

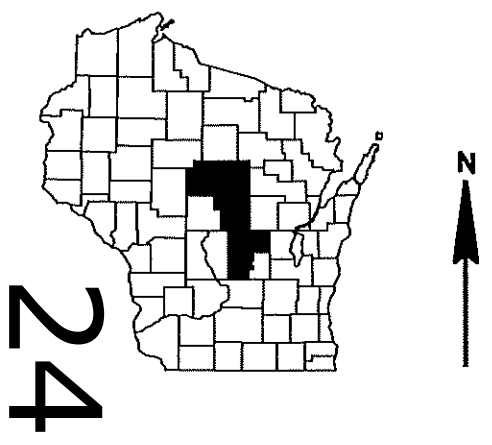
WIS PROJECT ID: 1050-00-77 COUNTY: VARIOUS

APRIL 2020

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 = 134



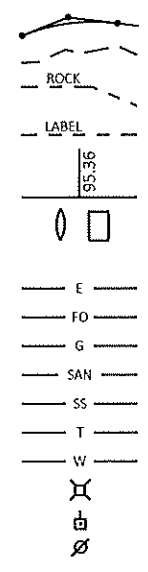
DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

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	CAUTION
MARSH AREA	▲▲▲
WOODED OR SHRUB AREA	~~~~~

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	55.36
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

ABBOTSFORD - WAUSAU PACKWAUKEE - STEVENS POINT

CTH E TO CTH O CABLE BARRIER

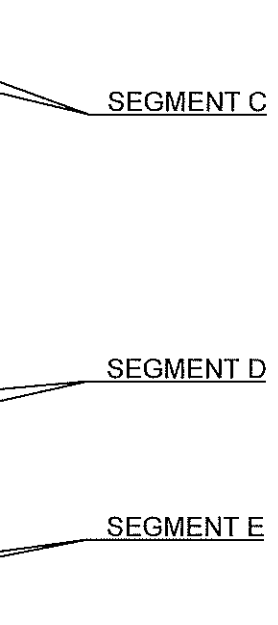
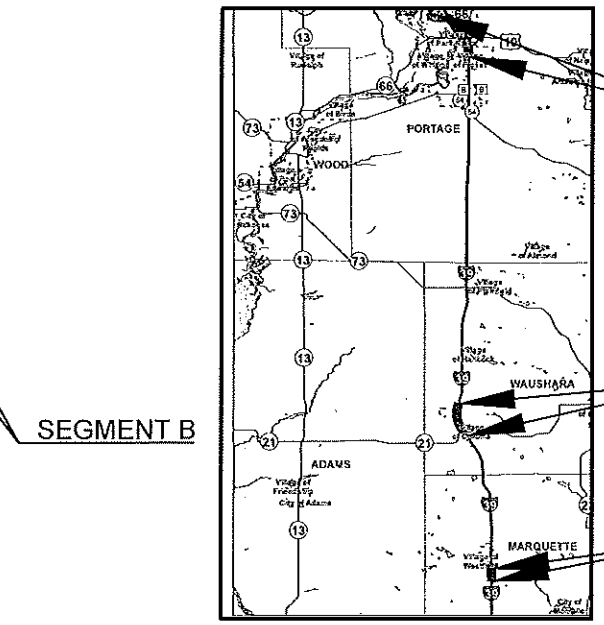
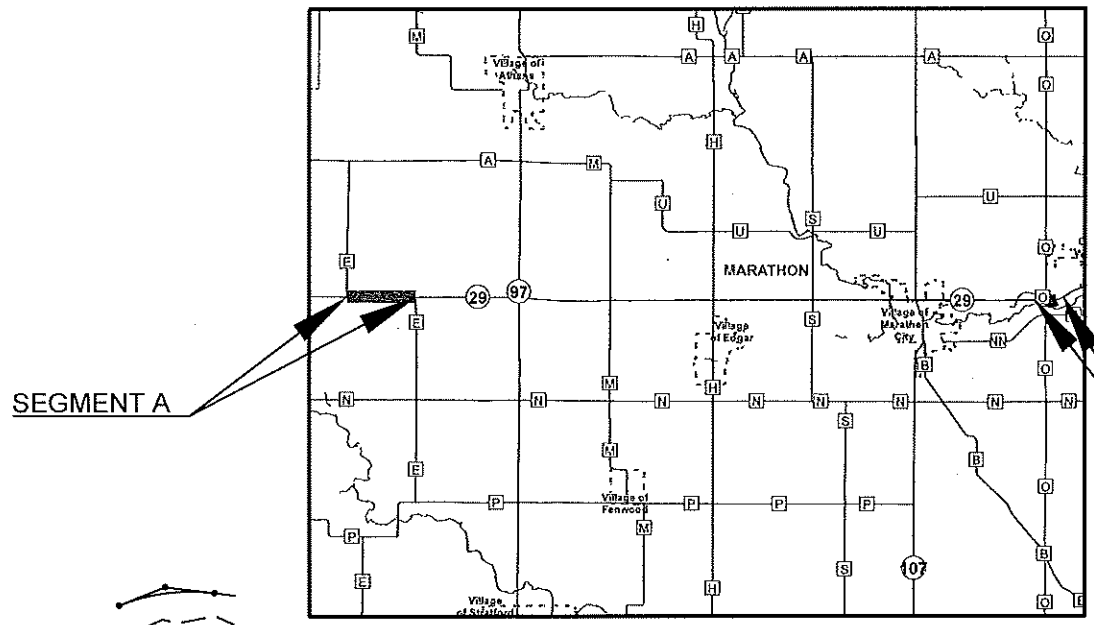
ELK ROAD TO DIVISON STREET

STH 29 MARATHON

IH 39 MARQUETTE - WAUSHARA - PORTAGE

STATE PROJECT NUMBER 1050-00-77

STATE PROJECT NUMBER 1160-01-78



LAYOUT SCALE 0 24.73 TOTAL NET LENGTH OF CENTERLINE = 24.73

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	WISDOT
Surveyor	AL SMITH
Designer	DAN HOLLOWAY
Project Manager	CHERYL SIMON
Regional Examiner	NICHOLE LYSNE
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 2/27/2020	(Signature)

GENERAL NOTES

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.

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

UTILITY CONTACTS - 1050-00-77

ATC Management, Inc. - Electricity-transmission

Name: Tony Marciniak
Address: N/A
City State ZIP: N/A
Phone: 262-506-6814
Mobile: N/A
tmarciniak@atcllc.com

Wisconsin Public Service Corporation - Electricity

Clayton Virks
P.O Box 1166
Wausau. WI 54402
715-848-7317
715-573-7806
clayton.vircks@wisconsinpublicservice.com

Xcel Energy - Electricity

Pamela Denzine
500 N 5th Street
Abbotsford WI 54405
715-737-7174
715-218-6637
PAMELA.DENZINE@XCELENERGY.COM

Wisconsin Public Service Corporation - Gas/Petroleum

Shane Sarkkinen
1700 Sherman St.
Wausau, WI 54402
715-848-73787
715-966-1040
jtresniak@acecwi.com

AS-BUILT REFERENCE (YEAR)*

1160-00-74 (2006)
6351-00-71 (2005)
1160-00-76 (2001)
1163-07-76 (1973)
F 05-3(20) (1955)

*Approval Year (Not Construction)

ENVIRONMENTAL CONTACTS

WI Department of Natural Resources

473 Griffith Ave
Wisconsin Rapids, WI 54494
Attn: Brad Betthauser
Cell: 715-213-9064
Phone: (715) 421-7851
Bradley.Betthauser@wisconsin.gov

Runoff Coefficient Table

	Hydrologic Soil Group											
	A			B			C			D		
	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	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
Median Strip-Turf	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
Side Slope Turf			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
Pavement												
Asphalt	0.70 - 0.95											
Concrete	0.80 - 0.95											
Brick	0.70 - 0.80											
Drives, Sidewalks	0.75 - 0.85											
Roofs	0.75 - 0.95											
Gravel Roads, Shoulders	0.40 - 0.60											

Total Project Area = 22.8 Acres
Total Area Expected To Be Disturbed By Construction Activities = 22.8 Acres

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

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ENVIRONMENTAL CONTACTS

WI Department of Natural Resources
473 Griffith Ave
Wisconsin Rapids, WI 54494
Attn: Casey Jones
Cell: 715-213-6571
casey.jones@wisconsin.gov



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www.DiggersHotline.com

Mobile: 920-979-0060
[email](#)

ATC Management, Inc. - Electricity-transmission
Name: Tony Marciniak
Address
City State ZIP
Phone: 262-506-6814
Mobile
[email: tmarciniak@atcllc.com](mailto:tmarciniak@atcllc.com)

Amherst Telephone Company - Communication Line
Name: Tom Iverson
Address: P.O Box 279, 120 Mill St.
City State ZIP: 54406
Phone: 715-824-2006
Mobile: 715-572-5630
[email: tiverson@tvalleycom.com](mailto:tiverson@tvalleycom.com)

Alliant Energy - Electricity
Name: Mark Villars
Address: 880 N. Wisconsin St.
City State ZIP: Berlin, WI, 54923
Phone: 920-361-5652
Mobile: 920-290-0827
[email: Markvillars@alliantenergy.com](mailto:Markvillars@alliantenergy.com)

City of Stevens Point - Communication Line
Name: Eric Southworth
Address: 300 Bliss Ave.
City State ZIP: Stevens Point, WI, 54481
Phone: 715-342-4846

Mobile: 715-630-1348
[email: esouthworth@stevenspoint.com](mailto:esouthworth@stevenspoint.com)

City of Stevens Point - Water
Name: Eric Southworth
Address: 500 Bliss Ave.
City State ZIP: Stevens Point, WI, 54481
Phone: 715-342-4846
Mobile: 715-630-1348
[email: esouthworth@stevenspoint.com](mailto:esouthworth@stevenspoint.com)

AT&T Wisconsin - Communication Line
Name: Chuck Bartelt
Address: 70 E Division St.
City State ZIP: Fond Du Lac, WI, 54935
Phone: 920-929-10013
Mobile: 920-410-5104
[email: CB1461@ATT.com](mailto:CB1461@ATT.com)

Astrea - Communication Line
Name: Andy Heigl
Address: 105 Kent St.
City State ZIP: Iron Mountain, MI, 49801
Phone: 906-776-2609
Mobile: 906-221-75-36
[email: andy.heigl@PLBB.net](mailto:andy.heigl@PLBB.net)

UTILITY CONTACTS - 1160-01-78

Union Telephone Company - Communication Line
Name: Ron Bowden
Address: 100 W. North St.
City State ZIP: Plainfield, WI, 54909
Phone: 715-335-6301

email: esouthworth@stevenspoint.com

Marquette Adams Telephone Coop Inc - Communication Line

Name: Tim Spath

Address: 113 N. Oxford St.

City State ZIP: Oxford, WI, 53952

Phone: 608-586-7022

Mobile: 608-540-0088

email: tspath@maadtelco.com

Wisconsin Public Service Corporation - Gas/Petroleum

Name: Shane Sarkkinen

Address: 1700 Sherman St.

City State ZIP: Wausau, WI, 54402

Phone: 715-848-7387

Mobile: 715-966-1040

email: shane.sarkkinen@wisconsinpublicservice.com

Windstream KDL, LLC - Communication Line

Name: Eric Becker

Address: 314 N. Danz Ave.

City State ZIP: Green Bay, WI, 54302

Phone: 920-461-9825

Mobile

email: eric.becker@windstream.com

Village of Plover - Sewer

Name: Rich Boden

Address: P.O. Box 37

City State ZIP: Plover, WI, 54467

Phone: 715-345-5229

Mobile: 715-340-2417

email: rboden@ploverwi.gov

email: rbowden@uniontel.net

Village of Plover - Water

Name: Matt Saloun

Address: P.O. Box 37, 24 Post Road

City State ZIP: Plover, WI, 54467

Phone: 715-345-5254

Mobile:715-347-9463

email: msaloun@ploverwi.gov

Windstream NTI, LLC - Communication Line

Name: Eric Becker

Address: 314 N. Danz Ave.

City State ZIP: Green Bay, WI, 54302

Phone:920-461-9825

Mobile

email: eric.becker@windstream.com

Wisconsin Public Service Corporation - Electricity

Name: Don Lutzow

Address: 1700 Sherman St, P.O. Box 116

City State ZIP: Wausau, WI, 54402

Phone: 715-848-7487

Mobile: 715-493-7802

email: donald.lutzow@wisconsinpublicservice.com

We Energies - Gas/Petroleum

Name: Larry Koch

Address: 1921 8th St. S

City State ZIP: Wisconsin Rapids, WI, 54494

Phone: 715-421-7249

Mobile: 715-421-9293

email: lary.koch@we-energies.com

ENVIRONMENTAL CONTACTS

WI Department of Natural Resources

473 Griffith Ave

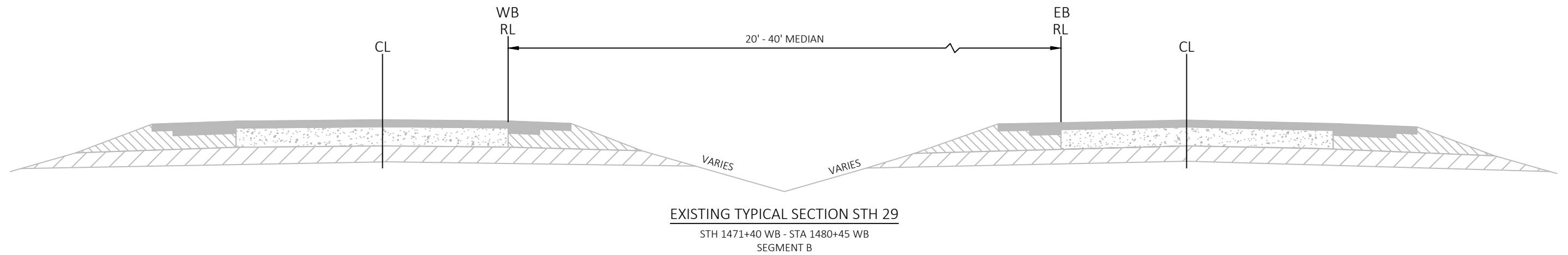
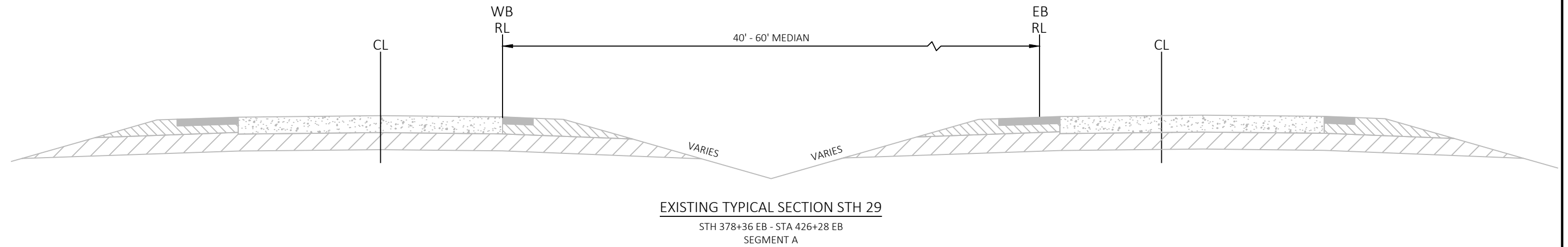
Wisconsin Rapids, WI 54494

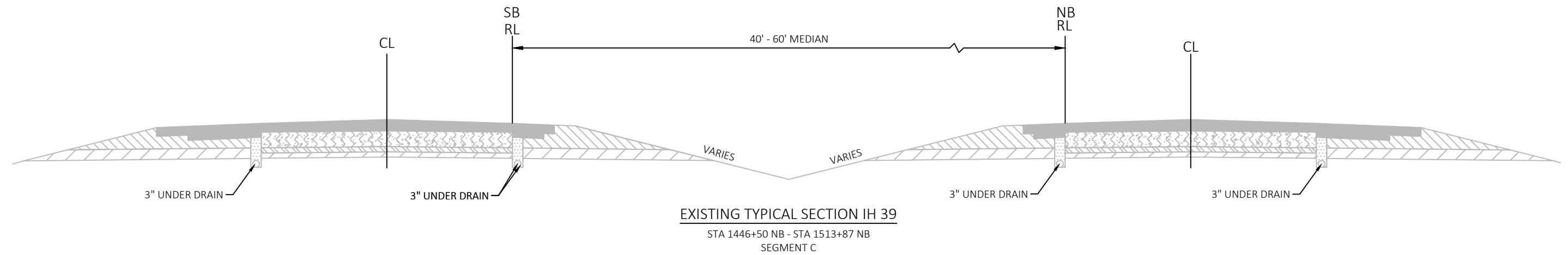
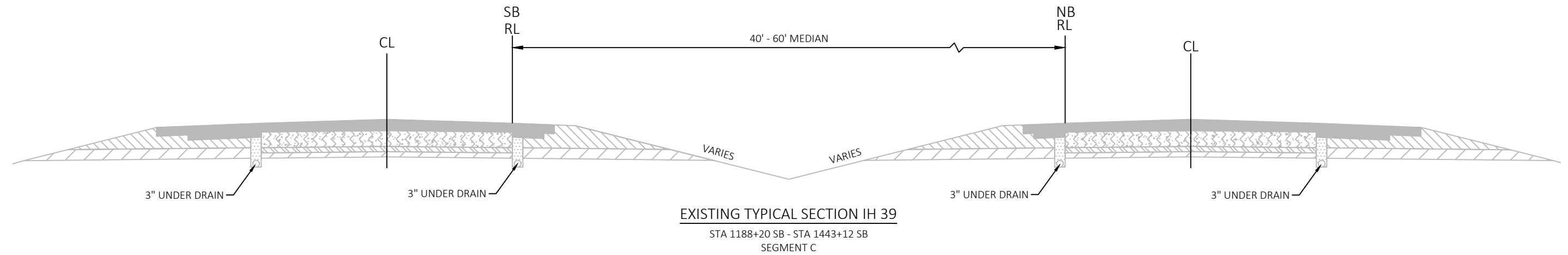
Attn: Casey Jones

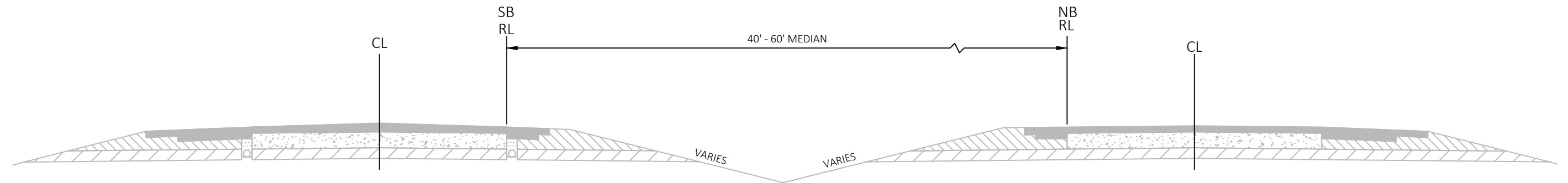


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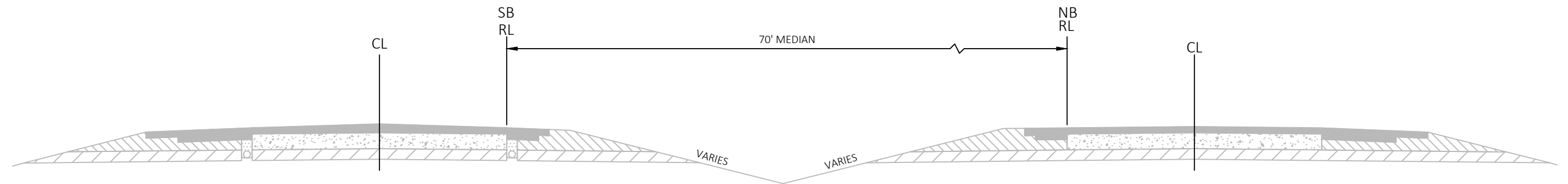






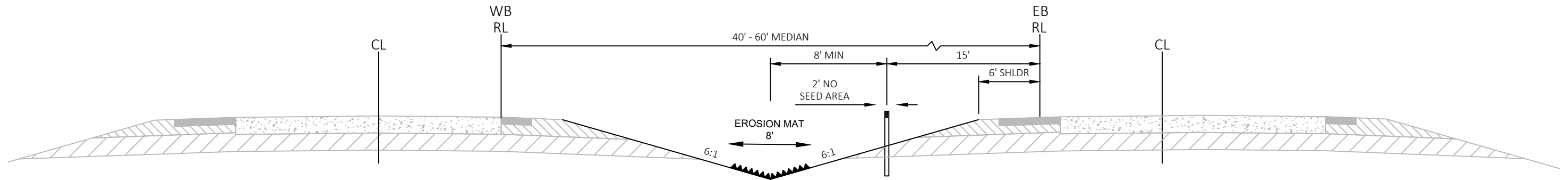
EXISTING TYPICAL SECTION IH 39

STA 217+20 NB - STA 343+62 NB
SEGMENT D



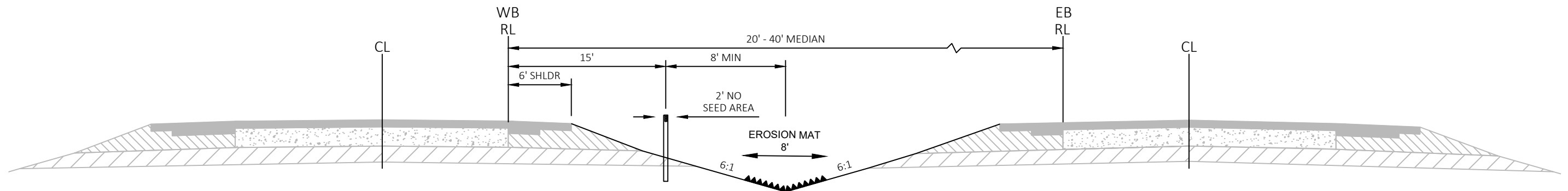
EXISTING TYPICAL SECTION IH 39

STA 764+80 NB - STA 843+47 NB
SEGMENT E



FINISHED TYPICAL SECTION STH 29

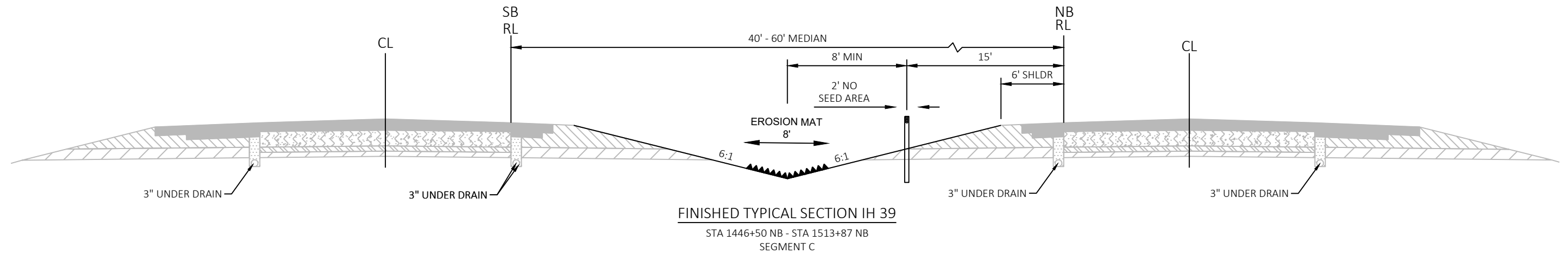
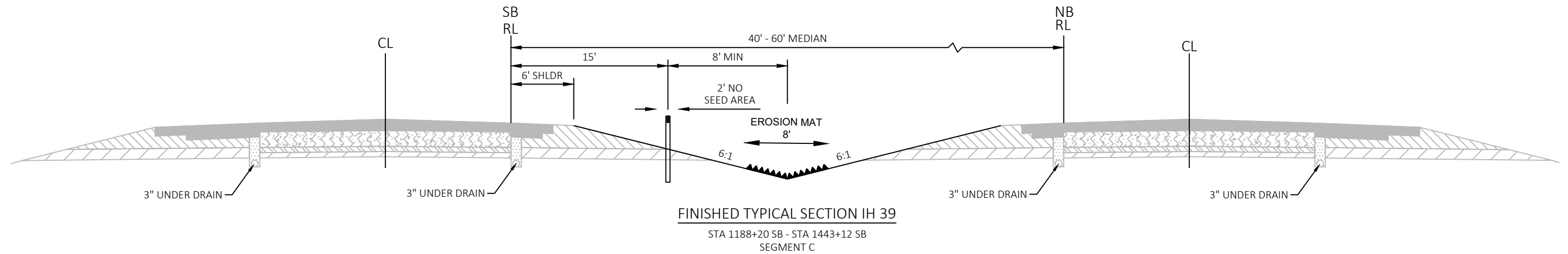
STH 378+36 EB - STA 426+28 EB
SEGMENT A



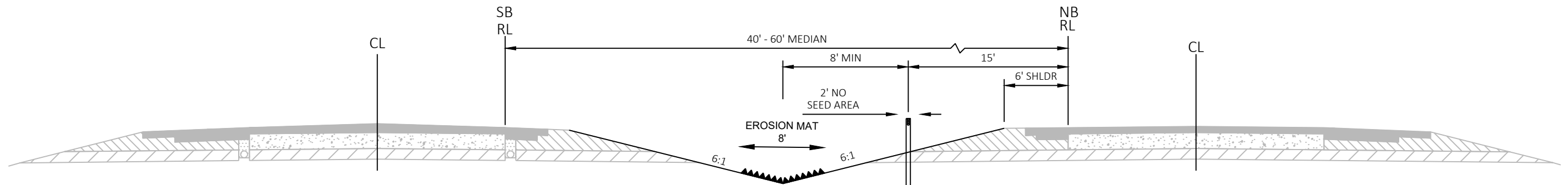
FINISHED TYPICAL SECTION STH 29

STH 1471+40 WB - STA 1480+45 WB
SEGMENT B

GRADING ONLY REQUIRED IN CERTAIN AREAS.
SEE PLAN SHEETS AND CROSS SECTIONS FOR
DETAILS.

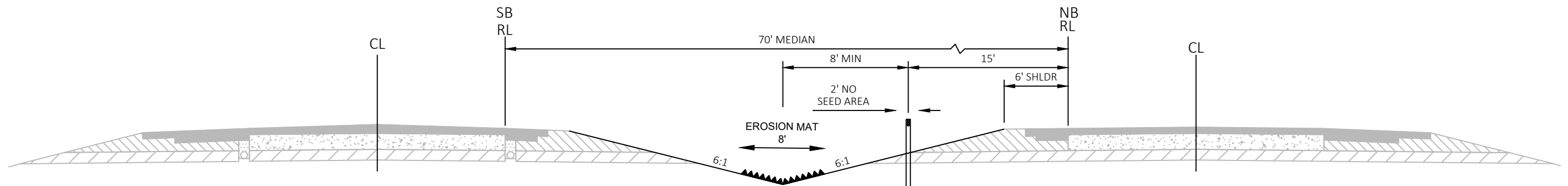


GRADING ONLY REQUIRED IN CERTAIN AREAS.
SEE PLAN SHEETS AND CROSS SECTIONS FOR
DETAILS.



FINISHED TYPICAL SECTION IH 39

STA 217+20 NB - STA 343+62 NB
SEGMENT D



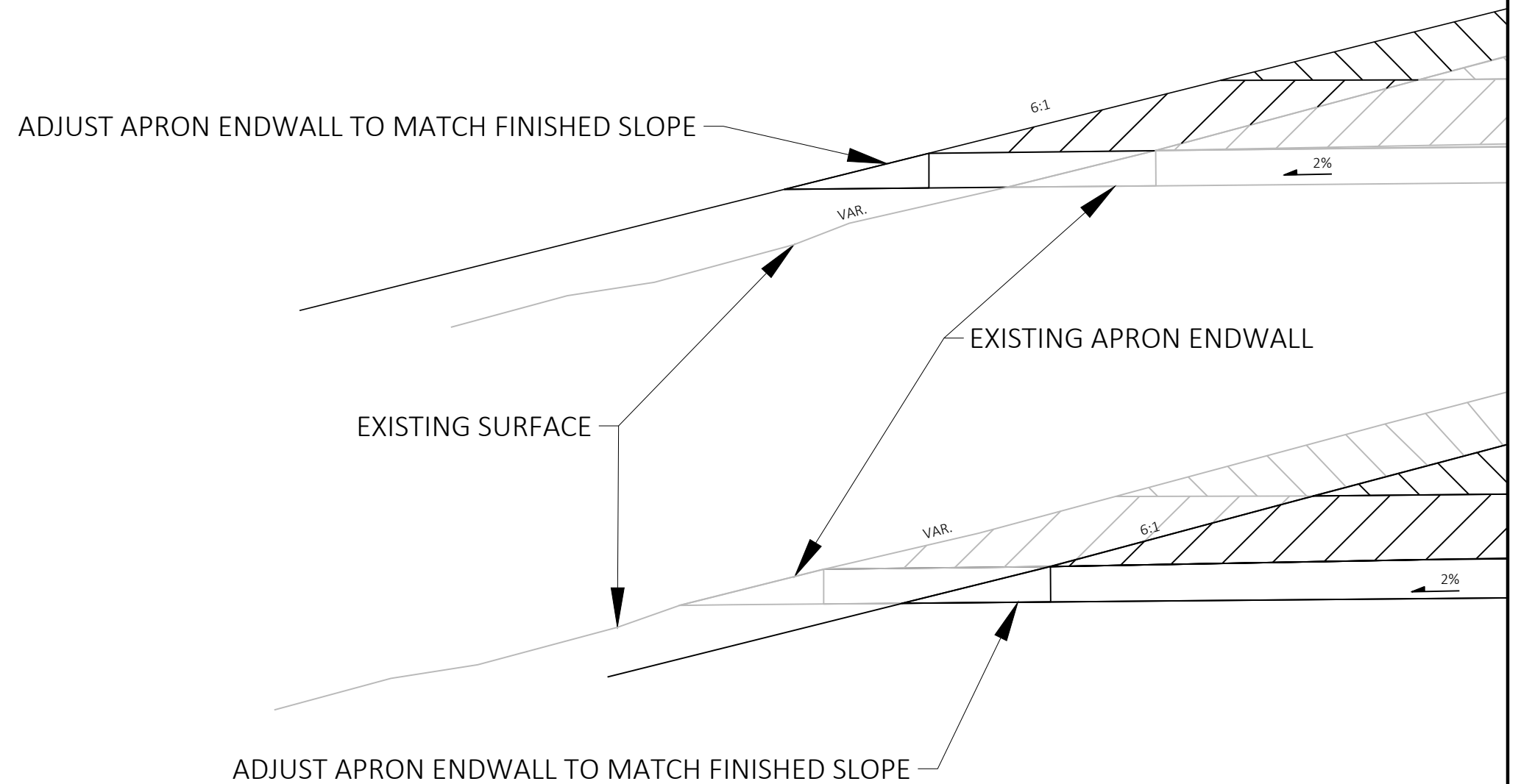
FINISHED TYPICAL SECTION IH 39

STA 764+80 NB - STA 843+47 NB
SEGMENT E

GRADING ONLY REQUIRED IN CERTAIN AREAS.
SEE PLAN SHEETS AND CROSS SECTIONS FOR
DETAILS.

LEGEND

-  EXISTING BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
-  EXISTING BASE AGGREGATE DENSE $1\frac{1}{4}$ -INCH
-  PROPOSED BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH



Estimate Of Quantities

		1050-00-77		1160-01-78		
Line	Item	Item Description	Unit	Total	Qty	Qty
0002	204.0220	Removing Inlets	EACH	19.000	1.000	18.000
0004	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,424.000	258.000	2,166.000
0006	520.8000	Concrete Collars for Pipe	EACH	20.000	1.000	19.000
0008	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	153.000	8.000	145.000
0010	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	16.000		16.000
0012	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	16.000		16.000
0014	611.0642	Inlet Covers Type MS	EACH	17.000		17.000
0016	611.3902	Inlets Median 2 Grate	EACH	11.000	1.000	10.000
0018	611.3903	Inlets Median 3 Grate	EACH	1.000		1.000
0020	611.3904	Inlets Median 4 Grate	EACH	6.000		6.000
0022	611.9710	Salvaged Inlet Covers	EACH	45.000	2.000	43.000
0024	613.1100.S	Cable Barrier Type 1	LF	61,370.000	10,371.000	50,999.000
0026	613.1200.S	Cable Barrier End Terminal Type 1	EACH	38.000	12.000	26.000
0028	619.1000	Mobilization	EACH	1.000	0.500	0.500
0030	624.0100	Water	MGAL	17.000	3.000	14.000
0032	627.0200	Mulching	SY	92,183.000	7,159.000	85,024.000
0034	628.1905	Mobilizations Erosion Control	EACH	9.000	2.000	7.000
0036	628.1910	Mobilizations Emergency Erosion Control	EACH	9.000	2.000	7.000
0038	628.2004	Erosion Mat Class I Type B	SY	18,217.000	2,212.000	16,005.000
0040	628.7005	Inlet Protection Type A	EACH	18.000	1.000	17.000
0042	628.7504	Temporary Ditch Checks	LF	85.000	40.000	45.000
0044	628.7555	Culvert Pipe Checks	EACH	139.000	100.000	39.000
0046	628.7570	Rock Bags	EACH	480.000	120.000	360.000
0048	629.0210	Fertilizer Type B	CWT	70.000	6.000	64.000
0050	630.0120	Seeding Mixture No. 20	LB	2,980.000	253.000	2,727.000
0052	643.0300	Traffic Control Drums	DAY	32,580.000	4,440.000	28,140.000
0054	643.0420	Traffic Control Barricades Type III	DAY	174.000	54.000	120.000
0056	643.0705	Traffic Control Warning Lights Type A	DAY	348.000	108.000	240.000
0058	643.0715	Traffic Control Warning Lights Type C	DAY	1,479.000	459.000	1,020.000
0060	643.0800	Traffic Control Arrow Boards	DAY	174.000	54.000	120.000
0062	643.0900	Traffic Control Signs	DAY	870.000	270.000	600.000
0064	643.5000	Traffic Control	EACH	1.000	0.500	0.500
0066	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	3,240.000	1,560.000	1,680.000
0068	650.9910	Construction Staking Supplemental Control (project) 01. 1050-00-77	LS	1.000	1.000	
0070	650.9910	Construction Staking Supplemental Control (project) 01. 1160-01-78	LS	1.000		1.000
0072	650.9920	Construction Staking Slope Stakes	LF	22,650.000	2,375.000	20,275.000

Estimate Of Quantities

				1050-00-77	1160-01-78		
Line	Item	Item Description	Unit	Total	Qty	Qty	
0074	SPV.0060	Special 01. Salvage and Reinstall Underdrain Endwall	EACH	31.000		31.000	
0076	SPV.0090	Special 01. Special Construction Staking Cable Barrier	LF	61,370.000	10,371.000	50,999.000	
0078	SPV.0180	Special 01. Grading, Shaping Median Inslopes	SY	110,400.000	9,371.000	101,029.000	

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110	624.0100	REMARKS
		3/4-INCH TON	WATER MGAL	
413+50 - 429+00	MEDIAN	168	2	MARATHON
1472+00 - 1480+25	MEDIAN	90	1	MARATHON
TOTAL		258	3	

INLETS MEDIAN AND INLET COVERS

STATION	LOCATION	204.0220	520.8000	608.0318	611.3902	611.9710	REMARKS
		REMOVING INLETS EACH	CONCRETE COLLAR EACH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18" LF	INLETS MEDIAN 2 GRATE EACH	SALVAGED INLET COVERS EACH	
1479+26 EB	RT	1	1	8	1	2	MARATHON
TOTAL		1	1	8	1	2	

CONSTRUCTION STAKING

STATION - STATION	LOCATION	SPV.0090.01	REMARKS
		CABLE BARRIER TYPE 1 LF	
378+36 EB - 387+42 EB	15' LT	906	STH 29 MEDIAN MARATHON
388+42 EB - 412+38 EB	15' LT	2396	STH 29 MEDIAN MARATHON
413+58 EB - 426+63 EB	15' LT	1305	STH 29 MEDIAN MARATHON
432+66 EB - 442+50 EB	15' LT	984	STH 29 MEDIAN MARATHON
443+50 EB - 482+30 EB	15' LT	3880	STH 29 MEDIAN MARATHON
1471+26 EB - 1480+26 EB	15' LT	900	STH 29 MEDIAN MARATHON
TOTAL		10371	

CONSTRUCTION STAKING

STATION - STATION	LOCATION	SLOPE STAKES	650.9910	REMARKS
		650.9920 LF	SUPPLEMENTAL CONTROL LS	
413+50 EB - 429+00 EB	MEDIAN	1550	---	MARATHON
1472+00 EB - 1480+25 EB	MEDIAN	825	1	MARATHON
TOTAL		2375	1	

CABLE BARRIER

STATION - STATION		LOCATION	650.7500 CABLE BARRIER TYPE 1 LF	613.1200.S END TERMINAL TYPE 1 EACH	REMARKS
378+36 EB - 387+42 EB		15' LT	906	2	STH 29 MEDIAN MARATHON
388+42 EB - 412+38 EB		15' LT	2396	2	STH 29 MEDIAN MARATHON
413+58 EB - 426+63 EB		15' LT	1305	2	STH 29 MEDIAN MARATHON
432+66 EB - 442+50 EB		15' LT	984	2	STH 29 MEDIAN MARATHON
443+50 EB - 482+30 EB		15' LT	3880	2	STH 29 MEDIAN MARATHON
1471+26 EB - 1480+26 EB		15' LT	900	2	STH 29 MEDIAN MARATHON
TOTALS			10371	12	

EROSION MAT, GRADING SHAPING MEDIAN INSLOPES

STATION	-	STATION	LOCATION	SPV.0180.01 GRADING SHAPING MEDIAN INSLOPES SY	627.0200 MULCH METHOD B SY	628.2004 EROSION MAT CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO.20 LB	REMARKS
413+50 EB	-	429+00 EB	MARATHON	6531	5126	1405	4.1	176	
1472+00 EB	-	1480+25 EB	MARATHON	2840	2033	807	1.8	77	
TOTALS				9,371	7,159	2,212	6	253	

MOBILIZATIONS EROSION CONTROL

SEGMENT	628.1905	628.1910	REMARKS
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	
A & B	2	2	MARATHON
TOTAL	2	2	

INLET PROTECTION

STATION	LOCATION	628.7005	REMARKS
		INLET PROTECTION TYPE A EACH	
1479+26 EB	RT	1	MARATHON
TOTAL		1	

ROCK BAGS

STATION	LOCATION	628.7570	REMARKS
		ROCK BAGS EACH	
1479+26 EB	RT	60	MARATHON
UNDISTRIBUTED		60	
TOTAL		120	

DITCH, CULVERT CHECKS

STATION	LOCATION	628.7555	628.7504
		CULVERT CHECKS EACH	TEMPORARY DITCH CHECKS LF
380+00 EB	MARATHON	5	---
387+75 EB	MARATHON	5	---
402+30 EB	MARATHON	5	---
412+55 EB	MARATHON	4	---
413+25 EB	MARATHON	4	---
419+45 EB	MARATHON	5	---
429+00 EB	MARATHON	---	40
432+50 EB	MARATHON	5	---
440+00 EB	MARATHON	5	---
442+75 EB	MARATHON	4	---
443+30 EB	MARATHON	4	---
447+25 EB	MARATHON	5	---
449+25 EB	MARATHON	3	---
452+25 EB	MARATHON	3	---
455+60 EB	MARATHON	3	---
455+65 EB	MARATHON	3	---
457+45 EB	MARATHON	3	---
460+10 EB	MARATHON	3	---
462+10 EB	MARATHON	3	---
462+60 EB	MARATHON	3	---
465+30 EB	MARATHON	3	---
467+80 EB	MARATHON	3	---
470+60 EB	MARATHON	5	---
470+65 EB	MARATHON	3	---
478+40 EB	MARATHON	3	---
481+10 EB	MARATHON	5	---
1482+15 EB	MARATHON	3	---
TOTALS		100	40

TRAFFIC CONTROL																	
LOCATION	STAGE DAYS	QTY	643.0300 DRUMS		643.0420 BARRICADE TYPE III		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0800 ARROW BOARD		643.0900 SIGNS		649.0150 TEMPORARY PAVEMENT MARKING 4-INCH EDGE LINE		REMARKS
			DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	LF		
MARATHON																	
STA 1471+26 WB- STA 1513+87 WB SHOULDER CLOSURE	12	50	600	2	24	4	48	17	204	2	24	10	120		780	INSTALL LANE AND SHOULDER CLOSURES PER SDD	
	12	10	120	0	0	0	0	0	0	0	0	0	0		0		
MARATHON																	
STA 378+36 WB-STA 482+30 WB SHOULDER CLOSURE	15	144	2160	2	30	4	60	17	255	2	30	10	150		780	INSTALL LANE AND SHOULDER CLOSURES PER SDD	
	15	104	1560	0	0	0	0	0	0	0	0	0	0		0		
TOTAL			4440		54		108		459		54		270		1560		

EARTH WORK SHEETS FOR INFORMATION ONLY

DIVISION	FROM/TO STATION	LOCATION	COMMON EXCAVATION (1)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT:
			CUT (2)			FACTOR				
DIVISION 1						1.50				
10500077-29-Abby	419+50/429+00		538	538	38	57	481	481	0	
DIVISION 1 SUBTOTAL			538	538	38	57	481	481	0	INFORMATION ONLY
DIVISION 2										
10500077-29-Wausau	1471+50/1481+00		32	32	197	295	-263	0	263	
DIVISION 2 SUBTOTAL			32	32	197	295	-263	0	263	INFORMATION ONLY

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110	624.0100	REMARKS
		3/4-INCH TON	WATER MGAL	
765+00 - 843+00	MEDIAN	847	3	MARQUETTE
1244+00 - 1270+00	MEDIAN	282	2	PORTAGE
1368+00 - 1381+00	MEDIAN	141	1	PORTAGE
1458+00 - 1484+00	MEDIAN	282	2	PORTAGE
217+00 - 220+00	MEDIAN	33	1	WAUSHARA
237+00 - 248+50	MEDIAN	125	1	WAUSHARA
277+00 - 308+00	MEDIAN	337	2	WAUSHARA
321+00 - 338+00	LT MEDIAN	92	1	WAUSHARA
338+50 - 341+00	MEDIAN	27	1	WAUSHARA
TOTAL		2166	14	

CONSTRUCTION STAKING

SPV.0090.01
CABLE BARRIER

STATION - STATION	LOCATION	TYPE 1	REMARKS
		LF	
1188+25 NB - 1226+15 NB	15' LT	3790	IH 39 PORTAGE
1227+15 NB - 1241+06 NB	15' LT	1391	IH 39 PORTAGE
1244+58 NB - 1263+33 NB	15' LT	1875	IH 39 PORTAGE
1262+66 NB - 1303+67 NB	15' LT	3934	IH 39 PORTAGE
1306+95 NB - 1335+19 NB	15' LT	2824	IH 39 PORTAGE
1335+19 NB - 1364+60 NB	15' LT	2841	IH 39 PORTAGE
1369+14 NB - 1426+12 NB	15' LT	5698	IH 39 PORTAGE
1427+12 NB - 1443+12 NB	15' LT	1600	IH 39 PORTAGE
1446+50 NB - 1513+87 NB	15' LT	6737	IH 39 PORTAGE
217+20 NB - 244+69 NB	15' LT	2749	IH 39 WAUSHARA
245+69 NB - 343+62 NB	15' LT	9793	IH 39 WAUSHARA
764+80 NB - 804+20 NB	15' LT	3940	IH 39 MARQUETTE
805+20 NB - 843+47 NB	15' LT	3827	IH 39 MARQUETTE
TOTAL		50999	

CONSTRUCTION STAKING

STATION - STATION	LOCATION	SLOPE STAKES 650.9920	650.9910 SUPPLEMENTAL CONTROL	REMARKS
		LF	LS	
765+00 NB - 843+00 NB	MEDIAN	7800	---	MARQUETTE
1244+00 NB - 1270+00 NB	MEDIAN	2600	---	PORTAGE
1369+00 NB - 1380+00 NB	MEDIAN	1200	---	PORTAGE
1459+00 NB - 1479+25 NB	MEDIAN	2025	---	PORTAGE
217+00 NB - 220+00 NB	MEDIAN	300	---	WAUSHARA
236+00 NB - 248+50 NB	MEDIAN	1250	---	WAUSHARA
277+00 NB - 308+00 NB	MEDIAN	3100	---	WAUSHARA
321+00 NB - 338+00 NB	LT MEDIAN	1700	---	WAUSHARA
338+00 NB - 341+00 NB	MEDIAN	300	1	WAUSHARA
TOTAL		20275	1	

CABLE BARRIER

613.1100.S
CABLE BARRIER
TYPE 1
LF

613.1200.S
END
TERMINAL
TYPE 1
EACH

STATION - STATION	LOCATION	LF	EACH	REMARKS
1188+25 NB - 1226+15 NB	15' LT	3790	2	IH 39 PORTAGE
1227+15 NB - 1241+06 NB	15' LT	1391	2	IH 39 PORTAGE
1244+58 NB - 1263+33 NB	15' LT	1875	2	IH 39 PORTAGE
1262+66 NB - 1303+67 NB	15' LT	3934	2	IH 39 PORTAGE
1306+95 NB - 1335+19 NB	15' LT	2824	2	IH 39 PORTAGE
1335+19 NB - 1364+60 NB	15' LT	2841	2	IH 39 PORTAGE
1369+14 NB - 1426+12 NB	15' LT	5698	2	IH 39 PORTAGE
1427+12 NB - 1443+12 NB	15' LT	1600	2	IH 39 PORTAGE
1446+50 NB - 1513+87 NB	15' LT	6737	2	IH 39 PORTAGE
217+20 NB - 244+69 NB	15' LT	2749	2	IH 39 WAUSHARA
245+69 NB - 343+62 NB	15' LT	9793	2	IH 39 WAUSHARA
764+80 NB - 804+20 NB	15' LT	3940	2	IH 39 MARQUETTE
805+20 NB - 843+47 NB	15' LT	3827	2	IH 39 MARQUETTE
TOTALS		50999	26	

INLETS MEDIAN AND INLET COVERS

STATION	LOCATION	204.0220	520.8000	608.0318	608.0330	608.0336	611.0642	INLETS MEDIAN			611.9710	REMARKS
		REMOVING	CONCRETE	PIPE REINFORCED	PIPE REINFORCED	PIPE REINFORCED	INLET	611.39	611.3903	611.3904	INLET	
		INLETS	COLLAR	CONCRETE	CONCRETE	CONCRETE	COVERS	2 GRATE	3 GRATE	4 GRATE	COVERS	
		EACH	EACH	CLASS III 18"	CLASS III 30"	CLASS III 36"	TYPE MS	EACH	EACH	EACH	EACH	
				LF	LF	LF	EACH					
1252+96 NB	RT	1	1	8	---	---	---	1	---	---	2	PORTAGE
1262+96 NB	RT	1	1	10	---	---	---	---	1	---	3	PORTAGE
1336+05 NB	RT	1	1	8	---	---	2	1	---	---	---	PORTAGE
1377+93 NB	RT	1	---	8	---	---	---	1	---	---	2	PORTAGE
1459+85 NB	RT	1	1	8	---	---	---	1	---	---	2	PORTAGE
1464+70 NB	RT	1	2	---	---	16	---	1	---	---	2	PORTAGE
767+95 NB	RT	1	1	8	---	---	---	1	---	---	2	MARQUETTE
779+09 NB	RT	1	1	8	---	---	1	---	---	1	4	MARQUETTE
786+68 NB	RT	1	1	16	---	---	4	---	---	1	4	MARQUETTE
798+20 NB	RT	1	1	8	---	---	---	1	---	---	2	MARQUETTE
808+18 NB	RT	1	2	12	---	---	4	---	---	1	4	MARQUETTE
820+21 NB	RT	1	1	16	---	---	4	---	---	1	4	MARQUETTE
840+20 NB	RT	1	1	8	---	---	---	1	---	---	---	MARQUETTE
217+80 NB	RT	1	1	11	---	---	2	1	---	---	2	WAUSHARA
279+46 NB	RT	1	1	8	---	---	---	---	---	1	4	WAUSHARA
286+41 NB	RT	1	1	8	---	---	---	---	---	1	4	WAUSHARA
338+96 NB	RT	1	2	---	16	---	---	1	---	---	2	WAUSHARA
TOTAL		18	19	145	16	16	17	10	1	6	43	

EROSION MAT, GRADING SHAPING MEDIAN INSLOPES

STATION	-	STATION	LOCATION	SPV.0180.01	627.0200	628.2004	629.0210	630.0120
				GRADING & SHAPING	MULCH	EROSION MAT	FERTILIZER	SEEDING
				SY	METHOD B	CLASS I	TYPE B	MIXTURE
					SY	TYPE B	TYPE B	NO.20
						SY	CWT	LB
1244+00 NB	-	1220+00 NB	PORTAGE	7615	5304	2311	4.8	205
1368+00 NB	-	1380+00 NB	PORTAGE	3499	2432	1067	2.2	94
1459+00 NB	-	1479+00 NB	PORTAGE	11597	9841	1756	7.3	313
765+00 NB	-	843+00 NB	MARQUETTE	56466	49533	6933	35.6	1525
217+00 NB	-	219+50 NB	WAUSHARA	1239	1034	205	0.80	33
236+00 SB	-	242+00 SB	WAUSHARA	2594	1661	933	1.6	70
276+00 NB	-	308+00 NB	WAUSHARA	18019	15219	2800	11.4	487
TOTALS				101,029	85,024	16,005	64	2,727

MOBILIZATIONS EROSION CONTROL

SECTION	628.1905	628.1910	REMARKS
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	
C	3	3	PORTAGE
E	2	2	MARQUETTE
D	2	2	WAUSHARA
TOTAL	7	7	

ROCK BAGS

STATION	LOCATION	628.7570	REMARKS
		ROCK BAGS EACH	
1252+96 NB	RT	20	PORTAGE
1262+96 NB	RT	20	PORTAGE
1336+05 NB	RT	20	PORTAGE
1377+93 NB	RT	20	PORTAGE
1379+00 NB	RT	20	PORTAGE
1459+85 NB	RT	20	PORTAGE
1464+70 NB	RT	20	PORTAGE
767+95 NB	RT	20	MARQUETTE
779+09 NB	RT	20	MARQUETTE
786+68 NB	RT	20	MARQUETTE
798+20 NB	RT	20	MARQUETTE
808+18 NB	RT	20	MARQUETTE
820+21 NB	RT	20	MARQUETTE
840+20 NB	RT	20	MARQUETTE
217+80 NB	RT	20	MARQUETTE
279+46 NB	RT	20	WAUSHARA
286+41 NB	RT	20	WAUSHARA
338+96 NB	RT	20	WAUSHARA
TOTAL		360	

INLET PROTECTION

STATION	LOCATION	628.7005	REMARKS
		INLET PROTECTION TYPE A EACH	
1252+96 NB	RT	1	PORTAGE
1262+96 NB	RT	1	PORTAGE
1336+05 NB	RT	1	PORTAGE
1377+93 NB	RT	1	PORTAGE
1459+85 NB	RT	1	PORTAGE
1464+70 NB	RT	1	PORTAGE
767+95 NB	RT	1	MARQUETTE
779+09 NB	RT	1	MARQUETTE
786+68 NB	RT	1	MARQUETTE
798+20 NB	RT	1	MARQUETTE
808+18 NB	RT	1	MARQUETTE
820+21 NB	RT	1	MARQUETTE
840+20 NB	RT	1	MARQUETTE
217+80 NB	RT	1	WAUSHARA
279+46 NB	RT	1	WAUSHARA
286+41 NB	RT	1	WAUSHARA
338+96 NB	RT	1	WAUSHARA
TOTAL		17	

DITCH, CULVERT CHECKS

STATION	LOCATION	628.7555	628.7504
		CULVERT CHECKS EACH	TEMPORARY DITCH CHECKS LF
1256+00 NB	PORTAGE	---	15
1262+00 NB	PORTAGE	----	15
1378+00 NB	PORTAGE	---	15
1482+15 EB	MARATHON	3	---
254+15 NB	WAUSHARA	4	---
266+10 NB	WAUSHARA	4	---
278+55 NB	WAUSHARA	5	---
286+00 NB	WAUSHARA	5	---
308+00 NB	WAUSHARA	5	---
316+00 NB	WAUSHARA	4	---
327+00 NB	WAUSHARA	4	---
339+00 NB	WAUSHARA	5	----
TOTALS		39	45

