

RHI

PROJECT ID:
WITH: N/A

1176-03-71

COUNTY:

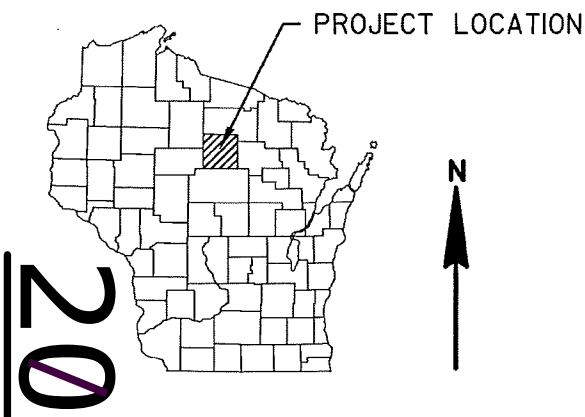
LINCOLN

APR 2016

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 = 58



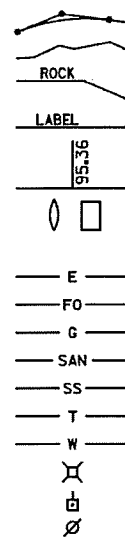
DESIGN DESIGNATION

A.A.D.T. 2016 = 11,800
A.A.D.T. 2036 = 14,600
D.H.V. = 1,900
D.D. = 61/39
T. = 8.4%
DESIGN SPEED = 70 MPH
ESALS = 4,114,900

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

MERRILL - TOMAHAWK

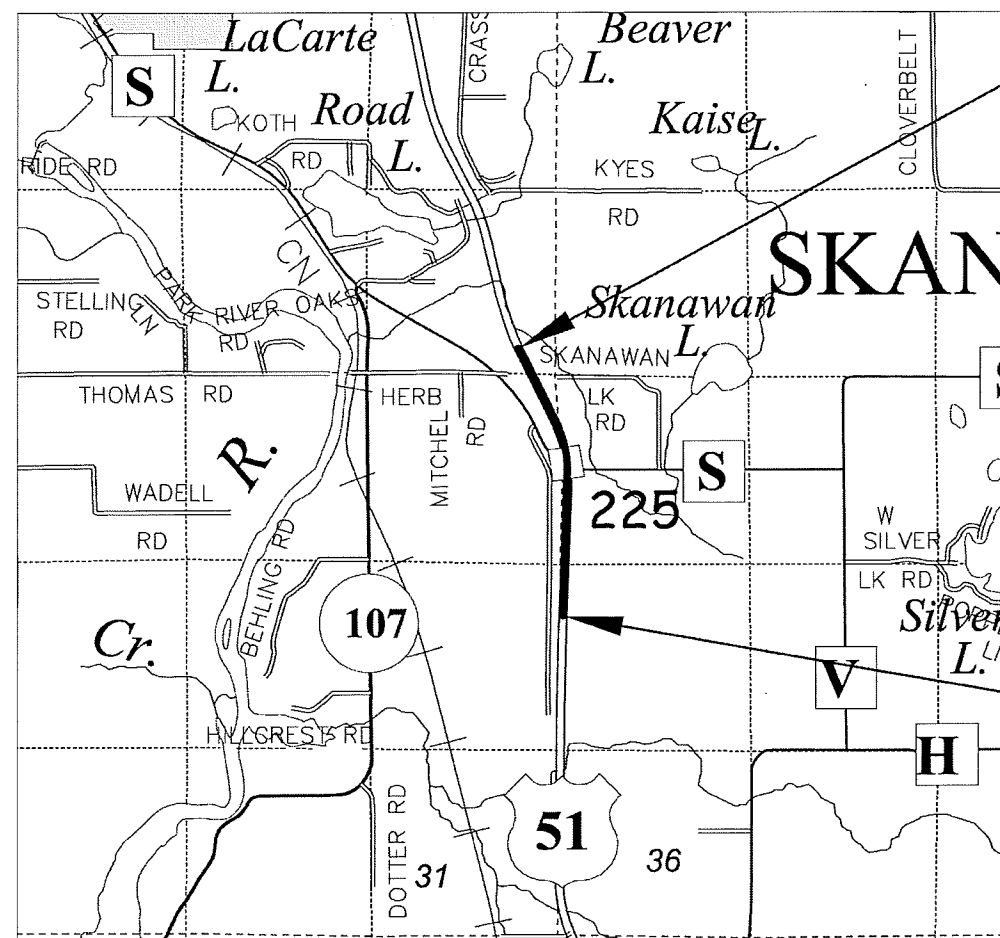
CTH S INTERCHANGE

USH 51

LINCOLN COUNTY

STATE PROJECT NUMBER

1176-03-71



END PROJECT 1176-03-71

STA 1301+64.52

Y = 211,248.48

X = 396,063.56

BEGIN PROJECT 1176-03-71

STA 1229+32.15

Y = 204,199.49

X = 396,799.50

LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 1.370 MILES

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY
COORDINATE SYSTEM (WCCS), LINCOLN COUNTY, NAD 1983 (2011).
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN
VERTICAL DATUM OF 1988 NAVD 88 (2012).

STATE PROJECT

1176-03-71

FEDERAL PROJECT

PROJECT

WISC 2016103

CONTRACT

1

ORIGINAL PLAN PREPARED BY

BECHER HOPPE 330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com



10-15-2015

(Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor BECHER-HOPPE ASSOCIATES, INC.
Designer BECHER-HOPPE ASSOCIATES, INC.
Project Manager DANIEL ERVA, PE
Regional Examiner CHERYL SIMON, PE
Regional Supervisor MIKE WENDT, PE

APPROVED FOR THE DEPARTMENT

DATE: 10/16/15 Michael B. Wendt, PE
(Signature)

E

GENERAL NOTES

BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

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.

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

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.

UTILITIES

COMMUNICATION
FRONTIER COMMUNICATIONS
521 4TH ST
WAUSAU, WI 54403
BRIAN DOMPKE
MOBILE: (715) 203-9257
brian.dompke@ftr.com

ELECTRIC
WISCONSIN PUBLIC SERVICE CORPORATION
PO BOX 1166
WAUSAU, WI 54401
CLAYTON VIRCKS
PHONE: (715) 848-7317
MOBILE: (715) 573-7806
chvircks@wisconsinpublicservice.com

SECTION 2 ORDER

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
EROSION CONTROL
TRAFFIC CONTROL
ALIGNMENT DIAGRAM
SUBSURFACE EXPLORATION
CONTROL POINT DATA

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT						.70 - .95						
CONCRETE						.80 - .95						
BRICK						.70 - .80						
DRIVES, WALKS						.75 - .85						
ROOFS						.75 - .95						
GRAVEL ROADS, SHOULDERS						.40 - .60						

TOTAL PROJECT AREA = 33.2 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.8 ACRES

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
107 SUTLIFF AVENUE
RHINELANDER, WI 54501
JON SIMONSEN
PHONE: (715) 365-8916
jonathan.simonsen@wisconsin.gov

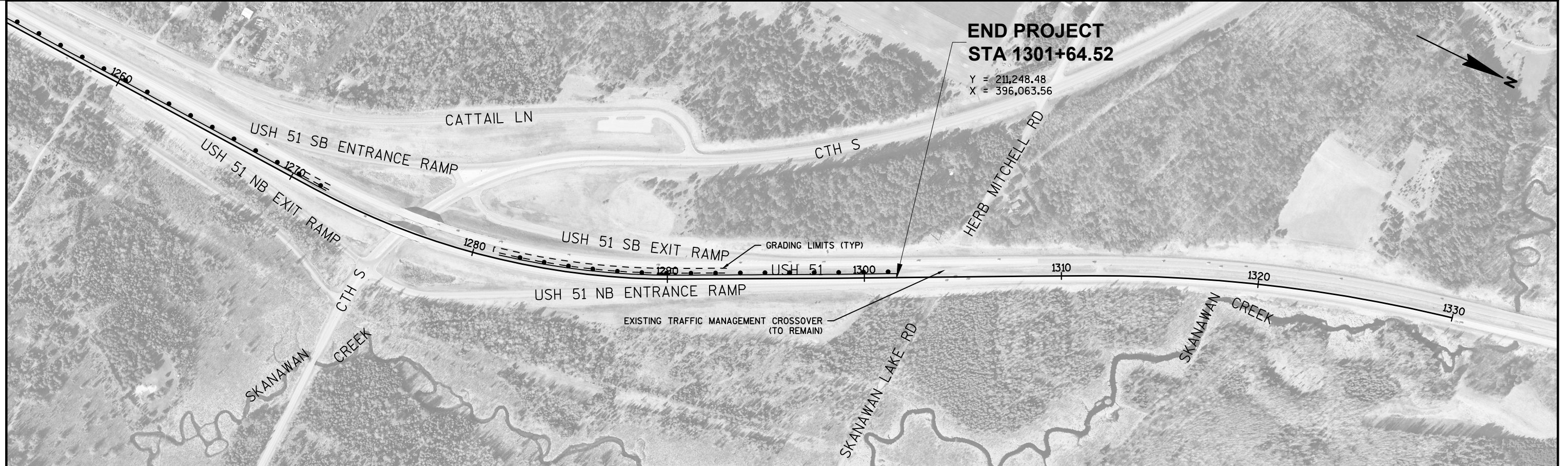
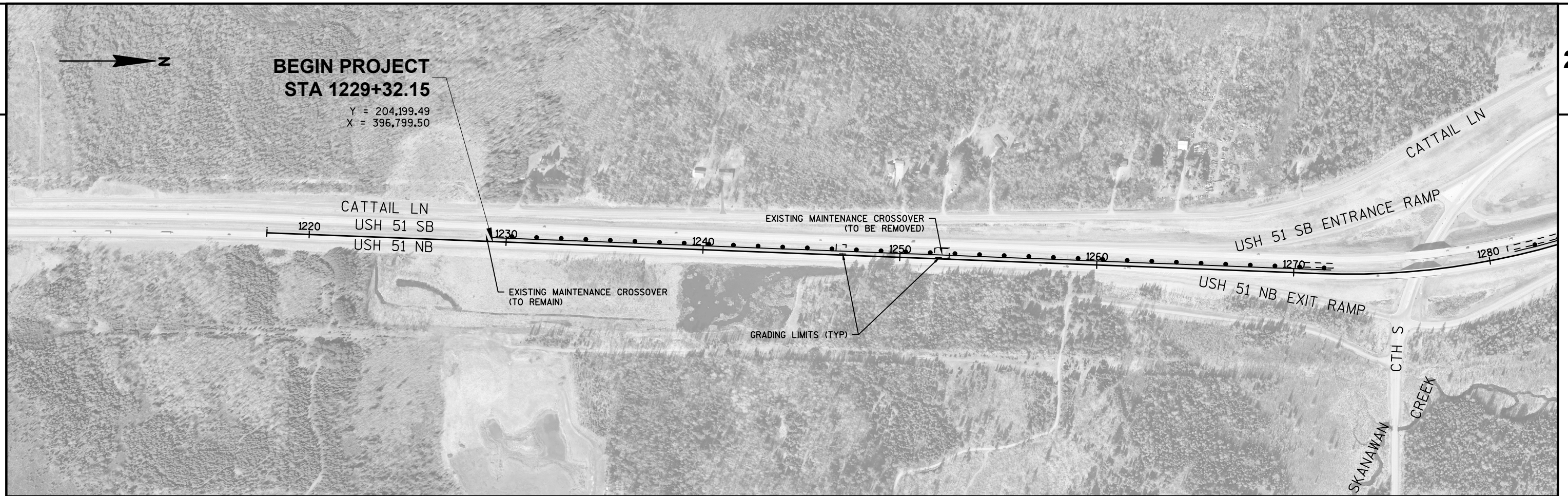
DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

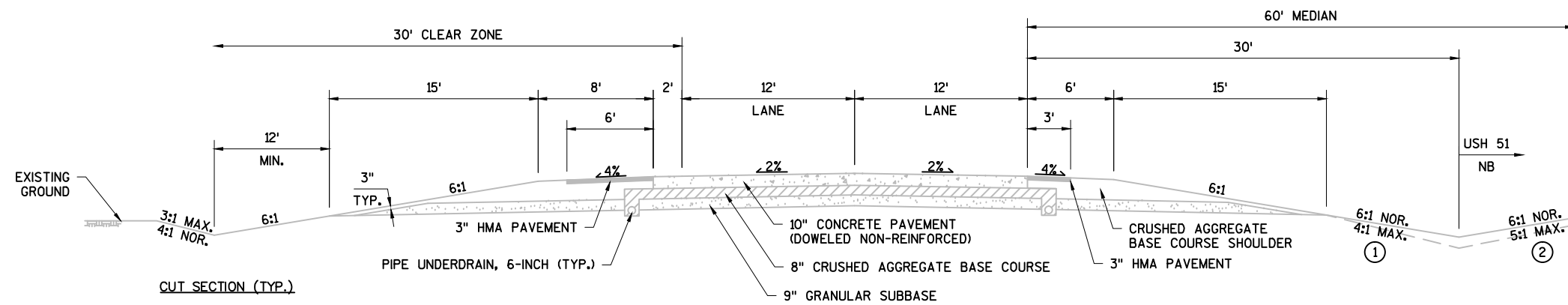
2

2



PROJECT NO:1176-03-71	HWY:USH 51	COUNTY:LINCOLN	PROJECT OVERVIEW	SHEET	E
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FILE NAME : P:\2015\2015.044 - WISDOT NCR - USH 51 CABLE GUARD\11760371\SHEET\SPLAN\020201-PO.DWG	PLOT DATE : 10/23/2015 8:49 AM	PLOT BY : CHAD D. GRUNDEMANN	PLOT NAME :	PLOT SCALE : 1 IN:500 FT	WISDOT/CADDs SHEET 44
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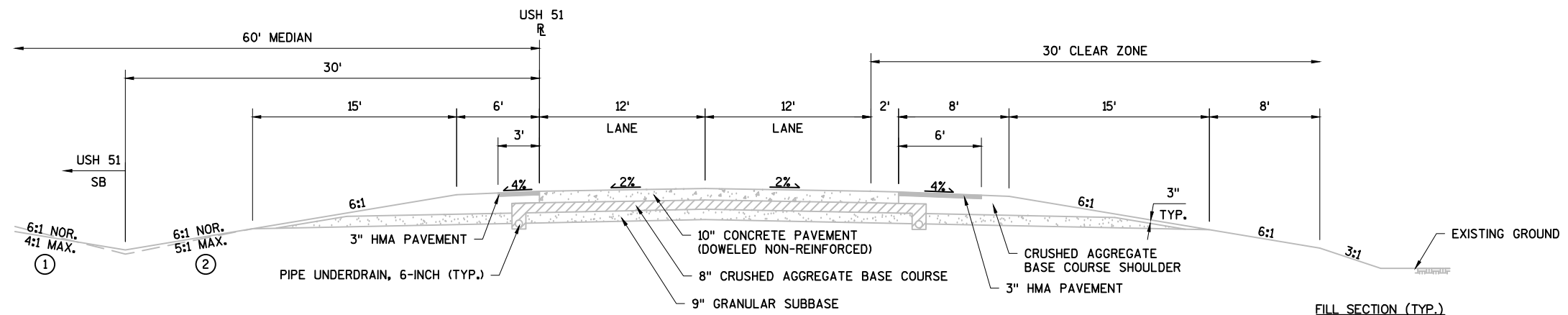


EXISTING TYPICAL SECTION - USH 51 SB

STATION 1229+32.15 - STATION 1301+64.52

① STA 1246+75 - 1247+25: 5:1
STA 1270+50 - 1293+00: 4:1

② STA 1246+75 - 1247+25: 5:1

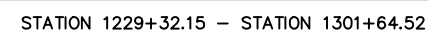


EXISTING TYPICAL SECTION - USH 51 NB

STATION 1229+32.15 - STATION 1301+64.52

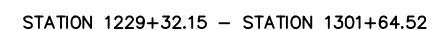
① STA 1246+75 - 1247+25: 5:1
STA 1270+50 - 1293+00: 4:1

② STA 1246+75 - 1247+25: 5:1



① SEE CROSS SECTIONS

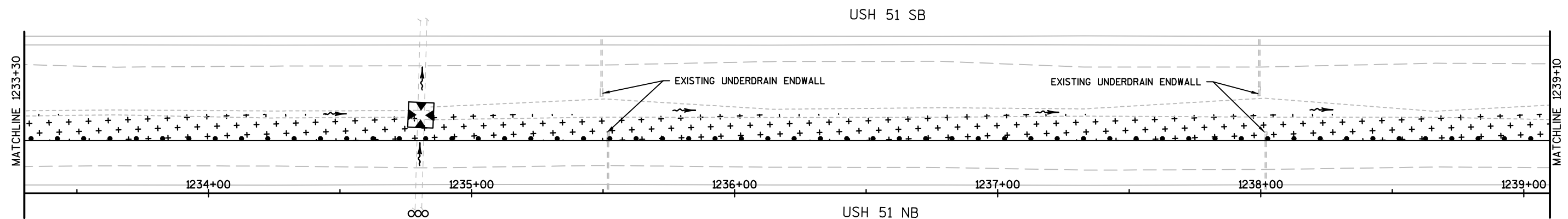
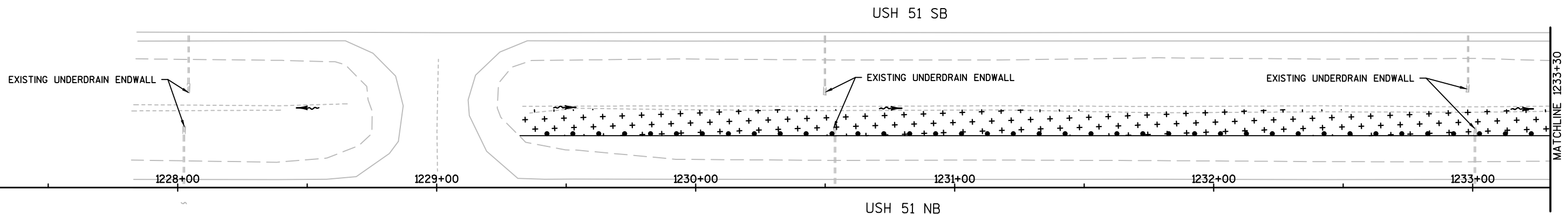
(S) GRADING ON SB SIDE
STA 1246+75 - 1247+25
STA 1251+75 - 1252+50
STA 1270+50 - 1272+00
STA 1281+00 - 1293+00

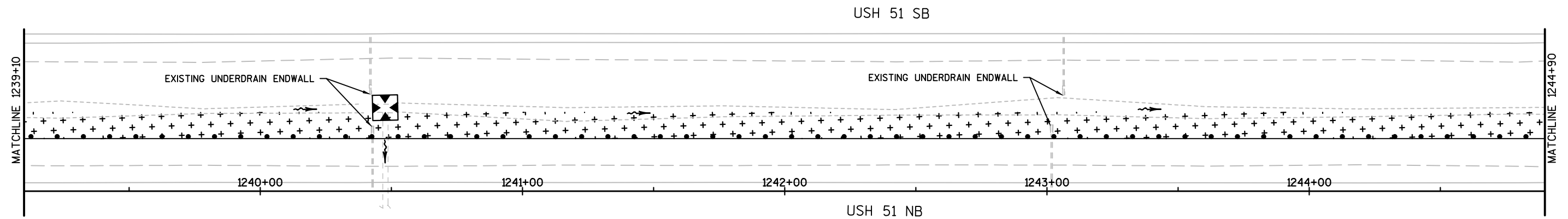


① SEE CROSS SECTIONS


(R) CABLE BARRIER TYPE 1 ON NB SIDE
STA 1229+32.15 - 1271+88.40
STA 1281+34.62 - 1301+64.52

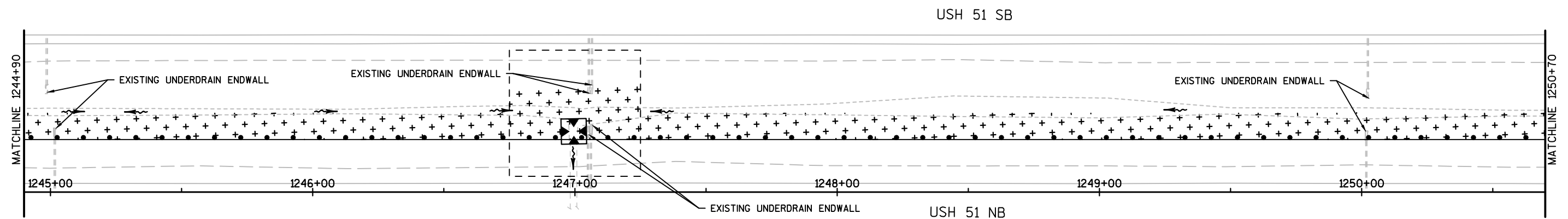
(N) GRADING ON NB SIDE
STA 1246+75 - 1247+25
STA 1251+75 - 1252+50
STA 1309+50 - 1310+25

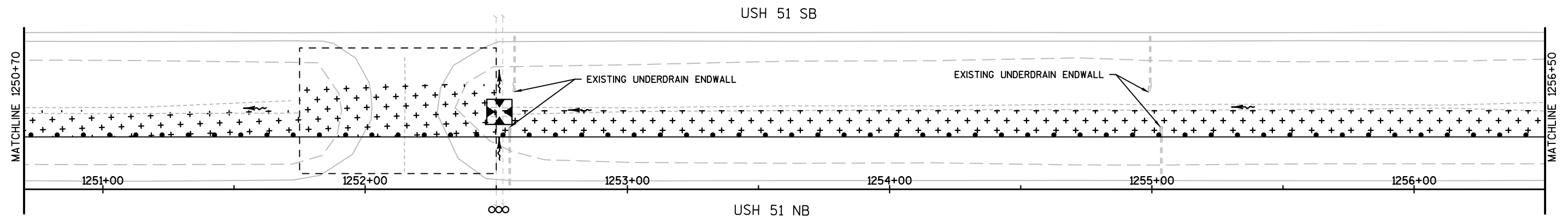





LEGEND

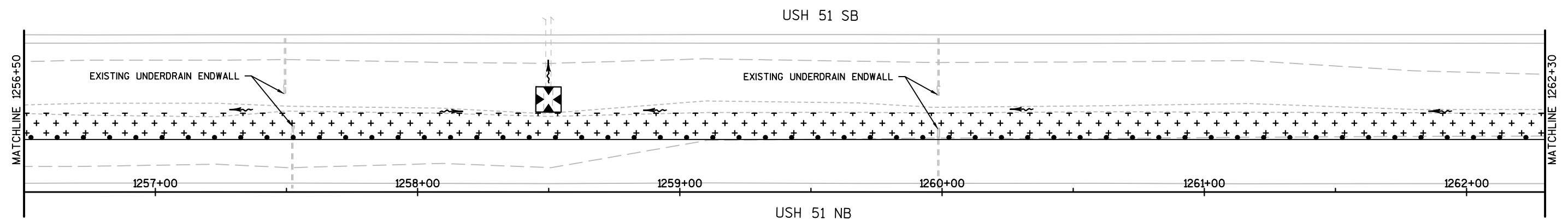
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- ~ FLOW DIRECTION
-  INLET PROTECTION
- - - SLOPE INTERCEPT

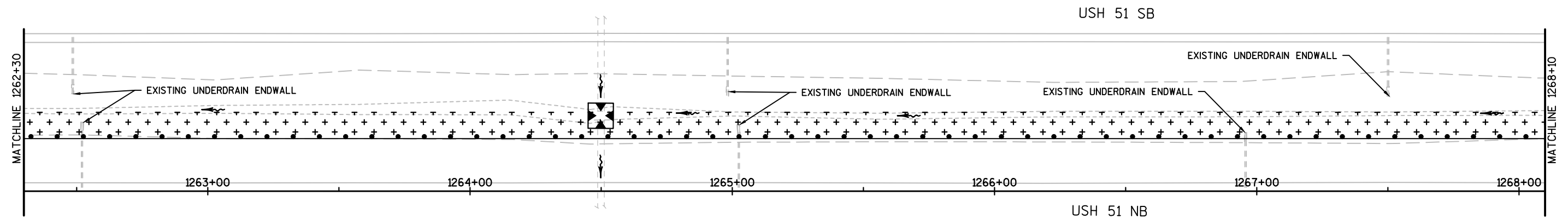




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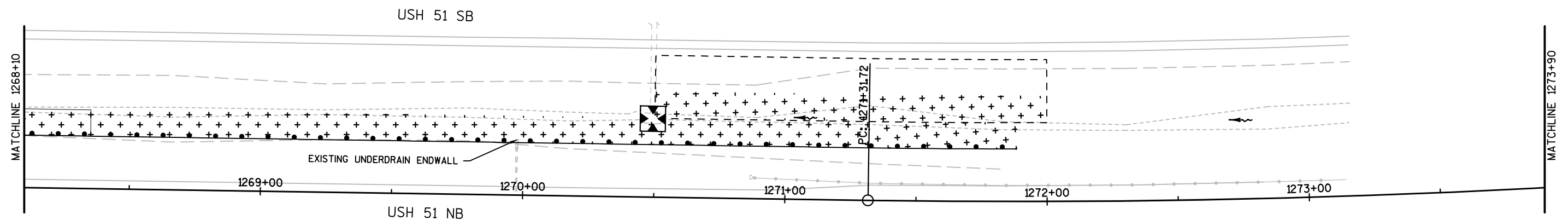
- + TOPSOIL, SEED, FERTILIZER AND MULCH
- ~> FLOW DIRECTION
-  INLET PROTECTION
- - - SLOPE INTERCEPT

