EXCAVATION SUMMARY

DIVISION	STATION - STATION	LOCATION	205.0100		AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (9)	EXPANDED EBS BACKFILL (11)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR	MASS ORDINATE +/- (14)	WASTE
			COMMON EXCAVATION (1) CY	EBS EXCAVATION CY							
Division 1						0.80	1.30		1.25		
Trestik.xml	93+00TK - 109+00TK	TRESTIK DR	4,815	391	4,815	313	508	2,828	3,536	1,787	1,787
Division 1 Subtotal			4,815	391	4,815	313	508	2,828	3,536	1,787	1,787
Division 2											
Smokey Hill.xml	11+00SH - 26+23.03SH	SMOKEY HILL RD	5,193	0	5,193	0	0	428	535	4,657	4,657
Division 2 Subtotal			5,193	0	5,193	0	0	428	535	4,657	4,657
Division 3											
Removal-CTH F	98+00TK - 17+75SH	OLD CTH F	2,102	0	2,102	0	0	0	0	2,102	2,102
Division 3 Subtotal			2,102	0	2,102	0	0	0	0	2,102	2,102
Grand Total			12,109	391	10,007	313	508	3,257	4,071	6,445	6,445
Total Common Exc			12,500								

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 5) Available Material = Cut - Salvaged/Unusable Pavement Material
- 9) Reduced EBS in Fill - Excavated EBS material is usable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
- 11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
- 13) Expanded Fill. Factor = 1.25
- Depending on selections:

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor

Or

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor

Or

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor

Or

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
- 14) 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 DENSE

STATION - STATION	LOCATION	305.0110 305.0120	
		3/4-INCH TON	1 1/4-INCH TON
93+00 TK - 109+00 TK	TRESTIK DR	333	2580
11+00 SH - 26+23 SH	SMOKEY HILL RD	317	2470
TOTALS		650	5050

TACK COAT

STATION - STATION	LOCATION	455.0605
		GAL
93+00 TK - 109+00 TK	TRESTIK DR	105
11+00 SH - 26+23 SH	SMOKEY HILL RD	101
TOTAL		205

SELECT CRUSHED MATERIAL

STATION - STATION	LOCATION	312.0110
		TON
93+00 TK - 109+00 TK	TRESTIK DR	4145
11+00 SH - 26+23 SH	SMOKEY HILL RD	3955
TOTAL		8100

HMA PAVEMENT TYPE E-1

STATION - STATION	LOCATION	460.1101	455.0105
		HMA PAVEMENT TYPE E-1 TON	ASPHALTIC MATERIAL PG58-28 TON
93+00 TK - 109+00 TK	TRESTIK DR	963	53
11+00 SH - 26+23 SH	SMOKEY HILL RD	927	51
TOTALS		1890	104

CROSS DRAINS & SIDE ROAD CULVERT PIPES

STATION	LOCATION	CPRC CLASS III			HE CPRC CLASS III	APRON ENDWALLS FOR CULVERT PIPE RC		504.0900 CONCRETE MASONRY ENDWALLS	** JOINT TIES
		522.0118 18-INCH LF	522.0124 24-INCH LF	522.0130 30-INCH LF	523.0124 24x38-INCH LF	522.1018 18-INCH EACH	522.1024 24-INCH EACH	504.0900 CONCRETE MASONRY ENDWALLS CY	** JOINT TIES EACH
94+15 TK	TRESTIK DR	---	48	---	---	---	2	---	12
106+09 TK	TRESTIK DR	---	---	82	---	---	---	2.0	8
106+14 TK	TRESTIK DR	---	---	82	---	---	---	2.0	8
23+05 SH	SMOKEY HILL RD	---	---	---	64	---	---	1.8	8
23+11 SH	SMOKEY HILL RD	---	---	---	64	---	---	1.8	8
24+33 SH	SMOKEY HILL RD	68	---	---	---	2	---	---	12
TOTALS		68	48	164	128	2	2	7.5	56

LANDMARK REFERENCE MONUMENTS

STATION	LANDMARK LOCATION	621.0100	SPV.0060.01	TYPE OF EXISTING MONUMENT
		REFERENCE MONUMENTS EACH	REESTABLISH SECTION CORNER MONUMENTS EACH	
103+75.82TK	TRESTIK DR; 0.92' LT	4	1	R/R SPIKE
TOTALS		4	1	

** FOR INFORMATIONAL PURPOSES ONLY. NOT A BID ITEM.

3

3

SILT FENCE				EROSION MAT CLASS I TYPE B				TEMPORARY DITCH CHECKS				MARKERS ROW				
628.1520 MAINTENANCE				628.2004 SY				628.7504 LF				R/W POINT 633.5100 NO EACH				
STATION - STATION		LOCATION	LF	LF	STATION - STATION		LOCATION		STATION		LOCATION					
93+50 TK - 94+75 TK		TRESTIK DR (RT)	125	125	93+50 TK - 94+75 TK		TRESTIK DR (RT)	140	92+00 TK		TRESTIK DR (LT)	15	96+35.36 TK	TRESTIK DR; 60.00' RT	PRW10	1
104+75 TK - 107+25 TK		TRESTIK DR (LT)	250	250	94+15 TK		TRESTIK DR (LT)	8	92+00 TK		TRESTIK DR (RT)	15	102+50.00 TK	TRESTIK DR; 60.00' RT	PRW11	1
105+00 TK - 107+25 TK		TRESTIK DR (RT)	225	225	104+75 TK - 107+50 TK		TRESTIK DR (LT)	326	UNDISTRIBUTED			5	22+80.00 SH	SMOKEY HILL RD; 70.00' LT	PRW12	1
UNDISTRIBUTED			150	150	105+00 TK - 107+50 TK		TRESTIK DR (RT)	278					16+60.10 SH	SMOKEY HILL RD; 70.00' LT	PRW13	1
					23+15 SH		SMOKEY HILL RD (RT)	20					102+50.00 TK	TRESTIK DR; 34.37' LT	PRW14	1
					24+33 SH		SMOKEY HILL RD (LT)	7					24+90.00 SH	SMOKEY HILL RD; 31.39' LT	PRW15	1
					UNDISTRIBUTED			71					24+90.00 SH	SMOKEY HILL RD; 34.61' RT	PRW16	1
													104+70.00 TK	TRESTIK DR; 33.48' LT	PRW17	1
													104+70.00 TK	TRESTIK DR; 32.52' RT	PRW18	1
												</				

3

SIGN LISTING

SIGN NUMBER	SIGN CODE	MESSAGE	SIZE	POSTS WOOD 4"x6"		637.0202	638.2602	638.3
				634.0616	634.0618	REFLECT.	REMOVING	REMOVING
				16-FT EACH	18-FT EACH	TYPE II SF	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH
1-01	---	RIGHT CURVE; 50 MPH	---	---	---	---	2	1
1-02	---	DEAD END	---	---	---	---	1	1
1-03	---	STOP	---	---	---	---	1	1
1-04	W14-1	DEAD END	30"x30"	---	1	6.25	---	---
1-05	---	NIGHT ARROW	---	---	---	---	1	1
1-06	---	NIGHT ARROW	---	---	---	---	1	1
1-07	---	YIELD	---	---	---	---	1	1
1-08	R1-1	STOP	30"x30"	1	---	5.18	---	---
1-09	R1-1	STOP	30"x30"	1	---	5.18	---	---
1-10	---	LEFT CURVE; 50 MPH	---	---	---	---	2	1
1-11	R1-1	STOP	30"x30"	1	---	5.18	---	---
1-12	R1-1	STOP	30"x30"	1	---	5.18	---	---
1-13	W3-1	STOP AHEAD	36"x36"	---	1	9.00	---	---
1-14	W3-1	STOP AHEAD	36"x36"	---	1	9.00	---	---
1-15	W3-1	STOP AHEAD	36"x36"	---	1	9.00	---	---
1-16	W3-1	STOP AHEAD	36"x36"	---	1	9.00	---	---
TOTALS				4	5	62.97	9	7

PAVEMENT MARKING EPOXY

		646.0106 4-INCH NO PASSING YELLOW
STATION - STATION	LOCATION	LF
91+50 TK - 103+35 TK	TRESTIK DR	2370
14+50 SH - 23+35 SH	SMOKEY HILL RD	2670
TOTAL		5040

SAWING ASPHALT

		690.0150
STATION	LOCATION	LF
93+00 TK	TRESTIK DR (OLD CTH F)	22
109+00 TK	TRESTIK DR	22
11+00 SH	SMOKEY HILL RD (OLD CTH F)	22
26+23 SH	SMOKEY HILL RD	22
TOTAL		88

CONSTRUCTION STAKING

STATION - STATION	650.4500	650.5000	650.6000	650.9920	REMARKS
	SUBGRADE LF	BASE LF	PIPE CULVERTS EACH	SLOPE STAKES LF	
93+00 TK - 109+00 TK	1600	1600	---	1600	
11+00 SH - 26+23 SH	1523	1523	---	1523	
94+15 TK	---	---	1	---	TRESTIK DR
106+09 TK	---	---	1	---	TRESTIK DR
106+14 TK	---	---	1	---	TRESTIK DR
23+05 SH	---	---	1	---	SMOKEY HILL RD
23+11 SH	---	---	1	---	SMOKEY HILL RD
24+33 SH	---	---	1	---	SMOKEY HILL RD
TOTALS	3123	3123	6	3123	

TRAFFIC CONTROL SIGNS

LOCATION	SIGN CODE	MESSAGE	NUMBER REQUIRED	DAYS NEEDED	643.0900 DAYS
TRESTIK DR (OLD CTH F) & BROOKSIDE RD	W20-3	ROAD CLOSED AHEAD	1	20	20
TRESTIK DR (OLD CTH F)	W20-3	ROAD CLOSED 1000 FT	1	20	20
	W20-3	ROAD CLOSED 500 FT	1	20	20
	G20-2A	END ROAD WORK	1	20	20
	R11-4	ROAD CLOSED TO THRU TRAFFIC	1	20	20
TRESTIK DR & BLENKER RD	W20-3	ROAD CLOSED AHEAD	1	20	20
TRESTIK DR	W20-3	ROAD CLOSED AHEAD	1	20	20
	W20-3		1	20	20
	G20-2A		1	20	20
	R11-4		1	20	20
SMOKEY HILL RD (OLD CTH F)	W20-3	ROAD CLOSED AHEAD	1	20	20
	R11-4	ROAD CLOSED TO THRU TRAFFIC	1	20	20
SMOKEY HILL RD	W20-3	ROAD CLOSED AHEAD	1	20	20
	W20-3		1	20	20
	G20-2A		1	20	20
	R11-4		1	20	20
PROJECT LIMITS	W8-7	LOOSE GRAVEL	2	20	40
TOTAL					360

3

CONVENTIONAL ABBREVIATIONS	
ACCESS POINT	AP
DRIVEWAY CONNECTION	AR
ACCESS RIGHTS	AC.
ACRES	AC.
AND OTHERS	ET. AL.
CENTERLINE	C/L
CERTIFIED SURVEY MAP	CSM
CORNER	COR.
DOCUMENT	DOC.
EASEMENT	EASE.
HIGHWAY EASEMENT	H.E.
LAND CONTRACT	LC
MONUMENT	MON.
PAGE	P.
PERMANENT LIMITED EASEMENT	P.L.E.
PROPERTY LINE	PL
RECORDED AS	REC'D AS
REFERENCE LINE	R/L
RELEASE OF RIGHTS	ROR
REMAINING	REMA.
RIGHT-OF-WAY	R/W
SECTION	SEC.
STATION	STA.
TEMPORARY LIMITED EASEMENT	T.L.E.
VOLUME	V.

CURVE DATA	
LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS	
PROPOSED R/W LINE	---
EXISTING H.E. LINE	---
PROPERTY LINE	---
LOT & TIE LINES	---
SLOPE INTERCEPTS	---
ACCESS RESTRICTED	---
ACCESS RESTRICTED (BY ACQUISITION)	---
NO ACCESS	---
BY STATUTORY AUTHORITY	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
EXISTING CENTERLINE	---
PROPOSED REFERENCE LINE	---
PARALLEL OFFSET	---

FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	---
PERMANENT LIMITED EASEMENT	---
R/W BOUNDARY POINT	---
PARCEL NUMBER	---
SIGN NUMBER (OFF PREMISE)	---
BUILDING	---

WALUPACA MONUMENT	
County Coordinates	Y = 538091.193
X = 700476.367	

SEC-20	
County Coordinates	Y = 538101.181
X = 703142.653	
STA. 103+TK+75.82, 0.92' LT.	

SEC-21	
County Coordinates	Y = 538108.067
X = 705767.588	

SEC-22	
County Coordinates	Y = 538109.548
X = 705775.364	

SEC-23	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-24	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-25	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-26	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-27	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-28	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-29	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-30	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-31	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-32	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-33	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-34	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-35	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-36	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-37	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-38	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-39	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-40	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-41	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-42	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-43	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-44	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-45	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-46	
County Coordinates	Y = 538110.000
X = 705775.364	

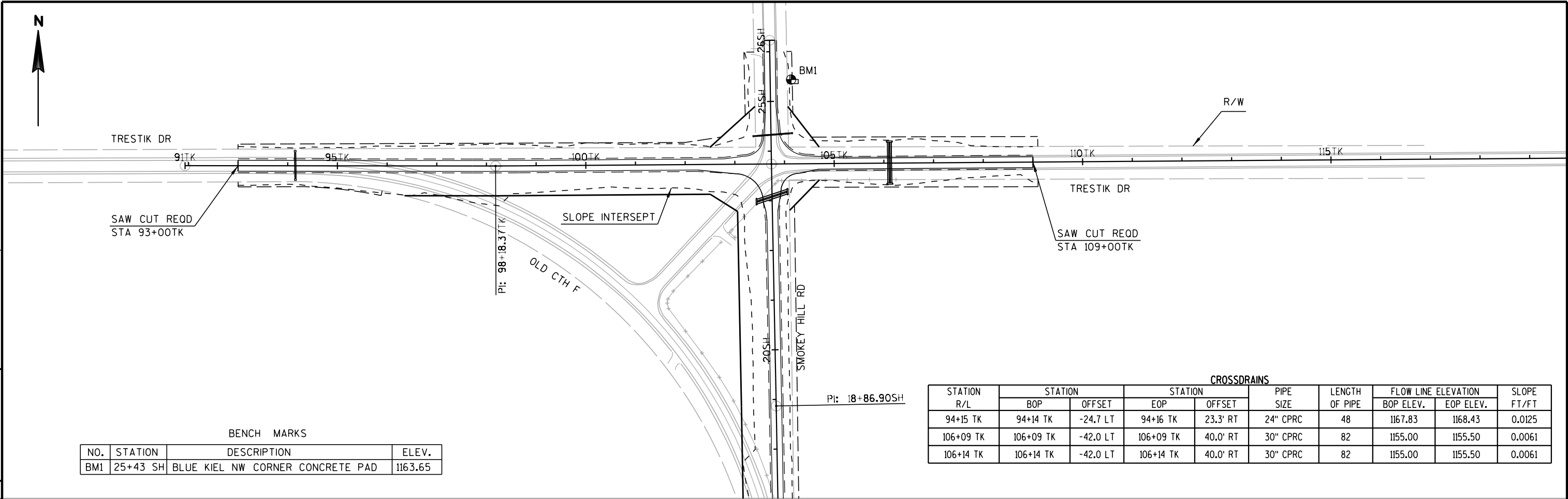
SEC-47	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-48	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-49	
County Coordinates	Y = 538110.000
X = 705775.364	

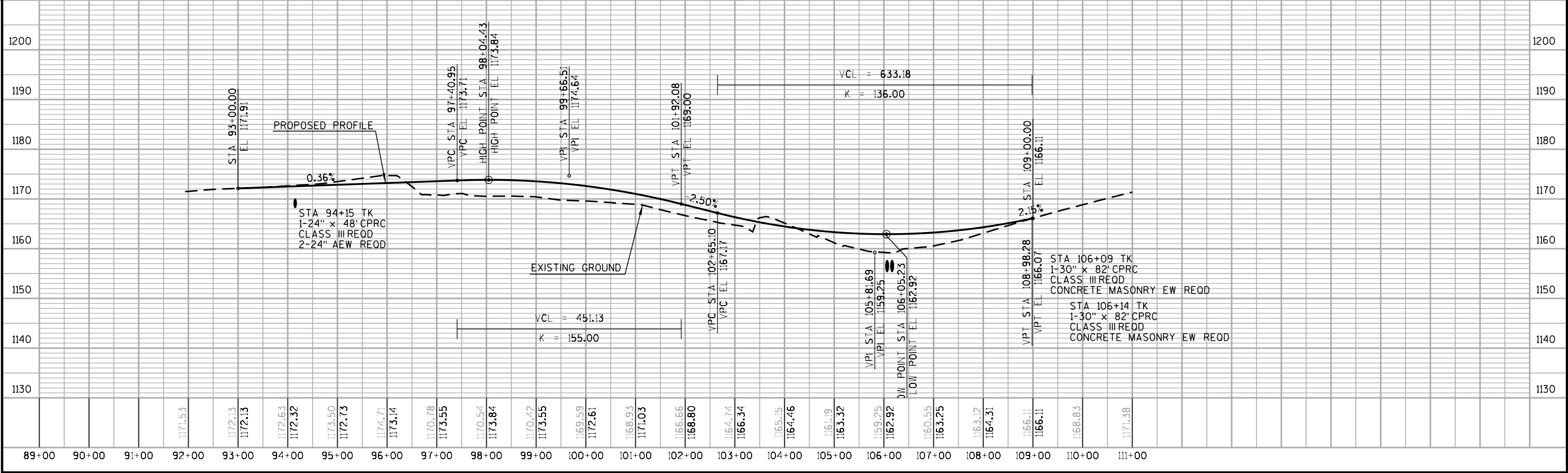
SEC-50	
County Coordinates	Y = 538110.000
X = 705775.364	

SEC-51	
County Coordinates	Y = 538110.000
X = 705775.364	



BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM1	25+43 SH	BLUE KIEL NW CORNER CONCRETE PAD	1163.65

STATION R/L	STATION		STATION		PIPE SIZE	LENGTH OF PIPE	FLOW LINE ELEVATION		SLOPE FT/FT
	BOP	OFFSET	EOP	OFFSET			BOP ELEV.	EOP ELEV.	
94+15 TK	94+14 TK	-24.7 LT	94+16 TK	23.3' RT	24" CPRC	48	1167.83	1168.43	0.0125
106+09 TK	106+09 TK	-42.0 LT	106+09 TK	40.0' RT	30" CPRC	82	1155.00	1155.50	0.0061
106+14 TK	106+14 TK	-42.0 LT	106+14 TK	40.0' RT	30" CPRC	82	1155.00	1155.50	0.0061





SMOKEY HILL RD

SAW CUT REOD
STA 11+00SH

105H

SLOPE INTERSEPT

PI: 18+86.00SH

SMOKEY HILL RD

OLD CTH F

TRESTIK DR

TRESTIK DR

SAW CUT REOD
STA 26+23SH

SMOKEY HILL RD

R/W

CONC

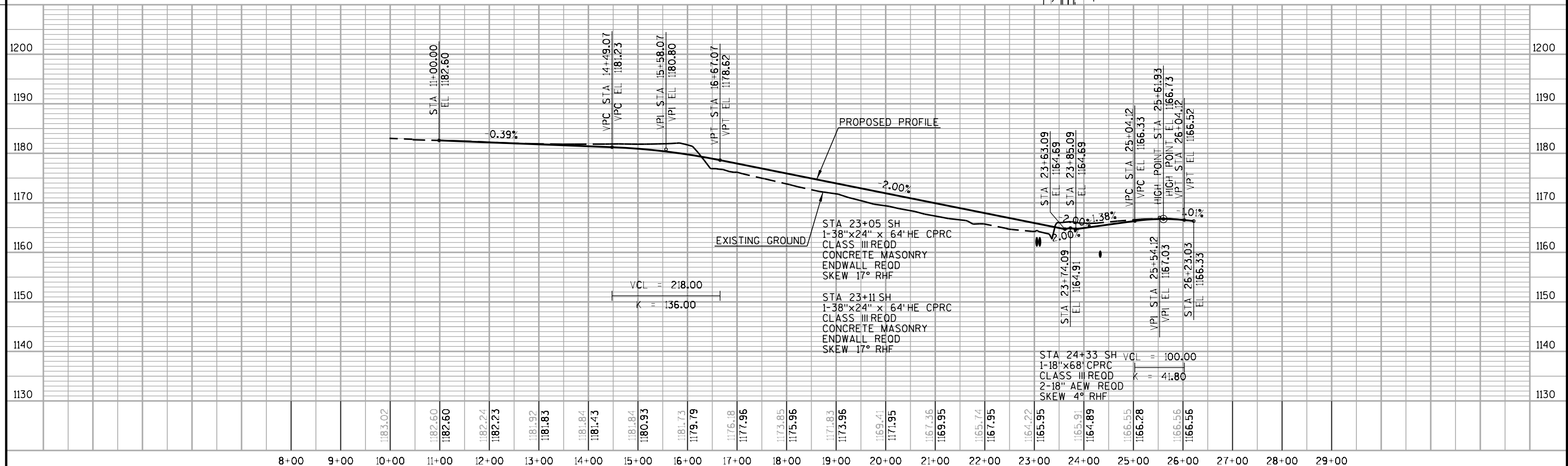
BM1

CROSSDRAINS

STATION R/L	STATION		STATION		PIPE SIZE	LENGTH OF PIPE	FLOW LINE ELEVATION		SLOPE FT/FT
	BOP	OFFSET	EOP	OFFSET			BOP ELEV.	EOP ELEV.	
23+05 SH	22+96 SH	-30.6 LT	23+15 SH	30.6' RT	38"x24" HE CPRC	64	1161.24	1161.00	0.0038
23+11 SH	23+02 SH	-30.6 LT	23+21 SH	30.6' RT	38"x24" HE CPRC	64	1161.24	1161.00	0.0038
24+33 SH	24+31 SH	-30.4 LT	24+35 SH	37.5' RT	18" CPRC	68	1159.60	1158.00	0.0235

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM1	25+43 SH	BLUE KIEL NW CORNER CONCRETE PAD	1163.65



PROJECT NO: 6350-07-84

HWY: USH 10

COUNTY: WOOD

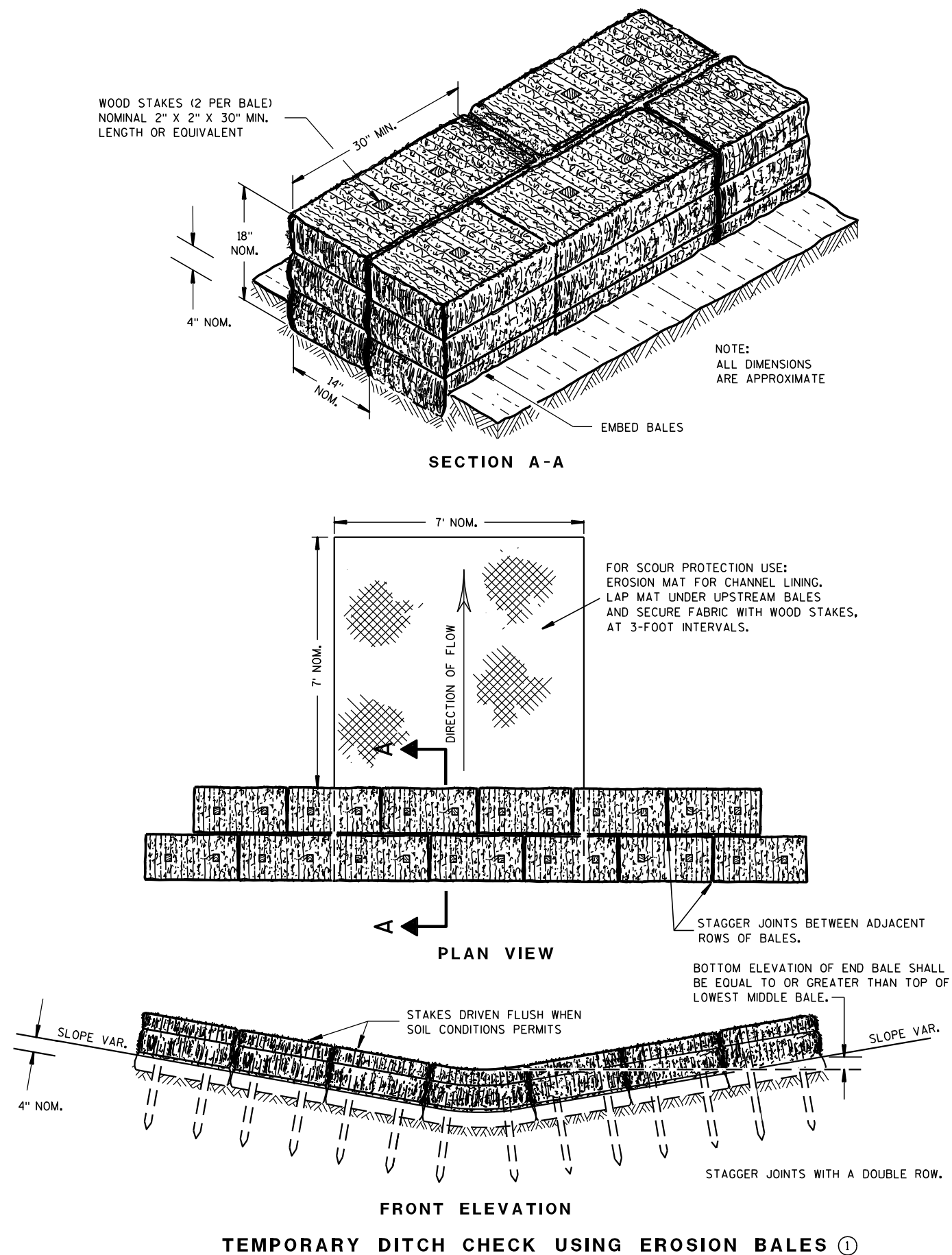
PLAN AND PROFILE - SMOKEY HILL RD

SHEET

E

Standard Detail Drawing List

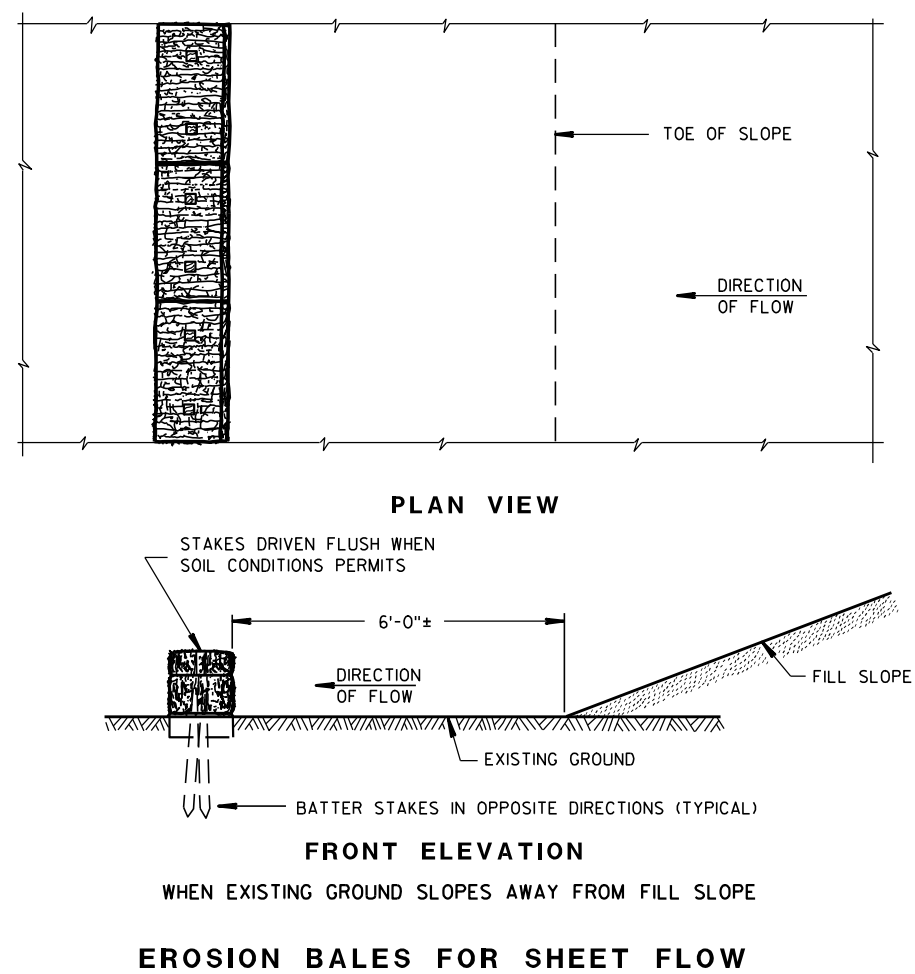
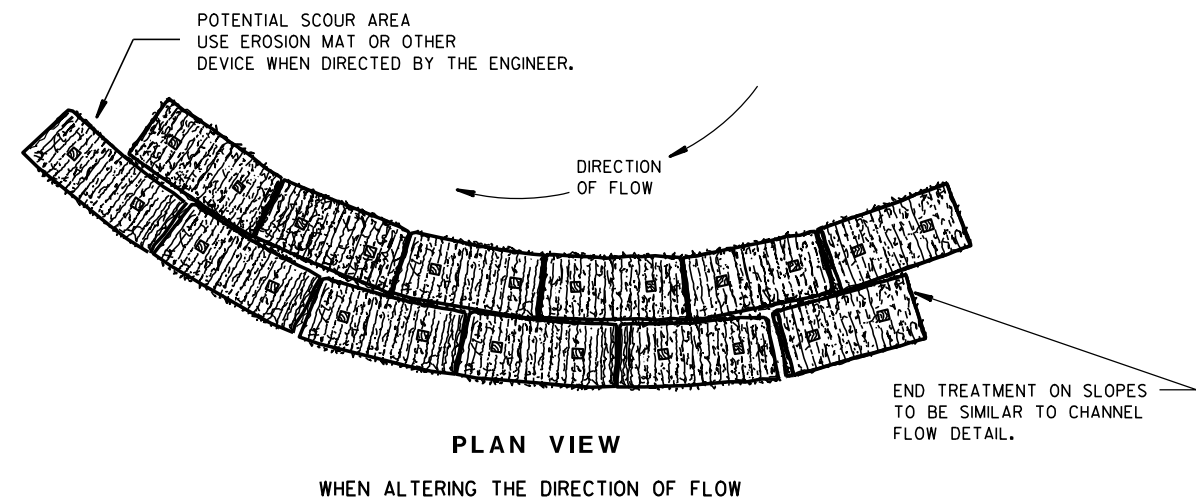
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)



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.