TRAFFIC CONTROL																	
LOCATION	STAGE DAYS	QTY	643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		649.0150		REMARKS
			DRUMS DAYS	QTY	BARRICADE TYPE III DAYS	QTY	WARNING LIGHTS TYPE A DAYS	QTY	WARNING LIGHTS TYPE C DAYS	QTY	ARROW BOARD DAYS	QTY	SIGNS DAYS	TEMPORARY PAVEMENT MARKING 4-INCH EDGE LINE LF			
PORTAGE																	
STA 1188+25 NB-STA 1513+87 NB	30	366	10980	2	60	4	120	17	510	2	60	10	300	0	INSTALL LANE AND SHOULDER		
SHOULDER CLOSURE	30	326	9780	0	0	0	0	0	0	0	0	0	0	0	CLOSURES PER SDD		
WAUSHARA																	
STA 278+00 WB-STA 401+00 WB	15	167	2505	2	30	4	60	17	255	2	30	10	150	840	INSTALL LANE AND SHOULDER		
SHOULDER CLOSURE	15	127	1905	0	0	0	0	0	0	0	0	0	0	0	CLOSURES PER SDD		
MARQUETTE																	
STA 327+00 EB-STA 560+00 EB	15	119	1785	2	30	4	60	17	255	2	30	10	150	840	INSTALL LANE AND SHOULDER		
SHOULDER CLOSURE	15	79	1185	0	0	0	0	0	0	0	0	0	0	0	CLOSURES PER SDD		
TOTAL			28140		120		240		1020		120		600	1680			

<u>ADJUSTING ENDWALLS</u>				
STATION	LOCATION	SPV.0060.01	** TOTAL ESTIMATED	REMARKS
		UNDER DRAIN	ADJUSTMENT LENGTH	
		EACH	FT	
1476+20 NB	MEDIAN	2	4	PORTAGE
1473+70 NB	MEDIAN	2	4	PORTAGE
1471+20 NB	MEDIAN	2	4	PORTAGE
1468+70 NB	MEDIAN	2	7	PORTAGE
1466+20 NB	MEDIAN	2	8	PORTAGE
1463+70 NB	MEDIAN	2	6	PORTAGE
1461+00 NB	MEDIAN	2	8	PORTAGE
1377+38 NB	MEDIAN	2	3	PORTAGE
1374+58 NB	MEDIAN	2	6	PORTAGE
1371+50 NB	MEDIAN	2	6	PORTAGE
1369+00 NB	MEDIAN	2	4	PORTAGE
1270+50 NB	MEDIAN	1	2	PORTAGE
1268+10 NB	MEDIAN	1	2	PORTAGE
1265+50 NB	MEDIAN	1	2	PORTAGE
1260+50 NB	MEDIAN	1	3	PORTAGE
1257+90 NB	MEDIAN	1	4	PORTAGE
1255+44 NB	MEDIAN	1	2	PORTAGE
1252+94 NB	MEDIAN	1	5	PORTAGE
1250+59 NB	MEDIAN	1	3	PORTAGE
1248+09 NB	MEDIAN	1	3	PORTAGE
TOTAL		31	86	

** For information only

EARTH WORK SHEETS INFORMATION ONLY								
DIVISION	FROM/TO STATION	COMMON EXCAVATION (1)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	208.0100 BORROW	COMMENT:
		CUT (2)			FACTOR			
DIVISION 1					1.50			
11600178-39-Marq	765+00.09/843+00	3,140	3,140	8,881	13,322	-10,182	10,182	
DIVISION 1 SUBTOTAL		3,140	3,140	8,881	13,322	-10,182	10,182	INFORMATION ONLY
GRAND TOTAL		3,140	3,140	8,881	13,322	-10,182	10,182	
	TOTAL COMMON EXC	0						

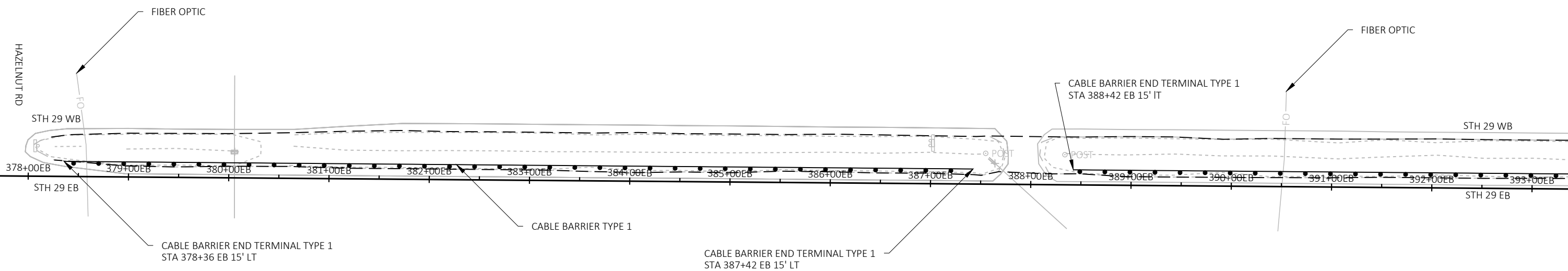
DIVISION	FROM/TO STATION	COMMON EXCAVATION (1)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	208.0100 BORROW	COMMENT:
		CUT (2)			FACTOR			
DIVISION 1					1.50			
11600178-39-Port	1243+50/1484+22.11	1,132	1,132	2,433	3,650	-2,518	2,518	
DIVISION 1 SUBTOTAL		1,132	1,132	2,433	3,650	-2,518	2,518	INFORMATION ONLY
GRAND TOTAL		1,132	1,132	2,433	3,650	-2,518	2,518	
	TOTAL COMMON EXC	0						

DIVISION	FROM/TO STATION	COMMON EXCAVATION (1)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	208.0100 BORROW	COMMENT:
		CUT (2)			FACTOR			
DIVISION 1					1.50			
11600178-39-Waus	217+53.47/342+00	795	795	1,342	2,012	-1,218	1,218	
DIVISION 1 SUBTOTAL		795	795	1,342	2,012	-1,218	1,218	INFORMATION ONLY
GRAND TOTAL		795	795	1,342	2,012	-1,218	1,218	
	TOTAL COMMON EXC	0						



5

5

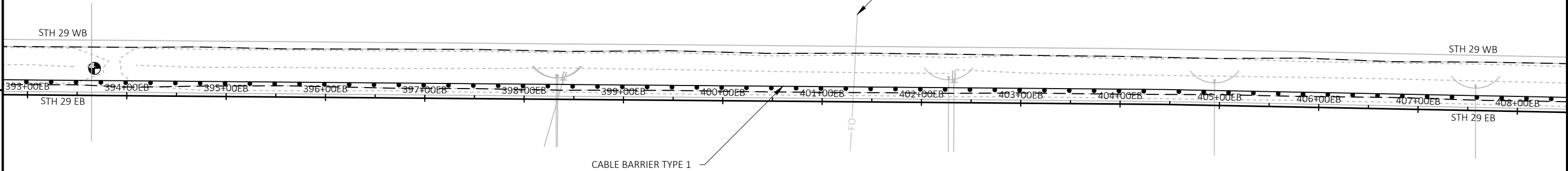


PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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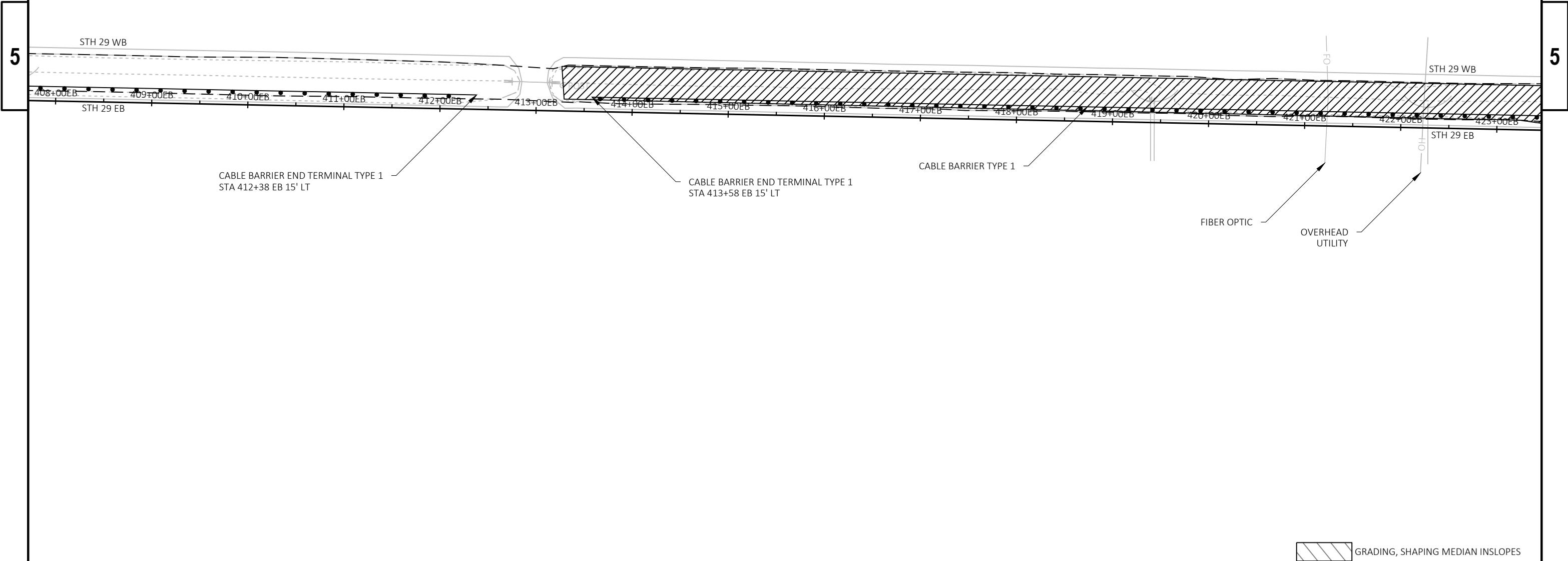


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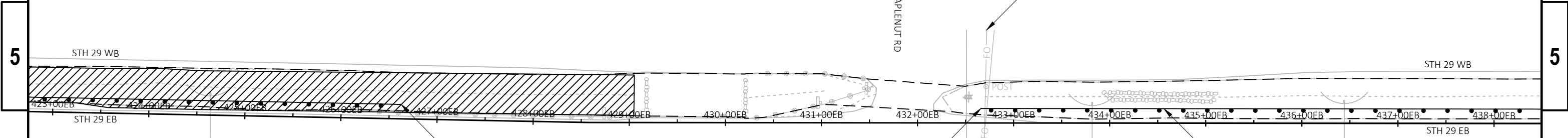
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PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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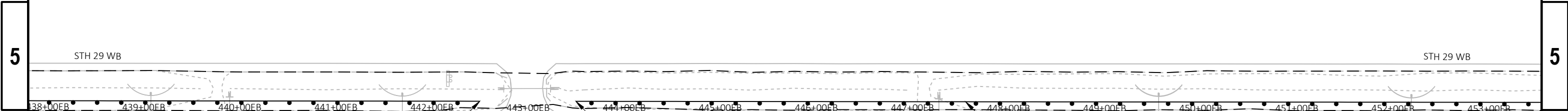


PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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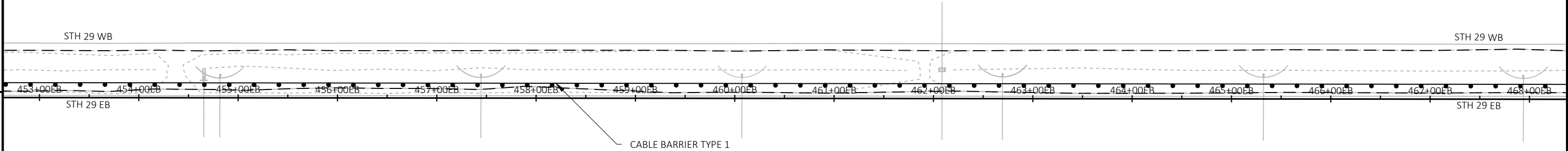
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PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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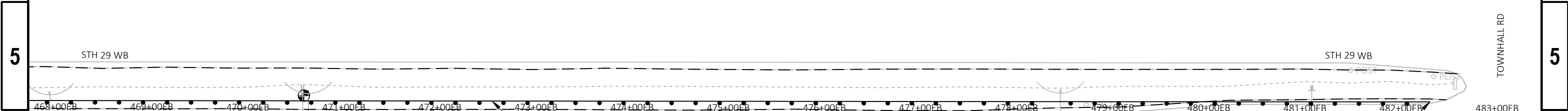


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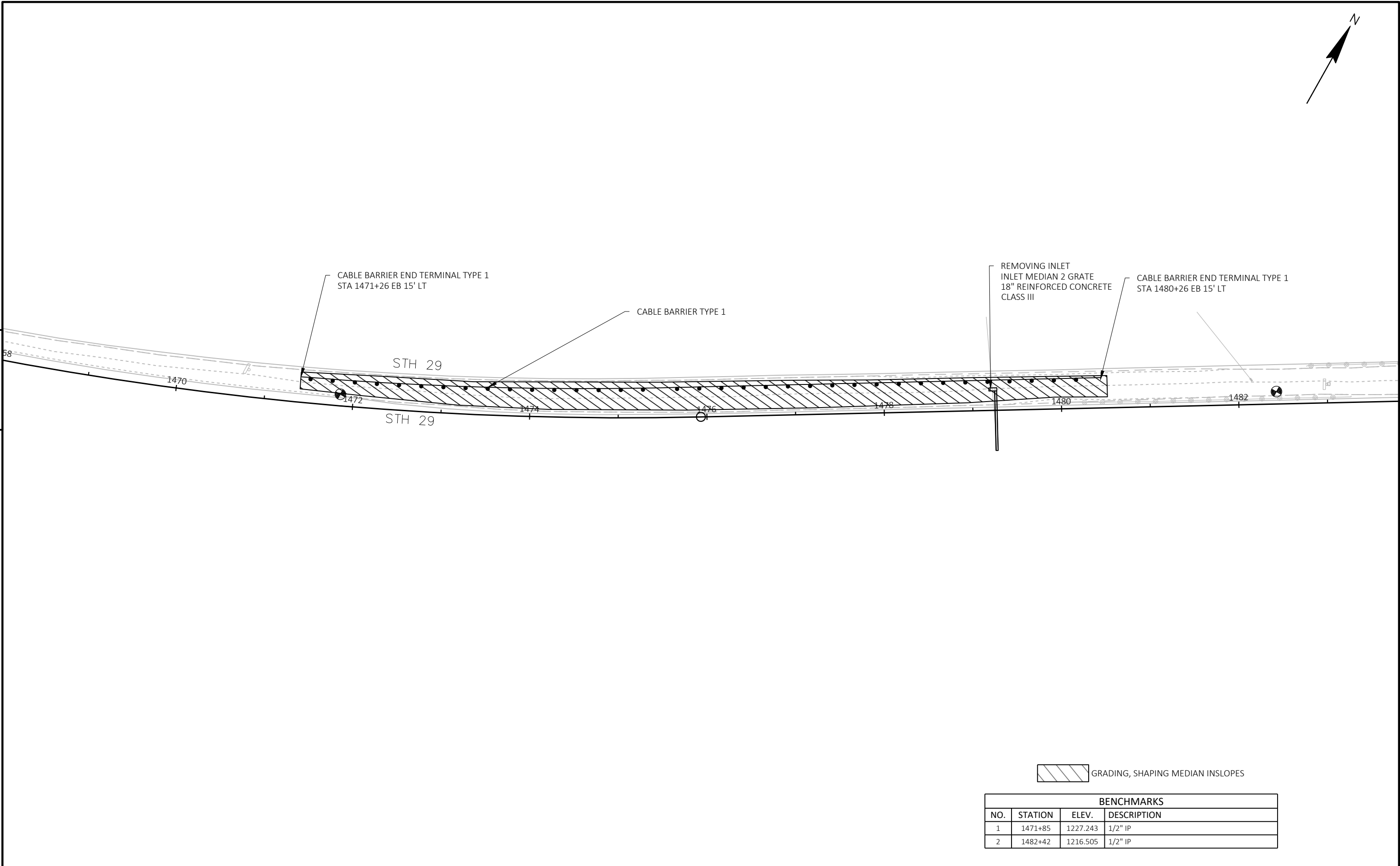


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PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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PROJECT NO: 1050-00-77	HWY: STH 29	COUNTY: MARATHON	CABLE GUARD - SEGMENT A	SHEET	E
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5

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762SBCL IH 39/USH 51 SB 764SBCL 766SBCL 768SBCL 770SBCL 772SBCL 774SBCL IH 39/USH 51 SB 776SBCL

762+00NBRL 764+00NBRL 766+00NBRL 768+00NBRL 770+00NBRL 772+00NBRL 774+00NBRL 776+00NBRL

IH 39/USH 51 NB

IH 39/USH 51 NB

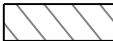
CABLE BARRIER END TERMINAL TYPE 1
STA 764+80 NB 15' LT

CABLE BARRIER TYPE 1

CTH M/ELK RD

UNDERGROUND
UTILITY

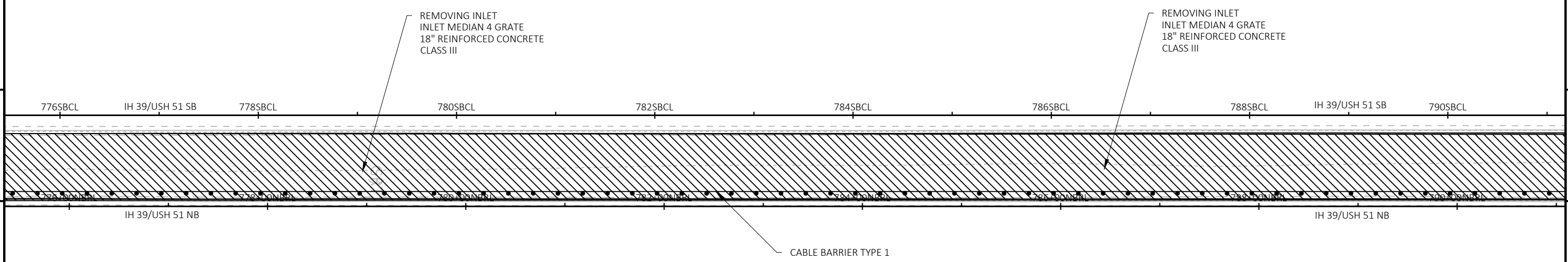
REMOVING INLET
INLET MEDIAN 2 GRATE
18" REINFORCED CONCRETE
CLASS III

 GRADING, SHAPING MEDIAN INSLOPES



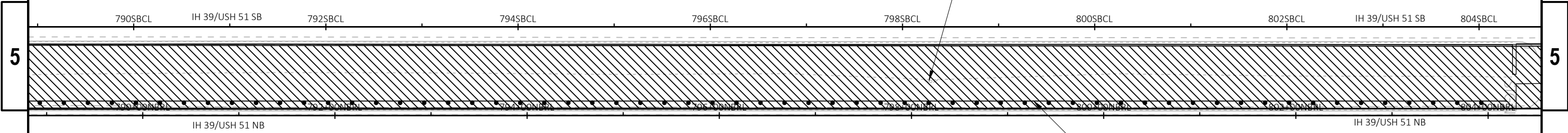
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5



GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: MARQUETTE	CABLE GUARD - SEGMENT E	SHEET	E
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GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78

HWY: IH 39

COUNTY: MARQUETTE

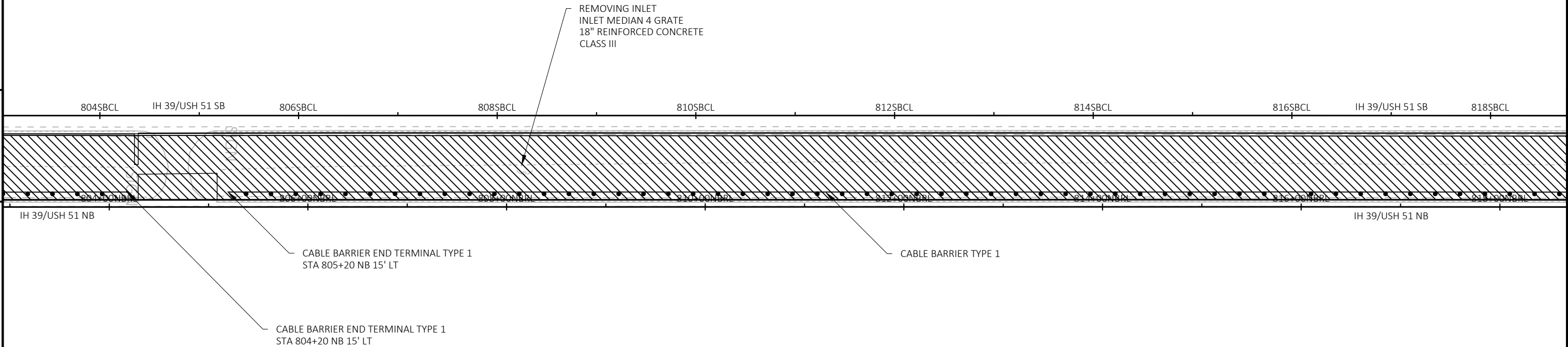
CABLE GUARD - SEGMENT E

SHEET

E



5



5



GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78

HWY: IH 39

COUNTY: MARQUETTE

CABLE GUARD - SEGMENT E

SHEET

E

FILE NAME : N:\PDS\C3D\11600108\A-MARQUETTE\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - (33)-pd

PLOT DATE : 9/5/2019 8:06 AM

PLOT BY : SMITH, LYLE A

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 44



5

818SBCL IH 39/USH 51 SB 820SBCL 822SBCL 824SBCL 826SBCL 828SBCL IH 39/USH 51 SB 830SBCL 832SBCL

REMOVING INLET
INLET MEDIAN 4 GRATE
18" REINFORCED CONCRETE
CLASS III

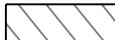
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818SBCL 820SBCL 822SBCL 824SBCL 826SBCL 828SBCL 830SBCL 832SBCL

IH 39/USH 51 NB

IH 39/USH 51 NB

CABLE BARRIER TYPE 1



GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78

HWY: IH 39

COUNTY: MARQUETTE

CABLE GUARD - SEGMENT E

SHEET

E

FILE NAME : N:\PDS\C3D\11600108\A-MARQUETTE\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - (34)-pd

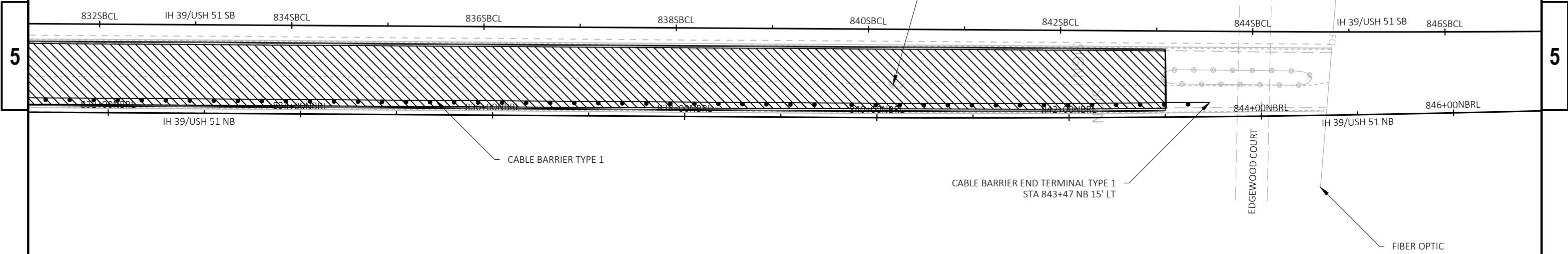
PLOT DATE : 9/5/2019 8:06 AM

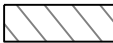
PLOT BY : SMITH, LYLE A

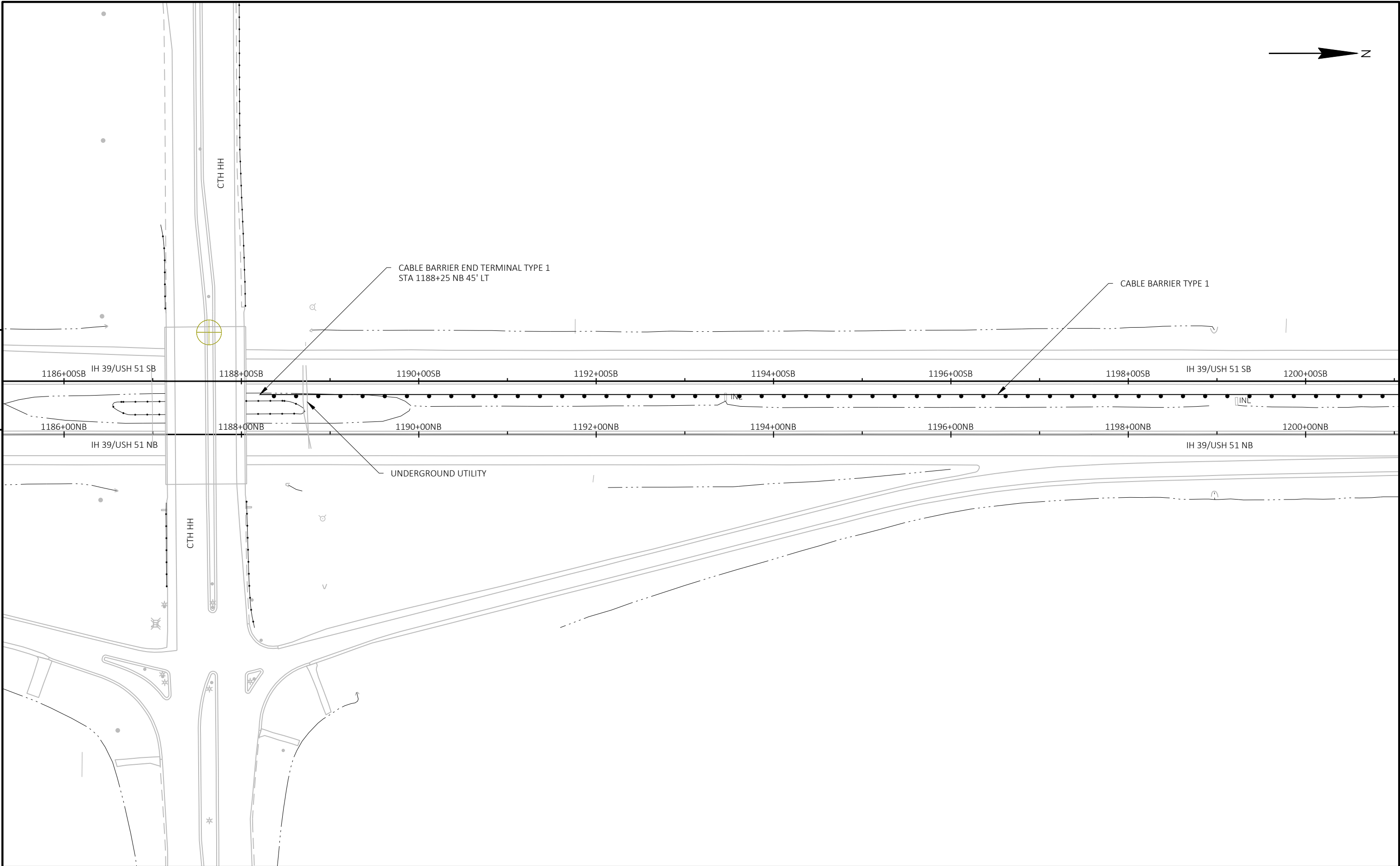
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDs SHEET 44



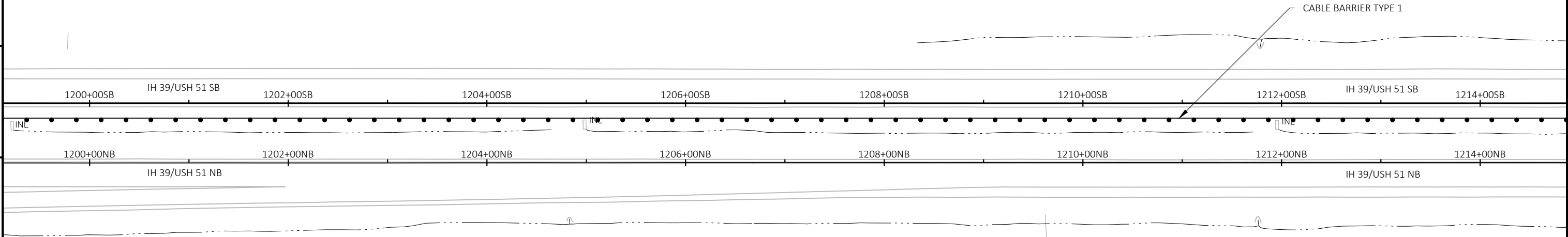
 GRADING, SHAPING MEDIAN INSLOPES



PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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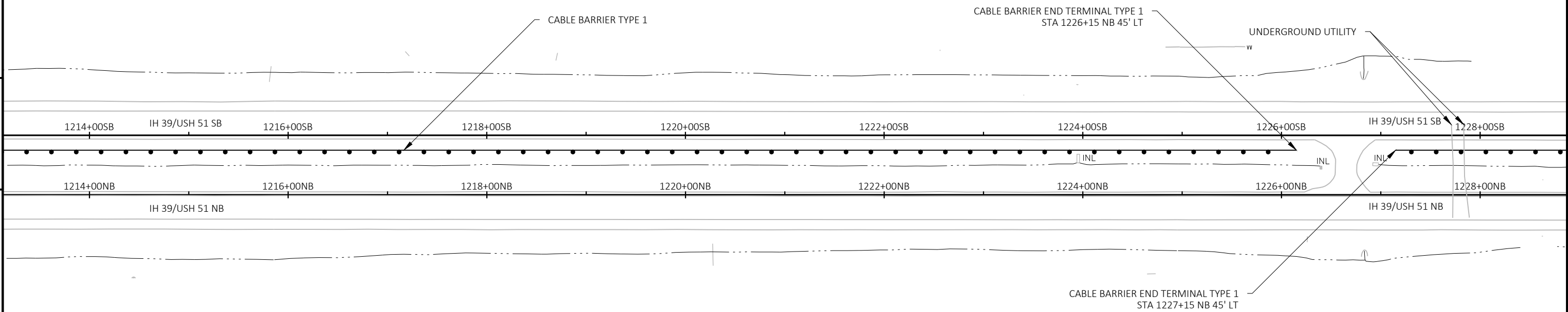


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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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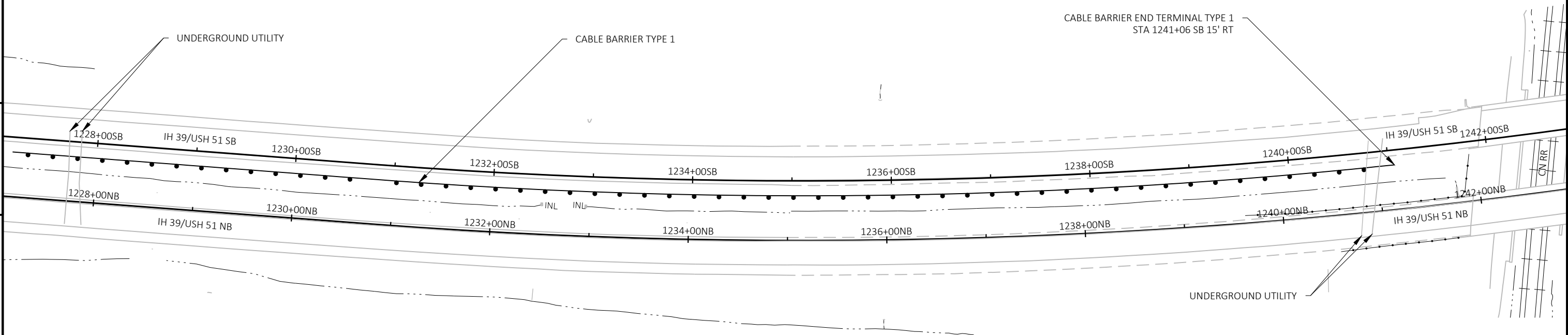


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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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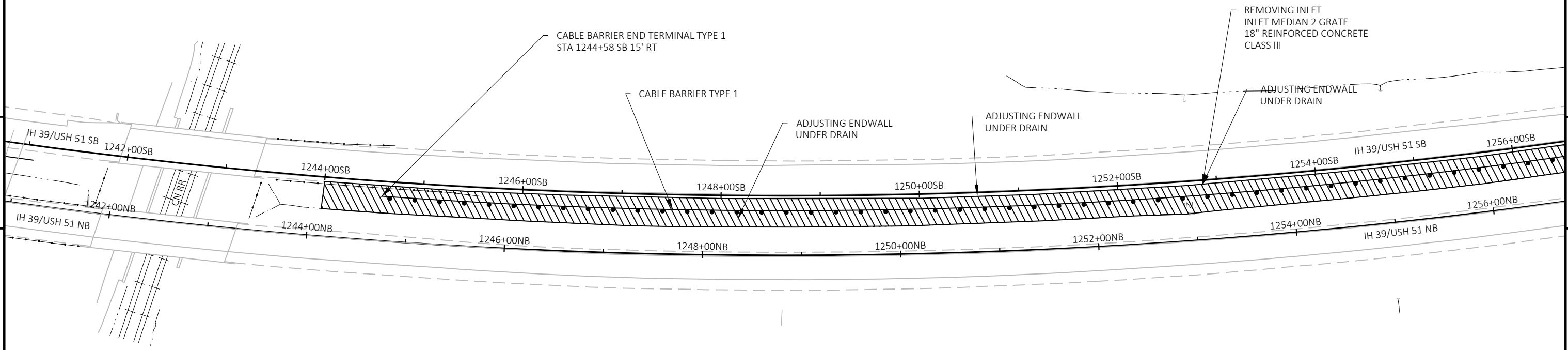


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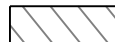
PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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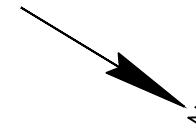
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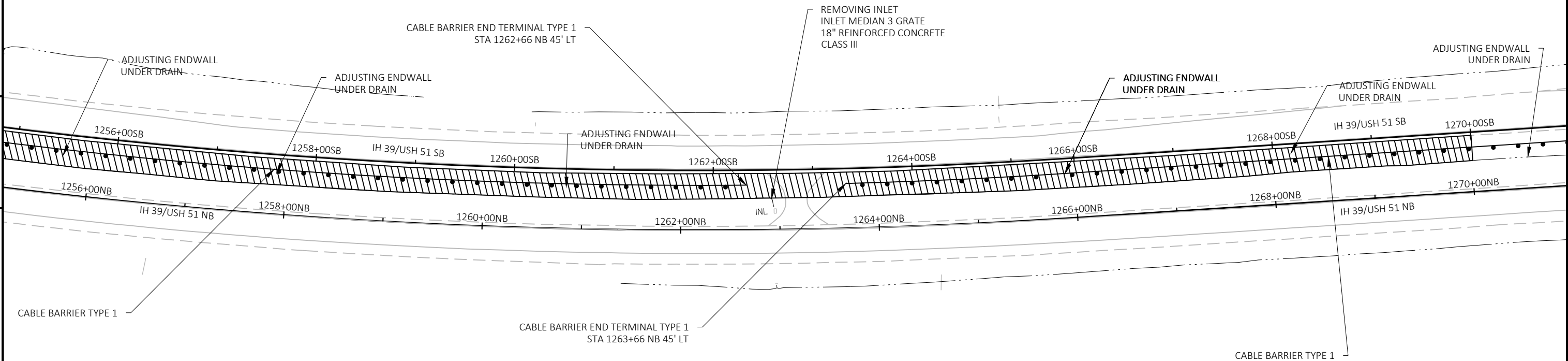
 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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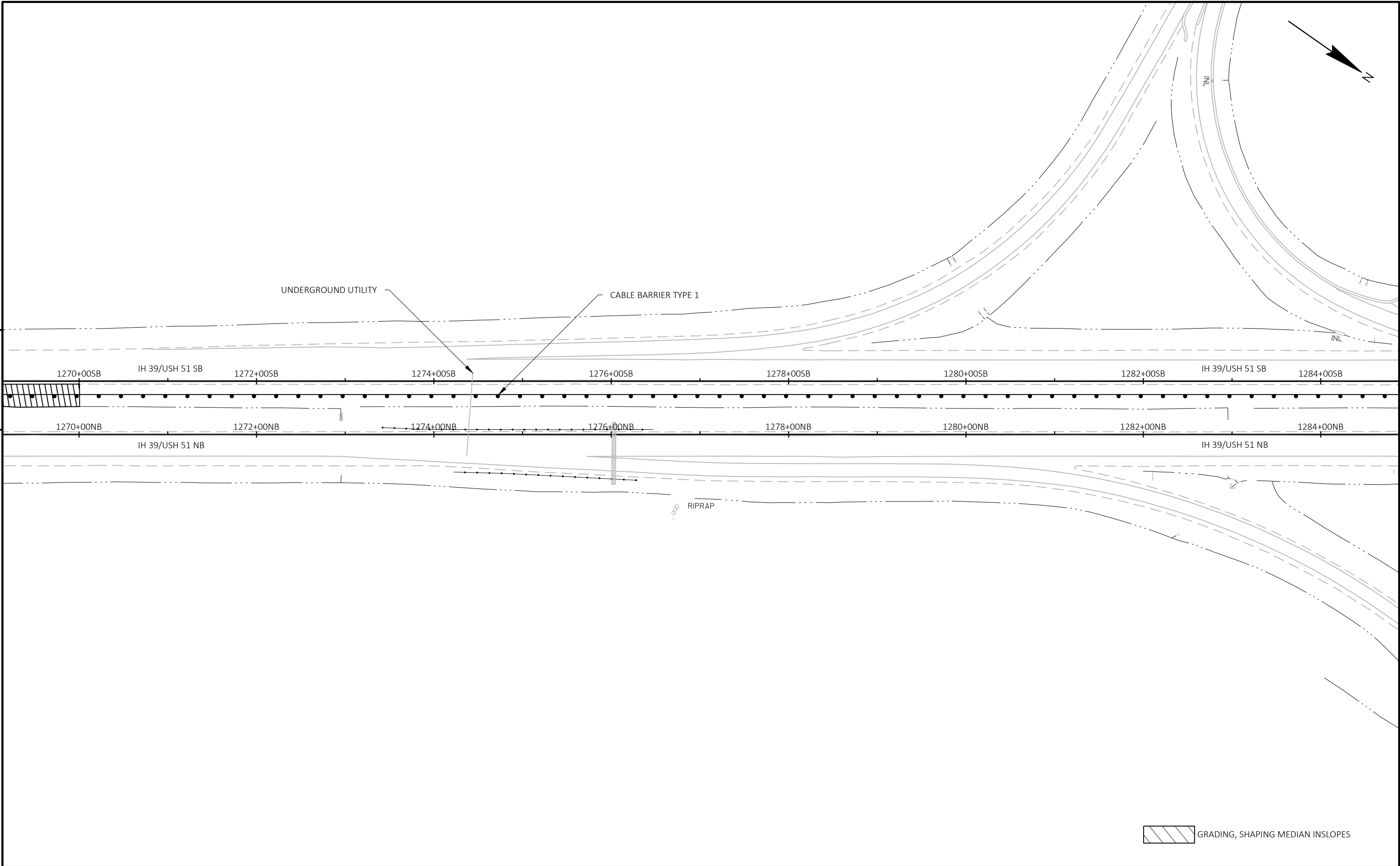


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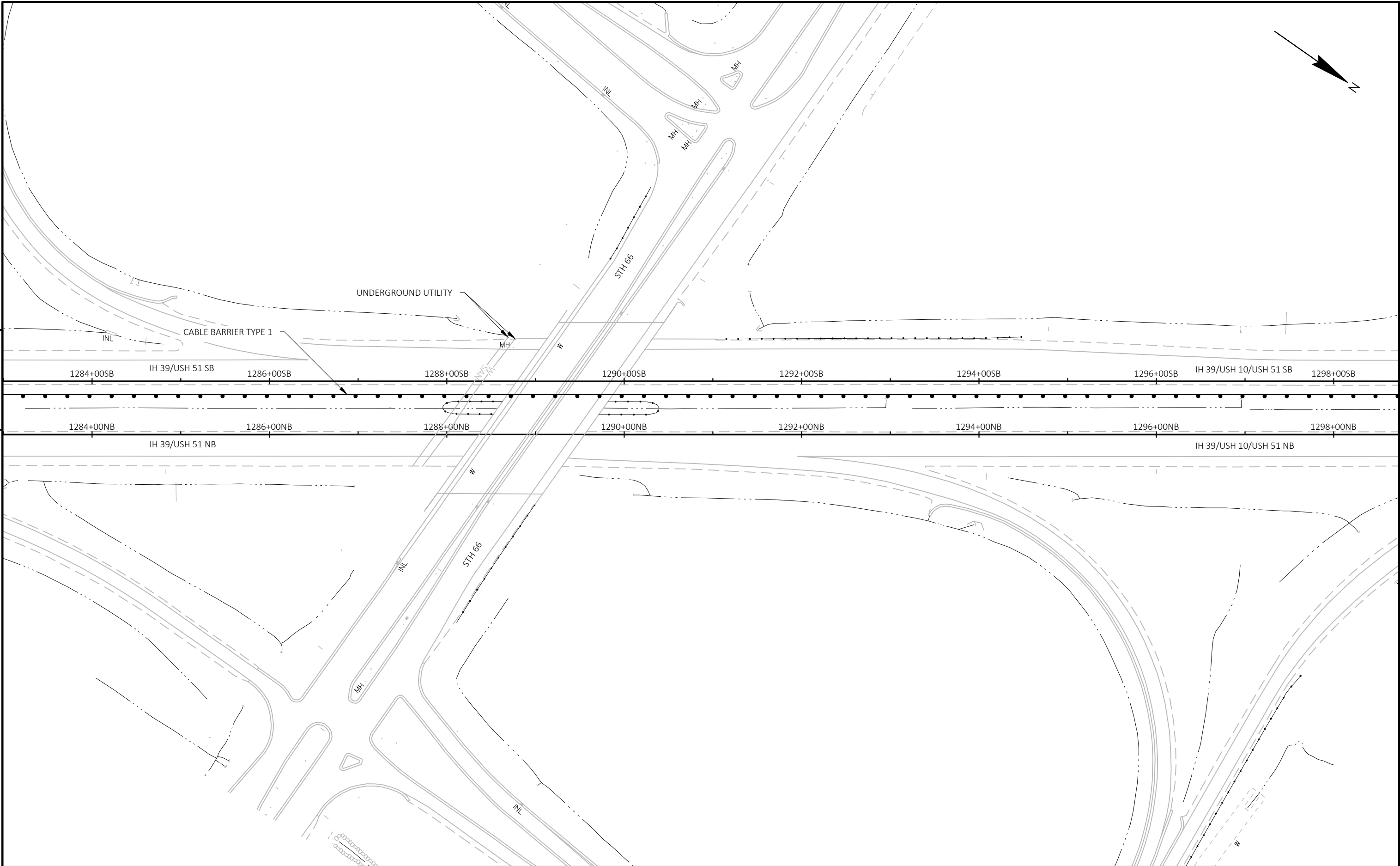
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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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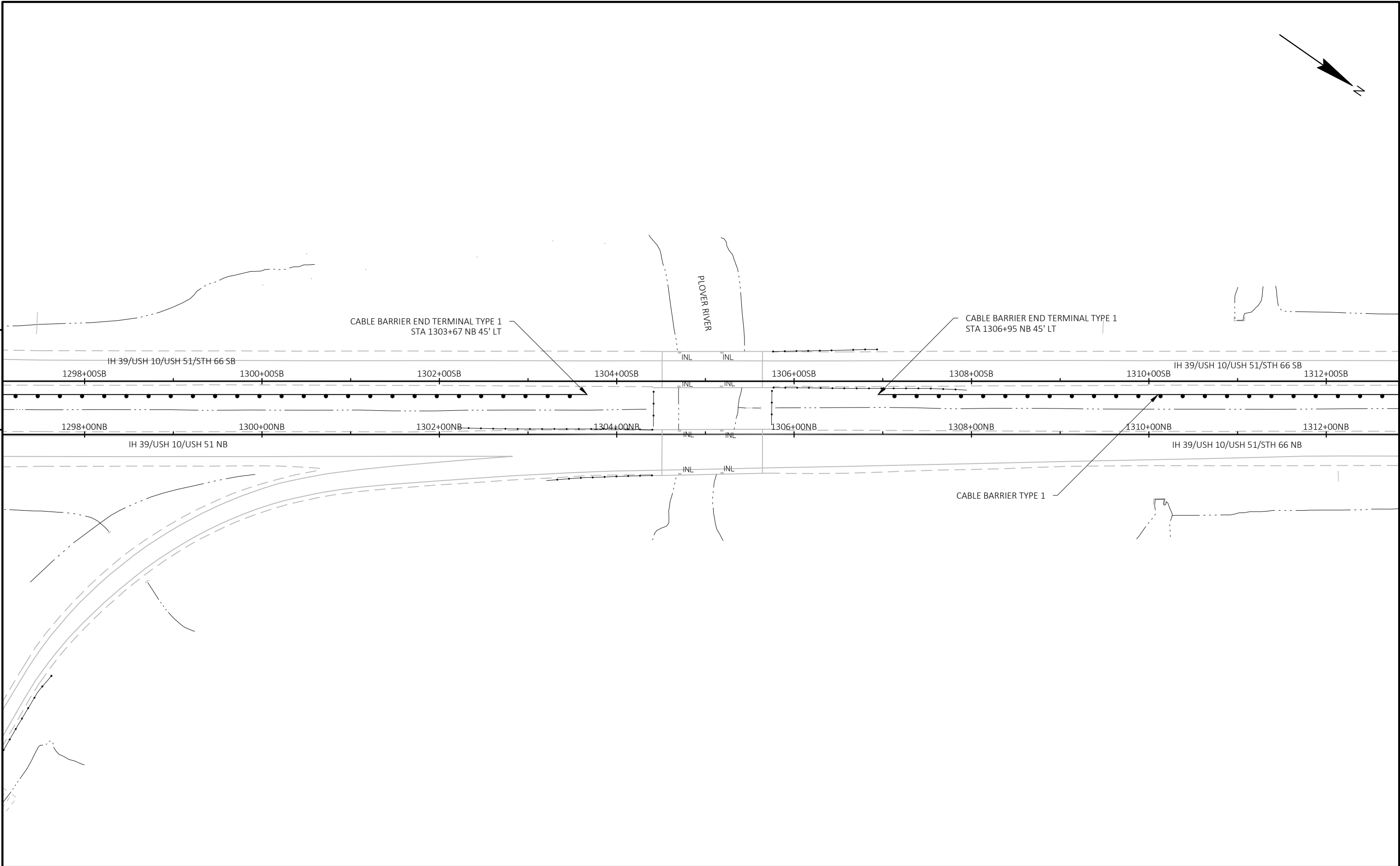
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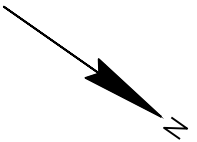
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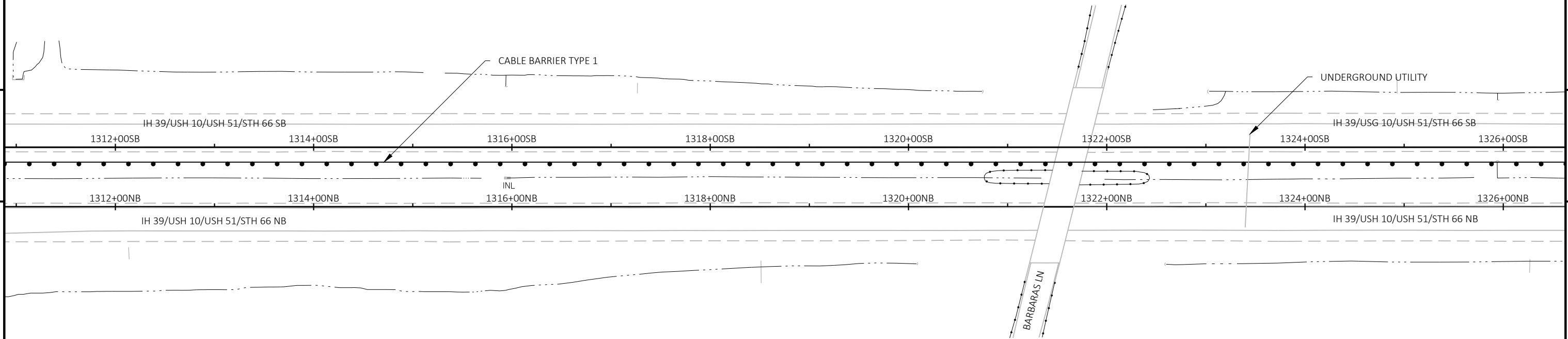
PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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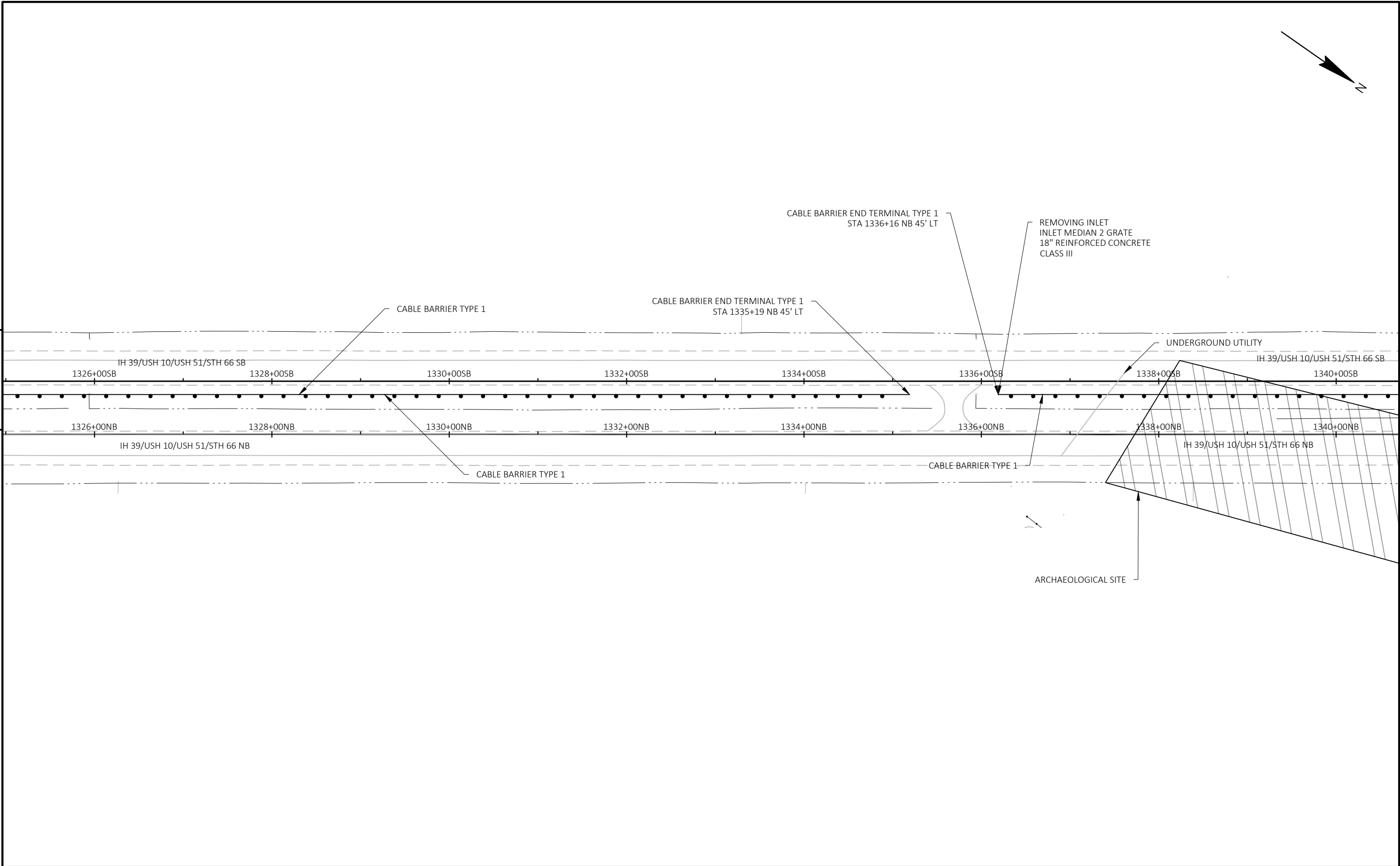


