

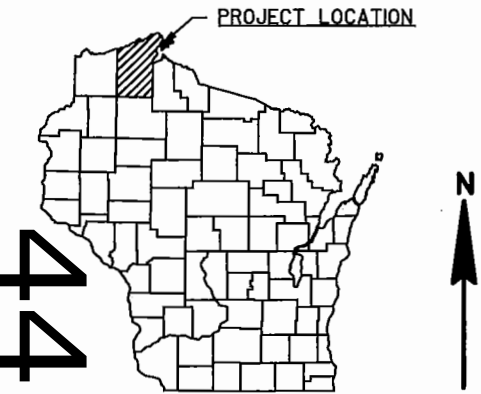
PROJECT ID: 8160-03-70
WITH: N/A

COUNTY: BAYFIELD

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 = 266



DESIGN DESIGNATION 8160-03-01

A.A.D.T. (2017)	=	5,200
A.A.D.T. (2027)	=	6,200
D.H.V.	=	2,130
D.O.	=	61/39
T.	=	10.0% (STA. 560+00 - 583+00'N) (STA. 583+00 - E.O.P)
DESIGN SPEED	=	55 MPH 45 MPH 25 MPH
ESALS	=	3,200,000

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	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

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

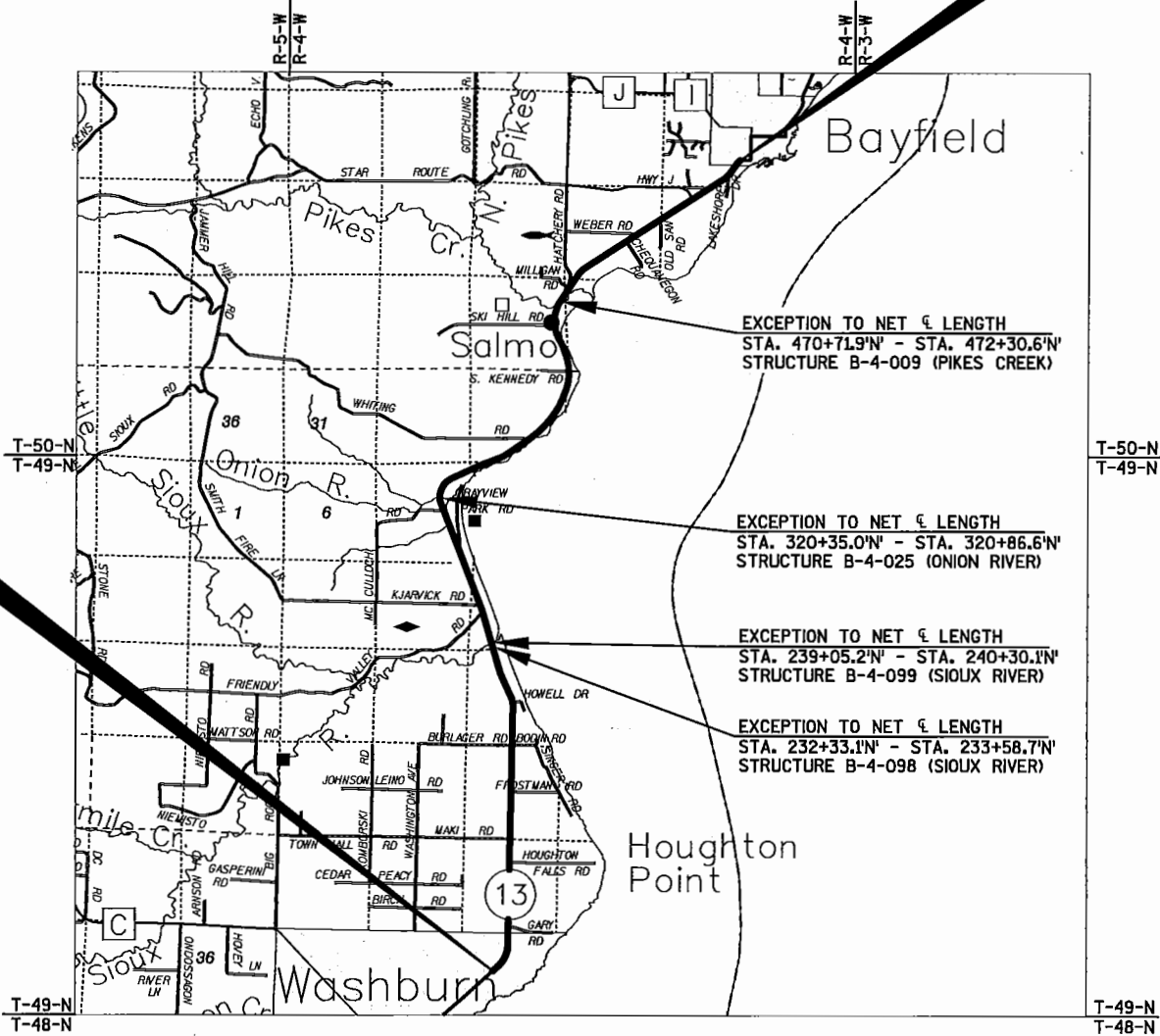
BEGIN PROJECT
STA. 37+00.00'N
X = 818,683.34
Y = 491,488.77

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
ASHLAND - BAYFIELD
SUPERIOR AVENUE TO 7TH STREET
STH 13
BAYFIELD

STATE PROJECT NUMBER
8160-03-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8160-03-70	WISC 2017296	1

END PROJECT
STA. 602+84.21'N



LAYOUT
SCALE 0 2 MILE

TOTAL NET LENGTH OF CENTERLINE = 10.717 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BAYFIELD COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLAN PREPARED BY



DATE: 1/16/17

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NWBE, INC.
Designer	NWBE, INC.
Project Manager	PHILIP KEPPERS
Regional Examiner	TOU YANG
Regional Supervisor	DAVID OSTROWSKI

APPROVED FOR THE DEPARTMENT
DATE: 1/17/2017 Philip S. Keppers
(Signature)

E

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

CURVE DATA IS BASED ON THE ARC DEFINITION. BEARINGS SHOWN ON THE PLAN ARE GRID BEARINGS AND ARE TO THE NEAREST SECOND.

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

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGER'S HOTLINE.

RADIUS DIMENSIONS AS SHOWN ON THE PLAN ARE TO THE EDGE OF PAVEMENT. ELEVATIONS SHOWN ON INTERSECTION DETAIL SHEETS ARE AT THE EDGE OF PAVEMENT.

RESTORE SIDE ROAD INTERSECTIONS, DRIVEWAYS, AND OTHER ENTRANCES TO EXISTING SURFACE CONDITIONS UNLESS SHOWN OTHERWISE ON THE PLAN. EXACT LOCATION AND THE LIMITS OF PRIVATE ENTRANCES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

LIMITS OF ROADSIDE CLEARING ARE GENERALLY OUT TO 45 FEET RIGHT AND/OR LEFT OF CENTERLINE, EXCEPT WHERE RIGHT-OF-WAY LIMITS ARE LESS THAN 50 FEET. AT LOCATIONS WHERE RIGHT-OF-WAY IS LESS THAN 50 FEET, CLEAR TO WITHIN A MINIMUM OF 5 FEET FROM EXISTING RIGHT-OF-WAY. ONLY CUT TREES THAT HAVE TRUNKS FULLY WITHIN THE ROADSIDE CLEARING LIMITS. PRESERVE TREES WITH TRUNKS PARTIALLY WITHIN THE CLEARING LIMITS. REFER TO QUANTITY TABLE IN PLAN FOR ACTUAL LOCATIONS AND CLEARING LIMITS.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IT SHALL BE INSTALLED PRIOR TO CONSTRUCTION.

THE EROSION CONTROL DEVICES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE DNR.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

STATIONING, DISTANCES AND OFFSETS FOR PROPOSED SIGNS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.



WISDOT CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: PHILIP KEPPERS, PE - PROJECT MANAGER
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
PHONE (715) 395-3027
EMAIL: Philip.Keppers@dot.wi.gov

WDNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: SHAWN HASELEU
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
810 WEST MAPLE STREET
SPOONER, WI 54801
PHONE (715) 635-4228
EMAIL: Shawn.Haseleu@wisconsin.gov

DESIGN CONTACT

NORTHERN WISCONSIN-BASED ENGINEERS (NWBE)
ATTN: HEATHER HARRINGTON, PE
P.O. BOX 328
HAYWARD, WI 54843
PHONE (715) 634-4334
EMAIL: heather@cheqnet.net

BAYFIELD COUNTY CONTACT

BAYFIELD COUNTY HIGHWAY DEPARTMENT
ATTN: THOMAS TOEPFER - COMMISSIONER
P.O. BOX 428
311 SOUTH 1ST AVENUE EAST
WASHBURN, WI 54891
PHONE (715) 373-6115
EMAIL: ttoepfer@bayfieldcounty.org

UTILITIES

BAYFIELD ELECTRIC COOPERATIVE
ATTN: GARY TARASEWICZ
P.O. BOX 68
IRON RIVER, WI 54847
BEC OFFICE (715) 372-4287
DIRECT LINE (715) 372-7539
EMAIL: gary.tarasewicz@bayfieldelectric.com

CITY OF BAYFIELD PUBLIC WORKS
ATTN: THOMAS KOVACHEVICH - PUBLIC WORKS DIRECTOR
P.O. BOX 1170
BAYFIELD, WI 54814
PHONE (715) 779-5712
MOBILE (715) 209-3956
EMAIL: citypublicworks@cityofbayfield.com

CENTURYLINK
ALAN NICKELL
P.O. BOX 181
SOLON SPRINGS, WI 54873
PHONE (715) 378-2131
MOBILE (715) 566-3879
EMAIL: alan.nickell@centurylink.com

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
AADT	ANNUAL AVERAGE DAILY TRAFFIC
APPROX.	APPROXIMATE
A.E.W.	APRON END WALL
ASPH.	ASPHALTIC
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L OR ☐	CENTER LINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
DISCH. OR DIS.	DISCHARGE
E.	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EA.	EACH
ELEC.	ELECTRIC
EL. OR ELEV.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
E.B.S.	EXCAVATION BELOW
SUBGRADE	
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
F.L. OR ☐	FLOW LINE
HORIZ.	HORIZONTAL
INL.	INLET
INT.	INTERSECTION
INV.	INVERT
LT.	LEFT

L.H.F.	LEFT-HAND FORWARD
L.F.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MISC.	MISCELLANEOUS
N.	NORTH
Y	NORTH GRID COORDINATE
N.E.	NORTHEAST
N.W.	NORTHWEST
PAVT.	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQD.	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
RD.	ROAD
SHLD.	SHOULDER
S.	SOUTH
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAYS
STA.	STATION
STRUCT.	STRUCTURE
TEL.	TELEPHONE
TEMP.	TEMPORARY
TN.	TOWN
T.	TRUCKS (PERCENT OF)
TYP.	TYPICAL
U.G.	UNDERGROUND
VAR.	VARIABLE
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE
W.	WEST
WB	WESTBOUND
W.A.	WORKING DAY
WZ	WORK ZONE

CHARTER COMMUNICATIONS
TOM HAASE
2304 S. MAIN ST.
RICE LAKE, WI 54868
PHONE (715) 719-0564
MOBILE (715) 418-9317
EMAIL: tom.haase@charter.com

XCEL ENERGY - ELECTRIC
ATTN: MURRAY SMERER - SENIOR DESIGNER
2400 FARM ROAD
ASHLAND, WI 54806
PHONE (715) 682-6928
EMAIL: murray.j.smerer@xcelenergy.com

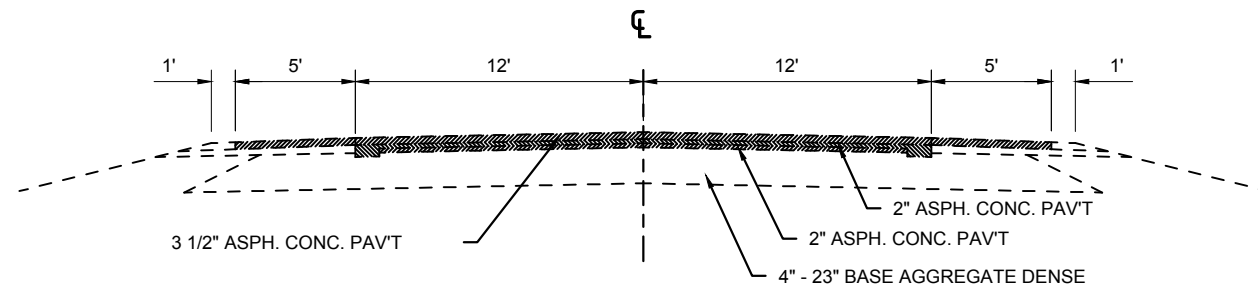
XCEL ENERGY - GAS
ATTN: MURRAY SMERER - SENIOR DESIGNER
2400 FARM ROAD
ASHLAND, WI 54806
PHONE (715) 682-6928

NORTHERN NATURAL GAS COMPANY
ATTN: JEFF TELKER
1995 N. NATURAL GAS RD.
CARLTON, MN 55718
PHONE (402) 530-3466
MOBILE (218) 348-3470
EMAIL: Jeff.Telker@NNGCO.com

NORVADO
ATTN: GUY FOLSOM
P.O. BOX 67
CABLE, WI 54821
PHONE (715) 798-7123
MOBILE (715) 580-8123
EMAIL: gfolsom@norvado.com

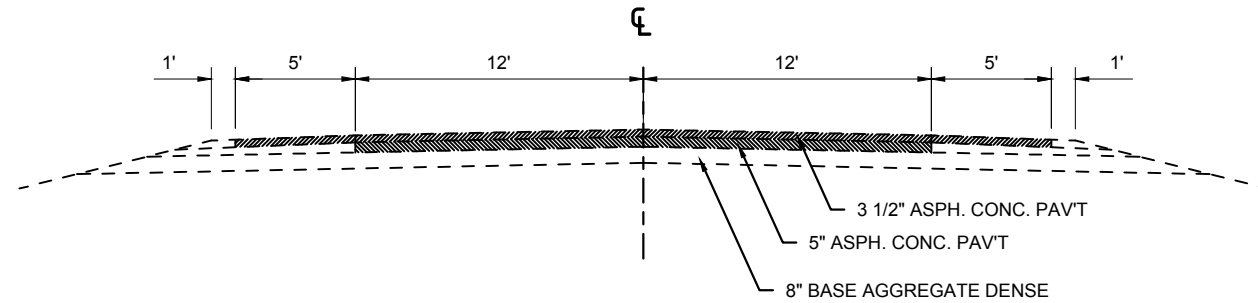
PIKES BAY SANITARY DISTRICT
ATTN: REX DOLLINGER - PRESIDENT
P.O. BOX 689
BAYFIELD, WI 54814
PHONE (715) 779-9866
EMAIL: rex.dollinger@yahoo.com

WASHBURN MUNICIPAL WATER AND SEWER UTILITY
ATTN: GAYLA SALMI - DIRECTOR OF PUBLIC WORKS
P.O. BOX 638
WASHBURN, WI 54891
PHONE (715) 373-6171
AFTER HOURS DISPATCH (715) 373-6120
EMAIL: dpw@cityofwashburn.org



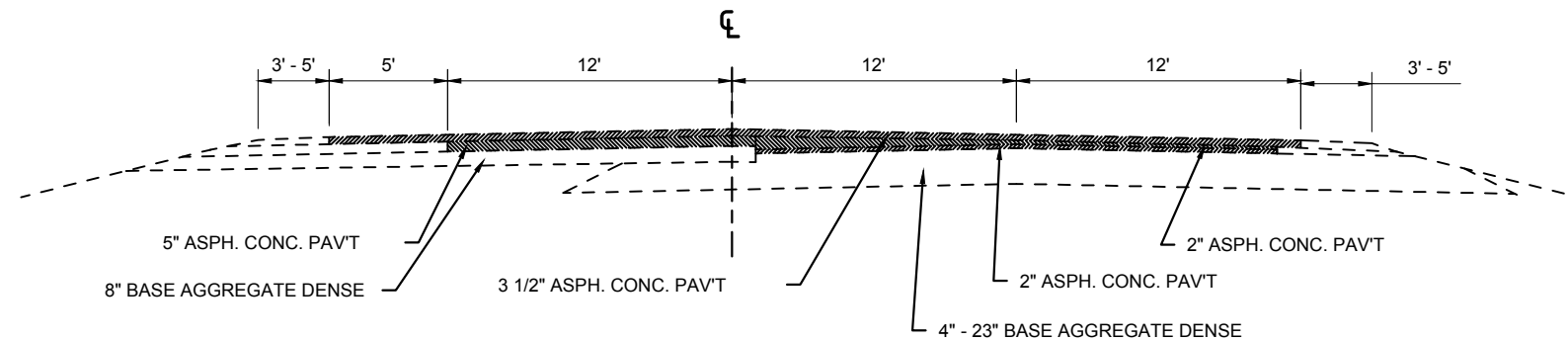
TYPICAL EXISTING SECTION

STA. 37+00'N' - 70+00'N'
STA. 77+59'N' - 232+33'N'
STA. 233+59'N' - 239+05'N'
STA. 240+22'N' - 314+50'N'
STA. 422+00'N' - 439+00'N'
STA. 440+50'N' - 442+00'N'
STA. 453+00'N' - 454+16'N'
STA. 459+44'N' - 470+72'N'
STA. 472+31'N' - 486+90'N'
STA. 550+00'N' - 572+00'N'
STA. 585+00'N' - 601+70'N'



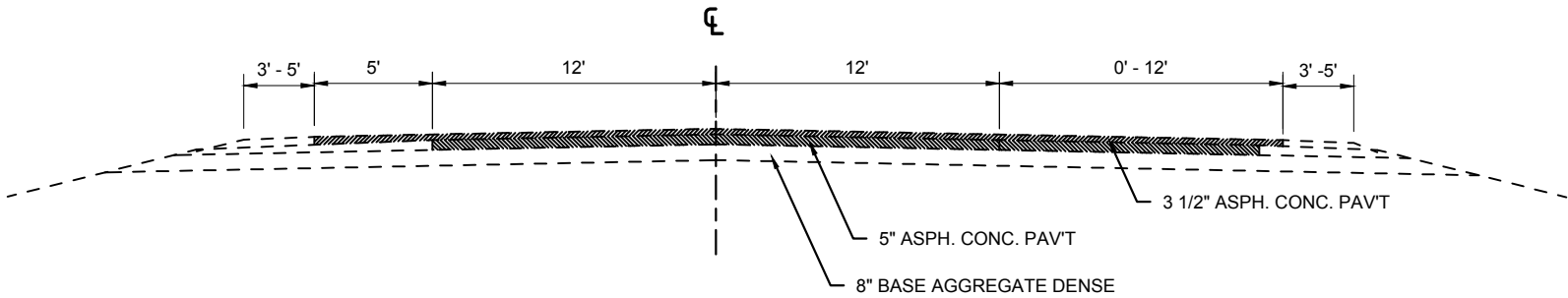
TYPICAL EXISTING SECTION

STA. 70+00'N' - 77+59'N'
STA. 314+50'N' - 320+35'N'
STA. 320+87'N' - 330+85'N'
STA. 391+00'N' - 398+00'N'
STA. 545+00'N' - 550+00'N'
STA. 572+00'N' - 585+00'N'



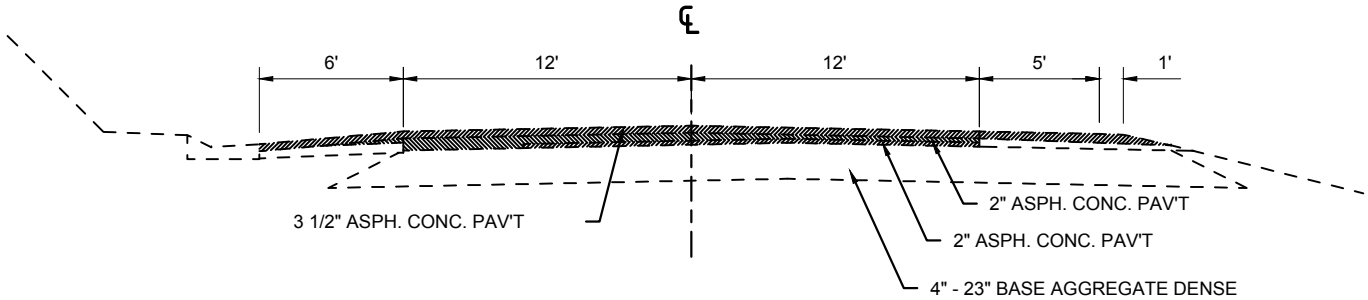
TYPICAL EXISTING SECTION

STA. 337+00'N' - 351+00'N'
STA. 486+90'N' - 539+30'N'



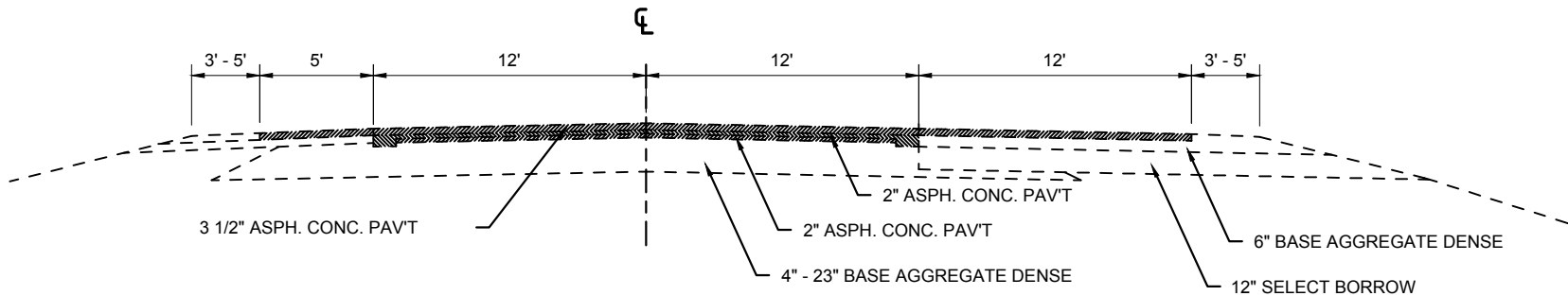
TYPICAL EXISTING SECTION

STA. 330+85'N' - 337+00'N'
STA. 351+00'N' - 357+70'N'
STA. 479+00'N' - 486+90'N'
STA. 532+50'N' - 535+01'N' (ASPHALT CONC. SHOULDER AND CURB & GUTTER)
STA. 539+30'N' - 545+00'N'



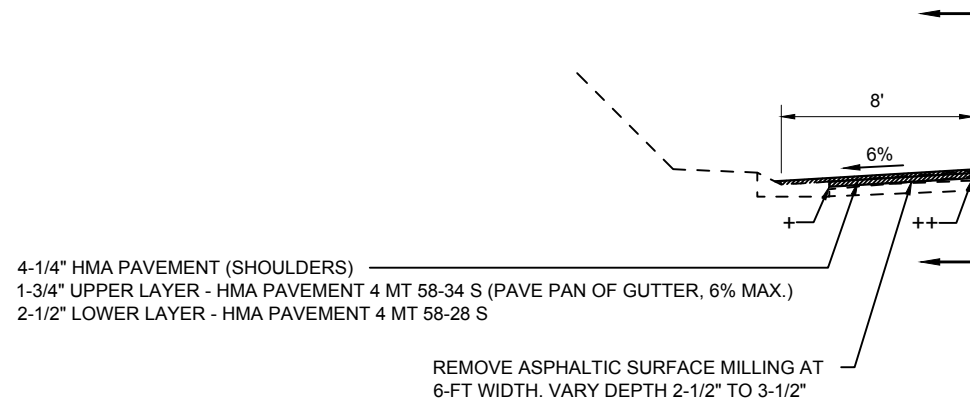
TYPICAL EXISTING SECTION

STA. 371+13'N' - 379+00'N'	STA. 414+22'N' - 415+38'N'
STA. 379+89'N' - 382+14'N'	STA. 417+50'N' - 419+26'N'
STA. 384+14'N' - 389+19'N'	STA. 439+68'N' - 440+56'N'
STA. 393+35'N' - 395+48'N'	STA. 532+50'N' - 535+01'N'
STA. 397+48'N' - 411+12'N'	



TYPICAL EXISTING SECTION

STA. 454+16'N' - 459+44'N'



MILLING AND PAVMENT AT EXISTING CURB & GUTTER SECTION DETAIL

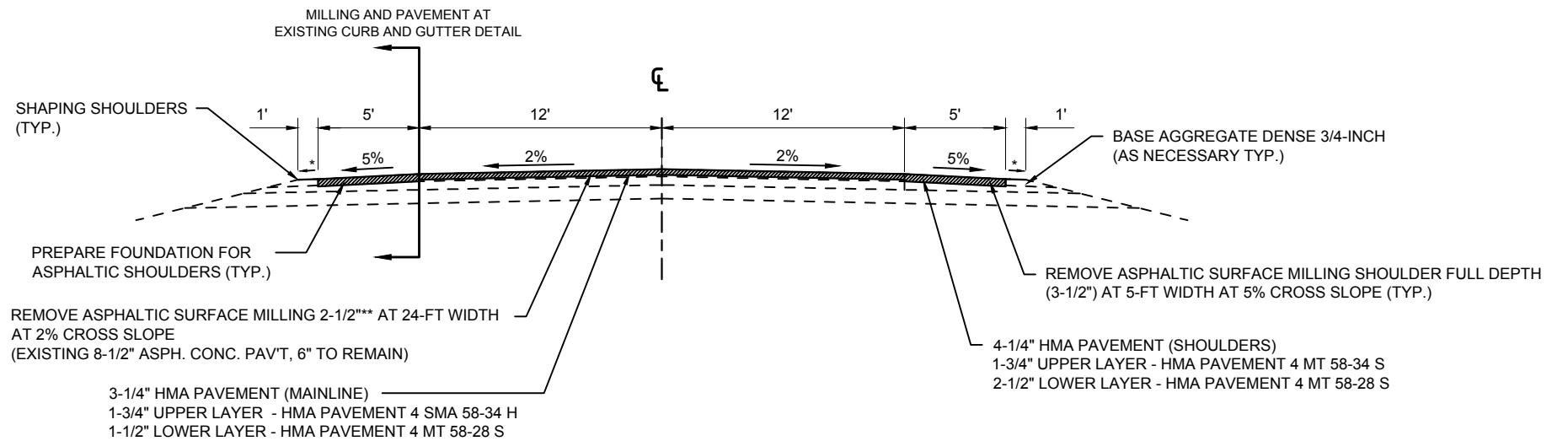
STA. 371+13'N' - 379+00'N'	STA. 414+22'N' - 415+38'N'
STA. 379+89'N' - 382+14'N'	STA. 417+50'N' - 419+26'N'
STA. 384+14'N' - 389+19'N'	STA. 439+68'N' - 440+56'N'
STA. 393+35'N' - 395+48'N'	STA. 532+50'N' - 535+01'N'
STA. 397+48'N' - 411+12'N'	

NOTE:

* VARY FINISHED BASE AGGREGATE DENSE SHOULDER SLOPE AS NEEDED TO MATCH EXISTING SHOULDER POINT (6% MAX.). SHOULDER BASE AGGREGATE MAY EXTEND ON TO ROADWAY INSLOPE (4:1 MAX.).

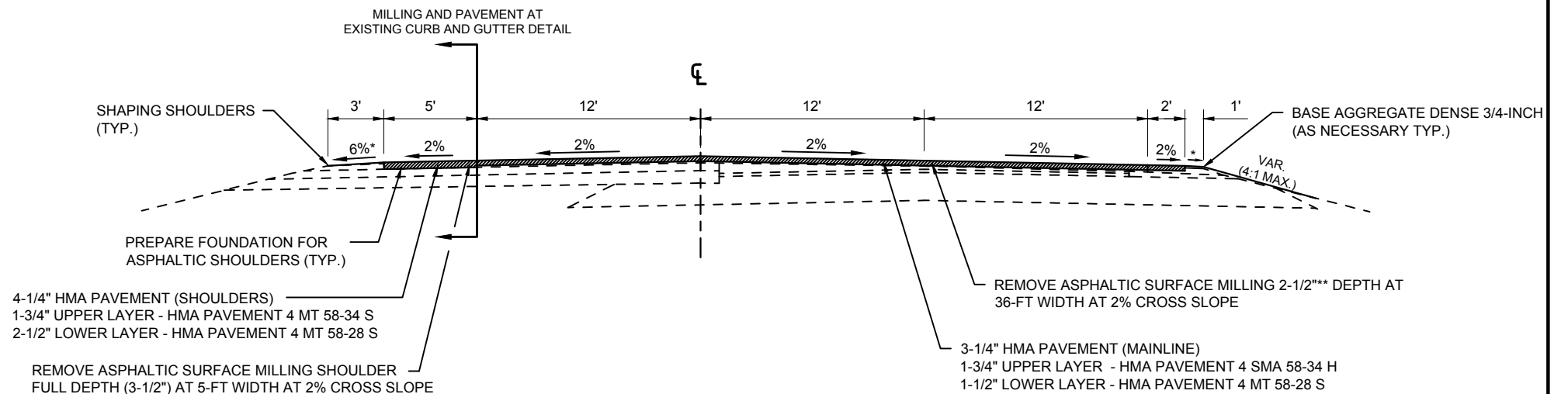
** MEASURE MILLING DEPTH AT EDGE OF EXISTING 12' TRAFFIC LANE OR 24' PASSING / BY-PASS LANE.

+ MILL DEPTH 2-1/2". ++ MILL DEPTH 3-1/2".



PROPOSED TYPICAL SECTION

STA. 37+00'N' - 232+33'N'	STA. 357+70'N' - 454+00'N'
STA. 233+59'N' - 239+05'N'	STA. 459+60'N' - 470+72'N'
STA. 240+30'N' - 320+35'N'	STA. 472+31'N' - 479+00'N'
STA. 320+87'N' - 330+85'N'	STA. 544+00'N' - 602+84'N'



PROPOSED TYPICAL SECTION (PASSING LANES)

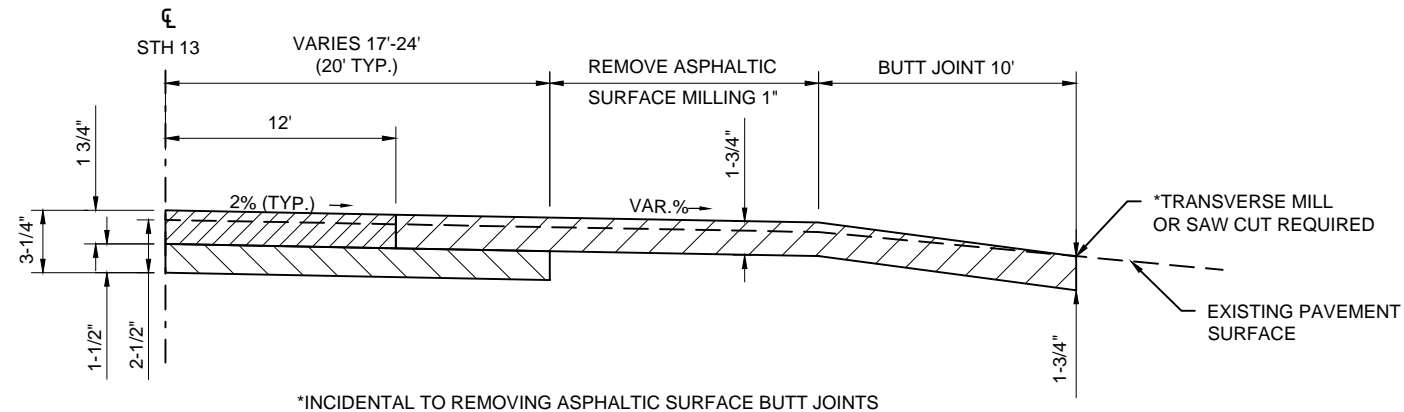
STA. 337+00'N' - 351+00'N'
STA. 486+90'N' - 537+80'N'



*** STATIONING OF BY-PASS LANE TAPERS.



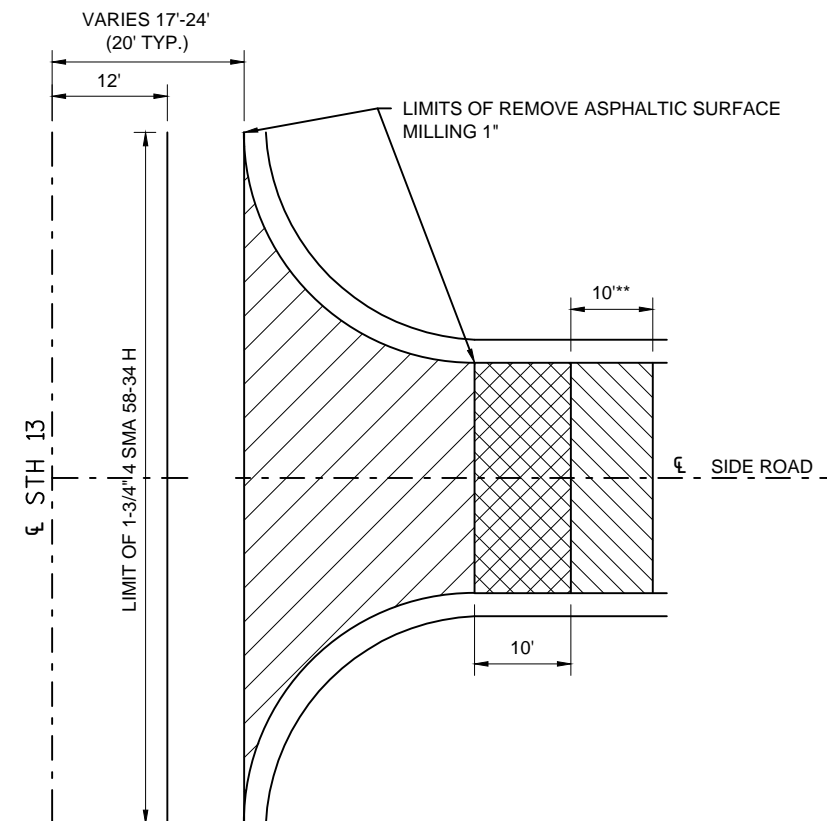
[T]



*INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS

NOTES:

- UPPER LAYER 1-3/4" HMA PAVEMENT 4 SMA 58-34 H
- UPPER LAYER 1-3/4" HMA PAVEMENT 4 MT 58-34 S
- LOWER LAYER 1-1/2" HMA PAVEMENT 4 MT 58-28 S



NOTES:

- REMOVING ASPHALTIC SURFACE MILLING 1", HMA PAVEMENT 4 MT 58-34 S
- REMOVING ASPHALTIC SURFACE BUTT JOINT
- 3/4-INCH BASE AGGREGATE DENSE,** FEATHER TO MATCH PAVED SIDE ROAD APRONS.

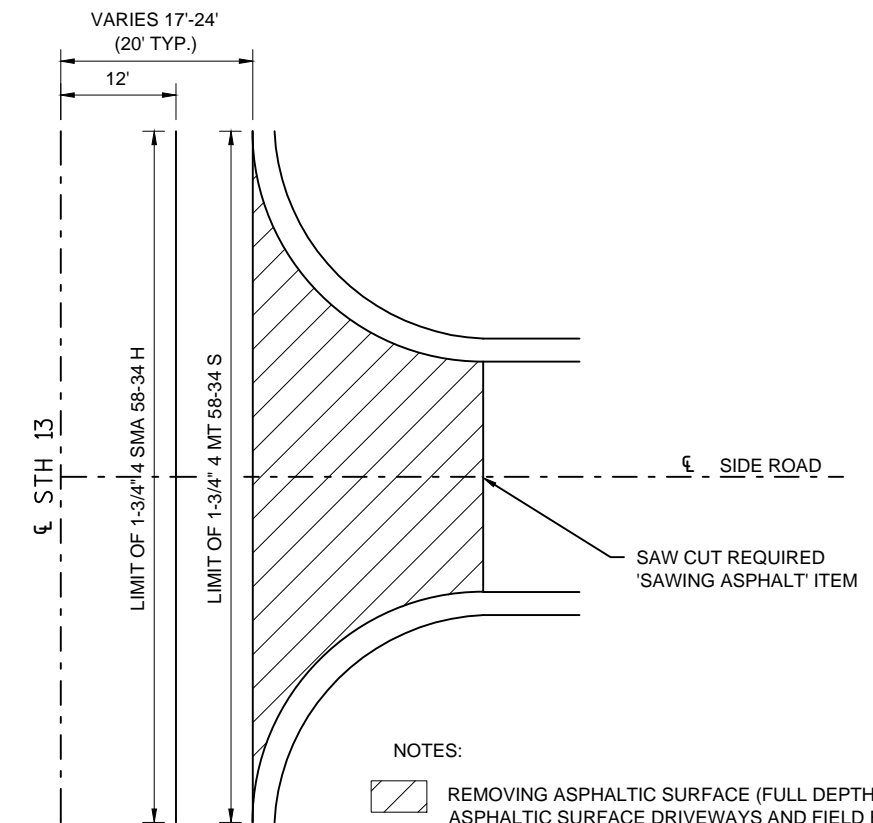
MATCH EXISTING PAVED SURFACE RADII AND TAPERS.

4" HMA PAVEMENT 4 MT 58-34 S REQUIRED ON SIDE ROADS NOT PAVED TO THE RADIUS POINTS.

**REQUIRED ON UN-PAVED SIDE ROADS ONLY.

SOUTH KENNEDY ROAD IS AN UN-IMPROVED SIDE ROAD. EXCAVATE TO THE HORIZONTAL LIMITS AS DIRECTED BY THE ENGINEER, TO A DEPTH OF 12". PLACE AND COMPACT 8" OF BASE AGGREGATE AND 4" OF HMA PAVEMENT AS DIRECTED BY THE ENGINEER. BASE AGGREGATE PAID UNDER ITEM 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH. EXCAVATION PAID UNDER ITEM 205.9015.S GRADING SHAPING AND FINISHING INTERSECTION.

PAVED AND UN-PAVED SIDE ROAD

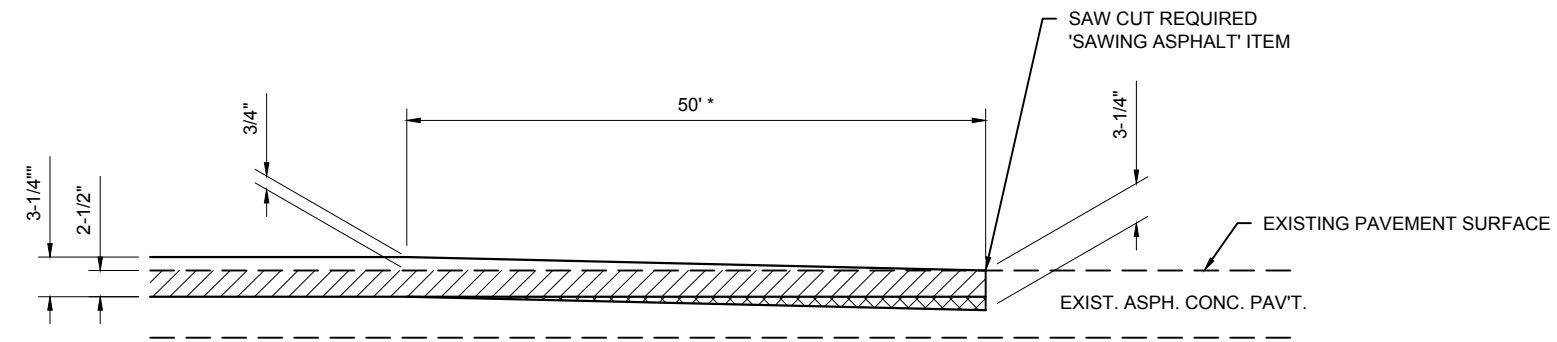


NOTES:


- REMOVING ASPHALTIC SURFACE (FULL DEPTH). 2-1/2" LAYER*. ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES.


MATCH EXISTING PAVED SURFACE RADII AND TAPERS.
*MATCH EXISTING PAVEMENT THICKNESS.

PAVED DRIVEWAYS

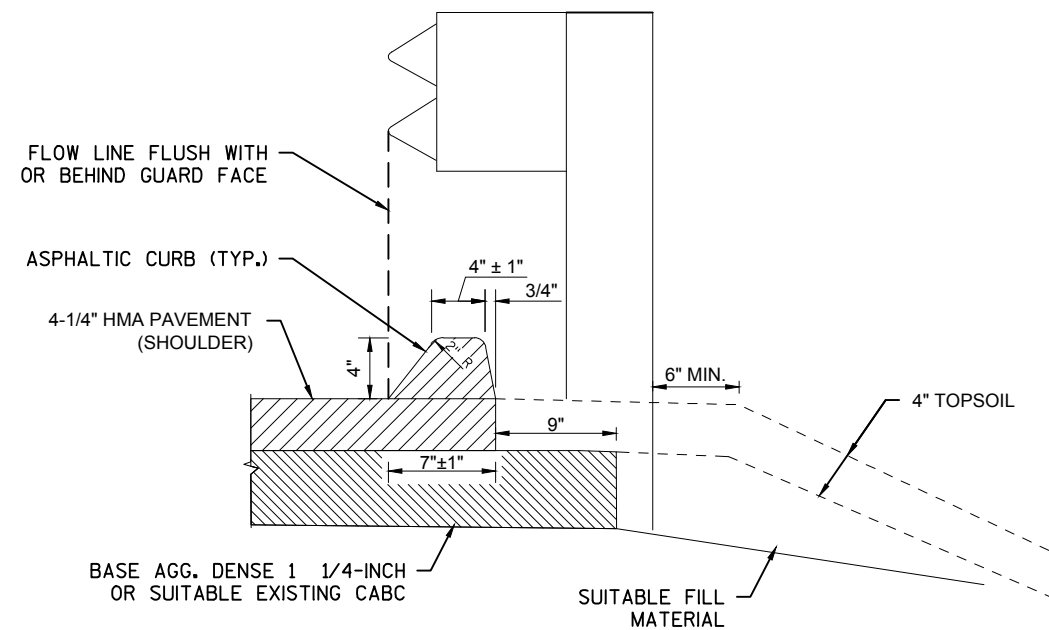


* EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD.

 REMOVE ASPHALTIC SURFACE BUTT JOINTS

 REMOVE ASPHALTIC SURFACE MILLING

MAINLINE BUTT JOINT DETAIL

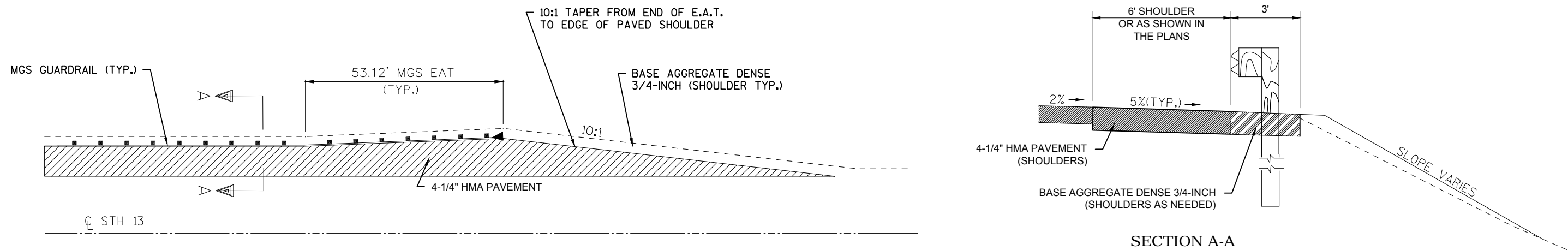


NOTE:

ASPHALTIC CURB SHALL ONLY BE CONSTRUCTED BETWEEN POST
NO. 3 OF THE E.A.T.'s OF THIS BEAM GUARD INSTALLATION.

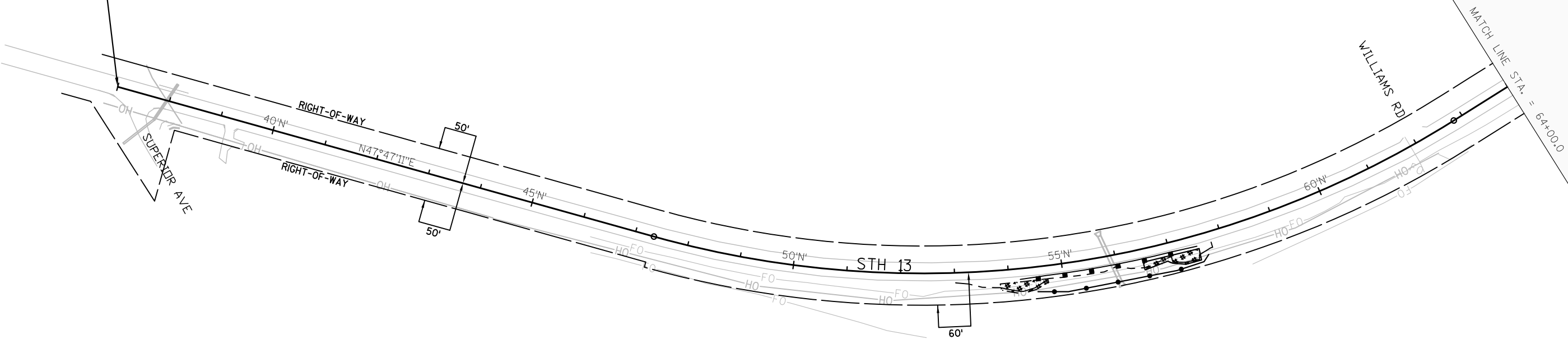
ASPHALTIC CURB DETAIL

STA 598+98.5 - 601+46.1 RT



HMA PAVEMENT AT BEAM GUARD DETAIL

BEGIN PROJECT
STA. 37+00.0'N'
X = 818,383.34
Y = 491,488.77

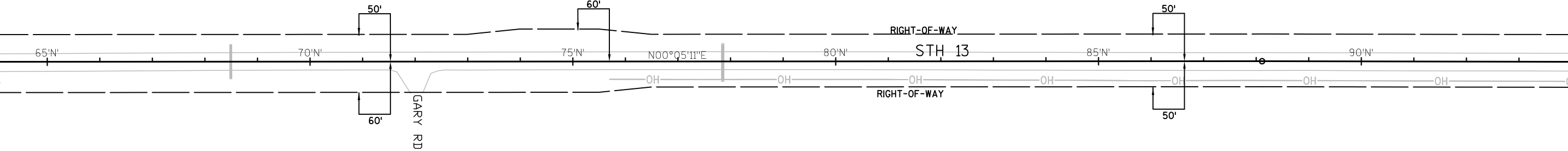


LEGEND

- ##### EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE



MATCH LINE STA. = 64+00.0



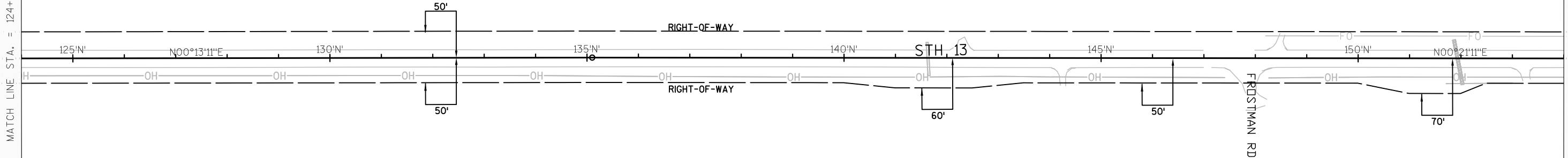
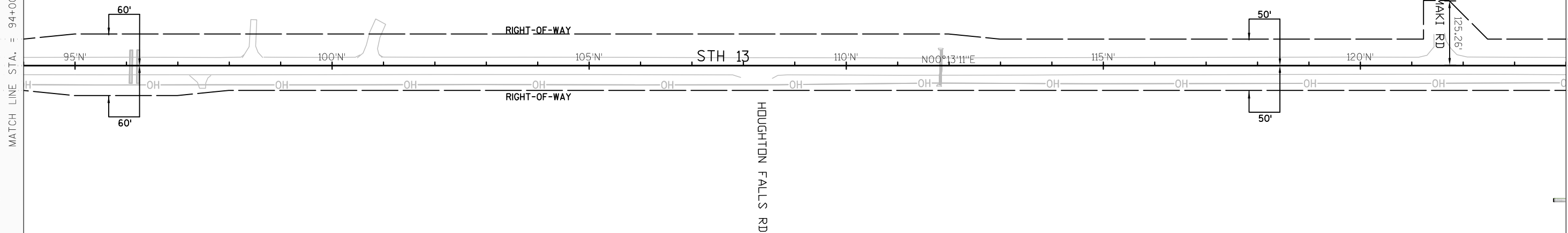
MATCH LINE STA. = 94+00.0

MATCH LINE STA. = 94+00.0

MATCH LINE STA. = 124+00.0

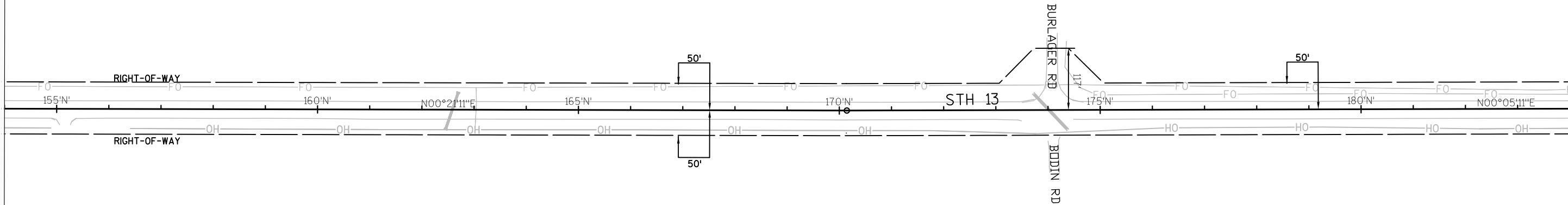
MATCH LINE STA. = 124+00.0

MATCH LINE STA. = 154+00.0



MATCH LINE STA. = 154+00.0

MATCH LINE STA. = 184+00.0



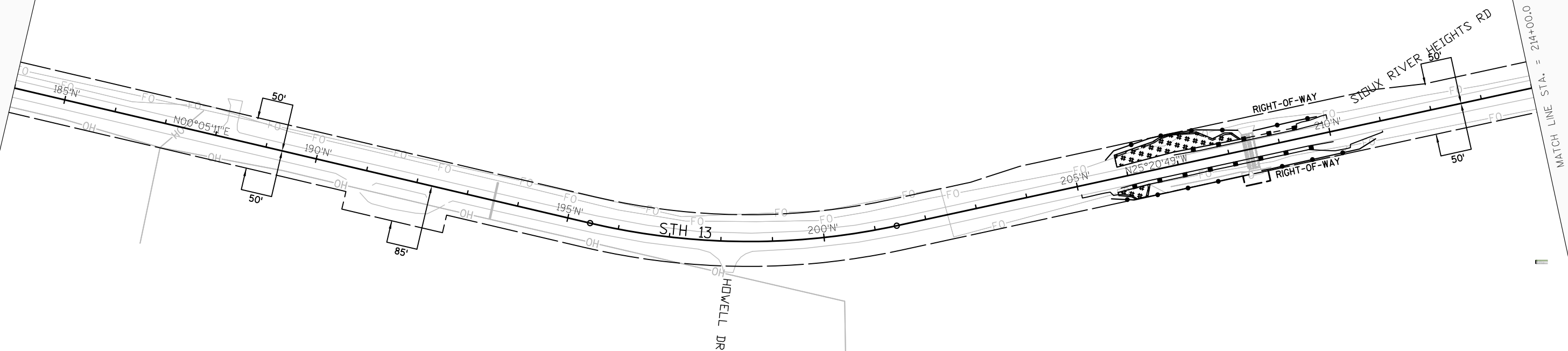
LEGEND

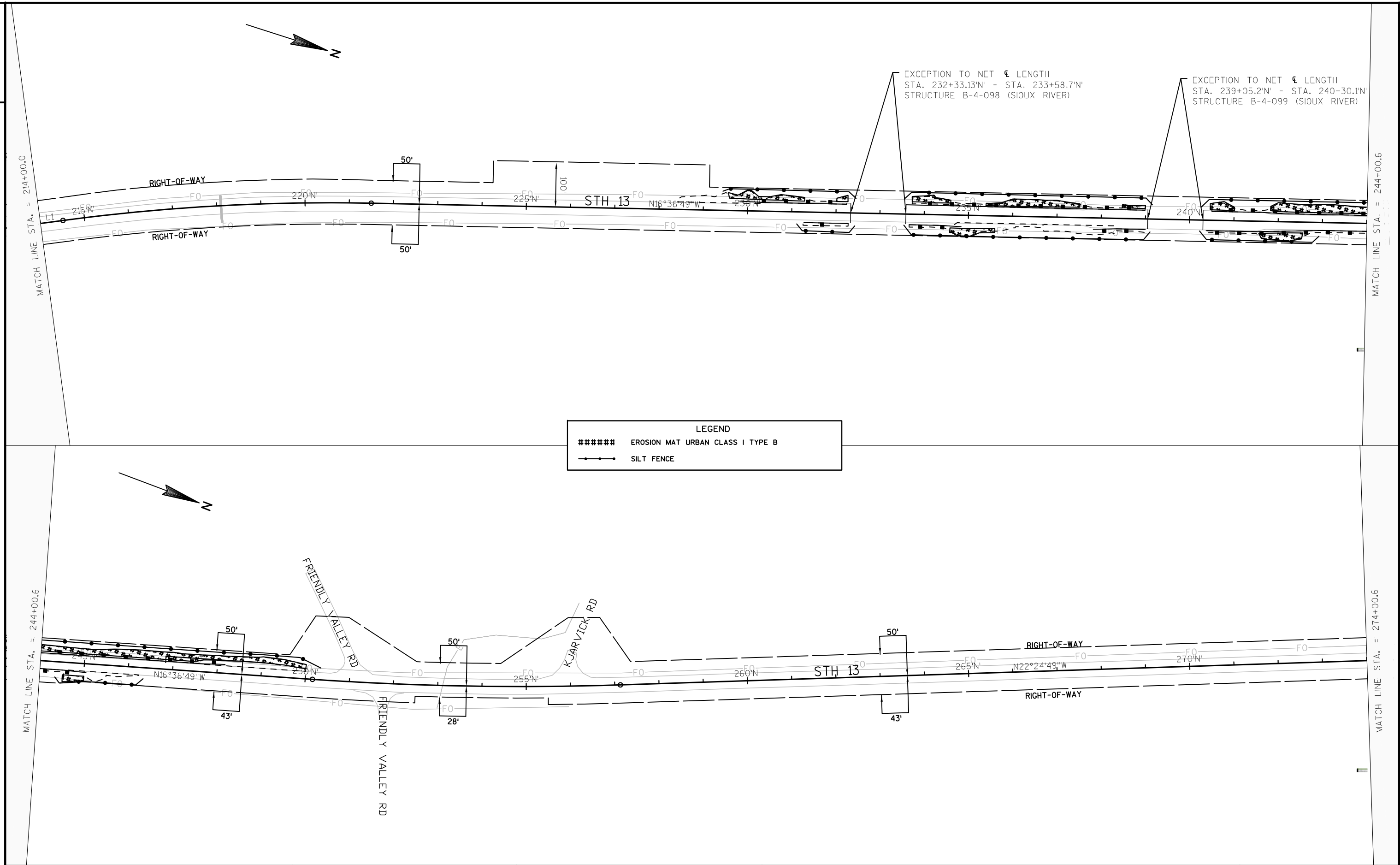
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 EROSION MAT URBAN CLASS I TYPE B

—●—●—

 SILT FENCE

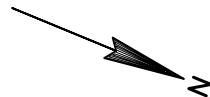




PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL	SHEET	E
------------------------	-------------	------------------	-----------------	-------	---

MATCH LINE STA. = 274+00.6

MATCH LINE STA. = 304+00.6



LEGEND

#####

 EROSION MAT URBAN CLASS I TYPE B

—●—

 SILT FENCE

RIGHT-OF-WAY

RIGHT-OF-WAY

STH 13

BAYVIEW PARK RD

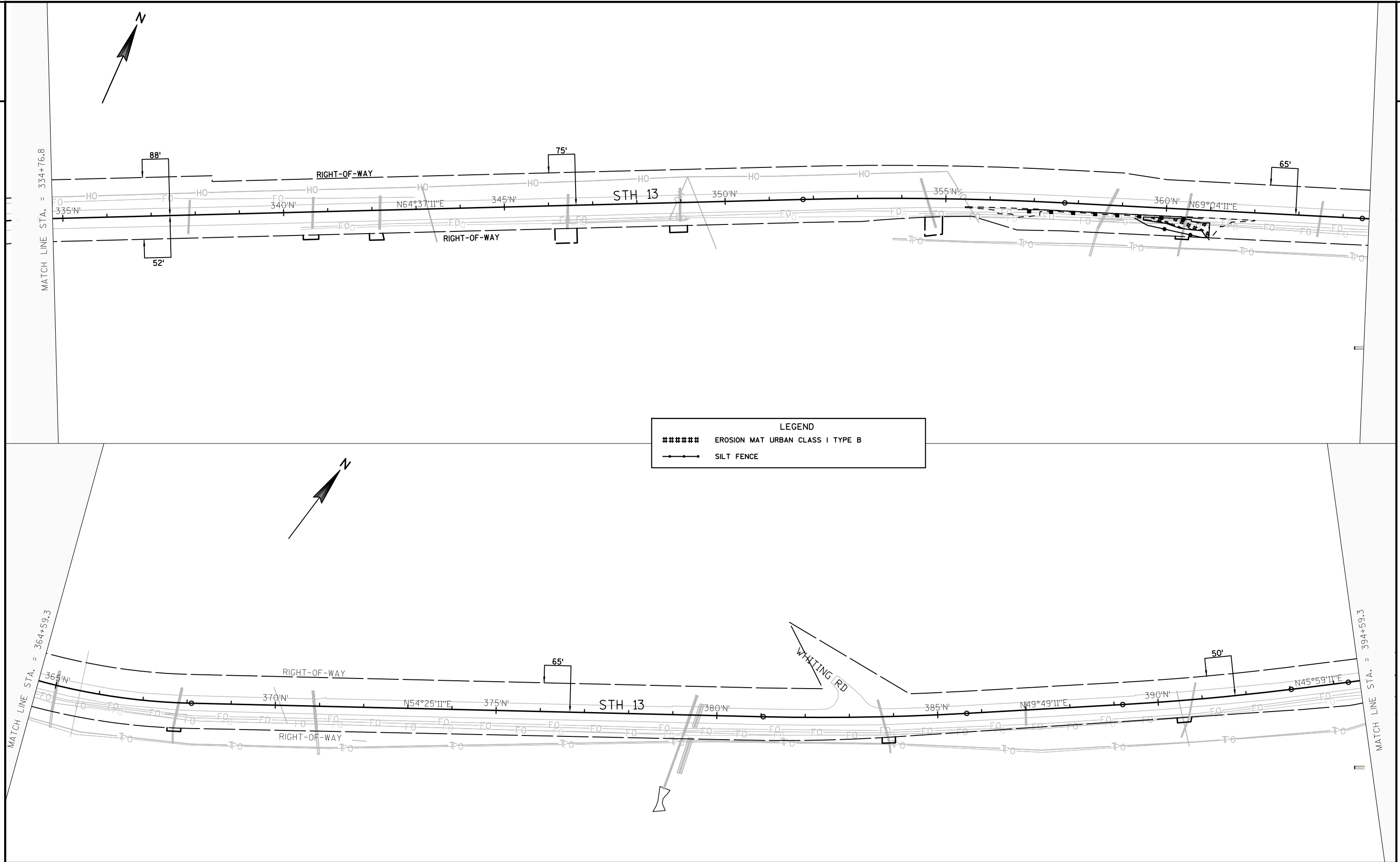
MCCULLOCH RD

STH 13

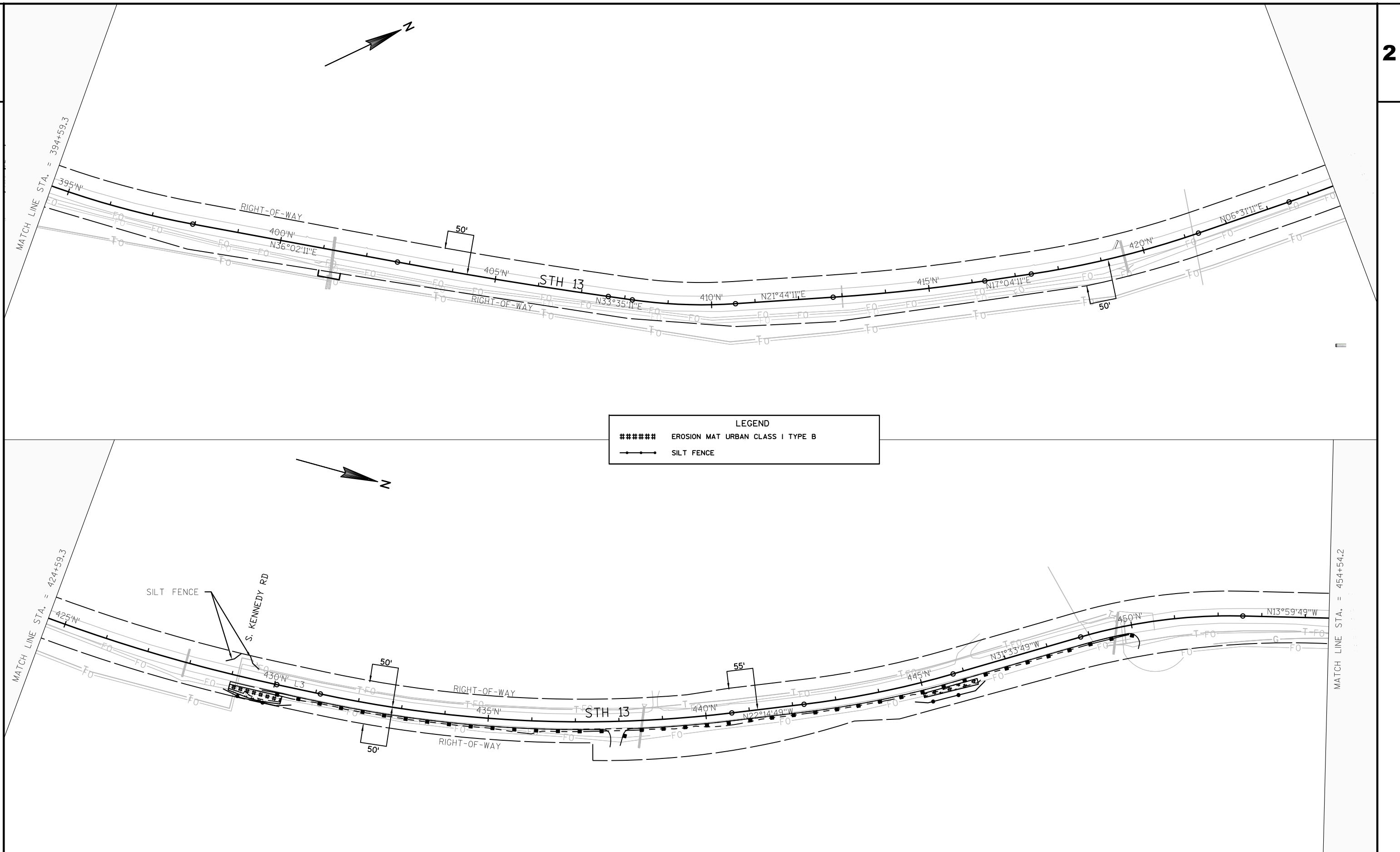
EXCEPTION TO NET ϵ LENGTH
STA. 320+35.0'N' - STA. 320+86.6'N'
STRUCTURE B-4-025 (ONION RIVER)

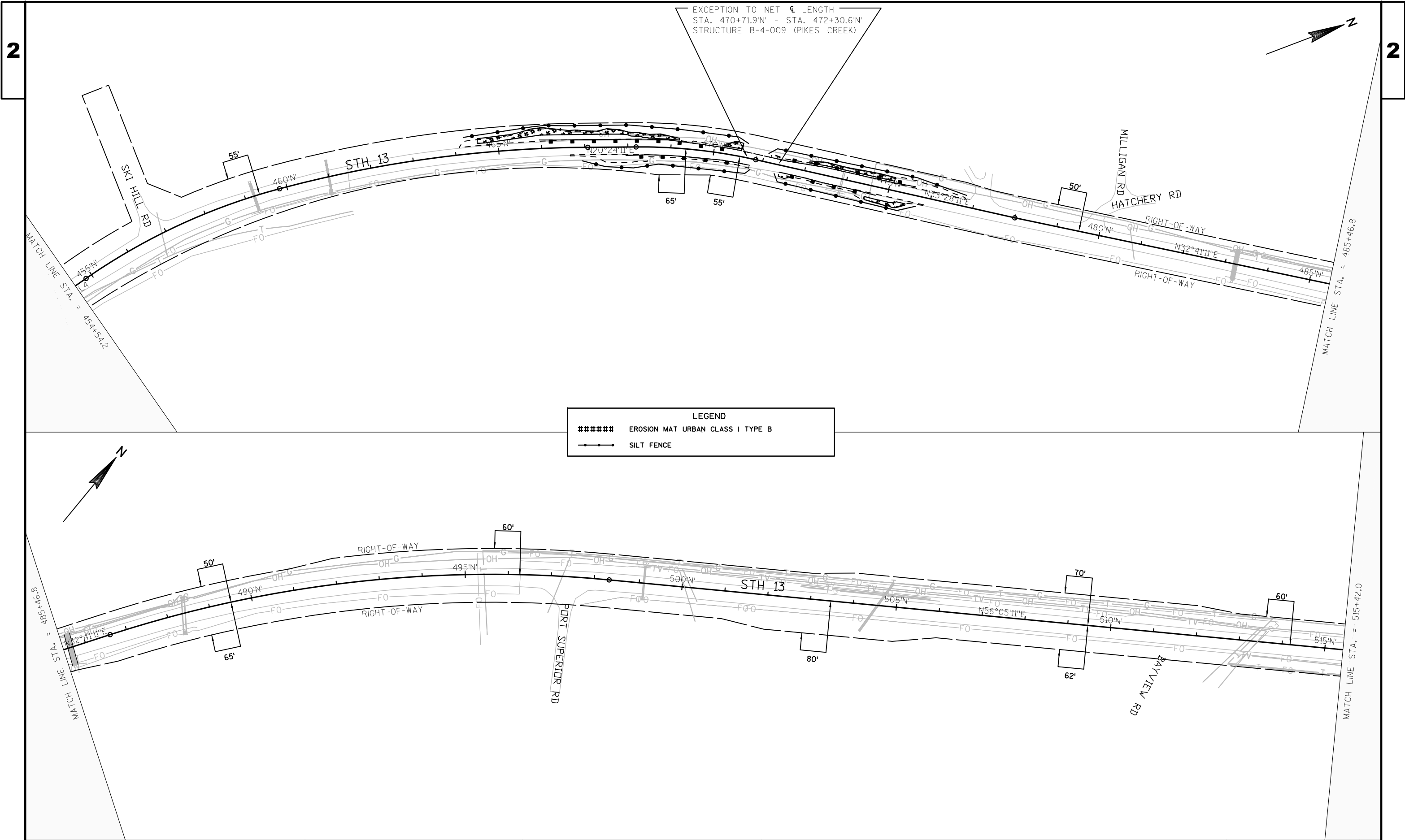
MATCH LINE STA. = 304+00.6

MATCH LINE STA. = 334+76.8



PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL	SHEET	E
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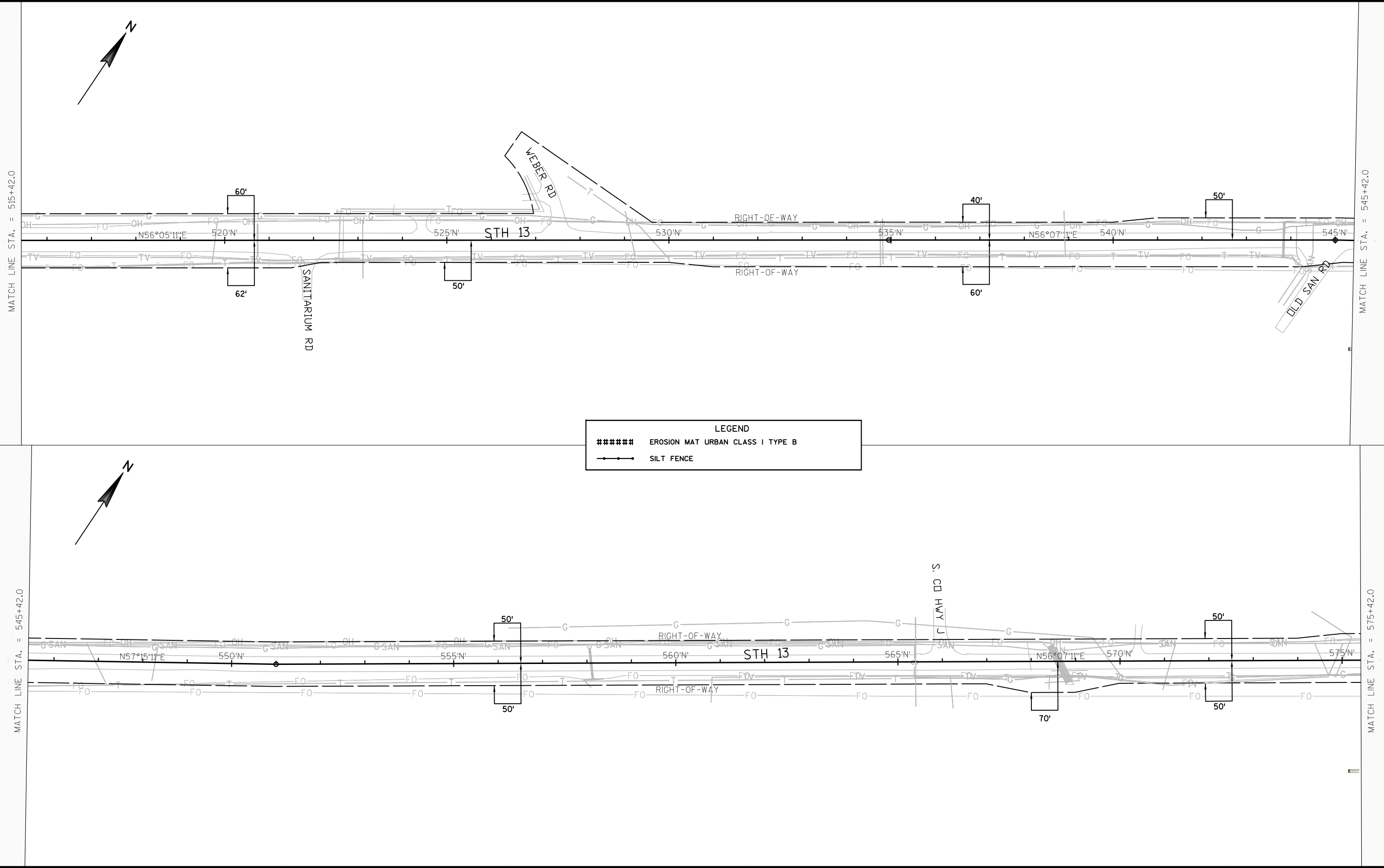


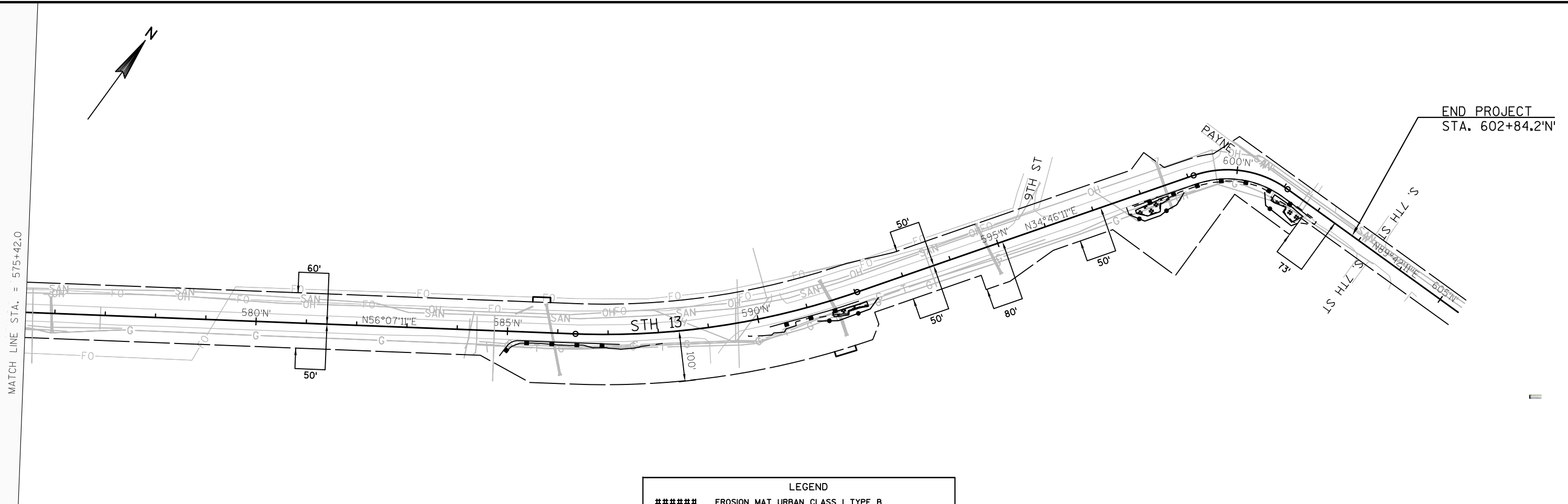
MATCH LINE STA. = 515+42.0

MATCH LINE STA. = 545+42.0

MATCH LINE STA. = 545+42.0

MATCH LINE STA. = 575+42.0





NOTES:

SIGNS REMOVED AND REPLACED AT THE SAME GENERAL LOCATION ARE SHOWN WITH ONE SIGN IDENTIFICATION NUMBER.

SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS OR FOR PROPER SPACING.

NO PASSING ZONE SIGNS MAY NEED TO BE MOVED ACCORDING TO SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO PASSING ZONES".

PI STA = 55+56.62'N'
Y = 492736.23
X = 820058.44
DELTA = 47°42'19"
D = 3°05'00"
T = 821.62'
L = 1547.20'
R = 1858.24'
PC STA = 47+35.00'N'
PT STA = 62+82.20'N'
SE = 5.1%
TRANS. = 181'

DARE COMMUNITY SIGN & TREE CITY SIGN
TO BE REMOVED BY CITY PRIOR TO CONSTRUCTION.

SIGN LEGEND

EXISTING SIGN ON WOOD POST(S)
PROPOSED SIGN ON WOOD POST(S)

PI STA. 88+11.20'
X = 820063.41
Y = 496086.85

MATCH LINE STA. = 64+00.0

MATCH LINE STA. = 94+00.0

NOTES:

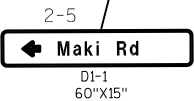
SIGNS REMOVED AND REPLACED AT THE SAME GENERAL LOCATION ARE SHOWN WITH ONE SIGN IDENTIFICATION NUMBER.

SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS OR FOR PROPER SPACING.

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MATCH LINE STA. = 94+00.0

MATCH LINE STA. = 124+00.0



SIGN LEGEND

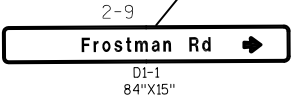
EXISTING SIGN ON WOOD POST(S)

PROPOSED SIGN ON WOOD POST(S)

PI STA. 135+10.20
X = 820081.43
Y = 500785.81

MATCH LINE STA. = 124+00.0

MATCH LINE STA. = 154+00.0



NOTES:

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PI STA. 170+14.40
X = 820103.02
Y = 504289.95

MATCH LINE STA. = 154+00.0

MATCH LINE STA. = 184+00.0

SIGN LEGEND

-  EXISTING SIGN ON WOOD POST(S)
 PROPOSED SIGN ON WOOD POST(S)

PI STA = 198+48.41'
Y = 507123.95
X = 820107.30
DELTA = 25°25'55"
D = 4°15'00"
T = 304.21'
L = 598.40'
R = 1348.14'
PC STA = 195+44.20'
PT STA = 201+42.60'
SE = 5.8%
TRANS. = 199'

MATCH LINE STA. = 184+00.0

MATCH LINE STA. = 214+00.0

NOTES:

SIGNS REMOVED AND REPLACED AT THE SAME GENERAL LOCATION ARE SHOWN WITH ONE SIGN IDENTIFICATION NUMBER.

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4-1
**HISTORICAL
MARKER**
1/2 MILE

D5-63
60"X36"

PT: 221+49.60'N'

PI STA = 218+01.13'N'
Y = 508897.75
X = 819267.06
DELTA = 8°43'44"
D = 1°15'00"
T = 349.83'
L = 698.30'
R = 4583.66'
PC STA = 214+51.30'N'
PT STA = 221+49.60'N'
SE = 2.8%
TRANS. = 122'

4-2
**NO
PASSING
ZONE**
W14-3
48"X36"

STA BACK = 232+94.41'N'
STA AHEAD = 232+95.00'N'

4-3
Friendly Valley Rd
D1-61
102"X24"

SIGN LEGEND

EXISTING SIGN ON WOOD POST(S)
 PROPOSED SIGN ON WOOD POST(S)

PI STA = 253+64.90'N'
Y = 512313.47
X = 818247.87
DELTA = 5°48'12"
D = 0°50'00"
T = 348.50'
L = 696.40'
R = 6875.49'
PC STA = 250+16.40'N'
PT STA = 257+12.80'N'
SE = 2.0%
TRANS. = 102'

4-10
Friendly Valley Rd

D1-61
102"X24"

4-12
STOP
R1-1
30"X30"

4-13
Kjarvick Rd

D1-1
84"X15"

4-5
**SOUTH
13**
J4-1
24"X36"

4-6
STOP
R1-1
30"X30"

4-9
**WASHBURN
HS CHAPTER**
I55-56
30"X36"

4-7
STOP
R1-1
30"X30"

4-8
Kjarvick Rd
D1-1
84"X15"

4-11
**SPINDRIFT
CREW**
I55-56
30"X36"

4-4
**NORTH
13**
J4-1
24"X36"

MATCH LINE STA. = 244+00.6

MATCH LINE STA. = 274+00.6

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

PERMANENT SIGNING

SHEET

E

NOTES:

SIGNS REMOVED AND REPLACED AT THE SAME GENERAL LOCATION ARE SHOWN WITH ONE SIGN IDENTIFICATION NUMBER.

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MATCH LINE STA. = 274+00.6

MATCH LINE STA. = 304+00.6

5-3
Bayview Park Rd
D1-1
108"X15"5-1
Bayview Park Rd
D1-1
108"X15"5-2
STOP
R1-1
30"X30"

SIGN LEGEND

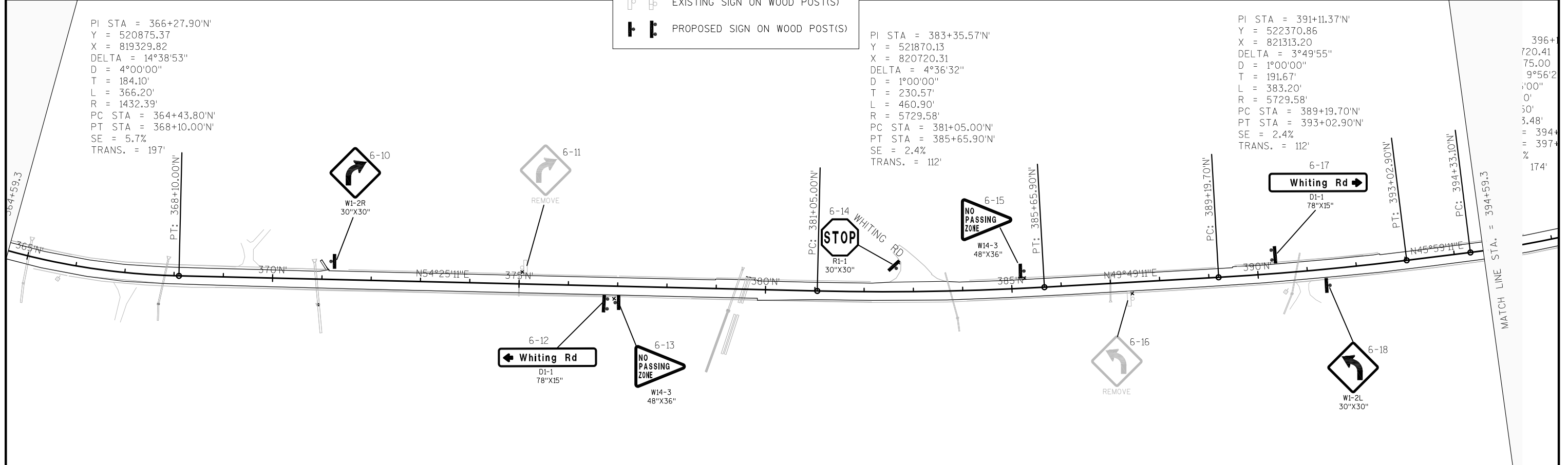
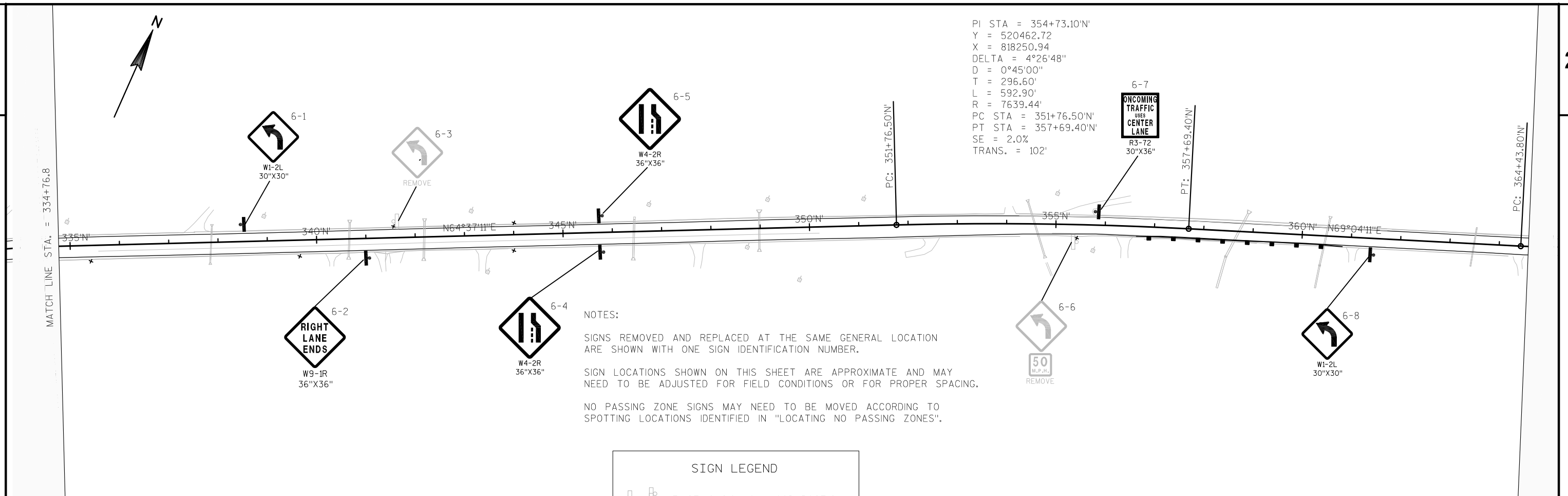
EXISTING SIGN ON WOOD POST(S)
PROPOSED SIGN ON WOOD POST(S)

5-12
McCulloch Rd
D1-1
90"X15"5-14
W5-52L
12"X36"5-15
W5-52R
12"X36"5-13
W5-52R
12"X36"5-16
W5-52L
12"X36"5-9
STOP
R1-1
30"X30"5-8
SPINDRIFT
CREW
155-56
30"X36"5-11
S3-1
36"X36"5-10
W1-2R
30"X30"5-7
SPINDRIFT
CREW
155-56
30"X36"5-6
NO
PASSING
ZONE
W14-3
48"X36"5-5
PASSING
LANE
AHEAD
1/2 MILE
R4-51
36"X48"5-4
McCulloch Rd
D1-1
90"X15"

PI STA = 327+35.85'
Y = 519128.13
X = 815437.16
DELTA = 87°02'53"
D = 5°00'00"
T = 1088.35'
L = 1740.96'
R = 1145.92'
PC STA = 316+47.50'
PT STA = 334+47.20'
SE = 6.0%
TRANS. = 204'

5-17
SLOWER
TRAFFIC
KEEP
RIGHT
R4-3
36"X48"

STA BACK = 333+88.46'
STA AHEAD = 334+47.20'
MATCH LINE STA. = 334+76.8



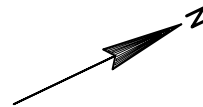
PI STA = 396+14.30'N'
Y = 522720.41
X = 821675.00
DELTA = 9°56'28"
D = 2°45'00"
T = 181.20'
L = 361.50'
R = 2083.48'
PC STA = 394+33.10'N'
PT STA = 397+94.60'N'
SE = 4.8%
TRANS. = 174'

PI STA = 405+17.19'N'
Y = 523451.24
X = 822206.72
DELTA = 2°26'58"
D = 0°30'00"
T = 244.99'
L = 489.90'
R = 11459.16'
PC STA = 402+72.20'N'
PT STA = 407+62.10'N'
SE = NORMAL CROWN

PI STA = 409+36.73'N'
Y = 523800.80
X = 822438.85
DELTA = 11°51'36"
D = 5°00'00"
T = 119.03'
L = 237.20'
R = 1145.92'
PC STA = 408+17.70'N'
PT STA = 410+54.90'N'
SE = 6.0%
TRANS. = 204'

PI STA = 414+54.35'N'
Y = 524282.41
X = 822630.84
DELTA = 4°39'55"
D = 1°20'00"
T = 175.05'
L = 349.90'
R = 4297.18'
PC STA = 412+79.30'N'
PT STA = 416+29.20'N'
SE = 3.0%
TRANS. = 128'

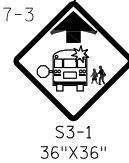
PI STA = 419+35.11'N'
Y = 524742.18
X = 822772.02
DELTA = 10°32'29"
D = 2°40'00"
T = 198.21'
L = 395.30'
R = 2148.59'
PC STA = 417+36.90'N'
PT STA = 421+32.20'N'
SE = 4.7%
TRANS. = 171'



7-1



7-3



SIGN LEGEND



EXISTING SIGN ON WOOD POST(S)



PROPOSED SIGN ON WOOD POST(S)

NOTES:

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SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS OR FOR PROPER SPACING.

NO PASSING ZONE SIGNS MAY NEED TO BE MOVED ACCORDING TO SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO PASSING ZONES".

PI STA = 426+79.50'N'
Y = 525482.86
X = 822856.70
DELTA = 9°48'04"
D = 1°30'00"
T = 327.50'
L = 653.40'
R = 3819.72'
PC STA = 423+52.00'N'
PT STA = 430+08.70'N'
SE = 3.3%
TRANS. = 135'

7-6



STA BACK = 430+05.40'N'
STA AHEAD = 430+08.70'N'

PT: 430+08.70'N'

PC: 431+10.80'N'

PI STA = 435+89.58'N'
Y = 526389.76
X = 822804.72
DELTA = 18°58'34"
D = 2°00'00"
T = 478.78'
L = 948.80'
R = 2864.79'
PC STA = 431+10.80'N'
PT STA = 440+59.60'N'
SE = 4.0%
TRANS. = 153'

PI STA = 444+01.39'N'
Y = 527149.22
X = 822493.98
DELTA = 9°18'43"
D = 2°40'00"
T = 174.99'
L = 349.20'
R = 2148.59'
PC STA = 442+26.40'N'
PT STA = 445+75.60'N'
SE = 4.7%
TRANS. = 171'

7-11



PC: 448+80.20'N'

PT: 452+56.60'N'

Bayfield
Fish Hatchery
1/2 MILE

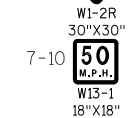
PI STA = 450+69.89'N'
Y = 527719.48
X = 822143.66
DELTA = 17°33'55"
D = 4°40'00"
T = 189.69'
L = 376.40'
R = 1227.77'
PC STA = 448+80.20'N'
PT STA = 452+56.60'N'
SE = 6.0%
TRANS. = 204'

7-14

PASSING
LANE
AHEAD
1/2 MILE

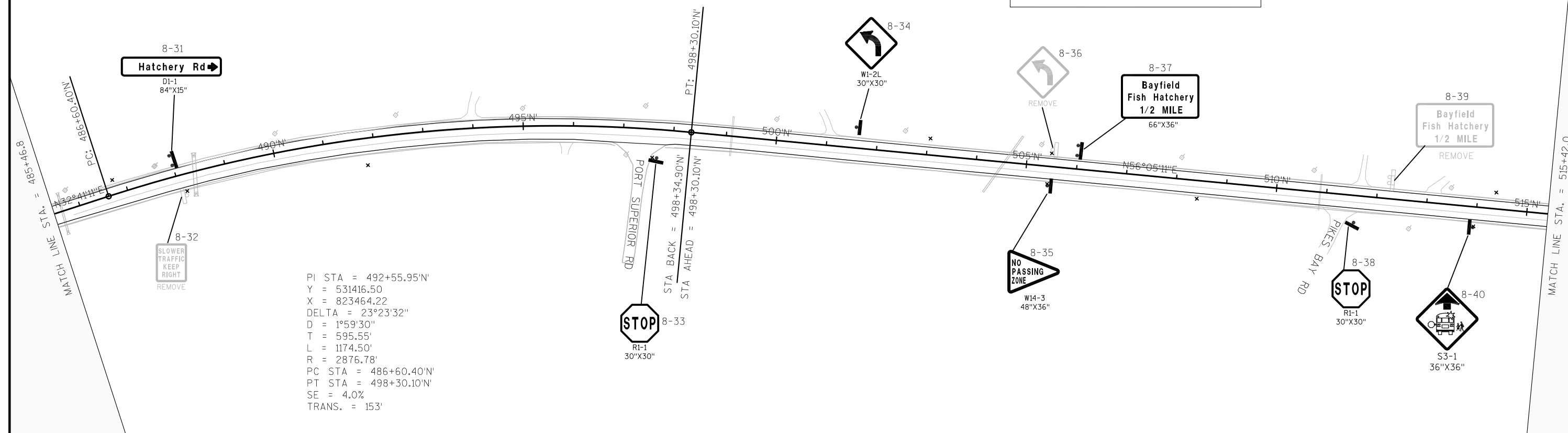
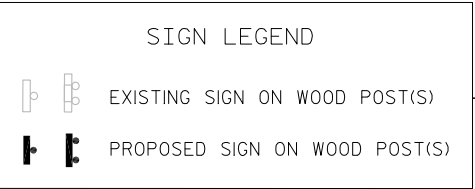
R4-51
36\"/>

Ski Hill Rd
D1-1
78\"/>



SIGNS REMOVED AND REPLACED AT THE SAME GENERAL LOCATION ARE SHOWN WITH ONE SIGN IDENTIFICATION NUMBER.

NO PASSING ZONE SIGNS MAY NEED TO BE MOVED ACCORDING TO SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO PASSING ZONES".



NOTES:

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NO PASSING ZONE SIGNS MAY NEED TO BE MOVED ACCORDING TO SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO PASSING ZONES".



MATCH LINE STA. = 515+42.0

MATCH LINE STA. = 545+42.0

MATCH LINE STA. = 545+42.0

MATCH LINE STA. = 575+42.0

SIGN LEGEND

-  EXISTING SIGN ON WOOD POST(S)
-  PROPOSED SIGN ON WOOD POST(S)

NOTES:

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SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS OR FOR PROPER SPACING.

NO PASSING ZONE SIGNS MAY NEED TO BE MOVED ACCORDING TO SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO PASSING ZONES".

PI STA = 589+23.29'N'
Y = 536809.79
X = 831512.94
DELTA = 21°20'56"
D = 3°45'00"
T = 287.99'
L = 569.30'
R = 1527.89'
PC STA = 586+35.30'N'
PT STA = 592+04.60'N'
SE = 5.5%
TRANS. = 191'

SOUTH
13

MOVE
SCenic BYWAY

10-8
J4-1
24"X36"

STOP
R1-1
30"X30"

Bayfield
POPULATION
487
I2-3
60"X24"

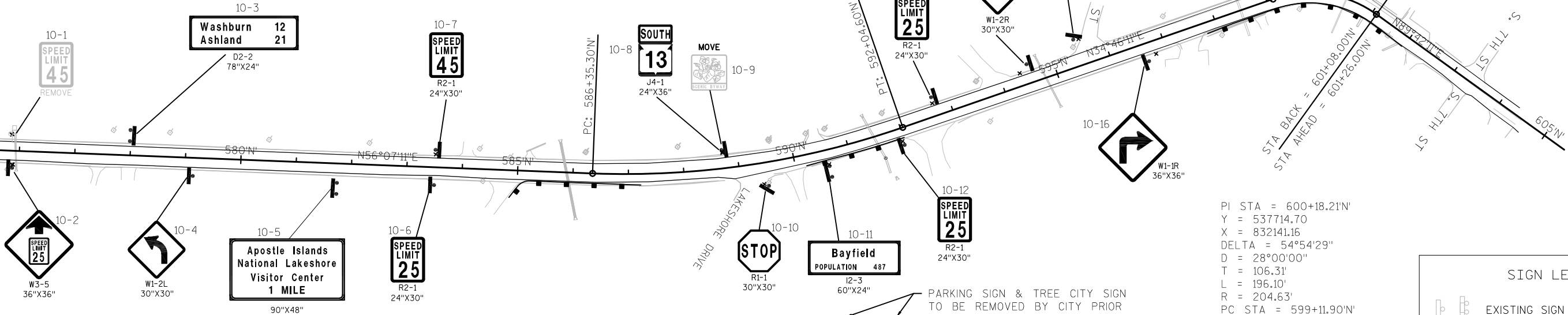
PARKING SIGN & TREE CITY SIGN
TO BE REMOVED BY CITY PRIOR
TO CONSTRUCTION.

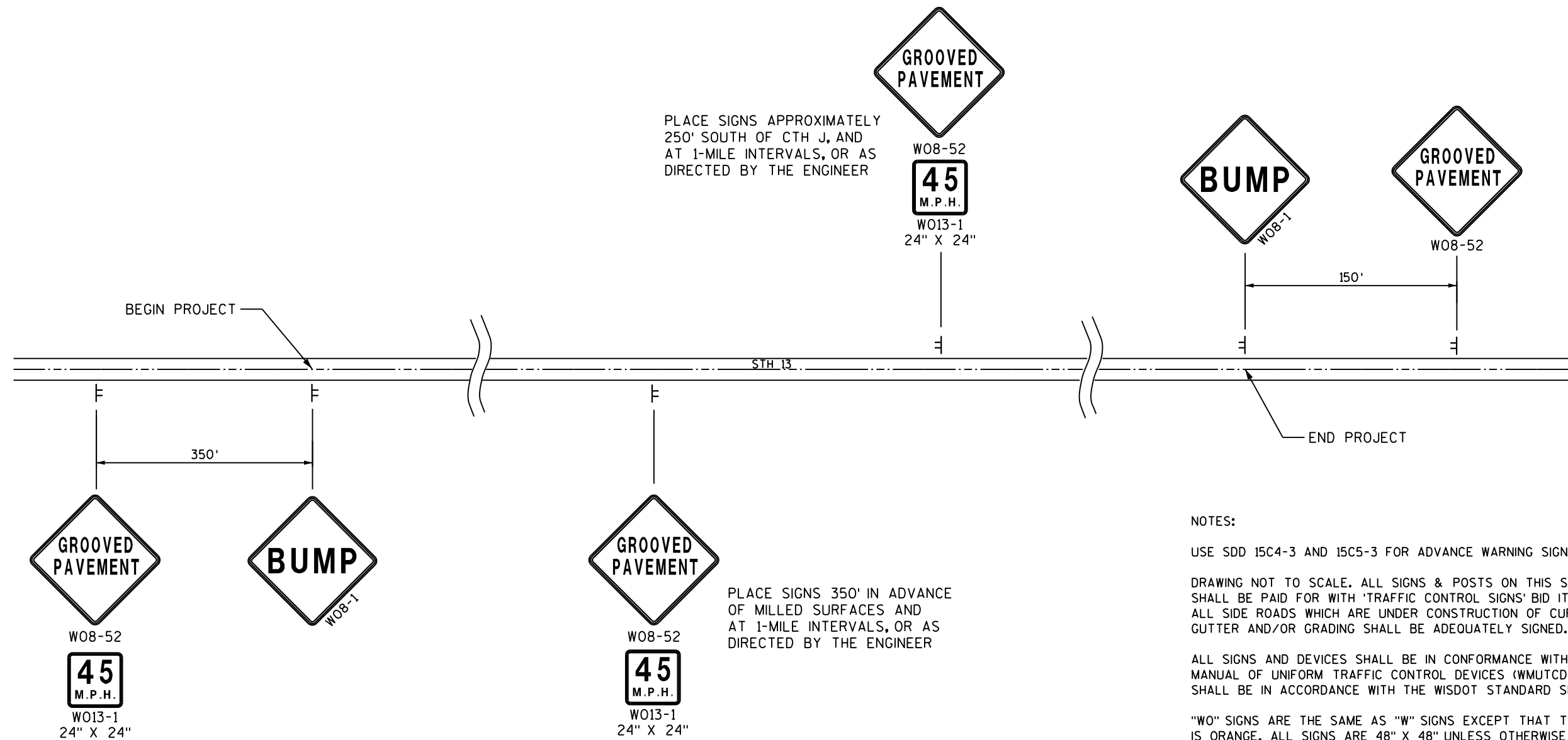
PI STA = 600+18.21'N'
Y = 537714.70
X = 832141.16
DELTA = 54°54'29"
D = 28°00'00"
T = 106.31'
L = 196.10'
R = 204.63'
PC STA = 599+11.90'N'
PT STA = 601+26.00'N'
SE = 6.0%
TRANS. = 204'

SIGN LEGEND

- EXISTING SIGN ON WOOD POST(S)
- PROPOSED SIGN ON WOOD POST(S)

MATCH LINE STA. = 575+42.0





NOTES:

USE SDD 15C4-3 AND 15C5-3 FOR ADVANCE WARNING SIGNS.

DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET
SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM.
ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB &
GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN
MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS
SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

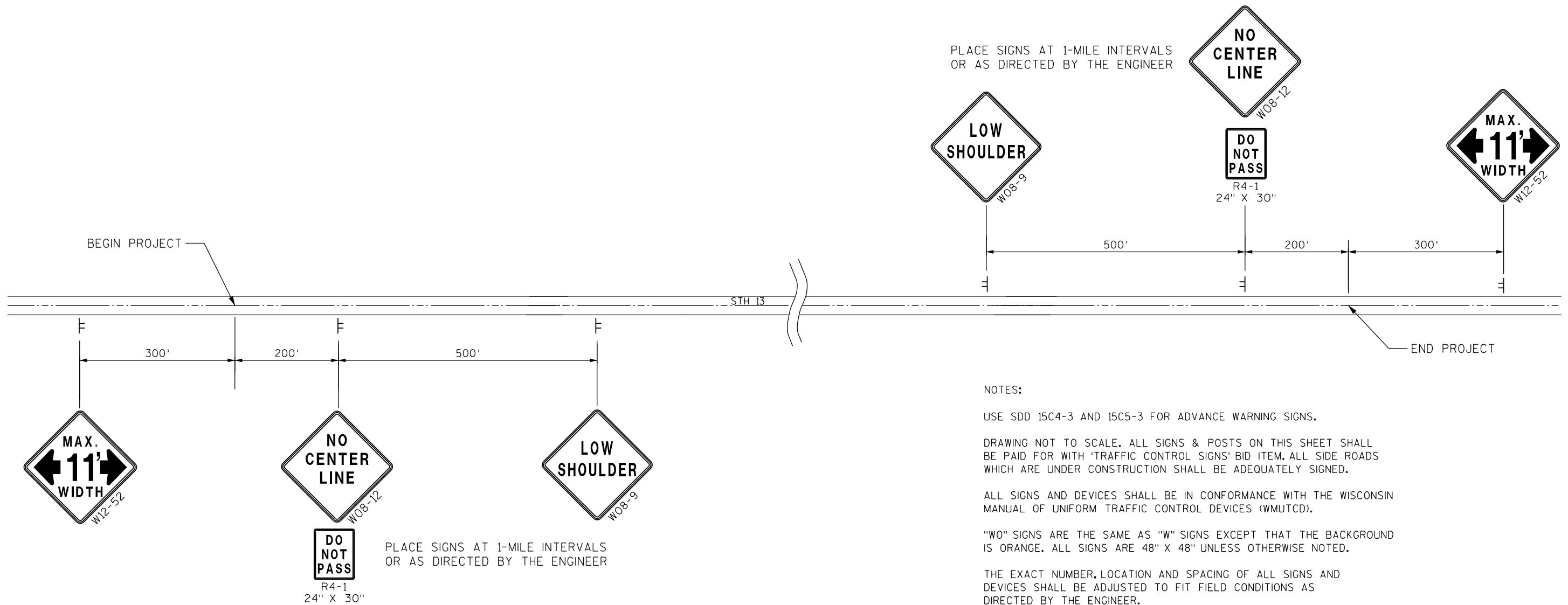
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND
IS ORANGE. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

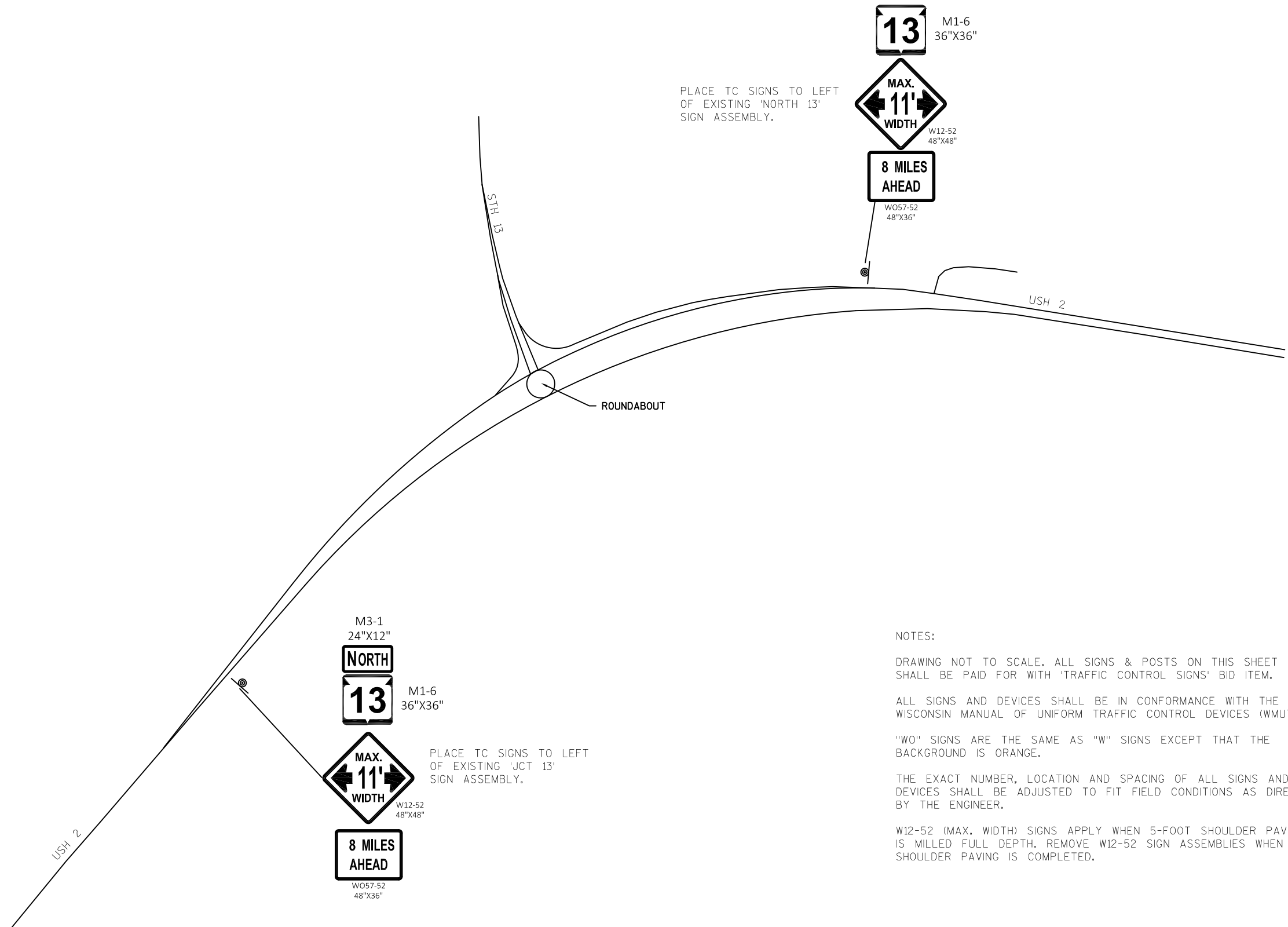
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND
DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS
DIRECTED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL
ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY,
SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE NEXT DETAIL SHEET FOR ADDITIONAL TRAFFIC CONTROL SIGNING
WHEN CENTERLINE PAVEMENT MARKINGS ARE MISSING. 'DO NOT PASS'
SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

DETAIL FOR SIGNING ON MAINLINE MILLED SURFACES

DETAIL FOR SIGNING DURING SHOULDER WORK



NOTES:

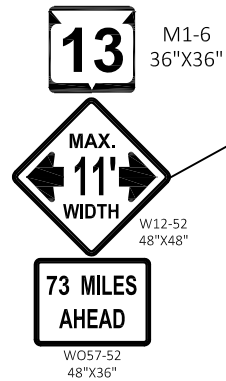
DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET
SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE
WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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

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

W12-52 (MAX. WIDTH) SIGNS APPLY WHEN 5-FOOT SHOULDER PAVEMENT IS MILLED FULL DEPTH. REMOVE W12-52 SIGN ASSEMBLIES WHEN HMA SHOULDER PAVING IS COMPLETED.



NOTES:

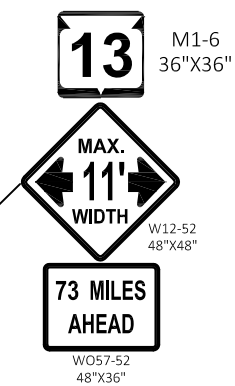
DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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

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

W12-52 (MAX. WIDTH) SIGNS APPLY WHEN 5-FOOT SHOULDER PAVEMENT IS MILLED FULL DEPTH. REMOVE W12-52 SIGN ASSEMBLIES WHEN HMA SHOULDER PAVING IS COMPLETED.



PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

TRAFFIC CONTROL ADVANCE SIGNING (WEST)

SHEET

E

Estimate Of Quantities

8160-03-70					
Line	Item	Item Description	Unit	Total	Qty
0010	202.0105	Roadside Clearing	STA	269.000	269.000
0020	204.0110	Removing Asphaltic Surface	SY	1,941.000	1,941.000
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,236.000	2,236.000
0040	204.0120	Removing Asphaltic Surface Milling	SY	169,289.000	169,289.000
0050	204.0165	Removing Guardrail	LF	2,268.000	2,268.000
0060	205.9015.S	Grading Shaping and Finishing Intersection (location) 01. S. Kennedy Rd	LS	1.000	1.000
0070	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 8160-03-70	LS	1.000	1.000
0080	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,017.000	1,017.000
0090	213.0100	Finishing Roadway (project) 01. 8160-03-70	EACH	1.000	1.000
0100	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,064.000	6,064.000
0110	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,044.000	1,044.000
0120	305.0500	Shaping Shoulders	STA	1,046.000	1,046.000
0130	440.4410	Incentive IRI Ride	DOL	42,880.000	42,880.000
0140	455.0605	Tack Coat	GAL	23,663.000	23,663.000
0150	460.2000	Incentive Density HMA Pavement	DOL	19,420.000	19,420.000
0160	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	63,060.000	63,060.000
0170	460.6224	HMA Pavement 4 MT 58-28 S	TON	22,135.000	22,135.000
0180	460.6244	HMA Pavement 4 MT 58-34 S	TON	6,704.000	6,704.000
0190	460.8444	HMA Pavement 4 SMA 58-34 H	TON	15,342.000	15,342.000
0200	465.0105	Asphaltic Surface	TON	4,000.000	4,000.000
0210	465.0110	Asphaltic Surface Patching	TON	250.000	250.000
0220	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	350.000	350.000
0230	465.0310	Asphaltic Curb	LF	248.000	248.000
0240	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	81,330.000	81,330.000
0250	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	44,401.000	44,401.000
0260	614.0010	Barrier System Grading Shaping Finishing	EACH	12.000	12.000
0270	614.0305	Steel Plate Beam Guard Class A	LF	2,025.000	2,025.000
0280	614.0345	Steel Plate Beam Guard Short Radius	LF	175.000	175.000
0290	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0300	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	4.000	4.000
0310	614.2300	MGS Guardrail 3	LF	3,075.000	3,075.000
0320	614.2330	MGS Guardrail 3 K	LF	712.500	712.500
0330	614.2340	MGS Guardrail 3 L	LF	325.000	325.000
0340	614.2500	MGS Thrie Beam Transition	LF	472.800	472.800
0350	614.2610	MGS Guardrail Terminal EAT	EACH	21.000	21.000
0360	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8160-03-70	EACH	1.000	1.000
0370	619.1000	Mobilization	EACH	1.000	1.000

Estimate Of Quantities

8160-03-70

Line	Item	Item Description	Unit	Total	Qty
0380	628.1504	Silt Fence	LF	7,902.000	7,902.000
0390	628.1520	Silt Fence Maintenance	LF	7,902.000	7,902.000
0400	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0410	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0420	628.2008	Erosion Mat Urban Class I Type B	SY	6,347.000	6,347.000
0430	633.0100	Delineator Posts Steel	EACH	100.000	100.000
0440	633.0500	Delineator Reflectors	EACH	100.000	100.000
0450	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	47.000	47.000
0460	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	185.000	185.000
0470	637.2210	Signs Type II Reflective H	SF	973.220	973.220
0480	637.2230	Signs Type II Reflective F	SF	426.250	426.250
0490	638.2102	Moving Signs Type II	EACH	1.000	1.000
0500	638.2602	Removing Signs Type II	EACH	186.000	186.000
0510	638.3000	Removing Small Sign Supports	EACH	227.000	227.000
0520	642.5001	Field Office Type B	EACH	1.000	1.000
0530	643.0100	Traffic Control (project) 01. 8160-03-70	EACH	1.000	1.000
0540	643.0300	Traffic Control Drums	DAY	3,618.000	3,618.000
0550	643.0705	Traffic Control Warning Lights Type A	DAY	3,618.000	3,618.000
0560	643.0900	Traffic Control Signs	DAY	4,534.000	4,534.000
0570	643.1050	Traffic Control Signs PCMS	DAY	194.000	194.000
0580	646.0106	Pavement Marking Epoxy 4-Inch	LF	80,572.000	80,572.000
0590	646.0842.S	Pavement Marking Grooved Contrast Wet Reflective Epoxy 4-Inch	LF	1,631.000	1,631.000
0600	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	114,778.000	114,778.000
0610	648.0100	Locating No-Passing Zones	MI	10.720	10.720
0620	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	229,644.000	229,644.000
0630	650.8000	Construction Staking Resurfacing Reference	LF	56,123.000	56,123.000
0640	650.9910	Construction Staking Supplemental Control (project) 01. 8160-03-70	LS	1.000	1.000
0650	690.0150	Sawing Asphalt	LF	880.000	880.000
0660	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0670	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	990.000	990.000
0680	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000
0690	SPV.0105	Special 02. Milling and Removing Temporary Joint	LS	1.000	1.000
0700	SPV.0180	Special 01. Removing Asphaltic Surface Milling Full Depth	SY	62,227.000	62,227.000
0710	SPV.0195	Special 01. SMA Pavement Compaction Acceptance	TON	15,342.000	15,342.000

REMOVING ASPHALTIC SURFACE BUTT JOINTS

204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS			
STATION	- STATION	LOCATION	SY
CAT. 0010			
37+00	- 37+50	STH 13	189
231+68	- 232+18	STH 13	189
233+74	- 234+24	STH 13	189
238+39	- 238+89	STH 13	189
240+46	- 240+96	STH 13	189
319+69	- 320+19	STH 13	189
321+03	- 321+53	STH 13	189
470+22	- 470+72	STH 13	189
472+31	- 472+81	STH 13	189
602+34	- 602+84	STH 13	189
		SUPERIOR AVE	27
		BURLAGER RD	26
		FRIENDLY VALLEY RD	27
		SKI HILL RD	29
		HATCHERY RD	27
		PORT SUPERIOR RD	34
		CHEQUAMEGON RD	26
		WEBER RD	30
		OLD SAN RD	30
		CTH J	33
		9TH ST	32
		PAYNE AVE	25
TOTAL			2236

PREPARE FOUNDATION FOR ASPHALTIC PAVING

211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING 8160-03-70	
LOCATION	LS
CAT0010	
STH 13	1
PROJECT TOTAL	1

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

211.0400 PREP. FOUNDATION FOR ASPHALTIC SHOULDERS			
STATION	- STATION	LOCATION	STA
CAT. 0010			
37+00	- 228+04	13'N'RT & LT	383
228+04	- 230+04	13'N'LT	2
234+75	- 237+89	13'N'RT & LT	7
241+50	- 319+12	13'N'RT & LT	156
322+12	- 330+85	13'N'RT & LT	18
330+85	- 357+70	13'N'LT	27
357+70	- 470+72	13'N'RT & LT	227
472+31	- 479+00	13'N'RT & LT	14
479+00	- 544+00	13'N'LT	65
544+00	- 602+84	13'N'RT & LT	118
TOTAL			1017

REMOVING ASPHALTIC SURFACE MILLING

204.0120 REMOVING ASPHALTIC SURFACE MILLINIG			
STATION	- STATION	LOCATION	SY
CAT. 0010			
37+50	- 602+34	STH 13	163251
		SUPERIOR AVE	152
		WILLIAMS RD	162
		GARY RD	237
		HOUGHTON FALLS RD	234
		MAKI RD	186
		FROSTMAN RD	187
		BURLAGER RD	169
		BODIN RD	192
		HOWELL DR	213
		SIOUX RIVER HEIGHTS RD	206
		FRIENDLY VALLEY RD W	205
		FRIENDLY VALLEY RD E	210
		KJARVICK RD	317
		BAYVIEW PARK RD	196
		MCCULLOCH RD	156
		WHITING RD	406
		CARRIER RD	84
		S. KENNEDY RD	84
		SKI HILL RD	238
		HATCHERY RD	146
		PORT SUPERIOR RD	278
		PIKES BAY RD	168
		CHEQUAMEGON RD	180
		WEBER RD	187
		OLD SAN RD	504
		CTH J	185
		LAKESHORE DR	206
		9TH ST	130
		PAYNE AVE	220
TOTAL			169289

SHAPING SHOULDERS

305.0500 SHAPING SHOULDERS				
STATION	- STATION	LOCATION	STA	
CAT. 0010				
37+00	- 228+40	STH 13 LT	192	
250+00	- 371+13	STH 13 LT	122	
379+00	- 379+89	STH 13 LT	1	
382+14	- 384+14	STH 13 LT	2	
389+19	- 393+35	STH 13 LT	5	
395+48	- 397+48	STH 13 LT	2	
411+12	- 414+22	STH 13 LT	4	
415+38	- 417+50	STH 13 LT	3	
419+26	- 439+68	STH 13 LT	21	
422+00	- 439+00	STH 13 LT	17	
440+56	- 466+64	STH 13 LT	27	
476+78	- 532+50	STH 13 LT	56	
535+01	- 599+50	STH 13 LT	65	
37+00	- 231+26	STH 13 RT	195	
246+24	- 355+44	STH 13 RT	110	
362+01	- 466+66	STH 13 RT	105	
475+92	- 589+75	STH 13 RT	114	
592+16	- 596+57	STH 13 RT	5	
TOTAL			1046	

ROADSIDE CLEARING

202.0105 ROADSIDE CLEARING			CLEARING LIMITS LT	CLEARING LIMITS RT	EXIST. RW LT	EXIST. RW RT	COMMENT OR "INCLUDES..."
STATION	- STATION	LOCATION	STA				
CAT0010							
37+00	- 48+00	LT	11	45'	50'		LEFT SIDE ONLY
50+00	- 51+00	LT & RT	1	45'	50'	50'	BOTH SIDES
53+00	- 57+00	LT & RT	4	45'	50'	50'	BOTH SIDES
95+00	- 97+00	LT	2	45'	50'		LEFT SIDE ONLY
98+00	- 99+00	RT	1			50'	RIGHTSIDE ONLY
101+00	- 107+00	LT	6	45'	61'		LEFT SIDE ONLY
118+00	- 122+00	LT	4	45'	50'		LEFT SIDE ONLY
140+00	- 161+00	LT	21	45'	50'	50'	141+00 - 143+00 (RT)
167+00	- 169+00	LT	2	45'	50'		LEFT SIDE ONLY
185+00	- 188+00	LT	3	45'	50'		LEFT SIDE ONLY
195+00	- 196+00	LT	1	45'	50'		LEFT SIDE ONLY
203+00	- 227+00	LT	24	45'	60'	50'	206+00 - 207+00 (RT)
243+00	- 250+00	LT	7	45'	50'		LEFT SIDE ONLY
283+00	- 286+00	LT & RT	3	45'	50'	41'	BOTH SIDES-REDUCED R/W RT
286+00	- 309+00	LT	23	45'	50'		LEFT SIDE ONLY
360+00	- 376+00	RT	16	45'	56'	65'	363+00 - 373+00 (LT)
377+00	- 424+00	LT	47	45'	56'	47'	393+00 - 424+00 (RT) *
424+00	- 429+00	RT	5			47'	RIGHTSIDE ONLY
429+00	- 456+00	LT	27	45'	50'	50'	442+00 - 448+00 (RT)
457+00	- 466+00	LT	9	45'	50'		LEFT SIDE ONLY
464+00	- 467+00	RT	3			43'	RIGHTSIDE ONLY
496+00	- 499+00	LT	3	45'	60'		LEFT SIDE ONLY
502+00	- 510+00	RT	8			60'	RIGHTSIDE ONLY
550+00	- 565+00	RT	15			50'	RIGHTSIDE ONLY
568+00	- 570+00	RT	2			50'	RIGHTSIDE ONLY
578+00	- 589+00	RT	11			50'->50'	RIGHTSIDE ONLY
			10				UNDISTRIBUTED
TOTAL			269				

* INTERMITTENT LOCATIONS

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120 BASE AGGREGATE DENSE 1 1/4-INCH				
STATION	- STATION	LOCATION	TON	COMMENTS
CAT. 0010				
53+02	- 57+52	STH 13 RT	33	BARRIER SYSTEM
205+83	- 210+00	STH 13 LT	31	BARRIER SYSTEM
206+00	- 211+00	STH 13 RT	31	BARRIER SYSTEM
228+40	- 250+00	STH 13 LT	55	BARRIER SYSTEM
231+26	- 246+24	STH 13 RT	119	BARRIER SYSTEM
355+44	- 362+01	STH 13 RT	41	BARRIER SYSTEM
429+00	- 450+06	STH 13 RT	18	BARRIER SYSTEM
464+10	- 476+78	STH 13 LT	41	BARRIER SYSTEM
466+66	- 475+92	STH 13 RT	37	BARRIER SYSTEM
585+01	- 588+77	STH 13 RT	20	BARRIER SYSTEM
589+75	- 592+16	STH 13 RT	23	BARRIER SYSTEM
597+65	- 602+10	STH 13 RT	47	BARRIER SYSTEM
429+20	-	S. KENNEDY RD APRON	48	ASPHALT APRON BASE
PROJECT	-	UNDISTRIBUTED	500	SHDR. PREPARATION
TOTAL			1044	

BASE AGGREGATE DENSE 3/4-INCH

305.0110 *					
BASE AGGREGATE					
DENSE 3/4-INCH					
STATION	-	STATION	LOCATION	TON	COMMENTS
CAT. 0010					
37+00	-	205+83	STH 13 LT	750	SHDR. GRAVEL
205+83	-	210+00	STH 13 LT	21	BARRIER SYSTEM
210+00	-	228+40	STH 13 LT	82	SHDR. GRAVEL
228+40	-	250+00	STH 13 LT	42	BARRIER SYSTEM
250+00	-	371+13	STH 13 LT	538	SHDR. GRAVEL
391+00	-	398+00	STH 13 LT	31	SHDR. GRAVEL
422+00	-	439+00	STH 13 LT	76	SHDR. GRAVEL
440+50	-	464+10	STH 13 LT	105	SHDR. GRAVEL
464+10	-	476+78	STH 13 LT	33	BARRIER SYSTEM
476+78	-	532+31	STH 13 LT	247	SHDR. GRAVEL
535+01	-	599+50	STH 13 LT	287	SHDR. GRAVEL
37+00	-	53+02	STH 13 RT	71	SHDR. GRAVEL
53+02	-	57+79	STH 13 RT	27	BARRIER SYSTEM
57+79	-	205+50	STH 13 RT	656	SHDR. GRAVEL
205+50	-	211+00	STH 13 RT	29	BARRIER SYSTEM
211+00	-	231+26	STH 13 RT	90	SHDR. GRAVEL
231+26	-	246+24	STH 13 RT	72	BARRIER SYSTEM
246+24	-	355+44	STH 13 RT	485	SHDR. GRAVEL
355+44	-	362+01	STH 13 RT	33	BARRIER SYSTEM
362+01	-	429+00	STH 13 RT	298	SHDR. GRAVEL
429+00	-	450+06	STH 13 RT	94	BARRIER SYSTEM
450+06	-	466+66	STH 13 RT	74	SHDR. GRAVEL
466+66	-	475+92	STH 13 RT	18	BARRIER SYSTEM
475+92	-	585+01	STH 13 RT	485	SHDR. GRAVEL
585+01	-	588+77	STH 13 RT	17	BARRIER SYSTEM
588+77	-	589+75	STH 13 RT	4	SHDR. GRAVEL
589+75	-	592+16	STH 13 RT	21	BARRIER SYSTEM
592+16	-	597+65	STH 13 RT	24	SHDR. GRAVEL
597+65	-	602+10	STH 13 RT	24	BARRIER SYSTEM
37+50	-	SUPERIOR AVE.		5	SHDR. GRAVEL
62+04	-	WILLIAMSON RD.		10	**BOTH
72+03	-	GARY RD.		10	**BOTH
108+34	-	HOUGHTON FALLS RD.		10	**BOTH
121+55	-	MAKI RD.		10	**BOTH
147+88	-	FROSTMAN RD.		10	**BOTH
174+08	-	BURLAGER RD.		5	SHDR. GRAVEL
174+09	-	BODIN RD.		10	**BOTH
198+20	-	HOWELL RD.		10	**BOTH
210+40	-	SIOUX RIVER HEIGHTS RD.		30	GRAVEL SURFACE
251+10	-	FRIENDLY VALLEY RD. WEST		5	SHDR. GRAVEL
251+76	-	FRIENDLY VALLEY RD. EXT.		10	**BOTH
255+85	-	KJARVICK RD.		10	**BOTH
290+50	-	BAYVIEW PARK RD.		10	**BOTH
312+80	-	MCCULLOCH RD.		10	**BOTH
383+00	-	WHITING RD.		10	**BOTH
429+20	-	S. KENNEDY RD.		10	**BOTH
456+68	-	SKI HILL RD.		5	SHDR. GRAVEL
479+85	-	HATCHERY RD.		5	SHDR. GRAVEL
497+35	-	PORT SUPERIOR RD.		5	SHDR. GRAVEL
511+30	-	PIKES BAY RD.		5	SHDR. GRAVEL
521+80	-	CHEQUAMEGON RD.		5	SHDR. GRAVEL
527+55	-	WEBER RD.		5	SHDR. GRAVEL
544+90	-	OLD SAN RD.		5	SHDR. GRAVEL
566+00	-	CTH J		10	**BOTH
589+20	-	LAKESHORE DR.		10	**BOTH
595+55	-	9TH ST.		5	SHDR. GRAVEL
600+10	-	PAYNE AVE.		5	SHDR. GRAVEL

*SEE ADDITIONAL QUANTITY FOR BAD 3/4-INCH IN 'DRIVEWAYS' MQ TABLE.

** 'BOTH' INDICATES SHOULDER GRAVEL & FEATHER TO MATCH EXISTING GRAVEL SURFACE.

DRIVEWAY AND ASSOCIATED ITEMS

			204.0110	305.0110*	465.0120
			REMOVING	BASE	ASPHALTIC SURFACE
			ASPHALTIC	AGGREGATE	DRIVEWAYS AND
			SURFACE	DENSE 3/4-INCH	FIELD ENTRANCES
STATION			SY	TON	TON
CAT 0010					
37+10	STH 13'N'	LT	-	10	-
39+25	STH 13'N'	RT	17	-	3
52+20	STH 13'N'	RT	0	10	-
57+80	STH 13'N'	RT	0	10	-
68+10	STH 13'N'	LT	0	10	-
72+80	STH 13'N'	LT	0	10	-
75+95	STH 13'N'	RT	0	10	-
80+75	STH 13'N'	LT	0	10	-
85+15	STH 13'N'	LT	0	10	-
85+75	STH 13'N'	RT	0	10	-
88+35	STH 13'N'	RT	0	10	-
91+25	STH 13'N'	RT	0	10	-
95+55	STH 13'N'	LT	0	10	-
97+45	STH 13'N'	RT	62	-	11
98+50	STH 13'N'	LT	63	-	11
100+75	STH 13'N'	LT	67	-	12
107+30	STH 13'N'	LT	0	10	-
109+65	STH 13'N'	LT	0	10	-
123+30	STH 13'N'	RT	0	10	-
127+25	STH 13'N'	LT	0	10	-
134+85	STH 13'N'	LT	0	10	-
142+35	STH 13'N'	LT	67	-	12
144+25	STH 13'N'	RT	45	-	8
144+80	STH 13'N'	LT	0	10	-
148+85	STH 13'N'	LT	45	-	8
150+60	STH 13'N'	RT	0	10	-
153+25	STH 13'N'	RT	45	-	8
155+00	STH 13'N'	LT	0	10	-
155+15	STH 13'N'	RT	45	-	8
161+25	STH 13'N'	LT	0	10	-
163+75	STH 13'N'	RT	0	10	-
167+30	STH 13'N'	LT	0	10	-
170+50	STH 13'N'	LT	0	10	-
182+15	STH 13'N'	RT	0	10	-
185+85	STH 13'N'	LT	0	10	-
187+25	STH 13'N'	RT	0	10	-
188+20	STH 13'N'	LT	45	-	8
190+90	STH 13'N'	RT	89	-	15
192+45	STH 13'N'	RT	89	-	15
193+00	STH 13'N'	LT	0	10	-
194+80	STH 13'N'	RT	0	10	-
195+75	STH 13'N'	LT	0	10	-
202+00	STH 13'N'	RT	0	10	-
202+05	STH 13'N'	LT	0	10	-
227+00	STH 13'N'	LT	0	10	-
229+50	STH 13'N'	LT	0	10	-
237+60	STH 13'N'	RT	0	20	-
245+25	STH 13'N'	RT	0	10	-
249+10	STH 13'N'	RT	0	10	-
256+35	STH 13'N'	RT	0	10	-
270+15	STH 13'N'	LT	0	10	-
328+20	STH 13'N'	LT	0	10	-
329+30	STH 13'N'	RT	0	10	-
330+00	STH 13'N'	LT	0	10	-
330+75	STH 13'N'	LT	0	10	-
332+90	STH 13'N'	LT	0	10	-
340+30	STH 13'N'	RT	0	10	-
341+30	STH 13'N'	RT	0	10	-
341+60	STH 13'N'	RT	0	10	-
343+35	STH 13'N'	RT	0	10	-
347+75	STH 13'N'	RT	0	10	-
352+45	STH 13'N'	RT	0	10	-
355+50	STH 13'N'	LT	0	10	-
356+40	STH 13'N'	RT	0	10	-
361+00	STH 13'N'	RT	0	10	-
364+40	STH 13'N'	RT	45	-	8
367+00	STH 13'N'	RT	0	10	-
SUBTOTALS			724	550	127

DRIVEWAY AND ASSOCIATED ITEMS CONT'D

		204.0110 REMOVING ASPHALTIC SURFACE SY		305.0110* BASE AGGREGATE DENSE 3/4-INCH TON		465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	
369+50	STH 13'N' LT	0		10		-	
390+90	STH 13'N' RT	45		-		8	
399+05	STH 13'N' RT	0		10		-	
408+00	STH 13'N' RT	0		10		-	
412+70	STH 13'N' RT	0		10		-	
413+28	STH 13'N' LT	0		10		-	
421+10	STH 13'N' RT	0		10		-	
428+90	STH 13'N' RT	45		-		8	
437+95	STH 13'N' RT	0		10		-	
438+85	STH 13'N' LT	45		-		8	
443+55	STH 13'N' LT	0		10		-	
446+10	STH 13'N' LT	67		-		12	
450+25	STH 13'N' LT	0		10		-	
450+25	STH 13'N' RT	0		10		-	
450+65	STH 13'N' RT	45		-		8	
451+95	STH 13'N' LT	0		10		-	
454+00	STH 13'N' RT	0		10		-	
461+40	STH 13'N' RT	45		-		8	
463+85	STH 13'N' LT	0		10		-	
464+10	STH 13'N' RT	45		-		8	
466+20	STH 13'N' RT	0		10		-	
466+15	STH 13'N' RT	0		10		-	
466+20	STH 13'N' LT	45		-		8	
477+05	STH 13'N' RT	0		10		-	
477+15	STH 13'N' LT	78		10		14	
494+00	STH 13'N' LT	0		10		-	
495+85	STH 13'N' RT	0		10		-	
501+05	STH 13'N' LT	0		10		-	
511+30	STH 13'N' RT	123		10		21	
511+68	STH 13'N' LT	53		10		9	
513+15	STH 13'N' LT	0		10		-	
515+55	STH 13'N' RT	0		10		-	
524+10	STH 13'N' RT	0		10		-	
524+45	STH 13'N' LT	45		-		8	
525+80	STH 13'N' RT	0		10		-	
527+50	STH 13'N' RT	0		10		-	
529+05	STH 13'N' RT	0		10		-	
533+60	STH 13'N' LT	0		10		-	
534+60	STH 13'N' RT	0		10		-	
535+40	STH 13'N' LT	0		10		-	
539+20	STH 13'N' LT	0		10		-	
541+45	STH 13'N' RT	0		10		-	
544+75	STH 13'N' LT	0		10		-	
546+25	STH 13'N' RT	0		10		-	
560+65	STH 13'N' RT	87		-		15	
565+95	STH 13'N' RT	45		-		8	
570+15	STH 13'N' RT	0		10		-	
570+40	STH 13'N' LT	45		-		8	
570+80	STH 13'N' RT	0		10		-	
577+40	STH 13'N' RT	45		-		8	
578+00	STH 13'N' RT	45		-		8	
584+10	STH 13'N' LT	0		10		-	
584+75	STH 13'N' RT	45		-		8	
585+20	STH 13'N' LT	0		10		-	
589+95	STH 13'N' RT	45		-		8	
590+45	STH 13'N' LT	0		10		-	
592+45	STH 13'N' RT	0		20		-	
593+85	STH 13'N' LT	0		10		-	
597+50	STH 13'N' RT	45		-		8	
600+55	STH 13'N' LT	45		-		8	
601+95	STH 13'N' LT	89		-		15	
602+25	STH 13'N' RT	0		10		-	
UNDISTRIBUTED	STH 13'N'	-		100		9	
SUBTOTALS		1217		540		223	
TOTALS		1941		1090		350	

*SEE ADDITIONAL QUANTITY FOR BAD 3/4-INCH IN ITEM MQ TABLE.

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

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HMA PAVEMENT

STATION - STATION		LOCATION	WIDTH	DEPTH	460.6224 HMA PAVEMENT 4 MT 58-28 S (LOWER LAYER) TON	460.8444 HMA PAVEMENT 4 SMA 58-34 H (UPPER LAYER) TON	460.6244 HMA PAVEMENT 4 MT 58-34 S (UPPER - SHOULDERS) TON	455.0605 * TACK COAT GAL	COMMENTS
CAT. 0010									
37+00	- 602+84	STH 13	---	---	22135	15342	6096	22801	MAINLINE AND SHOULDERS
37+50			---	1.75	---	---	17	11	SUPERIOR AVE
62+04			---	1.75	---	---	16	10	WILLIAMSON RD PAVED APRON
72+03			---	1.75	---	---	23	14	GARY RD PAVED APRON
108+34			---	1.75	---	---	23	14	HOUGHTON FALLS RD PAVED APRON
121+55			---	1.75	---	---	18	11	MAKI RD PAVED APRON
147+88			---	1.75	---	---	18	11	FROSTMAN RD PAVED APRON
174+08			---	1.75	---	---	19	12	BURLAGER RD
174+09			---	1.75	---	---	19	12	BODIN RD PAVED APRON
198+20			---	1.75	---	---	21	13	HOWELL RD PAVED APRON
251+10			---	1.75	---	---	23	14	FRIENDLY VALLEY RD (WEST)
251+76			---	1.75	---	---	21	13	FRIENDLY VALLEY RD (EAST) PAVED APRON
255+85			---	1.75	---	---	31	19	KJARVICK RD PAVED APRON
290+50			---	1.75	---	---	19	12	BAYVIEW PARK RD PAVED APRON
312+80			---	1.75	---	---	15	9	MCCULLOCH RD PAVED APRON
383+00			---	1.75	---	---	40	24	WHITING RD PAVED APRON
429+20			---	4.00	---	---	19	0	S. KENNEDY RD - ADD PAVED APRON
456+68			---	1.75	---	---	26	16	SKI HILL RD
479+85			---	1.75	---	---	17	10	HATCHERY RD
497+35			---	1.75	---	---	30	19	PORT SUPERIOR RD
511+30			---	1.75	---	---	19	11	PIKES BAY RD
521+80			---	1.75	---	---	20	12	CHEQUAMEGON RD
527+55			---	1.75	---	---	21	13	WEBER RD
544+90			---	1.75	---	---	52	32	OLD SAN RD
566+00			---	1.75	---	---	21	13	CTH J
589+20			---	1.75	---	---	20	12	LAKE SHORE DR PAVED APRON
595+55			---	1.75	---	---	16	10	9TH ST
600+10			---	1.75	---	---	24	15	PAYNE AVE
TOTALS					22135	15342	6704	23163	

* SEE ADDITIONAL TACK COAT QUANTITY IN ASPHALTIC SURFACE TABLE.

ASPHALTIC SURFACE

STATION - STATION		LOCATION	465.0105 ASPHALTIC SURFACE TON	455.0605 * TACK COAT GAL	COMMENT
CAT. 0010					
37+00	- 602+84	STH 13	4000	500	LEVELING & WEDGING
TOTALS			4000	500	

*SEE ADDITIONAL QUANTITY FOR TACK COAT IN HMA PAVEMENT TABLE.