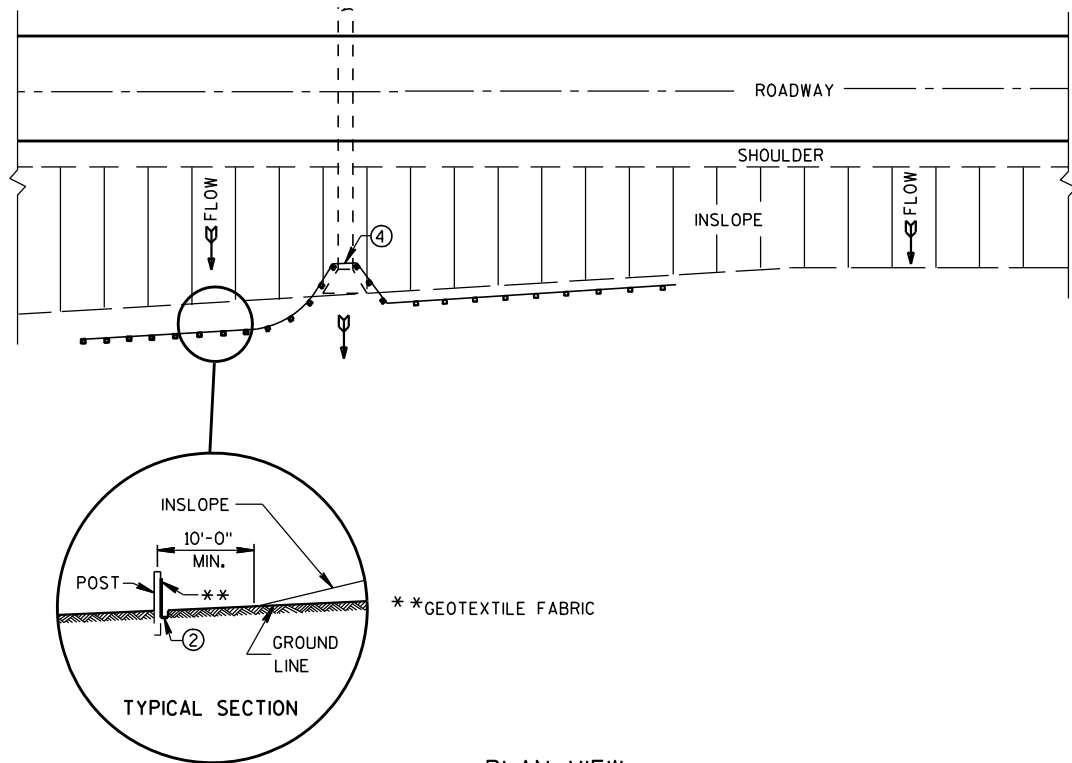
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

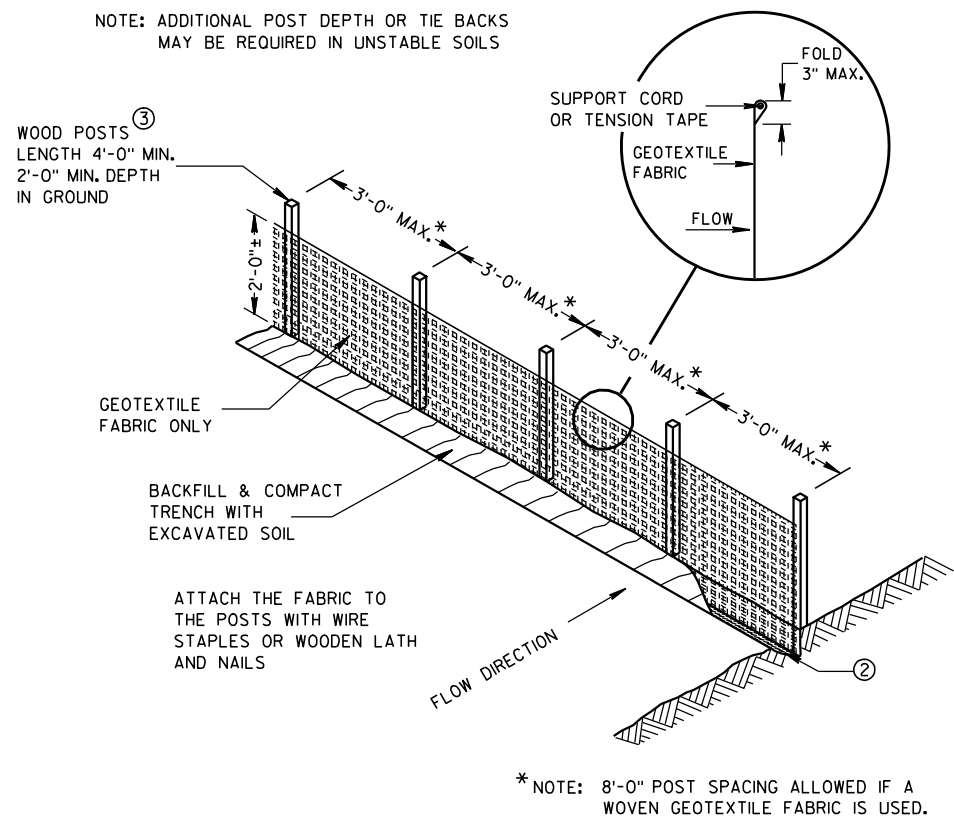
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

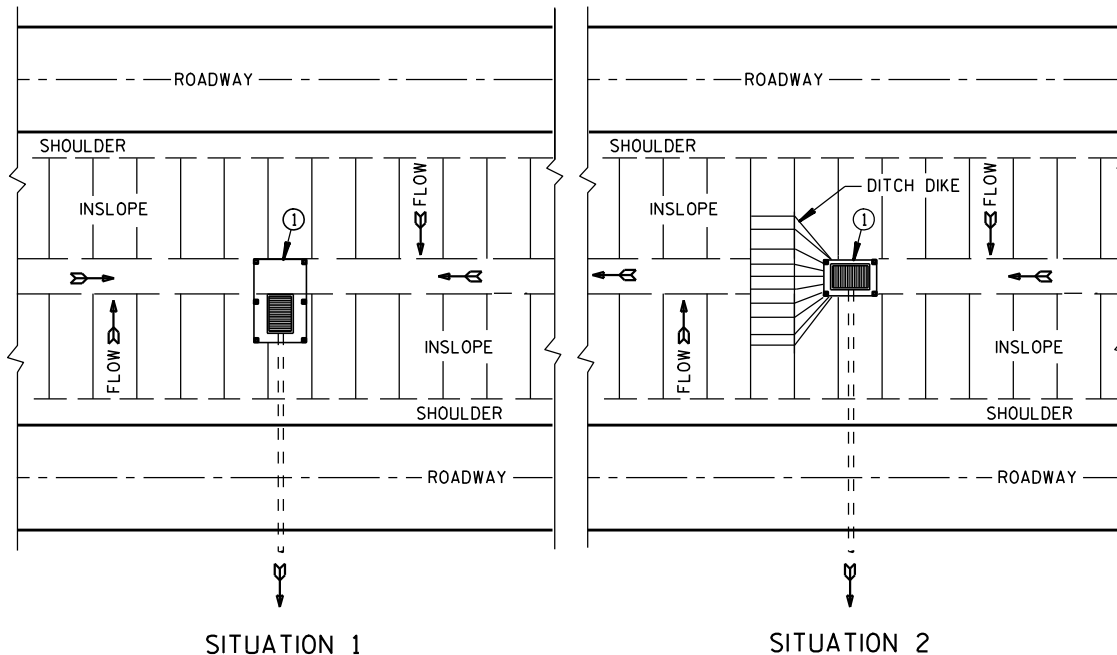
FHWA



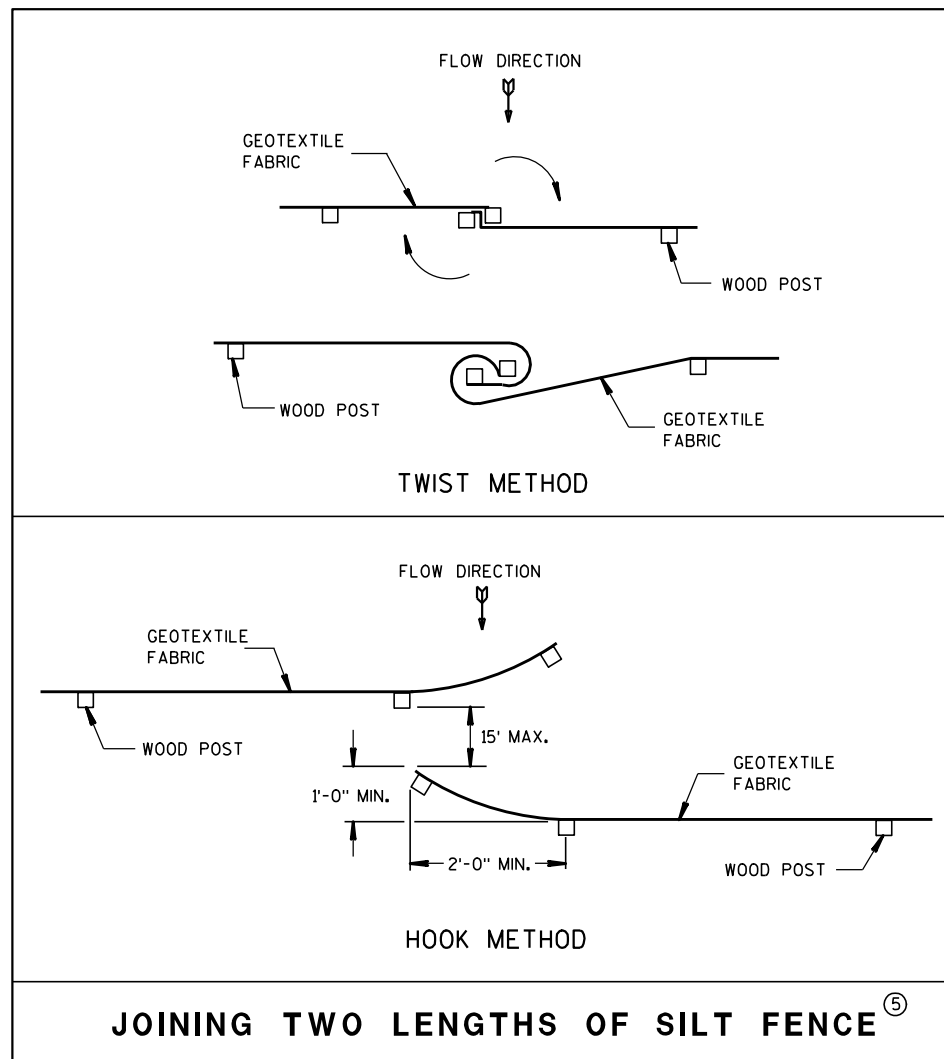
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

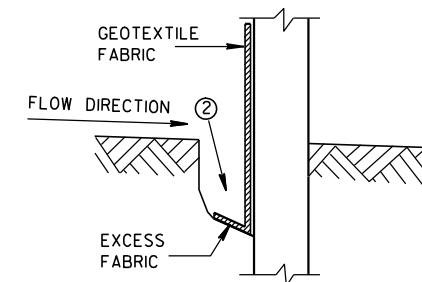


JOINING TWO LENGTHS OF SILT FENCE (5)

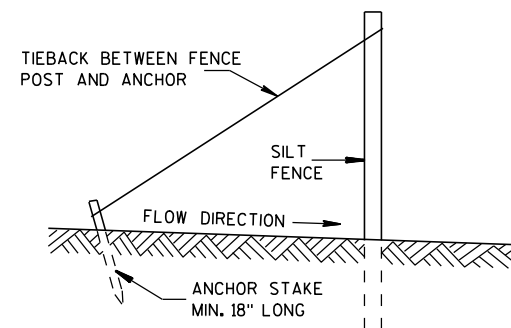
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

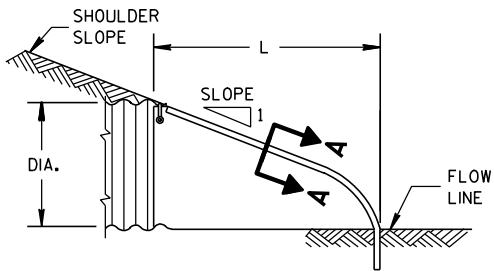
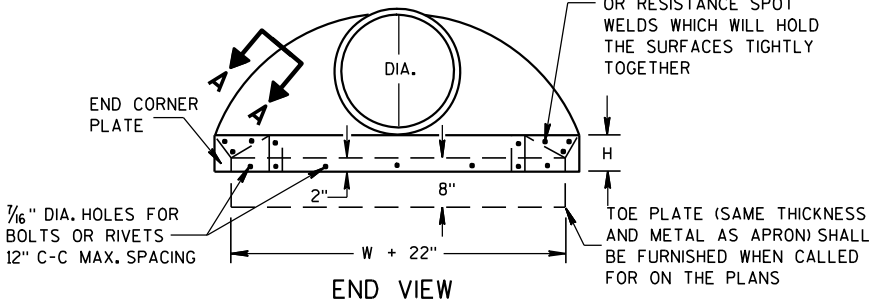
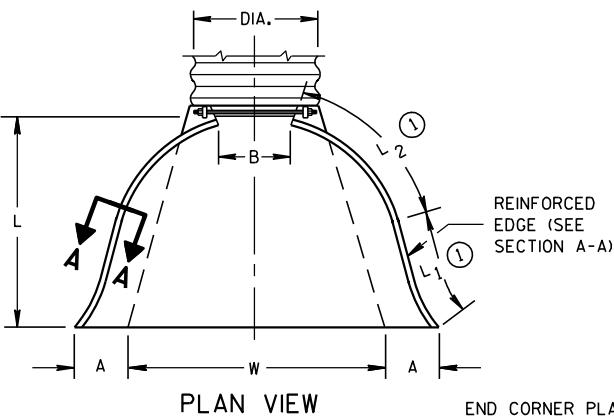
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Canestra
DATE CHIEF ROADWAY DEVELOPMENT 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")	L1 ①	L2 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.

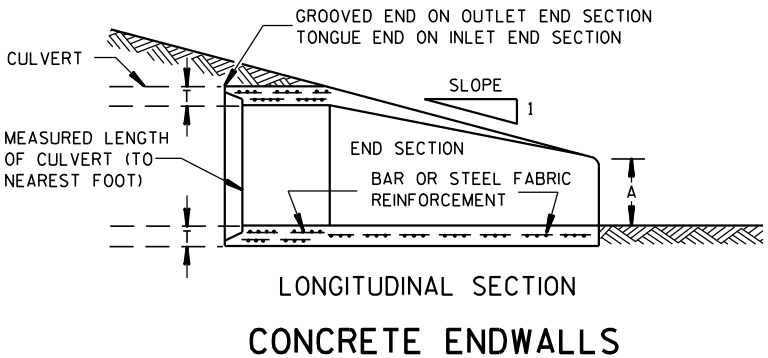
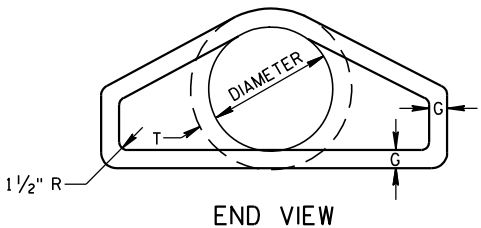
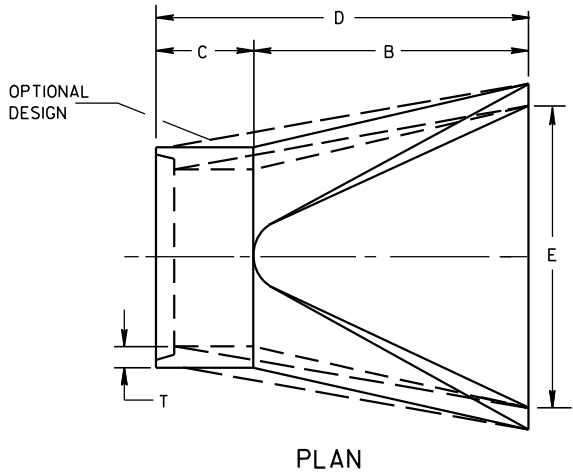
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



METAL ENDWALLS

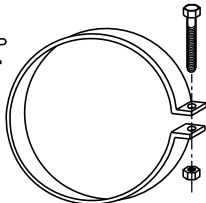
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 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

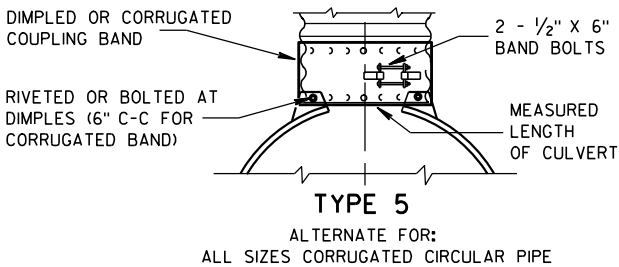
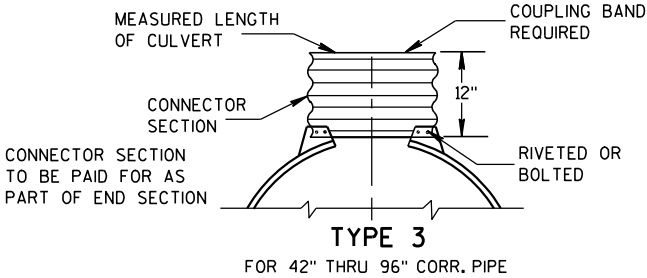
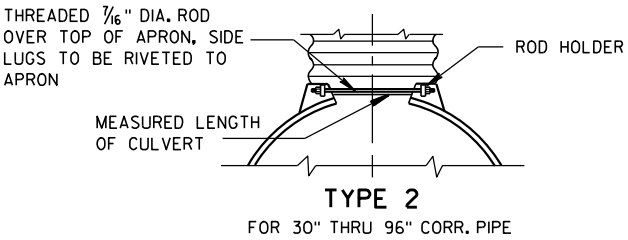
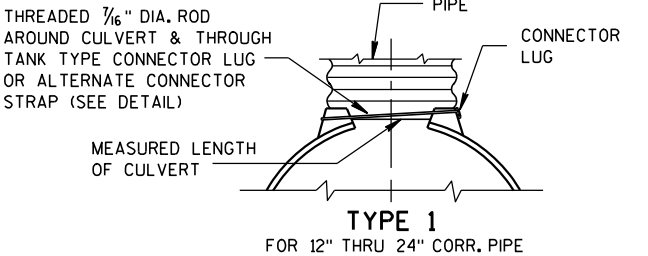


CONCRETE ENDWALLS

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



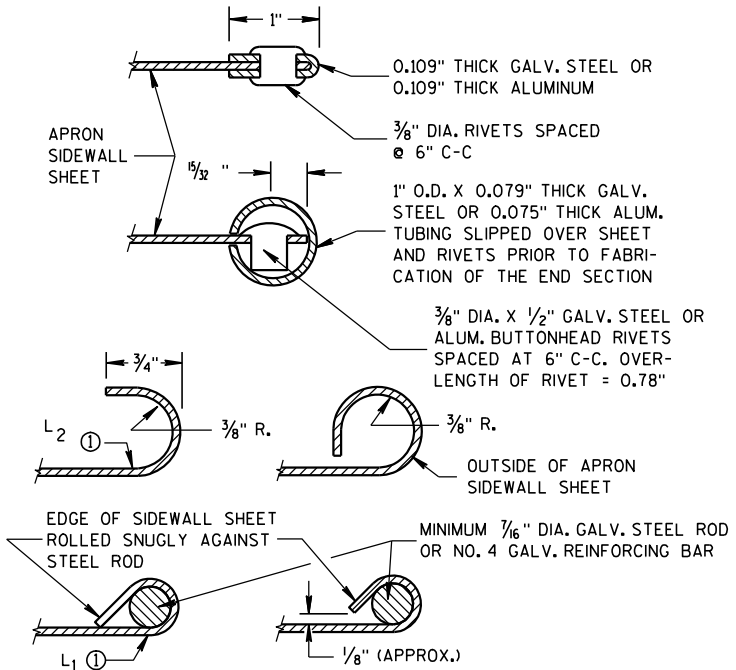
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



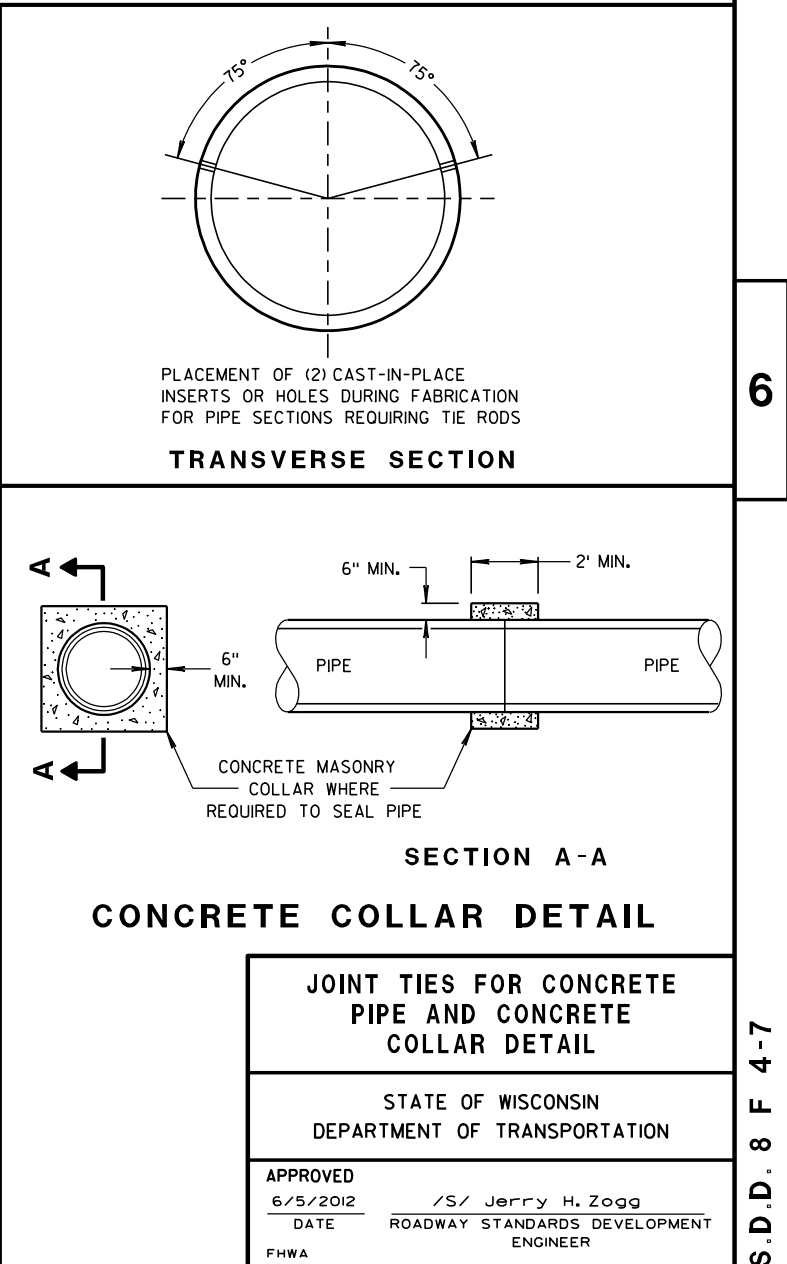
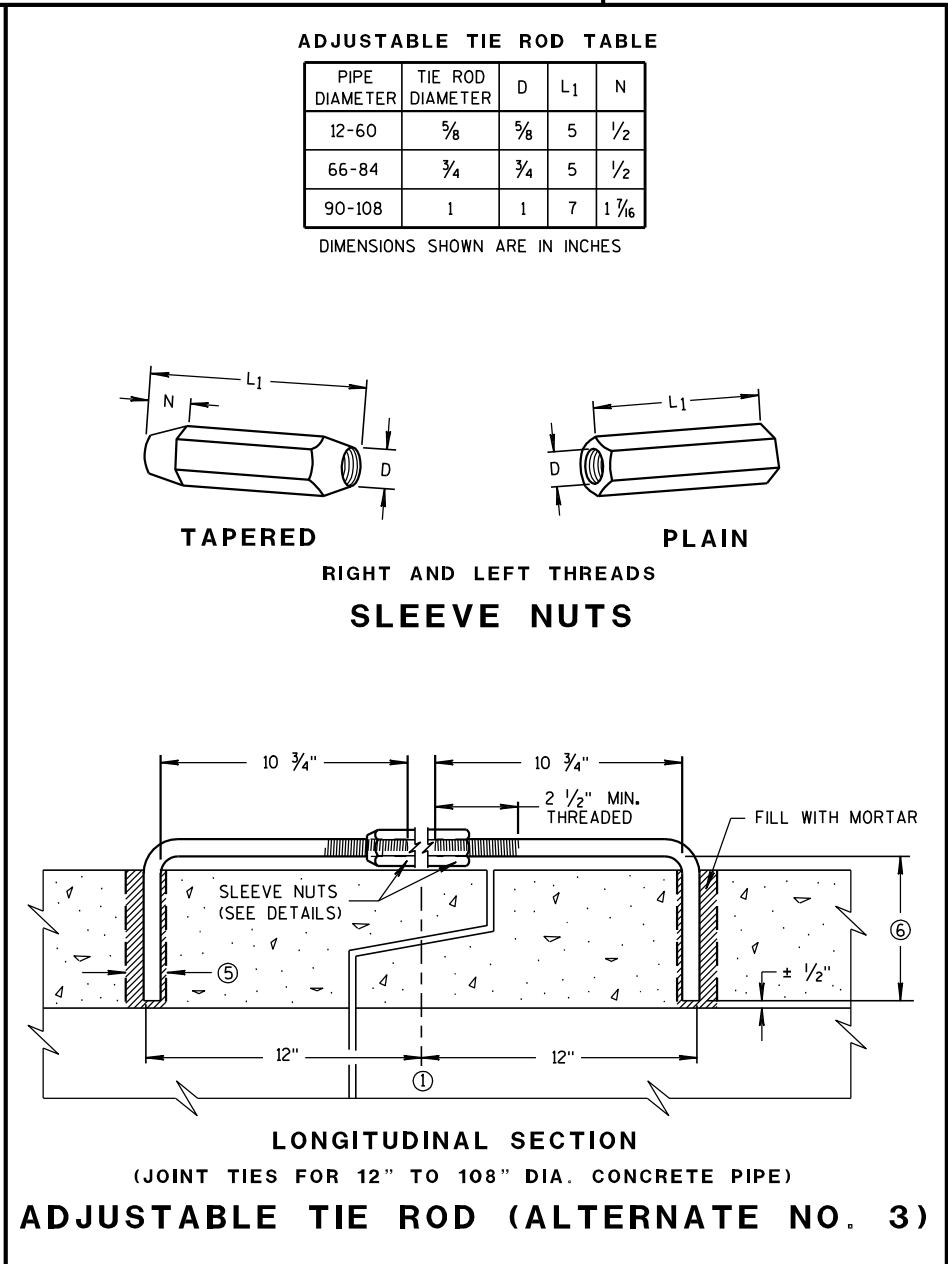
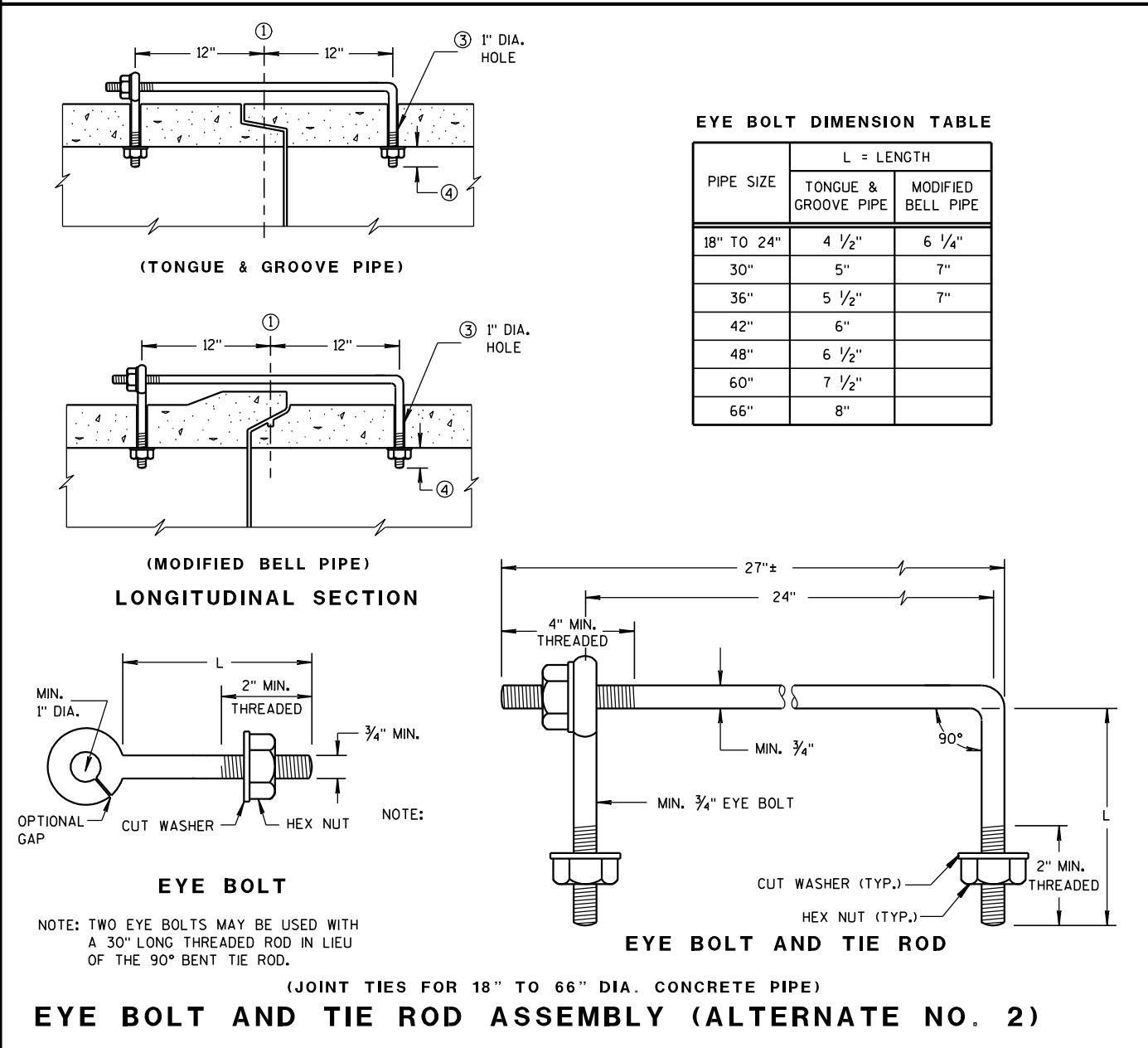
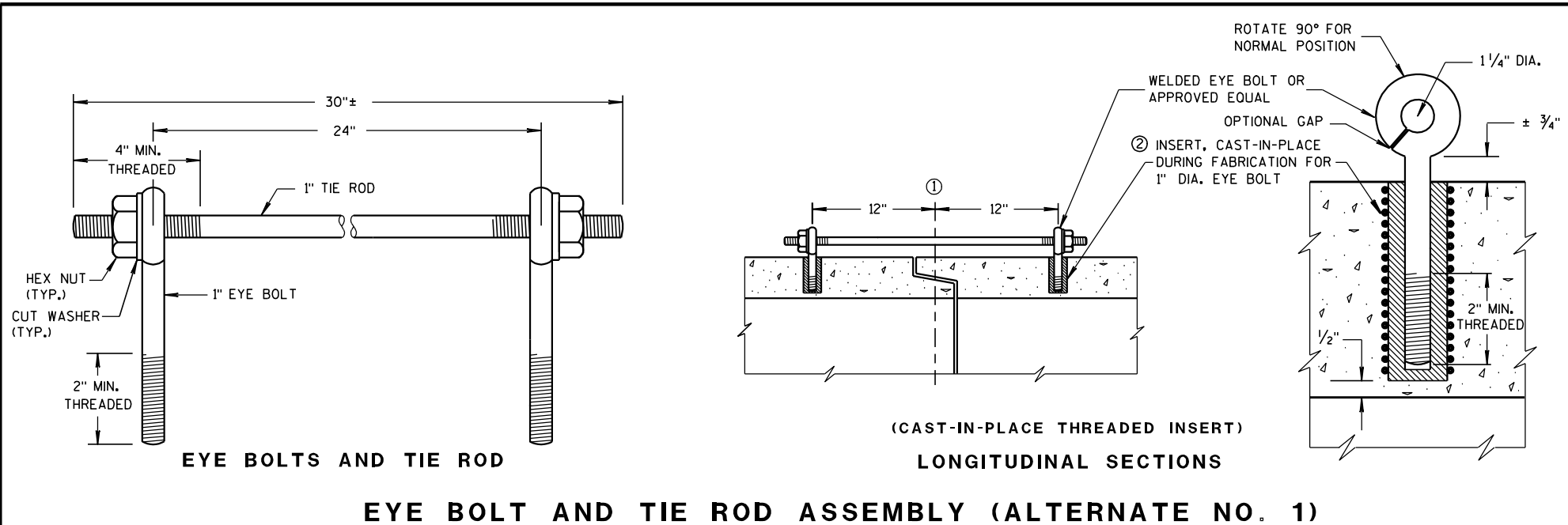
GENERAL NOTES