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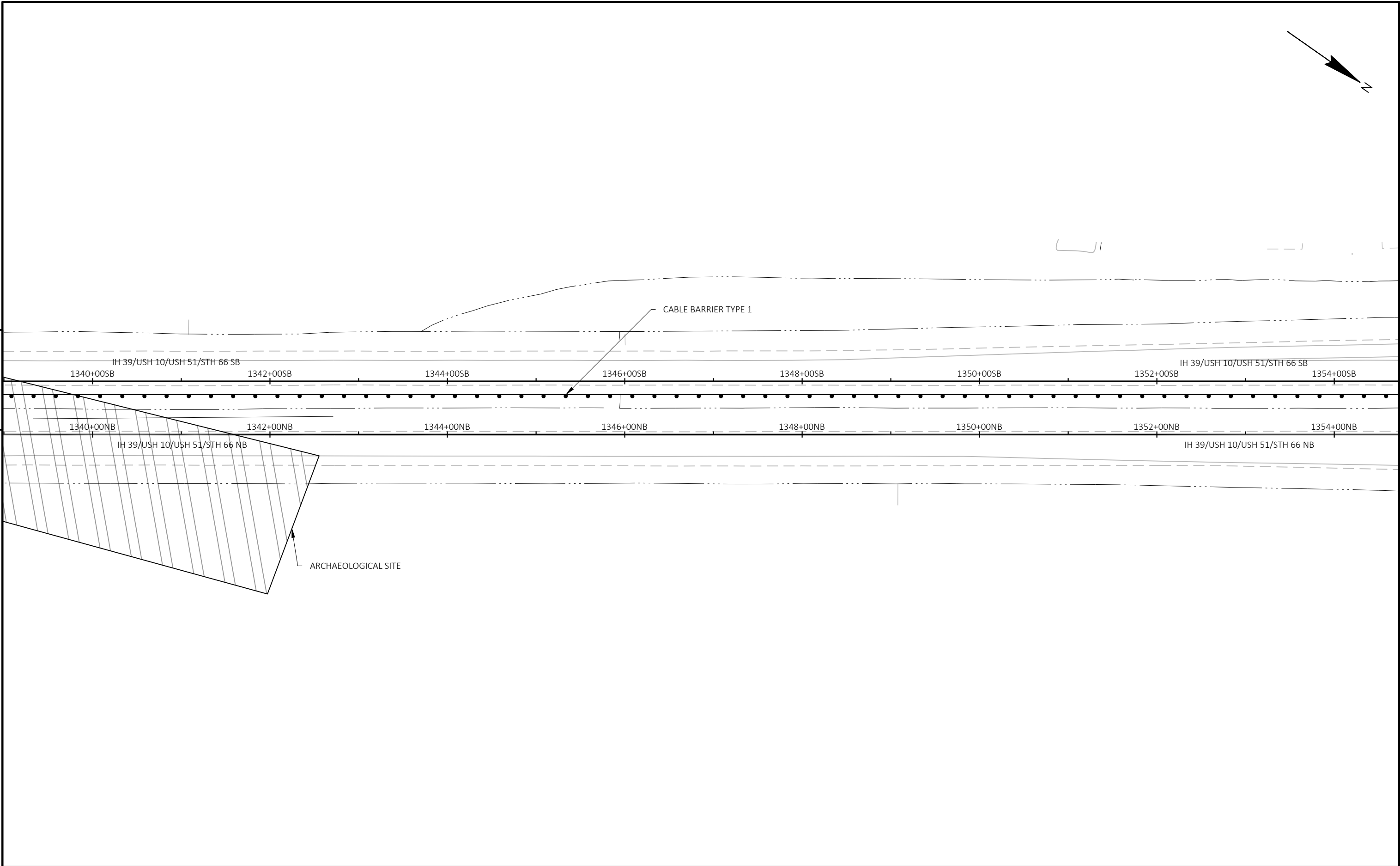


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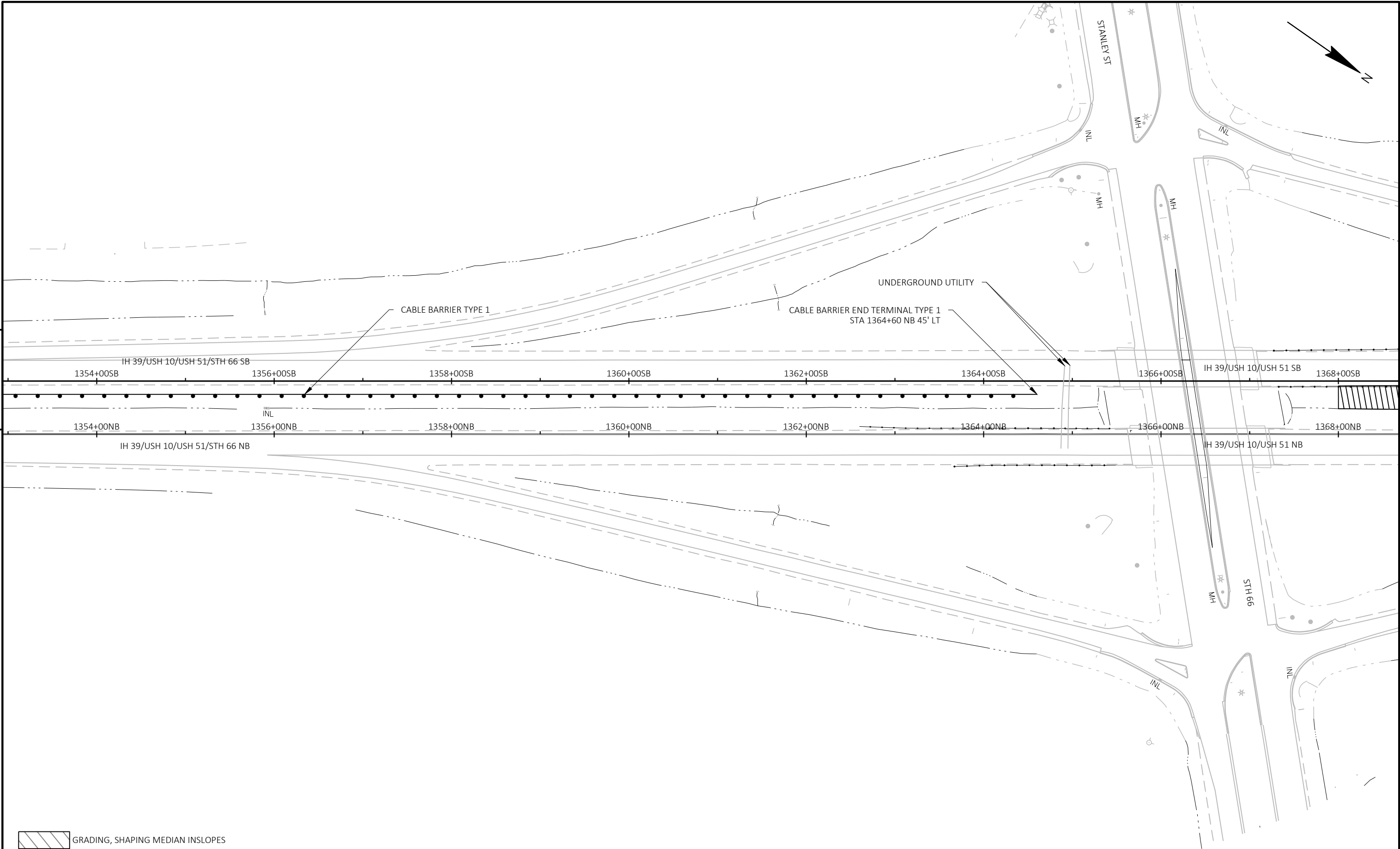
PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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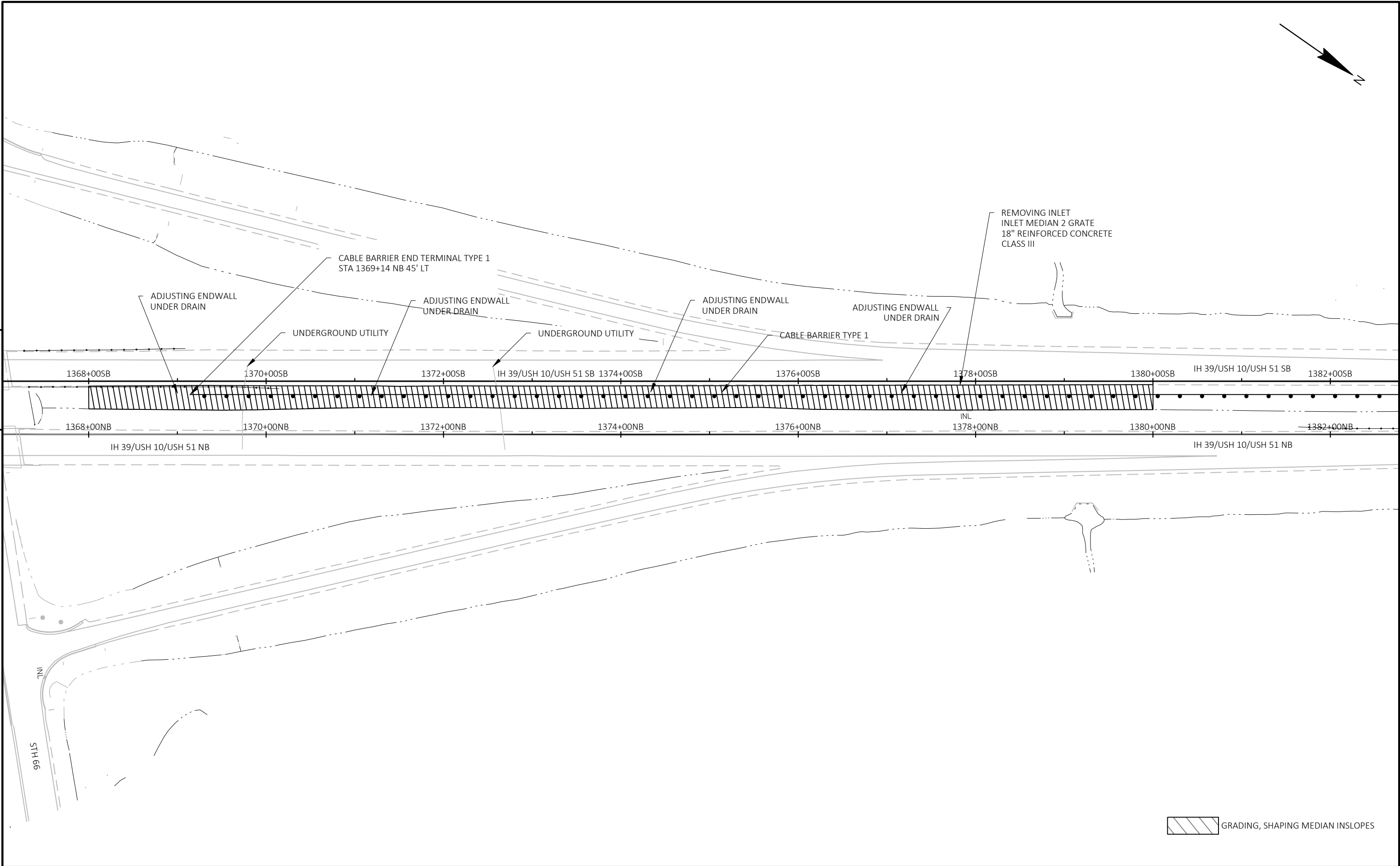
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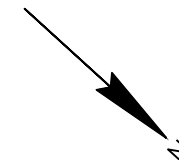
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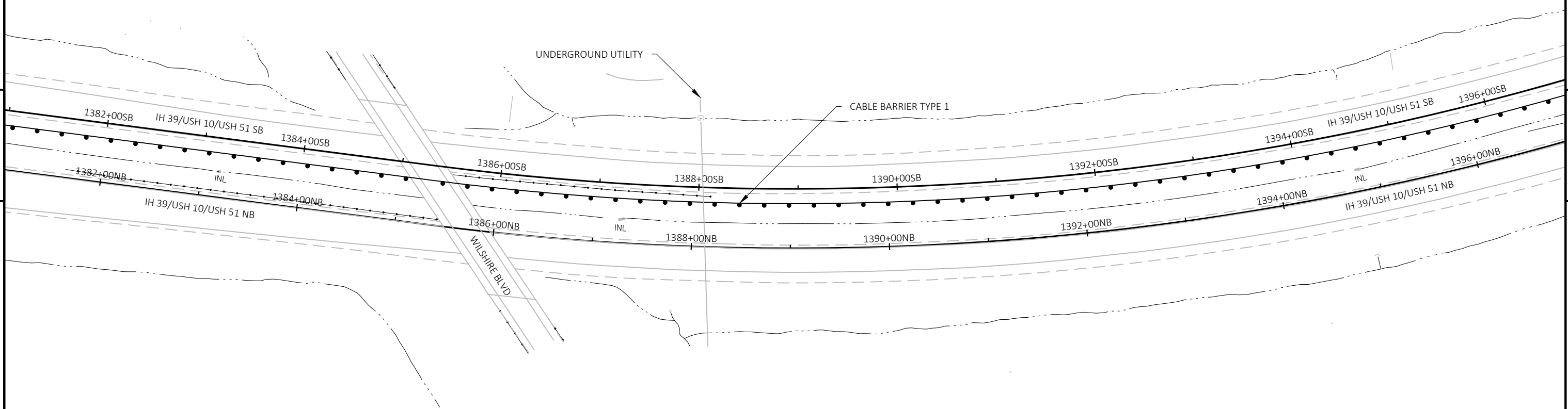
PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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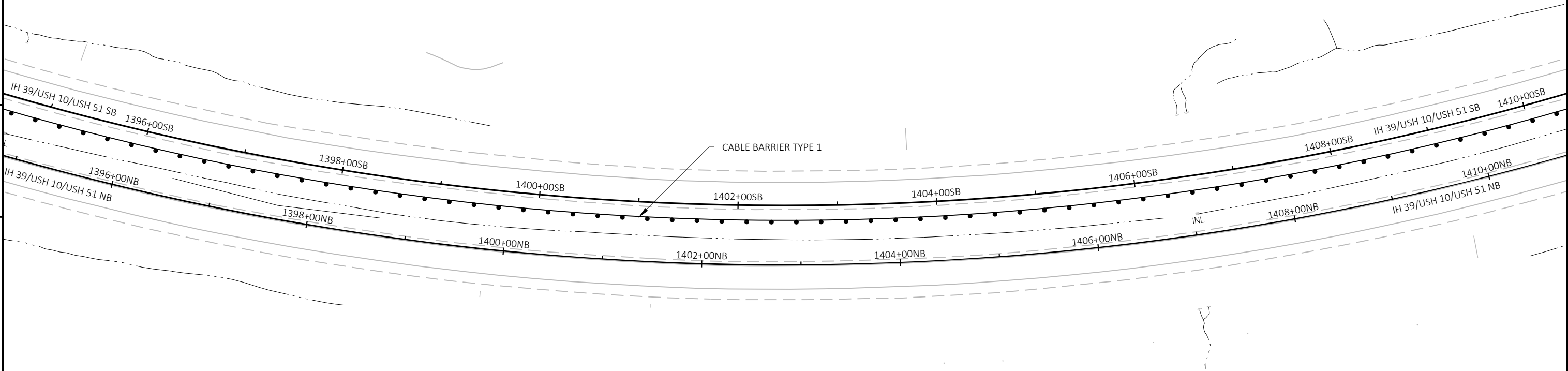


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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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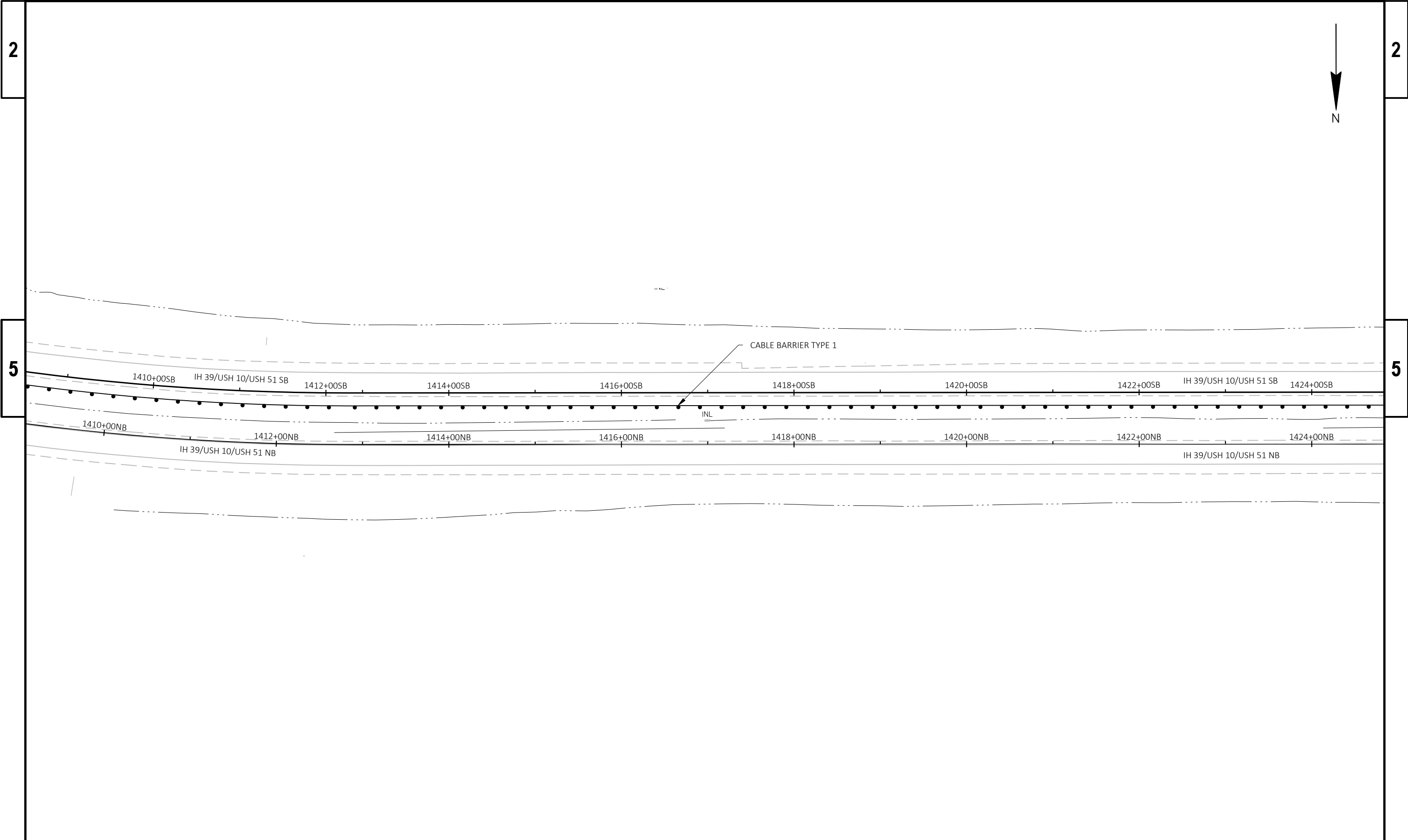


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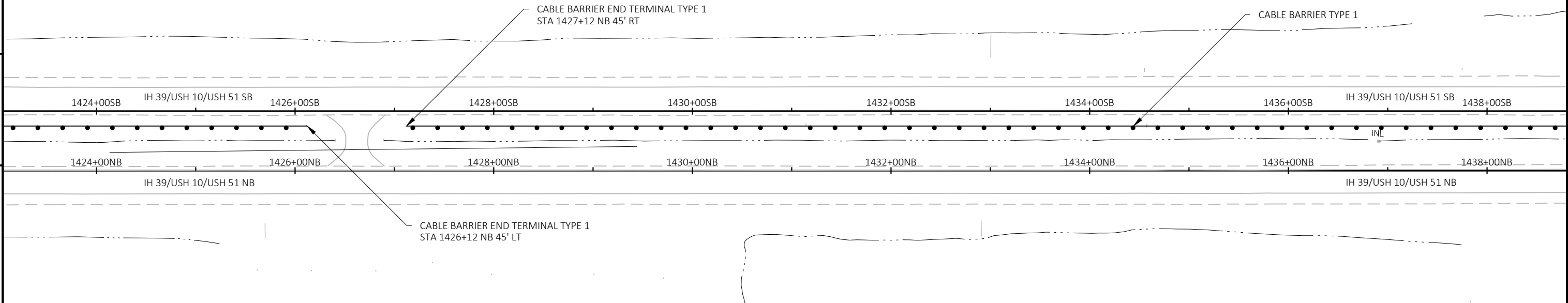
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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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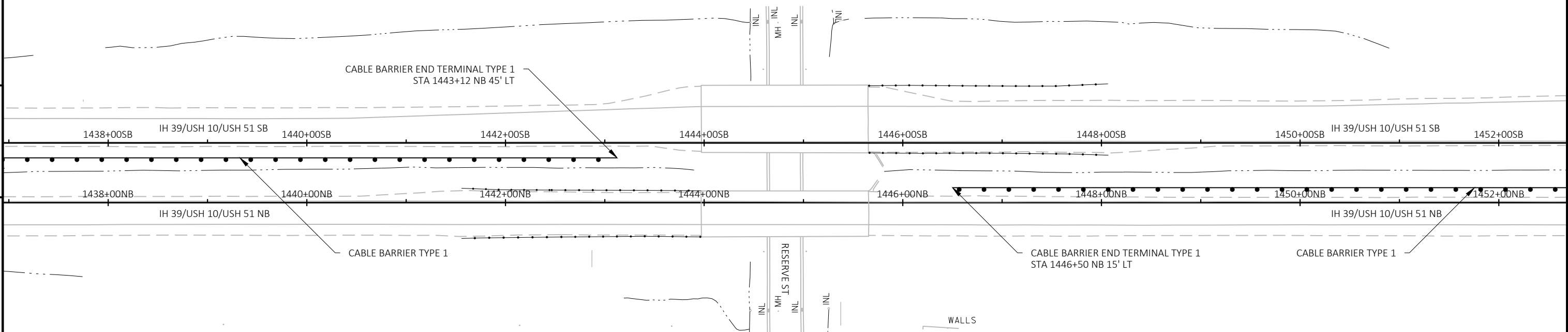
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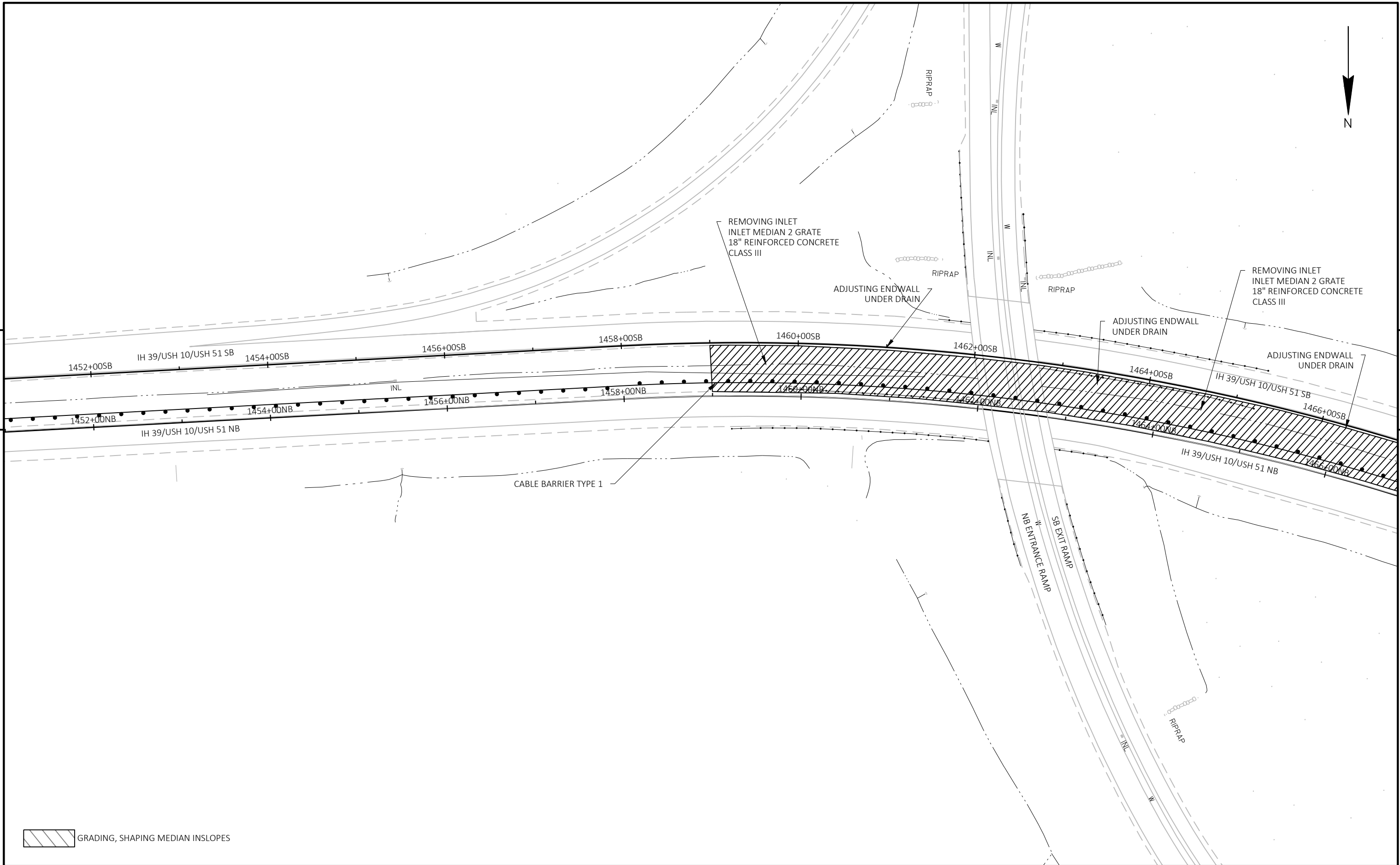


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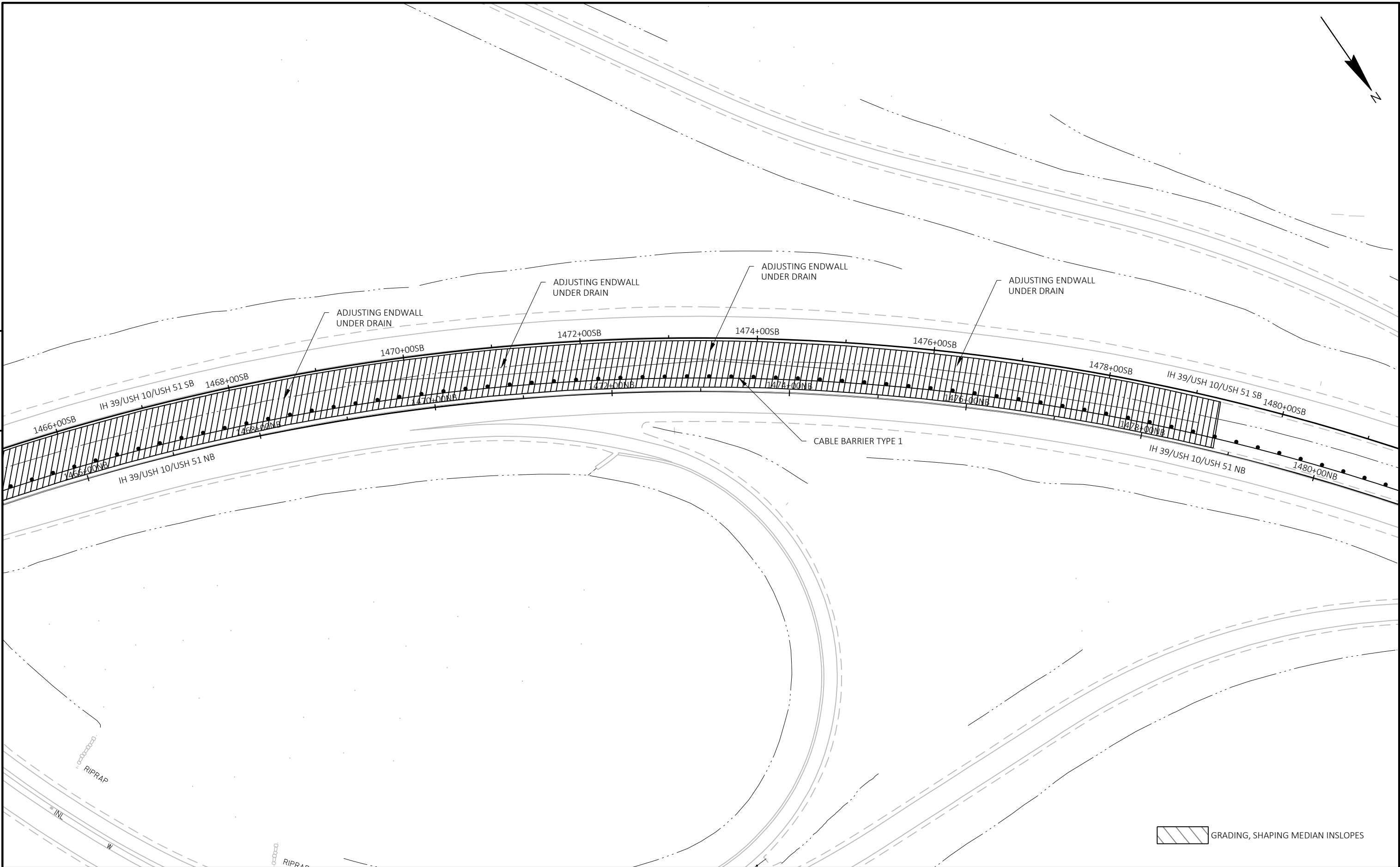
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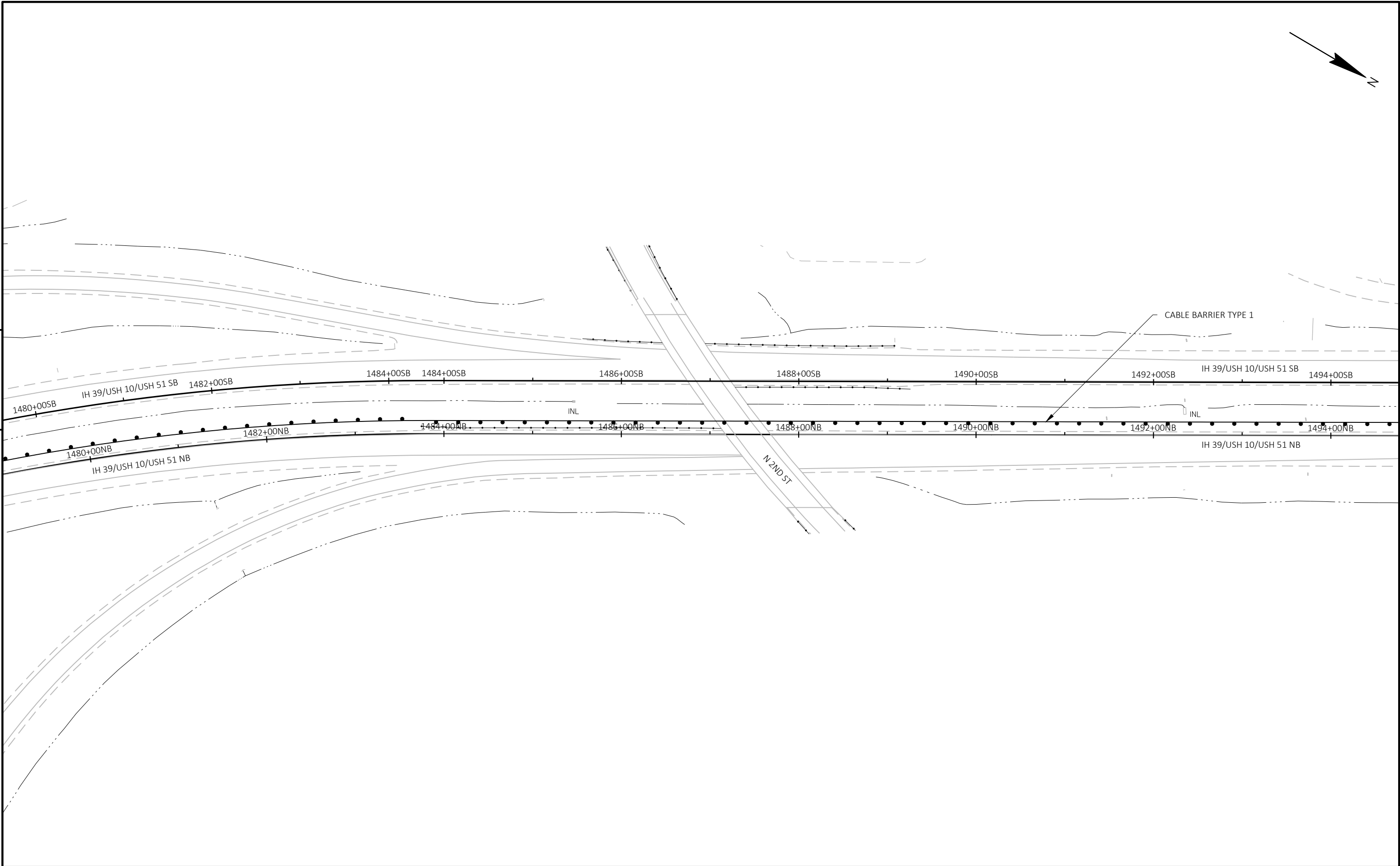
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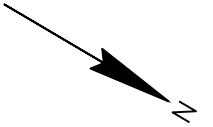
PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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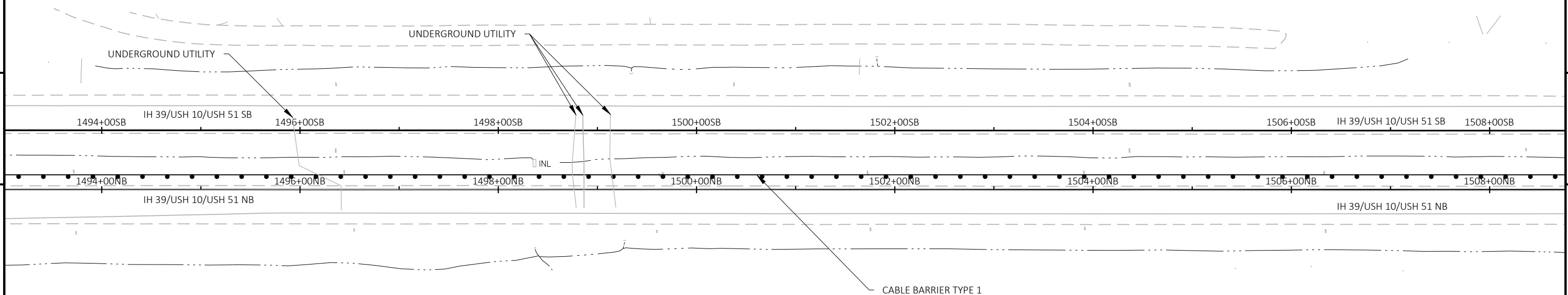


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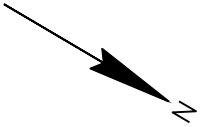


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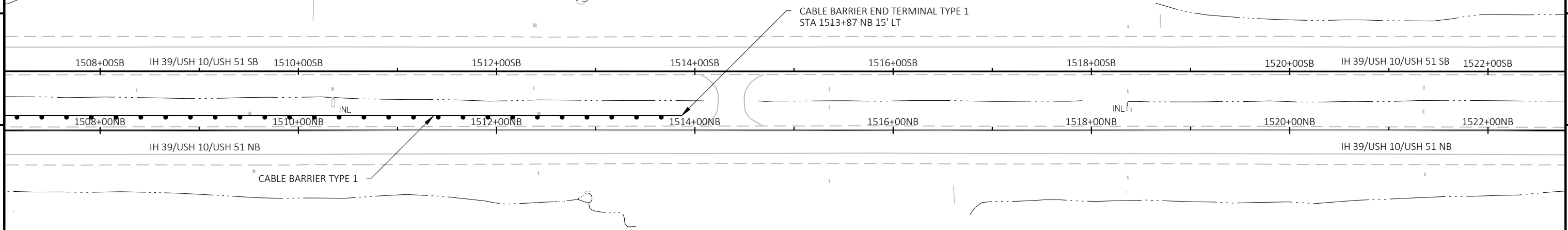


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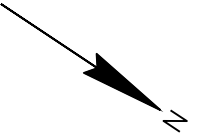


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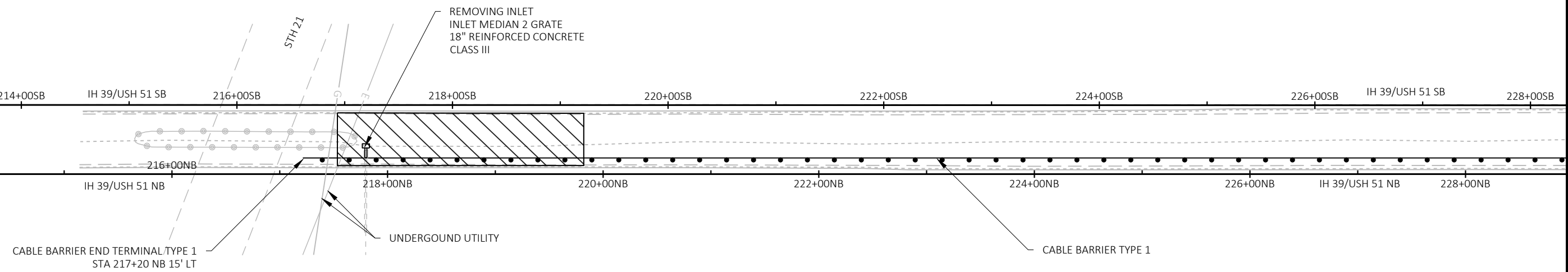


PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: PORTAGE	CABLE GUARD - SEGMENT C	SHEET	E
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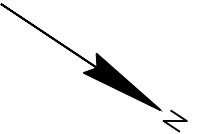
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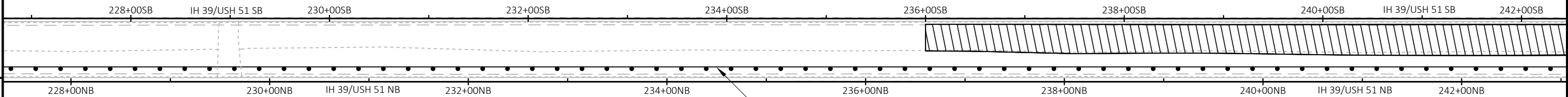


 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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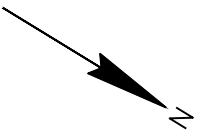
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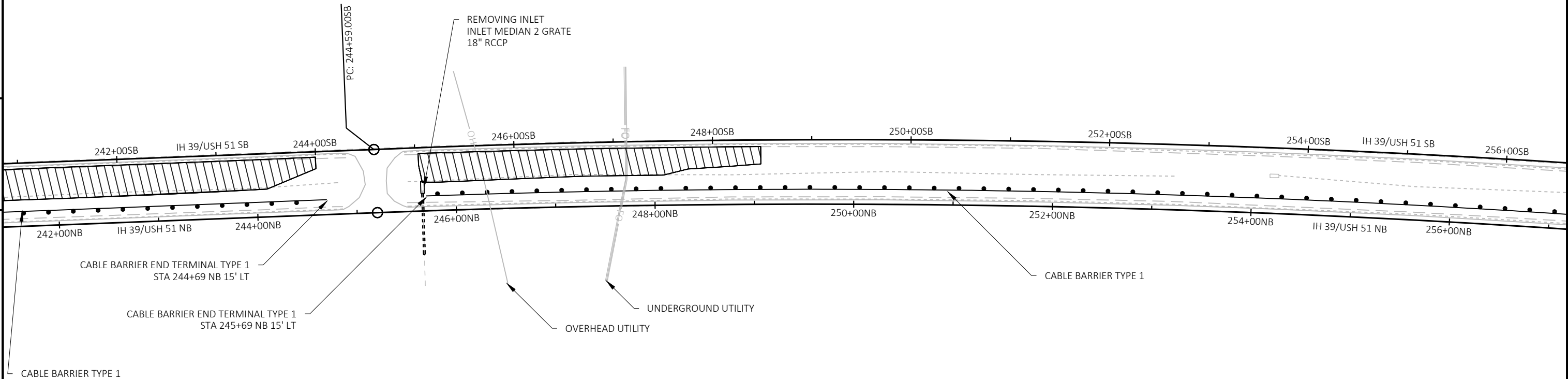
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GRADING, SHAPING MEDIAN INSLOPES



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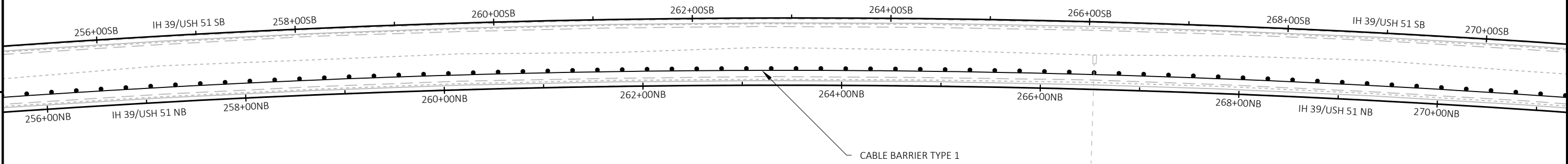
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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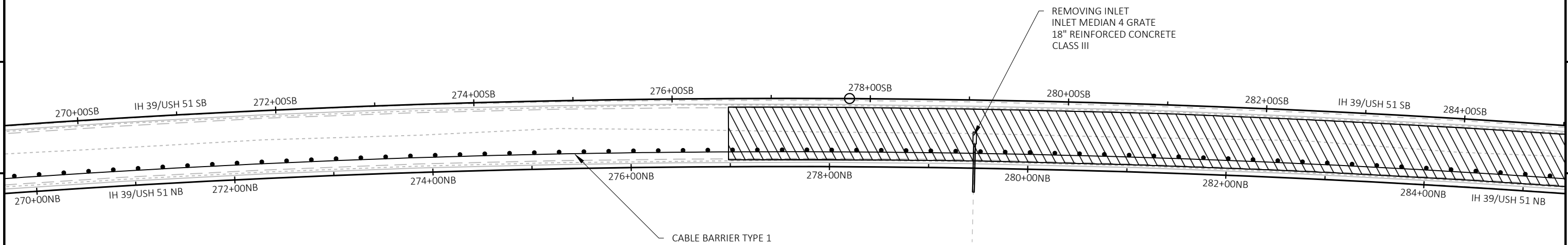


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PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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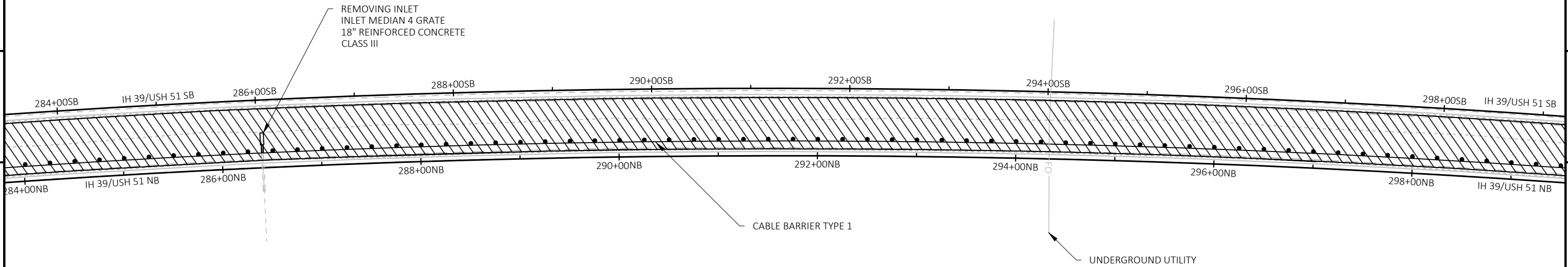
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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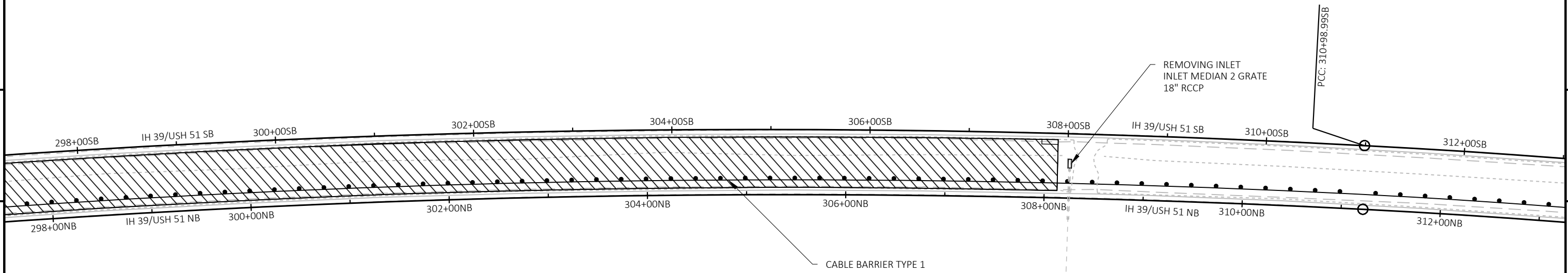
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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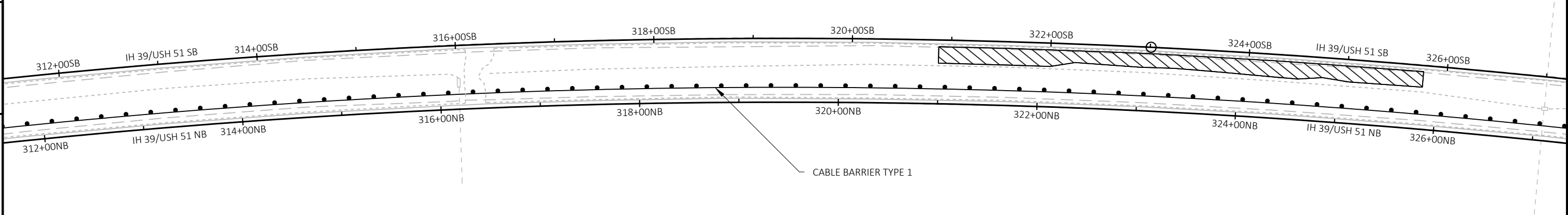
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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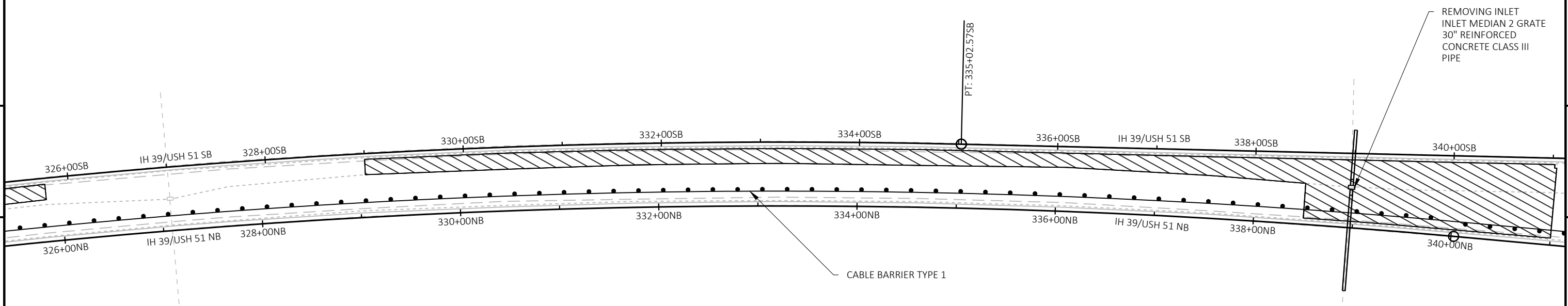
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 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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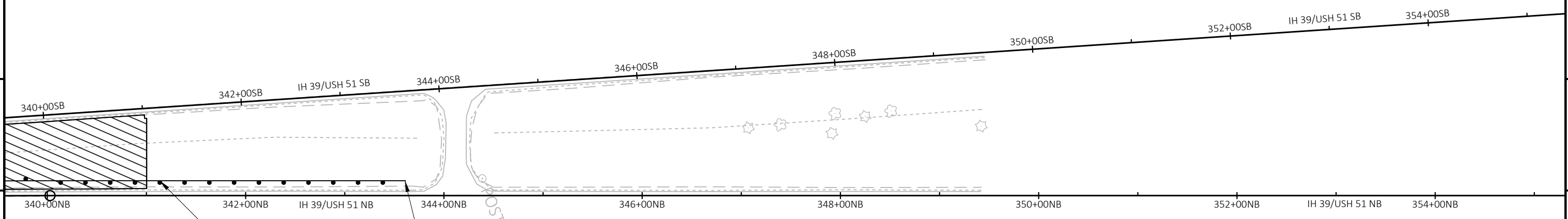
 GRADING, SHAPING MEDIAN INSLOPES

PROJECT NO: 1160-01-78	HWY: IH 39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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CABLE BARRIER TYPE 1

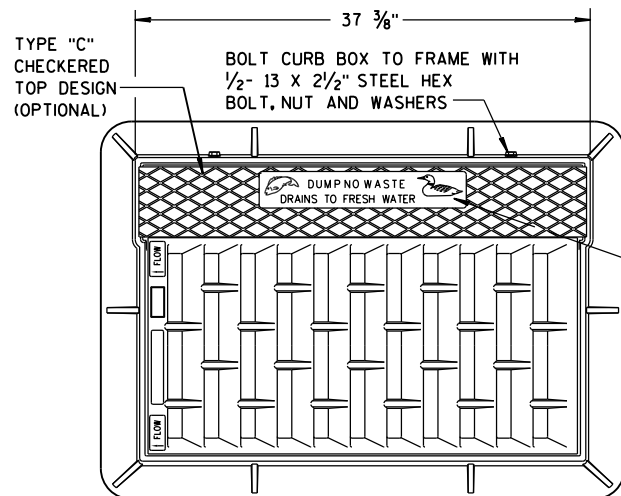
CABLE BARRIER END TERMINAL TYPE 1
STA 343+62 NB 15' LT

 GRADING, SHAPING MEDIAN INSLOPES

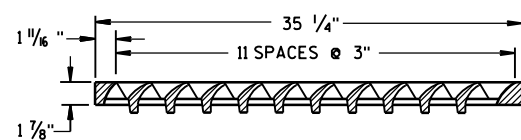
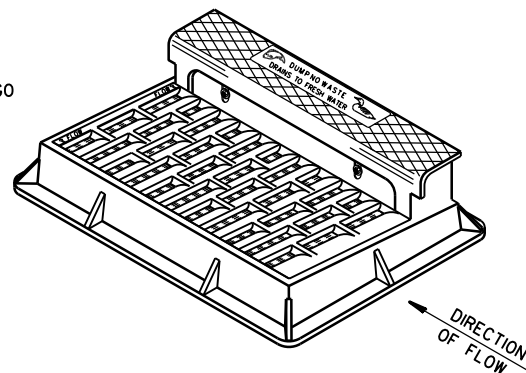
PROJECT NO: 1166-01-78	HWY: IH-39	COUNTY: WAUSHARA	CABLE GUARD - SEGMENT D	SHEET	E
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Standard Detail Drawing List

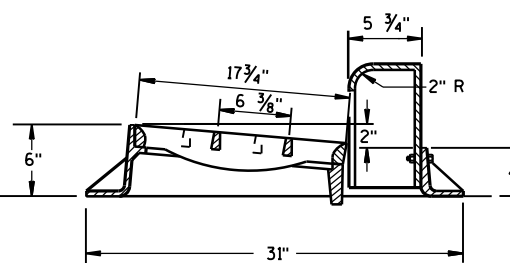
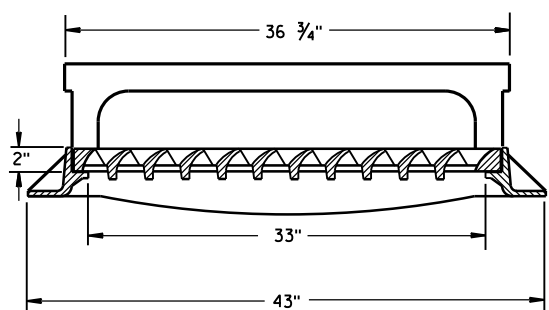
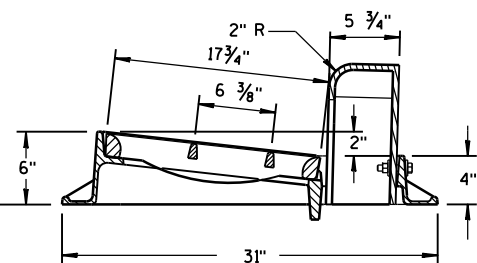
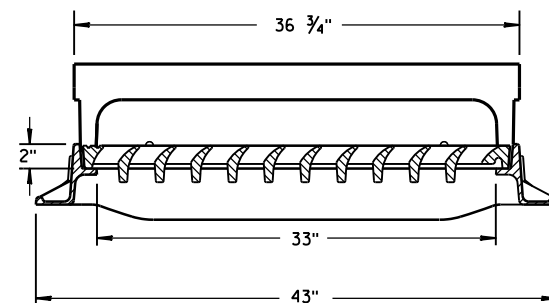
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



NOTE:
GRATE IS REVERSIBLE.