MAINTENANCE OF HAUL ROADS

618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS	
01. 8160-03-70 EACH	
LOCATION	
CAT 0010	
STH 13	1
PROJECT TOTAL	1

ASPHALTIC SURFACE PATCHING

STATION - STATION		LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON	COMMENTS
CAT. 0010				
37+00	- 602+84	STH 13	250	MINOR REPAIRS
TOTAL			250	

MOBILIZATION

619.1000 MOBILIZATION EACH	
LOCATION	
CAT 0010	
STH 13	1
PROJECT TOTAL	1

REHEATING JOINTS

460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF			
STATION - STATION	LOCATION	JOINTS	
CAT. 0010			
37+00 - 232+33	STH 13	1	19533
233+59 - 239+05	STH 13	1	546
240+30 - 320+35	STH 13	1	8005
320+87 - 337+00	STH 13	1	1613
337+00 - 351+00	STH 13	2	2800
351+00 - 455+35	STH 13	1	10435
455+35 - 458+24	STH 13	2	578
458+24 - 486+90	STH 13	1	2866
486+90 - 537+80	STH 13	2	10180
537+80 - 602+84	STH 13	1	6504
TOTAL			63060

FINISHING ROADWAY

213.0100 FINISHING ROADWAY 01. 8160-03-70 EACH	
LOCATION	
CAT. 0010	
STH 13	1
PROJECT TOTAL	1

ASPHALTIC CURB

465.0310 ASPHALTIC CURB LF			
STATION - STATION	LOCATION		
CAT. 0010			
598+98 - 601+46	STH 13 RT		248
TOTAL			248

FIELD OFFICE TYPE B

642.5001 FIELD OFFICE TYPE B EACH	
LOCATION	
CAT 0010	
STH 13	1
PROJECT TOTAL	1

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ASPHALTIC SHOULDER RUMBLE STRIPS

465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL							
STATION	-	STATION	LOCATION	LF	COMMENTS		
CAT. 0010							
37+00	-	61+70	STH 13'N'	LT	2470	TYPE1	
37+80	-	71+50	STH 13'N'	RT	3370	TYPE1	
62+40	-	121+20	STH 13'N'	LT	5880	TYPE1	
72+55	-	107+75	STH 13'N'	RT	3520	TYPE1	
108+75	-	147+30	STH 13'N'	RT	3855	TYPE1	
121+90	-	173+50	STH 13'N'	LT	5160	TYPE1	
148+30	-	173+50	STH 13'N'	RT	2520	TYPE1	
174+50	-	190+40	STH 13'N'	RT	1590	TYPE1	
174+50	-	210+00	STH 13'N'	LT	3550	TYPE1	
192+75	-	197+70	STH 13'N'	LT	495	TYPE1	
198+65	-	232+30	STH 13'N'	RT	3365	TYPE1	
210+90	-	226+75	STH 13'N'	LT	1585	TYPE1	
227+35	-	229+20	STH 13'N'	LT	185	TYPE1	
229+85	-	232+30	STH 13'N'	LT	245	TYPE1	
233+55	-	237+00	STH 13'N'	RT	345	TYPE1	
233+55	-	239+05	STH 13'N'	LT	550	TYPE1	
237+80	-	239+05	STH 13'N'	RT	125	TYPE1	
240+30	-	250+50	STH 13'N'	LT	1020	TYPE1	
240+30	-	251+10	STH 13'N'	RT	1080	TYPE1	
251+70	-	255+25	STH 13'N'	LT	355	TYPE1	
252+20	-	290+20	STH 13'N'	RT	3800	TYPE1	
256+50	-	312+30	STH 13'N'	LT	5580	TYPE1	
291+10	-	320+35	STH 13'N'	RT	2925	TYPE1	
313+30	-	320+35	STH 13'N'	LT	705	TYPE1	
320+85	-	382+40	STH 13'N'	LT	6155	TYPE1	
320+85	-	330+85	STH 13'N'	RT	1000	TYPE1	
371+10	-	454+00	STH 13'N'	RT	8290	TYPE1	
383+85	-	429+00	STH 13'N'	LT	4515	TYPE1	
429+50	-	456+30	STH 13'N'	LT	2680	TYPE1	
457+25	-	468+95	STH 13'N'	LT	1170	TYPE1	
459+60	-	469+60	STH 13'N'	RT	1000	TYPE1	
473+45	-	479+40	STH 13'N'	LT	595	TYPE1	
473+45	-	479+00	STH 13'N'	RT	555	TYPE1	
480+30	-	527+00	STH 13'N'	LT	4670	TYPE1	
528+00	-	560+00	STH 13'N'	LT	3200	TYPE1	
545+25	-	560+00	STH 13'N'	RT	1475	TYPE1	
C.E., P.E. DEDUCTION				STH 13'N'	-	-8250	110 ENTRANCES @ 75'/ENTRANCE
TOTAL					81330		

GRADING SHAPING AND FINISHING INTERSECTION 01. S. KENNEDY RD

205.9015.S GRADING SHAPING AND FINISHING INTERSECTION			EXCAVATION COMMON*	BORROW*	TOPSOIL*	SEEDING MIXTURE NO. 10*	SEEDING TEMPORARY*	FERTILIZER TYPE B*	MULCH *
STATION	LOCATION	LS	CY	CY	SY	LB	LB	CWT	SY
CAT. 0010									
429+20	STH 13'N' LT	1	37	0	34	1	1	0.0	34
TOTALS		1	37	0	34	1	1	0.0	34

* ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY

ASPHALT CENTER LINE RUMBLE STRIPS

465.0475					
ASPHALT CENTER LINE					
RUMBLE STRIP 2-LANE RURAL					
STATION	-	STATION	LOCATION	LF	COMMENTS
CAT. 0010					
41+60	-	60+04	STH 13'N'	1844	45 MPH SPEED LIMIT-WILLIAMS RD
64+04	-	67+05	STH 13'N'	301	WILLIAMS RD - C.E. LT
74+03	-	79+75	STH 13'N'	572	GARY RD - C.E. LT
81+75	-	84+20	STH 13'N'	245	C.E. LT - C.E. LT
89+35	-	99+75	STH 13'N'	1040	C.E. RT - C.E. LT
101+75	-	106+30	STH 13'N'	455	C.E. LT - HOUGHTON FALLS RD
110+65	-	119+55	STH 13'N'	890	HOUGHTON FALLS RD - MAKI RD
123+55	-	126+25	STH 13'N'	270	MAKI RD - C.E. LT
128+25	-	145+88	STH 13'N'	1763	C.E. LT - FROSTMAN RD
149+88	-	172+08	STH 13'N'	2220	FROSTMAN RD - BURLAGER RD
176+10	-	196+20	STH 13'N'	2010	BODIN RD - HOWELL DR
203+05	-	226+00	STH 13'N'	2295	C.E. LT - WAYSIDE LT
233+99	-	238+64	STH 13'N'	465	SIOUX R BRIDGE - SIOUX R BRIDGE
240+71	-	249+10	STH 13'N'	839	SIOUX R BR - FRIENDLY VALLEY RD
257+85	-	288+50	STH 13'N'	3065	KJARVICK RD - BAYVIEW PARK RD
292+50	-	310+80	STH 13'N'	1830	BAYVIEW PARK RD - MCCULLOCH RD
314+80	-	319+94	STH 13'N'	514	MCCULLOCH RD - ONION R BR
321+28	-	329+00	STH 13'N'	772	ONION R BR - C.E. LT
331+00	-	381+00	STH 13'N'	5000	C.E. LT - WHITING RD
335+00	-	445+10	STH 13'N'	11010	WHITING RD - C.E. LT
447+10	-	454+68	STH 13'N'	758	C.E. LT - SKI HILL RD
458+68	-	460+40	STH 13'N'	172	SKI HILL RD - C.E. RT
465+10	-	470+47	STH 13'N'	537	C.E. RT - PIKES CREEK BR
472+56	-	476+15	STH 13'N'	359	PIKES CREEK BRIDGE - C.E. LT
481+85	-	495+35	STH 13'N'	1350	HATCHERY RD-PORT SUPERIOR RD
499+35	-	510+30	STH 13'N'	1095	PORT SUPERIOR RD - C.E. RT
512+30	-	519+80	STH 13'N'	750	C.E. RT - CHEQUAMEGON RD
529+55	-	532+60	STH 13'N'	305	WEBER RD - C.E. LT
536+40	-	540+45	STH 13'N'	405	C.E. LT - C.E. RT
546+90	-	559+60	STH 13'N'	1270	OLD SAN RD-45 MPH SPEED LIMIT
TOTAL				44401	

EROSION MAT

628.2008 EROSION MAT URBAN CLASS I TYPE B SY				
STATION	-	STATION	LOCATION	
CAT. 0010				
53+85	-	54+75	STH 13	RT 163
56+50	-	57+55	STH 13	RT 192
205+75	-	206+40	STH 13	RT 110
205+83	-	208+25	STH 13	LT 689
229+55	-	232+25	STH 13	LT 242
233+70	-	239+00	STH 13	LT 448
234+58	-	235+60	STH 13	RT 147
240+45	-	250+00	STH 13	LT 1413
241+55	-	245+00	STH 13	RT 305
359+50	-	361+00	STH 13	RT 278
429+00	-	430+25	STH 13	RT 264
445+00	-	446+25	STH 13	RT 164
464+50	-	470+65	STH 13	LT 625
473+07	-	475+10	STH 13	LT 176
474+45	-	475+45	STH 13	RT 94
591+46	-	592+16	STH 13	RT 77
597+80	-	598+50	STH 13	RT 119
600+90	-	601+80	STH 13	RT 116
UNDISTRIBUTED				725
TOTAL				6347

SILT FENCE ITEMS

					628.1504	628.1520
					SILT FENCE	SILT FENCE
STATION	-	STATION	LOCATION		LF	MAINTENANCE
CAT. 0010						
54+50	-	57+70	STH 13 'N'	RT	331	331
205+60	-	208+30	STH 13 'N'	RT	270	270
208+55	-	210+85	STH 13 'N'	RT	230	230
205+65	-	208+28	STH 13 'N'	LT	271	271
208+55	-	209+80	STH 13 'N'	LT	125	125
229+43	-	232+45	STH 13 'N'	LT	302	302
233+52	-	239+15	STH 13 'N'	LT	573	573
240+25	-	250+35	STH 13 'N'	LT	1020	1020
231+12	-	232+48	STH 13 'N'	RT	145	145
233+52	-	239+15	STH 13 'N'	RT	575	575
240+25	-	243+00	STH 13 'N'	RT	275	275
244+35	-	246+34	STH 13 'N'	RT	199	199
359+25	-	361+00	STH 13 'N'	RT	175	175
428+85	-	429+10	STH 13 'N'	LT	40	40
429+30	-	429+50	STH 13 'N'	LT	35	35
428+90	-	430+50	STH 13 'N'	RT	162	162
444+75	-	446+40	STH 13 'N'	RT	172	172
464+10	-	470+75	STH 13 'N'	LT	665	665
472+10	-	476+78	STH 13 'N'	LT	476	476
466+95	-	470+90	STH 13 'N'	RT	395	395
472+32	-	475+70	STH 13 'N'	RT	350	350
591+12	-	592+42	STH 13 'N'	RT	136	136
597+65		598+90	STH 13 'N'	RT	135	135
600+70		601+80	STH 13 'N'	RT	95	95
UNDISTRIBUTED					750	750
TOTALS					7902	7902

MOBILIZATIONS EROSION CONTROL

628.1905 MOBILIZATIONS EROSION CONTROL EACH		628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
LOCATION		
CAT0010		
STH 13	2	2
PROJECT TOTALS	2	2

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GUARDRAIL COMPONENTS SUMMARY

			614.2300	614.2330	614.2340	614.2500	614.2610	614.0305	614.0345	614.0370	614.0390
			MGS GUARDRAIL	MGS GUARDRAIL	MGS GUARDRAIL	MGS THRIE BEAM	MGS GUARDRAIL	STEEL PLATE	STEEL PLATE	STEEL PLATE BEAM	STEEL PLATE BEAM
			3	3K	3L	TRANSITION	EAT TERMINAL	BEAM GUARD	BEAM GUARD	GUARD ENERGY	GUARD SHORT
			LF	LF	LF	LF	EACH	CLASS A	SHORT RADIUS	ABSORBING TERMINAL	RADIUS TERMINAL
STATION	-	STATION	LOCATION	LF	LF	LF	LF	LF	LF	EACH	EACH
CAT. 0010											
54+20.7	-	54+73.8	STH 13'N' RT	-	-	-	-	1	-	-	-
54+73.8	-	56+98.8	STH 13'N' RT	225	-	-	-	-	-	-	-
56+98.8	-	57+51.9	STH 13'N' RT	-	-	-	-	1	-	-	-
205+83.8	-	206+36.9	STH 13'N' RT	-	-	-	-	1	-	-	-
206+36.9	-	207+86.9	STH 13'N' RT	150	-	-	-	-	-	-	-
207+86.9	-	208+99.4	STH 13'N' RT	-	-	112.5	-	-	-	-	-
208+99.4	-	209+49.4	STH 13'N' RT	50	-	-	-	-	-	-	-
209+49.4	-	210+02.5	STH 13'N' RT	-	-	-	-	1	-	-	-
206+96.3	-	207+49.4	STH 13'N' LT	-	-	-	-	1	-	-	-
207+49.4	-	207+86.9	STH 13'N' LT	37.5	-	-	-	-	-	-	-
207+86.9	-	208+99.4	STH 13'N' LT	-	-	112.5	-	-	-	-	-
208+99.4	-	209+36.9	STH 13'N' LT	37.5	-	-	-	-	-	-	-
209+36.9	-	209+90.0	STH 13'N' LT	-	-	-	-	1	-	-	-
229+81.6	-	230+34.7	STH 13'N' LT	-	-	-	-	1	-	-	-
230+34.7	-	231+84.7	STH 13'N' LT	150	-	-	-	-	-	-	-
231+84.7	-	232+24.1	STH 13'N' LT	-	-	-	39.4	-	-	-	-
231+26.0	-	231+88.5	STH 13'N' RT	62.5	-	-	-	-	-	-	-
231+88.5	-	232+27.9	STH 13'N' RT	-	-	-	39.4	-	-	-	-
233+66.3	-	234+05.7	STH 13'N' RT	-	-	-	39.4	-	-	-	-
234+05.7	-	234+30.7	STH 13'N' RT	25	-	-	-	-	-	-	-
234+30.7	-	234+83.8	STH 13'N' RT	-	-	-	-	1	-	-	-
233+72.3	-	234+11.7	STH 13'N' LT	-	-	-	39.4	-	-	-	-
234+11.7	-	234+24.2	STH 13'N' LT	12.5	-	-	-	-	-	-	-
234+24.2	-	238+46.8	STH 13'N' LT	-	425	-	-	-	-	-	-
238+46.8	-	238+59.3	STH 13'N' LT	12.5	-	-	-	-	-	-	-
238+59.3	-	238+98.7	STH 13'N' LT	-	-	-	39.4	-	-	-	-
237+82.5	-	238+35.6	STH 13'N' RT	-	-	-	-	1	-	-	-
238+35.6	-	238+60.6	STH 13'N' RT	25	-	-	-	-	-	-	-
238+60.6	-	239+00.0	STH 13'N' RT	-	-	-	39.4	-	-	-	-
240+37.6	-	240+77.0	STH 13'N' RT	-	-	-	39.4	-	-	-	-
240+77.0	-	244+52.0	STH 13'N' RT	375	-	-	-	-	-	-	-
244+52.0	-	245+05.1	STH 13'N' RT	-	-	-	-	1	-	-	-
240+49.8	-	240+89.2	STH 13'N' LT	-	-	-	39.4	-	-	-	-
240+89.2	-	247+64.2	STH 13'N' LT	675	-	-	-	-	-	-	-
247+64.2	-	248+17.3	STH 13'N' LT	-	-	-	-	1	-	-	-
356+63.7	-	357+16.8	STH 13'N' RT	-	-	-	-	1	-	-	-
357+16.8	-	357+41.8	STH 13'N' RT	25	-	-	-	-	-	-	-
357+41.8	-	359+29.3	STH 13'N' RT	-	187.5	-	-	-	-	-	-
359+29.3	-	360+29.3	STH 13'N' RT	100	-	-	-	-	-	-	-
360+29.3	-	360+82.4	STH 13'N' RT	-	-	-	-	1	-	-	-
429+75.2	-	430+25.2	STH 13'N' RT	-	-	-	-	-	-	1	-
430+25.2	-	437+56.5	STH 13'N' RT	-	-	-	-	-	731.25	-	-
437+56.5	-	437+80.0	STH 13'N' RT	-	-	-	-	-	-	43.75	-
437+80.0	-	437+78.2	STH 13'N' RT	-	-	-	-	-	-	-	1
438+01.2	-	438+04.9	STH 13'N' RT	-	-	-	-	-	-	-	1
438+04.9	-	438+33.6	STH 13'N' RT	-	-	-	-	-	43.75	-	-
438+33.6	-	449+83.6	STH 13'N' RT	-	-	-	-	-	1150	-	-
449+83.6	-	450+11.0	STH 13'N' RT	-	-	-	-	-	-	43.75	-
450+11.0	-	450+05.8	STH 13'N' RT	-	-	-	-	-	-	-	1
467+95.2	-	468+48.3	STH 13'N' RT	-	-	-	-	1	-	-	-
468+48.3	-	470+48.3	STH 13'N' RT	200	-	-	-	-	-	-	-
470+48.3	-	470+87.7	STH 13'N' RT	-	-	-	39.4	-	-	-	-
465+94.9	-	466+48.0	STH 13'N' LT	-	-	-	-	1	-	-	-
466+48.0	-	468+48.0	STH 13'N' LT	200	-	-	-	-	-	-	-
468+48.0	-	469+48.0	STH 13'N' LT	-	100	-	-	-	-	-	-
469+48.0	-	470+23.0	STH 13'N' LT	75	-	-	-	-	-	-	-
470+23.0	-	470+62.4	STH 13'N' LT	-	-	-	39.4	-	-	-	-
472+16.9	-	472+56.3	STH 13'N' LT	-	-	-	39.4	-	-	-	-
472+56.3	-	473+43.8	STH 13'N' LT	87.5	-	-	-	-	-	-	-
473+43.8	-	474+43.8	STH 13'N' LT	-	-	100	-	-	-	-	-
474+43.8	-	475+06.3	STH 13'N' LT	62.5	-	-	-	-	-	-	-
475+06.3	-	475+59.4	STH 13'N' LT	-	-	-	-	1	-	-	-
SUBTOTALS			2587.5	712.5	325	433.4	16	1881.25	131.25	1	3

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

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GUARDRAIL COMPONENTS SUMMARY CONT'D

				614.2300	614.2330	614.2340	614.2500	614.2610	614.0305	614.0345	614.0370	614.0390
				MGS GUARDRAIL	MGS GUARDRAIL	MGS GUARDRAIL	MGS THRIE	MGS	STEEL PLATE	STEEL PLATE	STEEL PLATE BEAM	STEEL PLATE BEAM
				3	3K	3L	BEAM	GUARDRAIL	BEAM GUARD	BEAM GUARD	GUARD ENERGY	GUARD SHORT
				LF	LF	LF	TRANSITION	EAT	CLASS A	SHORT RADIUS	ABSORBING TERMINAL	RADIUS TERMINAL
				LF	LF	LF	LF	EACH	LF	LF	EACH	EACH
CAT. 0010												
472+42.7	-	472+82.1	STH 13'N' RT	-	-	-	39.4	-	-	-	-	-
472+82.1	-	474+19.6	STH 13'N' RT	137.5	-	-	-	-	-	-	-	-
474+19.6	-	474+72.7	STH 13'N' RT	-	-	-	-	1	-	-	-	-
584+86.0	-	584+93.3	STH 13'N' RT	-	-	-	-	-	-	-	-	1
584+93.3	-	585+28.3	STH 13'N' RT	-	-	-	-	-	-	43.75	-	-
585+28.3	-	586+72.1	STH 13'N' RT	-	-	-	-	-	143.75	-	-	-
586+72.1	-	587+22.1	STH 13'N' RT	-	-	-	-	-	-	-	1	-
590+20.1	-	590+73.2	STH 13'N' RT	-	-	-	-	1	-	-	-	-
590+73.2	-	591+48.2	STH 13'N' RT	75	-	-	-	-	-	-	-	-
591+48.2	-	592+01.3	STH 13'N' RT	-	-	-	-	1	-	-	-	-
597+80.1	-	598+33.2	STH 13'N' RT	-	-	-	-	1	-	-	-	-
598+33.2	-	601+43.5	STH 13'N' RT	275	-	-	-	-	-	-	-	-
601+43.5	-	601+96.6	STH 13'N' RT	-	-	-	-	1	-	-	-	-
SUBTOTALS				487.5	0	0	39.4	5	143.75	43.75	1	1
TOTALS				3075	712.5	325	472.8	21	2025	175	2	4

NOTE: SEGMENT OF MGS GUARDRAIL 3K WILL REQUIRE CUTTING TO REMOVE 2.4' IN SPAN FROM STA 234+24.2 TO STA 238+46.8 LT

BARRIER SYSTEM GRADING SHAPING FINISHING

				614.0010			EXCAVATION	FILL X	BORROW*	TOPSOIL*	SEEDING	SEEDING	FERTILIZER	MULCH
				BARRIER SYSTEM			COMMON*	1.25*			MIXTURE	TEMPORARY*	TYPE B*	*
				GRADING SHAPING							NO. 10*			
				FINISHING			CY	CY	CY	SY	LB	LB	CWT	SY
				EACH										
CAT. 0010														
53+02	-	57+79	STH 13'N' RT	1			20	106	86	698	13	26	0.6	948
205+83	-	210+00	STH 13'N' LT	1			489	55	0	684	12	25	0.6	906
205+50	-	211+00	STH 13'N' RT	1			46	38	0	405	9	17	0.4	627
228+40	-	250+00	STH 13'N' LT	1			16	1243	1227	2098	42	85	2.0	1073
231+26	-	246+24	STH 13'N' RT	1			54	147	93	575	17	34	0.8	838
355+44	-	362+01	STH 13'N' RT	1			15	158	143	647	14	28	0.6	756
429+00	-	450+06	STH 13'N' RT	1			10	17	7	521	23	46	1.1	1691
464+10	-	476+78	STH 13'N' LT	1			4	603	599	1264	24	48	1.1	1252
466+66	-	475+92	STH 13'N' RT	1			14	92	78	295	10	20	0.5	467
585+01	-	588+77	STH 13'N' RT	1			10	17	7	280	7	14	0.3	489
589+75	-	592+16	STH 13'N' RT	1			15	17	2	97	3	7	0.2	154
597+65	-	602+10	STH 13'N' RT	1			13	105	92	270	7	14	0.3	291
TOTALS				12			706	2598	2334	7834	180	364	8.4	9492

* ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY

REMOVING GUARDRAIL

				204.0165
				REMOVING
				GUARDRAIL
STATION	-	STATION	LOCATION	LF
CAT. 0010				
230+05	-	232+24	STH 13 LT	219
231+26	-	232+28	STH 13 RT	102
233+66	-	234+64	STH 13 RT	98
233+72	-	234+77	STH 13 LT	105
237+90	-	239+99	STH 13 LT	209
237+91	-	239+00	STH 13 RT	109
240+37	-	241+48	STH 13 RT	111
240+50	-	241+60	STH 13 LT	110
356+80	-	359+09	STH 13 RT	229
468+33	-	470+62	STH 13 LT	229
469+63	-	470+88	STH 13 RT	125
472+17	-	474+17	STH 13 LT	200
472+43	-	473+66	STH 13 RT	123
598+99	-	601+98	STH 13 RT	299
TOTAL				2268

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PERMANENT SIGNING ITEMS

					637.2210	637.2230	634.0614	634.0616	638.2602	638.3000		
					SIGNS	SIGNS	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING		
STH 13					SIGN SIZE	TYPE II	TYPE II	4X6-INCH	4X6-INCH	SIGNS	SMALL SIGN	
STATION	SIGN	SIGN			W X H	REFLECTIVE H	REFLECTIVE F	X 14-FT	X 16-FT	TYPE II	SUPPORTS	
(APPROX.)	NO.	CODE	SIGN MESSAGE		(INCHES)	SF	SF	EACH	EACH	EACH	EACH	COMMENT
CAT. 0010												
37+78	RT	1-1	R1-1	STOP	30 X 30	5.18	---	---	1	1	1	SUPERIOR AVE.
40+04	LT	1-2	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
41+59	LT	1-3	R2-1	SPEED LIMIT 45	24 X 30	5.00	---	1	---	1	1	
41+60	RT	1-4	R2-1	SPEED LIMIT 55	24 X 30	5.00	---	1	---	1	1	
43+35	RT	1-5	W1-2L	Left Curve symbol	30 X 30	---	6.25	---	1	1	1	
44+10	LT	1-6	---	Washburn POPULATION 2117	66 X 24	11.00	---	2	---	1	2	SEE SIGN DETAIL
45+15	RT	1-7	---	NORTH 13	---	---	---	---	---	1	---	REMOVE SIGNS FROM D2-1 POSTS
45+15	RT	1-8	D2-1	Bayfield 12	72 X 15	7.50	---	---	2	1	2	SEE SIGN DETAIL
47+35	RT	1-9	J4-1	NORTH 13	24 X 36	6.00	---	---	1	---	---	
49+58	RT	1-10	S3-1	School Bus Stop Ahead symbol	36 X 36	---	9.00	---	1	1	1	
49+62	LT	1-11	W3-5	Reduced Speed Ahead 45	36 X 36	---	9.00	---	1	1	1	
61+58	LT	1-12	R1-1	STOP	30 X 30	5.18	---	---	1	1	1	WILLIAMSON RD.
65+10	RT	1-13	D1-1	Gary Rd (right arrow)	66 X 15	6.88	---	---	2	1	2	SEE SIGN DETAIL
66+06	LT	1-14	W1-2R	Right Curve symbol	30 X 30	---	6.25	---	1	1	1	
68+82	LT	1-15	---	Right Curve symbol	---	---	---	---	---	1	1	
71+44	LT	1-16	I55-56	WASHBURN H.S. ECOLOGY CLUB	30 X 36	7.50	---	---	1	1	1	ADOPT-A-HIGHWAY
72+33	RT	1-17	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	GARY RD.
73+27	RT	1-18	I55-56	WASHBURN BOY SCOUT TROOP 344	30 X 36	7.50	---	---	1	1	1	ADOPT-A-HIGHWAY
78+83	LT	1-19	D1-1	Gary Rd (Left arrow)	66 X 15	6.88	---	---	2	1	2	SEE SIGN DETAIL
96+50	RT	2-1	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC
101+33	RT	2-2	D1-1	Houghton Falls Rd (Right arrow)	114 X 15	11.88	---	---	2	1	2	SEE SIGN DETAIL
108+58	RT	2-3	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	HOUGHTON FALLS RD
113+56	LT	2-4	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
114+52	RT	2-5	D1-1	Maki Rd (Left arrow)	60 X 15	6.25	---	---	2	1	2	SEE SIGN DETAIL
115+32	LT	2-6	D1-1	Houghton Falls Rd (Left arrow)	114 X 15	11.88	---	---	2	1	2	SEE SIGN DETAIL
121+28	LT	2-7	R1-1	STOP	30 X 30	5.18	---	---	1	1	1	MAKI RD.
128+46	LT	2-8	D1-1	Maki Rd (Right arrow)	60 X 15	6.25	---	---	2	1	2	SEE SIGN DETAIL
140+89	RT	2-9	D1-1	Frostman Rd (Right arrow)	84 X 15	8.75	---	---	2	1	2	SEE SIGN DETAIL
143+54	RT	2-10	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC
148+14	RT	2-11	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	FROSTMAN RD.
149+22	RT	2-12	---	Deer Crossing symbol	---	---	---	---	---	1	1	
155+58	LT	3-1	D1-1	Frostman Rd (Left arrow)	84 X 15	8.75	---	---	2	1	2	SEE SIGN DETAIL
160+10	RT	3-2	D5-63	HISTORICAL MARKER 1/2 MILE	60 X 36	15.00	---	---	2	1	2	
161+70	LT	3-3	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
166+79	RT	3-4	D1-2	Burlager Rd (Left arrow) Bodin Rd (Right arrow)	84 X 30	17.50	---	---	2	1	2	SEE SIGN DETAIL
172+40	LT	3-5	I55-56	WASHBURN BOY SCOUT TROOP 344	30 X 36	7.50	---	---	1	1	1	ADOPT-A-HIGHWAY
173+83	LT	3-6	R1-1	STOP	30 X 30	5.18	---	---	1	1	1	BURLAGER RD.
174+34	RT	3-7	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	BODIN RD.
174+82	LT	3-8	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
175+20	RT	3-9	I55-56	VICA WASHBURN H.S. CHAPTER	30 X 36	7.50	---	---	1	1	1	ADOPT-A-HIGHWAY
178+47	RT	3-10	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC
181+08	LT	3-11	D1-2	Bodin Rd (Left arrow) Burlager Rd (Right arrow)	84 X 30	17.50	---	---	2	1	2	SEE SIGN DETAIL
187+00	LT	3-12	---	Deer Crossing symbol	---	---	---	---	---	1	1	
189+25	RT	3-13	W1-2L	Left Curve symbol	36 X 36	---	9.00	---	1	1	1	
191+19	RT	3-15	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	HISTORICAL MARKER ENTRANCE
191+47	RT	3-16	D5-64-R	HISTORICAL MARKER (Right arrow)	60 X 36	15.00	---	---	2	1	2	
192+71	RT	3-17	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	HISTORICAL MARKER ENTRANCE
193+23	RT	3-18	D1-1	Howell Rd (Right arrow)	72 X 15	7.50	---	---	2	1	2	SEE SIGN DETAIL
193+47	LT	3-19	D5-64-L	HISTORICAL MARKER (Left arrow)	60 X 36	15.00	---	---	2	1	2	
198+38	RT	3-20	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	HOWELL RD.
199+12	RT	3-21	S3-1	School Bus Stop Ahead symbol	36 X 36	---	9.00	---	1	1	1	
204+34	LT	3-22	W1-2R	Right Curve symbol	36 X 36	---	9.00	---	1	---	---	NEW LOCATION
206+52	LT	3-24	D1-1	Howell Rd (Left arrow)	72 X 15	7.50	---	---	2	1	2	SEE SIGN DETAIL
208+36	LT	3-25	---	Right Curve symbol w/50 M.P.H.	---	---	---	---	---	1	1	
208+90	RT	3-26	---	Right Curve symbol	---	---	---	---	---	1	1	
209+65	LT	3-27	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	
212+76	RT	3-28	W14-3	NO PASSING ZONE	48 X 36	---	6.00	---	1	1	1	
SUBTOTALS						284.00	111.50	11	57	55	71	

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

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PERMANENT SIGNING ITEMS CONT'D

STH 13 STATION (APPROX.)	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	637.2210	637.2230	634.0614	634.0616	638.2602	638.3000	COMMENT
					SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
218+30	LT	4-1	D5-63	HISTORICAL MARKER 1/2 MILE	60 X 36	15.00	—	2	1	2	
227+84	RT	4-2	W14-3	NO PASSING ZONE	48 X 36	—	6.00	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC
243+93	RT	4-3	D1-61	Friendly Valley Rd (Left arrow & Right arrow)	102 X 24	17.00	—	2	1	2	SEE SIGN DETAIL
246+54	RT	4-4	J4-1	NORTH 13	24 X 36	6.00	—	1	—	—	
246+56	LT	4-5	J4-1	SOUTH 13	24 X 36	6.00	—	1	—	—	
250+72	LT	4-6	R1-1	STOP	30 X 30	5.18	—	1	1	1	FRIENDLY VALLEY RD.
251+99	RT	4-7	R1-1	STOP	30 X 30	5.18	—	1	1	1	FRIENDLY VALLEY RD.
252+63	RT	4-8	D1-1	Kjarvick Rd (Left arrow)	84 X 15	8.75	—	2	1	2	SEE SIGN DETAIL
252+73	LT	4-9	I55-56	VICA WASHBURN H.S. CHAPTER	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
255+00	LT	4-10	D1-61	Friendly Valley Rd (Left arrow & Right arrow)	102 X 24	17.00	—	2	1	2	SEE SIGN DETAIL
255+05	RT	4-11	I55-56	SPINDRIFT CREW	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
255+63	LT	4-12	R1-1	STOP	30 X 30	5.18	—	1	1	1	KJARVICK RD.
263+00	LT	4-13	D1-1	Kjarvick Rd (Right arrow)	84 X 15	8.75	—	2	1	2	SEE SIGN DETAIL
283+62	RT	5-1	D1-1	Bayview Park Rd (Right arrow)	108 X 15	11.25	—	2	1	2	SEE SIGN DETAIL
291+00	RT	5-2	R1-1	STOP	30 X 30	5.18	—	1	1	1	BAYVIEW PARK RD.
297+62	LT	5-3	D1-1	Bayview Park Rd (Left arrow)	108 X 15	11.25	—	2	1	2	SEE SIGN DETAIL
304+35	RT	5-4	D1-1	McCulloch Rd (Left arrow)	90 X 15	9.38	—	2	1	2	SEE SIGN DETAIL
306+35	RT	5-5	R4-51	PASSING LANE AHEAD 1/2 MILE	36 X 48	12.00	—	1	—	—	
307+46	LT	5-6	W14-3	NO PASSING ZONE	48 X 36	—	6.00	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
311+00	RT	5-7	I55-56	APOSTLE ISLANDS REALTY	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
311+00	LT	5-8	I55-56	SPINDRIFT CREW	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
312+83	LT	5-9	R1-1	STOP	30 X 30	5.18	—	1	1	1	MCCULLOCH RD.
313+50	RT	5-10	W1-2L	Right Curve symbol	30 X 30	—	6.25	1	1	1	
317+00	RT	5-11	S3-1	School Bus Stop Ahead symbol	36 X 36	—	9.00	1	1	1	
319+10	LT	5-12	D1-1	McCulloch Rd (Right arrow)	90 X 15	9.38	—	2	1	2	SEE SIGN DETAIL
320+31	RT	5-13	W5-52R	Clearance Striper Down Left	12 X 36	—	3.00	1	1	1	
320+32	LT	5-14	W5-52L	Clearance Striper Down Right	12 X 36	—	3.00	1	1	1	
320+91	LT	5-15	W5-52R	Clearance Striper Down Left	12 X 36	—	3.00	1	1	1	
320+92	RT	5-16	W5-52L	Clearance Striper Down Right	12 X 36	—	3.00	1	1	1	
332+60	RT	5-17	R4-3	SLOWER TRAFFIC KEEP RIGHT	36 X 48	12.00	—	1	1	1	
338+50	LT	6-1	W1-2L	Left Curve symbol	30 X 30	—	6.25	1	—	—	
341+05	RT	6-2	W9-1R	RIGHT LANE ENDS	36 X 36	—	9.00	1	1	1	
341+60	LT	6-3	—	Left Curve symbol	—	—	—	—	1	1	
345+80	RT	6-4	W4-2R	Right Lane Reduction Transition symbol	36 X 36	—	9.00	1	1	1	
345+80	LT	6-5	W4-2R	Right Lane Reduction Transition symbol	36 X 36	—	9.00	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
355+40	RT	6-6	—	Left Curve symbol w/50 M.P.H.	—	—	—	—	1	1	
355+82	LT	6-7	R3-72	ONCOMING TRAFFIC USES CENTER LANE	30 X 36	7.50	—	1	—	—	
361+44	RT	6-8	W1-2R	Left Curve symbol	30 X 30	—	6.25	1	—	—	NEW LOCATION
371+21	LT	6-10	W1-2L	Right Curve symbol	30 X 30	—	6.25	1	—	—	
375+07	LT	6-11	—	Right Curve symbol	—	—	—	—	1	1	
376+78	RT	6-12	D1-1	Whiting Rd (Left arrow)	78 X 15	8.13	—	2	1	2	SEE SIGN DETAIL
376+98	RT	6-13	W14-3	NO PASSING ZONE	48 X 36	—	6.00	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC
382+65	LT	6-14	R1-1	STOP	30 X 30	5.18	—	1	1	1	WHITING RD.
385+24	LT	6-15	W14-3	NO PASSING ZONE	48 X 36	—	6.00	1	1	1	SIGN FACES NORTHBOUND TRAFFIC
387+40	RT	6-16	—	Left Curve symbol	—	—	—	—	1	1	
390+32	LT	6-17	D1-1	Whiting Rd (Right arrow)	78 X 15	8.13	—	2	1	2	SEE SIGN DETAIL
391+40	RT	6-18	W1-2L	Left Curve symbol	30 X 30	—	6.25	1	—	—	
401+66	LT	7-1	W1-2L	Right Curve symbol	30 X 30	—	6.25	1	1	1	
402+18	RT	7-2	W1-2L	Left Curve symbol	30 X 30	—	6.25	1	1	1	
405+18	RT	7-3	S3-1	School Bus Stop Ahead symbol	36 X 36	—	9.00	1	1	1	
421+55	LT	7-4	S3-1	School Bus Stop Ahead symbol	36 X 36	—	9.00	1	1	1	
427+20	RT	7-5	R4-51	PASSING LANE AHEAD 1 MILE	36 X 48	12.00	—	1	—	—	
428+60	LT	7-6	I55-56	APOSTLE ISLANDS REALTY	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
429+00	LT	7-7	R1-1	STOP	30 X 30	5.18	—	1	1	1	S. KENNEDY RD.
429+48	RT	7-8	I55-56	BLUE VISTA FARM	30 X 36	7.50	—	1	1	1	ADOPT-A-HIGHWAY
445+80	RT	7-9	W1-2R	Right Curve symbol	30 X 30	—	6.25	1	1	1	
445+80	RT	7-10	W13-1	50 M.P.H.	18 X 18	—	2.25	—	—	—	ON SAME POST AS SIGN NO. 7-9
448+47	LT	7-11	W1-2L	Right Curve symbol	30 X 30	—	6.25	1	1	1	
449+08	RT	7-12	D1-1	Ski Hill Rd (Left arrow)	78 X 15	8.13	—	2	1	2	SEE SIGN DETAIL
451+34	RT	7-13	—	Bayfield Fish Hatchery 1/2 MILE	66 X 36	16.50	—	2	1	2	SEE SIGN DETAIL
453+60	RT	7-14	R4-51	PASSING LANE AHEAD 1/2 MILE	36 X 48	12.00	—	1	—	—	
SUBTOTALS						297.41	148.50	6	63	50	63

PERMANENT SIGNING ITEMS CONT'D

				637.2210	637.2230	634.0614	634.0616	638.2602	638.3000			
				SIGNS	SIGNS	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING			
STH 13				SIGN SIZE	TYPE II	TYPE II	4X6-INCH	4X6-INCH	SIGNS	SMALL SIGN		
STATION	SIGN	SIGN		W X H	REFLECTIVE H	REFLECTIVE F	X 14-FT	X 16-FT	TYPE II	SUPPORTS		
(APPROX.)	NO.	CODE	SIGN MESSAGE	(INCHES)	SF	SF	EACH	EACH	EACH	EACH	COMMENT	
456+48	LT	8-1	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	SKI HILL RD.	
456+62	RT	8-2	— 13	—	—	—	—	—	1	—	ON SAME POST AS SIGN NO. 8-3	
456+62	RT	8-3	W1-7 Night Arrow (Double)	48 X 24	—	8.00	—	1	—	1	SIGN FACES SKI HILL ROAD TRAFFIC	
462+86	RT	8-4	W5-2 NARROW BRIDGE	36 X 36	—	9.00	—	1	1	1		
463+20	LT	8-5	D1-1 Ski Hill Rd (Right arrow)	78 X 15	8.13	—	—	2	1	2	SEE SIGN DETAIL	
467+60	RT	8-6	R7-1-L NO PARKING ANY TIME (Left Arrow)	18 X 24	3.00	—	1	—	1	1		
467+63	LT	8-7	R7-1-R NO PARKING ANY TIME (Right Arrow)	18 X 24	3.00	—	1	—	1	1		
469+55	RT	8-8	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	1	—	1	1		
469+58	LT	8-9	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	1	—	1	1		
470+57	LT	8-10	W5-52L Clearance Striper Down Right	12 X 36	—	3.00	1	—	1	1		
470+82	RT	8-11	W5-52R Clearance Striper Down Left	12 X 36	—	3.00	1	—	1	1		
470+84	RT	8-12	1-3-1 Pikes Creek	66 X 15	6.88	—	2	—	1	1	SEE SIGN DETAIL	
472+21	LT	8-13	1-3-1 Pikes Creek	66 X 15	6.88	—	2	—	1	1	SEE SIGN DETAIL	
472+23	LT	8-14	W5-52R Clearance Striper Down Left	12 X 36	—	3.00	1	—	1	1		
472+49	RT	8-15	W5-52L Clearance Striper Down Right	12 X 36	—	3.00	1	—	1	1		
473+19	RT	8-16	D1-1 Hatchery Rd (Left arrow)	84 X 15	8.75	—	—	2	1	2	SEE SIGN DETAIL	
474+00	RT	8-17	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	1	—	1	1		
474+00	LT	8-18	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	—	1	1	1		
474+00	LT	8-19	W1-2L Left Curve symbol	30 X 30	—	6.25	—	—	—	—	ON SAME POST & ABOVE SIGN NO. 8-18	
475+85	RT	8-20	— Bayfield Fish Hatchery (Left arrow)	66 X 36	16.50	—	—	2	1	2	SEE SIGN DETAIL	
476+02	LT	8-21	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	1	—	1	1		
476+15	RT	8-22	R7-1-D NO PARKING ANY TIME (Double Arrow)	18 X 24	3.00	—	1	—	1	1		
478+09	RT	8-23	R7-1-R NO PARKING ANY TIME (Right Arrow)	18 X 24	3.00	—	1	—	1	1		
478+10	LT	8-24	— Bayfield Fish Hatchery (Right arrow)	66 X 36	16.50	—	—	2	1	2	SEE SIGN DETAIL	
478+10	LT	8-25	R7-1-L NO PARKING ANY TIME (Left Arrow)	18 X 24	3.00	—	1	—	1	1	ON INSIDE POST OF SIGN NO. 8-24	
478+85	LT	8-26	— Left Curve symbol	—	—	—	—	—	1	1		
478+95	LT	8-27	W5-2 NARROW BRIDGE	36 X 36	—	9.00	—	1	1	1		
479+63	LT	8-28	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	HATCHERY RD.	
480+05	RT	8-29	R4-3 SLOWER TRAFFIC KEEP RIGHT	24 X 30	5.00	—	1	—	—	—		
484+00	RT	8-30	W1-2R Right Curve symbol	30 X 30	—	6.25	—	1	1	1		
488+00	LT	8-31	D1-1 Hatchery Rd (Right arrow)	84 X 15	8.75	—	—	2	1	2	SEE SIGN DETAIL	
488+14	RT	8-32	— SLOWER TRAFFIC KEEP RIGHT	—	—	—	—	—	1	1		
497+67	RT	8-33	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	PORT SUPERIOR RD.	
501+56	LT	8-34	W1-2L Left Curve symbol	30 X 30	—	6.25	—	1	—	—		
505+45	RT	8-35	W14-3 NO PASSING ZONE	48 X 36	—	6.00	—	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC	
505+50	LT	8-36	— Left Curve symbol	—	—	—	—	—	1	1		
506+00	LT	8-37	— Bayfield Fish Hatchery 1/2 MILE	66 X 36	16.50	—	—	2	—	—	NEW LOCATION - SEE SIGN DETAIL	
511+50	RT	8-38	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	PIKES BAY RD.	
512+24	LT	8-39	— Bayfield Fish Hatchery 1/2 MILE	—	—	—	—	—	1	2	REMOVE AT EXISTING LOCATION	
513+97	RT	8-40	S3-1 School Bus Stop Ahead symbol	36 X 36	—	9.00	—	1	1	1		
521+67	LT	9-1	I55-56 BLUE VISTA FARM	30 X 36	7.50	—	—	1	1	1	ADOPT-A-HIGHWAY	
522+08	RT	9-2	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	CHEQUAMEGON RD.	
522+42	LT	9-3	— ONCOMING TRAFFIC USES CENTER LANE	—	—	—	—	—	1	1		
522+90	RT	9-4	D1-1 Weber Rd (Left arrow)	72 X 15	7.50	—	—	2	1	2	SEE SIGN DETAIL	
527+20	LT	9-5	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	WEBER RD.	
528+30	RT	9-6	W9-1R RIGHT LANE ENDS	36 X 36	—	9.00	—	1	1	1		
531+00	RT	9-7	I55-56 BAYFIELD HIGH SCHOOL HONOR SOCIETY	30 X 36	7.50	—	—	1	1	1	ADOPT-A-HIGHWAY	
533+05	LT	9-8	W4-2R Right Lane Reduction Transition symbol	36 X 36	—	9.00	—	1	1	1	SIGN FACES NORTHBOUND TRAFFIC	
533+05	RT	9-9	W4-2R Right Lane Reduction Transition symbol	36 X 36	—	9.00	—	1	1	1		
533+10	LT	9-10	D1-1 Weber Rd (Right arrow)	72 X 15	7.50	—	—	2	1	2	SEE SIGN DETAIL	
537+44	RT	9-11	D1-1 Old San Rd (Right arrow)	78 X 15	8.13	—	—	2	1	2	SEE SIGN DETAIL	
537+80	LT	9-12	R3-72 ONCOMING TRAFFIC USES CENTER LANE	30 X 36	7.50	—	1	—	—	—		
545+06	RT	9-13	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	OLD SAN RD.	
551+97	LT	9-14	D1-1 Old San Rd (Left arrow)	78 X 15	8.13	—	—	2	1	2	SEE SIGN DETAIL	
553+65	RT	9-15	W3-5 Reduced Speed Ahead 45	36 X 36	—	9.00	—	1	1	1		
555+91	RT	9-16	W14-3 NO PASSING ZONE	48 X 36	—	6.00	—	1	1	1	SIGN FACES SOUTHBOUND TRAFFIC	
557+16	LT	9-17	W14-3 NO PASSING ZONE	48 X 36	—	6.00	—	1	1	1	SIGN FACES NORTHBOUND TRAFFIC	
559+60	LT	9-18	R2-1 SPEED LIMIT 55	24 X 30	5.00	—	1	—	1	1		
559+60	RT	9-19	R2-1 SPEED LIMIT 45	24 X 30	5.00	—	1	—	1	1		
560+86	RT	9-20	R1-1 STOP	30 X 30	5.18	—	—	1	1	1	BLUE WING BAY RD.	
SUBTOTALS						229.09	119.75	21	44	54	64	

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

E

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PERMANENT SIGNING ITEMS CONT'D

STH 13 STATION (APPROX.)	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	637.2210	637.2230	634.0614	634.0616	638.2102	638.2602	638.3000	COMMENT
					SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
561+05	RT	9-21	J1-1	JCT COUNTY J	24 X 39	6.50	---	---	---	1	1	
564+87	LT	9-22	R2-1	SPEED LIMIT 45	24 X 30	5.00	---	1	---	1	1	
564+87	LT	9-23	J4-1	SOUTH 13	24 X 36	6.00	---	1	---	---	---	
564+87	LT	9-24	M1-91	LAKE SUPERIOR CIRCLE TOUR	24 X 24	4.00	---	---	---	1	1	ON SAME POST AS SIGN NO. 9-23
565+63		9-25	J13-1	COUNTY J Left Arrow	24 X 45	7.50	---	---	---	1	1	
565+71	LT	9-26	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	CTH J
566+63	LT	9-27	J13-1	COUNTY J Right Arrow	24 X 45	7.50	---	1	---	1	1	
567+10	RT	9-28	J4-1	NORTH 13	24 X 36	6.00	---	1	---	1	1	
567+10	RT	9-29	M1-91	LAKE SUPERIOR CIRCLE TOUR	24 X 24	4.00	---	---	---	1	1	ON SAME POST AS SIGN NO. 9-28
568+10	RT	9-30	R2-1	SPEED LIMIT 45	24 X 30	5.00	---	1	---	1	1	
573+00	LT	9-31	J1-1	JCT COUNTY J	24 X 39	6.50	---	1	---	1	1	
575+15	LT	9-32	R2-1	SPEED LIMIT 45	24 X 30	5.00	---	1	---	---	---	NEW LOCATION
575+85	LT	10-1	---	SPEED LIMIT 45	---	---	---	---	---	1	1	REMOVE AT EXISTING LOCATION
575+88	RT	10-2	W3-5	Reduced Speed Ahead 25	36 X 36	---	9.00	---	---	1	1	
578+00	LT	10-3	D2-2	Washburn 12 Ashland 21	78 X 24	13.00	---	2	---	1	2	SEE SIGN DETAIL
579+14	RT	10-4	W1-2L	Left Curve symbol	30 X 30	---	6.25	---	---	---	---	
581+74	RT	10-5	---	Apostle Islands Natnl Lakeshore Visitor Ctr 1 MILE	90 X 48	30.00	---	2	---	1	2	SEE SIGN DETAIL
583+50	RT	10-6	R2-1	SPEED LIMIT 25	24 X 30	5.00	---	1	---	1	1	
583+50	LT	10-7	R2-1	SPEED LIMIT 45	24 X 30	5.00	---	1	---	1	1	
588+73	LT	10-8	J4-1	SOUTH 13	24 X 36	6.00	---	1	---	1	1	
588+73	LT	10-9	---	SCENIC BYWAY	---	---	---	---	1	---	---	ON SAME POST AS SIGN NO. 10-8
589+45	RT	10-10	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	LAKESHORE DRIVE
590+60	RT	10-11	---	Bayfield POPULATION 487	60 X 24	10.00	---	2	---	1	1	SEE SIGN DETAIL
591+97	RT	10-12	R2-1	SPEED LIMIT 25	24 X 30	5.00	---	1	---	1	1	
592+70	LT	10-13	R2-1	SPEED LIMIT 25	24 X 30	5.00	---	1	---	1	1	
594+55	LT	10-14	W1-2R	Right Curve symbol	30 X 30	---	6.25	---	---	1	1	
595+48	LT	10-15	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	9TH STREET
596+62	RT	10-16	W1-1R	Right Turn symbol	36 X 36	---	9.00	---	---	1	1	
599+62	LT	10-17	W1-6	Night Arrow (Left)	48 X 24	---	8.00	---	---	1	1	
599+66	LT	10-18	R1-1	STOP	30 X 30	5.18	---	1	---	1	1	PAYNE AVE.
600+25	LT	10-19	W1-6	Night Arrow (Right)	48 X 24	---	8.00	---	---	1	1	
SUBTOTALS						162.72	46.50	9	1	27	29	
TOTALS						973.22	426.25	47	1	186	227	

DELINEATOR ITEMS

			633.0100	633.0500
			DELINEATOR	DELINEATOR
			POSTS STEEL	REFLECTORS
STATION	- STATION	LOCATION	EACH	EACH
CAT. 0010				
55+00	- 57+00	STH 13 LT	3	3
151+00	- 153+00	STH 13 RT	3	3
345+00	- 356+00	STH 13 RT	12	12
362+00	- 376+50	STH 13 RT	16	16
382+00	- 420+00	STH 13 RT	39	39
498+00	- 512+00	STH 13 RT	15	15
504+50	- 506+00	STH 13 LT	3	3
540+00	- 545+00	STH 13 LT	6	6
585+00	- 587+00	STH 13 LT	3	3
TOTALS			100	100

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PAVEMENT MARKING EPOXY ITEMS

			646.0106	646.2304.S	646.0842.S		
			PAVEMENT	PM GROOVED	PM GROOVED		
			MARKING	WET	CONTRAST WET		
			EPOXY	REFLECTIVE	REFLECTIVE		
			4-INCH	EPOXY 4-INCH	EPOXY 4-INCH		
			YELLOW	WHITE	WHITE		
STATION	- STATION	LOCATION	LF	LF	LF	COMMENTS	
CAT. 0010							
37+00	- 602+84	RT	—	57389	—	EDGE LINE	
37+00	- 602+84	LT	—	57389	—	EDGE LINE	
37+00	- 40+15	CENTERLINE	78			PASSING ZONE	
40+15	- 51+20	CENTERLINE	1381			NB NO PASSING ZONE	
51+20	- 85+25	CENTERLINE	6810			DOUBLE YELLOW	
85+25	- 96+55	CENTERLINE	1412.5			SB NO PASSING ZONE	
96+55	- 113+65	CENTERLINE	427.5			PASSING ZONE	
113+65	- 116+20	CENTERLINE	319			NB NO PASSING ZONE	
116+20	- 132+60	CENTERLINE	3280			DOUBLE YELLOW	
132+60	- 143+60	CENTERLINE	1375			SB NO PASSING ZONE	
143+60	- 161+80	CENTERLINE	455			PASSING ZONE	
161+80	- 167+30	CENTERLINE	688			NB NO PASSING ZONE	
167+30	- 172+10	CENTERLINE	120			PASSING ZONE	
172+10	- 174+85	CENTERLINE	344			SB NO PASSING ZONE	
174+85	- 178+45	CENTERLINE	720			DOUBLE YELLOW	
178+45	- 186+15	CENTERLINE	963			NB NO PASSING ZONE	
186+15	- 201+00	CENTERLINE	2970			DOUBLE YELLOW	
201+00	- 209+90	CENTERLINE	1112.5			SB NO PASSING ZONE	
209+90	- 212+75	CENTERLINE	570			DOUBLE YELLOW	
212+75	- 217+05	CENTERLINE	537.5			NB NO PASSING ZONE	
217+05	- 219+90	CENTERLINE	71			PASSING ZONE	
219+90	- 227+90	CENTERLINE	1000			SB NO PASSING ZONE	
227+90	- 307+45	CENTERLINE	1989			PASSING ZONE	
307+45	- 318+70	CENTERLINE	1406			NB NO PASSING ZONE	
318+70	- 366+10	CENTERLINE	9480			DOUBLE YELLOW	
366+10	- 376+95	CENTERLINE	1356			SB NO PASSING ZONE	
376+95	- 385+30	CENTERLINE	209			PASSING ZONE	
385+30	- 396+15	CENTERLINE	1356			NB NO PASSING ZONE	
396+15	- 505+40	CENTERLINE	21850			DOUBLE YELLOW	
505+40	- 519+00	CENTERLINE	1700			NB NO PASSING ZONE	
519+00	- 545+40	CENTERLINE	5280			DOUBLE YELLOW	
545+40	- 555+95	CENTERLINE	1319			SB NO PASSING ZONE	
555+95	- 557+20	CENTERLINE	31			PASSING ZONE	
557+20	- 559+50	CENTERLINE	288			NB NO PASSING ZONE	
559+50	- 567+55	CENTERLINE	1006			NB NO PASSING ZONE	
567+55	- 602+84	CENTERLINE	8668			DOUBLE YELLOW	
335+48	- 349+00	RT	—	—	338	PASSING LANE SKIPS	
455+50	- 458+00	RT	—	—	63	BYPASS LANE SKIPS	
487+00	- 536+20	RT	—	—	1230	PASSING LANE SKIPS	
TOTALS			80572	114778	1631		

LOCATING NO-PASSING ZONES

				648.0100
				LOCATING NO- PASSING ZONES
				01. 8160-03-70
STA	-	STA	LOCATION	MI
CAT 0010				
37+00	-	602+84	STH 13	10.72
PROJECT TOTAL				10.72

TEMPORARY PAVEMENT MARKING PAINT 4-INCH

				649.0402	
				TEMPORARY	
				PAVEMENT	
				MARKING	
				PAINT 4-INCH	
STATION	-	STATION	LOCATION	LF	COMMENTS
CAT. 0010					
37+00	-	602+84	STH 13 MILLED SURFACE	74275	YELLOW CENTERLINE
37+00	-	602+84	STH 13 LOWER LAYER	74275	YELLOW CENTERLINE
37+00	-	602+84	STH 13 SMA LAYER	80572	SEE ITEM 646.0106 FOR CL LOCATIONS
335+48	-	349+00	STH 13 RT	108	WHITE PASSING LANE SKIPS
455+50	-	458+00	STH 13 RT	20	WHITE BYPASS LANE SKIPS
487+00	-	536+20	STH 13 RT	394	WHITE PASSING LANE SKIPS
TOTAL				229644	

TRAFFIC CONTROL PORTABLE MESSAGE

				643.1050
				TRAFFIC
				CONTROL
				SIGNS PCMS
LOCATION	MESSAGE			DAY
CAT. 0010	*			
STH 13@ EB	LANE RESTRICTIONS			
USH 53	BAYFIELD SOUTH			1 28 28
STH 13@ NB	LANE RESTRICTIONS			
USH 2	WASHBURN NORTH			2 28 56
STH 13 NB	ROAD WORK AHEAD			
	EXPECT DELAY			1 55 55
STH 13 SB	ROAD WORK AHEAD			
	EXPECT DELAY			1 55 55
TOTAL				194

* CHANGEABLE MESSAGE TO BE DETERMINED BY ENGINEER.

TRAFFIC CONTROL

643.0100 TRAFFIC CONTROL 01.8160-03-70 EACH	
LOCATION	
CAT.0010	
STH 13	1
PROJECT TOTAL	1

TRAFFIC CONTROL DRUMS & LIGHTS

		643.0300 TRAFFIC CONTROL DRUMS		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	
STATION - STATION	LOCATION	NO. OF DRUMS	DAYS	DAY	DAY
CAT. 0010					
37+00 - 602+84	PROJECT	55	54	2970	2970
454+00 - 459+60	BYPASS LANE	8	28	224	224
	UNDISTRIBUTED	12	54	648	648
TOTALS				3618	3618

TRAFFIC CONTROL SIGNS

		643.0900 TRAFFIC CONTROL SIGNS			
STATION - STATION	LOCATION	NO. OF SIGNS	DAYS	DAY	COMMENT
CAT. 0010					
37+00 - 602+84	PROJECT	10	54	540	ADVANCE WARNING
37+00 - 602+84	PROJECT	37	26	962	MILLED SURFACES
37+00 - 602+84	ADV. INTERS.	8	28	224	MAX WIDTH WARNING
37+00 - 602+84	PROJECT	54	28	1512	SHOULDER WORK
37+00 - 602+84	PROJECT	24	54	1296	SIDE ROADS
TOTAL				4534	

CONSTRUCTION STAKING RESURFACING REFERENCE

		650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE	
STATION - STATION	LOCATION	LF	
CAT. 0010			
37+00 - 232+33	STH 13	19533	
233+59 - 239+05	STH 13	546	
240+30 - 320+35	STH 13	8005	
320+87 - 470+72	STH 13	14985	
472+30 - 602+84	STH 13	13054	
TOTAL		56123	

CONST. STAKING SUPPLEMENTAL CONTROL

		650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01.8160-03-70 LS	
LOCATION			
CAT.0010			
STH 13		1	
PROJECT TOTAL		1	

REMOVING ASPHALTIC SURFACE MILLING FULL DEPTH

		SPV.0180.01 REMOVING ASPHALTIC SURFACE MILLING FULL DEPTH	
STATION - STATION	LOCATION	SY	
CAT. 0010			
37+50 - 228+05	STH 13 RT	10587	
37+50 - 229+82	STH 13 LT	10685	
228+05 - 232+33	STH 13 RT	286	
229+82 - 232+33	STH 13 LT	168	
233+59 - 239+05	STH 13 LT	364	
233+59 - 234+84	STH 13 RT	84	
237+82 - 239+05	STH 13 RT	82	
240+30 - 248+17	STH 13 LT	525	
240+30 - 245+05	STH 13 RT	317	
245+05 - 248+17	STH 13 RT	174	
248+17 - 319+00	STH 13 RT & LT	7870	
319+00 - 322+25	STH 13 RT & LT	434	
322+25 - 330+85	STH 13 RT & LT	956	
330+85 - 337+00	STH 13 RT & LT	889	
337+00 - 351+00	STH 13 RT & LT	1089	
351+00 - 356+64	STH 13 RT & LT	815	
356+64 - 360+82	STH 13 RT & LT	511	
360+82 - 371+13	STH 13 RT & LT	1490	
371+13 - 454+00	STH 13 RT & LT	9208	
454+00 - 455+35	STH 13 RT & LT	195	
455+35 - 458+24	STH 13 RT & LT	611	
458+24 - 459+60	STH 13 RT & LT	197	
459+60 - 465+95	STH 13 RT & LT	706	
465+95 - 467+95	STH 13 RT & LT	245	
467+95 - 470+72	STH 13 RT & LT	370	
472+31 - 475+60	STH 13 RT & LT	439	
475+60 - 479+00	STH 13 RT & LT	378	
479+00 - 486+90	STH 13 RT & LT	1142	
486+90 - 537+80	STH 13 RT & LT	3959	
537+80 - 544+00	STH 13 RT & LT	896	
544+00 - 590+20	STH 13 RT & LT	5134	
590+20 - 592+01	STH 13 RT & LT	222	
592+01 - 597+80	STH 13 RT & LT	644	
597+80 - 602+34	STH 13 RT & LT	555	
TOTAL		62227	

SAWING ASPHALT

690.0150 SAWING ASPHALT	
LOCATION	LF
CAT. 0010	
37+00 BOP	34
602+84 EOP	34
SUPERIOR AVE	24
BURLAGER RD	23
FRIENDLY VALLEY RD W	24
SKI HILL RD	26
HATCHERY RD	24
PORT SUPERIOR RD	30
PIKES BAY RD	24
CHEQUAMEGON RD	23
WEBER RD	28
OLD SAN RD	27
CTH J	29
9TH ST	28
PAYNE AVE	22
DRIVEWAYS	420
UNDISTRIBUTED	60
TOTAL	880

MATERIAL TRANSFER VEHICLE

SPV.0105.01 MATERIAL TRANSFER VEHICLE LS	
LOCATION	
CAT.0010	
STH 13	1
PROJECT TOTAL	1

MILLING AND REMOVING TEMPORARY JOINT

SPV.0105.02 MILLING AND REMOVING TEMPORARY JOINT LS	
LOCATION	
CAT.0010	
STH 13	1
PROJECT TOTAL	1

SMA PAVEMENT COMPACTION

SPV.0195.01 SMA PAVEMENT COMPACTION ACCEPTANCE TON	
LOCATION	
CAT.0010	
STH 13	15342
TOTAL	15342



MATCH LINE STA. = 94+00.0

STA. 95+55'N' LT
RESTORE F.E.
(BASE AGG)

60'

STA. 98+46'N' LT
RESTORE P.E.
(ASPHALT)

STA. 100+75'N' LT
RESTORE C.E.
(ASPHALT)

STA. 107+30'N' LT
RESTORE C.E.
(BASE AGG)

STA. 109+65'N' LT
RESTORE C.E.
(BASE AGG)

MAKI RD
RESTORE SIDE ROAD
(ASPHALT AND BASE
AGG - SEE DETAIL)

MAKI RD
125.25'

STA. 123+30'N' RT
RESTORE P.E.
(BASE AGG)

STH 13

RIGHT-OF-WAY

RIGHT-OF-WAY

XCEL ENERGY

HOUGHTON FALLS RD

HOUGHTON FALLS RD
RESTORE SIDE ROAD
(ASPHALT AND BASE
AGG - SEE DETAIL)

50'

50'

MATCH LINE STA. = 124+00.0

5

5



MATCH LINE STA. = 124+00.0

STA. 127+25'N' LT
RESTORE C.E.
(BASE AGG)

STA. 134+85'N' LT
RESTORE P.E.
(BASE AGG)

STA. 142+35'N' LT
RESTORE P.E.
(ASPHALT)

STA. 144+80'N' LT
RESTORE P.E.
(BASE AGG)

STA. 148+85'N' LT
RESTORE P.E.
(ASPHALT)

RIGHT-OF-WAY

STH 13

RIGHT-OF-WAY

XCEL ENERGY

STA. 144+25'N' RT
RESTORE P.E.
(ASPHALT)

FROSTMAN RD
RESTORE SIDE ROAD
(ASPHALT AND BASE
AGG - SEE DETAIL)

STA. 150+60'N' RT
RESTORE P.E.
(BASE AGG)

STA. 153+25'N' RT
RESTORE P.E.
(ASPHALT)

CENTURYLINK

FROSTMAN RD

PI STA. 135+10.20
X = 820081.43
Y = 500785.81

PI: 135+10.20N'

MATCH LINE STA. = 154+00.0

PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

PLAN: STH 13

SHEET

5

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\1229_RESURFACE_PROJECT\SHEETS\PLAN\050201_PN_STH13.DWG
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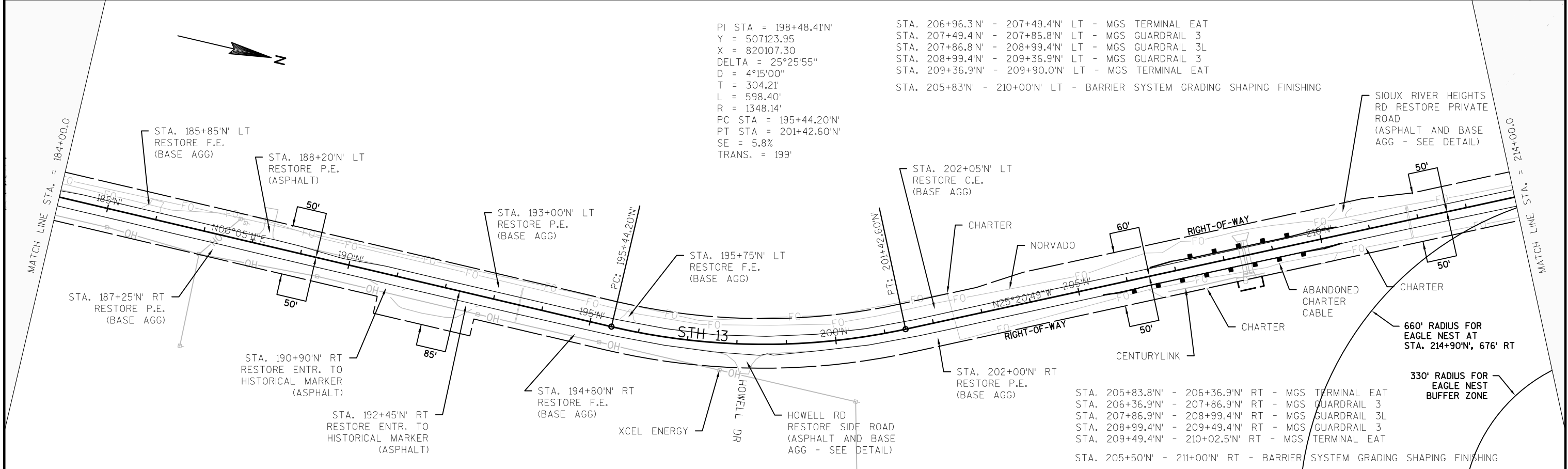
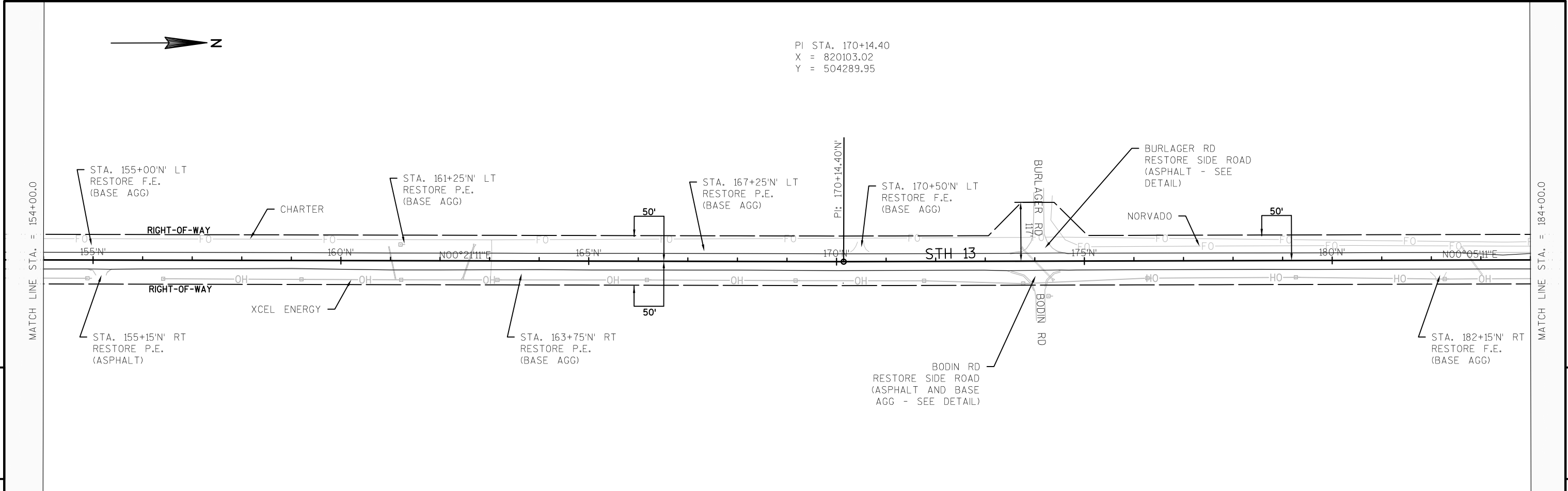
PLOT DATE : 1/26/2017 2:21 PM

PLOT BY : USER

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

WISDOT/CADDs SHEET 44



STH 13 LINE TABLE	
LINE NO.	BEARING
L1	N25° 20' 49"W



STA. 230+05'N' - 232+24'N' LT - REMOVING GUARDRAIL
STA. 229+81.6'N' - 230+34.7'N' LT - MGS TERMINAL EAT
STA. 230+34.7'N' - 231+84.7'N' LT - MGS GUARDRAIL 3
STA. 231+84.7'N' - 232+24.1'N' LT - MGS THRIE BEAM

STA. 233+72'N' - 234+77'N' LT - REMOVING GUARDRAIL
STA. 237+90'N' - 239+99'N' LT - REMOVING GUARDRAIL
STA. 233+72.3'N' - 234+11.7'N' LT - MGS THRIE BEAM
STA. 234+11.7'N' - 234+24.2'N' LT - MGS GUARDRAIL 3
STA. 234+24.2'N' - 238+46.8'N' LT - MGS GUARDRAIL 3K
STA. 238+46.8'N' - 238+59.3'N' LT - MGS GUARDRAIL 3
STA. 238+59.3'N' - 238+98.7'N' LT - MGS THRIE BEAM

STA. 228+40'N' - 250+00'N' LT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 227+00'N' LT
RESTORE WAYSIDE
(BASE AGG)
STA. 229+50'N' LT
RESTORE WAYSIDE
(BASE AGG)

EXCEPTION TO NET ϵ LENGTH
STA. 232+33.13'N' - STA. 233+58.7'N'
STRUCTURE B-4-098 (SIOUX RIVER)

EXCEPTION TO NET ϵ LENGTH
STA. 239+05.2'N' - STA. 240+30.1'N'
STRUCTURE B-4-099 (SIOUX RIVER)

PI STA = 218+01.13'N'
Y = 508897.75
X = 819267.06
DELTA = 8°43'44"
D = 1°15'00"
T = 349.83'
L = 698.30'
R = 4583.66'
PC STA = 214+51.30'N'
PT STA = 221+49.60'N'
SE = 2.8%
TRANS. = 122'

660' RADIUS FOR
EAGLE NEST AT
STA. 214+90'N', 676' RT

330' RADIUS FOR
EAGLE NEST
BUFFER ZONE

STA. 231+26'N' - 232+28'N' RT - REMOVING GUARDRAIL

STA. 231+26.0'N' - 231+88.5'N' RT - MGS GUARDRAIL 3
STA. 231+88.5'N' - 232+27.9'N' RT - MGS THRIE BEAM

STA. 231+68'N' - 232+18'N'
REMOVE ASPHALTIC SURFACE BUTT
JOINT

STA. 233+74'N' - 234+24'N'
REMOVE ASPHALTIC SURFACE
BUTT JOINT

STA. 237+60'N' RT
RESTORE BOAT ACCESS
(BASE AGG)

STA. 238+39'N' - 238+89'N'
REMOVE ASPHALTIC SURFACE
BUTT JOINT

STA. 240+46'N' - 240+96'N'
REMOVE ASPHALTIC SURFACE
BUTT JOINT

STA. 233+66'N' - 234+64'N' RT - REMOVING GUARDRAIL

STA. 233+66.3'N' - 234+05.7'N' RT - MGS THRIE BEAM
STA. 234+05.7'N' - 234+30.7'N' RT - MGS GUARDRAIL 3
STA. 234+30.7'N' - 234+83.8'N' RT - MGS TERMINAL EAT

STA. 237+91'N' - 239+00'N' RT - REMOVING GUARDRAIL

STA. 237+82.5'N' - 238+35.6'N' RT - MGS TERMINAL EAT
STA. 238+35.6'N' - 238+60.6'N' RT - MGS GUARDRAIL 3
STA. 238+60.6'N' - 239+00.0'N' RT - MGS THRIE BEAM

STA. 231+26'N' - 246+24'N' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 240+50'N' - 241+60'N' LT - REMOVING GUARDRAIL

STA. 240+49.8'N' - 240+89.2'N' LT - MGS THRIE BEAM
STA. 240+89.2'N' - 247+64.2'N' LT - MGS GUARDRAIL 3
STA. 247+64.2'N' - 248+17.3'N' LT - MGS TERMINAL EAT

SLOPE REPAIR STATION
247+00 -249+10'N' LT

PI STA = 253+64.90'N'
Y = 512313.47
X = 818247.87
DELTA = 5°48'12"
D = 0°50'00"
T = 348.50'
L = 696.40'
R = 6875.49'
PC STA = 250+16.40'N'
PT STA = 257+12.80'N'
SE = 2.0%
TRANS. = 102'

FRIENDLY VALLEY RD
RESTORE SIDE ROAD
(ASPHALT - SEE
DETAIL)

BAYFIELD
ELECTRIC

KJARVICK RD
RESTORE SIDE ROAD
(ASPHALT AND BASE
AGG - SEE DETAIL)

STA. 270+15'N' LT
RESTORE P.E.
(BASE AGG)

STA. 245+25'N' RT
RESTORE F.E.
(BASE AGG)

STA. 249+10'N' LT
RESTORE F.E.
(BASE AGG)

FRIENDLY VALLEY RD
RESTORE SIDE ROAD
(ASPHALT AND BASE
AGG - SEE DETAIL)

STA. 256+35'N' RT
RESTORE F.E.
(BASE AGG)

STA. 240+37'N' - 241+48'N' RT - REMOVING GUARDRAIL

STA. 240+37.6'N' - 240+77.0'N' RT - MGS THRIE BEAM
STA. 240+77.0'N' - 244+52.0'N' RT - MGS GUARDRAIL 3
STA. 244+52.0'N' - 245+05.1'N' RT - MGS TERMINAL EAT

PROJECT NO:8160-03-70

HWY:STH 13

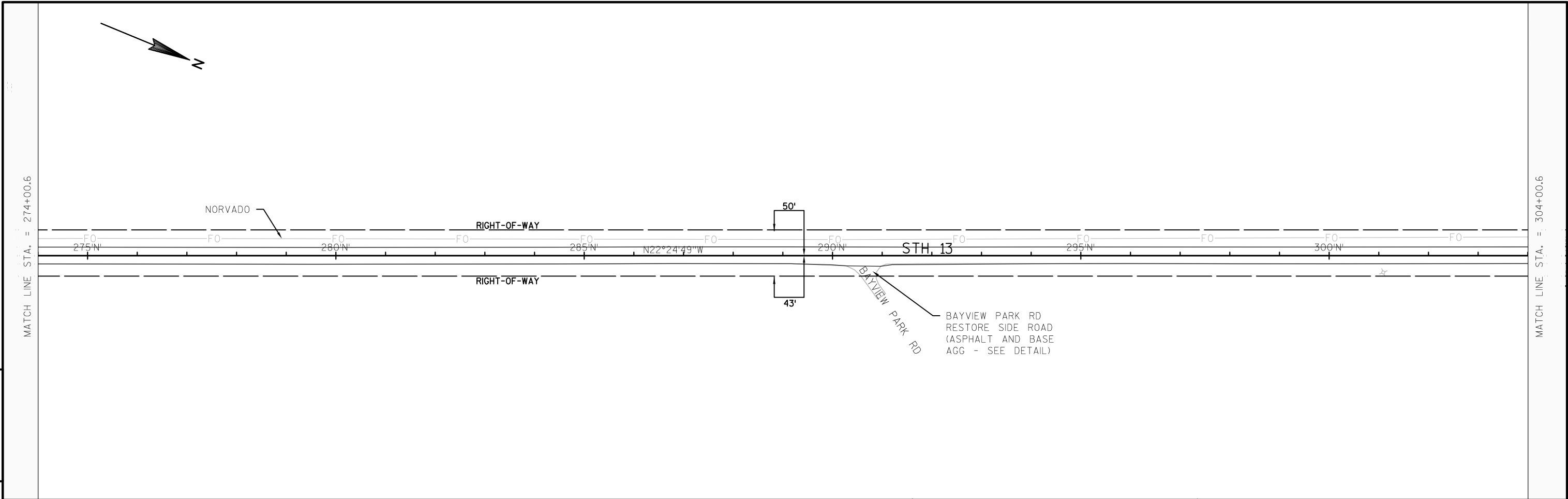
COUNTY:BAYFIELD

PLAN: STH 13

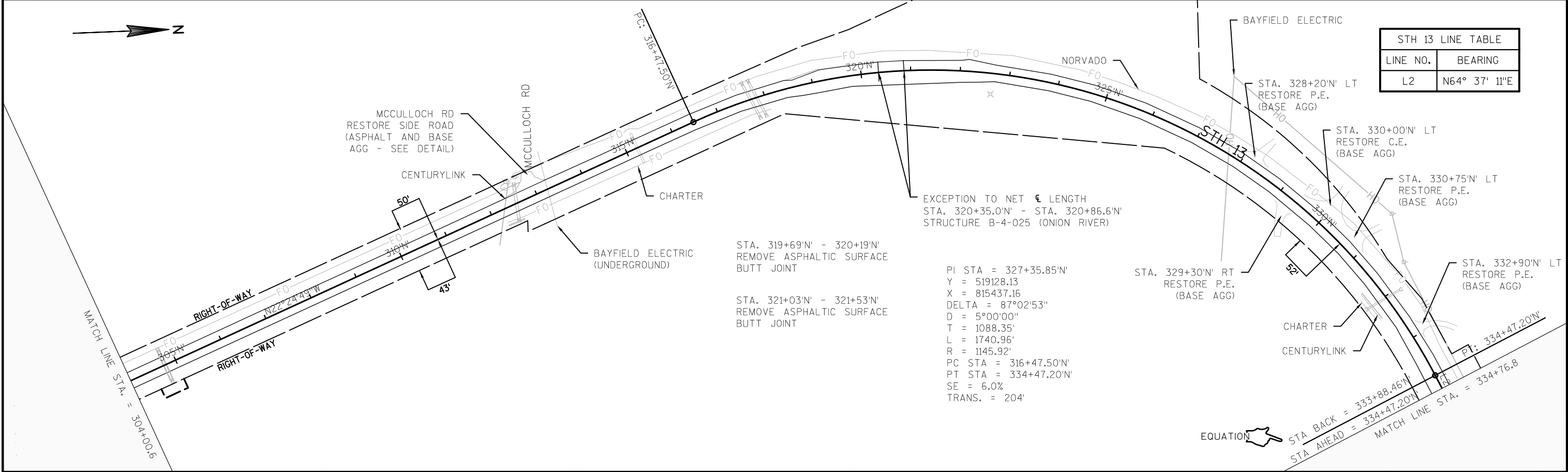
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E

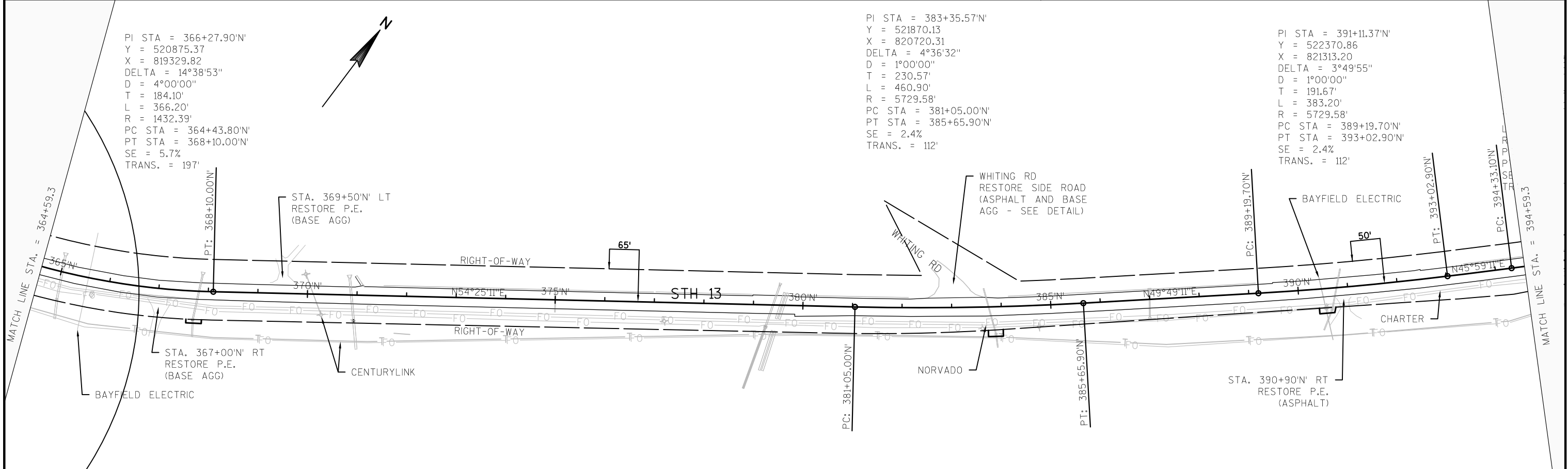
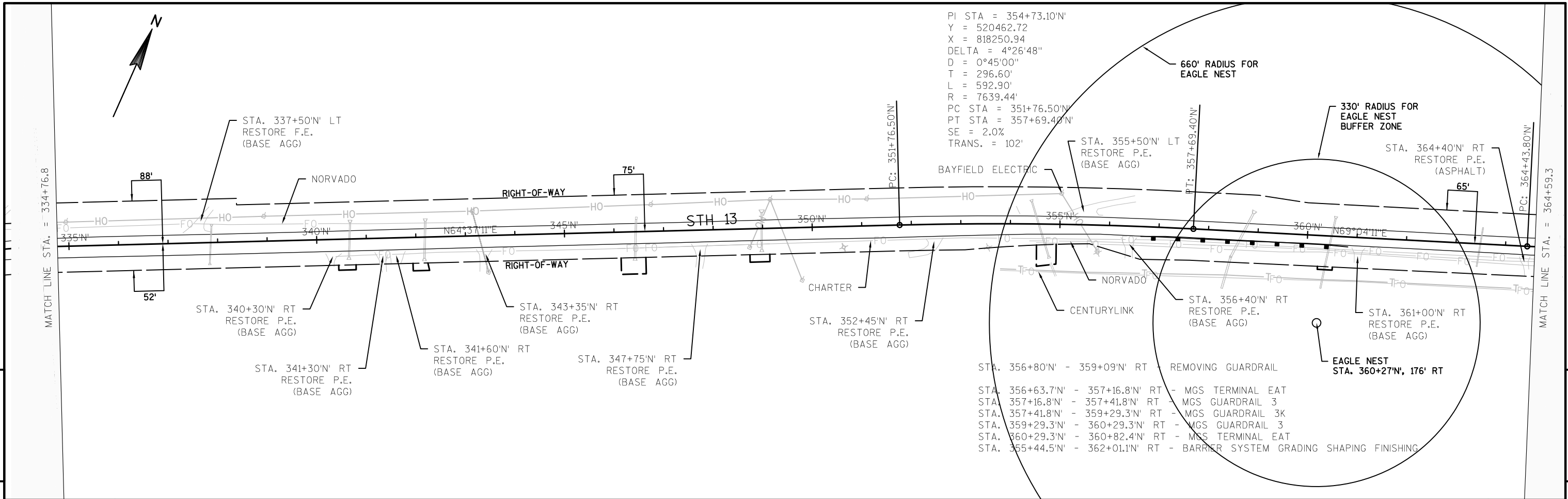
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PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	PLAN: STH 13	SHEET	E
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PI STA = 396+14.30'N'
Y = 522720.41
X = 821675.00
DELTA = 9°56'28"
D = 2°45'00"
T = 181.20'
L = 361.50'
R = 2083.48'
PC STA = 394+33.10'N'
PT STA = 397+94.60'N'
SE = 4.8%
TRANS. = 174'

PI STA = 405+17.19'N'
Y = 523451.24
X = 822206.72
DELTA = 2°26'58"
D = 0°30'00"
T = 244.99'
L = 489.90'
R = 11459.16'
PC STA = 402+72.20'N'
PT STA = 407+62.10'N'
SE = NORMAL CROWN

PI STA = 409+36.73'N'
Y = 523800.80
X = 822438.85
DELTA = 11°51'36"
D = 5°00'00"
T = 119.03'
L = 237.20'
R = 1145.92'
PC STA = 408+17.70'N'
PT STA = 410+54.90'N'
SE = 6.0%
TRANS. = 204'

PI STA = 414+54.35'N'
Y = 524282.41
X = 822630.84
DELTA = 4°39'55"
D = 1°20'00"
T = 175.05'
L = 349.90'
R = 4297.18'
PC STA = 412+79.30'N'
PT STA = 416+29.20'N'
SE = 3.0%
TRANS. = 128'

PI STA = 419+35.11'N'
Y = 524742.18
X = 822772.02
DELTA = 10°32'29"
D = 2°40'00"
T = 198.21'
L = 395.30'
R = 2148.59'
PC STA = 417+36.90'N'
PT STA = 421+32.20'N'
SE = 4.7%
TRANS. = 171'

STA. 399+05'N' RT
RESTORE P.E.
(BASE AGG)

CENTURYLINK

STA. 408+00'N' RT
RESTORE P.E.
(BASE AGG)

CHARTER
NORVADO

STA. 413+28'N' LT
RESTORE P.E.
(BASE AGG)

EXIST CURB INLET
(NO AEW)

STA. 412+70'N' RT
RESTORE P.E.
(BASE AGG)

STA. 421+10'N' RT
RESTORE P.E.
(BASE AGG)

BAYFIELD ELECTRIC

PI STA = 426+79.50'N'
Y = 525482.86
X = 822856.70
DELTA = 9°48'04"
D = 1°30'00"
T = 327.50'
L = 653.40'
R = 3819.72'
PC STA = 423+52.00'N'
PT STA = 430+08.70'N'
SE = 3.3%
TRANS. = 135'

STH 13 LINE TABLE	
LINE NO.	BEARING
L3	N03° 16' 49"W

PI STA = 435+89.58'N'
Y = 526389.76
X = 822804.72
DELTA = 18°58'34"
D = 2°00'00"
T = 478.78'
L = 948.80'
R = 2864.79'
PC STA = 431+10.80'N'
PT STA = 440+59.60'N'
SE = 4.0%
TRANS. = 153'

PI STA = 444+01.39'N'
Y = 527149.22
X = 822493.98
DELTA = 9°18'43"
D = 2°40'00"
T = 174.99'
L = 349.20'
R = 2148.59'
PC STA = 442+26.40'N'
PT STA = 445+75.60'N'
SE = 4.7%
TRANS. = 171'

STA. 451+95'N' LT
RESTORE F.E.
(BASE AGG)

STA. 450+25'N' LT
RESTORE F.E.
(BASE AGG)

STA. 450+65'N' RT
RESTORE P.E.
(ASPHALT)

STA. 454+00'N' RT
RESTORE P.E.
(BASE AGG)

PI STA = 450+69.89'N'
Y = 527719.48
X = 822143.66
DELTA = 17°33'55"
D = 4°40'00"
T = 189.69'
L = 376.40'
R = 1227.77'
PC STA = 448+80.20'N'
PT STA = 452+56.60'N'
SE = 6.0%
TRANS. = 204'

STA. 428+90'N' RT
RESTORE P.E.
(ASPHALT)

CENTURYLINK

EQUATION

STA. 429+75.2'N' - 430+25.2'N' RT - SPBG ENERGY ABSORBING TERMINAL
STA. 430+25.2'N' - 437+56.5'N' RT - SPBG CLASS 'A'
STA. 437+56.5'N' - 437+80.0'N' RT - SPBG SHORT RADIUS (17.25' RAD., 7 CRT POSTS)
STA. 437+80.0'N' - 437+78.2'N' RT - SPBG SHORT RADIUS TERMINAL

STA. 429+00'N' - 450+06'N' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 438+01.2'N' - 438+04.9'N' RT - SPBG SHORT RADIUS TERMINAL
STA. 438+04.6'N' - 438+33.6'N' RT - SPBG SHORT RADIUS (19.9' RAD., 7 CRT POSTS)
STA. 438+33.6'N' - 449+83.6'N' RT - SPBG CLASS 'A'
STA. 449+83.6'N' - 450+11.0'N' RT - SPBG SHORT RADIUS (24.0' RAD., 9 CRT POST)
STA. 450+11.0'N' - 450+05.8'N' RT - SPBG SHORT RADIUS TERMINAL

MATCH LINE STA. = 424+59.3

MATCH LINE STA. = 454+54.2

STA. 468+33.3' - 470+62.2' LT - REMOVING GUARDRAIL
 STA. 465+94.9' - 466+44.9' LT - MGS TERMINAL EAT
 STA. 466+44.9' - 468+48.0' LT - MGS GUARDRAIL 3
 STA. 468+48.0' - 469+48.0' LT - MGS GUARDRAIL 3K
 STA. 469+48.0' - 470+23.0' LT - MGS GUARDRAIL 3
 STA. 470+23.0' - 470+62.4' LT - MGS THRIE BEAM TRANSITION
 STA. 464+10.0' - 476+78.0' LT - BARRIER SYSTEM GRADING SHAPING FINISHING
 STA. 463+85.0' LT RESTORE P.E. (BASE AGG)
 STA. 461+40.0' RT RESTORE C.E. (ASPHALT)
 STA. 464+10.0' RT RESTORE C.E. (ASPHALT)
 STA. 466+20.0' RT RESTORE P.E. (BASE AGG)
 STA. 469+63.0' - 470+88.0' RT - REMOVING GUARDRAIL
 STA. 467+95.2' - 468+48.3' RT - MGS TERMINAL EAT
 STA. 468+48.3' - 470+48.3' RT - MGS GUARDRAIL 3
 STA. 470+48.3' - 470+87.7' RT - MGS THRIE BEAM TRANSITION
 PI STA = 457+36.14'N'
 Y = 528368.84
 X = 821981.79
 DELTA = 19°54'43"
 D = 4°00'00"
 T = 251.44'
 L = 497.80'
 R = 1432.39'
 PC STA = 454+84.70'N'
 PT STA = 459+82.50'N'
 SE = 5.7%
 TRANS. = 197'

STA. 470+22.0' - 470+72.0'N'
 REMOVE ASPHALTIC SURFACE BUTT JOINT
 STA. 470+71.9'N' - STA. 472+30.6'N'
 STRUCTURE B-4-009 (PIKES CREEK)
 EXCEPTION TO NET LENGTH
 STA. 472+31.0' - 472+81.0'N'
 REMOVE ASPHALTIC SURFACE BUTT JOINT
 STA. 472+17.0' - 474+17.0' LT - REMOVING GUARDRAIL
 STA. 472+16.9' - 472+56.3' LT - MGS THRIE BEAM TRANSITION
 STA. 472+56.3' - 473+43.8' LT - MGS GUARDRAIL 3
 STA. 473+43.8' - 474+43.8' LT - MGS L (STA. 473+84.4'N'-473+96.9'N, POST 1 TO POST 1)
 STA. 474+43.8' - 475+06.3' LT - MGS GUARDRAIL 3
 STA. 475+06.3' - 475+59.4' LT - MGS TERMINAL EAT
 STA. 477+15.0' LT RESTORE C.E. (ASPHALT)
 STA. 477+05.0' RT RESTORE F.E. (BASE AGG)
 PI STA. 479+46.83
 X = 822677.95
 Y = 530191.12
 STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 463+85.0' LT RESTORE P.E. (BASE AGG)
 STA. 461+40.0' RT RESTORE C.E. (ASPHALT)
 STA. 464+10.0' RT RESTORE C.E. (ASPHALT)
 STA. 466+20.0' RT RESTORE P.E. (BASE AGG)
 STA. 469+63.0' - 470+88.0' RT - REMOVING GUARDRAIL
 STA. 467+95.2' - 468+48.3' RT - MGS TERMINAL EAT
 STA. 468+48.3' - 470+48.3' RT - MGS GUARDRAIL 3
 STA. 470+48.3' - 470+87.7' RT - MGS THRIE BEAM TRANSITION
 PI STA = 463+46.64'N'
 Y = 528981.14
 X = 822045.23
 DELTA = 14°29'17"
 D = 2°00'00"
 T = 364.14'
 L = 724.40'
 R = 2864.79'
 PC STA = 459+82.50'N'
 PT STA = 467+06.90'N'
 SE = 4.0%
 TRANS. = 157'

STA. 469+59.86'N'
 Y = 529559.52
 X = 822260.37
 DELTA = 13°04'17"
 D = 4°40'00"
 T = 140.66'
 L = 280.10'
 R = 1227.77'
 PC STA = 468+19.20'N'
 PT STA = 470+99.30'N'
 SE = 6.0%
 TRANS. = 204'

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

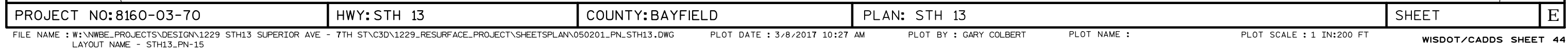
STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

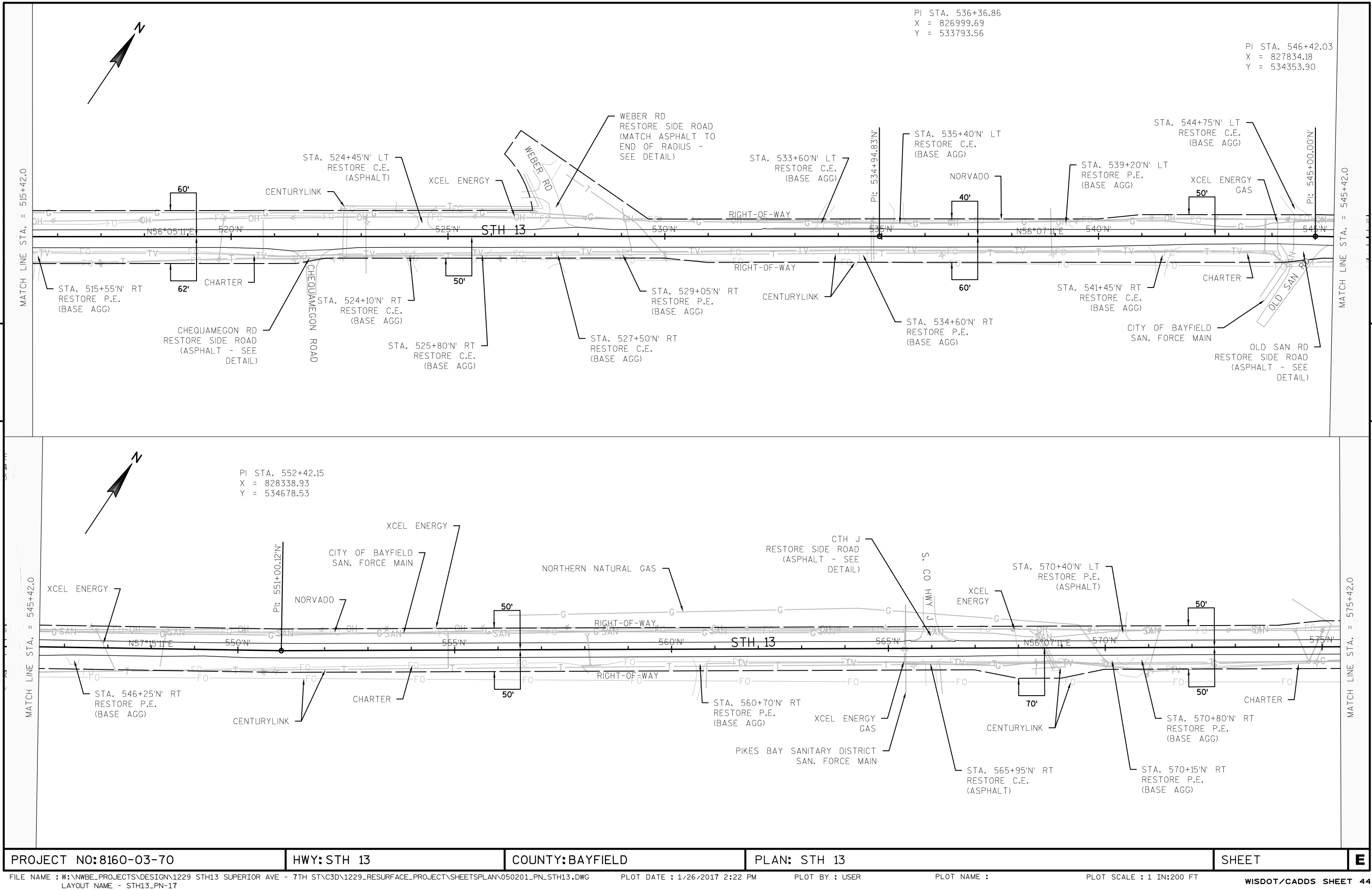
STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 472+43.0' - 473+66.0' RT - REMOVING GUARDRAIL
 STA. 472+42.7' - 472+82.1' RT - MGS THRIE BEAM TRANSITION
 STA. 472+82.1' - 474+19.6' RT - MGS GUARDRAIL 3
 STA. 474+19.6' - 474+72.7' RT - MGS TERMINAL EAT
 STA. 466+66.0' - 475+92.0' RT - BARRIER SYSTEM GRADING SHAPING FIN





Standard Detail Drawing List

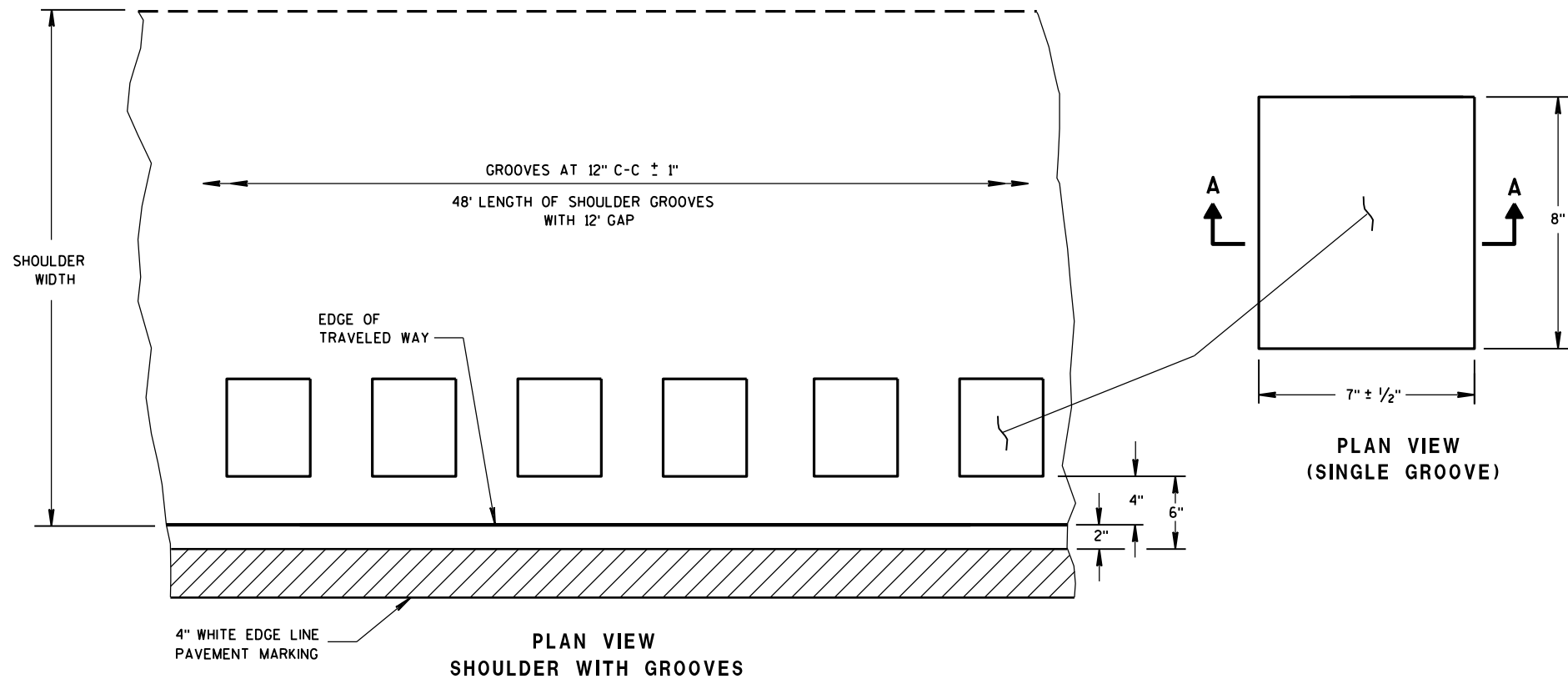
08E09-06	SILT FENCE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-09A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-09B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-09C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDERoads/DRI VEWAYS)
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-03A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRI E BEAM TRANSI TION (MGS)
15A02-09	DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-17A	LONGI TUDINAL MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-04A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY



- 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 1½" X 1½" 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.

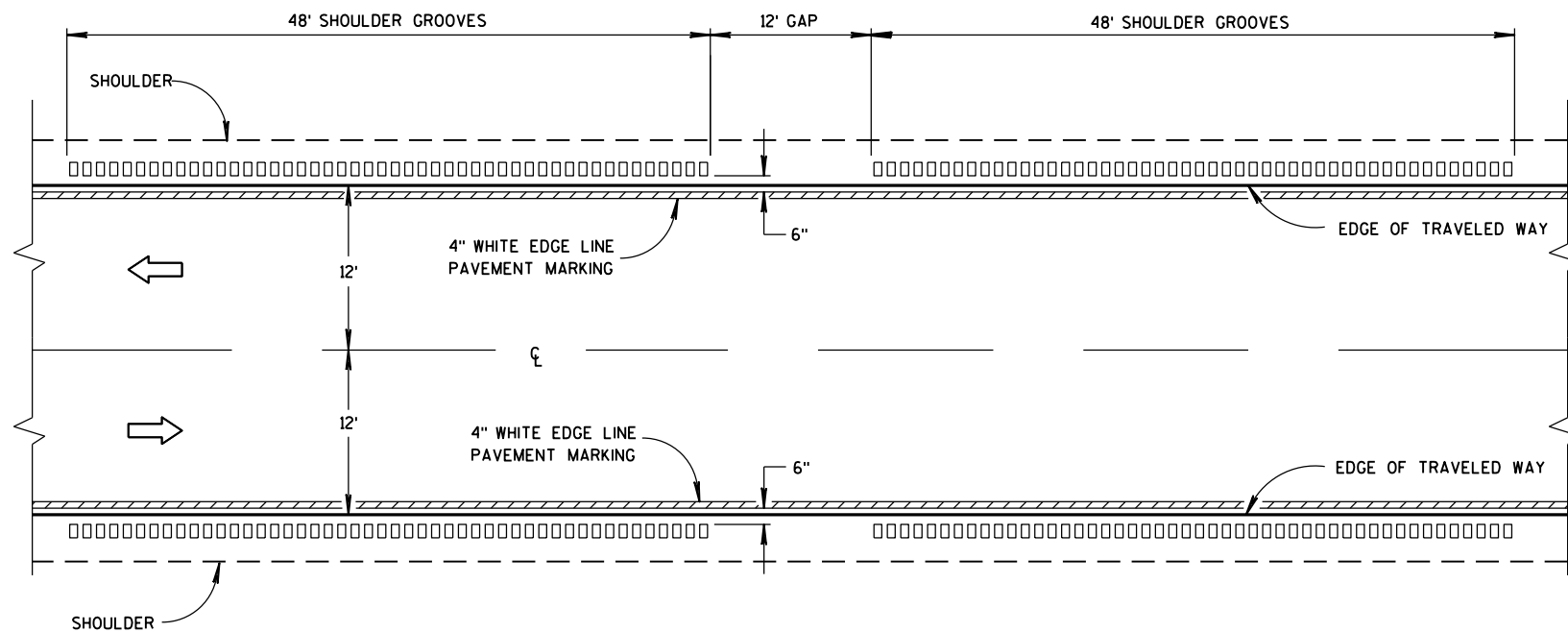


SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Canestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER



6

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



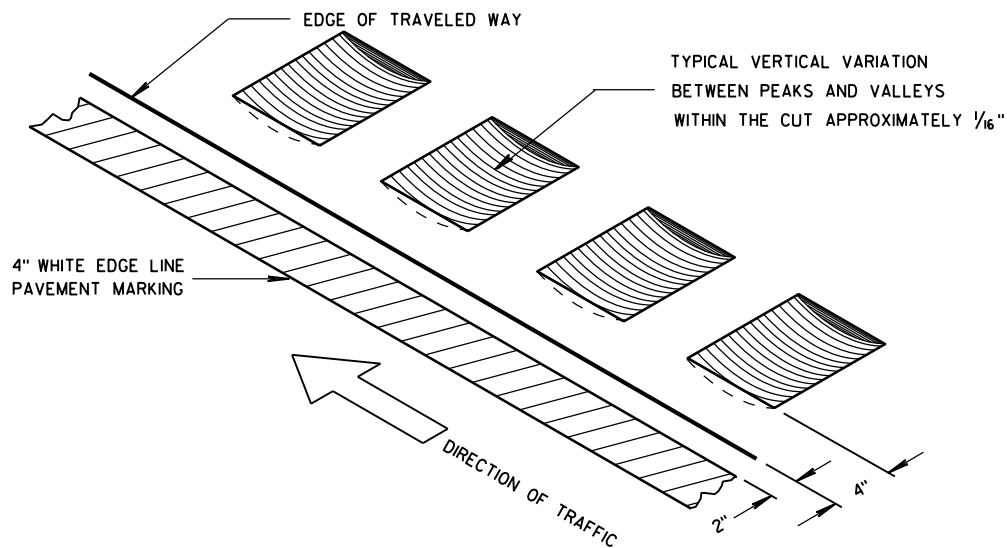
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

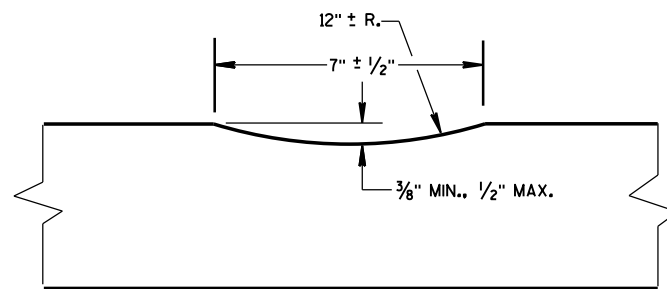
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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



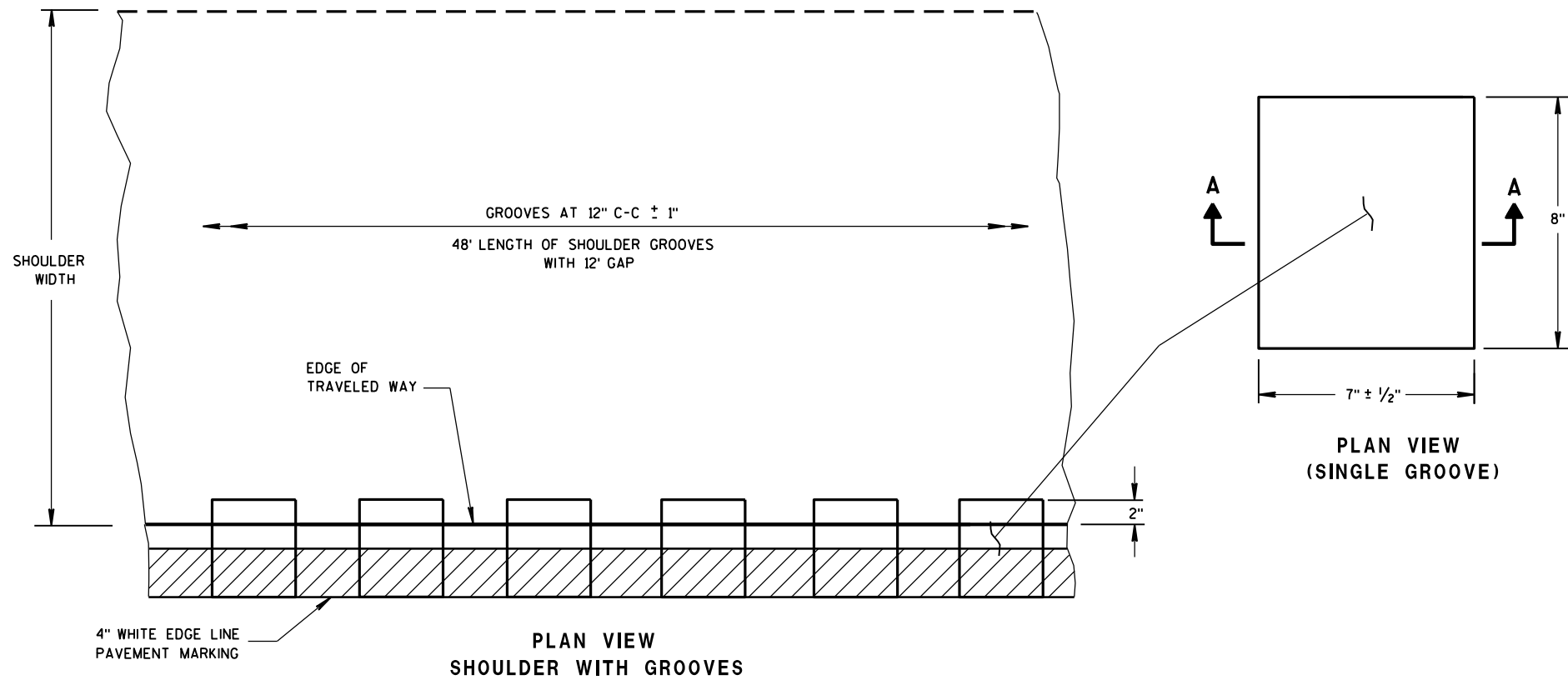
ISOMETRIC



SECTION A-A

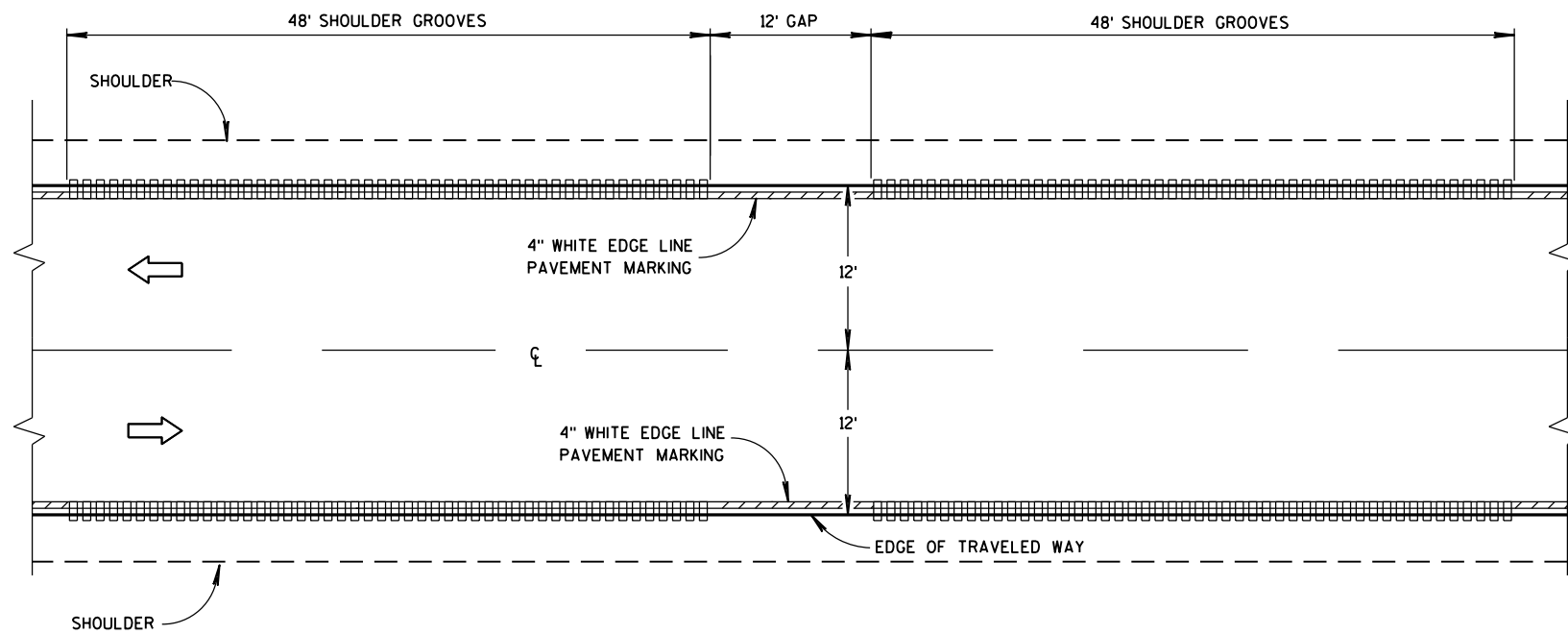
2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
SHOULDER WITH GROOVES

6
6
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

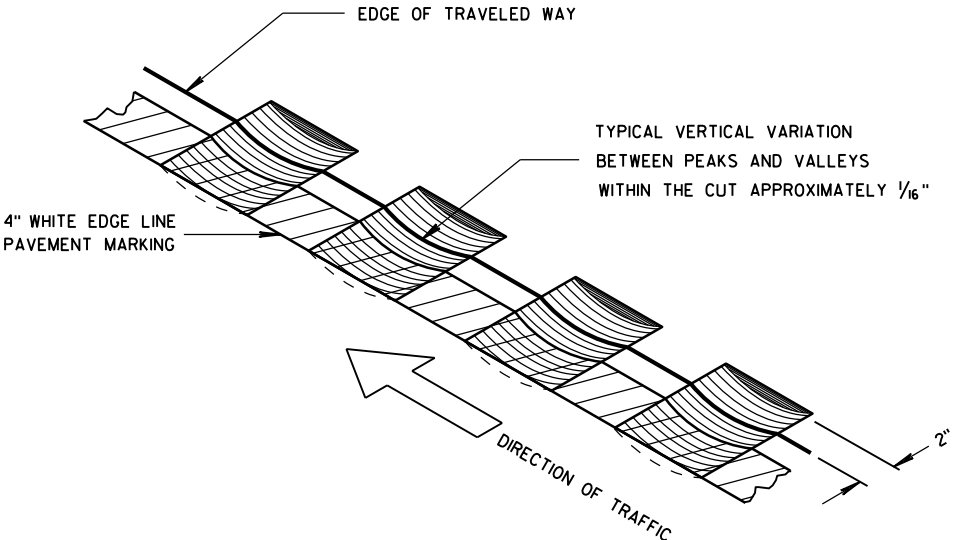


TYPE 2
2-LANE SHOULDER RUMBLE STRIP

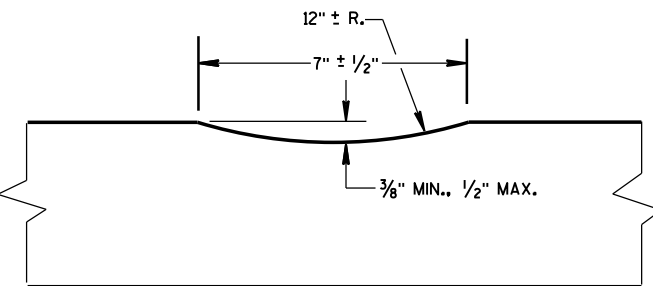
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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



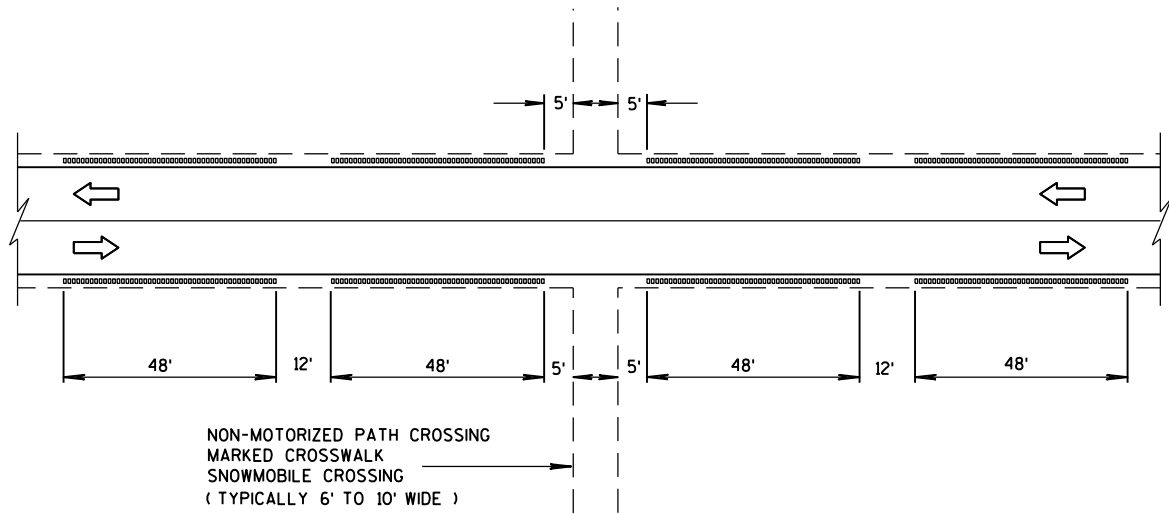
ISOMETRIC



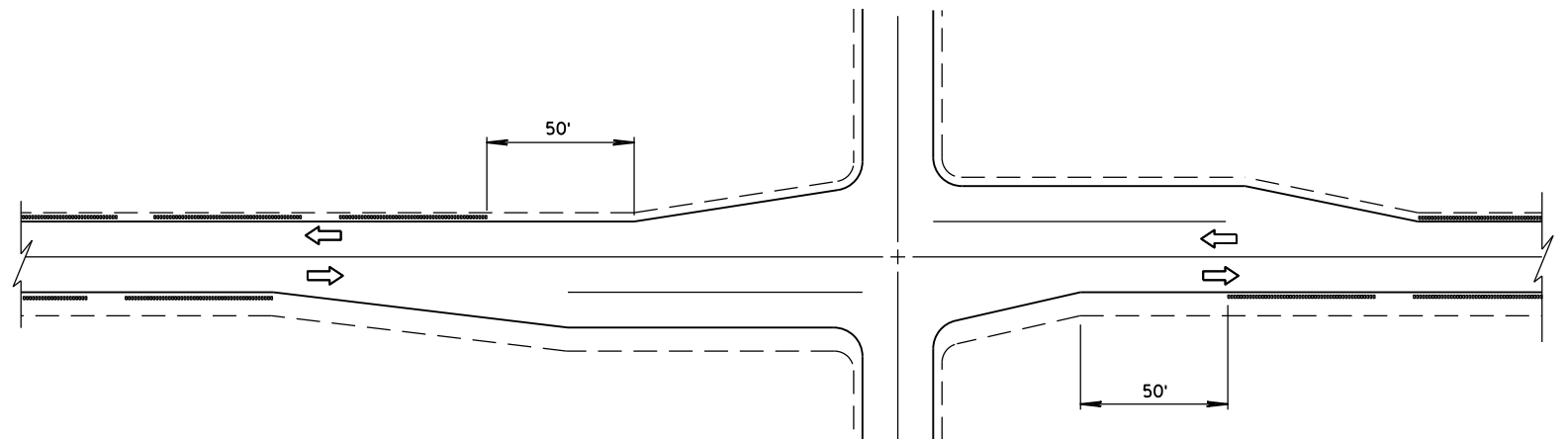
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

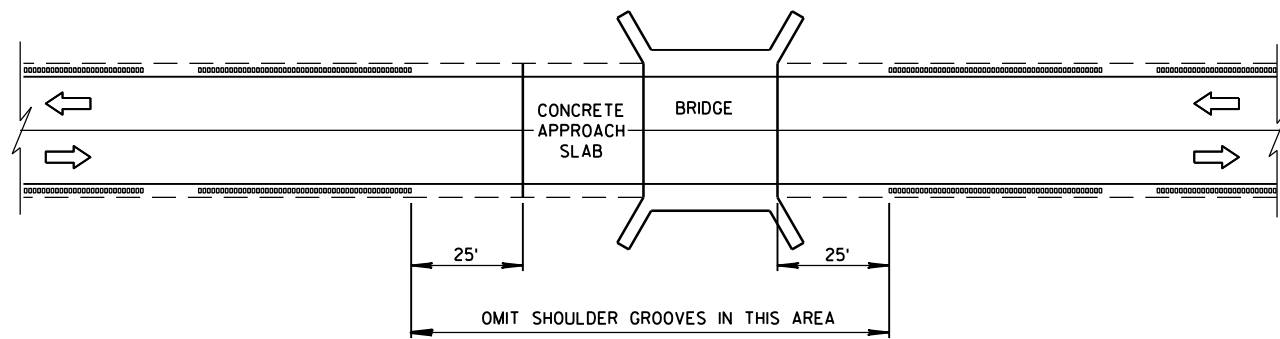
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



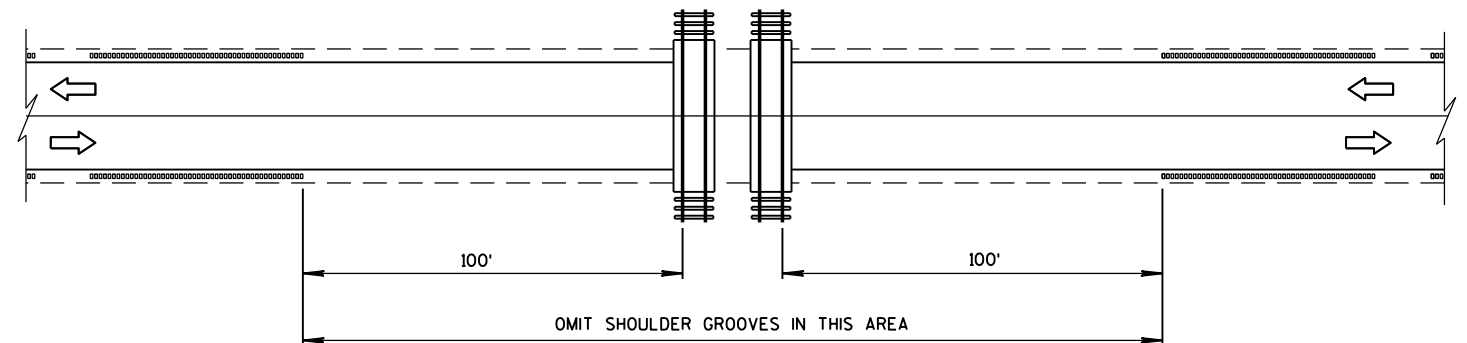
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



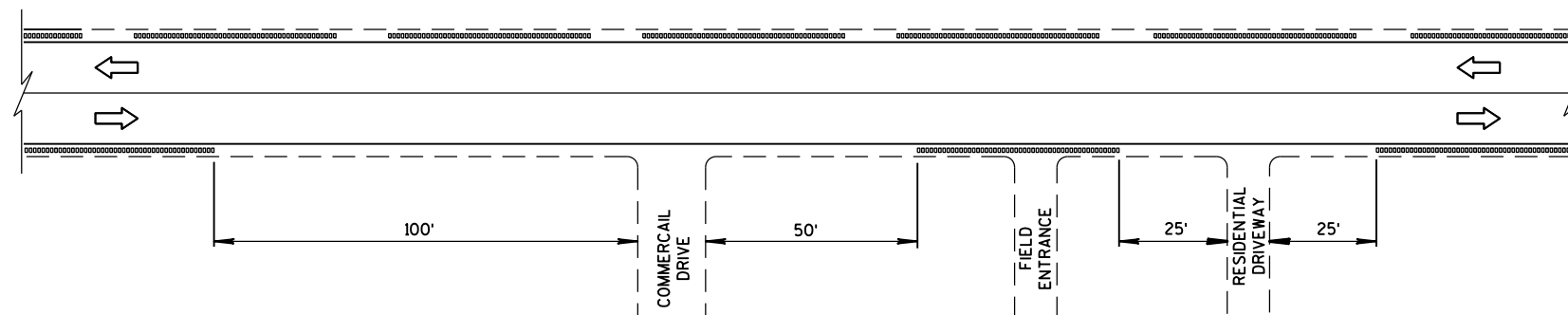
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



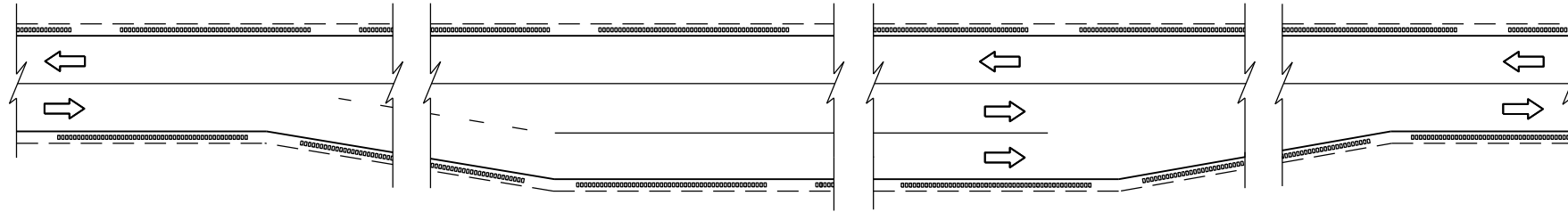
SHOULDER GROOVES AT RAILROADS



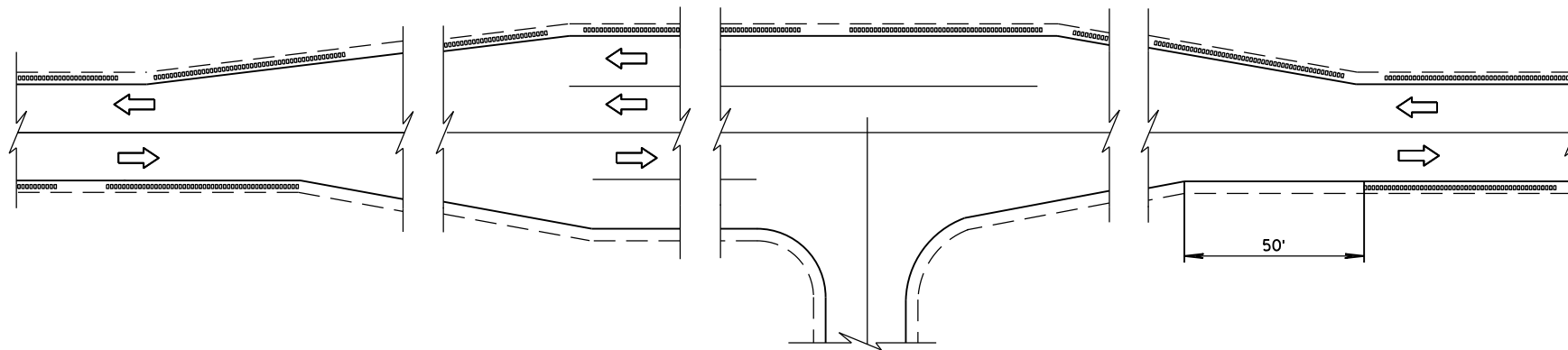
SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12/17/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

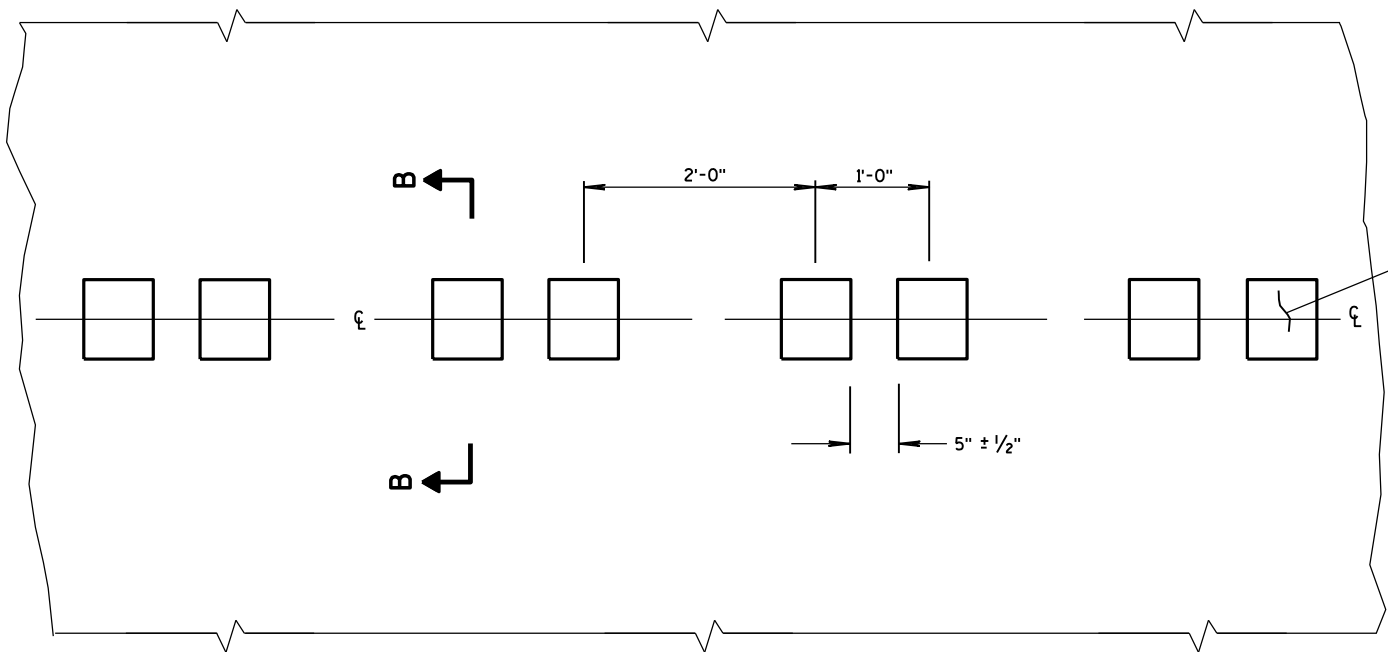
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

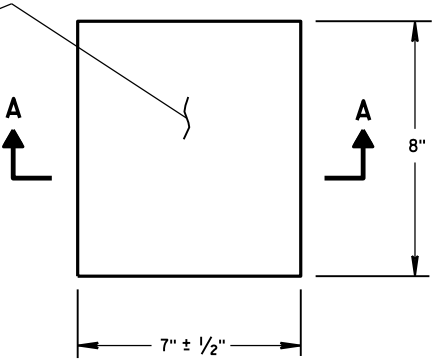
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

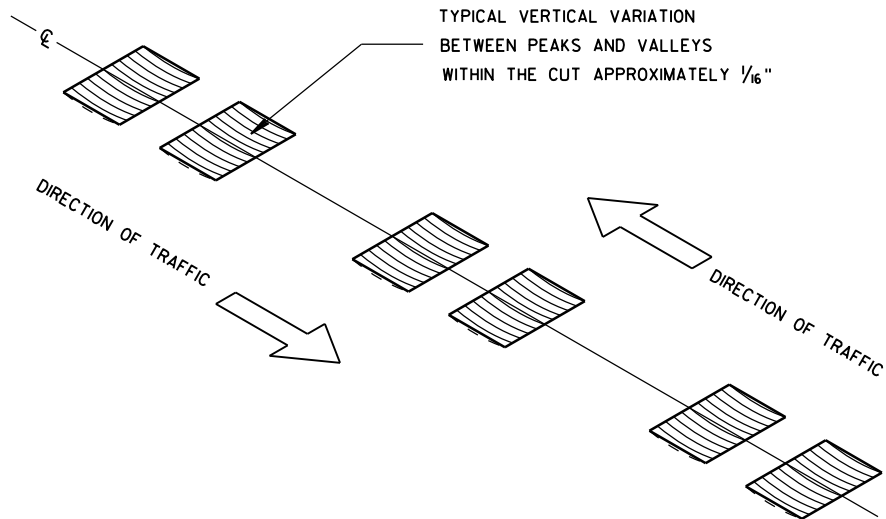
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



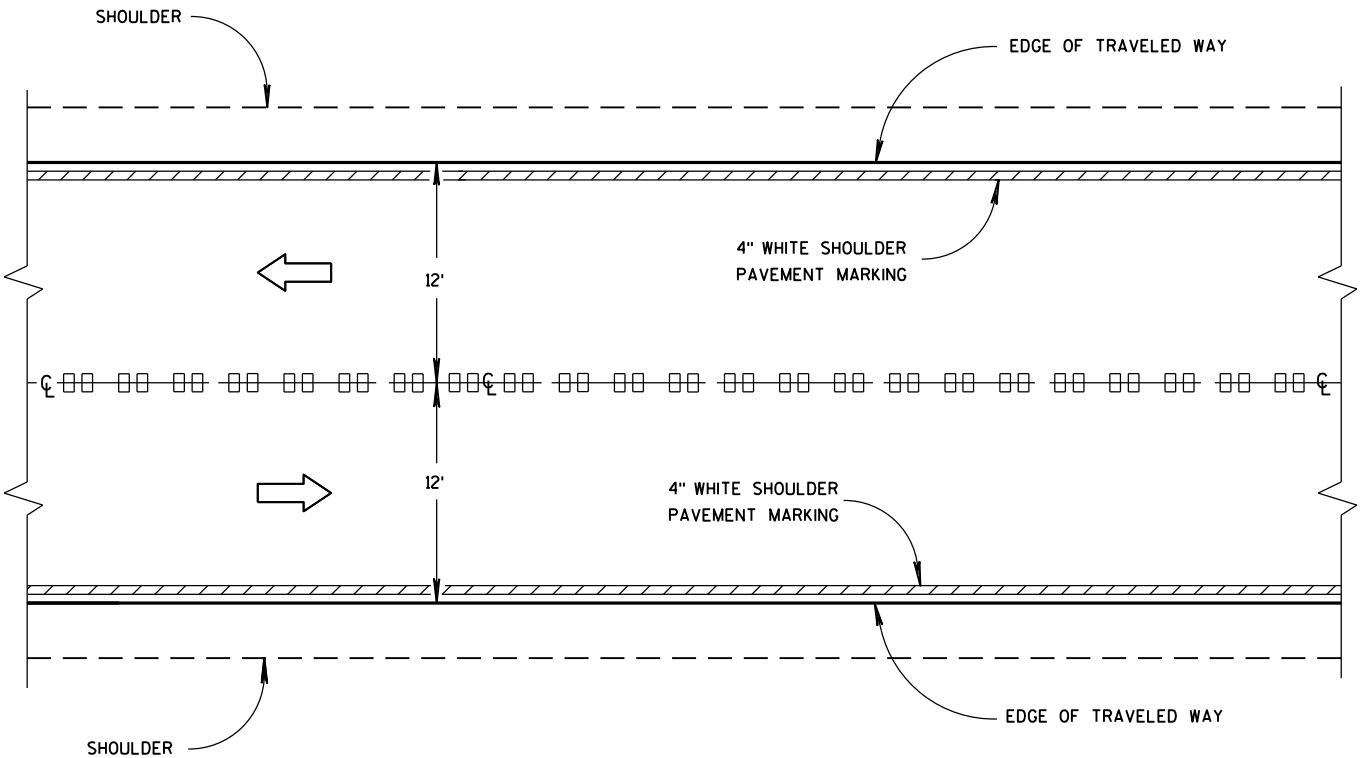
PLAN VIEW
CENTER LINE WITH GROOVES



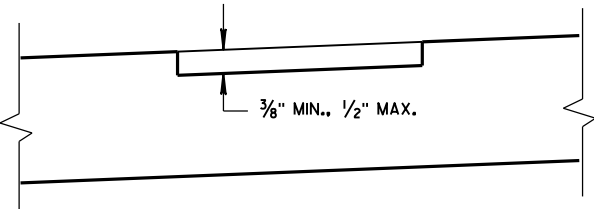
PLAN VIEW
(SINGLE GROOVE)



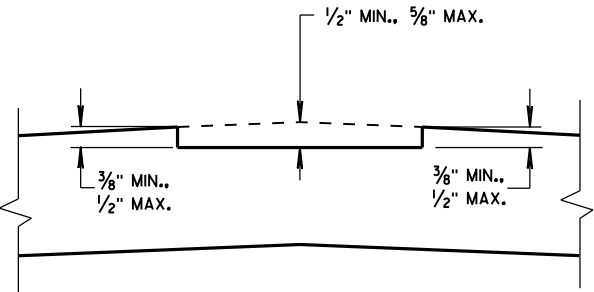
ISOMETRIC



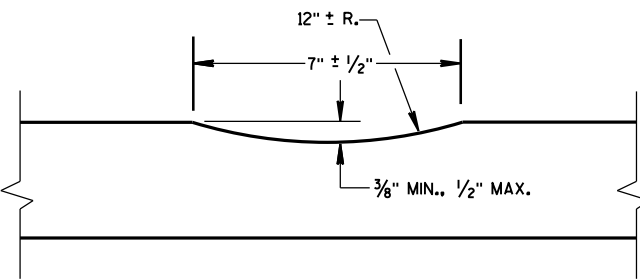
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



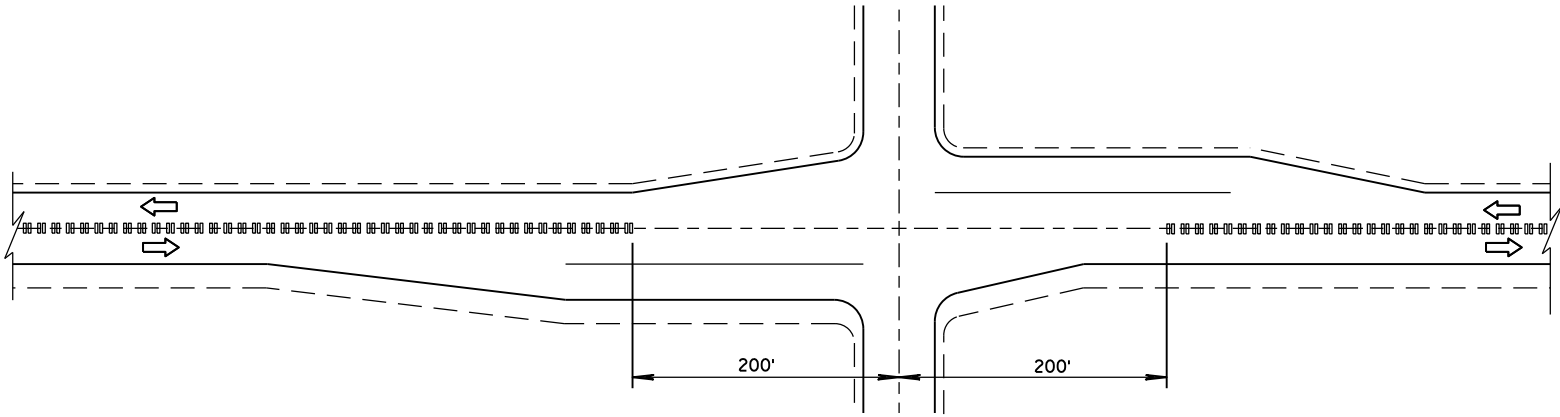
SECTION B-B
CROWNED ROADWAY



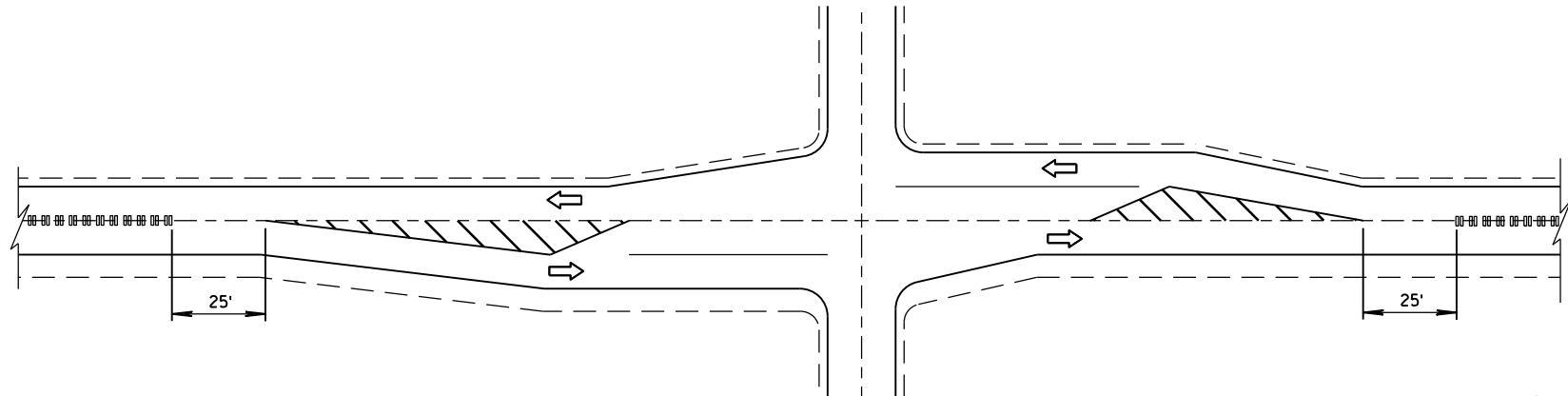
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

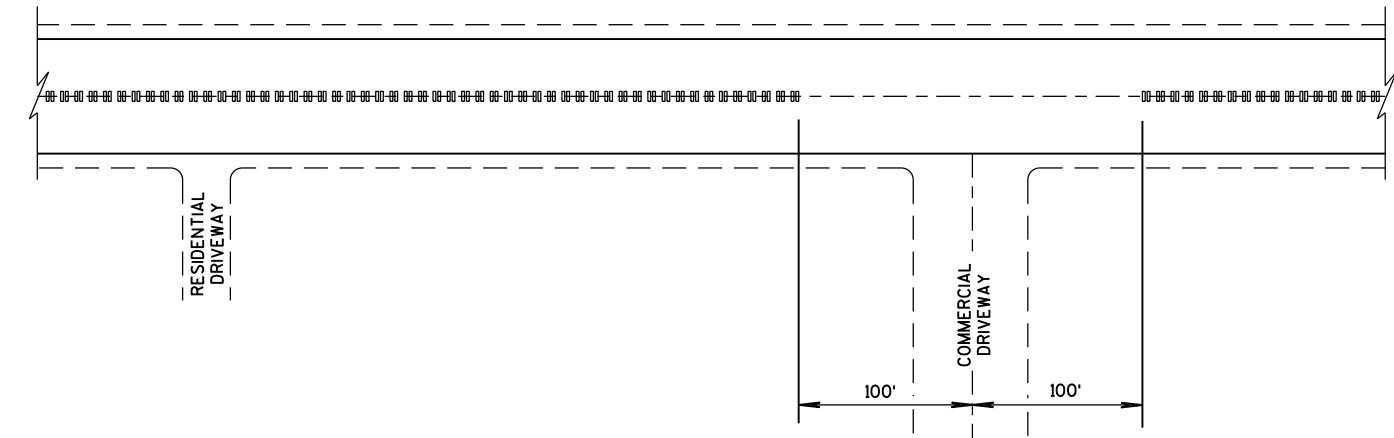
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

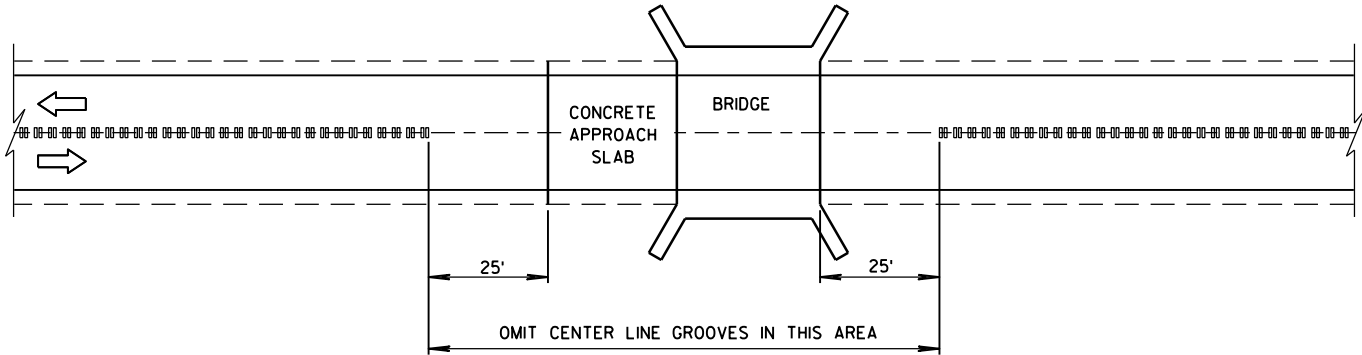


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

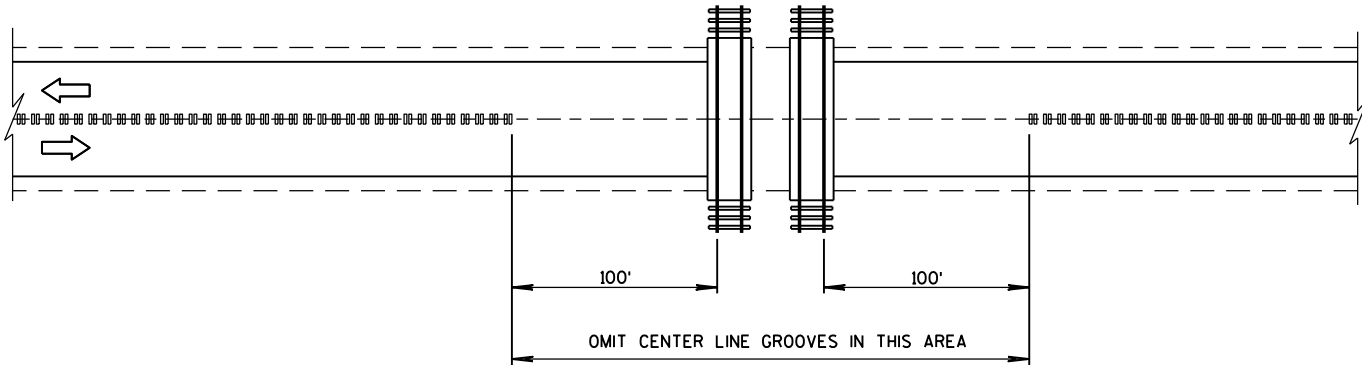


CENTER LINE GROOVES AT DRIVEWAYS^①

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

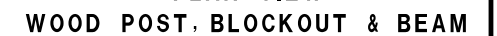
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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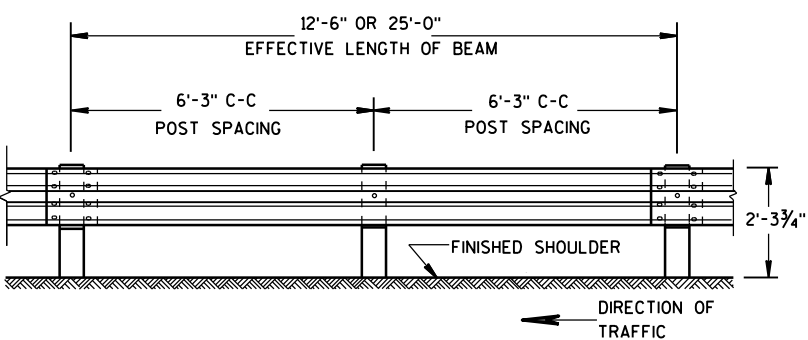
- S.D.D. 14 B 15-9a



TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD



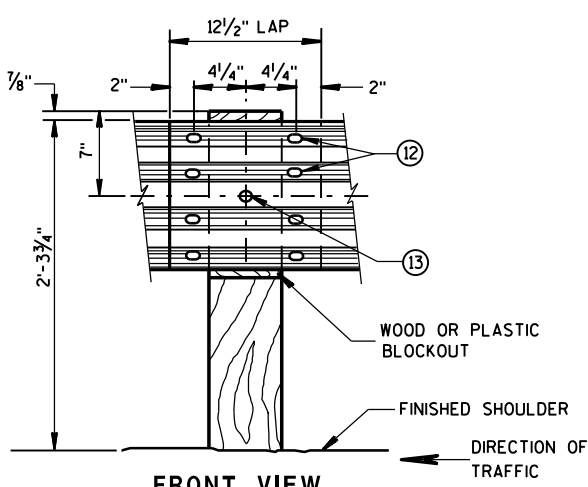
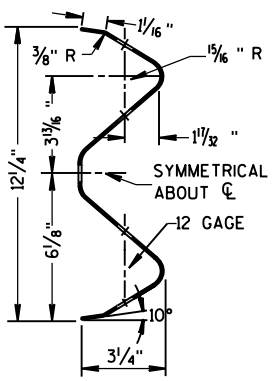
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



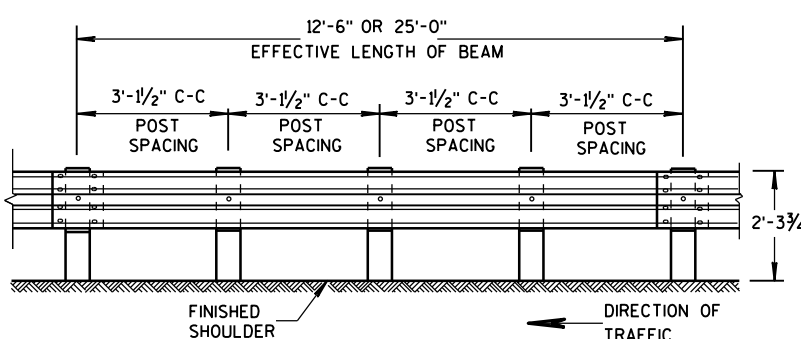
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

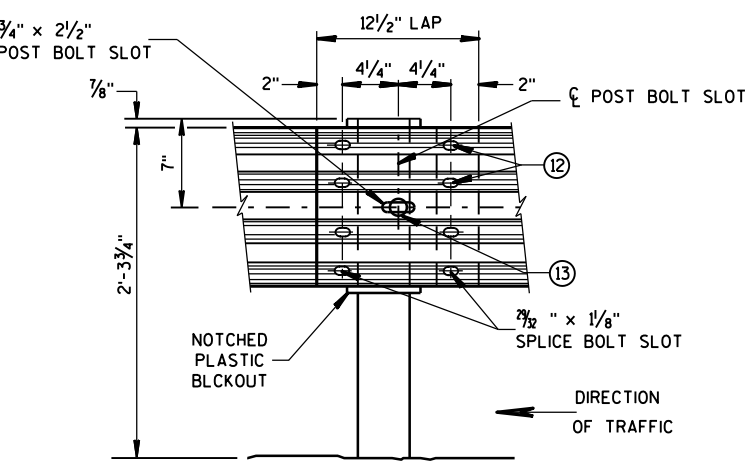


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



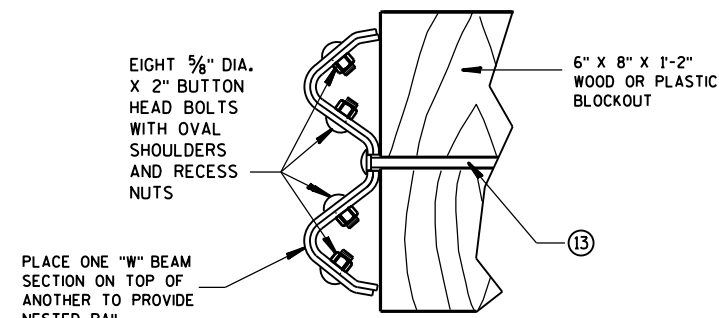
FRONT VIEW

POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

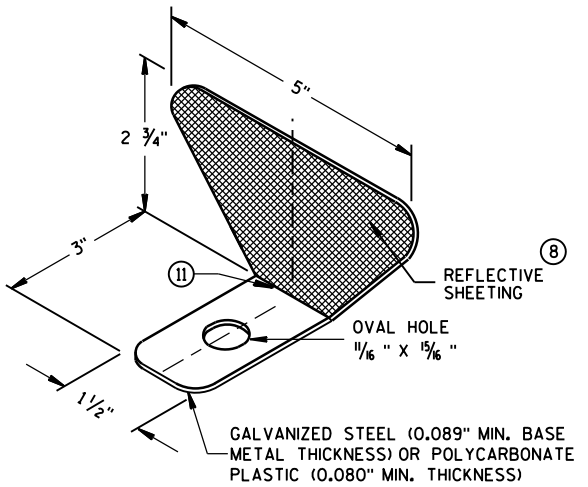
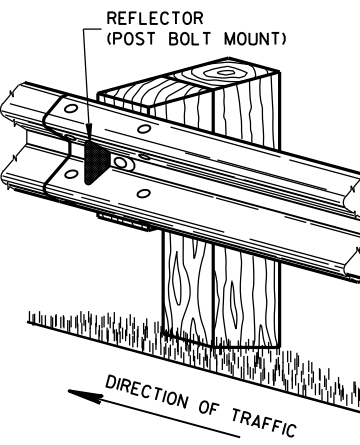


NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING^⑨

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ^⑩	6
	> 200'	50' C-C	1 ^⑩	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ^⑪	3
	> 200'	100' C-C	2 ^⑪	



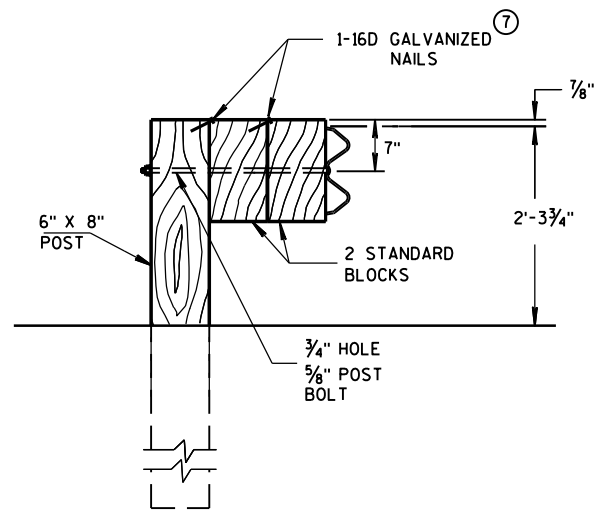
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

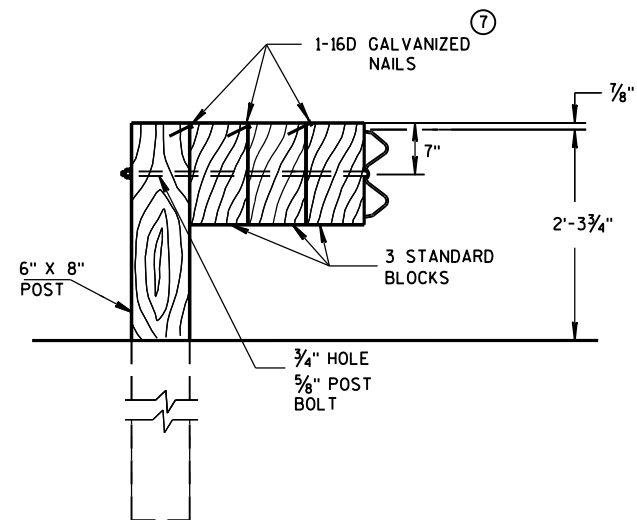
GENERAL NOTES

- ⑧ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ⑩ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑪ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- ⑫ 8 - 5/8" Ø X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

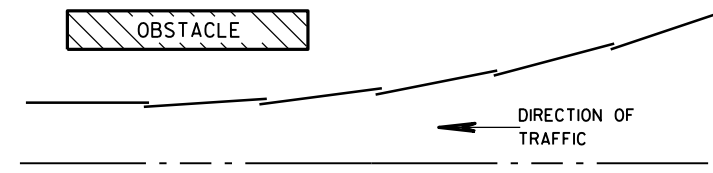


DETAIL FOR TRIPLE BLOCKS

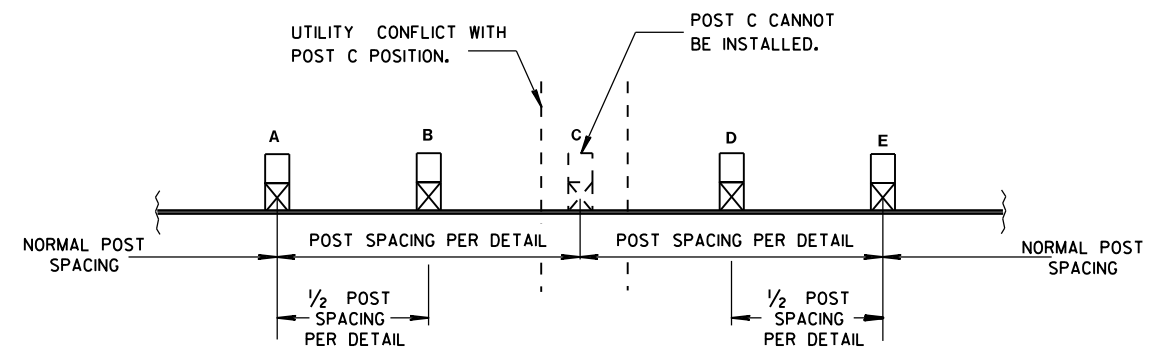
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

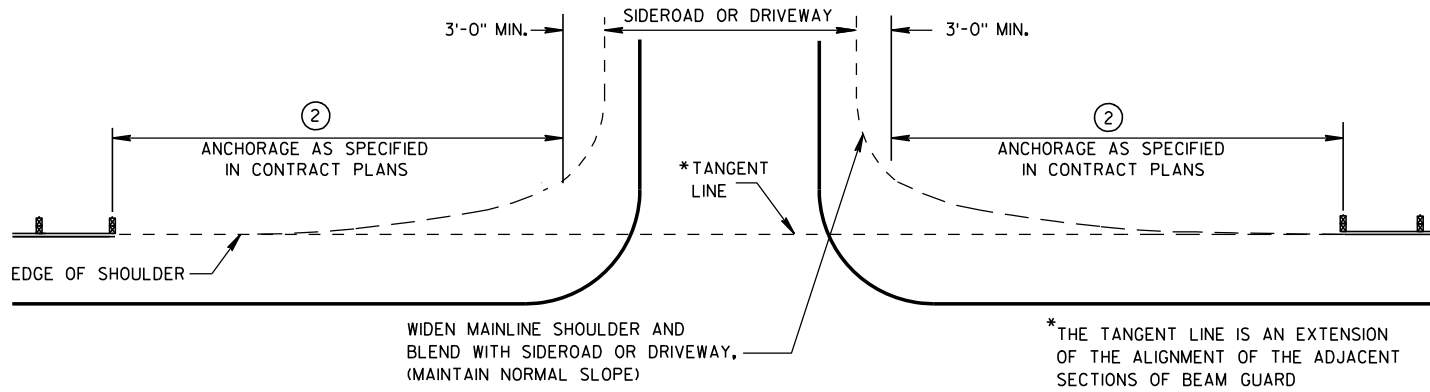
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

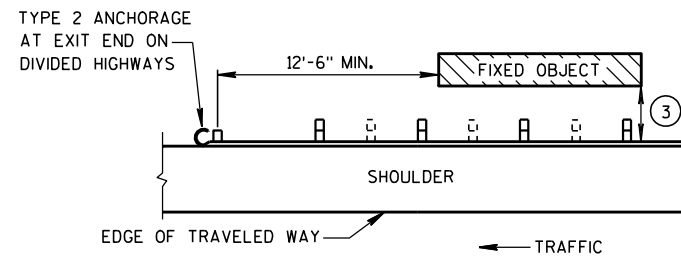
June 2016
DATE

FHWA

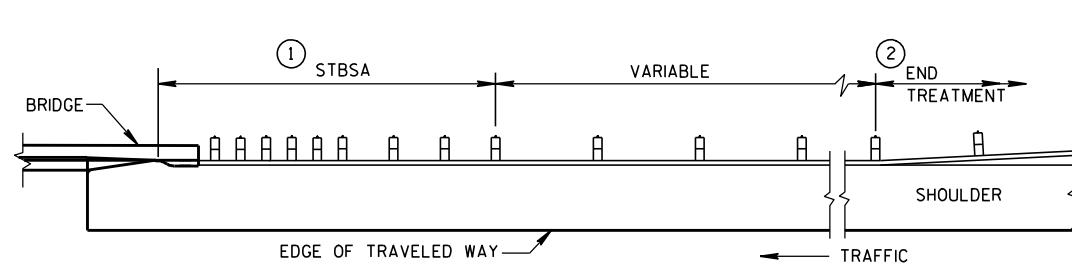
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



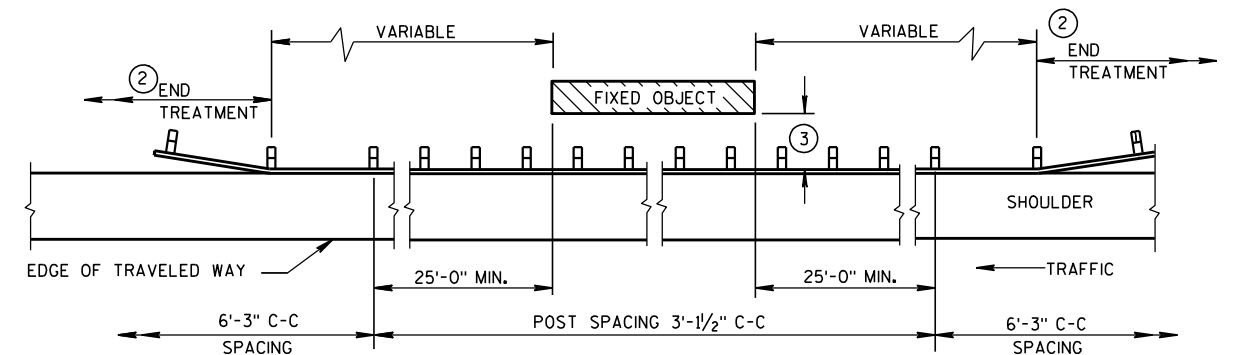
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES

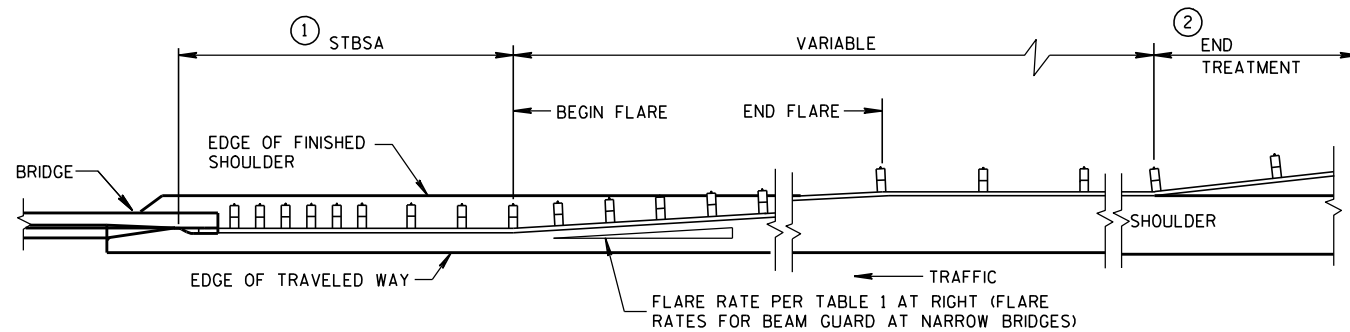


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1



BEAM GUARD AT NARROW BRIDGES (FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

- STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1 1/2"
4'-6"	6' - 3"

STEEL PLATE BEAM GUARD
CLASS "A"
AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑮	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS, IF NONE ARE AVAILABLE, INSTALL 3/8" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(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) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.