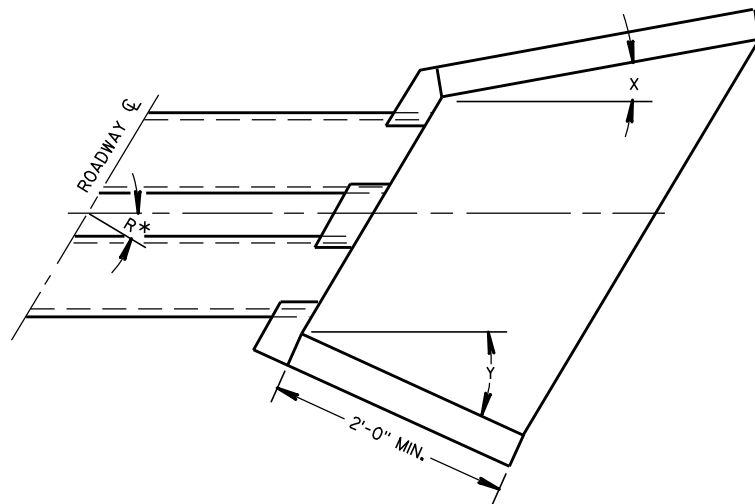
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED 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





WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

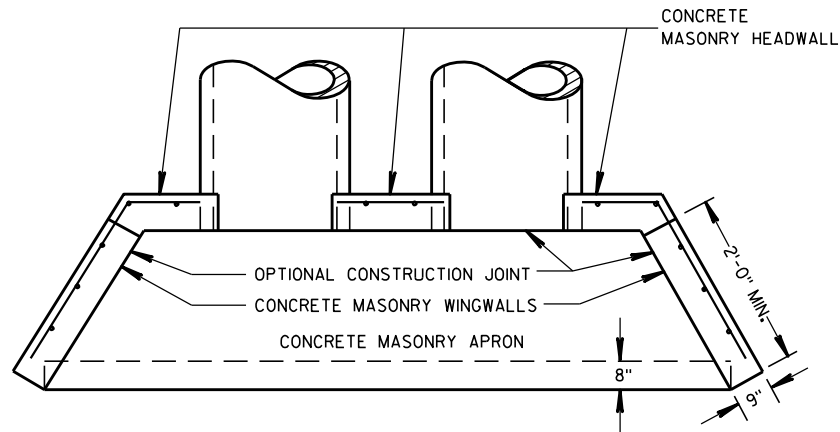
FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

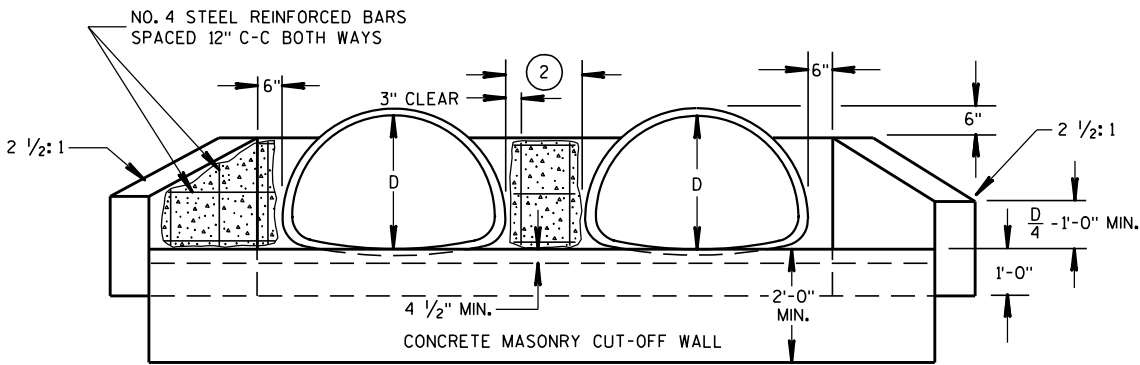
1 MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

2 THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

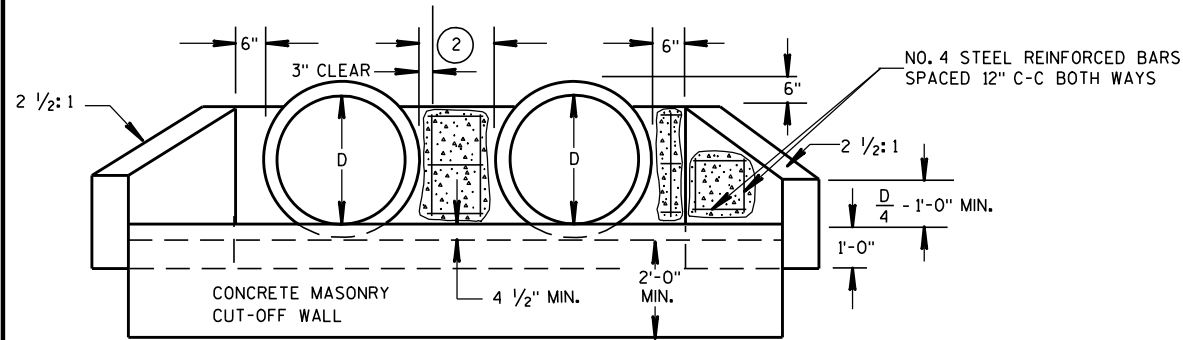
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



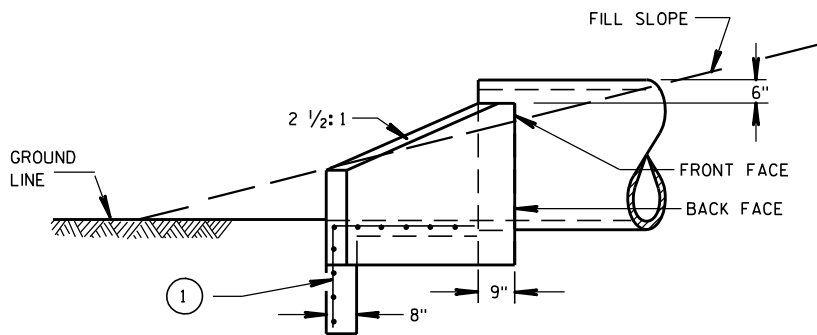
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE

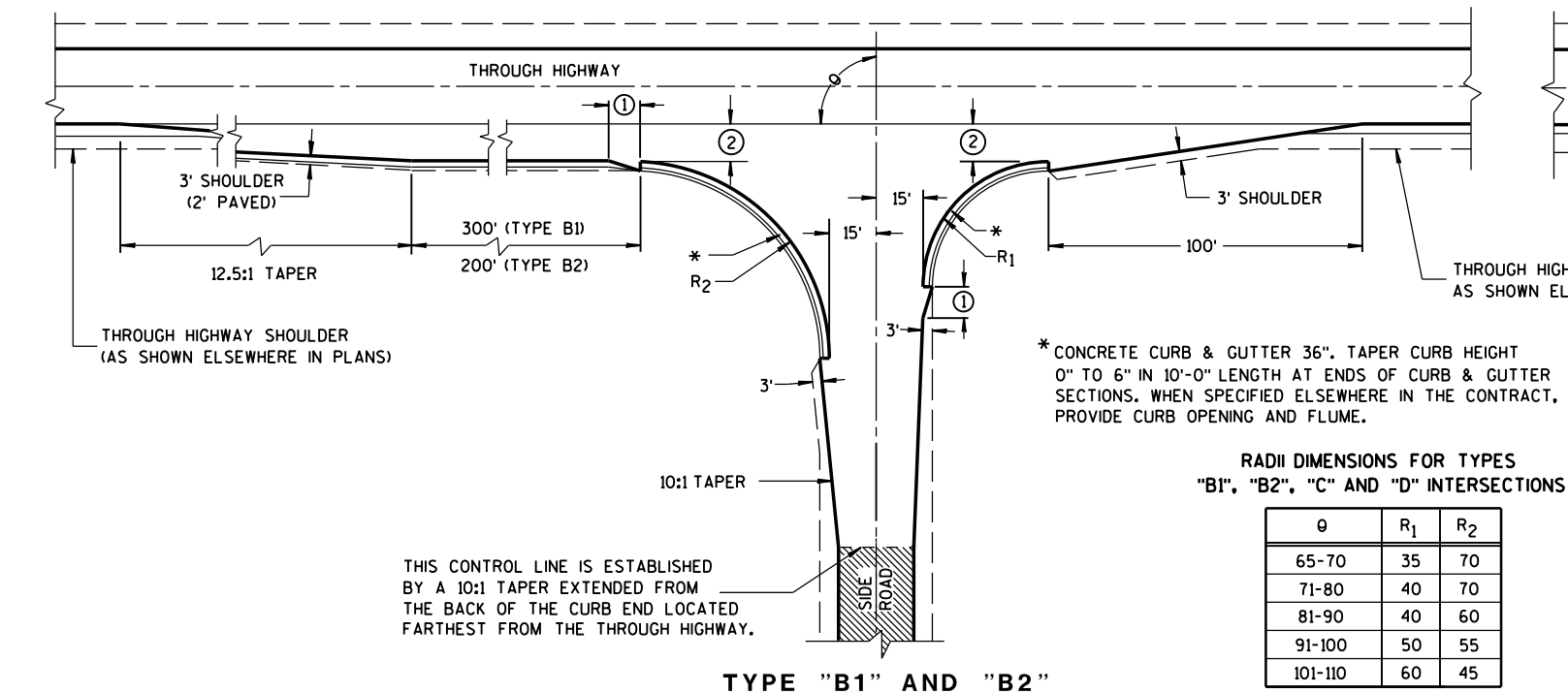


SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS
FOR CULVERT PIPE AND
PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/98 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



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.

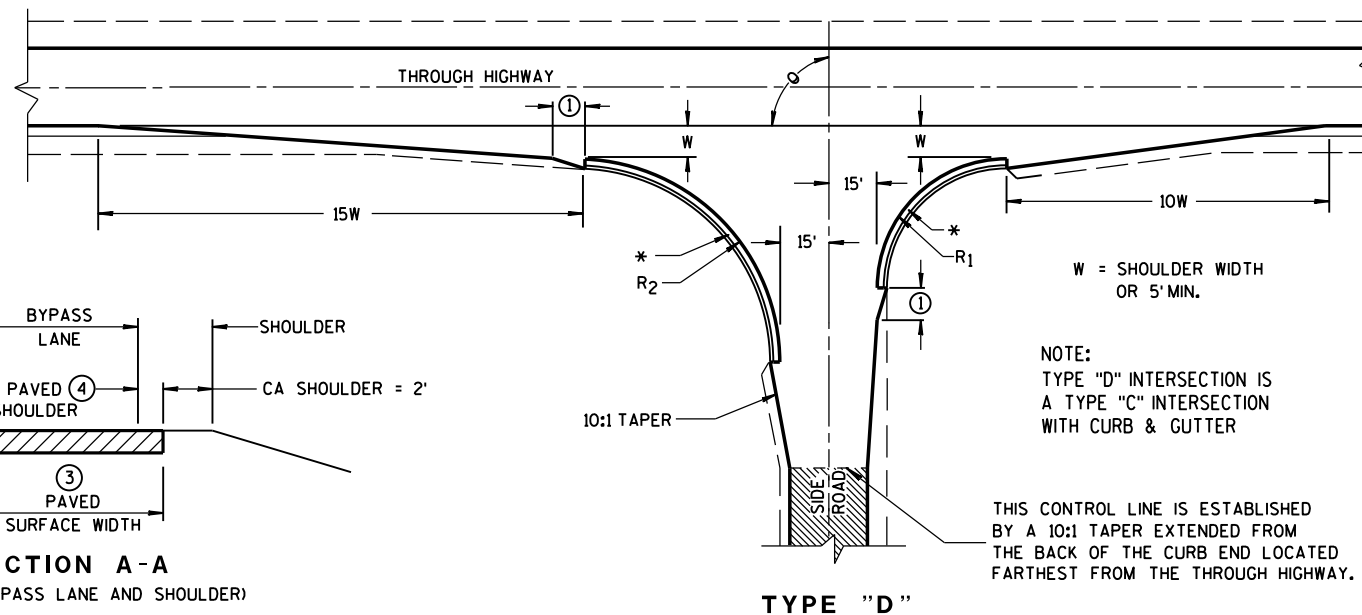
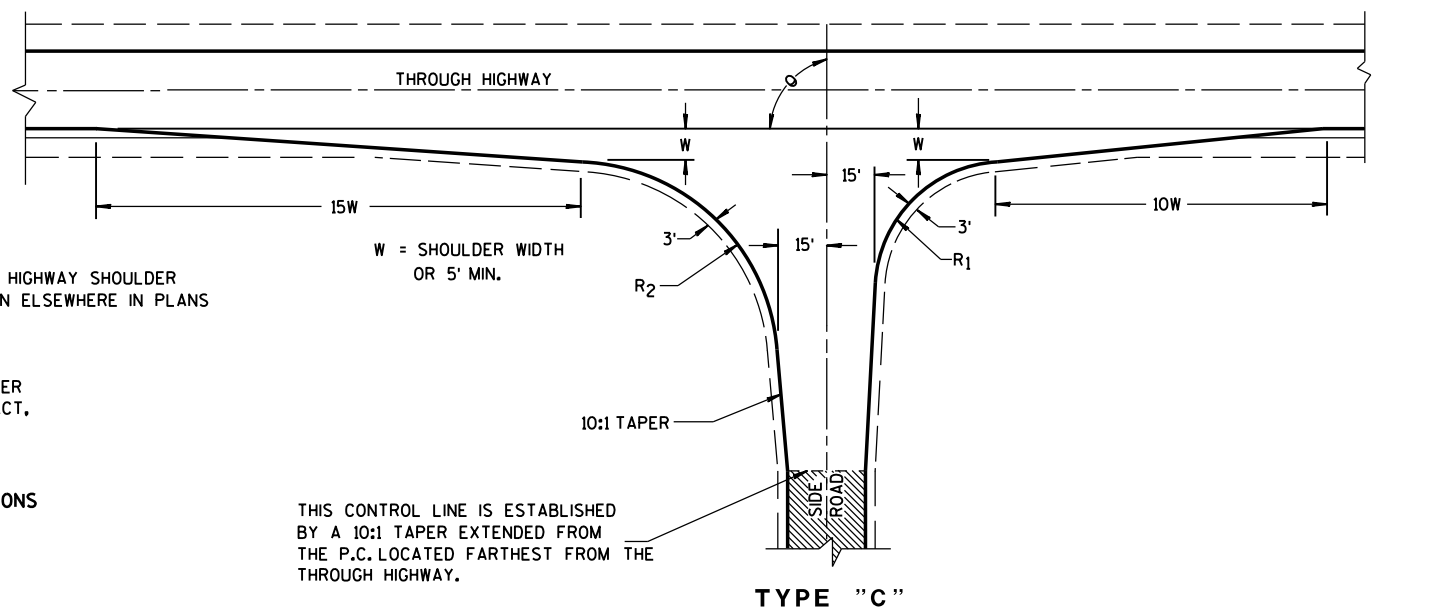
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

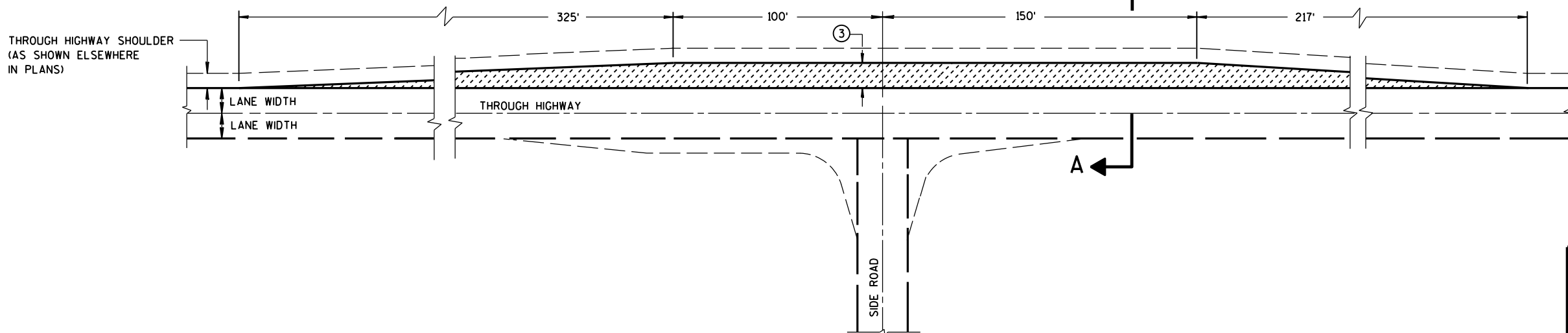
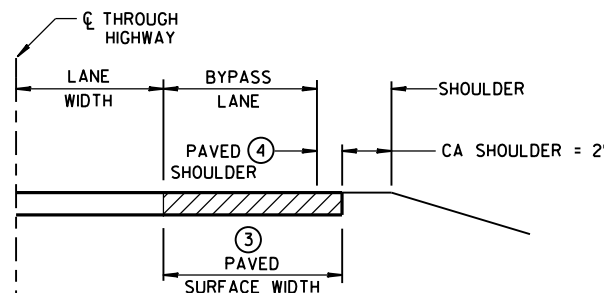
BYPASS LANE

- 10-FT TYPICAL.
- 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.
- BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



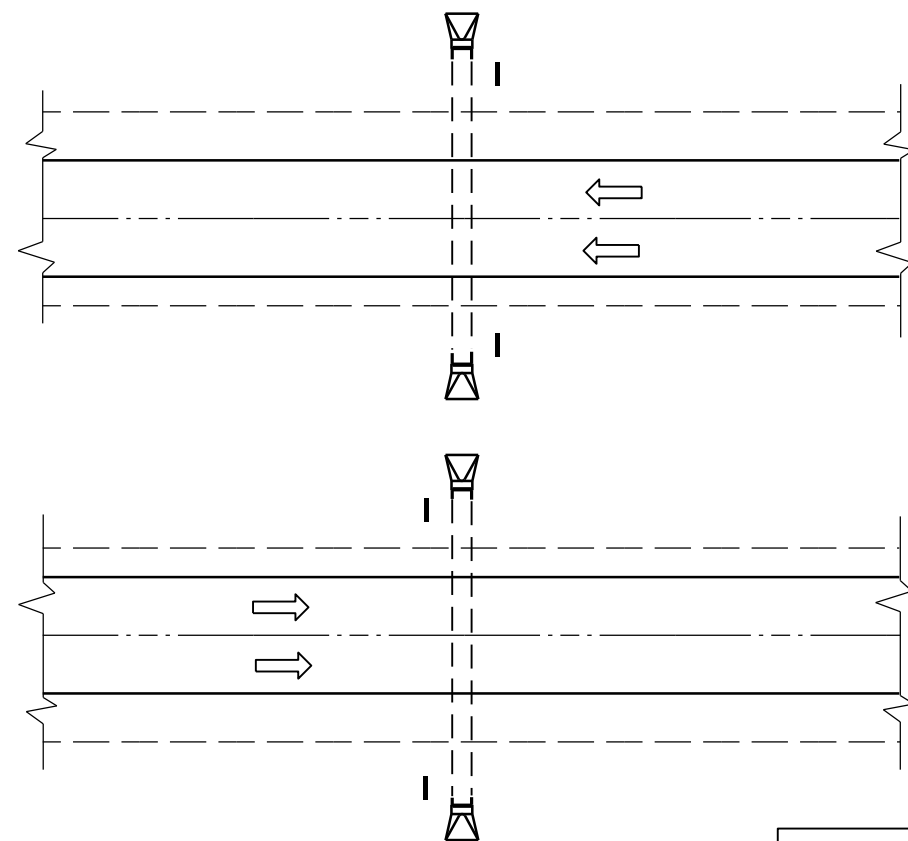
NOTE:
TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER



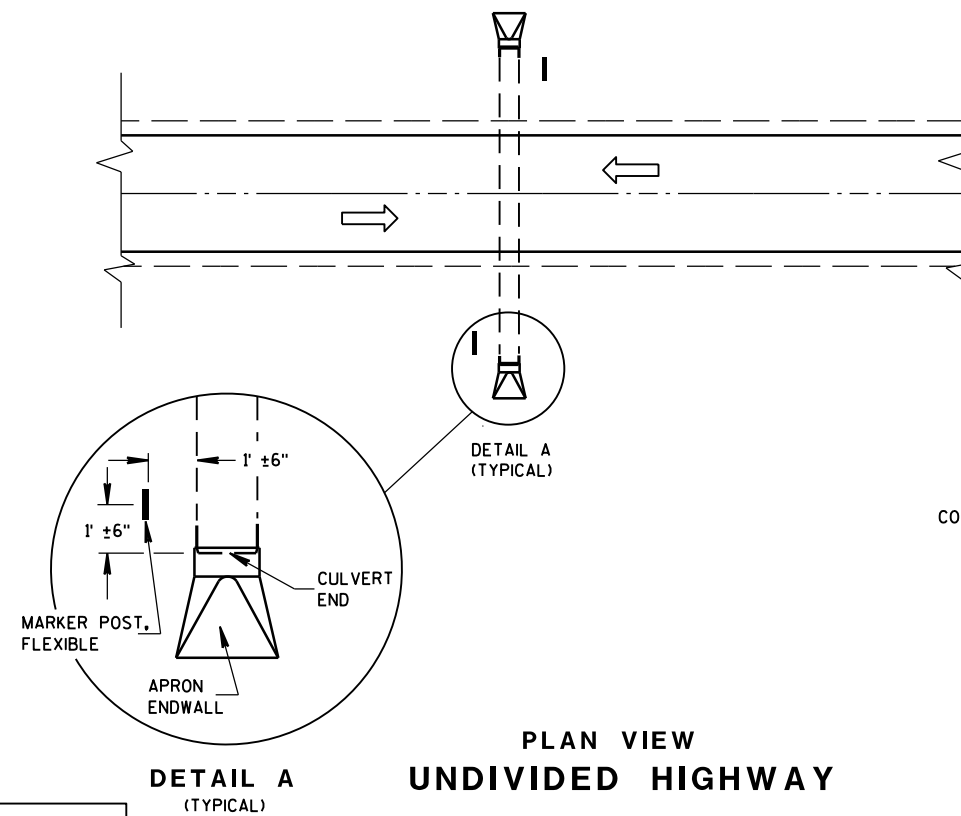
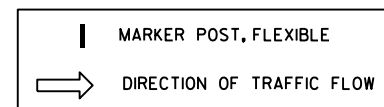
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
DIVIDED HIGHWAY

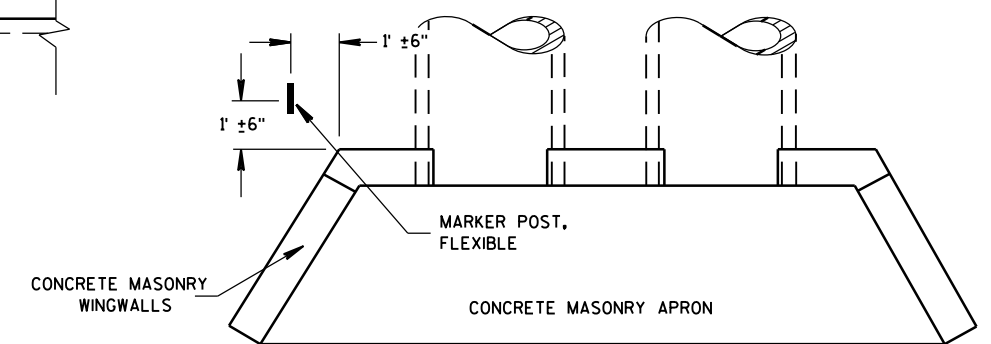


PLAN VIEW
UNDIVIDED HIGHWAY

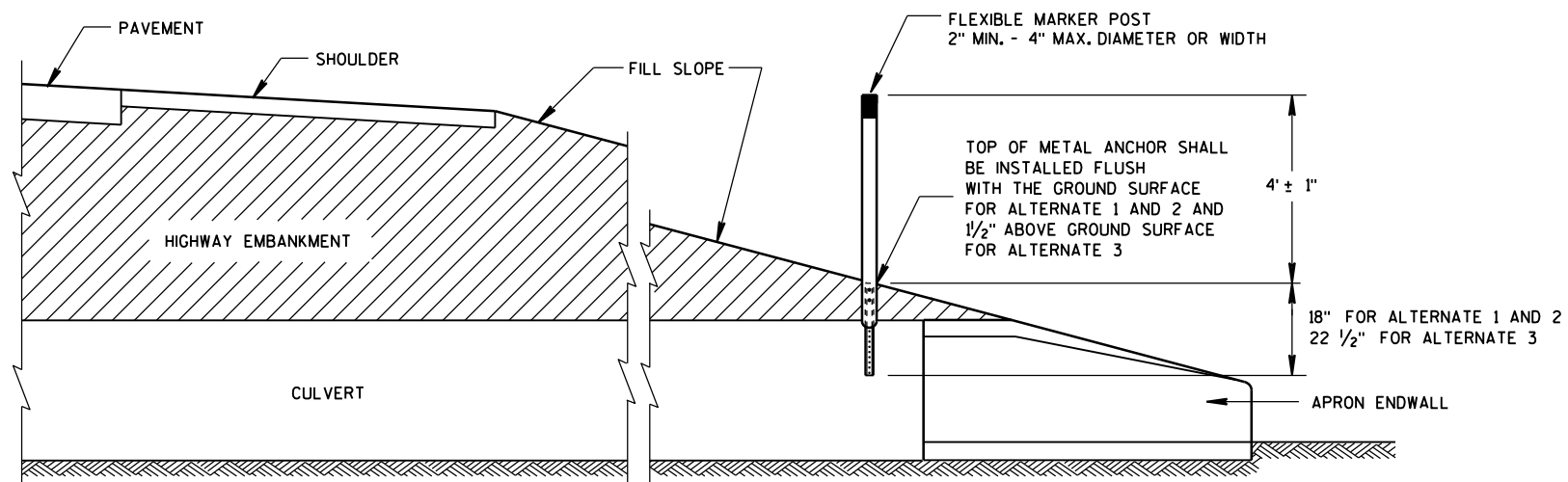
FLEXIBLE MARKER POST LOCATION

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.



