

PROJECT ID: 4130-11-71
WITH: N/A

COUNTY: KEWAUNEE

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 =



DESIGN DESIGNATION 4130-11-00

A.A.D.T.	2024	=	4820
A.A.D.T.	2044	=	4820
D.H.V.		=	289
D.D.		=	50/50
T.		=	11%
DESIGN SPEED		=	55 MPH
ESALS		=	1,140,000

CONVENTIONAL SYMBOLS

PLAN

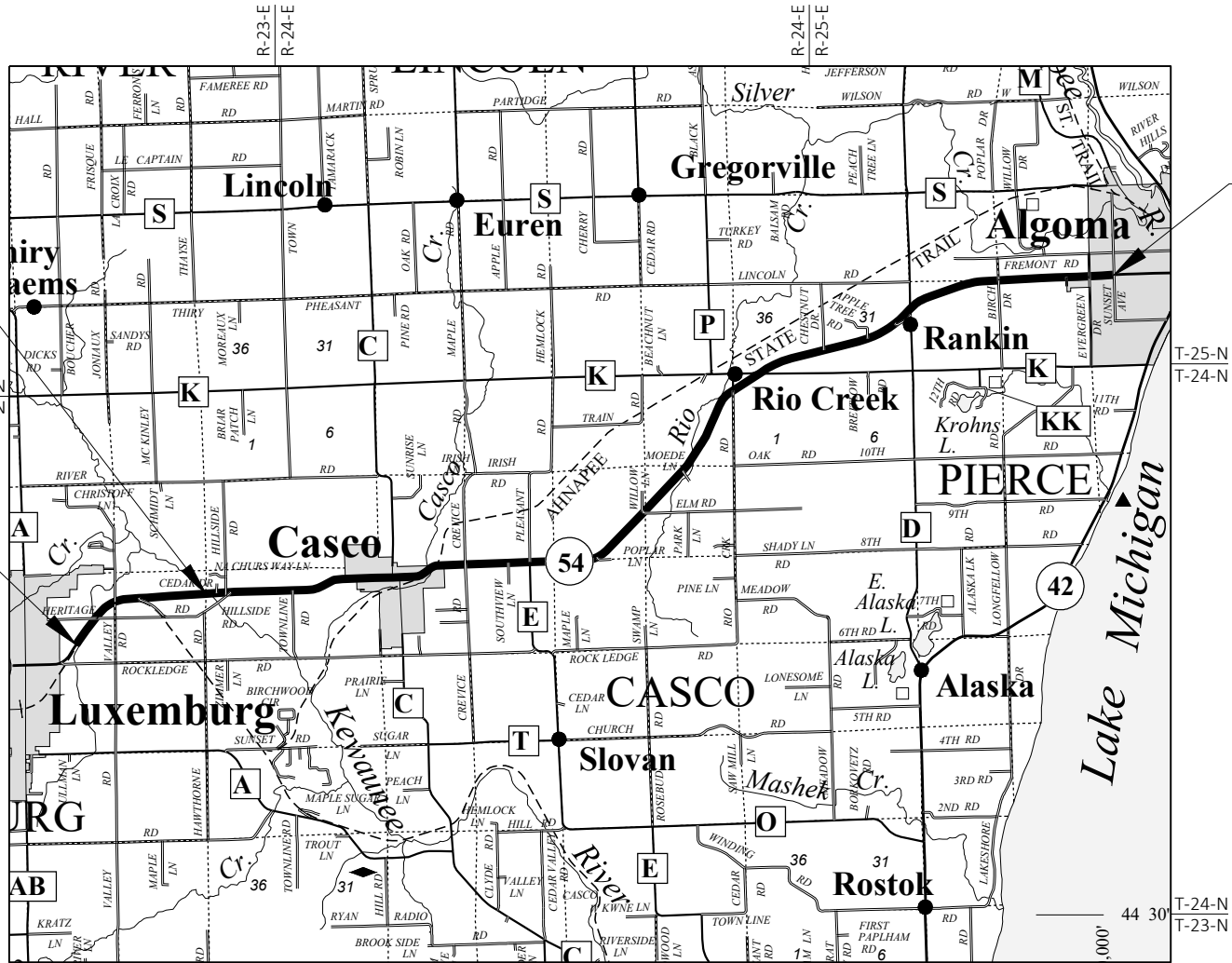
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

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

EXCEPTION TO NET & LENGTH
STA 334+99 TO STA 336+37
EXISTING STRUCTURE B-31-71

BEGIN PROJECT
STA 241+06.81
Y= 466,915.592
X= 224,803.371



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 13.203 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), KEWAUNEE 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 2012A.

END PROJECT
STA 938+90.00
Y= 487,240.981
X= 286,927.405

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LUXEMBURG - ALGOMA

VALLEY ROAD - SUNSET AVENUE

STH 54

KEWAUNEE COUNTY

STATE PROJECT NUMBER
4130-11-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4130-11-71		

TRANS 220
PROJECT PLAN
FOR
DESIGN OF UTILITY FACILITY
ALTERATIONS OR RELOCATIONS

Date: 09/16/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	NE REGION
Designer	D. KIRST
Project Manager	P. BRAUER
Regional Examiner	
Regional Supervisor	D. SEGERSTROM

APPROVED FOR THE DEPARTMENT
DATE: (Signature)

E

GENERAL NOTES

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

THE ENGINEER WILL VERIFY AND APPROVE MILL/OVERLAY LIMITS.

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

PLACE ROADWAY SHOULDERS PRIOR TO INSTALLING GUARDRAIL UNLESS ALLOWED OTHERWISE BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

DISTURBED AREAS OUTSIDE OF THE FINISHED SUBGRADE SHOULDERS POINT SHALL BE RESTORED WITH FERTILIZER, SEED, AND MULCH/EMAT WITH 5 CALENDAR DAYS OF FINAL GRADING/TOPSOILING OR AS DIRECTED BY THE ENGINEER.

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- TRAFFIC CONTROL
- DETOUR PLAN
- ALIGNMENT PLAN



Dial  or (800)242-8511
www.DiggersHotline.com

DNR LIAISON

MATT SCHAEVE
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920)366-1544
matthew.schaeve@wisconsin.gov

COUNTY HIGHWAY COMMISSIONER

TODD EVERY
HIGHWAY COMMISSIONER
E4280 COUNTY HIGHWAY F
KEWAUNEE, WI 54216
(920) 388-3707
everyt@kewauneeco.org

NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, RLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 492-5638
cormac.mcinnis@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER

PAUL BRAUER, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 366-1097
paul.brauer@dot.wi.gov

UTILITIES CONTACTS

SHEA GORZELANCZYK
AT&T WISCONSIN - COMMUNICATION LINE
FIRST FLOOR ENGINEERING
205 S. JEFFERSON ST
GREEN BAY, WI 54301
(920) 433-4250
sg2528@att.com

KEVIN ZICKERT
CENTURYLINK - COMMUNICATION LINE
224 INDUSTRIAL DR
NORTH PRAIRIE, WI 53153
(262) 392-5200
relocations@centurylink.com

RICK VINCENT
NET LEC LLC - COMMUNICATION LINE
450 SECURITY BLVD
P.O. BOX 19079
GREEN BAY, WI 54307-9079
(920) 617-7316
rick.vincent@nsight.com

JAMES LECLOUX
ALGOMA UTILITY COMMISSION - ALGOMA UTILITIES
1407 FLORA
ALGOMA, WI 54201
(920) 487-5556

ATC MANAGEMENT, INC. - ELECTRICITY - TRANSMISSION
801 O'KEEFE ROAD
DE PERE, WI 54115
(920) 338-6582
dl-atcdotnotifications@atcllc.com

LORI BUTRY
WISCONSIN PUBLIC SERVICE - ELECTRICITY
700 N. ADAMS ST.
P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920) 433-1703
utilitiesrelocation@wisconsinpublicservice.com

LORI BUTRY
WISCONSIN PUBLIC SERVICE - GAS/PETROLEUM
700 N. ADAMS ST.
P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920) 433-1703
utilitiesrelocation@wisconsinpublicservice.com

JAMES LECLOUX
ALGOMA UTILITY COMMISSION - WATER
1407 FLORA
ALGOMA, WI 54201
(920) 487-5556

PATRICIA YAGODINSKI
VILLAGE OF CASCO - WATER
309 SIXTH ST
CASCO, WI 54205
(920) 837-2220

EMERGENCY CONTACT NUMBERS FOR WISCONSIN POWER AND LIGHT COMPANY

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-862-6261
GAS 24 HOUR EMERGENCY SERVICE: 1-800-862-6263

EMERGENCY CONTACT NUMBERS FOR WISCONSIN PUBLIC SERVICE

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-450-7240
GAS 24 HOUR EMERGENCY SERVICE: 1-800-450-7280

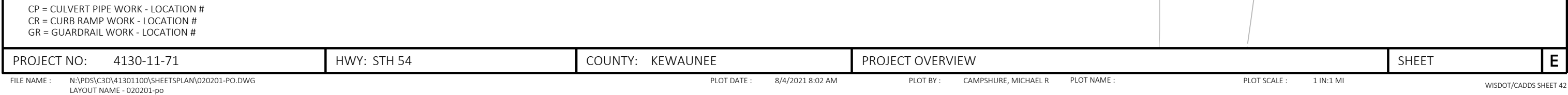
EMERGENCY CONTACT NUMBERS FOR WE ENERGIES

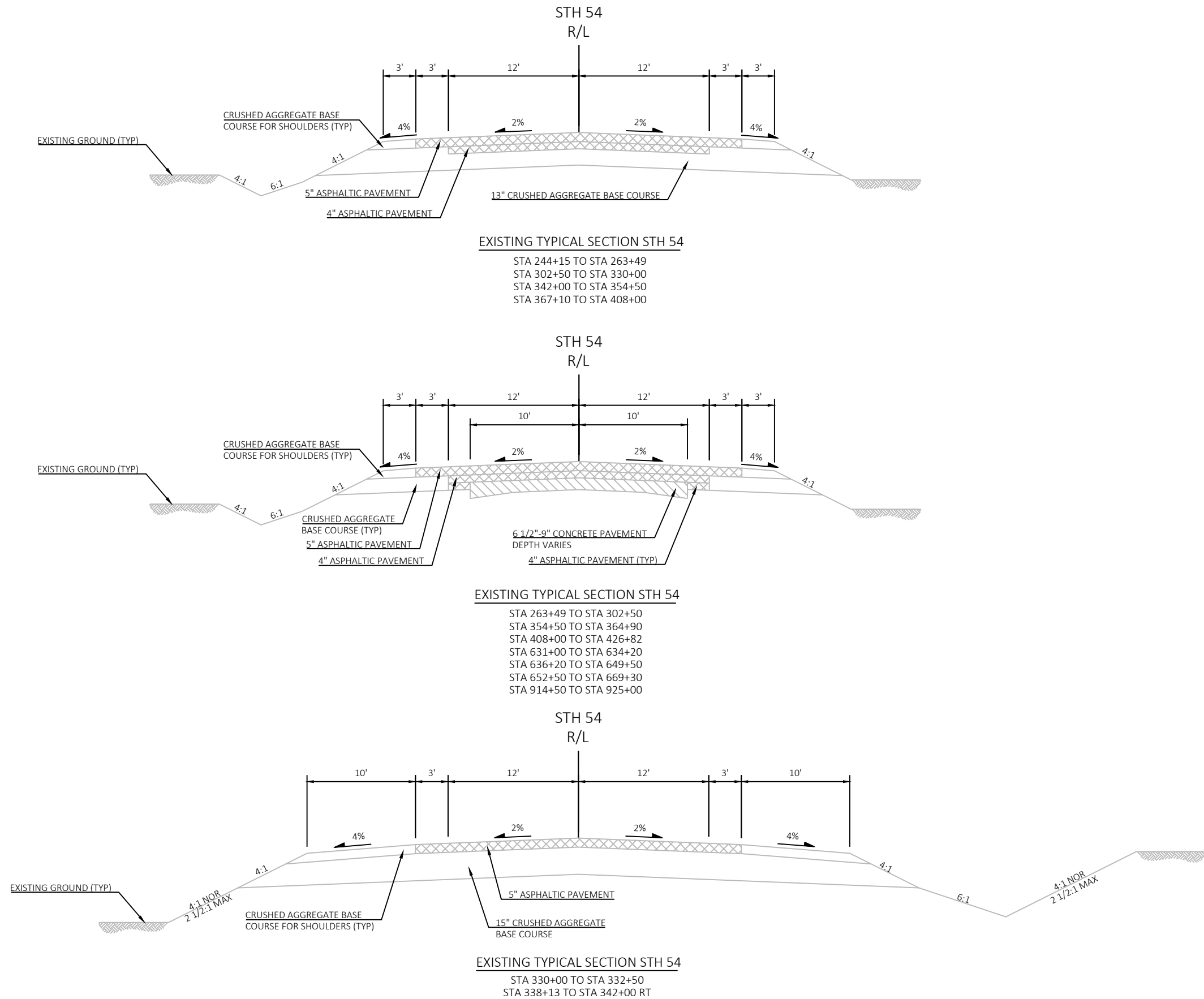
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

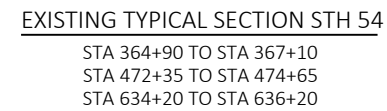
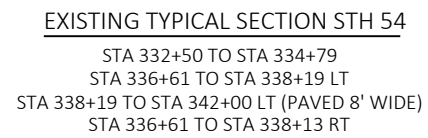
RUNOFF COEFFICIENT TABLE

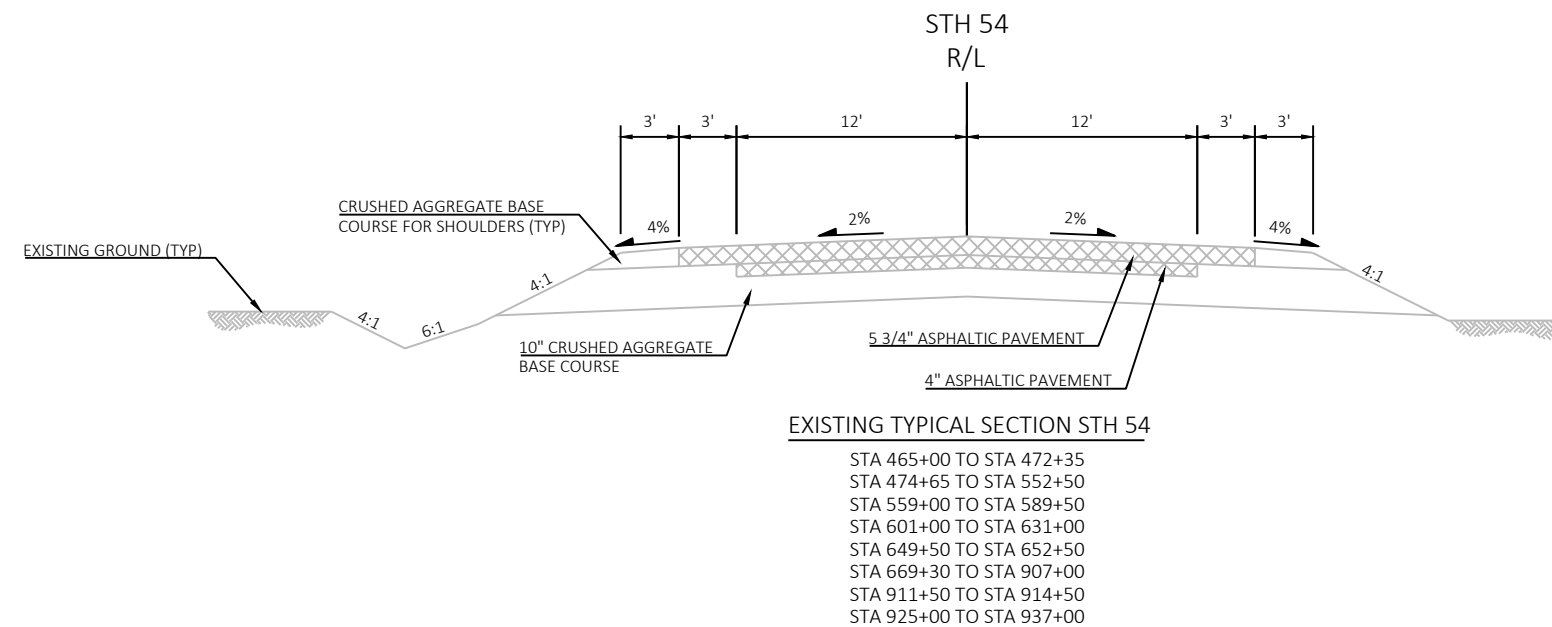
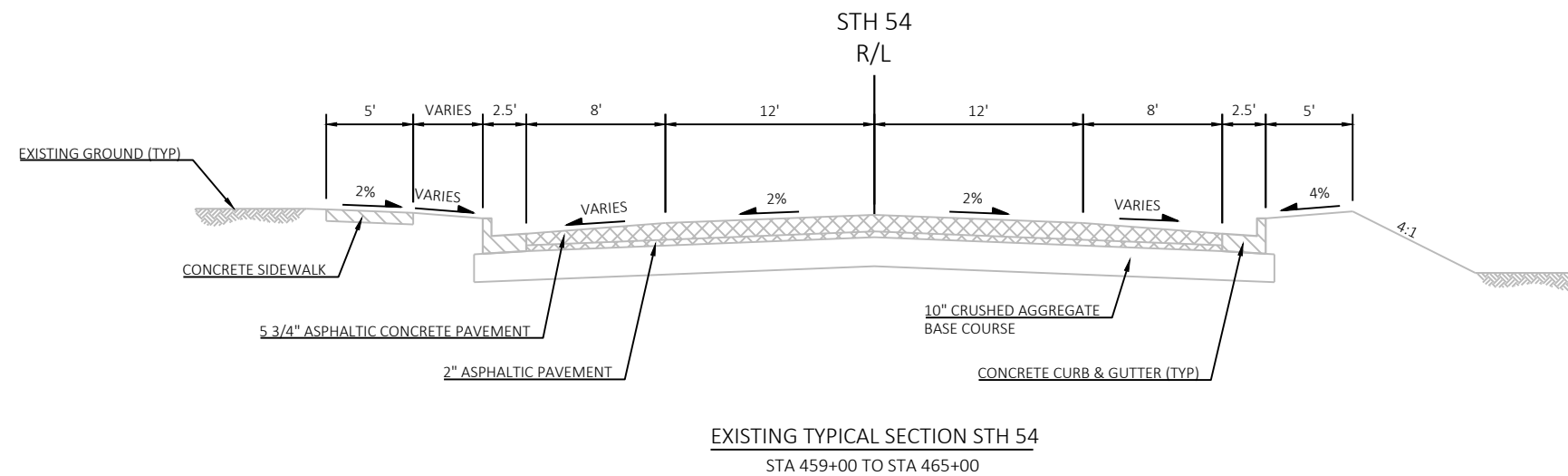
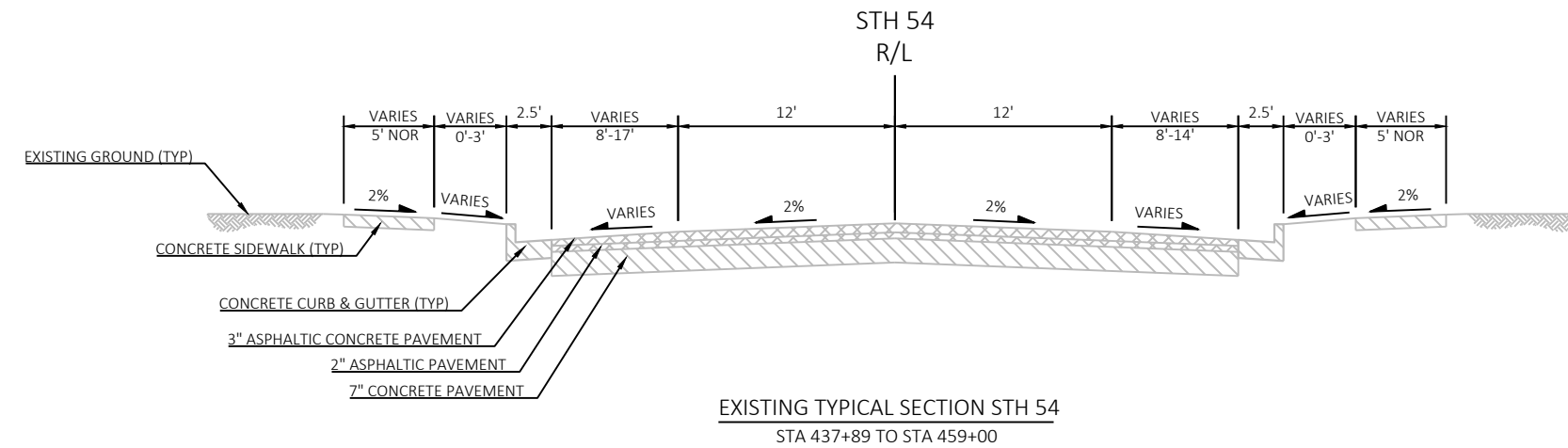
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34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

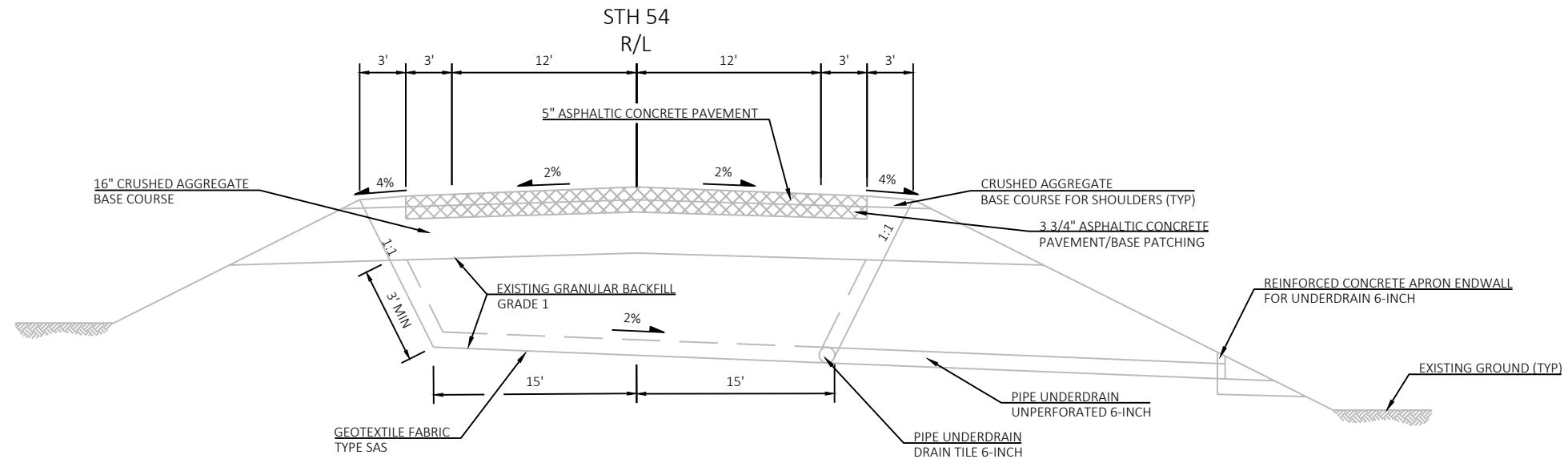
TOTAL PROJECT AREA = _____ ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = _____ ACRES





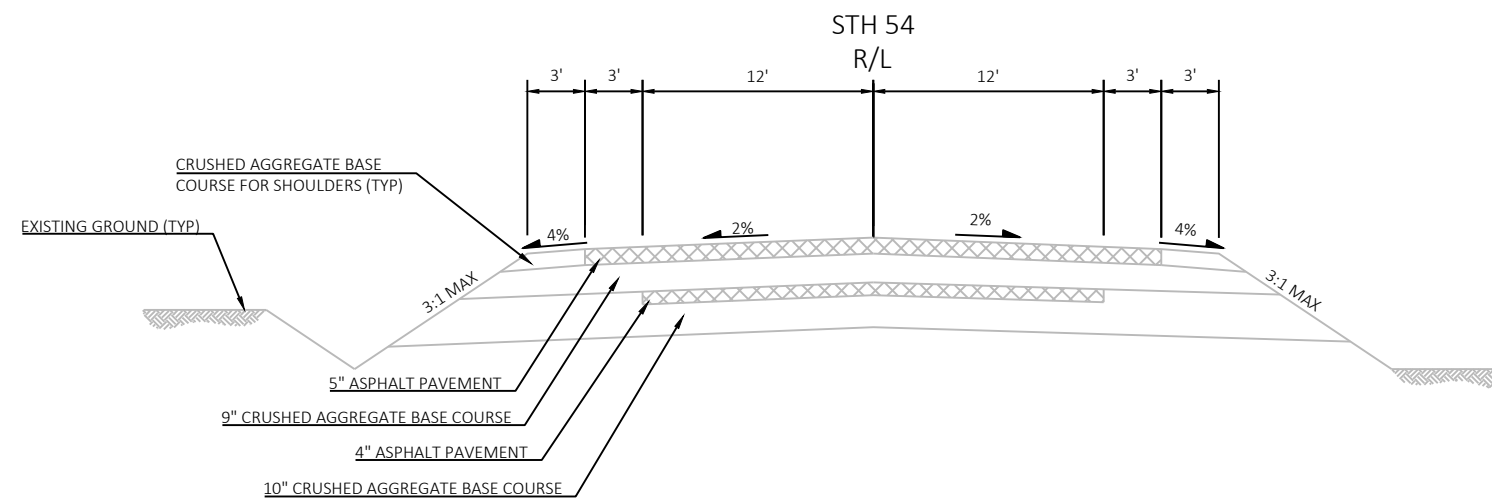






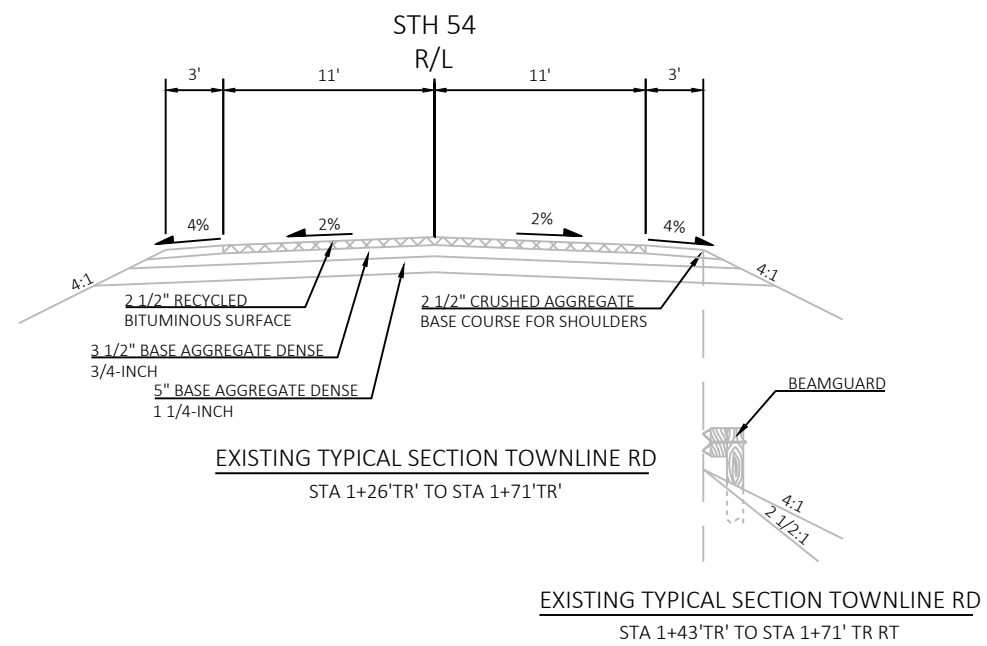
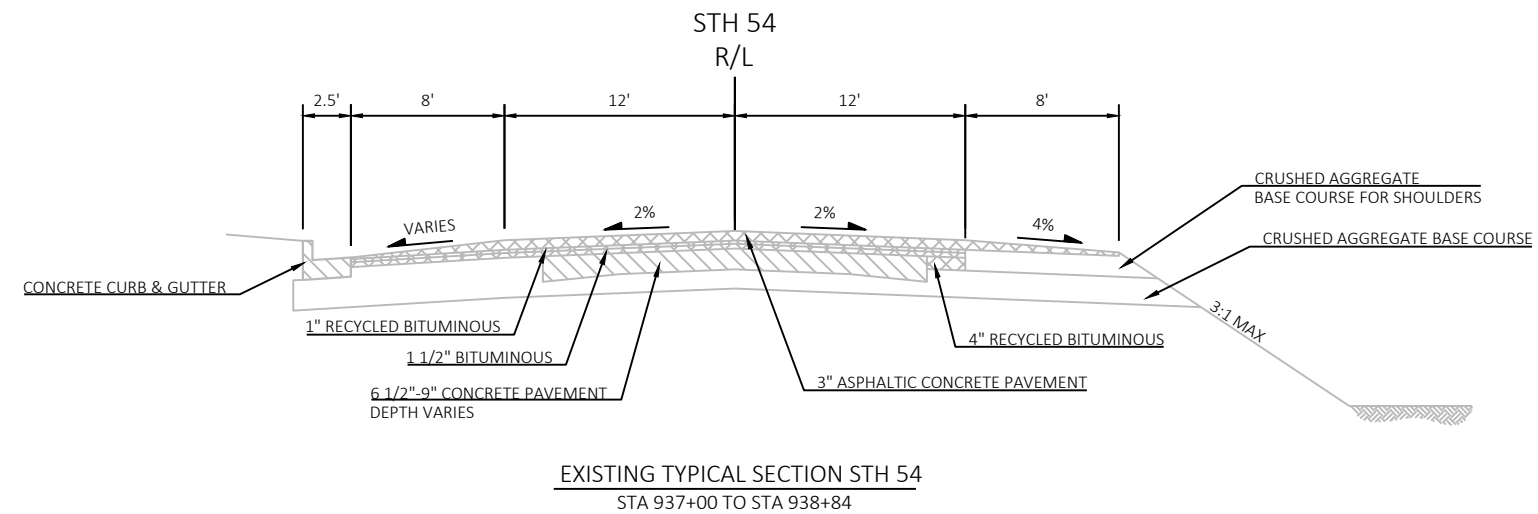
EXISTING TYPICAL SECTION STH 54

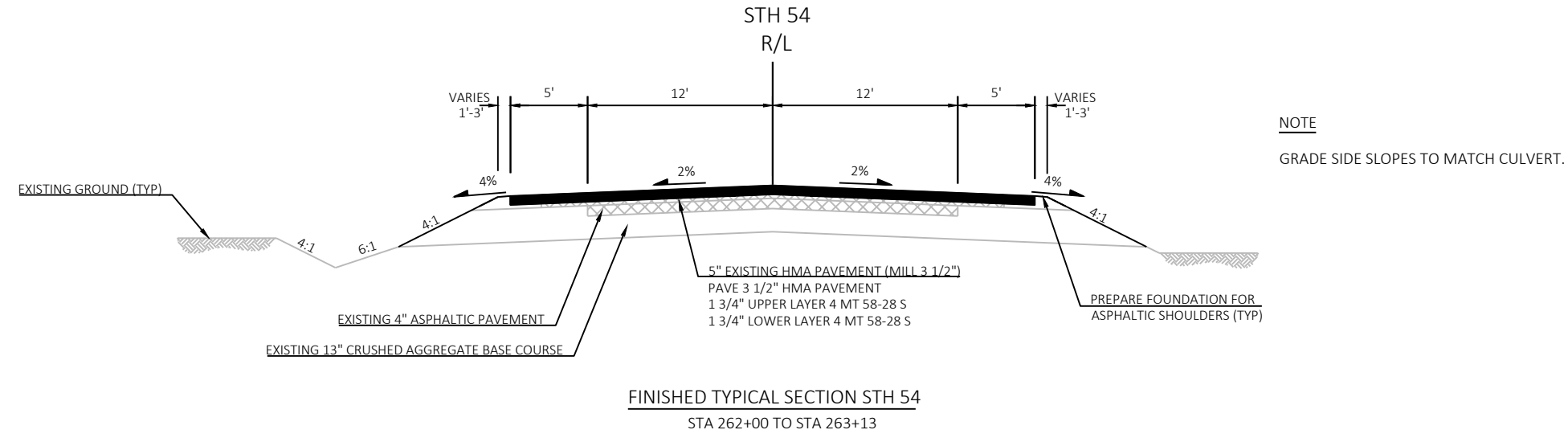
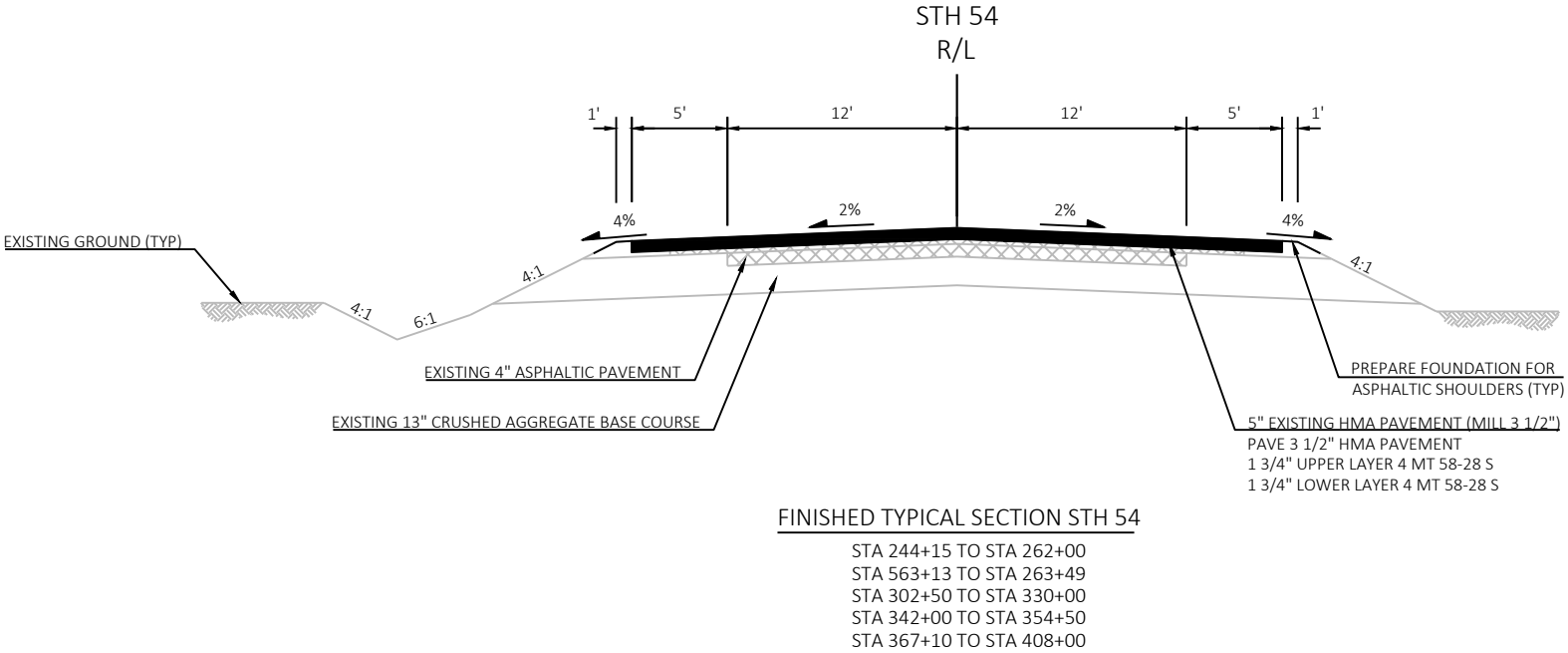
STA 552+50 TO STA 559+00
STA 907+00 TO STA 911+50

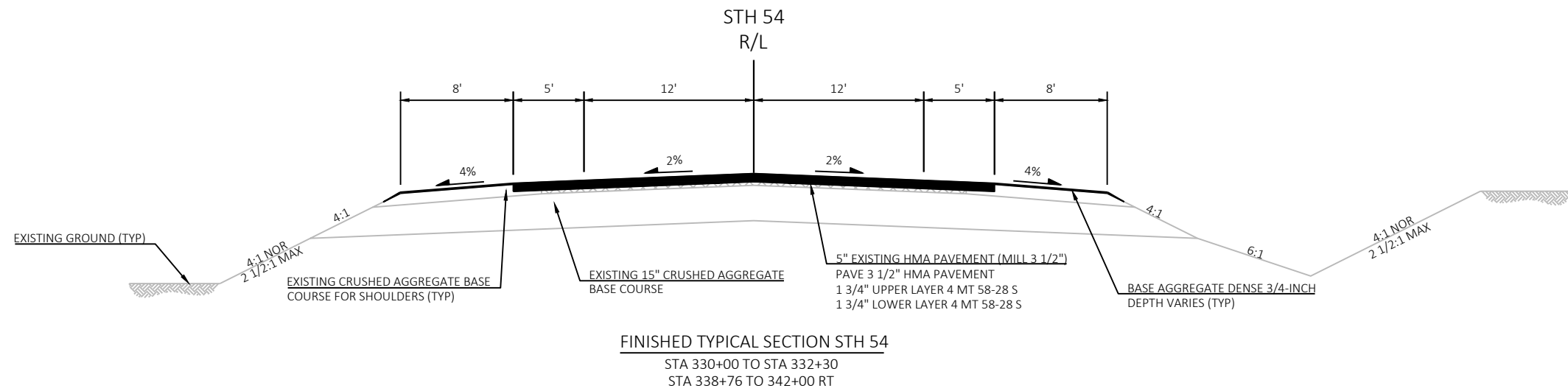
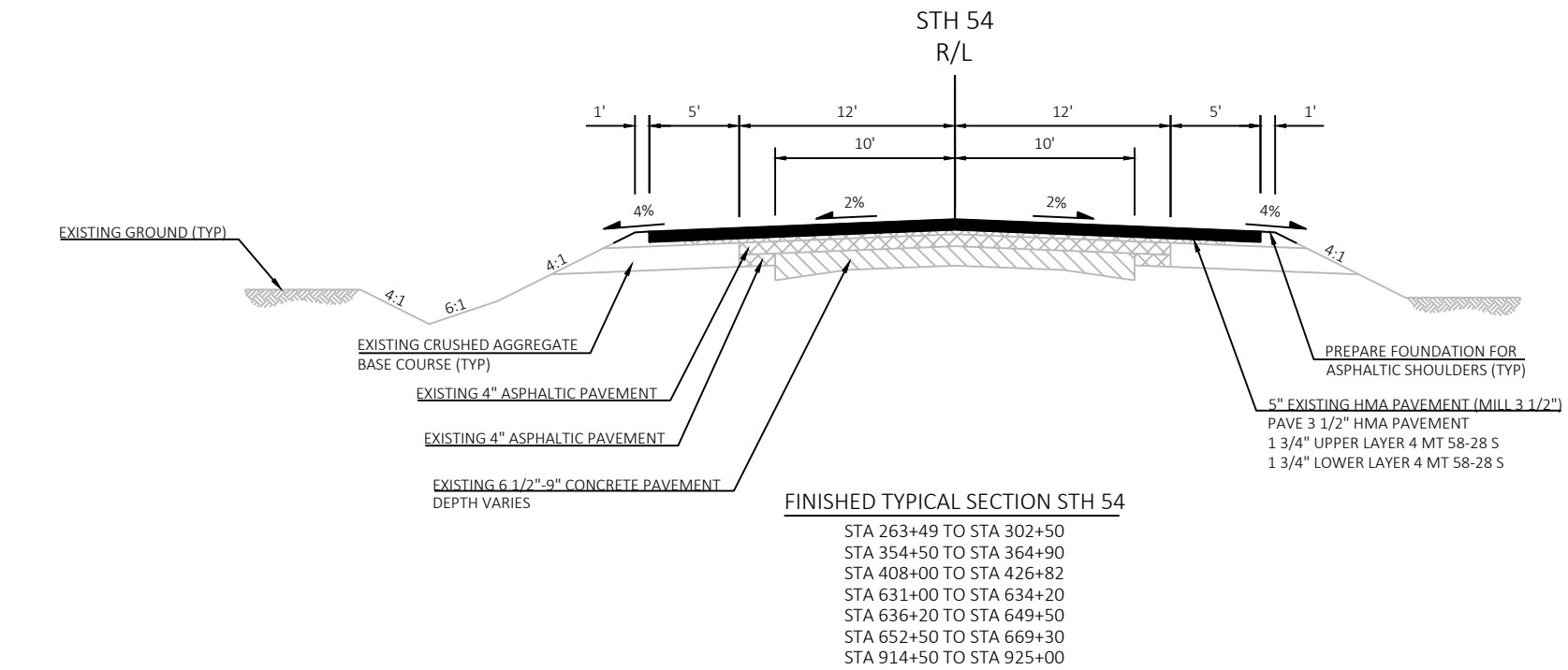


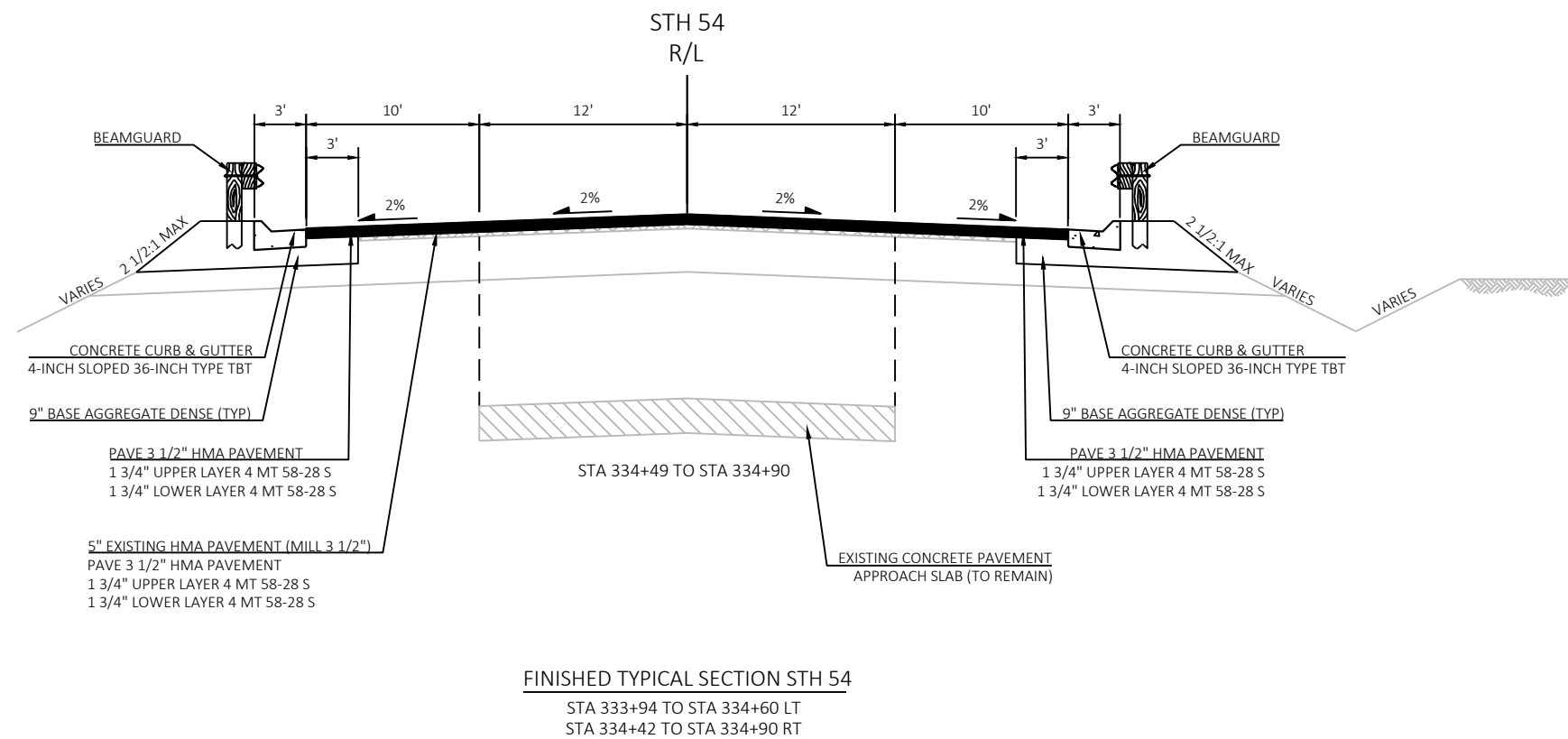
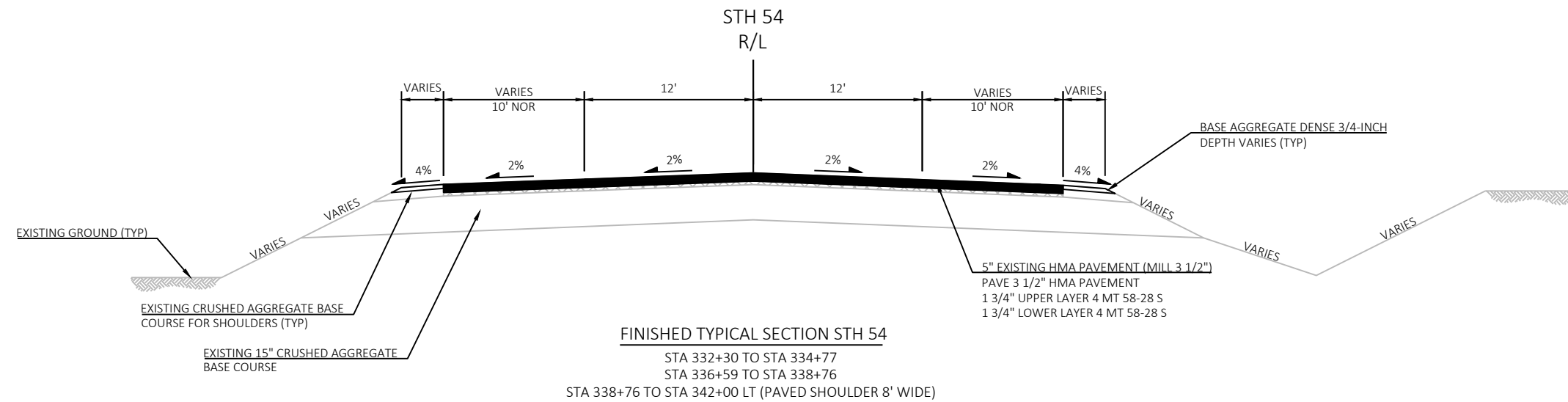
EXISTING TYPICAL SECTION STH 54

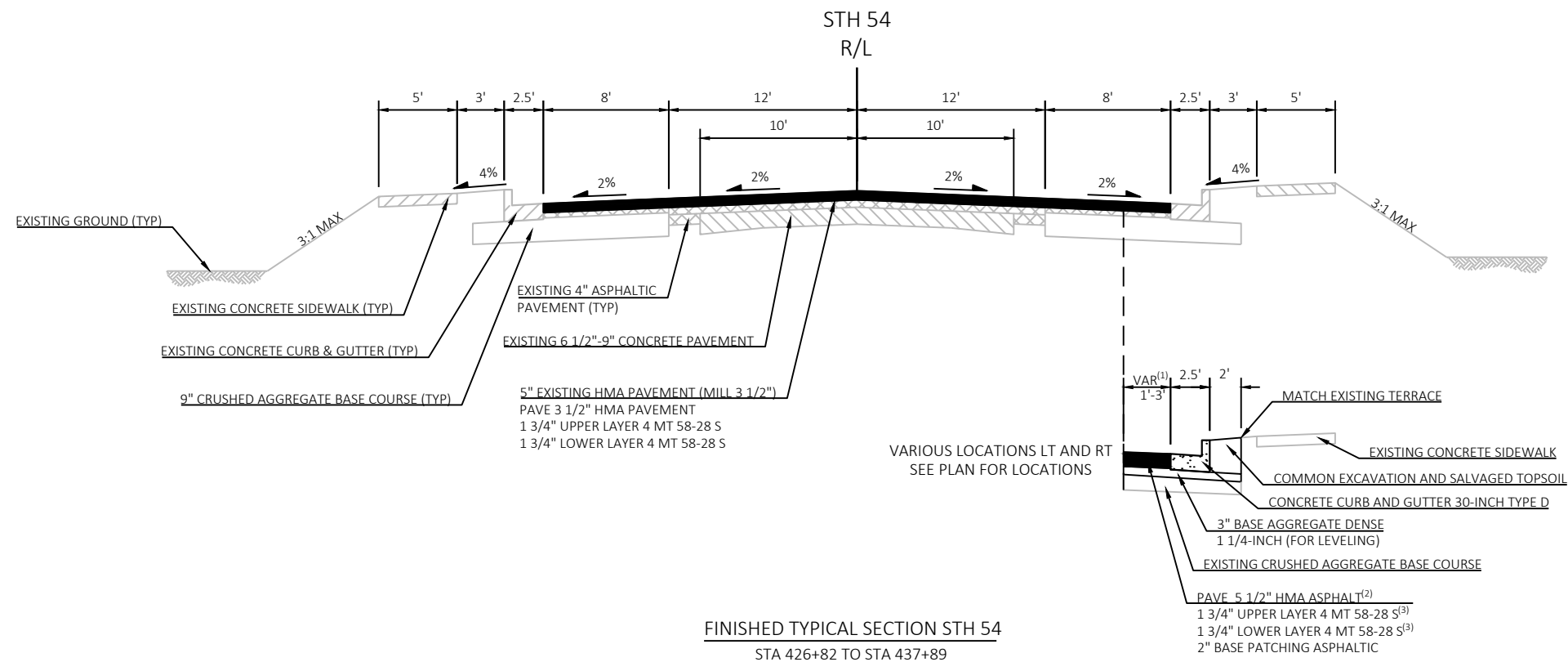
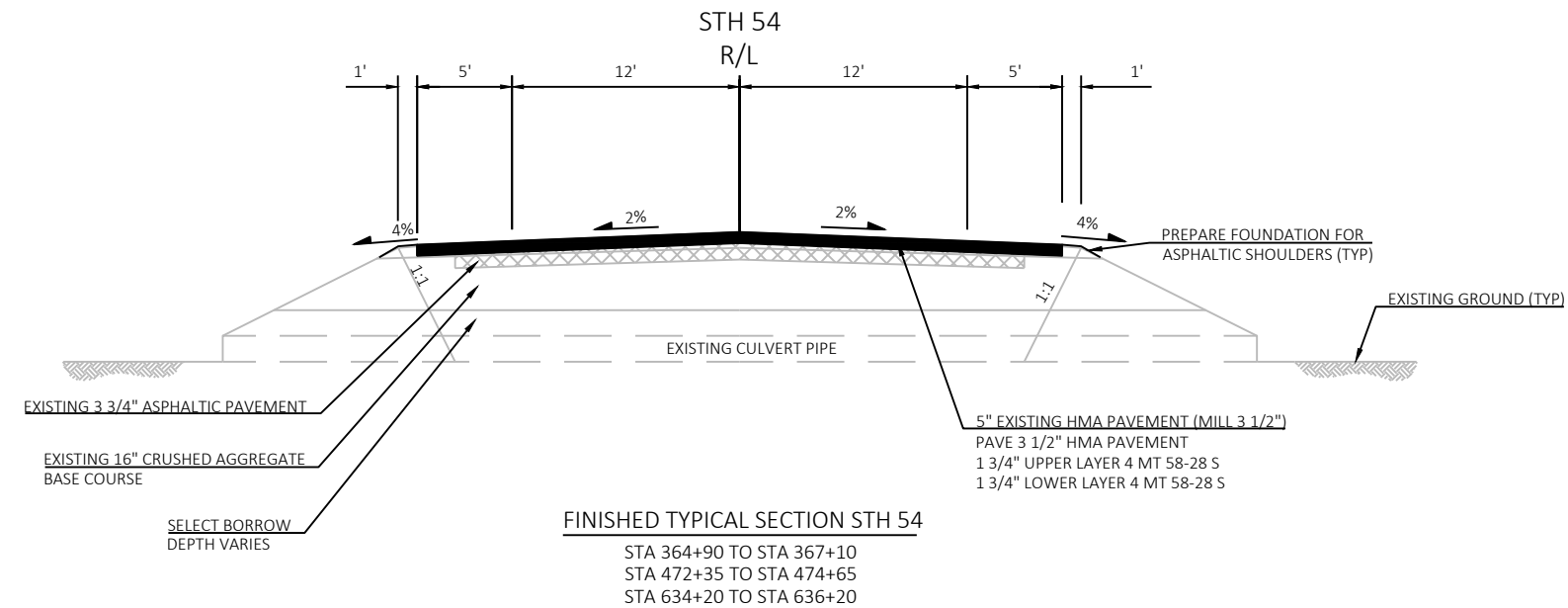
STA 589+50 TO STA 601+00









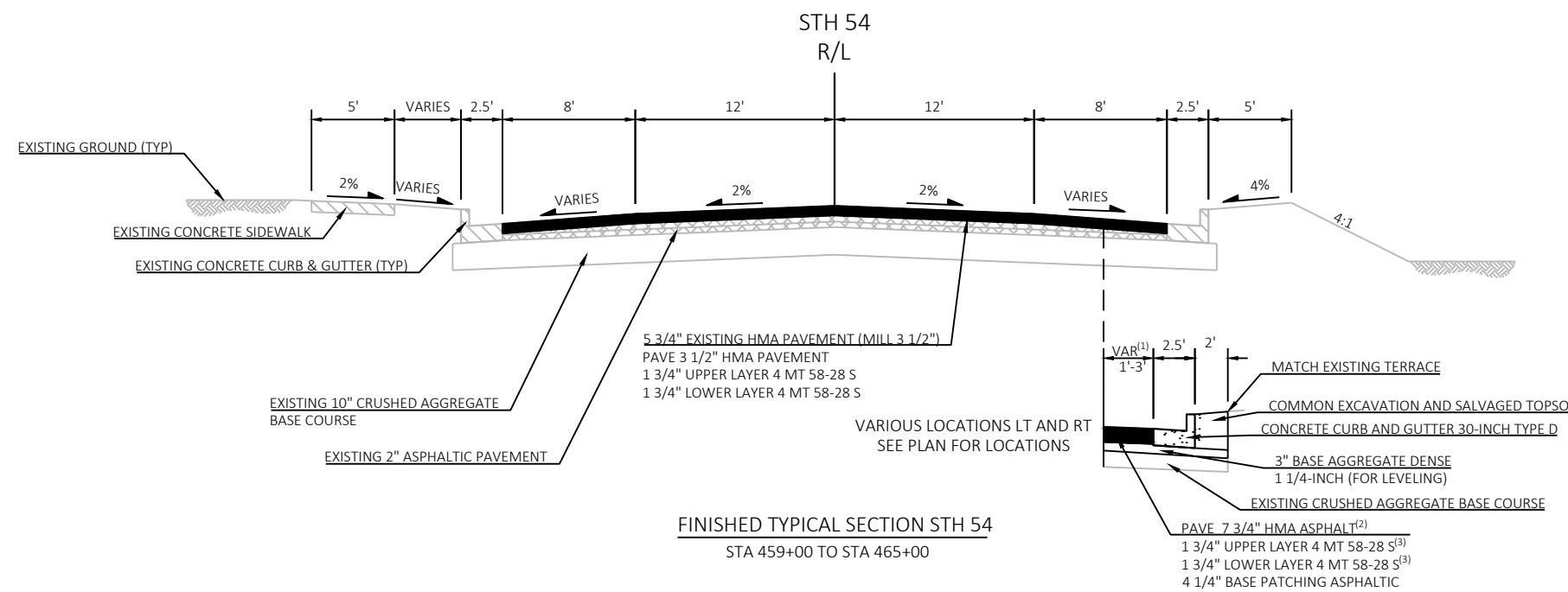
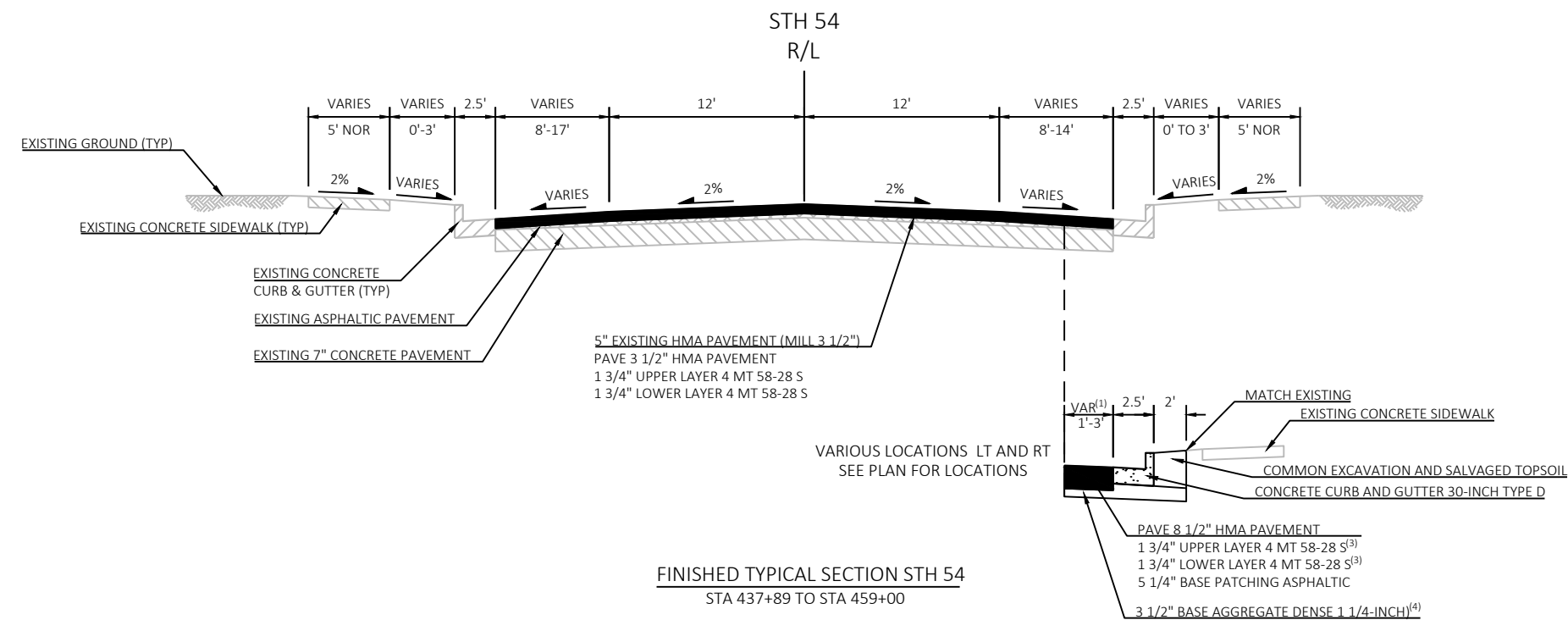
**NOTES**

⁽¹⁾WIDTH DEPENDENT ON CURB AND GUTTER PLACEMENT METHOD. ASSUME 3' WIDTH FOR SLIP FORM CURB & GUTTER AND 1' FOR HAND POURED CURB & GUTTER.

⁽²⁾INTENTION IS TO MATCH ADJACENT ASPHALT THICKNESS. DISCUSS WITH PROJECT ENGINEER IF THICKNESS VARIES FROM PLAN.

⁽³⁾TEMPORARY ASPHALT MAY BE USED BETWEEN CURB & GUTTER INSTALLATION AND MILLING AND PAVING OPERATIONS.

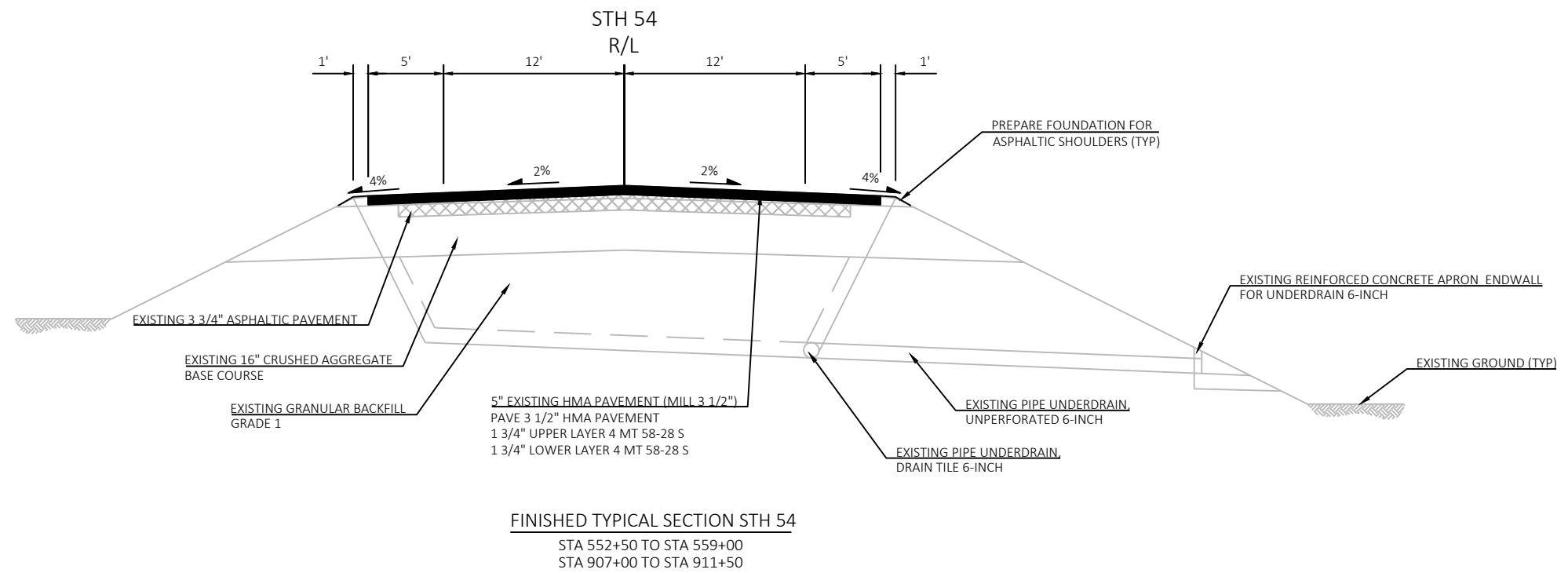
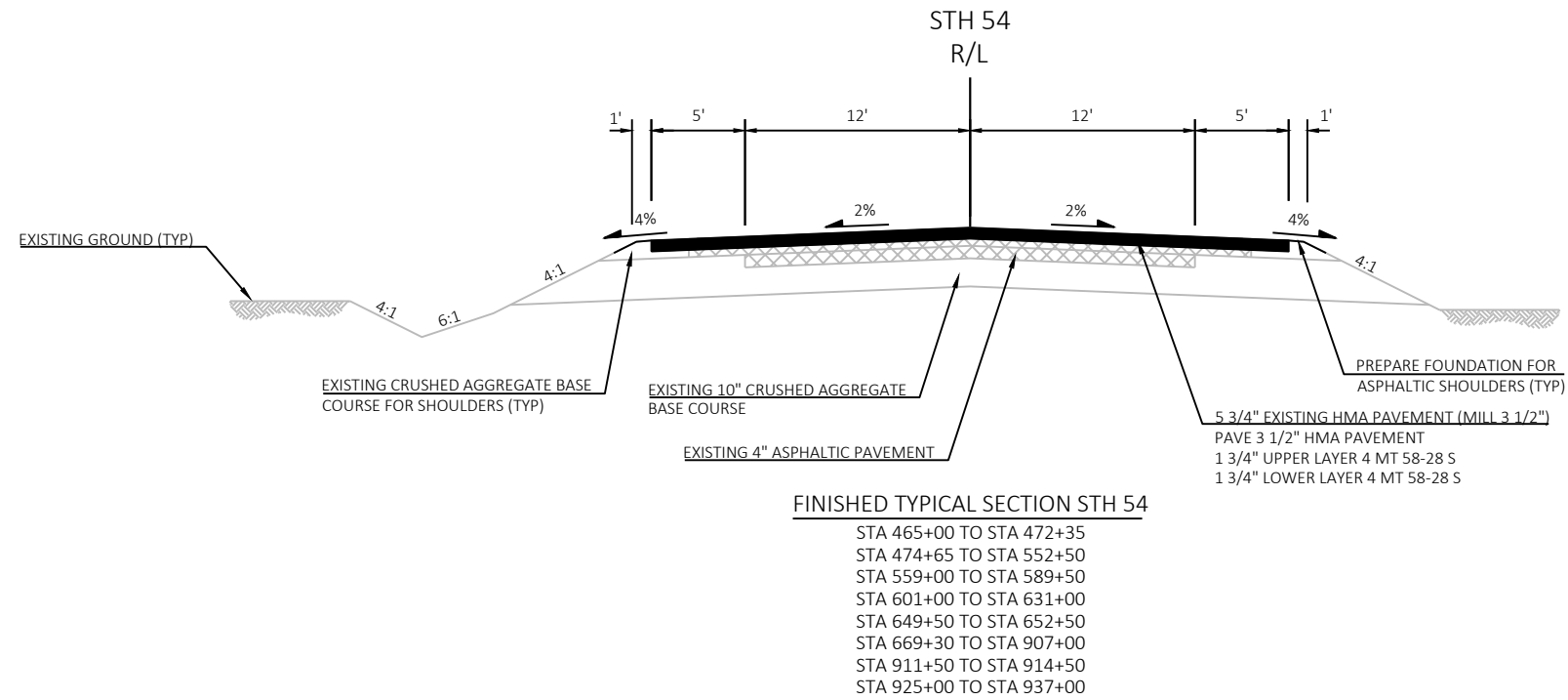
⁽⁴⁾MATCH BASE DEPTH WITH ADJACENT EXISTING CONCRETE.

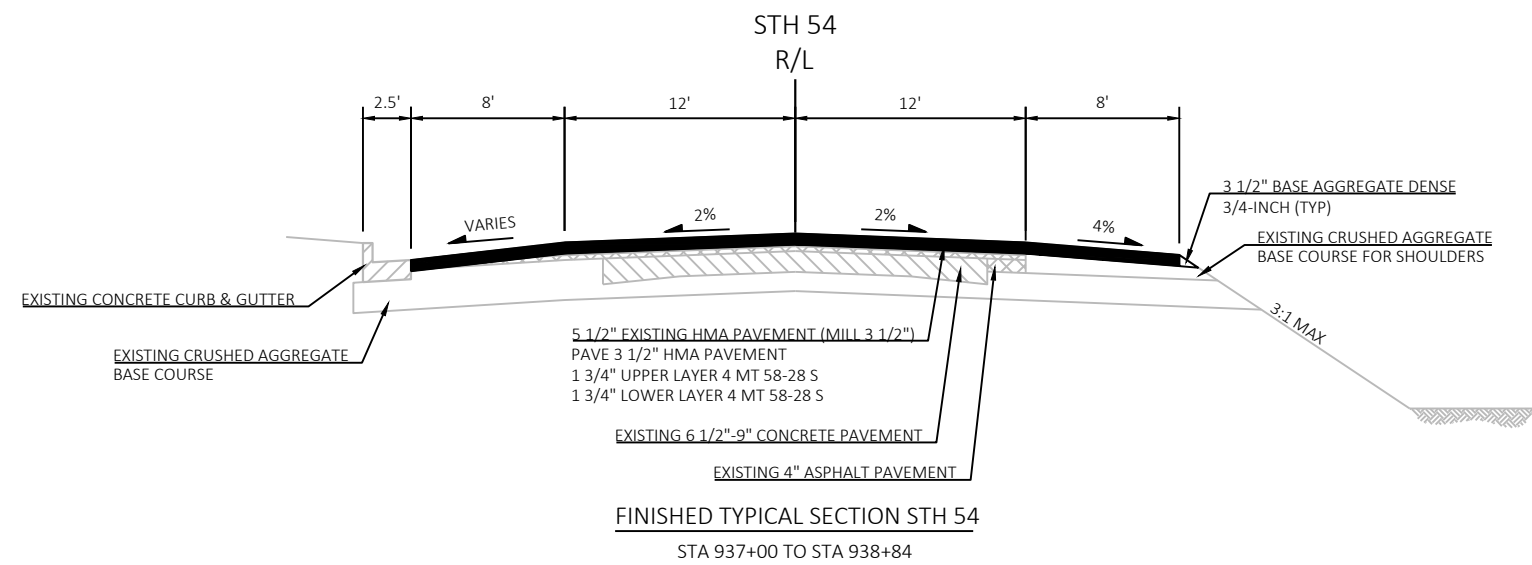
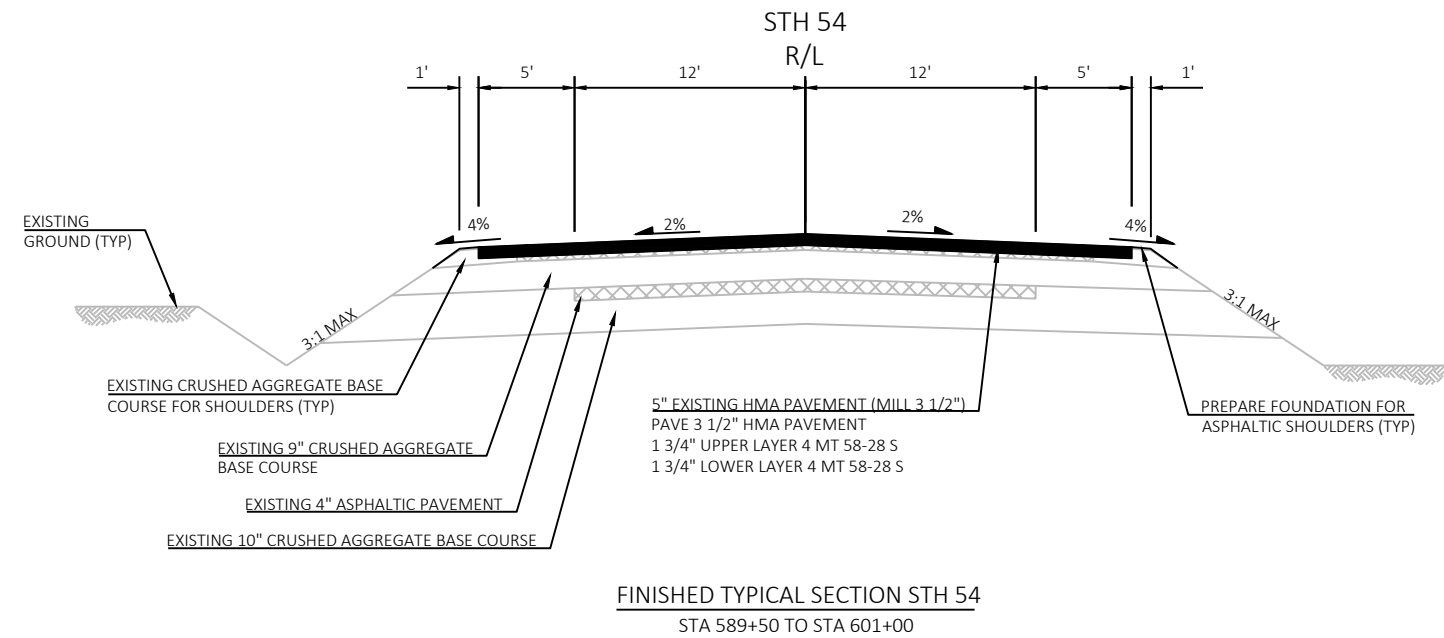
**NOTES**

⁽¹⁾WIDTH DEPENDENT ON CURB AND GUTTER PLACEMENT METHOD. ASSUME 3' WIDTH FOR SLIP FORM CURB & GUTTER AND 1' FOR HAND POURED CURB & GUTTER.

⁽²⁾INTENTION IS TO MATCH ADJACENT ASPHALT THICKNESS. DISCUSS WITH PROJECT ENGINEER IF THICKNESS VARIES FROM PLAN.

