EAU

MAY 2021

PROJECT ID: 1530-05-72

WITH: N/A

COUNTY: PIERCE

38

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 (Includes Erosion Control)
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 = 536



N

DESIGN DESIGNATION 1530-05-02

A.A.D.T.	2022	=	2,680
A.A.D.T.	2042	=	3,260
D.H.V.		=	422
D.D.		=	60/40
T.		=	30.5%
DESIGN SPEED		=	55 MPH
ESALS		=	1,900,000

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 (300'EB')
- 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) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ELLSWORTH - DURAND

CTH A TO EAST COUNTY LINE

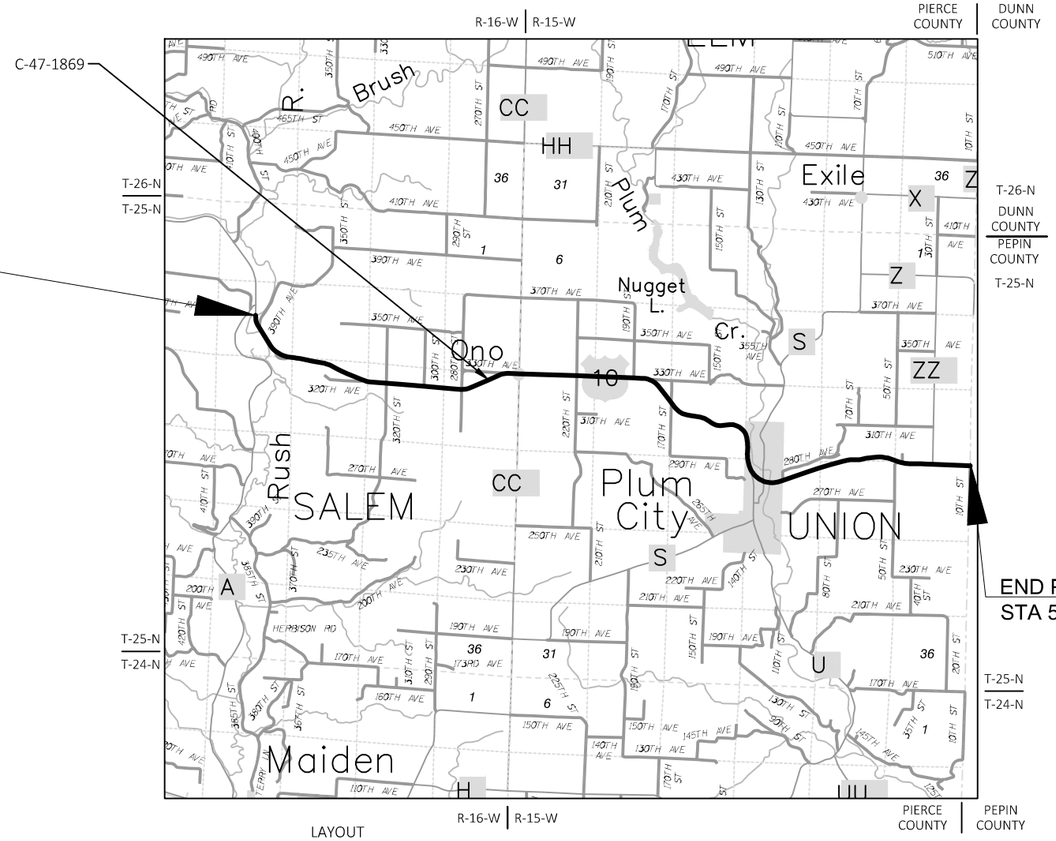
USH 10

PIERCE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1530-05-72	WISC 2021362	1

STATE PROJECT NUMBER

1530-05-72



TOTAL NET LENGTH OF CENTERLINE = 10.661 MI

EXCEPTION TO NET LENGTH OF CENTERLINE:
STA. 34+70 - STA. 35+32 (BRIDGE)
STA. 424+93 - STA. 429+43 (BRIDGE)

Coordinates on this plan are referenced to WisCRS, Pierce County, NAD 83 (2011), in U.S. survey feet. Values are grid coordinates, grid bearings, and grid distances. Grid distances may be used as ground distances.

Vertical datum based on USGS NAVD 88 (2012).

ORIGINAL PLANS PREPARED BY

KL Engineering [A] Better Experience

WISCONSIN PROFESSIONAL ENGINEER
BRIAN J. ST. VINCENT
44329-6
FITCHBURG, WI

MARCH 1, 2021 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION EAU CLAIRE
Designer	KL ENGINEERING INC.
Project Manager	PAULA GROOM, P.E.
Regional Examiner	TOU YANG, P.E.
Regional Supervisor	JAMES KOENIG, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 3/1/21 (Signature)

E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\010101_TI.DWG PLOT DATE : 2/18/2021 2:36 PM PLOT BY : KL ENGINEERING PLOT NAME :

ABBREVIATIONS

BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
BLDG.	BUILDING
CBTP	CONCRETE BARRIER TEMPORARY PRECAST
CTR	CENTER
C/L	CENTERLINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CSW	CONCRETE SIDEWALK
CMCP	CORRUGATED METAL CULVERT PIPE
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPT	CONSTRUCTION PERMIT
DMS	DYNAMIC MESSAGE SIGN
EAT	ENERGY ABSORBING TERMINAL
EB	EASTBOUND
ELEC	ELECTRIC
IE	INVERT ELEVATION
EX. OR EXIST	EXISTING
FO	FIBER OPTIC
F.E.	FIELD ENTRANCE
GAS	GAS
HMA	HOT MIX ASPHALT
HSE.	HOUSE
LHF	LEFT HAND FORWARD
MH	MANHOLE
MAX.	MAXIMUM
MIN.	MINIMUM
NOR.	NORMAL
NTS	NOT TO SCALE
PLE	PERMANENT LIMITED EASEMENT
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
PRW	PROPOSED RIGHT-OF-WAY
RAD OR R	RADIUS
R/L	REFERENCE LINE
REQ'D.	REQUIRED
RHF	RIGHT HAND FORWARD
RW	RIGHT-OF-WAY LINE
SAN	SANITARY SEWER
SHLD	SHOULDER
SW	SIDEWALK
SF	SQUARE FEET
SY	SQUARE YARD
S.D.D.	STANDARD DETAIL DRAWING
STA	STATION
SS	STORM SEWER
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
WAT	WATER
WB	WESTBOUND

UTILITY CONTACTS

ELECTRIC

TODD SKOVBROTEN
XCEL ENERGY
320 HELLER ROAD
MENOMONIE, WI 54751
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RICE LAKE, WI 54868
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(715) 213-4327 (MOBILE)
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(800) 261-5325 - EMERGENCY 24/7

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PLUMCITYSEWER@GMAIL.COM

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(715) 307-1904 (MOBILE)
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DNR LIAISON

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AMY.LESIK@WISCONSIN.GOV

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

ORDER OF DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVEMENT MARKING
TRAFFIC CONTROL PLAN
CONTROL POINTS

GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLAN, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTACT DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO START OF WORK.

UTILITY LOCATION MARKERS ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

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

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE REINFORCED CONCRETE PIPE.