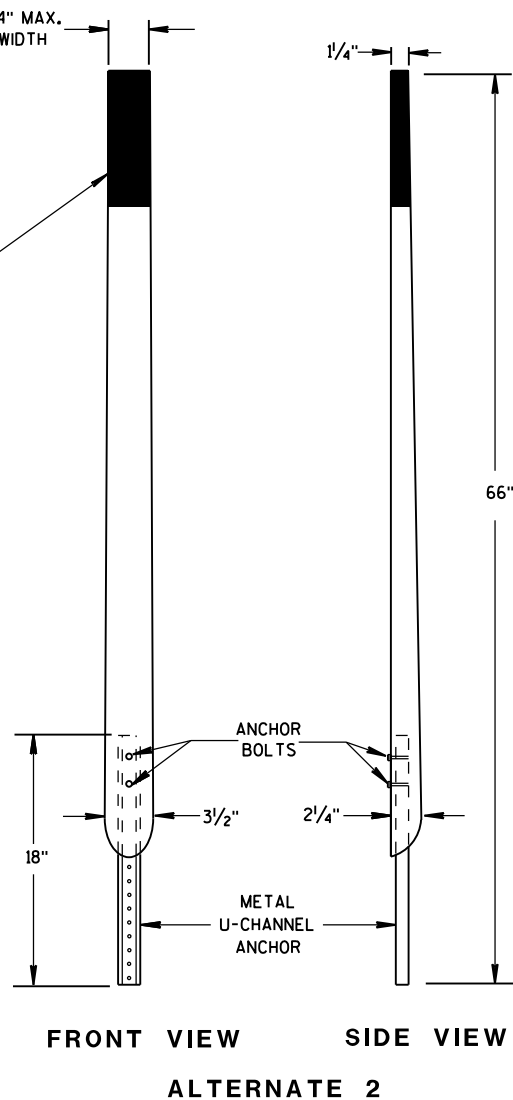
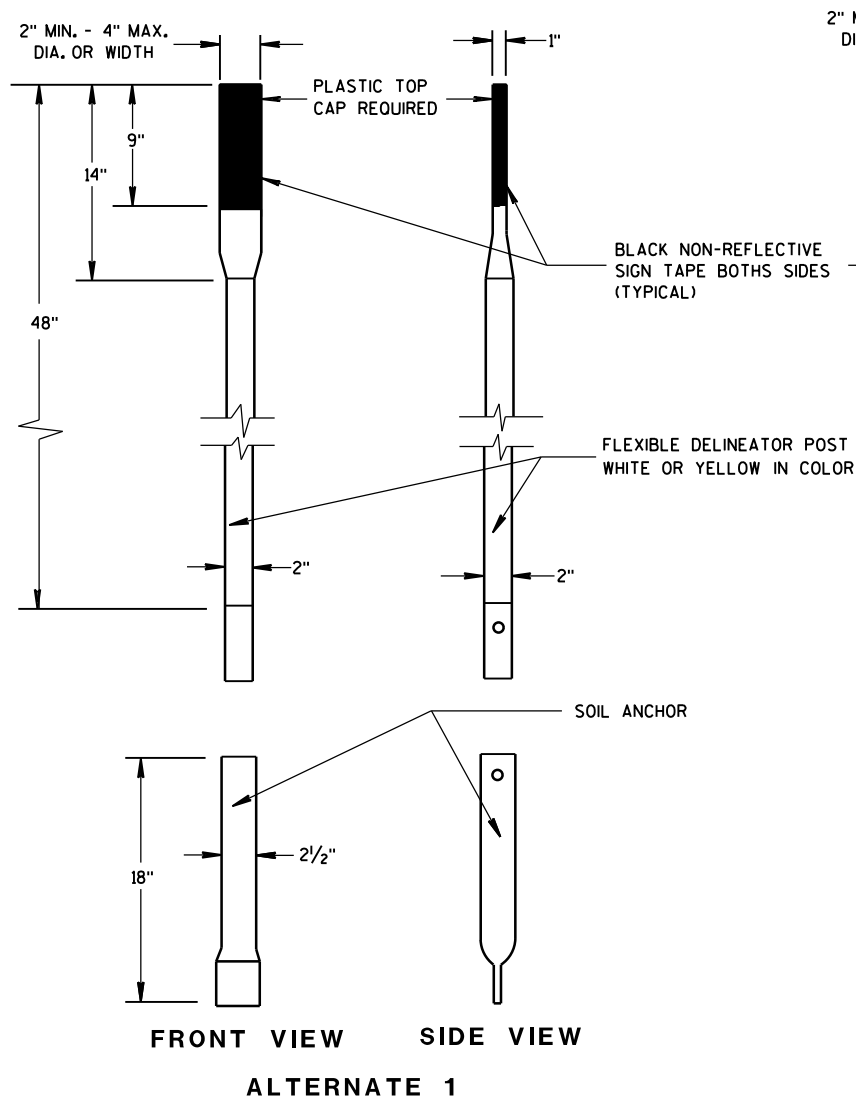
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



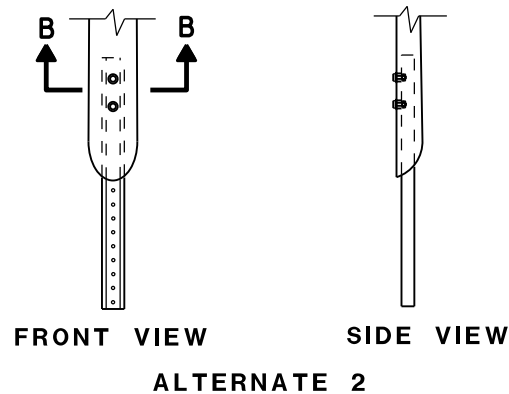
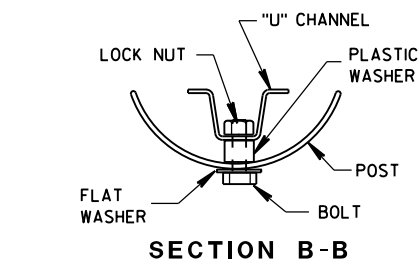
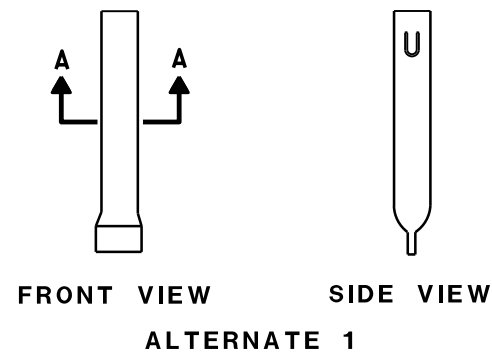
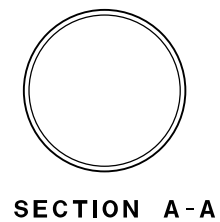
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

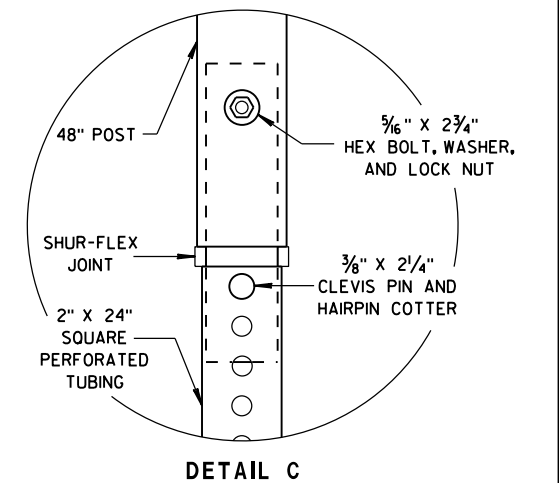
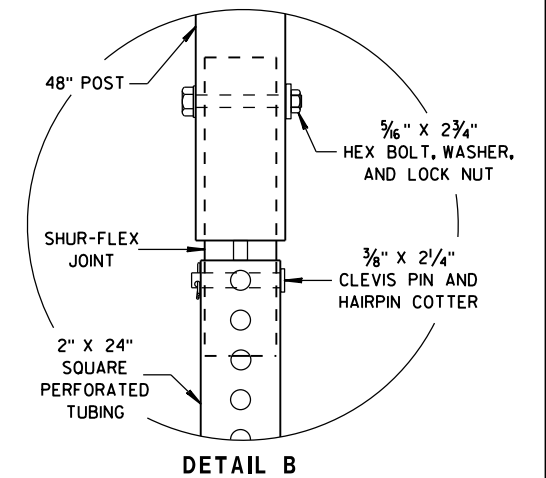
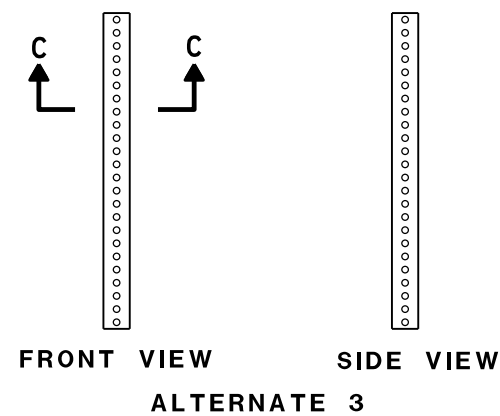
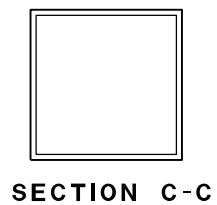
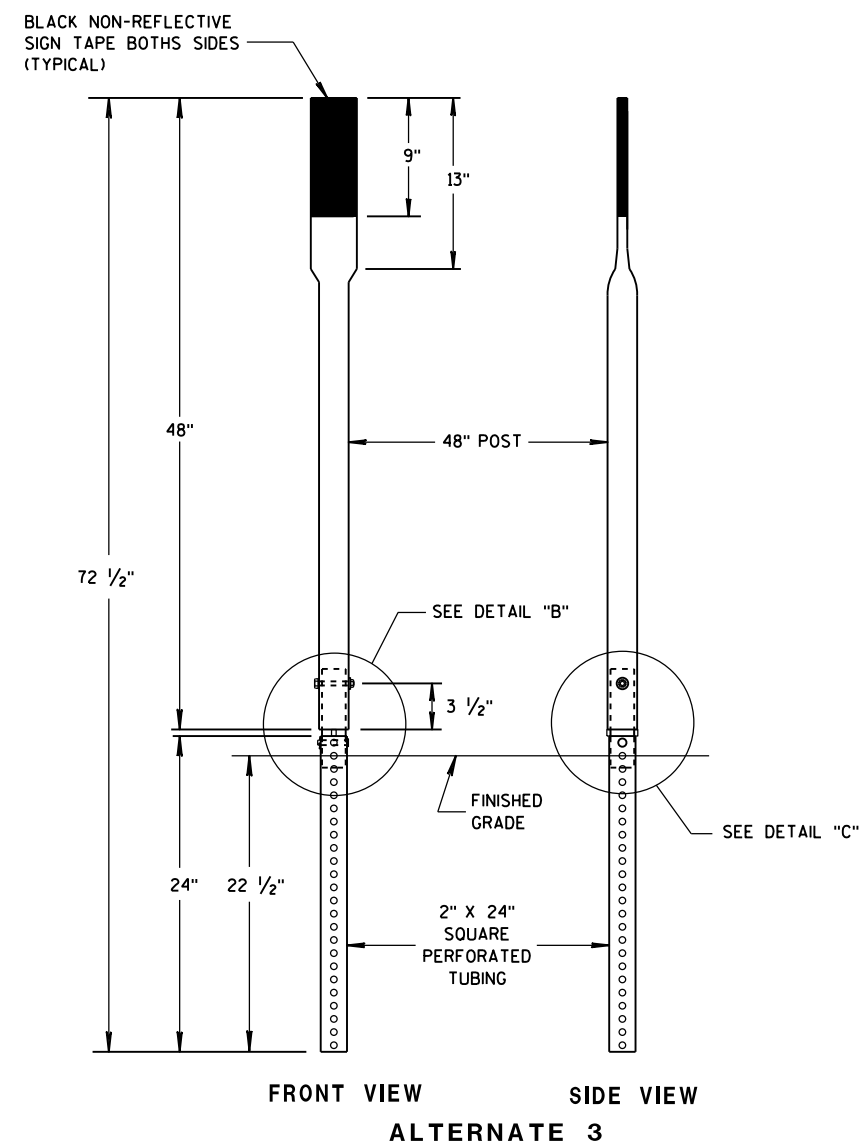
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FLEXIBLE MARKER POSTS



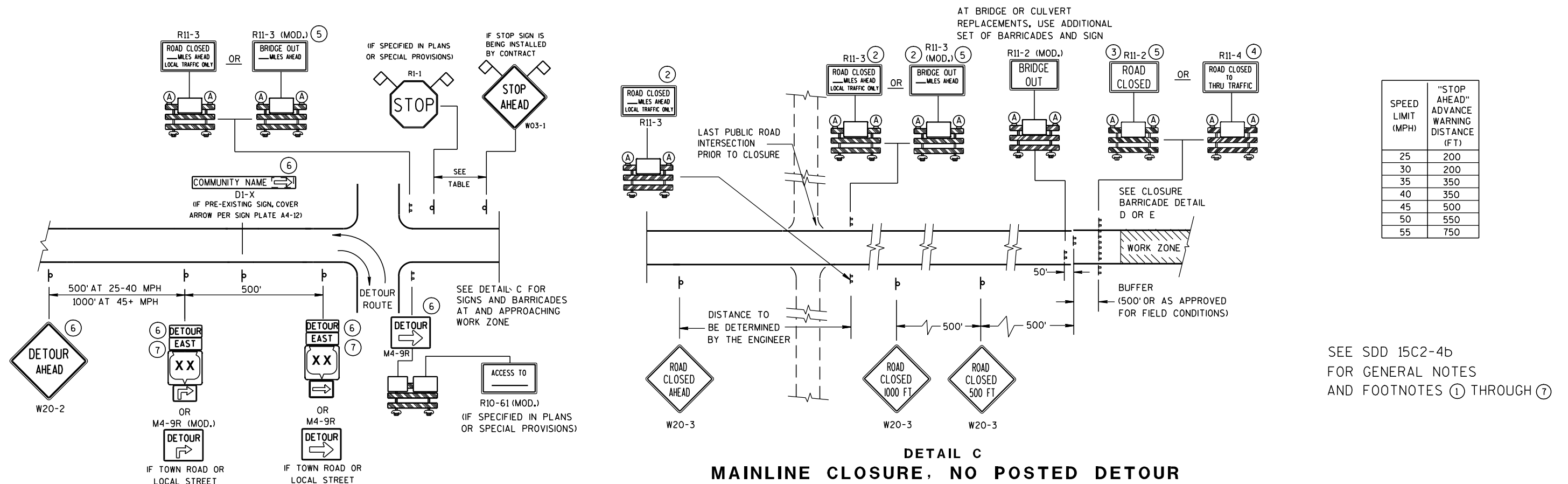
FLEXIBLE MARKER POST ANCHORS

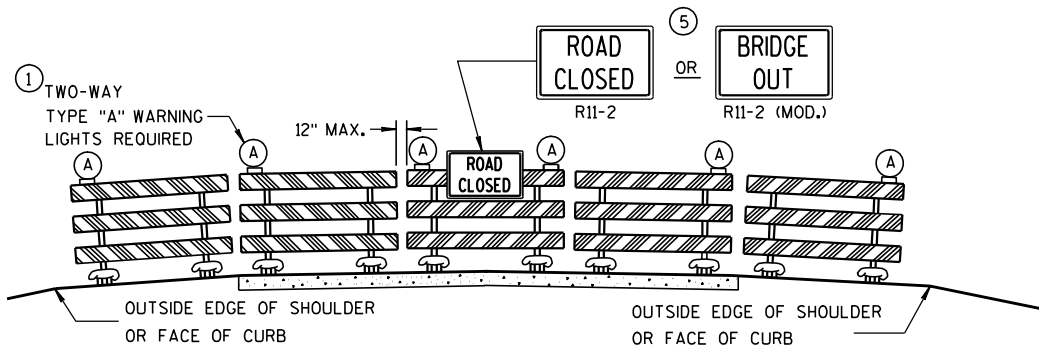


FLEXIBLE MARKER POST FOR CULVERT END

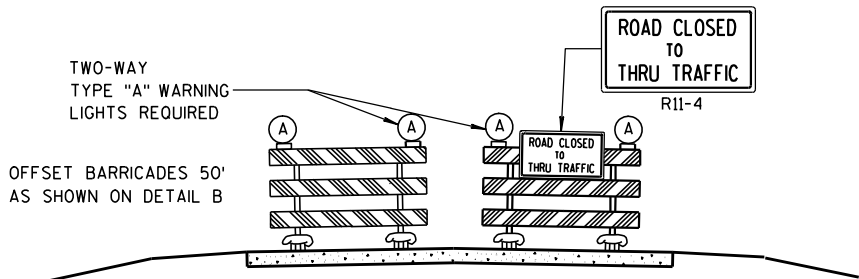
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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





DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

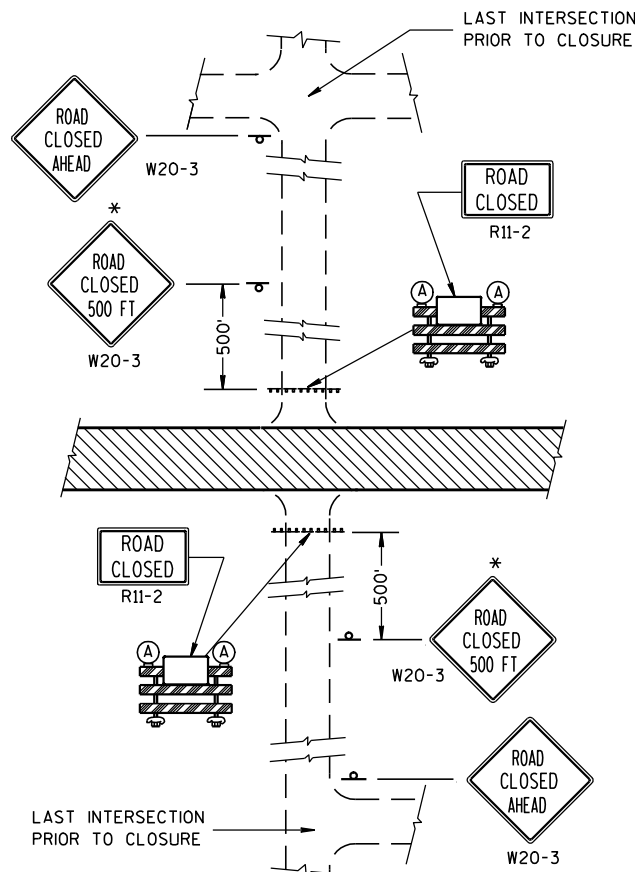
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

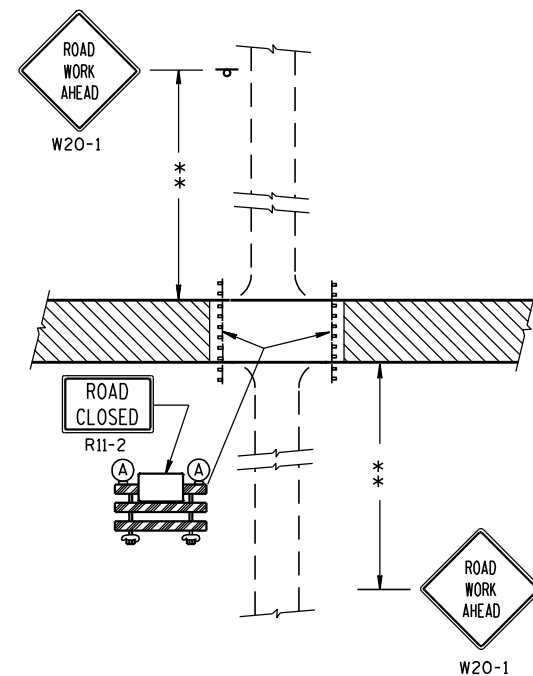
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE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

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

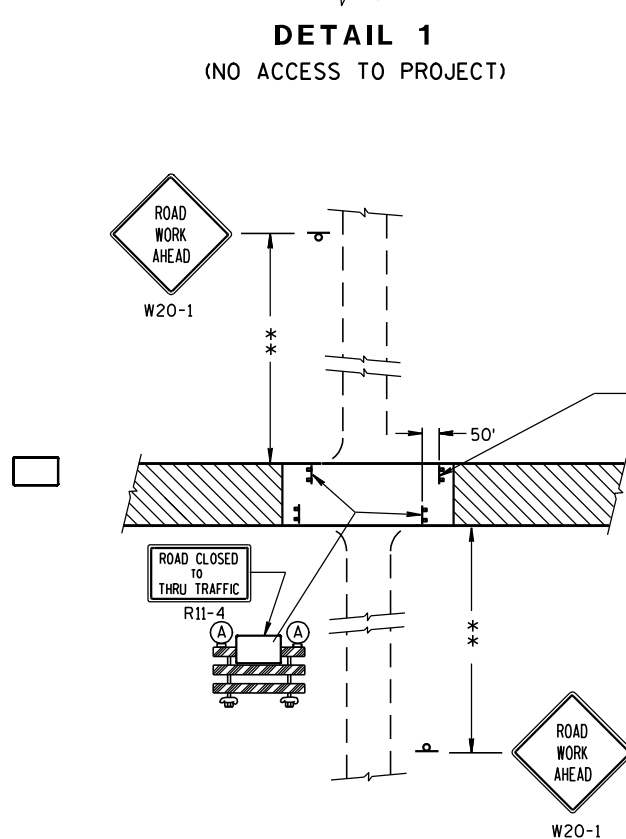
BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/16/03 DATE	/S/ Thomas N. Notbohm CHIEF SIGNS AND MARKING ENGINEER
FHWA	



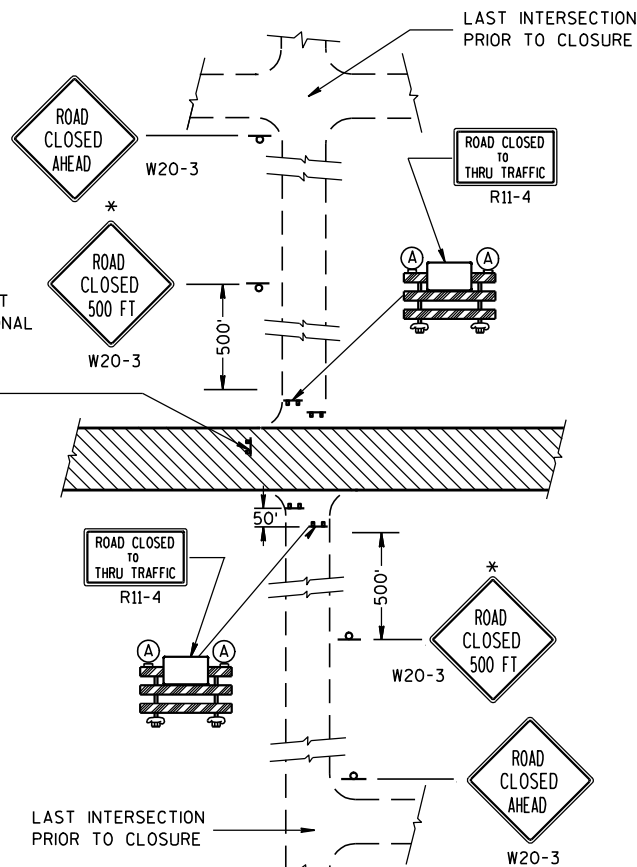
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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 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 RE-ESTABLISHED.

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 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

⌋ POST MOUNTED WARNING SIGN

⌋ TYPE III BARRICADES

Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

▨ WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

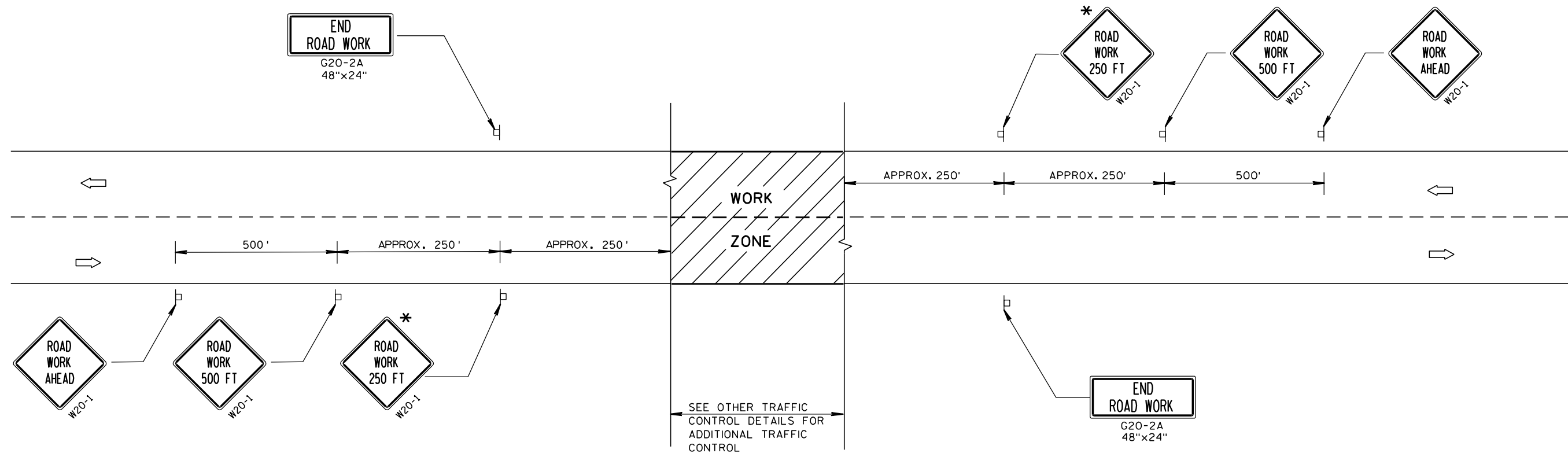
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03
DATE

/S/ Thomas N. Notbohm
CHIEF SIGNS AND MARKING ENGINEER

FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

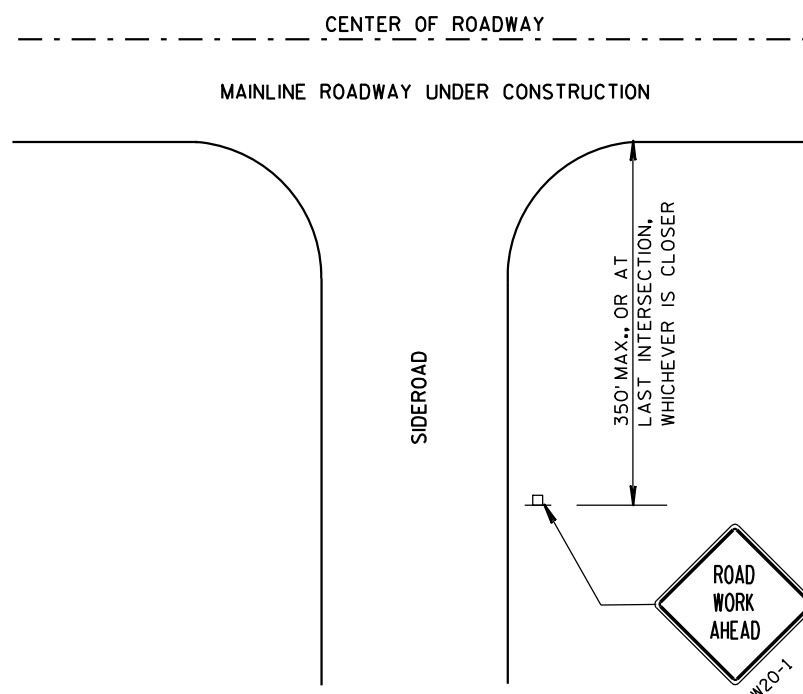
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

