

LAX
PROJECT ID:
WITH: 7125-00-75

7125-00-74

COUNTY:
BUFFALO

FEBRUARY 2022

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 = 202



DESIGN DESIGNATION 7125-00-04/05

A.A.D.T. (2027)	= 810	1,400
A.A.D.T. (2047)	= 1,000	1,730
D.H.V.	= 16.0	16.0
D.D.	= 60/40	60/40
T.	= 19%	19%
DESIGN SPEED	= 55 MPH	55 MPH
ESALS	= 280,000	280,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ALMA - MONDOVI
CTH F TO STH 88
STH 37
BUFFALO COUNTY

ALMA - MONDOVI
CTH F TO STH 88
STH 37
BUFFALO COUNTY

STATE PROJECT NUMBER
7125-00-74

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7125-00-75

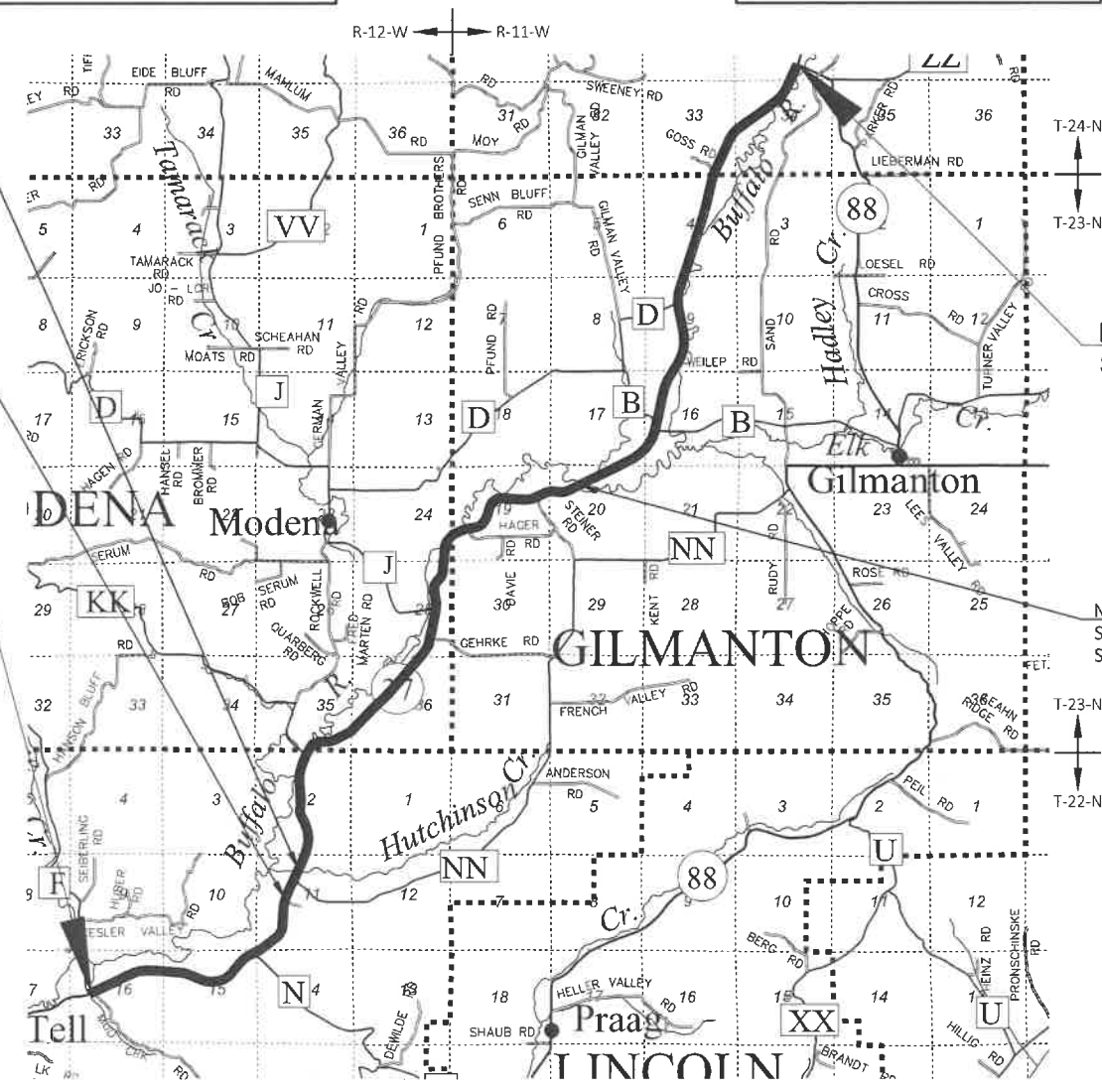
NET EXCEPTION TO CL LENGTH
STA 254+56.00 - STA 255+59.00
STRUCTURE B-06-179

NET EXCEPTION TO CL LENGTH
STA 238+13.00 - STA 238+52.00
STRUCTURE B-06-178

BEGIN PROJECT
STA 100+00.00
Y=329,634.45
X=561,711.36

END PROJECT
STA 844+19.64

NET EXCEPTION TO CL LENGTH
STA 559+51.00 - STA 562+15.00
STRUCTURE B-06-117



LAYOUT
SCALE 0 1 MI
TOTAL NET LENGTH OF CENTERLINE = 14.018 MI

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7125-00-74	WISC 2022207	1
7125-00-75	WISC 2022208	1

ORIGINAL PLANS PREPARED BY
CORRE ENGINEERING
MADISON | OCONOMOWOC | EAU CLAIRE | GREEN BAY | WITTENBERG



DATE: _____ (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC.
Designer	CORRE, INC.
Project Manager	JOHN BAINTER
Regional Examiner	SW REGION
Regional Supervisor	JAMES SAVOLDELLI

APPROVED FOR THE DEPARTMENT
DATE: 10/11/2021 *John Bainter* (Signature)

E

CONSULTANT CONTACT

CORRE, INC.
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DNR CONTACT

DNR SERVICE CENTER
AMY LESIK
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54702
PHONE: (715) 836-6571
EMAIL: AMY.LESIK@WISCONSIN.GOV

COUNTY SURVEYOR

BUFFALO COUNTY SURVEYOR
RON JASPERSON
407 S. 2ND STREET
ALMA, WI 54610
PHONE: (608) 685-6232
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WisDOT PROJECT MANAGER CONTACT

SW-LA CROSSE
JOHN BAINTE, PE
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EMAIL: JOHN.BAINTE@DOT.WI.GOV

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED, AND EMATTED. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT PAVEMENT.

BEARINGS SHOWN ON THE PLANS ARE GRID/GROUND/PROJECT BEARINGS TO THE NEAREST SECOND.

SECTION CORNER MONUMENTS WILL BE IMPACTED BY THE PROJECT AND ARE SHOWN WITHIN THE CONSTRUCTION PLANS. THE BUFFALO COUNTY SURVEYOR'S OFFICE WILL PERPETUATE AND RE-MONUMENT ANY EFFECTED CORNERS OUTSIDE OF THE PROJECT. CONTACT THE SURVEYORS OFFICE PRIOR TO CONSTRUCTION AND AGAIN AT THE COMPLETION OF PAVING OPERATIONS SO THE SURVEYOR'S OFFICE CAN PLAN THEIR RE-MONUMENTATION WORK.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

ALL CONCRETE PIPE JOINTS SHALL BE TIED.

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

TACK COAT APPLICATION IS CALCULATED AT 0.07 GAL/SY.

CONTRACTOR SHALL PLACE BASE AGGREGATE DENSE 3/4-INCH AT AGGREGATE PRIVATE ENTRANCES AND FIELD ENTRANCES TO MATCH EXISTING GRADE, AS DIRECTED BY THE ENGINEER.

RIGHT OF WAY WIDTHS ARE ASSUMED TO BE 66' WIDE, 33' RT AND LT OF EXISTING CENTERLINE IN AREAS WHERE RIGHT OF WAY IS NOT SHOWN ON THE PLANS.

LOCATION OF TEMPORARY MARKING LINE PAINT 4-INCH SHALL MATCH CENTERLINE PERMANENT MARKING LOCATIONS ON MILLED SURFACE, LOWER LIFT, AND UPPER LIFT AND AS DIRECTED BY THE ENGINEER.

UTILITY CONTACTS

COMMUNICATION

FRONTIER COMMUNICATIONS OF WI LLC
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WAUSAU, WI 54403
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COMMUNICATION

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COMMUNICATION

TDS TELECOM
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COMMUNICATION

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AARON GRODI
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ELECTRICITY

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ELECTRICITY

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PHONE: (608) 323-3381
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ORDER OF SECTION 2 SHEETS

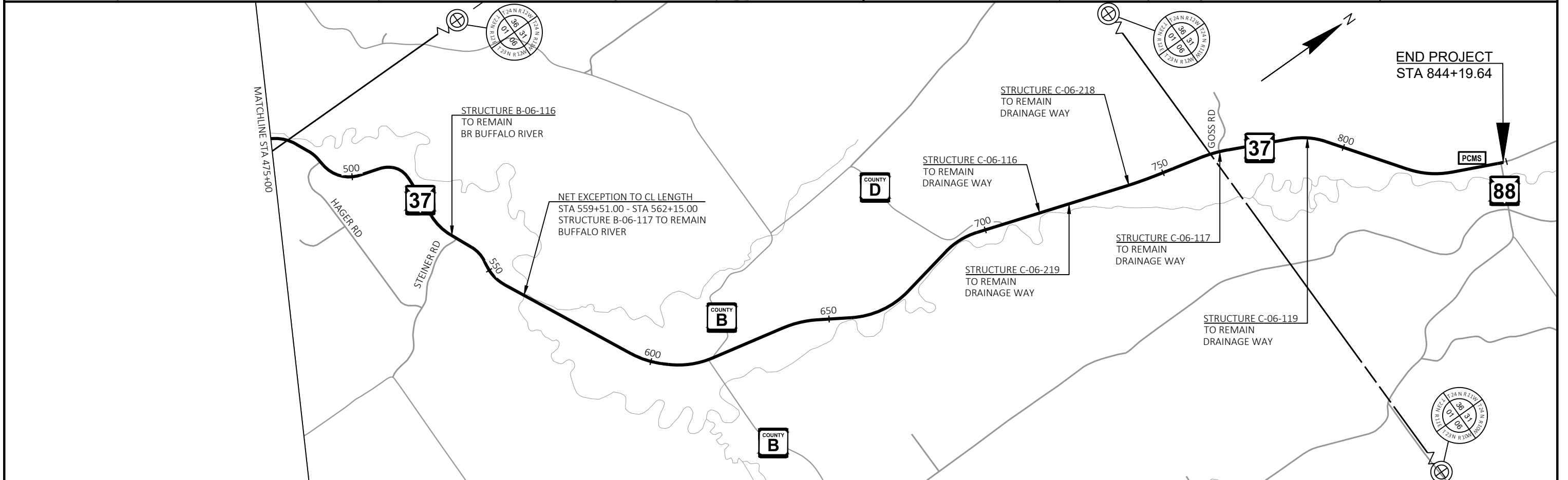
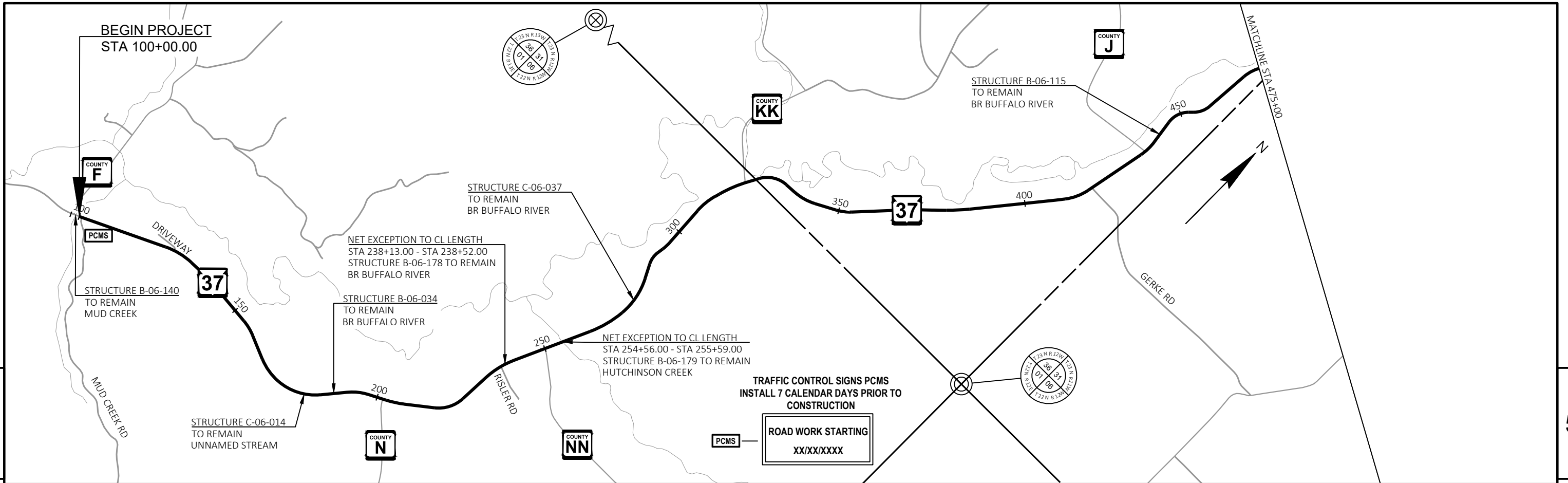
GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVEMENT MARKING

RUNOFF COEFFICIENT TABLE

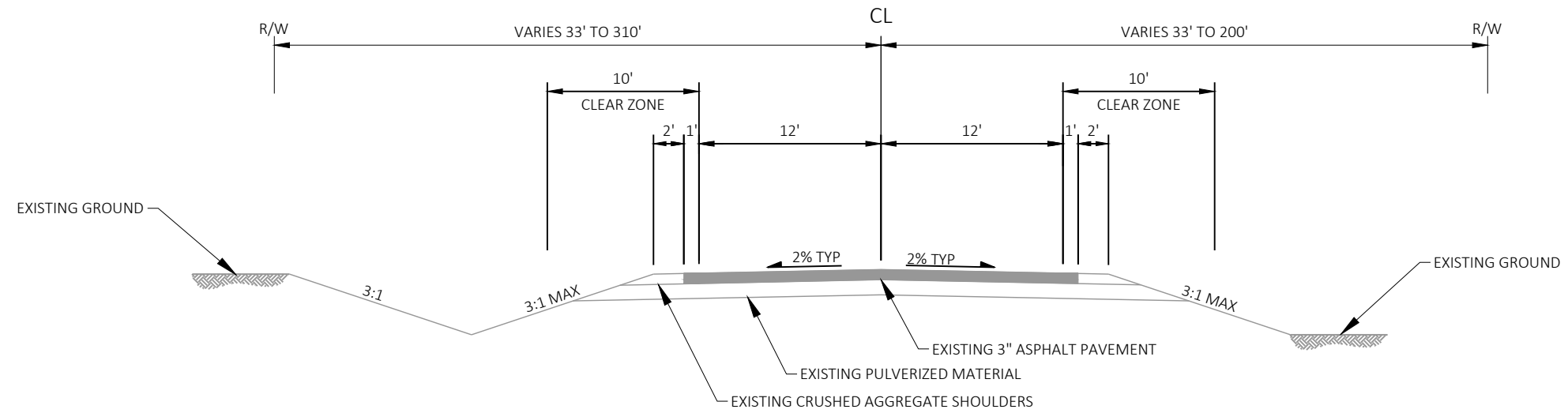
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 225.74 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.98 ACRES



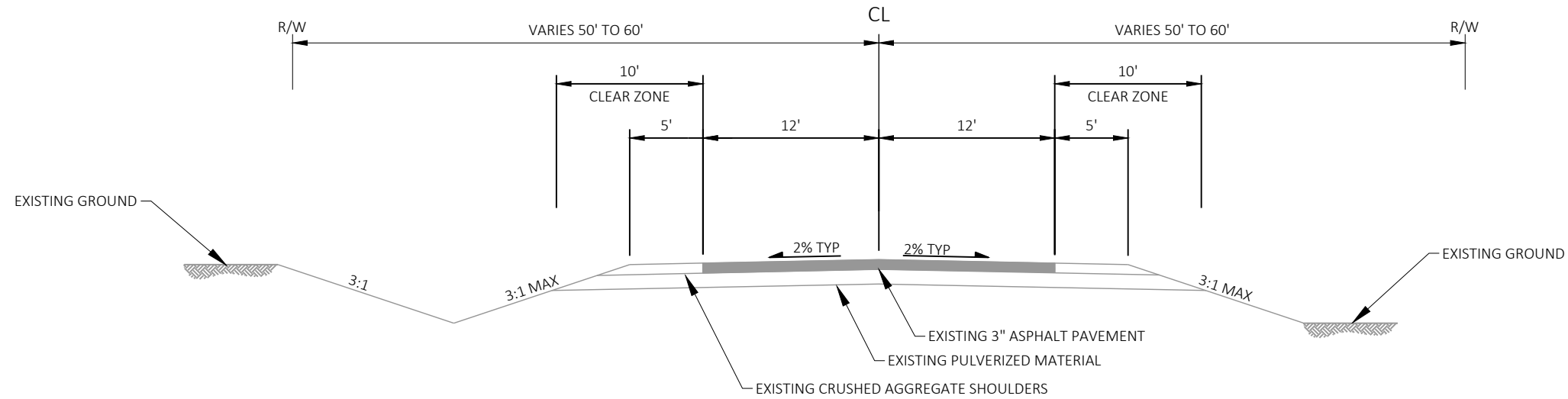


PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET	E
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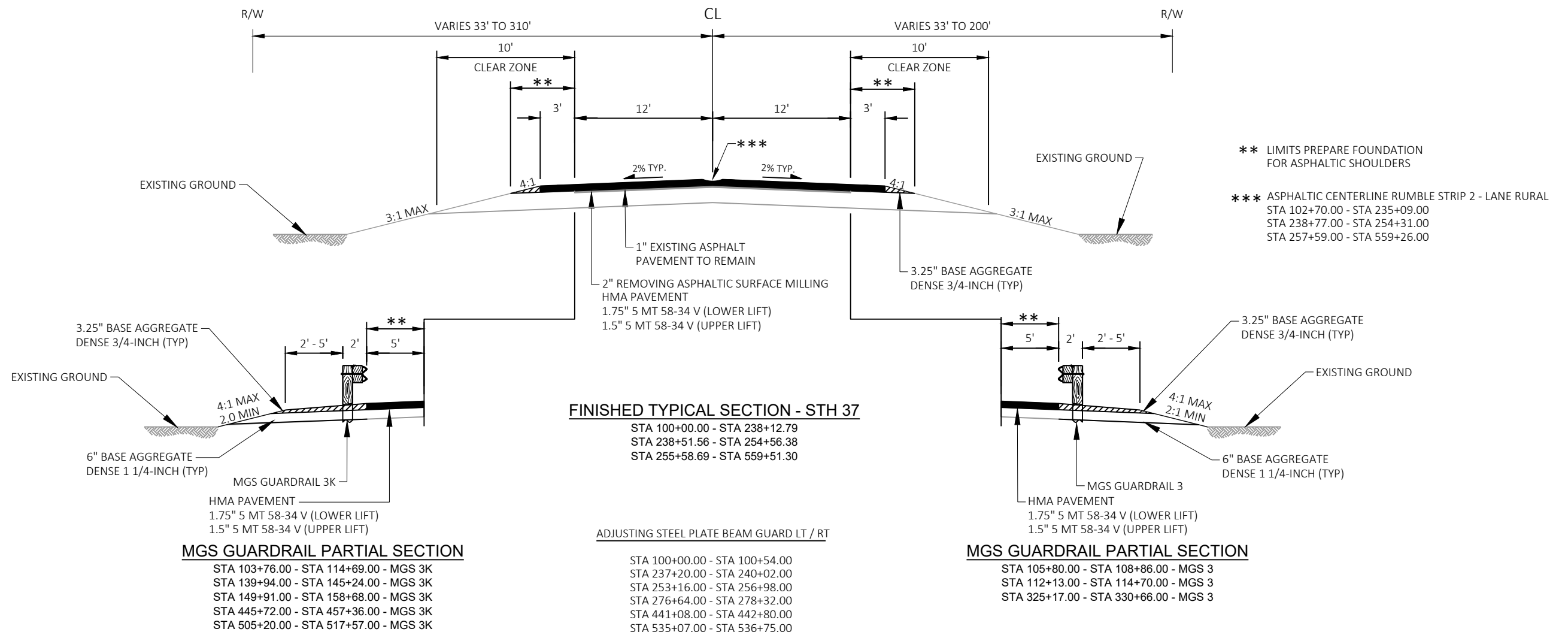
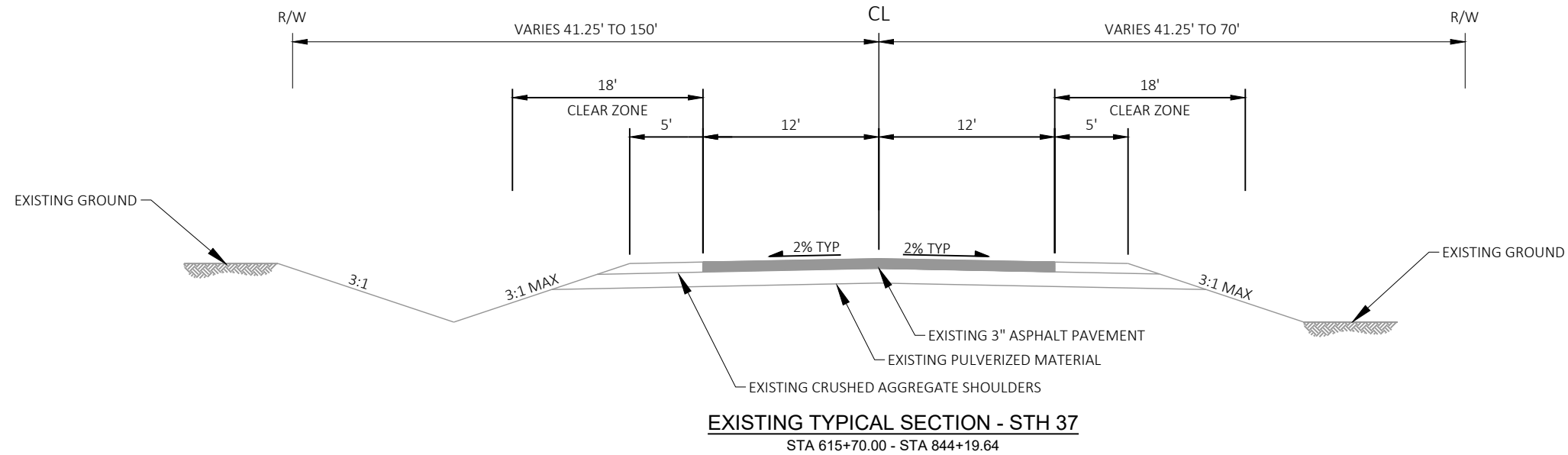
EXISTING TYPICAL SECTION - STH 37

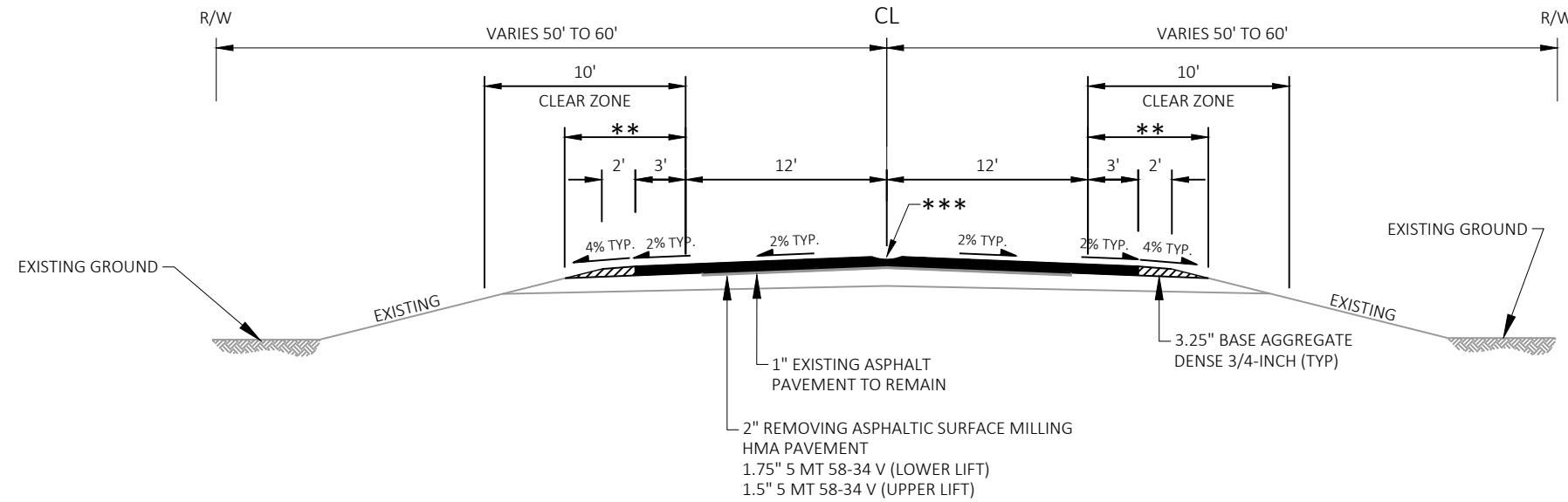
STA 100+00.00 - STA 238+12.79
 STA 238+51.56 - STA 254+56.38
 STA 255+58.69 - STA 559+51.30



EXISTING TYPICAL SECTION - STH 37

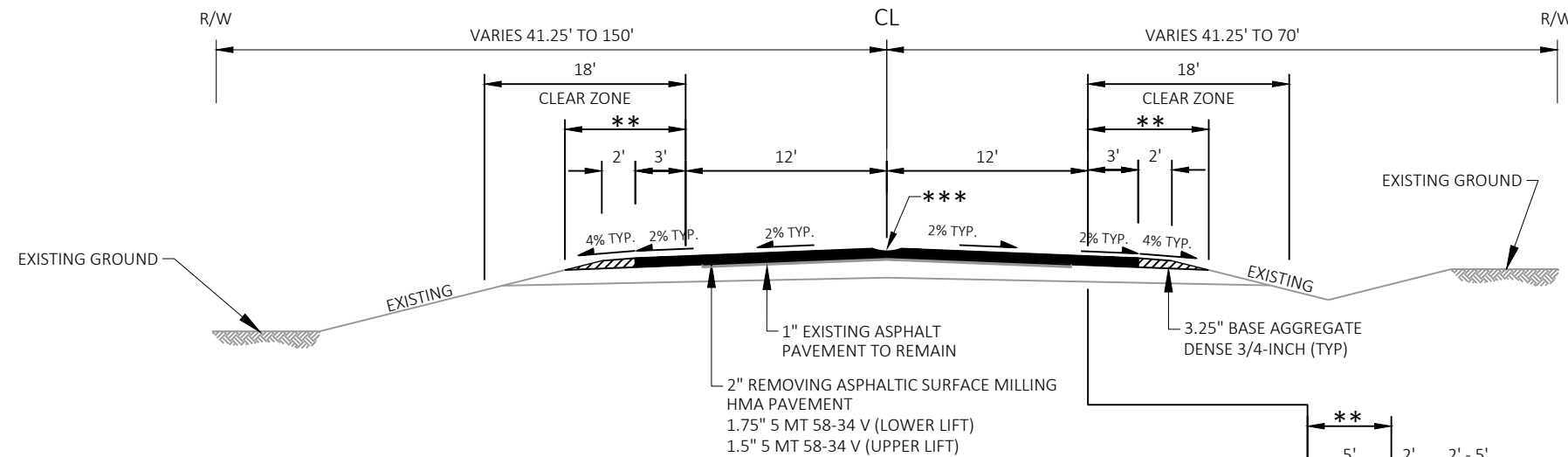
STA 562+14.90 - STA 615+70.00





- ** LIMITS PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
- *** ASPHALTIC CENTERLINE RUMBLE STRIP 2 - LANE RURAL STA 562+40.00 - STA 841+56.00

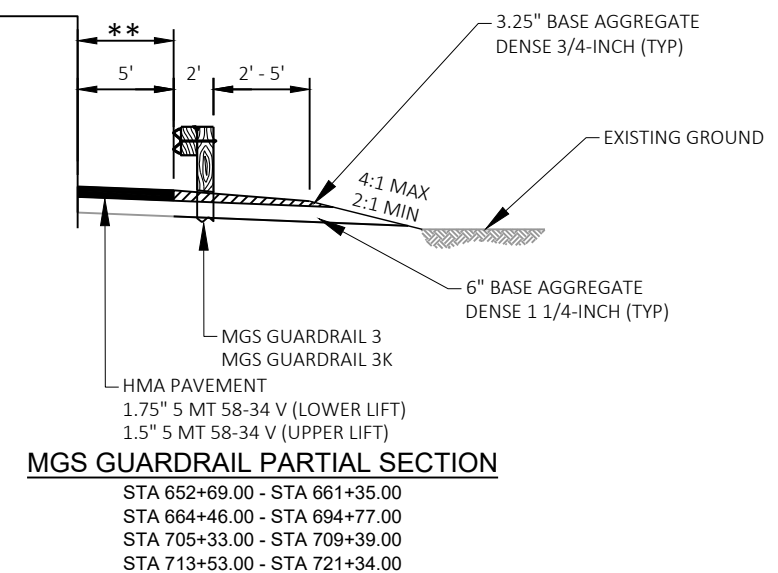
FINISHED TYPICAL SECTION - STH 37
STA 562+14.90 - STA 615+70.00



- ** LIMITS PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
- *** ASPHALTIC CENTERLINE RUMBLE STRIP 2 - LANE RURAL STA 562+40.00 - STA 841+56.00

FINISHED TYPICAL SECTION - STH 37
STA 615+70.00 - STA 844+19.64

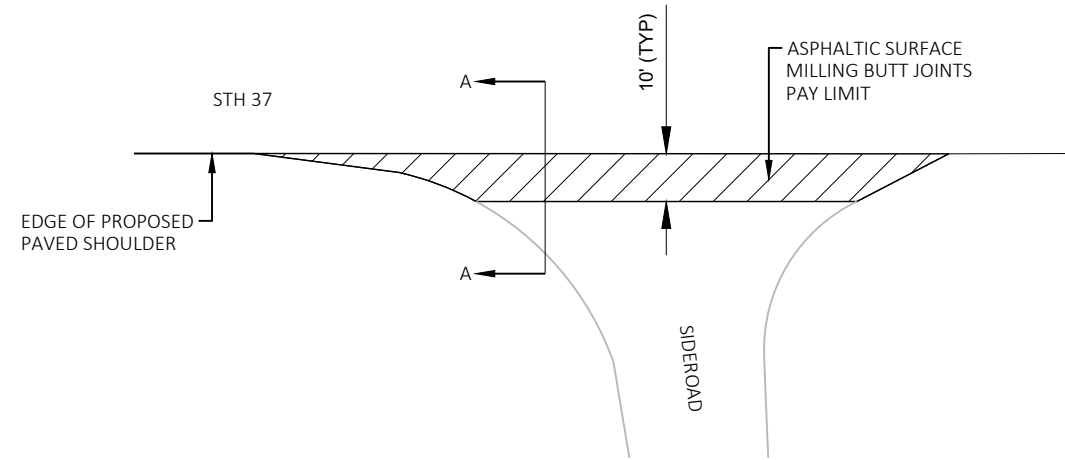
ADJUSTING STEEL PLATE BEAM GUARD LT / RT
STA 558+18.00 - STA 565+35.00



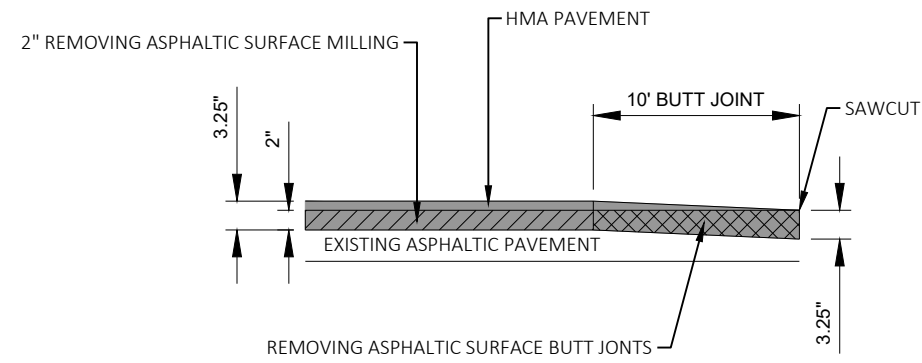
MGS GUARDRAIL PARTIAL SECTION
STA 652+69.00 - STA 661+35.00
STA 664+46.00 - STA 694+77.00
STA 705+33.00 - STA 709+39.00
STA 713+53.00 - STA 721+34.00

CONTROL POINT TABLE - WCCS BUFFALO COUNTY						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 1	98+17.05	22.084'	329536.306	561555.384	705.17	MAG NAIL IN BIT
CP 2	105+18.61	-17.998'	329872.336	562172.537	720.80	12" SURVEY SPIKE
CP 3	110+00.49	-18.870'	330079.044	562607.839	737.00	12" SURVEY SPIKE
CP 4	114+67.81	-19.127'	330278.968	563030.226	753.79	NO. 6 REBAR x 18" LONG WITH CAP
CP 5	127+82.52	-21.254'	330818.312	564231.684	786.76	12" SURVEY SPIKE
CP 6	139+95.71	-19.827'	330894.772	565444.684	792.13	NO. 6 REBAR x 18" LONG WITH CAP
CP 7	149+16.86	-16.813'	330808.425	566362.411	746.68	12" SURVEY SPIKE
CP 8	155+35.15	-18.977'	330743.413	566979.118	722.64	NO. 6 REBAR x 18" LONG WITH CAP
CP 9	184+68.44	19.827'	330779.440	569674.186	713.19	NO. 6 REBAR x 18" LONG WITH CAP
CP 10	201+45.75	64.944'	331815.719	570937.281	703.30	MAG NAIL IN BIT
CP 11	214+34.68	19.450'	332591.328	571976.228	703.91	NO. 6 REBAR x 18" LONG WITH CAP
CP 12	224+47.42	-15.692'	333453.479	572474.330	707.79	12" SURVEY SPIKE
CP 13	237+25.73	-25.166'	334729.706	572530.264	707.60	12" SURVEY SPIKE
CP 14	238+08.99	18.240'	334797.712	572595.149	706.47	BRASS MON ON BRIDGE
CP 15	254+60.91	18.947'	336305.190	573263.231	714.31	BRASS MON ON BRIDGE
CP 16	285+27.83	-15.205'	339212.319	573574.304	712.96	NO. 6 REBAR x 18" LONG WITH CAP
CP 17	322+54.53	-120.562'	342888.486	573641.973	705.56	MAG NAIL IN BIT
CP 18	353+15.11	31.858'	344219.109	576317.767	741.59	NO. 6 REBAR x 18" LONG WITH CAP
CP 19	376+63.13	32.533'	345907.169	577947.797	726.99	NO. 6 REBAR x 18" LONG WITH CAP
CP 20	400+16.54	26.966'	347692.566	579483.386	717.64	NO. 6 REBAR x 18" LONG WITH CAP

CONTROL POINT TABLE - WCCS BUFFALO COUNTY						
POINT	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 21	435+82.17	-119.161'	350948.894	580644.149	718.49	MAG NAIL IN BIT
CP 22	465+75.75	23.407'	353773.187	581221.018	718.15	NO. 6 REBAR x 18" LONG WITH CAP
CP 23	490+13.15	63.514'	355337.869	582642.708	722.85	MAG NAIL IN BIT
CP 24	535+69.32	30.433'	357091.097	586273.354	737.89	BRASS MON IN CONCRETE STRUCTURE
CP 25	558+55.11	21.760'	357624.236	588441.625	735.56	NO. 6 REBAR x 18" LONG WITH CAP
CP 26	587+02.43	37.231'	358860.687	591006.519	791.45	BRASS MON IN CONCRETE
CP 27	615+97.60	46.291'	360829.822	593022.878	742.62	MAG NAIL IN BIT
CP 28	641+26.75	22.957'	363297.315	593563.869	740.85	NO. 6 REBAR x 18" LONG WITH CAP
CP 29	664+13.80	21.750'	365333.056	594586.301	745.45	NO. 6 REBAR x 18" LONG WITH CAP
CP 30	697+04.07	27.600'	368579.049	594354.717	746.78	NO. 6 REBAR x 18" LONG WITH CAP
CP 31	723+90.49	-39.556'	371152.108	595127.080	750.17	NO. 6 REBAR x 18" LONG WITH CAP
CP 32	754+84.35	27.486'	374099.384	596065.662	760.80	NO. 6 REBAR x 18" LONG WITH CAP
CP 33	774+31.06	-27.563'	375946.276	596659.365	765.74	BRASS MON IN CONCRETE
CP 34	806+60.67	19.505'	378335.395	598713.911	774.39	NO. 6 REBAR x 18" LONG WITH CAP
CP 35	843+50.71	-29.318'	381173.842	600916.102	765.12	MAG NAIL IN BIT

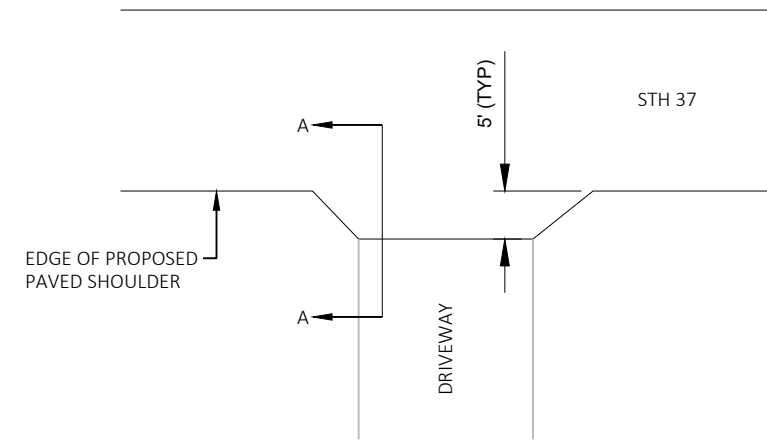


PLAN VIEW

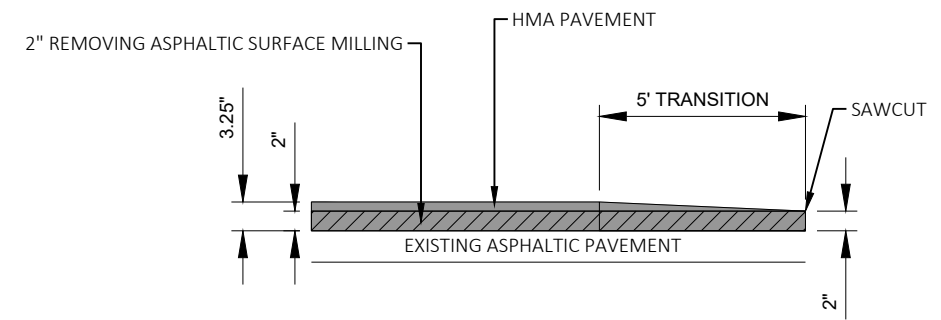


SECTION A-A

SIDE ROAD MILLING LIMITS AND BUTT JOINTS



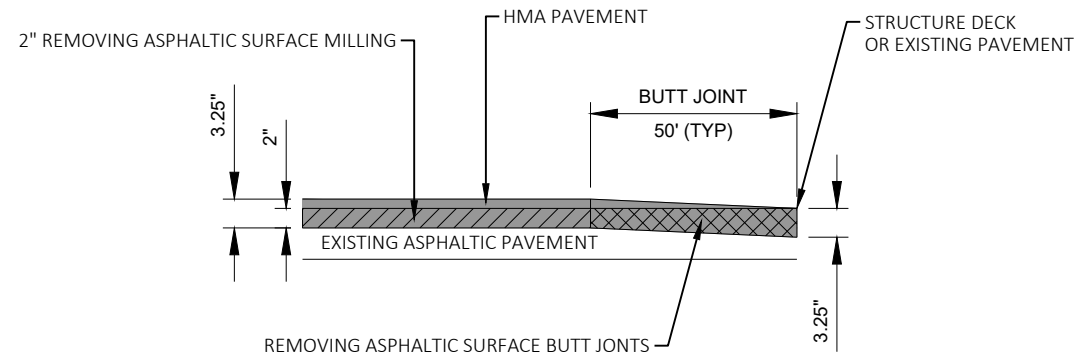
PLAN VIEW



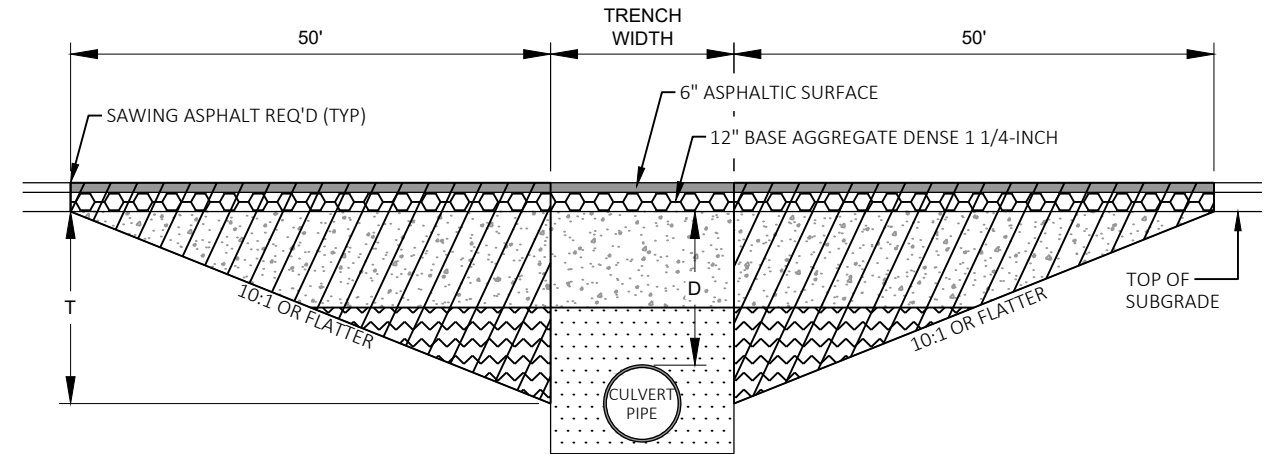
SECTION A-A

PAVED DRIVEWAY MILLING LIMITS

NOTE: SAWCUT REQ'D WHEN ADJOINING EXISTING PAVEMENT.



MAINLINE MILLING LIMITS AND BUTT JOINTS AT STRUCTURES AND BEGIN AND END OF PROJECT



TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT. DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

CULVERT PIPE TRANSITION DEPTH D < 6 FT

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL

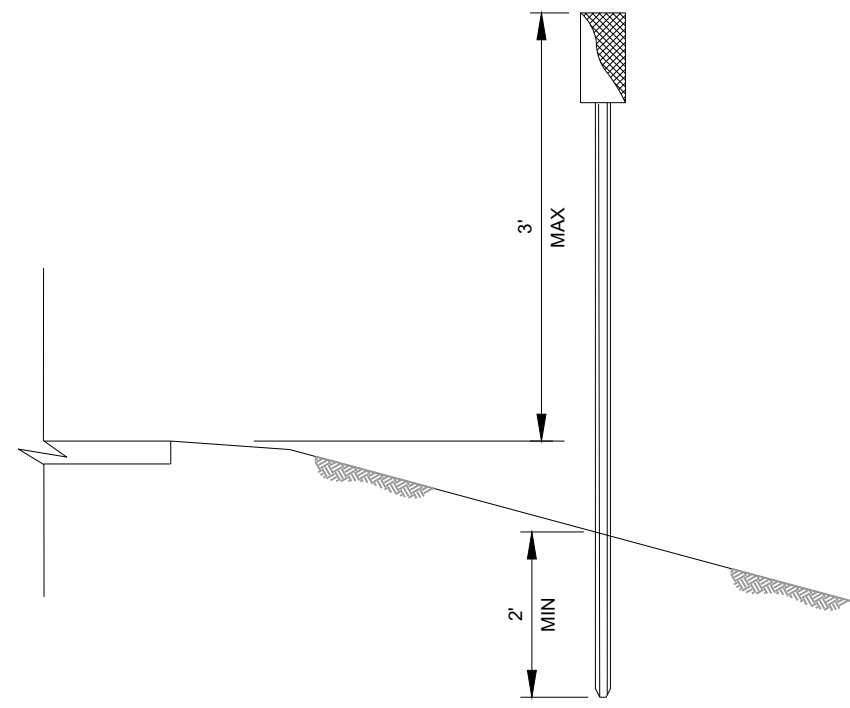
CULVERT PIPE TRANSITION			
ROUTE	STA (C/L)	DEPTH D (FT)	PIPE DIA (IN)
STH 37	216+72	1.0	30
STH 37	412+30	1.5	24
STH 37	418+28 & 418+32	0.5	24

NOTE:

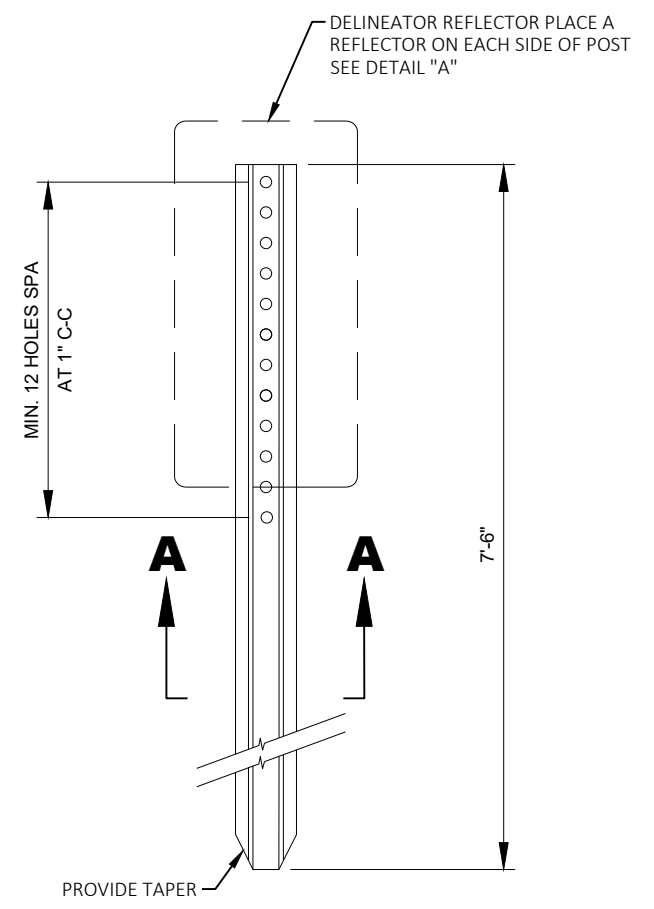
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

6" ASPHALTIC SURFACE SHALL BE PLACED IN 2" LIFTS.

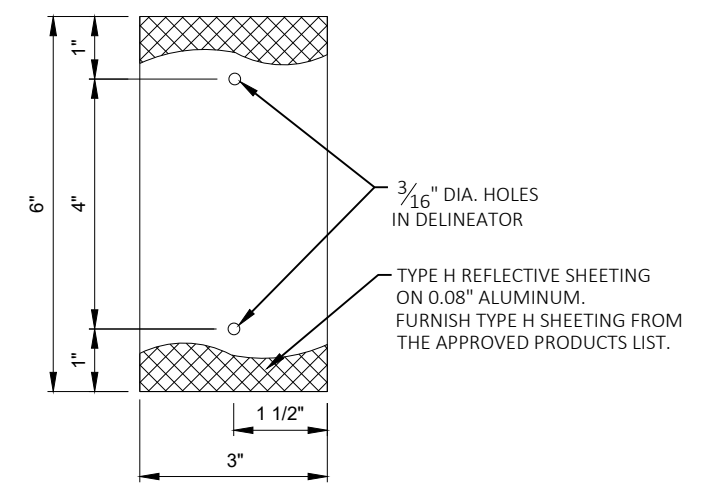
PAVE 6" ASPHALTIC SURFACE PRIOR TO MILLING AND OVERLAY OPERATION. PAVE ASPHALTIC SURFACE FLUSH WITH ADJACENT PAVEMENT. 3.25" OF THE ASPHALTIC SURFACE WILL THEN BE REMOVED WITH MAINLINE MILLING OPERATIONS.



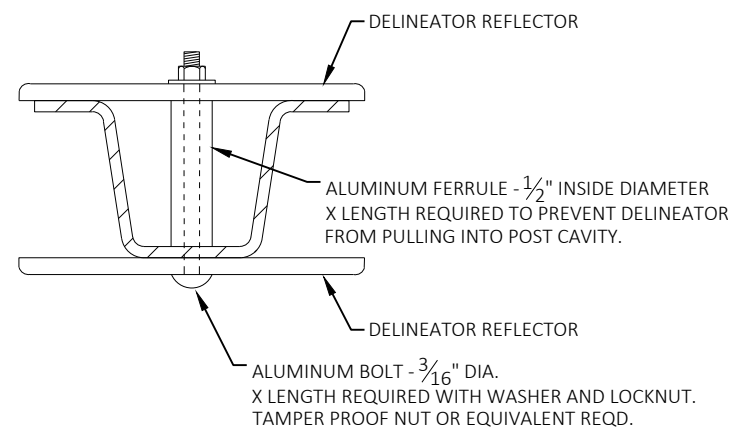
DELINEATOR POST PLACEMENT



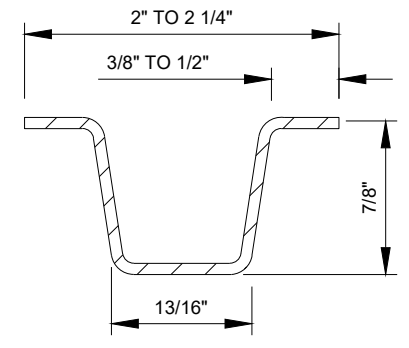
DELINEATOR POST



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR

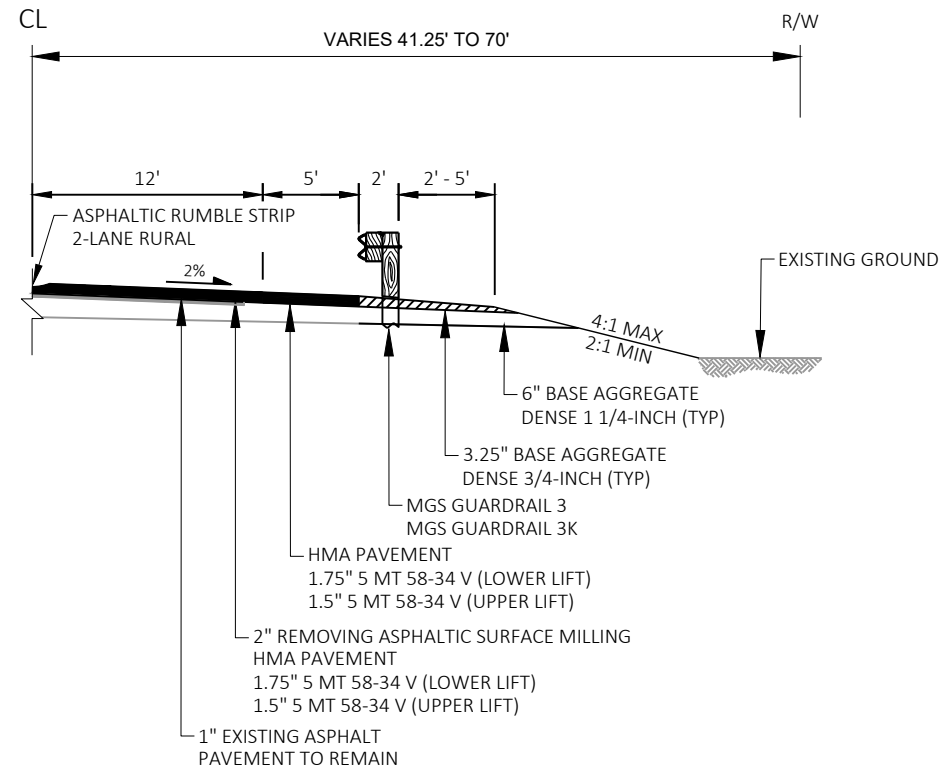


MOUNTING DETAIL FOR DELINEATOR REFLECTOR

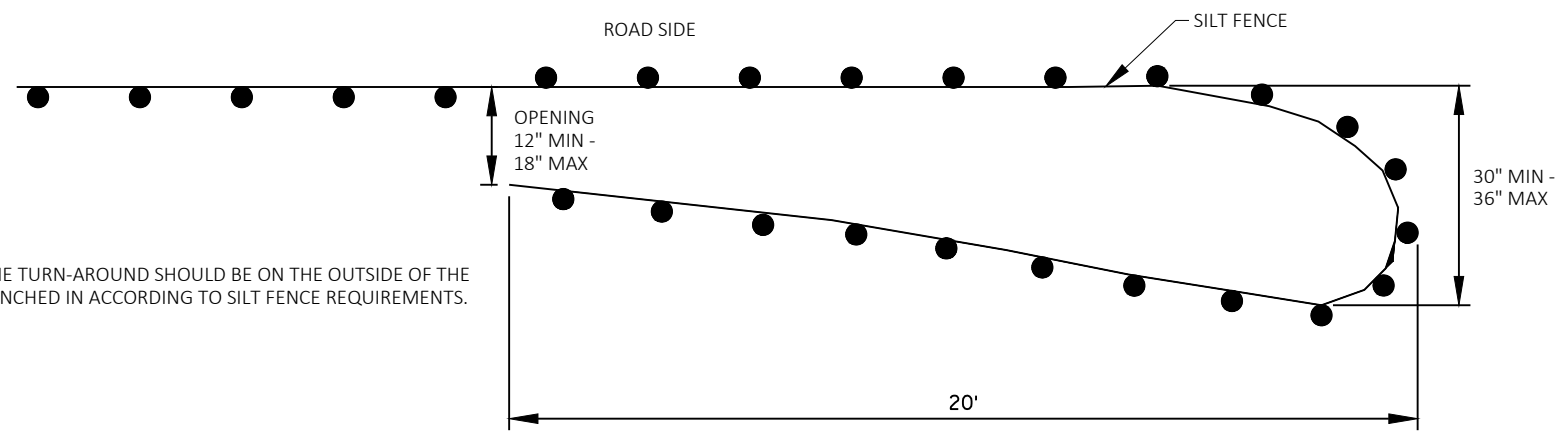


SECTION A-A
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

DELINEATOR POST DETAIL



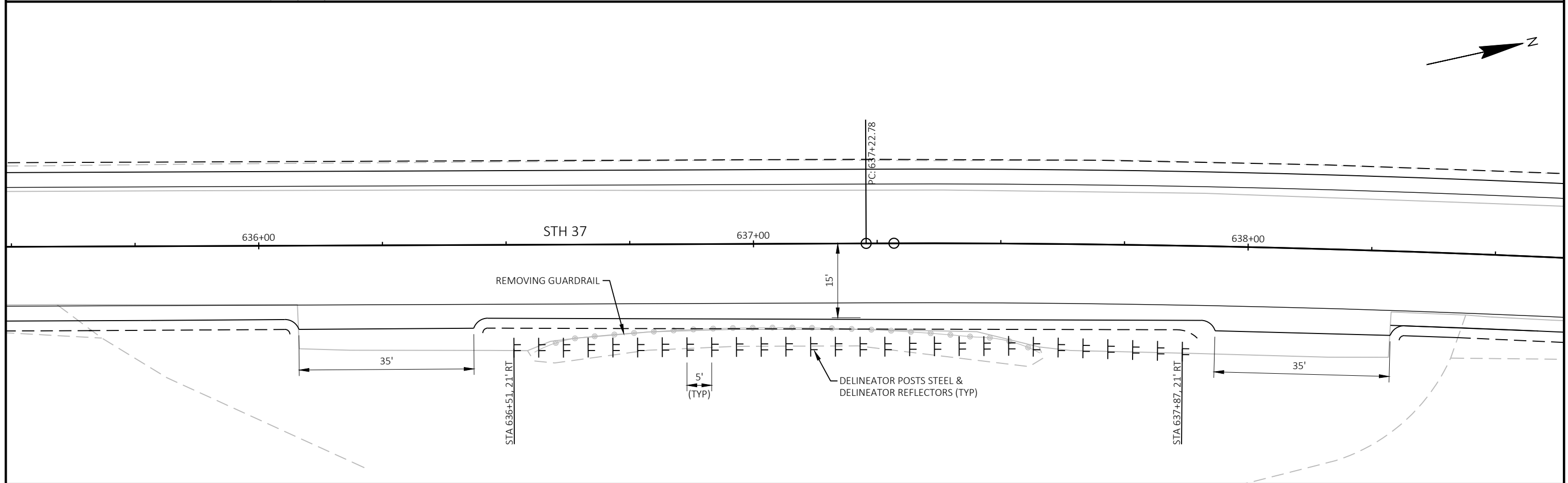
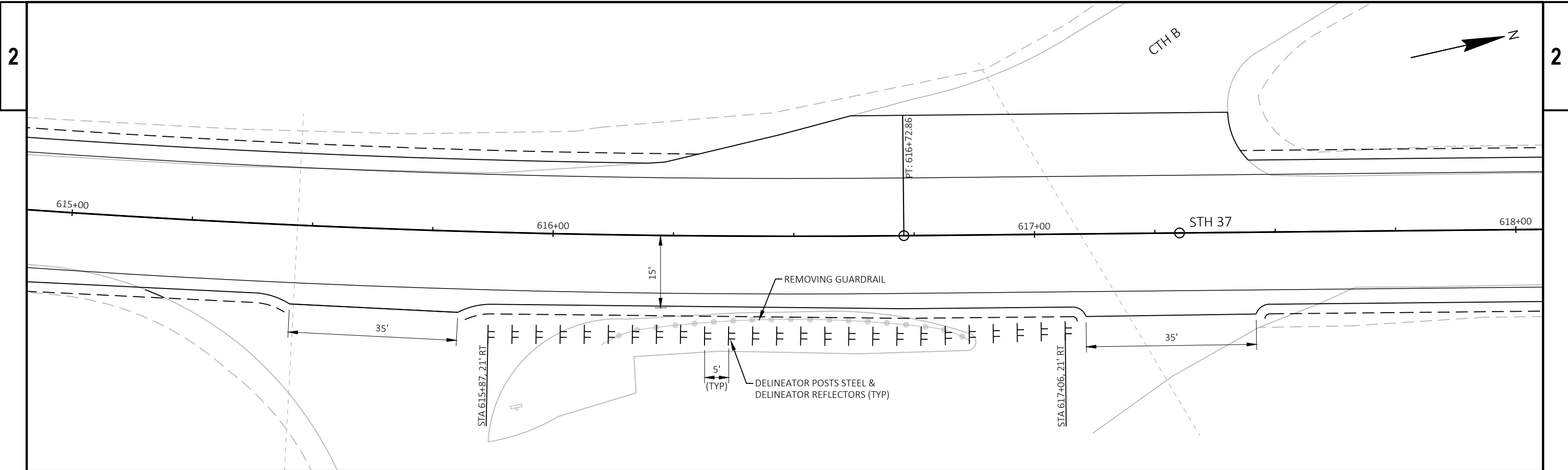
MGS GUARDRAIL PAVING DETAIL



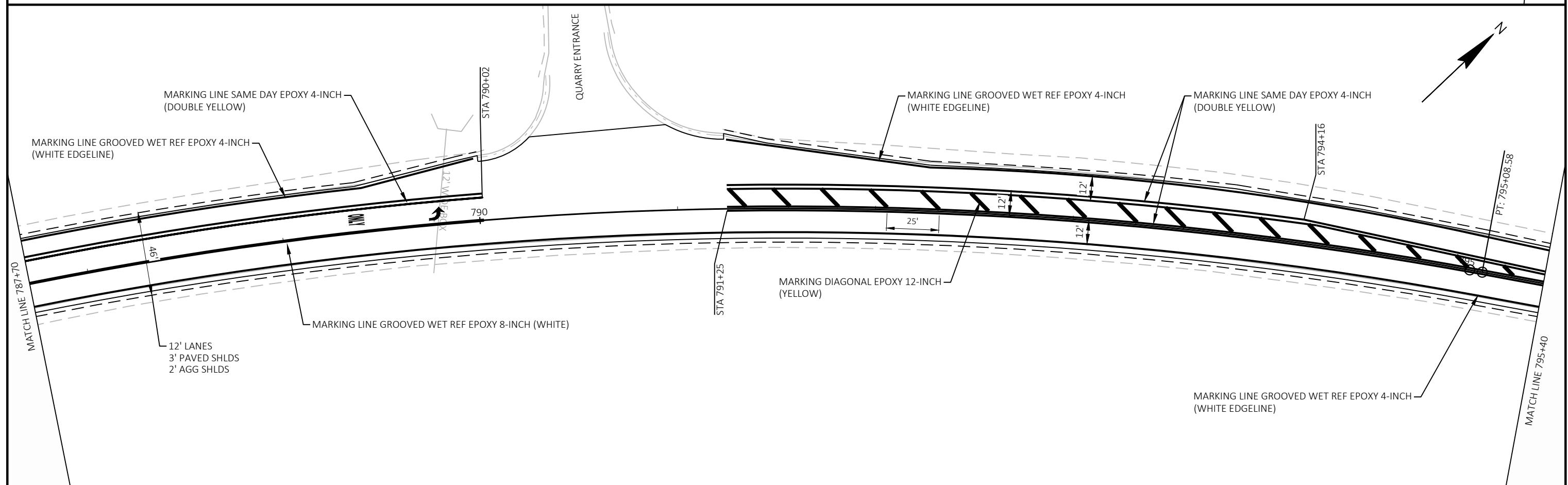
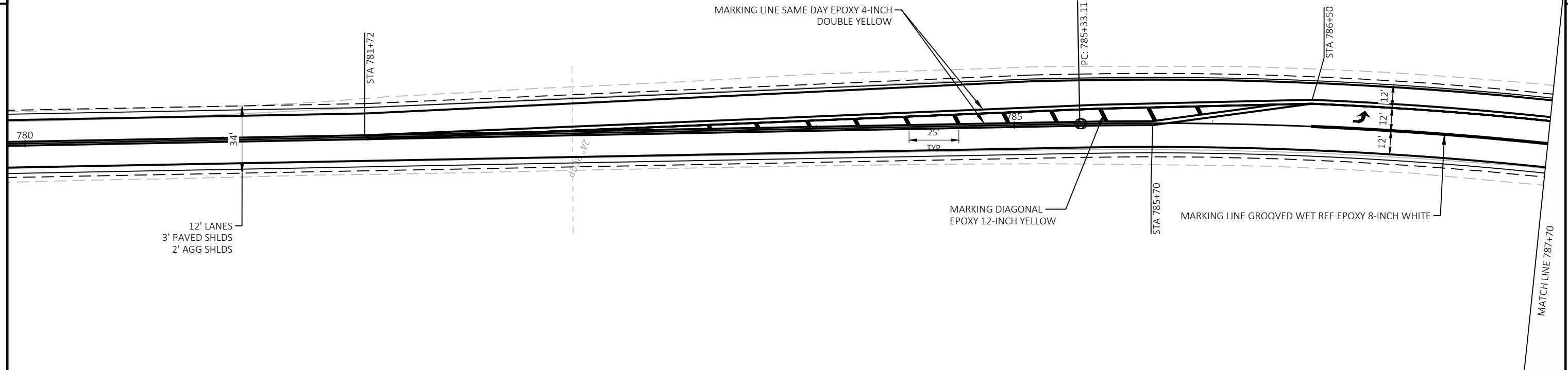
GENERAL NOTES:
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND. AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

PLAN VIEW

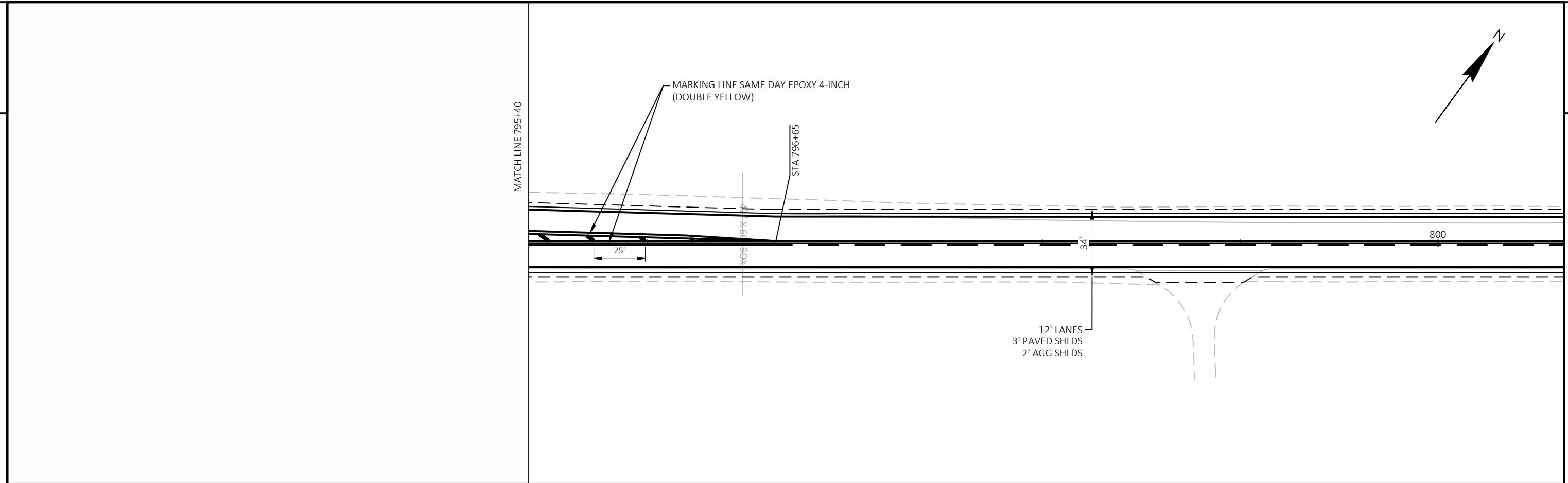
TEMPORARY TURTLE TURN-AROUND



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN DETAILS	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PAVEMENT MARKING	SHEET	E
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Estimate Of Quantities

7125-00-74 7125-00-75

Line	Item	Item Description	Unit	Total	Qty	Qty
0002	201.0105	Clearing	STA	14.000		14.000
0004	201.0205	Grubbing	STA	14.000		14.000
0006	203.0100	Removing Small Pipe Culverts	EACH	9.000		9.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	3,133.000	3,133.000	
0010	204.0120	Removing Asphaltic Surface Milling	SY	211,041.000	211,041.000	
0012	204.0165	Removing Guardrail	LF	11,367.000		11,367.000
0014	208.0100	Borrow	CY	4,058.000		4,058.000
0016	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	4.000		4.000
0018	209.2100	Backfill Granular Grade 2	CY	1,600.000		1,600.000
0020	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7125-00-74	LS	1.000	1.000	
0022	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,490.000	1,490.000	
0024	213.0100	Finishing Roadway (project) 01. 7125-00-74	EACH	1.000	1.000	
0026	213.0100	Finishing Roadway (project) 02. 7125-00-75	EACH	1.000		1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	4,300.000	4,300.000	
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,367.000		3,367.000
0032	455.0605	Tack Coat	GAL	35,660.000	35,540.000	120.000
0034	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000	
0036	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000	
0038	460.2005	Incentive Density PWL HMA Pavement	DOL	35,930.000	35,930.000	
0040	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	29,610.000	29,610.000	
0042	460.2010	Incentive Air Voids HMA Pavement	DOL	45,950.000	45,950.000	
0044	460.6645	HMA Pavement 5 MT 58-34 V	TON	45,950.000	45,950.000	
0046	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000	
0048	465.0105	Asphaltic Surface	TON	980.000	500.000	480.000
0050	465.0110	Asphaltic Surface Patching	TON	300.000	300.000	
0052	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	68,346.000	68,346.000	
0054	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	8.000		8.000
0056	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	3.000		3.000
0058	520.8000	Concrete Collars for Pipe	EACH	6.000		6.000
0060	520.8700	Cleaning Culvert Pipes	EACH	27.000		27.000
0062	520.9700.S	Culvert Pipe Liners (size) 01. 24-Inch	LF	234.000		234.000
0064	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	3.000		3.000
0066	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	24.000		24.000
0068	521.3130	Culvert Pipe Corrugated Steel 30-Inch	LF	24.000		24.000
0070	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	146.000		146.000
0072	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	54.000		54.000
0074	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	6.000		6.000
0076	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000		2.000
0078	525.0330	Apron Endwalls for Culvert Pipe Aluminum 30-Inch	EACH	1.000		1.000
0080	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	22.000		22.000
0082	614.0400	Adjusting Steel Plate Beam Guard	LF	1,592.000		1,592.000
0084	614.2300	MGS Guardrail 3	LF	2,725.000		2,725.000
0086	614.2330	MGS Guardrail 3 K	LF	7,138.000		7,138.000
0088	614.2610	MGS Guardrail Terminal EAT	EACH	24.000		24.000
0090	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7125-00-74	EACH	1.000	1.000	
0092	619.1000	Mobilization	EACH	1.000	0.800	0.200
0094	621.0100	Landmark Reference Monuments	EACH	1.000	1.000	
0096	624.0100	Water	MGAL	16.000		16.000
0098	625.0100	Topsoil	SY	396.000		396.000

Estimate Of Quantities

7125-00-74 7125-00-75

Line	Item	Item Description	Unit	Total	Qty	Qty
0100	625.0500	Salvaged Topsoil	SY	17,655.000		17,655.000
0102	628.1504	Silt Fence	LF	11,620.000		11,620.000
0104	628.1520	Silt Fence Maintenance	LF	11,620.000		11,620.000
0106	628.1905	Mobilizations Erosion Control	EACH	1.000		1.000
0108	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000		2.000
0110	628.2008	Erosion Mat Urban Class I Type B	SY	18,050.000		18,050.000
0112	628.7555	Culvert Pipe Checks	EACH	17.000		17.000
0114	629.0210	Fertilizer Type B	CWT	19.000		19.000
0116	630.0171	Seeding Mixture No. 70A	LB	78.000		78.000
0118	630.0500	Seed Water	MGAL	410.000		410.000
0120	633.0100	Delineator Posts Steel	EACH	50.000		50.000
0122	633.0500	Delineator Reflectors	EACH	50.000		50.000
0124	633.5200	Markers Culvert End	EACH	51.000		51.000
0126	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	12.000	10.000	2.000
0128	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	22.000		22.000
0130	638.2102	Moving Signs Type II	EACH	34.000	10.000	24.000
0132	638.4000	Moving Small Sign Supports	EACH	34.000	10.000	24.000
0134	642.5001	Field Office Type B	EACH	1.000	1.000	
0136	643.0300	Traffic Control Drums	DAY	10,590.000	6,000.000	4,590.000
0138	643.0900	Traffic Control Signs	DAY	2,760.000	1,620.000	1,140.000
0140	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0142	643.5000	Traffic Control	EACH	1.000	1.000	
0144	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	147,300.000	147,300.000	
0146	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	462.000	462.000	
0148	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	118,280.000	118,280.000	
0150	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000	
0152	646.5120	Marking Word Epoxy	EACH	2.000	2.000	
0154	646.7120	Marking Diagonal Epoxy 12-Inch	LF	275.000	275.000	
0156	648.0100	Locating No-Passing Zones	MI	14.100	14.100	
0158	649.0105	Temporary Marking Line Paint 4-Inch	LF	340,300.000	340,300.000	
0160	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	113,500.000	113,500.000	
0162	650.4500	Construction Staking Subgrade	LF	12,654.000		12,654.000
0164	650.5000	Construction Staking Base	LF	12,654.000		12,654.000
0166	650.6000	Construction Staking Pipe Culverts	EACH	4.000		4.000
0168	650.8000	Construction Staking Resurfacing Reference	LF	74,420.000	74,420.000	
0170	650.9910	Construction Staking Supplemental Control (project) 01. 7125-00-74	LS	1.000	1.000	
0172	650.9910	Construction Staking Supplemental Control (project) 02. 7125-00-75	LS	1.000		1.000
0174	650.9920	Construction Staking Slope Stakes	LF	12,654.000		12,654.000
0176	690.0150	Sawing Asphalt	LF	1,531.000	1,331.000	200.000
0178	740.0440	Incentive IRI Ride	DOL	56,072.000	56,072.000	
0180	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000	
0182	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	2,160.000	2,160.000	
0184	SPV.0060	Special 01. Resetting End Section	EACH	9.000		9.000
0186	SPV.0180	Special 01. Ditch Cleaning	SY	100.000		100.000

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CATEGORY	STATION TO	STATION	LOCATION	201.0105	201.0205
				CLEARING STA	GRUBBING STA
0010	105+00 -	110+00	RT	5	5
0010	112+00 -	115+00	RT	3	3
0010	139+00 -	140+00	LT	1	1
0010	144+00 -	146+00	LT	2	2
0010	148+00 -	150+00	LT	2	2
0010	158+00 -	159+00	LT	1	1
TOTAL 0010				14	14

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	203.0100
			REMOVING SMALL PIPE CULVERTS EACH
0010	216+72	ML	1
0010	221+09	ML	1
0010	261+38	ML	1
0010	348+27	ML	1
0010	412+30	ML	1
0010	418+28	ML	1
0010	418+37	ML	1
0010	463+85	ML	1
0010	489+74	ML	1
TOTAL 0010			9

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION TO	STATION	LOCATION	204.0165
				REMOVING GUARDRAIL LF
0010	104+16 -	114+54	LT	1,040
0010	105+80 -	108+82	RT	304
0010	112+13 -	114+65	RT	254
0010	139+99 -	145+24	LI	528
0010	149+96 -	158+68	LT	878
0010	237+74 -	237+74	LT	50
0010	238+88 -	239+38	LT	50
0010	239+52 -	240+02	LT	50
0010	253+16 -	253+66	RI	50
0010	253+67 -	254+17	LT	50
0010	255+98 -	256+48	RT	50
0010	256+48 -	256+98	LT	50
0010	276+64 -	277+14	LT	50
0010	276+65 -	277+15	RI	50
0010	277+80 -	278+30	RT	50
0010	277+82 -	278+32	LT	50
0010	325+25 -	330+66	LT	553
0010	441+08 -	441+58	RT	50
0010	441+26 -	441+76	LT	50
0010	442+30 -	442+80	LT	50
0010	446+95 -	451+48	LT	466
0010	505+77 -	516+95	LI	1,141
0010	535+07 -	535+57	LT	50
0010	535+09 -	535+59	RT	50
0010	536+25 -	536+75	LT	50
0010	536+25 -	536+75	RT	50
0010	558+18 -	558+68	LI	50
0010	558+19 -	558+69	RT	50
0010	562+85 -	563+35	RT	50
0010	564+85 -	565+35	LT	50
0010	616+10 -	616+87	RT	78
0010	636+56 -	637+58	RI	103
0010	652+69 -	661+29	RT	865
0010	664+46 -	694+72	RT	3,078
0010	705+33 -	709+35	RT	403
0010	715+03 -	721+28	RT	626
TOTAL 0010				11,367

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION TO	STATION	LOCATION	204.0115	204.0120
				REMOVING ASPHALTIC SURFACE BUILT JOINTS SY	REMOVING ASPHALTIC SURFACE MILLING SY
0010	100+00 -	238+13	ML	520	40,280
0010	238+52 -	254+56	ML	397	4,610
0010	255+59 -	559+51	ML	386	88,001
0010	562+15 -	844+20	ML	479	78,150
0010	201+55	CTH N		126	-
0010	237+12	RISLER RD		46	-
0010	250+07	CTH NN		98	-
0010	322+47	CTH KK		113	-
0010	322+47	GERKE RD		95	-
0010	435+94	CTH J		175	-
0010	490+13	HAGER RD		59	-
0010	537+39	STEFINER RD		69	-
0010	615+66	CTH B		77	-
0010	617+01	CTH B		106	-
0010	704+76	CTH D		82	-
0010	790+61	QUARRY ENTRANCE		98	-
0010	834+41	QUARRY ENTRANCE		207	-
TOTAL 0010				3,133	211,041

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	LOCATION	208.1500.S	REMARKS		
			TEMPORARY LANE SHIFT DURING CULVERT WORK EACH			
0010	212+70	ML	20	41	1	RESETTING END SECTIONS
0010	216+72	ML	26	37	1	CULVERT PIPE REPLACEMENT
0010	412+30	ML	57	45	1	CULVERT PIPE REPLACEMENT
0010	418+30	ML	1	15	1	CULVERT PIPE REPLACEMENT
TOTAL 0010					4	

* QUANTITIES ARE FOR INFORMATION ONLY AND ARE CONSIDERED INCIDENTAL TO LANE SHIFT BID ITEM.

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	209.2100	REMARKS
			BACKFILL GRANULAR GRADE 2 CY	
0010	216+72	ML	520	CULVERT PIPE REPLACEMENT
0010	412+30	ML	520	CULVERT PIPE REPLACEMENT
0010	418+28/418+33	ML	560	CULVERT PIPE REPLACEMENT
TOTAL 0010			1,600	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

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DIVISION	FROM/TO STATION	LOCATION	*205.0100 EXCAVATION COMMON	AVAILABLE MATERIAL (2)	UNEXPANDED FILL	EXPANDED FILL (3)	MASS ORDINATE +/- (4)	*208.0100 BORROW (5)
			CUT (1)			FACTOR 1.25		
DIVISION 1								
GUARDRAIL WIDENING	102+58.87/115+88.04	RT & LT	0	0	572	715	-715	715
DIVISION 1 SUBTOTAL			0	0	572	715	-715	715
DIVISION 2								
GUARDRAIL WIDENING	138+75.06/146+42.9	LT	0	0	127	159	-159	159
DIVISION 2 SUBTOTAL			0	0	127	159	-159	159
DIVISION 3								
GUARDRAIL WIDENING	148+72.42/159+86.04	LT	0	0	624	780	-780	780
DIVISION 3 SUBTOTAL			0	0	624	780	-780	780
DIVISION 4								
GUARDRAIL WIDENING	324+18.32/331+84.59	LT	0	0	6	8	-8	8
DIVISION 4 SUBTOTAL			0	0	6	8	-8	8
DIVISION 5								
GUARDRAIL WIDENING	444+53.89/458+54.07	LT	0	0	370	463	-463	463
DIVISION 5 SUBTOTAL			0	0	370	463	-463	463
DIVISION 6								
GUARDRAIL WIDENING	504+21.29/518+75.53	LT	0	0	207	259	-259	259
DIVISION 6 SUBTOTAL			0	0	207	259	-259	259
DIVISION 7								
GUARDRAIL WIDENING	651+50.93/662+52.99	RT	0	0	182	228	-228	228
DIVISION 7 SUBTOTAL			0	0	182	228	-228	228
DIVISION 8								
GUARDRAIL WIDENING	663+27.27/695+95.08	RT	0	0	750	938	-938	938
DIVISION 8 SUBTOTAL			0	0	750	938	-938	938
DIVISION 9								
GUARDRAIL WIDENING	704+14.54/710+57.77	RT	0	0	143	179	-179	179
DIVISION 9 SUBTOTAL			0	0	143	179	-179	179
DIVISION 10								
GUARDRAIL WIDENING	712+34.02/722+52.71	RT	0	0	265	331	-331	331
DIVISION 10 SUBTOTAL			0	0	265	331	-331	331
GRAND TOTAL			0	0	3,246	4,058	-4,058	4,058
TOTAL COMMON EXC			0					

NOTES:

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

(2) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(3) EXPANDED FILL FACTOR = 1.25

(4) MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.

MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(5) EXCESS SHOULDER MATERIAL MAY BE USED AS BORROW IF FOUND SUITABLE BY THE ENGINEER. THIS QUANTITY NOT FACTORED INTO EARTHWORK TABLE.

*ALL ITEMS SHALL BE PROJECT 7125-00-75.

PROJECT NO: 7125-00-74/75

HWY: STH 37

COUNTY: BUFFALO

MISCELLANEOUS QUANTITIES

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CATEGORY	STATION	TO	STATION	LOCATION	STA
0010	100+00	-	845+00	ML	1,490
TOTAL 0010					1,490

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	TO	STATION	LOCATION	TON
0010	100+00	-	844+20	LT/RT	4,300
TOTAL 0010					4,300

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	LOCATION	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
0010	PROJECT	1	2
TOTAL 0010		1	2

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	TO	STATION	LOCATION	TON	WATER MGAL	REMARKS
0010	102+59	-	115+88	LT/RT	248	1	BEAM GUARD WIDENING
0010	138+75	-	146+43	LT	236	1	BEAM GUARD WIDENING
0010	148+72	-	159+86	LT	168	1	BEAM GUARD WIDENING
0010	216+72			ML	327	1	CULVERT PIPE TRANSITION
0010	324+18	-	331+85	LT	34	1	BEAM GUARD WIDENING
0010	412+30			ML	327	1	CULVERT PIPE TRANSITION
0010	418+28	-	418+32	ML	327	1	CULVERT PIPE TRANSITION
0010	444+54	-	458+54	LT	176	1	BEAM GUARD WIDENING
0010	504+21	-	518+78	LT	250	1	BEAM GUARD WIDENING
0010	651+51	-	662+53	RT	148	1	BEAM GUARD WIDENING
0010	663+27	-	695+95	RT	850	4	BEAM GUARD WIDENING
0010	704+14	-	710+58	RT	96	1	BEAM GUARD WIDENING
0010	712+34	-	722+53	RT	180	1	BEAM GUARD WIDENING
TOTAL 0010					3,367	16	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	100+00 TO 844+20	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	16,580	1 1/2"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	100+00 TO 844+20	LOWER LAYER	MILLED EXISTING HMA SURFACE	5 MT 58-34 V	19,343	1 3/4"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT SHOULDER	100+00 TO 844+20	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	4,145	1 1/2"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
3 FOOT SHOULDER	100+00 TO 844+20	LOWER LAYER	MILLED EXISTING HMA SURFACE AND EXISTING BASE AGGREGATE	5 MT 58-34 V	4,836	1 3/4"	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
VARIOUS		INTERSECTIONS	MILLED EXISTING HMA SURFACE	5 MT 58-34 V	1,046	3.25" TOTAL	INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
VARIOUS		CULVERT PIPE TRANSITION	BASE AGGREGATE	ASPHALTIC SURFACE	120	6" TOTAL	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS		REPAIRS AFTER SURFACE MILL	BASE AGGREGATE	ASPHALTIC SURFACE	500	VARIES	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS		REPAIRS AFTER SURFACE MILL	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	300	VARIES	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION

CATEGORY	LOCATION	LS
0010	PROJECT	1
TOTAL 0010		1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

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CATEGORY	STATION	TO	STATION	LOCATION	TACK COAT GAL	455.0605 HMA PAVEMENT 5 MT 58-34 V TON	REMARKS
0010	100+00	-	238+12	ML	6,540	8,500	
0010	238+52	-	254+56	ML	800	1,040	
0010	255+59	-	559+51	ML	14,320	18,620	
0010	562+15	-	844+20	ML	13,680	17,790	
0010				PROJECT	200	-	MISCELLANEOUS AFTER SURFACE MILL
TOTAL 0010					35,540	45,950	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
0010	PROJECT	500	300	MISCELLANEOUS REPAIRS AFTER SURFACE MILL
TOTAL 0010		500	300	

* QUANTITIES SHOWN ELSEWHERE IN PLAN.
NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	PROJECT	120	480	CULVERT PIPE TRANSITION
TOTAL 0010		120	480	

* QUANTITIES SHOWN ELSEWHERE IN PLAN.
NOTE: ITEM SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	TO	STATION	LOCATION	465.0475 ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF
0010	102+70	-	235+09	ML	12,839
0010	238+77	-	254+31	ML	1,154
0010	257+59	-	559+26	ML	28,167
0010	562+40	-	841+56	ML	26,186
TOTAL 0010					68,346

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	LOCATION	PIPE THICKNESS (INCHES)	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	520.9700.S.01 CULVERT PIPE LINERS (SIZE) (01. 24-INCH) LF	520.9750.S CLEANING CULVERT PIPES FOR LINER VERIFICATION EACH	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.3130 CULVERT PIPE CORRUGATED STEEL 30-INCH LF	525.0330 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 30- INCH EACH
0010	104+37	LT/RT	-	2	-	-	97	1	-	-	-
0010	169+59	LT	-	-	-	-	-	-	-	-	1
0010	221+09	RT	.109	-	1	1	-	-	-	8	-
0010	261+38	LT	.109	-	1	1	-	-	-	8	-
0010	348+27	RT	.109	-	1	1	-	-	-	8	-
0010	463+85	LT/RT	.064	2	-	2	-	-	16	-	-
0010	489+74	LT/RT	.064	1	-	1	-	-	8	-	-
0010	515+83	LT/RT	-	2	-	-	66	1	-	-	-
0010	541+42	LT/RT	-	1	-	-	71	1	-	-	-
TOTAL 0010				8	3	6	234	3	24	24	1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	REMARKS
0010	169+59	ML	1	30" CMCP
0010	311+50	ML	1	60" CPCS
0010	312+68	ML	1	30" CPCS
0010	340+00	ML	1	24" CMCP
0010	342+25	ML	1	60" CMCP
0010	375+24	ML	1	30" CMCP
0010	381+52	ML	1	18" CMCP
0010	446+84	ML	1	24" CMCP
0010	451+66	ML	1	24" CMCP
0010	457+14	ML	1	24" CMCP
0010	481+49	ML	1	24" CMCP
0010	489+74	ML	1	24" CMCP
0010	492+13	ML	1	24" CMCP
0010	547+97	ML	1	24" CMCP
0010	583+91	ML	1	24" RCCP
0010	603+87	ML	1	30" RCCP
0010	627+57	ML	1	42" BOX
0010	640+74	ML	1	30" RCCP
0010	651+30	ML	1	24" RCCP
0010	696+82	ML	1	30" RCCP
0010	706+48	ML	1	30" RCCP
0010	711+05	ML	1	24" RCCP
0010	715+21	ML	1	60" BOX
0010	723+27	ML	1	60" BOX
0010	729+73	ML	1	24" RCCP
0010	748+36	ML	1	24" RCCP
0010	832+97	ML	1	36" RCCP
TOTAL 0010			27	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

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CATEGORY	STATION	LOCATION	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	216+72	ML	-	54	-	2	1
0010	412+30	ML	54	-	2	-	1
0010	418+28	ML	46	-	2	-	1
0010	418+33	ML	46	-	2	-	1
TOTAL 0010			146	54	6	2	4

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

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CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	103+76	-	114+69	LT	-	987.5	2
0010	105+80	-	108+86	RT	200.0	-	2
0010	112+13	-	114+70	RT	150.0	-	2
0010	139+94	-	145+24	LT	-	425.0	2
0010	149+91	-	158+68	LT	-	775.0	2
0010	325+17	-	330+66	LT	450.0	-	2
0010	445+72	-	457+36	LT	-	1,062.5	2
0010	505+20	-	517+57	LT	-	1,150.0	2
0010	652+69	-	661+35	RT	-	762.5	2
0010	664+46	-	694+77	RT	1,925.0	1,000.0	2
0010	705+33	-	709+39	RT	-	300.0	2
0010	713+53	-	721+34	RT	-	675.0	2
TOTAL 0010					2,725	7,138	24

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	TO	STATION	LOCATION	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	REMARKS
0010	100+00	-	100+54	LT/RT	-	105	ADJUST BEAM GUARD TO RADII TO MATCH PROPOSED PAVEMENT
0010	237+20	-	240+02	LT/RT	3	284	-
0010	253+16	-	256+98	LT/RT	4	258	-
0010	276+64	-	278+32	LT/RT	4	132	ADJUST BEAM GUARD TO RADII TO MATCH PROPOSED PAVEMENT
0010	441+08	-	442+80	LT/RT	3	173	-
0010	535+07	-	536+75	LT/RT	4	134	-
0010	558+18	-	565+35	LT/RT	4	506	-
TOTAL 0010					22	1,592	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH
0010	265+65	LT	1
TOTAL 0010			1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

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CATEGORY	STATION	TO	STATION	LOCATION	628.1504	628.1520	628.1905	628.1910
					SILT FENCE LF	SILT FENCE MAINTENANCE LF	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	102+36	-	104+55	LT	224	224	-	-
0010	104+53	-	110+18	RT	590	590	-	-
0010	110+71	-	116+00	RT	564	564	-	-
0010	113+88	-	116+05	LT	225	225	-	-
0010	138+64	-	140+65	LT	210	210	-	-
0010	144+36	-	146+74	LT	262	262	-	-
0010	148+48	-	160+00	LT	1,192	1,192	-	-
0010	216+72	-		LT	62	62	-	-
0010	261+38	-		LT	68	68	-	-
0010	323+78	-	327+90	LT	420	420	-	-
0010	330+00	-	332+00	LT	210	210	-	-
0010	412+30	-	0+00	LT	62	62	-	-
0010	418+28	-	0+00	LT	62	62	-	-
0010	445+57	-	448+67	LT	337	337	-	-
0010	451+35	-	453+59	LT	234	234	-	-
0010	454+13	-	458+63	LT	438	438	-	-
0010	463+85	-		LT	62	62	-	-
0010	489+74	-		LT	64	64	-	-
0010	504+48	-	518+34	LT	1,446	1,446	-	-
0010	651+22	-	662+69	RT	519	519	-	-
0010	663+13	-	696+18	RT	645	645	-	-
0010	703+90	-	710+72	RT	3,321	3,321	-	-
0010	712+27	-	722+72	RT	395	395	-	-
PROJECT					-	-	1	2
TOTAL 0010					11,620	11,620	1	2

CATEGORY	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH
0010	PROJECT	50	50
TOTAL 0010		50	50

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	PROJECT	10	10	10	NO PASSING ZONE SIGNS
TOTAL 0010		10	10	10	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	625.0500	628.2008	628.7555	629.0210	630.0171	630.0500	REMARKS
					TOPSOIL SY	SALVAGED TOPSOIL SY	EROSION MAT URBAN CLASS I TYPE B SY	CULVERT PIPE CHECKS EACH	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 70A LB	SEED WATER MGAL	
0010	100+00	-	238+13	LT/RT	-	4,744	4,744	10	3	17	110	BOP TO B-06-178
0010	216+20	-	217+24	LT/RT	100	-	100	-	1	2	2	TEMP WIDEN FOR CULVERT PIPE
0010	254+56	-	599+51	LT/RT	-	4,056	4,056	5	2	15	90	B-06-179 TO B-06-117
0010			308+90	RT	20	-	20	-	1	1	1	SLOPE REPAIR - RT
0010			315+81	RT	20	-	20	-	1	1	1	SLOPE REPAIR - RT
0010	411+78	-	412+82	LT/RT	100	-	100	-	1	2	2	TEMP WIDEN FOR CULVERT PIPE
0010	417+76	-	418+84	LT/RT	100	-	100	-	1	2	2	TEMP WIDEN FOR CULVERT PIPE
0010			547+97	RT	20	-	20	-	1	1	1	SLOPE REPAIR - RT
0010	562+15	-	844+20	LT/RT	-	7,150	7,150	-	4	26	160	B-06-117 TO EOP
0010			615+47	RT	-	50	50	-	1	2	2	DITCH CLEANING - RT
0010			617+09	RT	-	50	50	-	1	2	2	DITCH CLEANING - RT
UNDISTRIBUTED (10%)					36	1,605	1,640	2	2	7	37	
TOTAL 0010					396	17,655	18,050	17	19	78	410	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

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CATEGORY	STATION	TO	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14- FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16- FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	105+00	-		RT	1	-	1	1	NO PASSING ZONE SIGN
0010	111+00	-		LT	1	-	1	1	NO PASSING ZONE SIGN
0010	325+00	-		LT	-	1	1	1	ROAD CURVES LEFT
0010	446+00	-		LT	-	1	1	1	JCT CTH J
0010	506+00	-		LT	-	1	1	1	ROAD CURVES AHEAD
0010	510+00	-	517+00	LT	-	16	16	16	CHEVRONS
0010	694+00	-		RT	-	1	1	1	JCT CTH D
0010	706+00	-		RT	-	2	2	2	JCT CTH D/NO PASSING
TOTAL 0010					2	22	24	24	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	633.5200 MARKFRS CULVERT END EACH
0010	144+01	LT/RT	2
0010	149+00	LT/RT	2
0010	155+38	LT/RT	2
0010	160+67	LT/RT	2
0010	216+72	LT/RT	2
0010	250+53	RT	1
0010	269+22	LT/RT	2
0010	290+47	LT	1
0010	308+90	LT/RT	2
0010	311+50	RT	1
0010	312+68	RT	1
0010	315+81	LT	1
0010	320+78	LT/RT	2
0010	359+53	LT/RT	2
0010	392+74	LT/RT	2
0010	412+30	LT/RT	2
0010	418+28	LT/RT	2
0010	418+32	LT/RT	2
0010	451+66	LT/RT	2
0010	467+08	RT	1
0010	481+49	LT/RT	2
0010	529+52	LT/RT	2
0010	544+07	RT	1
0010	547+97	RT	1
0010	615+47	LT	1
0010	617+09	LT/RT	2
0010	640+74	RT	1
0010	651+30	RT	1
0010	677+38	LT	1
0010	686+21	RT	1
0010	706+48	RT	1
0010	723+25	RT	1
0010	733+84	RT	1
0010	758+25	RT	1
TOTAL 0010			51

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	LOCATION	642.5001 FIELD OFFICE TYPE B EACH	CATEGORY	STATION	CONTENTS	LOCATION	DURATION DAYS	SIGNS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	REMARKS
0010	PROJECT	1	0010	100+72	ROAD WORK STARTING XX/XX/XXXX	BEGIN PROJECT	7	1	7	PLACE FOR 7 DAYS PRIOR TO CONSTRUCTION
			0010	844+20	ROAD WORK STARTING XX/XX/XXXX	END PROJECT	7	1	7	PLACE FOR 7 DAYS PRIOR TO CONSTRUCTION
TOTAL 0010		1	TOTAL 0010						14	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	LOCATION	DURATION DAYS	DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	DURATION DAYS	SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	REMARKS
0010	PROJECT	5	78	390	5	18	90	CULVERT REPLACEMENTS
0010	PROJECT	21	200	4,200	21	50	1,050	BEAM GUARD REPLACEMENTS
TOTAL 0010				4,590			1,140	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	LOCATION	DURATION DAYS	DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	DURATION DAYS	SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
0010	PROJECT	60	100	6,000	60	27	1,620	1
TOTAL 0010				6,000			1,620	1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

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CATEGORY	STATION	TO	STATION	LOCATION	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8- INCH LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.7120 MARKING DIAGONAL EPOXY 12- INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH LF	REMARKS
0010	100+00	-	844+20	ML	-	-	-	-	-	-	340,300	*113,500	CENTERLINE, YELLOW (*PRIOR TO RUMBLE STRIP INSTALLATION)
0010	100+00	-	844+20	ML	-	-	*113,500	-	-	-	-	-	CENTERLINE, YELLOW (*AFTER RUMBLE STRIP INSTALLATION)
0010	100+00	-	844+20	ML	147,300	110	-	-	-	-	-	-	EDGELINES, WHITE
0010	781+72	-	796+95	ML	-	352	4,780	2	2	275	-	-	QUARRY TURN LANE
TOTAL 0010					147,300	462	118,280	2	2	275	340,300	113,500	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.
 NOTE: LOCATION OF TEMPORARY MARKING LINE PAINT 4-INCH SHALL MATCH CENTERLINE PERMANENT MARKING LOCATIONS ON MILLED SURFACE, LOWER LIFT, AND UPPER LIFT.

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 LOCATING NO- PASSING ZONES MI
0010	100+00	-	844+20	PROJECT	14.1
TOTAL 0010					14.1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 CONSTRUCTION RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7125-00-74) LS
0010	100+00	-	844+20	PROJECT	74,420	1
TOTAL 0010					74,420	1

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7125-00-75) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	PROJECT	12,654	12,654	1	12,654	BEAM GUARD WIDENING
TOTAL 0010		12,654	12,654	1	12,654	

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	216+20	ML	26
0010	217+24	ML	26
0010	411+78	ML	26
0010	412+82	ML	26
0010	417+76	ML	26
0010	418+84	ML	70
TOTAL 0010			200

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

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CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	100+72	BEGIN PROJECT	50
0010	134+38	ASPH PELT	15
0010	135+15	ASPH PELT	18
0010	158+52	ASPH PERT	29
0010	201+55	CTH N	79
0010	237+12	RISLER RD	39
0010	250+07	CTH NN	72
0010	322+47	CTH KK	80
0010	347+64	ASPH PERT	29
0010	368+05	ASPH PERT	20
0010	418+84	GERKERD	65
0010	435+94	CTH J	93
0010	490+13	HAGER RD	38
0010	537+39	STEINER RD	68
0010	598+24	ASPH PERT	36
0010	615+66	CTH B	61
0010	617+01	ASPH PERT	78
0010	617+16	CTH B	61
0010	704+76	CTH D	59
0010	790+61	QUARRY ENTRANCE	69
0010	834+40	QUARRY ENTRANCE	135
0010	843+48	SIH 88	79
0010	843+56	ASPH PELT	28
0010	844+20	END PROJECT	30
TOTAL 0010			1,331

NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-74.

CATEGORY	STATION	LOCATION	SPV.0060.01 SPECIAL (01. RESETTING END SECTIONS) EACH
0010	212+70	RT	1
0010	583+91	RT	2
0010	677+38	LT	2
0010	729+73	RT	2
0010	806+11	RT	3
TOTAL 0010			9

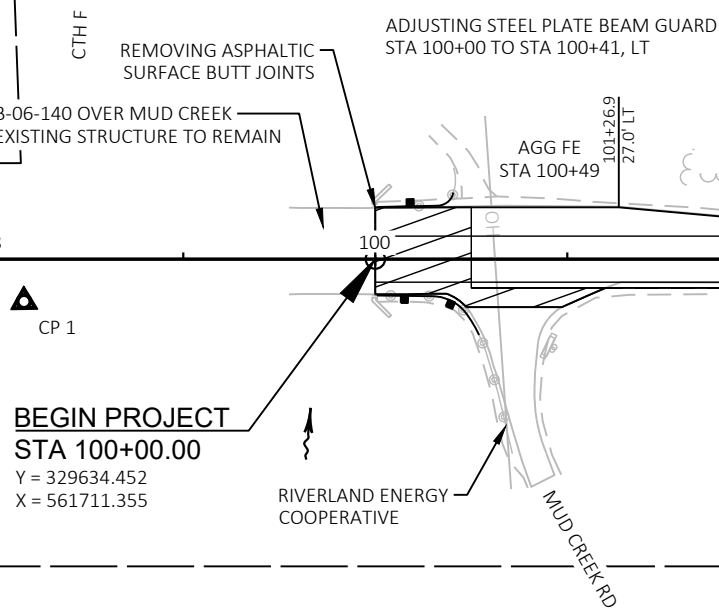
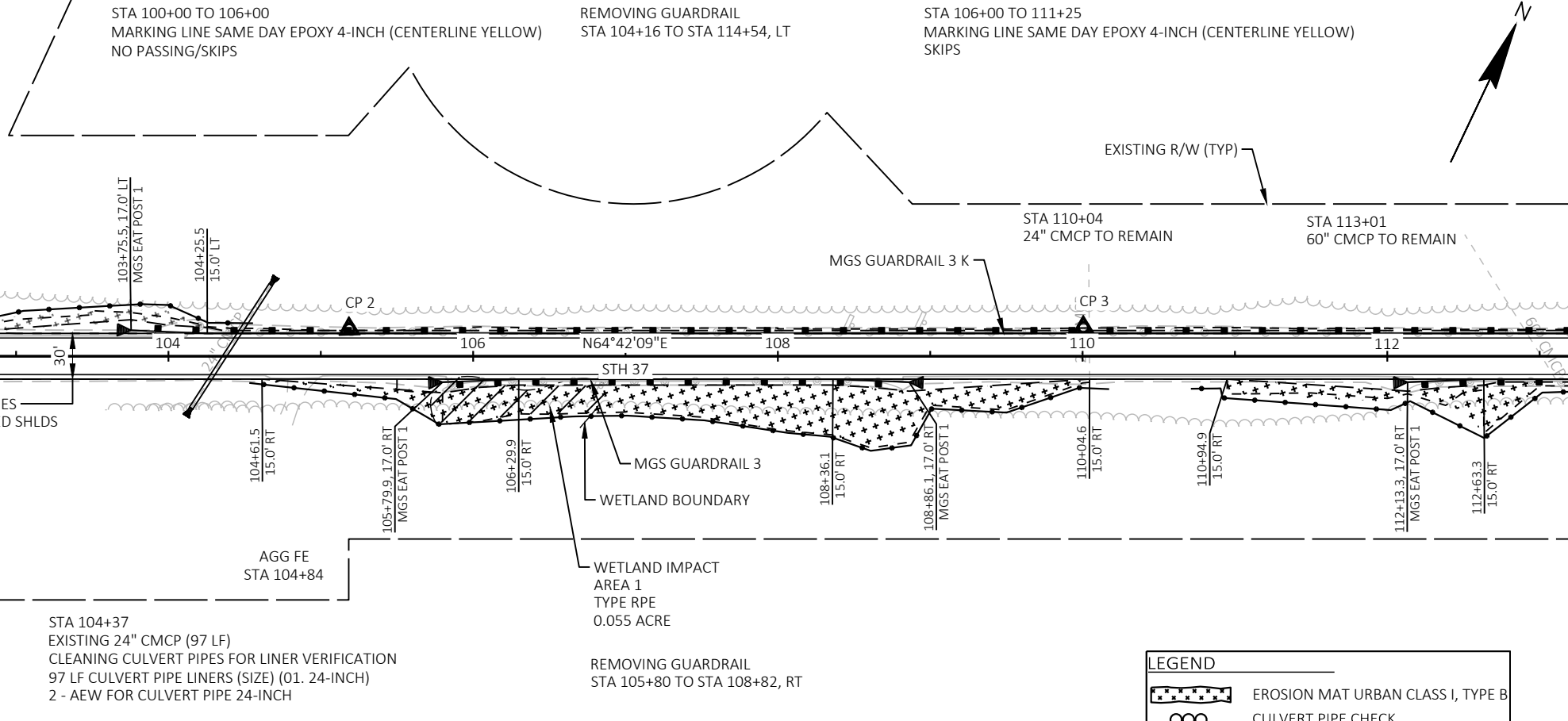
NOTE: ALL ITEMS SHALL BE PROJECT 7125-00-75.

CATEGORY	STATION	LOCATION	SPV.0180.01 SPECIAL (01. DITCH CLEANING) SY
0010	615+47	ML RT	50
0010	617+09	ML RT	50
TOTAL 0010			100

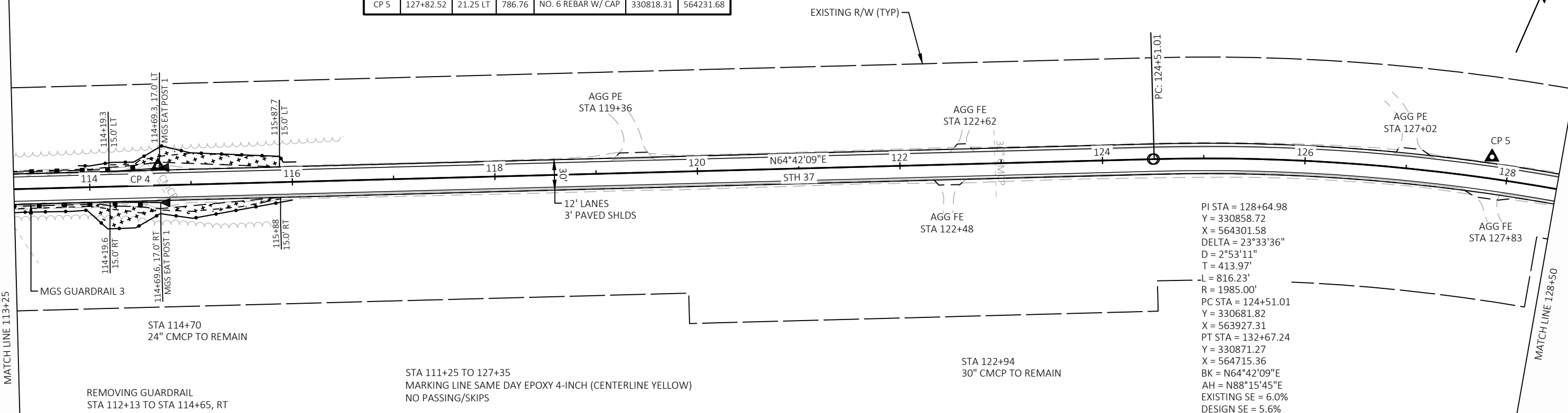
NOTE: ITEM SHALL BE PROJECT 7125-00-75.