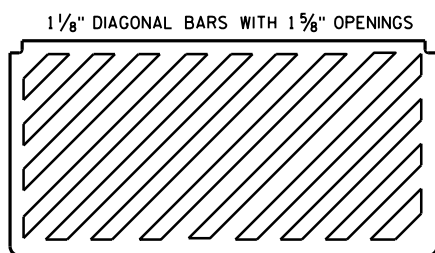


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

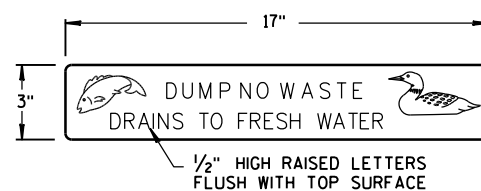


TYPE "H"

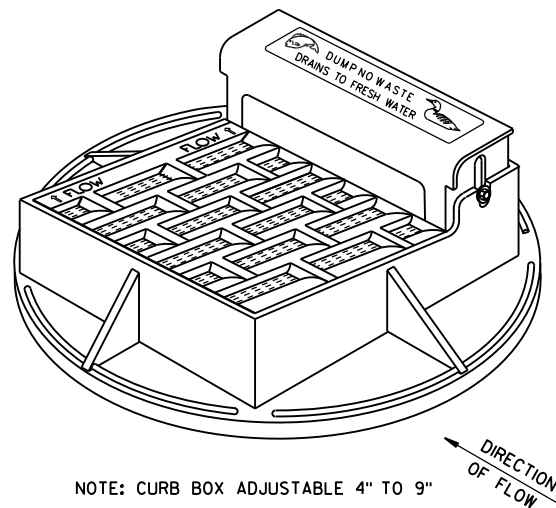
NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR
TYPE "H" COVER
(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

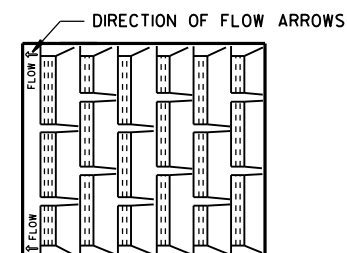


LOGO DETAIL

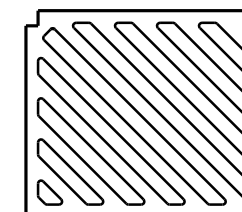


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

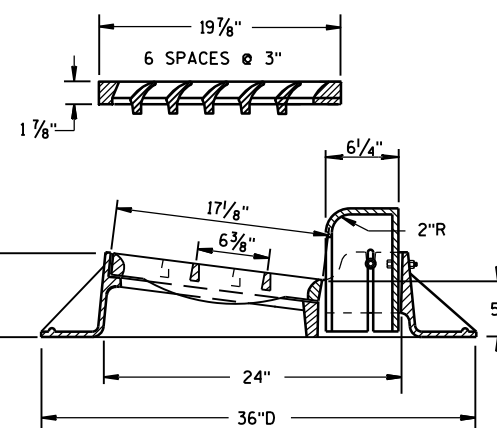
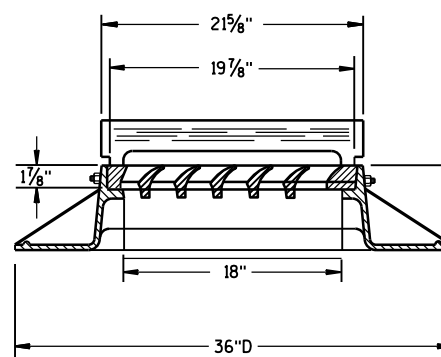
NOTE:
GRATE IS REVERSIBLE.



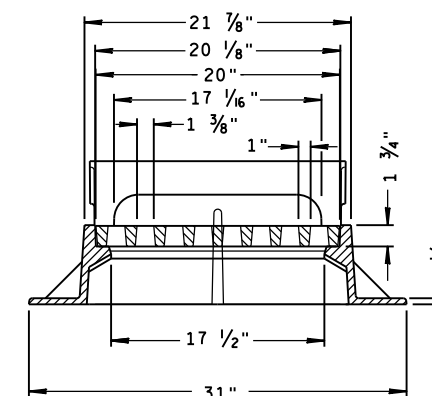
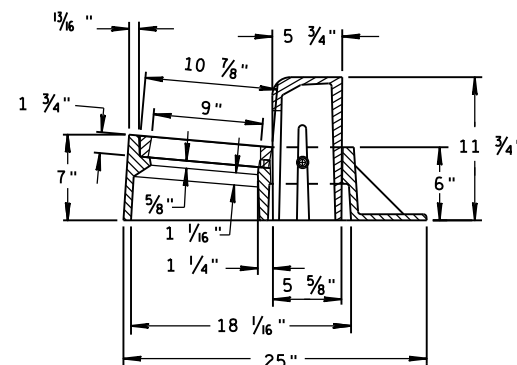
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



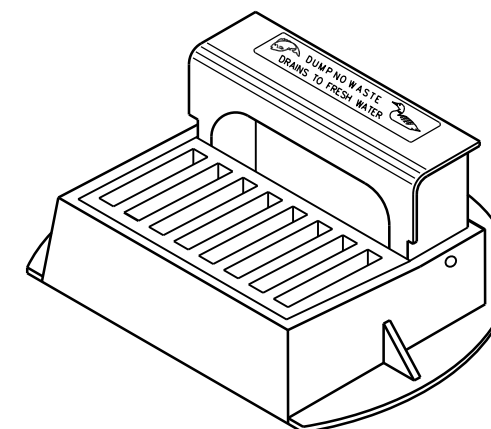
SPECIAL GRATE FOR
TYPE "A" COVER
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



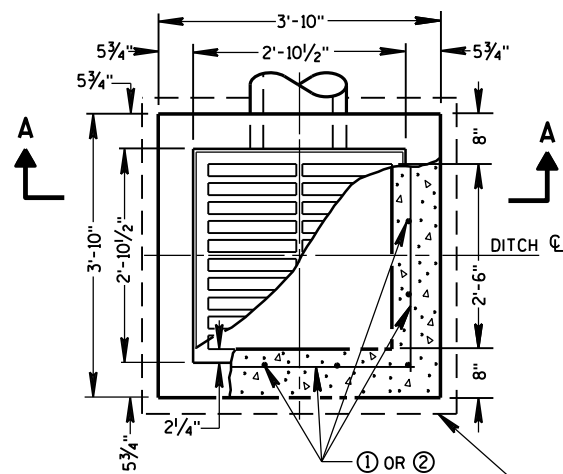
TYPE "Z"



INLET COVERS
TYPE A, H, A-S, H-S & Z

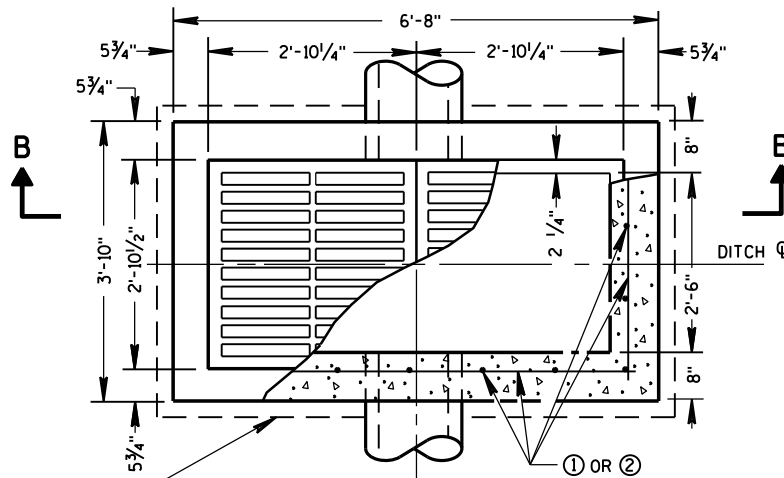
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

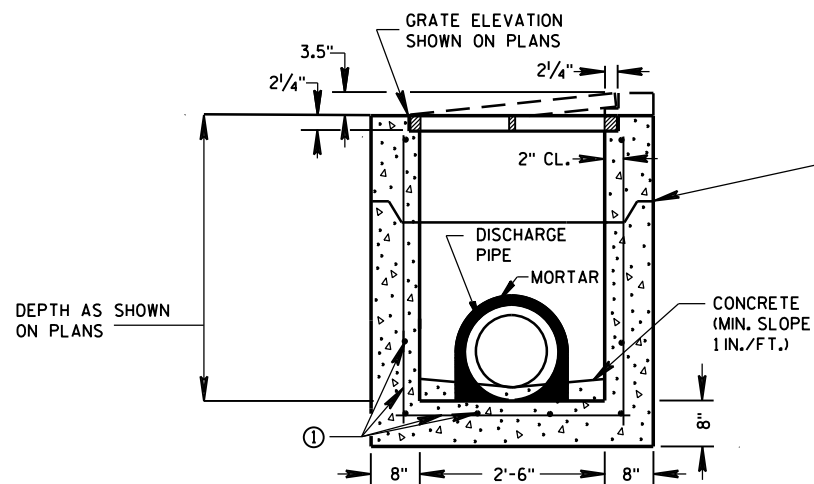


PLAN VIEW

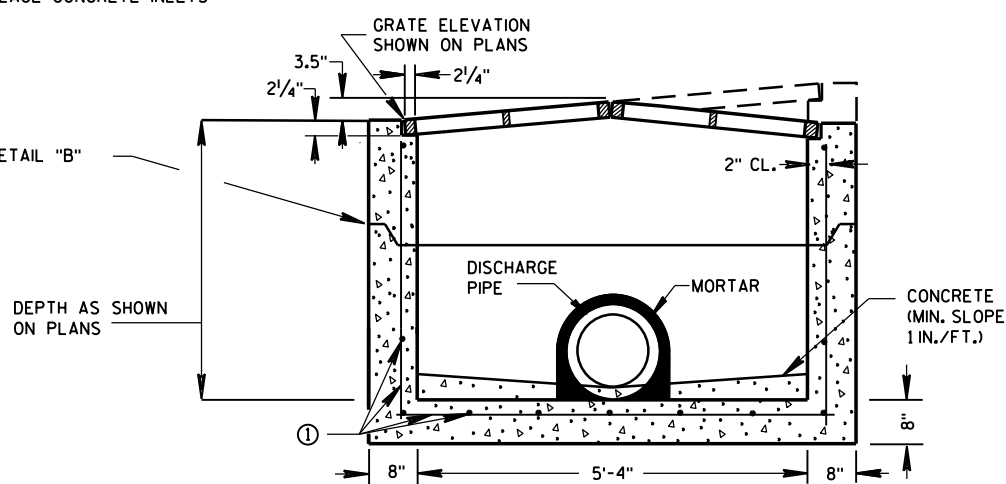
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



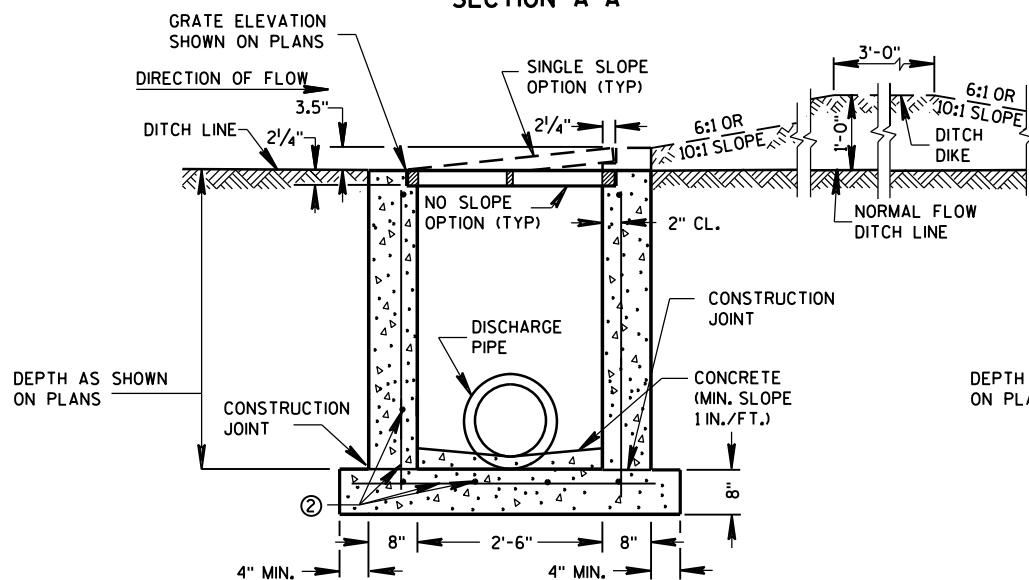
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

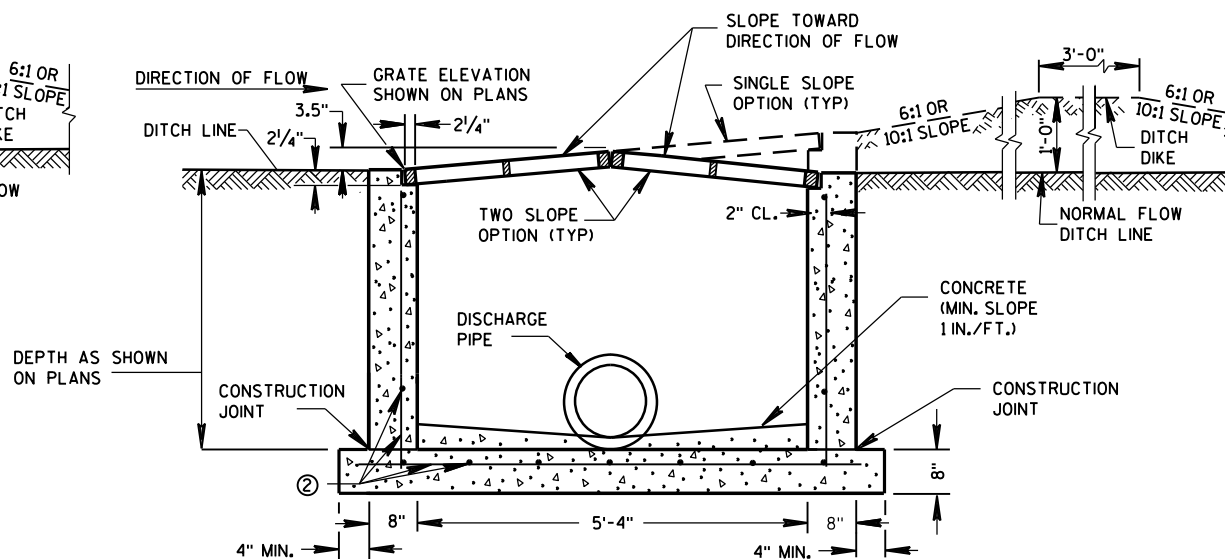


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

INLETS MEDIAN 2 GRATE

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

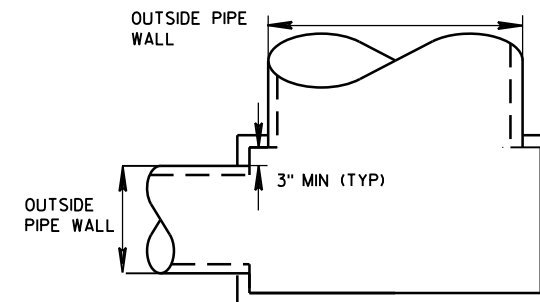
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

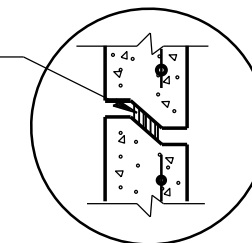
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

GENERAL NOTES

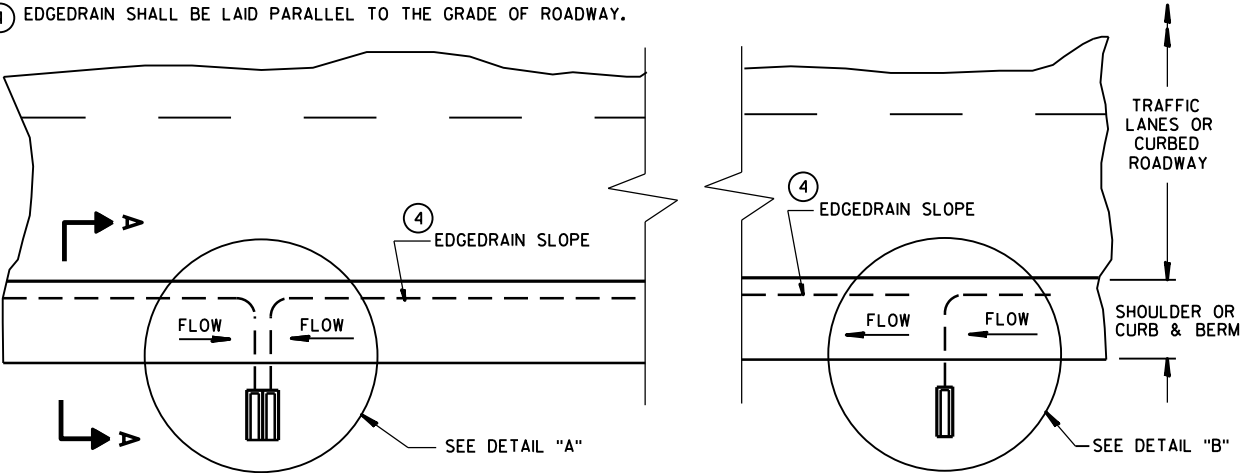
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

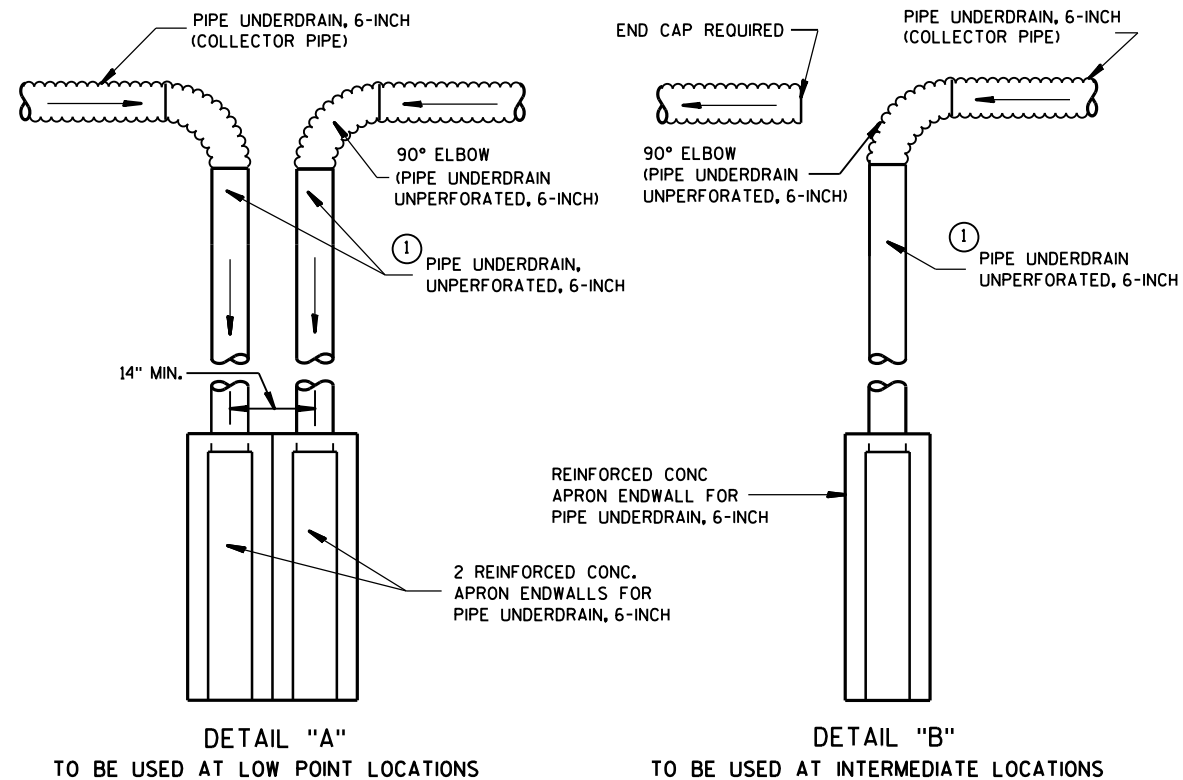
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

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

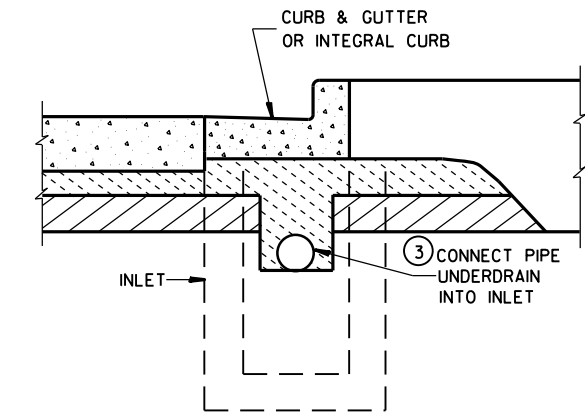
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



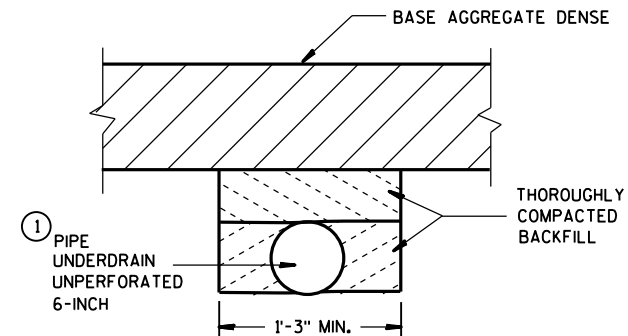
PLAN VIEW
ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN OUTLETS TO ROADSIDE) ②



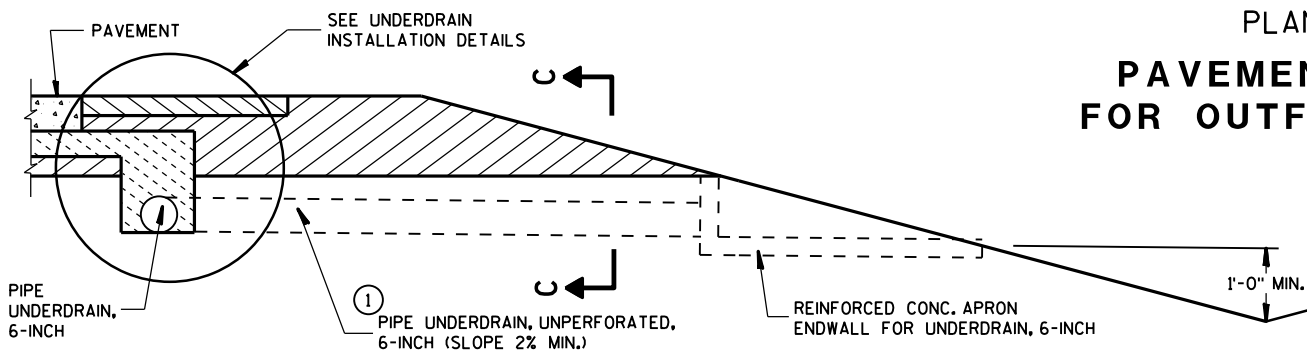
TYPICAL DRAIN OUT DETAILS



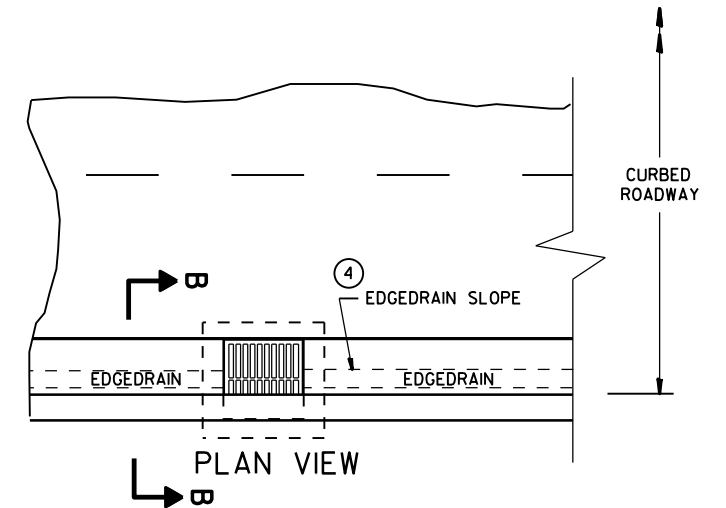
SECTION B-B
URBAN CROSS SECTION



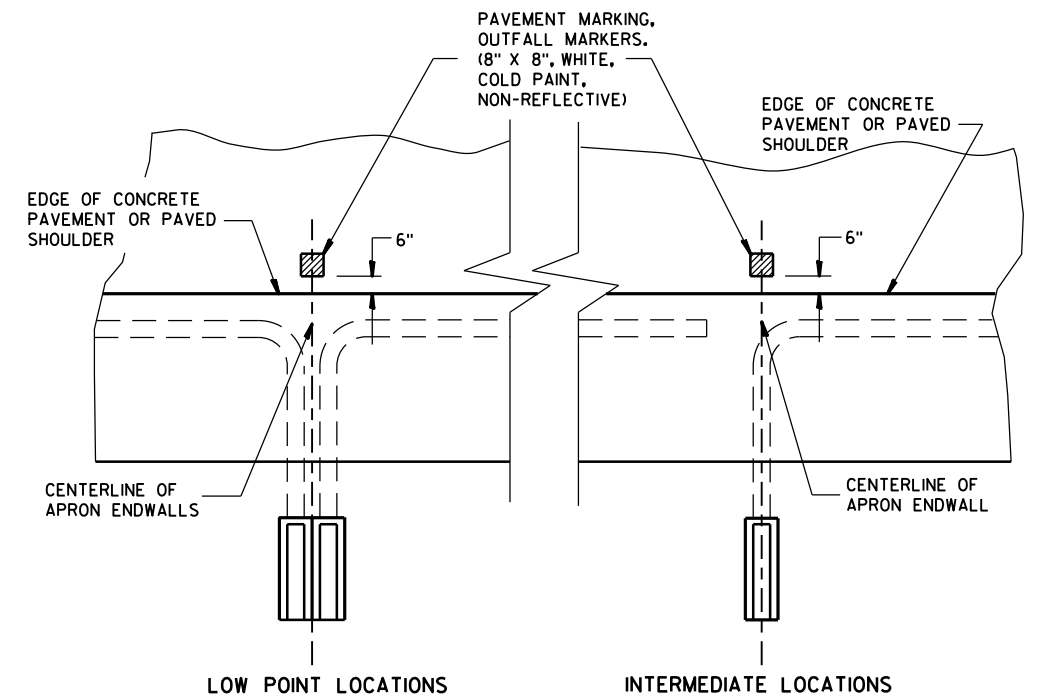
SECTION C-C
(TRENCH FOR OUTFALL PIPE)



SECTION A-A
RURAL CROSS SECTION



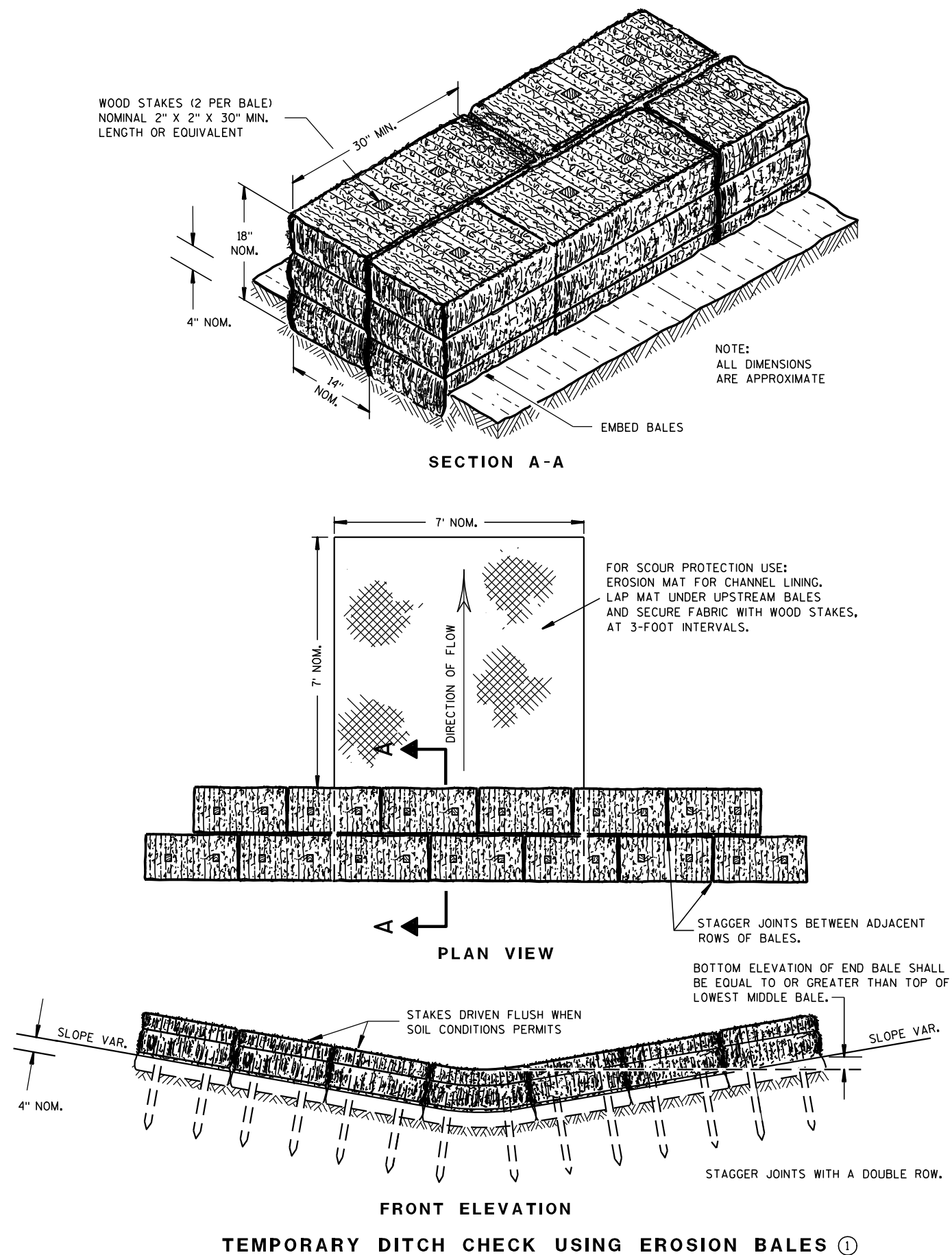
ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



PLAN VIEW
**PAVEMENT MARKING
FOR OUTFALL MARKERS**

**EDGEDRAIN OUTLET
AND OUTFALL MARKERS**

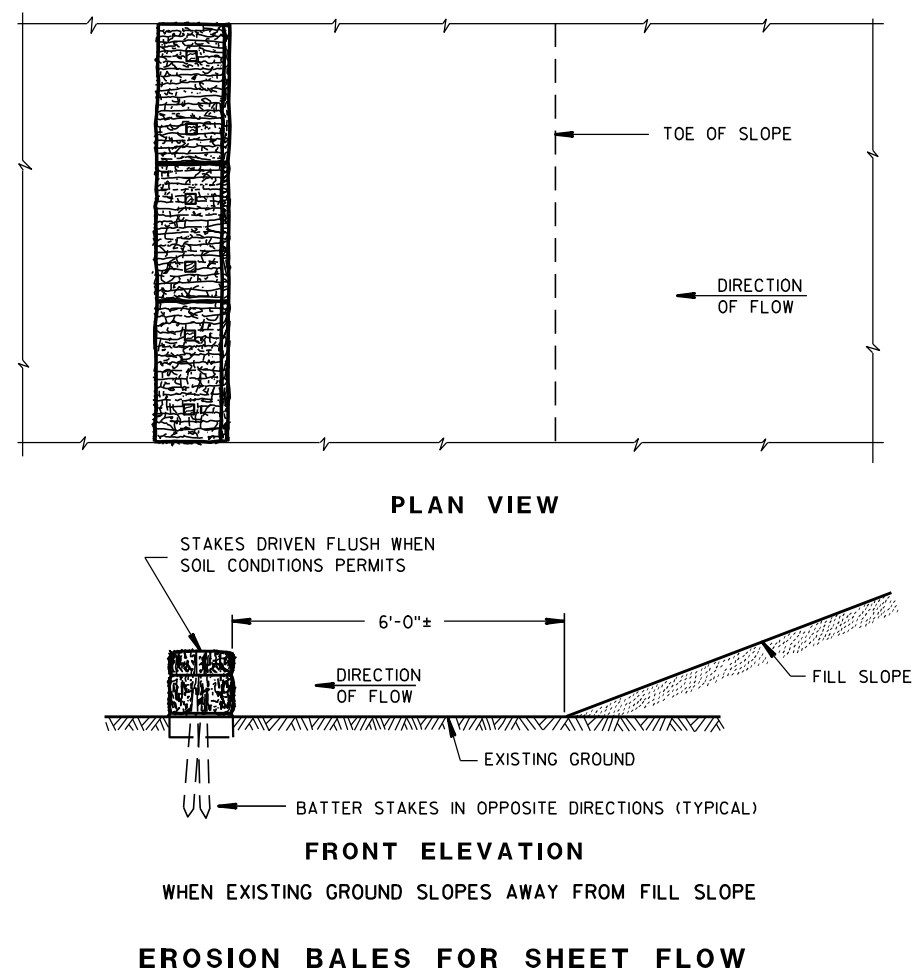
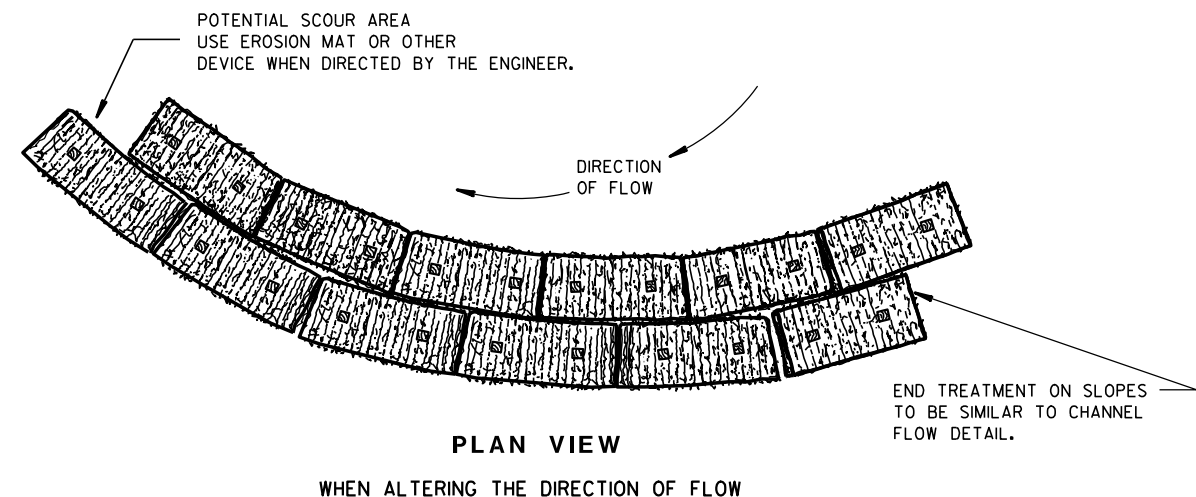
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

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

- ① 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.

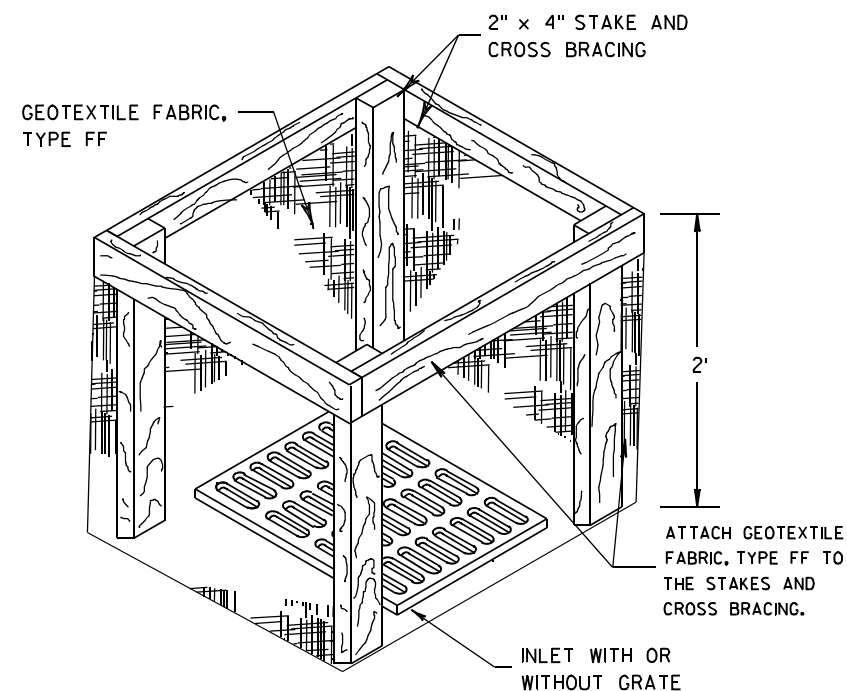
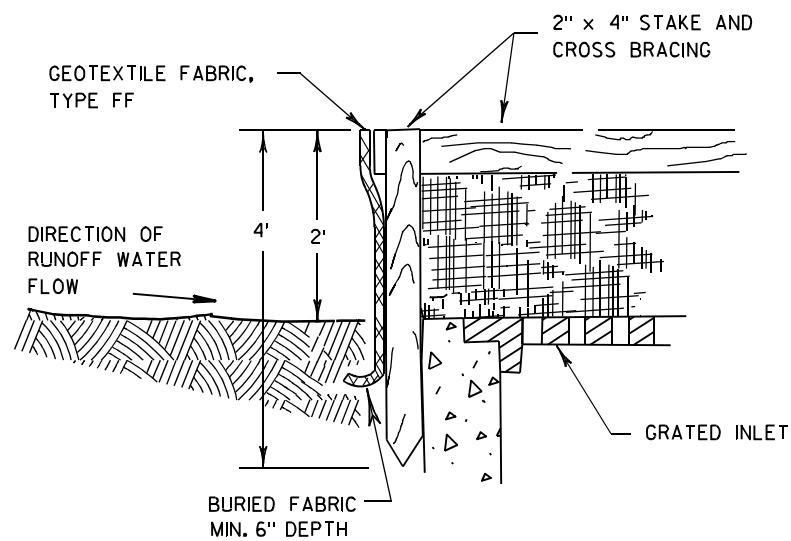
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA



INLET PROTECTION, TYPE A

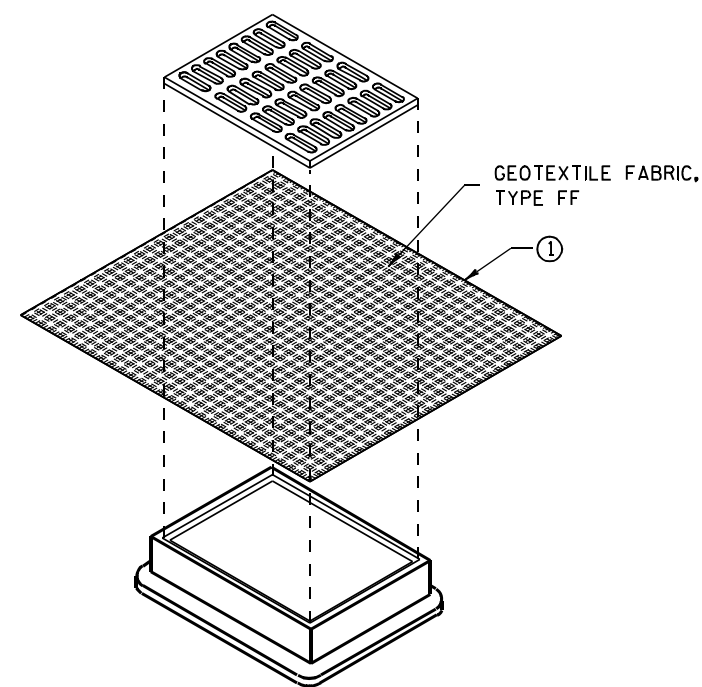
GENERAL NOTES

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.

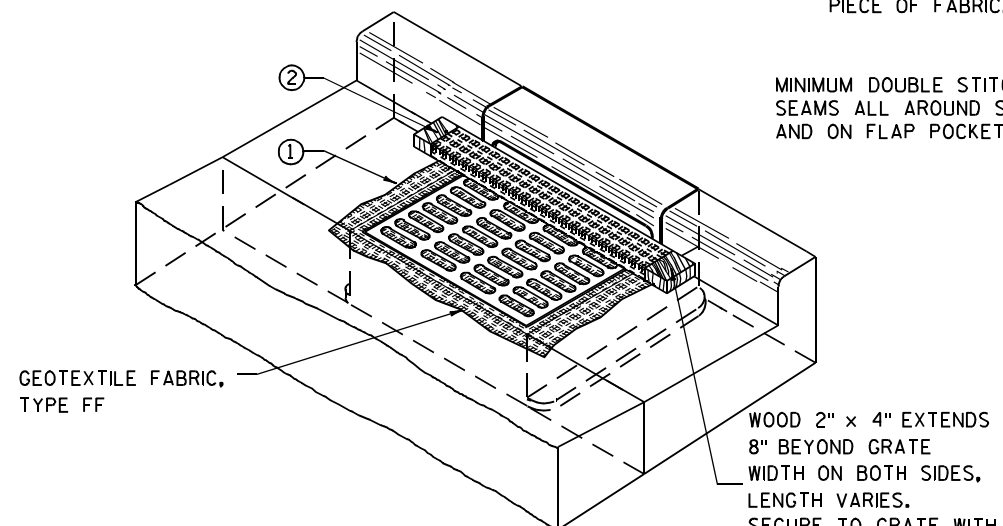
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

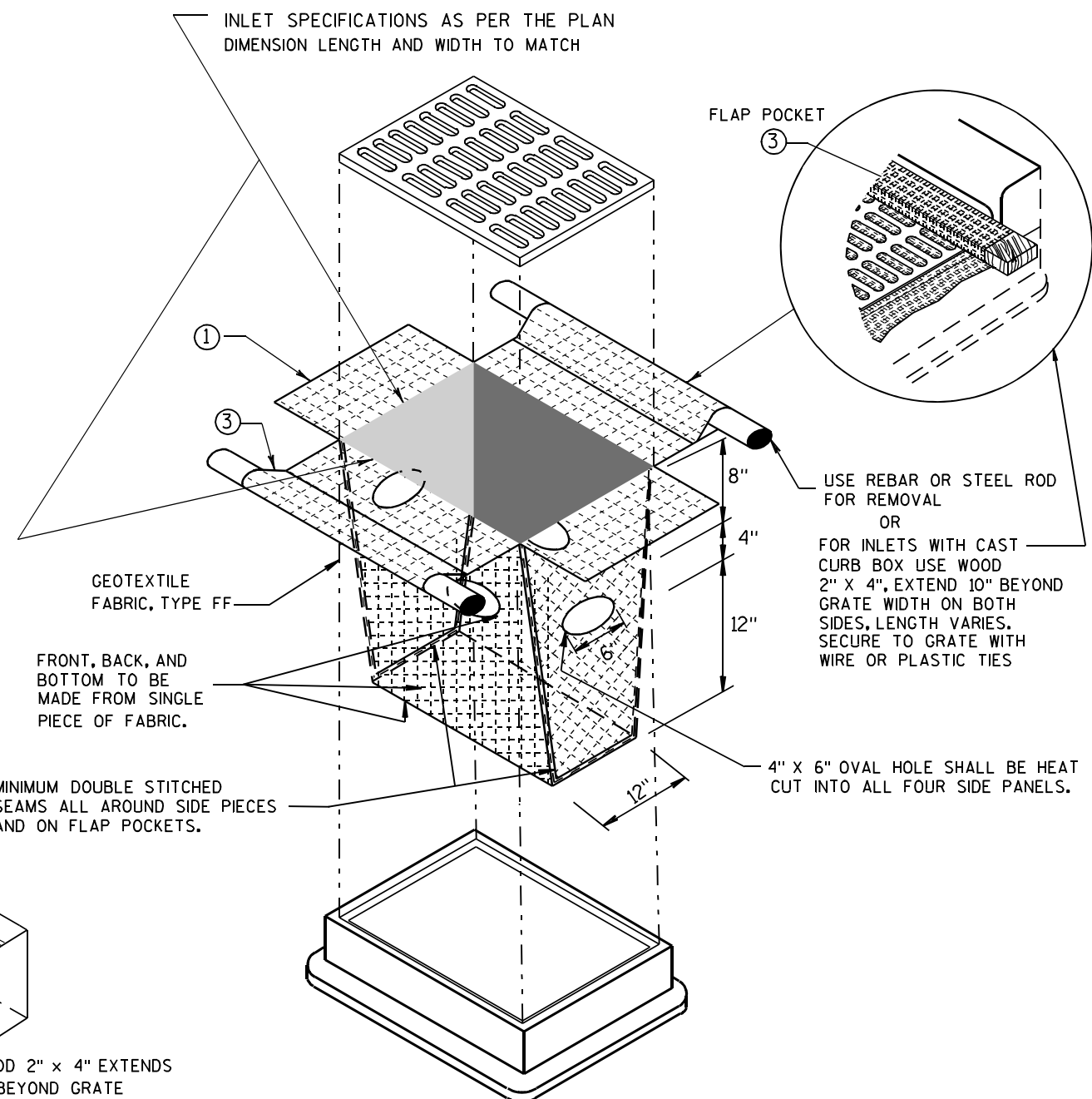
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



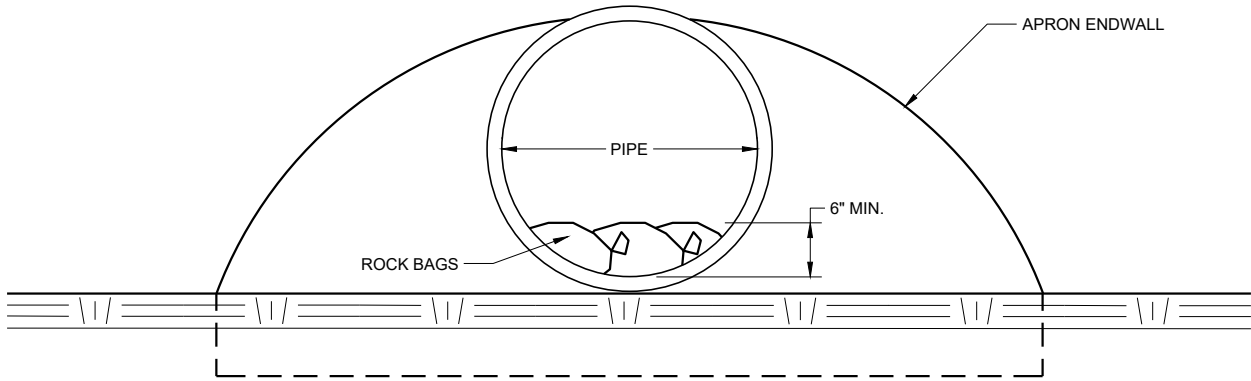
INLET PROTECTION, TYPE D

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

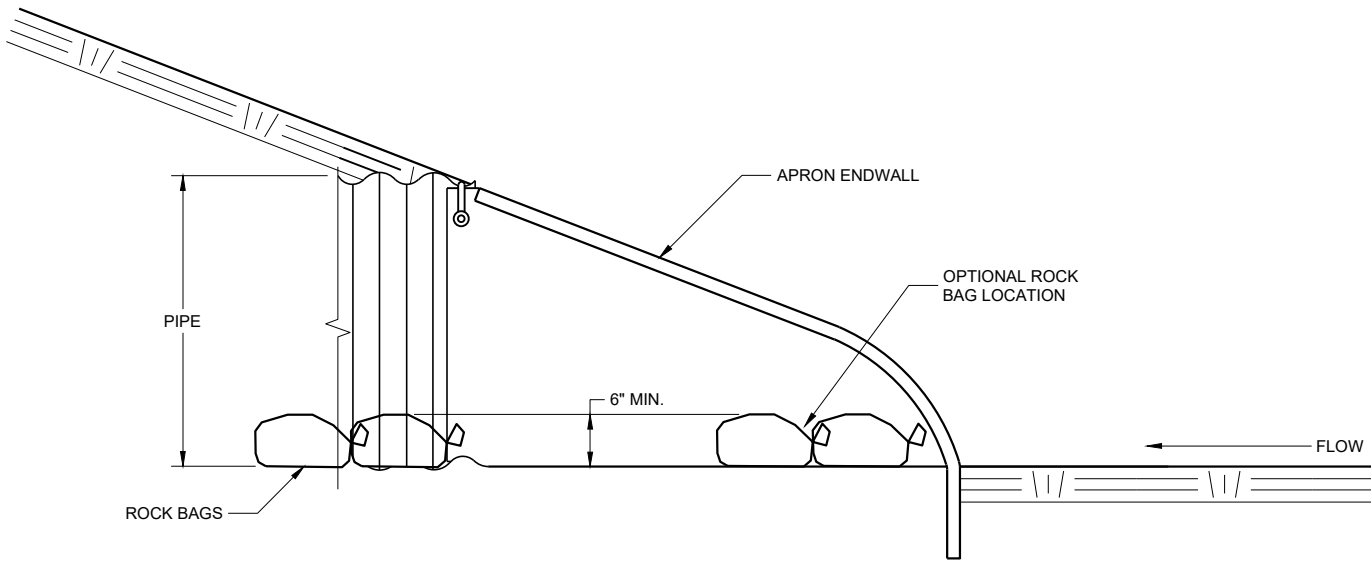
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW

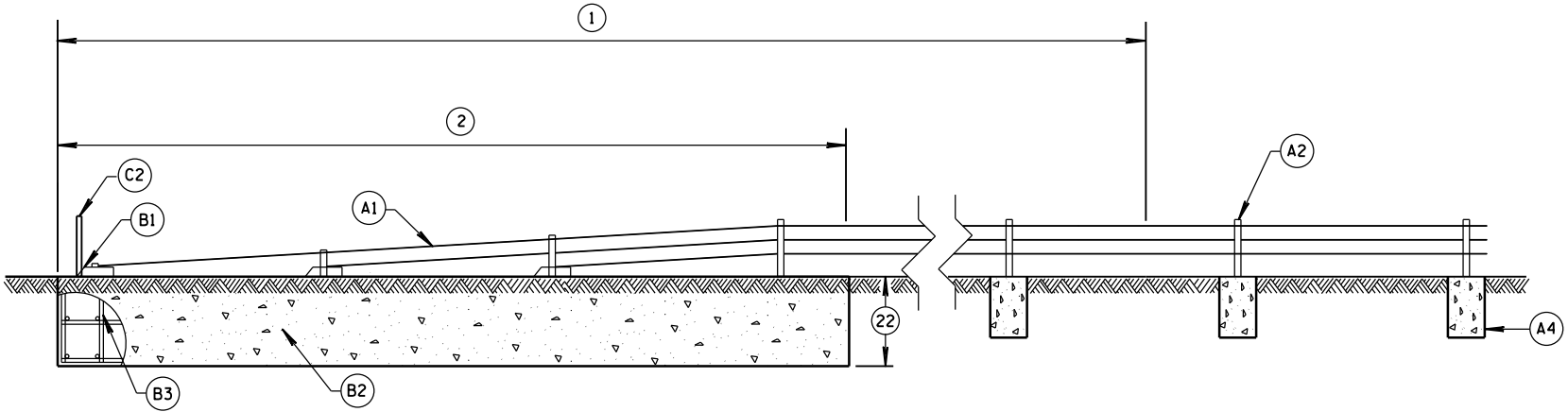


SIDE VIEW

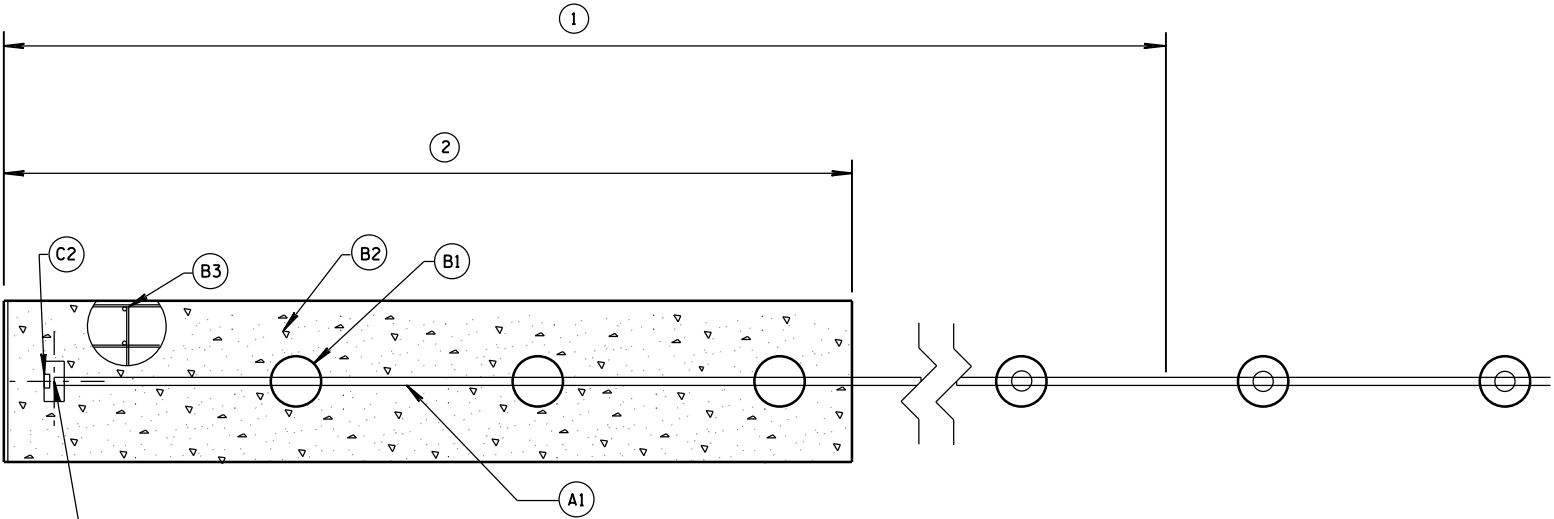
CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

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

FHWA

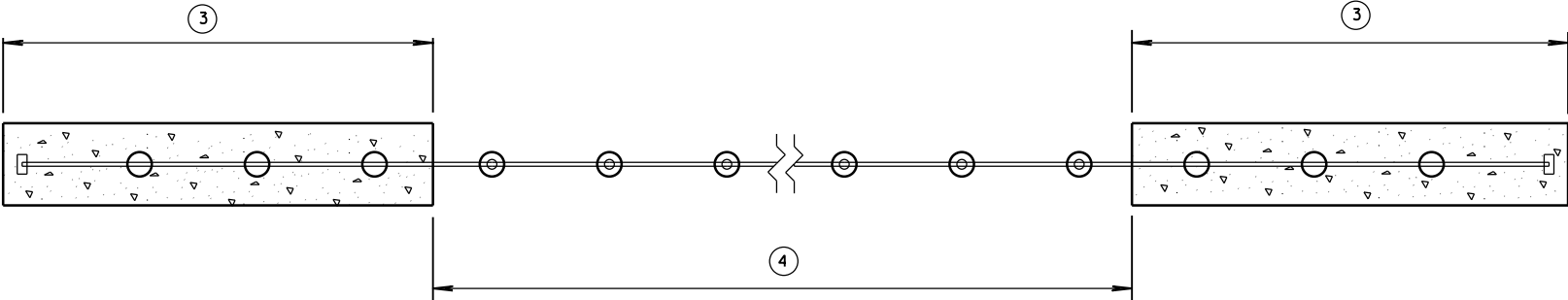


PROFILE VIEW



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 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

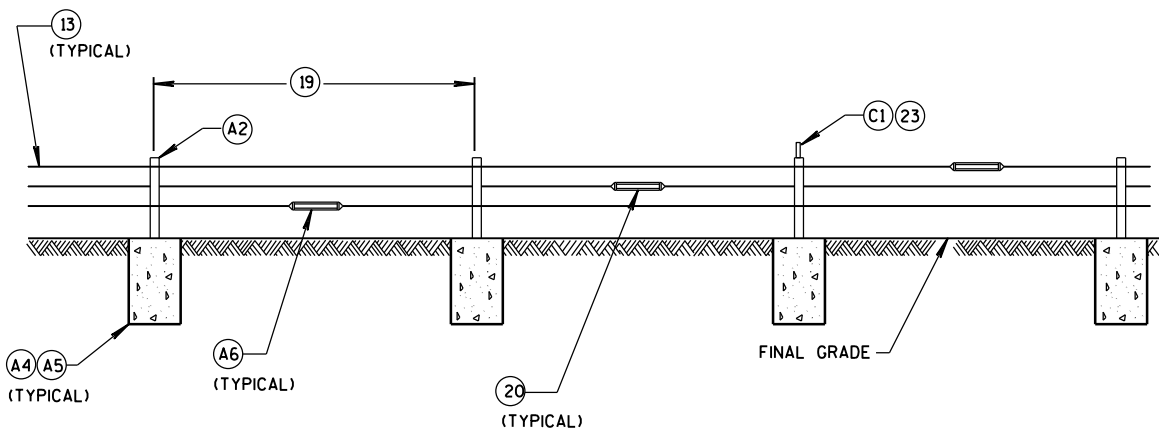
BILL OF MATERIALS

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.