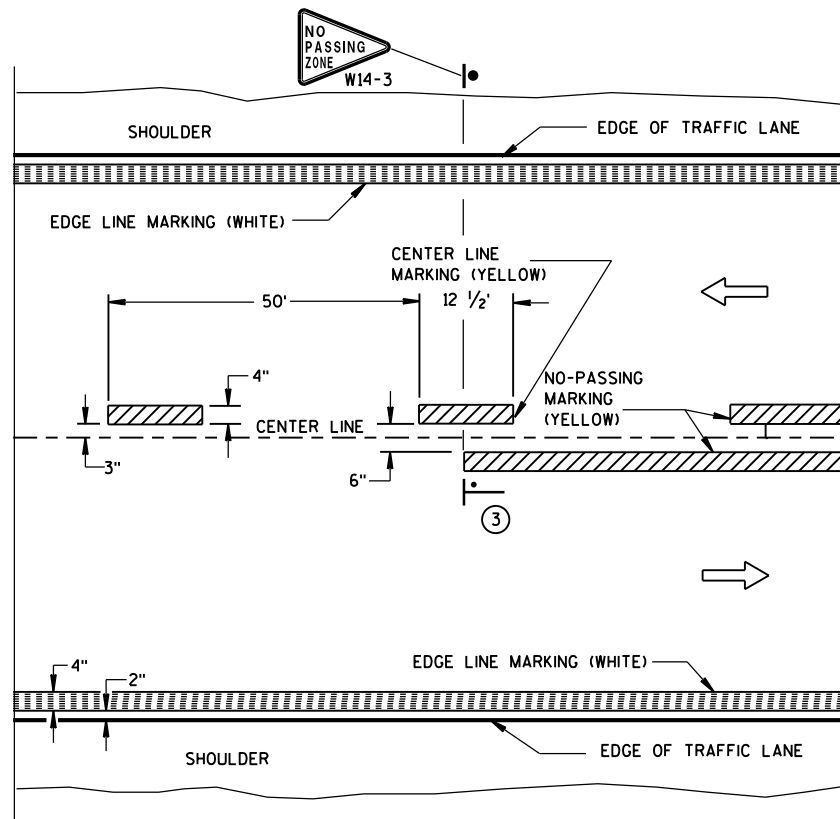
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



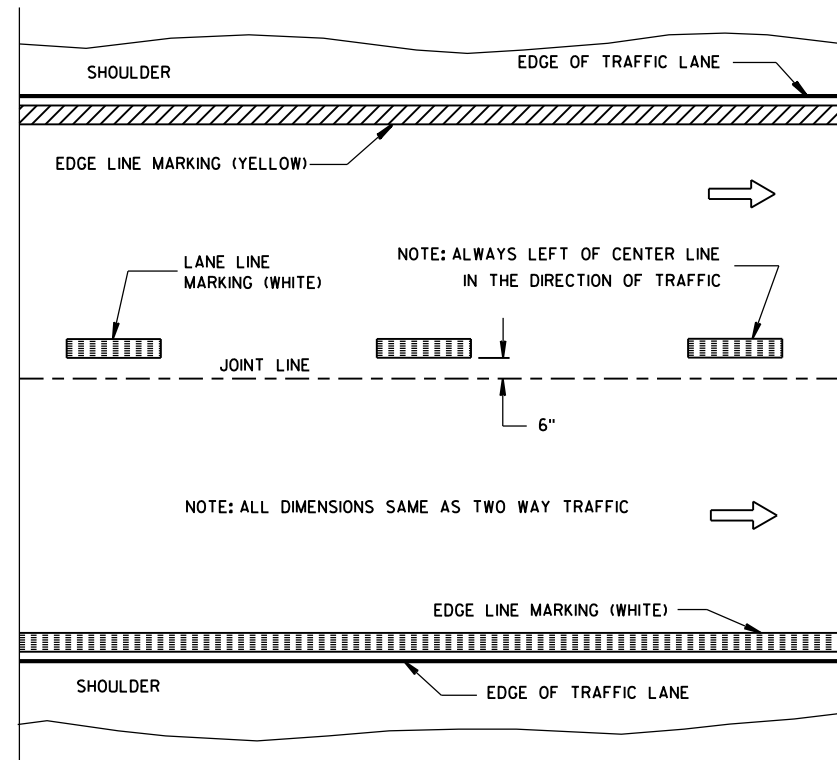
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	

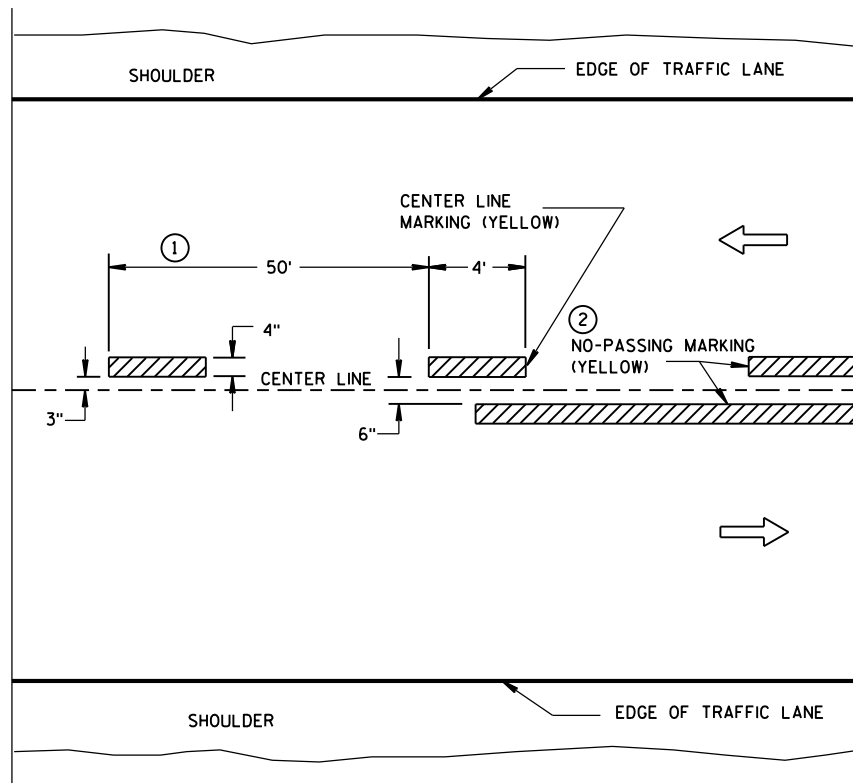


TWO WAY TRAFFIC

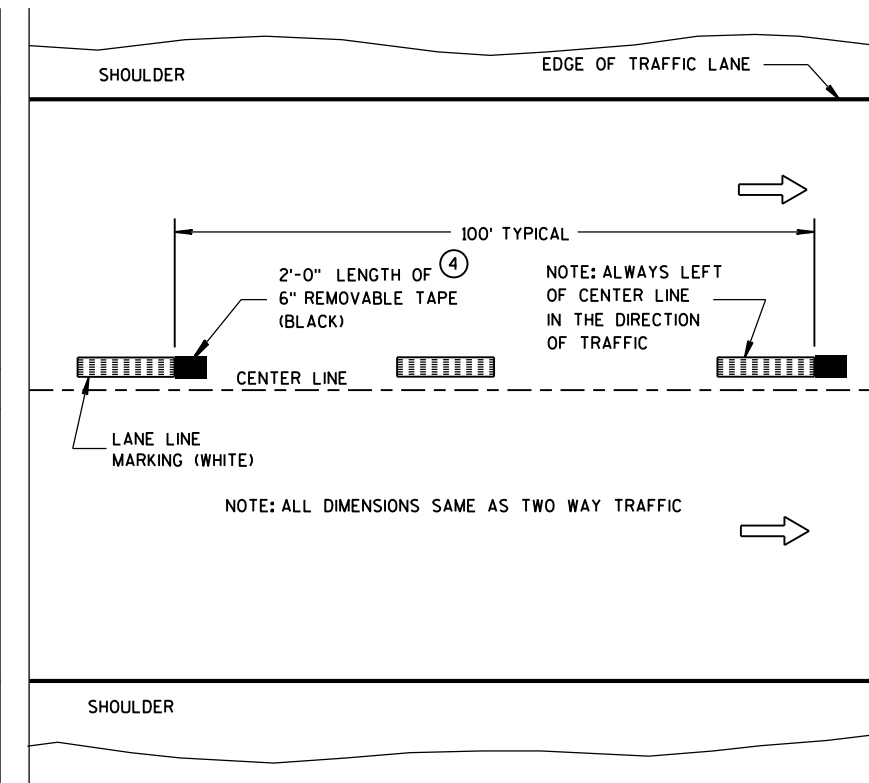


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

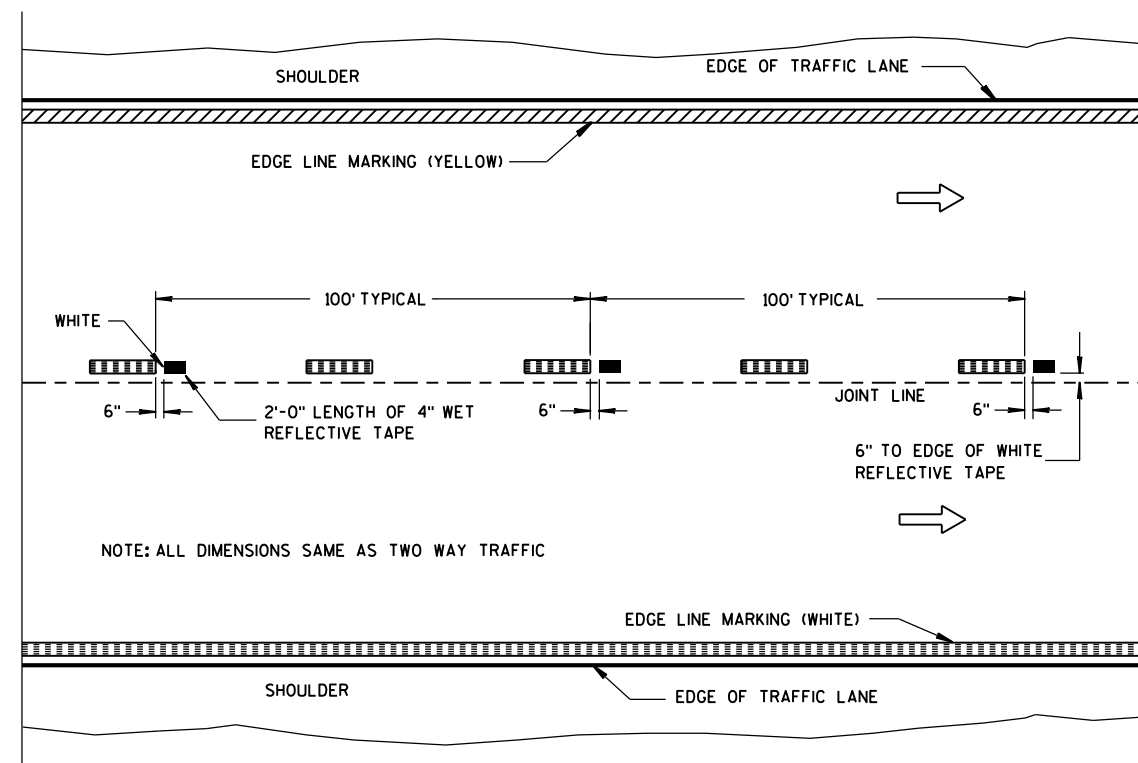
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



**WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE**

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



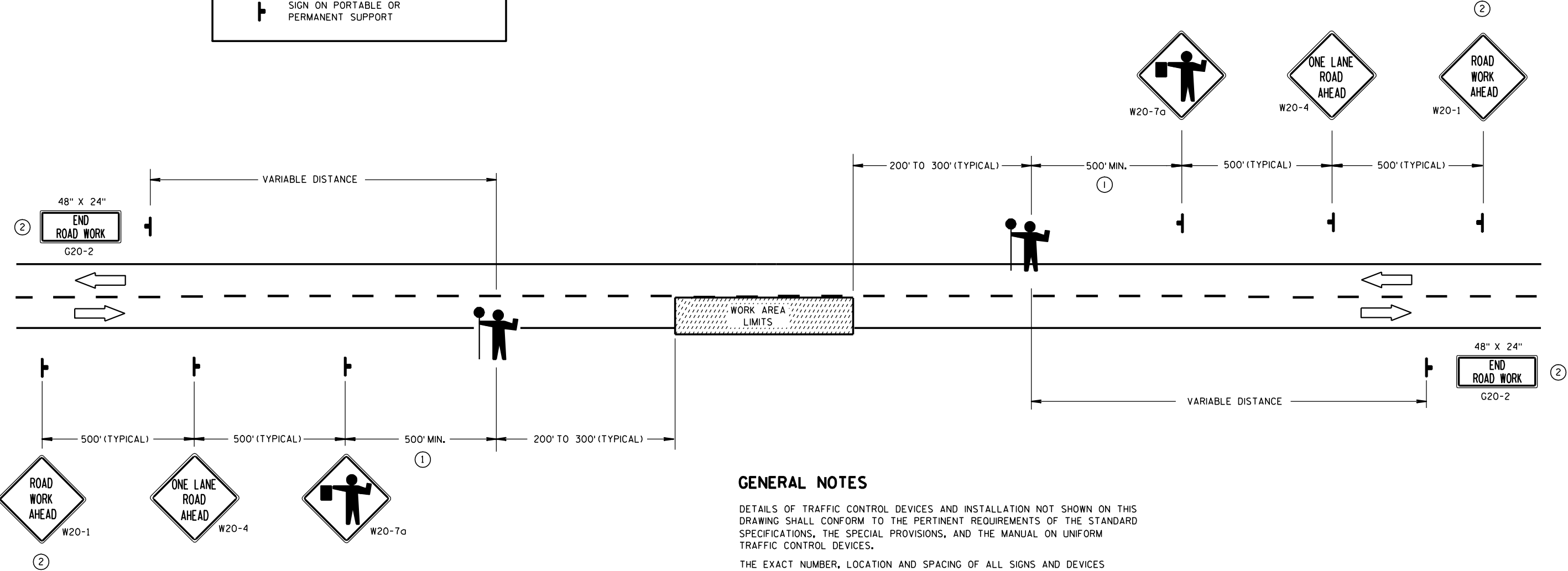
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

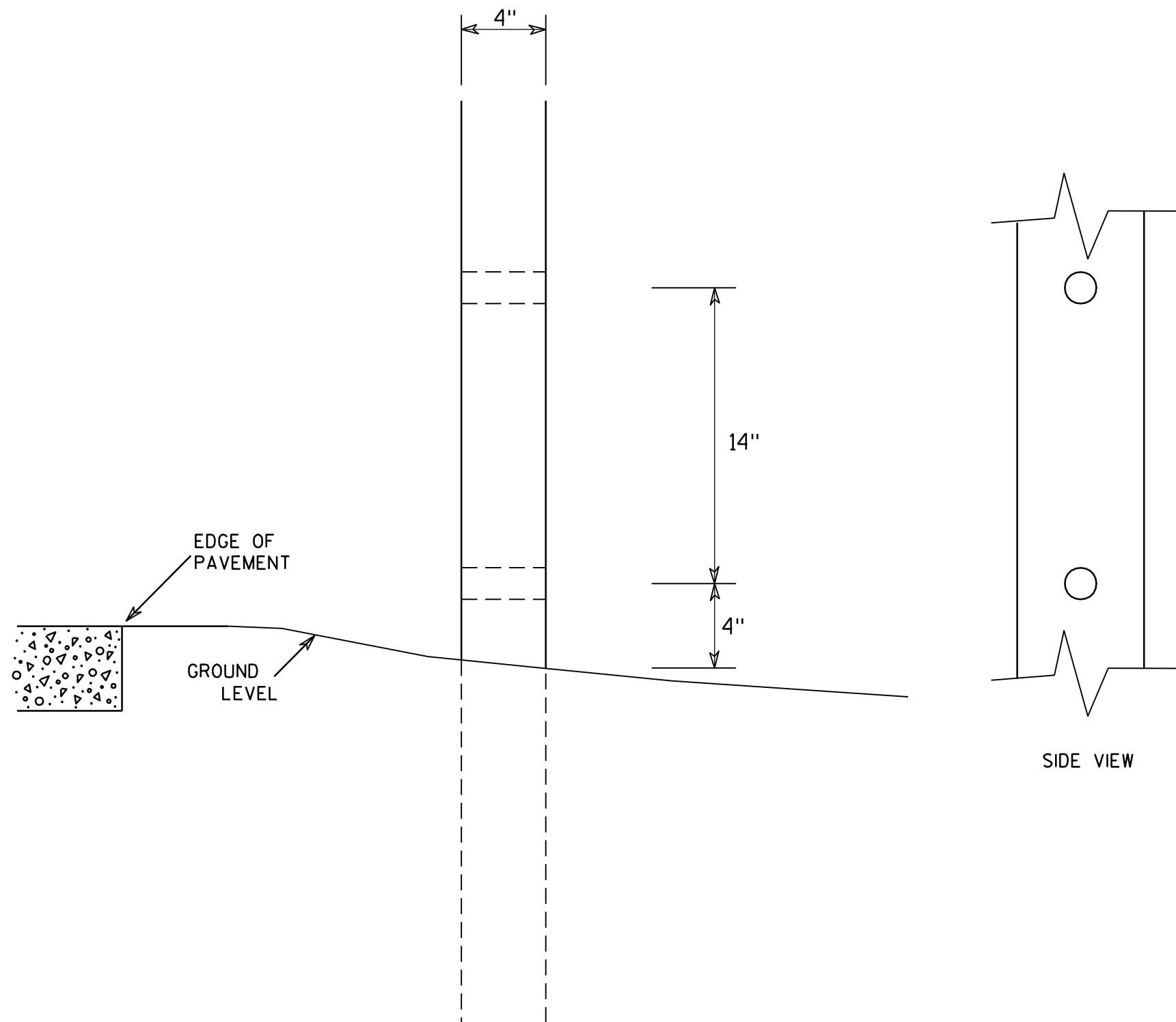
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/5/06
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

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:

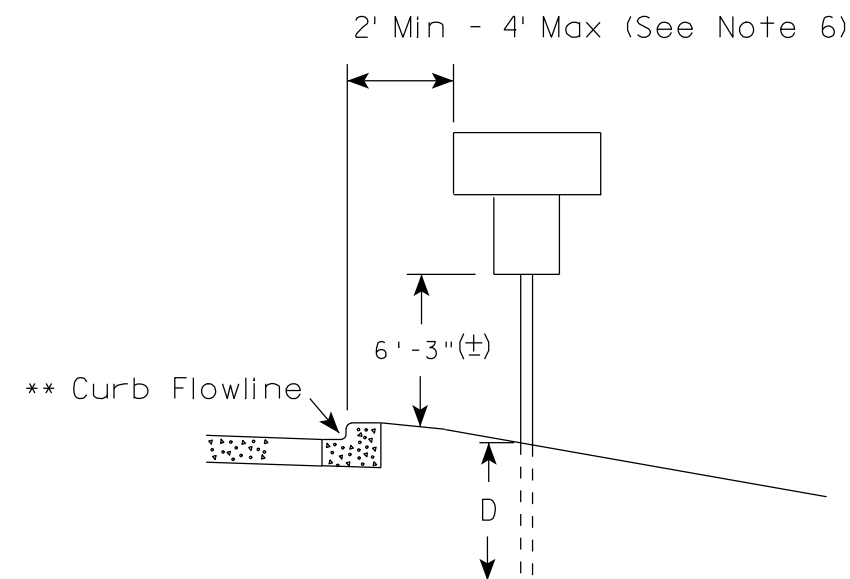
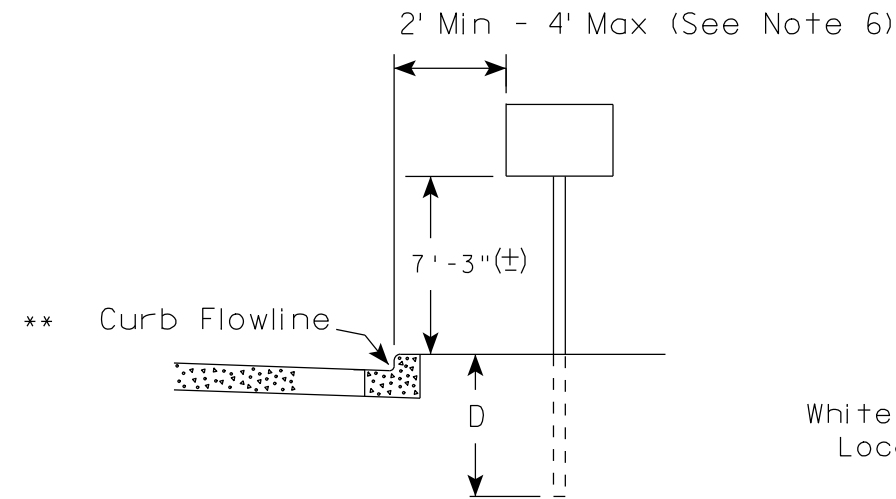
HWY:

COUNTY:

SHEET NO:

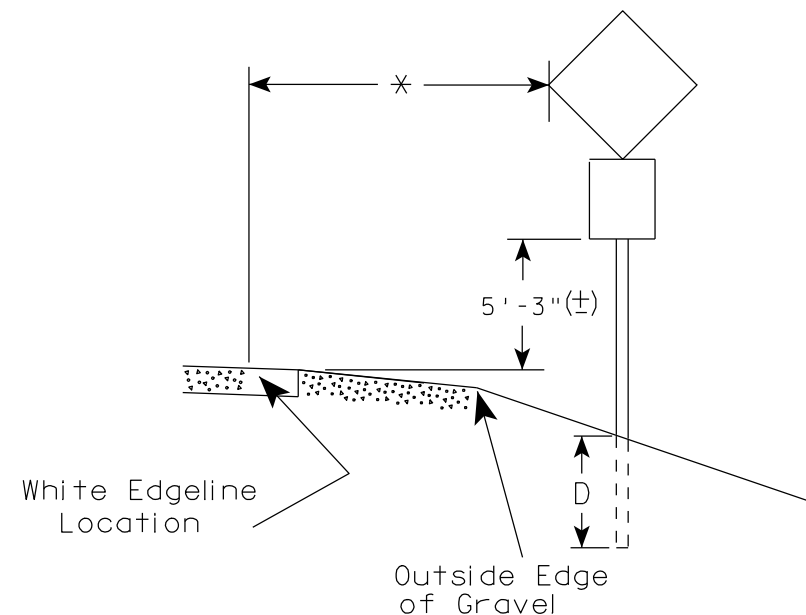
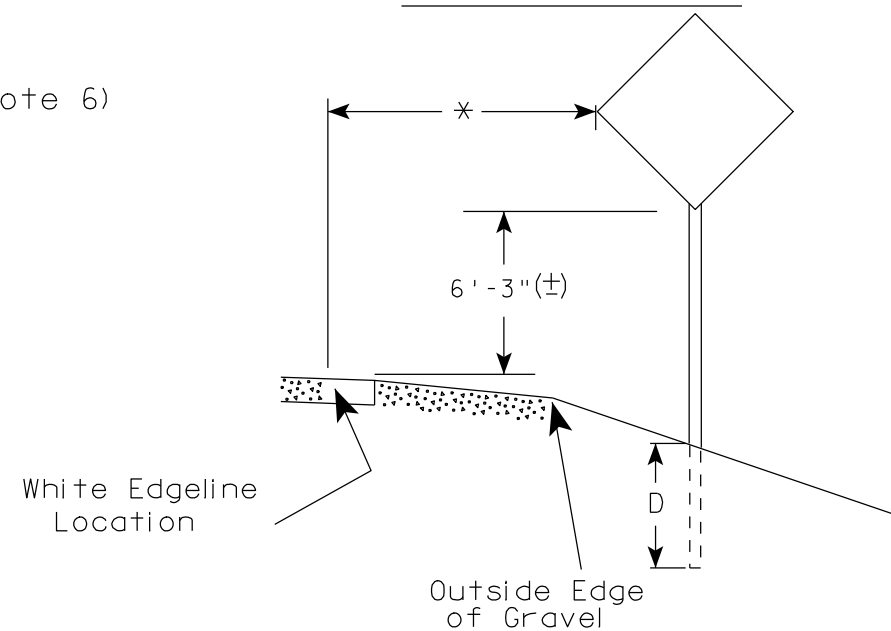
E

URBAN AREA



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

RURAL AREA (See Note 2)



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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/24/2013 PLATE NO. A4-3.17

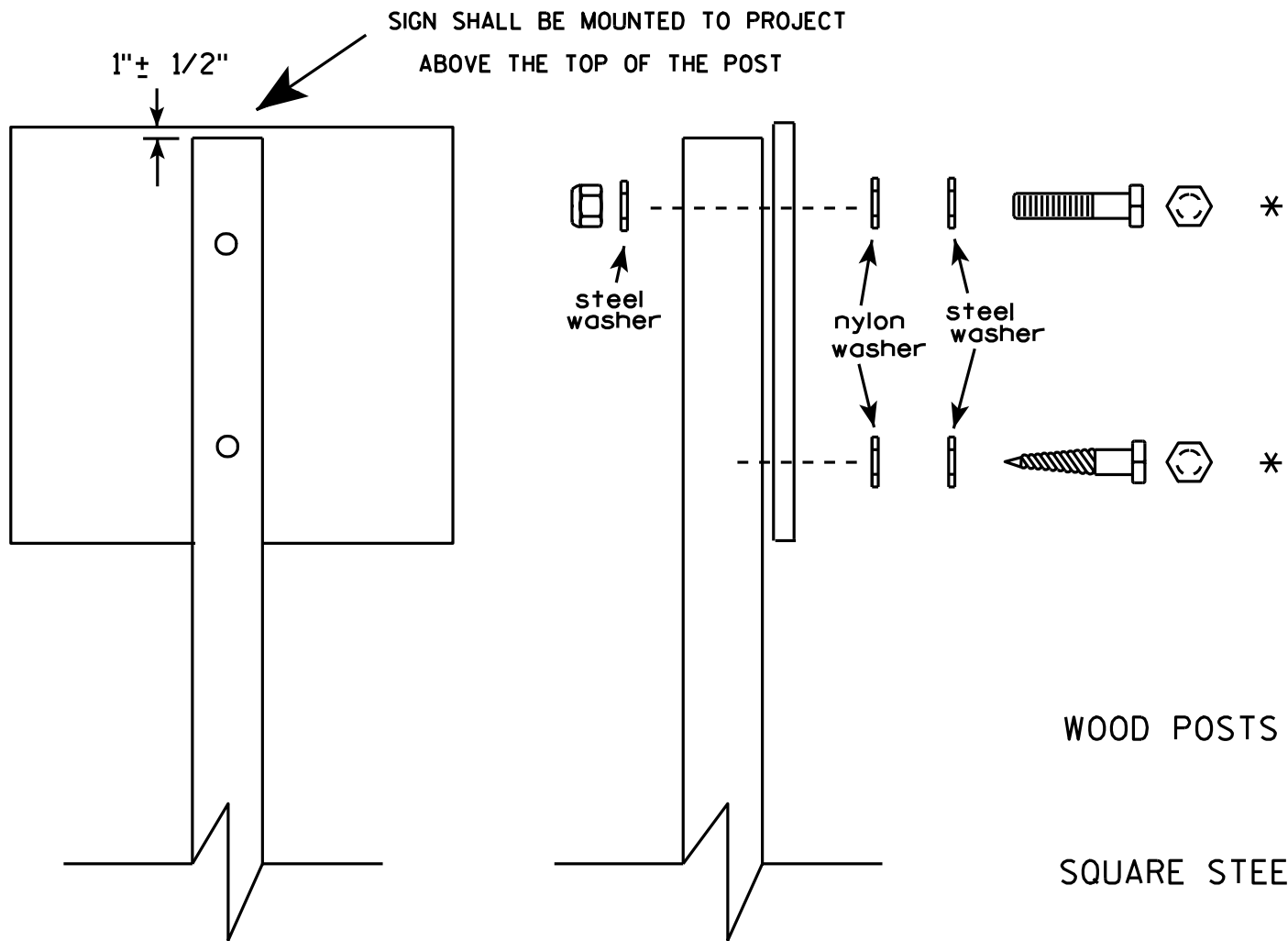
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