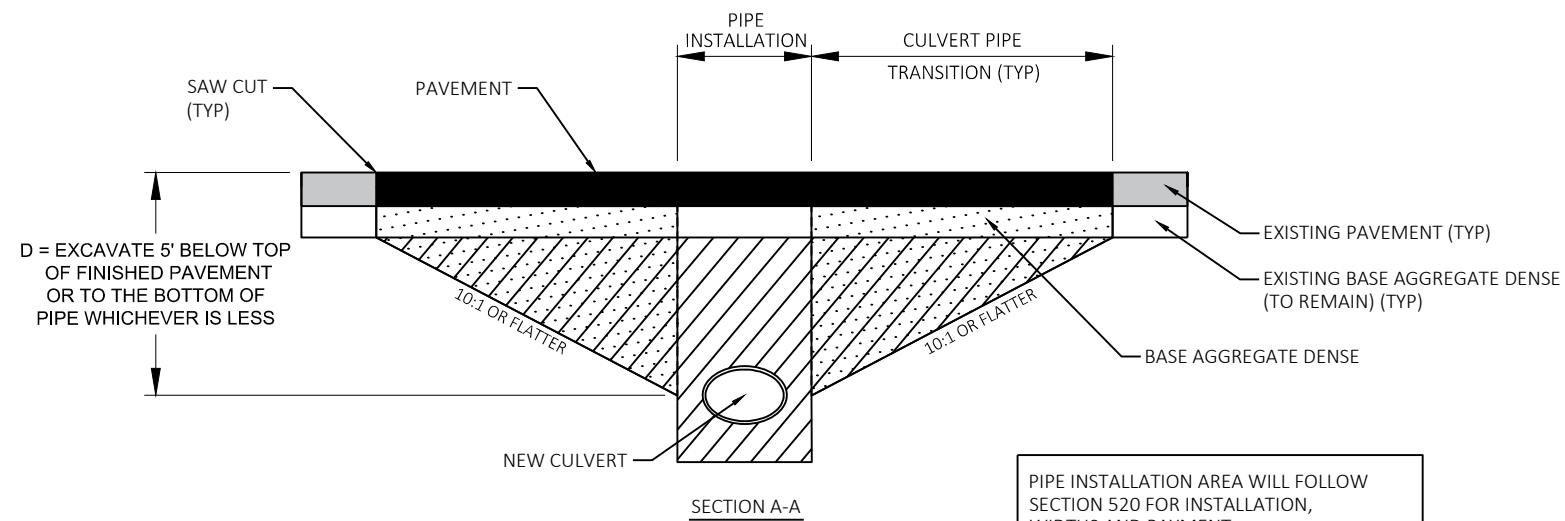
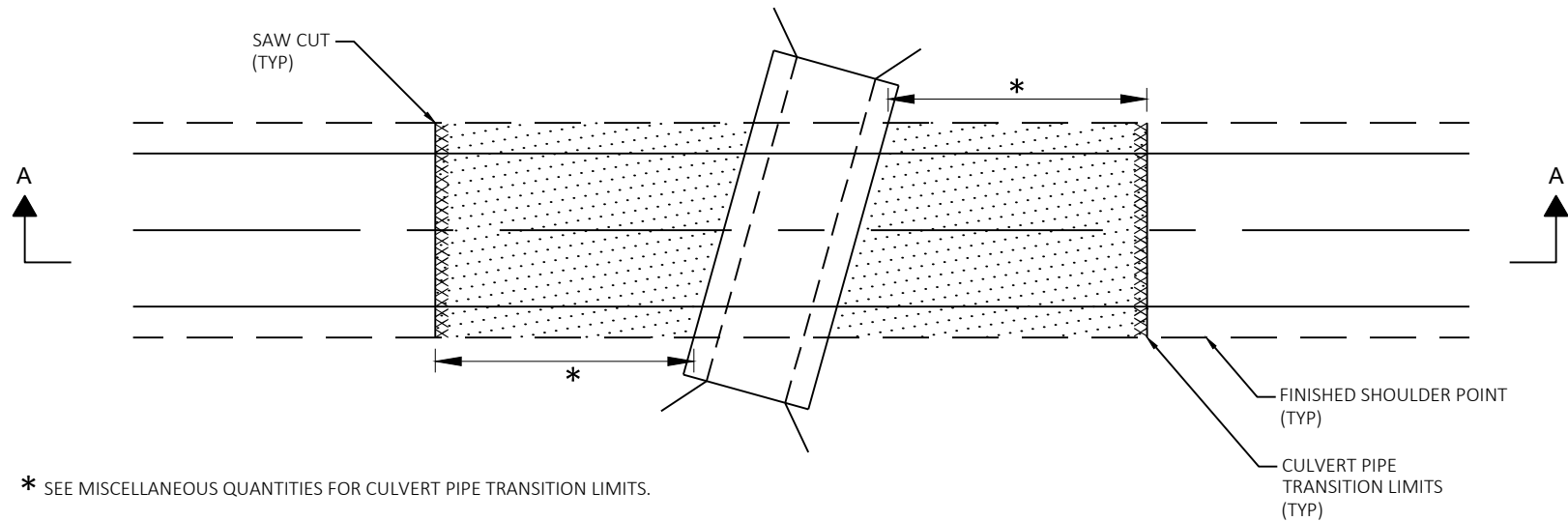
⁽³⁾TEMPORARY ASPHALT MAY BE USED BETWEEN CURB & GUTTER INSTALLATION AND MILLING AND PAVING OPERATIONS.







CP-3 AT STA 551+65*
CP-4 AT 581+90
CP-5 AT STA 585+49
CP-6 AT STA 717+69
CP-7 AT STA 737+09*
CP-8 AT STA 820+82
CP-9 AT STA 882+56



TO OCCUR AT:
CP-3
CP-6
CP-7
AND CP8

COMMON EXCAVATION

FOUNDATION BACKFILL

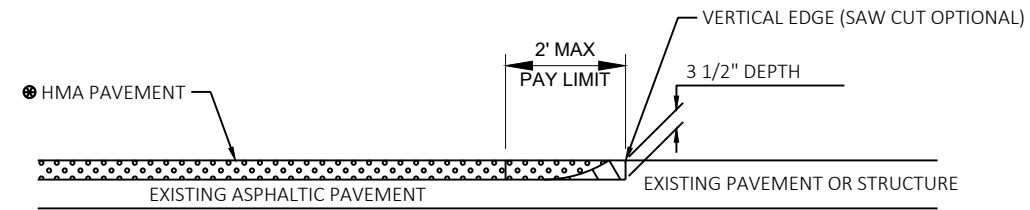
PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

NEW CULVERT PIPES WITH TRANSITION



SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

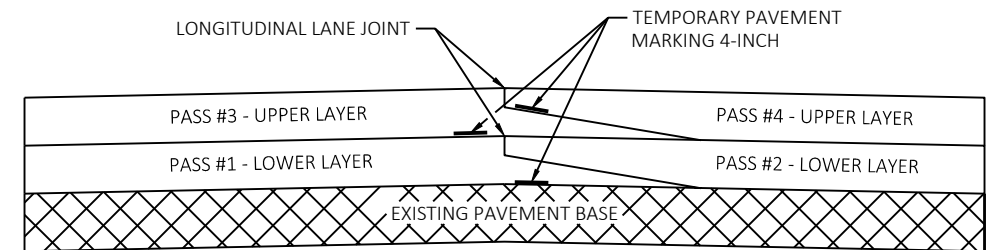


REMOVING ASPHALTIC SURFACE, MILLING

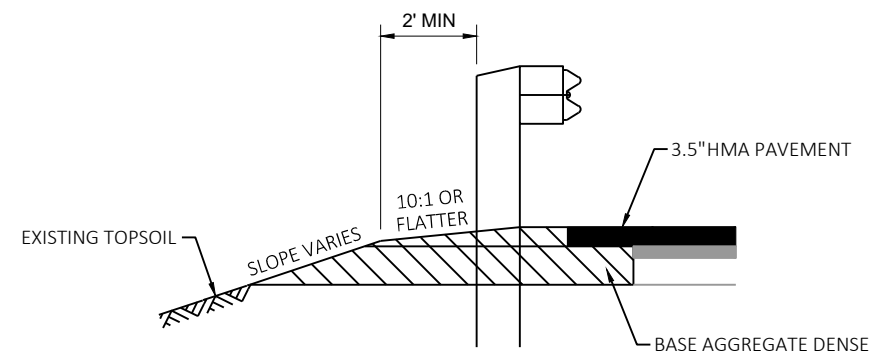


REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

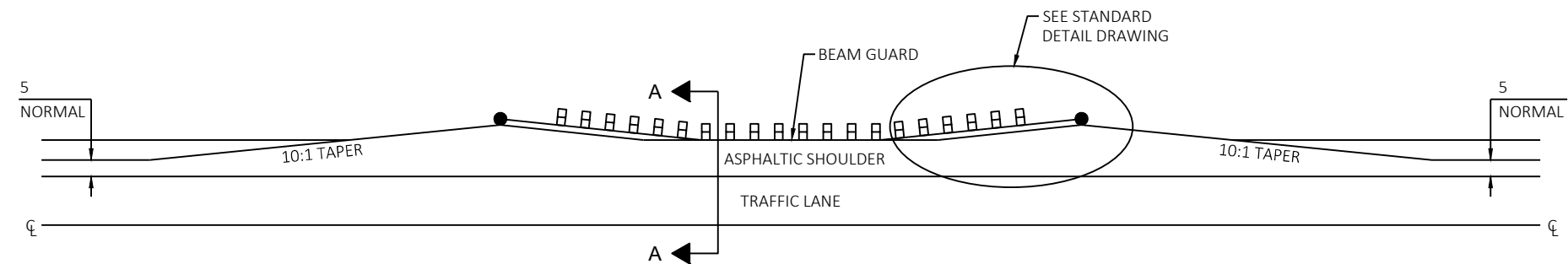
BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS



SECTION A-A



253

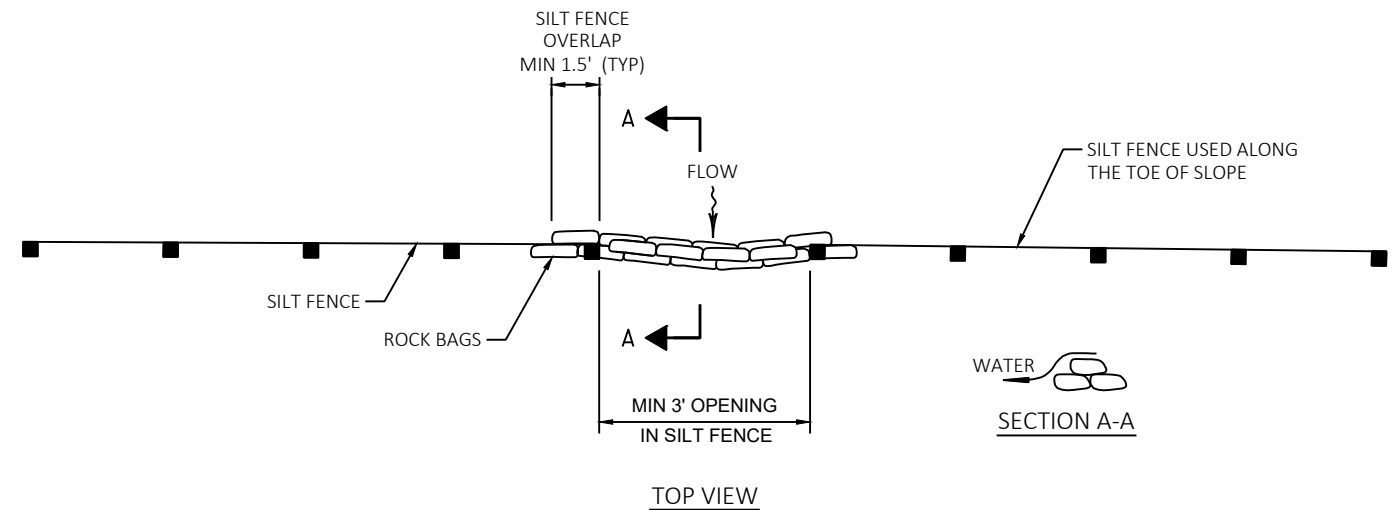
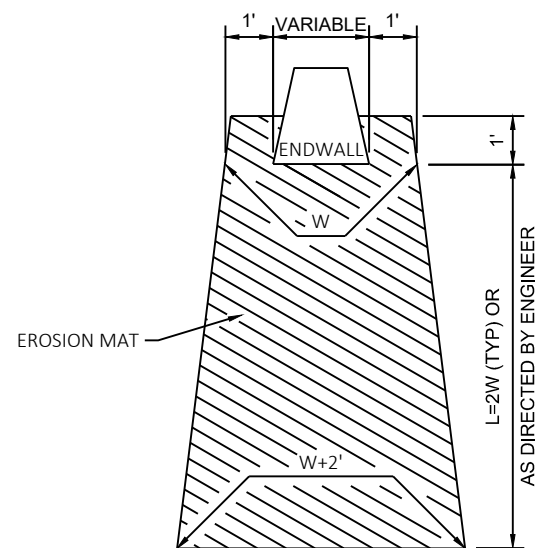
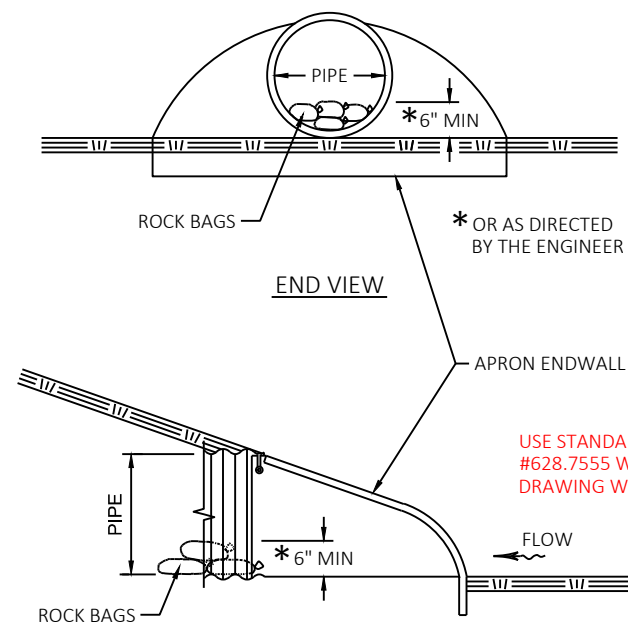
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

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											

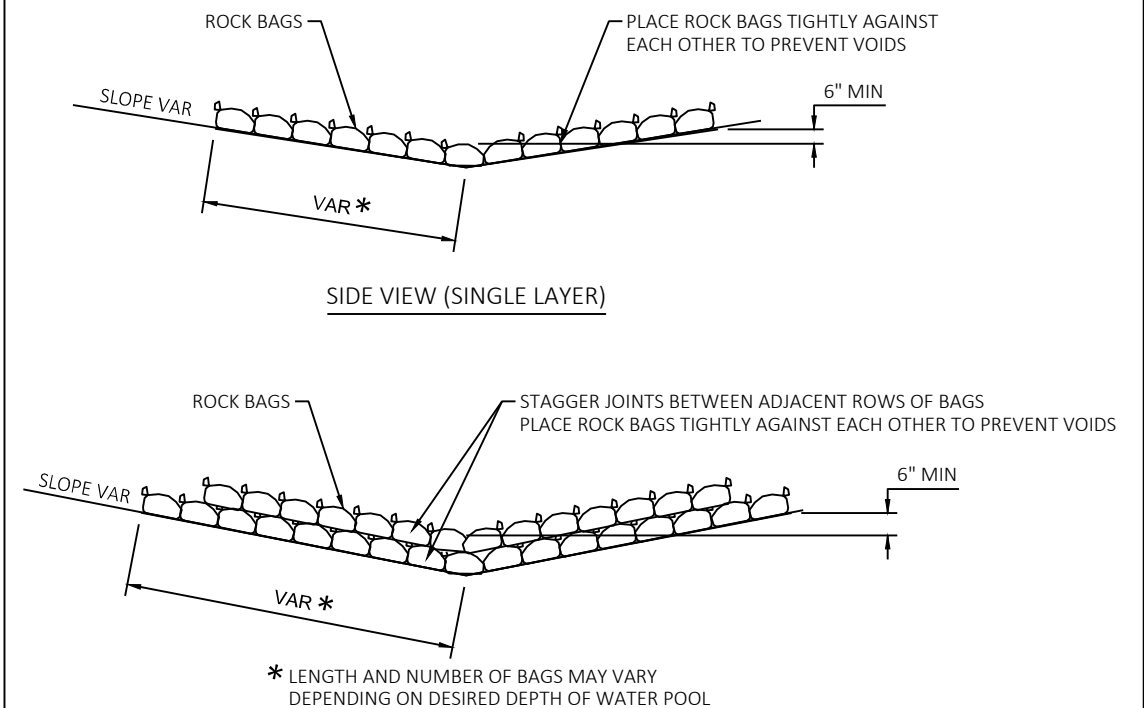
TOTAL PROJECT AREA = _____ ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = _____ ACRES

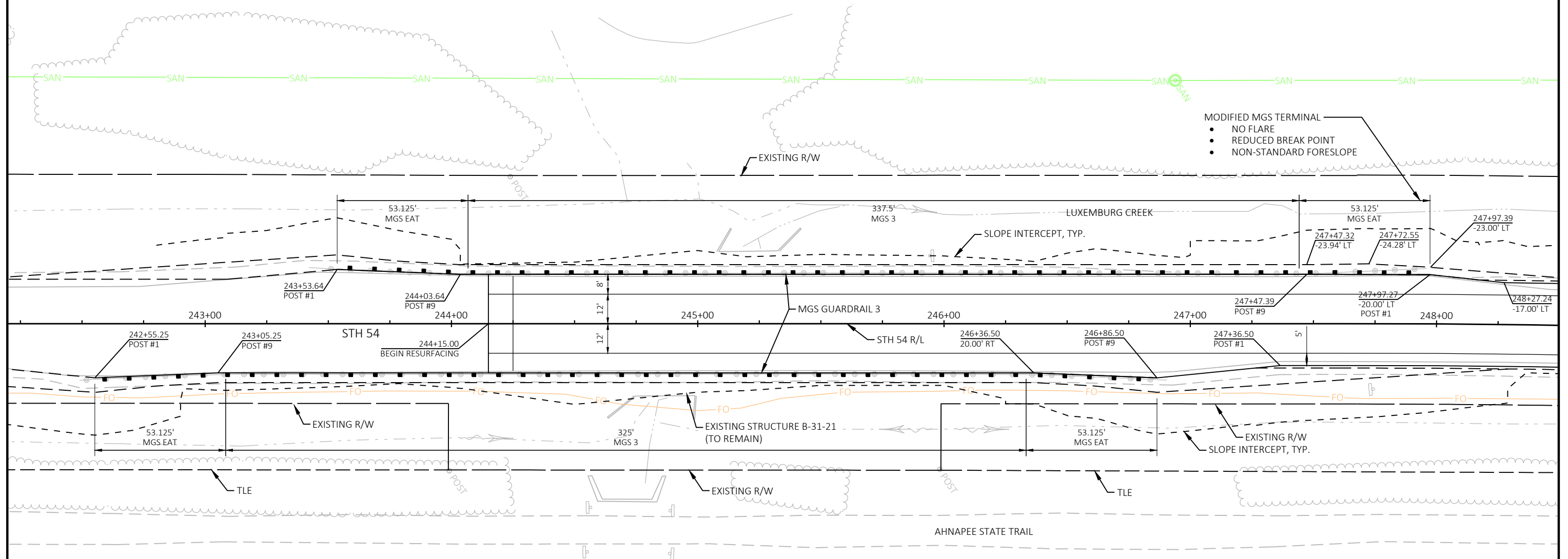
ROCK BAGS USED FOR SILT FENCE RELIEF DETAILEROSION MAT TREATMENT AT CULVERTS

SIDE VIEW

CULVERT PIPE CHECKS

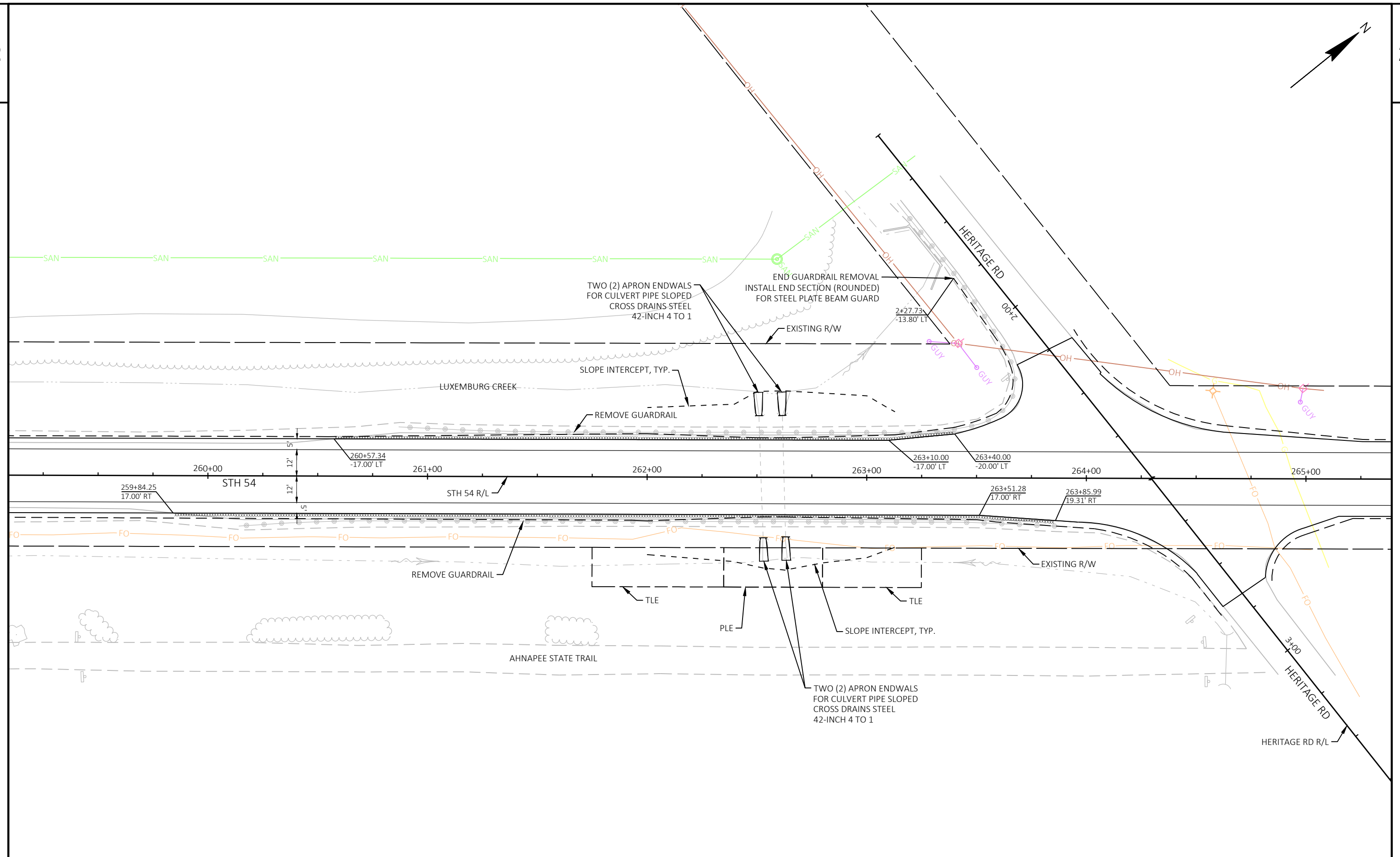
USE STANDARD BID ITEM
#628.7555 WITH THIS
DRAWING WHEN APPLICABLE.SIDE VIEW (MULTIPLE LAYER)ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS



2

2 |



PROJECT NO:	4130-11-71
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HWY: STH 54

COUNTY: KEWAUNEE

PLAN DETAILS GR-2

SHEET

-
-
-

FILE NAME : N:\PDS\C3D\41301100\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021202-pd

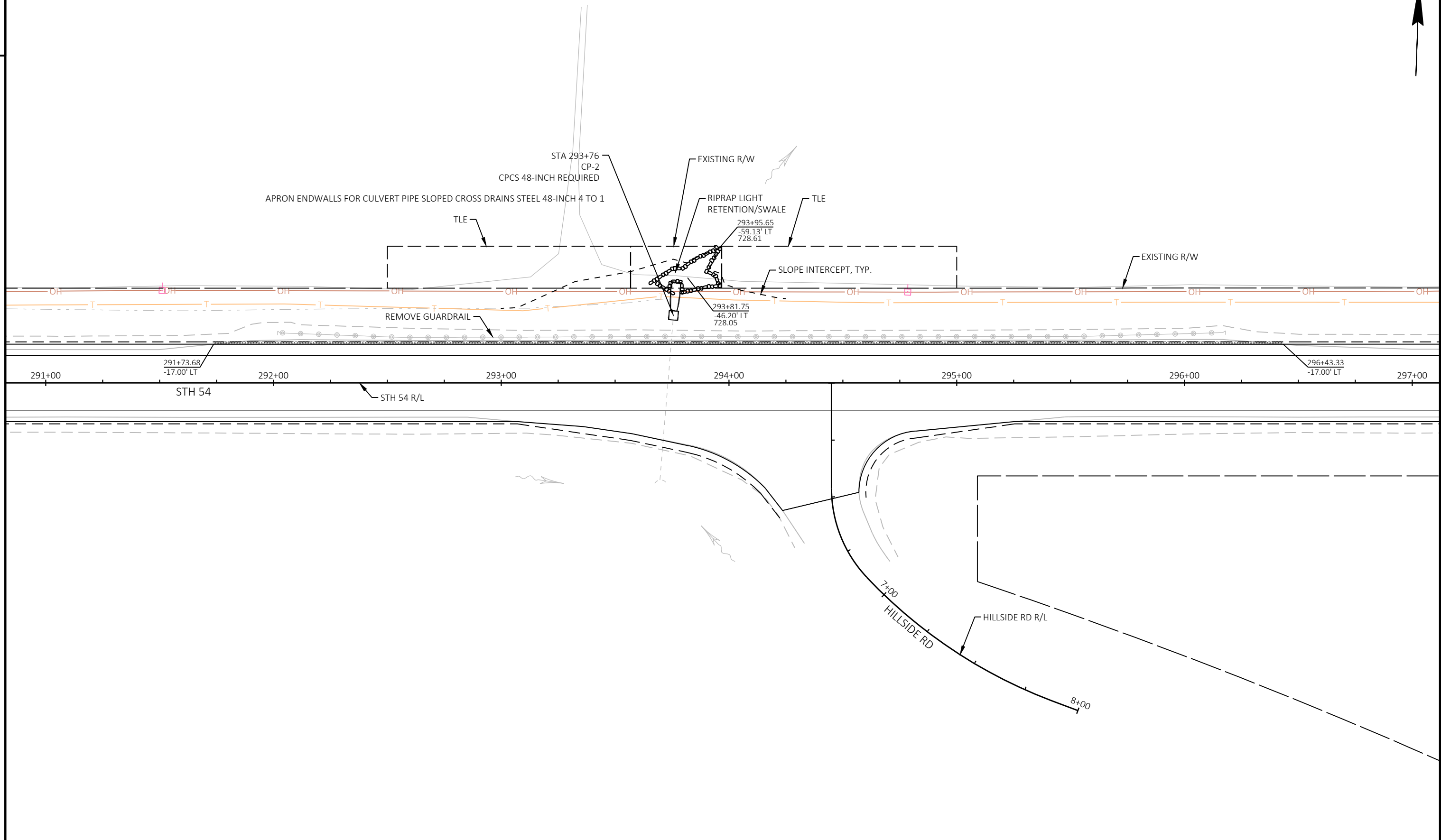
PLOT DATE : 9/1/2021 3:19 PM

PLOT BY : KIRST, DOUGLAS P

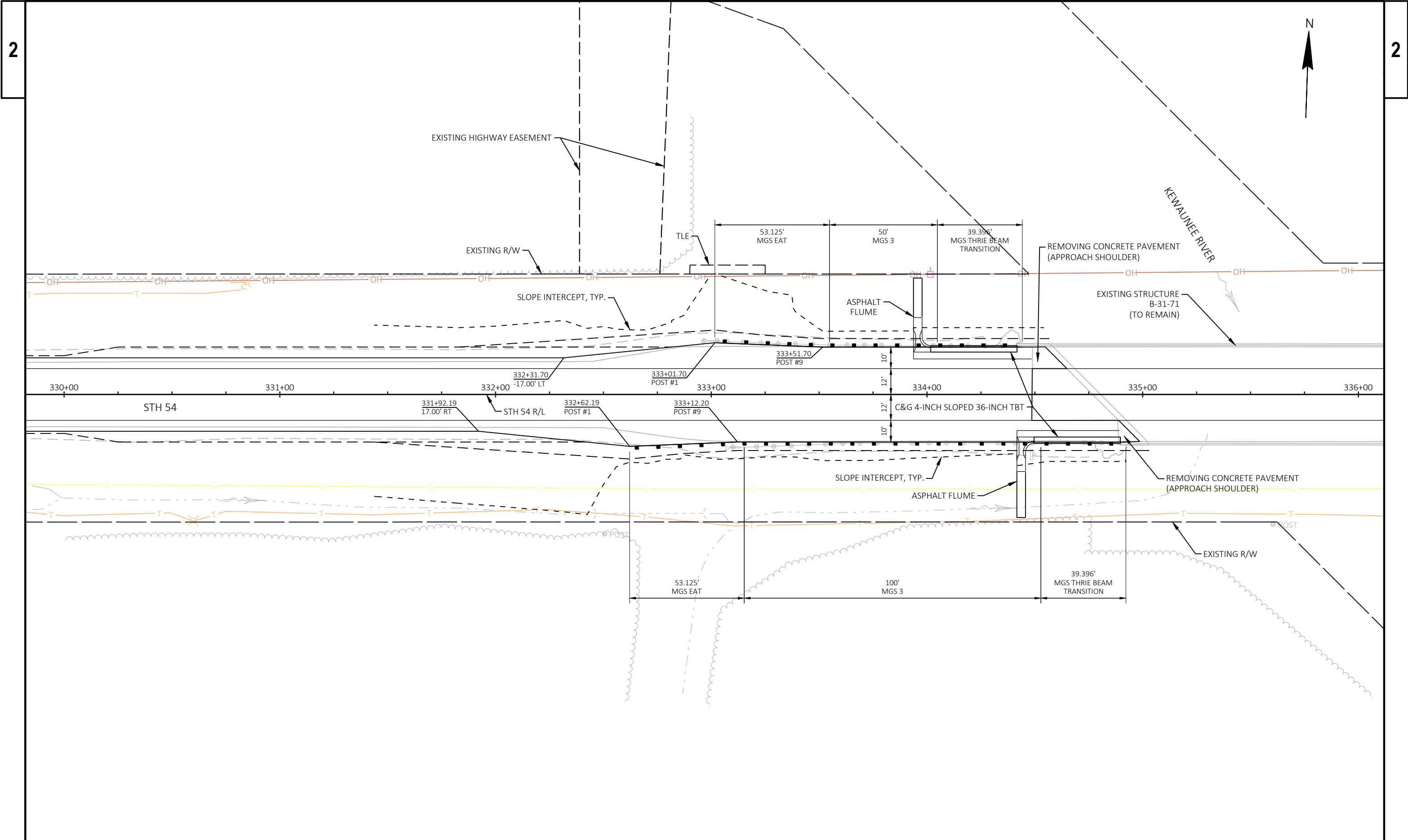
PLOT NAME :

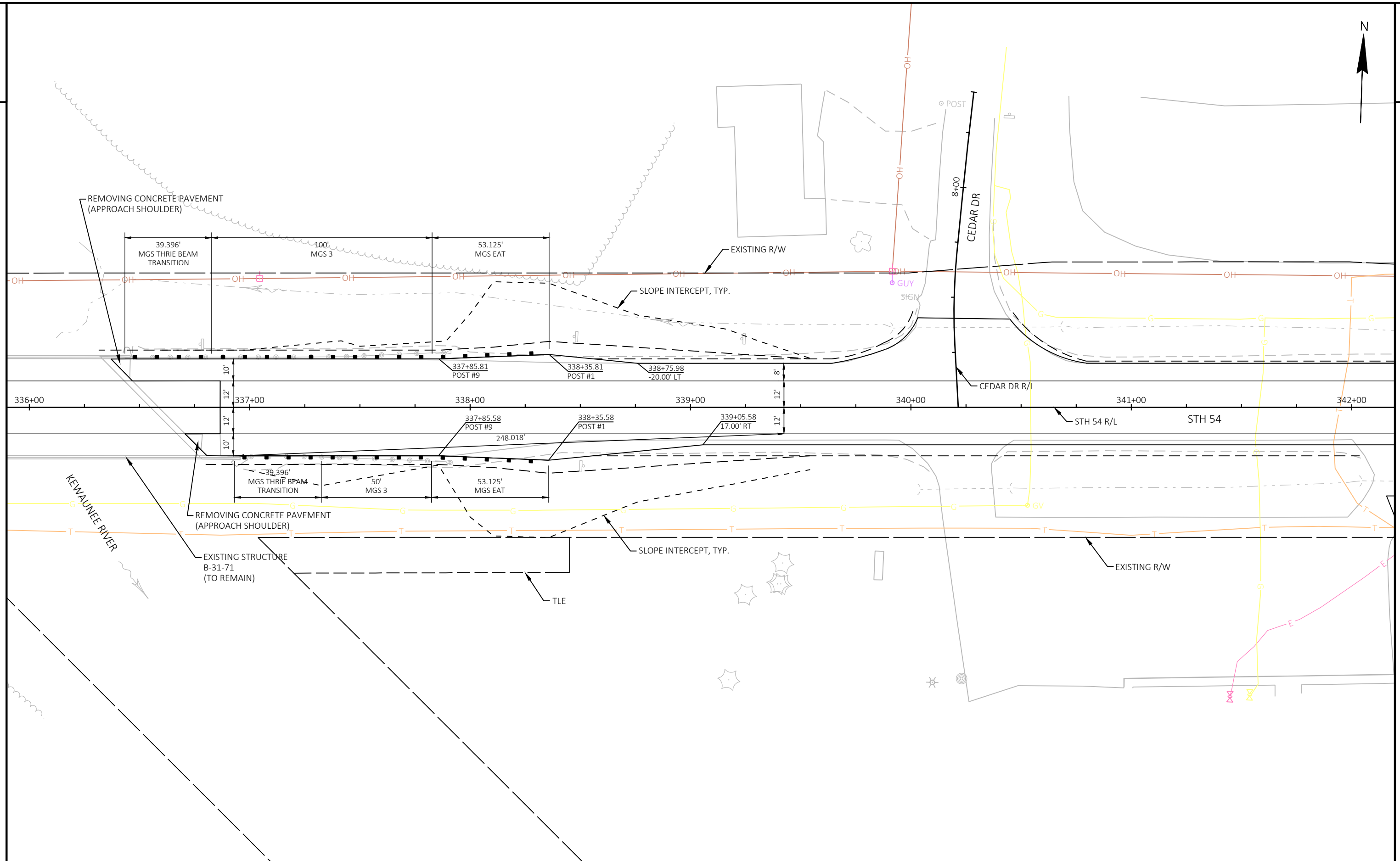
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

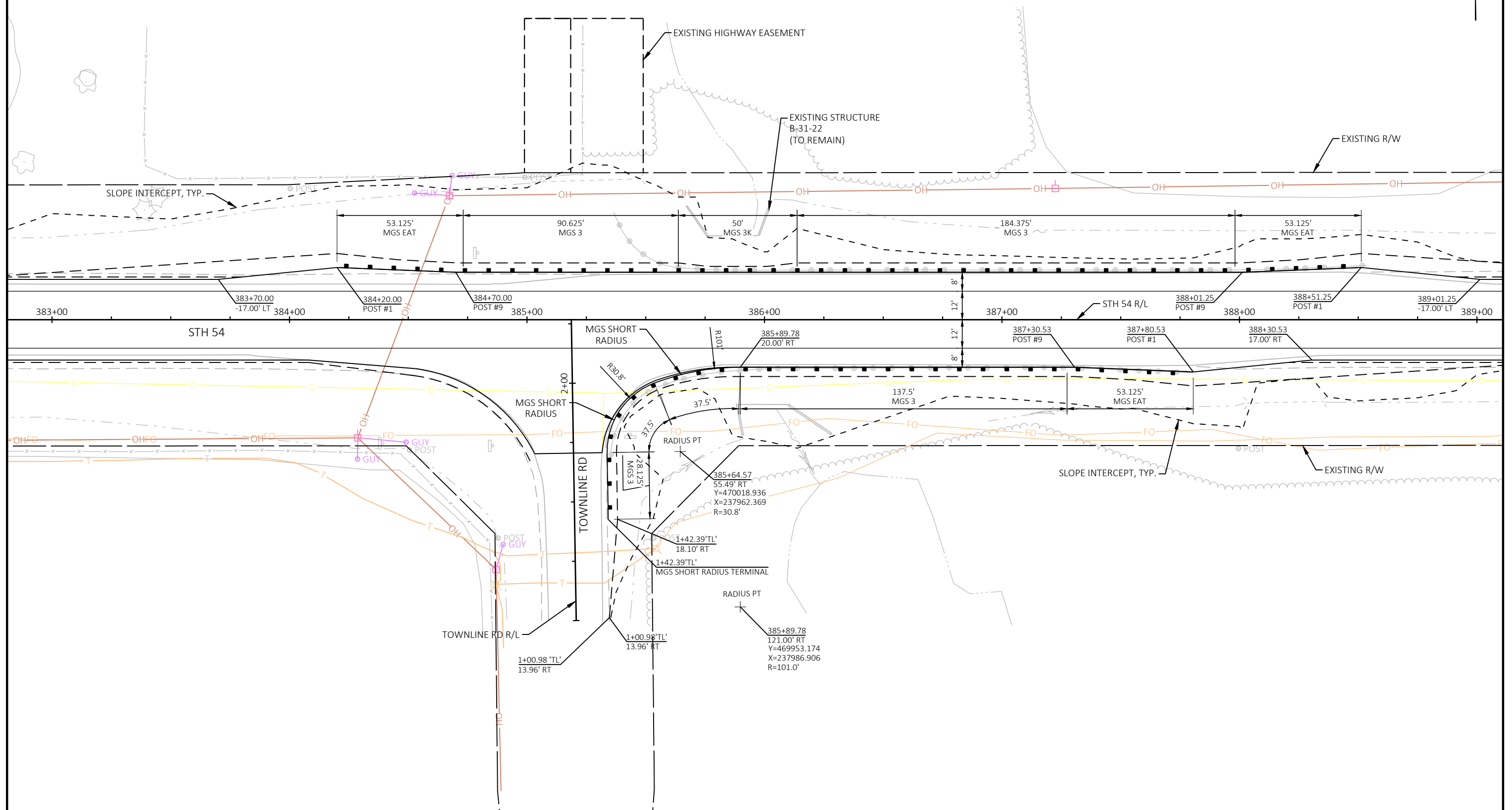


PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN DETAILS GR-3	SHEET	E
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN DETAILS GR-5	SHEET	E
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PROJECT NO: 4130-11-71

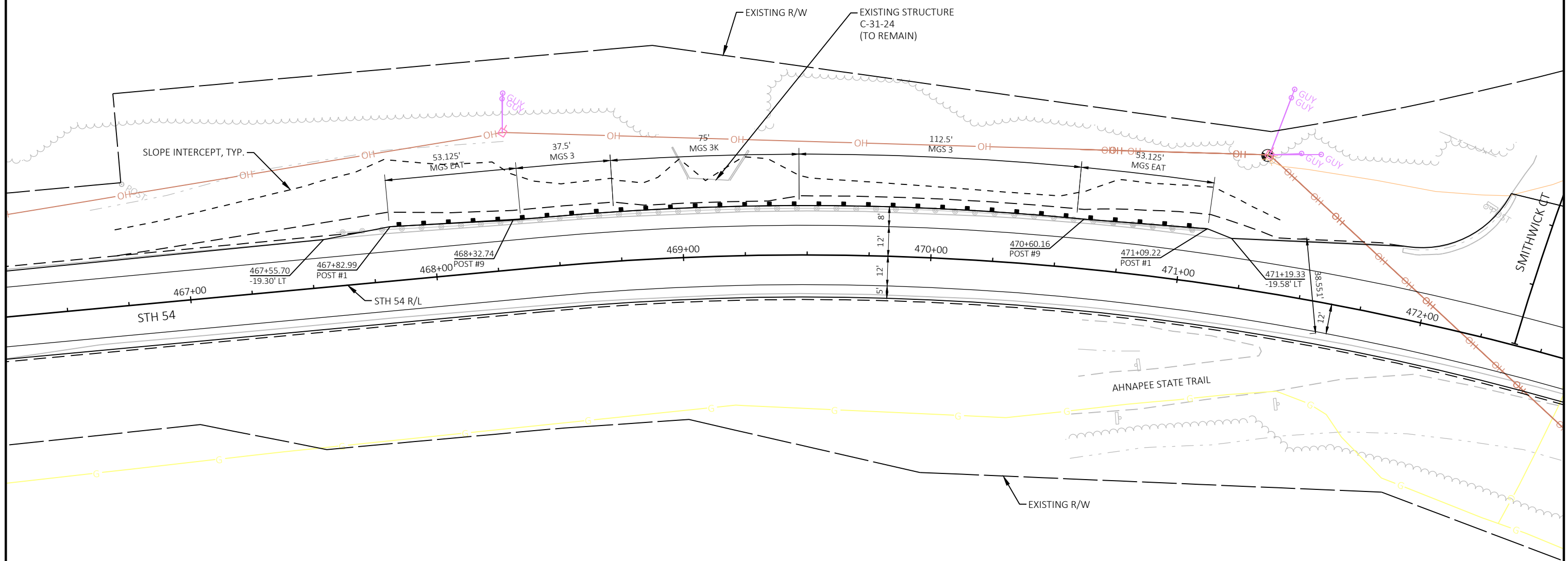
HWY: STH 54

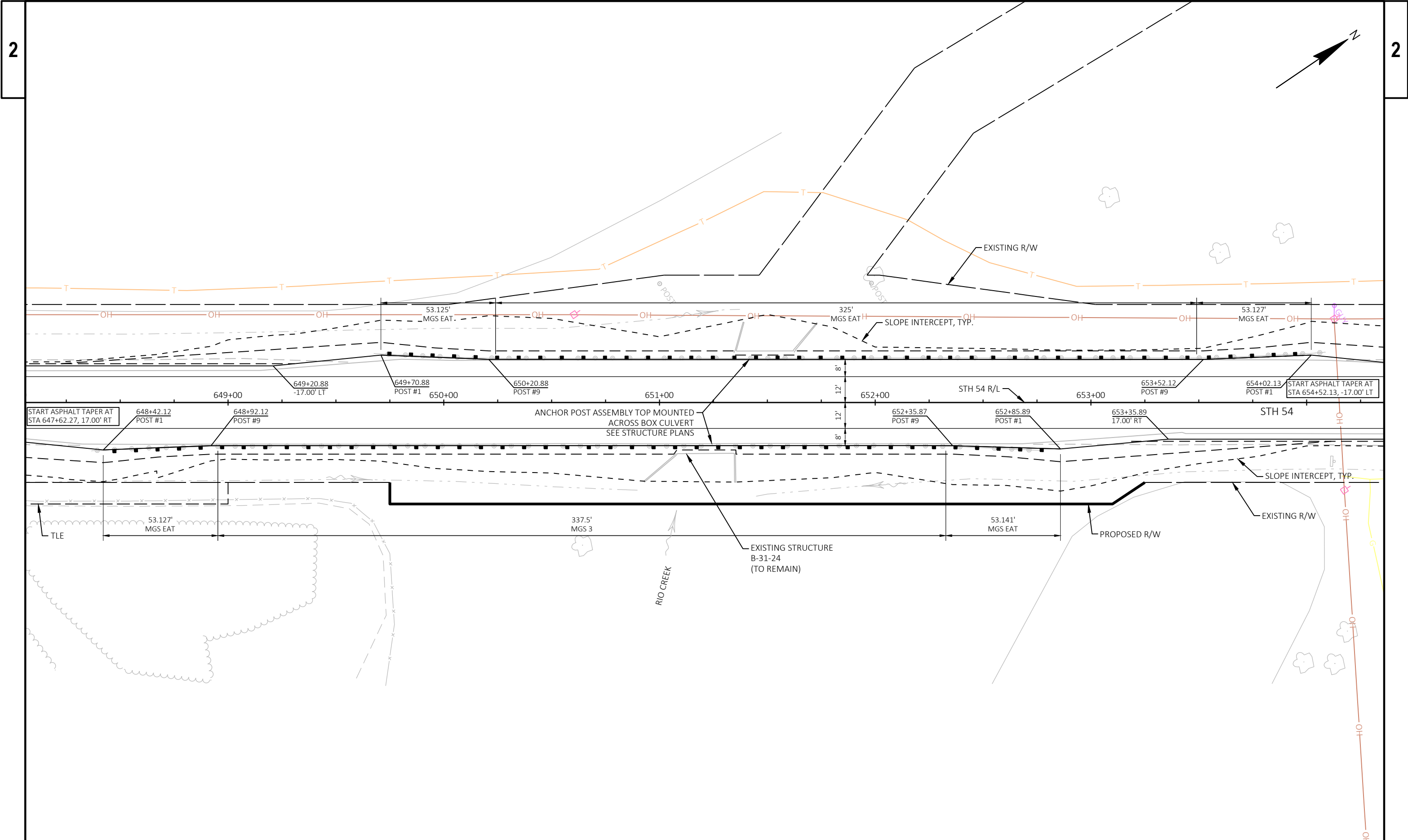
COUNTY: KEWAUNEE

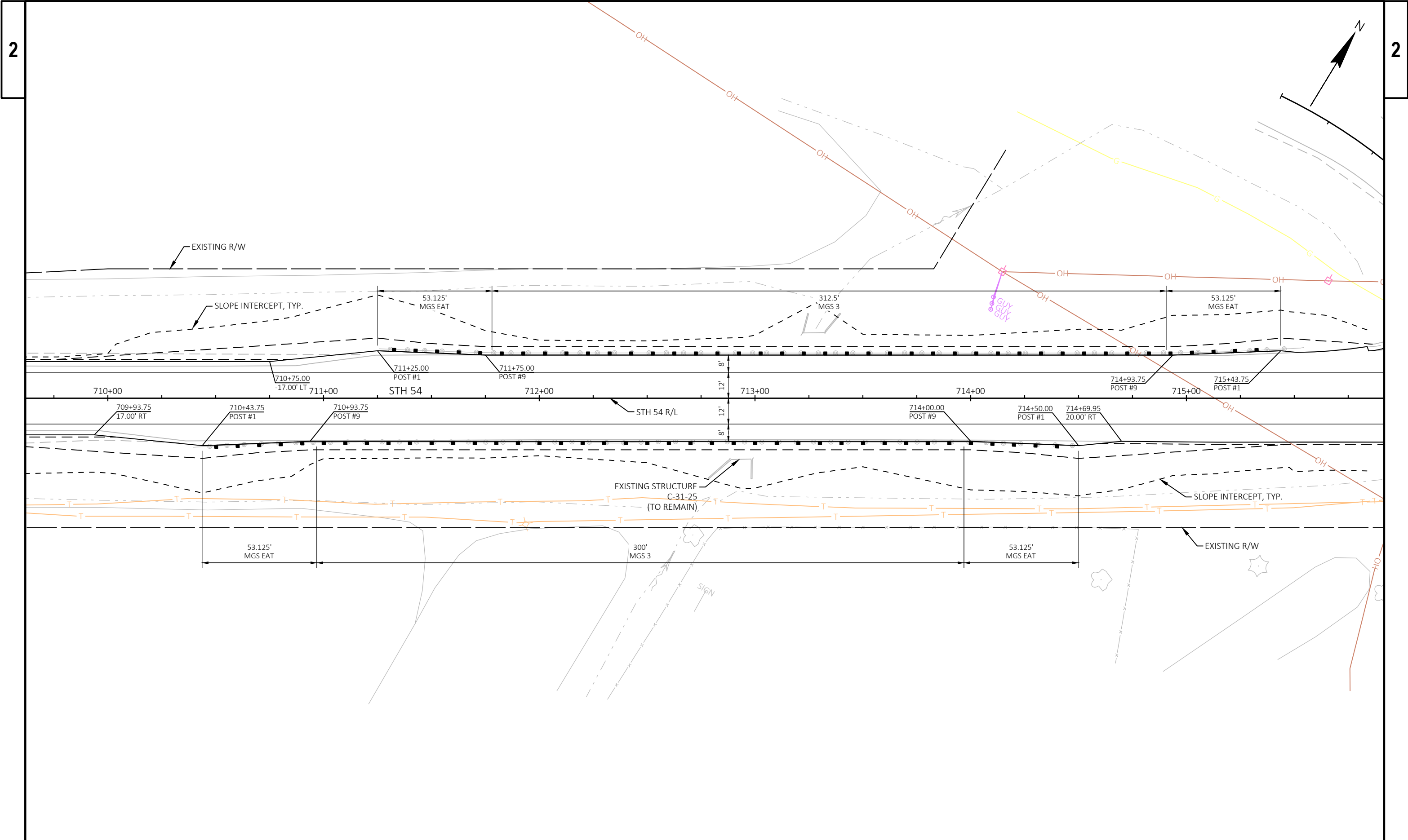
PLAN DETAILS GR-6

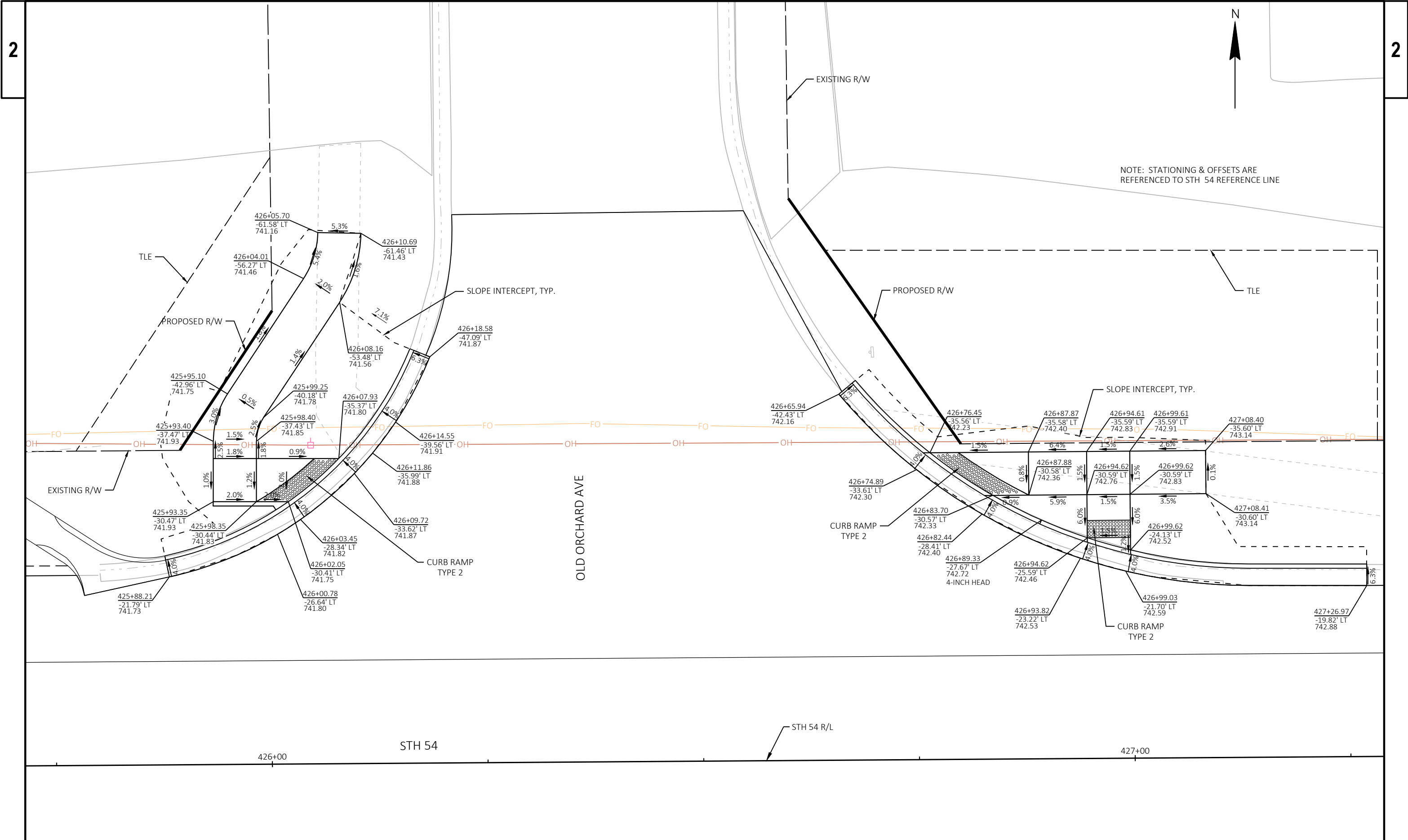
SHEET

E

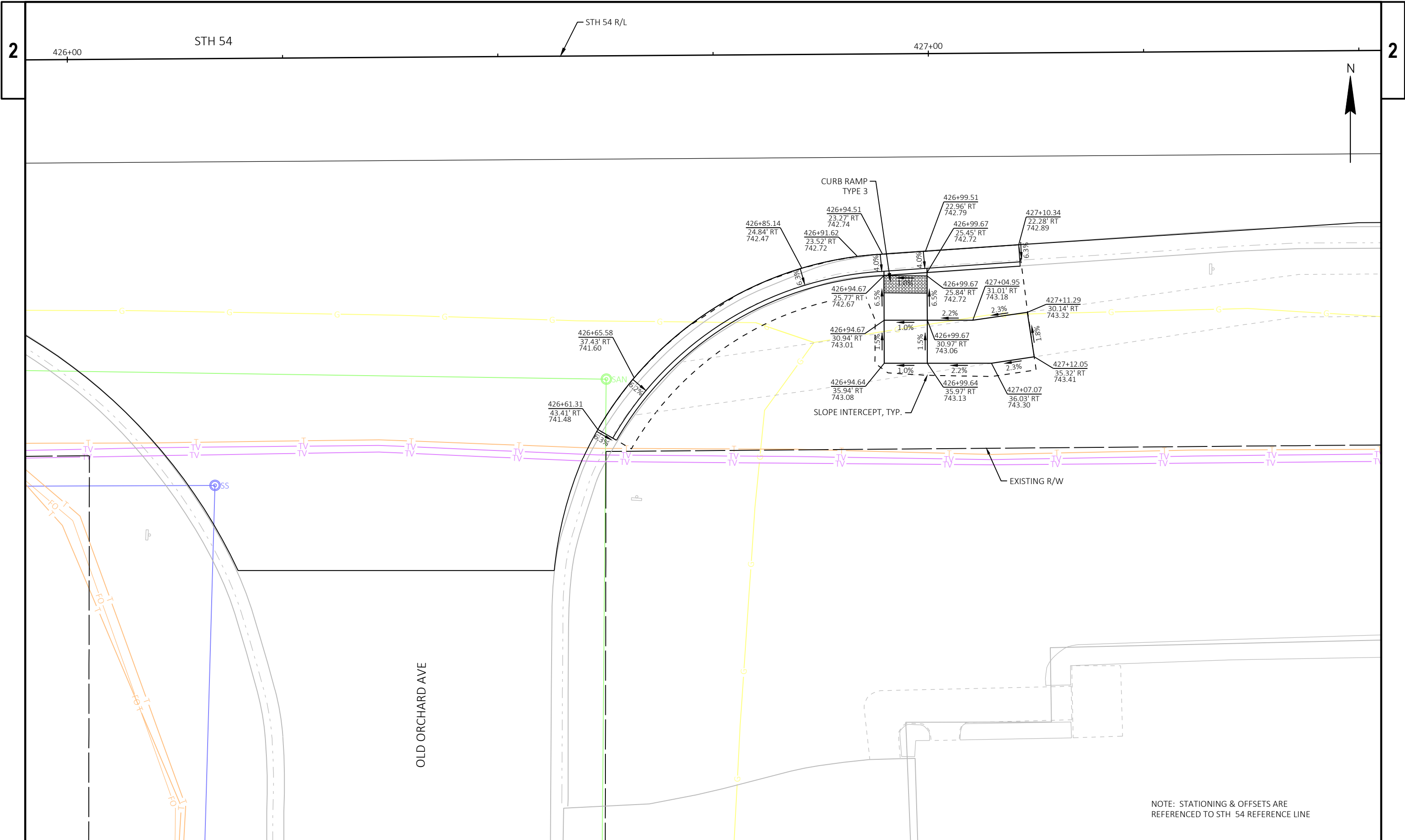




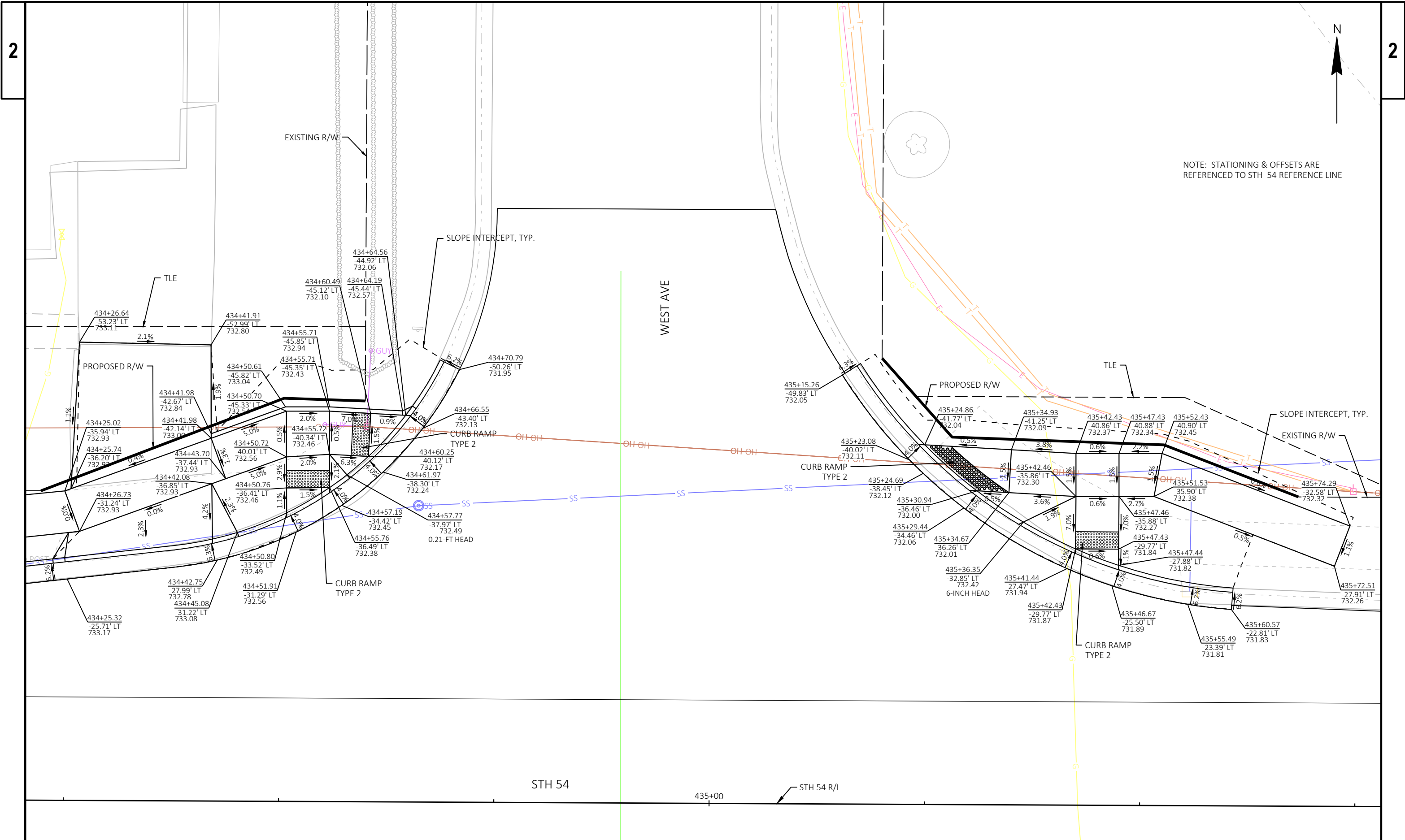




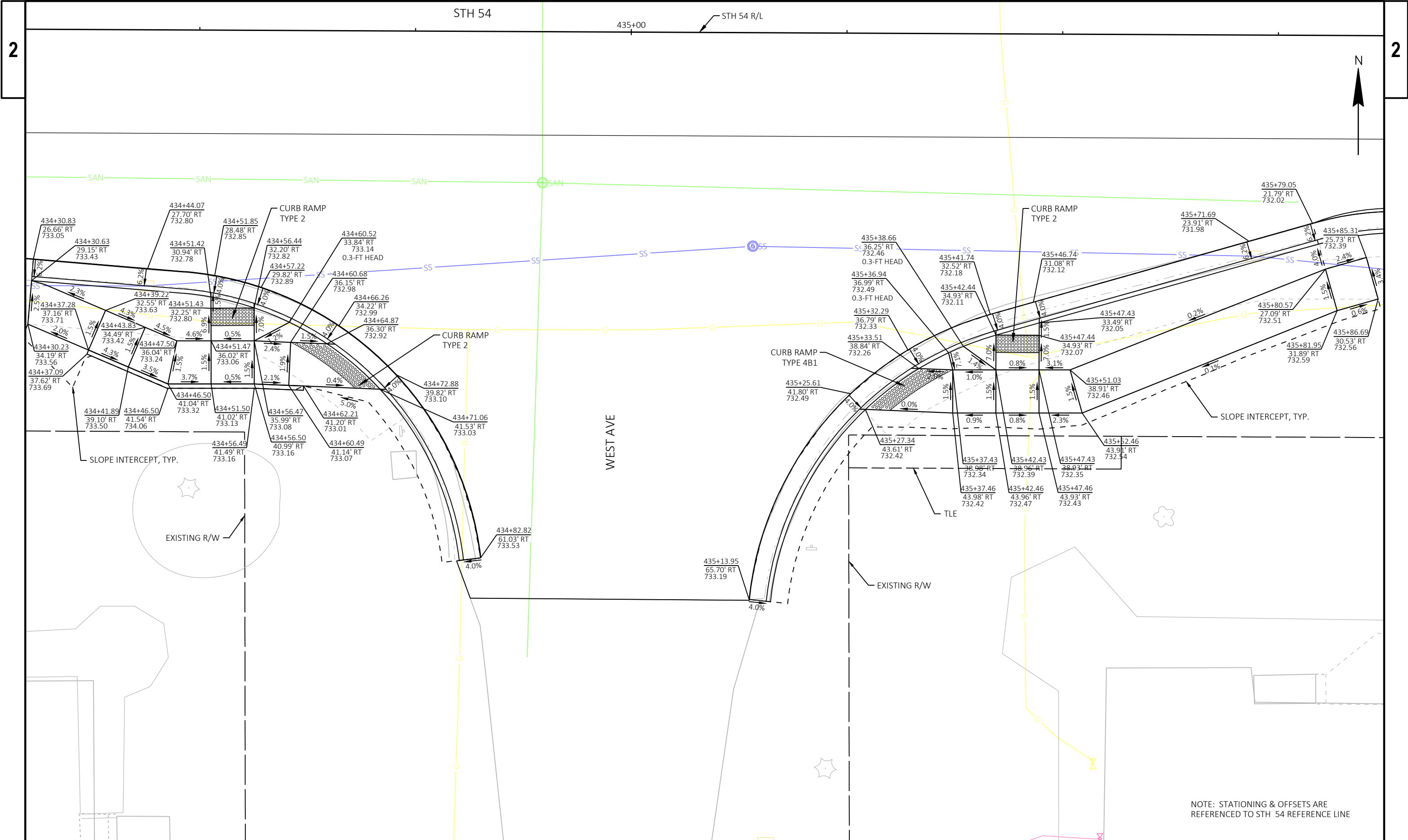
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CURB RAMP DETAILS	SHEET	E
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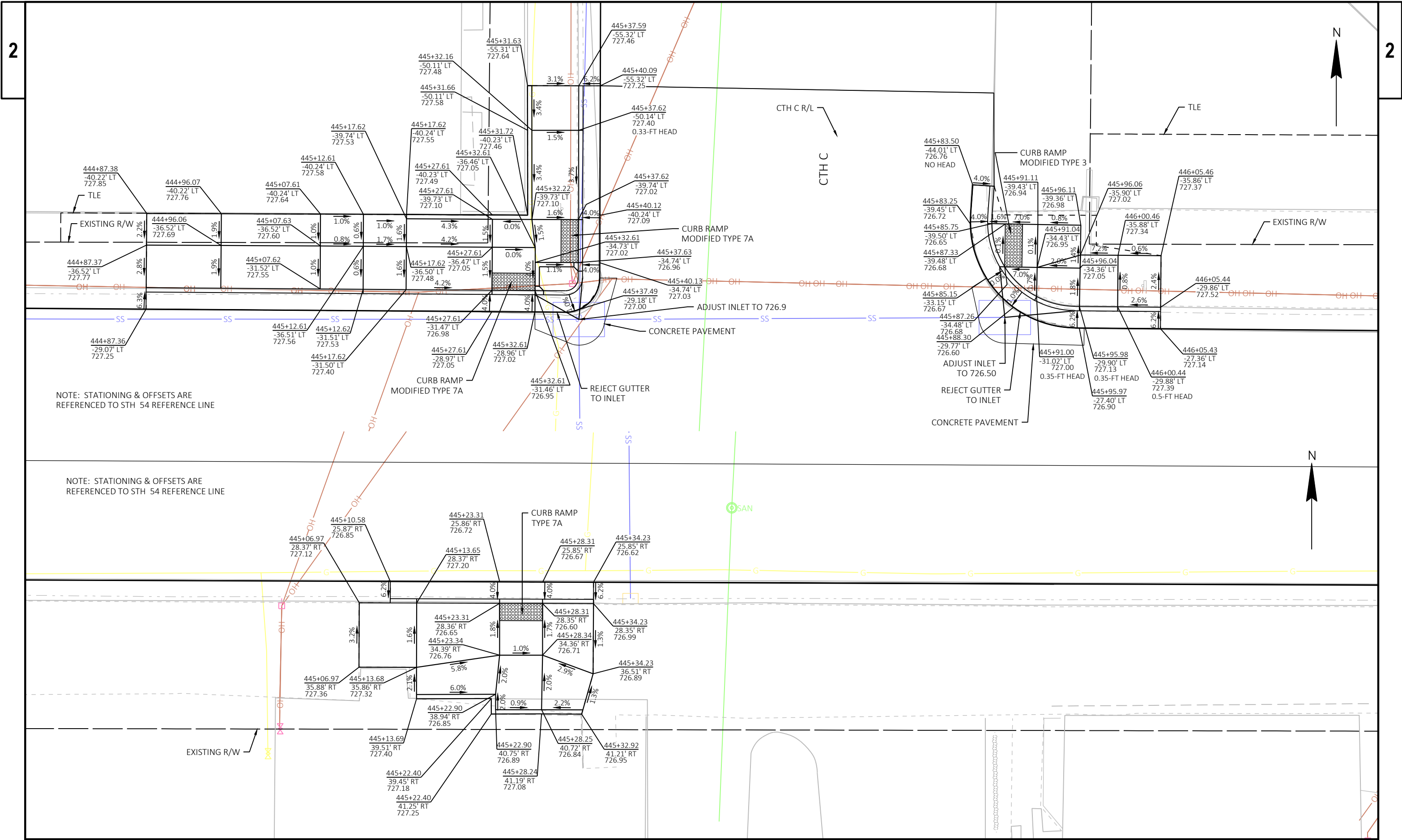