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BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 1	98+17.05	22.08 RT	705.17	MAG NAIL IN BIT.	329536.31	561555.38
CP 2	105+18.61	18.00 LT	720.80	NO. 6 REBAR W/ CAP	329872.34	562172.54
CP 3	110+00.49	18.87 LT	737.00	NO. 6 REBAR W/ CAP	330079.04	562607.84

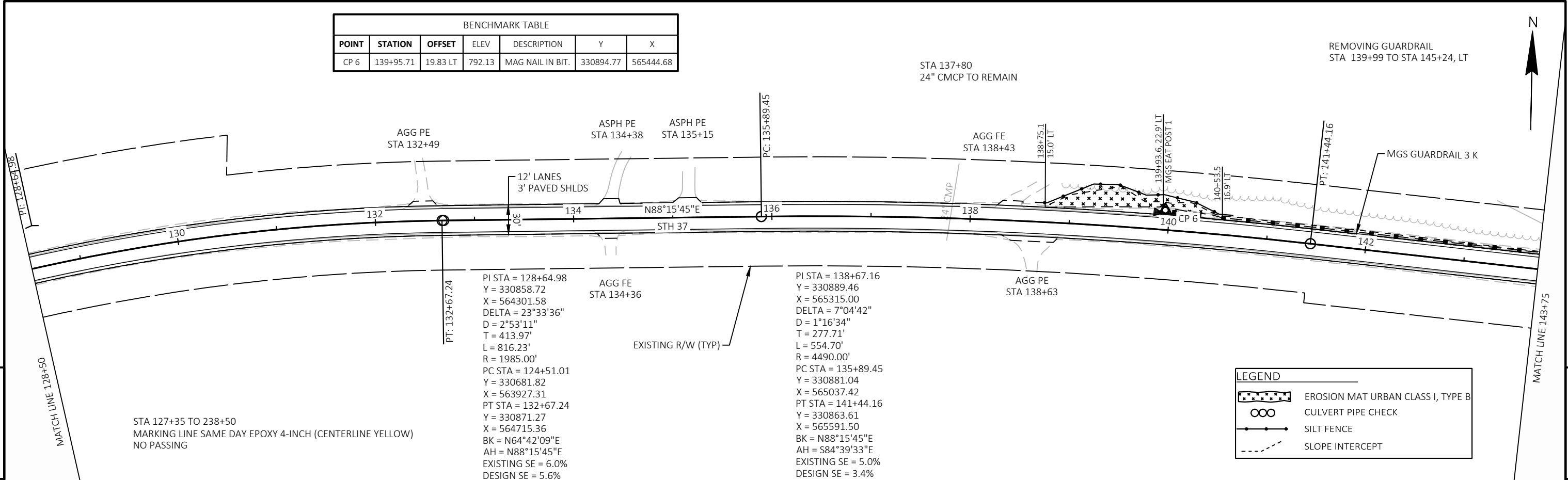


BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 4	114+67.81	19.13 LT	753.79	NO. 6 REBAR W/ CAP	330278.97	563030.23
CP 5	127+82.52	21.25 LT	786.76	NO. 6 REBAR W/ CAP	330818.31	564231.68

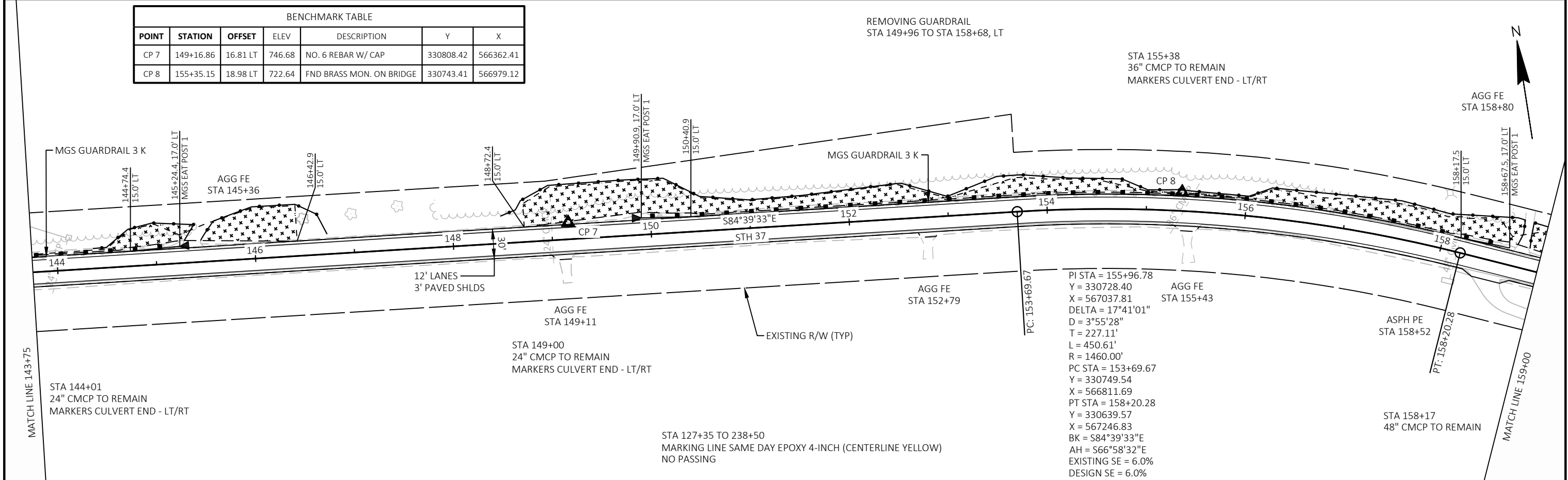


PI STA = 128+64.98
 Y = 330858.72
 X = 564301.58
 DELTA = 23°33'36"
 D = 2°53'11"
 T = 413.97'
 L = 816.23'
 R = 1985.00'
 PC STA = 124+51.01
 Y = 330681.82
 X = 563927.31
 PT STA = 132+67.24
 Y = 330871.27
 X = 564715.36
 BK = N64°42'09"E
 AH = N88°15'45"E
 EXISTING SE = 6.0%
 DESIGN SE = 5.6%

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 6	139+95.71	19.83 LT	792.13	MAG NAIL IN BIT.	330894.77	565444.68

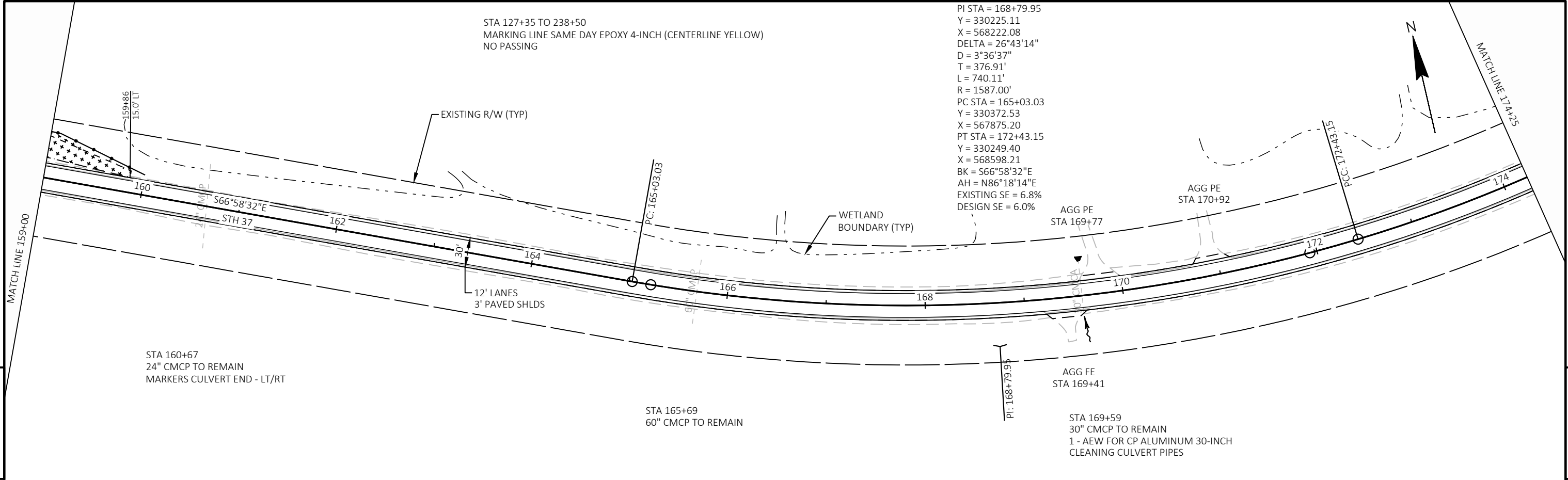


BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 7	149+16.86	16.81 LT	746.68	NO. 6 REBAR W/ CAP	330808.42	566362.41
CP 8	155+35.15	18.98 LT	722.64	FND BRASS MON. ON BRIDGE	330743.41	566979.12



STA 127+35 TO 238+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

PI STA = 168+79.95
Y = 330225.11
X = 568222.08
DELTA = 26°43'14"
D = 3°36'37"
T = 376.91'
L = 740.11'
R = 1587.00'
PC STA = 165+03.03
Y = 330372.53
X = 567875.20
PT STA = 172+43.15
Y = 330249.40
X = 568598.21
BK = S66°58'32"E
AH = N86°18'14"E
EXISTING SE = 6.8%
DESIGN SE = 6.0%



STA 160+67
24" CMCP TO REMAIN
MARKERS CULVERT END - LT/RT

STA 165+69
60" CMCP TO REMAIN

AGG FE
STA 169+41

STA 169+59
30" CMCP TO REMAIN
1 - AEW FOR CP ALUMINUM 30-INCH
CLEANING CULVERT PIPES

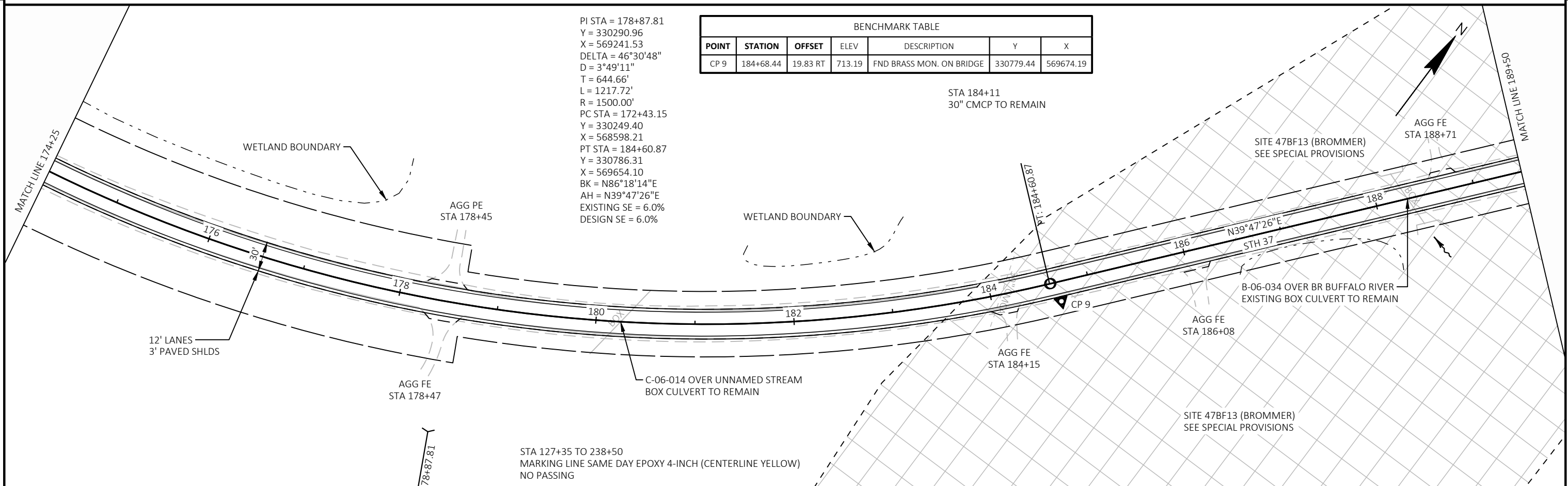
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PI STA = 178+87.81
Y = 330290.96
X = 569241.53
DELTA = 46°30'48"
D = 3°49'11"
T = 644.66'
L = 1217.72'
R = 1500.00'
PC STA = 172+43.15
Y = 330249.40
X = 568598.21
PT STA = 184+60.87
Y = 330786.31
X = 569654.10
BK = N86°18'14"E
AH = N39°47'26"E
EXISTING SE = 6.0%
DESIGN SE = 6.0%

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 9	184+68.44	19.83 RT	713.19	FND BRASS MON. ON BRIDGE	330779.44	569674.19

STA 184+11
30" CMCP TO REMAIN



12' LANES
3' PAVED SHLDS

AGG FE
STA 178+47

C-06-014 OVER UNNAMED STREAM
BOX CULVERT TO REMAIN

AGG FE
STA 184+15

AGG FE
STA 186+08

SITE 47BF13 (BROMMER)
SEE SPECIAL PROVISIONS

AGG FE
STA 188+71

SITE 47BF13 (BROMMER)
SEE SPECIAL PROVISIONS

B-06-034 OVER BR BUFFALO RIVER
EXISTING BOX CULVERT TO REMAIN

STA 127+35 TO 238+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

PROJECT NO: 7125-00-74/75

HWY: STH 37

COUNTY: BUFFALO

PLAN SHEETS

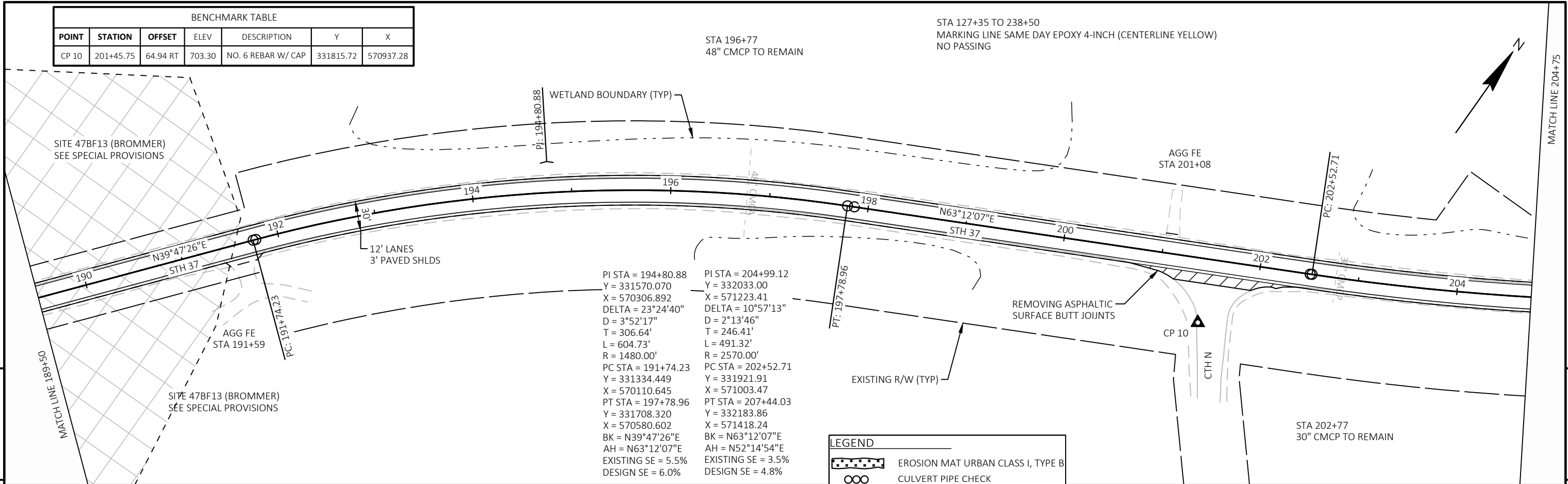
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BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 10	201+45.75	64.94 RT	703.30	NO. 6 REBAR W/ CAP	331815.72	570937.28

STA 196+77
48" CMCP TO REMAIN

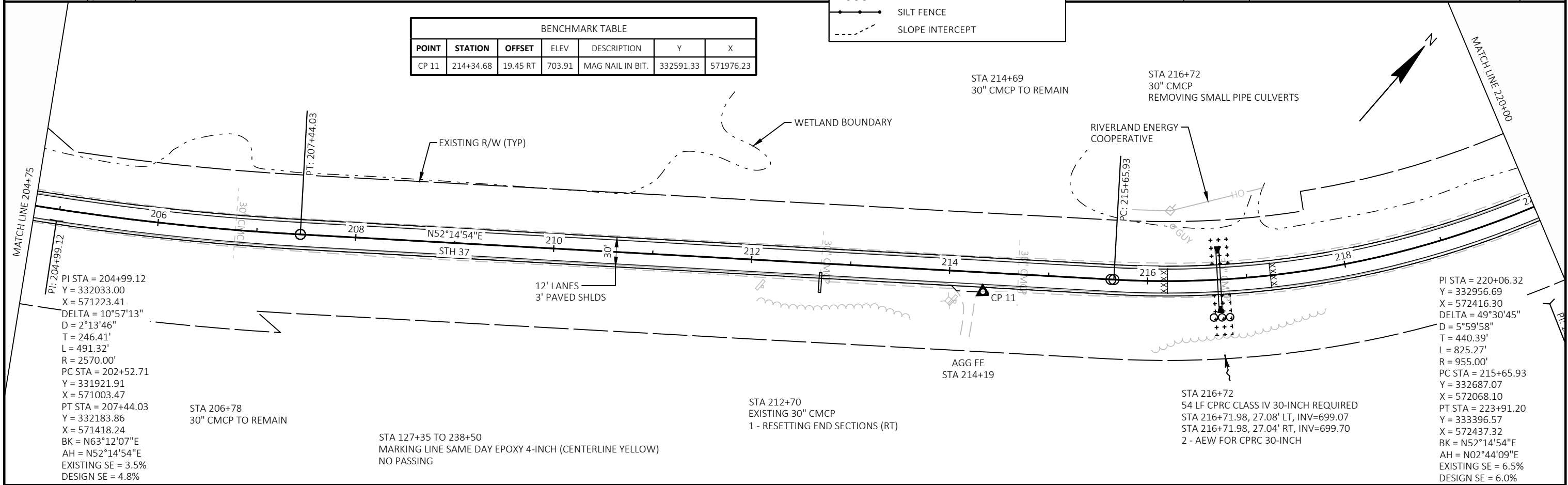
STA 127+35 TO 238+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

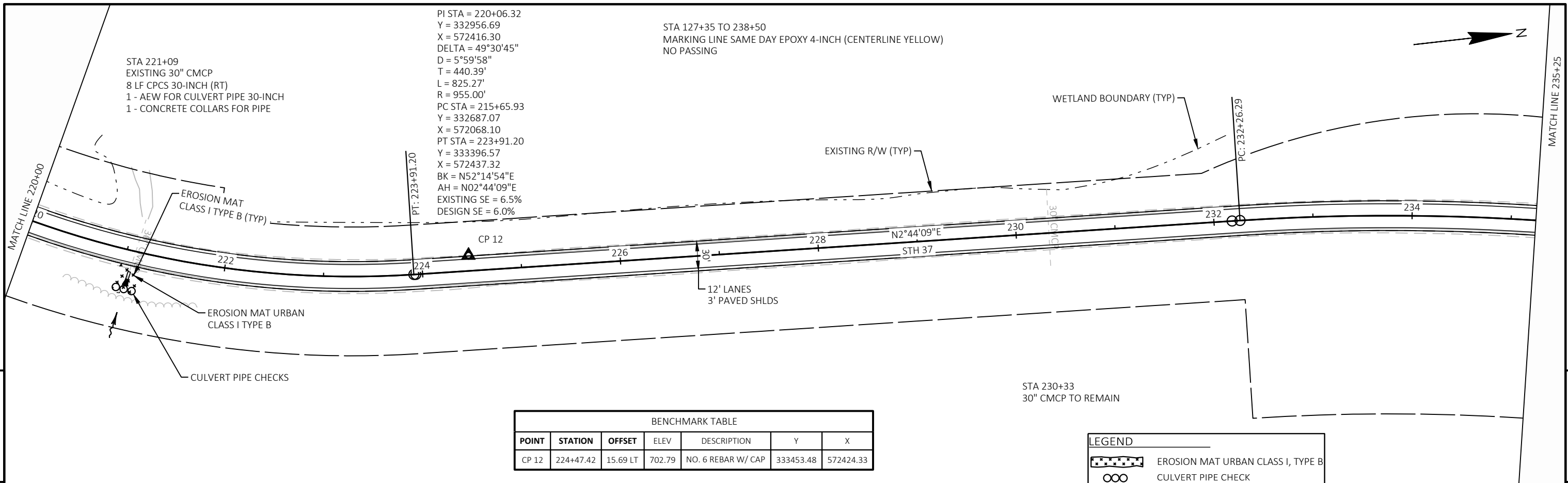


BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 11	214+34.68	19.45 RT	703.91	MAG NAIL IN BIT.	332591.33	571976.23

STA 214+69
30" CMCP TO REMAIN

STA 216+72
30" CMCP
REMOVING SMALL PIPE CULVERTS





PI STA = 220+06.32
 Y = 332956.69
 X = 572416.30
 DELTA = 49°30'45"
 D = 5°59'58"
 T = 440.39'
 L = 825.27'
 R = 955.00'
 PC STA = 215+65.93
 Y = 332687.07
 X = 572068.10
 PT STA = 223+91.20
 Y = 333396.57
 X = 572437.32
 BK = N52°14'54"E
 AH = N02°44'09"E
 EXISTING SE = 6.5%
 DESIGN SE = 6.0%

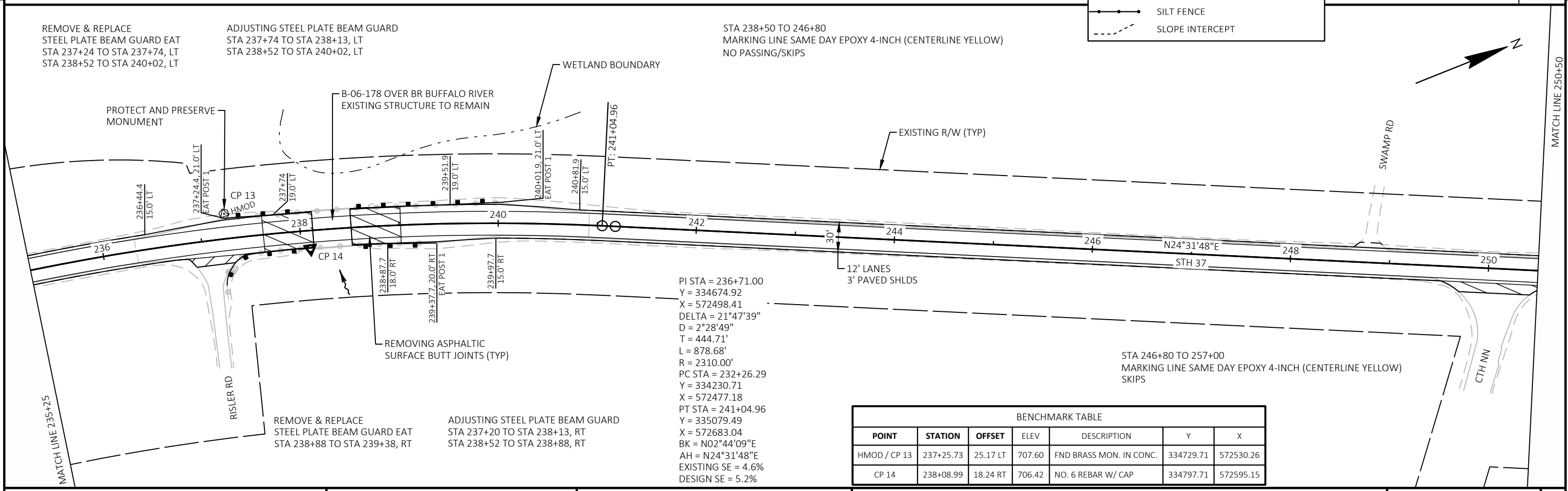
STA 127+35 TO 238+50
 MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
 NO PASSING

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 12	224+47.42	15.69 LT	702.79	NO. 6 REBAR W/ CAP	333453.48	572424.33

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

5

5



PI STA = 236+71.00
 Y = 334674.92
 X = 572498.41
 DELTA = 21°47'39"
 D = 2°28'49"
 T = 444.71'
 L = 878.68'
 R = 2310.00'
 PC STA = 232+26.29
 Y = 334230.71
 X = 572477.18
 PT STA = 241+04.96
 Y = 335079.49
 X = 572683.04
 BK = N02°44'09"E
 AH = N24°31'48"E
 EXISTING SE = 4.6%
 DESIGN SE = 5.2%

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
HMOD / CP 13	237+25.73	25.17 LT	707.60	FND BRASS MON. IN CONC.	334729.71	572530.26
CP 14	238+08.99	18.24 RT	706.42	NO. 6 REBAR W/ CAP	334797.71	572595.15

STA 246+80 TO 257+00
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS

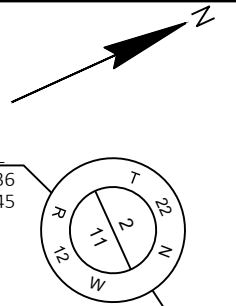
REMOVE AND REPLACE
STEEL PLATE BEAM GUARD EAT
STA 253+67 TO STA 254+17, LT
STA 255+52 TO STA 256+48, LT

ADJUSTING STEEL PLATE BEAM GUARD
STA 254+17 TO STA 254+50, LT
STA 256+48 TO STA 256+98, LT

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 15	254+60.91	18.95 RT	714.31	MAG NAIL IN BIT.	336305.19	573263.23

STA 261+38
EXISTING 30" CMCP
8 LF CPCS 30-INCH (LT)
1 - AEW FOR CULVERT PIPE 30-INCH
1 - CONCRETE COLLARS FOR PIPE

SURVEY NAIL
Y = 337325.36
X = 573683.45

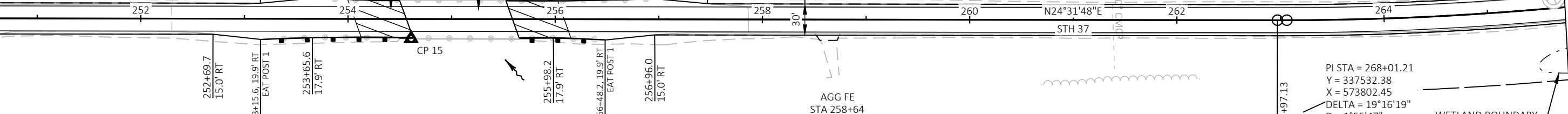
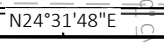


REMOVING ASPHALTIC
SURFACE BUTT JOINTS (TYP)

B-06-179 OVER HUTCHINSON CREEK
EXISTING STRUCTURE TO REMAIN

EXISTING R/W (TYP)

12' LANES
3' PAVED SHLDS



STA 250+53
30" CMCP
MARKERS CULVERT END - RT

REMOVE AND REPLACE
STEEL PLATE BEAM GUARD EAT
STA 253+16 TO STA 253+66, RT
STA 255+98 TO STA 256+48, RT

ADJUSTING STEEL PLATE BEAM GUARD
STA 253+66 TO STA 254+63, RT
STA 255+65 TO STA 255+98, RT

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

STA 257+00 TO 268+85
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

PI STA = 268+01.21
Y = 337532.38
X = 573802.45
DELTA = 19°16'19"
D = 1°55'47"
T = 504.08'
L = 998.64'
R = 2969.00'
PC STA = 262+97.13
Y = 337073.80
X = 573593.17
PT STA = 272+95.77
Y = 338034.34
X = 573848.64
BK = N24°31'48"E
AH = N05°15'30"E
EXISTING SE = 3.4%

5

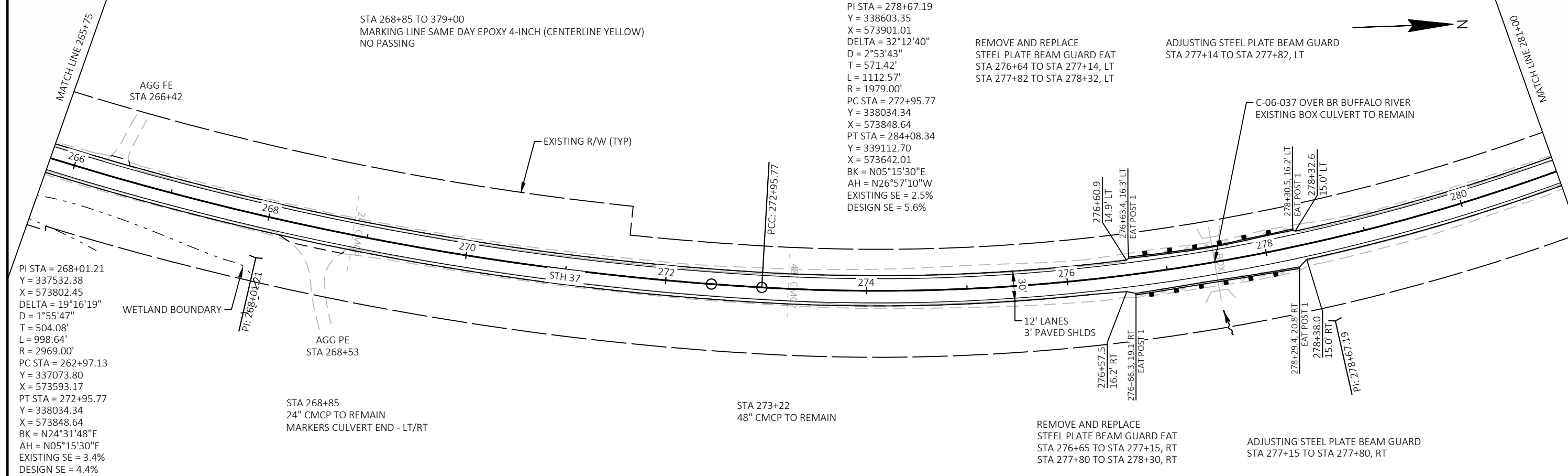
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STA 268+85 TO 379+00
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

REMOVE AND REPLACE
STEEL PLATE BEAM GUARD EAT
STA 276+64 TO STA 277+14, LT
STA 277+82 TO STA 278+32, LT

ADJUSTING STEEL PLATE BEAM GUARD
STA 277+14 TO STA 277+82, LT

C-06-037 OVER BR BUFFALO RIVER
EXISTING BOX CULVERT TO REMAIN



PI STA = 268+01.21
Y = 337532.38
X = 573802.45
DELTA = 19°16'19"
D = 1°55'47"
T = 504.08'
L = 998.64'
R = 2969.00'
PC STA = 262+97.13
Y = 337073.80
X = 573593.17
PT STA = 272+95.77
Y = 338034.34
X = 573848.64
BK = N24°31'48"E
AH = N05°15'30"E
EXISTING SE = 3.4%
DESIGN SE = 4.4%

PI STA = 278+67.19
Y = 338603.35
X = 573901.01
DELTA = 32°12'40"
D = 2°53'43"
T = 571.42'
L = 1112.57'
R = 1979.00'
PC STA = 272+95.77
Y = 338034.34
X = 573848.64
PT STA = 284+08.34
Y = 339112.70
X = 573642.01
BK = N05°15'30"E
AH = N26°57'10"W
EXISTING SE = 2.5%
DESIGN SE = 5.6%

STA 268+85
24" CMCP TO REMAIN
MARKERS CULVERT END - LT/RT

STA 273+22
48" CMCP TO REMAIN

REMOVE AND REPLACE
STEEL PLATE BEAM GUARD EAT
STA 276+65 TO STA 277+15, RT
STA 277+80 TO STA 278+30, RT

ADJUSTING STEEL PLATE BEAM GUARD
STA 277+15 TO STA 277+80, RT

PROJECT NO: 7125-00-74/75

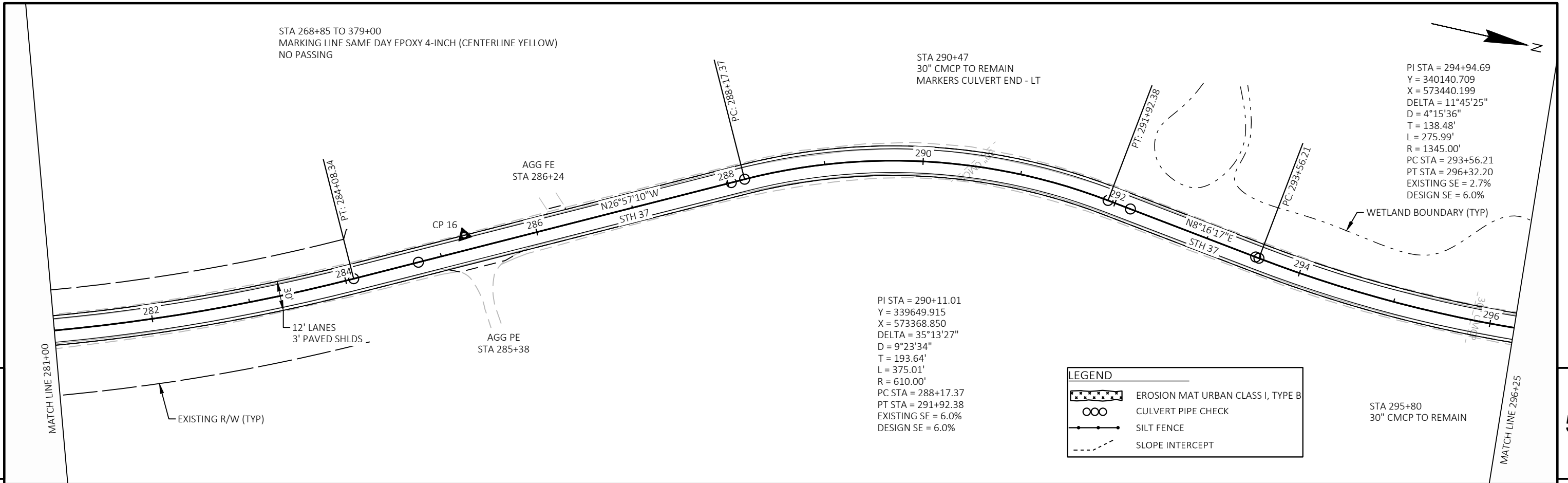
HWY: STH 37

COUNTY: BUFFALO

PLAN SHEETS

SHEET

E



STA 268+85 TO 379+00
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

STA 290+47
30" CMCP TO REMAIN
MARKERS CULVERT END - LT

PI STA = 294+94.69
Y = 340140.709
X = 573440.199
DELTA = 11°45'25"
D = 4°15'36"
T = 138.48'
L = 275.99'
R = 1345.00'
PC STA = 293+56.21
PT STA = 296+32.20
EXISTING SE = 2.7%
DESIGN SE = 6.0%

PI STA = 290+11.01
Y = 339649.915
X = 573368.850
DELTA = 35°13'27"
D = 9°23'34"
T = 193.64'
L = 375.01'
R = 610.00'
PC STA = 288+17.37
PT STA = 291+92.38
EXISTING SE = 6.0%
DESIGN SE = 6.0%

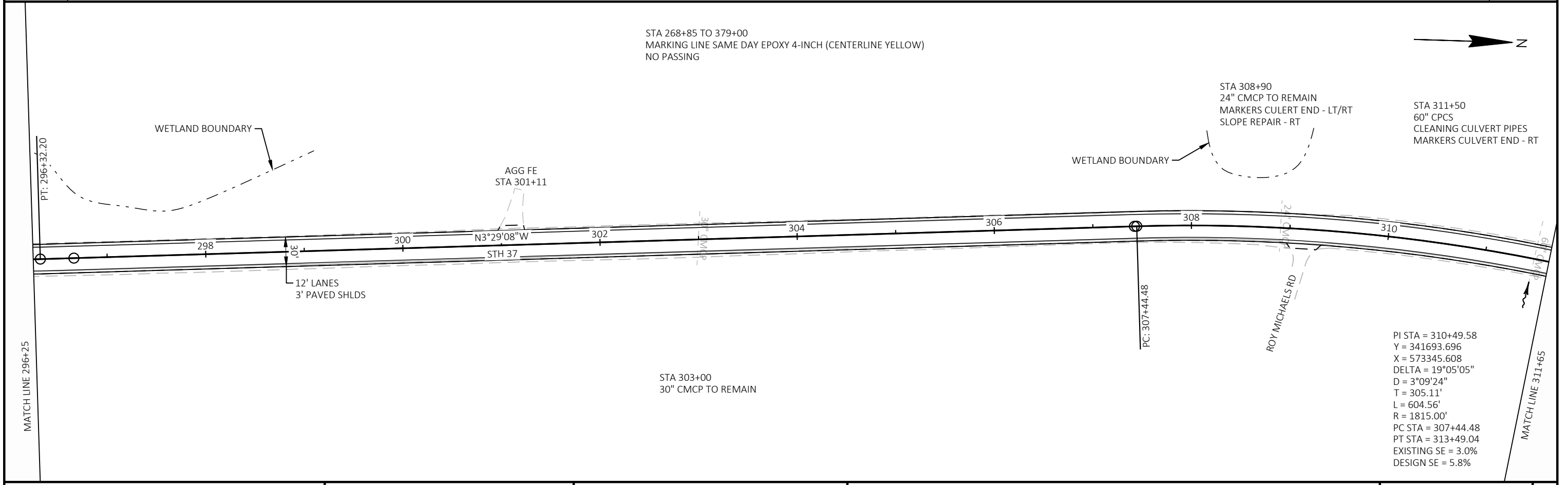
LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- CULVERT PIPE CHECK
- SILT FENCE
- SLOPE INTERCEPT

STA 295+80
30" CMCP TO REMAIN

5

5



STA 268+85 TO 379+00
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

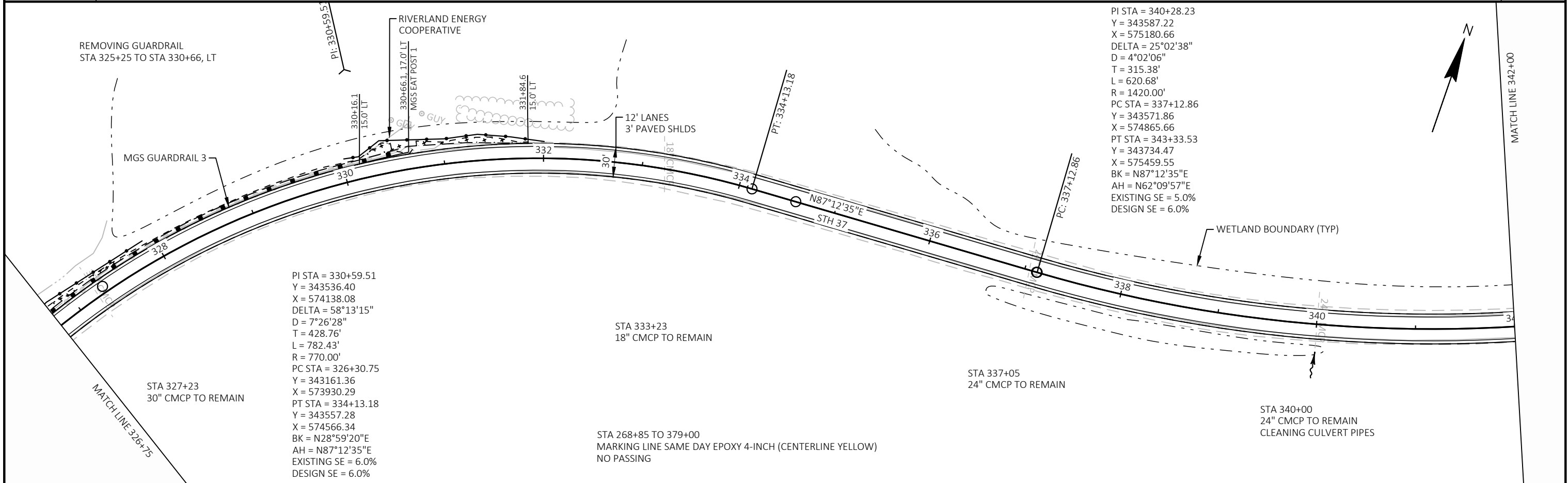
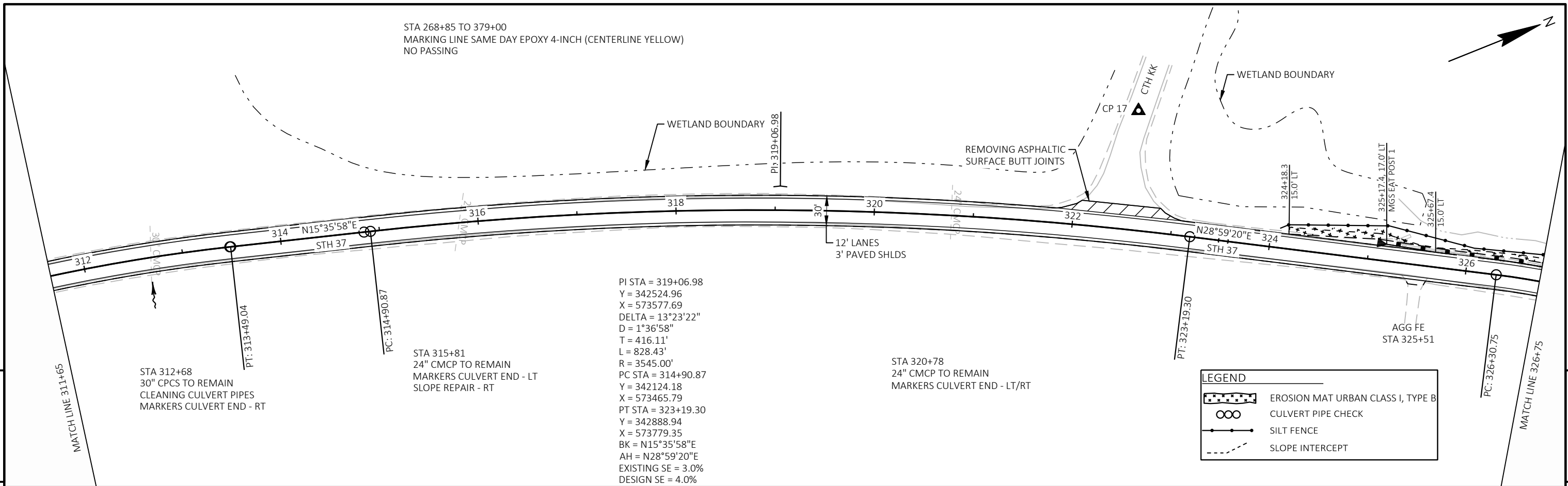
STA 308+90
24" CMCP TO REMAIN
MARKERS CULVERT END - LT/RT
SLOPE REPAIR - RT

STA 311+50
60" CPCS
CLEANING CULVERT PIPES
MARKERS CULVERT END - RT

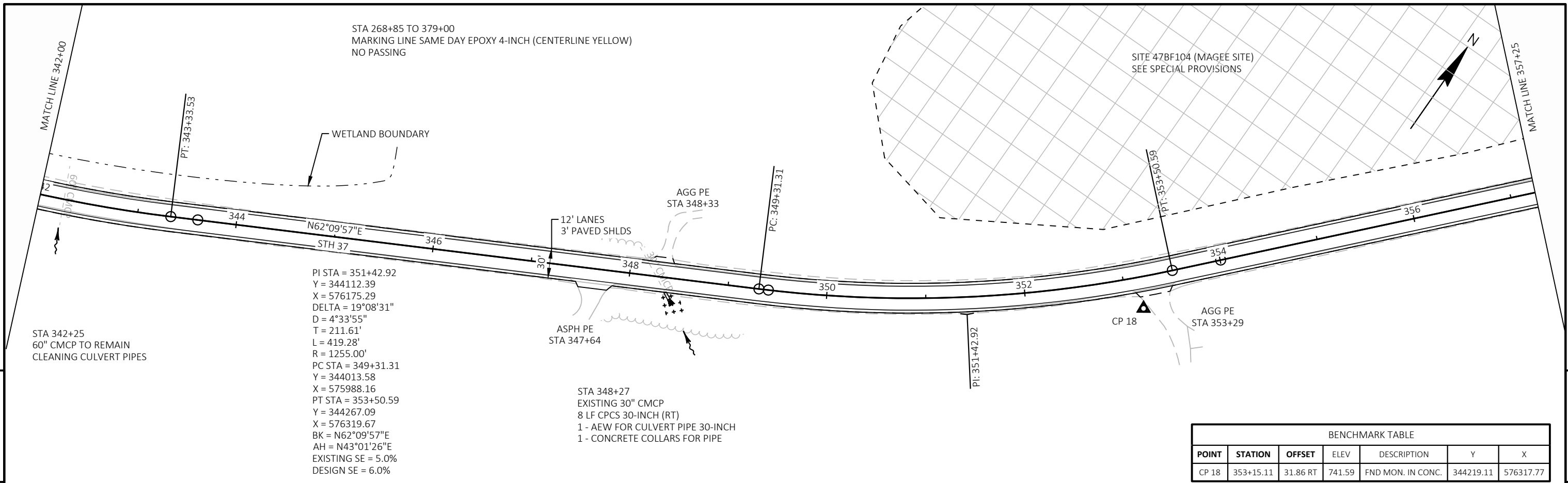
STA 303+00
30" CMCP TO REMAIN

PI STA = 310+49.58
Y = 341693.696
X = 573345.608
DELTA = 19°05'05"
D = 3°09'24"
T = 305.11'
L = 604.56'
R = 1815.00'
PC STA = 307+44.48
PT STA = 313+49.04
EXISTING SE = 3.0%
DESIGN SE = 5.8%

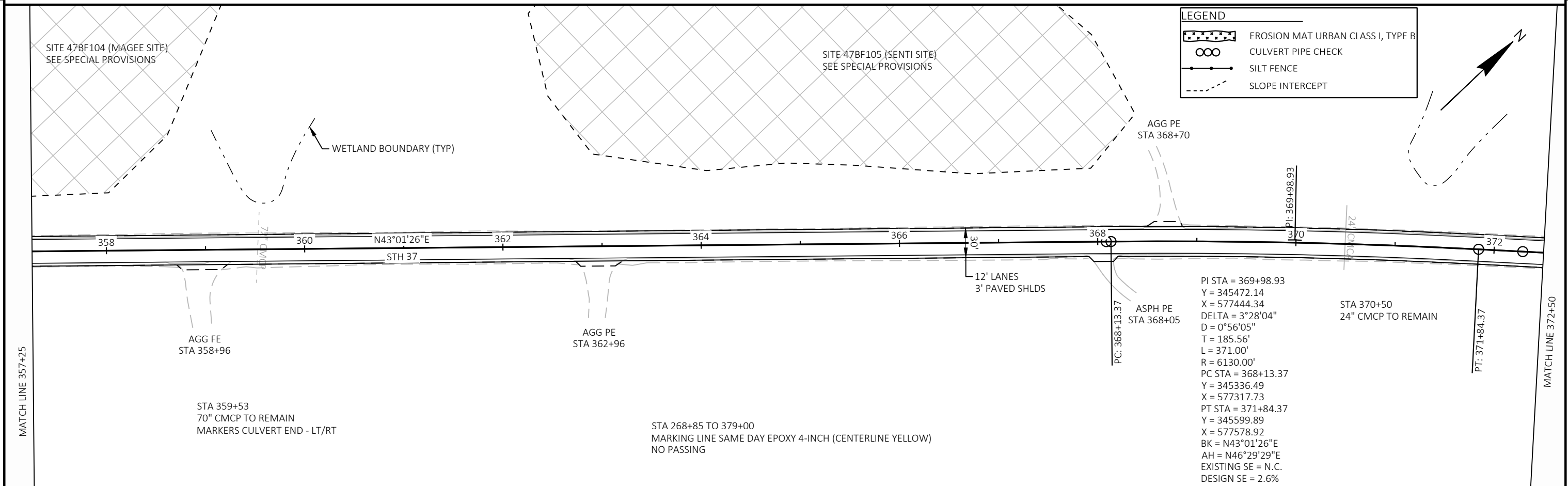
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET	E
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BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 18	353+15.11	31.86 RT	741.59	FND MON. IN CONC.	344219.11	576317.77



LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

STA 268+85 TO 379+00
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

PI STA = 382+03.76
Y = 346306.82
X = 578313.34
DELTA = 6°34'02"
D = 1°04'59"
T = 303.50'
L = 606.34'
R = 5290.00'
PC STA = 379+00.26
Y = 346095.58
X = 578095.42
PT STA = 385+06.60
Y = 346541.61
X = 578505.67
BK = N45°53'29"E
AH = N39°19'26"E
EXISTING SE = 3.0%
DESIGN SE = 3.0%

STA 379+00 TO 389+40
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

PI STA = 375+26.47
Y = 345835.41
X = 577827.03
DELTA = 0°36'01"
D = 1°08'45"
T = 26.19'
L = 52.38'
R = 5000.00'
PC STA = 375+00.28
Y = 345817.38
X = 577808.04
PT STA = 375+52.66
Y = 345853.64
X = 577845.83
BK = N46°29'29"E
AH = N45°53'29"E
EXISTING SE = N.C.
DESIGN SE = 3.0%

STA 375+24
30" CMCP TO REMAIN
CLEANING CULVERT PIPES

AGG PE
STA 378+80

AGG PE
STA 381+99

STA 385+74
36" CMCP TO REMAIN

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 19	376+63.13	32.53 RT	726.99	NO. 6 REBAR W/ CAP	345907.17	577947.80

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

STA 389+40 TO 392+70
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS

STA 392+70 TO 402+40
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

STA 399+67
54" CMCP TO REMAIN

12' LANES
3' PAVED SHLDS

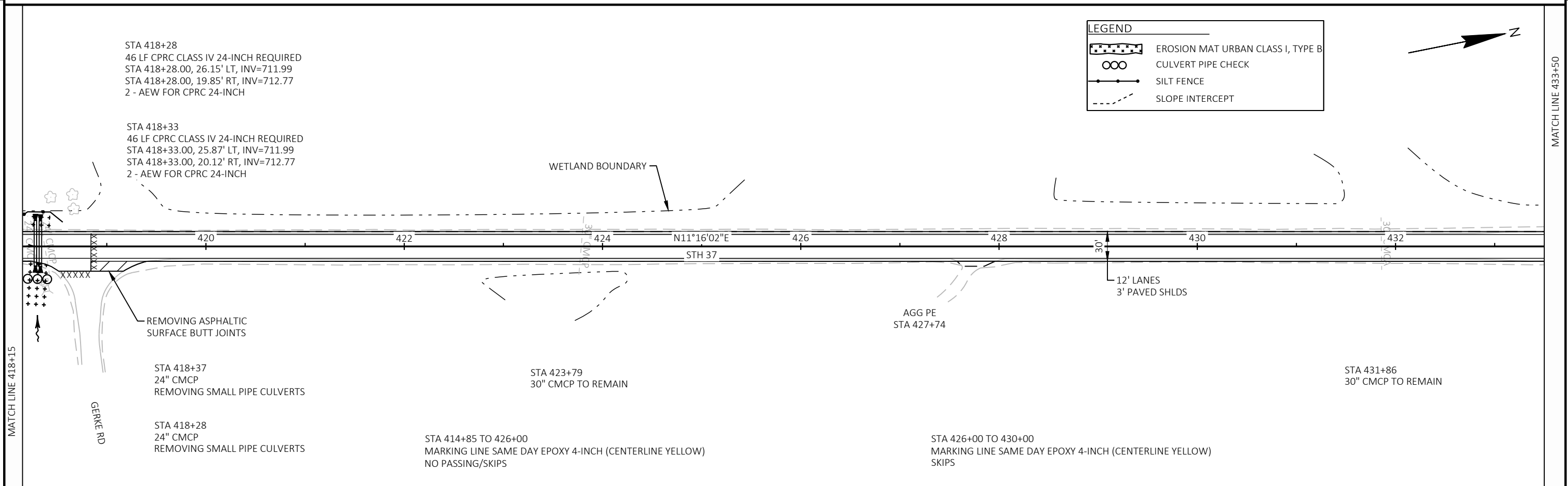
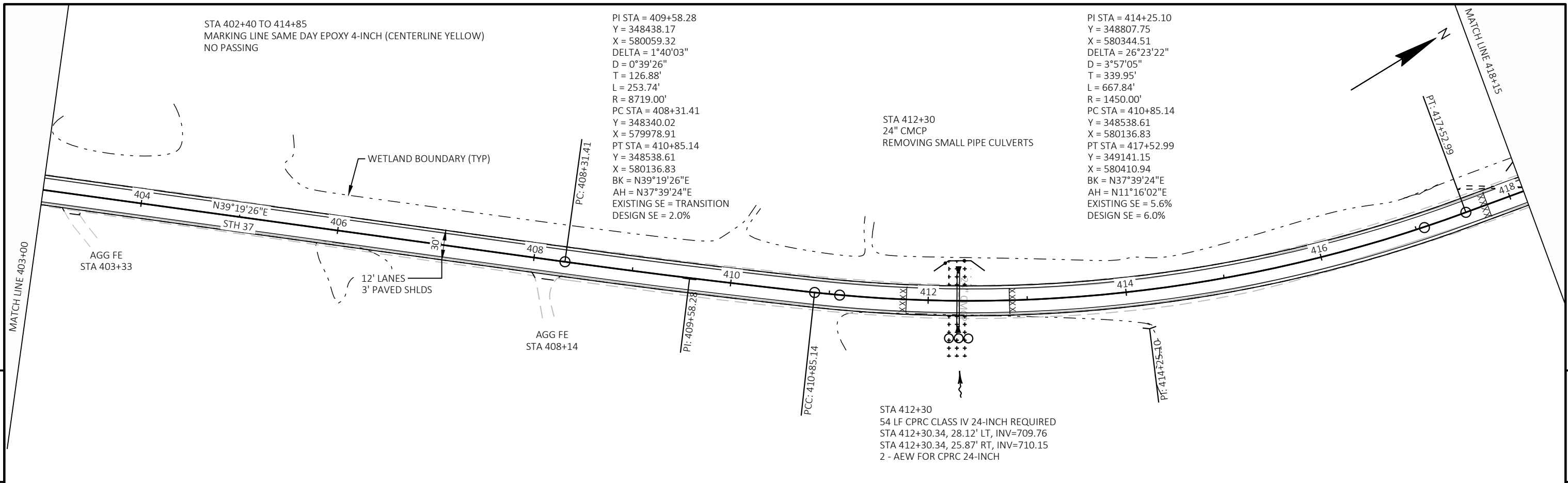
STA 392+39
36" CMCP TO REMAIN
MARKERS CULVERT END - LT/RT

PROTECT AND PRESERVE
MONUMENT

CP 20
HMOD

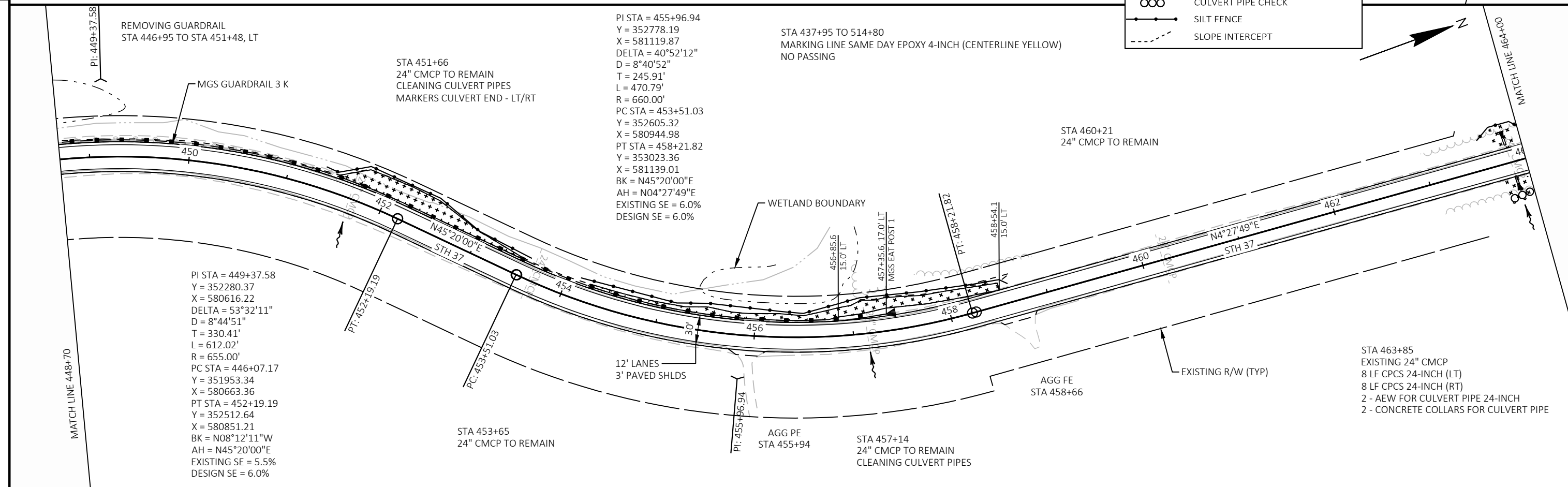
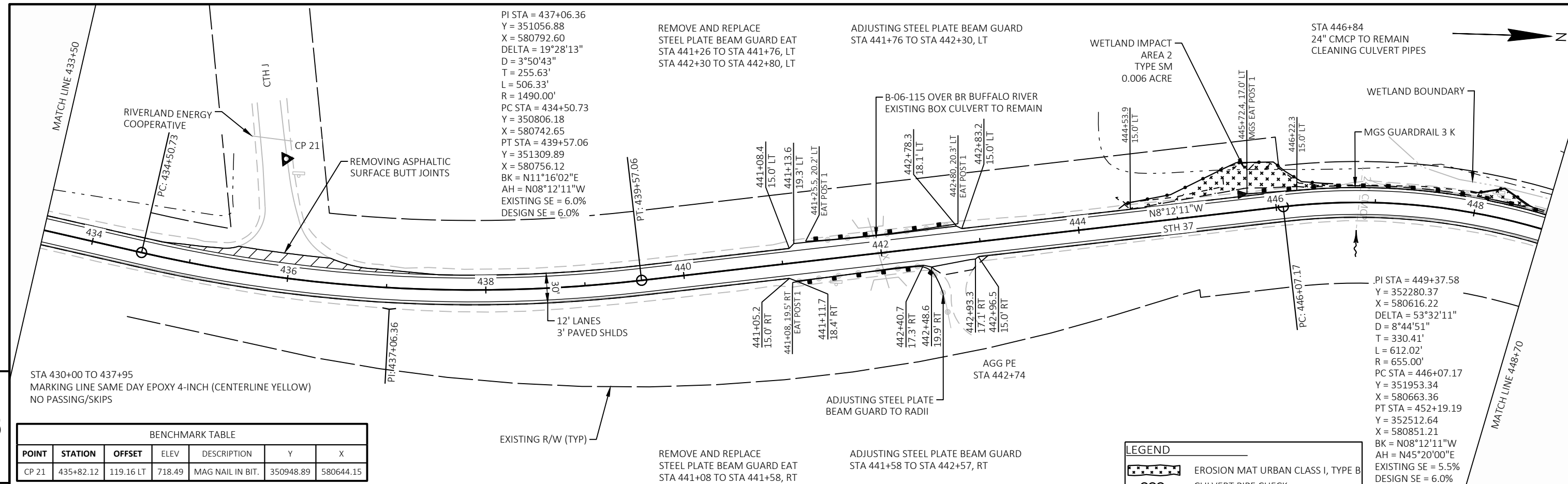
AGG FE
STA 400+30

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
HMOD / CP 20	400+16.54	26.97 RT	717.64	FND BRASS MON. IN CONC.	347692.57	579483.39



LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET	E
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STATION 430+00 TO 437+95
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 21	435+82.12	119.16 LT	718.49	MAG NAIL IN BIT.	350948.89	580644.15

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- CULVERT PIPE CHECK
- SILT FENCE
- SLOPE INTERCEPT

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 22	465+75.75	23.41 RT	718.15	NO. 6 REBAR W/ CAP	353773.19	581221.02

STA 467+08
24" CMCP TO REMAIN
MARKERS CULVERT END - RT

AGG PE
STA 465+50

STA 437+95 TO 514+80
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

AGG PE
STA 470+65

PI STA = 476+73.33
Y = 354869.25
X = 581283.10
DELTA = 60°42'49"
D = 5°12'31"
T = 644.25'
L = 1165.62'
R = 1100.00'
PC STA = 470+29.08
Y = 354226.96
X = 581232.96
PT STA = 481+94.69
Y = 355139.72
X = 581867.83
BK = N04°27'49"E
AH = N65°10'37"E
EXISTING SE = 4.0%
DESIGN SE = 6.0%

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

PI STA = 476+73.33
Y = 354869.25
X = 581283.10
DELTA = 60°42'49"
D = 5°12'31"
T = 644.25'
L = 1165.62'
R = 1100.00'
PC STA = 470+29.08
Y = 354226.96
X = 581232.96
PT STA = 481+94.69
Y = 355139.72
X = 581867.83
BK = N04°27'49"E
AH = N65°10'37"E
EXISTING SE = 4.0%
DESIGN SE = 6.0%

STA 437+95 TO 514+80
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

STA 489+74
EXISTING 24" CMCP
CLEANING CULVERT PIPES
8 LF CPCS 24-INCH (LT)
1 - AEW FOR CULVERT PIPE 24-INCH
1 - CONCRETE COLLARS FOR PIPE

PI STA = 497+48.02
Y = 355475.59
X = 583367.35
DELTA = 67°20'47"
D = 6°13'40"
T = 612.94'
L = 1081.38'
R = 920.00'
PC STA = 491+35.08
Y = 355413.42
X = 582757.57
PT STA = 502+16.46
Y = 356062.27
X = 583544.84
BK = N84°10'43"E
AH = N16°49'57"E
EXISTING SE = 6.0%
DESIGN SE = 6.0%

STA 481+49
24" CMCP TO REMAIN
CLEANING CULVERT PIPES
MARKERS CULVERT END - LT/RT

PI STA = 487+53.81
Y = 355374.45
X = 582375.29
DELTA = 19°00'06"
D = 5°52'35"
T = 163.17'
L = 323.35'
R = 975.00'
PC STA = 485+90.64
Y = 355305.95
X = 582227.19
PT STA = 489+13.99
Y = 355391.00
X = 582537.62
BK = N65°10'37"E
AH = N84°10'43"E
EXISTING SE = 5.5%
DESIGN SE = 6.0%

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 23	490+13.15	63.51 RT	722.85	NO. 6 REBAR W/ CAP	355337.87	582642.71

STA 492+13
24" CMCP TO REMAIN
CLEANING CULVERT PIPES

PROJECT NO: 7125-00-74/75

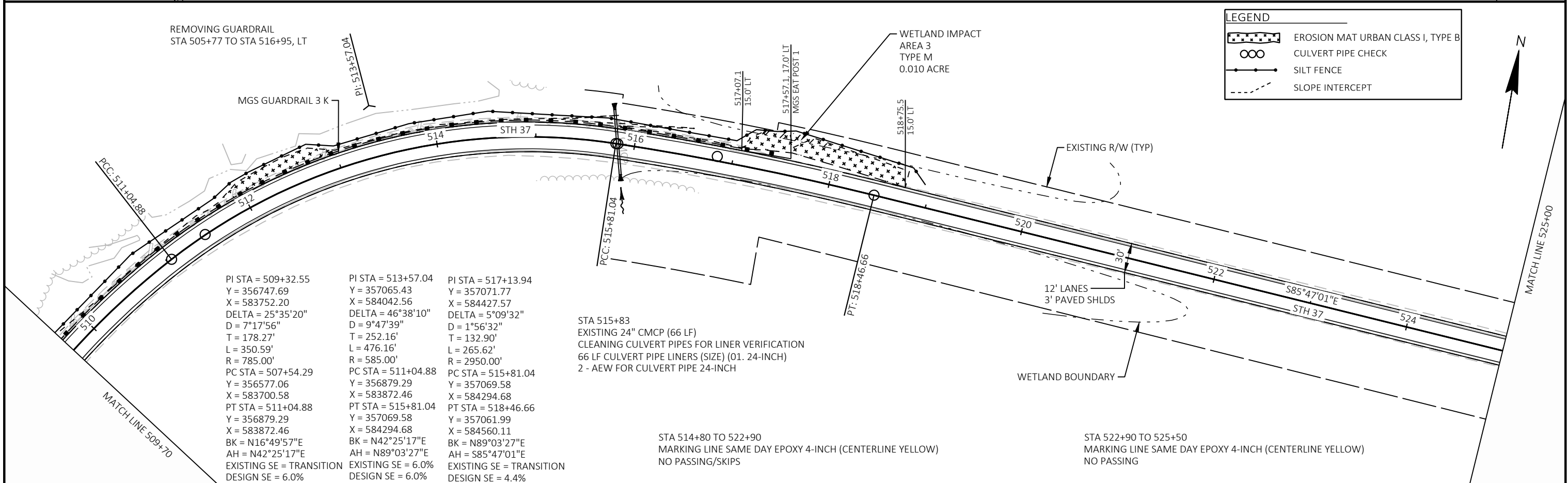
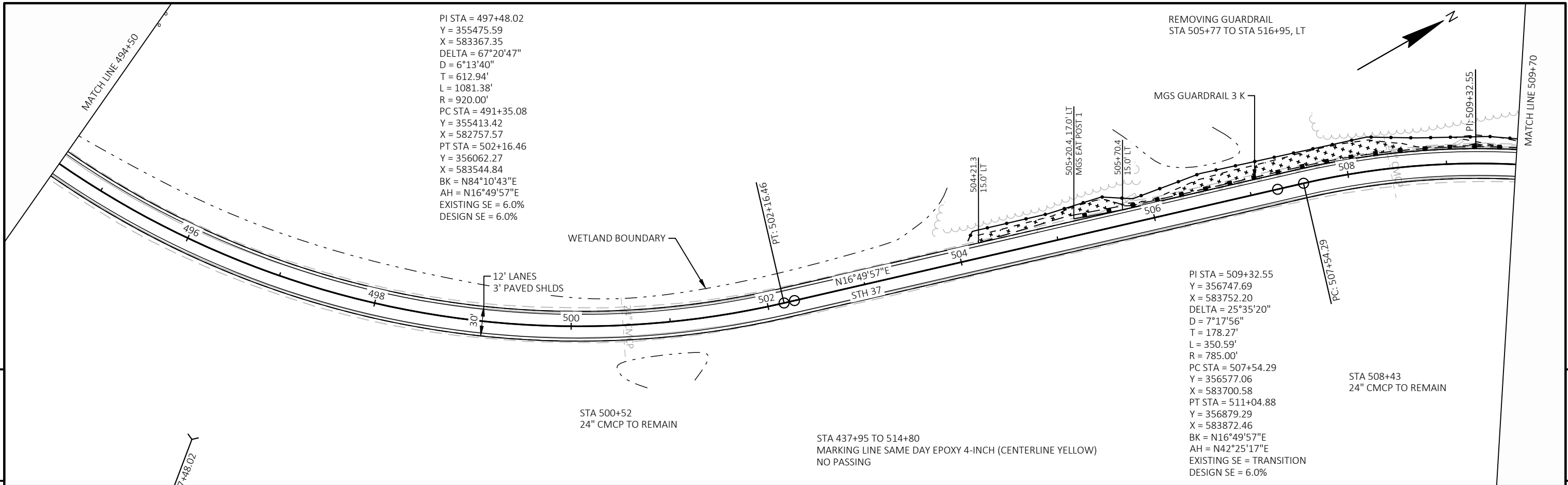
HWY: STH 37

COUNTY: BUFFALO

PLAN SHEETS

SHEET

E



LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- CULVERT PIPE CHECK
- SILT FENCE
- SLOPE INTERCEPT

PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS
			SHEET E

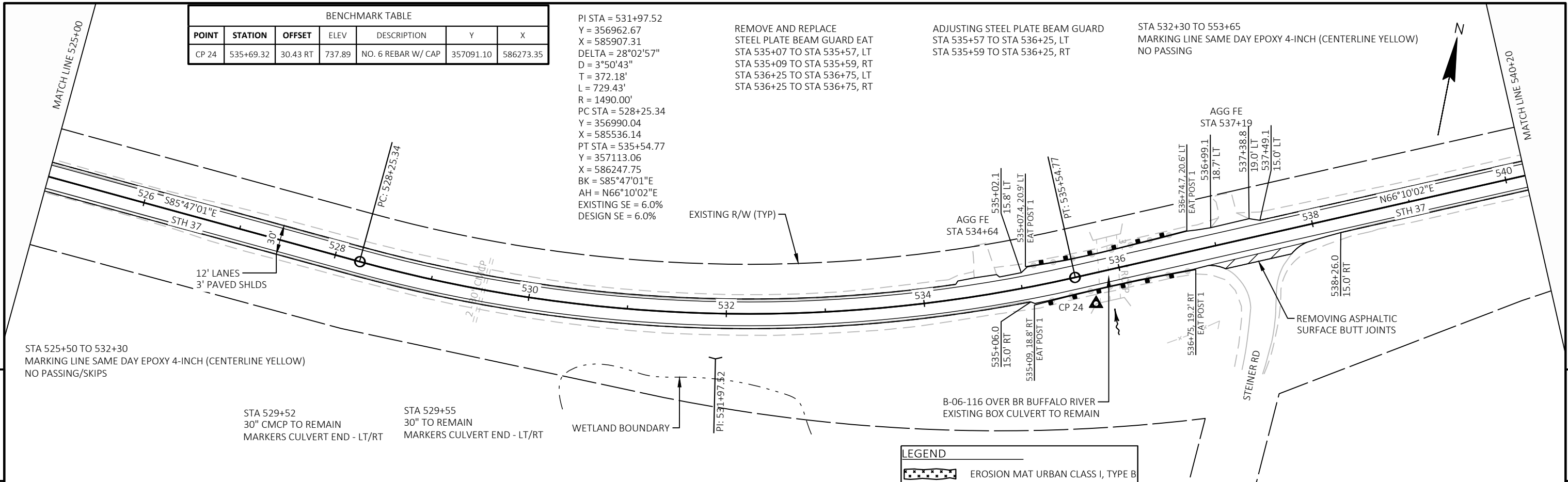
BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 24	535+69.32	30.43 RT	737.89	NO. 6 REBAR W/ CAP	357091.10	586273.35

PI STA = 531+97.52
 Y = 356962.67
 X = 585907.31
 DELTA = 28°02'57"
 D = 3°50'43"
 T = 372.18'
 L = 729.43'
 R = 1490.00'
 PC STA = 528+25.34
 Y = 356990.04
 X = 585536.14
 PT STA = 535+54.77
 Y = 357113.06
 X = 586247.75
 BK = S85°47'01"E
 AH = N66°10'02"E
 EXISTING SE = 6.0%
 DESIGN SE = 6.0%

REMOVE AND REPLACE
 STEEL PLATE BEAM GUARD EAT
 STA 535+07 TO STA 535+57, LT
 STA 535+09 TO STA 535+59, RT
 STA 536+25 TO STA 536+75, LT
 STA 536+25 TO STA 536+75, RT

ADJUSTING STEEL PLATE BEAM GUARD
 STA 535+57 TO STA 536+25, LT
 STA 535+59 TO STA 536+25, RT

STA 532+30 TO 553+65
 MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
 NO PASSING

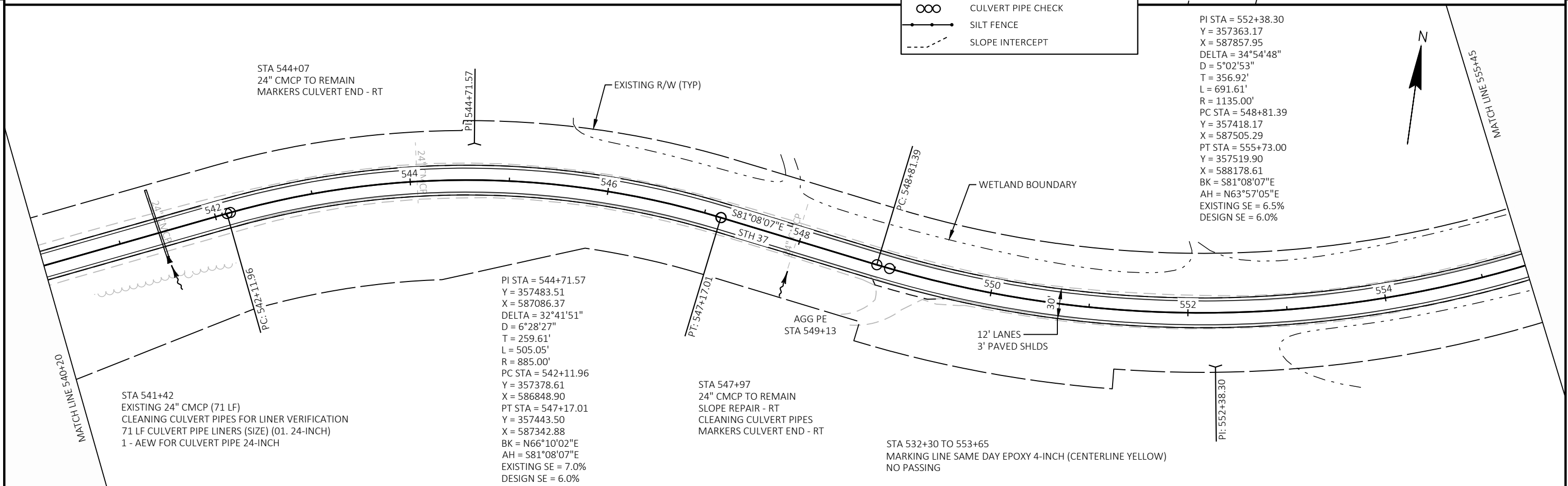


STA 525+50 TO 532+30
 MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
 NO PASSING/SKIPS

STA 529+52
 30" CMCP TO REMAIN
 MARKERS CULVERT END - LT/RT

STA 529+55
 30" TO REMAIN
 MARKERS CULVERT END - LT/RT

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT



STA 544+07
 24" CMCP TO REMAIN
 MARKERS CULVERT END - RT

PI STA = 544+71.57
 Y = 357483.51
 X = 587086.37
 DELTA = 32°41'51"
 D = 6°28'27"
 T = 259.61'
 L = 505.05'
 R = 885.00'
 PC STA = 542+11.96
 Y = 357378.61
 X = 586848.90
 PT STA = 547+17.01
 Y = 357443.50
 X = 587342.88
 BK = N66°10'02"E
 AH = S81°08'07"E
 EXISTING SE = 7.0%
 DESIGN SE = 6.0%

STA 547+97
 24" CMCP TO REMAIN
 SLOPE REPAIR - RT
 CLEANING CULVERT PIPES
 MARKERS CULVERT END - RT

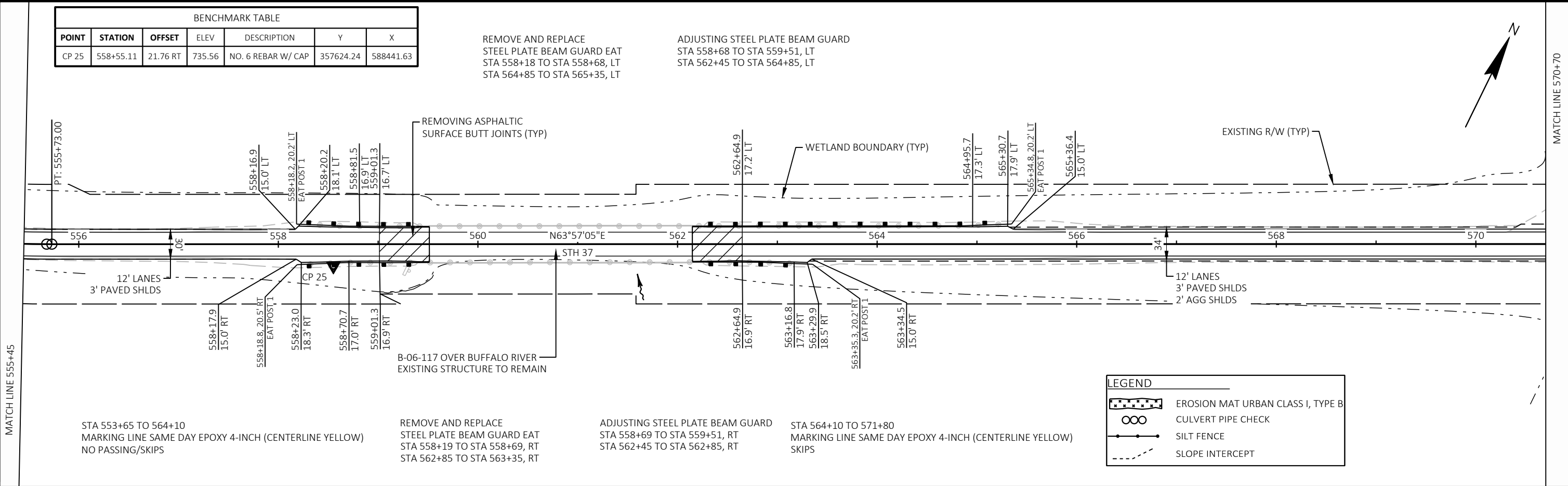
PI STA = 552+38.30
 Y = 357363.17
 X = 587857.95
 DELTA = 34°54'48"
 D = 5°02'53"
 T = 356.92'
 L = 691.61'
 R = 1135.00'
 PC STA = 548+81.39
 Y = 357418.17
 X = 587505.29
 PT STA = 555+73.00
 Y = 357519.90
 X = 588178.61
 BK = S81°08'07"E
 AH = N63°57'05"E
 EXISTING SE = 6.5%
 DESIGN SE = 6.0%

STA 532+30 TO 553+65
 MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
 NO PASSING

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 25	558+55.11	21.76 RT	735.56	NO. 6 REBAR W/ CAP	357624.24	588441.63

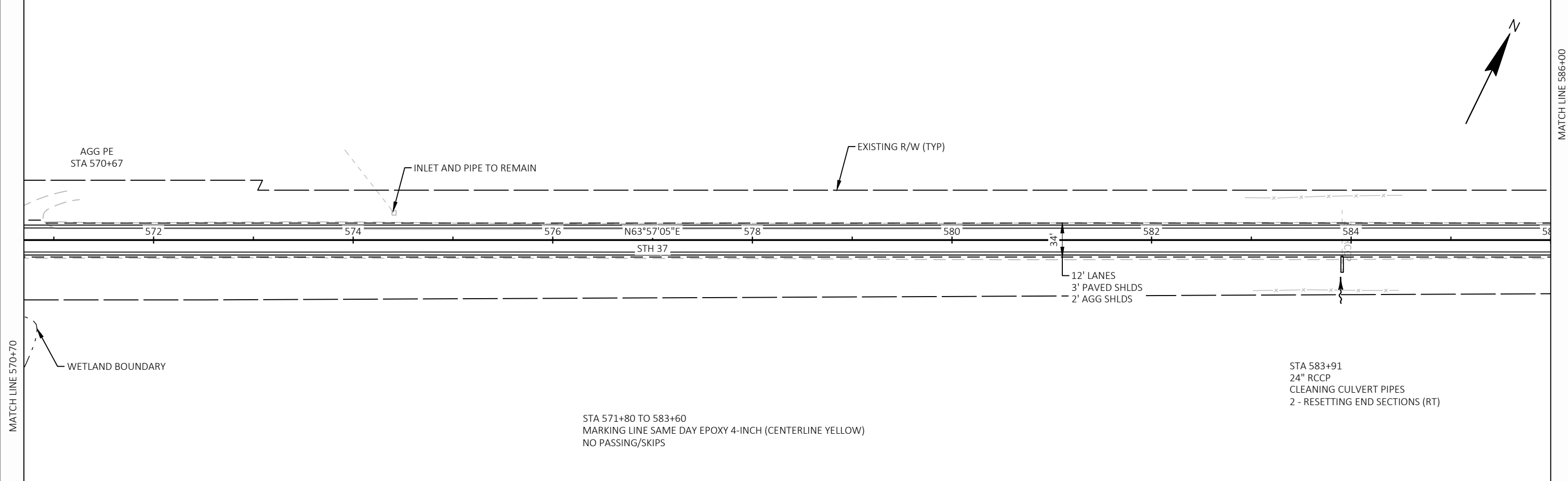
REMOVE AND REPLACE
STEEL PLATE BEAM GUARD EAT
STA 558+18 TO STA 558+68, LT
STA 564+85 TO STA 565+35, LT

ADJUSTING STEEL PLATE BEAM GUARD
STA 558+68 TO STA 559+51, LT
STA 562+45 TO STA 564+85, LT



5
MATCH LINE 555+45

5
MATCH LINE 570+70



MATCH LINE 570+70

MATCH LINE 586+00

PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET	E
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STA 583+60 TO 613+30
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

PI STA = 598+80.07
Y = 359411.27
X = 592048.19
DELTA = 21°49'59"
D = 2°27'52"
T = 448.42'
L = 885.96'
R = 2325.00'
PC STA = 594+31.65
Y = 359214.36
X = 591645.31
PT STA = 603+17.61
Y = 359743.90
X = 592348.93
BK = N63°57'05"E
AH = N42°07'06"E
EXISTING SE = 3.0%
DESIGN SE = 5.2%

AGG FE
STA 592+21

AGG FE
STA 597+84

CP 26

AGG PE
STA 587+44

12' LANES
3' PAVED SHLDS
2' AGG SHLDS

EXISTING R/W (TYP)

ASPH PE
STA 598+24

5

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 26	587+02.43	37.23 RT	791.45	NO. 6 REBAR W/ CAP	358860.69	591006.52

LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
HMOD / CP 27	615+97.60	46.29 RT	742.62	FND BRASS MON. IN CONC.	360829.82	593022.88

PI STA = 610+87.42
Y = 360314.91
X = 592865.21
DELTA = 29°53'26"
D = 2°29'36"
T = 613.39'
L = 1198.84'
R = 2298.00'
PC STA = 604+74.03
Y = 359859.92
X = 592453.83
PT STA = 616+72.86
Y = 360914.38
X = 592995.13
BK = N42°07'06"E
AH = N12°13'41"E
EXISTING SE = 3.0%
DESIGN SE = 5.2%

STA 615+47
24" RCCP TO REMAIN
MARKERS CULVERT END - LT
DITCH CLEANING - RT

MATCH LINE 601+20

MATCH LINE 616+20

AGG FE
STA 603+93

PC: 604+74.03

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STA 603+87
30" RCCP TO REMAIN
CLEANING CULVERT PIPES

AGG FE
STA 606+90

12' LANES
3' PAVED SHLDS
2' AGG SHLDS

EXISTING R/W (TYP)

AGG PE
STA 613+51

PROTECT AND PRESERVE
MONUMENT

DELINEATOR POSTS STEEL
DELINEATOR REFLECTORS
(SEE PLAN DETAILS)

STA 583+60 TO 613+30
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

STA 608+77
30" RCCP TO REMAIN

STA 612+27
24" RCCP TO REMAIN

REMOVING GUARDRAIL
STA 616+10 TO STA 616+87, RT

PROJECT NO: 7125-00-74/75

HWY: STH 37

COUNTY: BUFFALO

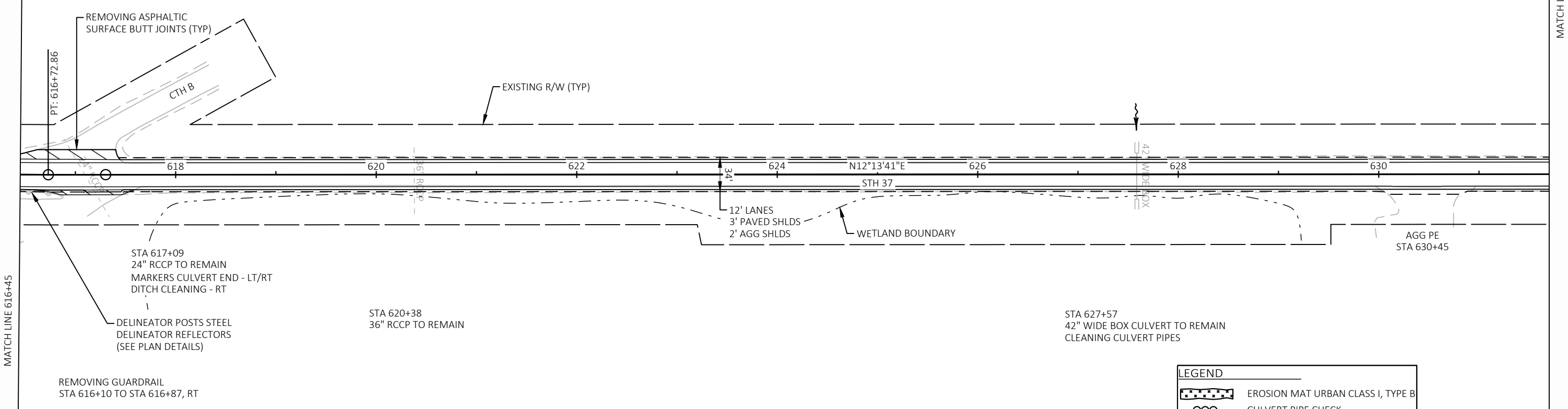
PLAN SHEETS

SHEET

E

STA 613+30 TO 622+90
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

STA 622+90 TO 631+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS



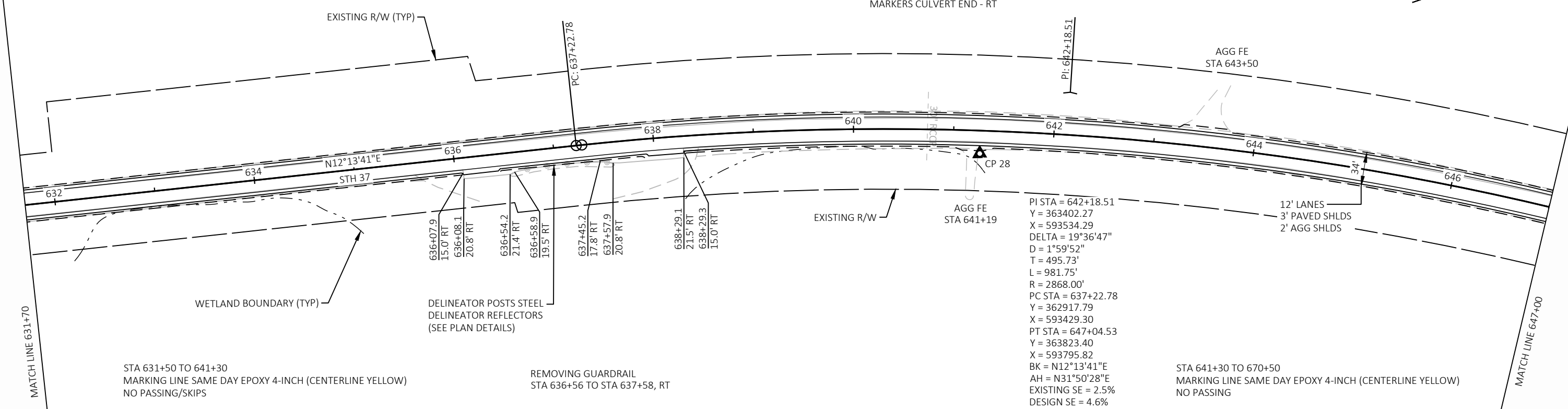
5

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LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 28	641+26.75	22.96 RT	740.85	NO. 6 REBAR W/ CAP	363297.32	593563.87

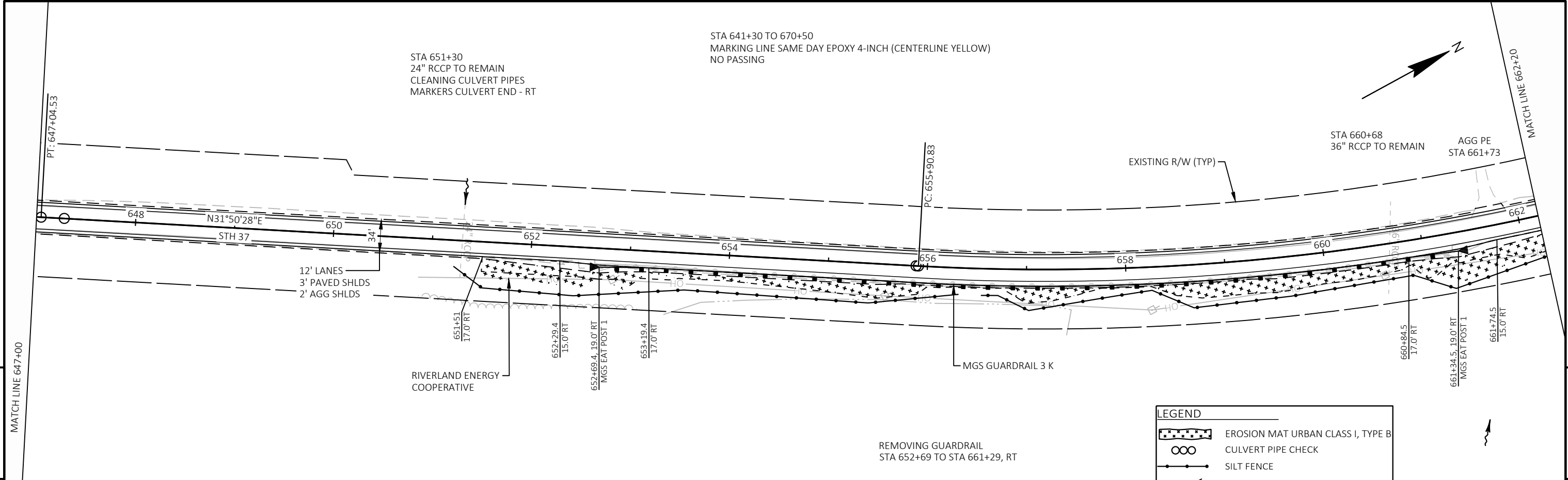
STA 640+74
30" RCCP TO REMAIN
CLEANING CULVERT PIPES
MARKERS CULVERT END - RT



5

5

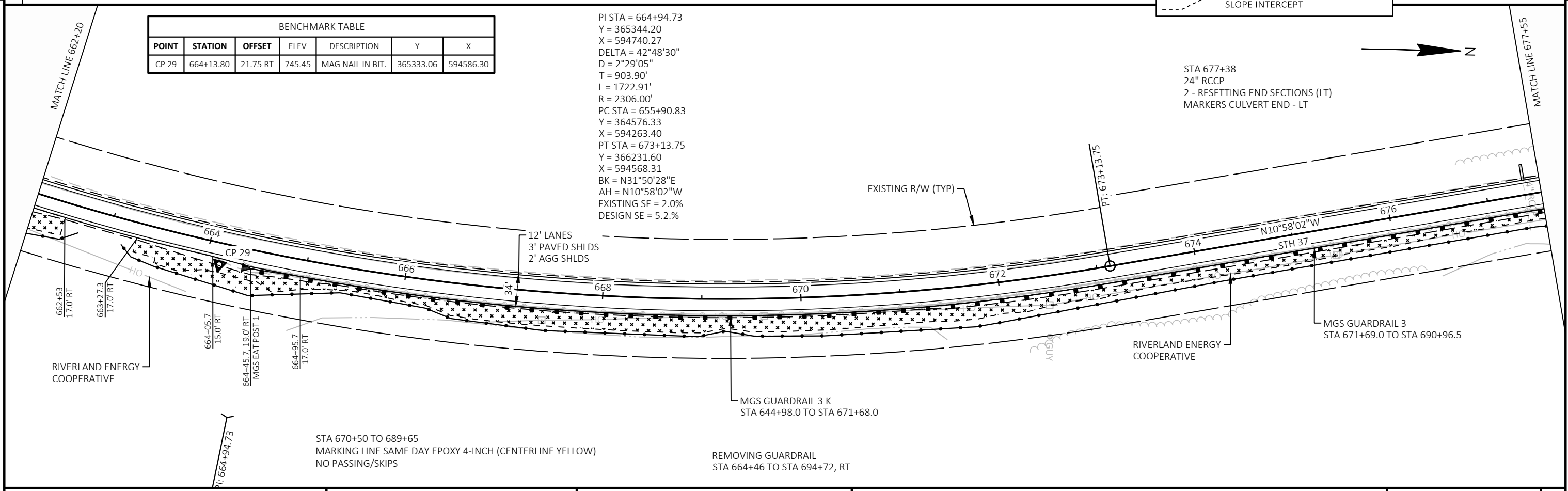
PI STA = 642+18.51
Y = 363402.27
X = 593534.29
DELTA = 19°36'47"
D = 1°59'52"
T = 495.73'
L = 981.75'
R = 2868.00'
PC STA = 637+22.78
Y = 362917.79
X = 593429.30
PT STA = 647+04.53
Y = 363823.40
X = 593795.82
BK = N12°13'41"E
AH = N31°50'28"E
EXISTING SE = 2.5%
DESIGN SE = 4.6%



BENCHMARK TABLE

POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 29	664+13.80	21.75 RT	745.45	MAG NAIL IN BIT.	365333.06	594586.30

PI STA = 664+94.73
 Y = 365344.20
 X = 594740.27
 DELTA = 42°48'30"
 D = 2°29'05"
 T = 903.90'
 L = 1722.91'
 R = 2306.00'
 PC STA = 655+90.83
 Y = 364576.33
 X = 594263.40
 PT STA = 673+13.75
 Y = 366231.60
 X = 594568.31
 BK = N31°50'28"E
 AH = N10°58'02"W
 EXISTING SE = 2.0%
 DESIGN SE = 5.2%



BENCHMARK TABLE

POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 29	664+13.80	21.75 RT	745.45	MAG NAIL IN BIT.	365333.06	594586.30

PI STA = 664+94.73
 Y = 365344.20
 X = 594740.27
 DELTA = 42°48'30"
 D = 2°29'05"
 T = 903.90'
 L = 1722.91'
 R = 2306.00'
 PC STA = 655+90.83
 Y = 364576.33
 X = 594263.40
 PT STA = 673+13.75
 Y = 366231.60
 X = 594568.31
 BK = N31°50'28"E
 AH = N10°58'02"W
 EXISTING SE = 2.0%
 DESIGN SE = 5.2%

STA 670+50 TO 689+65
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

STA 689+65 TO 694+70
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING

STA 686+21
48" RCCP TO REMAIN
MARKERS CULVERT END - RT

EXISTING R/W (TYP)

12' LANES
3' PAVED SHLDS
2' AGG SHLDS

PI STA = 692+80.23
Y = 368162.17
X = 594194.19
DELTA = 29°01'09"
D = 2°56'56"
T = 502.84'
L = 984.09'
R = 1943.00'
PC STA = 687+77.39
Y = 367668.51
X = 594289.85
PT STA = 697+61.48
Y = 368640.26
X = 594350.01
BK = N10°58'02"W
AH = N18°03'07"E
EXISTING SE = 6.5%
DESIGN SE = 5.6%



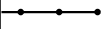
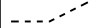
MGS GUARDRAIL 3
STA 671+69.0 TO STA 690+96.5

RIVERLAND ENERGY
COOPERATIVE

MGS GUARDRAIL 3 K
STA 690+96.5 TO STA 694+24.4

REMOVING GUARDRAIL
STA 664+46 TO STA 694+72, RT

LEGEND

-  EROSION MAT URBAN CLASS I, TYPE B
-  CULVERT PIPE CHECK
-  SILT FENCE
-  SLOPE INTERCEPT

STA 696+82
30" RCCP TO REMAIN
CLEANING CULVERT PIPES

STA 706+48
30" RCCP TO REMAIN
CLEANING CULVERT PIPES
MARKERS CULVERT END - RT

REMOVING ASPHALTIC
SURFACE BUTT JOINTS

12' LANES
3' PAVED SHLDS
2' AGG SHLDS

PI STA = 692+80.23
Y = 368162.17
X = 594194.19
DELTA = 29°01'09"
D = 2°56'56"
T = 502.84'
L = 984.09'
R = 1943.00'
PC STA = 687+77.39
Y = 367668.51
X = 594289.85
PT STA = 697+61.48
Y = 368640.26
X = 594350.01
BK = N10°58'02"W
AH = N18°03'07"E
EXISTING SE = 6.5%
DESIGN SE = 5.6%

EXISTING R/W (TYP)

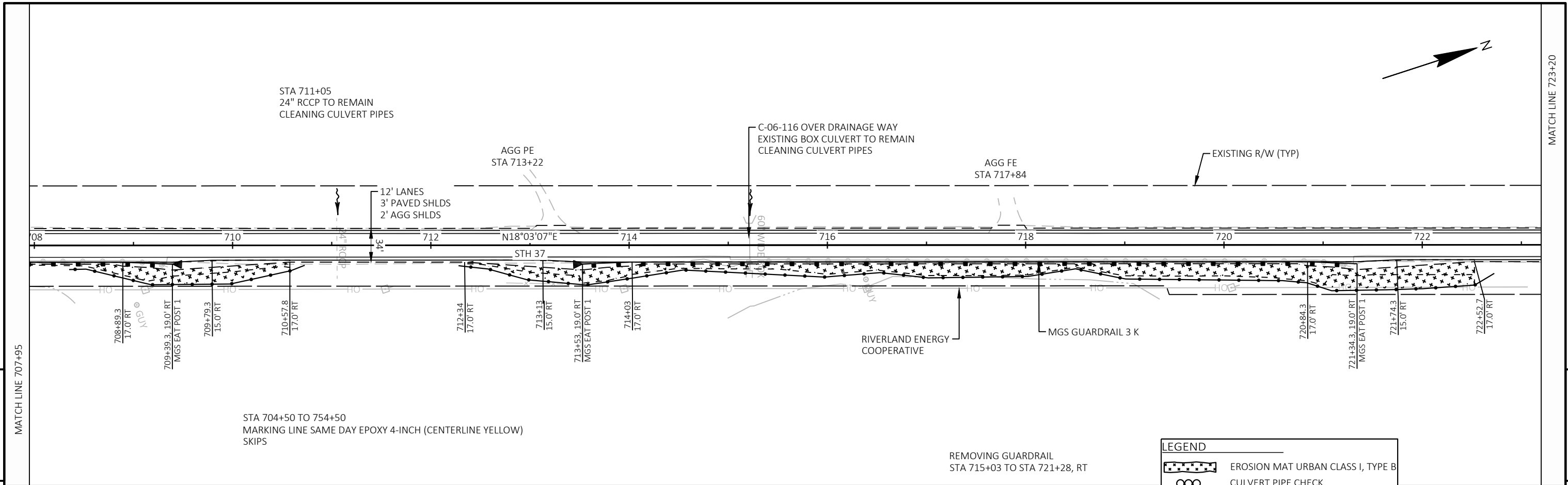
RIVERLAND ENERGY
COOPERATIVE

MGS GUARDRAIL 3 K

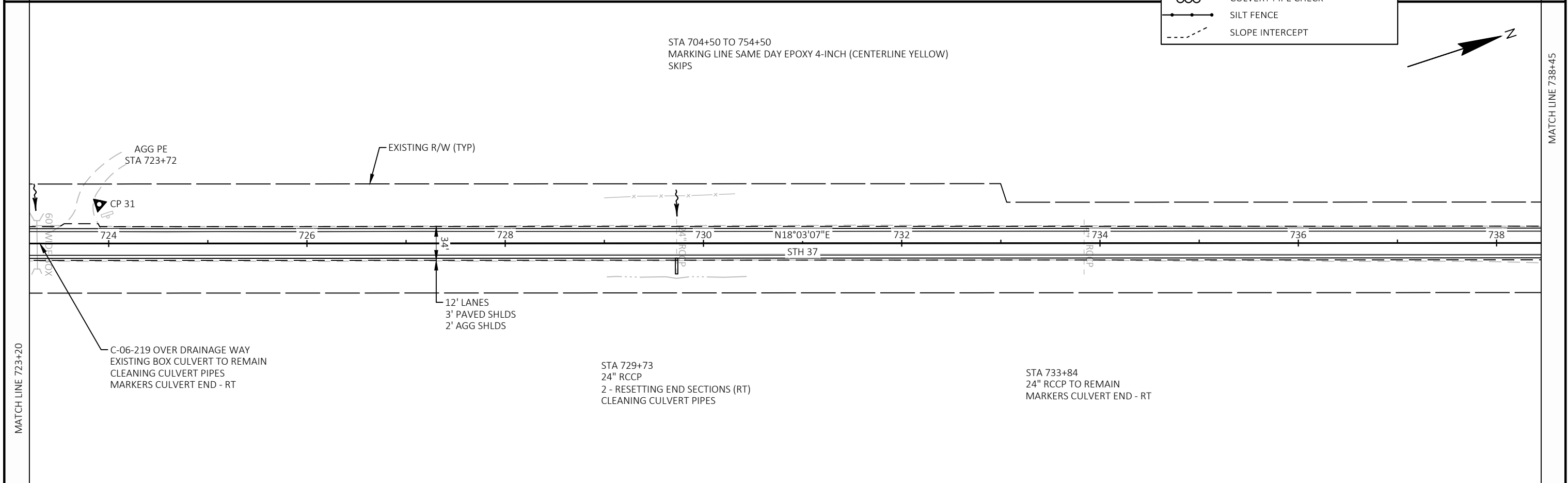
STA 694+70 TO 704+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

STA 704+50 TO 754+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS

REMOVING GUARDRAIL
STA 705+33 TO STA 709+35, RT



LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET	E
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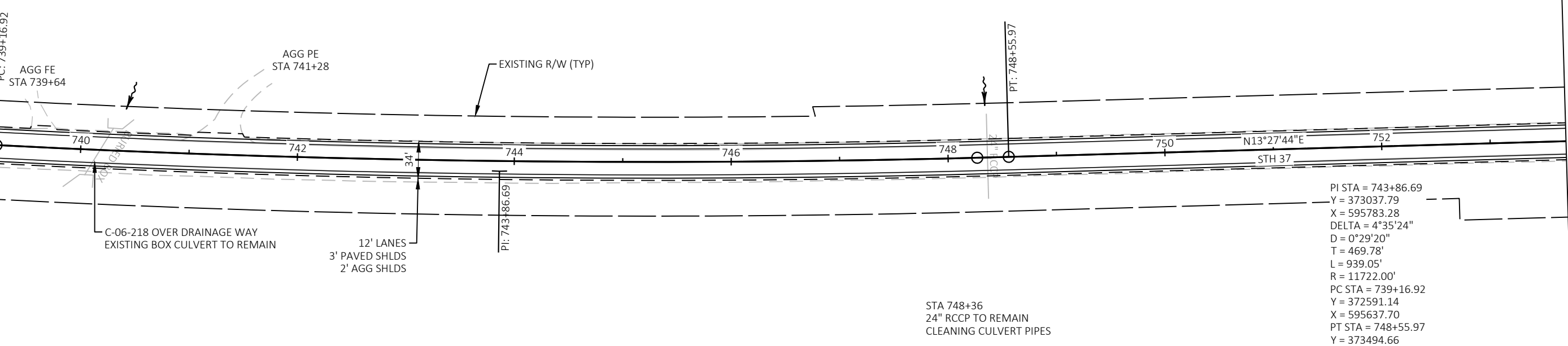
STA 704+50 TO 754+50
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS



MATCH LINE 753+70

MATCH LINE 738+45

MATCH LINE 769+00



PI STA = 743+86.69
Y = 373037.79
X = 595783.28
DELTA = 4°35'24"
D = 0°29'20"
T = 469.78'
L = 939.05'
R = 11722.00'
PC STA = 739+16.92
Y = 372591.14
X = 595637.70
PT STA = 748+55.97
Y = 373494.66
X = 595892.64
BK = N18°03'07"E
AH = N13°27'44"E
EXISTING SE = N.C.
DESIGN SE = N.C.