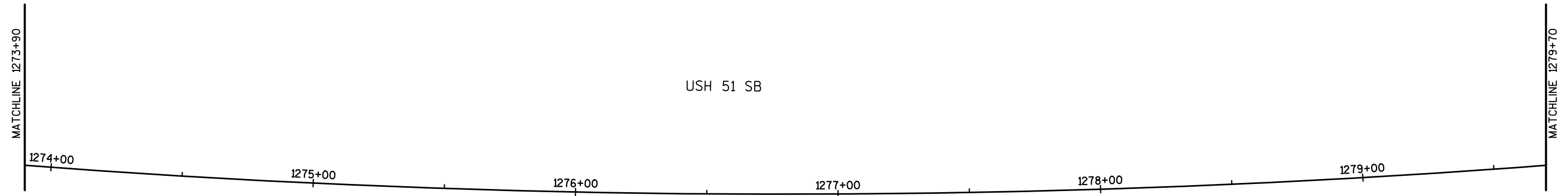




LEGEND


- + TOPSOIL, SEED, FERTILIZER AND MULCH
- ~> FLOW DIRECTION
- X INLET PROTECTION
- - - SLOPE INTERCEPT

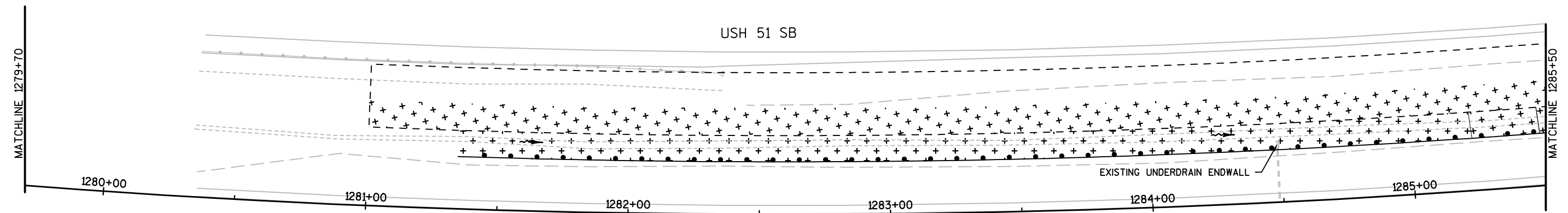


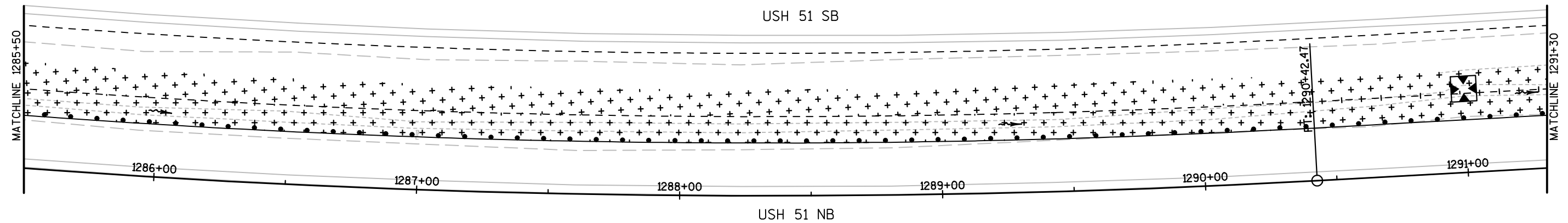


USH 51 NB

LEGEND

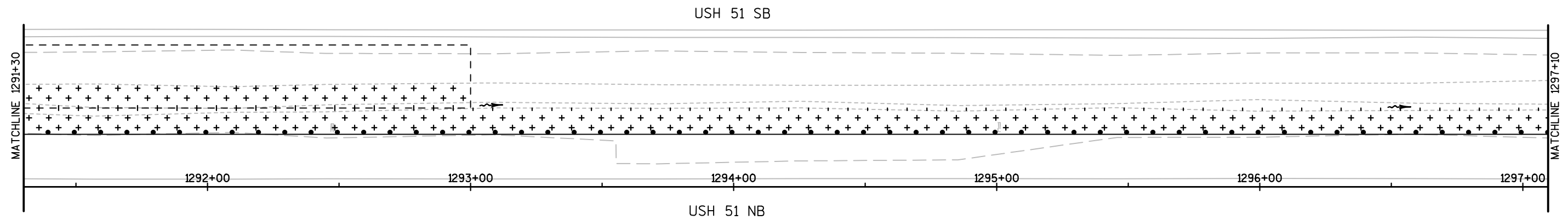
- + TOPSOIL, SEED, FERTILIZER AND MULCH
- ~> FLOW DIRECTION
-  INLET PROTECTION
- - - SLOPE INTERCEPT

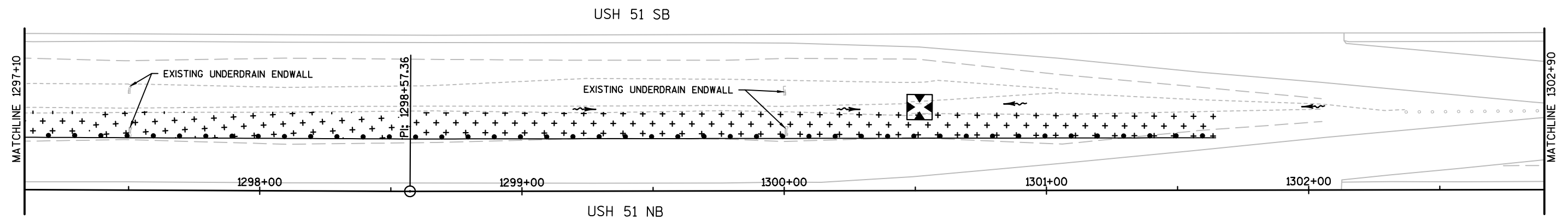




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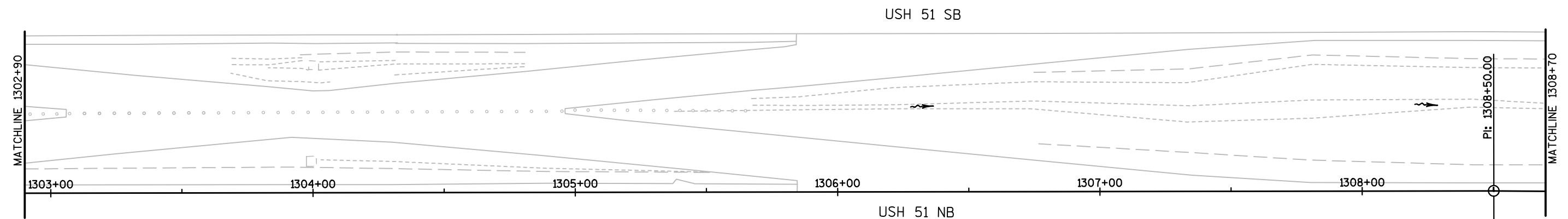
- + TOPSOIL, SEED, FERTILIZER AND MULCH
- ~ FLOW DIRECTION
- X INLET PROTECTION
- - - SLOPE INTERCEPT



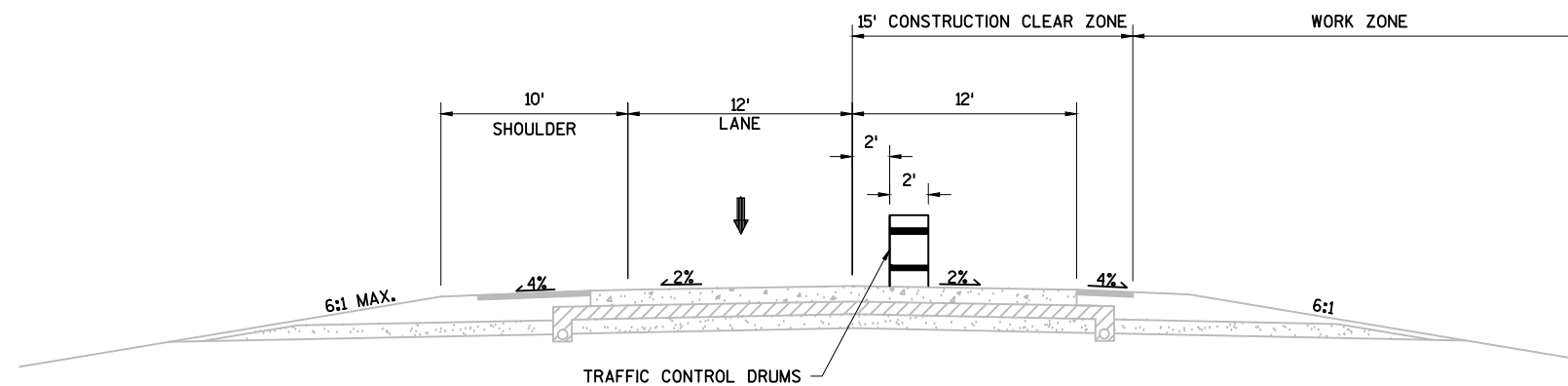


LEGEND

- + TOPSOIL, SEED, FERTILIZER AND MULCH
- ~ FLOW DIRECTION
- X INLET PROTECTION
- - - SLOPE INTERCEPT

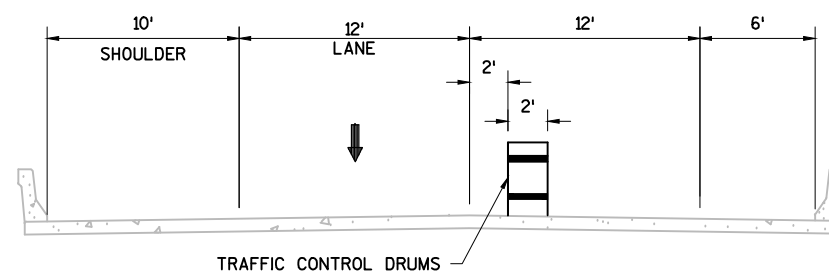


STA BACK = 1308+50.19
STA AHEAD = 1308+50.00



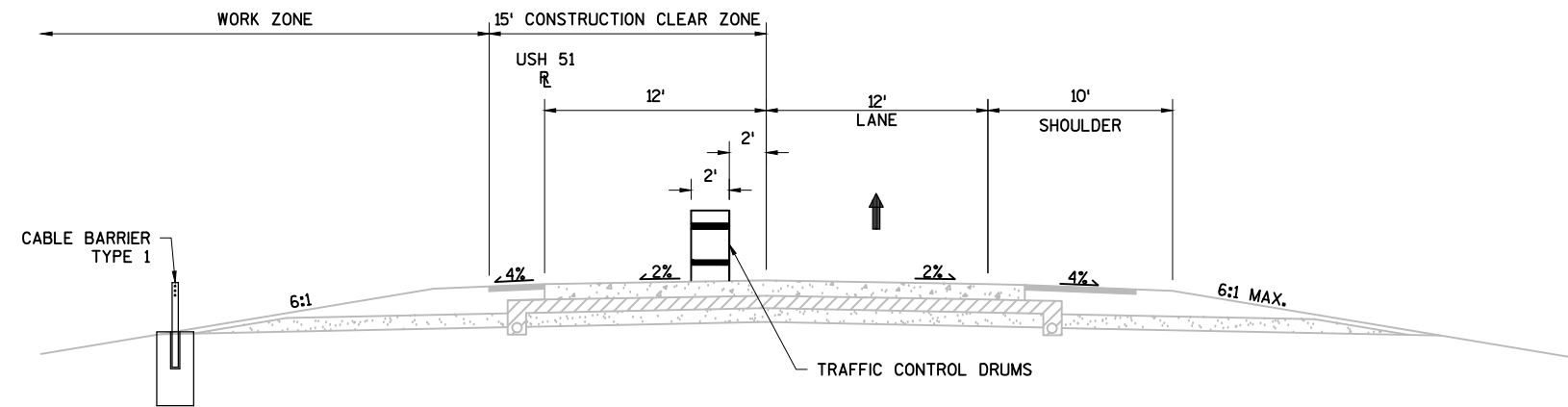
TRAFFIC CONTROL TYPICAL SECTION - USH 51 SB

STATION 1229+32.15 - STATION 1311+64.22



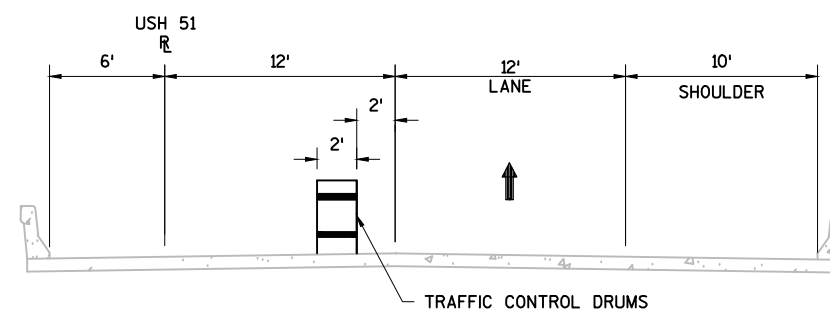
TRAFFIC CONTROL TYPICAL SECTION - USH 51 SB AT STRUCTURE

USH 51 SB OVER CTH S



TRAFFIC CONTROL TYPICAL SECTION - USH 51 NB

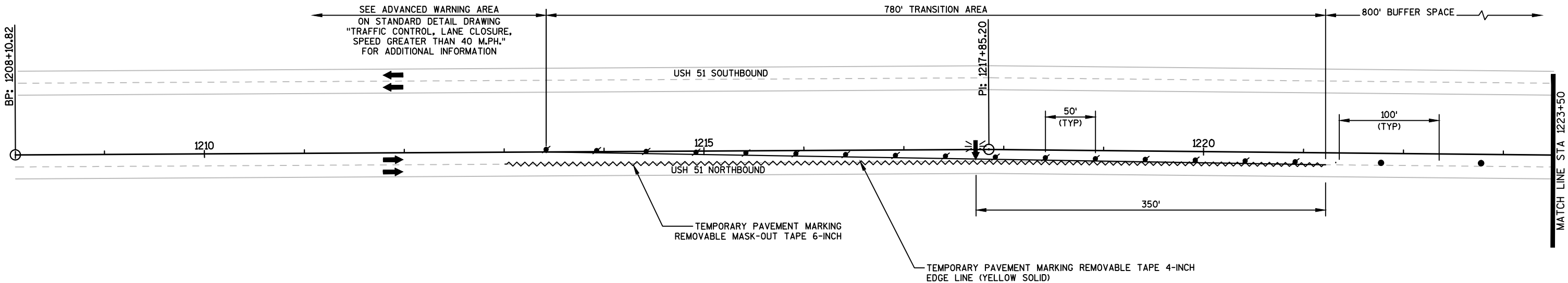
STATION 1252+47.58 - STATION 1301+64.52



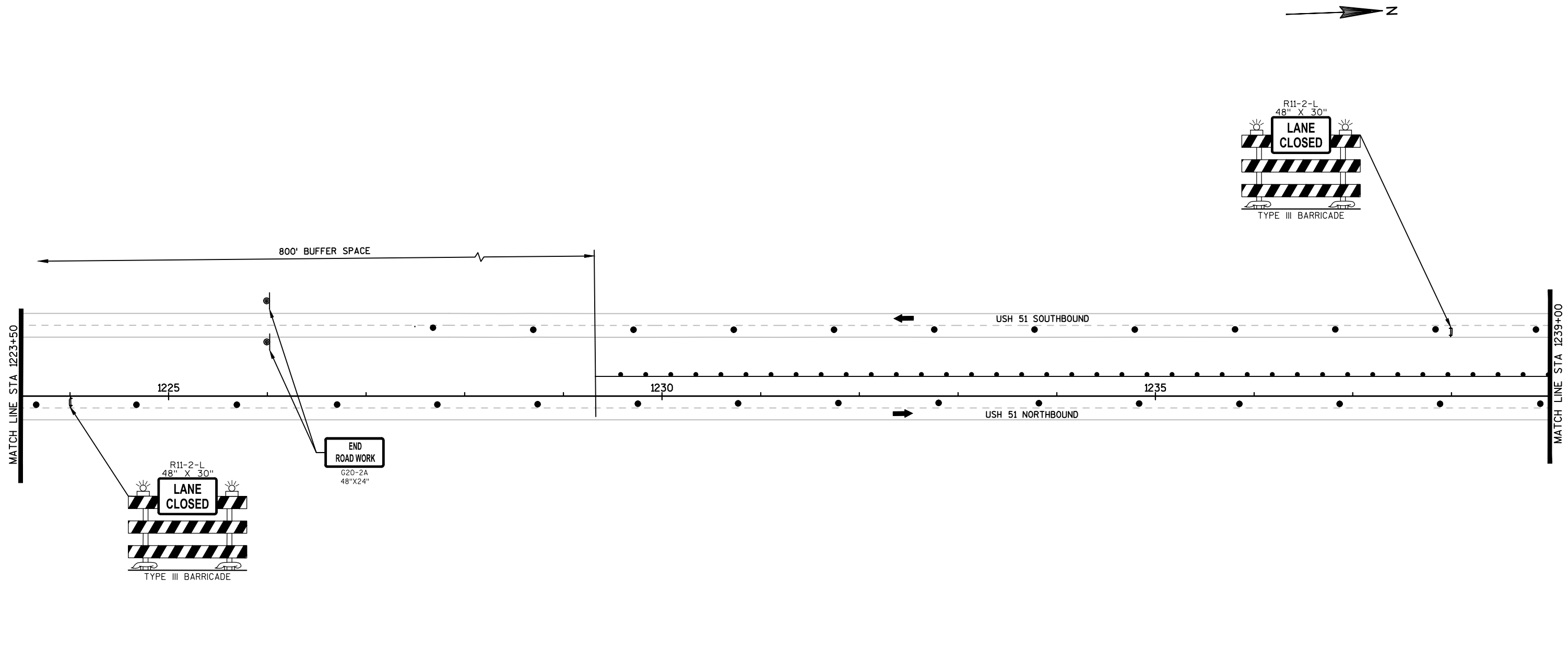
TRAFFIC CONTROL TYPICAL SECTION - USH 51 NB AT STRUCTURE

USH 51 NB OVER CTH S

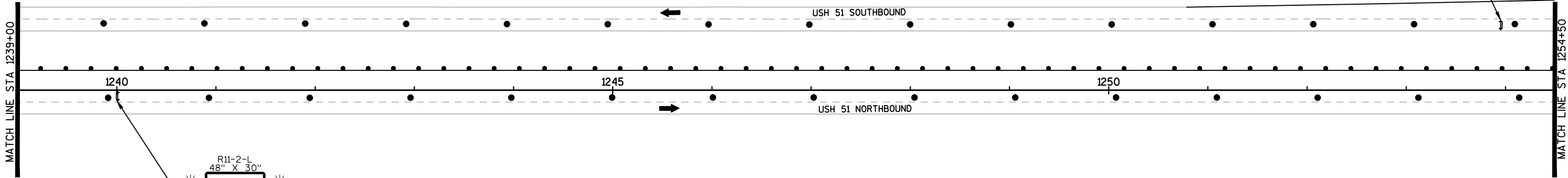
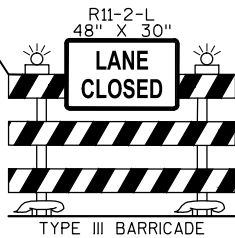
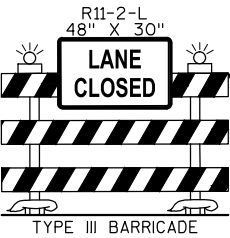
NOTE:
WHEN SHOULDER CLOSURES ARE NECESSARY, USE
"TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER THAN 40 M.P.H."



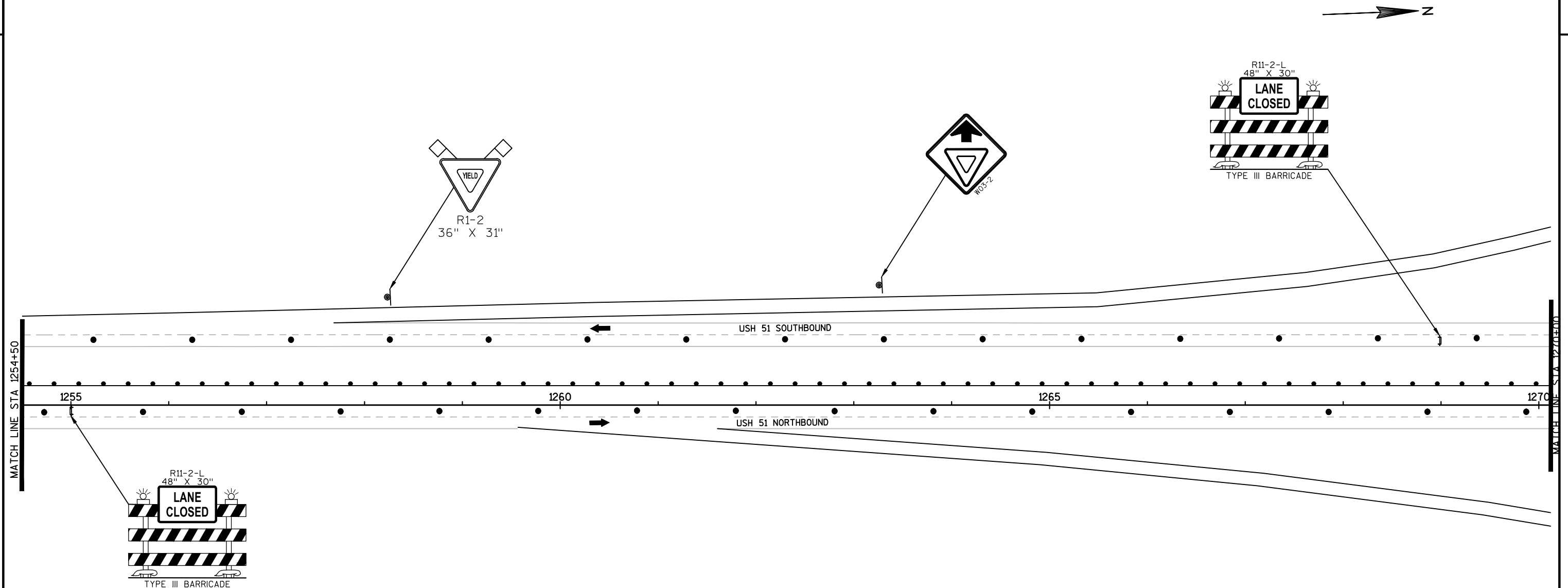
LEGEND	
	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
	FLASHING ARROW BOARD
	TRAFFIC CONTROL SIGN MOUNTED ON POST. LEFT IN-PLACE FOR DURATION OF PROJECT
	CABLE BARRIER WORK AREA
	DIRECTION OF TRAFFIC
	FLAGS 16"X16" ORANGE
	TEMP PAVT MRKG REMOVABLE MASK-OUT TAPE
	PAVEMENT MARKING FOR NEXT STAGE