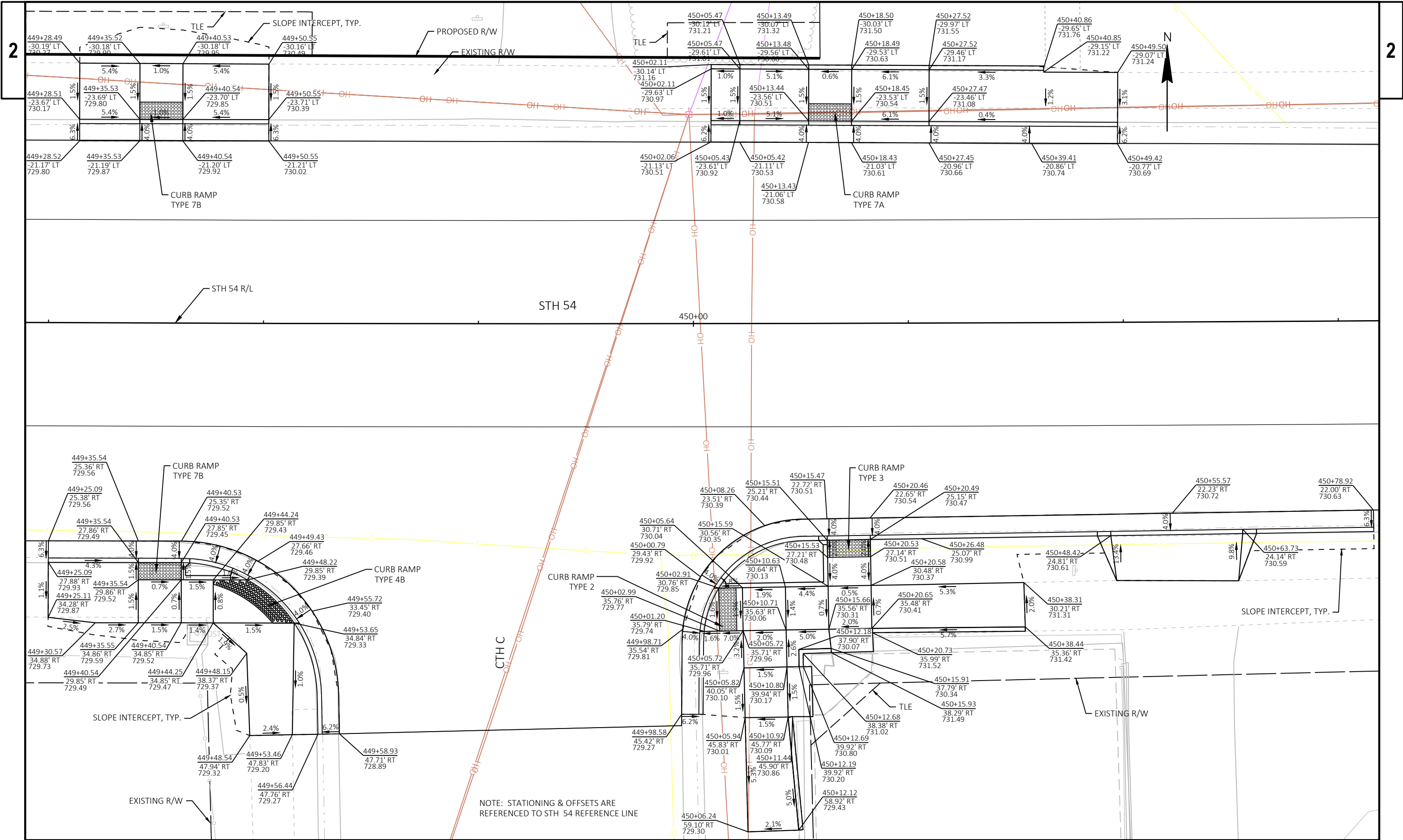
NOTE: STATIONING & OFFSETS ARE REFERENCED TO STH 54 REFERENCE LINE



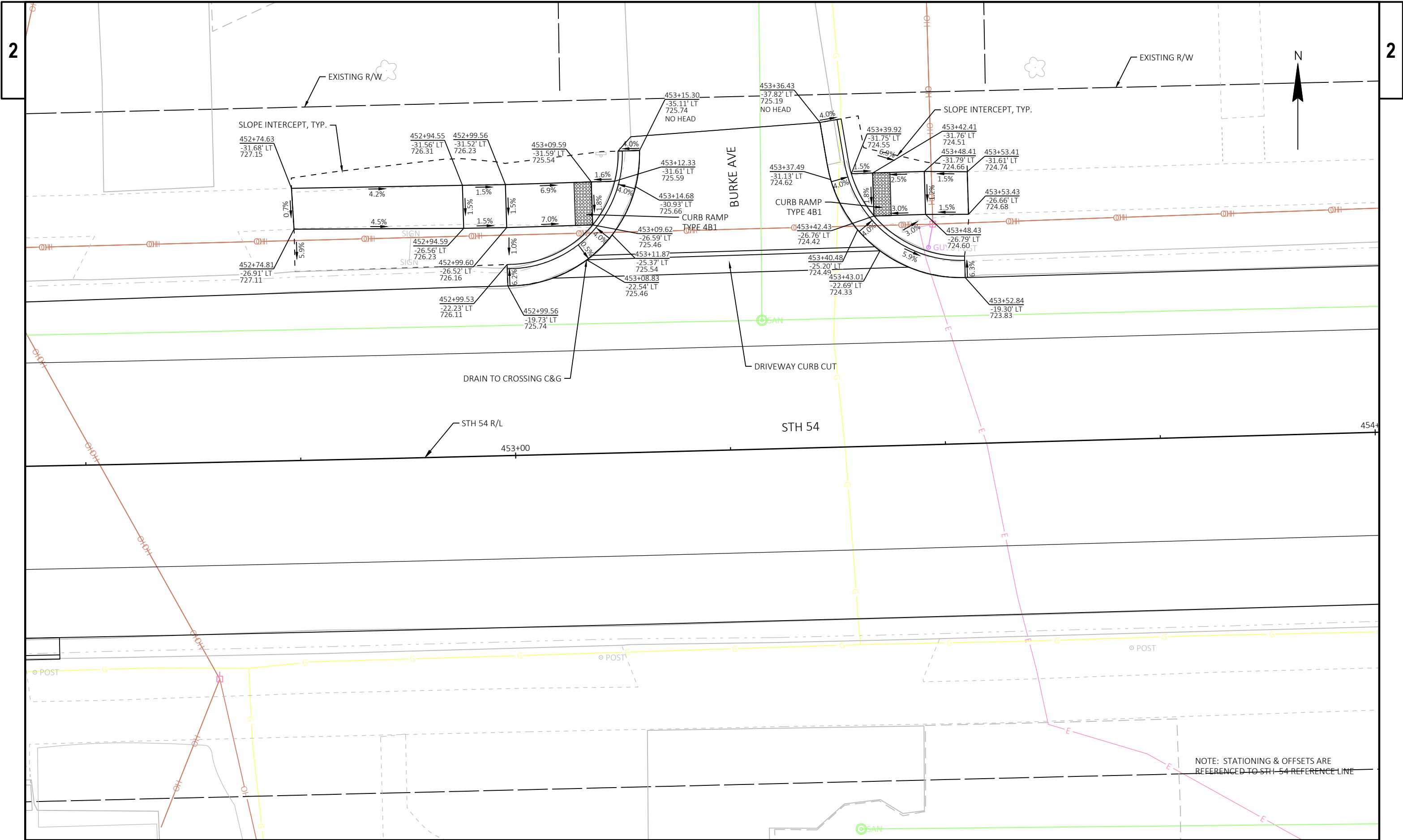
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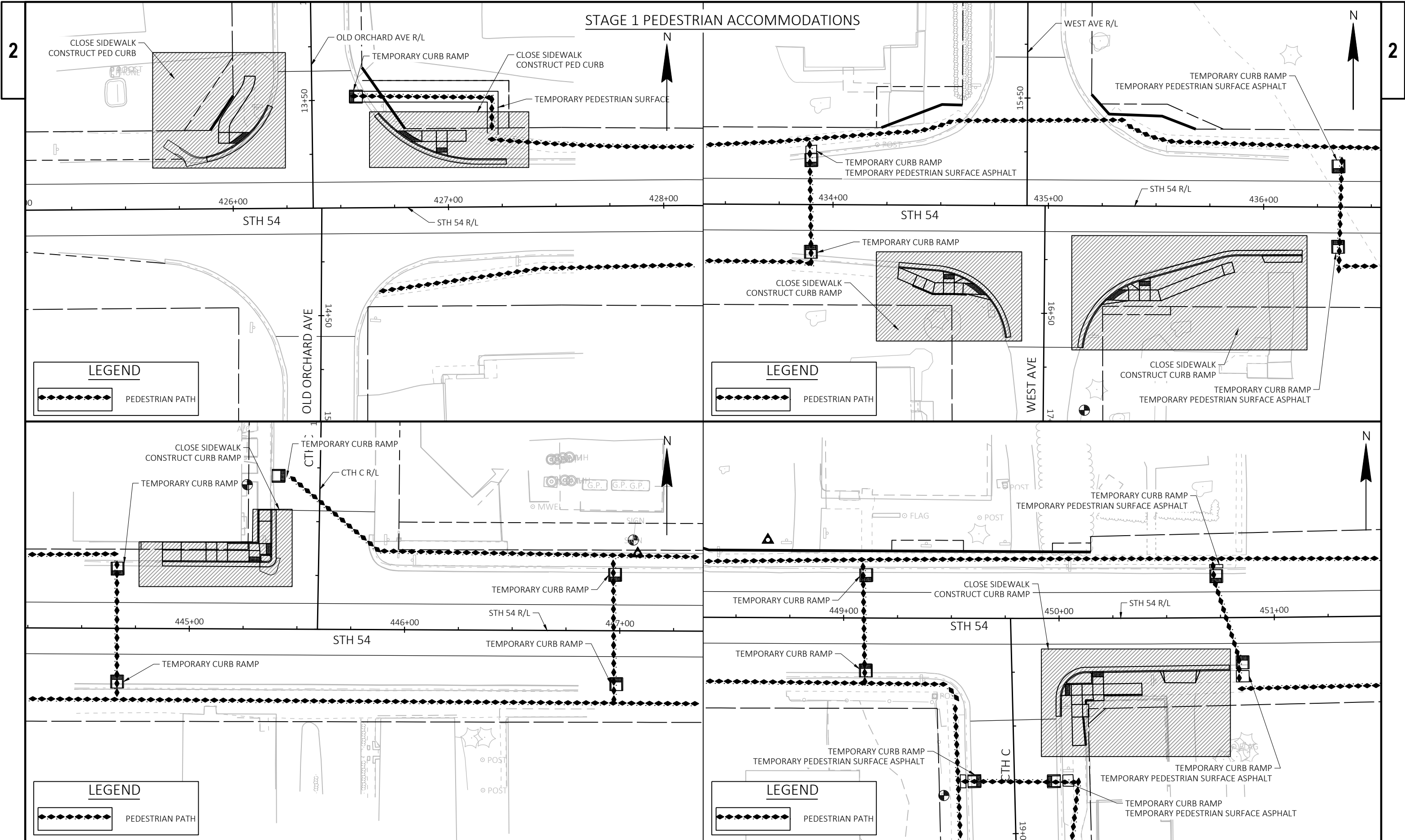


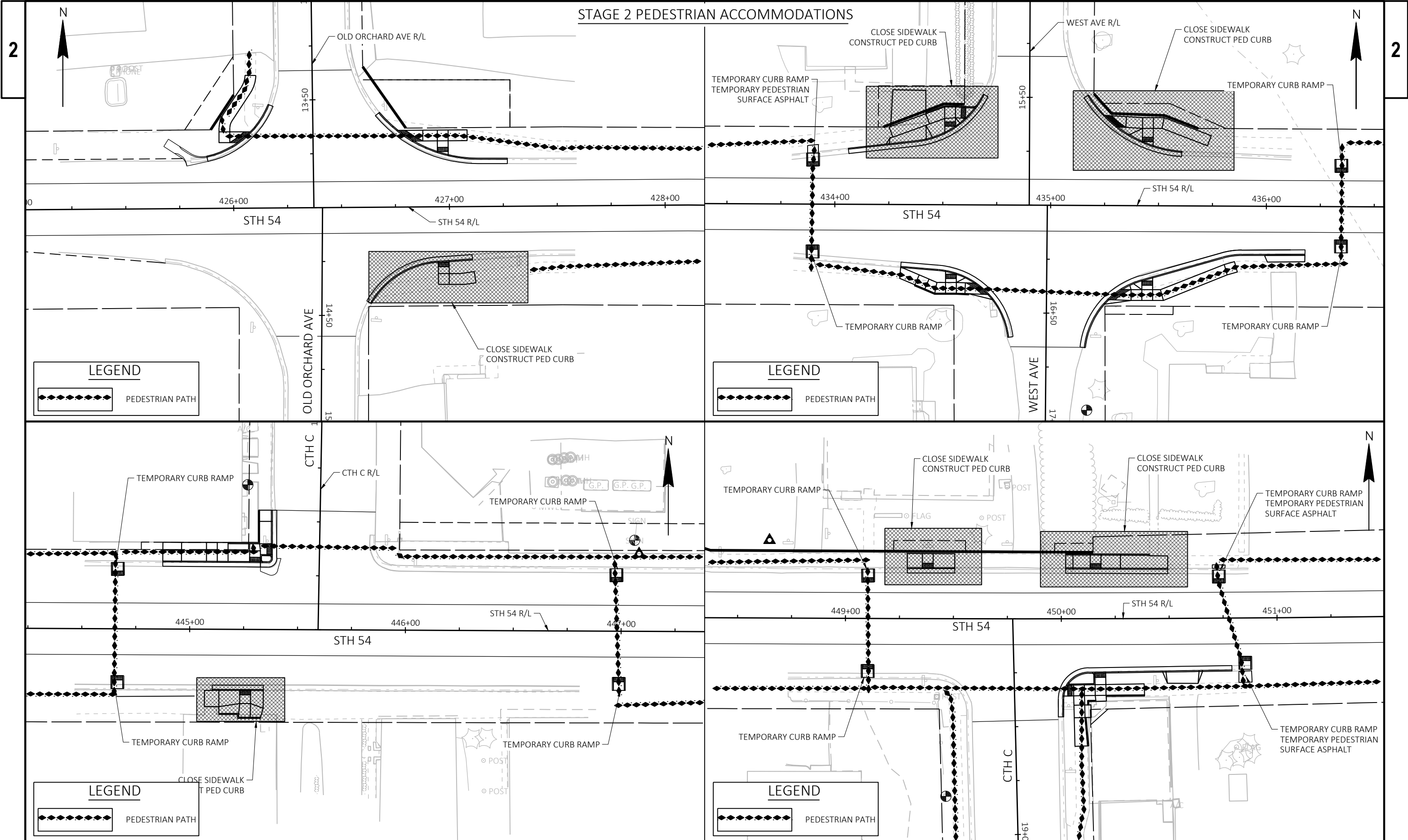




PROJECT NO:	4130-11-71	HWY:	STH 54	COUNTY:	KEWAUNEE	CURB RAMP DETAILS	SHEET	E
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STAGE 2 PEDESTRIAN ACCOMMODATIONS

PROJECT NO: 4130-11-71

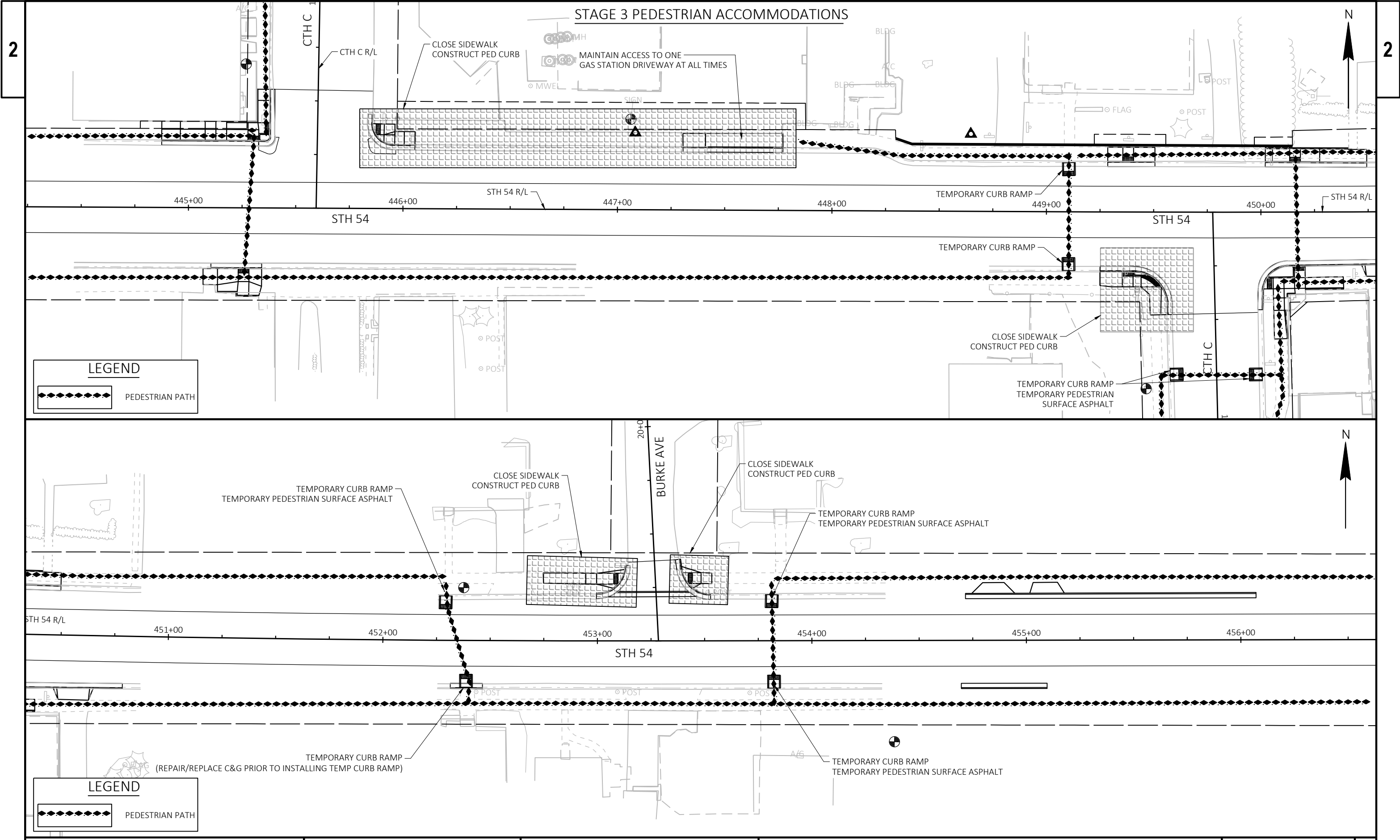
HWY: STH 54

COUNTY: KEWAUNEE

CONSTRUCTION STAGING - PEDESTRIAN - STAGE 2

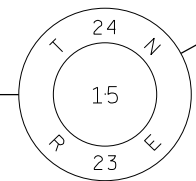
SHEET

E



PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CONSTRUCTION STAGING - PEDESTRIAN - STAGE 3	SHEET E
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SEC 204
KEW. CO. MON.
Y=468771.055
X=224722.085



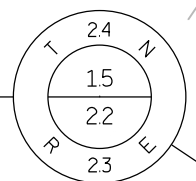
TOWN

SE 1/4 - SW 1/4

N01°09'52"E 2651.44'

SE - SW
SW - SE

SEC 201
KEW. CO. MON.
Y=466120.159
X=224668.206



OF

STH 54

N 33°56'34" E 869.67'

TLE "A" FOR
SLOPING

SW 1/4 - SE 1/4

LUXEMBURG

TAX ID#012-00015-0680
ALT. #31-012-15.154

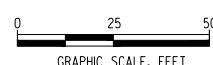
POINT	POINT	BEARING	DISTANCE
201	- 300	N01°09'52"E	816.84'
300	- 302	S88°50'08"E	169.52'
302	- 305	N33°58'23"E	248.80'
305	- 304	S56°01'37"E	27.00'
304	- 303	S33°58'23"W	248.79'
303	- 302	N56°03'26"W	27.00'

POINT	STATION	OFFSET	COORDINATES	
300	240+58.23	-110.22'	Y=466936.834	X=224684.805
301	241+29.20	0.00'	Y=466934.170	X=224815.874
302	241+50.00	32.30'	Y=466933.389	X=224854.285
303	241+50.00	59.30'	Y=466918.313	X=224876.684
304	243+98.79	59.43'	Y=467124.636	X=225015.710
305	243+98.81	32.43'	Y=467139.723	X=224993.319
306	240+50.00	0.00'	Y=466868.466	X=224771.652
307	245+00.00	0.00'	Y=467241.783	X=225022.917

SCHEDULE OF LANDS & INTERESTS REQUIRED			FEE R/W ACRE(S) OR (S.F.) REQUIRED			T.L.E. AREA
PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW	EXISTING	TOTAL	
			1	WISCONSIN DEPARTMENT NATURAL RESOURCES (LESSOR) AND COUNTY OF KEWAUNEE (LESSEE)	TLE	-

REVISION DATE
6-29-2021 NC

DATE 5-26-2021



HWY: STH 54

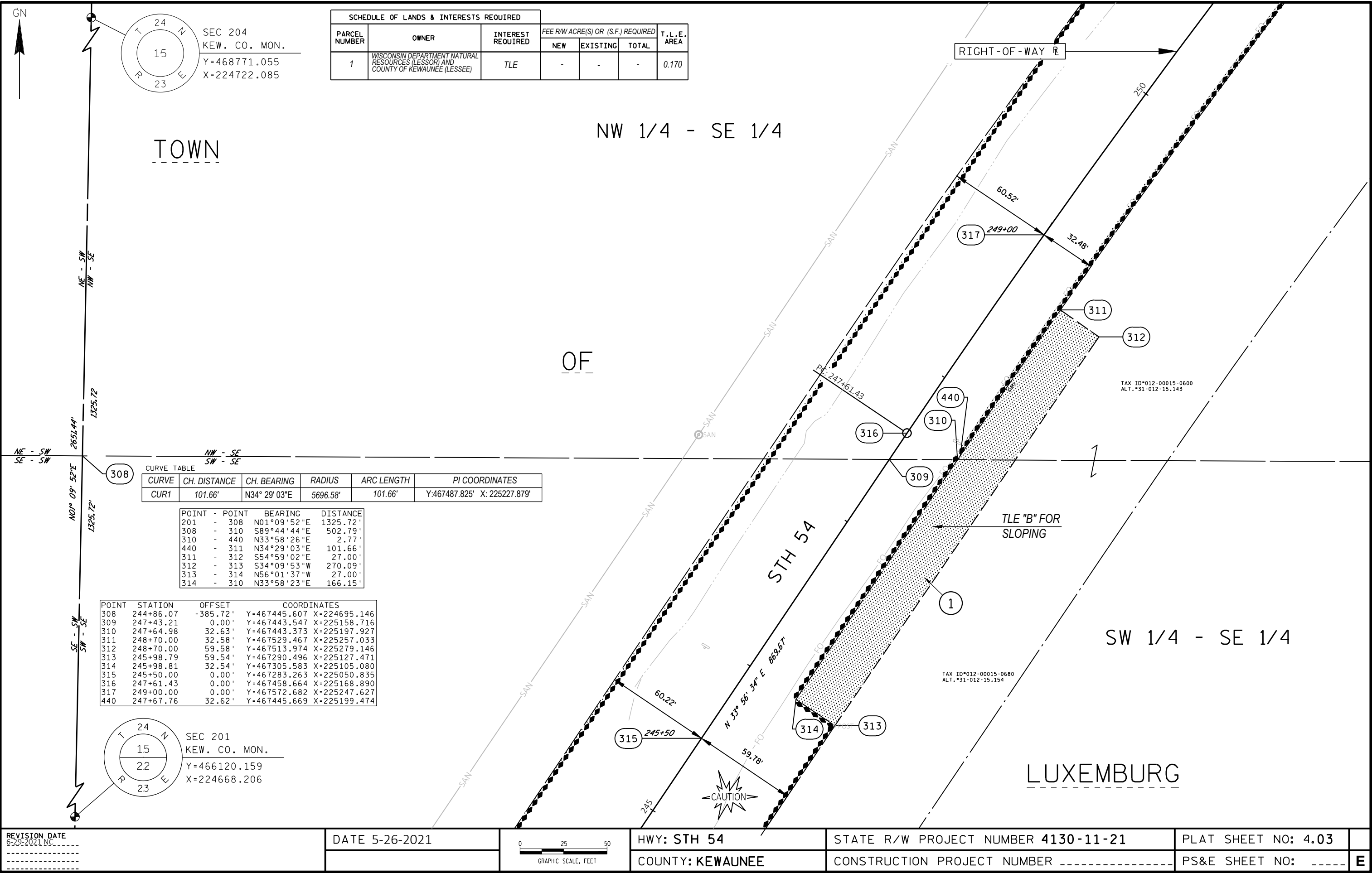
COUNTY: KEWAUNEE

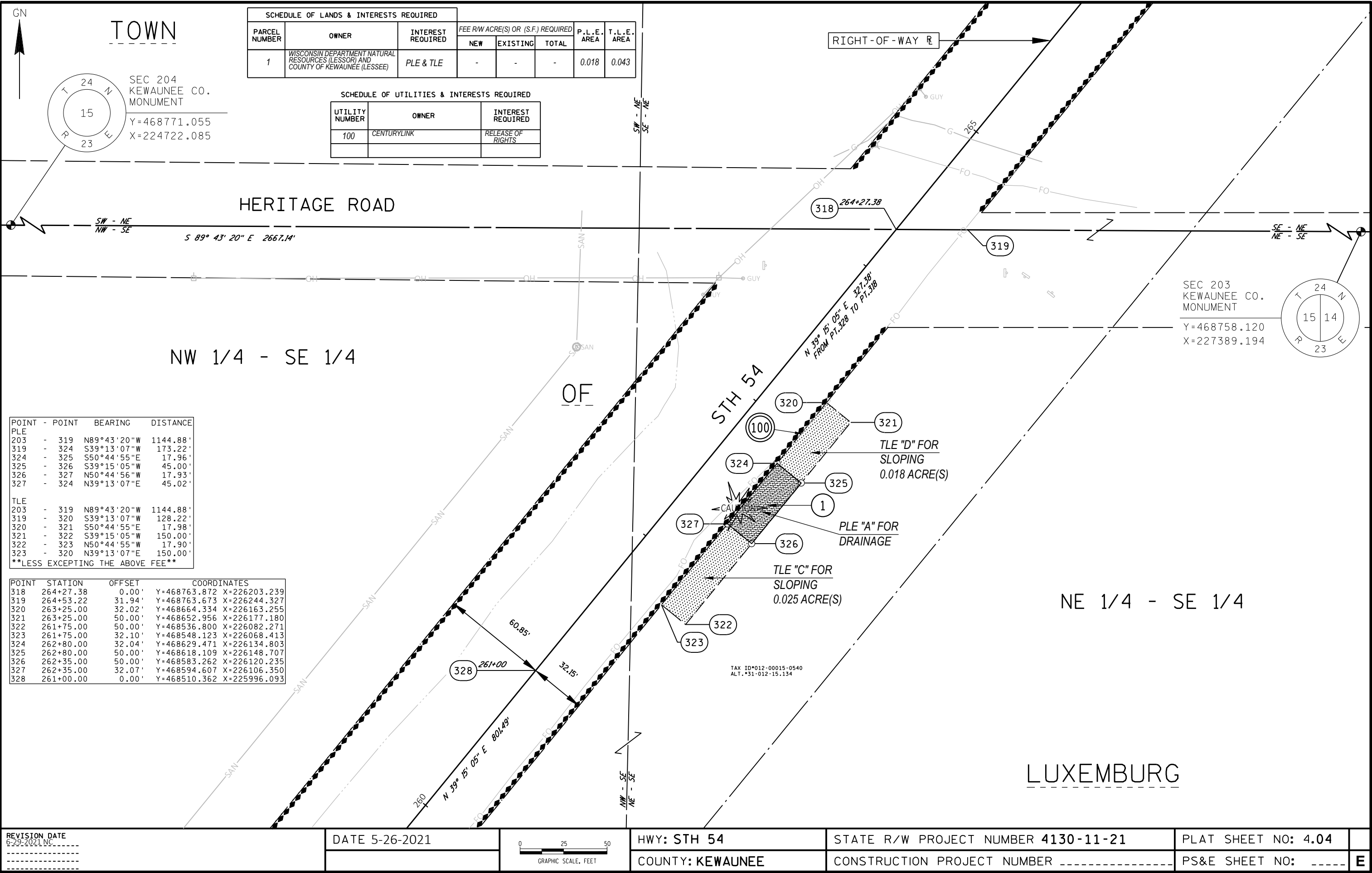
STATE R/W PROJECT NUMBER 4130-11-21

CONSTRUCTION PROJECT NUMBER

PLAT SHEET NO: 4.02

PS&E SHEET NO: E



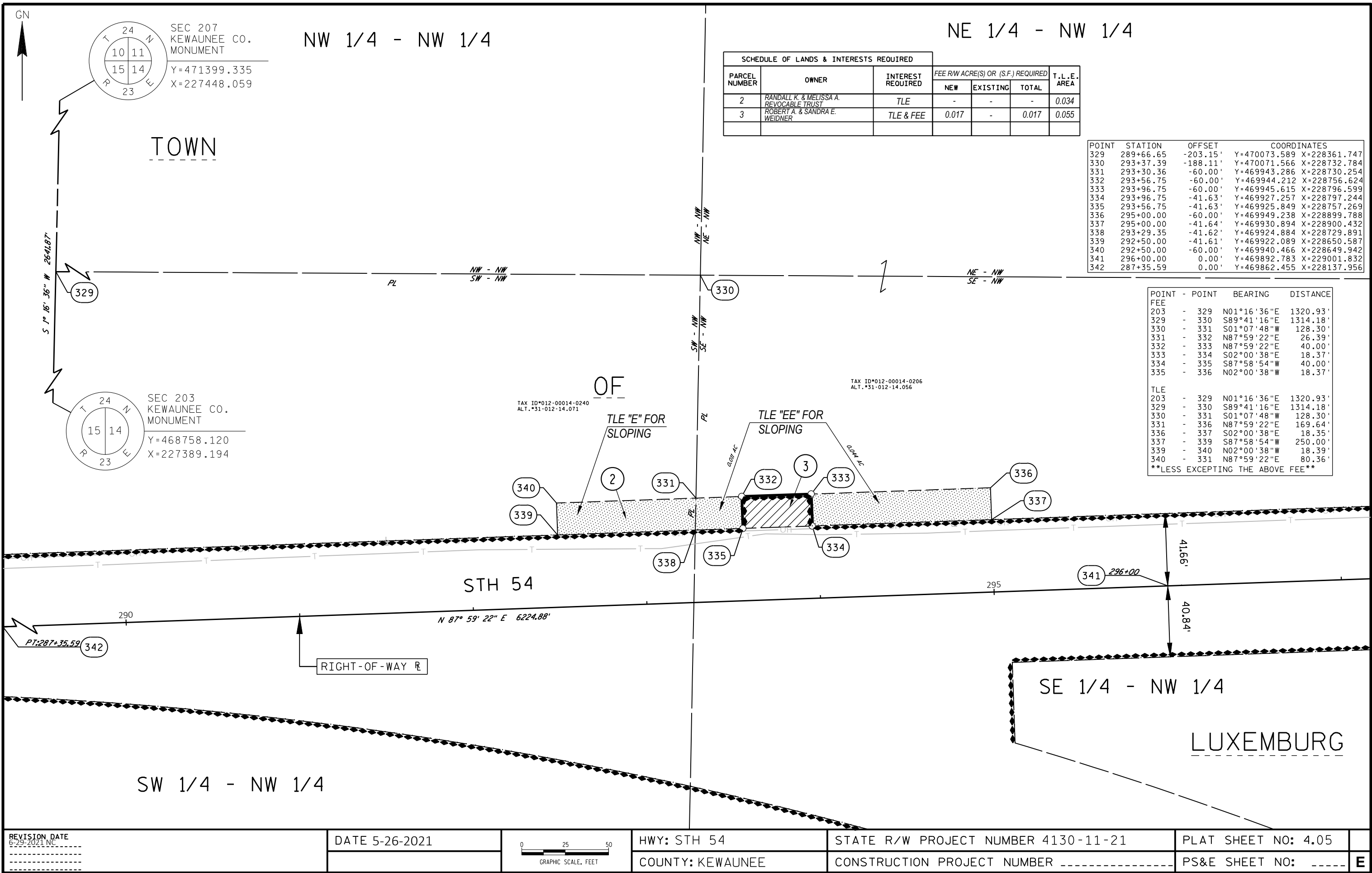


SCHEDULE OF LANDS & INTERESTS REQUIRED						
PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE R/W ACRE(S) OR (S.F.) REQUIRED			T.L.E. AREA
			NEW	EXISTING	TOTAL	
1	WISCONSIN DEPARTMENT NATURAL RESOURCES (LESSOR) AND COUNTY OF KEWAUNEE (LESSEE)	PLE & TLE	-	-	-	0.018

SCHEDULE OF UTILITIES & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	CENTURYLINK	RELEASE OF RIGHTS

POINT	POINT	BEARING	DISTANCE
PLE			
203	- 319	N89°43'20"W	1144.88'
319	- 324	S39°13'07"W	173.22'
324	- 325	S50°44'55"E	17.96'
325	- 326	S39°15'05"W	45.00'
326	- 327	N50°44'56"W	17.93'
327	- 324	N39°13'07"E	45.02'
TLE			
203	- 319	N89°43'20"W	1144.88'
319	- 320	S39°13'07"W	128.22'
320	- 321	S50°44'55"E	17.98'
321	- 322	S39°15'05"W	150.00'
322	- 323	N50°44'55"W	17.90'
323	- 320	N39°13'07"E	150.00'

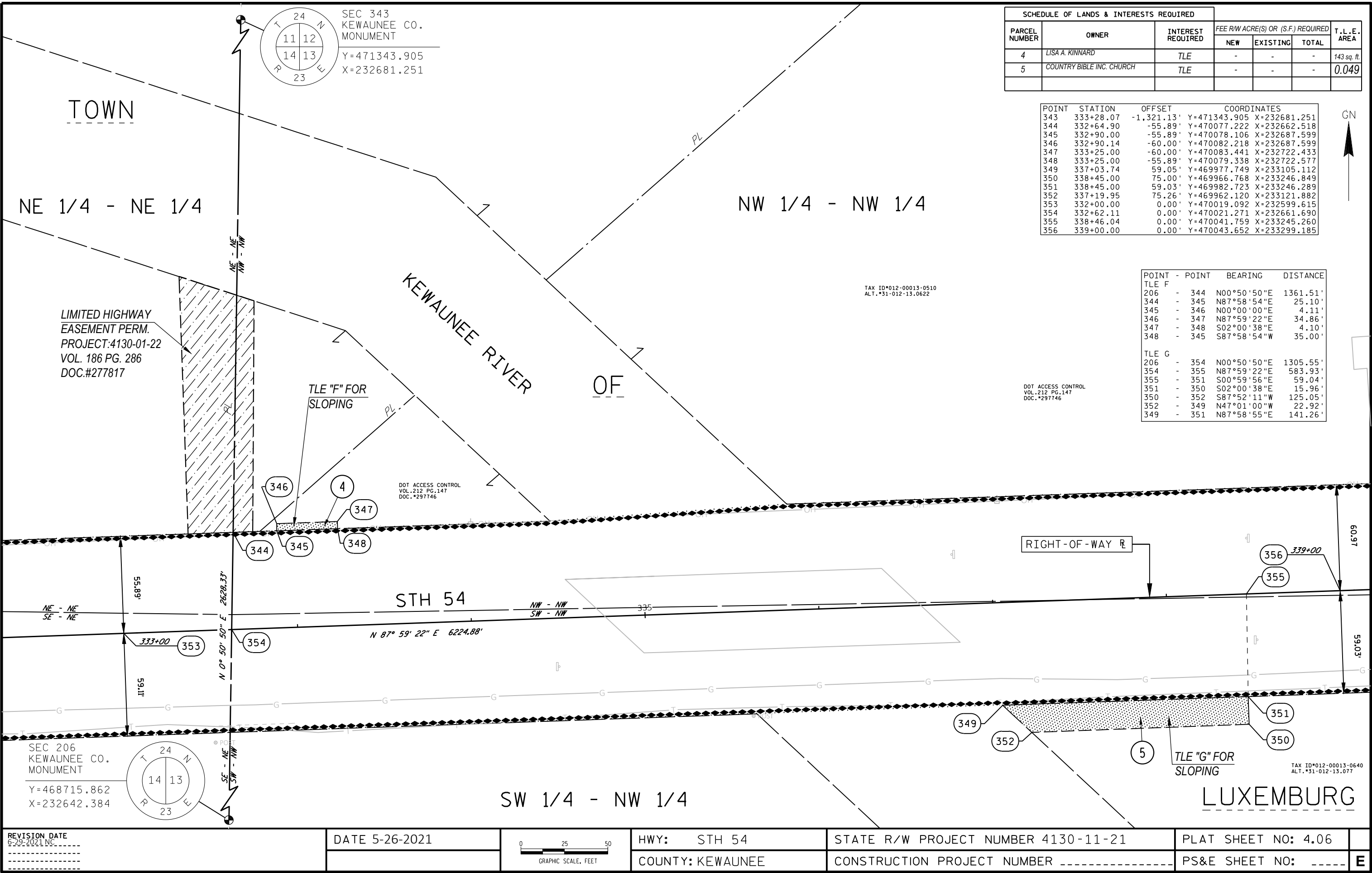
POINT	STATION	OFFSET	COORDINATES	
318	264+27.38	0.00'	Y=468763.872	X=226203.239
319	264+53.22	31.94'	Y=468763.673	X=226244.327
320	263+25.00	32.02'	Y=468664.334	X=226163.255
321	263+25.00	50.00'	Y=468652.956	X=226177.180
322	261+75.00	50.00'	Y=468536.800	X=226082.271
323	261+75.00	32.10'	Y=468548.123	X=226068.413
324	262+80.00	32.04'	Y=468629.471	X=226134.803
325	262+80.00	50.00'	Y=468618.109	X=226148.707
326	262+35.00	50.00'	Y=468583.262	X=226120.235
327	262+35.00	32.07'	Y=468594.607	X=226106.350
328	261+00.00	0.00'	Y=468510.362	X=225996.093



SCHEDULE OF LANDS & INTERESTS REQUIRED						
PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE R/W ACRE(S) OR (S.F.) REQUIRED			T.L.E. AREA
			NEW	EXISTING	TOTAL	
2	RANDALL K. & MELISSA A. REVOCABLE TRUST	TLE	-	-	-	0.034
3	ROBERT A. & SANDRA E. WEIDNER	TLE & FEE	0.017	-	0.017	0.055

POINT	STATION	OFFSET	COORDINATES	
329	289+66.65	-203.15'	Y=470073.589	X=228361.747
330	293+37.39	-188.11'	Y=470071.566	X=228732.784
331	293+30.36	-60.00'	Y=469943.286	X=228730.254
332	293+56.75	-60.00'	Y=469944.212	X=228756.624
333	293+96.75	-60.00'	Y=469945.615	X=228796.599
334	293+96.75	-41.63'	Y=469927.257	X=228797.244
335	293+56.75	-41.63'	Y=469925.849	X=228757.269
336	295+00.00	-60.00'	Y=469949.238	X=228899.788
337	295+00.00	-41.64'	Y=469930.894	X=228900.432
338	293+29.35	-41.62'	Y=469924.884	X=228729.891
339	292+50.00	-41.61'	Y=469922.089	X=228650.587
340	292+50.00	-60.00'	Y=469940.466	X=228649.942
341	296+00.00	0.00'	Y=469892.783	X=229001.832
342	287+35.59	0.00'	Y=469862.455	X=228137.956

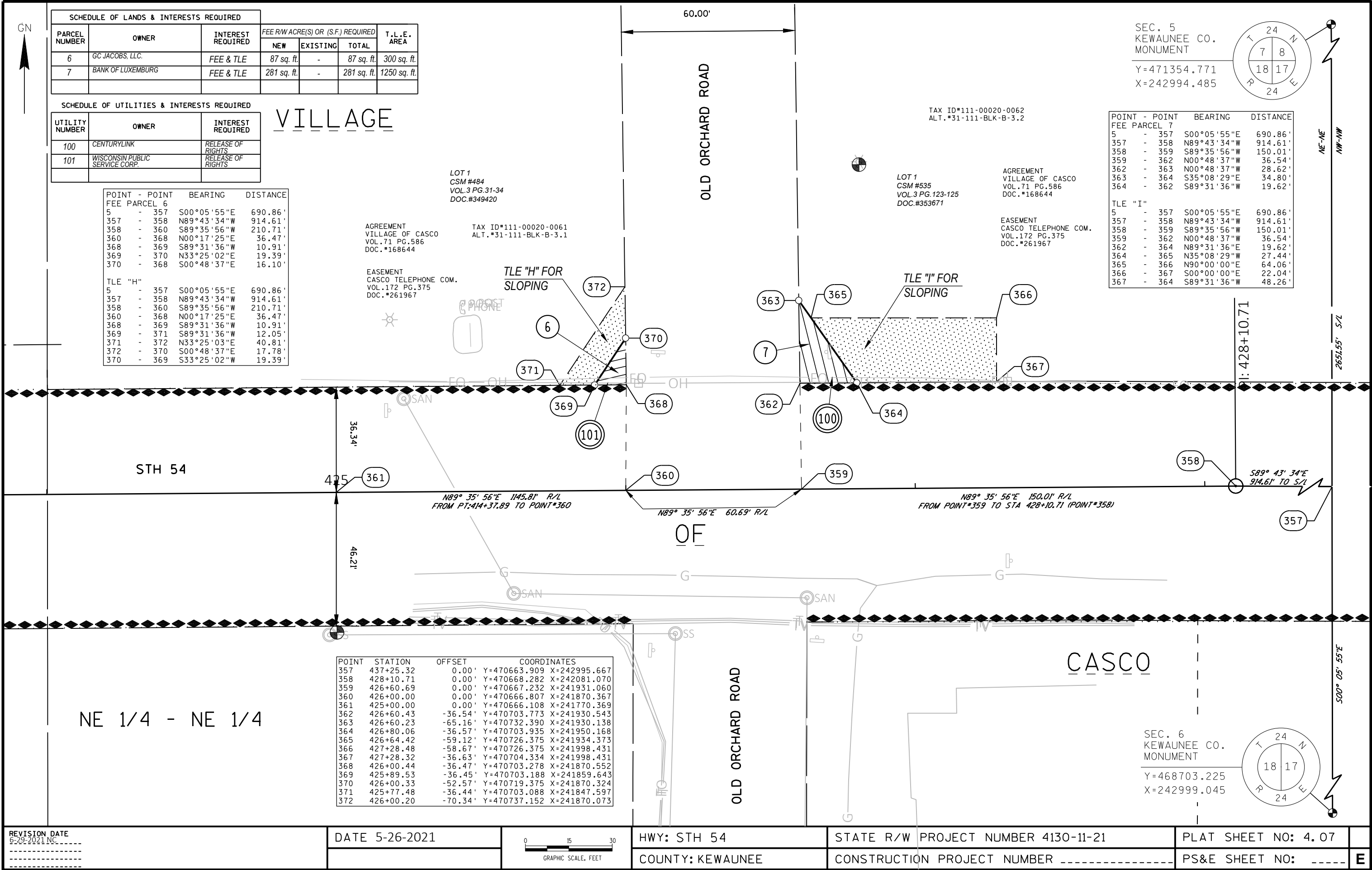
POINT	POINT	BEARING	DISTANCE
FEE			
203	- 329	N01°16'36"E	1320.93'
329	- 330	S89°41'16"E	1314.18'
330	- 331	S01°07'48"W	128.30'
331	- 332	N87°59'22"E	26.39'
332	- 333	N87°59'22"E	40.00'
333	- 334	S02°00'38"E	18.37'
334	- 335	S87°58'54"W	40.00'
335	- 336	N02°00'38"W	18.37'
TLE			
203	- 329	N01°16'36"E	1320.93'
329	- 330	S89°41'16"E	1314.18'
330	- 331	S01°07'48"W	128.30'
331	- 336	N87°59'22"E	169.64'
336	- 337	S02°00'38"E	18.35'
337	- 339	S87°58'54"W	250.00'
339	- 340	N02°00'38"W	18.39'
340	- 331	N87°59'22"E	80.36'
LESS EXCEPTING THE ABOVE FEE			

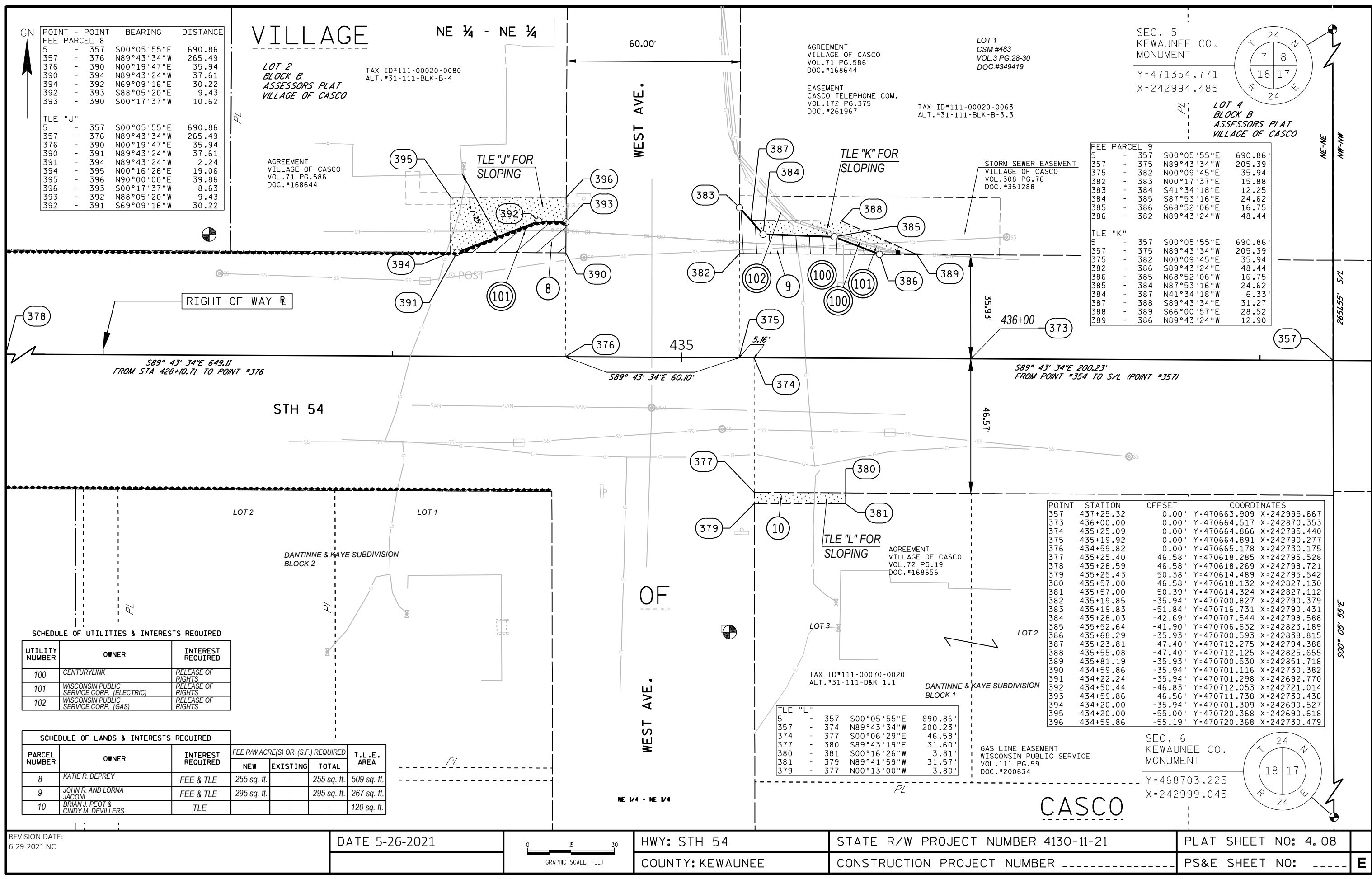


SCHEDULE OF LANDS & INTERESTS REQUIRED			FEE RW ACRE(S) OR (S.F.) REQUIRED			T.L.E. AREA
PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW	EXISTING	TOTAL	
4	LISA A. KINNARD	TLE	-	-	-	143 sq. ft.
5	COUNTRY BIBLE INC. CHURCH	TLE	-	-	-	0.049

POINT	STATION	OFFSET	COORDINATES	
343	333+28.07	-1.321.13'	Y=471343.905	X=232681.251
344	332+64.90	-55.89'	Y=470077.222	X=232662.518
345	332+90.00	-55.89'	Y=470078.106	X=232687.599
346	332+90.14	-60.00'	Y=470082.218	X=232687.599
347	333+25.00	-60.00'	Y=470083.441	X=232722.433
348	333+25.00	-55.89'	Y=470079.338	X=232722.577
349	337+03.74	59.05'	Y=469977.749	X=233105.112
350	338+45.00	75.00'	Y=469966.768	X=233246.849
351	338+45.00	59.03'	Y=469982.723	X=233246.289
352	337+19.95	75.26'	Y=469962.120	X=233121.882
353	332+00.00	0.00'	Y=470019.092	X=232599.615
354	332+62.11	0.00'	Y=470021.271	X=232661.690
355	338+46.04	0.00'	Y=470041.759	X=233245.260
356	339+00.00	0.00'	Y=470043.652	X=233299.185

POINT	POINT	BEARING	DISTANCE
TLE F			
206	- 344	N00°50'50"E	1361.51'
344	- 345	N87°58'54"E	25.10'
345	- 346	N00°00'00"E	4.11'
346	- 347	N87°59'22"E	34.86'
347	- 348	S02°00'38"E	4.10'
348	- 345	S87°58'54"W	35.00'
TLE G			
206	- 354	N00°50'50"E	1305.55'
354	- 355	N87°59'22"E	583.93'
355	- 351	S00°59'56"E	59.04'
351	- 350	S02°00'38"E	15.96'
350	- 352	S87°52'11"W	125.05'
352	- 349	N47°01'00"W	22.92'
349	- 351	N87°58'55"E	141.26'



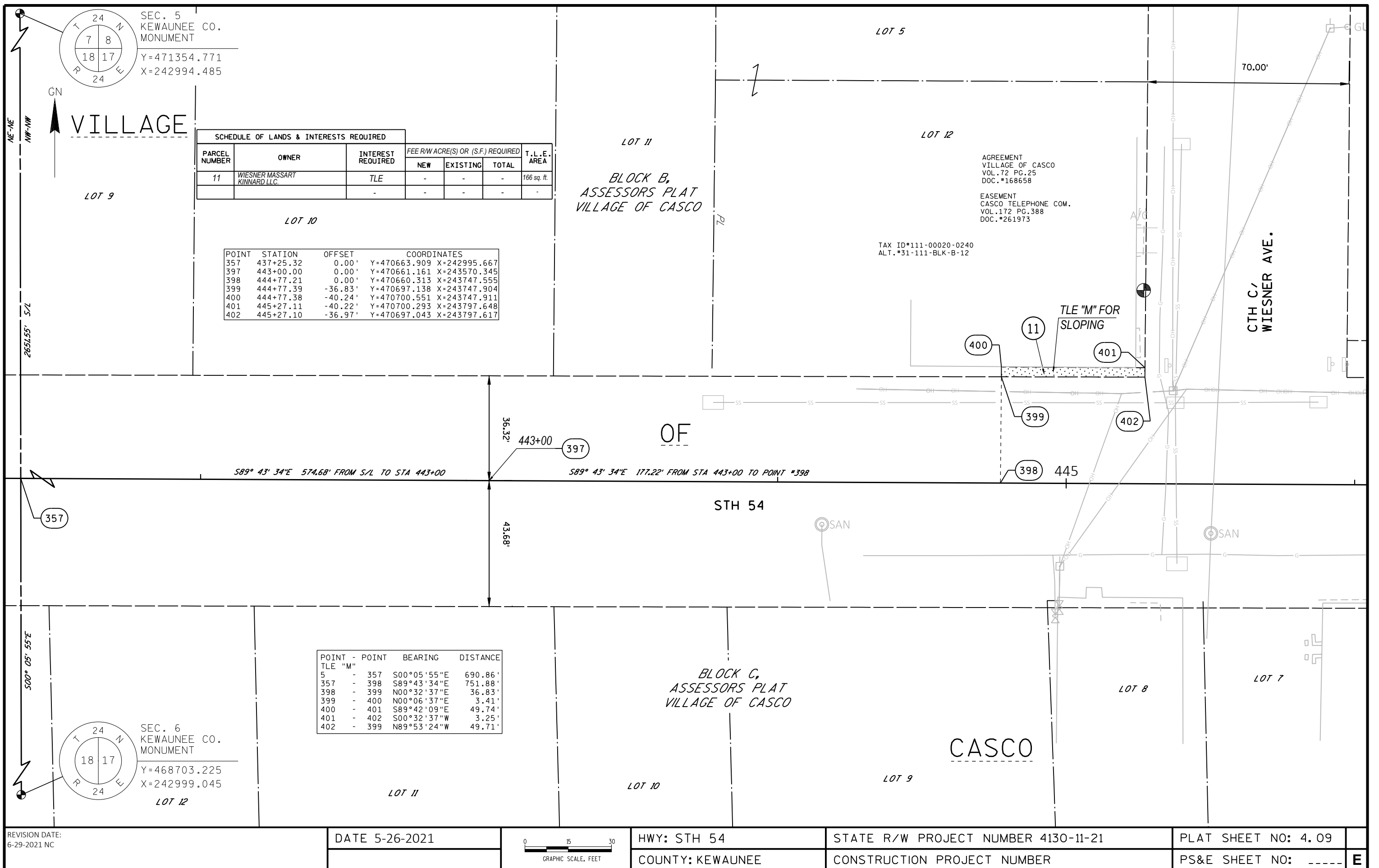


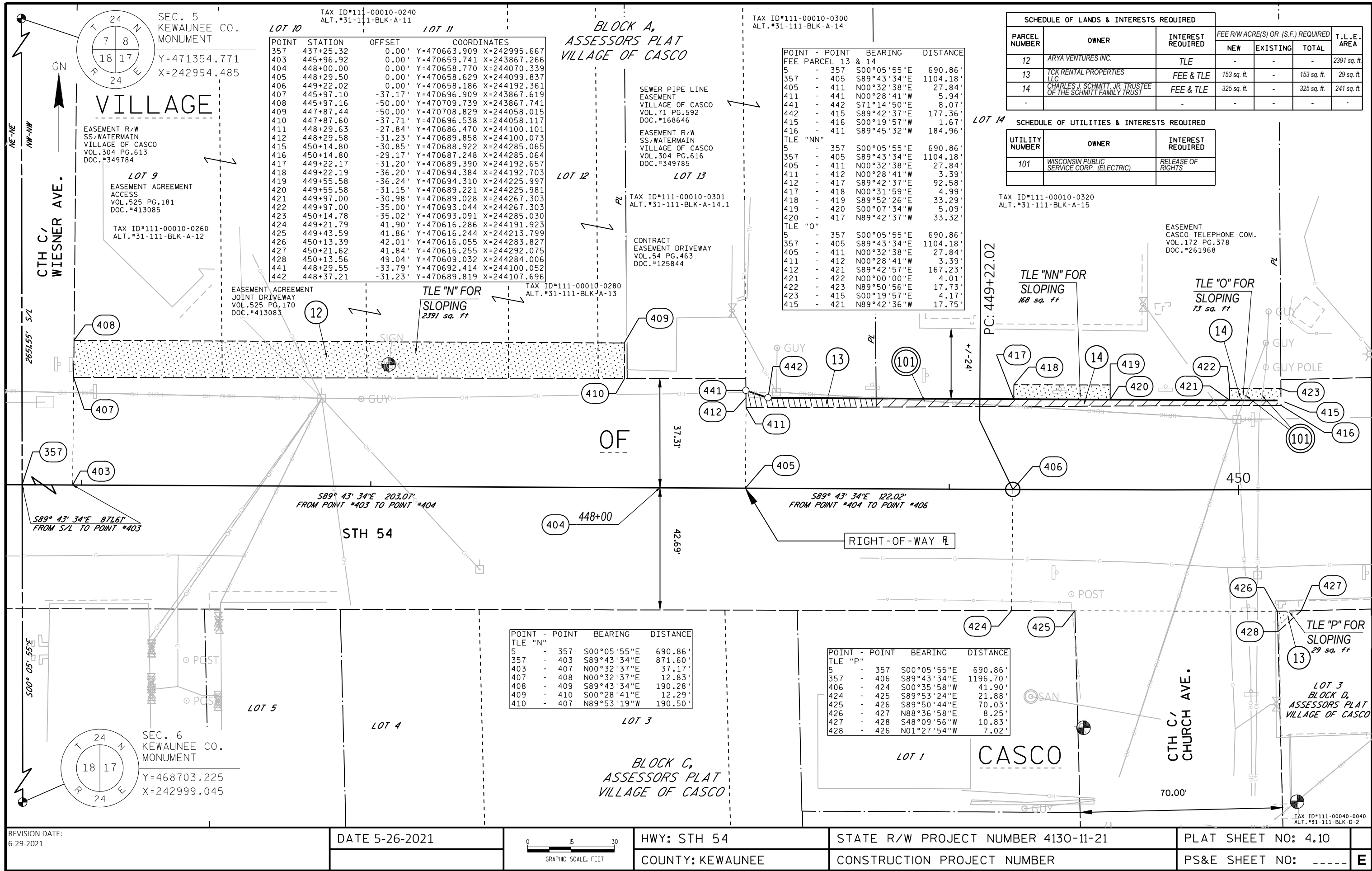
POINT - POINT	BEARING	DISTANCE
FEE PARCEL 8		
5 - 357	S00°05'55"E	690.86'
357 - 376	N89°43'34"W	265.49'
376 - 390	N00°19'47"E	35.94'
390 - 394	N89°43'24"W	37.61'
394 - 392	N69°09'16"E	30.22'
392 - 393	S88°05'20"E	9.43'
393 - 390	S00°17'37"W	10.62'
TLE "J"		
5 - 357	S00°05'55"E	690.86'
357 - 376	N89°43'34"W	265.49'
376 - 390	N00°19'47"E	35.94'
390 - 391	N89°43'24"W	37.61'
391 - 394	N89°43'24"W	2.24'
394 - 395	N00°16'26"E	19.06'
395 - 396	N90°00'00"E	39.86'
396 - 393	S00°17'37"W	8.63'
393 - 392	N88°05'20"W	9.43'
392 - 391	S69°09'16"W	30.22'

POINT	STATION	OFFSET	COORDINATES
5	437+25.32	0.00'	Y=470663.909 X=242995.667
373	436+00.00	0.00'	Y=470664.517 X=242870.353
374	435+25.09	0.00'	Y=470664.866 X=242795.440
375	435+19.92	0.00'	Y=470664.891 X=242790.277
376	434+59.82	0.00'	Y=470665.178 X=242730.175
377	435+25.40	46.58'	Y=470618.285 X=242795.528
378	435+28.59	46.58'	Y=470618.269 X=242798.721
379	435+25.43	50.38'	Y=470614.489 X=242795.542
380	435+57.00	46.58'	Y=470618.132 X=242827.130
381	435+57.00	50.39'	Y=470614.324 X=242827.112
382	435+19.85	-35.94'	Y=470700.827 X=242790.379
383	435+19.83	-51.84'	Y=470716.731 X=242790.431
384	435+28.03	-42.69'	Y=470707.544 X=242798.588
385	435+52.64	-41.90'	Y=470706.632 X=242823.189
386	435+68.29	-35.93'	Y=470700.593 X=242838.815
387	435+23.81	-47.40'	Y=470712.275 X=242794.388
388	435+55.08	-47.40'	Y=470712.125 X=242825.655
389	435+81.19	-35.93'	Y=470700.530 X=242851.718
390	434+59.86	-35.94'	Y=470701.116 X=242730.382
391	434+22.24	-35.94'	Y=470701.298 X=242692.770
392	434+50.44	-46.83'	Y=470712.053 X=242721.014
393	434+59.86	-46.56'	Y=470711.738 X=242730.436
394	434+20.00	-35.94'	Y=470701.309 X=242690.527
395	434+20.00	-55.00'	Y=470720.368 X=242690.618
396	434+59.86	-55.19'	Y=470720.368 X=242730.479

SCHEDULE OF UTILITIES & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	CENTURYLINK	RELEASE OF RIGHTS
101	WISCONSIN PUBLIC SERVICE CORP. (ELECTRIC)	RELEASE OF RIGHTS
102	WISCONSIN PUBLIC SERVICE CORP. (GAS)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED			FEE R/W ACRE(S) OR (S.F.) REQUIRED			
PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE R/W ACRE(S) OR (S.F.) REQUIRED			T.L.E. AREA
			NEW	EXISTING	TOTAL	
8	KATIE R. DEPREY	FEE & TLE	255 sq. ft.	-	255 sq. ft.	509 sq. ft.
9	JOHN R. AND LORNA JACONI	FEE & TLE	295 sq. ft.	-	295 sq. ft.	267 sq. ft.
10	BRIAN J. PEOT & CINDY M. DEVILLERS	TLE	-	-	-	120 sq. ft.



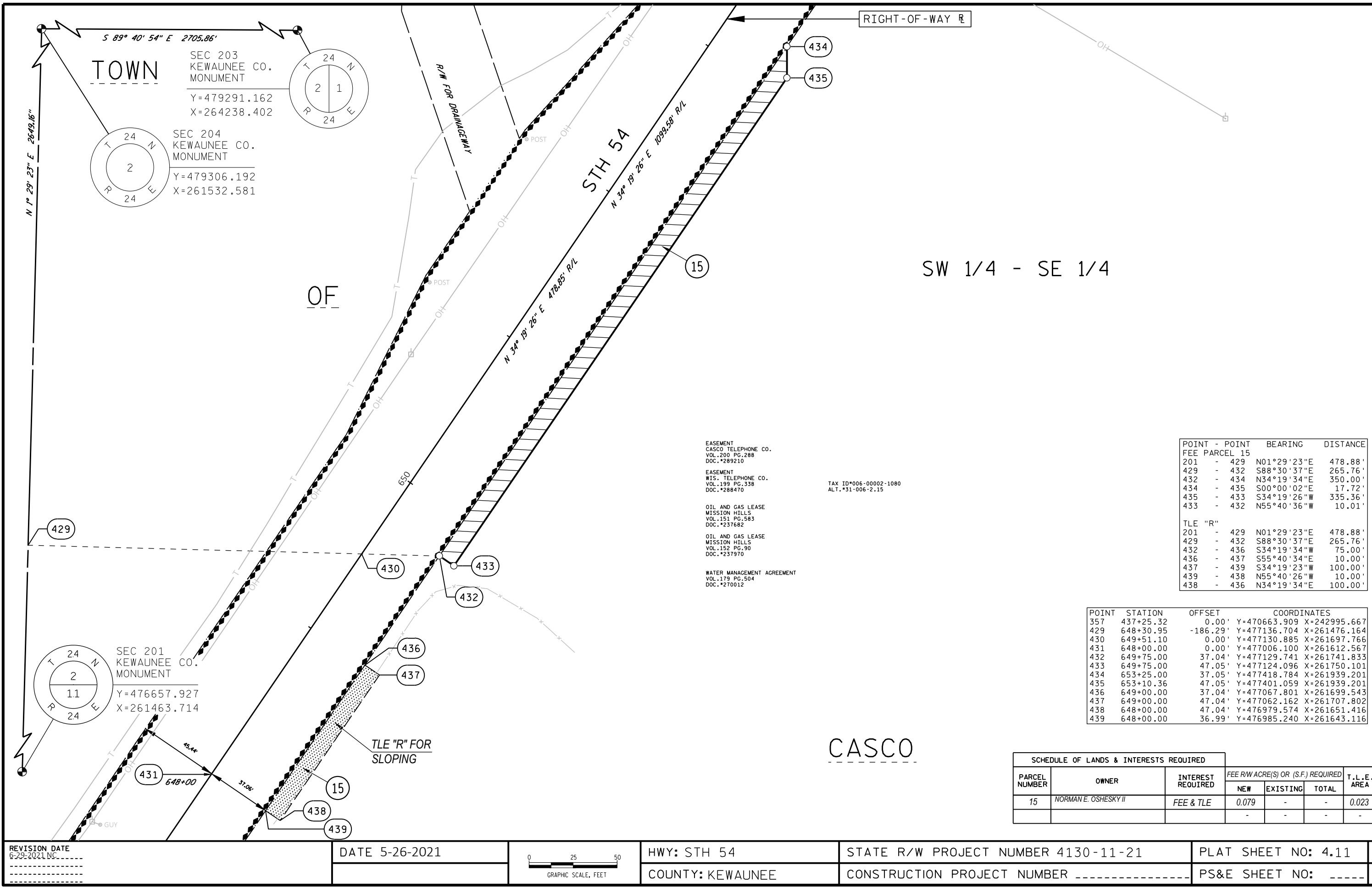


SCHEDULE OF LANDS & INTERESTS REQUIRED					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE RW ACRE(S) OR (S.F.) REQUIRED		
			NEW	EXISTING	TOTAL
12	ARYA VENTURES INC.	TLE	-	-	-
13	TCK RENTAL PROPERTIES LLC	FEE & TLE	153 sq. ft.	-	153 sq. ft.
14	CHARLES J. SCHMITT, JR. TRUSTEE OF THE SCHMITT FAMILY TRUST	FEE & TLE	325 sq. ft.	-	325 sq. ft.
-	-	-	-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
101	WISCONSIN PUBLIC SERVICE CORP. (ELECTRIC)	RELEASE OF RIGHTS

POINT	POINT	BEARING	DISTANCE
TLE "N"			
5	357	S00°05'55"E	690.86'
357	403	S89°43'34"E	871.60'
403	407	N00°32'37"E	37.17'
407	408	N00°32'37"E	12.83'
408	409	S89°43'34"E	190.28'
409	410	S00°28'41"E	12.29'
410	407	N89°53'19"W	190.50'

POINT	POINT	BEARING	DISTANCE
TLE "P"			
5	357	S00°05'55"E	690.86'
357	406	S89°43'34"E	1196.70'
406	424	S00°35'58"W	41.90'
424	425	S89°53'24"E	21.88'
425	426	S89°50'44"E	70.03'
426	427	N88°36'58"E	8.25'
427	428	S48°09'56"W	10.83'
428	426	N01°27'54"W	7.02'



TAX ID#006-00002-1080
ALT.#31-006-2.15

EASEMENT
CASCO TELEPHONE CO.
VOL.200 PG.288
DOC.#289210

EASEMENT
WIS. TELEPHONE CO.
VOL.199 PG.338
DOC.#288470

OIL AND GAS LEASE
MISSION HILLS
VOL.151 PG.583
DOC.#237682

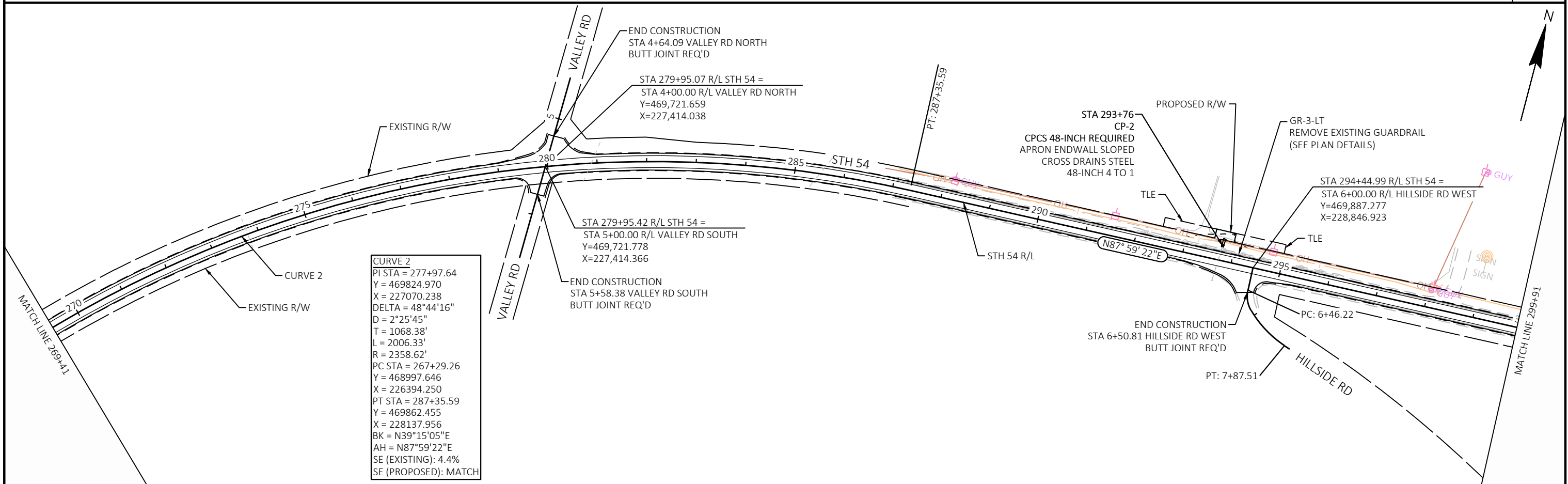
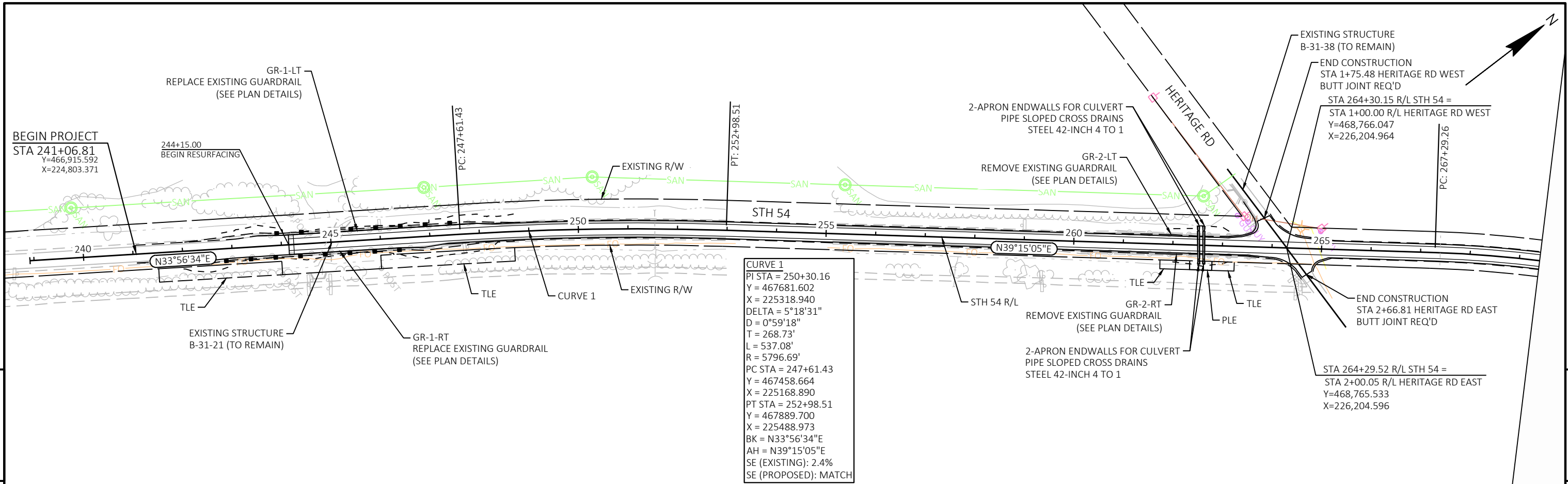
OIL AND GAS LEASE
MISSION HILLS
VOL.152 PG.90
DOC.#237970

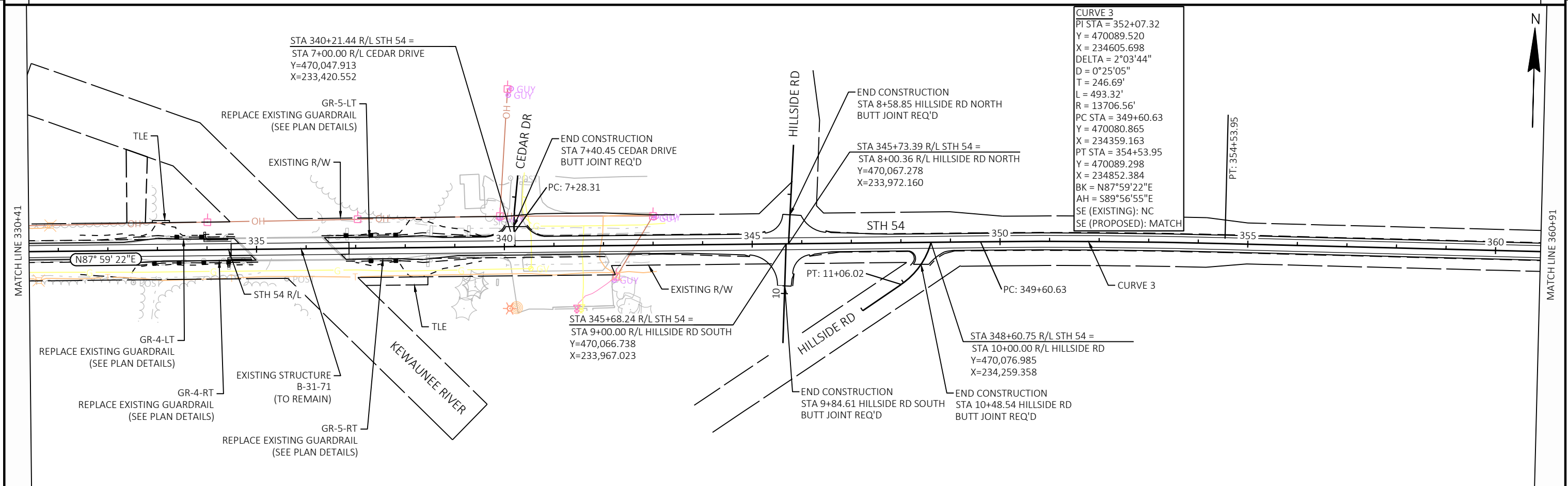
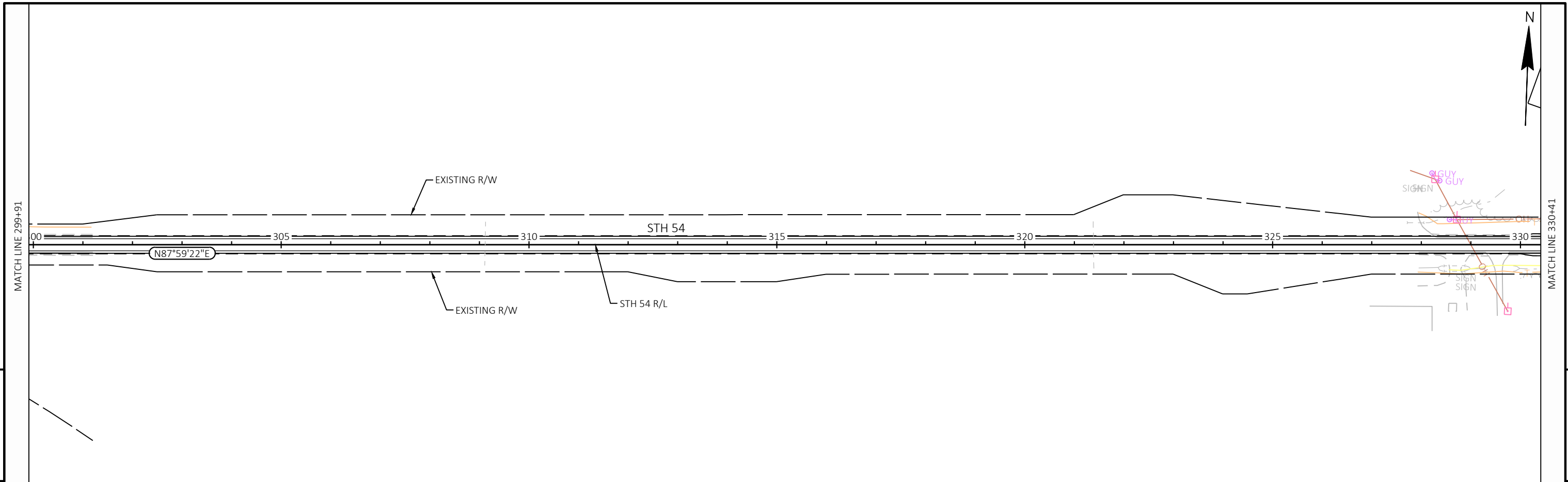
WATER MANAGEMENT AGREEMENT
VOL.179 PG.504
DOC.#270012

POINT - POINT	BEARING	DISTANCE
FEE PARCEL 15		
201 - 429	N01°29'23"E	478.88'
429 - 432	S88°30'37"E	265.76'
432 - 434	N34°19'34"E	350.00'
434 - 435	S00°00'02"E	17.72'
435 - 433	S34°19'26"W	335.36'
433 - 432	N55°40'36"W	10.01'
TLE "R"		
201 - 429	N01°29'23"E	478.88'
429 - 432	S88°30'37"E	265.76'
432 - 436	S34°19'34"W	75.00'
436 - 437	S55°40'34"E	10.00'
437 - 439	S34°19'23"W	100.00'
439 - 438	N55°40'26"W	10.00'
438 - 436	N34°19'34"E	100.00'