STATIONING AND OFFSETS TO APRON ENDWALLS FOR CULVERT PIPES ARE SHOWN TO THE END OF THE PIPE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

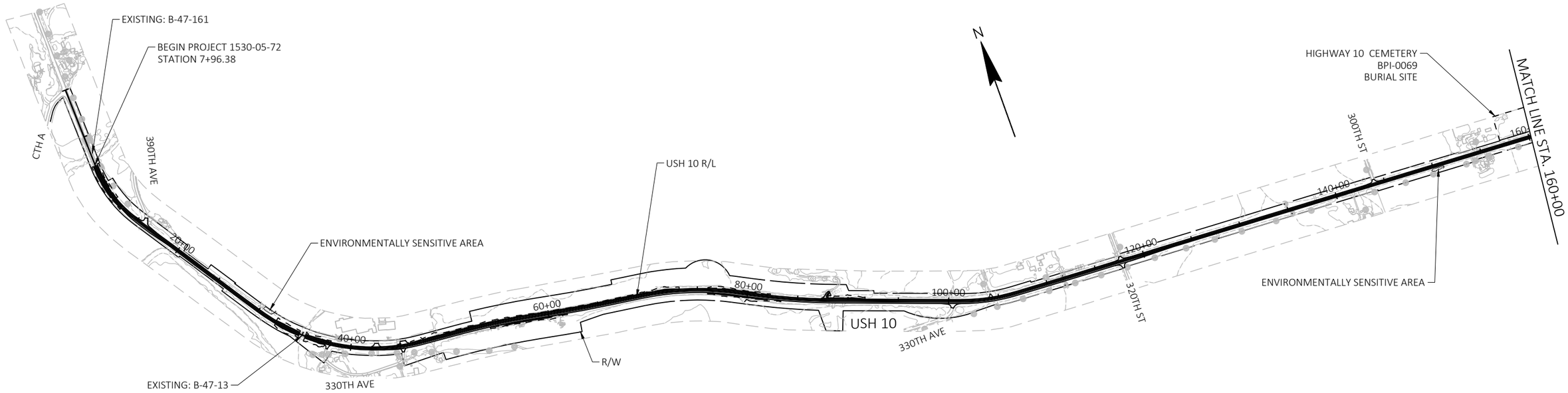
THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

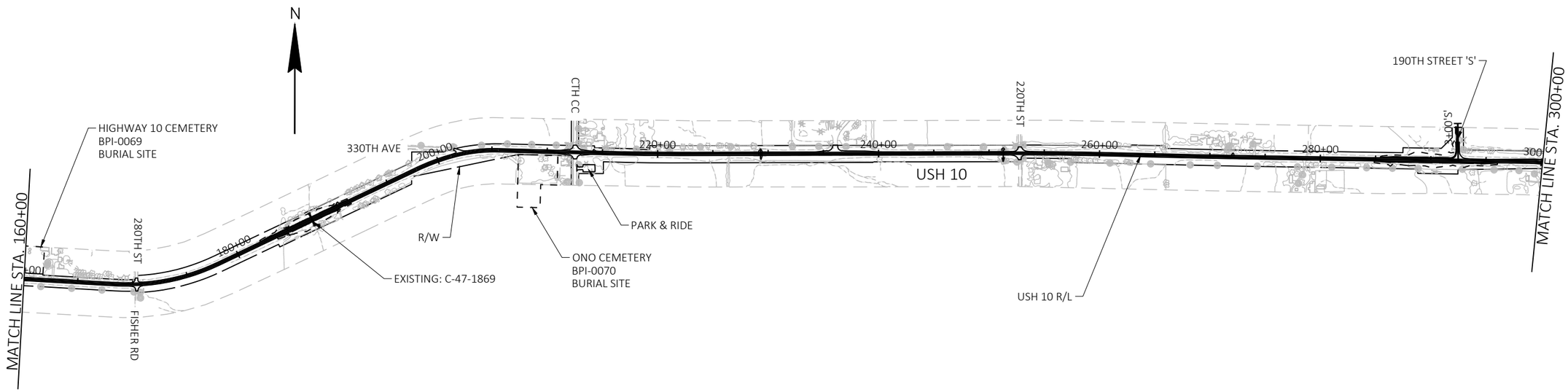
THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS:

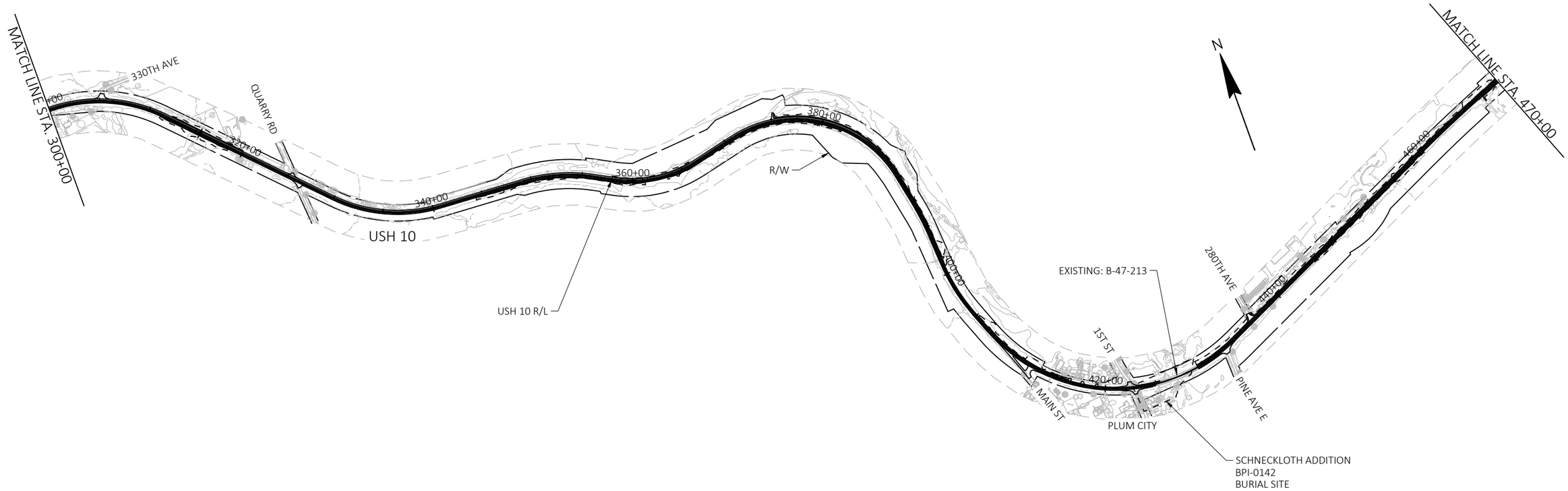
LOCATION	TOTAL DEPTH	LAYERS	GRADATION	TRAFFIC	BINDER	DESIGNATION	NOTE
PARK & RIDE	2-INCH	2.00" UPPER	4	MT	58-34	V	OVERLAY PAVEMENT
USH 10	3.25-INCH	1.75" UPPER 1.50" LOWER	4 4	MT MT	58-34 58-34	V V	OVERLAY AND SHOULDER WIDENING PAVEMENT
USH 10	6.5-INCH	1.75" UPPER 1.50" LOWER 3.25" LOWER	4 4 ASPHALTIC SURFACE	MT MT	58-34 58-34	V V	CULVERT REPLACEMENT PAVEMENT