LEGEND

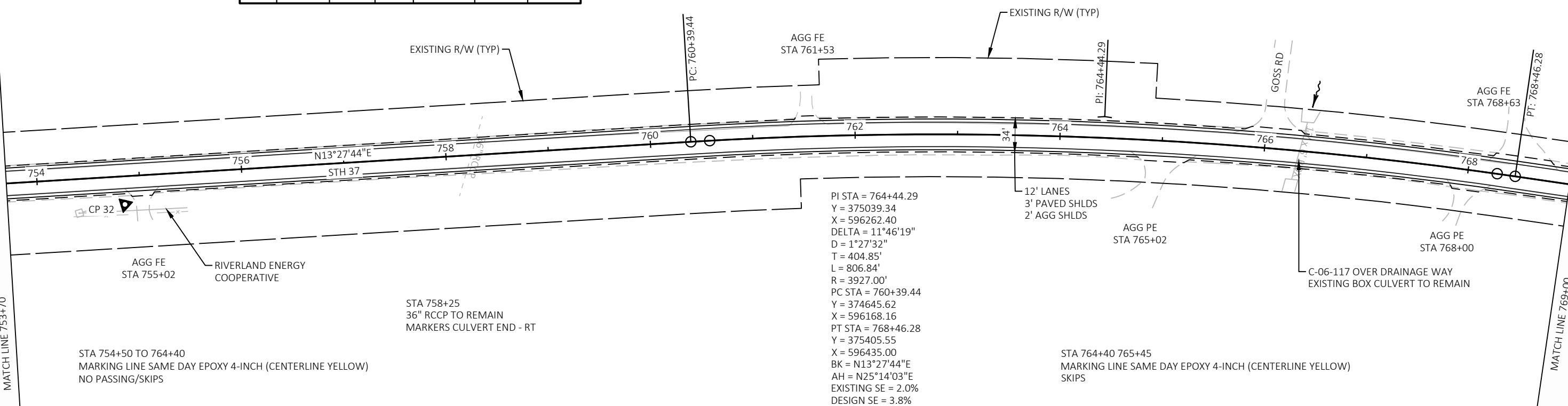
- EROSION MAT URBAN CLASS I, TYPE B
- CULVERT PIPE CHECK
- SILT FENCE
- SLOPE INTERCEPT

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 32	754+84.35	27.49 RT	760.80		374099.38	596065.66



MATCH LINE 753+70

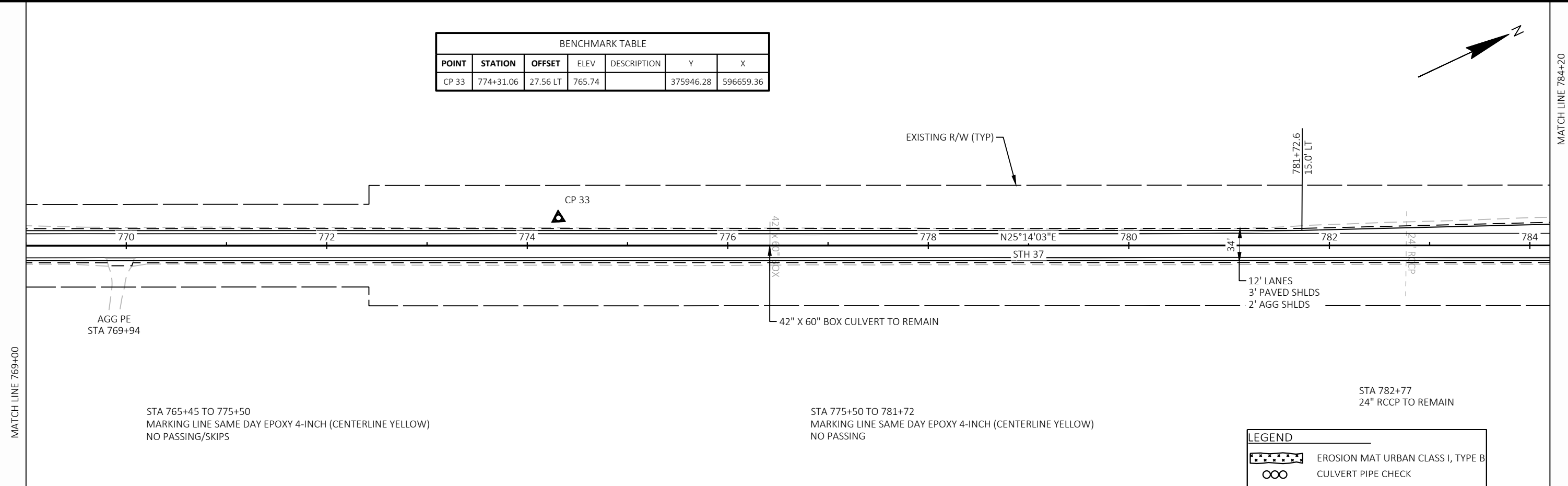
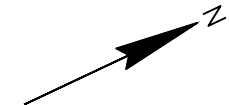
MATCH LINE 769+00



PI STA = 764+44.29
Y = 375039.34
X = 596262.40
DELTA = 11°46'19"
D = 1°27'32"
T = 404.85'
L = 806.84'
R = 3927.00'
PC STA = 760+39.44
Y = 374645.62
X = 596168.16
PT STA = 768+46.28
Y = 375405.55
X = 596435.00
BK = N13°27'44"E
AH = N25°14'03"E
EXISTING SE = 2.0%
DESIGN SE = 3.8%

STA 764+40 765+45
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
SKIPS

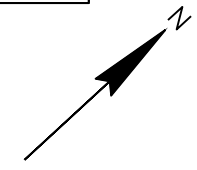
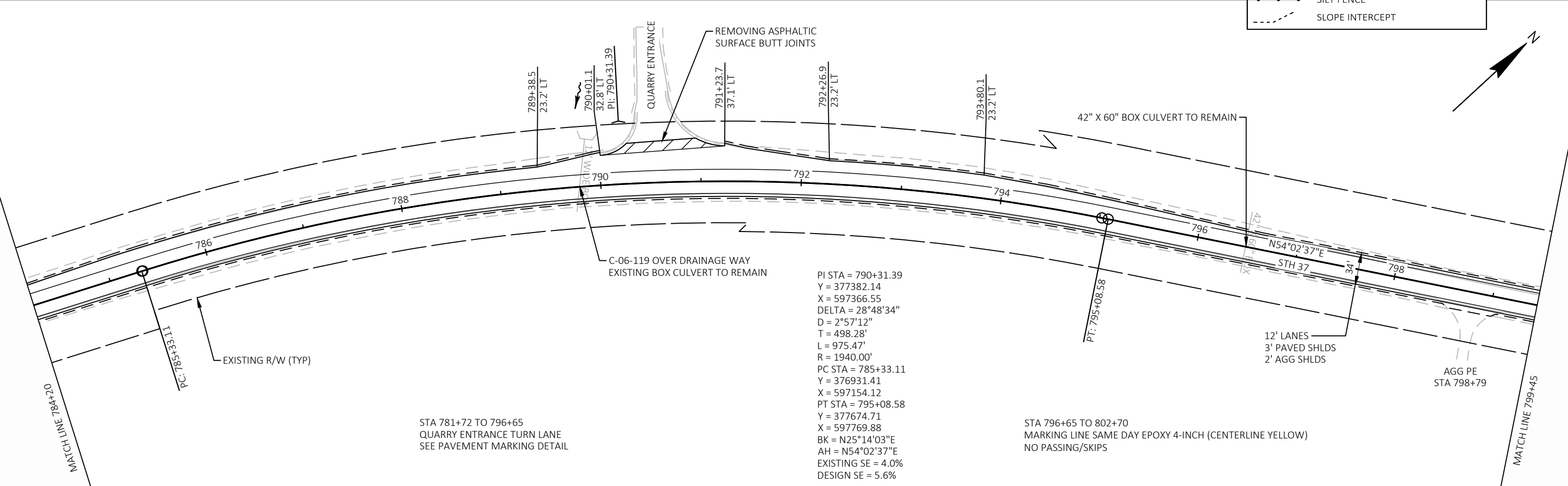
BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 33	774+31.06	27.56 LT	765.74		375946.28	596659.36



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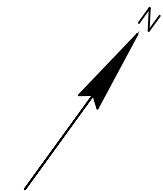
LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	PLAN SHEETS	SHEET	E
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STA 796+65 TO 802+70
MARKING LINE SAME DAY EPOXY 4-INCH (CENTERLINE YELLOW)
NO PASSING/SKIPS

BENCHMARK TABLE						
POINT	STATION	OFFSET	ELEV	DESCRIPTION	Y	X
CP 34	806+60.67	19.51 RT	774.39		378335.40	598713.91

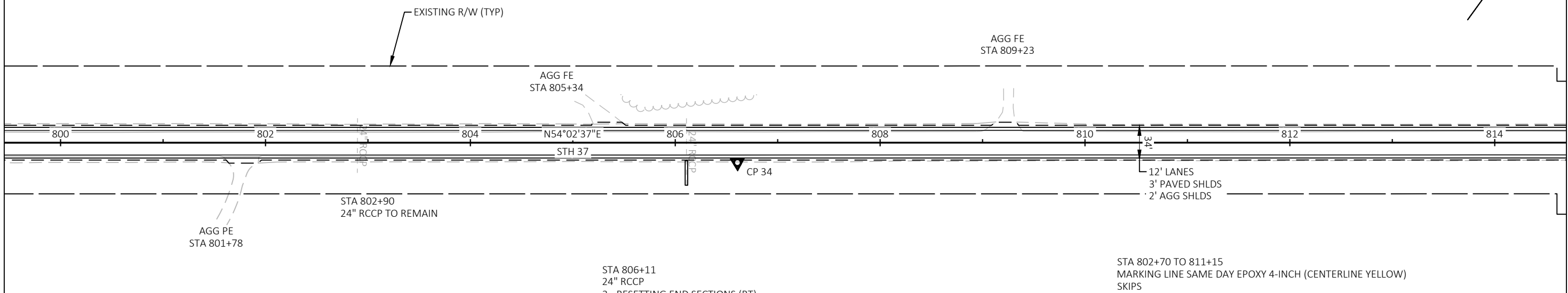


MATCH LINE 799+45

MATCH LINE 814+70

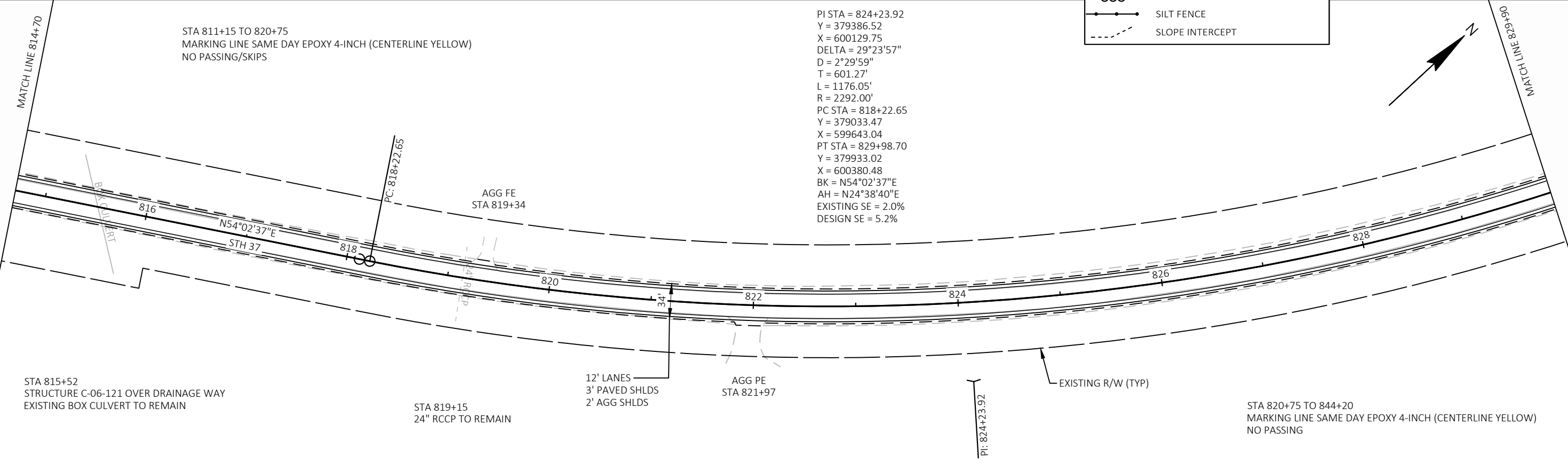
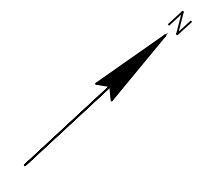
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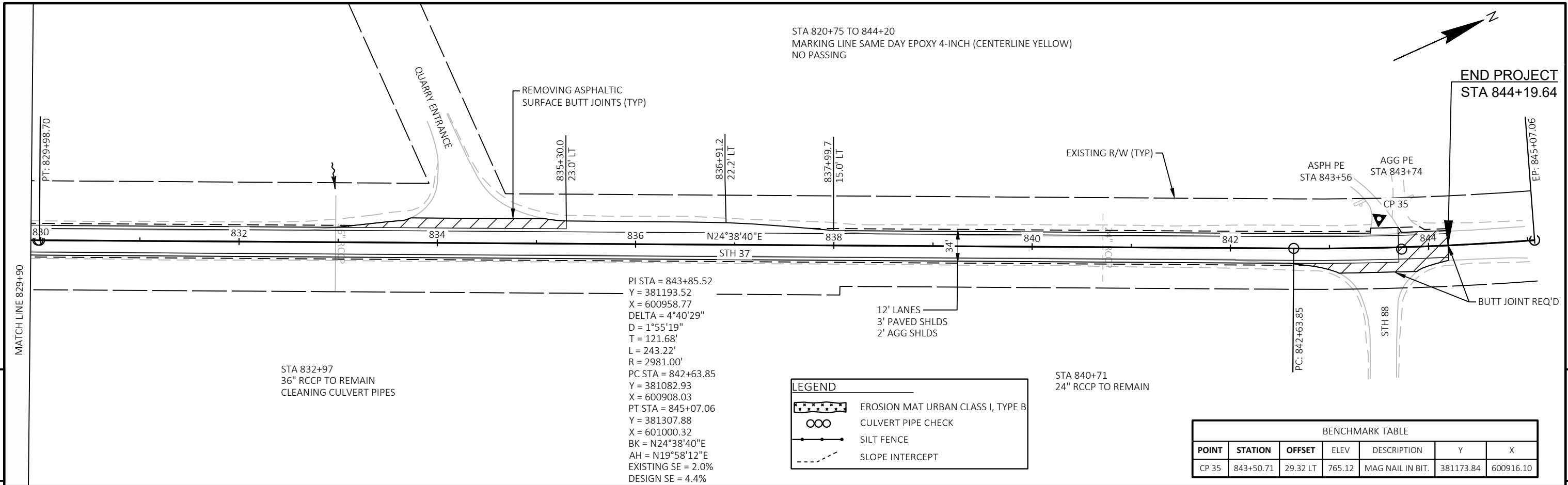
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LEGEND	
	EROSION MAT URBAN CLASS I, TYPE B
	CULVERT PIPE CHECK
	SILT FENCE
	SLOPE INTERCEPT

PI STA = 824+23.92
Y = 379386.52
X = 600129.75
DELTA = 29°23'57"
D = 2°29'59"
T = 601.27'
L = 1176.05'
R = 2292.00'
PC STA = 818+22.65
Y = 379033.47
X = 599643.04
PT STA = 829+98.70
Y = 379933.02
X = 600380.48
BK = N54°02'37"E
AH = N24°38'40"E
EXISTING SE = 2.0%
DESIGN SE = 5.2%



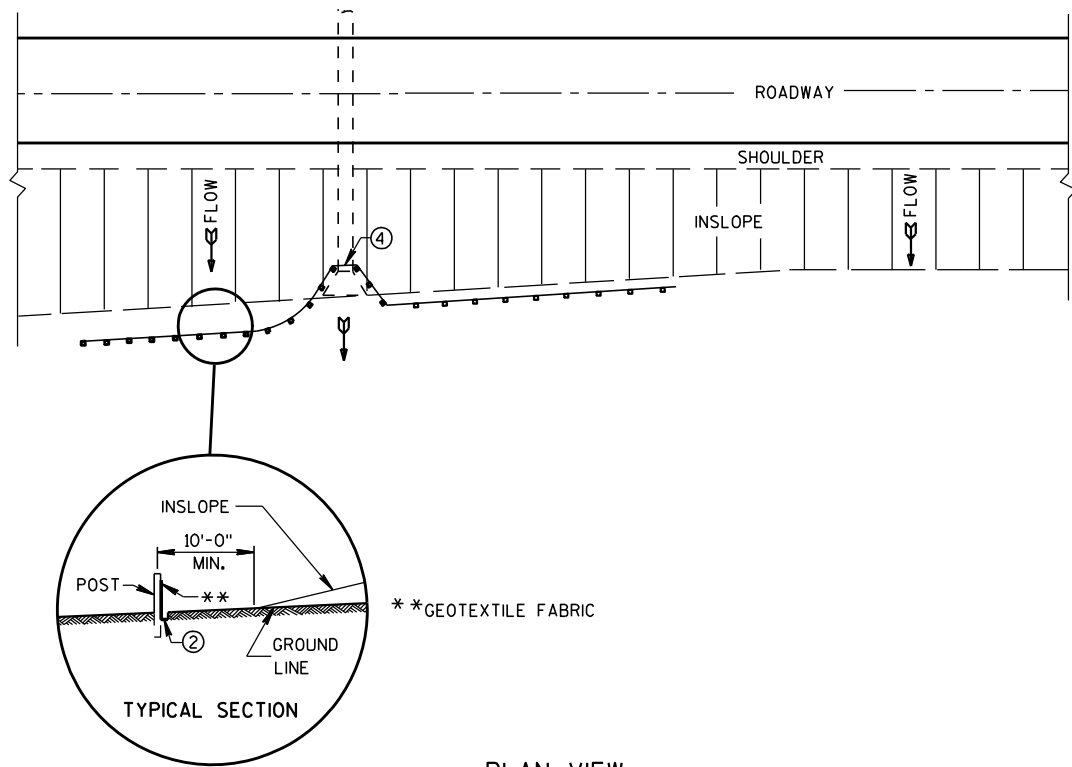


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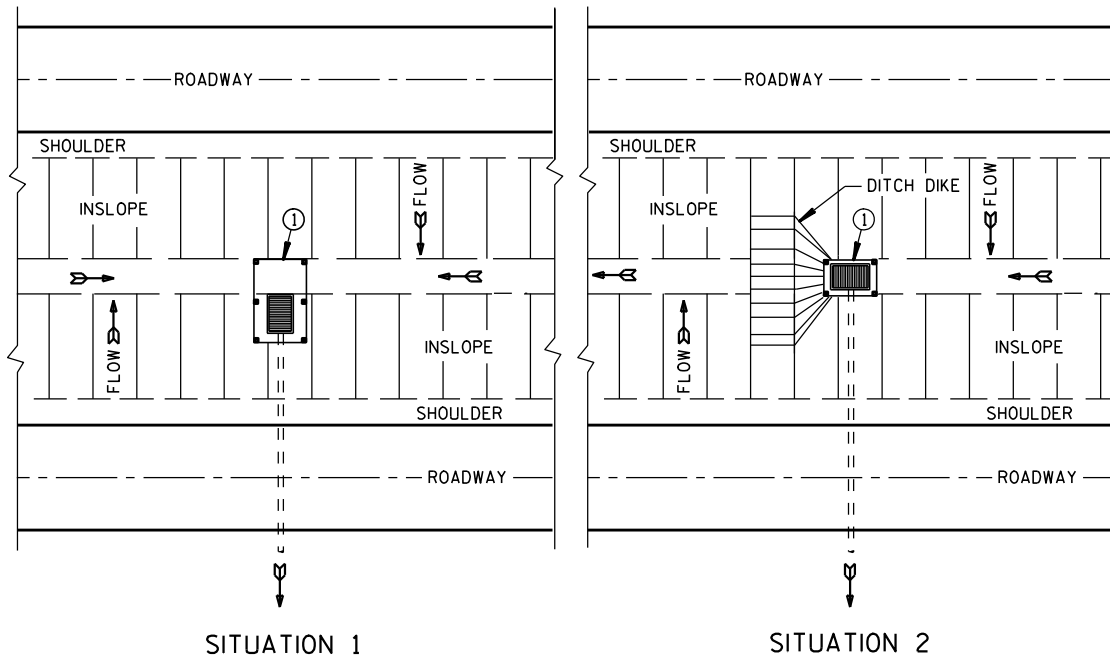
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Standard Detail Drawing List

08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-06A	PERMANENT FLEXIBLE DELINEATOR POST
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

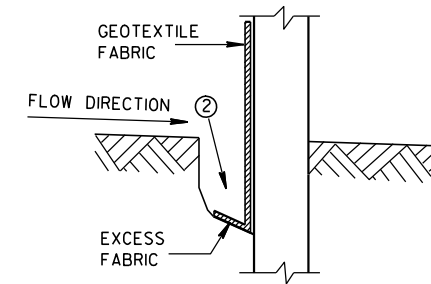


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

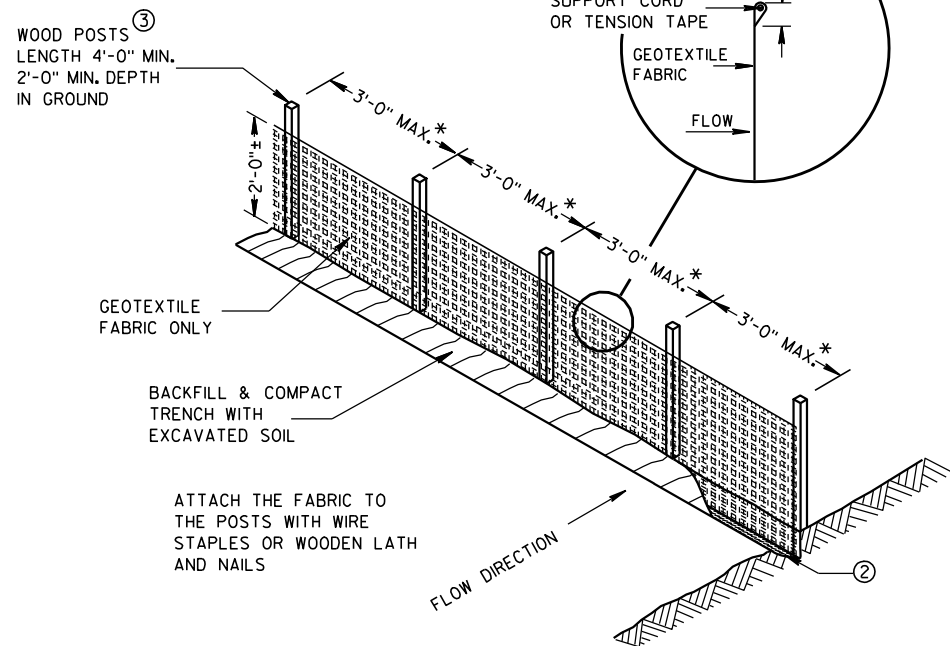
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



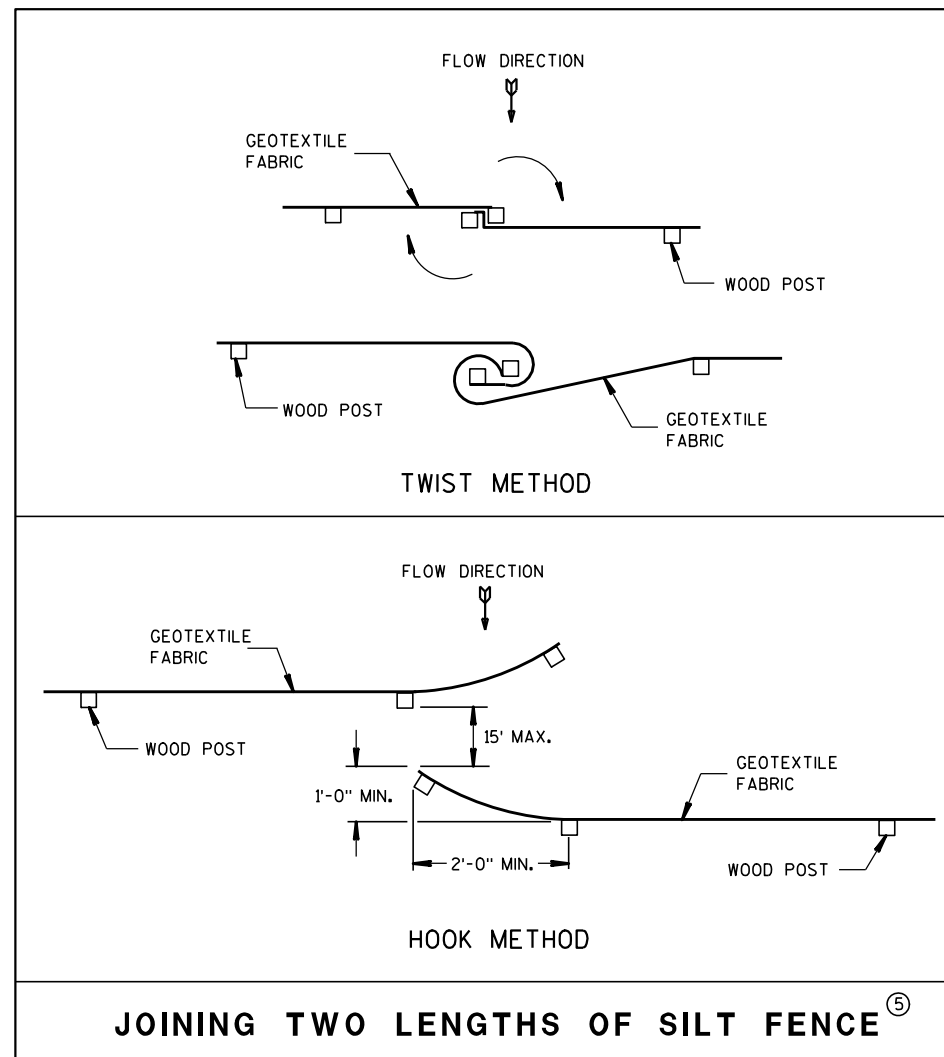
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

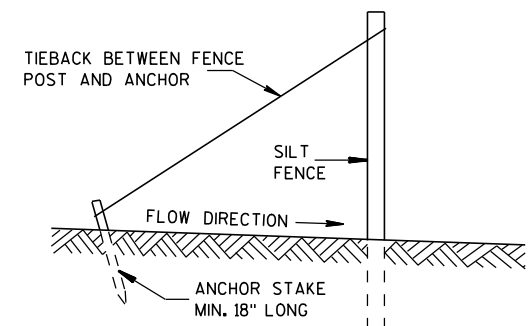


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

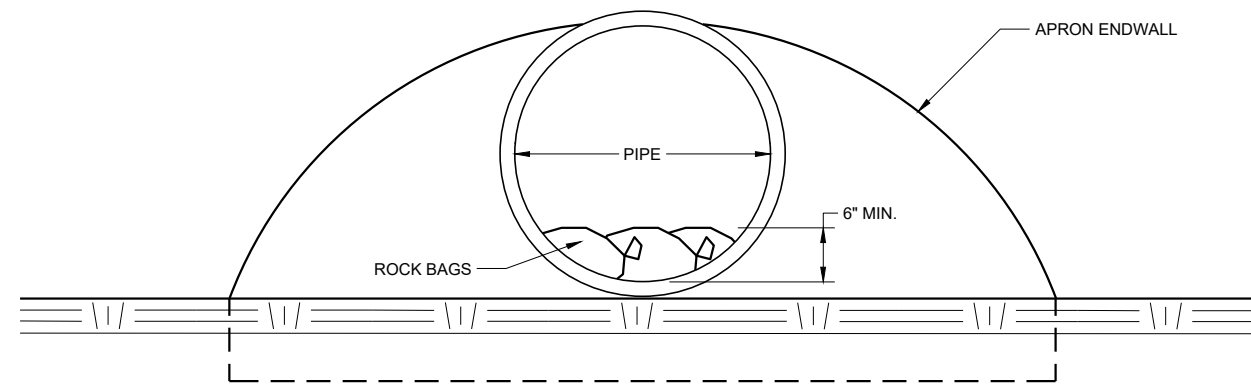


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

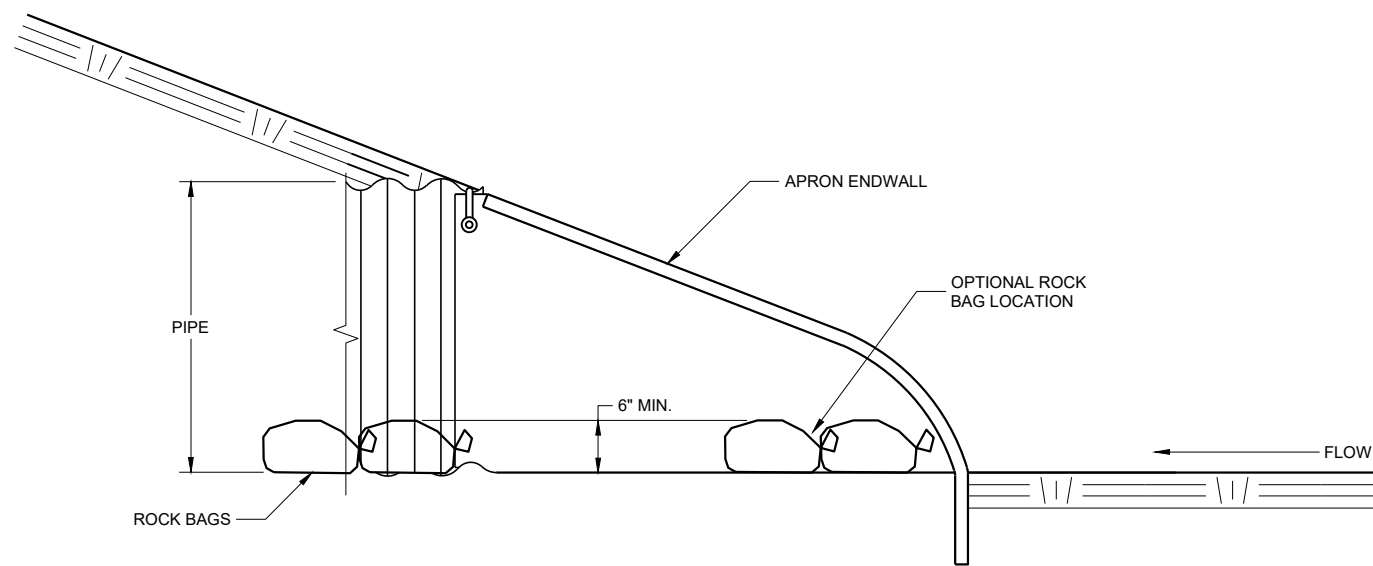
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Canestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
 (INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2019 /S/ Daniel Schave
 DATE EROSION CONTROL ENGINEER

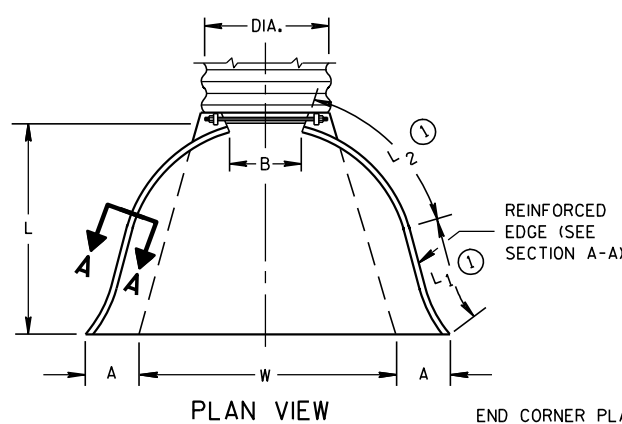
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

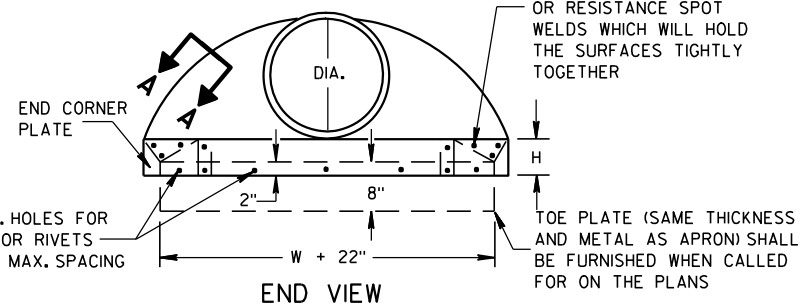
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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

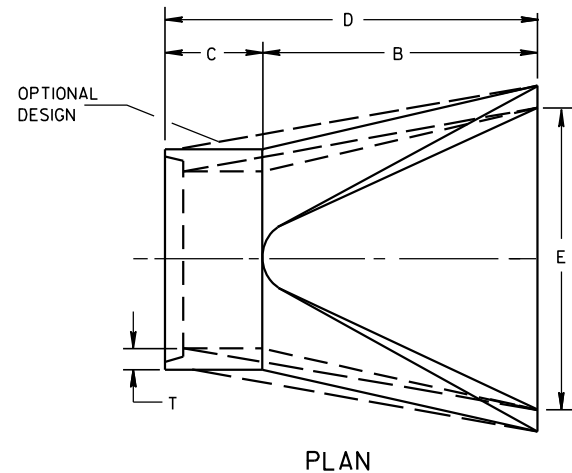
* MINIMUM
** MAXIMUM



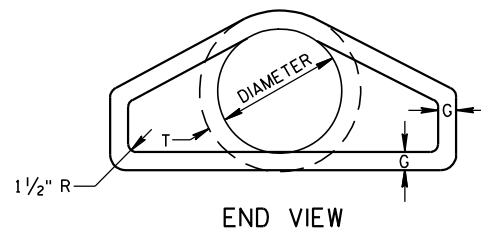
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



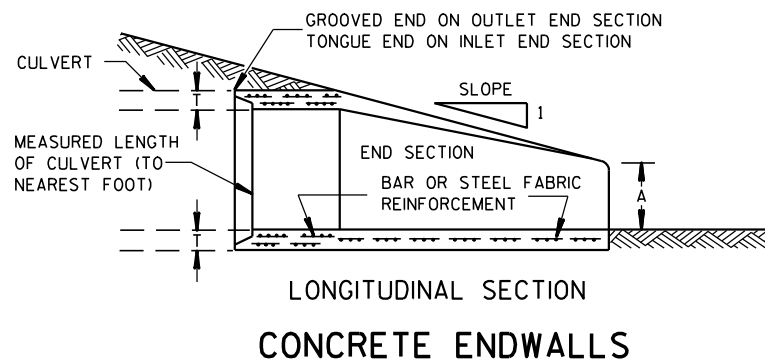
SIDE ELEVATION
METAL ENDWALLS



PLAN

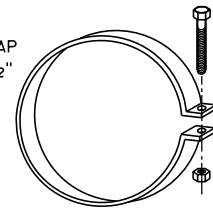


END VIEW

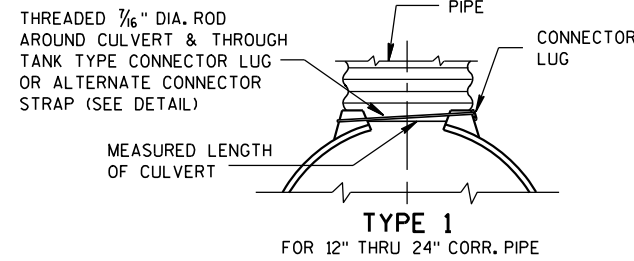


LONGITUDINAL SECTION
CONCRETE ENDWALLS

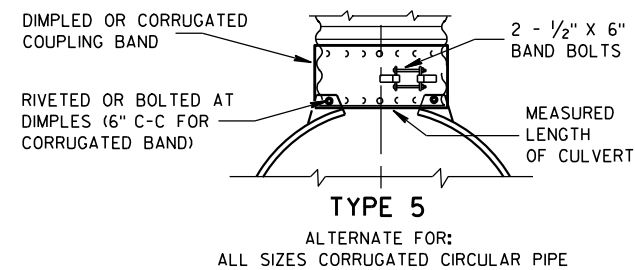
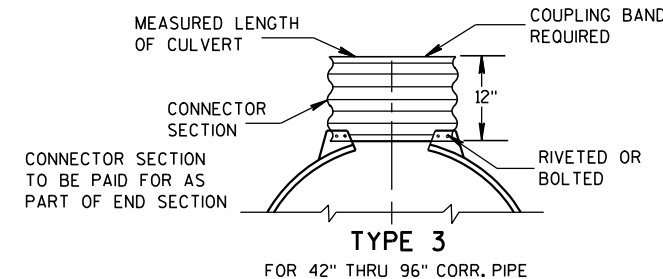
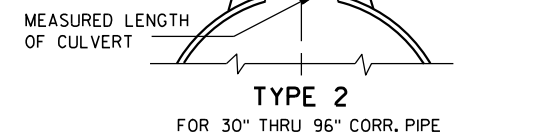
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



THREADED 1/16" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



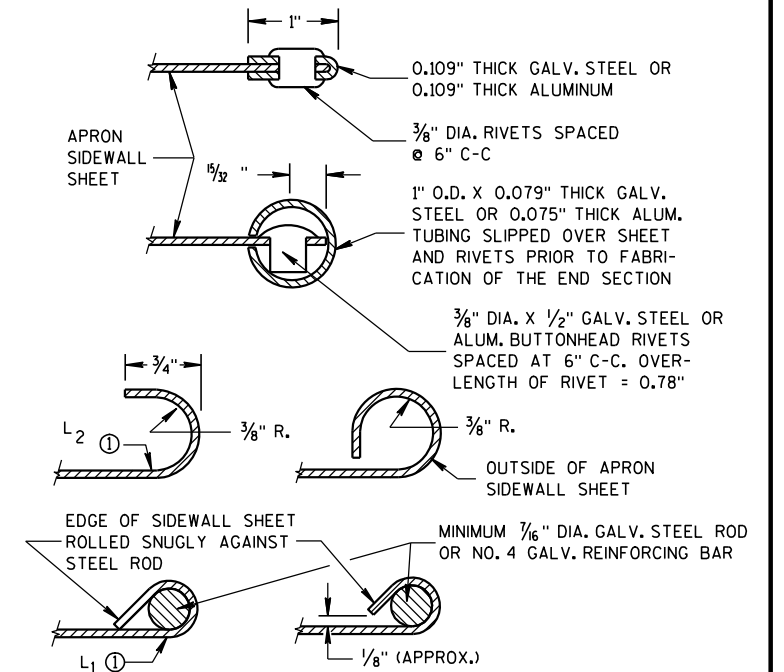
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

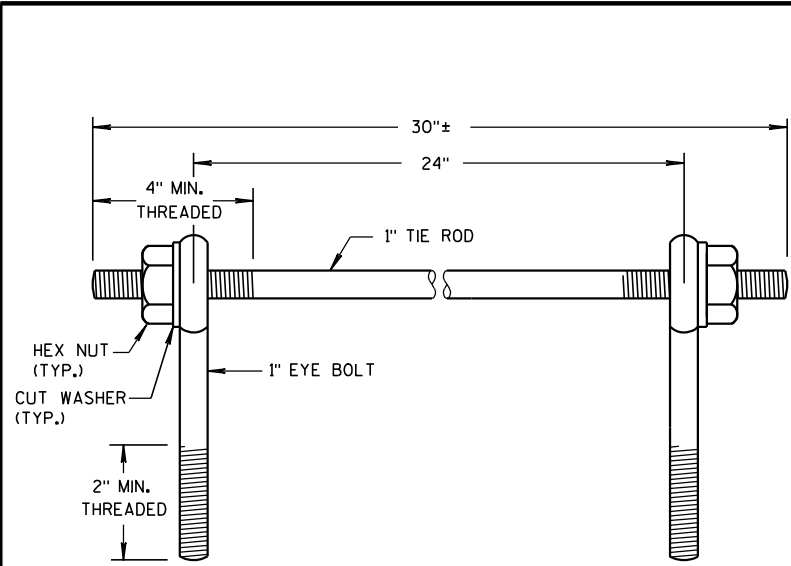
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

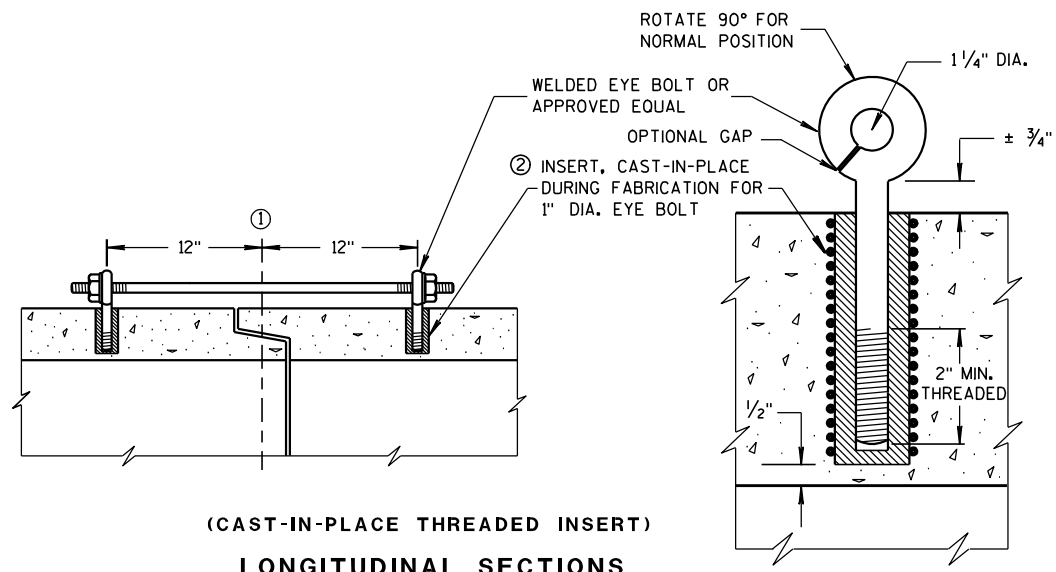
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

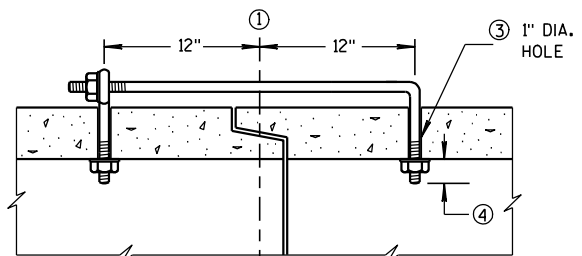
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

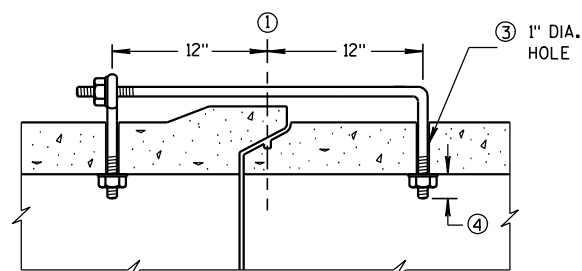
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

- ① ϕ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ϕ OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN $\frac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)
LONGITUDINAL SECTION

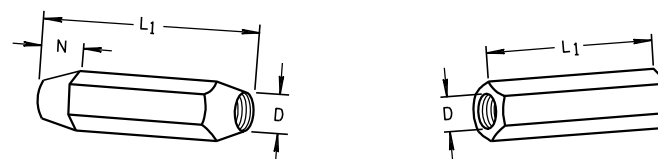
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

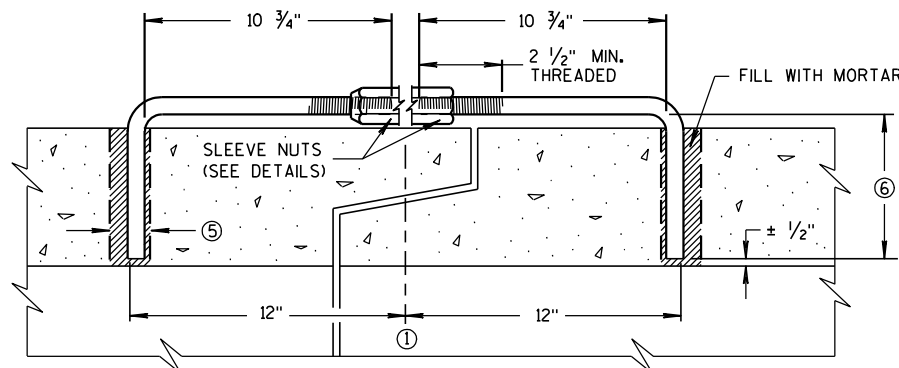
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/6

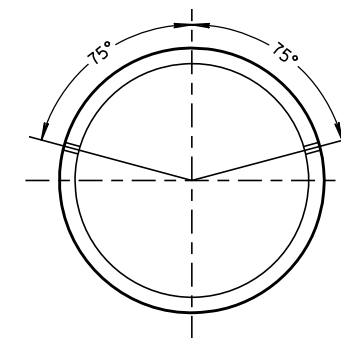
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN
RIGHT AND LEFT THREADS
SLEEVE NUTS

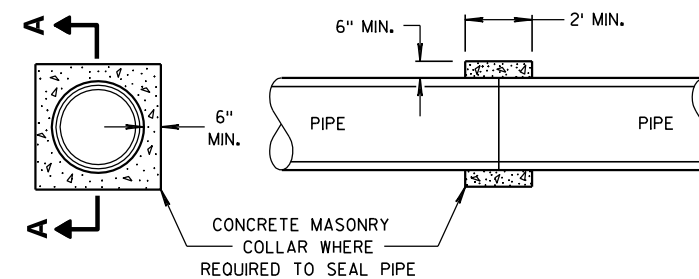


(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)
LONGITUDINAL SECTION
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



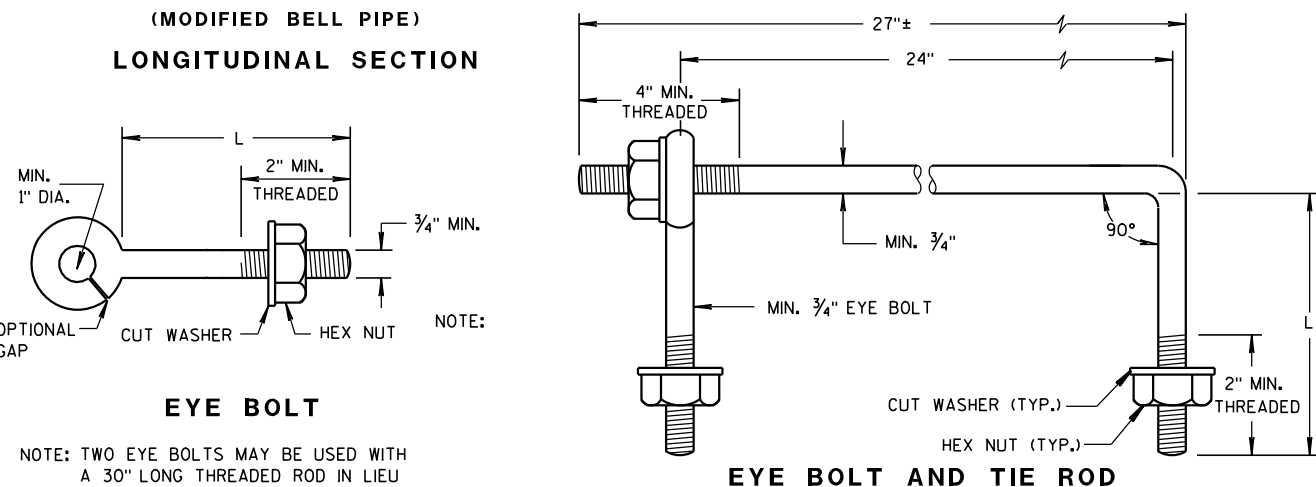
SECTION A-A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE
PIPE AND CONCRETE
COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

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



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

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

GENERAL NOTES

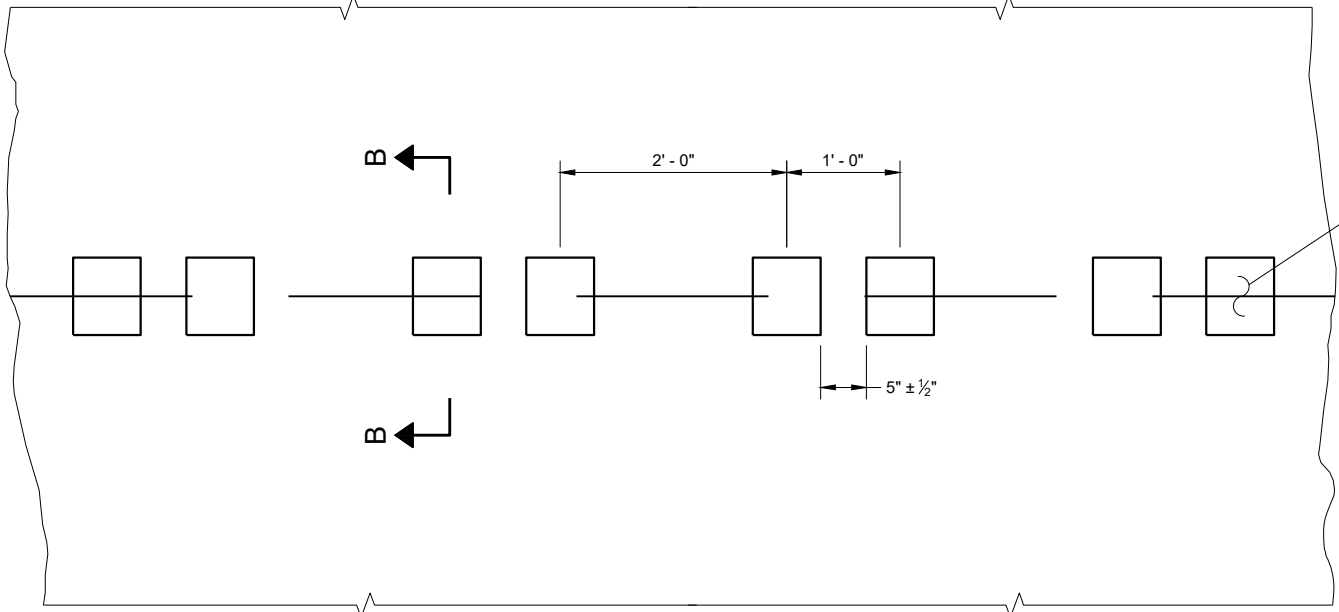
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

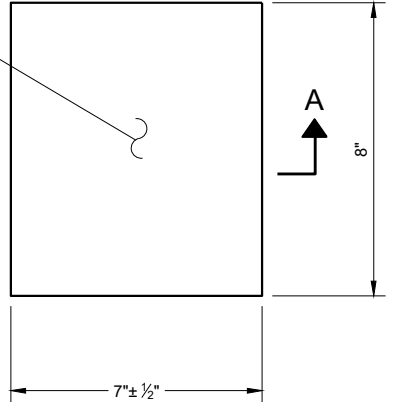
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

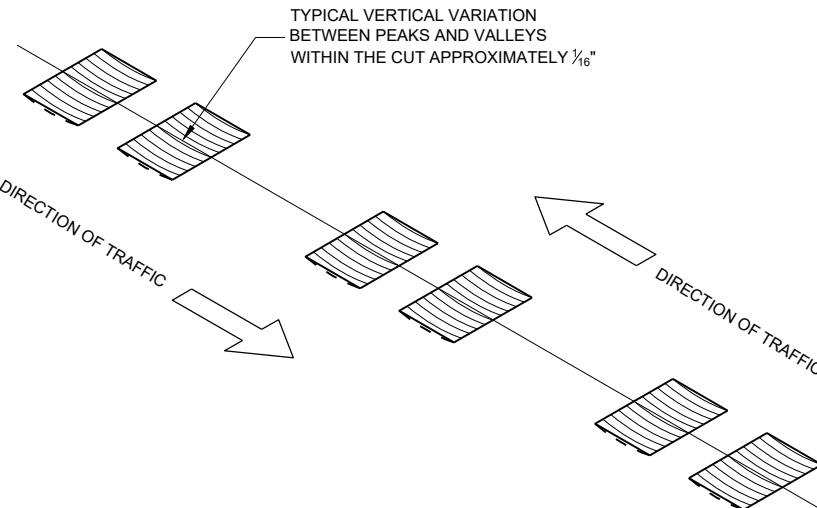
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

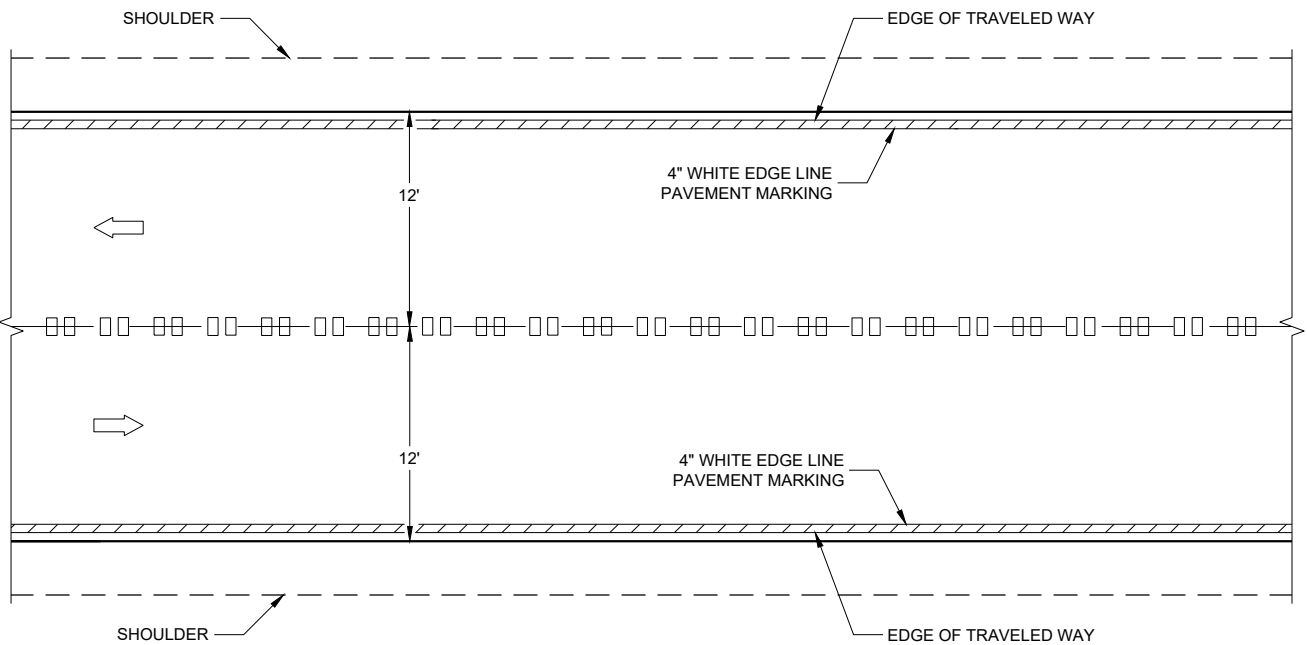


**PLAN VIEW
(SINGLE GROOVE)**

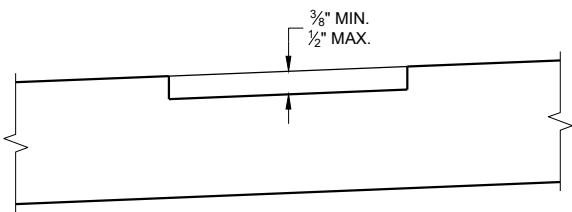


ISOMETRIC

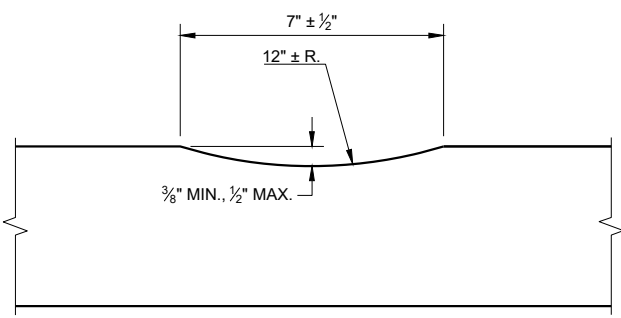
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



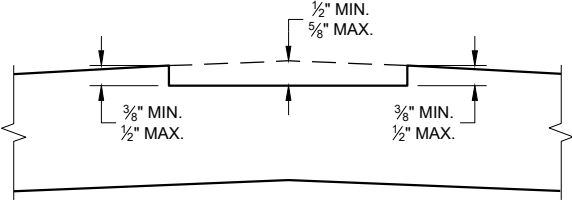
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



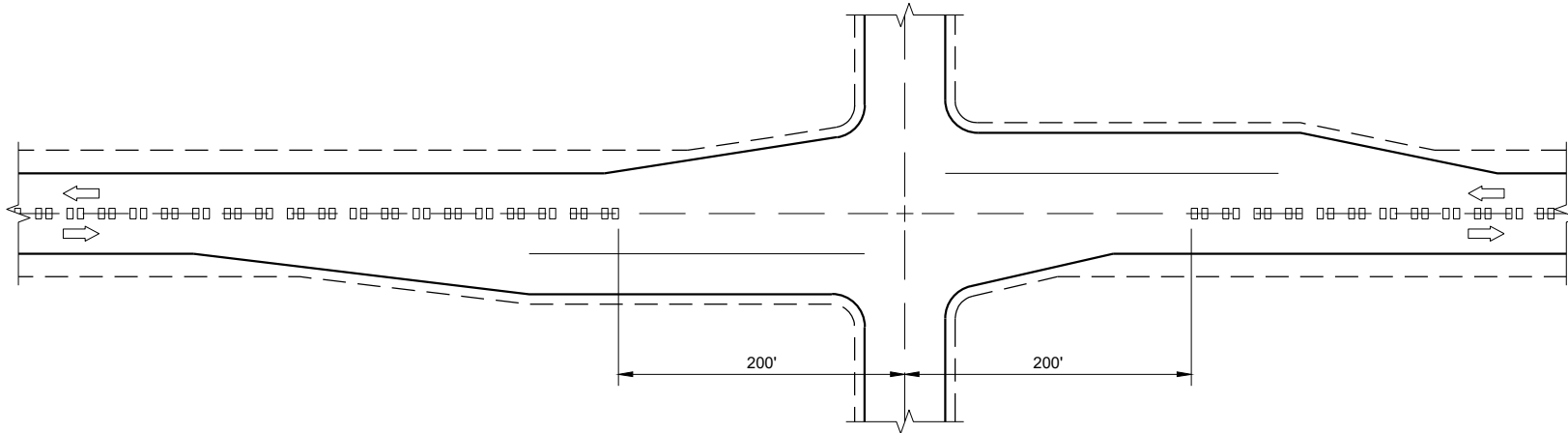
SECTION A - A



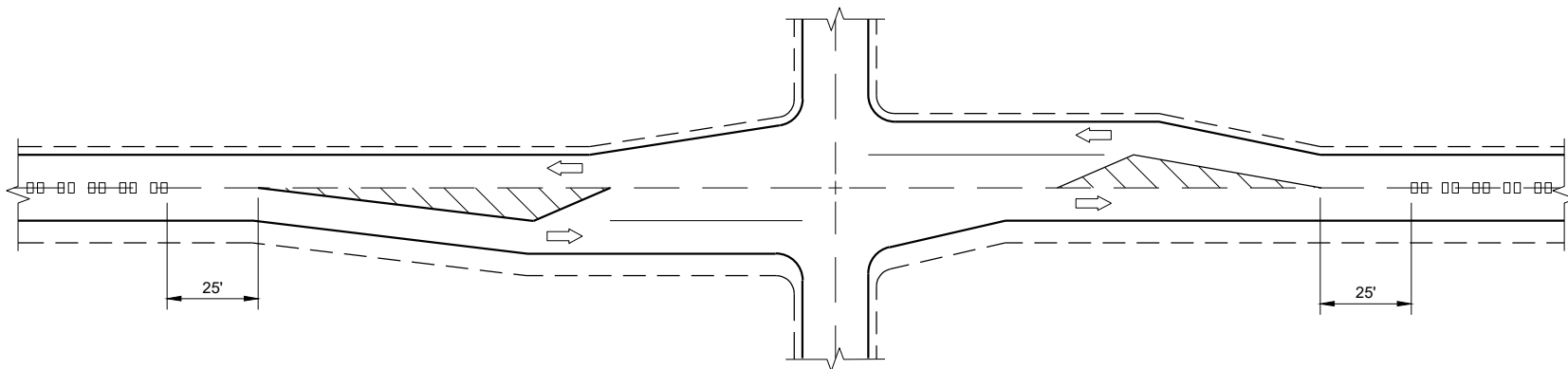
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

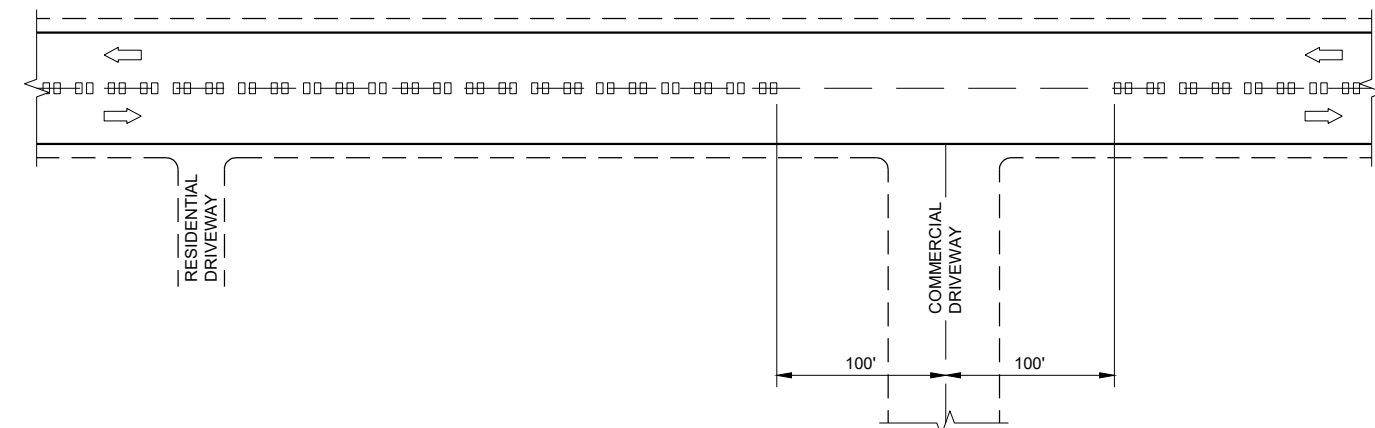
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



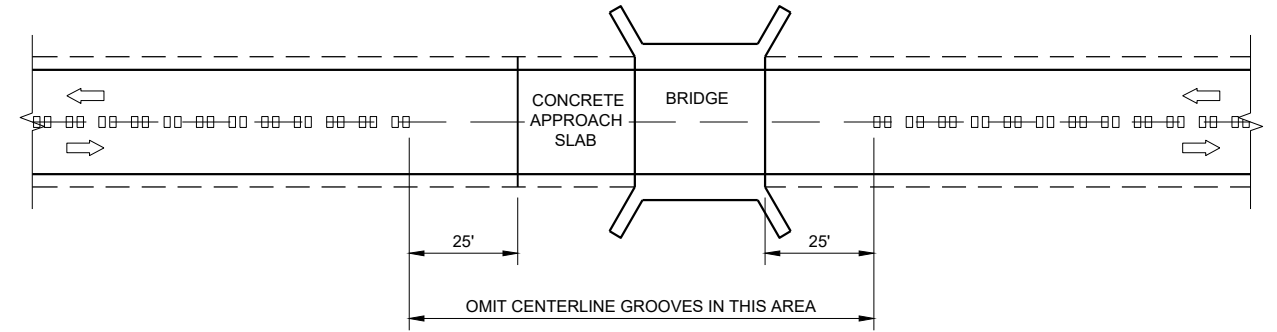
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



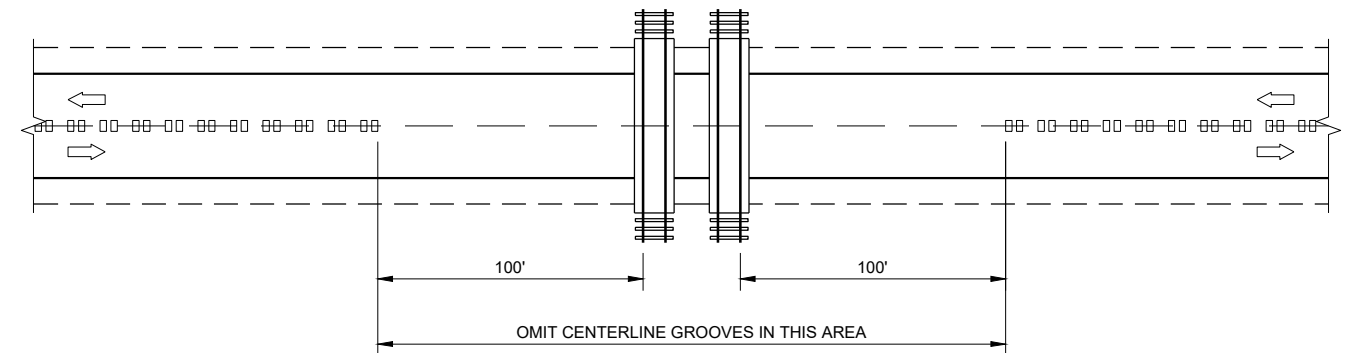
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES

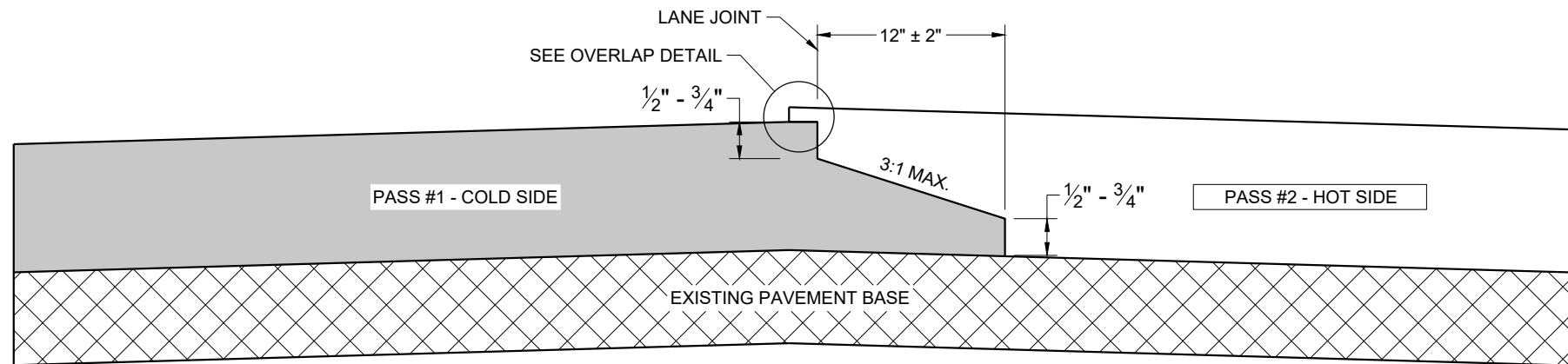


CENTERLINE GROOVES AT RAILROADS

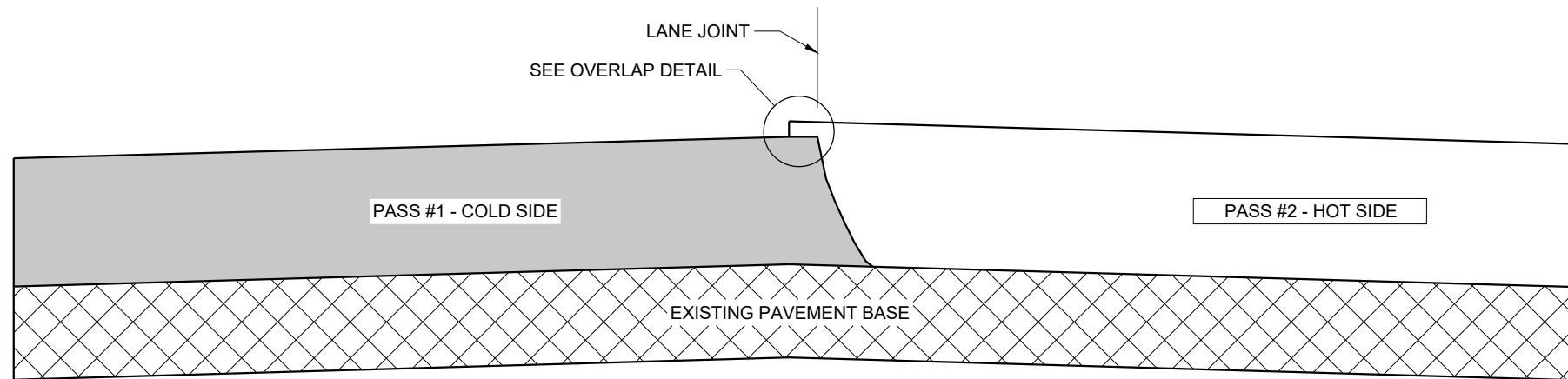
6

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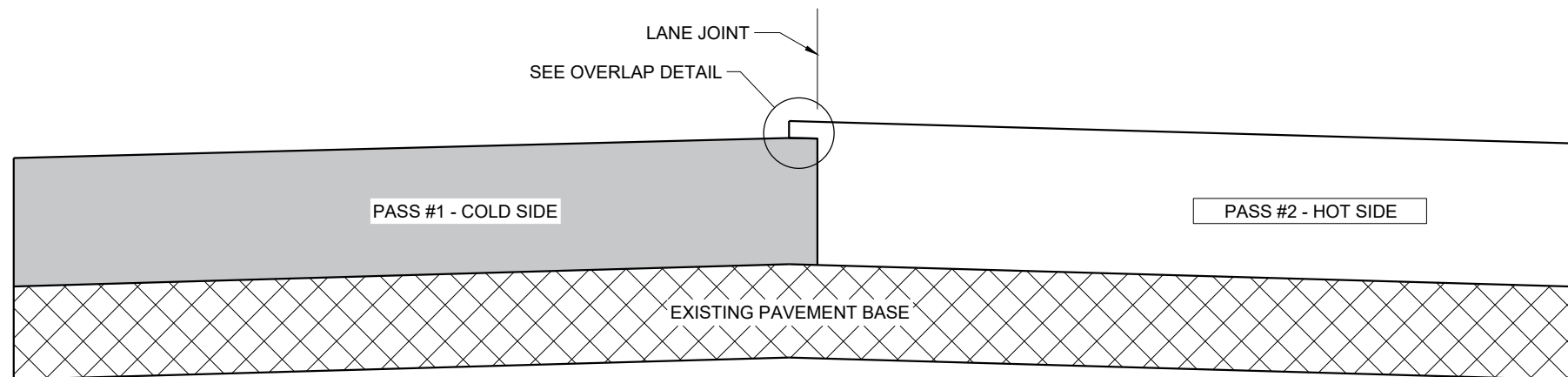
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

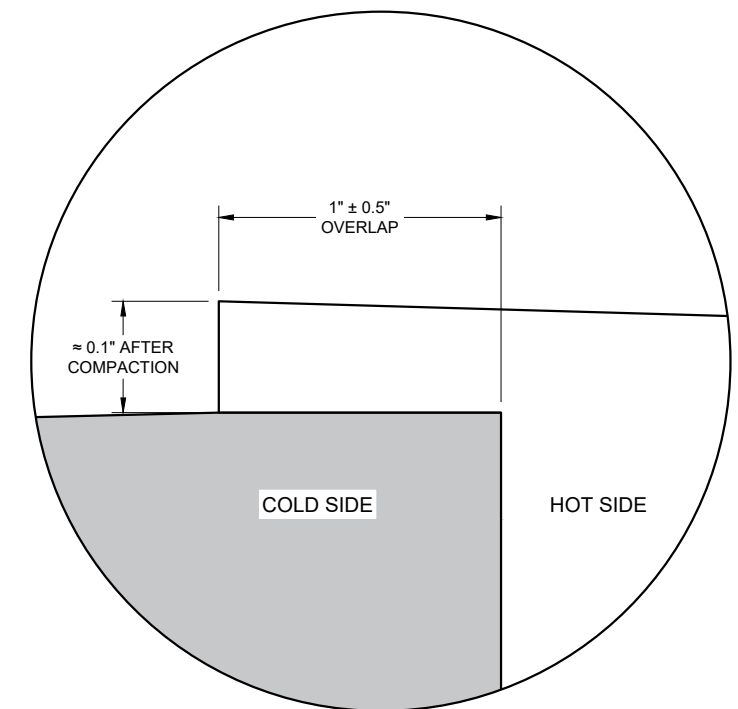
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

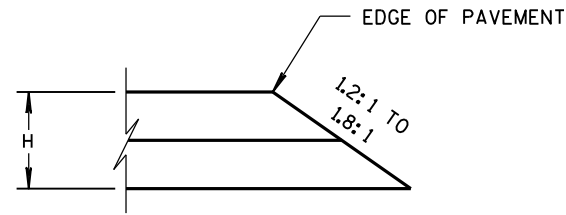
6

6

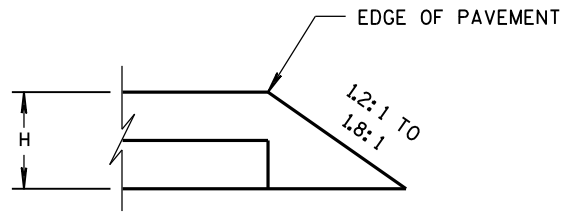
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SDD 13C19 - 03

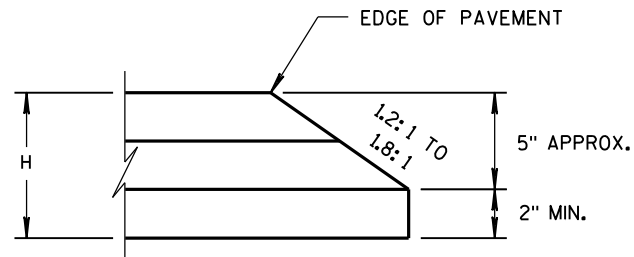
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



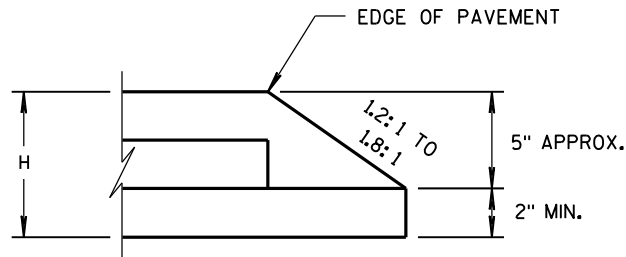
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

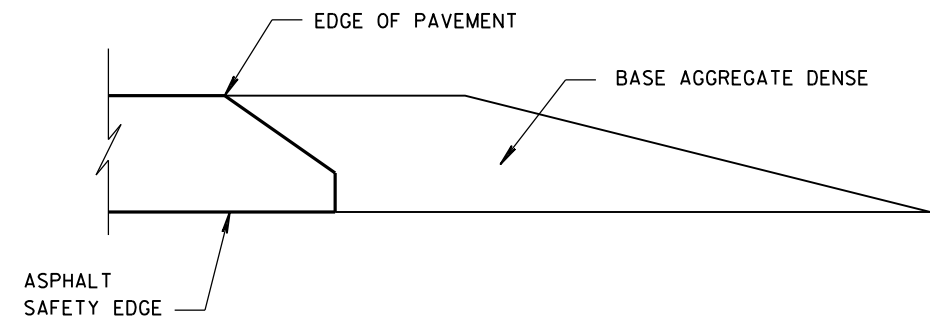


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

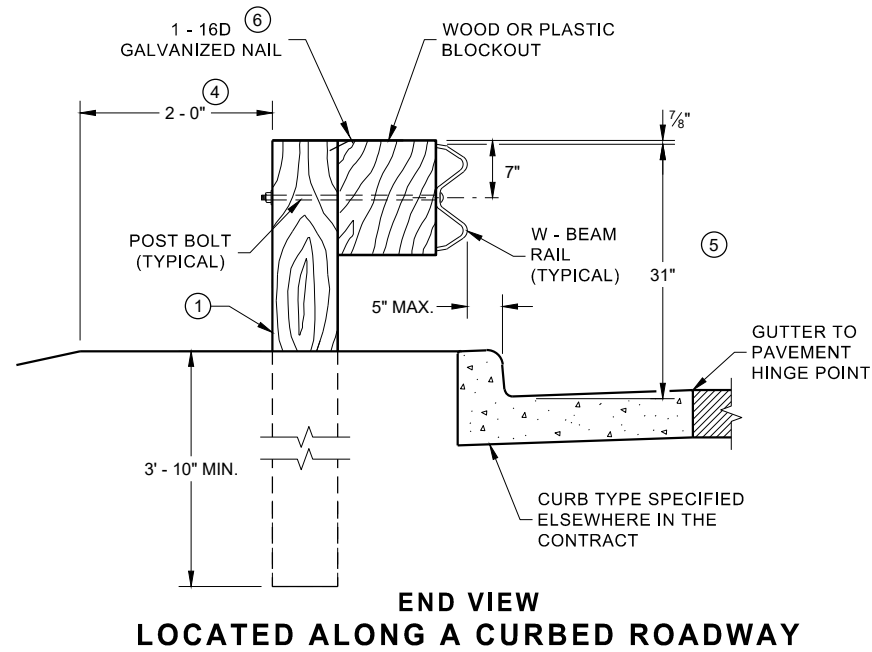
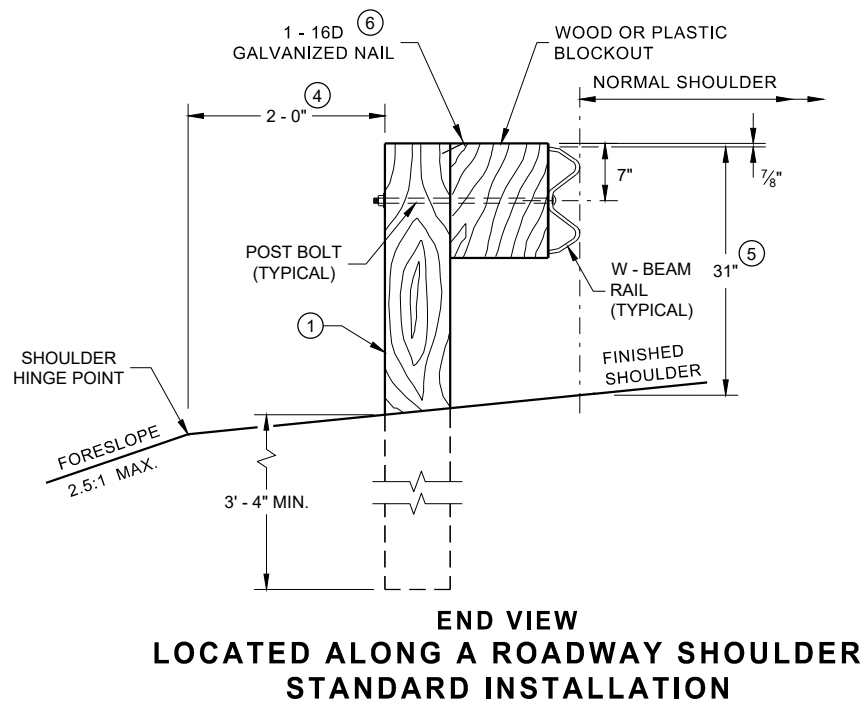
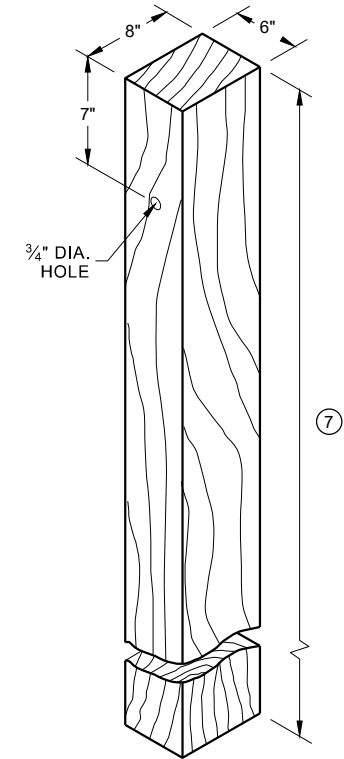
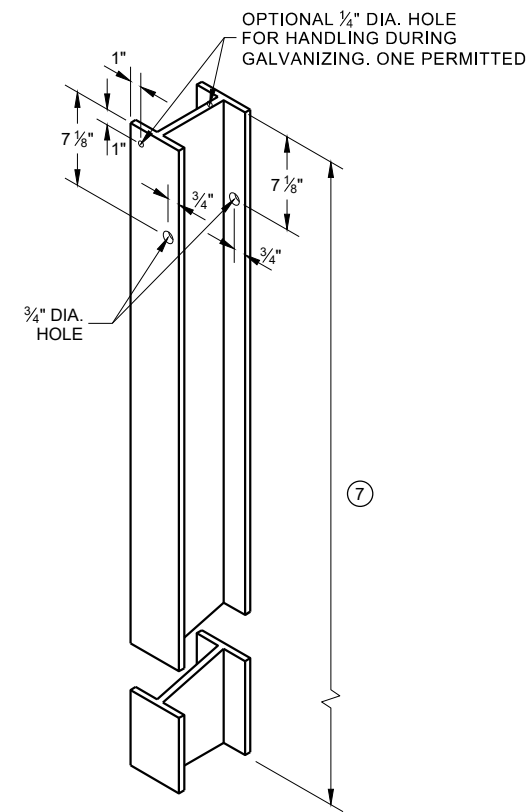
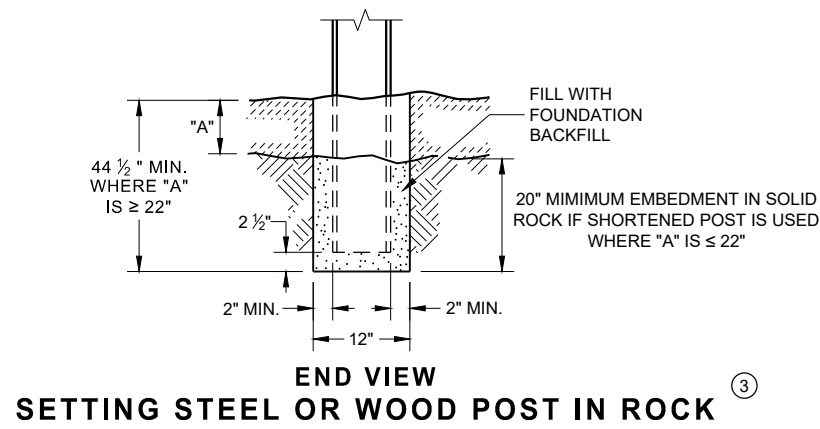
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

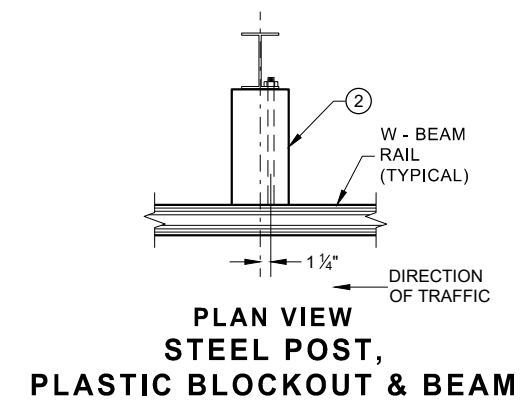
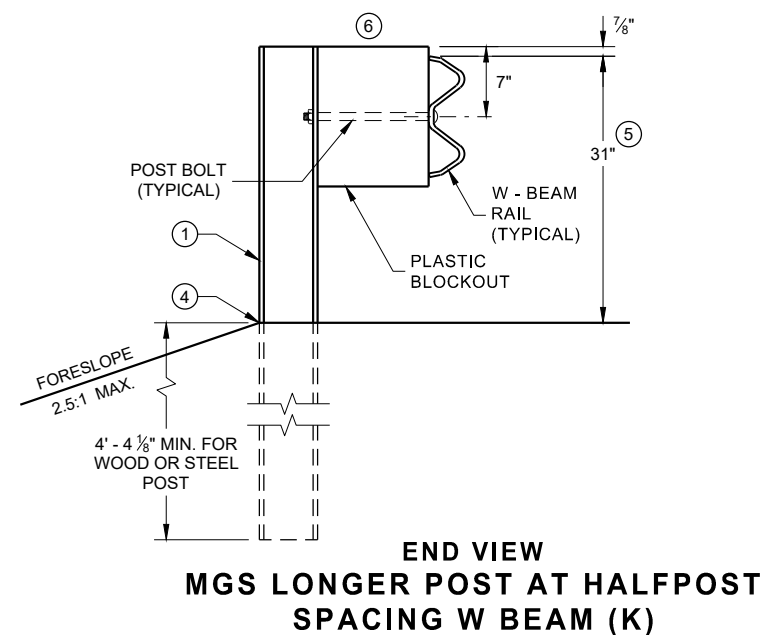
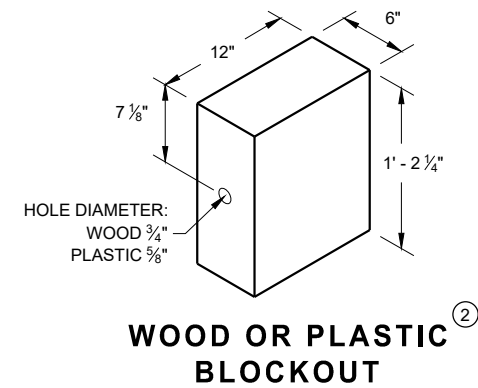
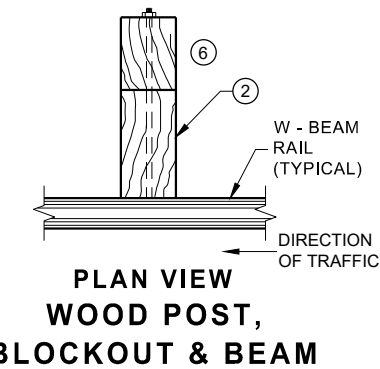
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



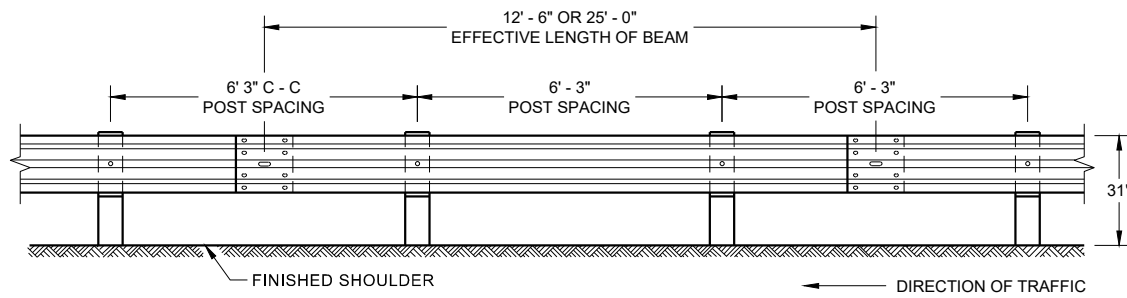
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

WOOD POST (6" X 8") NOMINAL

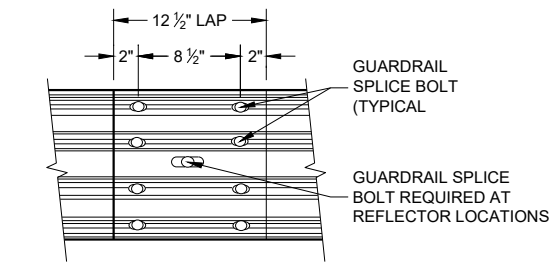


MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



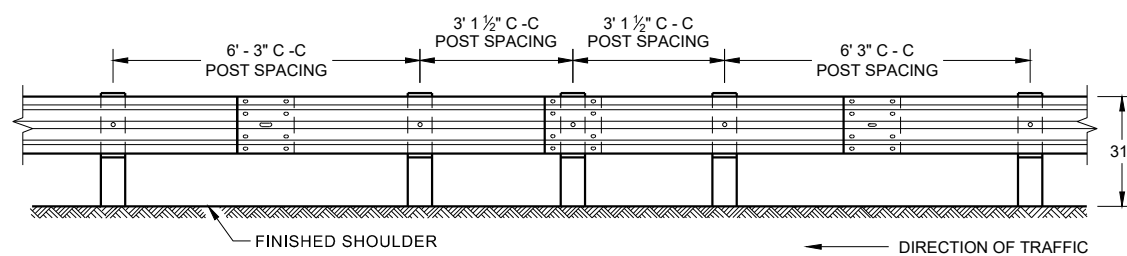
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



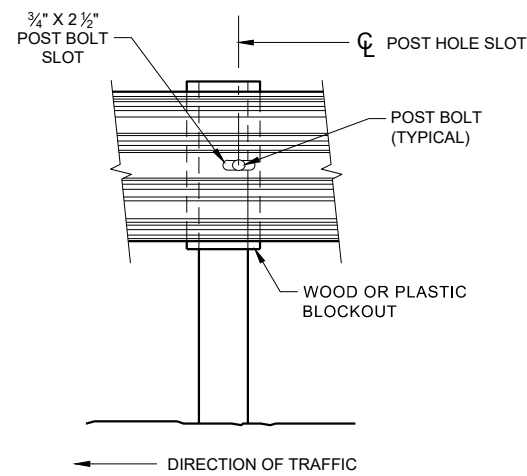
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

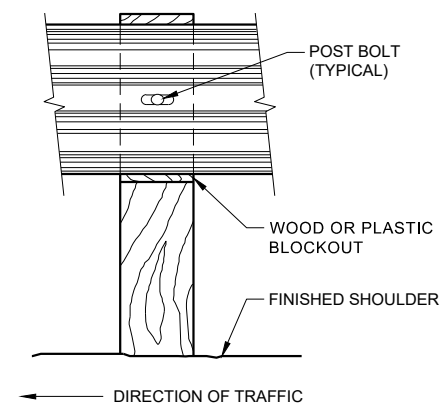
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



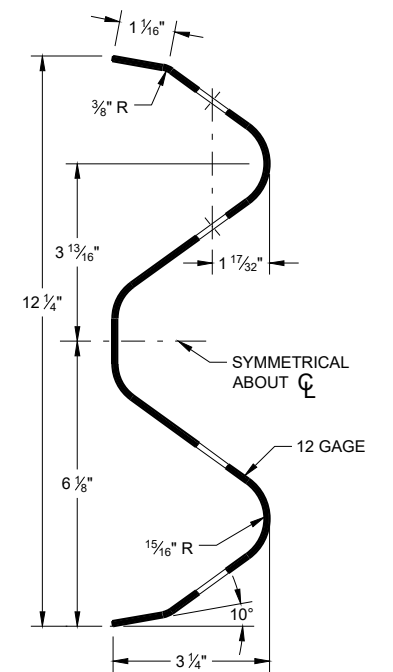
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



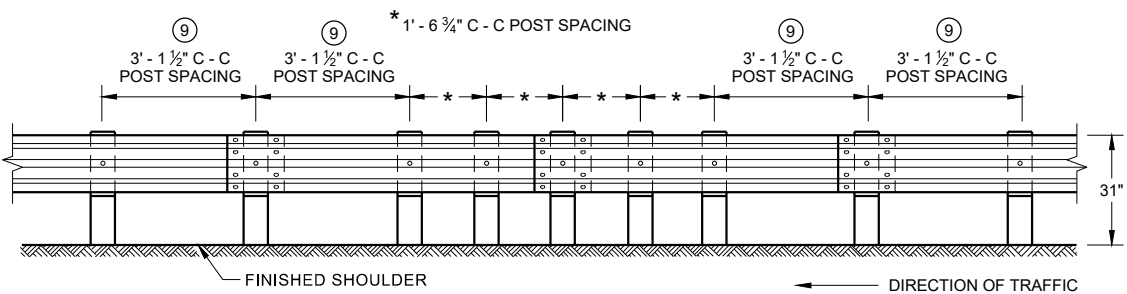
FRONT VIEW AT STEEL POST



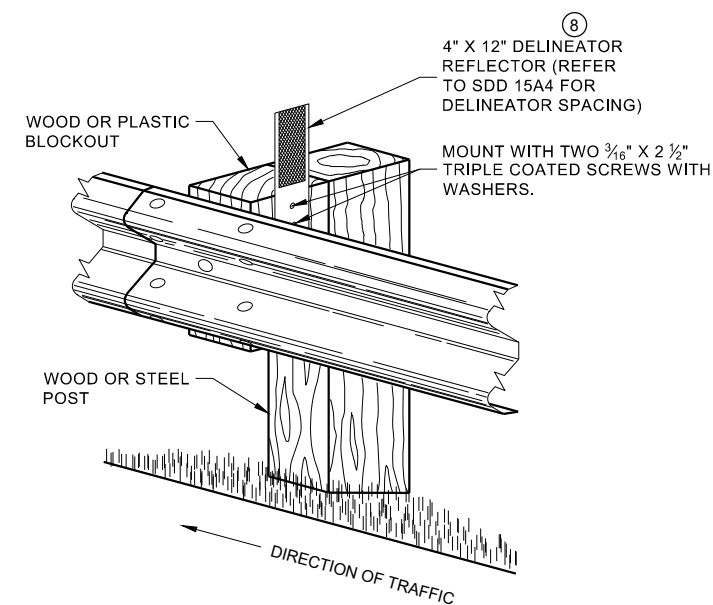
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



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



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

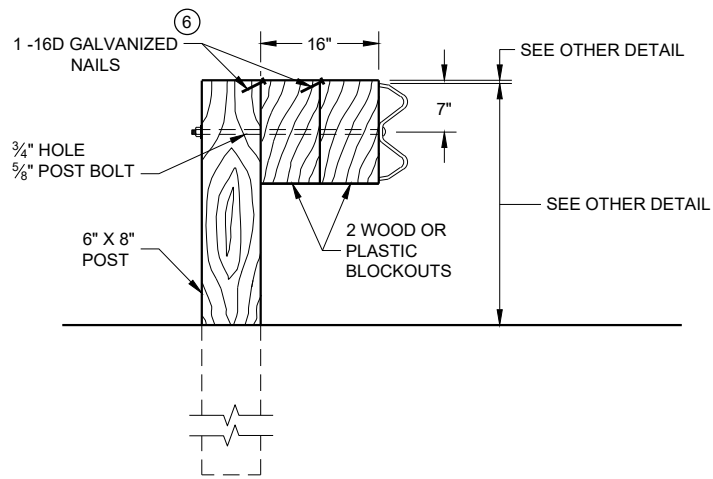
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 14B42 - 07b

SDD 14B42 - 07b

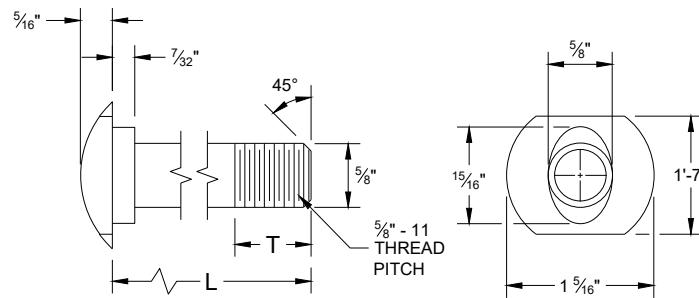


DETAIL FOR 16" BLOCKOUT DEPTH

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

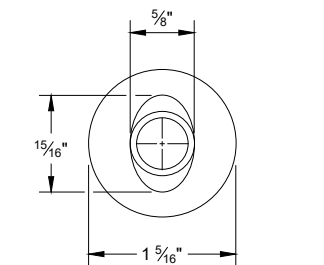
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

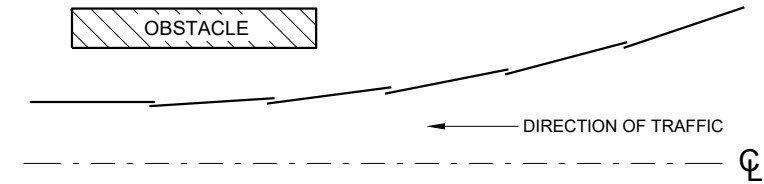


POST BOLT TABLE

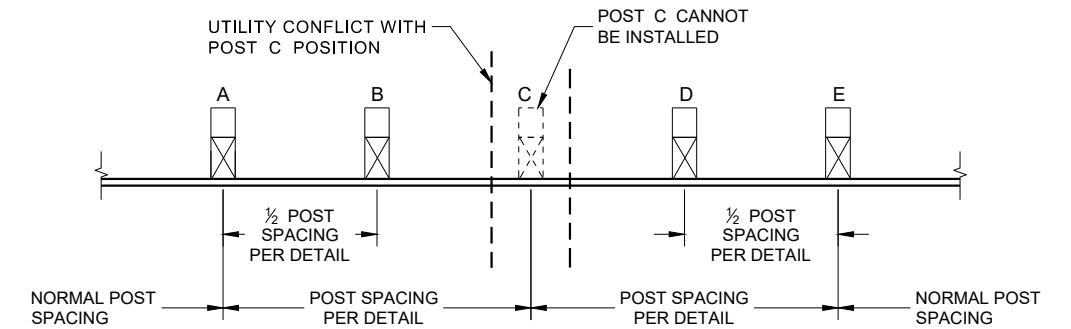
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



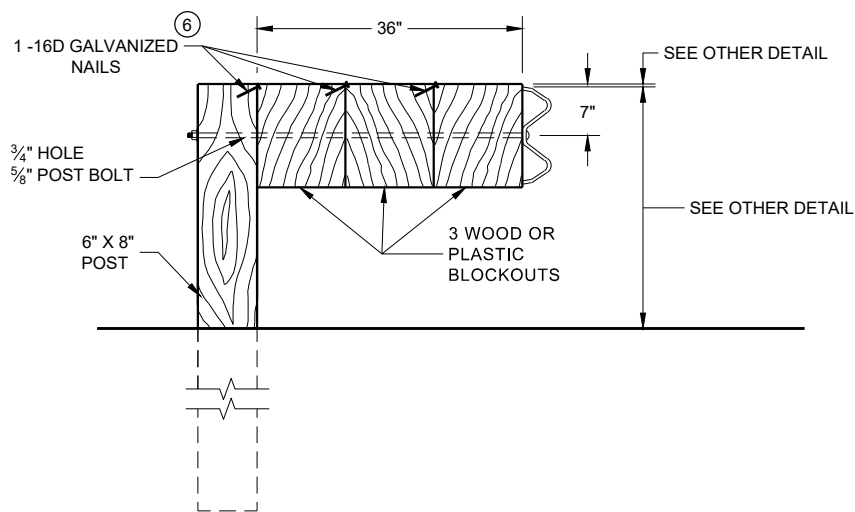
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

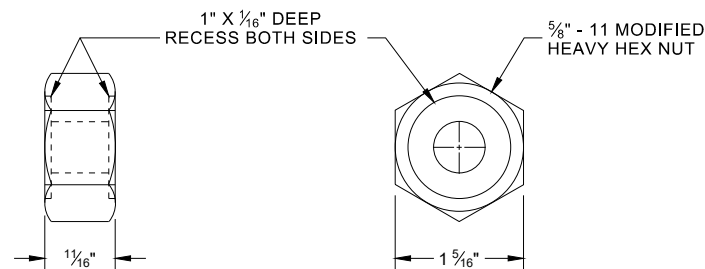


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

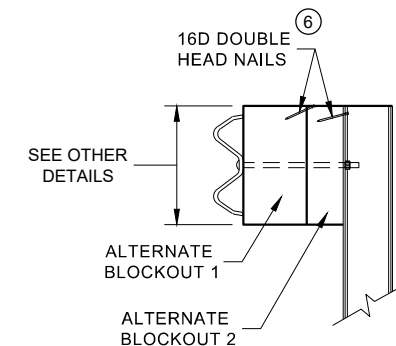


DETAIL FOR 36" BLOCKOUT DEPTH

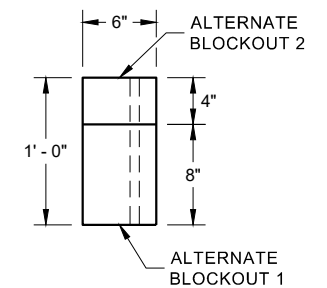
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**POST BOLT, SPLICE BOLT
AND RECESS NUT**



SIDE VIEW



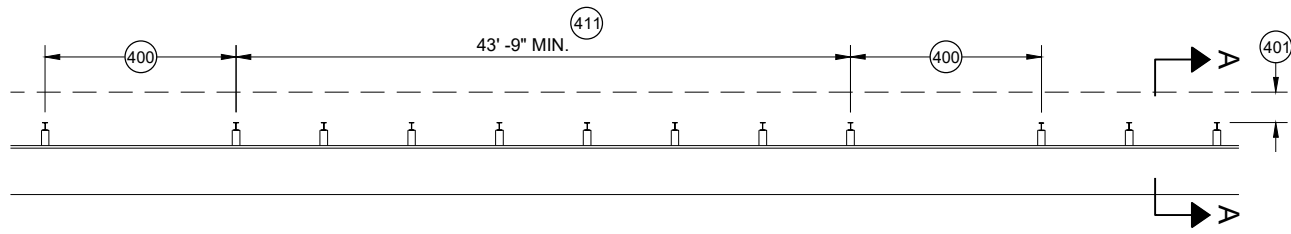
PLAN VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**

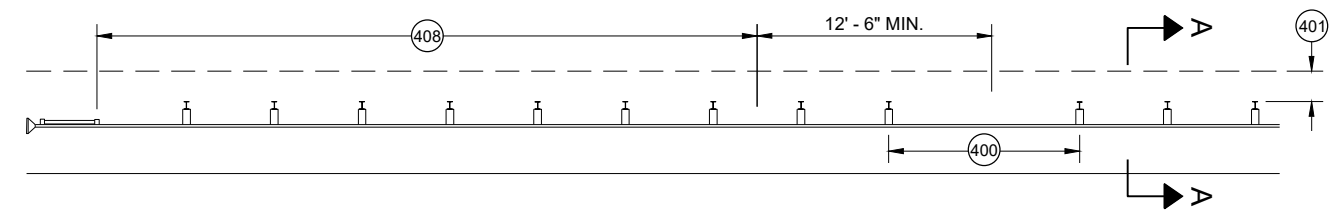
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

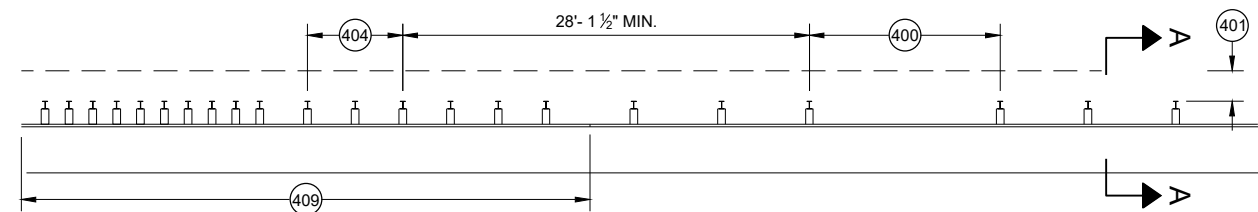
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



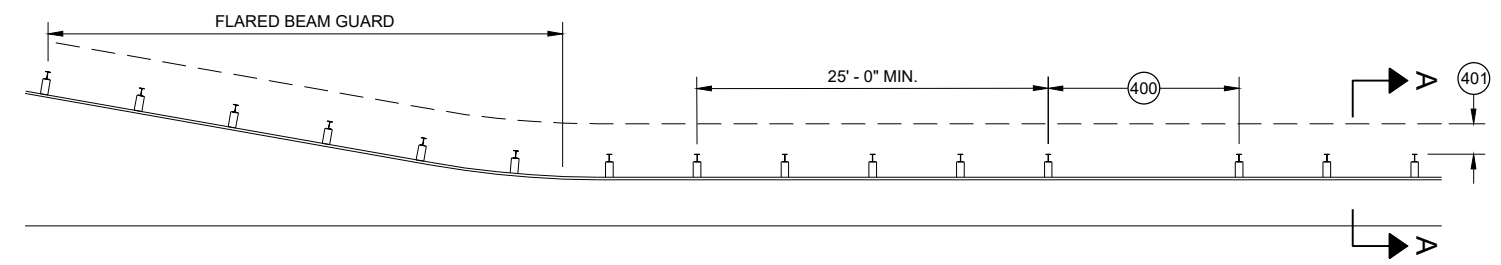
MISSING POST IN MGS GUARDRAIL



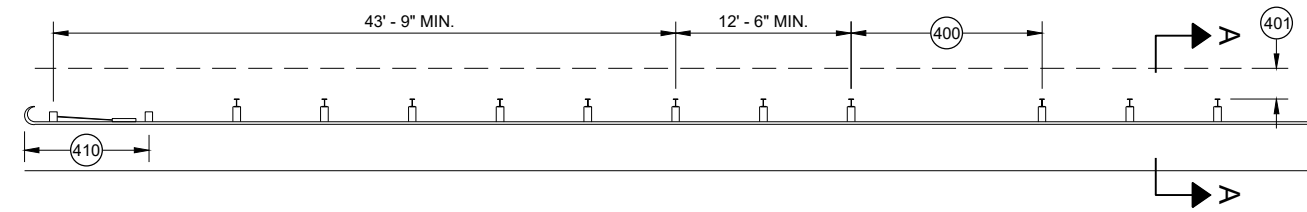
MISSING POST IN MGS GUARDRAIL NEAR EAT



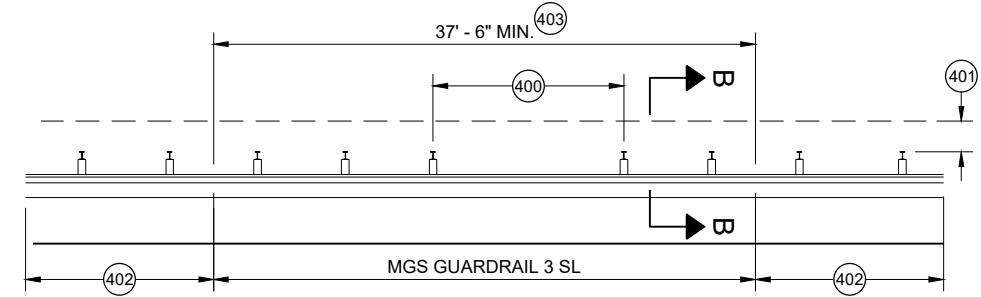
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

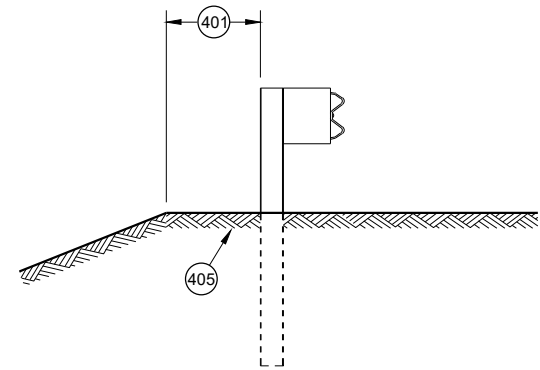


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

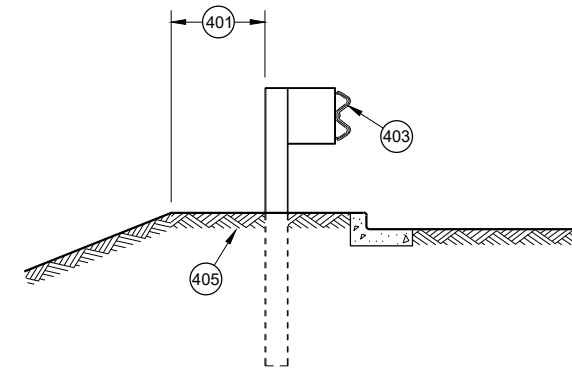


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

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



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

GENERAL NOTES

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

SEE SDD 14B42 FOR MORE INFORMATION.