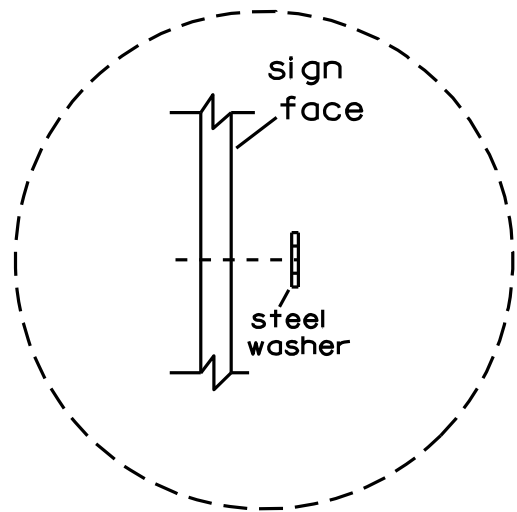


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

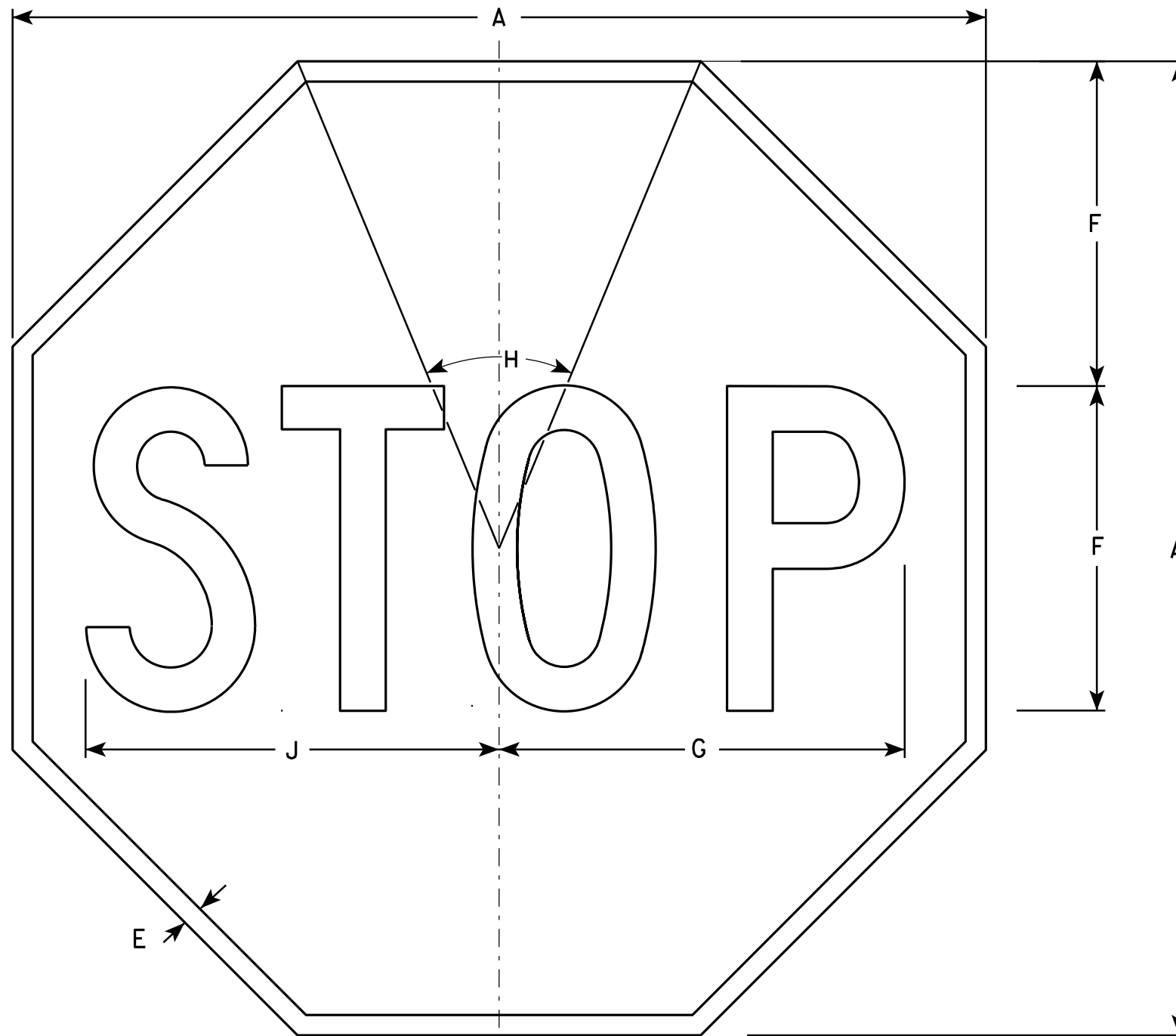
- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10	PLATE NO. A4-8.7



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

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	24				3/8	8	10	45°		10 1/4																	3.31
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

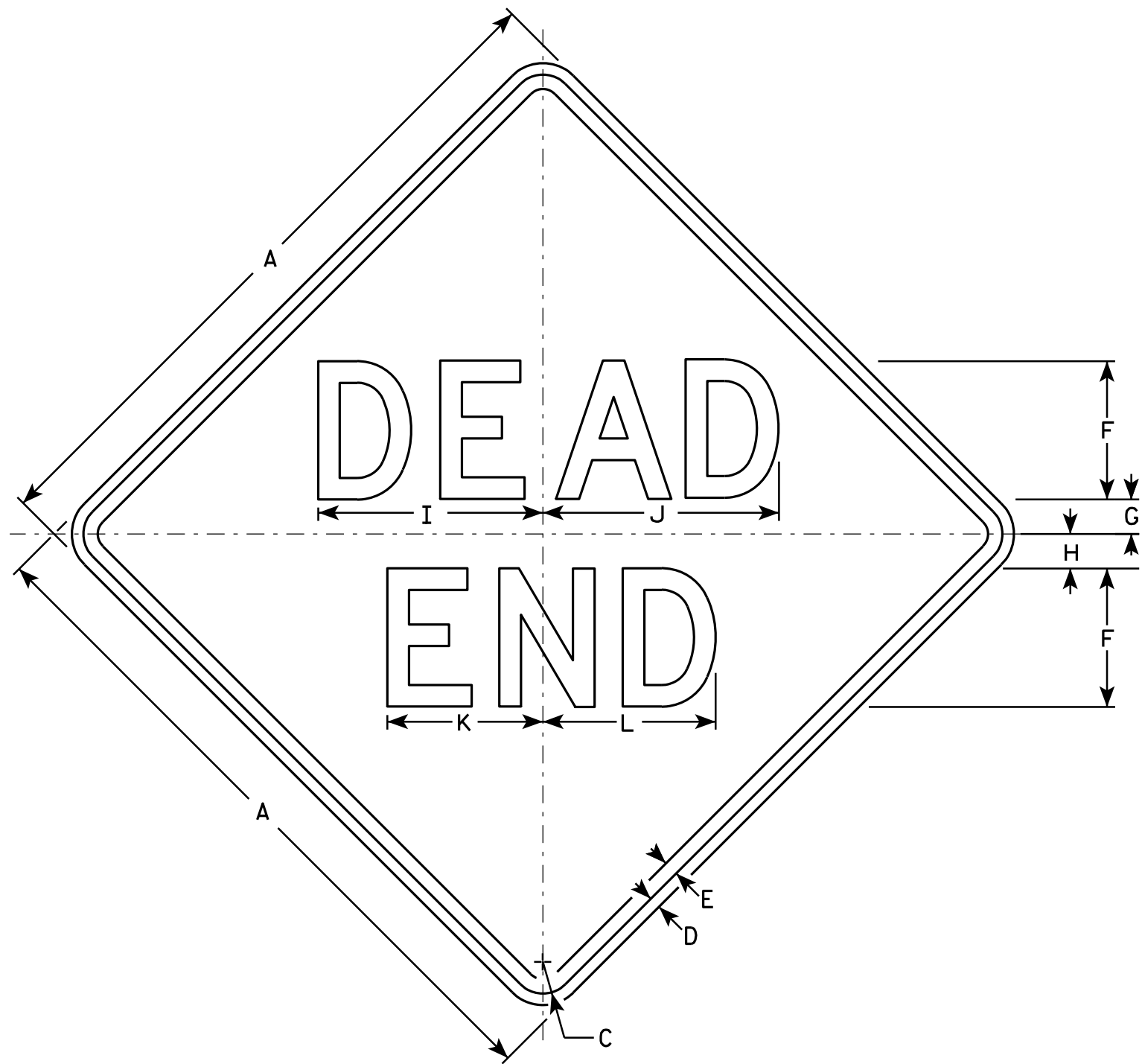
STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---



W14-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area, sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

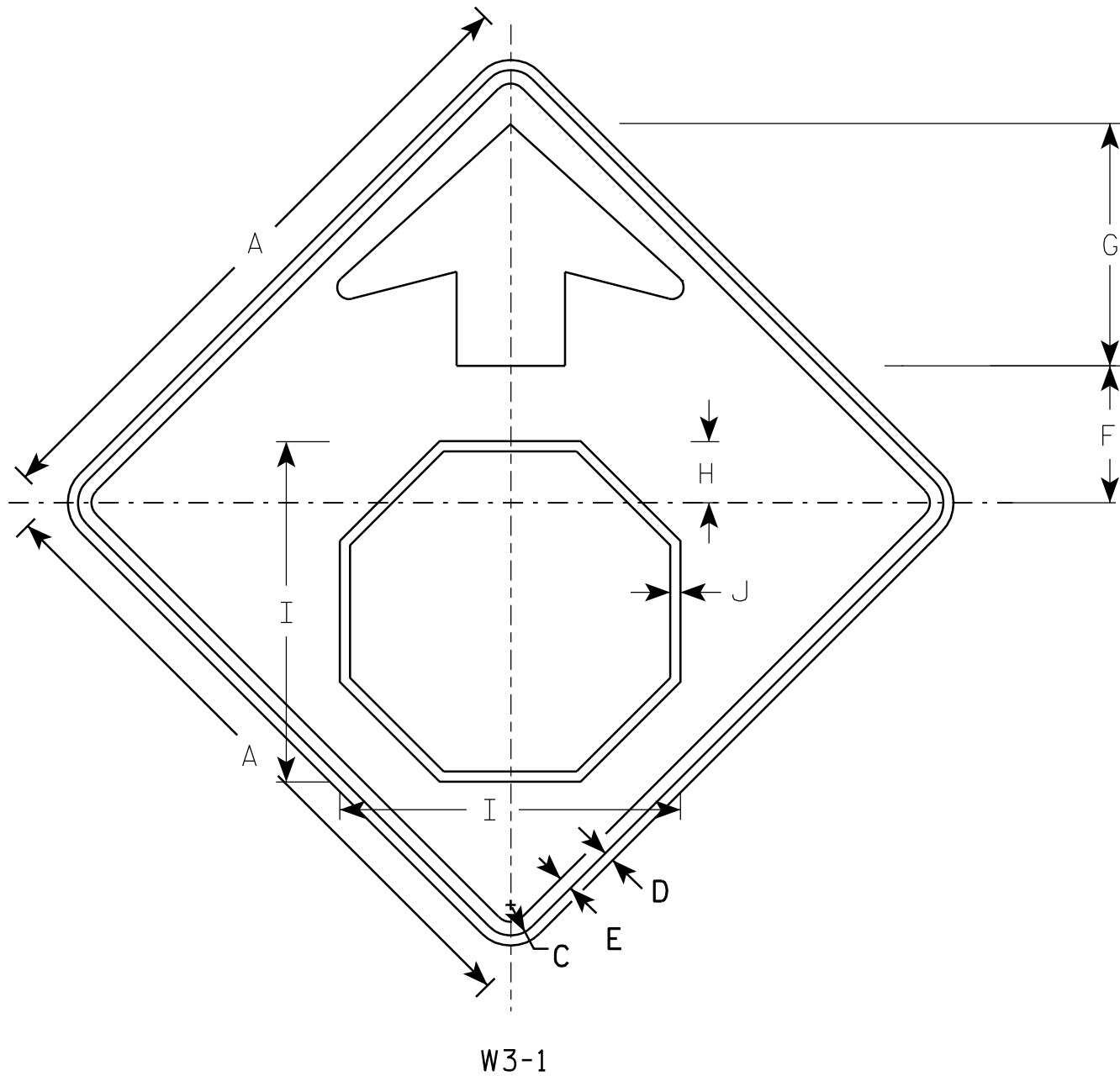
PROJECT NO:

HWY:

COUNTY:

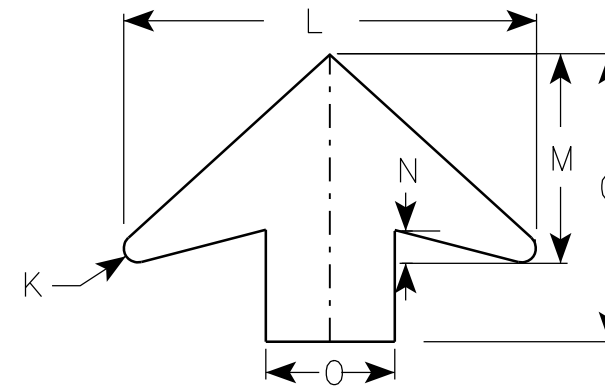
SHEET NO:

E



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	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		1 5/8	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		1 5/8	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		2 1/4	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		2 1/4	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

PROJECT NO:																											SHEET NO:	E
-------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	---

STANDARD SIGN W3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/7/10	PLATE NO. W3-1.12

TRESTIK RD "TK LINE" EARTHWORK SUMMARY

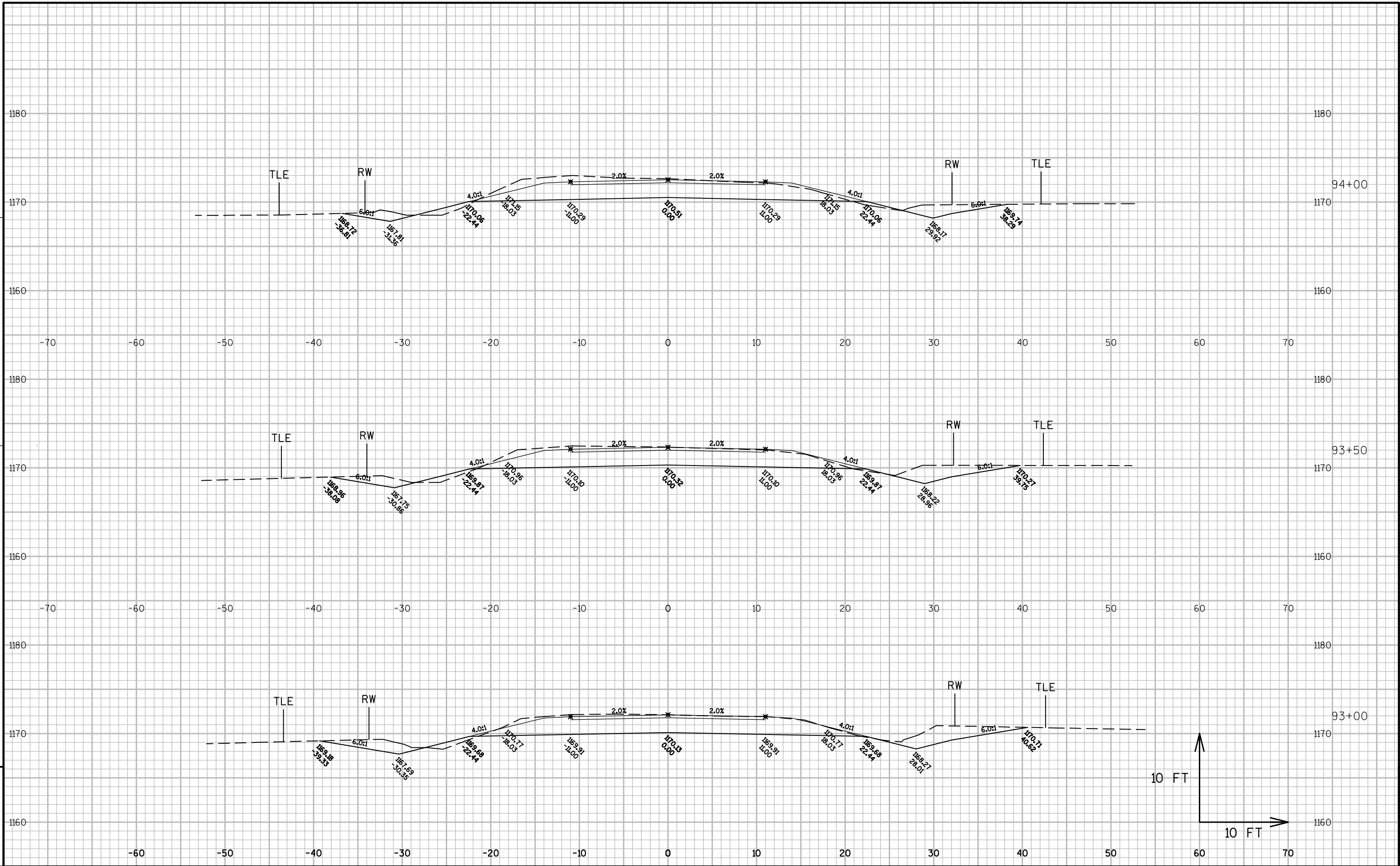
STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
	CUT	FILL	CUT	FILL	CUT 1.00	Expanded Fill 1.25	
93+00	100	2	0	0	0	0	0
93+25	98	3	92	2	92	3	89
93+50	96	3	90	3	181	6	175
93+75	94	4	88	3	269	10	259
94+00	93	4	87	4	356	15	341
94+25	95	4	87	4	443	20	423
94+50	105	4	93	4	535	25	511
94+75	114	4	101	4	637	29	608
95+00	128	4	112	4	749	34	716
95+25	145	4	126	4	875	38	837
95+50	160	5	141	4	1016	43	973
95+75	180	4	157	4	1174	48	1126
96+00	190	4	171	4	1345	52	1293
96+25	192	5	177	4	1522	58	1464
96+50	196	8	179	6	1701	66	1636
96+75	201	11	183	9	1885	77	1808
97+00	205	22	188	16	2072	96	1976
97+25	218	21	196	20	2268	121	2147
97+50	203	27	195	22	2463	149	2314
97+71.49	182	47	153	30	2616	186	2430
97+75	179	48	23	6	2639	194	2446
98+00	149	50	152	45	2792	251	2541
98+25	115	49	122	46	2914	308	2606
98+50	64	45	83	43	2997	362	2634
98+65.25	62	44	36	25	3032	394	2639
98+75	61	43	22	16	3055	413	2641
99+00	51	44	52	40	3107	463	2643
99+25	42	51	43	44	3150	518	2632
99+50	36	54	36	49	3186	579	2607
99+75	41	42	36	45	3222	635	2587
100+00	57	32	46	34	3267	678	2590
100+25	59	25	54	26	3321	711	2611
100+50	56	17	53	19	3374	735	2640
100+75	51	9	49	12	3424	750	2674
101+00	61	1	52	5	3475	755	2720
101+25	72	0	62	0	3537	756	2781
101+50	65	1	64	0	3601	756	2844
101+75	72	1	63	1	3664	757	2906
102+00	72	1	67	1	3731	758	2972
102+25	72	0	67	0	3797	759	3038
102+50	85	0	72	0	3870	759	3111
102+75	92	0	82	0	3951	759	3192
102+90.18	87	0	50	0	4002	759	3243
102+95	98	0	17	0	4018	759	3259
103+00	111	0	19	0	4038	759	3279
103+05	142	0	23	0	4061	759	3302
103+10	173	0	29	0	4090	759	3331
103+15	196	1	34	0	4124	759	3365

STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
	CUT	FILL	CUT	FILL	CUT 1.00	Expanded Fill 1.25	
103+20	201	0	37	0	4161	759	3402
103+25	183	0	36	0	4197	759	3437
103+30	146	2	30	0	4227	760	3468
103+35	119	8	25	1	4252	761	3491
103+40	118	18	22	2	4274	764	3510
103+45	128	21	23	4	4296	768	3528
103+50	131	2	24	2	4320	771	3550
103+55	130	0	24	0	4344	771	3573
103+60	99	0	21	0	4366	771	3595
103+65	63	0	15	0	4381	771	3610
103+70	26	0	8	0	4389	771	3618
103+73.63	0	0	2	0	4390	771	3619
103+75	9	0	0	0	4391	771	3620
103+80	43	0	5	0	4395	771	3625
103+85	73	0	11	0	4406	771	3635
103+90	102	0	16	0	4422	771	3651
103+95	126	0	21	0	4444	771	3673
104+00	116	2	22	0	4466	771	3695
104+05	106	18	21	2	4487	773	3713
104+10	102	34	19	5	4506	779	3726
104+15	102	45	19	7	4525	788	3736
104+20	88	46	18	8	4542	799	3743
104+25	77	40	15	8	4558	809	3749
104+30	65	43	13	8	4571	818	3752
104+35	56	49	11	9	4582	829	3753
104+40	48	51	10	9	4592	841	3751
104+45	42	51	8	9	4600	852	3748
104+47.59	39	52	4	5	4604	859	3745
104+50	36	54	3	5	4607	865	3743
104+75	17	68	25	57	4632	935	3697
105+00	0	111	8	83	4640	1039	3601
105+25	0	143	0	118	4640	1186	3454
105+50	0	184	0	152	4640	1376	3264
105+75	0	223	0	188	4640	1612	3029
106+00	0	237	0	213	4640	1878	2762
106+15	0	262	0	139	4640	2051	2589
106+25	0	247	0	94	4640	2169	2471
106+50	0	219	0	216	4640	2439	2201
106+75	0	201	0	195	4640	2682	1958
107+00	0	169	0	172	4640	2897	1744
107+25	0	137	0	142	4640	3074	1566
107+50	0	99	0	109	4640	3210	1430
107+75	9	76	4	81	4644	3312	1333
108+00	20	57	13	62	4658	3389	1269
108+25	32	38	24	44	4681	3444	1238
108+50	40	30	33	31	4715	3483	1232
108+75	53	21	43	24	4758	3513	1246
109+00	68	18	56	18	4815	3536	1279

SMOKEY HILL RD “SH LINE” EARTHWORK SUMMARY

STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
	CUT	FILL	CUT	FILL	CUT 1.00	Expanded Fill 1.25	
11+00	74	4	0	0	0	0	0
11+25	75	4	69	3	69	4	65
11+50	75	3	69	3	138	8	130
11+75	75	3	69	3	207	11	196
12+00	75	3	69	3	277	14	262
12+25	75	3	69	3	346	18	329
12+50	81	3	72	3	418	21	397
12+75	85	3	77	3	495	24	471
13+00	88	2	80	2	575	27	548
13+25	91	2	83	2	657	29	628
13+50	92	2	85	2	742	32	710
13+75	97	2	88	2	830	34	796
14+00	104	2	93	2	923	36	887
14+25	111	1	100	1	1022	37	985
14+50	117	1	106	1	1128	39	1089
14+75	123	1	111	1	1239	40	1199
15+00	126	1	115	1	1354	41	1313
15+25	131	2	119	2	1474	43	1430
15+50	141	1	126	1	1600	45	1555
15+75	146	2	133	1	1733	47	1686
16+00	174	0	148	1	1881	48	1833
16+25	182	0	165	0	2046	48	1997
16+50	203	0	178	0	2224	48	2176
16+75	210	0	191	0	2415	48	2367
17+00	202	0	191	0	2606	48	2558
17+25	187	0	180	0	2786	48	2738
17+50	166	0	163	0	2949	48	2901
17+75	124	0	134	0	3084	48	3035
18+00	42	1	77	1	3160	49	3111
18+25	36	3	36	2	3196	51	3145
18+50	37	6	34	4	3230	56	3174
18+75	33	13	32	9	3262	67	3195
19+00	37	7	32	10	3294	79	3215
19+25	36	8	34	7	3328	88	3240
19+50	31	11	31	9	3359	99	3260
19+75	31	12	29	11	3388	113	3275
20+00	36	17	31	13	3418	129	3289
20+25	34	21	32	17	3451	151	3300
20+50	35	21	32	19	3483	175	3308
20+75	38	21	34	19	3517	199	3318
21+00	39	22	36	20	3553	223	3330
21+25	48	32	40	25	3593	255	3339
21+50	59	27	50	27	3643	289	3354
21+75	61	26	56	24	3699	319	3380
22+00	71	16	61	19	3760	343	3417
22+25	75	14	68	14	3828	360	3467

STATION	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
	CUT	FILL	CUT	FILL	CUT 1.00	Expanded Fill 1.25	
22+50	74	15	69	13	3897	377	3520
22+75	84	8	73	11	3970	390	3580
22+89.48	91	8	47	4	4017	396	3622
22+90	91	7	2	0	4019	396	3623
22+95	101	5	18	1	4037	397	3640
23+00	119	4	20	1	4057	398	3659
23+05	134	2	23	1	4081	399	3682
23+10	157	1	27	0	4107	399	3708
23+15	161	1	29	0	4137	399	3737
23+20	163	3	30	0	4167	400	3767
23+25	153	4	29	1	4196	401	3796
23+30	136	2	27	1	4223	401	3822
23+35	126	1	24	0	4247	402	3846
23+40	126	1	23	0	4271	402	3869
23+45	121	0	23	0	4293	402	3891
23+50	154	0	25	0	4319	402	3917
23+55	146	0	28	0	4347	402	3945
23+60	111	0	24	0	4370	402	3968
23+65	68	0	17	0	4387	402	3985
23+70	29	0	9	0	4396	402	3994
23+75	6	0	3	0	4399	402	3997
23+80	39	0	4	0	4403	402	4001
23+85	71	0	10	0	4413	402	4011
23+90	98	0	16	0	4429	402	4027
23+95	116	0	20	0	4449	402	4047
24+00	113	6	21	1	4470	403	4067
24+05	107	17	20	2	4490	405	4085
24+10	97	27	19	4	4509	410	4099
24+15	106	39	19	6	4528	418	4110
24+20	136	42	22	7	4551	427	4123
24+25	158	34	27	7	4578	436	4142
24+30	164	28	30	6	4608	443	4164
24+35	157	24	30	5	4637	449	4188
24+40	144	21	28	4	4665	455	4211
24+45	127	24	25	4	4690	460	4231
24+50	116	24	22	4	4713	465	4247
24+55	106	25	21	5	4733	471	4262
24+59.03	101	24	15	4	4749	476	4273
24+75	88	14	56	11	4805	490	4315
25+00	72	7	74	10	4879	502	4377
25+25	69	6	65	6	4945	510	4435
25+50	70	6	64	5	5009	517	4492
25+75	76	6	68	5	5077	523	4553
26+00	91	8	77	6	5154	531	4623
26+23.03	0	0	39	3	5193	535	4657