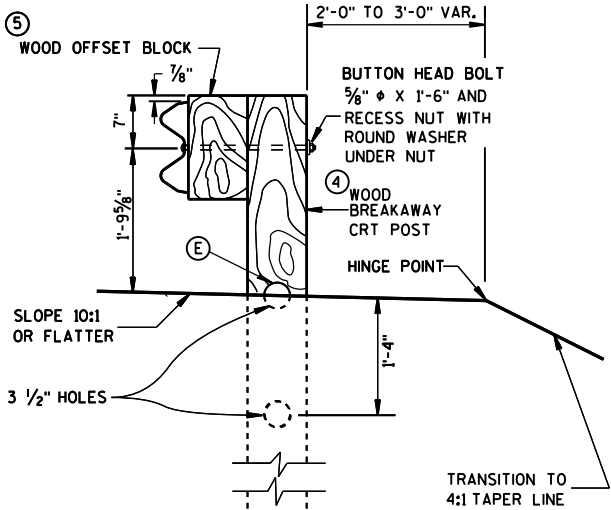
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

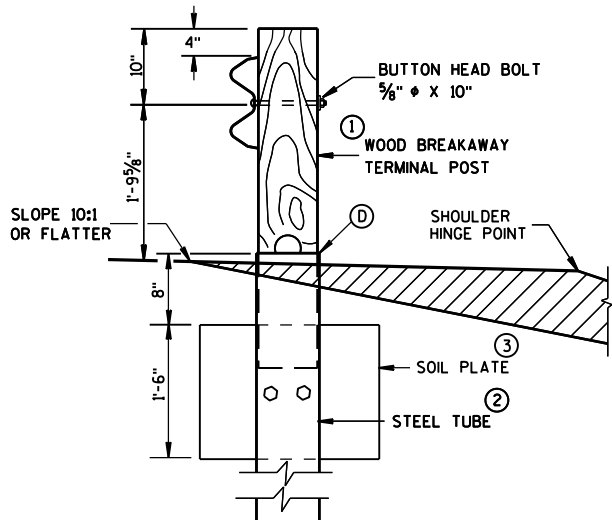
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

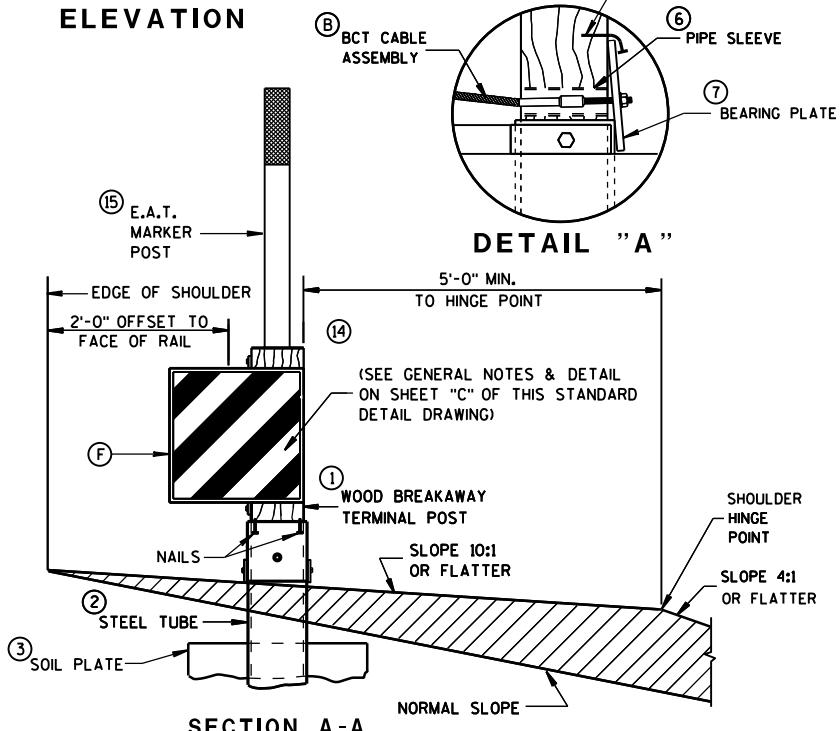
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



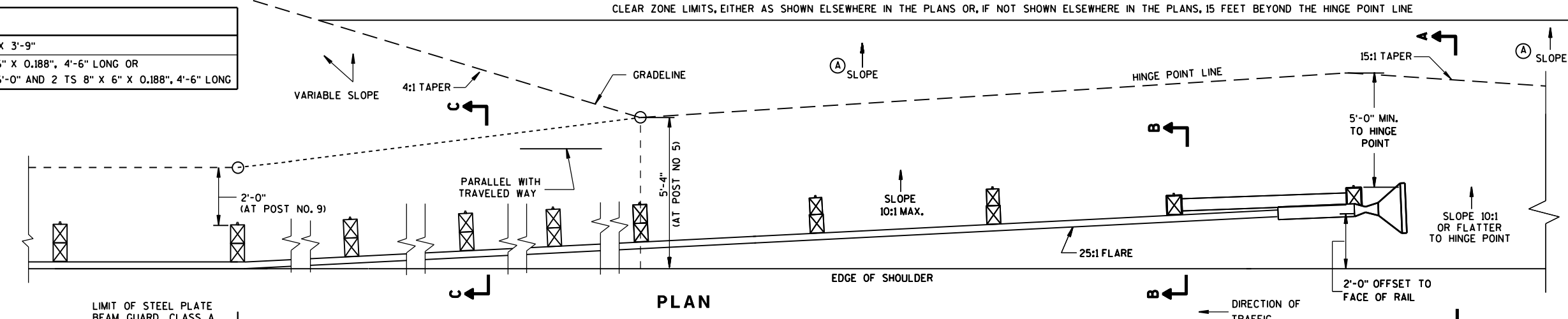
SECTION C-C
TYPICAL AT POST NOS. 6, 8



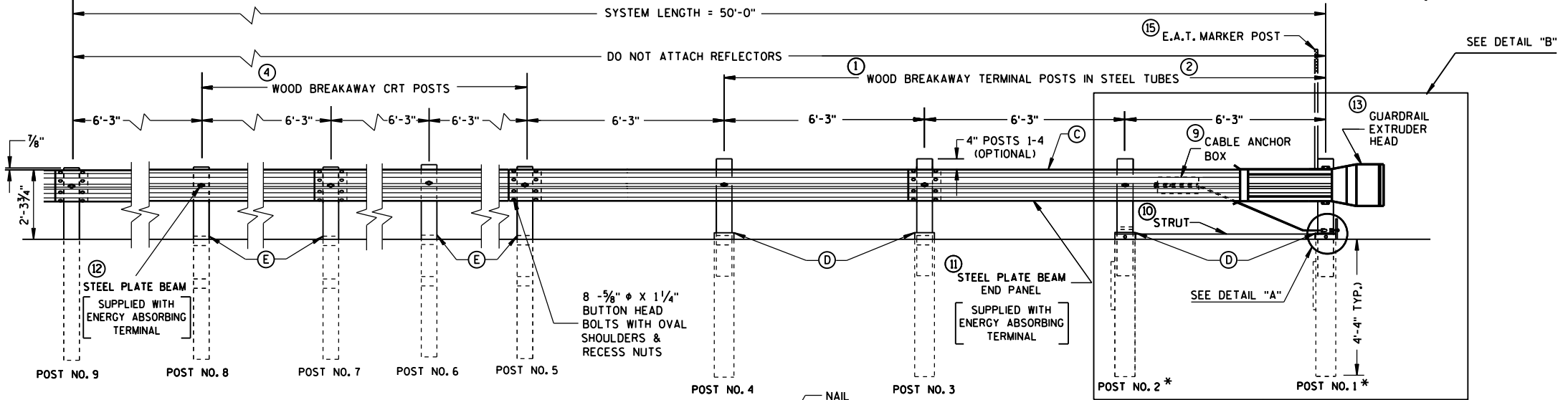
SECTION B-B
TYPICAL AT POST NO. 2 *



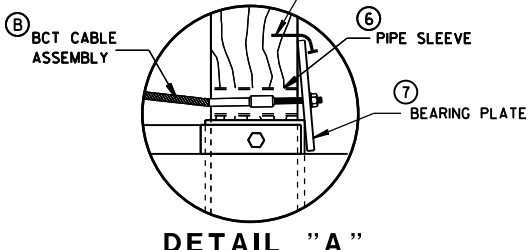
SECTION A-A
TYPICAL AT POST NO. 1 *



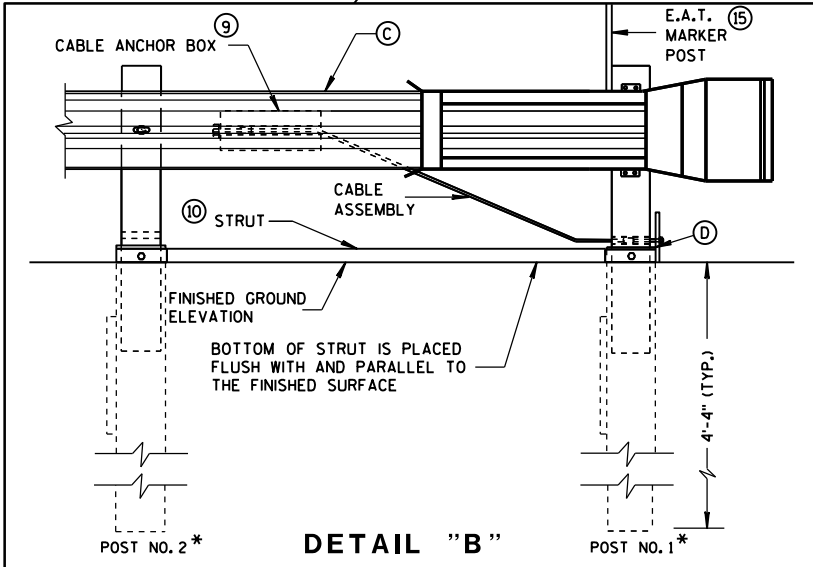
PLAN



ELEVATION



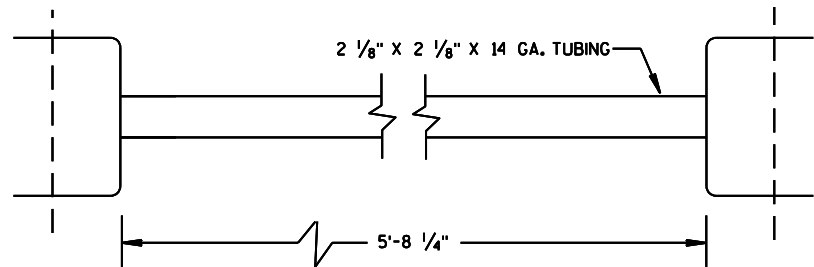
DETAIL "A"



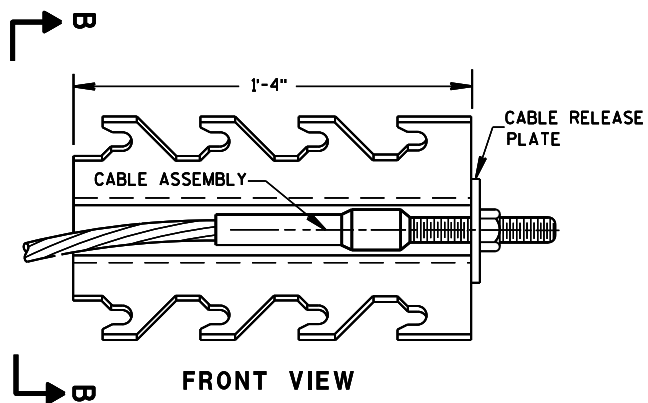
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

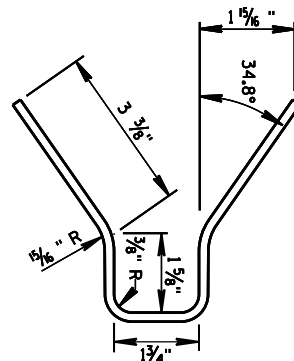
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



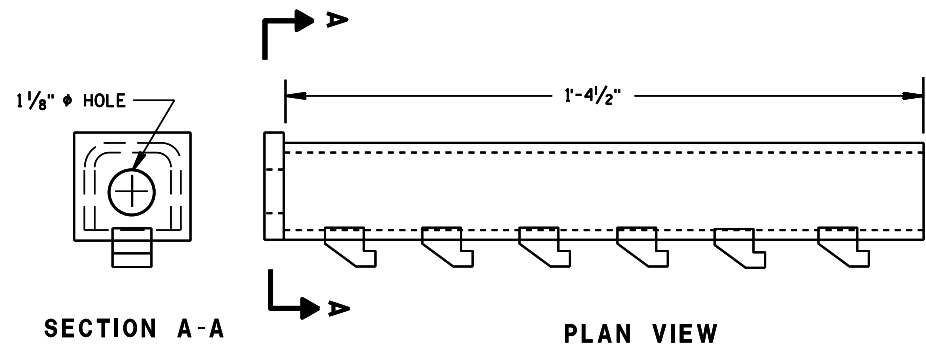
⑩ STRUT DETAIL (SKT-350)



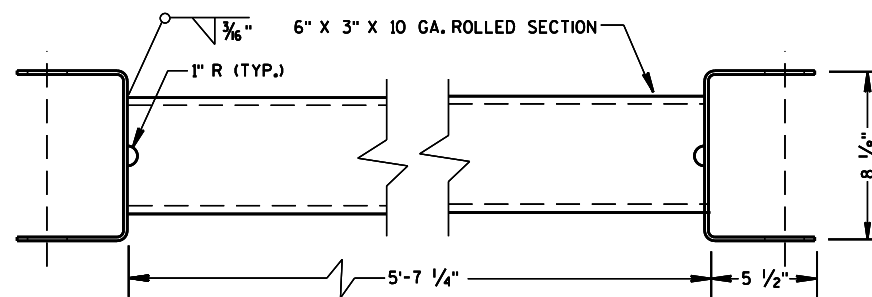
⑨ CABLE ANCHOR BOX (SKT-350)
(SKT-350)



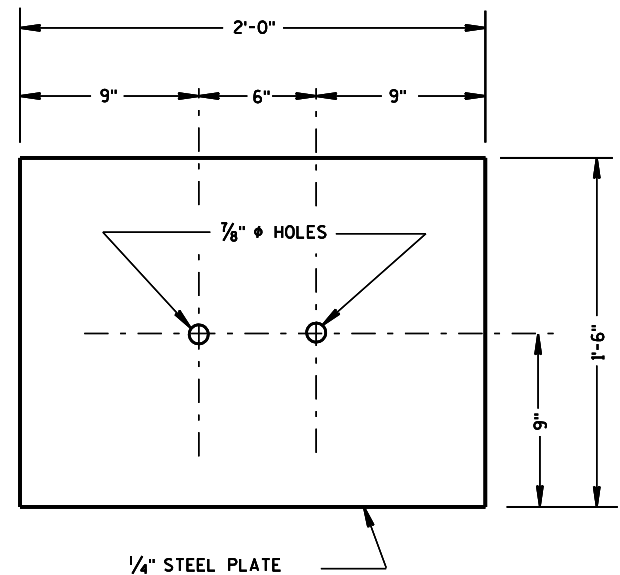
SECTION B-B



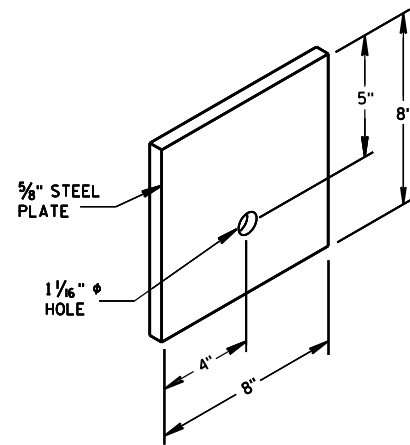
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



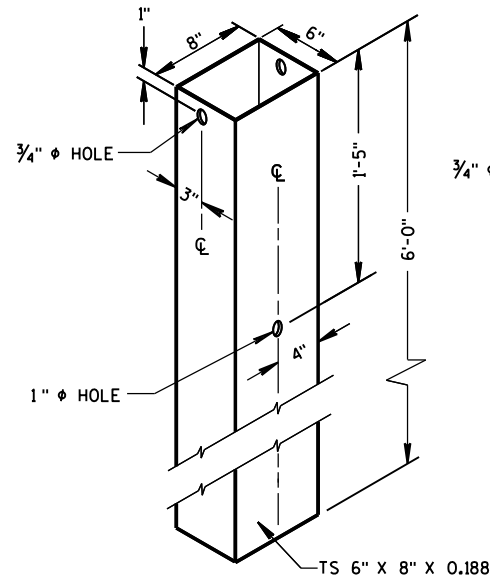
⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)
(ET-2000/ET-2000 PLUS)



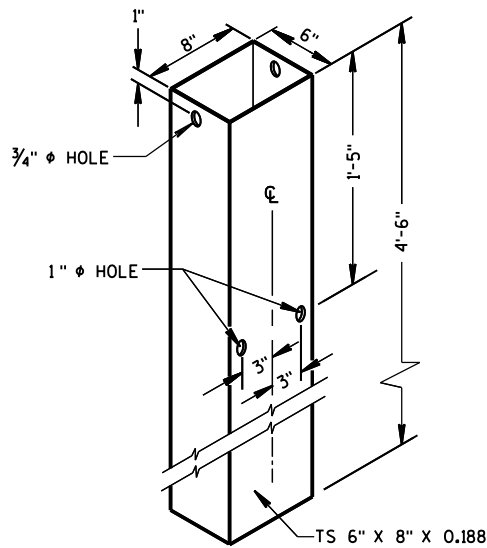
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



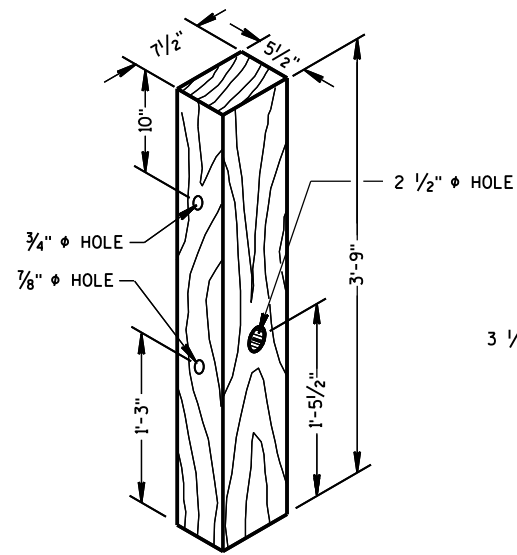
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



② **72" STEEL TUBE**
(POSTS NO. 1-4)

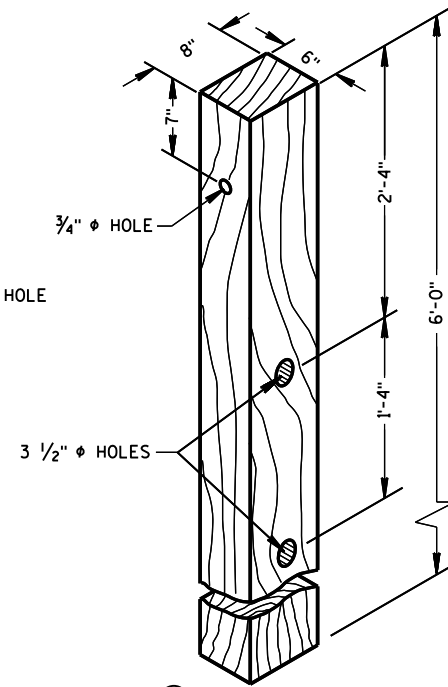


② **54" STEEL TUBE**
(POSTS NO. 1-4)



① **TERMINAL POST**
(POSTS NO. 1-4)

WOOD BREAKAWAY POSTS



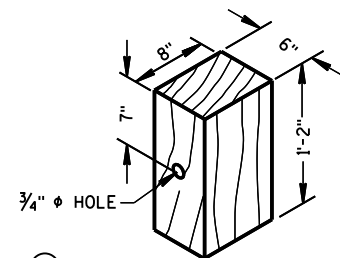
④ **CRT POST**
(POSTS NO'S 5-8)

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

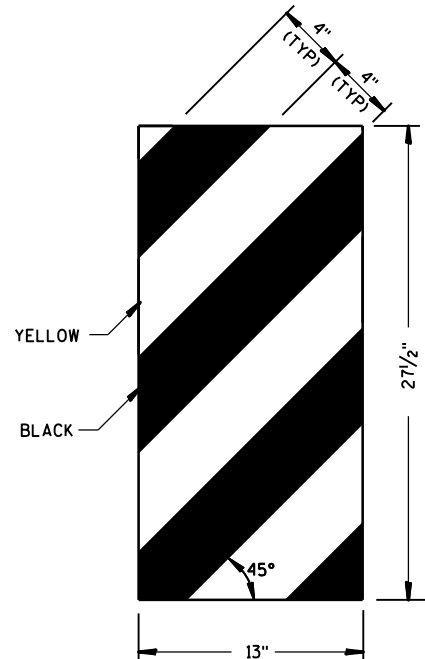
SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

⑥ 1/2" DIA. X 3" LAG BOLT WITH WASHER.

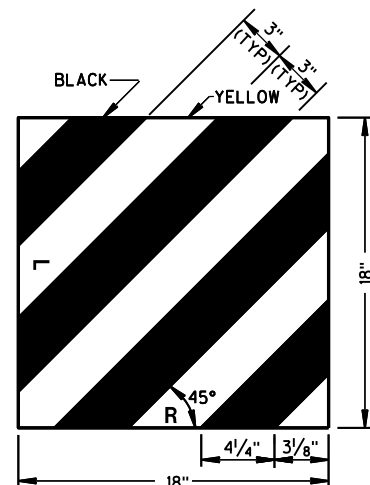


⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

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

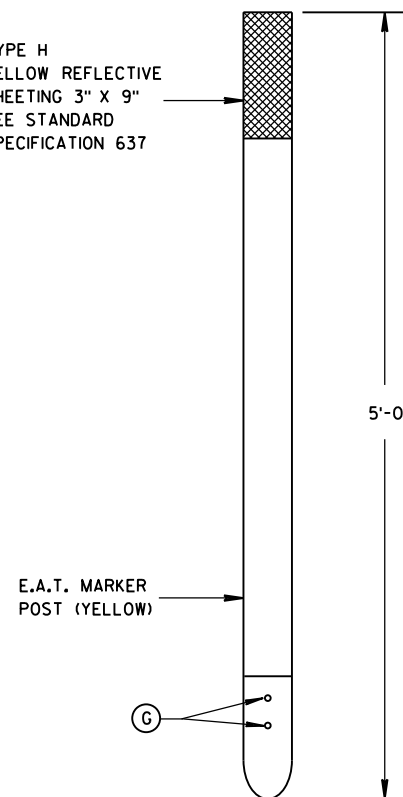


ET-2000 PLUS ONLY

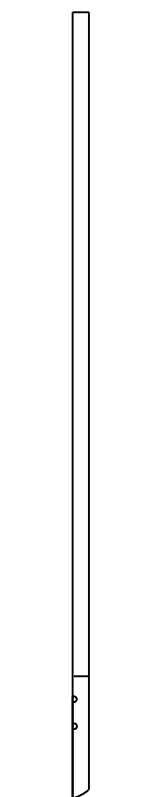


ET-2000 AND SKT-350

⑭ **REFLECTIVE SHEETING DETAILS**

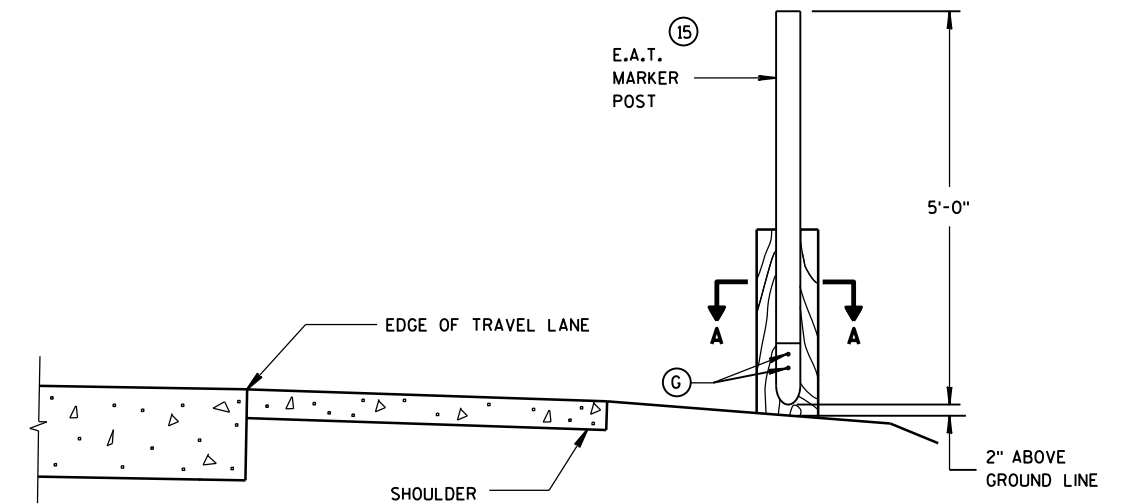


FRONT VIEW

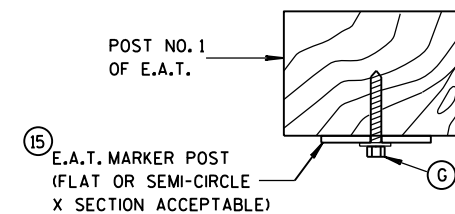


SIDE VIEW

⑮ **E.A.T. MARKER POST**



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



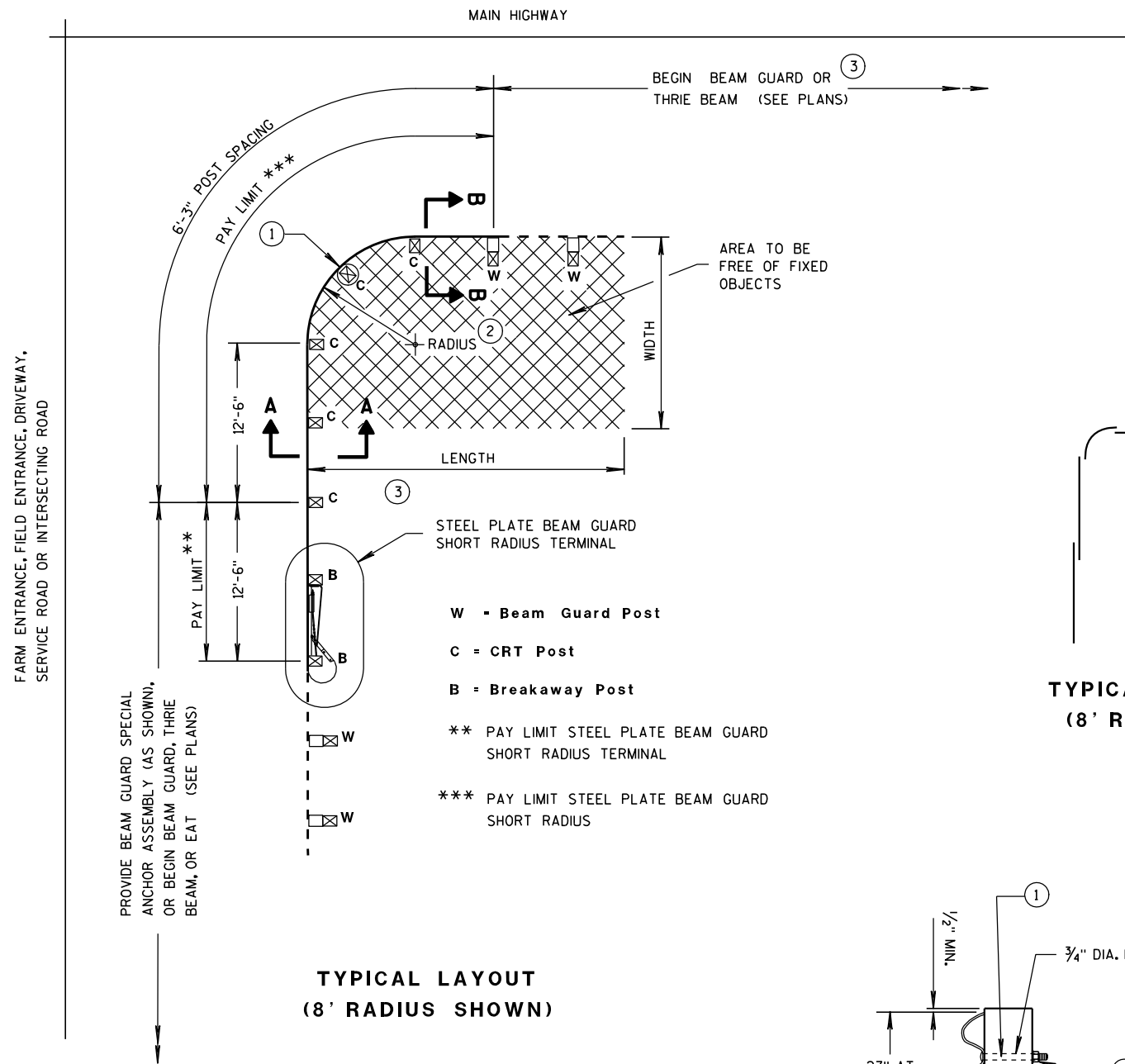
SECTION A-A

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

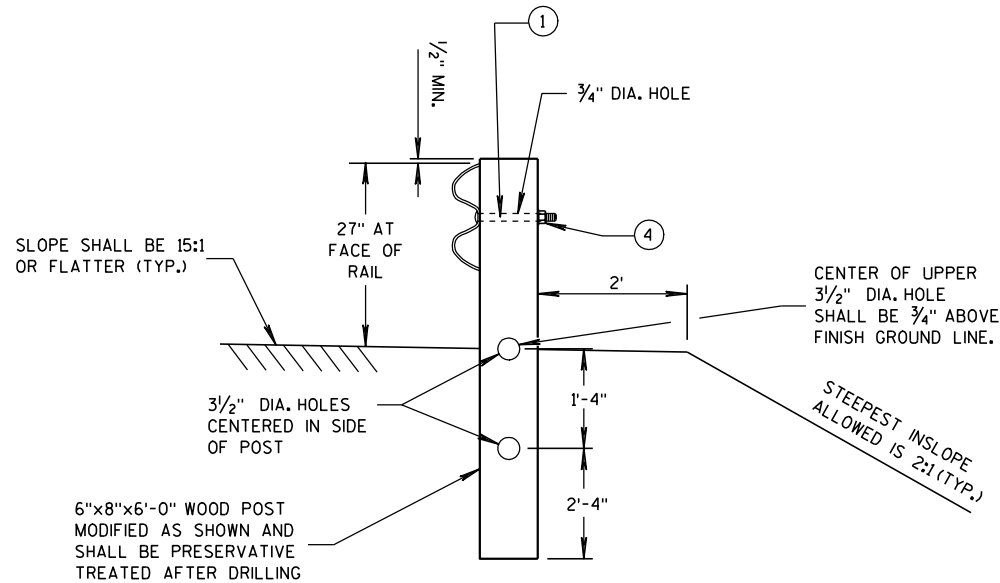
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPICAL LAYOUT
(8' RADIUS SHOWN)



SECTION A-A
(CRT POST)

TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

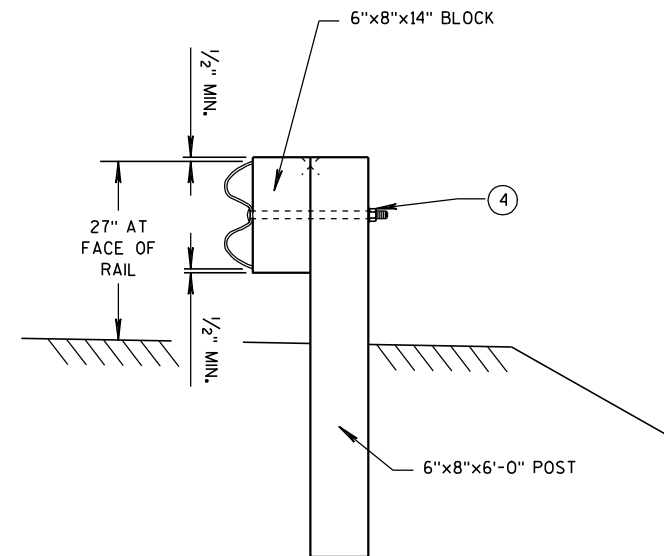
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- 1 ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- 2 RADIUS FROM 8' - 36'. SEE PLAN.
- 3 HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- 4 5/8" Ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

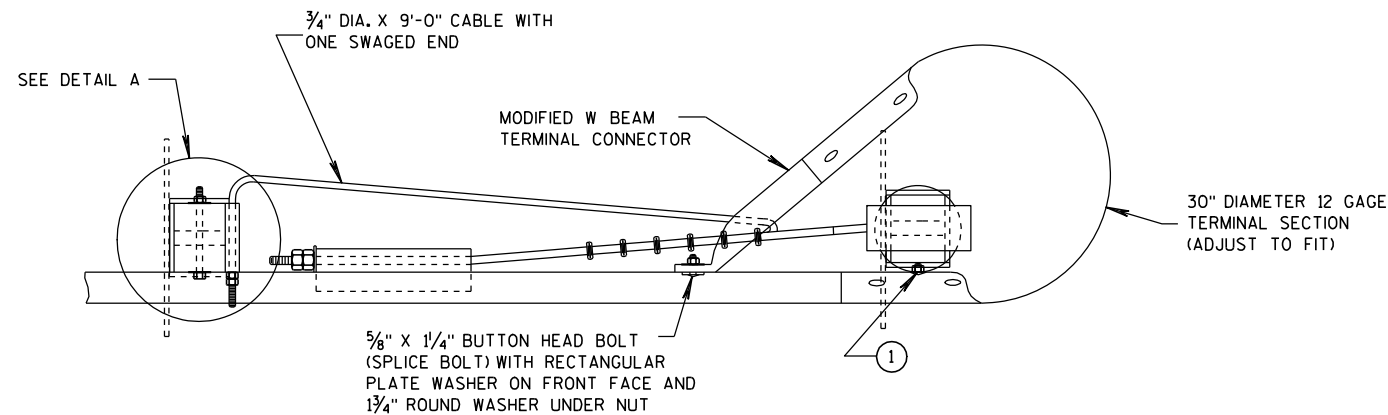
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



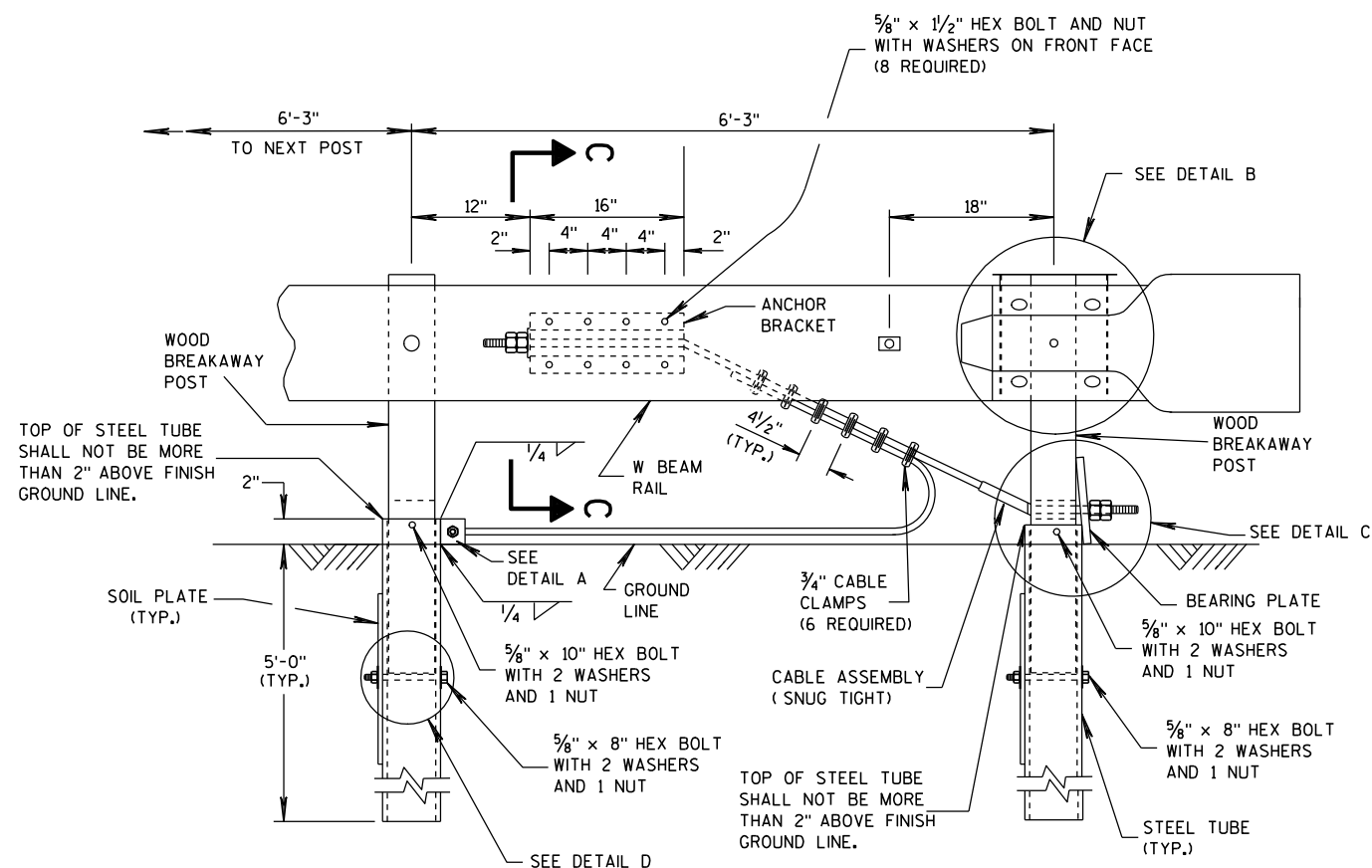
SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

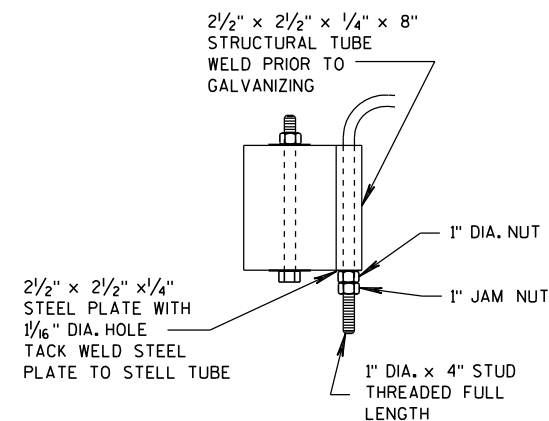


ELEVATION VIEW

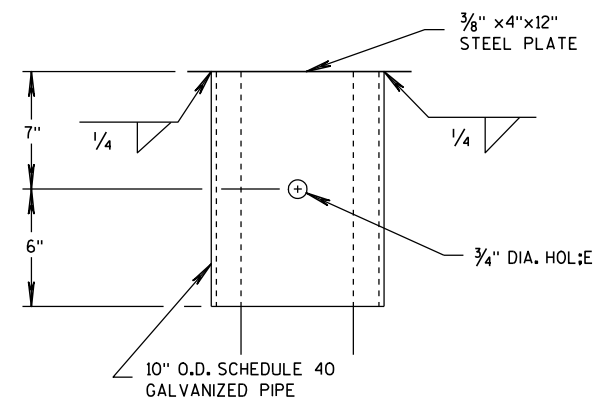
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A 5/8" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.
- INSTALL GALVANIZED 3/4" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A

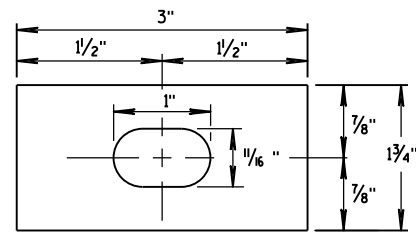


DETAIL B

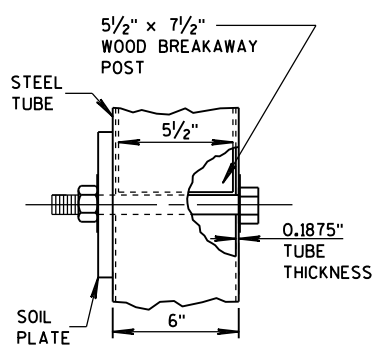
(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

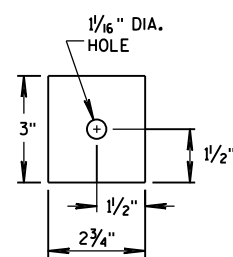
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



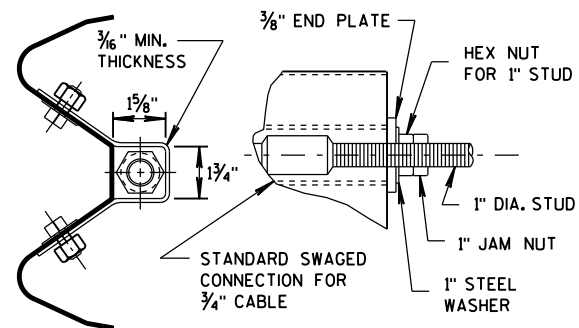
**RECTANGULAR
PLATE WASHER**



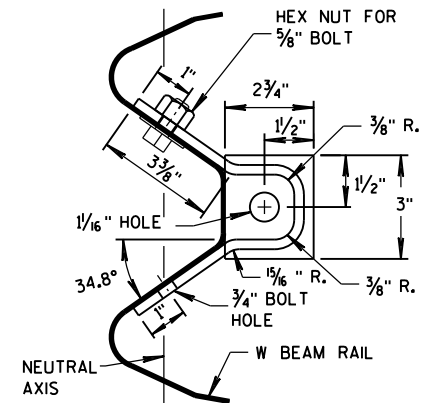
DETAIL D



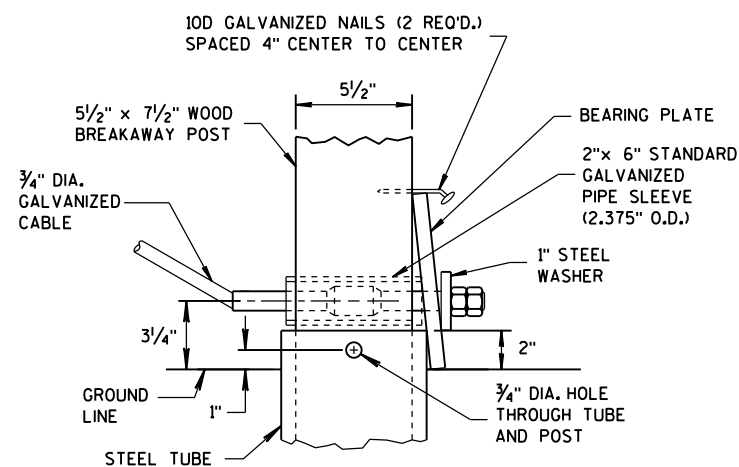
END PLATE



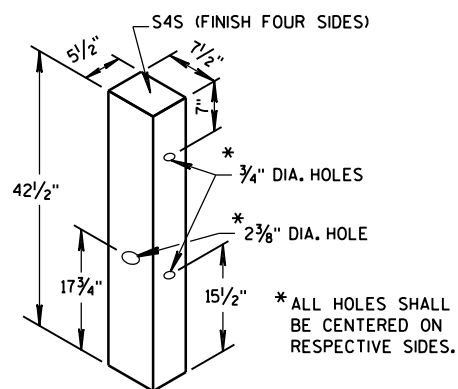
**SECTION C-C
(END PLATE REMOVED)**



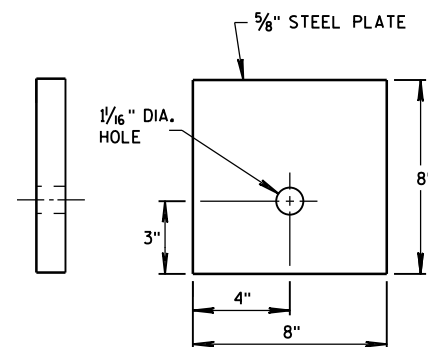
ANCHOR BRACKET



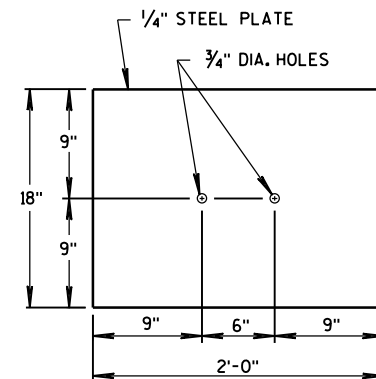
DETAIL C



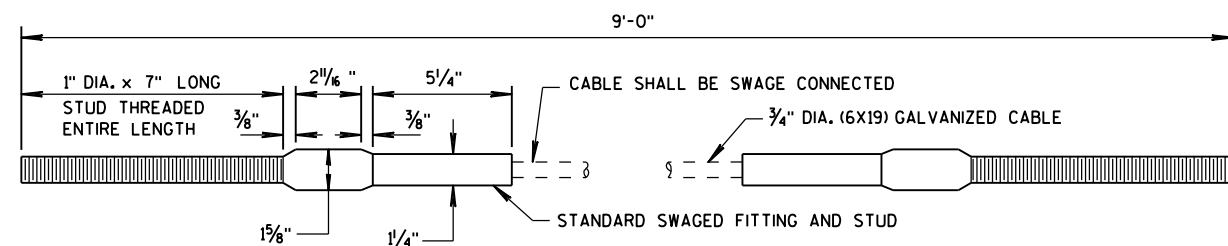
WOOD BREAKAWAY POST



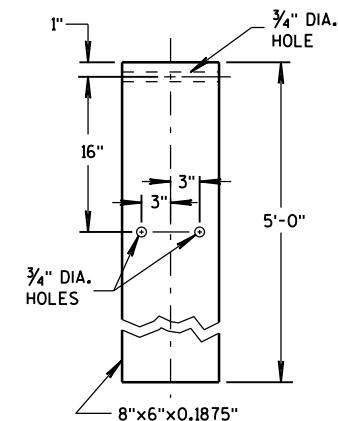
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY

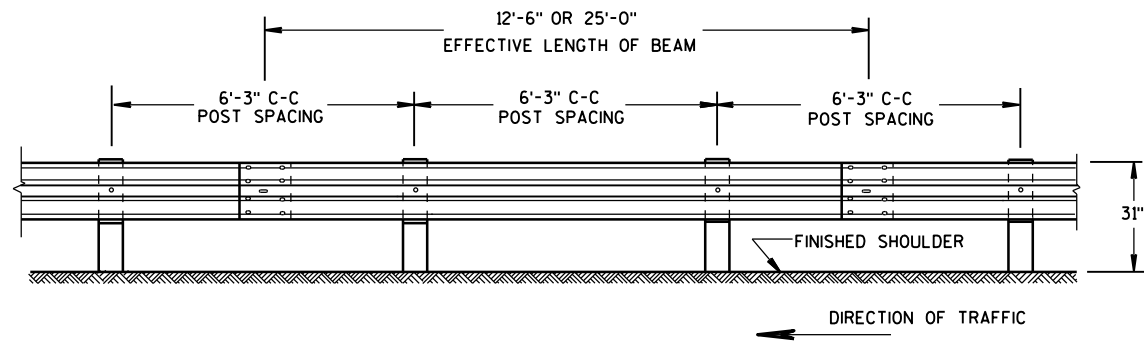


STEEL TUBE

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

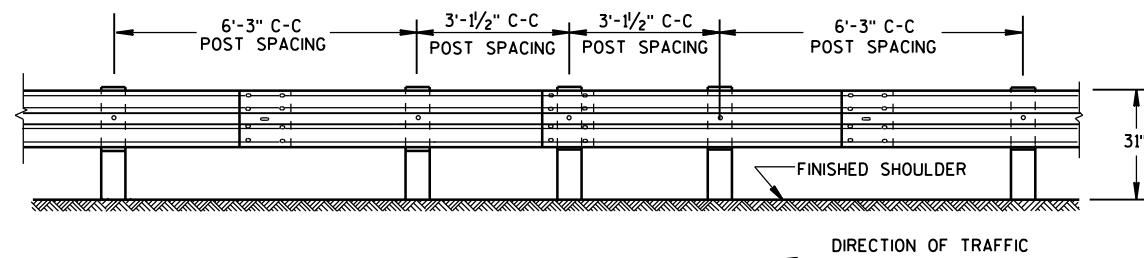
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
DATE 12/18/08
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



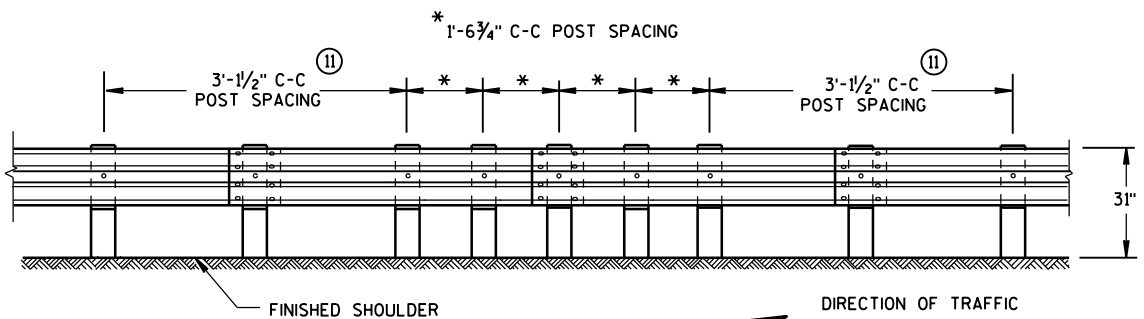
FRONT VIEW

POST SPACING STANDARD INSTALLATION



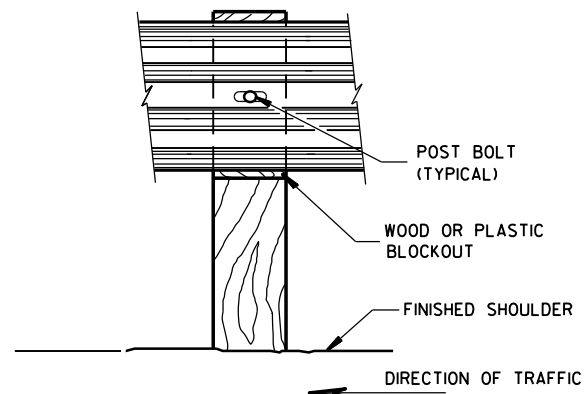
FRONT VIEW

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

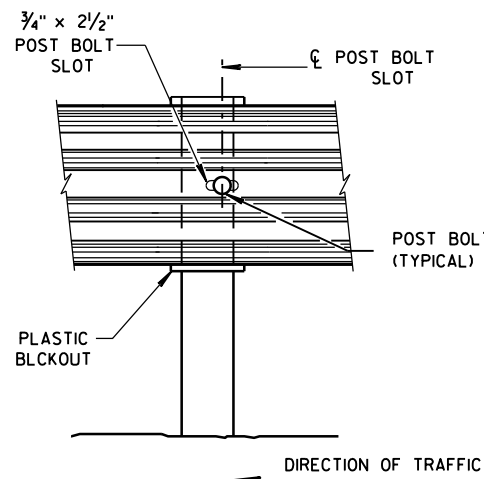


FRONT VIEW

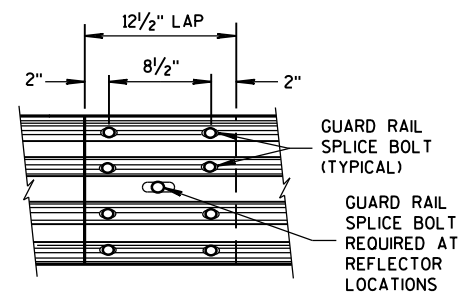
QUARTER POST SPACING (QS)



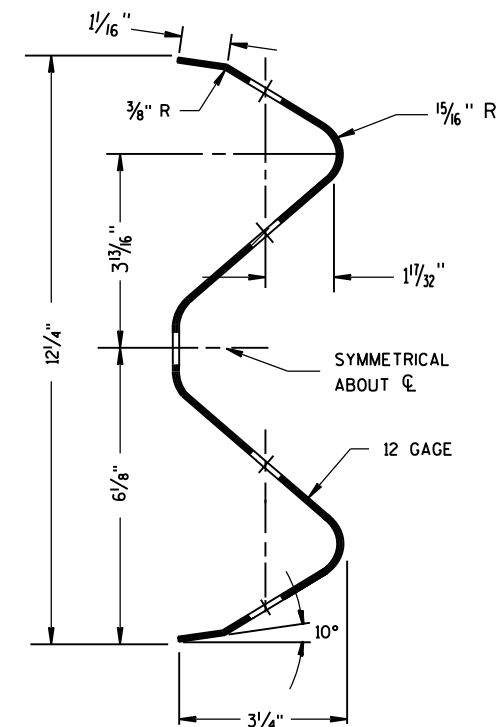
FRONT VIEW AT WOOD POST



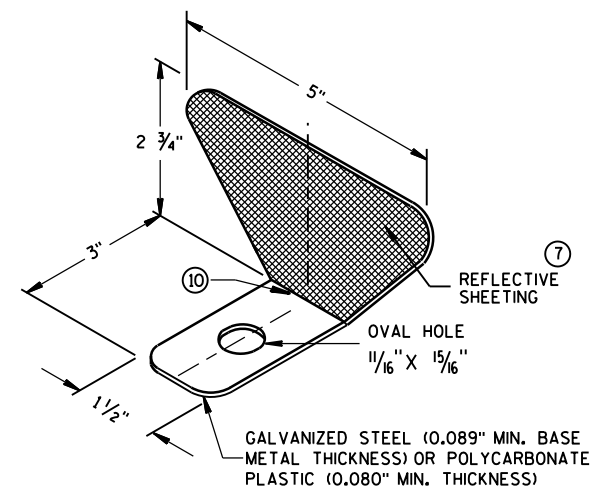
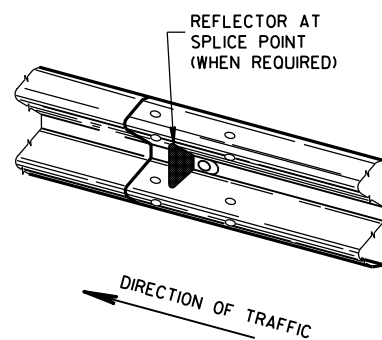
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

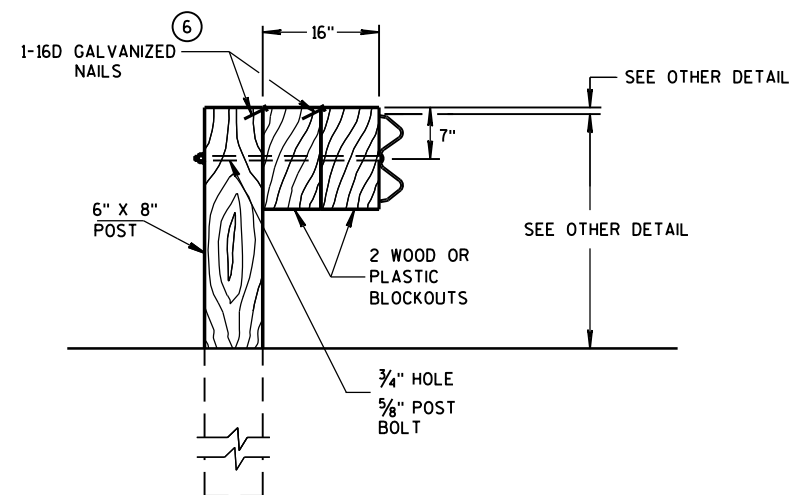
- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
 - ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑩	3
	> 200'	100' C-C	2	

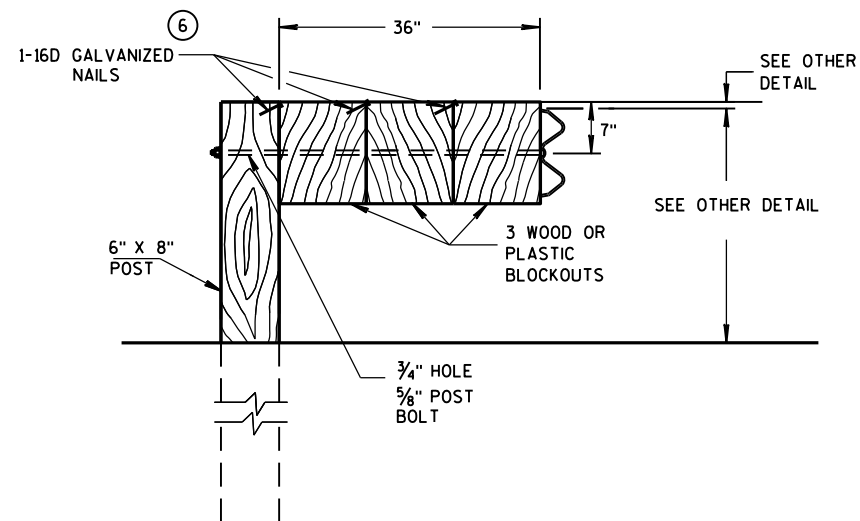
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.



DETAIL FOR 36" BLOCKOUT DEPTH

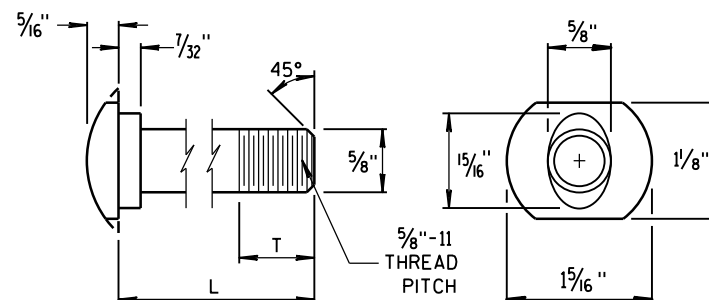
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

S.D.D. 14 B 42-4C

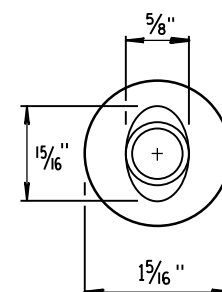
6

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

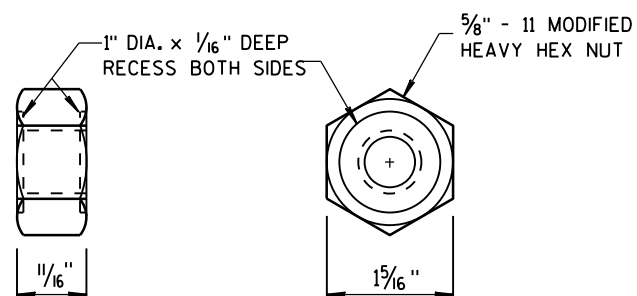


POST BOLT TABLE

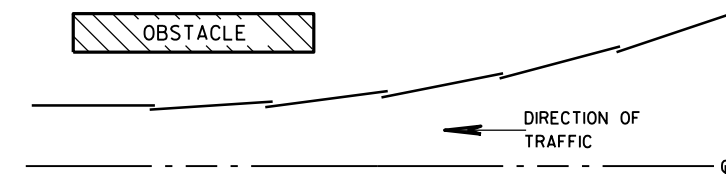
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4⅙"
18"	4"
21"	4⅙"
25"	4"



ALTERNATE BOLT HEAD

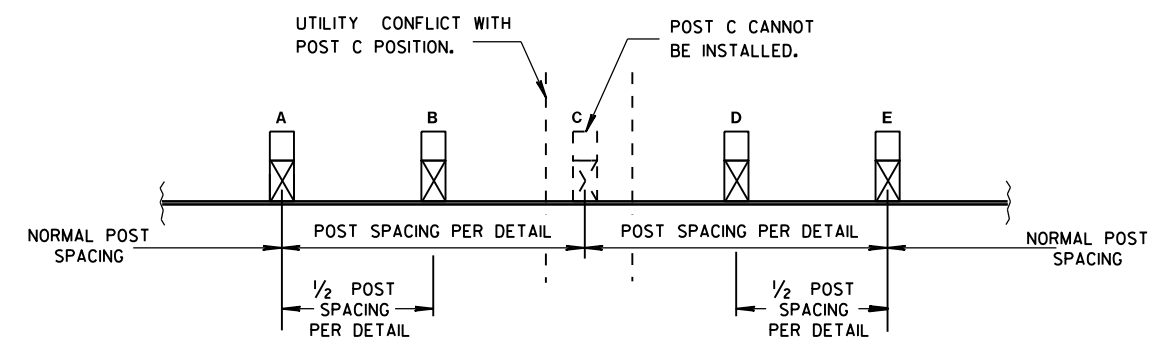


POST BOLT, SPLICE BOLT AND RECESS NUT

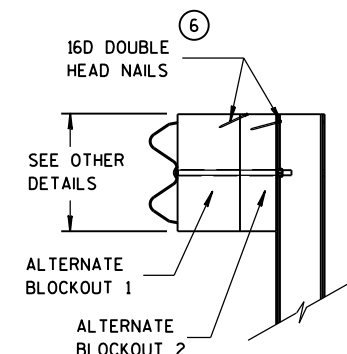


PLAN VIEW

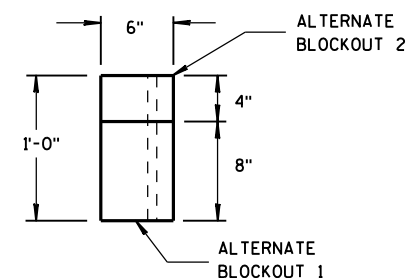
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER

S.D.D. 14 B 42-4c

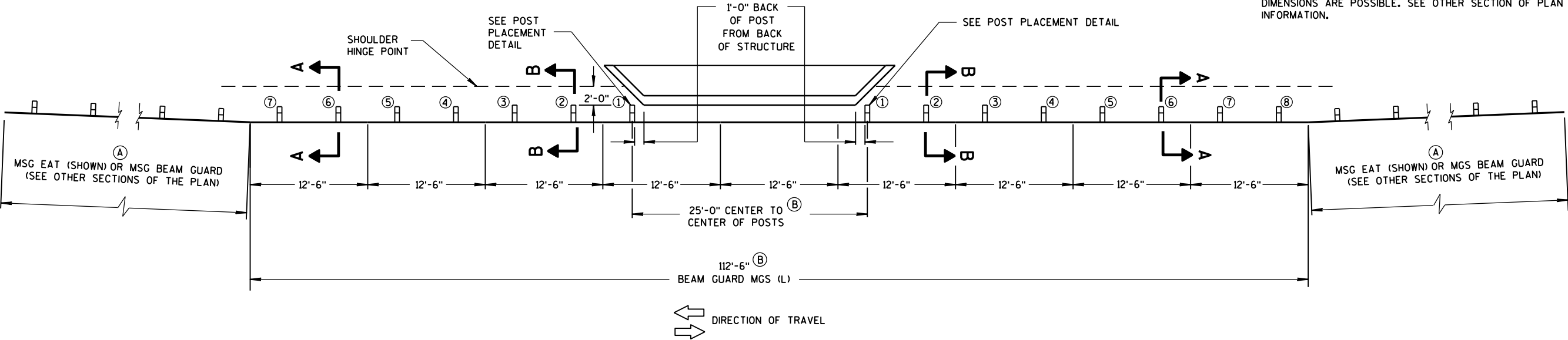
6

GENERAL NOTES

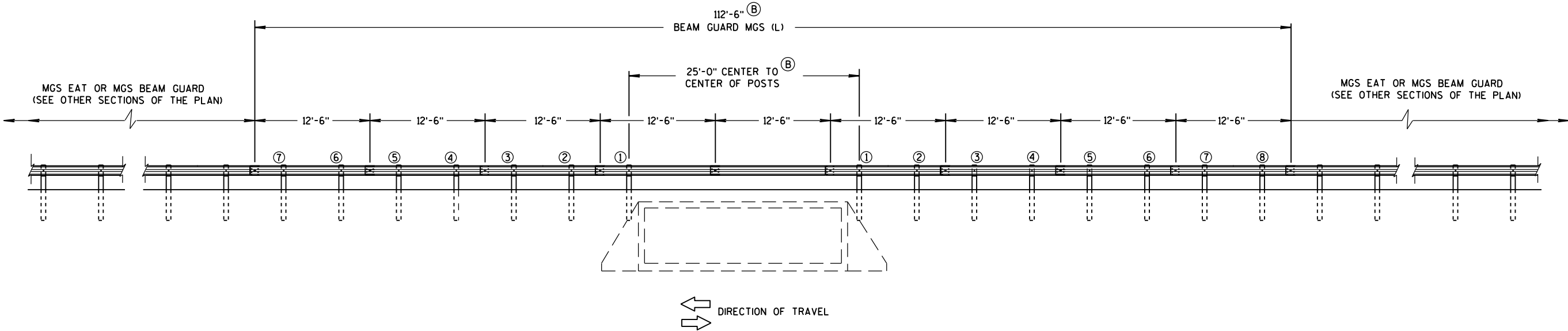
POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

SEE SDD 14 B 42 FOR MORE DETAILS.

- (A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.
- (B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

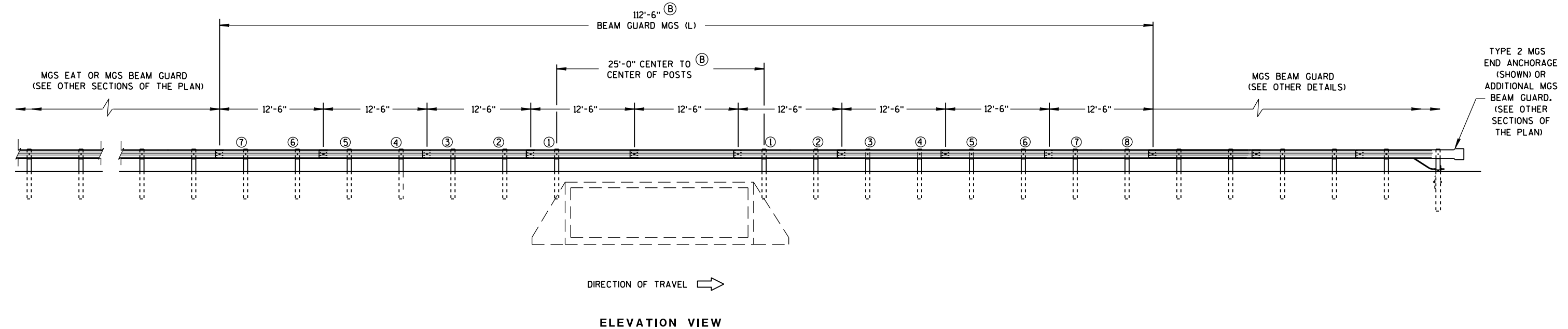
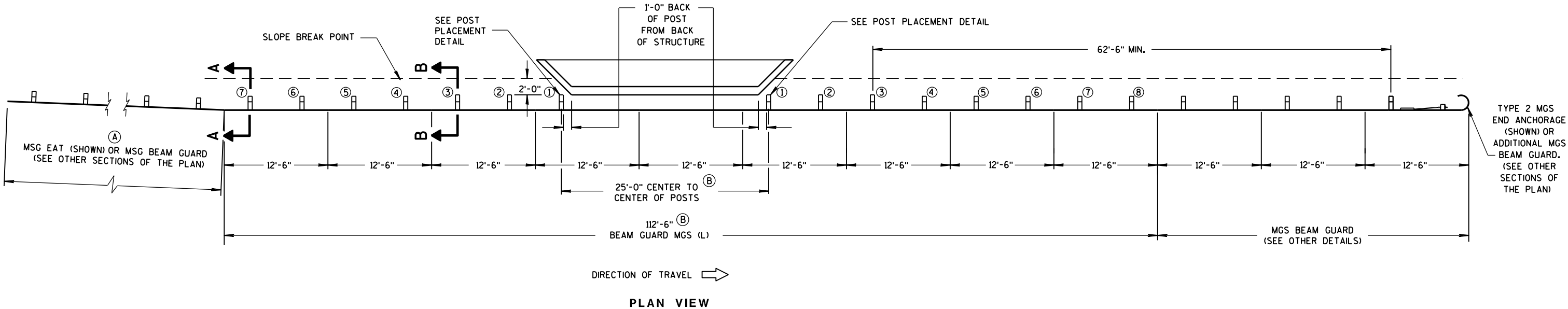
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

SEE SDD 14 B 42 FOR MORE DETAILS.

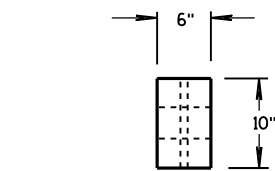
- (A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.
- (B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



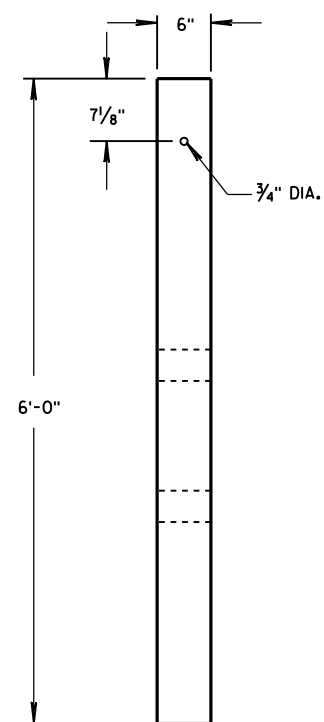
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

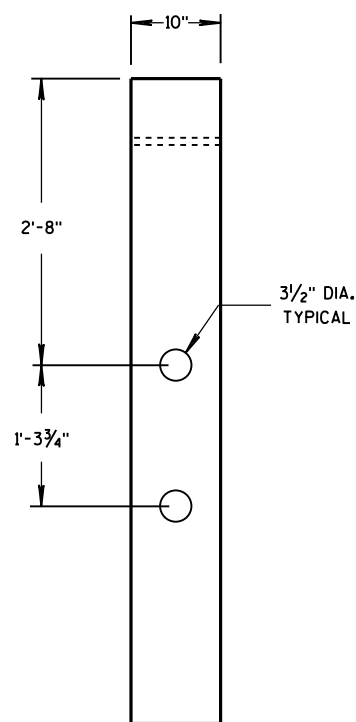


PLAN VIEW

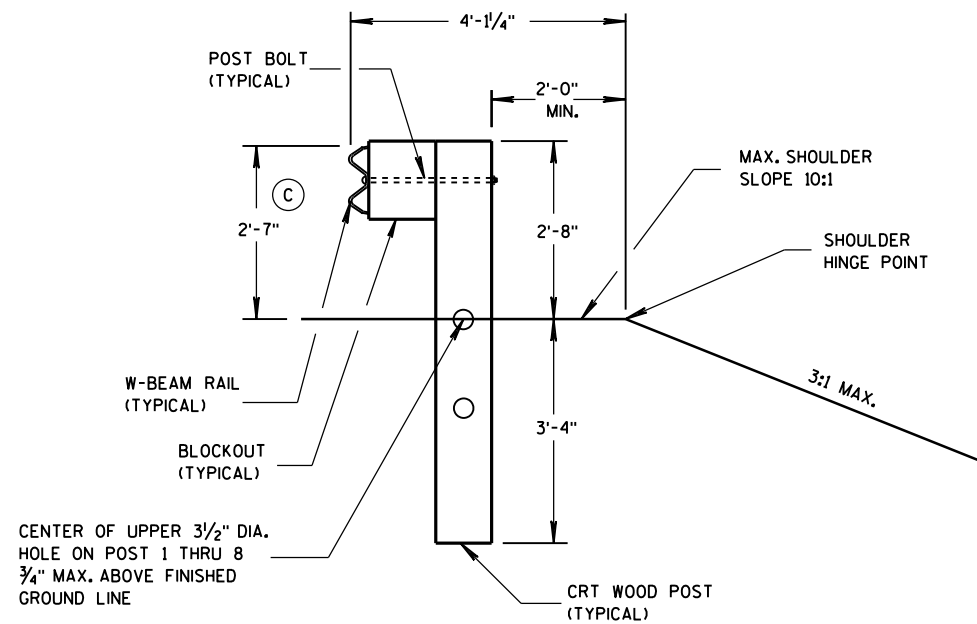


FRONT VIEW

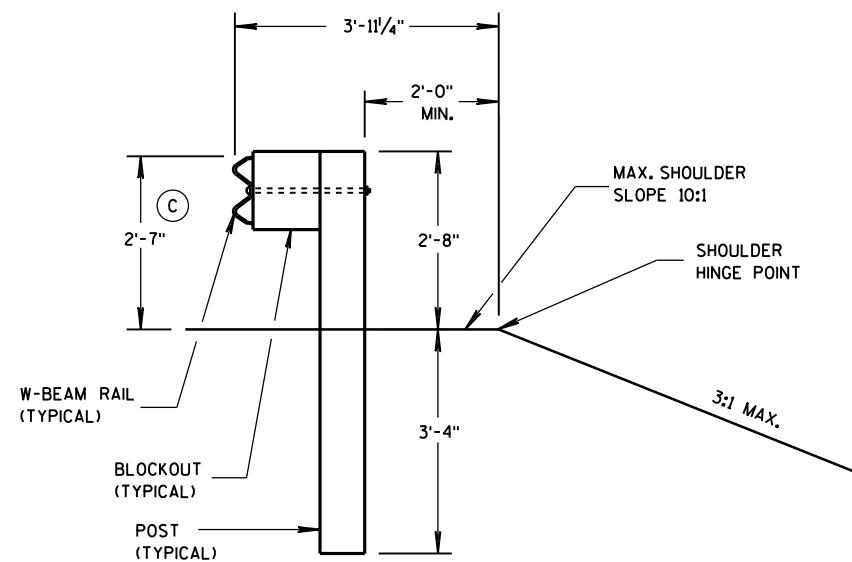
CRT WOOD POST



SIDE VIEW

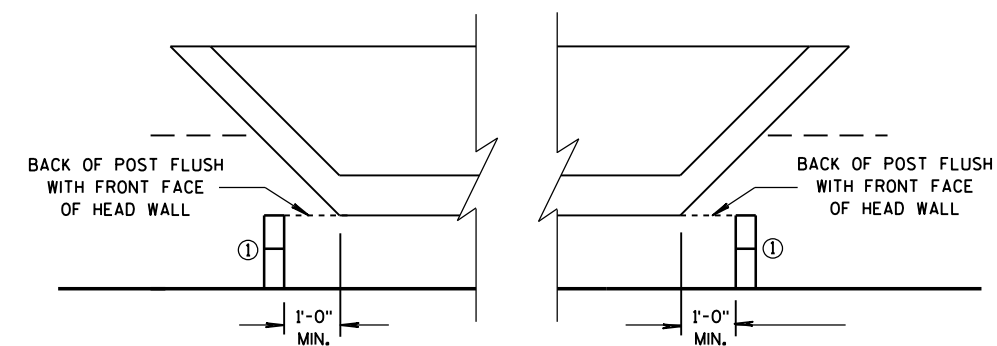
SECTION B-B
POSTS NO. 1-3

SEE OTHER DETAILS

SECTION A-A
POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

(C) TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.

POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATIONAPPROVED
5/10/2013
DATE
FHWA/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.
- (G) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

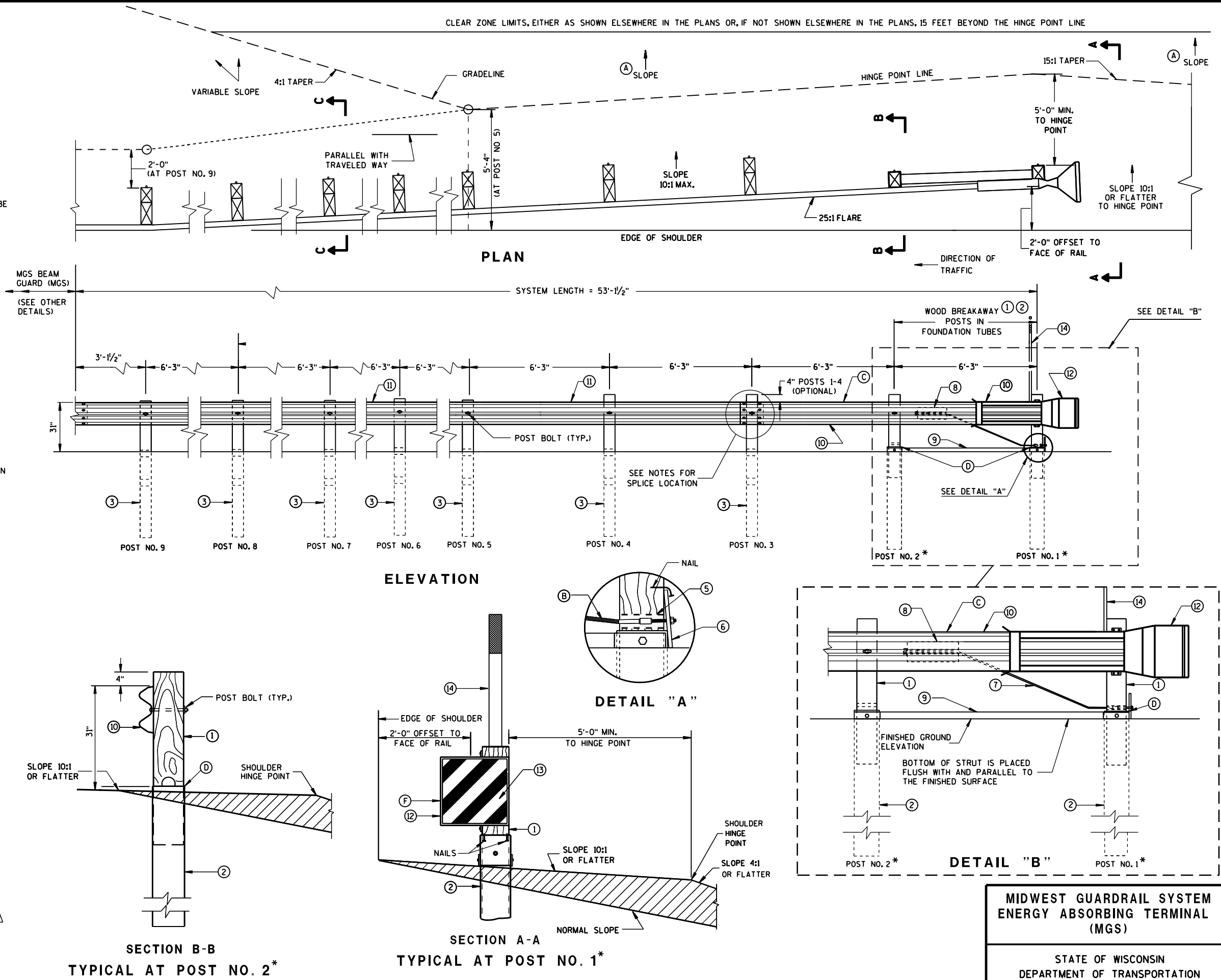
SEE SDD 14B42 FOR MORE INFORMATION.

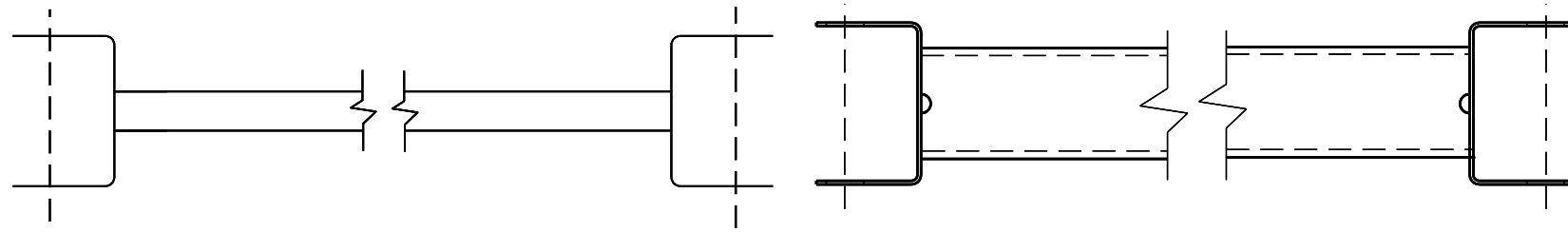
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

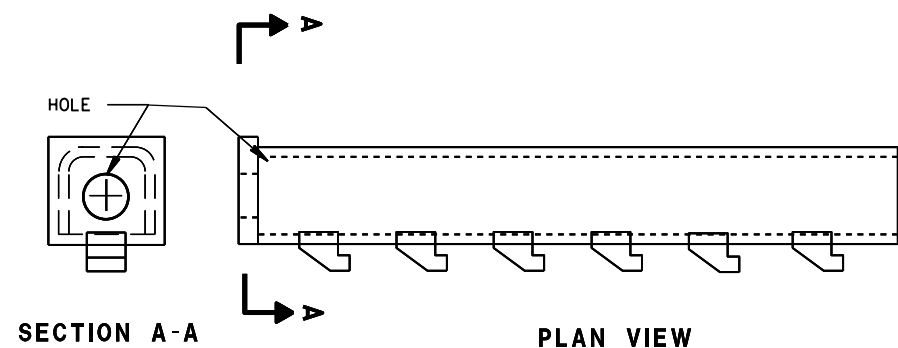
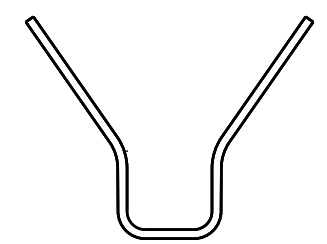
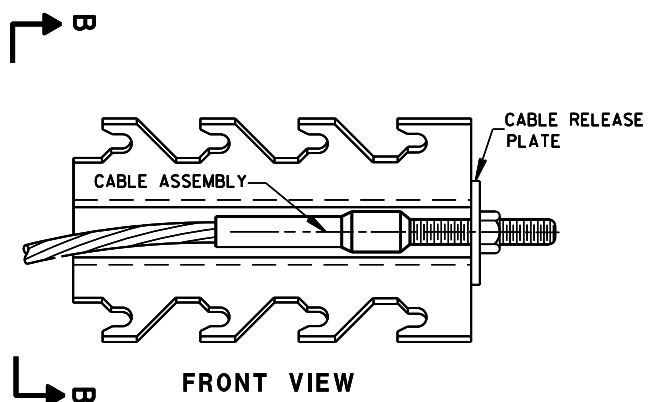
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3/2" 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.





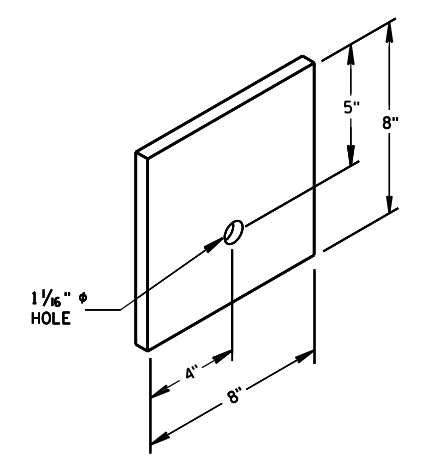
9 H
GENERIC GROUND STRUT



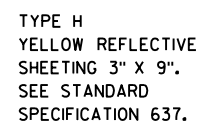
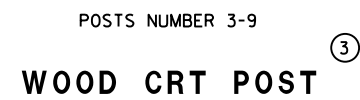
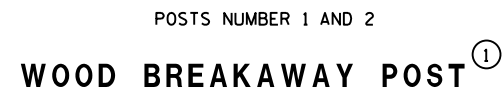
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

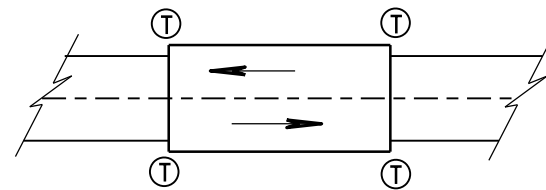
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



⑥
BEARING PLATE

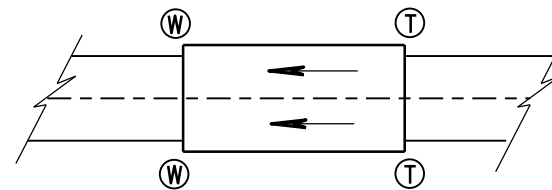


<p>MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED June 2014</p>	<p>/S/ Jerry H. Zogg</p>
<p>DATE</p>	<p>ROADWAY STANDARDS DEVELOPMENT ENGINEER</p>
<p>FHWA</p>	



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

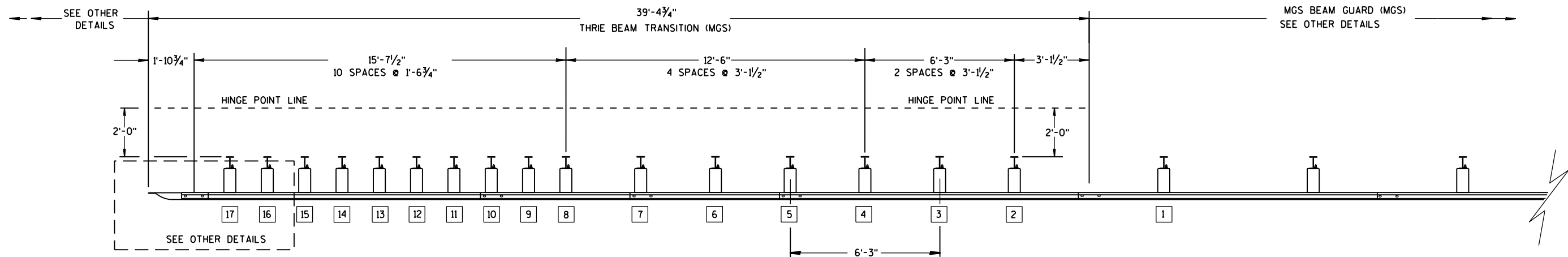
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

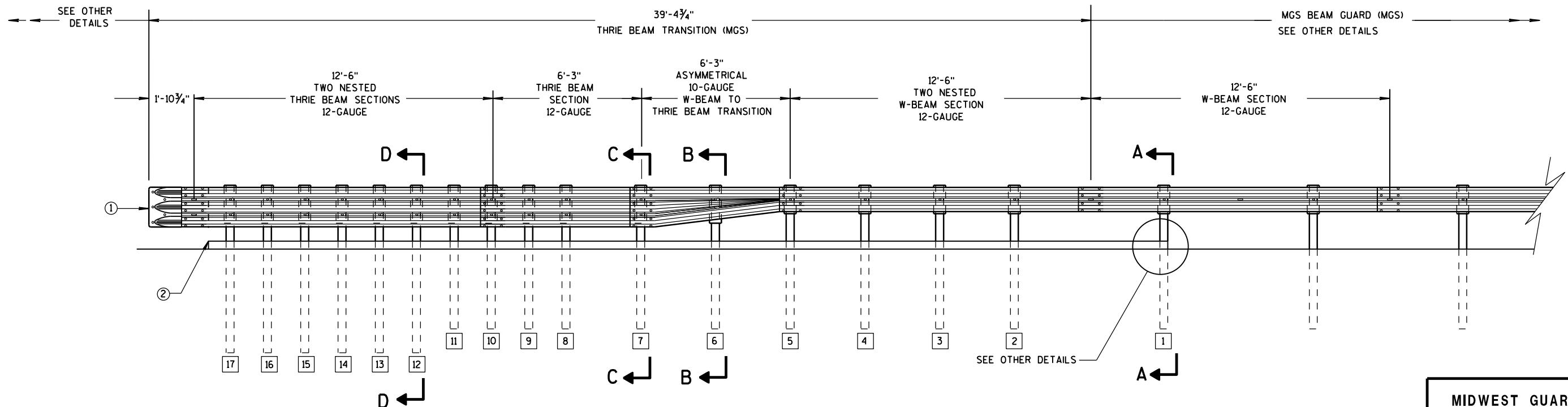
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



PLAN VIEW



ELEVATION VIEW

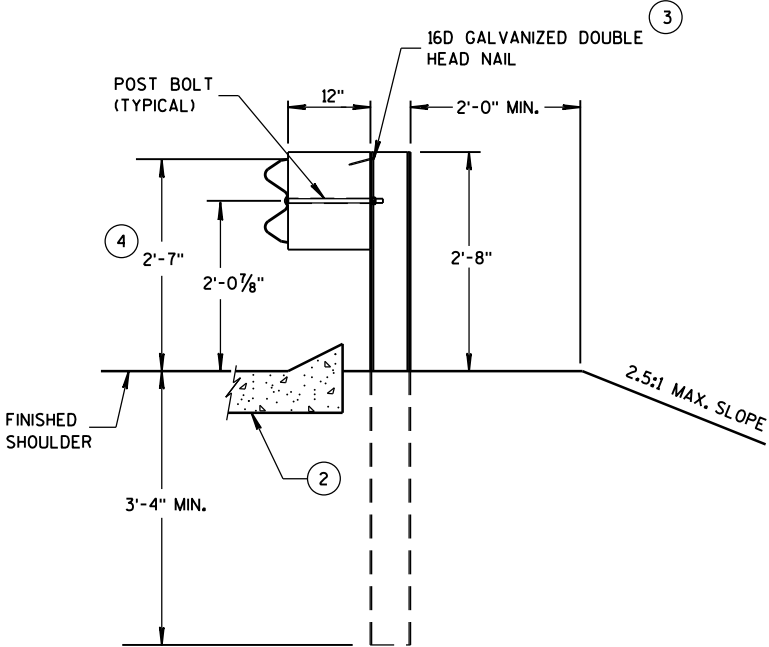
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

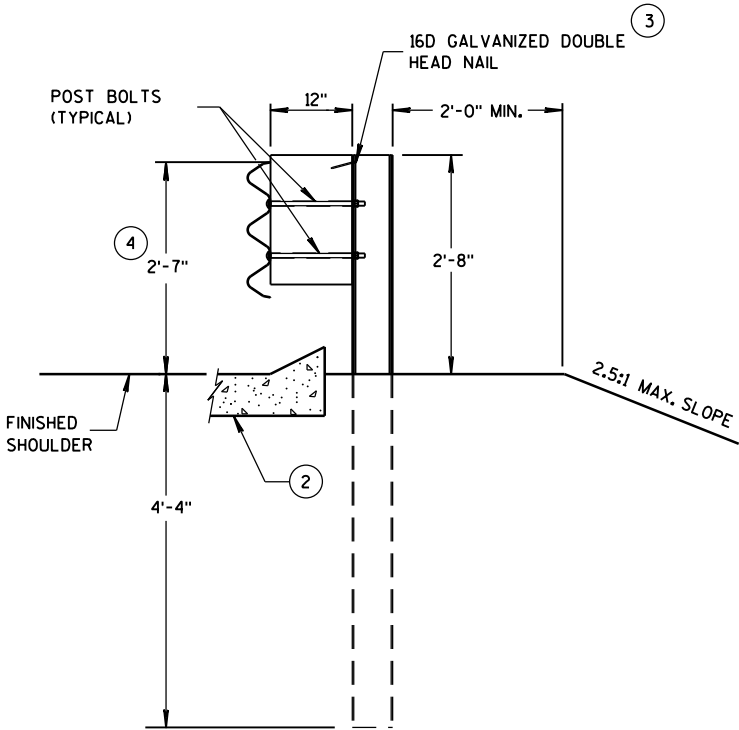
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

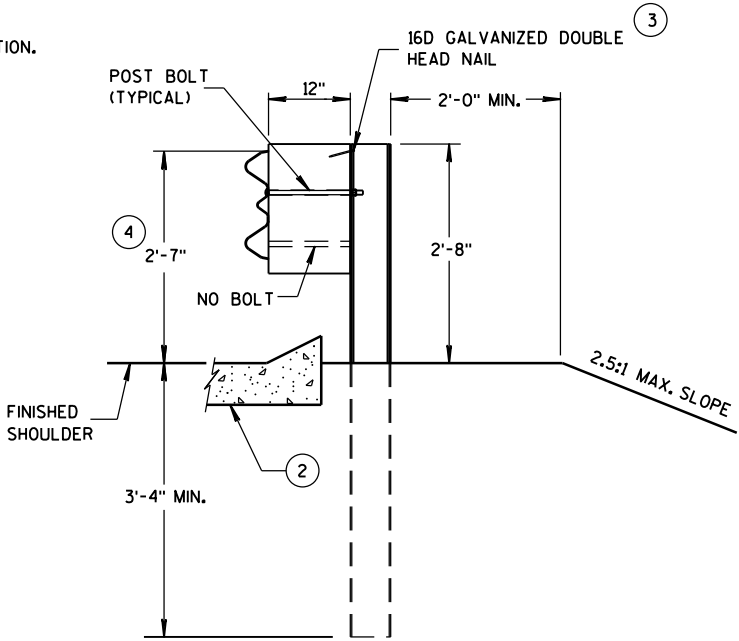
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



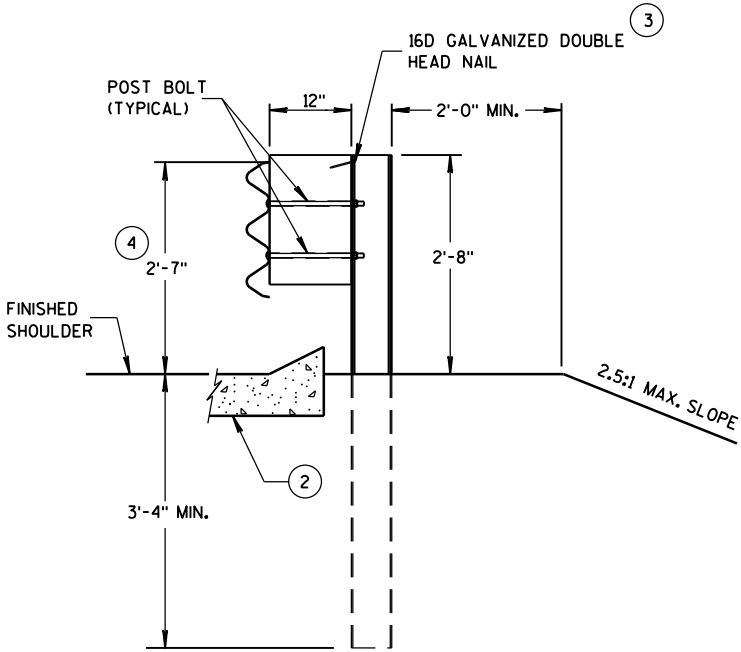
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

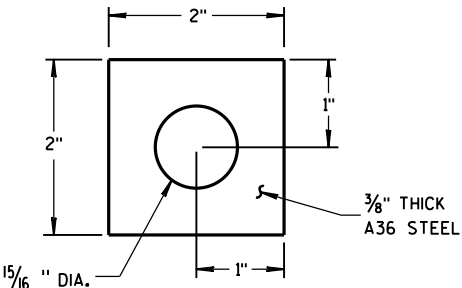
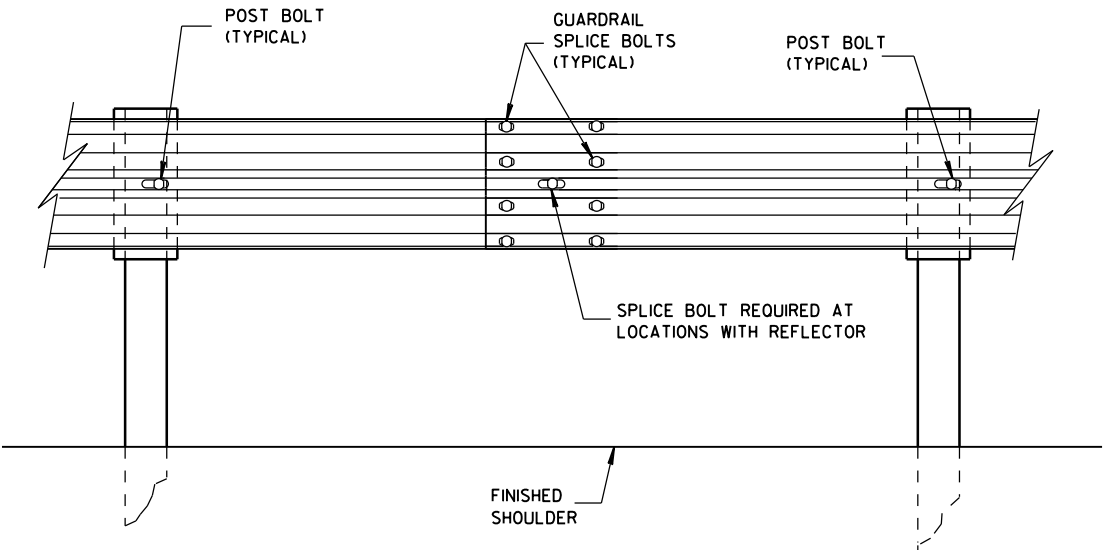
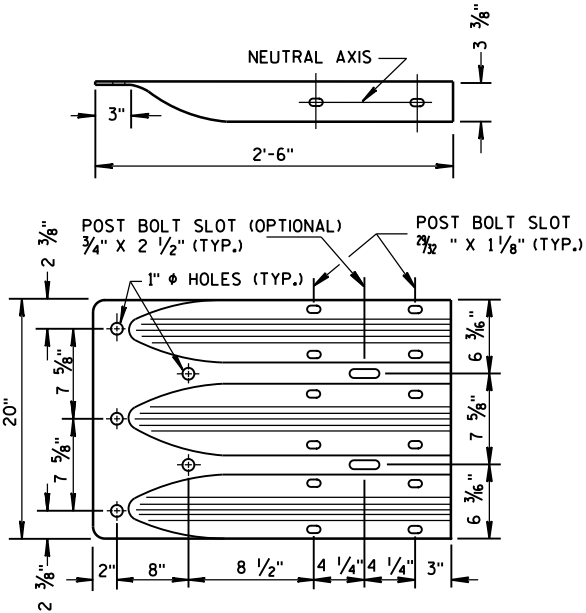


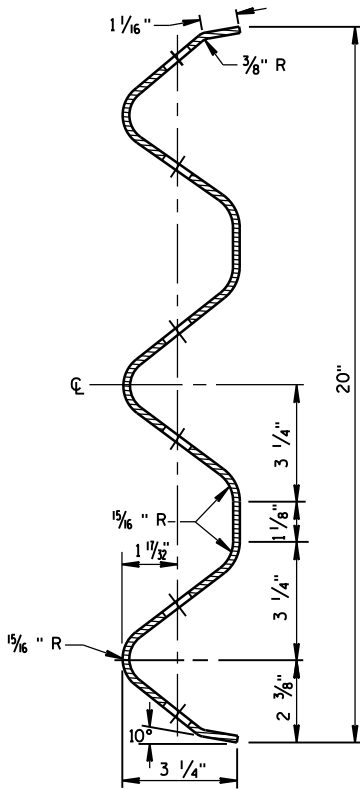
PLATE WASHER DETAIL



SPlice DETAIL



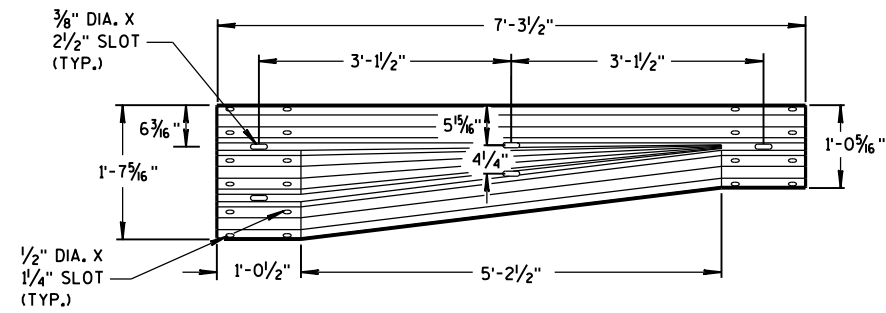
THRIE BEAM
TERMINAL CONNECTOR



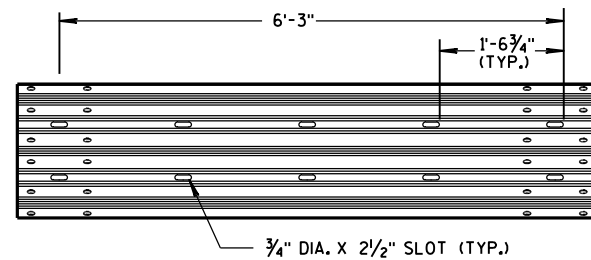
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

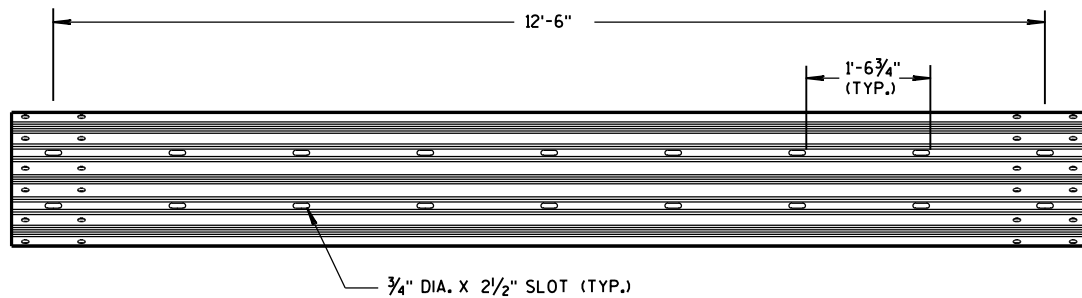
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



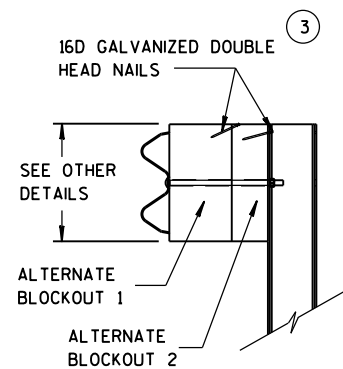
W-BEAM TO THRIE BEAM TRANSITION SECTION



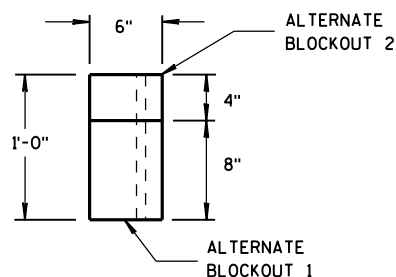
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

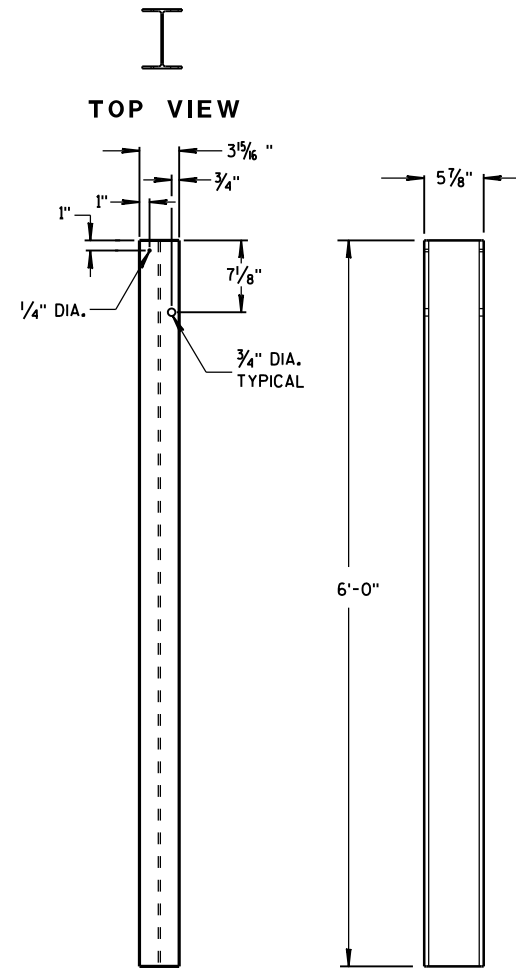


SIDE VIEW



TOP VIEW

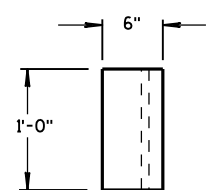
ALTERNATE WOOD BLOCKOUT DETAIL



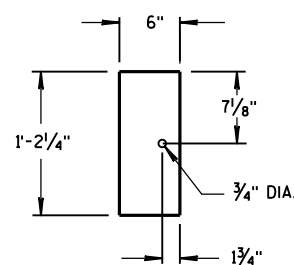
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

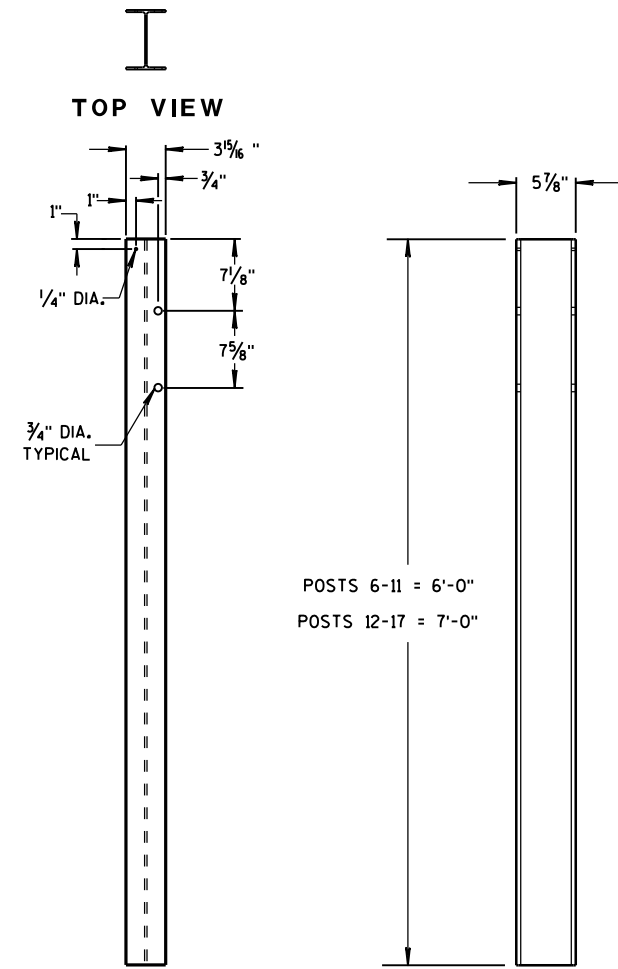


TOP VIEW



FRONT VIEW

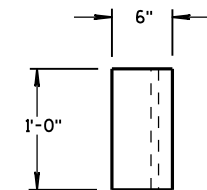
BLOCKOUT
POSTS 1-5



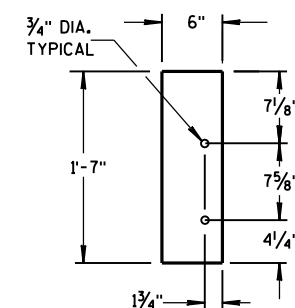
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT
POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

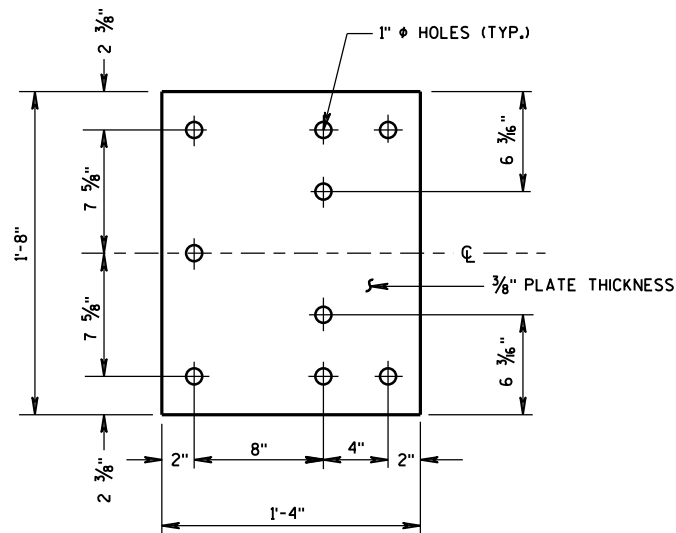
BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS 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.

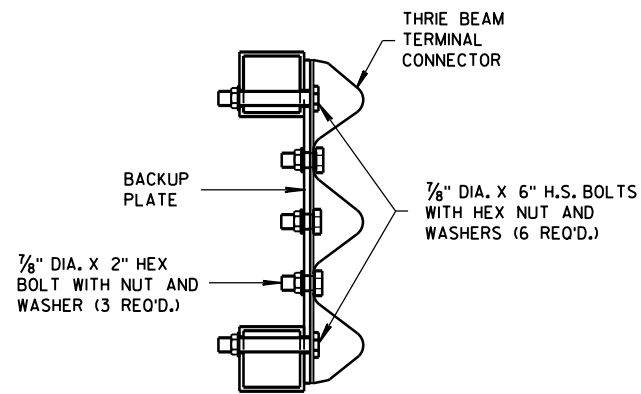
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

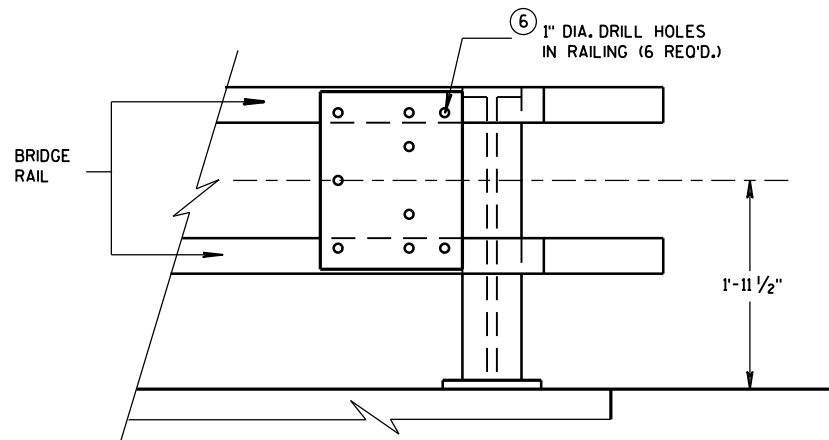
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



BACK-UP PLATE DETAIL



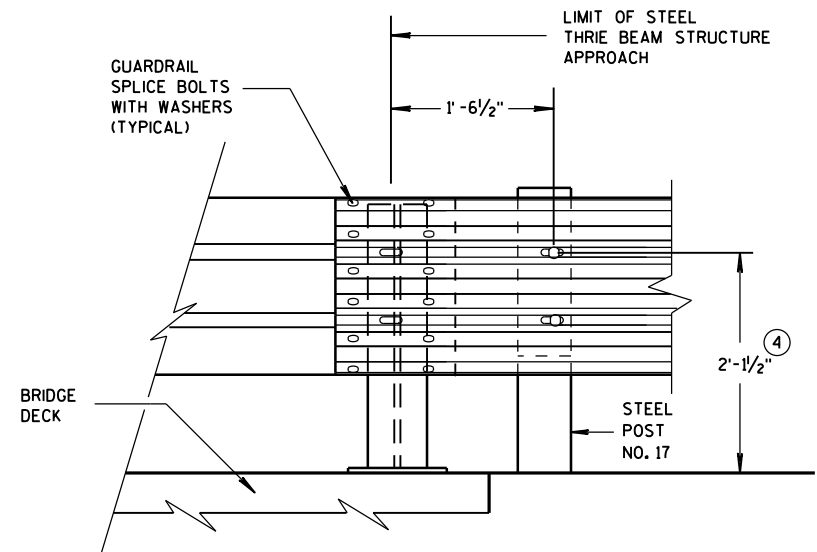
SECTION J-J



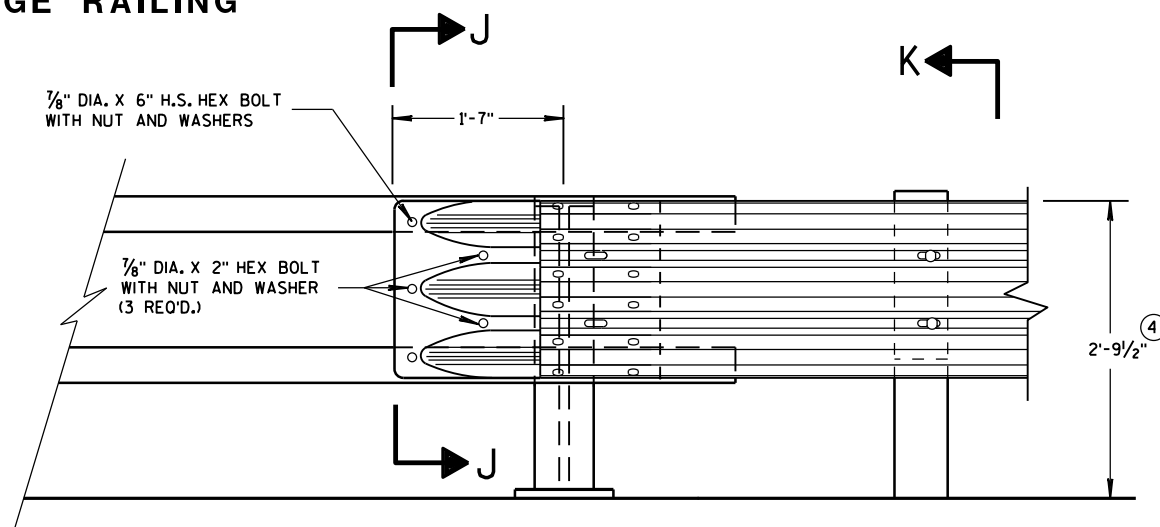
BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

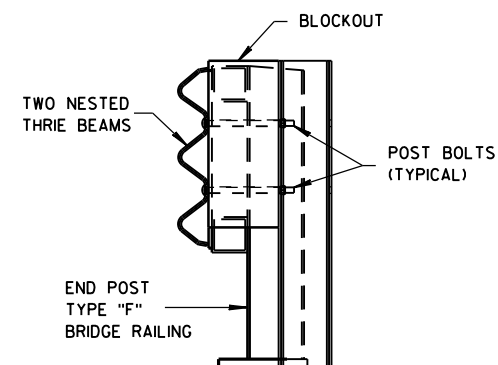


FRONT VIEW
THRIE BEAM CONNECTION TO
STEEL RAILING TYPE "W"



FRONT VIEW

THRIE BEAM CONNECTION TO
TUBULAR RAILING TYPE "F"



SECTION K-K

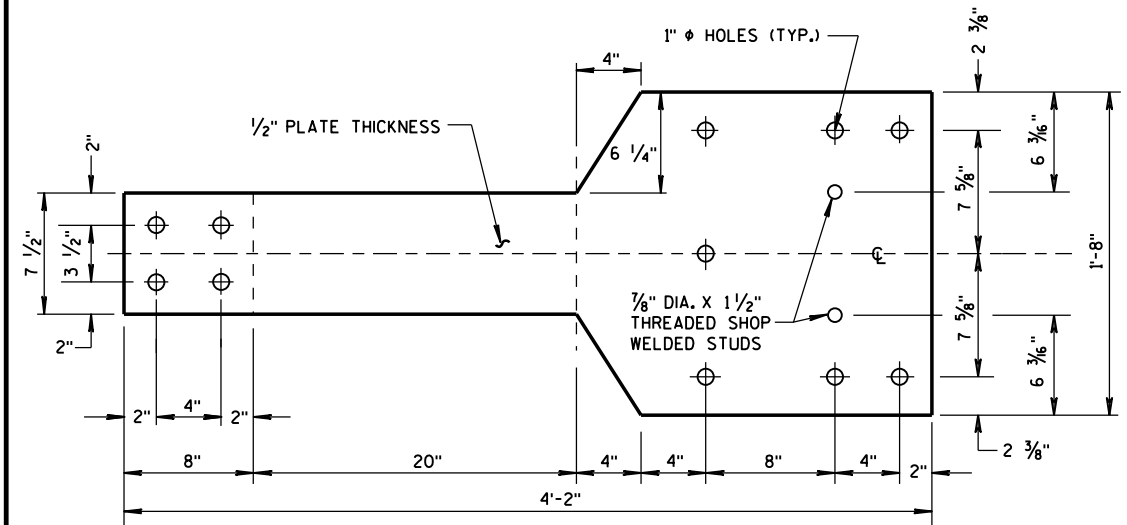
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

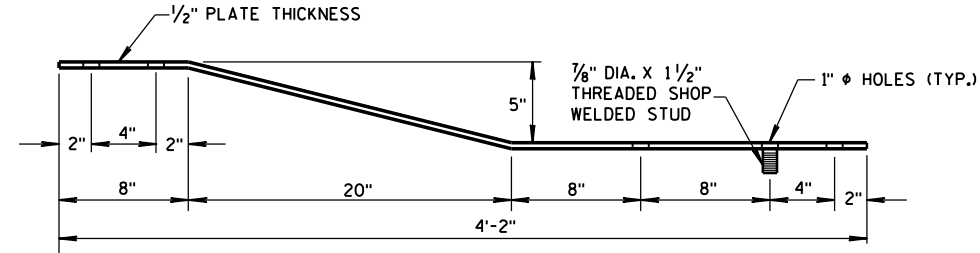
APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

GENERAL NOTES

④ TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.