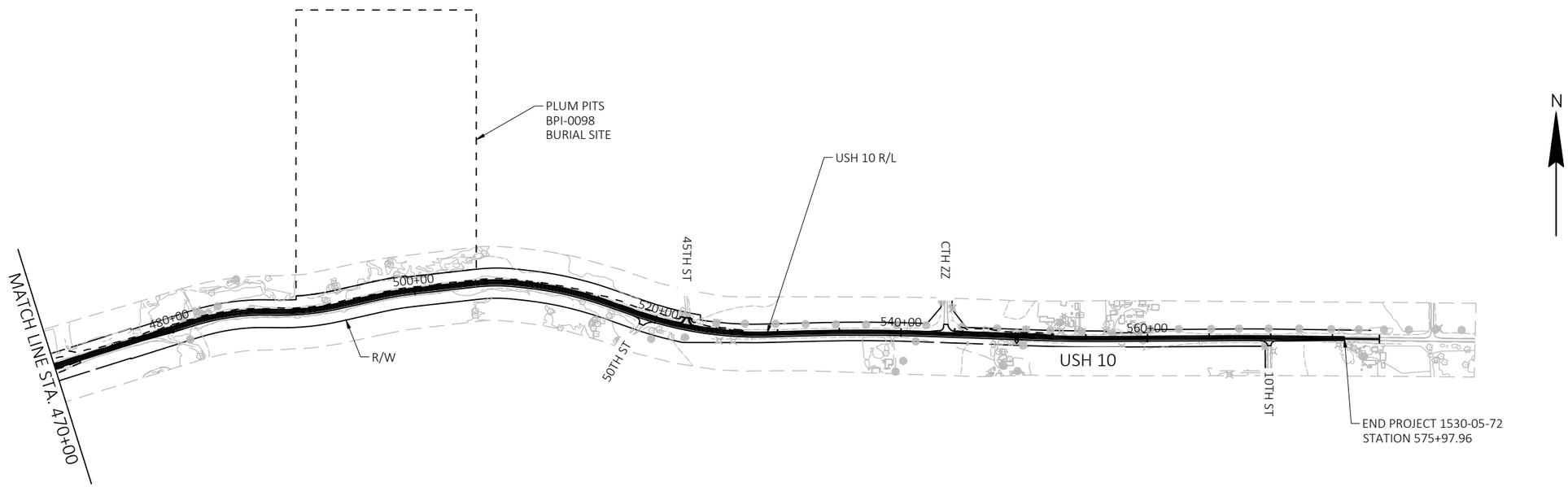
2





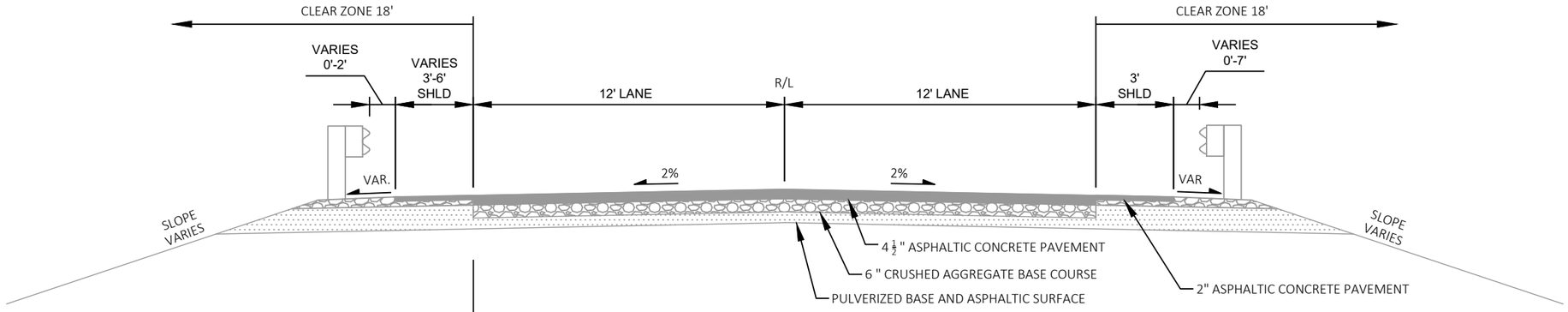
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PROJECT OVERVIEW	SHEET 3	E





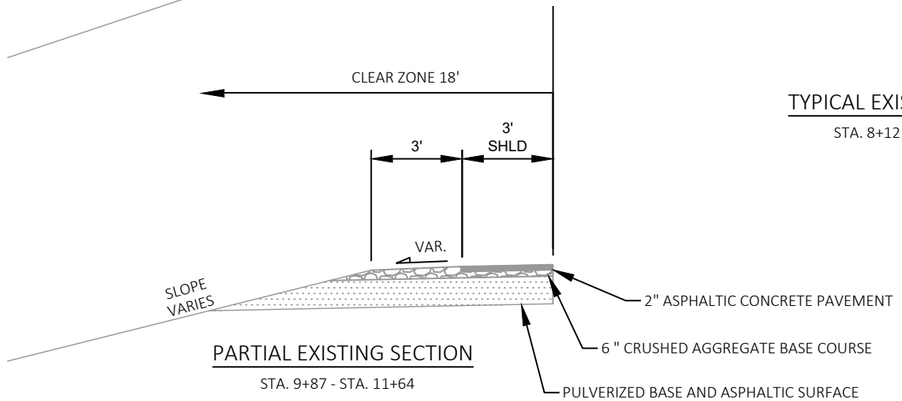
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PLOT DATE : 2/1/2021 8:54 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