PROJECT NO:6350-07-84

HWY: USH 10

COUNTY: WOOD

CROSS SECTIONS: TRESTIK DR

SHEET

E

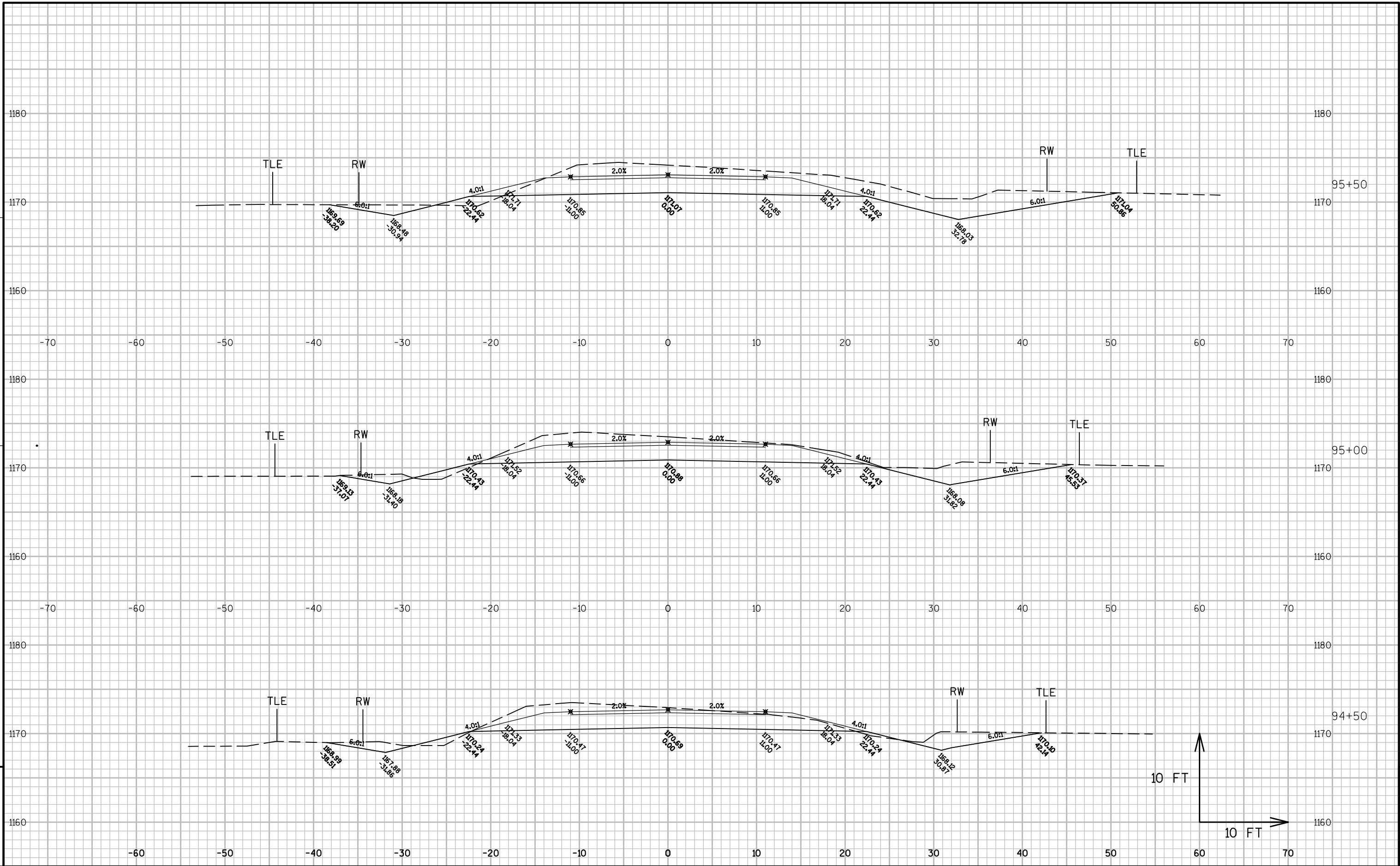
FILE NAME : N:\PDS\C3D\63500704\SHEETSPLAN\XS_TRESTIK DR.DWG

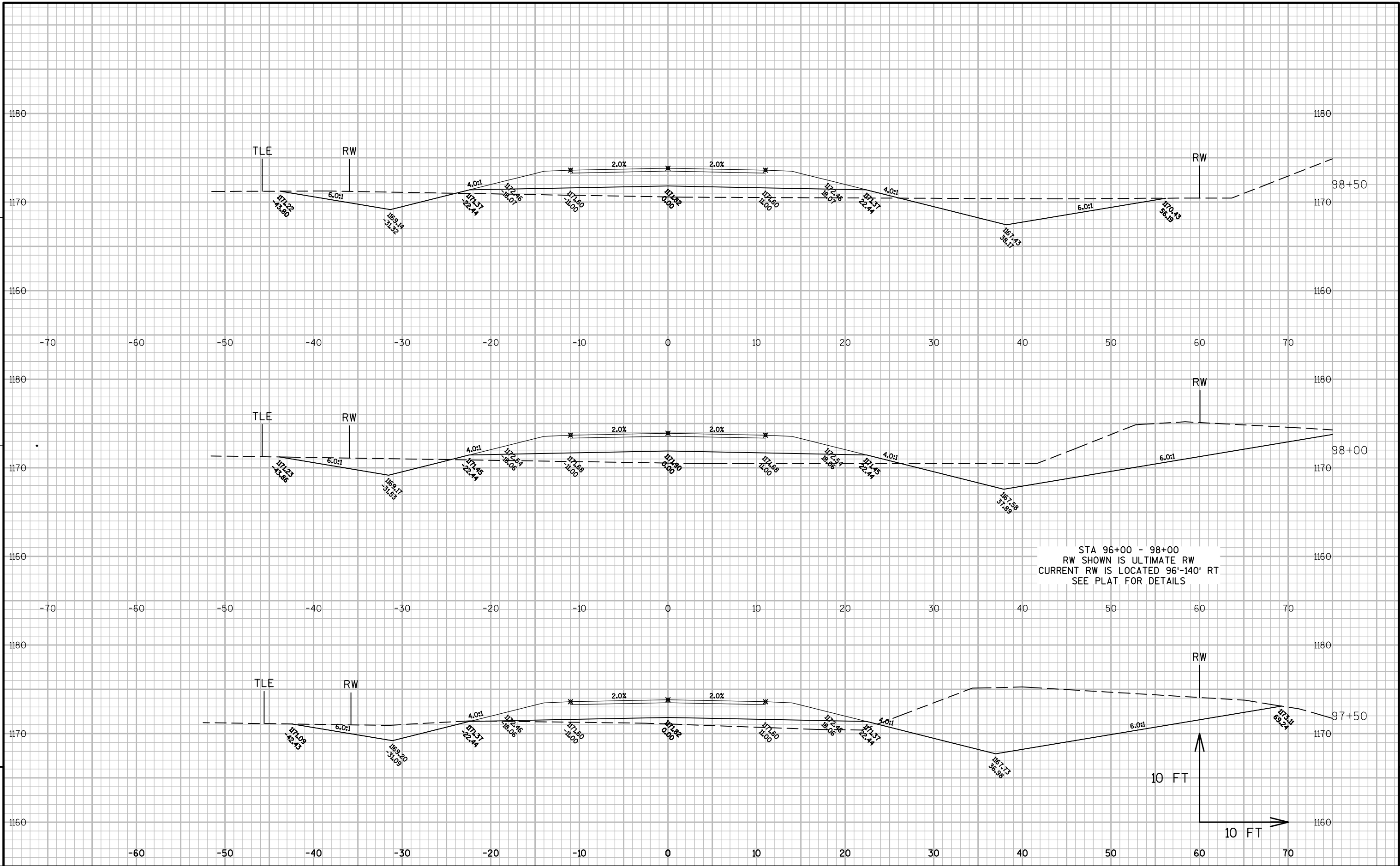
PLOT DATE : 4/15/2013 8:39 AM

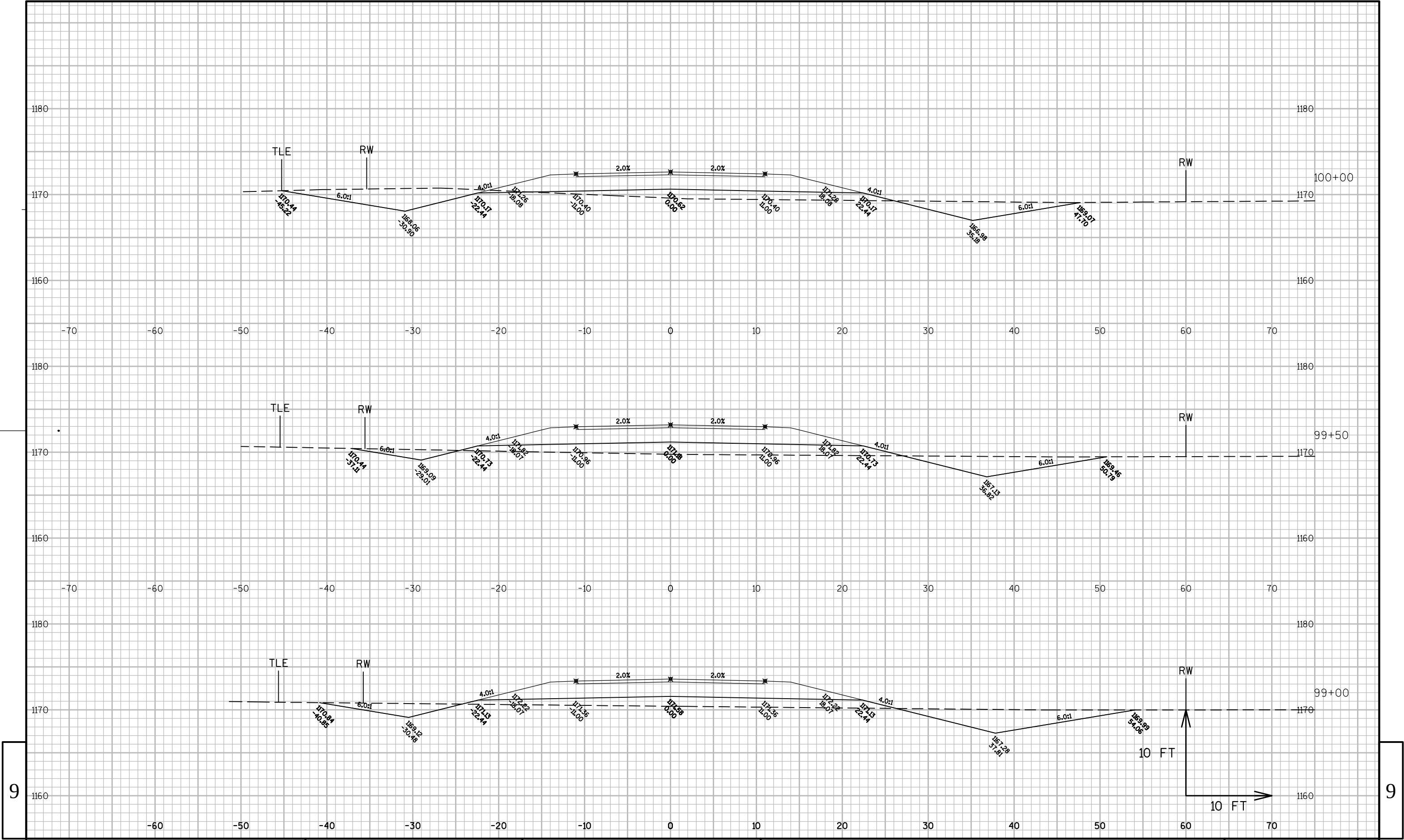
PLOT BY : SCHLEICHER, BRYCE B PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

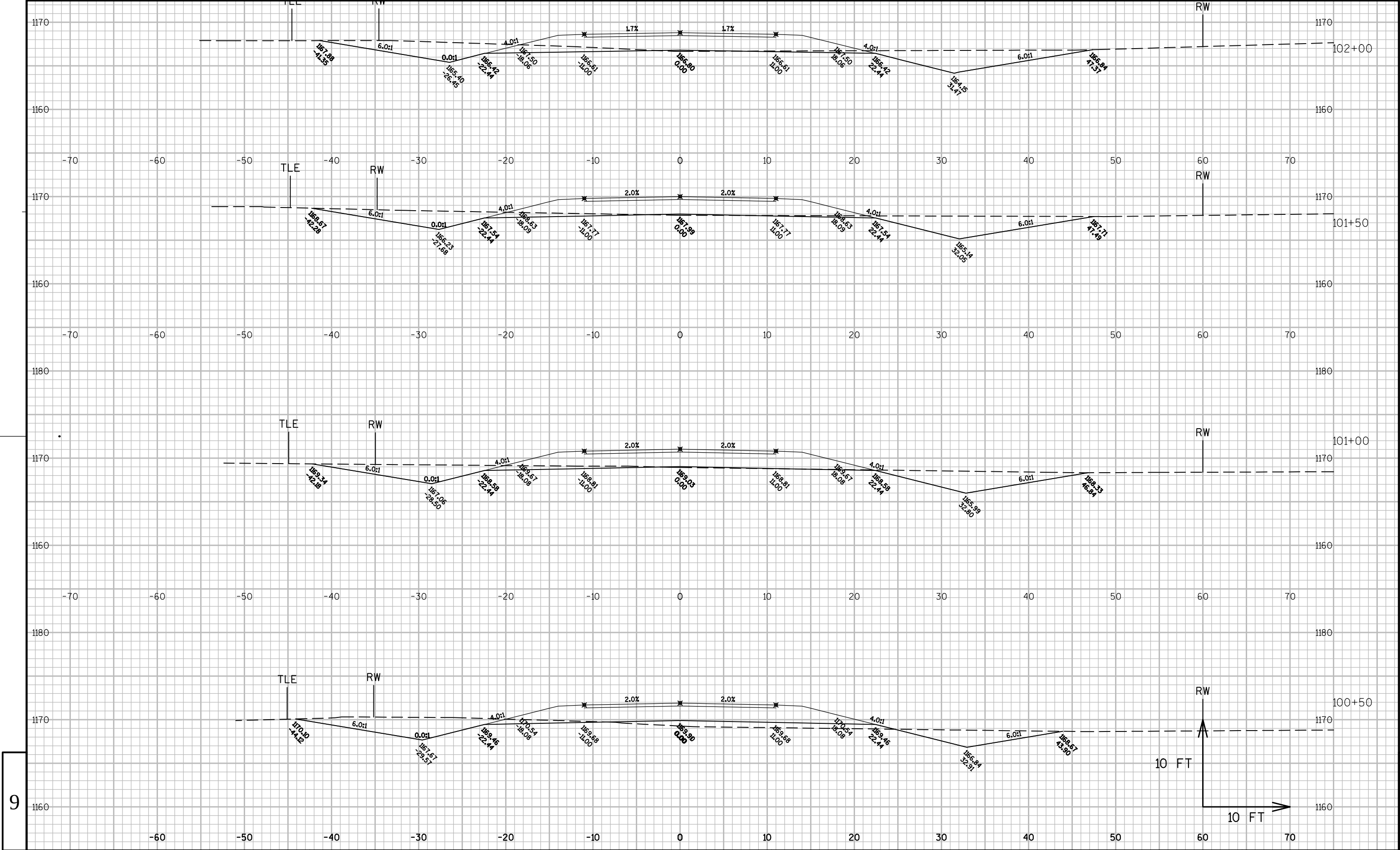






9

9



9

9

PROJECT NO:6350-07-84

HWY: USH 10

COUNTY: WOOD

CROSS SECTIONS: TRESTIK DR

SHEET

E

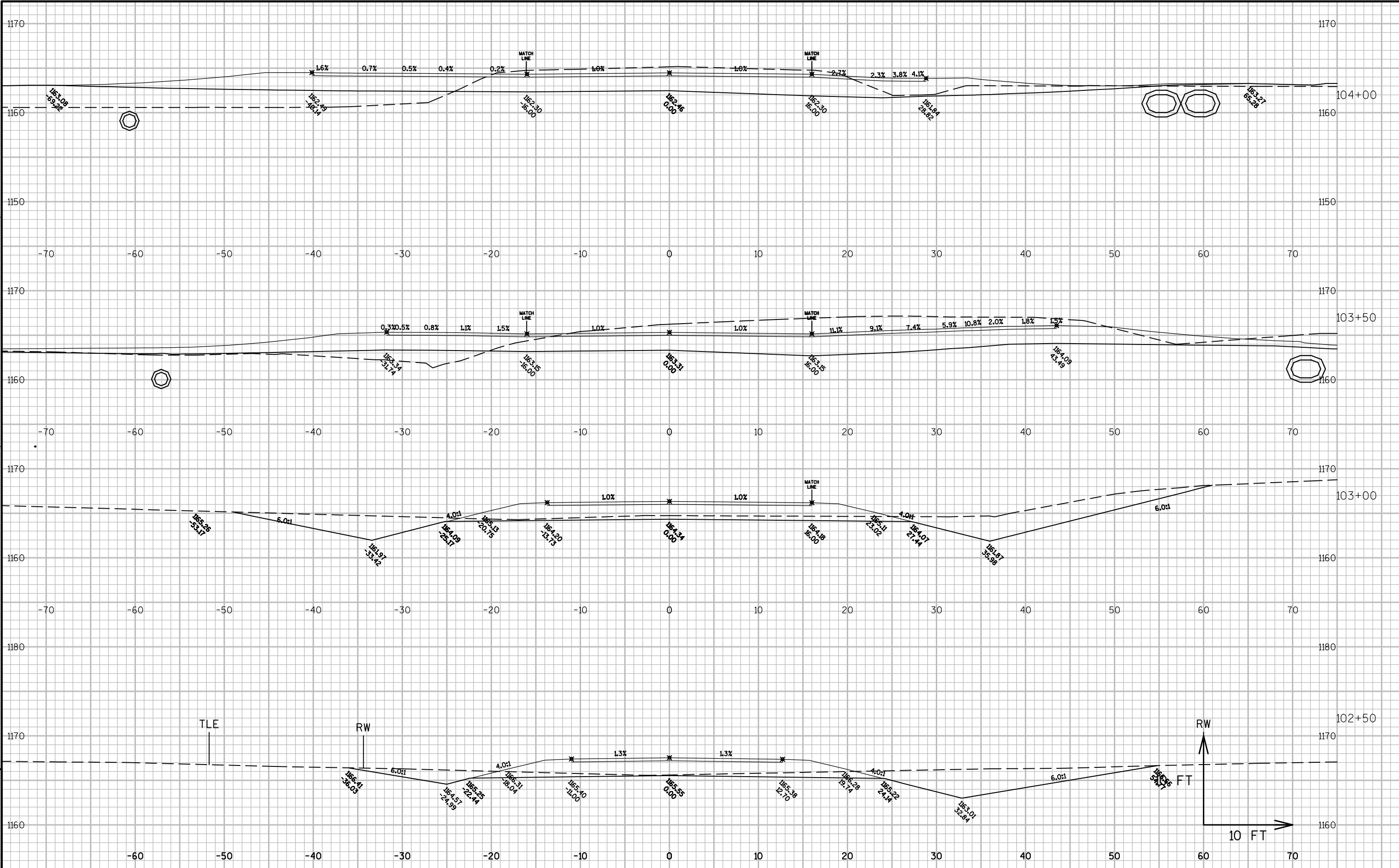
FILE NAME : N:\PDS\C3D\63500704\SHEETSPLAN\XS_TRESTIK DR.DWG

PLOT DATE : 4/15/2013 8:39 AM

PLOT BY : SCHLEICHER, BRYCE B PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49



PROJECT NO:6350-07-84

HWY:USH 10

COUNTY:WOOD

CROSS SECTIONS: TRESTIK DR

SHEET

E

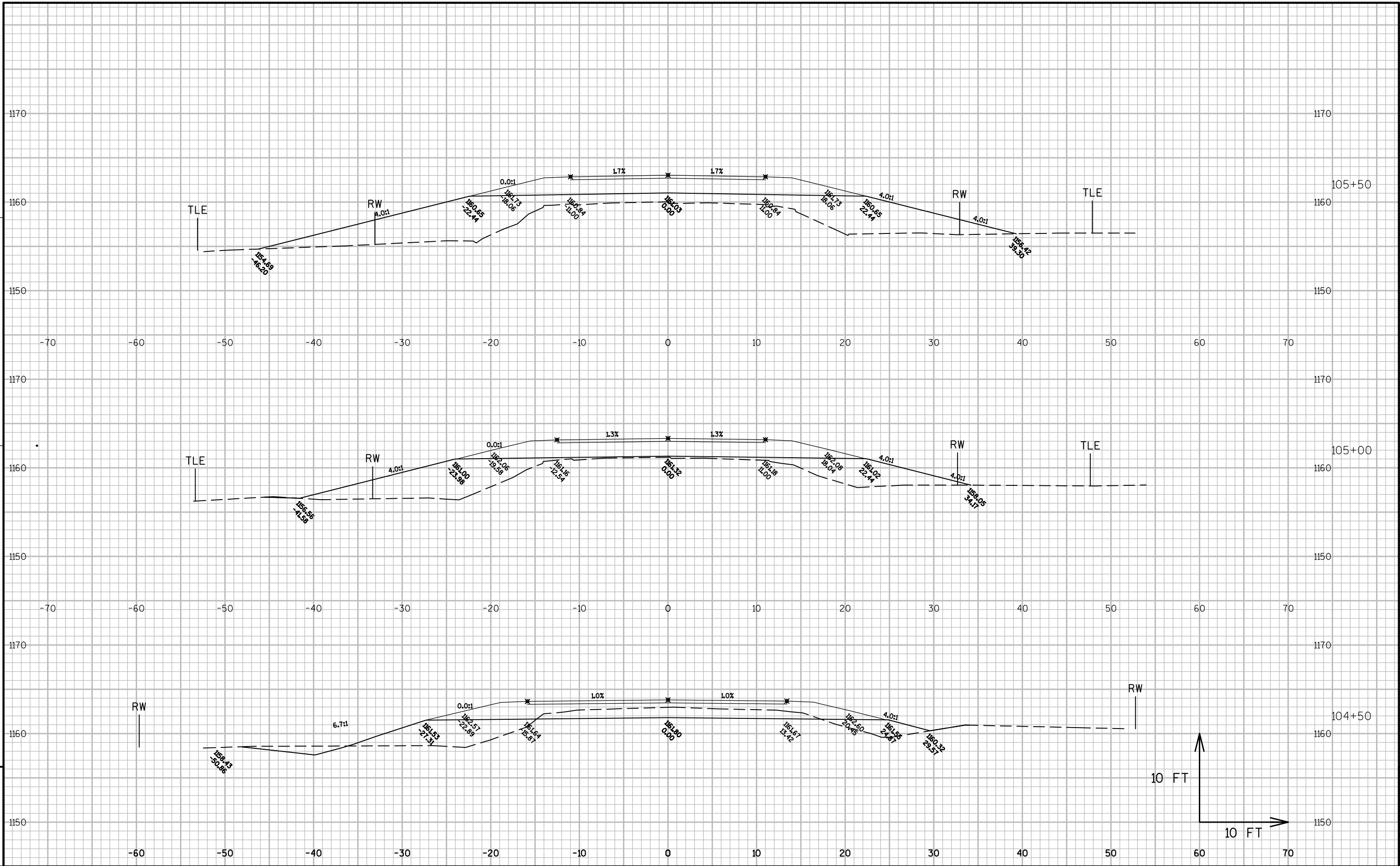
FILE NAME : N:\PDS\C3D\63500704\SHEETSPLAN\XS_TRESTIK DR.DWG

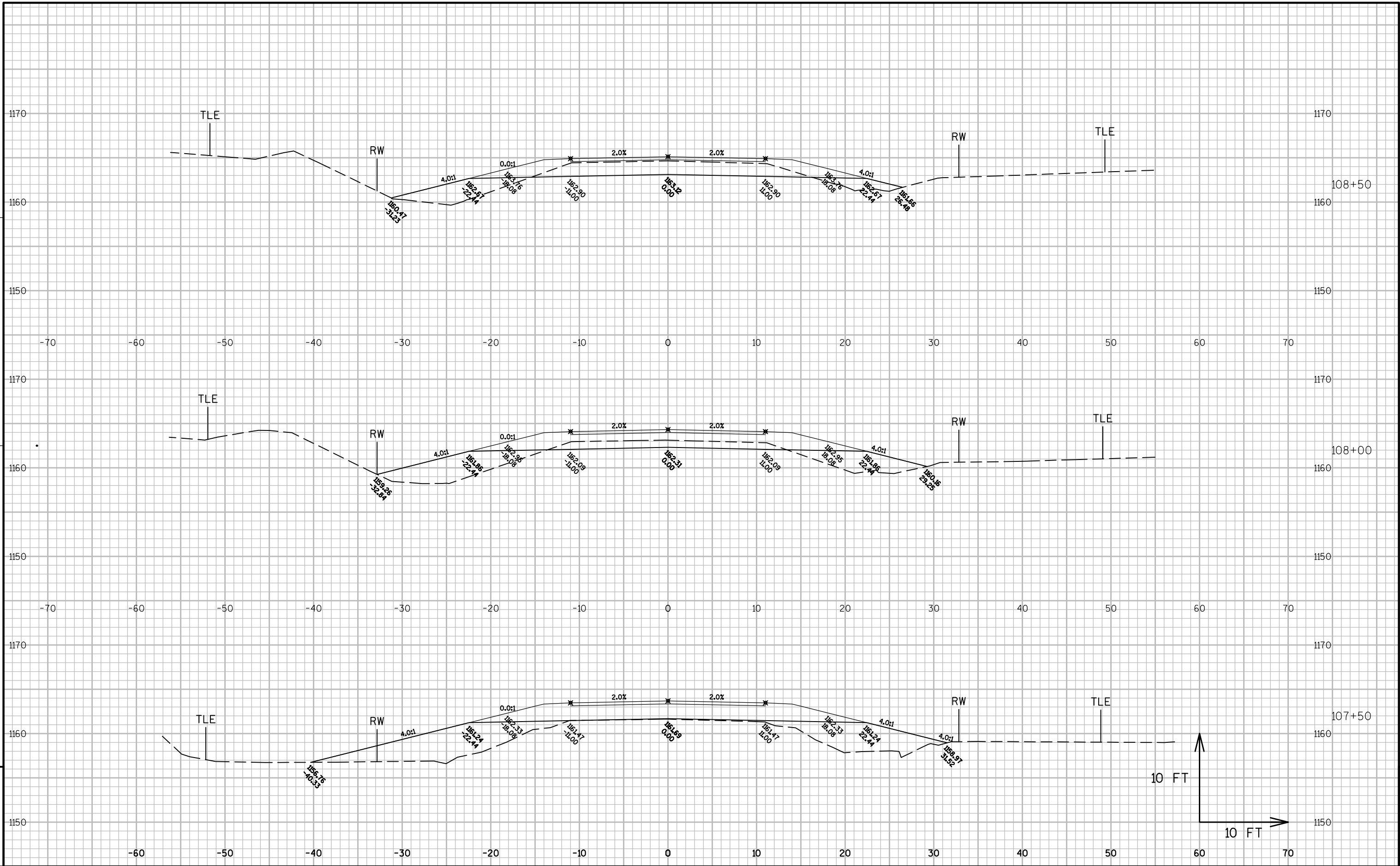
PLOT DATE : 4/15/2013 8:39 AM

PLOT BY : SCHLEICHER, BRYCE B PLOT NAME :

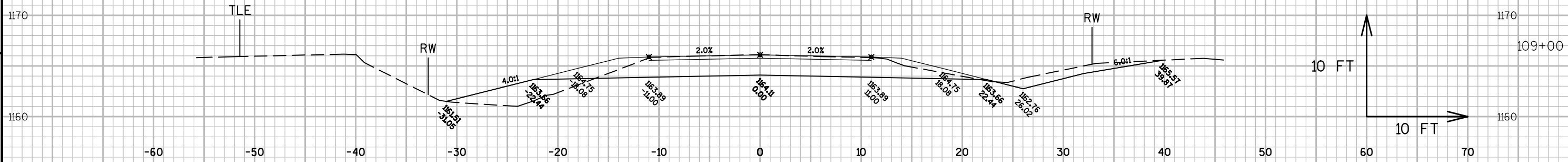
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