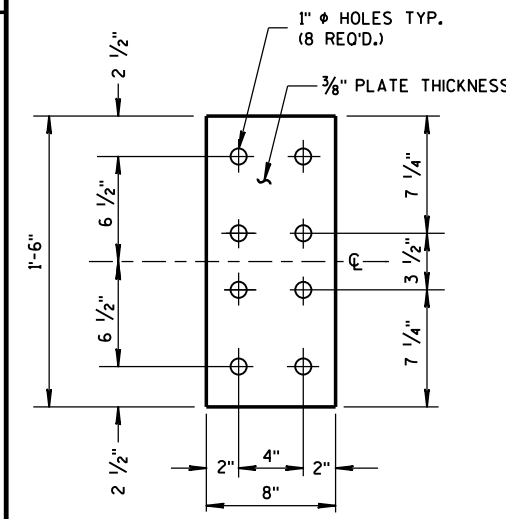


FRONT VIEW



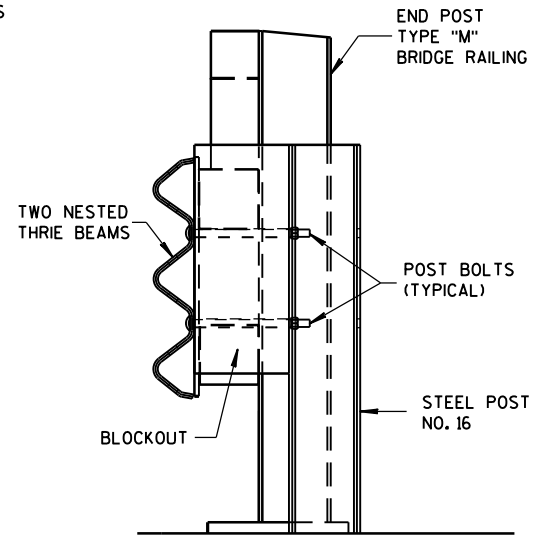
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

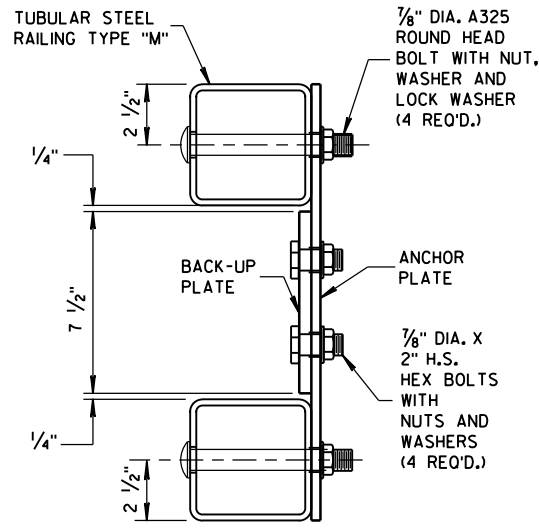


FRONT VIEW

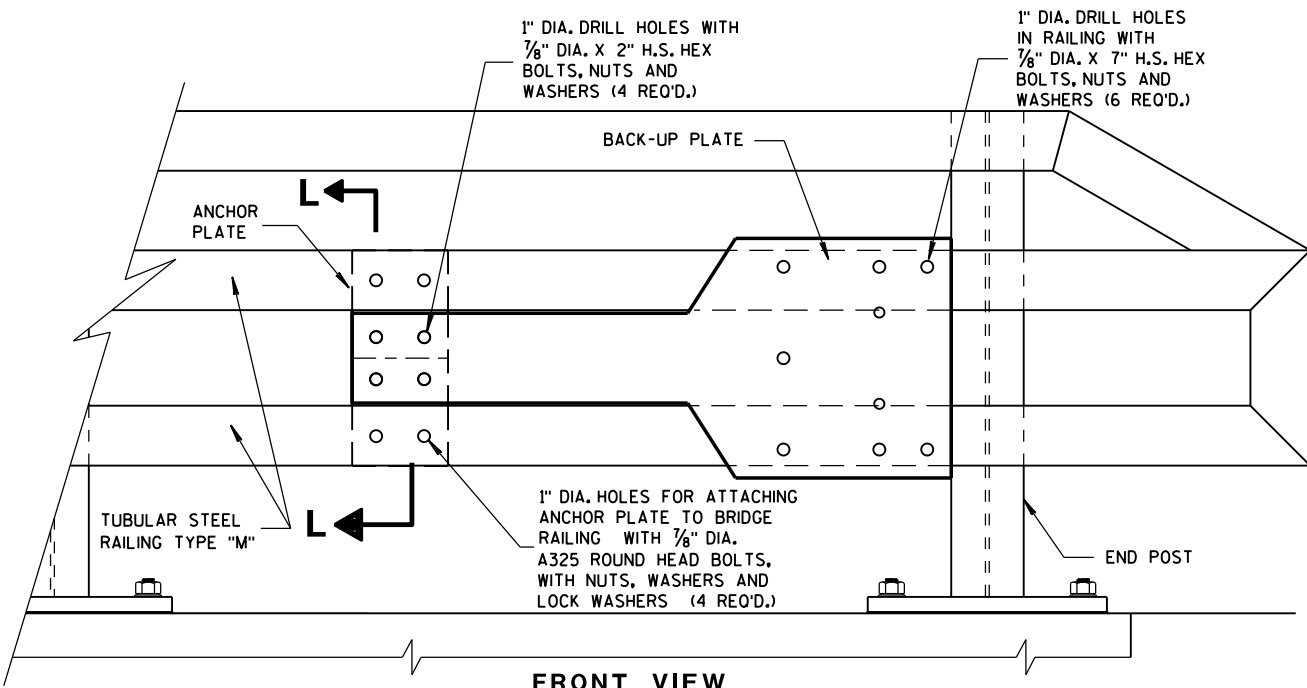
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

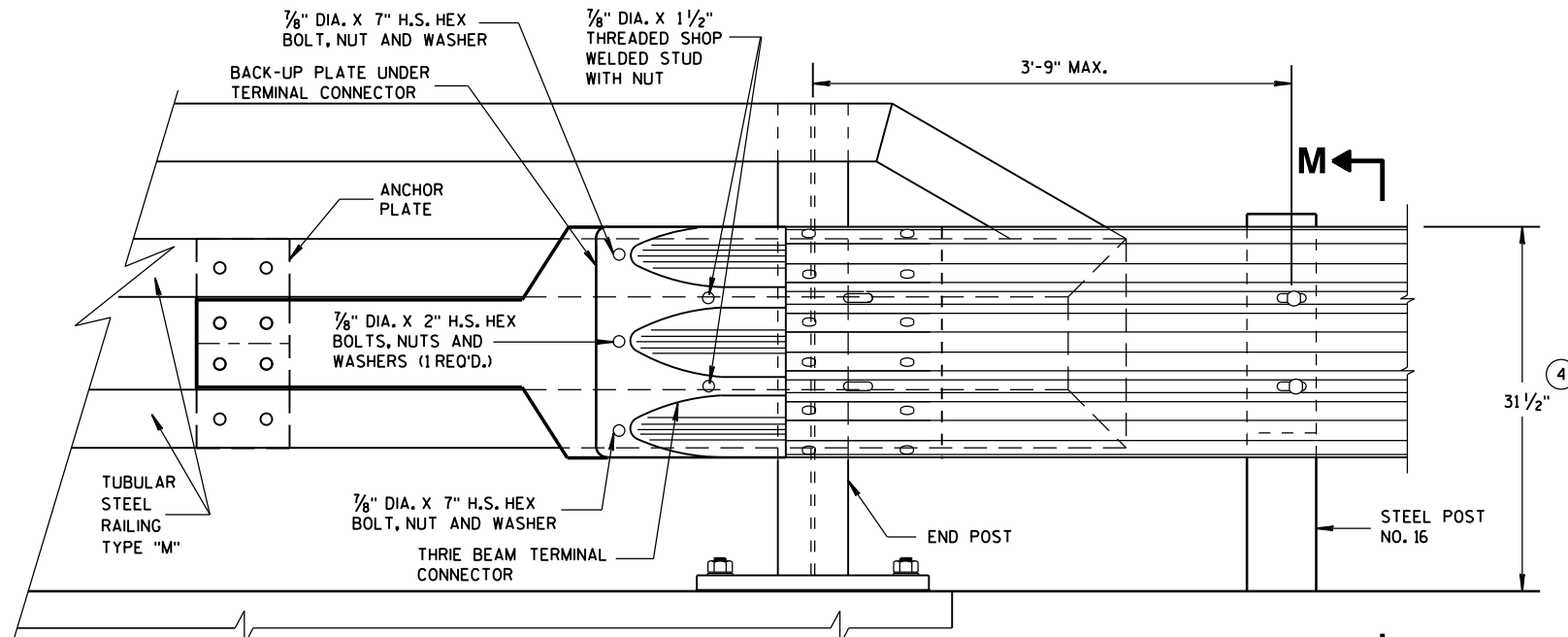


SECTION L-L

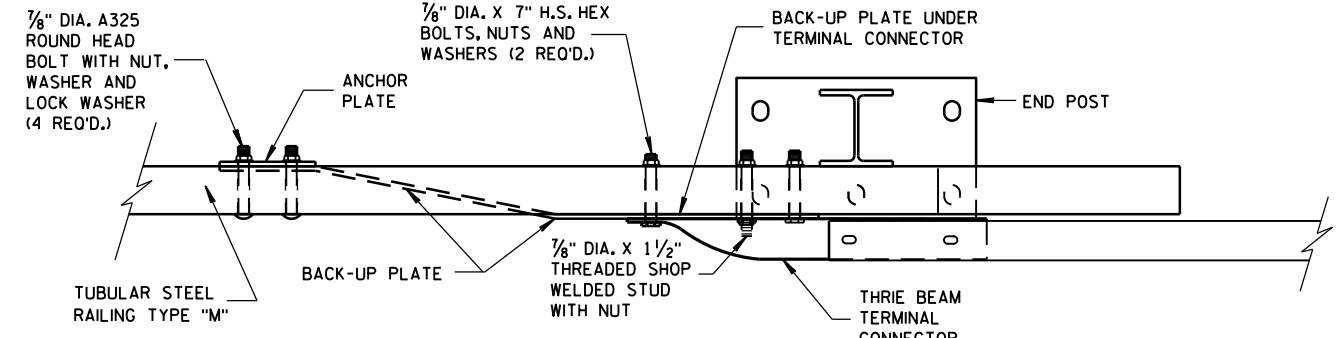


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



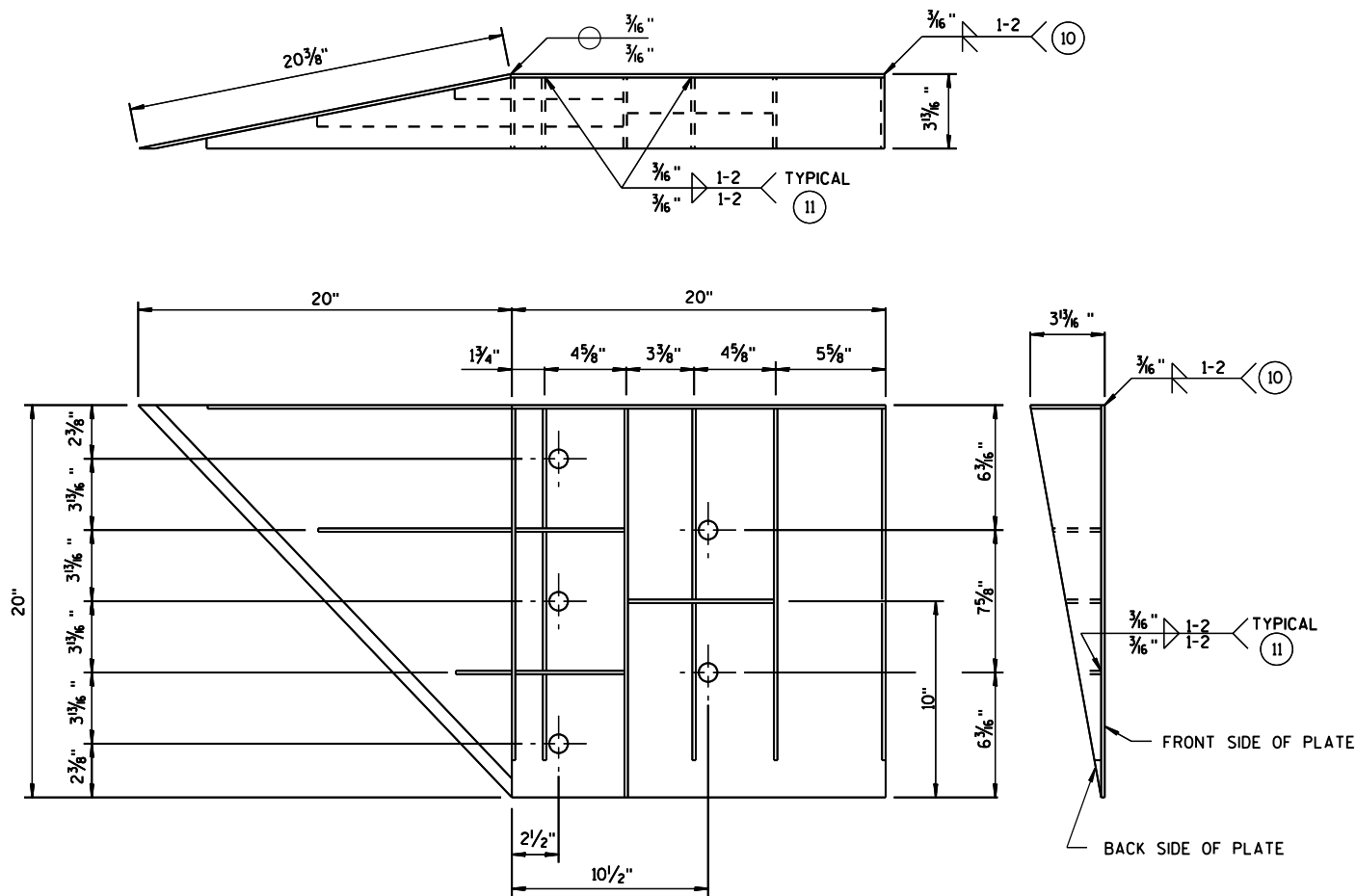
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

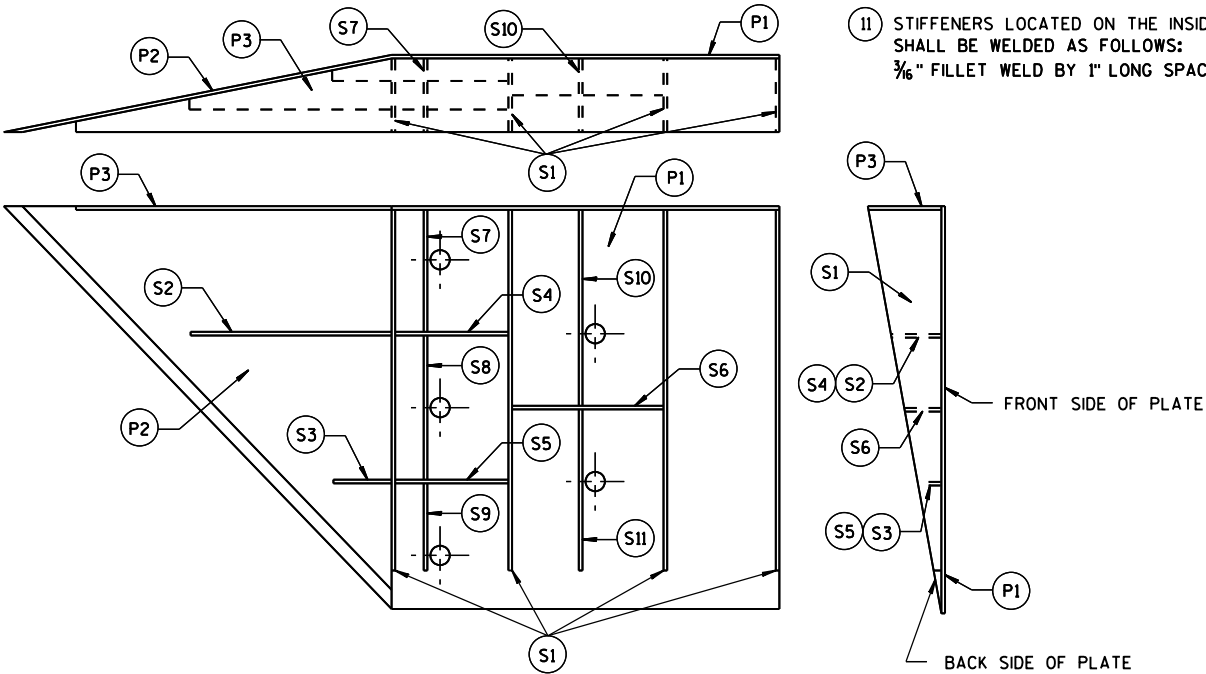


WELDING INSTRUCTION
(VIEWED FROM BACK SIDE OF PLATE)

SINGLE SLOPE CONNECTION PLATE

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 1/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 1/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 1/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 7/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 1/16"	1/4"

PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)



GENERAL NOTES

- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

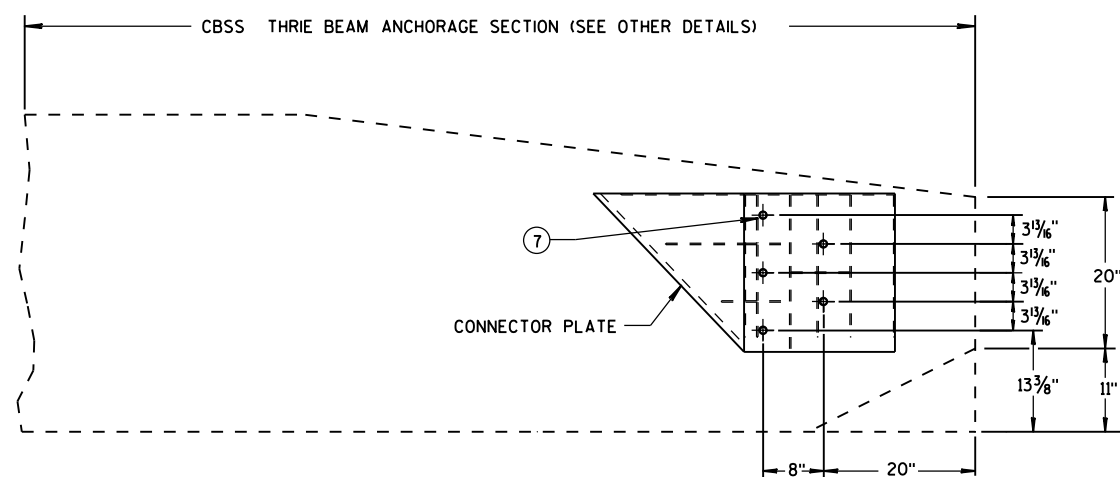
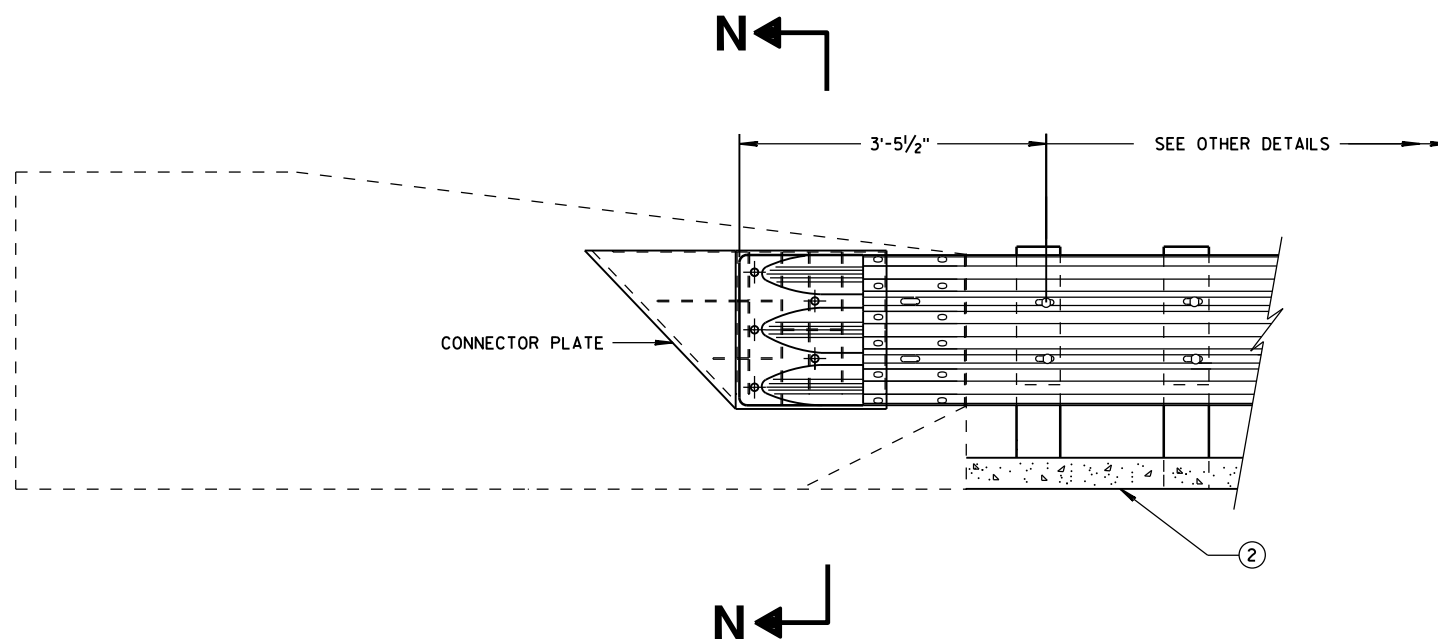
- 10 STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- 11 STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER

THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



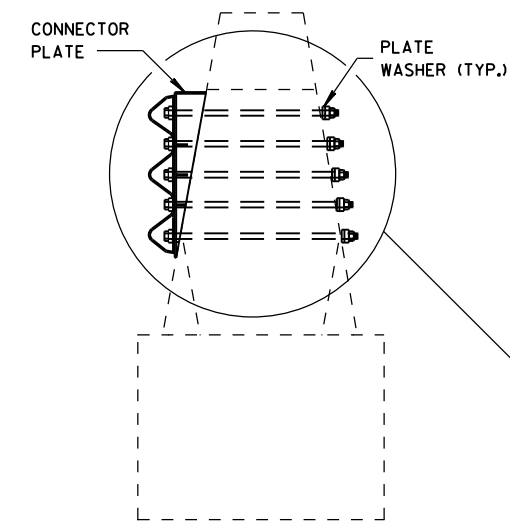
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

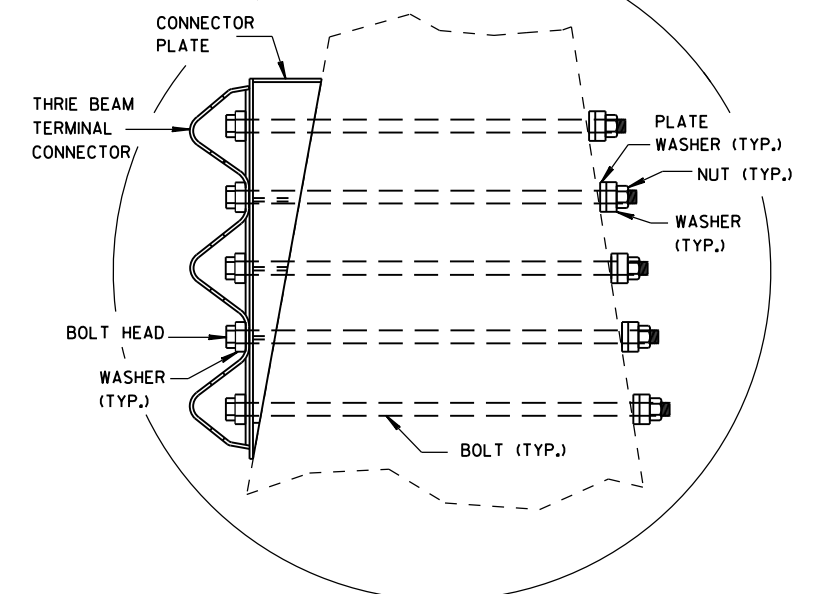
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015

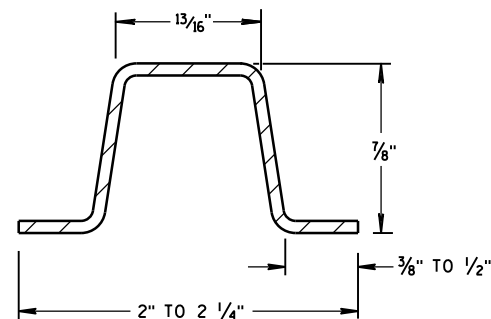
DATE

FHWA

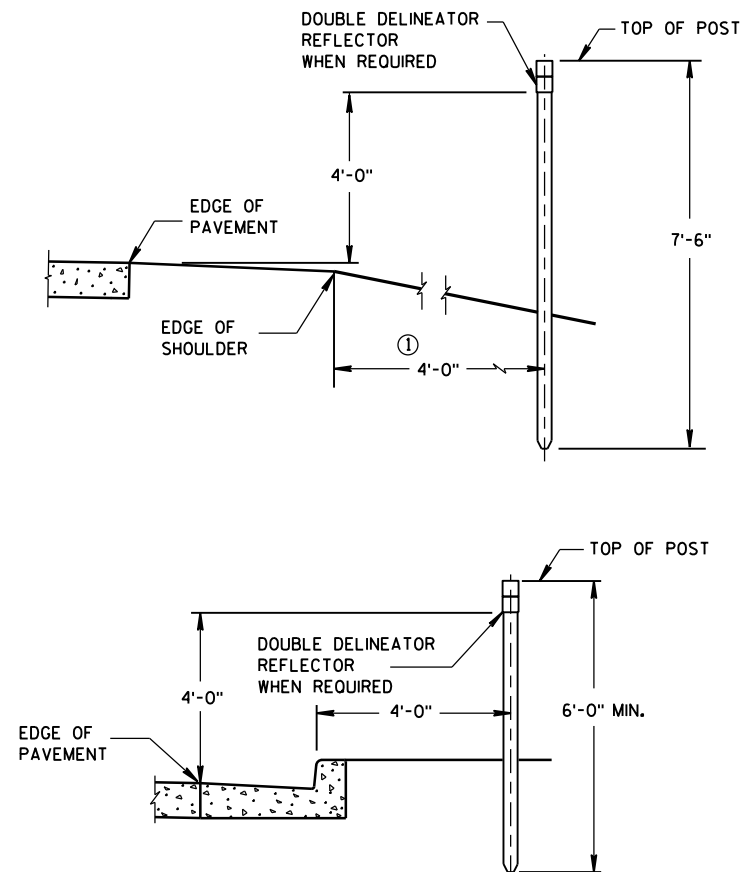
/s/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



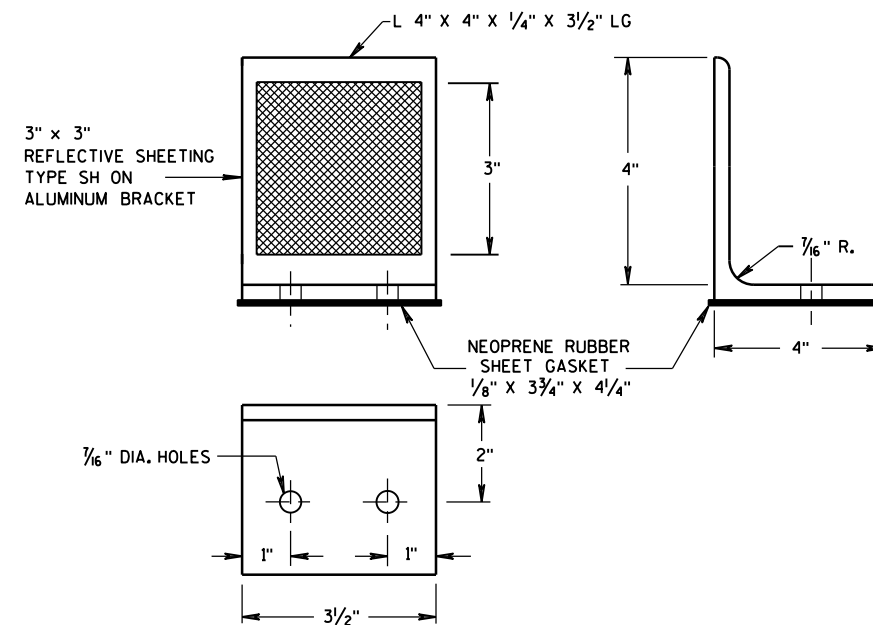
SECTION A-A
WEIGHT 1.12 LBS PER FT. \pm 0.1 LB.



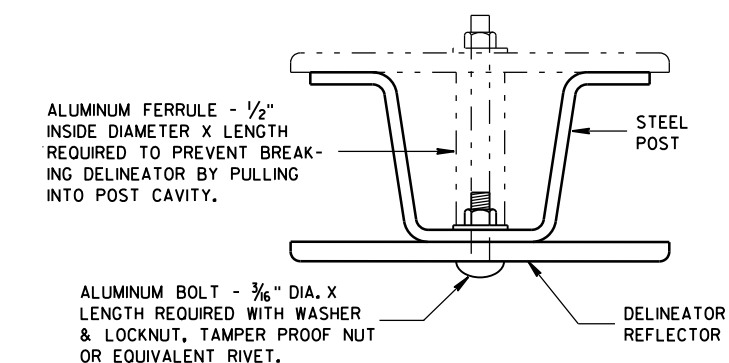
GENERAL NOTES

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

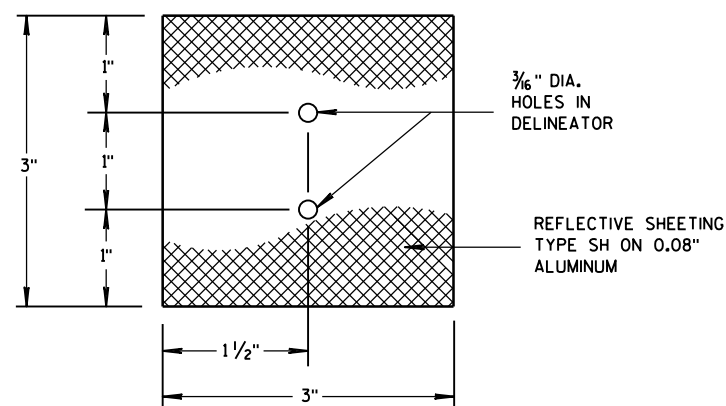
- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



DELINEATOR BRACKET

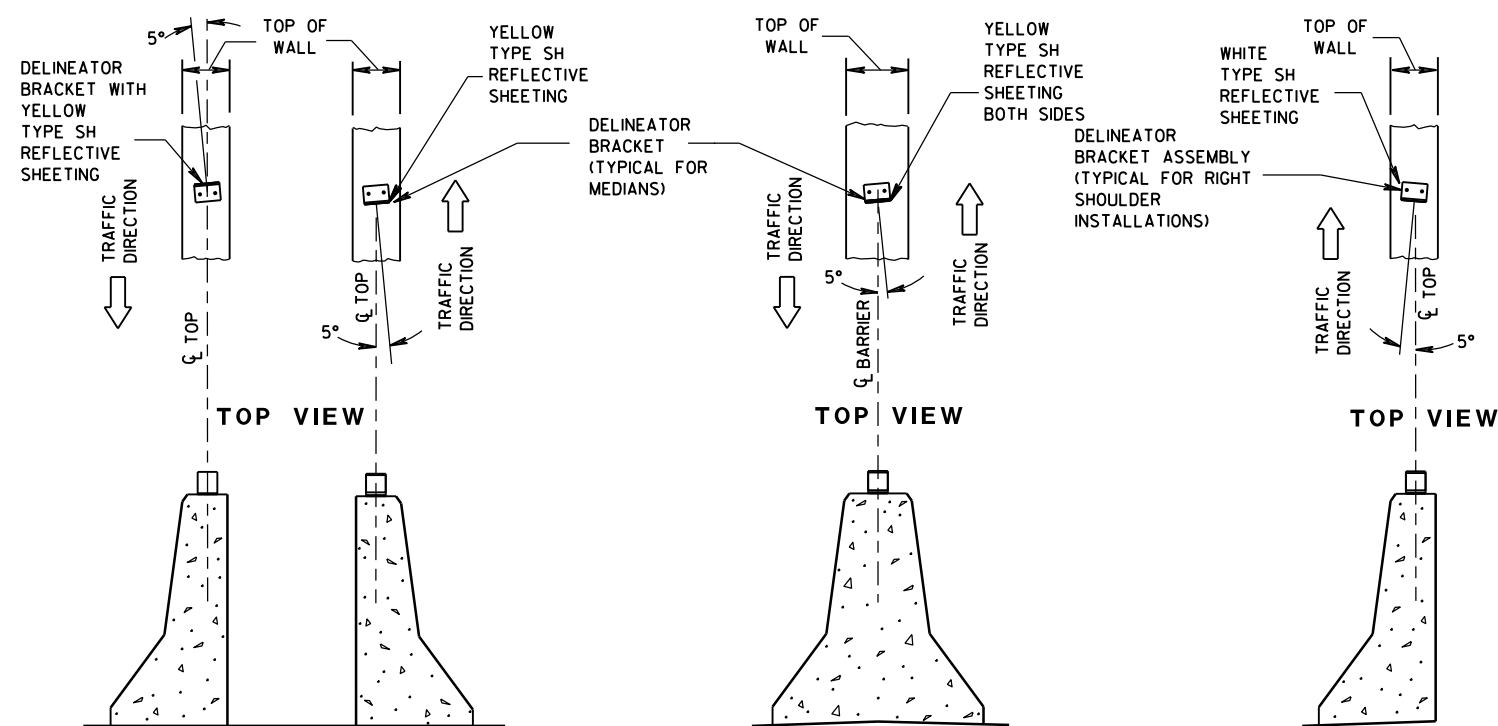


MOUNTING DETAIL FOR DELINEATOR REFLECTOR

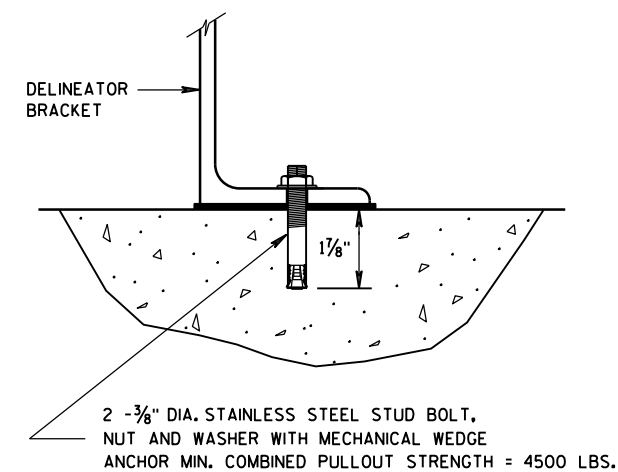


3" x 3" DELINEATOR REFLECTOR

TYPICAL INSTALLATIONS OF DELINEATOR POSTS



LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS

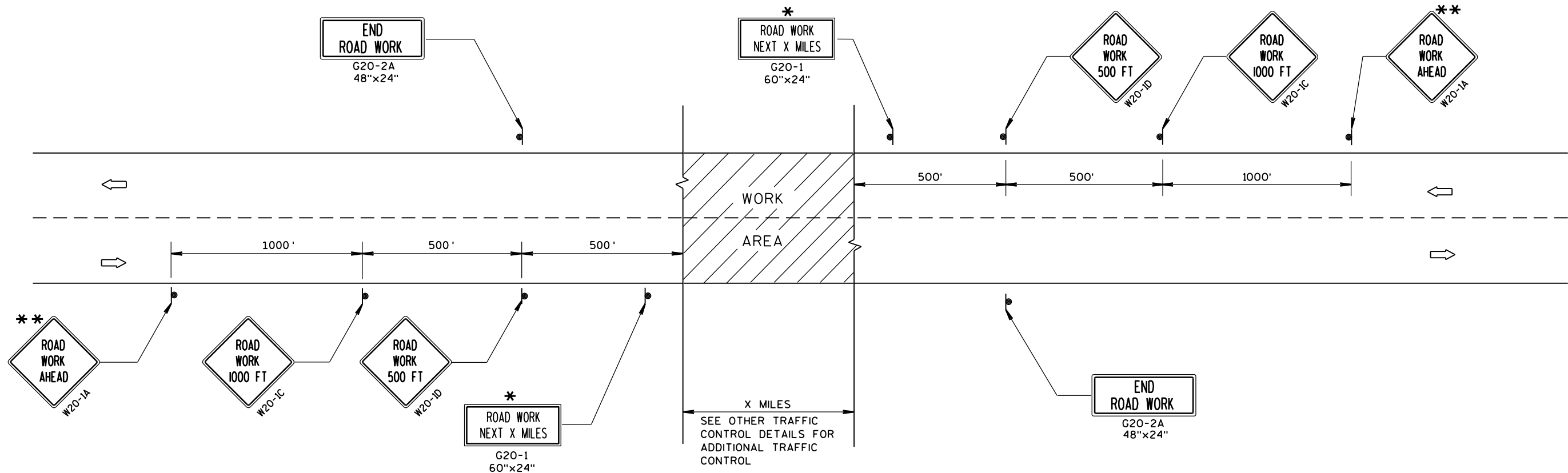


DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST,
DELINEATOR REFLECTOR AND
DELINEATOR BRACKET
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-8-16 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

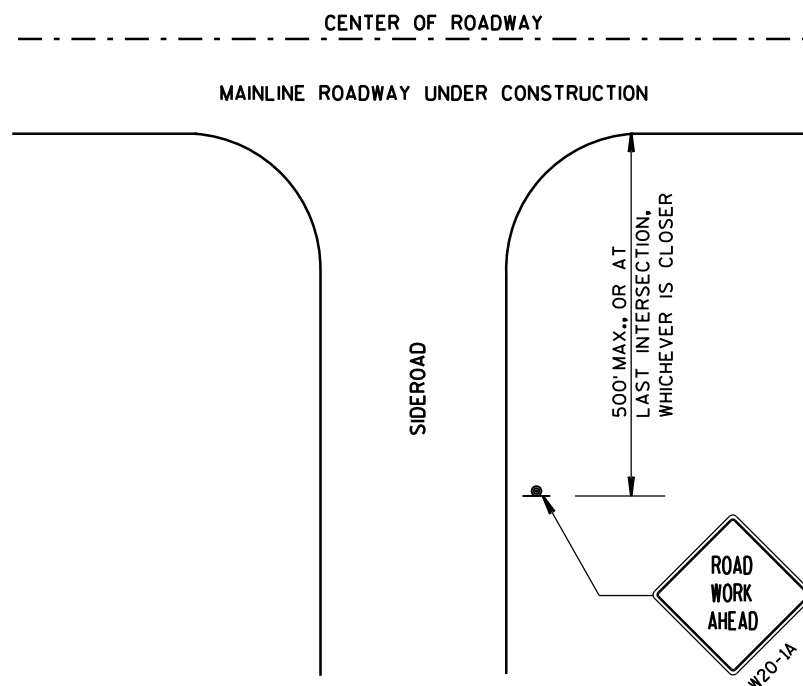
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



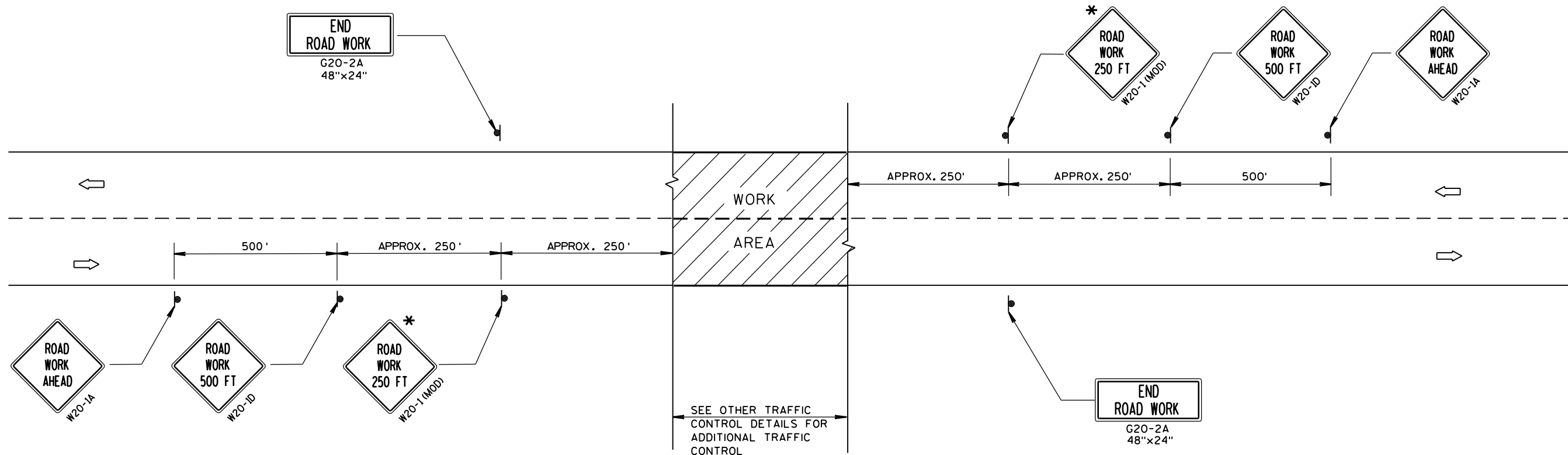
LEGEND

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

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

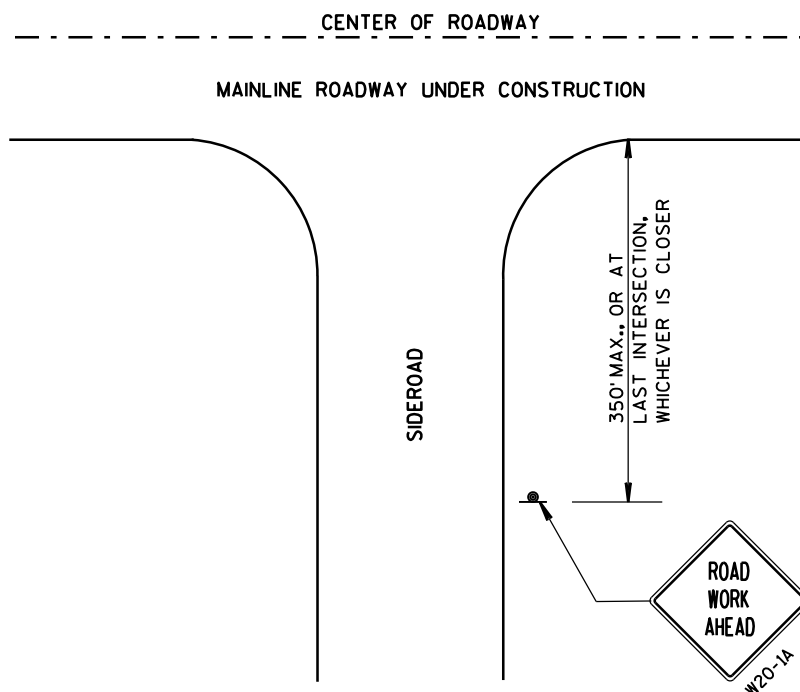
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



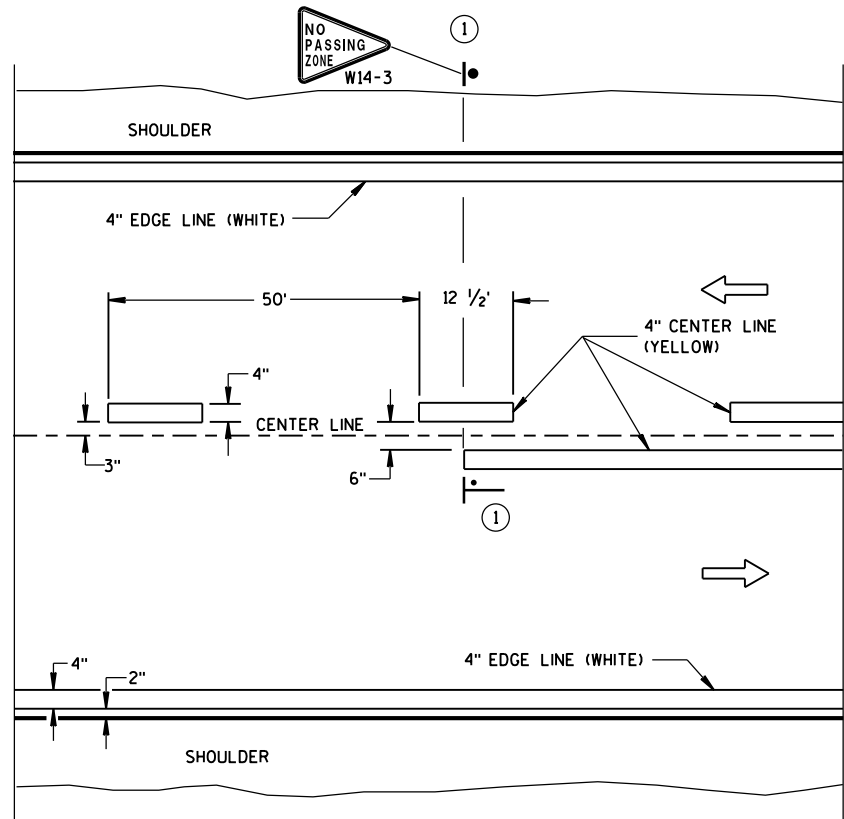
LEGEND

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

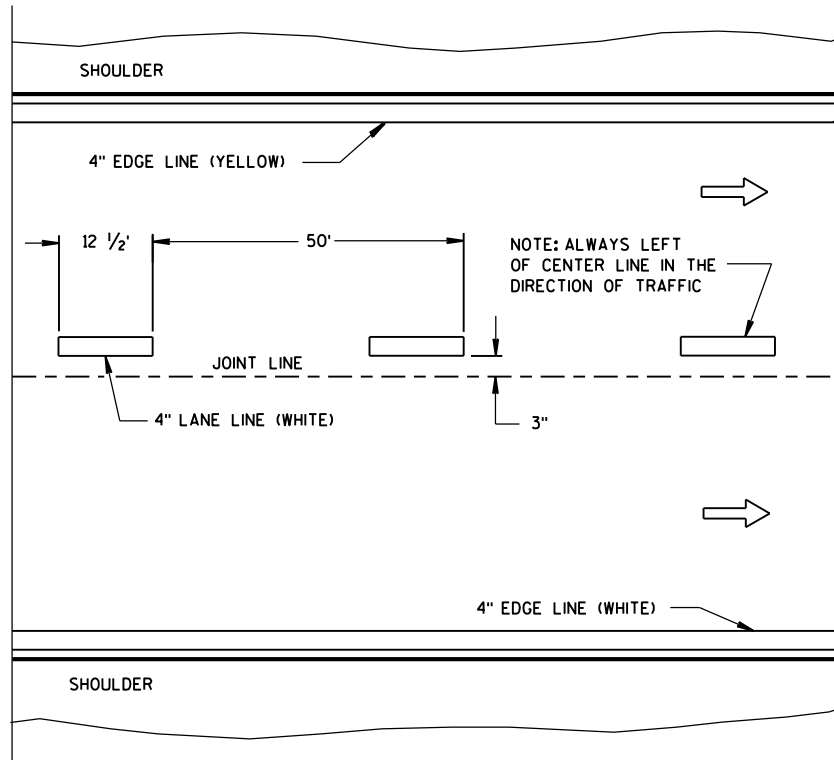
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

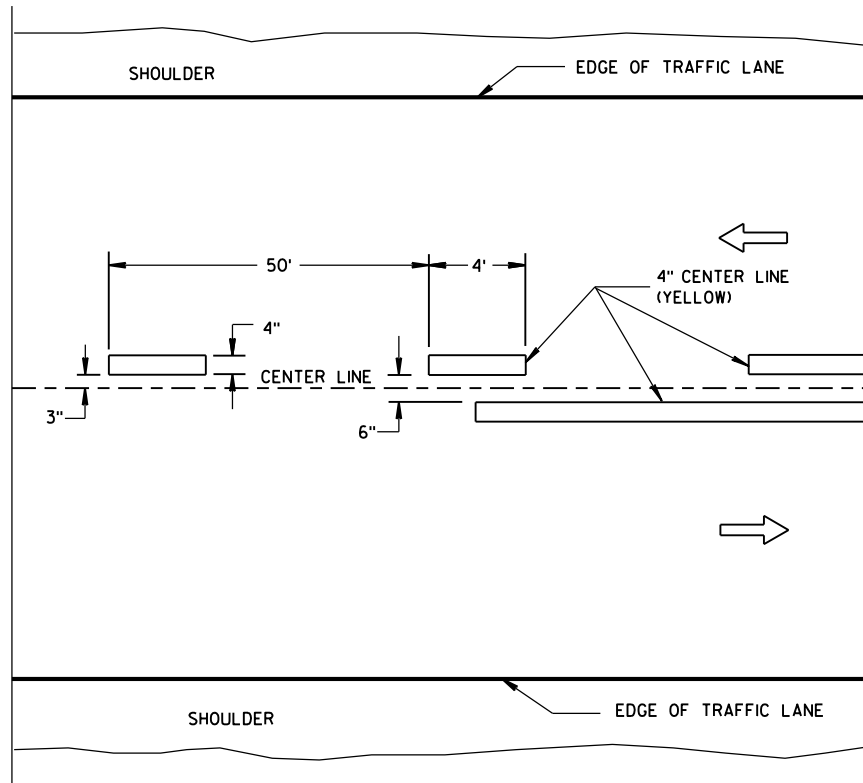


TWO WAY TRAFFIC

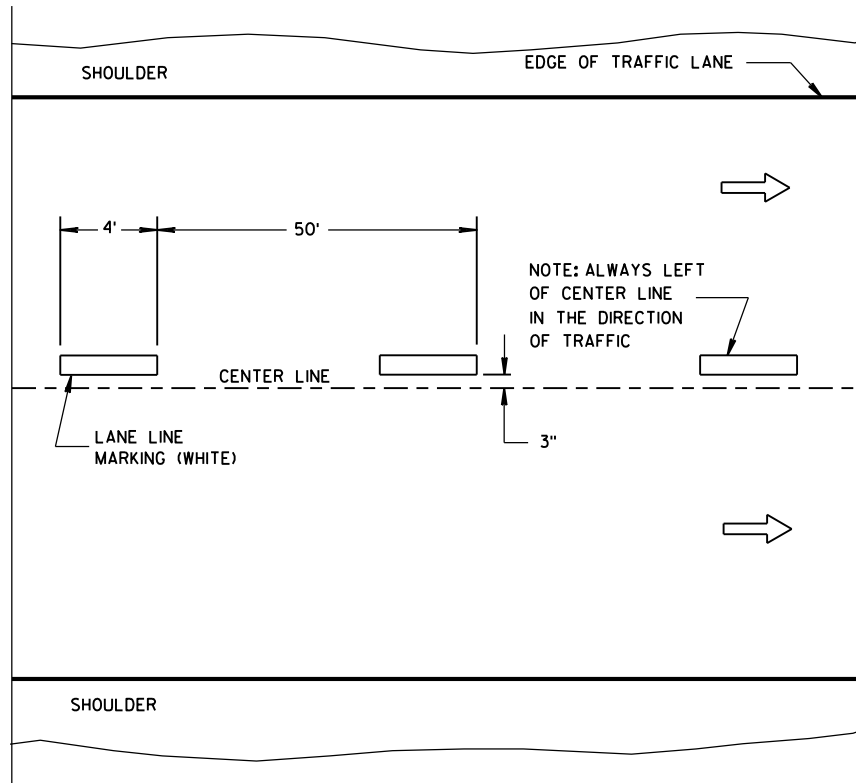


ONE WAY TRAFFIC

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 NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

—●— "T" MARKING

● POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

LEGEND

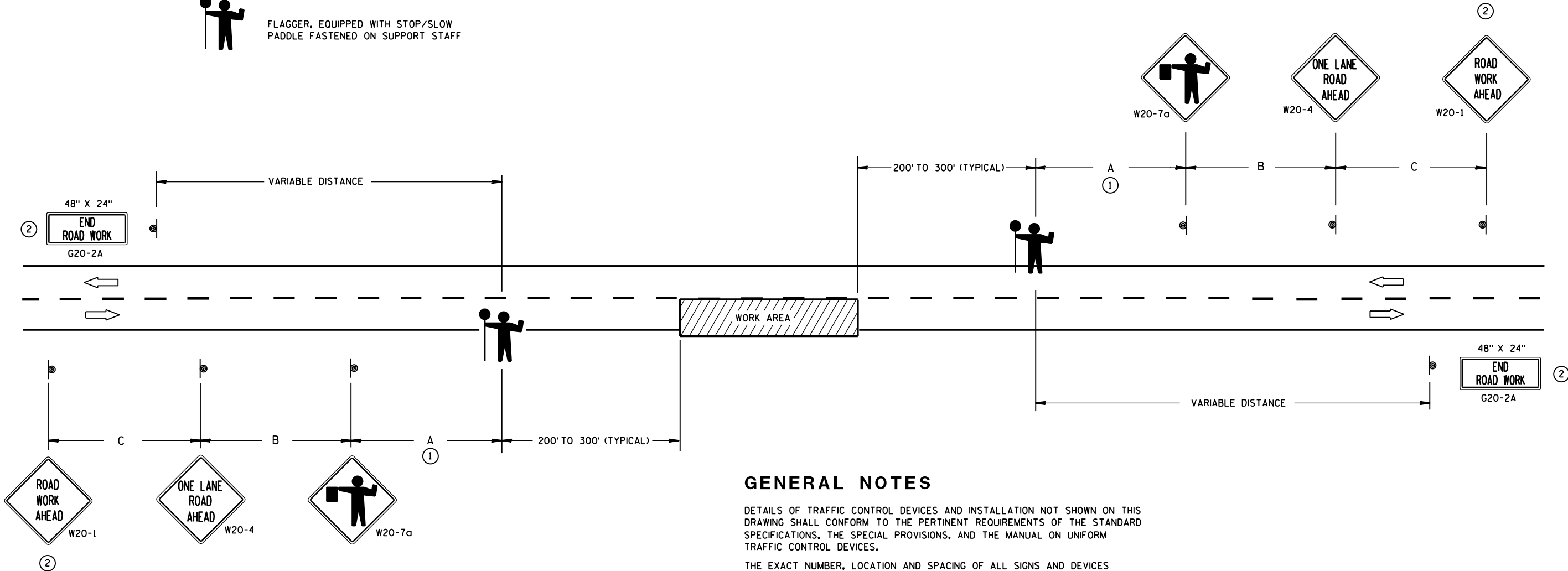
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



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



GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

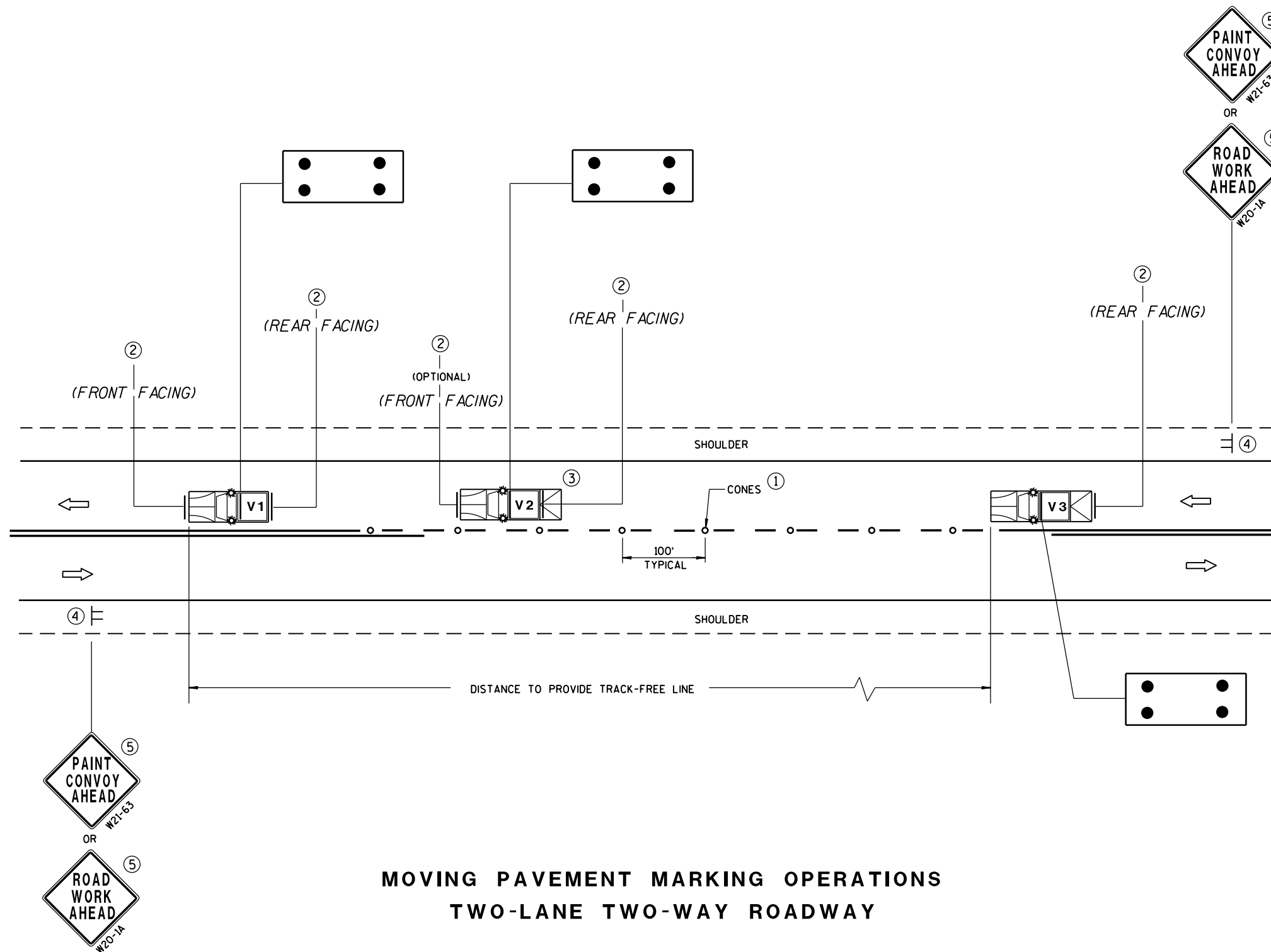
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

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.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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 OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

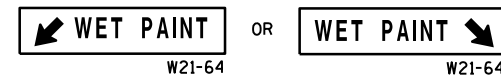
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

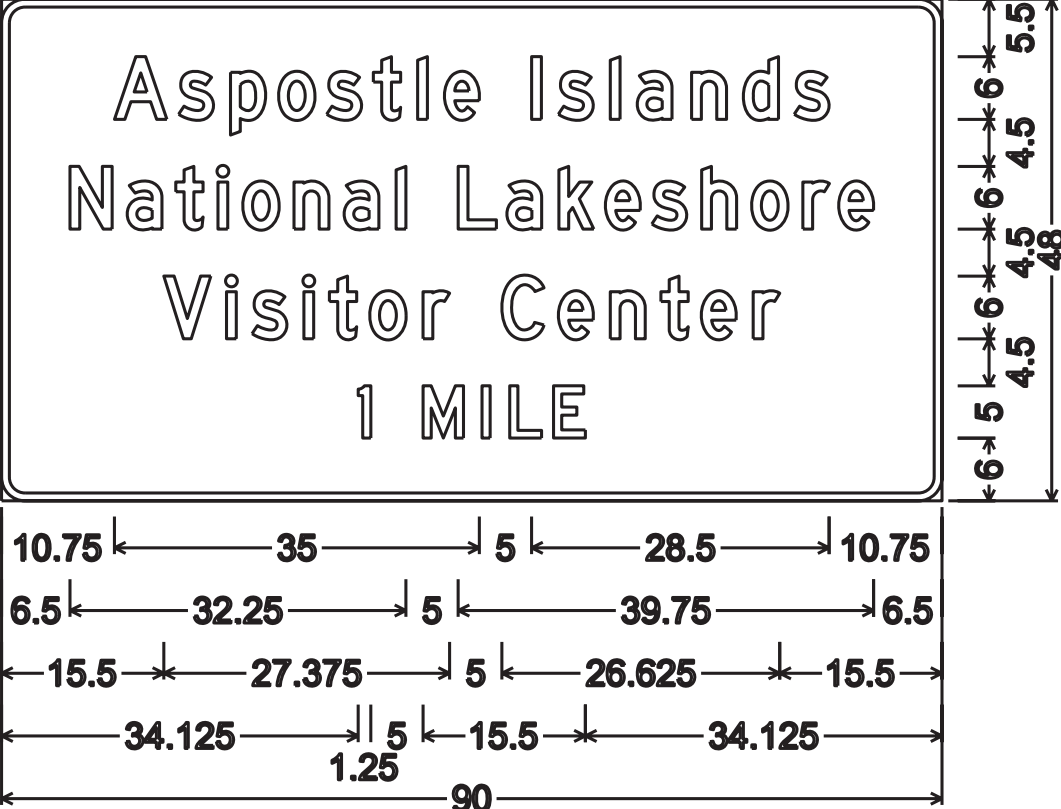
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016
DATE
FHWA

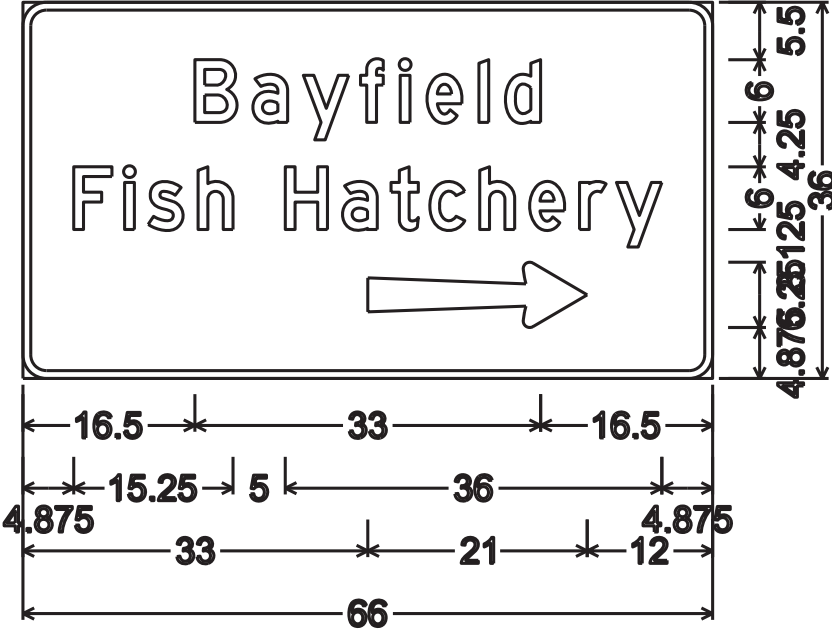
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

NOTES

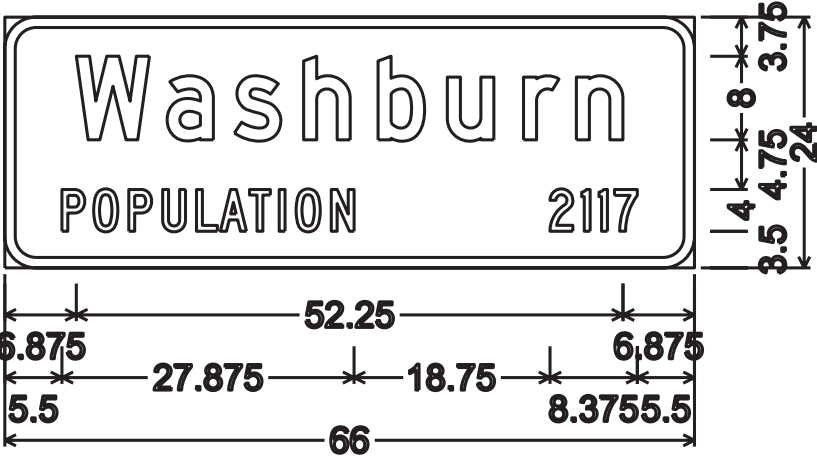
- 1. Signs are Type II - Type H Reflective
- 2. Color:
Background - GREEN except as Shown
Message - WHITE
- 3. Message Series - E except as Shown



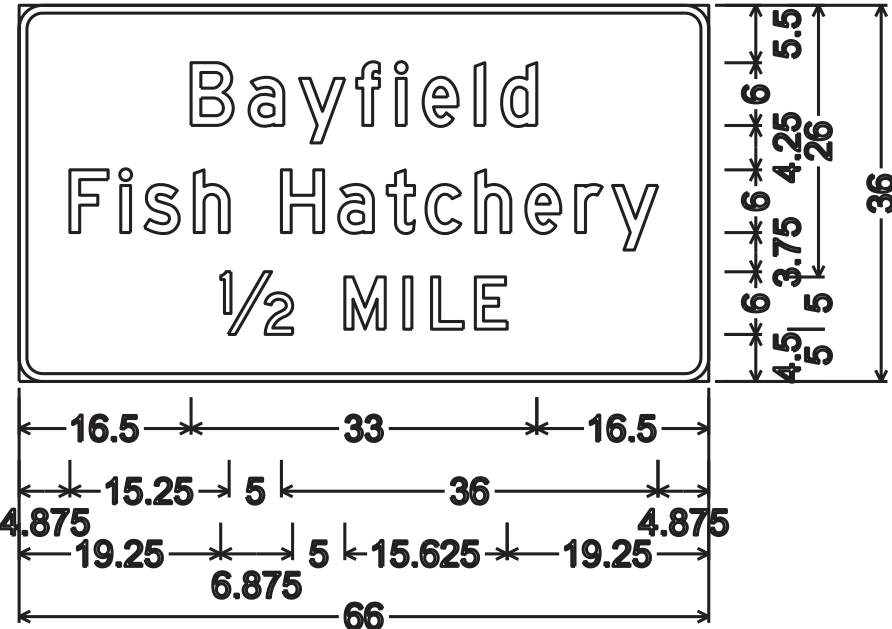
2.250" Radius, 0.750" Border, White on Brown;
"Aspostle" D; "Islands" D; "National" D;
"Lakeshore" D; "Visitor" D; "Center" D; "1" D; "MILE" D;



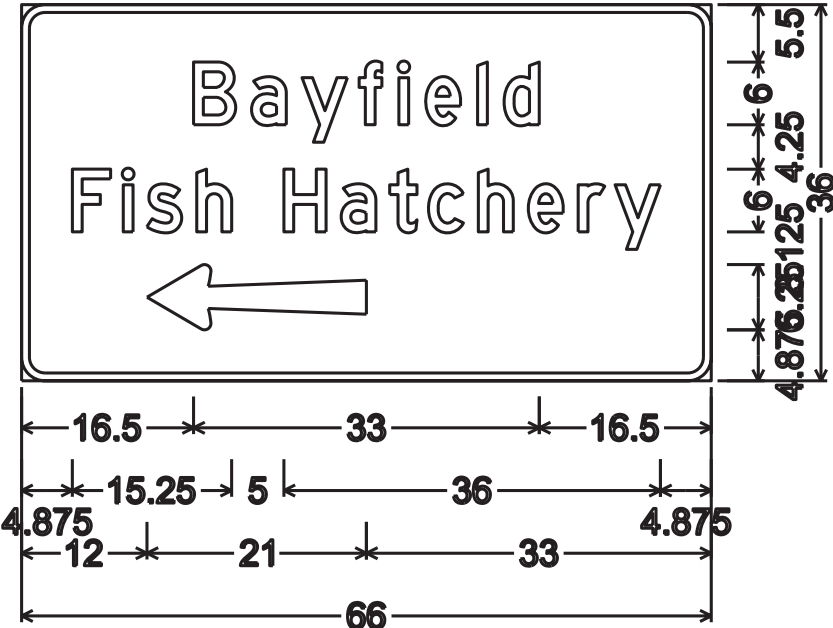
2.250" Radius, 0.750" Border, White on Brown;
"Bayfield" D; "Fish" D; "Hatchery" D



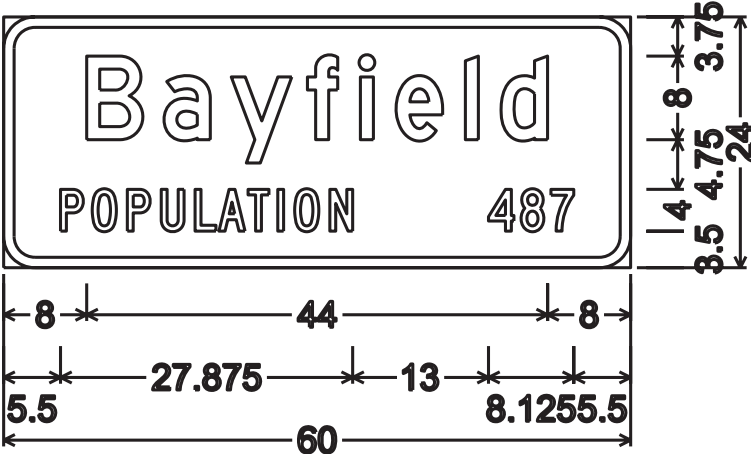
12-3;
3.000" Radius, 1.000" Border,
"Washburn" D; "POPULATION" C; "2117" C



2.250" Radius, 0.750" Border, White on Brown;
"Bayfield" D; "Fish" D; "Hatchery" D; "1/2" D;
"MILE" D



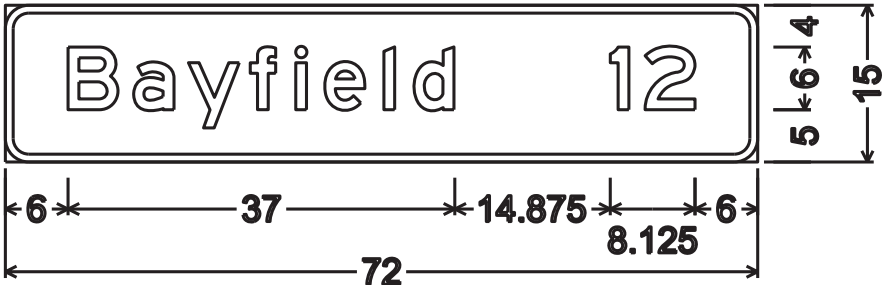
2.250" Radius, 0.750" Border, White on Brown;
"Bayfield" D; "Fish" D; "Hatchery" D



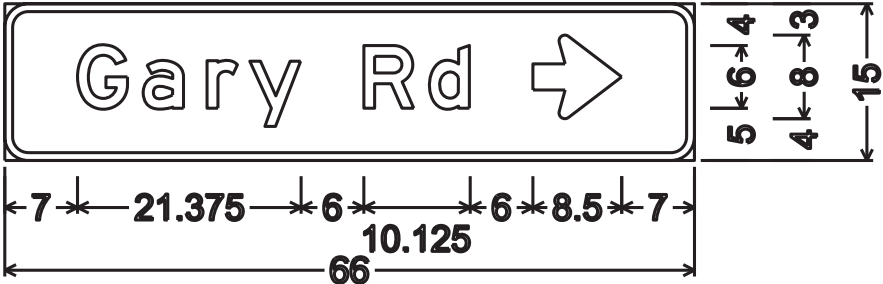
12-3;
3.000" Radius, 1.000" Border,
"Bayfield" D; "POPULATION" C; "487" C

NOTES

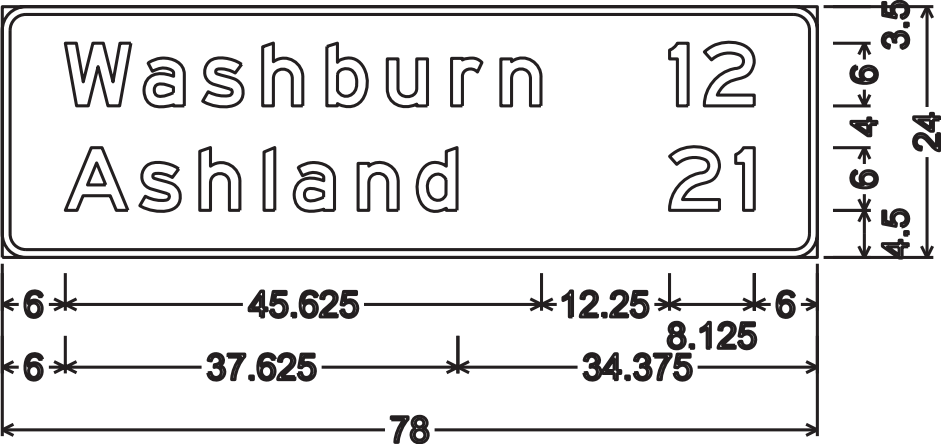
- 1. Signs are Type II - Type H Reflective
- 2. Color:
Background - GREEN
Message - WHITE
- 3. Message Series - E



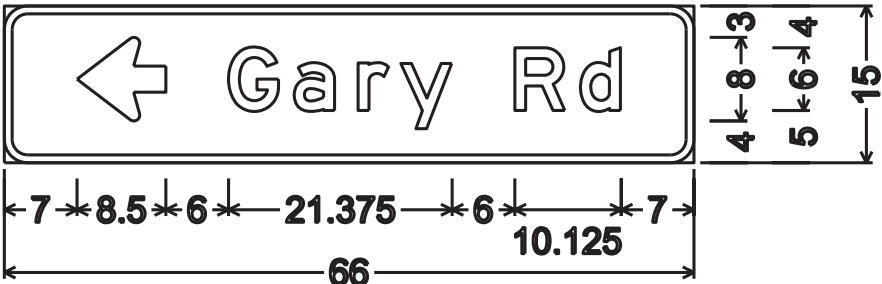
D2-1;
2.250" Radius, 0.750" Border



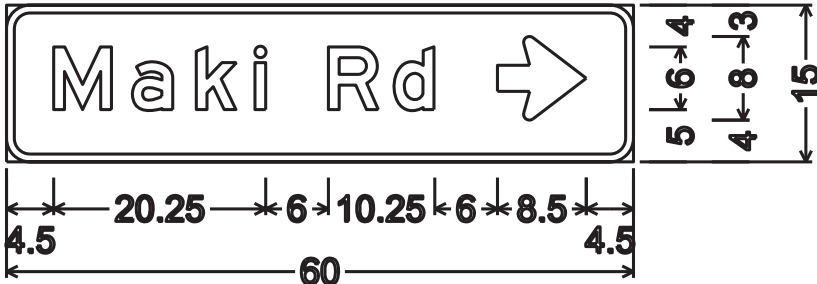
D1-1;
2.250" Radius, 0.750" Border



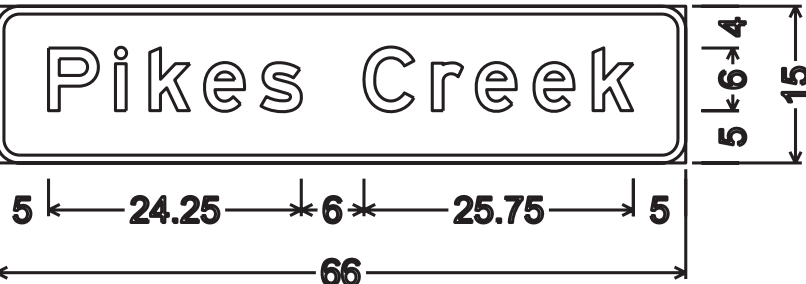
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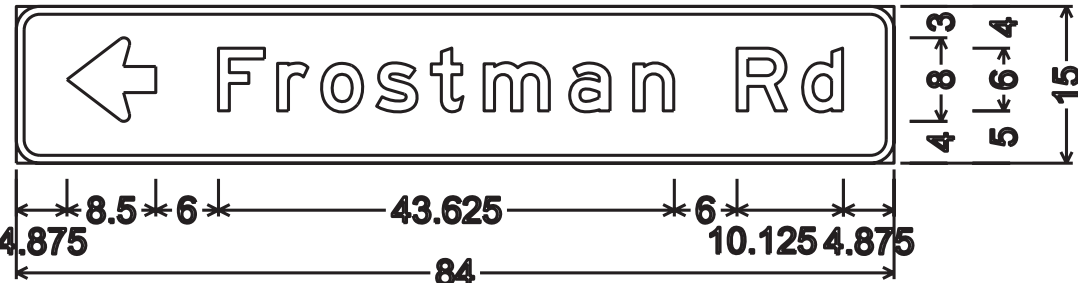
D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



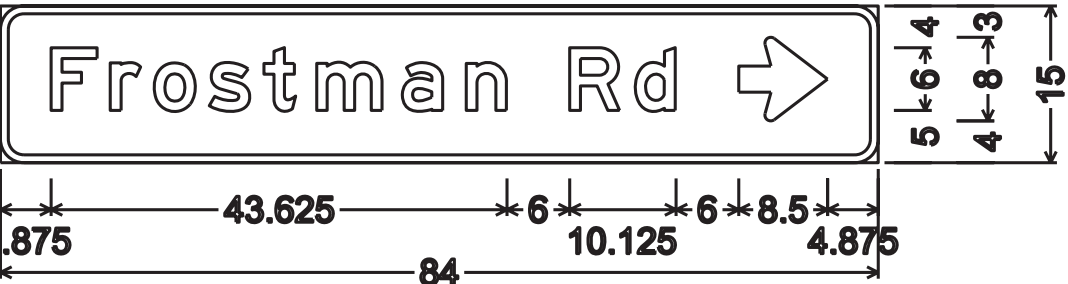
I3-1;
2.250" Radius, 0.750" Border



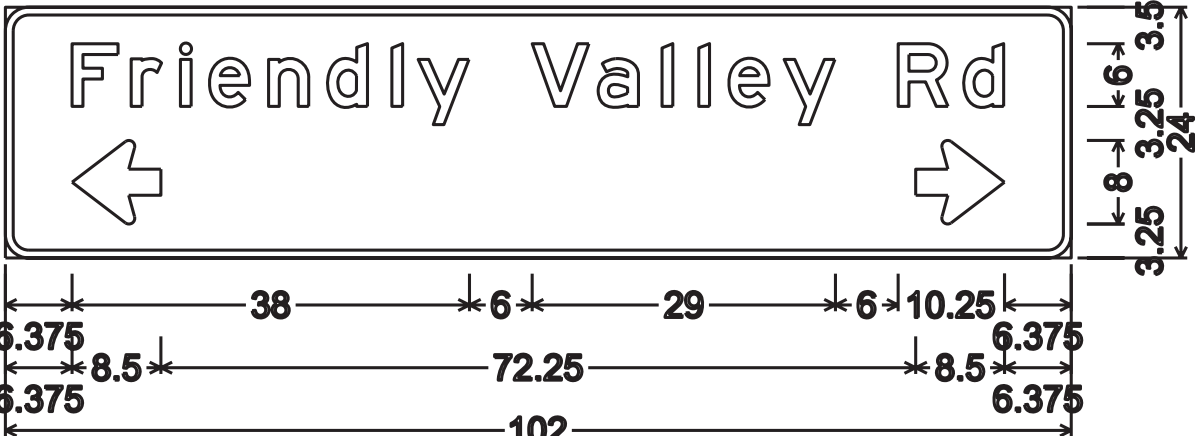
D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



D1-61; 2.250" Radius, 0.750" Border

NOTES

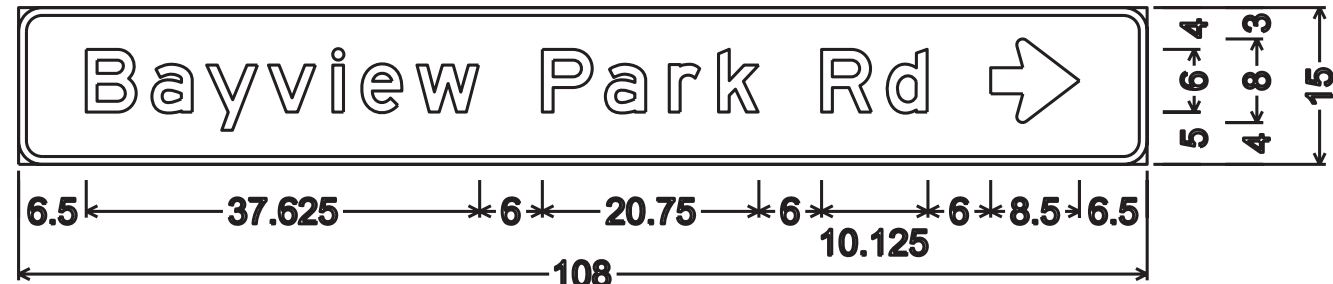
- 1. Signs are Type II - Type H Reflective
- 2. Color:
Background - GREEN
Message - WHITE
- 3. Message Series - E



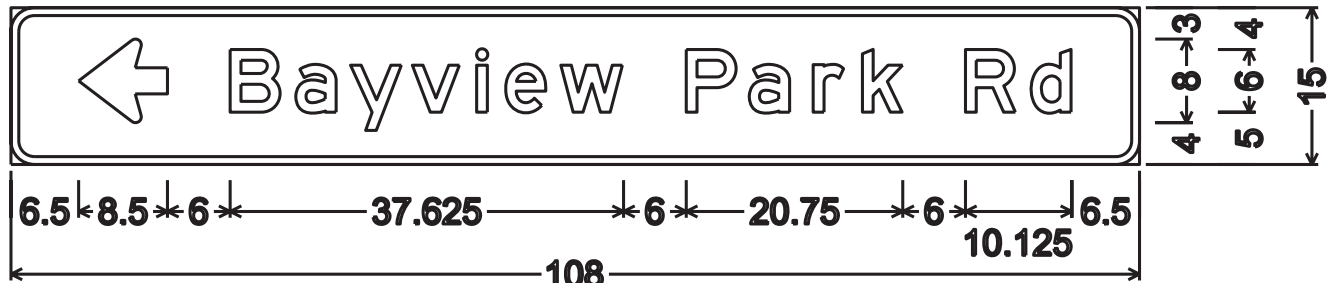
D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border



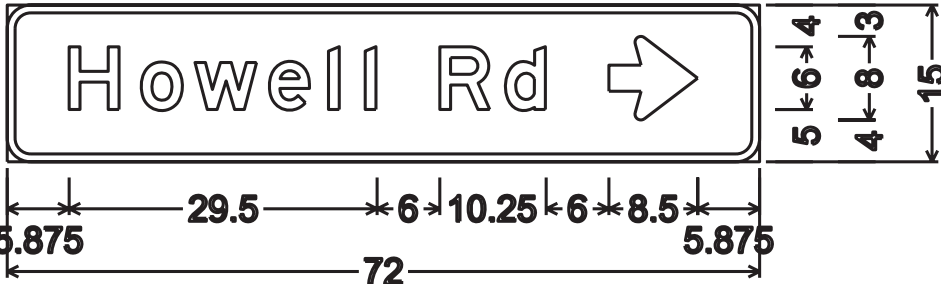
D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



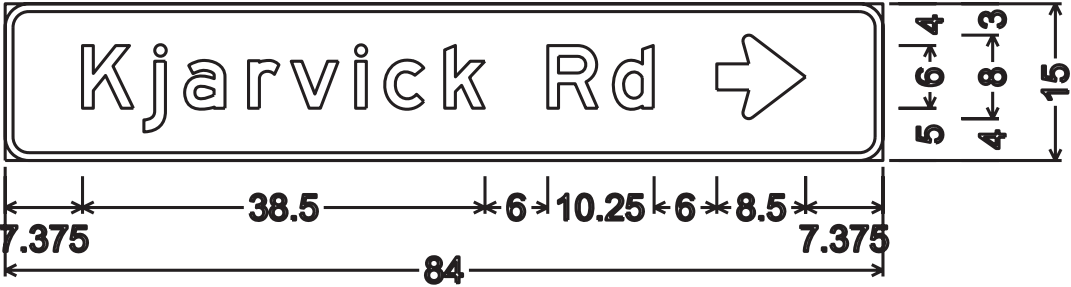
D1-1;
2.250" Radius, 0.750" Border



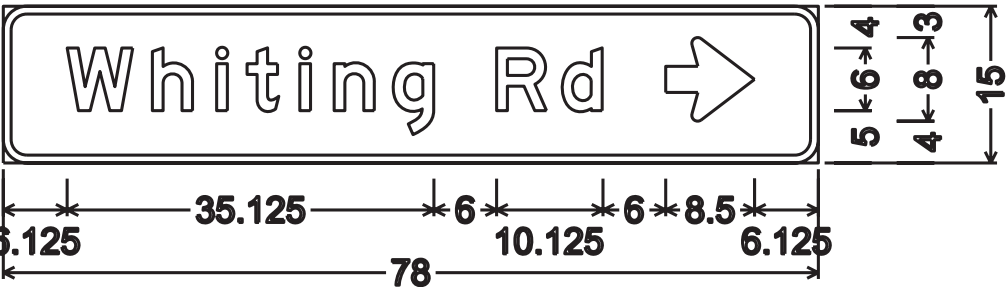
D1-1;
2.250" Radius, 0.750" Border

NOTES

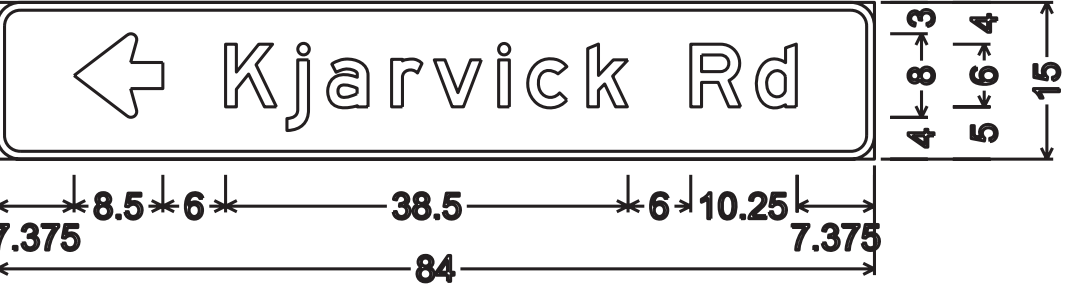
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- 2. Color:
Background - GREEN
Message - WHITE
- 3. Message Series - E



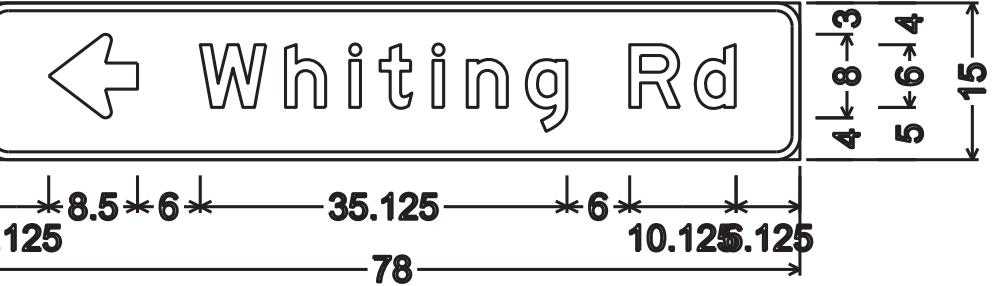
D1-1;
2.250" Radius, 0.750" Border



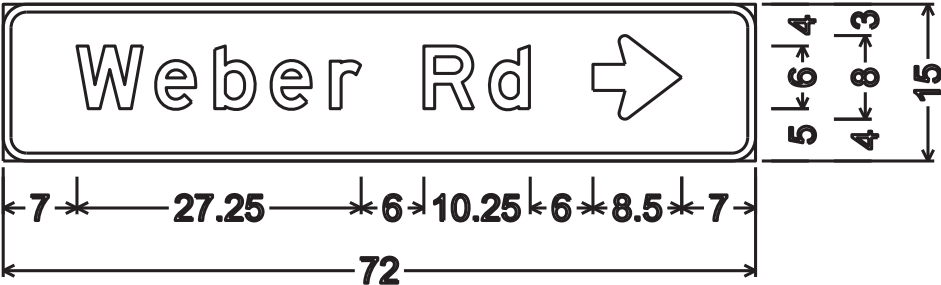
D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



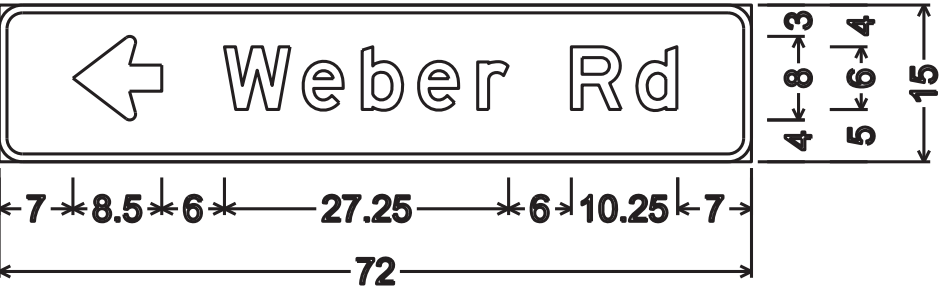
D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border



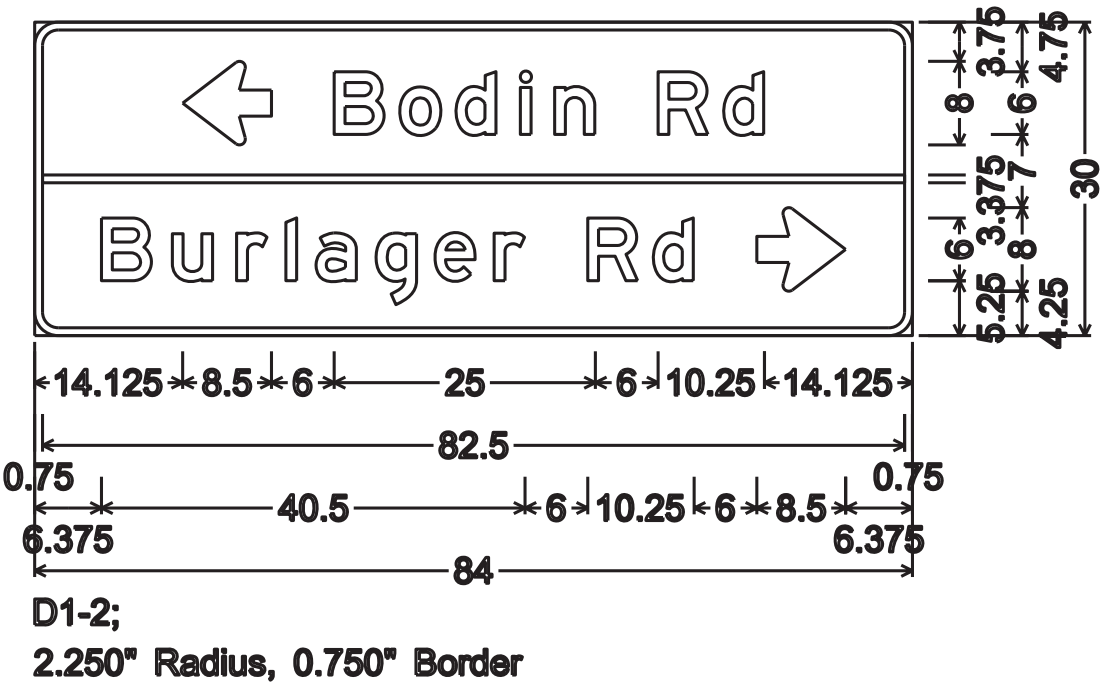
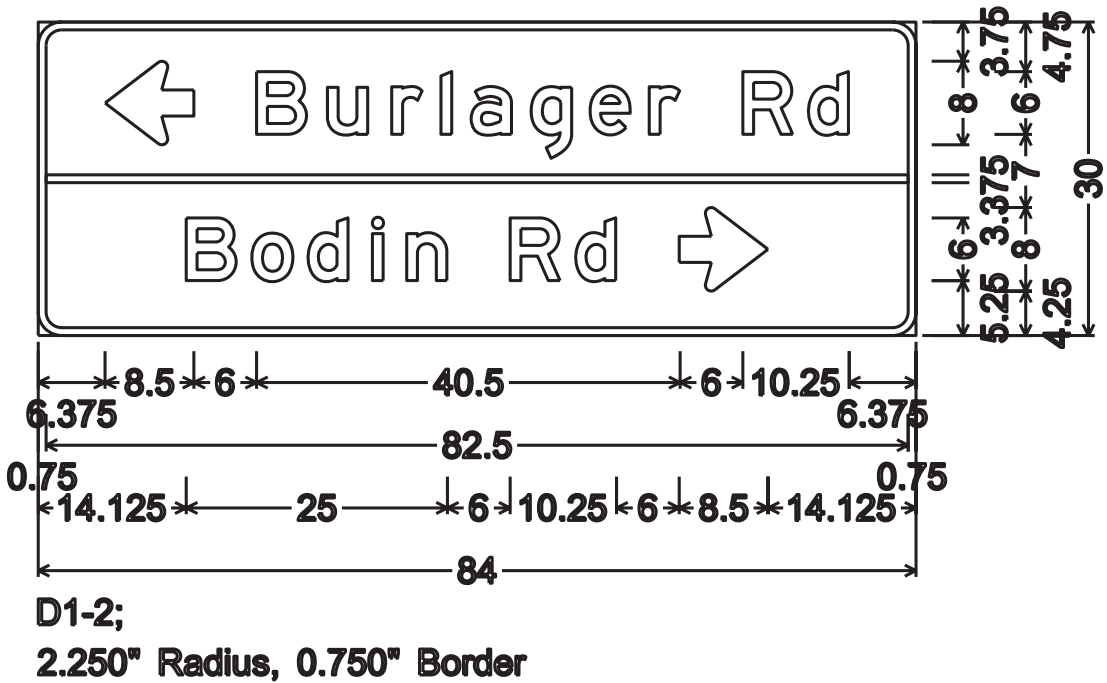
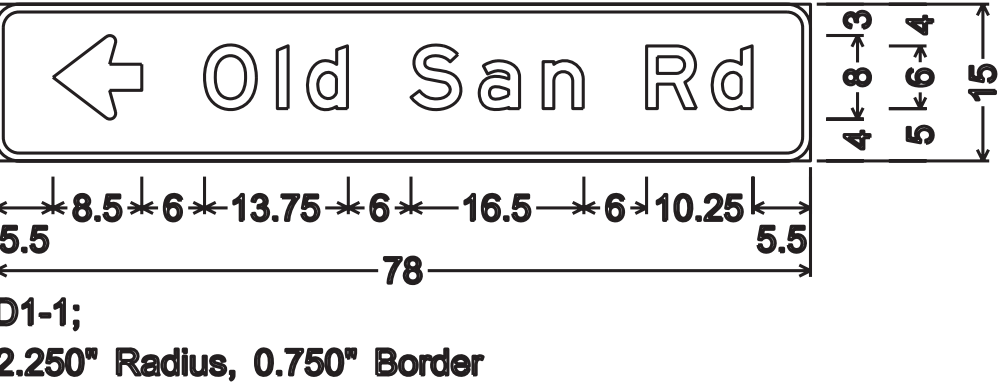
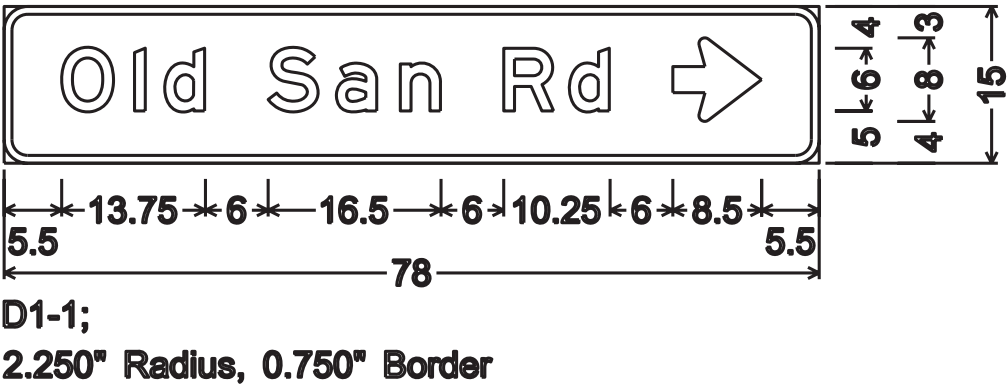
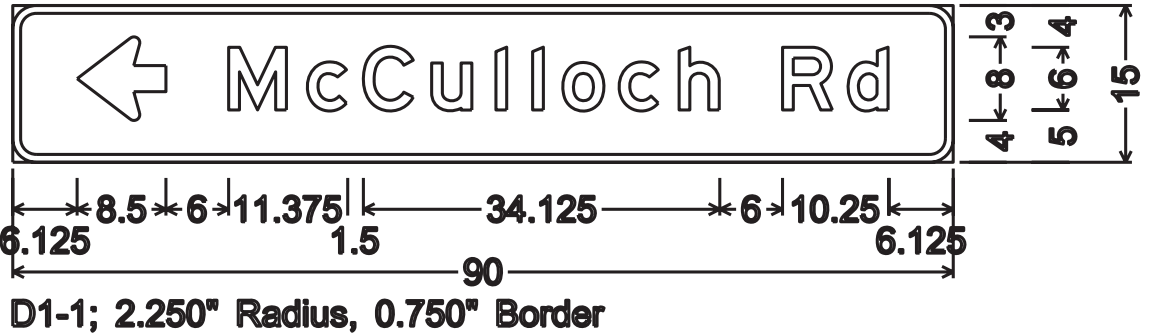
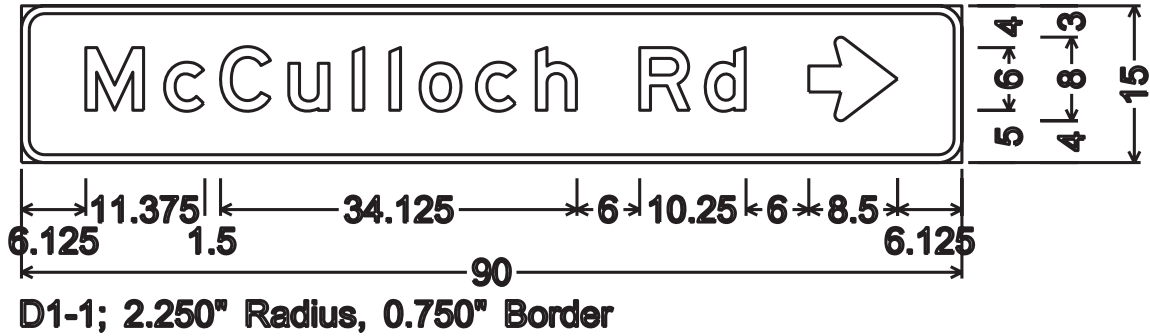
D1-1;
2.250" Radius, 0.750" Border



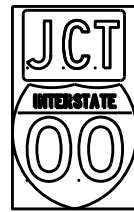
D1-1;
2.250" Radius, 0.750" Border

NOTES

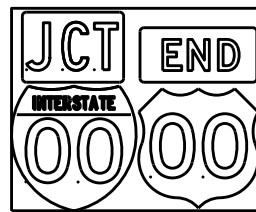
- 1. Signs are Type II - Type H Reflective
- 2. Color:
Background - GREEN
Message - WHITE
- 3. Message Series - E



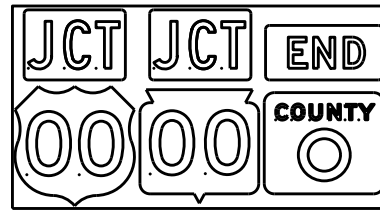
TYPICAL ASSEMBLIES



J1-1



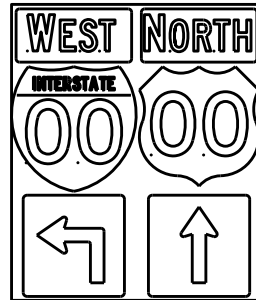
J1-2



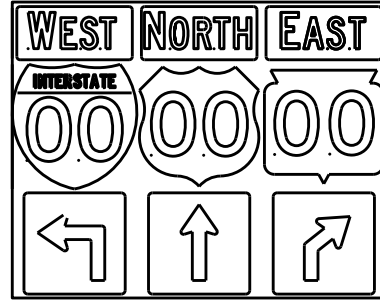
J1-3



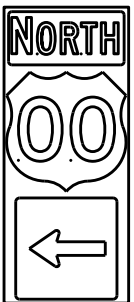
J2-1



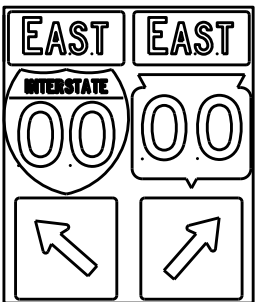
J2-2



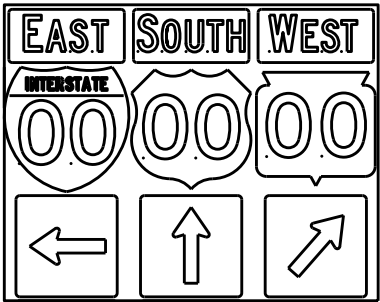
J2-3



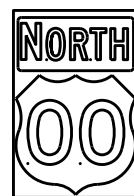
J3-1



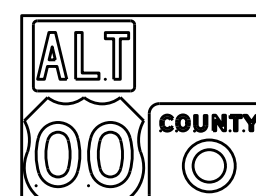
J3-2



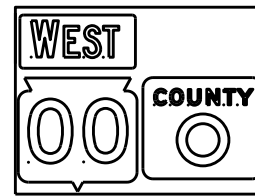
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

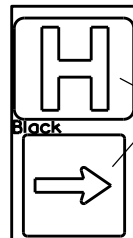


J22-1



JV

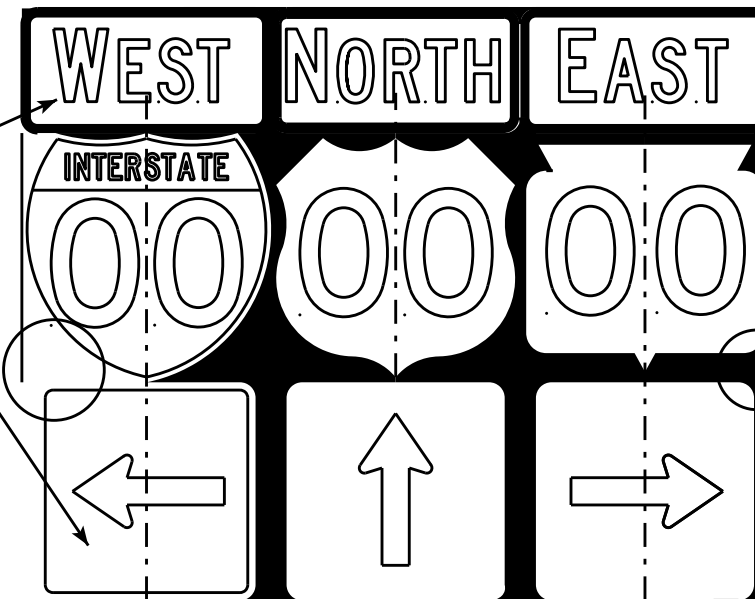
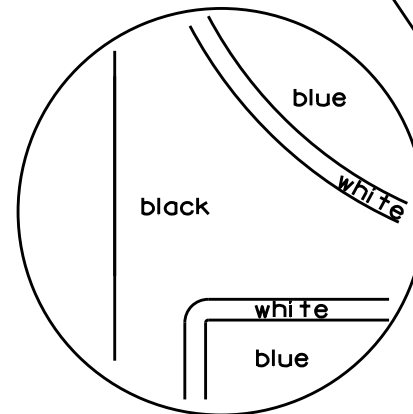
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

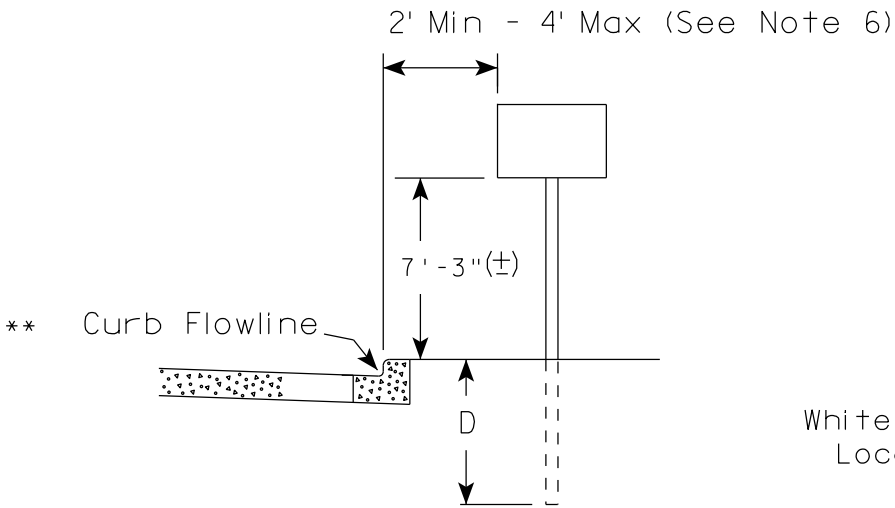
PLOT NAME :

SHEET NO:

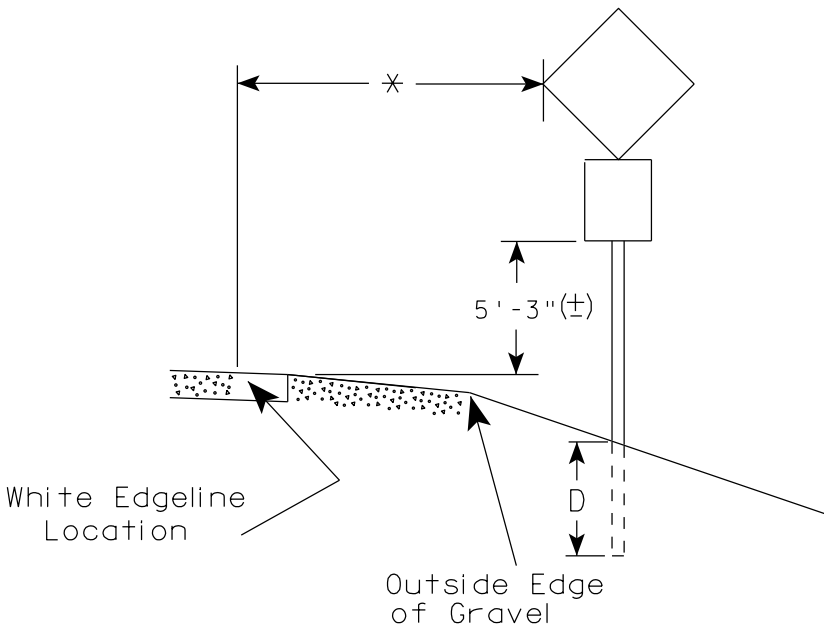
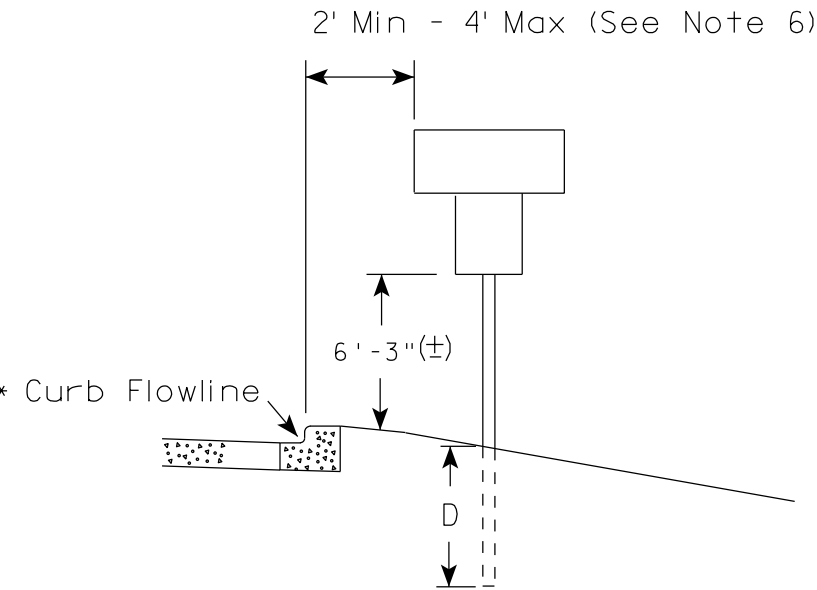
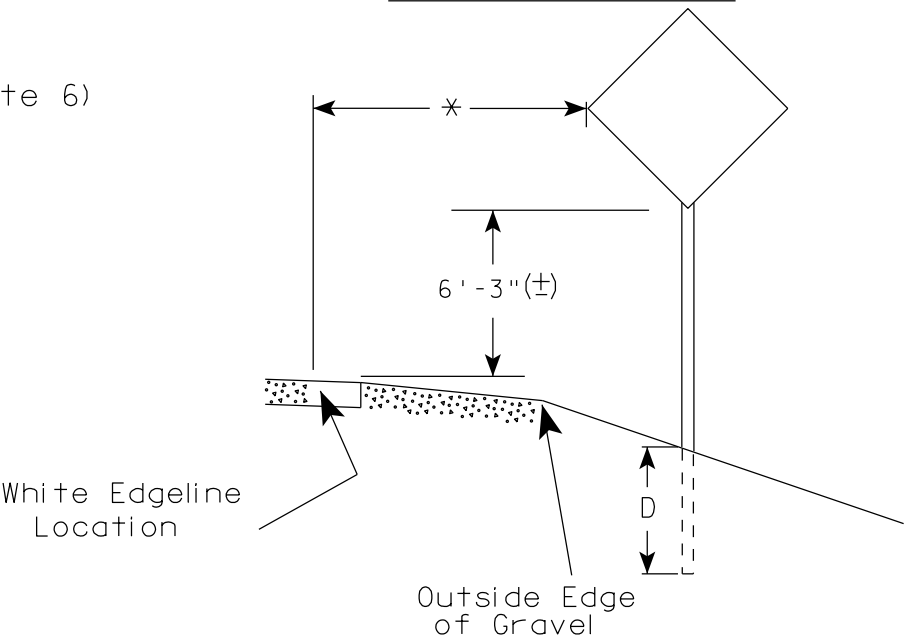
E

WISDOT/CADDs SHEET 42

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

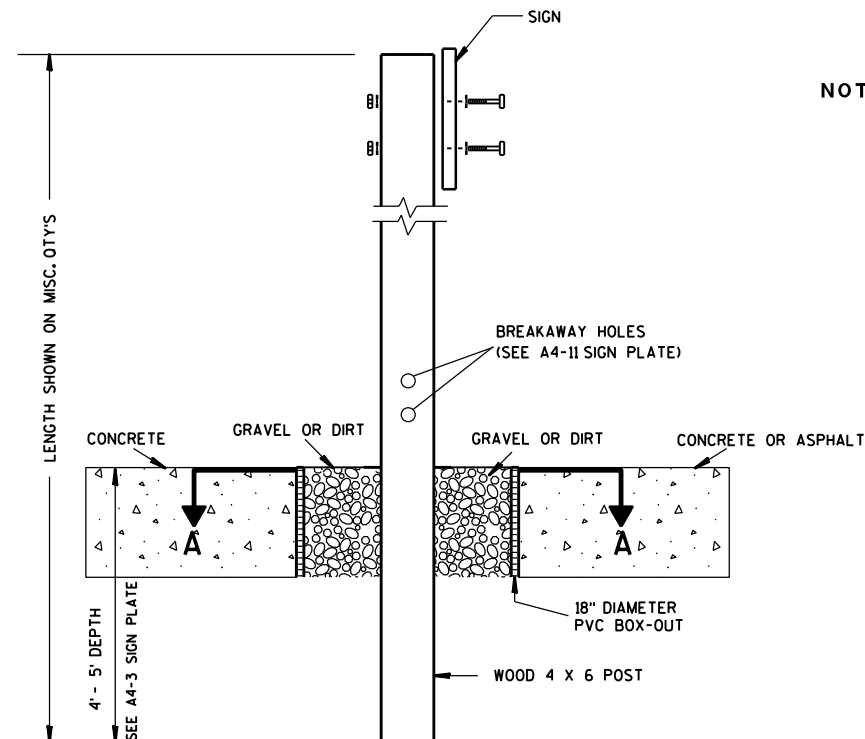
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

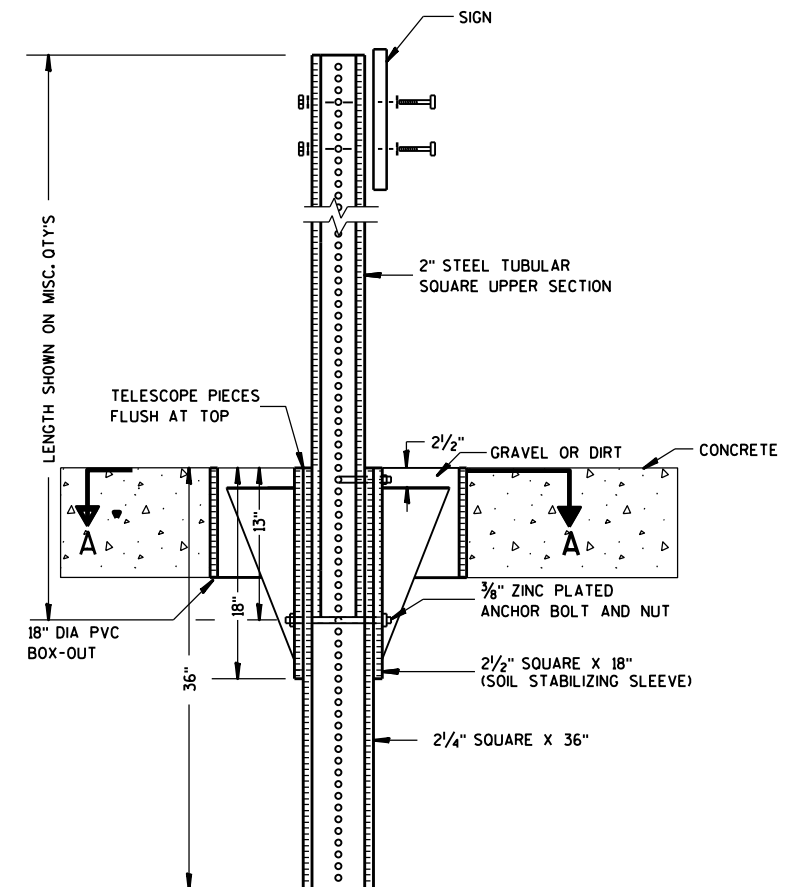
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

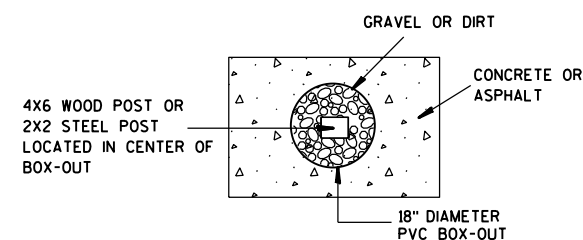
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

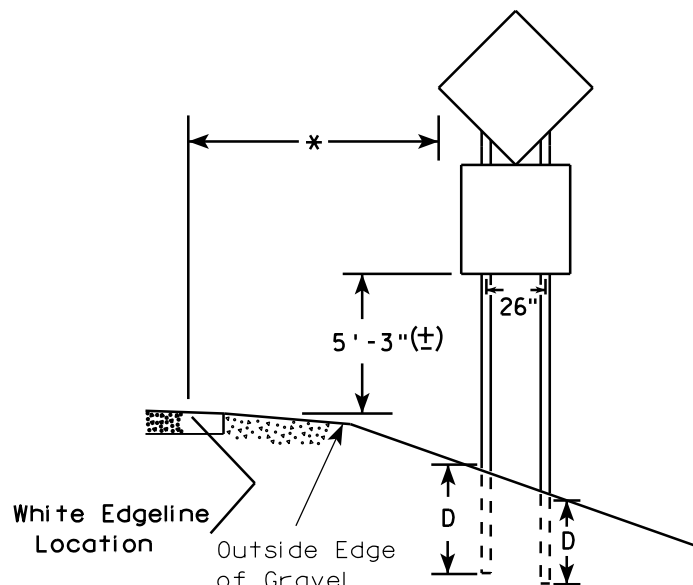
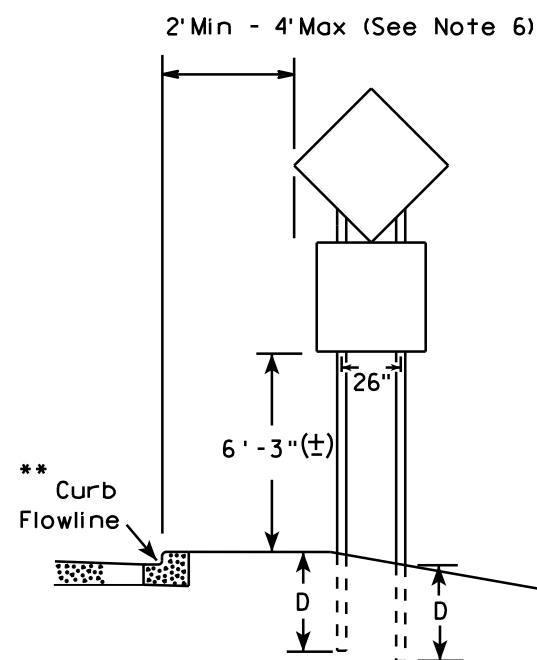
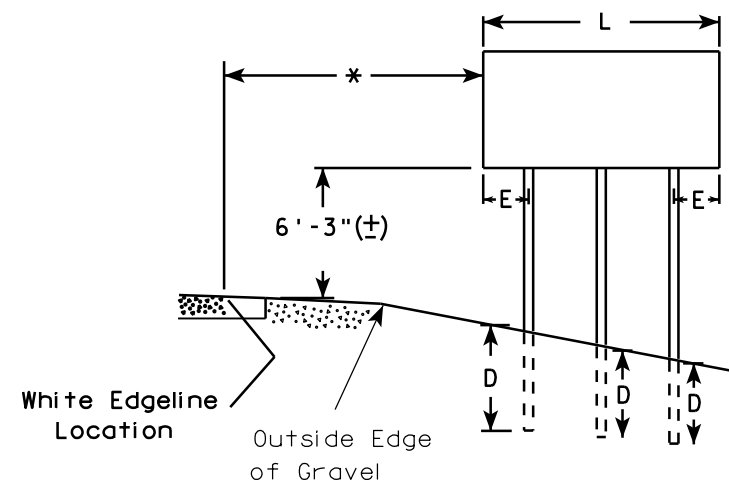
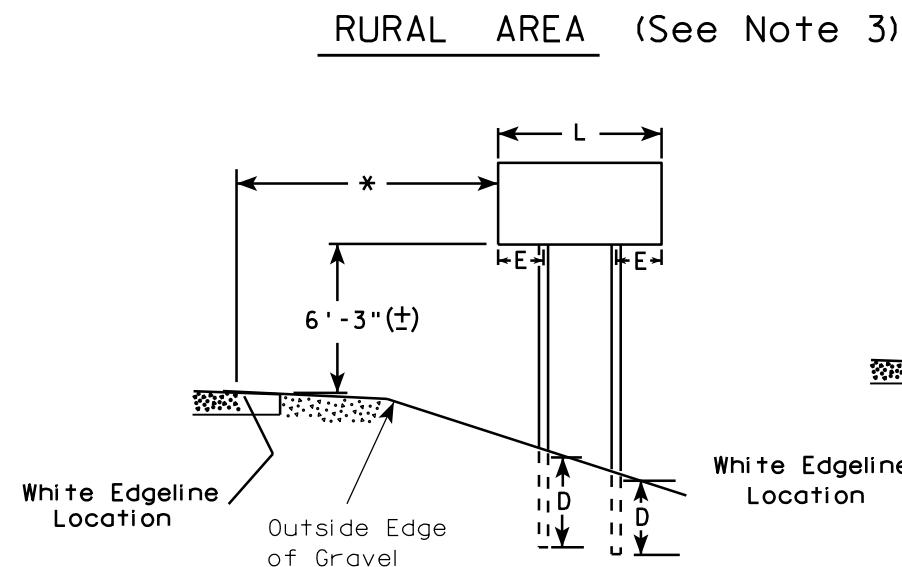
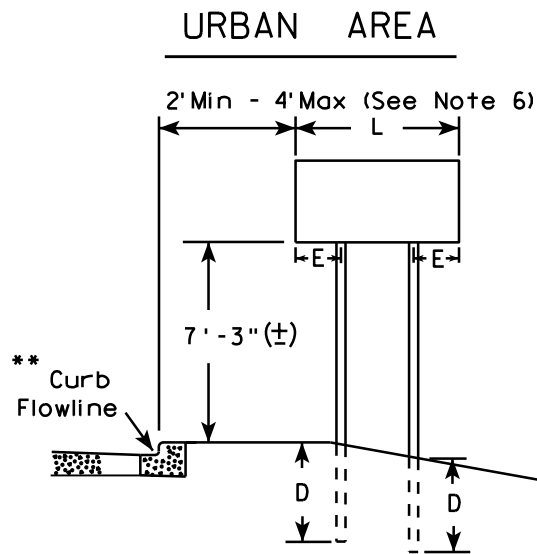
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- GENERAL NOTES**
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 - See tables below for required number of posts.
 - For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

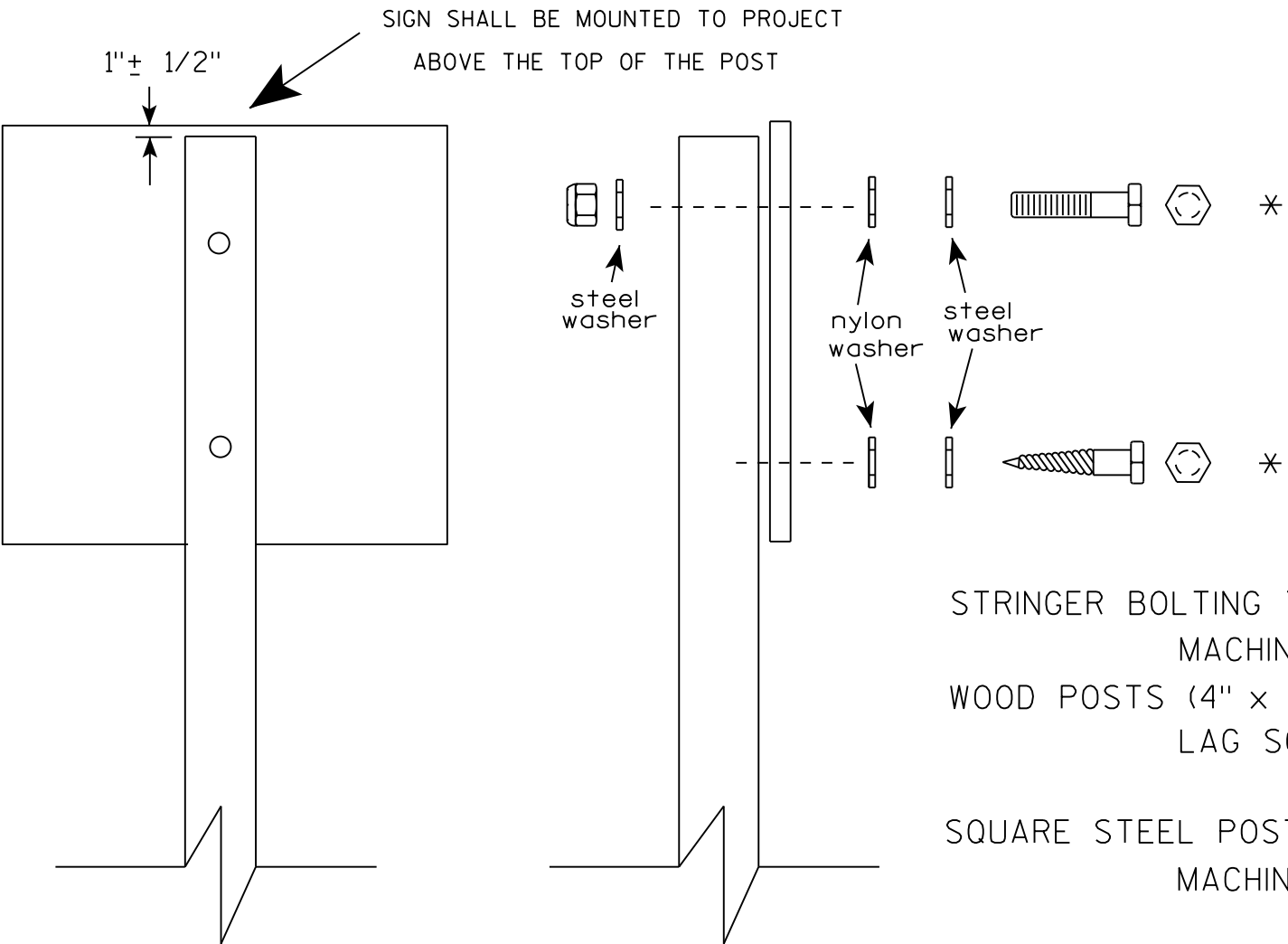
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4.14



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

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

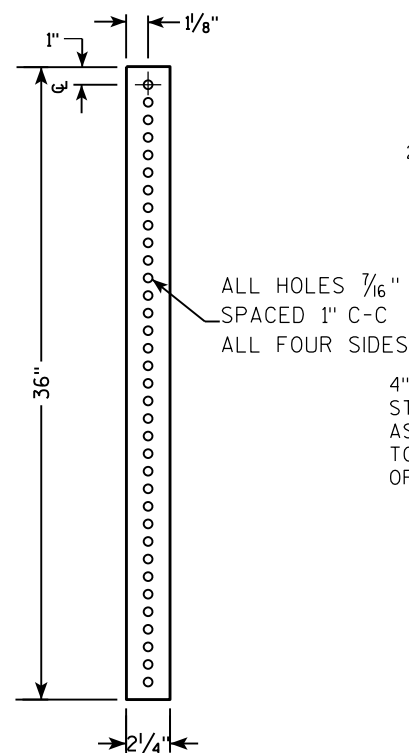
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

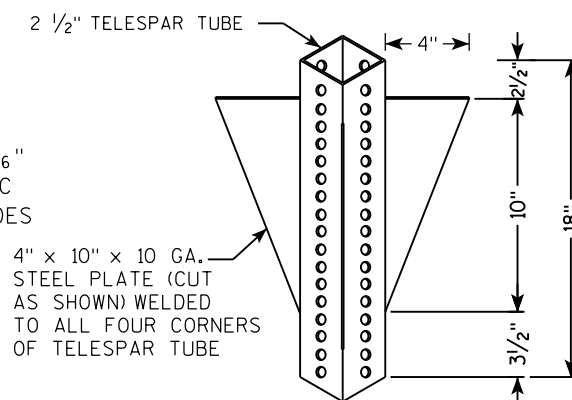
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



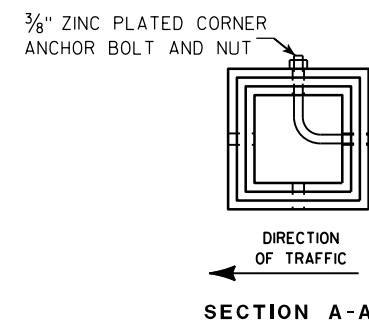
TECHNICAL DRAWING OF A SIGN POST ASSEMBLY.

Labels and Dimensions:

- Sign:** A4-8 for bolt washer, & nut material.
- Post:** 2" STEEL TUBULAR SQUARE UPPER SECTION.
- Holes:** ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES.
- Anchor Bolt:** $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT.
- Gravel/Dirt:** 2 1/2" GRAVEL OR DIRT.
- Soil Stabilizing Sleeve:** 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE).
- Post Dimensions:** 2 1/4" SQUARE X 36".
- Sign Plate:** 13" wide.
- Box-Out:** 18" DIA SCHEDULE 40 PVC BOX-OUT.
- Telescope Pieces:** FLUSH AT TOP.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the upper section.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Located at the top of the upper section.
- 1"**: Dimension for the offset of the anchor bolt.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Located at the base of the upper section.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The sleeve supporting the upper section.
- 2 1/4" SQUARE X 36"**: The main base post.
- SIGN**: The sign plate at the top.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to the sign plate for hardware details.
- LENGTH SHOWN ON MISC. QTY'S**: Dimension line on the far left.
- Dimensions**:
 - 36" (Total height of the main post)
 - 18" (Height of the sleeve section)
 - 12" (Height of the upper section)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

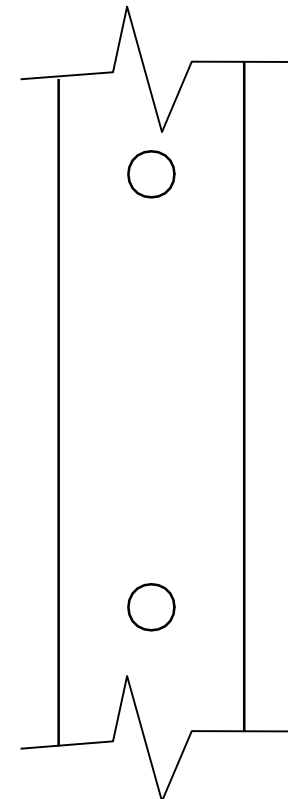
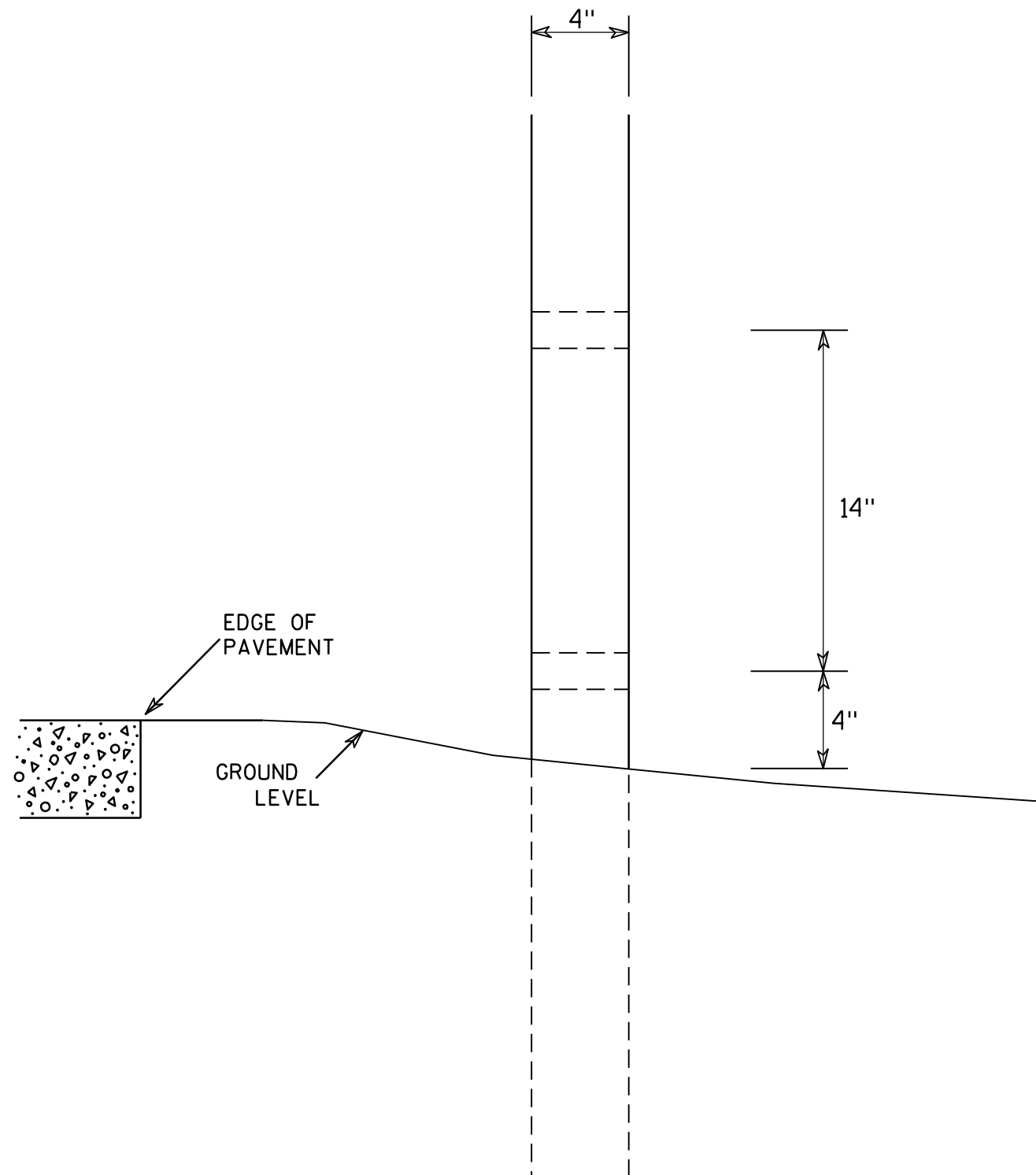
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

T



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

50, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6



D5-63 * See Note 5

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	4	5 1/2	4 1/4	25	17		5	1	12												15.0	1.35
3																												
4																												
5																												

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\plate\D563.DGN

PLOT DATE : 09-JAN-2002 13:18

ORG DATE : 3/23/99

Originator : Don Kluever

SHEET NO:

E

NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Brown
Message - White
- Message Series - D
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

STANDARD SIGN
D5-63

WISCONSIN DEPT OF TRANSPORTATION

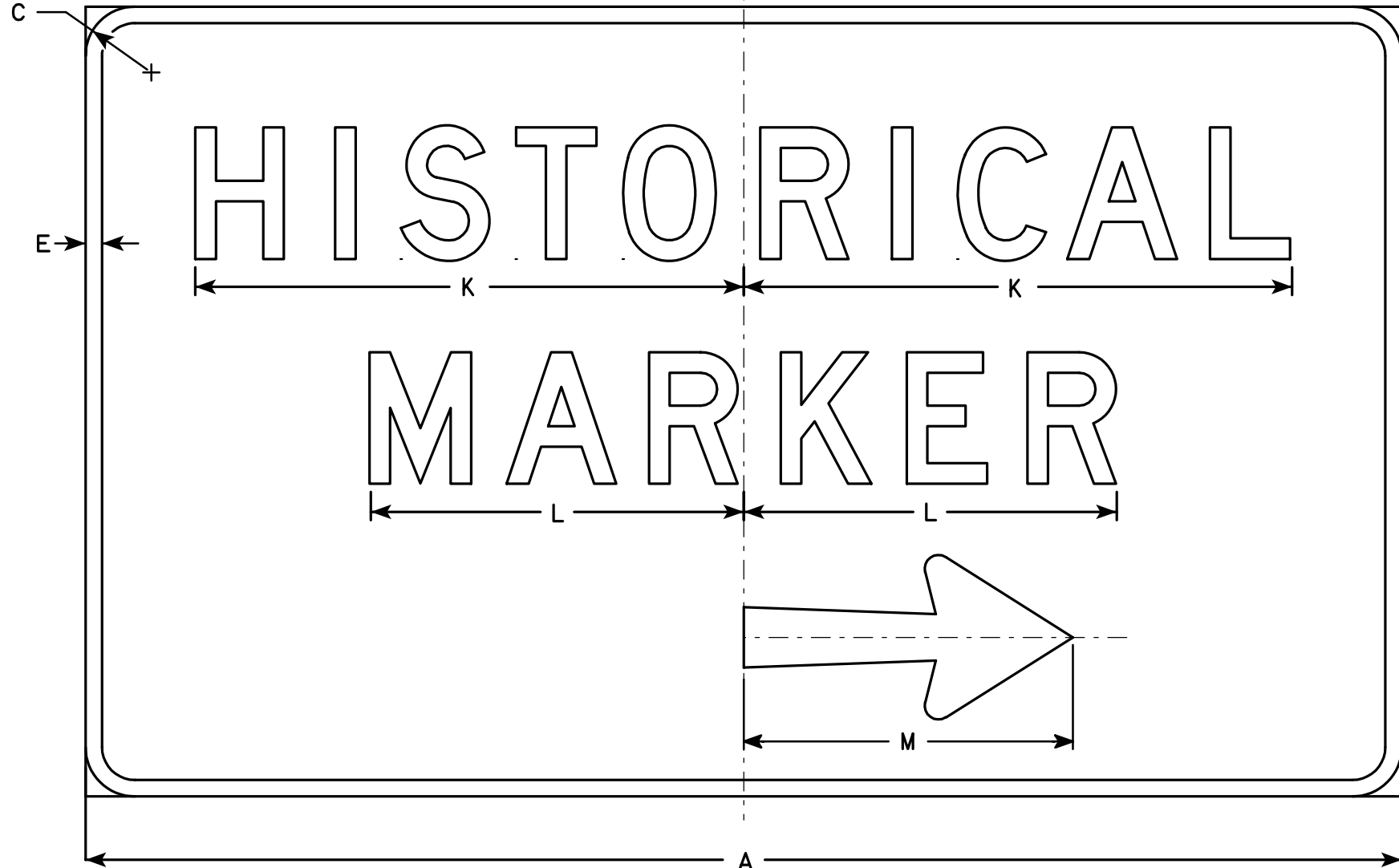
APPROVED
Christa J. Spang
for State Traffic Engineer

DATE 3/23/99 PLATE NO. D5-63.9

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10.