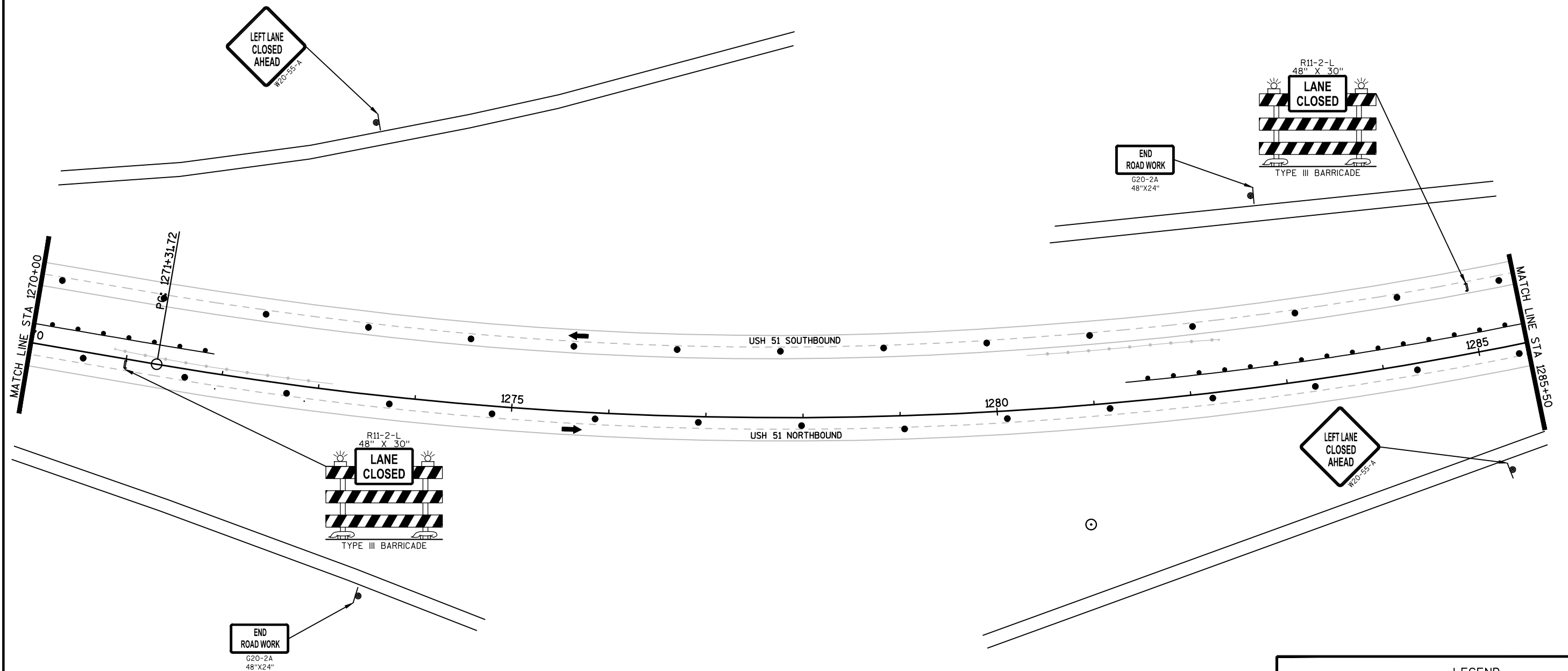
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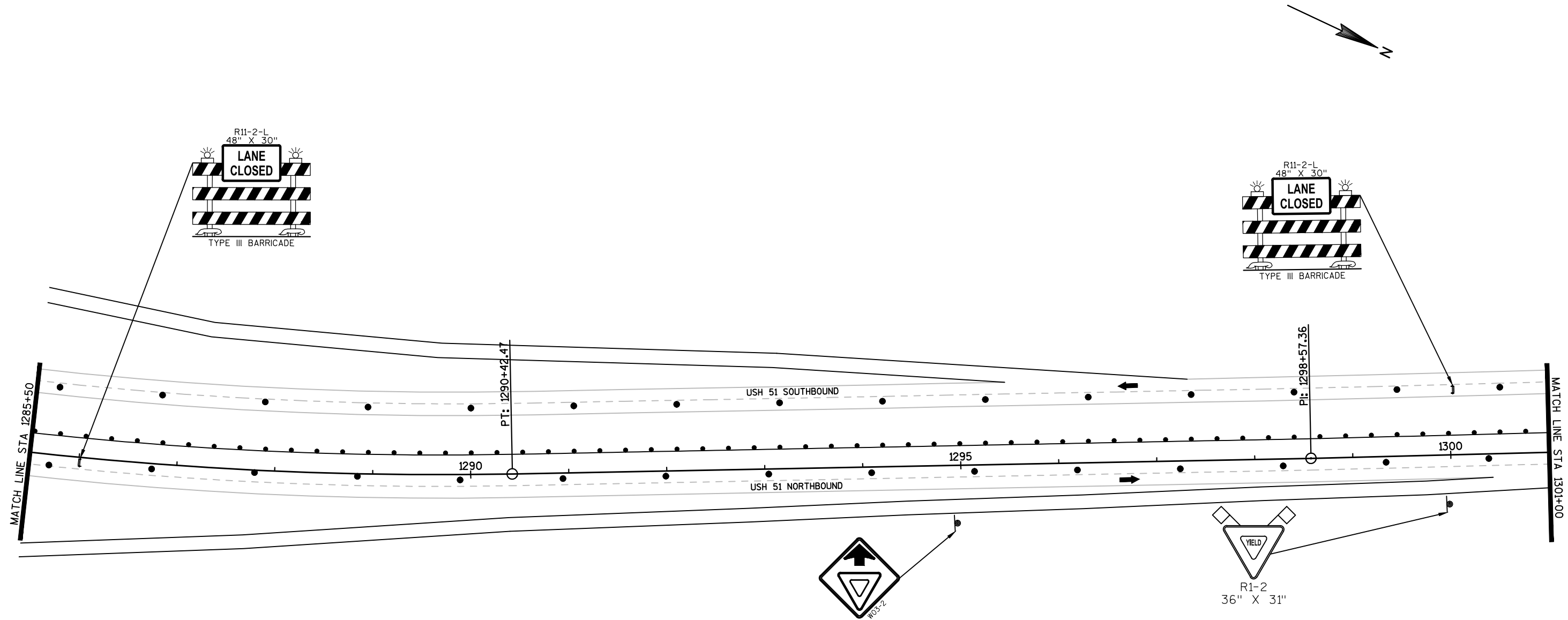
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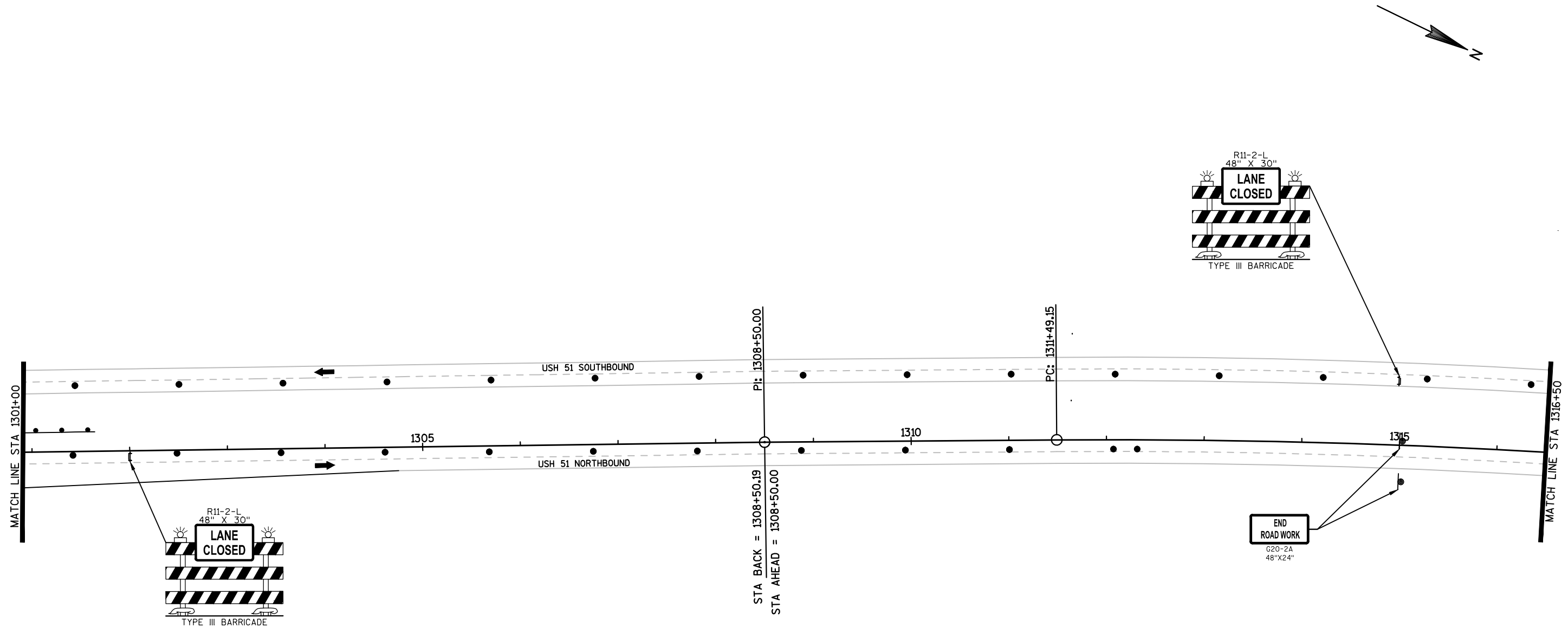
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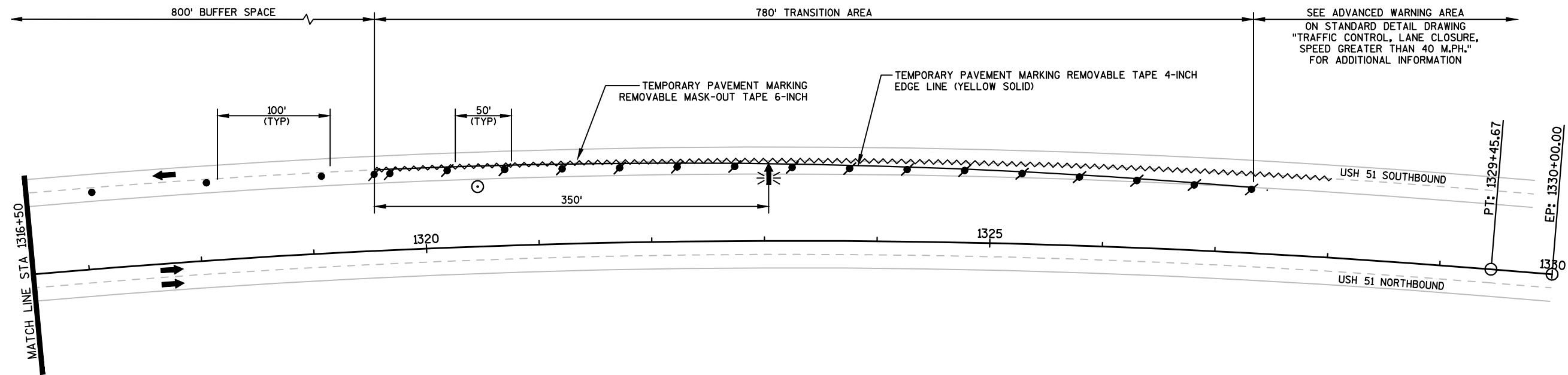


LEGEND	
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	TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
	FLASHING ARROW BOARD
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	PAVEMENT MARKING FOR NEXT STAGE

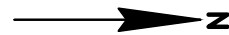


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	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
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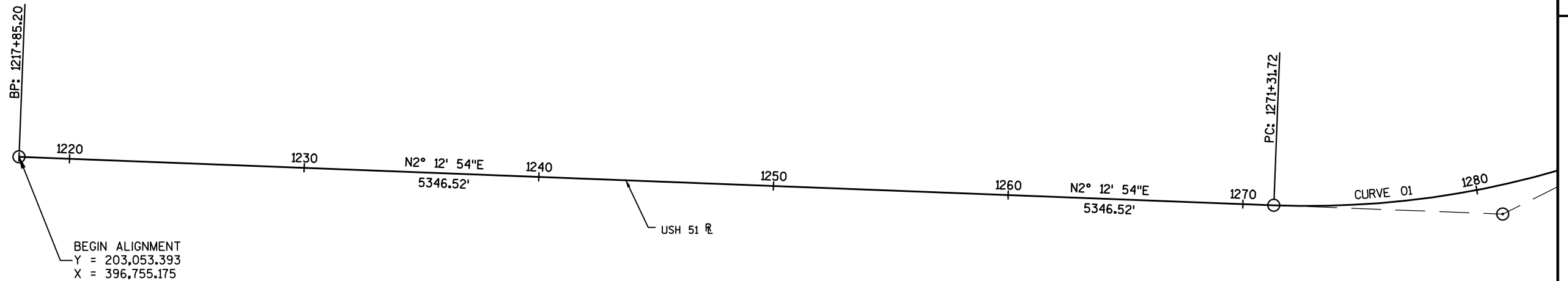
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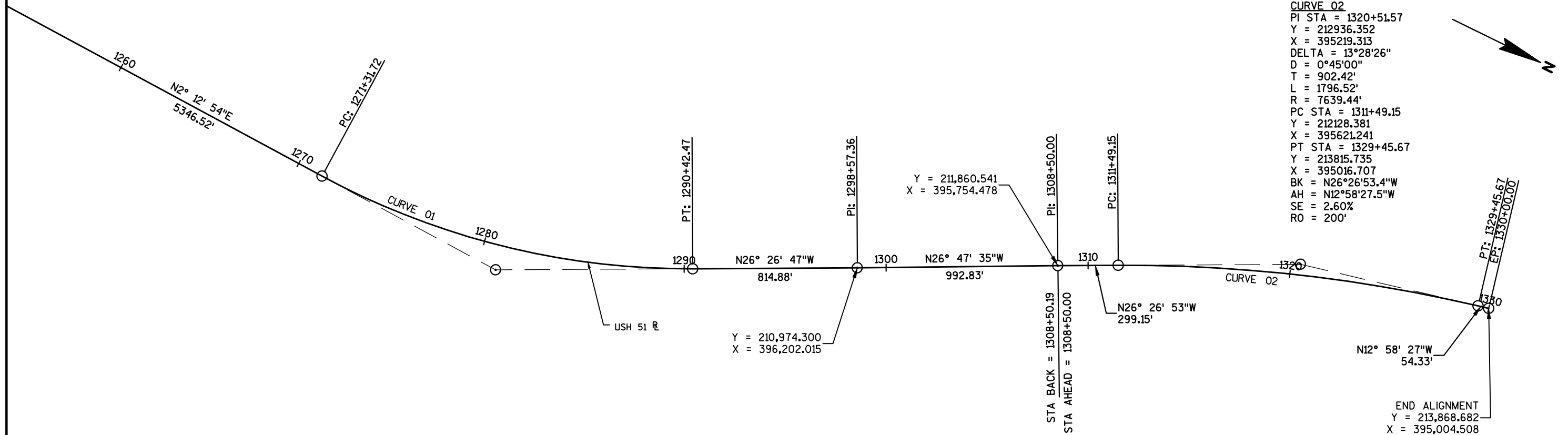
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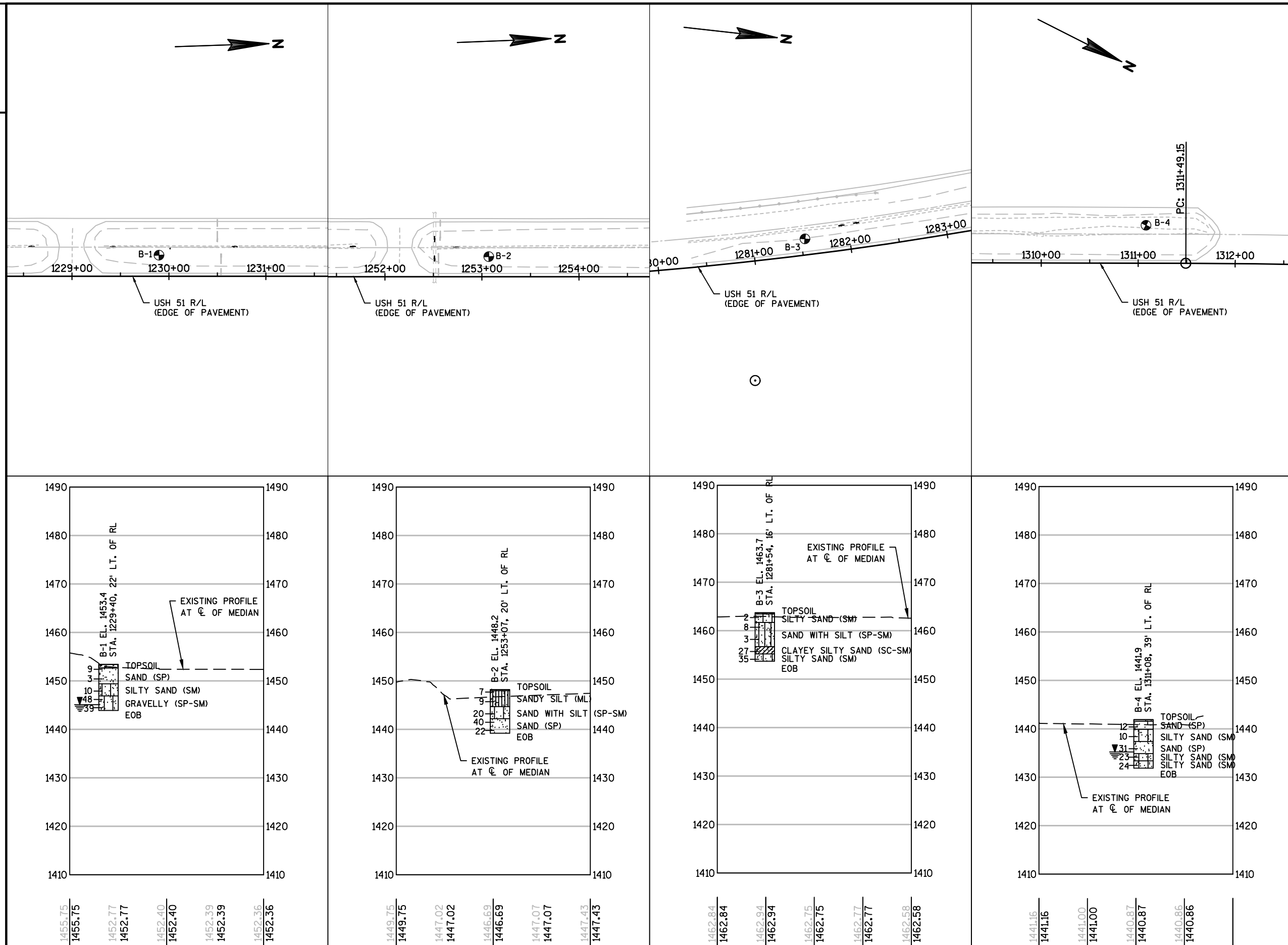
**CURVE 01**

PI STA = 1281+07.53
Y = 209370.999
X = 396999.521
DELTA = 28°39'41"
D = 1°30'00"
T = 975.81'
L = 1910.76'
R = 3819.72'
PC STA = 1271+31.72
Y = 208395.916
X = 396961.807
PT STA = 1290+42.47
Y = 210244.694
X = 396564.932
BK = N02°12'53.7"E
AH = N26°26'47.1"W
SE = 4.60%
RO = 200'
S.T. = 290'

**CURVE 02**

PI STA = 1320+51.57
Y = 212936.352
X = 395219.313
DELTA = 13°28'26"
D = 0°45'00"
T = 902.42'
L = 1796.52'
R = 7639.44'
PC STA = 1311+49.15
Y = 212128.381
X = 395621.241
PT STA = 1329+45.67
Y = 213815.735
X = 395016.707
BK = N26°26'53.4"W
AH = N12°58'27.5"W
SE = 2.60%
RO = 200'





STATE PROJECT NUMBER

1176-03-71

ABBREVIATIONS

F— Fine M— Medium C— Coarse
Ws— Weathered So— Sound

MATERIAL SYMBOLS

Topsoil	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

LEGEND OF PROBING

95/6=95 BLOWS FOR
6" PENETRATION
PROBING TAKEN WITH
A 350# WT. FALLING
18" ON A 2" O.D.
POINT.

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING

Elev. Boring No.
Sta.

Unconfined
STRENGTH → 7.7
Blows Per Ft.
USING 140# WT.
FALLING 30"

Wash Sample

Shelby Tube — S.T.

Ground Water
ELEVATION

No Ground Water
OBSERVED ABOVE
THIS ELEVATION

Sandy Gravel
F. Boulders or
COBBLES
Sand
Silty Clay
So
Limestone

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT
AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A
2" O.D. X 14" I.D. SPLIT SPOON SAMPLER WITH A 140#
HAMMER HAVING A FREE FALL OF 30". THE BLOW
COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY
BELOW A CASED OR OPEN HOLE ELIMINATING SIDE
FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION
DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE
CHARACTER OF MATERIAL IN AND UPON WHICH THE
FOUNDATION MIGHT BE BUILT, BORINGS AND/OR
SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS
INDICATED ON THIS DRAWING. THE DATA PRESENTED
HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE
EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS
INVESTIGATED ARE LIMITED AND THE AREA OF THE
BORINGS AND/OR SOUNDINGS IS VERY SMALL IN
RELATION TO THE ENTIRE AREA, THE WISCONSIN
DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT
CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT
THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN
THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE
ENTIRE SITE.

BORINGS TAKEN BY:
AMERICAN ENGINEERING TESTING, INC.
SCHOFIELD, WI
MARCH 8, 2012

FACTUAL REPORT OF GEOTECHNICAL EXPLORATION BY:
AMERICAN ENGINEERING TESTING, INC.
SCHOFIELD, WI
MARCH 14, 2012

PROJECT NO: 1176-03-71

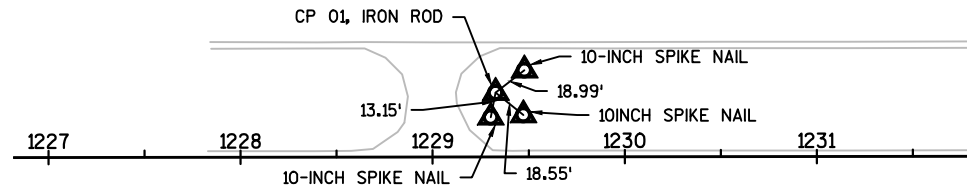
HWY: USH 51

COUNTY: LINCOLN

SUBSURFACE EXPLORATION

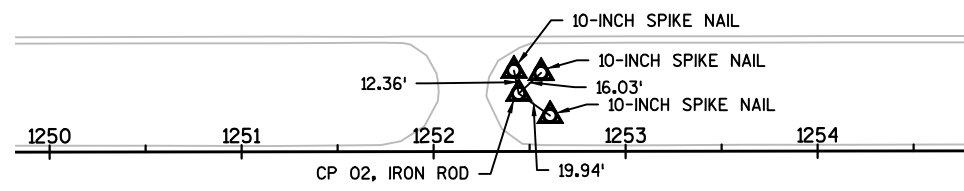
SHEET

E



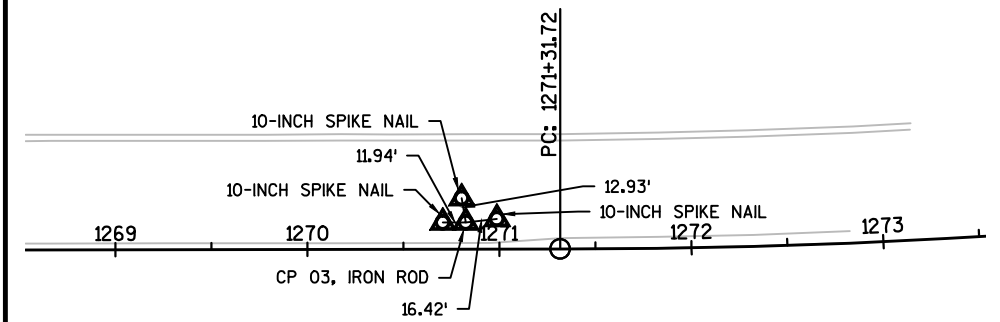
CP 01, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1229+31.12, 31.70'LT

Y = 204199.682
X = 396767.789



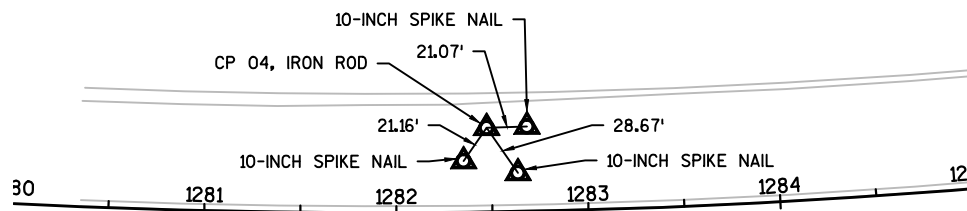
CP 02, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1252+42.63, 28.34'LT

Y = 206509.338
X = 396860.482



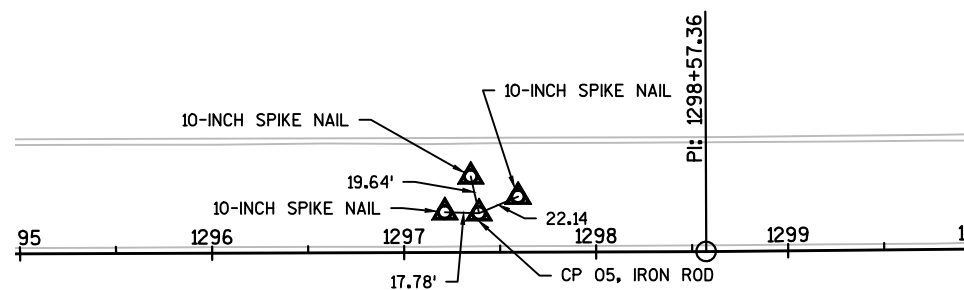
CP 03, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1270+80.68, 12.16'LT