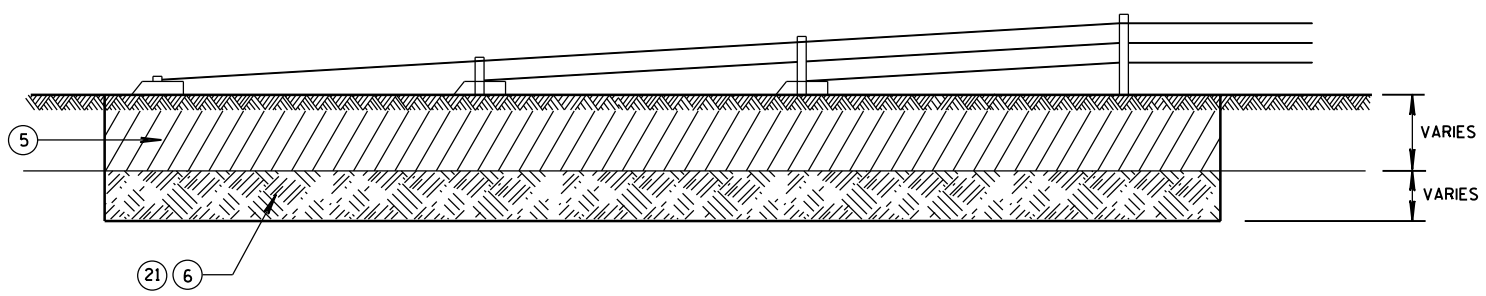
- 1 LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 2 PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 3 CABLE BARRIER END TERMINAL
- 4 CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1
LAYOUT

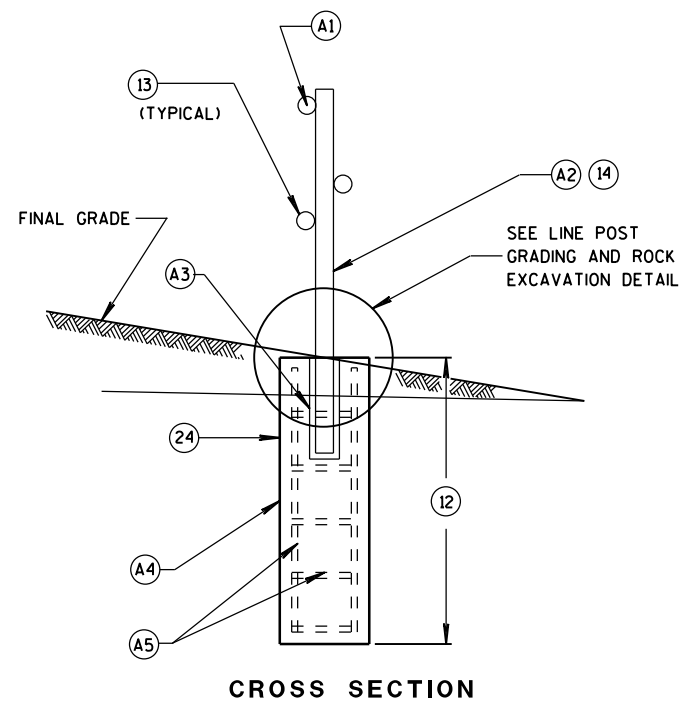
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



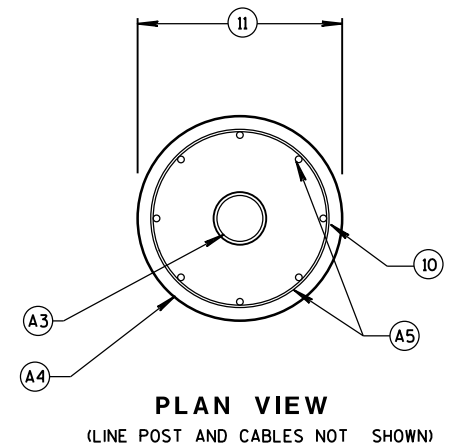
**PROFILE VIEW
LINE POST INSTALLATION**



**CABLE BARRIER END
TERMINAL ROCK EXCAVATION DETAIL**



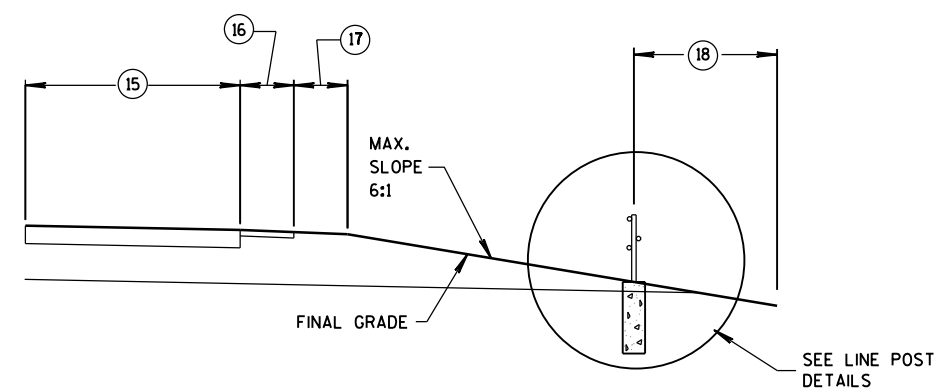
CROSS SECTION



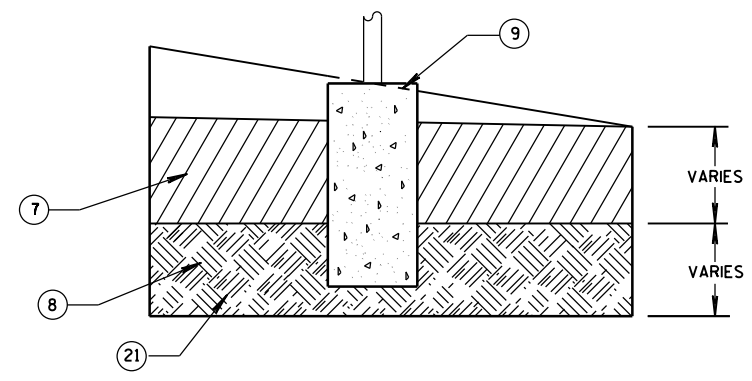
**PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)**

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.

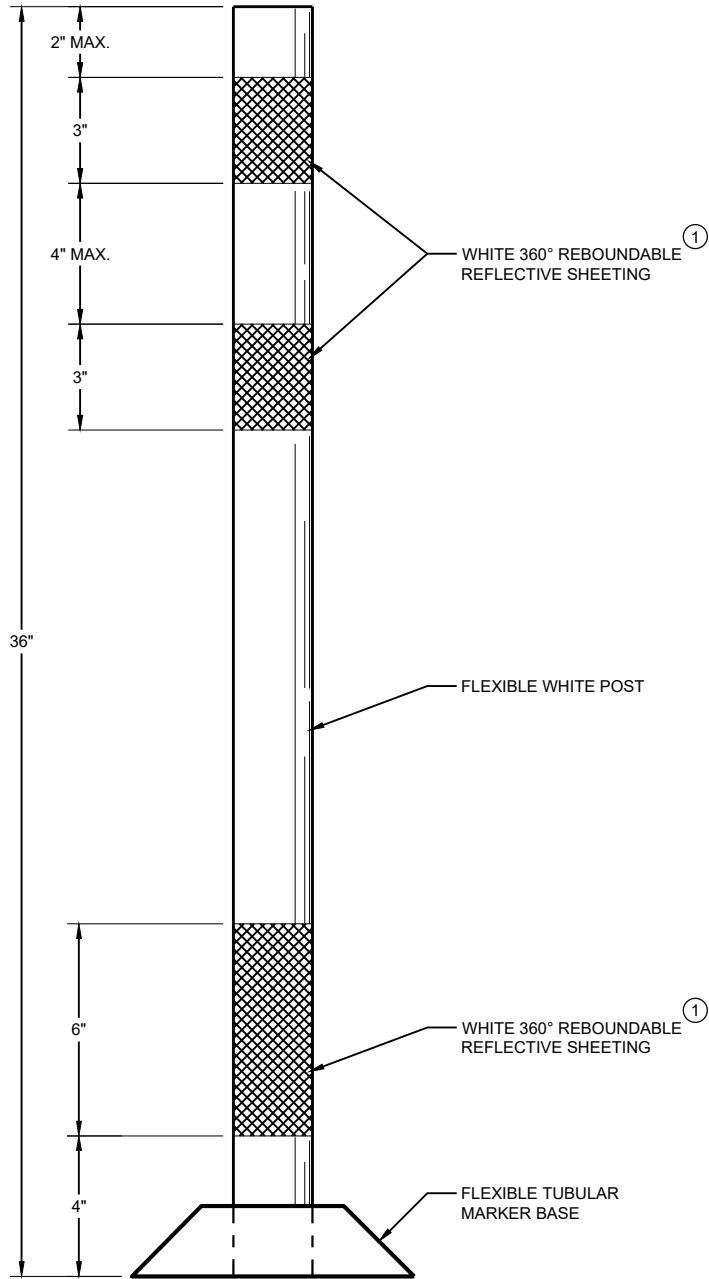


CABLE BARRIER OFFSET FROM DITCH LINE

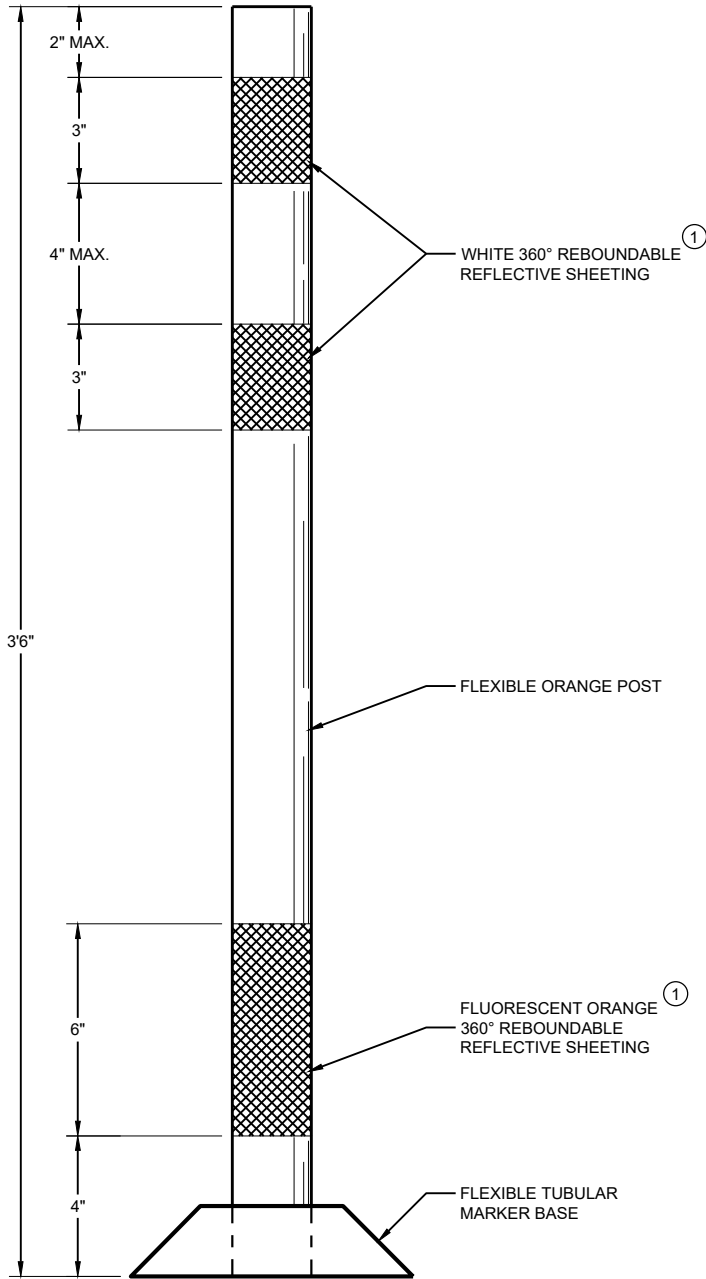


**LINE POST GRADING
AND ROCK EXCAVATION DETAIL**

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



FLEXIBLE TUBULAR
MARKER POST
PERMANENT CROSSOVER



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

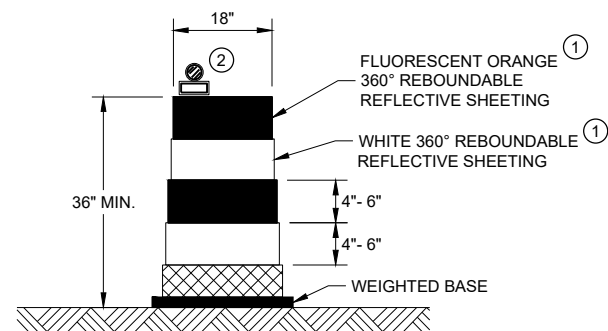
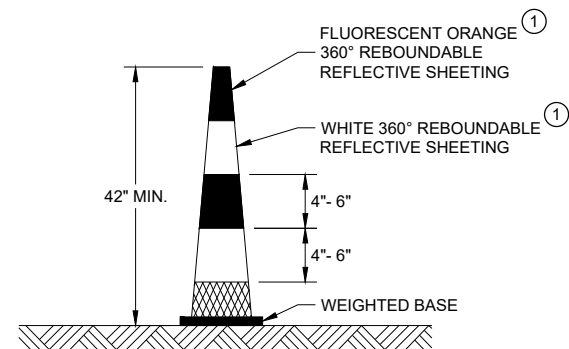
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

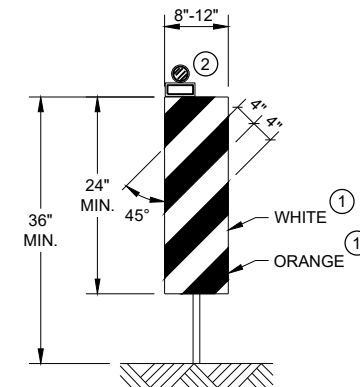
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

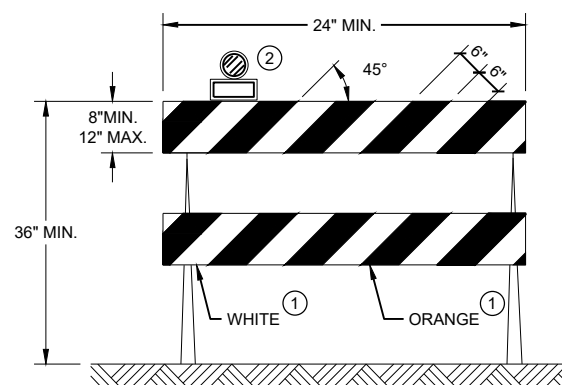
FHWA

**DRUM****42" CONE**

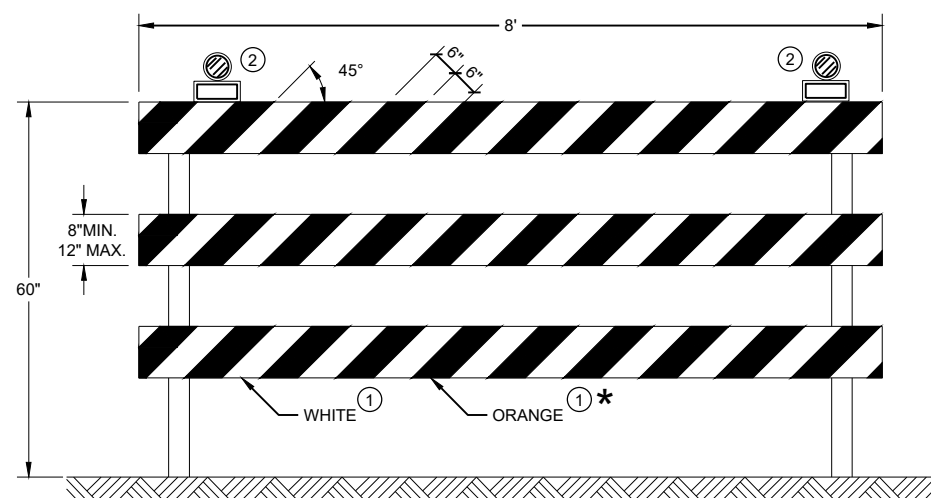
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

**VERTICAL PANEL**

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

**TYPE II BARRICADE**

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

**TYPE III BARRICADE**

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48" x 48" 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 OR AS APPROVED BY THE ENGINEER.

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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

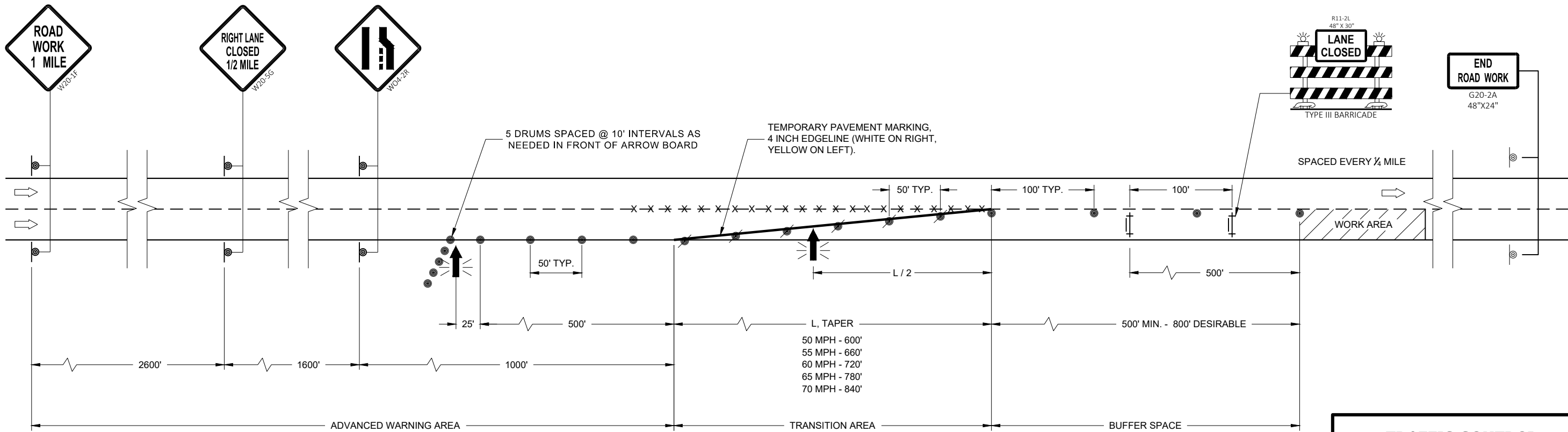
NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

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

6



6

SDD 15D12 - 07a

SDD 15D12 - 07a

TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE 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.

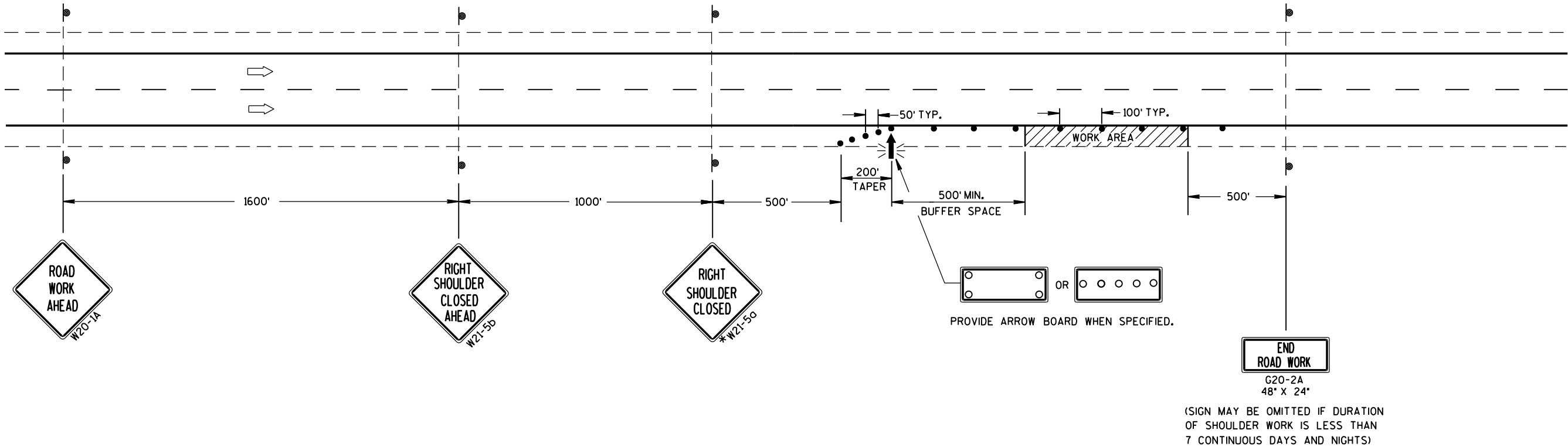
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

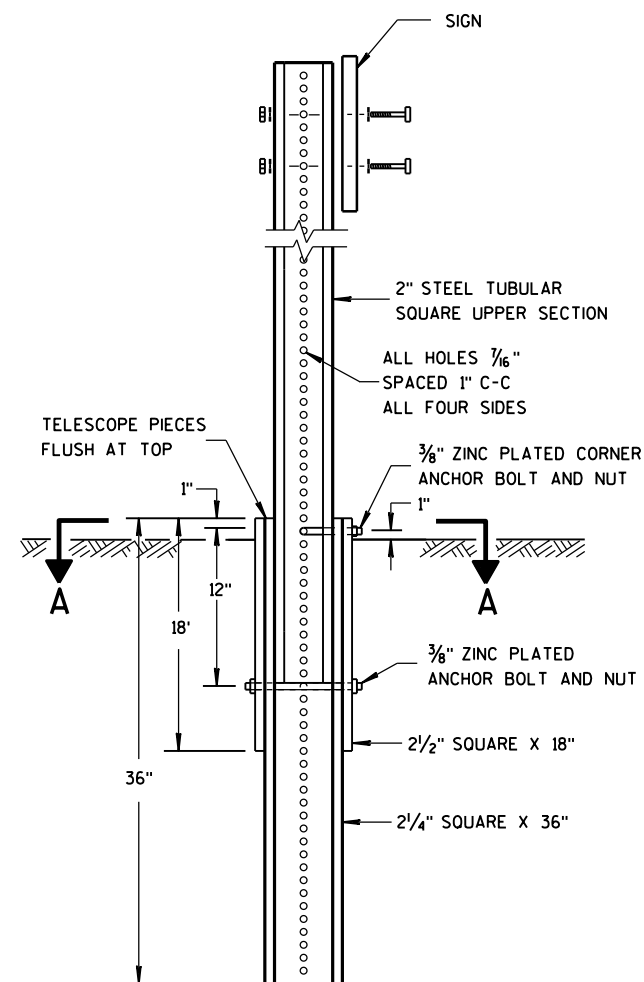
*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

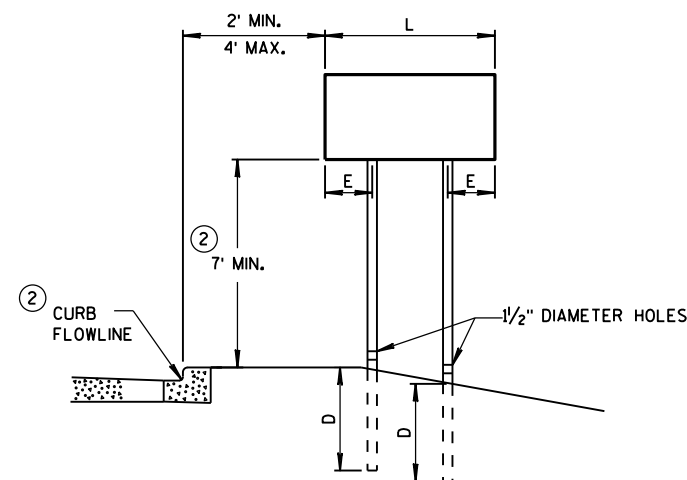
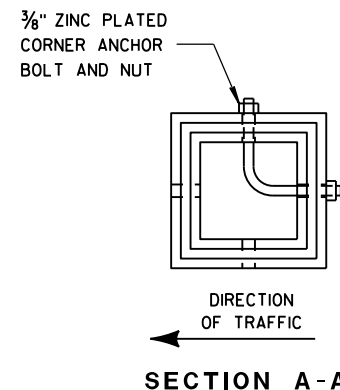


DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

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

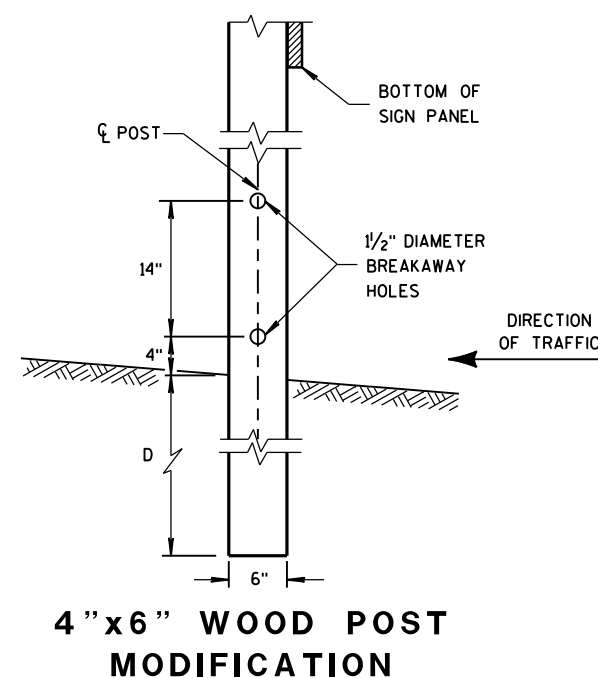
SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



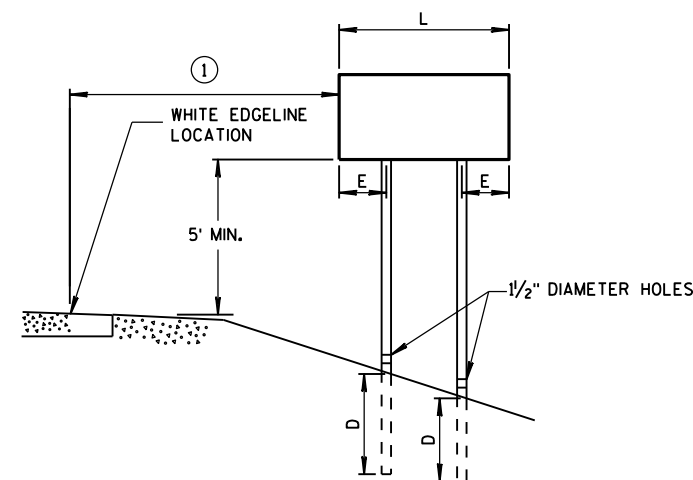
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

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

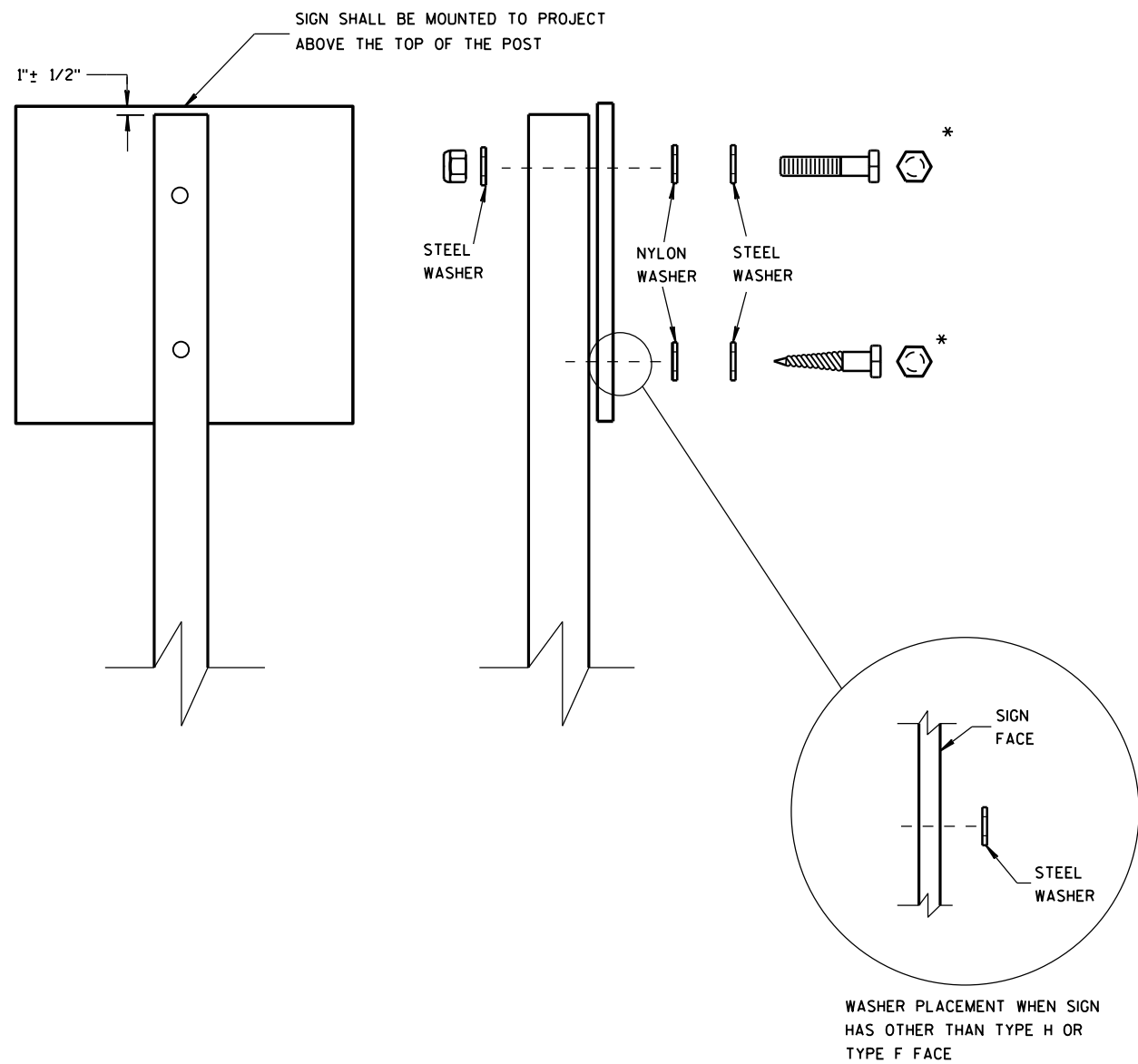
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

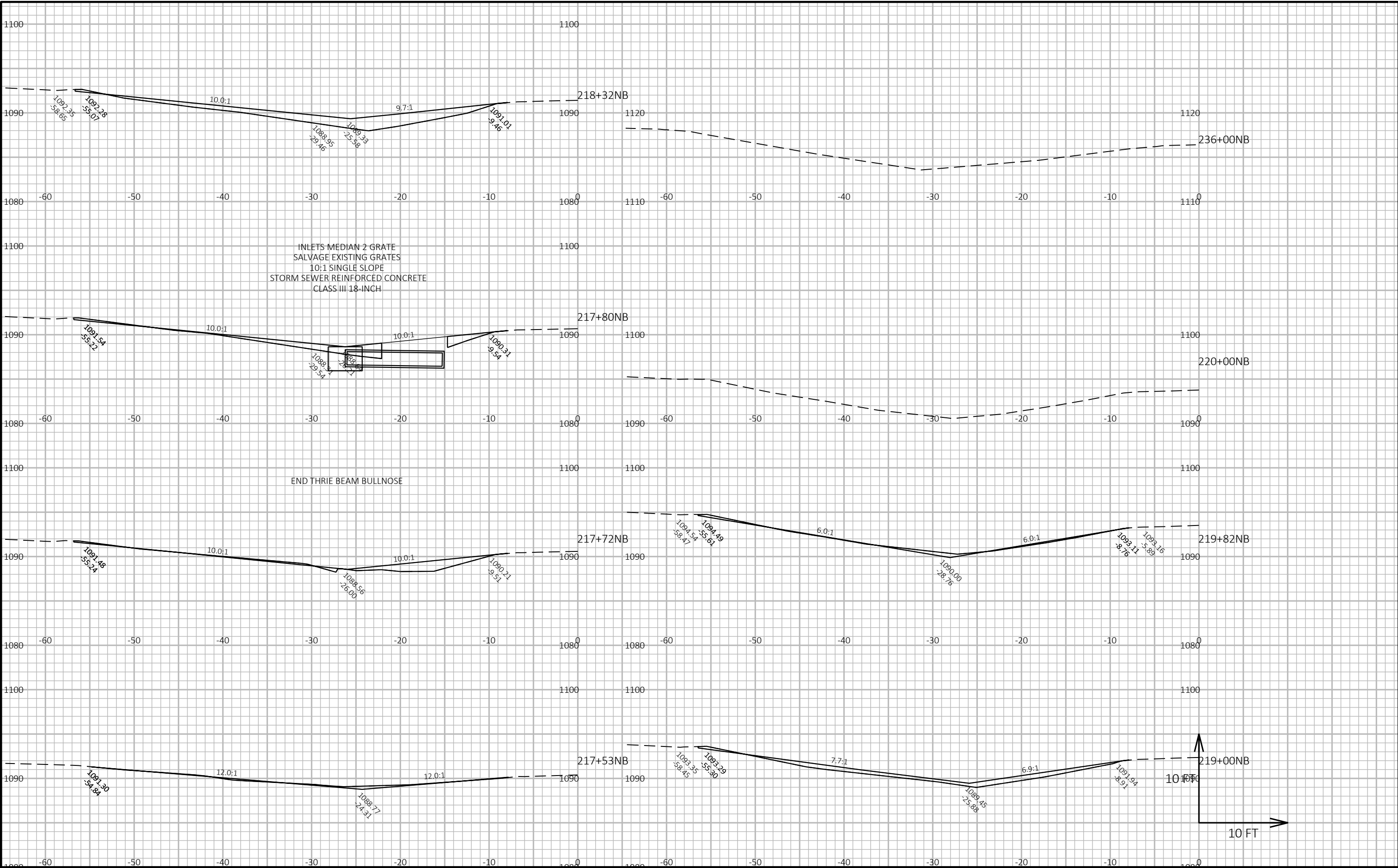
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

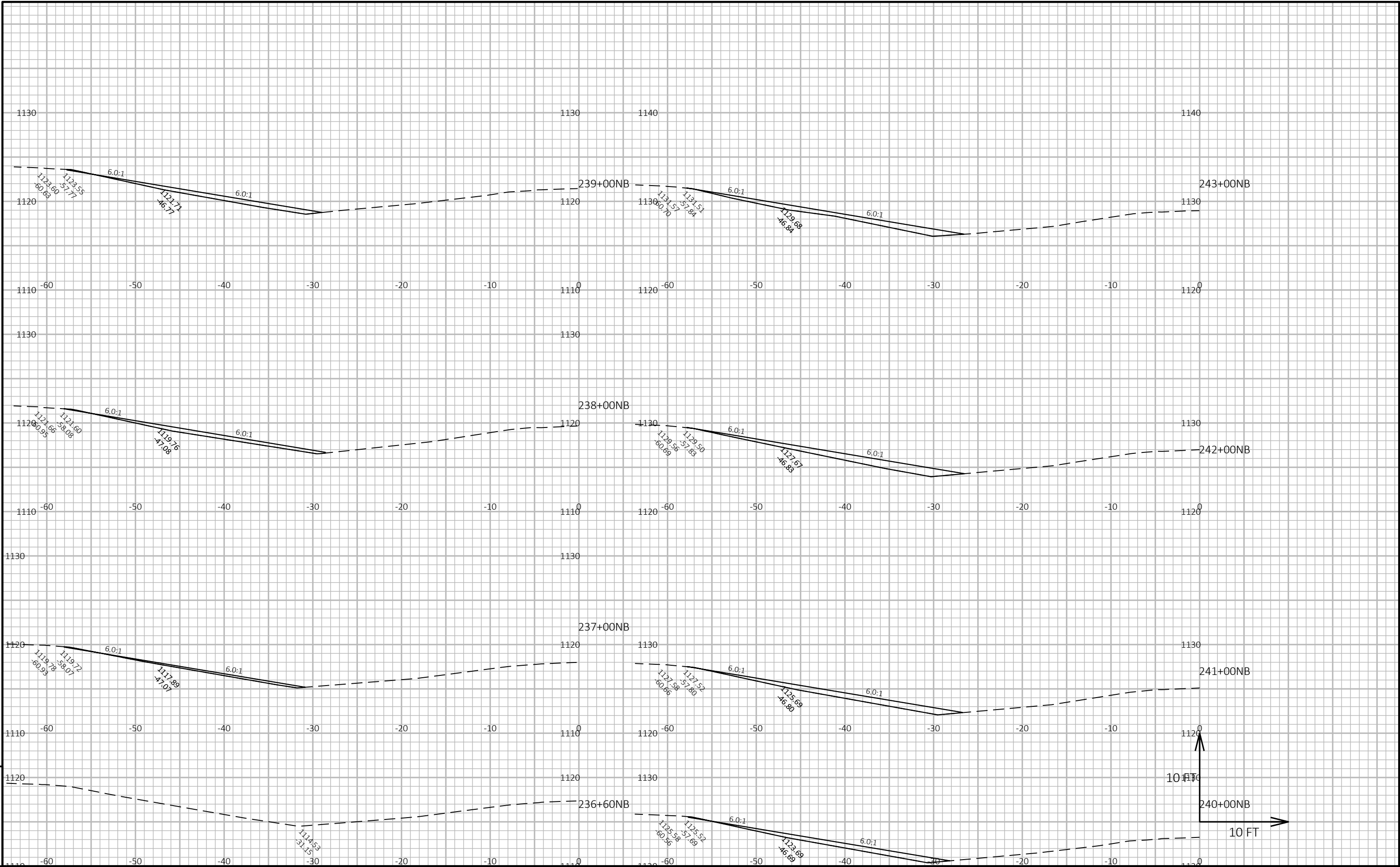
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

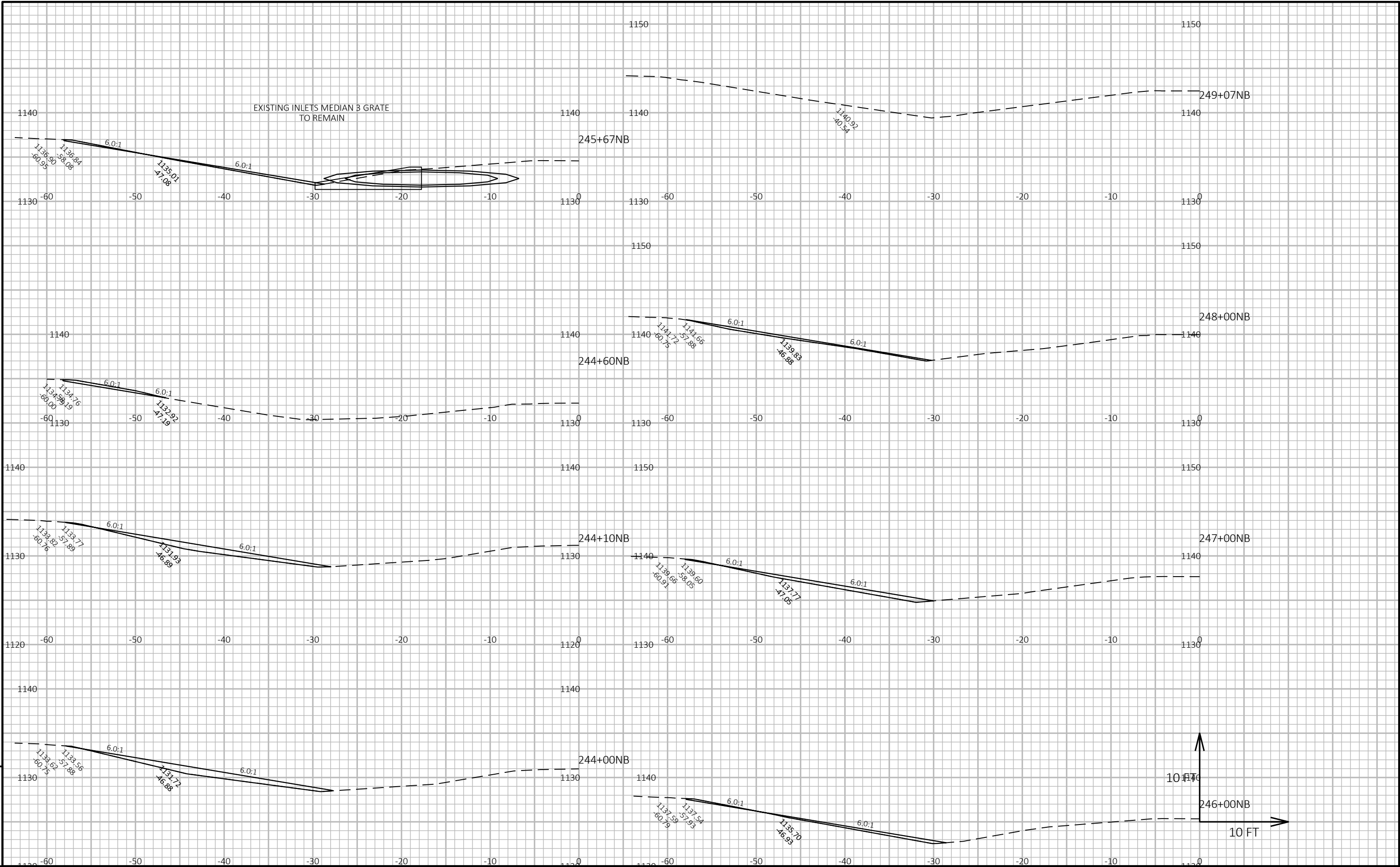
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

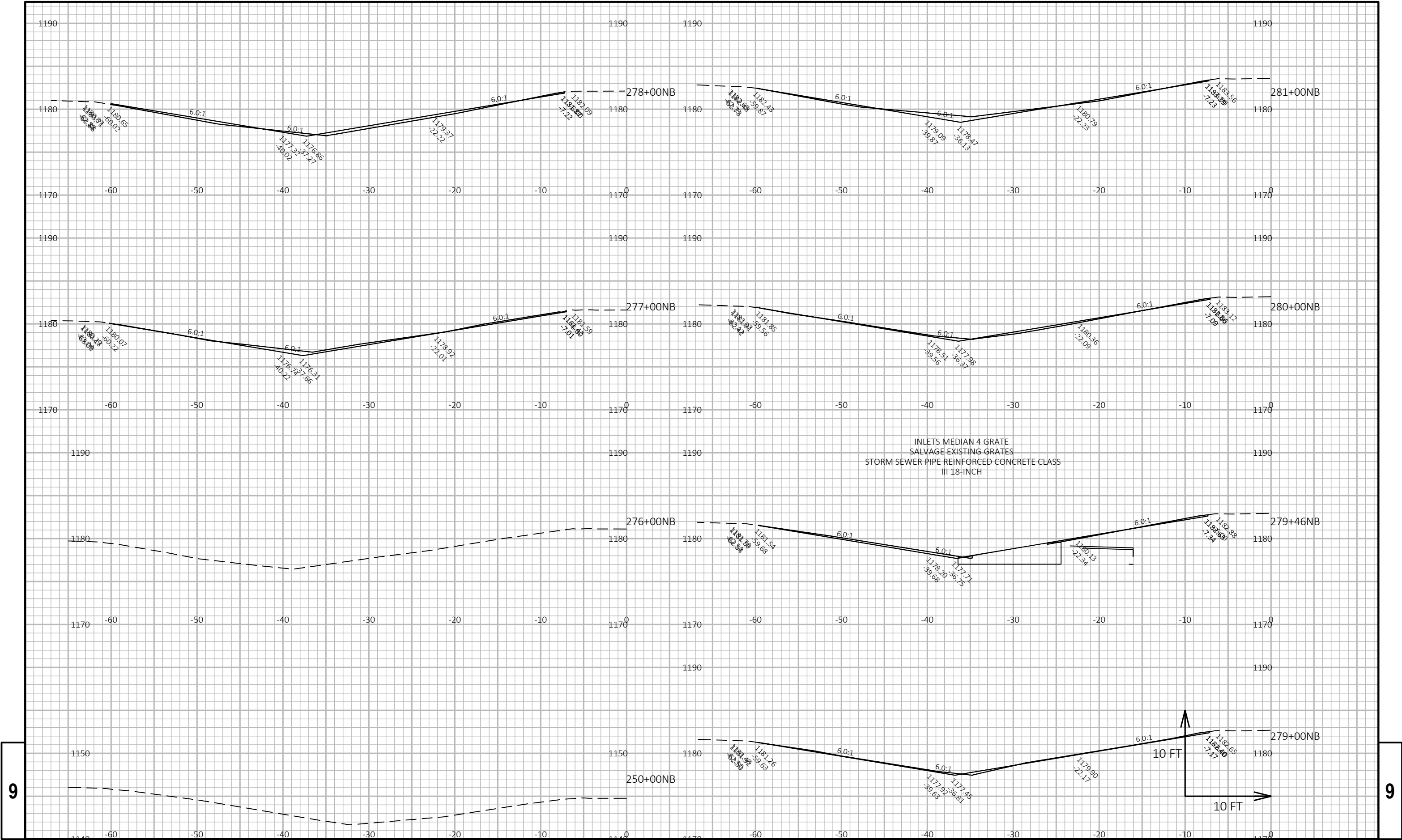
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