D5-64R

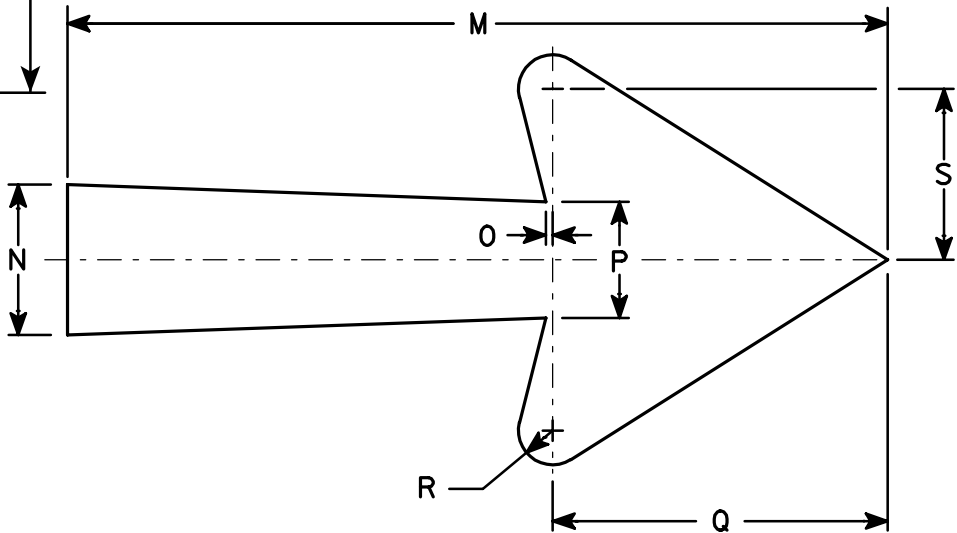
Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	25	17	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								15.0	1.35
3																												
4																												
5																												

NOTES

1. Sign Is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-64L is the same as D5-64R except the arrow is reversed.



Arrow Detail

STANDARD SIGN
D5-64

WISCONSIN DEPT OF TRANSPORTATION
APPROVED
Christa J. Sperry
for State Traffic Engineer
DATE 1/09/02 PLATE NO. D5-64.5

STATE PROJECT NUMBER:

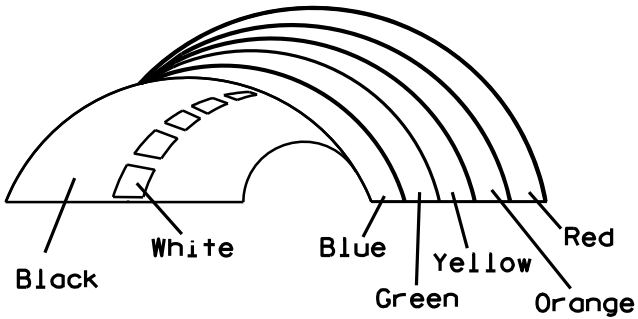
SHEET NO:

E



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

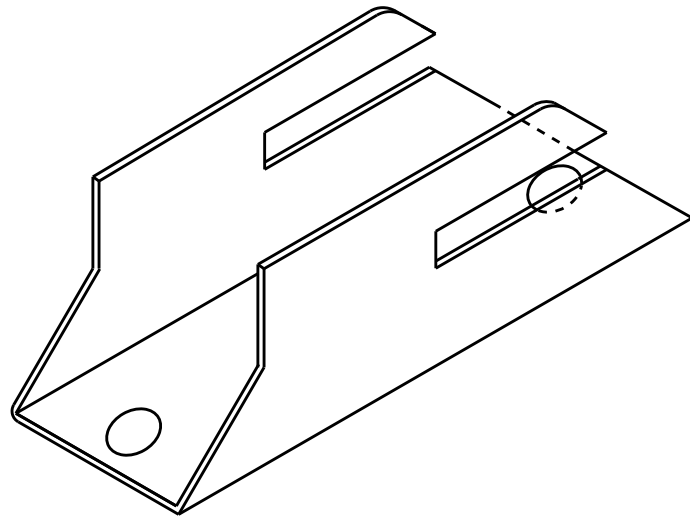
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

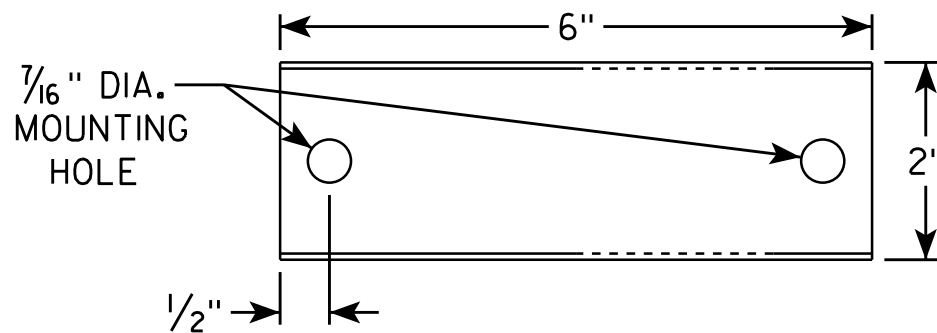
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

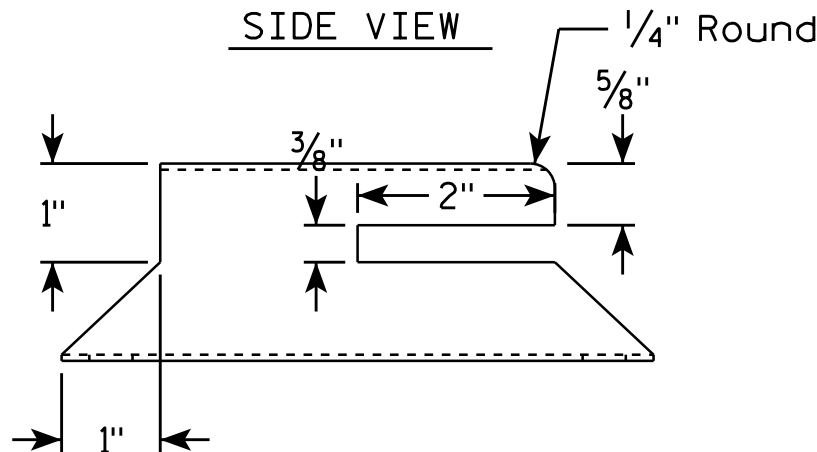
ISOMETRIC VIEW



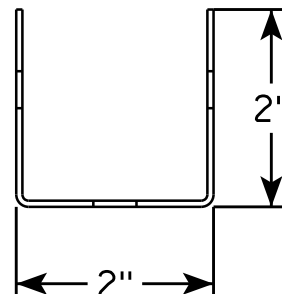
TOP VIEW



SIDE VIEW



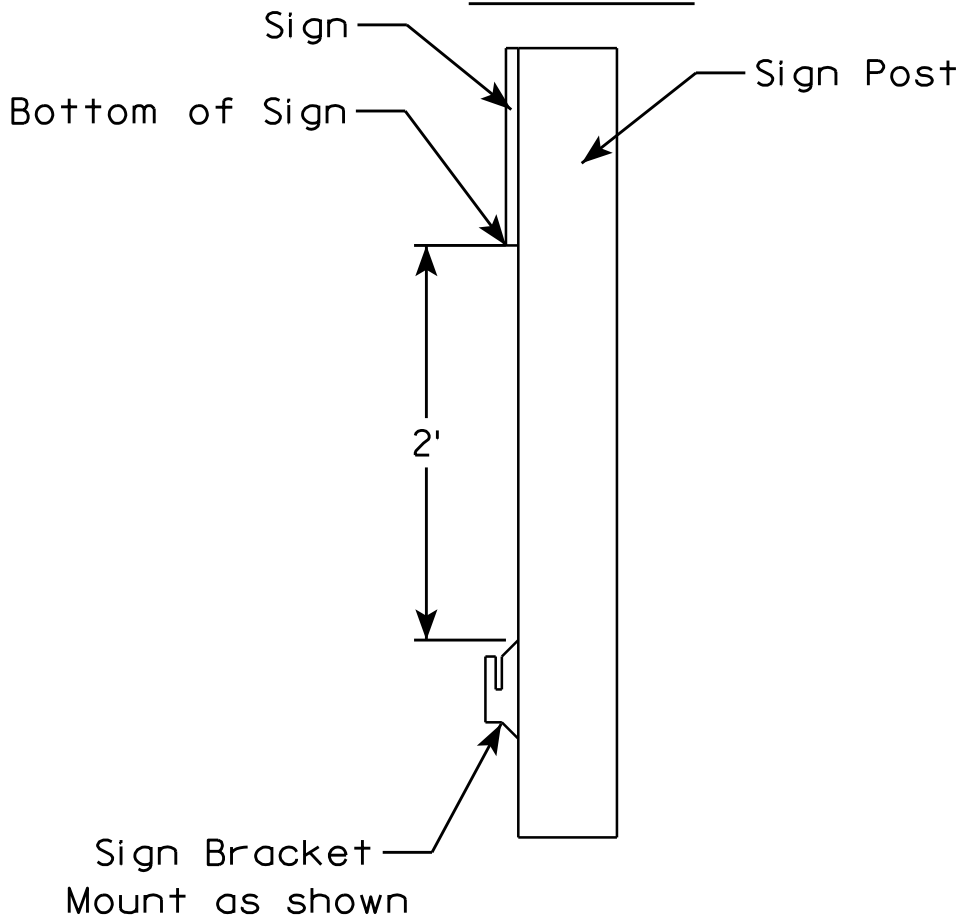
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. I55-56B.2

PROJECT NO:

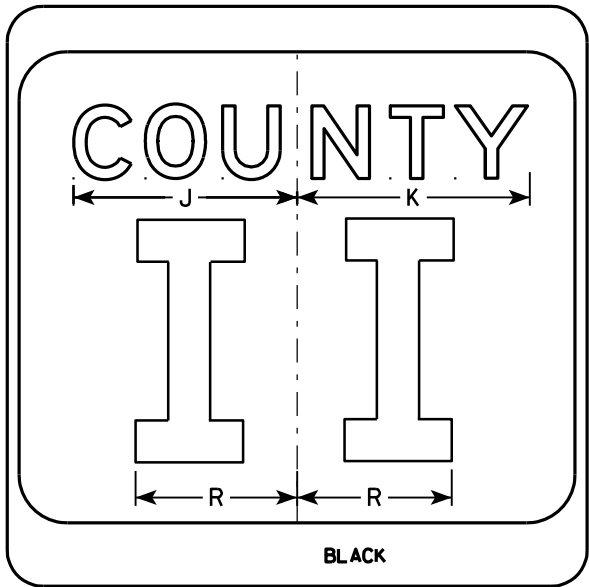
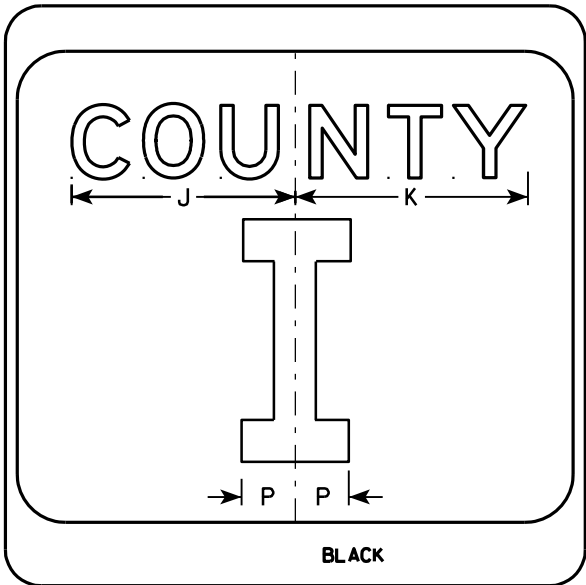
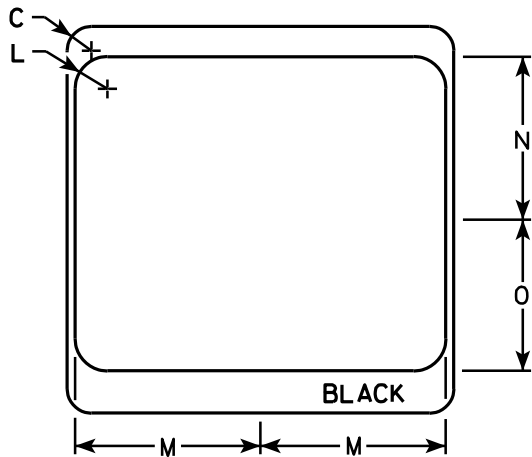
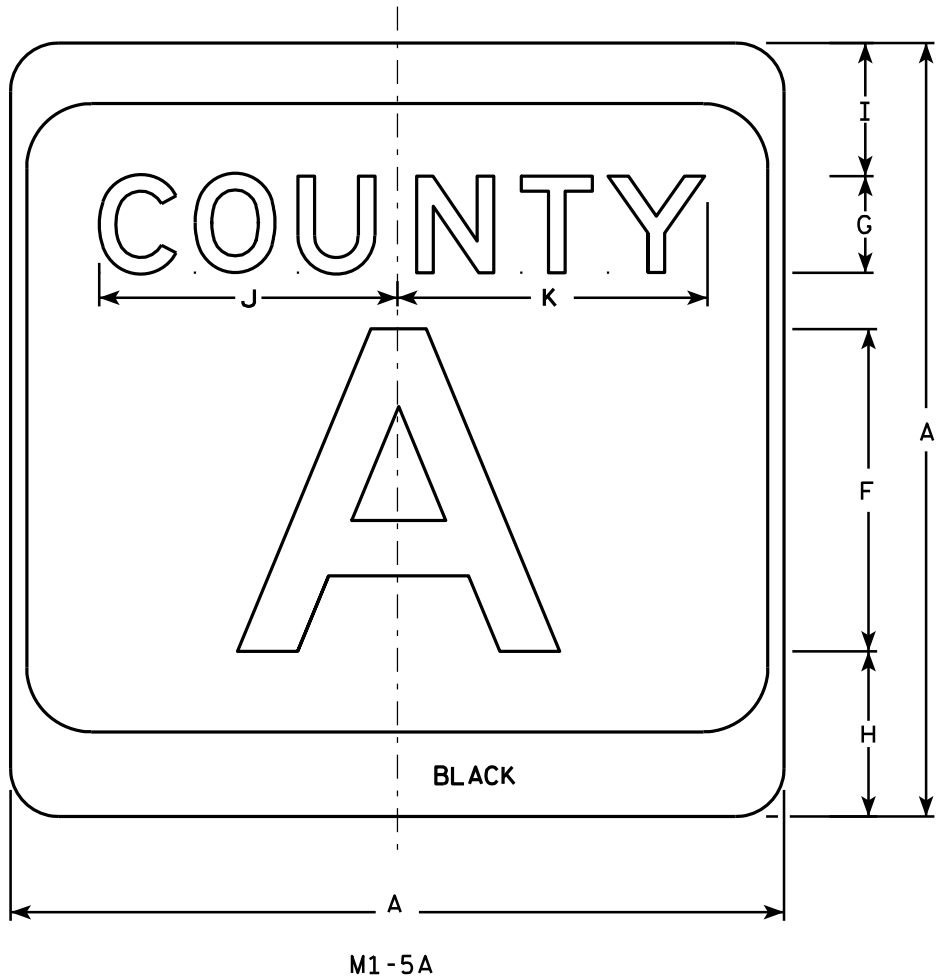
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

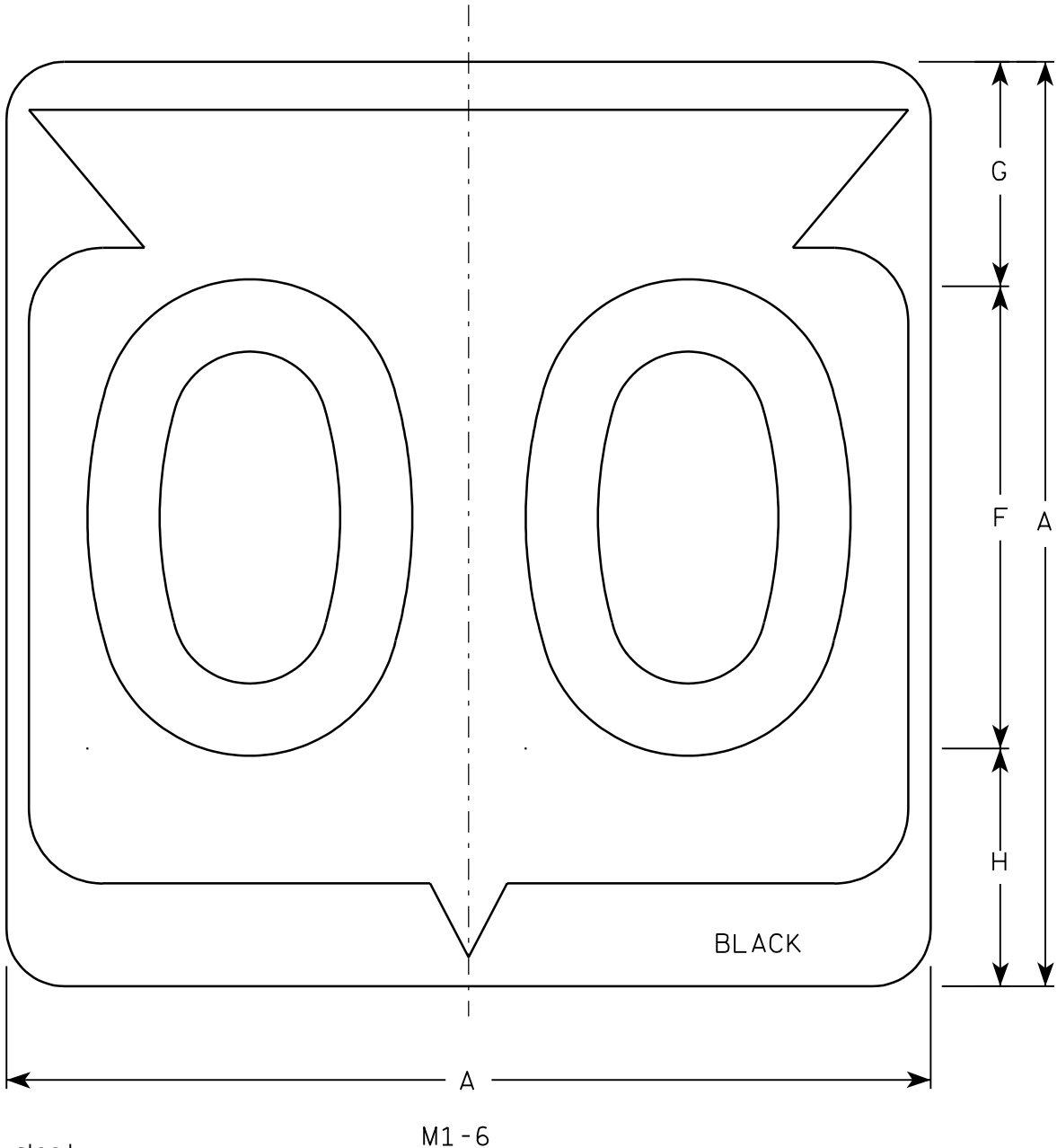
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER	
M1-5A FOR ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7

7



Metric equivalent
for this sign is:

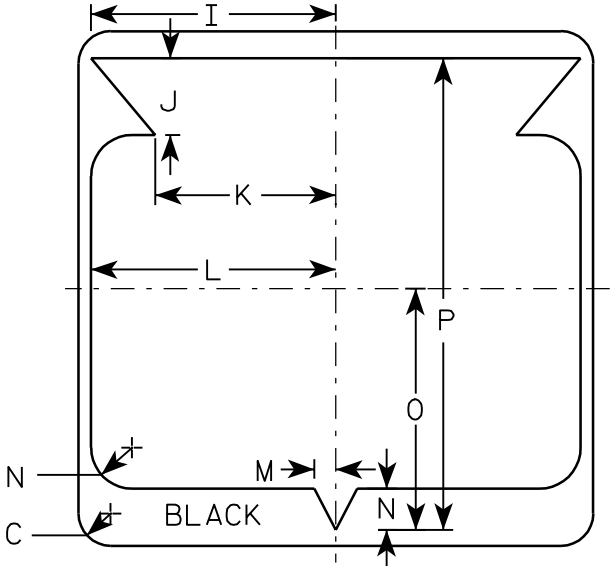
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

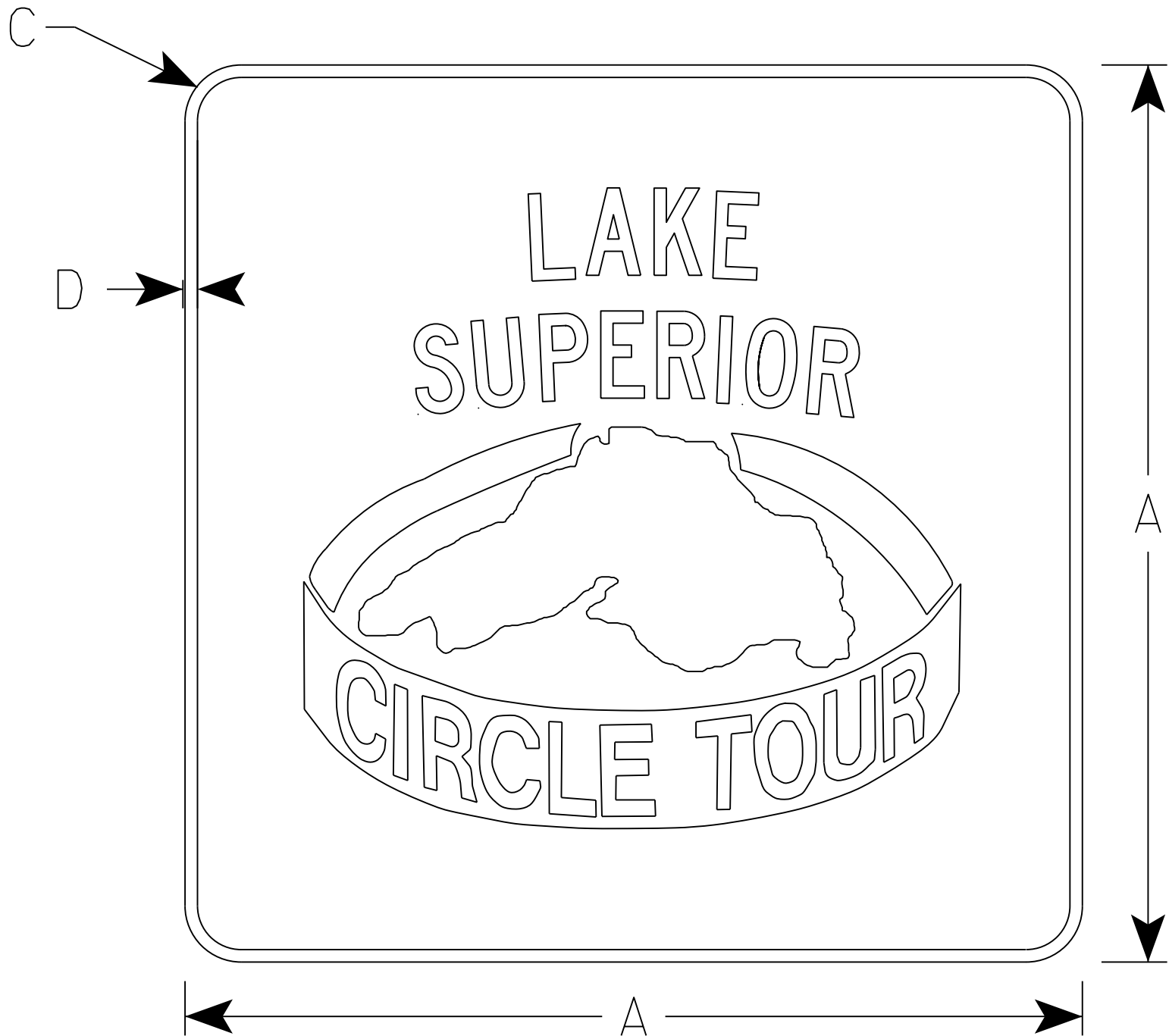
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



7



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/8	1/2																							4.0	.36
3																												
4	36		1 5/8	3/4																							9.0	.81
5																												

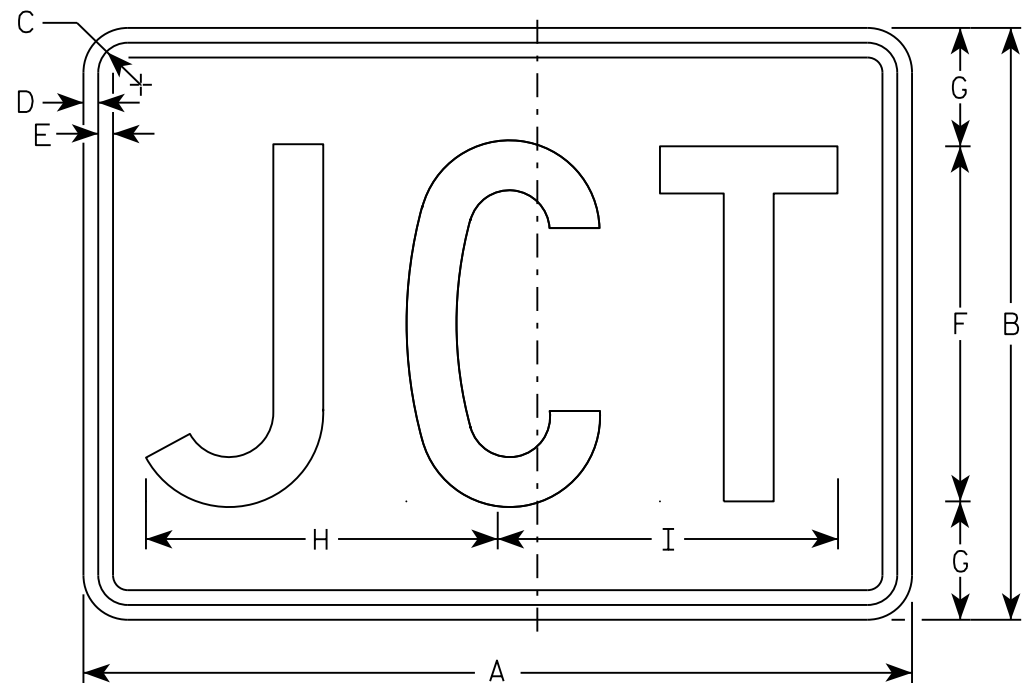
STANDARD SIGN

M1-91

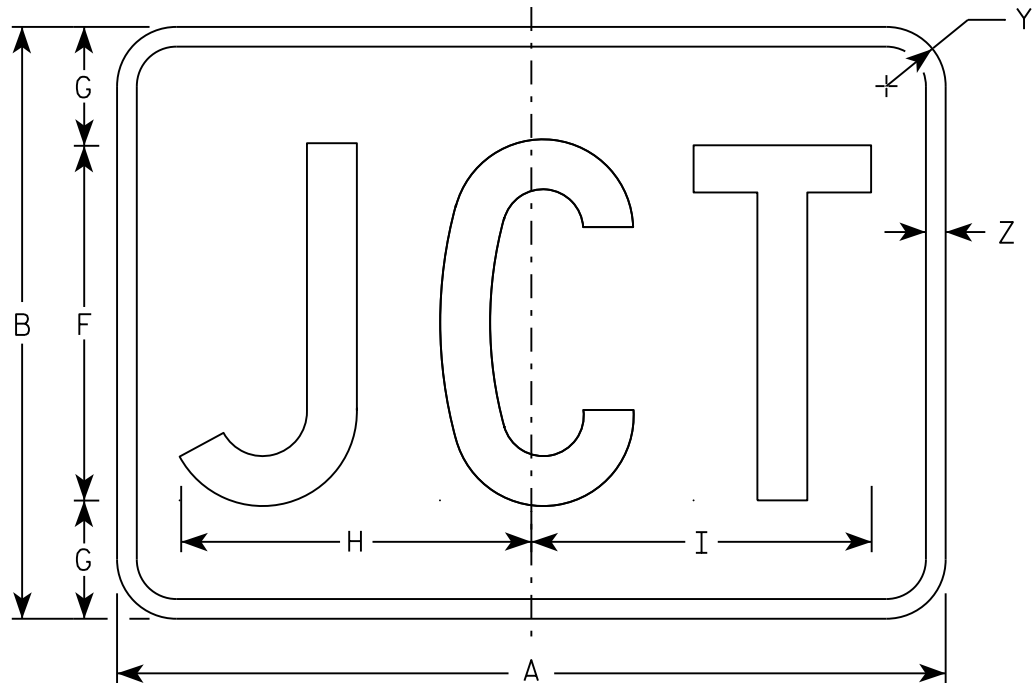
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/5/15 PLATE NO. M1-91.2



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

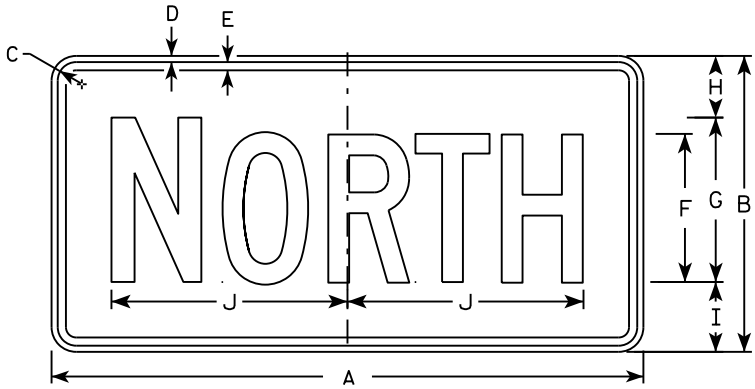
APPROVED

Matthew R. Rauch

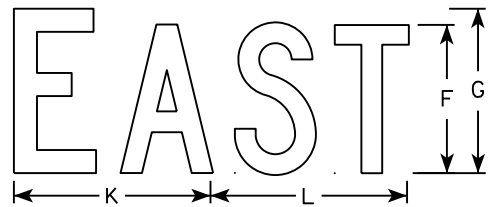
For State Traffic Engineer

DATE 10/15/15

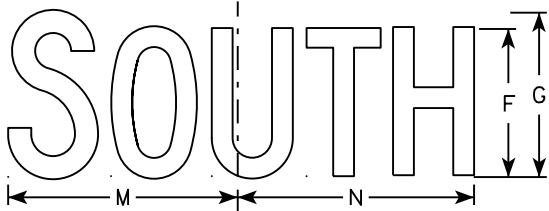
PLATE NO. M2-1.12



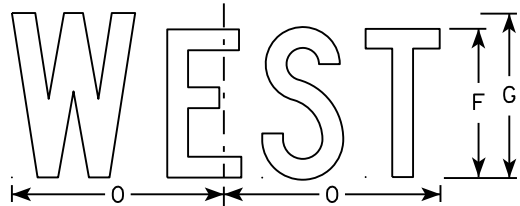
M3-1
MM3-1
MP3-1



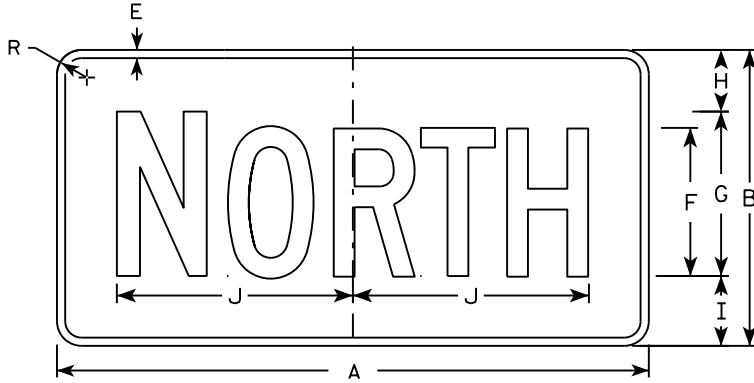
M3-2
MM3-2
MP3-2



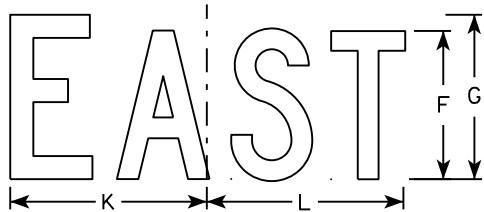
M3-3
MM3-3
MP3-3



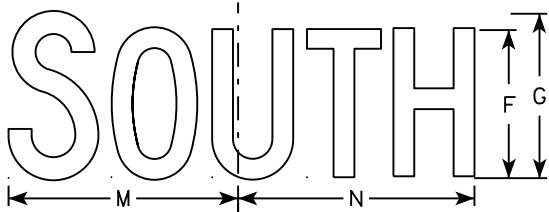
M3-4
MM3-4
MP3-4



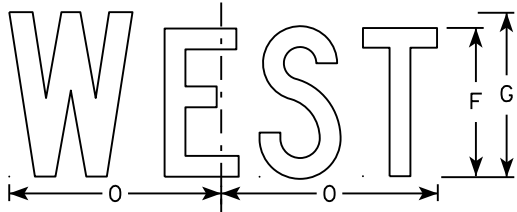
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

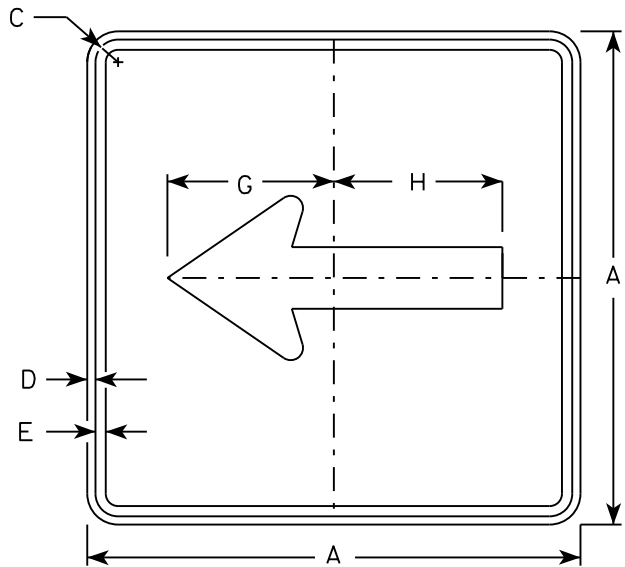
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

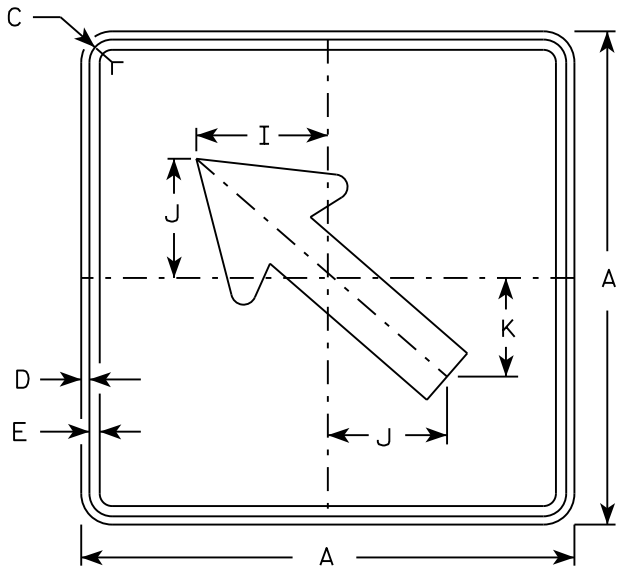
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

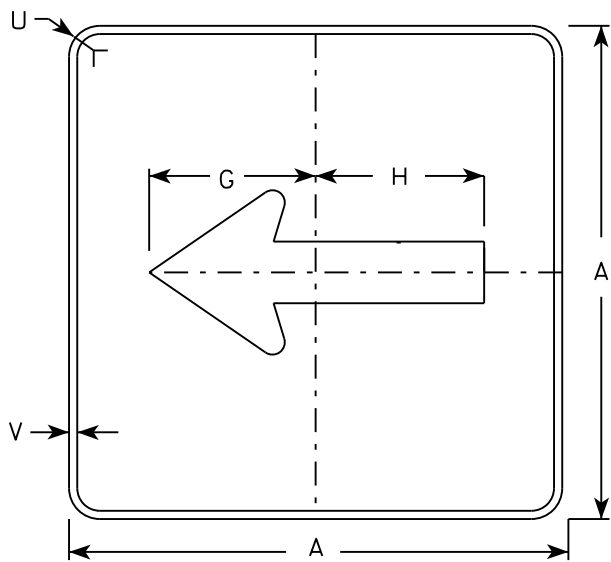
DATE 10/15/15 PLATE NO. M3-1.14



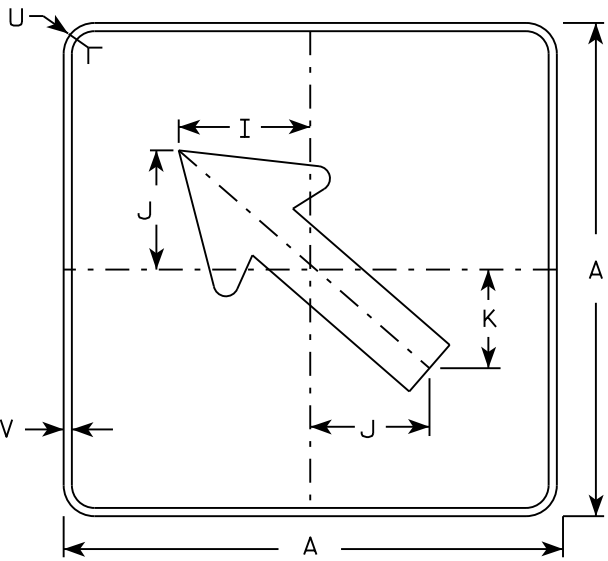
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



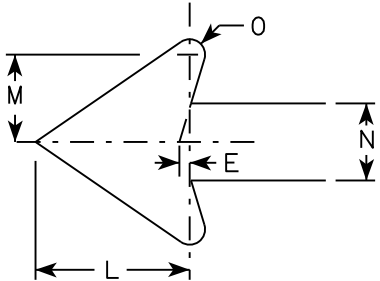
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

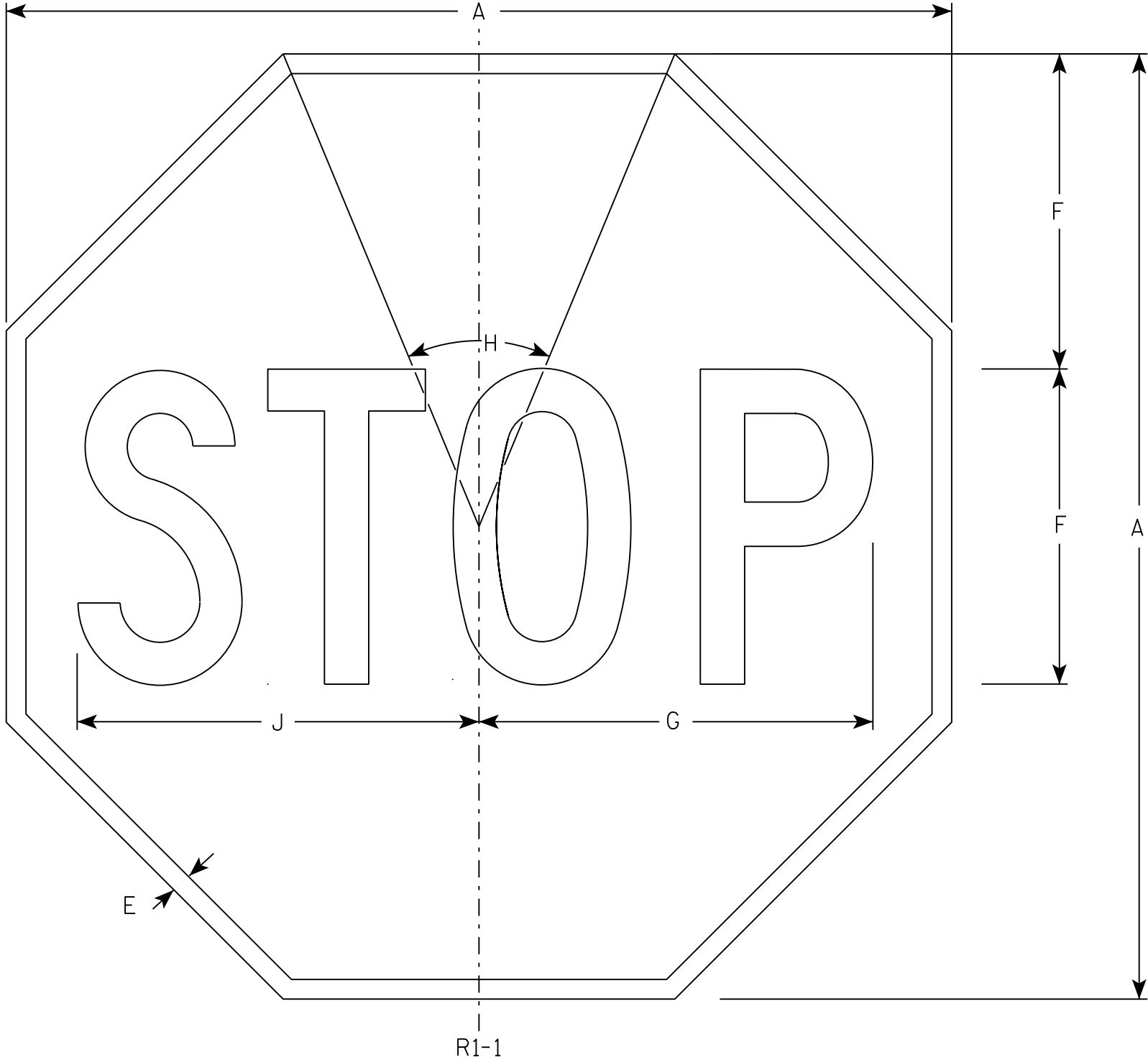
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Red
 - Message - White
- 3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

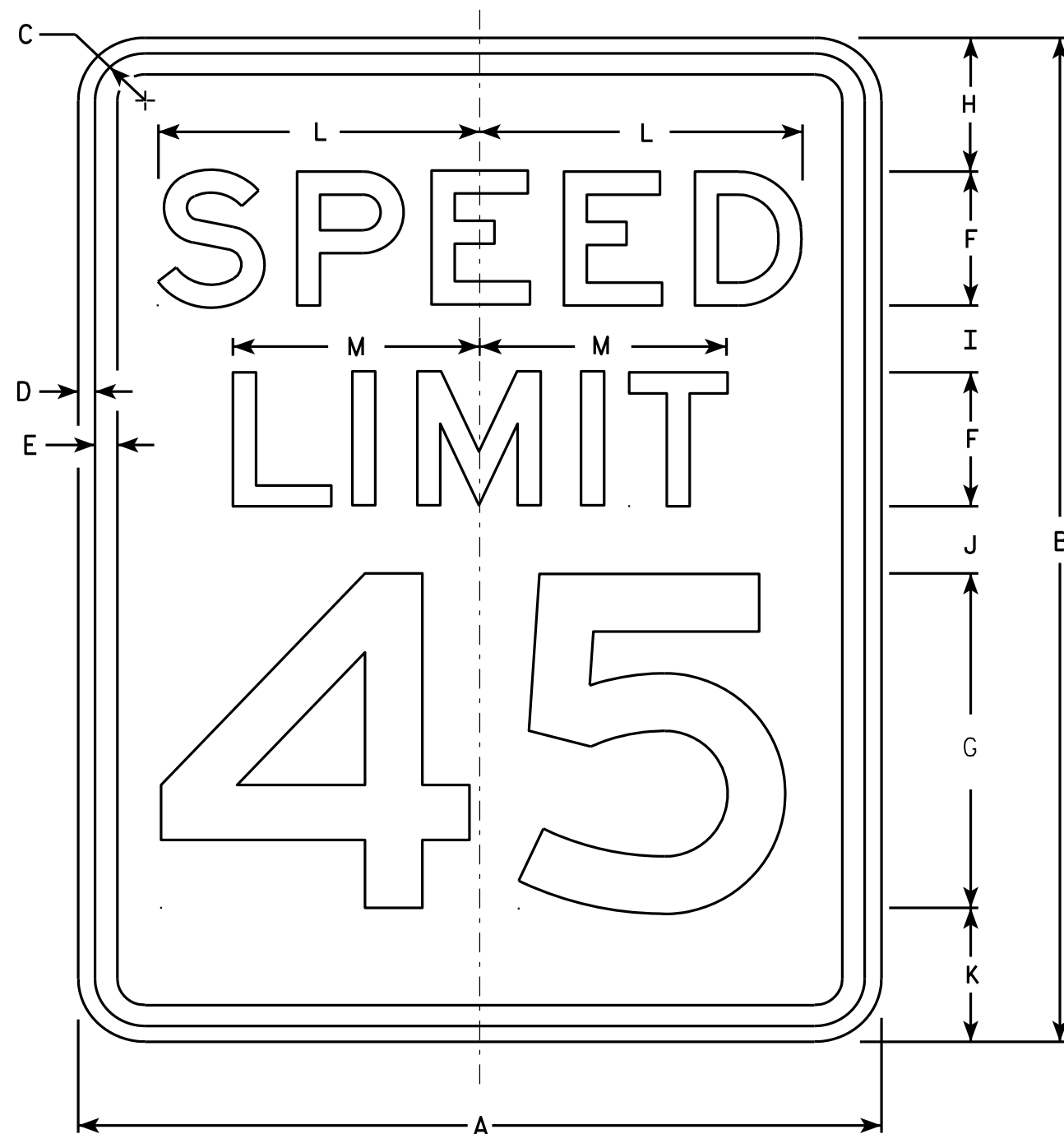
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



R2-1

NOTES

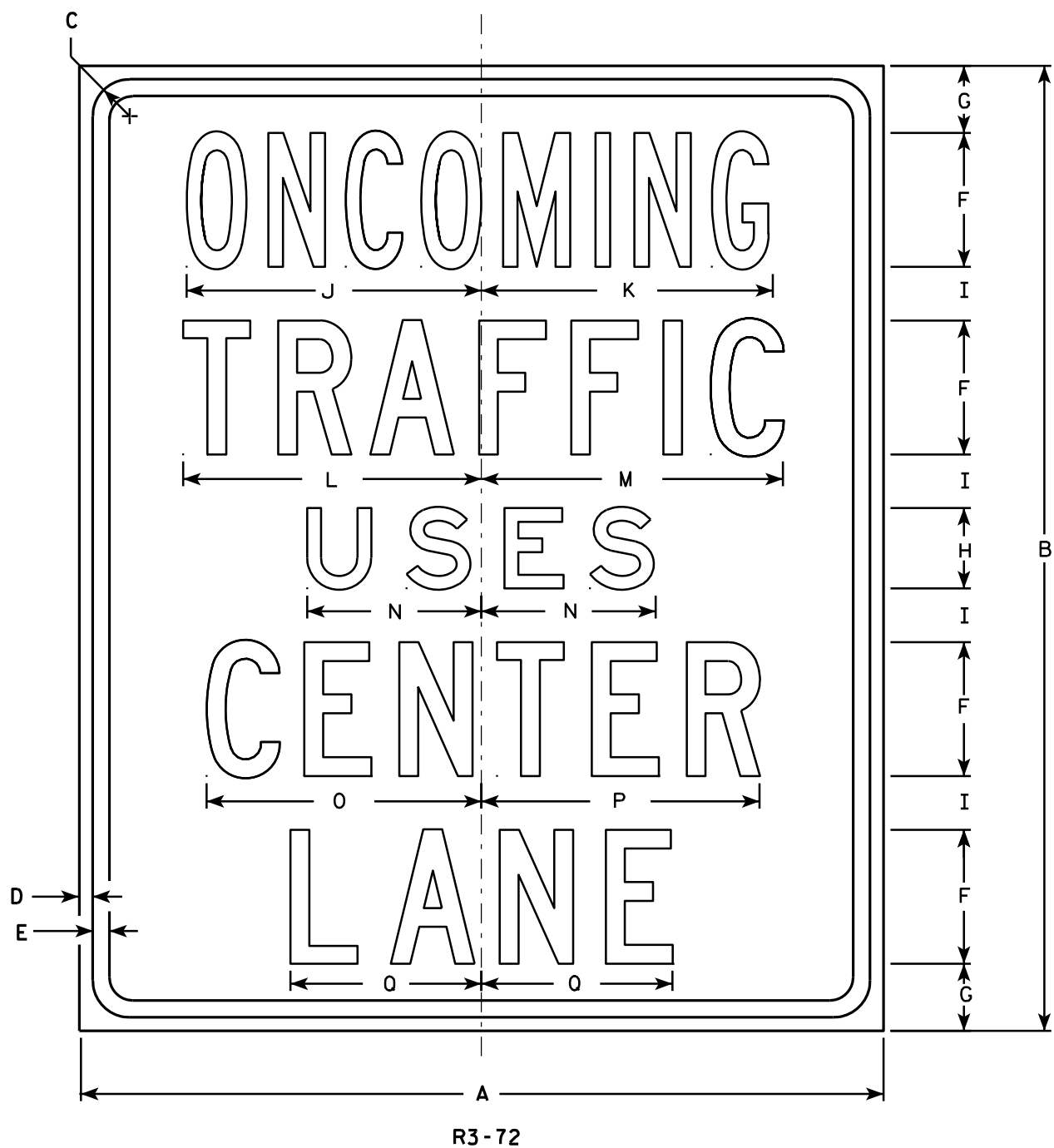
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B, Lines 2, 4 and 5 are Series C, and Line 3 is Series E.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2S	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2M	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
3																											
4																											
5																											

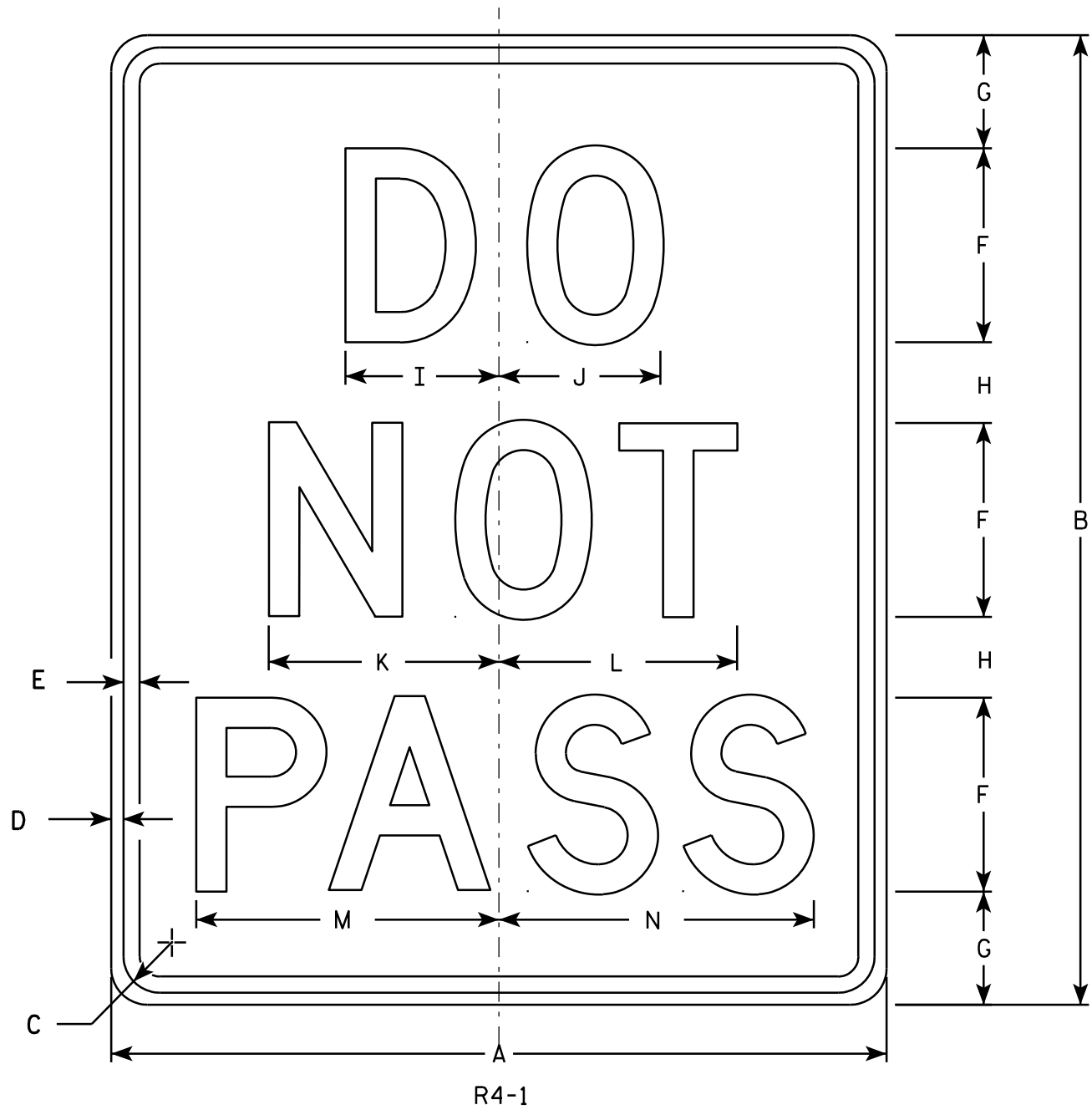
STANDARD SIGN R3-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R3-72.5

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

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

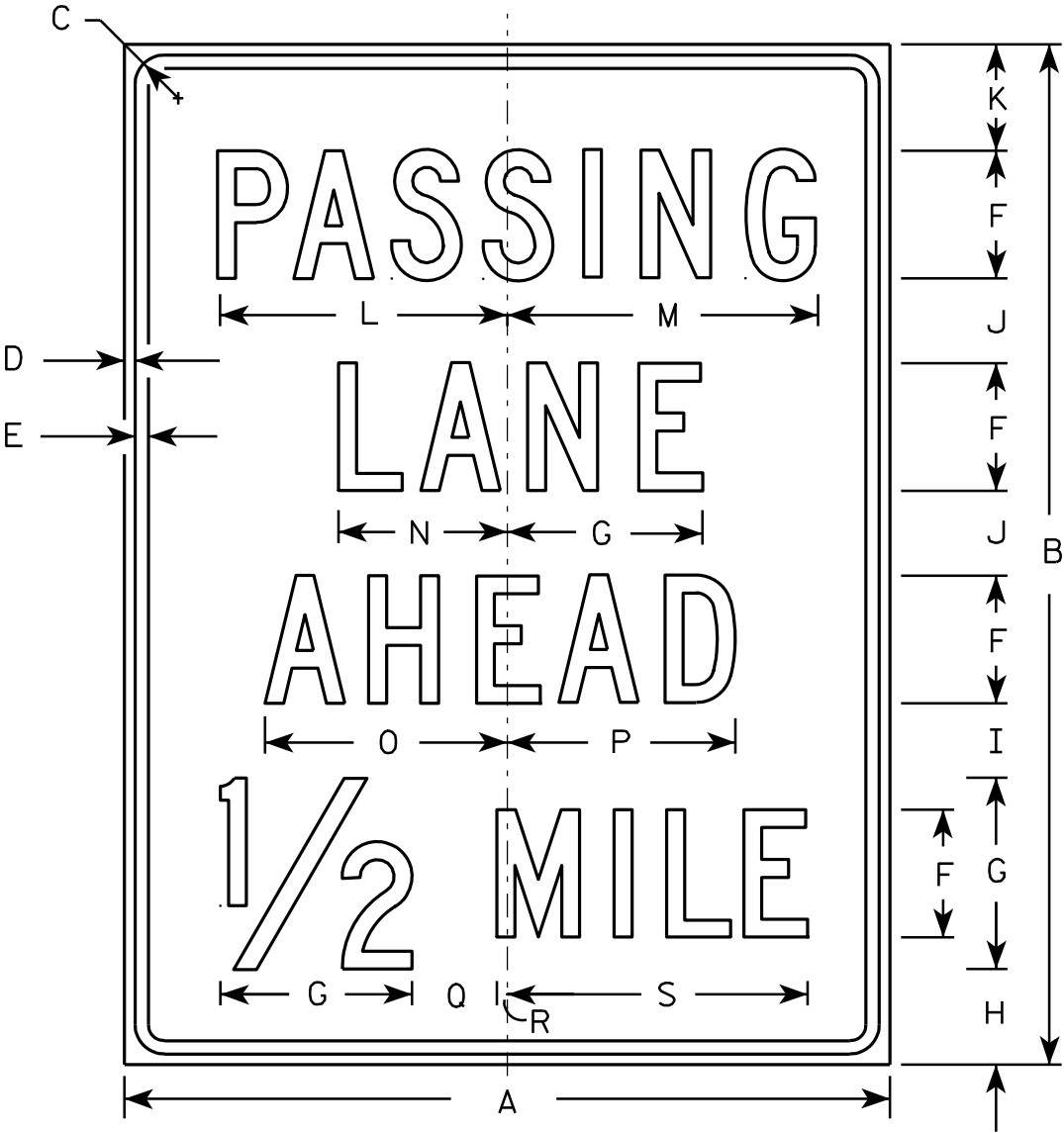
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 1/8	3 1/4	4 3/4	4 7/8	6 1/4	6 1/2													3.0
2S	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
2M	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
3																											
4	36	48	1 5/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
5	48	60	2 1/4	3/4	1	10	8	7	7 3/4	8 3/8	11 7/8	12 1/4	15 5/8	16 1/4													20.0

STANDARD SIGN R4-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/25/2011	PLATE NO. R4-1.7

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

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



R4-51

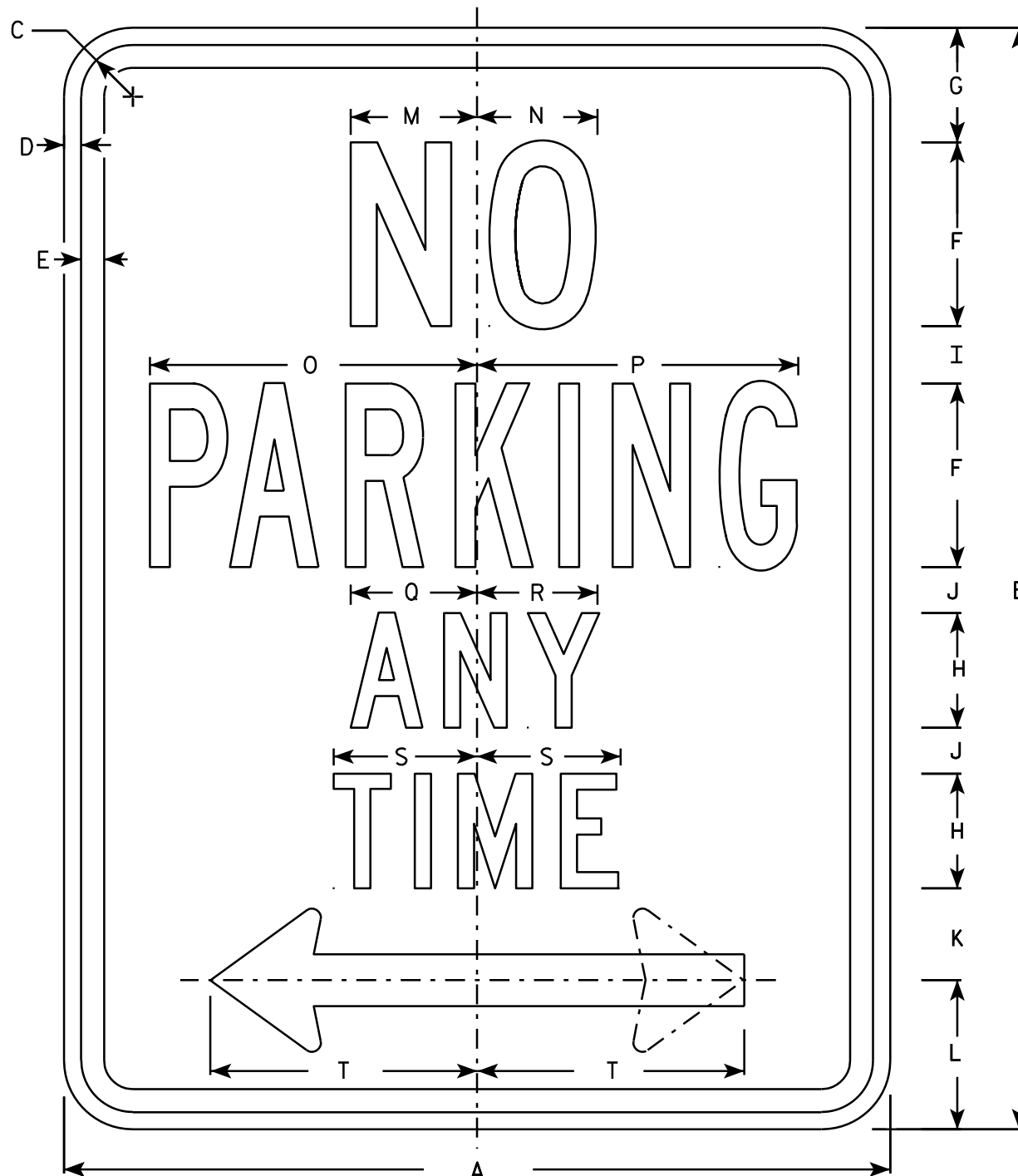
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	48	1 ³ / ₈	1/2	⁵ / ₈	6	9	4 1/2	3 1/2	4	5	13 ⁵ / ₈	14 1/2	8	11 ³ / ₈	10 ³ / ₄	4	1/2	14 1/8								12.0
2M	36	48	1 ³ / ₈	1/2	⁵ / ₈	6	9	4 1/2	3 1/2	4	5	13 ⁵ / ₈	14 1/2	8	11 ³ / ₈	10 ³ / ₄	4	1/2	14 1/8								12.0
3																											
4																											
5																											

STANDARD SIGN
R4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

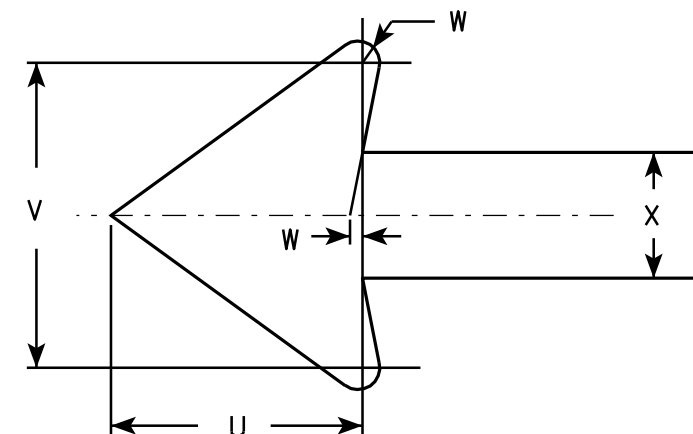
DATE 3/29/2011 PLATE NO. R4-51.4



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

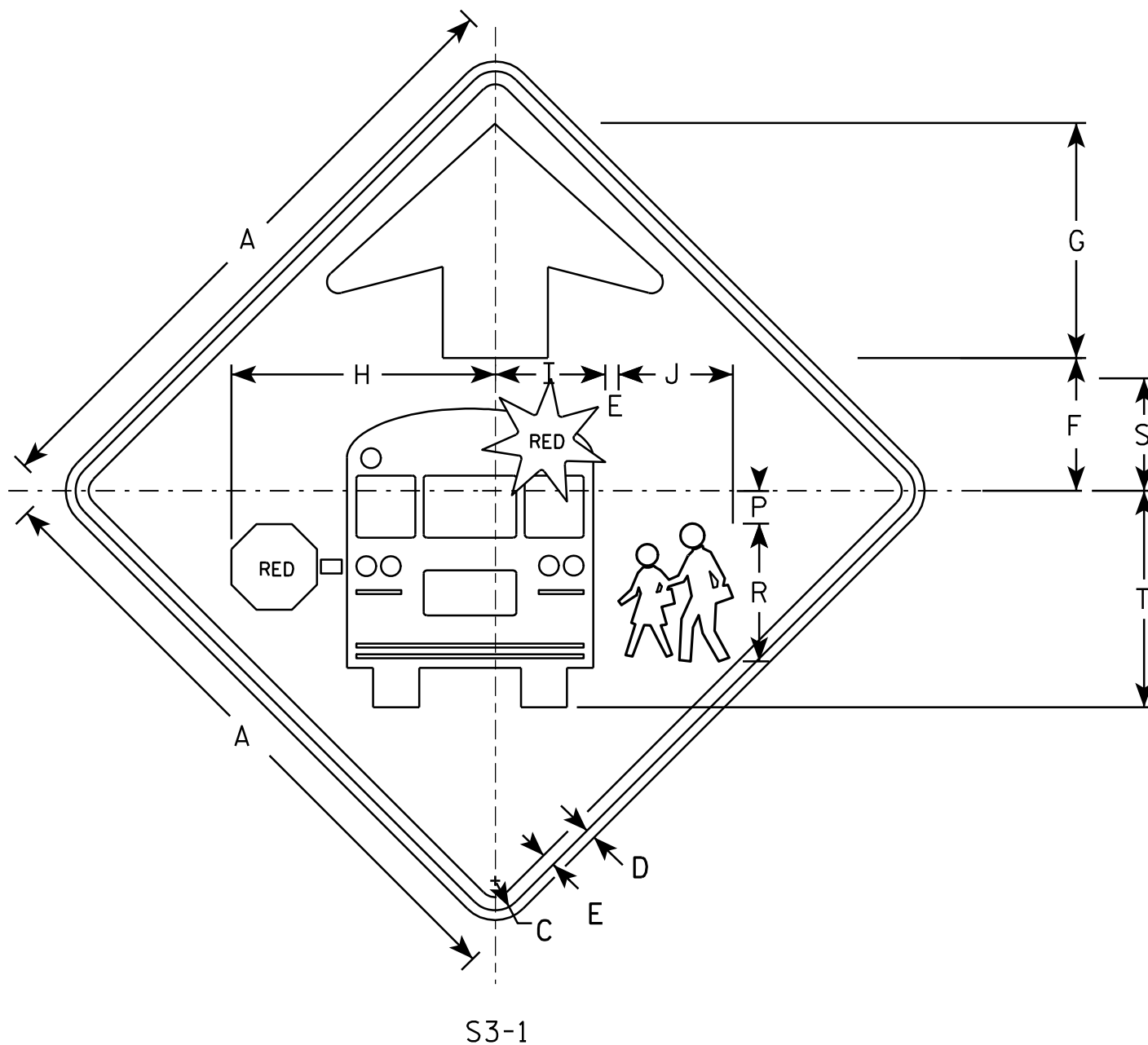
STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

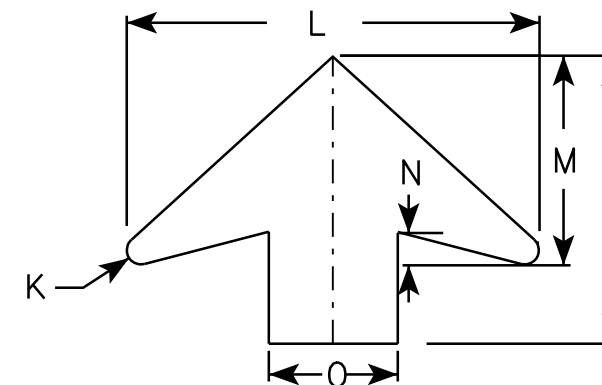
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E

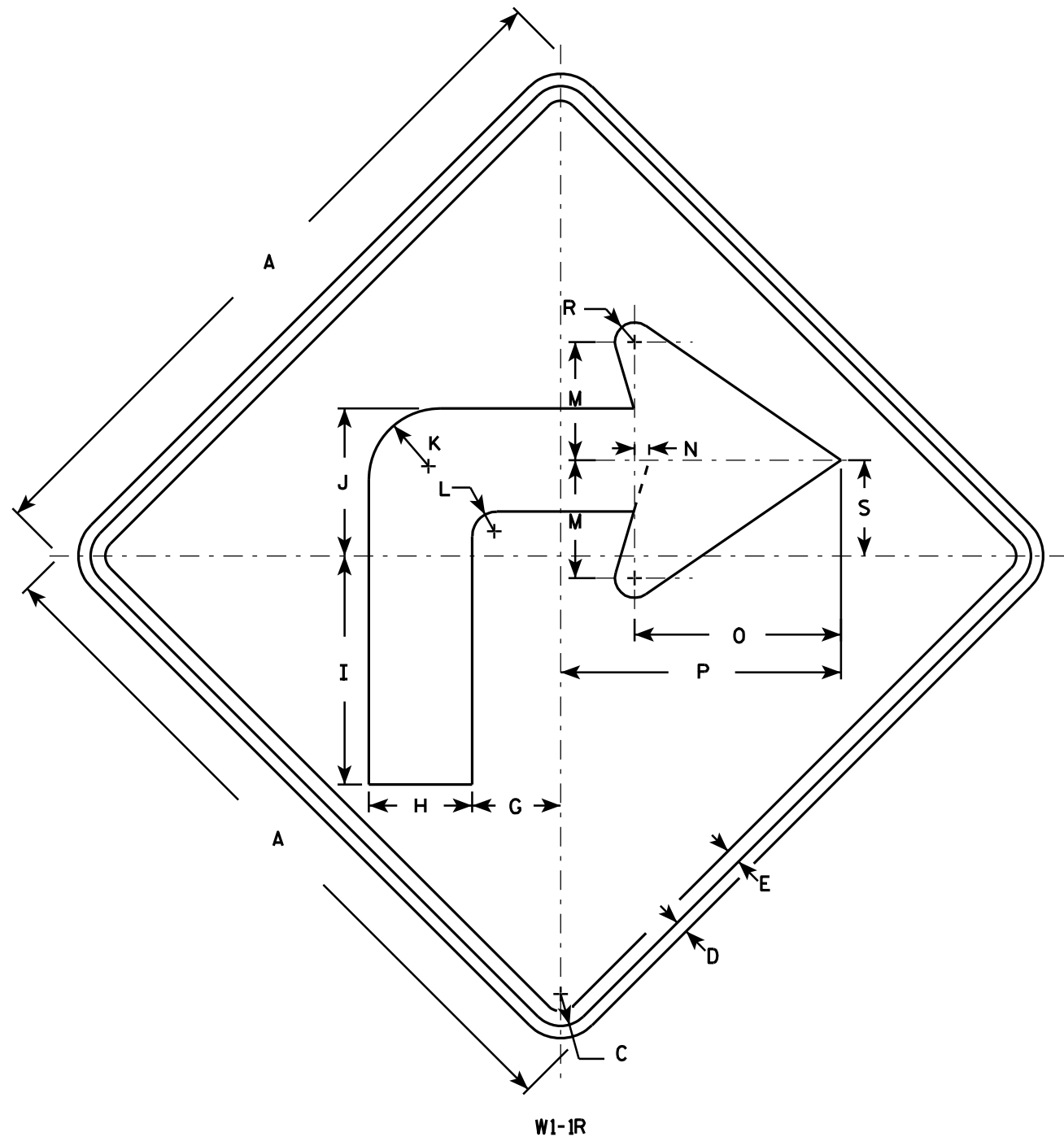


NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

[illegible]

STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN

W1-1

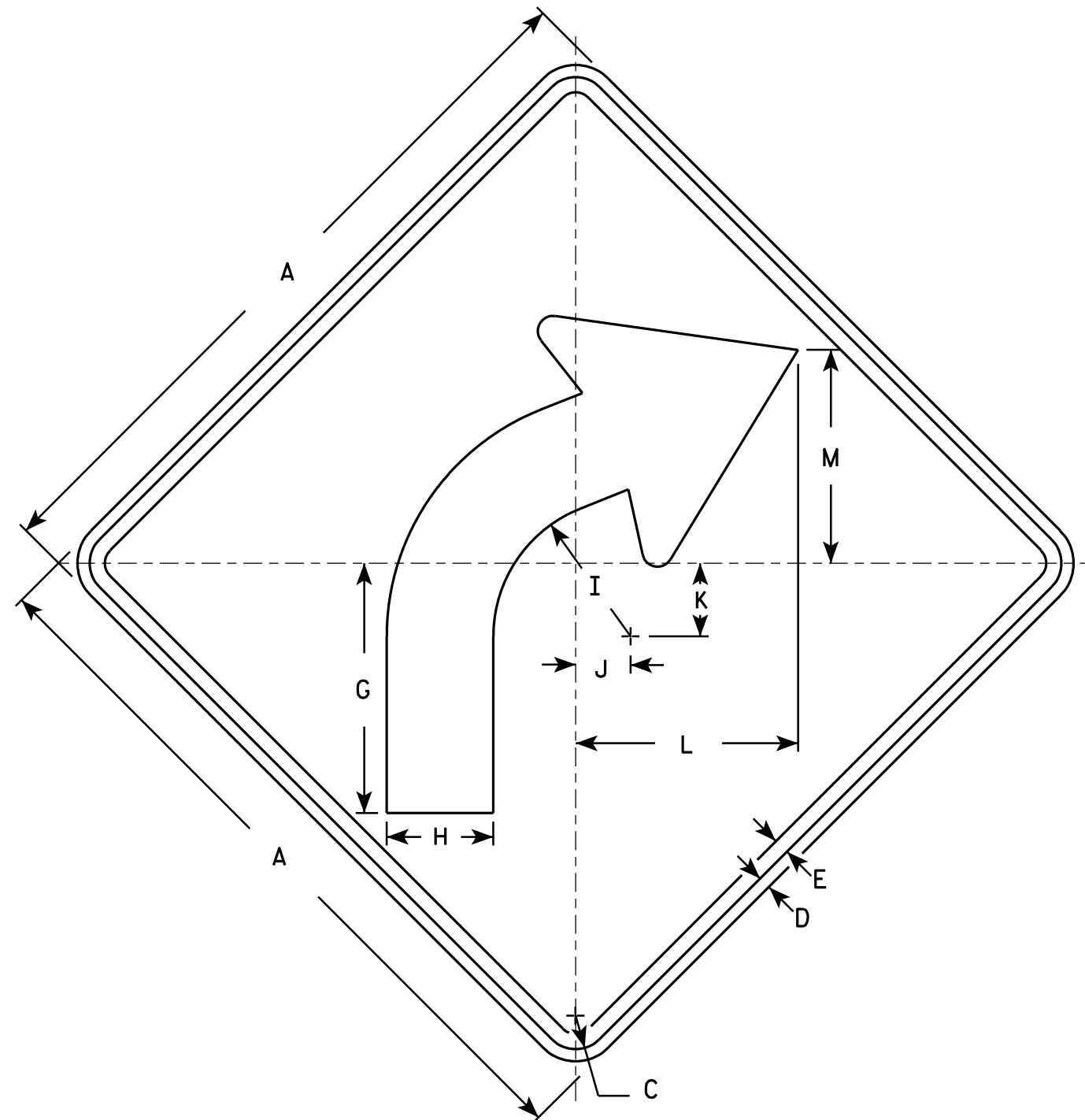
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

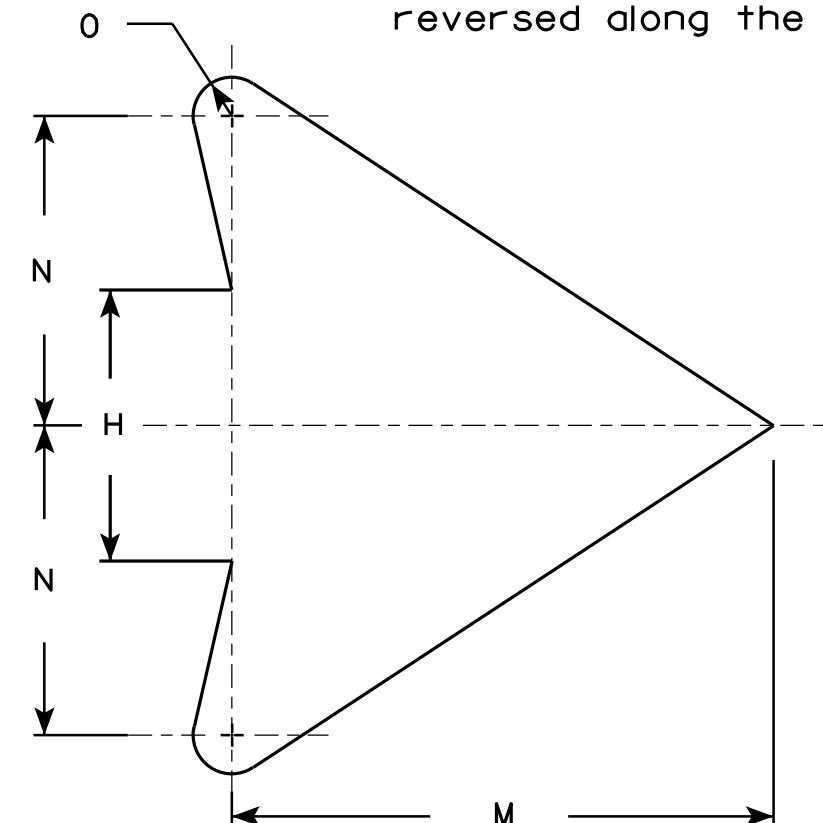
DATE 5/15/12 PLATE NO. W1-1.11

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN

W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:

HWY:

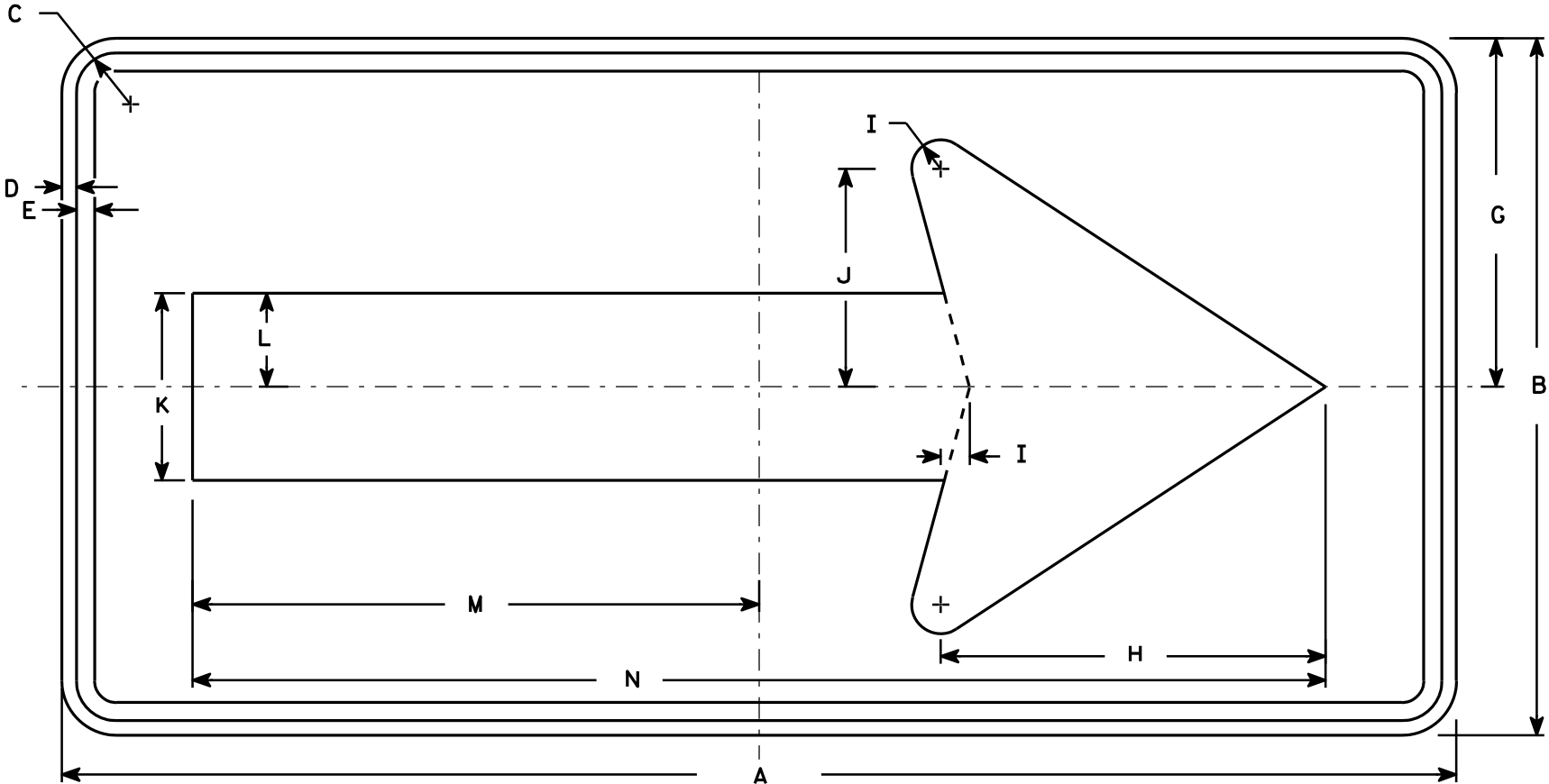
COUNTY:

SHEET NO:

E

NOTES

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



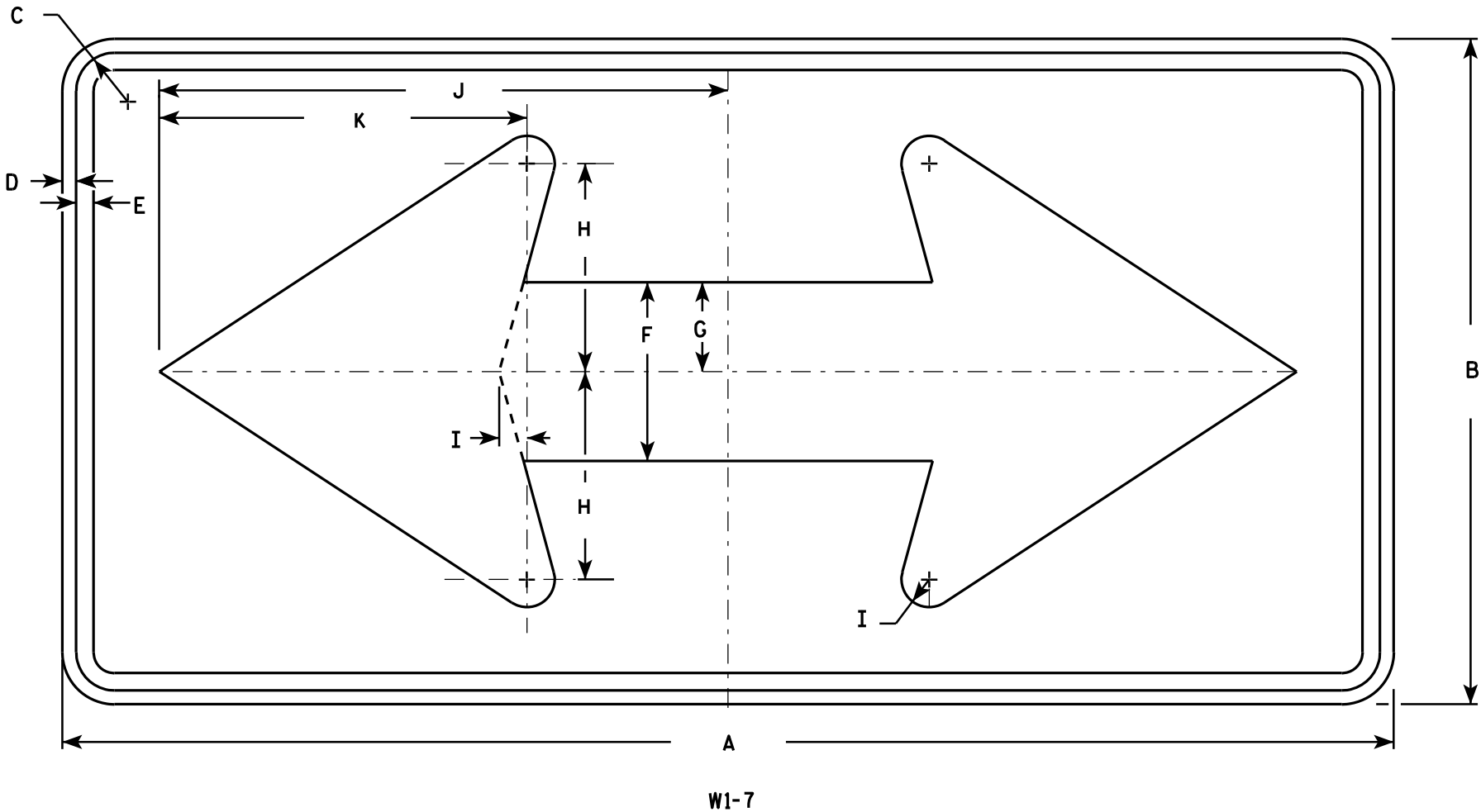
W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8

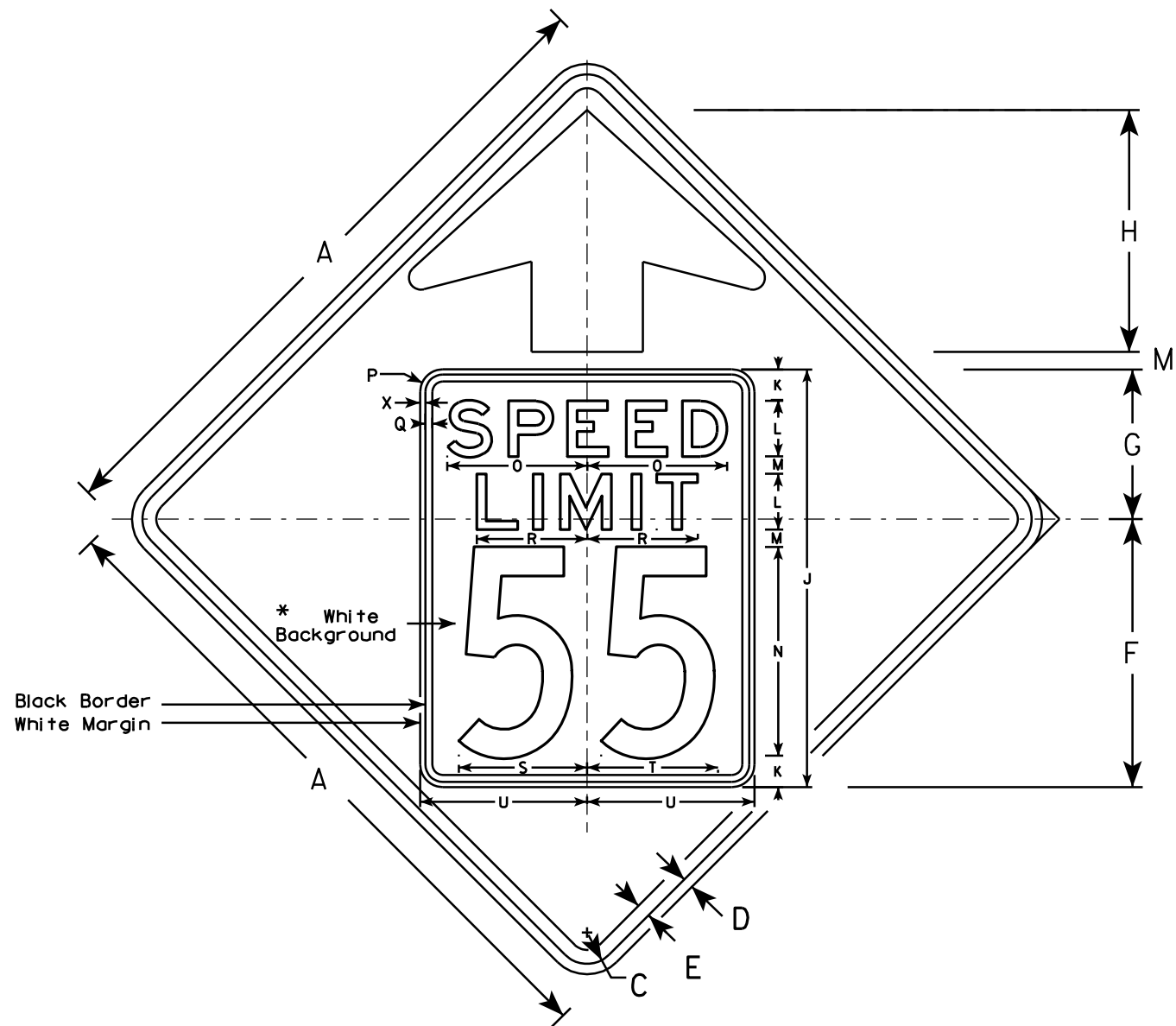


NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN	
W1 - 7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/7/10	PLATE NO. W1-7.7

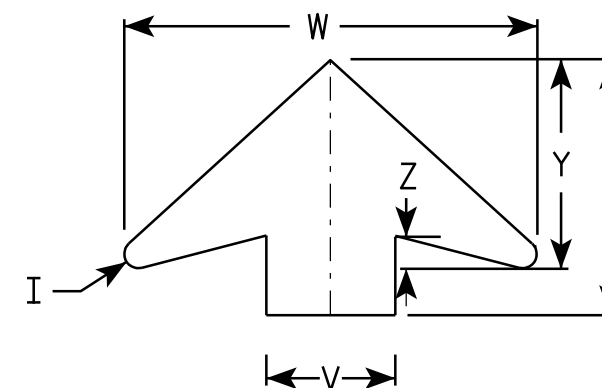


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

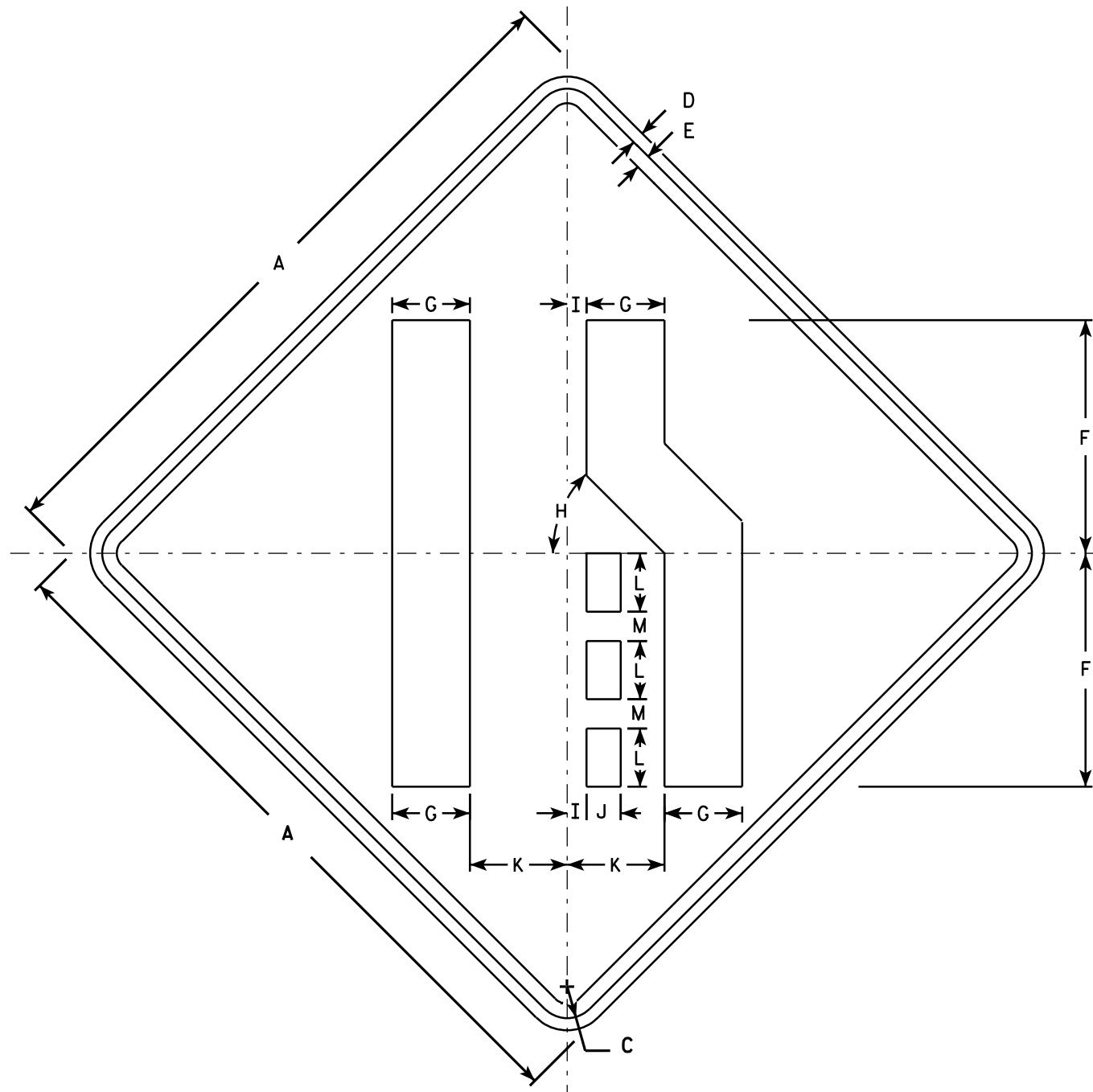
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbols is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8	10	3 3⁄8	45°	7⁄8	1 1⁄2	4 1⁄4	2 1⁄2	1 1⁄4														6.25
2S	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
2M	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
3	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
4	48		2 1⁄4	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0
5	48		2 1⁄4	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0

STANDARD SIGN W4-2

WISCONSIN DEPT OF TRANSPORTATION

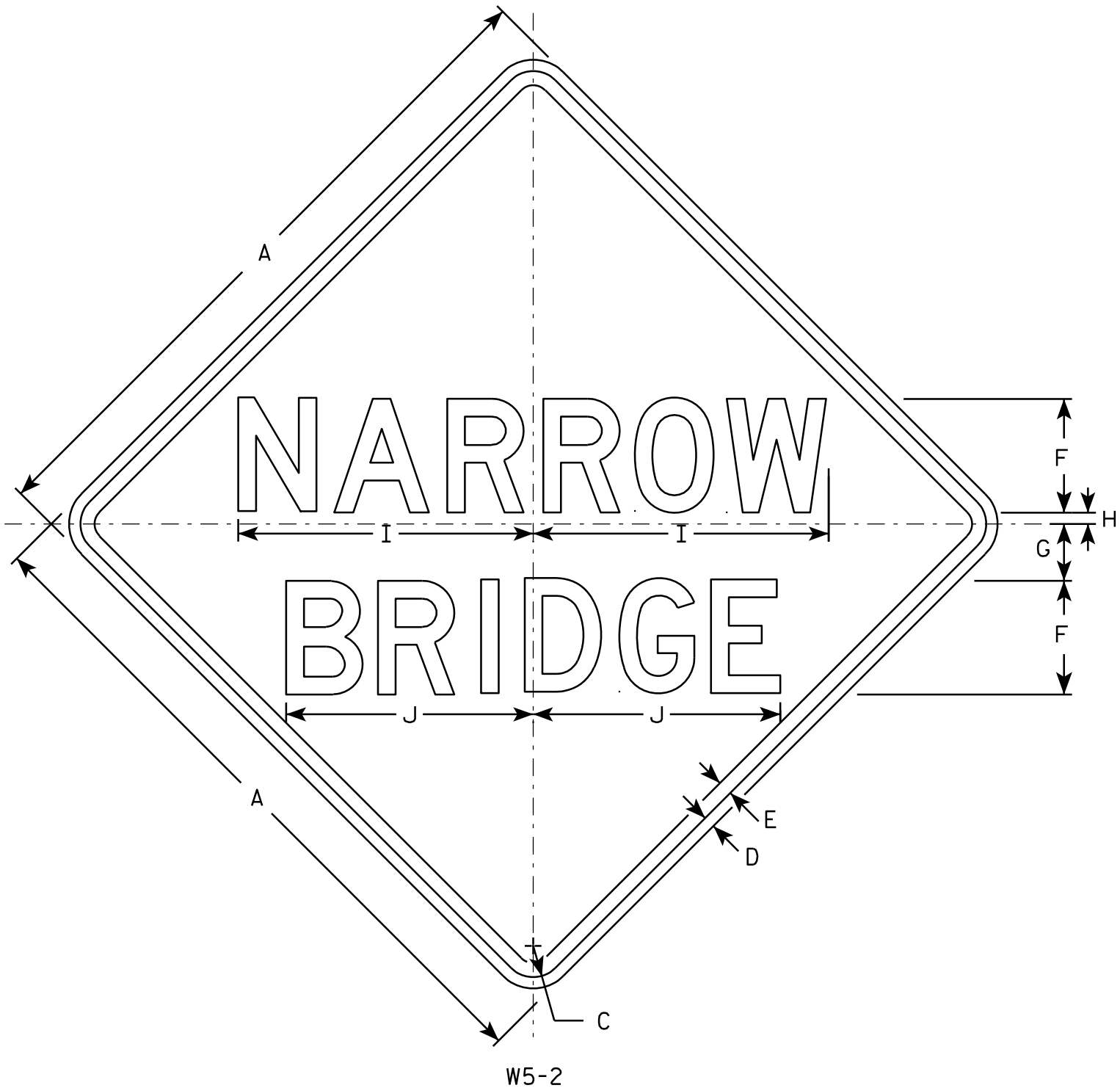
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	2 1/2	1/2	13	10 7/8																	6.25
2S	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
2M	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
3	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
4	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
5																											

STANDARD SIGN

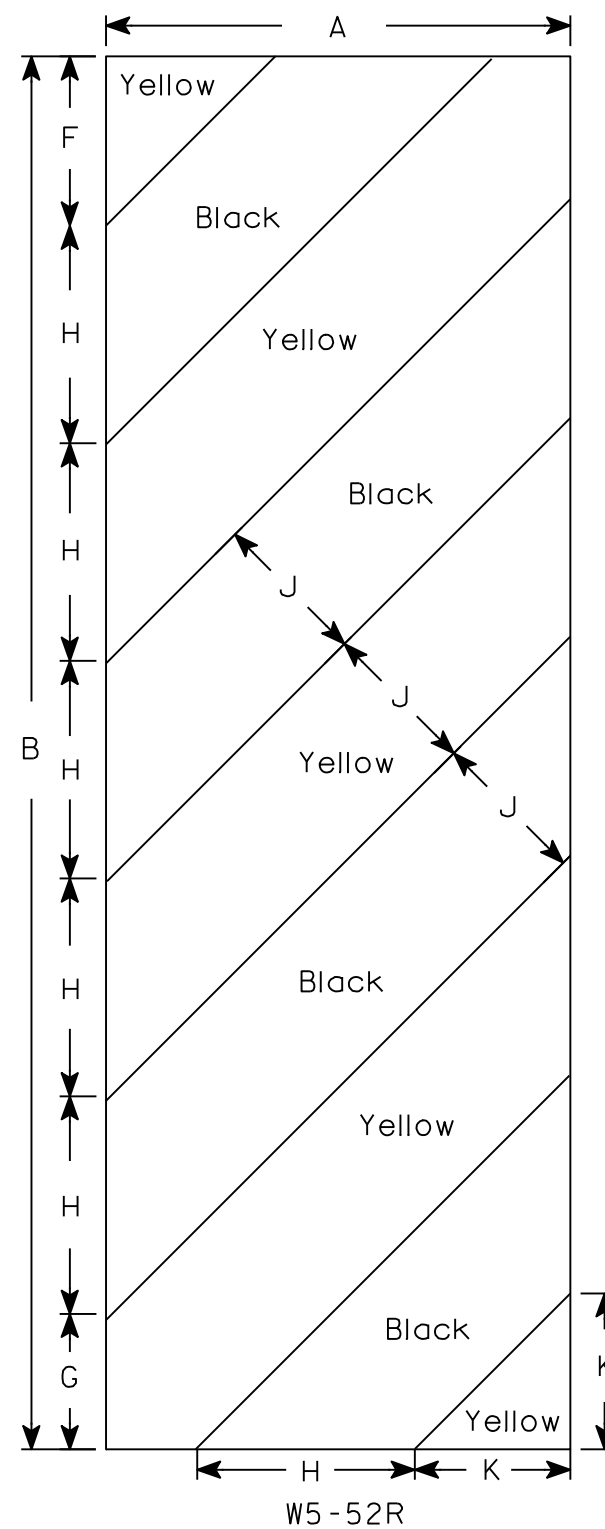
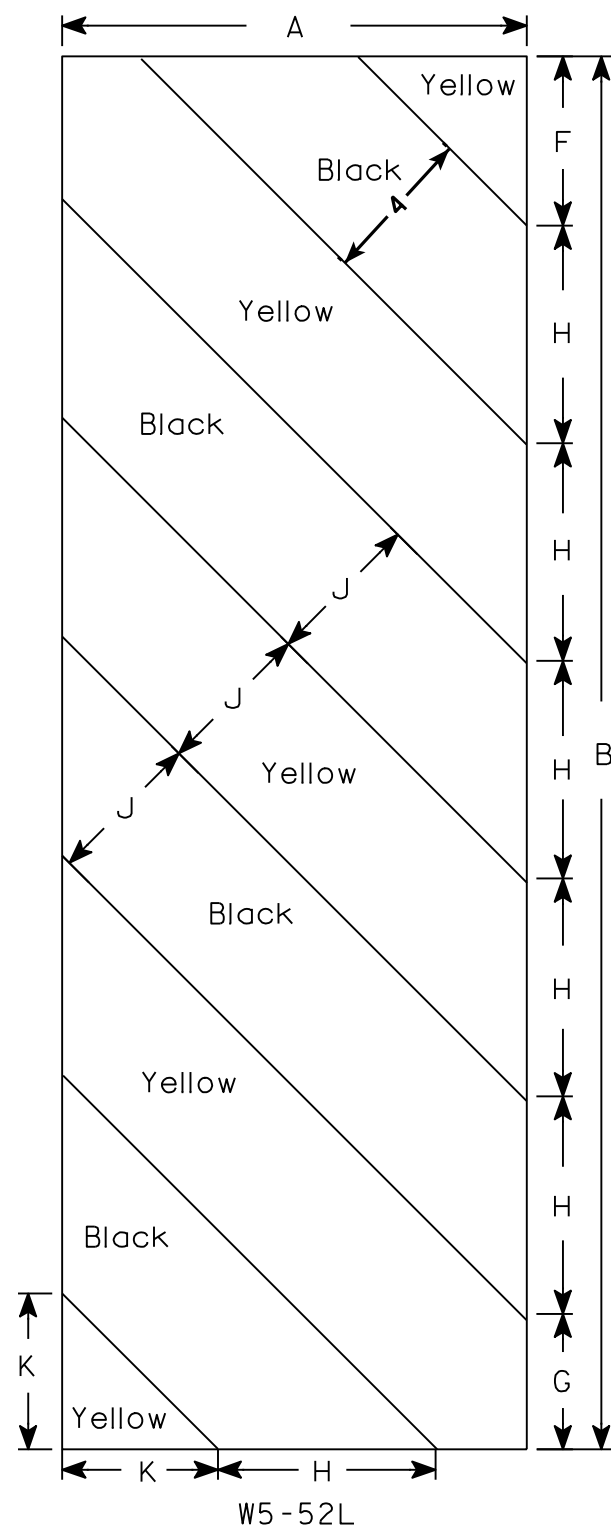
W5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-2.8

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

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

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/29/12 PLATE NO. W5-52.9

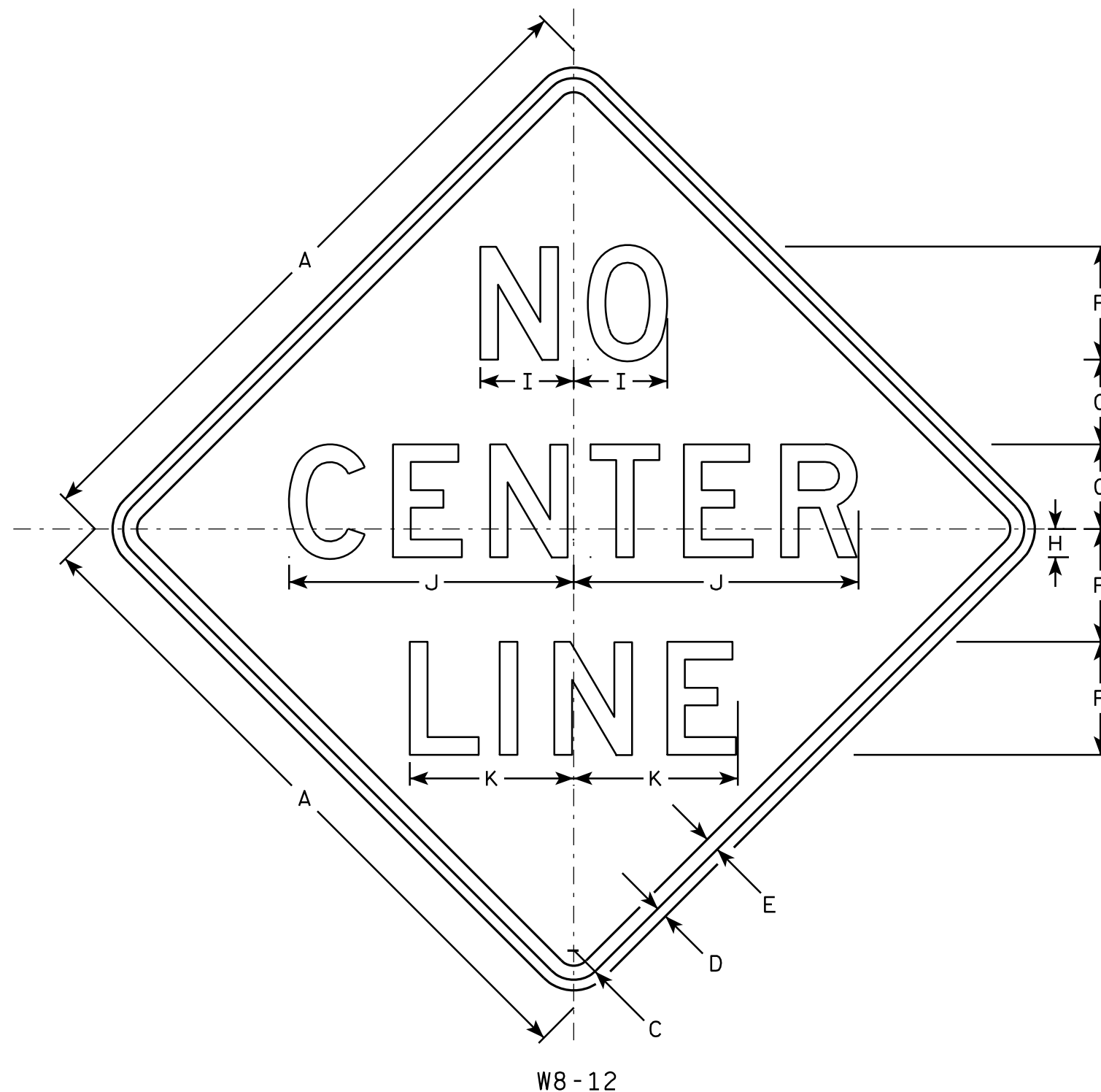
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

7

7

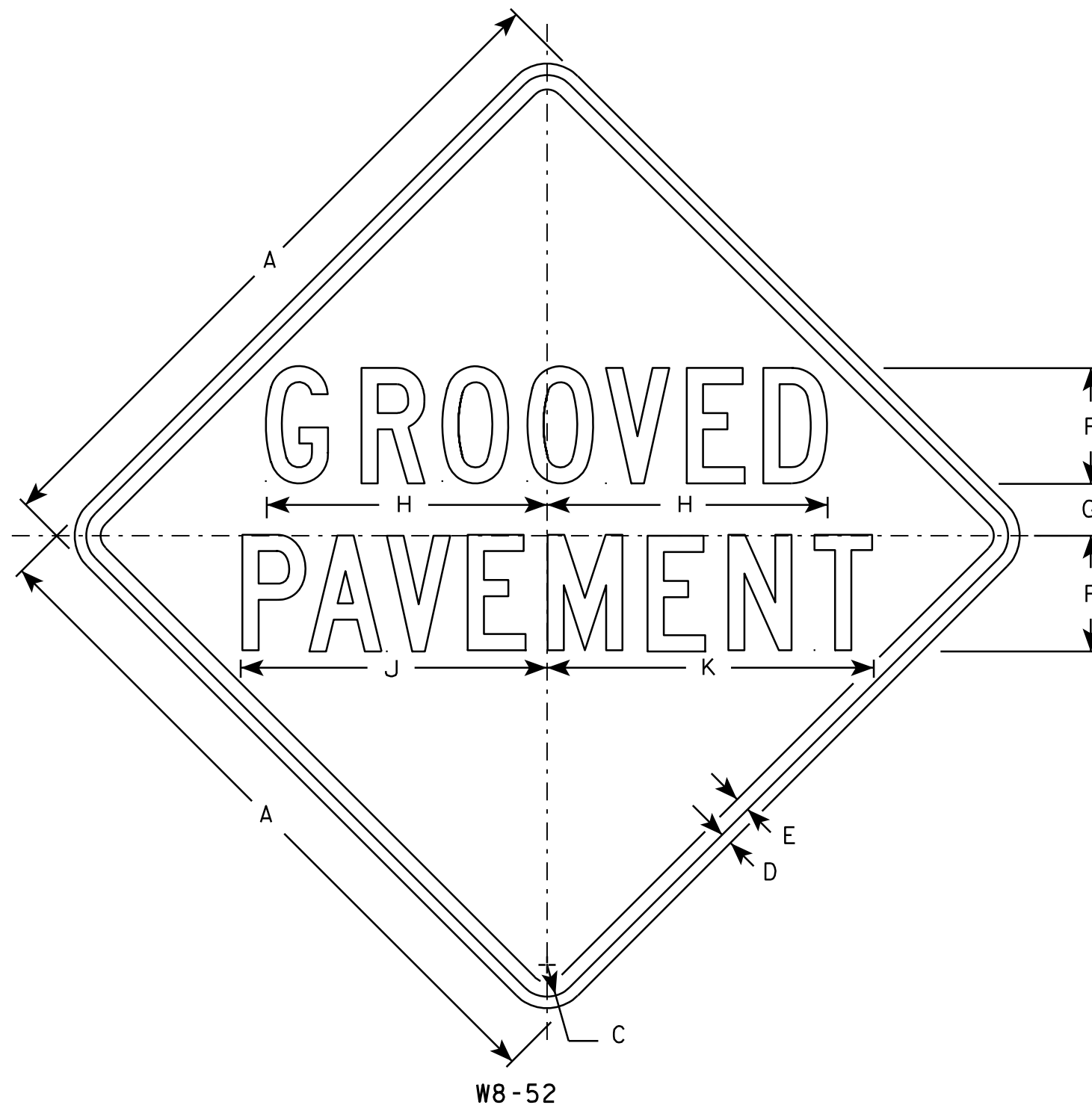
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	6	4 1/2	1 1/2	5 1/8	16	9																9.0
2M	36		1 5/8	5/8	3/4	6	4 1/2	1 1/2	5 1/8	16	9																9.0
3	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
4	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
5	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0

STANDARD SIGN W8-12

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 8/24/10 PLATE NO. W8-12.3

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

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

W8-52

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3⁄8	1⁄2	5⁄8	5	2 1⁄4	12 1⁄8		13 1⁄4	14 1⁄8																6.25
2M	36		1 5⁄8	5⁄8	3⁄4	6	2 5⁄8	14 1⁄2		15 7⁄8	17																9.0
3	36		1 5⁄8	5⁄8	3⁄4	6	2 5⁄8	14 1⁄2		15 7⁄8	17																9.0
4	36		1 5⁄8	5⁄8	3⁄4	6	2 5⁄8	14 1⁄2		15 7⁄8	17																9.0
5	48		2 1⁄4	3⁄4	1	8	3 1⁄2	19 3⁄8		21 1⁄4	22 5⁄8																16.0

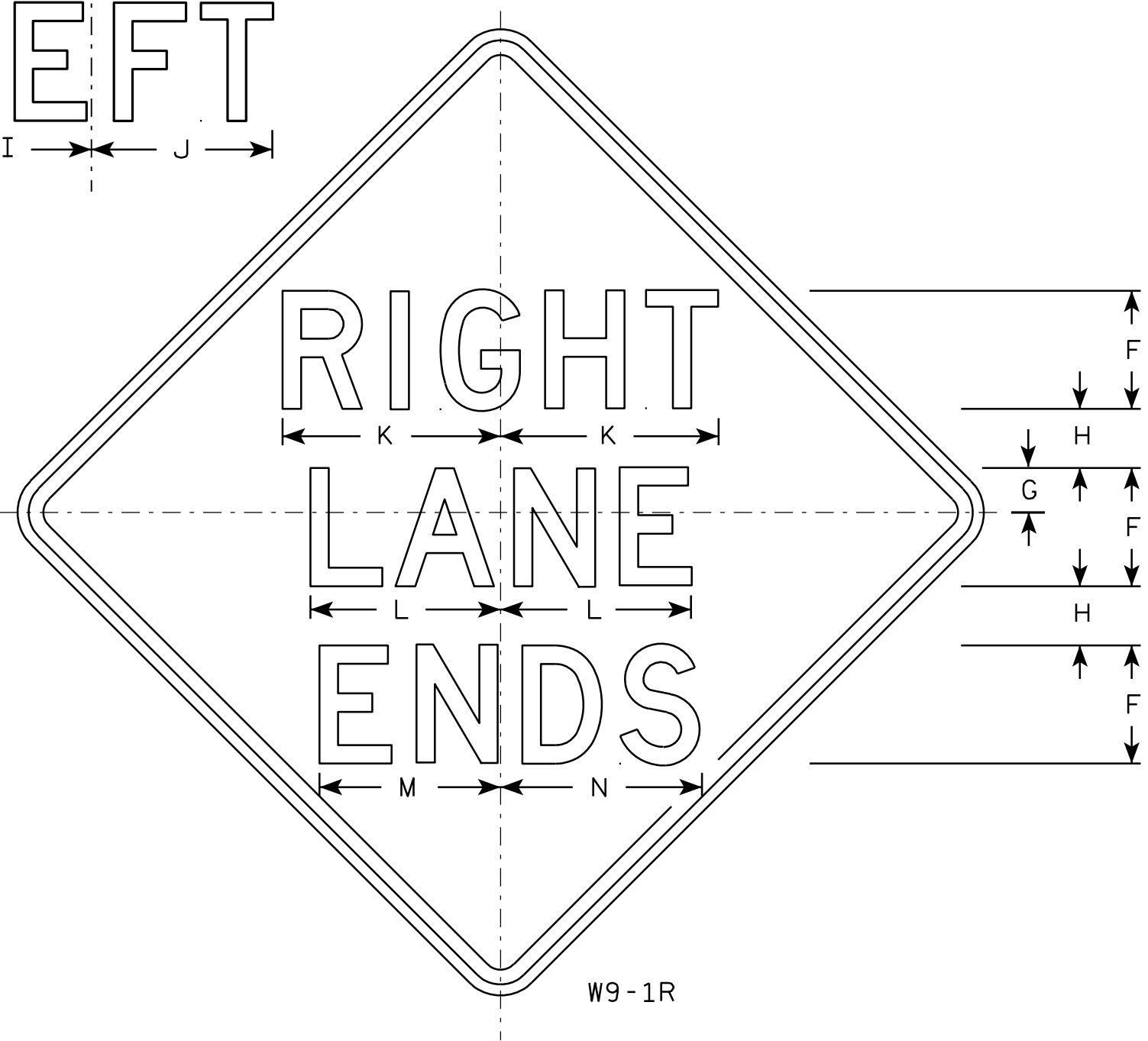
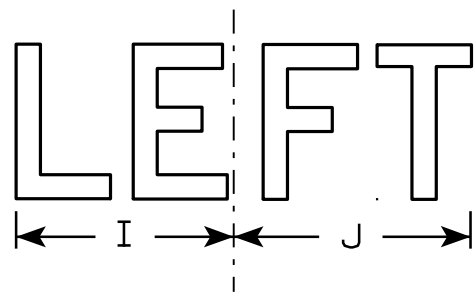
STANDARD SIGN W8-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-52.8

PROJECT NO: HWY: COUNTY: SHEET NO: E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 ³ / ₈	1/2	⁵ / ₈	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	³ / ₄	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

PROJECT NO:

SHEET NO:

E

STANDARD SIGN

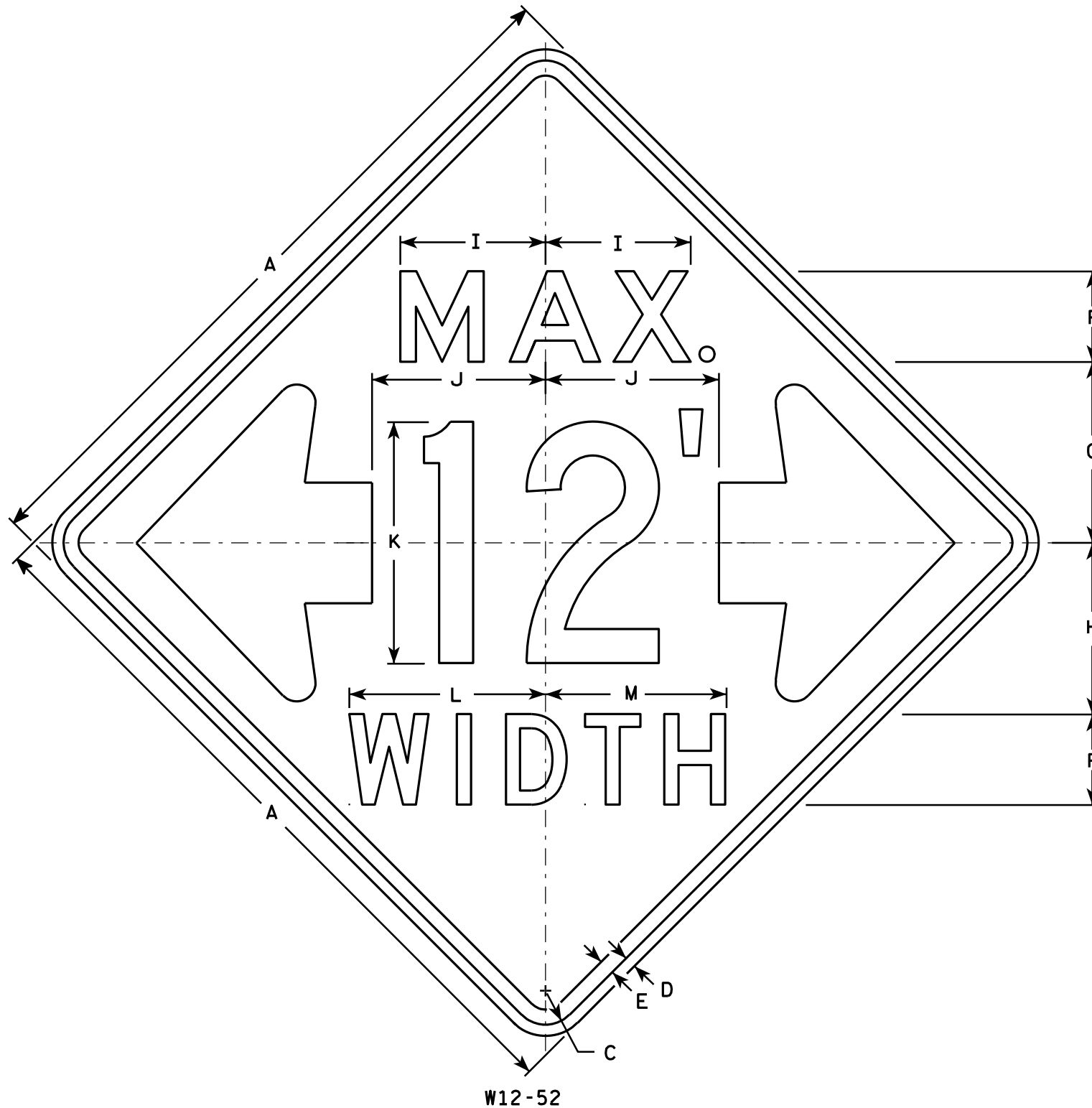
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

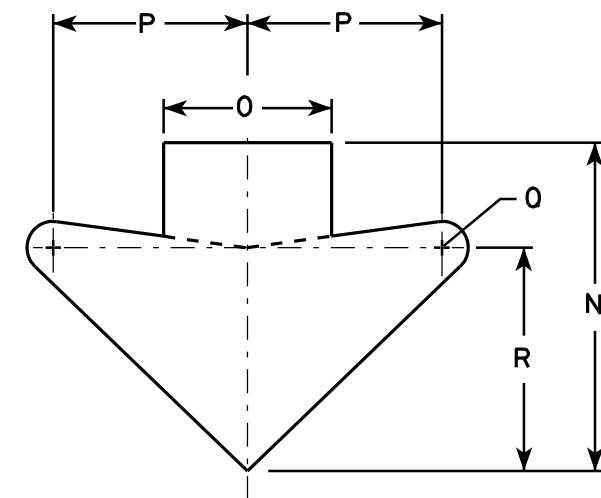
DATE 03/18/13

PLATE NO. W9-1.8



NOTES

1. Sign Is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

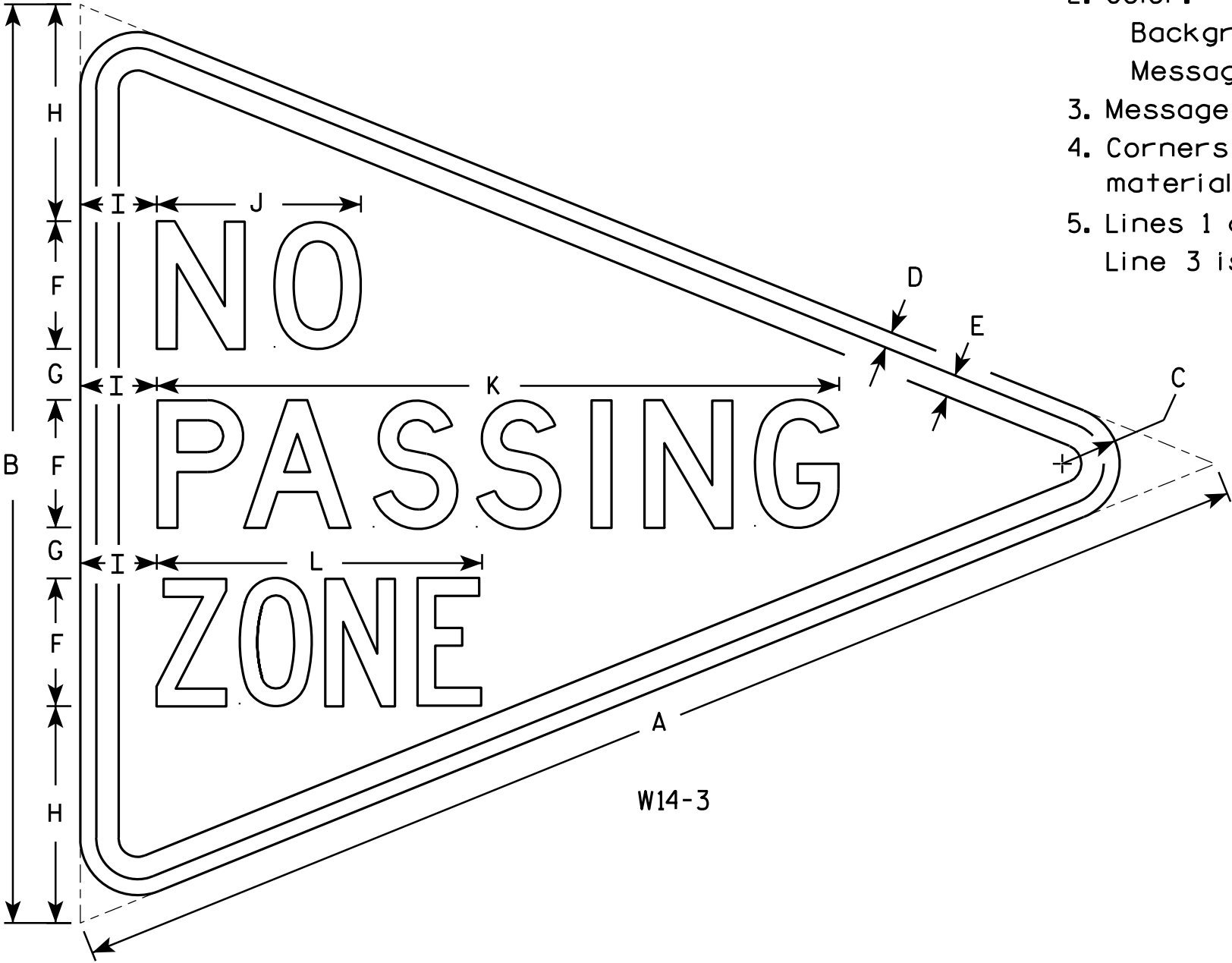
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



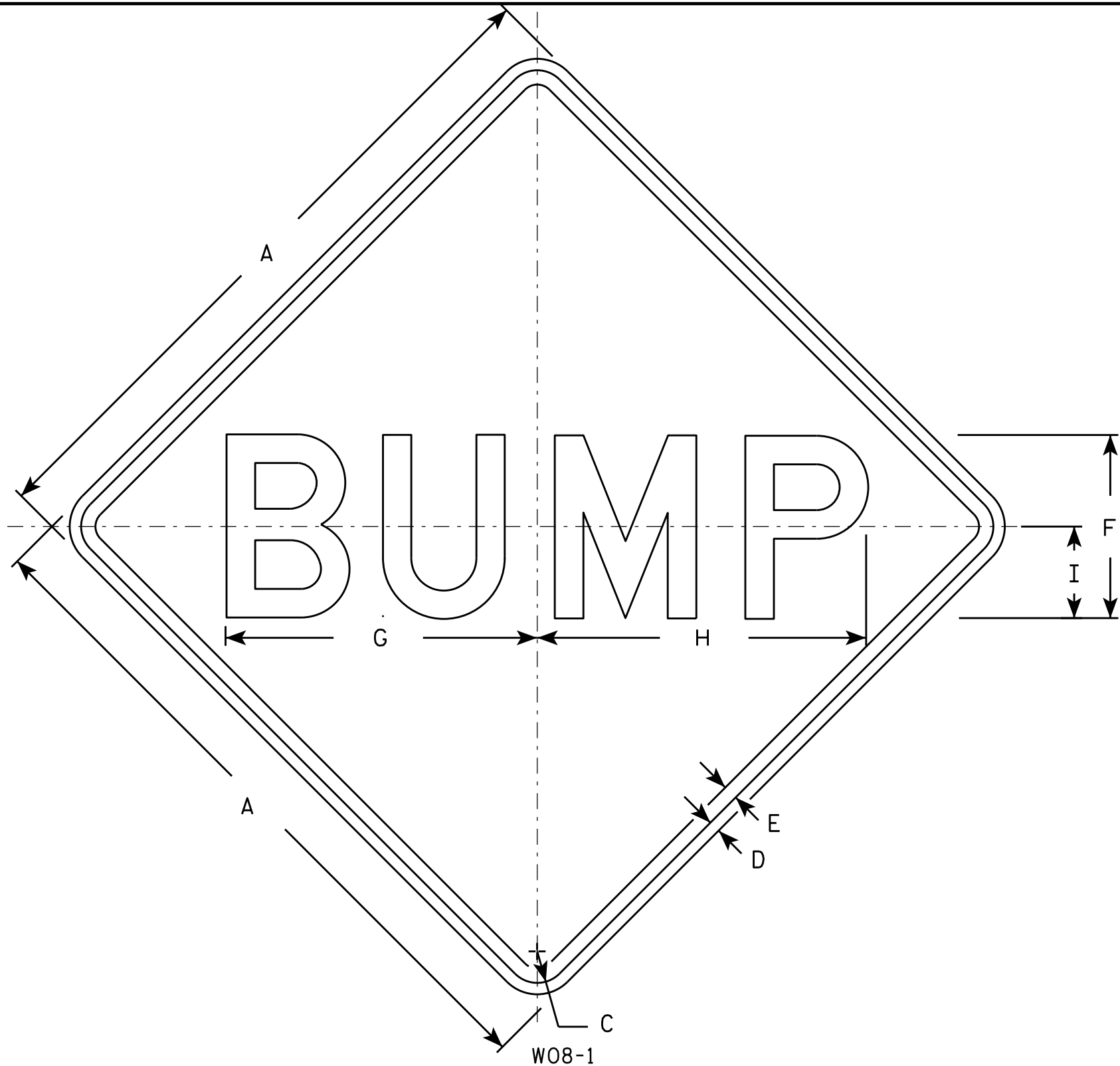
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5⁄8	5⁄8	3⁄4	10	16 7⁄8	17 7⁄8	5																		9.0
2S	48		2 1⁄4	3⁄4	1	12	20 3⁄8	21 5⁄8	6																		16.0
2M	48		2 1⁄4	3⁄4	1	12	20 3⁄8	21 5⁄8	6																		16.0
3	48		2 1⁄4	3⁄4	1	12	20 3⁄8	21 5⁄8	6																		16.0
4	48		2 1⁄4	3⁄4	1	12	20 3⁄8	21 5⁄8	6																		16.0
5	48		2 1⁄4	3⁄4	1	12	20 3⁄8	21 5⁄8	6																		16.0

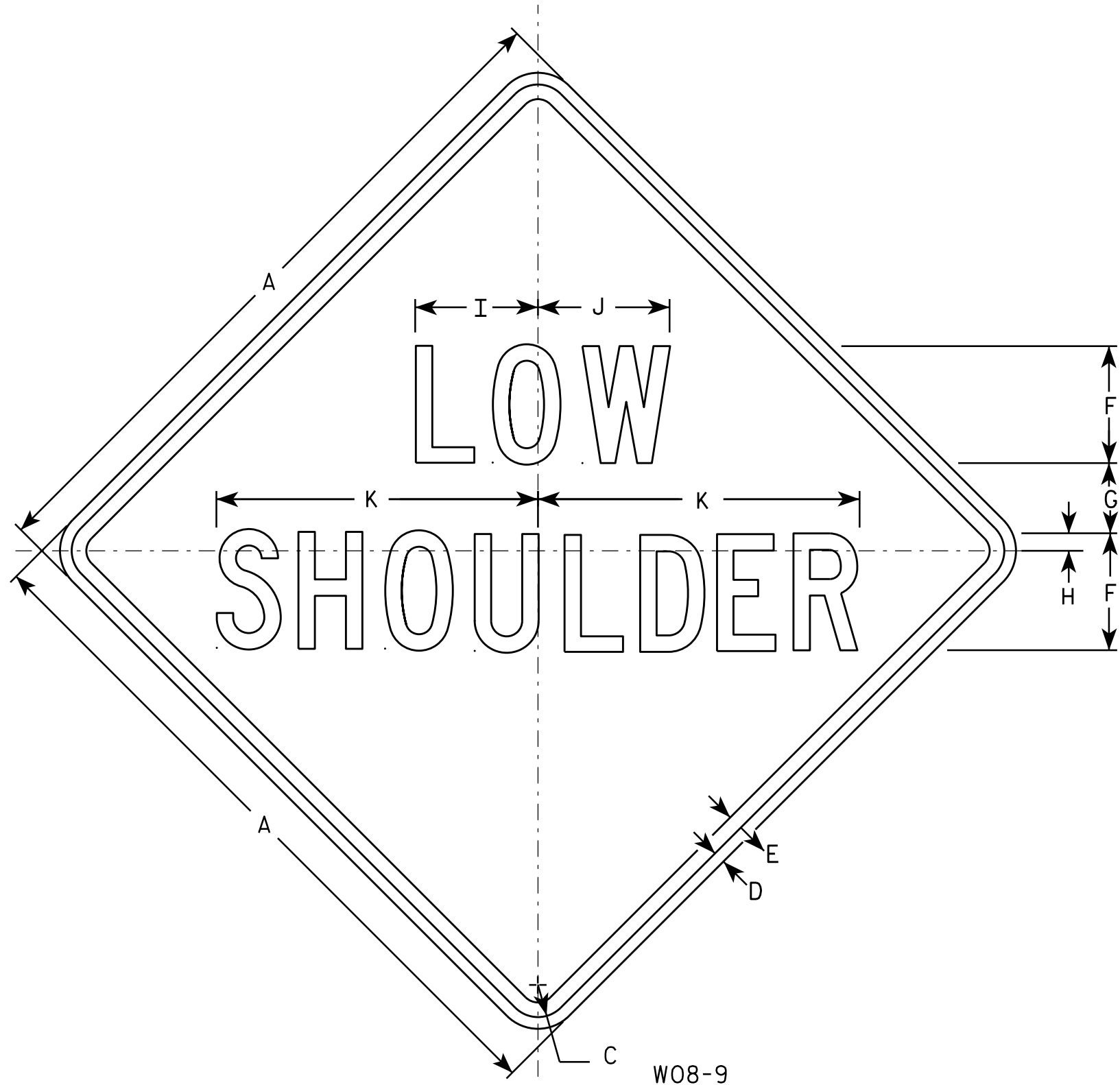
STANDARD SIGN

W08 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W08-1.1



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	1	6 1/4	6 3/4	16 1/2																9.0
2S	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
2M	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
3	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
4	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
5	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0

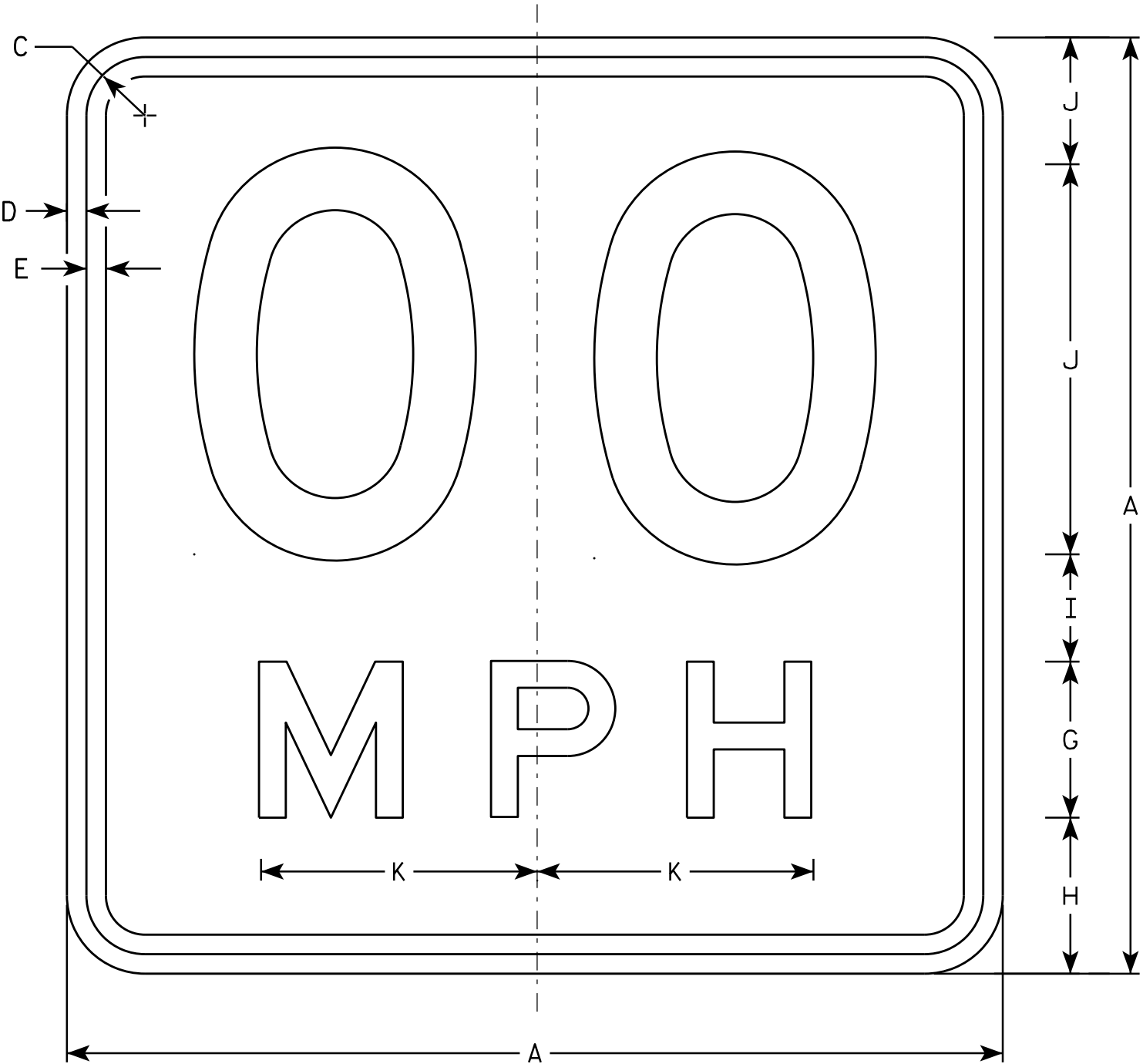
STANDARD SIGN W08-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/20/13 PLATE NO. W08-9.1

PROJECT NO: HWY: COUNTY: SHEET NO: E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 11/21/13 PLATE NO. W013-1.1

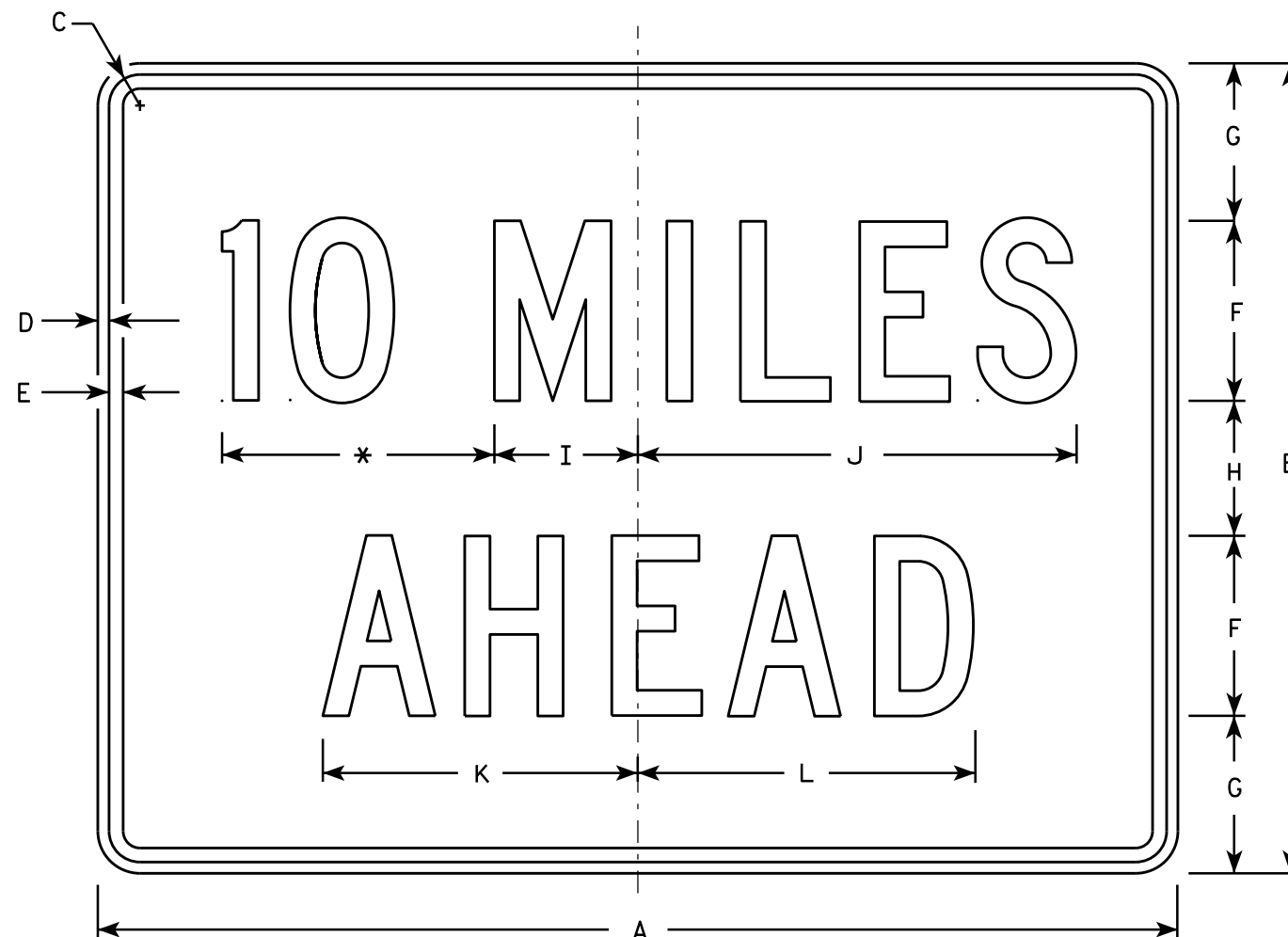
PROJECT NO:

HWY:

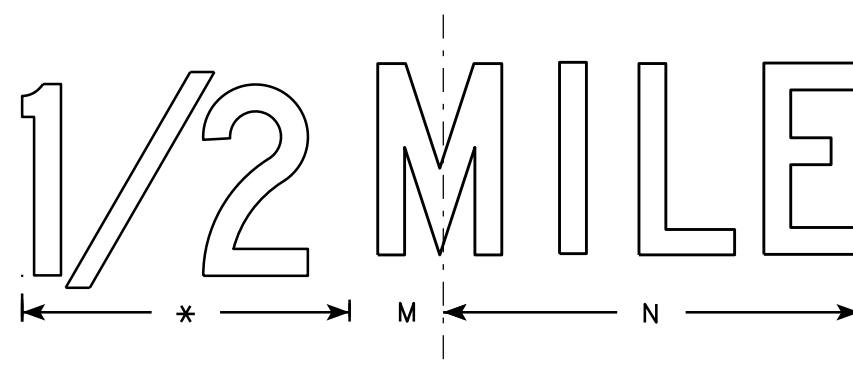
COUNTY:

SHEET NO:

E



W057-52



* See note 5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13

PLATE NO. W057-52.1

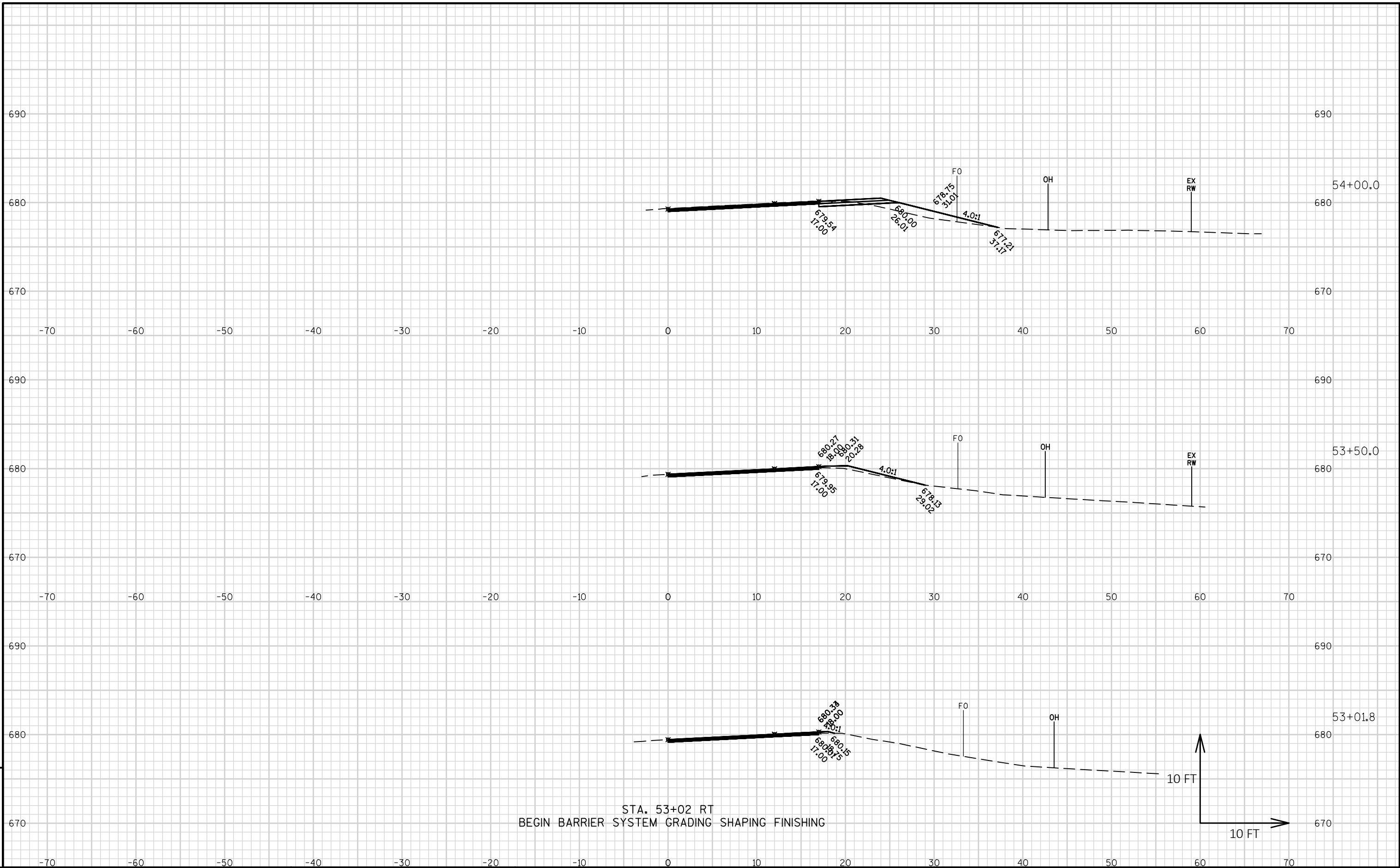
PROJECT NO:

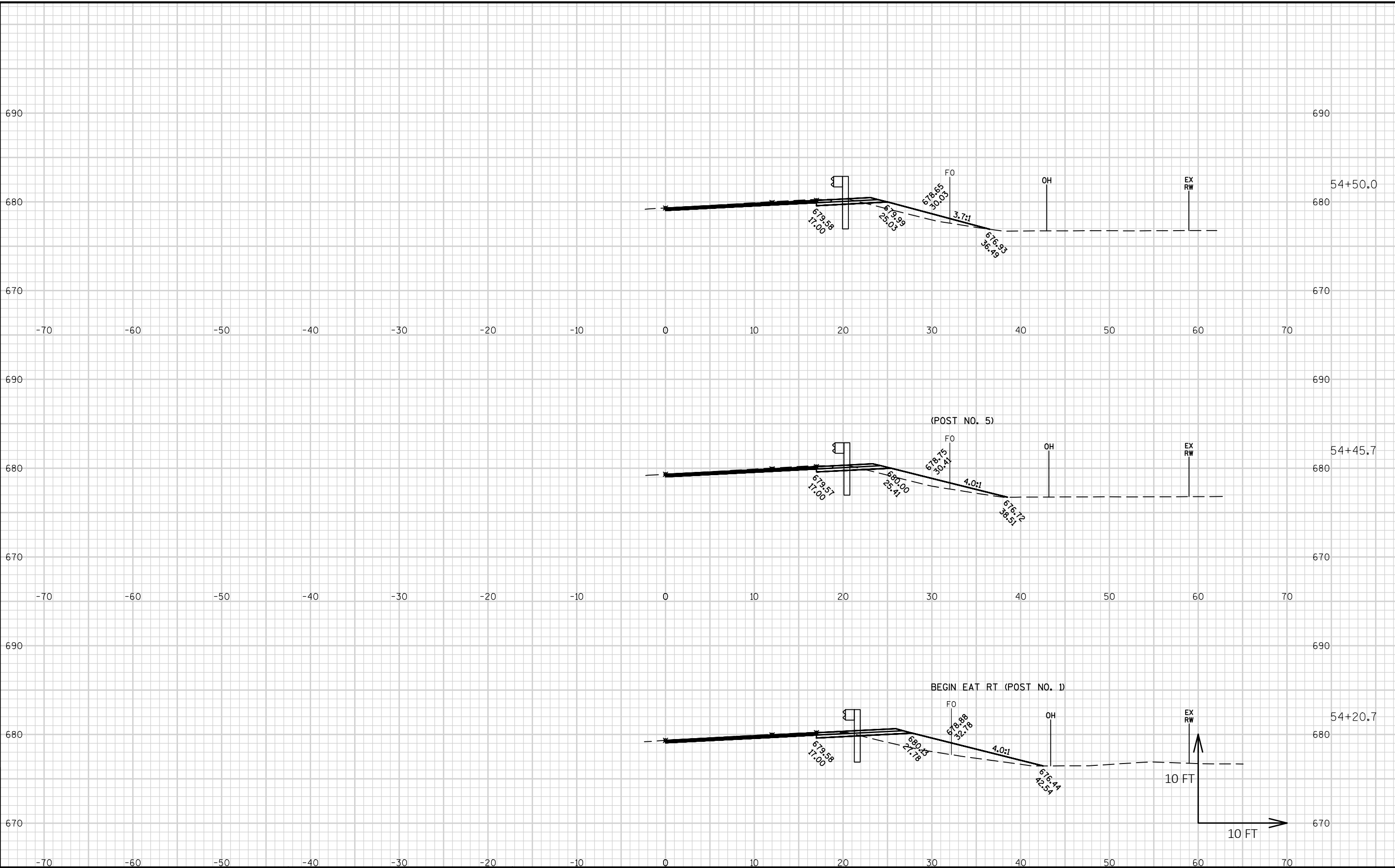
HWY:

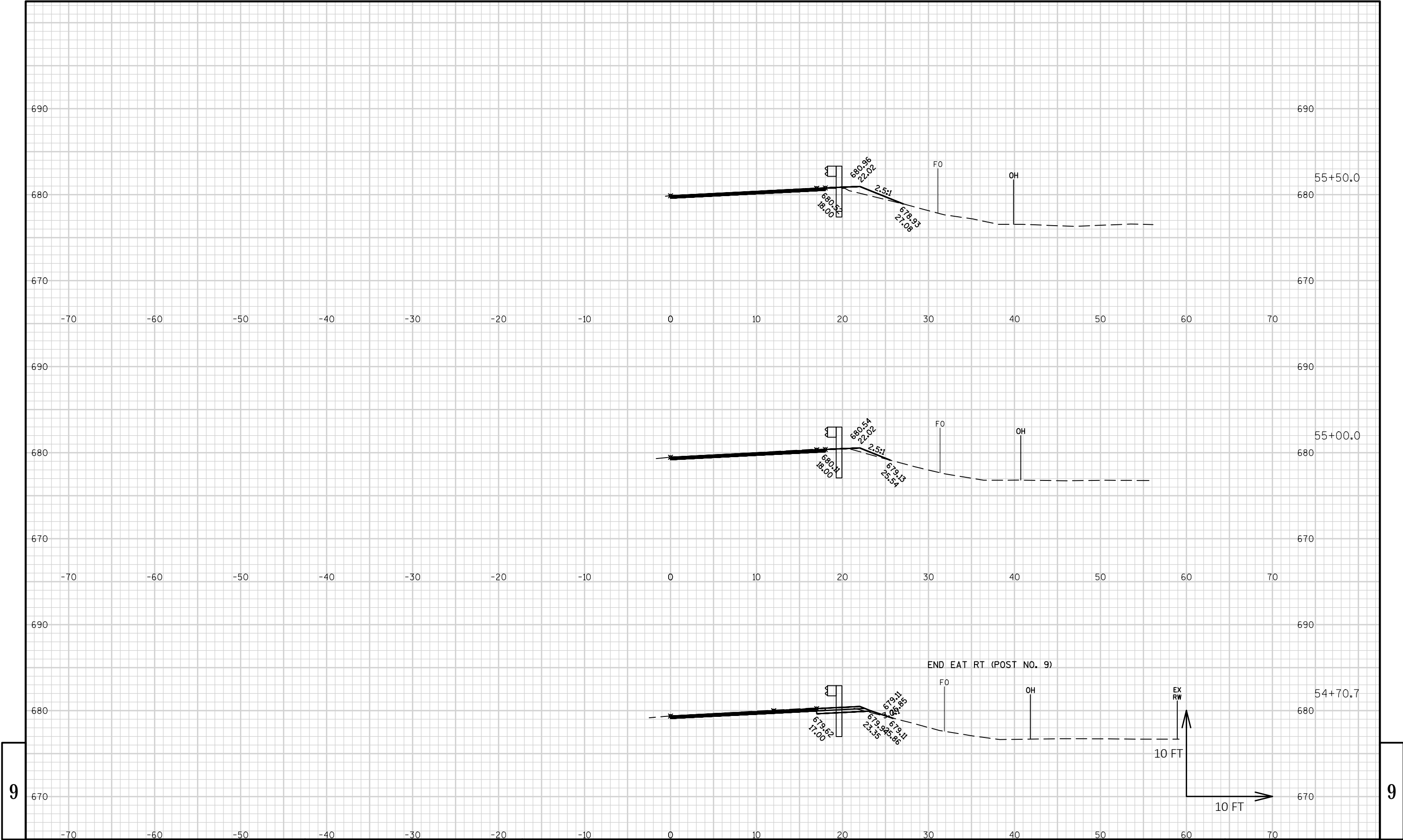
COUNTY:

SHEET NO:

E



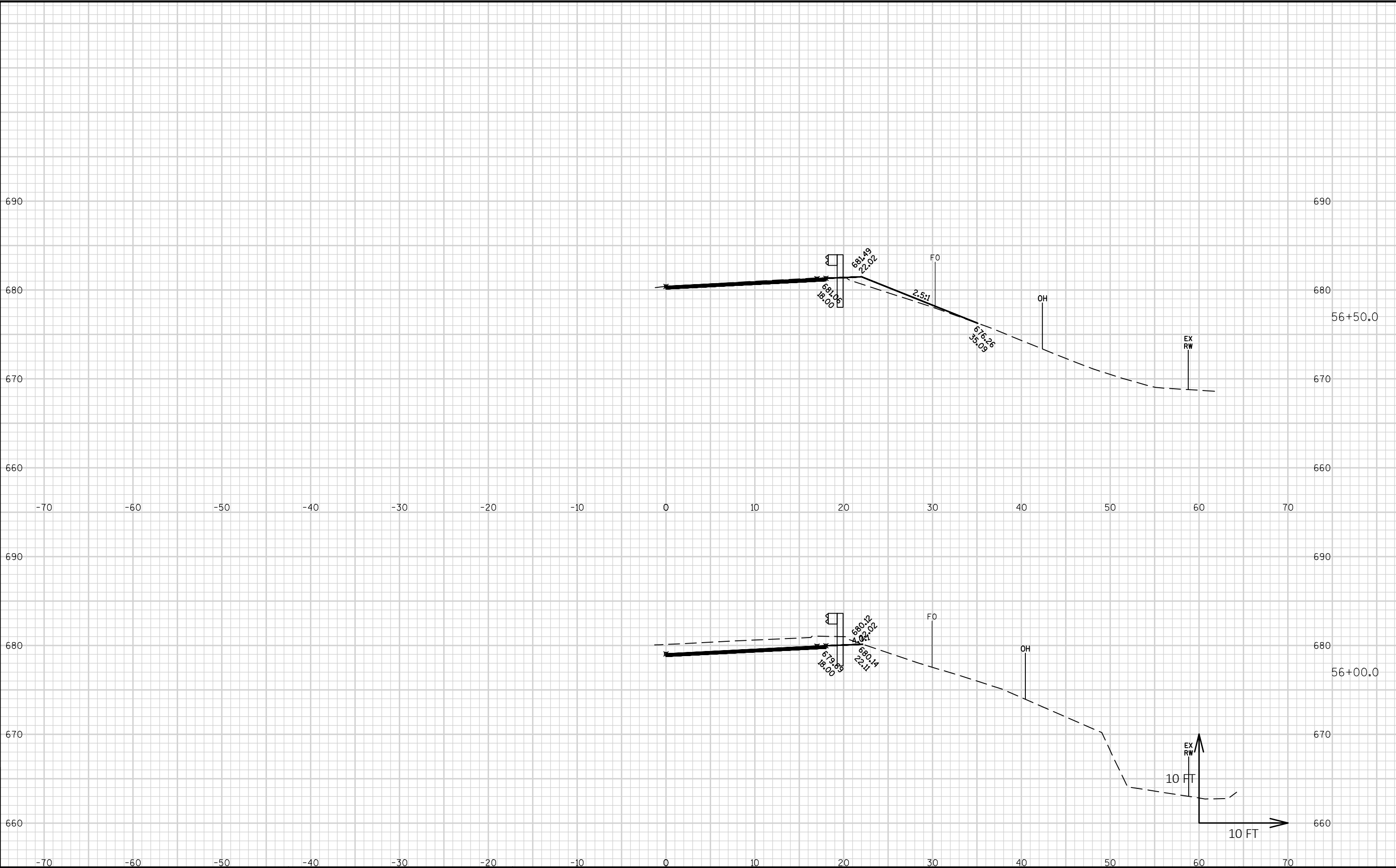




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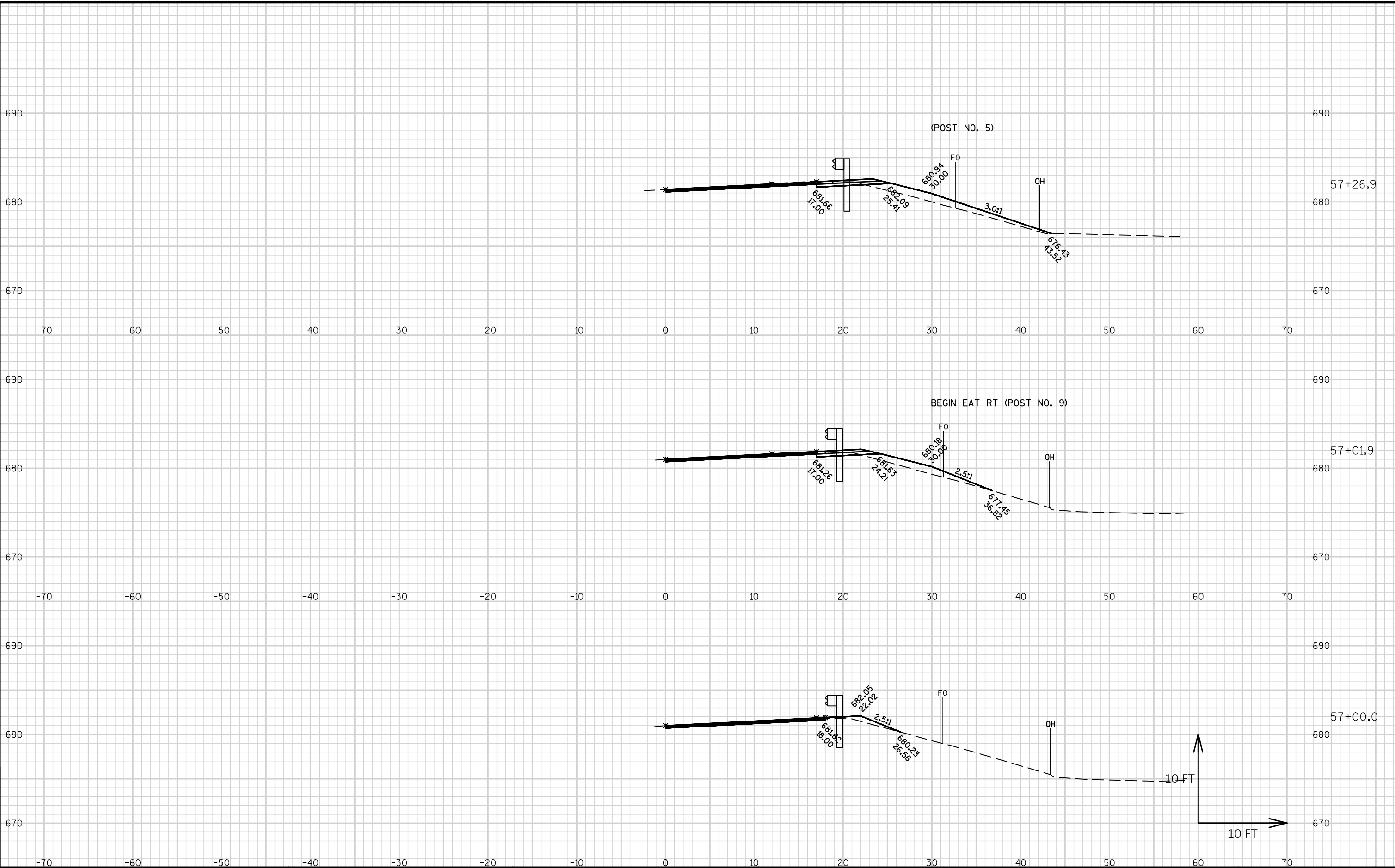
PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13-SPBG STA. 53+02-57+79 RT-INFO. ONLY	SHEET	E
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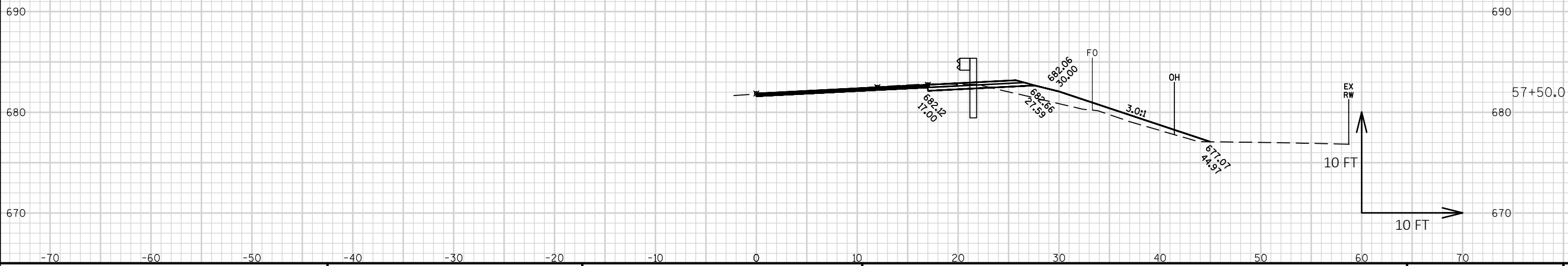
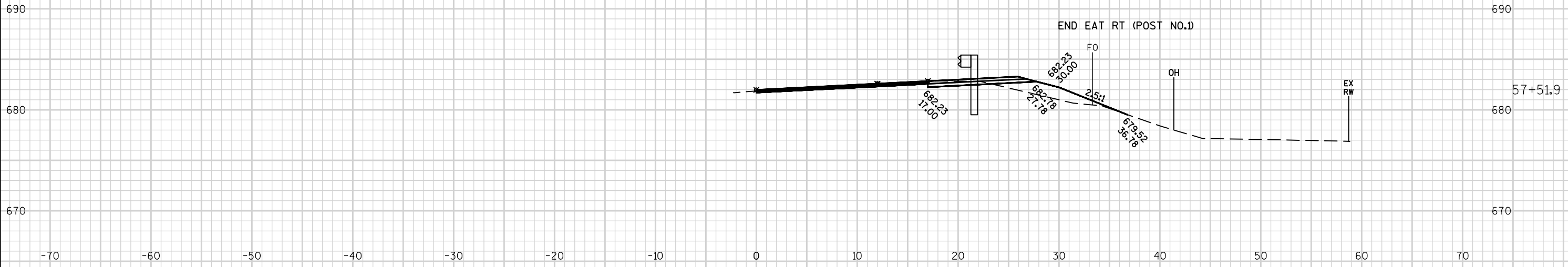
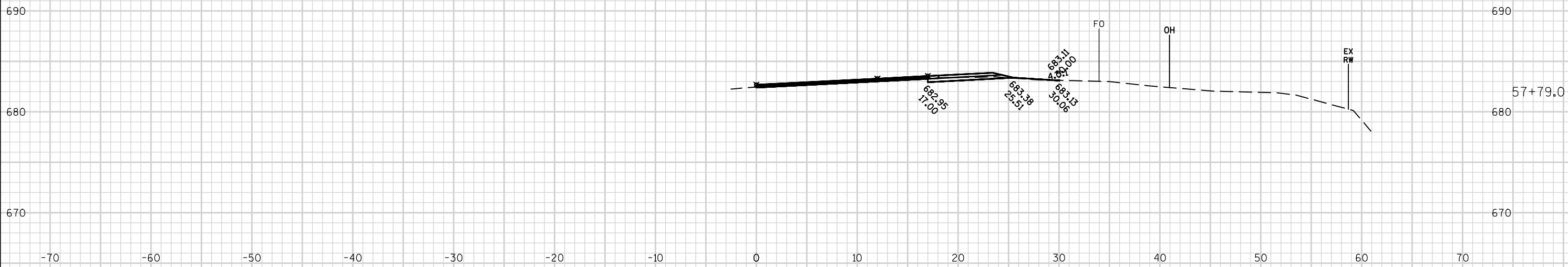
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PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13-SPBG STA. 53+02-57+79 RT-INFO. ONLY	SHEET E
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STA. 57+79 RT
END BARRIER SYSTEM GRADING SHAPING FINISHING

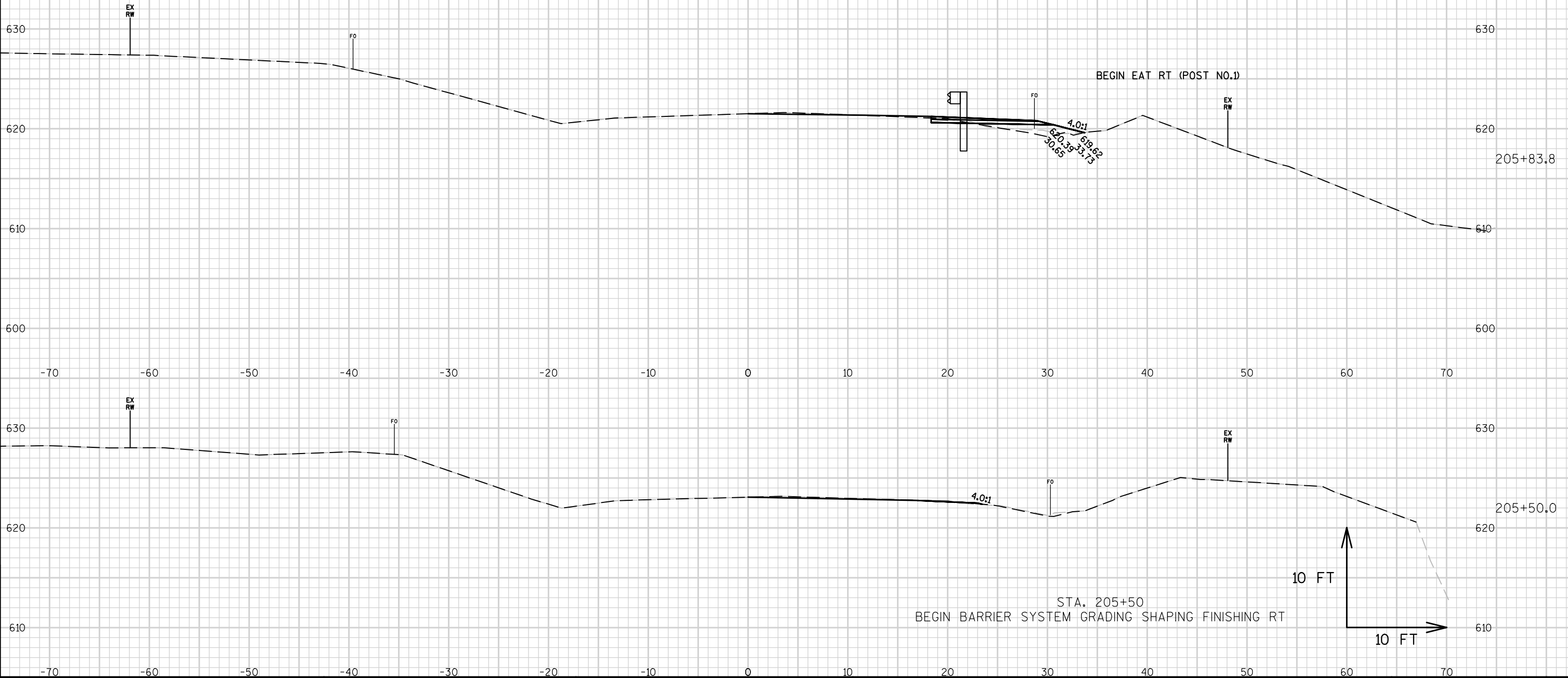


NOTE:

CROSS-SECTIONS FOR INFORMATION ONLY.

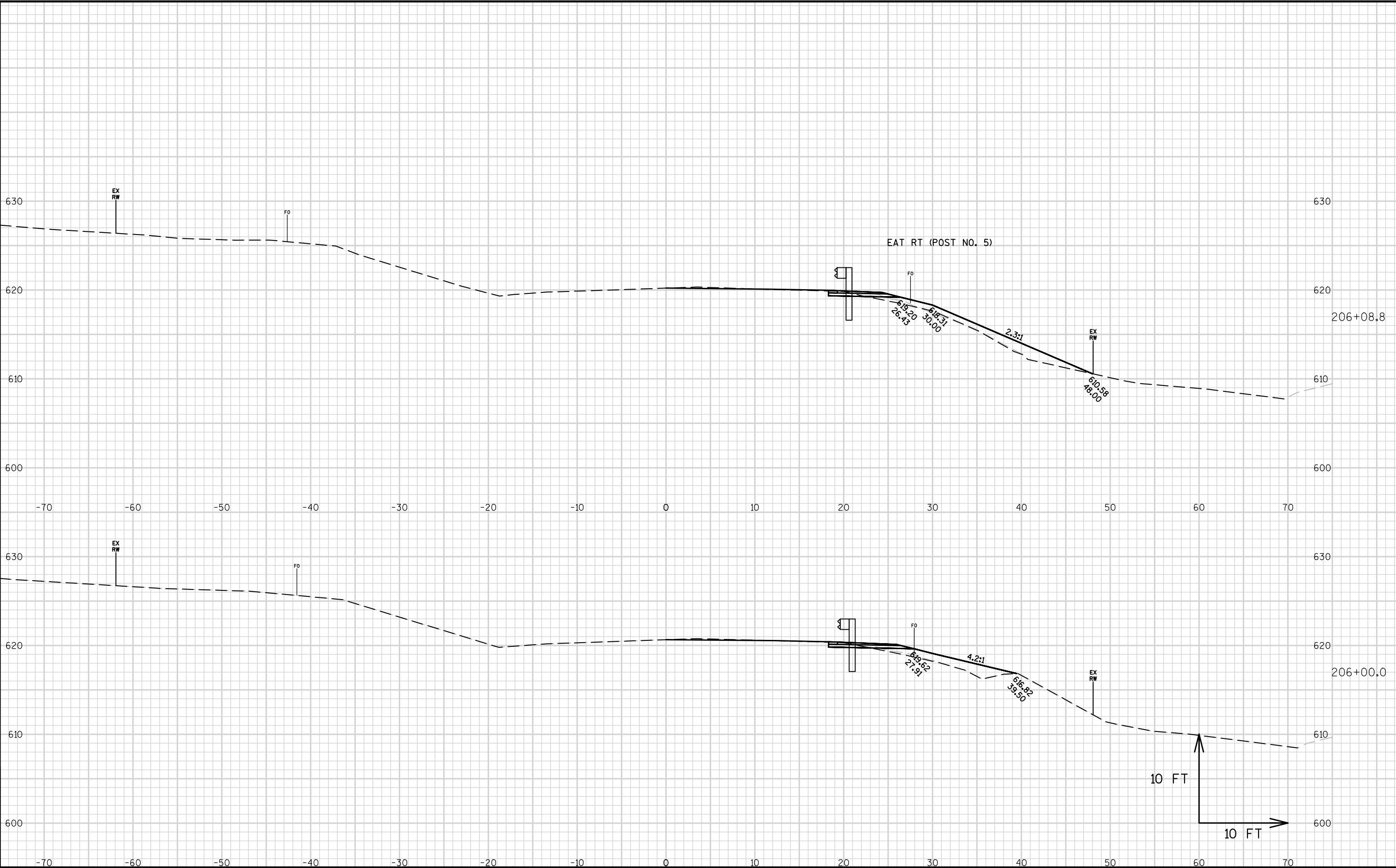
EARTHWORK AND LANDSCAPING ITEMS PAID FOR
UNDER ITEM 614.0010 BARRIER SYSTEM GRADING
SHAPING FINISHING.

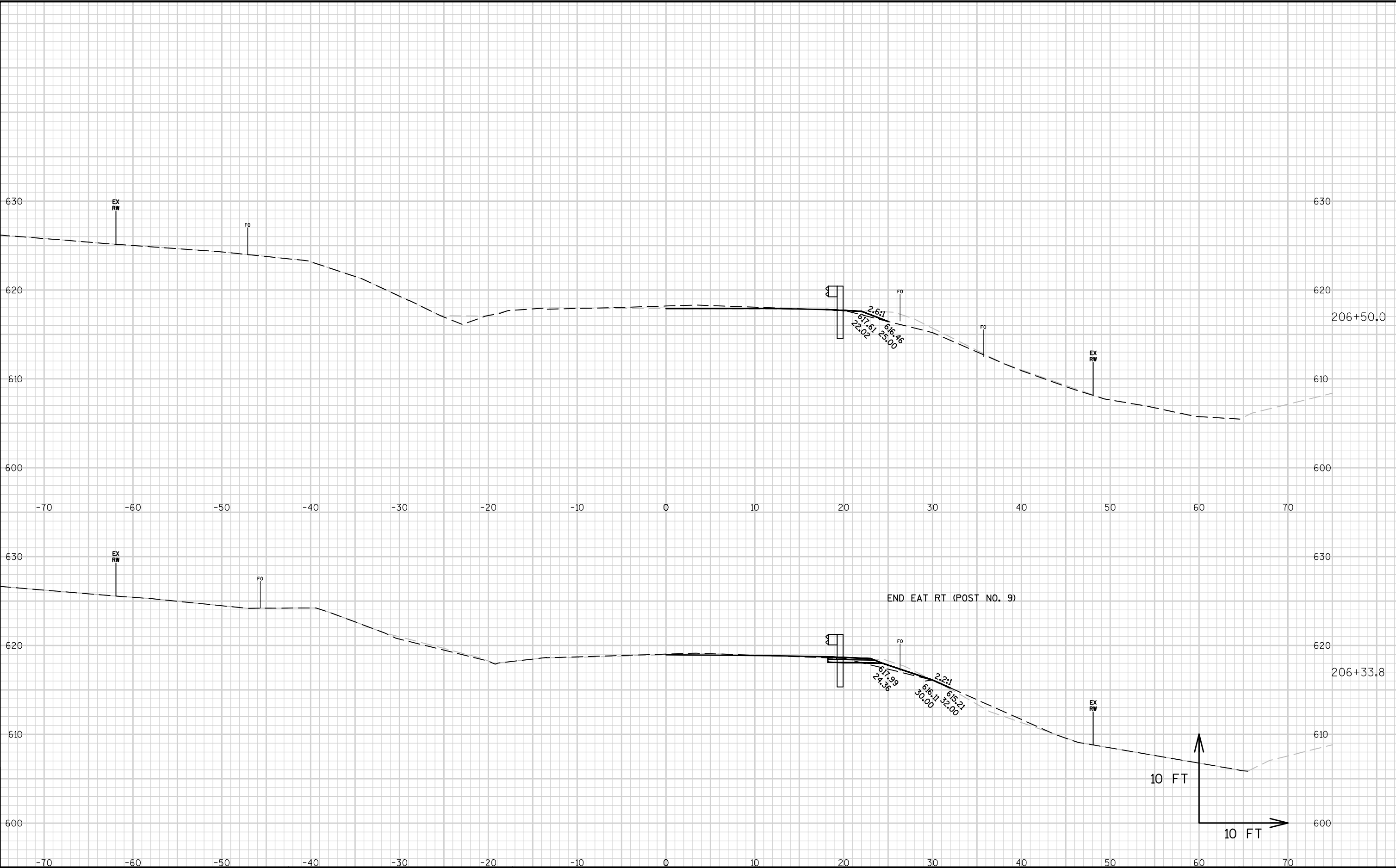
ASPHALTIC SURFACE MILLING IS NOT INCLUDED IN
THE EARTHWORK CUT QUANTITY.

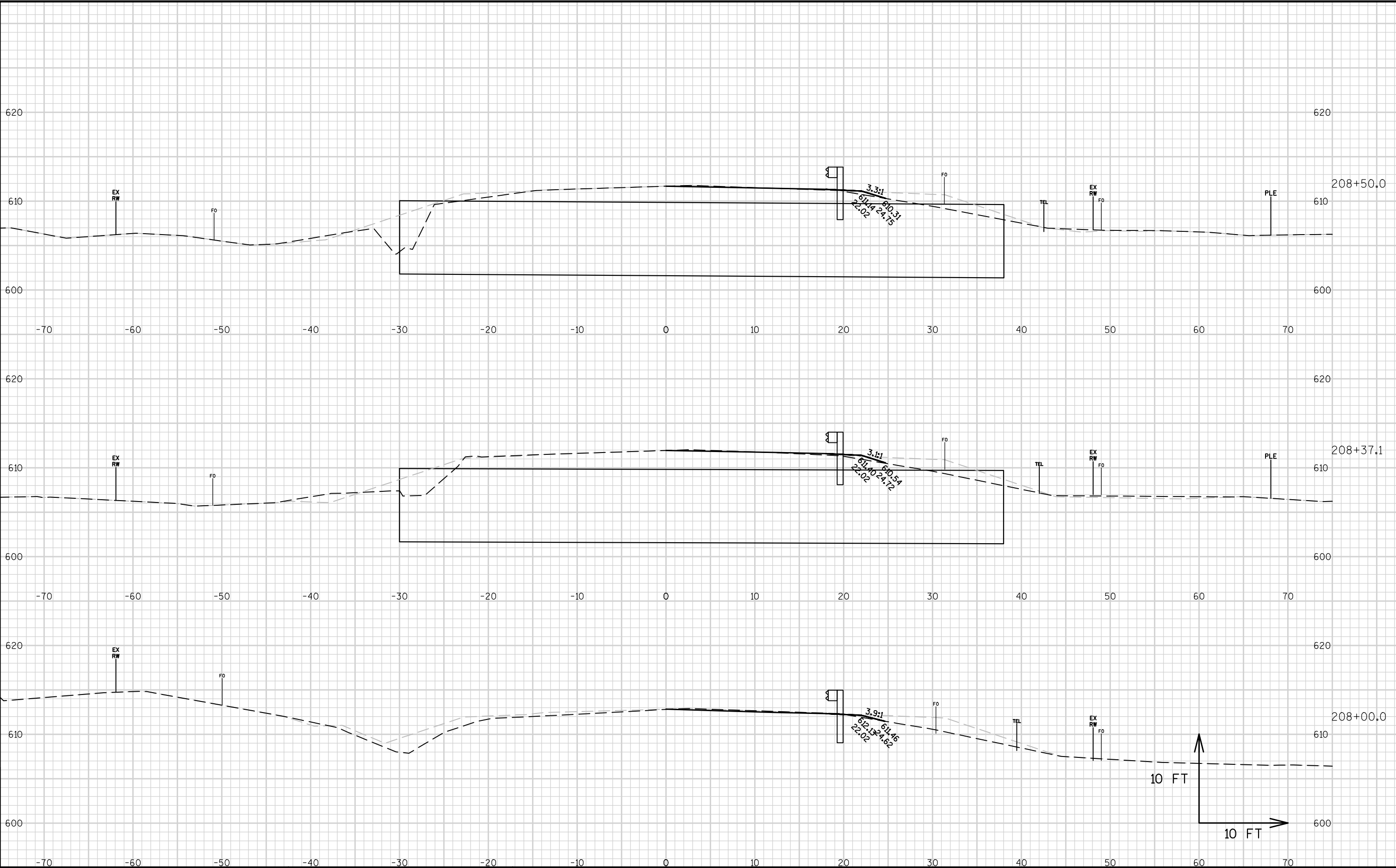


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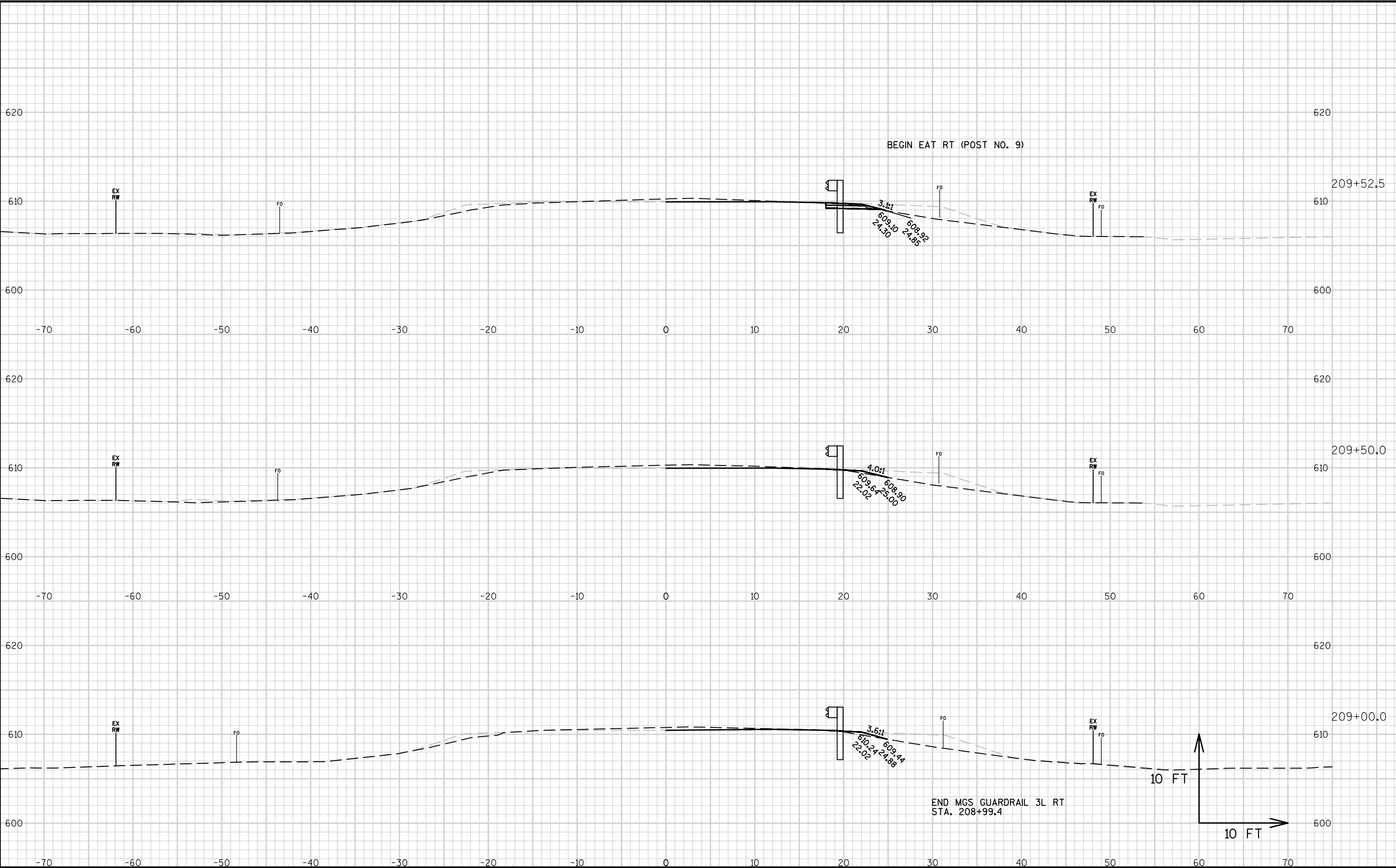


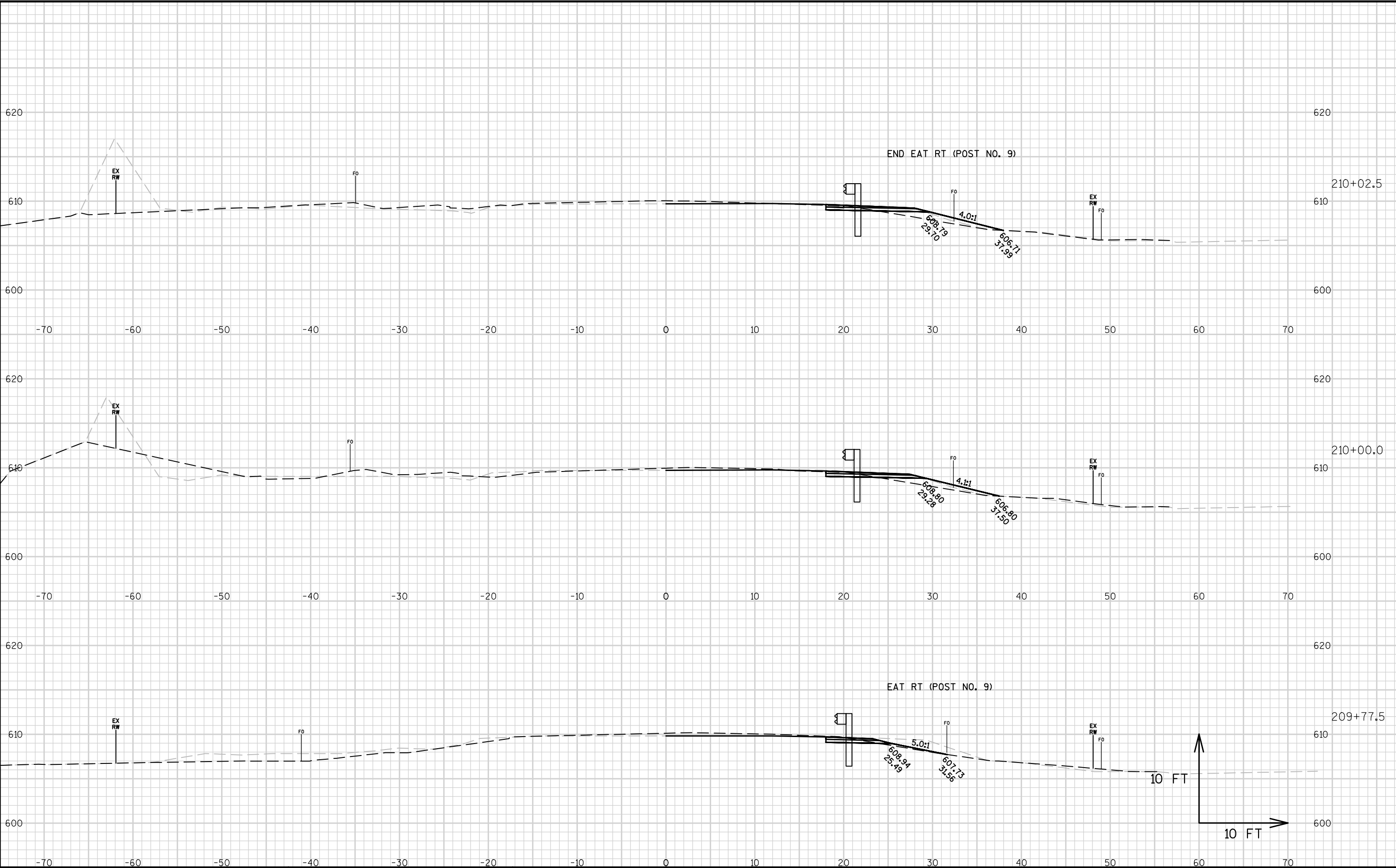


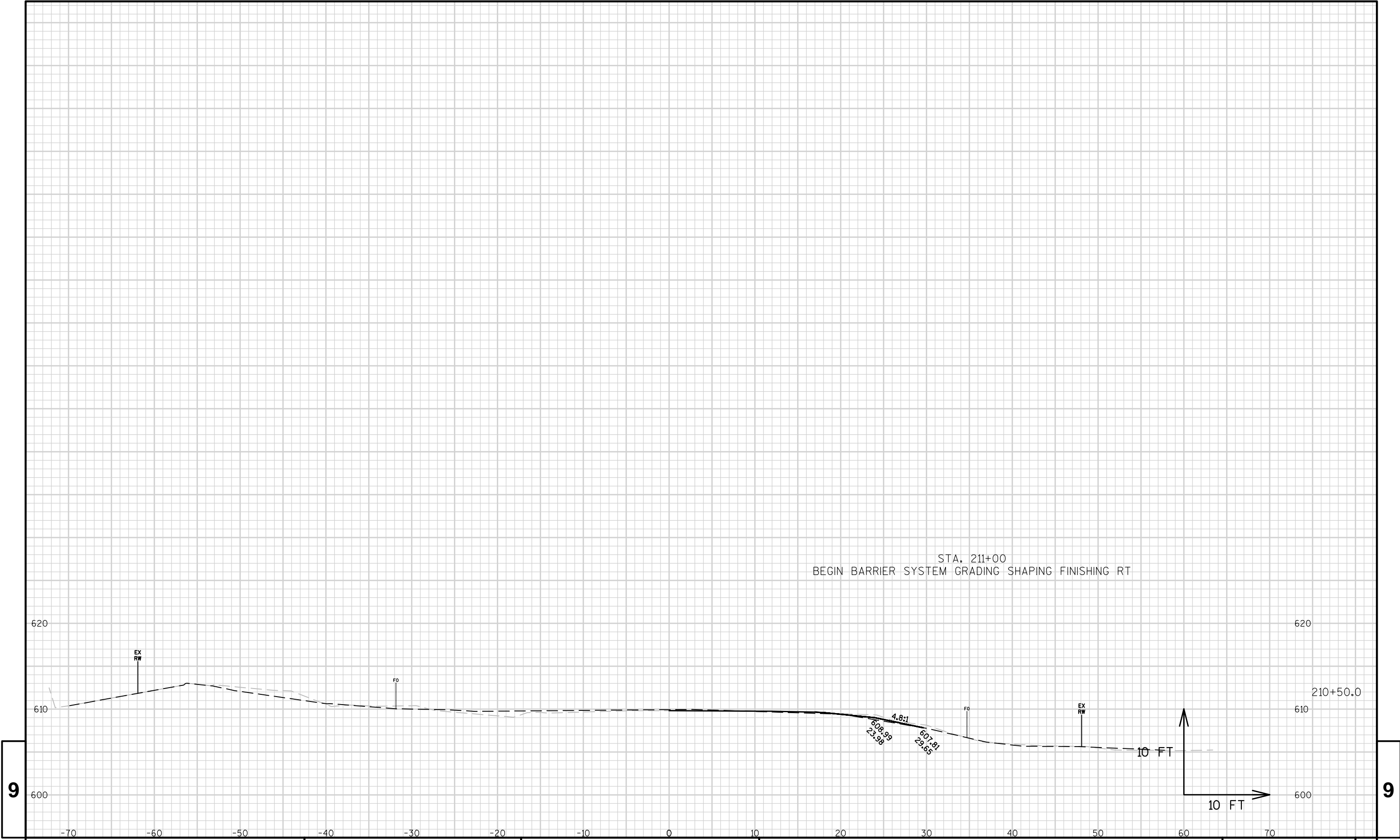


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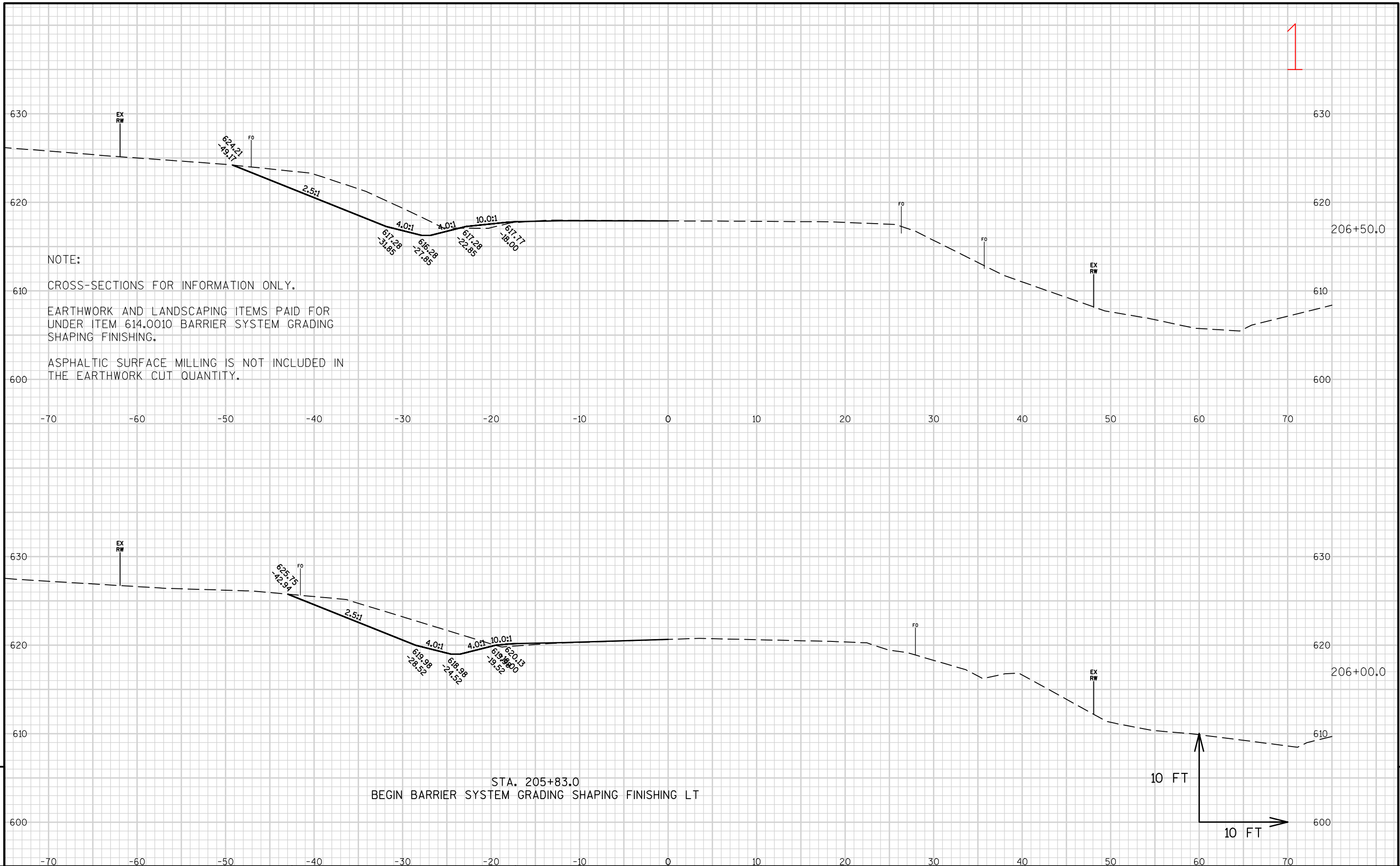
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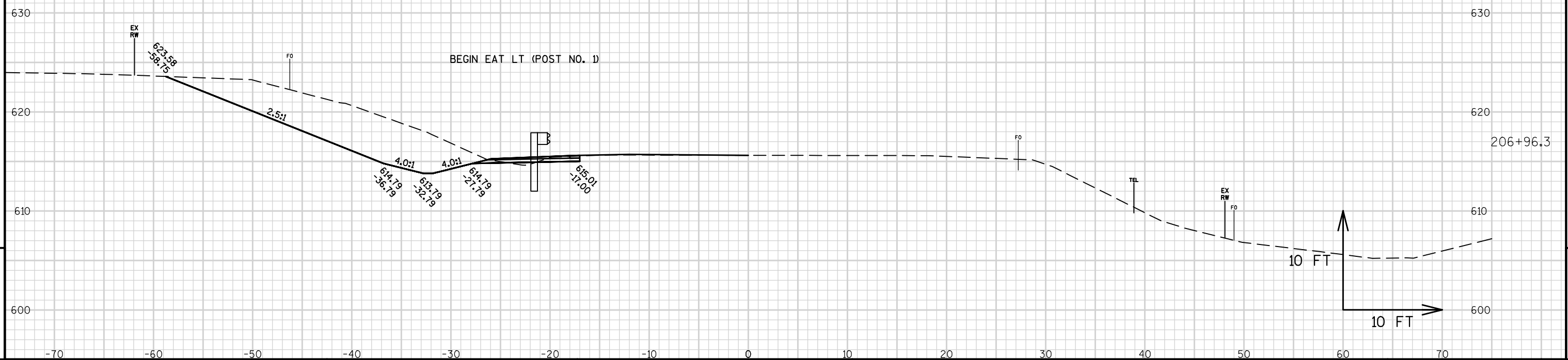
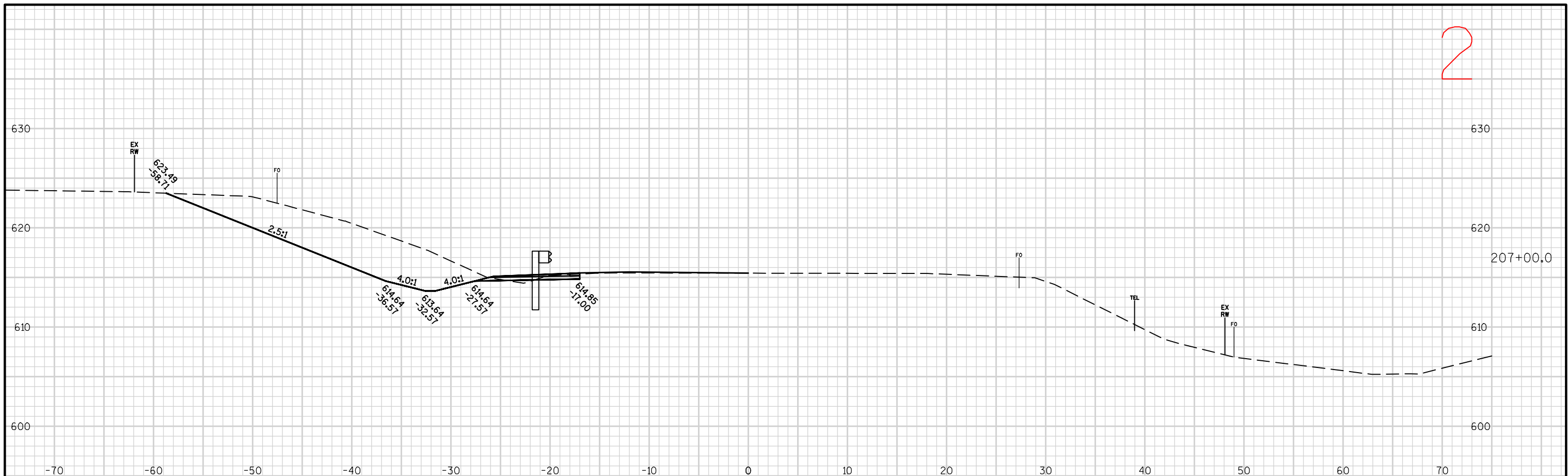
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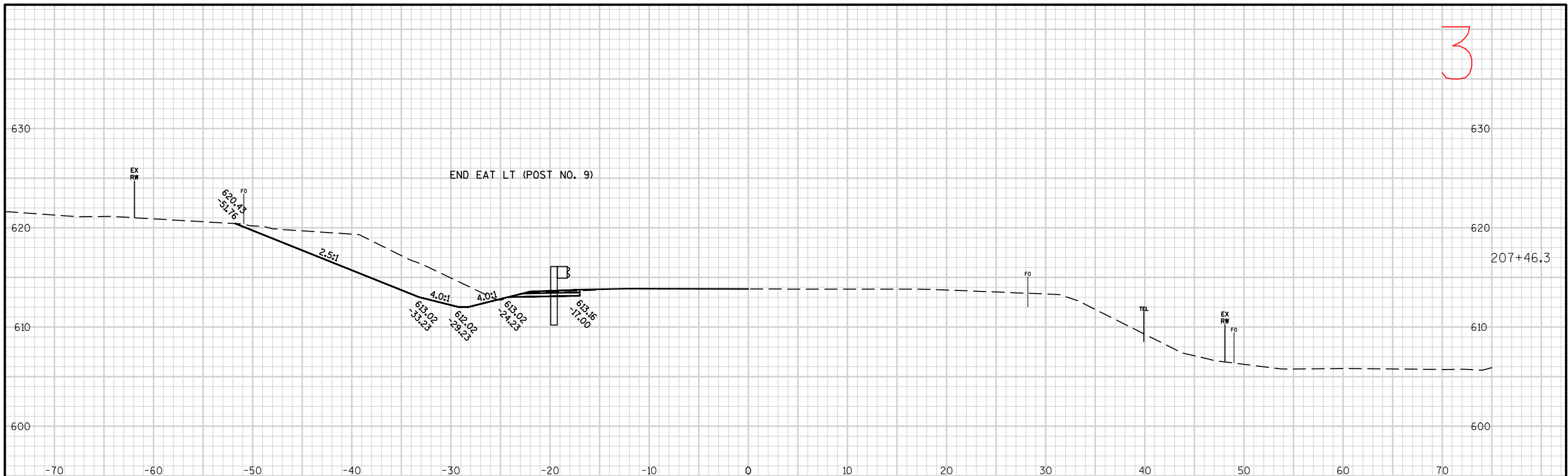
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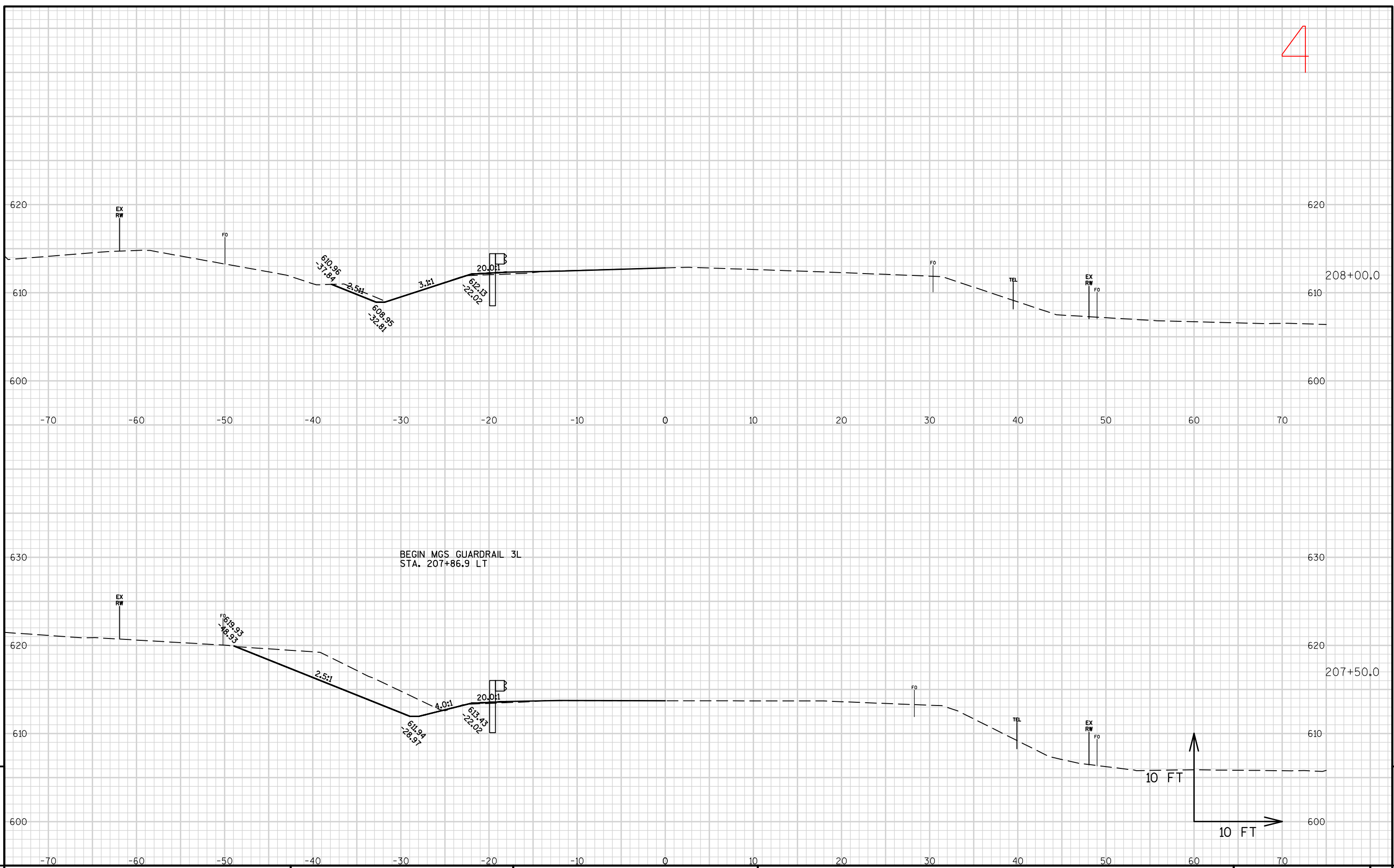
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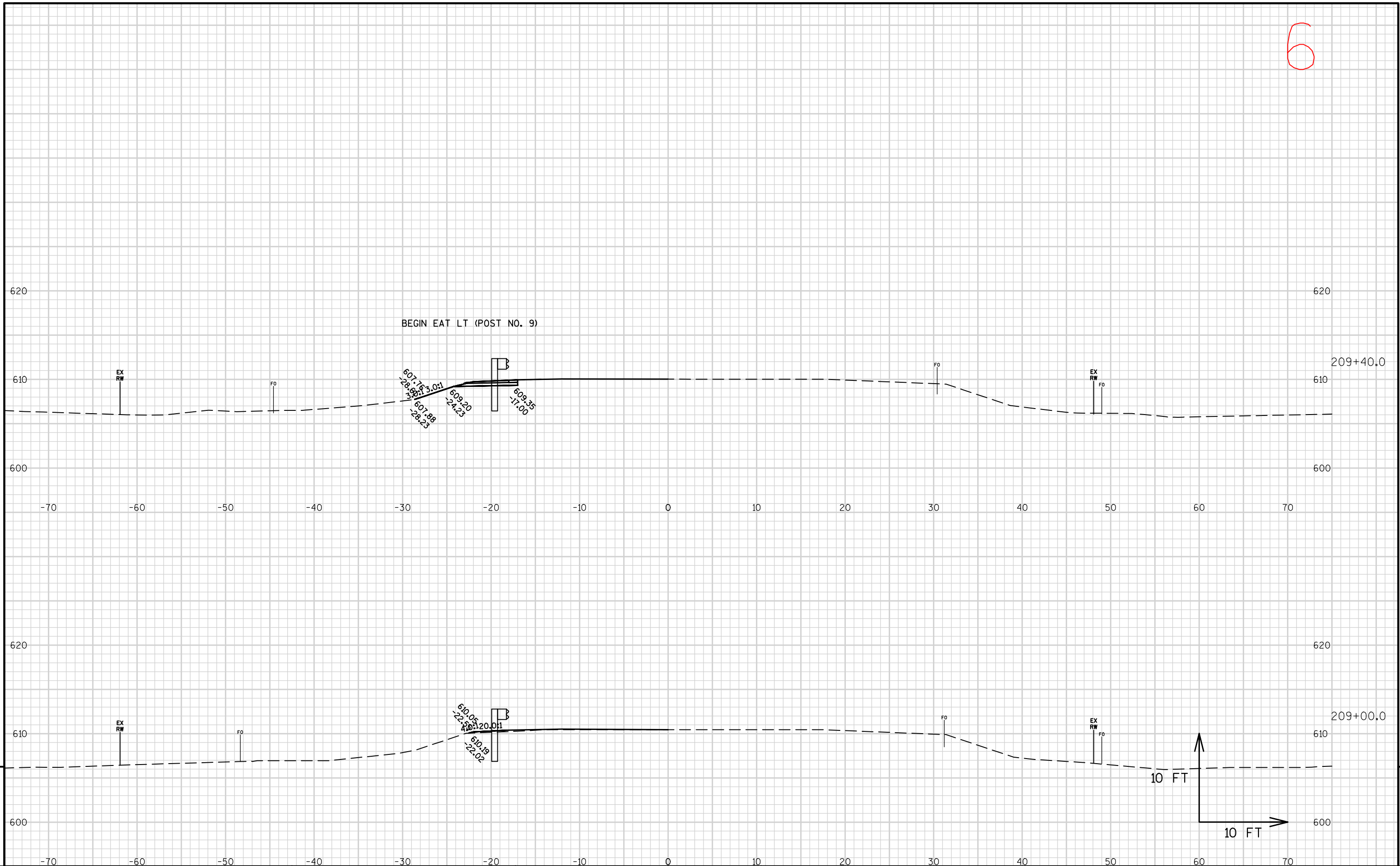
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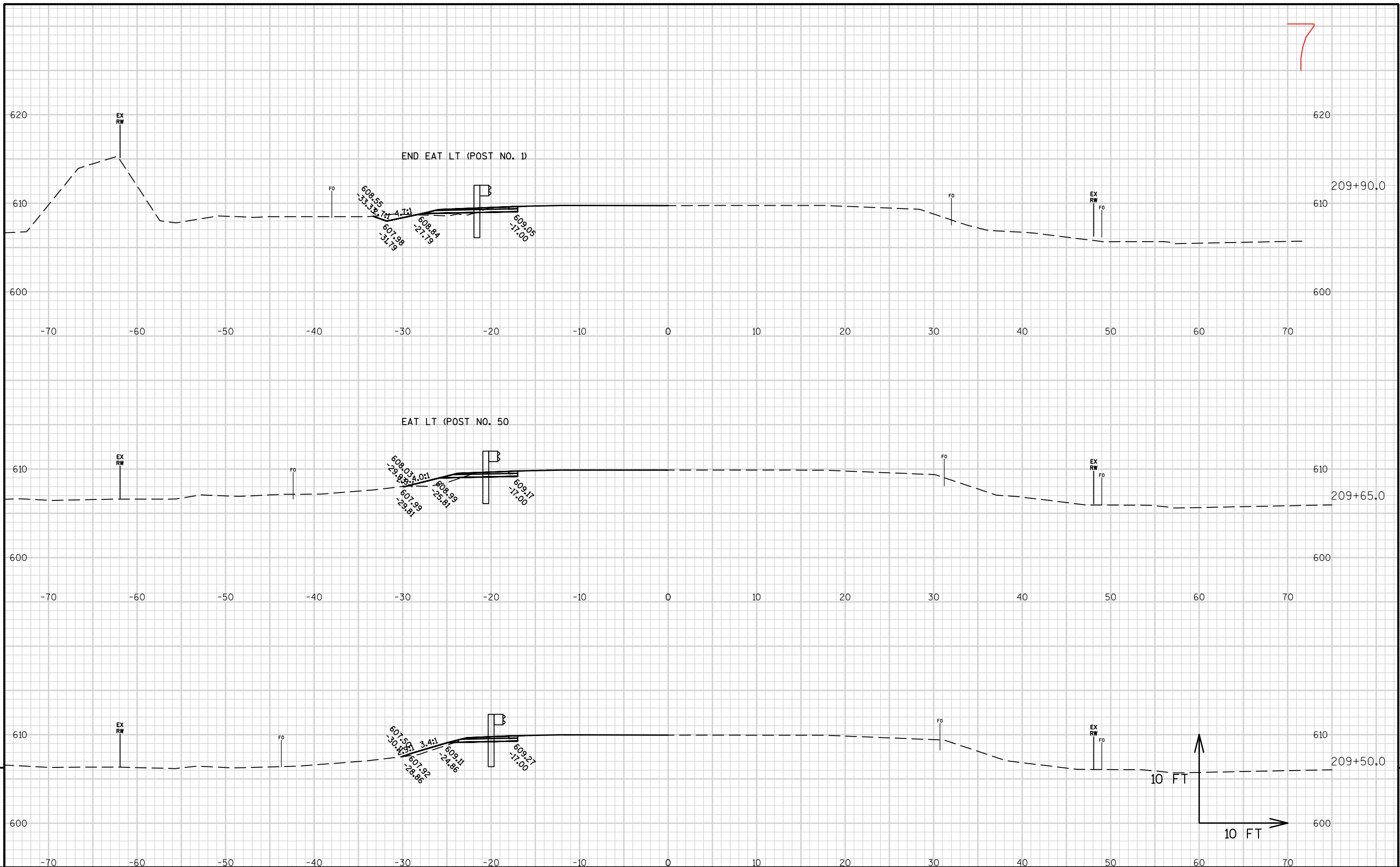
END MGS GUARDRAIL 3L
STA. 208+99.4 LT



6



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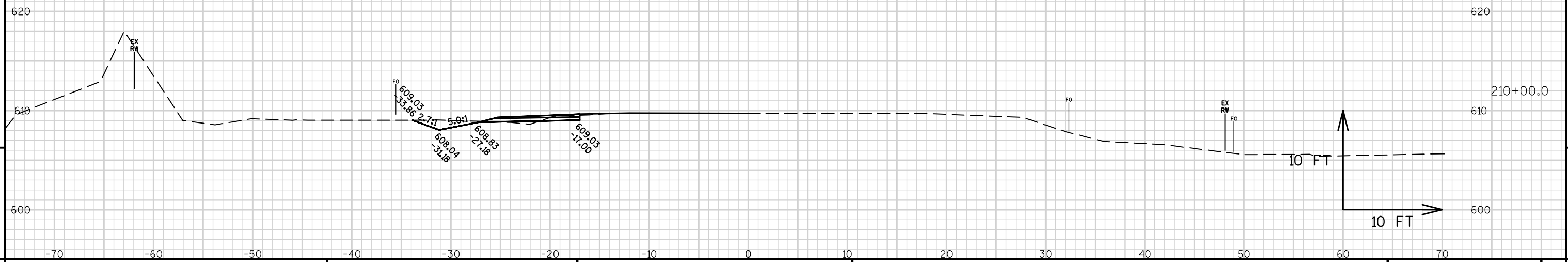
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PROJECT NO: 8160-03-70	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13-SPBG STA. 205+83-210+00 LT-INFO. ONLY	SHEET	E
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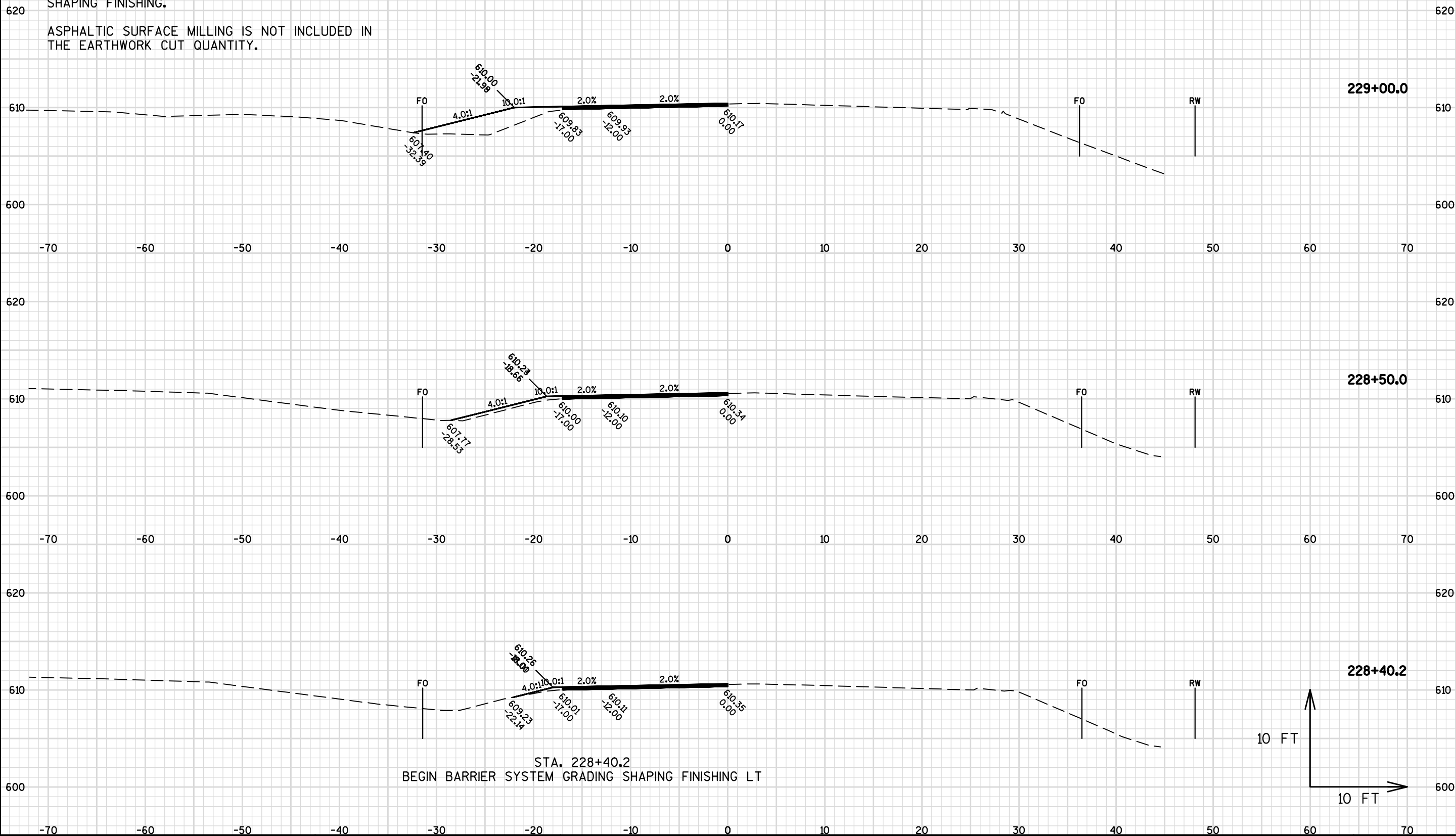
STA. 210+00.0 LT
END BARRIER SYSTEM GRADING SHAPING FINISHING LT

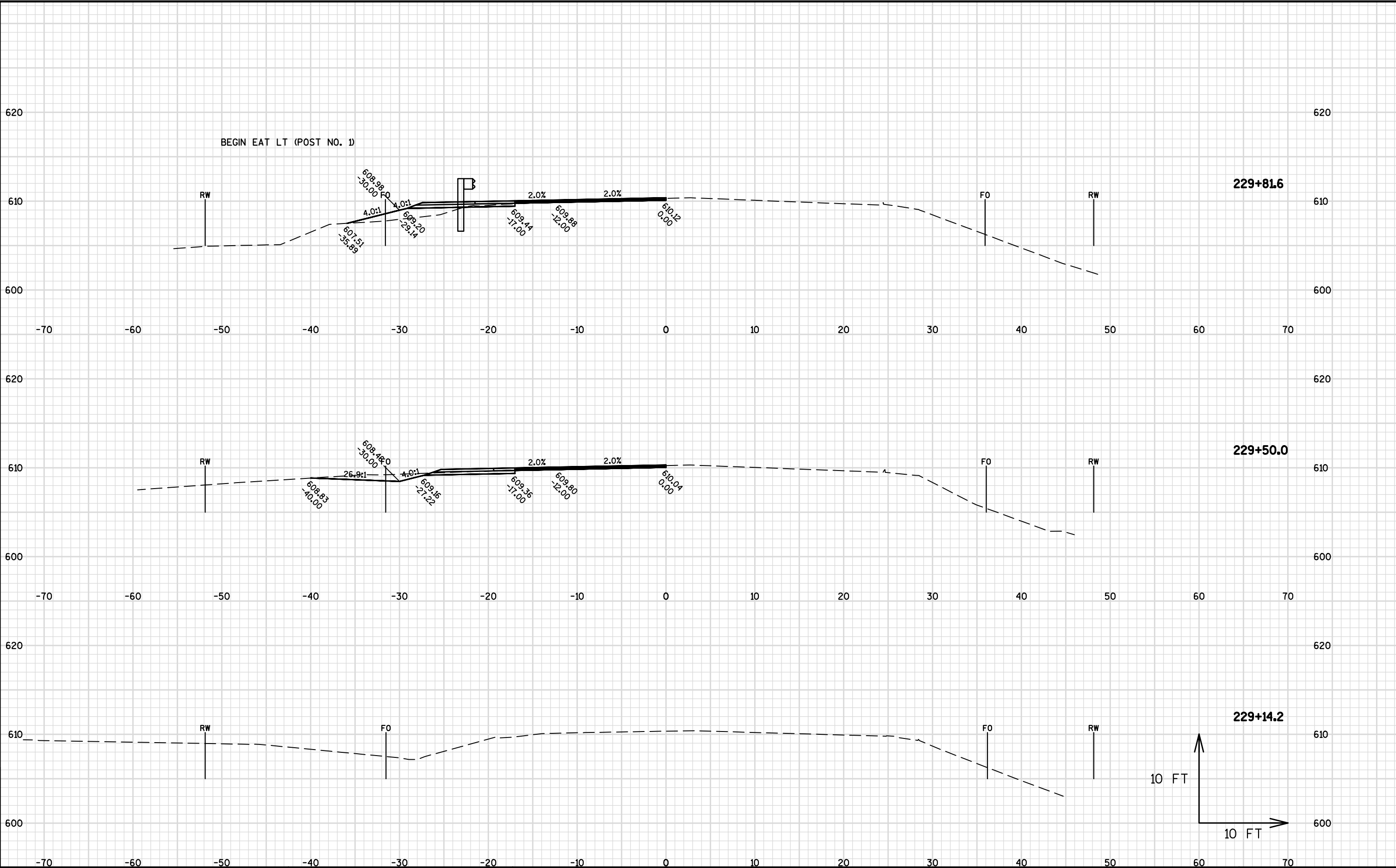


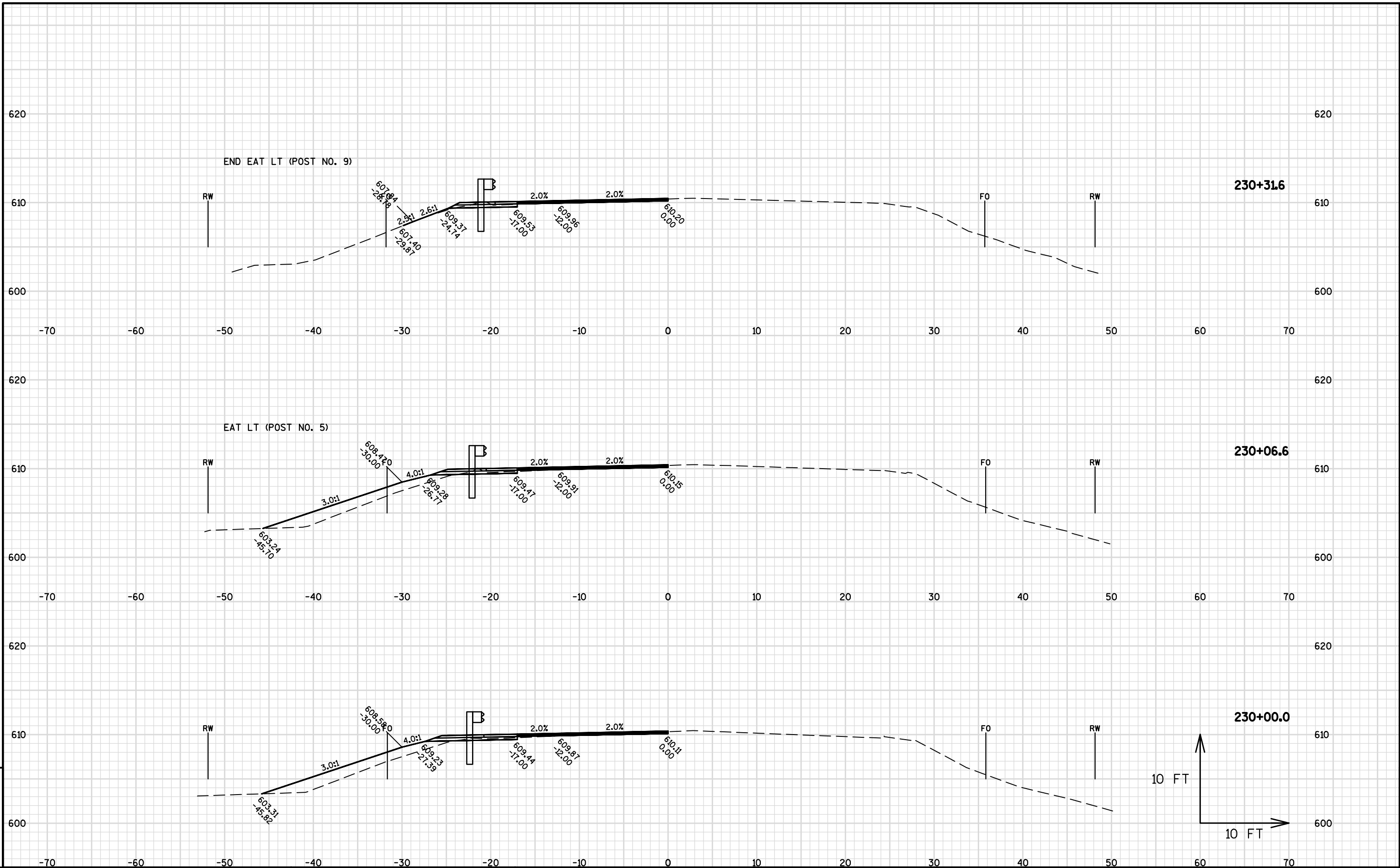
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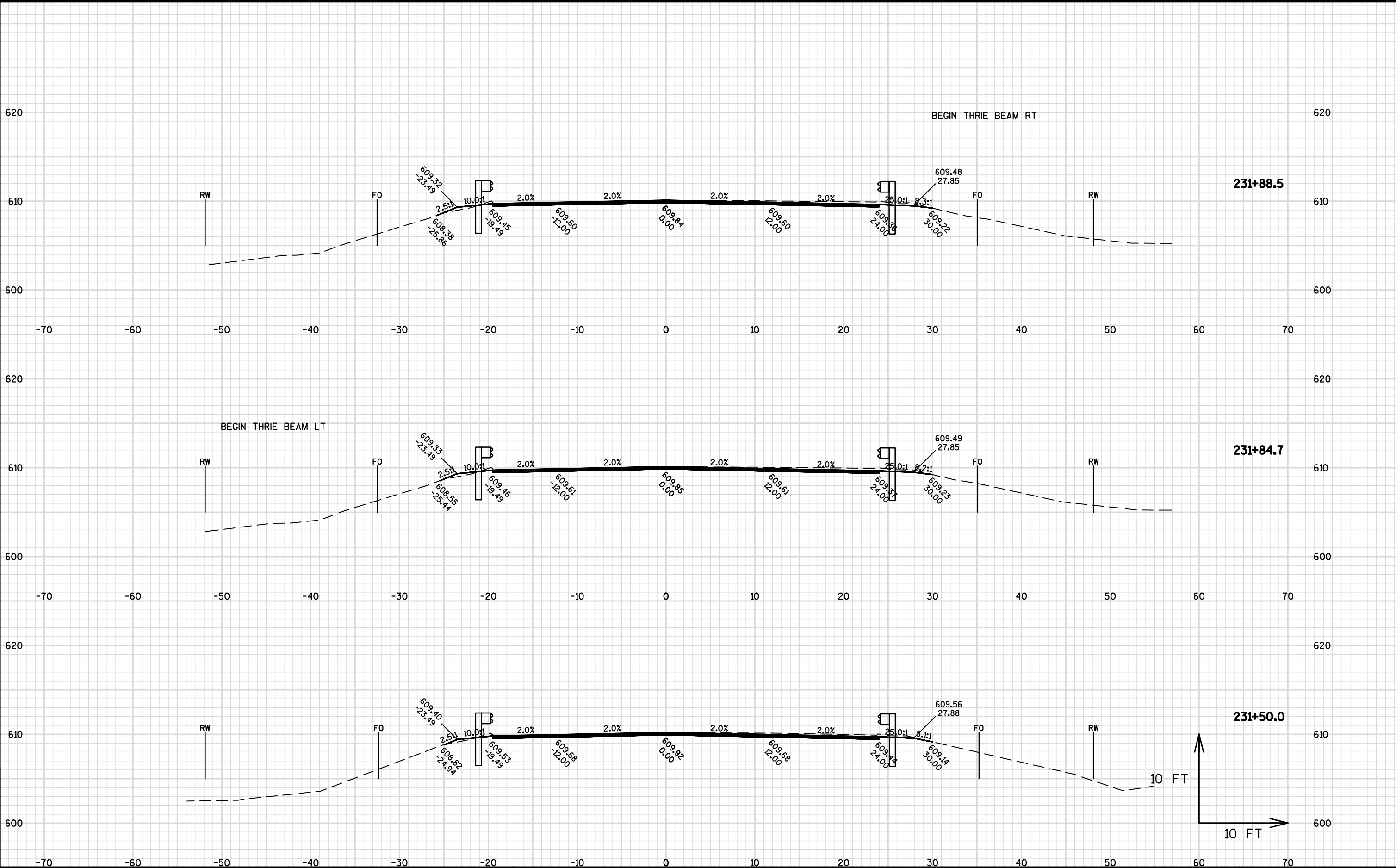
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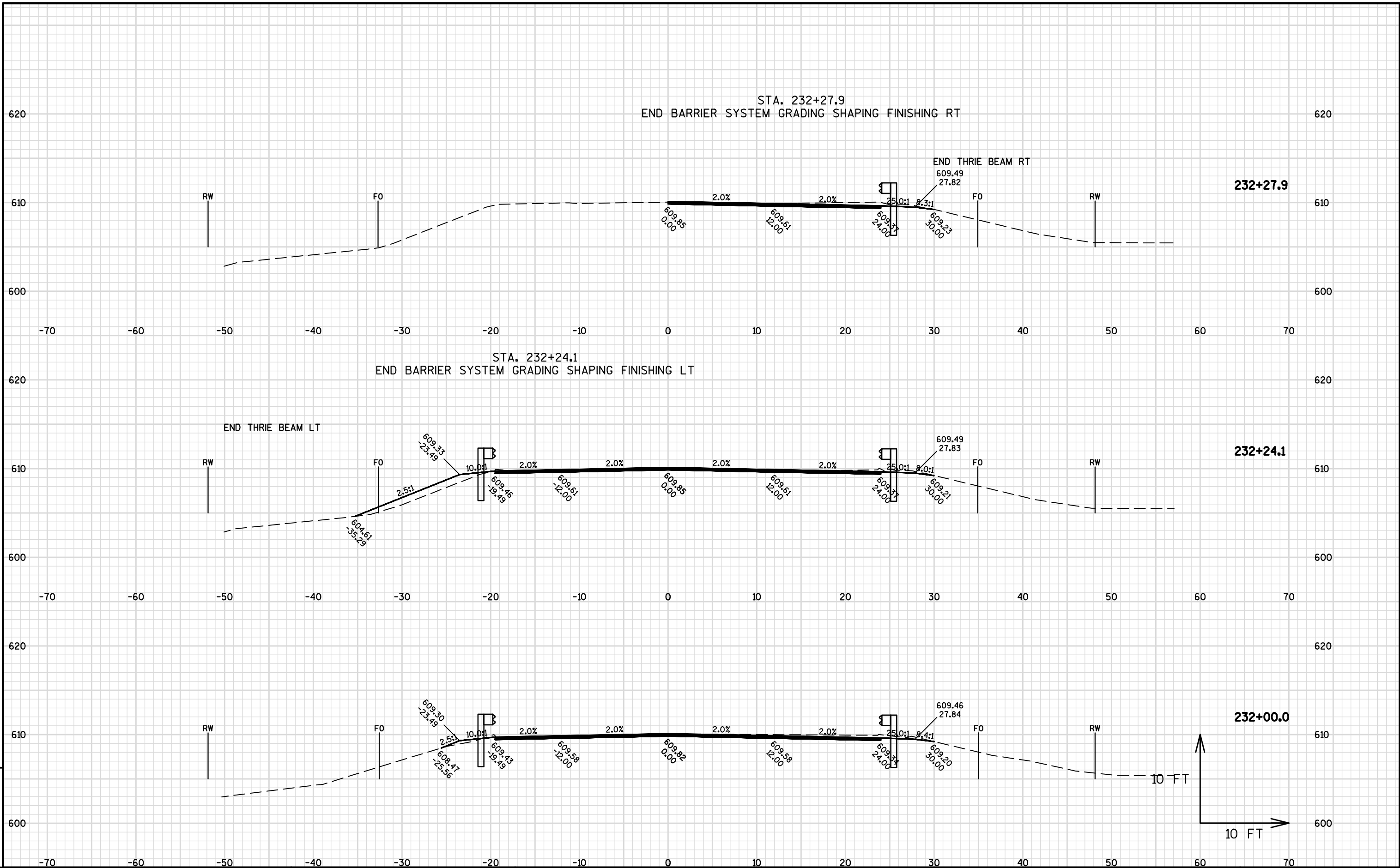
NOTE:
CROSS-SECTIONS FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR
UNDER ITEM 614.0010 BARRIER SYSTEM GRADING
SHAPING FINISHING.
ASPHALTIC SURFACE MILLING IS NOT INCLUDED IN
THE EARTHWORK CUT QUANTITY.