Y = 208345.386
X = 396947.683



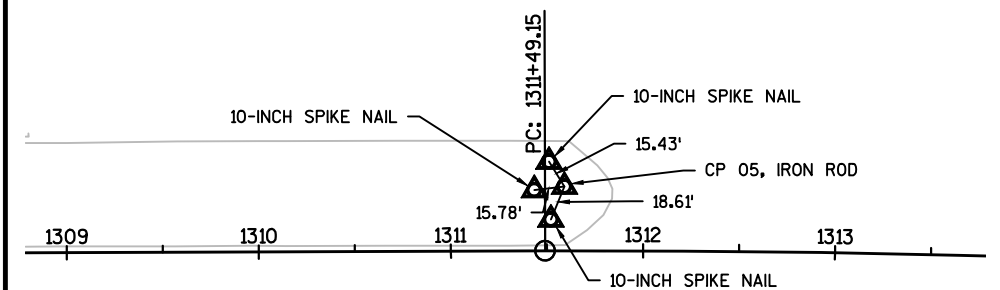
CP 04, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1282+45.34, 42.56'LT

Y = 209488.591
X = 396801.966



CP 05, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1297+36.66, 19.57'LT

Y = 210857.517
X = 396238.251



CP 06, 3/8" IRON ROD W/BHA CONTROL CAP
STA 1311+56.83, 32.74'LT

Y = 212120.711
X = 395588.496

DATE 27JAN16		E S T I M A T E O F Q U A N T I T I E S			
LINE					1176-03-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY
0010	205.0100	Excavation Common **P**	CY	406.000	406.000
0020	213.0100	Finishing Roadway (project) 01. 1176-03-71	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	130.000	130.000
0040	613.1100.S	Cable Barrier Type 1	LF	6,182.000	6,182.000
0050	613.1200.S	Cable Barrier End Terminal Type 1	EACH	4.000	4.000
0060	619.1000	Mobilization	EACH	1.000	1.000
0070	625.0100	Topsoil	SY	9,850.000	9,850.000
0080	627.0200	Mulching	SY	9,850.000	9,850.000
0090	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0110	628.7005	Inlet Protection Type A	EACH	9.000	9.000
0120	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0130	629.0210	Fertilizer Type B	CWT	14.500	14.500
0140	630.0120	Seeding Mixture No. 20	LB	620.000	620.000
0150	638.2602	Removing Signs Type II	EACH	4.000	4.000
0160	638.3000	Removing Small Sign Supports	EACH	2.000	2.000
0170	643.0100	Traffic Control (project) 01. 1176-03-71	EACH	1.000	1.000
0180	643.0300	Traffic Control Drums	DAY	8,856.000	8,856.000
0190	643.0420	Traffic Control Barricades Type III	DAY	648.000	648.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	1,296.000	1,296.000
0210	643.0715	Traffic Control Warning Lights Type C	DAY	1,152.000	1,152.000
0220	643.0800	Traffic Control Arrow Boards	DAY	144.000	144.000
0230	643.0900	Traffic Control Signs	DAY	1,728.000	1,728.000
0240	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	1,560.000	1,560.000
0250	649.0506	Temporary Pavement Marking Removable Mask-Out Tape 6-Inch	LF	425.000	425.000
0260	650.9910	Construction Staking Supplemental Control (project) 01. 1176-03-71	LS	1.000	1.000
0270	650.9920	Construction Staking Slope Stakes	LF	1,475.000	1,475.000
0280	690.0150	Sawing Asphalt	LF	152.000	152.000
0290	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	150.000	150.000
0300	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0310	SPV.0090	Special 01. Construction Staking Cable Barrier Type 1	LF	6,286.000	6,286.000

EARTHWORK SUMMARY

P												
205.0100						UNUSABLE	AVAILABLE		MASS			
EXCAVATION COMMON (1)						PAVEMENT	MATERIAL	UNEXPANDED	EXPANDED	ORDINATE	WASTE	
						MATERIAL	MATERIAL	FILL	FILL (6)	± (7)		
						(4)	(5)					
DIVISION	STATION	TO	STATION	CY	CY	CY	CY	CY	CY	CY	CY	COMMENTS:
1	1246+75	-	1247+25	6	0	0	6	14	17	-11	-11	NB/SB MEDIAN SLOPES
	1251+75	-	1252+50	121	0	26	95	0	0	95	121	CROSSOVER REMOVAL
	1270+50	-	1272+00	46	0	0	46	4	5	41	41	SB MEDIAN SLOPE
	1281+00	-	1293+00	233	0	0	233	36	45	188	188	SB MEDIAN SLOPE
TOTALS				406	0	26	380	54	67	313	339	

- 1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NO. 205.0100.
- 2) UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- 3) EBS EXCAVATION TO BE BACKFILLED WITH CUT MATERIAL.
- 4) UNUSABLE PAVEMENT MATERIAL.
- 5) AVAILABLE MATERIAL = CUT - UNUSABLE PAVEMENT MATERIAL.
- 6) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25.
- 7) MASS ORDINATE = (AVAILABLE MATERIAL) - (EXPANDED FILL). PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREAGTE

				305.0110	
				DENSE	
				3/4-INCH	
STATION	TO	STATION	LOCATION	TON	COMMENT
1252+16			LT	130	SHLDR AT CROSSOVER REMOVAL
TOTALS				130	

EROSION CONTROL ITEMS

			625.0100	627.0200	628.1905	628.1910	628.7005	628.7504	629.0210	630.0120
			TOPSOIL	MULCH	MOBILIZATIONS	EMERGENCY	TYPE A	DITCH CHECKS	TYPE B	MIXTURE NO. 20
STATION	TO	STATION	SY	SY	EACH	EACH	EACH	LF	CWT	LB
1229+32	-	1246+75	1,975	1,975					2.9	125
		1234+80	-	-	-	-	1	-	-	-
		1240+50	-	-	-	-	1	-	-	-
1246+75	-	1247+25	115	115	-	-	-	-	0.2	7
1247+25	-	1251+75	510	510					0.8	32
1251+75	-	1252+50	170	170	-	-	-	-	0.3	11
		1247+00	-	-	-	-	1	-	-	-
1252+50	-	1270+50	2,040	2,040					3.0	130
		1252+52	-	-	-	-	1	-	-	-
		1258+50	-	-	-	-	1	-	-	-
		1264+48	-	-	-	-	1	-	-	-
		1270+50	-	-	-	-	1	-	-	-
1270+50	-	1272+00	340	340	-	-	-	-	0.5	22
1281+00	-	1293+00	2,720	2,720	-	-	-	-	4.0	173
		1291+00	-	-	-	-	1	-	-	-
1293+00	-	1301+65	980	980					1.5	60
		1300+53	-	-	-	-	1	-	-	-
UNDISTRIBUTED			1,000	1,000	-	-	-	100	1.3	60
PROJECT			-	-	1	1	-	-	-	-
TOTALS			9,850	9,850	1	1	9	100	14.5	620

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PROJECT NO:1176-03-71

HWY: USH 51

COUNTY: LINCOLN

MISCELLANEOUS QUANTITIES

SHEET:

E

SIGN REMOVALS					
638.2602			638.3000		
REMOVING SIGNS			REMOVING SMALL		
TYPE II			SIGN SUPPORTS		
STATION	LOCATION	EACH	EACH	COMMENT	
1251+87	LT	2	1	R3-4: NO U-TURN SYMBOL & R3-4A: EXCEPT MAINT. AND POLICE AUTH. VEHICLES	
1252+40	LT	2	1	R3-4: NO U-TURN SYMBOL & R3-4A: EXCEPT MAINT. AND POLICE AUTH. VEHICLES	
TOTALS		4	2		

TRAFFIC CONTROL															
643.0100				643.0300		643.0420		643.0705		643.0715		643.0800		643.0900	
PROJECT				BARRICADES		WARNING		WARNING		ARROW					
DURATION				DRUMS		TYPE III		LIGHTS TYPE A		LIGHTS TYPE C		BOARDS		SIGNS	
OPERATION	DAYS	EACH	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH
NB USH 51	36	-	123	4,428	9	324	18	648	16	576	2	72	24	864	
SB USH 51	36	-	123	4,428	9	324	18	648	16	576	2	72	24	864	
PROJECT 1176-03-71	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS		1	8,856		648		1,296		1,152		144		1,728		

TEMPORARY PAVEMENT MARKING									
649.0400					649.0506				
REMOVABLE TAPE					REMOVABLE MASK-OUT TAPE				
4-INCH					6-INCH				
(YELLOW EDGE LINE)					(OVER C/L SKIPS)				
STATION	TO	STATION	LOCATION	LF	LF	COMMENT			
1212+82	-	1221+32	RT	-	212.5	12.5-FT WHITE SKIPS			
1213+52	-	1221+32	RT	780	-	TAPER EDGE LINE (YELLOW)			
1319+64	-	1328+14	LT	-	212.5	12.5-FT WHITE SKIPS			
1319+64	-	1327+44	LT	780	-	TAPER EDGE LINE (YELLOW)			
TOTALS				1,560	425				

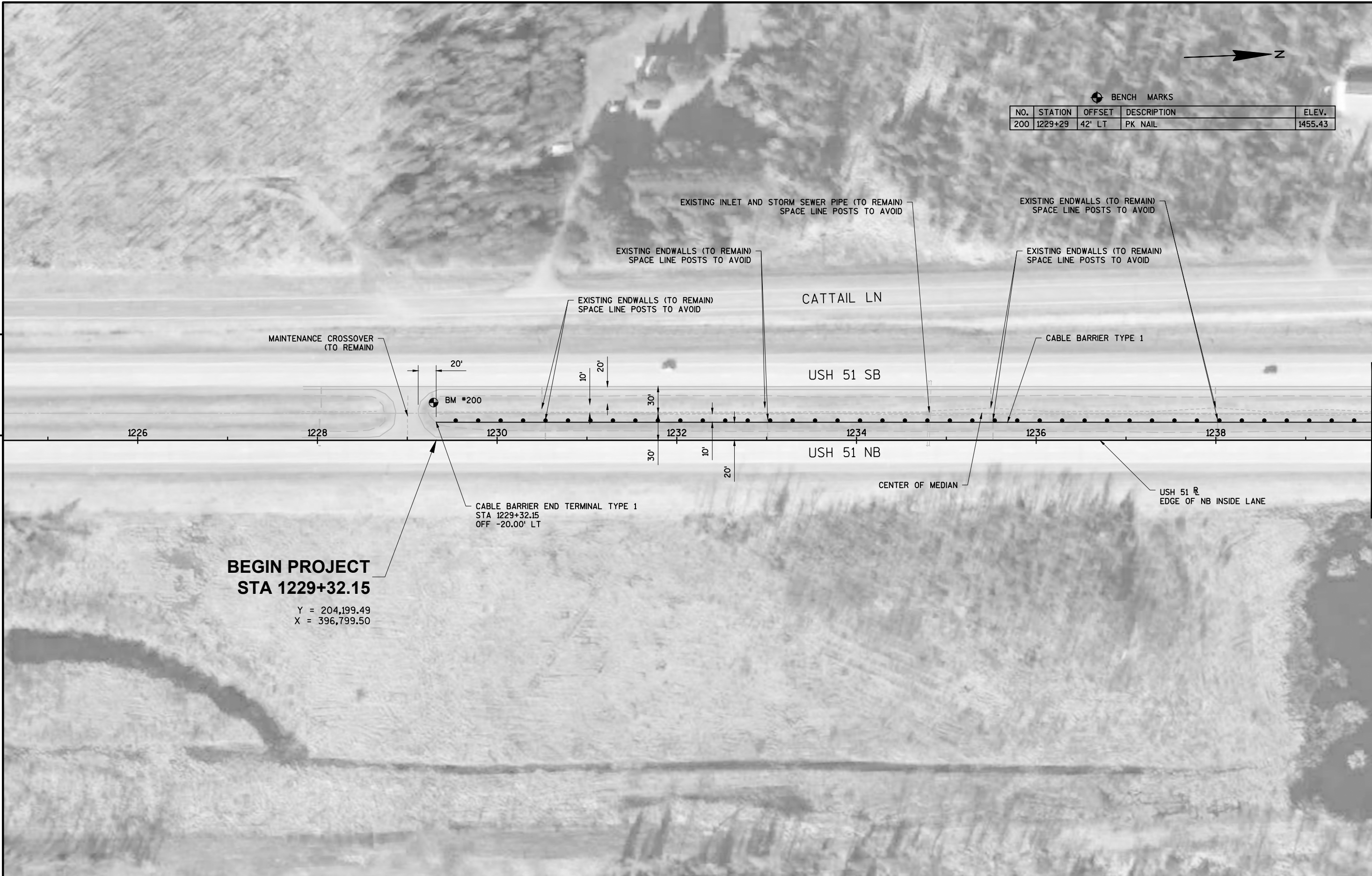
CABLE BARRIER					
613.1100.S			613.1200.S		
TYPE 1			END TERMINAL		
			TYPE 1		
STATION	TO	STATION	LOCATION	LF*	EACH
1229+32.15	-	1229+58.35	LT	-	1
1229+58.35	-	1271+62.20	LT	4,204	-
1271+62.20	-	1271+88.40	LT	-	1
1281+34.62	-	1281+60.82	LT	-	1
1281+60.82	-	1301+38.32	LT	1,978	-
1301+38.32	-	1301+64.52	LT	-	1
TOTALS		6,182		4	

CONSTRUCTION STAKING					
650.9920				SPV.0090.01	
				CONSTRUCTION STAKING,	
				CABLE BARRIER	
				TYPE 1	
SLOPE STAKES					
STATION	TO	STATION	LOCATION	LF	LF
1229+32.15	-	1271+88.40	LT	-	4,256
1246+75	-	1247+25	LT	50	-
1251+75	-	1252+50	LT	75	-
1270+50	-	1272+00	LT	150	-
1281+00	-	1293+00	LT	1,200	-
1281+34.62	-	1301+64.52	LT	-	2,030
TOTAL		1,475		6,286	

*LENGTHS FOR CABLE BARRIER TYPE 1 REFLECT AN ASSUMED END TERMINAL TYPE 1 LENGTH OF 26.2 LF.

SAWING					
690.0150					
ASPHALT					
STATION	TO	STATION	LOCATION	LF	COMMENT
--	1252+16	--	LT	152	CROSSOVER REMOVAL
TOTAL		152			

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED



BENCH MARKS				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
200	1229+29	42' LT	PK NAIL	1455.43

5

MATCH LINE STA 1239+75

5

5

MATCH LINE STA 1239+75

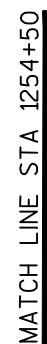


MATCH LINE STA 1254+50

5

5

5



FILE NAME : P:\2015\2015.044 - WISDOT NCR - USH 51 CABLE GUARD\11760371\SHEETSP\PLAN\050201-PN.DWG
LAYOUT NAME - 050201-PN - (3)

RD\11760371\SHEETSP\AN\050201-PN.DWG

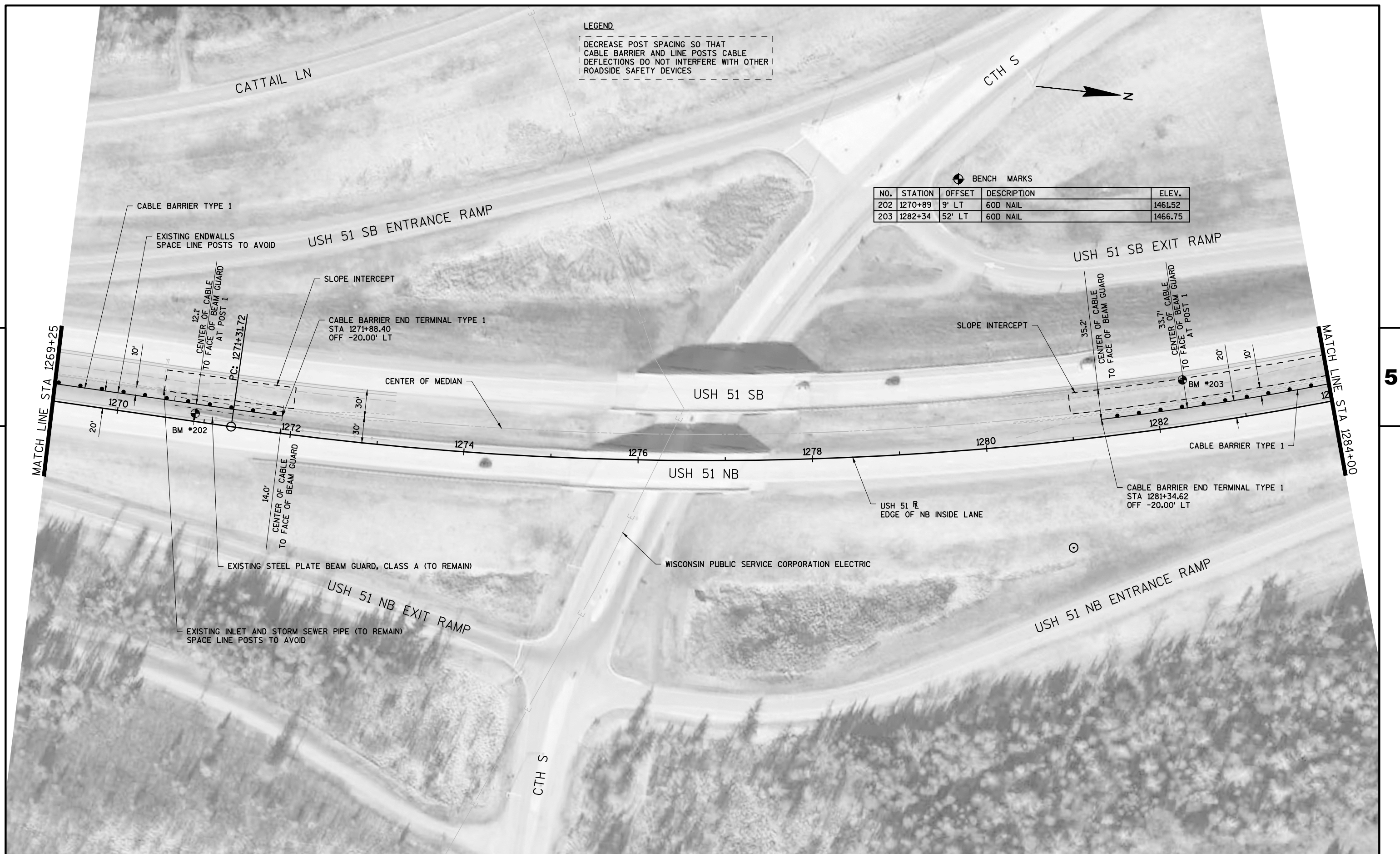
PLOT DATE : 10/20/2015 4:4

2 PM PLOT BY : CHAD D. GRUNDEMANN PLOT NAME :

WISDOT/CADDS SHEET 44

ET 44

WISDOT/CADDS SHEET 44



5

MATCH LINE STA 1298+75

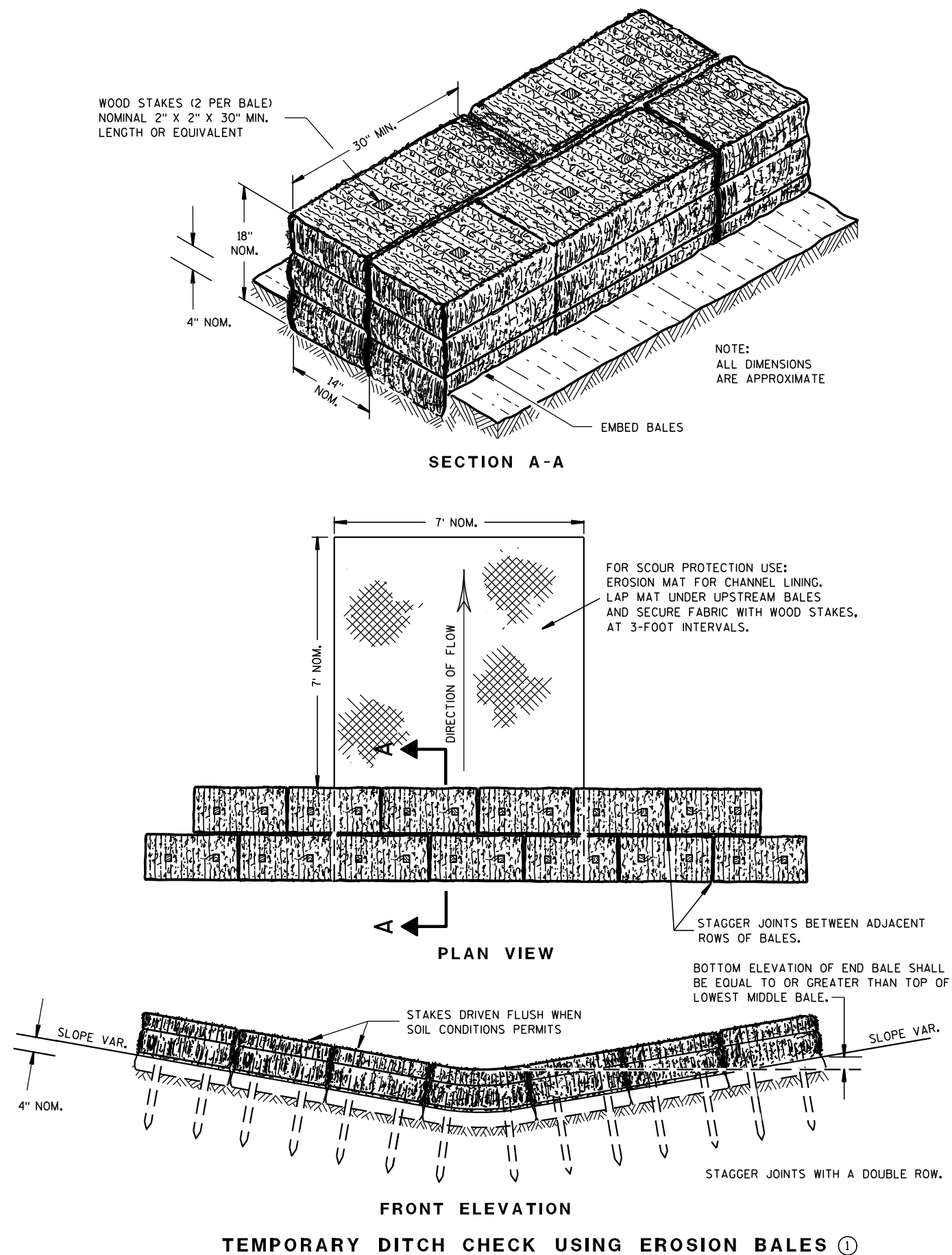


BENCH MARKS				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
205	1311+75	30' LT	CHISELED SQUARE TO OF CPRC	1441.81