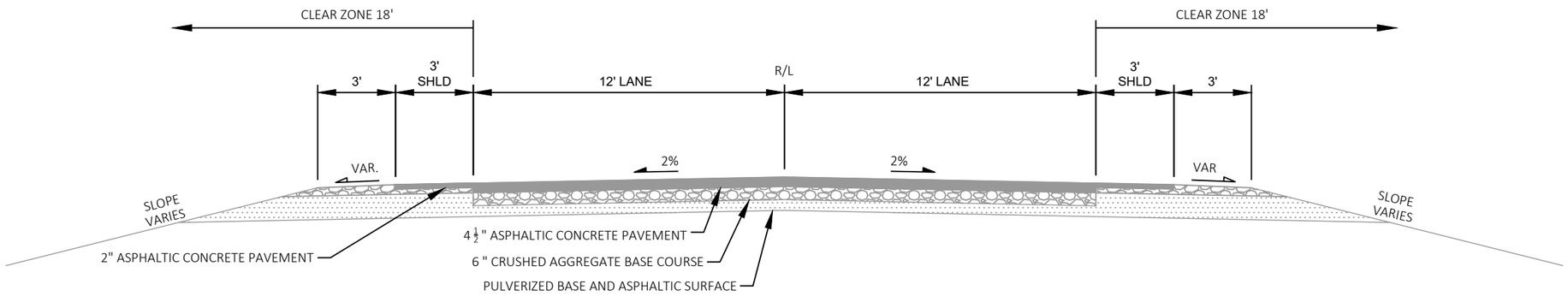
TYPICAL EXISTING SECTION

STA. 8+12 - STA. 11+64



PARTIAL EXISTING SECTION

STA. 9+87 - STA. 11+64



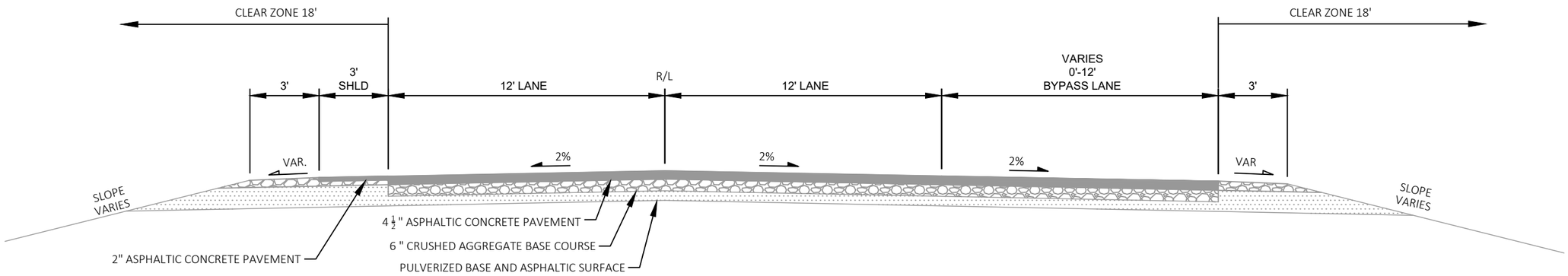
TYPICAL EXISTING SECTION

STA. 11+64 - STA. 13+40
STA. 20+03 - STA. 33+65
STA. 36+38 - STA. 42+66

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 5	E

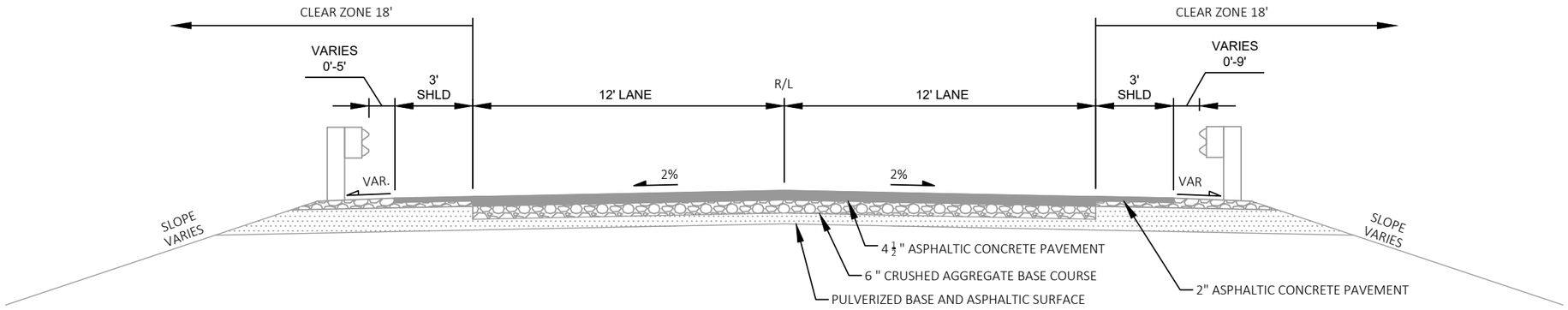
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LAYOUT NAME - 01

PLOT DATE : 2/18/2021 3:11 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########



TYPICAL EXISTING SECTION

STA. 13+40 - STA. 20+03



TYPICAL EXISTING SECTION

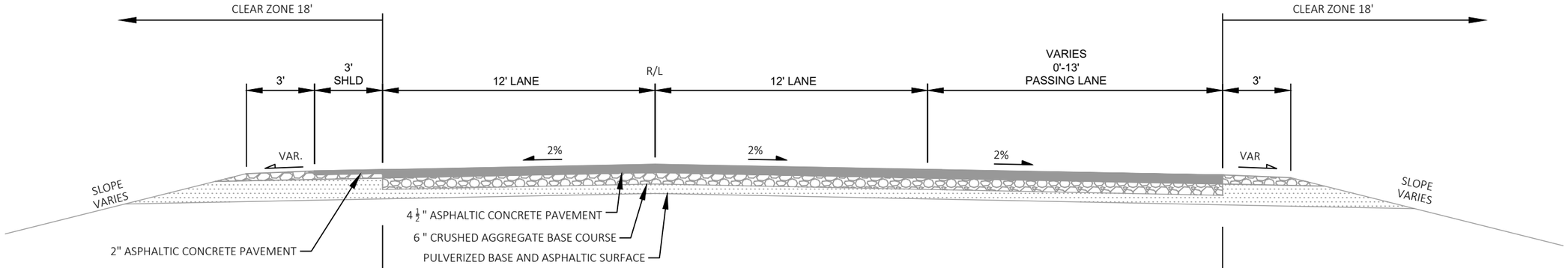
STA. 33+65 - STA. 36+38

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 6	E

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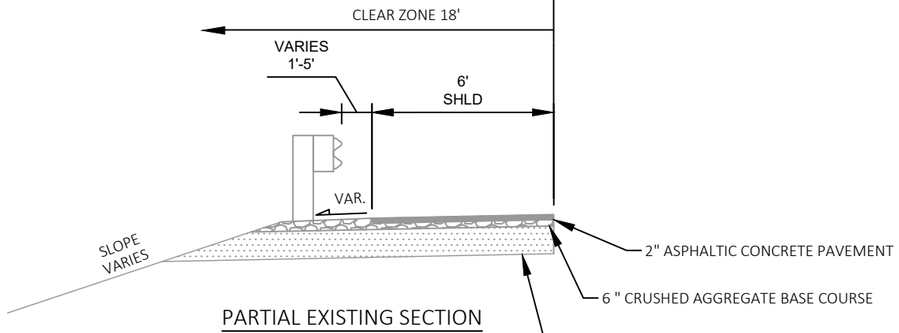
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WISDOT/CADDS SHEET 42