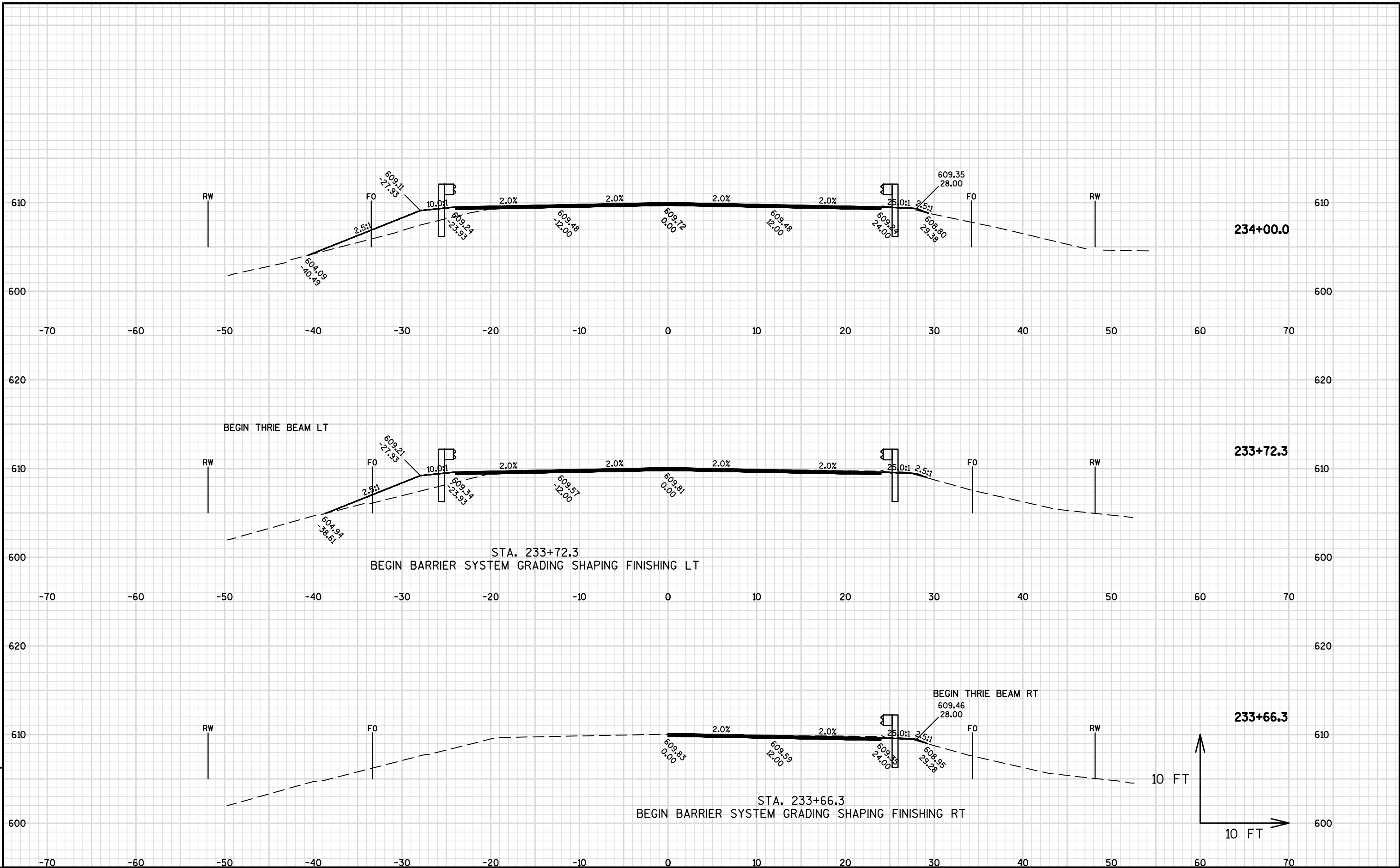


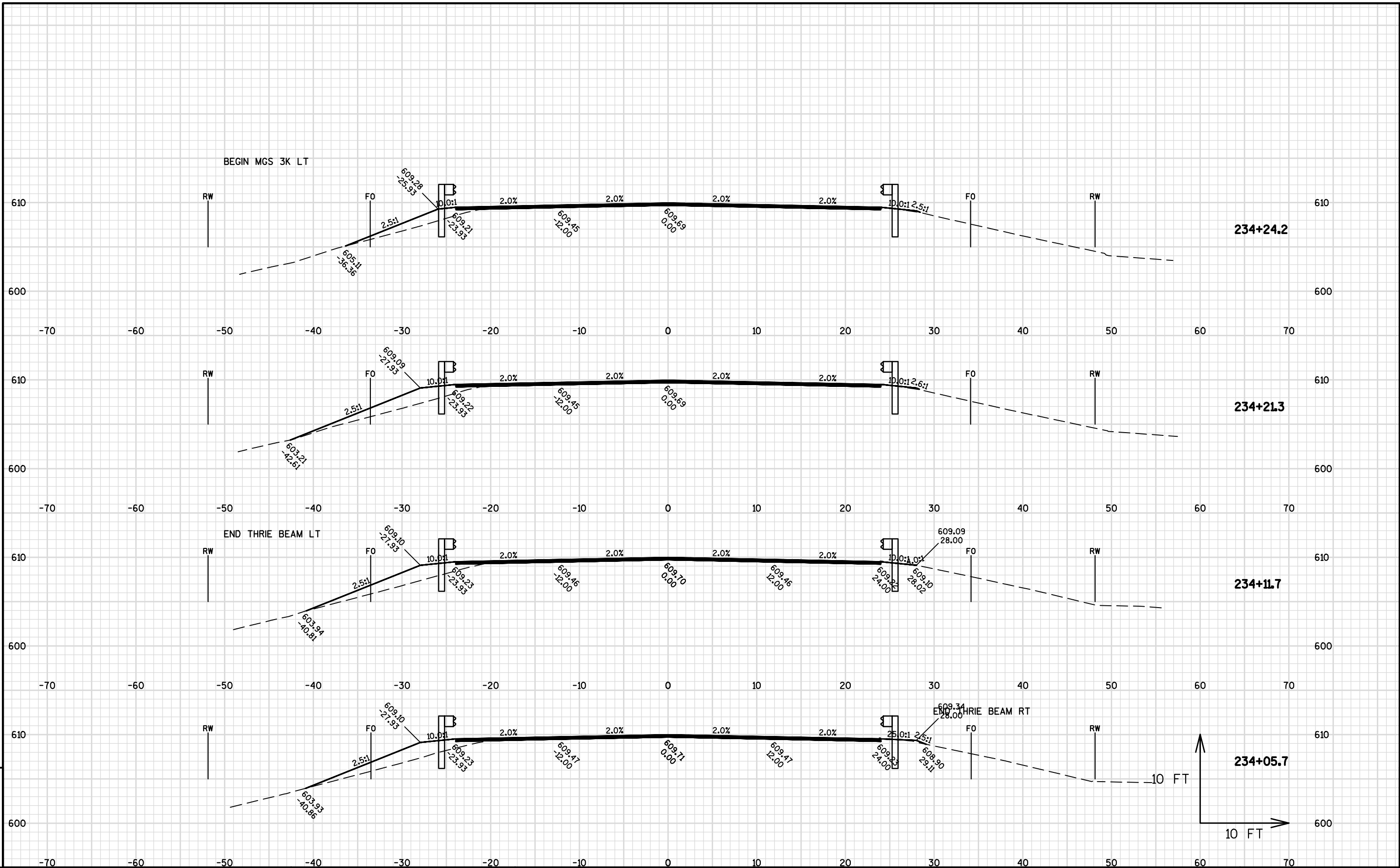


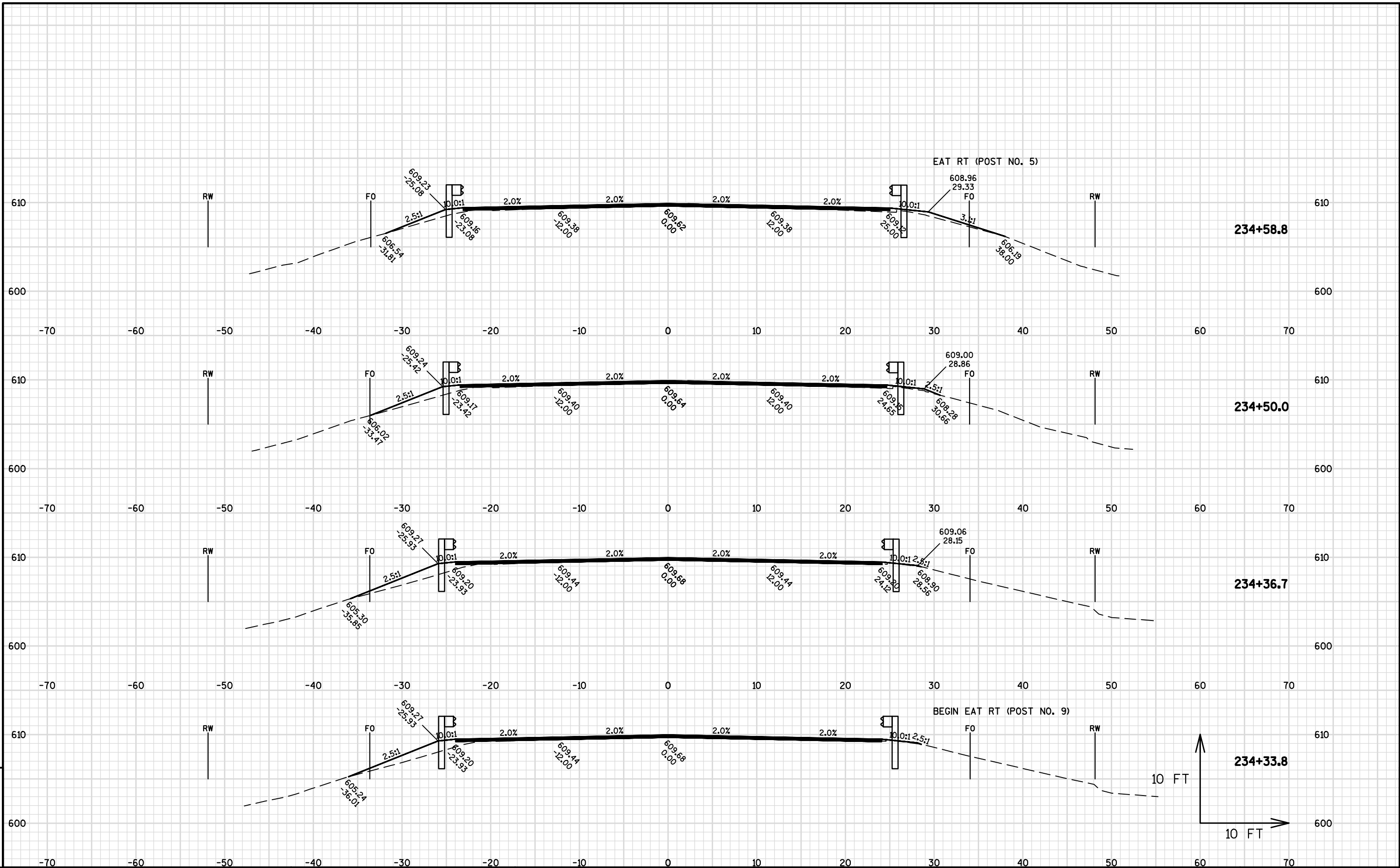


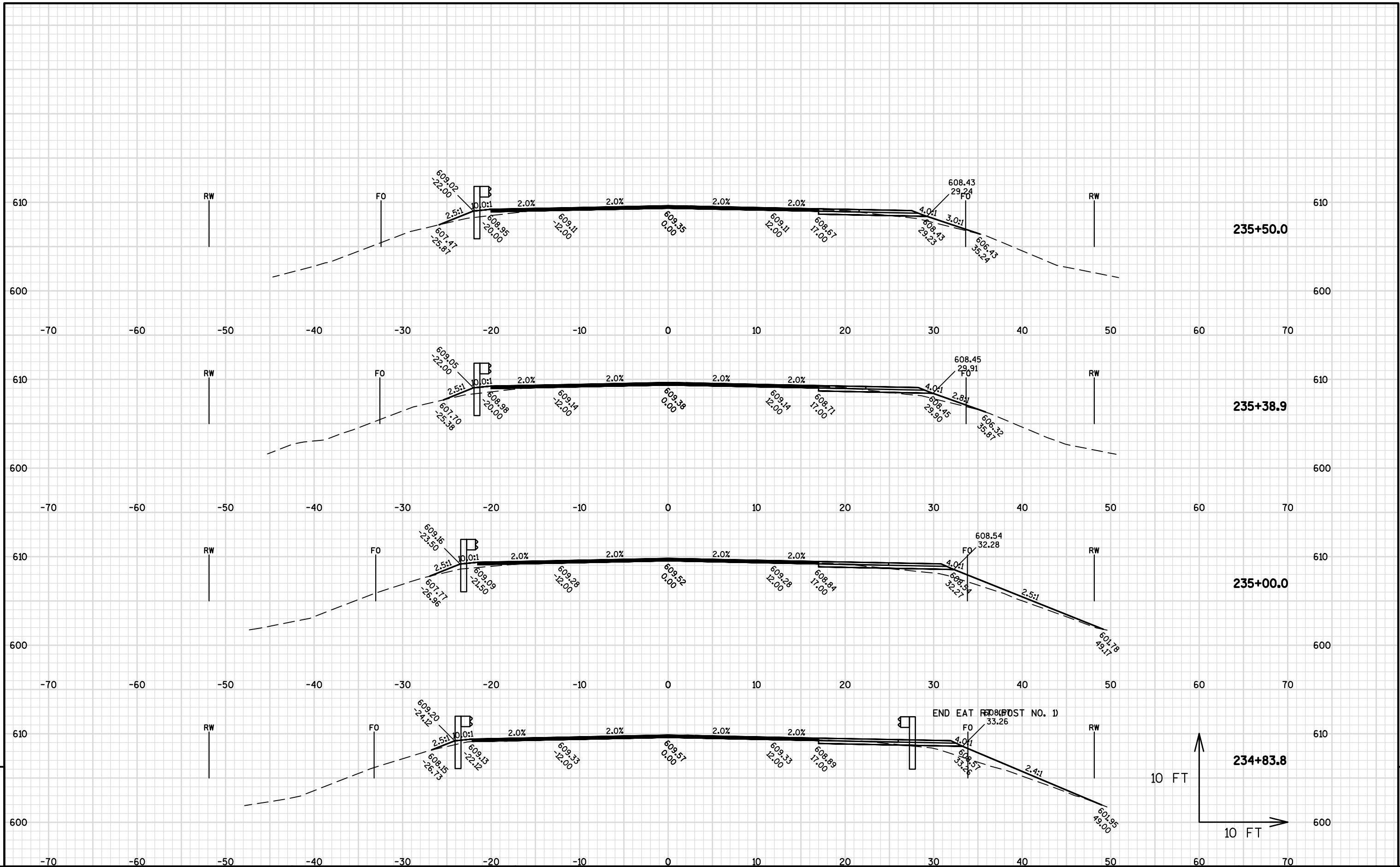


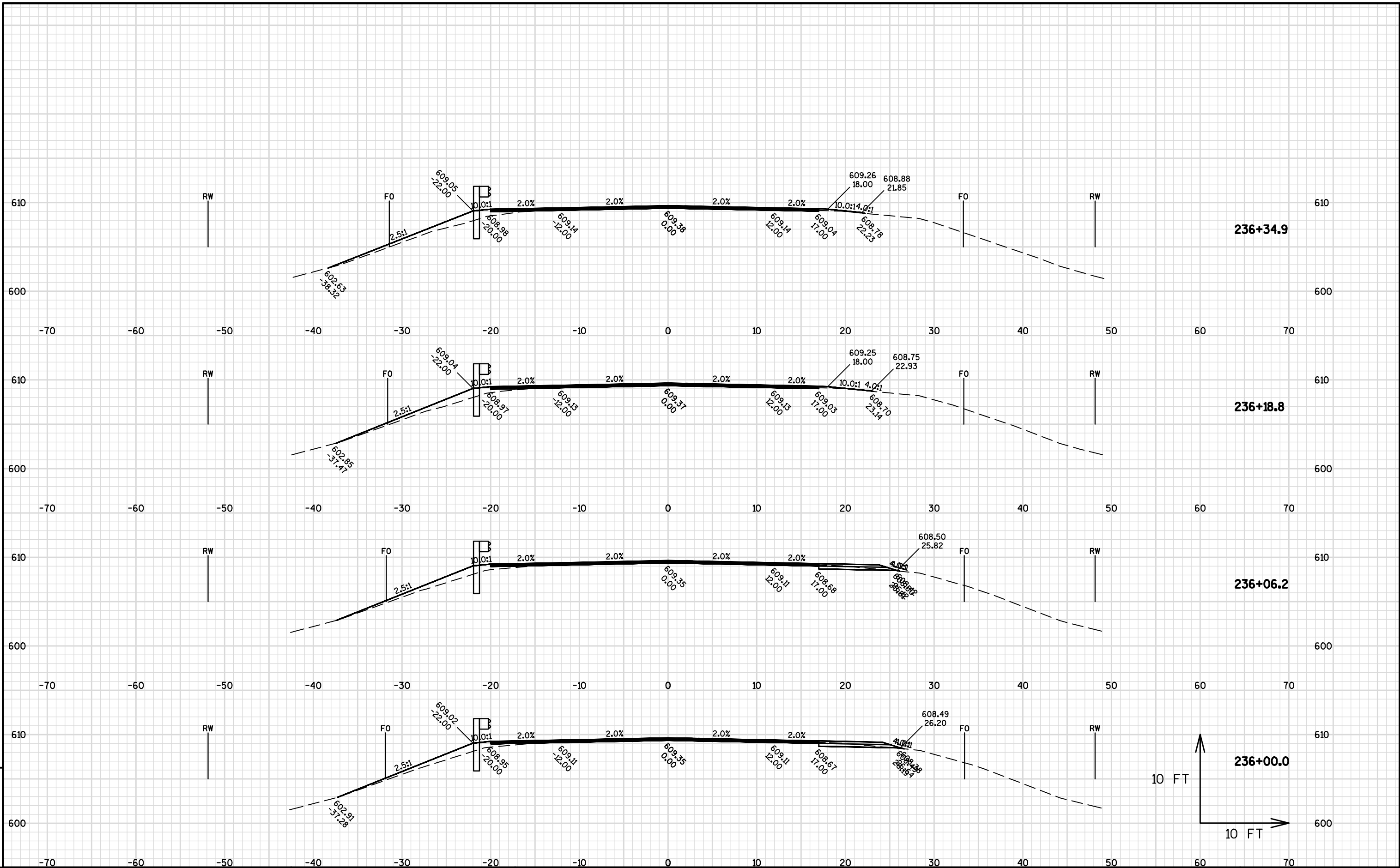


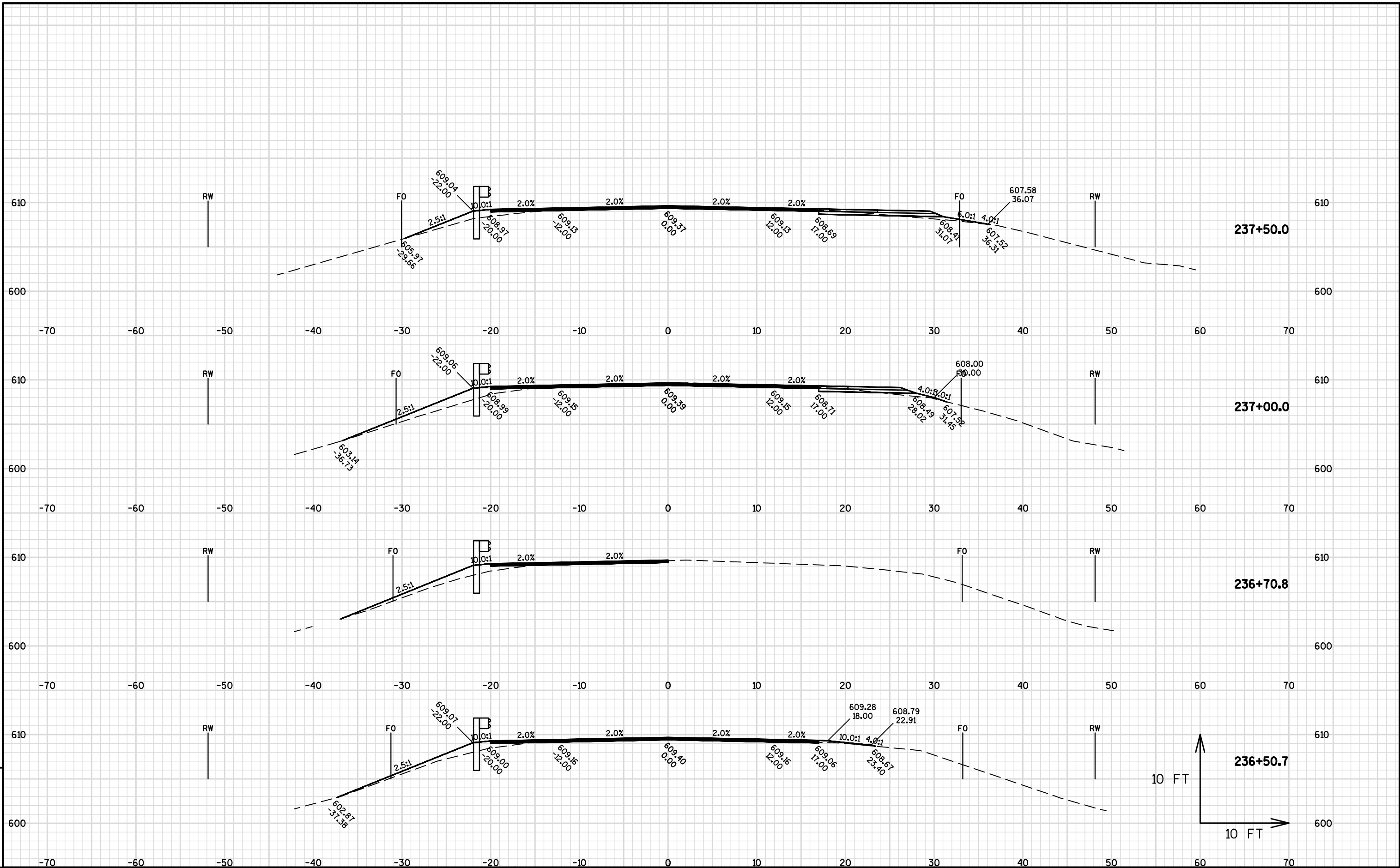


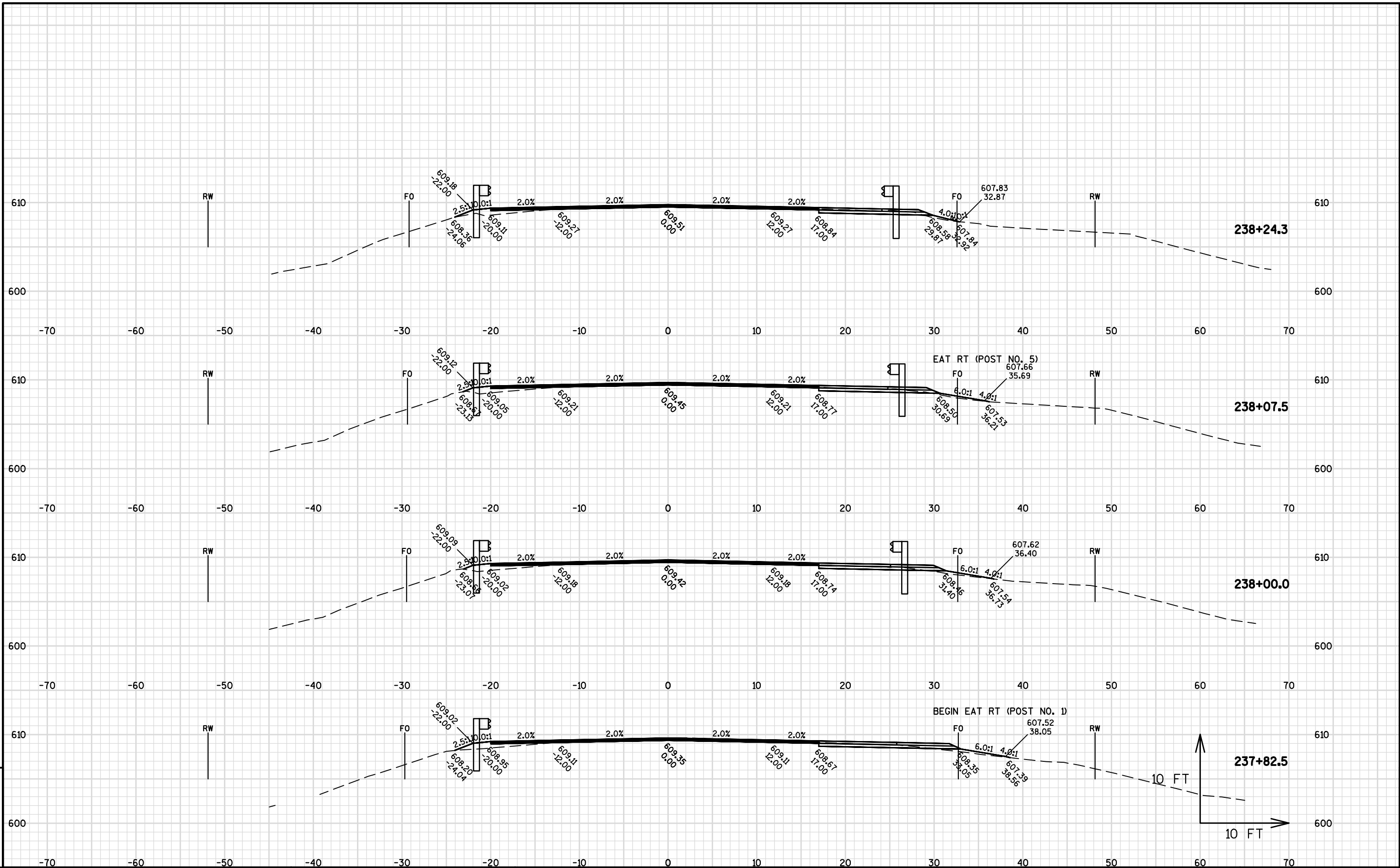


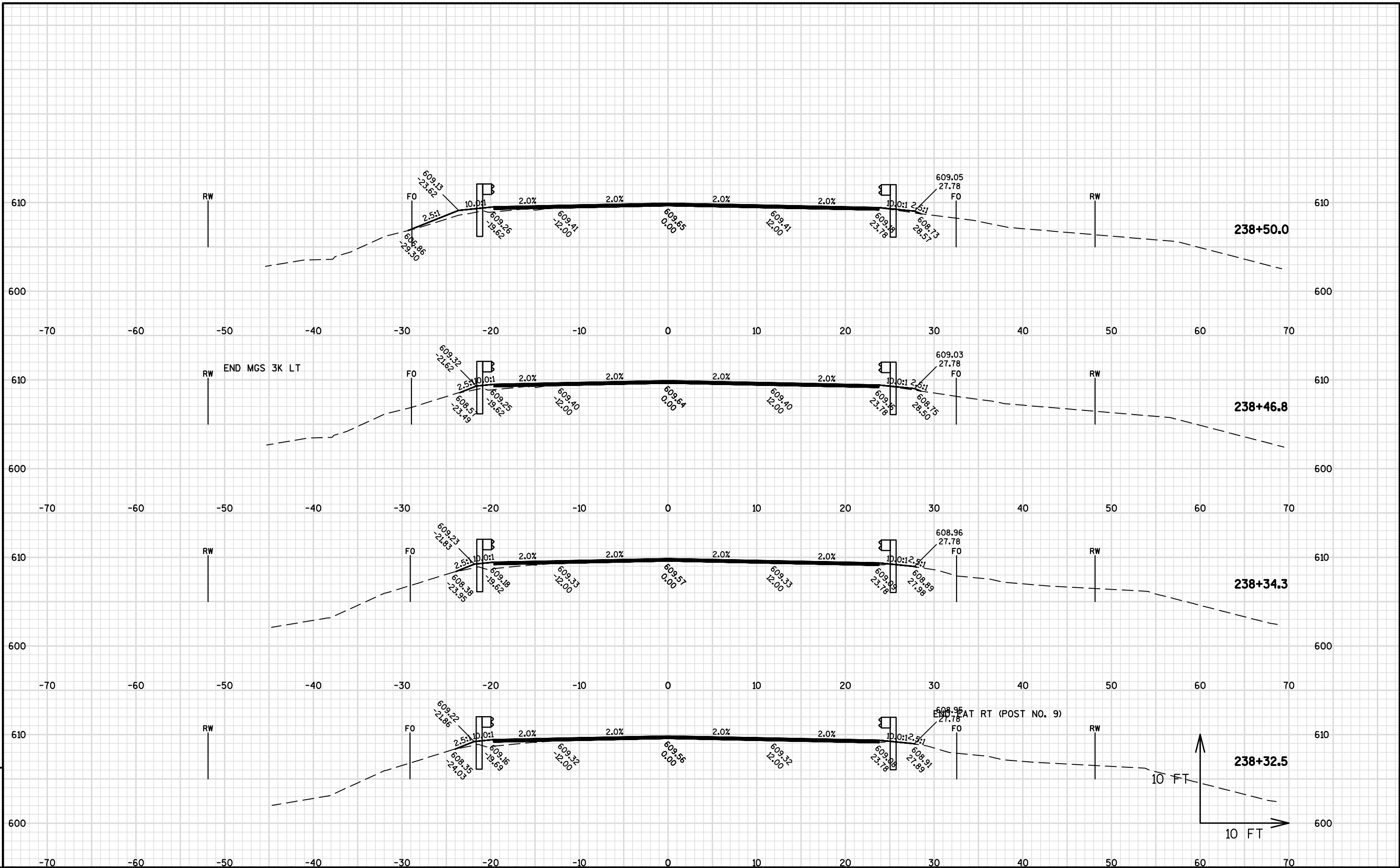


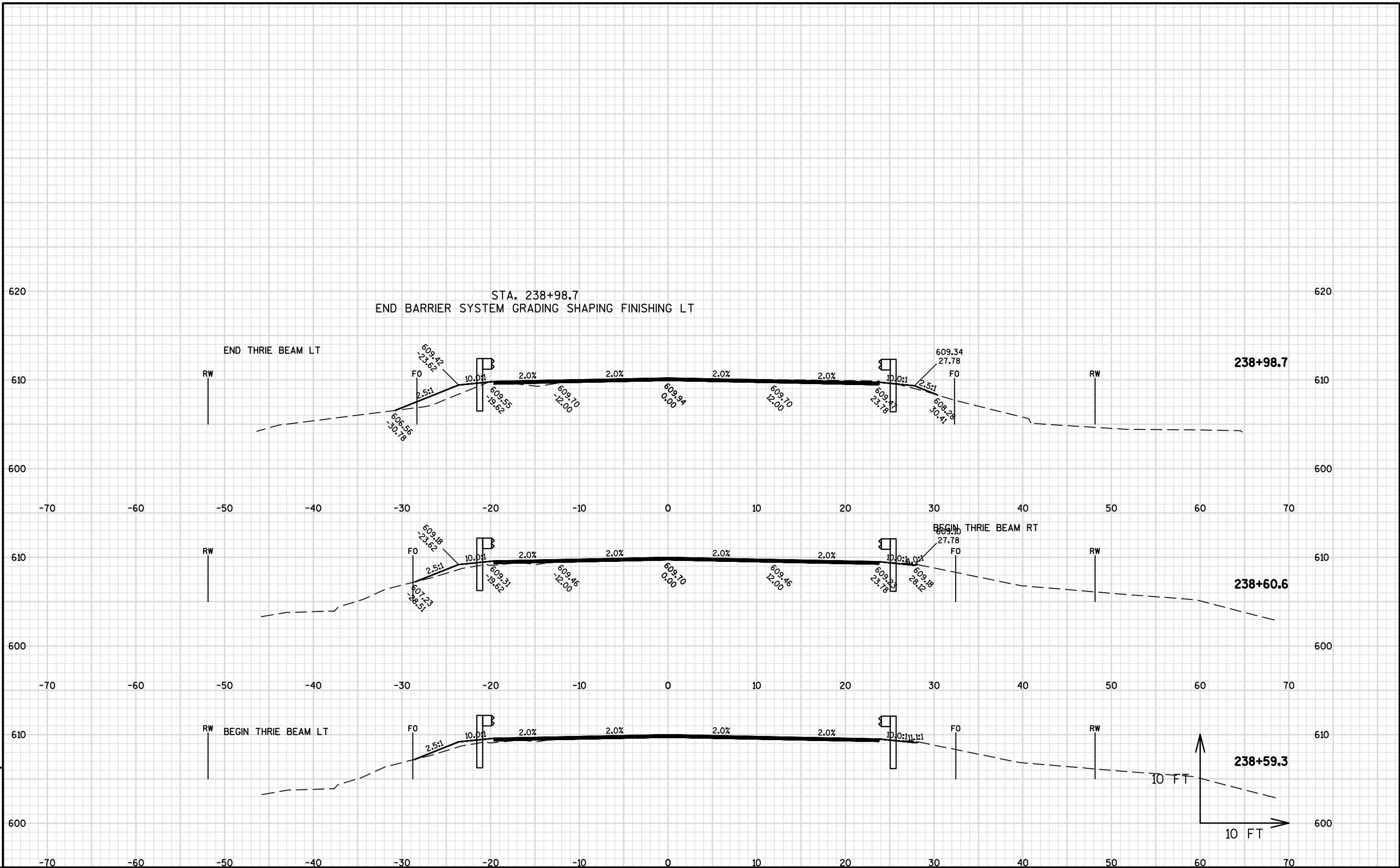


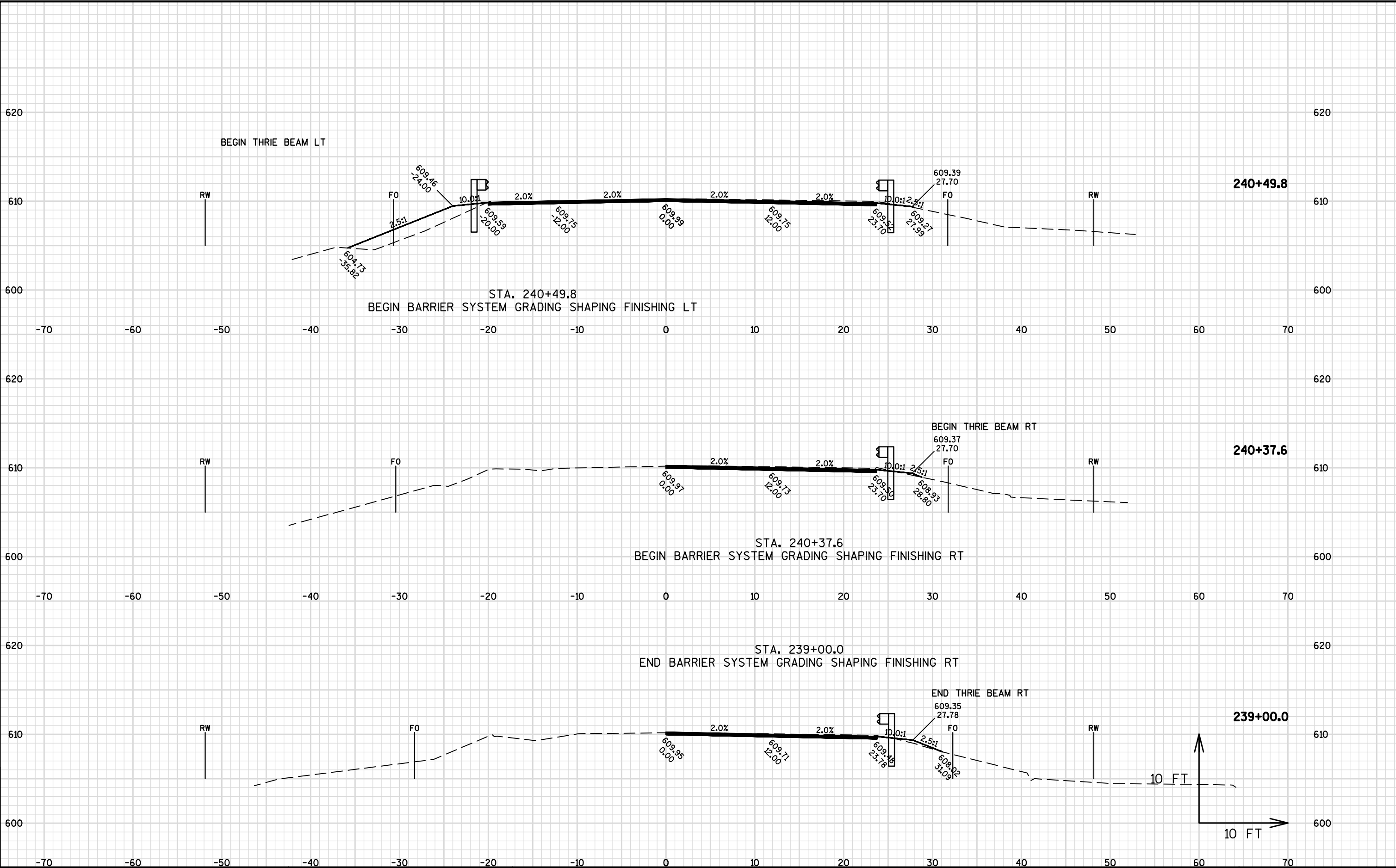


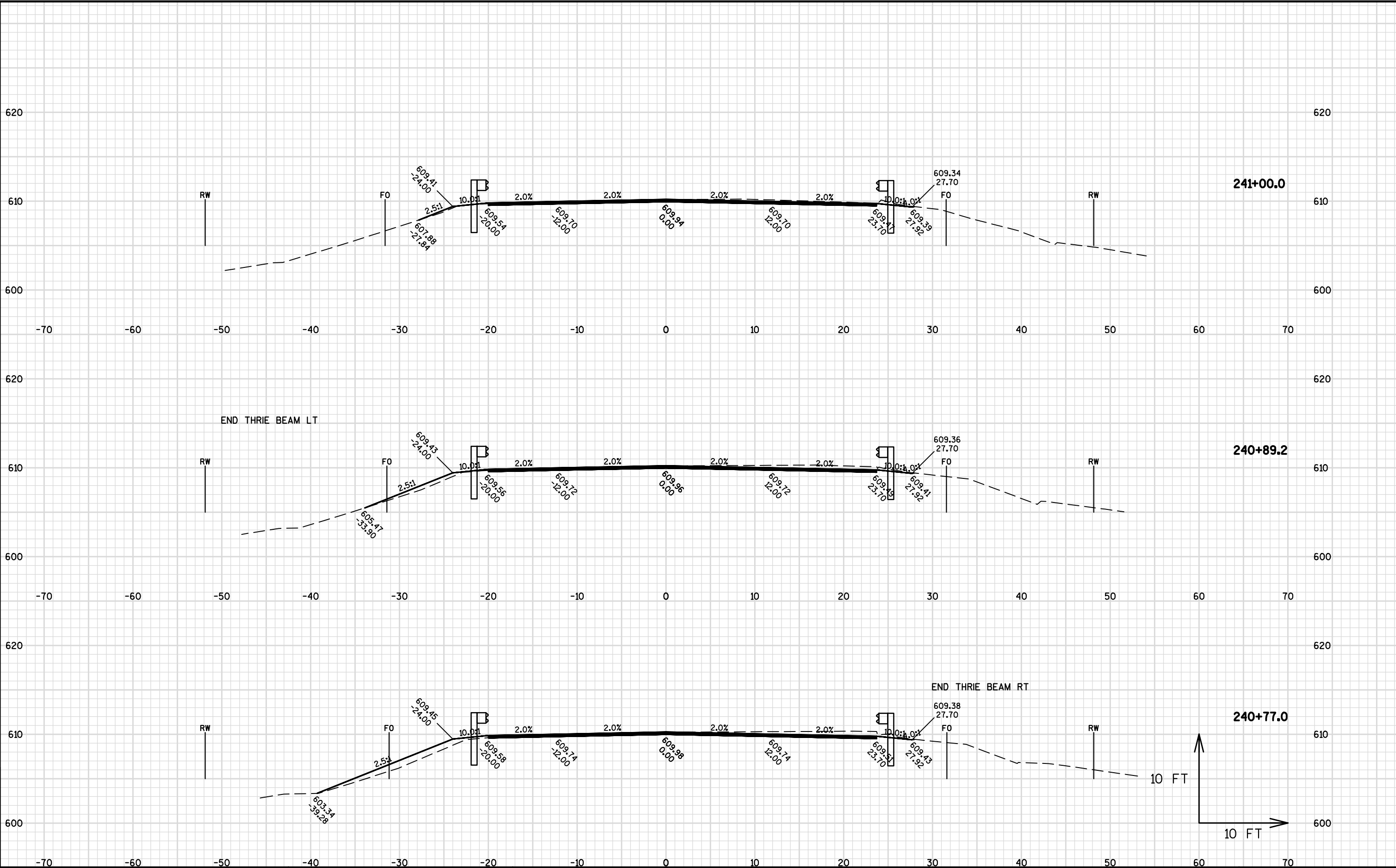


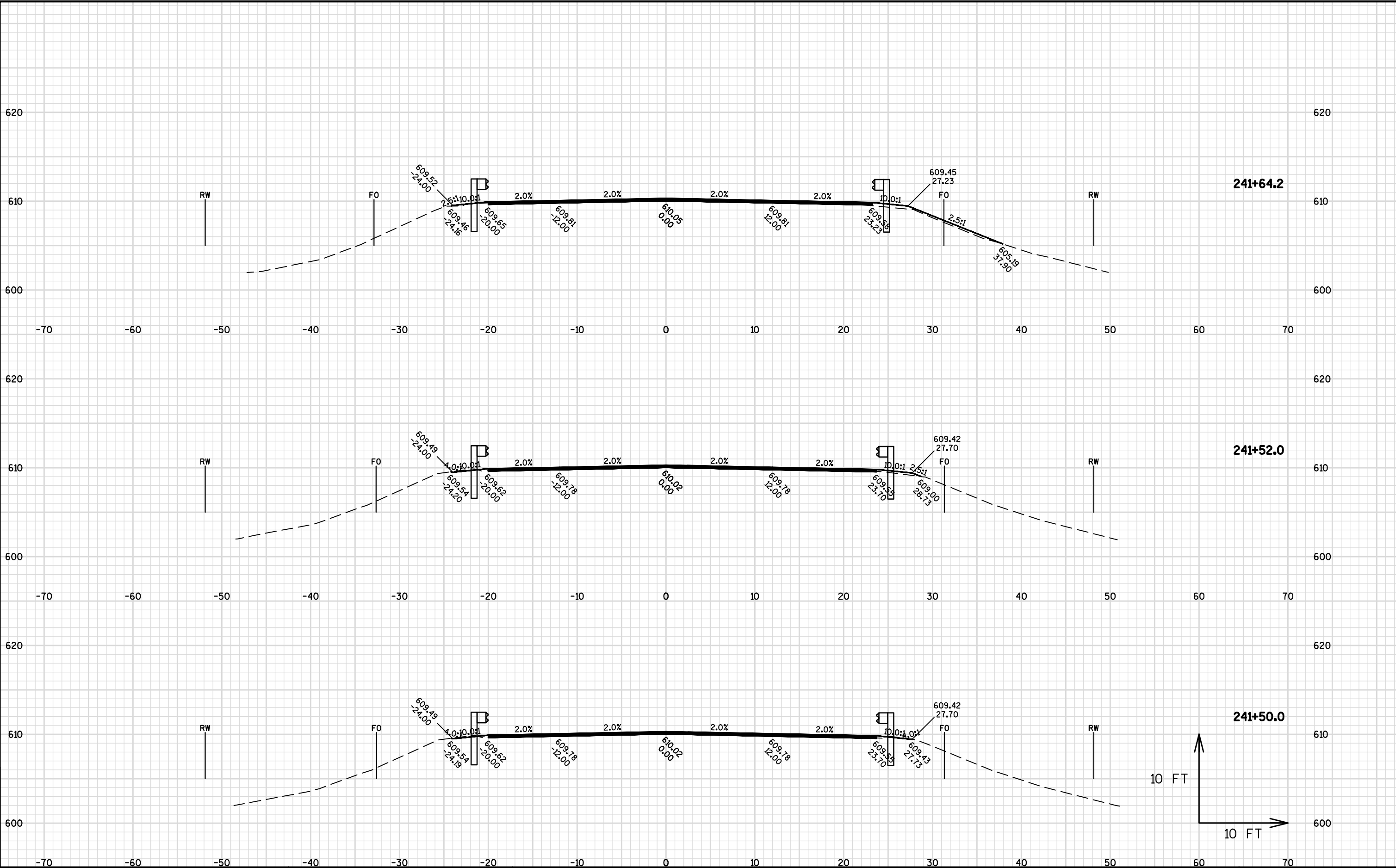


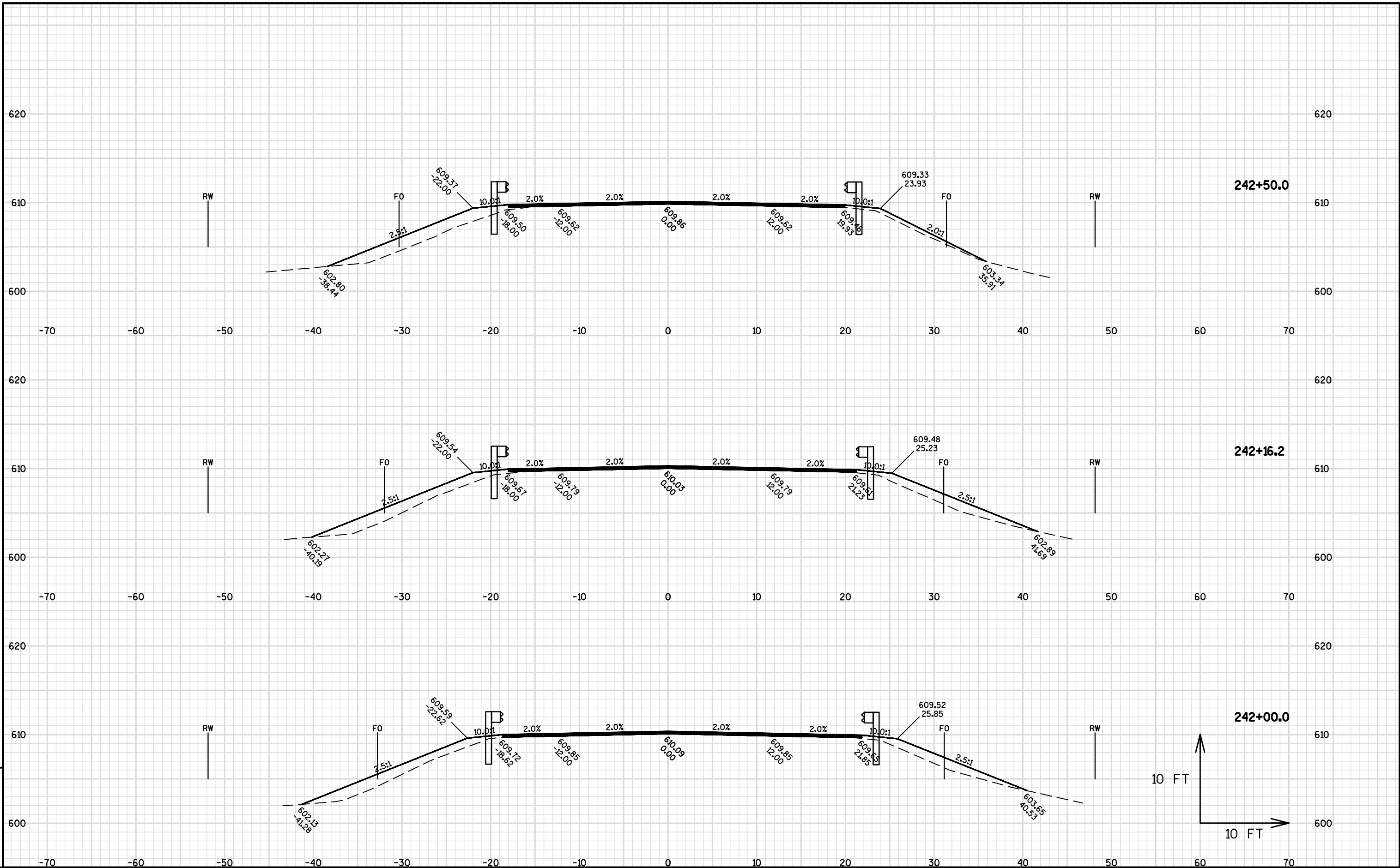


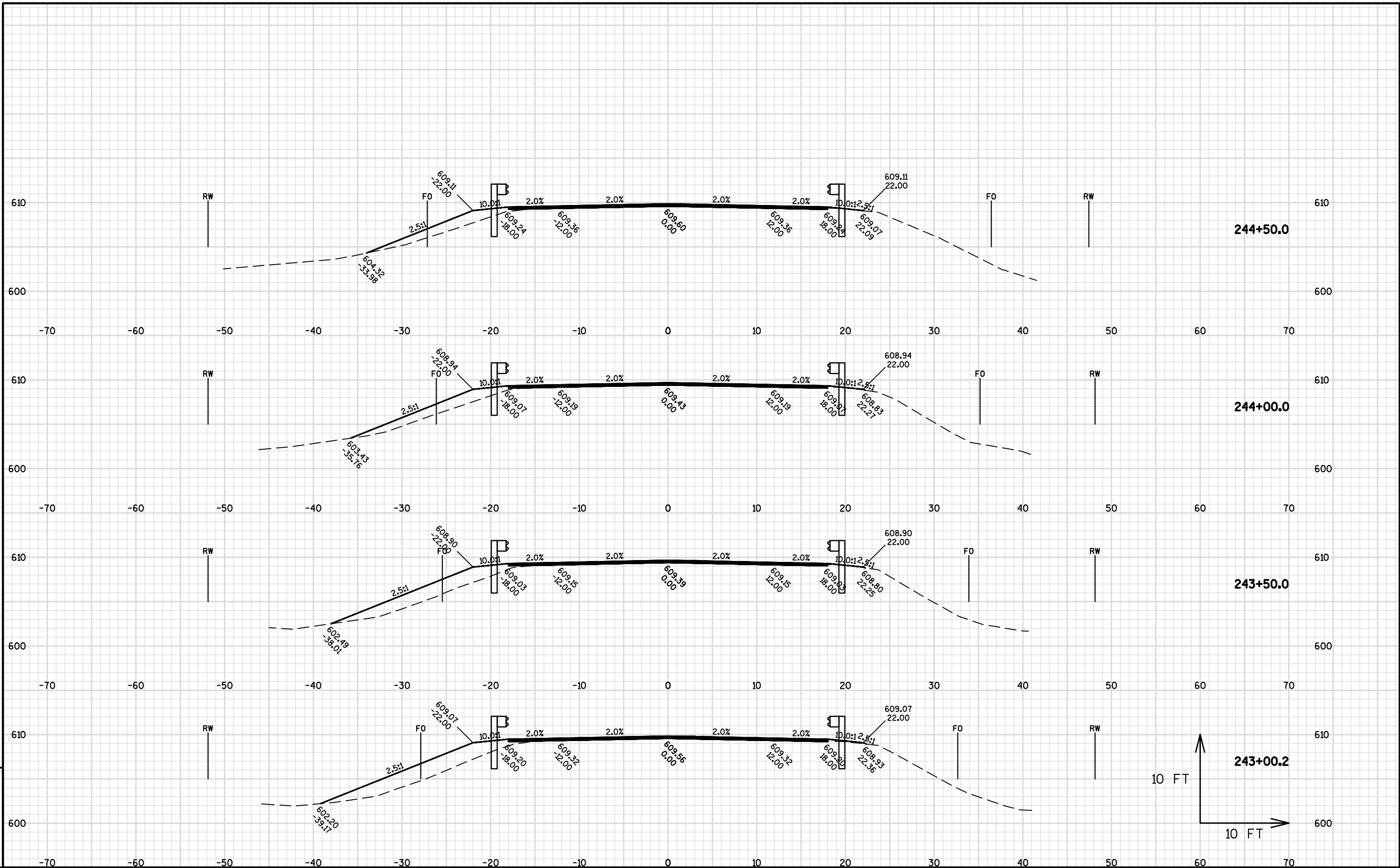


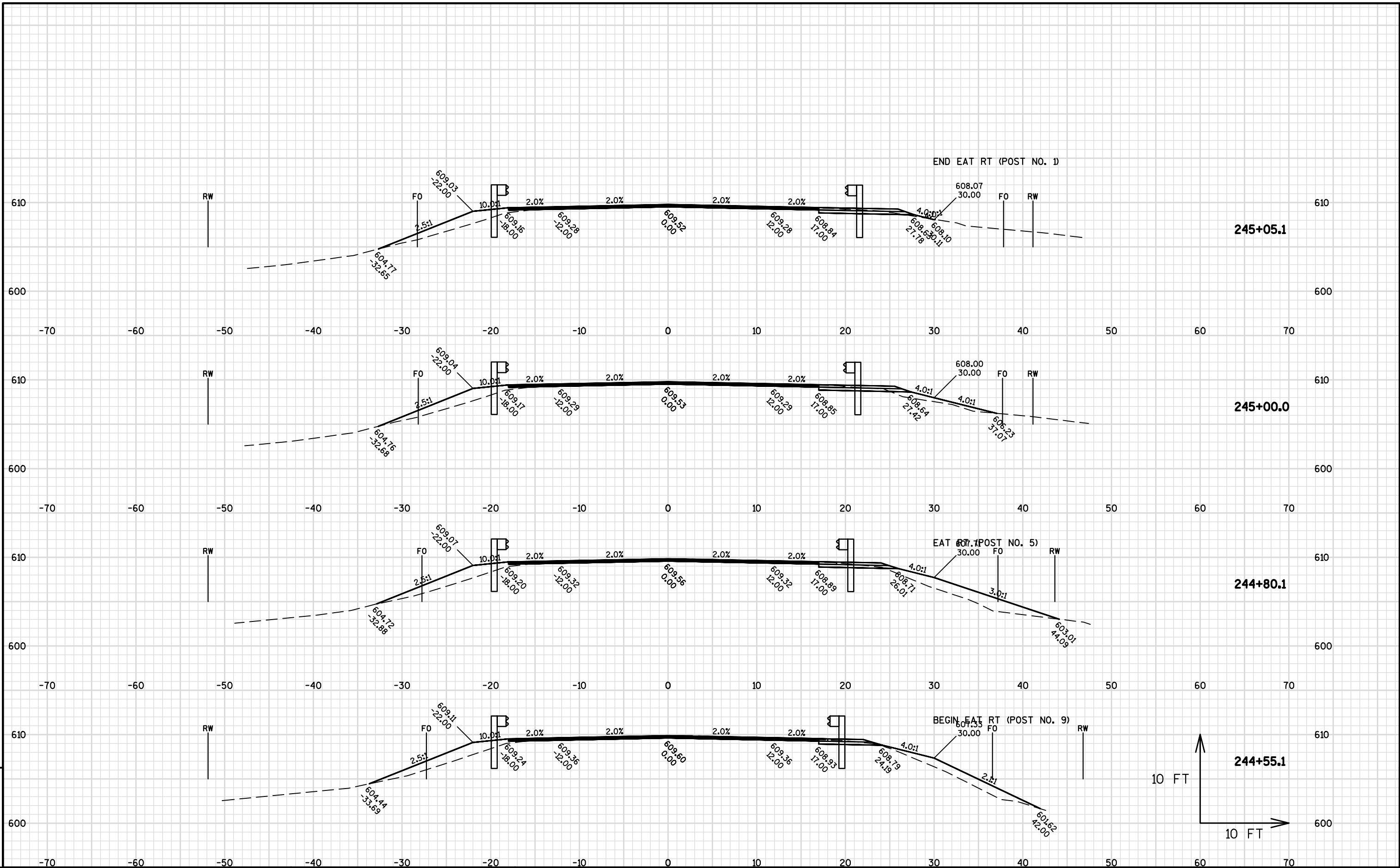


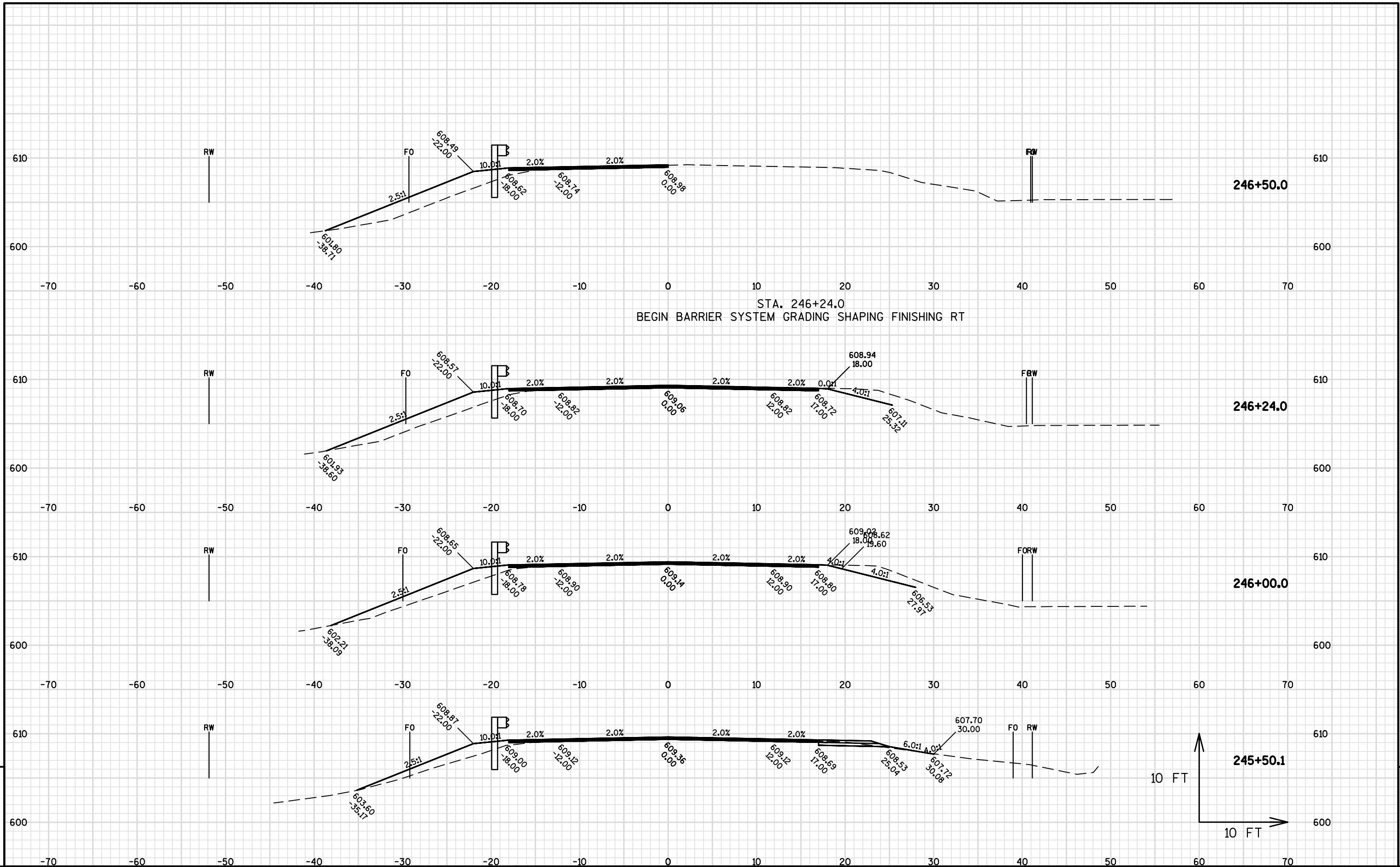


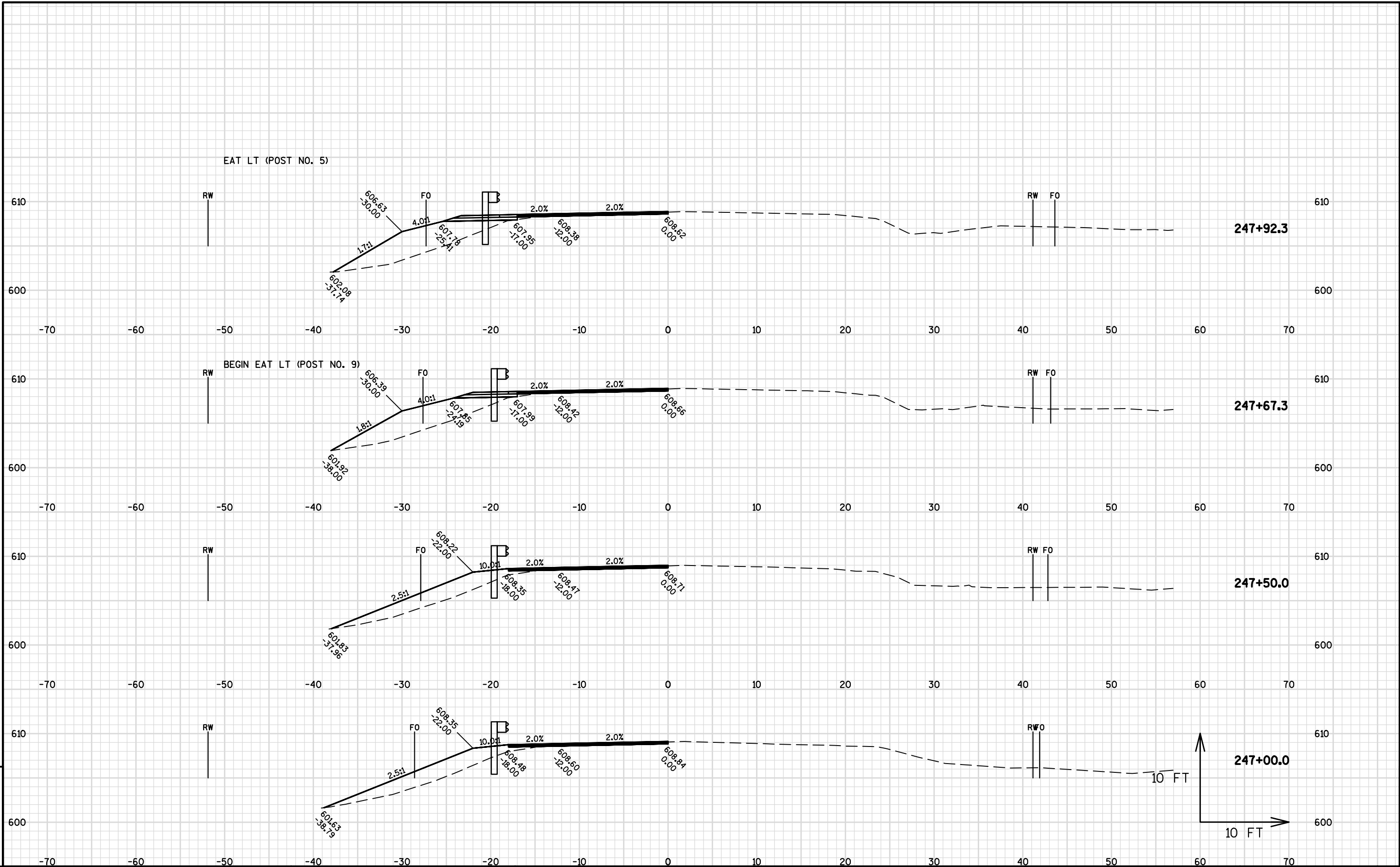


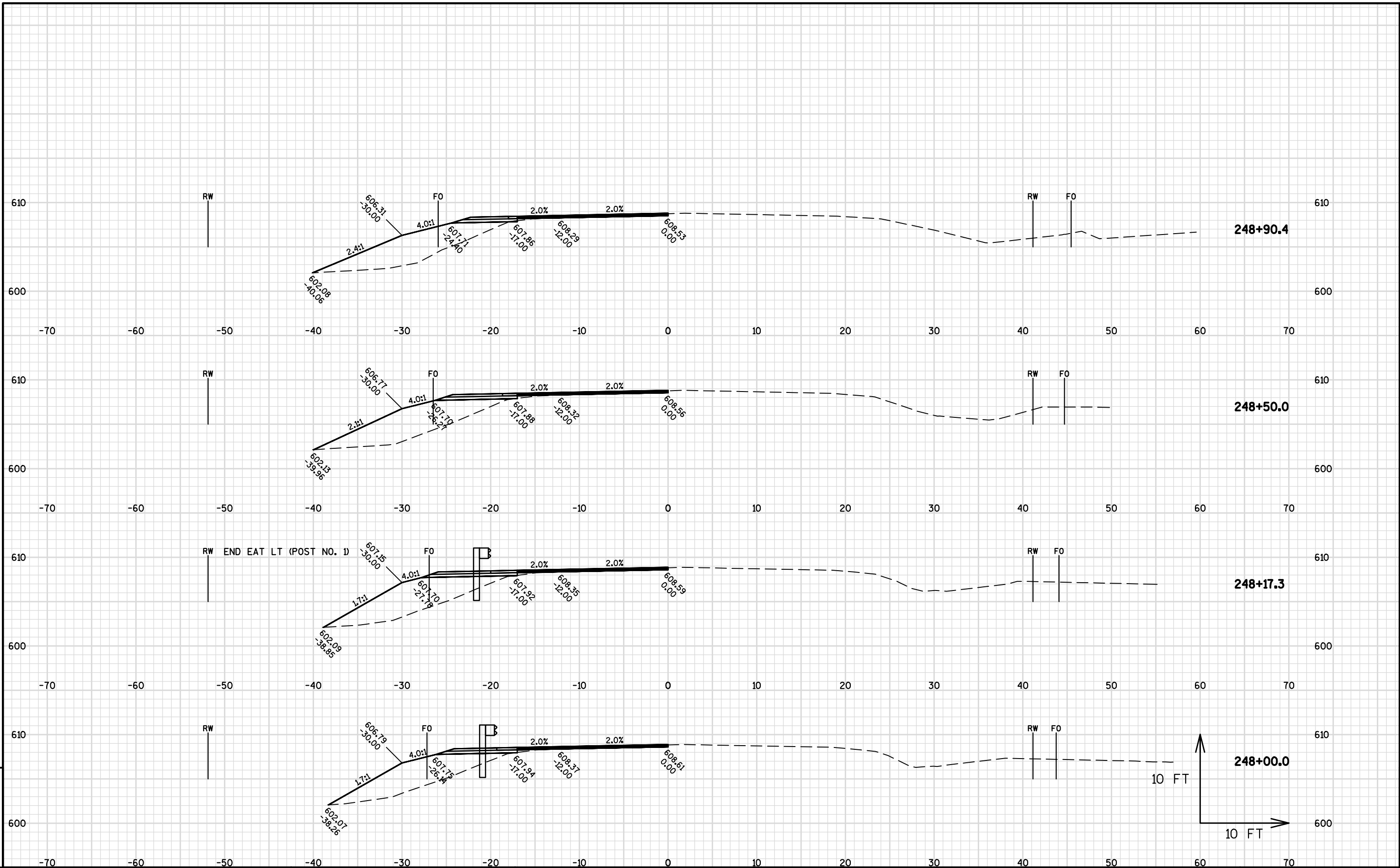




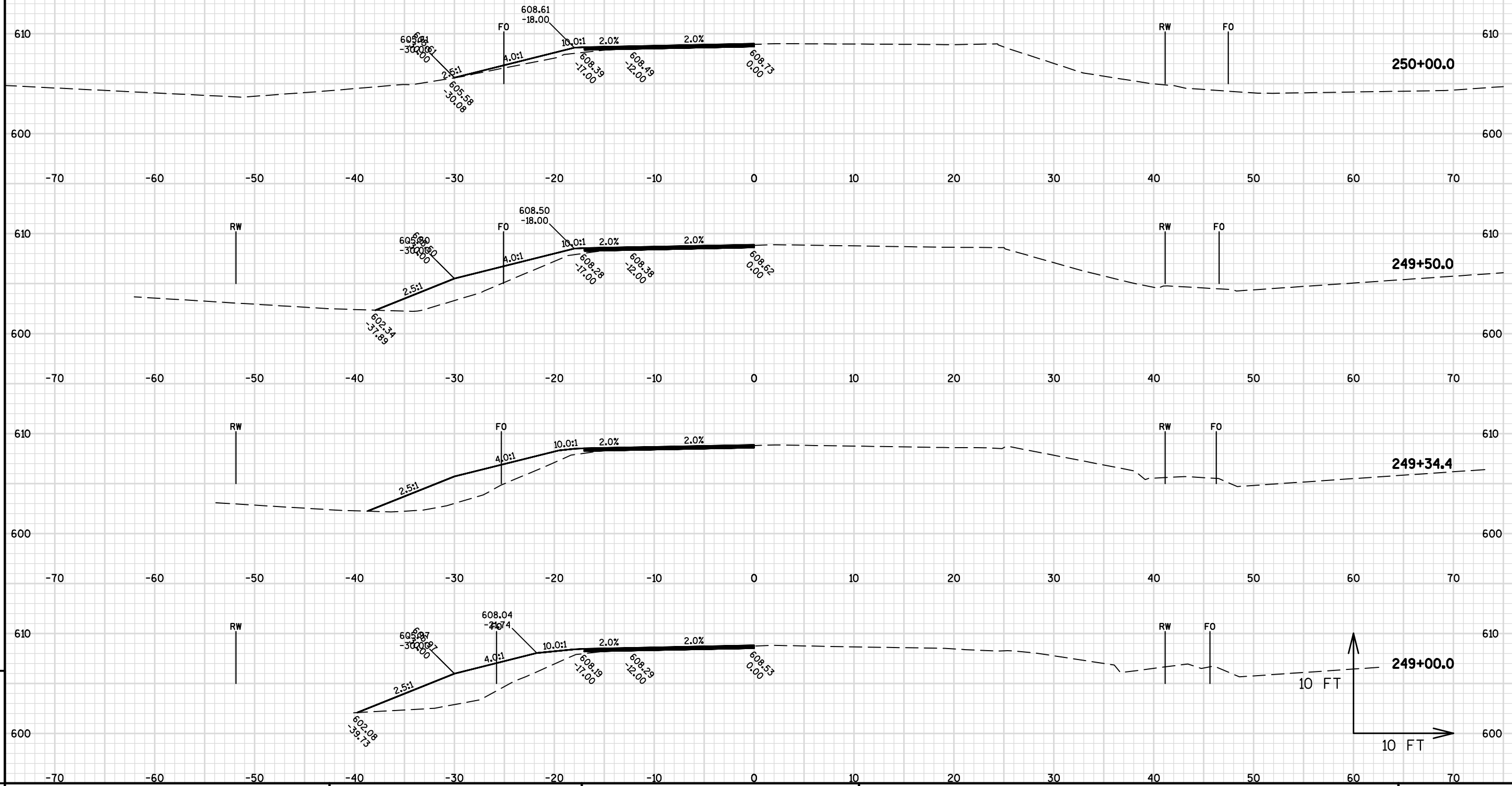








STA. 250+00.0
END BARRIER SYSTEM GRADING SHAPING FINISHING LT



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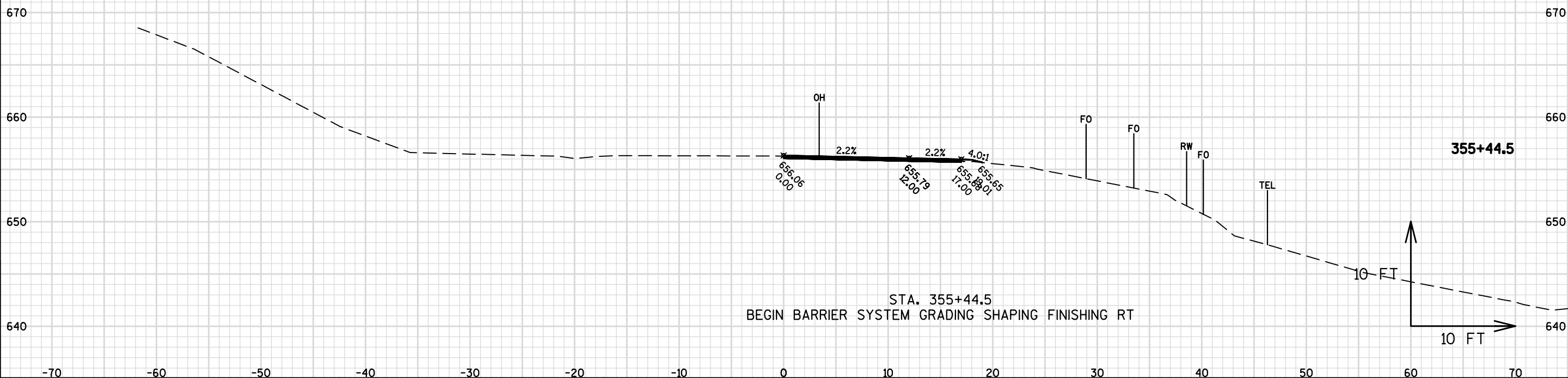
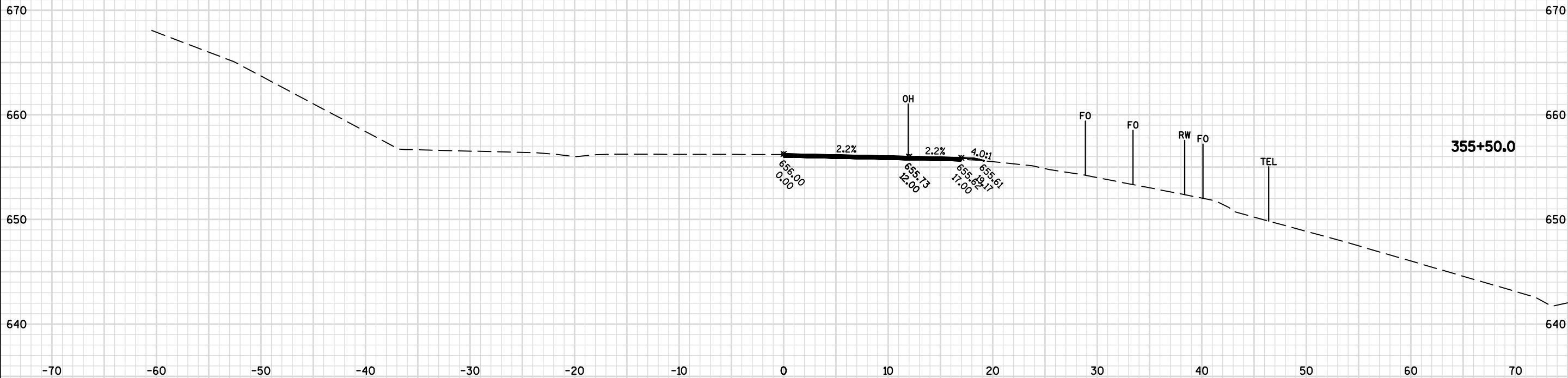
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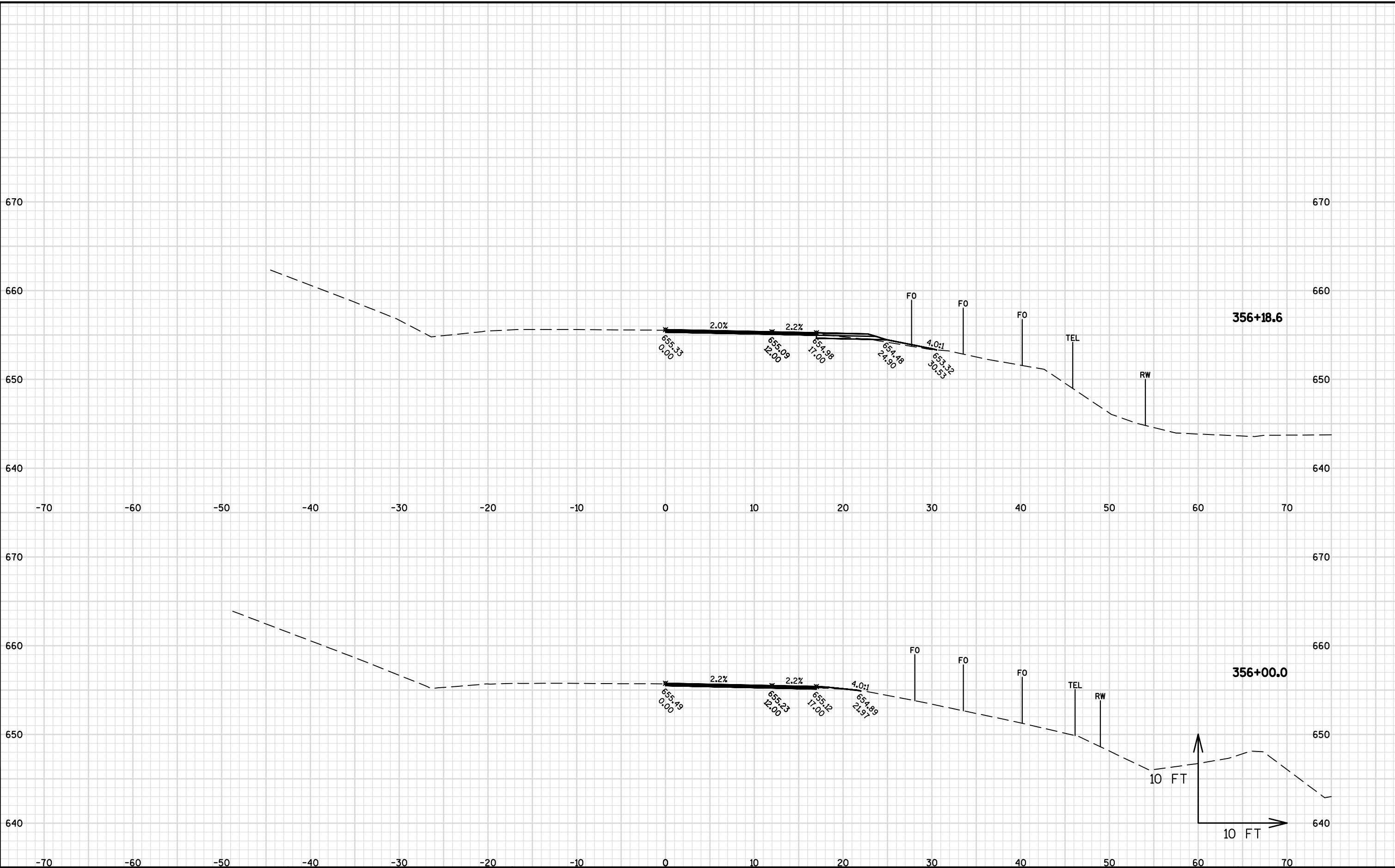
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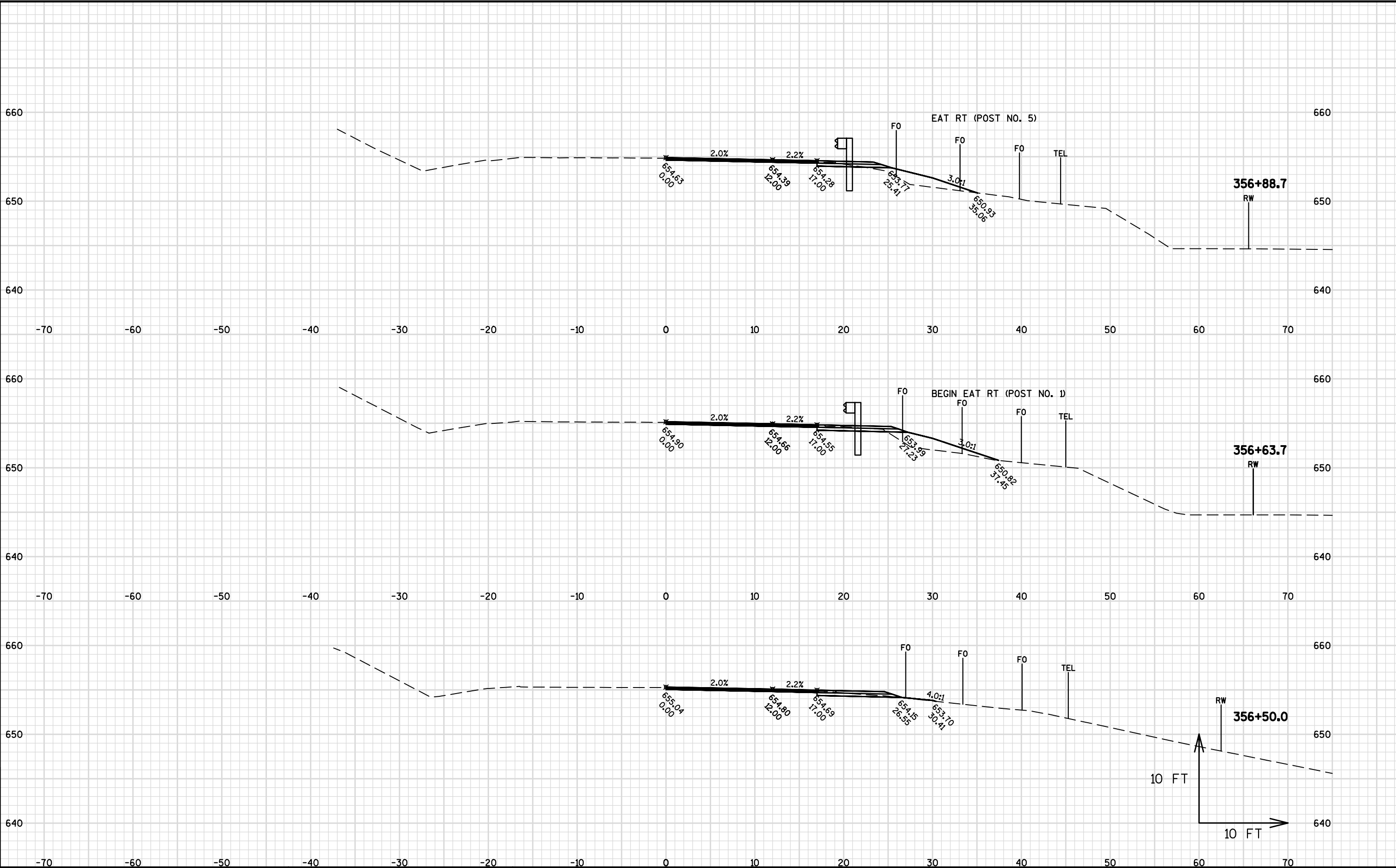
EARTHWORK AND LANDSCAPING ITEMS PAID FOR
UNDER ITEM 614.0010 BARRIER SYSTEM GRADING
SHAPING FINISHING.

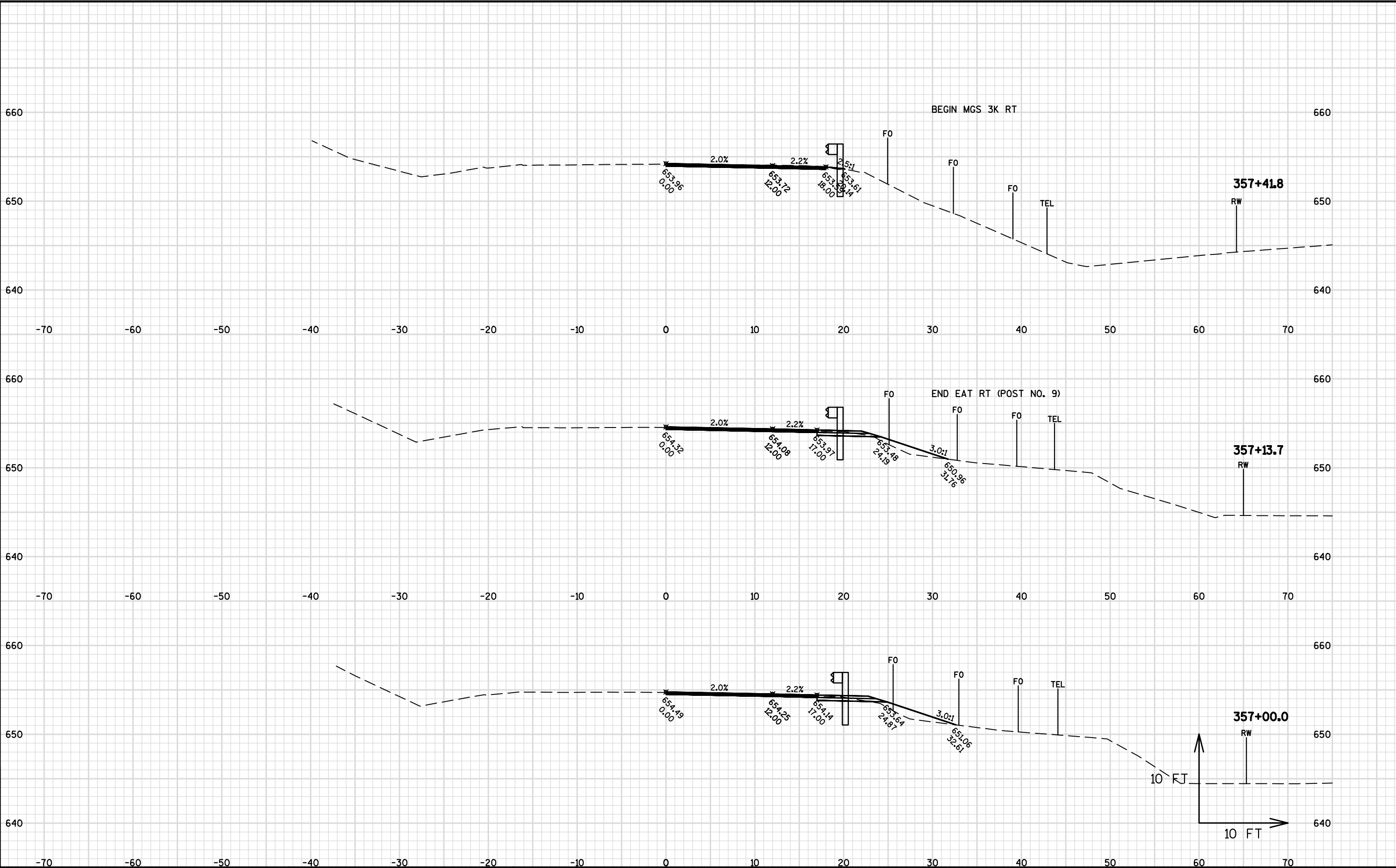
ASPHALTIC SURFACE MILLING IS NOT INCLUDED IN
THE EARTHWORK CUT QUANTITY.

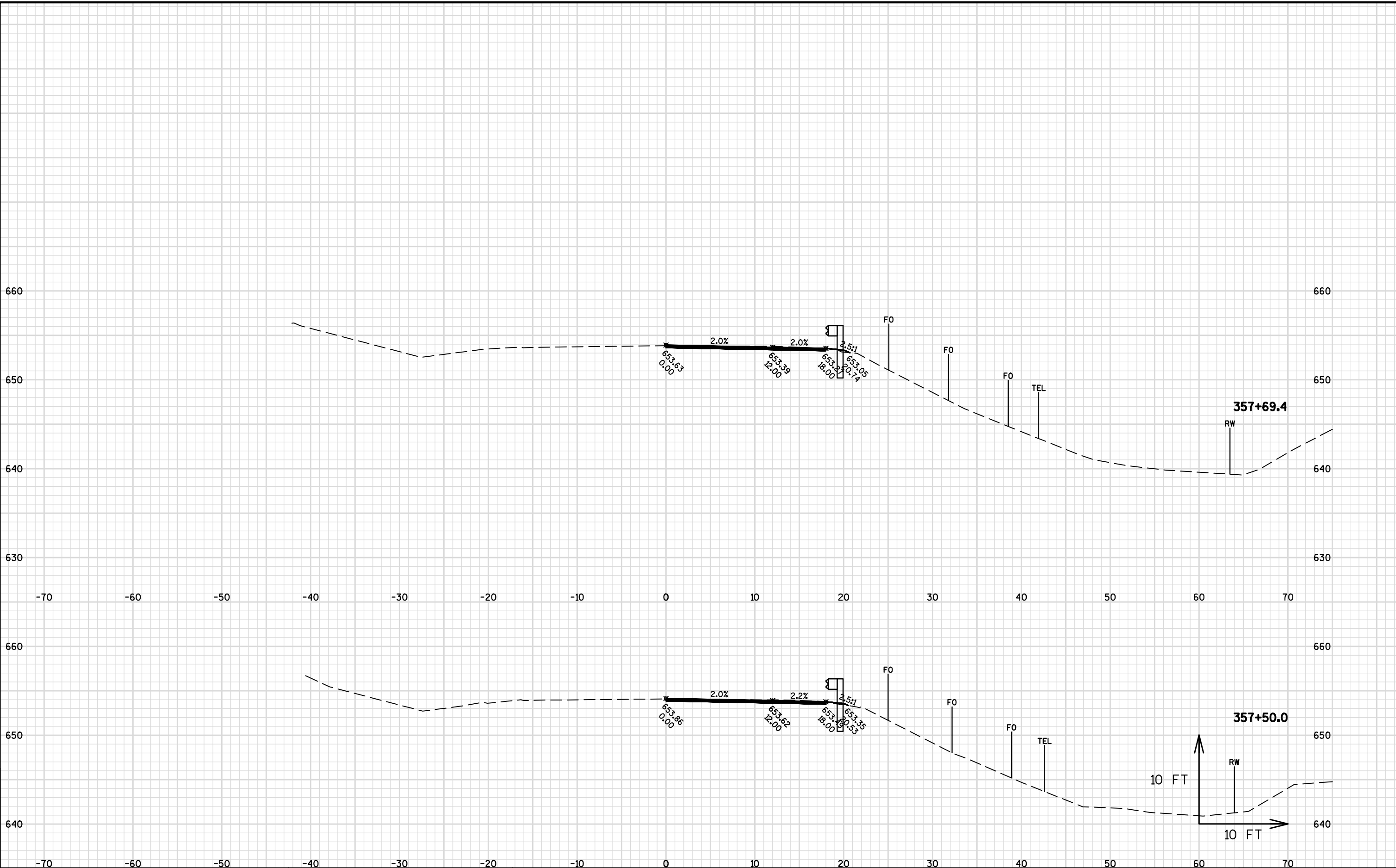


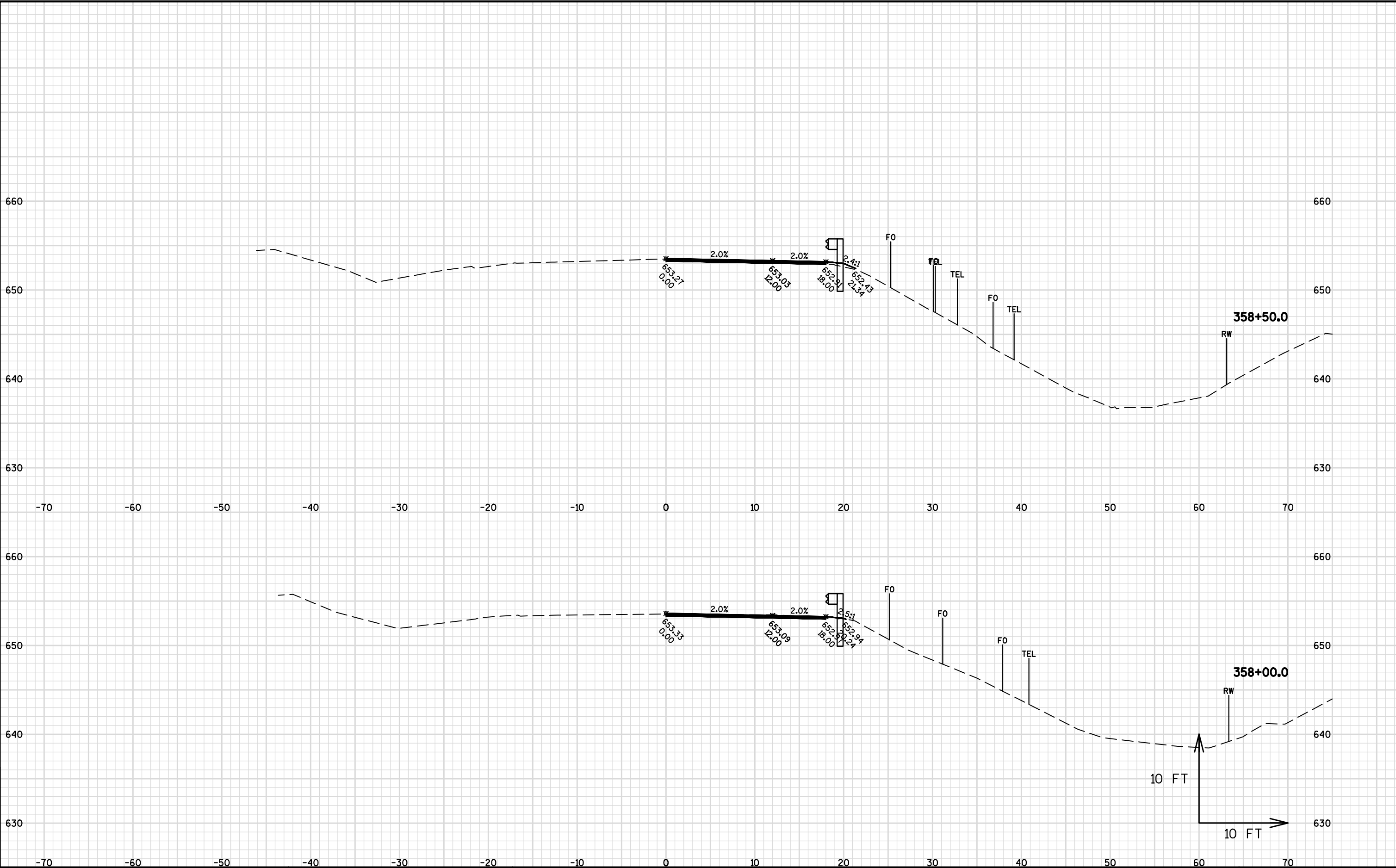
STA. 355+44.5
BEGIN BARRIER SYSTEM GRADING SHAPING FINISHING RT

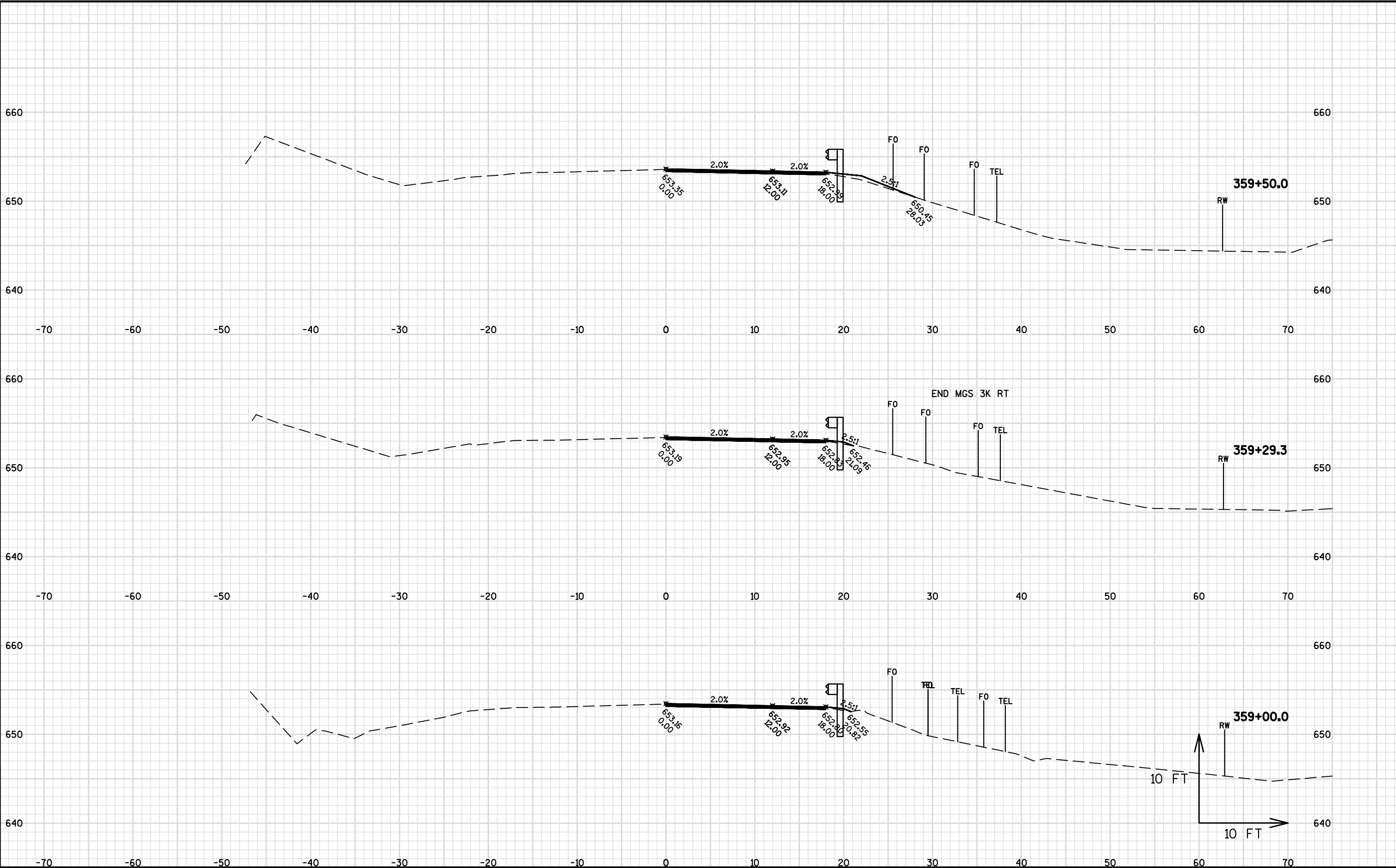


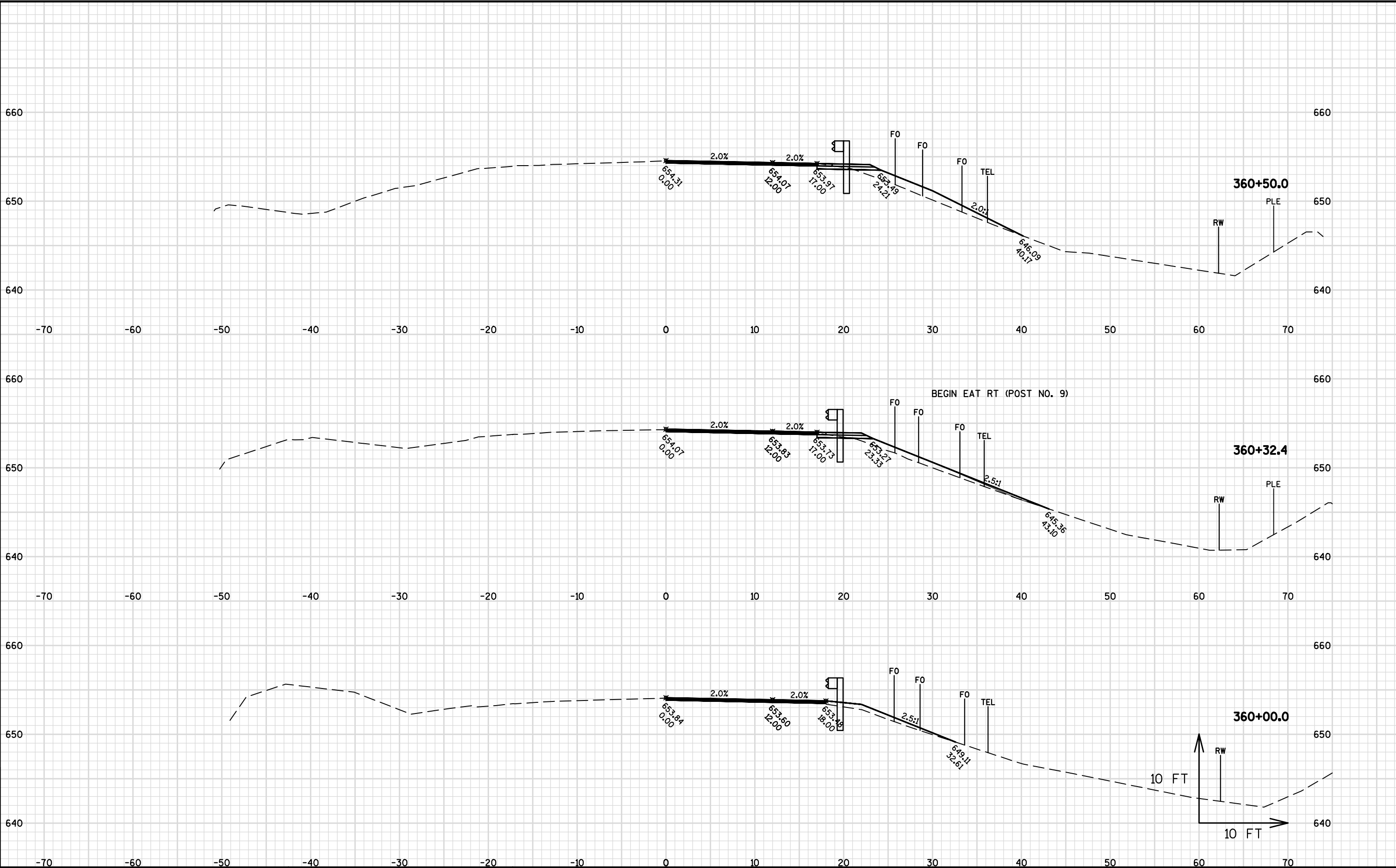


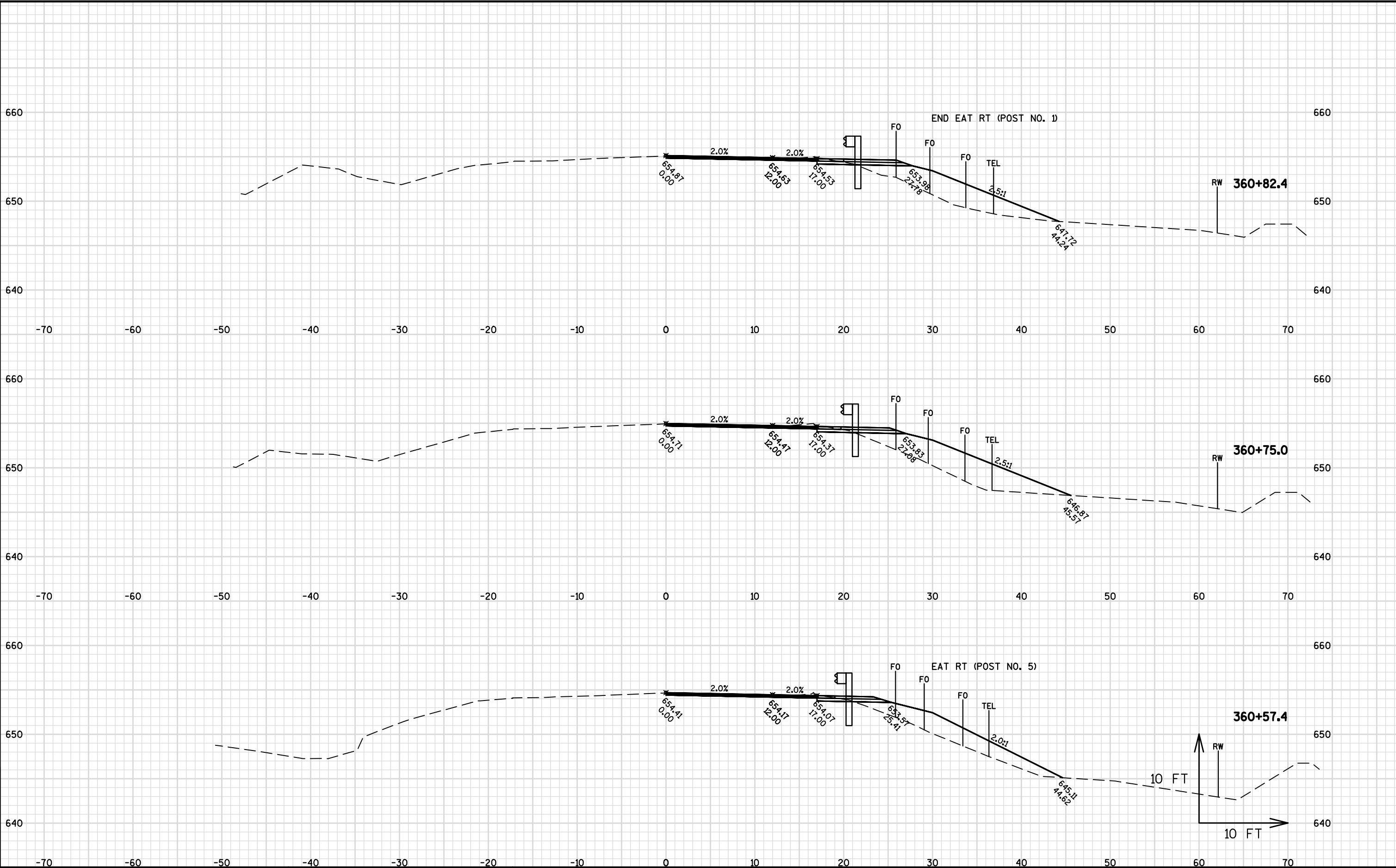


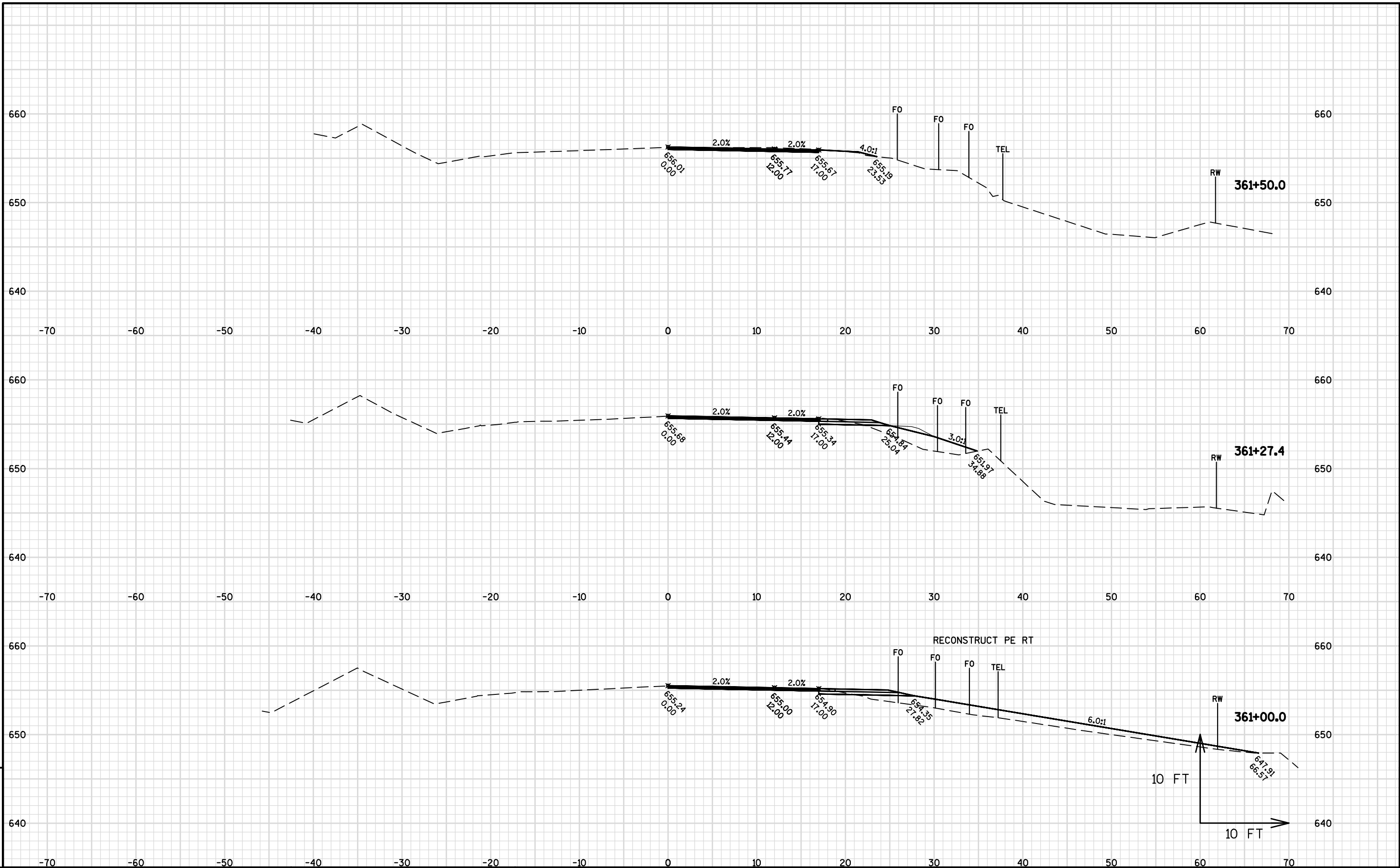


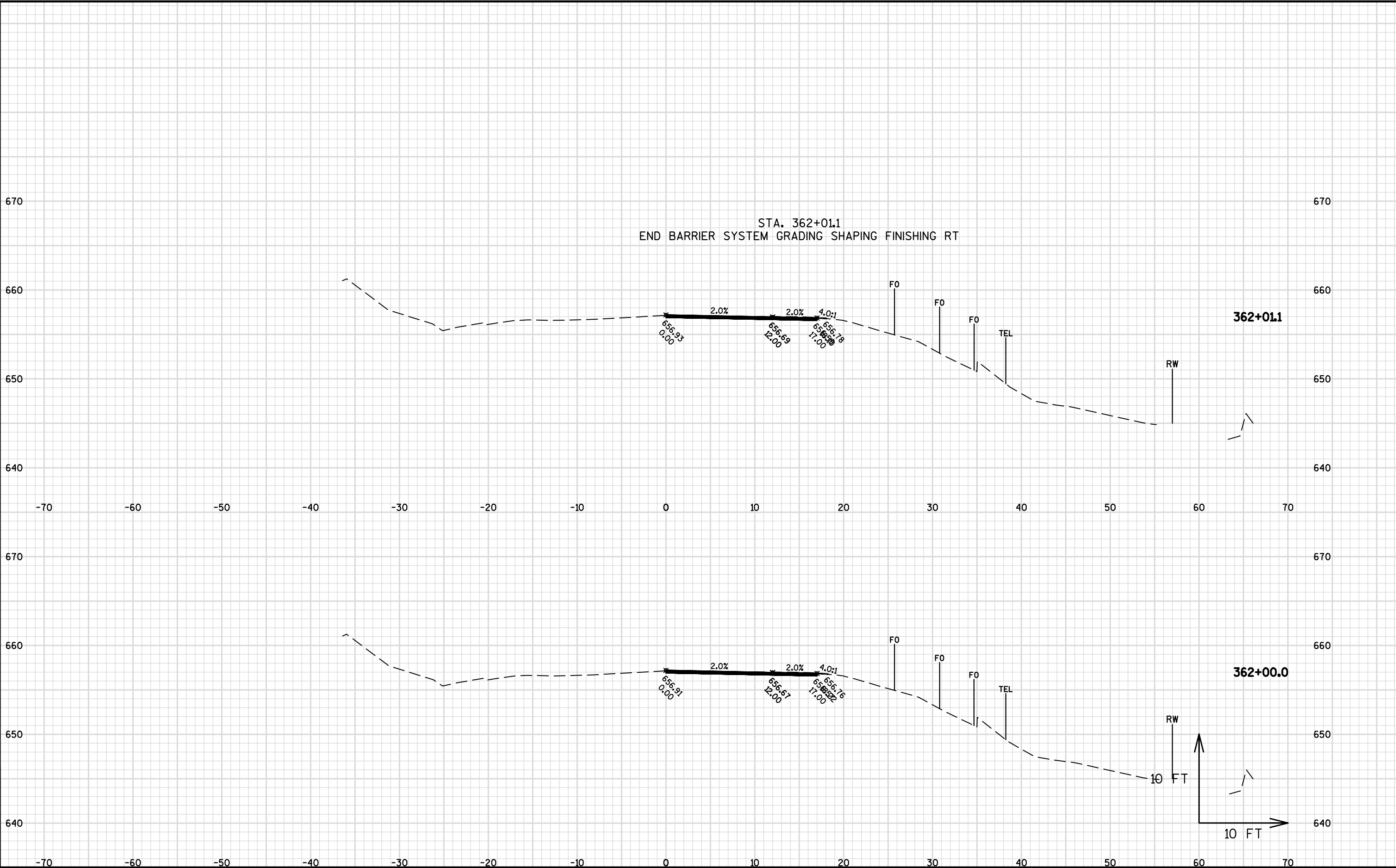












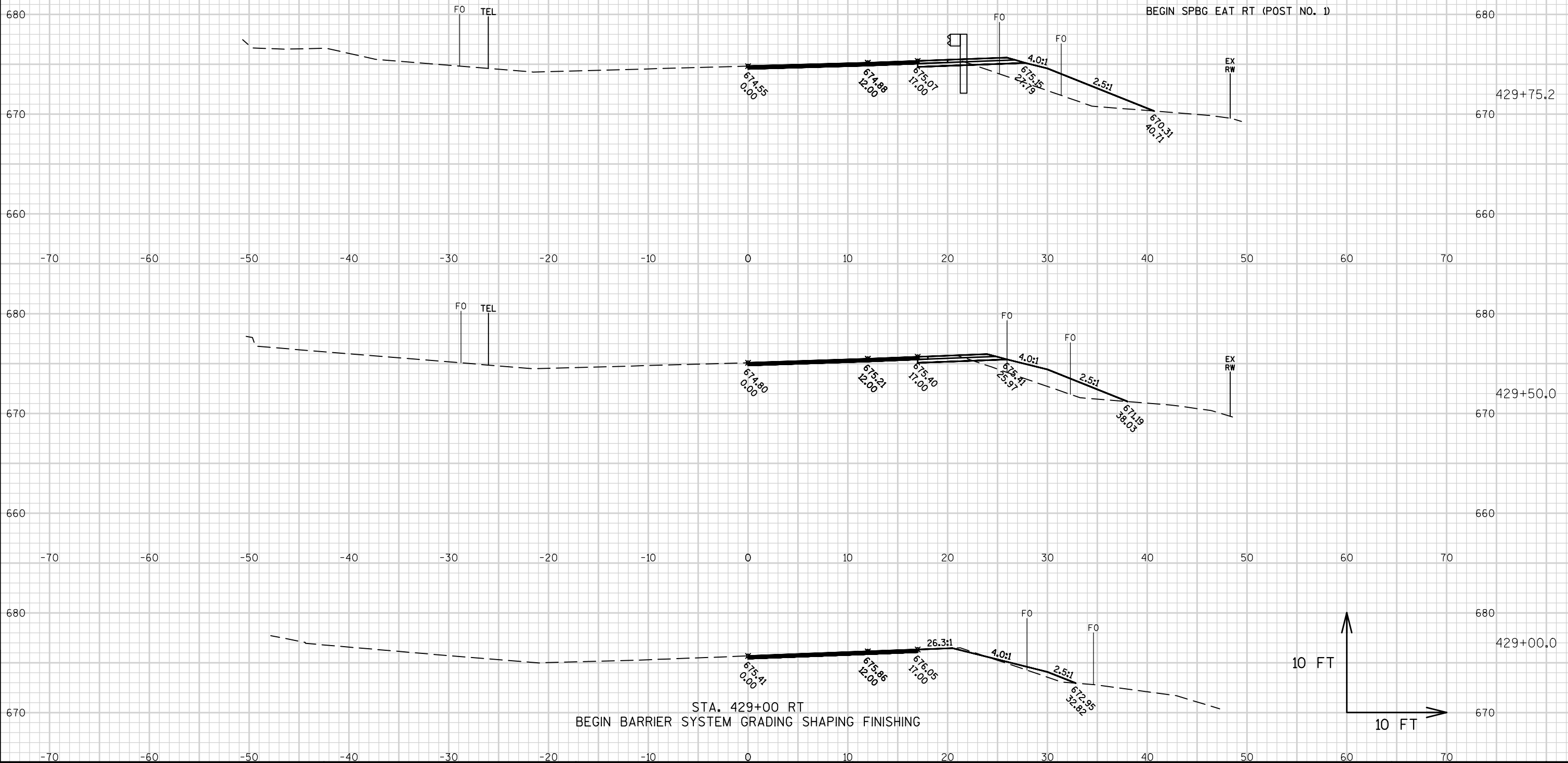
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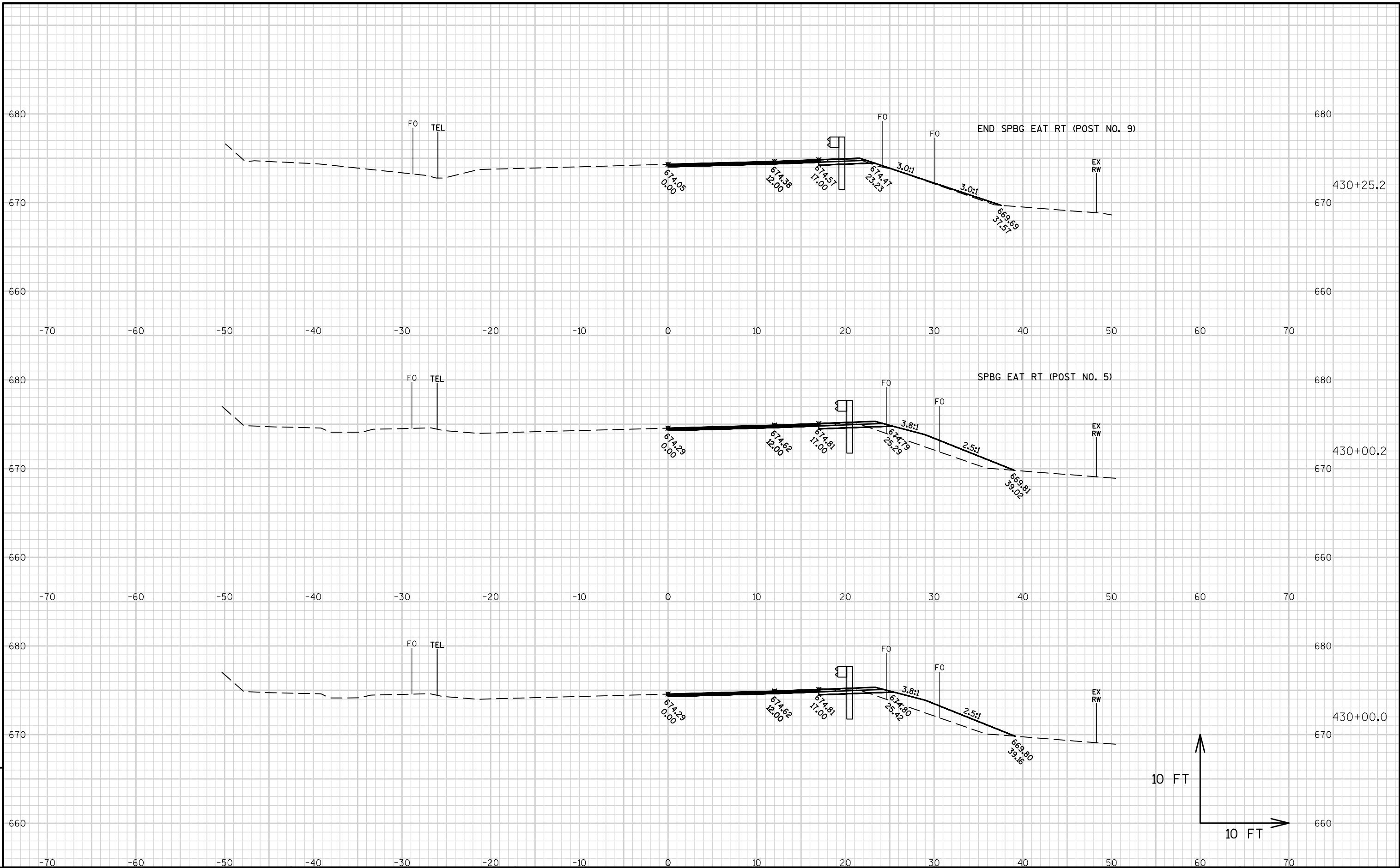
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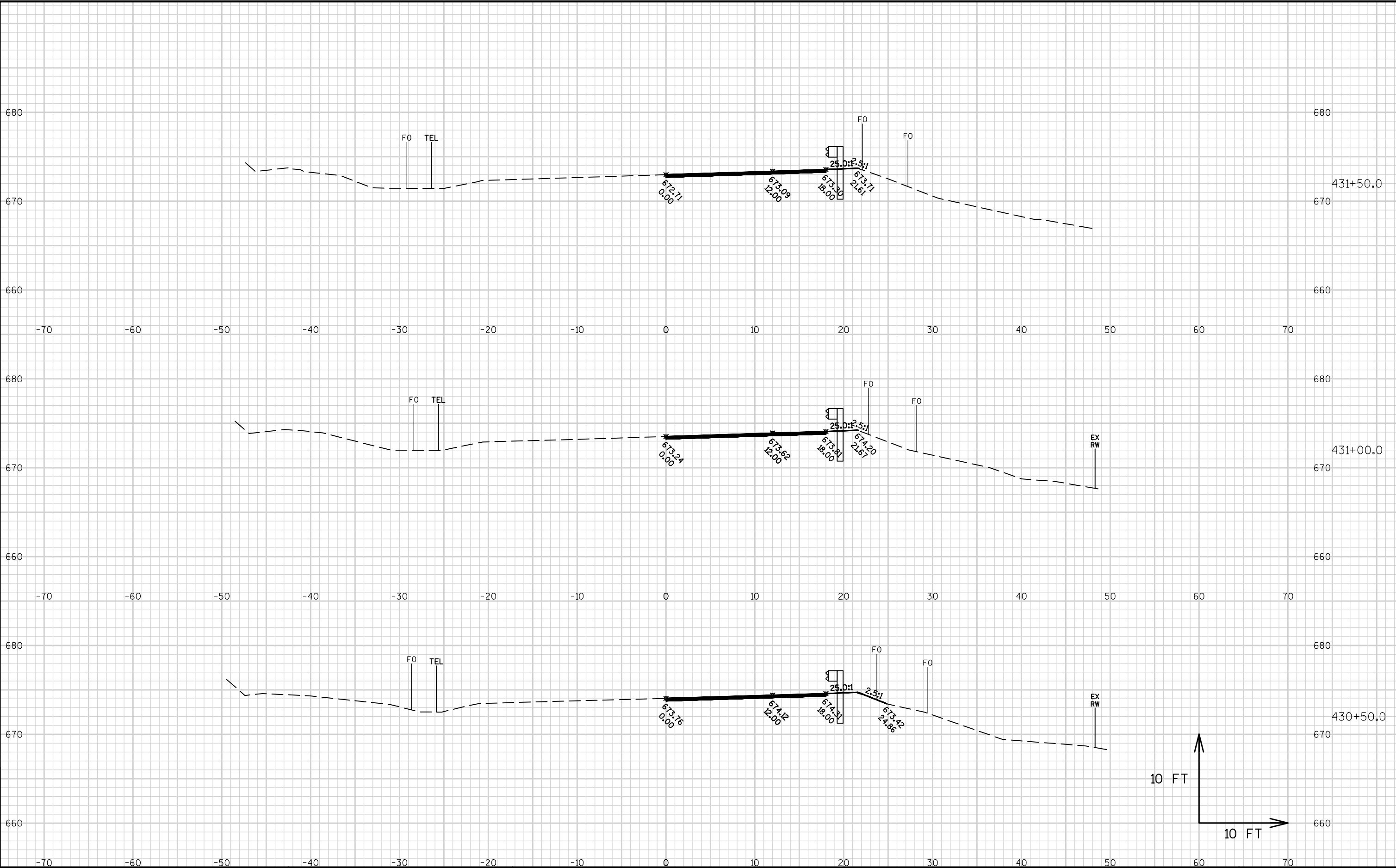
CROSS-SECTIONS FOR INFORMATION ONLY.

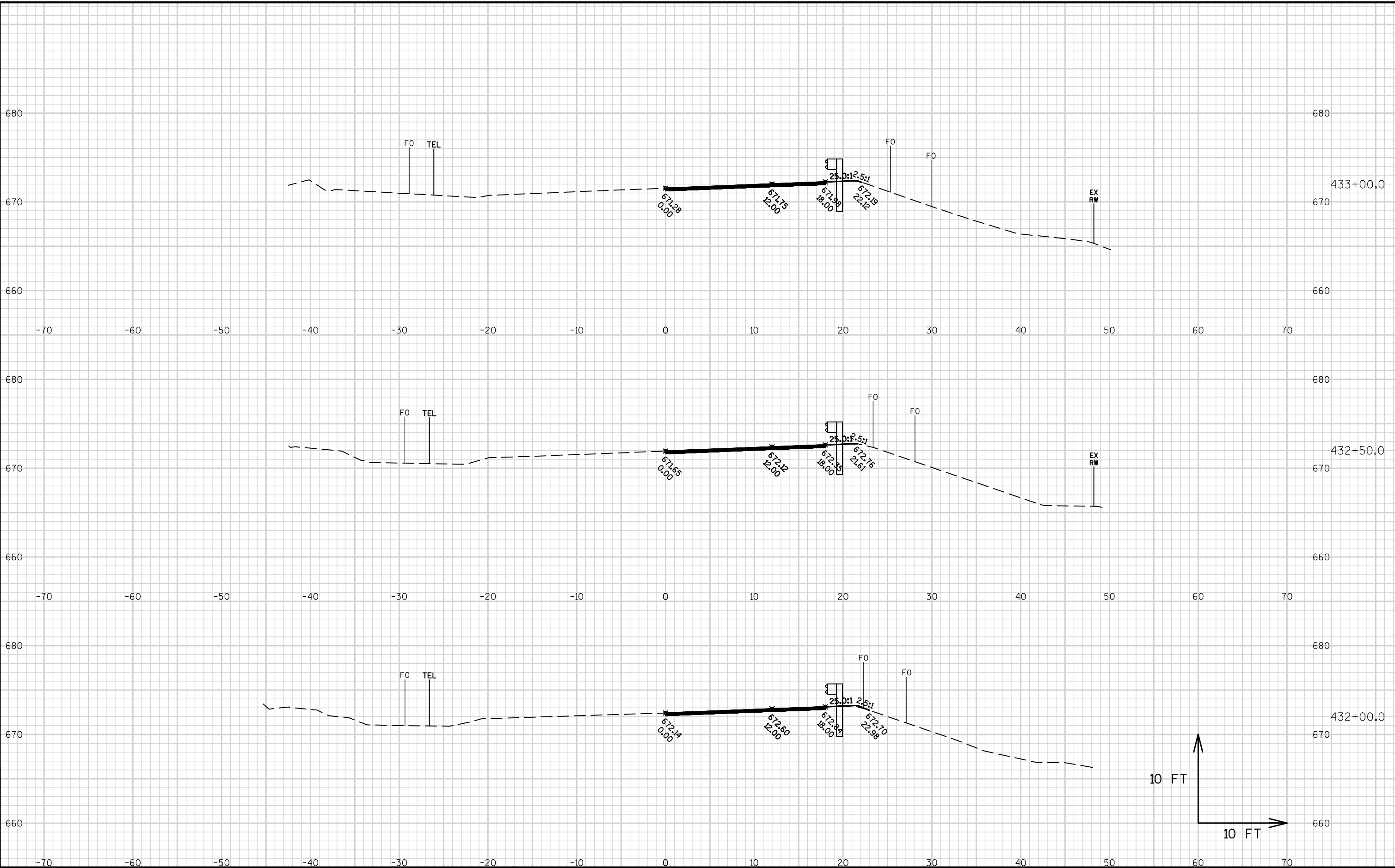
EARTHWORK AND LANDSCAPING ITEMS PAID FOR
UNDER ITEM 614.0010 BARRIER SYSTEM GRADING
SHAPING FINISHING.

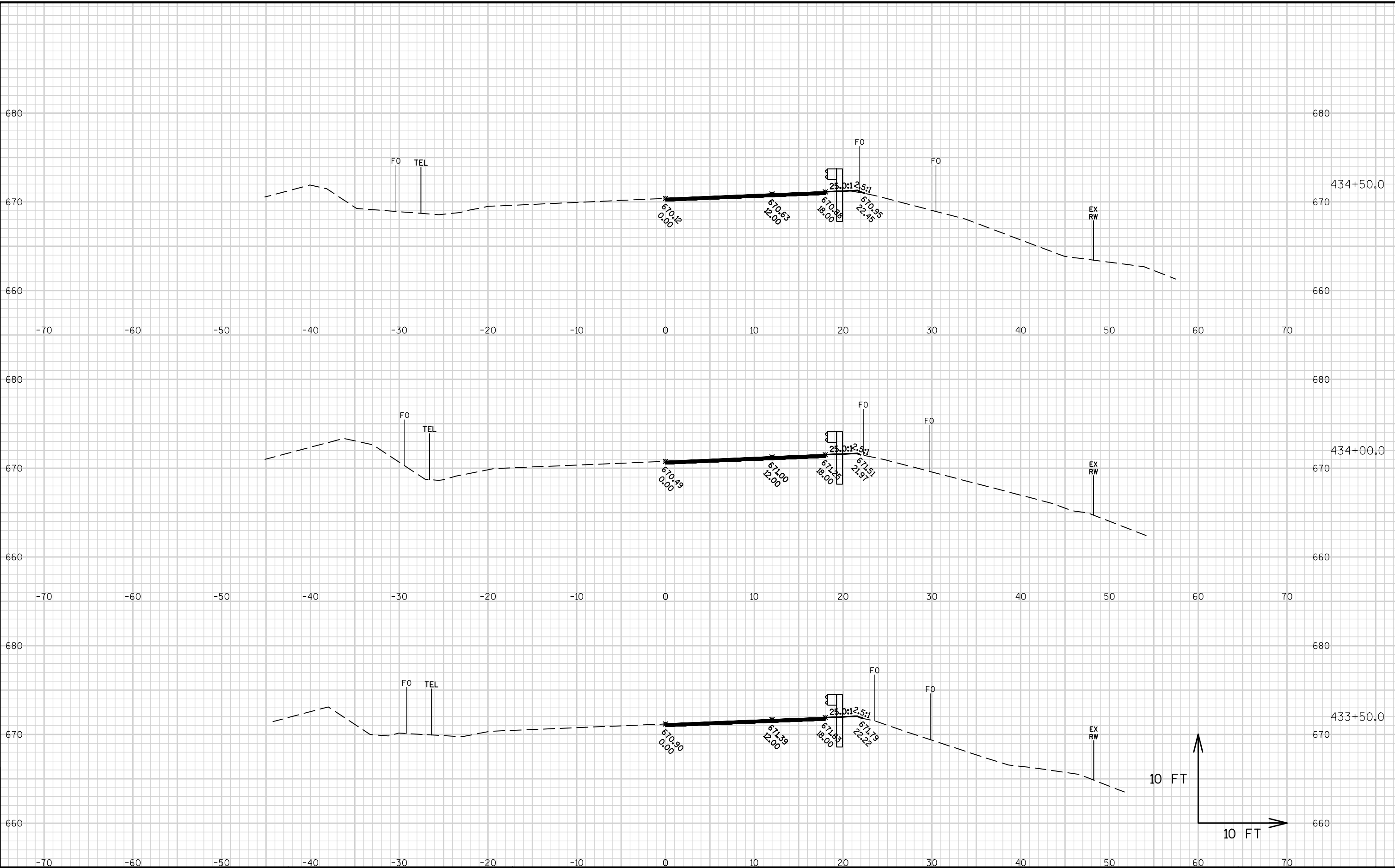
ASPHALTIC SURFACE MILLING IS NOT INCLUDED IN
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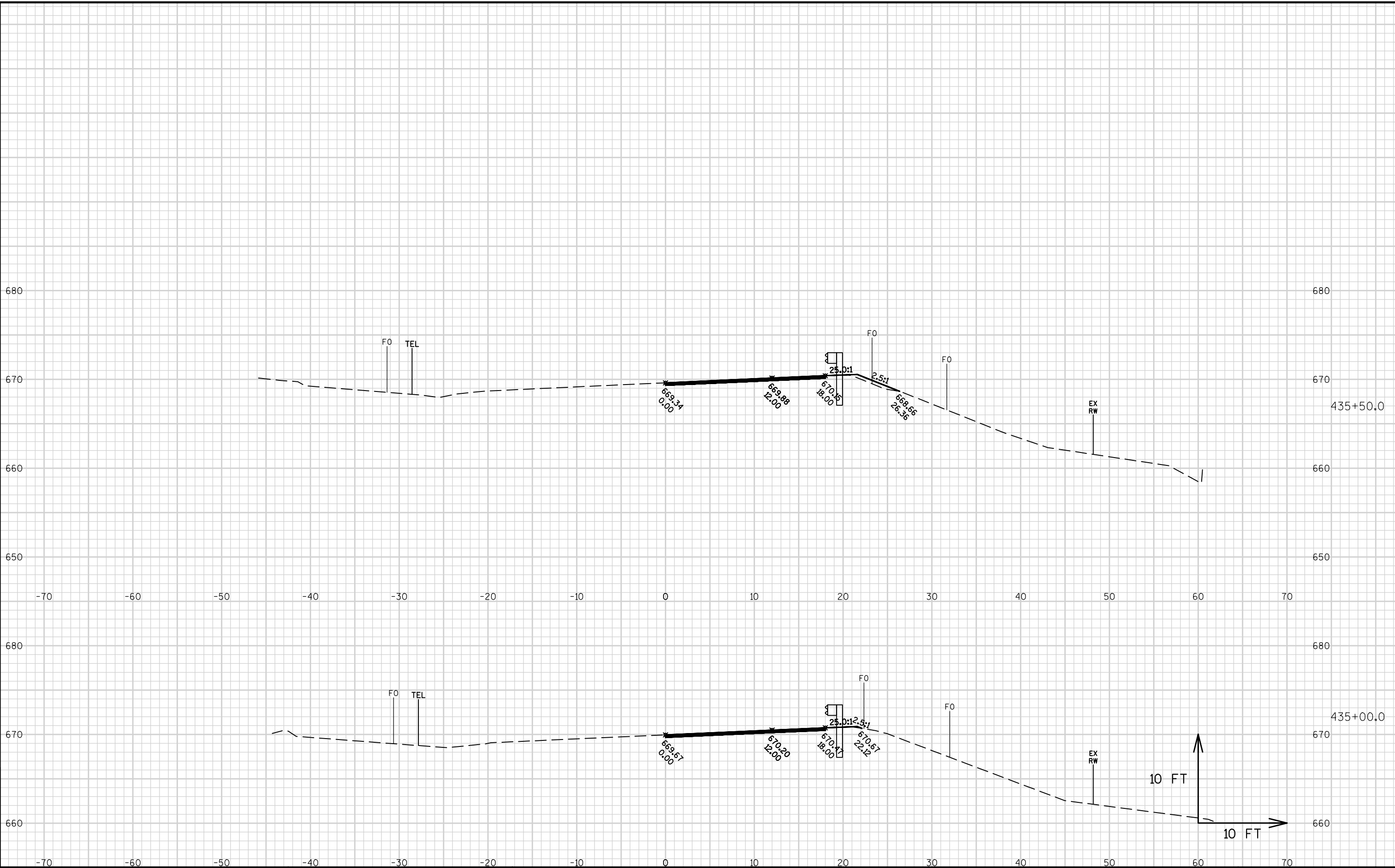


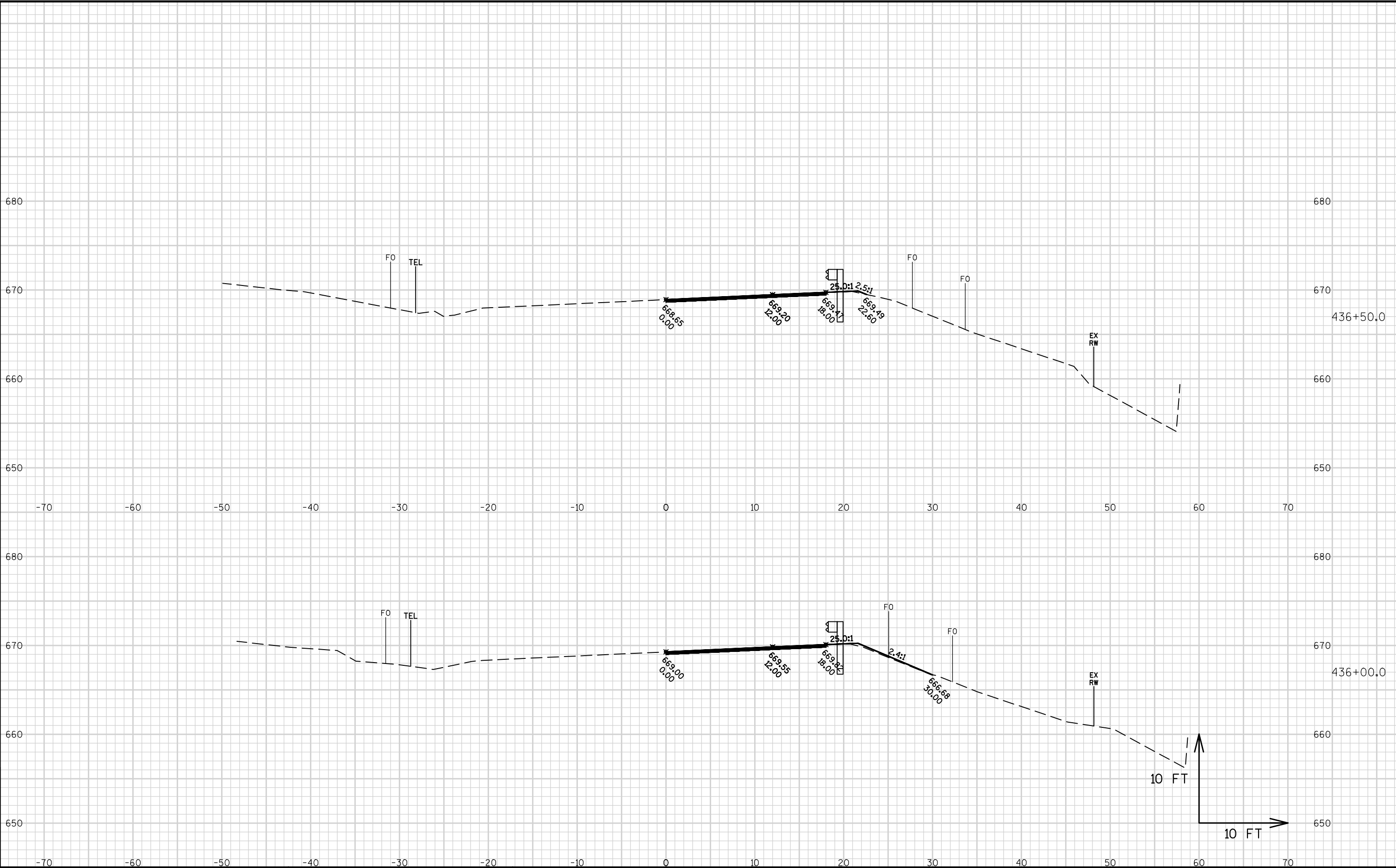


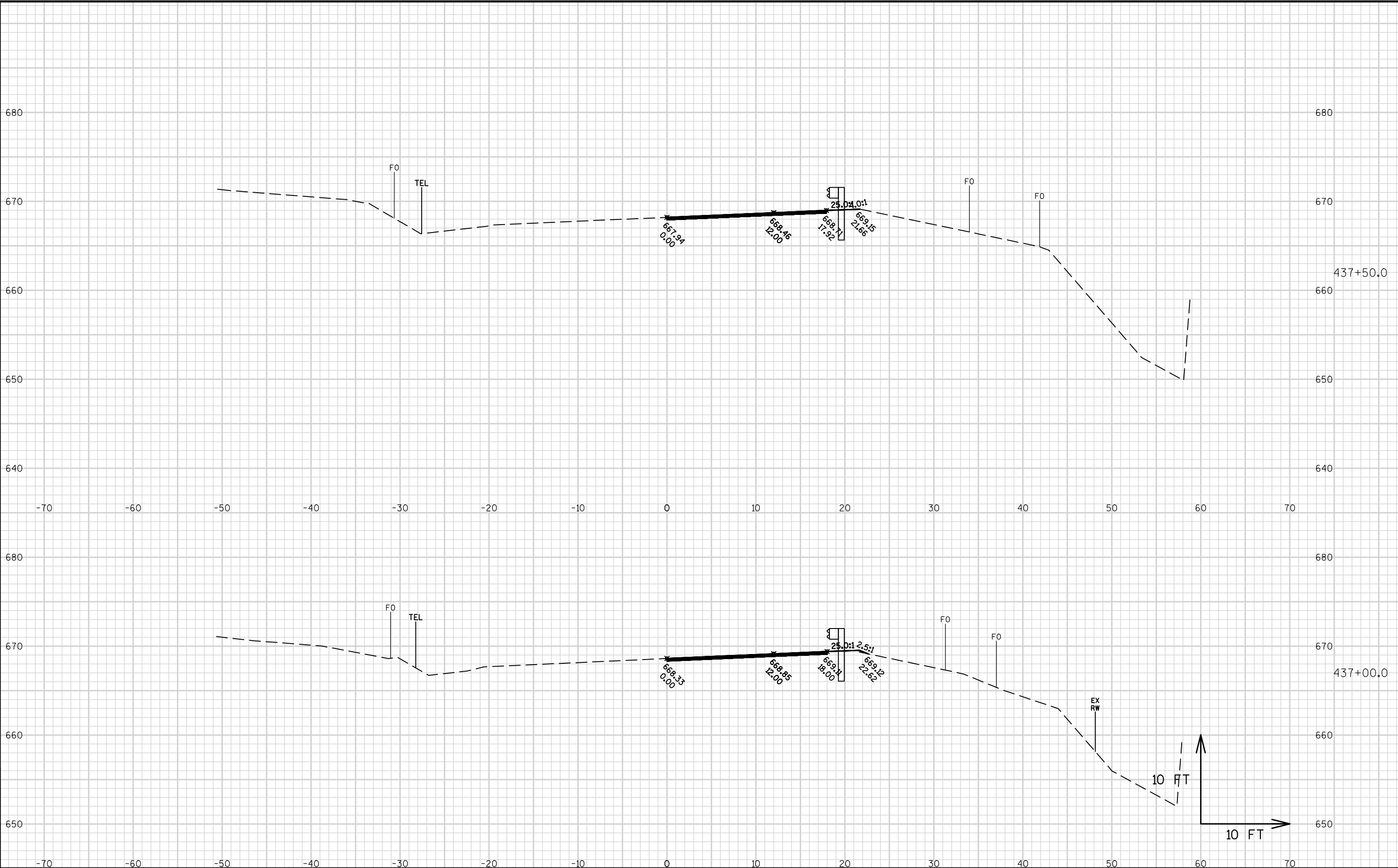


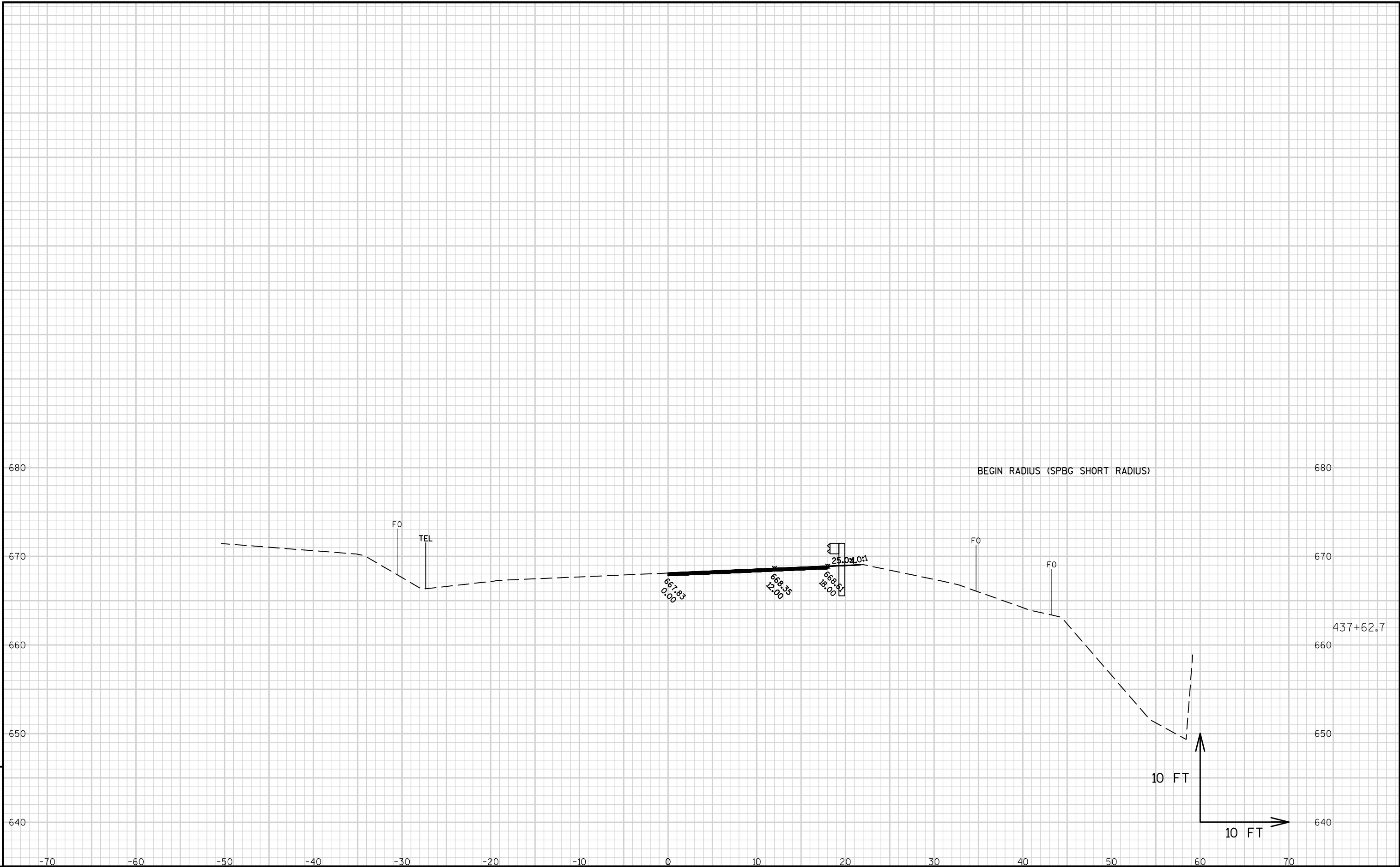


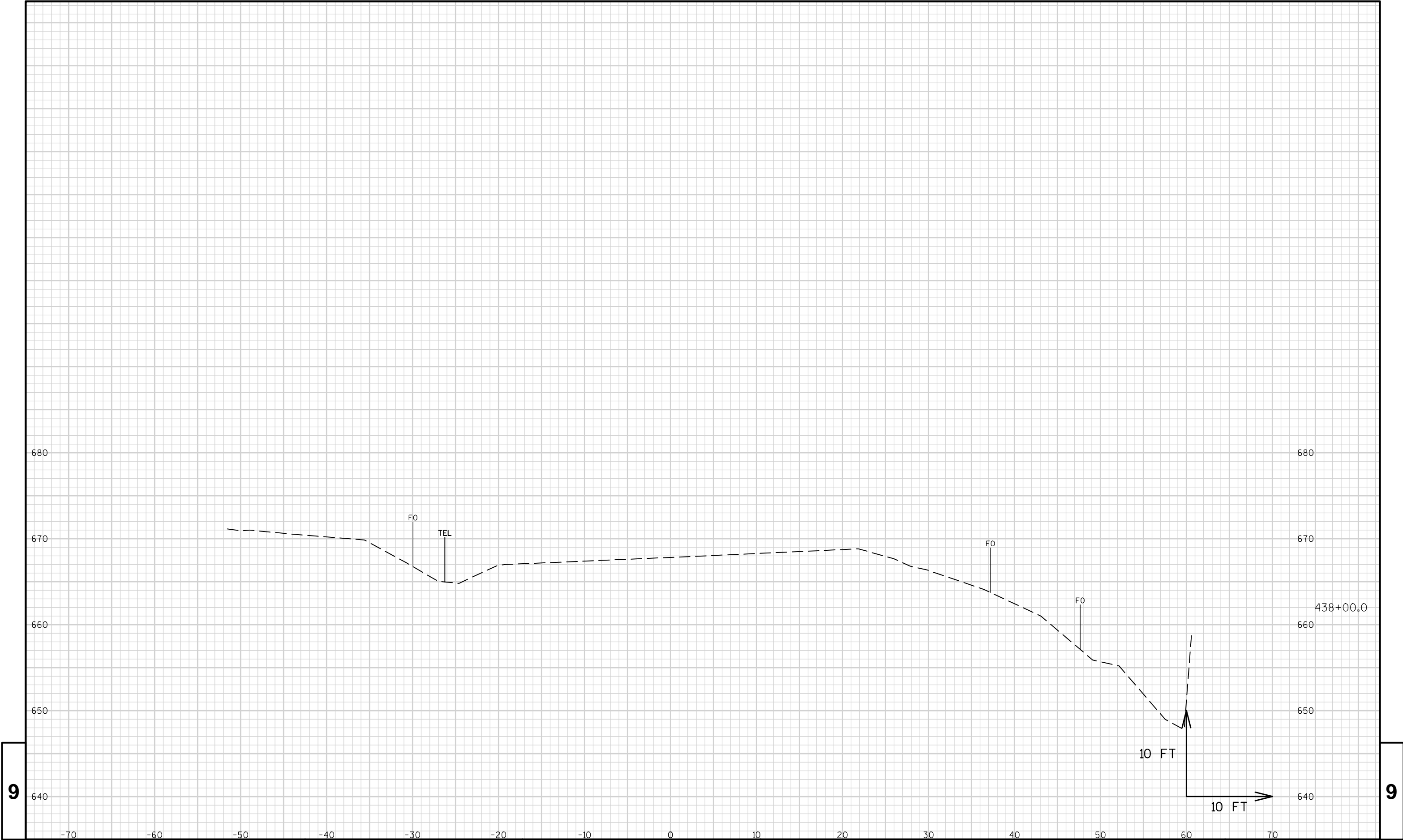












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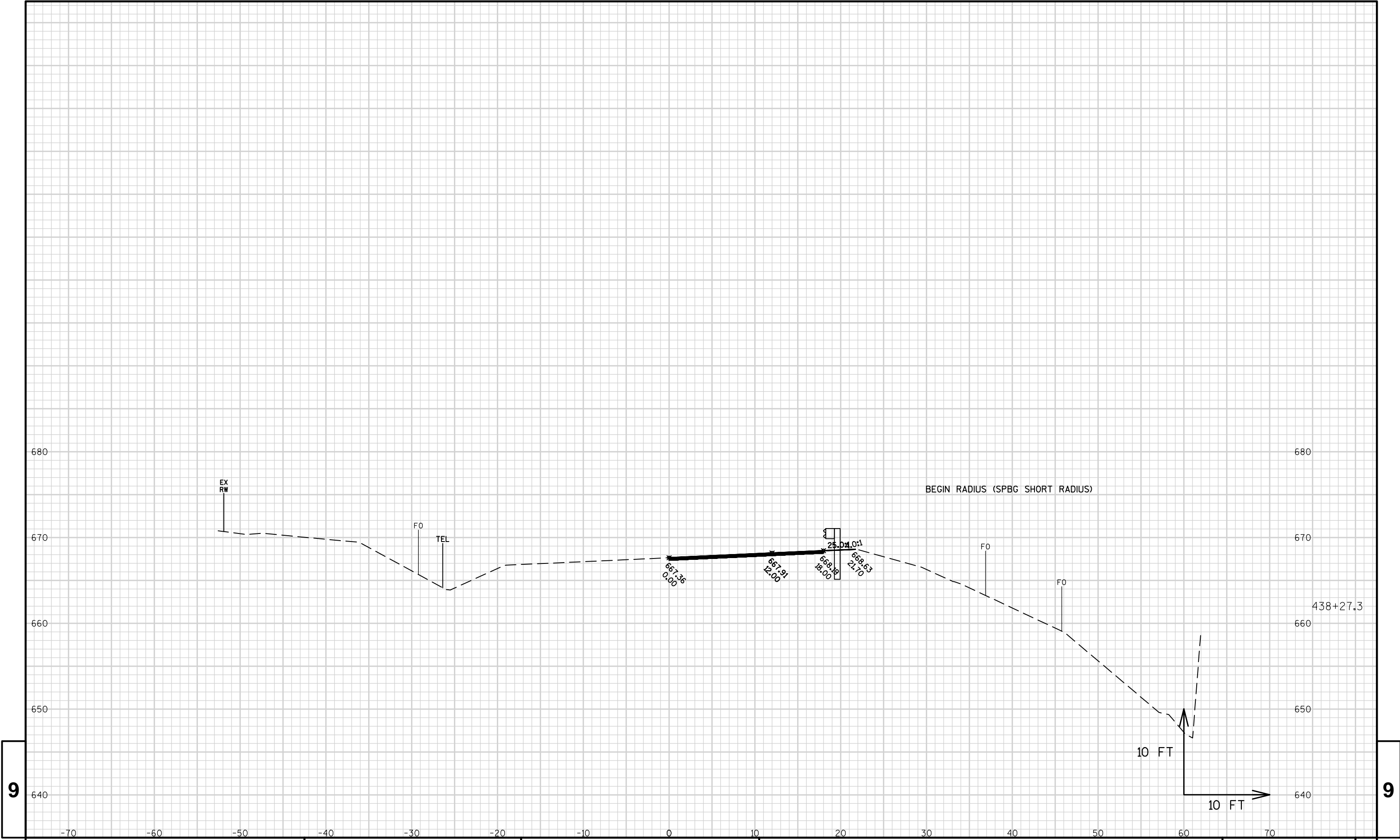
PROJECT NO: 8160-03-70

HWY: STH 13

COUNTY: BAYFIELD

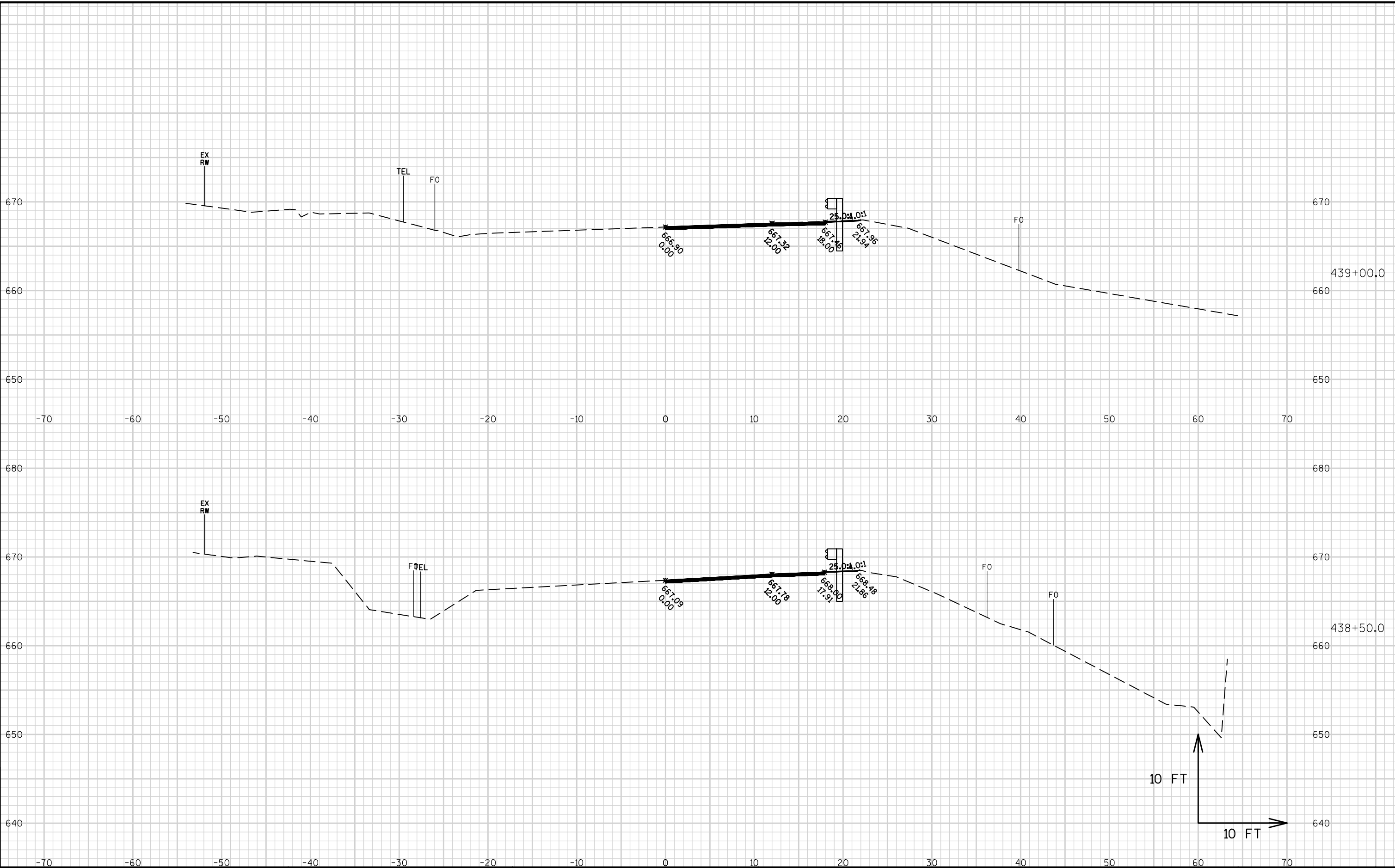
CROSS SECTIONS: STH 13-SPBG STA. 429+00-450+00 RT-INFO. ONLY SHEET

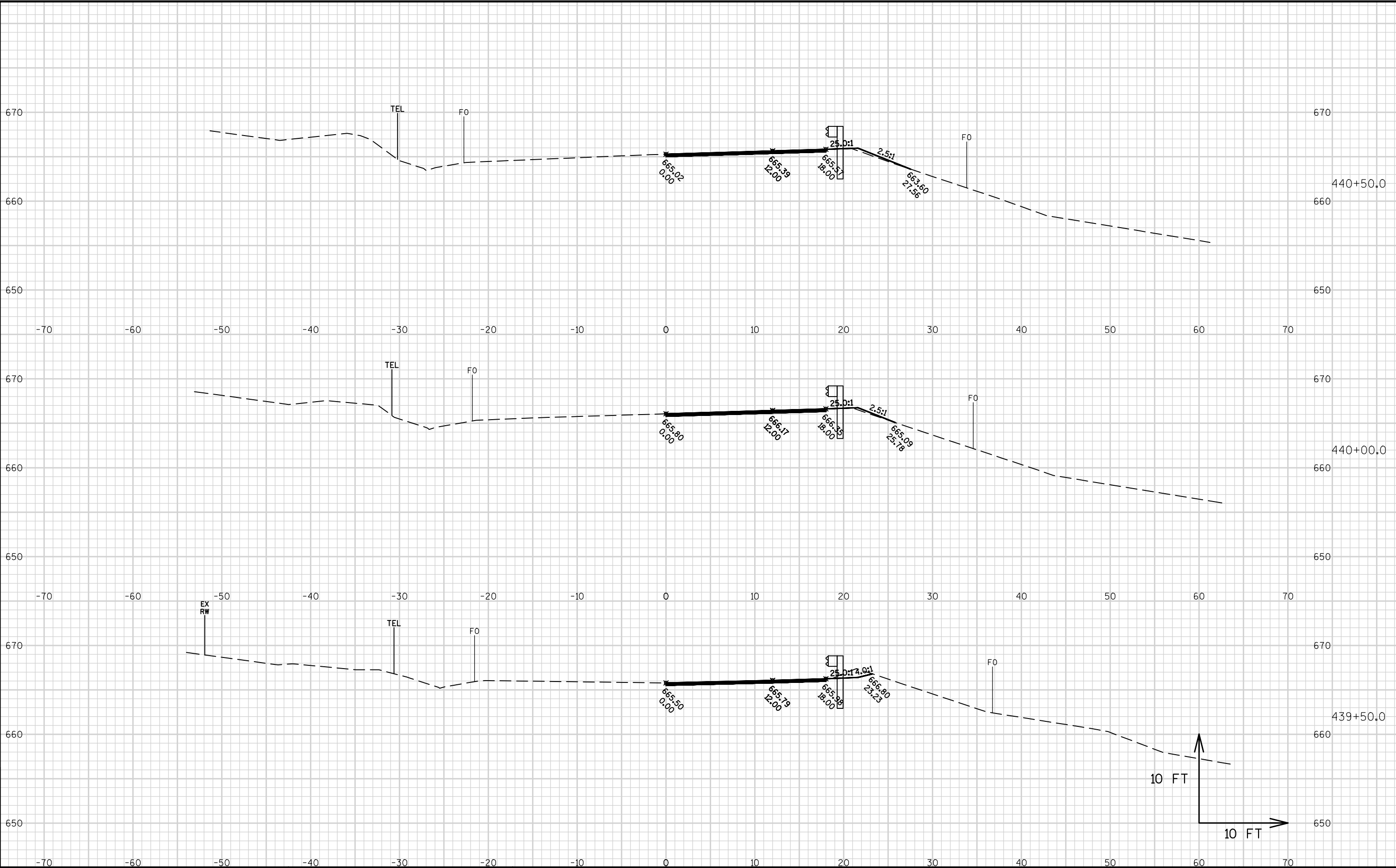
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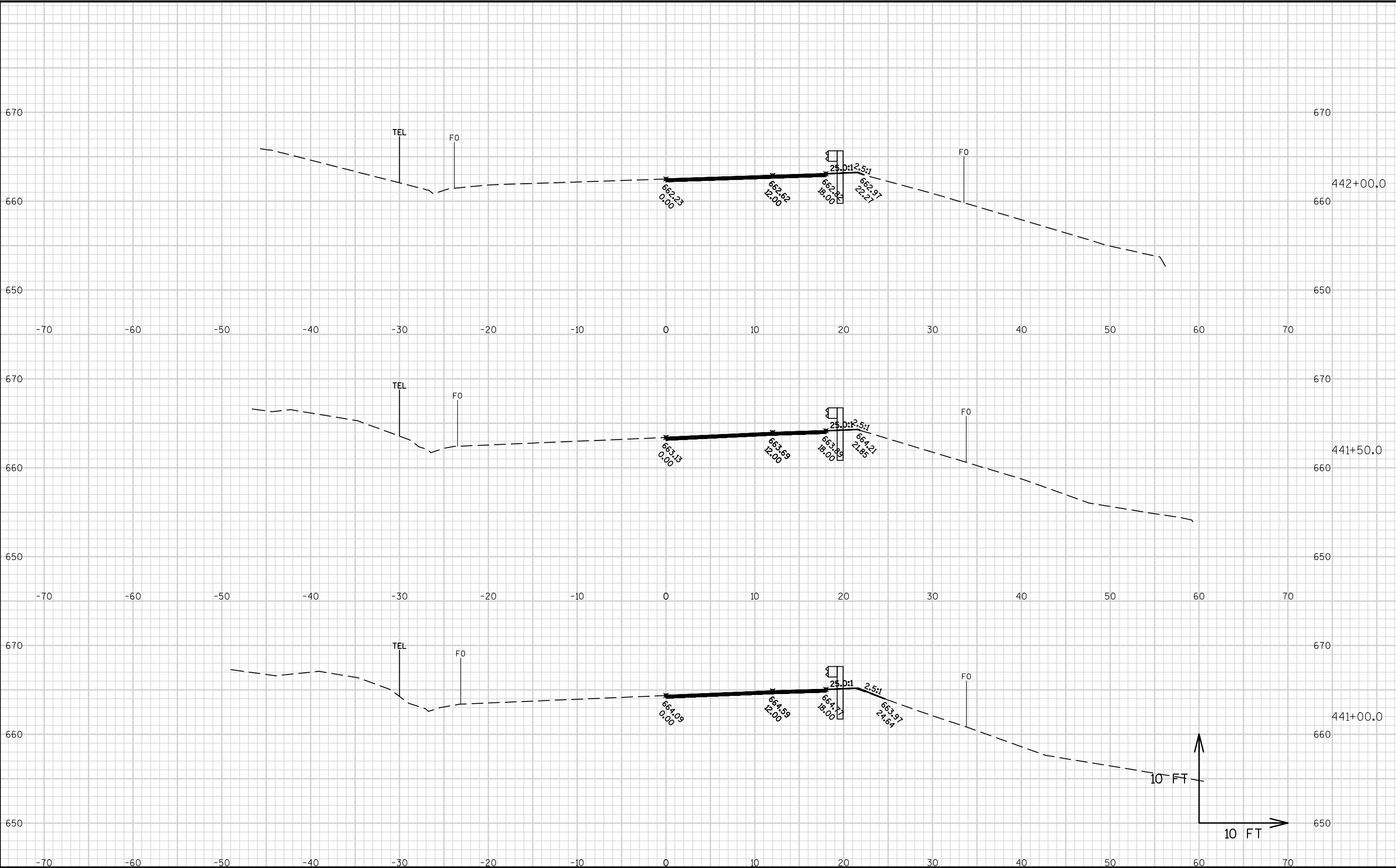


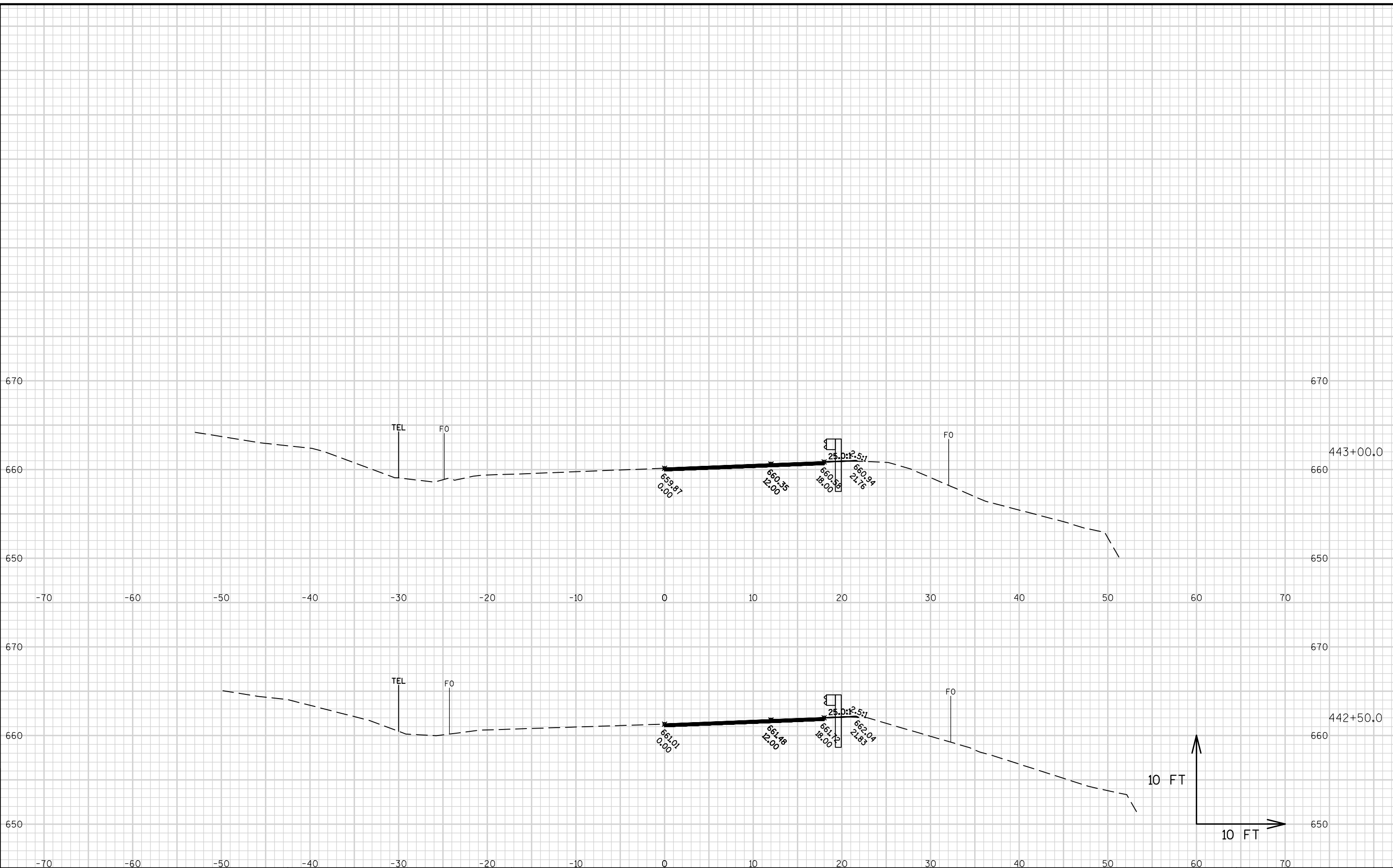
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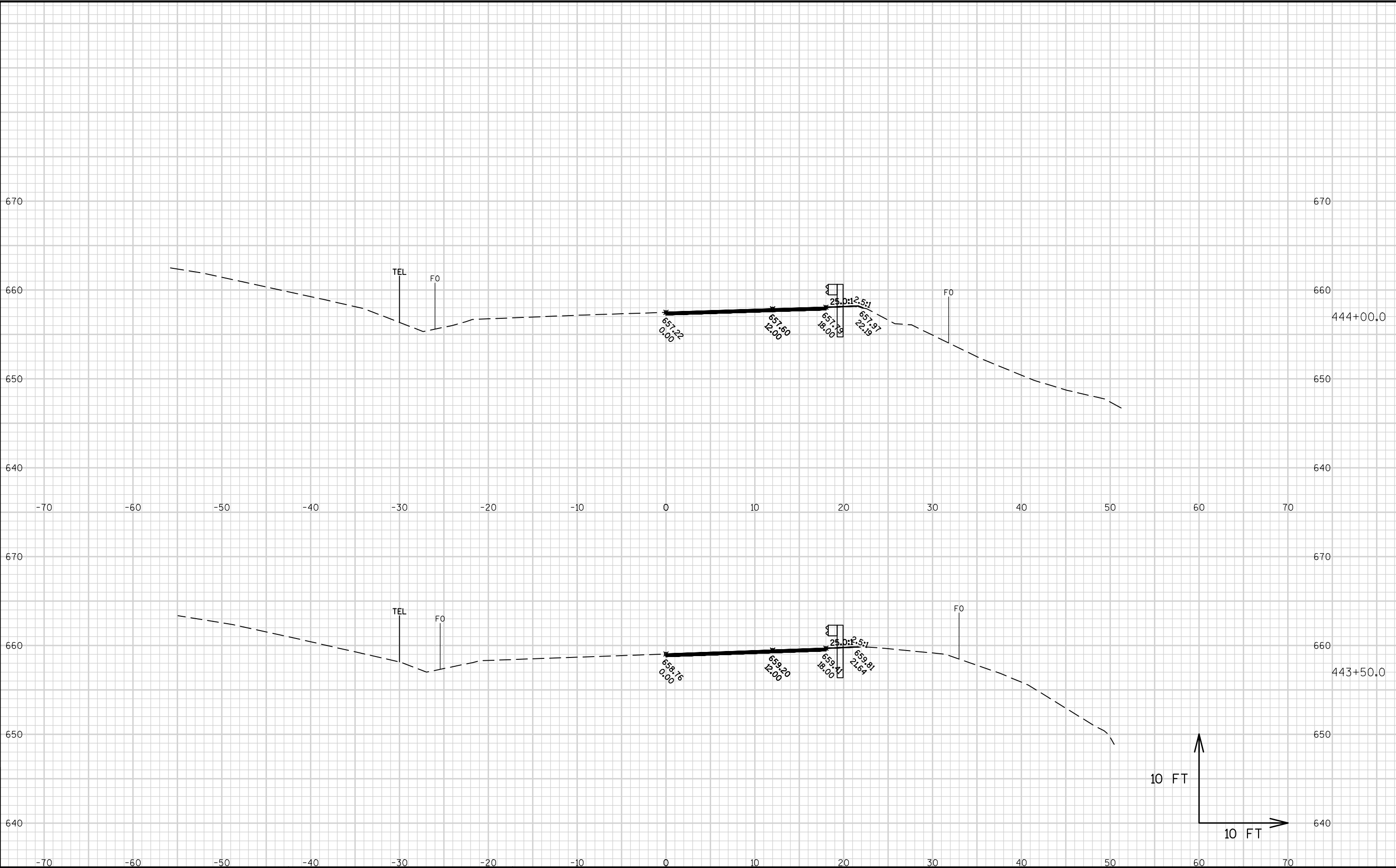
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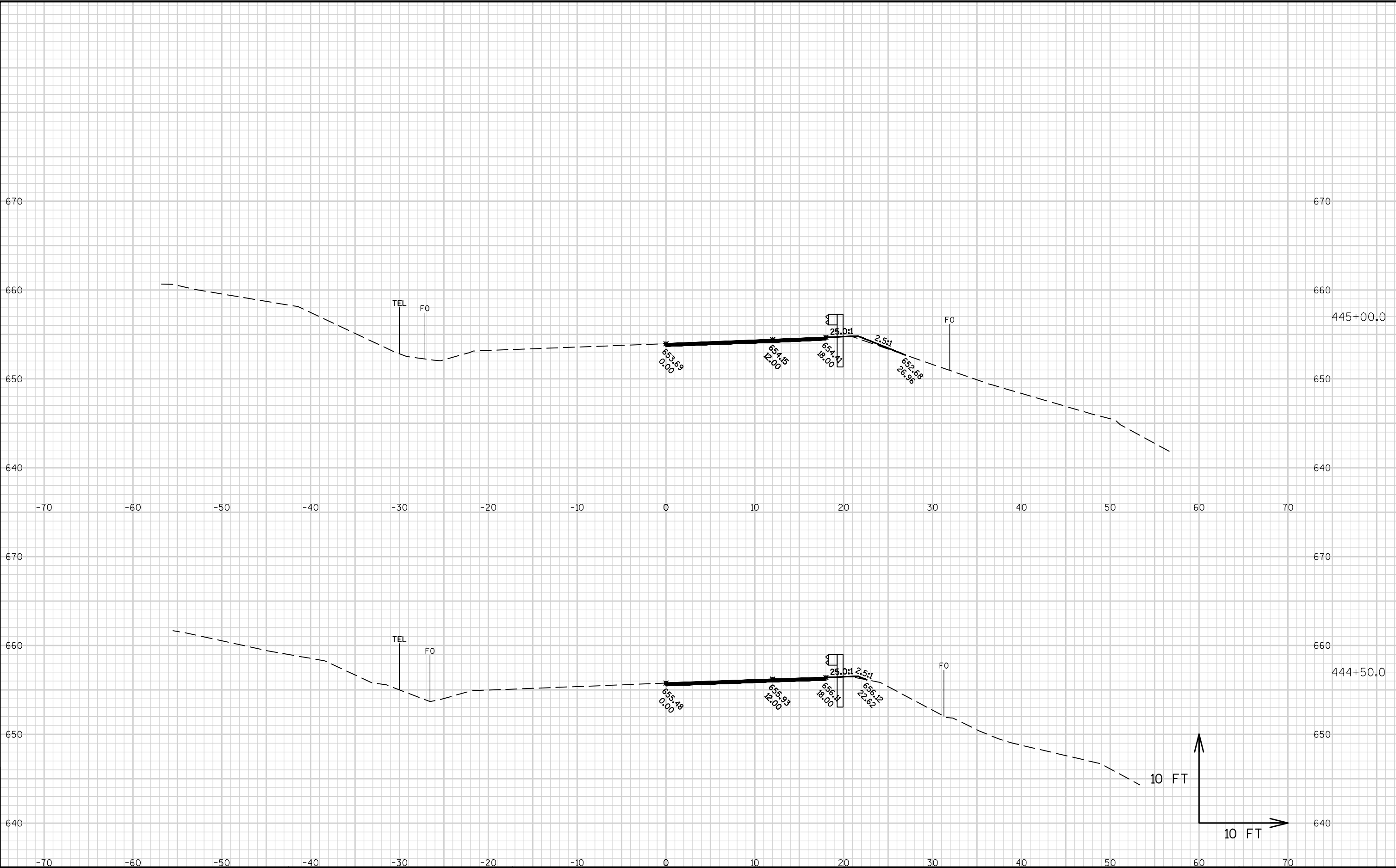






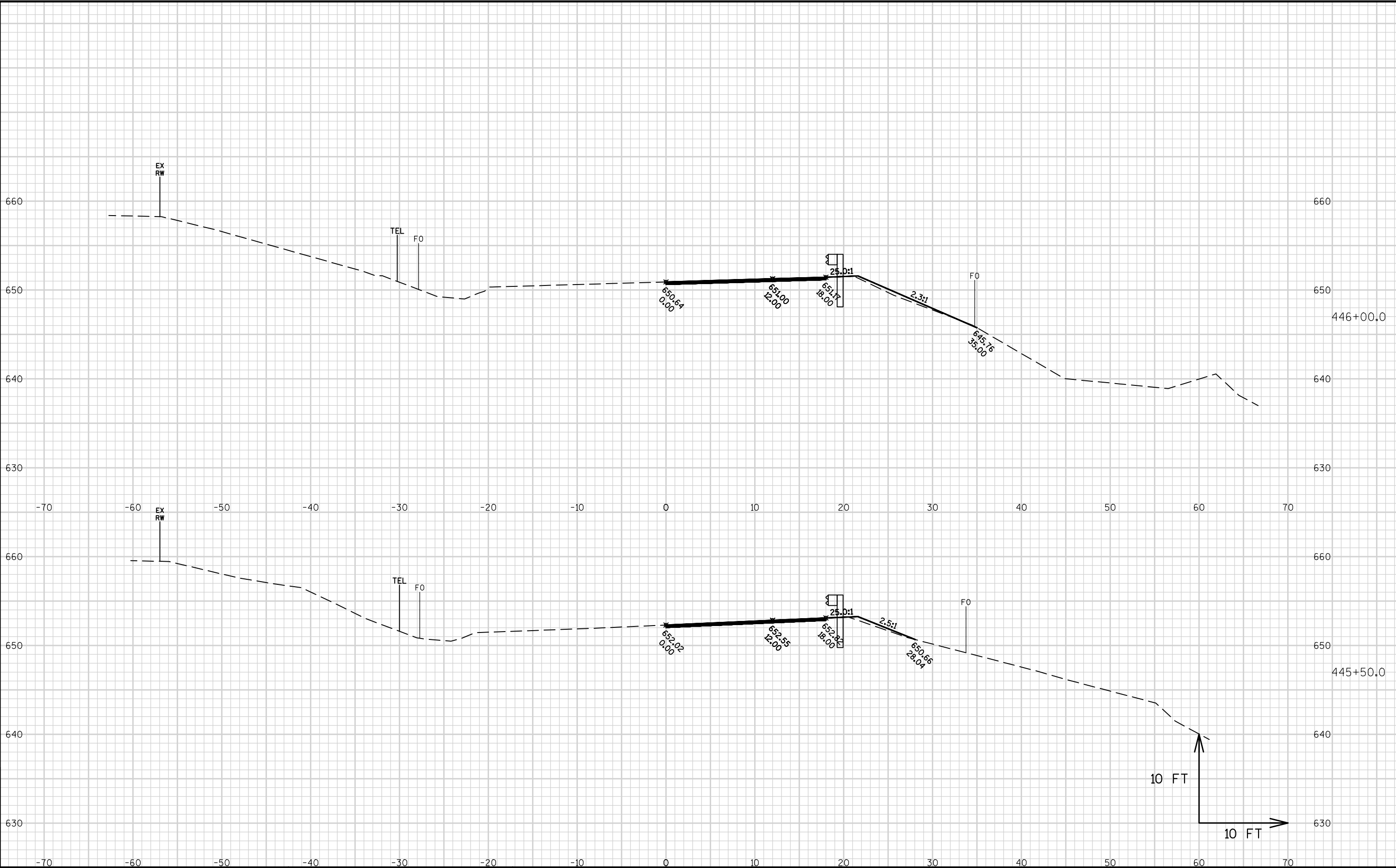


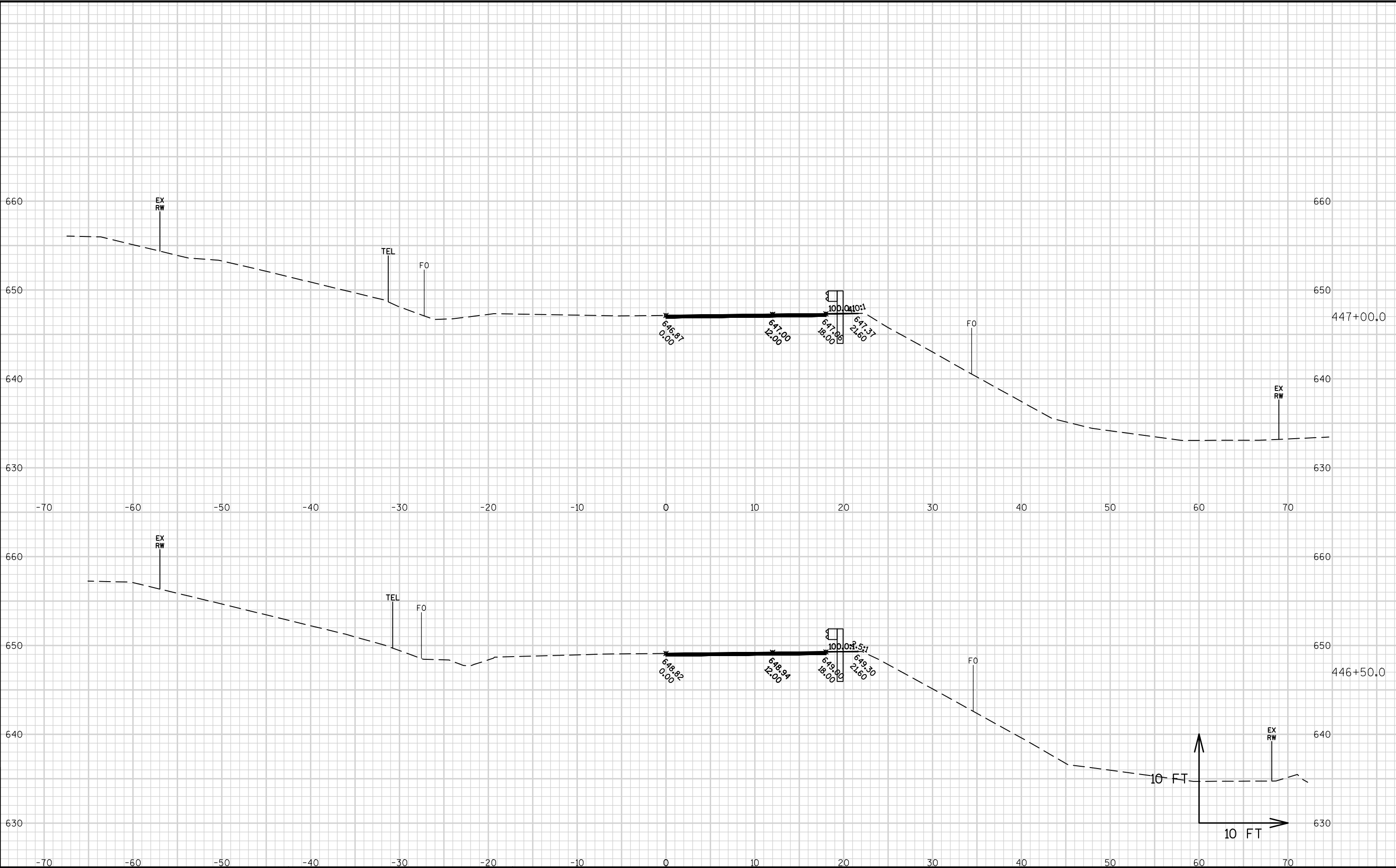


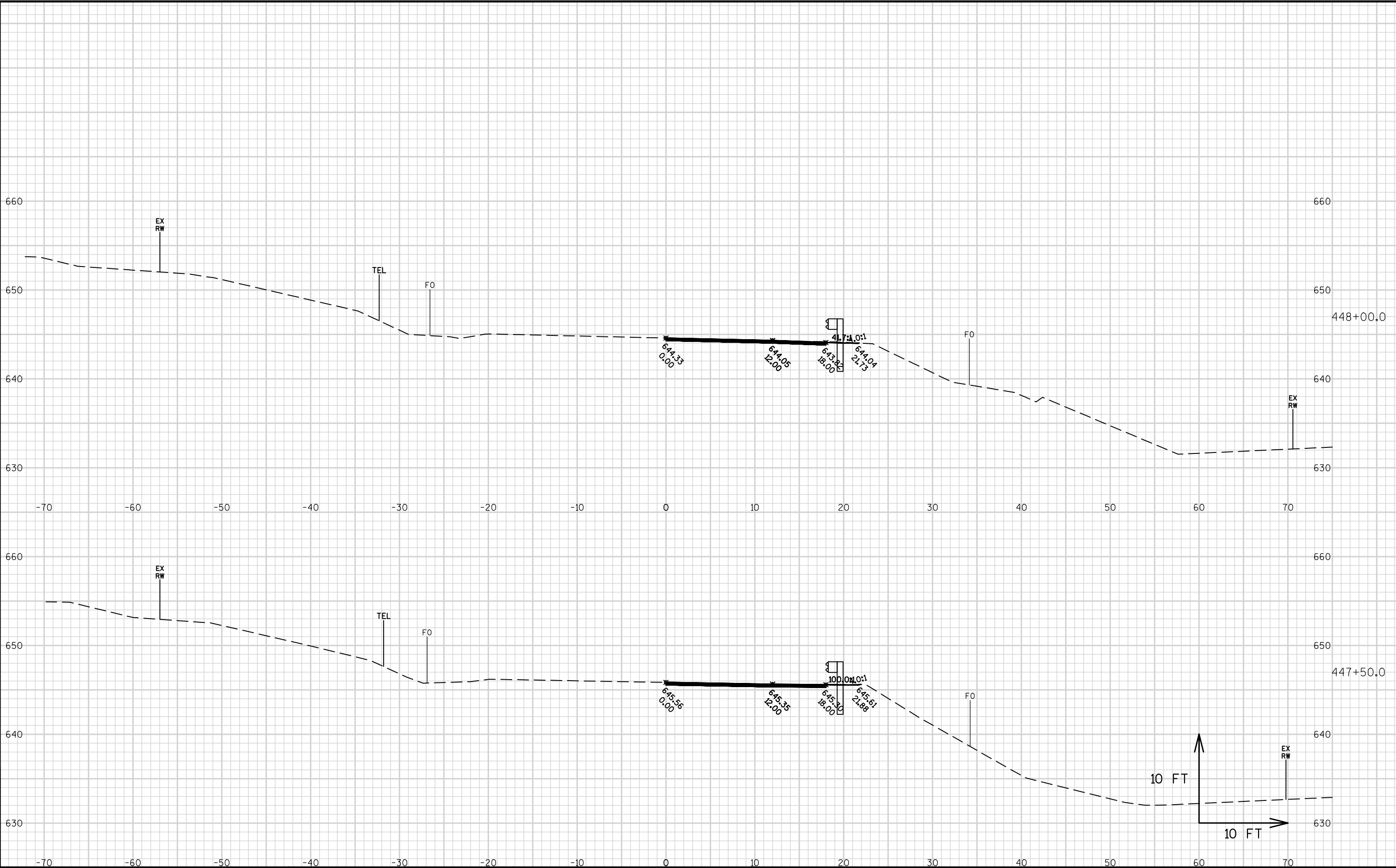


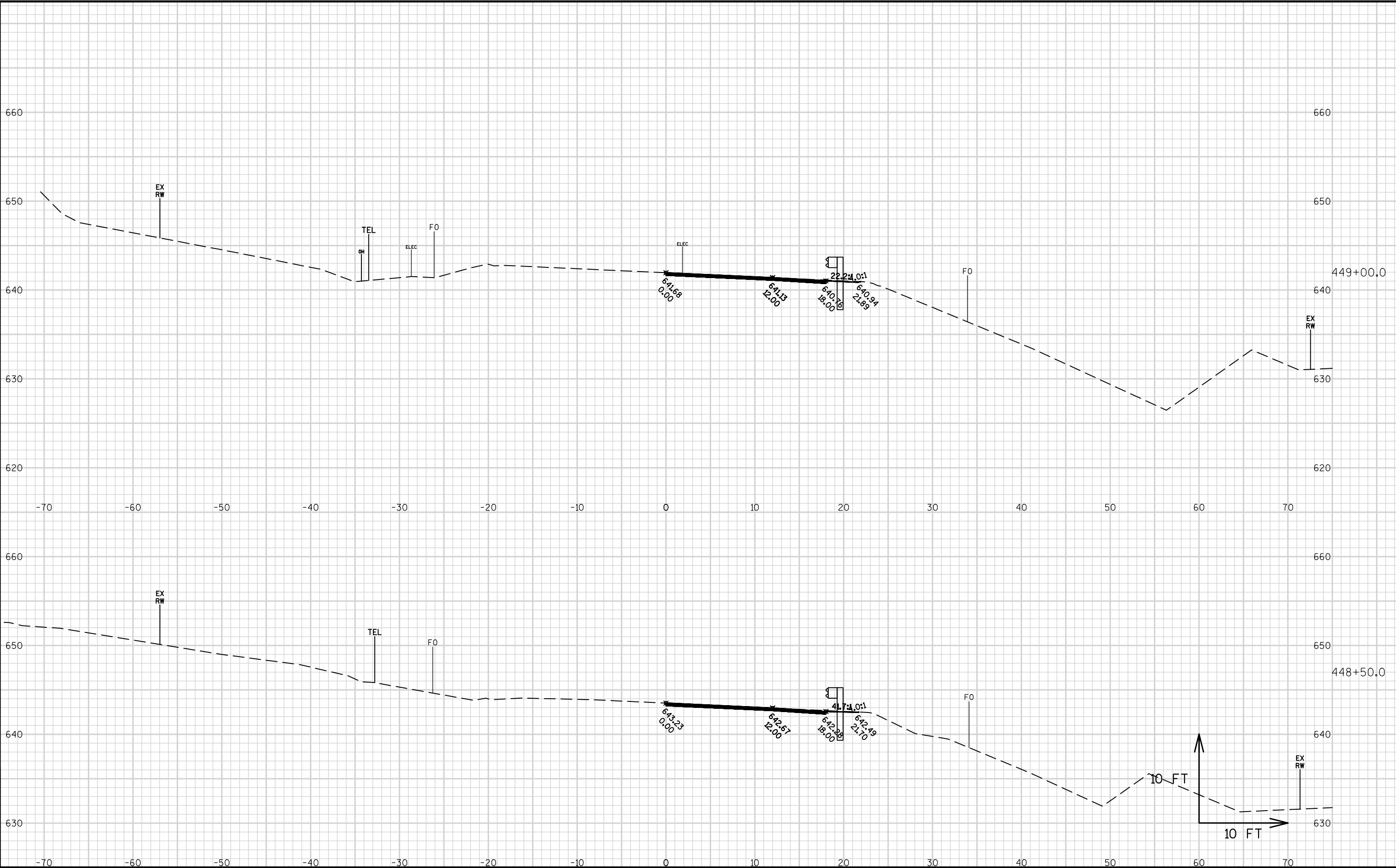
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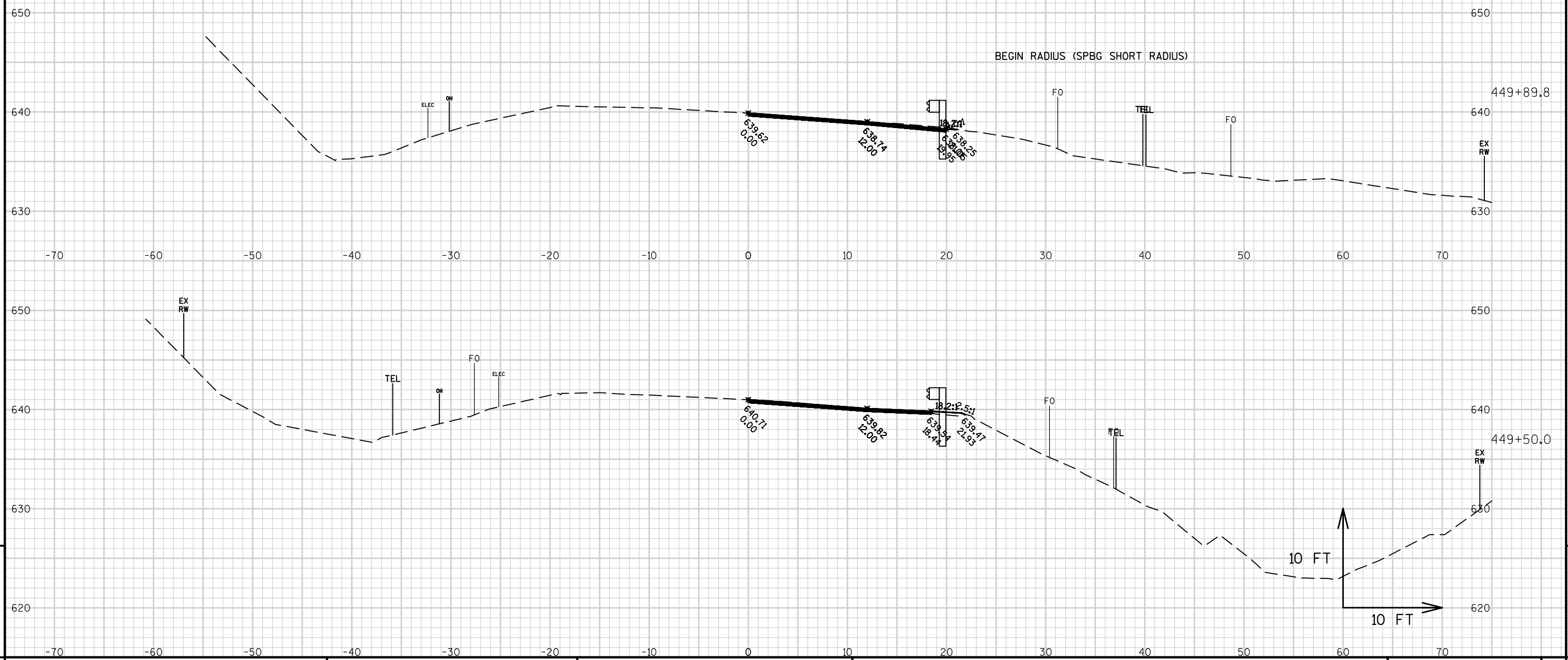