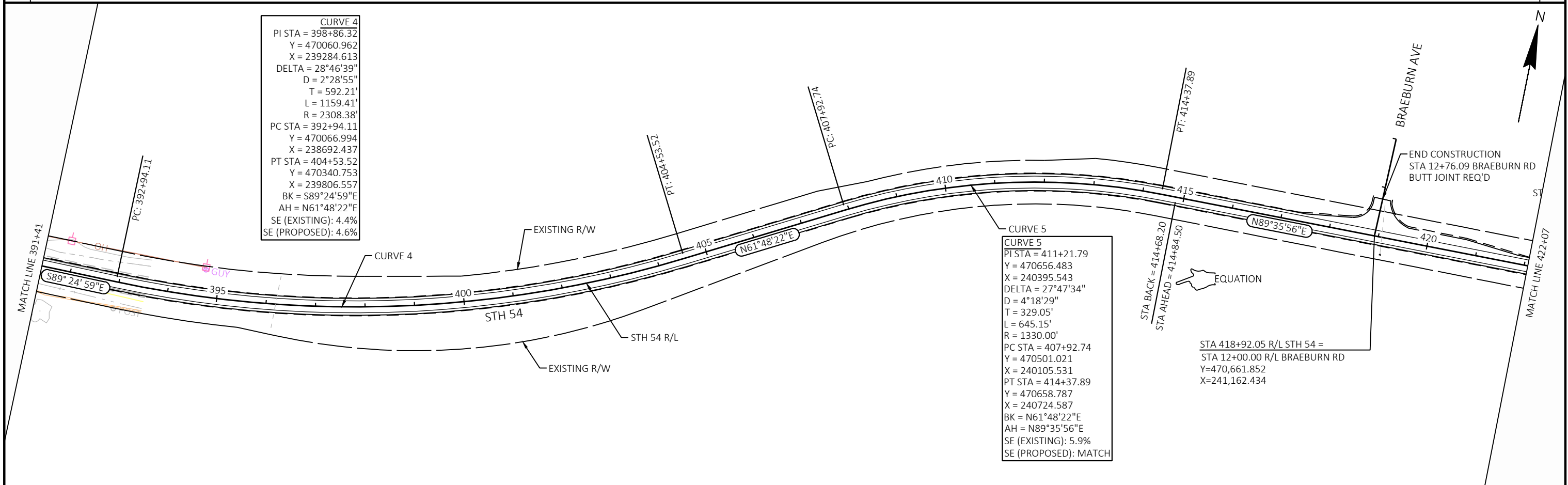
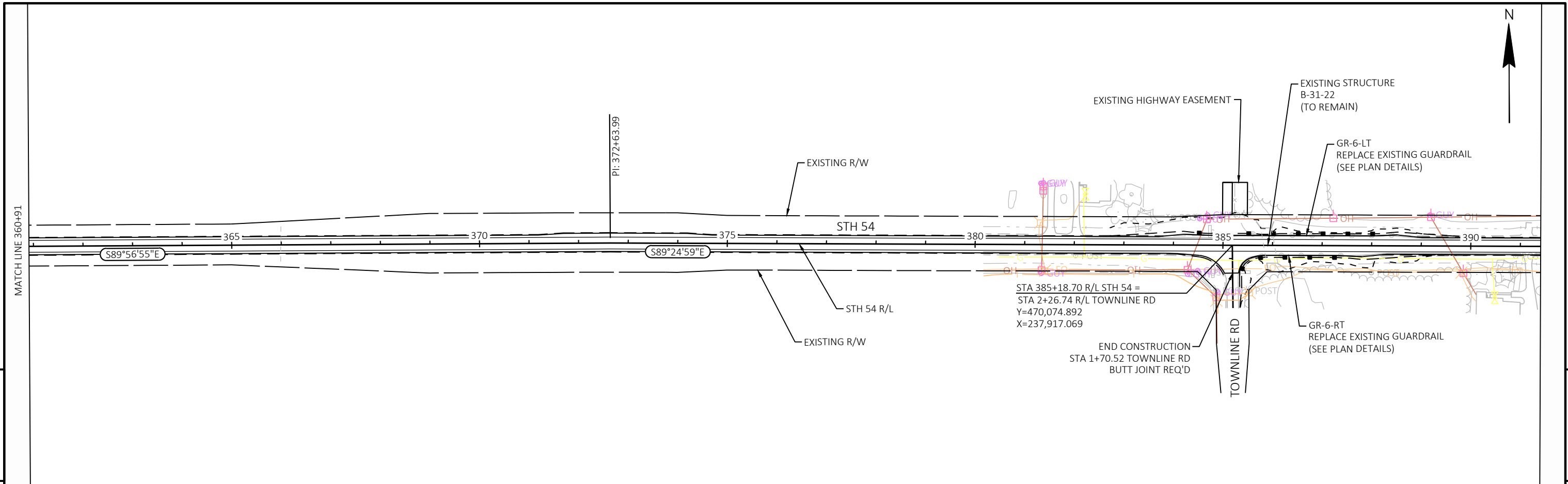
POINT	STATION	OFFSET	COORDINATES
357	437+25.32	0.00'	Y=470663.909 X=242995.667
429	648+30.95	-186.29'	Y=477136.704 X=261476.164
430	649+51.10	0.00'	Y=477130.885 X=261697.766
431	648+00.00	0.00'	Y=477006.100 X=261612.567
432	649+75.00	37.04'	Y=477129.741 X=261741.833
433	649+75.00	47.05'	Y=477124.096 X=261750.101
434	653+25.00	37.05'	Y=477418.784 X=261939.201
435	653+10.36	47.05'	Y=477401.059 X=261939.201
436	649+00.00	37.04'	Y=477067.801 X=261699.543
437	649+00.00	47.04'	Y=477062.162 X=261707.802
438	648+00.00	47.04'	Y=476979.574 X=261651.416
439	648+00.00	36.99'	Y=476985.240 X=261643.116

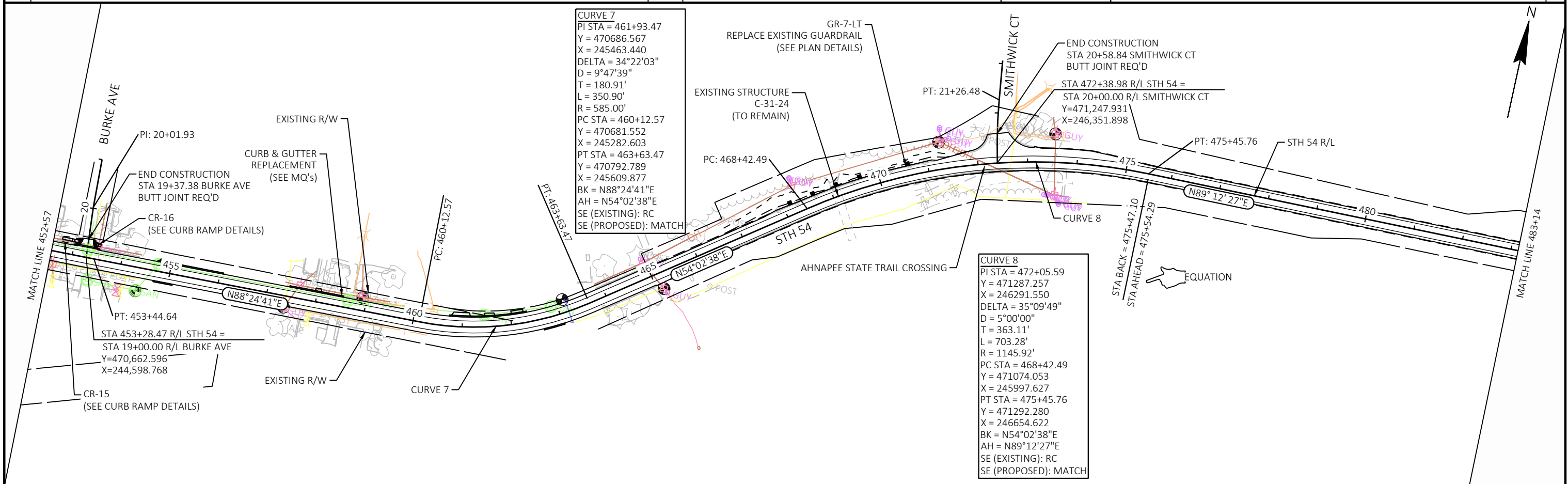
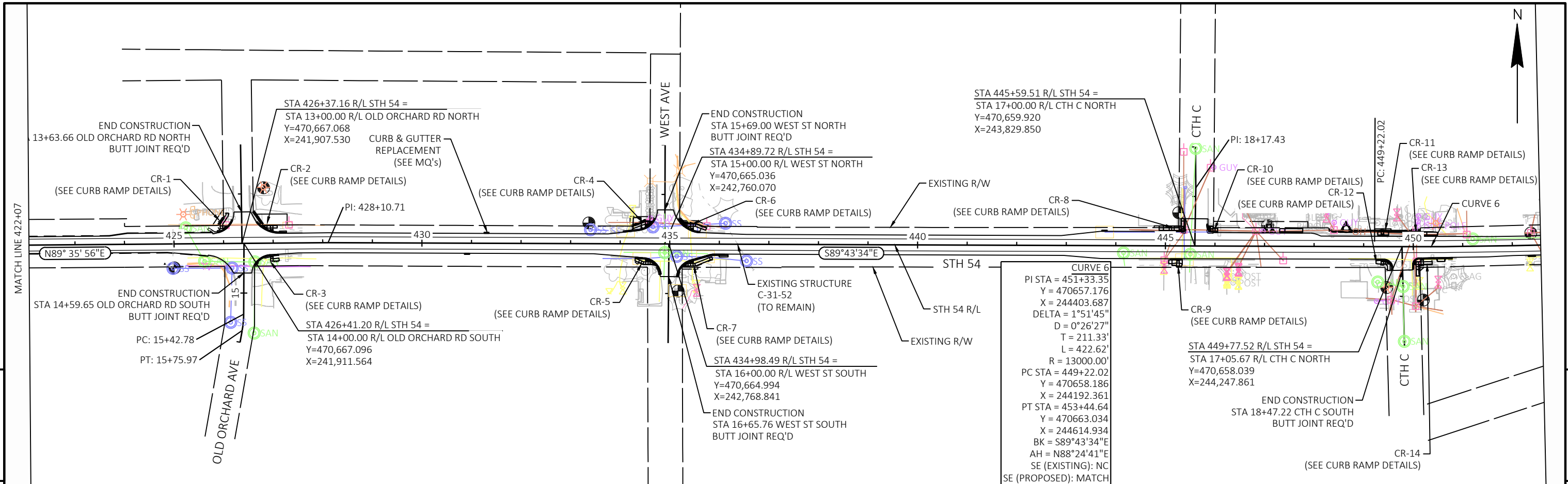
SCHEDULE OF LANDS & INTERESTS REQUIRED				FEE RW ACRE(S) OR (S.F.) REQUIRED		
PARCEL NUMBER	OWNER	INTEREST REQUIRED		NEW	EXISTING	TOTAL
15	NORMAN E. OSHESKY II	FEE & TLE		0.079	-	-
				-	-	-

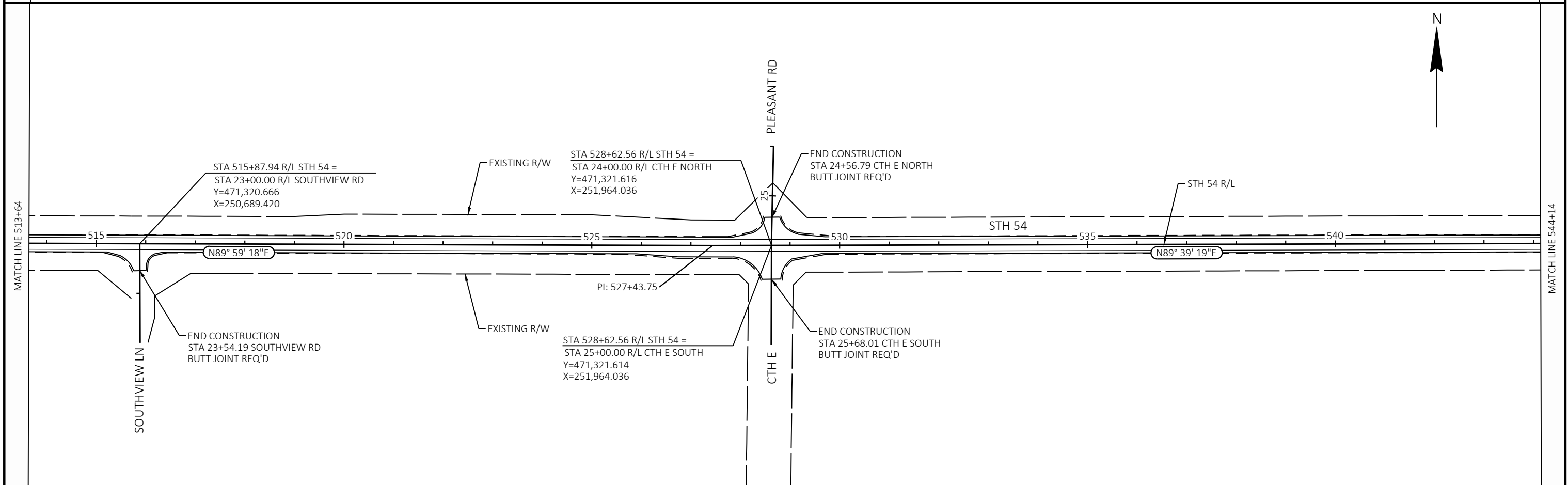
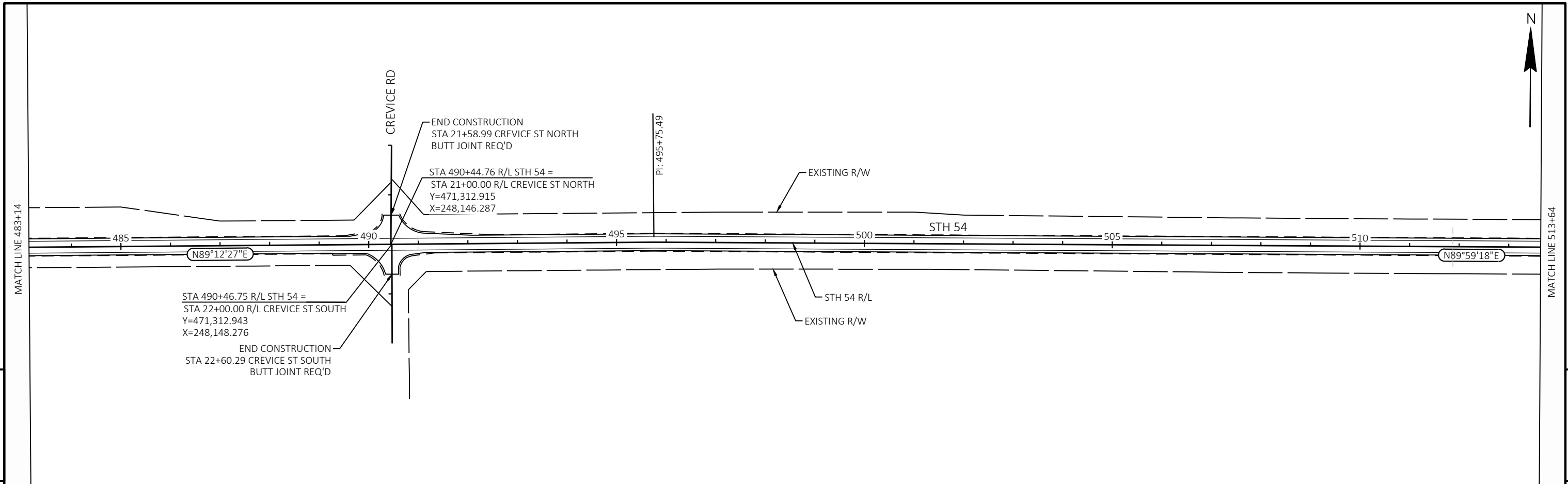




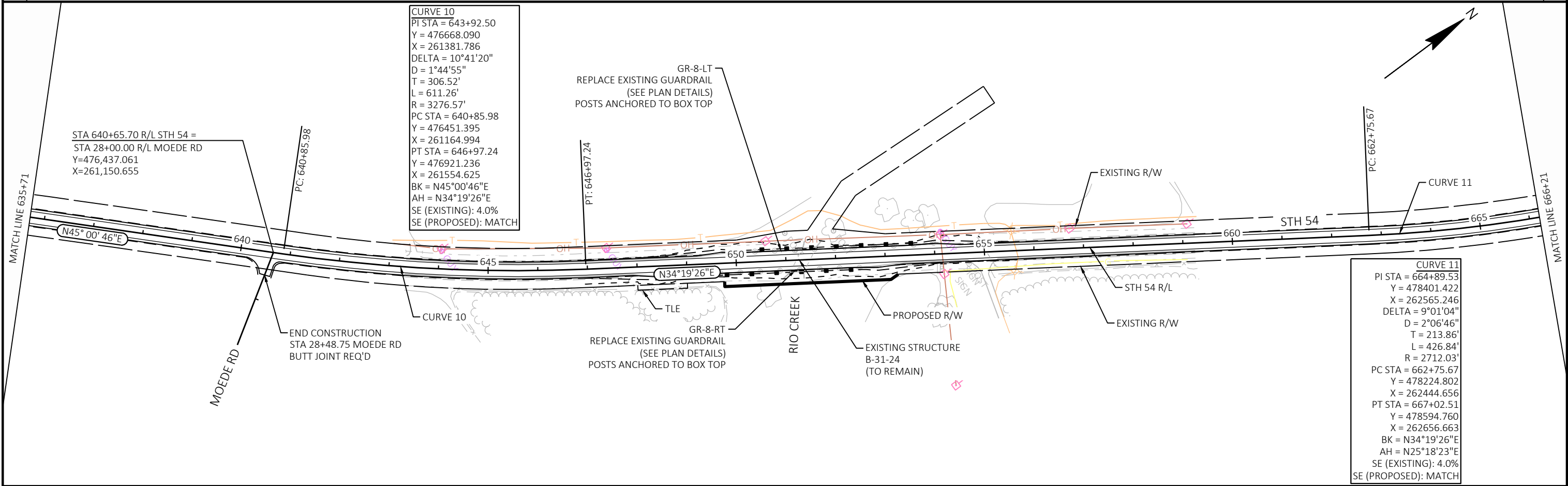
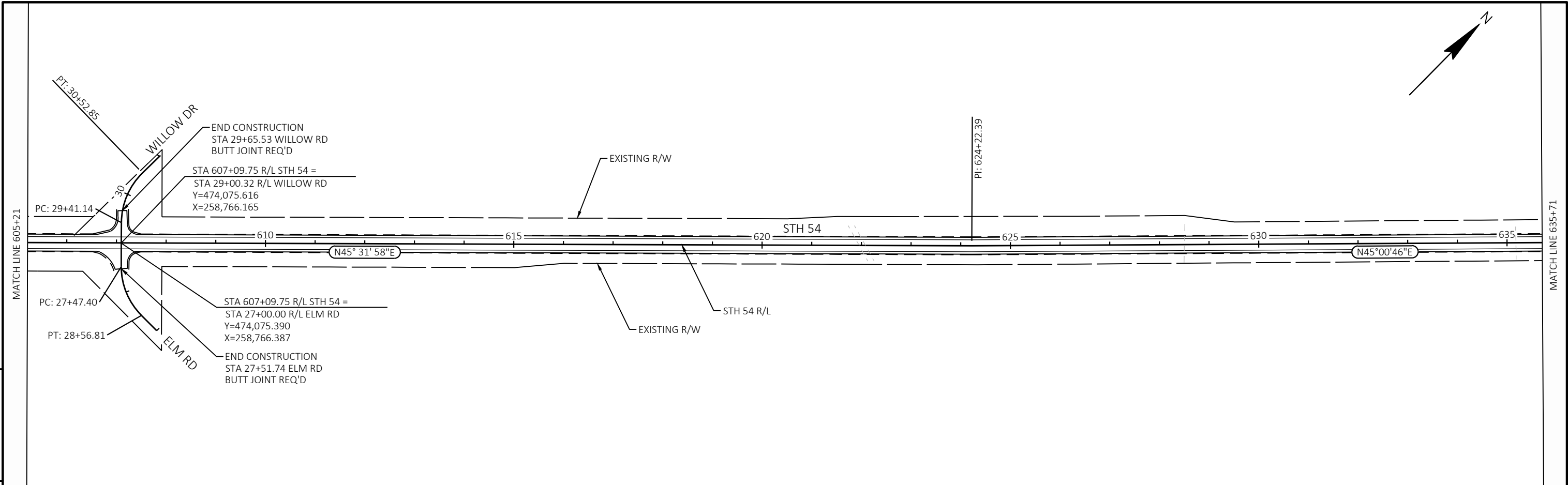
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN	SHEET	E
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN	SHEET	E
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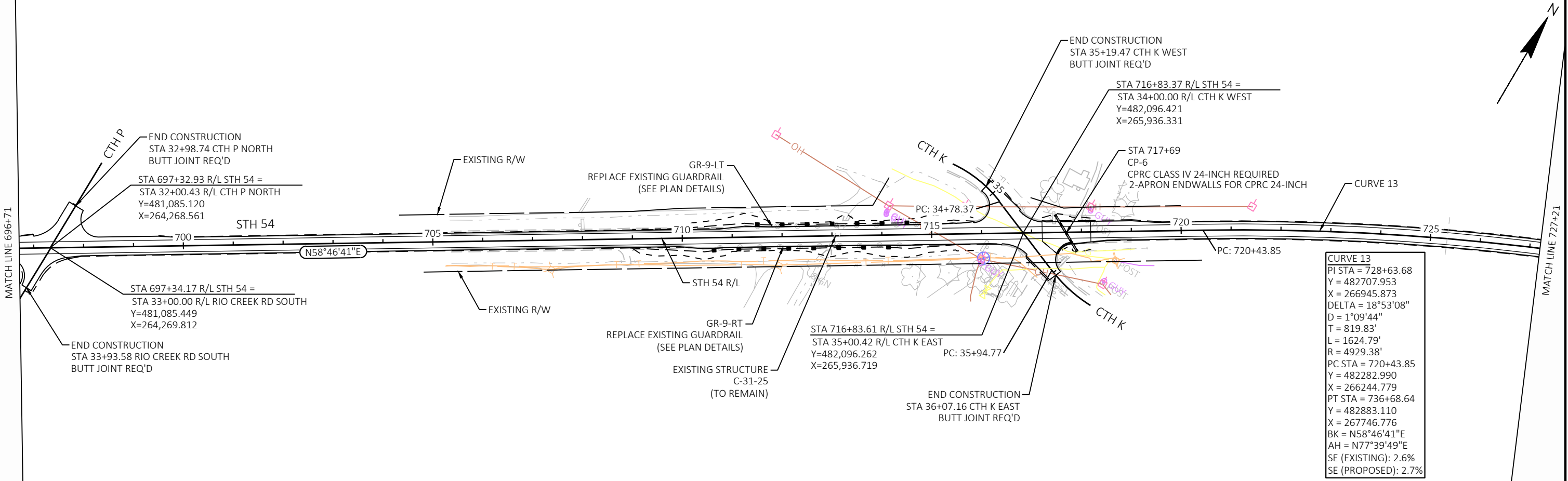
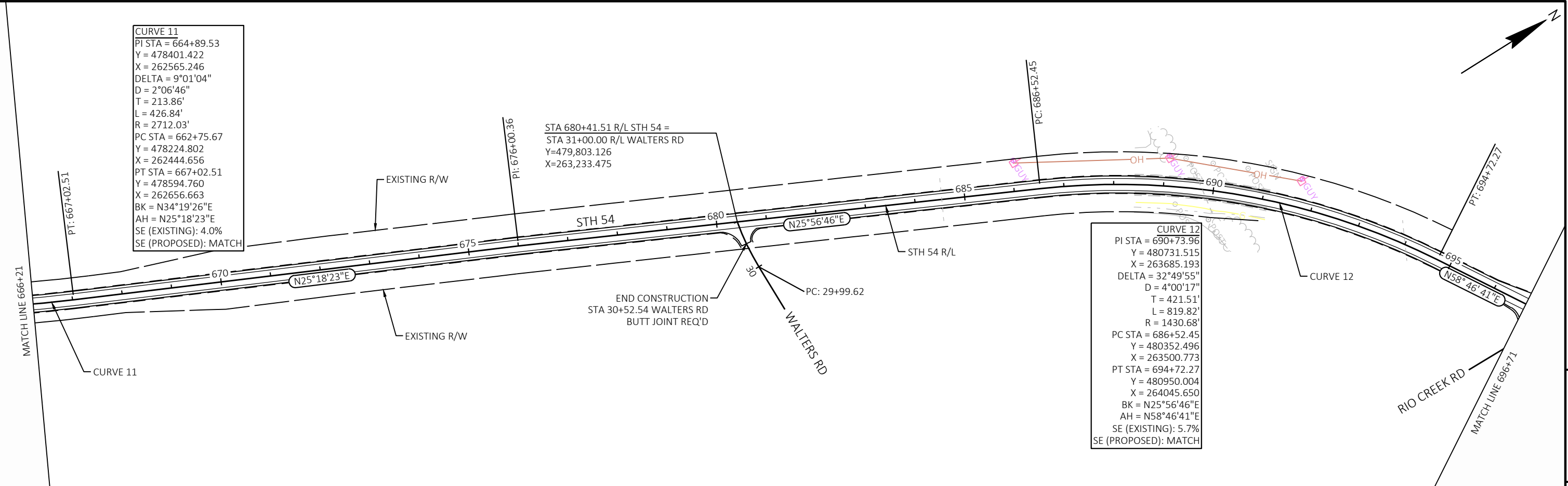
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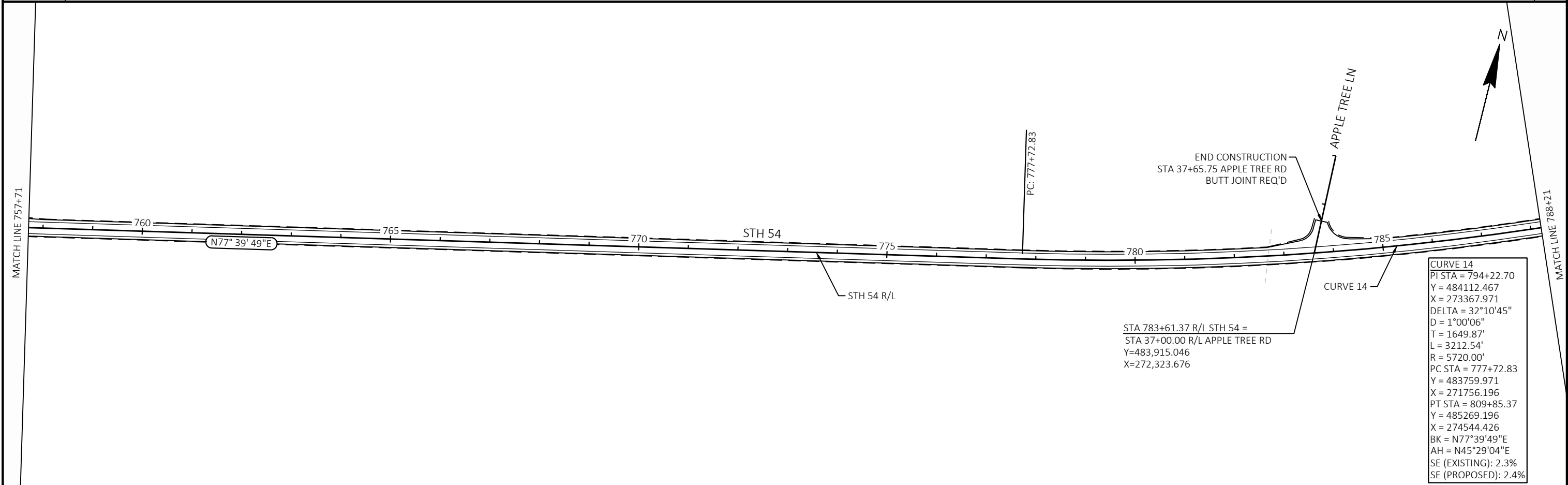
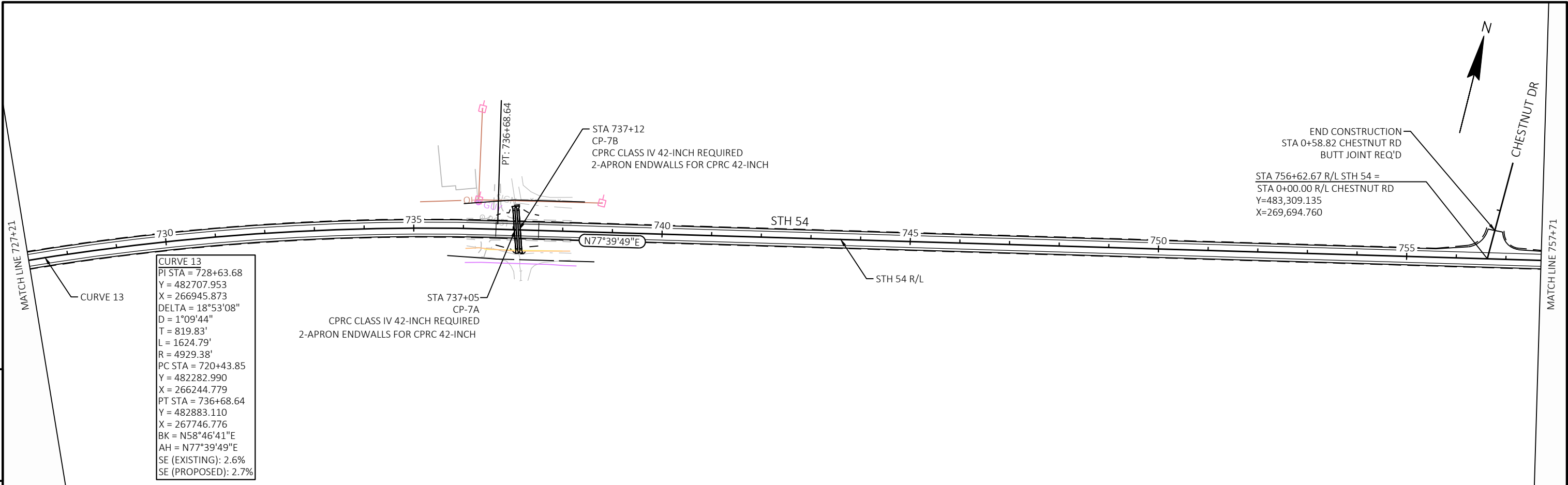
CURVE 11
PI STA = 664+89.53
Y = 478401.422
X = 262565.246
DELTA = 9°01'04"
D = 2°06'46"
T = 213.86'
L = 426.84'
R = 2712.03'
PC STA = 662+75.67
Y = 478224.802
X = 262444.656
PT STA = 667+02.51
Y = 478594.760
X = 262656.663
BK = N34°19'26"E
AH = N25°18'23"E
SE (EXISTING): 4.0%
SE (PROPOSED): MATCH

STA 680+41.51 R/L STH 54 =
STA 31+00.00 R/L WALTERS RD
Y=479,803.126
X=263,233.475

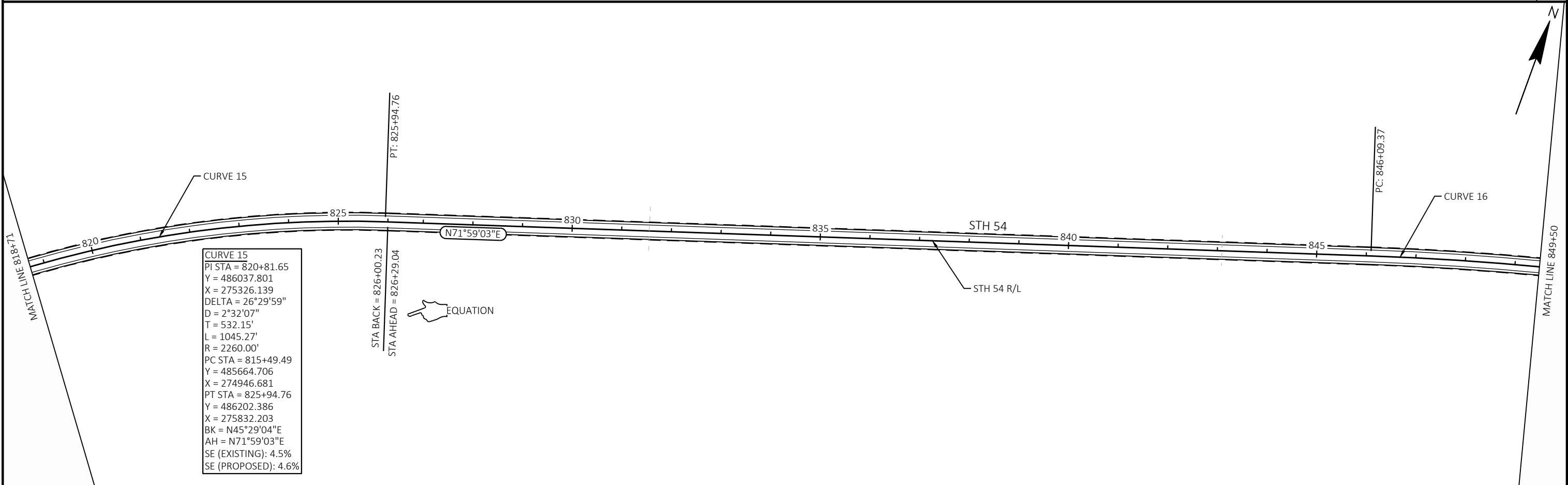
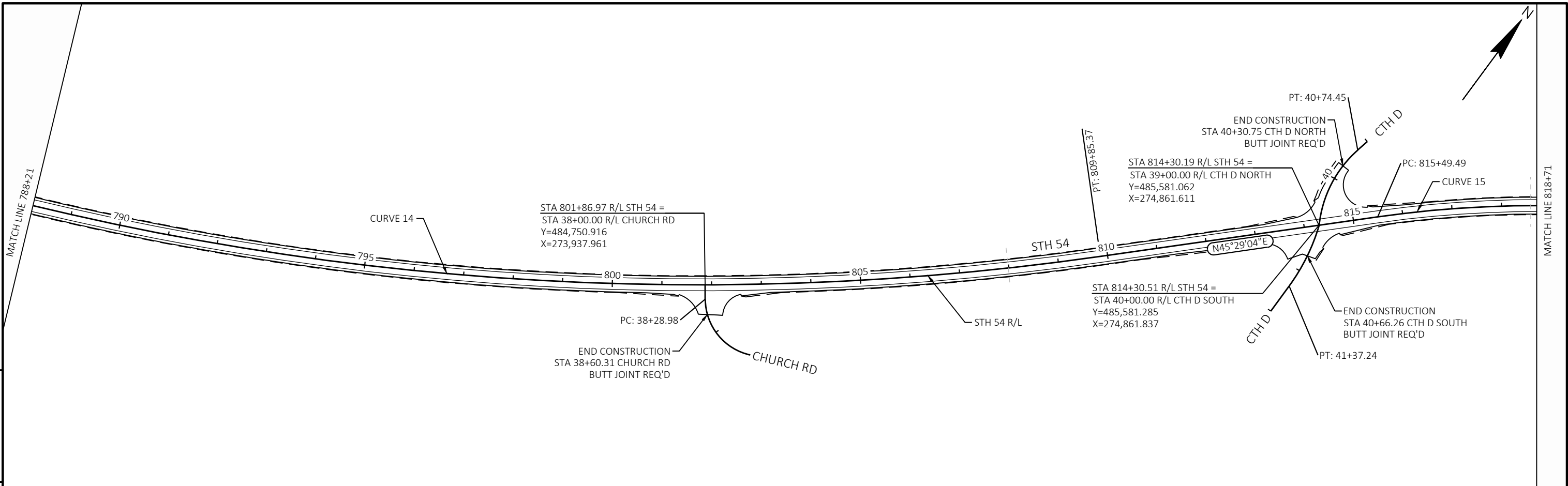
CURVE 12
PI STA = 690+73.96
Y = 480731.515
X = 263685.193
DELTA = 32°49'55"
D = 4°00'17"
T = 421.51'
L = 819.82'
R = 1430.68'
PC STA = 686+52.45
Y = 480352.496
X = 263500.773
PT STA = 694+72.27
Y = 480950.004
X = 264045.650
BK = N25°56'46"E
AH = N58°46'41"E
SE (EXISTING): 5.7%
SE (PROPOSED): MATCH

CURVE 13
PI STA = 728+63.68
Y = 482707.953
X = 266945.873
DELTA = 18°53'08"
D = 1°09'44"
T = 819.83'
L = 1624.79'
R = 4929.38'
PC STA = 720+43.85
Y = 482282.990
X = 266244.779
PT STA = 736+68.64
Y = 482883.110
X = 267746.776
BK = N58°46'41"E
AH = N77°39'49"E
SE (EXISTING): 2.6%
SE (PROPOSED): 2.7%

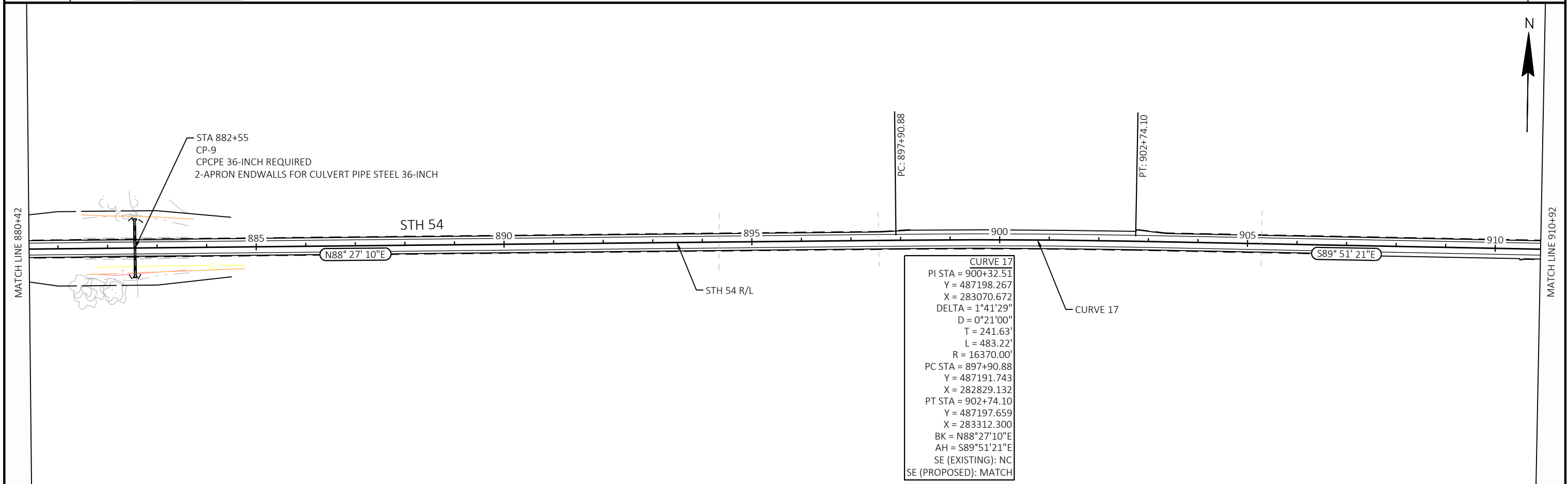
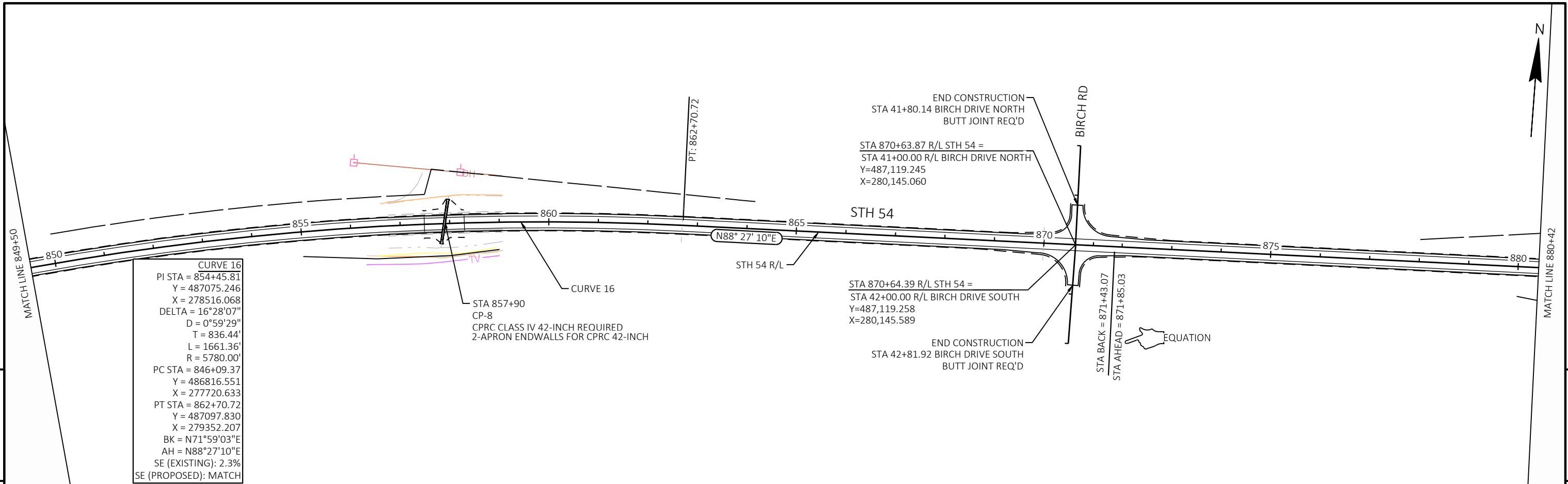




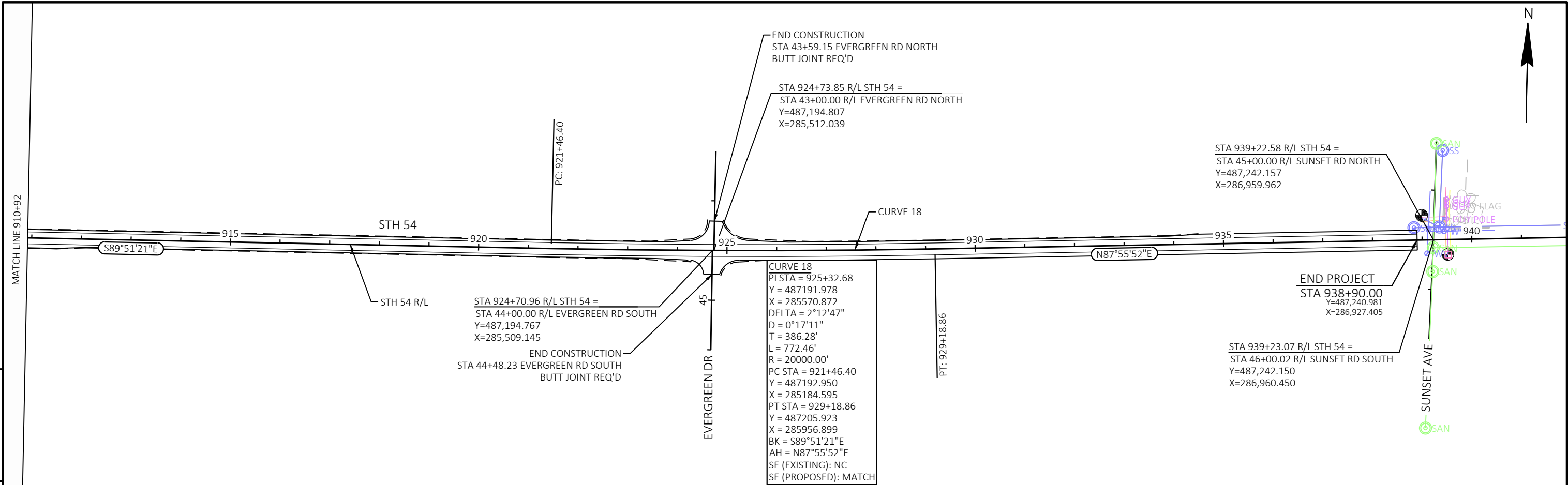
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN	SHEET	E
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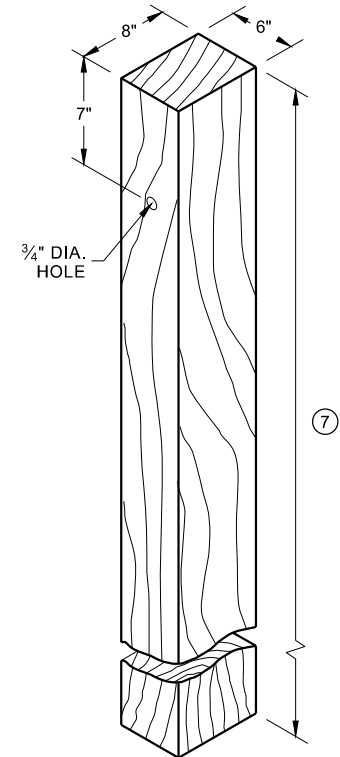
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN	SHEET	E
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	PLAN	SHEET	E
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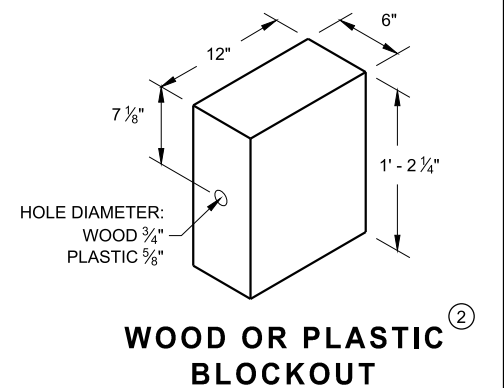
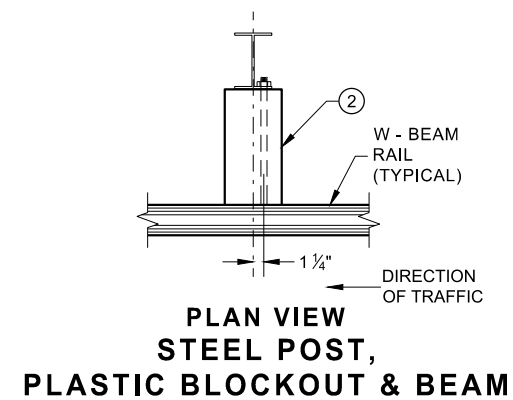
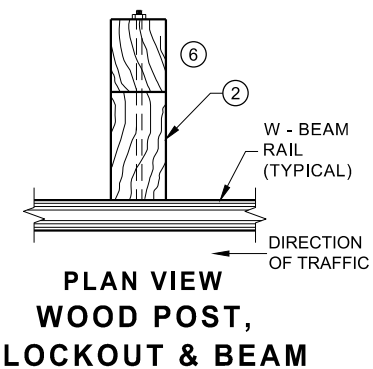
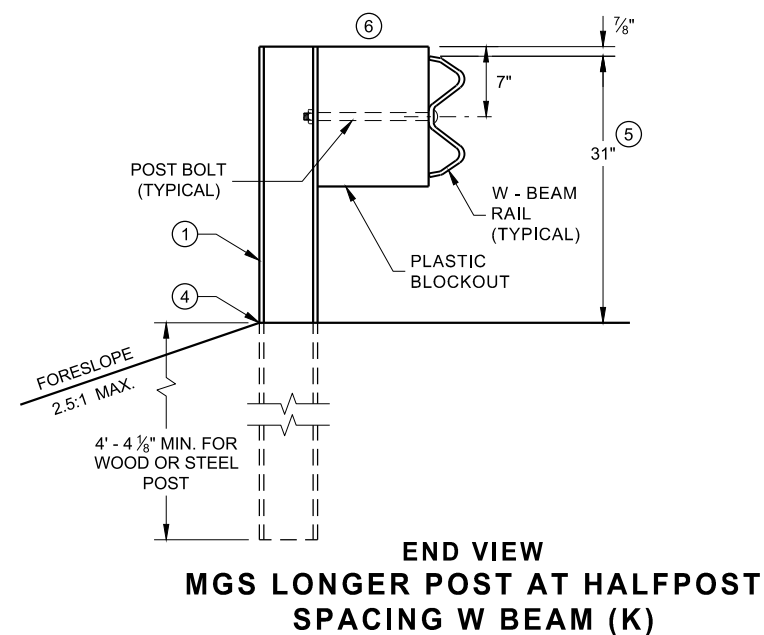
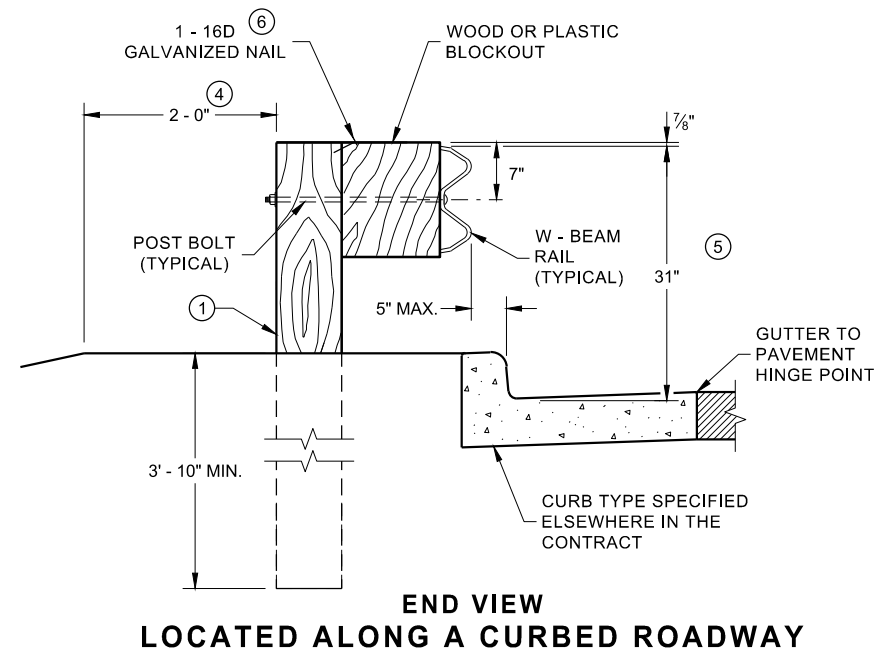
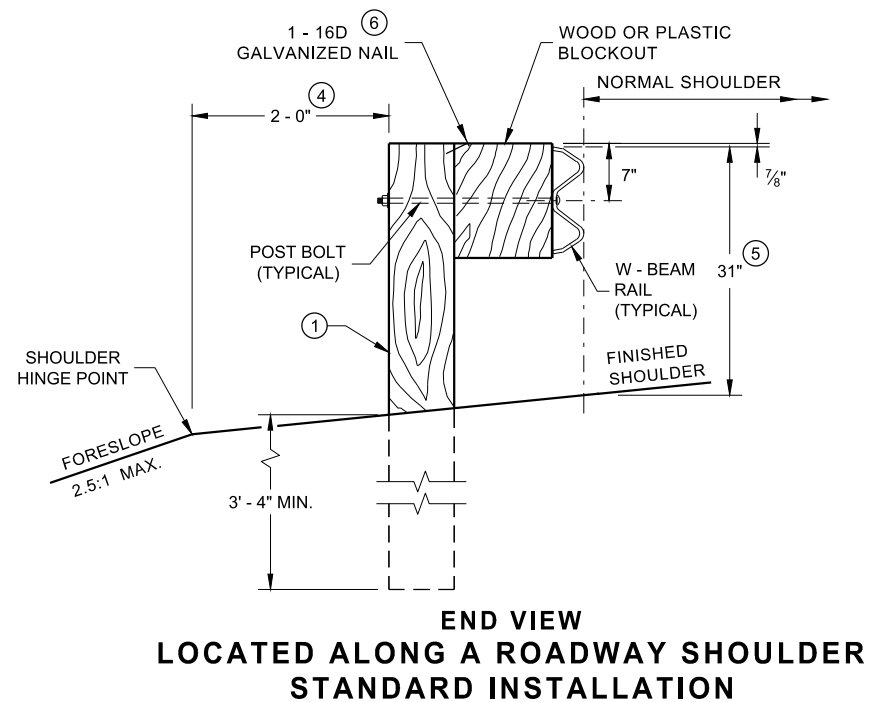


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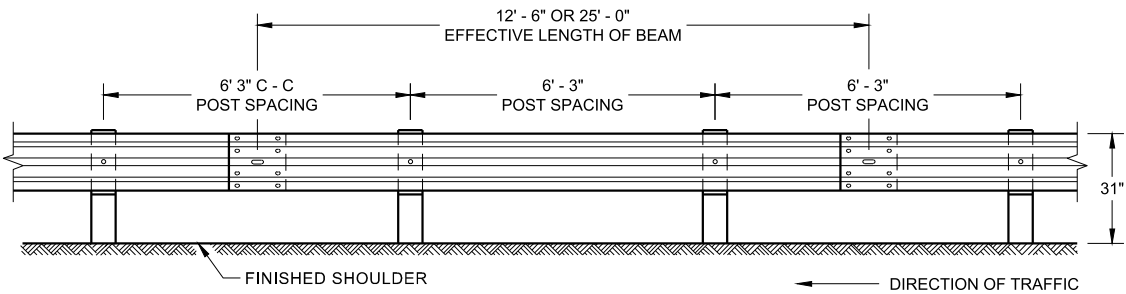
**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**

WOOD POST (6" X 8") NOMINAL ⁽¹⁾

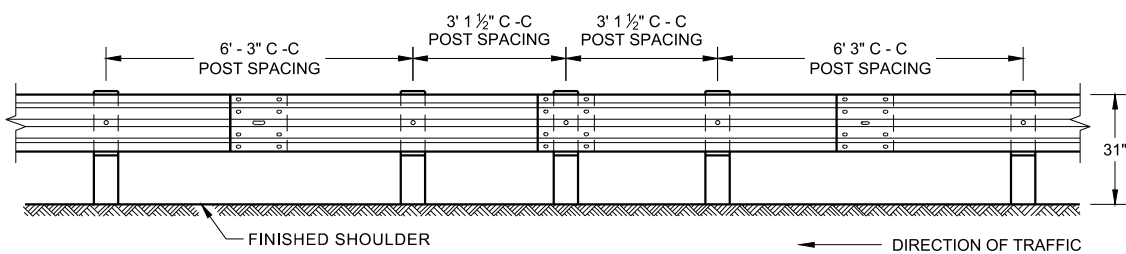




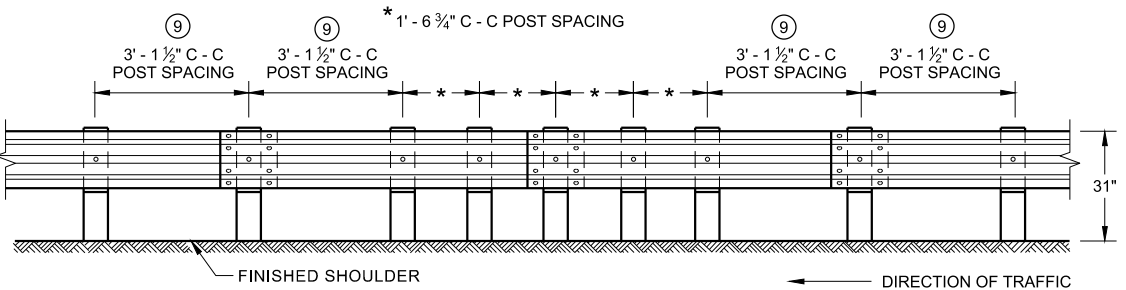
SDD 14B42-b Midwest Guardrail System (MGS) Guardrail



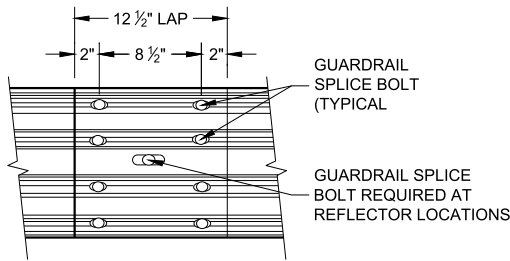
FRONT VIEW
POST SPACING STANDARD INSTALLATION



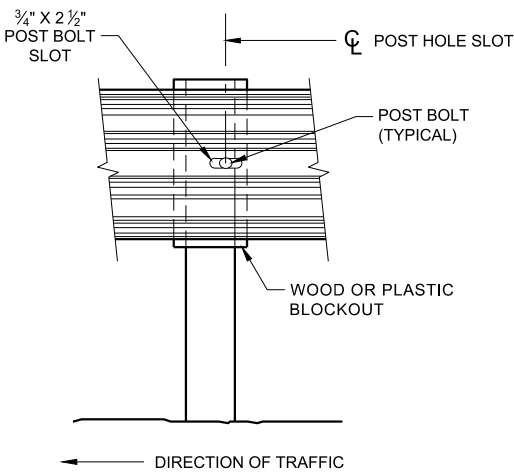
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



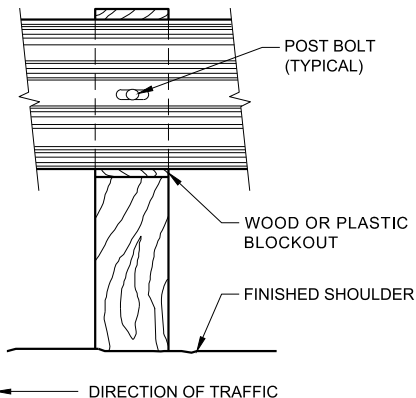
FRONT VIEW
QUARTER POST SPACING (QS)



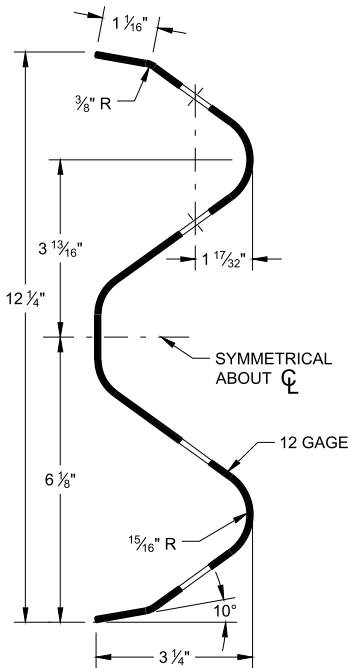
FRONT VIEW
MID-SPAN BEAM SPLICE



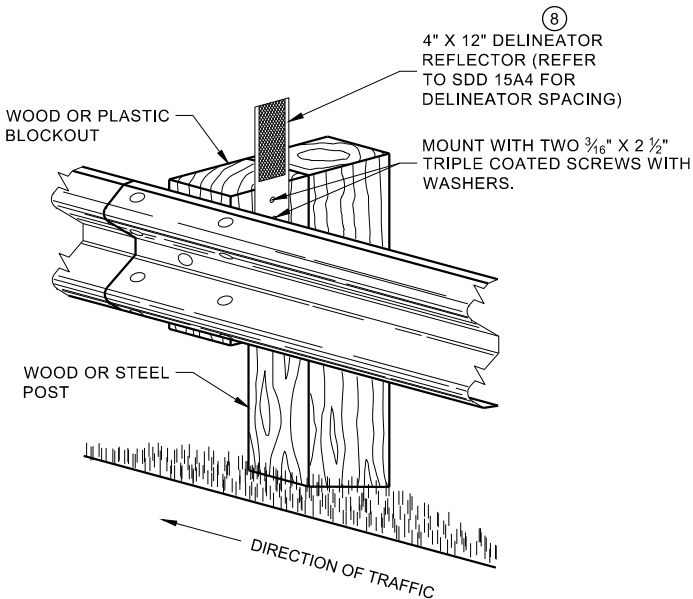
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

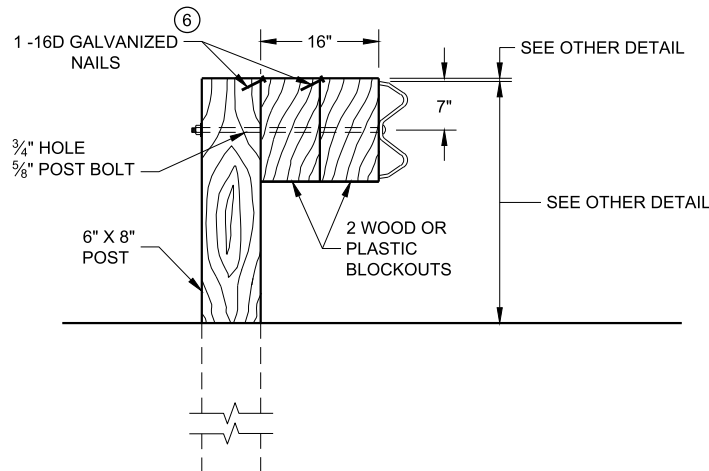


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

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 3/4" 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 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

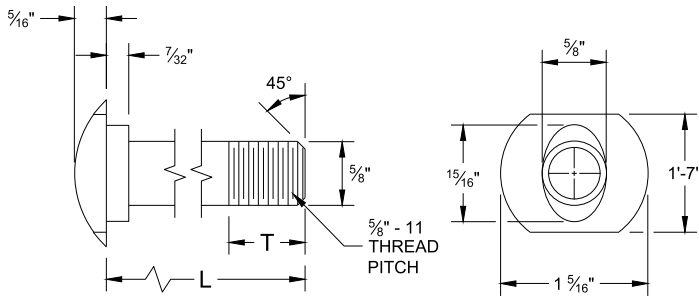
SDD 14B42-c Midwest Guardrail System (MGS) Guardrail



DETAIL FOR 16" BLOCKOUT DEPTH

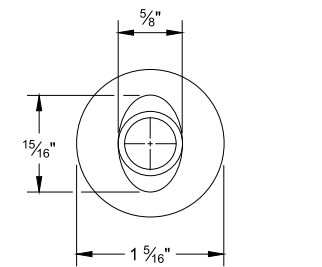
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

- NOTE:
- ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
 - IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

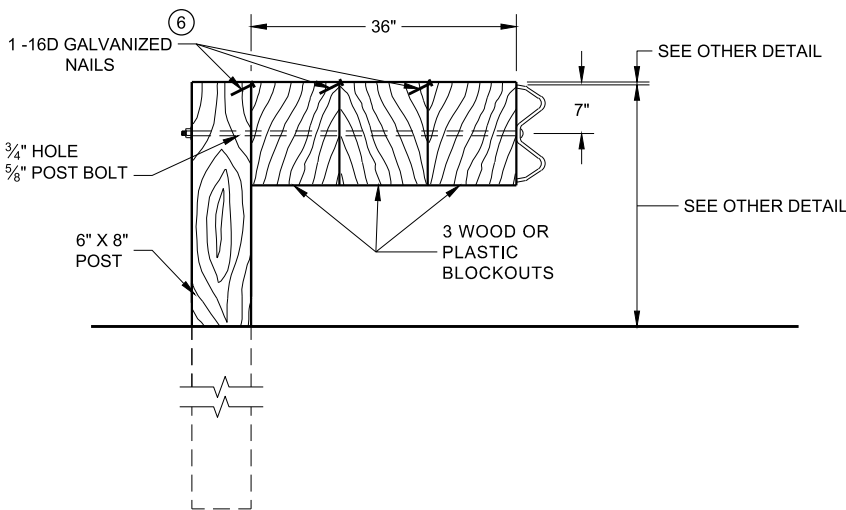


POST BOLT TABLE

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"



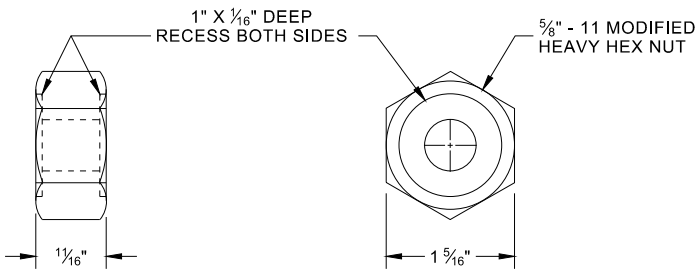
ALTERNATE BOLT HEAD



DETAIL FOR 36" BLOCKOUT DEPTH

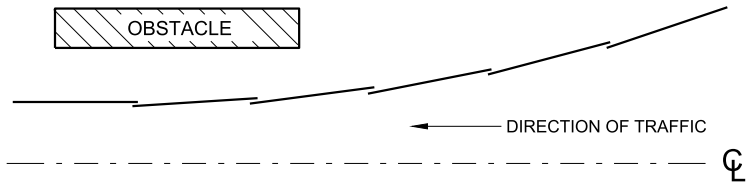
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

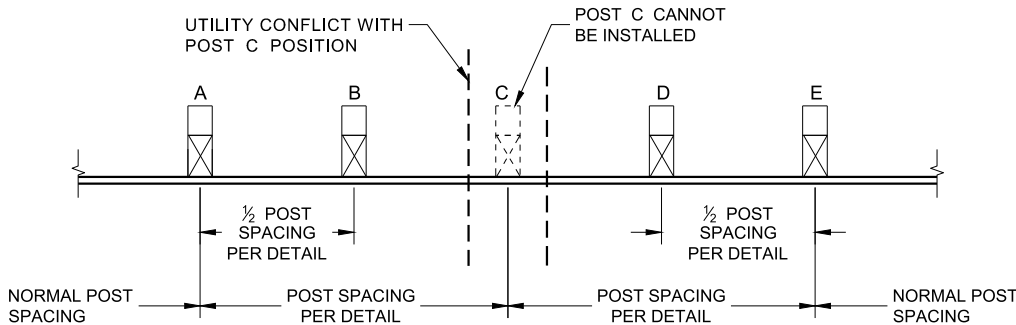


POST BOLT, SPLICE BOLT AND RECESS NUT

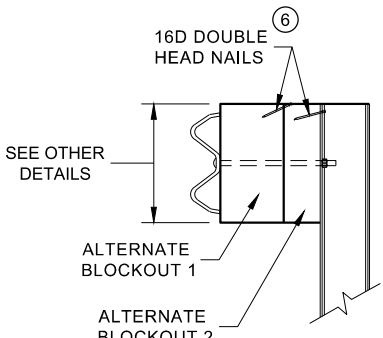
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



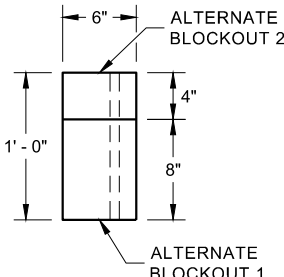
PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

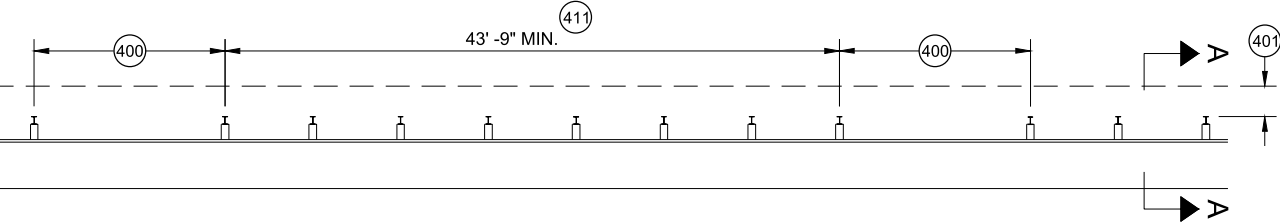
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

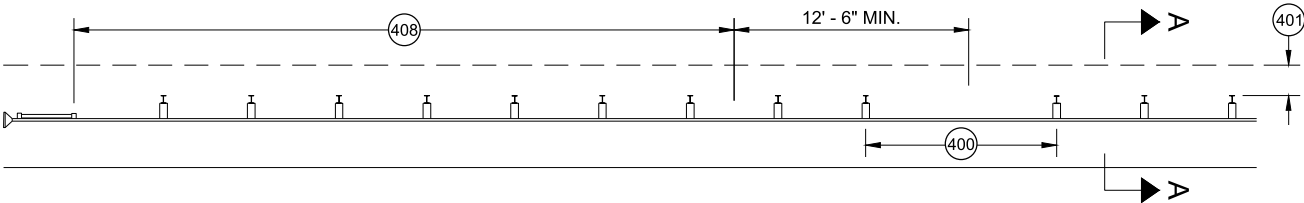
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



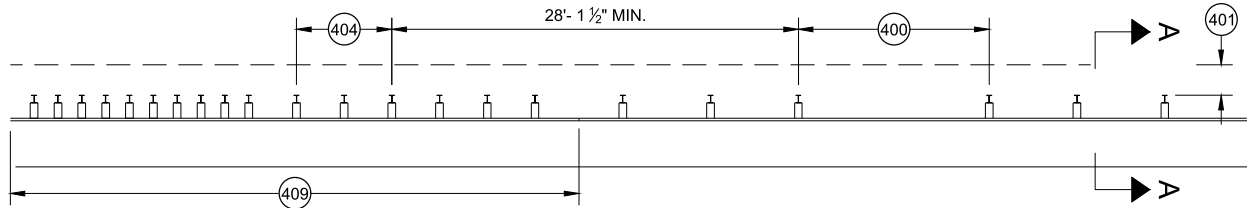
SDD 14B42-d Midwest Guardrail System (MGS) Guardrail



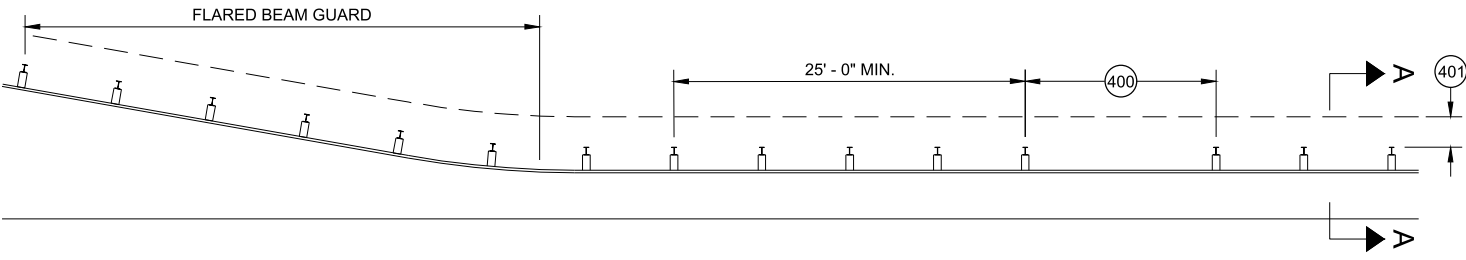
MISSING POST IN MGS GUARDRAIL



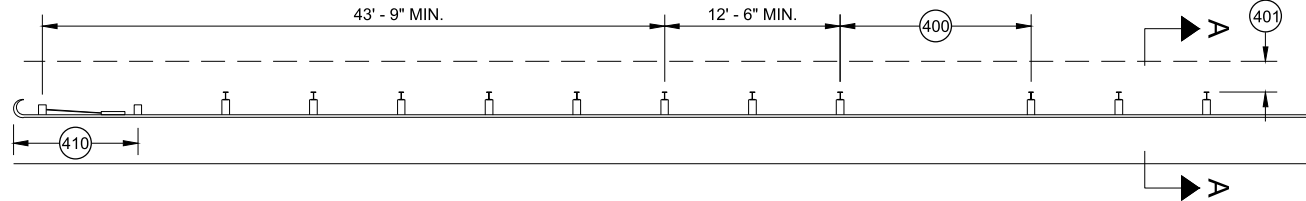
MISSING POST IN MGS GUARDRAIL NEAR EAT



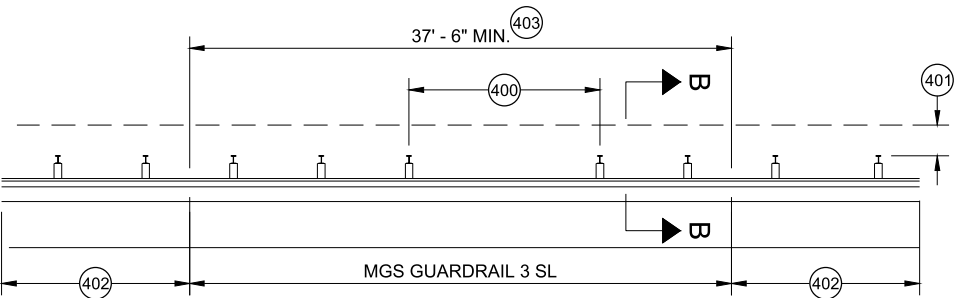
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