5

Standard Detail Drawing List

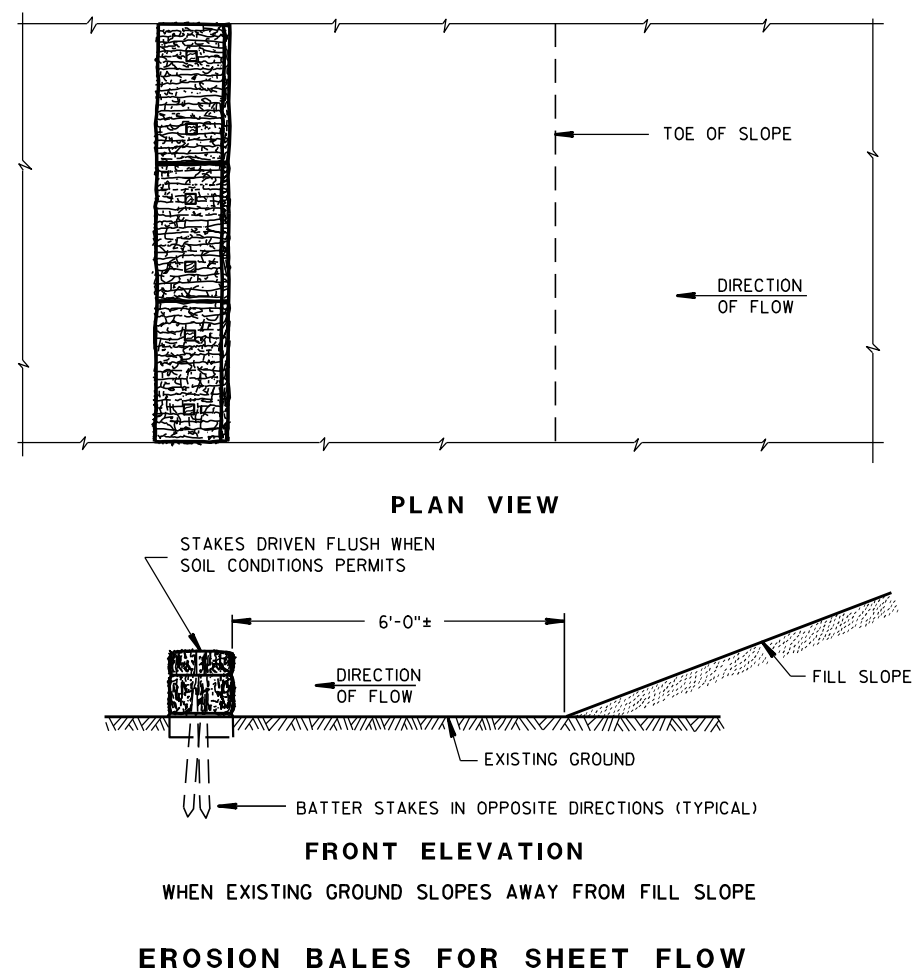
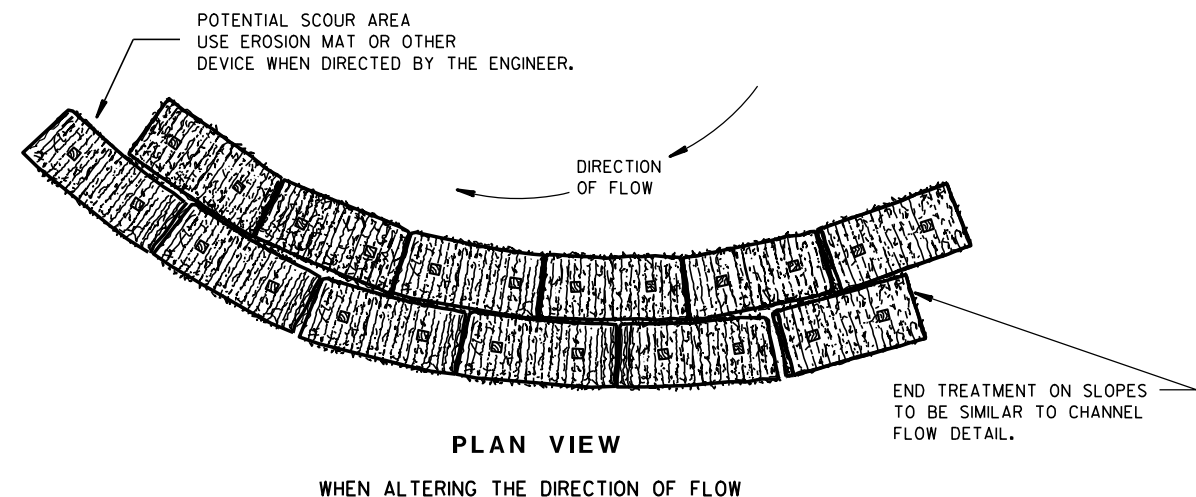
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



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

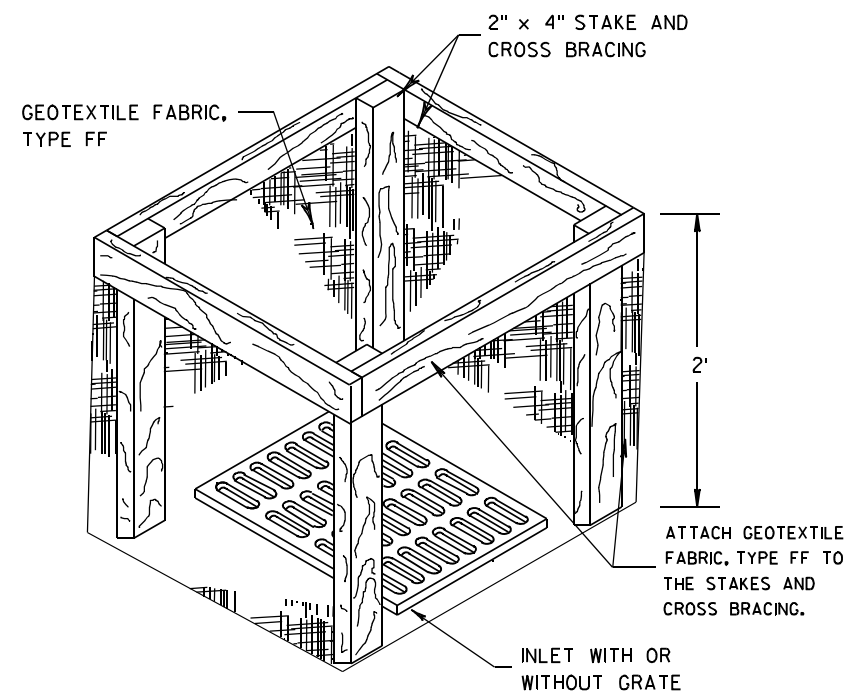
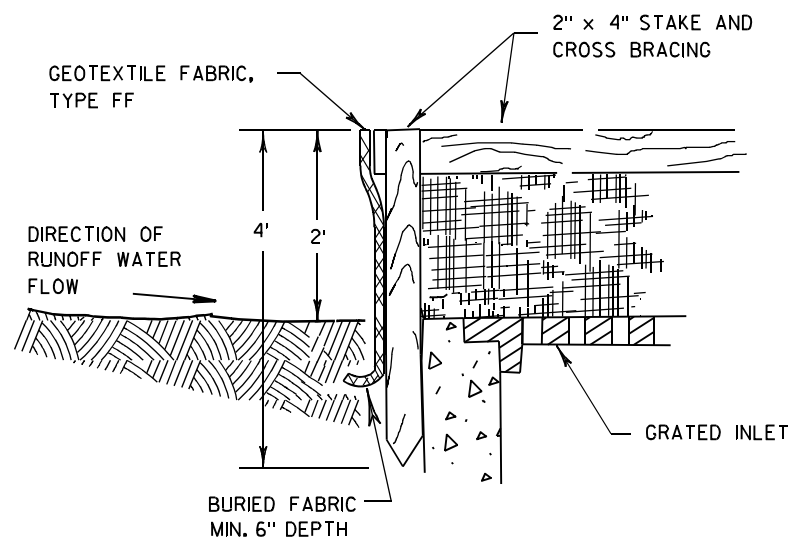
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

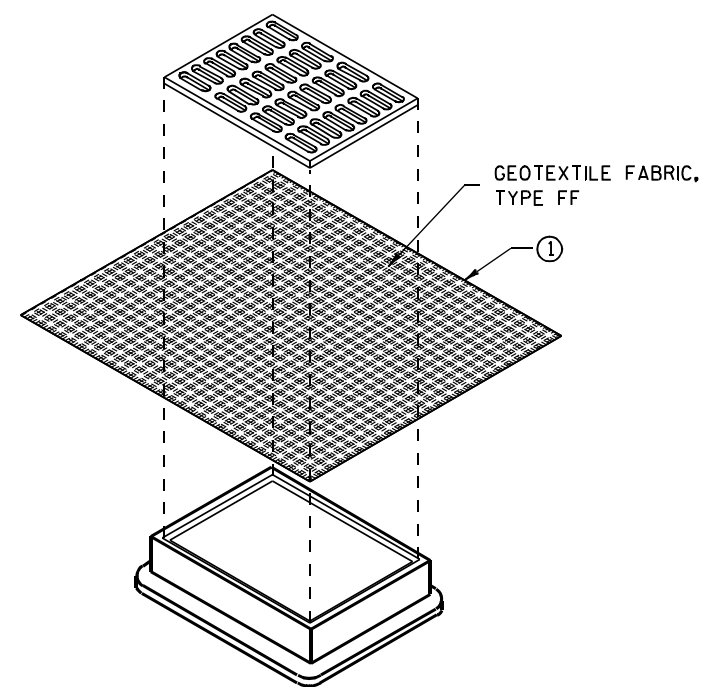
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

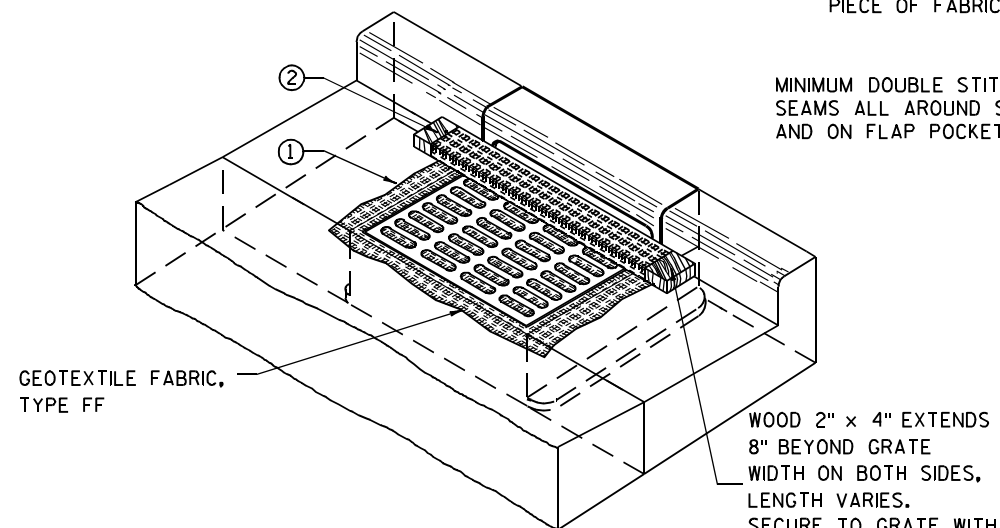
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

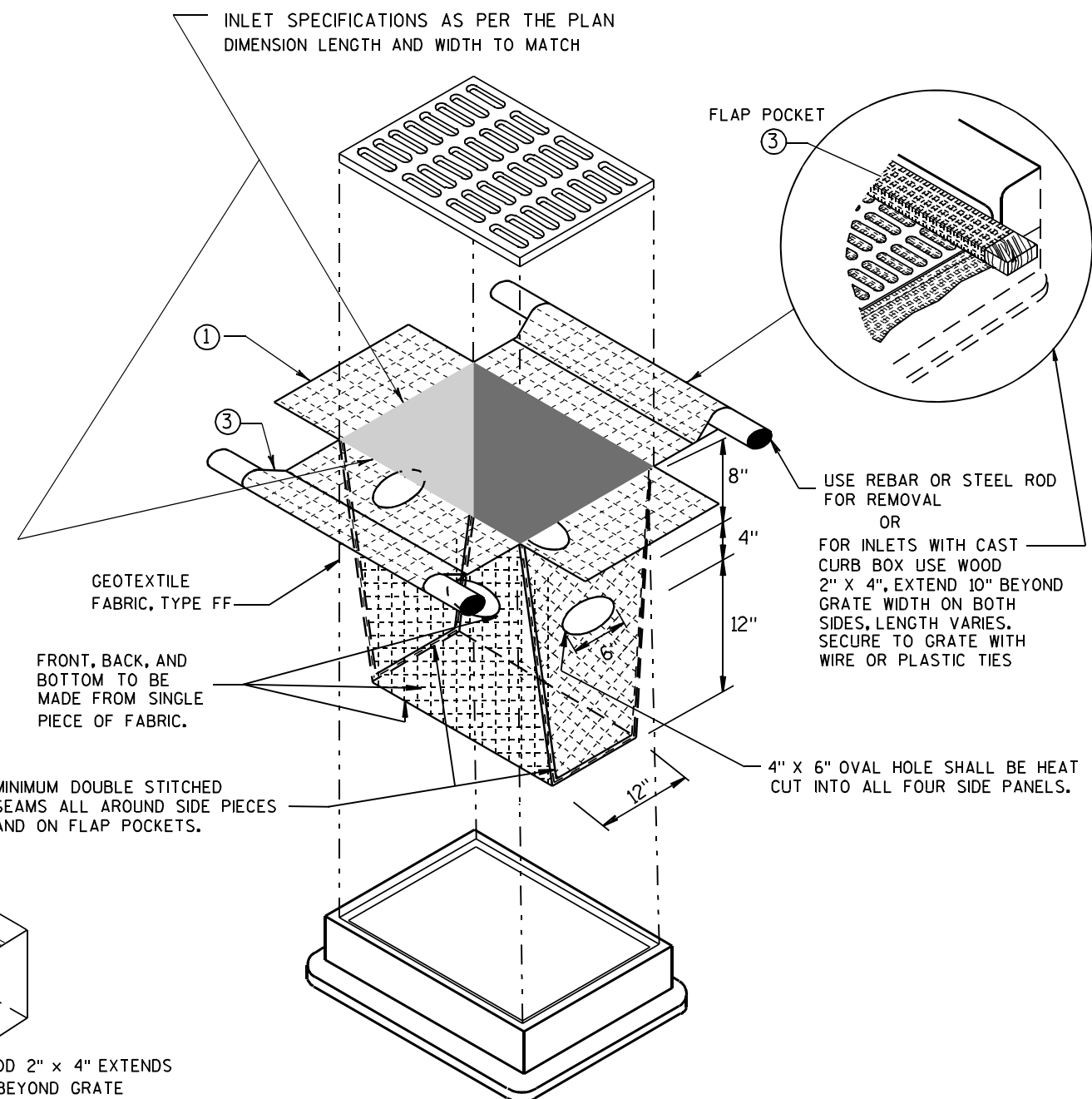
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



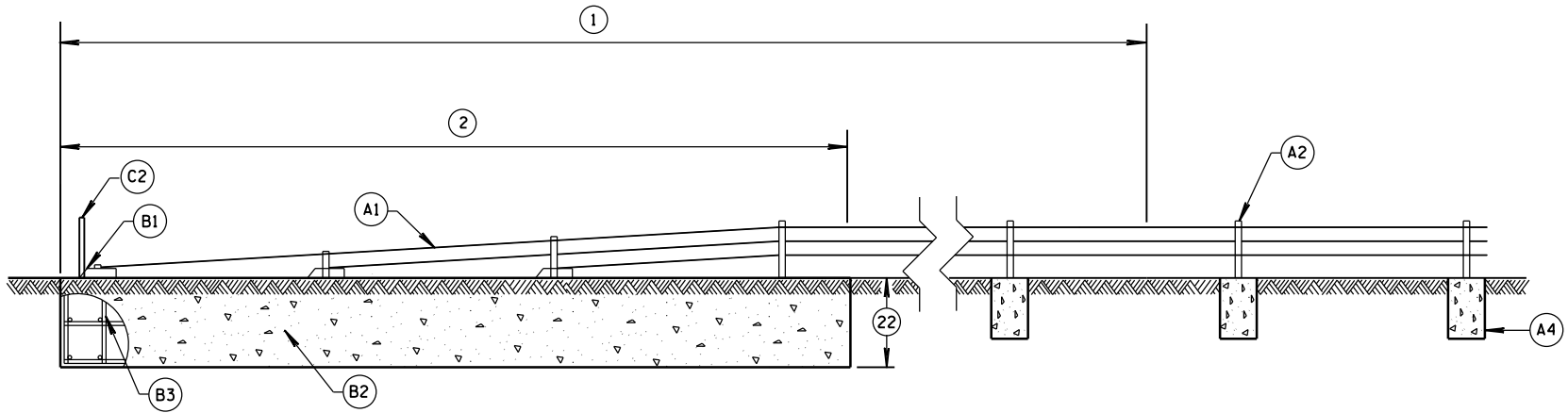
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

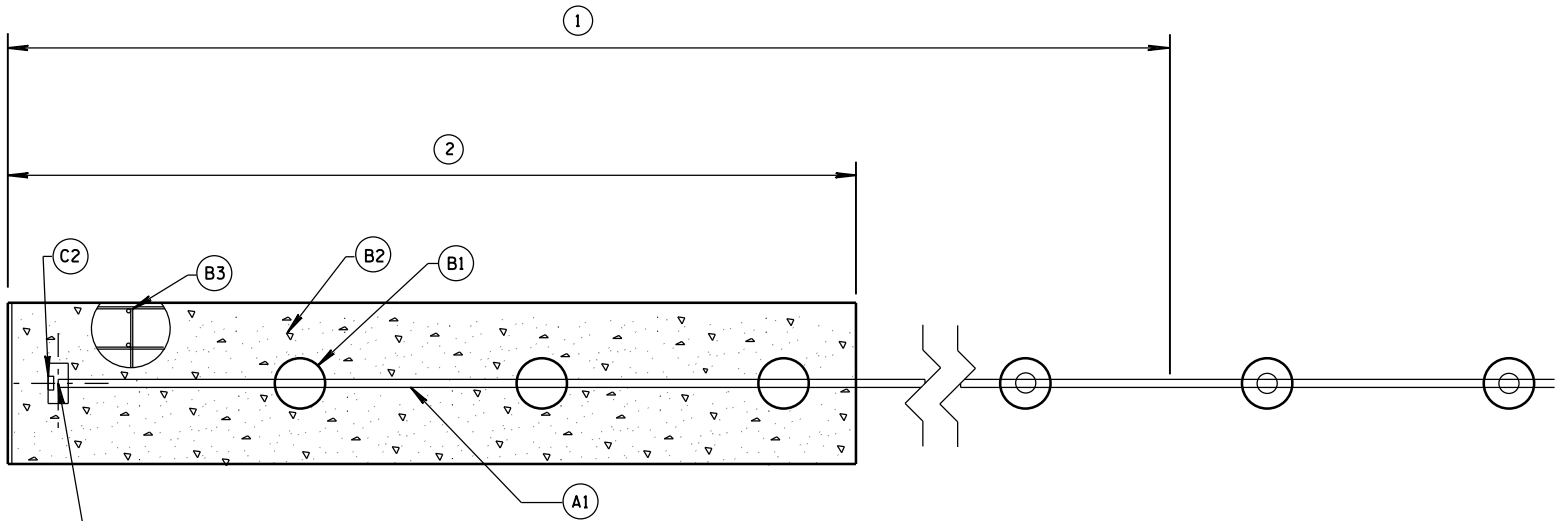
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

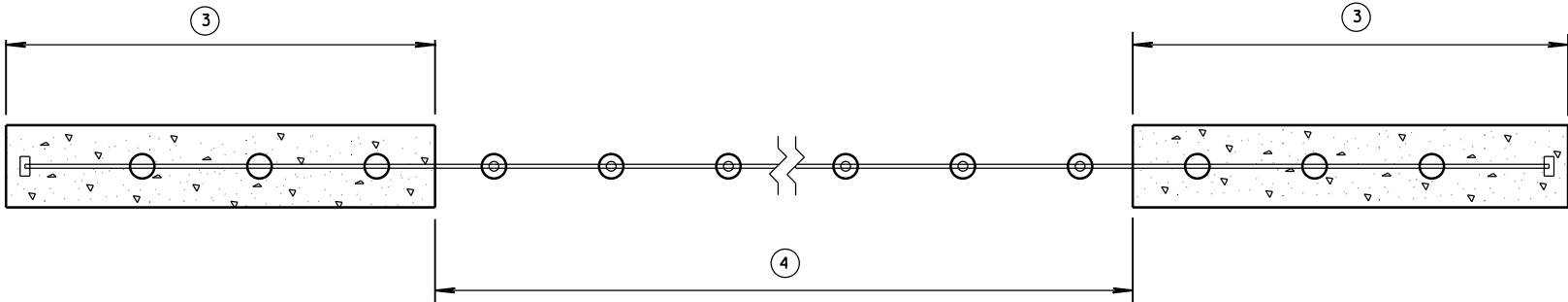


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER
TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

- DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.
- PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.
- INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.
- PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.
- PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.
- PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.
- PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DEISGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.
- DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

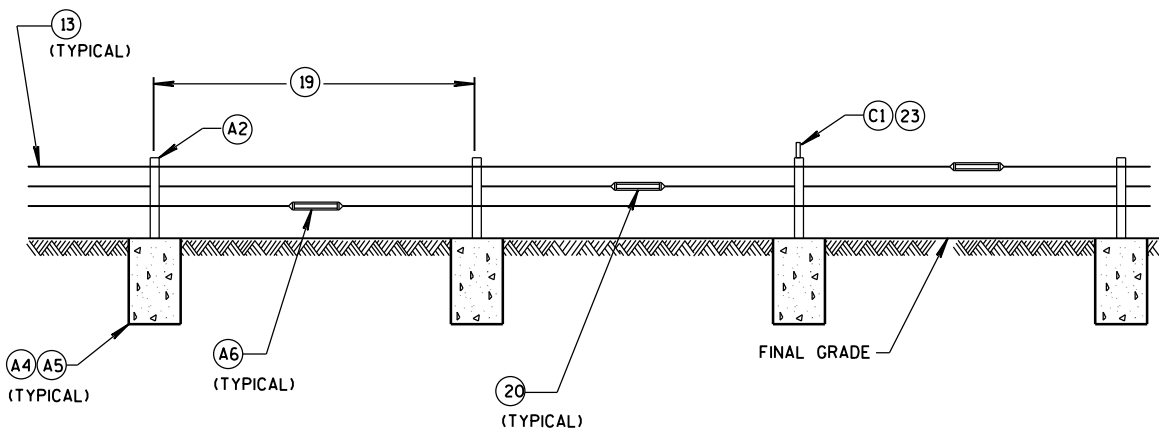
BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
A1	3 OR 4	3/4" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS. AASHTO M30 TYPE 1 CLASS A (GALVANATION).
			MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
A2	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS. ASTM A123 (GALVANIZATION).
A3	1 PER LINE POST	GALVANIZED METAL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS. ASTM A123 (GALVANIZATION).
A4	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES. STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE. SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
A5	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
A6	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS. MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE. TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
B1	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
B2	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2. STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
B3	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
C1	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST YELLOW.
C2	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

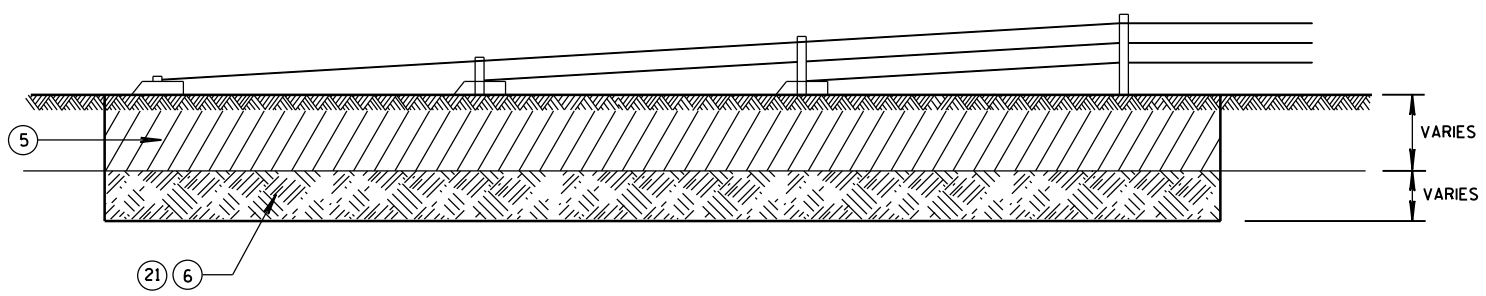
- 1 LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 2 PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 3 CABLE BARRIER END TERMINAL
- 4 CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1
LAYOUT

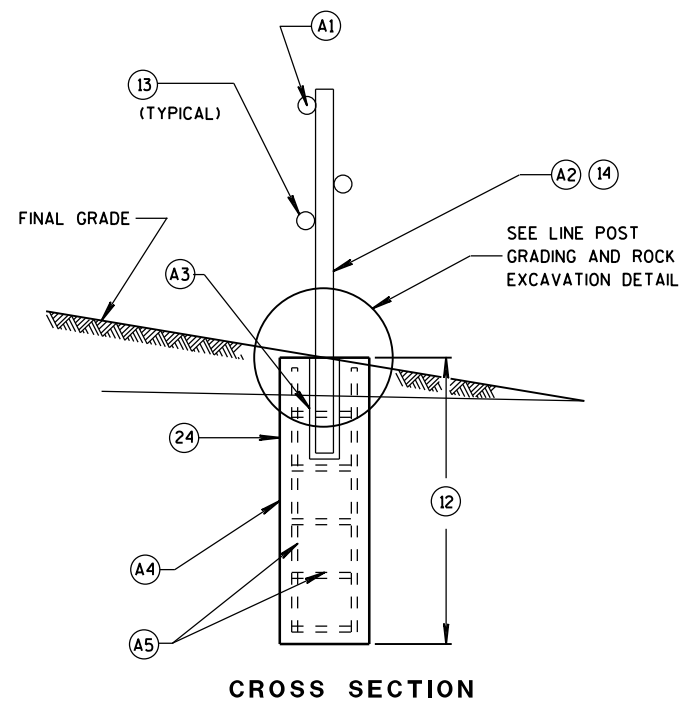
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



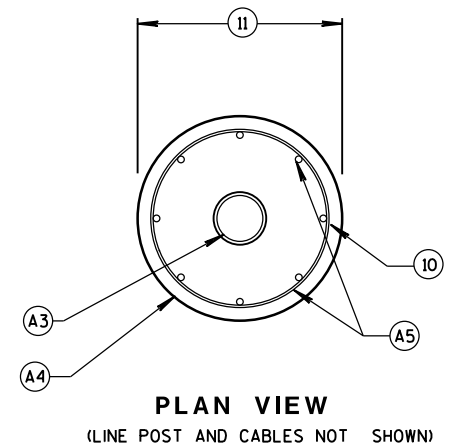
**PROFILE VIEW
LINE POST INSTALLATION**



**CABLE BARRIER END
TERMINAL ROCK EXCAVATION DETAIL**



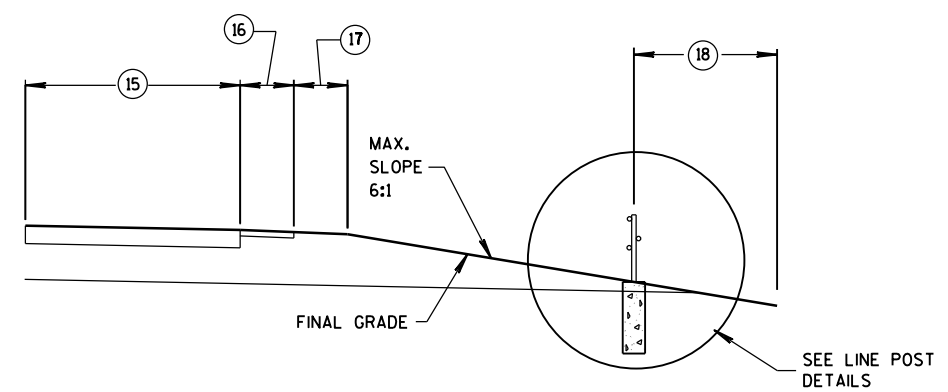
CROSS SECTION



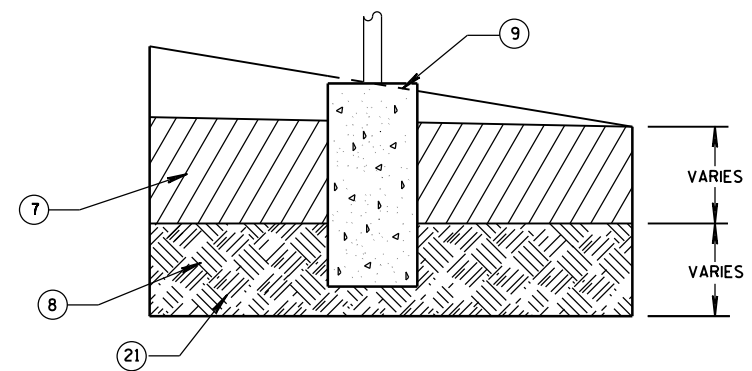
**PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)**

LINE POST DETAILS

- (5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).
- (6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).
- (7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).
- (8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).
- (9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.
- (10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.
- (11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.
- (12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.
- (13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.
- (14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.
- (15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.
- (16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.
- (17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.
- (18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.
- (19) MAXIMUM POST SPACING IS 15 FEET.
- (20) STAGGER TURNBUCKLES (TYPICAL).
- (21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.
- (22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.
- (23) LINE POST DELINEATOR SPACING IS 100 FEET.
- (24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.