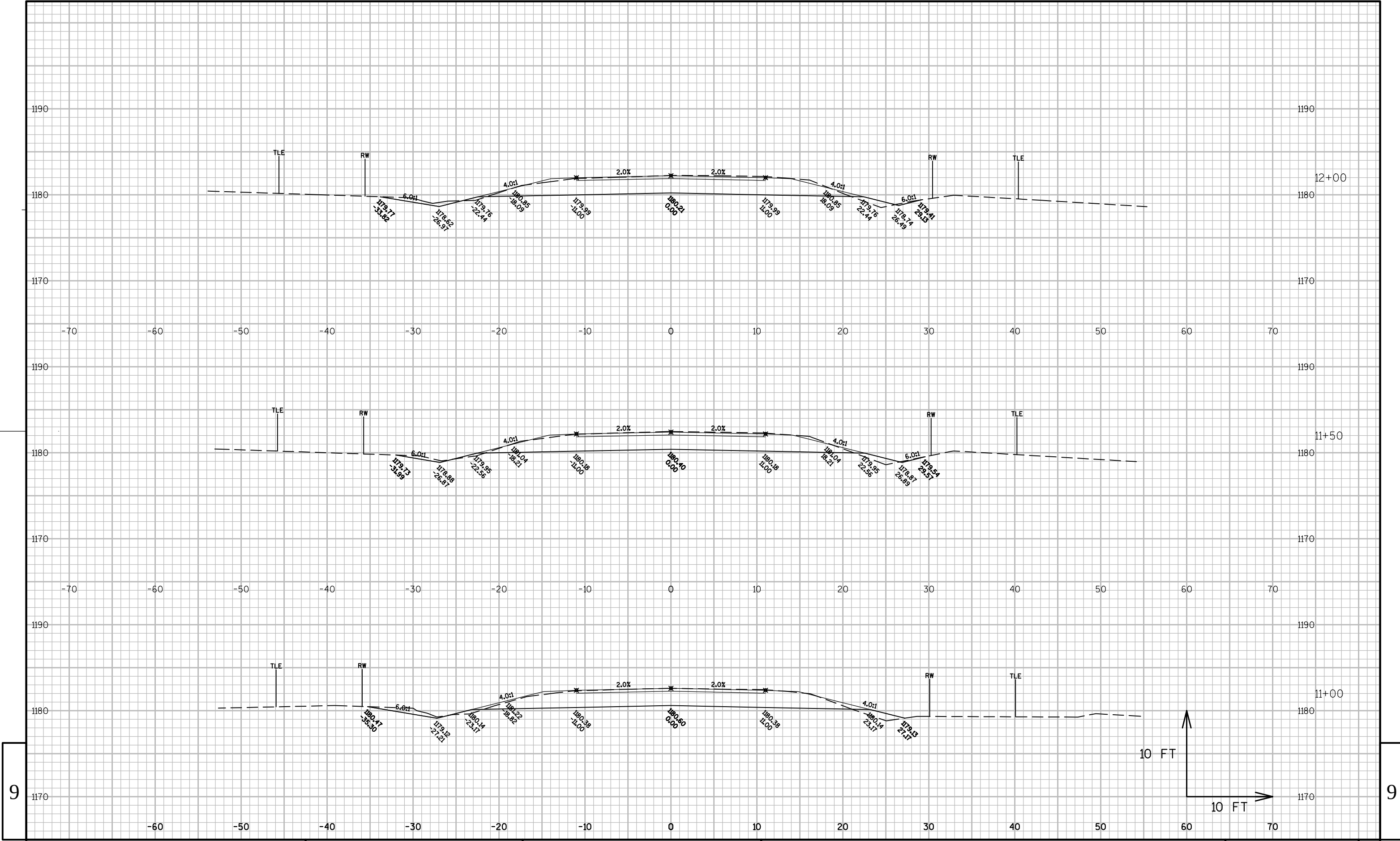




9



9



9

9

PROJECT NO:6350-07-84

HWY:USH 10

COUNTY:WOOD

CROSS SECTIONS:SMOKEY HILL RD

SHEET

E

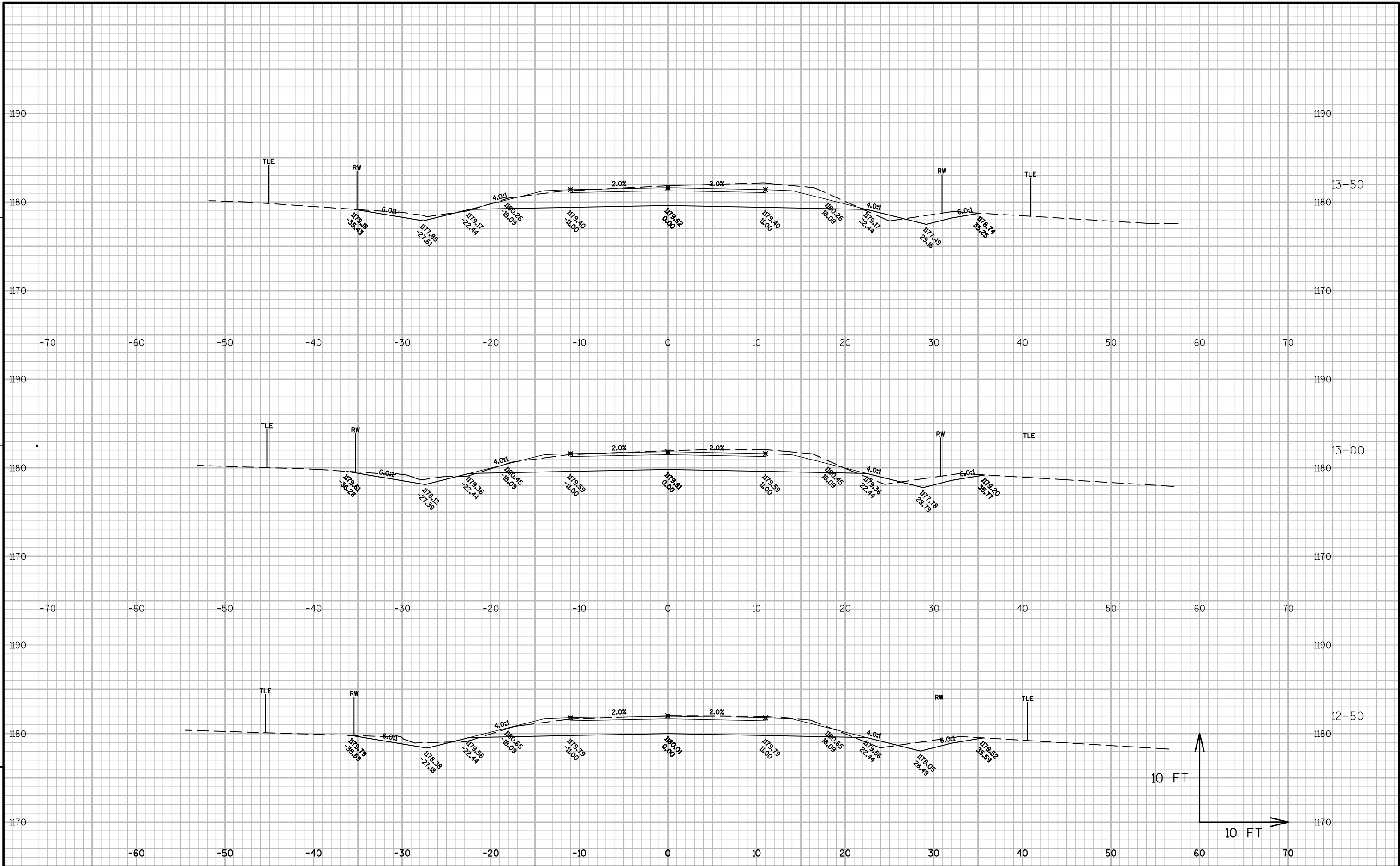
FILE NAME : N:\PDS\C3D\63500704\SHEETSPLAN\XS-SMOKEY HILL RD.DWG

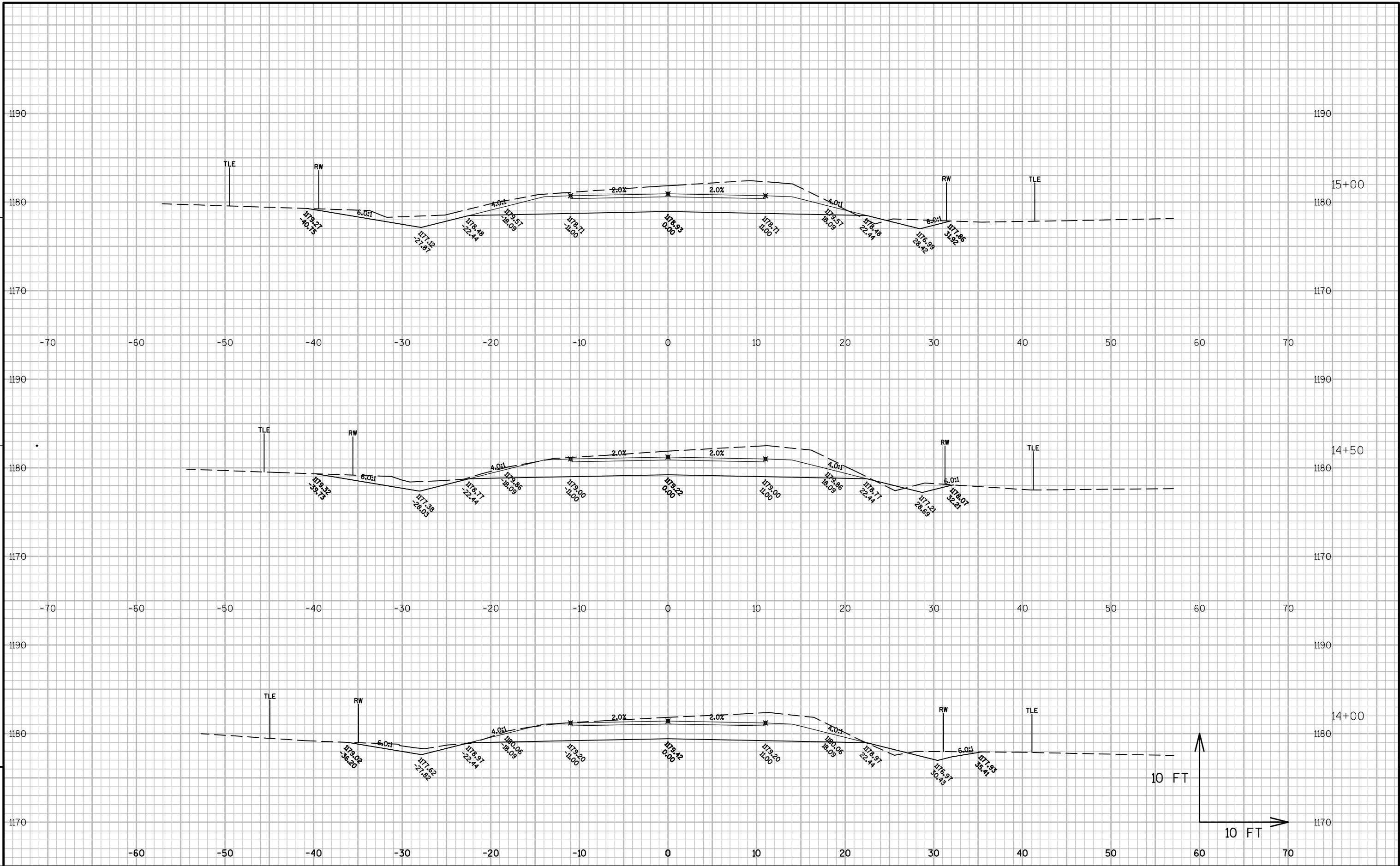
PLOT DATE : 4/15/2013 2:40 PM

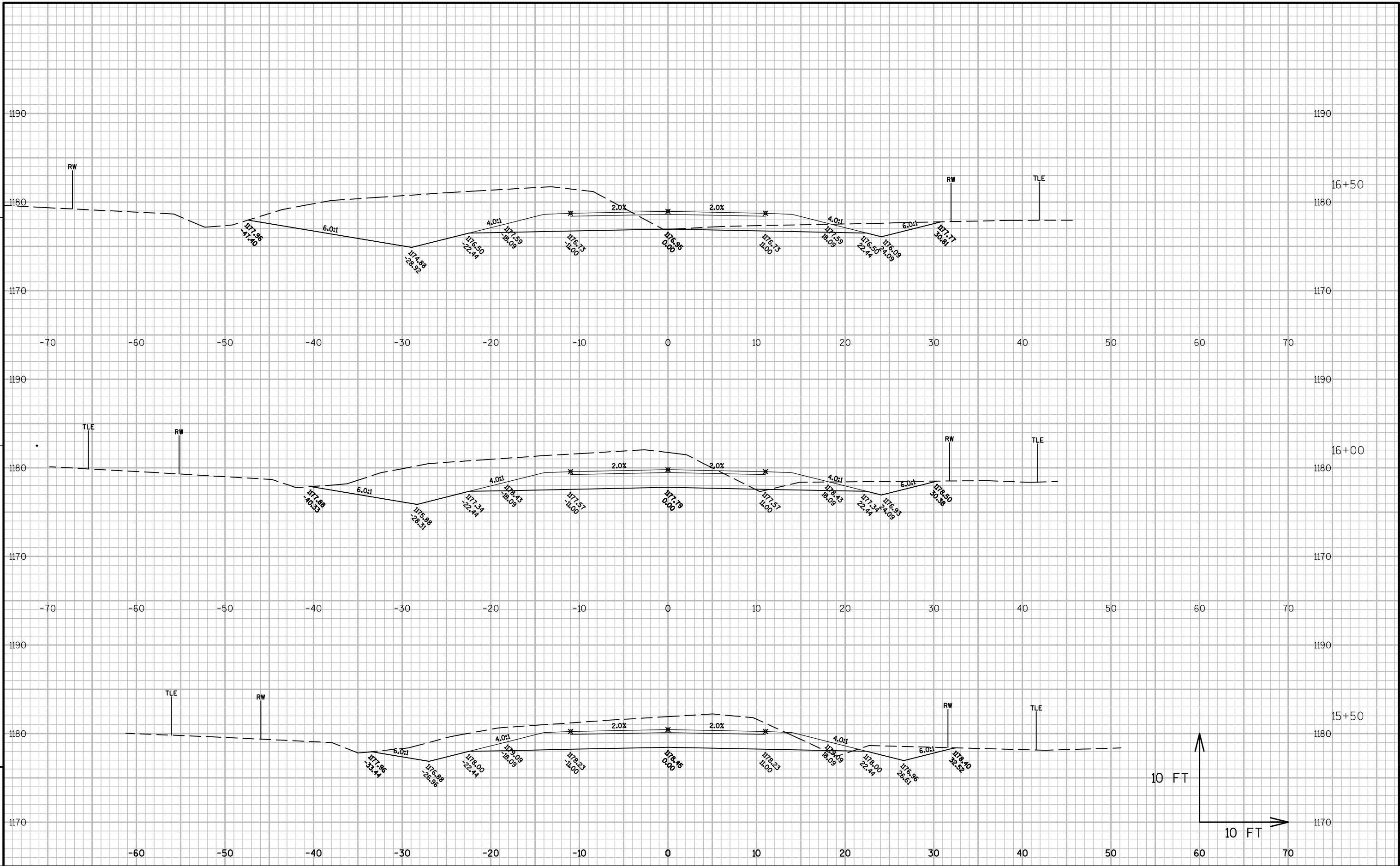
PLOT BY : SCHLEICHER, BRYCE B PLOT NAME :

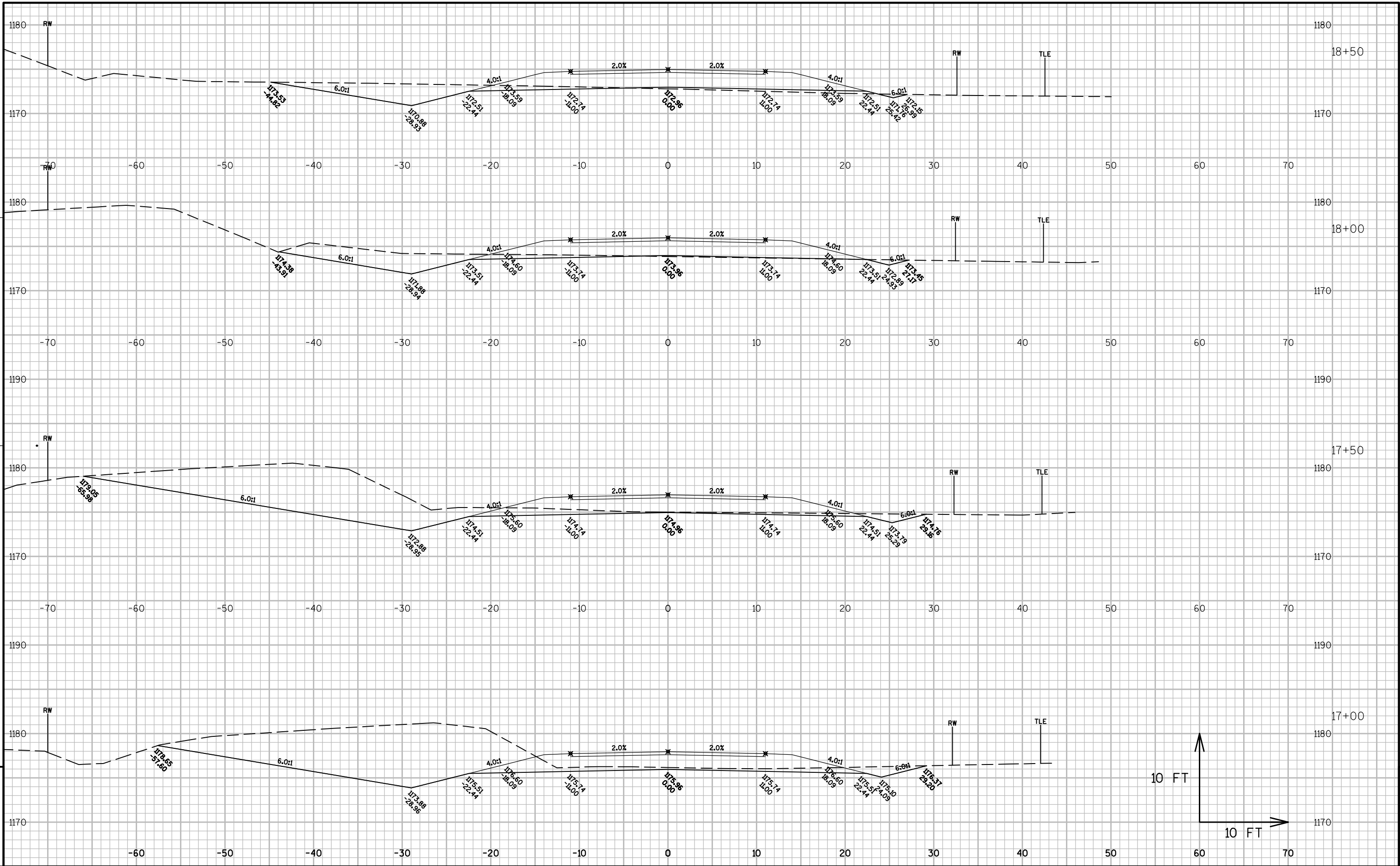
PLOT SCALE : 1 IN:10 FT

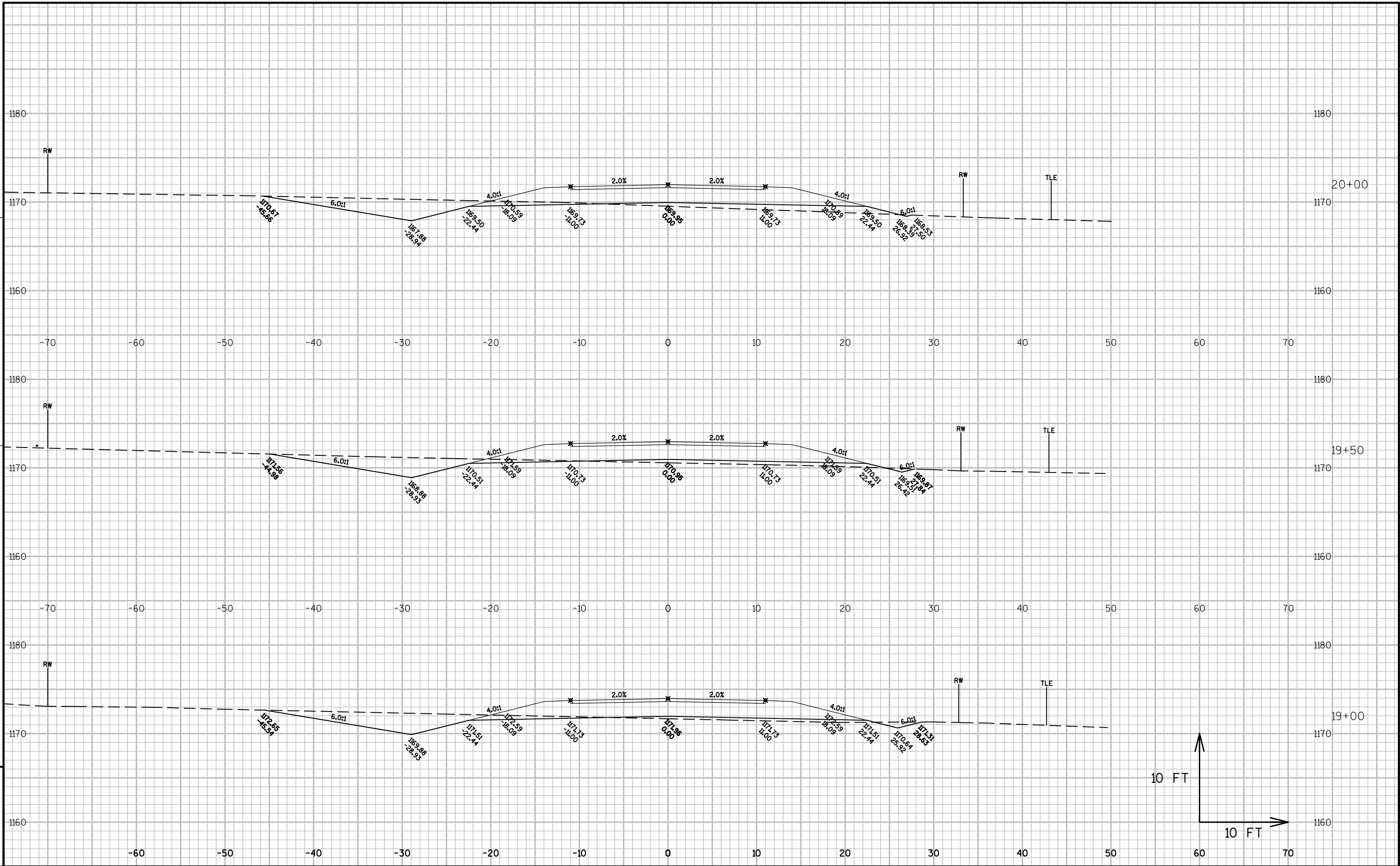
WISDOT/CADDs SHEET 49

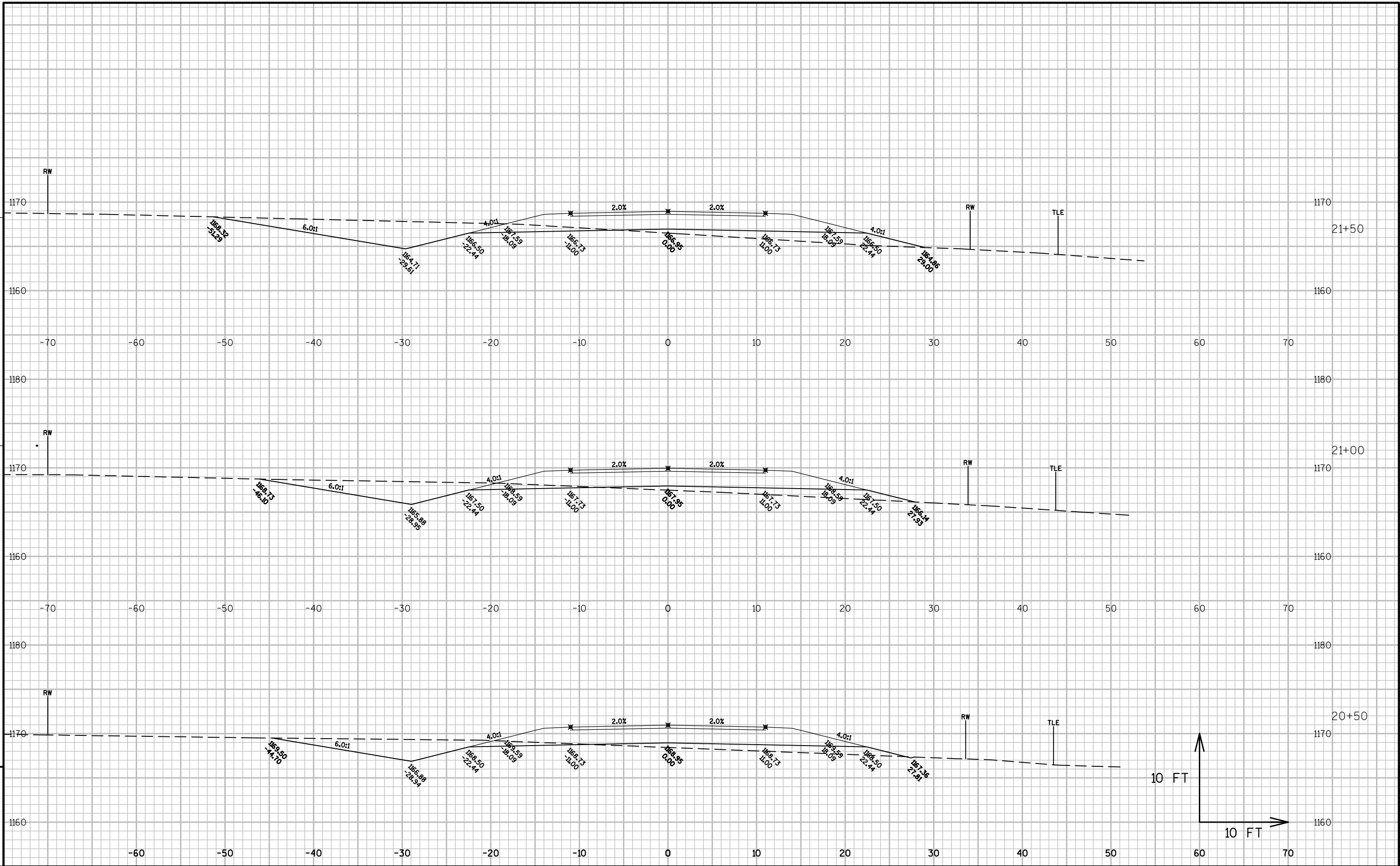


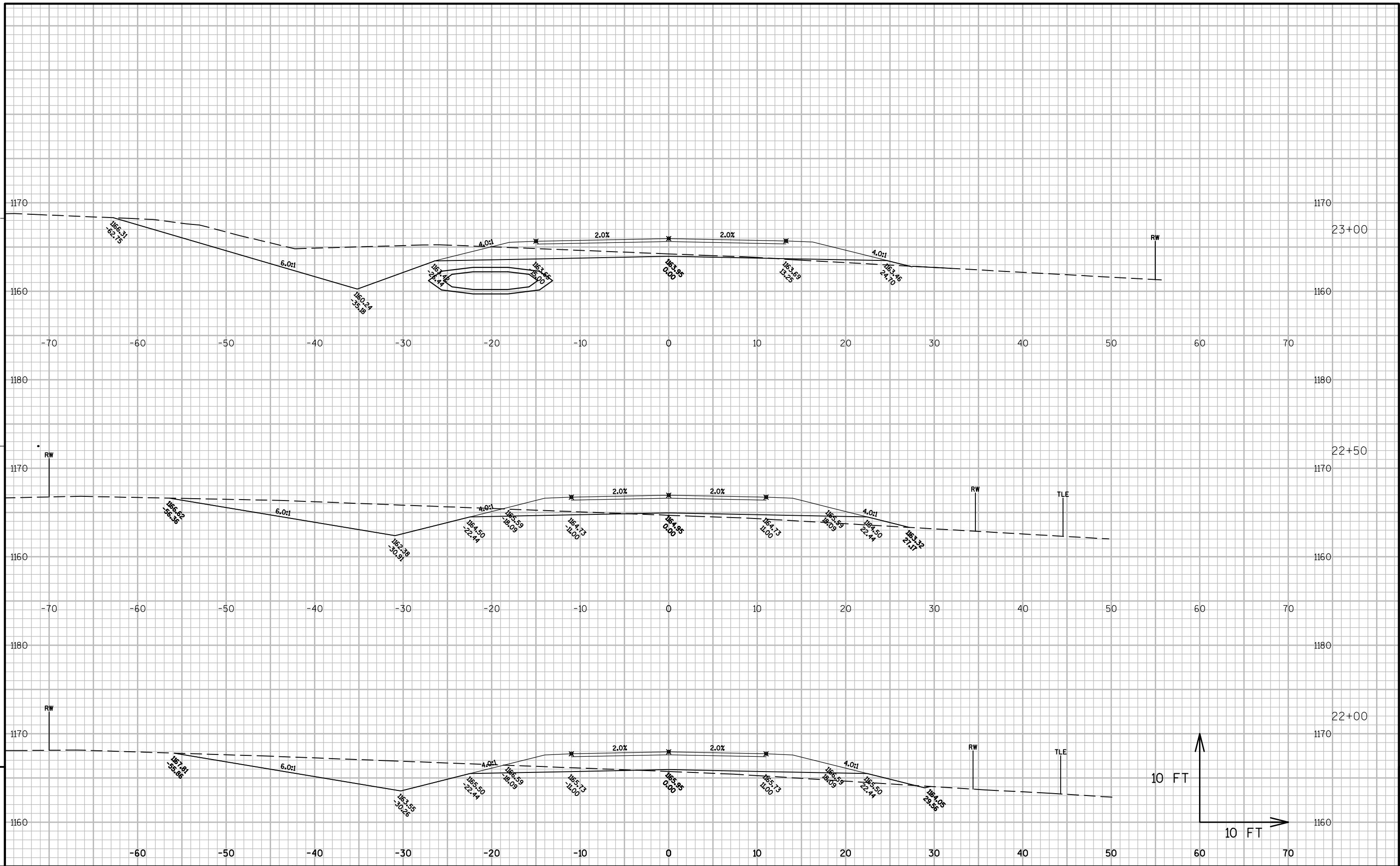


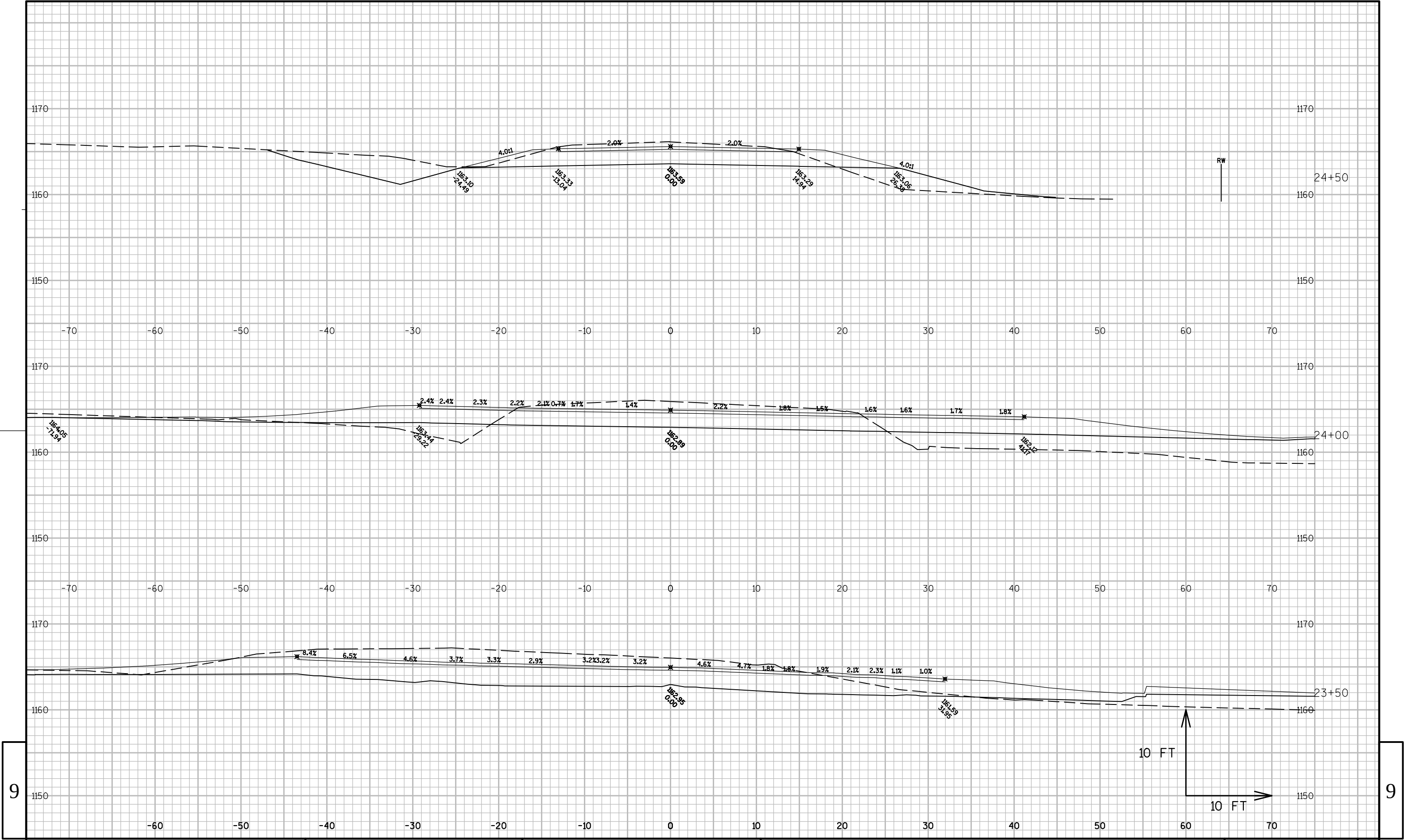












9

9

PROJECT NO:6350-07-84

HWY:USH 10

COUNTY:WOOD

CROSS SECTIONS:SMOKEY HILL RD

SHEET

E

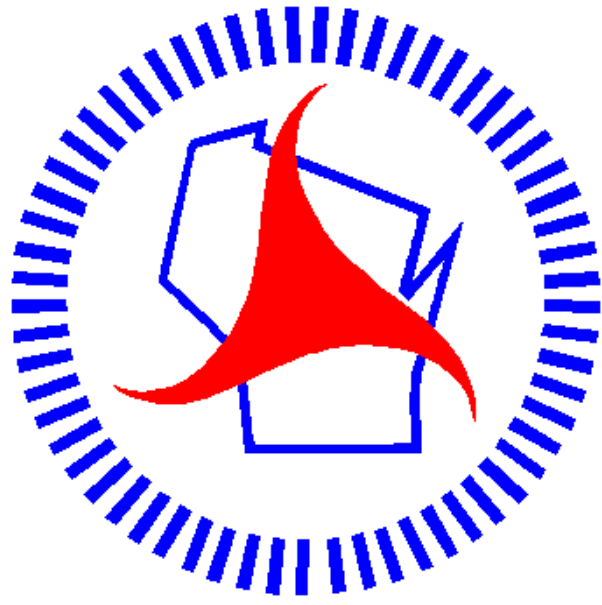
FILE NAME : N:\PDS\C3D\63500704\SHEETSPLAN\XS_SMOKEY HILL RD.DWG

PLOT DATE : 4/15/2013 2:40 PM

PLOT BY : SCHLEICHER, BRYCE B PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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