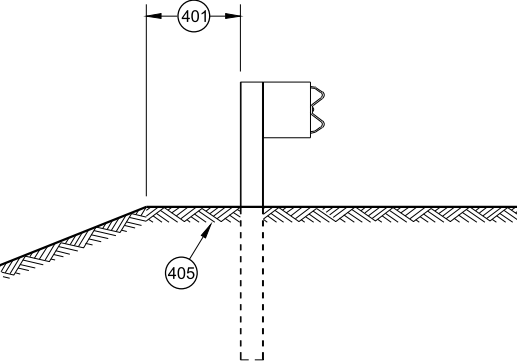


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

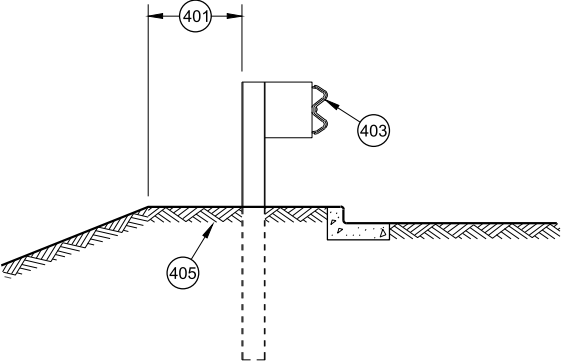


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- 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
FHWA



SDD 14B44-a Midwest Guardrail System (MGS) Energy Absorbing Terminal

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) 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.
- (F) DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

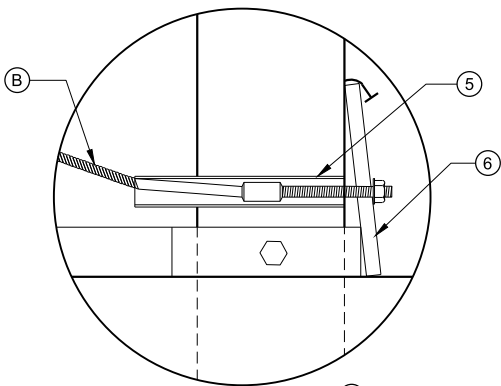
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

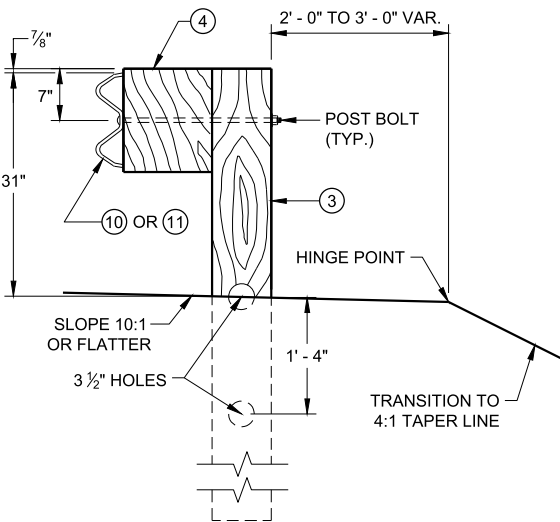
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

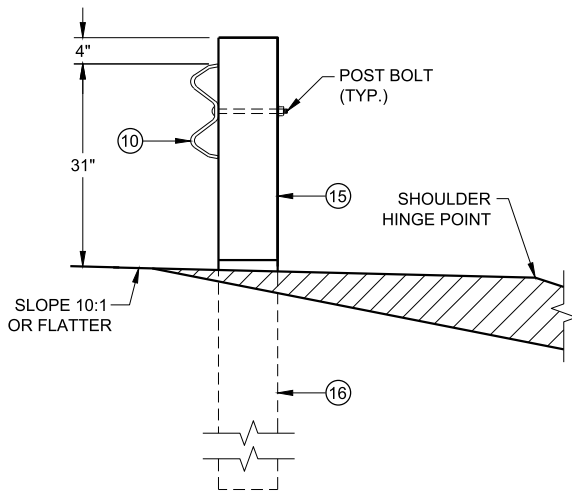
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



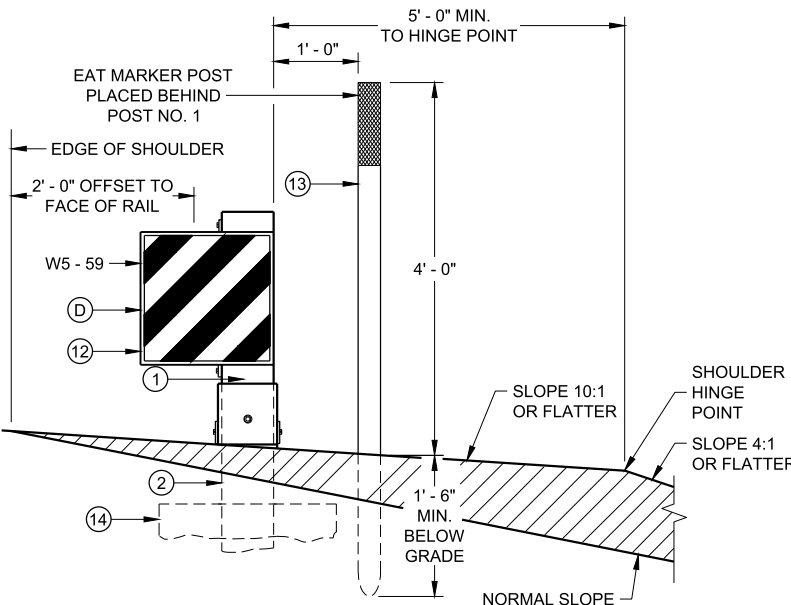
DETAIL "A"



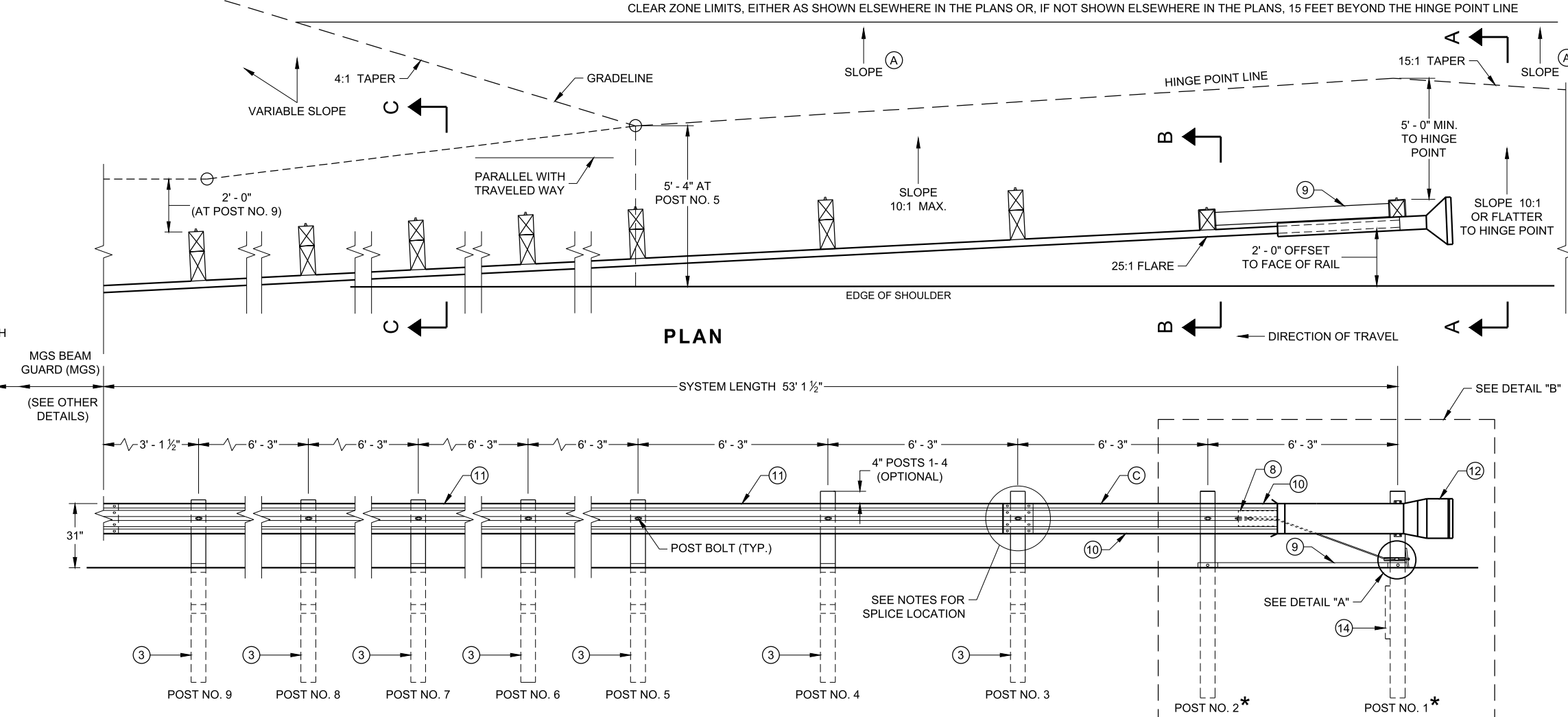
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*

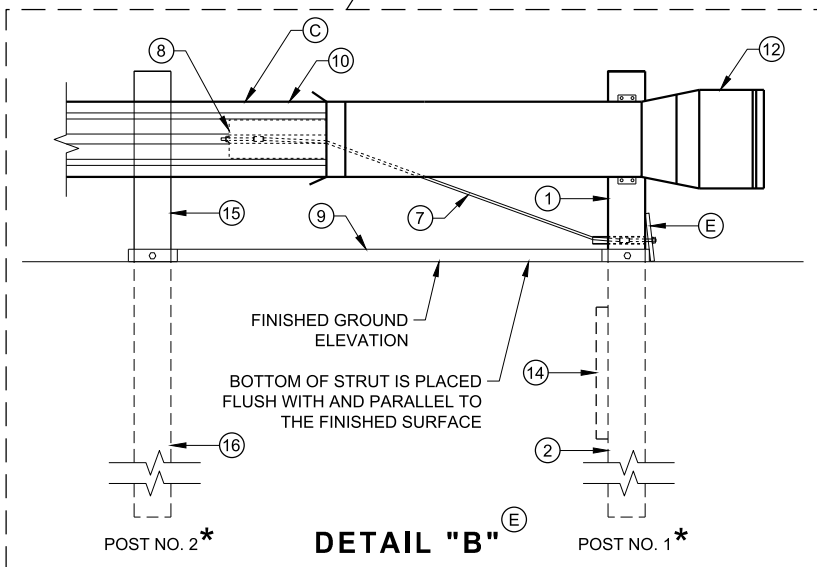


SECTION A - A
TYPICAL AT POST NO. 1*



PLAN

ELEVATION



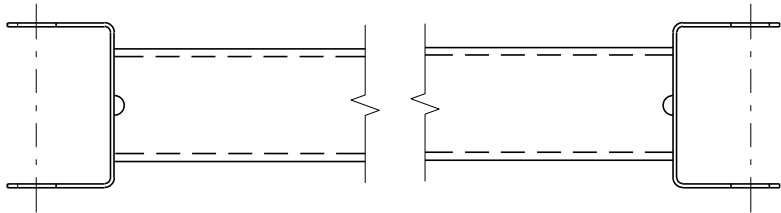
DETAIL "B"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



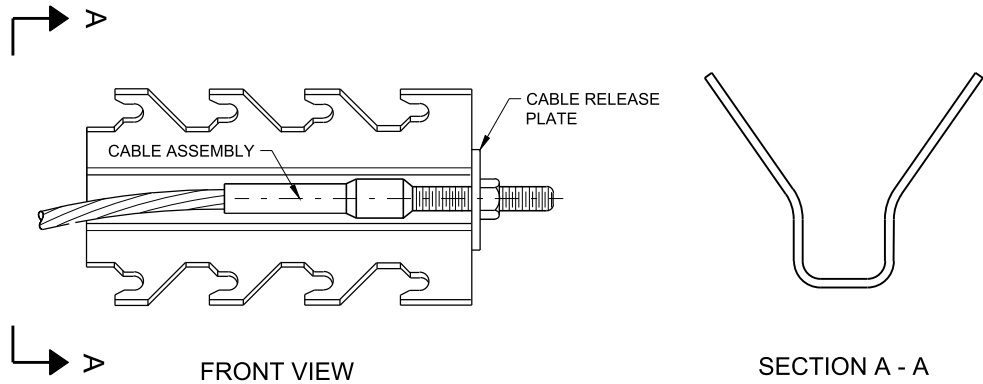
SDD 14B44-b Midwest Guardrail System (MGS) Energy Absorbing Terminal



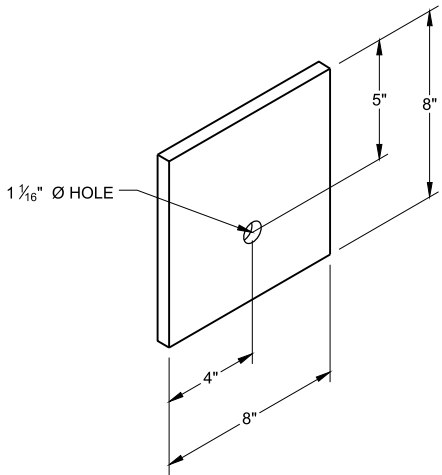
GENERIC GROUND STRUT ⁹ ^E

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 ANCHOR CABLE BOX ⁹ ^E



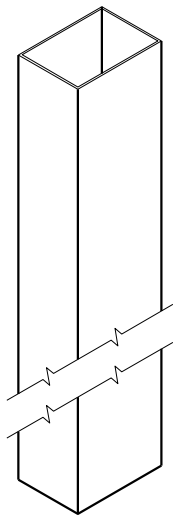
BEARING PLATE ⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

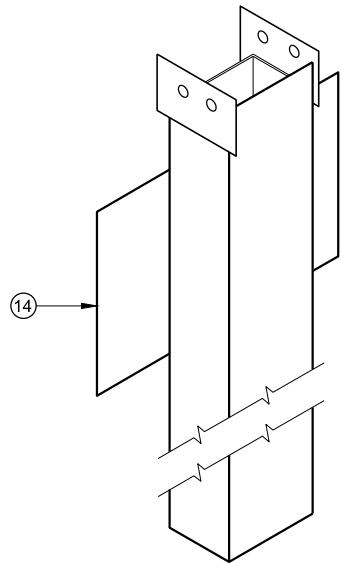
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



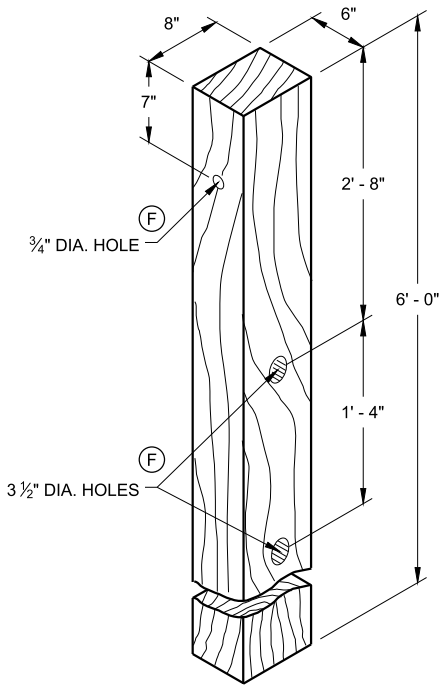
SDD 14B44-c Midwest Guardrail System (MGS) Energy Absorbing Terminal



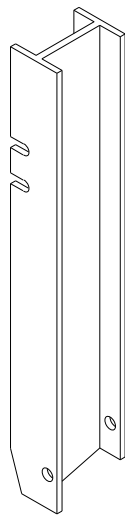
UPPER POST NO. 1^{(1) (E)}



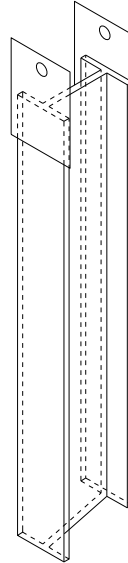
LOWER POST NO. 1^{(2) (E)}



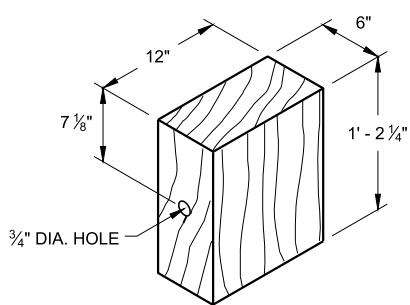
WOOD CRT POST^{(3) (E)}
POSTS NUMBER 3-9



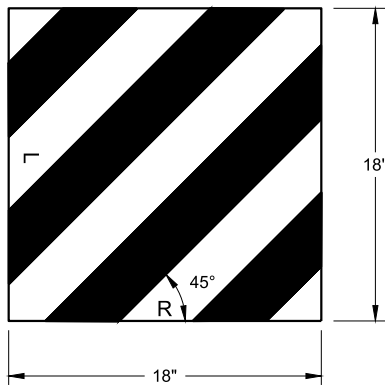
UPPER POST NO. 2^{(15) (E)}



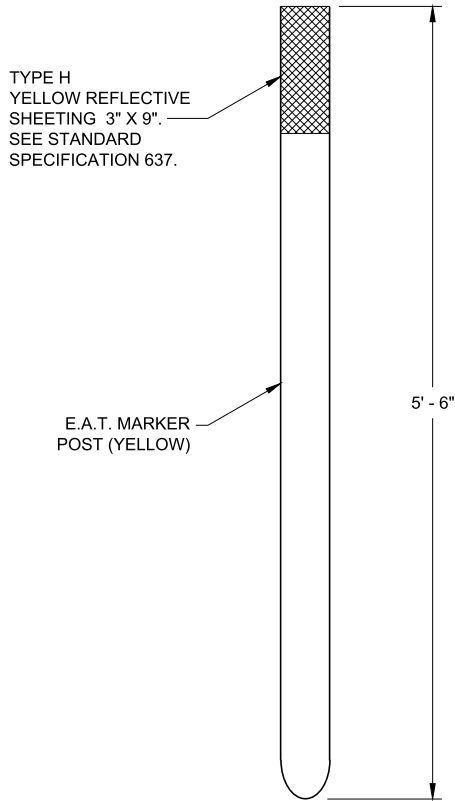
LOWER POST NO. 2^{(16) (E)}



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



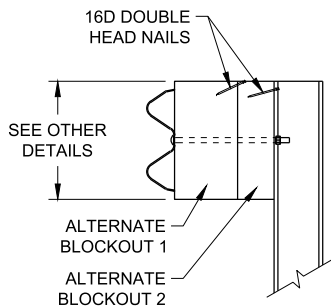
REFLECTIVE SHEETING DETAIL^(E)



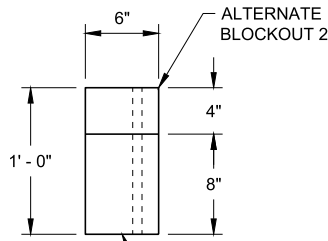
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST⁽¹³⁾



SIDE VIEW



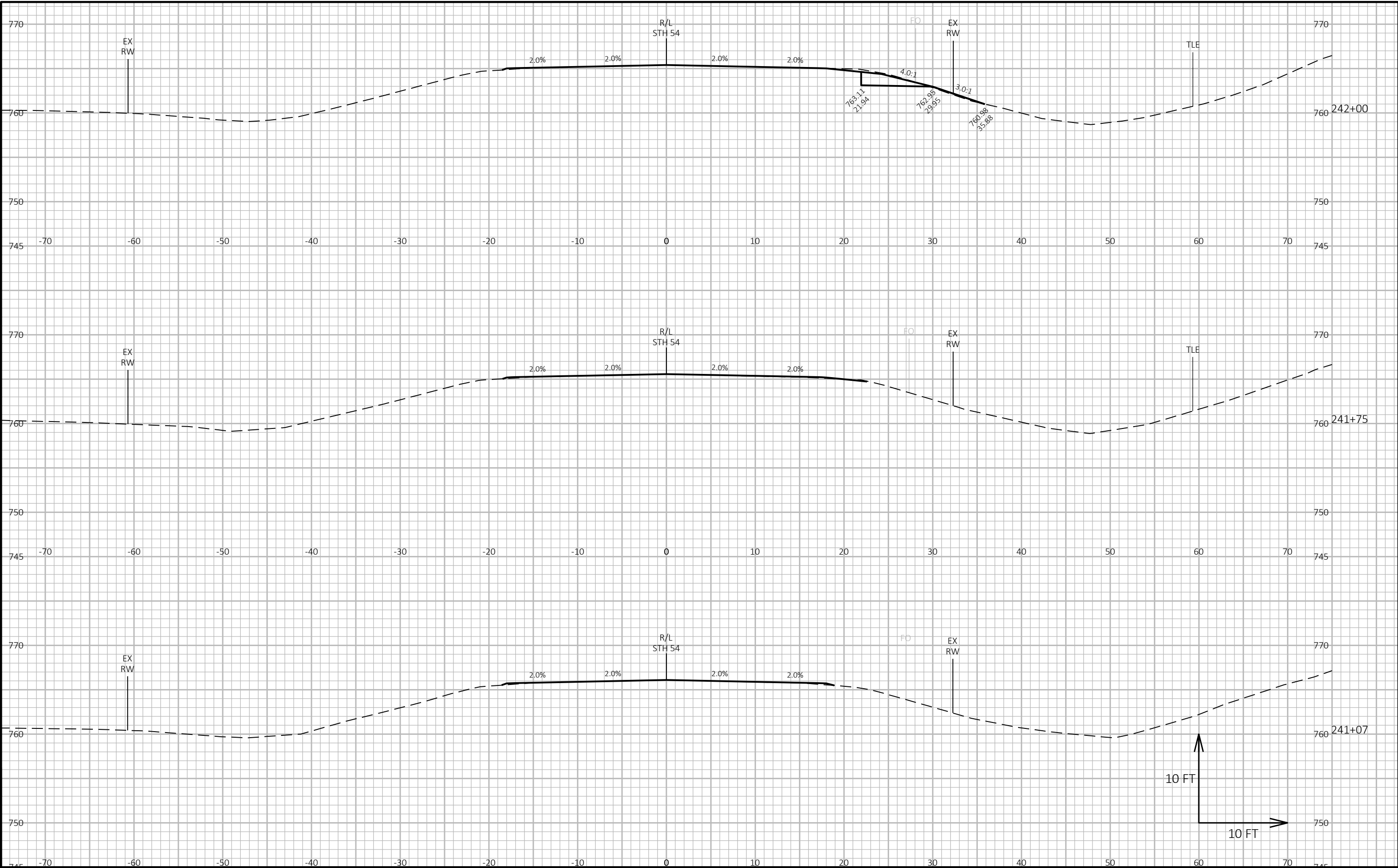
TOP VIEW

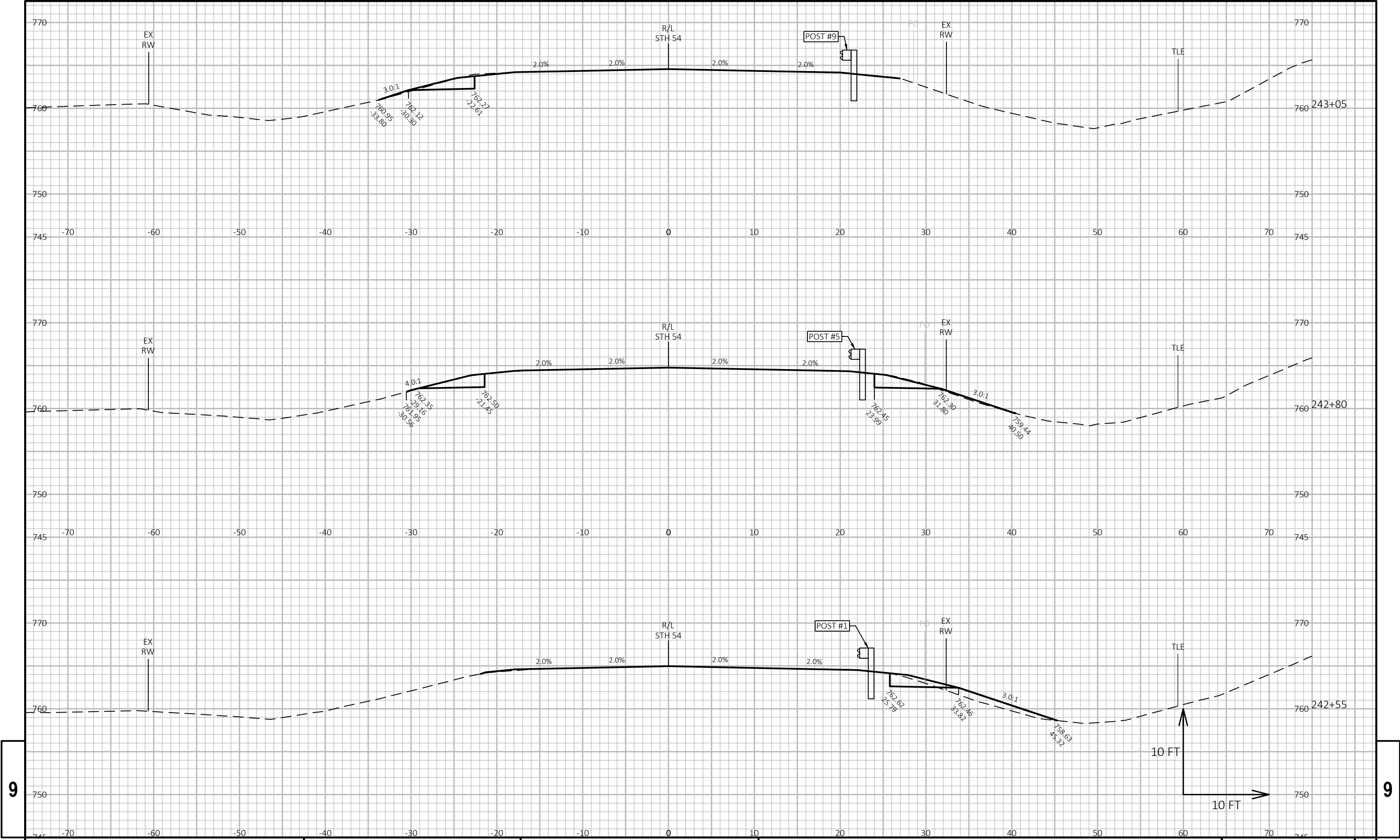
ALTERNATE WOOD
BLOCKOUT DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

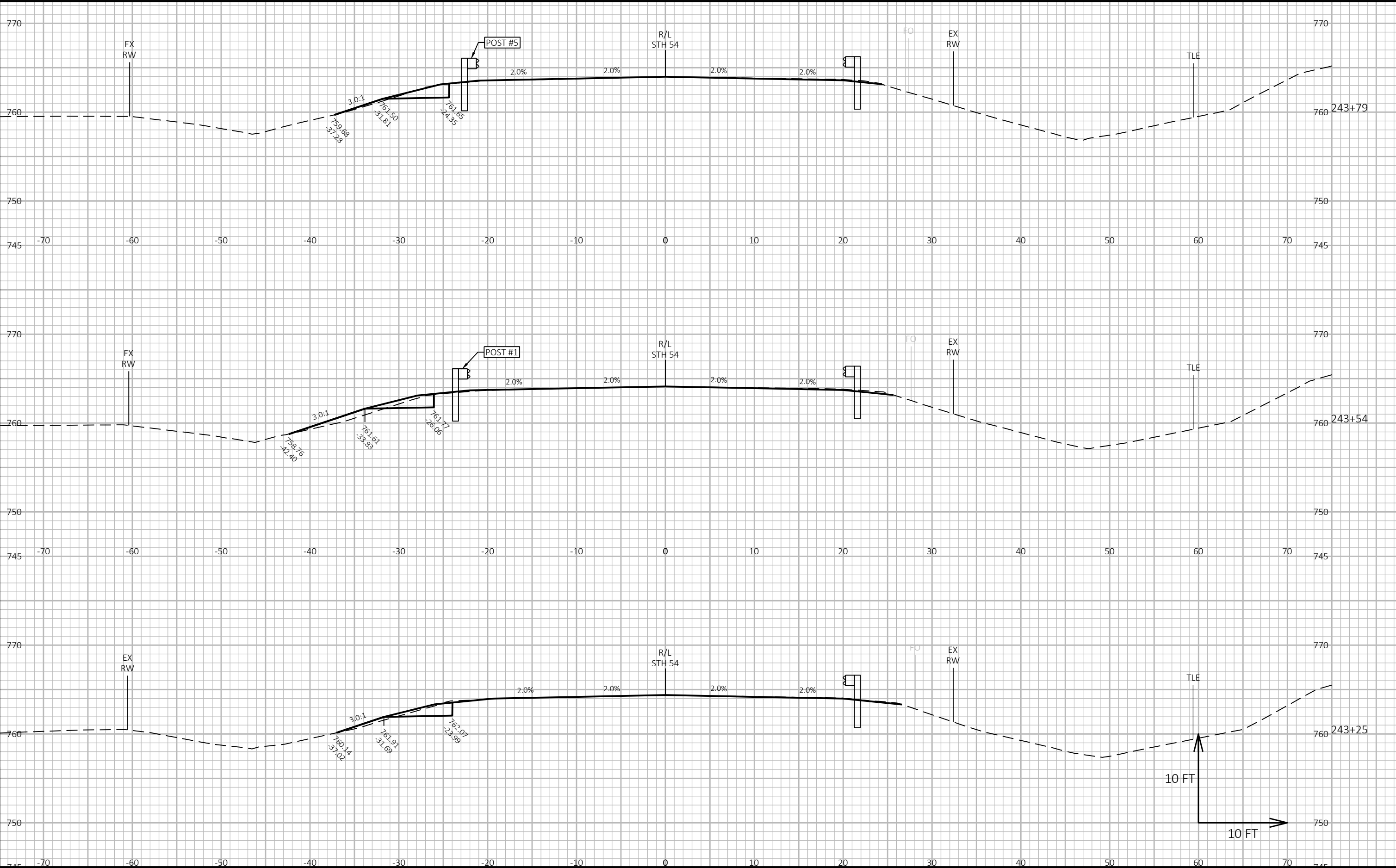
APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

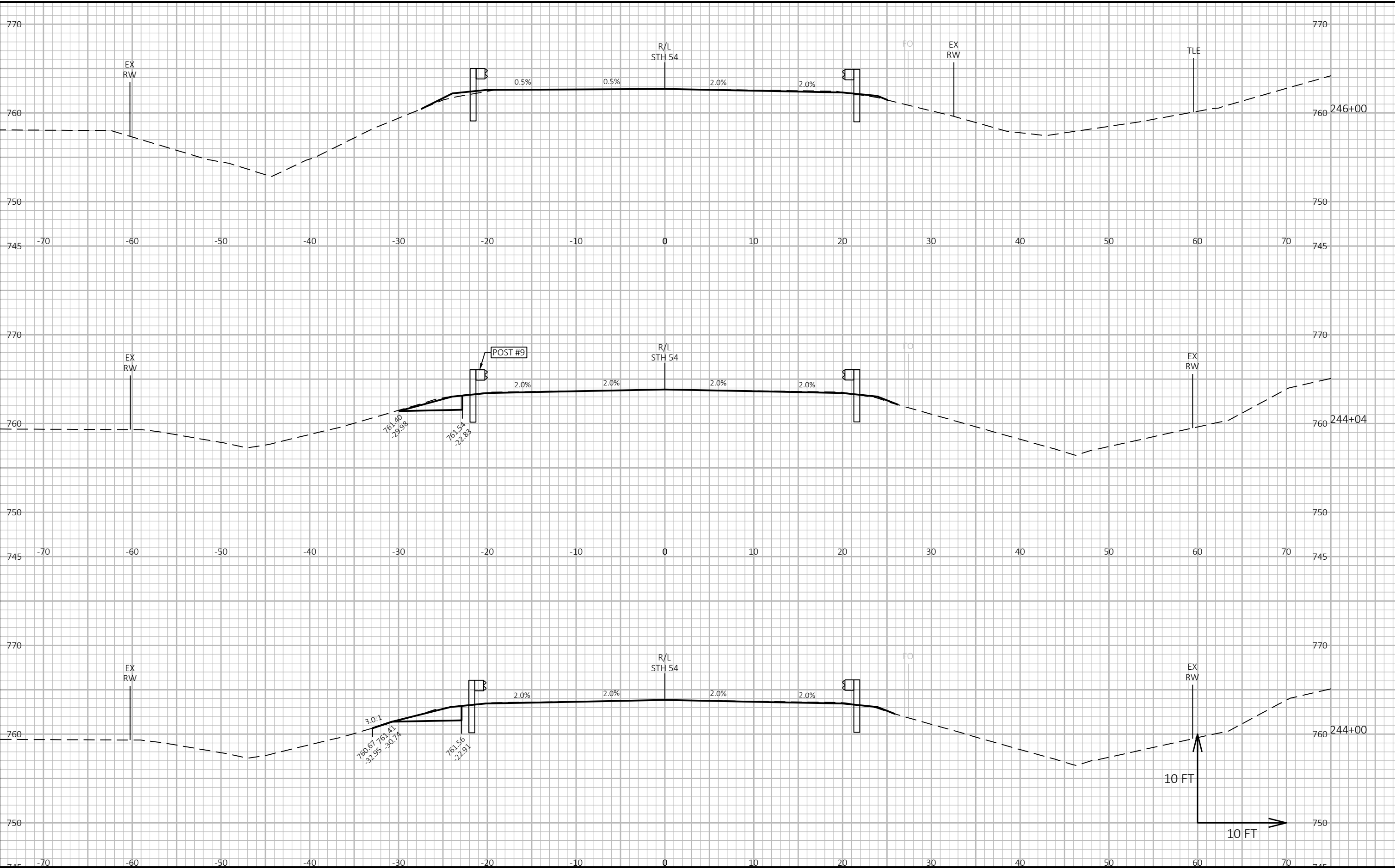




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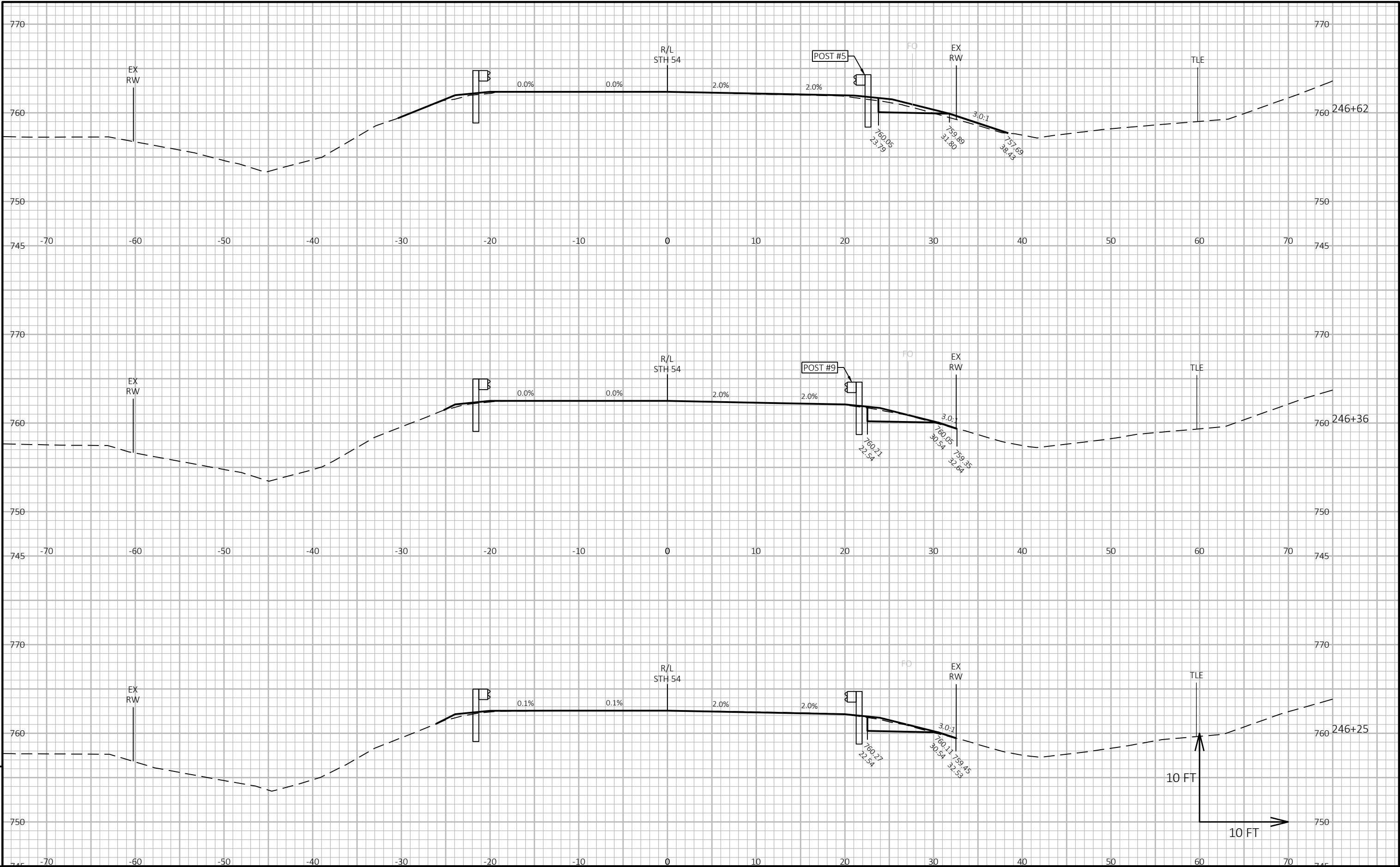


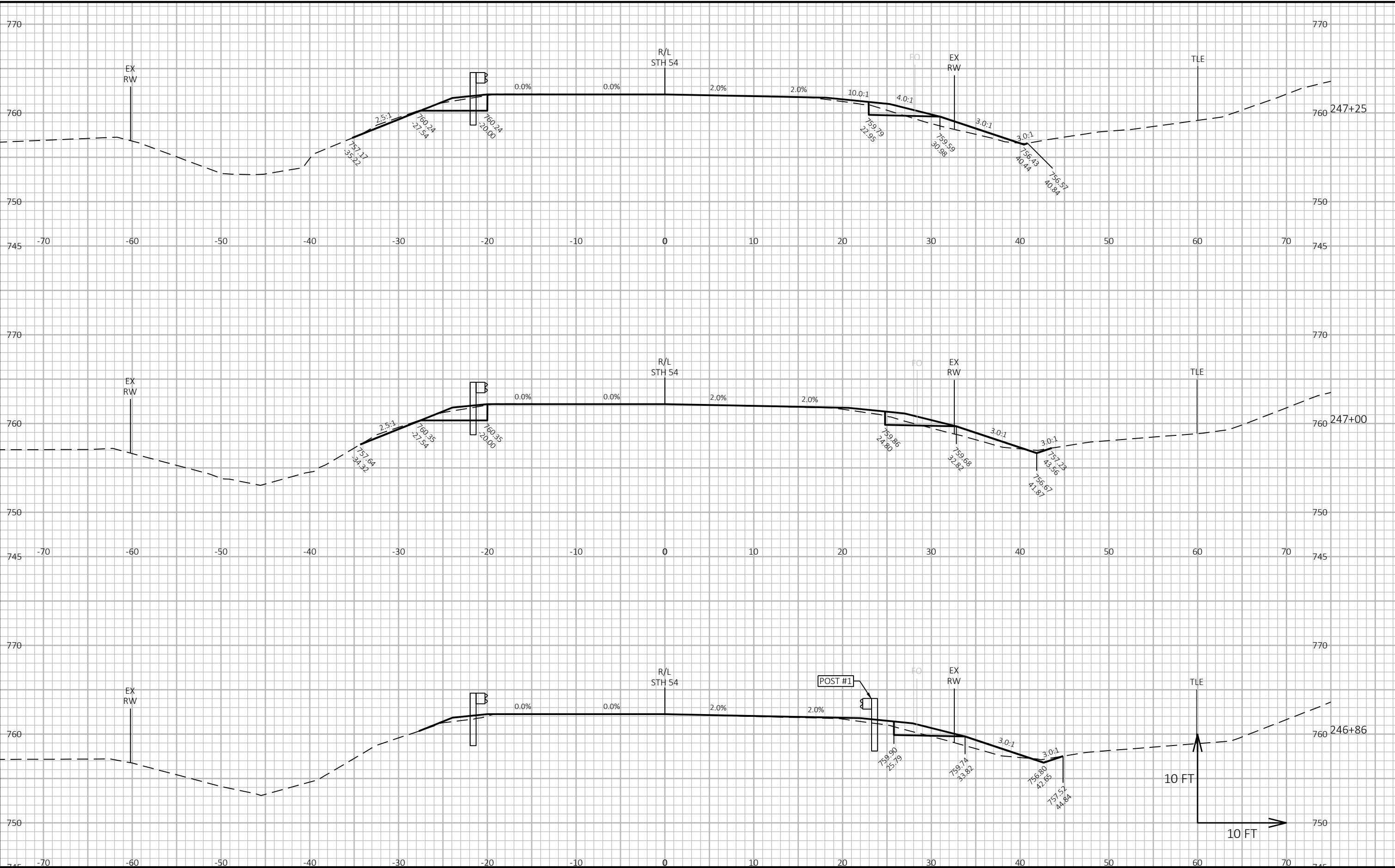


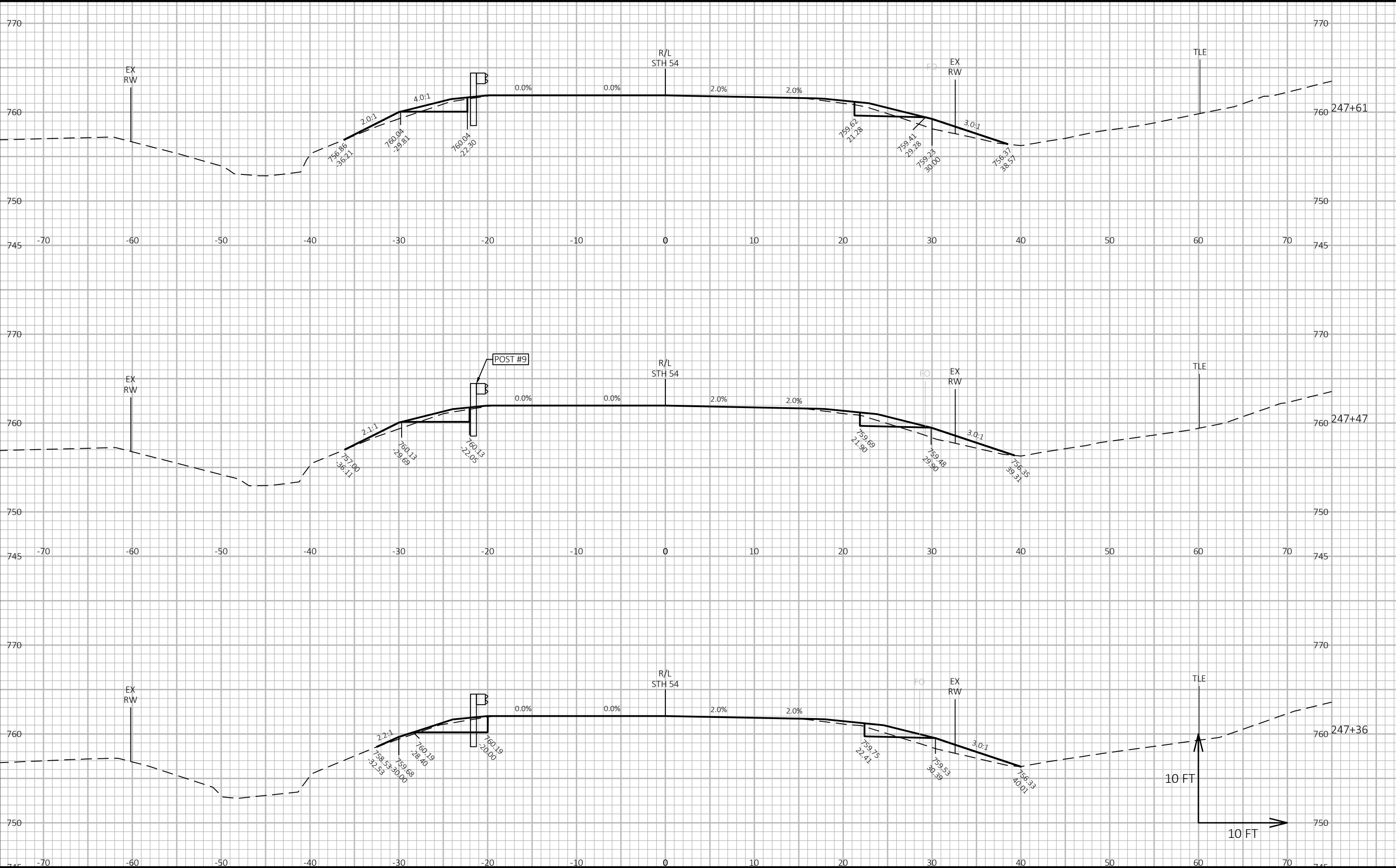
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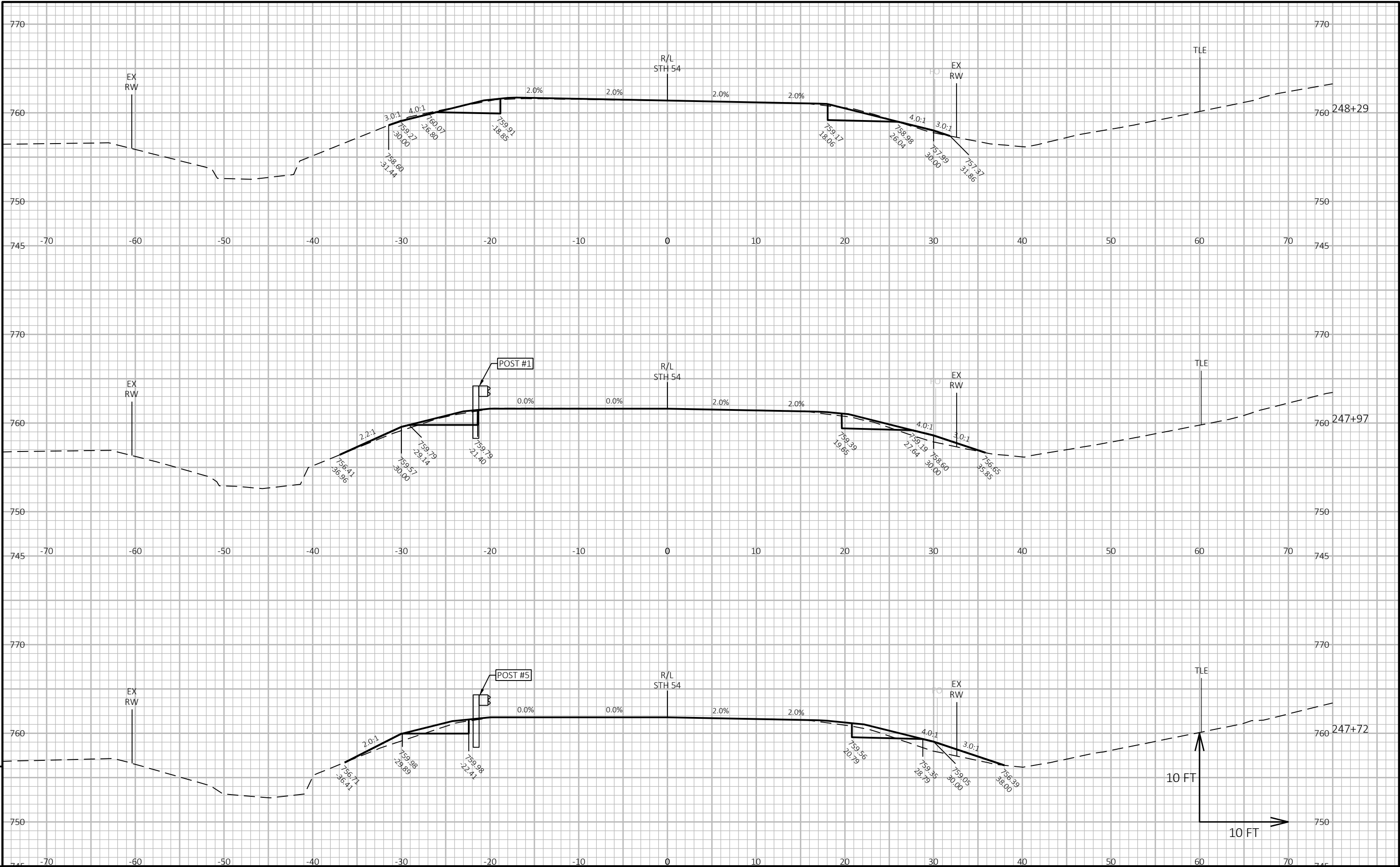
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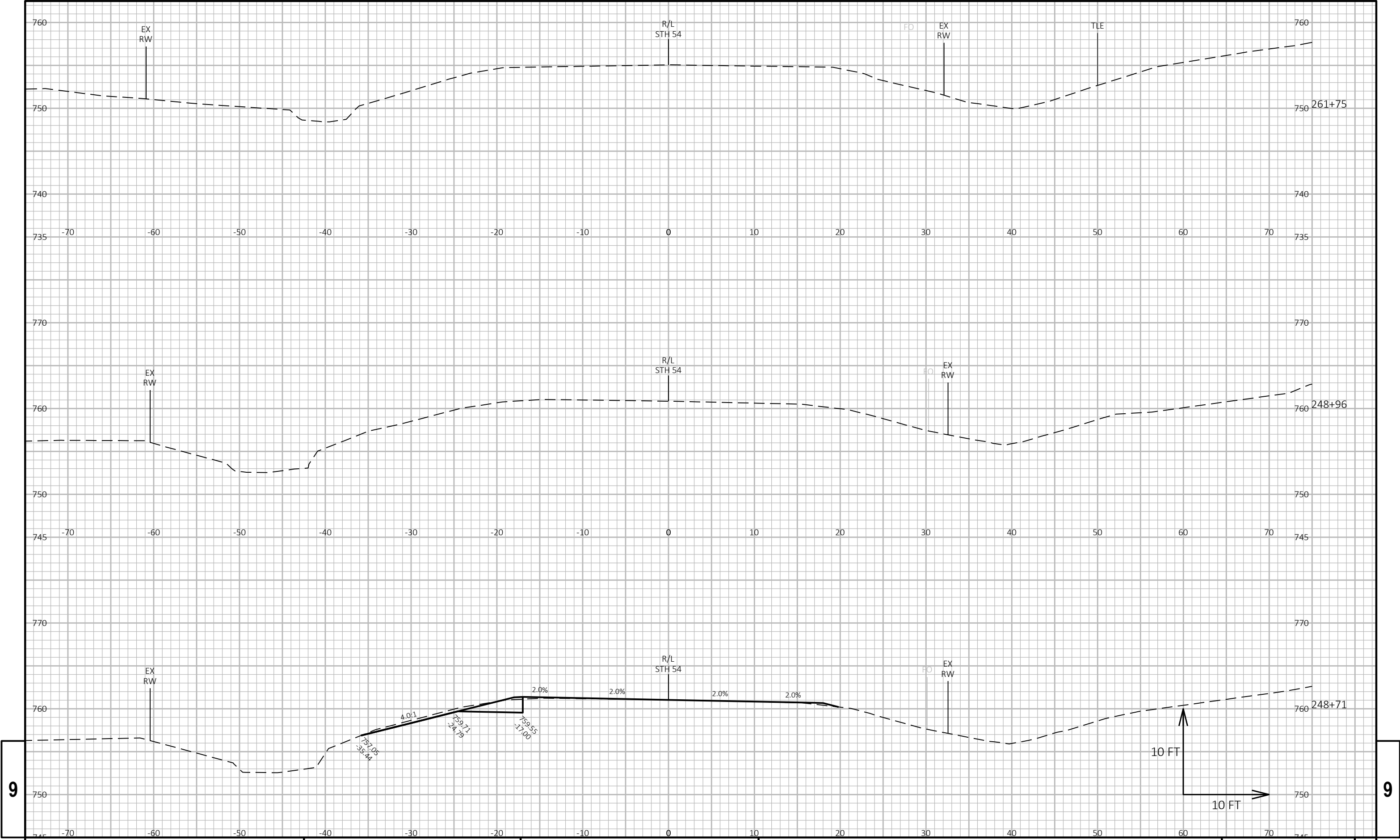
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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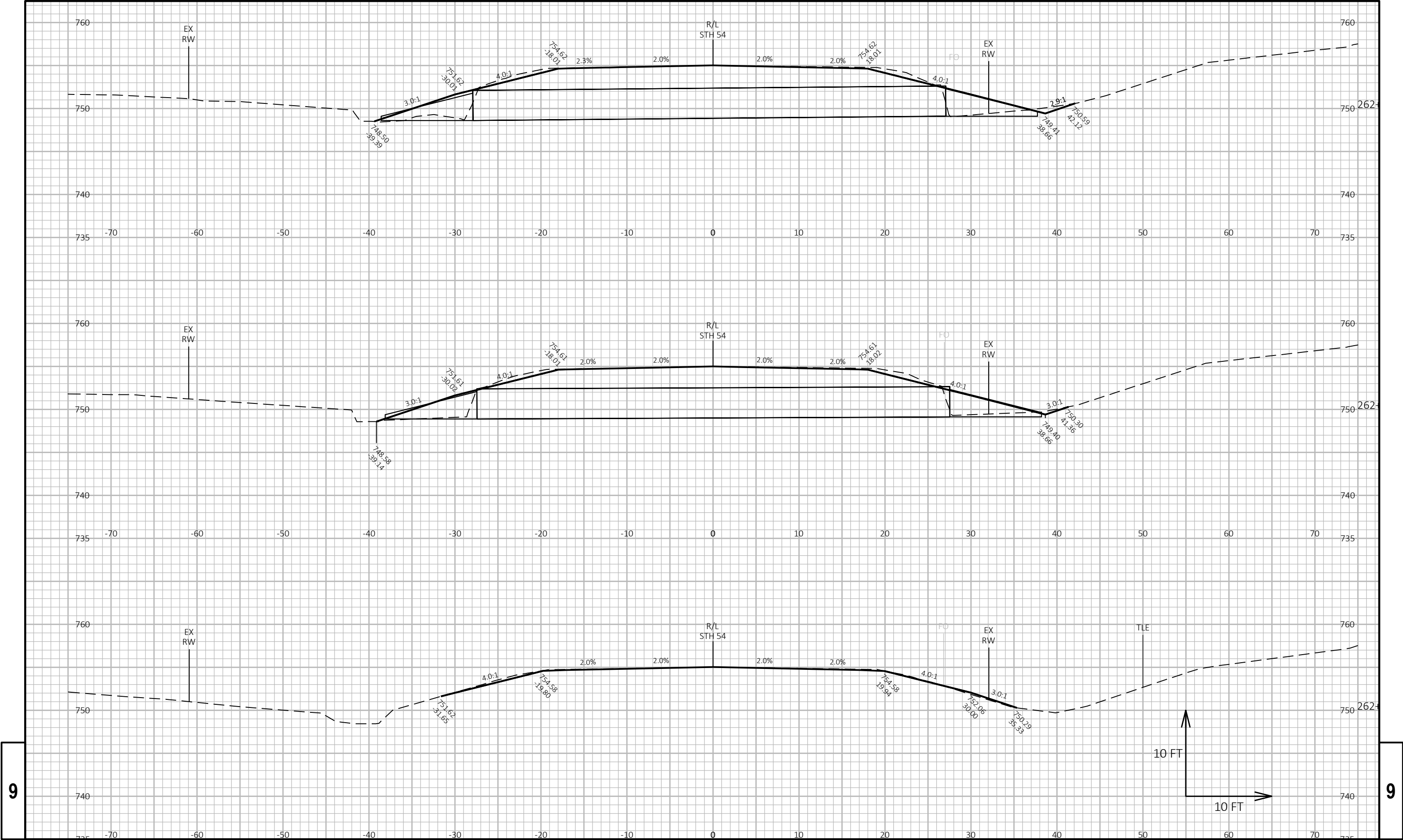








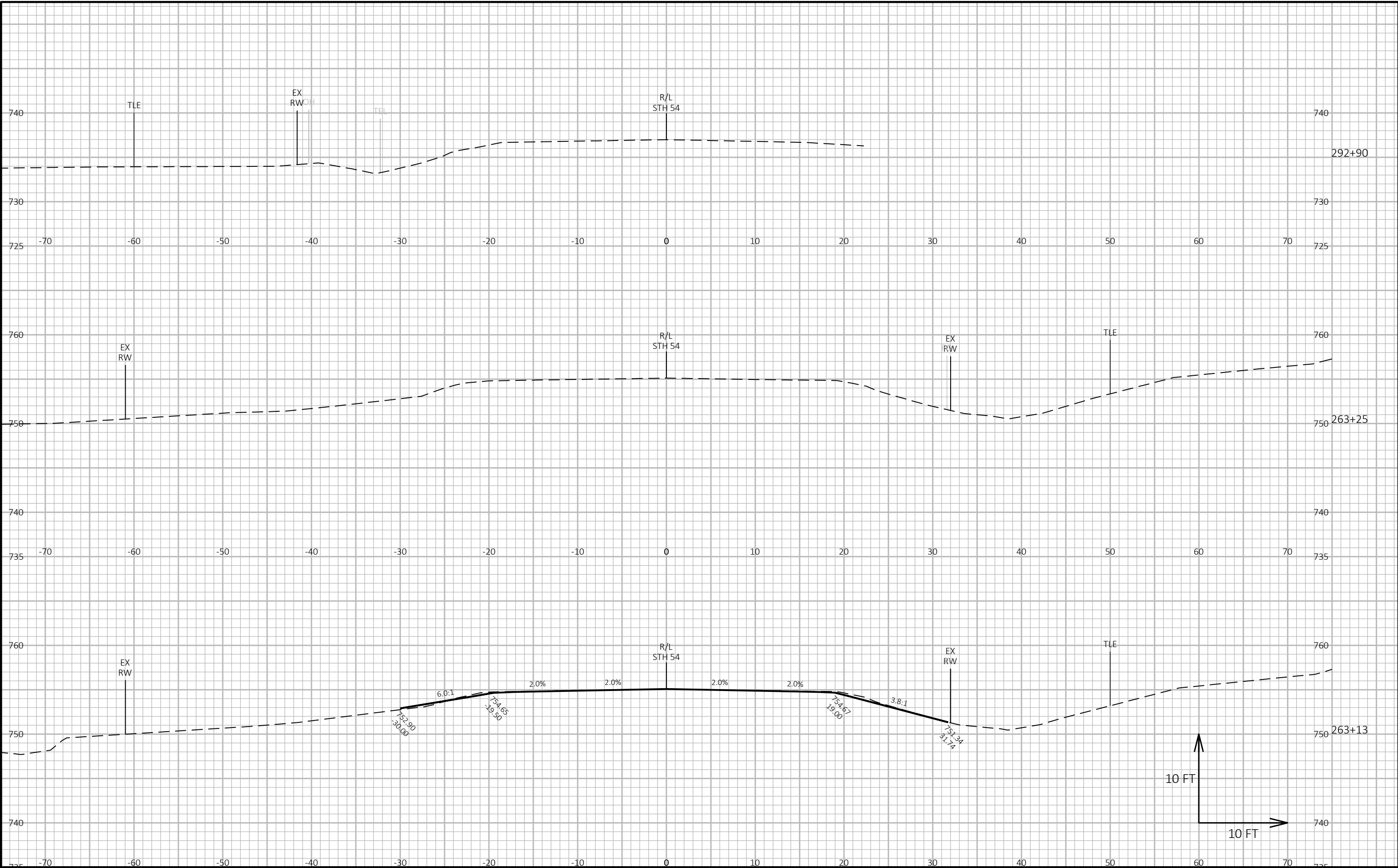




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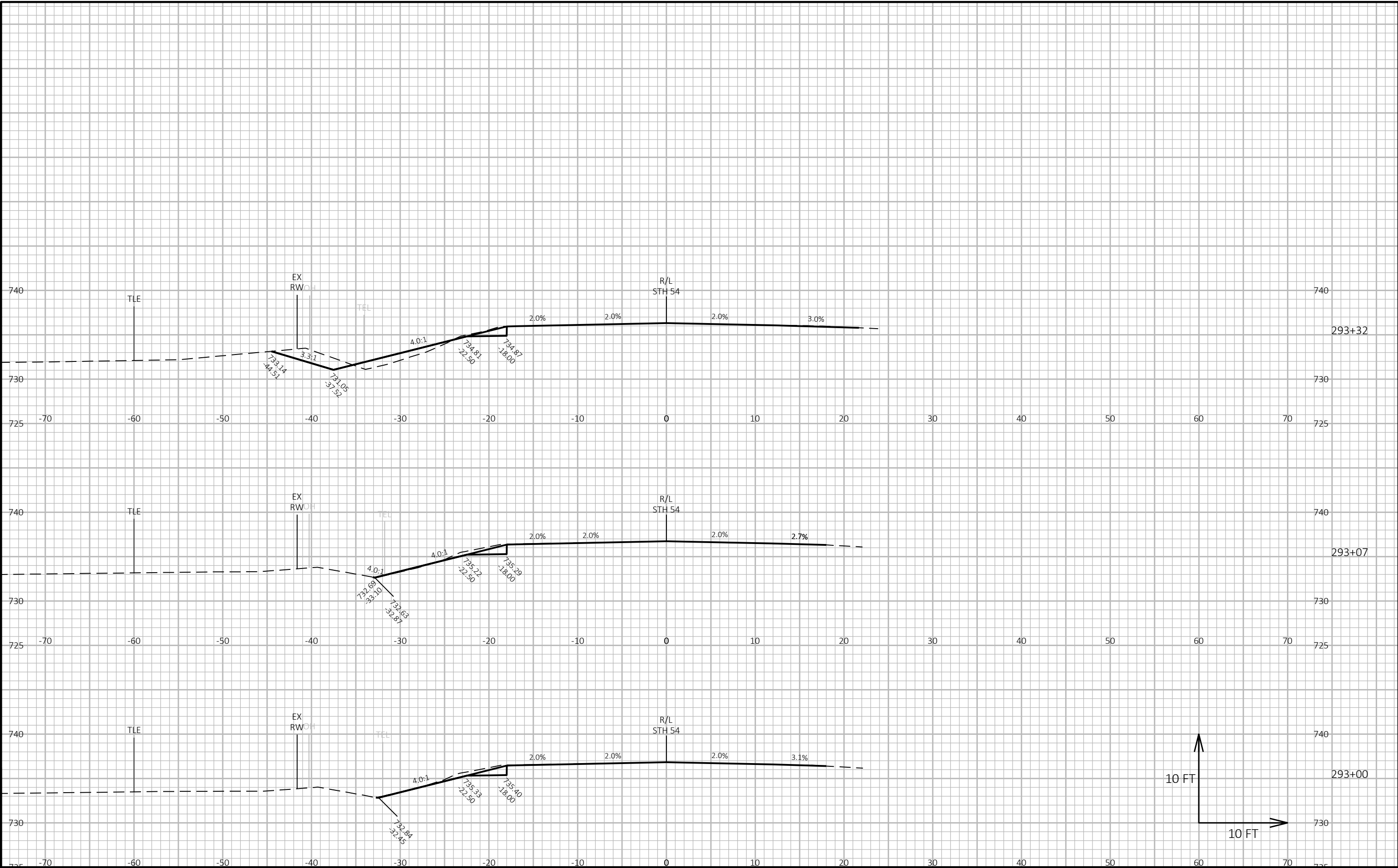
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET	E
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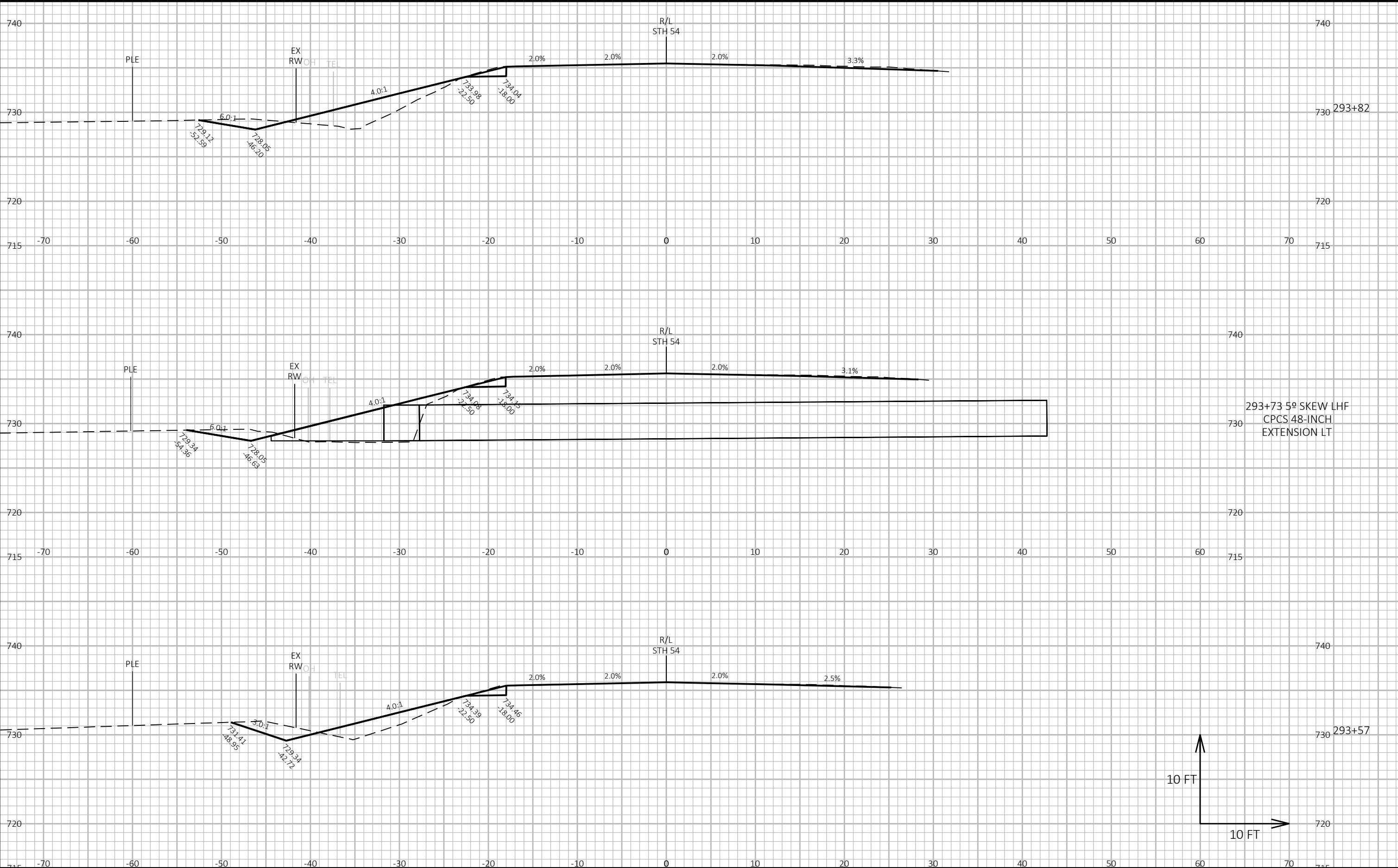


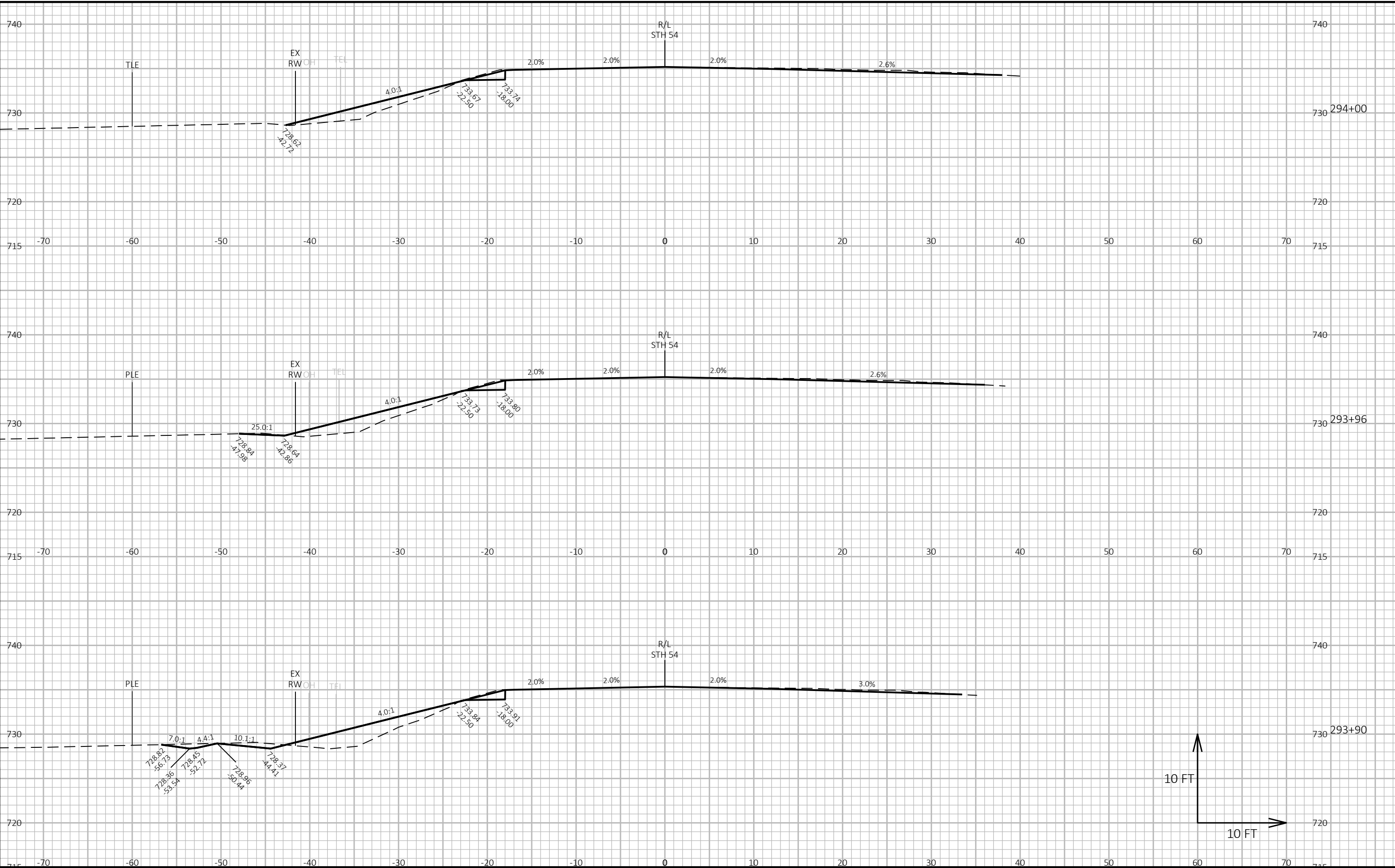
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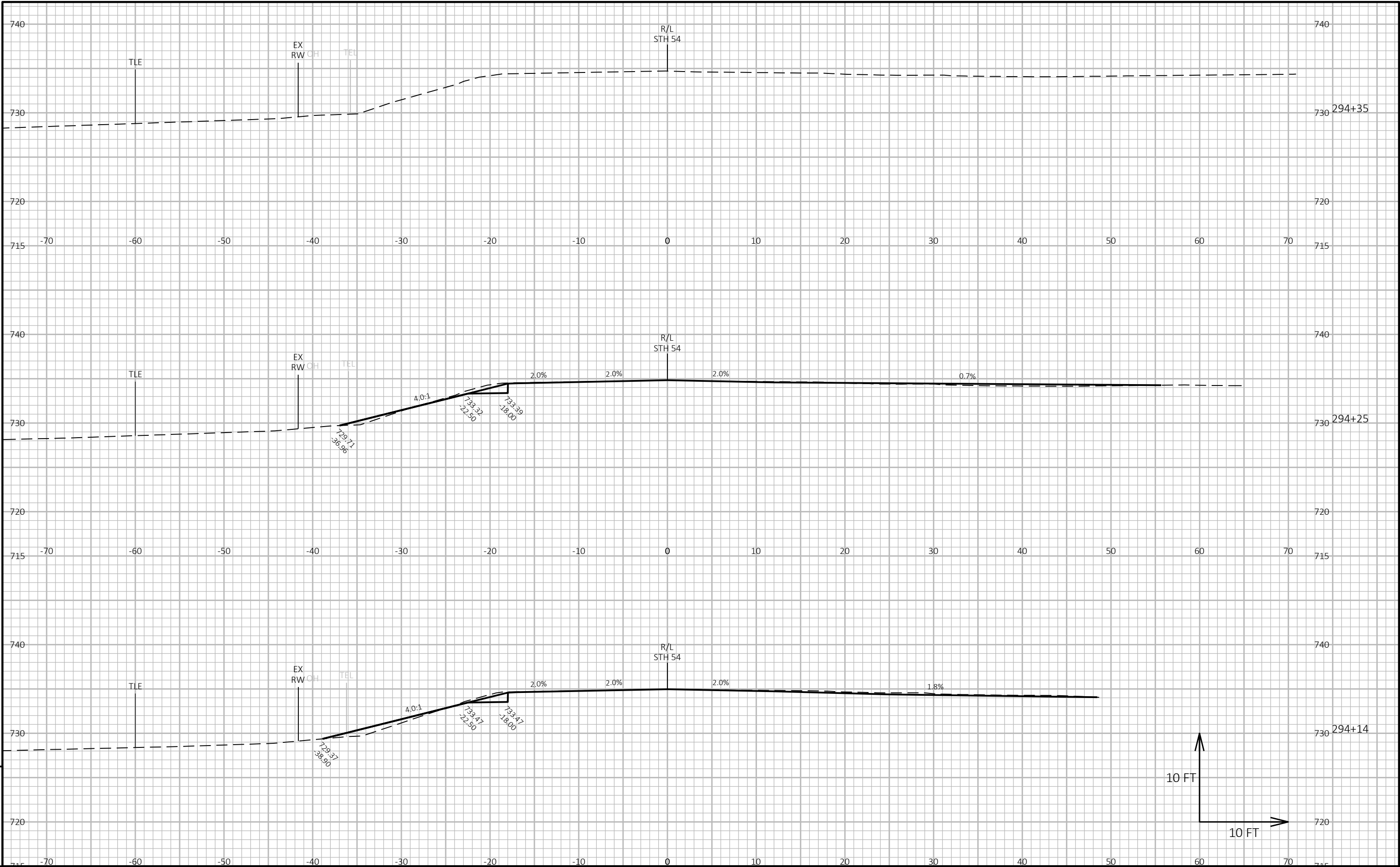
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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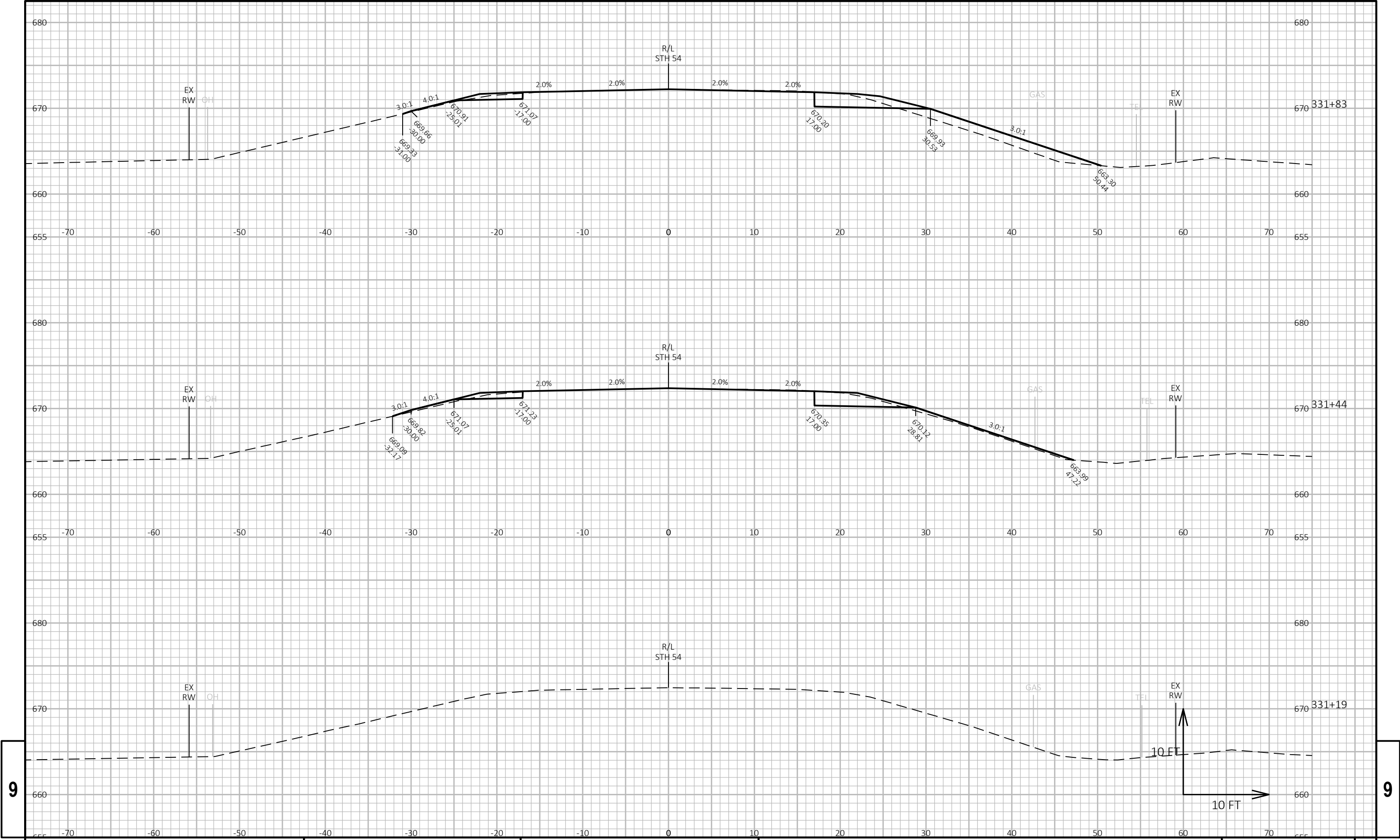