CABLE BARRIER OFFSET FROM DITCH LINE



**LINE POST GRADING
AND ROCK EXCAVATION DETAIL**

CABLE BARRIER TYPE 1 LAYOUT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

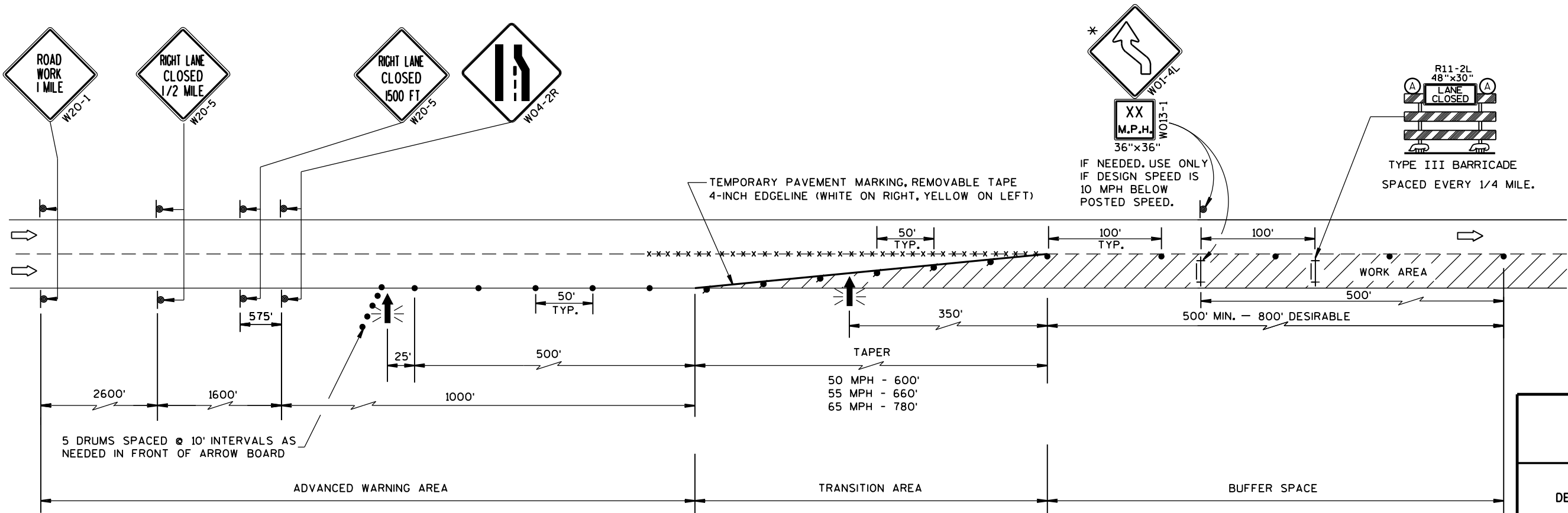
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

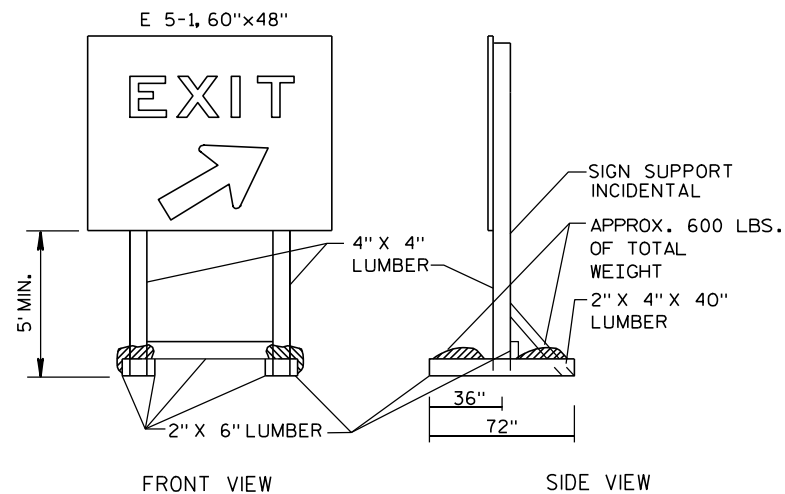
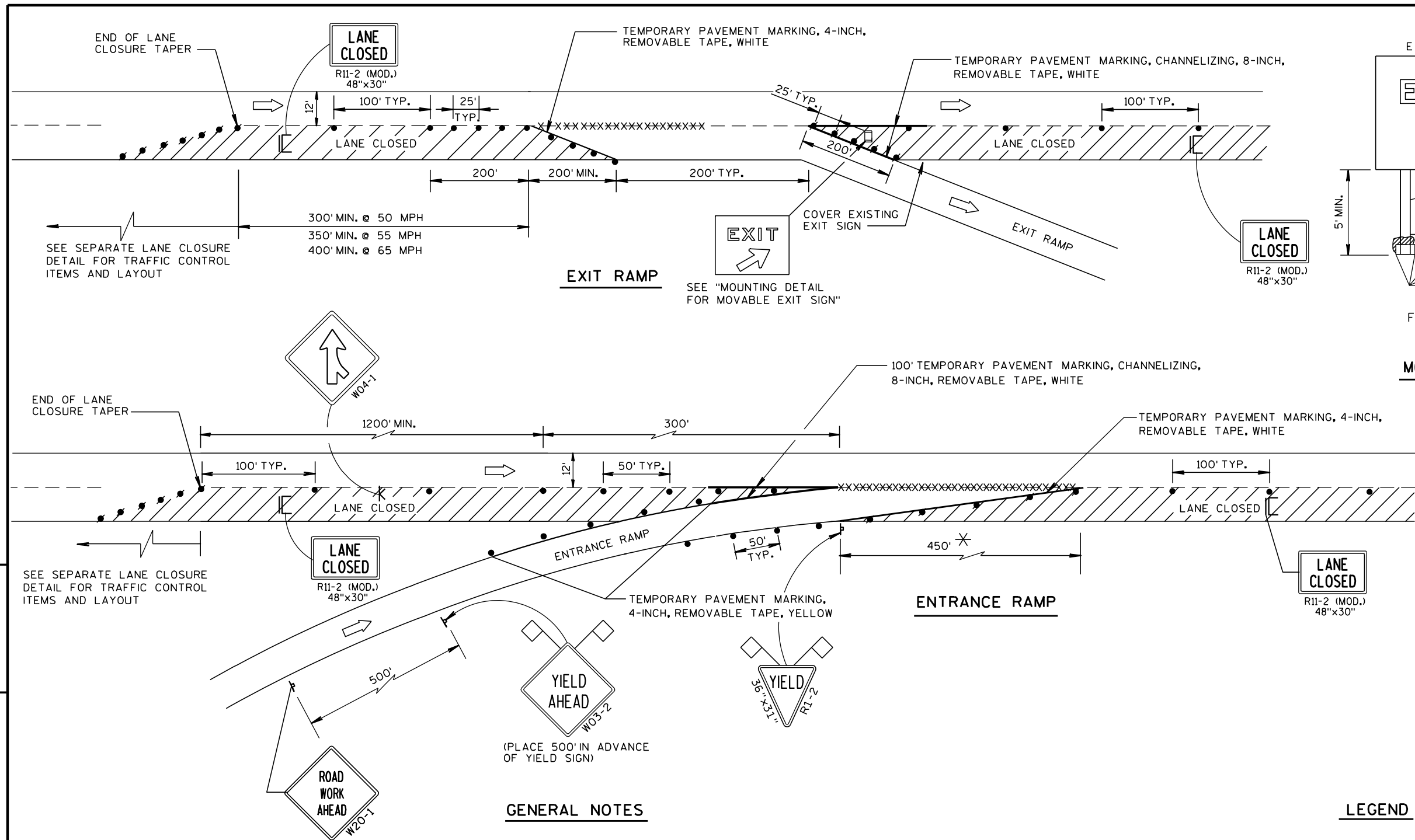
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Feb. 2015 DATE	/S/ Travis Fettes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN 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"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES
AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS,
OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE
SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.









REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING,
REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR
7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

GENERAL NOTES

LEGEND

- | | |
|---|--|
|  | POST MOUNTED SIGN |
|  | SIGN ON PORTABLE SUPPORT |
|  | TRAFFIC CONTROL, DRUM |
|  | TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN) |
|  | REMOVING PAVEMENT MARKING (SEE GENERAL NOTES) |
|  | TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN |
|  | FLAGS, 16"x16" MIN., ORANGE |
|  | DIRECTION OF TRAFFIC FLOW |

**TRAFFIC CONTROL,
EXIT AND ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

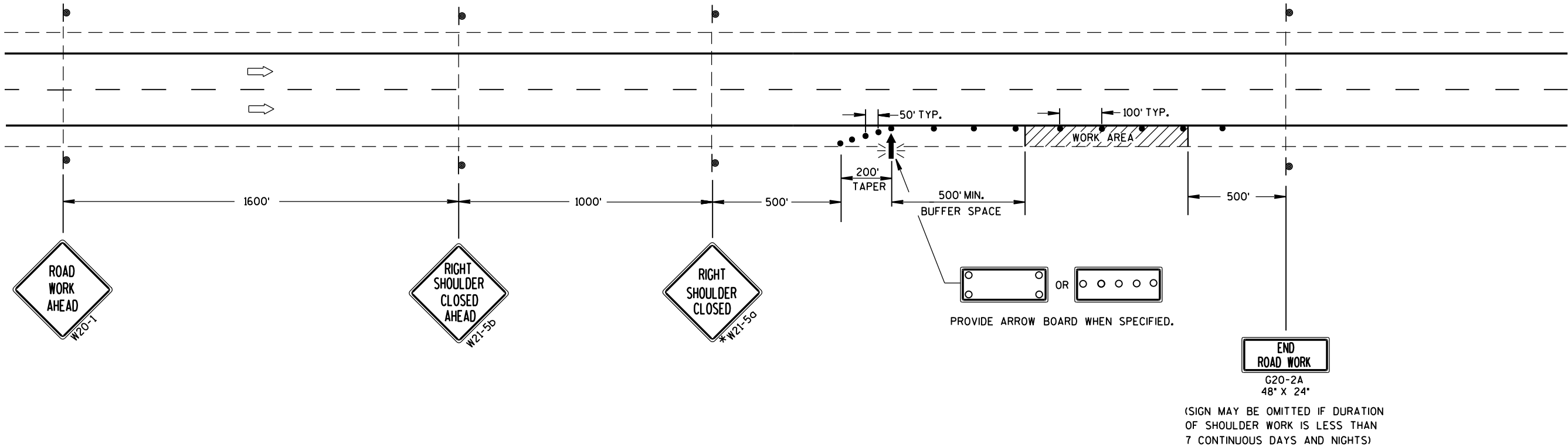
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

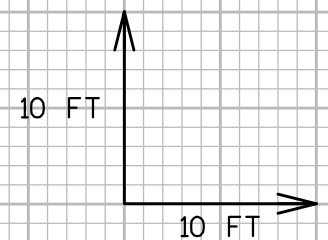
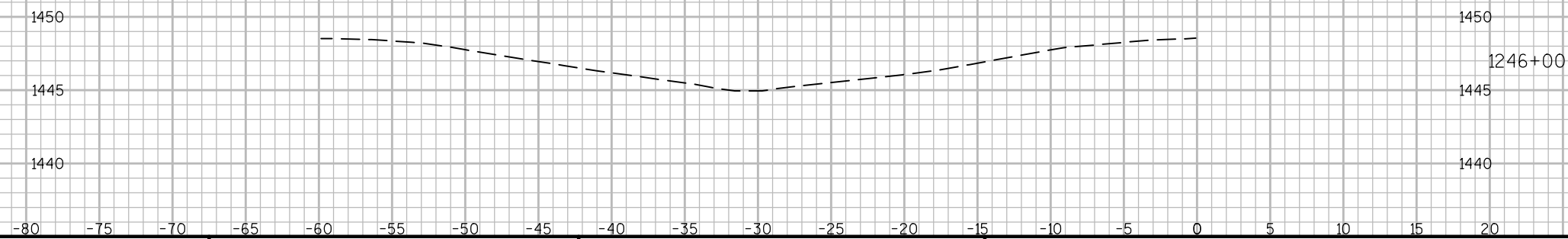
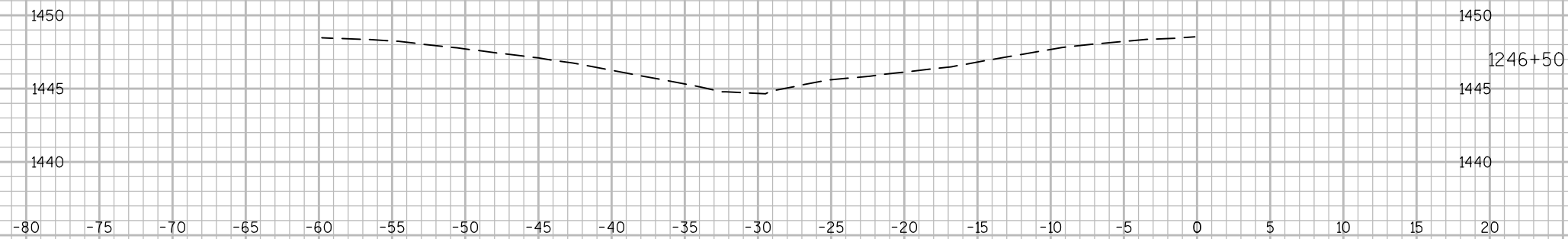
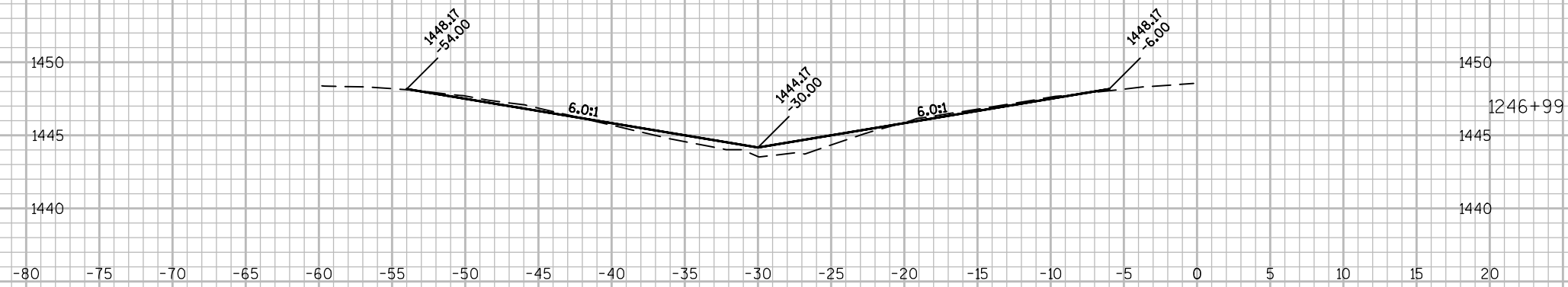
*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

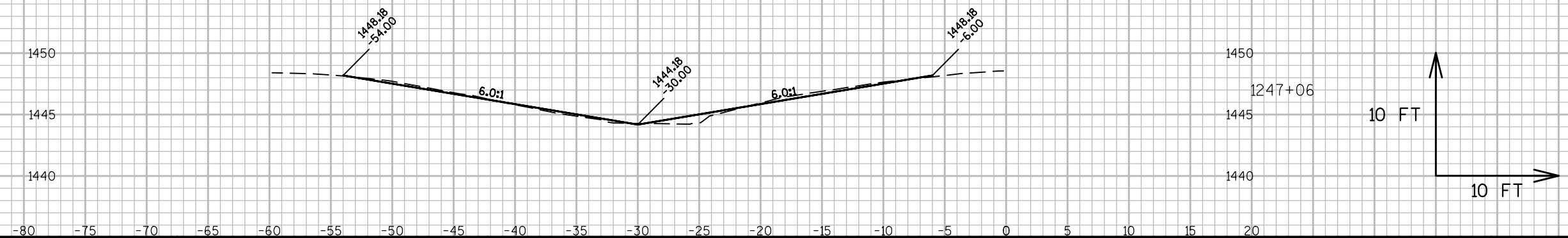
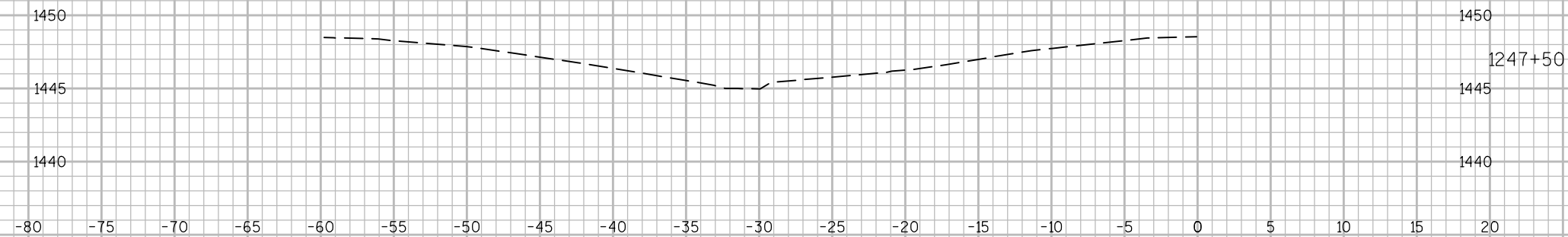
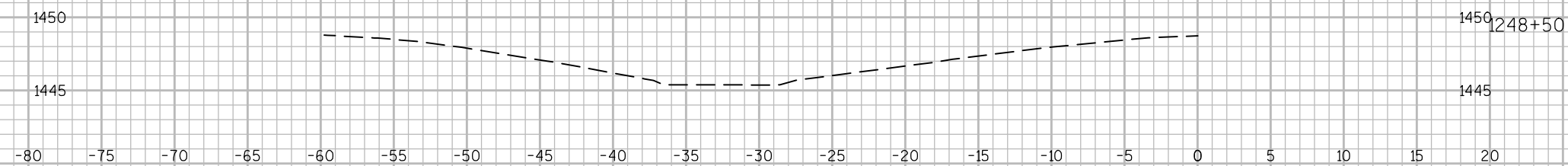
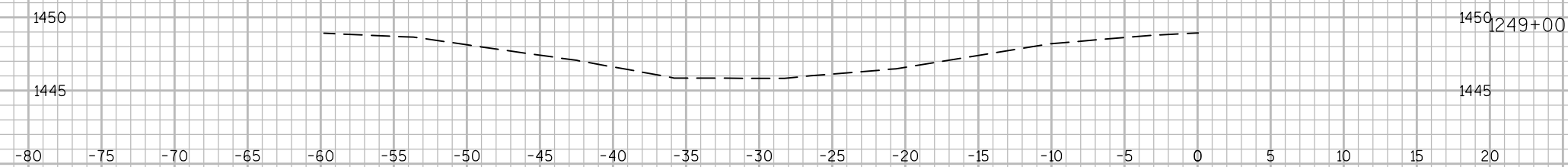
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltz
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



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PROJECT NO:1176-03-71

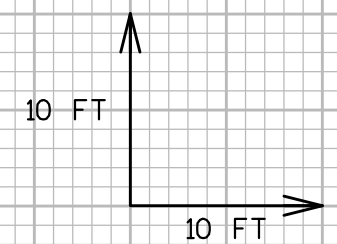
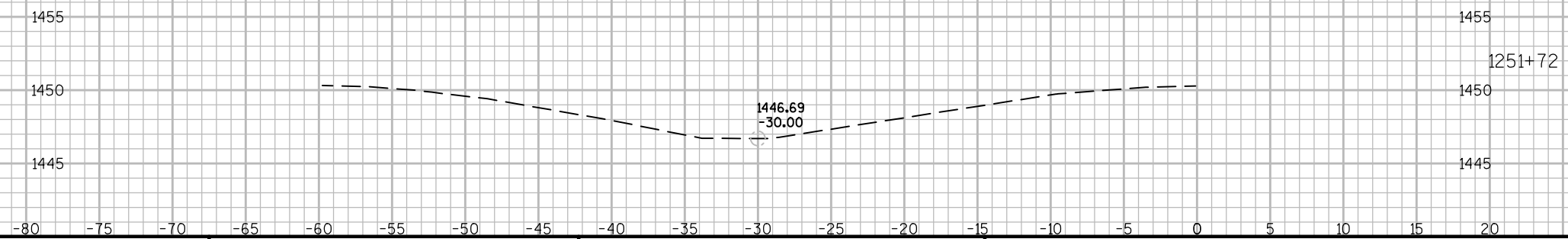
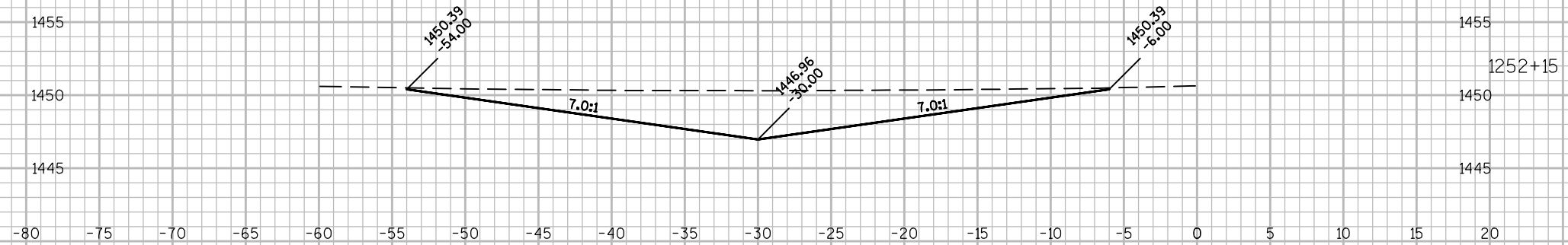
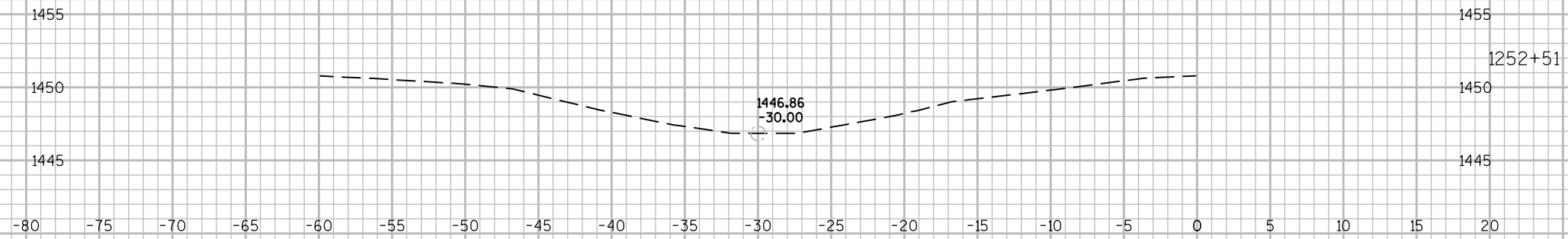
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