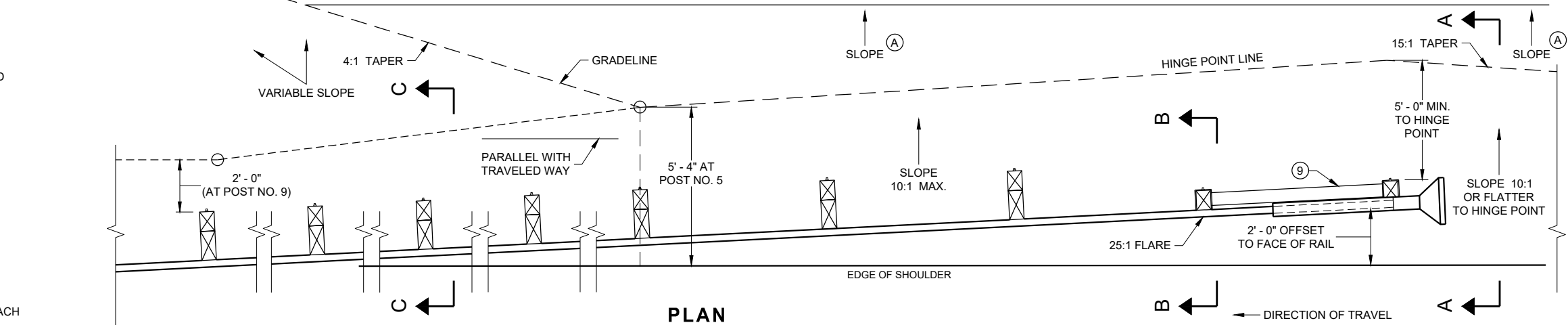
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

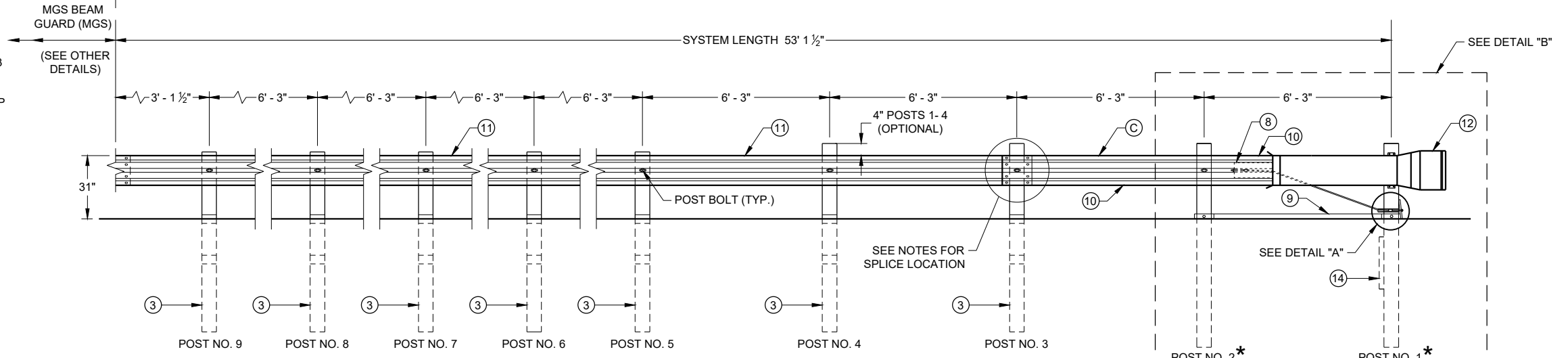
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

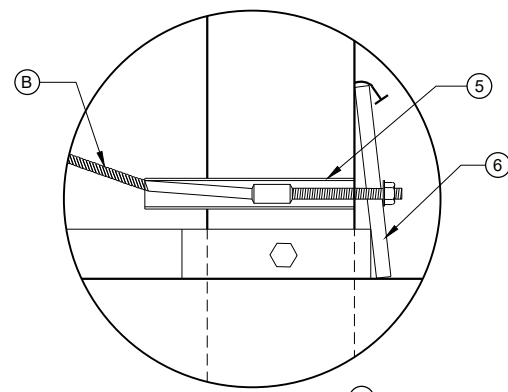
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



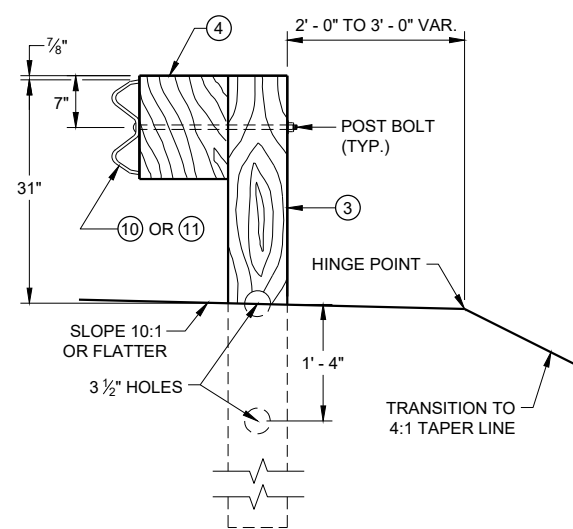
PLAN



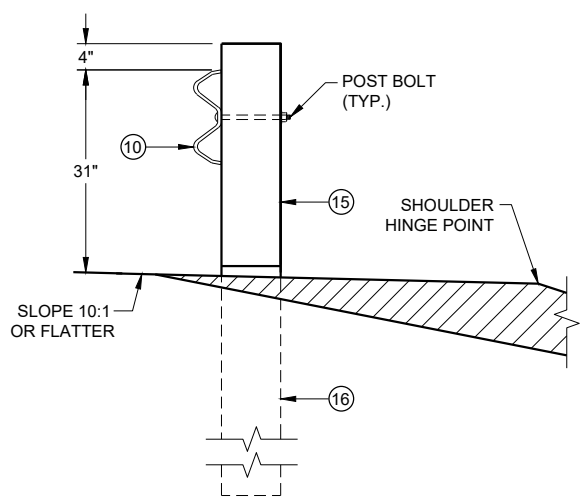
ELEVATION



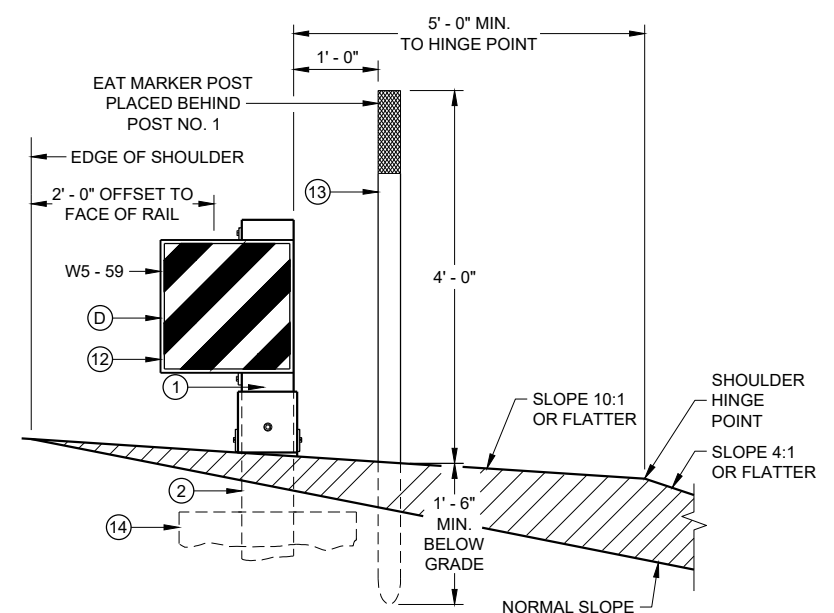
DETAIL "A"



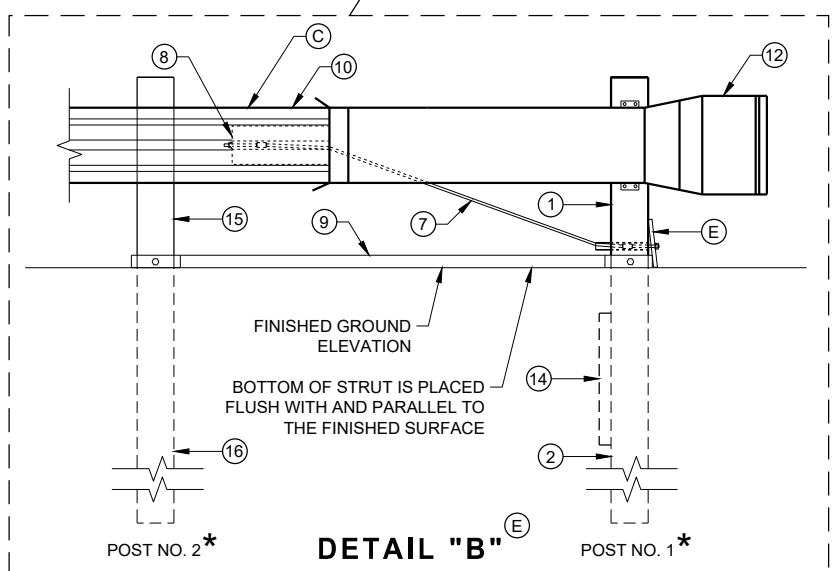
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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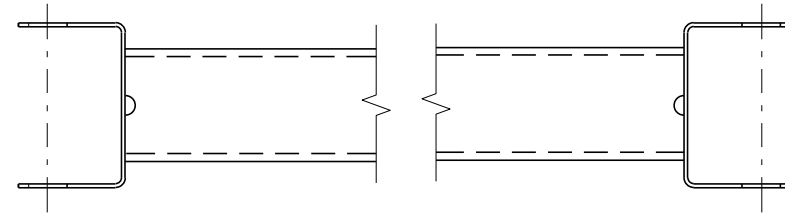
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SDD 14B44 - 04a

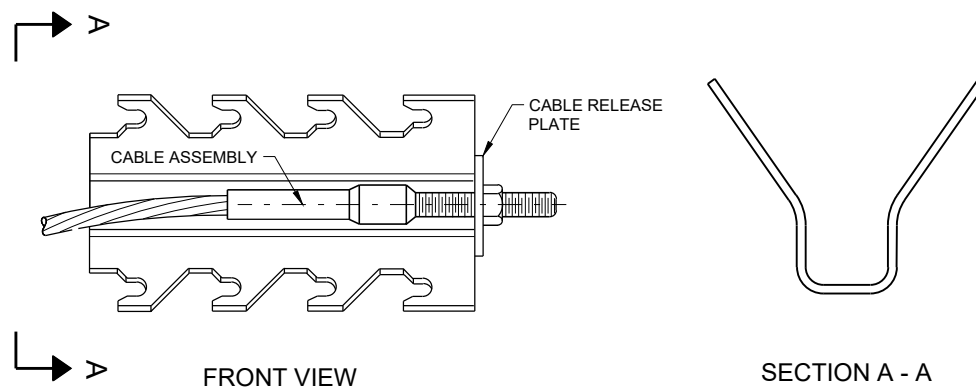
SDD 14B44 - 04a

BILL OF MATERIALS

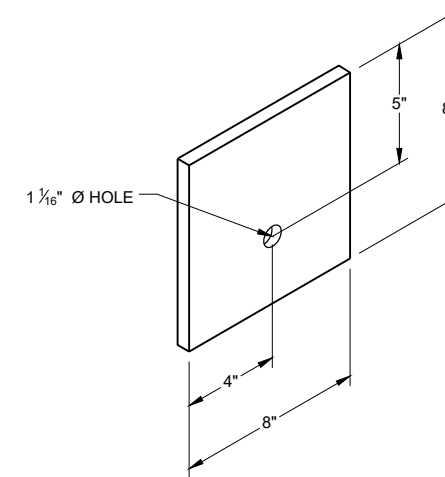
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



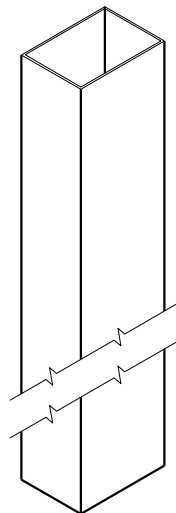
GENERIC GROUND STRUT ⑨ ⑤



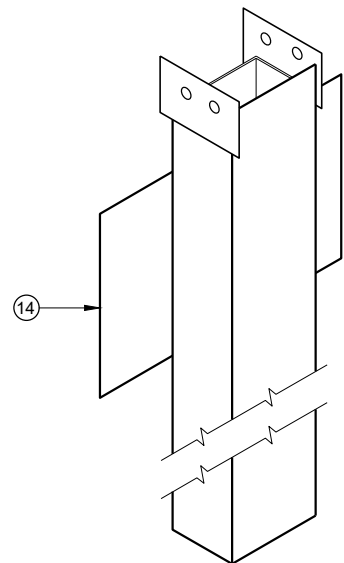
GENERIC ANCHOR CABLE BOX ⑨ ⑤



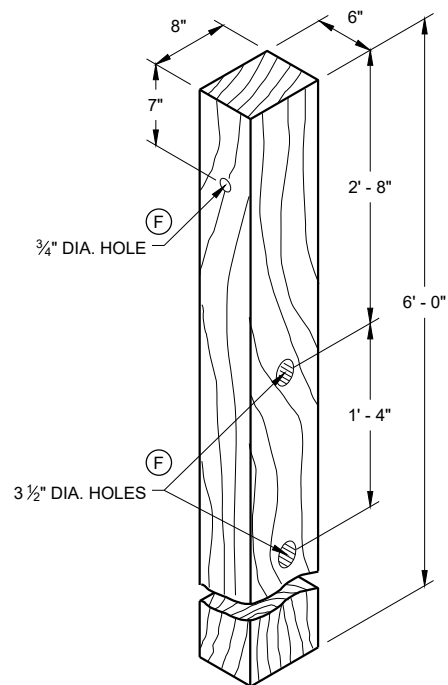
BEARING PLATE ⑥ ⑤



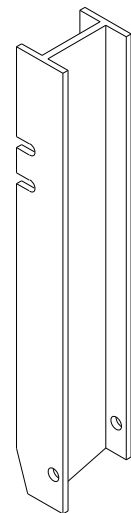
UPPER POST NO. 1 ⁽¹⁾ (E)



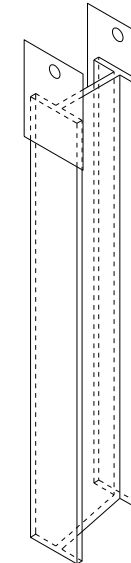
LOWER POST NO. 1 ⁽²⁾ (E)



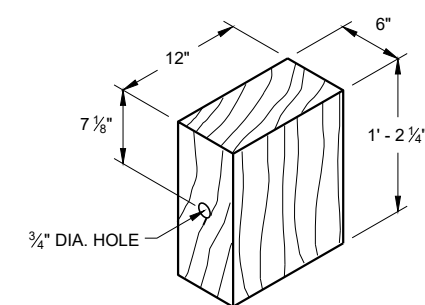
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

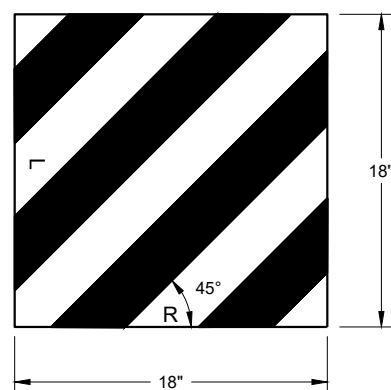


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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

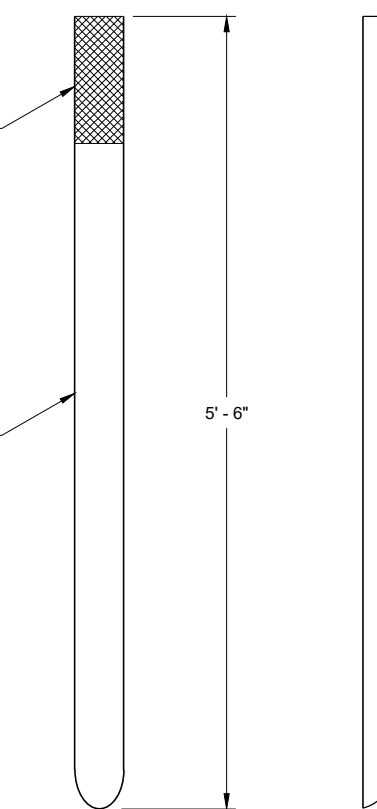
6



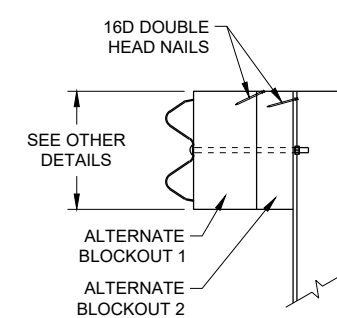
REFLECTIVE SHEETING DETAIL ^(E)

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

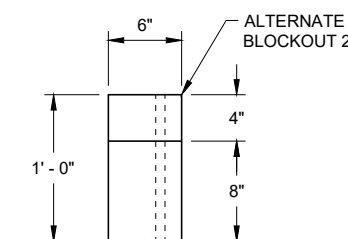
E.A.T. MARKER
POST (YELLOW)



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



SIDE VIEW



TOP VIEW

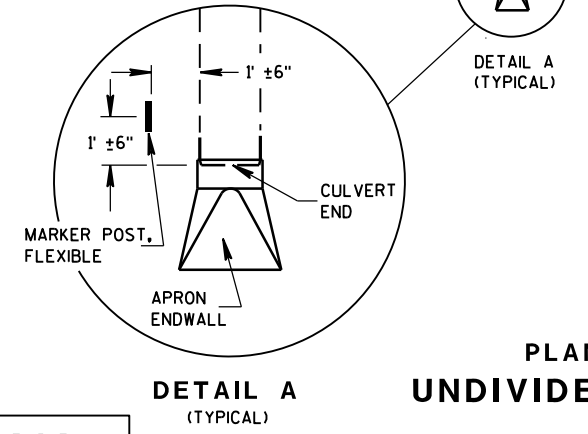
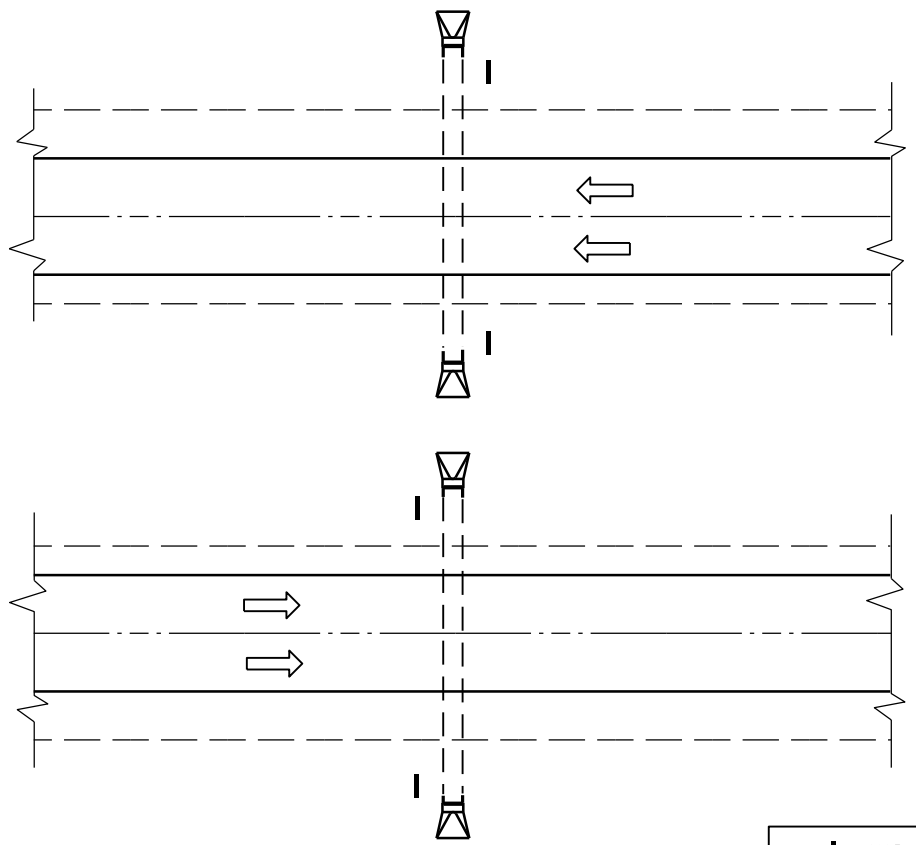
ALTERNATE WOOD
BLOCKOUT DETAIL

6

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



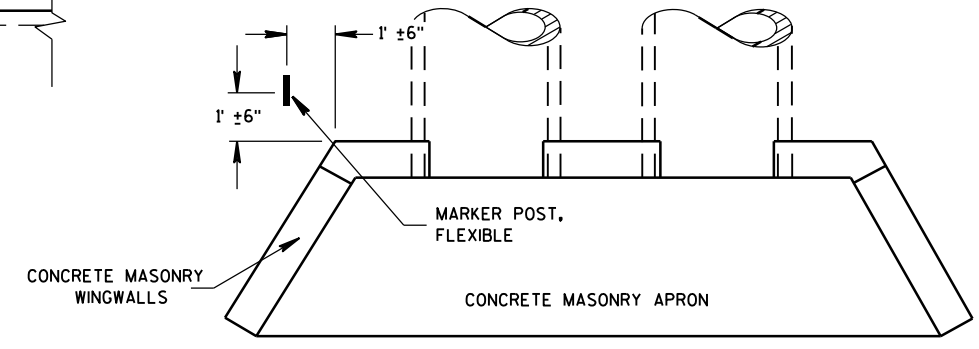
MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

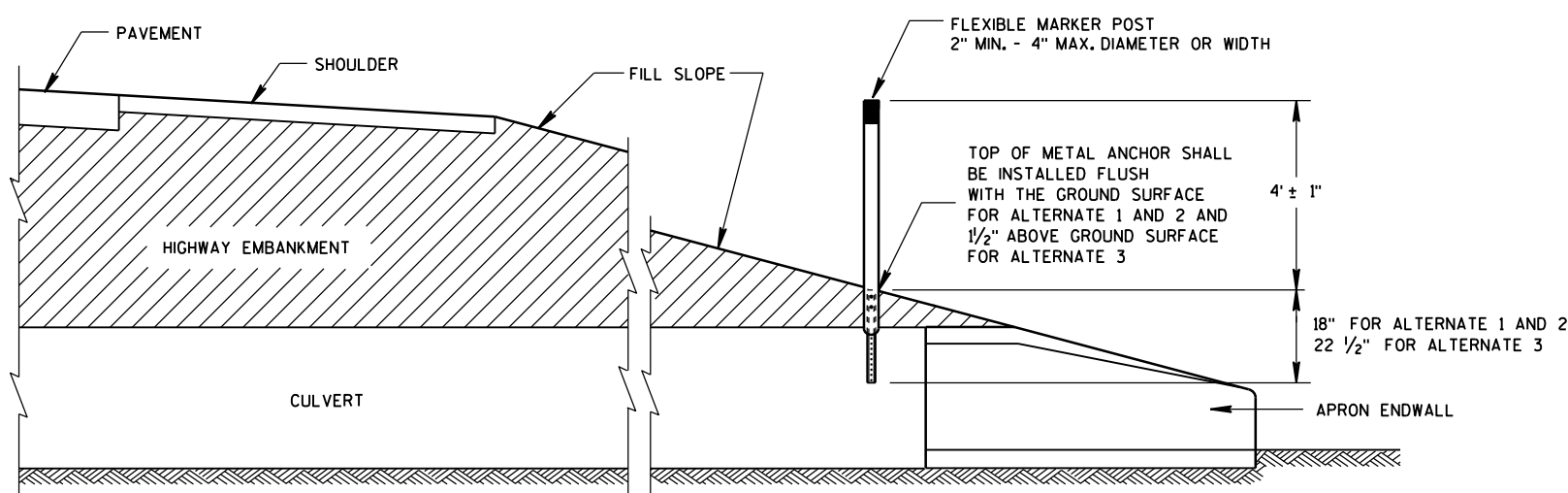
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



**PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH**

6

6



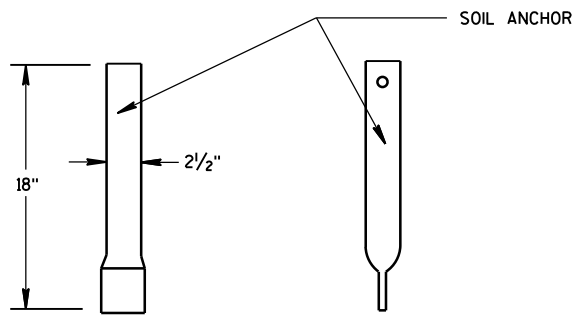
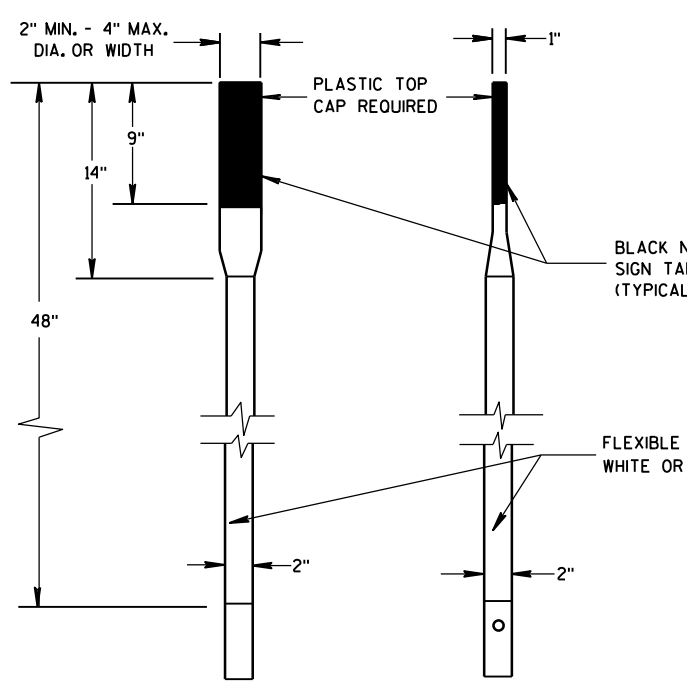
**CROSS SECTION
FLEXIBLE MARKER POST**

**FLEXIBLE MARKER POST
FOR CULVERT END**

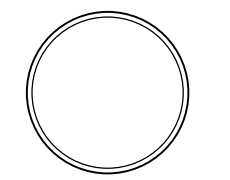
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 A 3-2a

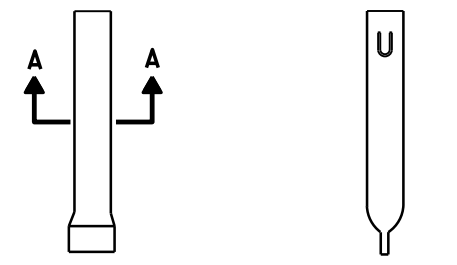
S.D.D. 15 A 3-2a



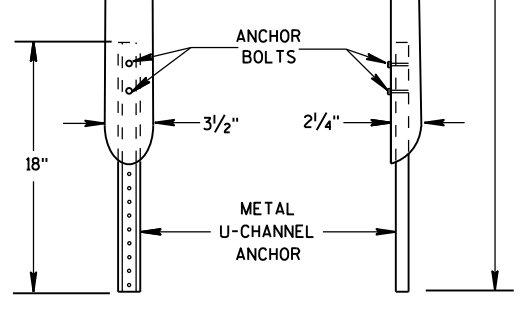
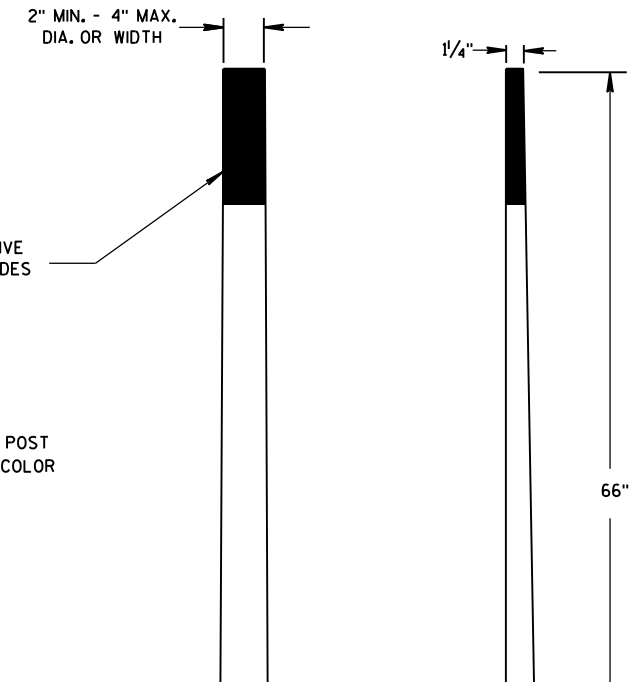
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

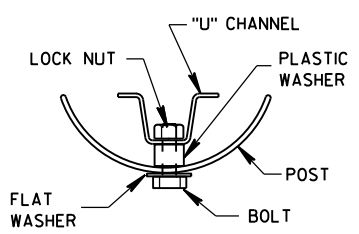


FRONT VIEW SIDE VIEW
ALTERNATE 1

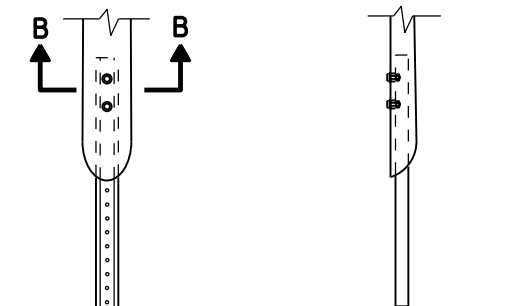


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

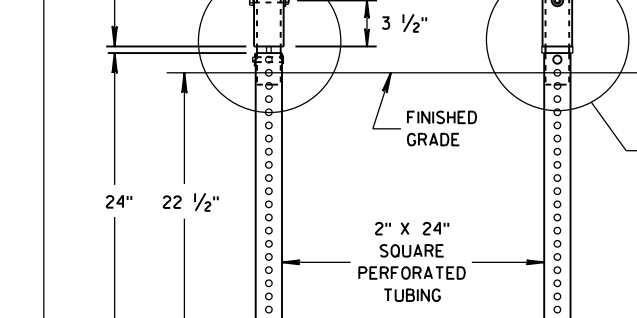
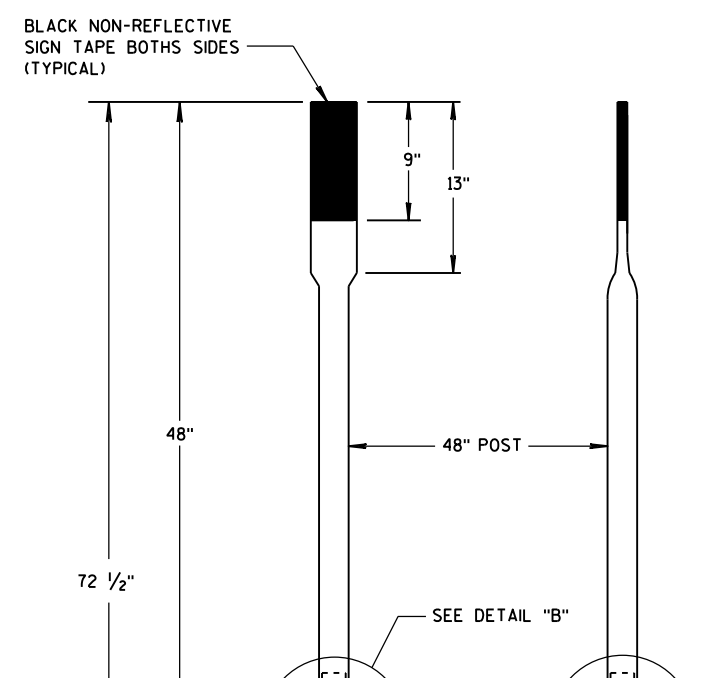


SECTION B-B

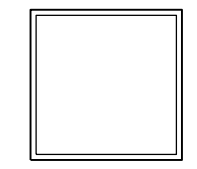


FRONT VIEW SIDE VIEW
ALTERNATE 2

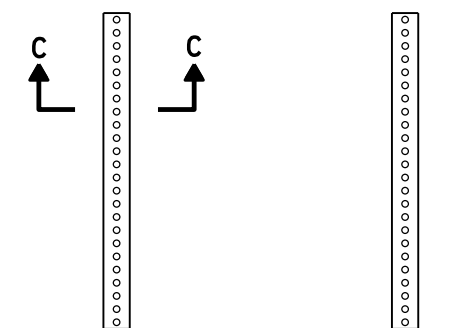
FLEXIBLE MARKER POST ANCHORS



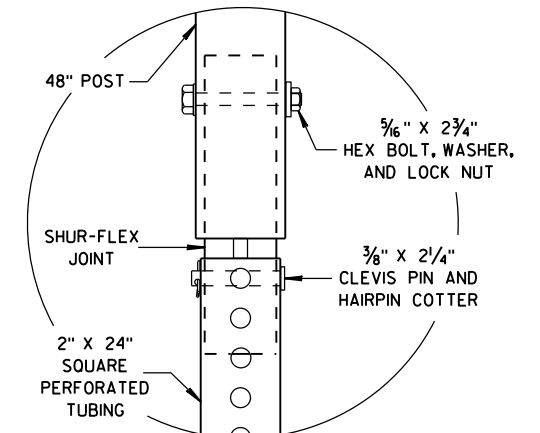
FRONT VIEW SIDE VIEW
ALTERNATE 3



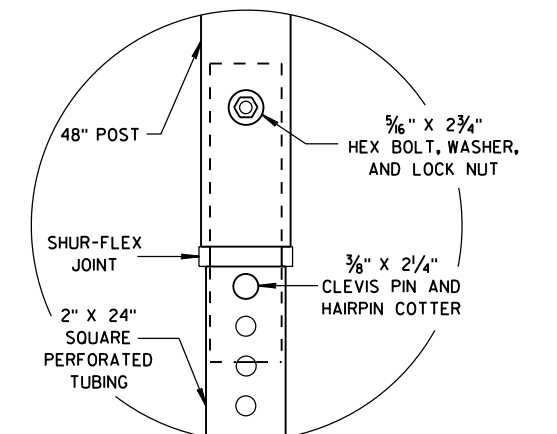
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

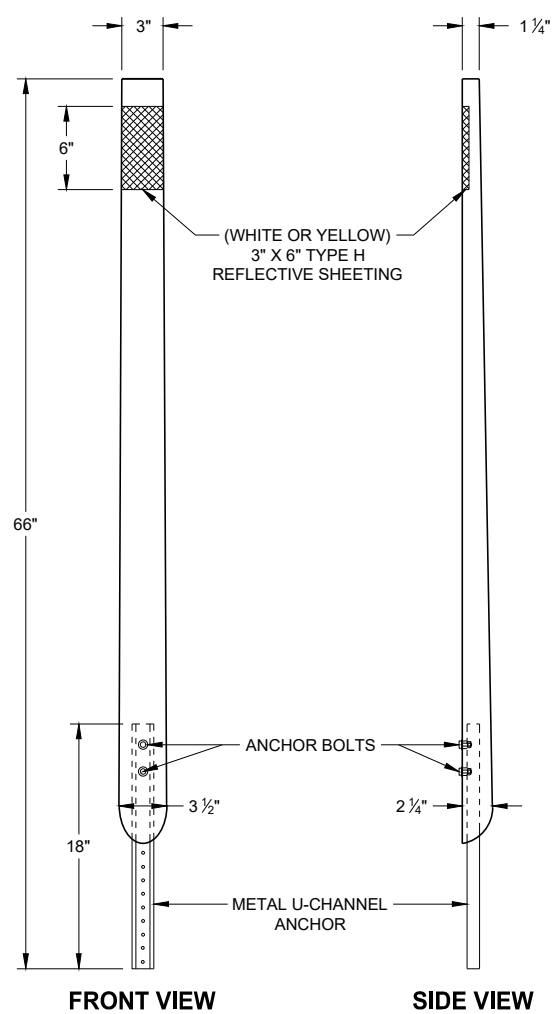
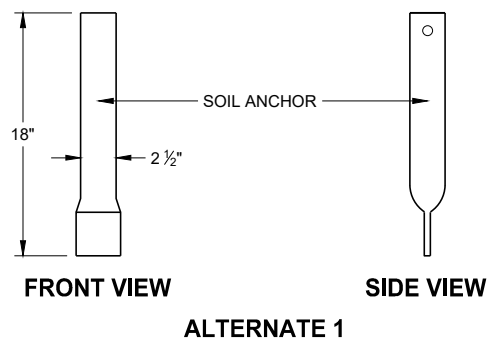
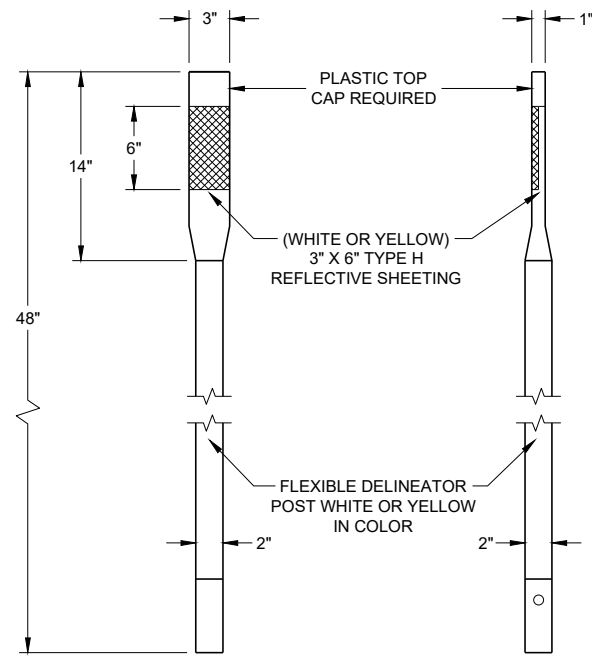


DETAIL C

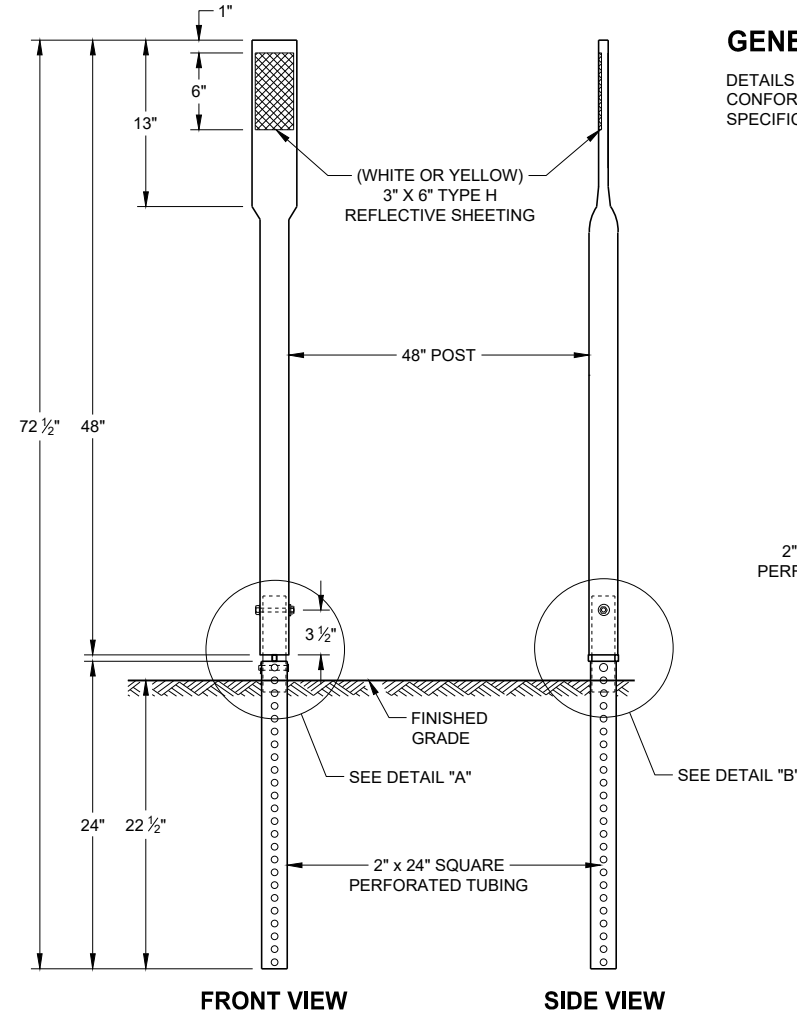
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



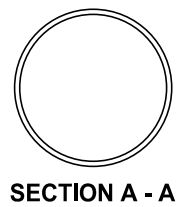
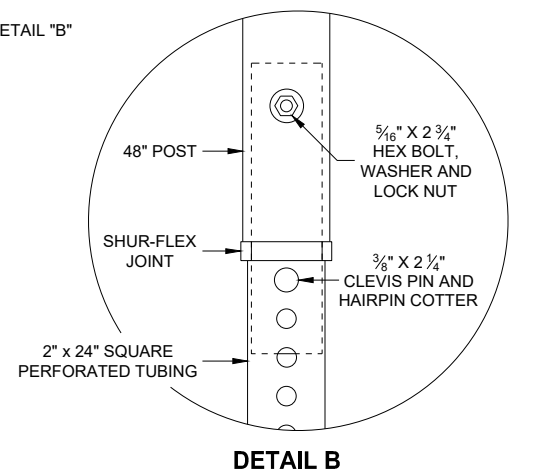
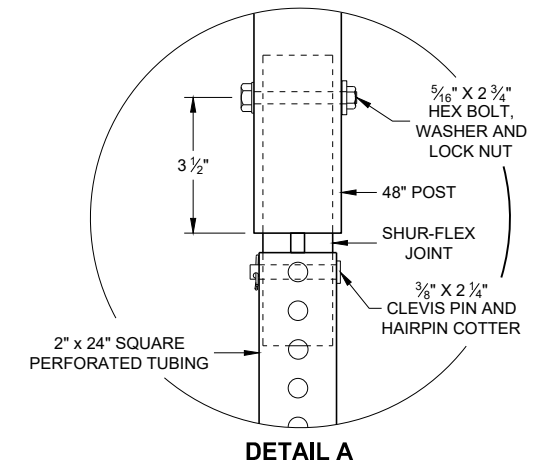
FLEXIBLE DELINEATOR POSTS



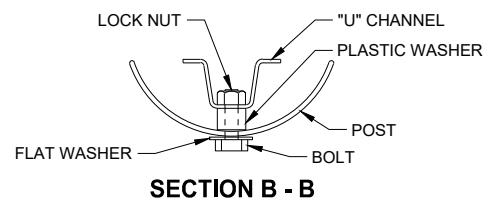
ALTERNATE 3

GENERAL NOTES

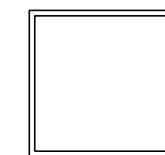
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



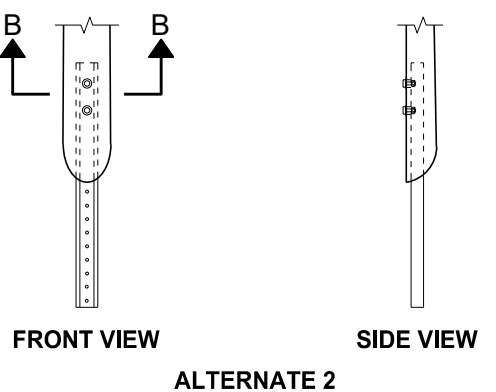
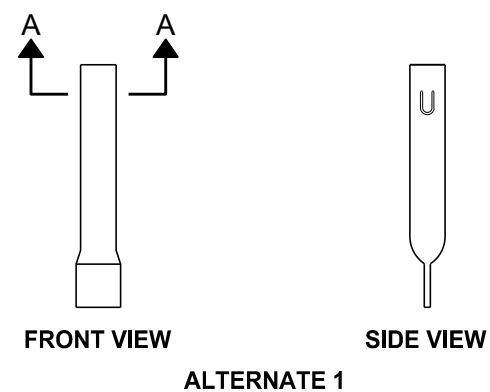
SECTION A - A



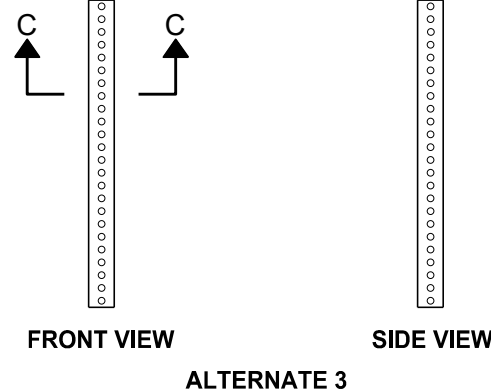
SECTION B - B



SECTION C - C



FLEXIBLE MARKER POST ANCHORS



ALTERNATE 3

REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2021 /S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

GENERAL NOTES

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

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




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

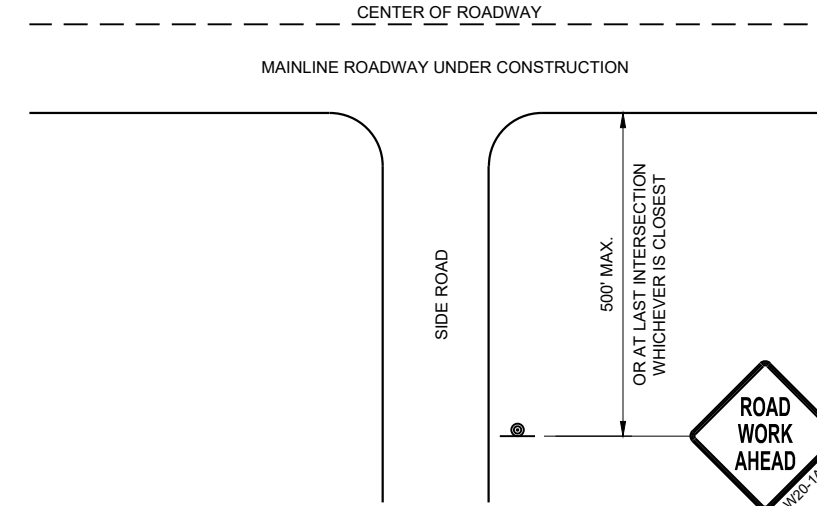
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

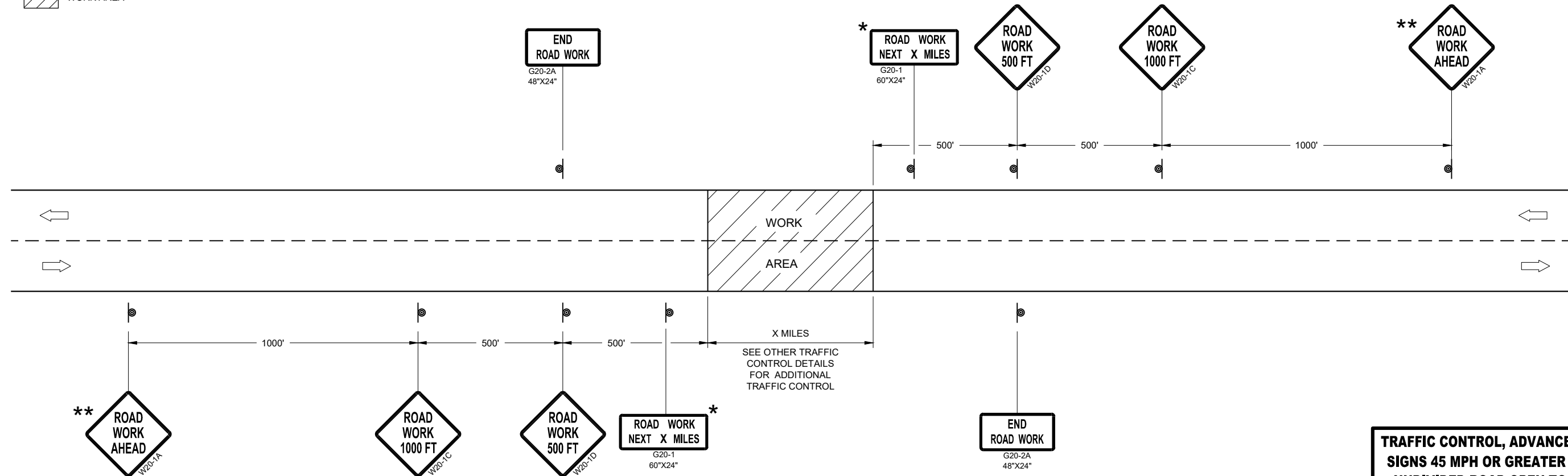
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



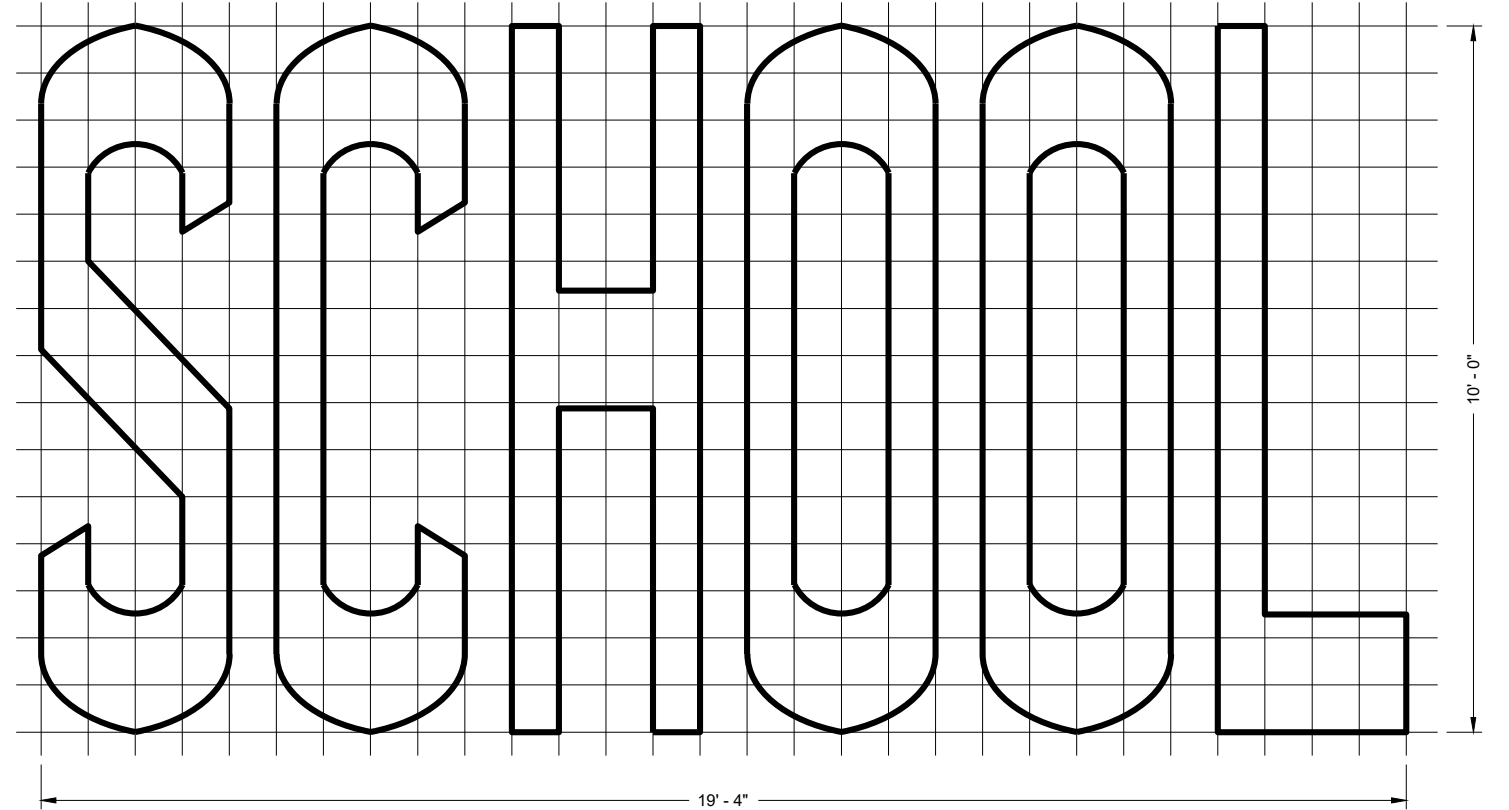
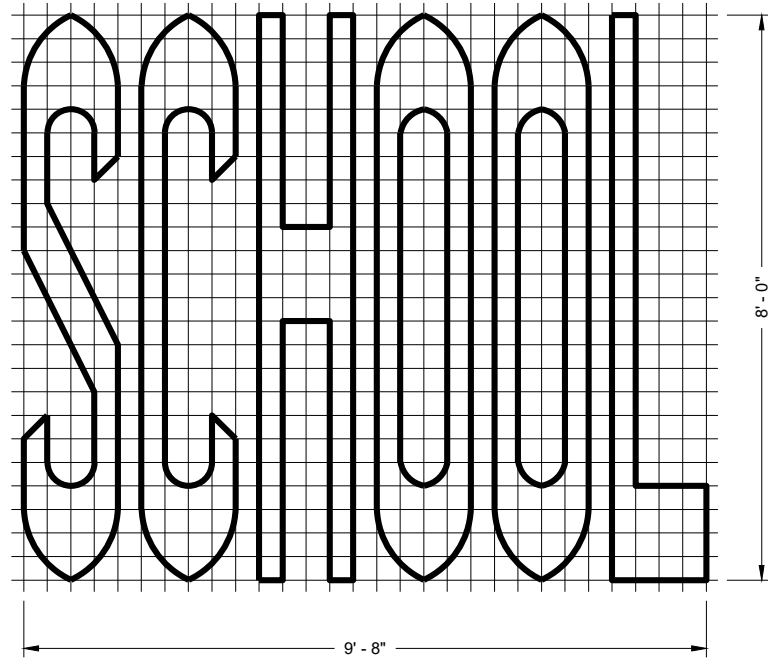
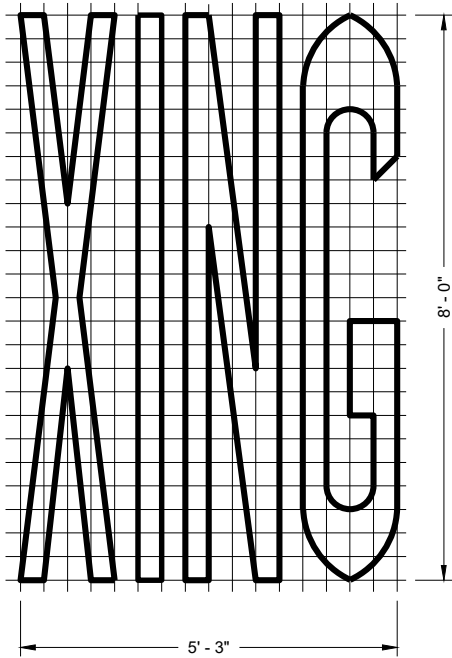
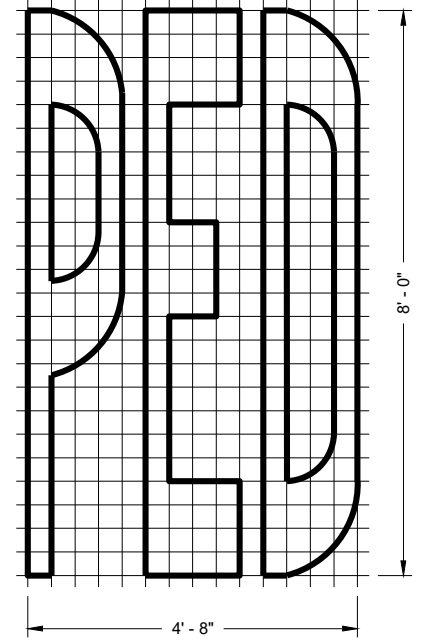
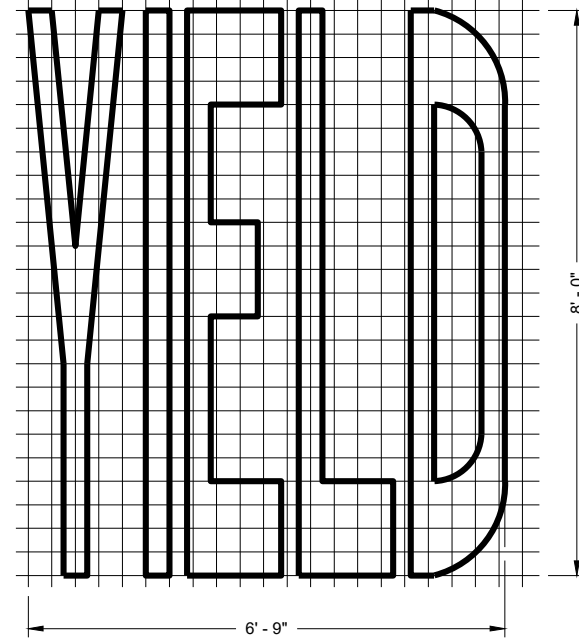
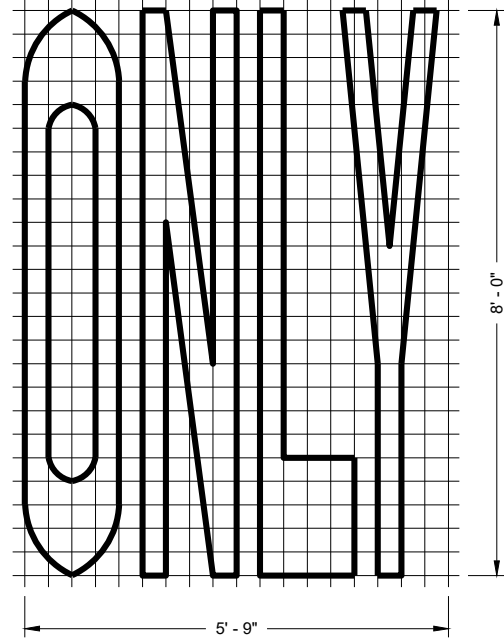
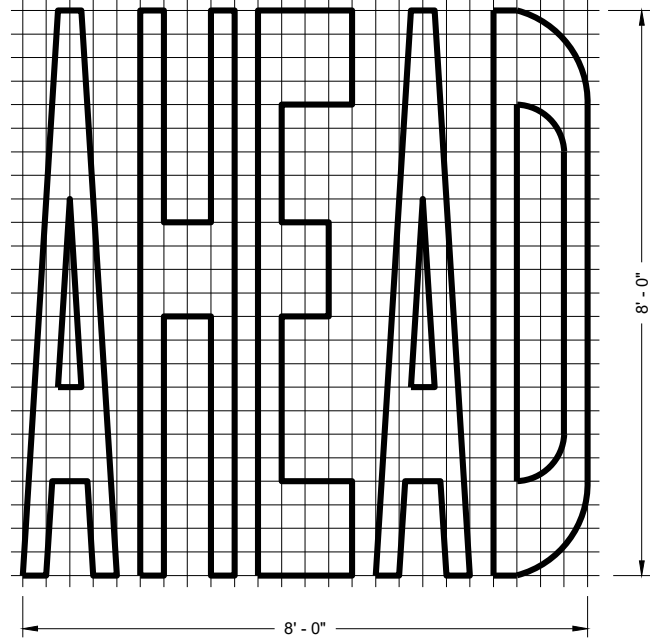
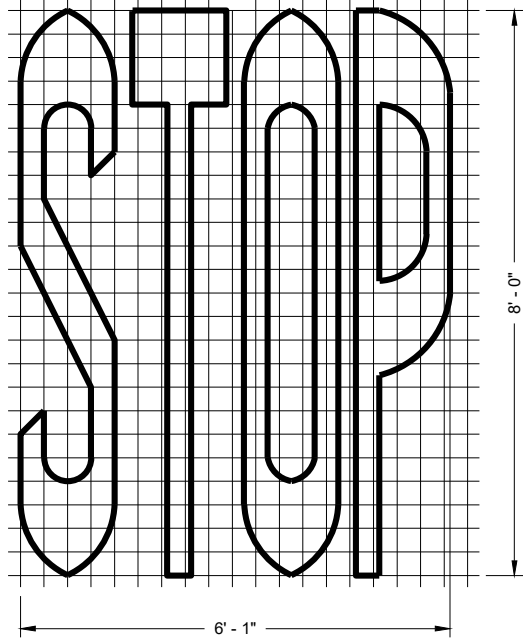
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



SINGLE LANE

TWO - LANE

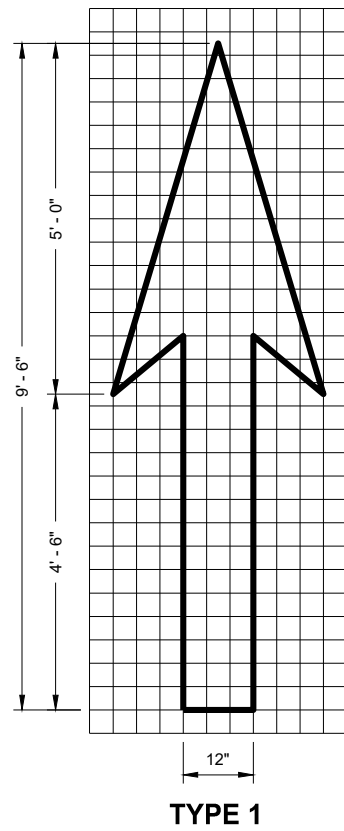
GENERAL NOTES

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

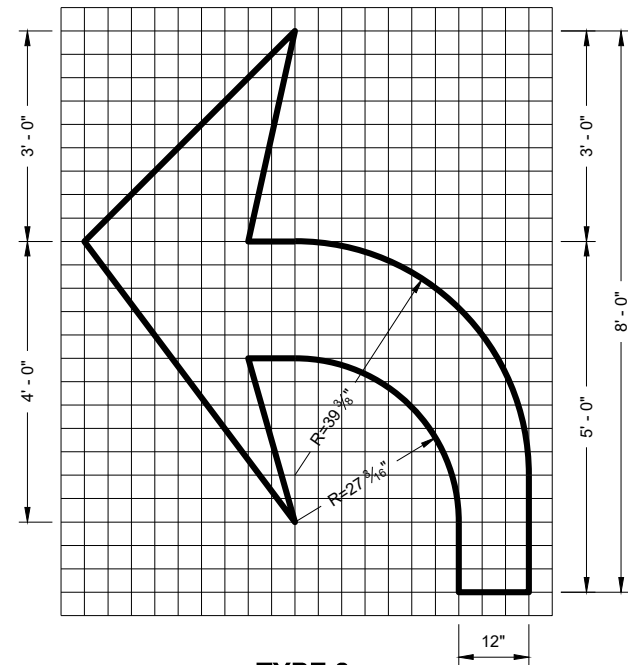
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

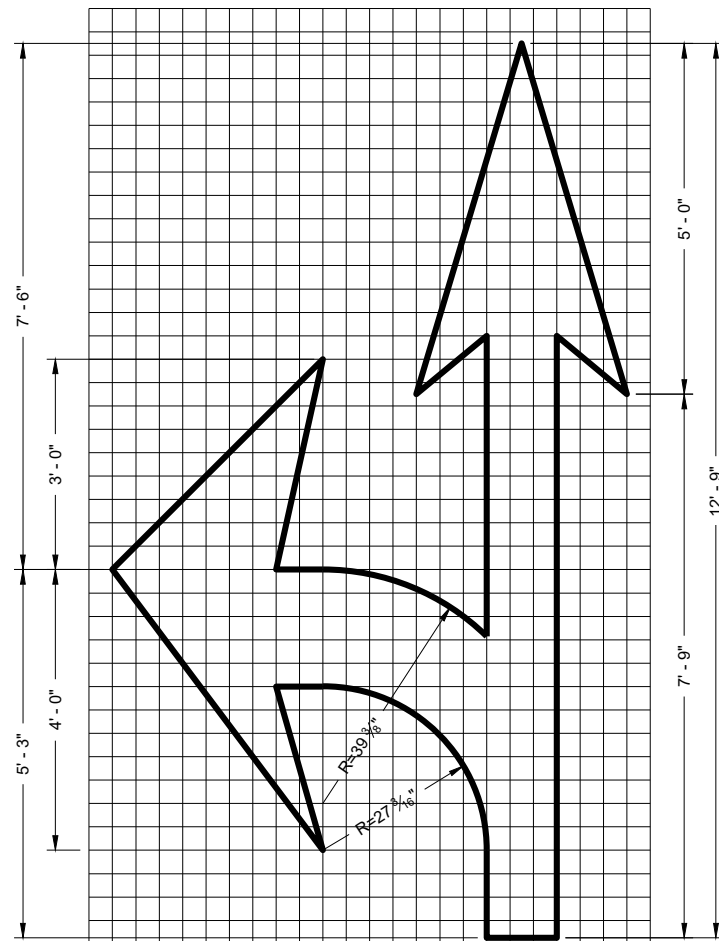
APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER



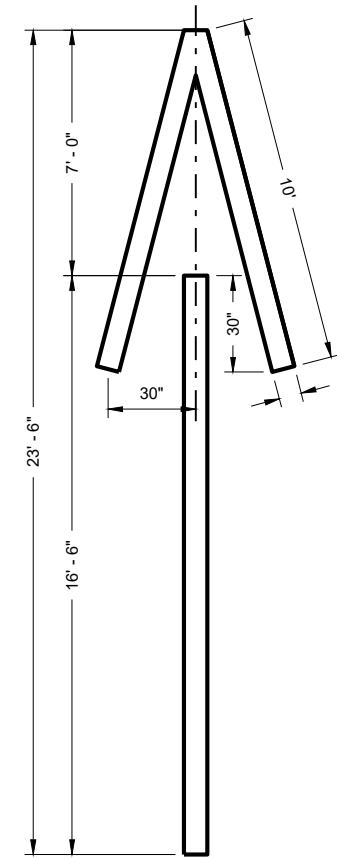
TYPE 1



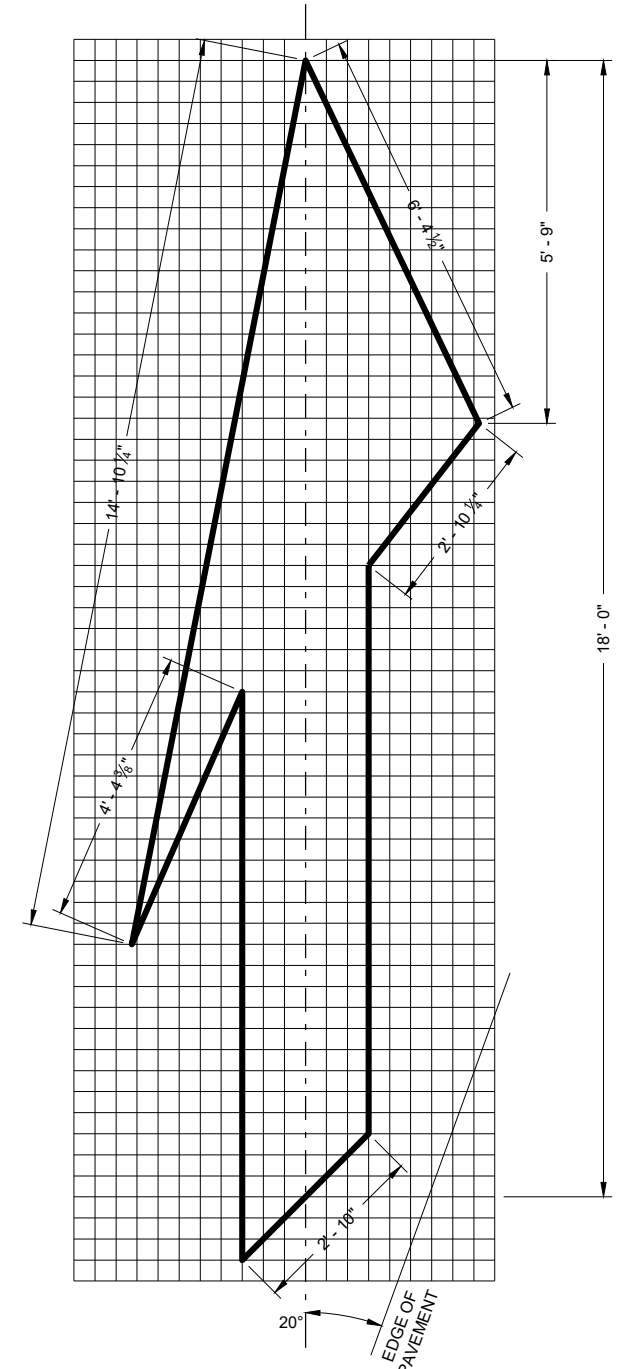
TYPE 2



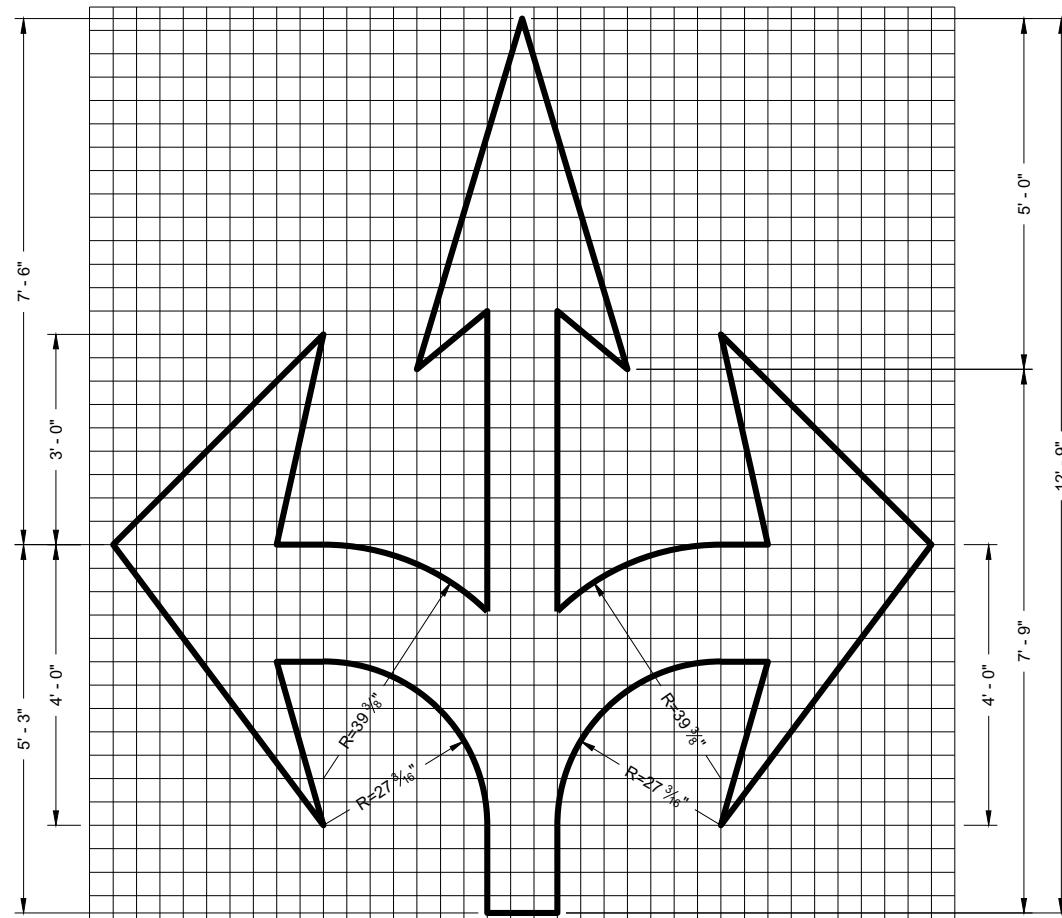
TYPE 3



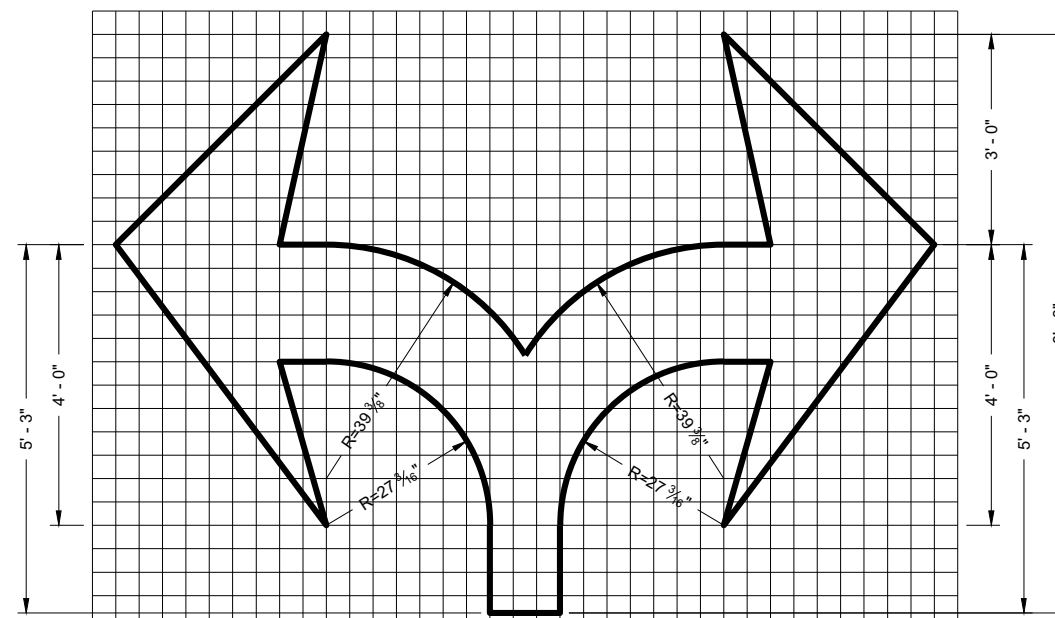
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

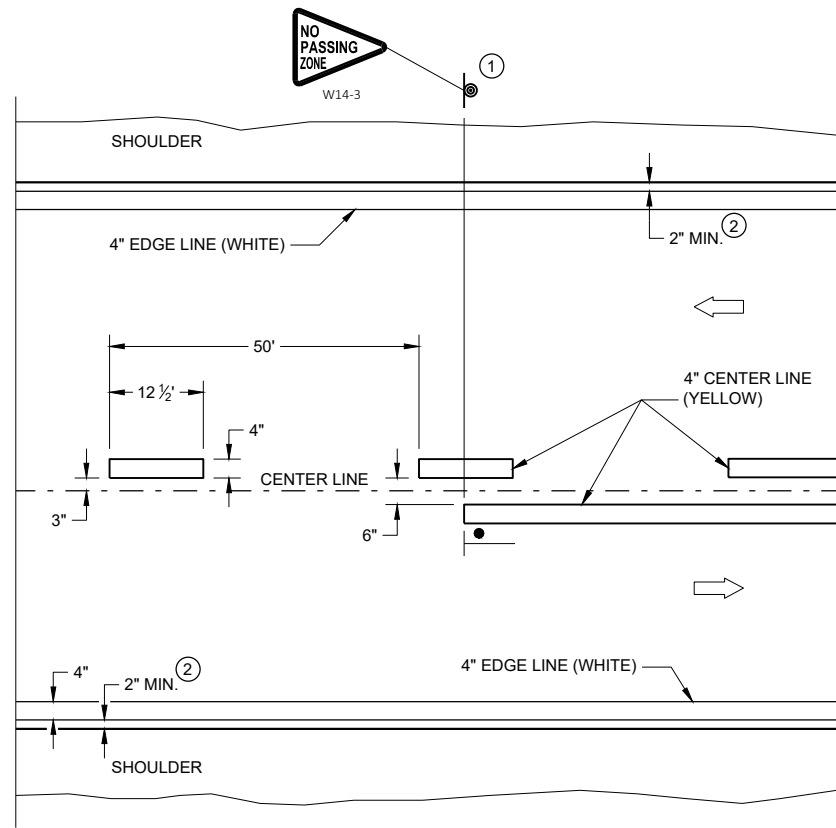
APPROVED

November 2019

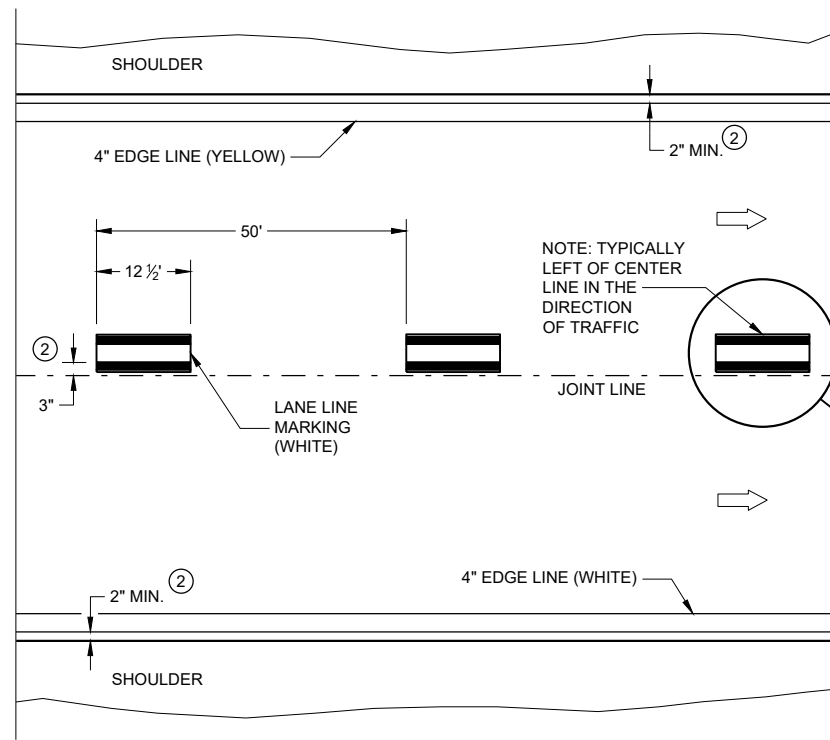
DATE

FHWA

/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

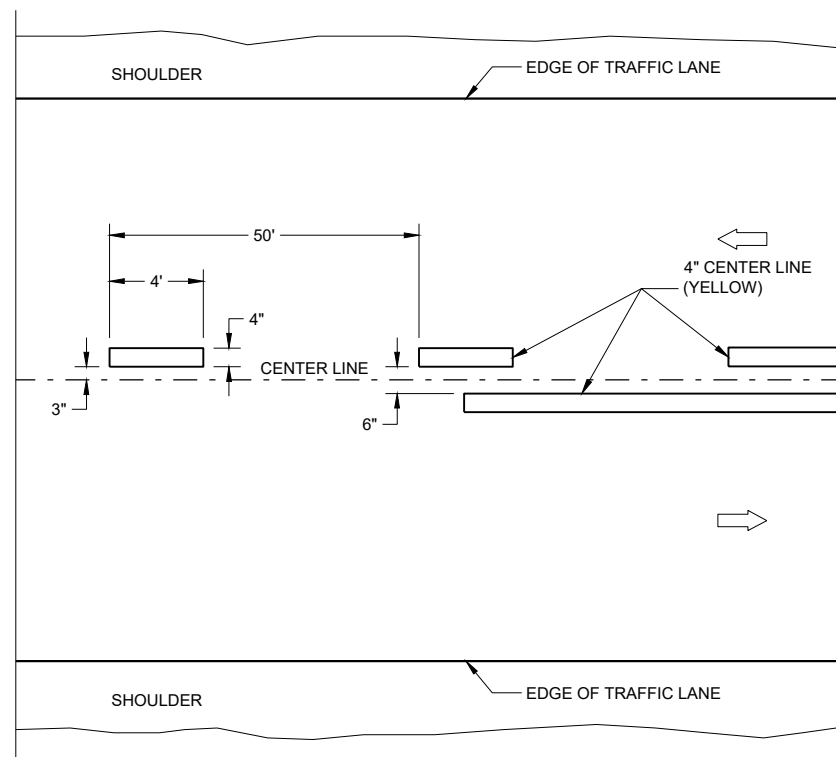


TWO WAY TRAFFIC

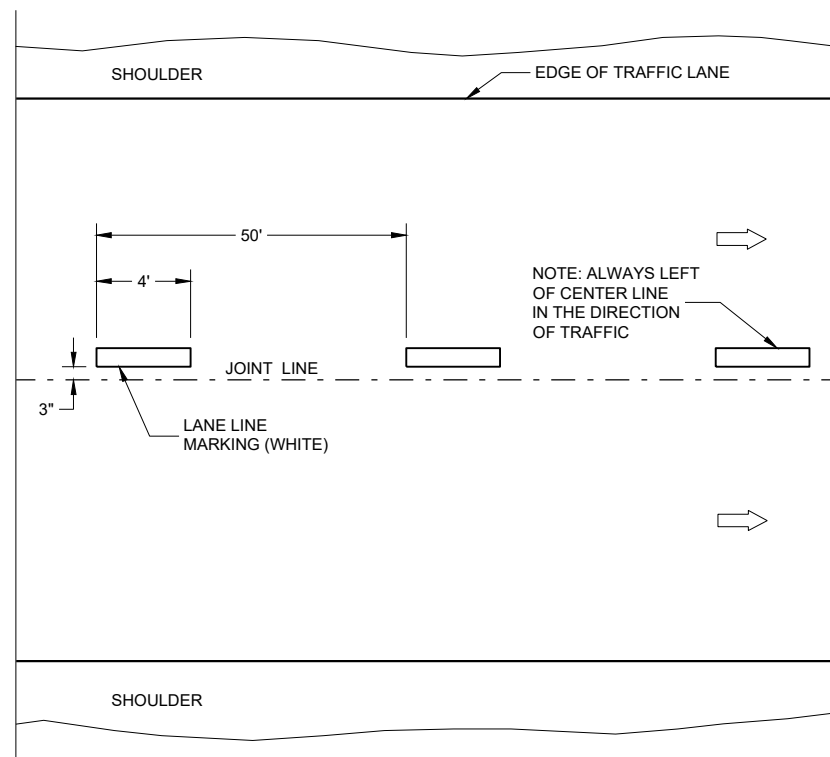


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

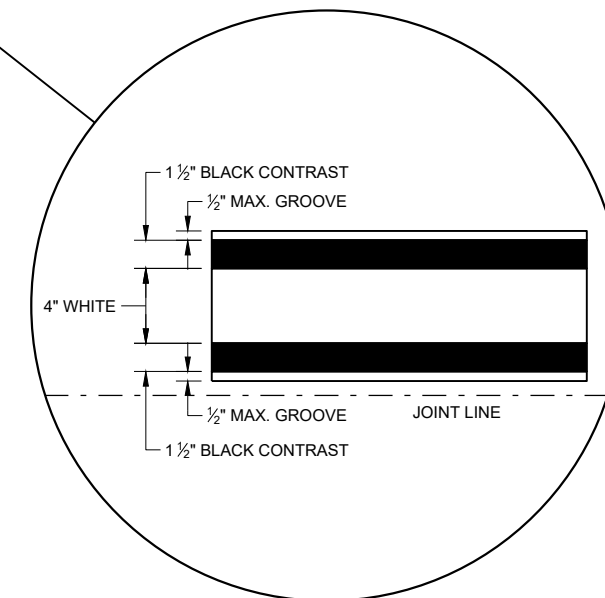
GENERAL NOTES

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

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

LEGEND

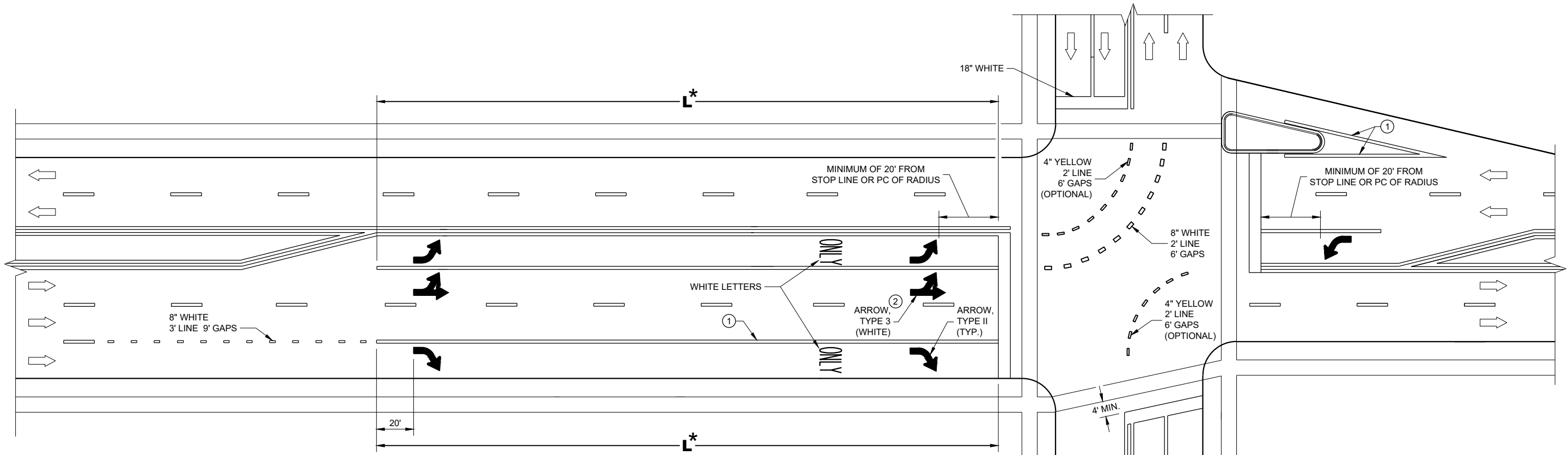
- |• "T" MARKING
- ⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



**LONGITUDINAL MARKING
(MAINLINE)**

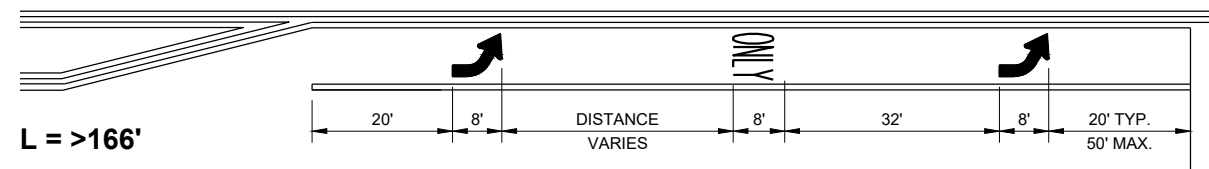
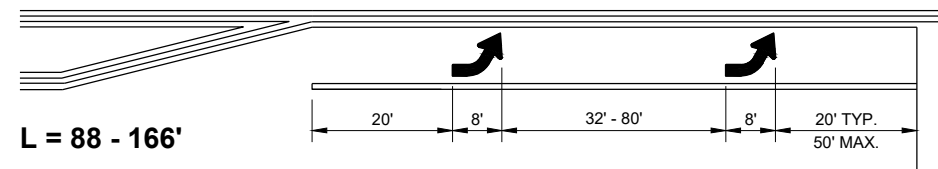
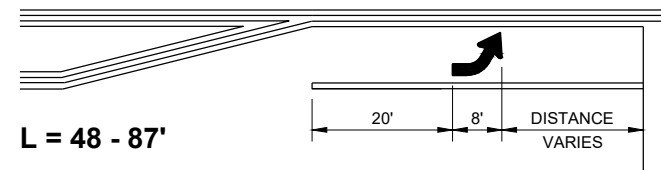
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.






➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

GENERAL NOTES

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

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

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

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

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

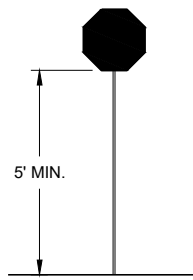
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

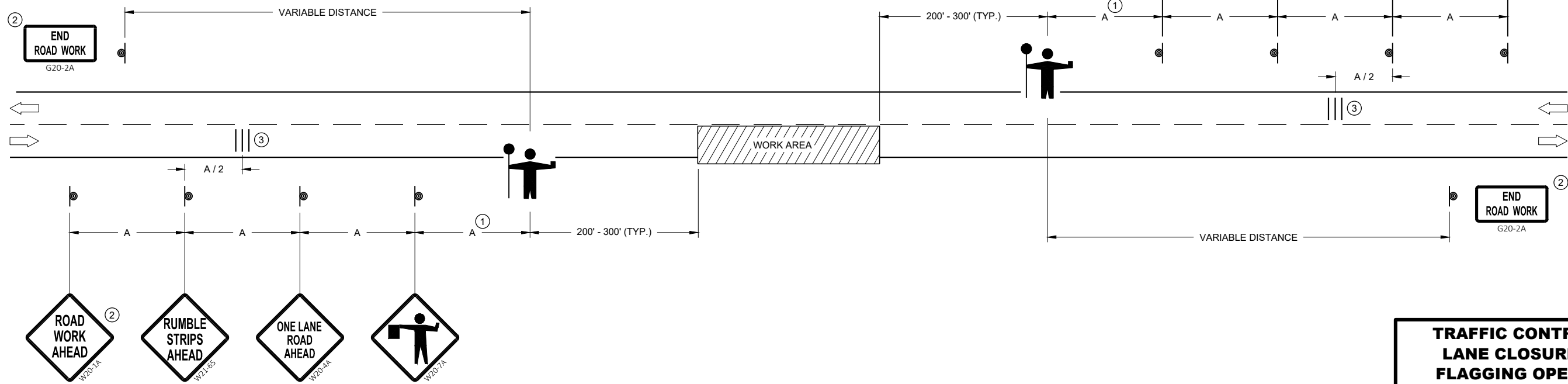
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



W03-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION





TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

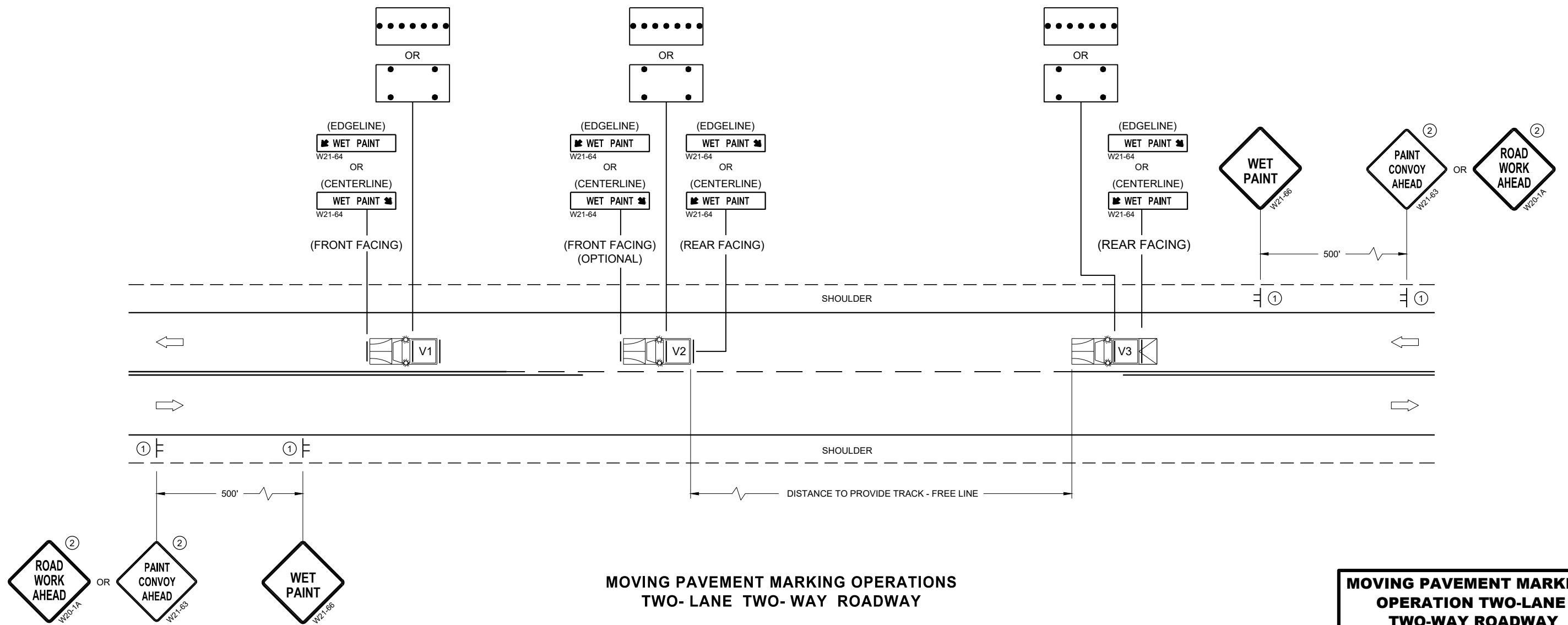
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

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**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19 - 06a

SDD 15C19 - 06a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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.

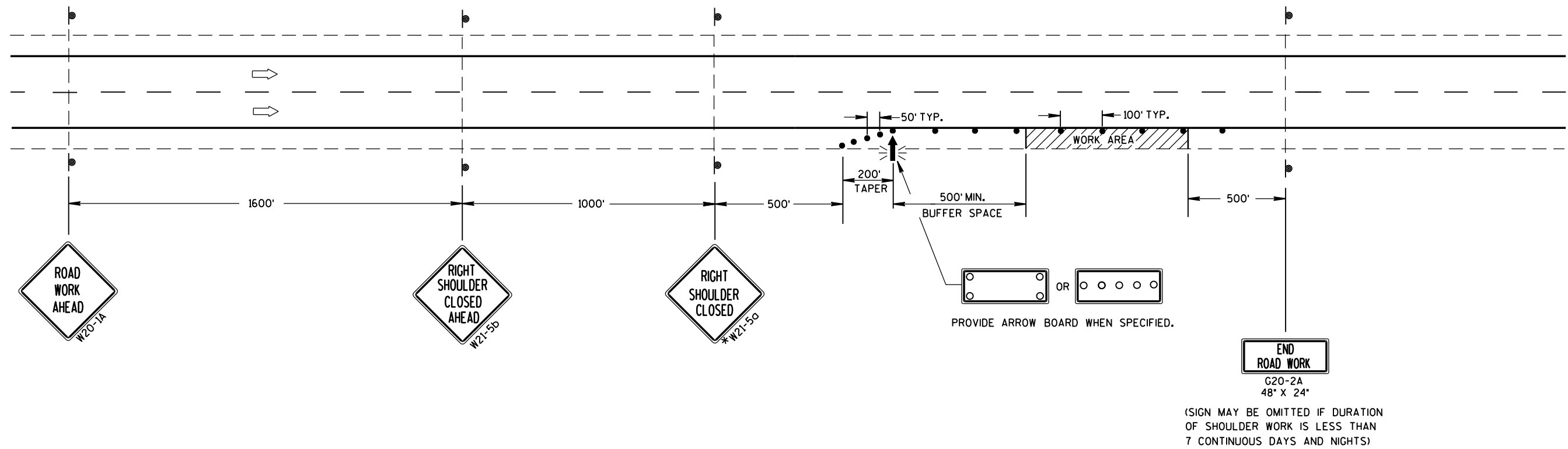
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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 W21-50 SIGN MAY BE OMITTED.





LEGEND

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



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/s/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

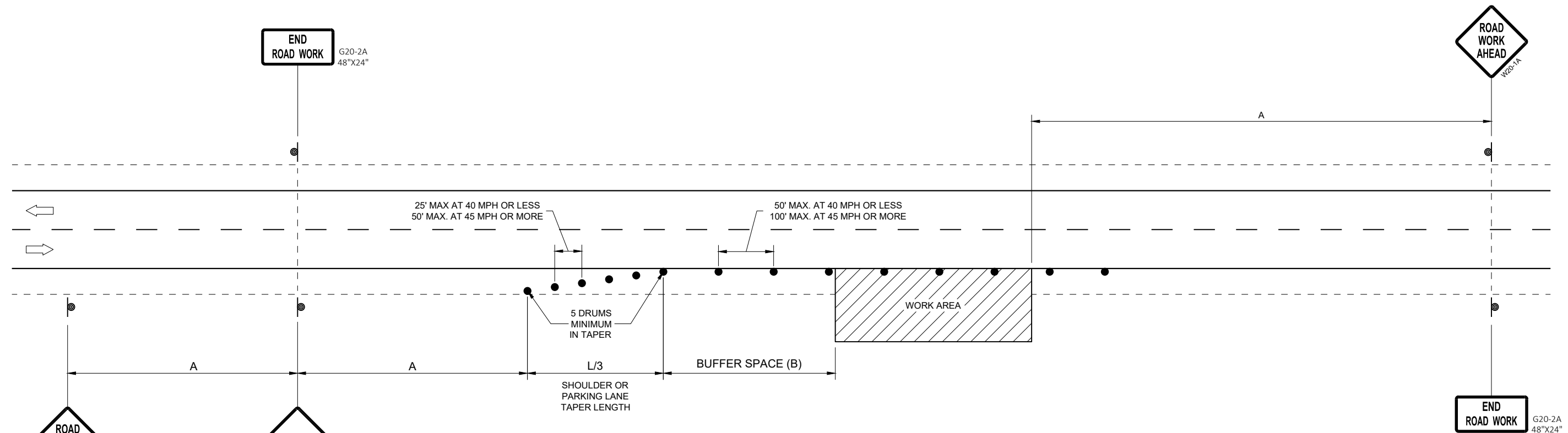
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

SDD 15D28 - 04

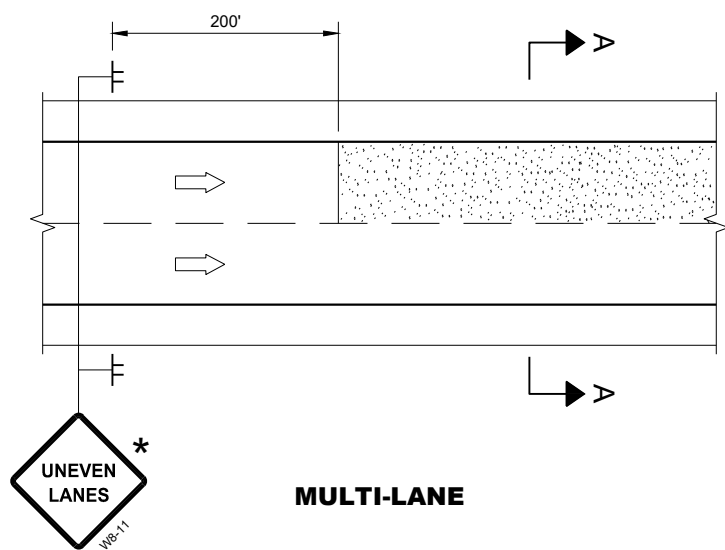
SDD 15D28 - 04

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

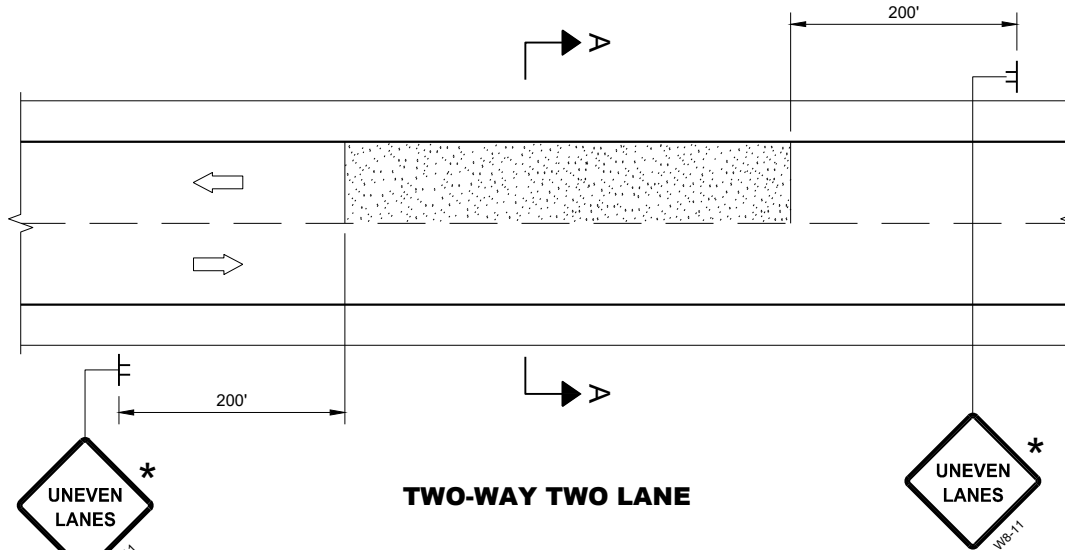
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

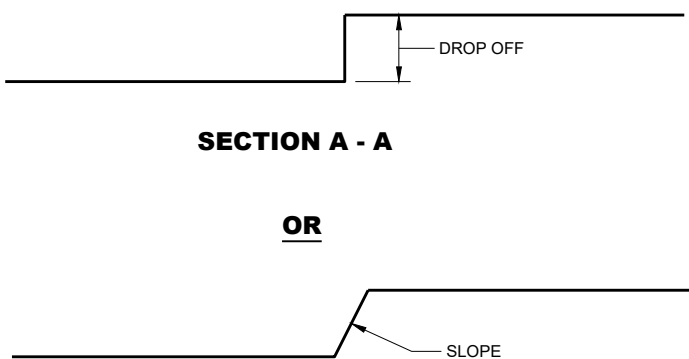
FHWA



MULTI-LANE



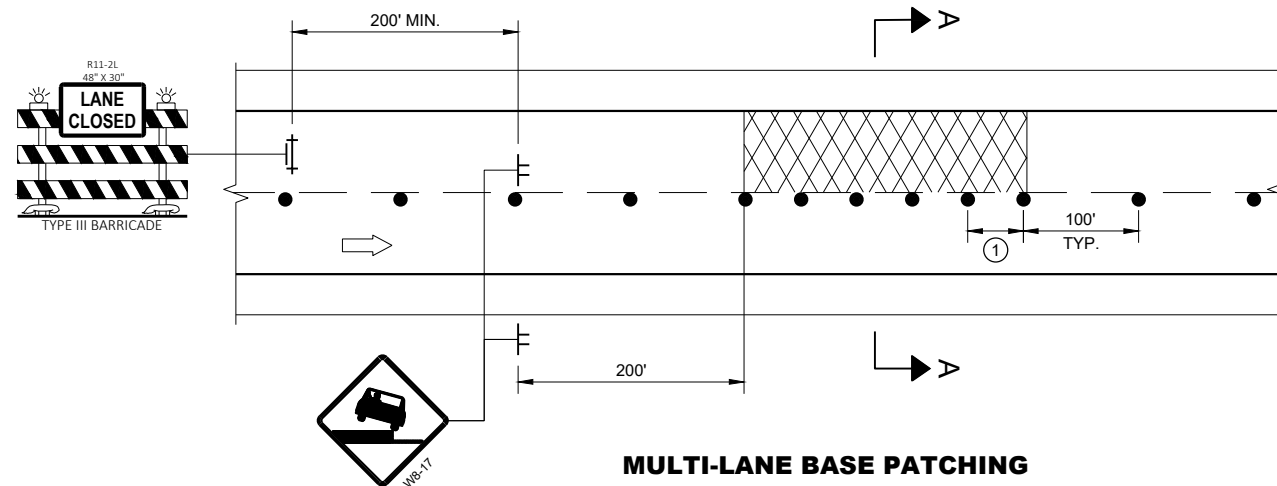
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

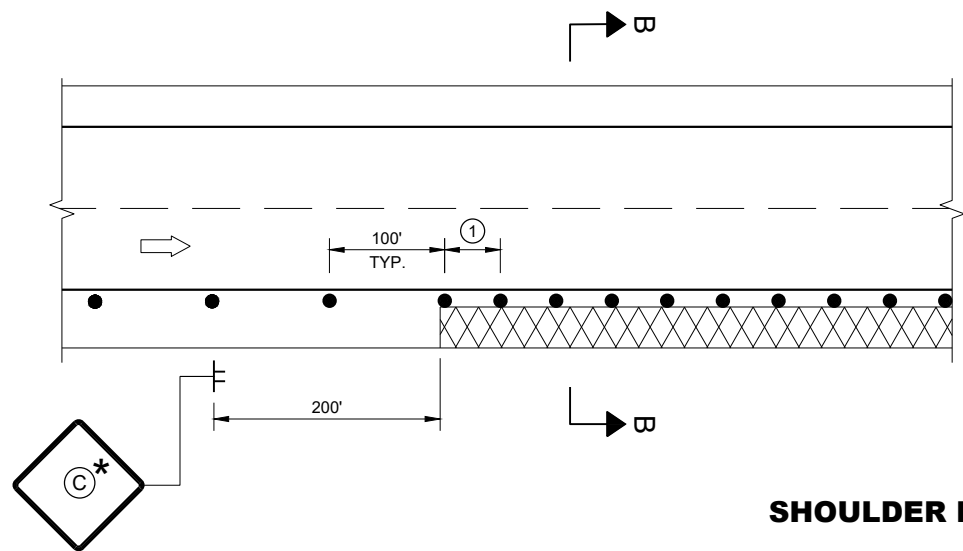
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

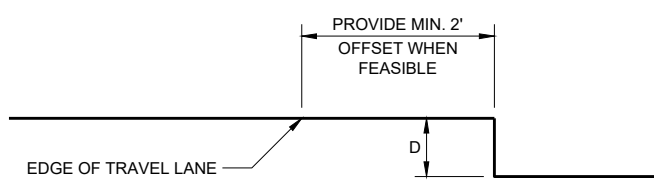
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

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SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

SDD 15D39 - 02

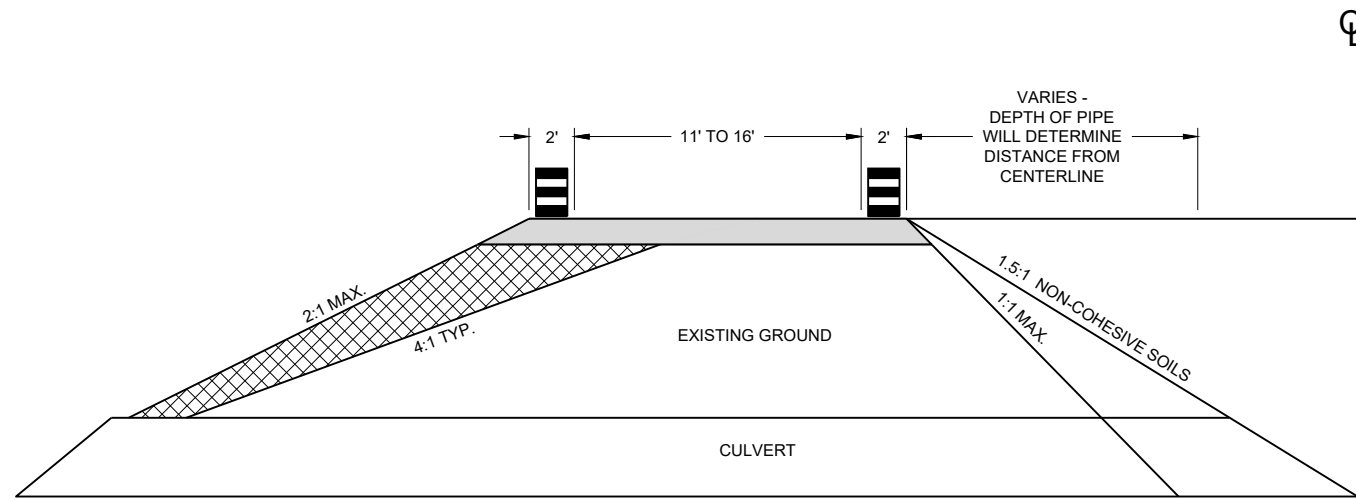
SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
 USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.






ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

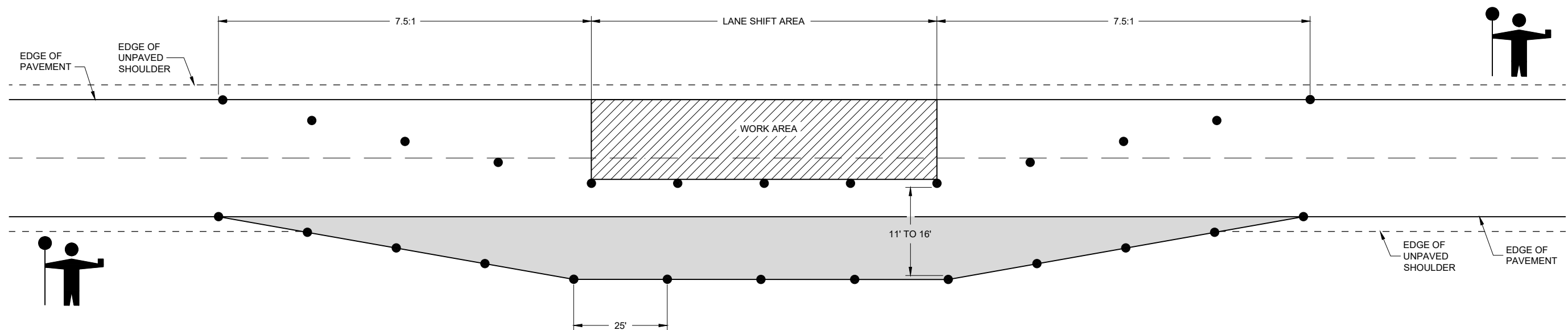
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

-  DRUM WITHOUT WARNING LIGHT
-  6" BASE AGGREGATE DENSE 1 1/2" - INCIDENTAL TO LANE SHIFT ITEM
-  FILL - INCIDENTAL TO LANE SHIFT ITEM
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

**TRAFFIC CONTROL,
 TEMPORARY LANE SHIFT
 DURING CULVERT WORK**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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

FHWA





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SDD 15D48 - 01

SDD 15D48 - 01

LEGEND

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

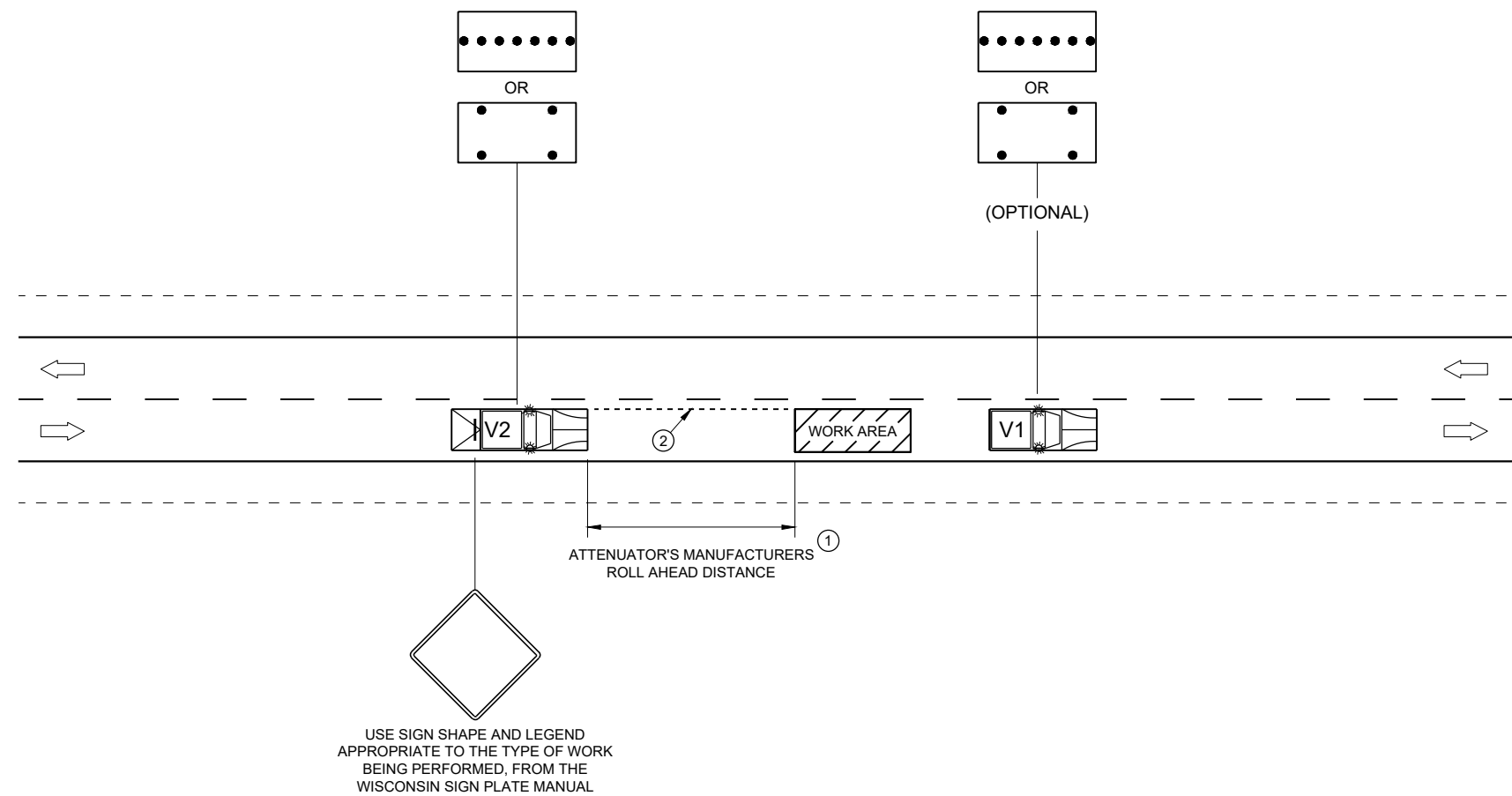
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



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**TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

Division 1 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	FILL	EXPANDED FILL	MASS ORDINATE	
			NOTE 1	NOTE 2		NOTE 2		NOTE 3
102+58.87	10258.87	0.00	0.00	0.00	0	0	0	
103+00	10300.00	41.13	0.00	1.94	1	1	-1	
103+75.51	10375.51	75.51	0.00	7.78	14	19	-19	
104+00	10400.00	24.49	0.00	1.89	4	24	-24	
104+00.51	10400.51	0.51	0.00	1.68	0	24	-24	
104+25.51	10425.51	25.00	0.00	0.00	1	25	-25	
104+61.45	10461.45	35.94	0.00	0.00	0	25	-25	
105+00	10500.00	38.55	0.00	0.00	0	25	-25	
105+79.896	10579.90	79.90	0.00	22.67	34	68	-68	
106+00	10600.00	20.10	0.00	29.08	19	91	-91	
106+04.896	10604.90	4.90	0.00	30.98	5	98	-98	
106+29.896	10629.90	25.00	0.00	24.79	26	130	-130	
107+00	10700.00	70.10	0.00	20.01	58	203	-203	
108+00	10800.00	100.00	0.00	49.09	128	363	-363	
108+36.14	10836.14	36.14	0.00	39.99	60	438	-438	
108+61.14	10861.14	25.00	0.00	71.99	52	503	-503	
108+86.14	10886.14	25.00	0.00	56.19	59	576	-576	
109+00	10900.00	13.86	0.00	4.45	16	596	-596	
110+00	11000.00	100.00	0.00	0.00	8	606	-606	
110+04.59	11004.59	4.59	0.00	0.00	0	606	-606	
110+94.87	11094.87	90.28	0.00	0.00	0	606	-606	
111+00	11100.00	5.13	0.00	1.51	0	606	-606	
112+00	11200.00	100.00	0.00	1.03	5	613	-613	
112+13.317	11213.32	13.32	0.00	0.00	0	613	-613	
112+38.32	11238.32	25.00	0.00	4.13	2	615	-615	
112+63.317	11263.32	25.00	0.00	22.77	12	630	-630	
113+00	11300.00	36.68	0.00	0.31	16	650	-650	
114+00	11400.00	100.00	0.00	0.16	1	651	-651	
114+19.26	11419.26	19.26	0.00	10.95	4	656	-656	
114+19.567	11419.57	0.31	0.00	11.17	0	656	-656	
114+44.26	11444.26	24.69	0.00	10.38	10	669	-669	
114+44.57	11444.57	0.31	0.01	10.16	0	669	-669	
114+69.26	11469.26	24.69	0.00	8.32	8	679	-679	
114+69.567	11469.57	0.31	0.00	8.32	0	679	-679	
115+00	11500.00	30.43	0.00	11.29	11	693	-693	
115+87.71	11587.71	87.71	0.00	0.00	18	715	-715	
115+88.04	11588.04	0.33	0.00	0.00	0	715	-715	

Notes:

1 - CUT

2 - FILL

3 - EXPANDED FILL FACTOR

4 - THE MASS ORDINATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 2 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	FILL	EXPANDED FILL	MASS ORDINATE	
			NOTE 1	NOTE 2		NOTE 2		1.25
138+75.06	13875.06	0.00	0.00	0.00	0	0	0	0
139+00	13900.00	24.94	0.00	2.83	1	1	-1	-1
139+93.53	13993.53	93.53	0.00	7.16	17	23	-23	-23
140+00	14000.00	6.47	0.00	4.77	1	24	-24	-24
140+18.53	14018.53	18.53	0.00	2.76	3	28	-28	-28
140+43.53	14043.53	25.00	0.00	0.00	1	29	-29	-29
141+00	14100.00	56.47	0.00	0.00	0	29	-29	-29
142+00	14200.00	100.00	0.00	0.00	0	29	-29	-29
143+00	14300.00	100.00	0.00	0.00	0	29	-29	-29
144+00	14400.00	100.00	0.00	0.00	0	29	-29	-29
144+74.447	14474.45	74.45	0.00	18.97	26	61	-61	-61
144+99.447	14499.45	25.00	0.00	35.32	25	93	-93	-93
145+00	14500.00	0.55	0.00	35.53	1	94	-94	-94
145+24.45	14524.45	24.45	0.00	15.27	23	123	-123	-123
146+00	14600.00	75.55	0.00	3.53	26	155	-155	-155
146+42.9	14642.90	42.90	0.00	0.00	3	159	-159	-159

Notes:

1 - CUT

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

2 - FILL

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

3 - EXPANDED FILL FACTOR

EXPANDED FILL FACTOR = 1.25

4 - THE MASS ORDINATE

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 4 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)	CUMULATIVE VOL (CY)		
			CUT	FILL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 2	NOTE 1	NOTE 3	
324+18.32	32418.32	16432.28	0.00	0.00	0	0	0	0
325+00	32500.00	81.68	0.00	1.43	2	0	3	-3
325+17.4	32517.40	17.40	0.00	1.85	1	0	4	-4
325+42.4	32542.40	25.00	0.00	0.00	1	0	5	-5
325+67.4	32567.40	25.00	0.00	0.00	0	0	5	-5
326+00	32600.00	32.60	0.00	0.00	0	0	5	-5
327+00	32700.00	100.00	0.00	0.17	0	0	5	-5
328+00	32800.00	100.00	0.00	0.00	0	0	5	-5
329+00	32900.00	100.00	0.00	0.00	0	0	5	-5
330+00	33000.00	100.00	0.00	0.00	0	0	5	-5
330+16.14	33016.14	16.14	0.00	0.00	0	0	5	-5
330+41.14	33041.14	25.00	0.00	1.67	1	0	6	-6
330+66.14	33066.14	25.00	0.00	0.00	1	0	8	-8
331+00	33100.00	33.86	0.00	0.00	0	0	8	-8
331+84.59	33184.59	84.59	0.00	0.00	0	0	8	-8

Notes:

1 - CUT

2 - FILL

3 - EXPANDED FILL FACTOR

4 - THE MASS ORDINATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 5 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
			CUT	FILL	FILL	CUT	EXPANDED FILL		
			NOTE 1	NOTE 2		NOTE 1	NOTE 3	NOTE 4	
444+53.89	44453.89	0.00	0.00	0.00	0	0	0	0	0
445+00	44500.00	46.11	0.00	0.00	0	0	0	0	0
445+72.35	44572.35	72.35	0.00	27.36	37	0	46	-46	
445+97.35	44597.35	25.00	0.00	15.86	20	0	71	-71	
446+00	44600.00	2.65	0.00	13.63	1	0	73	-73	
446+22.35	44622.35	22.35	0.00	0.40	6	0	80	-80	
447+00	44700.00	77.65	0.00	38.95	57	0	151	-151	
448+00	44800.00	100.00	0.00	0.00	72	0	241	-241	
449+00	44900.00	100.00	0.00	0.00	0	0	241	-241	
450+00	45000.00	100.00	0.00	0.00	0	0	241	-241	
451+00	45100.00	100.00	0.00	0.00	0	0	241	-241	
452+00	45200.00	100.00	0.00	32.97	61	0	318	-318	
453+00	45300.00	100.00	0.00	0.84	63	0	396	-396	
454+00	45400.00	100.00	0.00	0.00	2	0	399	-399	
455+00	45500.00	100.00	0.00	0.00	0	0	399	-399	
456+00	45600.00	100.00	0.00	0.31	1	0	400	-400	
456+85.611	45685.61	85.61	0.00	5.85	10	0	413	-413	
457+00	45700.00	14.39	0.00	8.53	4	0	418	-418	
457+10.611	45710.61	10.61	0.00	12.23	4	0	423	-423	
457+35.611	45735.61	25.00	0.00	12.36	11	0	436	-436	
458+00	45800.00	64.39	0.00	2.84	18	0	459	-459	
458+54.07	45854.07	54.07	0.00	0.00	3	0	463	-463	

Notes:

1 - CUT

2 - FILL

3 - EXPANDED FILL FACTOR

4 - THE MASS ORDINATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 6 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT	FILL	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 1	NOTE 2	NOTE 3	NOTE 4
504+21.29	50421.29	4567.22	0.00	0.42	0	0	0	0
505+00	50500.00	78.71	0.00	0.00	0	1	1	-1
505+20.37	50520.37	20.37	0.00	4.59	0	2	4	-4
505+45.37	50545.37	25.00	0.00	6.75	0	5	10	-10
505+70.37	50570.37	25.00	0.00	0.00	0	3	14	-14
506+00	50600.00	29.63	0.00	0.00	0	0	14	-14
507+00	50700.00	100.00	0.00	1.89	0	3	18	-18
508+00	50800.00	100.00	0.00	4.61	0	12	33	-33
509+00	50900.00	100.00	0.00	0.00	0	9	44	-44
510+00	51000.00	100.00	0.00	0.00	0	0	44	-44
511+00	51100.00	100.00	0.00	0.00	0	0	44	-44
512+00	51200.00	100.00	0.00	1.87	0	3	48	-48
513+00	51300.00	100.00	0.00	0.00	0	3	51	-51
514+00	51400.00	100.00	0.00	0.00	0	0	51	-51
515+00	51500.00	100.00	0.00	0.00	0	0	51	-51
516+00	51600.00	100.00	0.00	0.00	0	0	51	-51
517+00	51700.00	100.00	0.00	0.00	0	0	51	-51
517+07.071	51707.07	7.07	0.00	0.00	0	0	51	-51
517+32.071	51732.07	25.00	0.00	31.89	0	15	70	-70
517+57.071	51757.07	25.00	0.00	48.94	0	37	116	-116
518+00	51800.00	42.93	0.00	34.46	0	66	199	-199
518+75.53	51875.53	75.53	0.00	0.00	0	48	259	-259

Notes:

1 - CUT

2 - FILL

3 - EXPANDED FILL FACTOR

4 - THE MASS ORDINATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 7 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 1	NOTE 2	NOTE 1	NOTE 3	
651+50.93	65150.93	0.00	0.00	0.00	0	0	0	0	0
652+00	65200.00	49.07	0.00	11.57	0	11	0	14	-14
652+69.393	65269.39	69.39	0.00	6.61	0	23	0	43	-43
652+94.39	65294.39	25.00	0.00	13.31	0	9	0	54	-54
653+00	65300.00	5.61	0.00	8.60	0	2	0	56	-56
653+19.39	65319.39	19.39	0.00	0.00	0	3	0	60	-60
654+00	65400.00	80.61	0.00	0.17	0	0	0	60	-60
655+00	65500.00	100.00	0.00	3.08	0	6	0	68	-68
656+00	65600.00	100.00	0.00	0.13	0	6	0	75	-75
657+00	65700.00	100.00	0.00	4.28	0	8	0	85	-85
658+00	65800.00	100.00	0.00	0.00	0	8	0	95	-95
659+00	65900.00	100.00	0.00	5.44	0	10	0	108	-108
660+00	66000.00	100.00	0.00	5.01	0	19	0	131	-131
660+84.53	66084.53	84.53	0.00	0.01	0	8	0	141	-141
661+00	66100.00	15.47	0.00	4.00	0	1	0	143	-143
661+09.53	66109.53	9.53	0.00	7.48	0	2	0	145	-145
661+34.527	66134.53	25.00	0.00	18.67	0	12	0	160	-160
662+00	66200.00	65.47	0.00	14.57	0	40	0	210	-210
662+52.99	66252.99	52.99	0.00	0.00	0	14	0	228	-228

Notes:

- 1 - CUT
- 2 - FILL

- 3 - EXPANDED FILL FACTOR
- 4 - THE MASS ORDINATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
 DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
 EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 8 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT	FILL	EXPANDED FILL	MASS ORDINATE
							1.25	
NOTE 1	NOTE 2	NOTE 1	NOTE 2	NOTE 3	NOTE 4			
663+27.27	66327.27	0.00	0.00	0.00	0	0	0	0
664+00	66400.00	72.73	0.00	14.01	0	19	24	-24
664+45.729	66445.73	45.73	0.00	9.73	0	20	49	49
664+70.729	66470.73	25.00	0.00	15.83	0	12	64	-64
664+95.729	66495.73	25.00	0.00	2.44	0	8	74	-74
665+00	66500.00	4.27	0.00	2.65	0	0	74	-74
666+00	66600.00	100.00	0.00	0.66	0	6	81	-81
667+00	66700.00	100.00	0.00	9.80	0	19	105	-105
668+00	66800.00	100.00	0.00	6.10	0	29	141	141
669+00	66900.00	100.00	0.00	6.03	0	22	169	-169
670+00	67000.00	100.00	0.00	8.45	0	27	203	-203
671+00	67100.00	100.00	0.00	5.76	0	26	235	-235
672+00	67200.00	100.00	0.00	7.55	0	25	266	-266
673+00	67300.00	100.00	0.00	5.47	0	24	296	-296
674+00	67400.00	100.00	0.00	2.48	0	15	315	315
675+00	67500.00	100.00	0.00	6.77	0	17	336	-336
676+00	67600.00	100.00	0.00	3.49	0	19	360	-360
677+00	67700.00	100.00	0.00	0.80	0	8	370	370
678+00	67800.00	100.00	0.00	2.11	0	5	376	-376
679+00	67900.00	100.00	0.00	0.00	0	4	381	-381
680+00	68000.00	100.00	0.00	2.08	0	4	386	-386
681+00	68100.00	100.00	0.00	0.39	0	5	386	-386
682+00	68200.00	100.00	0.00	6.61	0	13	695	-695
683+00	68300.00	100.00	0.00	5.88	0	23	1,816	-1,816
684+00	68400.00	100.00	0.00	14.68	0	38	4,239	-4,239
685+00	68500.00	100.00	0.00	7.45	0	41	7,263	-7,263
686+00	68600.00	100.00	0.00	11.42	0	35	9,844	-9,844
687+00	68700.00	100.00	0.00	9.12	0	38	12,931	-12,931
688+00	68800.00	100.00	0.00	16.02	0	47	17,866	17,866
689+00	68900.00	100.00	0.00	5.15	0	39	23,375	-23,375
690+00	69000.00	100.00	0.00	2.98	0	15	25,906	-25,906
691+00	69100.00	100.00	0.00	5.40	0	16	29,146	-29,146
692+00	69200.00	100.00	0.00	3.76	0	17	33,141	-33,141
693+00	69300.00	100.00	0.00	4.88	0	16	37,401	-37,401
694+00	69400.00	100.00	0.00	1.36	0	12	40,956	40,956
694+26.62	69426.62	26.62	0.00	4.43	0	3	41,901	-41,901
694+51.62	69451.62	25.00	0.00	15.39	0	9	44,928	-44,928
694+76.625	69476.62	25.00	0.00	11.59	0	12	49,248	-49,248
695+00	69500.00	23.38	0.00	25.88	0	16	55,168	-55,168
695+95.08	69595.08	95.08	0.00	0.00	0	46	72,475	-72,475

Notes:

- 1 - CUT CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 - FILL DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
- 3 - EXPANDED FILL FACTOR EXPANDED FILL FACTOR=1.25
- 4 - THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 9 - STH 37

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			FILL	FILL	EXPANDED FILL	MASS ORDINATE		
							NOTE 1	NOTE 1
704+14.54	70414.54	0.00	0.00	0	0	0	0	
705+00	70500.00	85.46	23.32	37	46	-46		
705+33.004	70533.00	33.00	18.85	26	79	-79		
705+58.004	70558.00	25.00	19.27	18	101	-101		
705+83	70583.00	25.00	2.67	10	114	-114		
706+00	70600.00	17.00	0.00	1	115	-115		
707+00	70700.00	100.00	0.06	0	115	-115		
708+00	70800.00	100.00	0.00	0	115	-115		
708+89.25	70889.25	89.25	2.90	5	121	-121		
709+00	70900.00	10.75	5.52	2	124	-124		
709+14.25	70914.25	14.25	9.62	4	129	-129		
709+39.254	70939.25	25.00	8.42	8	139	-139		
710+00	71000.00	60.75	10.12	21	165	-165		
710+57.77	71057.77	57.77	0.00	11	179	-179		

Notes:

1 - FILL

2 - EXPANDED FILL FACTOR

3 - THE MASS ORDINATE

DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

EXPANDED FILL FACTOR = 1.25

+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Division 10 - STH 37

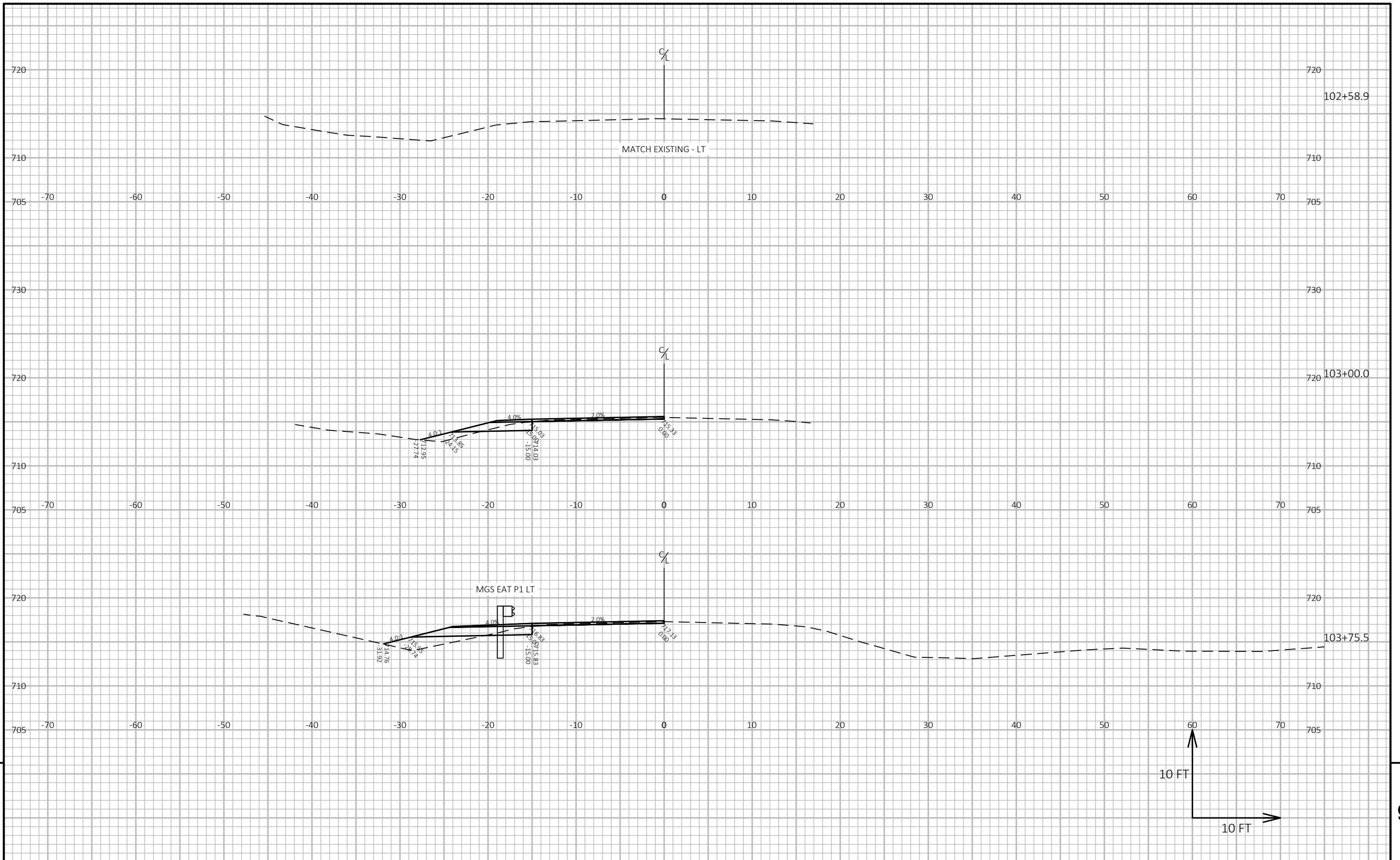
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	FILL	EXPANDED FILL	MASS ORDINATE	
			NOTE 1	NOTE 2	NOTE 2	1.25		NOTE 3
712+34.02	71234.02	0.00	0.00	0.00	0		0	0
713+00	71300.00	65.98	0.00	2.79	3		4	-4
713+53	71353.00	53.00	0.00	11.65	14		21	-21
713+78	71378.00	25.00	0.00	9.81	10		34	-34
714+00	71400.00	22.00	0.00	3.52	5		40	-40
714+03	71403.00	3.00	0.01	2.51	0		40	-40
715+00	71500.00	97.00	0.00	0.00	5		46	-46
716+00	71600.00	100.00	0.00	1.84	3		50	-50
717+00	71700.00	100.00	0.00	5.32	13		66	-66
718+00	71800.00	100.00	0.03	3.07	16		86	-86
719+00	71900.00	100.00	0.00	1.85	9		98	-98
720+00	72000.00	100.00	0.02	2.22	8		108	-108
720+84.25	72084.25	84.25	0.00	11.44	21		134	-134
721+00	72100.00	15.75	0.00	26.85	11		148	-148
721+09.25	72109.25	9.25	0.00	34.10	10		160	-160
721+34.25	72134.25	25.00	0.00	22.65	26		193	-193
722+00	72200.00	65.75	0.00	38.21	74		285	-285
722+52.71	72252.71	52.71	0.00	0.00	37		331	-331

Notes:

- 1 - CUT CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 - FILL DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
- 3 - EXPANDED FILL FACTOR EXPANDED FILL FACTOR = 1.25
- 4 - THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

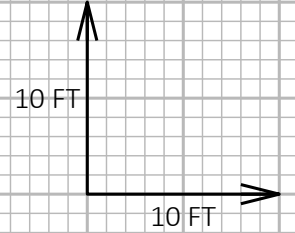
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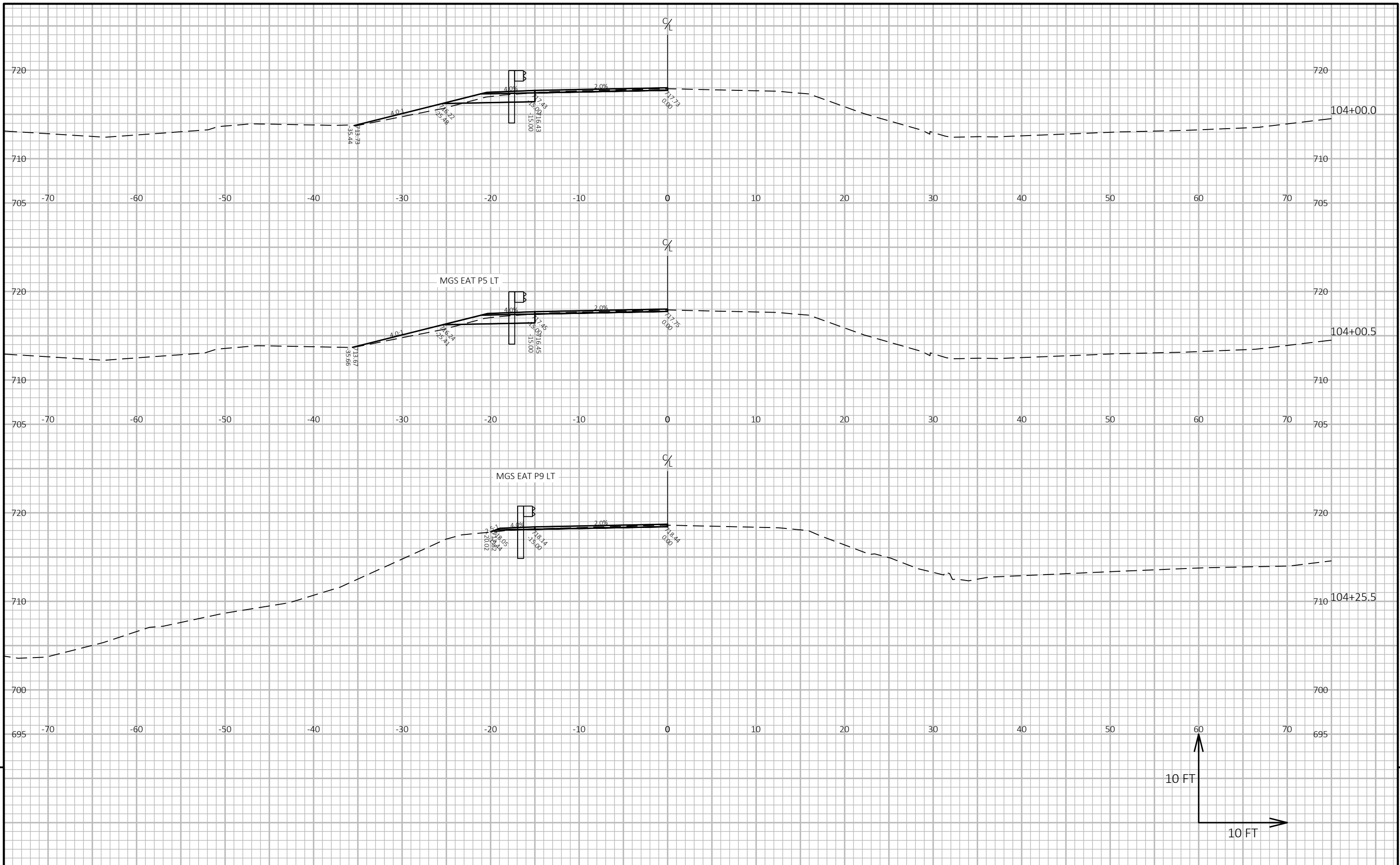


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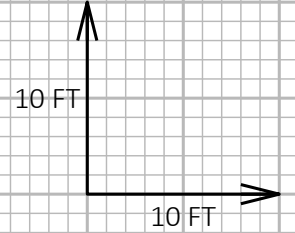


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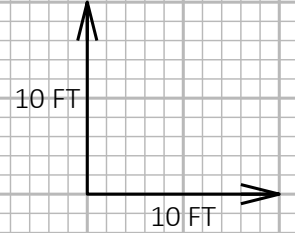
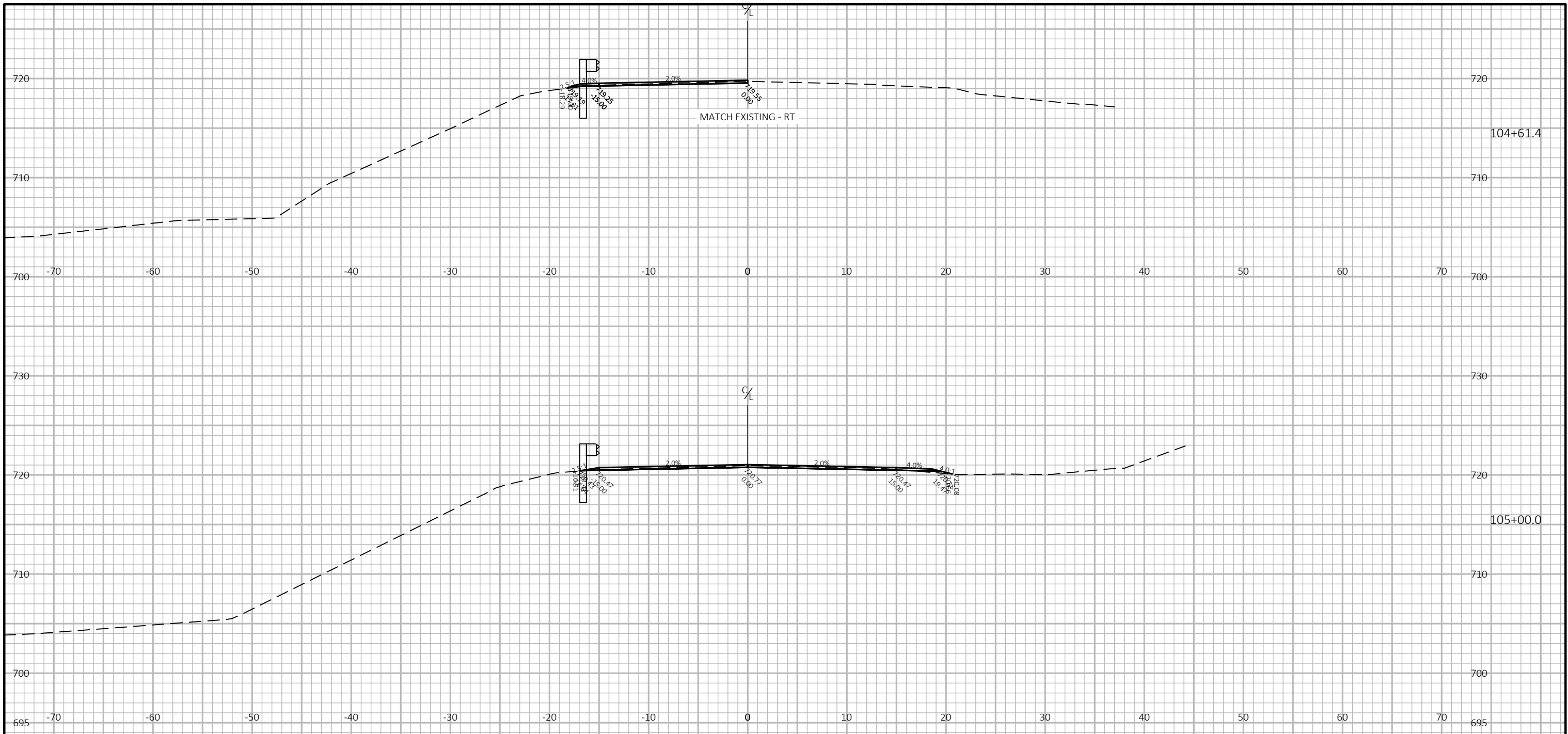


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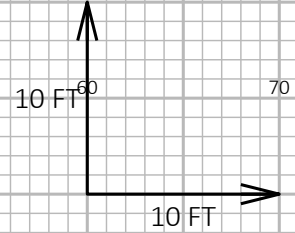
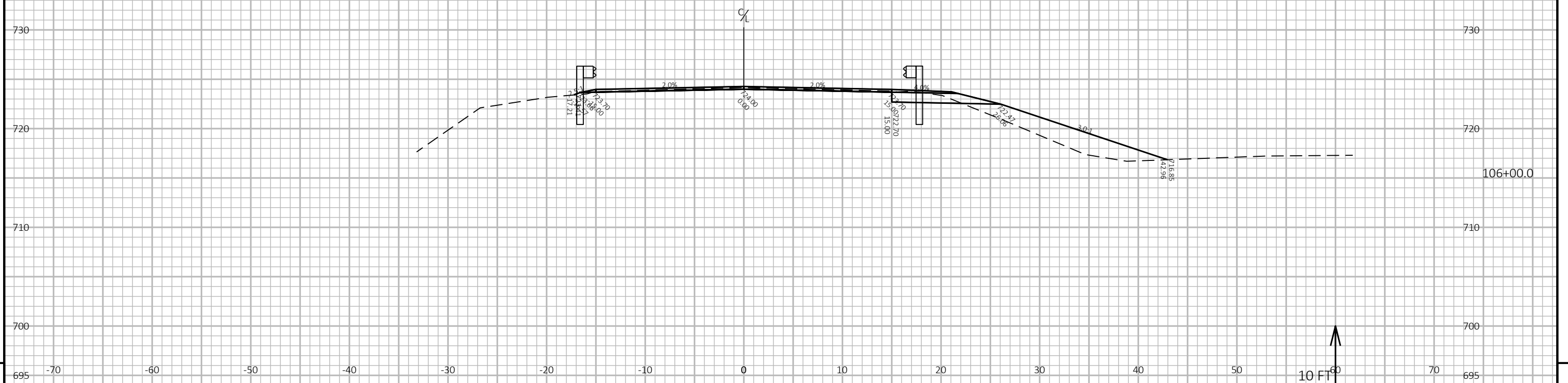
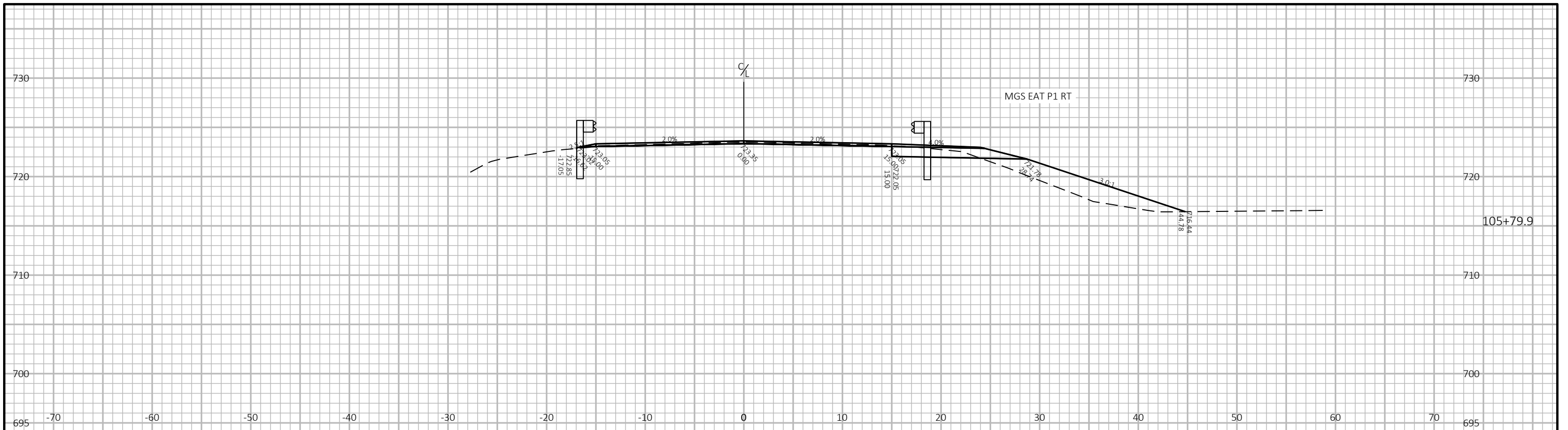
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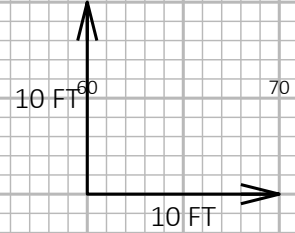
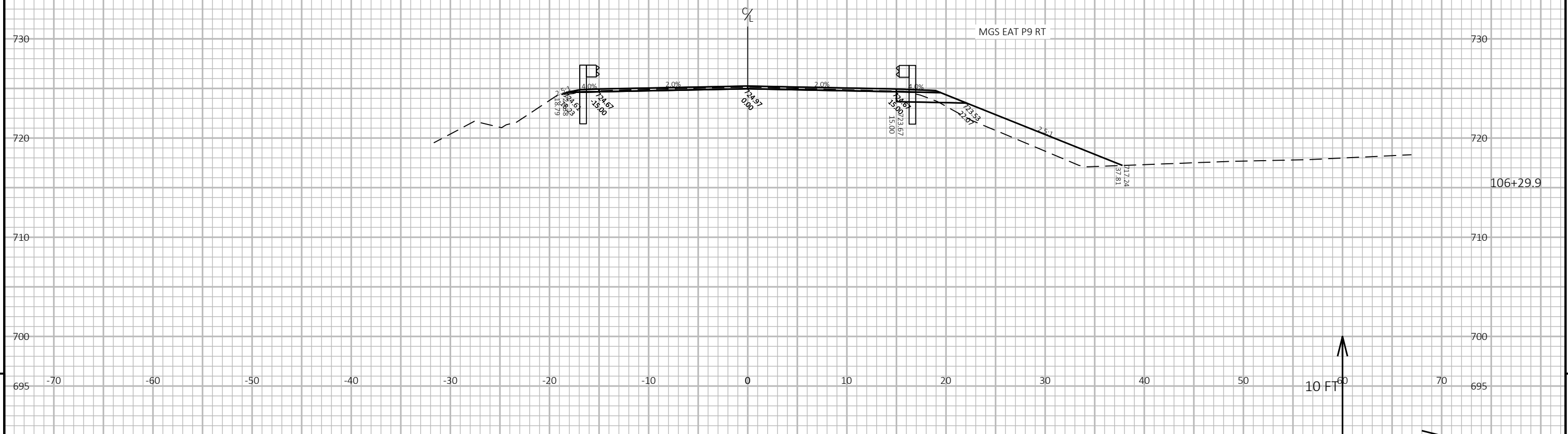
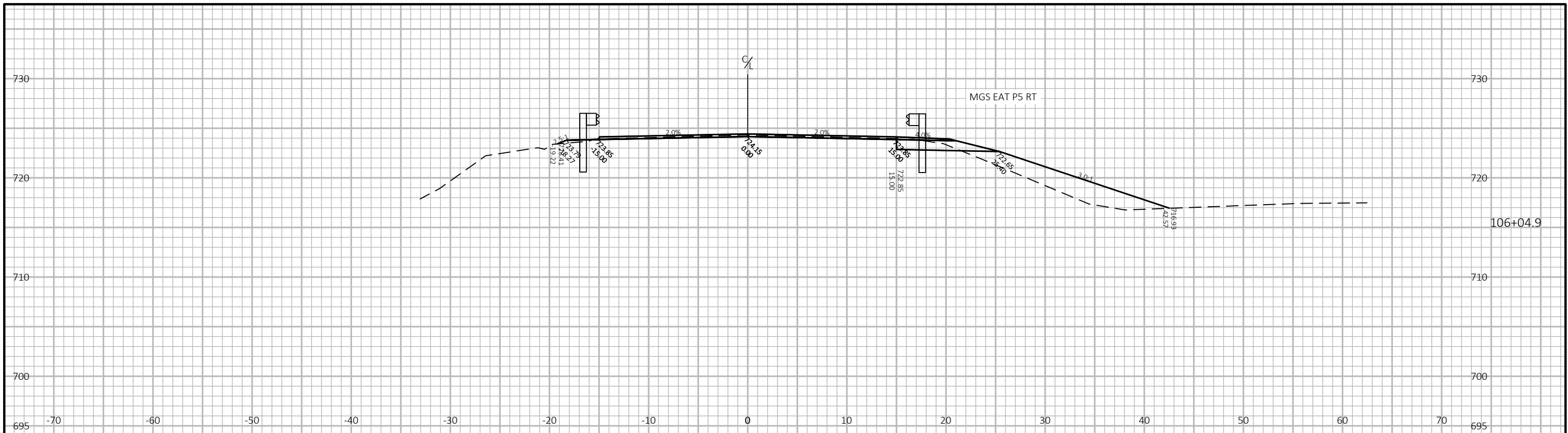
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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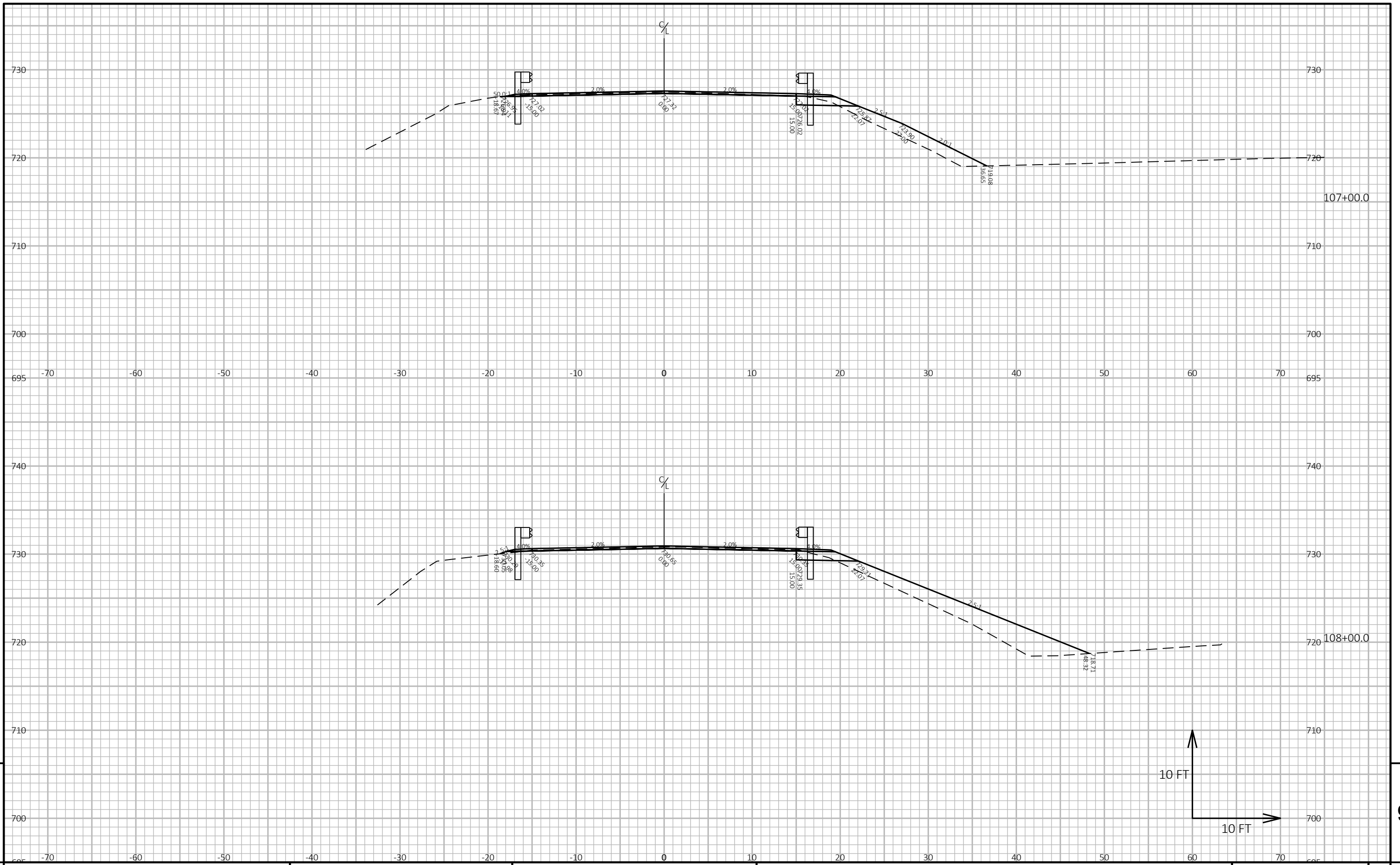
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET E
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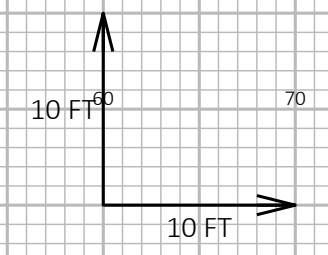
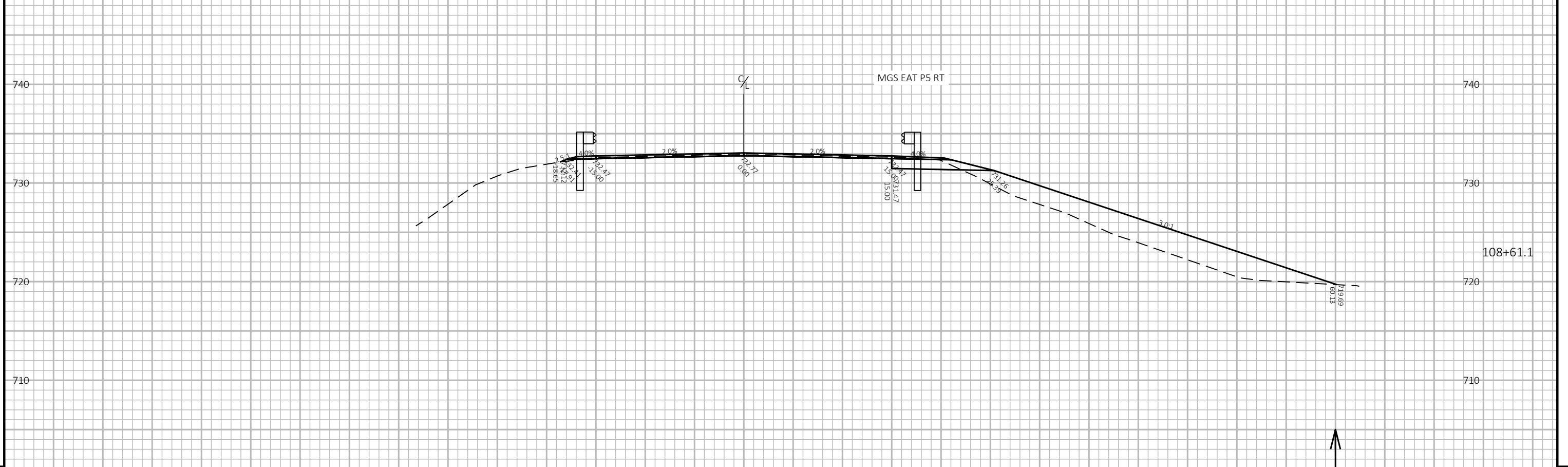
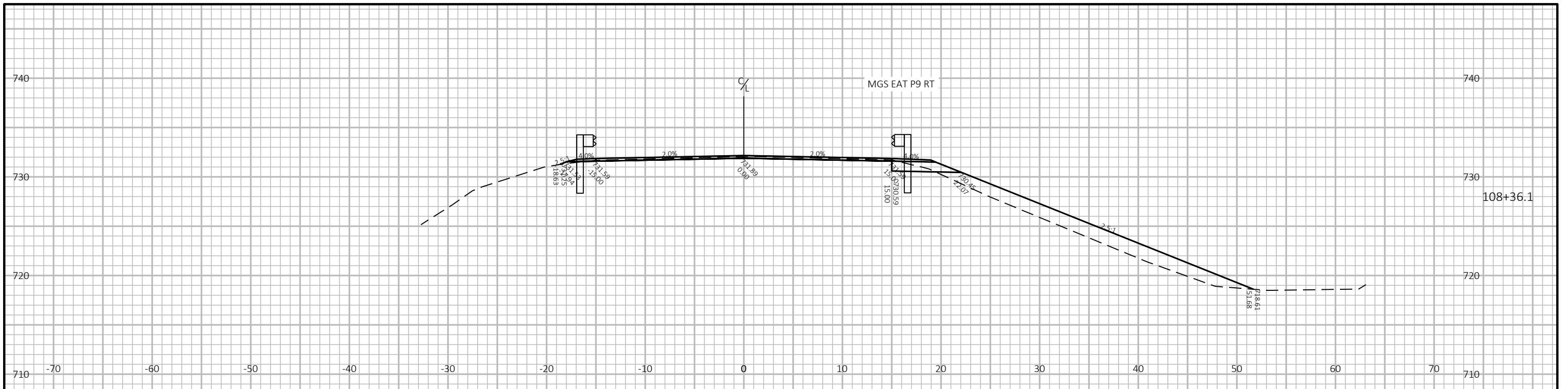


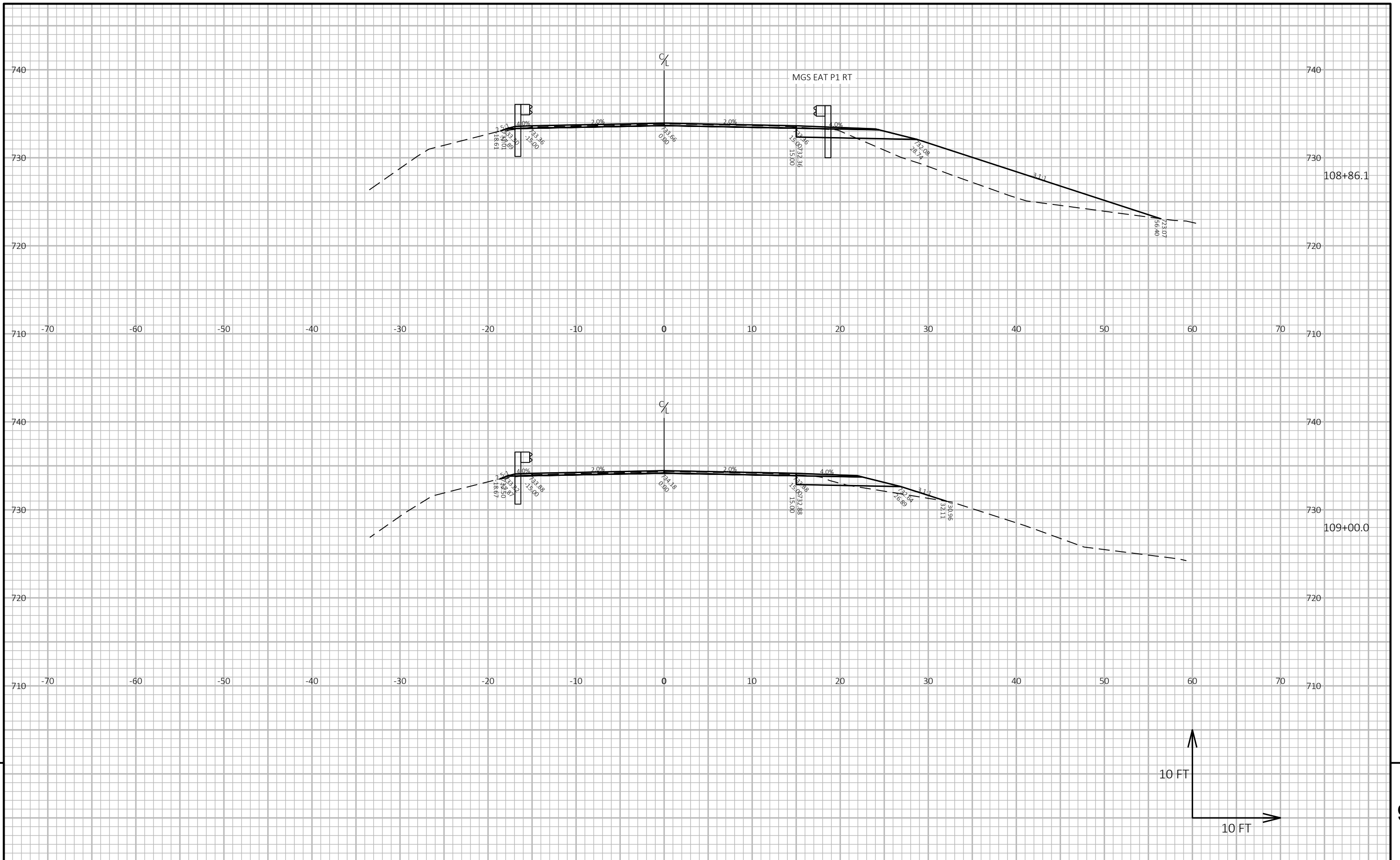
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

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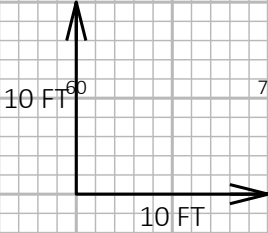
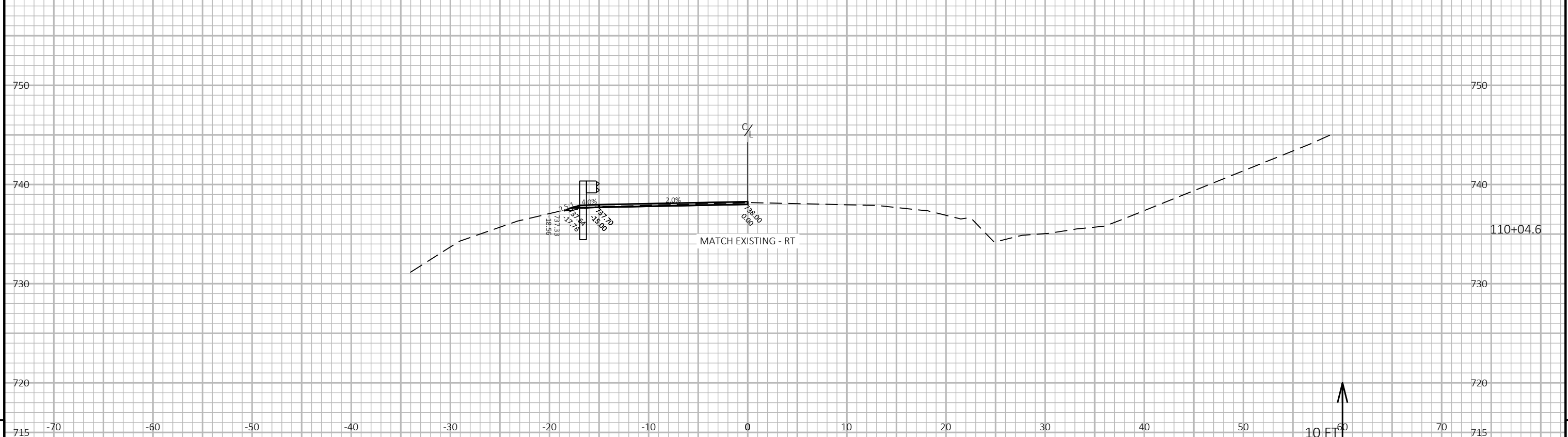
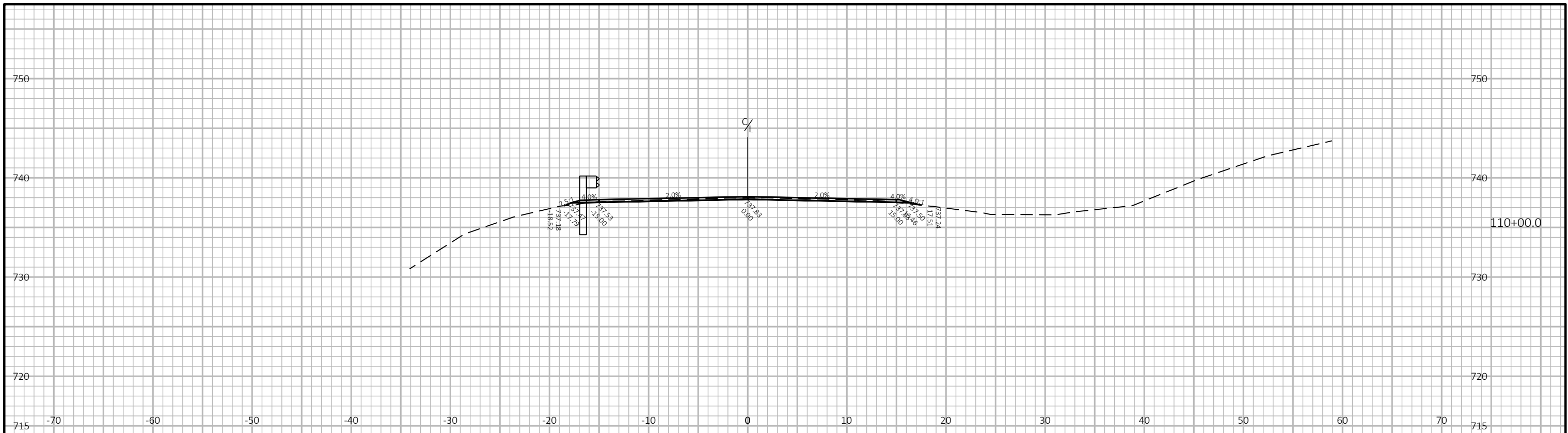




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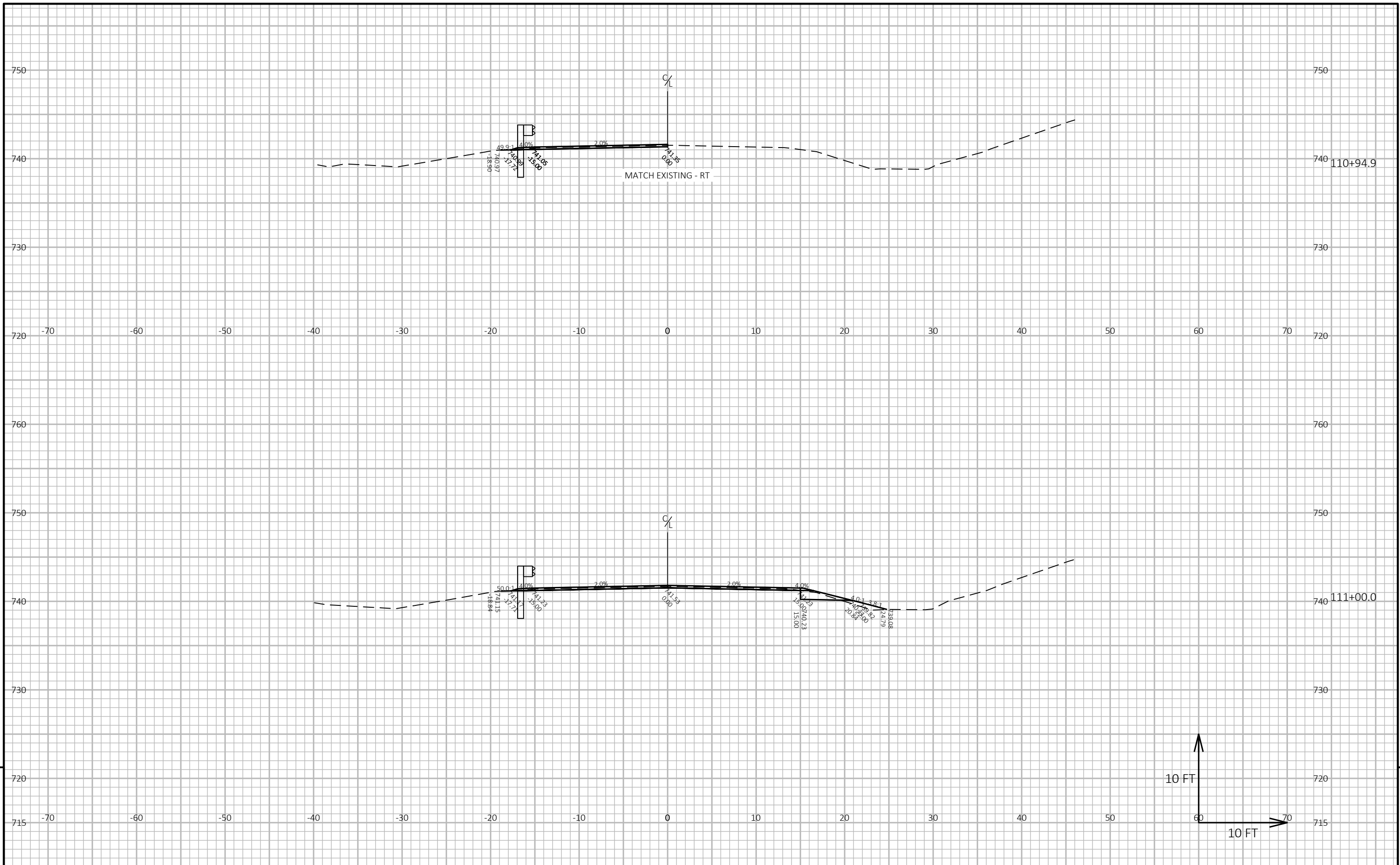
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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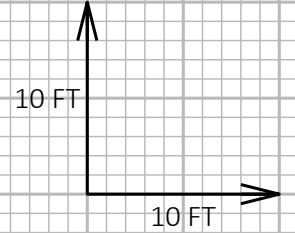
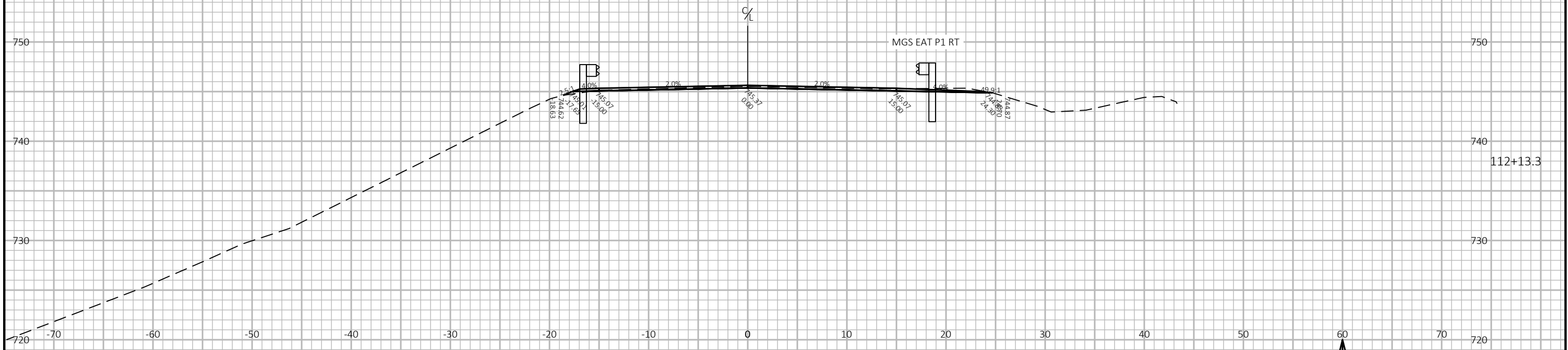
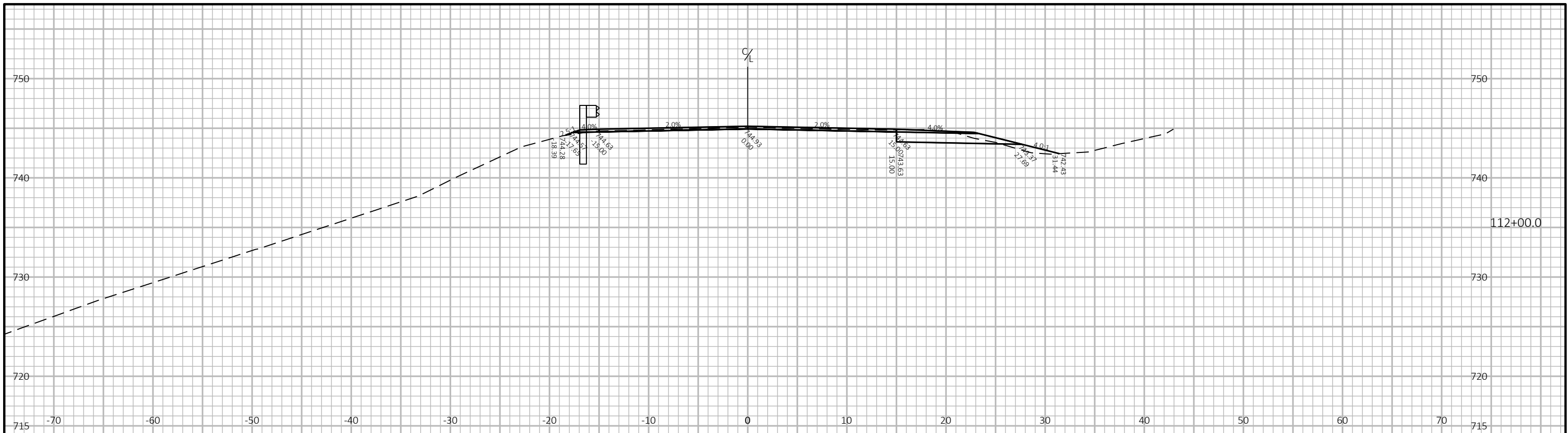
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:04 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

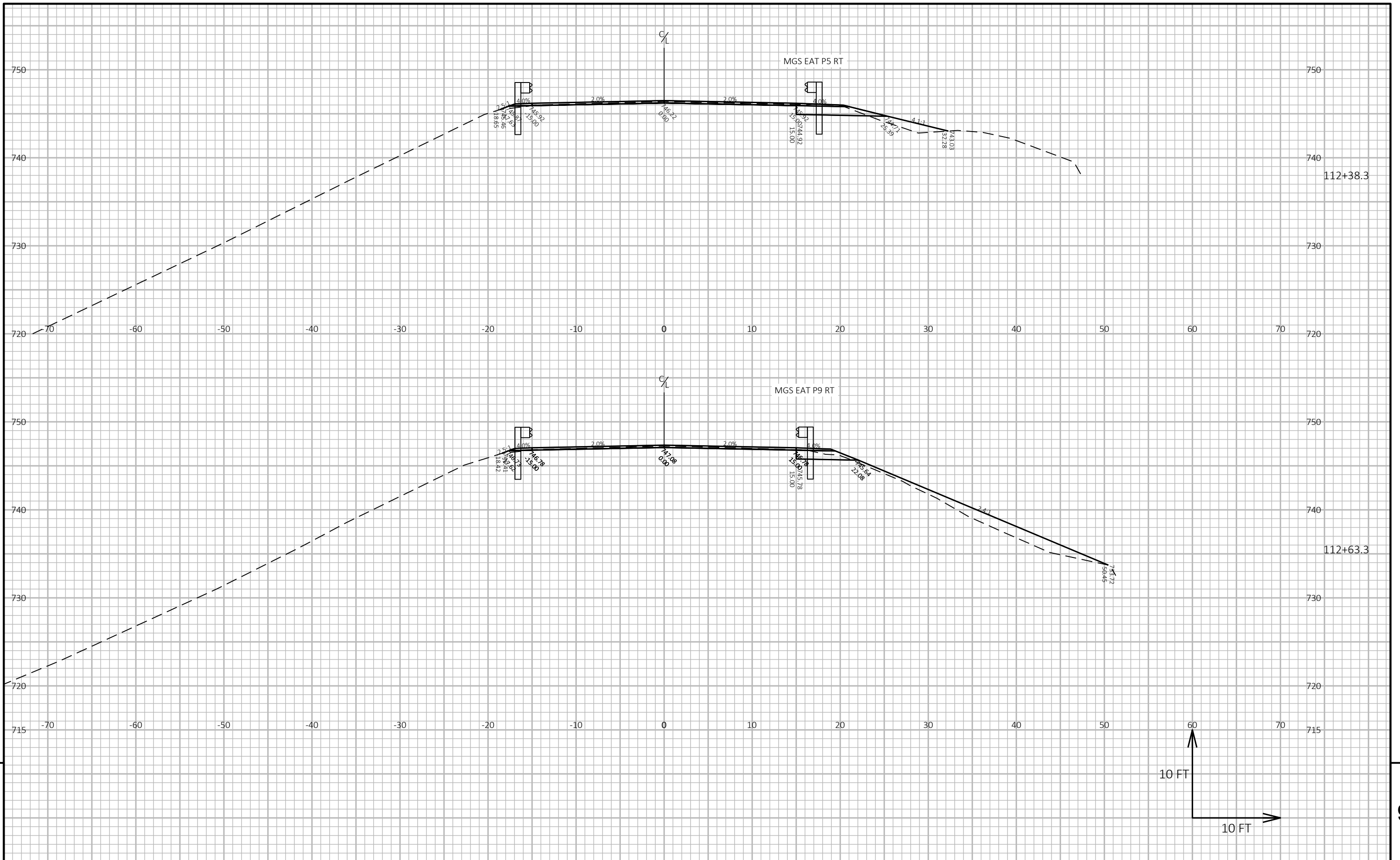
LAYOUT NAME - 10



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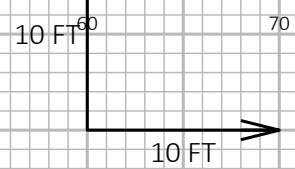
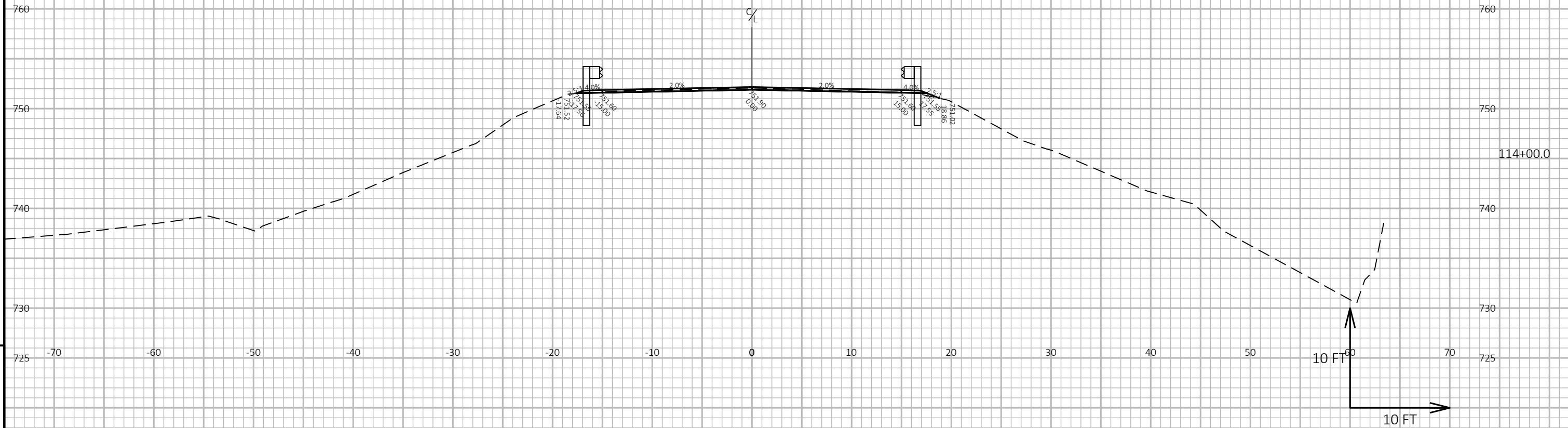
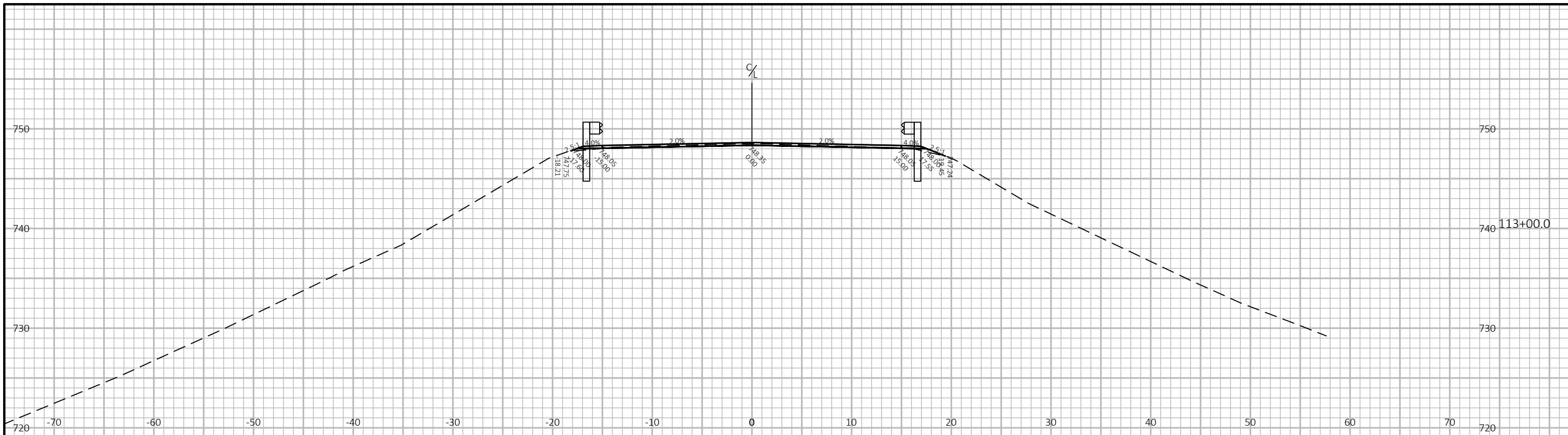
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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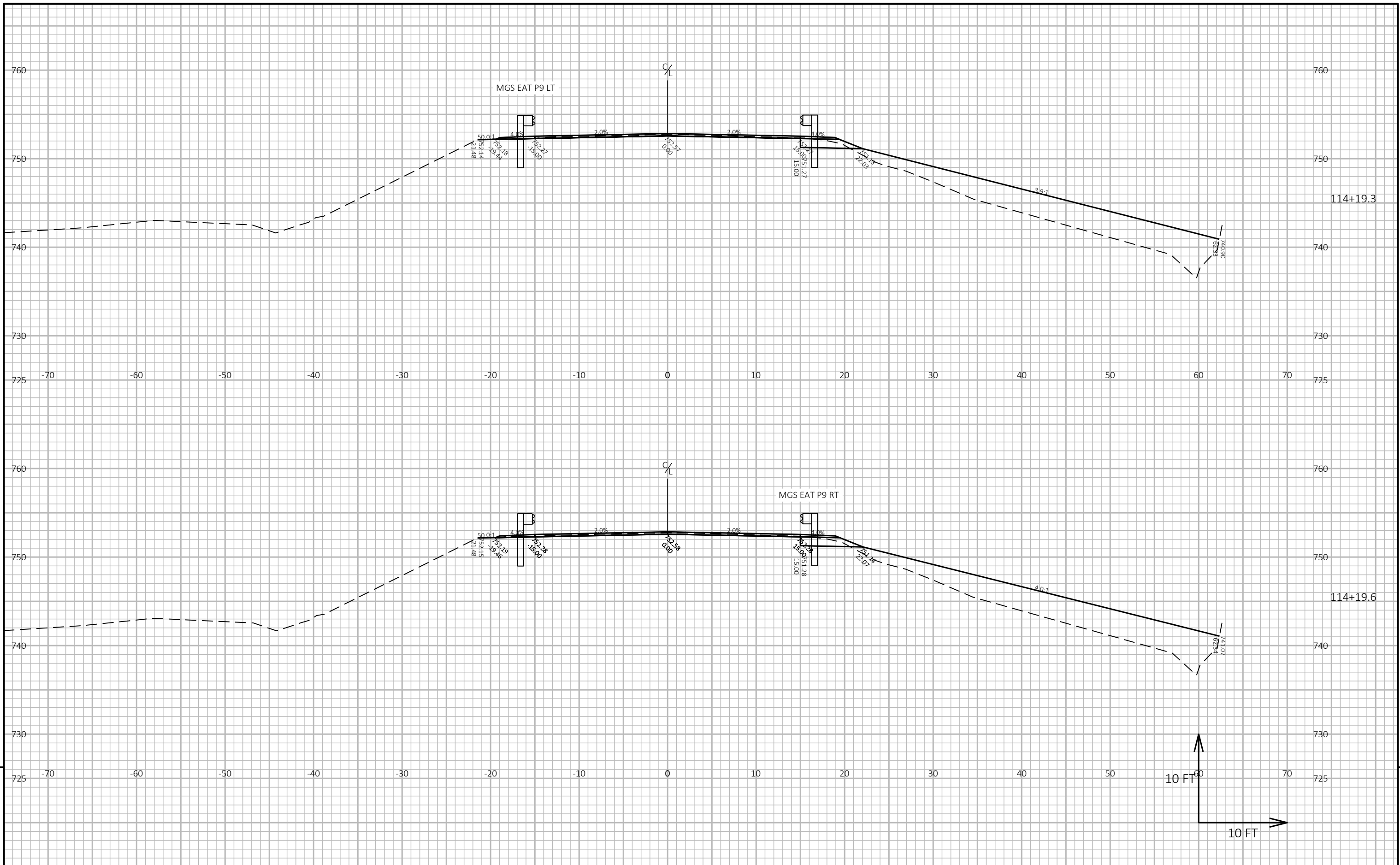


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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75

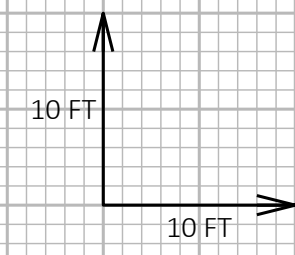
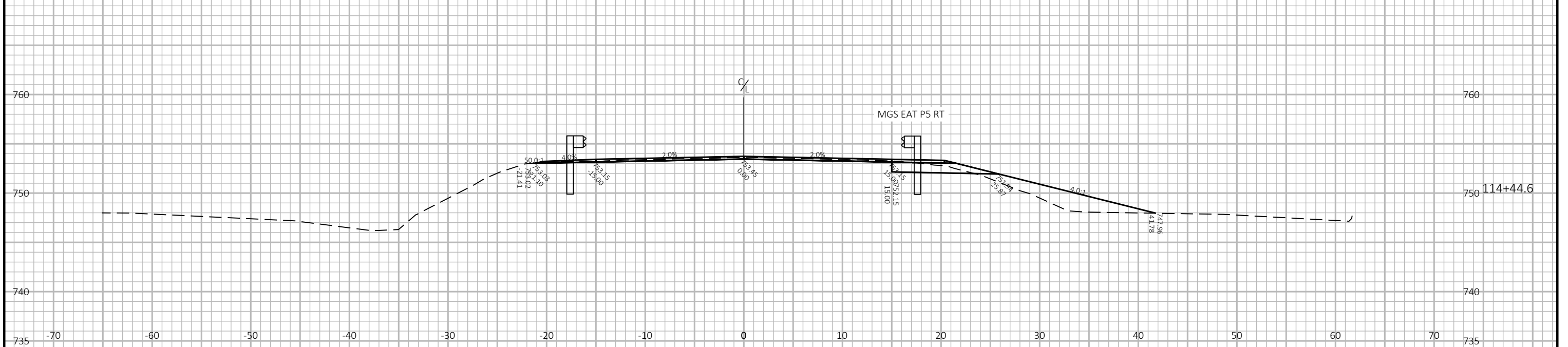
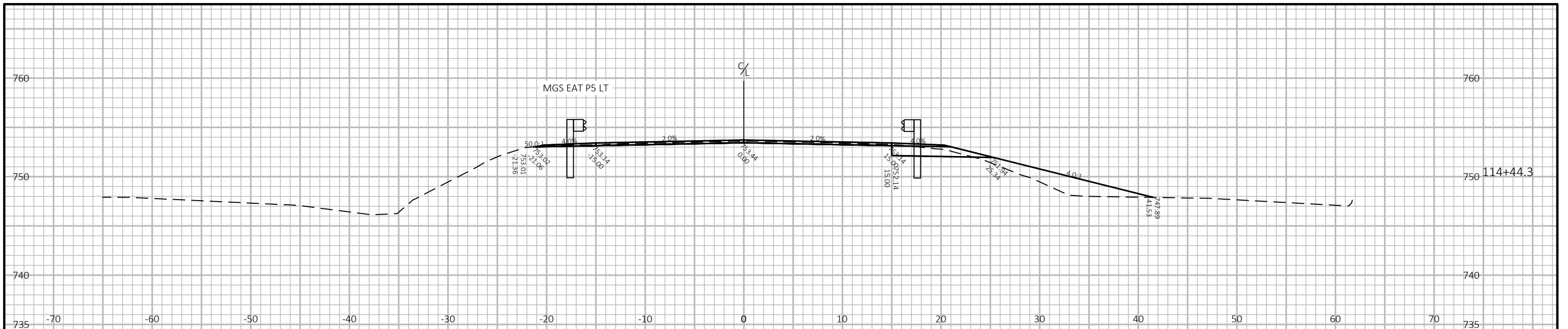
HWY: STH 37

COUNTY: BUFFALO

CROSS SECTIONS: BEAMGUARD

SHEET

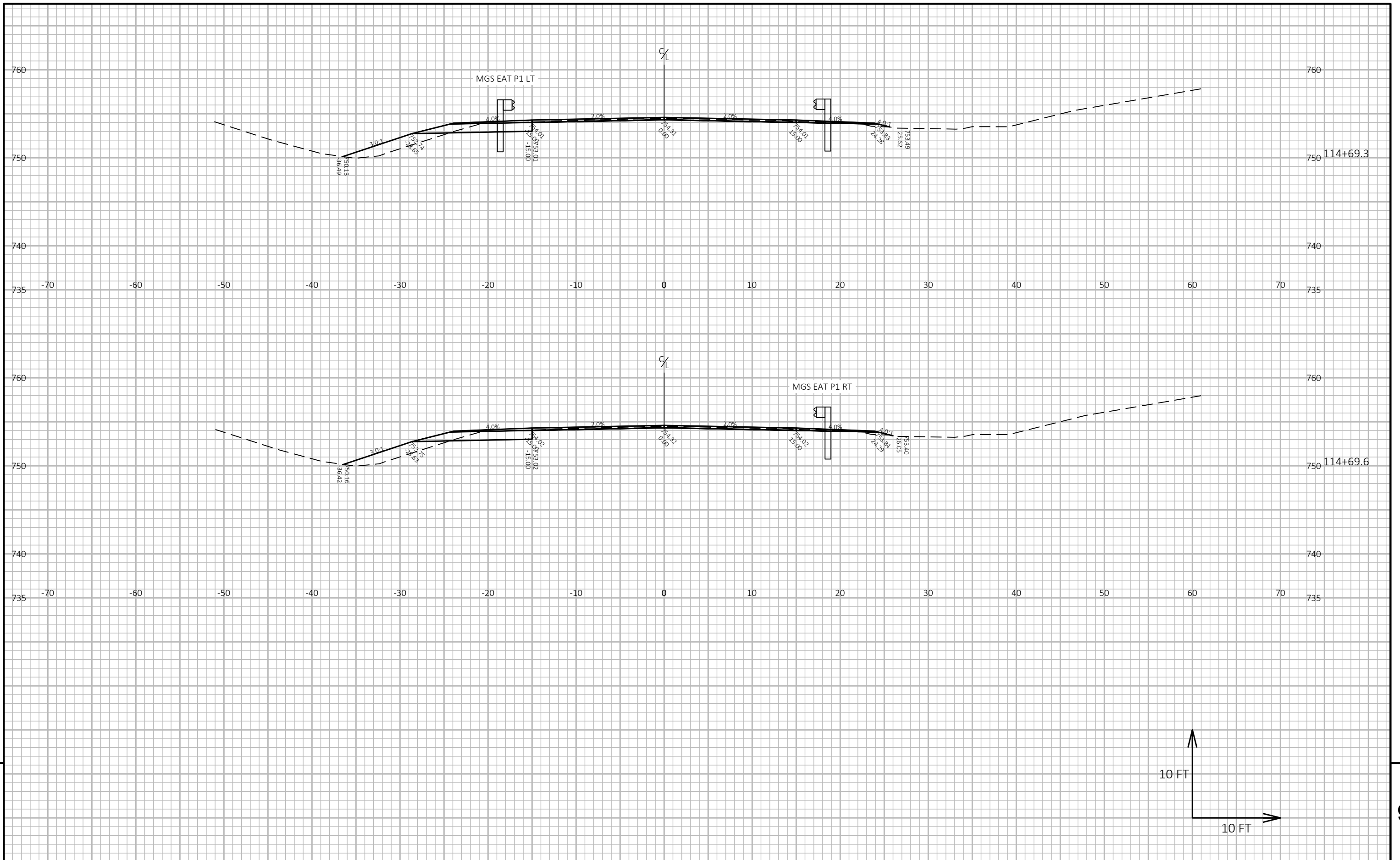
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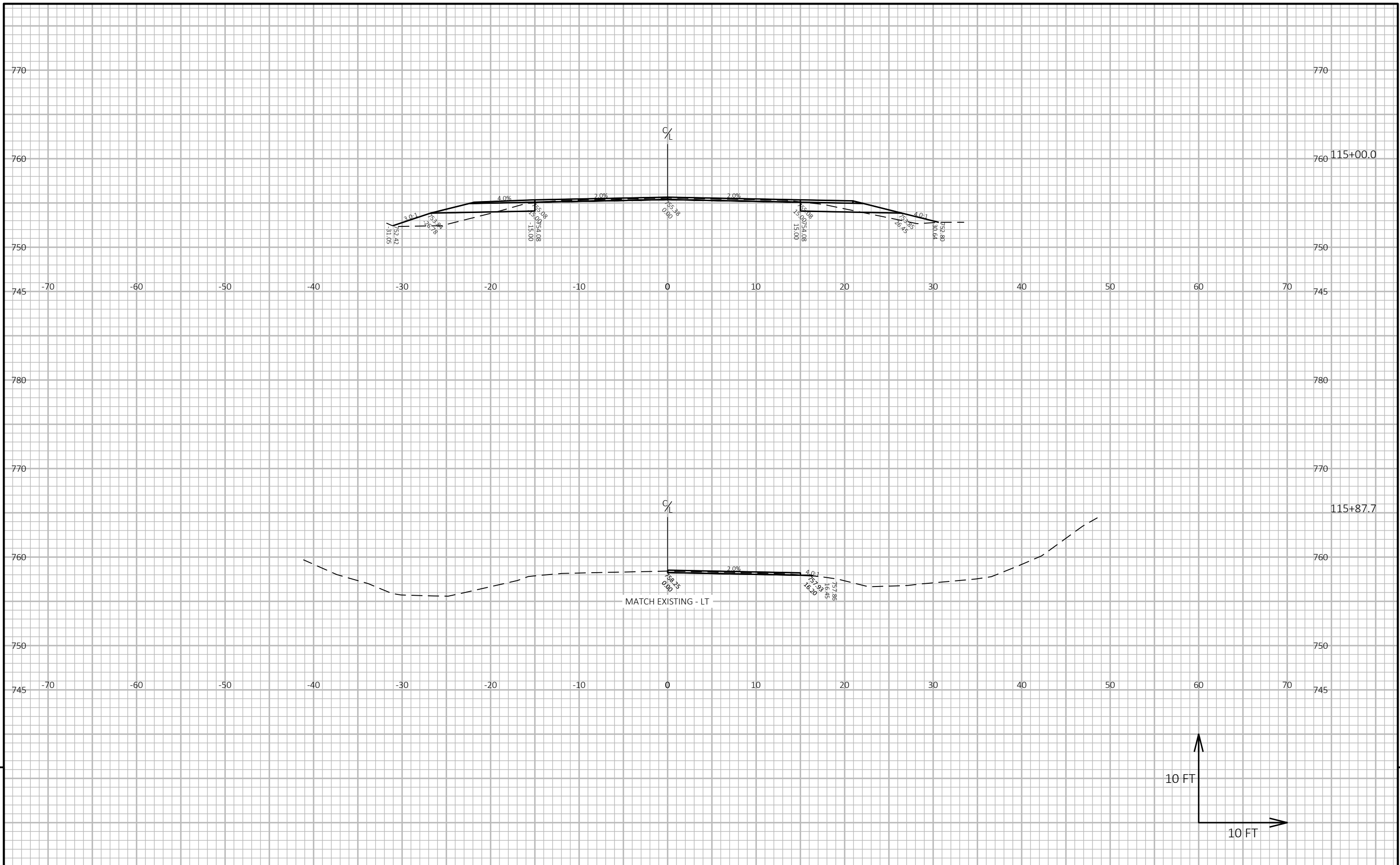
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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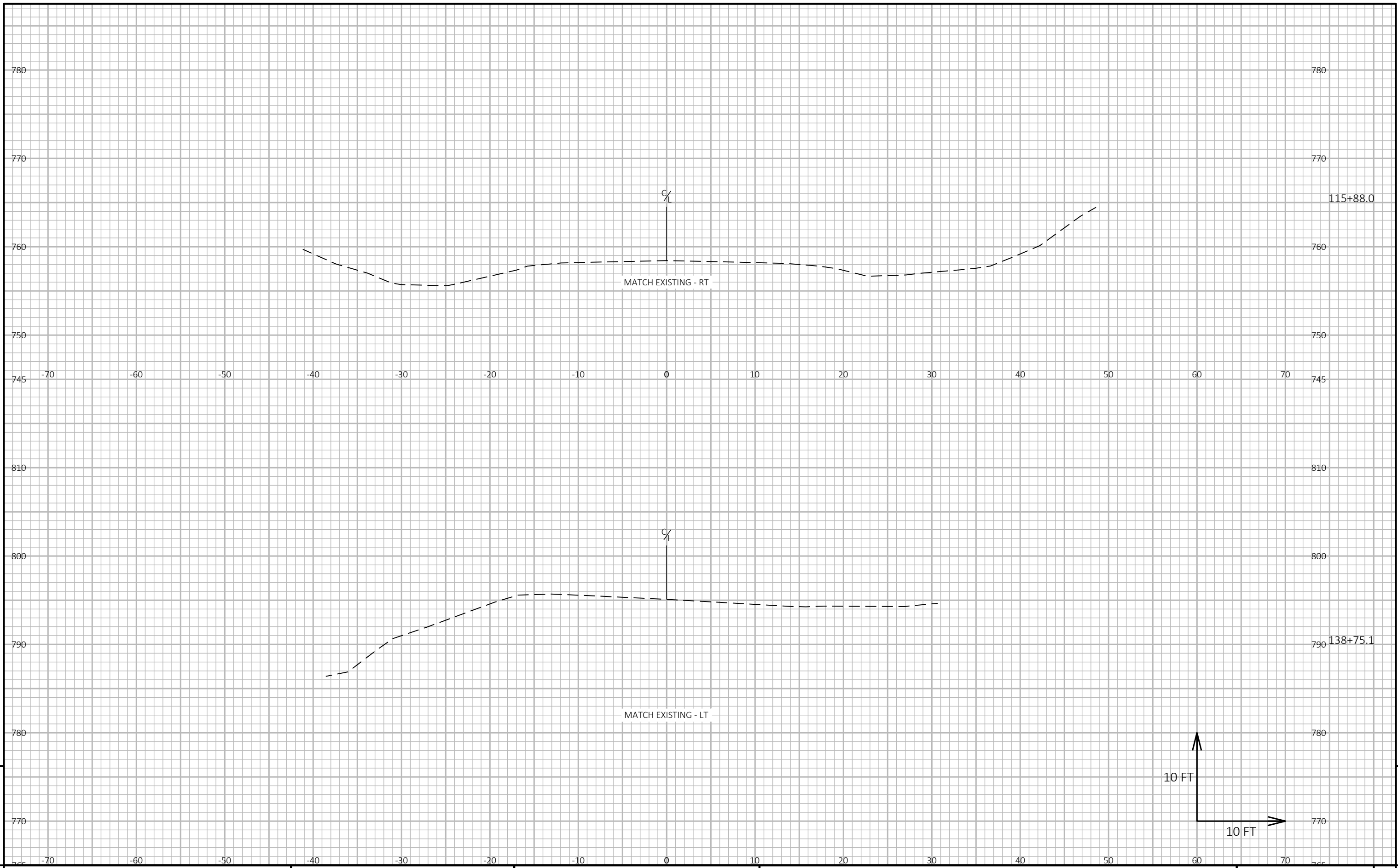
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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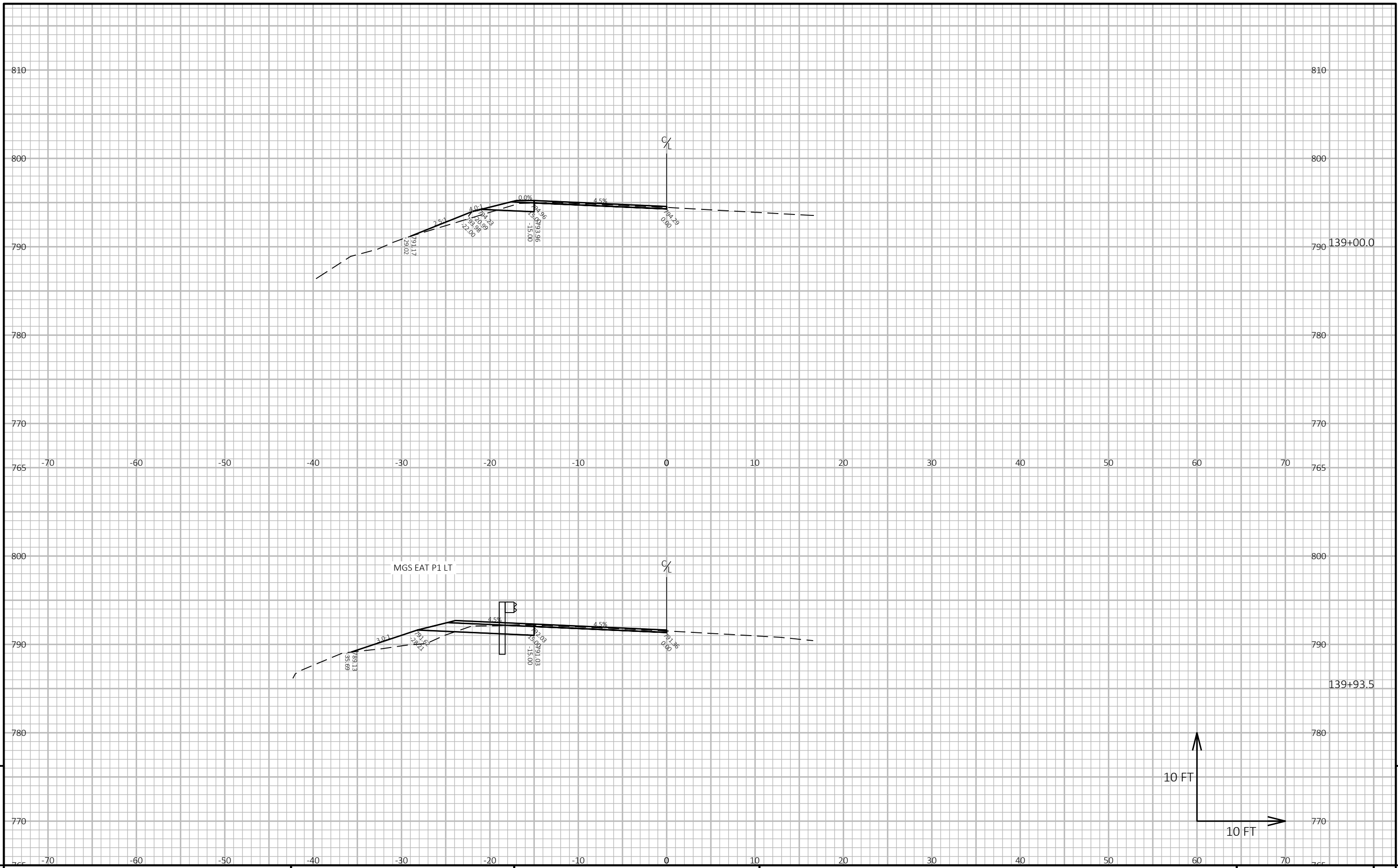
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:06 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 18



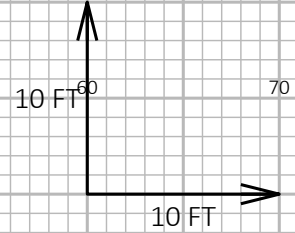
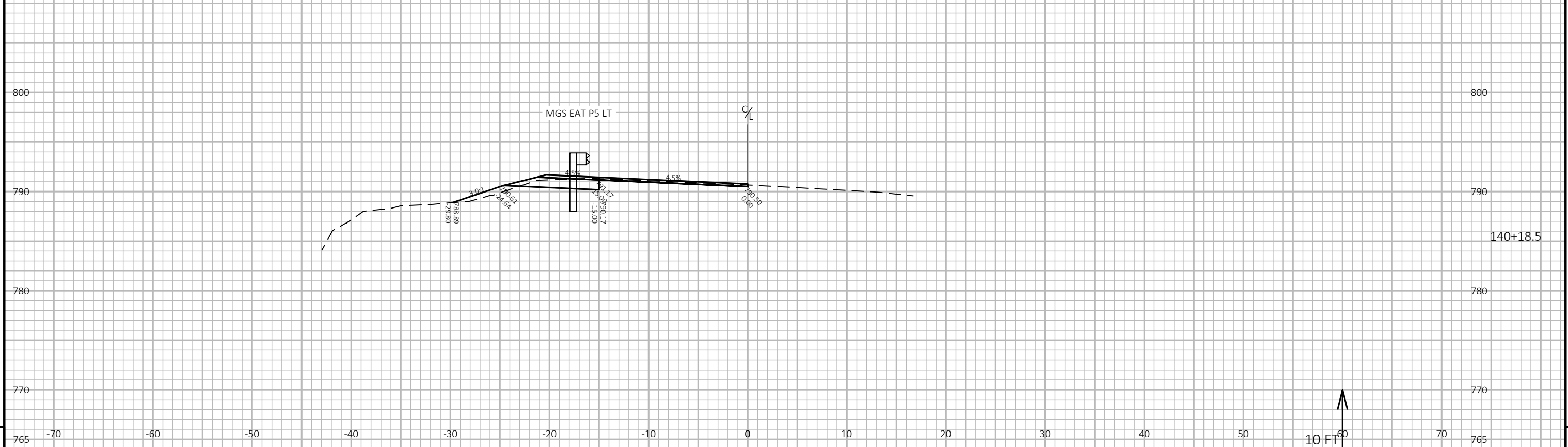
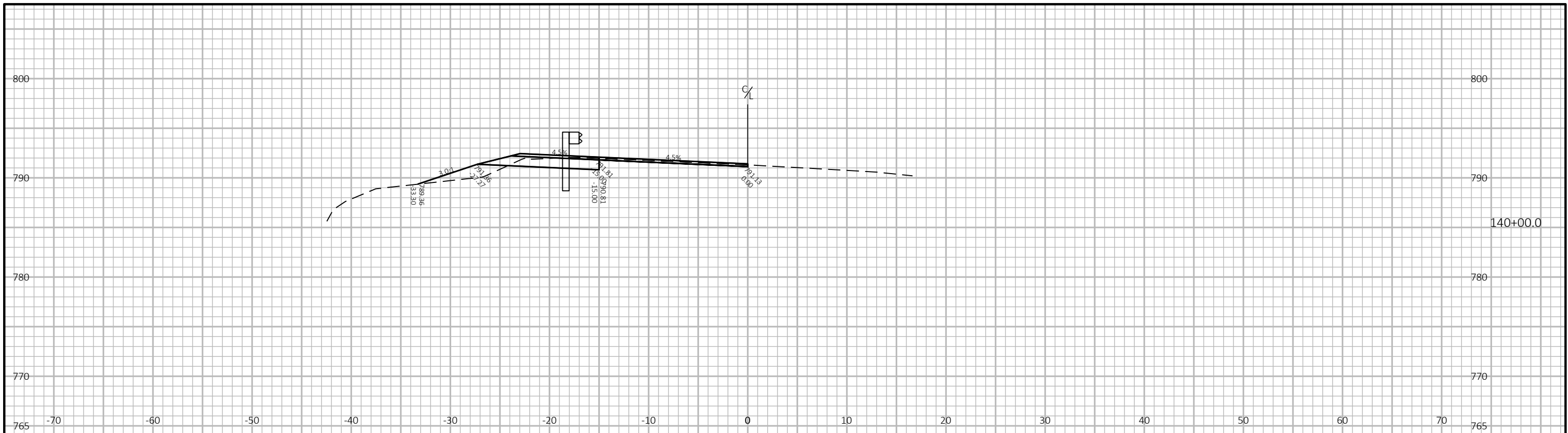
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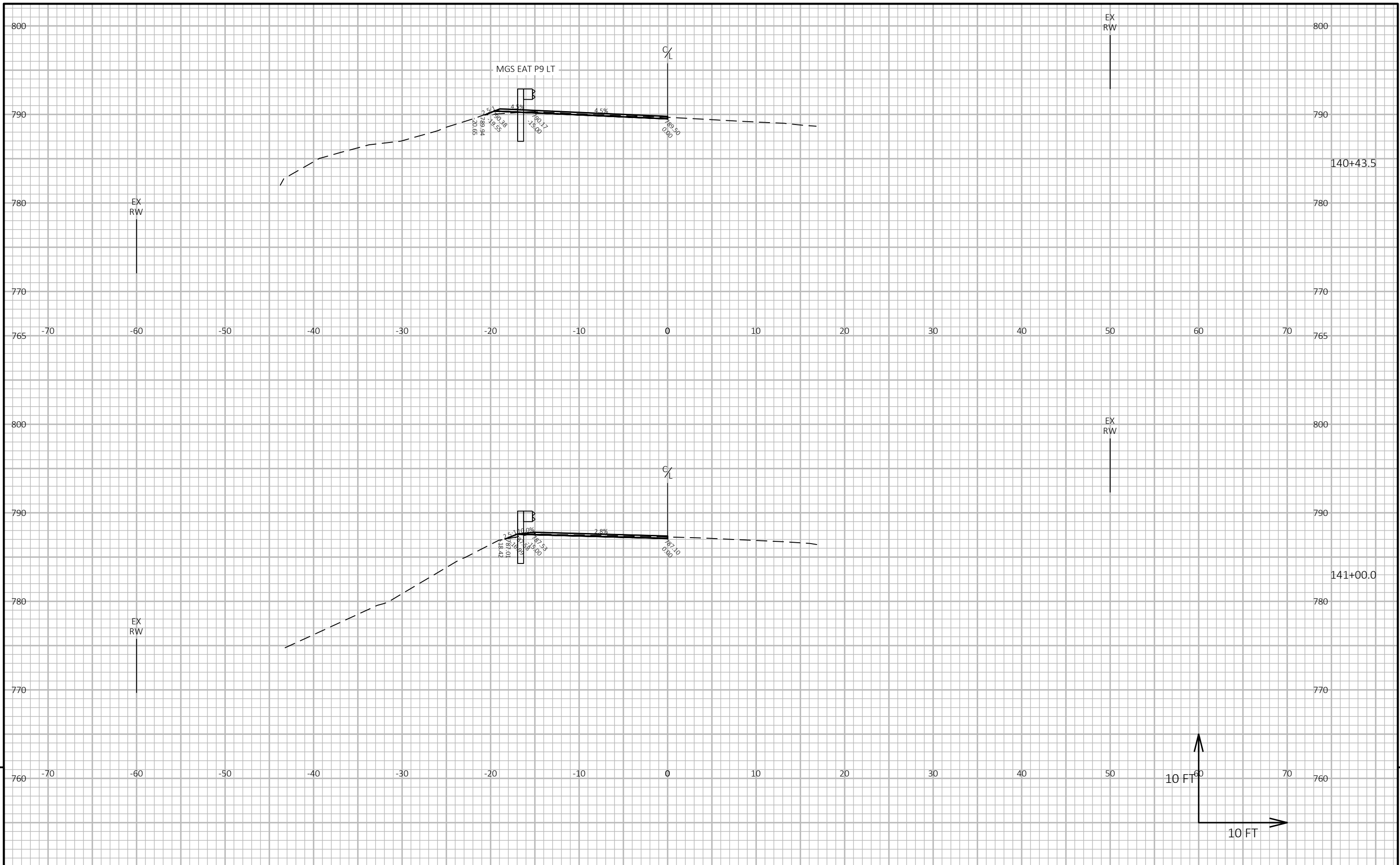
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:06 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

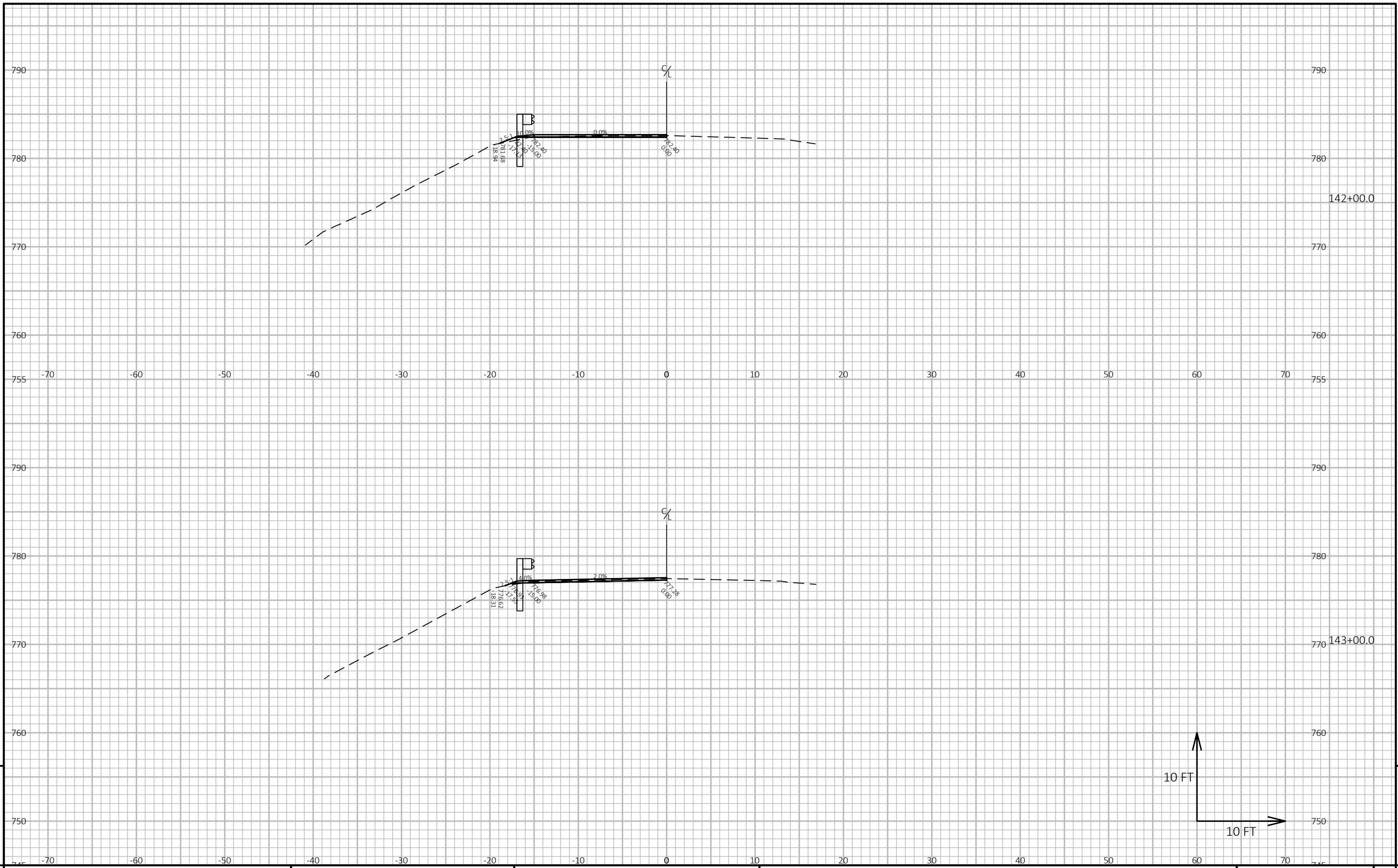
LAYOUT NAME - 19



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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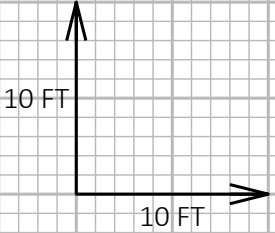


PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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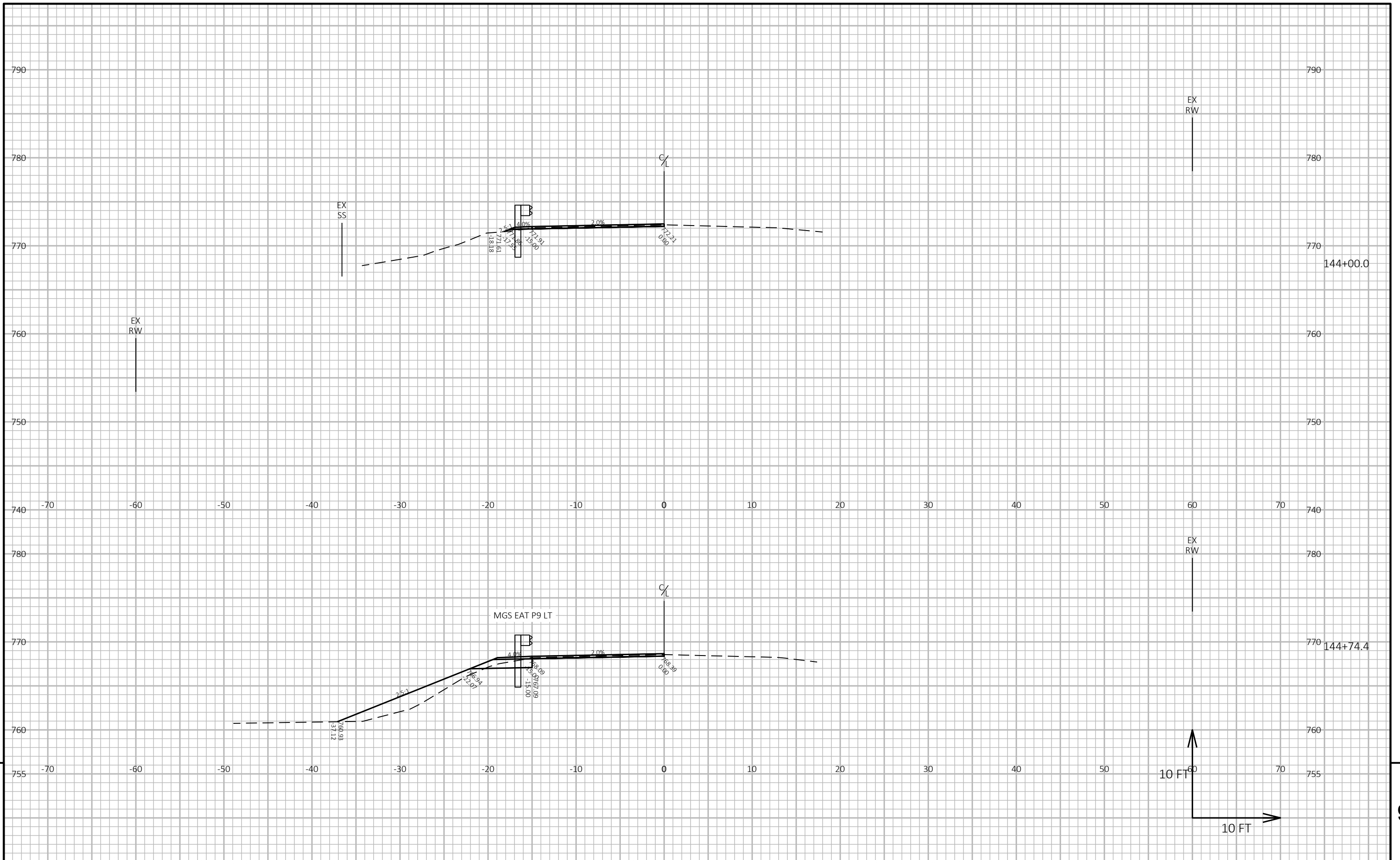
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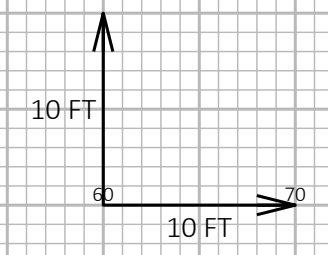
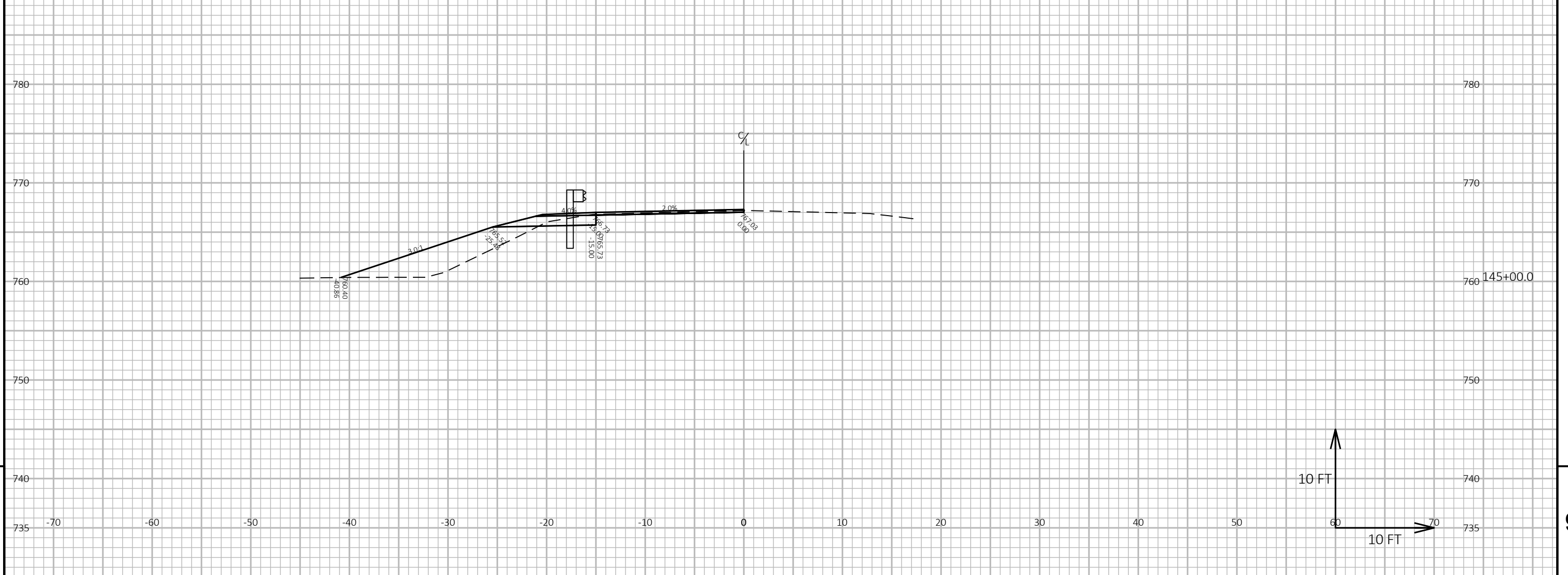
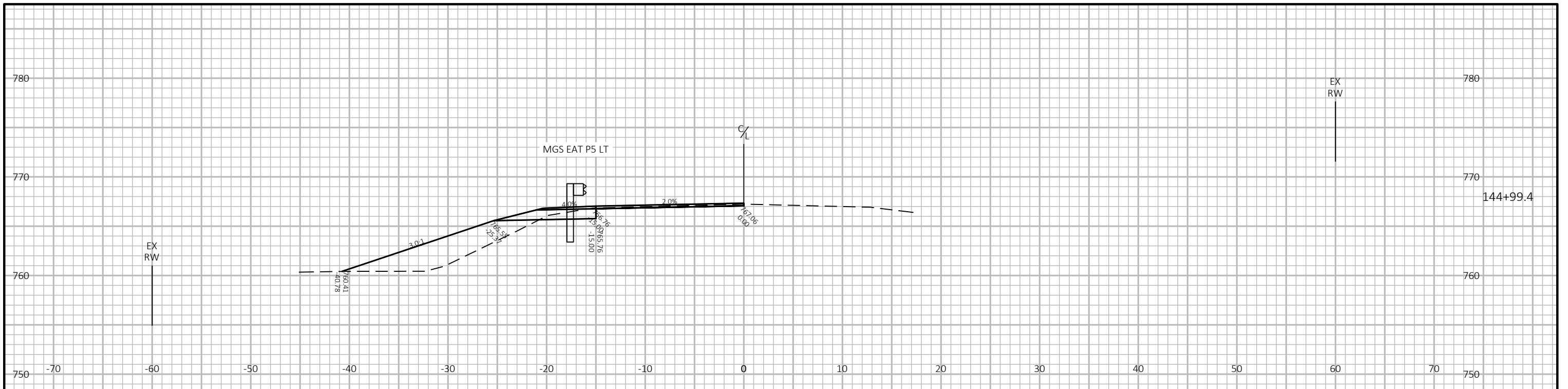
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

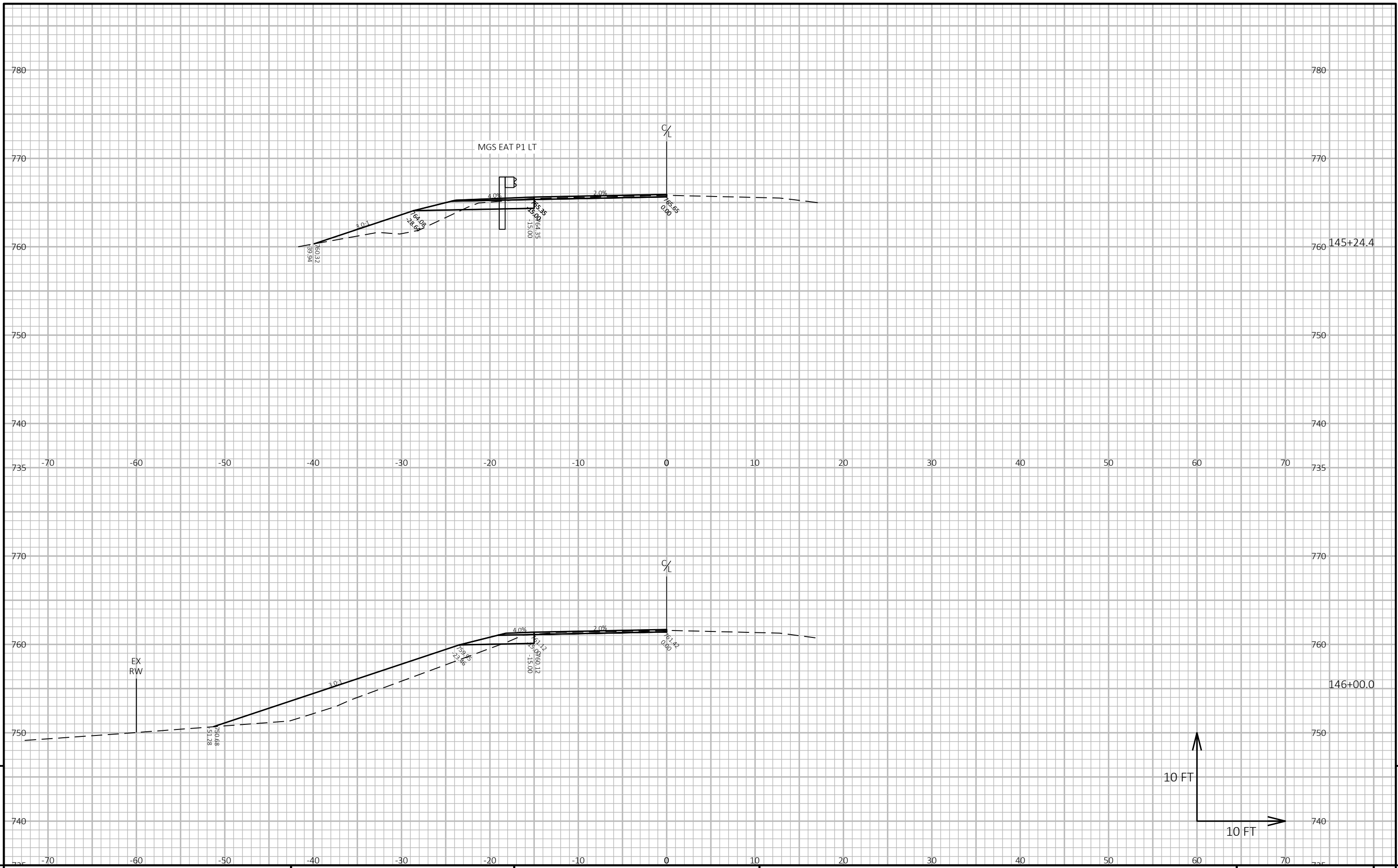
FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:07 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 22



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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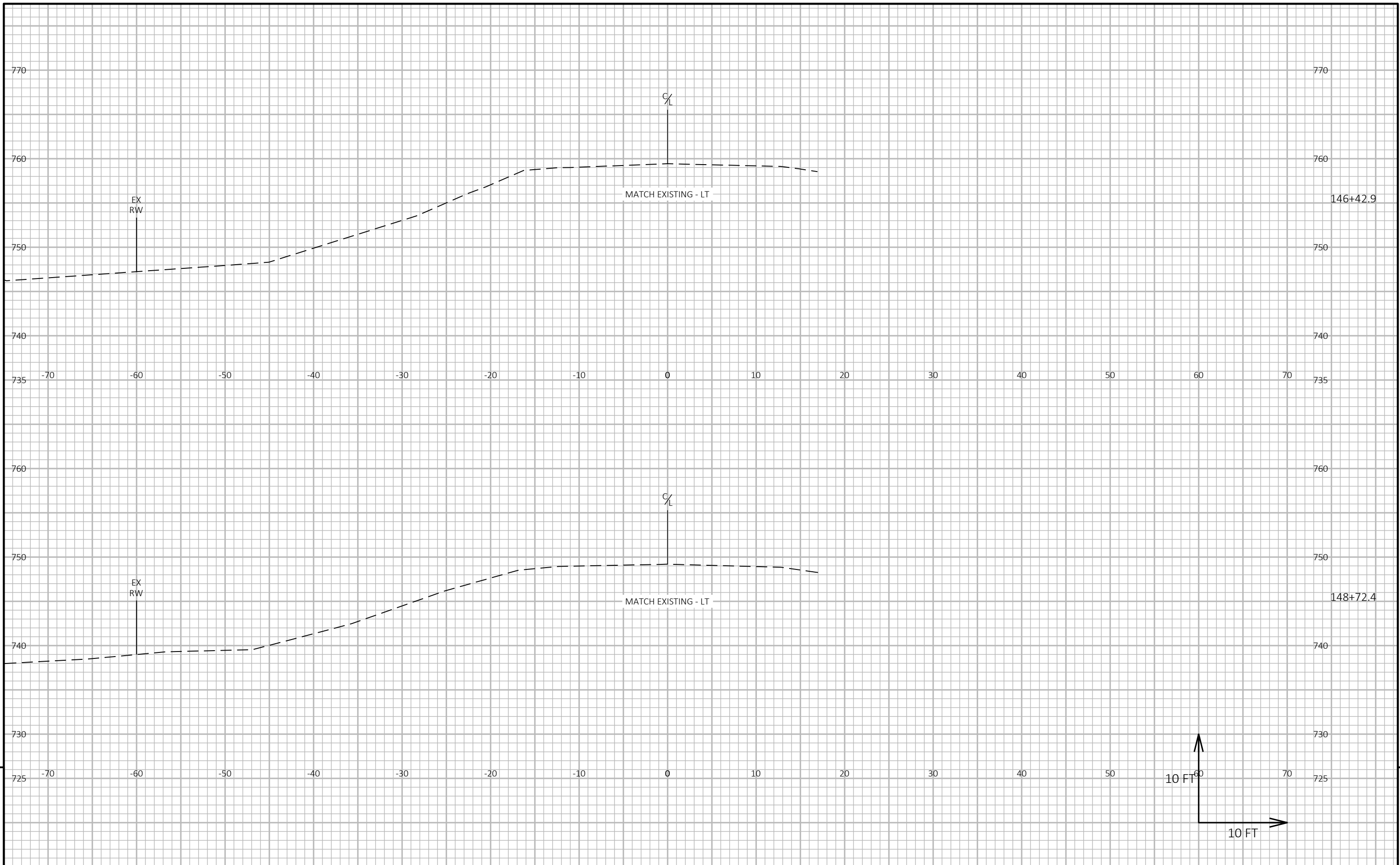
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETS\PLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:07 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

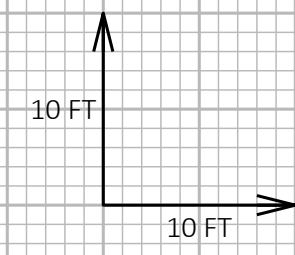
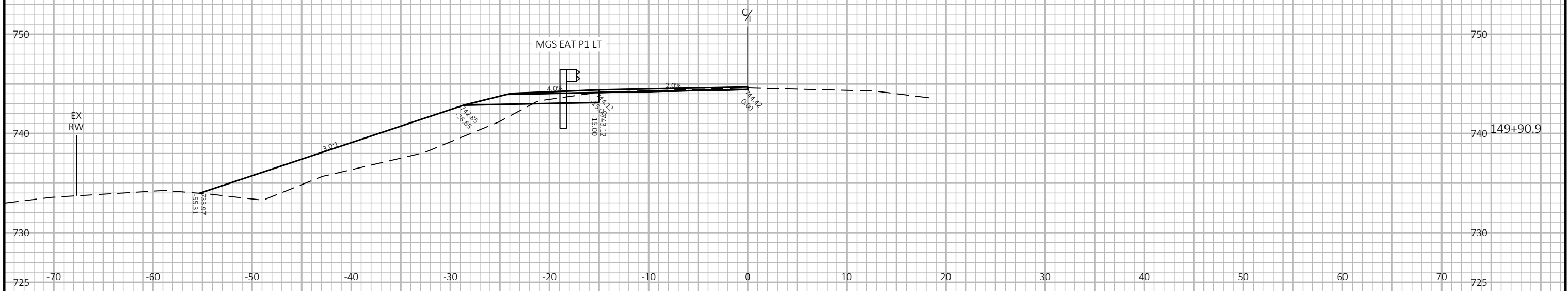
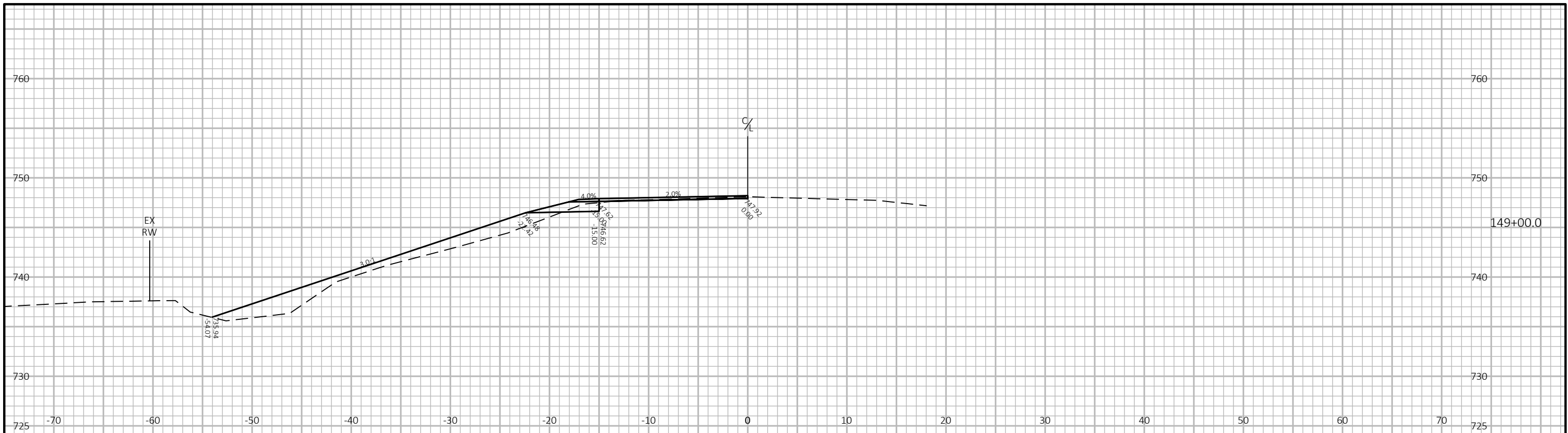
LAYOUT NAME - 25



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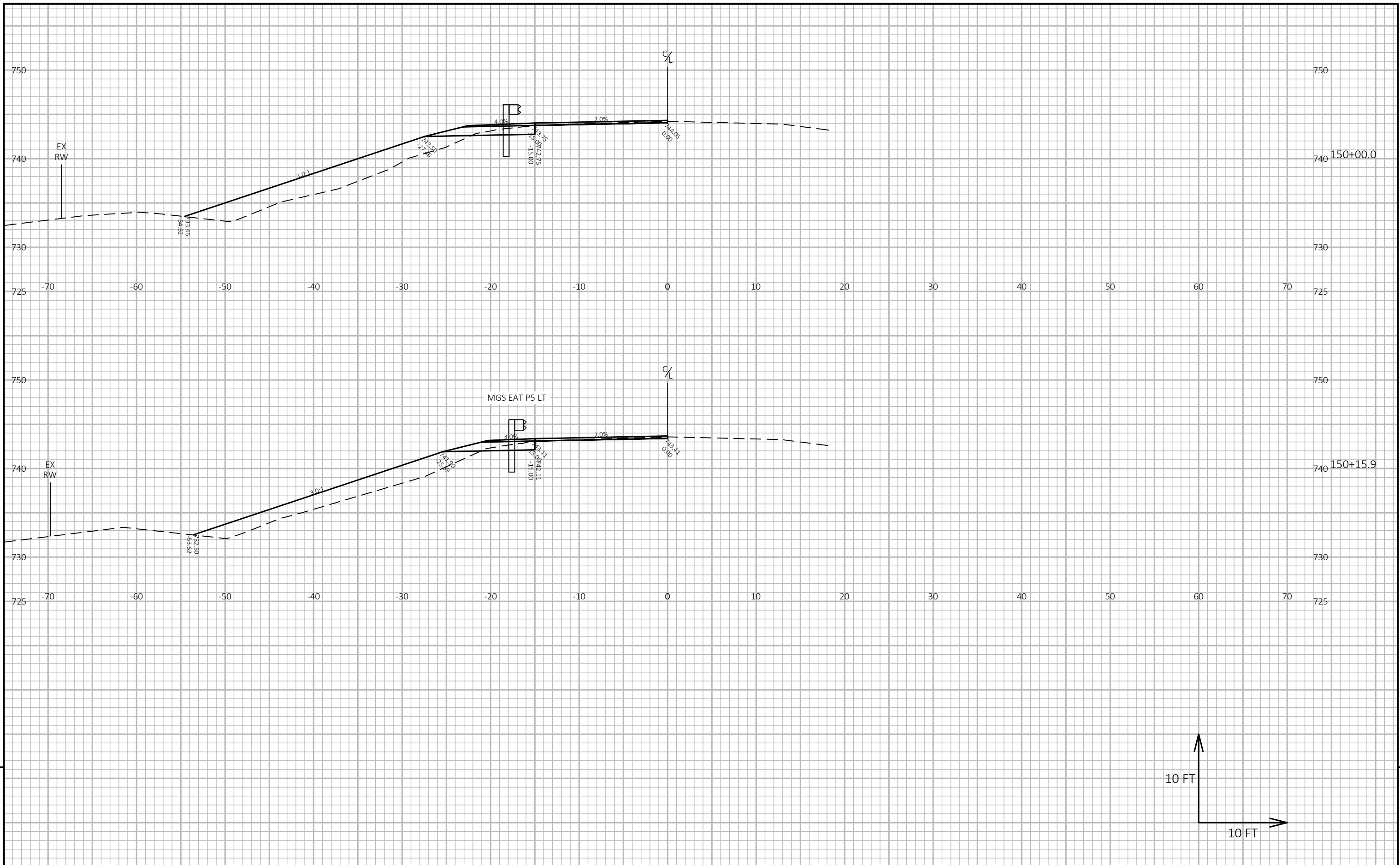
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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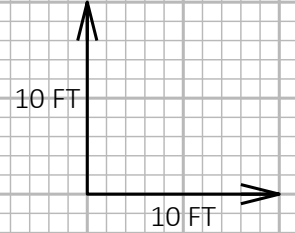
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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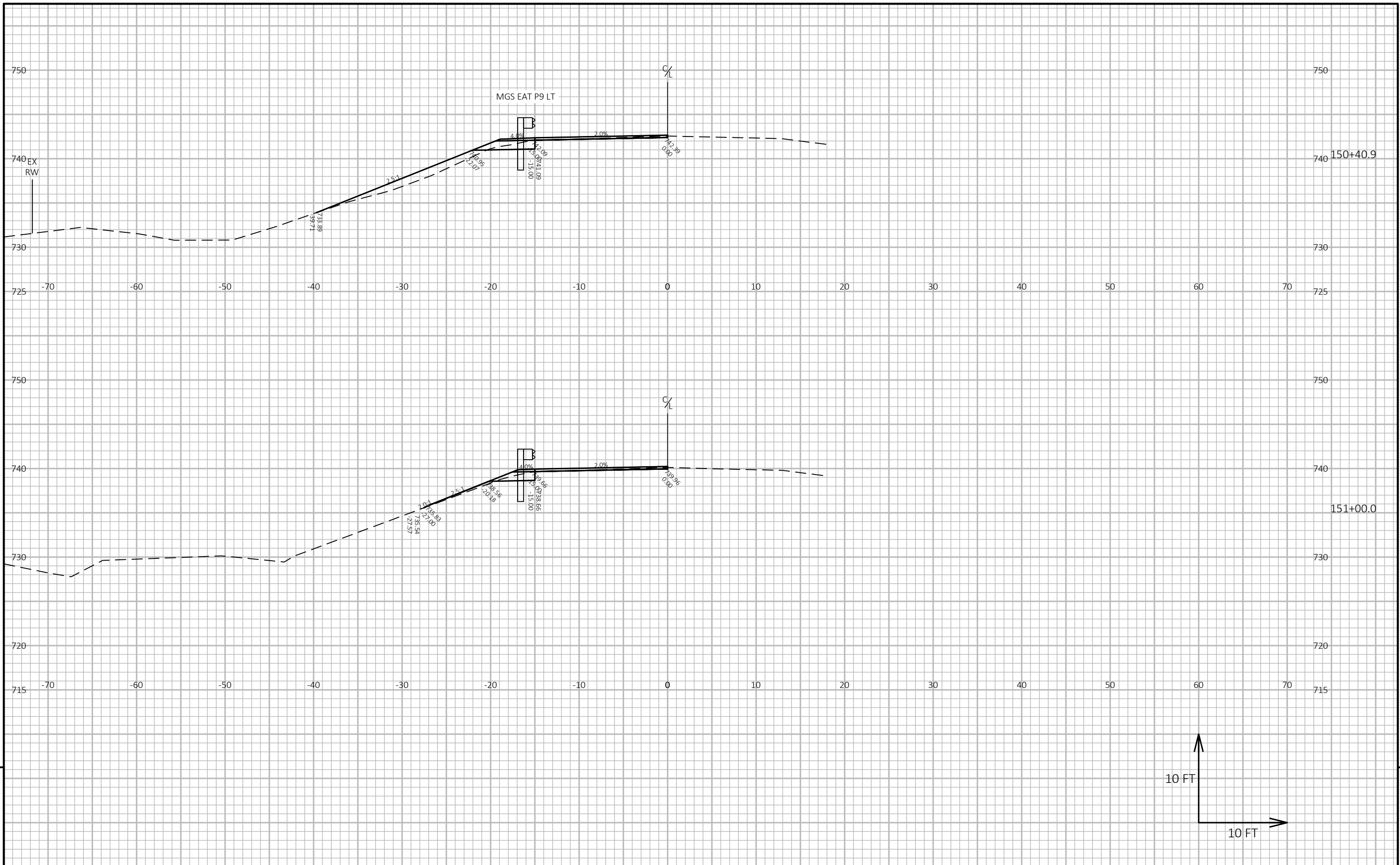


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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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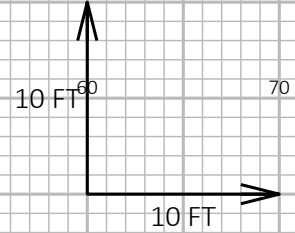
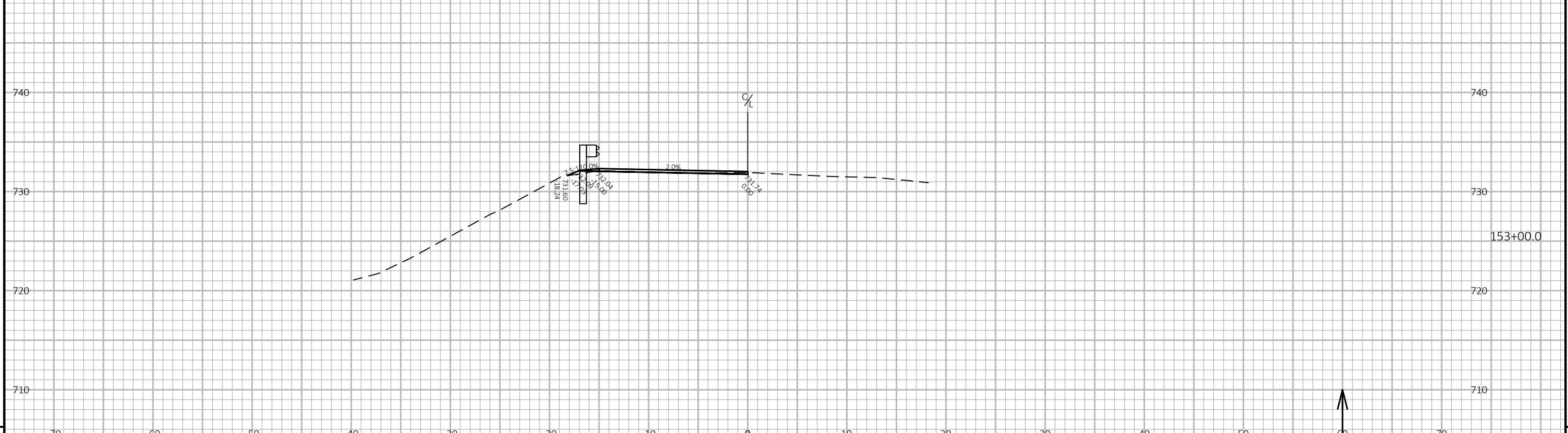
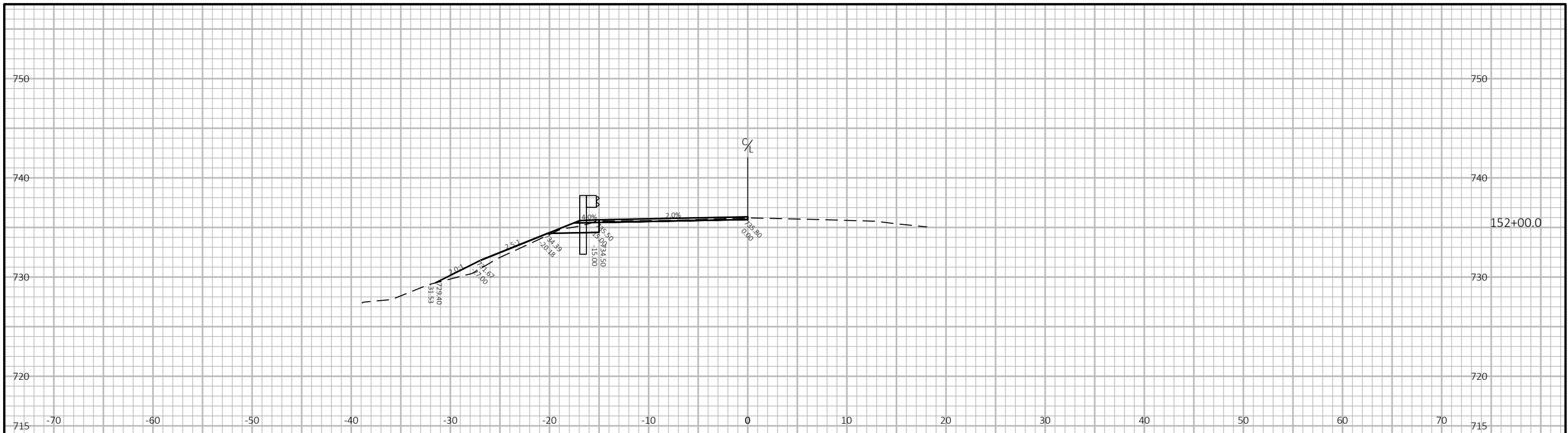
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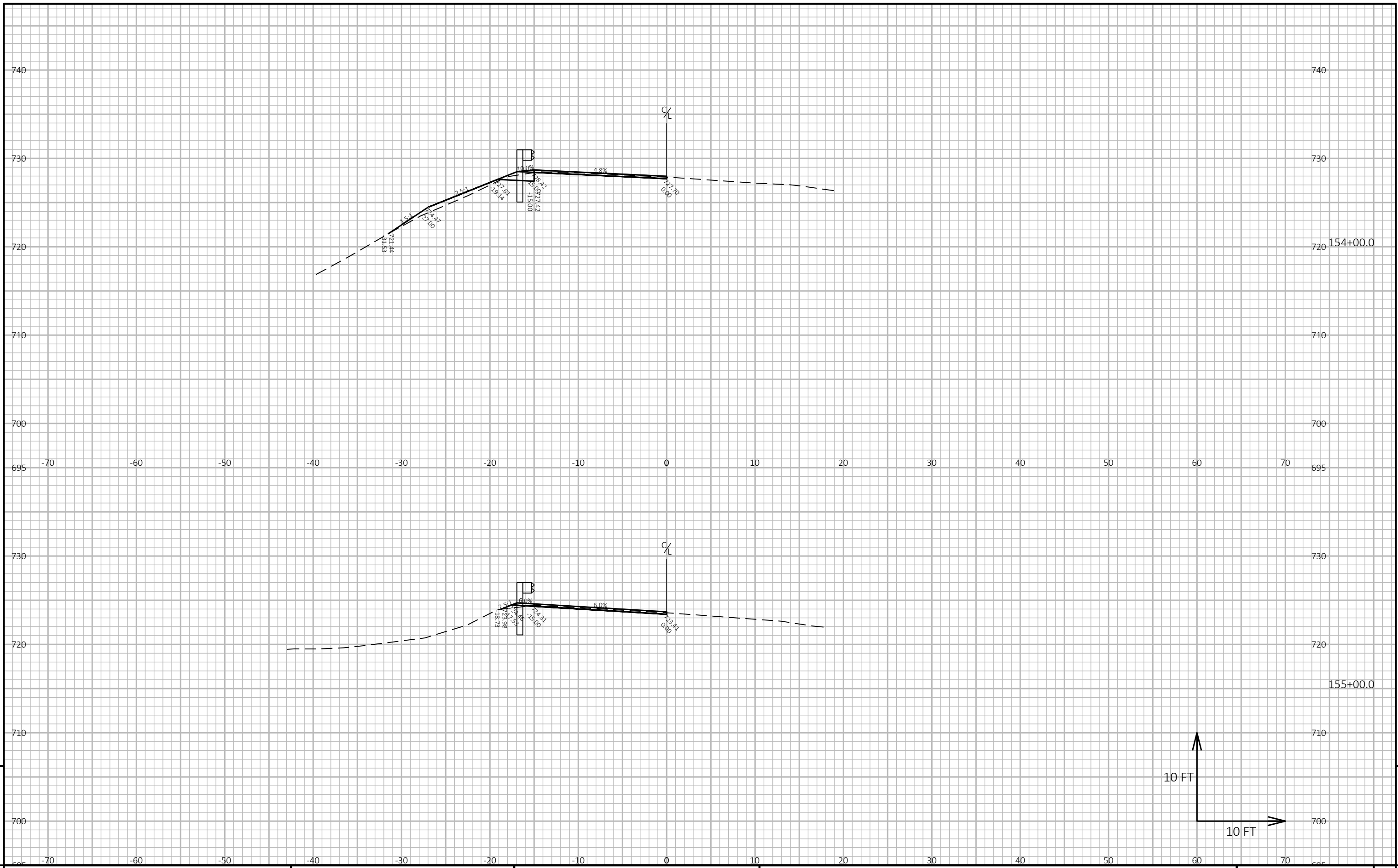
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:08 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

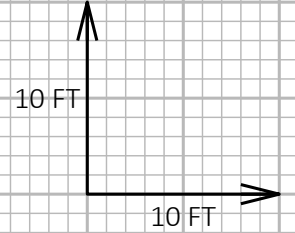
LAYOUT NAME - 29





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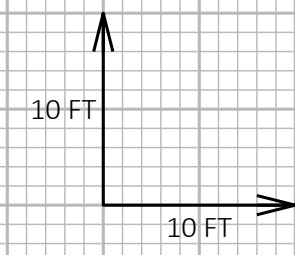
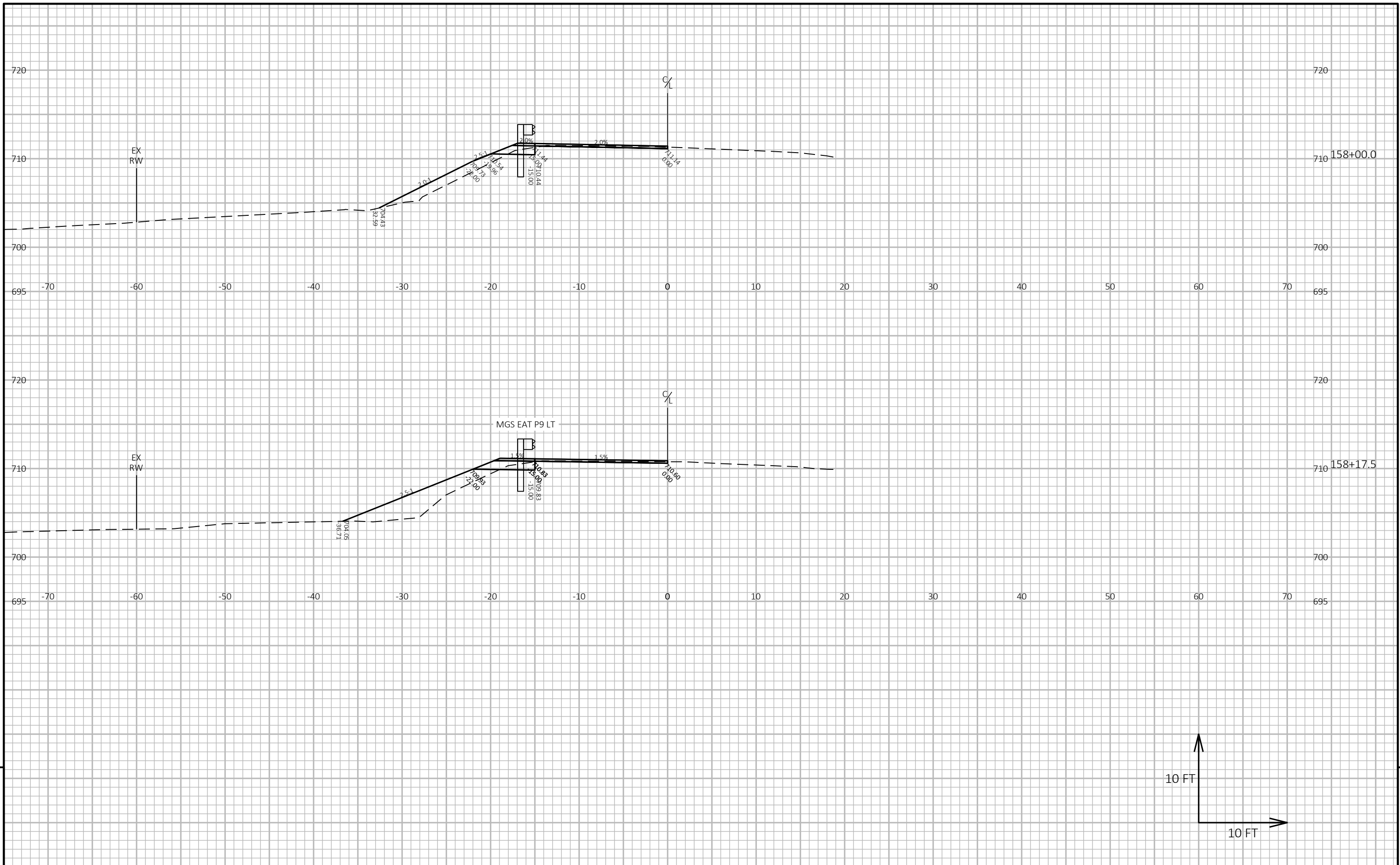
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:09 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

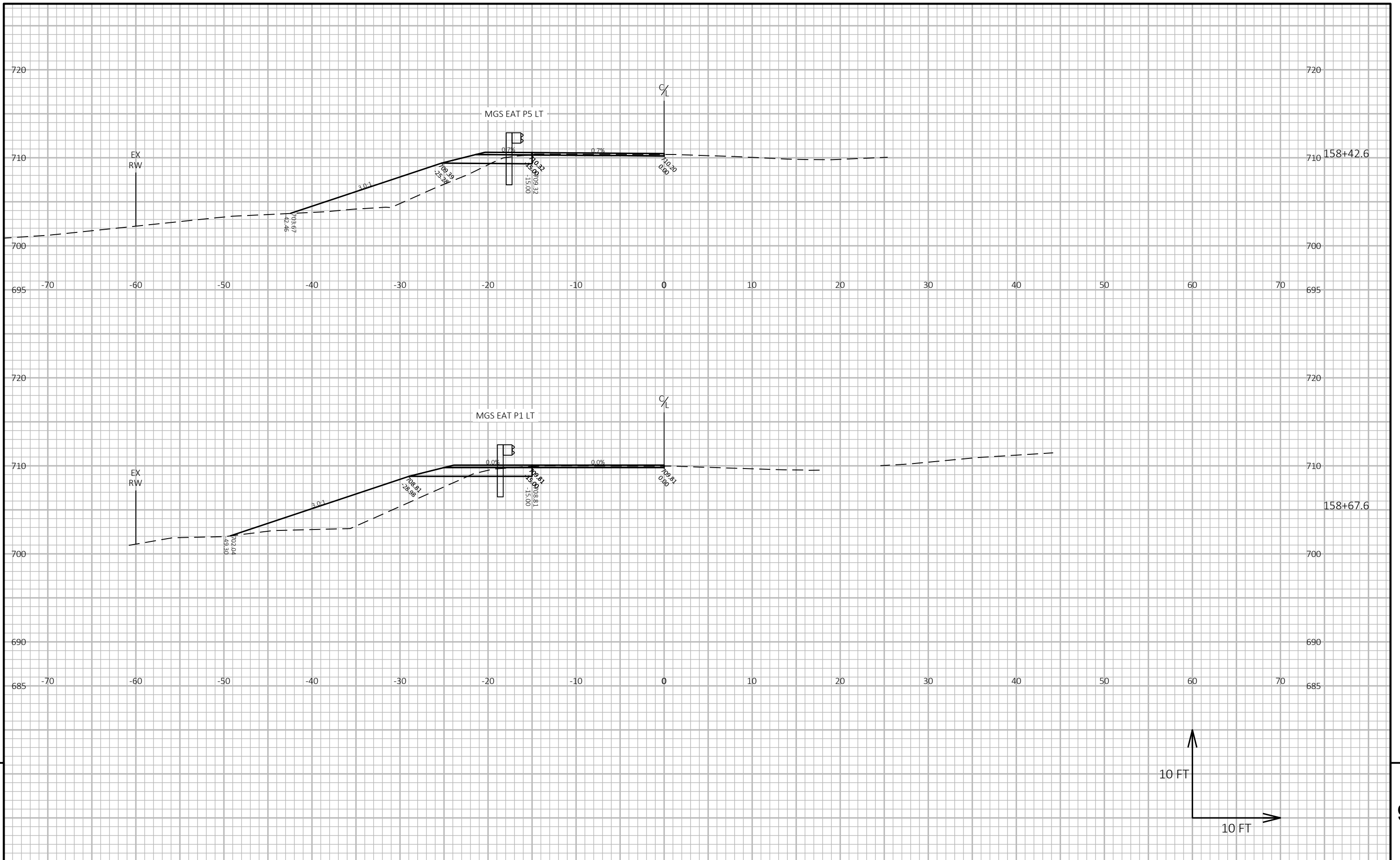
LAYOUT NAME - 31



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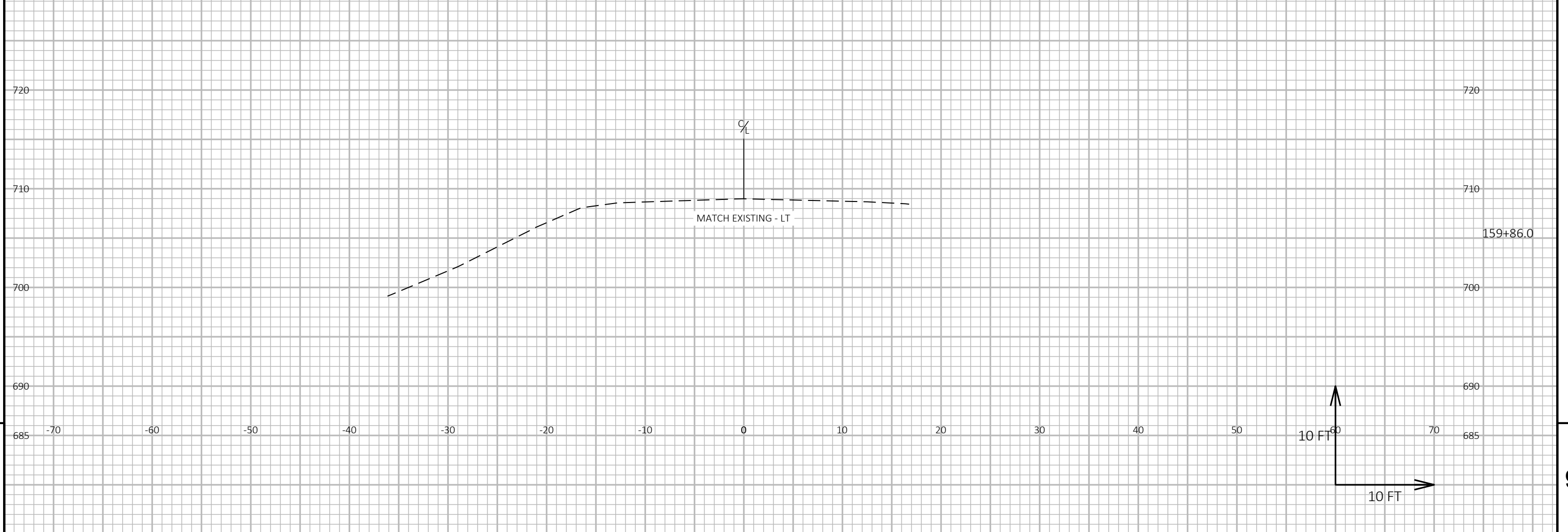
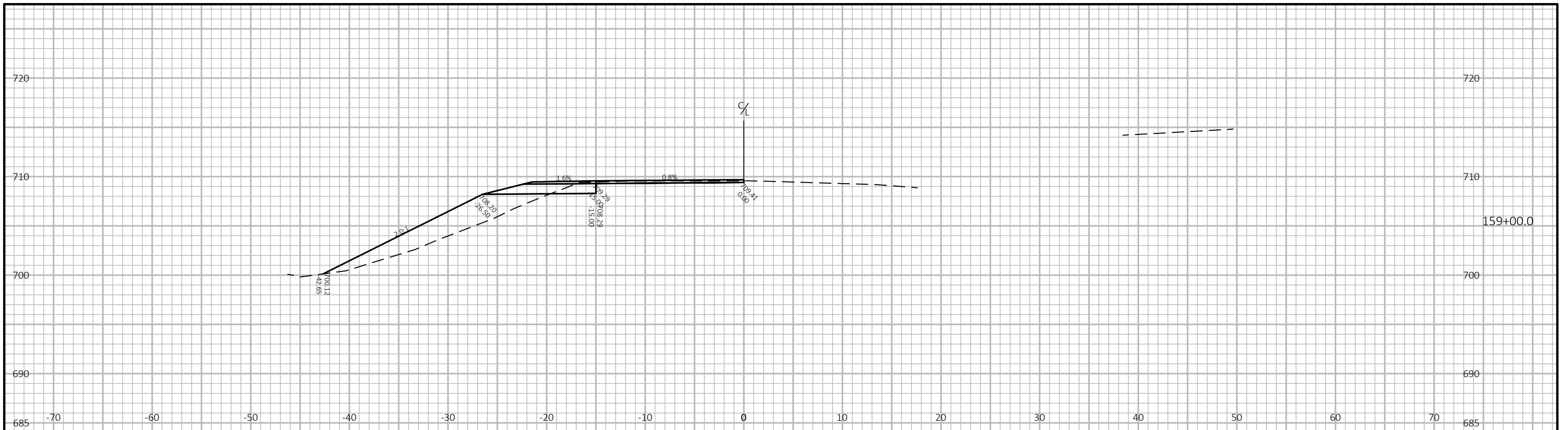
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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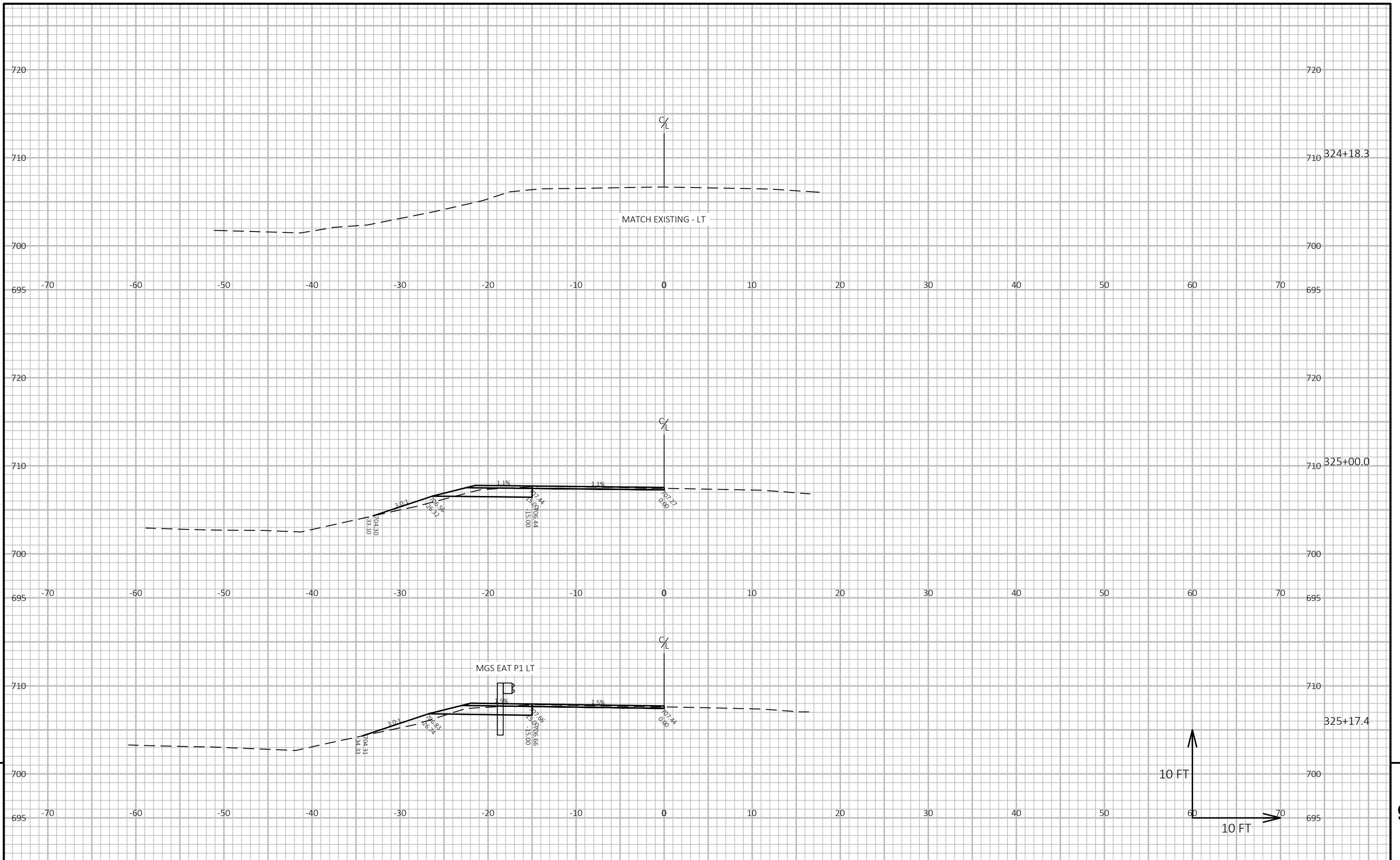
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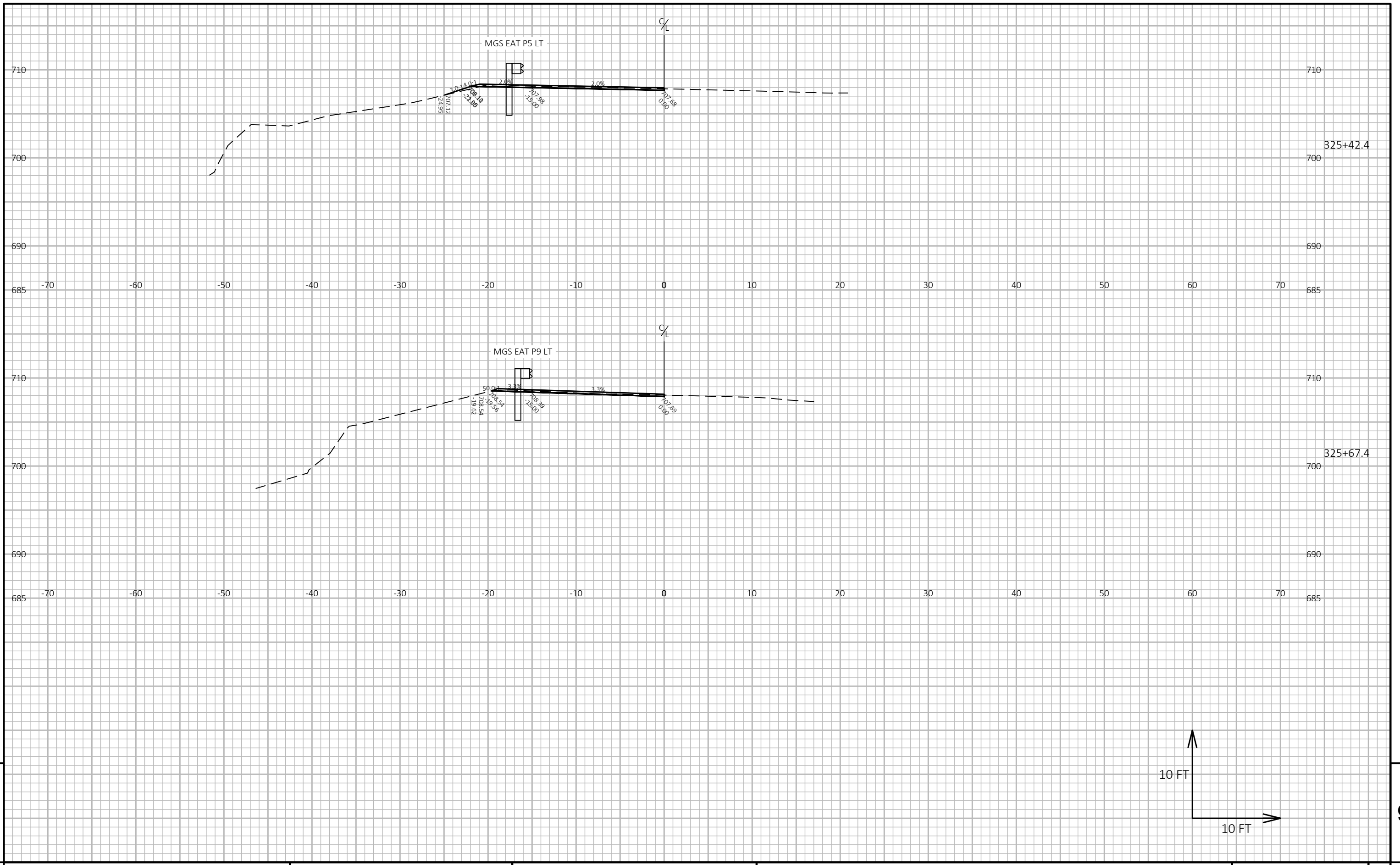
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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9	PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	9
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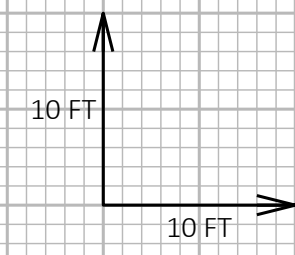


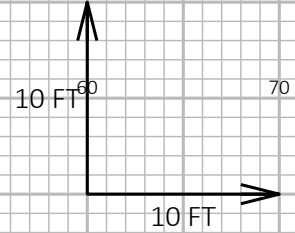
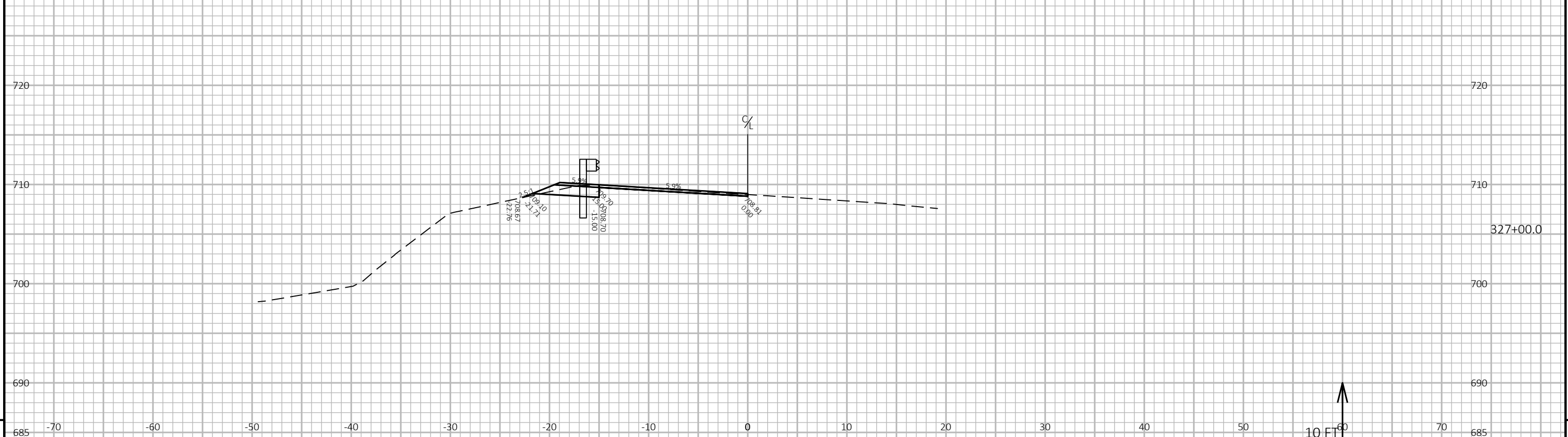
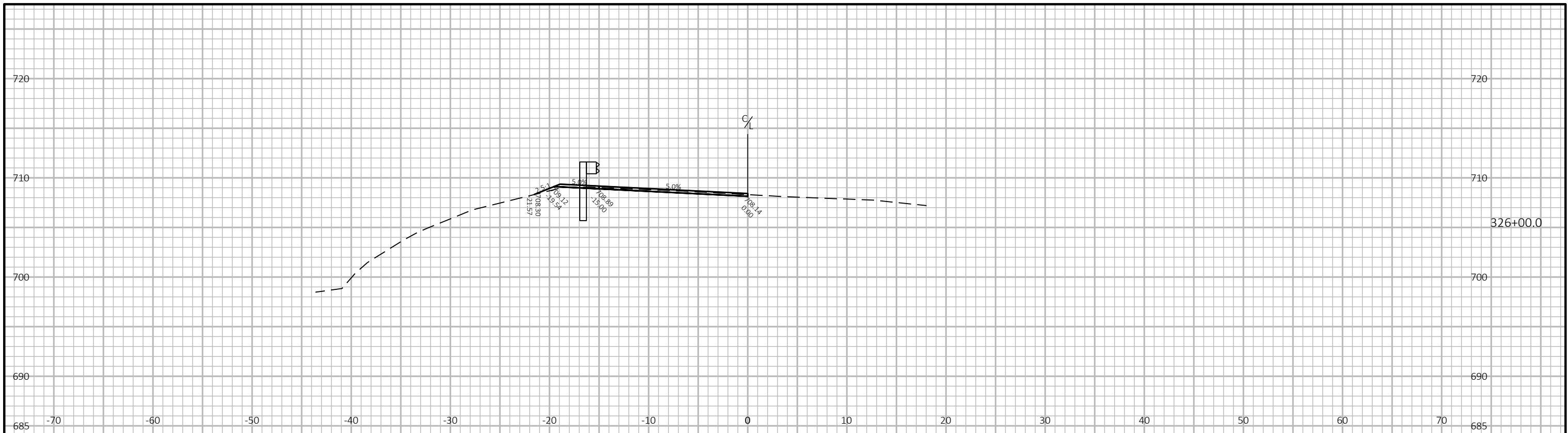
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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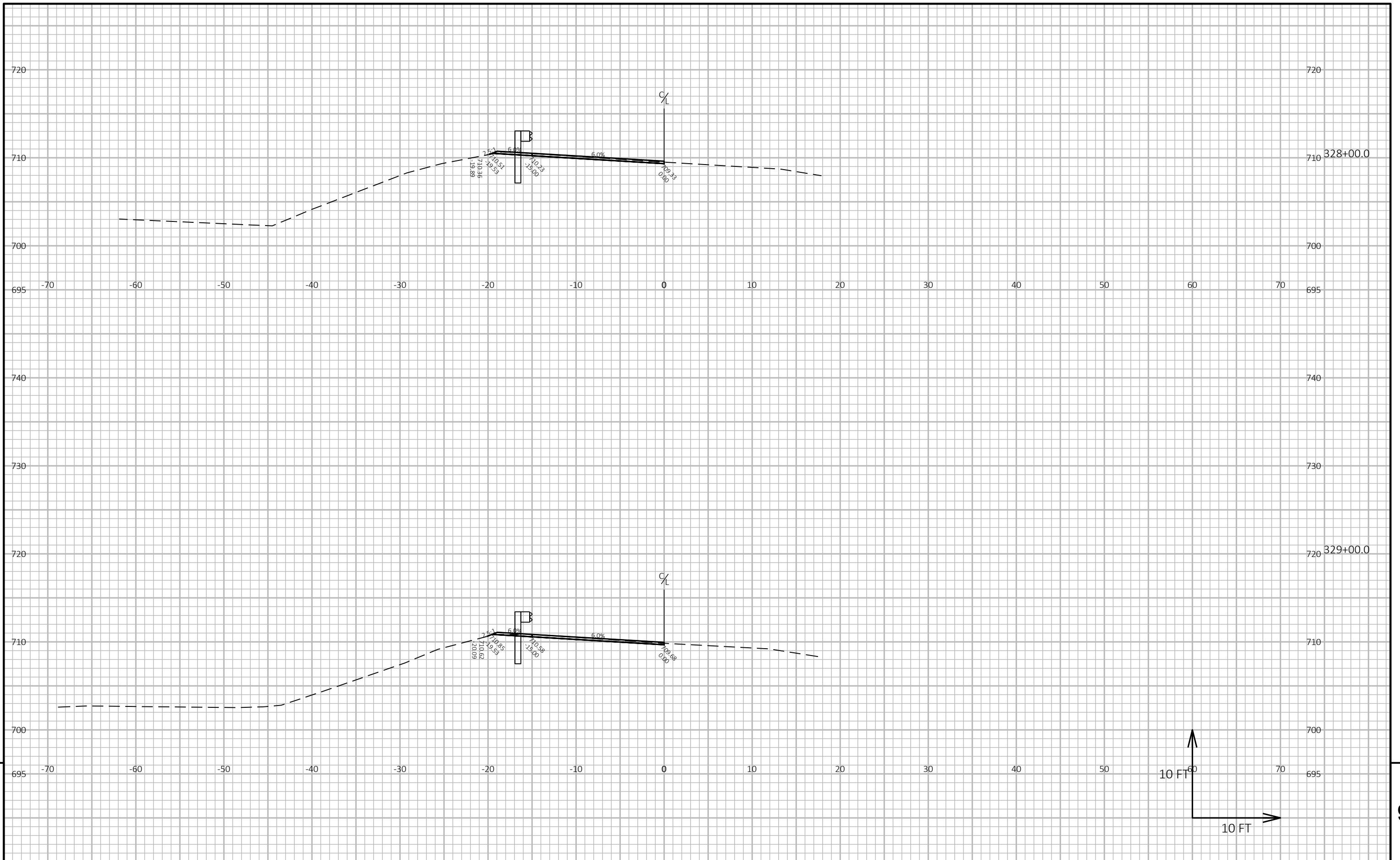
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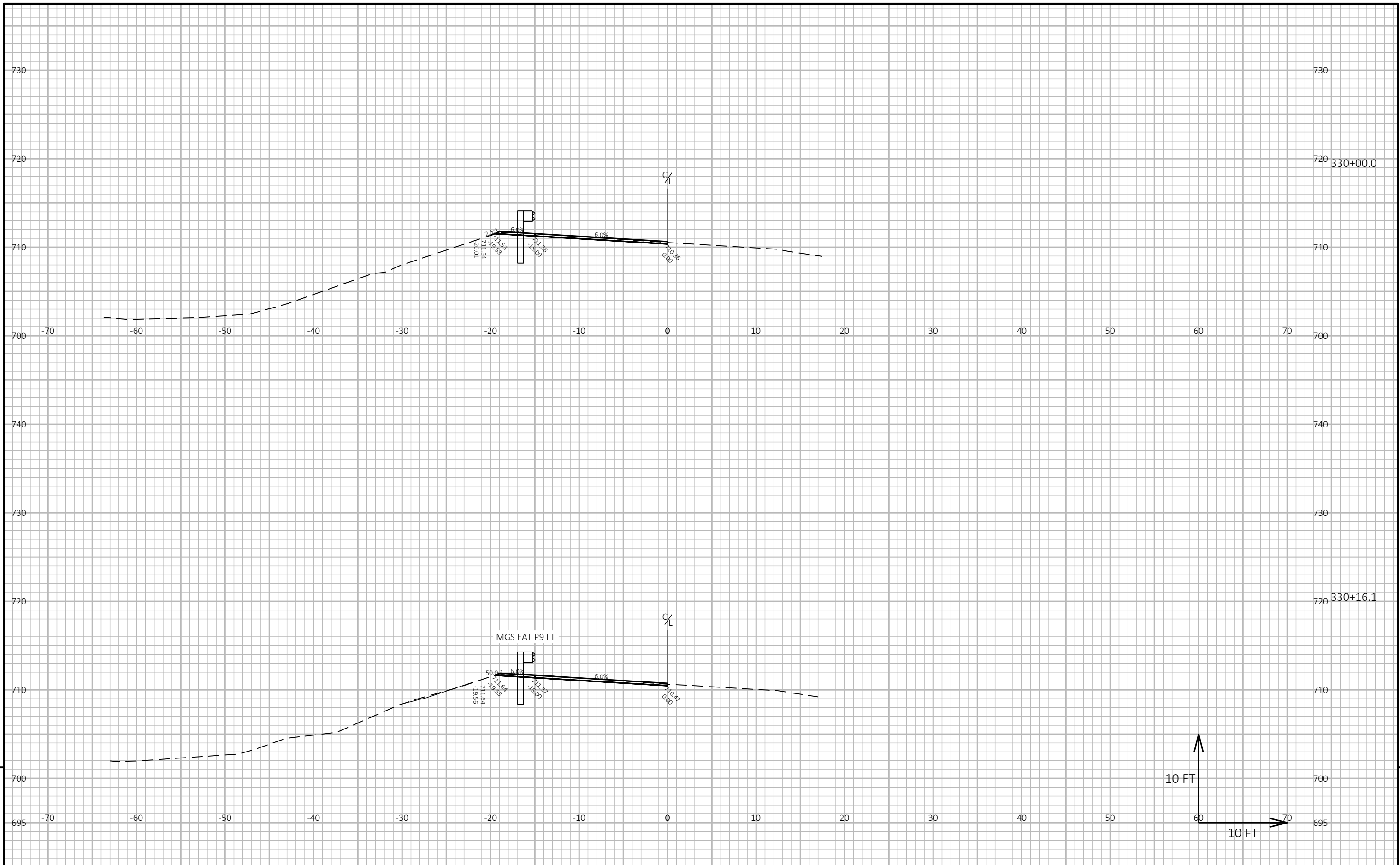


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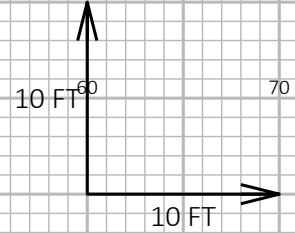
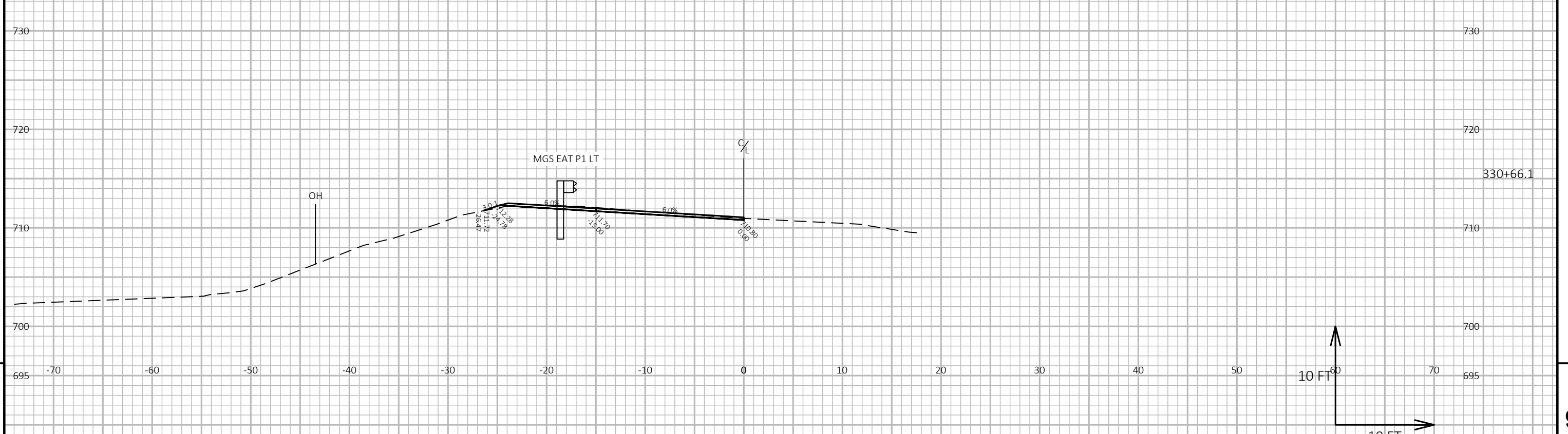
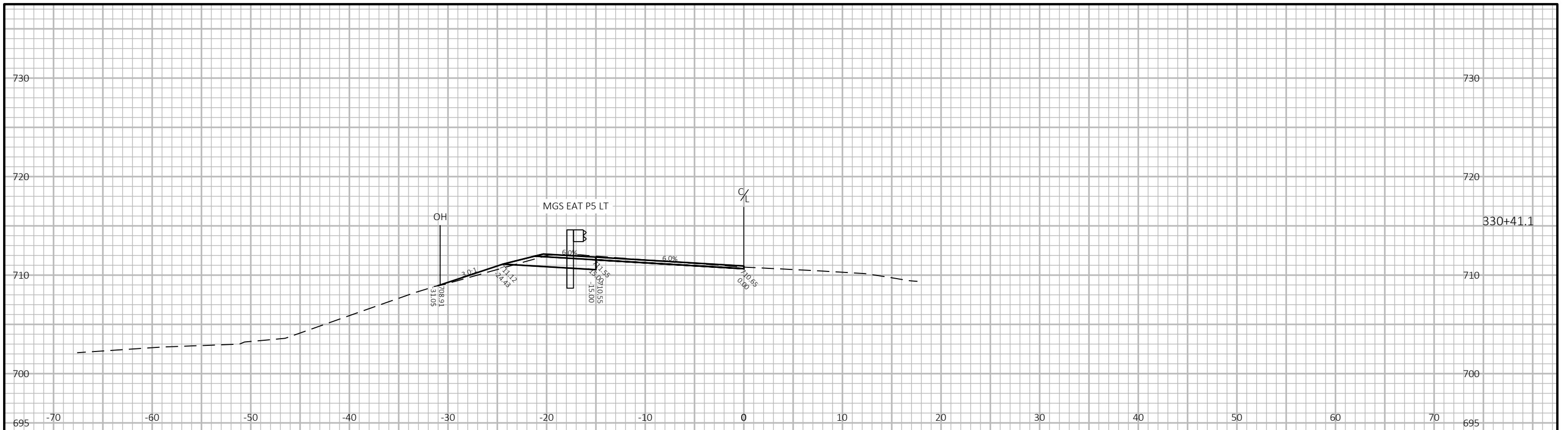
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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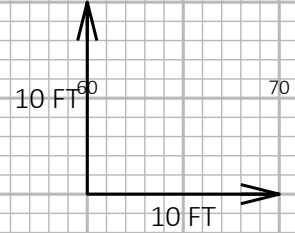
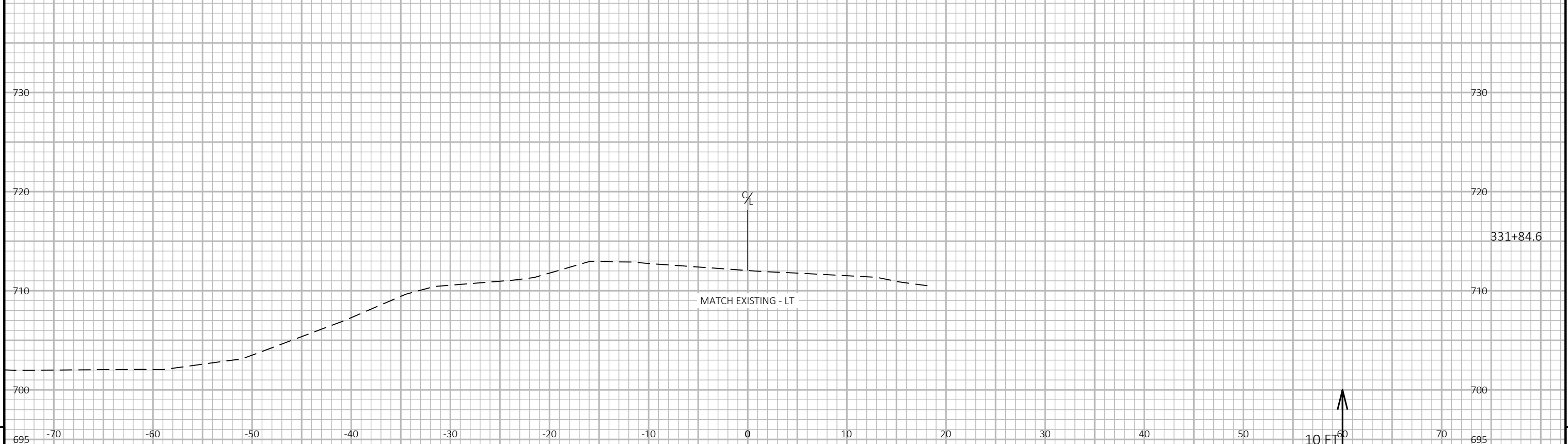
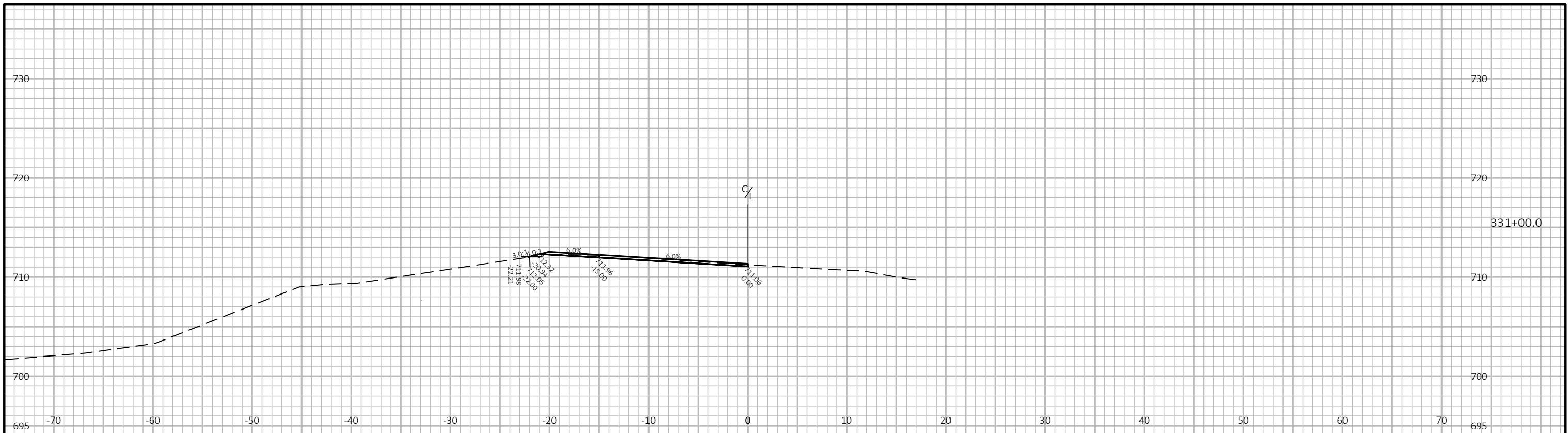


PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E



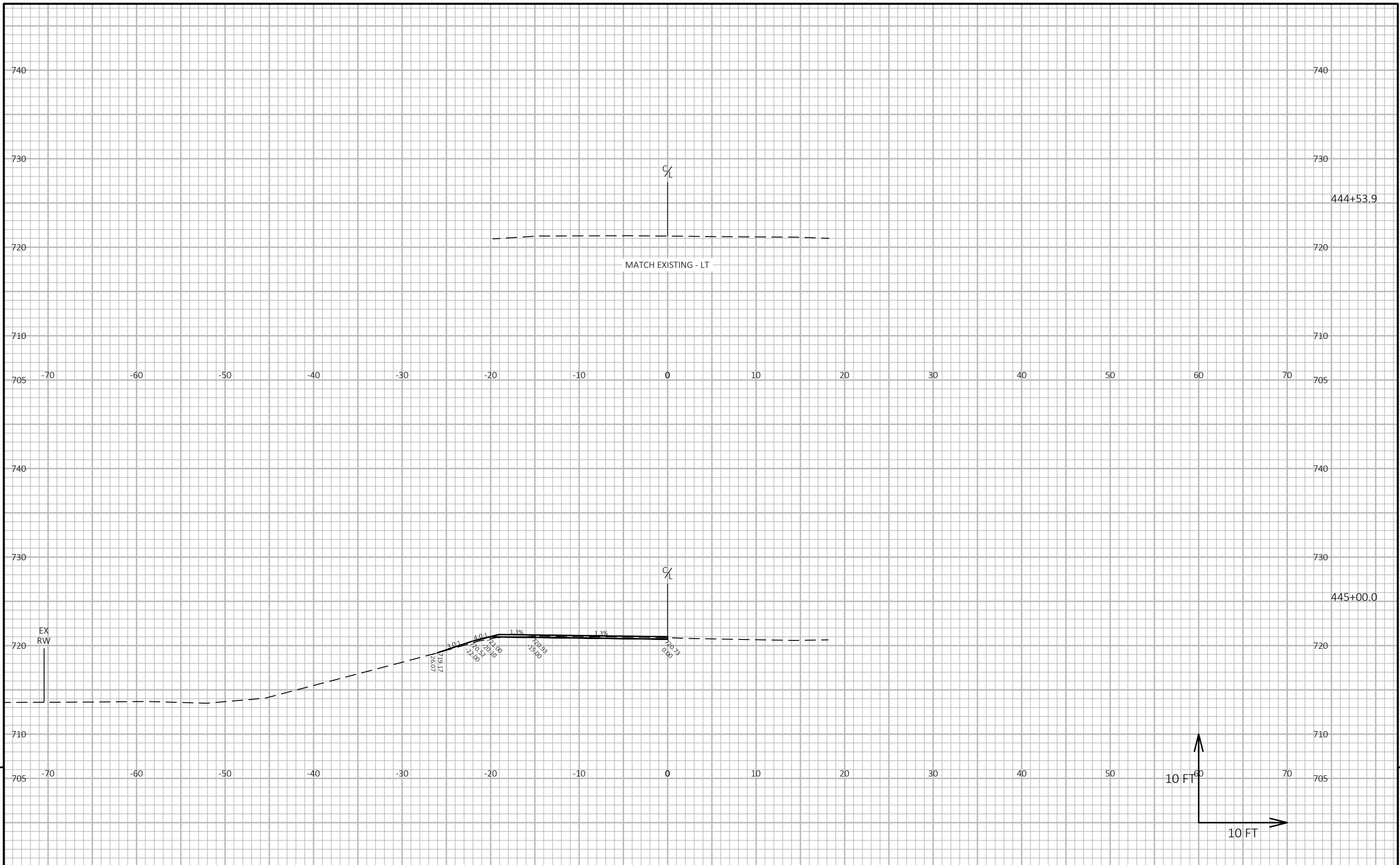
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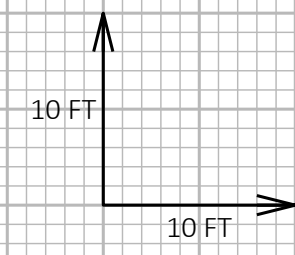
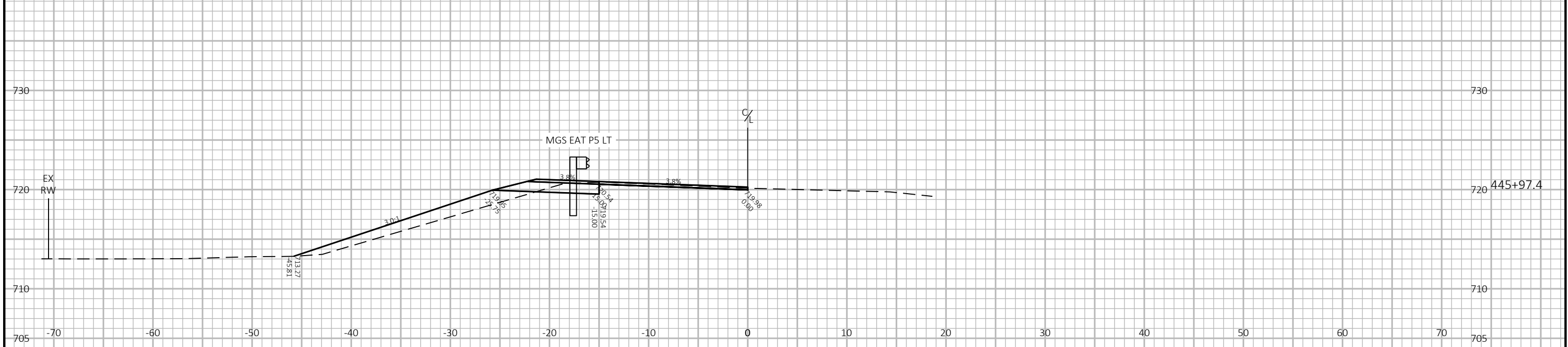
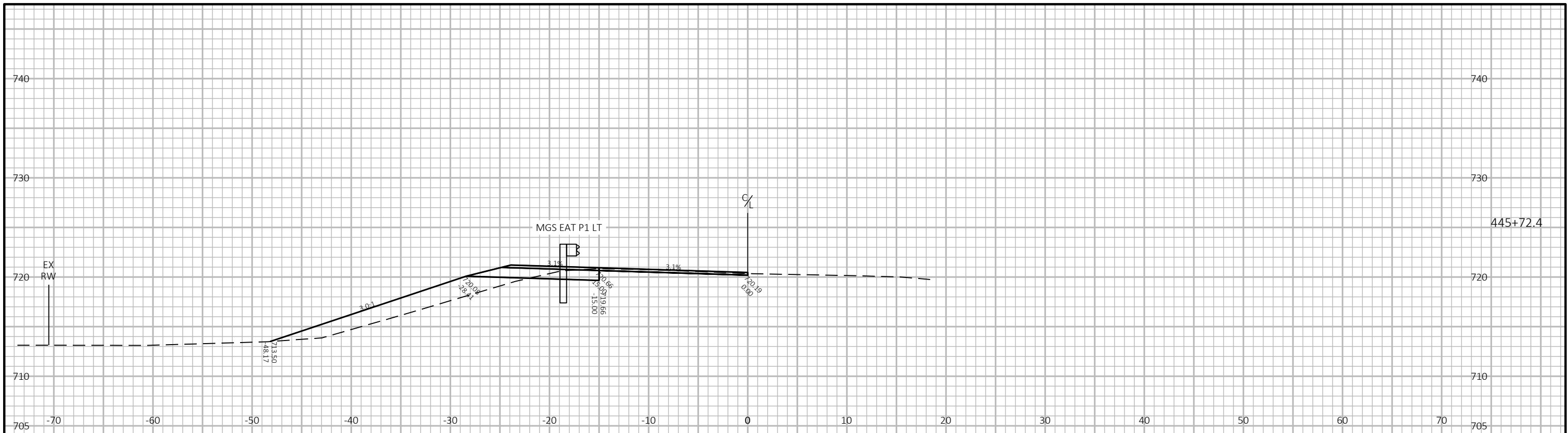


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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E



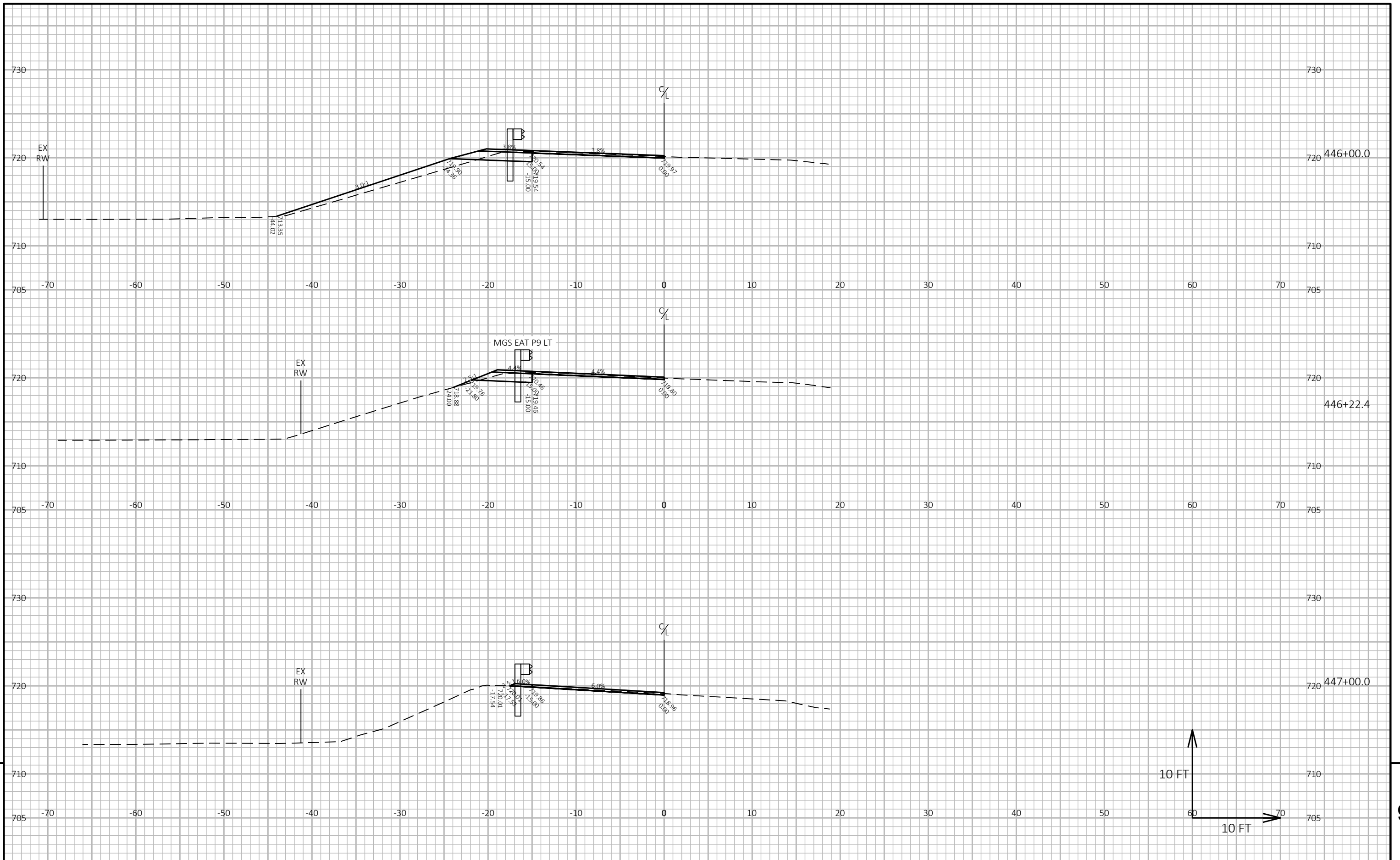
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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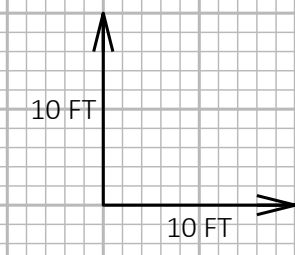
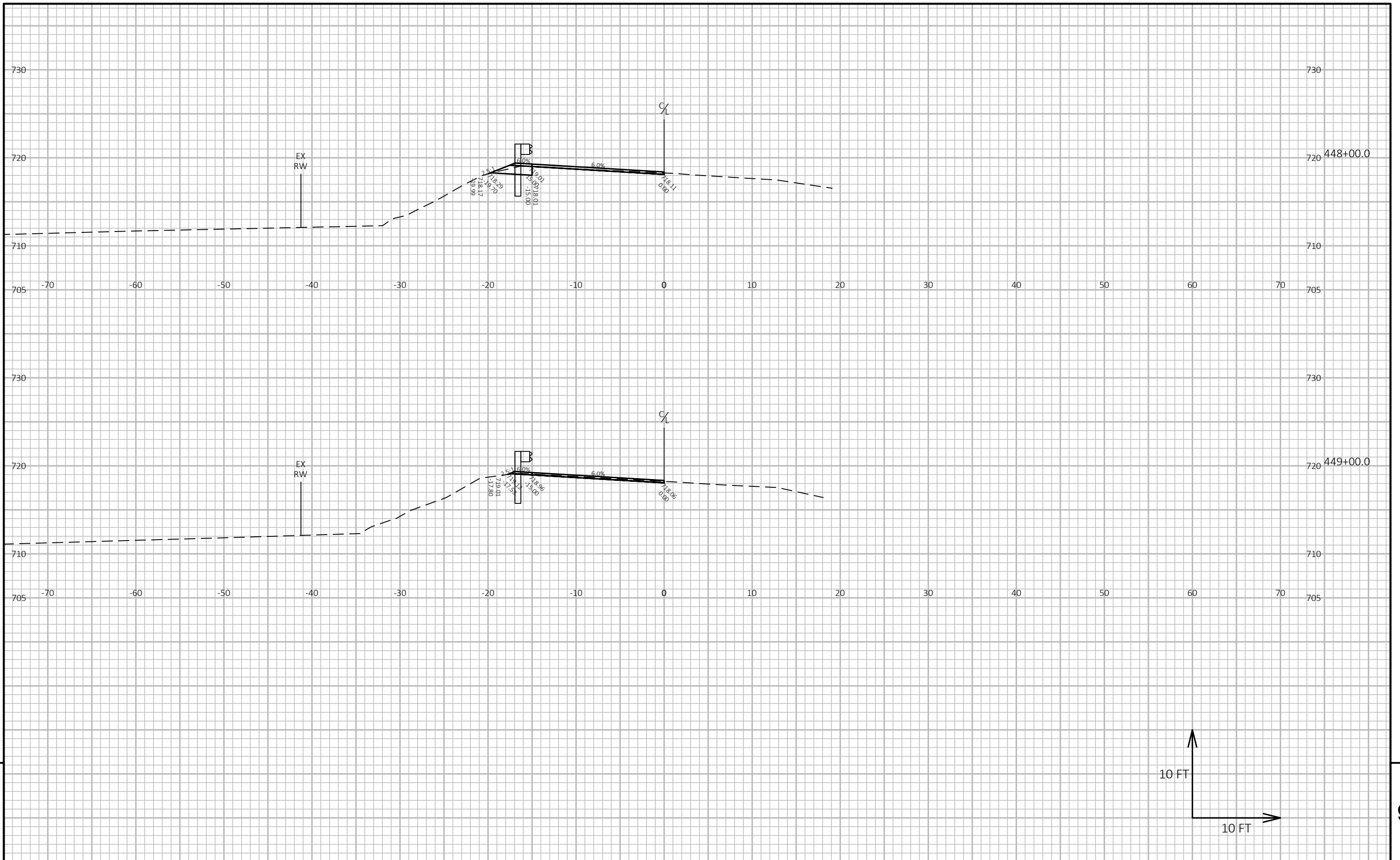
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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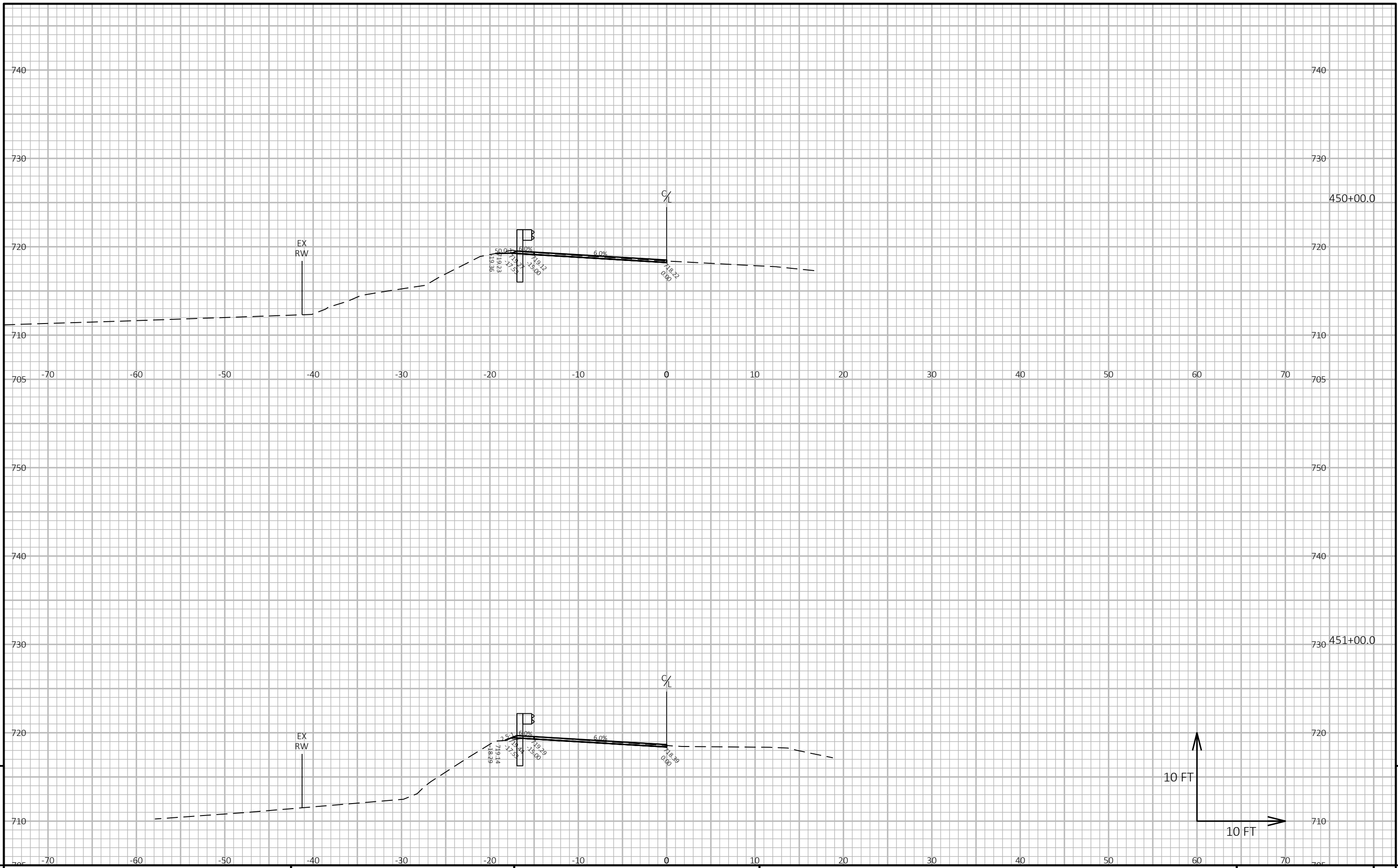
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75

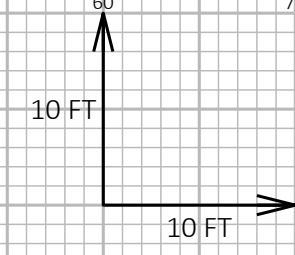
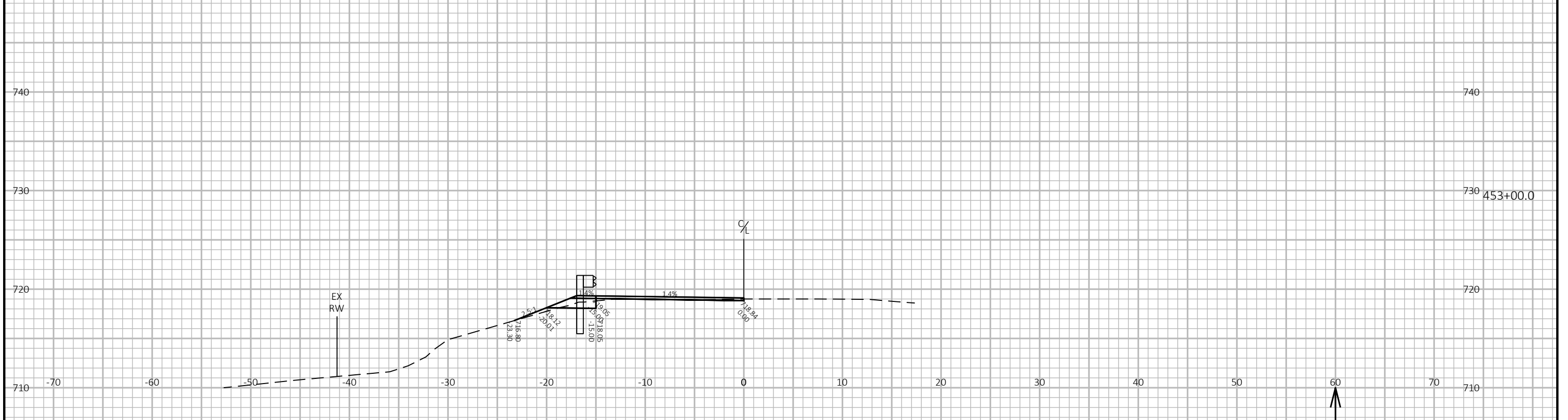
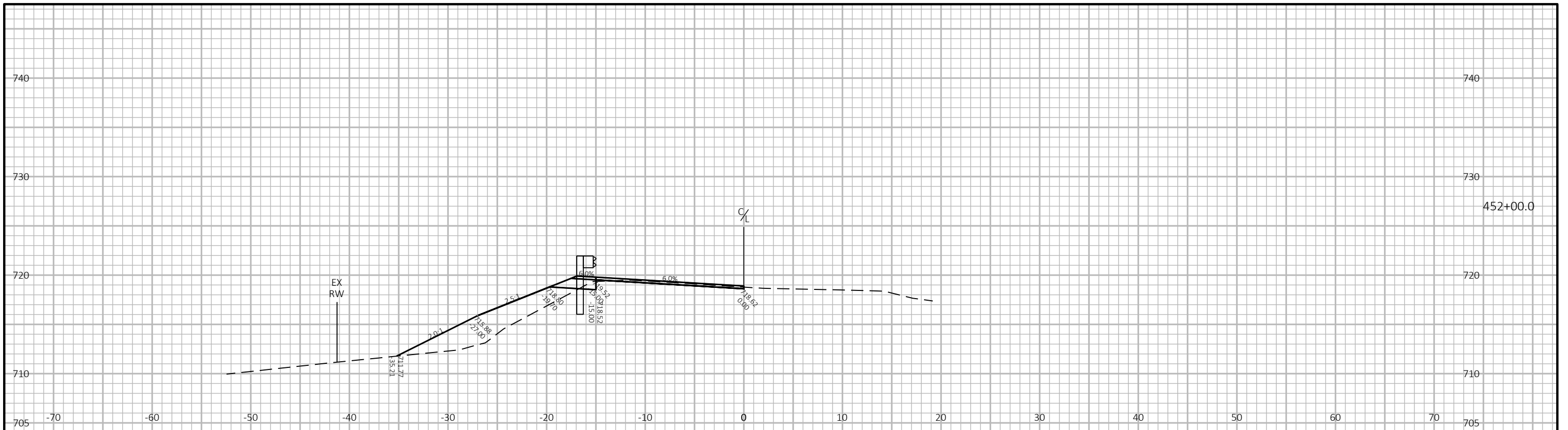
HWY: STH 37

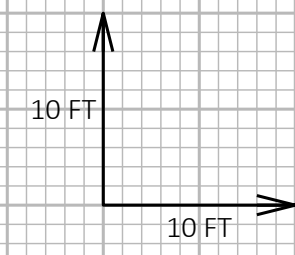
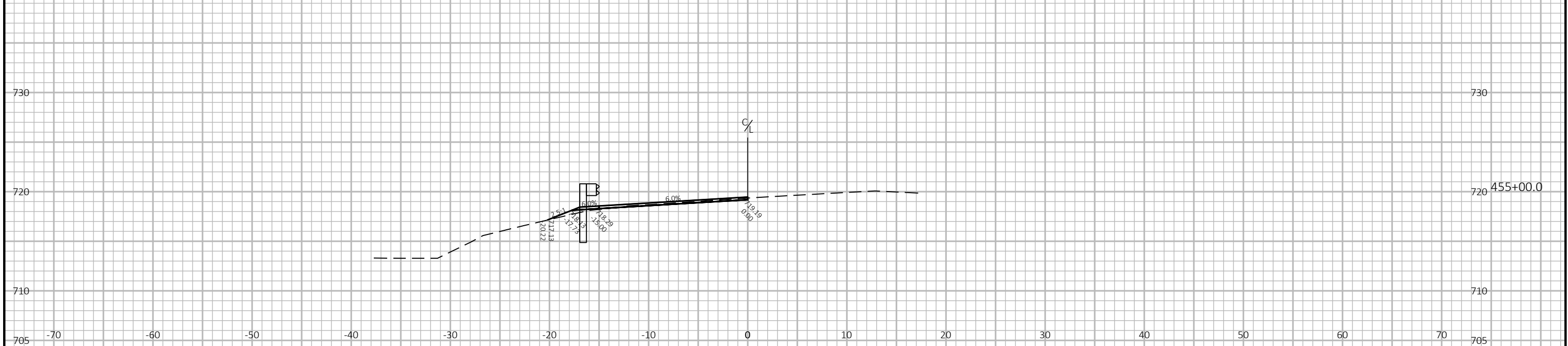
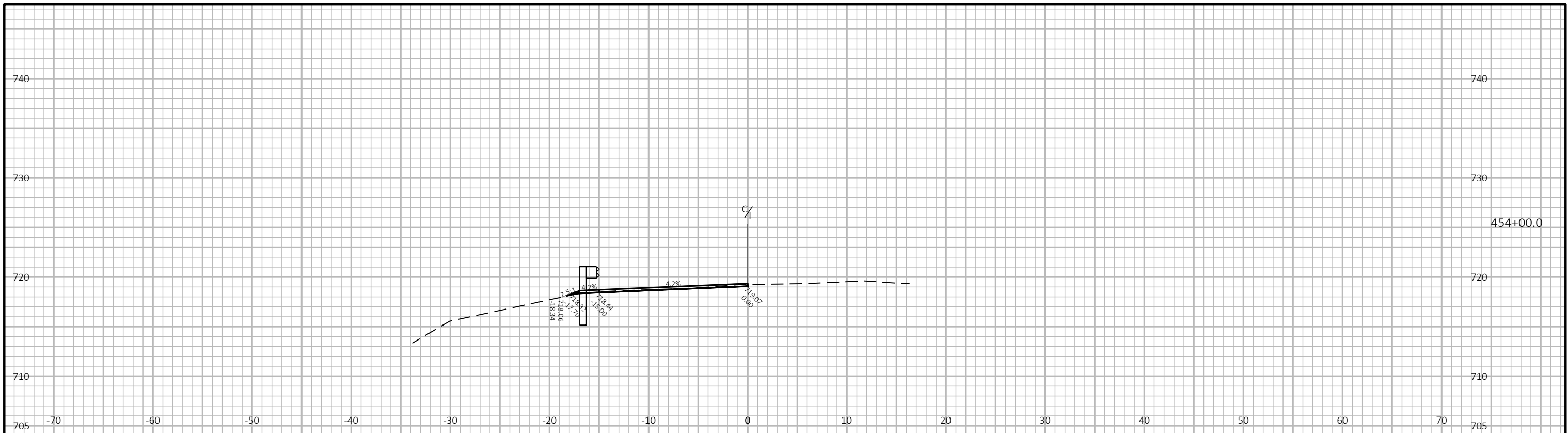
COUNTY: BUFFALO

CROSS SECTIONS: BEAMGUARD

SHEET

E

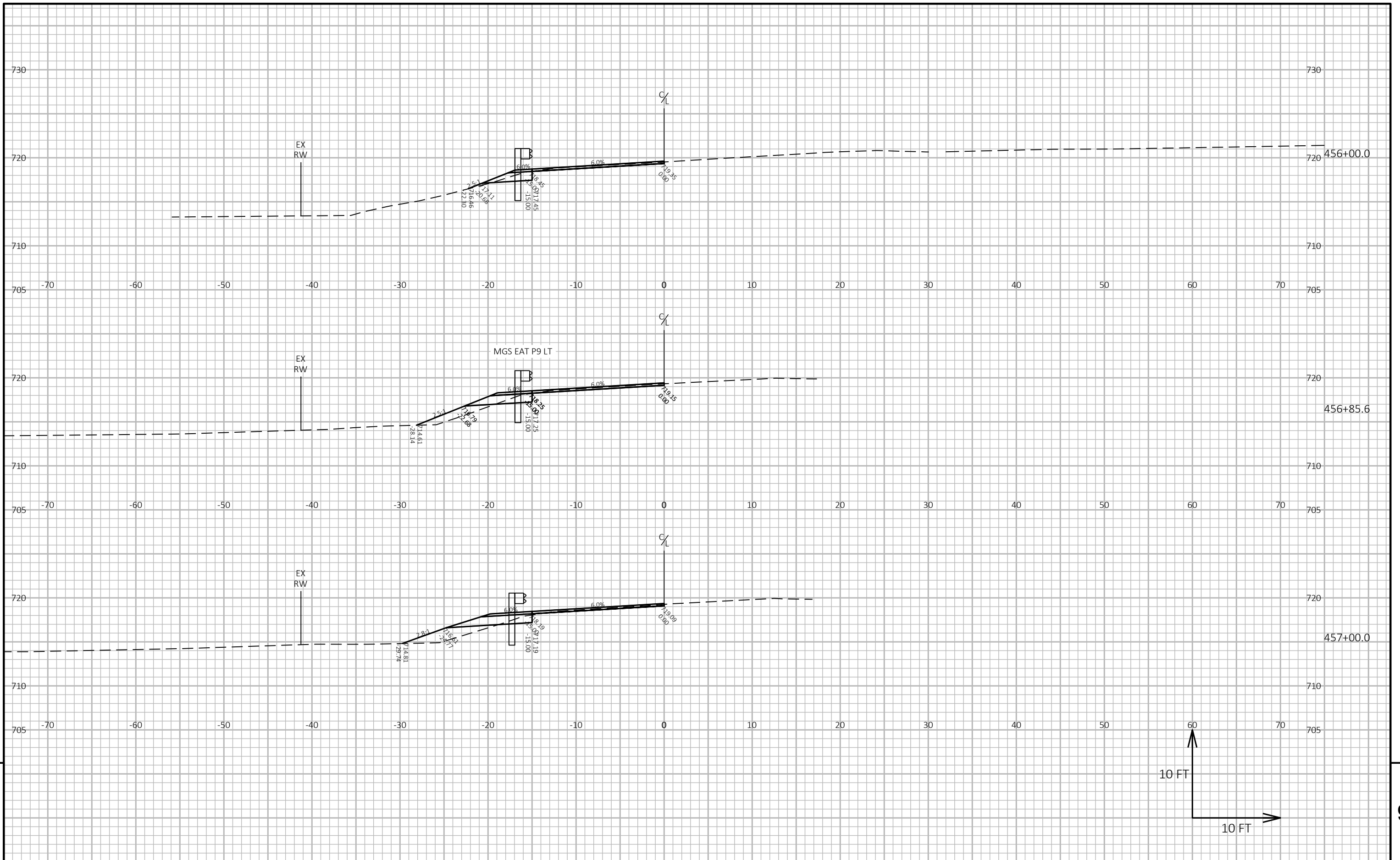




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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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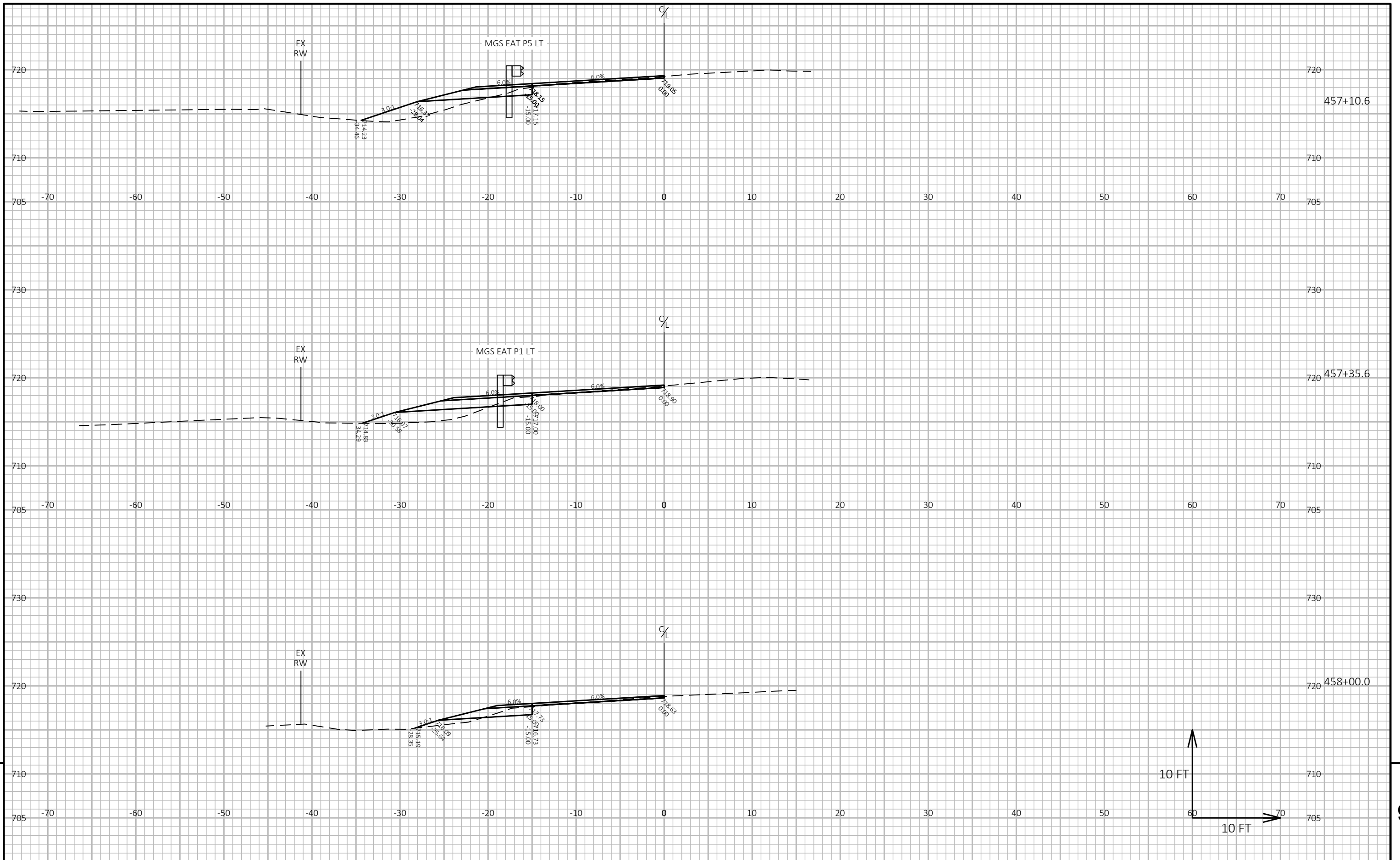
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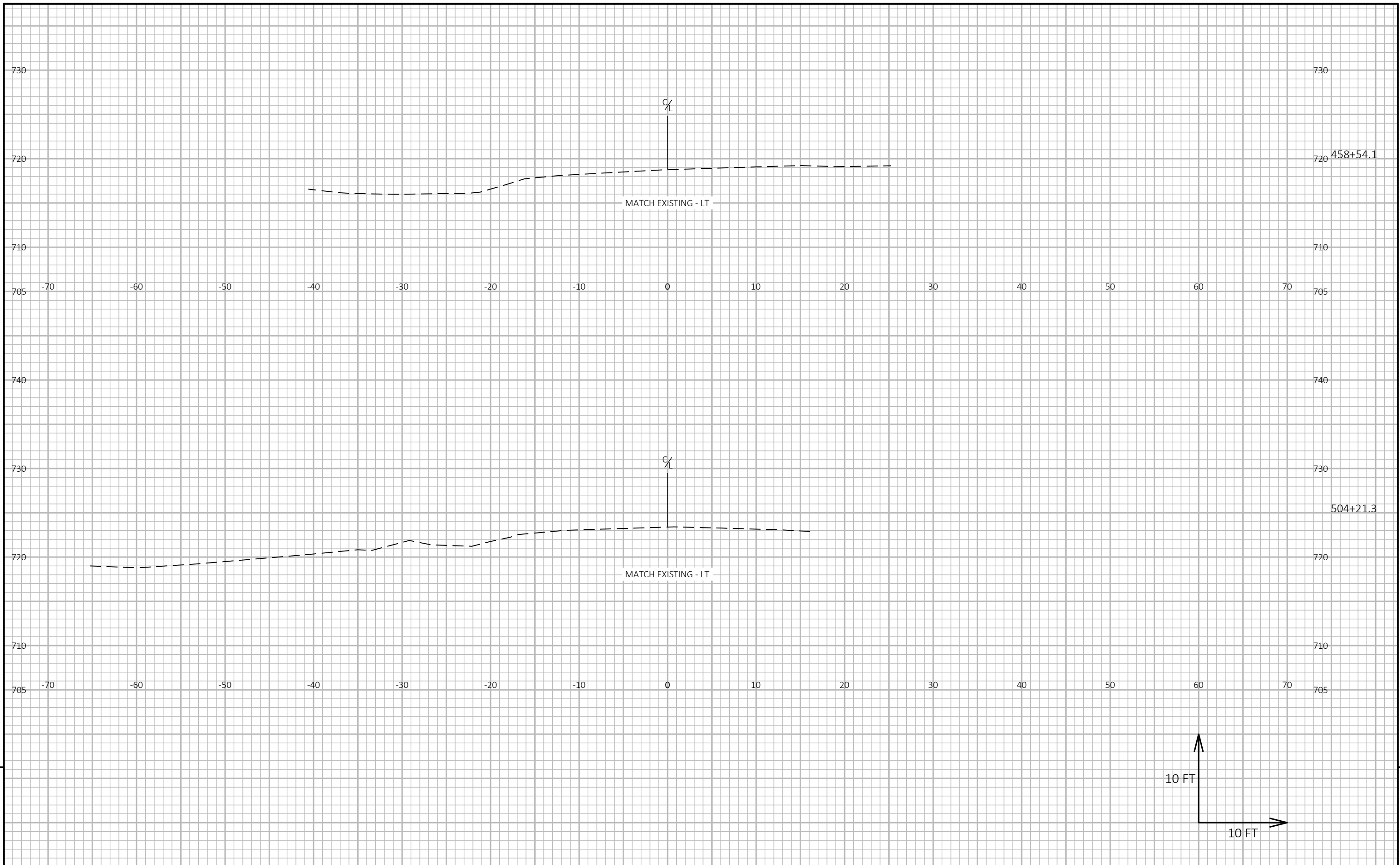
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:14 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 50