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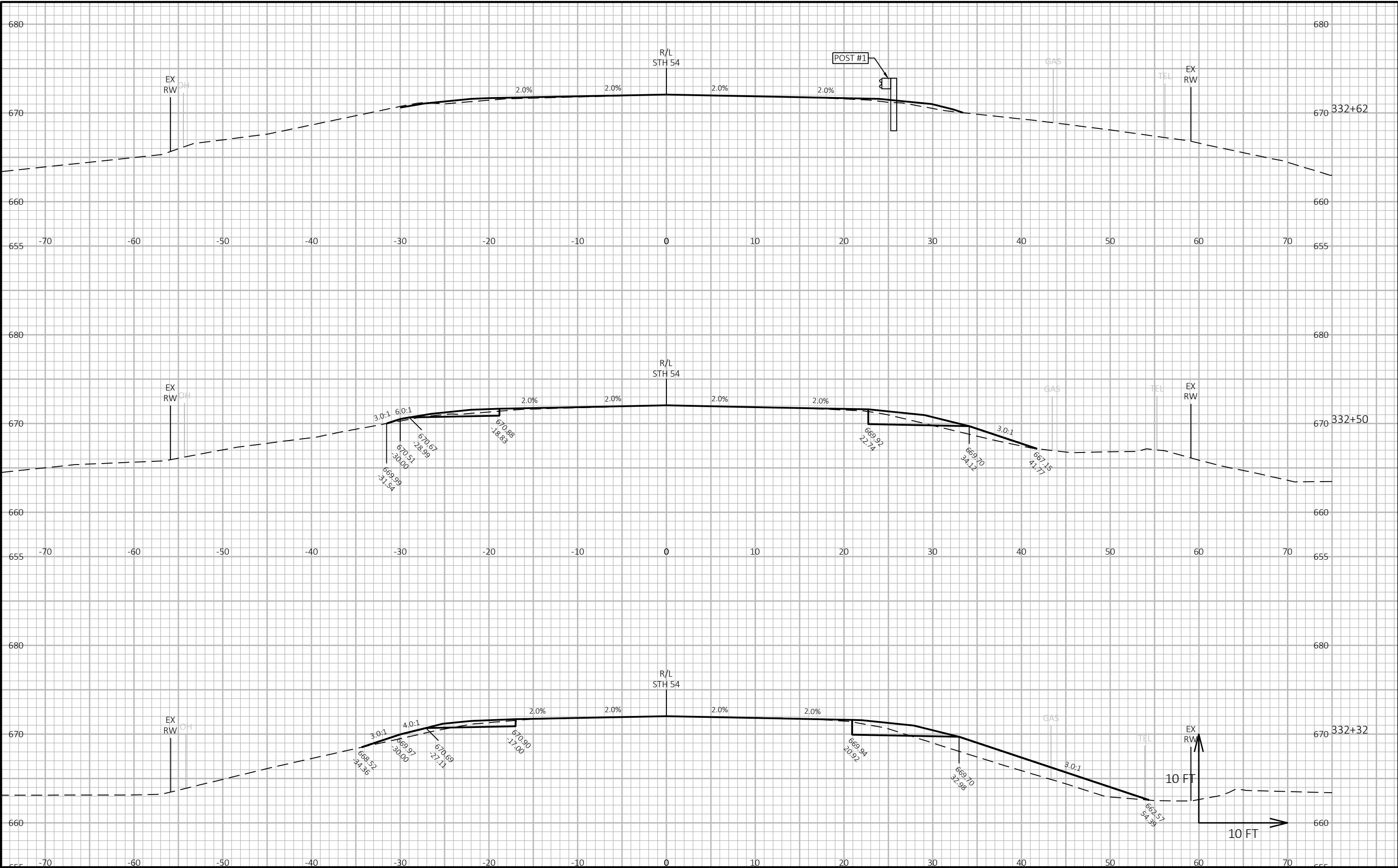
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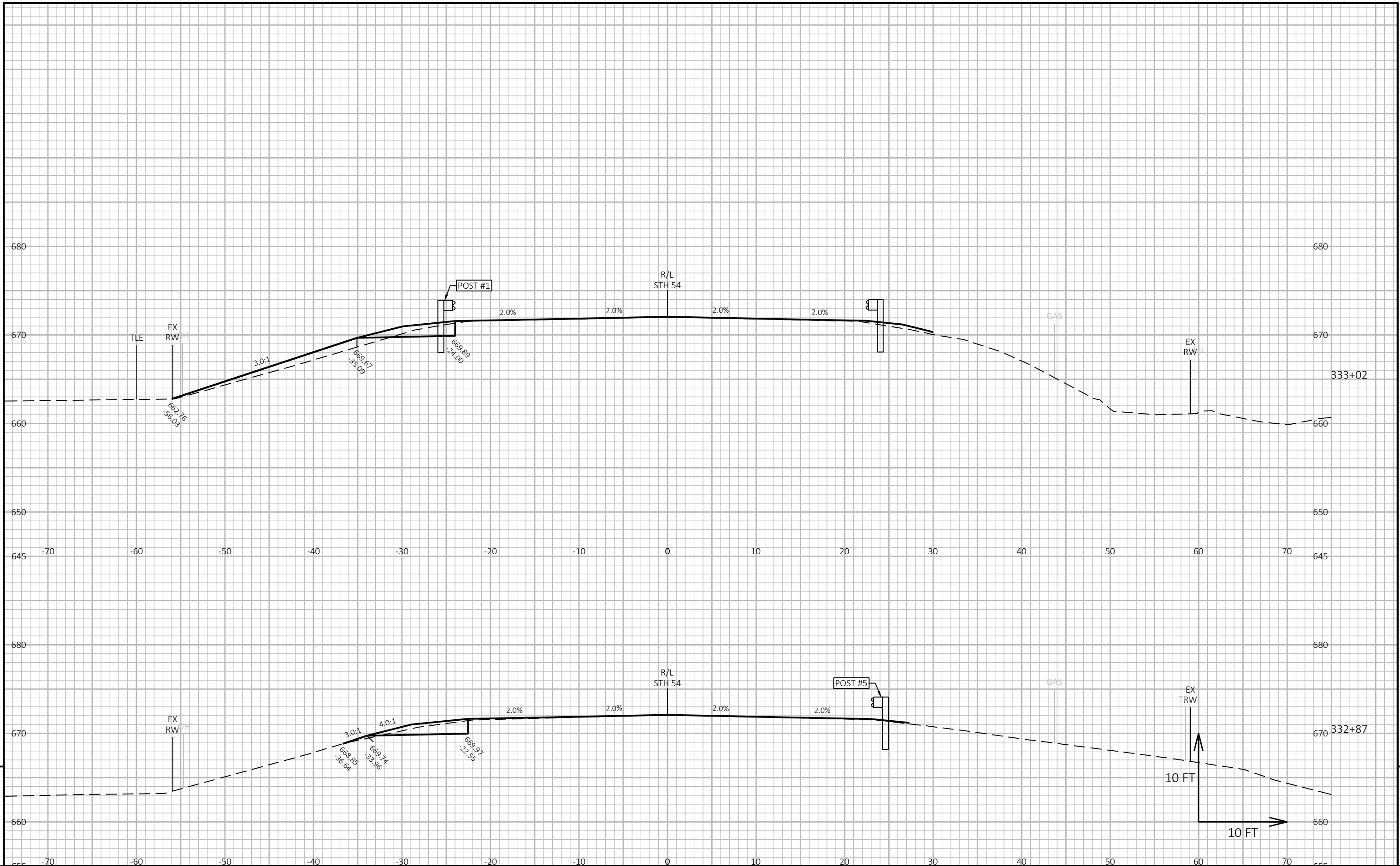
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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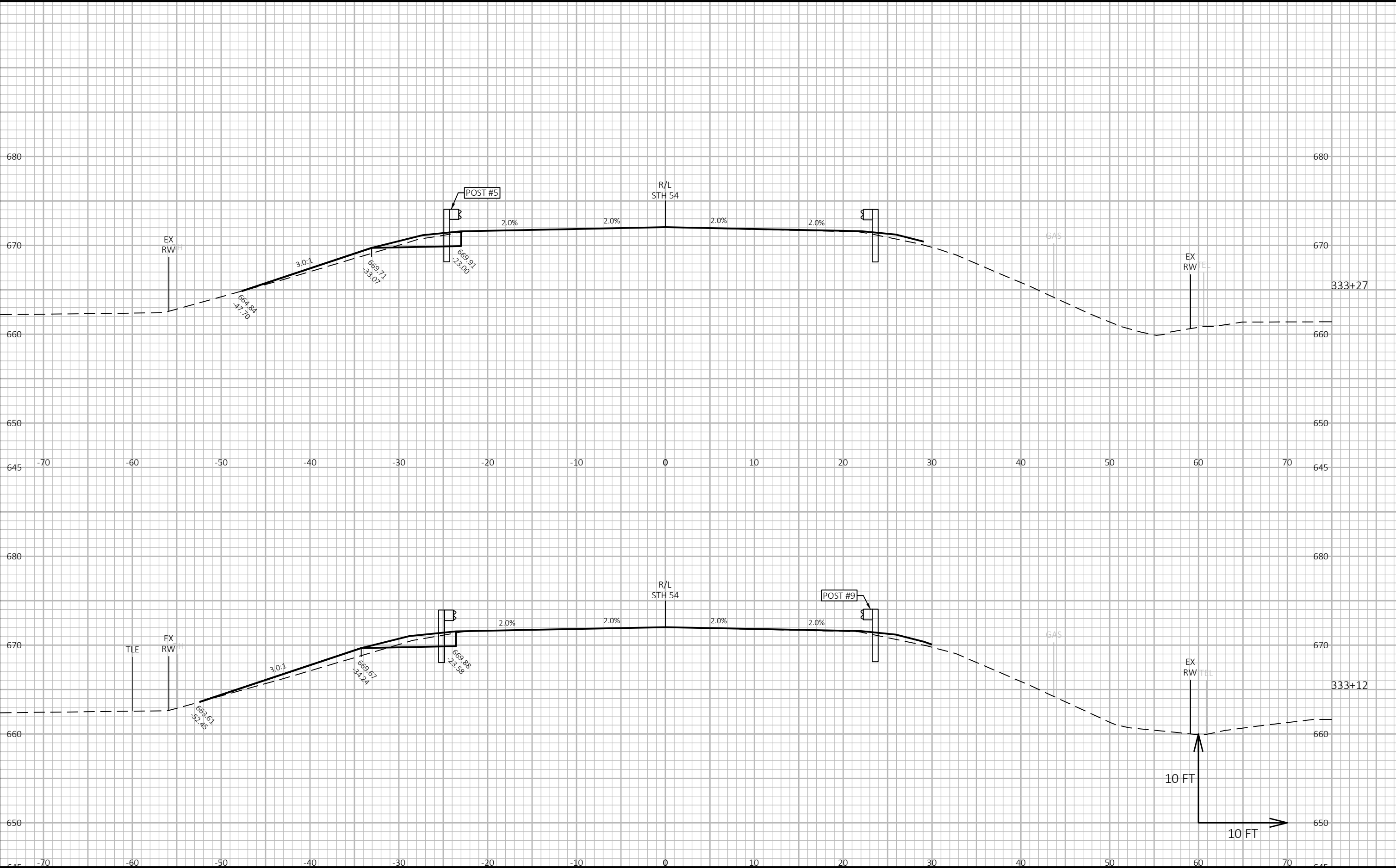


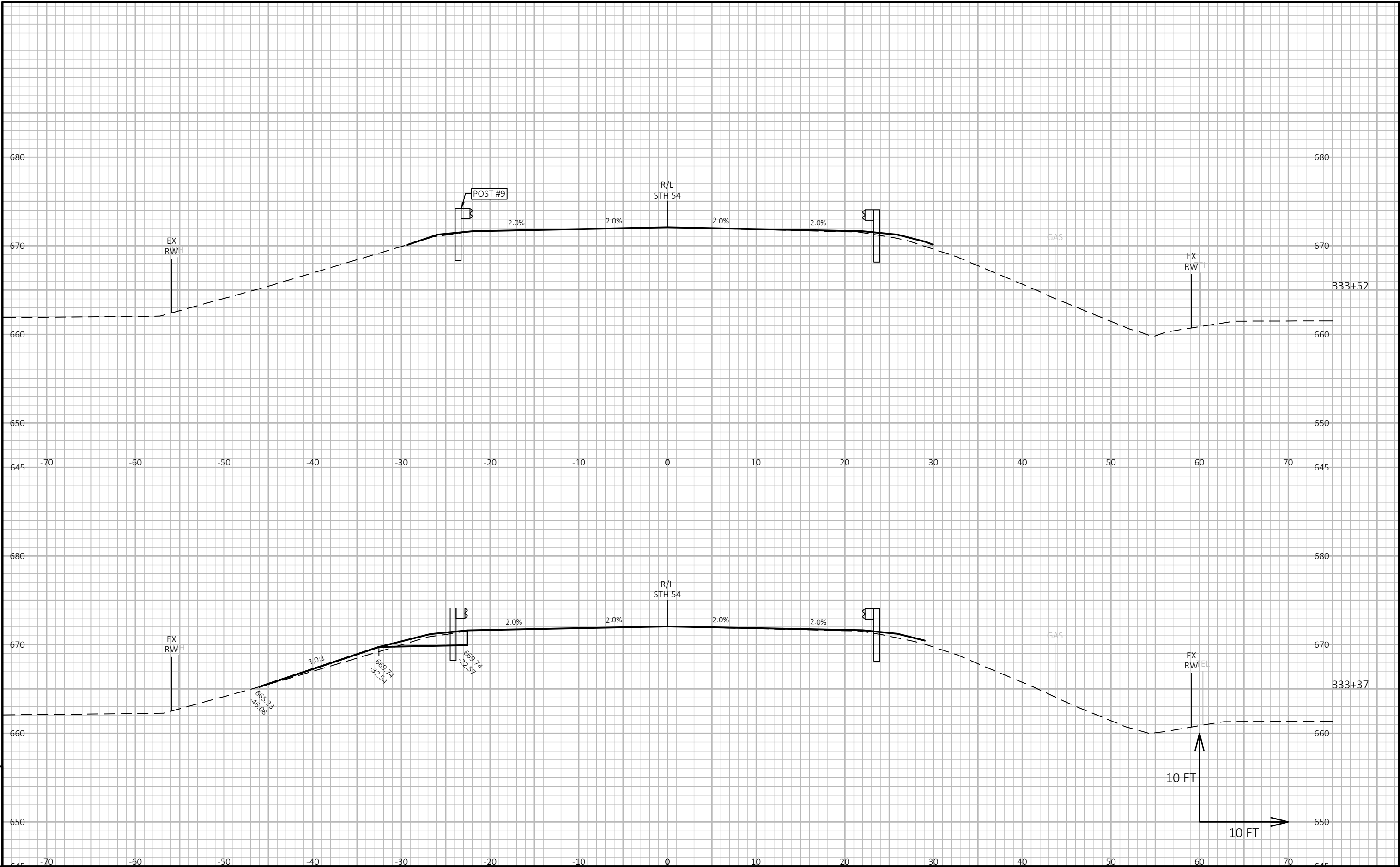
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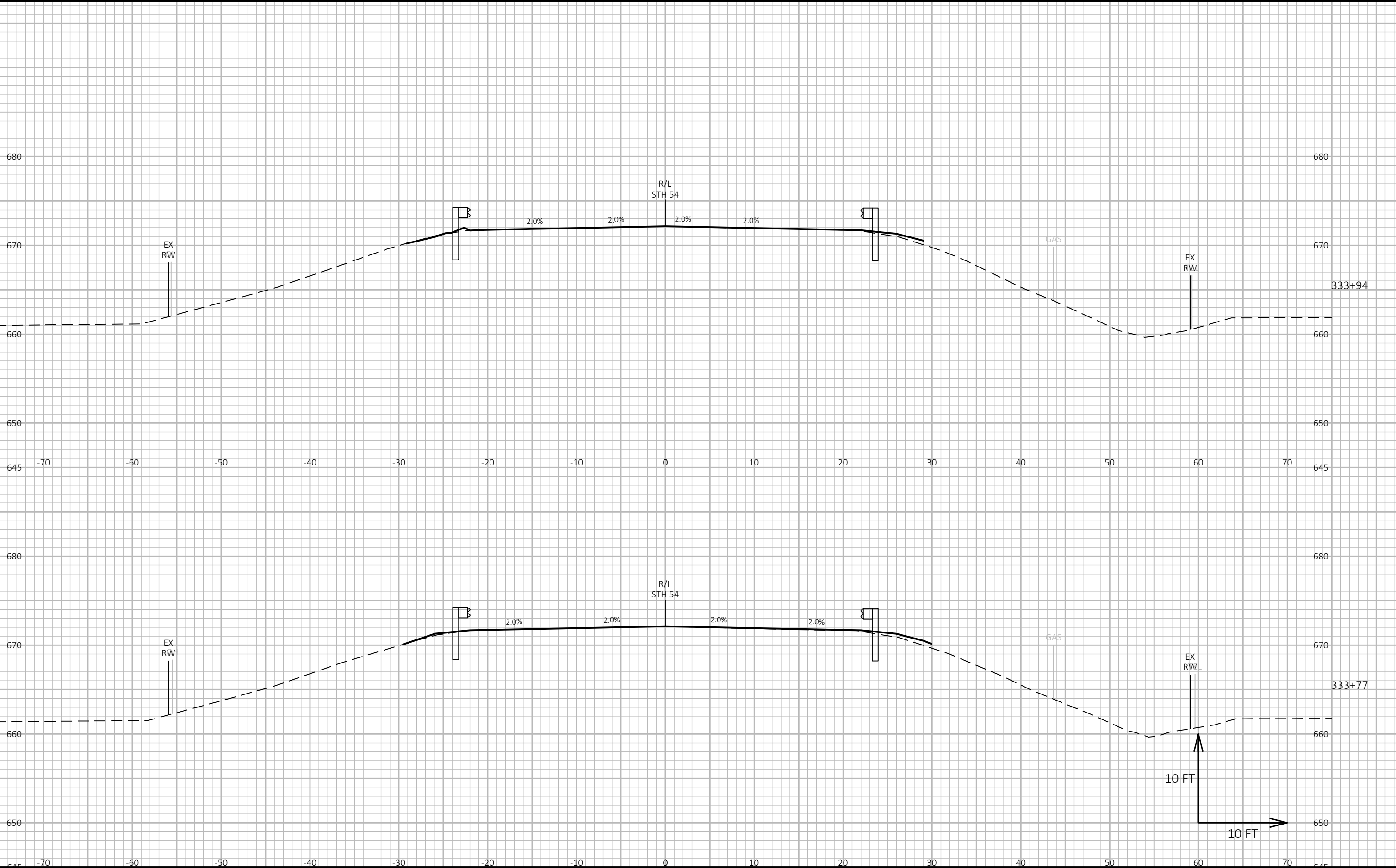
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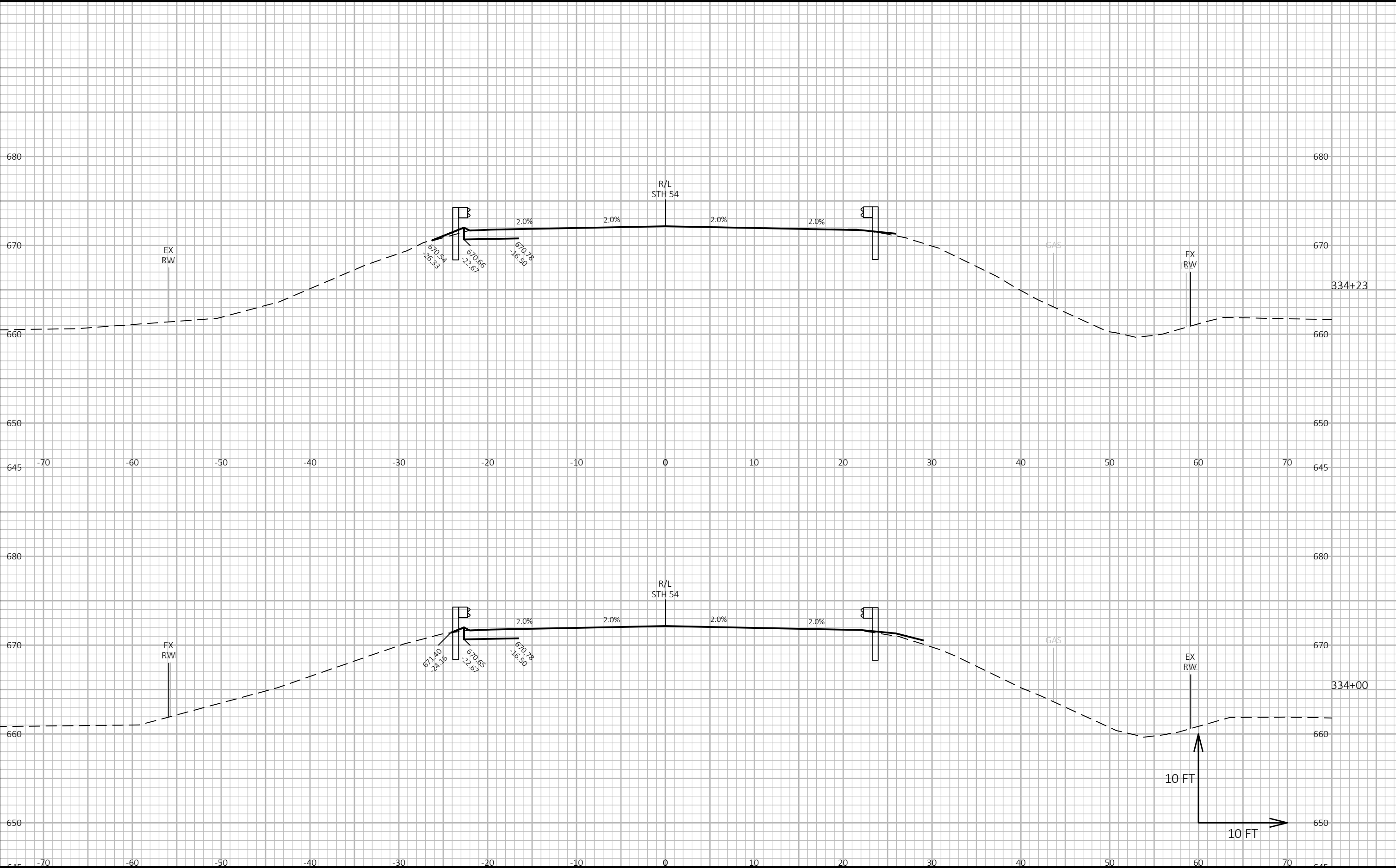


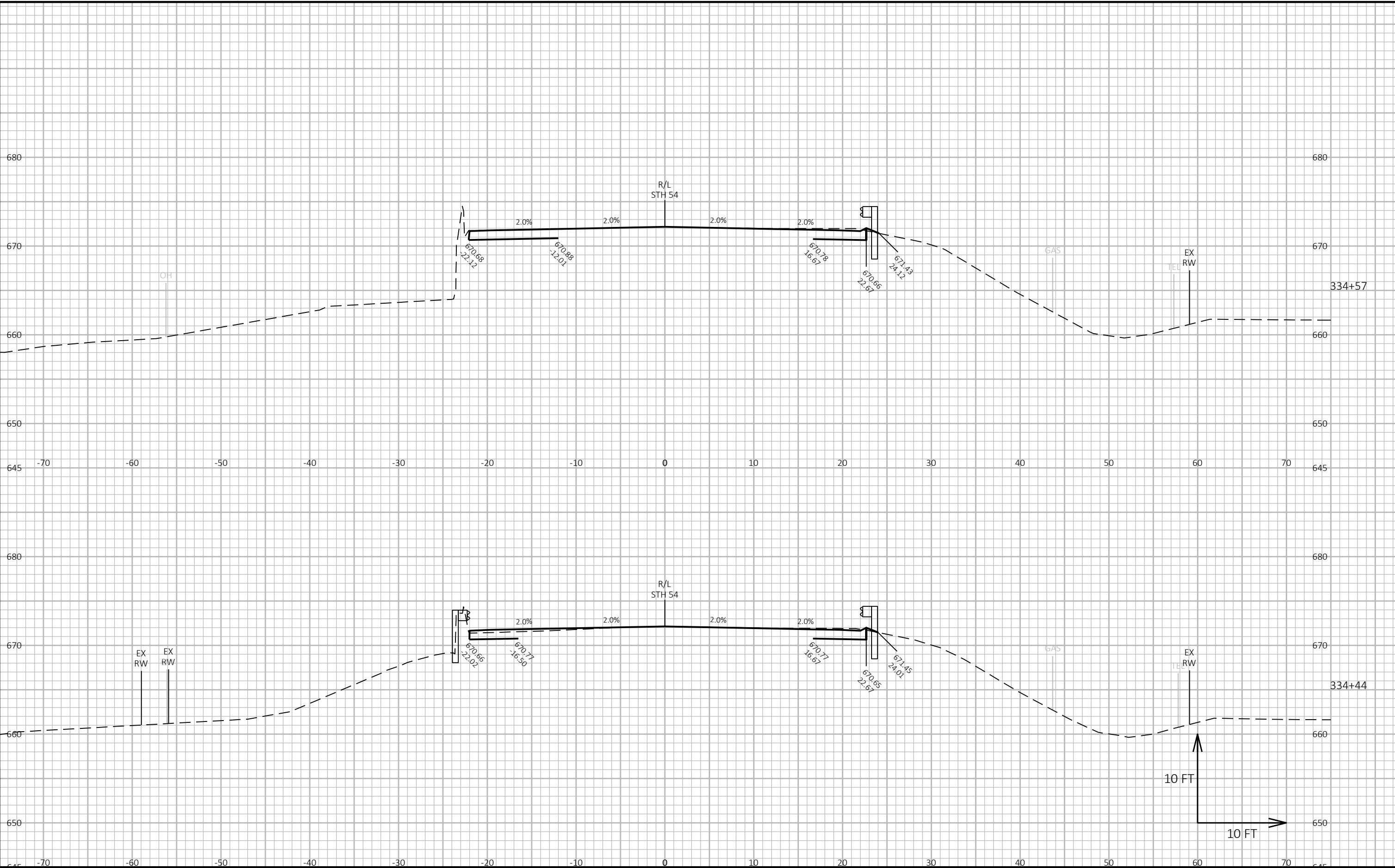


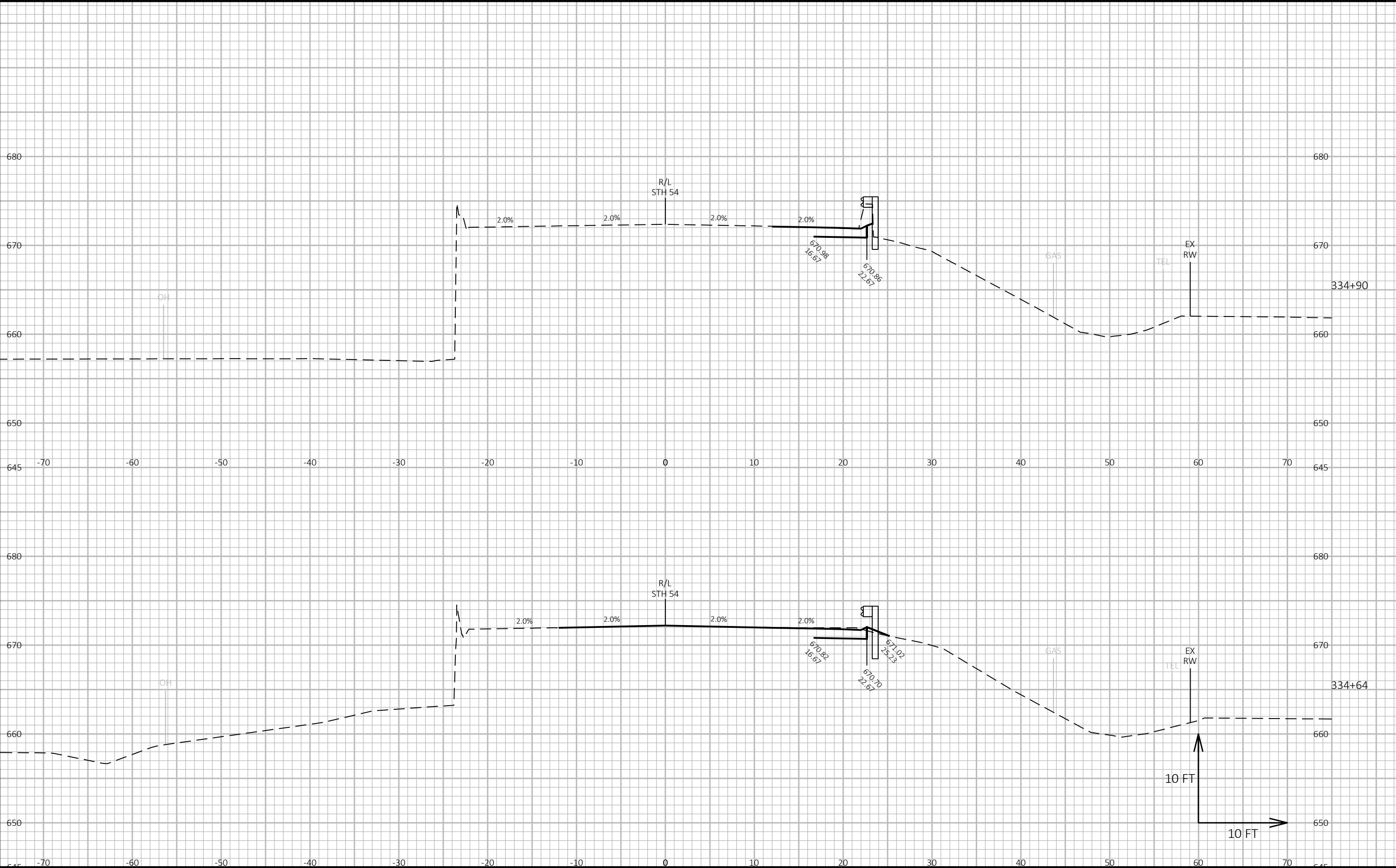






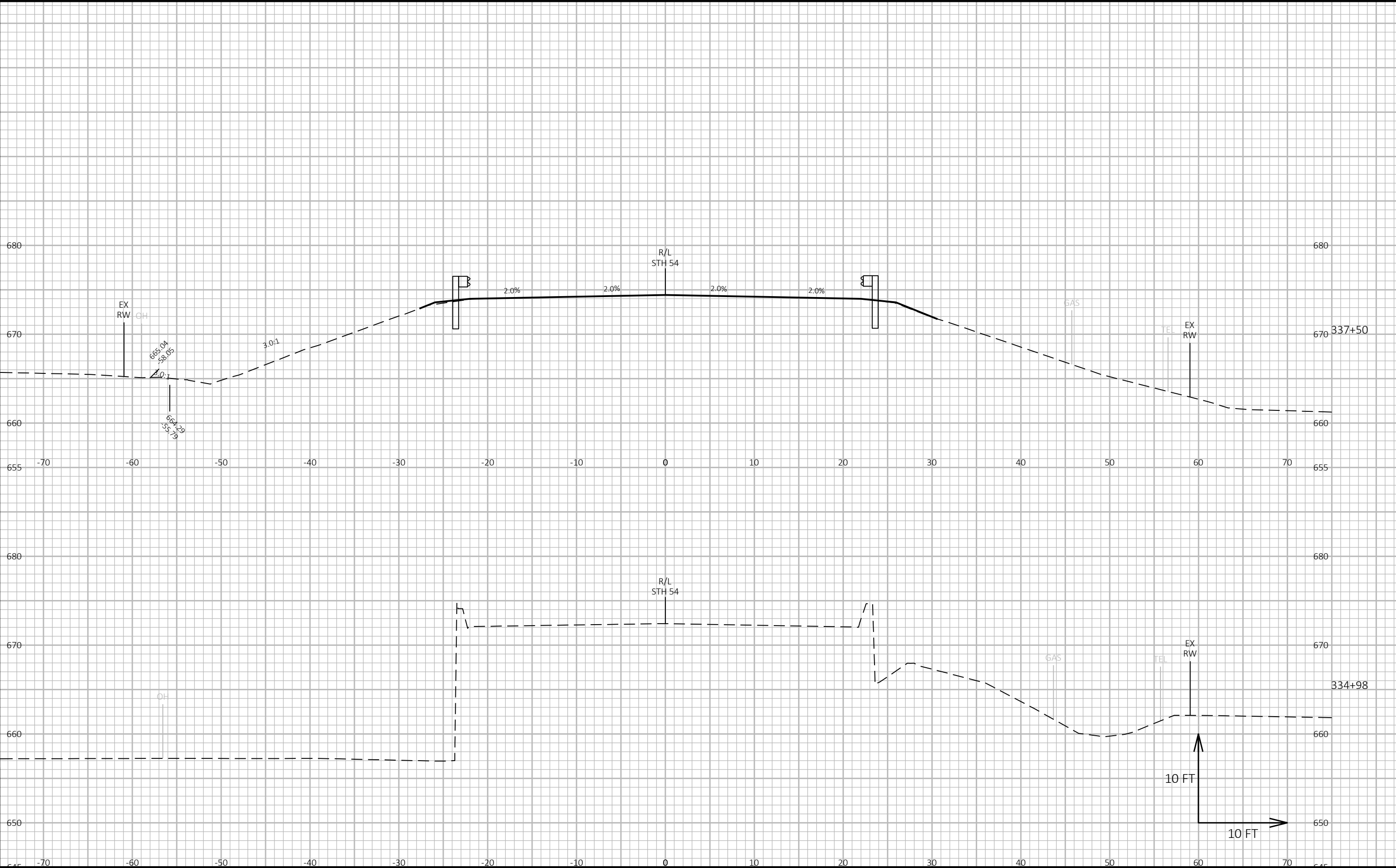






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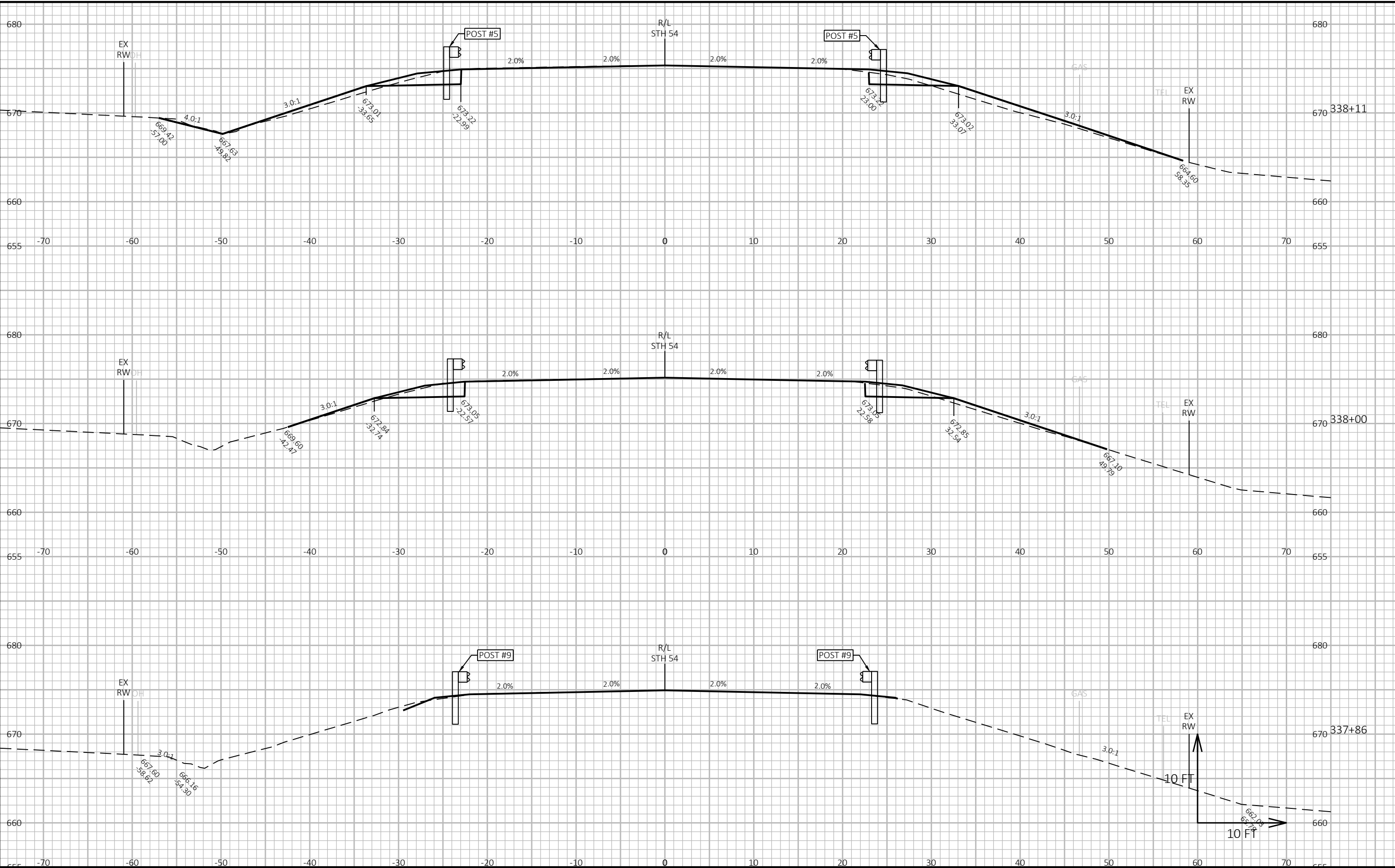
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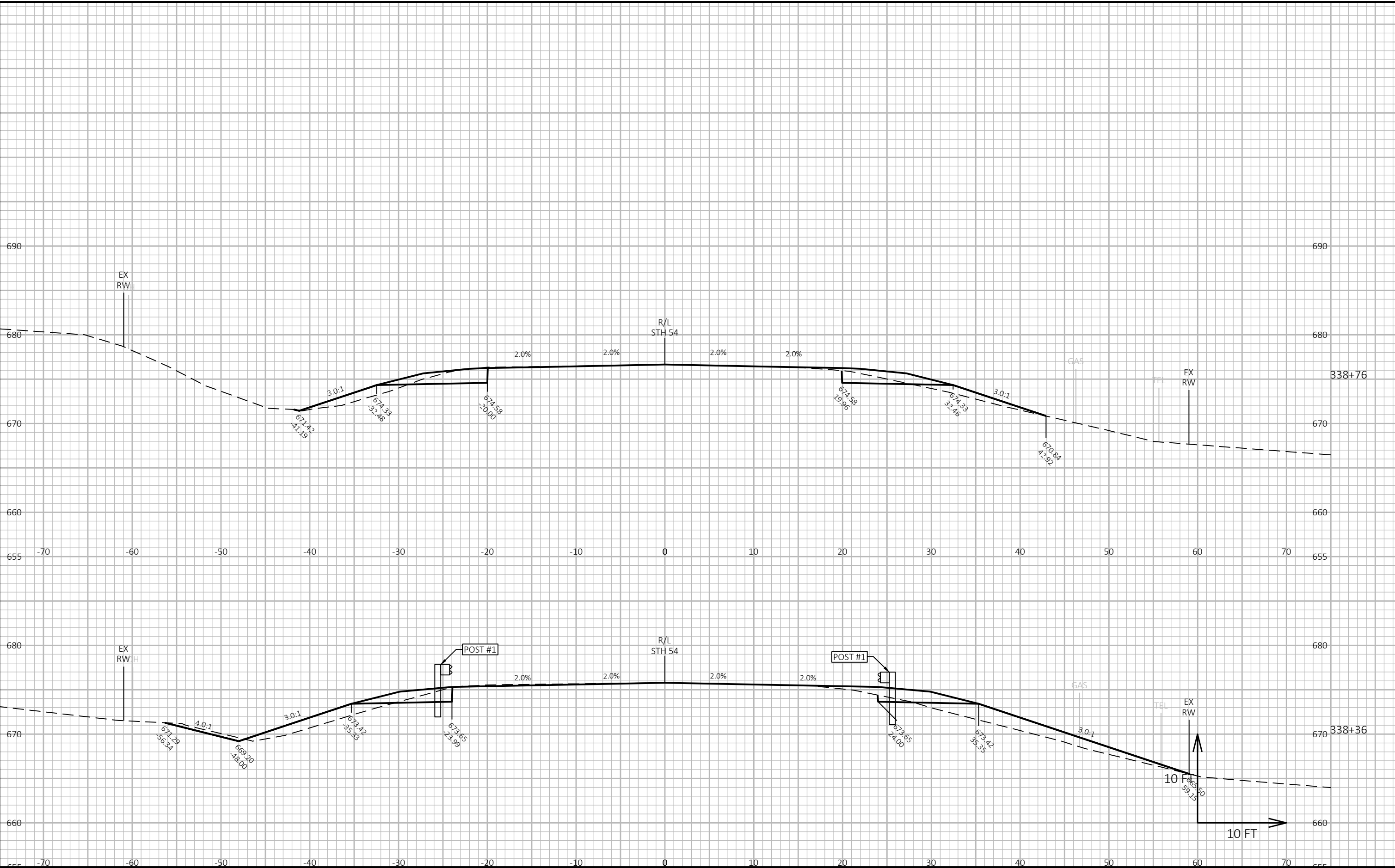


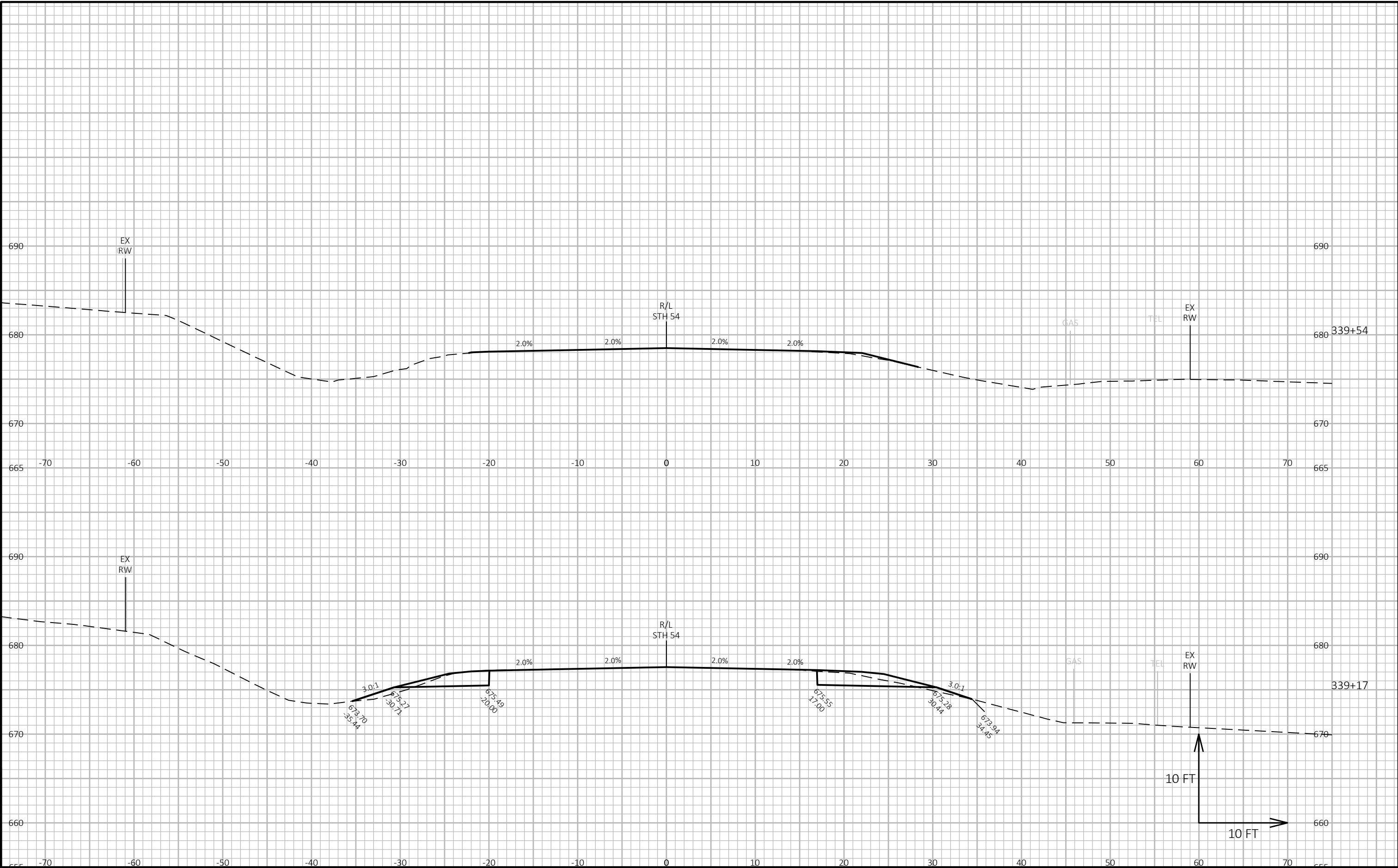
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET	E
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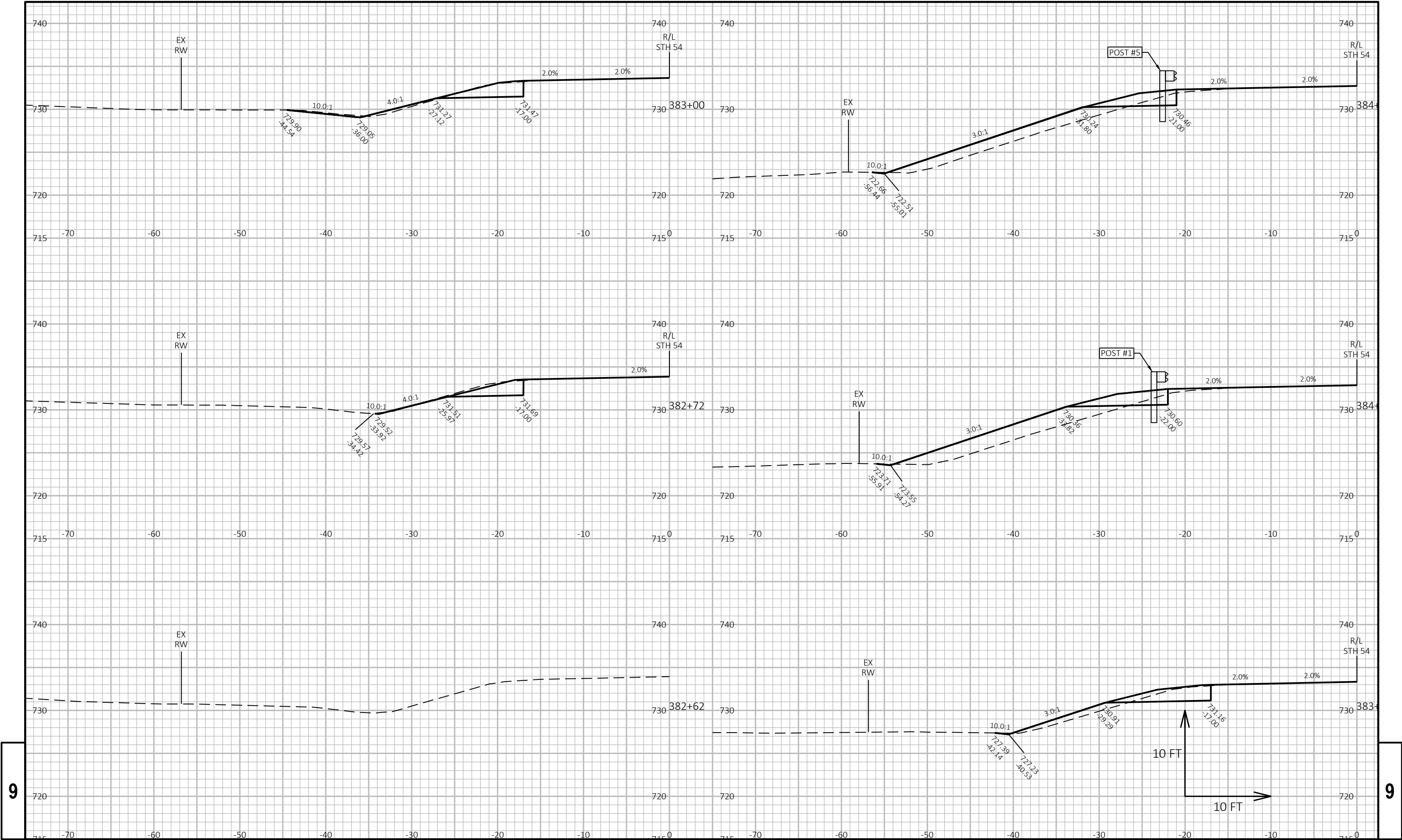






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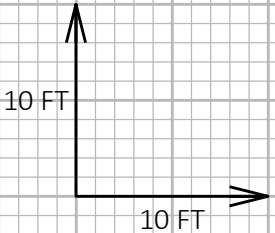
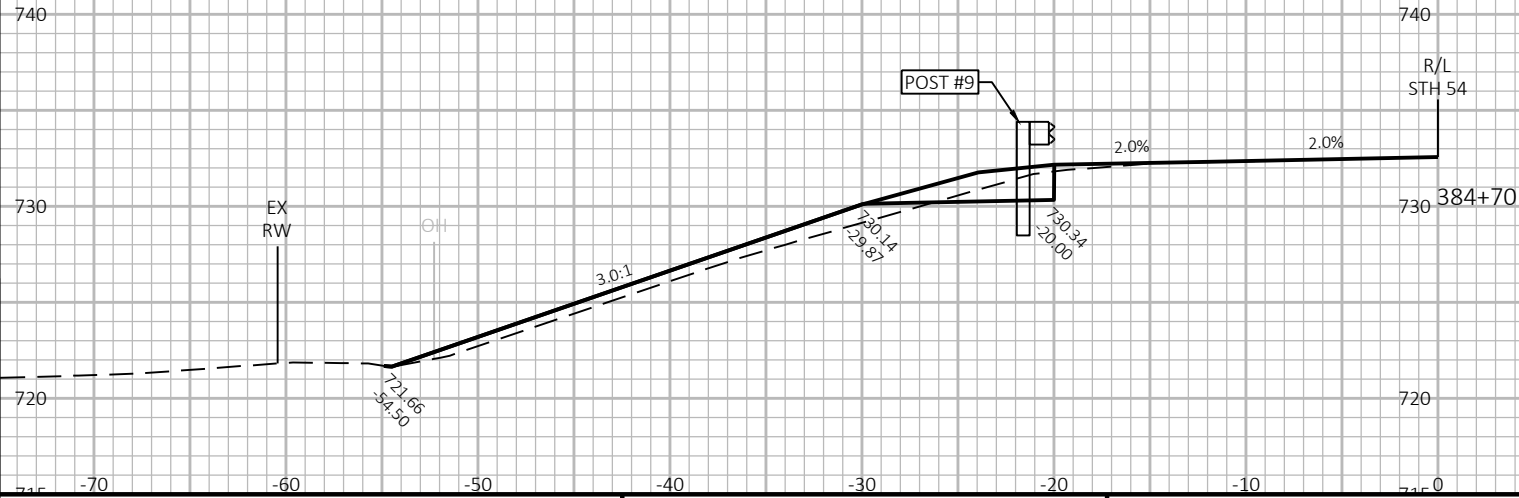
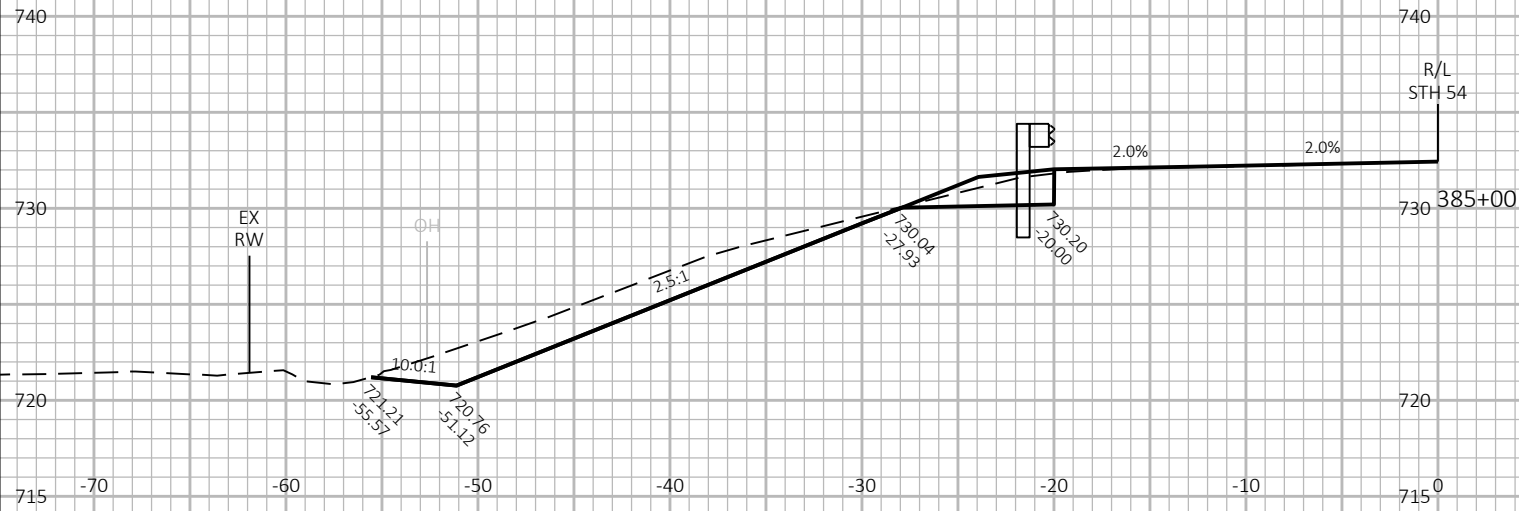
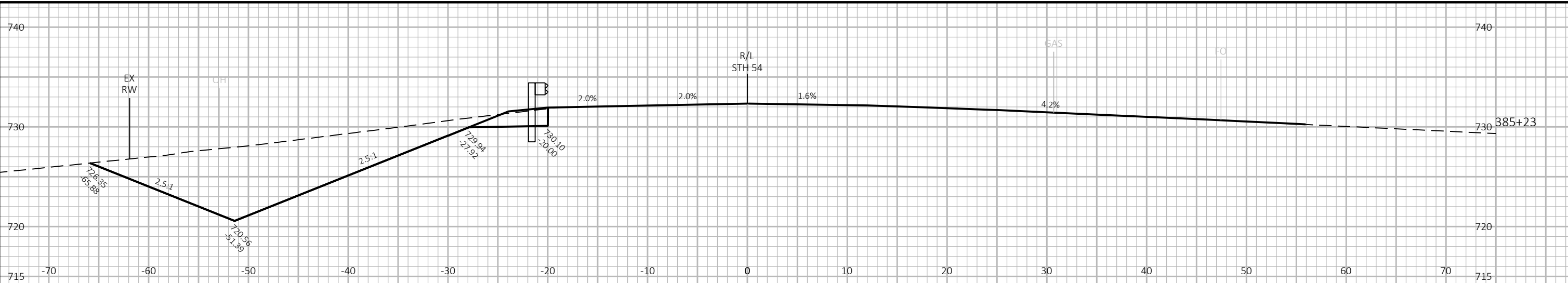
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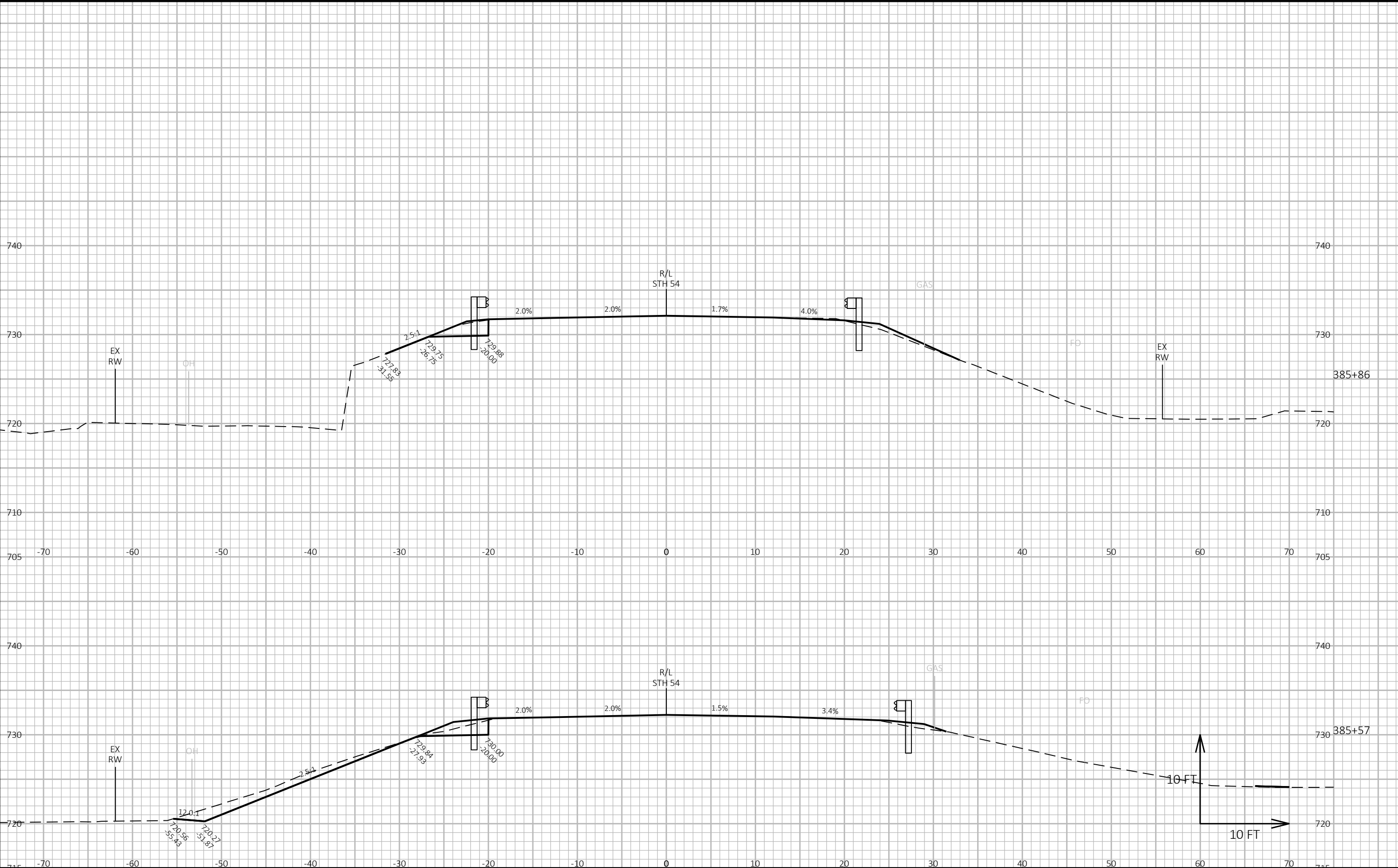
PROJECT NO:	4130-11-71	HWY:	STH 54	COUNTY:	KEWAUNEE	CROSS SECTIONS:	STH 54	SHEET	E
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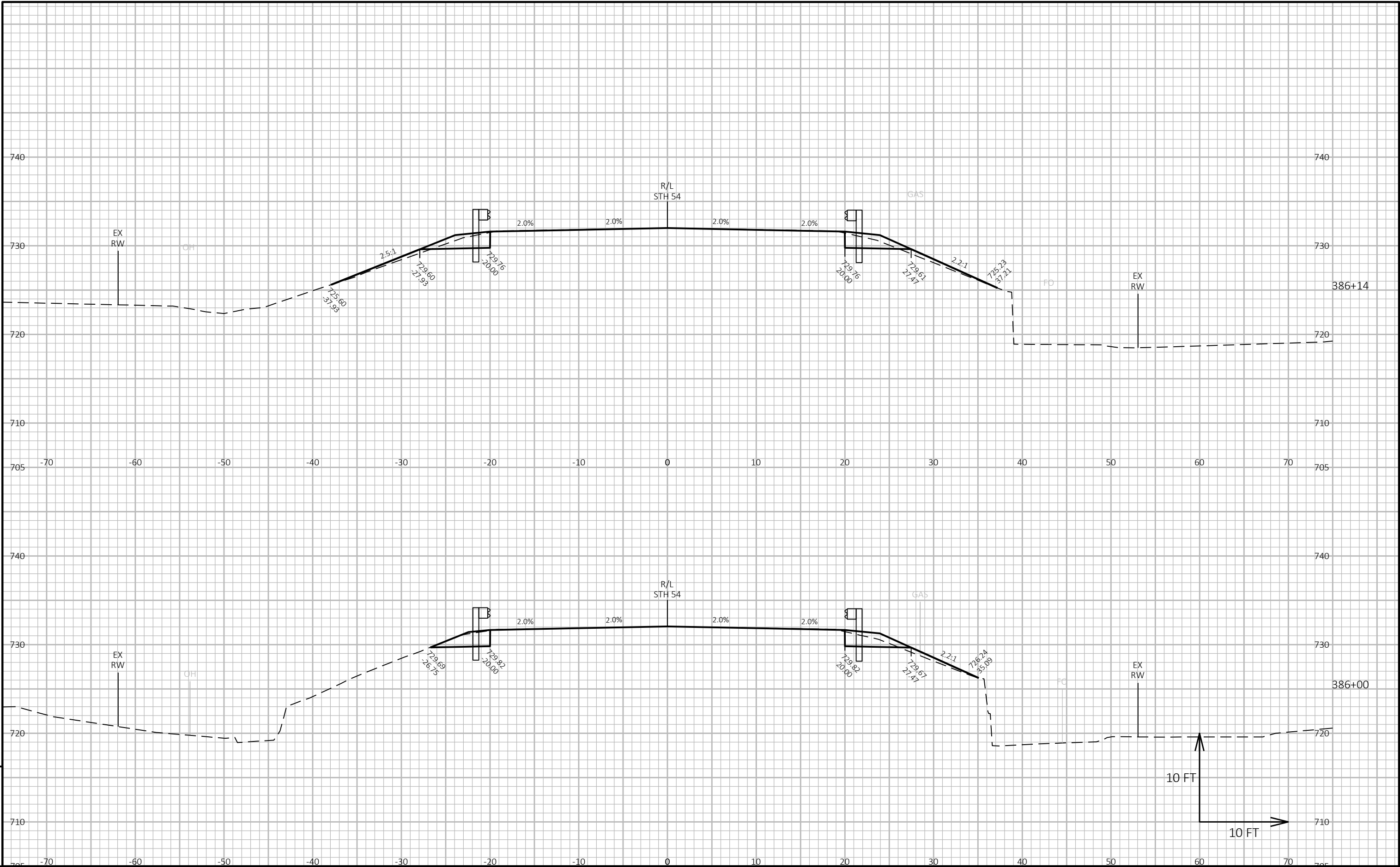