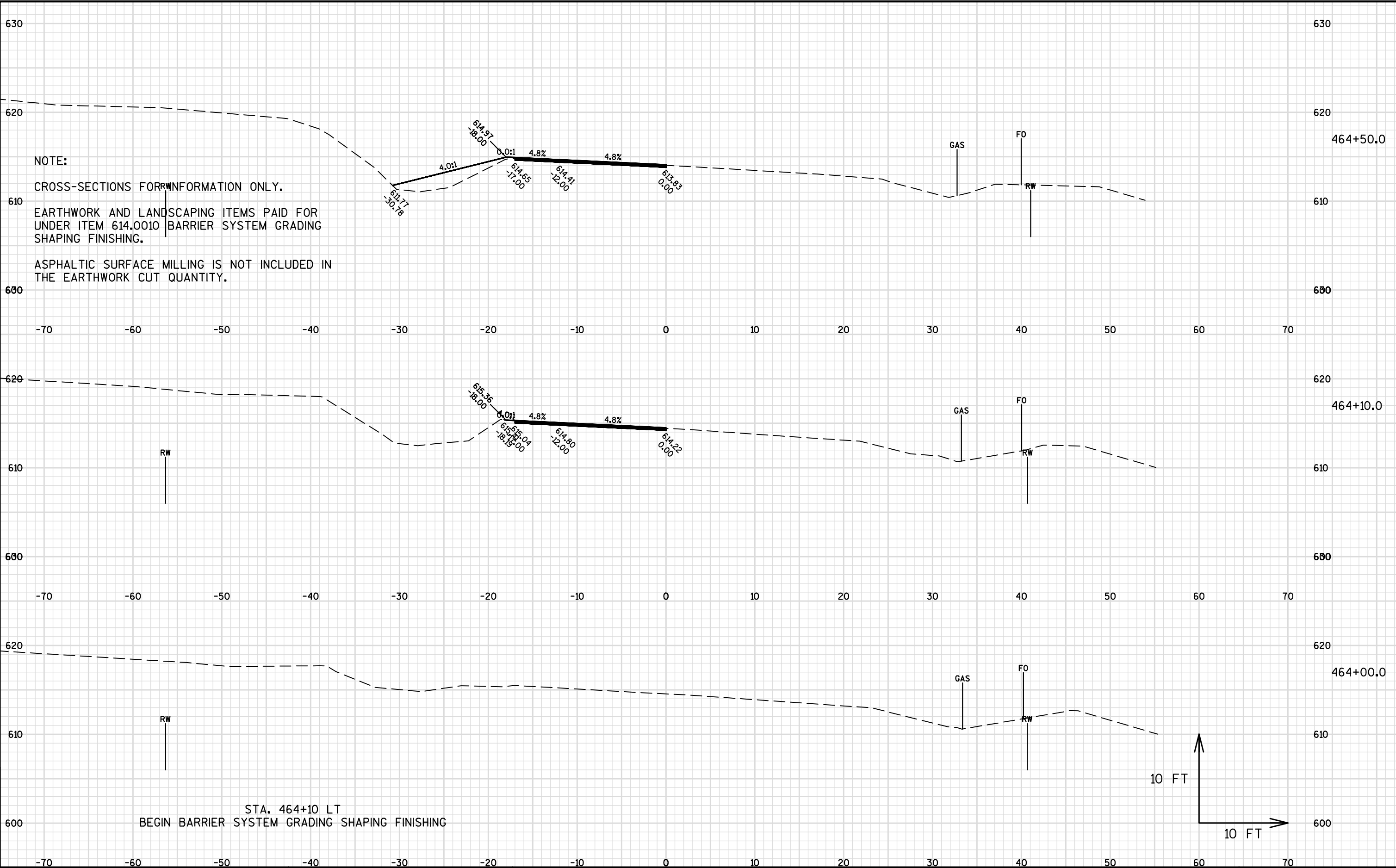


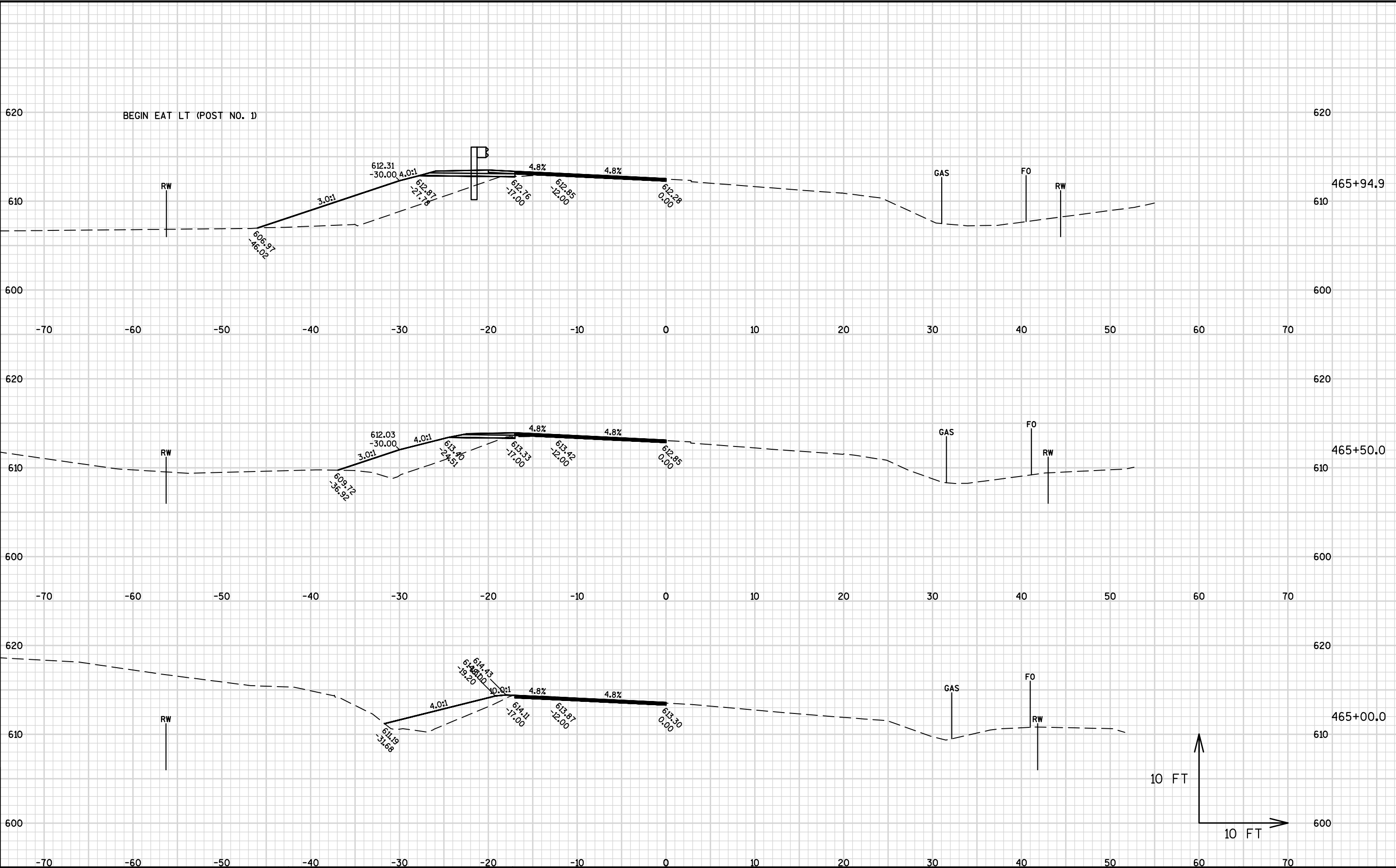


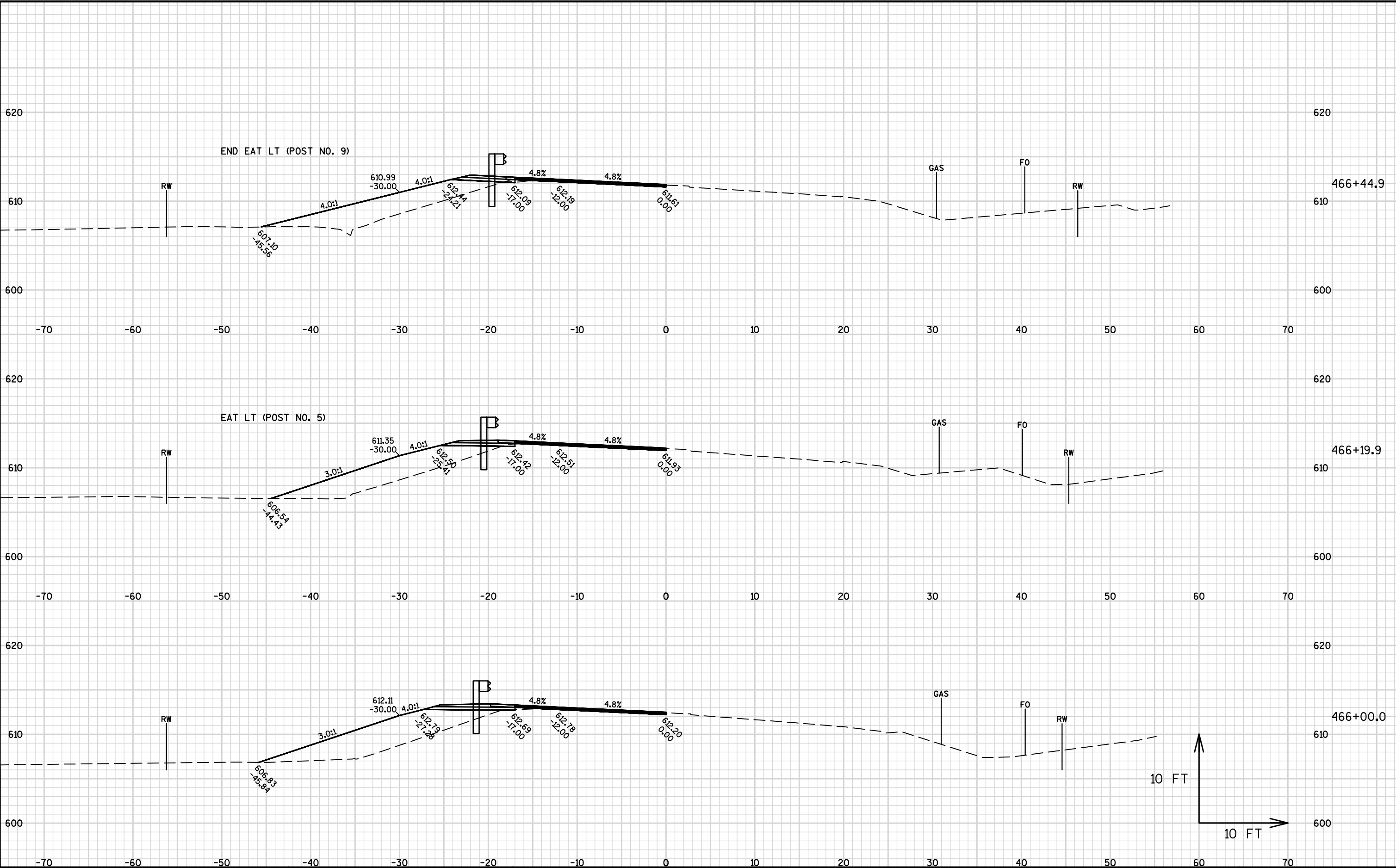


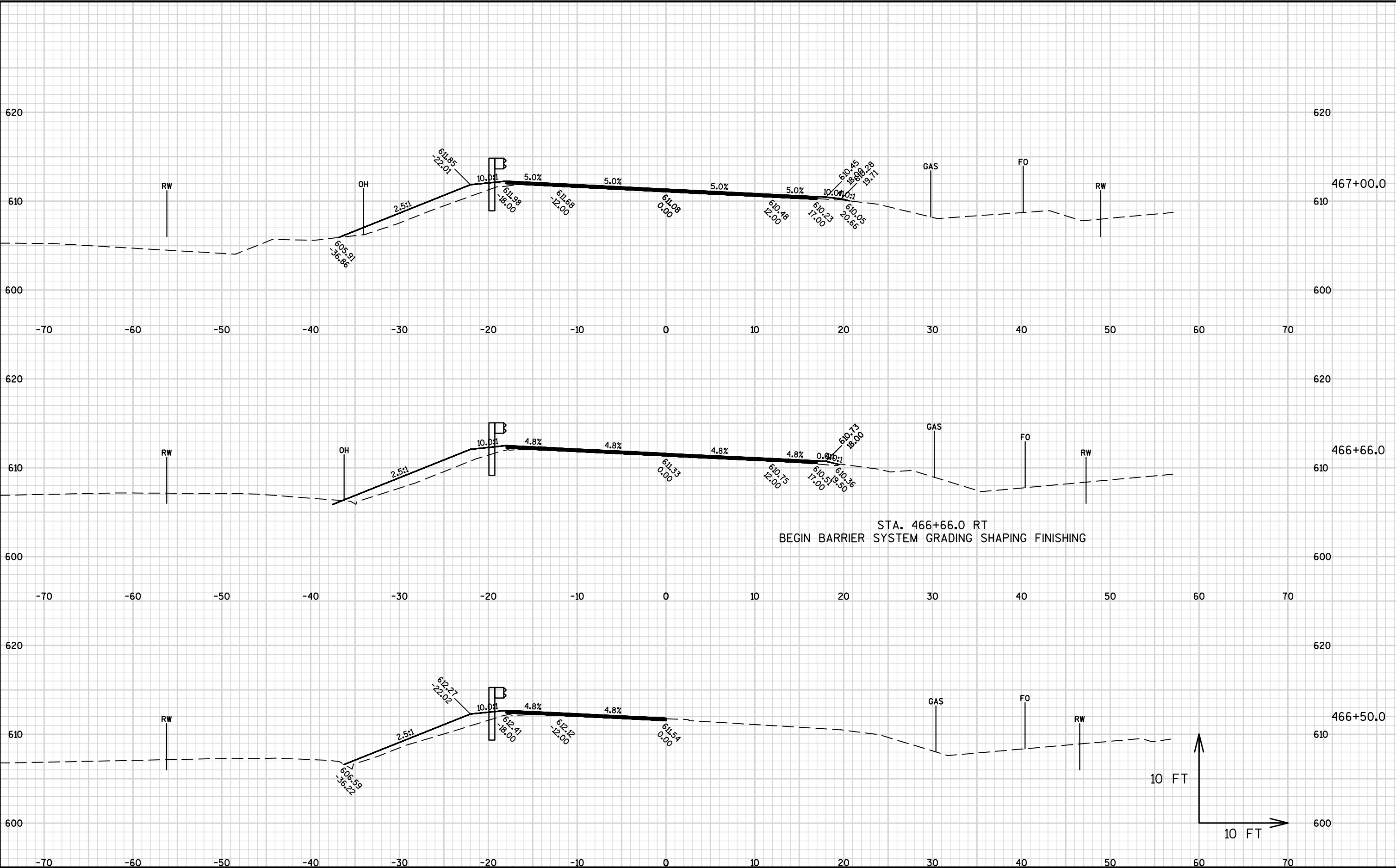
STA. 450+06 RT
END BARRIER SYSTEM GRADING SHAPING FINISHING

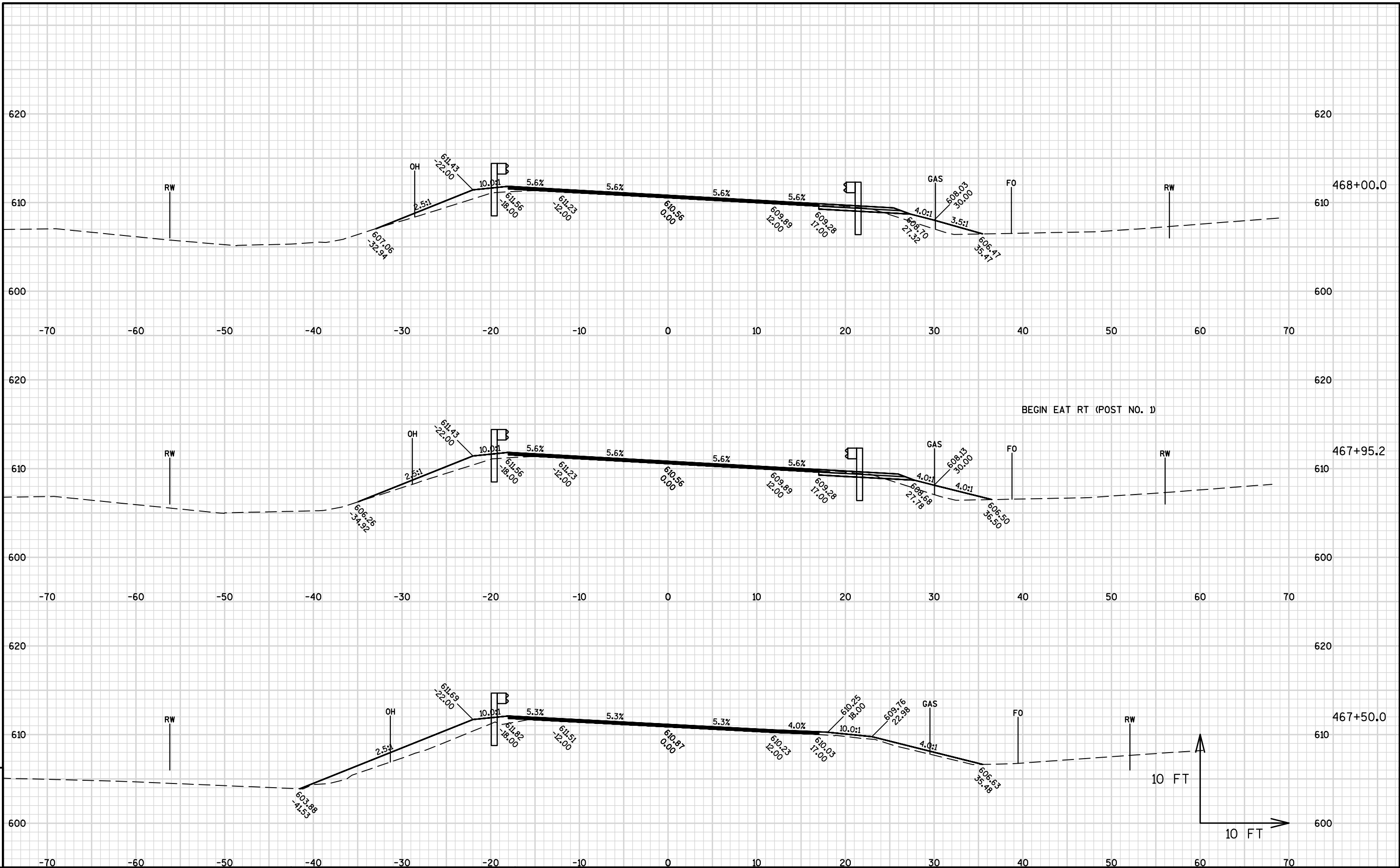


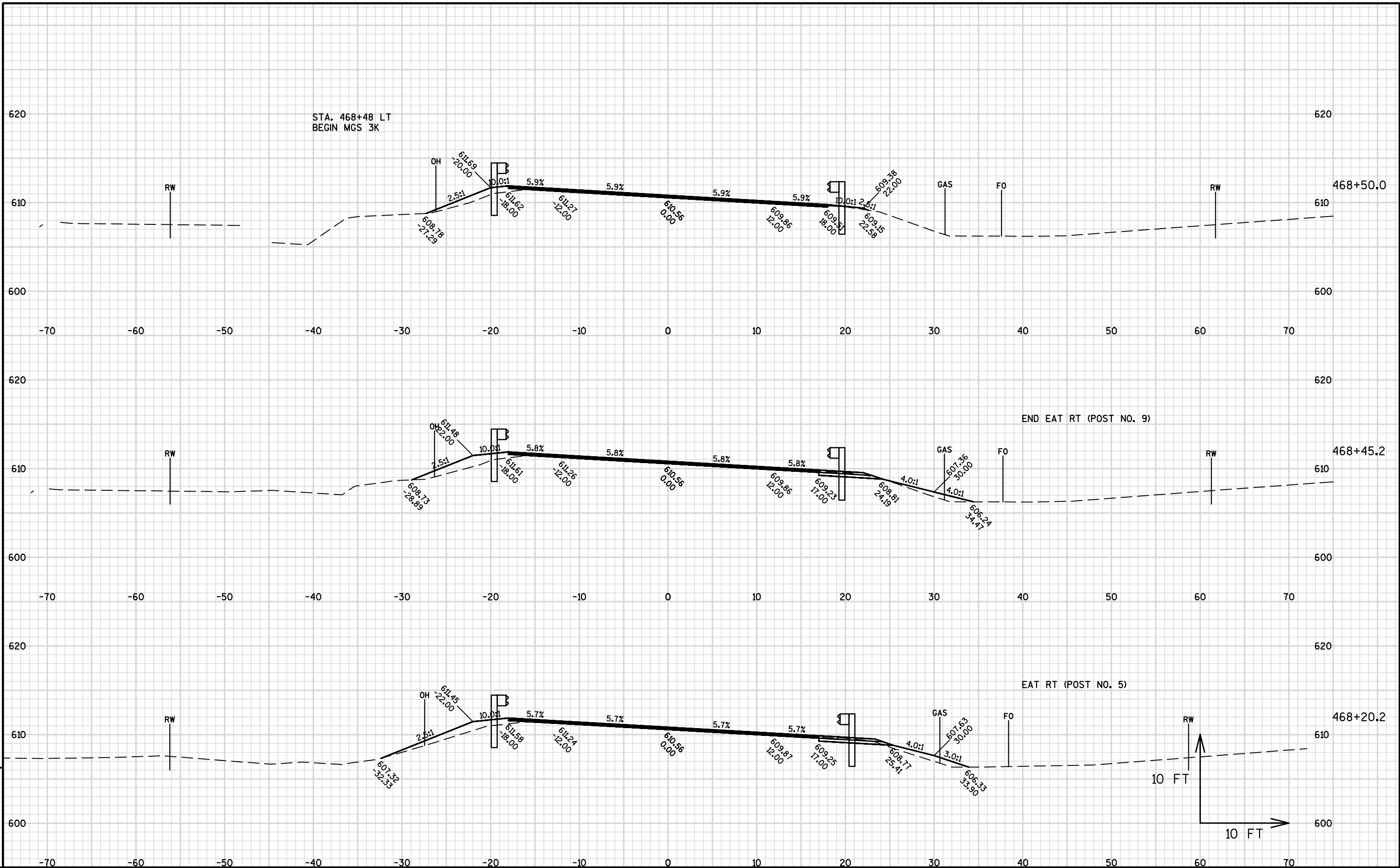


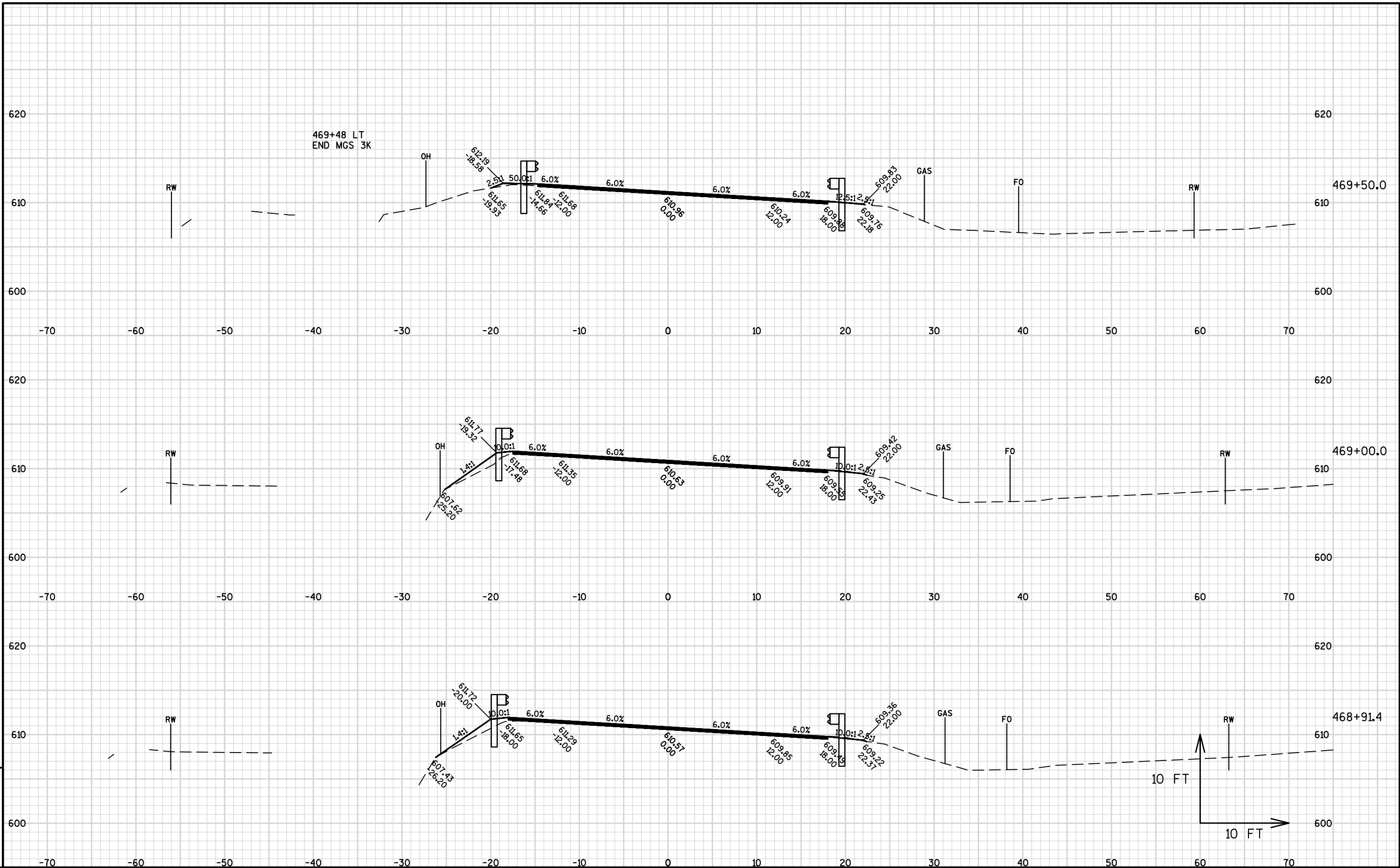


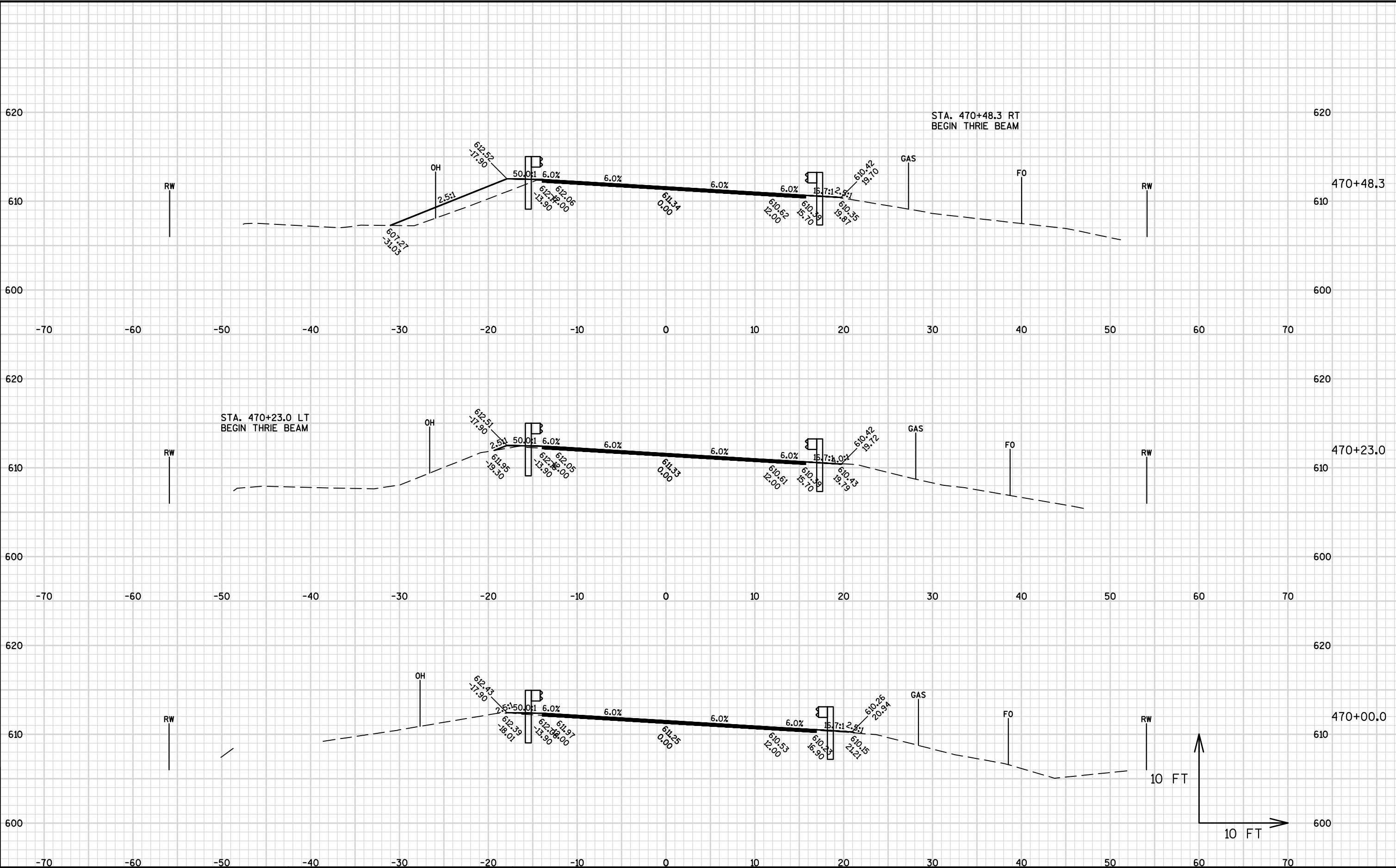


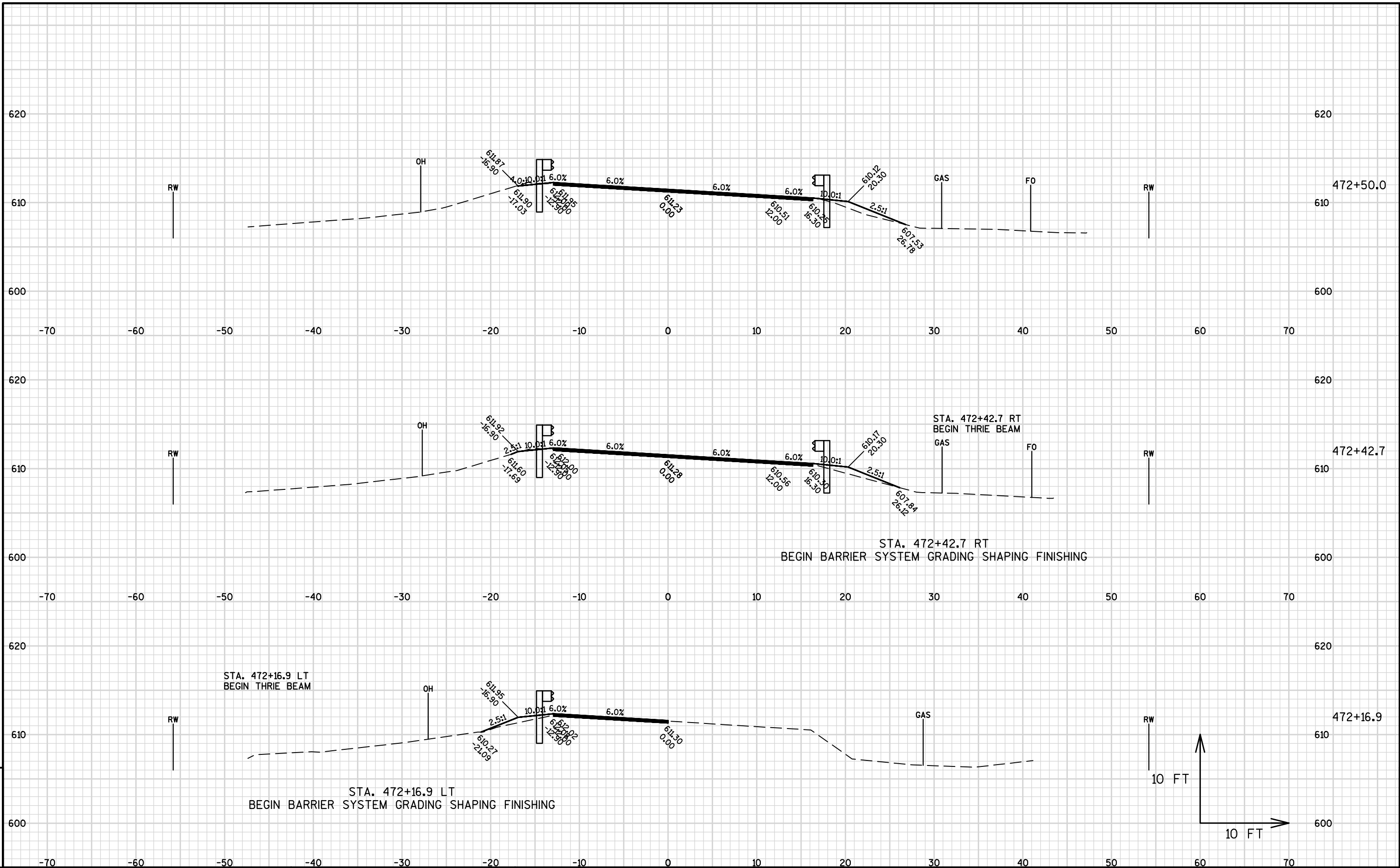


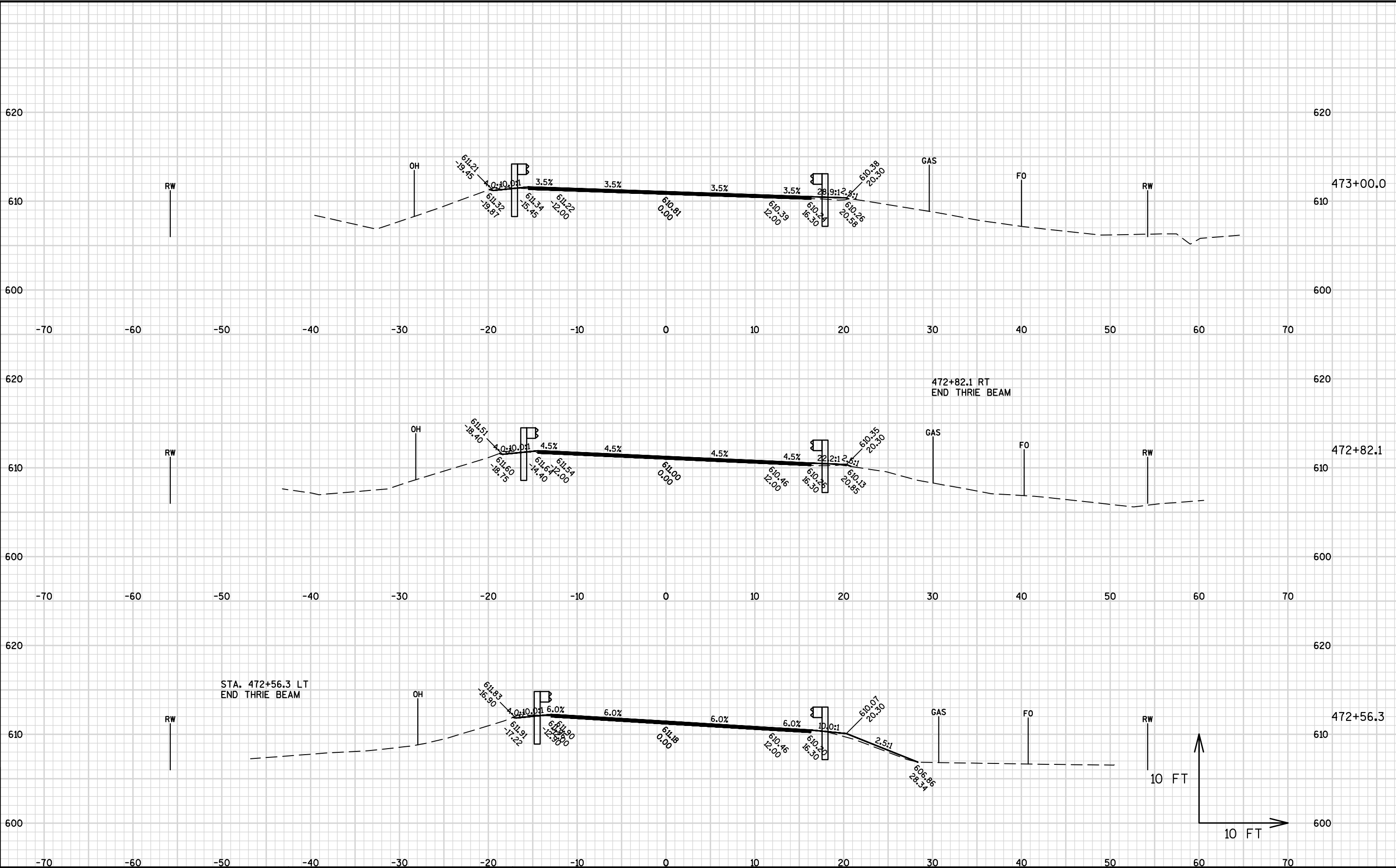


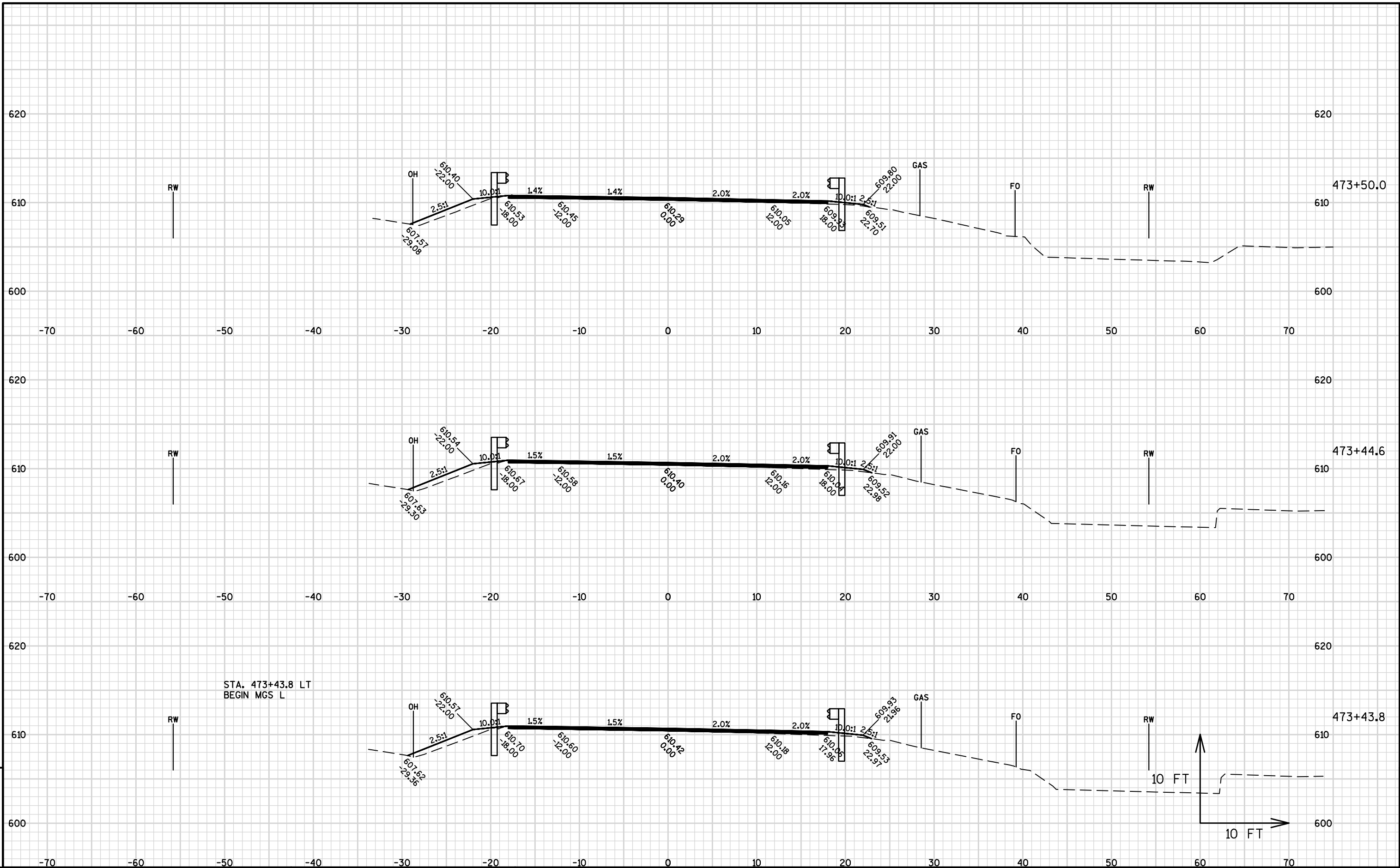


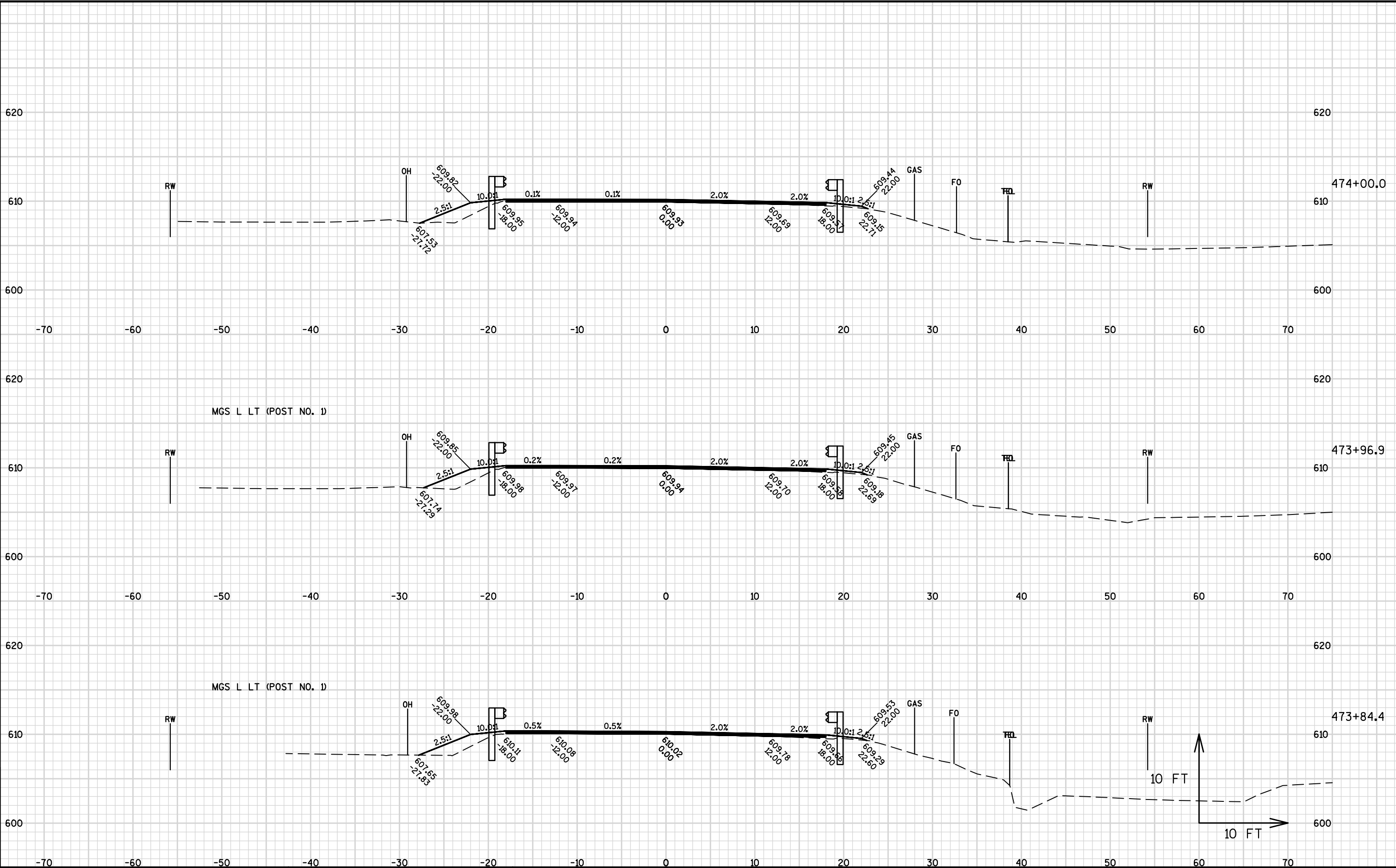


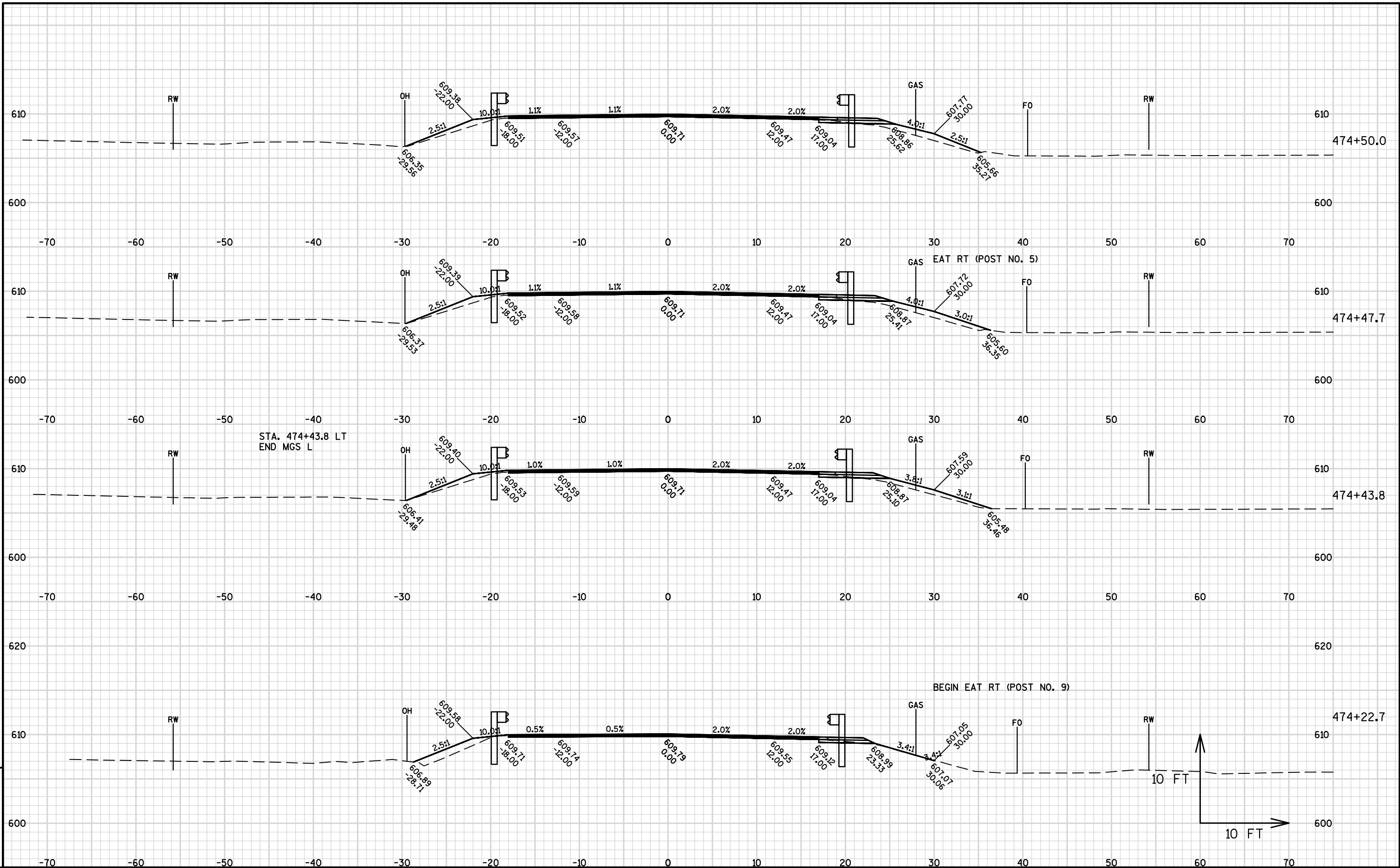


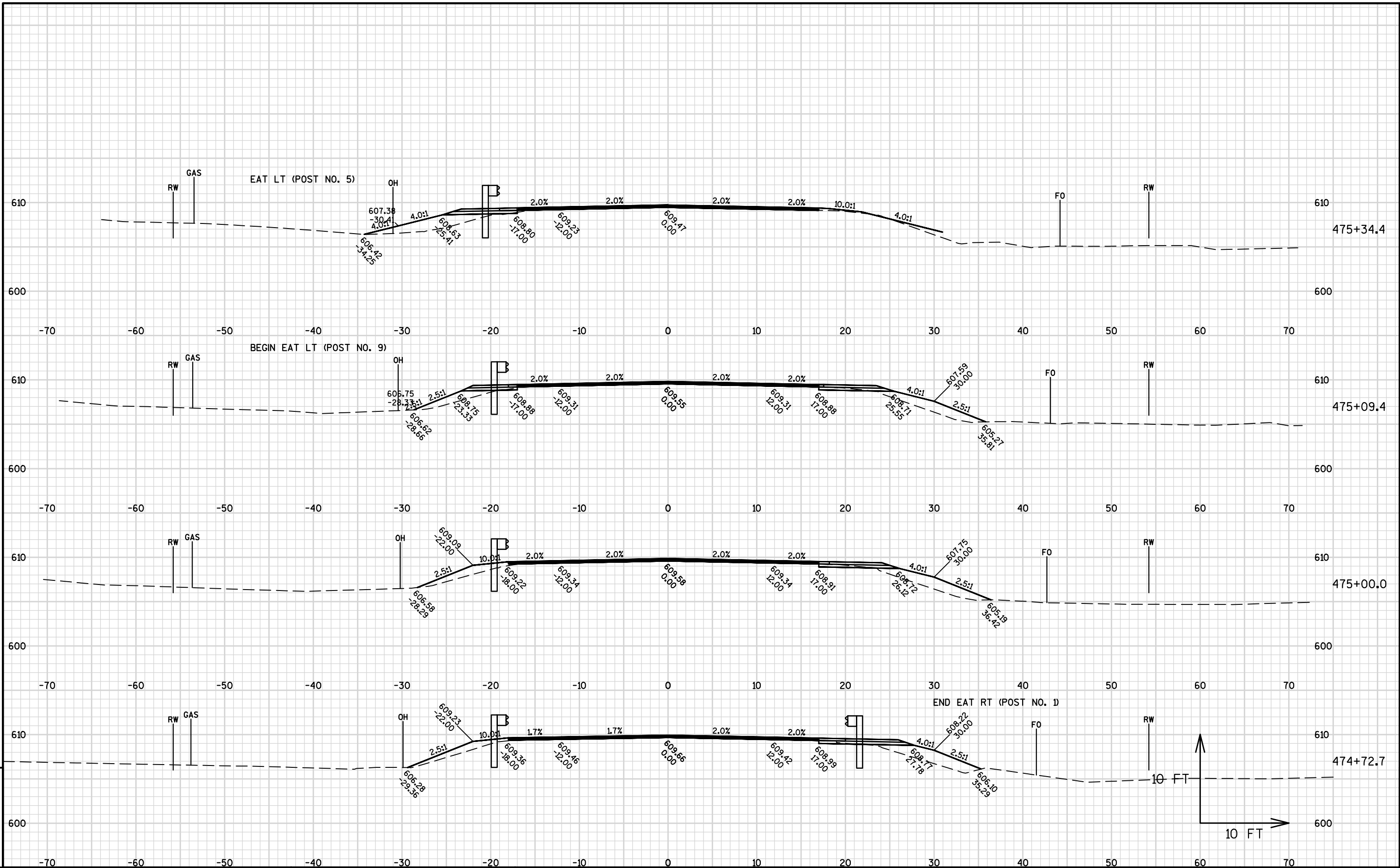


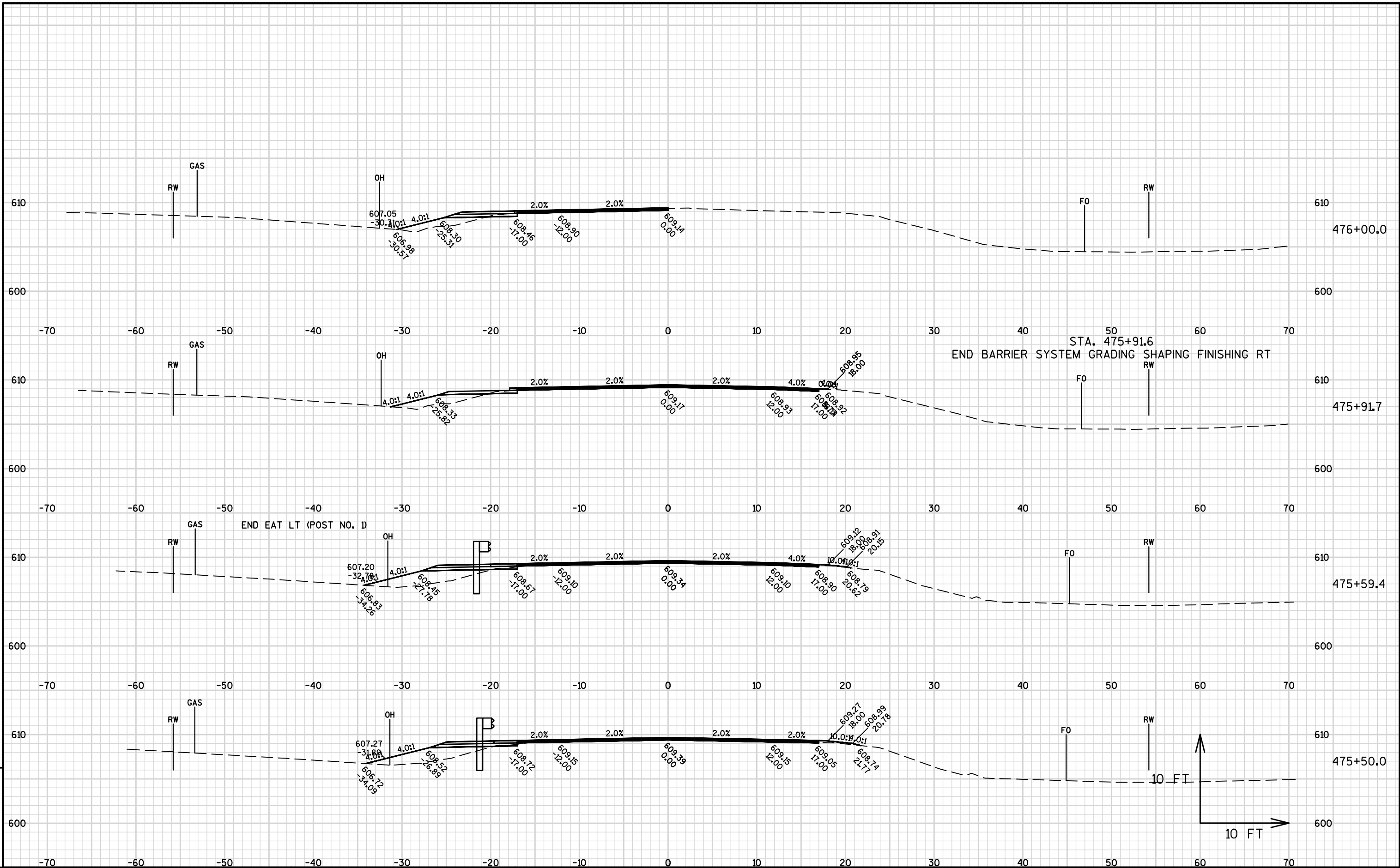




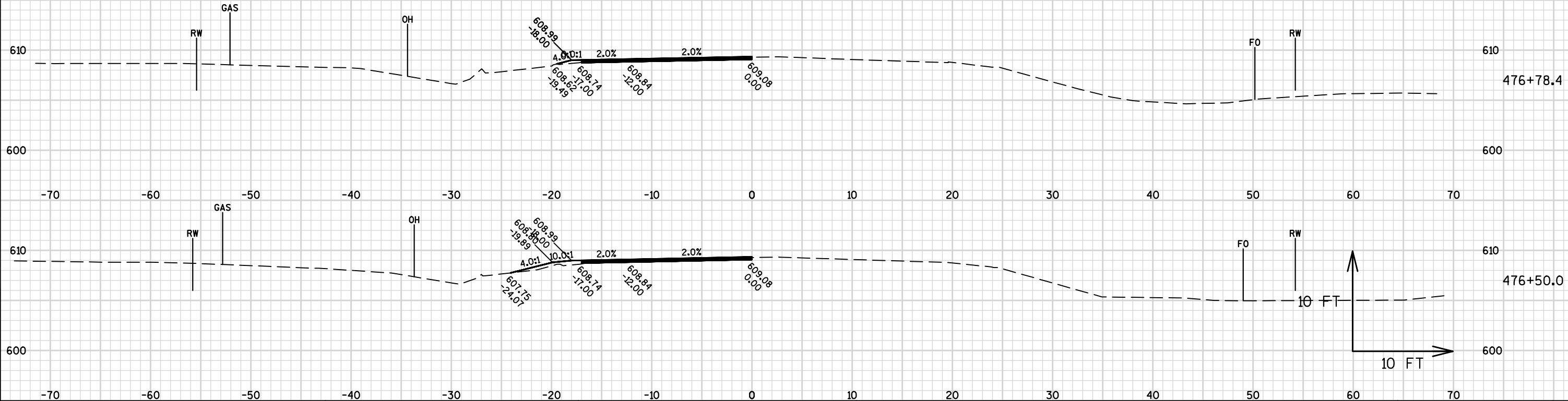


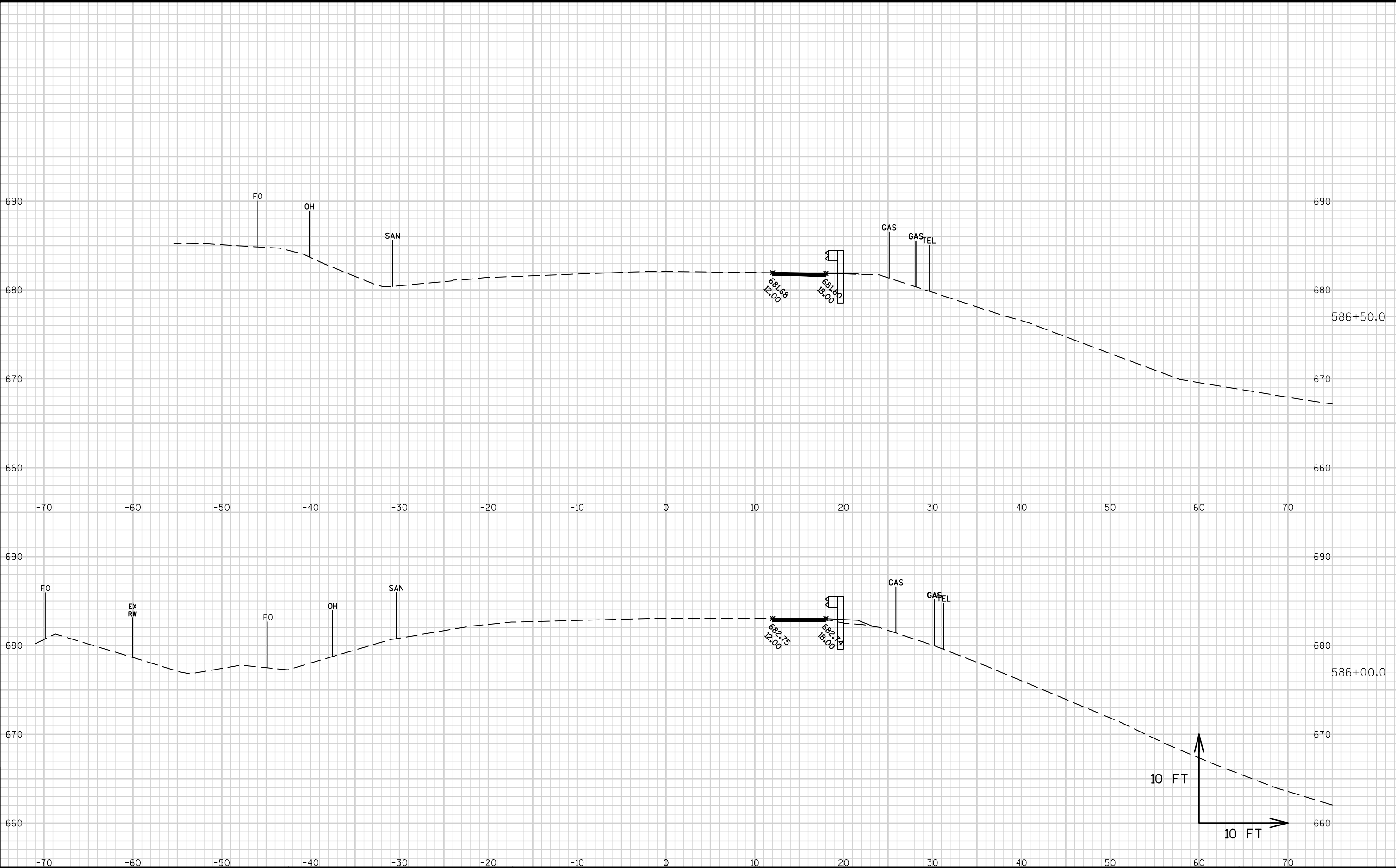






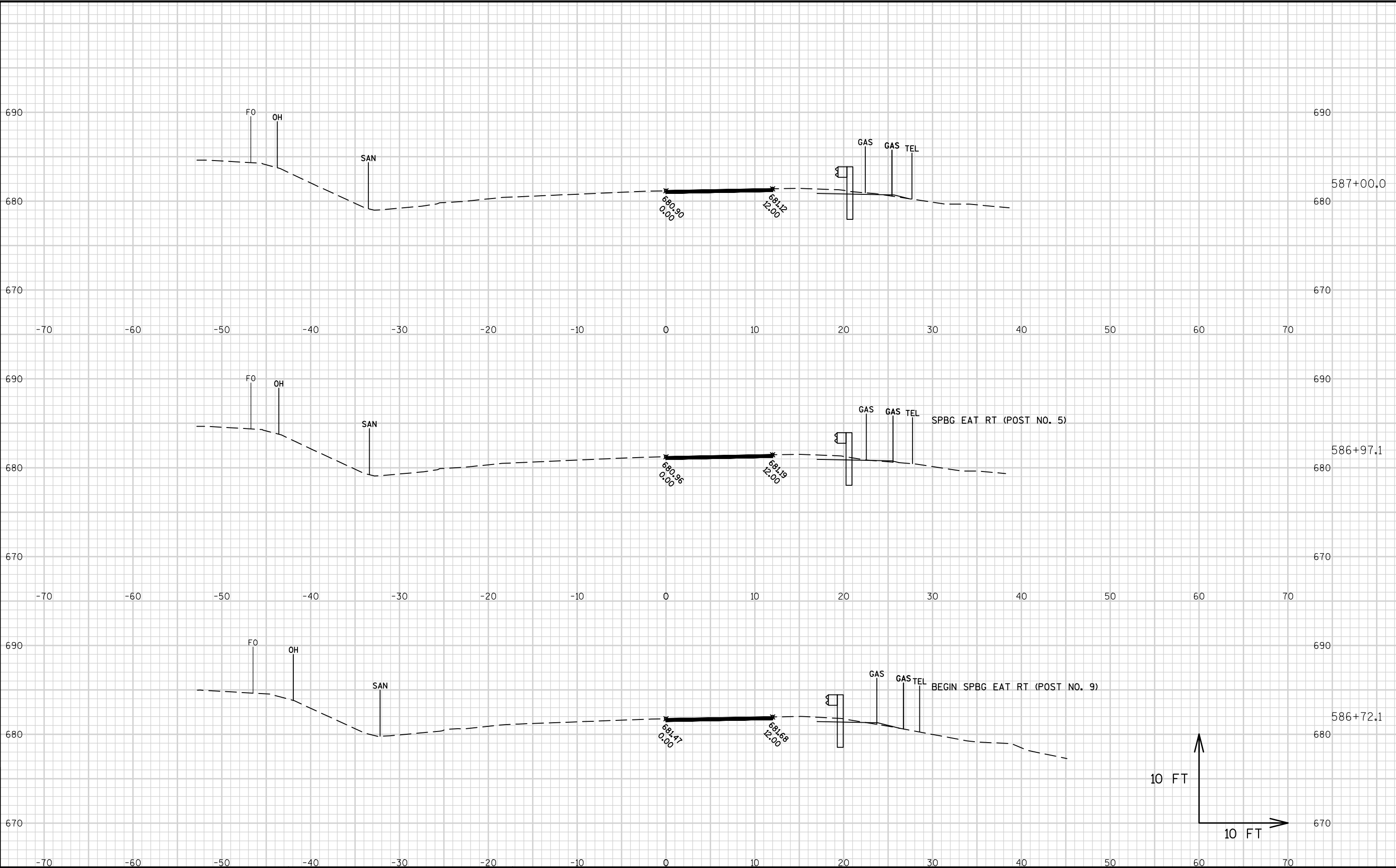
STA. 476+78.4 LT
END BARRIER SYSTEM GRADING SHAPING FINISHING

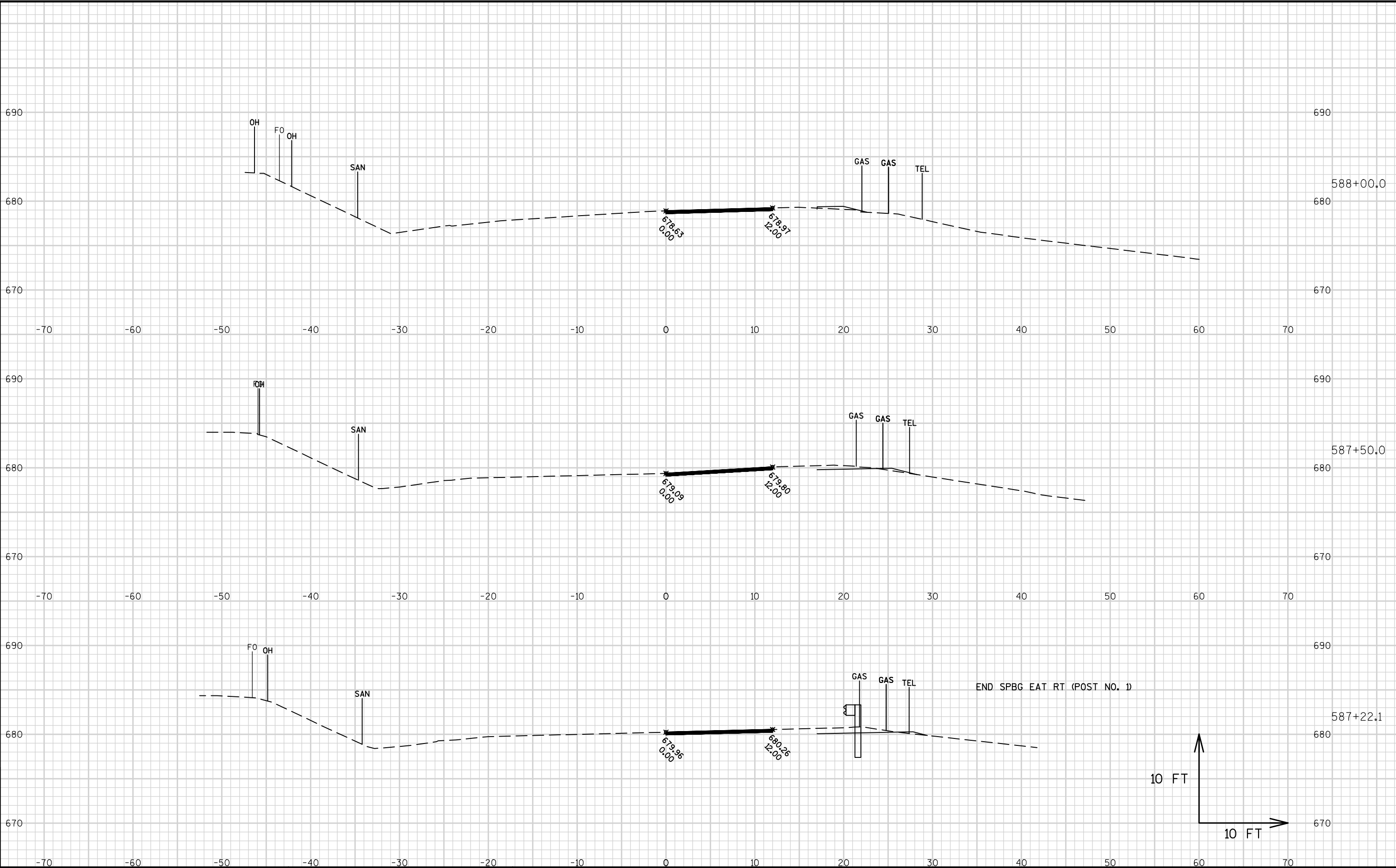


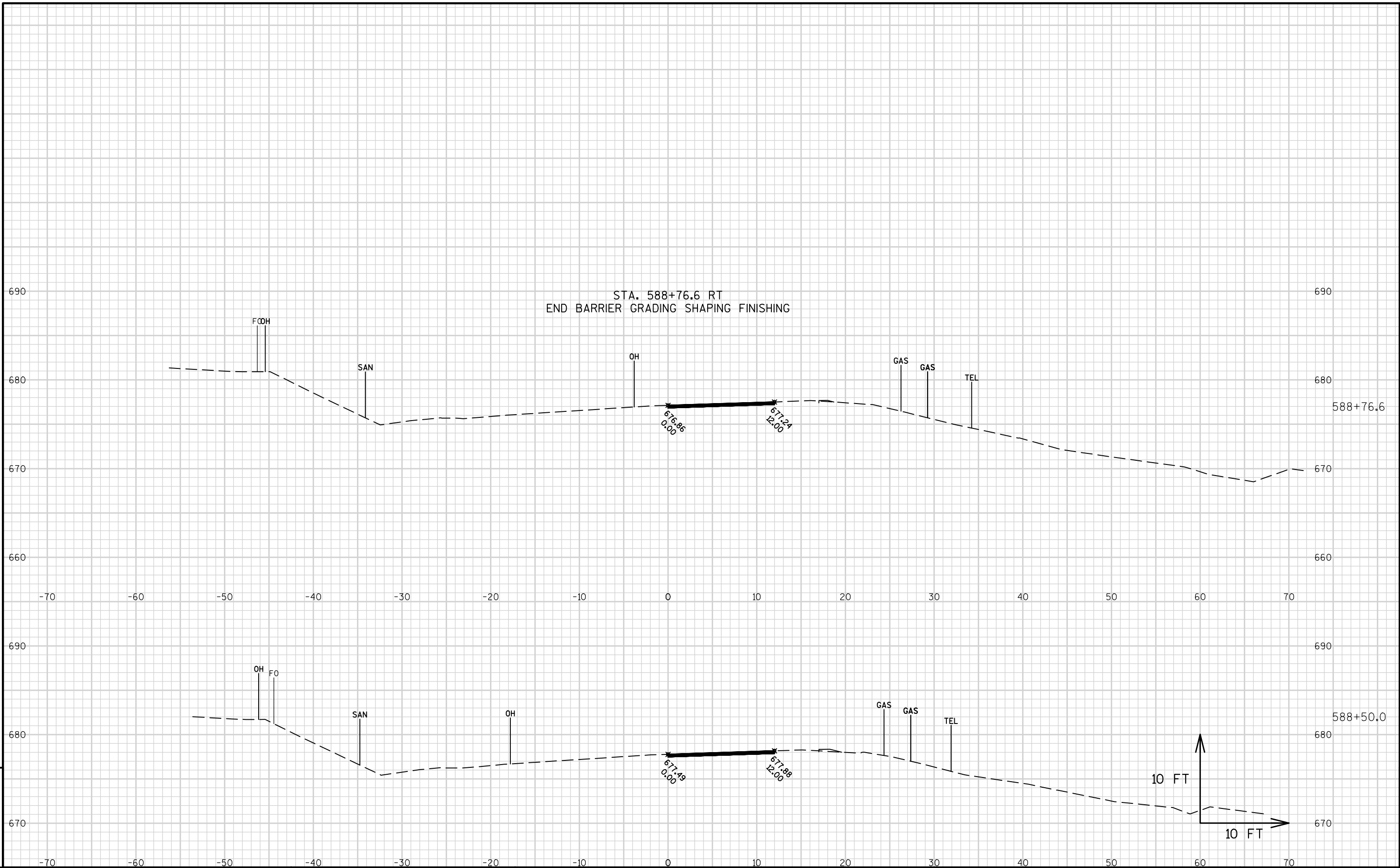


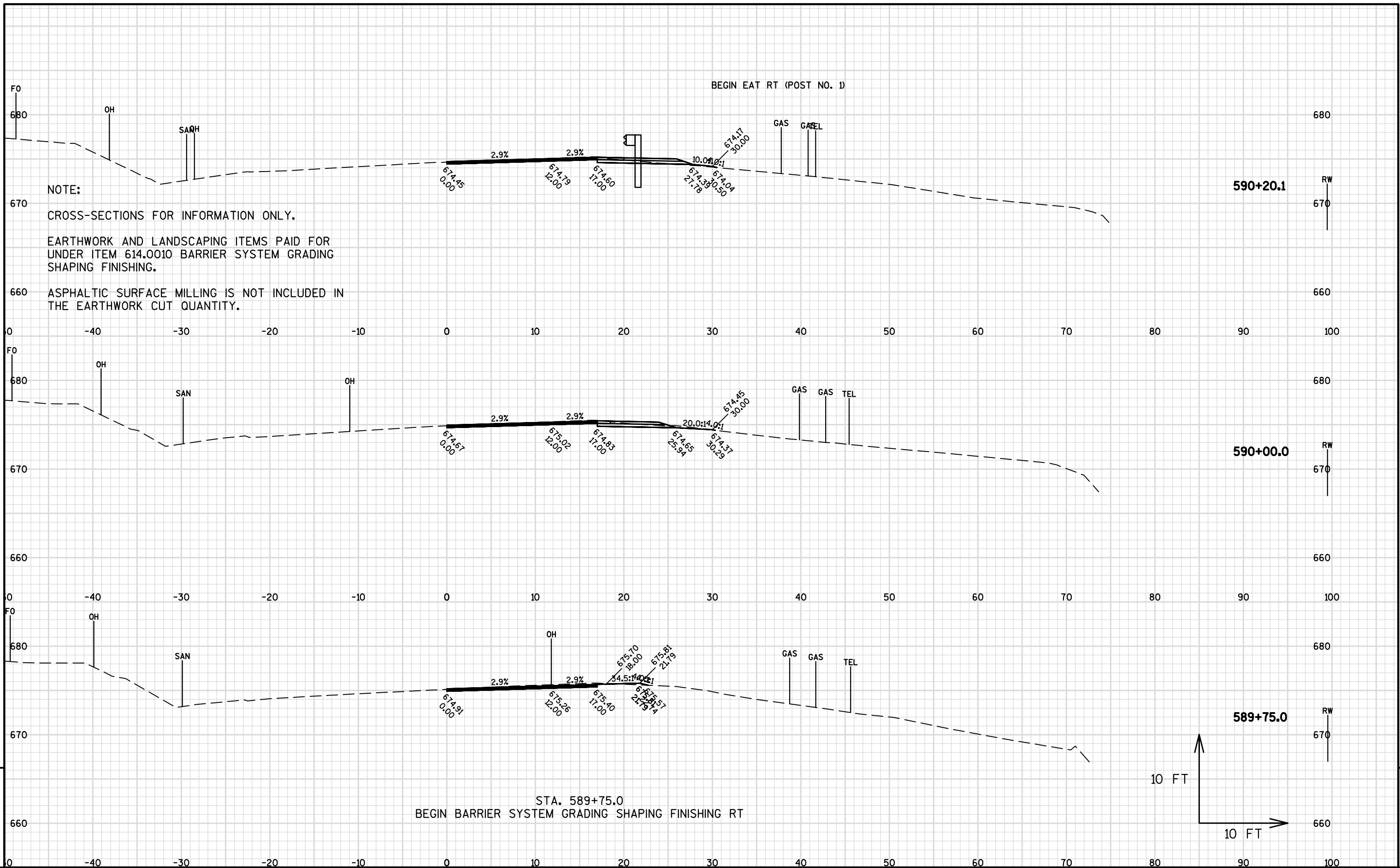
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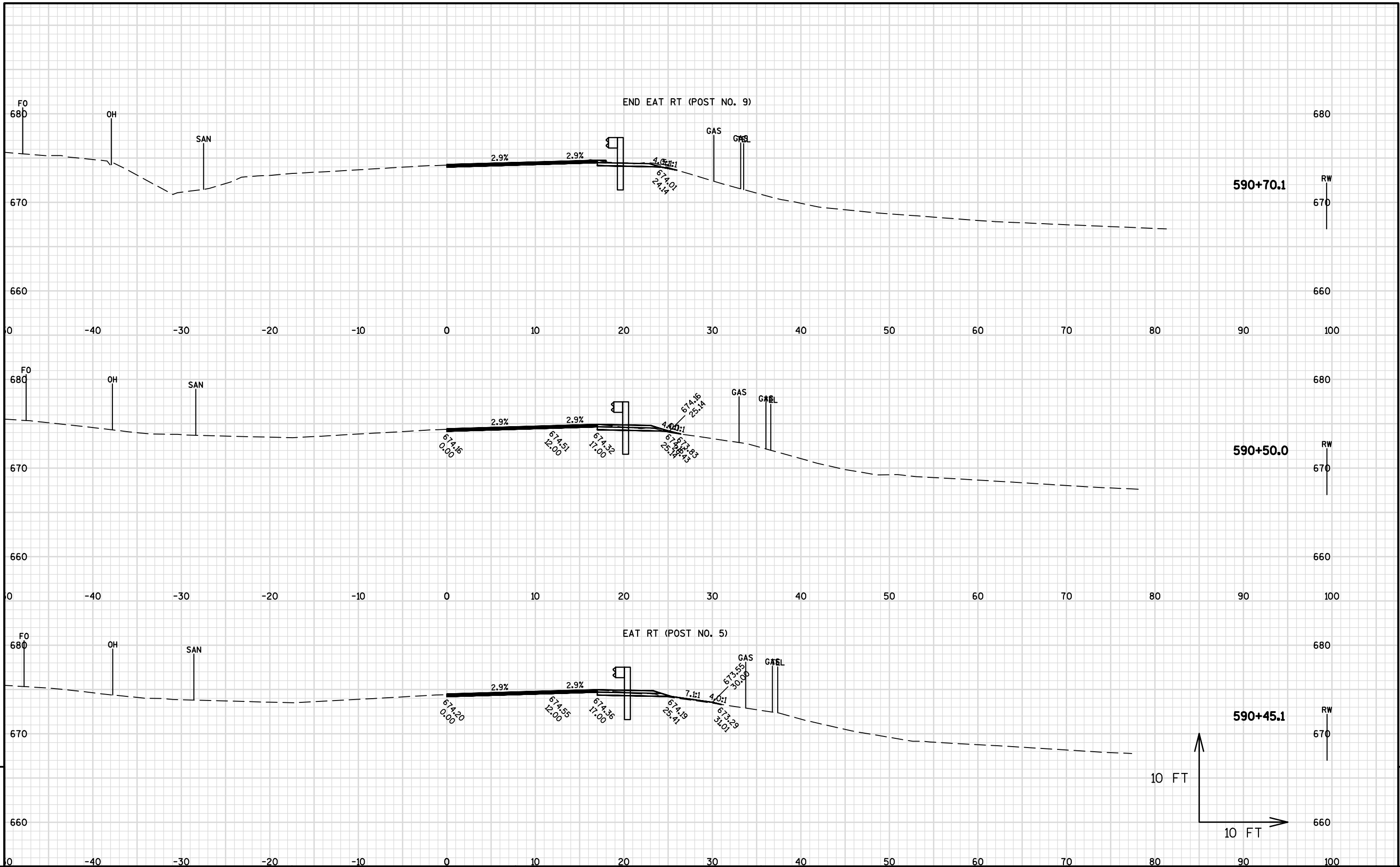
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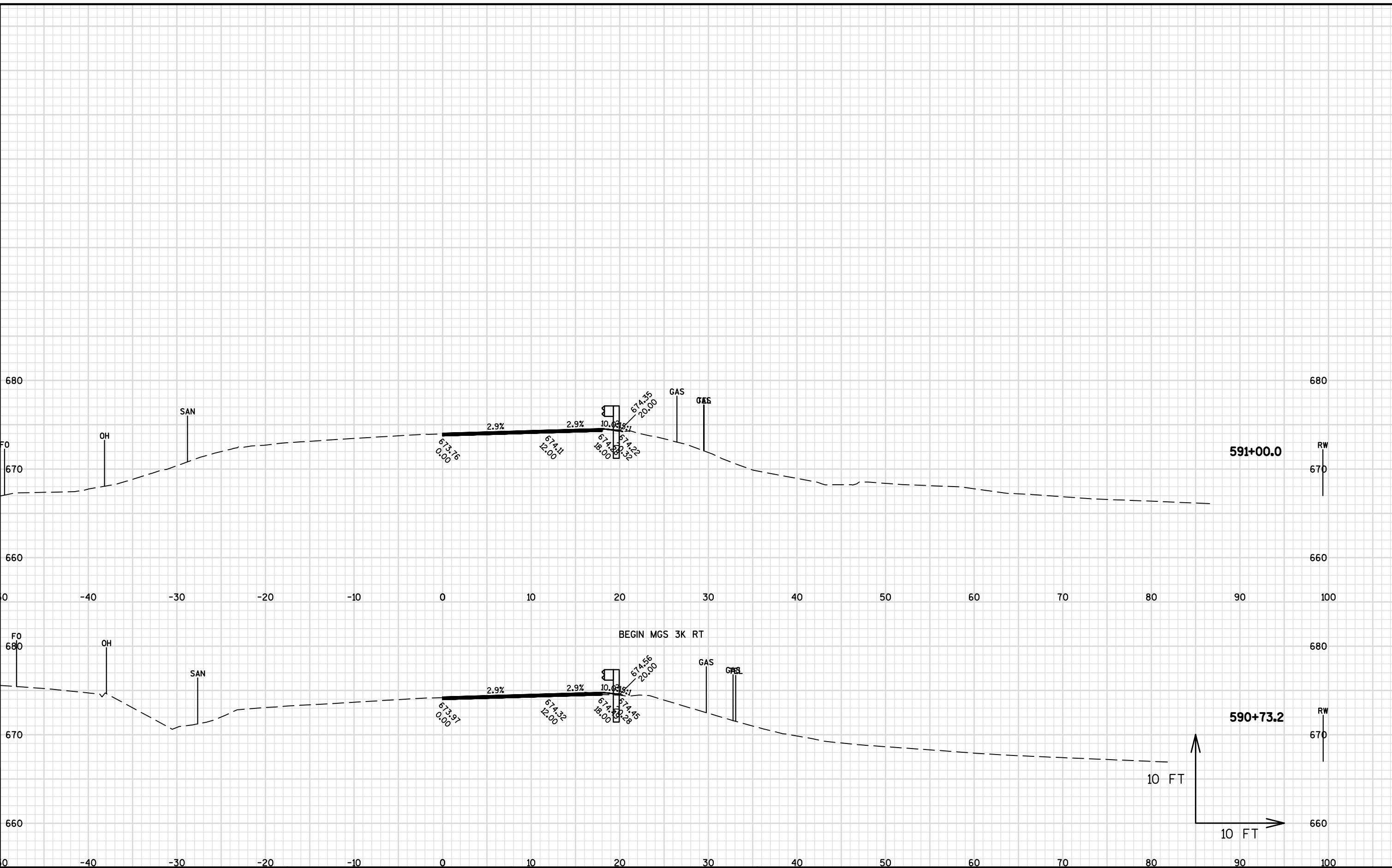


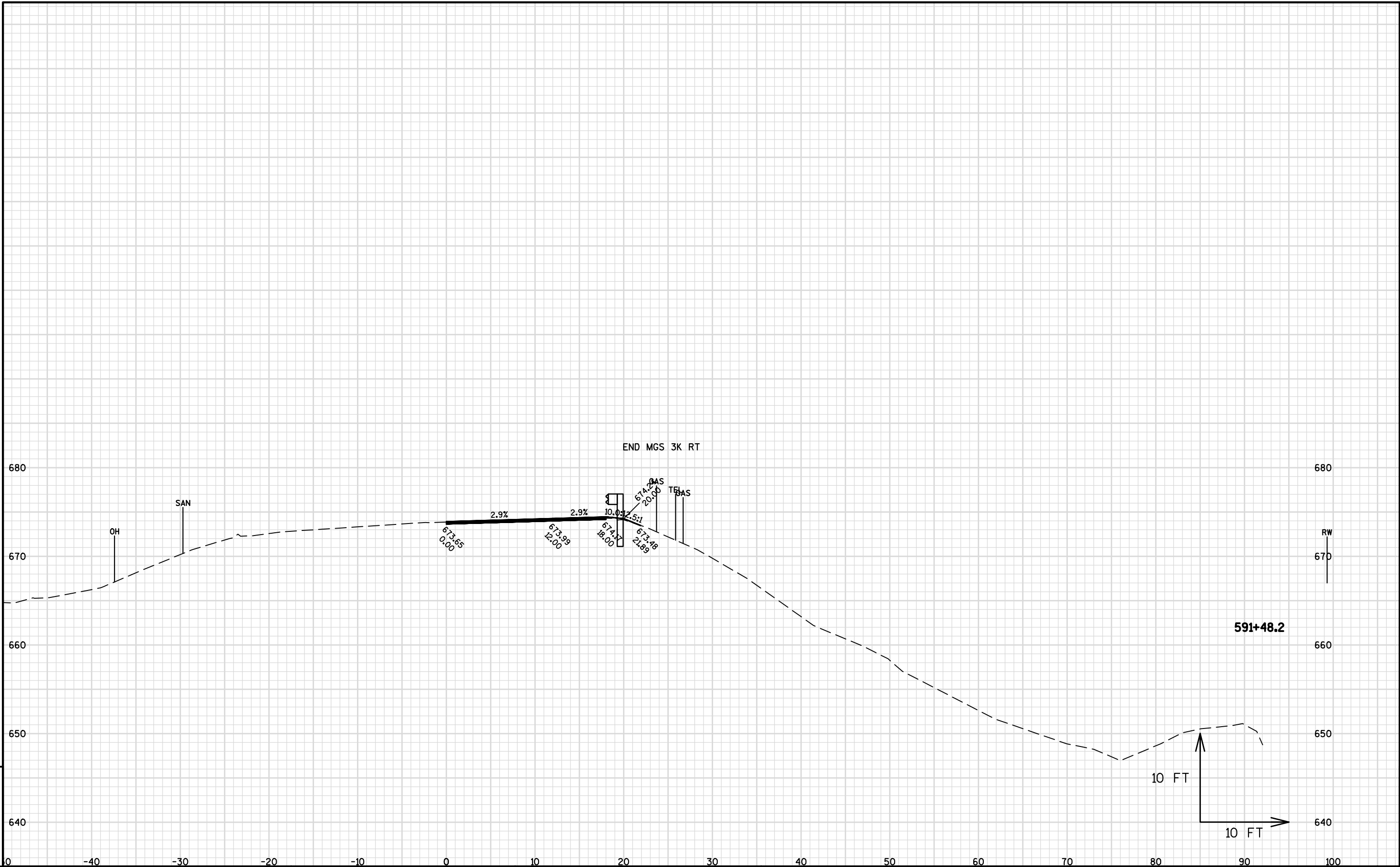


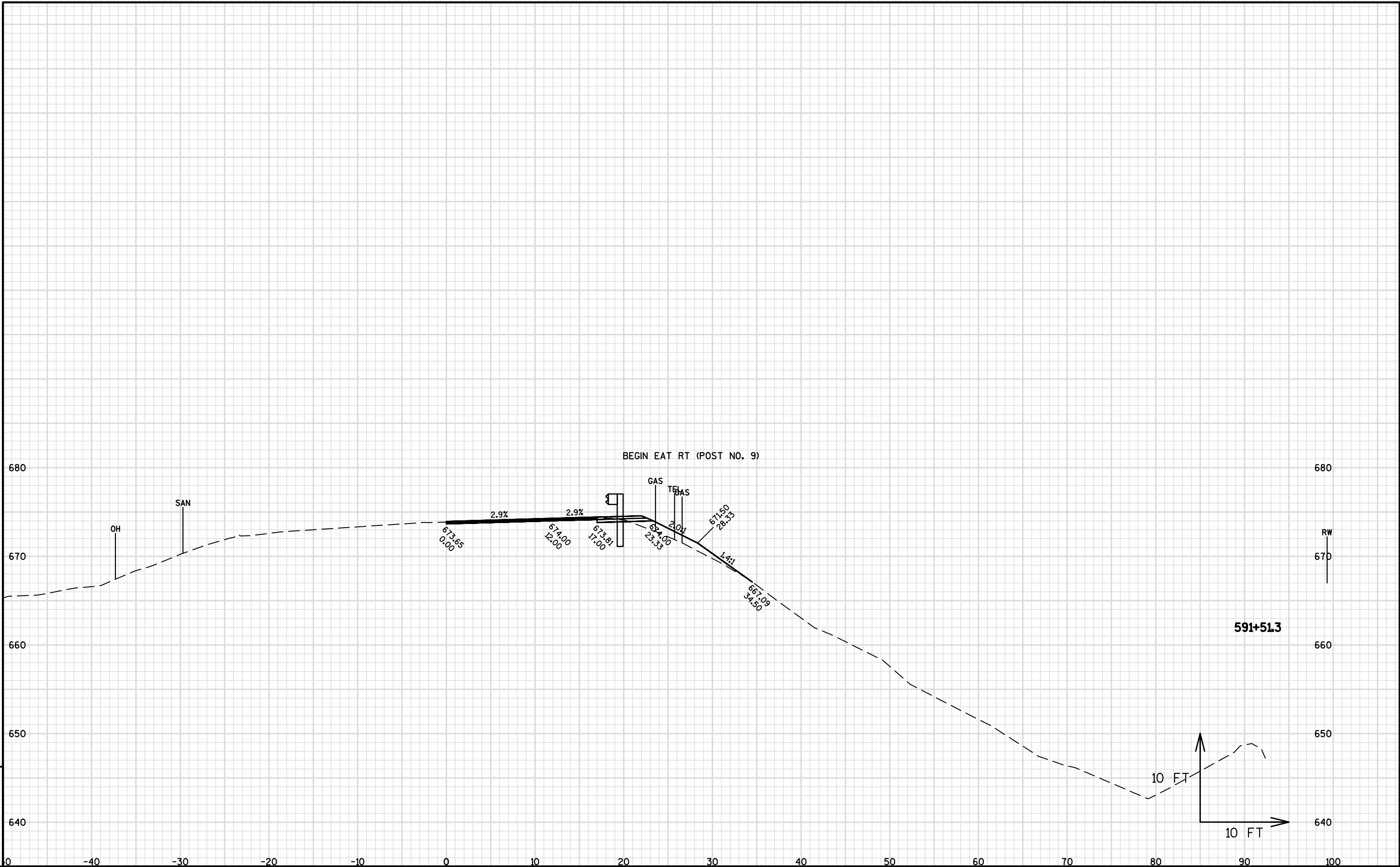


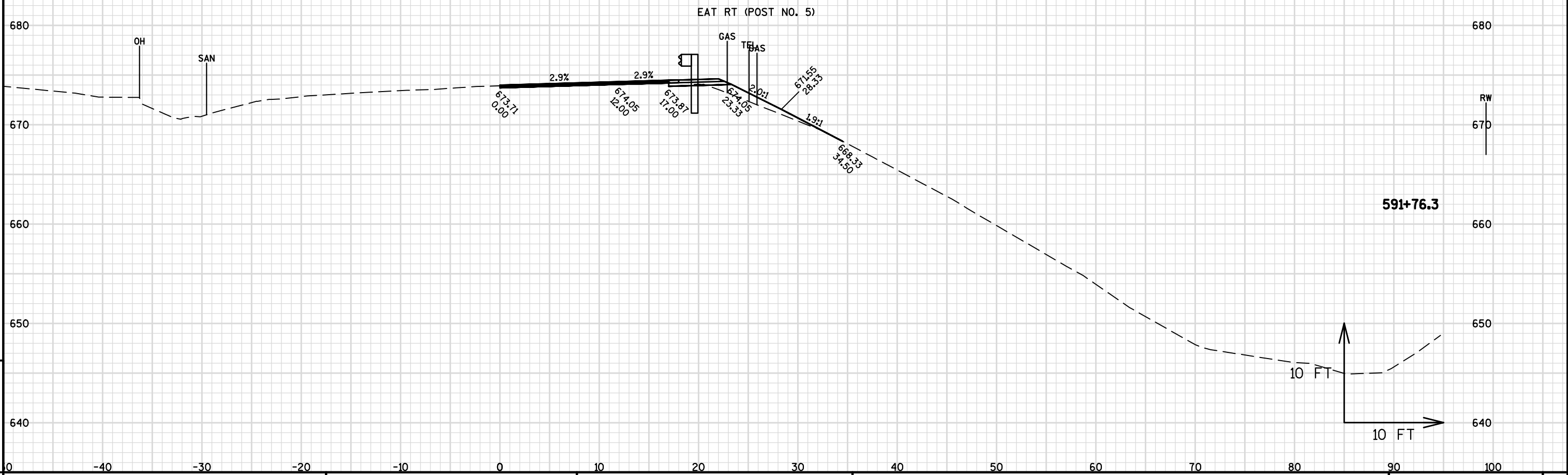
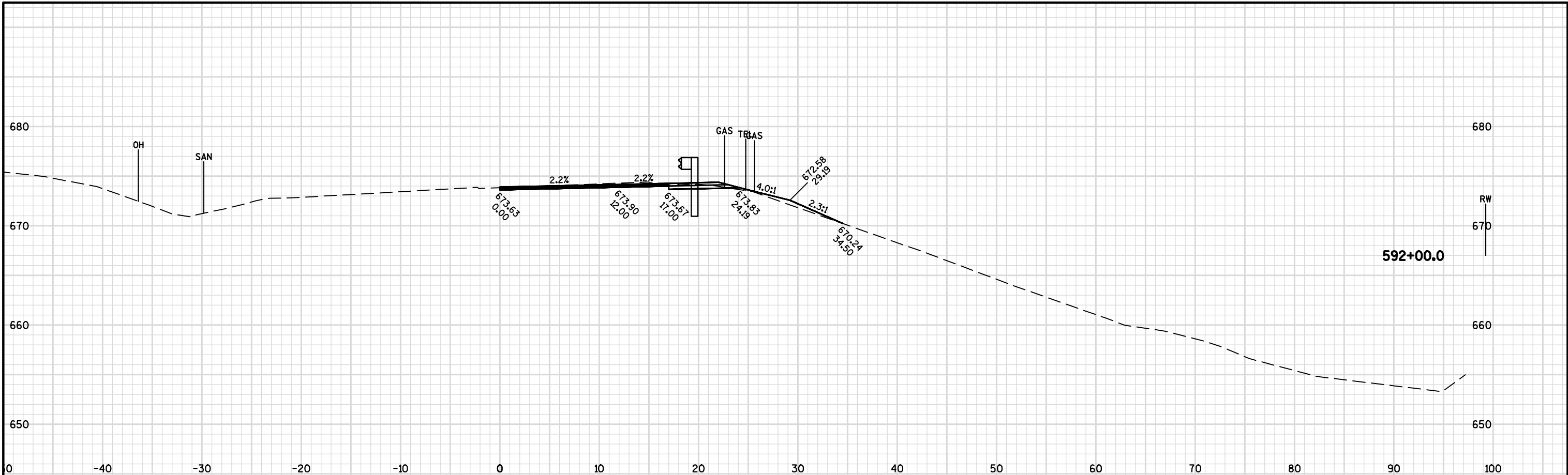






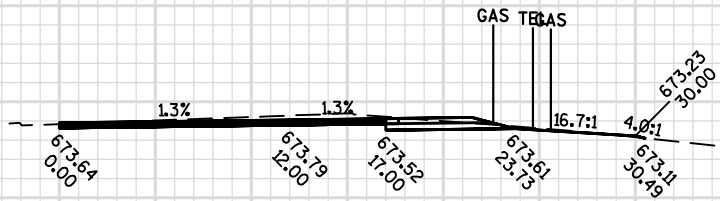




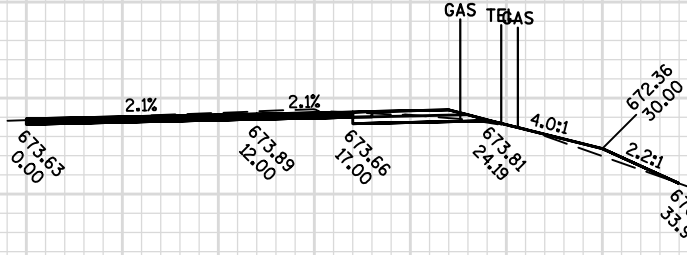


PROJECT NO: 8160-03-70 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: STH 13 SHEET E

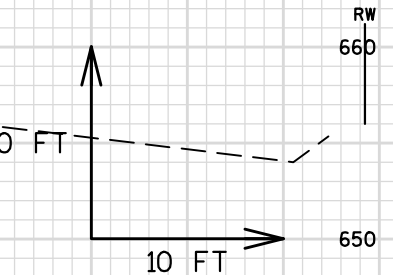
STA. 592+16.2
END BARRIER SYSTEM GRADING SHAPING FINISHING RT



END EAT RT (POST NO. 1)



592+01.3

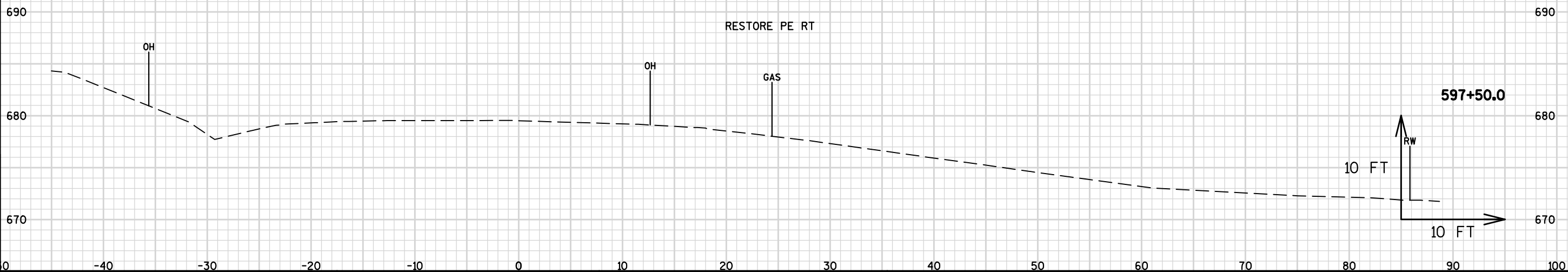
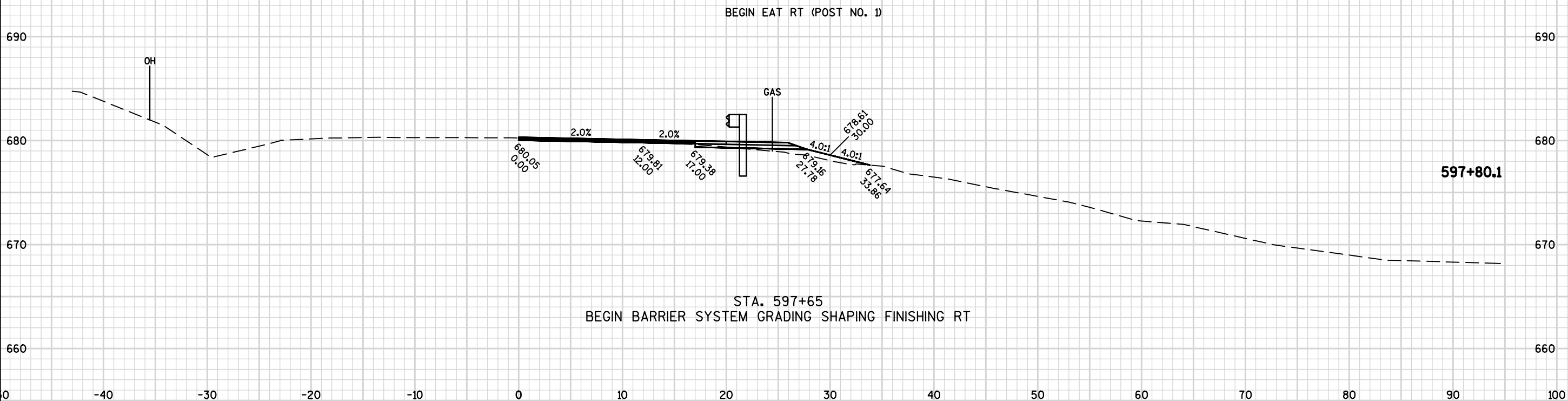


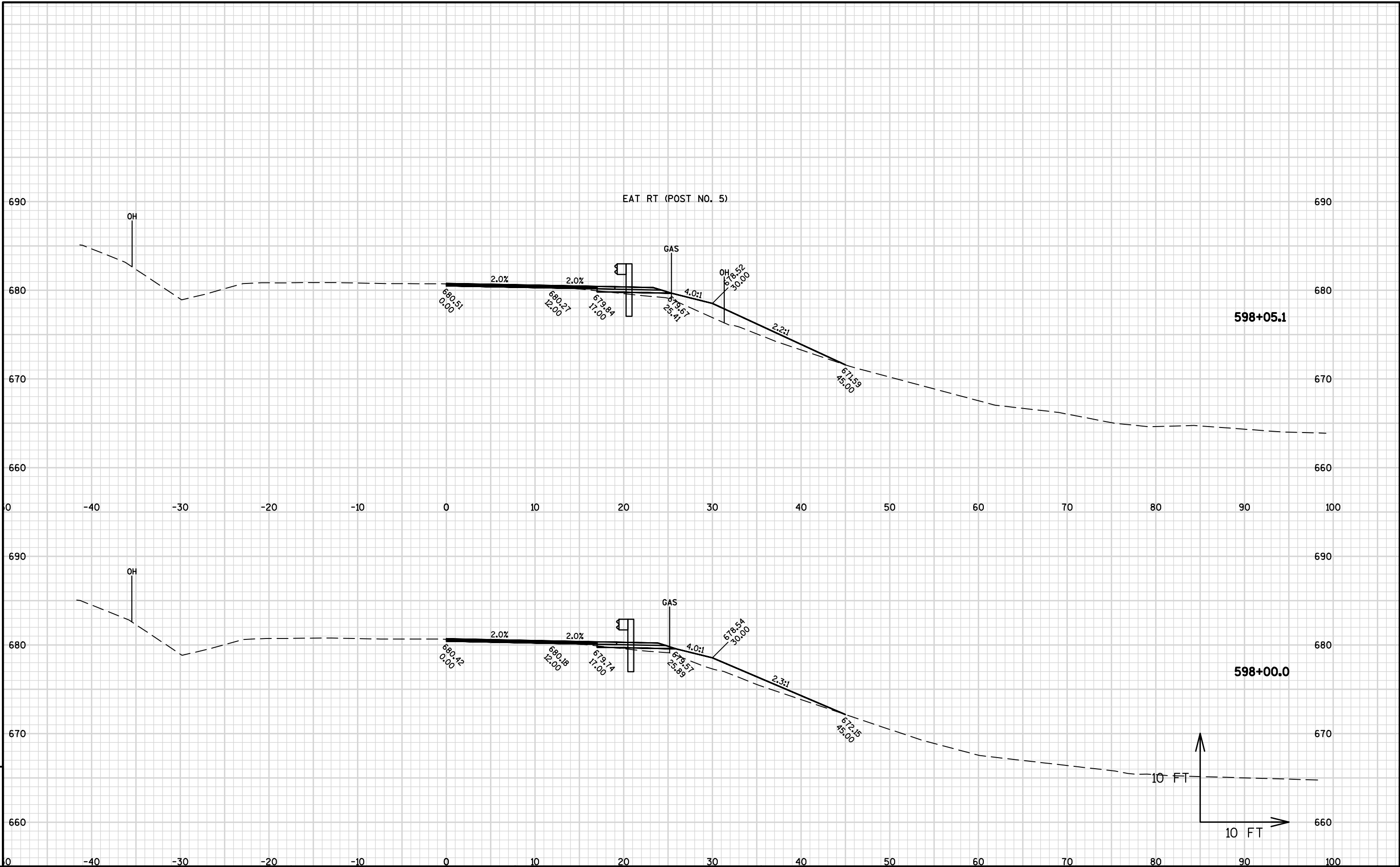
NOTE:

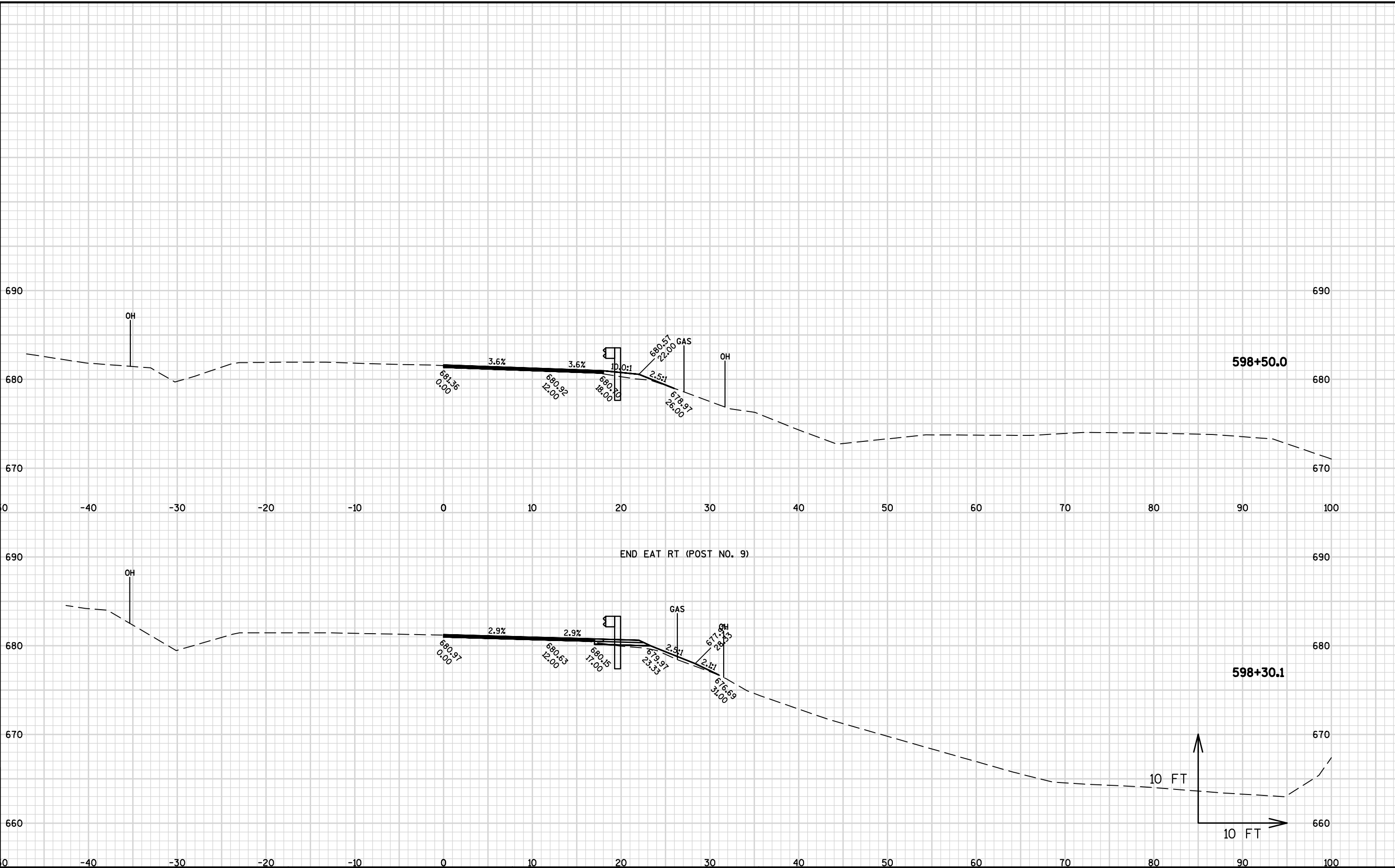
CROSS-SECTIONS FOR INFORMATION ONLY.

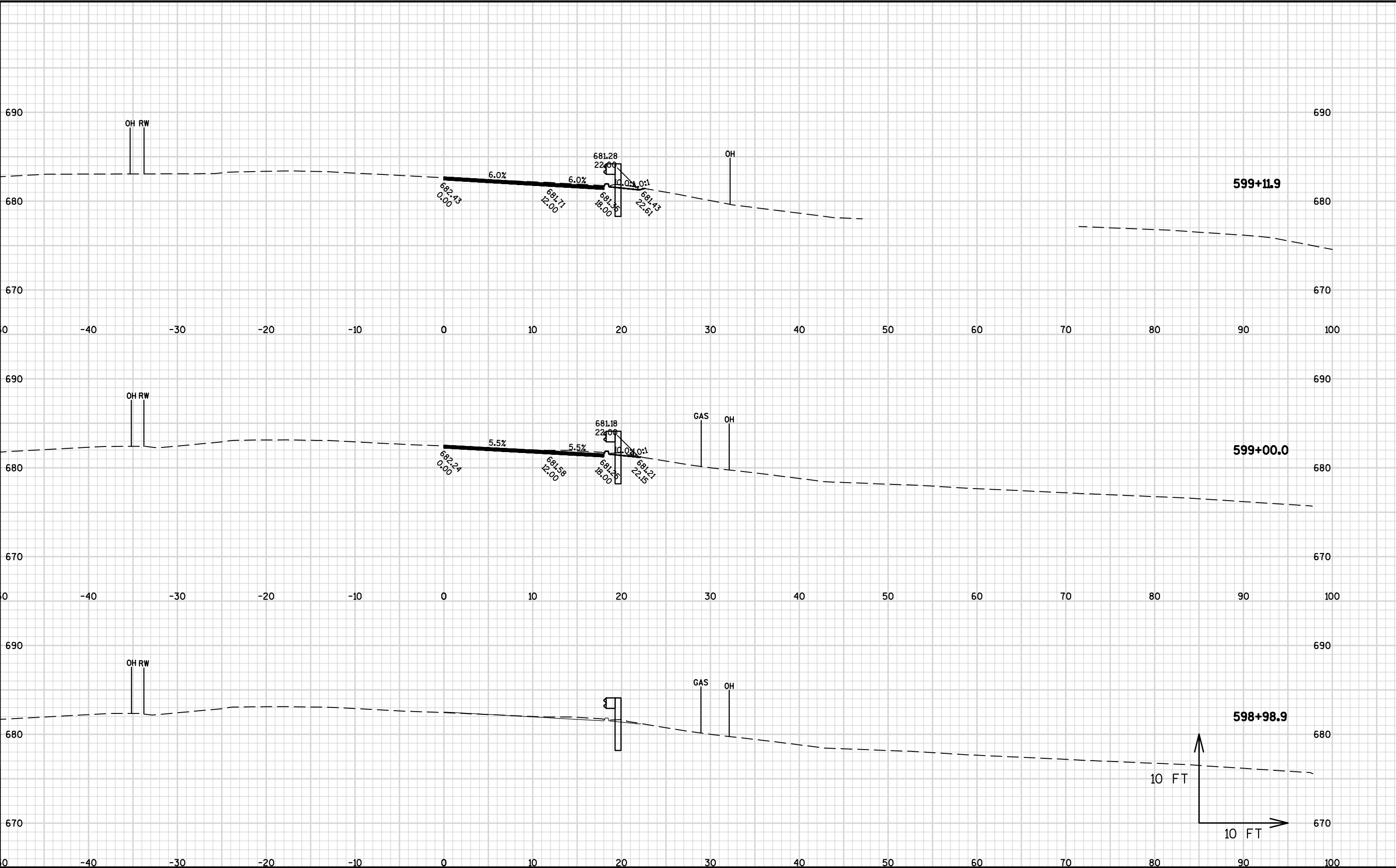
EARTHWORK AND LANDSCAPING ITEMS PAID FOR
UNDER ITEM 614.0010 BARRIER SYSTEM GRADING
SHAPING FINISHING.

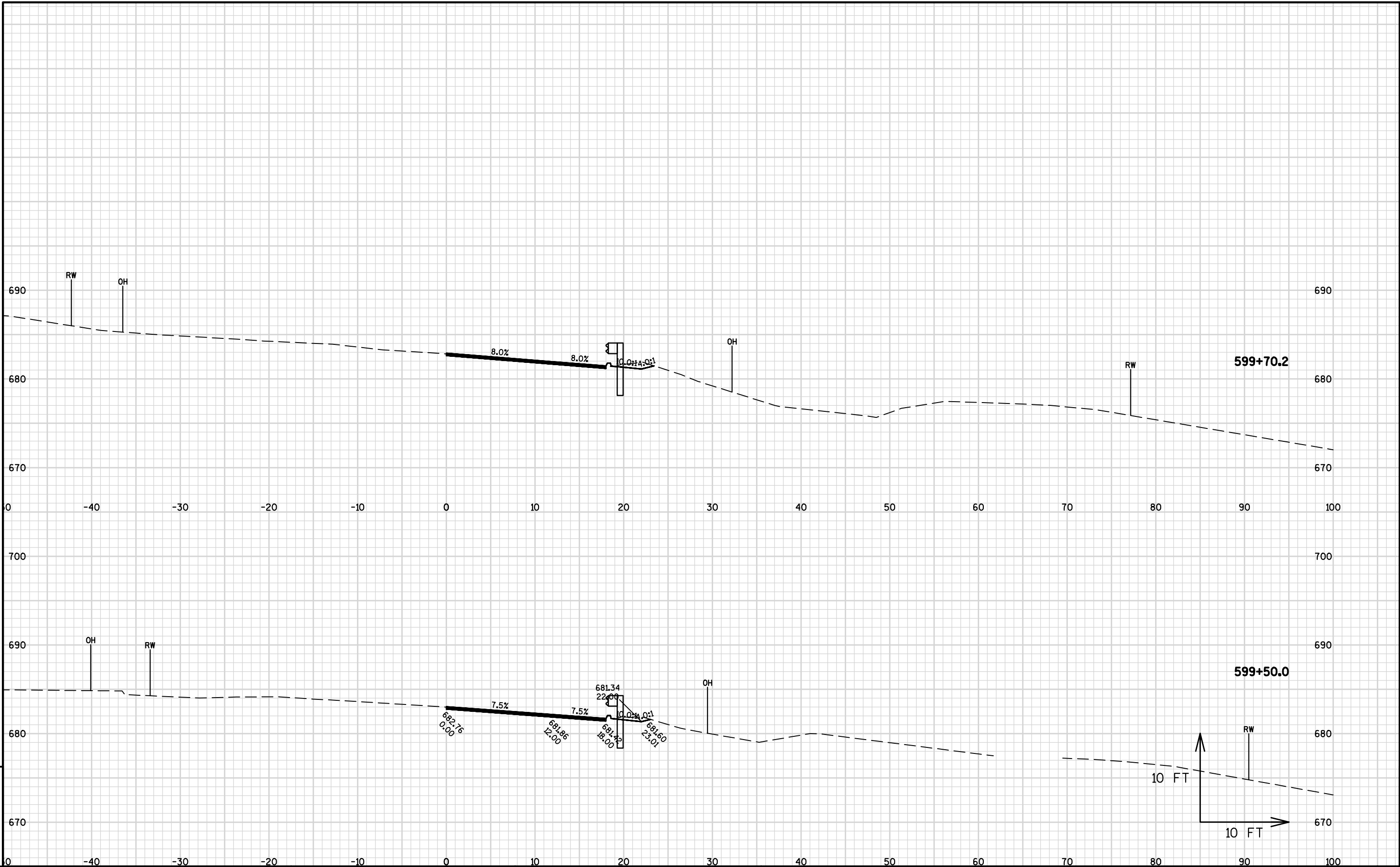
ASPHALTIC SURFACE MILLING IS NOT INCLUDED IN
THE EARTHWORK CUT QUANTITY.

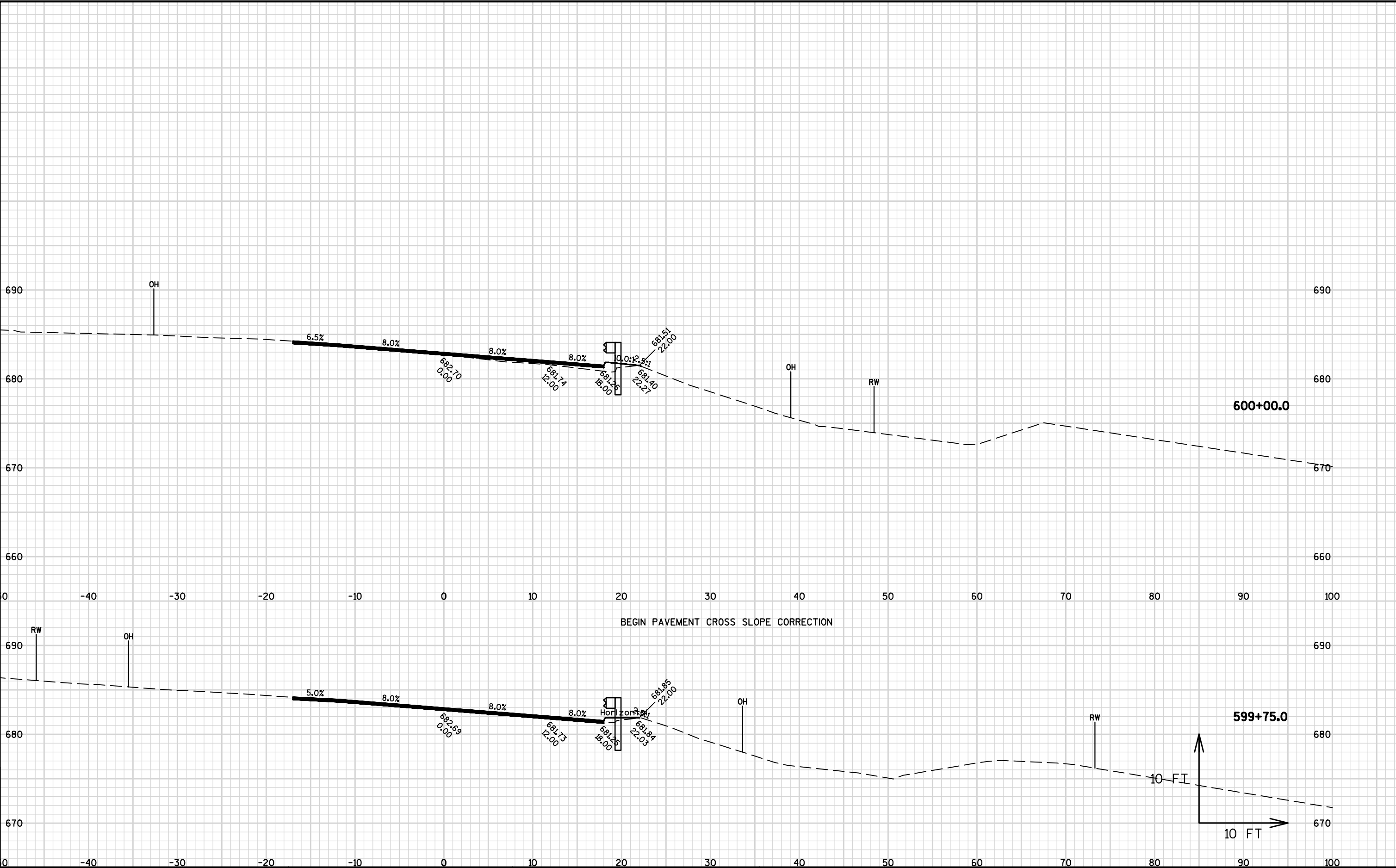


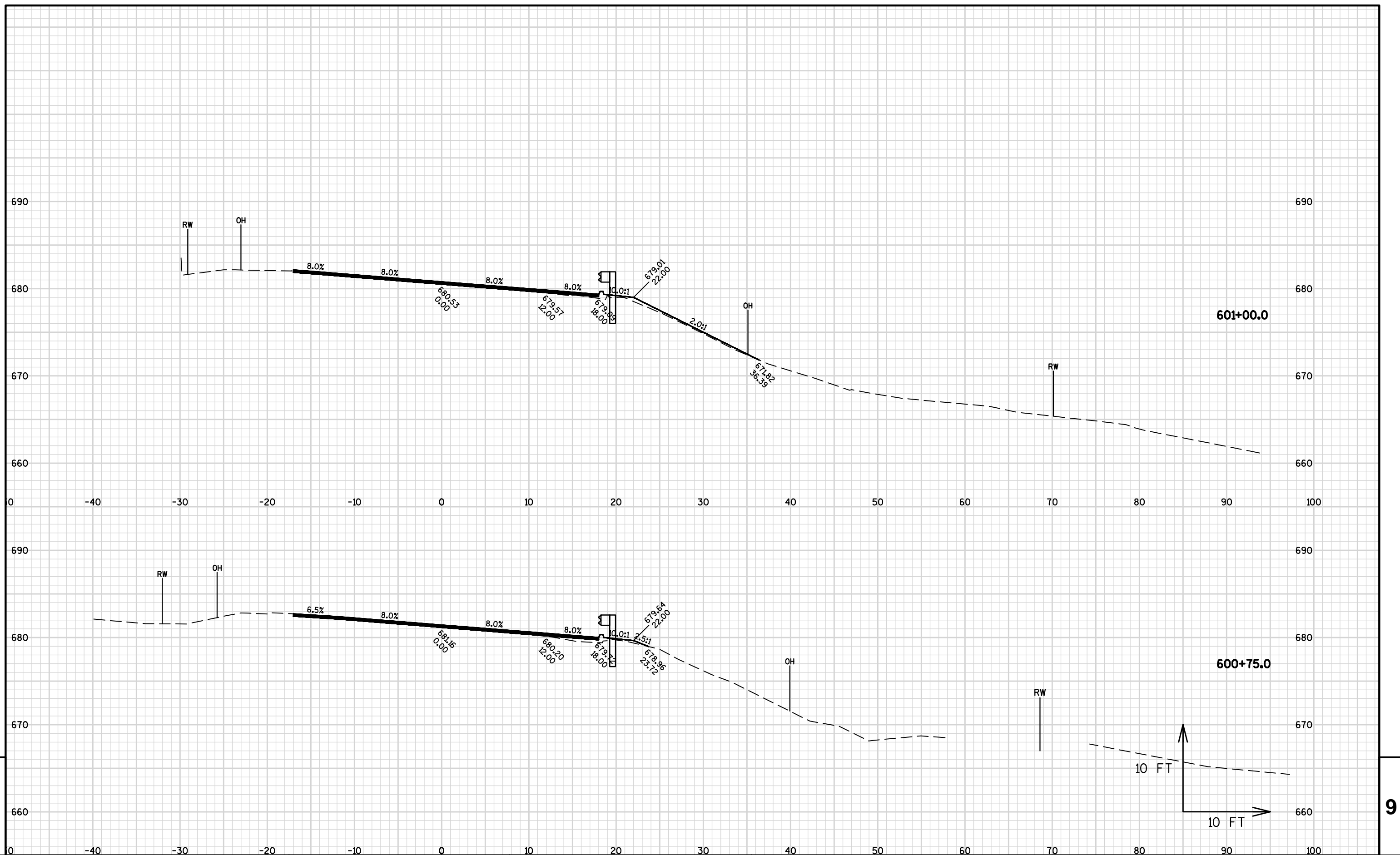


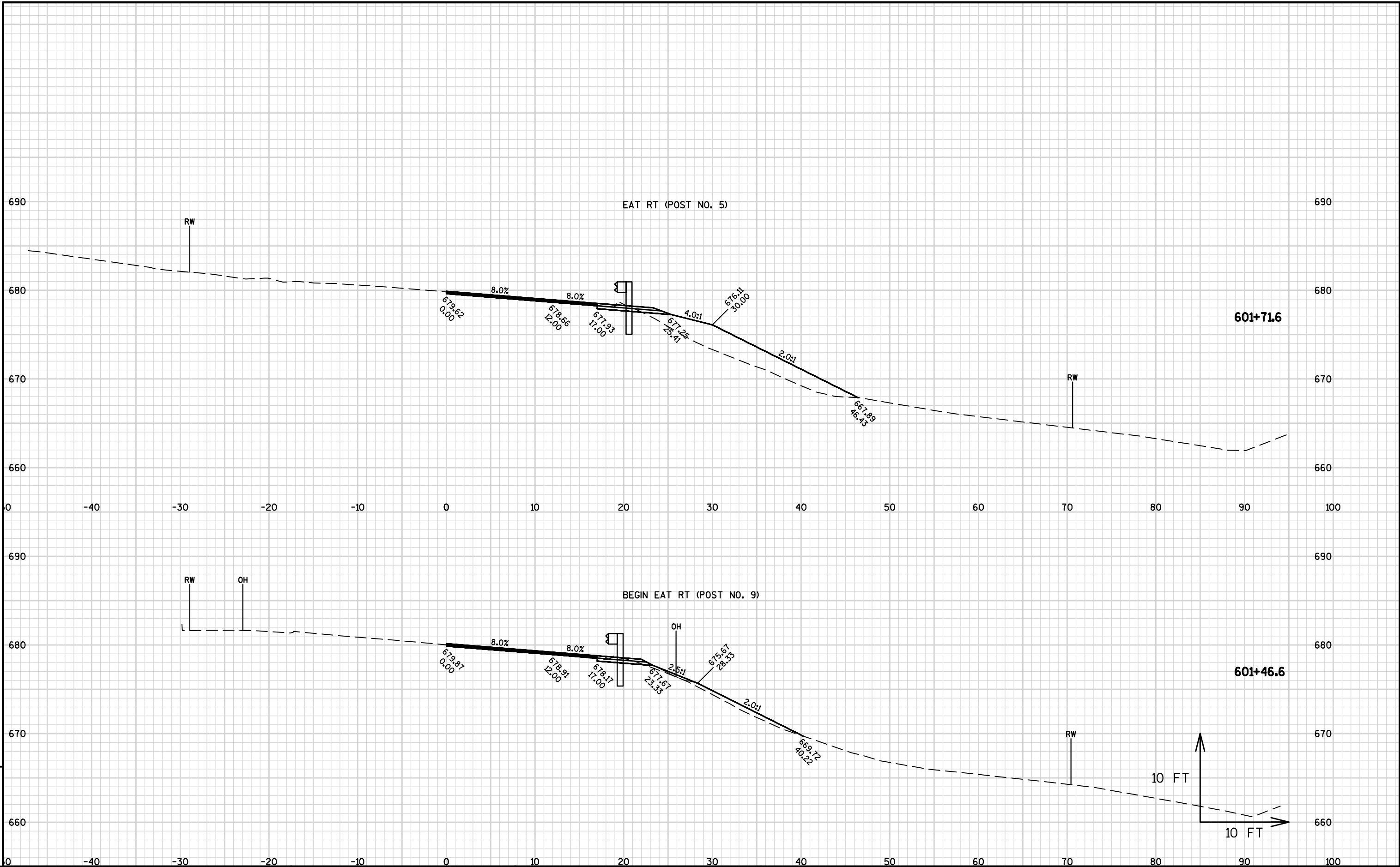


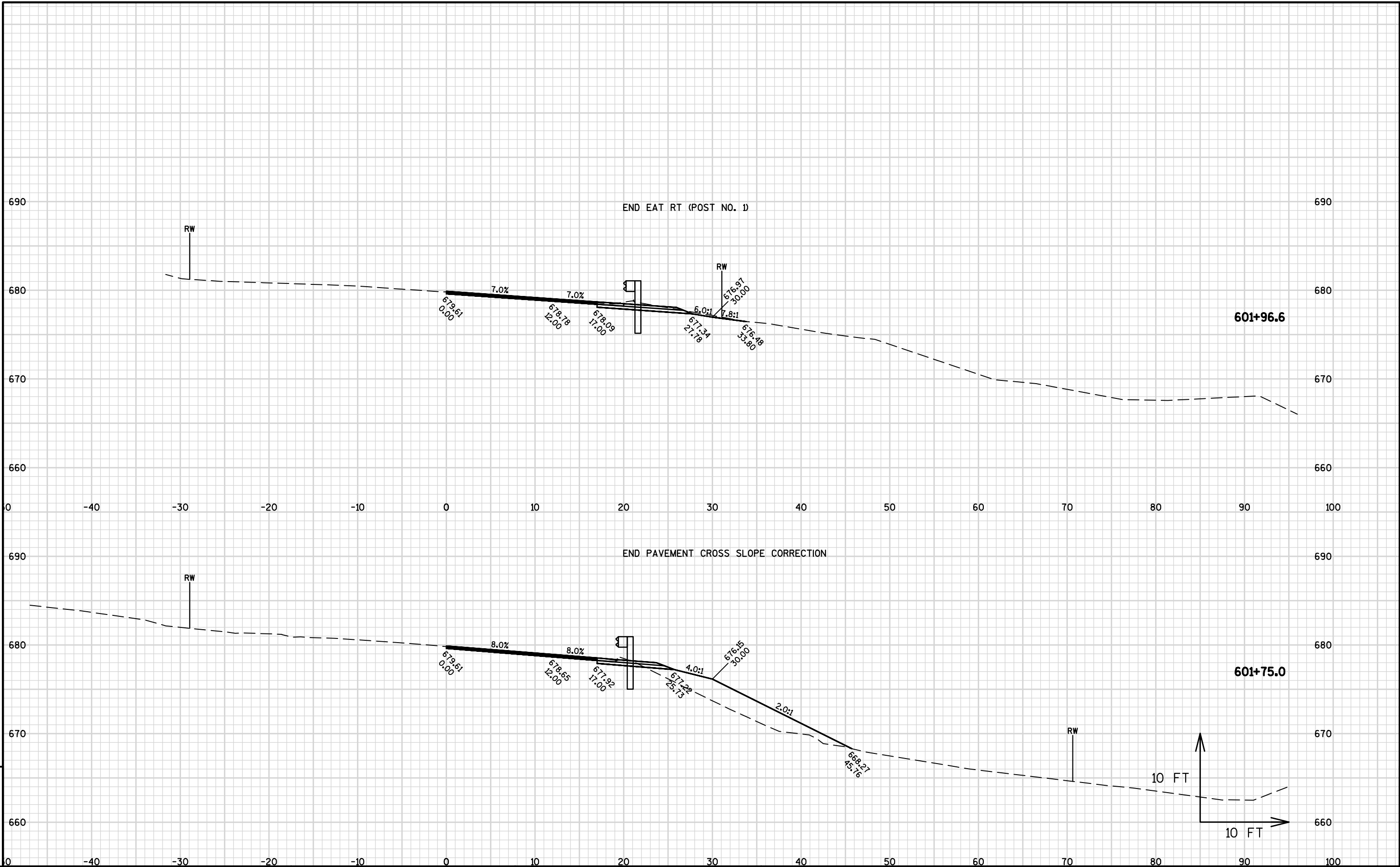


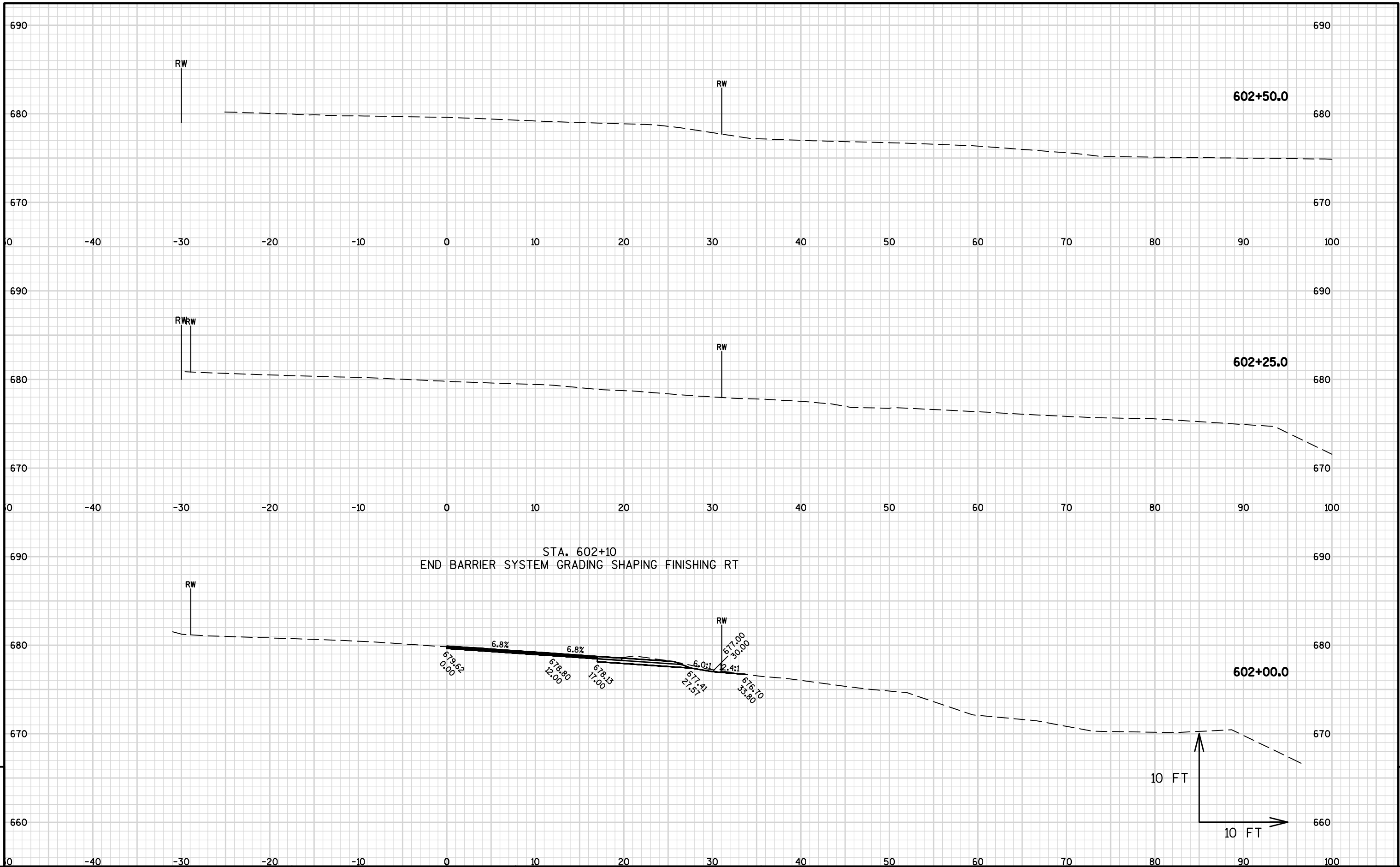












Notes



Wisconsin Department of Transportation

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