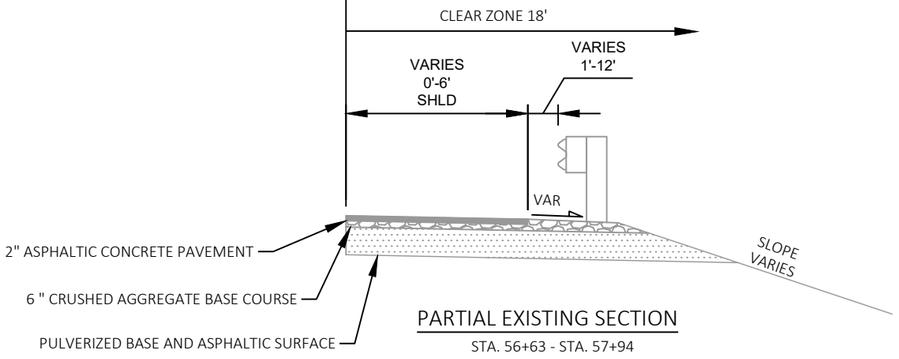
TYPICAL EXISTING SECTION

STA. 42+66 - STA. 122+85



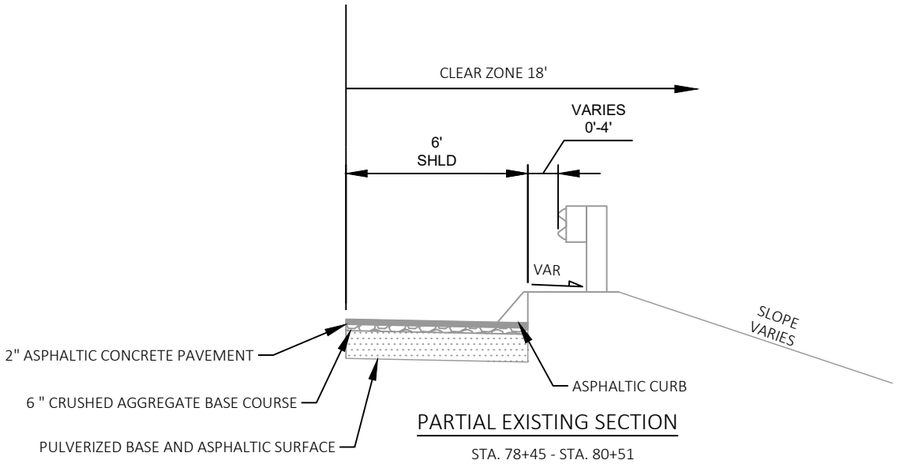
PARTIAL EXISTING SECTION

STA. 48+13 - STA. 71+57
STA. 77+95 - STA. 79+83
STA. 87+95 - STA. 88+67



PARTIAL EXISTING SECTION

STA. 56+63 - STA. 57+94

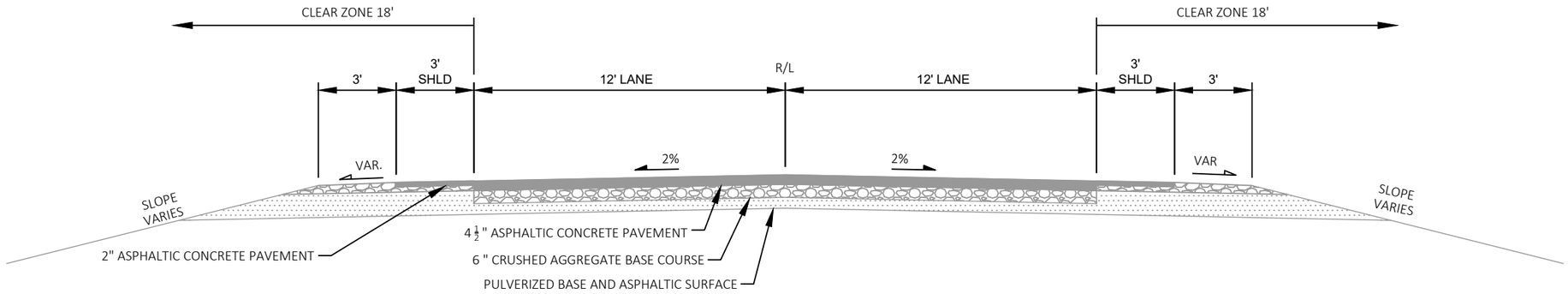


PARTIAL EXISTING SECTION

STA. 78+45 - STA. 80+51

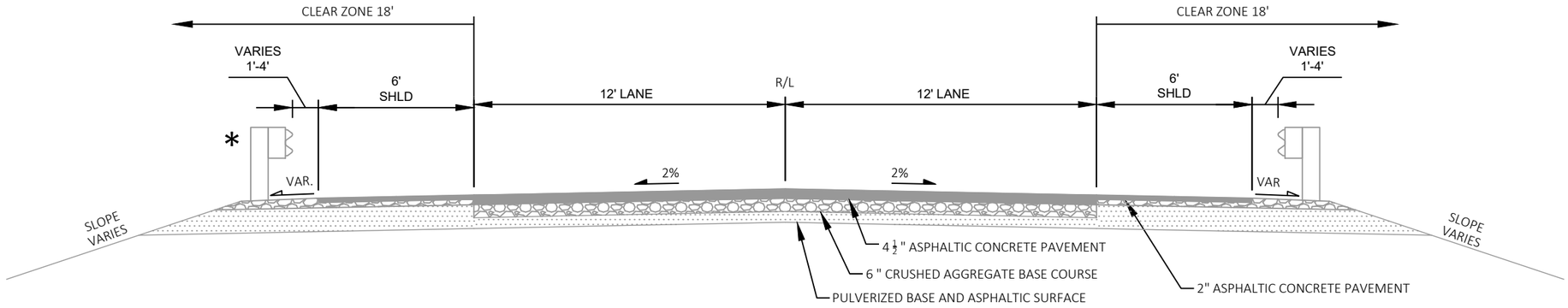
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LAYOUT NAME - 03
PLOT DATE : 2/18/2021 3:11 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########



TYPICAL EXISTING SECTION

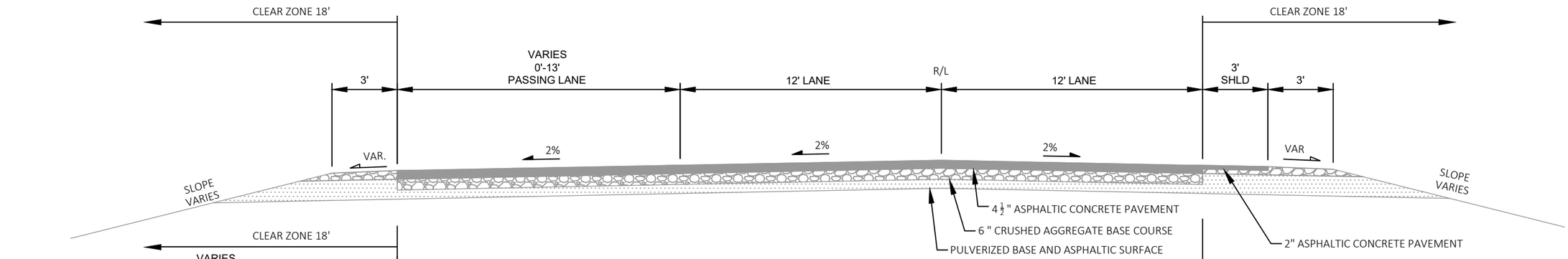
STA. 122+85 - STA. 185+17
STA. 189+70 - STA 287+71