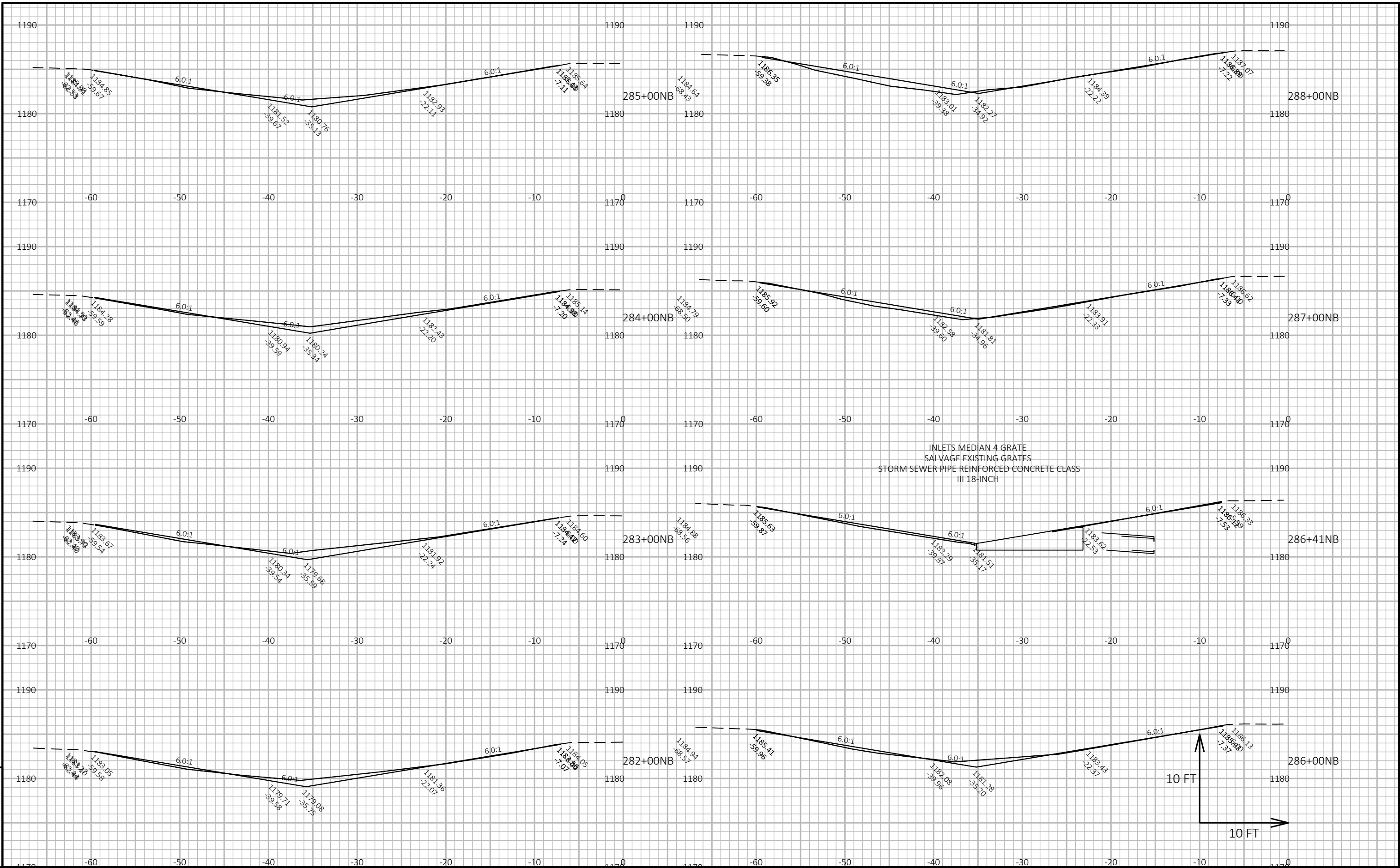
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	

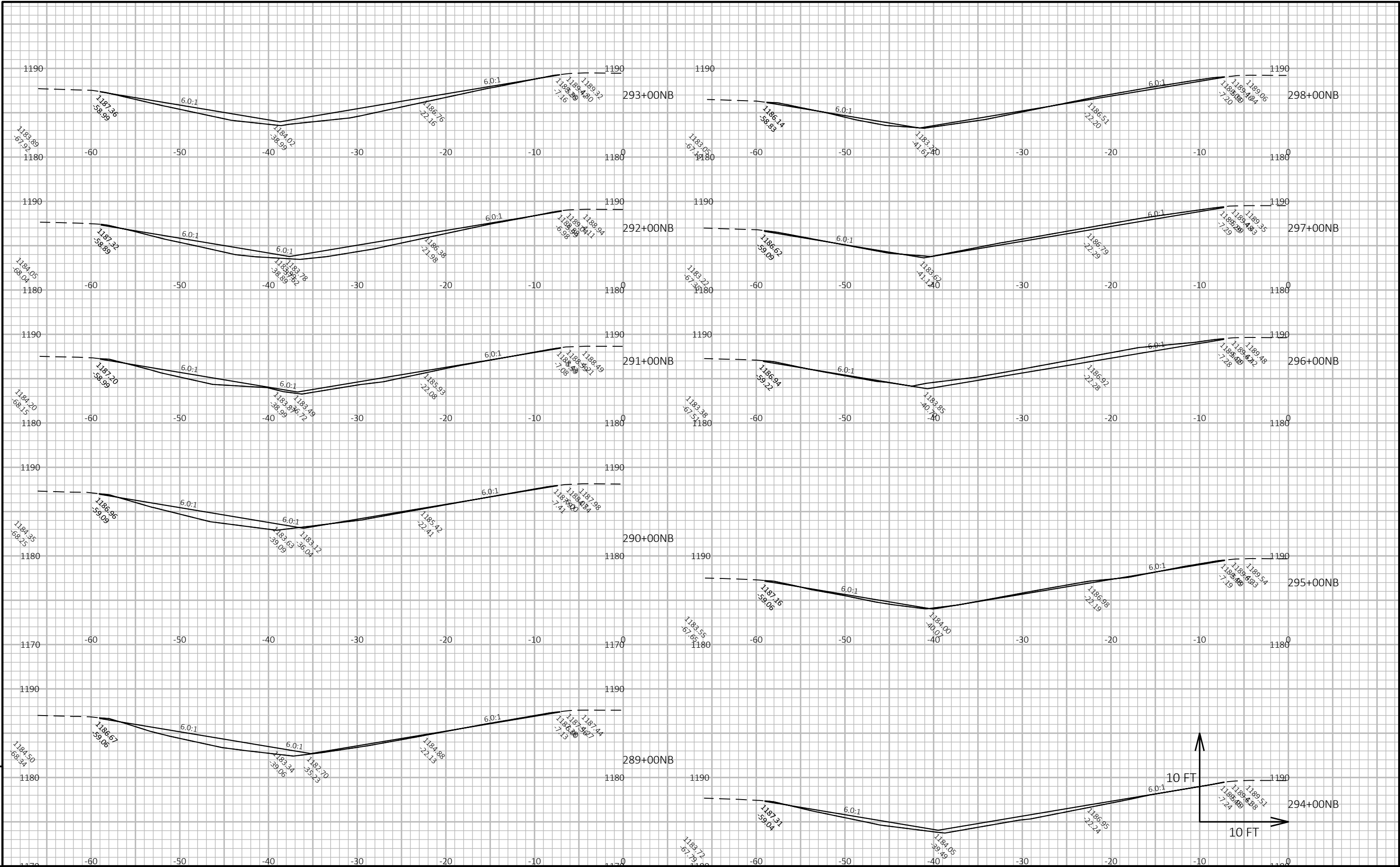




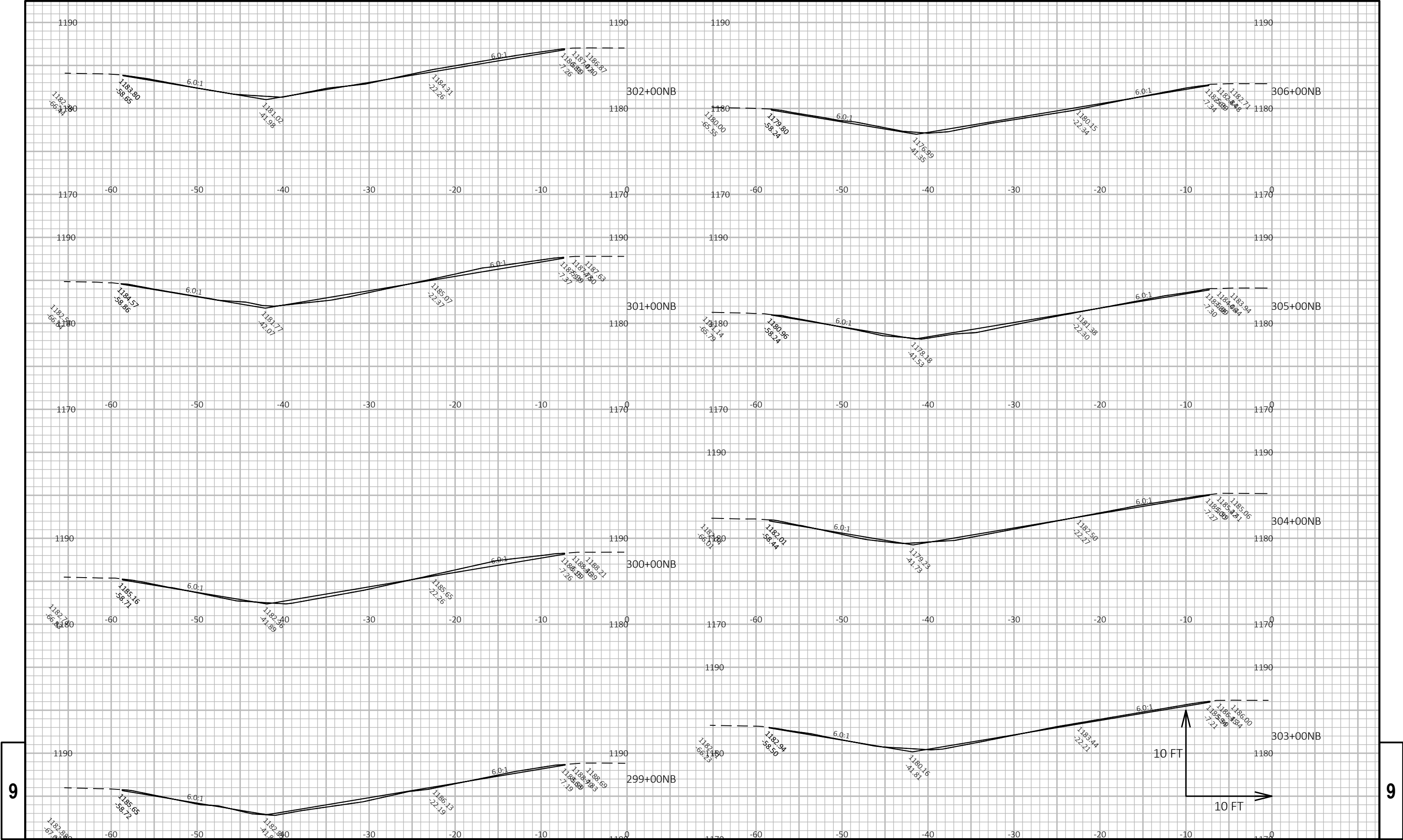






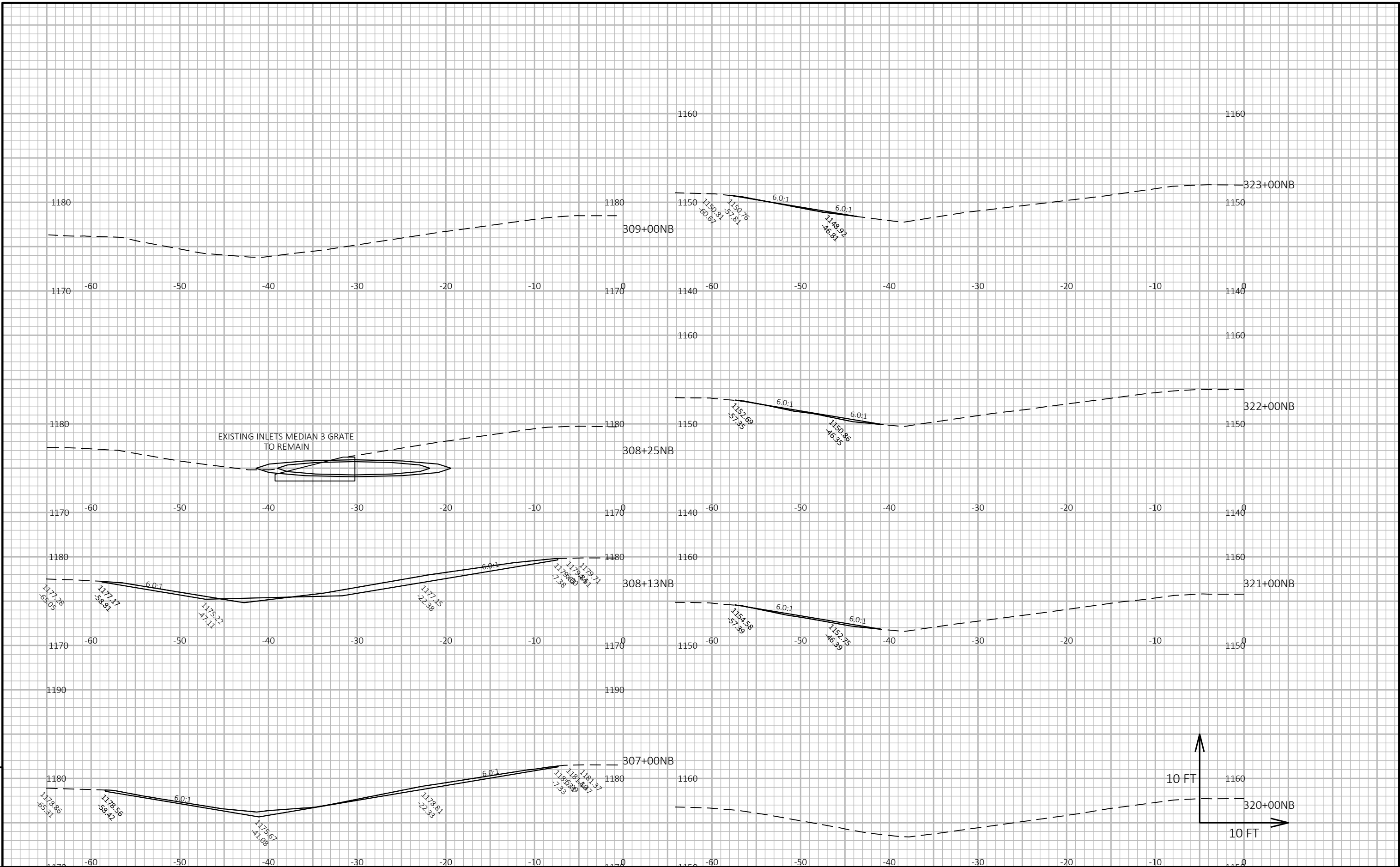


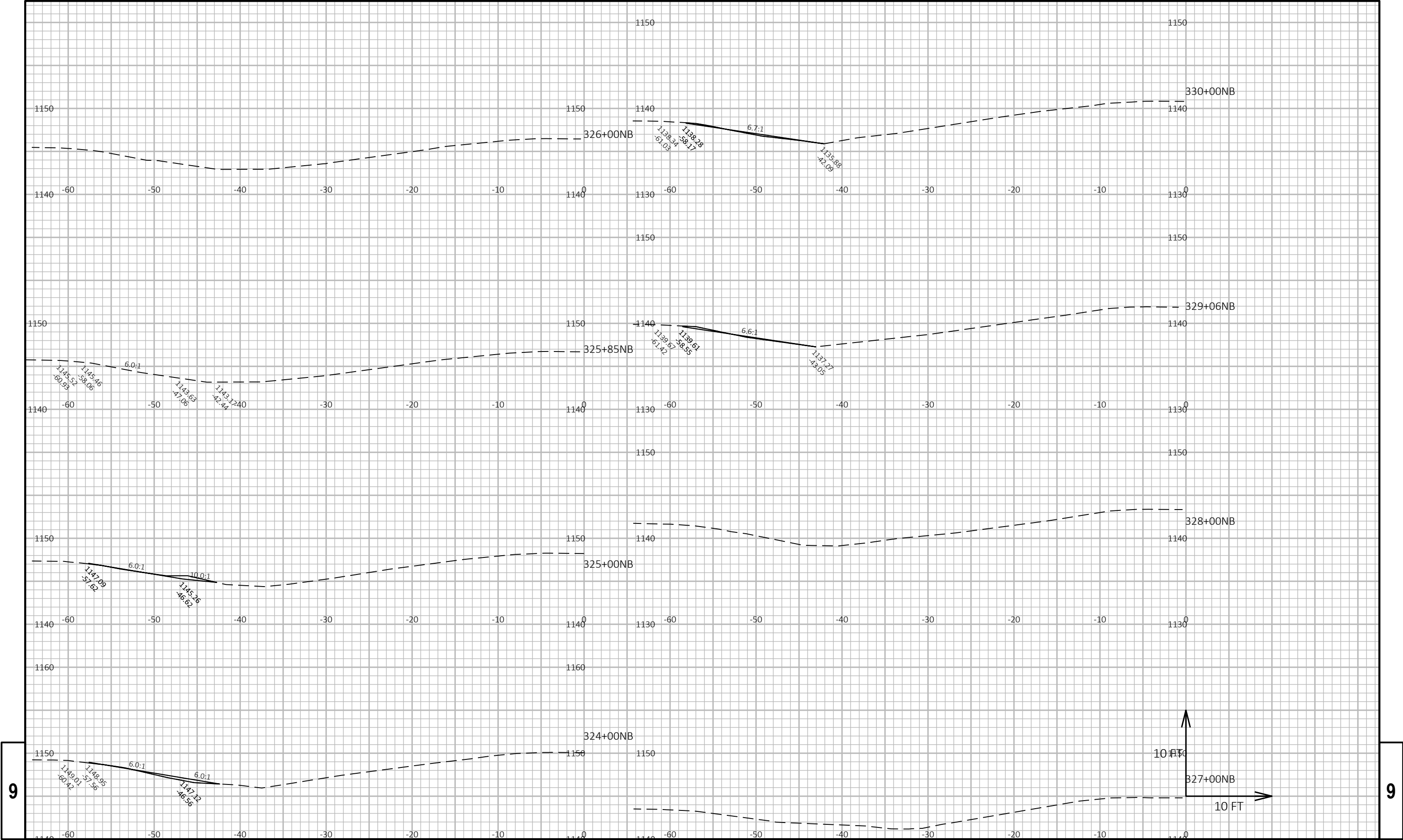
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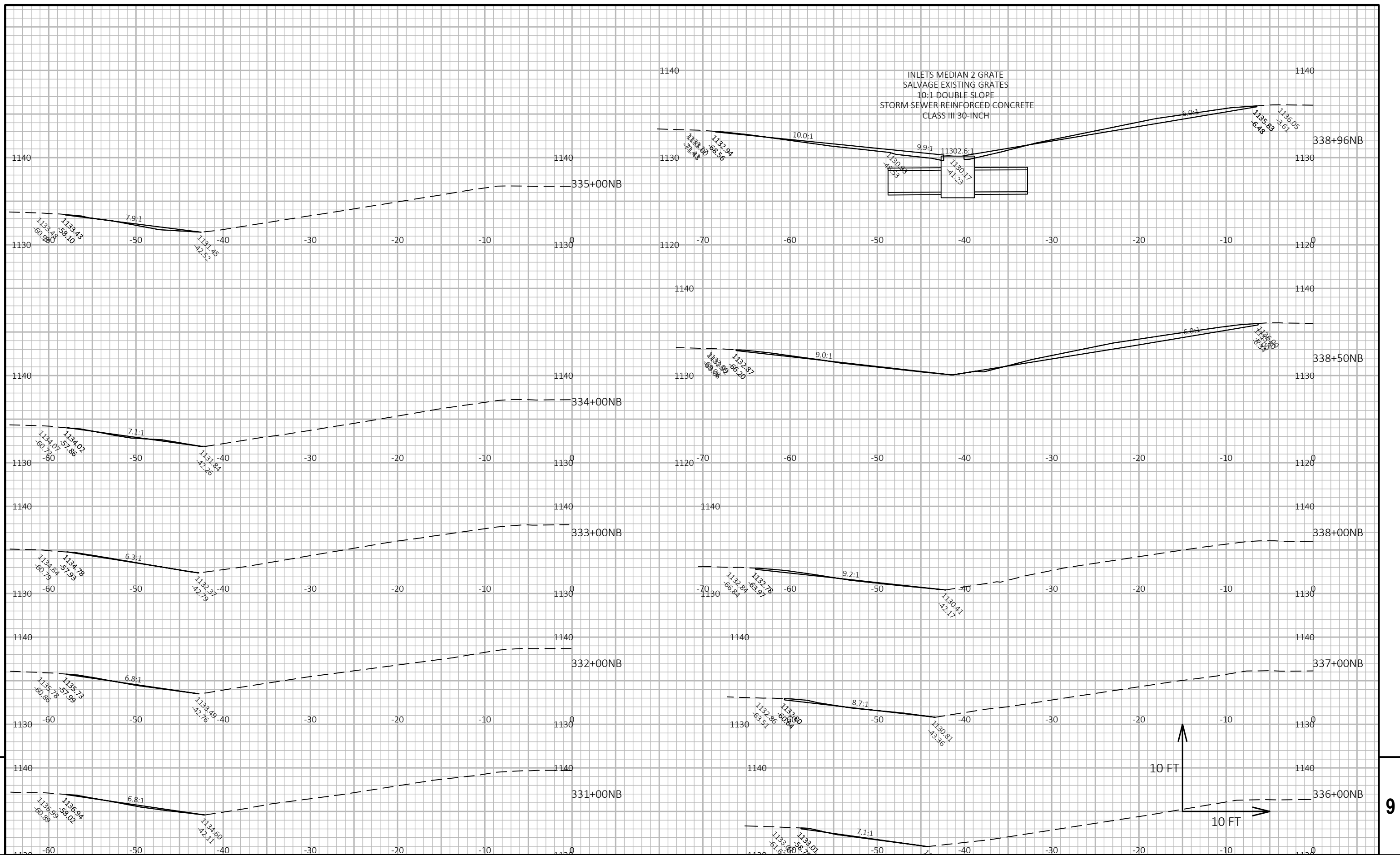


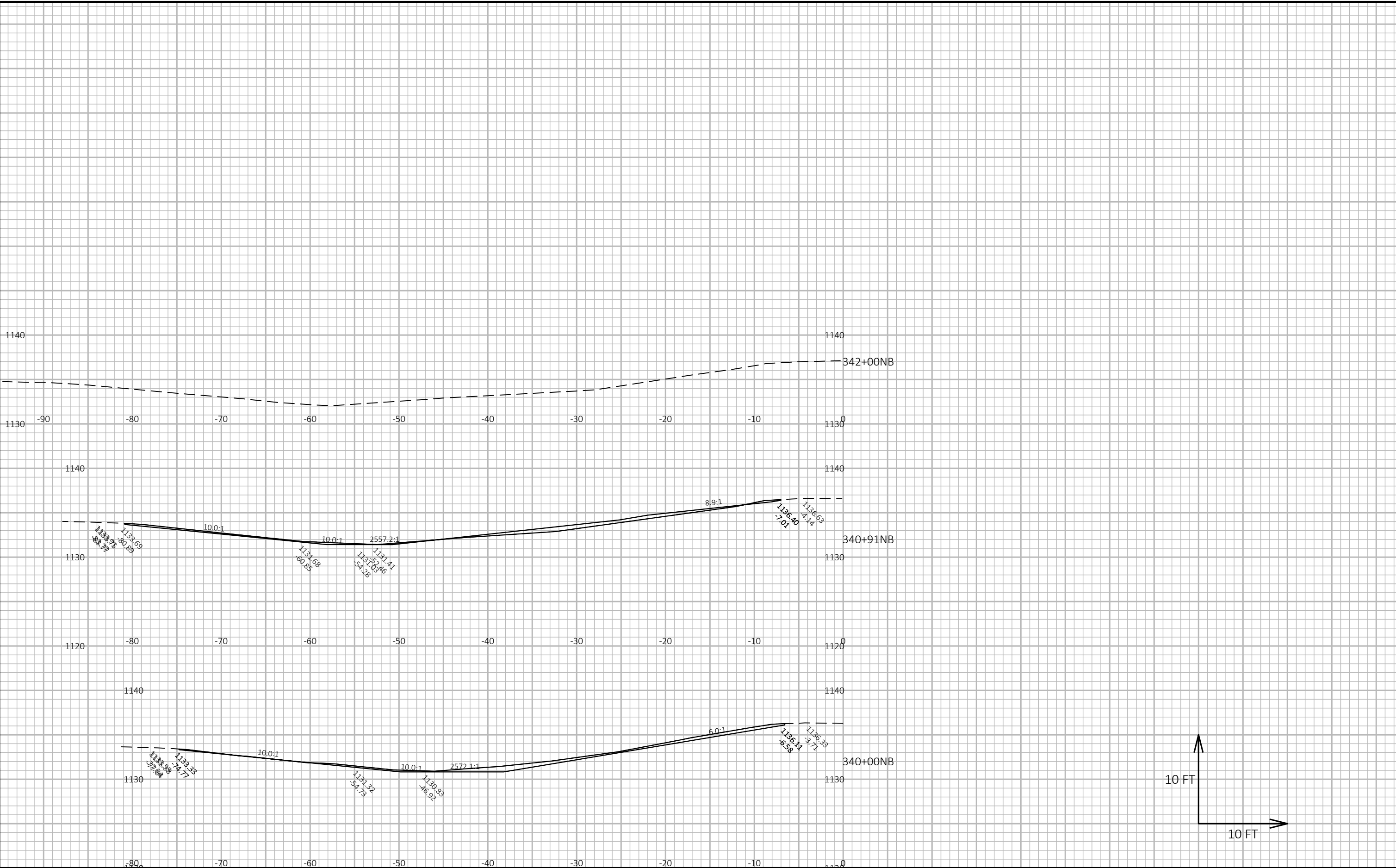
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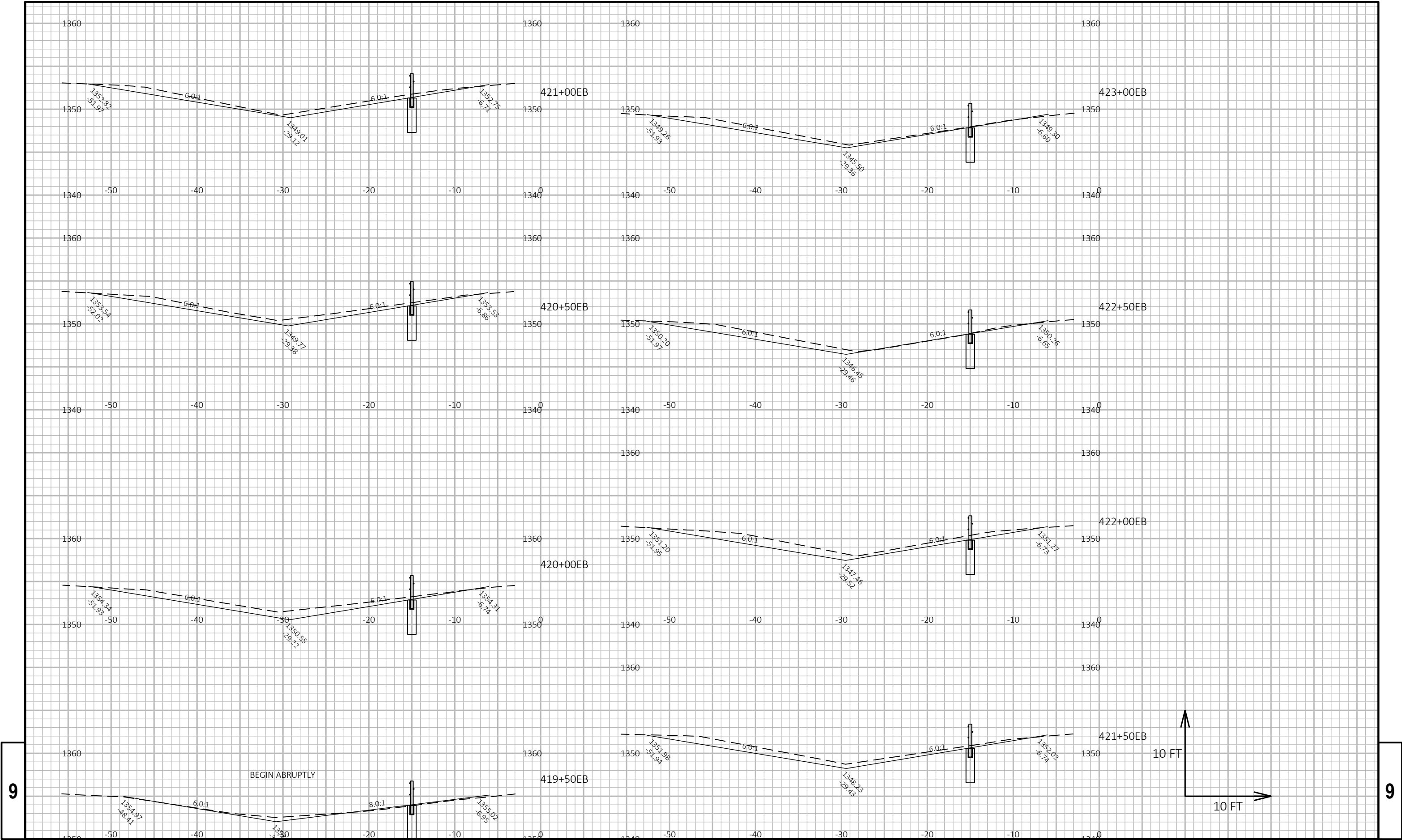
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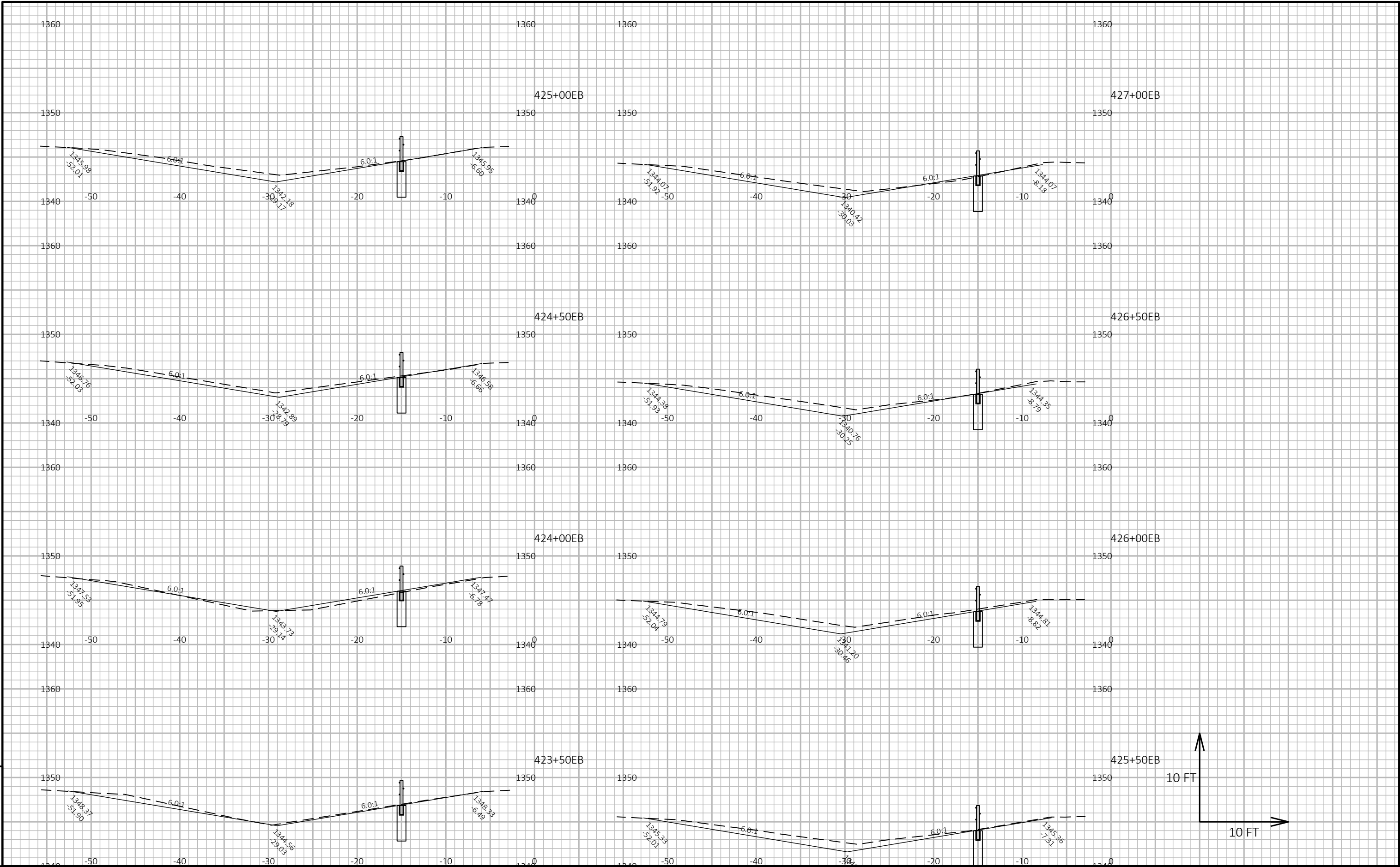


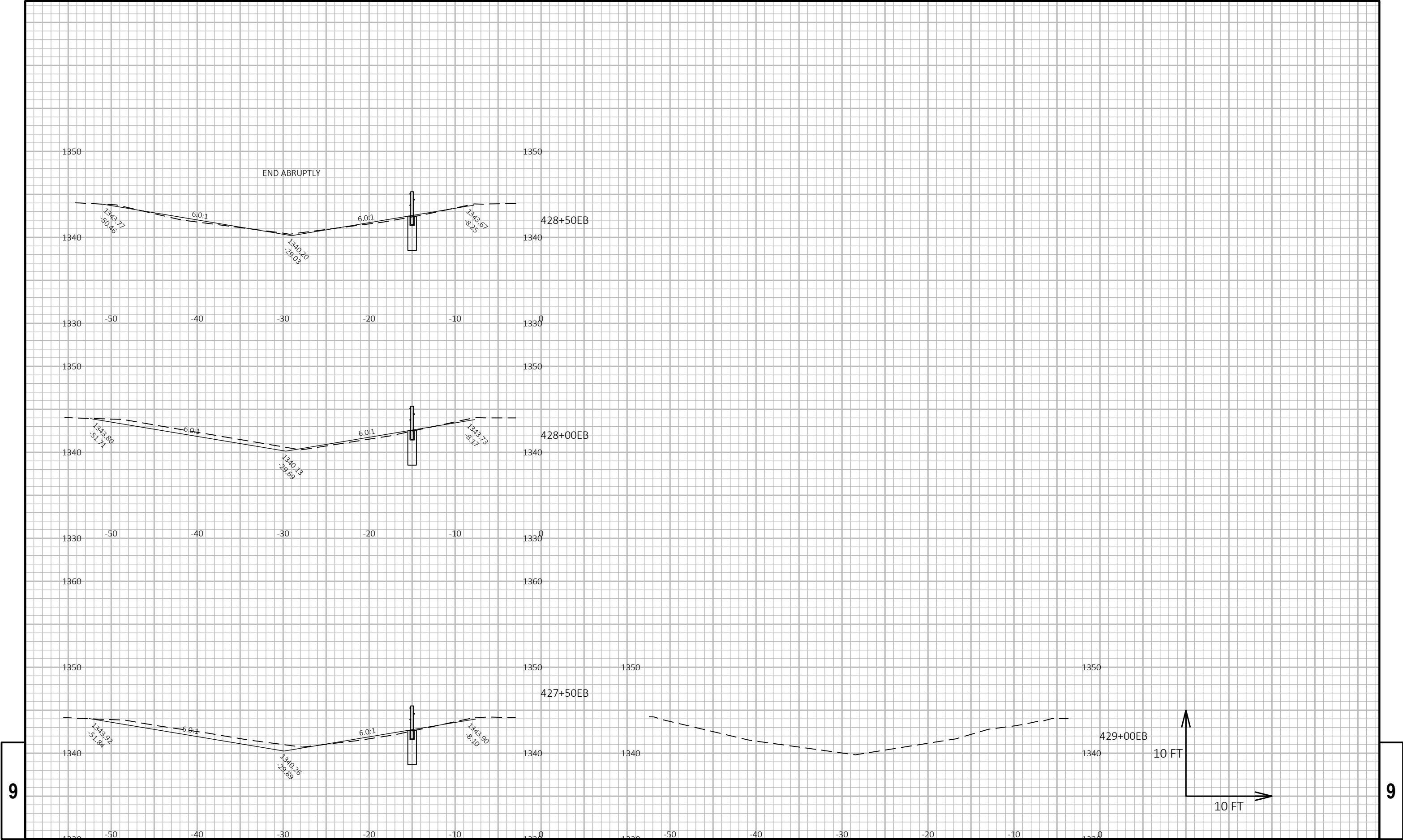






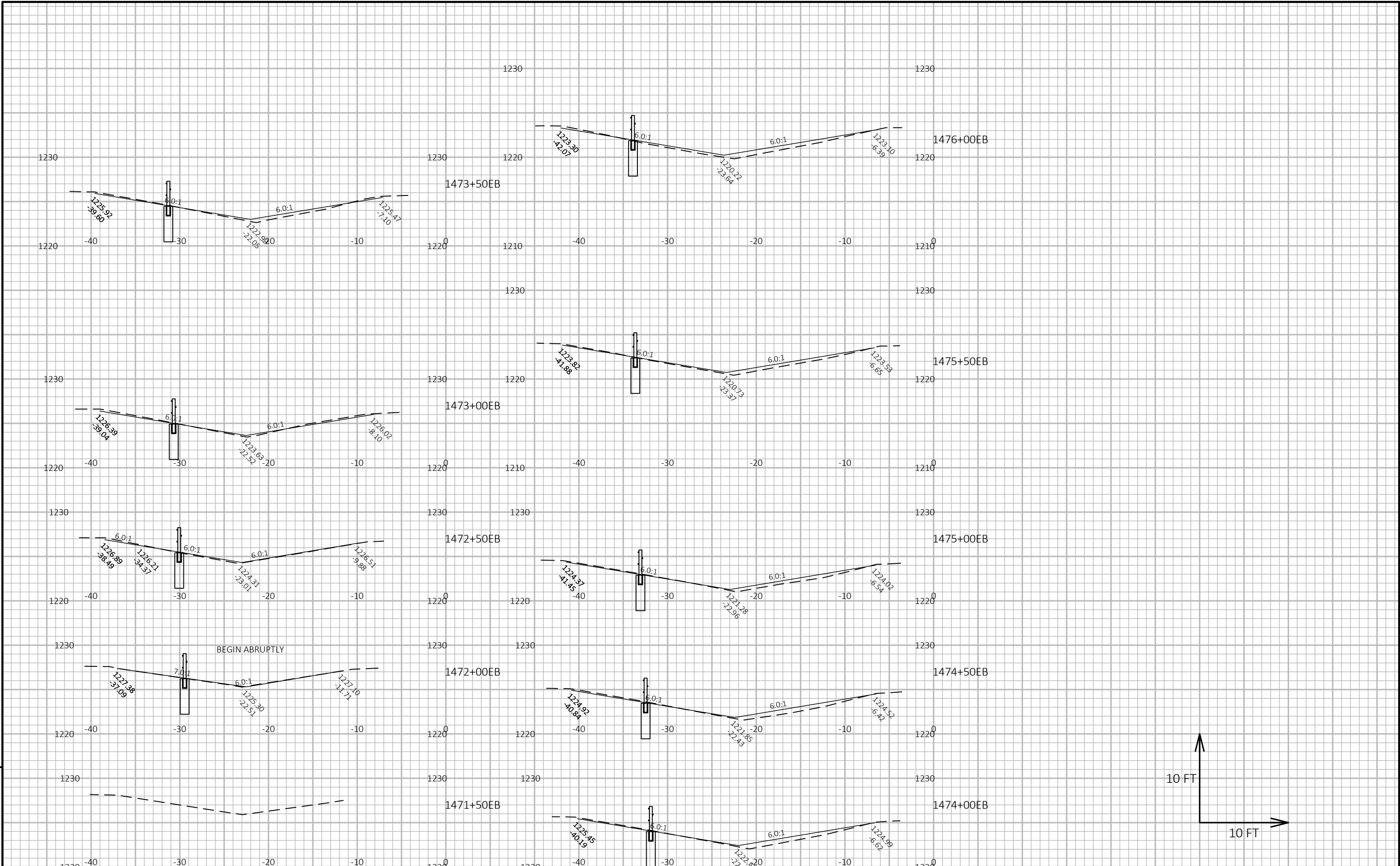


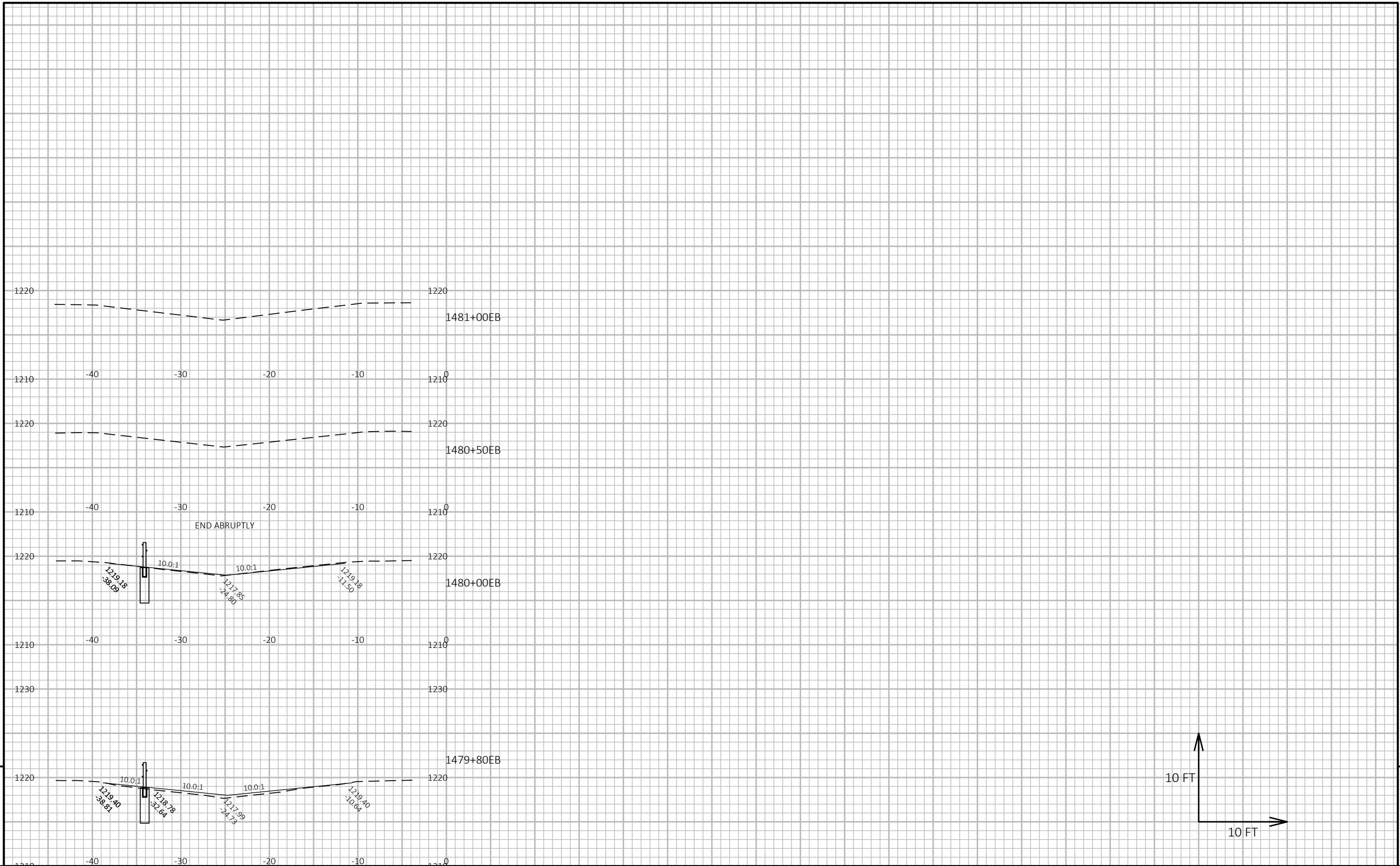


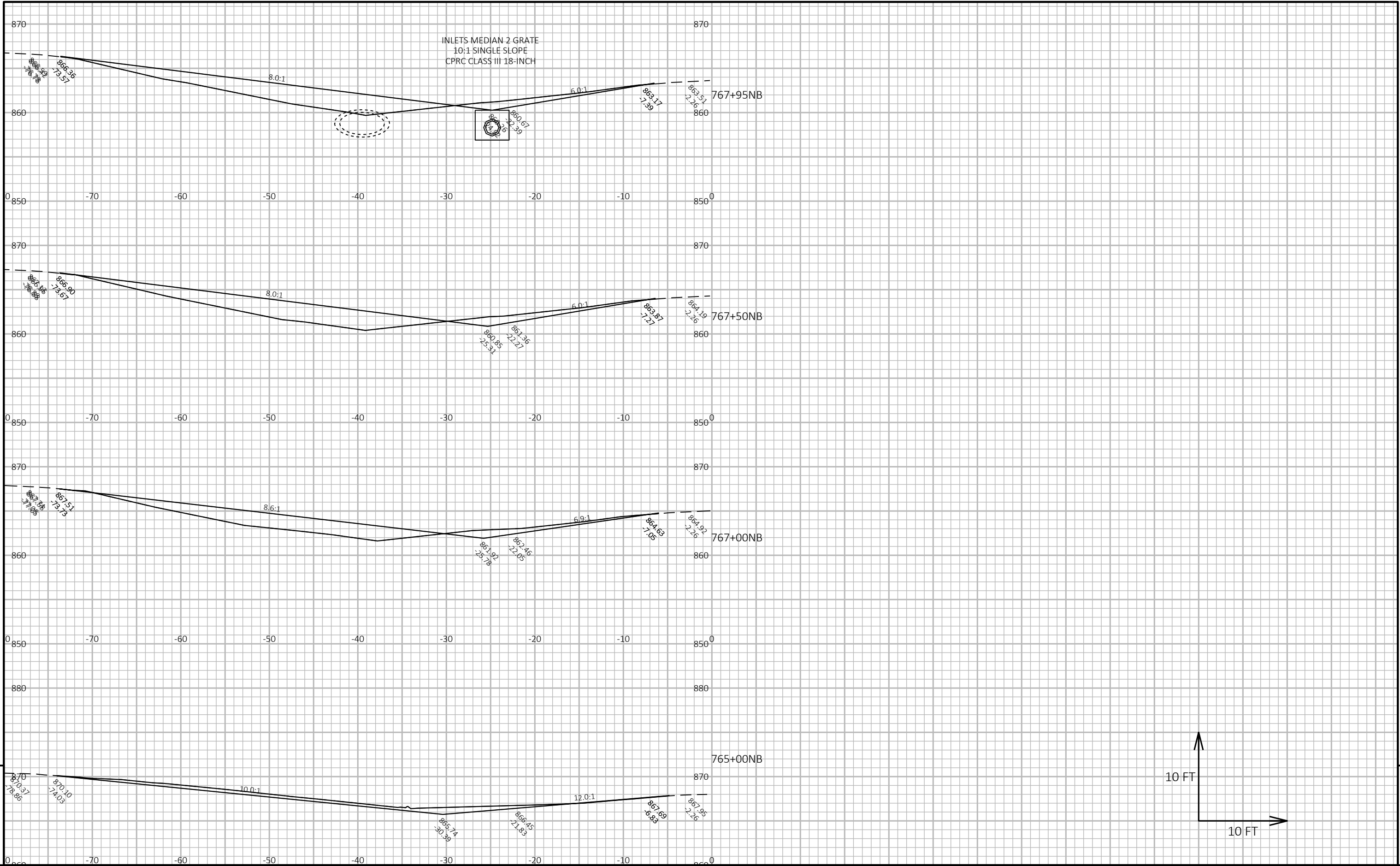


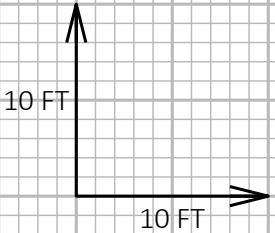
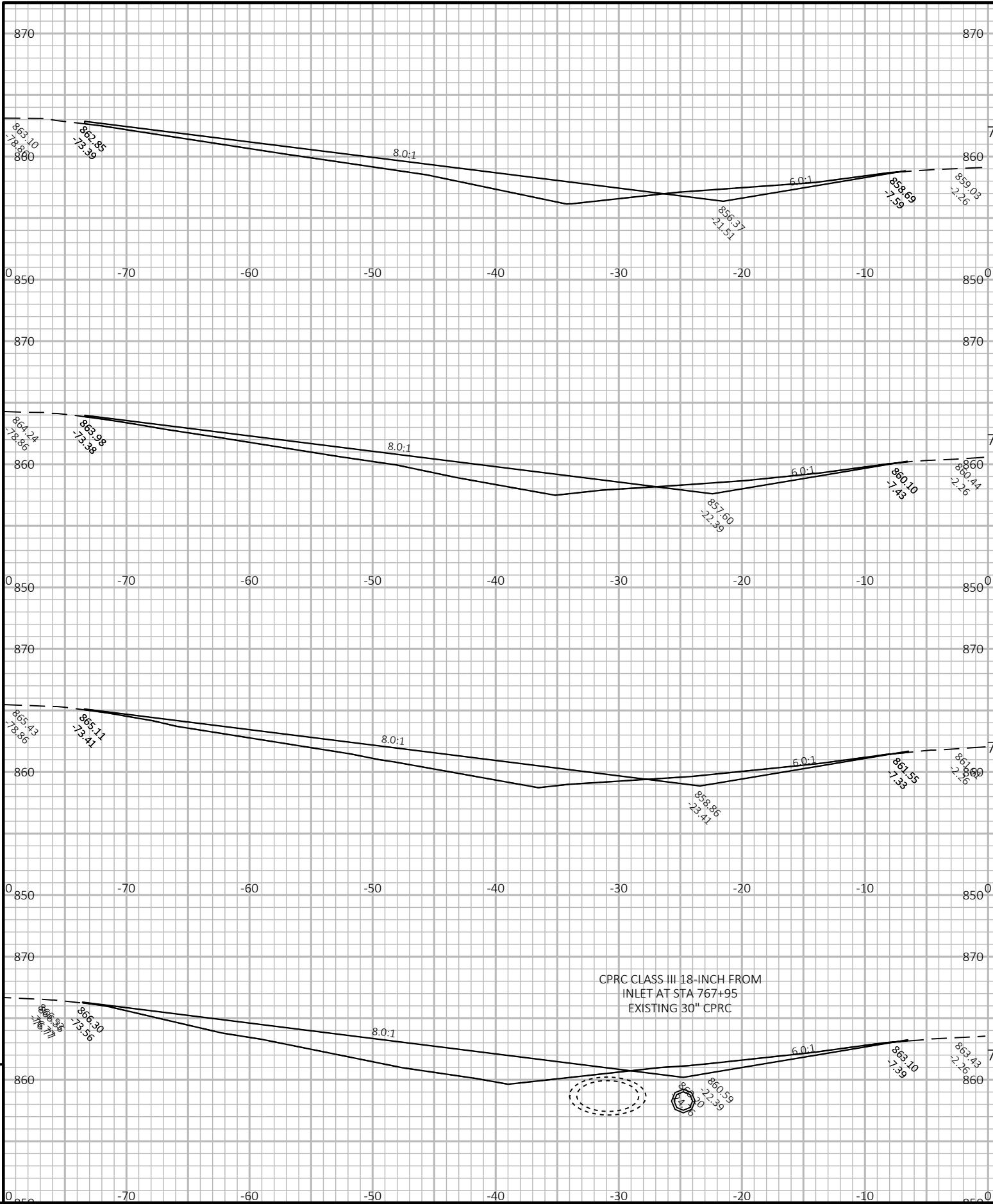
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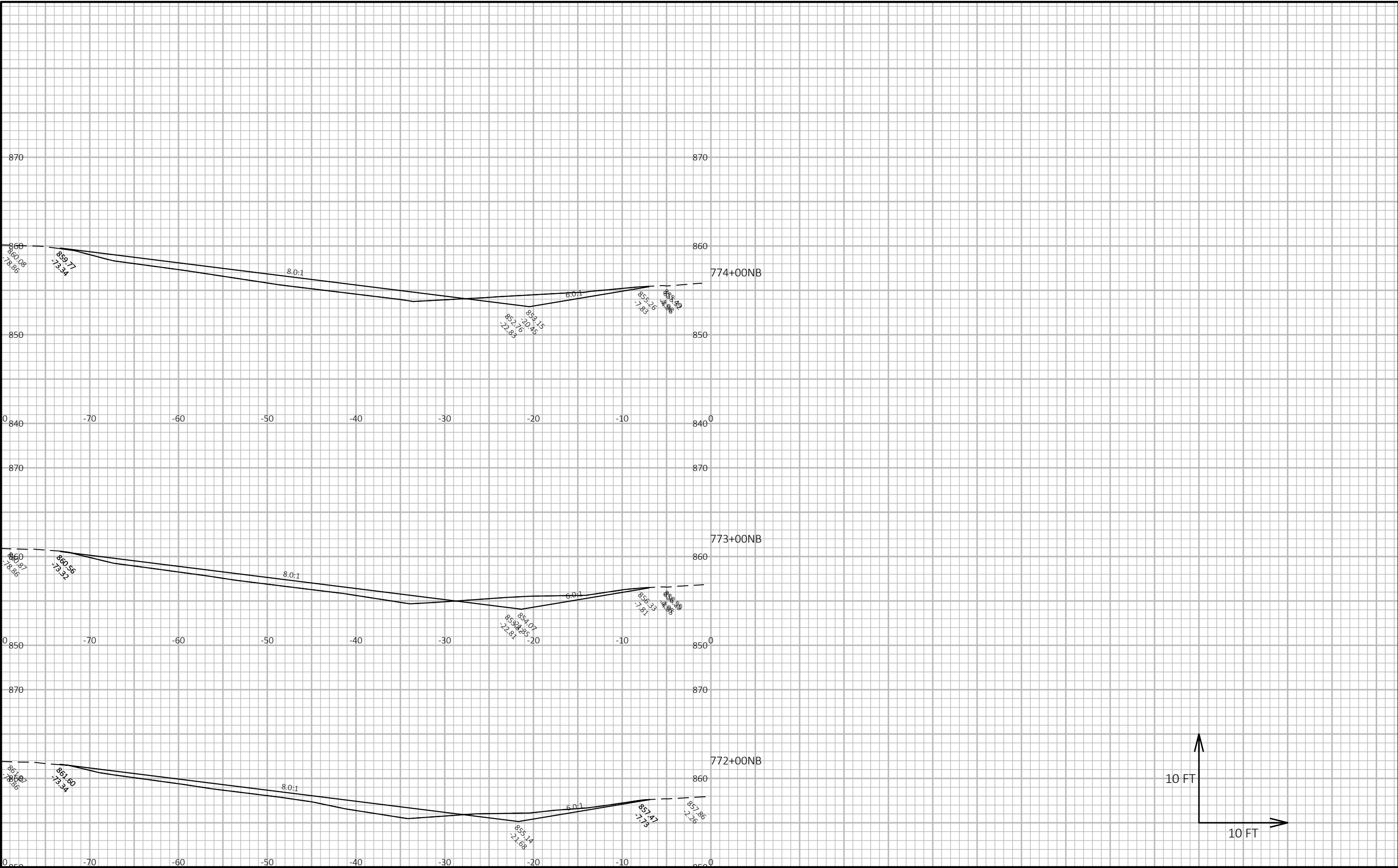
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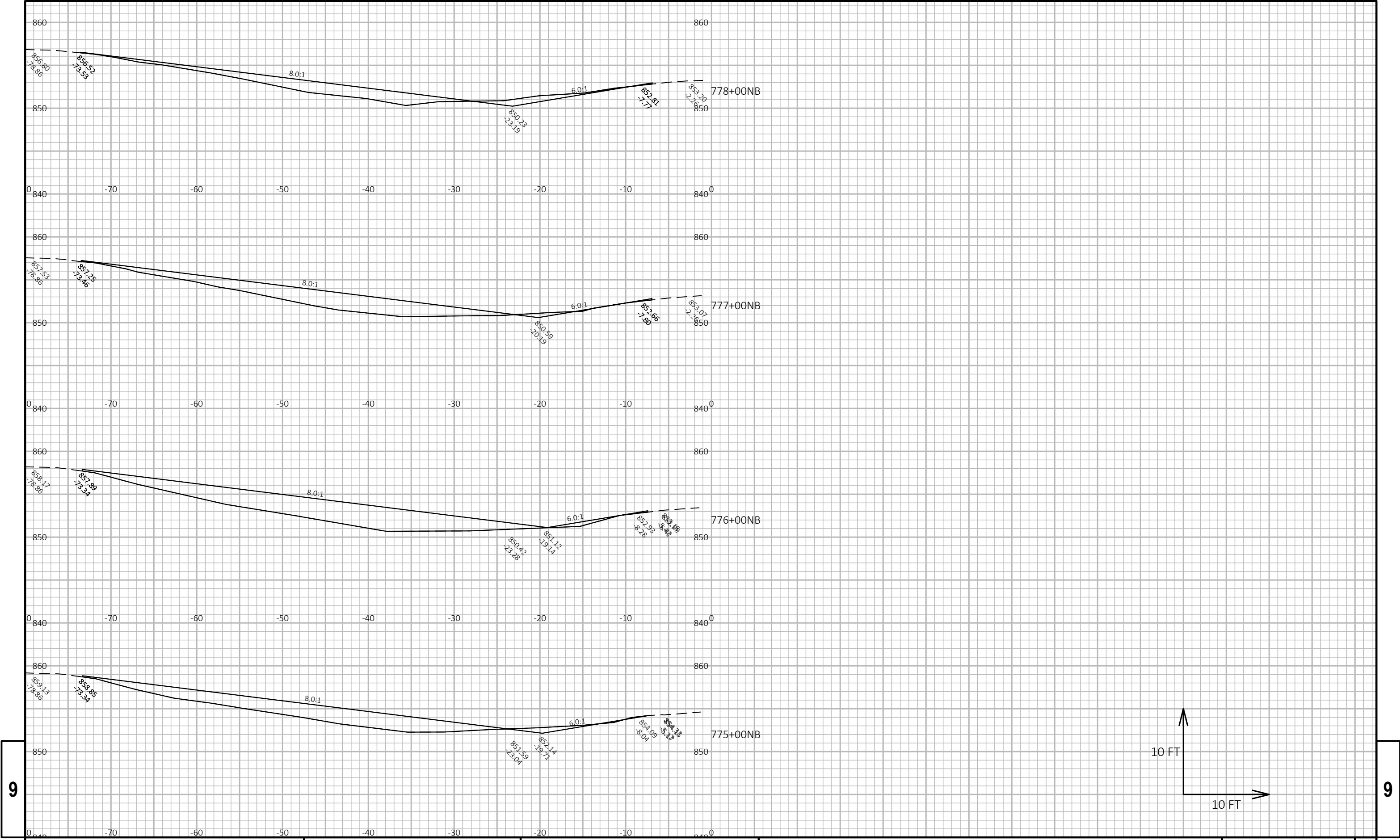