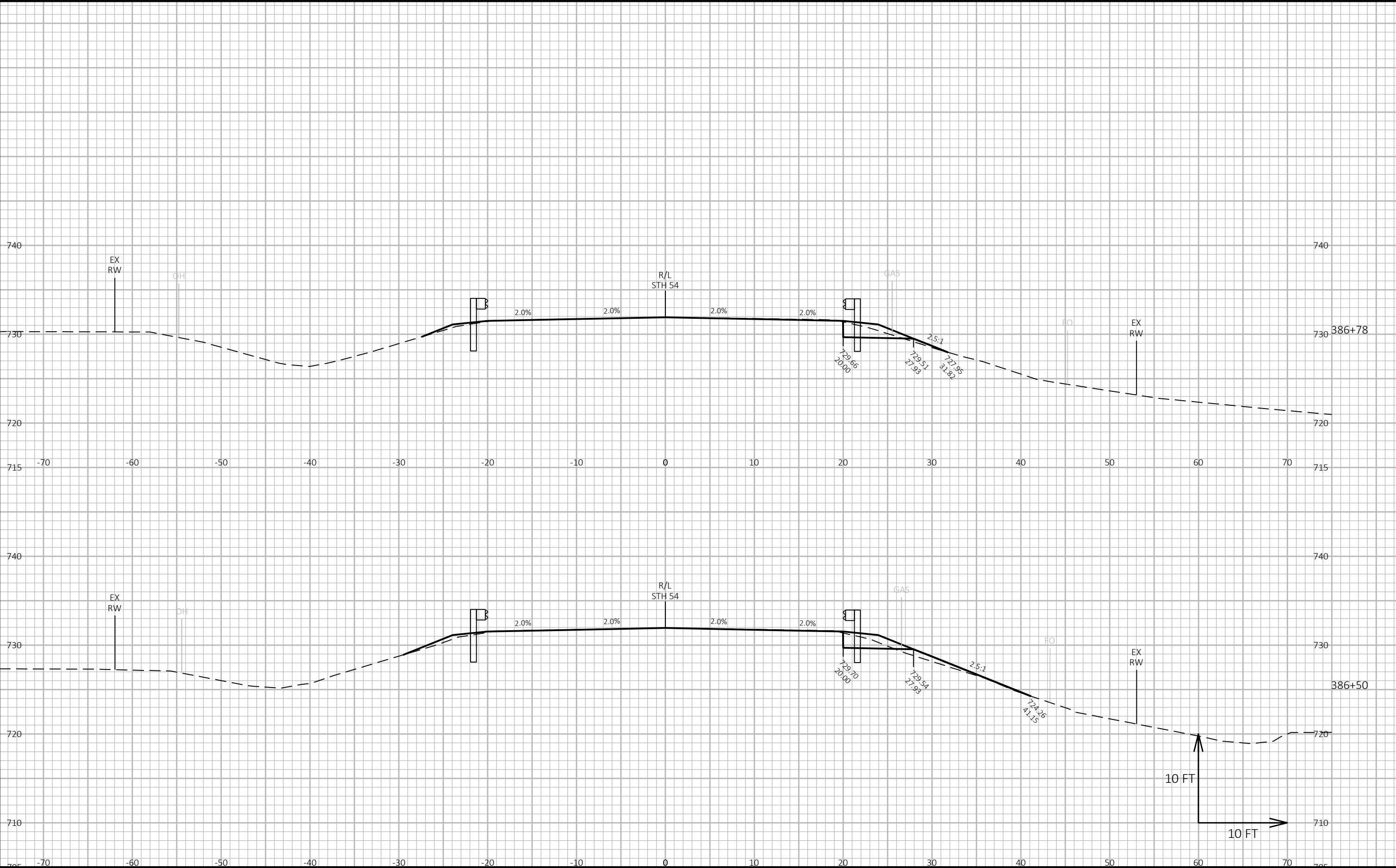
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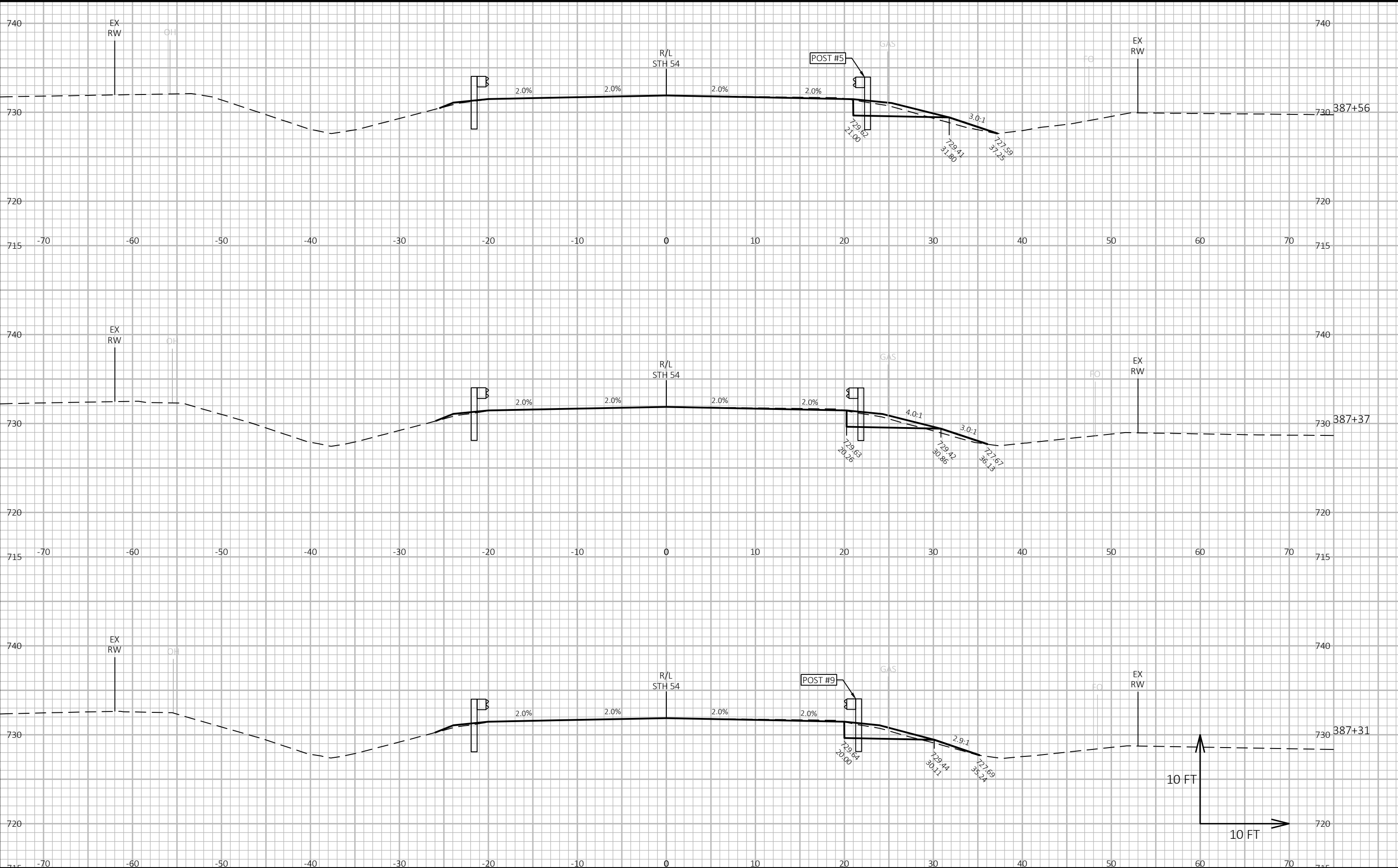
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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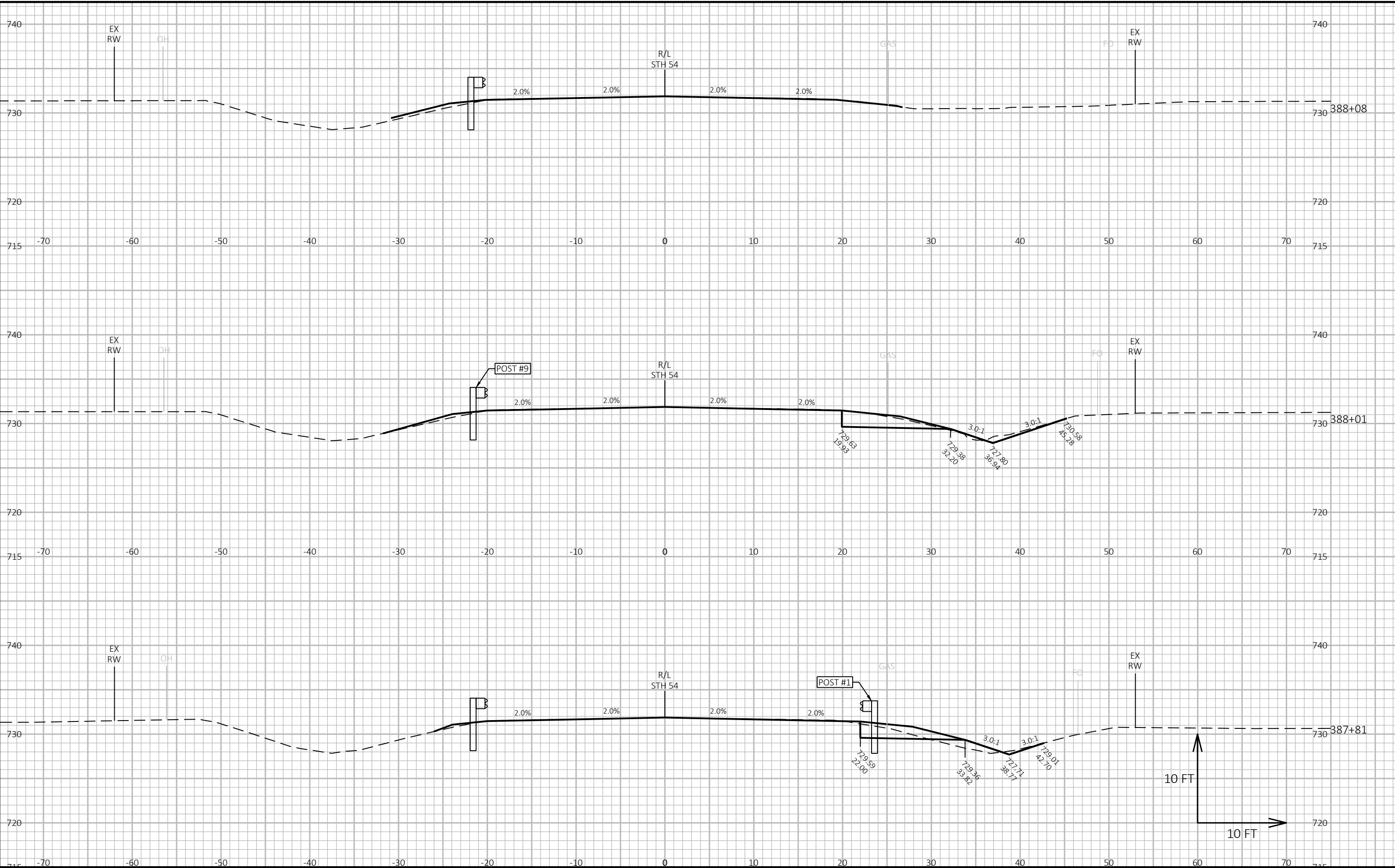


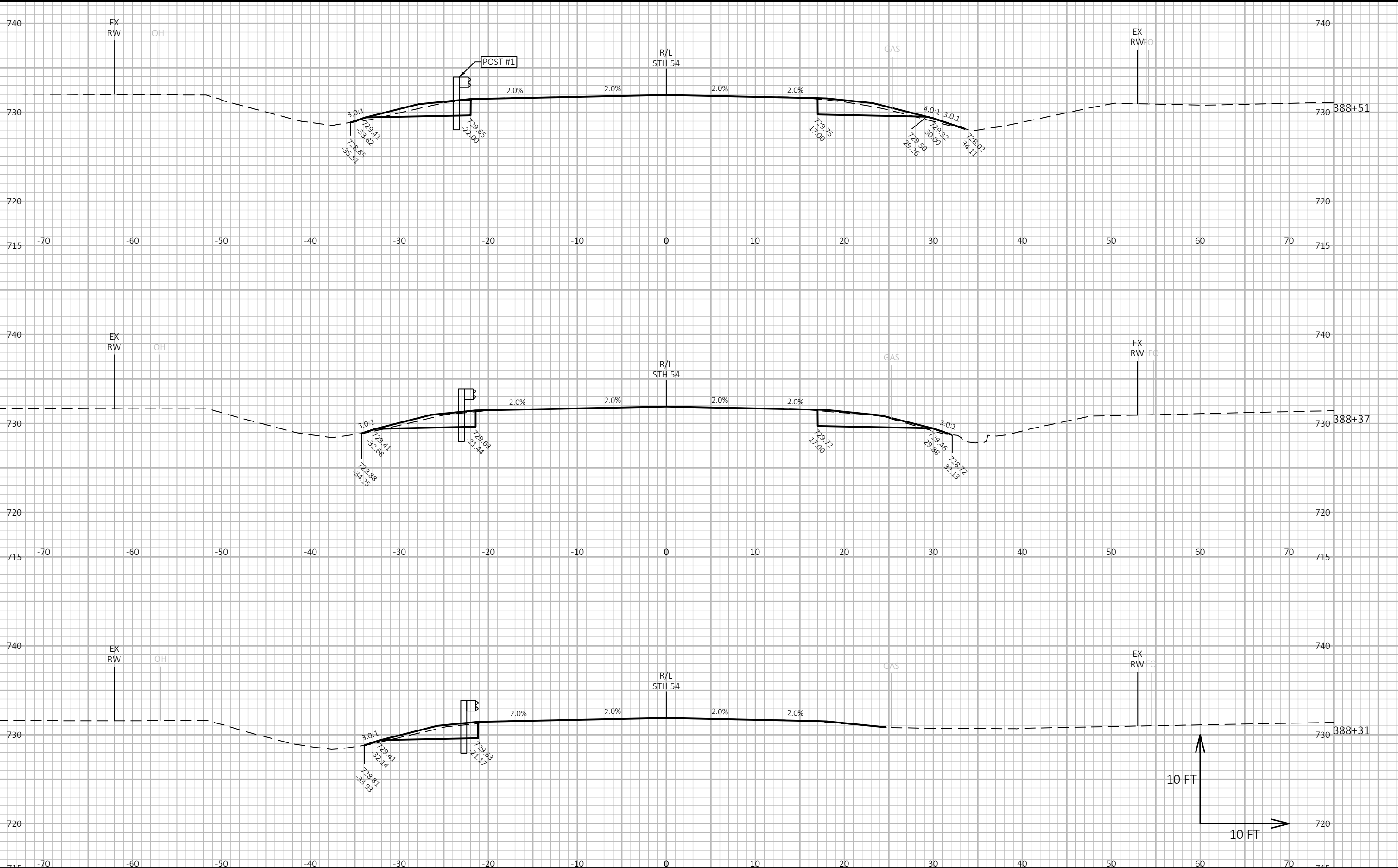


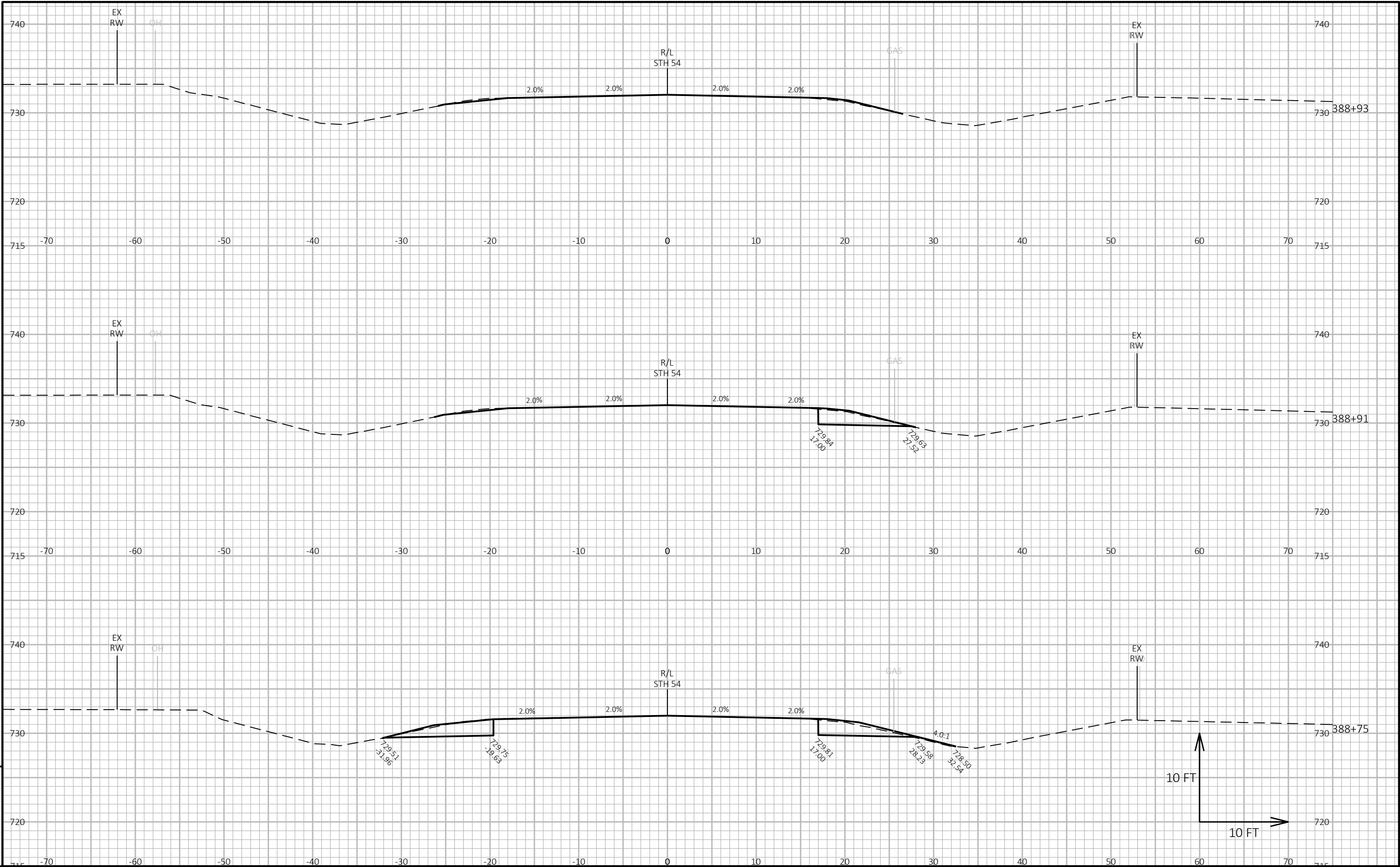


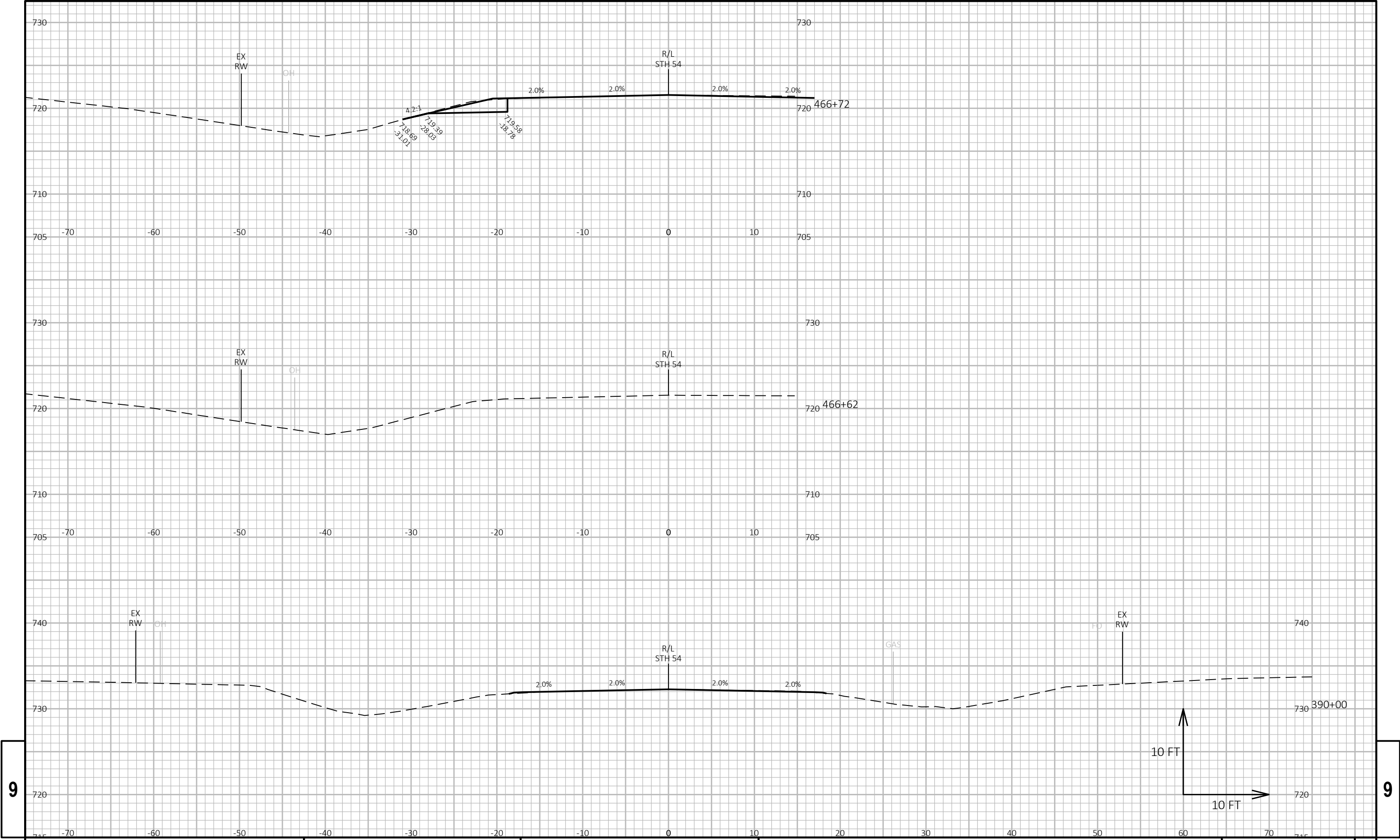


PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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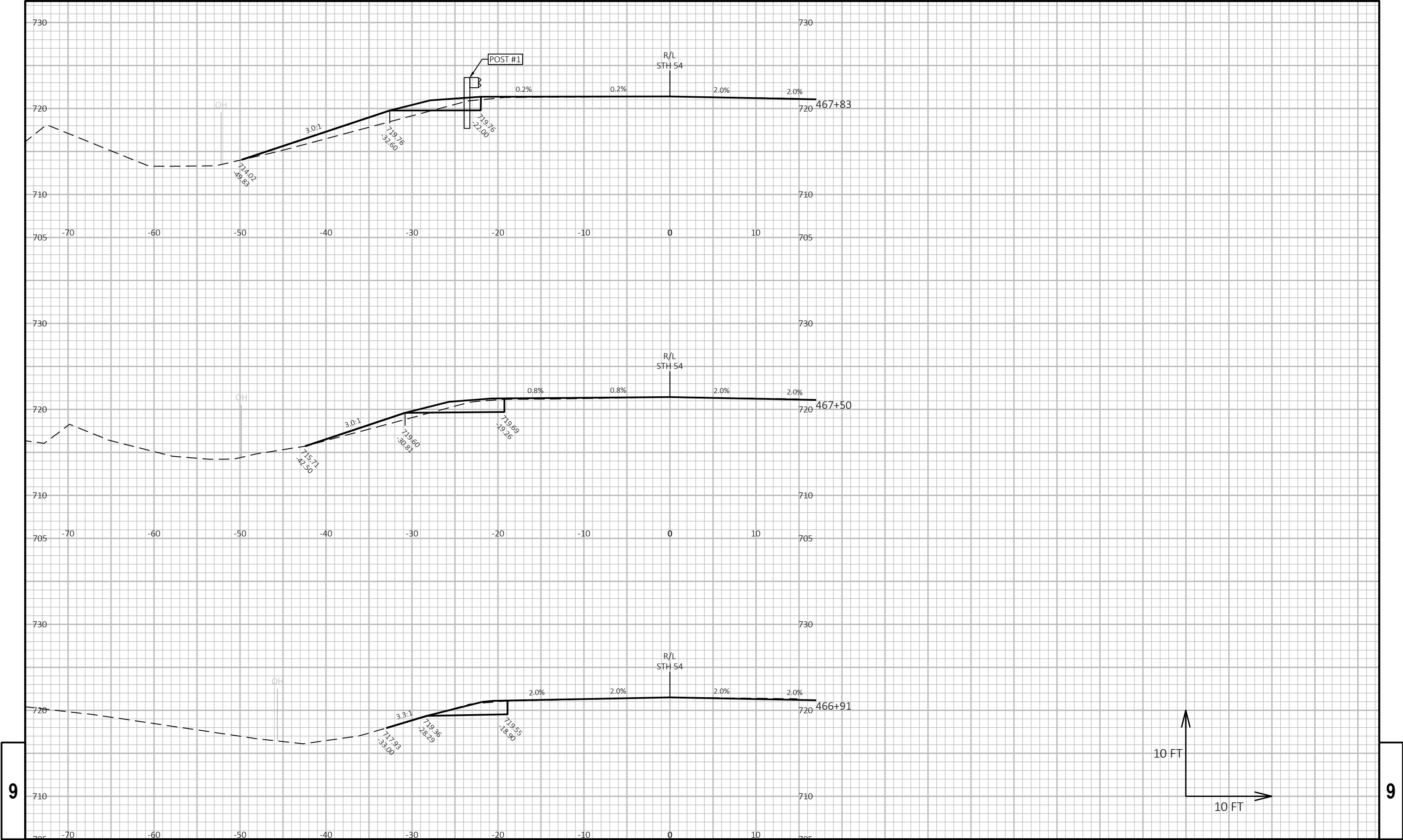




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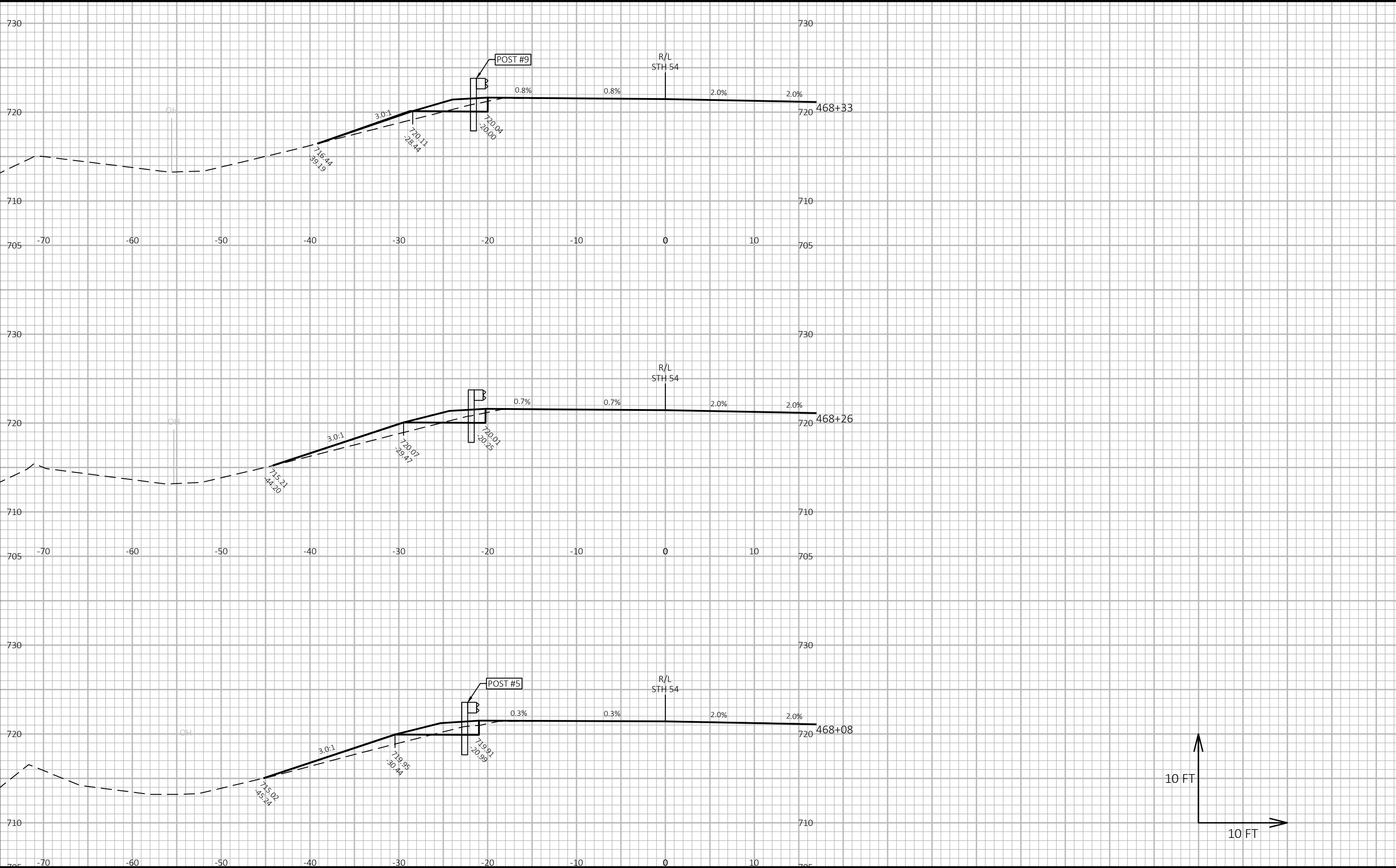
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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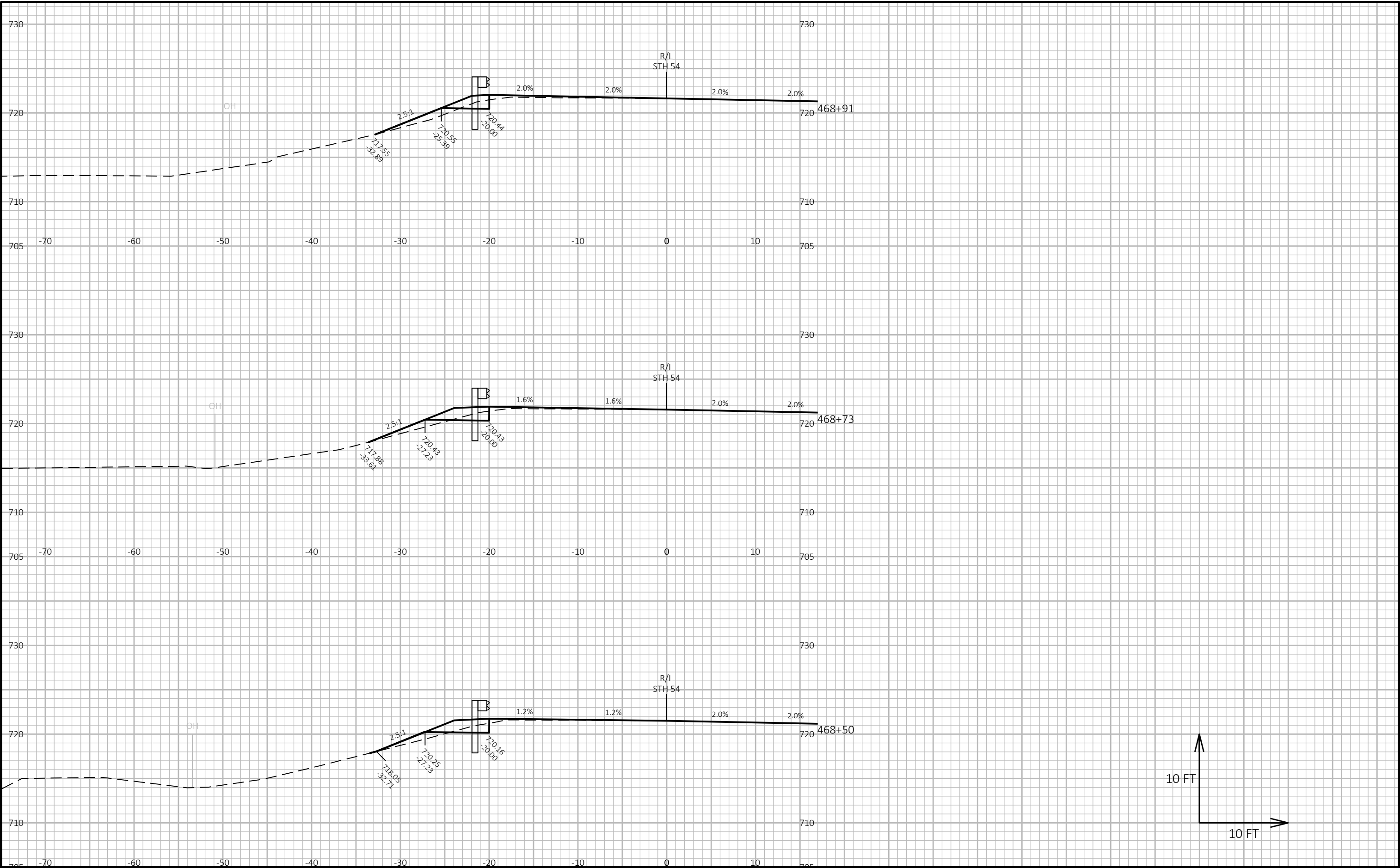
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PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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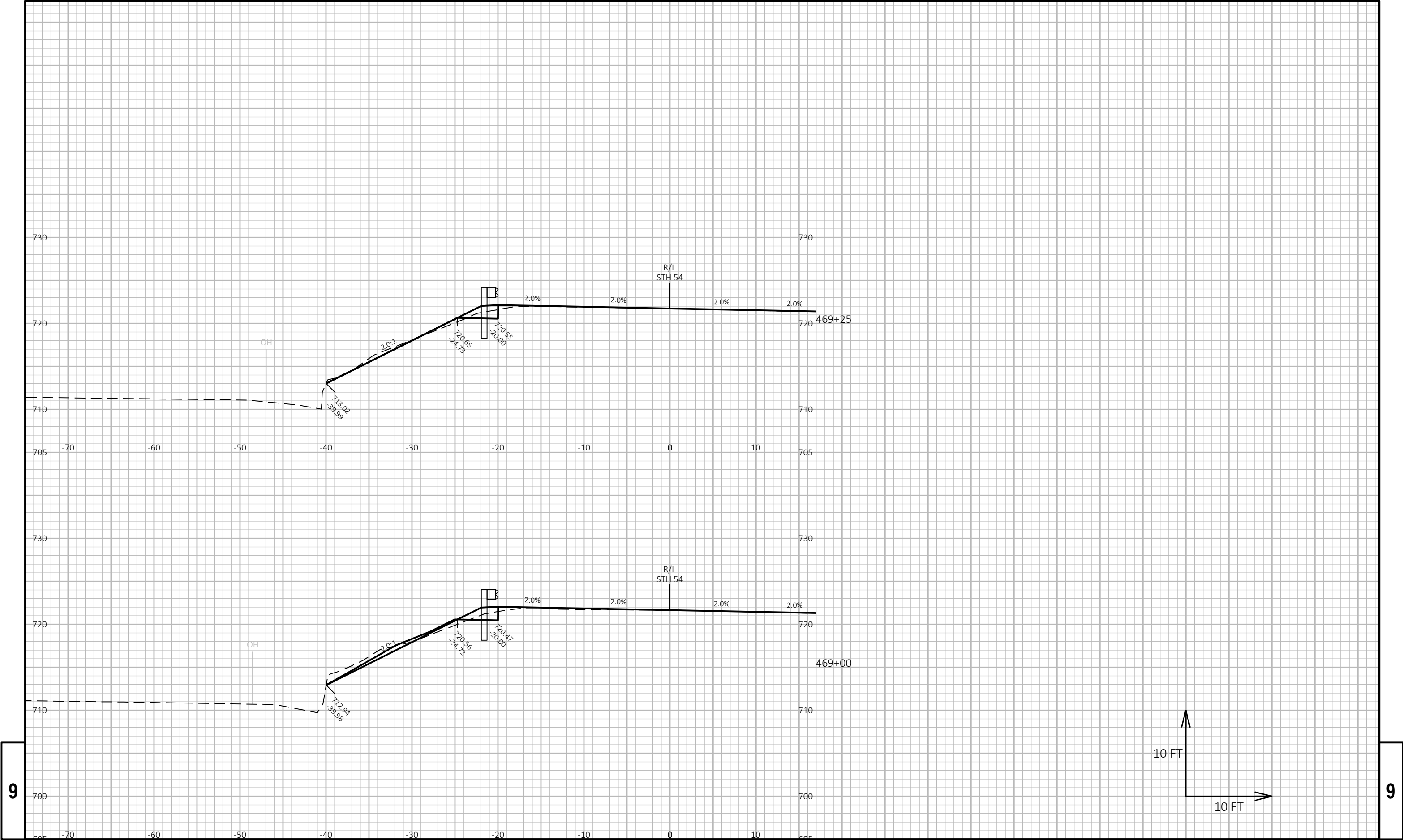


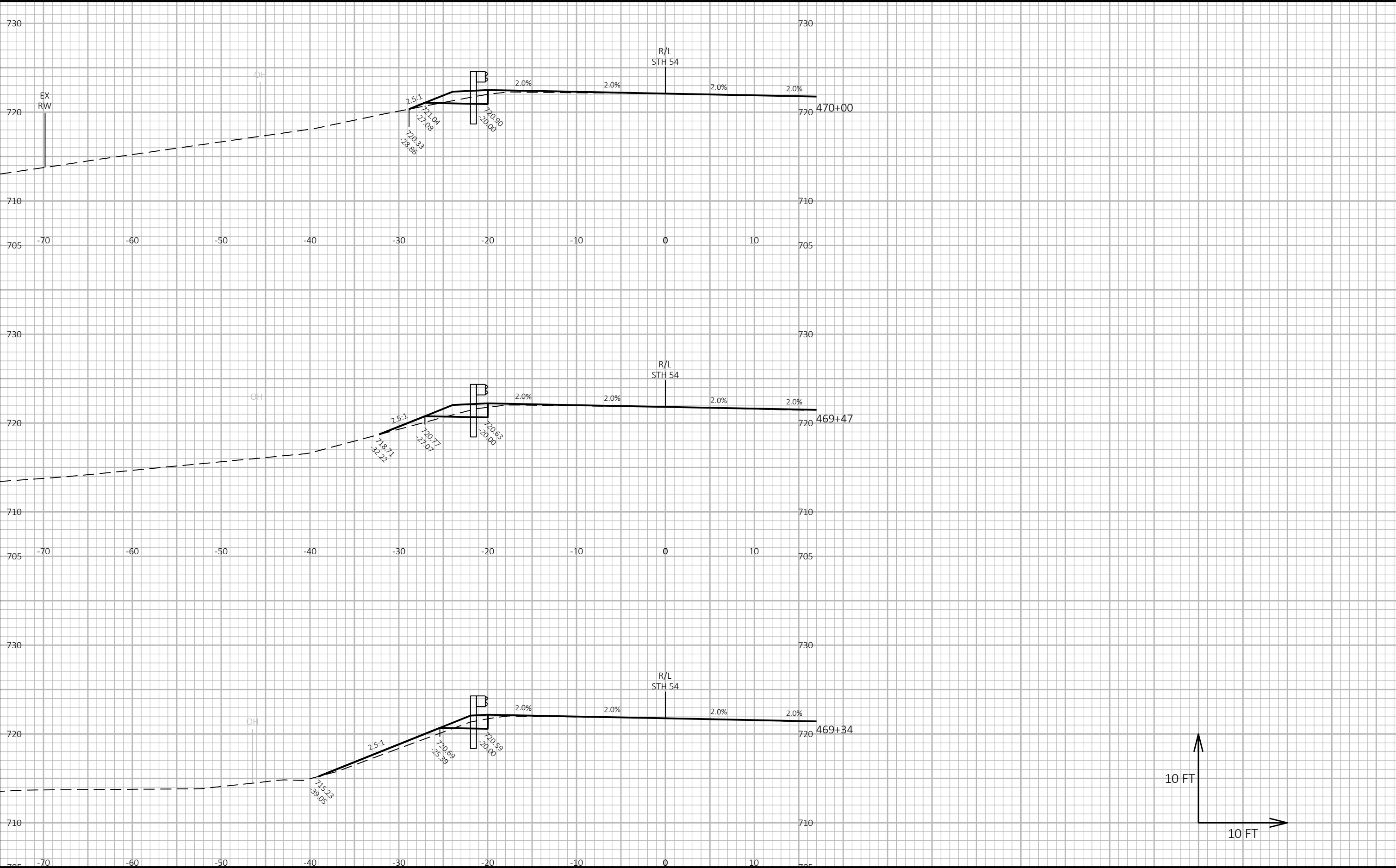
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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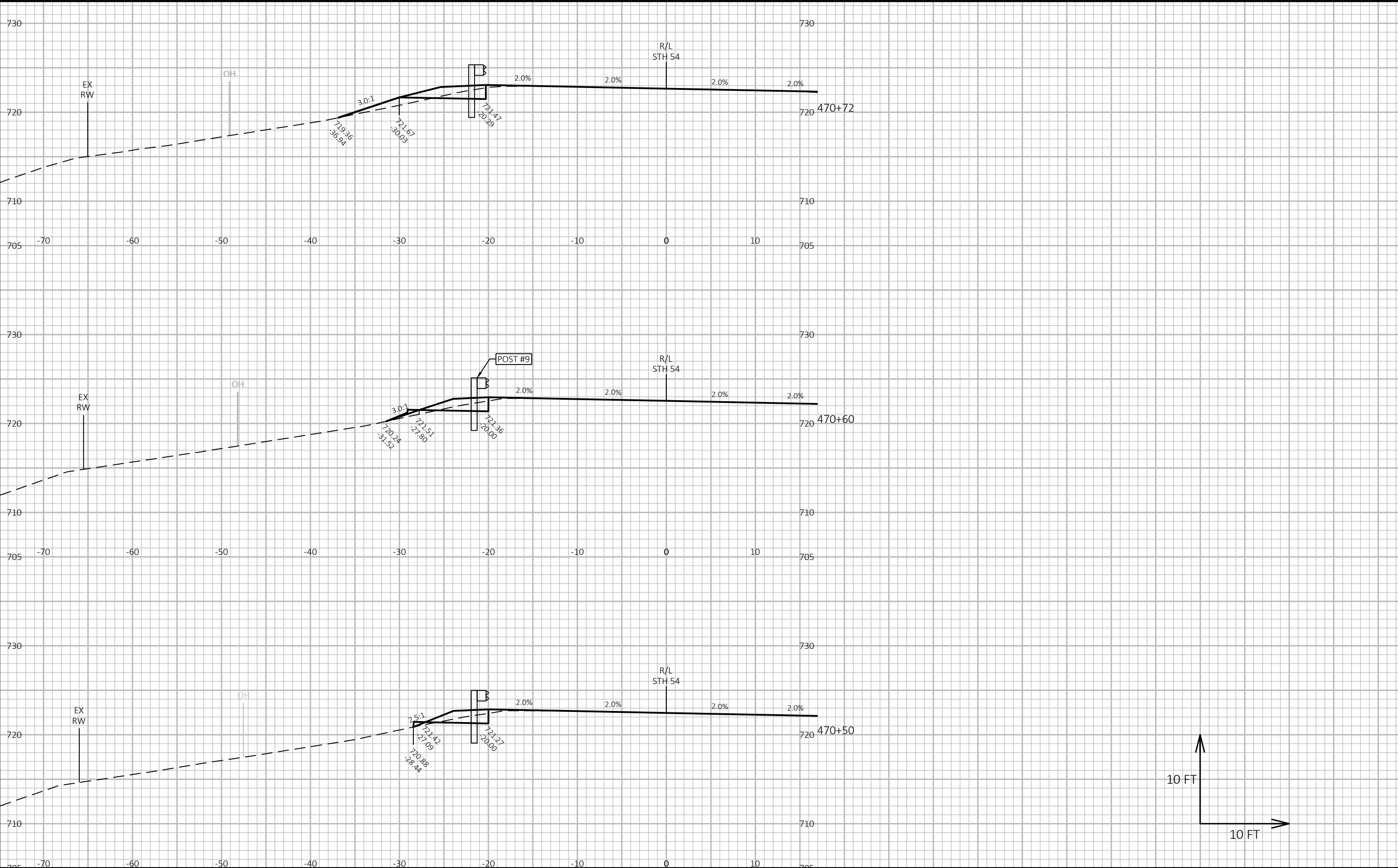
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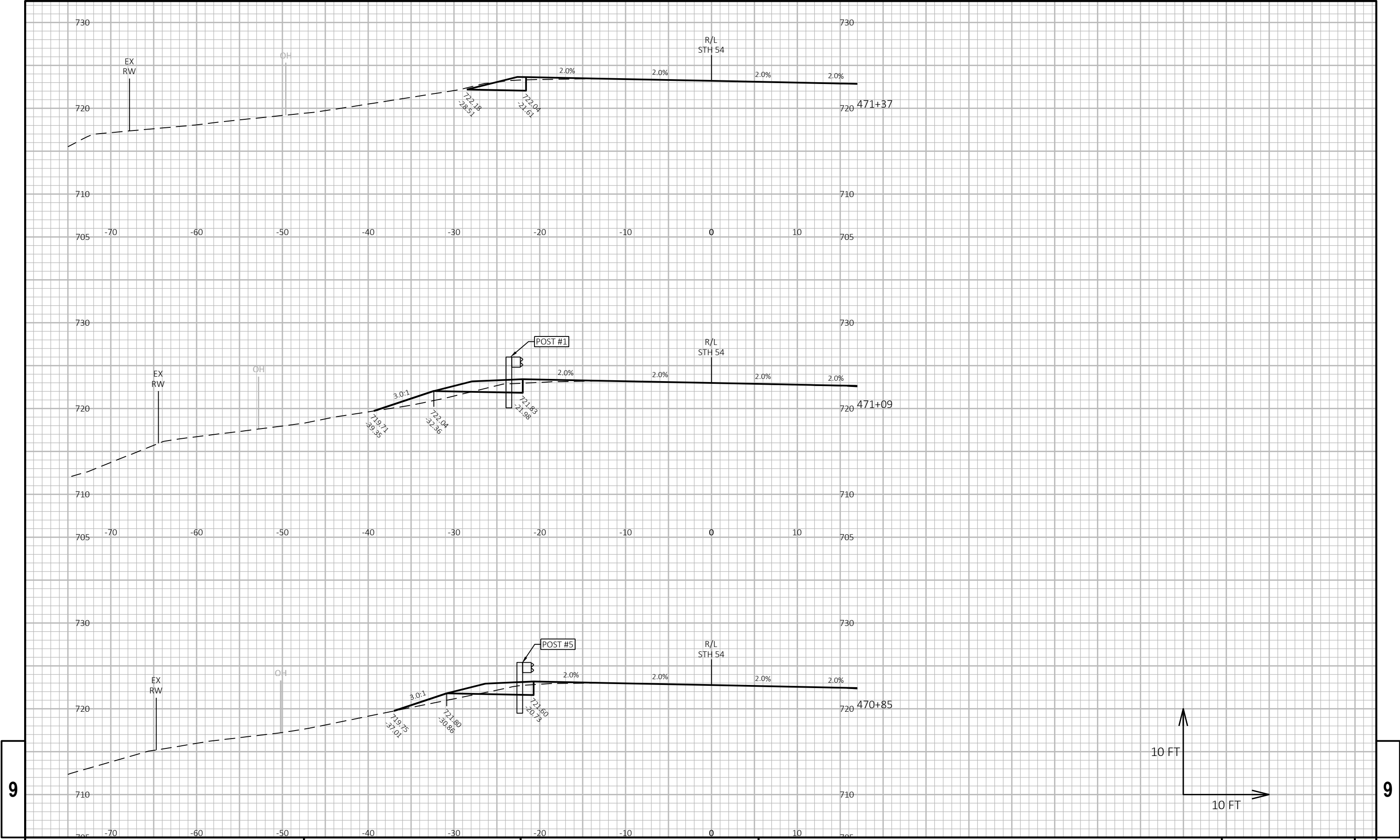
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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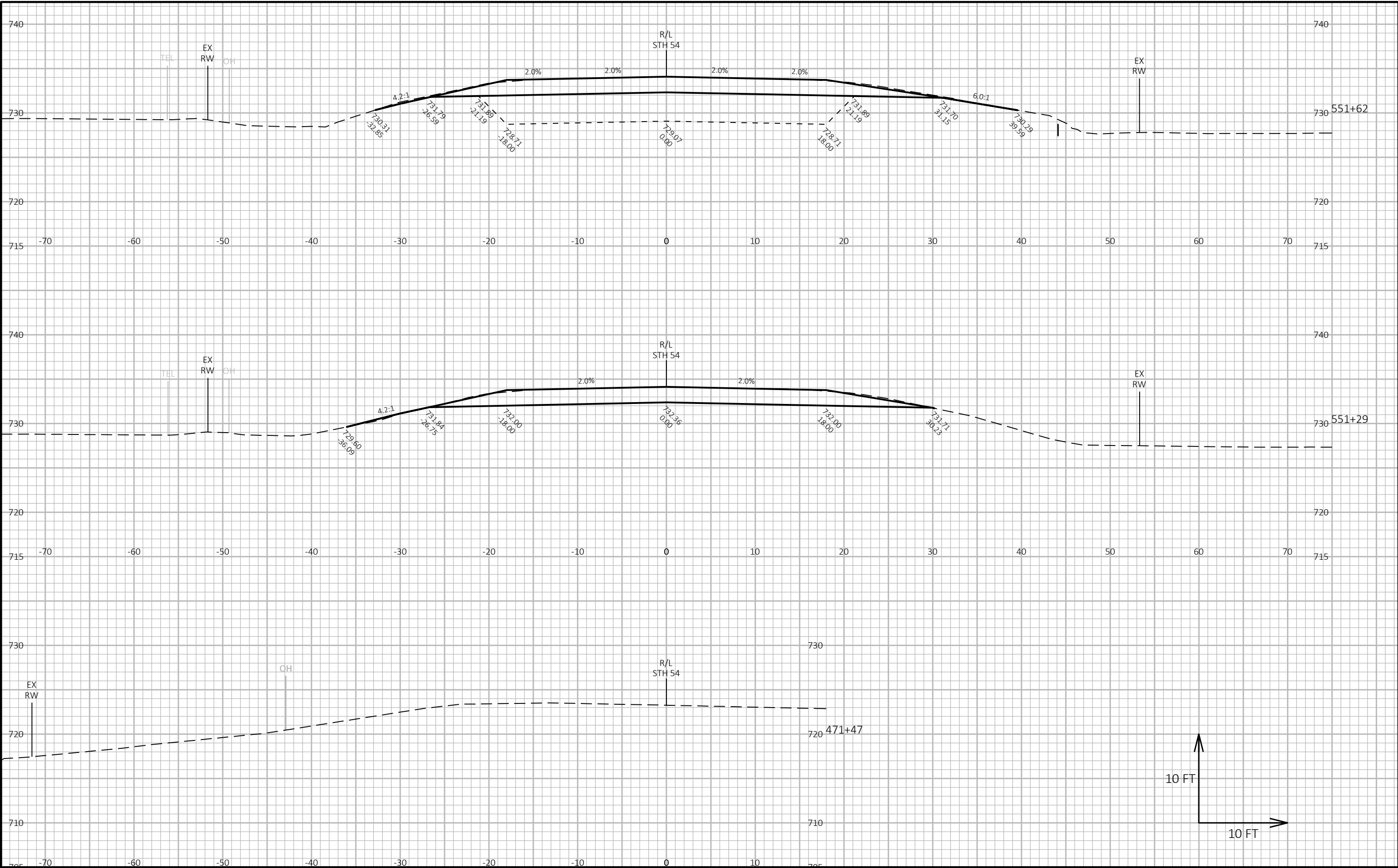
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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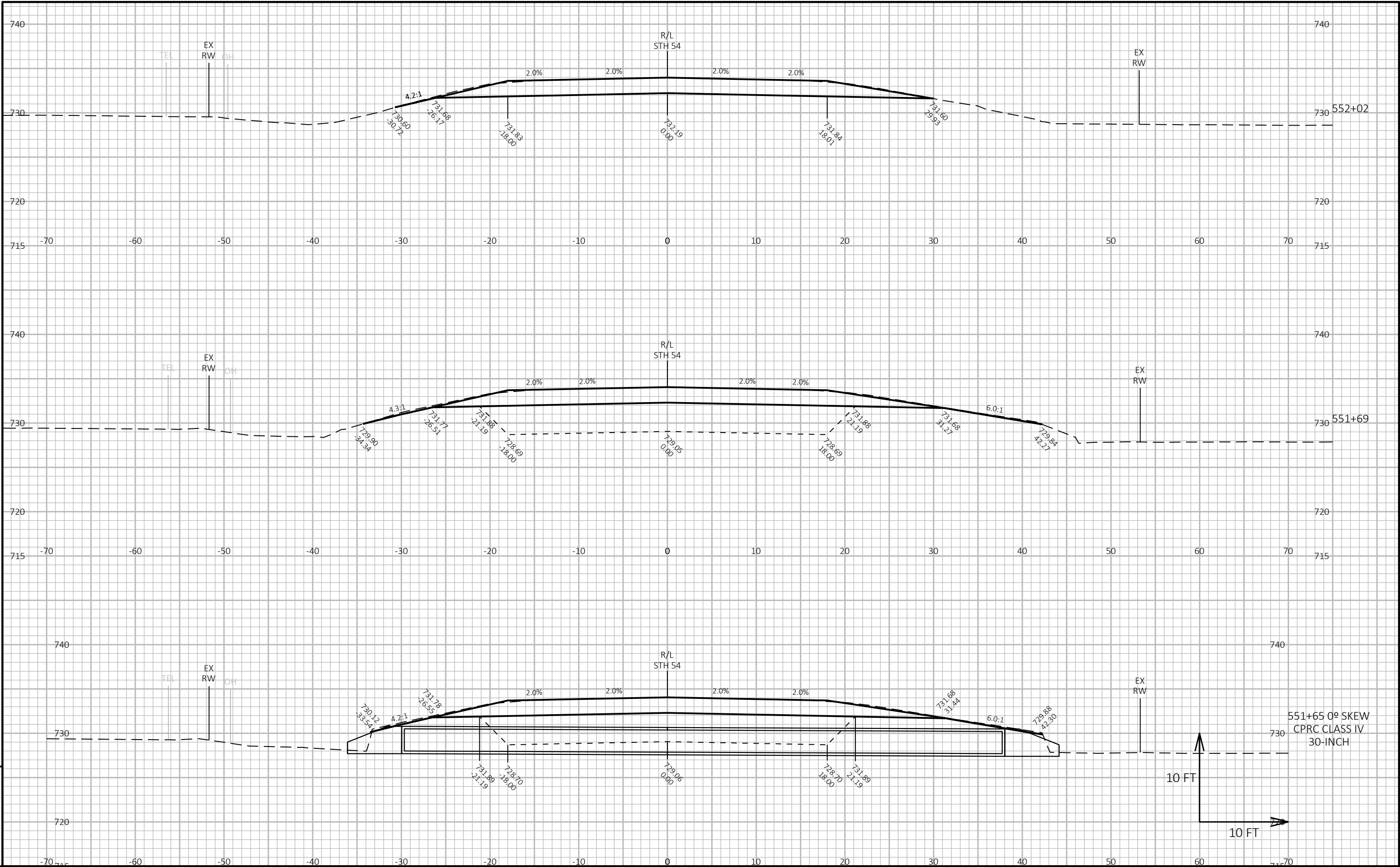


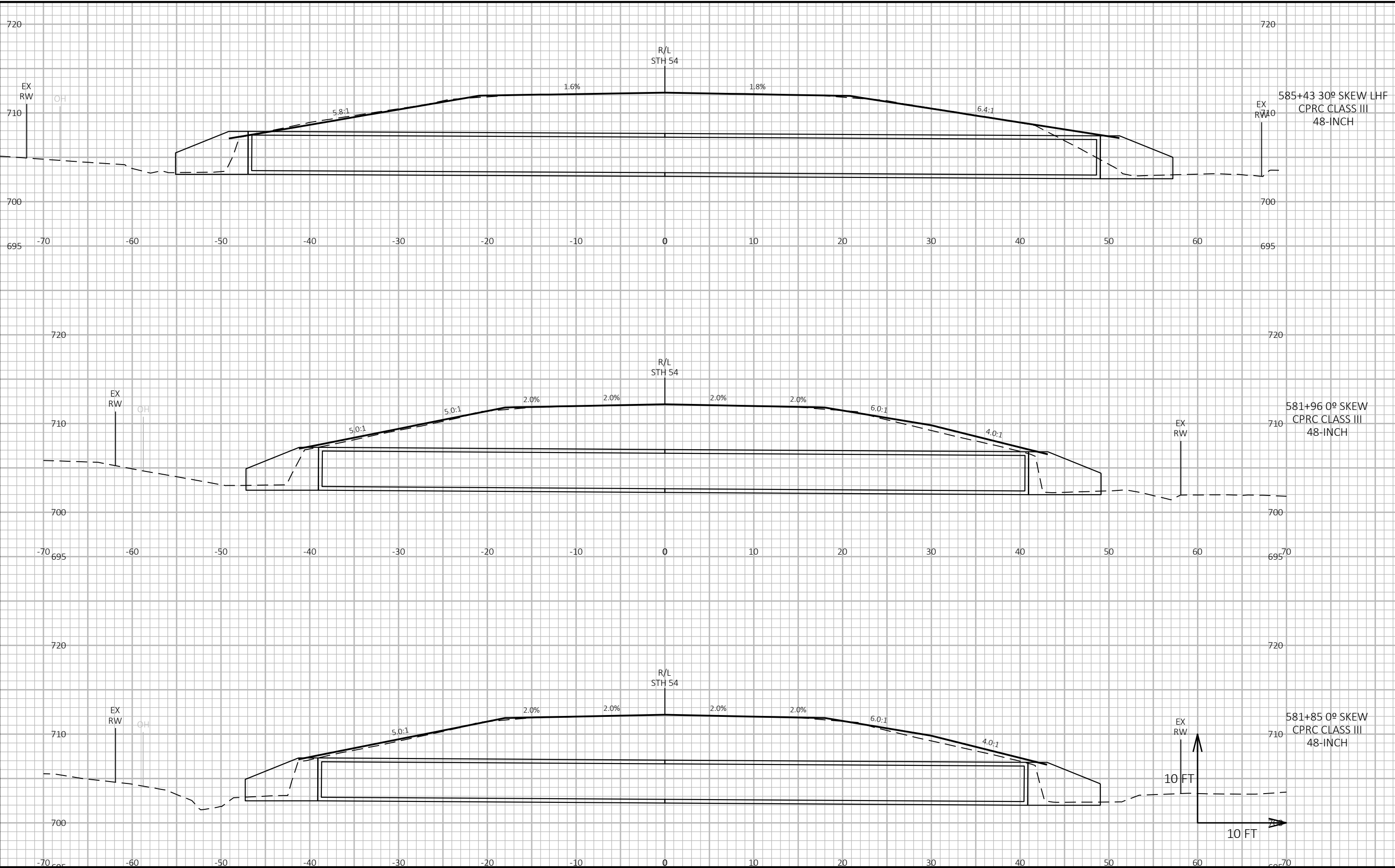
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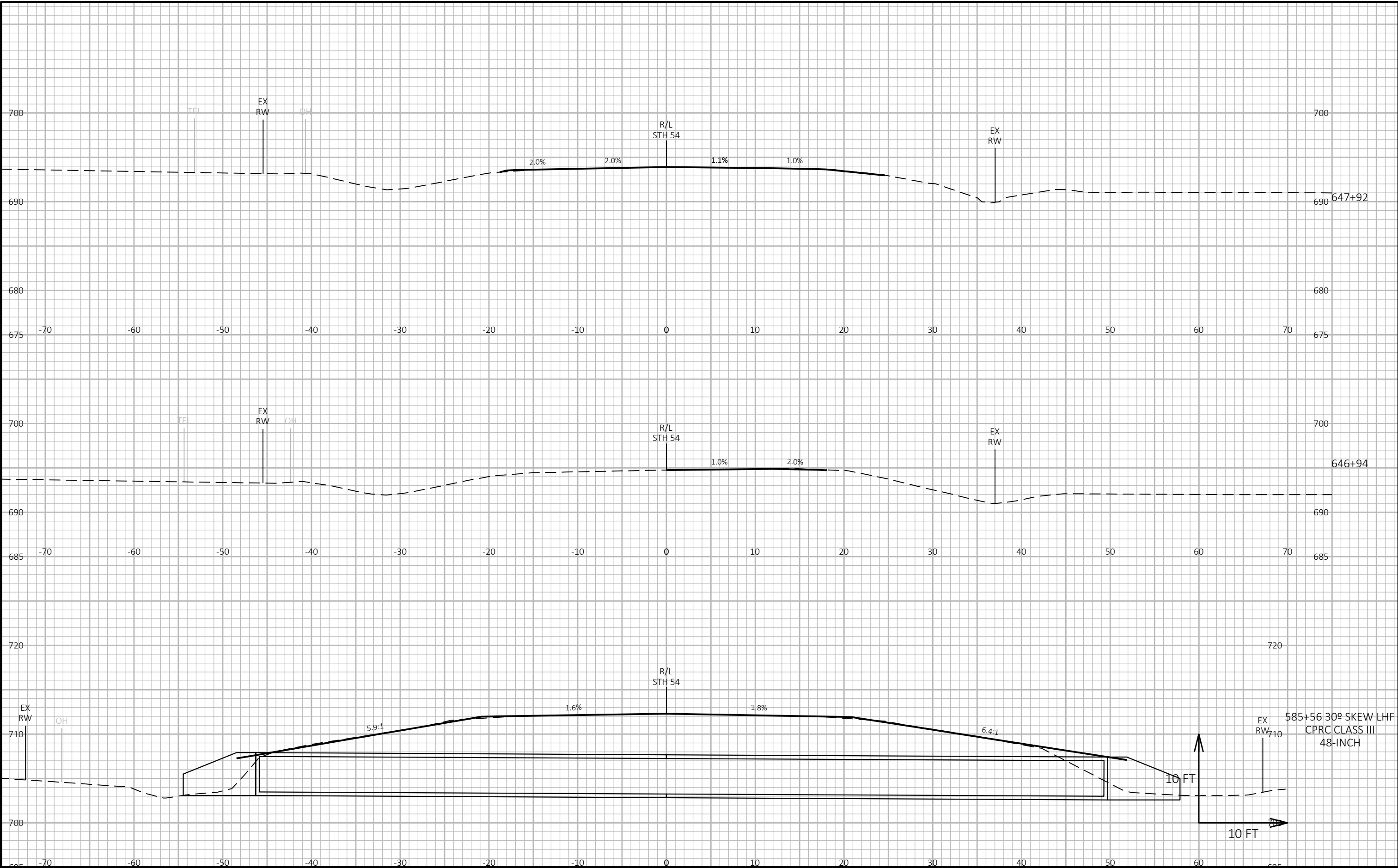
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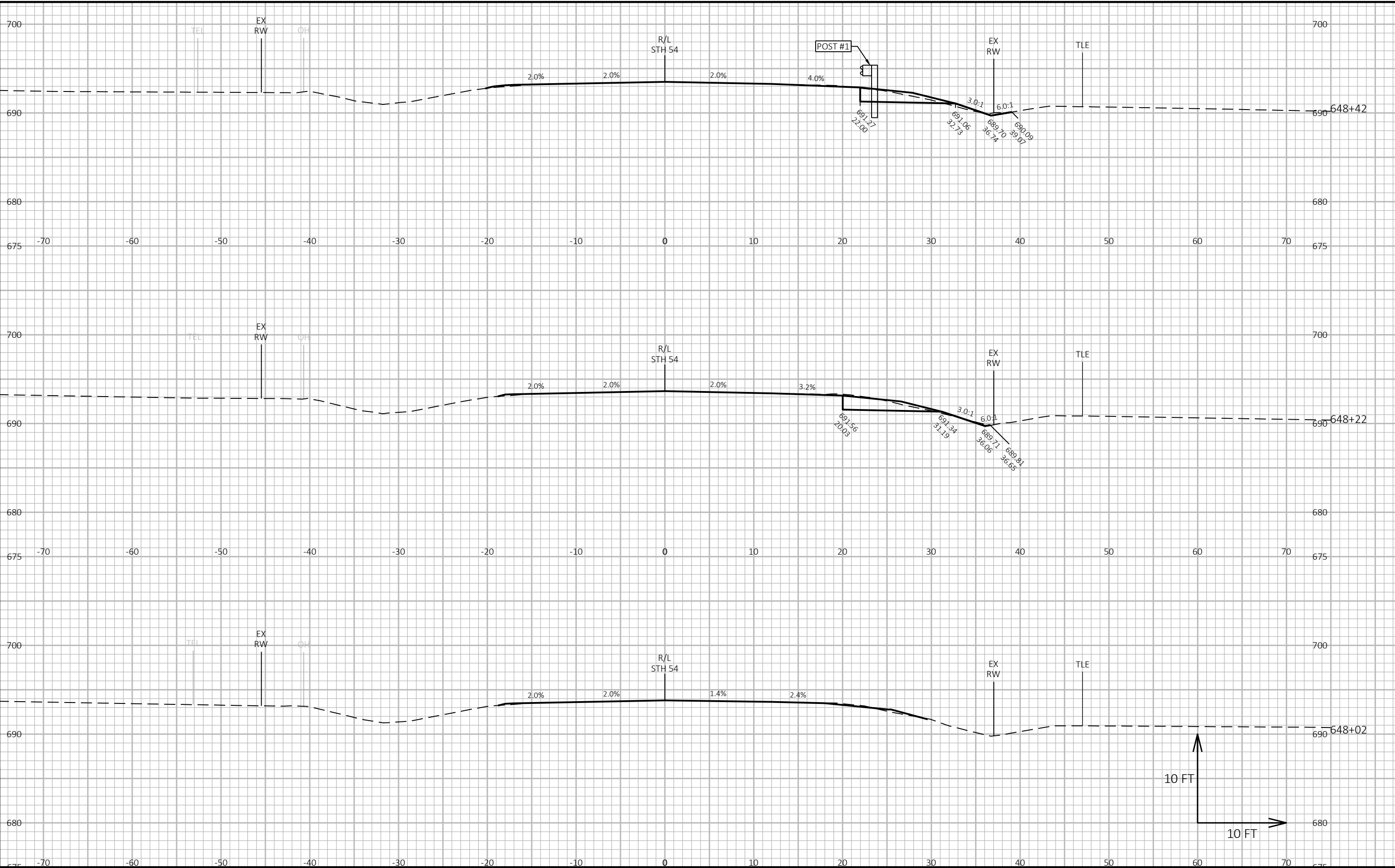




PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET 9
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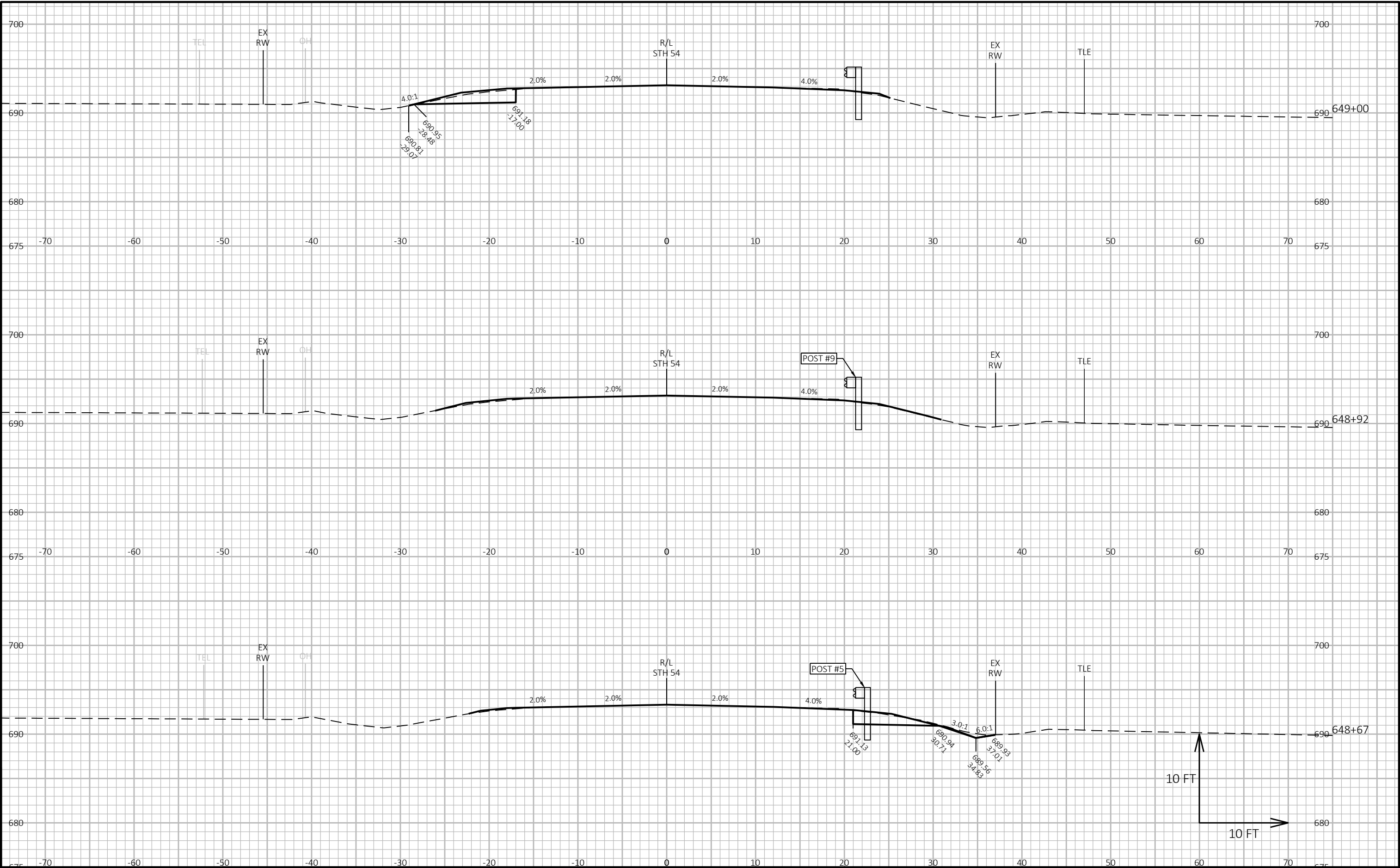
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET 9
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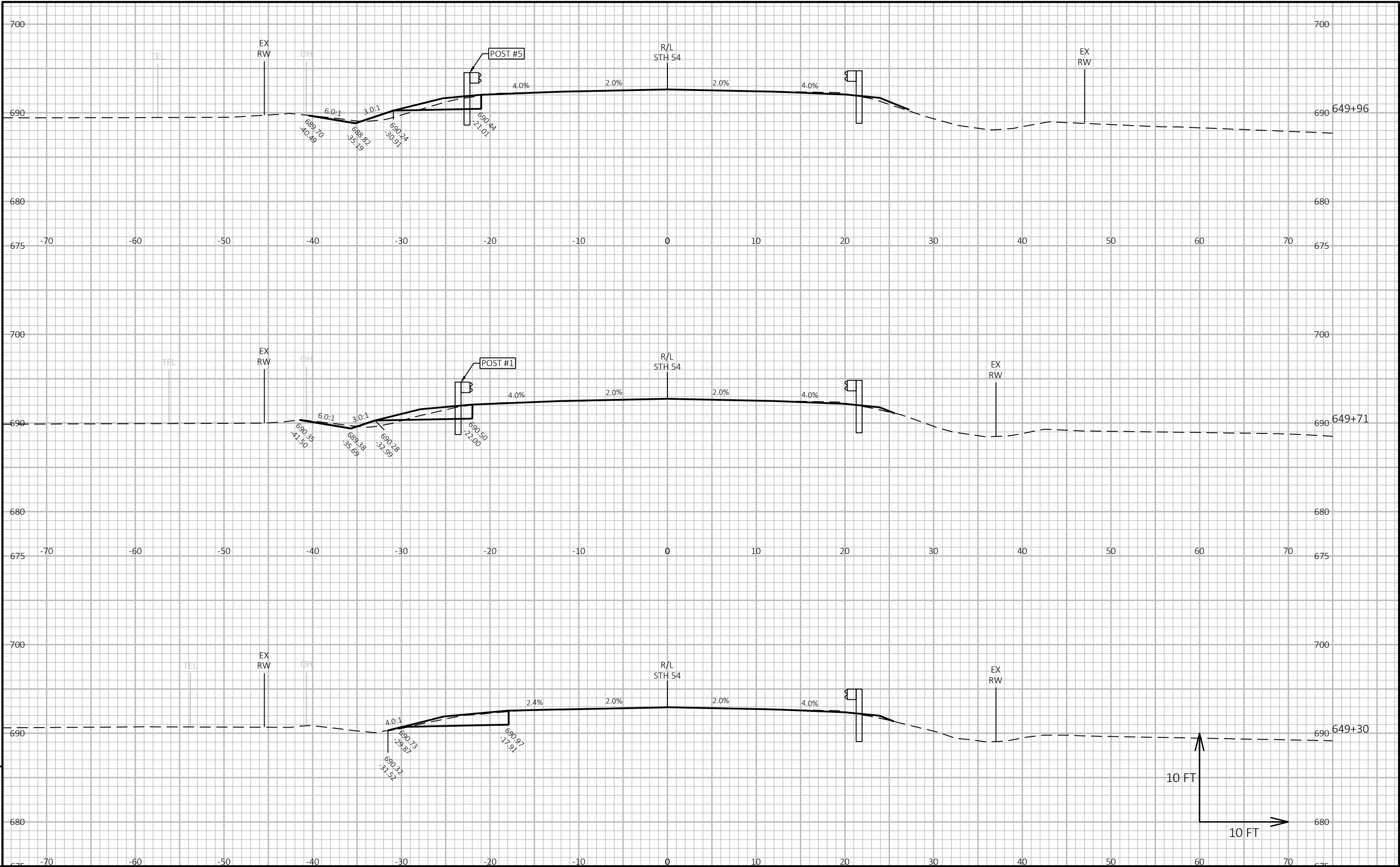