*NO BEAMGUARD STA. 292+28 - STA. 293+62

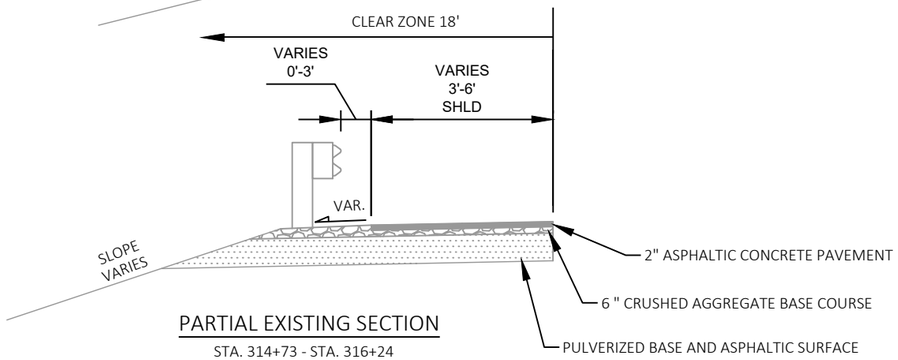
TYPICAL EXISTING SECTION

STA. 185+17 - STA. 189+70
STA. 287+71 - STA. 293+62



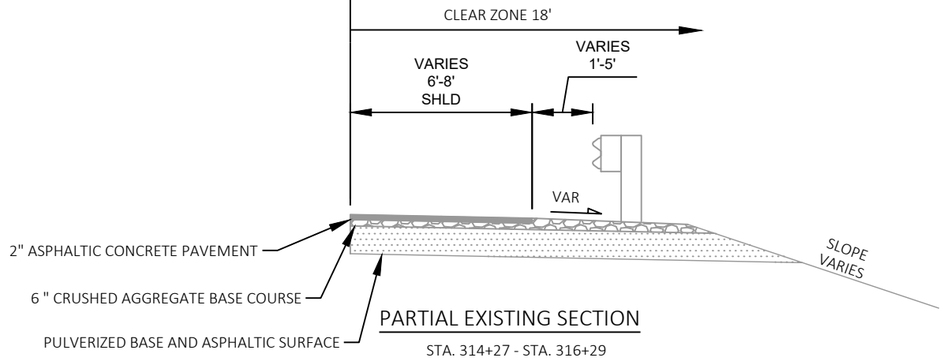
TYPICAL EXISTING SECTION

STA. 293+62 - STA. 388+44



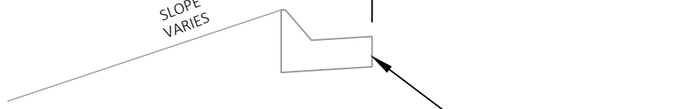
PARTIAL EXISTING SECTION

STA. 314+73 - STA. 316+24



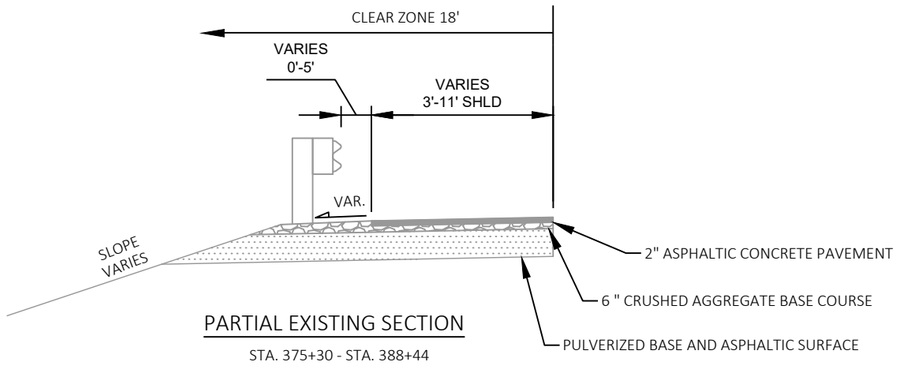
PARTIAL EXISTING SECTION

STA. 314+27 - STA. 316+29



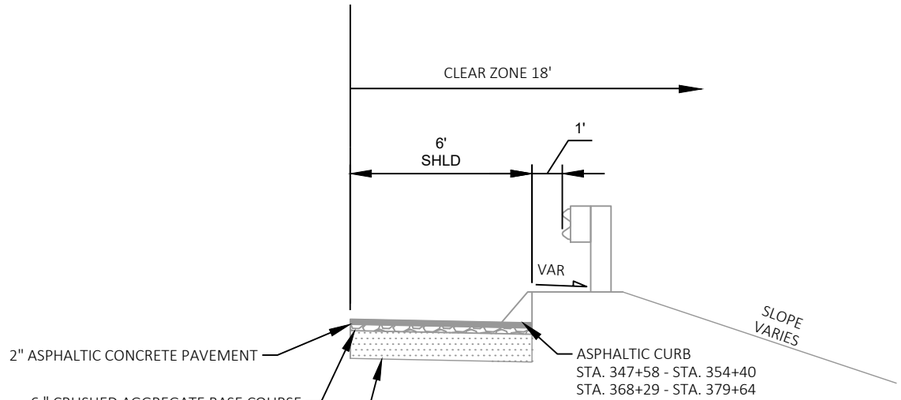
PARTIAL EXISTING SECTION

STA. 357+92 - STA. 365+91



PARTIAL EXISTING SECTION

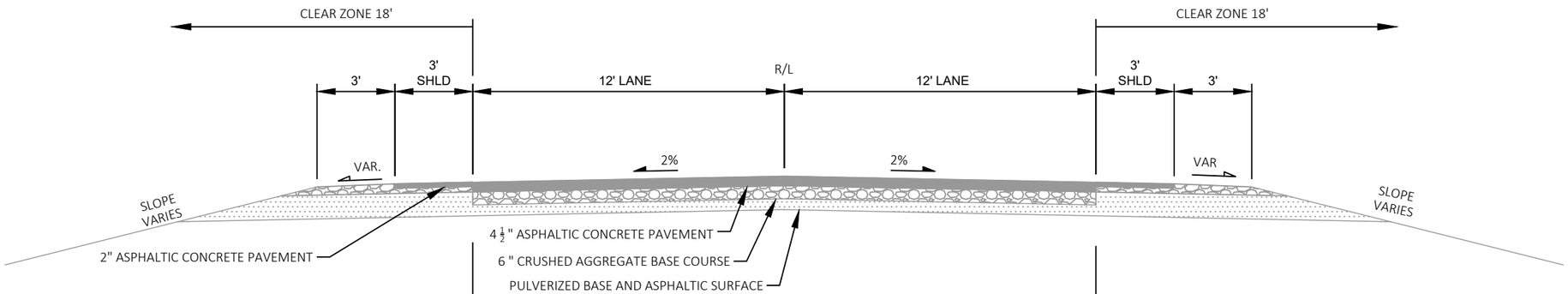
STA. 375+30 - STA. 388+44



PARTIAL EXISTING SECTION

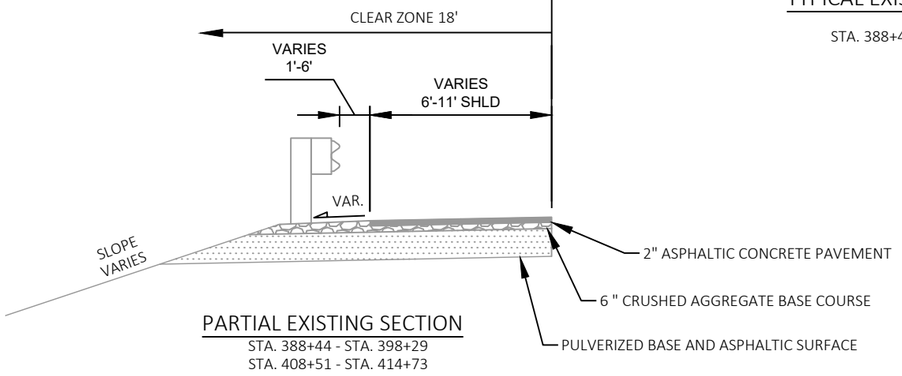
STA. 346+58 - STA. 358+39
STA. 365+67 - STA. 379+64