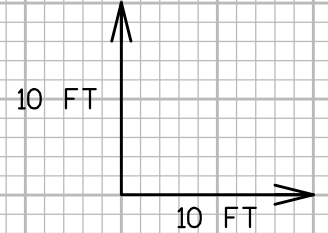
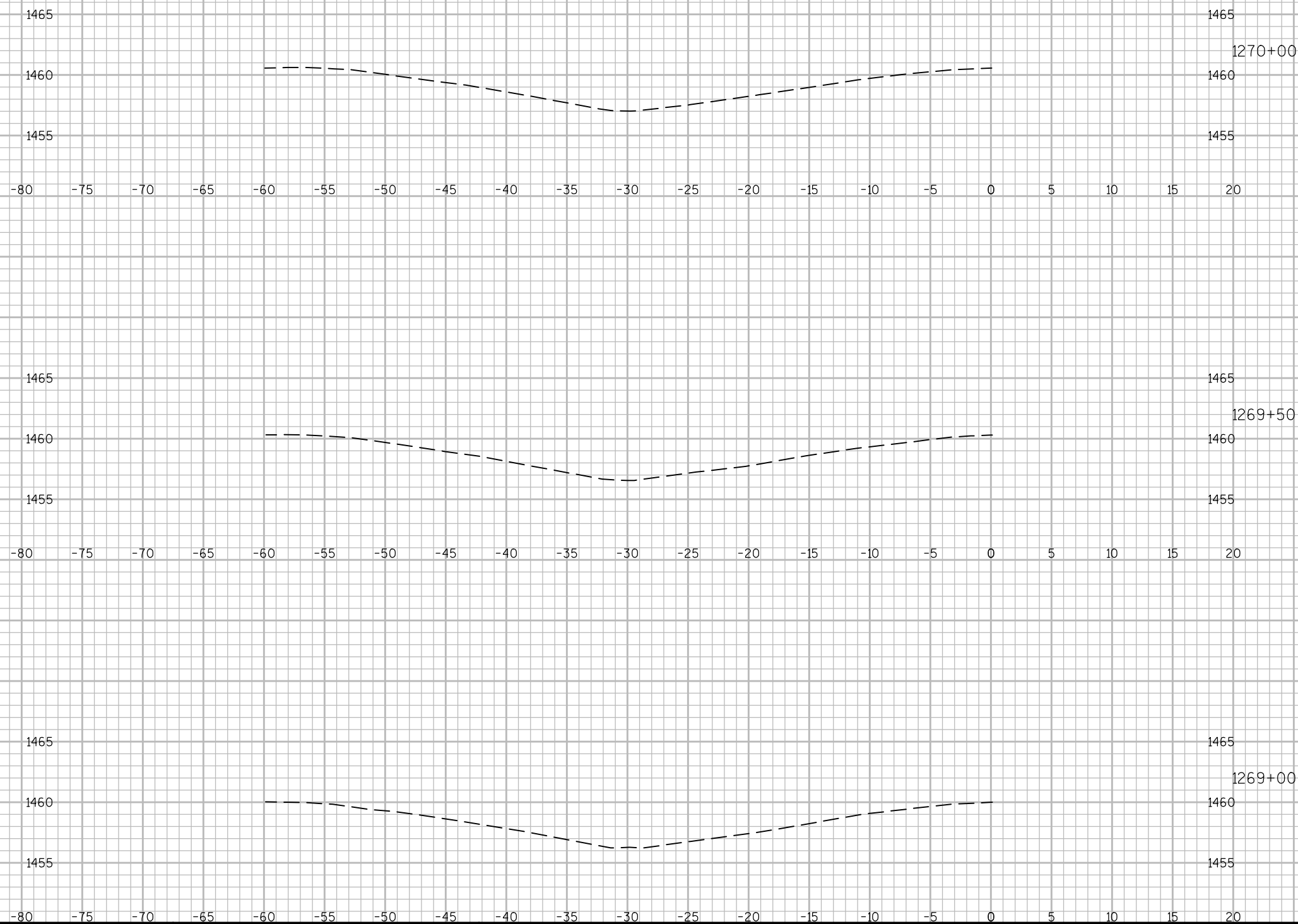
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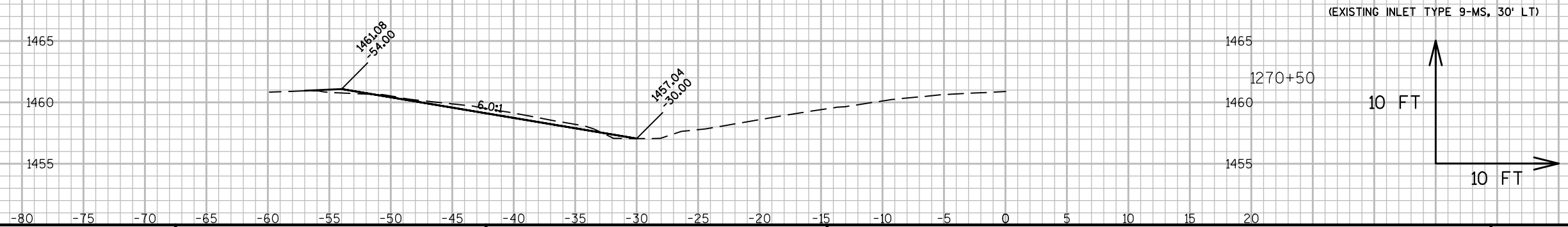
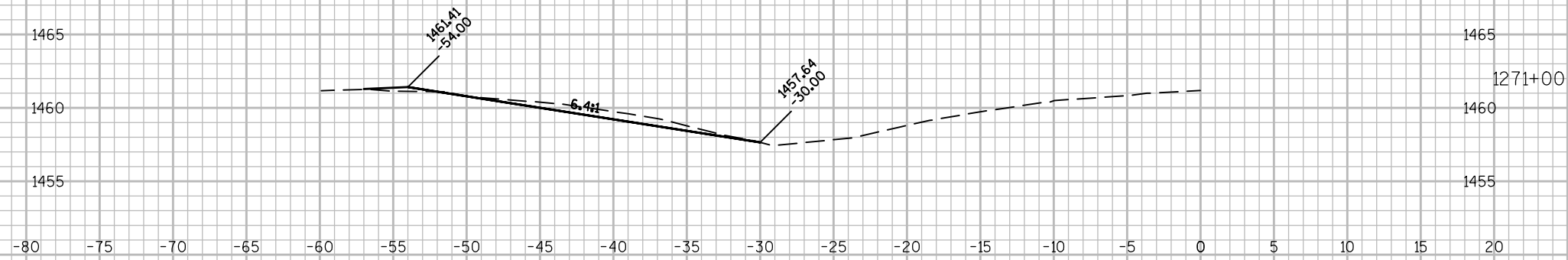
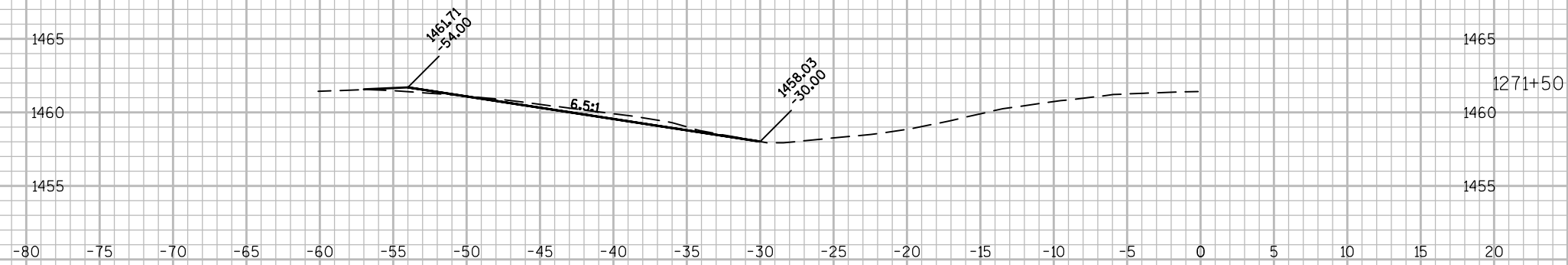
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PROJECT NO:1176-03-71

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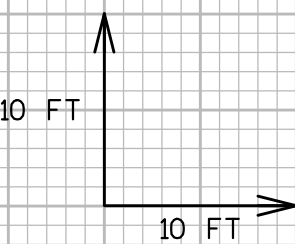
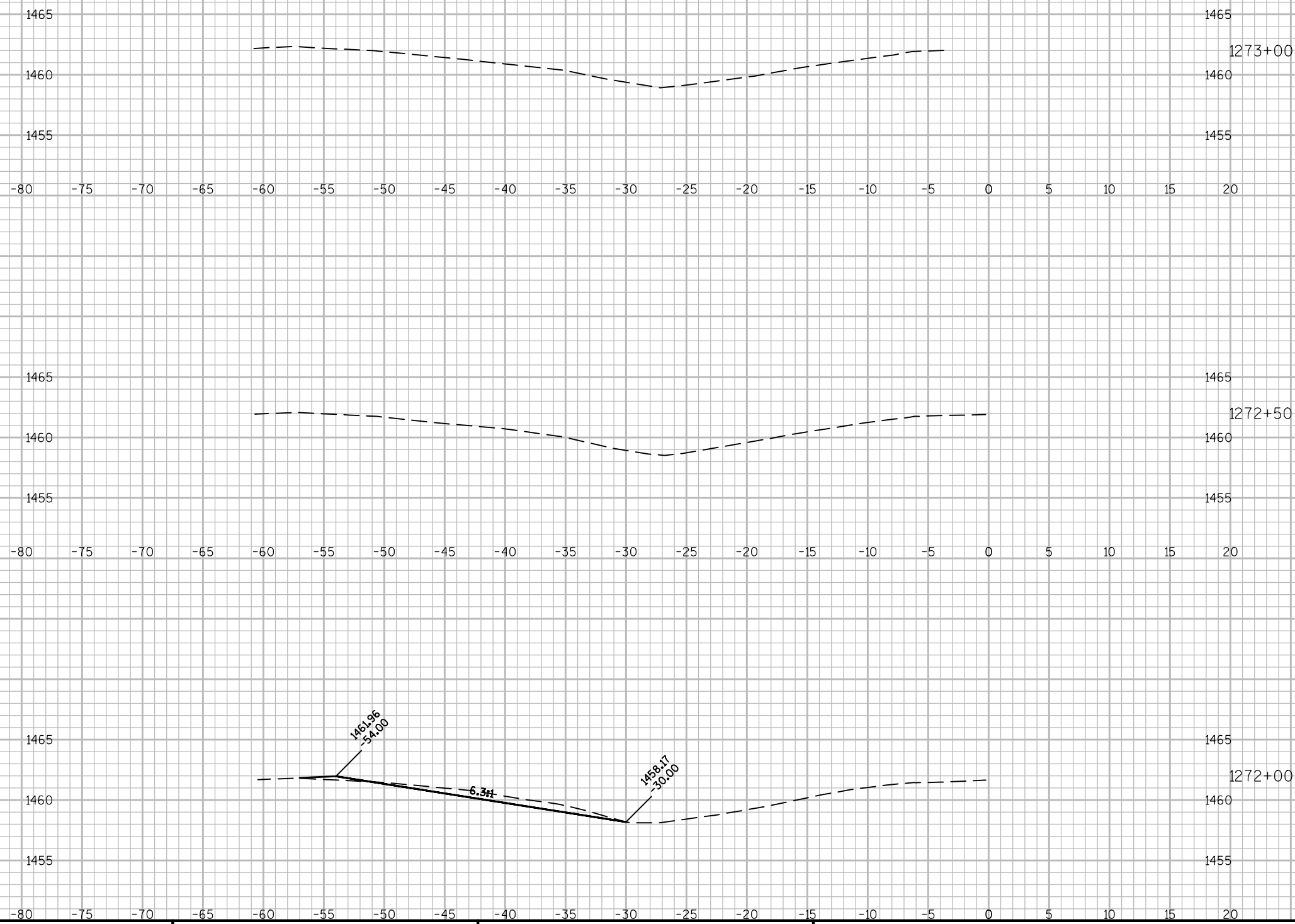
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CROSS SECTIONS: USH 51

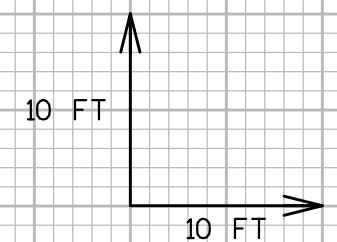
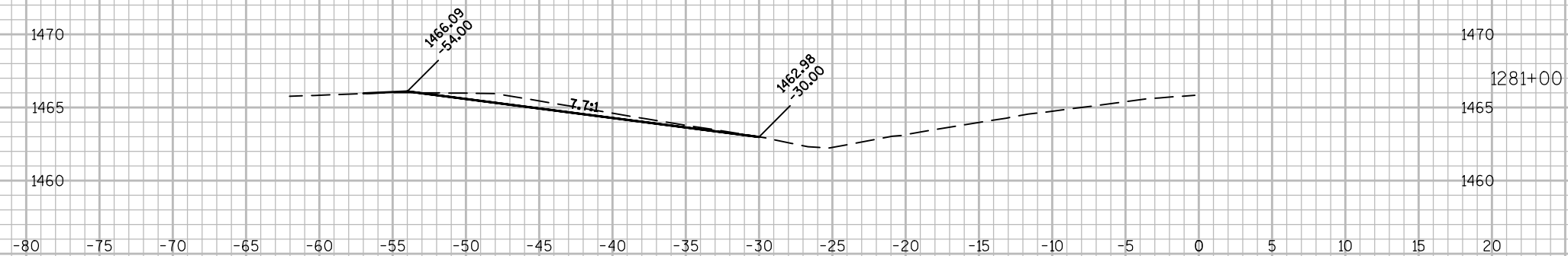
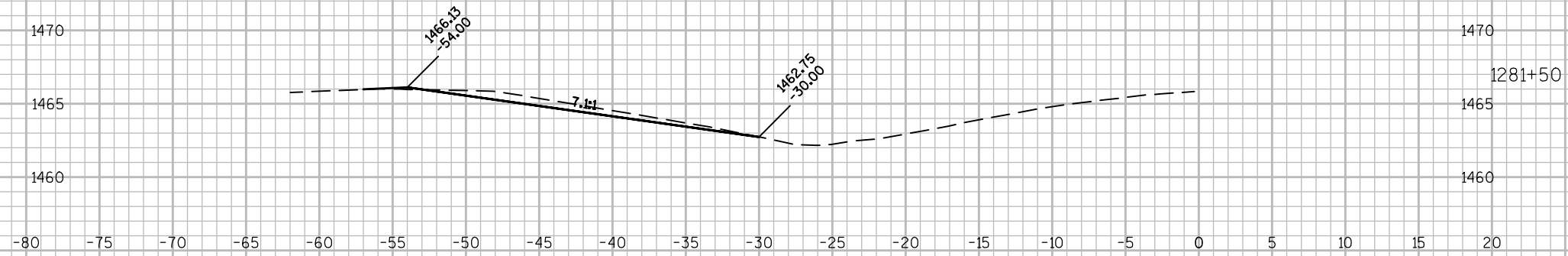
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PROJECT NO:1176-03-71

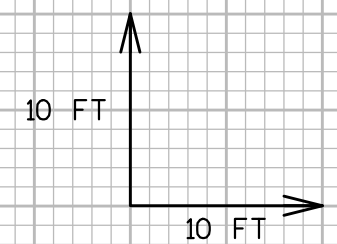
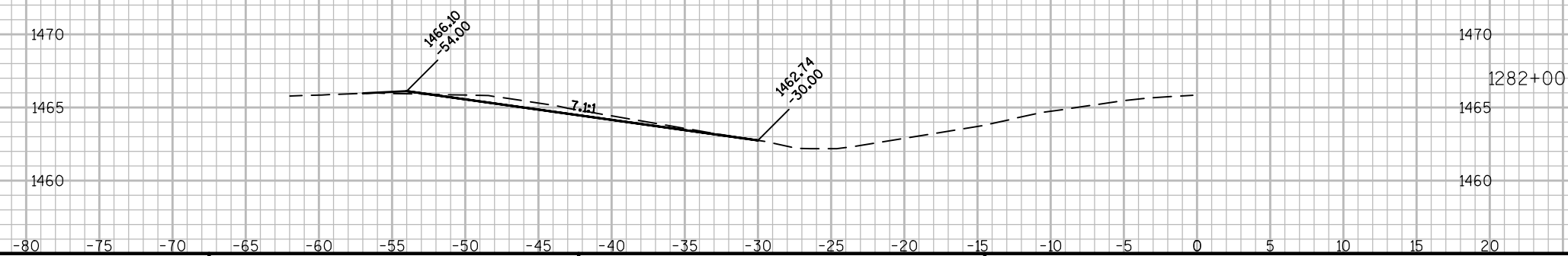
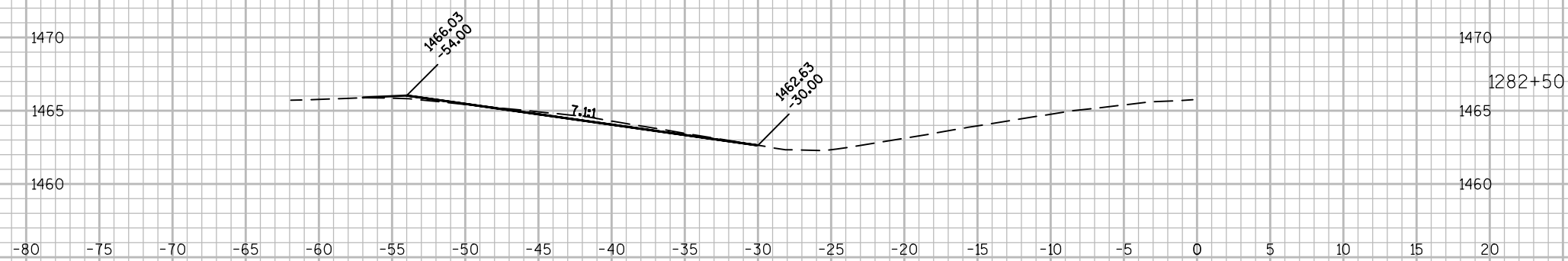
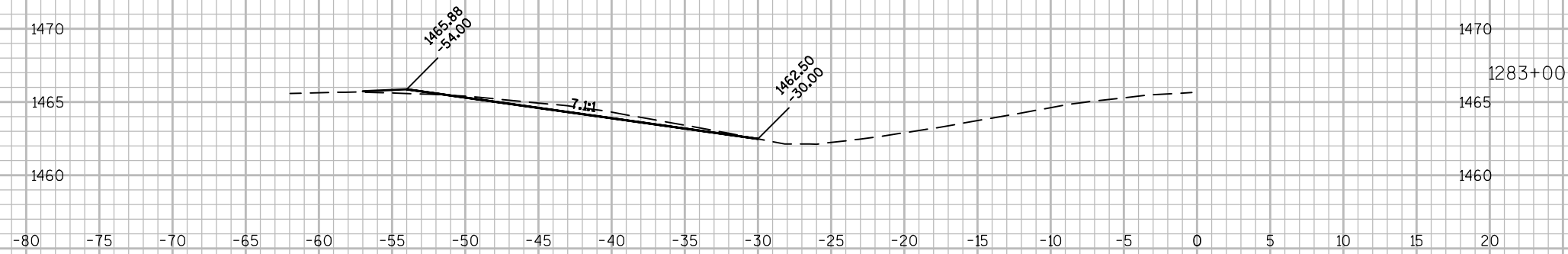
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

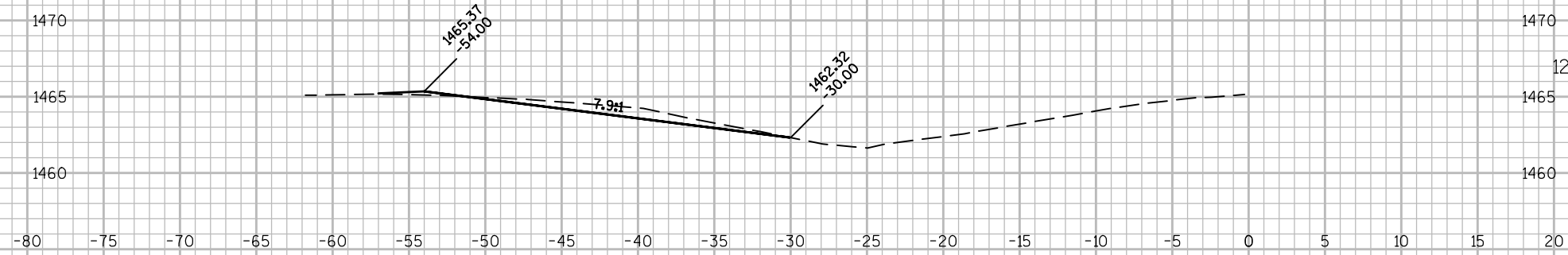
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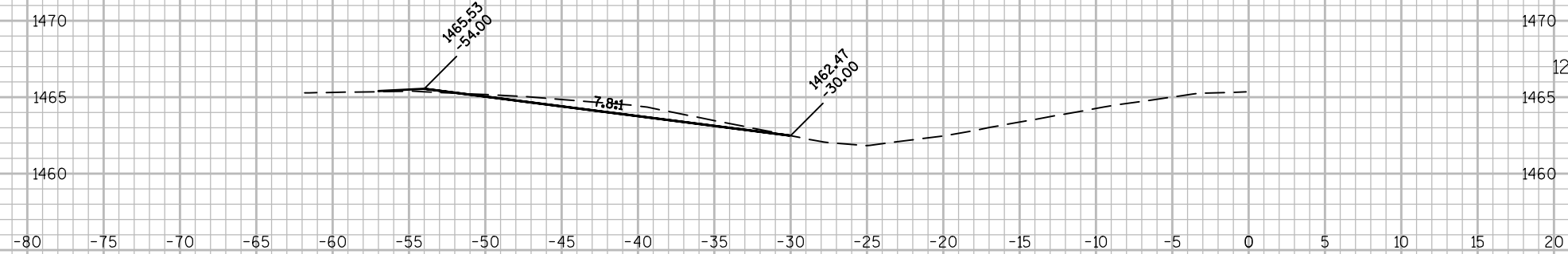


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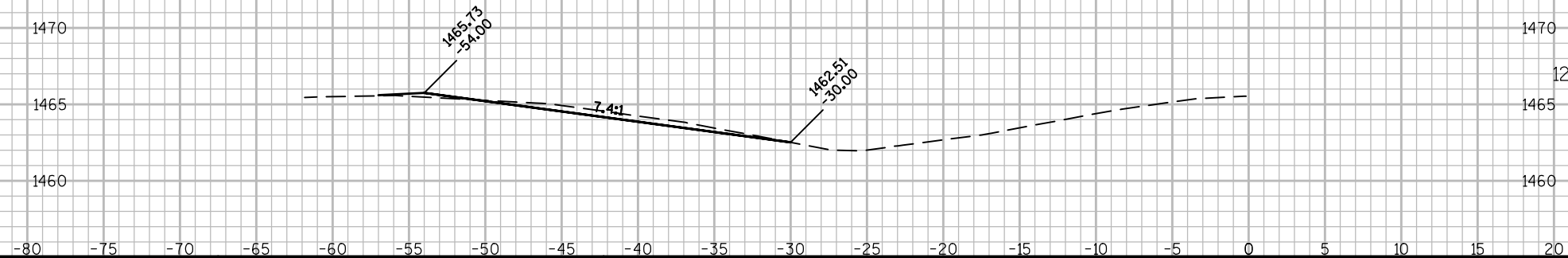
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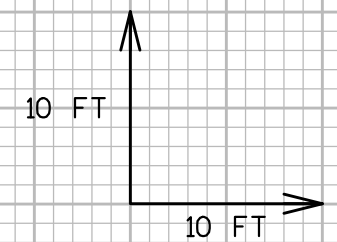
1284+49 (EXISTING REINFORCED CONCRETE
APRON ENDWALL FOR
UNDERDRAIN, 6-INCH, 23' LT)