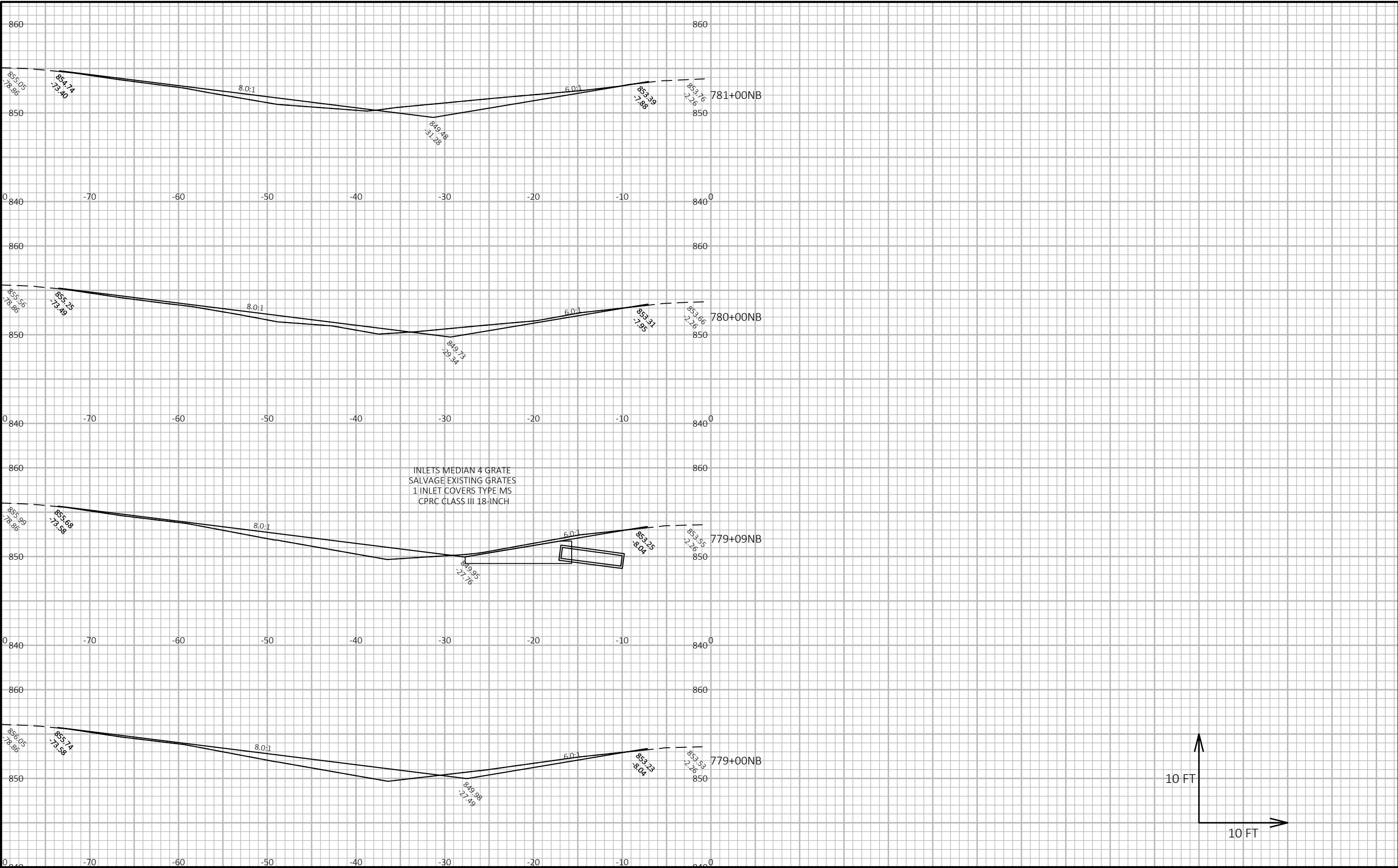








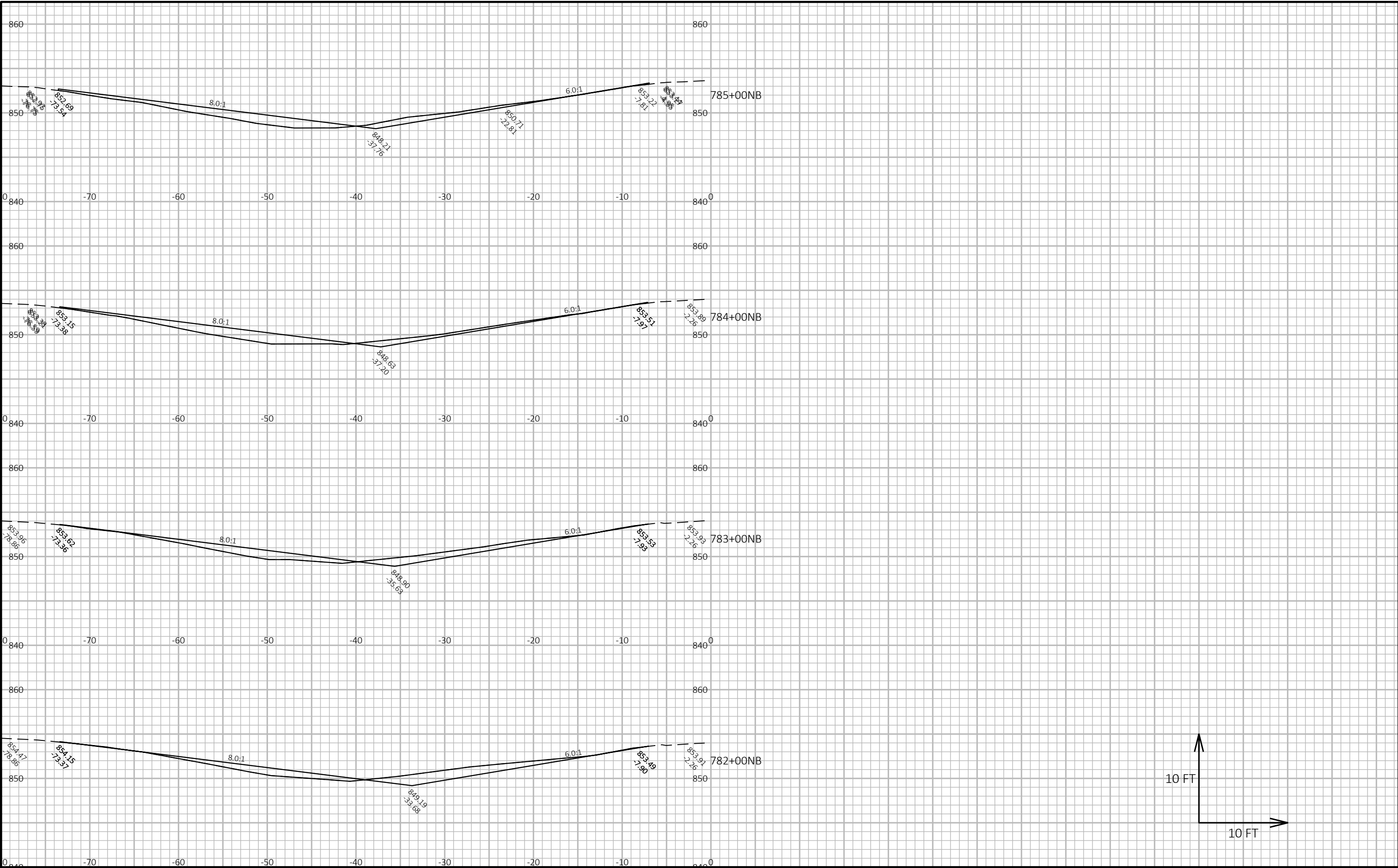


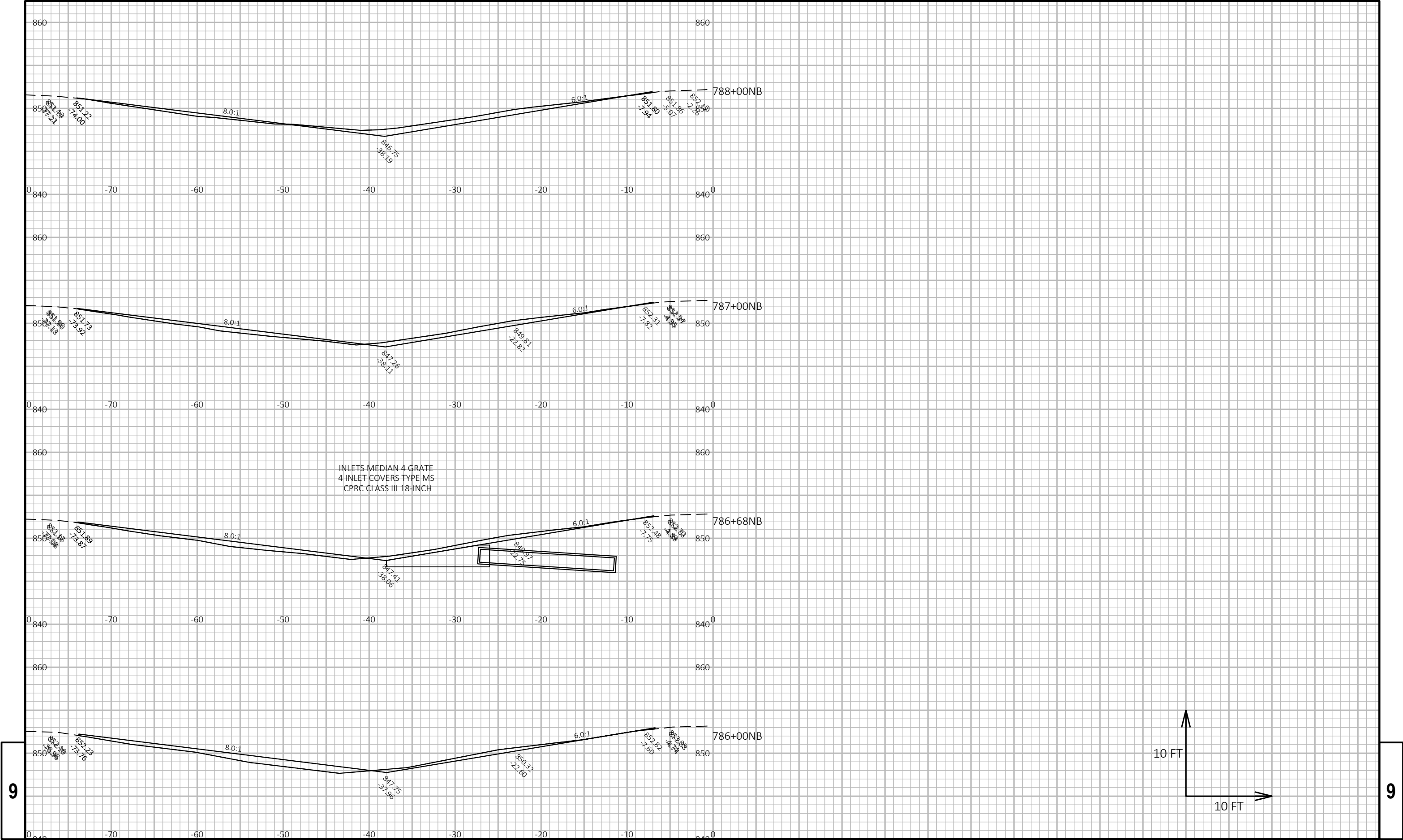


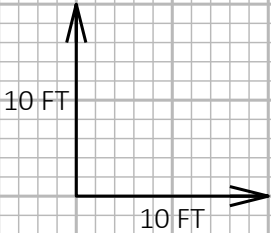
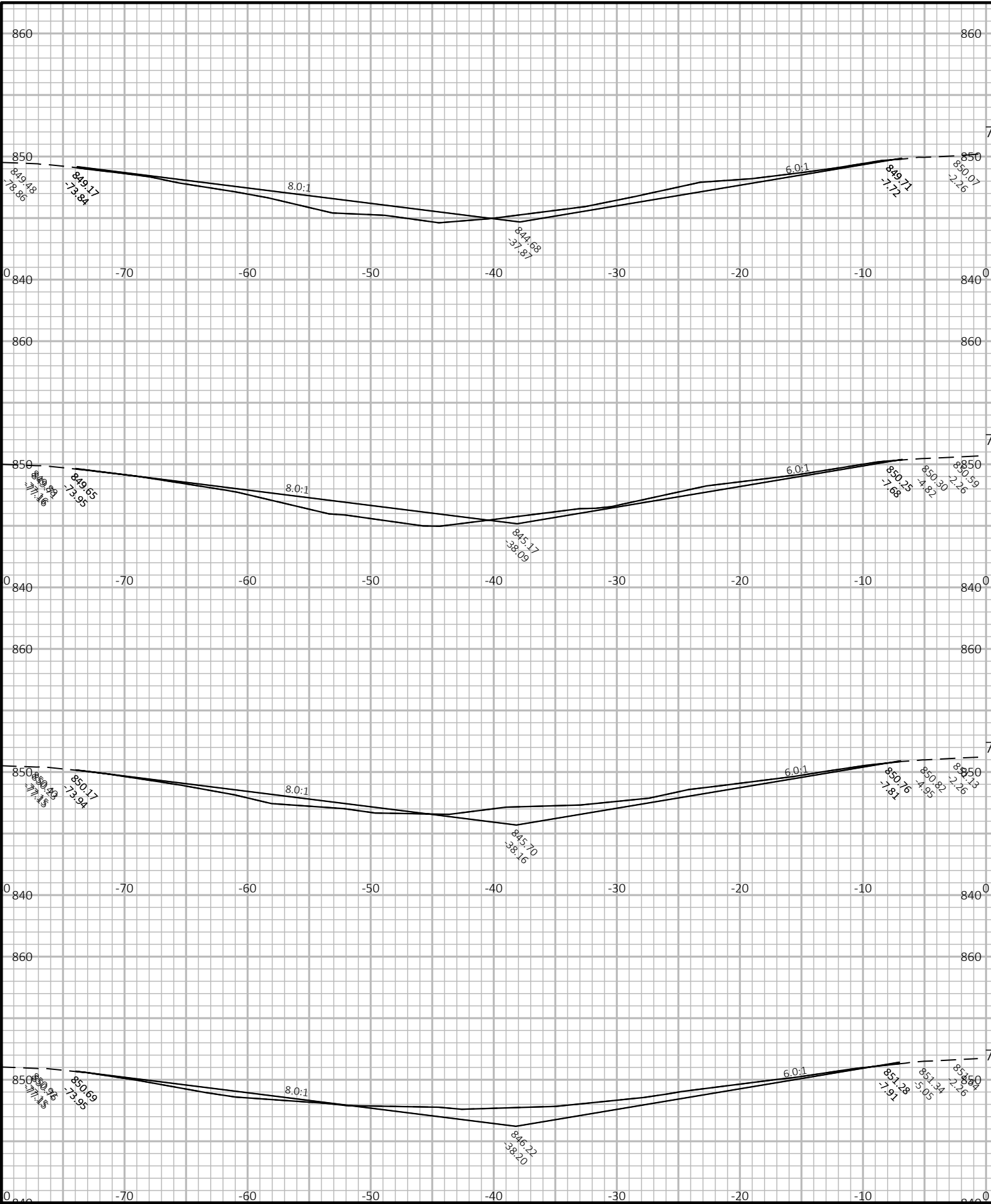
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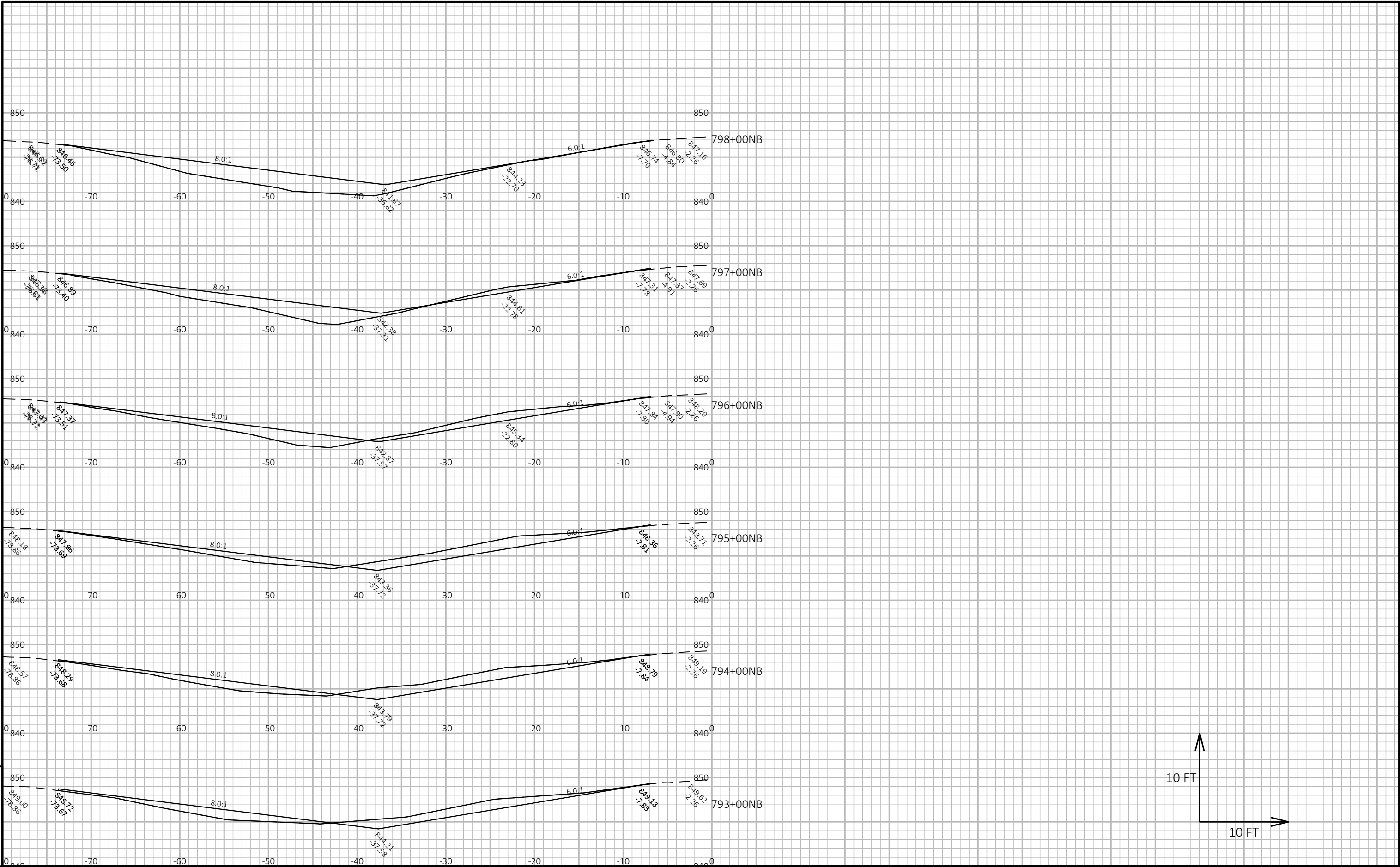
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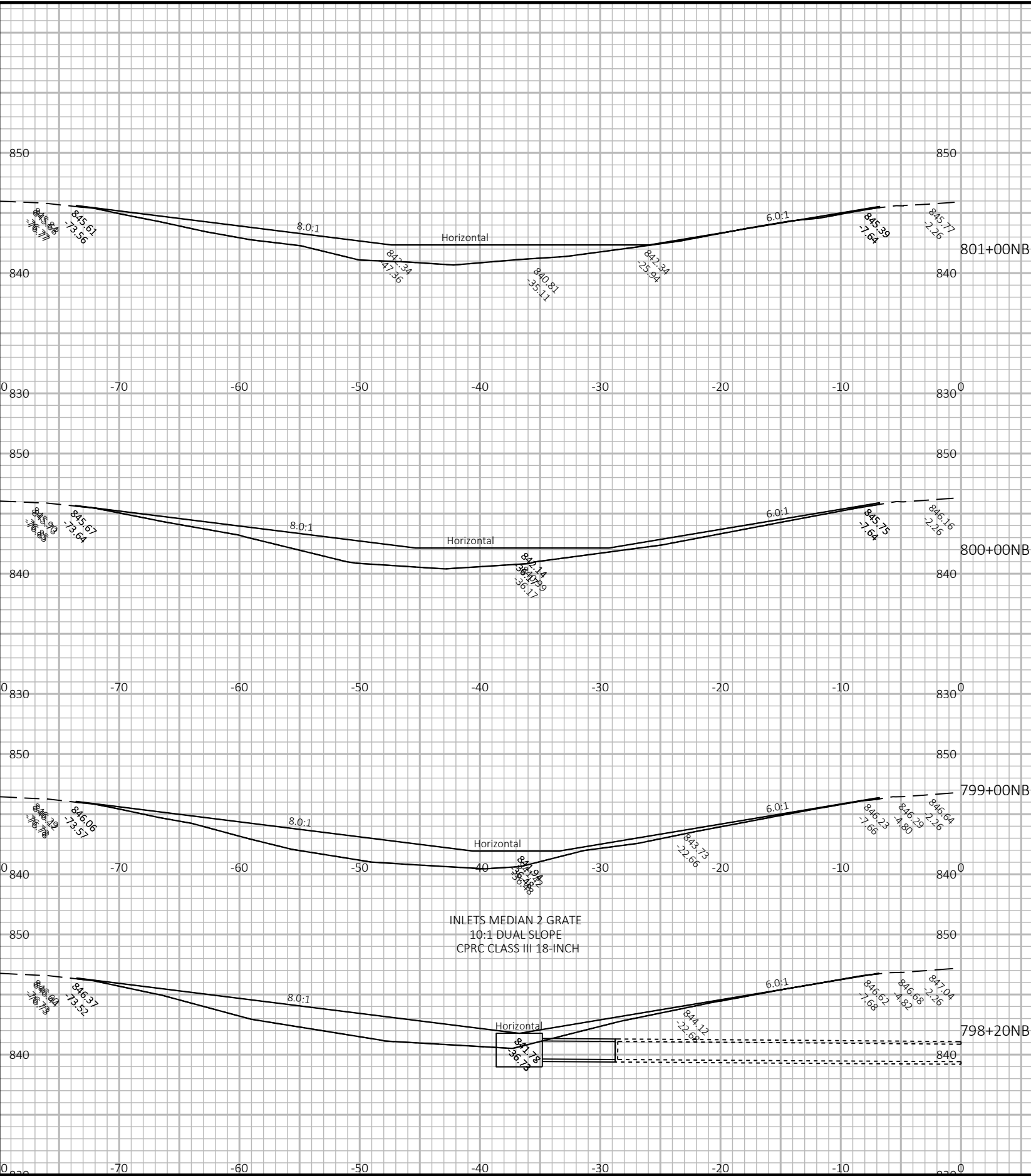






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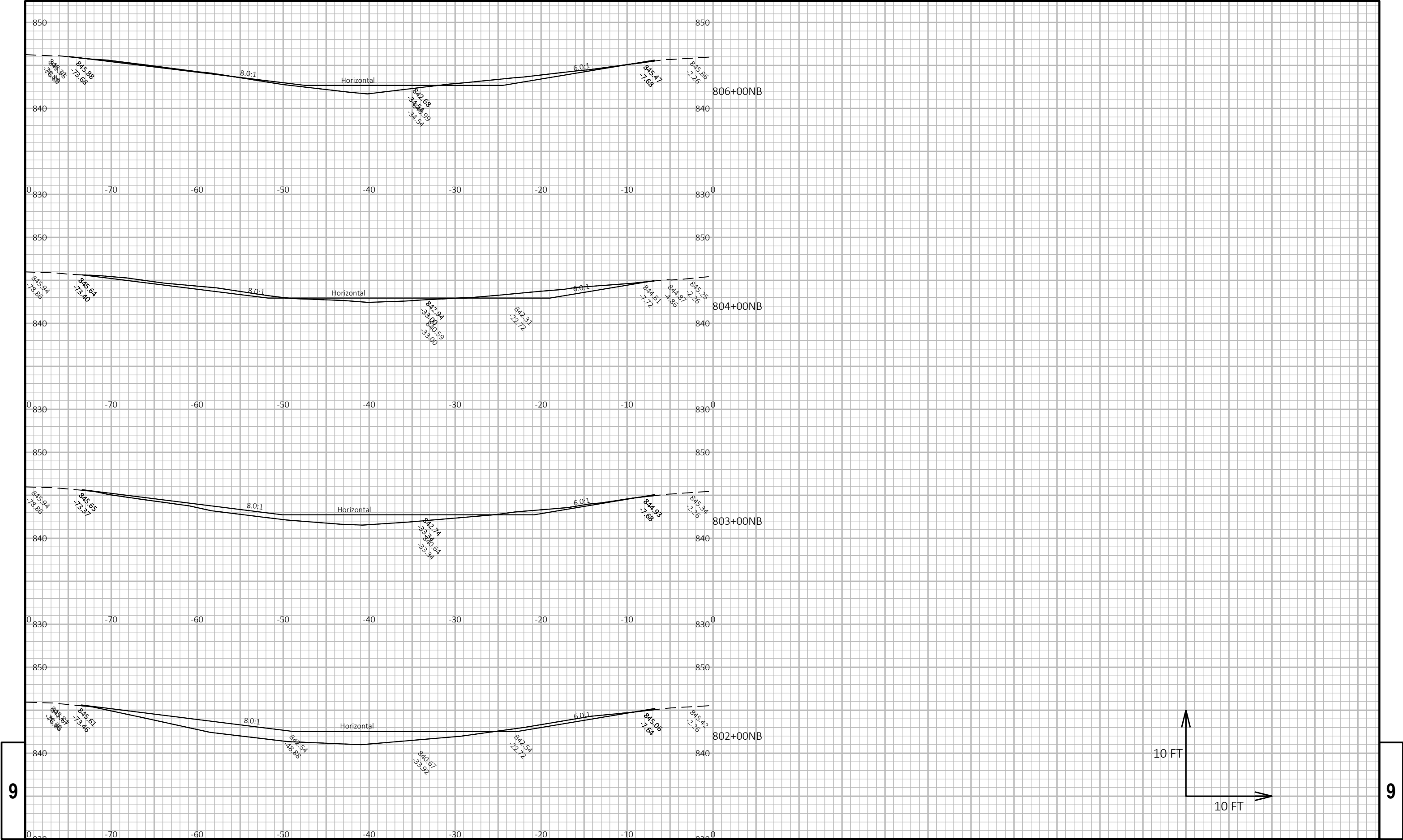


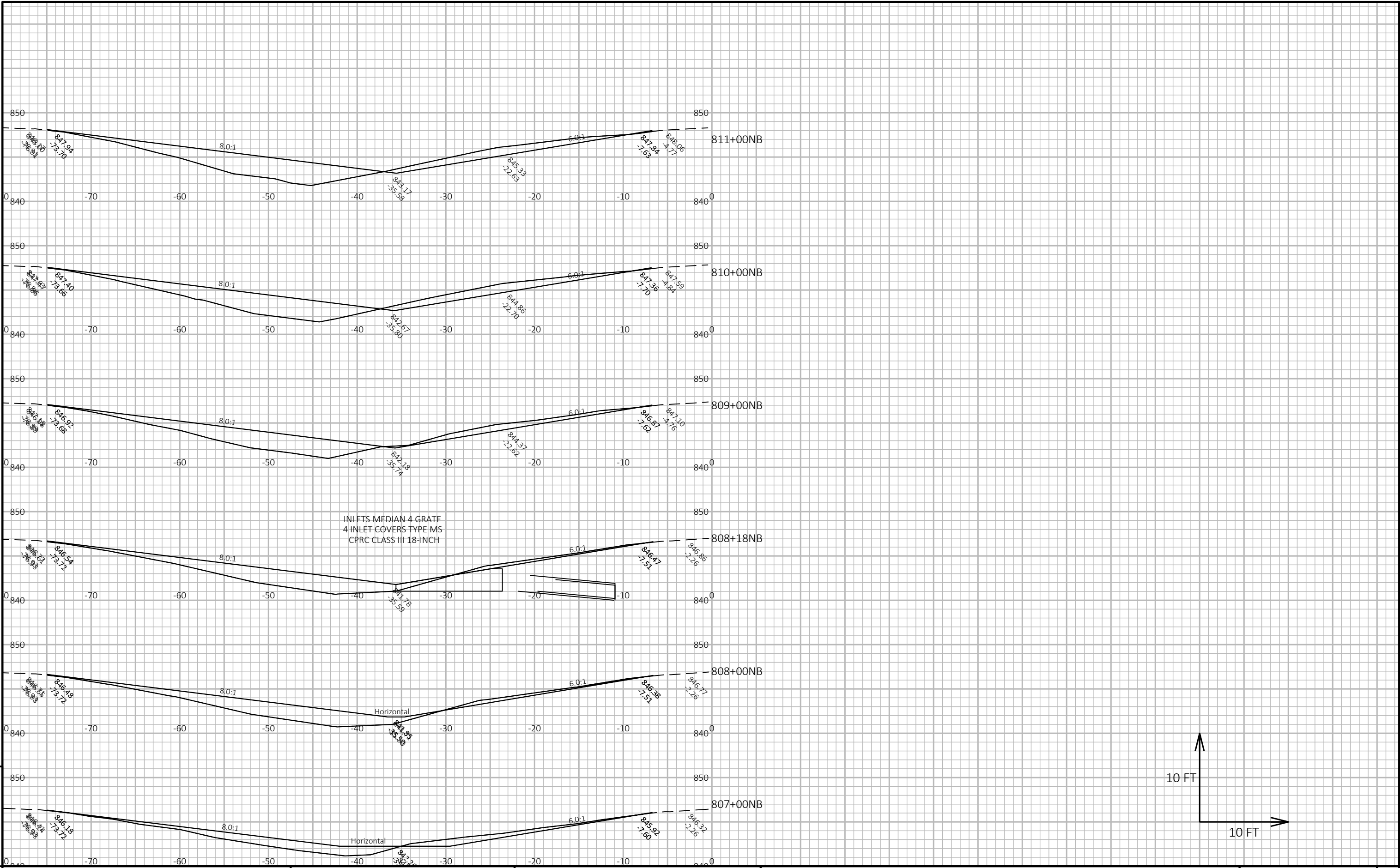


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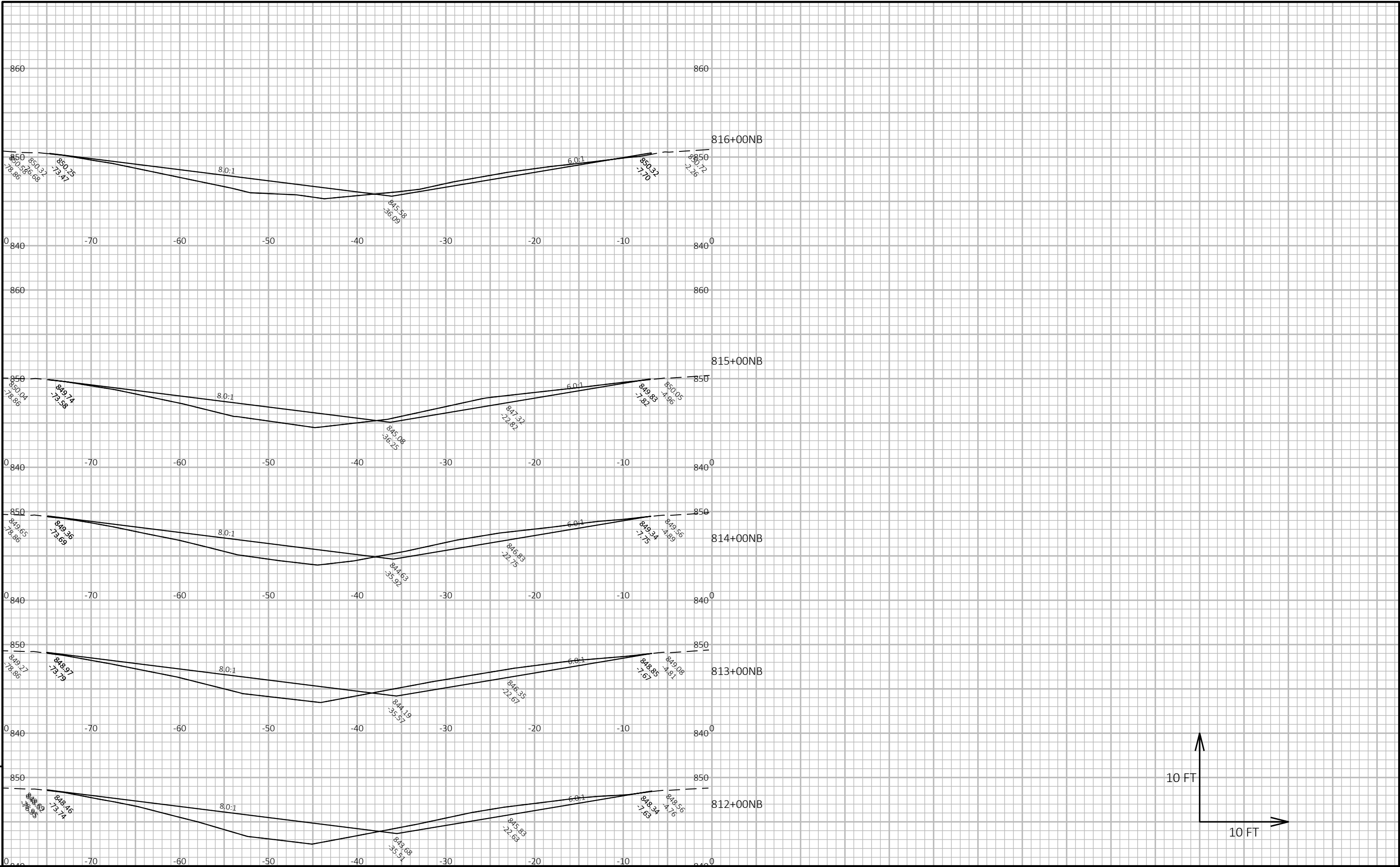
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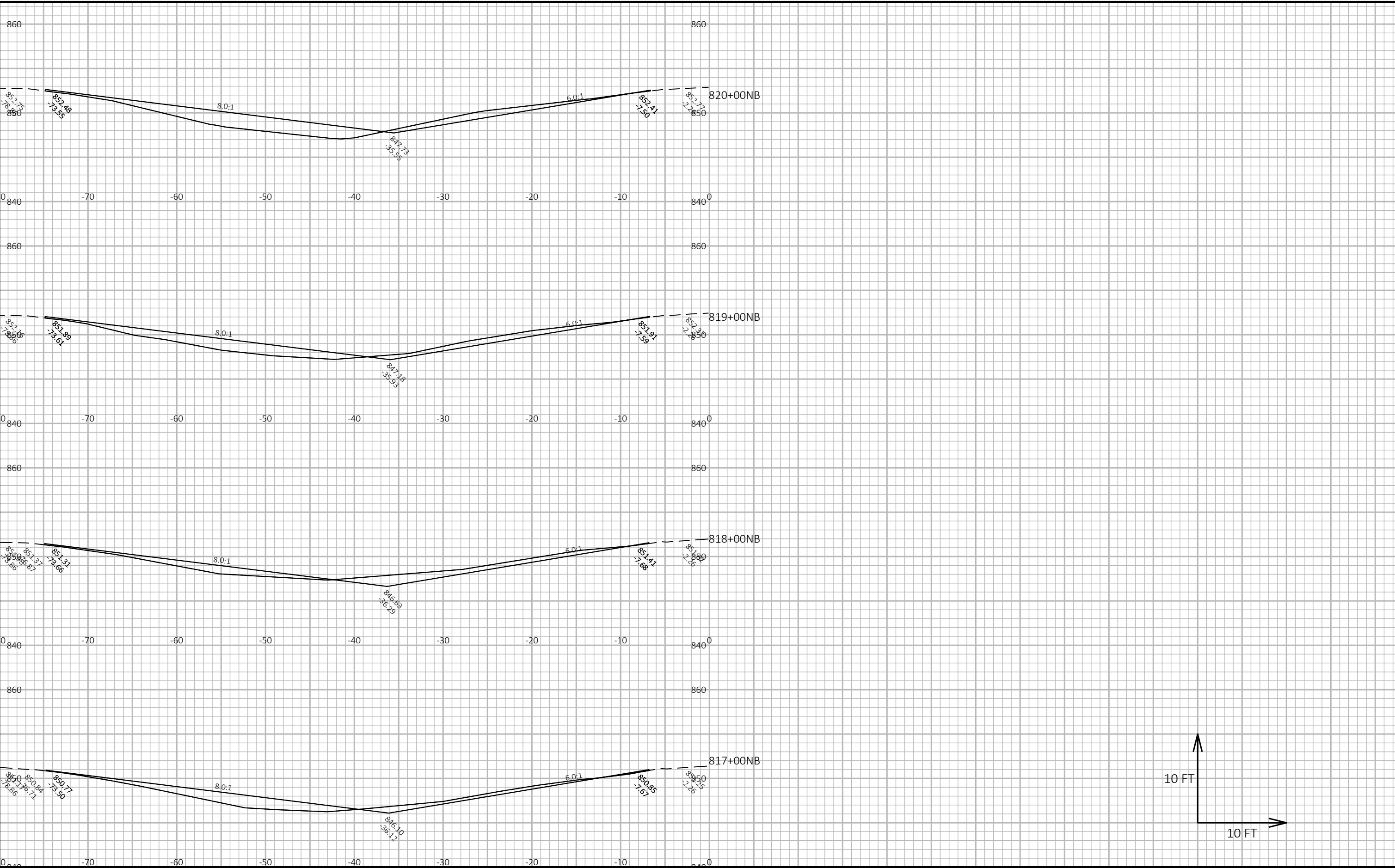


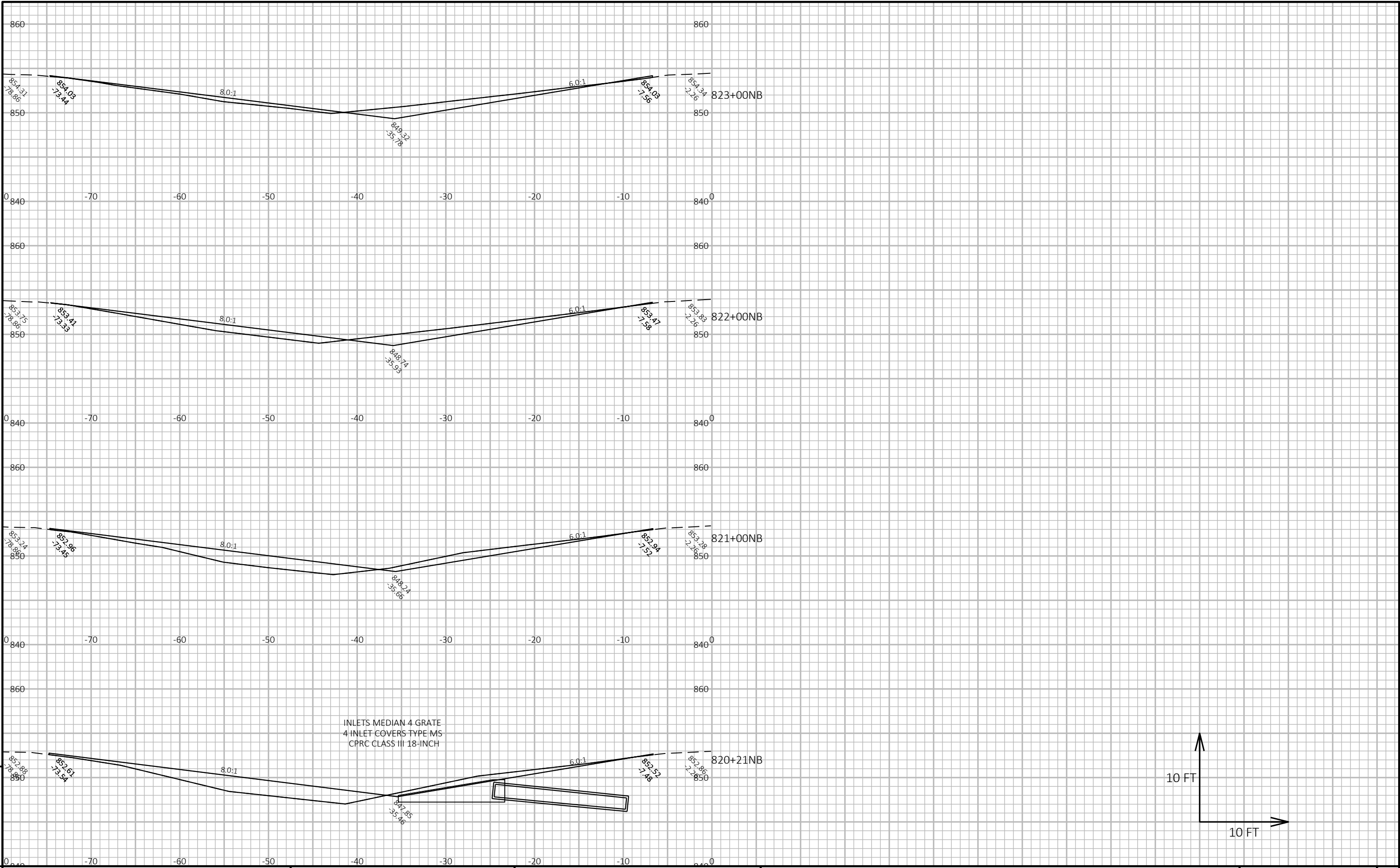


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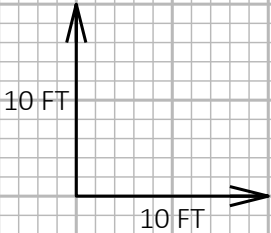
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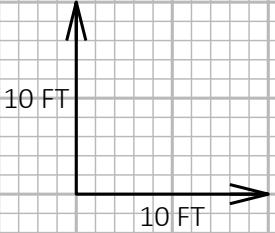
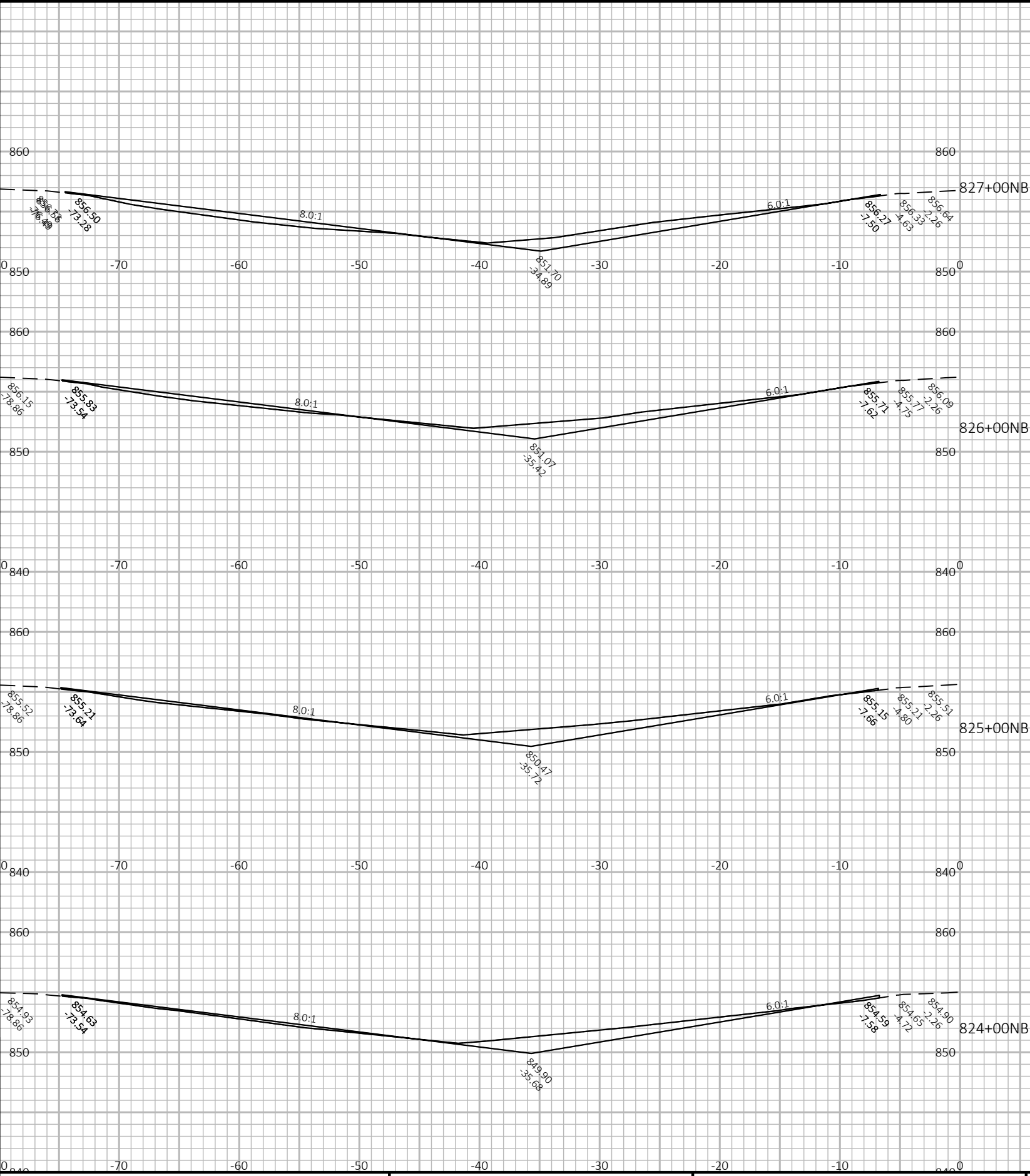
INLETS MEDIAN 4 GRATE
4 INLET COVERS TYPE MS
CPRC CLASS III 18-INCH