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 9	E



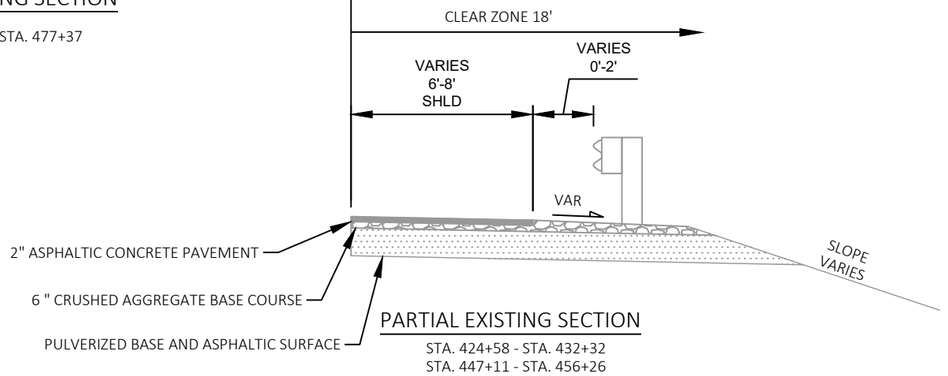
TYPICAL EXISTING SECTION

STA. 388+44 - STA. 477+37



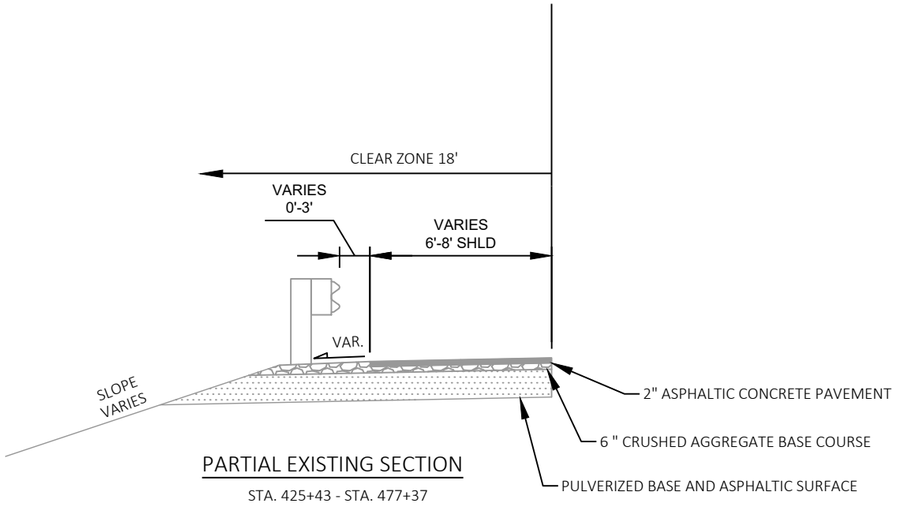
PARTIAL EXISTING SECTION

STA. 388+44 - STA. 398+29
STA. 408+51 - STA. 414+73



PARTIAL EXISTING SECTION

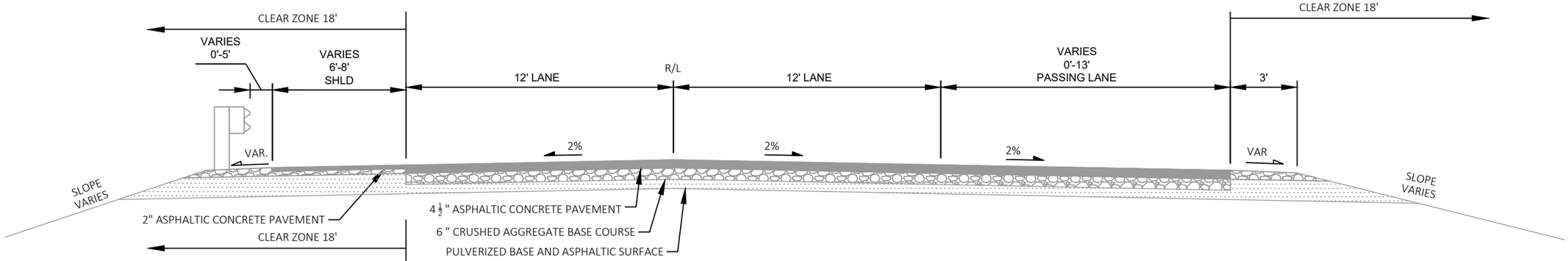
STA. 424+58 - STA. 432+32
STA. 447+11 - STA. 456+26
STA. 468+02 - STA. 469+92