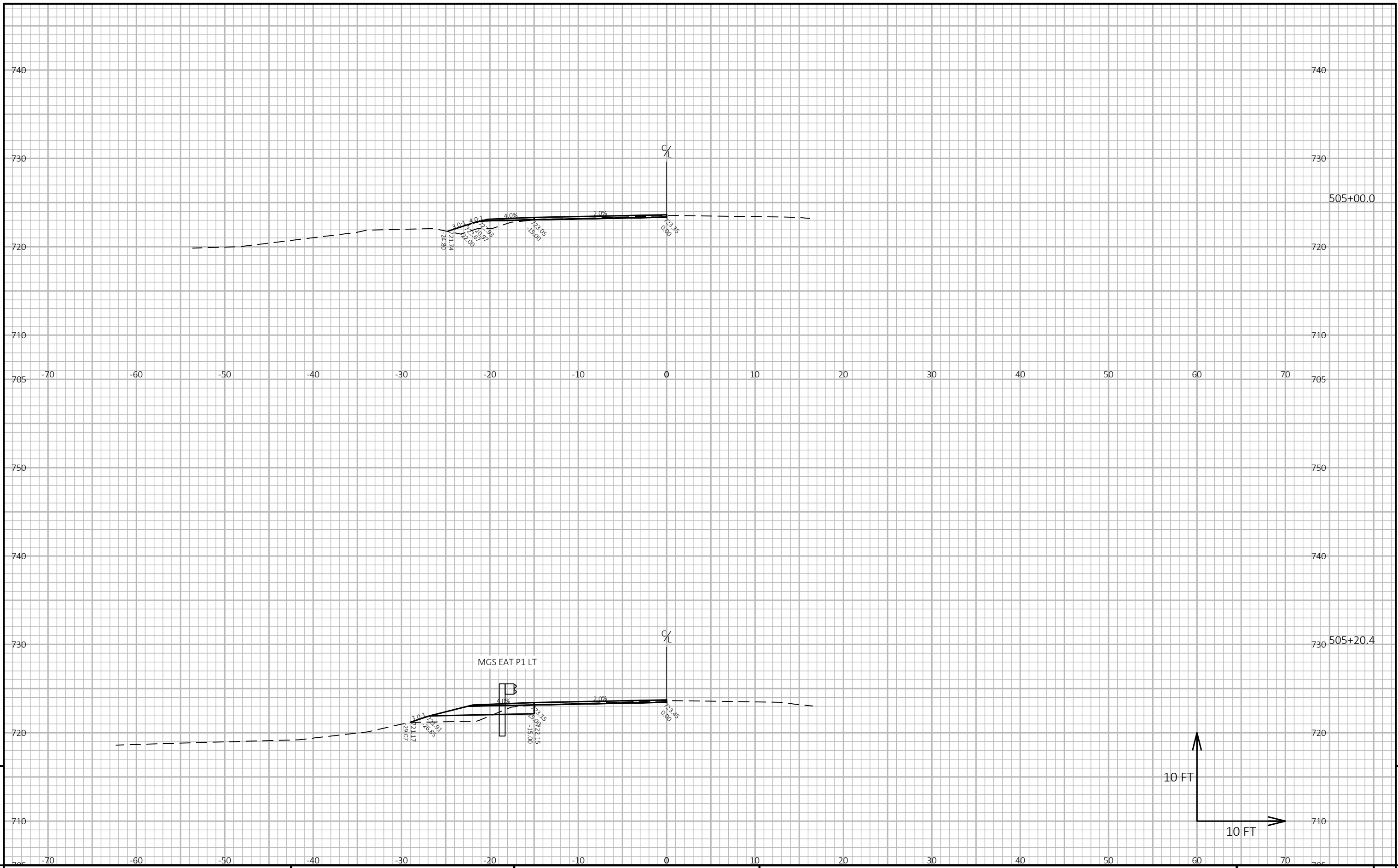
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET 9



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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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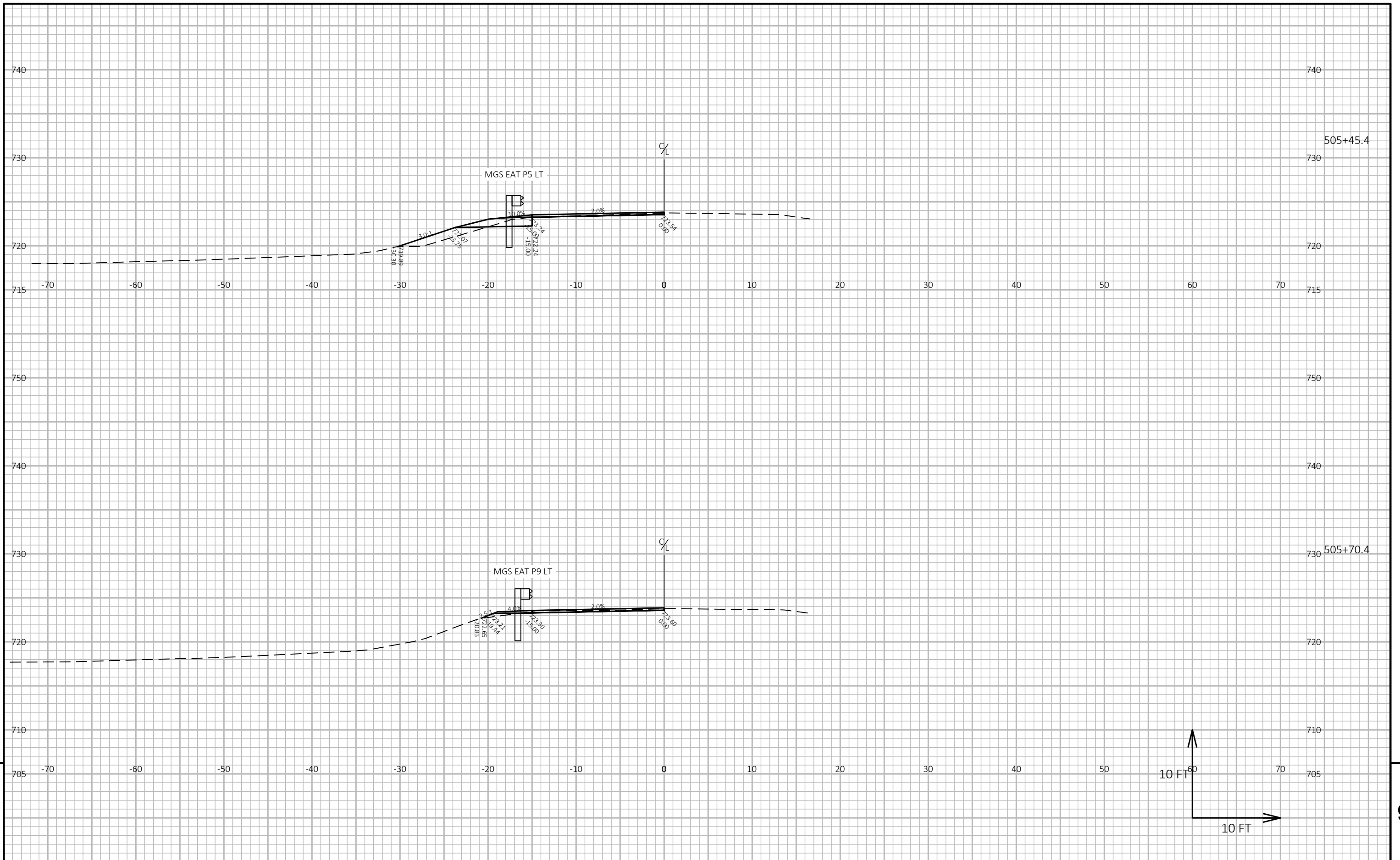
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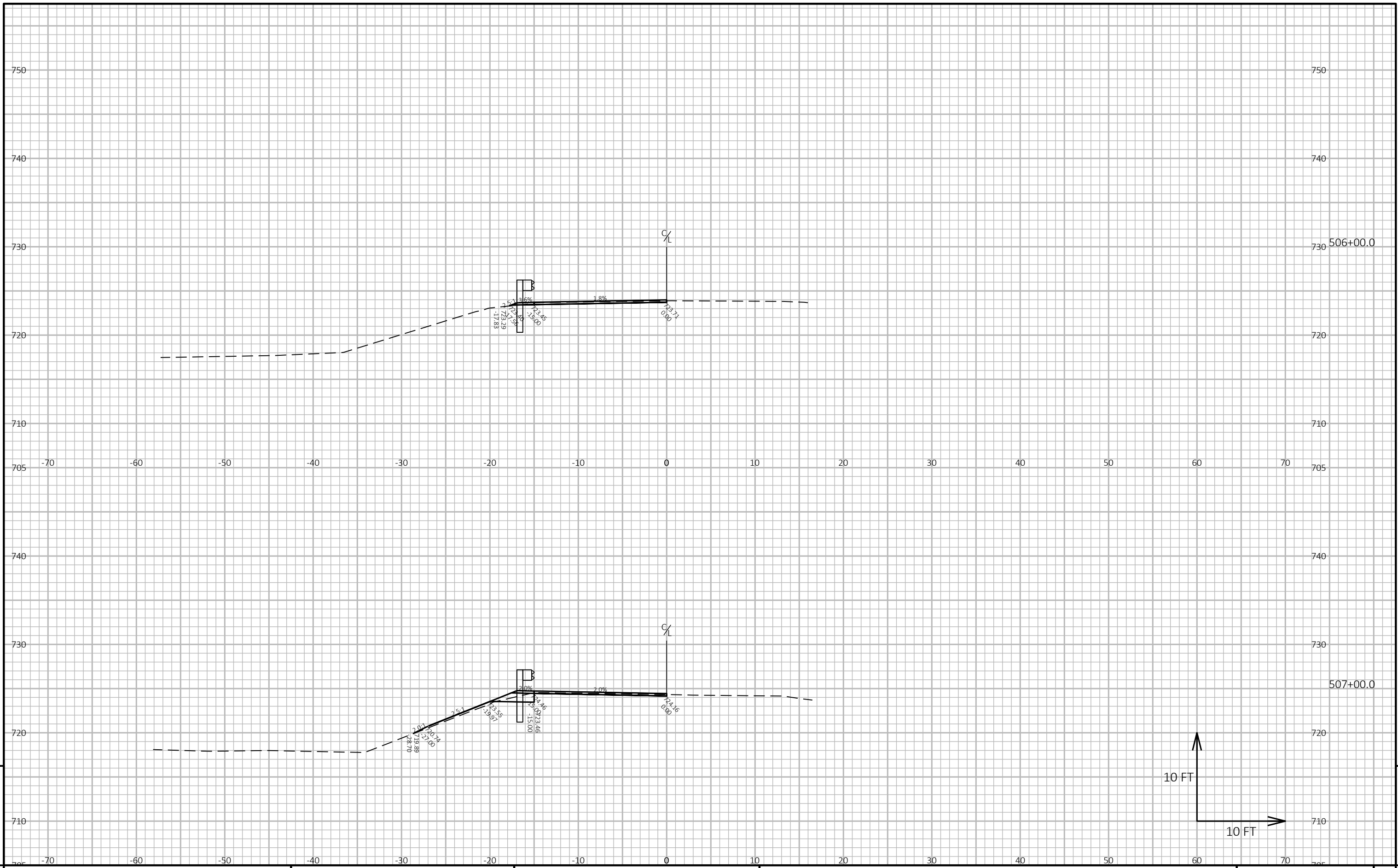
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:14 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 53



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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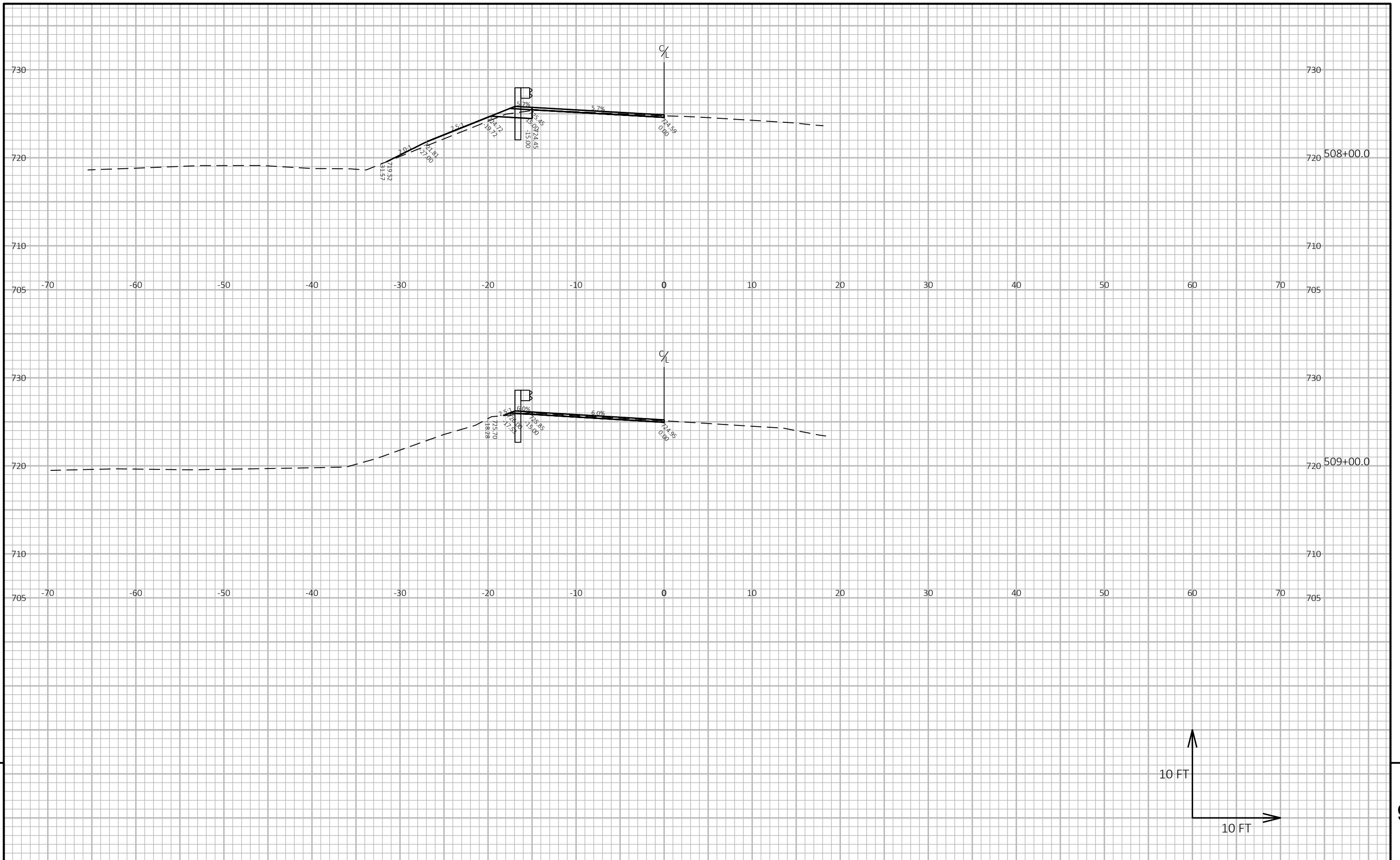
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

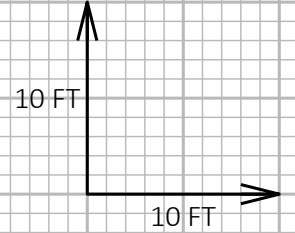
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LAYOUT NAME - 55

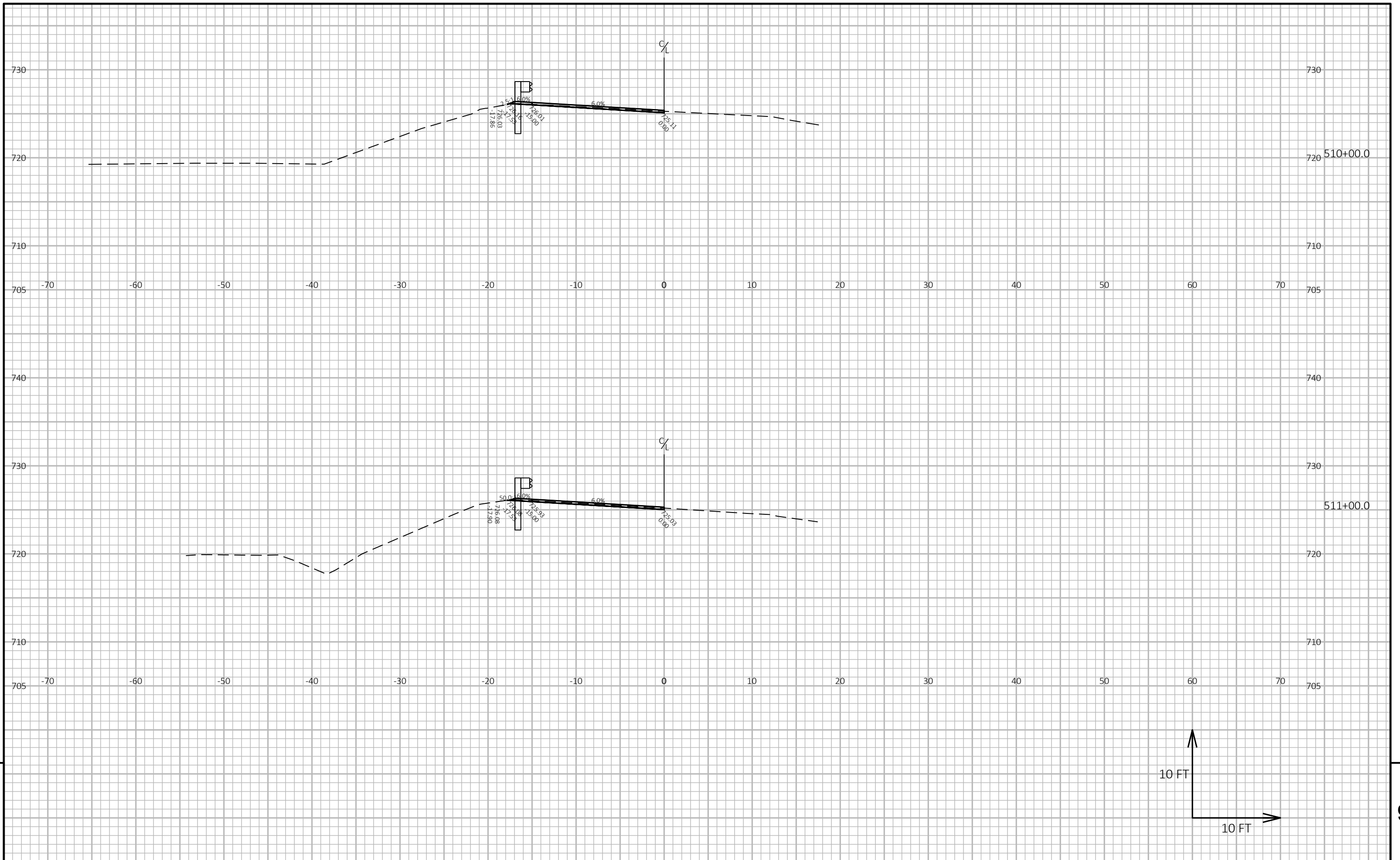


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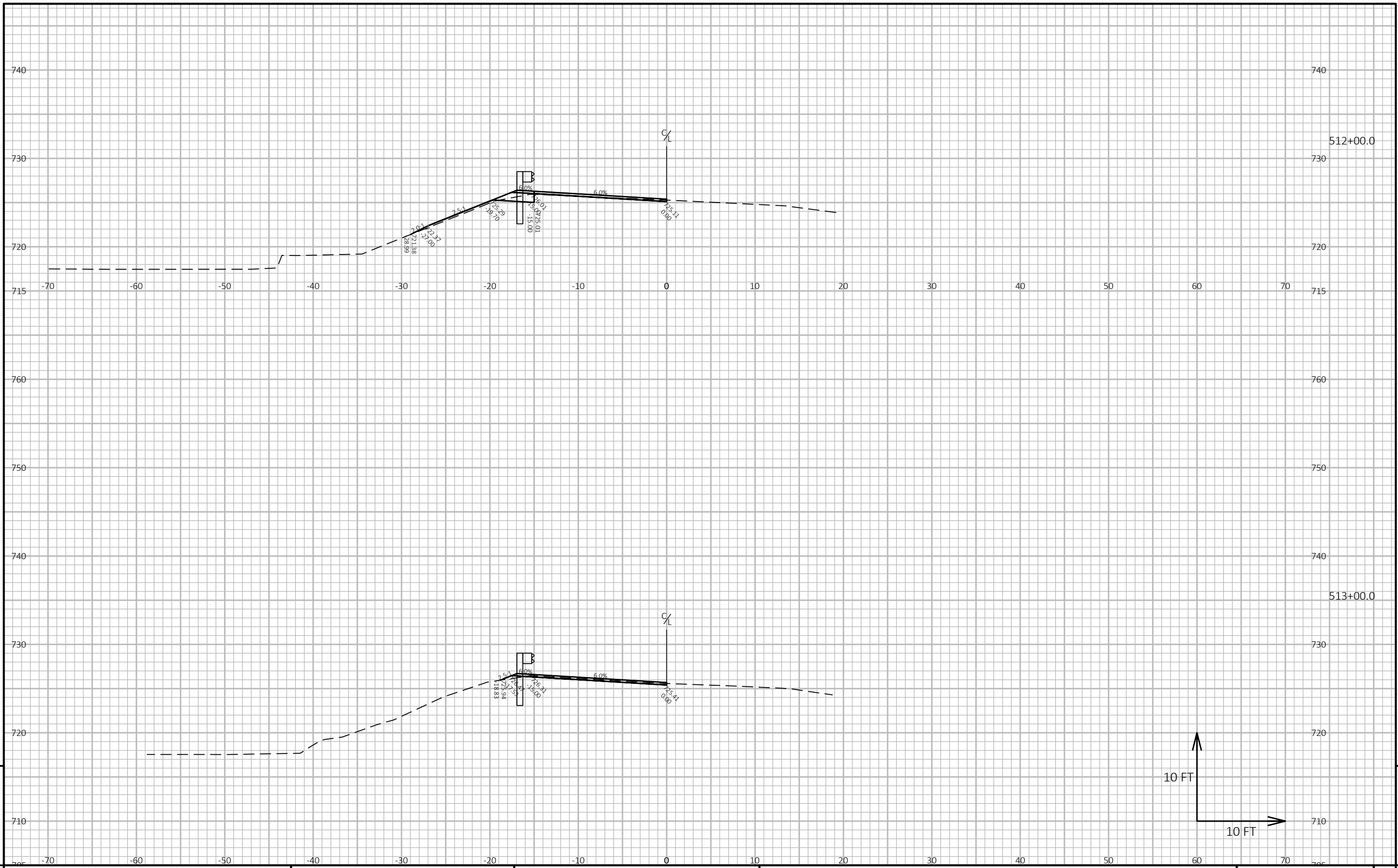
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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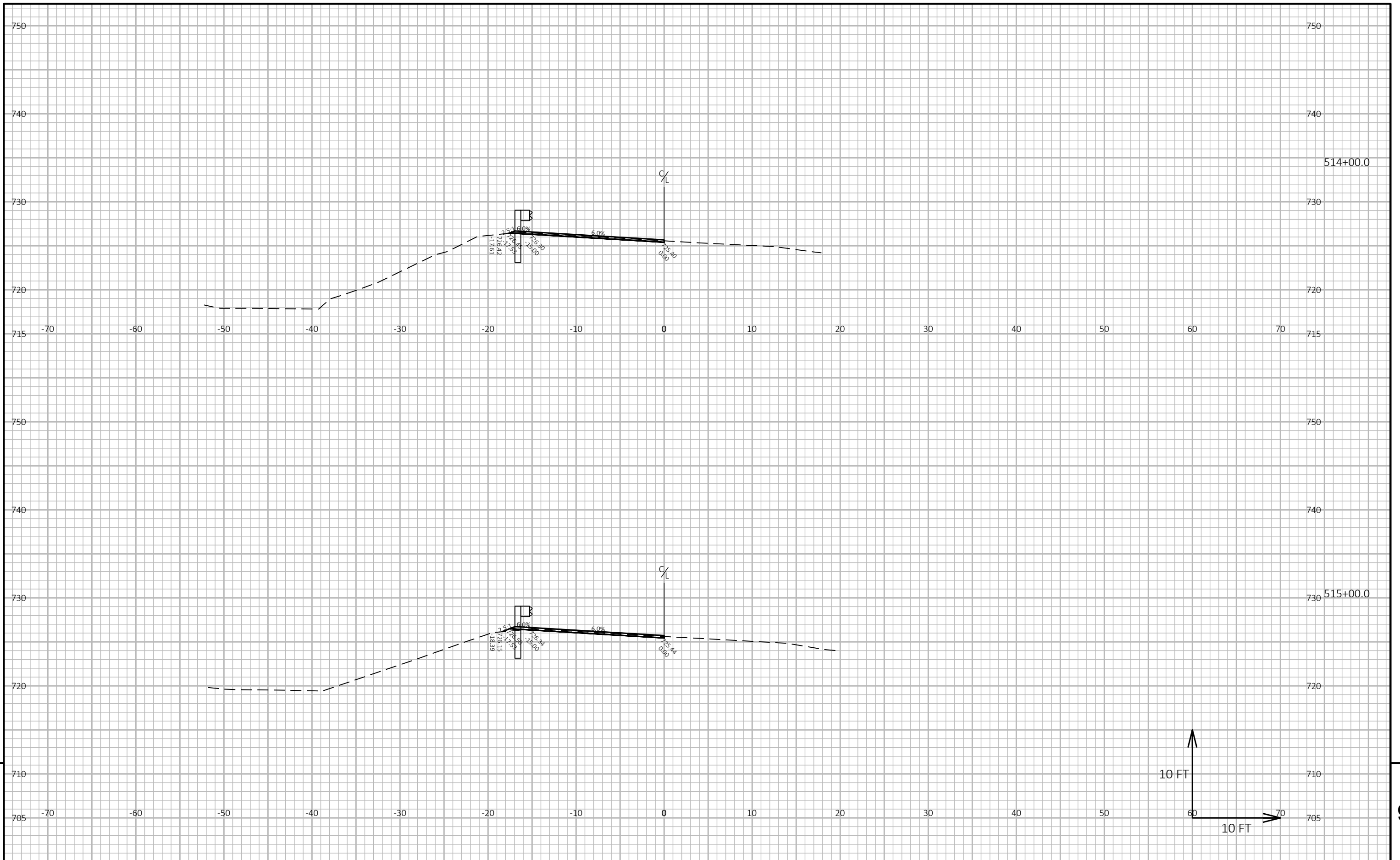
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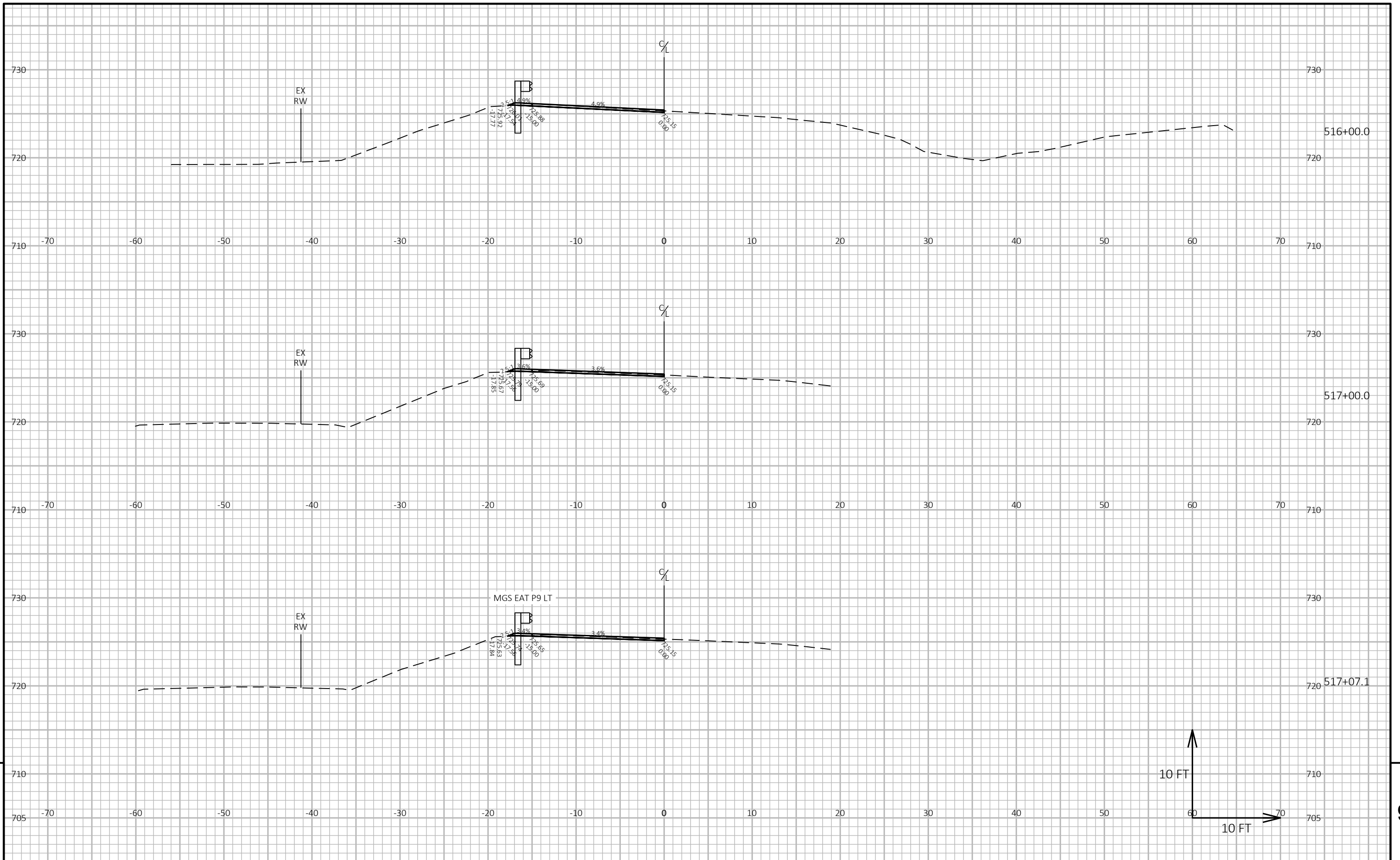
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:16 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 58

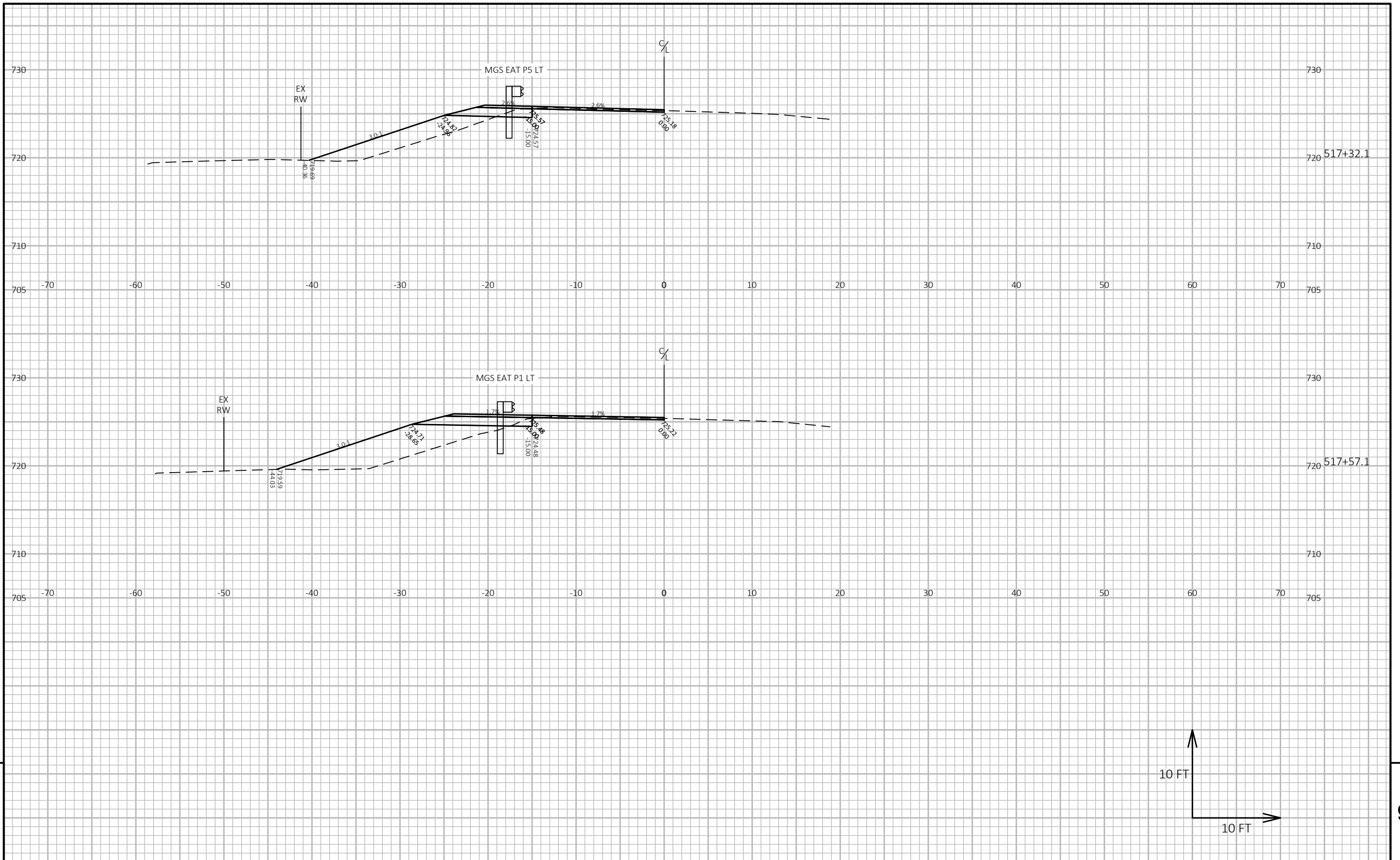


PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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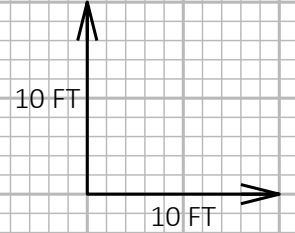
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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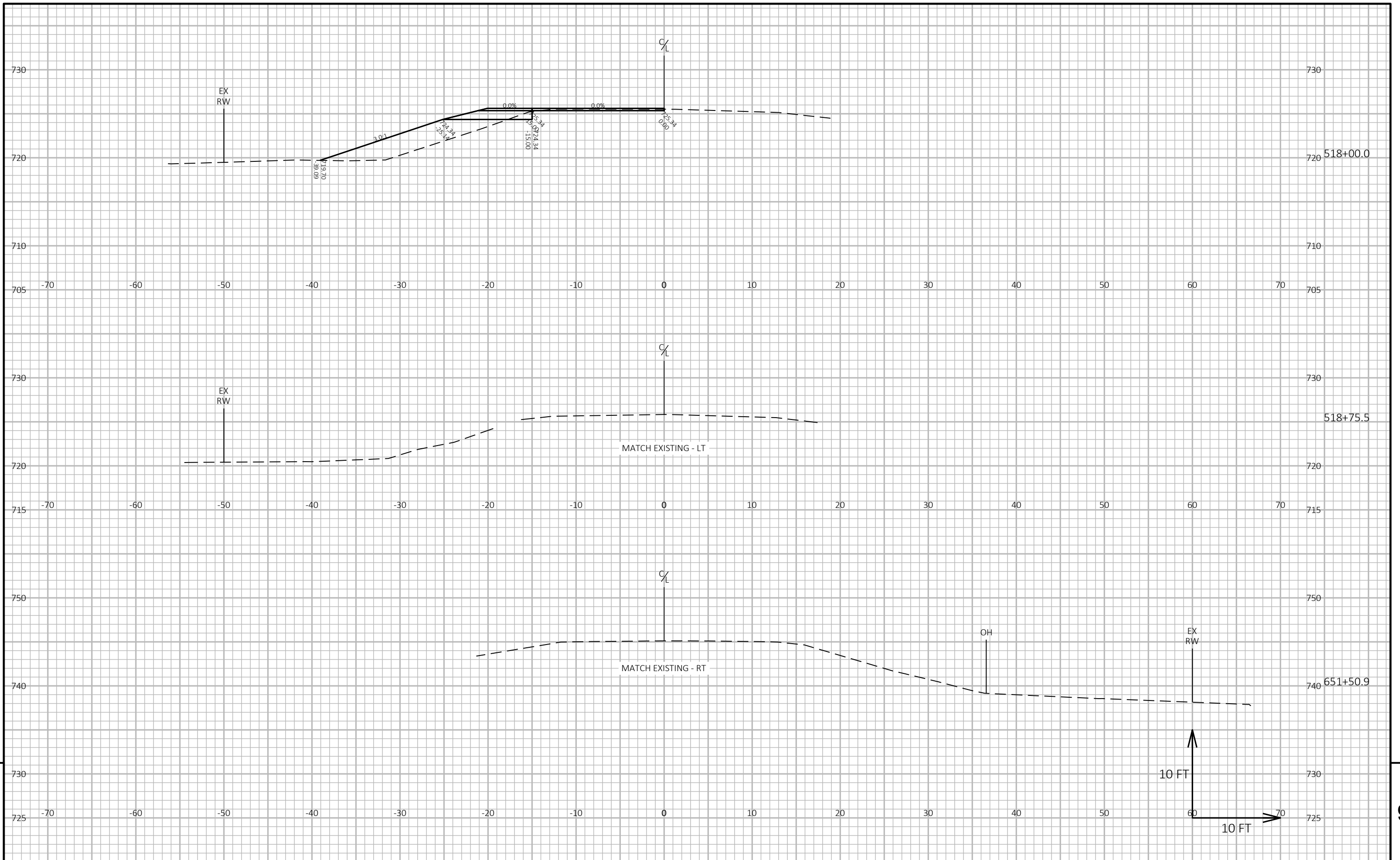


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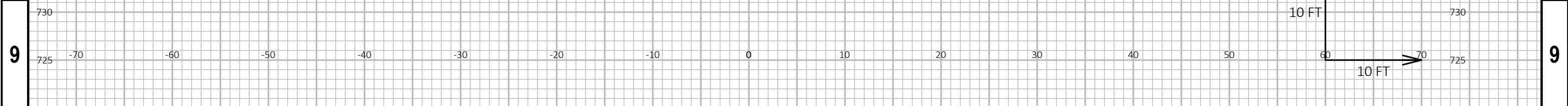
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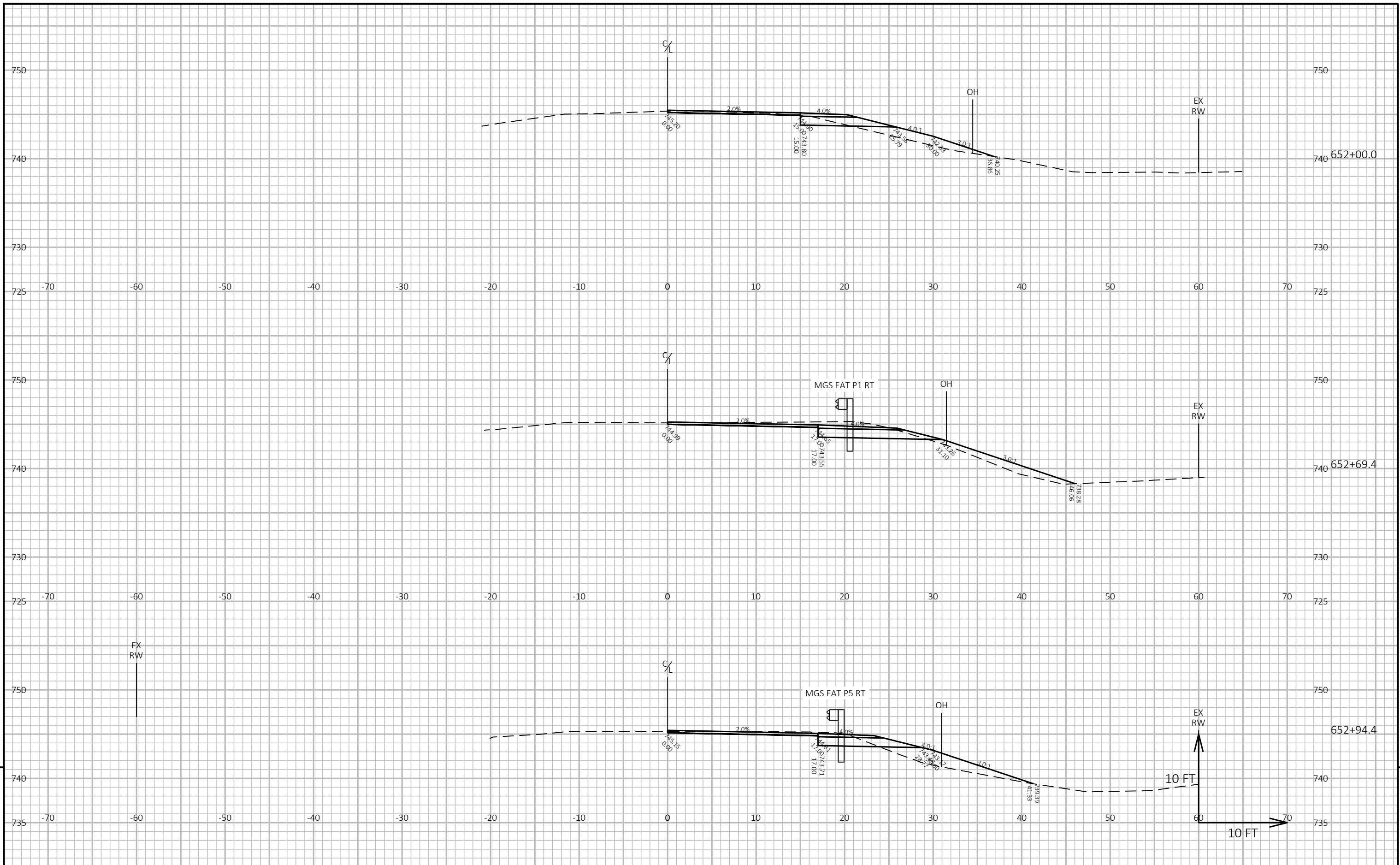


PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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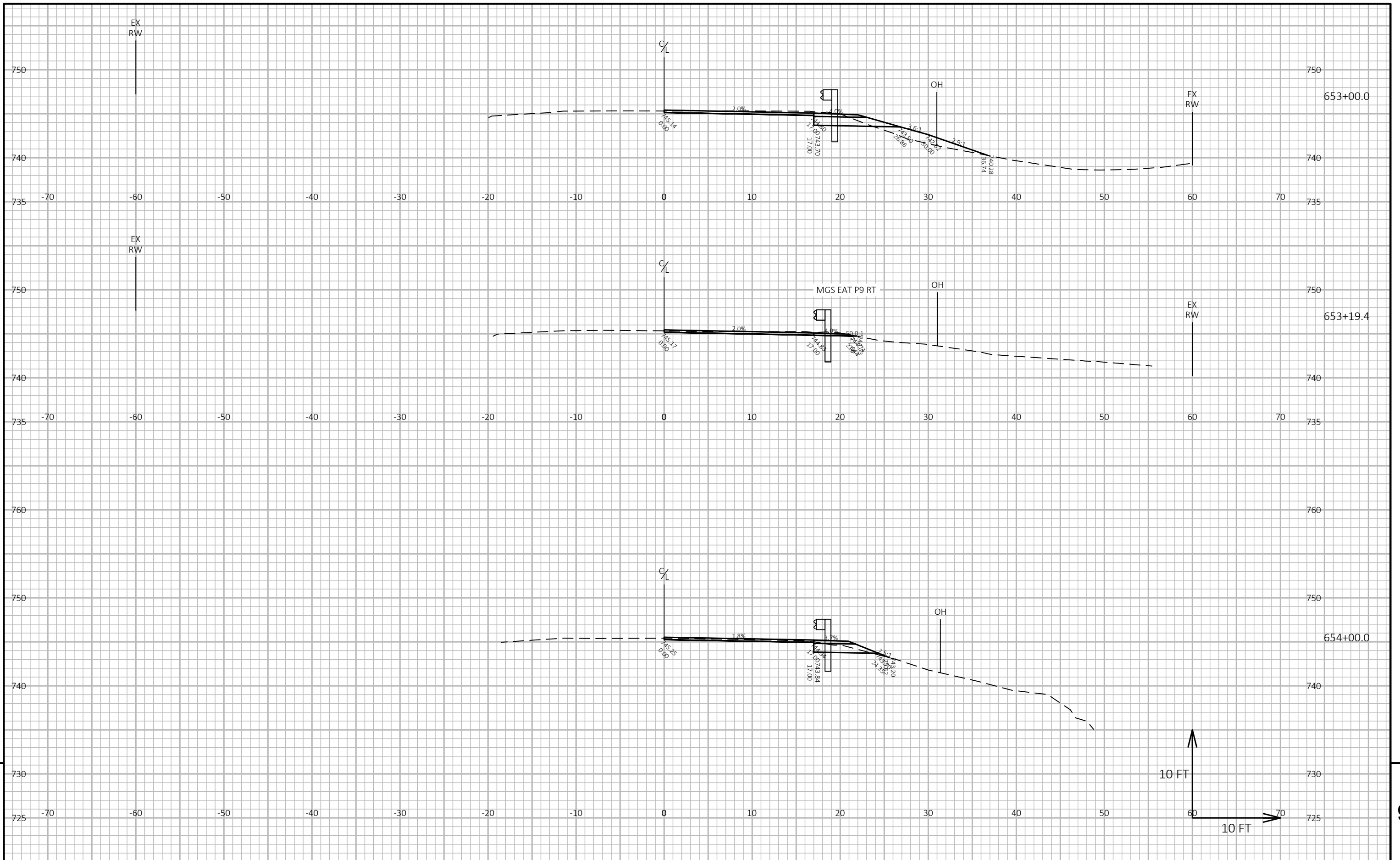


PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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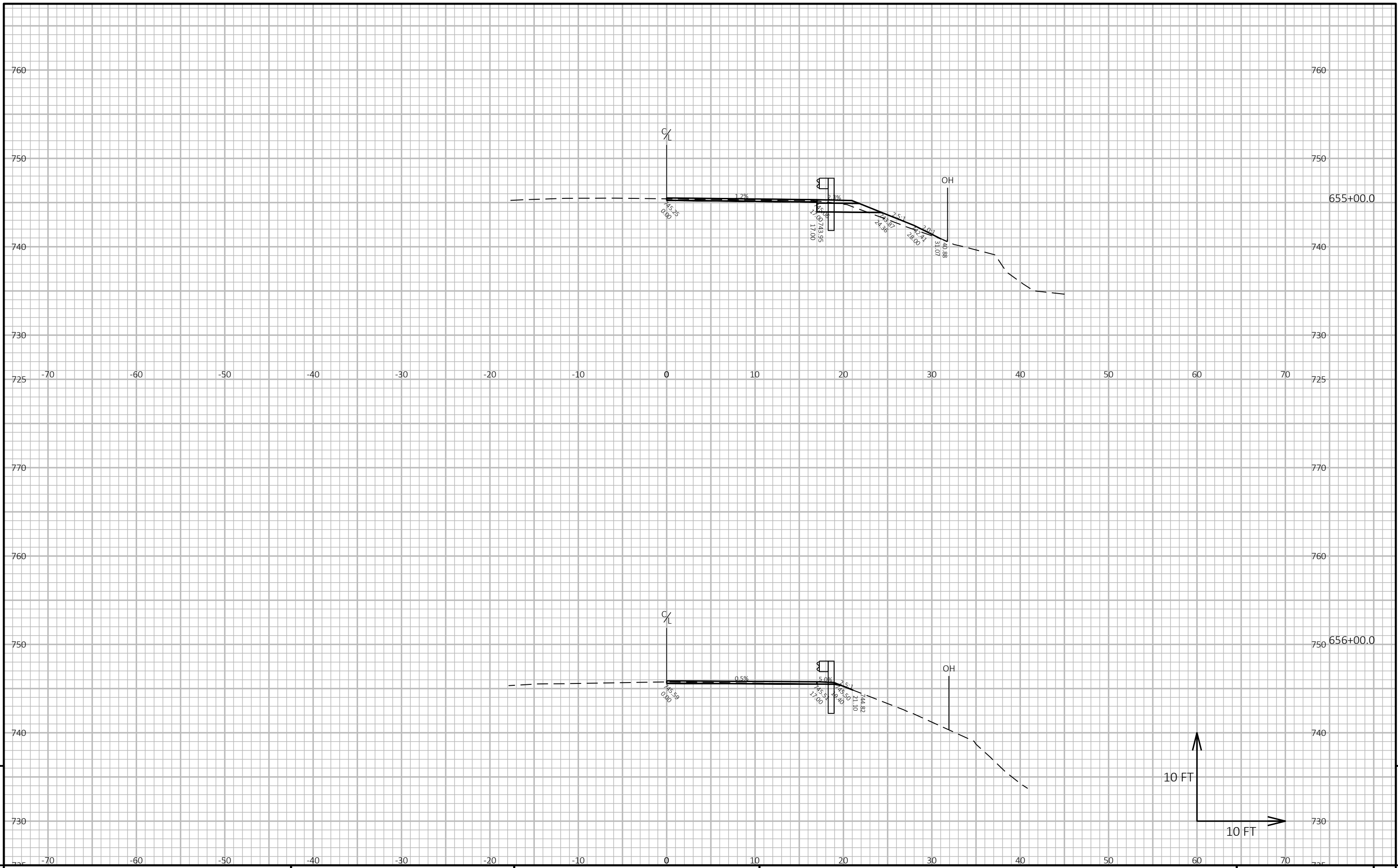
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET 9
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET E
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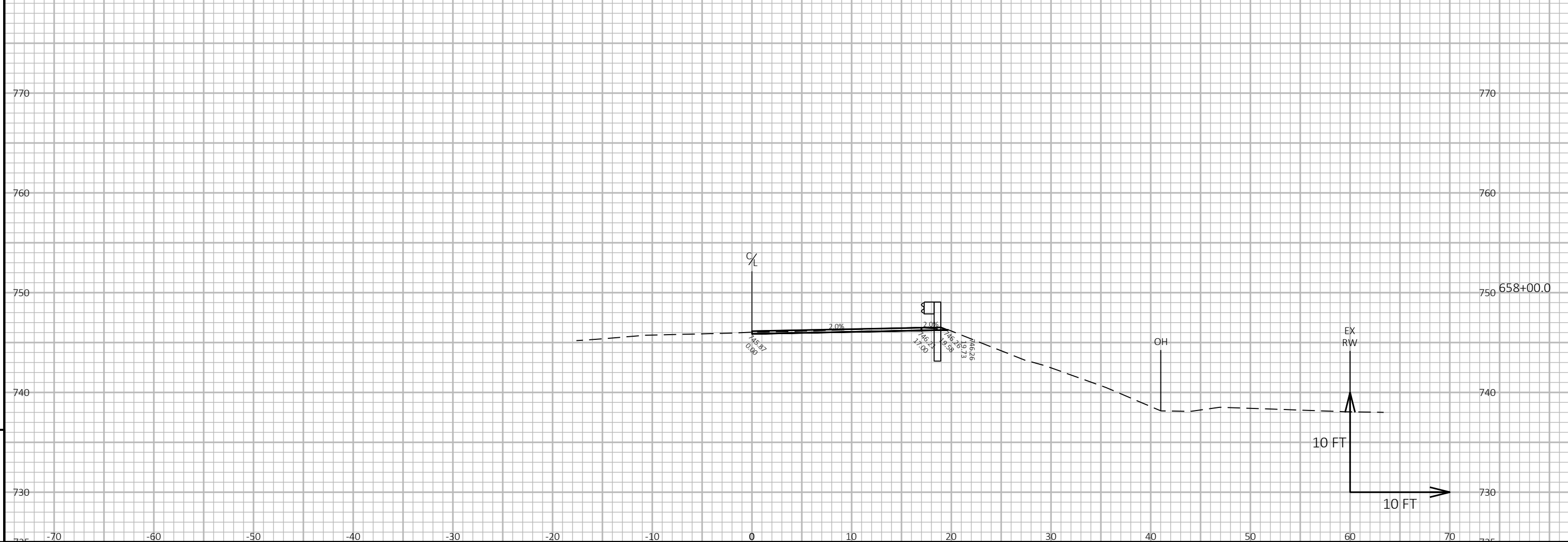
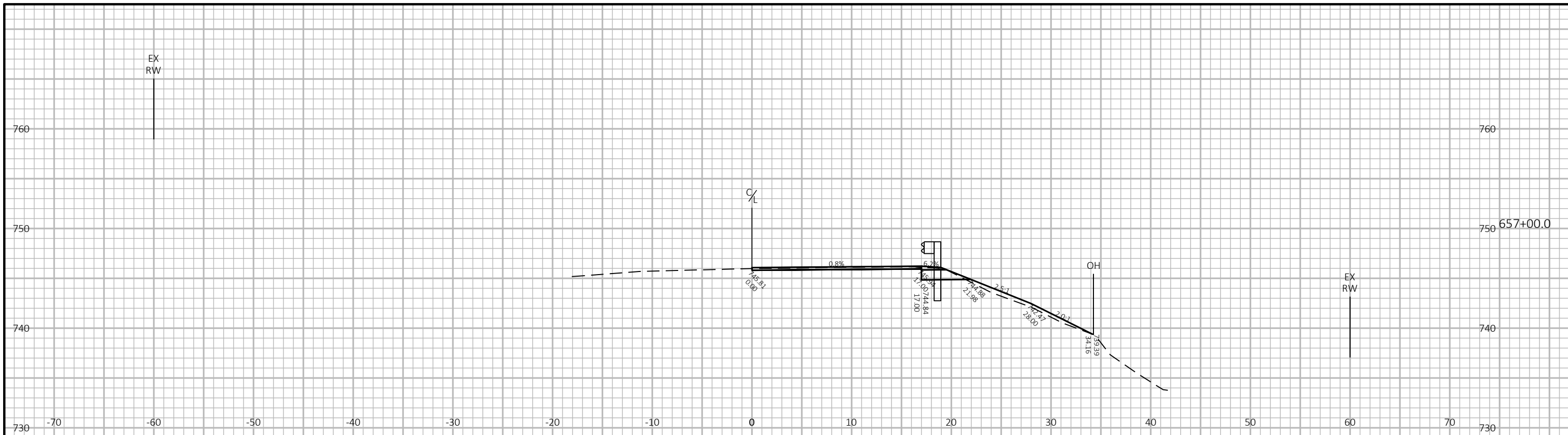
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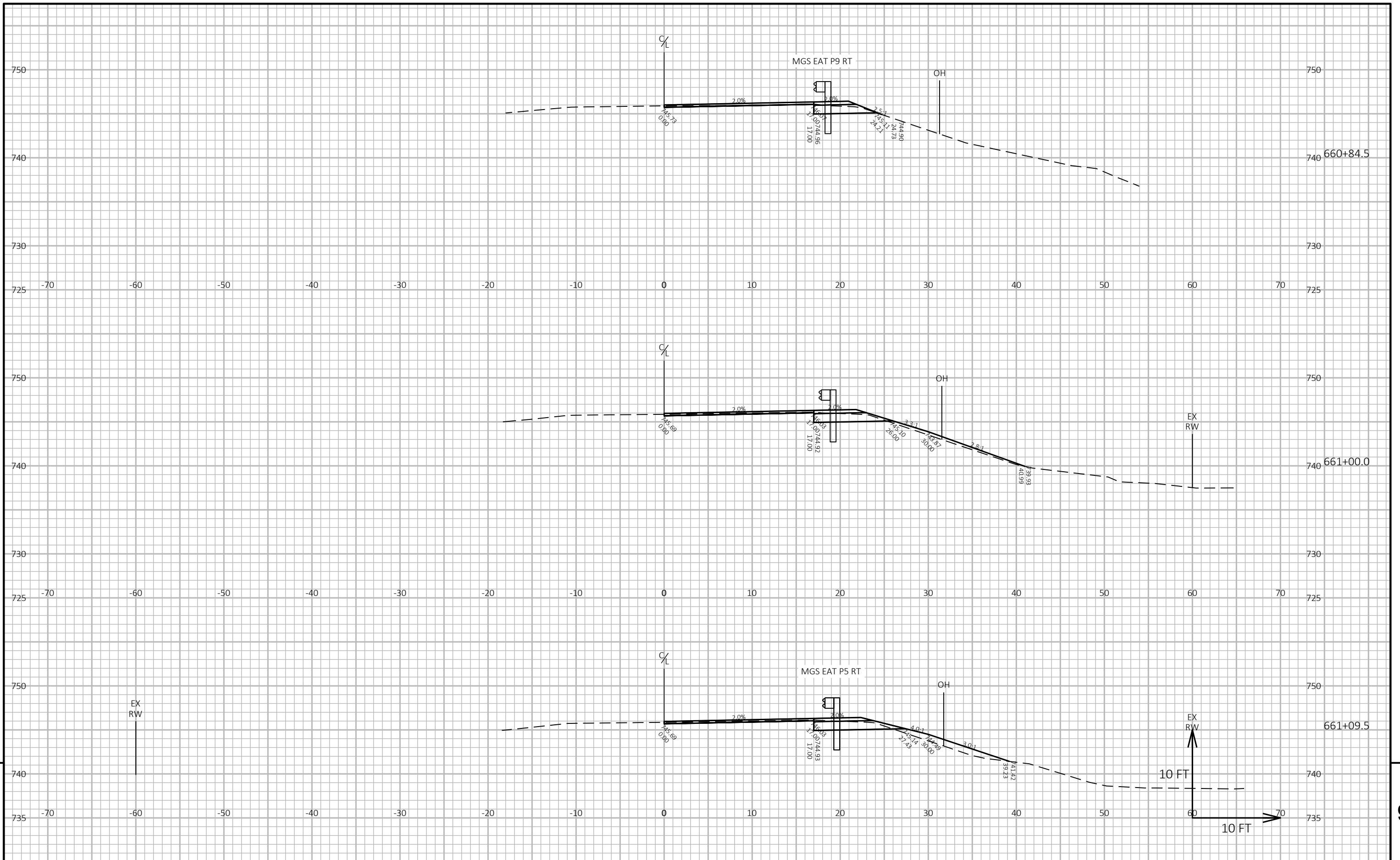
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETS\PLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:17 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 65



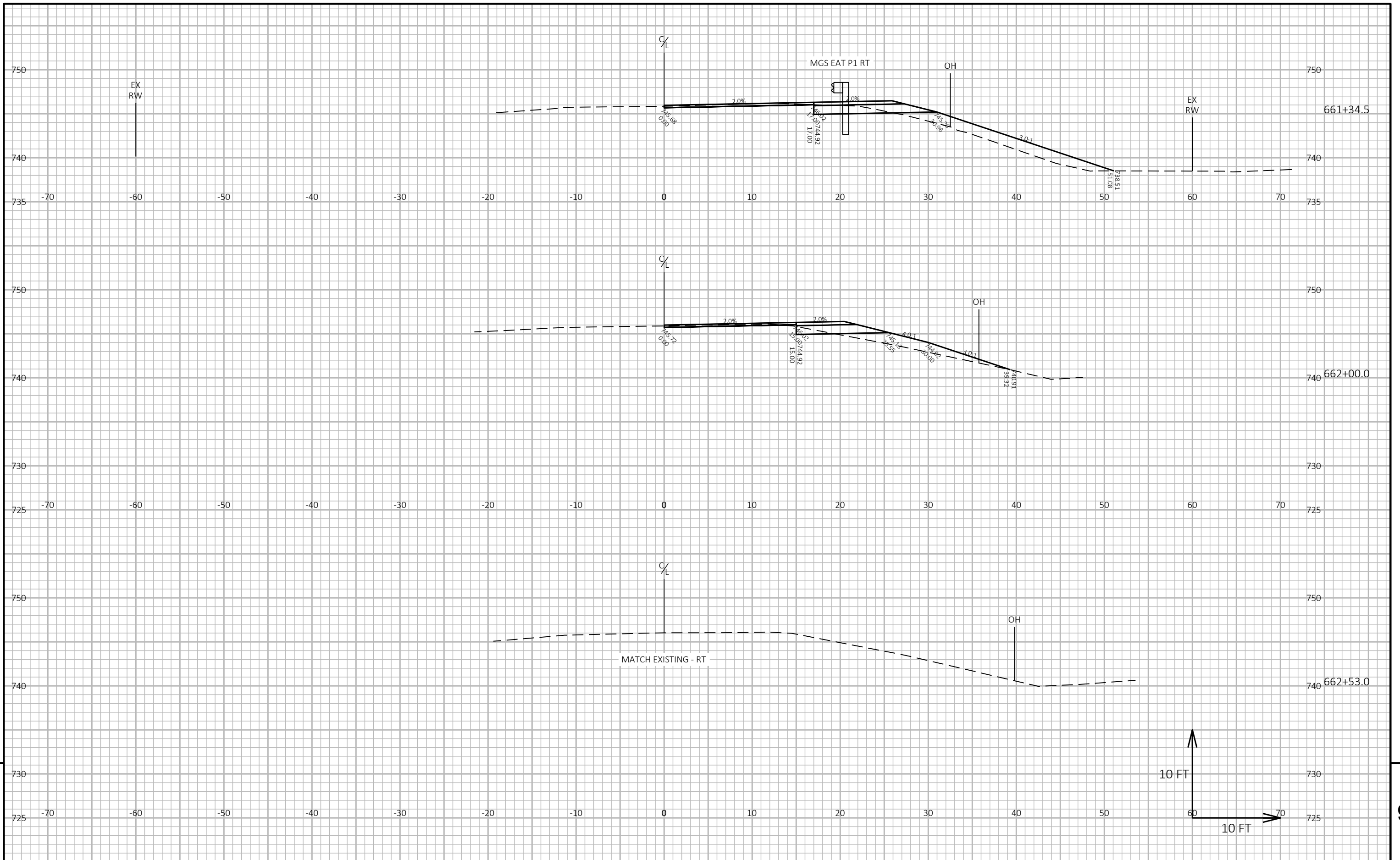
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET 9



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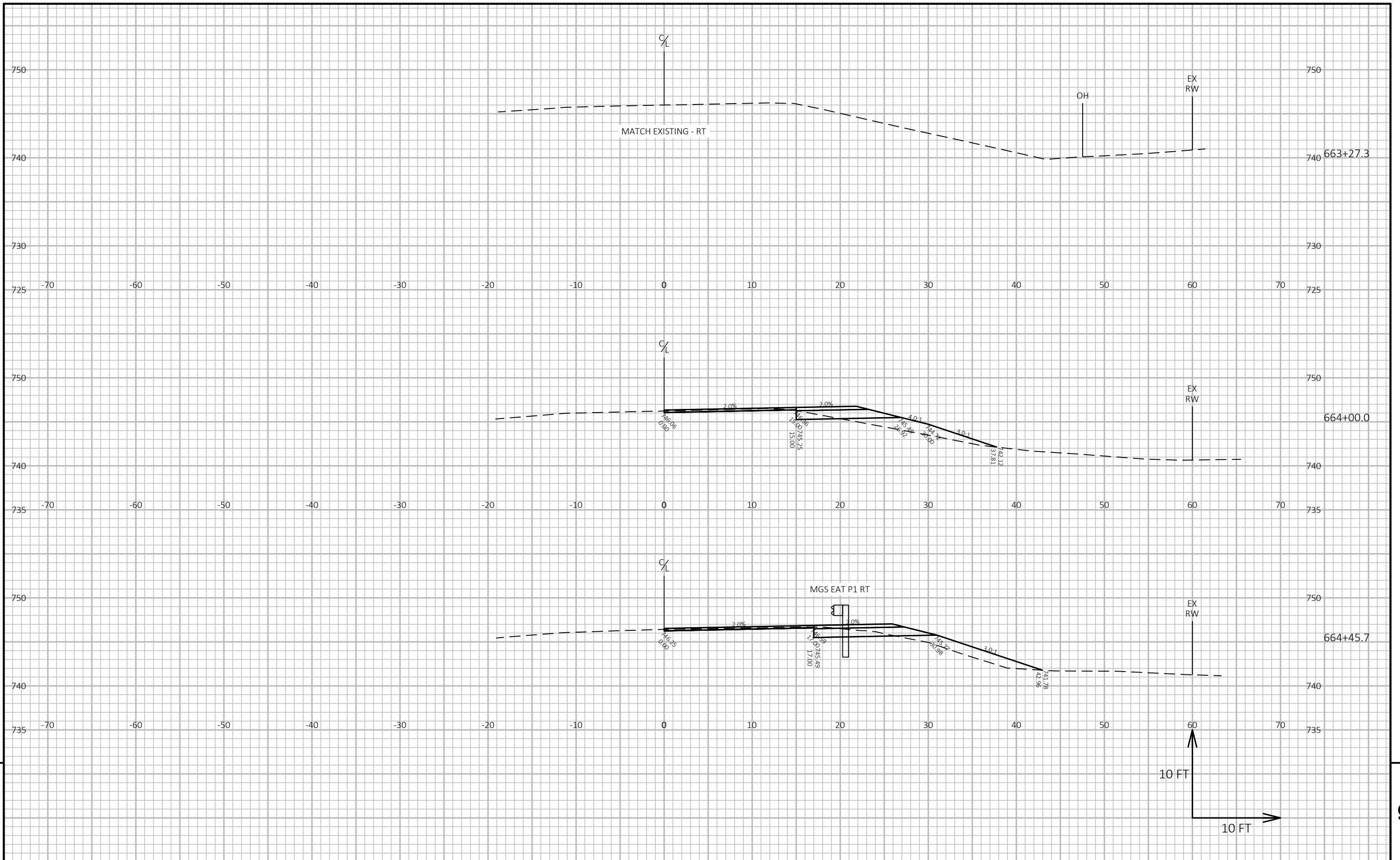
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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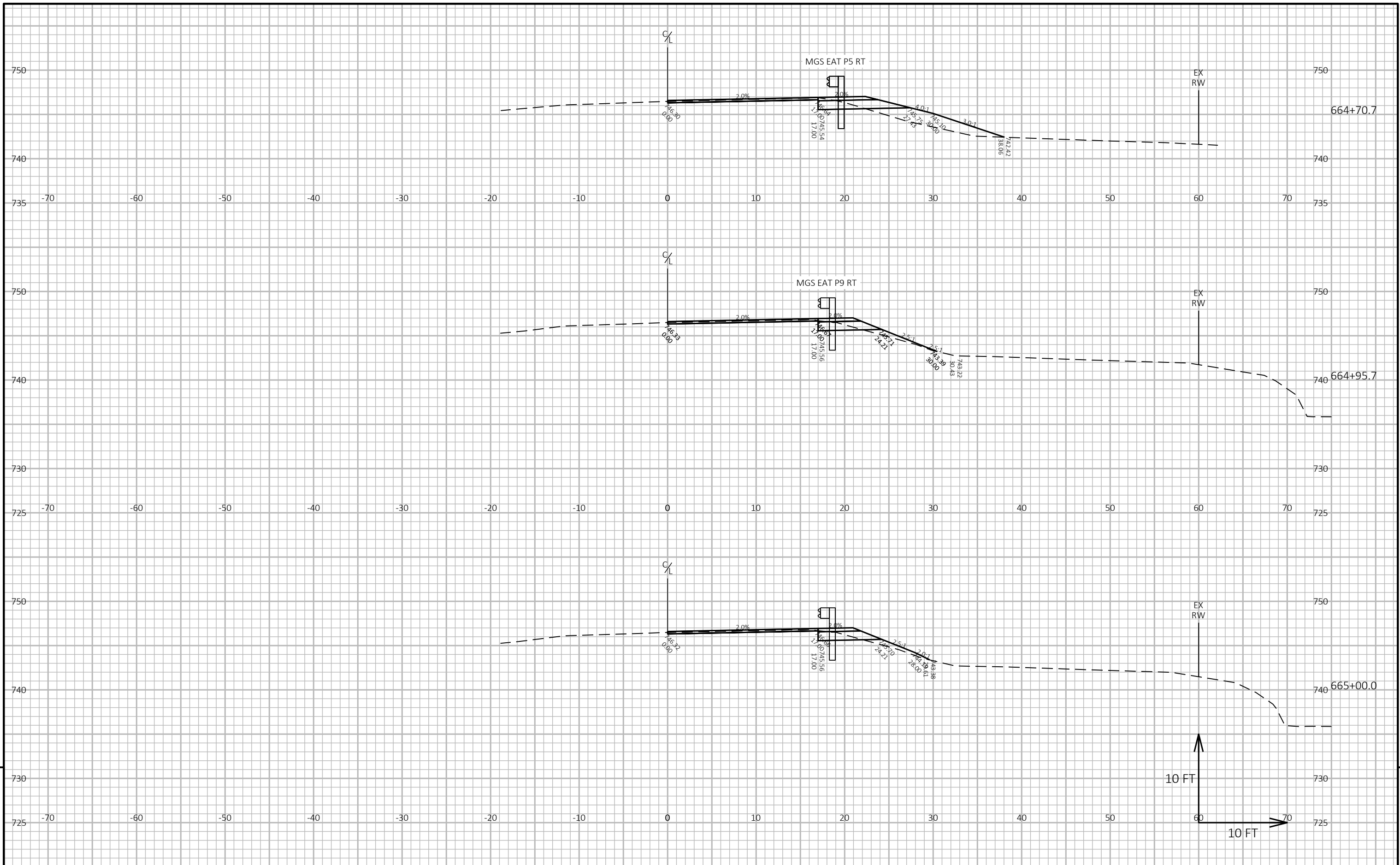
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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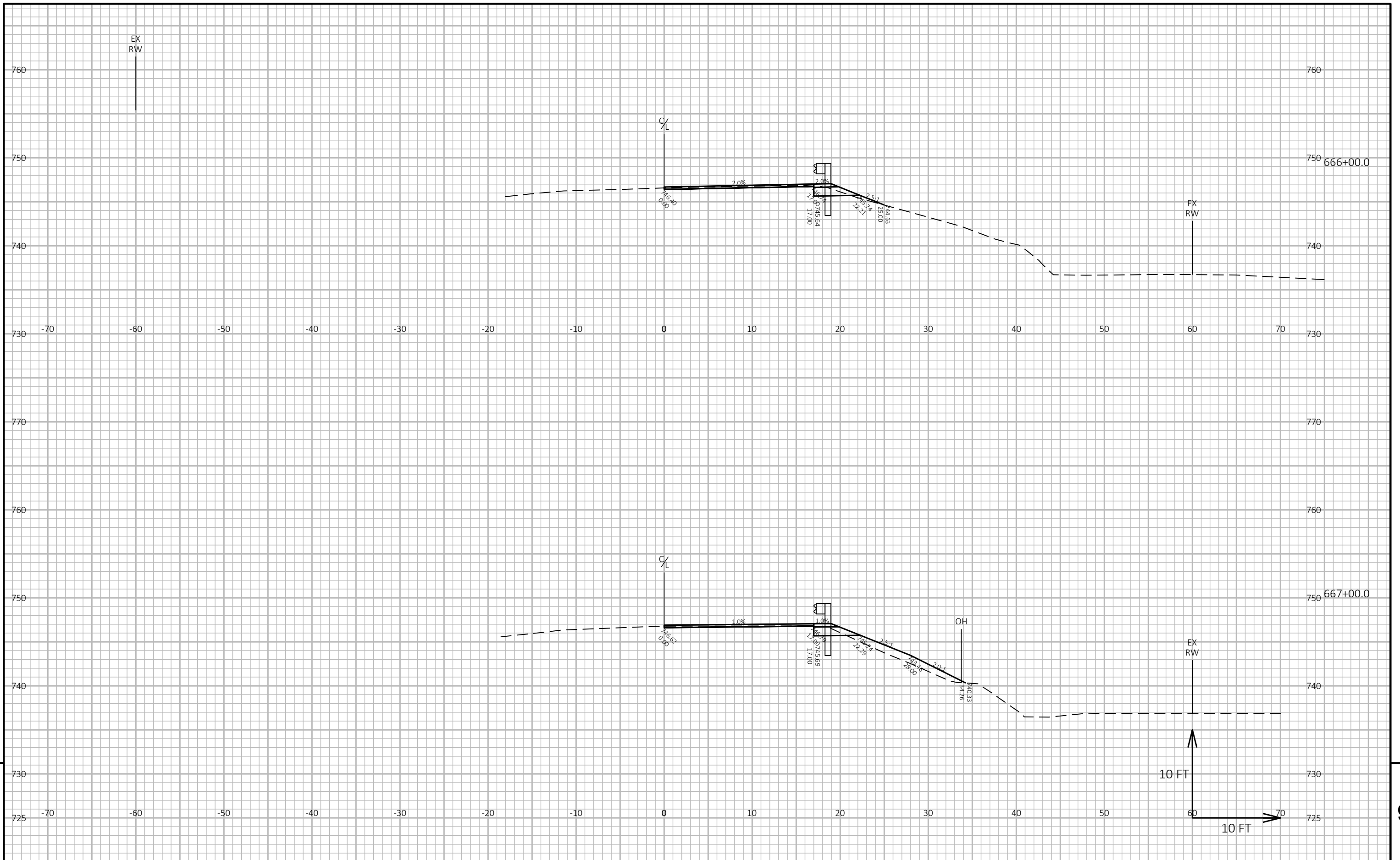
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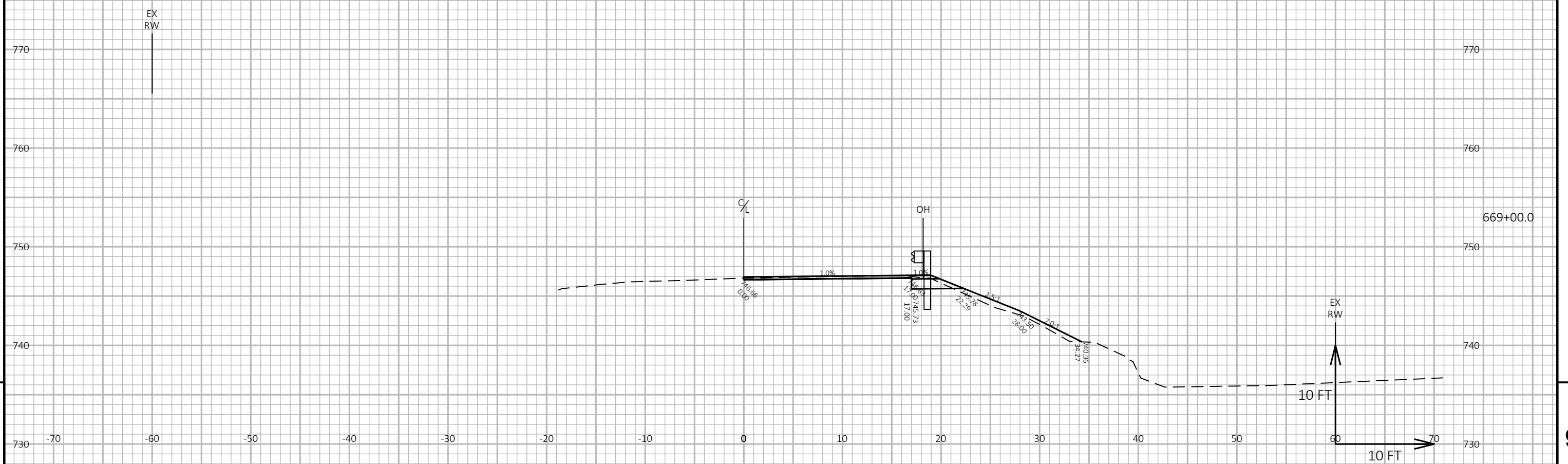
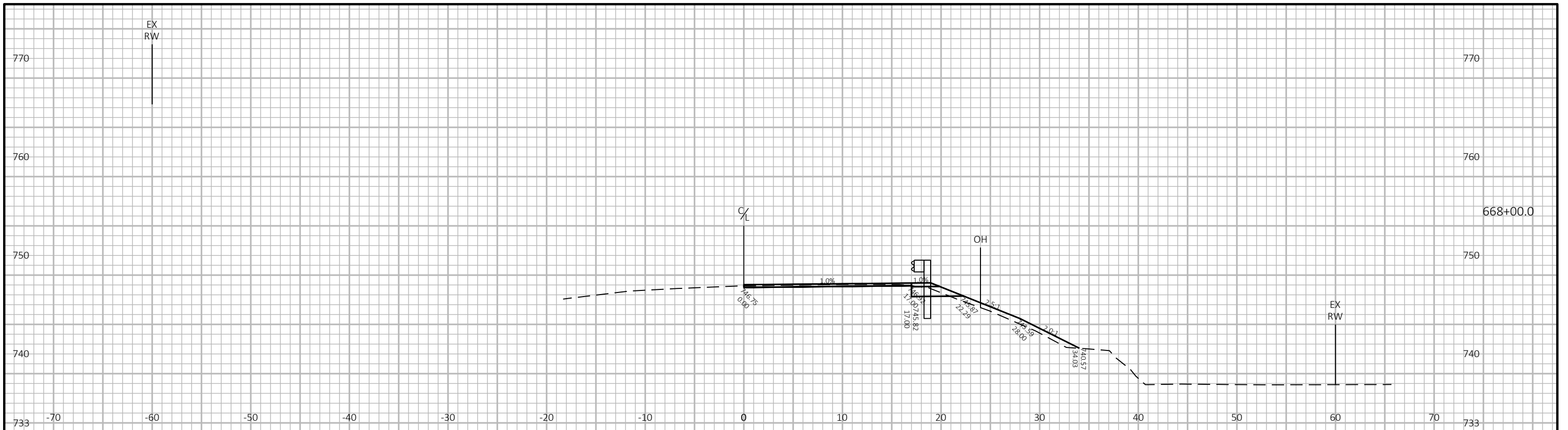
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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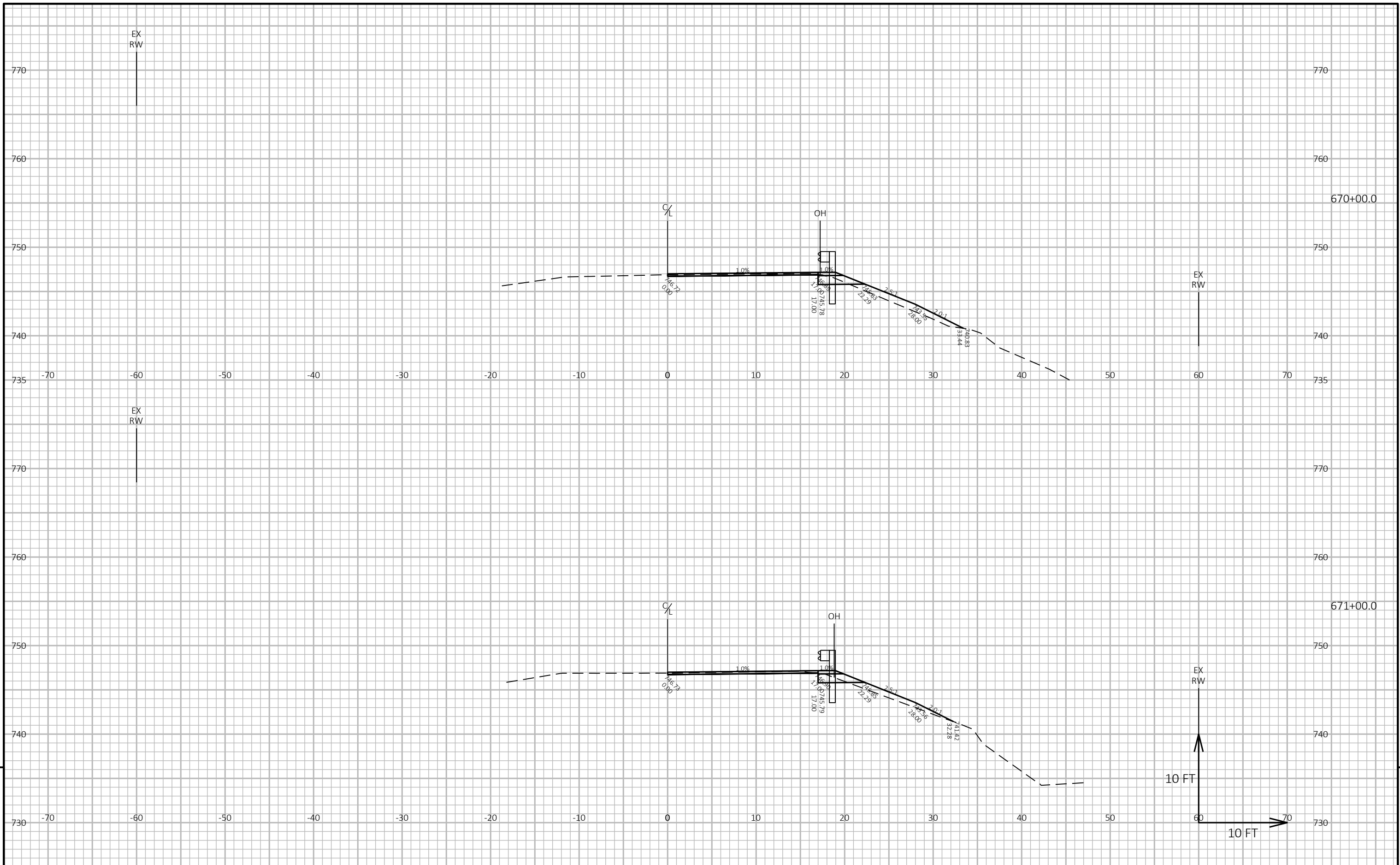
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET 9
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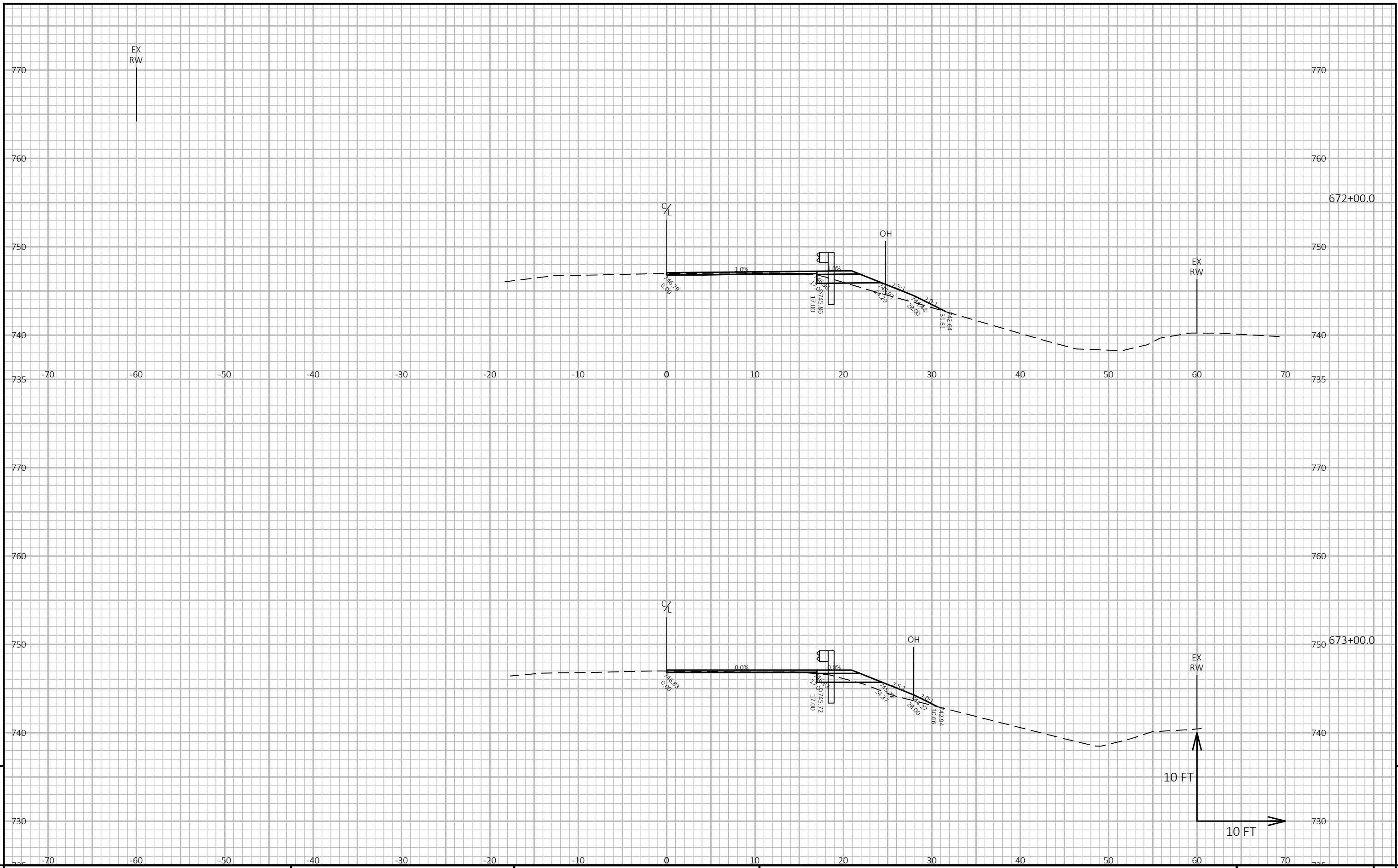
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E



PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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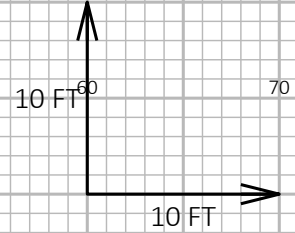
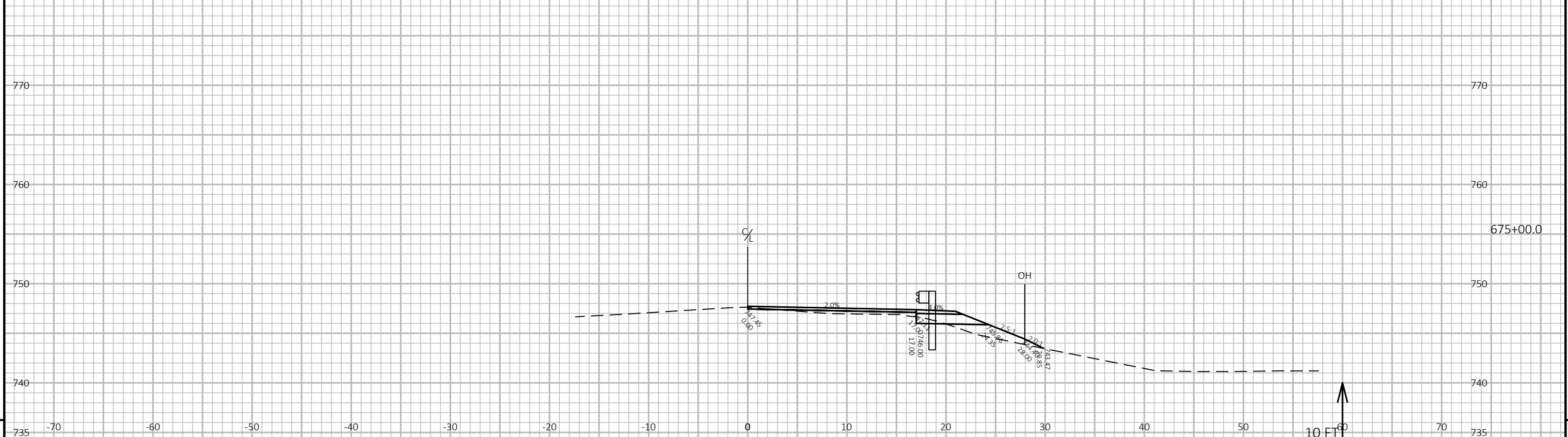
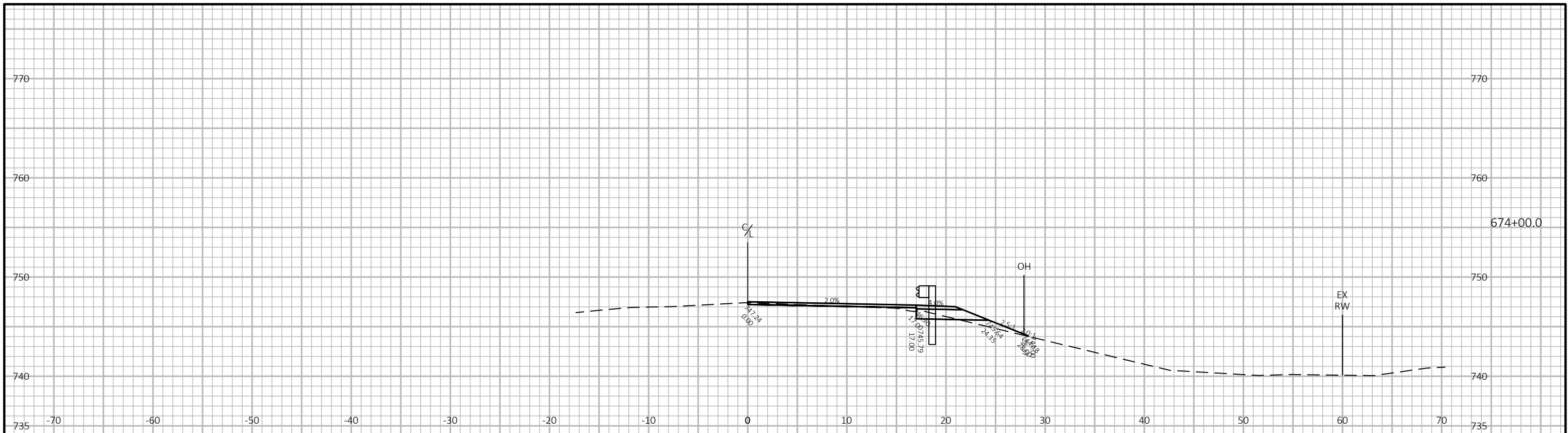
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

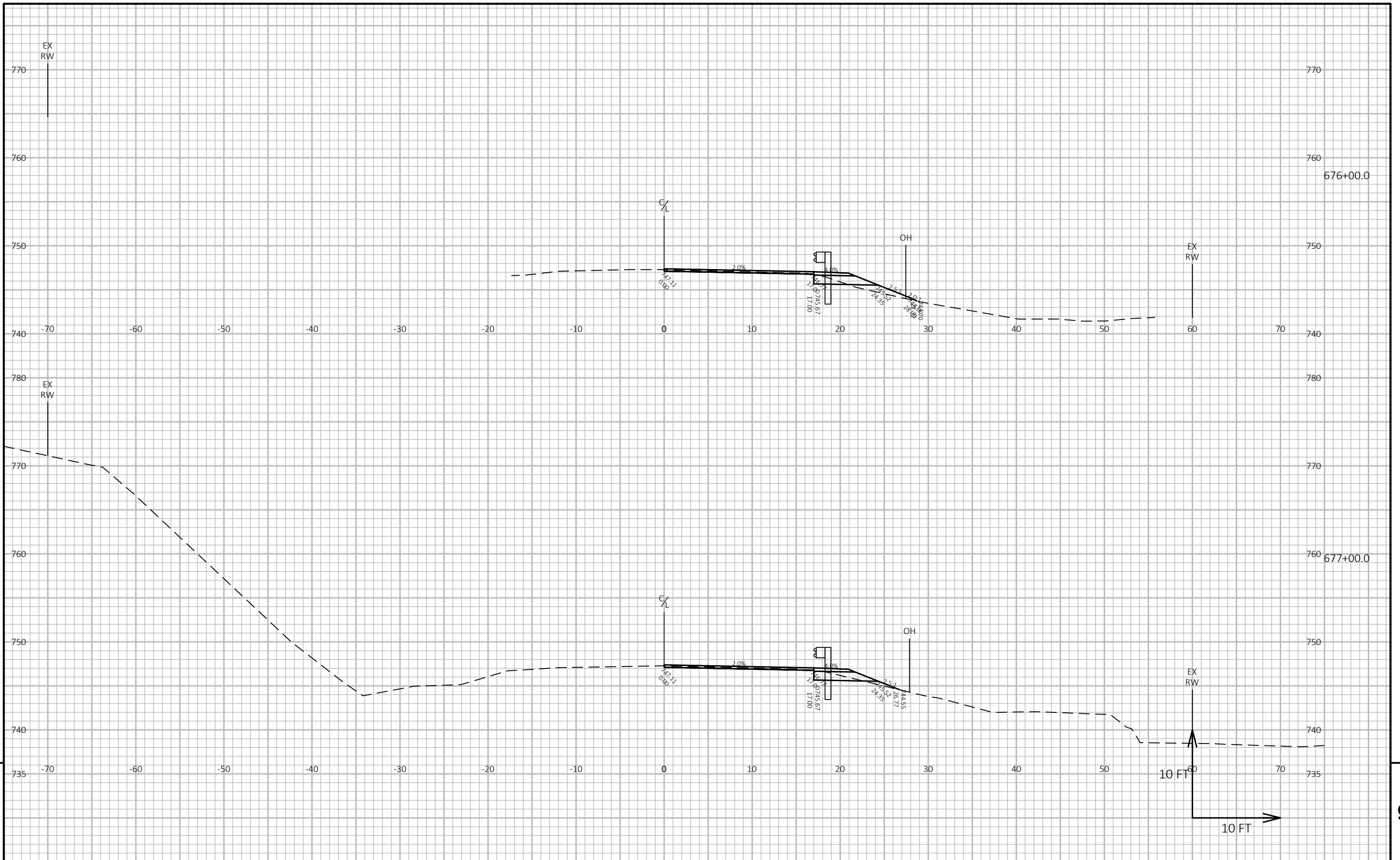
FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETS\PLAN\090201-XS.DWG PLOT DATE : 10/19/2021 6:20 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 75



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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET
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PROJECT NO: 7125-00-74/75

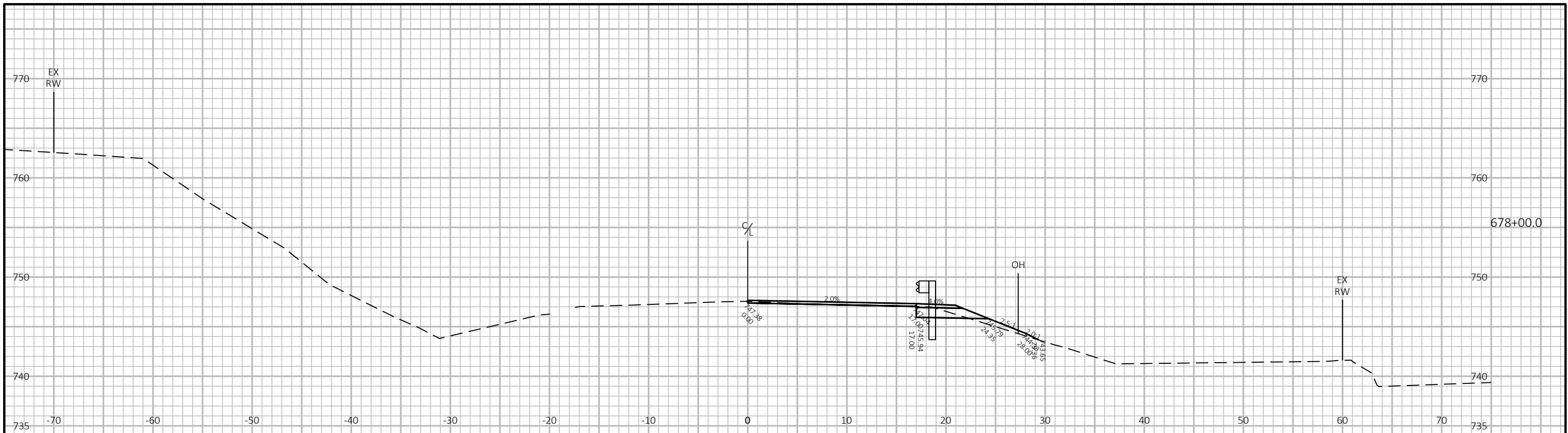
HWY: STH 37

COUNTY: BUFFALO

CROSS SECTIONS: BEAMGUARD

SHEET

E



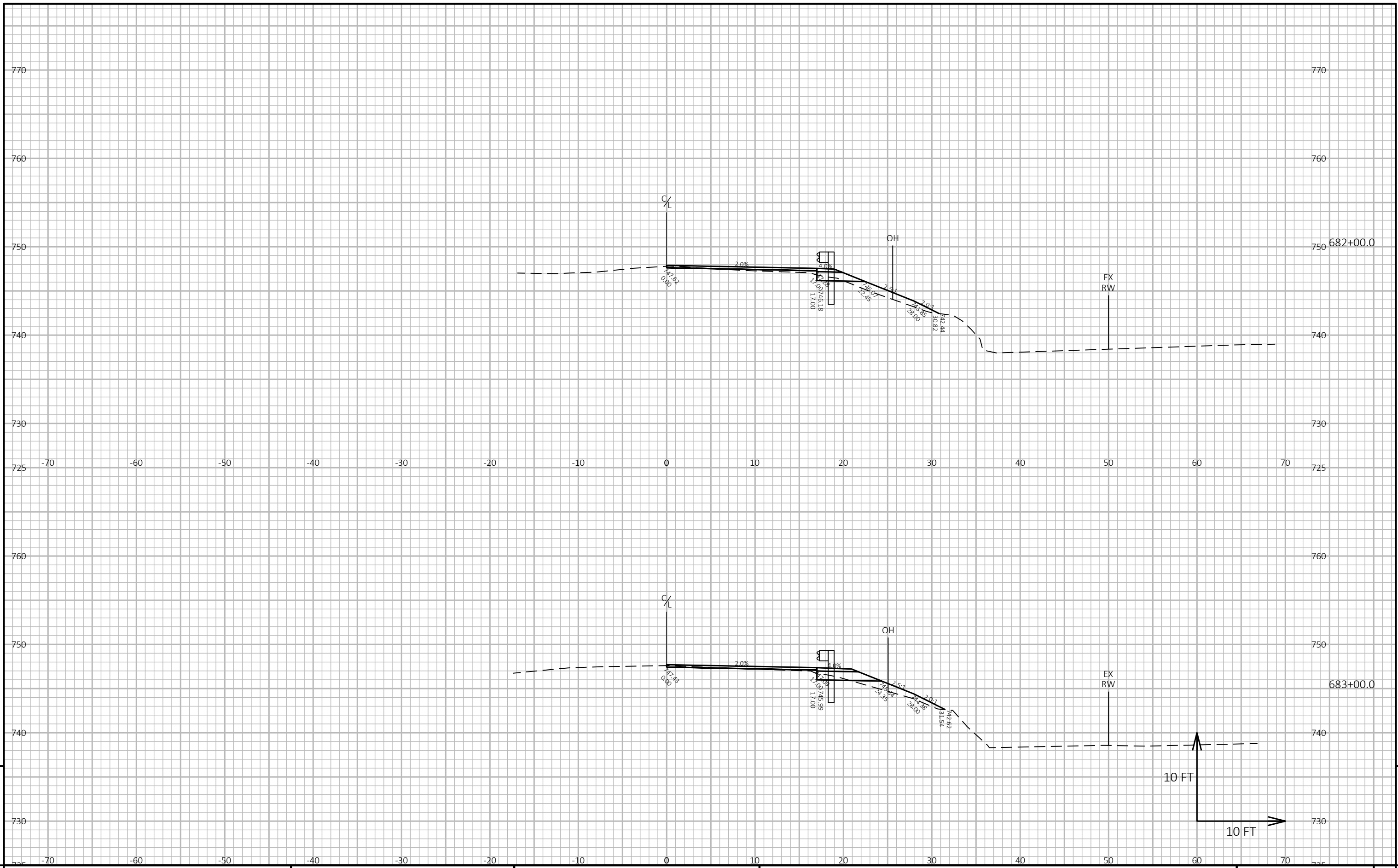
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:21 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 78



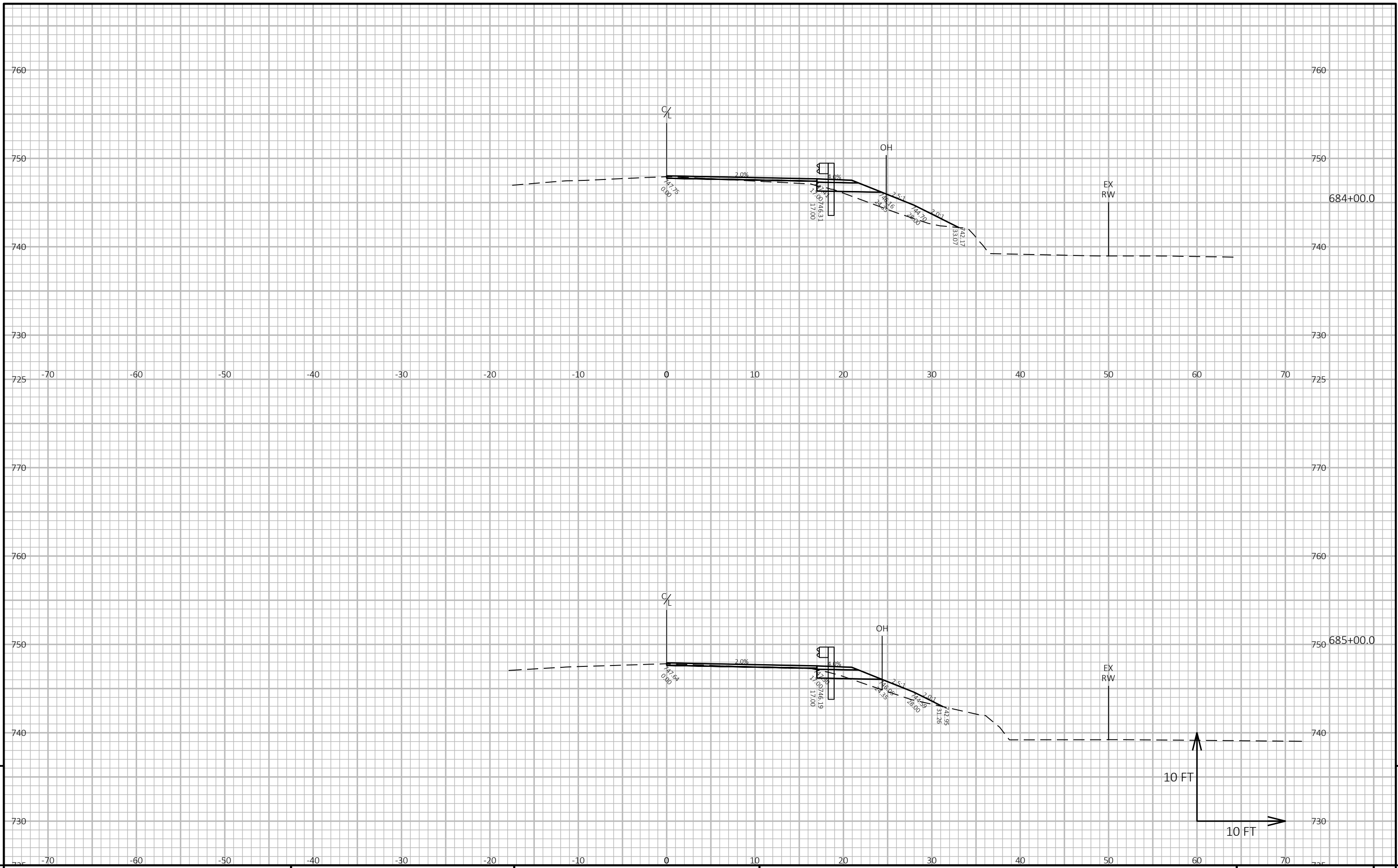
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETS\PLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:21 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 80