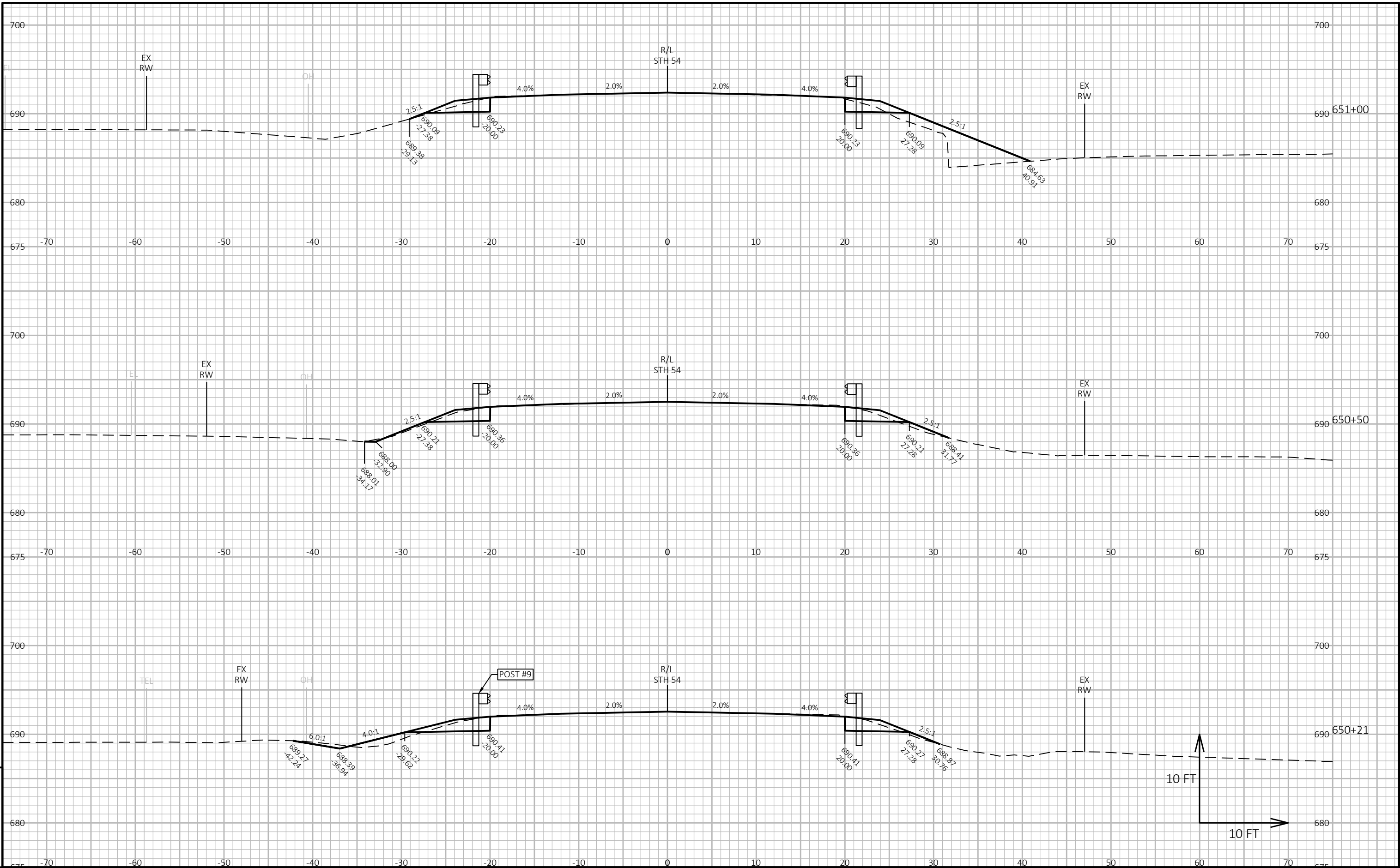
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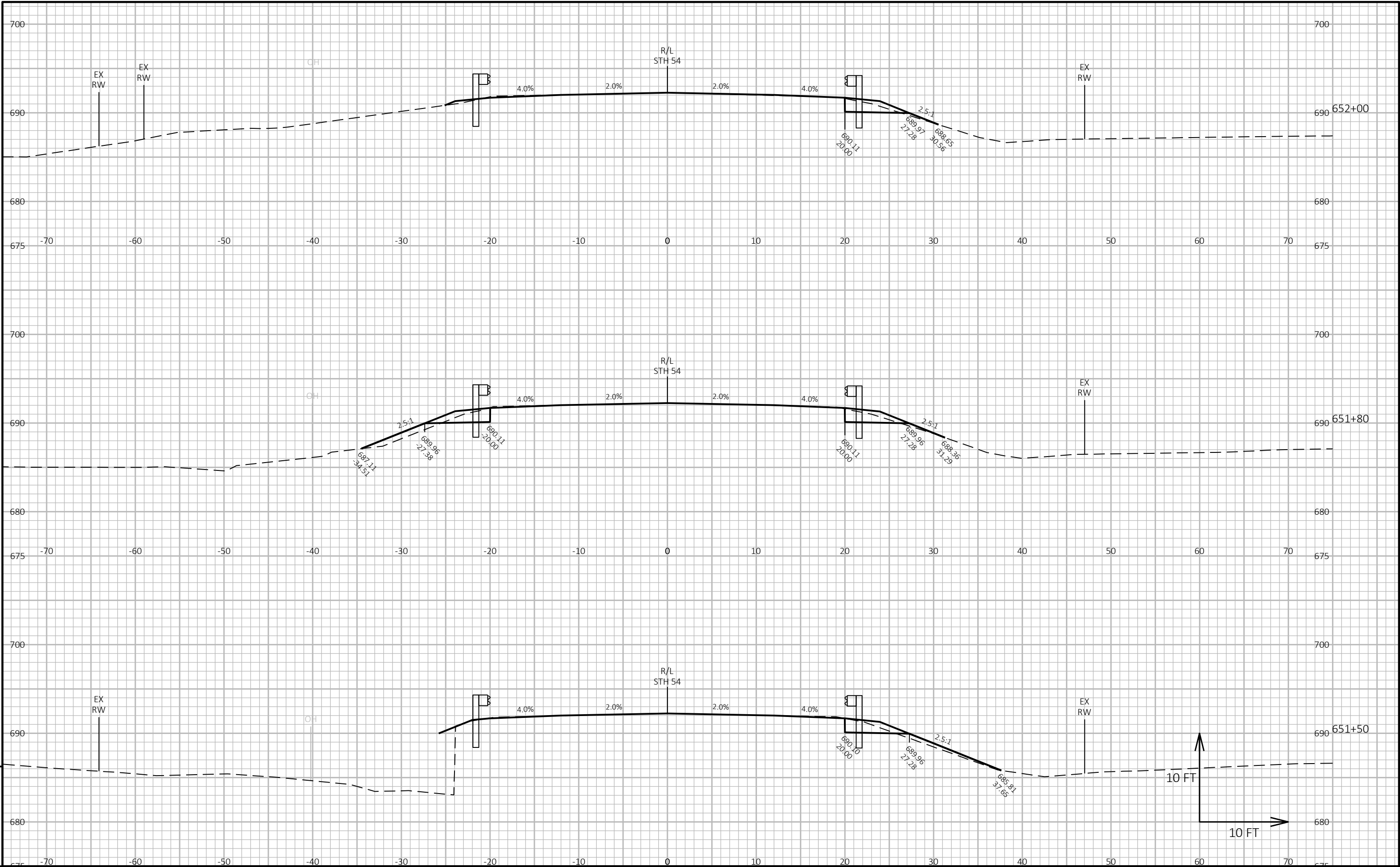
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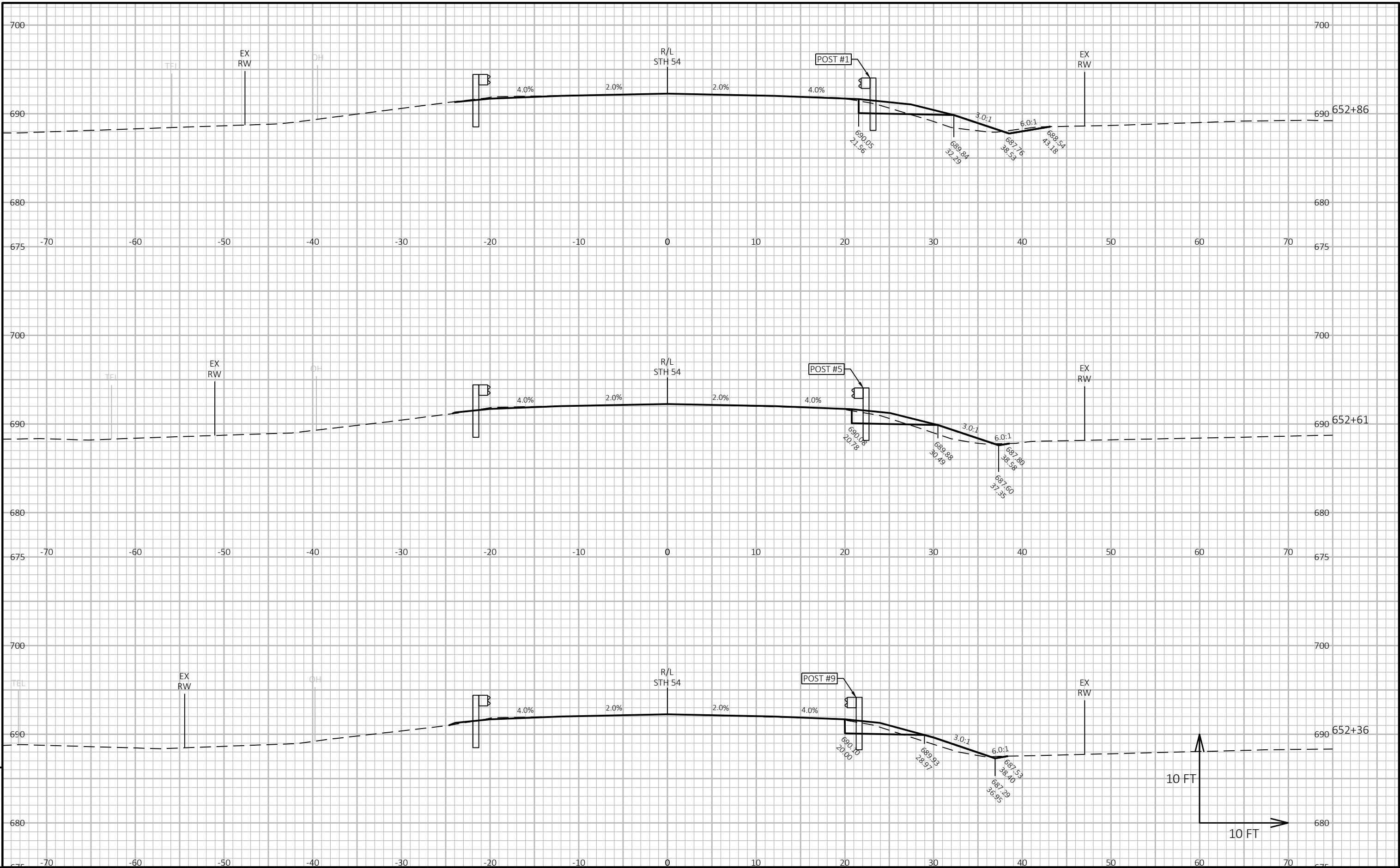
PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET E
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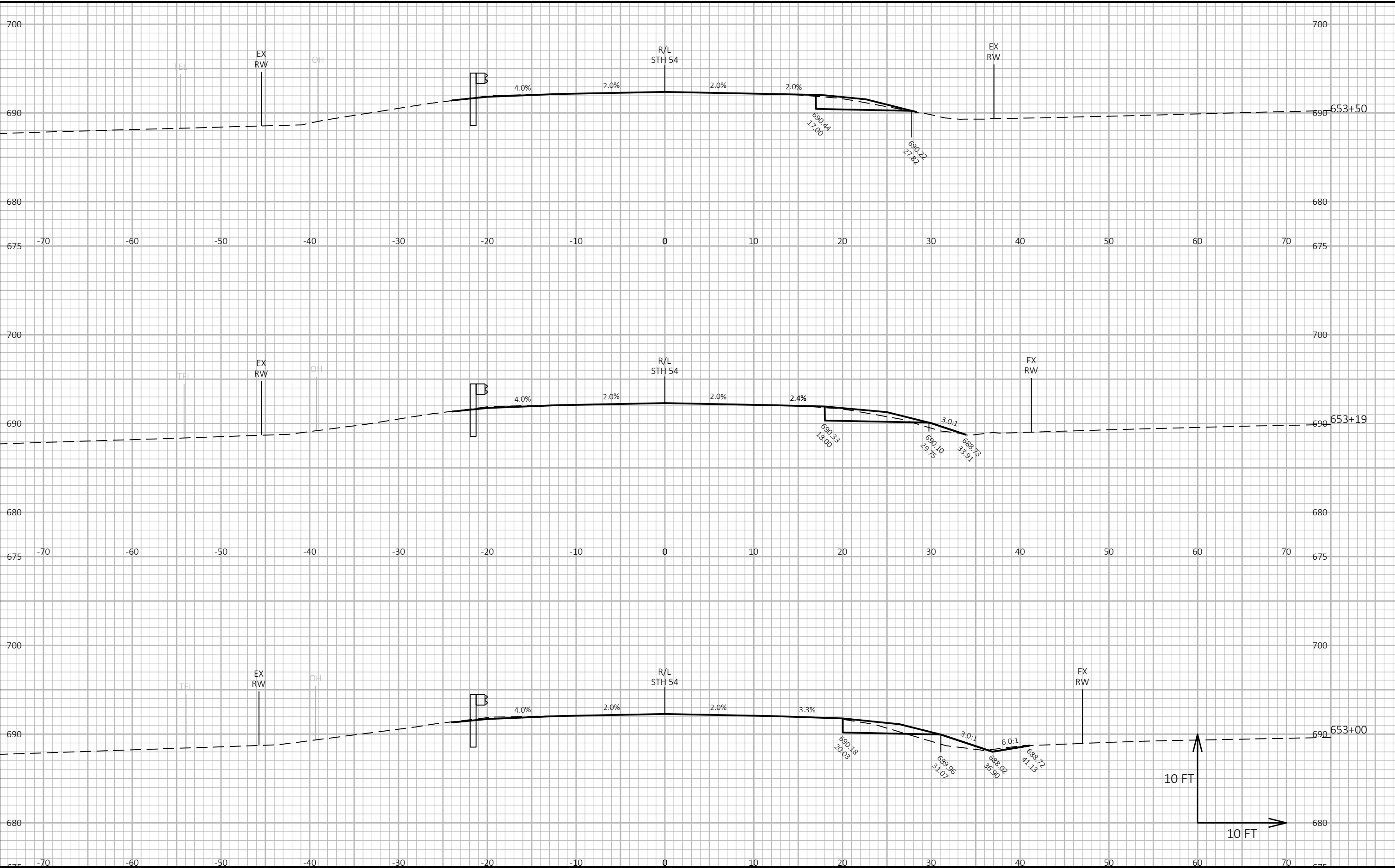






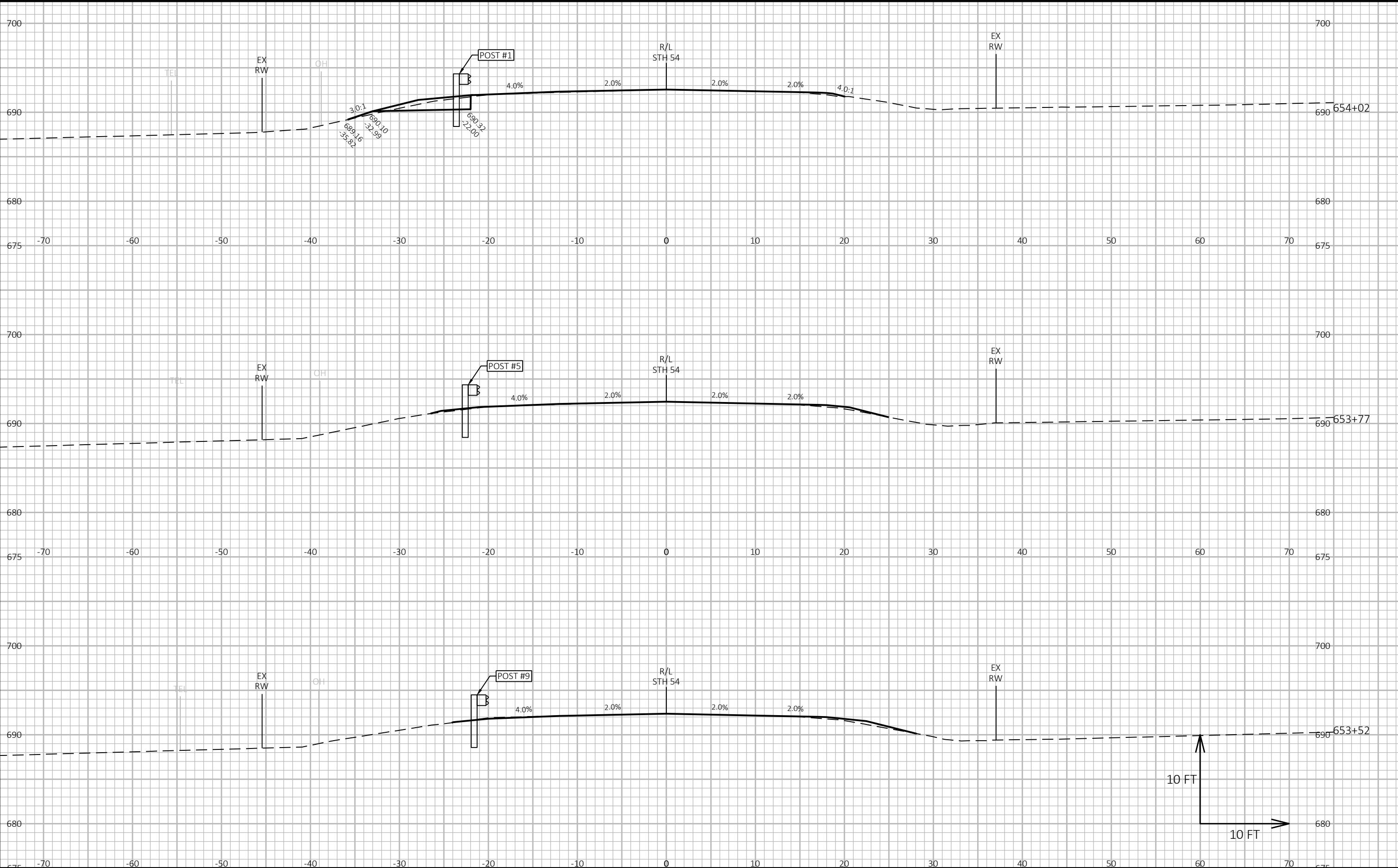


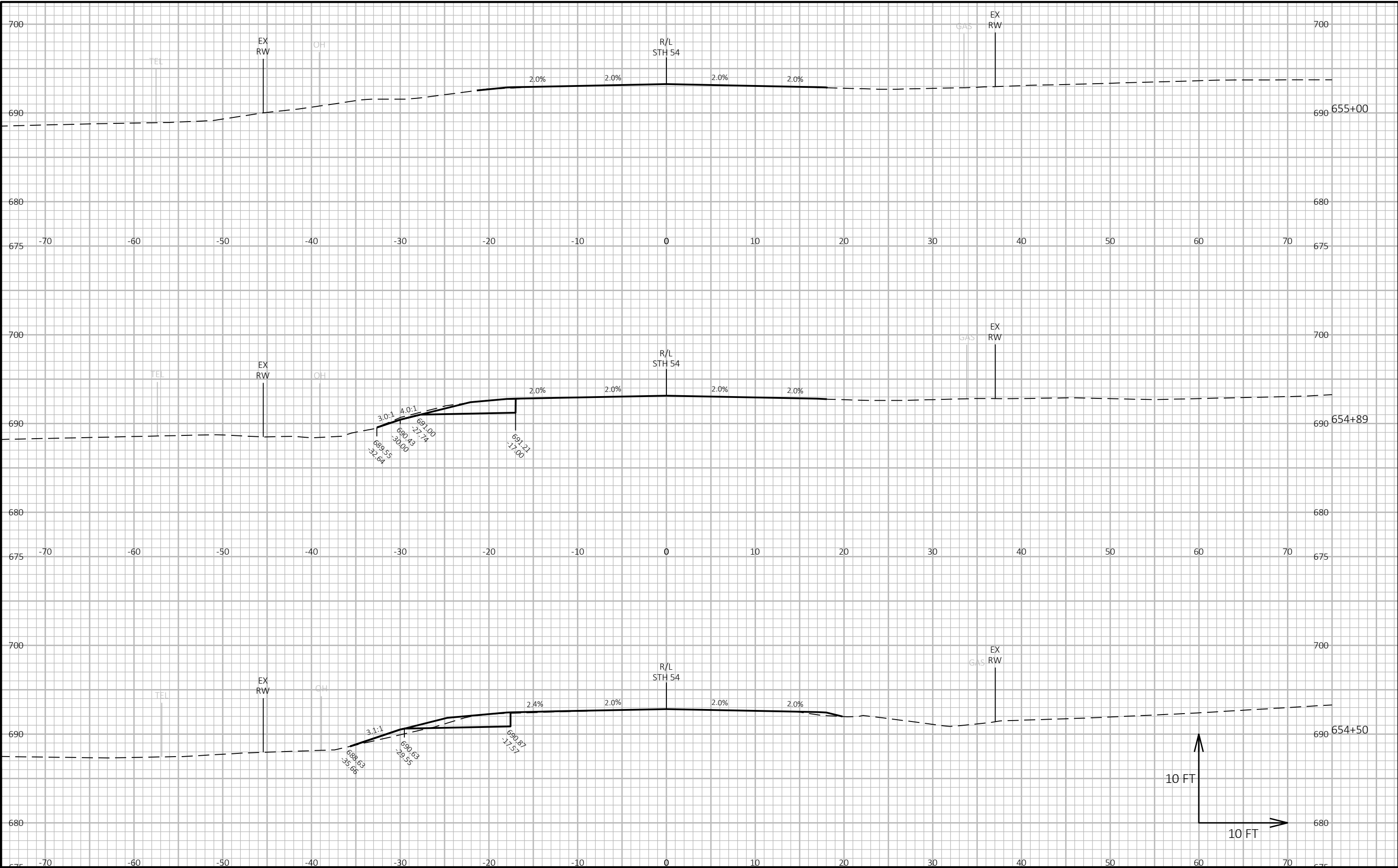


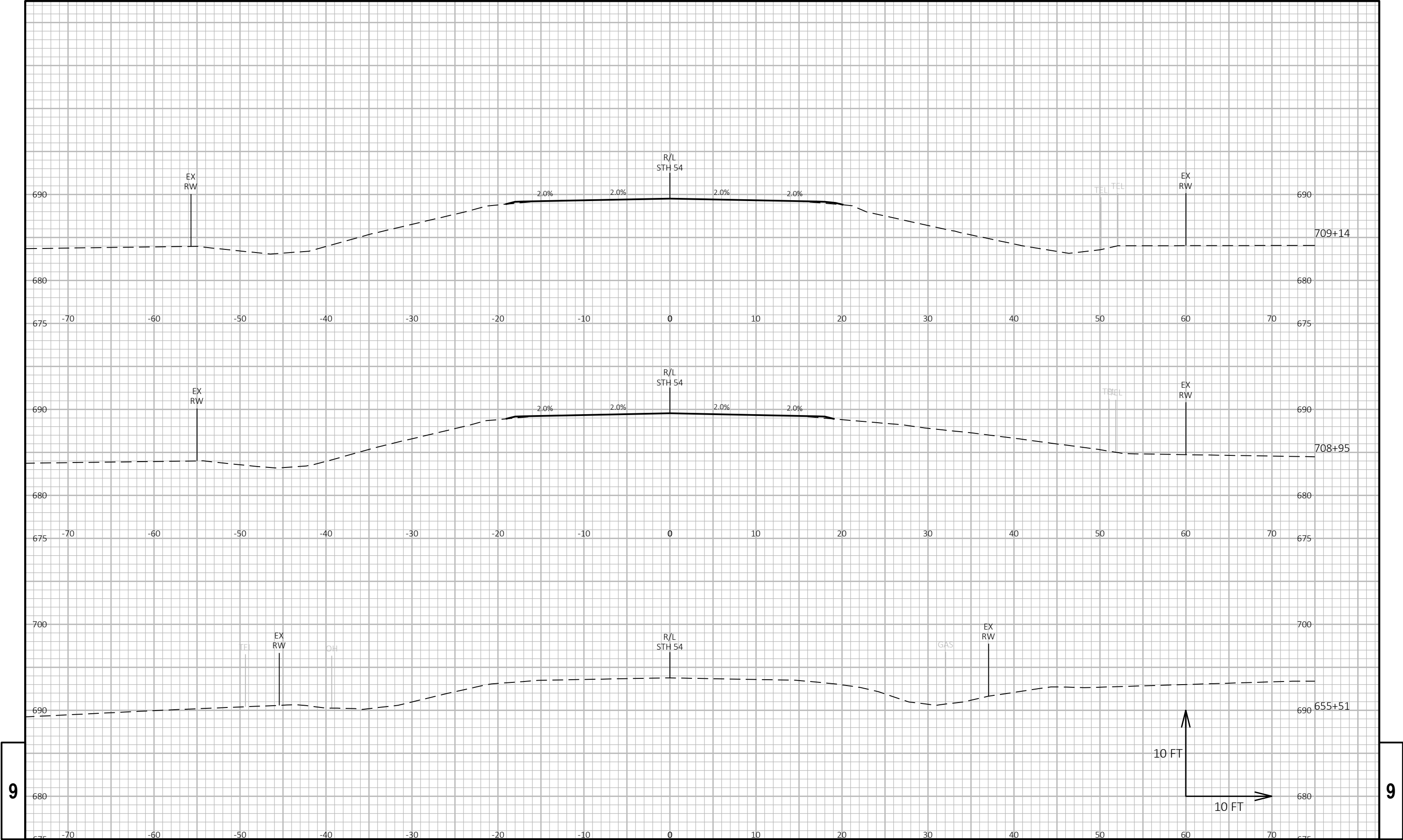


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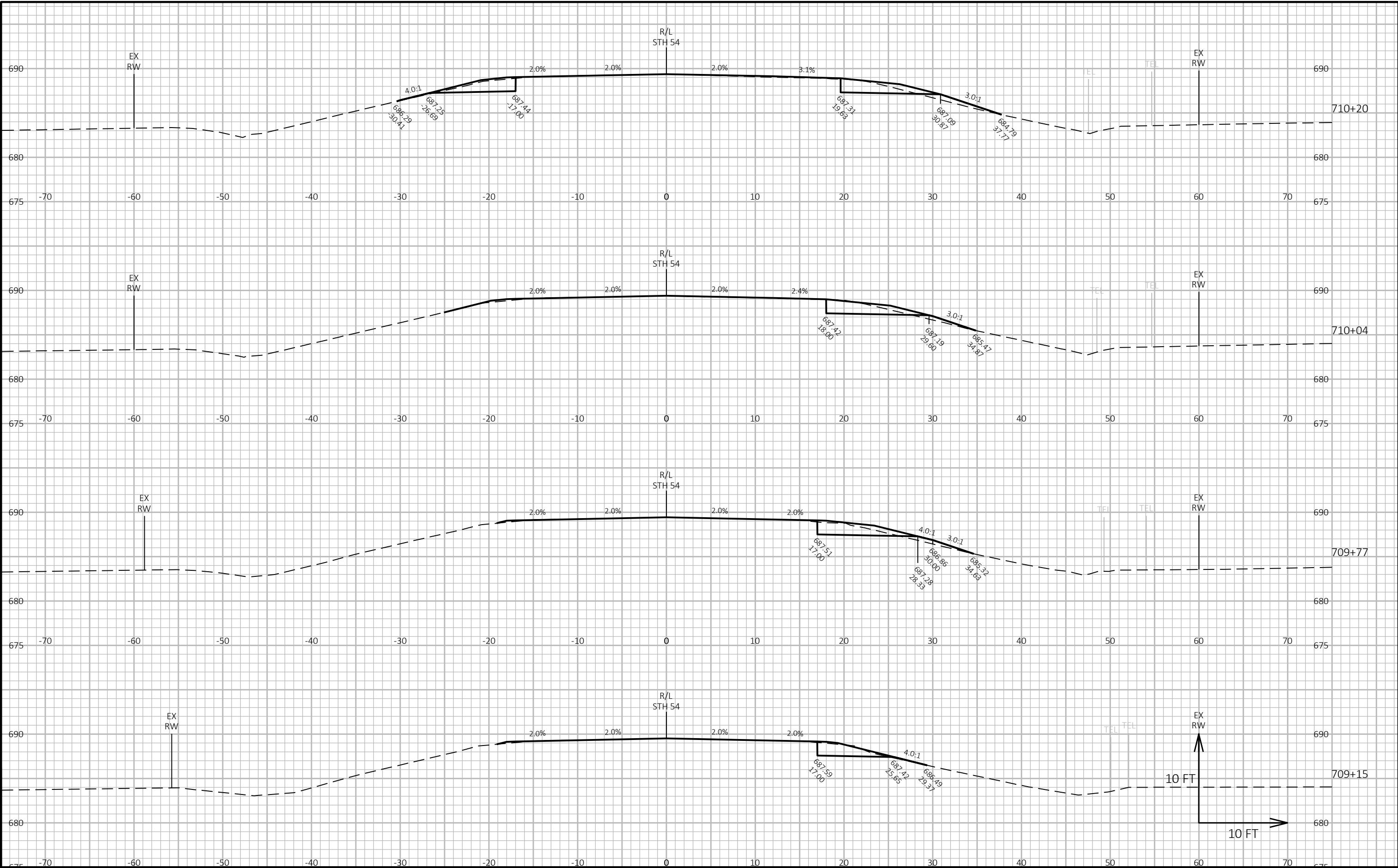


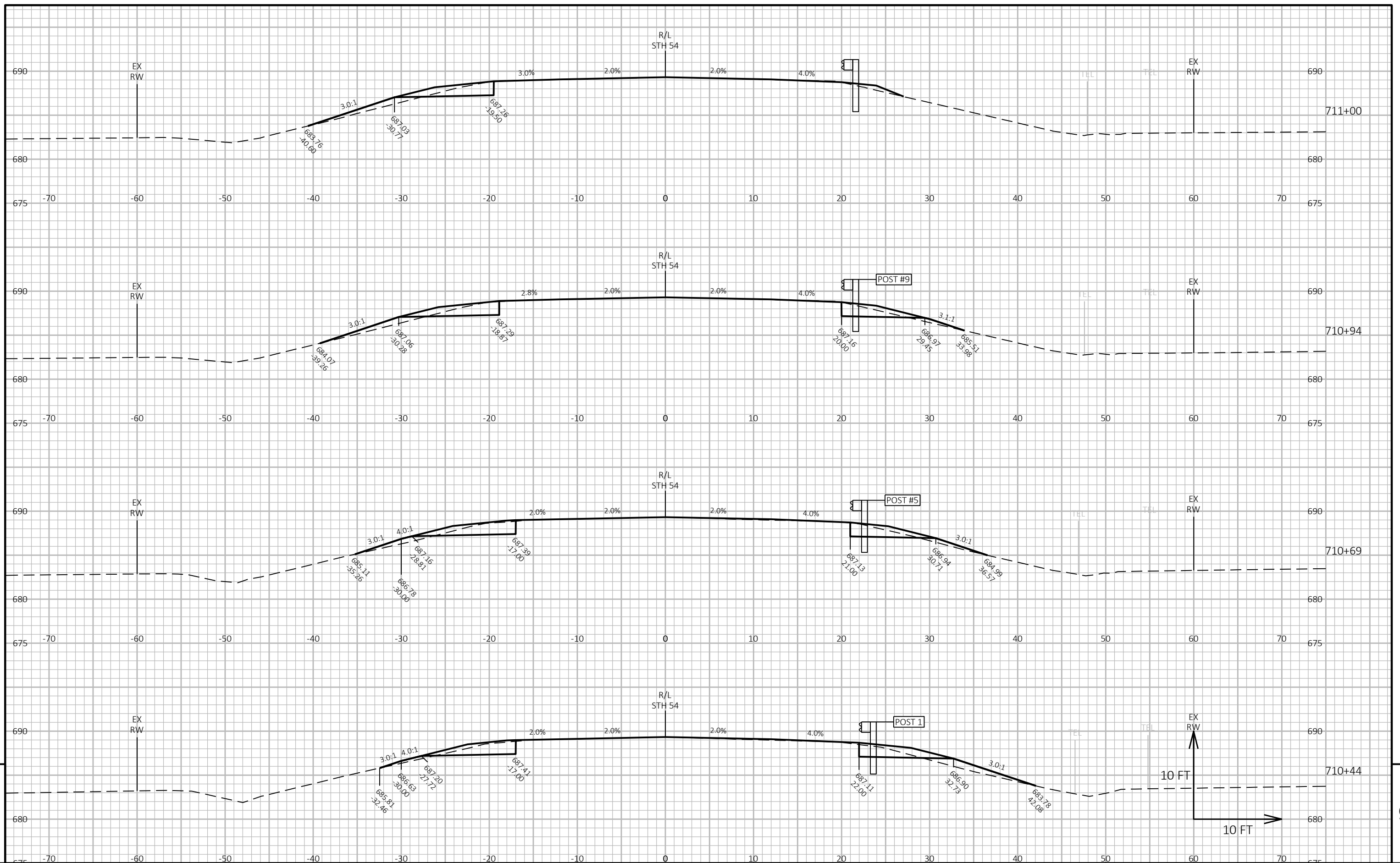




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PROJECT NO:	4130-11-71
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HWY: STH 54

COUNTY: KEWAUNEE

CROSS SECTIONS: STH 54

SHEET

1

FILE NAME : N:\PDS\C3D\41301100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090261-xs

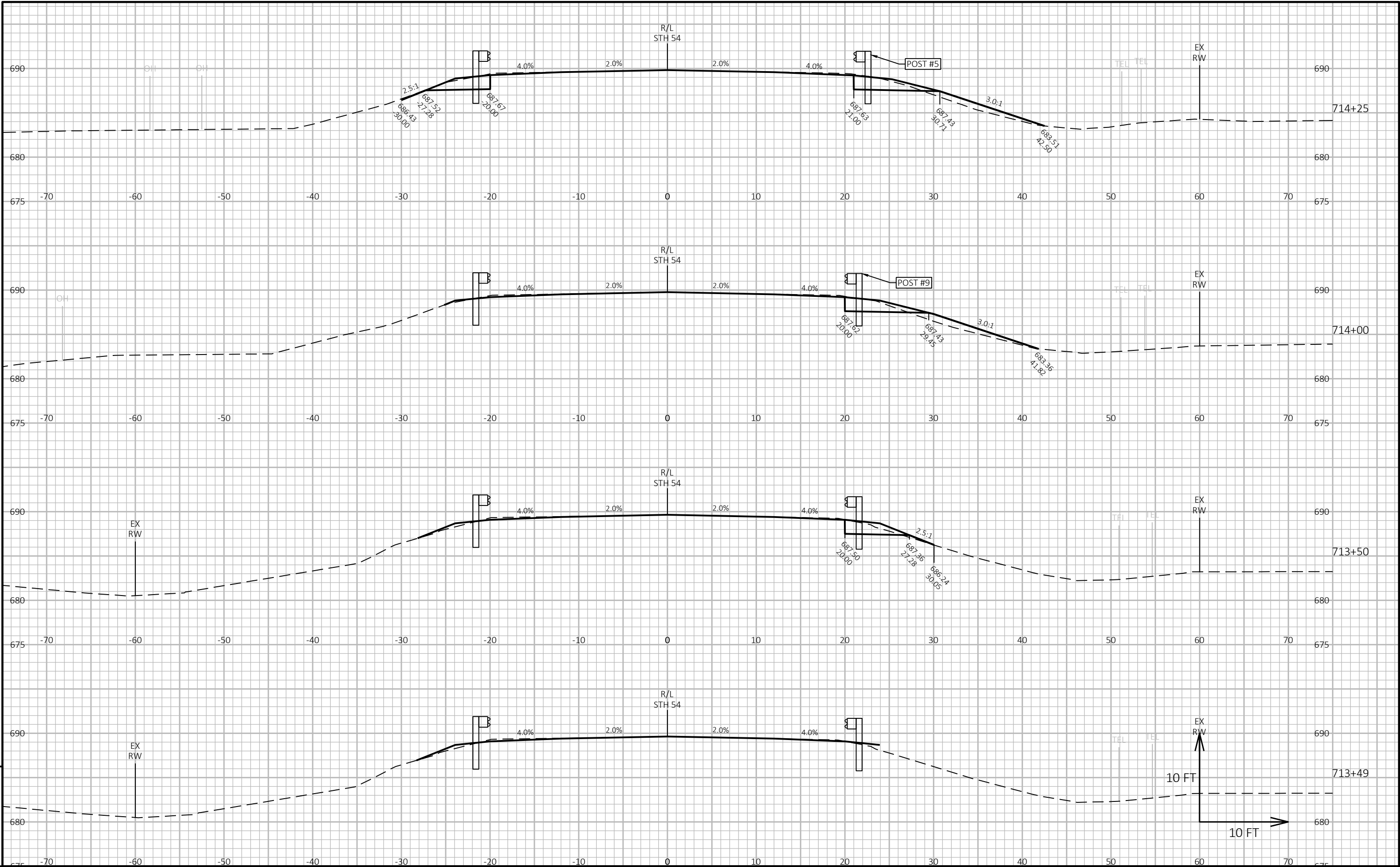
PLOT DATE : 9/2/2021 8:00 AM

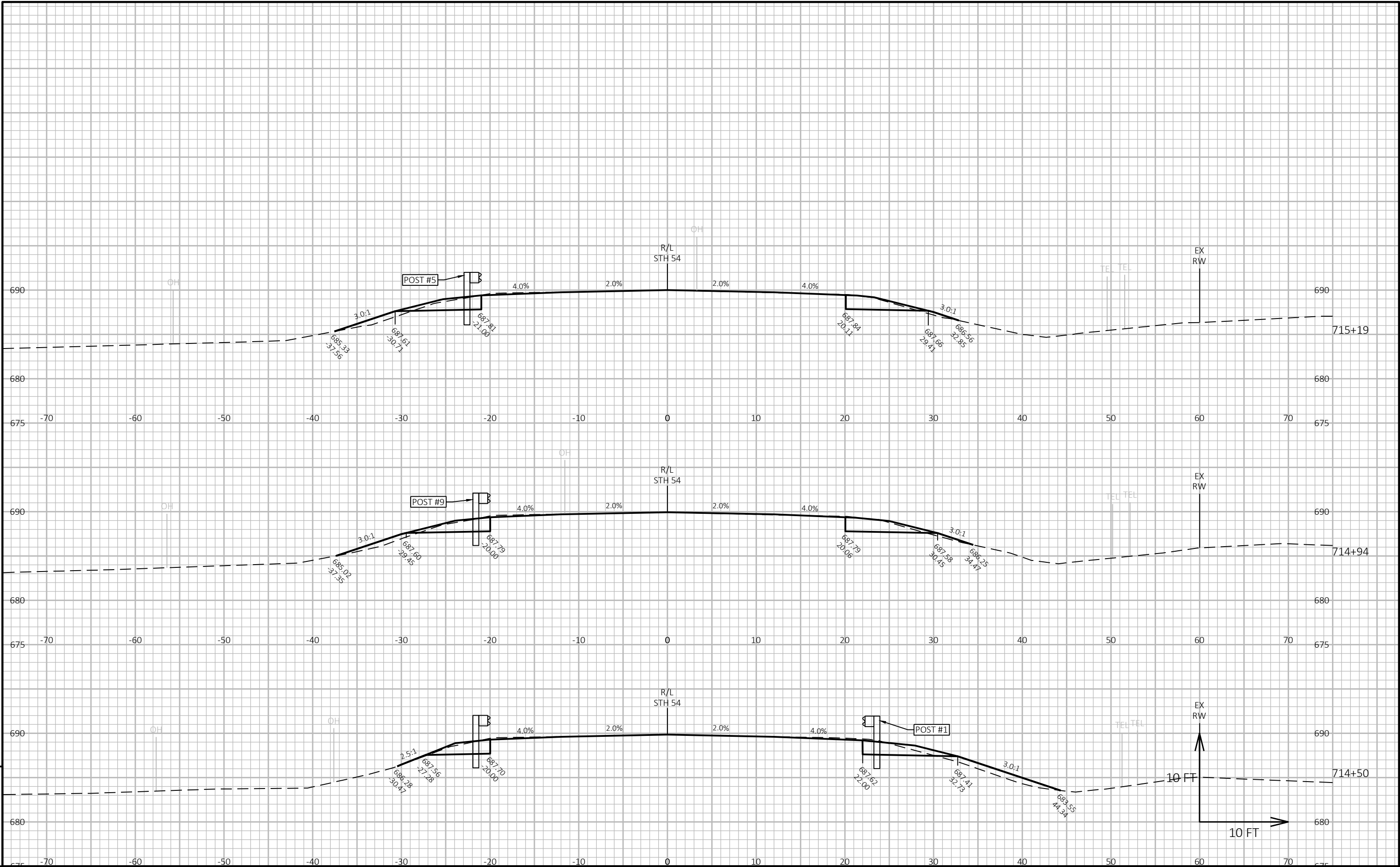
PLOT BY : KIRST, DOUGLAS P

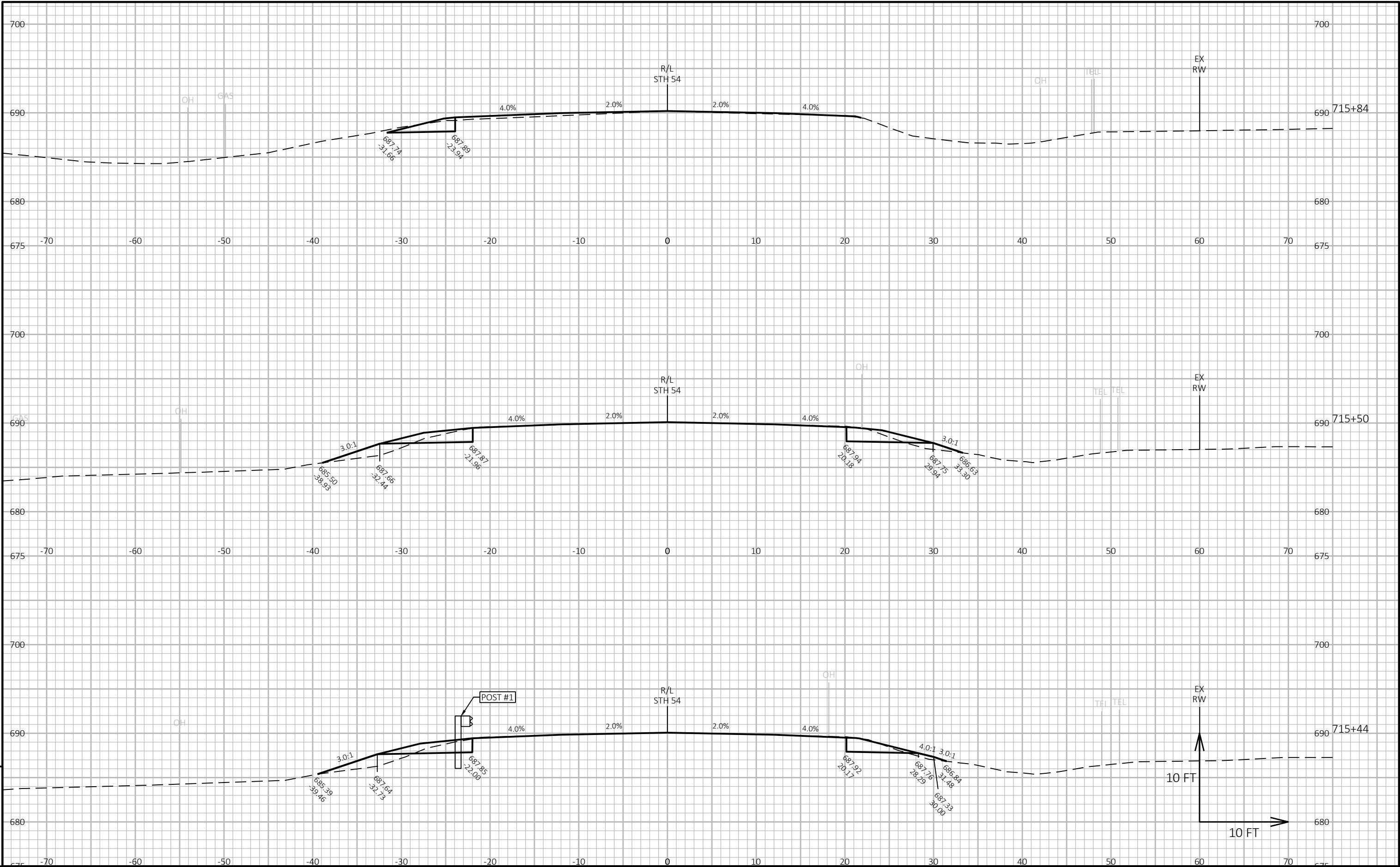
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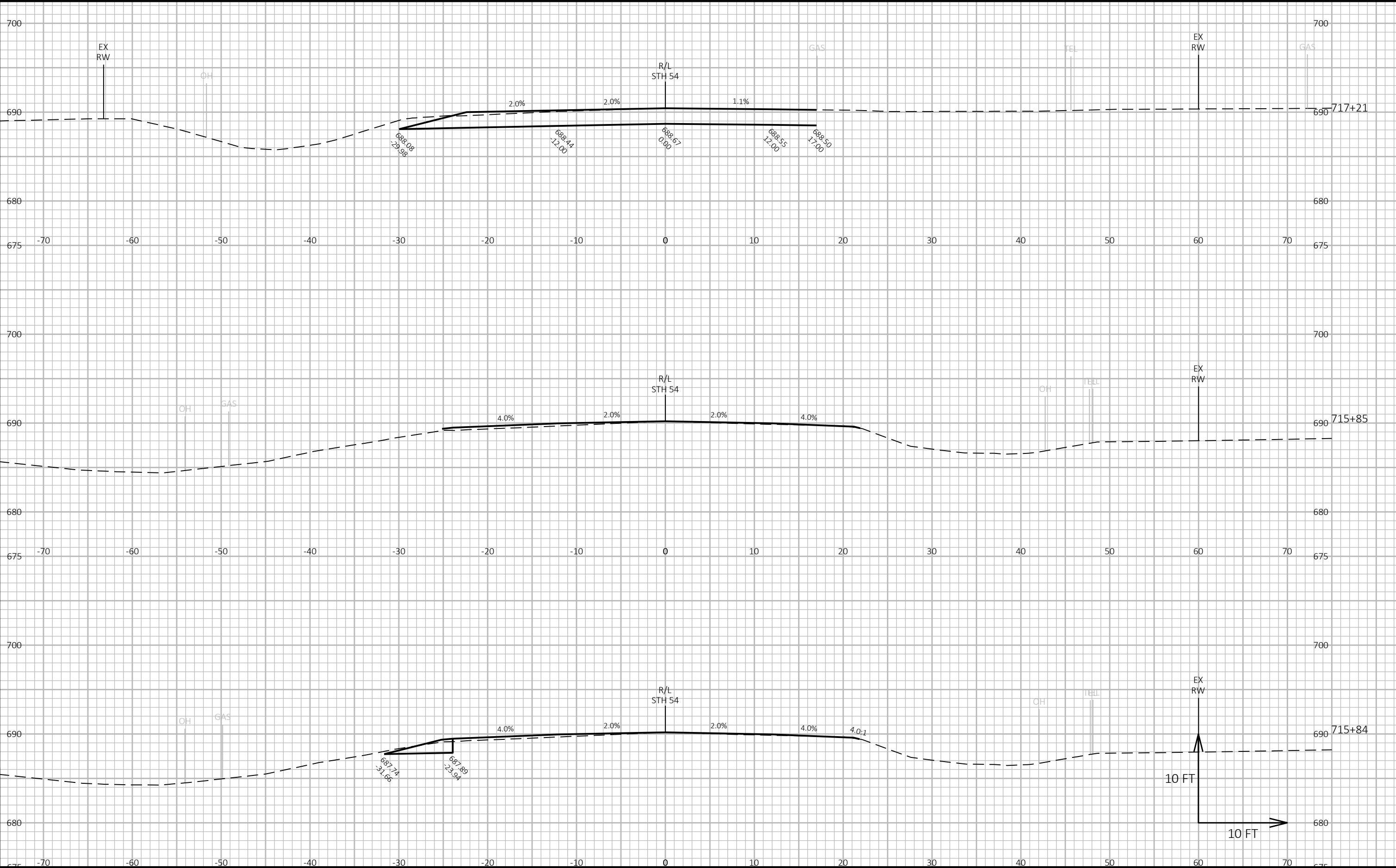
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

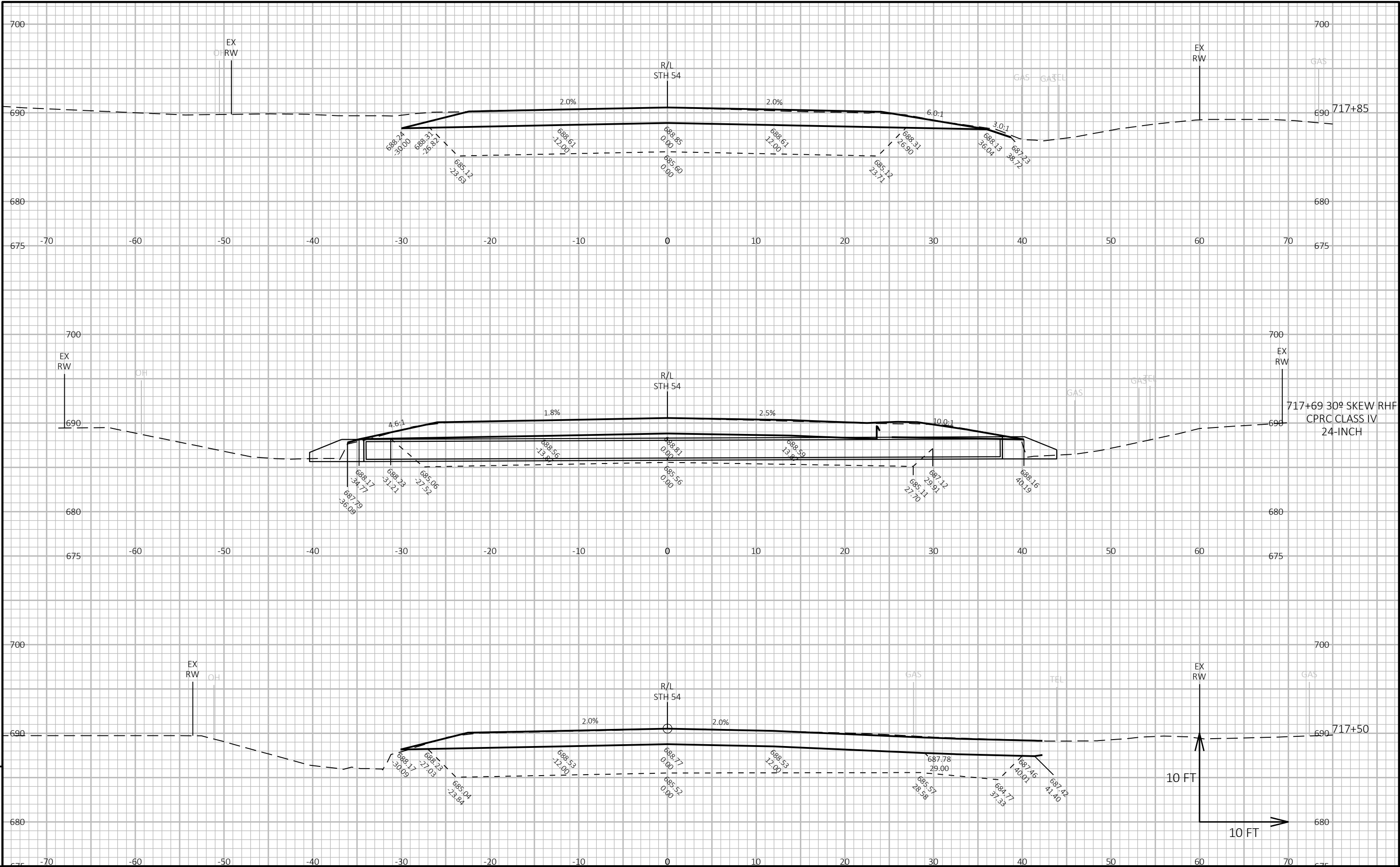
WISDOT/CADDS SHEET 49

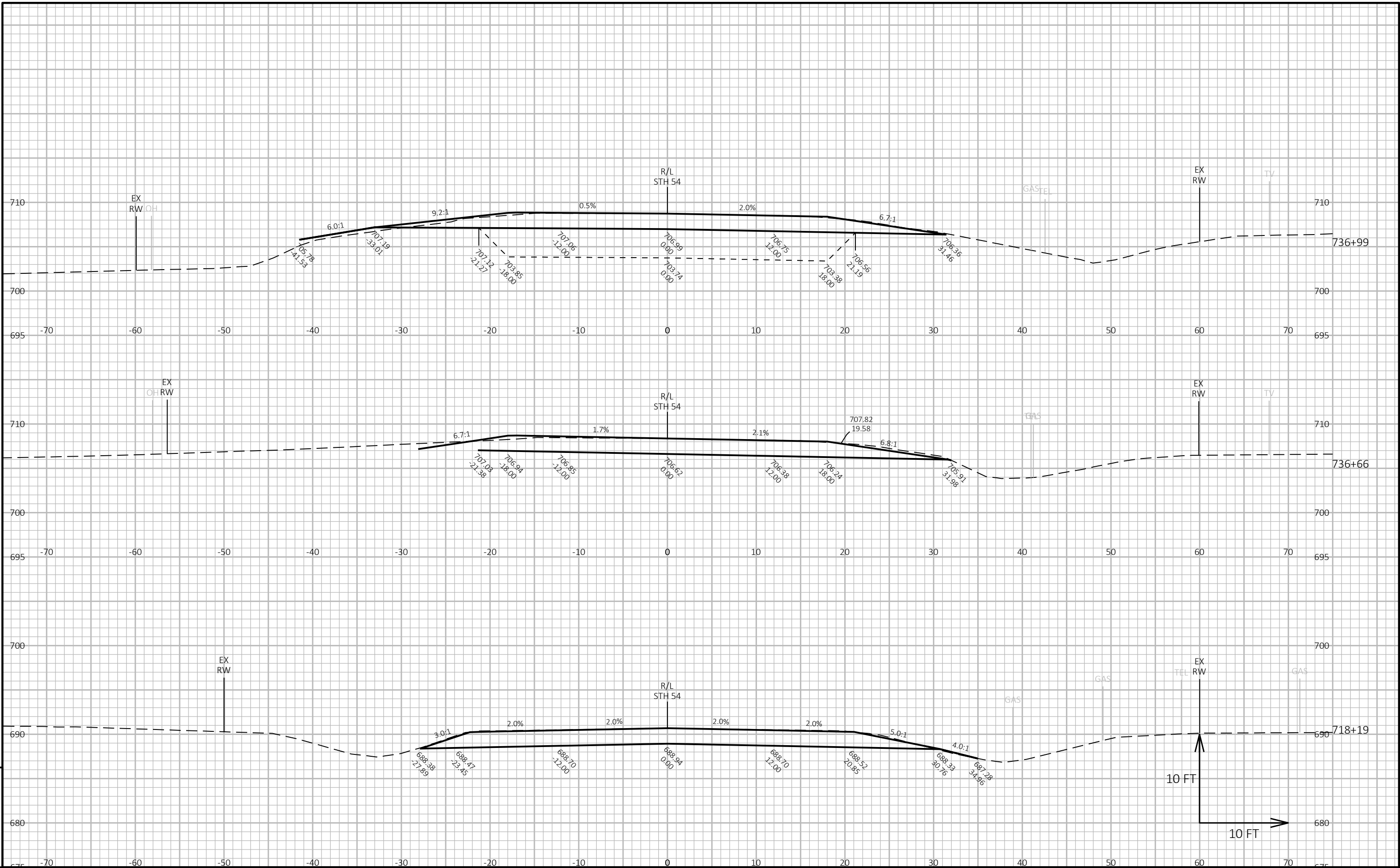


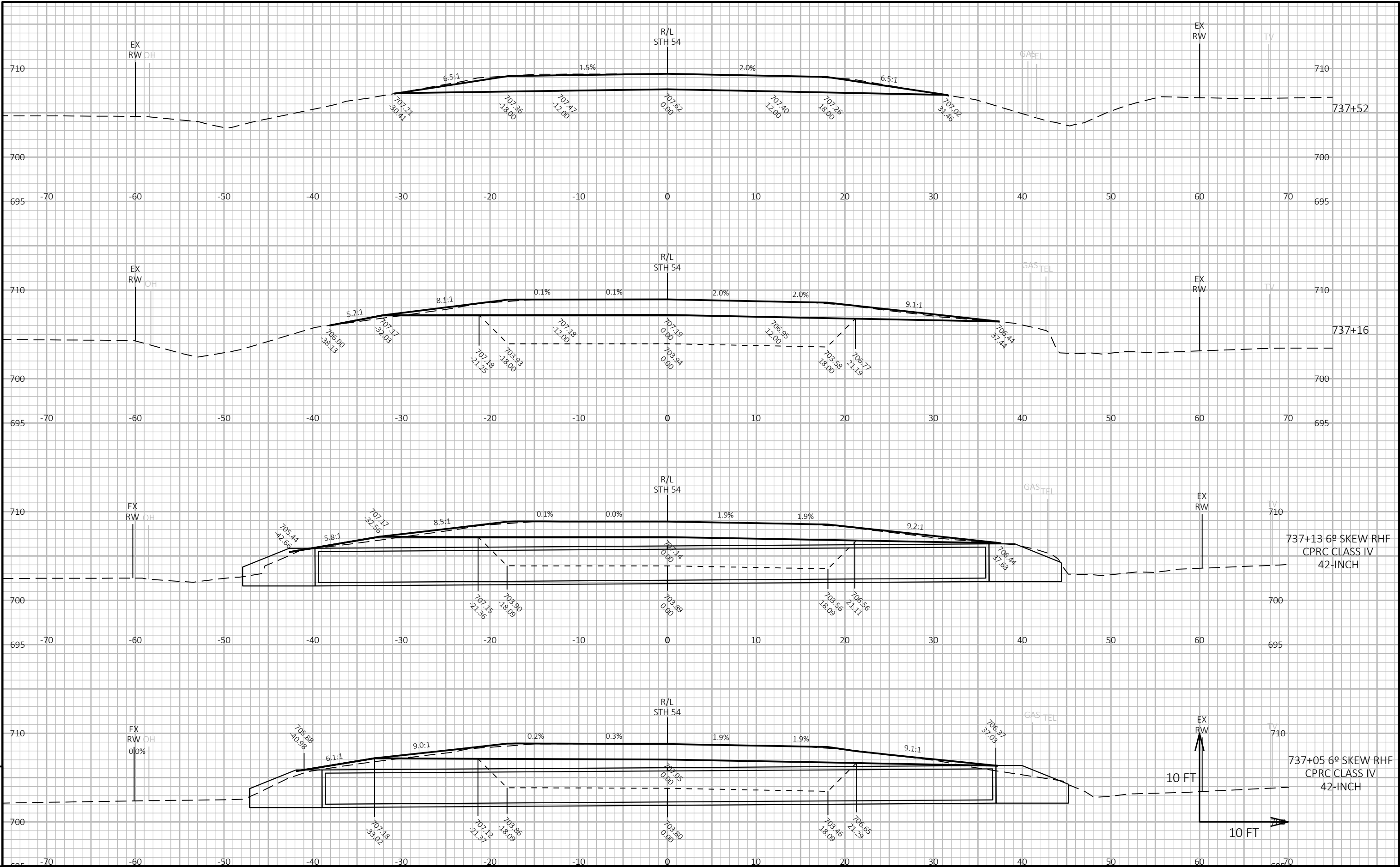


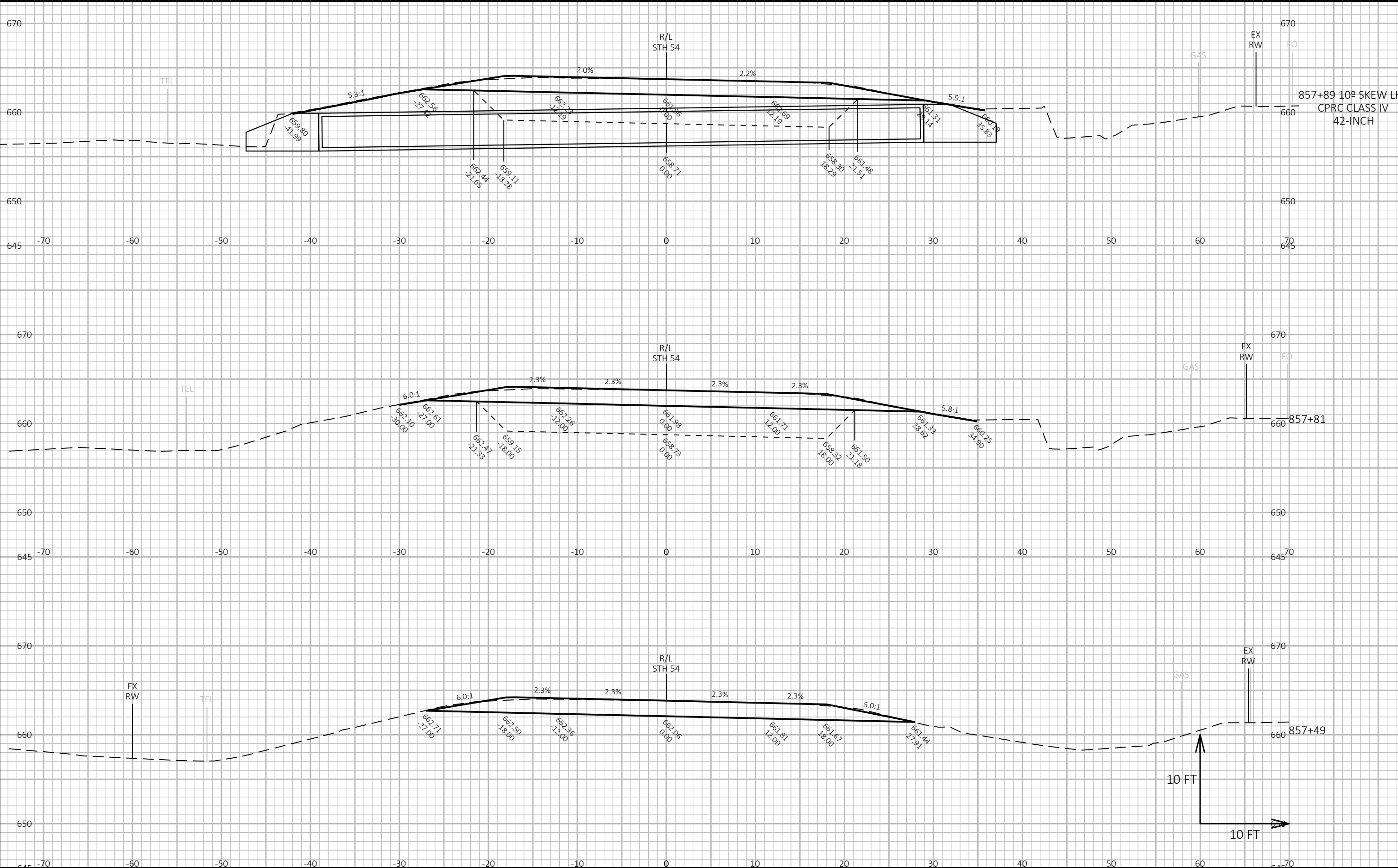




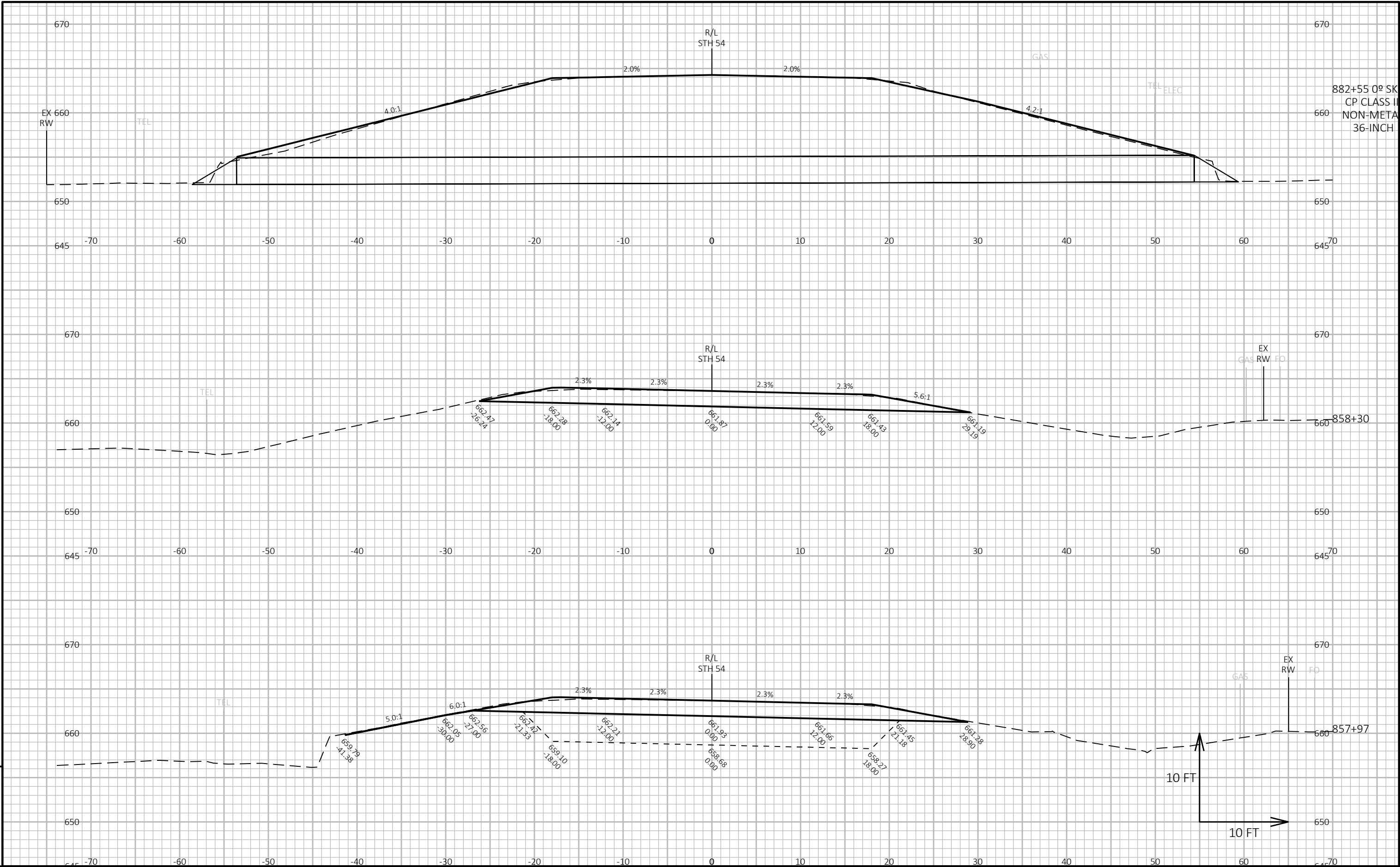




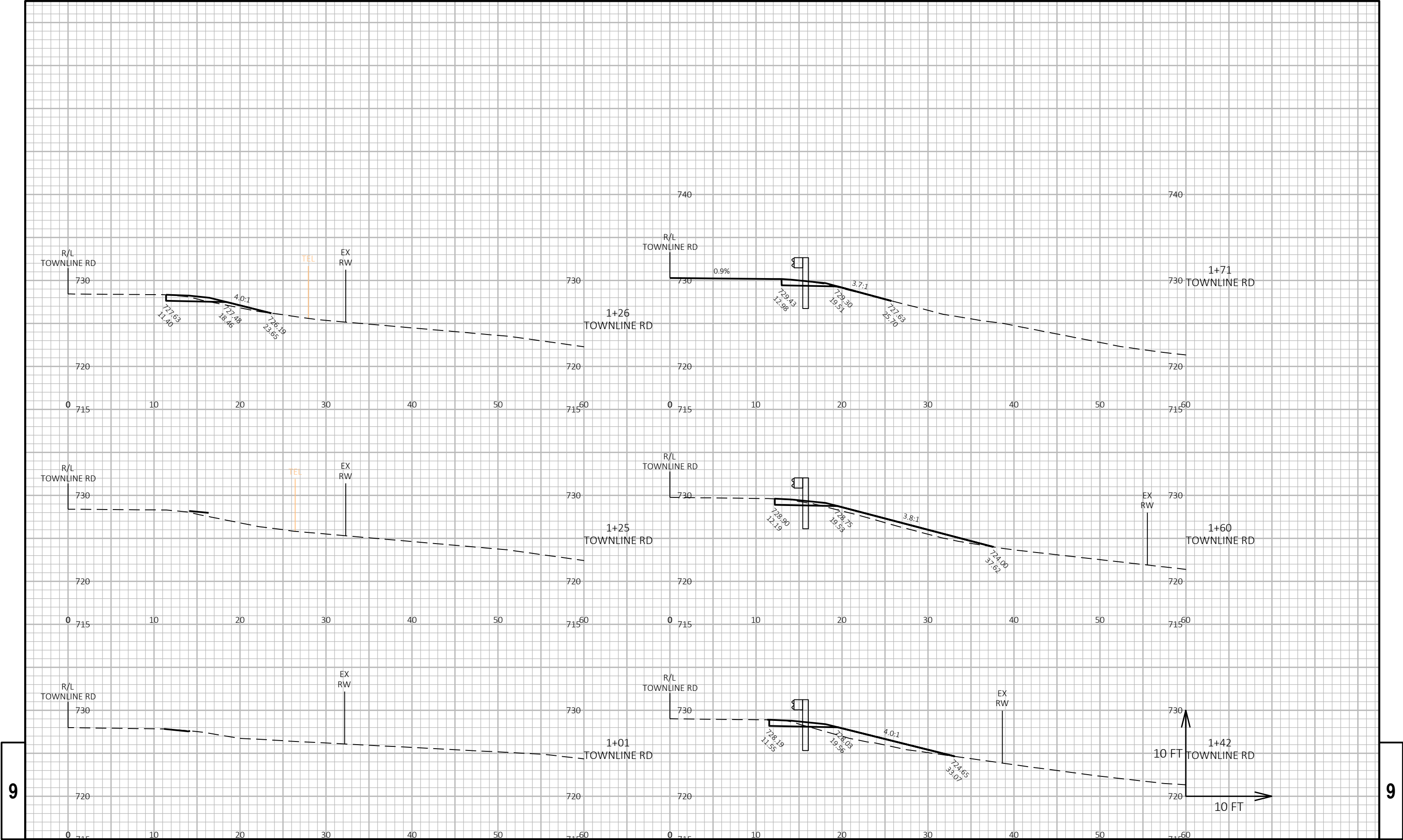




PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET 9
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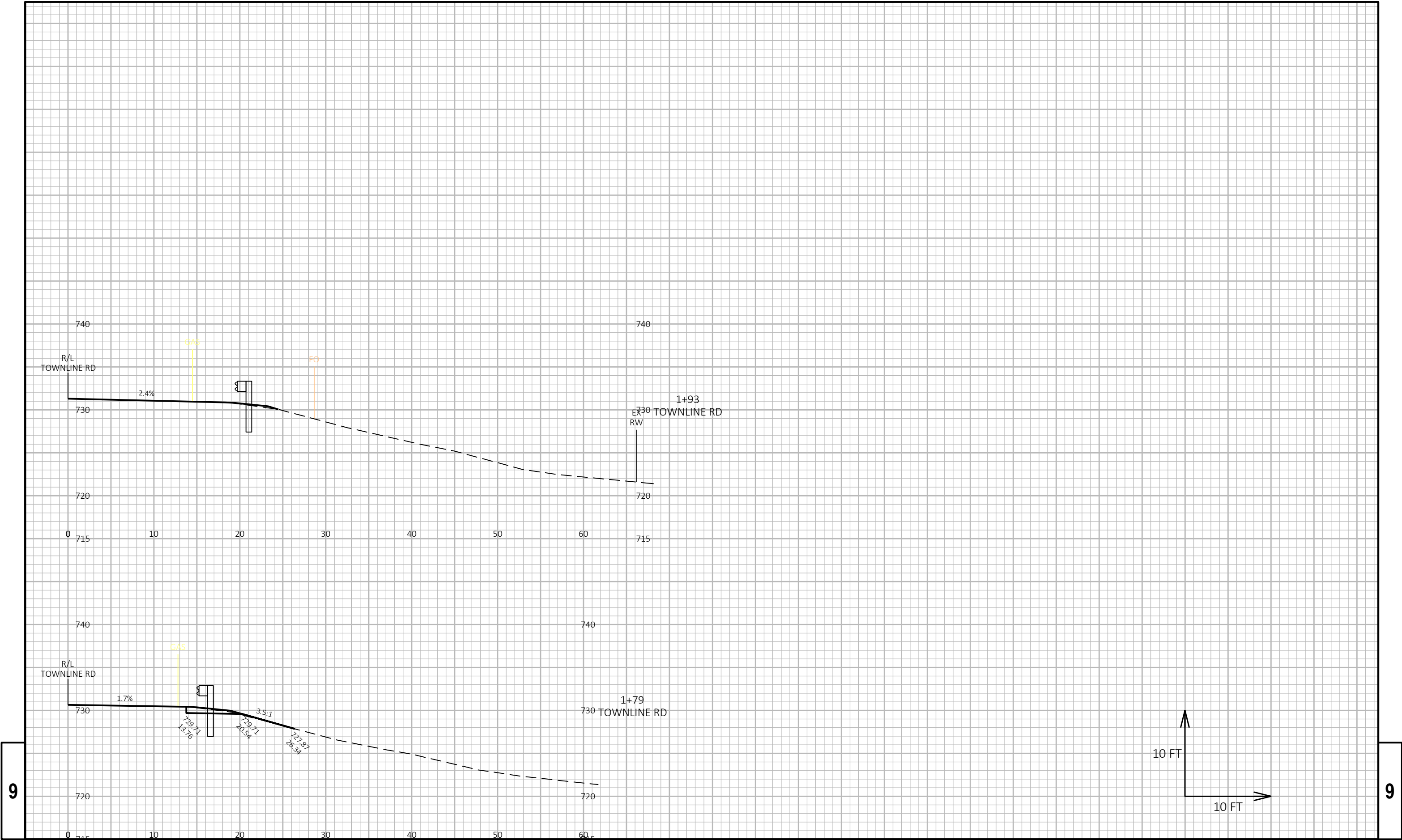


PROJECT NO: 4130-11-71	HWY: STH 54	COUNTY: KEWAUNEE	CROSS SECTIONS: STH 54	SHEET 9
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PROJECT NO:	4130-11-71	HWY:	STH 54	COUNTY:	KEWAUNEE	CROSS SECTIONS:	TOWNLINE RD	SHEET	E
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