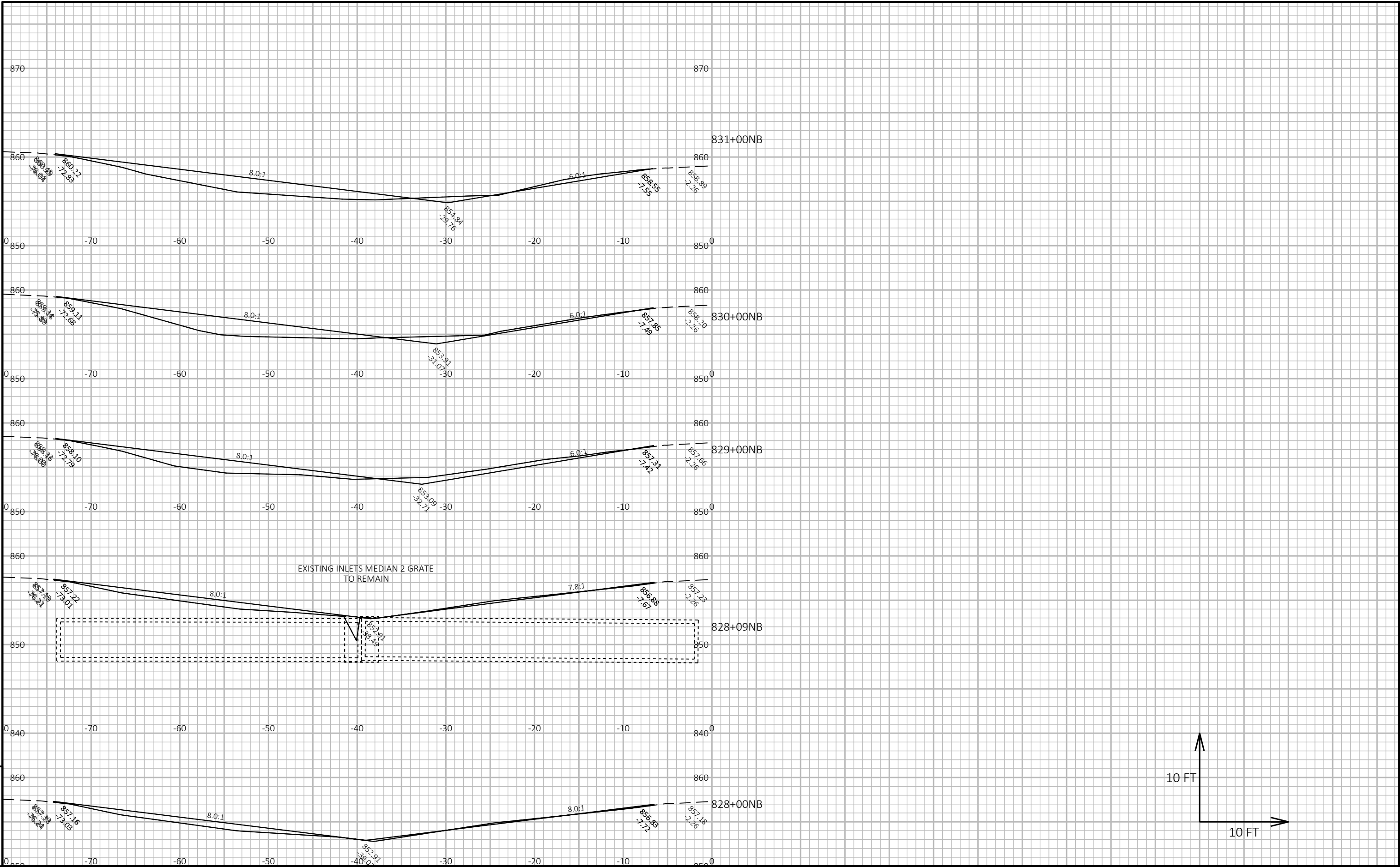


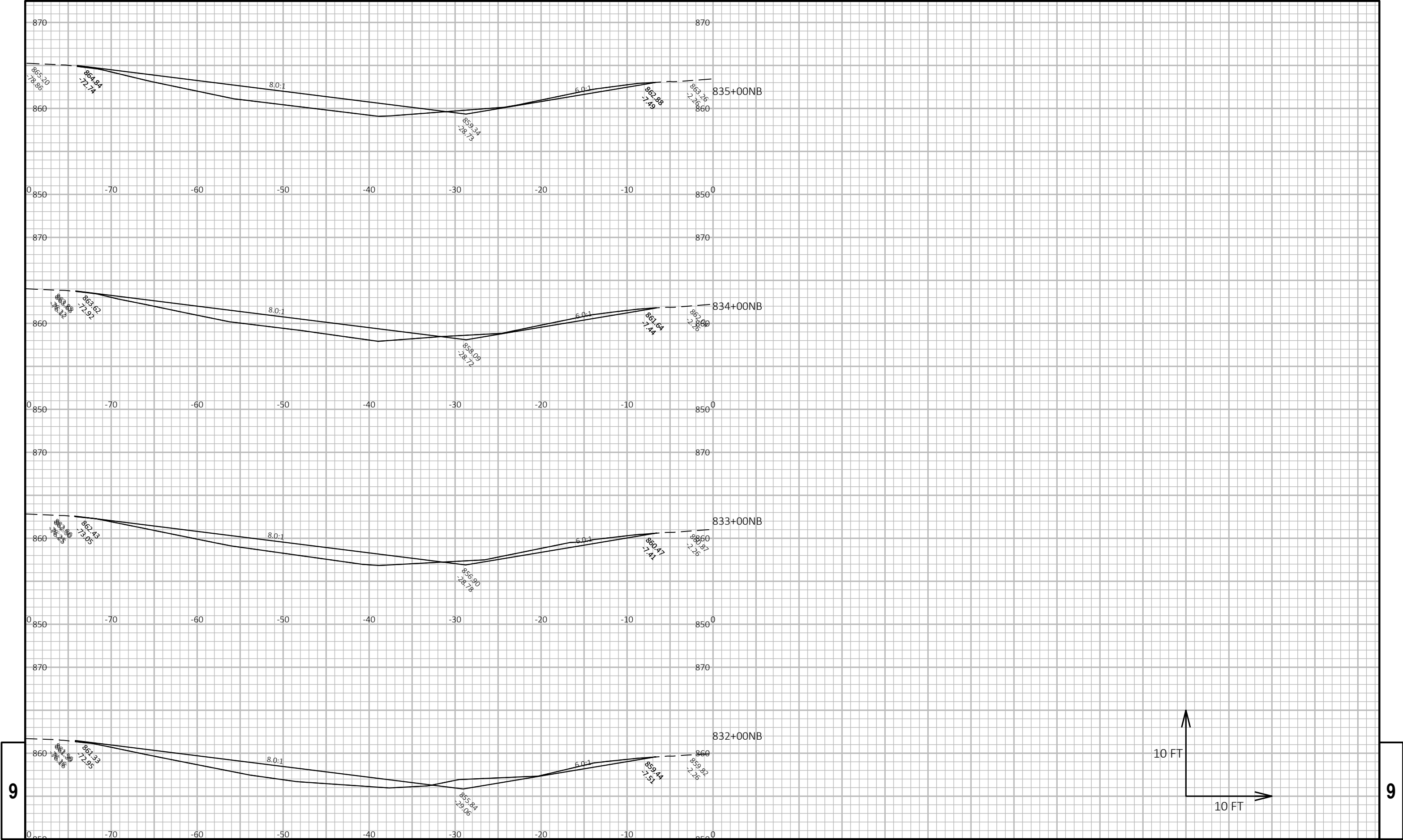
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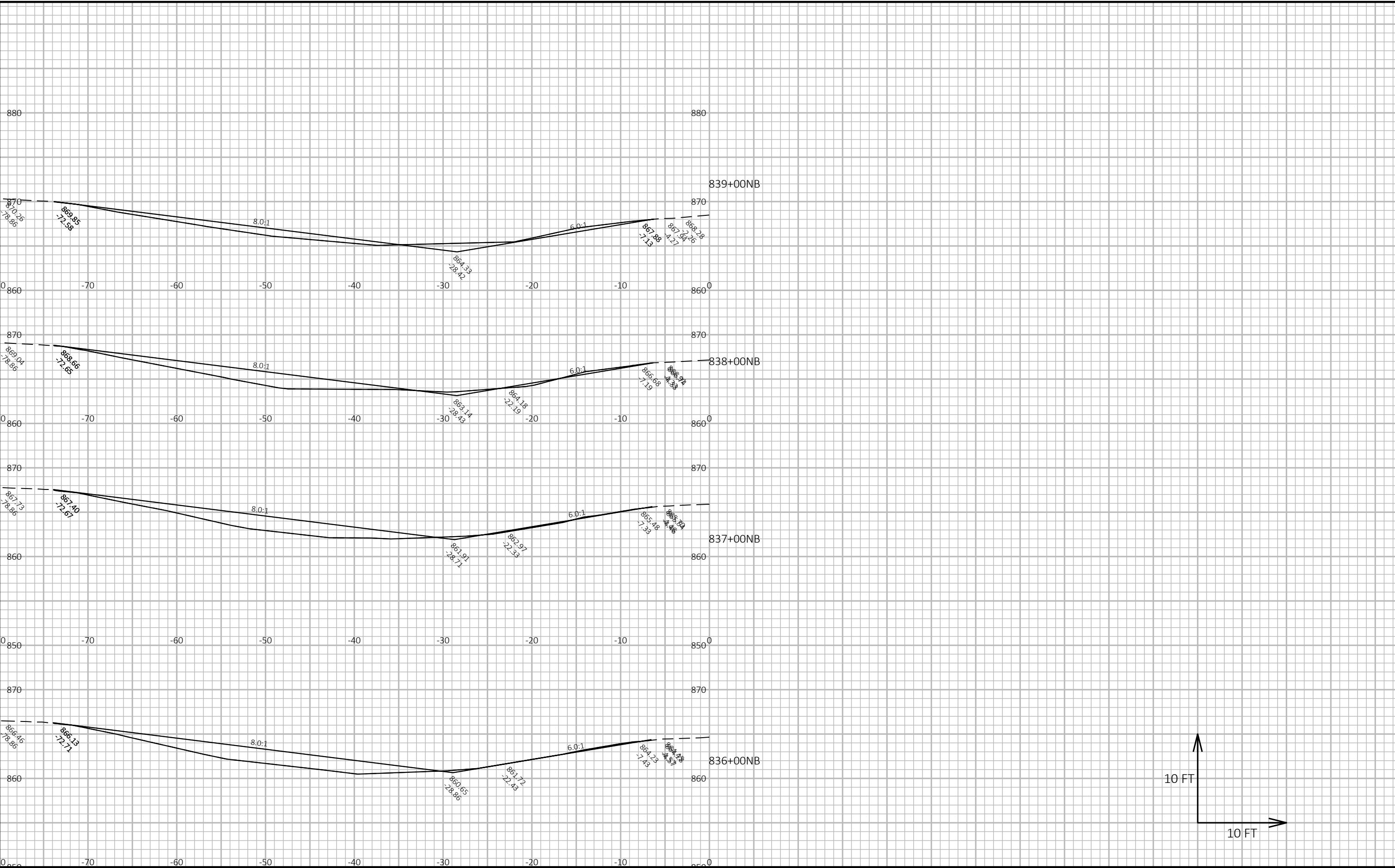
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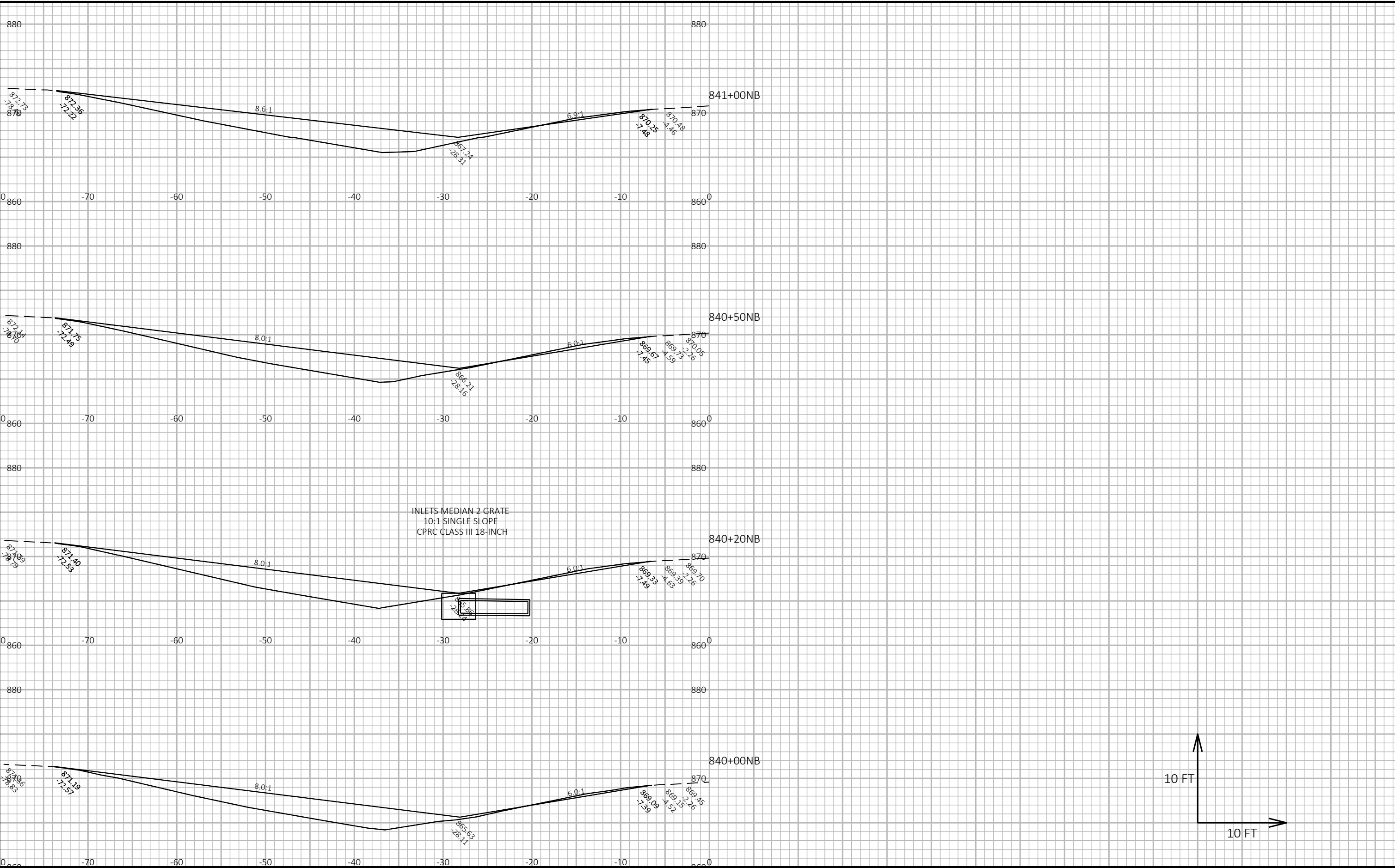
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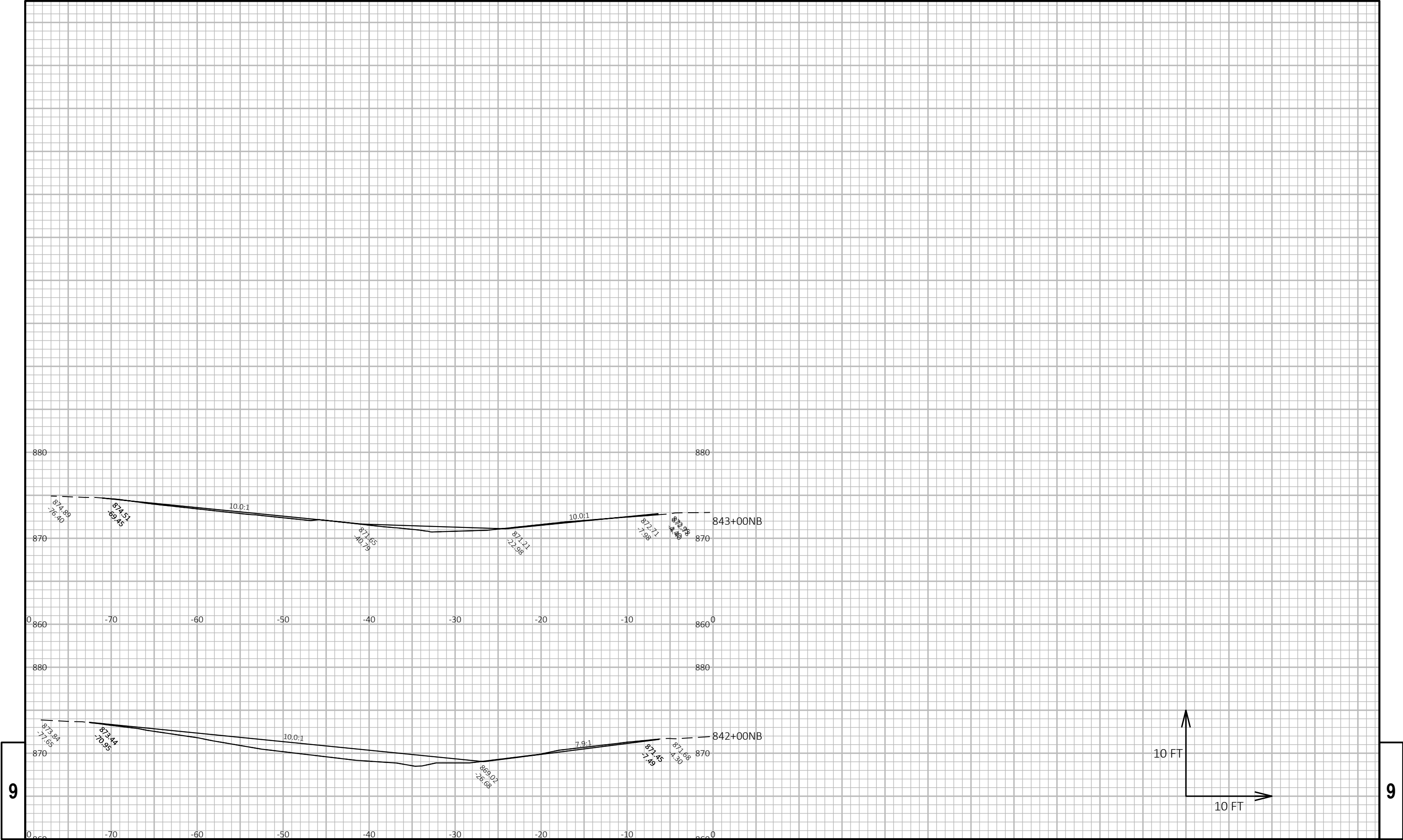






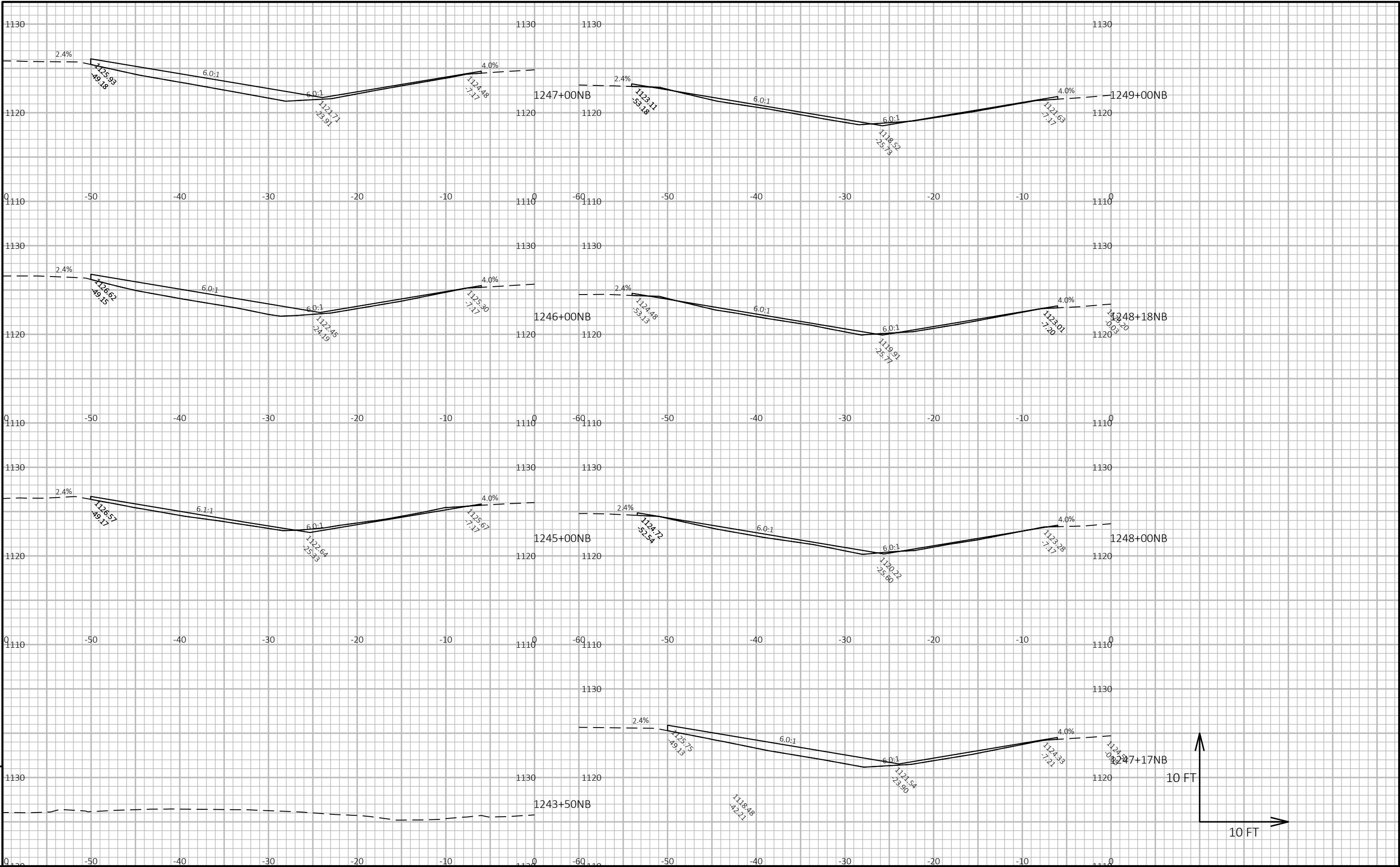


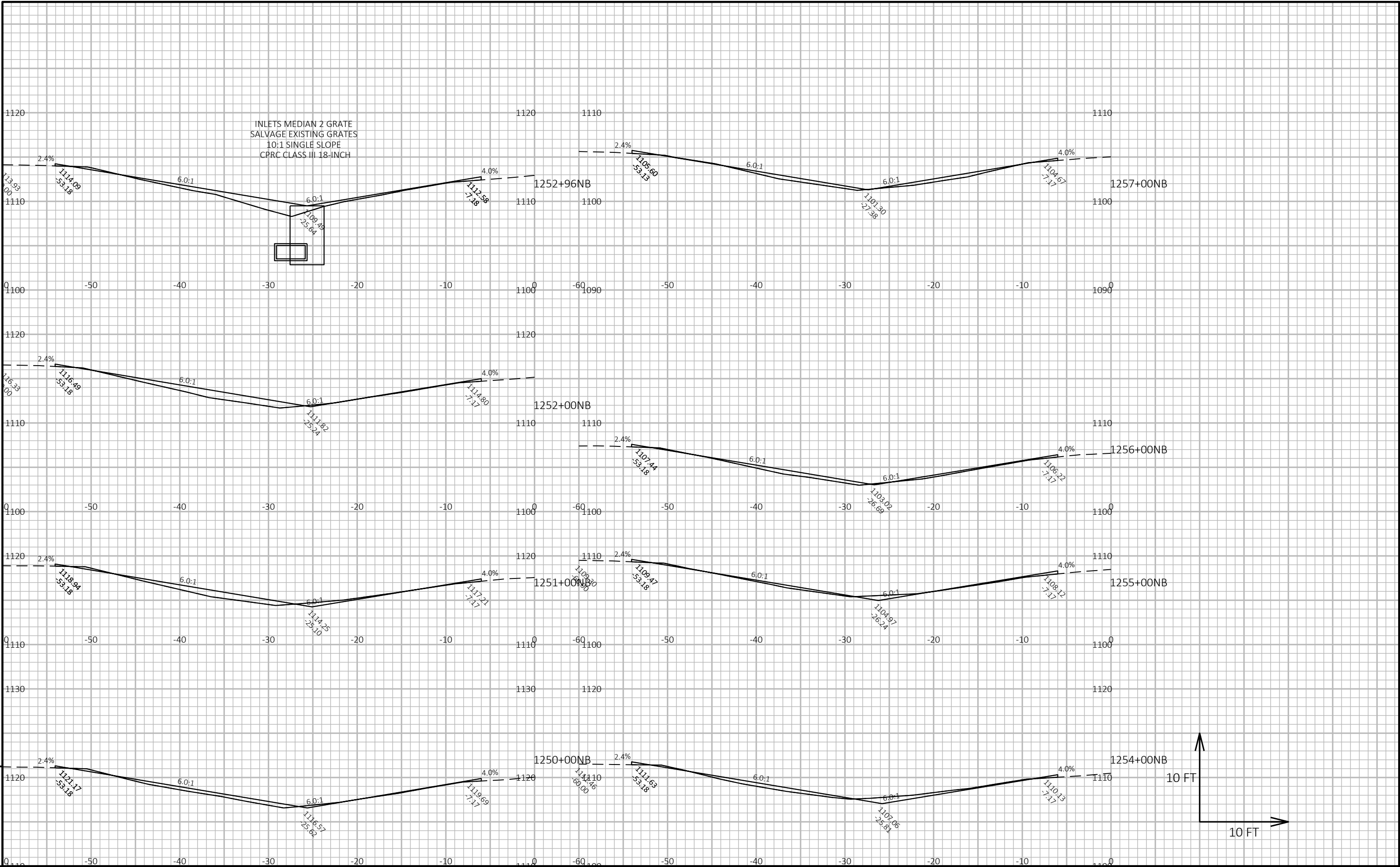


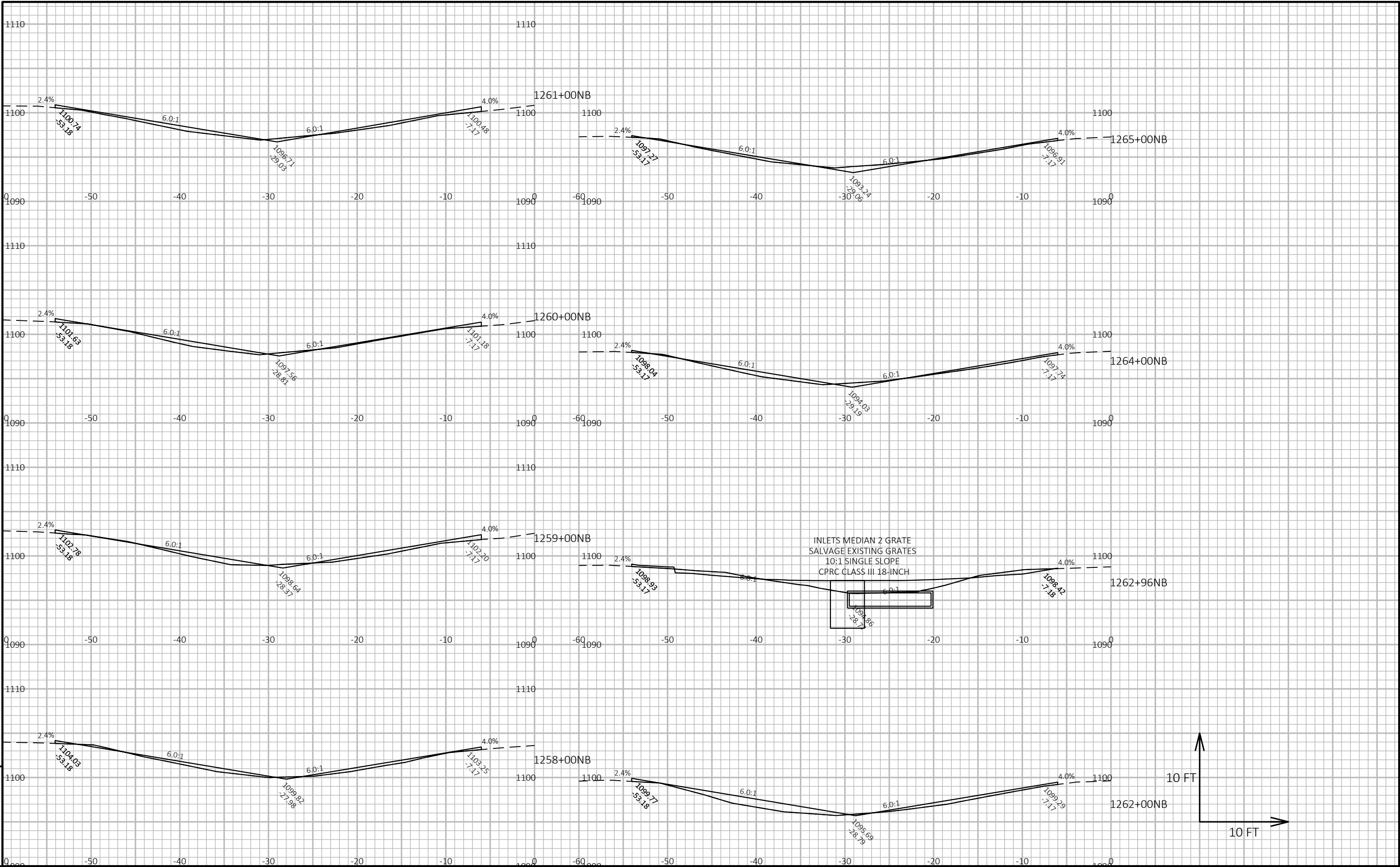


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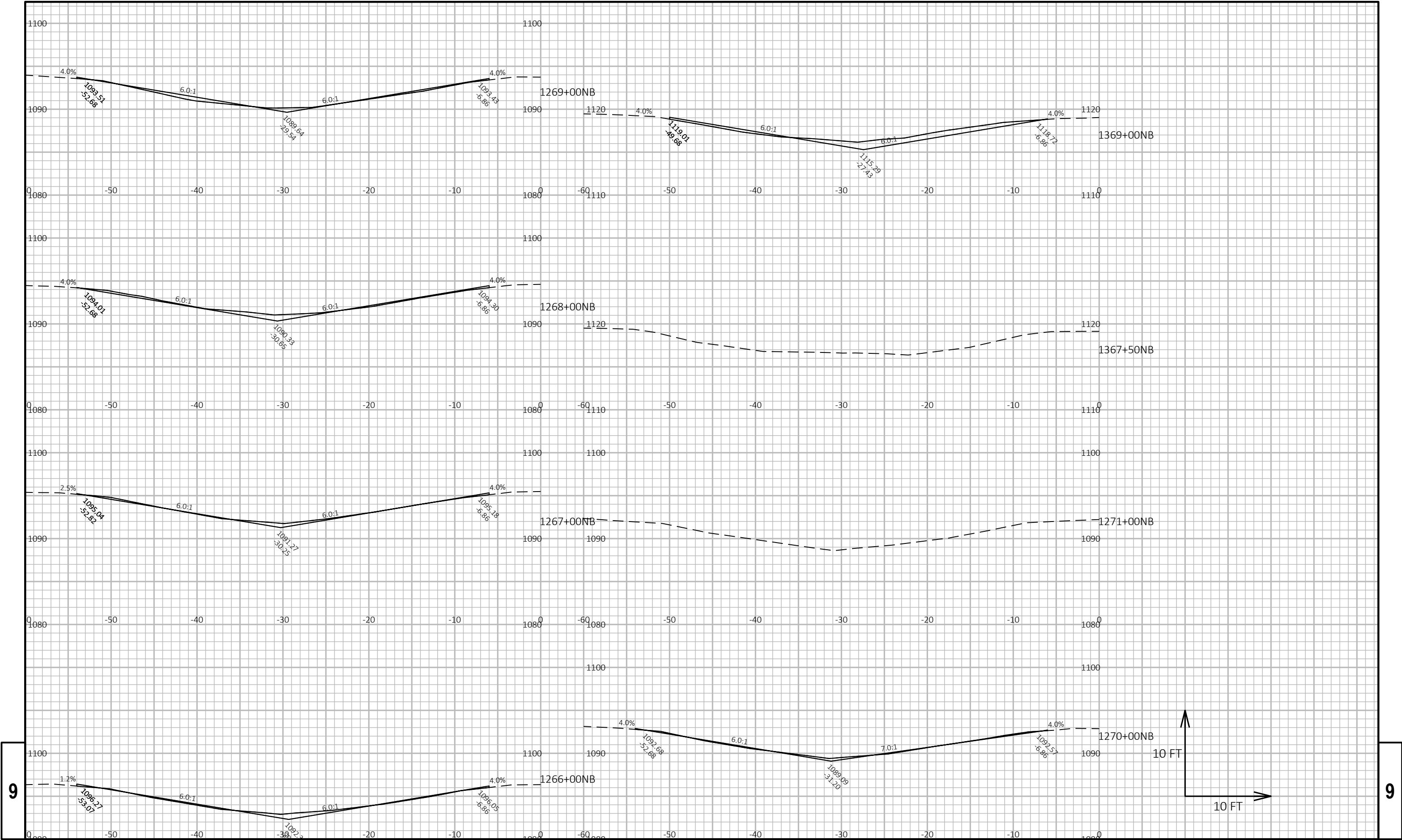
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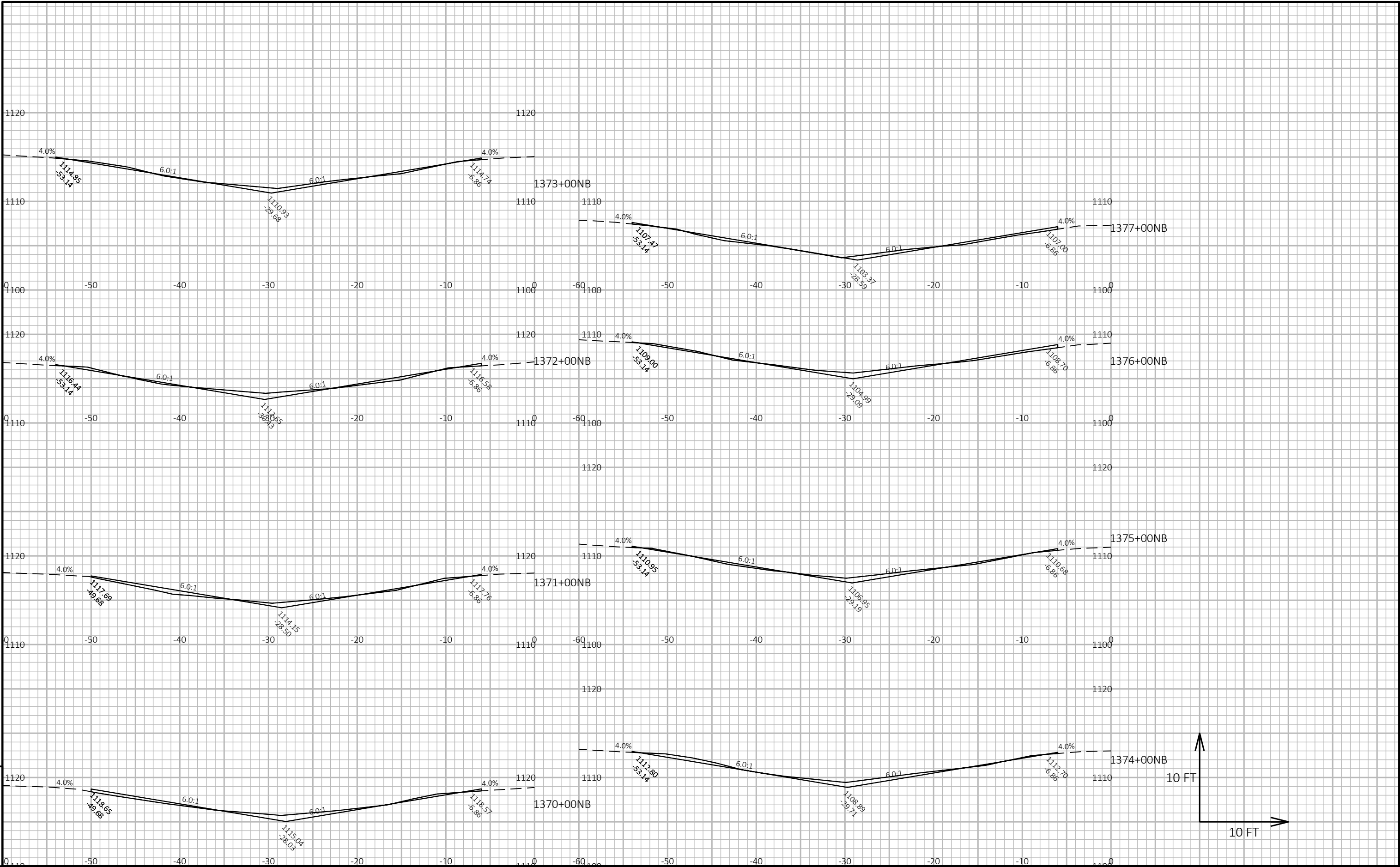


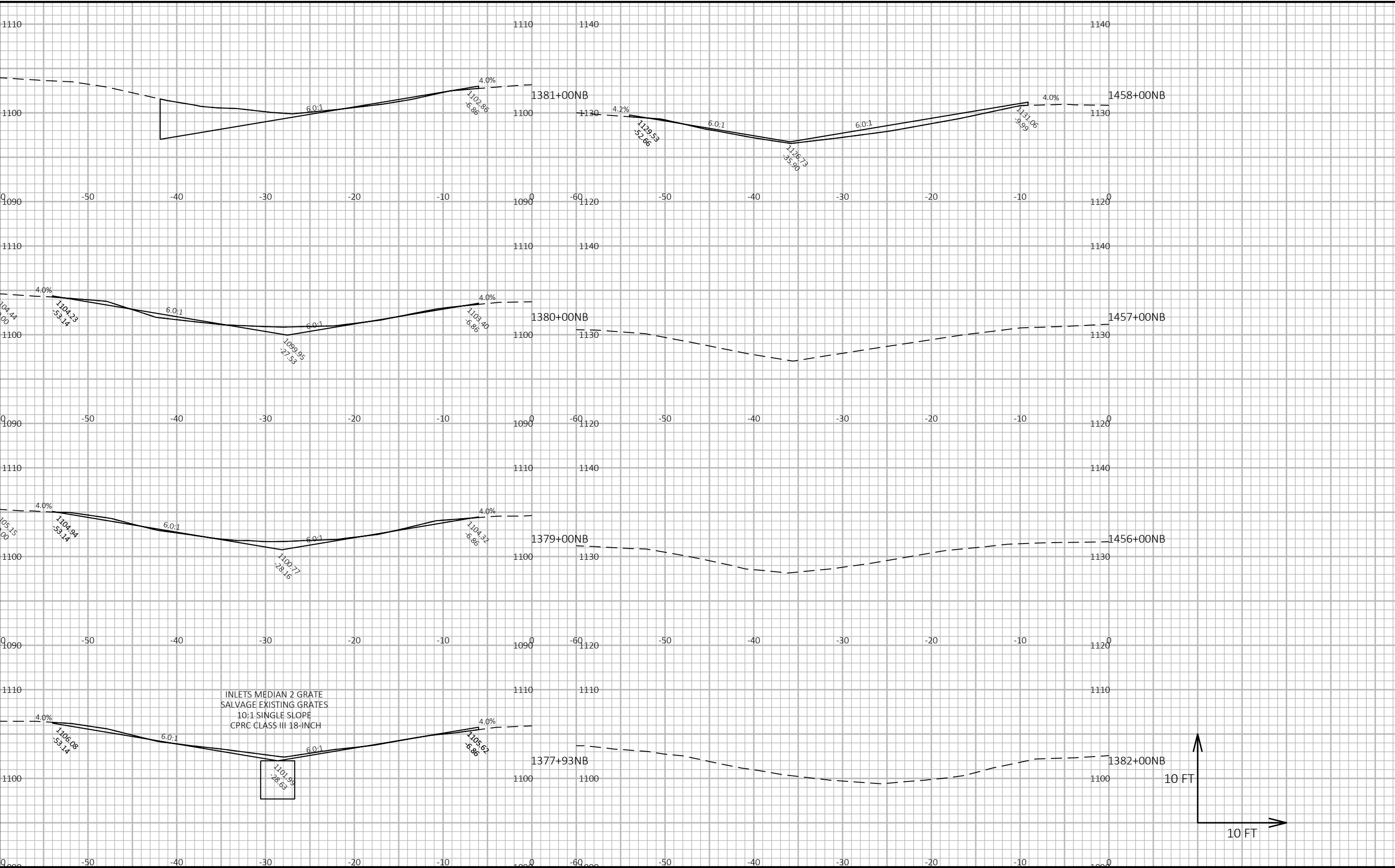


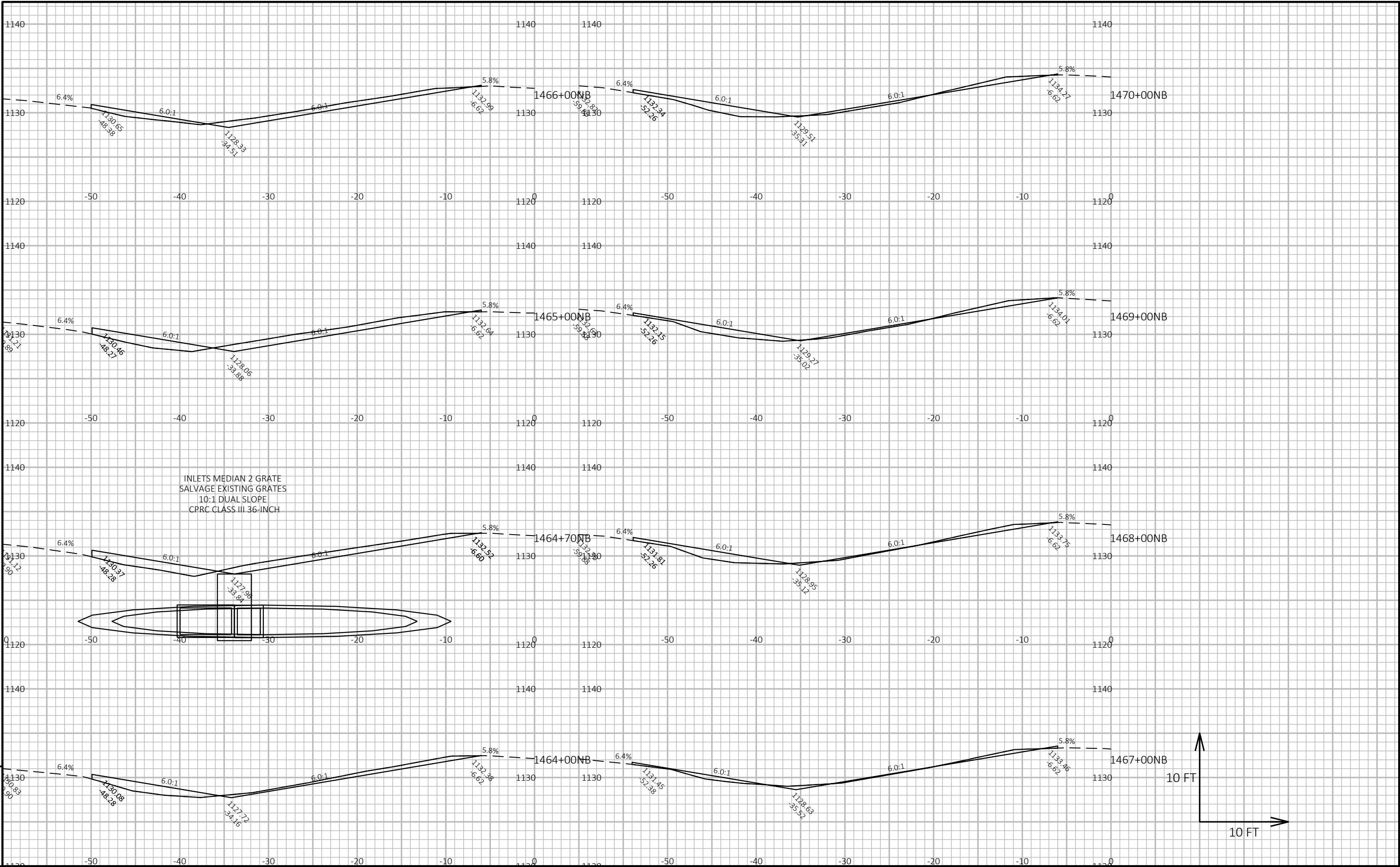


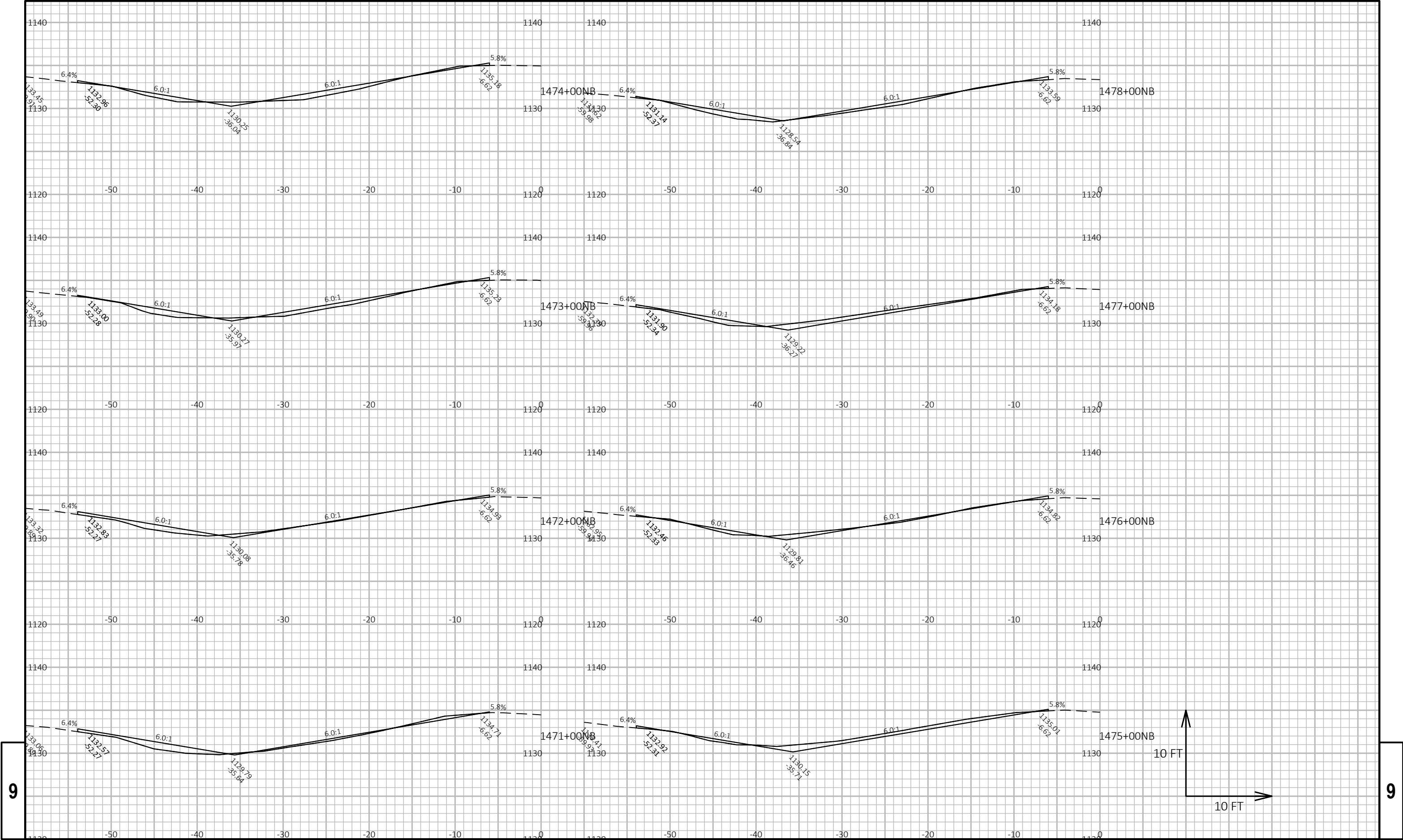
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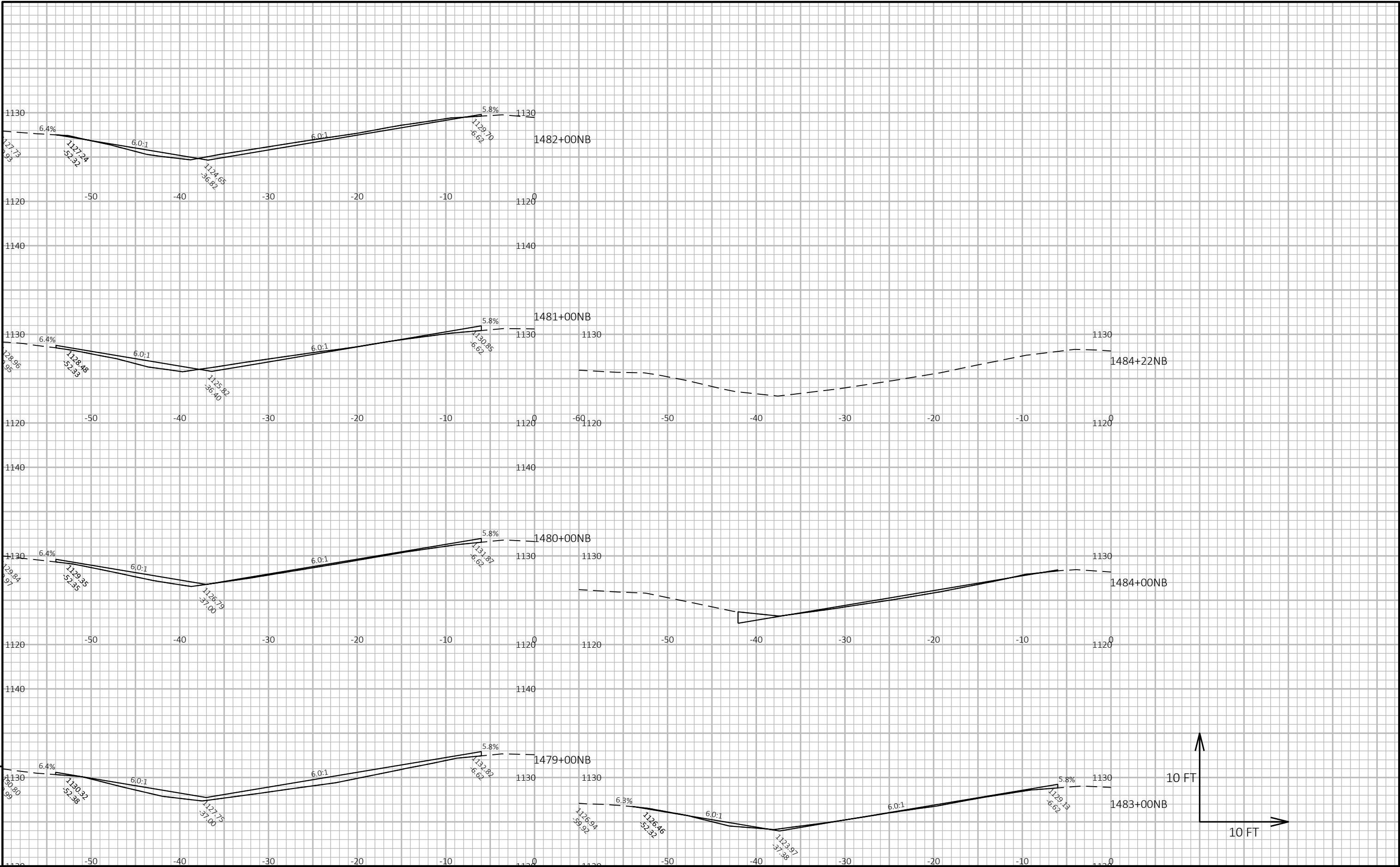


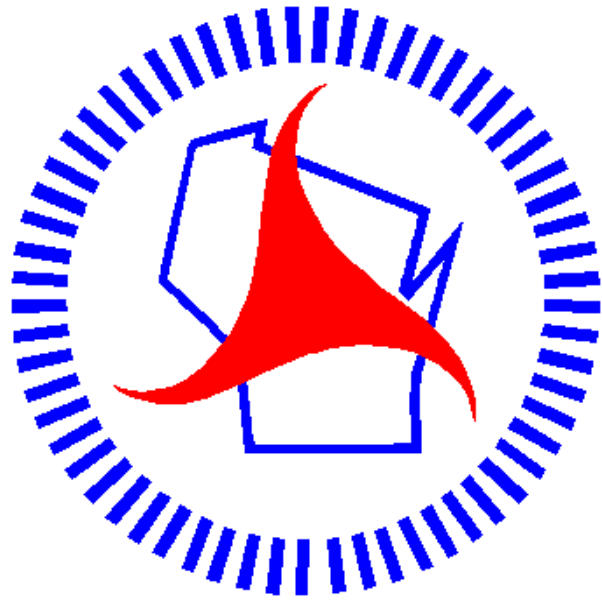












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