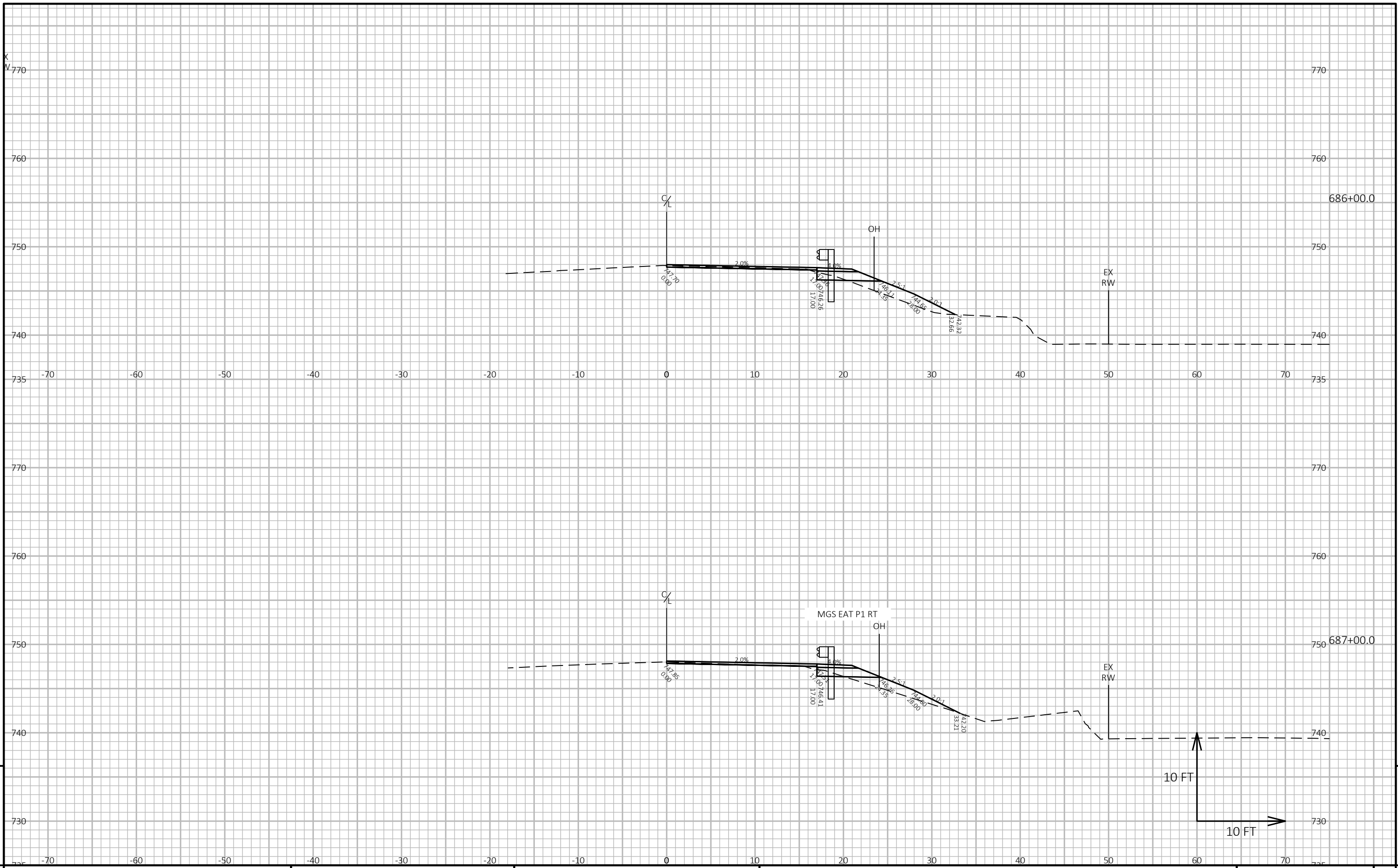
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PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:21 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 81



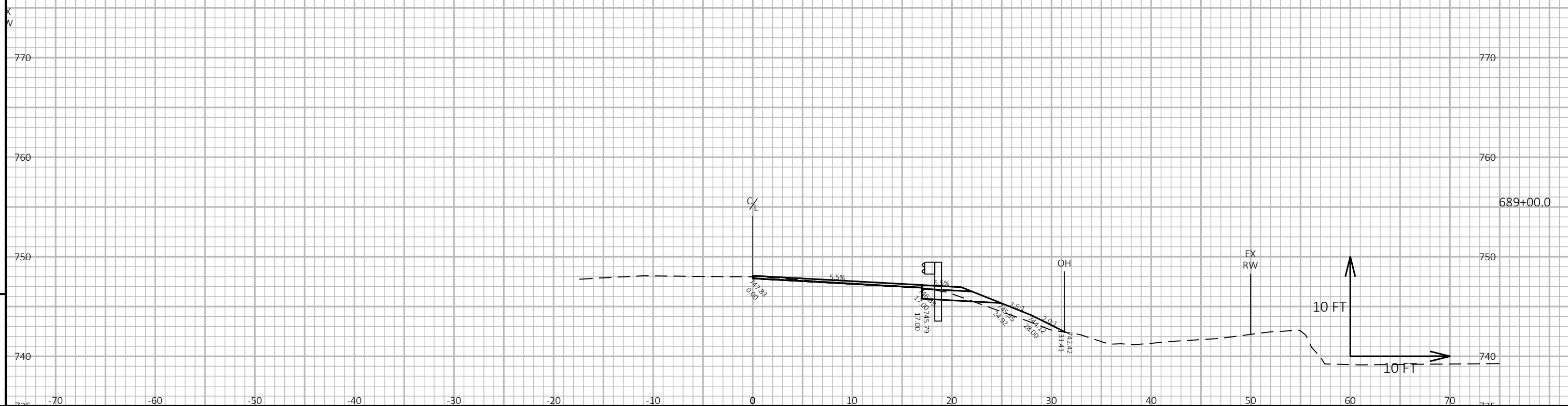
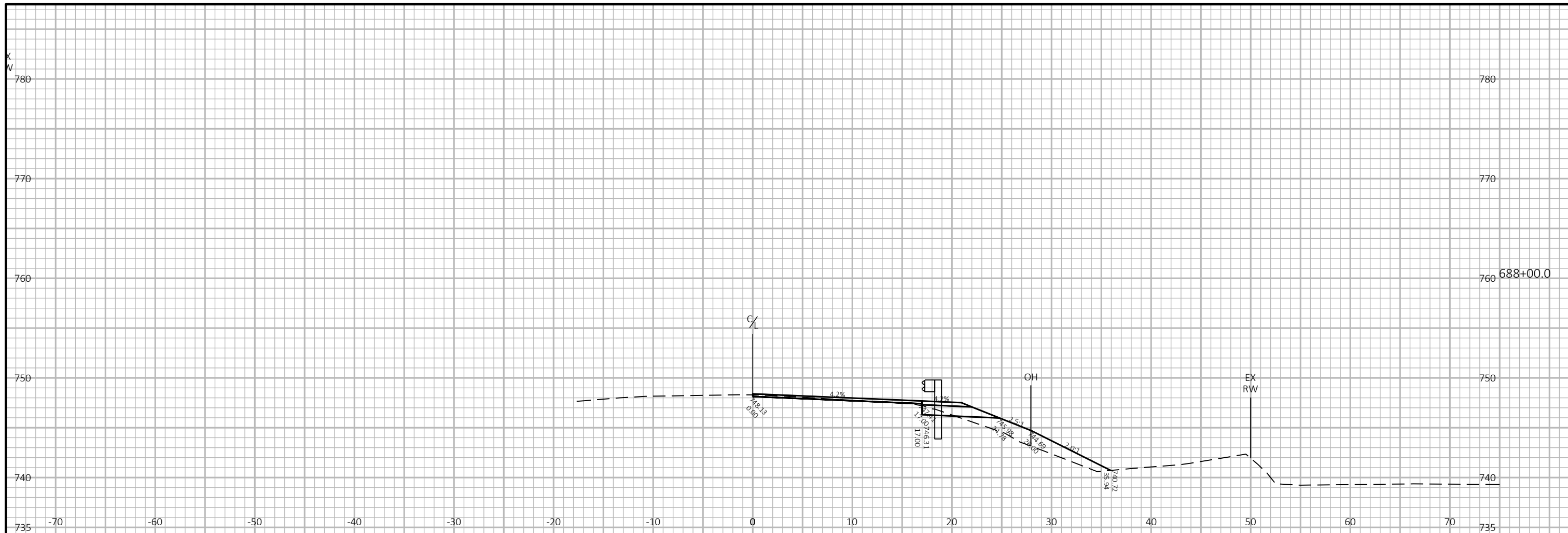
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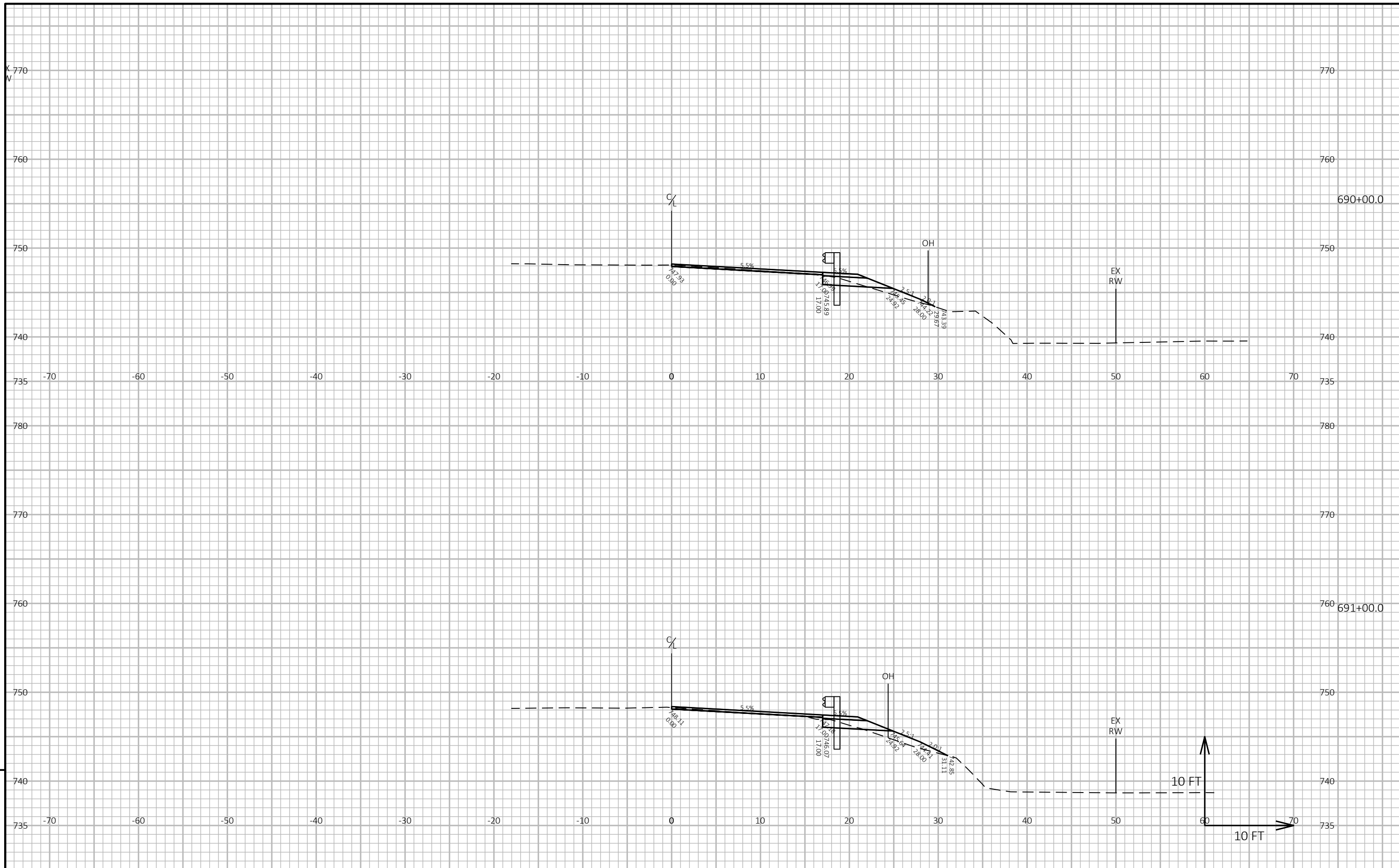
PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET E

FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\7125-00-04_BUFFALO CO_STH 37\500_CADD\501_C3D_2020\71250004\SHEETSPLAN\090201-XS.DWG PLOT DATE: 10/19/2021 6:22 PM PLOT BY: BOBBY JONES PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 82



PROJECT NO: 7125-00-74/75 HWY: STH 37 COUNTY: BUFFALO CROSS SECTIONS: BEAMGUARD SHEET 9



PROJECT NO: 7125-00-74/75

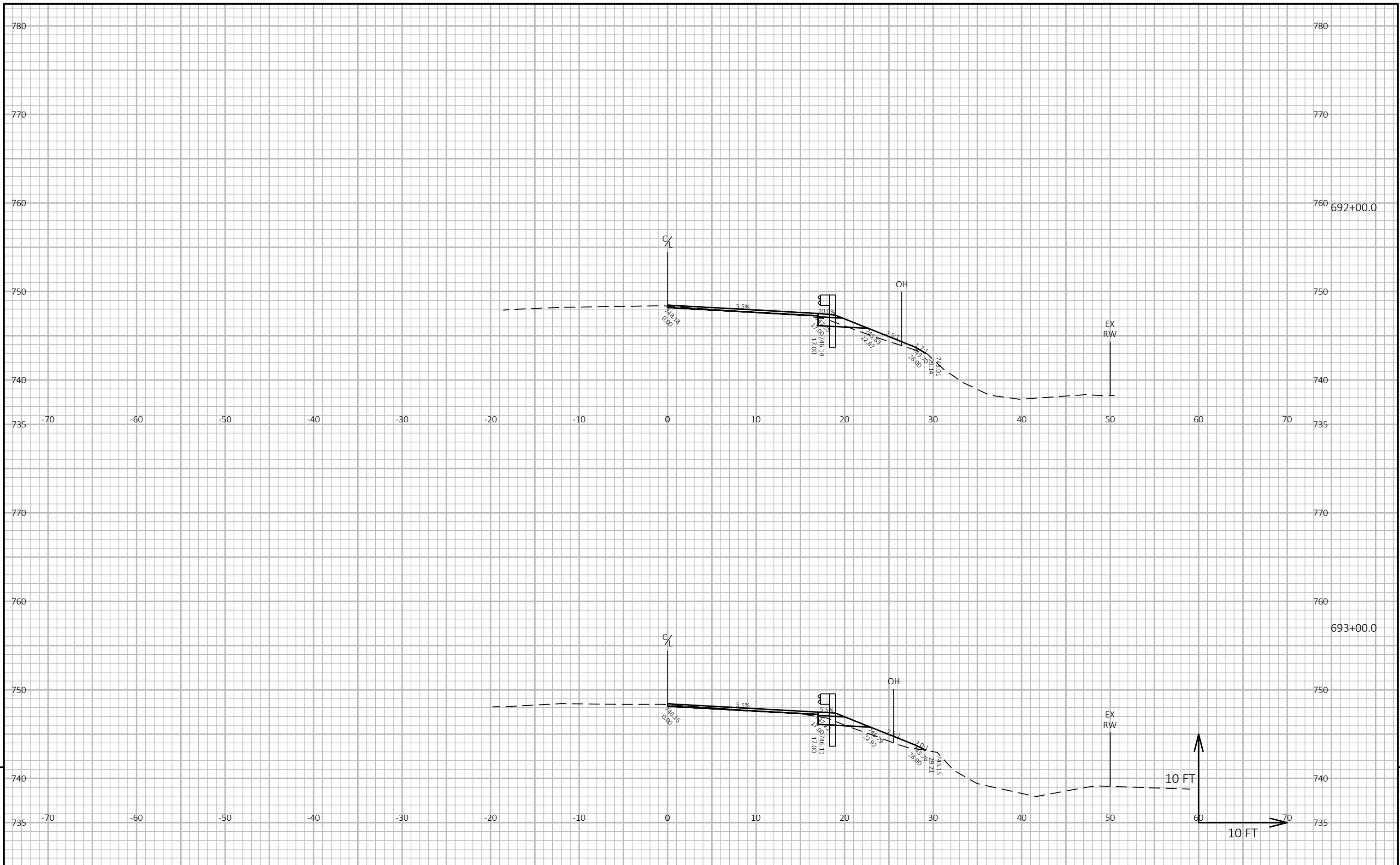
HWY: STH 37

COUNTY: BUFFALO

CROSS SECTIONS: BEAMGUARD

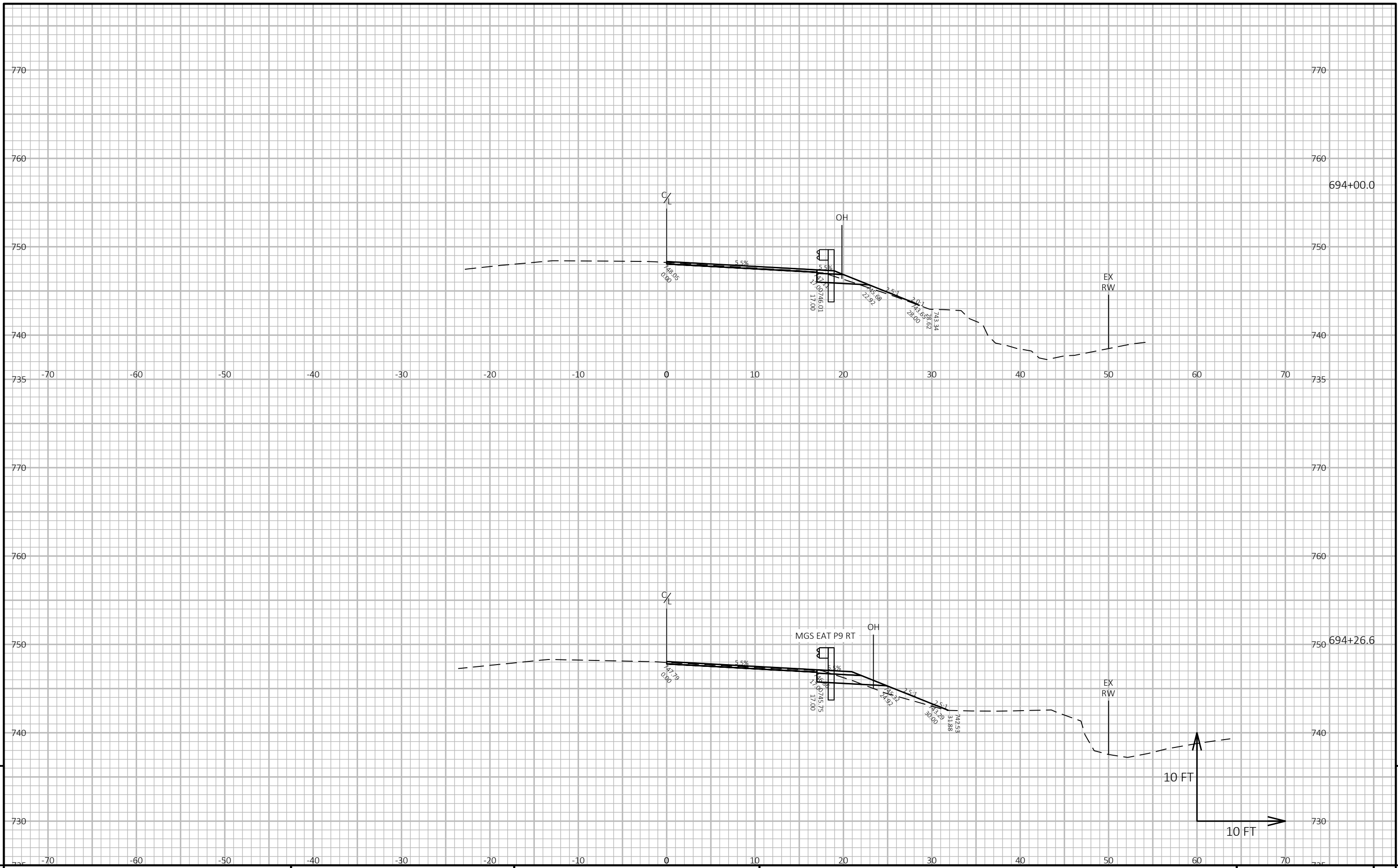
SHEET

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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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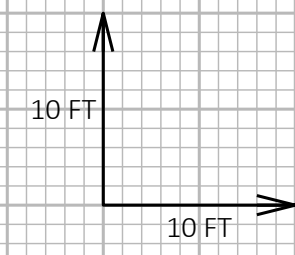
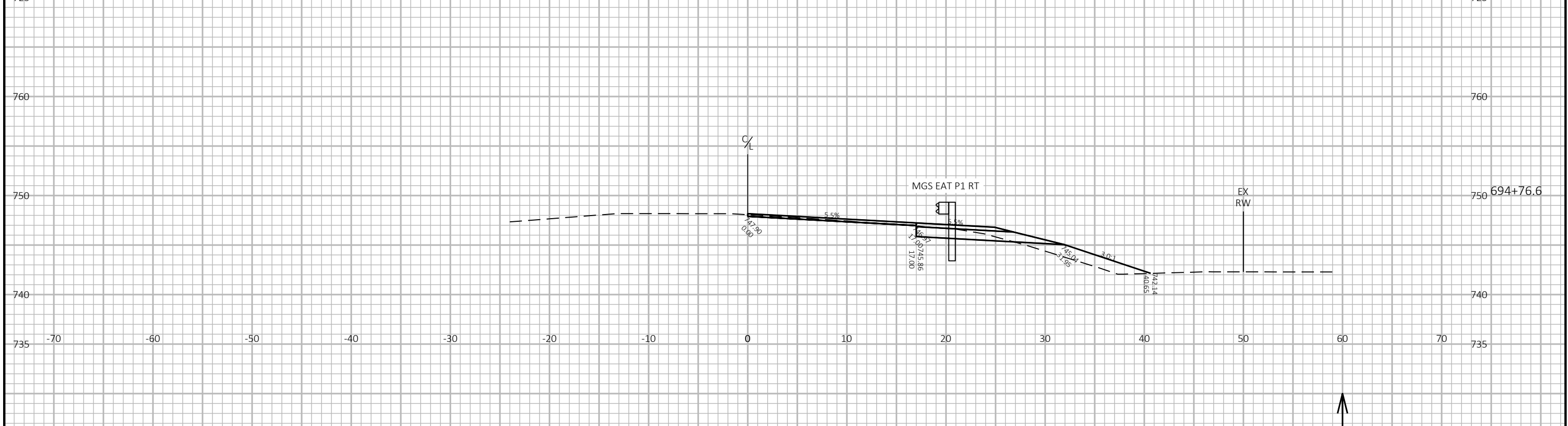
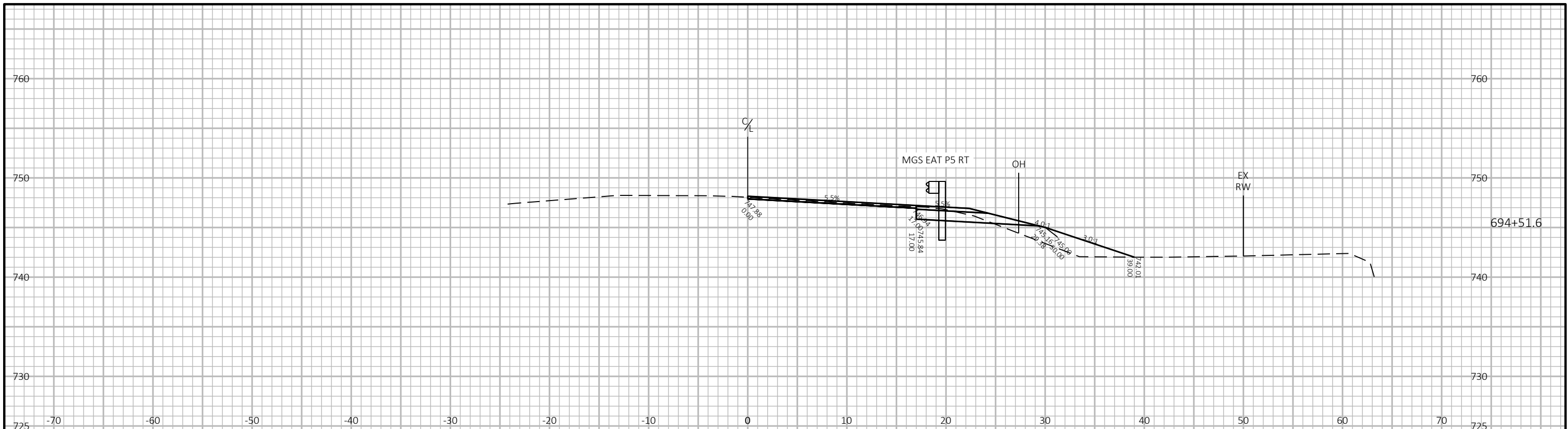
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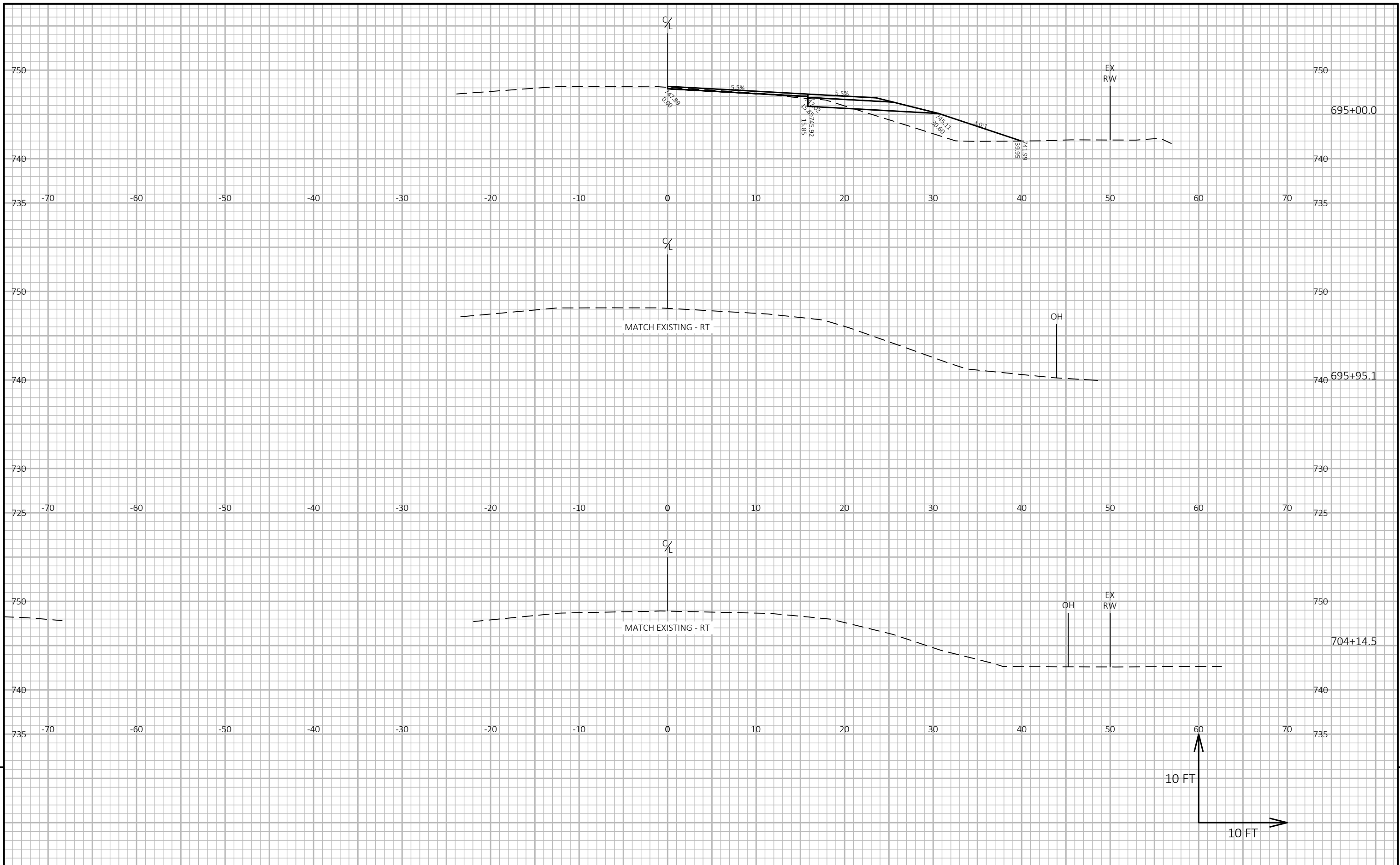
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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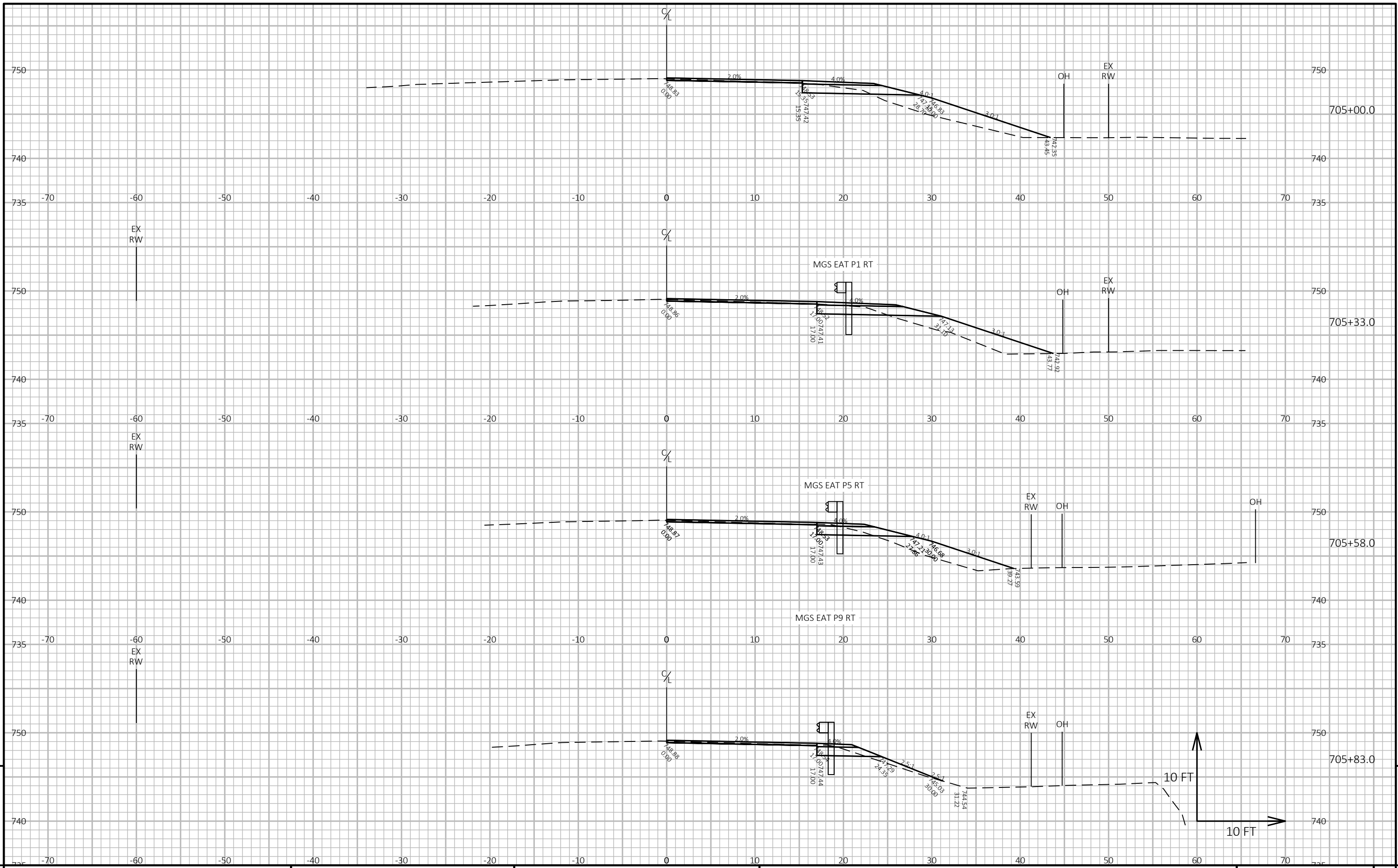
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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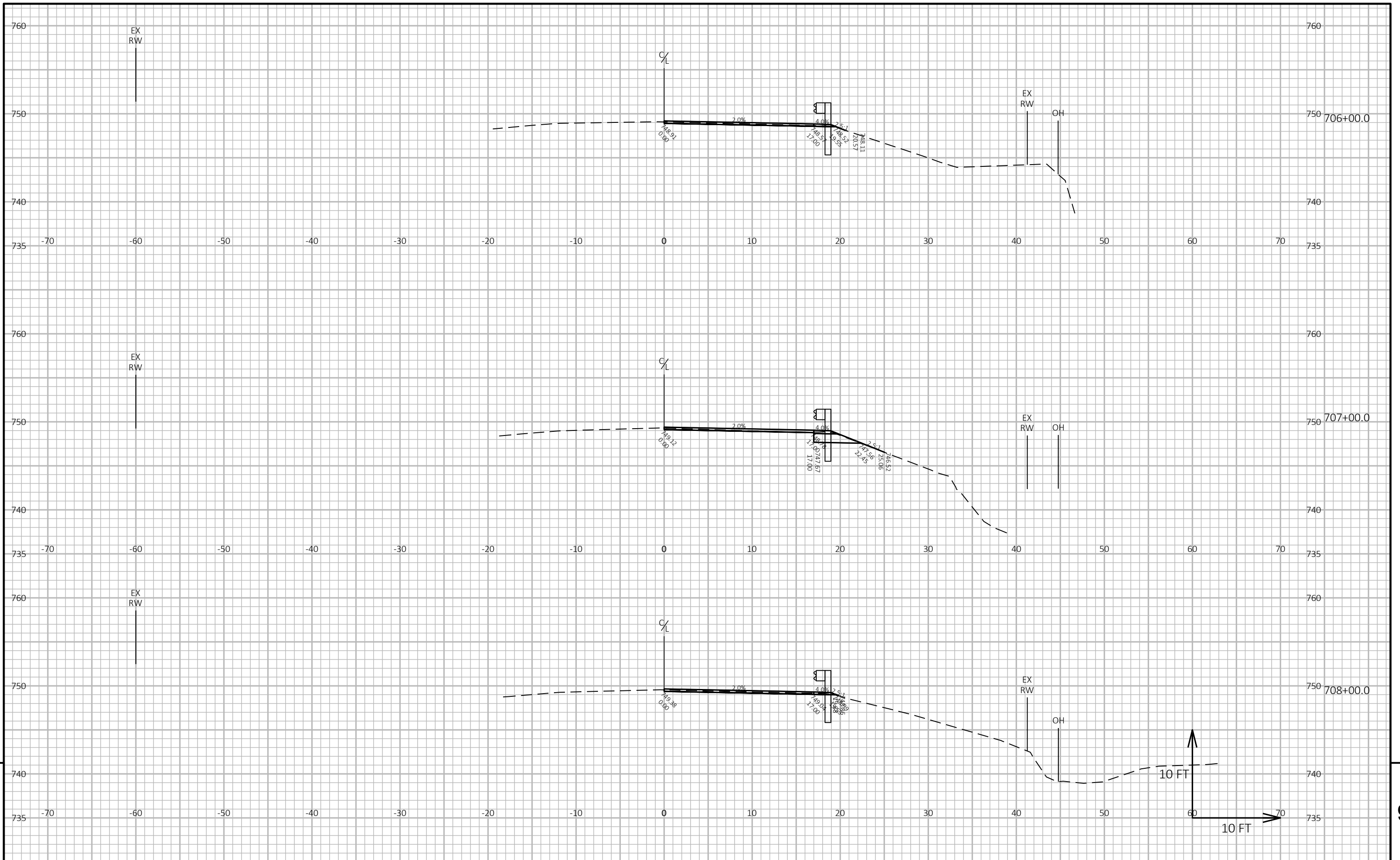
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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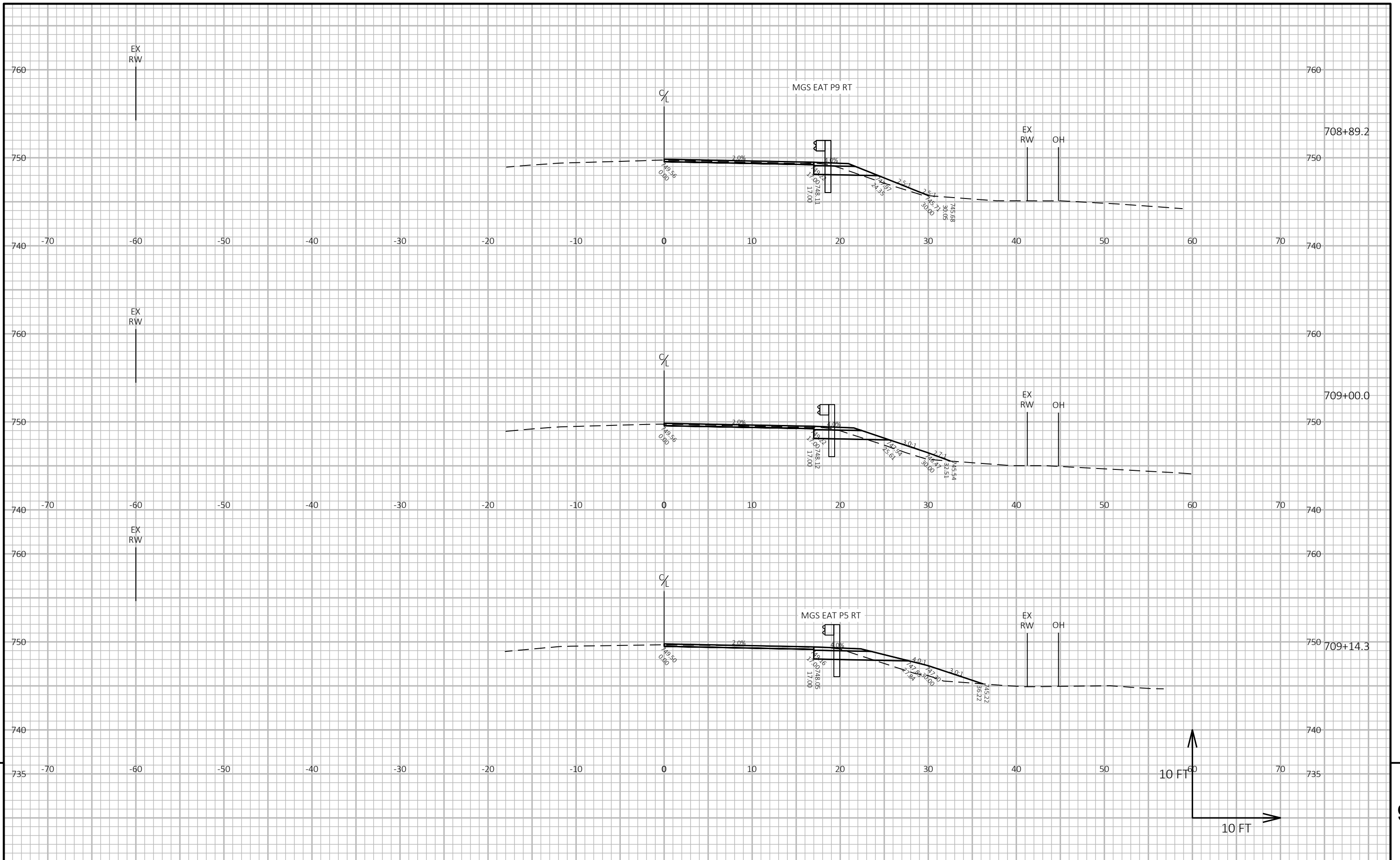
PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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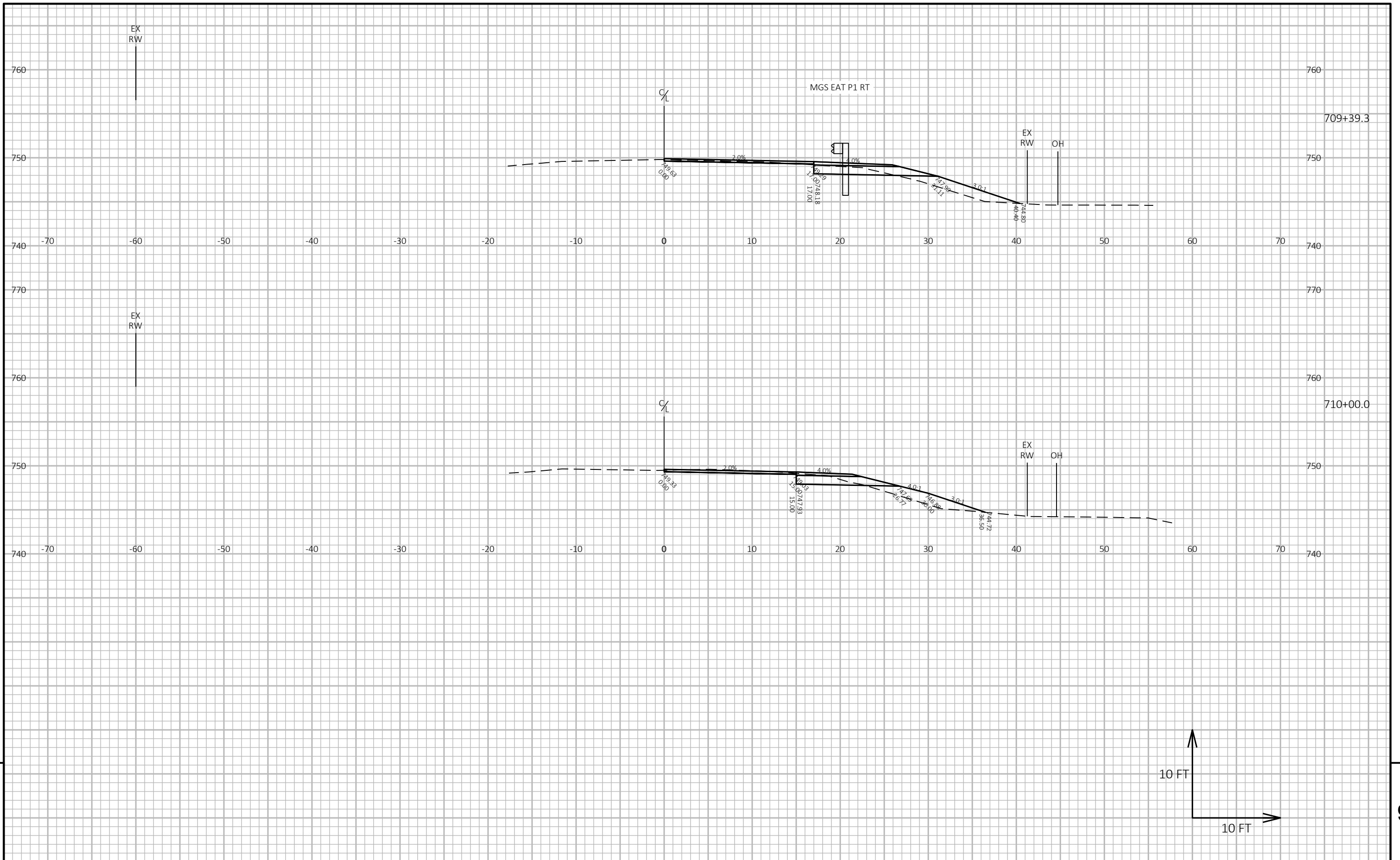
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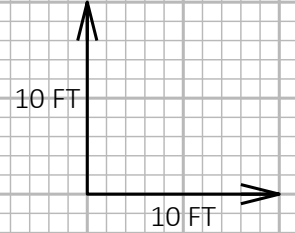


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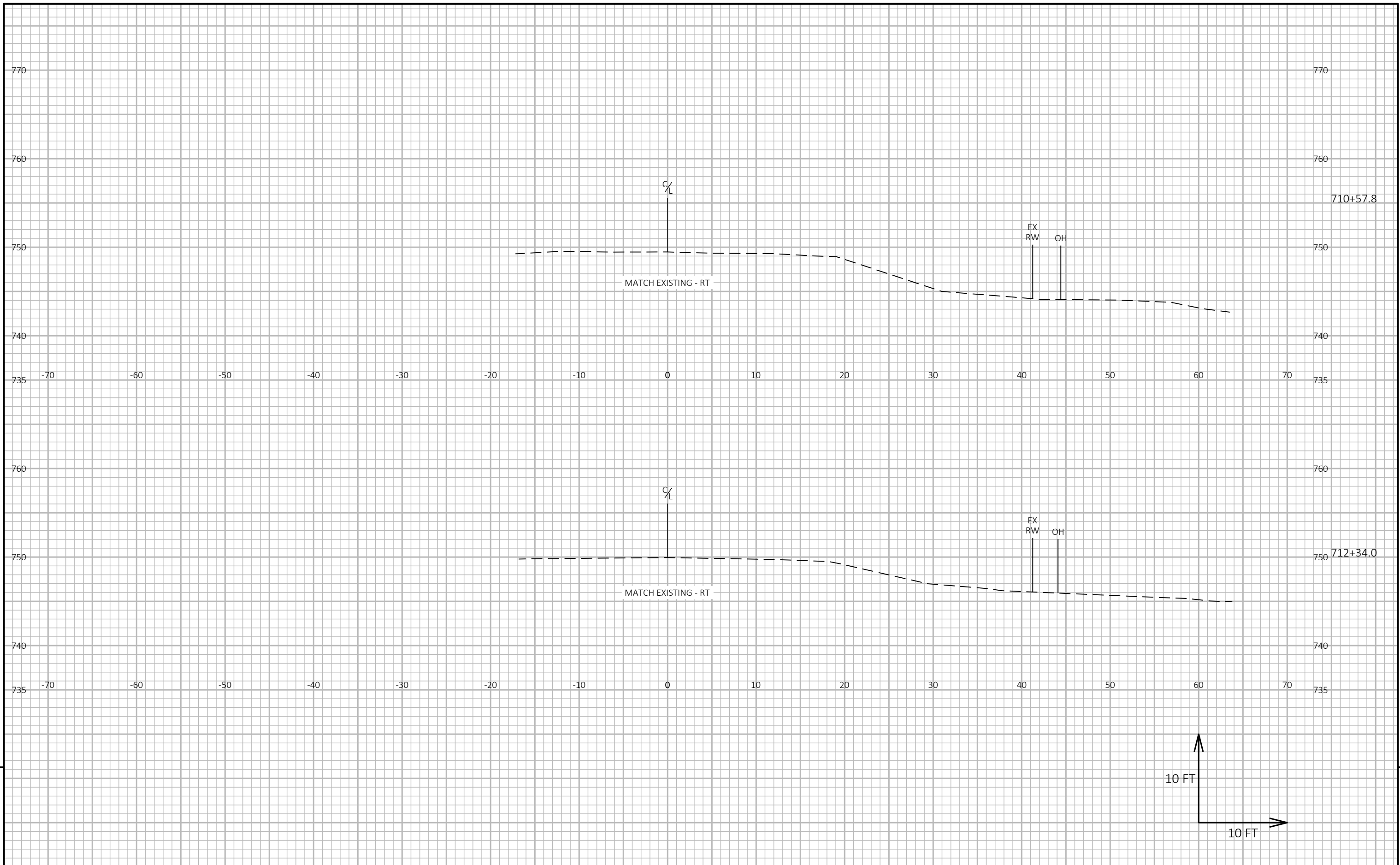


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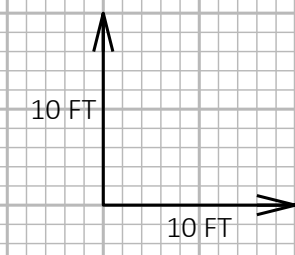
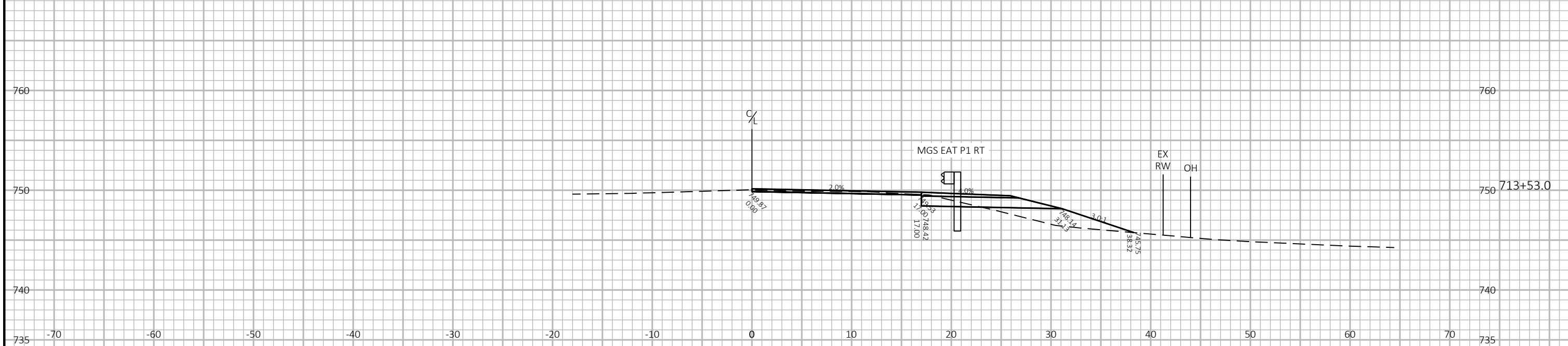
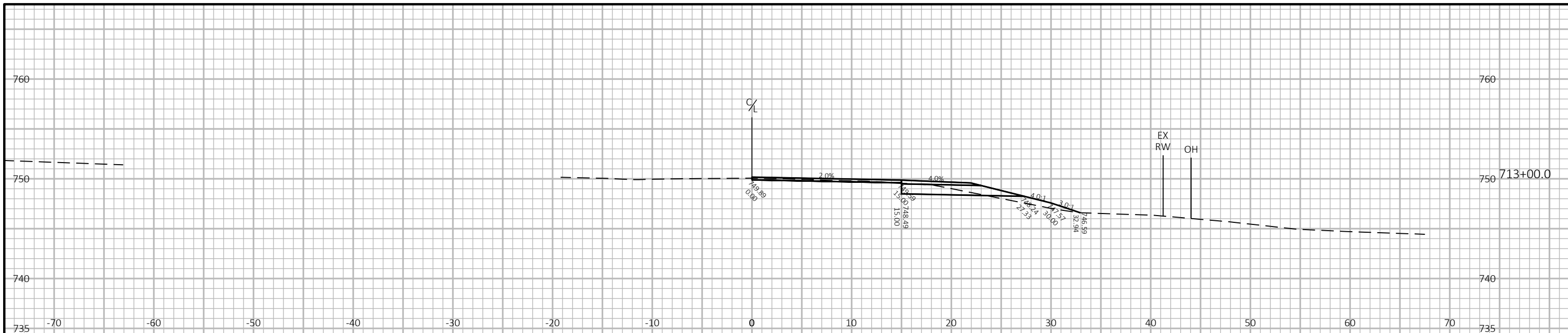
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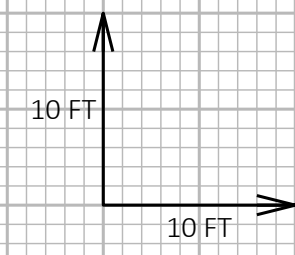
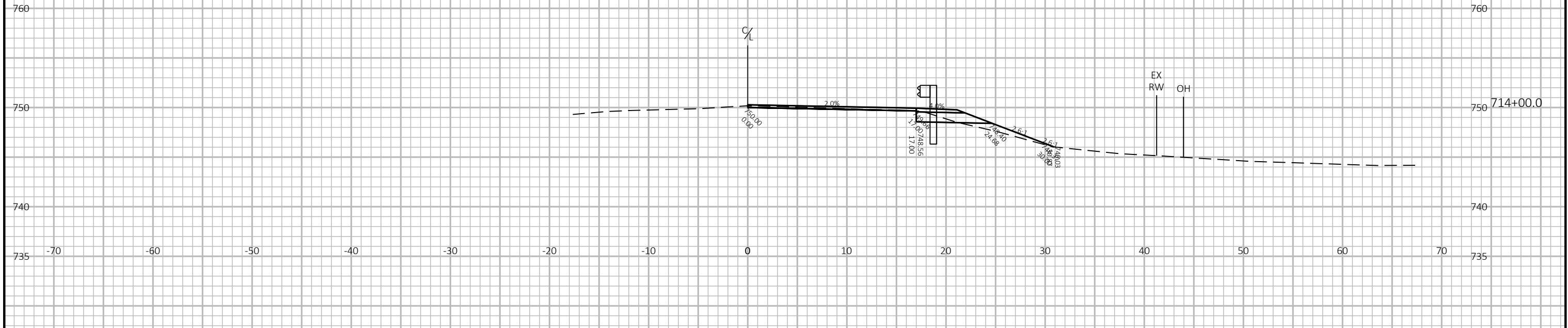
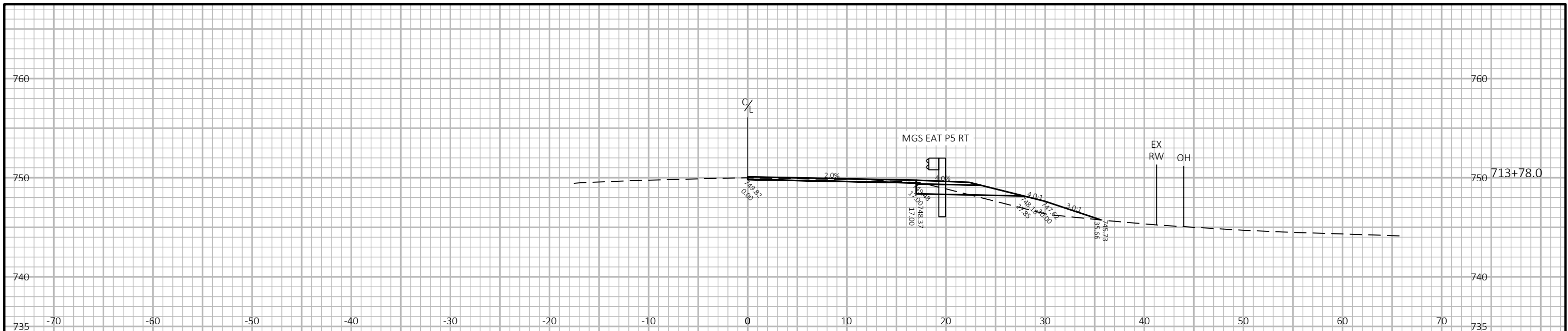
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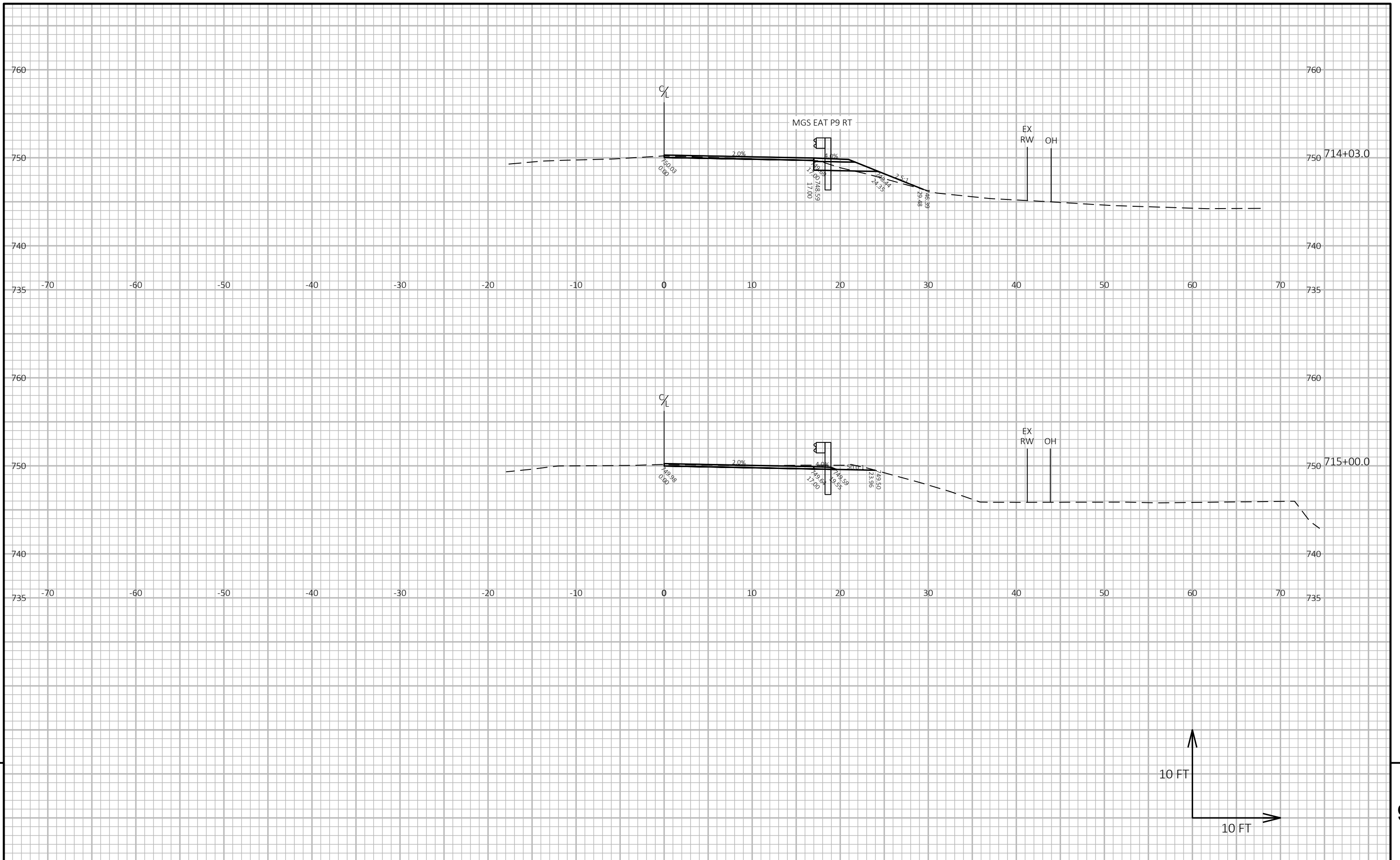
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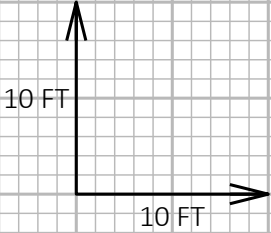
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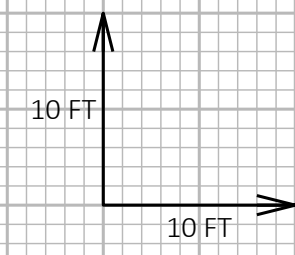
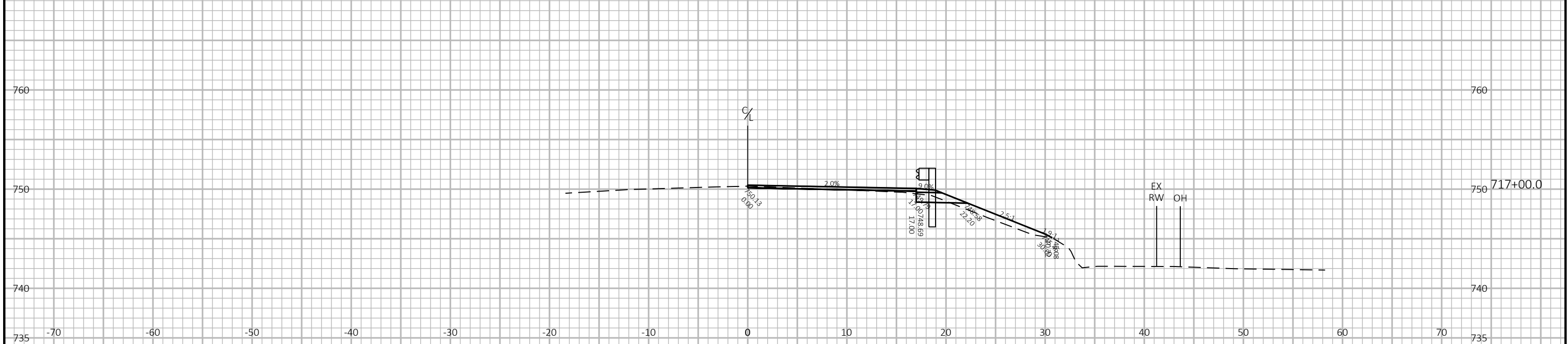
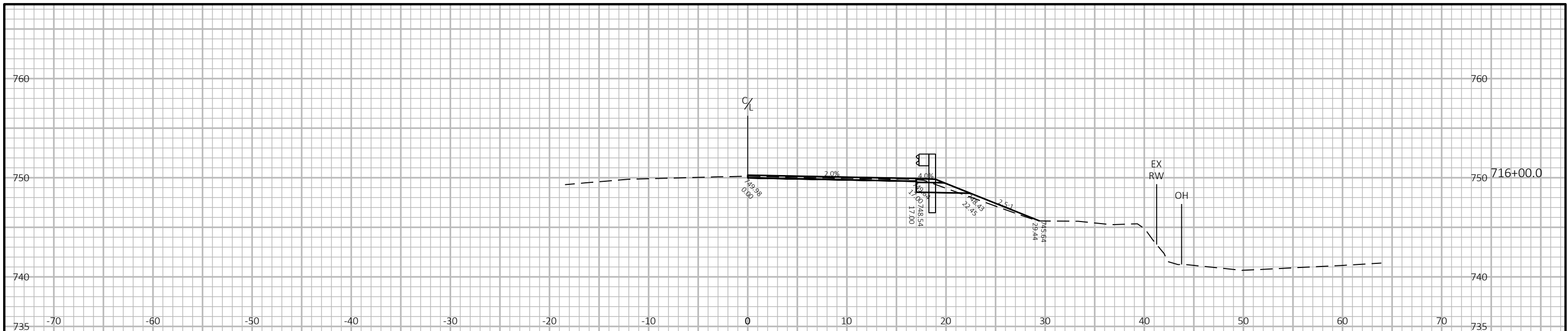


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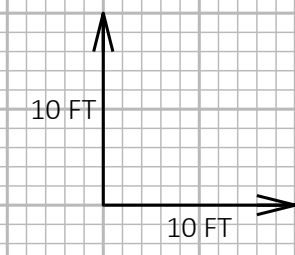
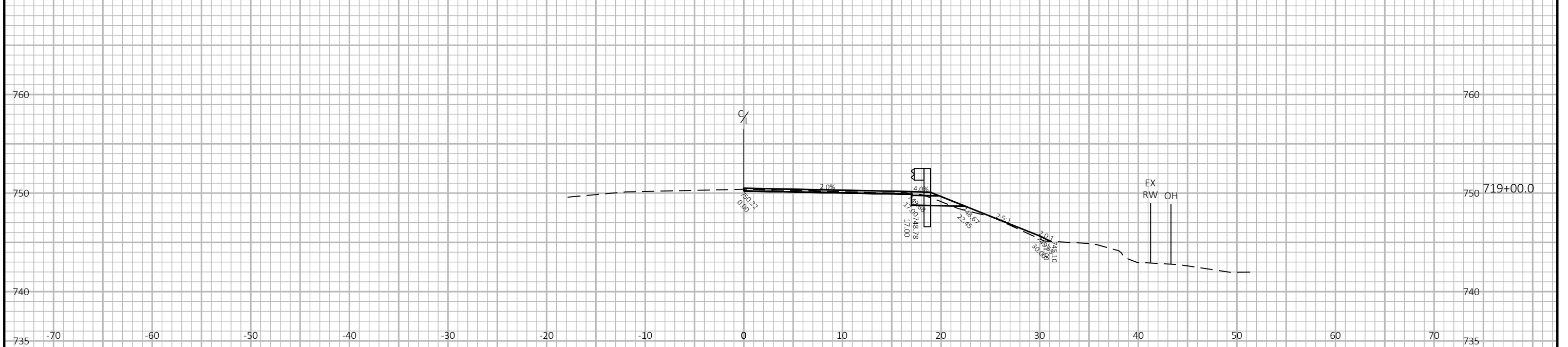
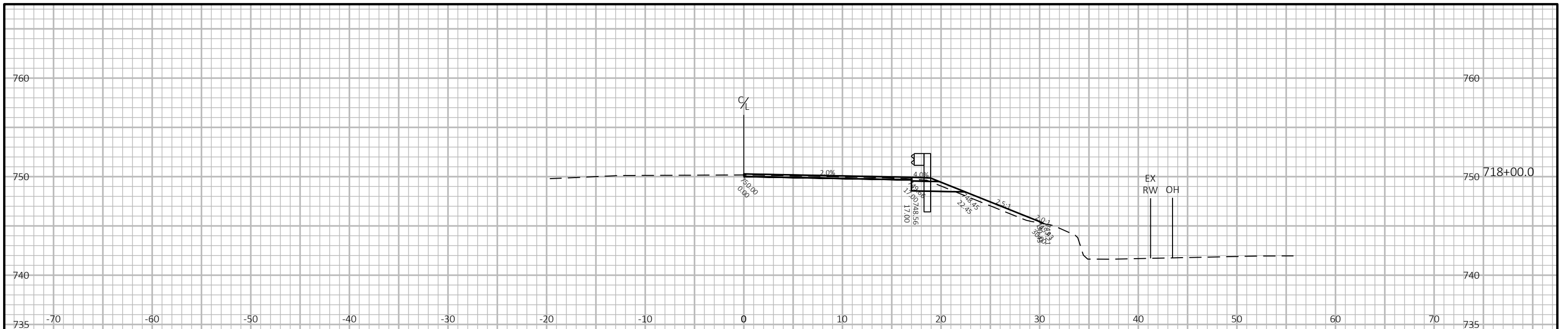
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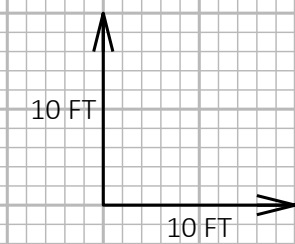
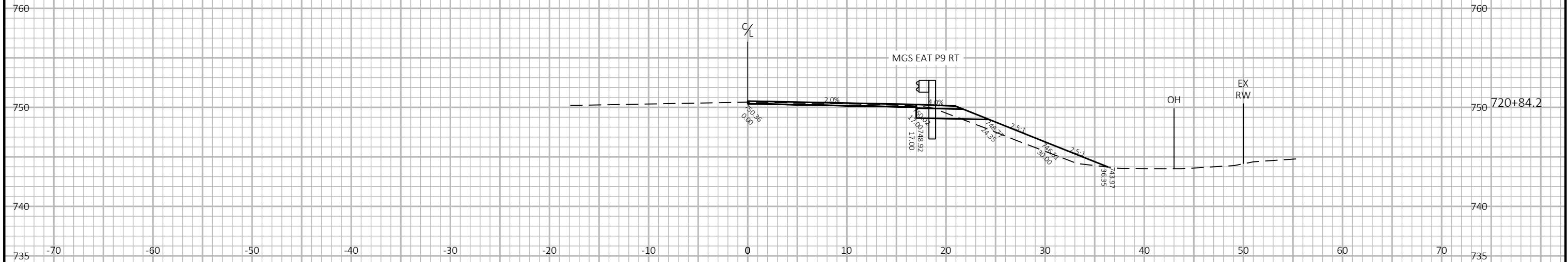
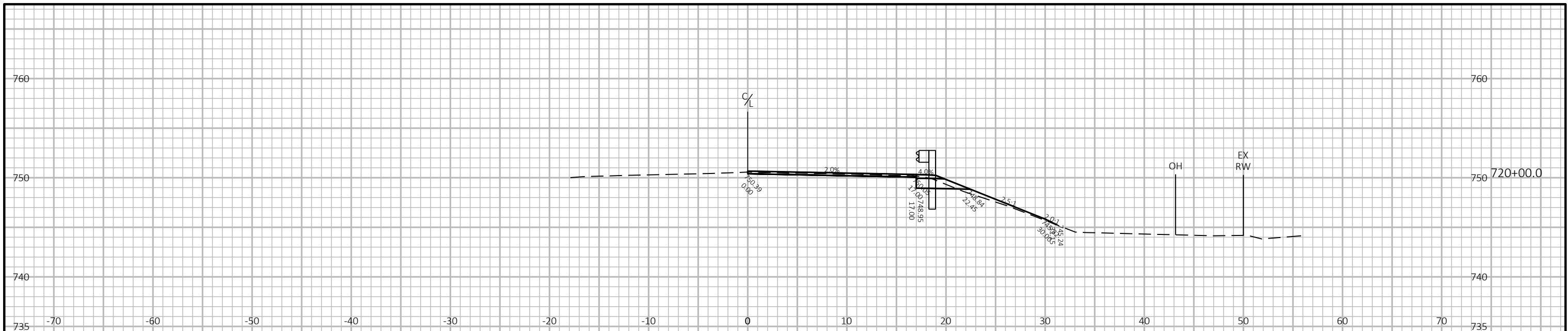
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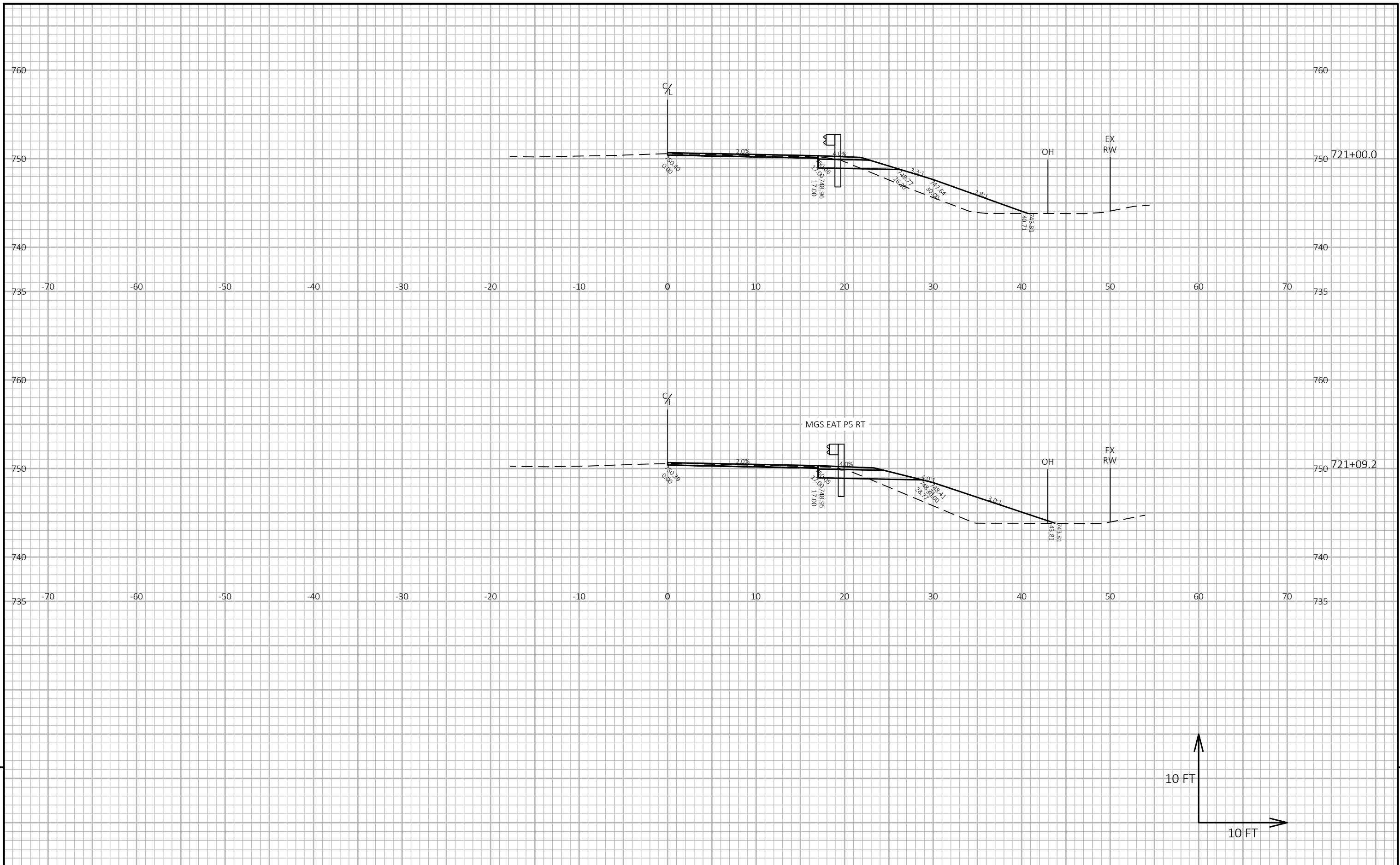
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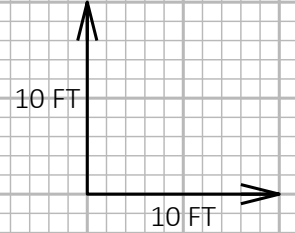
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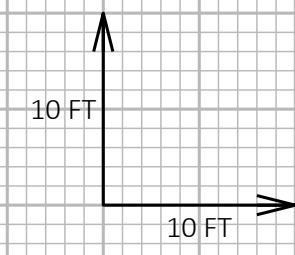
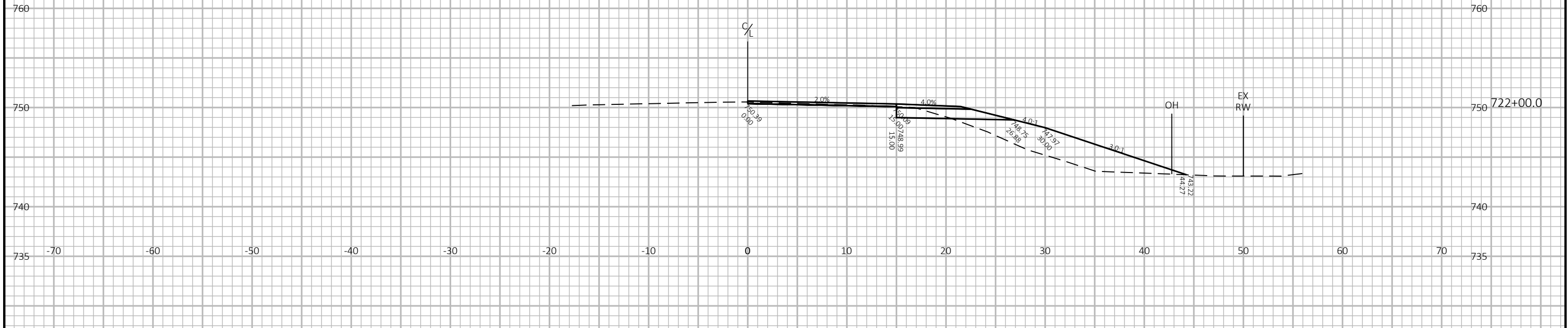
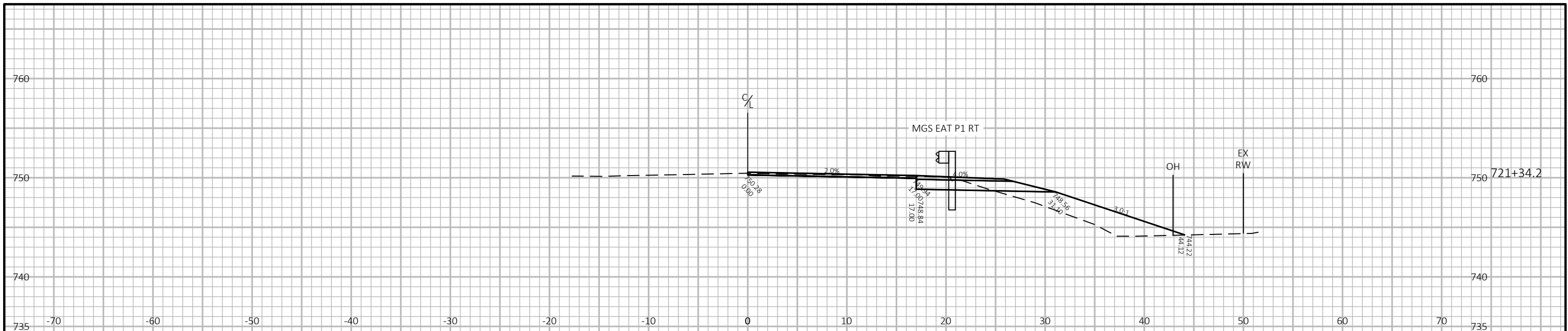


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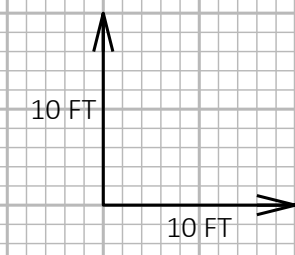
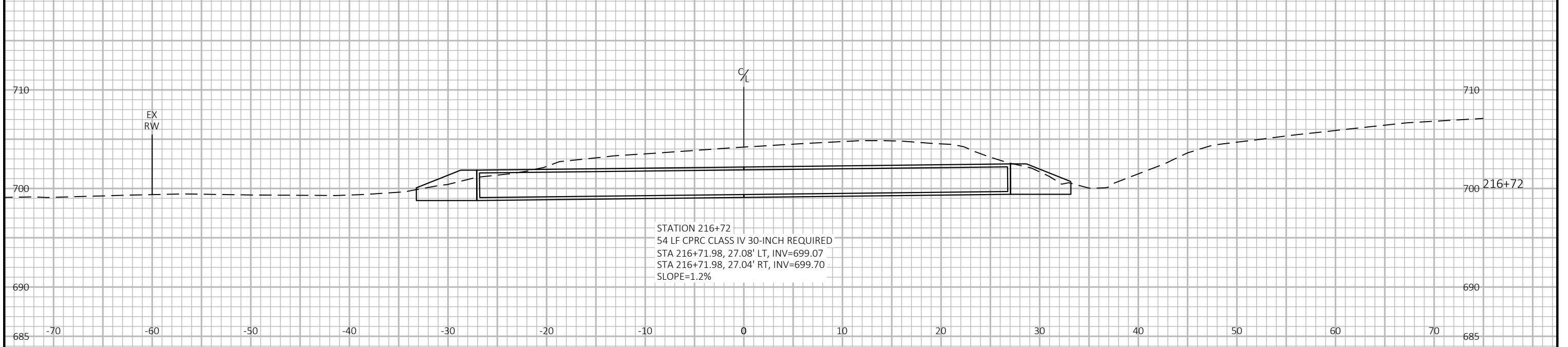
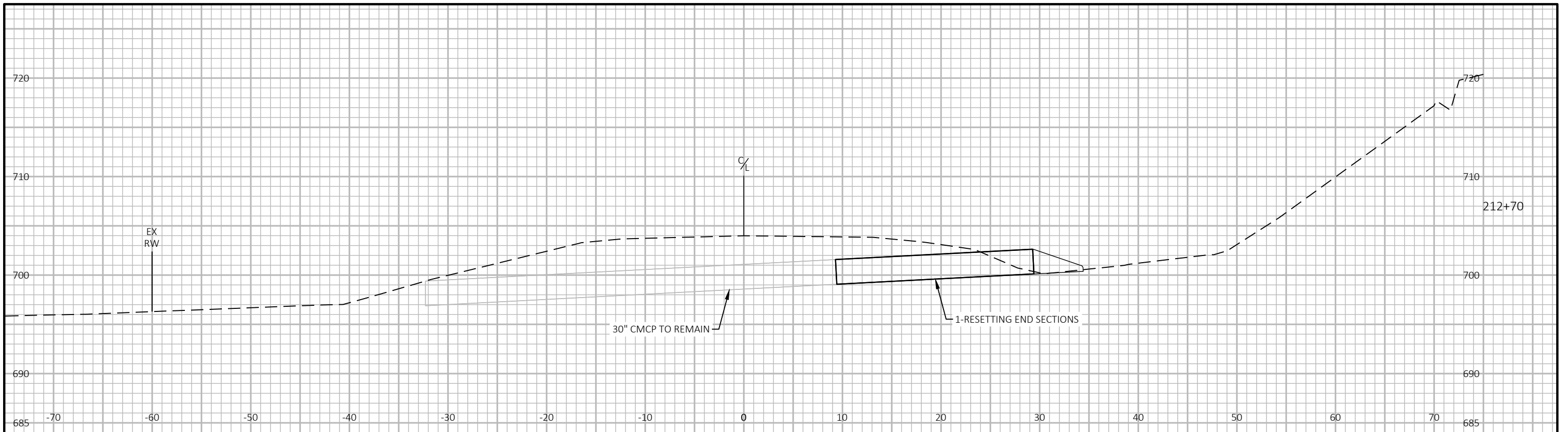
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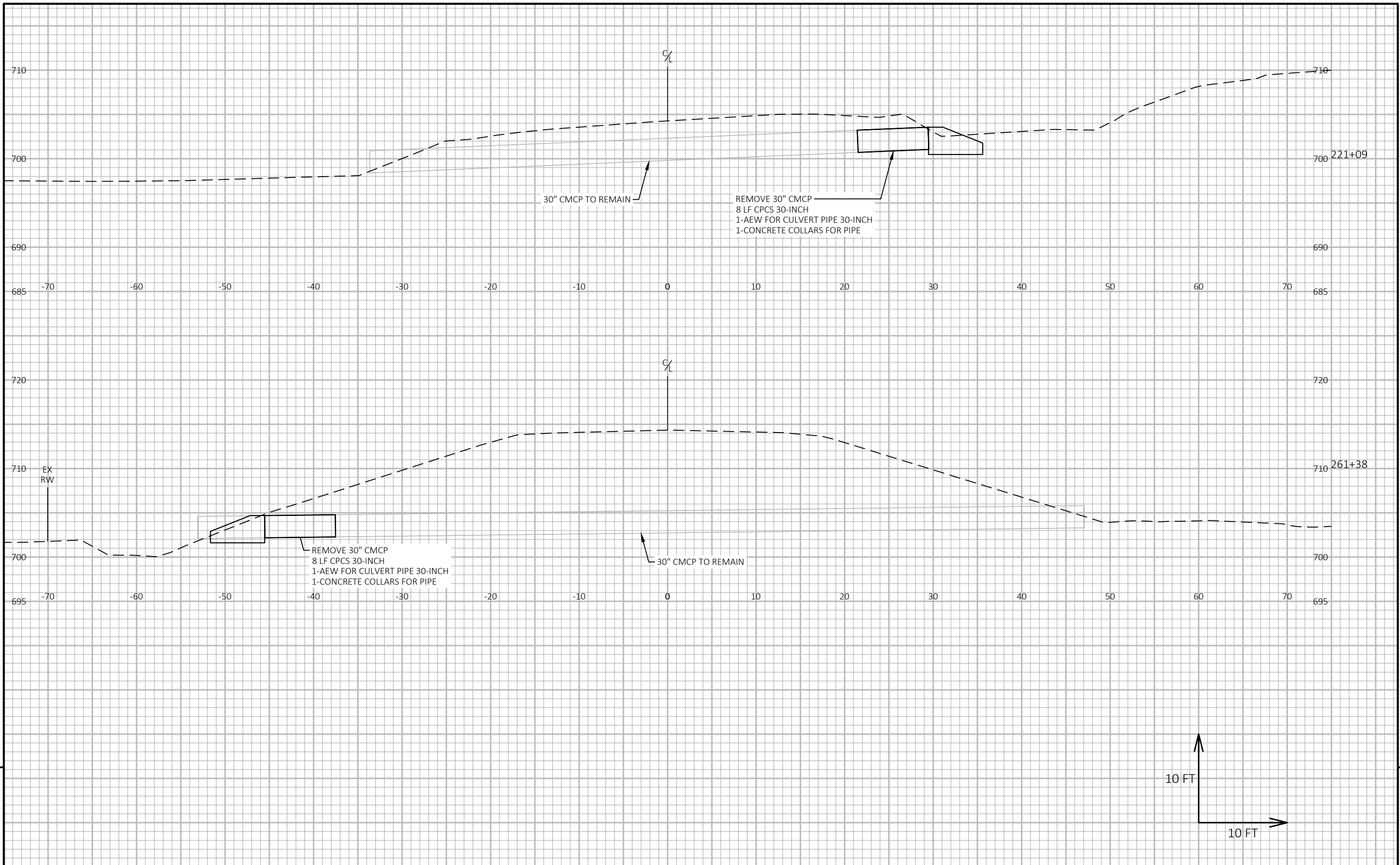
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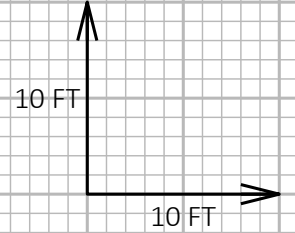
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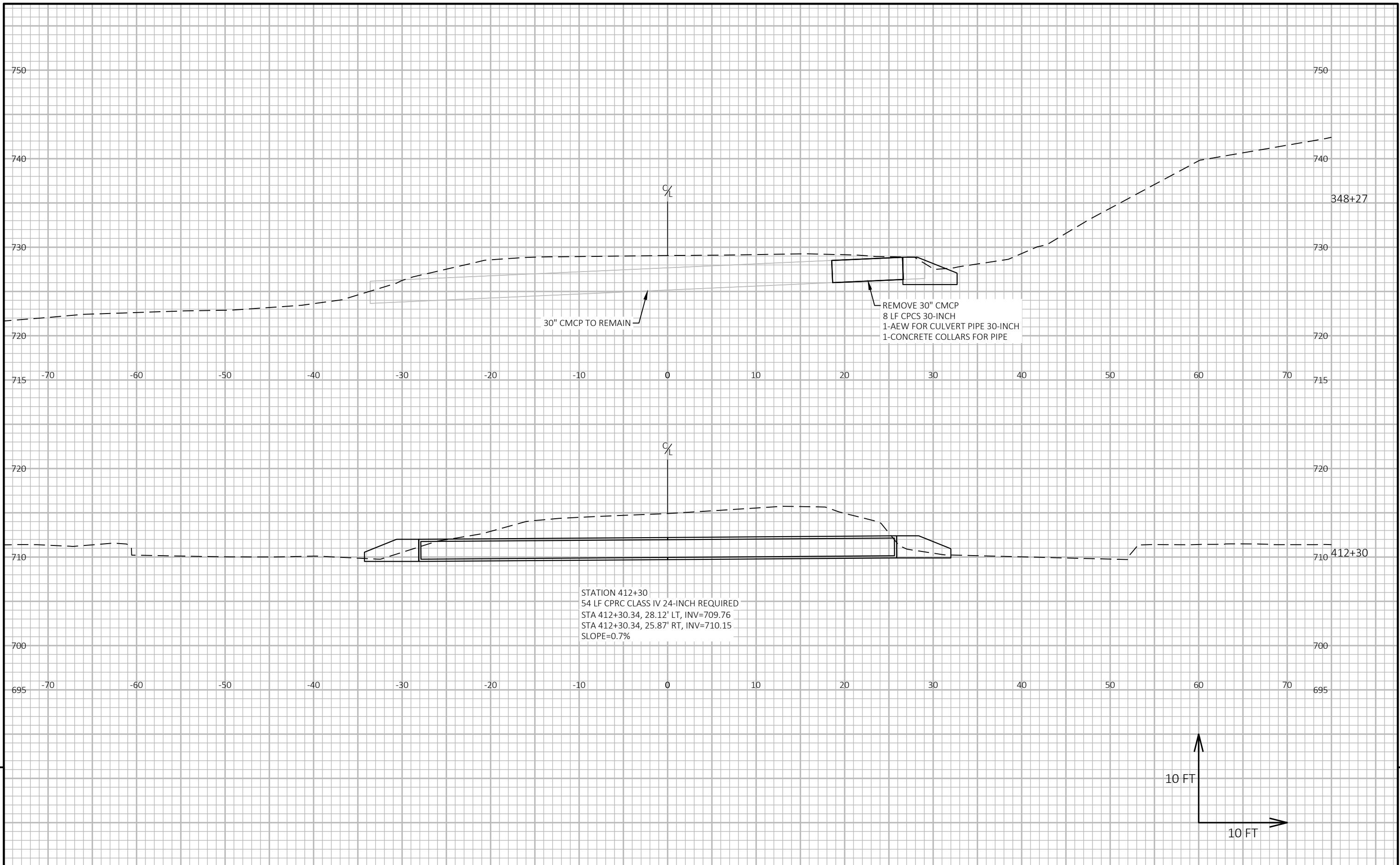


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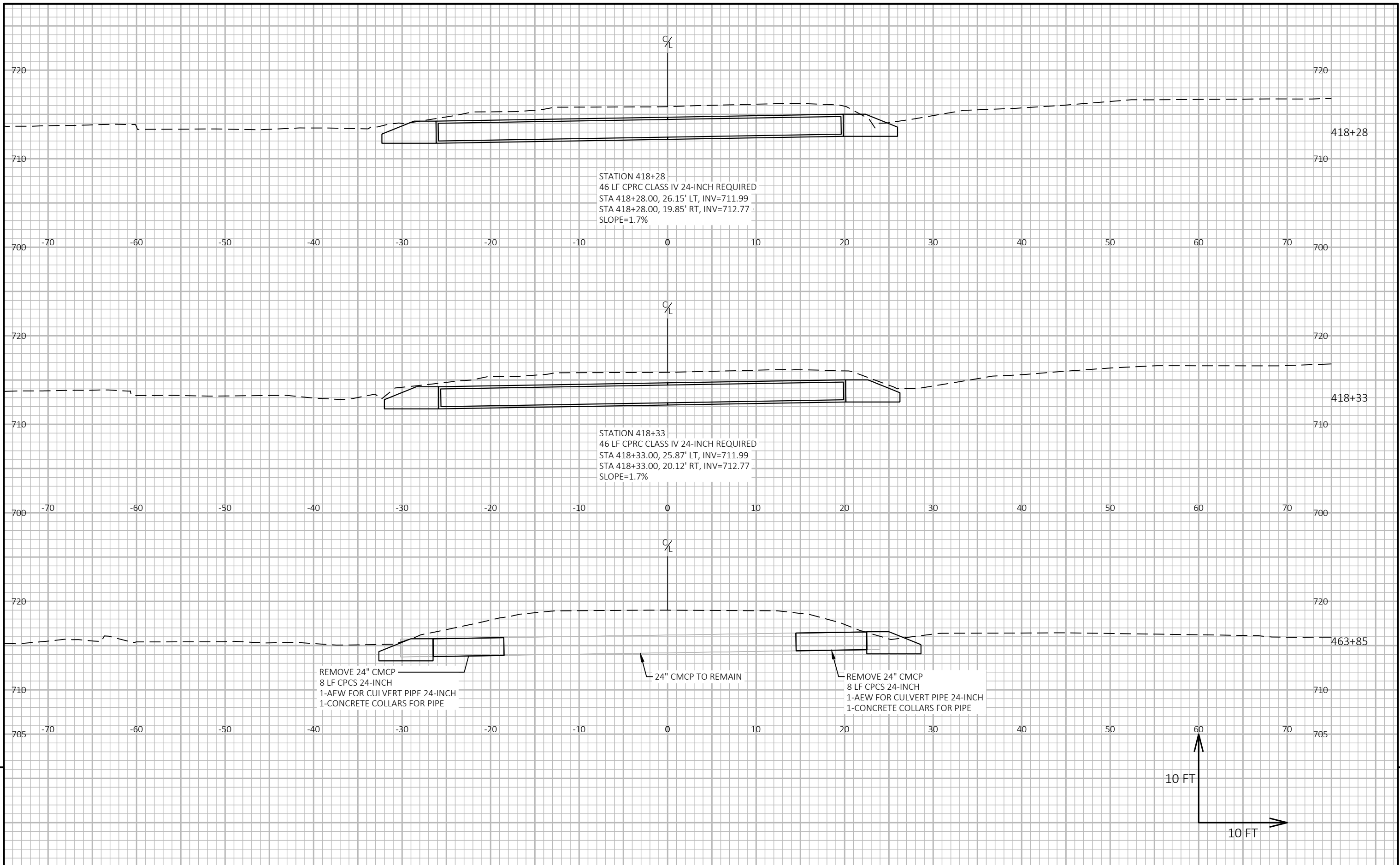
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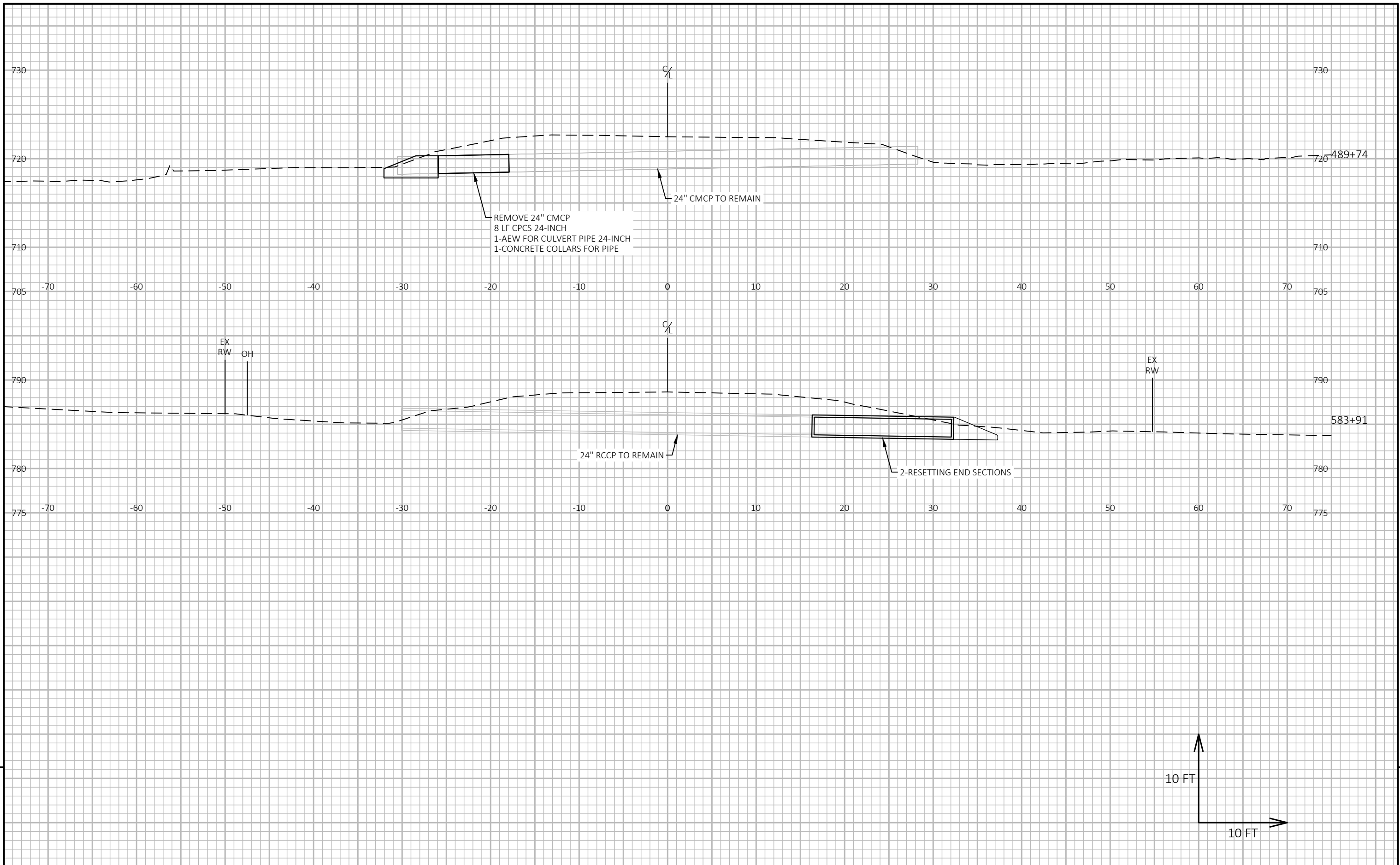
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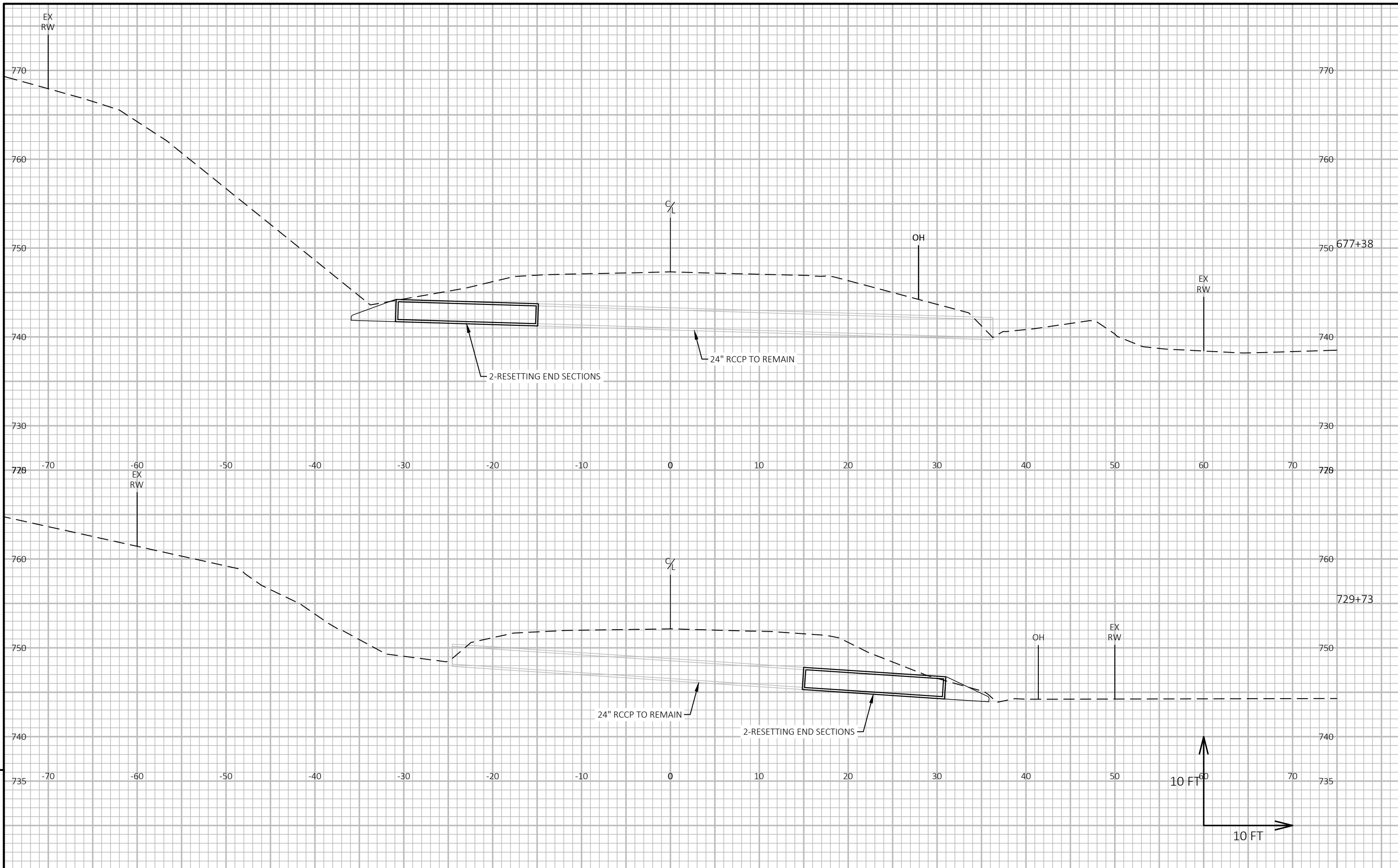
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: CULVERTS	SHEET	E
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PROJECT NO: 7125-00-74/75

HWY: STH 37

COUNTY: BUFFALO

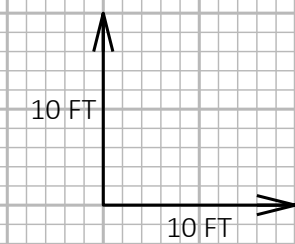
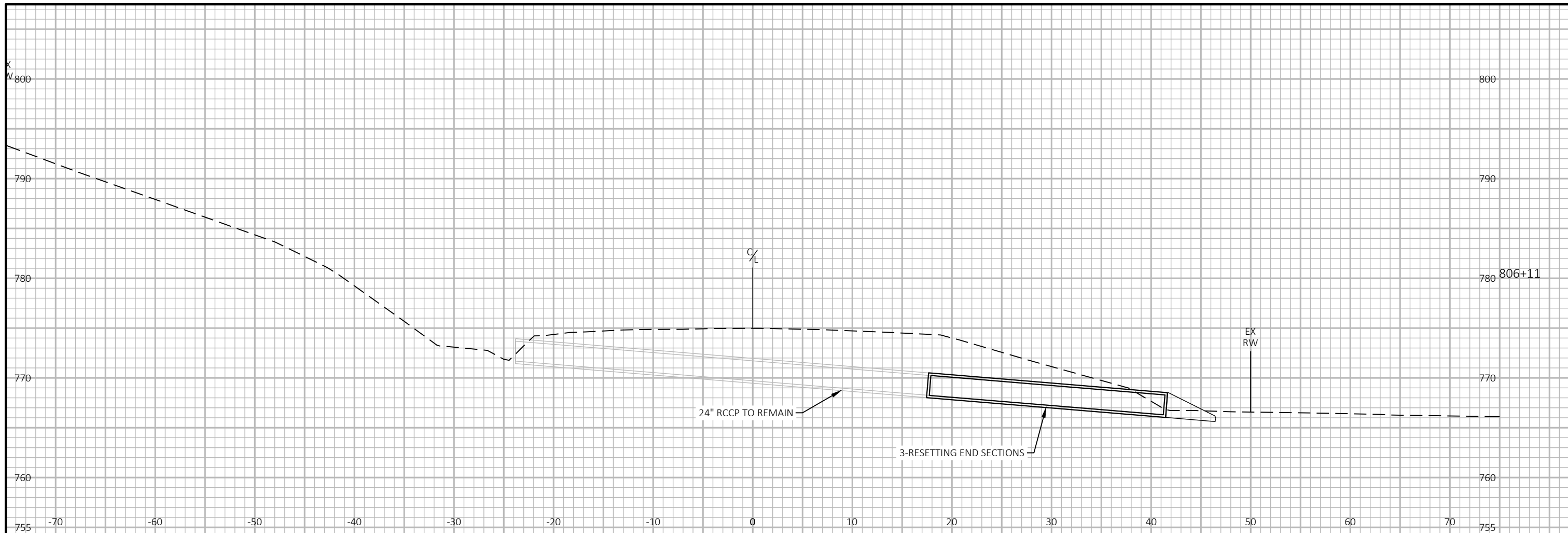
CROSS SECTIONS: CULVERTS

SHEET

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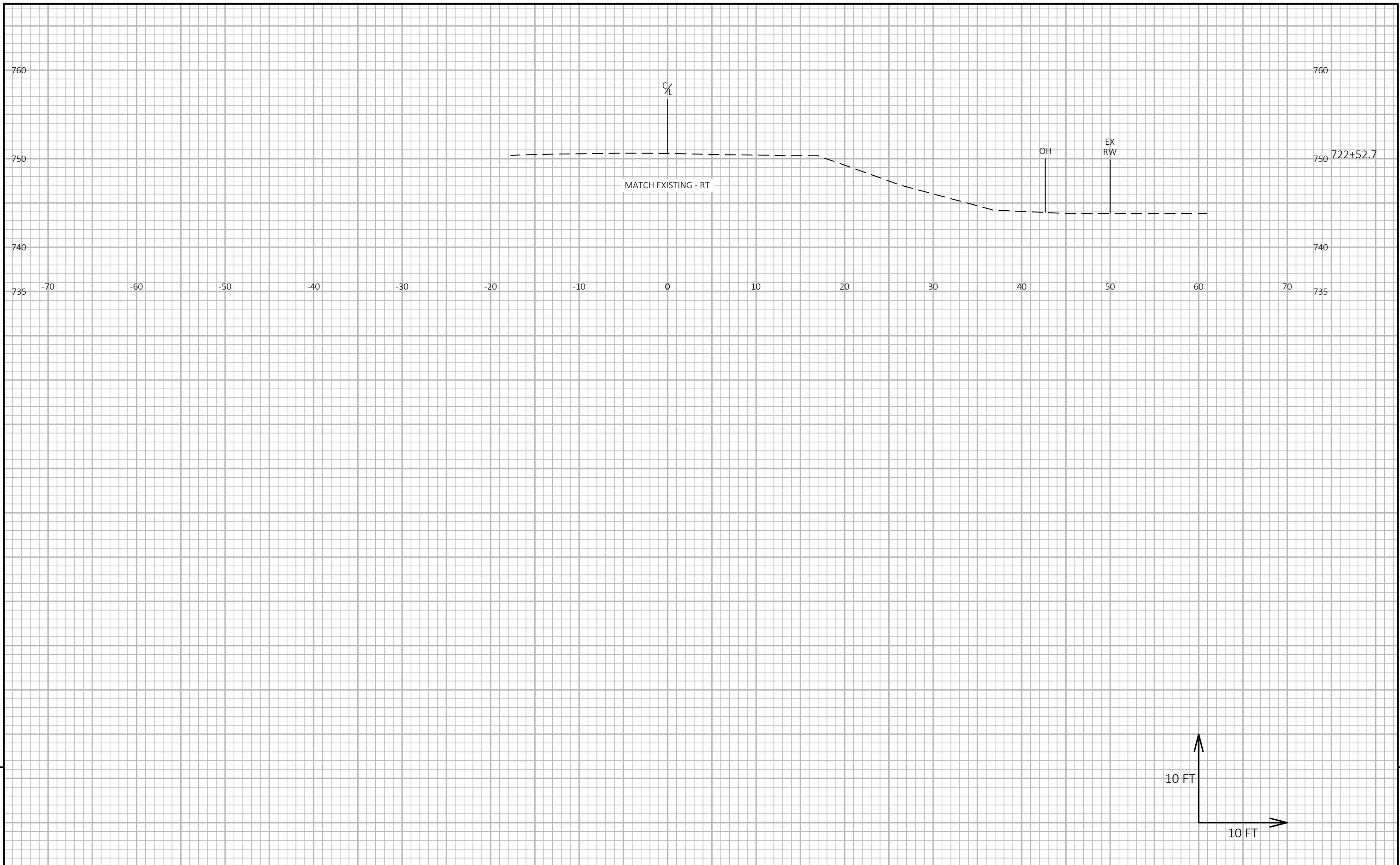
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: CULVERTS	SHEET	E
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PROJECT NO: 7125-00-74/75	HWY: STH 37	COUNTY: BUFFALO	CROSS SECTIONS: BEAMGUARD	SHEET	E
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Notes



Wisconsin Department of Transportation

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