1284+00



1283+50



PROJECT NO:1176-03-71

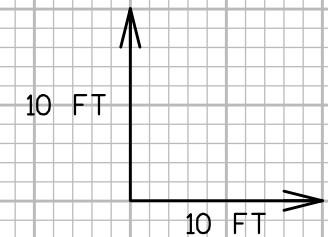
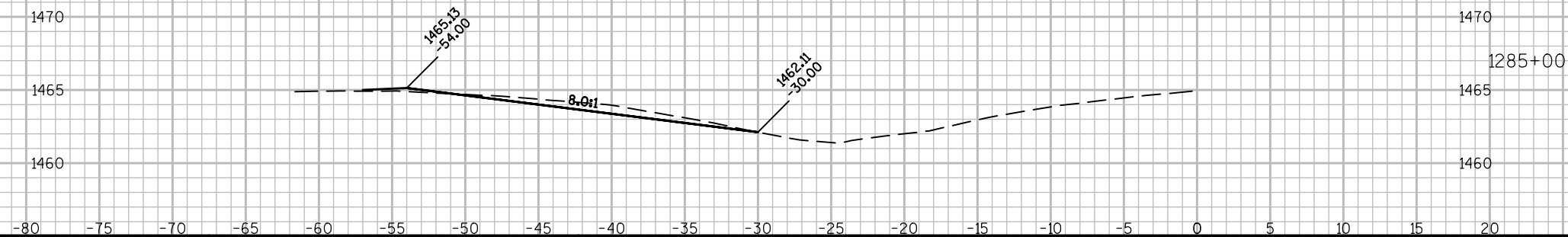
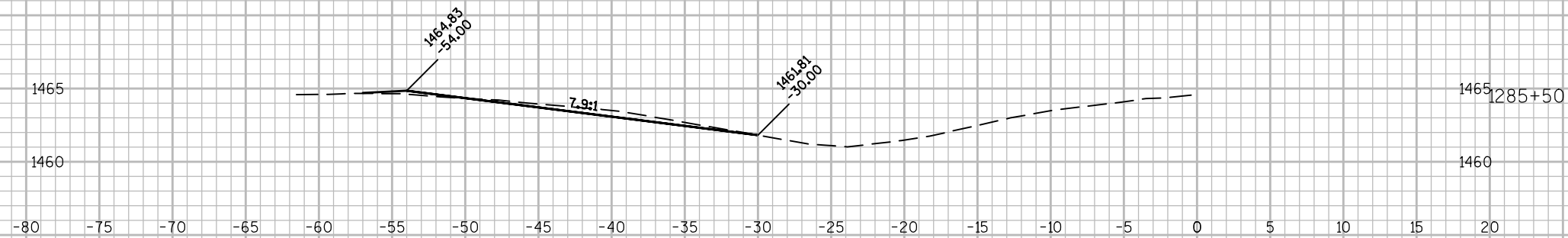
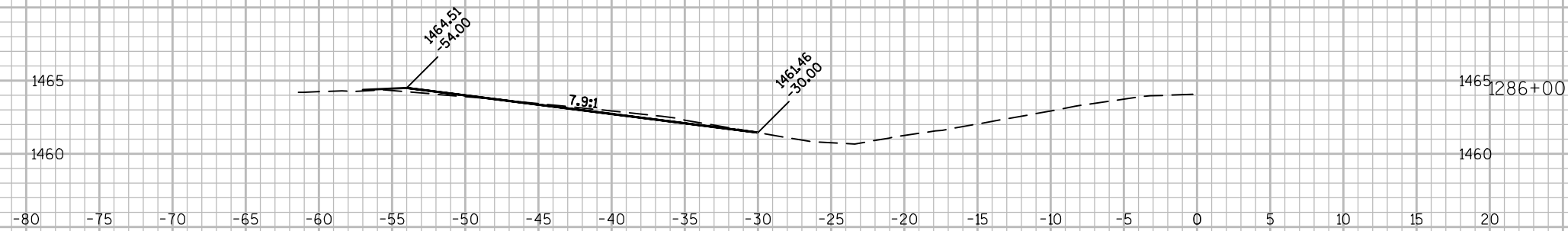
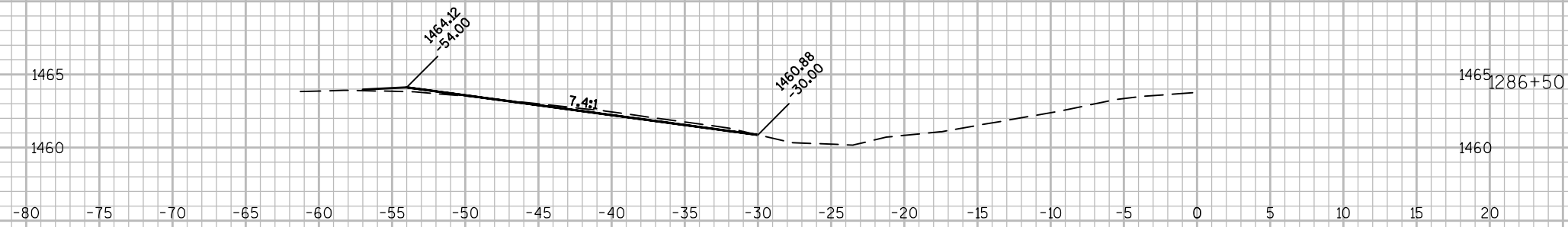
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

E



PROJECT NO:1176-03-71

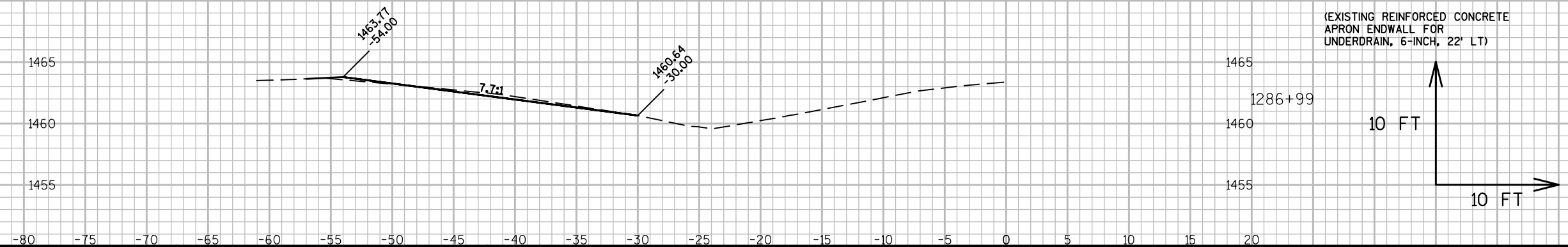
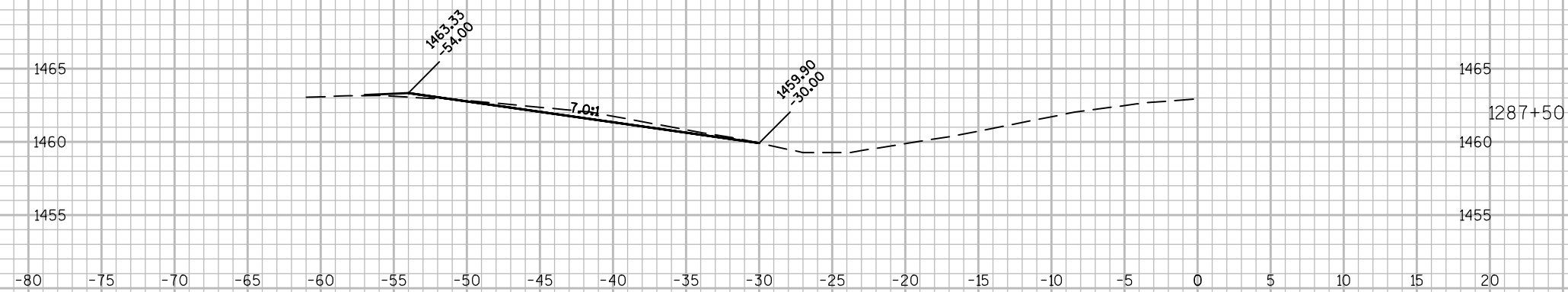
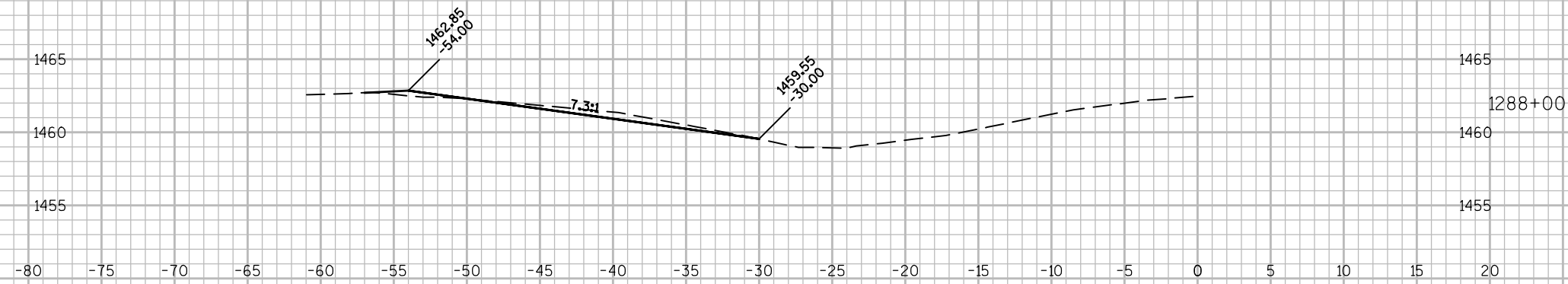
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

E



PROJECT NO:1176-03-71

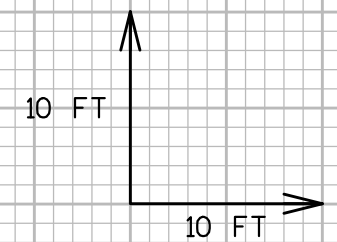
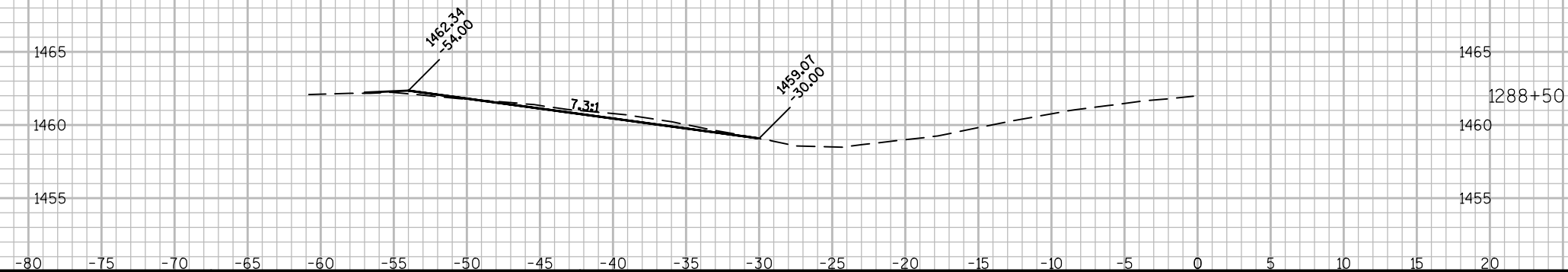
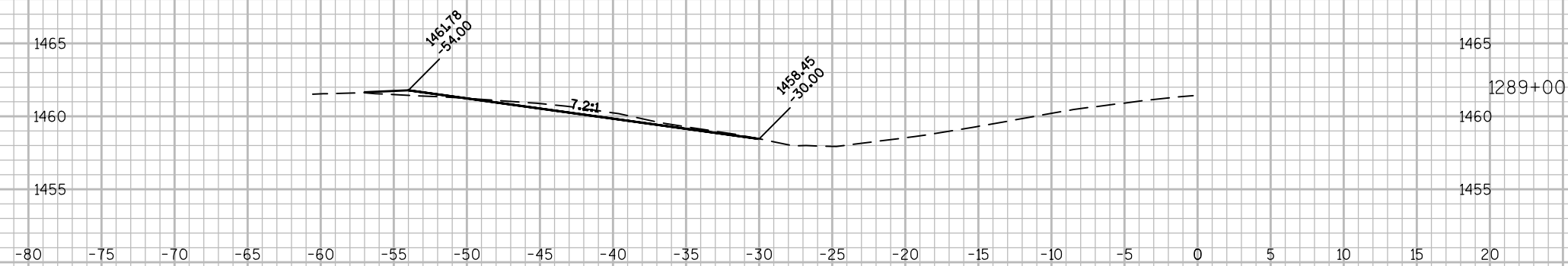
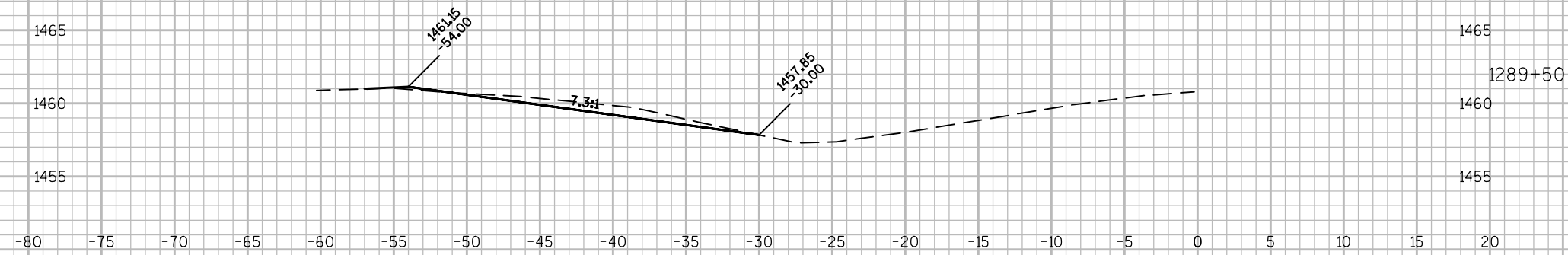
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

E



PROJECT NO:1176-03-71

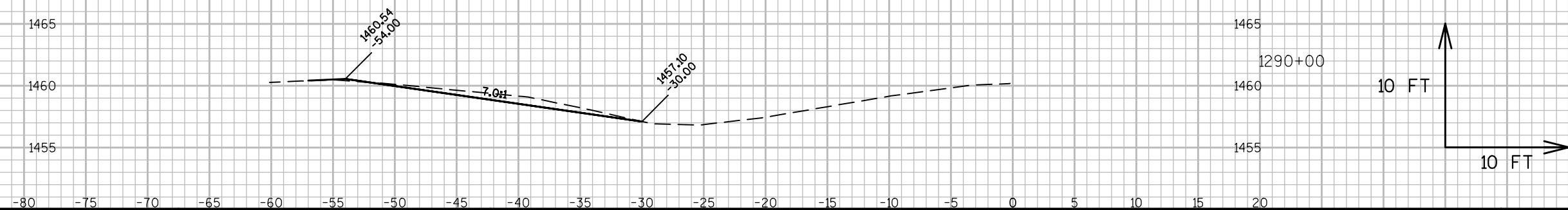
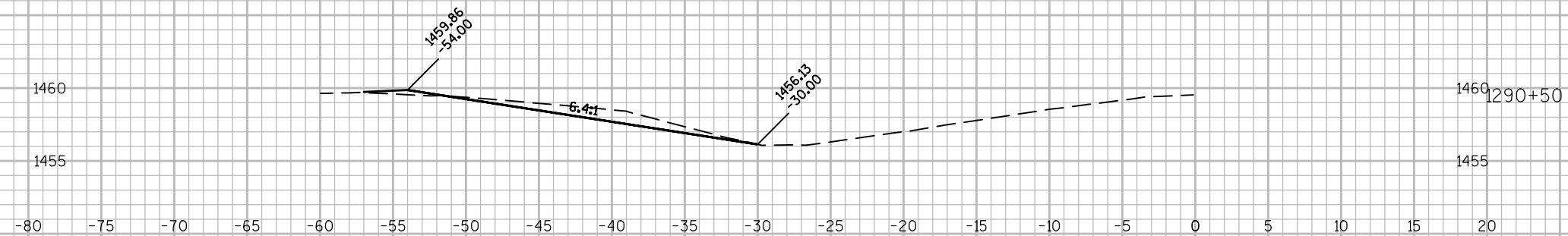
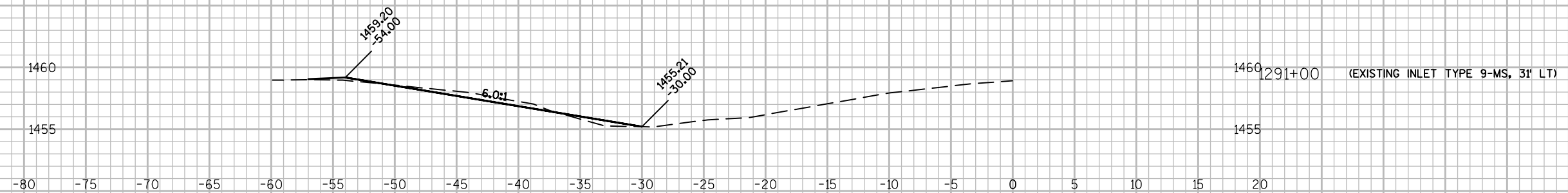
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

E



PROJECT NO:1176-03-71

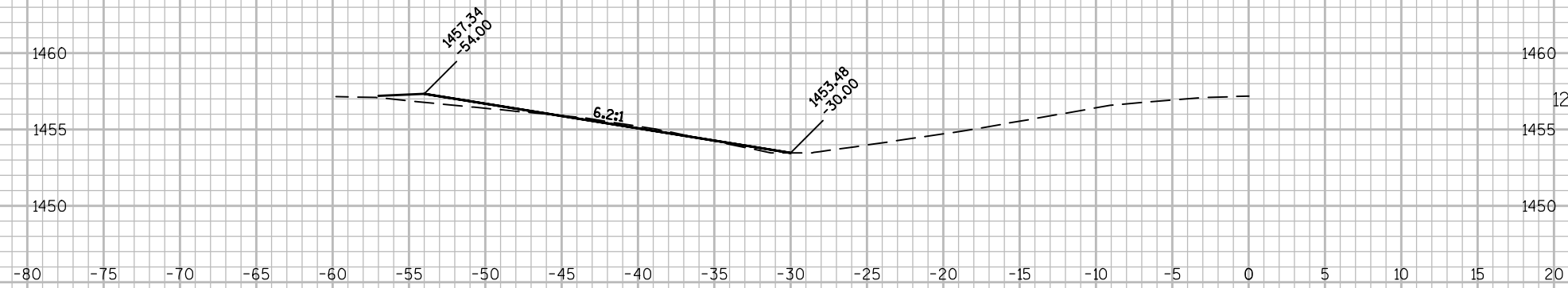
HWY:USH 51

COUNTY:LINCOLN

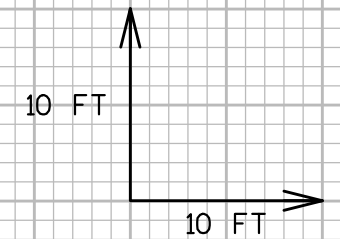
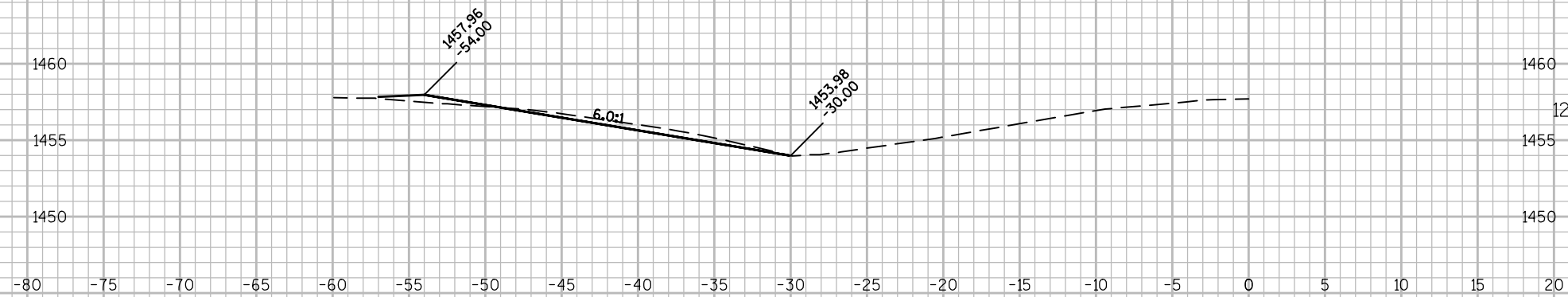
CROSS SECTIONS: USH 51

SHEET

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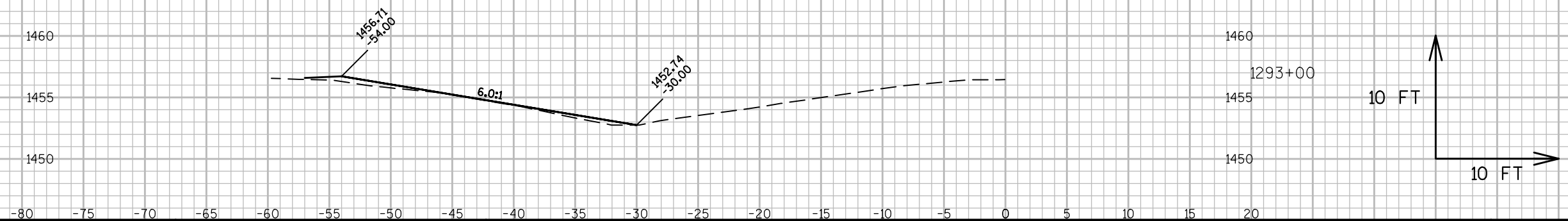
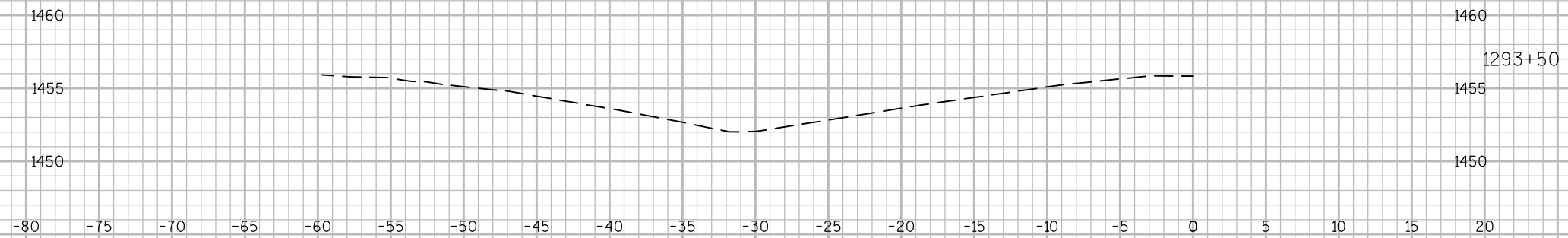


(EXISTING REINFORCED CONCRETE
APRON ENDWALL FOR
UNDERDRAIN, 6-INCH, 24' LT)



9

9



PROJECT NO:1176-03-71

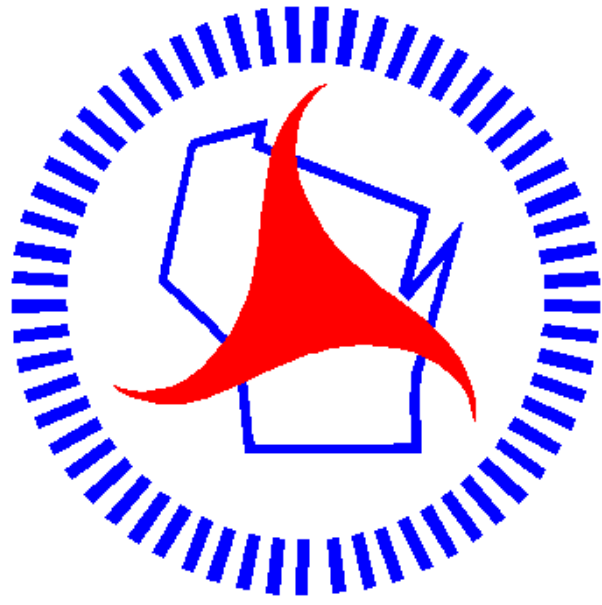
HWY:USH 51

COUNTY:LINCOLN

CROSS SECTIONS: USH 51

SHEET

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