PARTIAL EXISTING SECTION

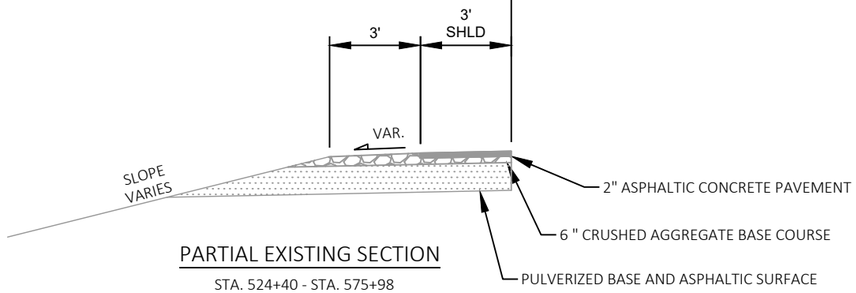
STA. 425+43 - STA. 477+37

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 10	E



TYPICAL EXISTING SECTION

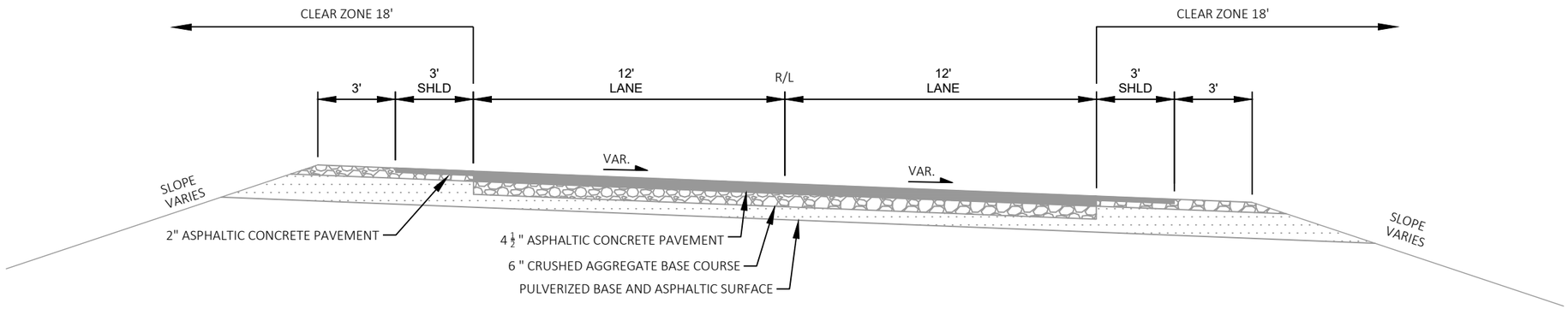
STA. 477+37 - STA. 575+98



PARTIAL EXISTING SECTION

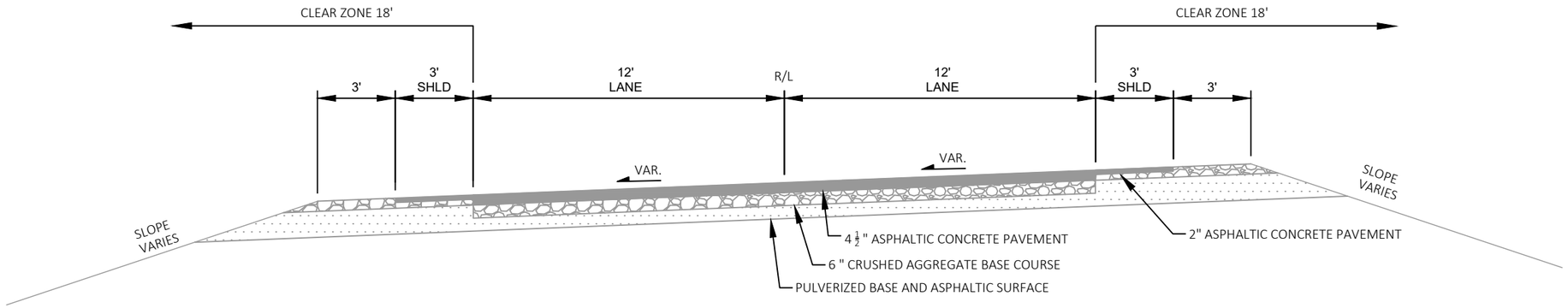
STA. 524+40 - STA. 575+98

2



TYPICAL EXISTING SECTION

SUPERELEVATED



TYPICAL EXISTING SECTION

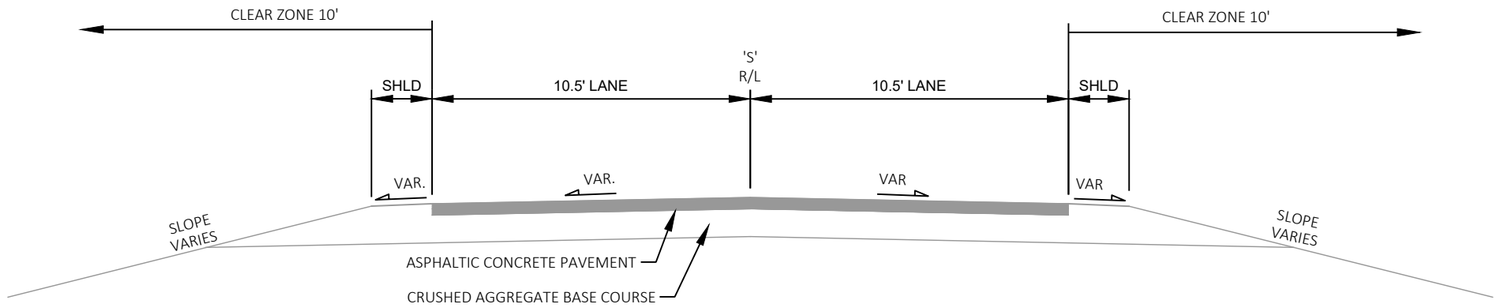
SUPERELEVATED

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 12	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 08

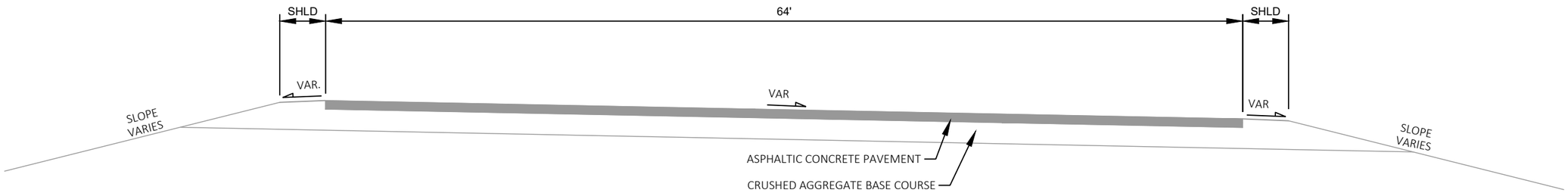
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2



TYPICAL EXISTING SECTION - 190TH STREET

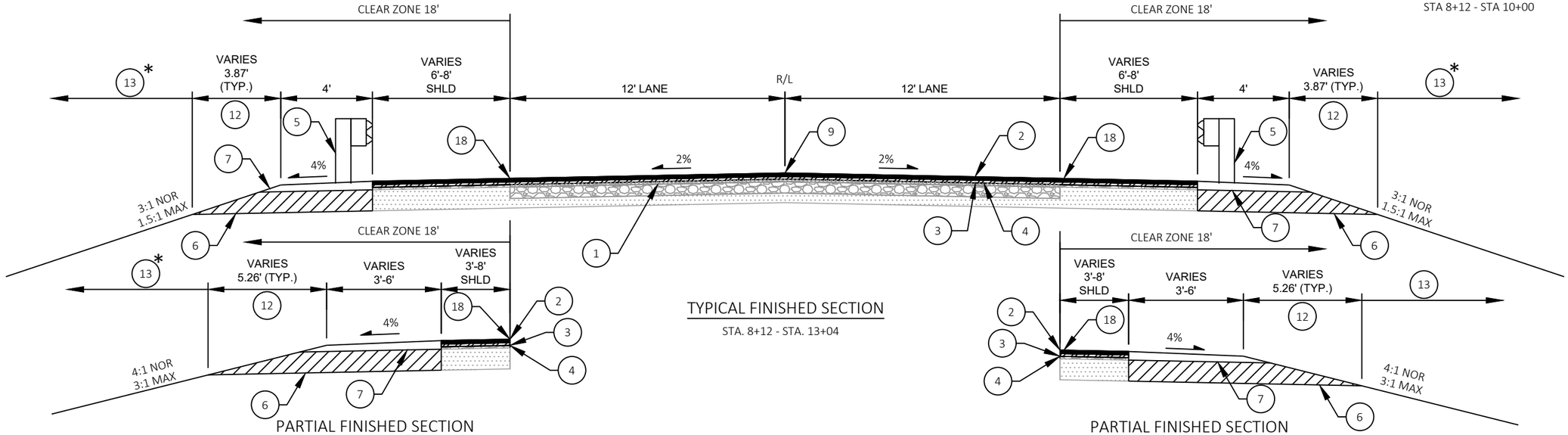
STA. 0+20'S' - STA. 3+06'S'



TYPICAL EXISTING SECTION - PARK & RIDE

2

* USE EROSION MAT URBAN CLASS I TYPE B
STA 8+12 - STA 10+00



TYPICAL FINISHED SECTION

STA. 8+12 - STA. 13+04

PARTIAL FINISHED SECTION

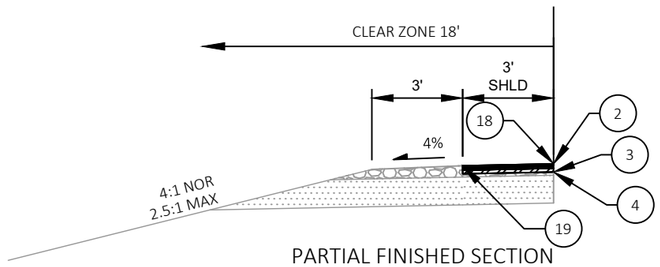
STA. 8+12 - STA. 10+46

PARTIAL FINISHED SECTION

STA. 11+58 - STA. 13+04

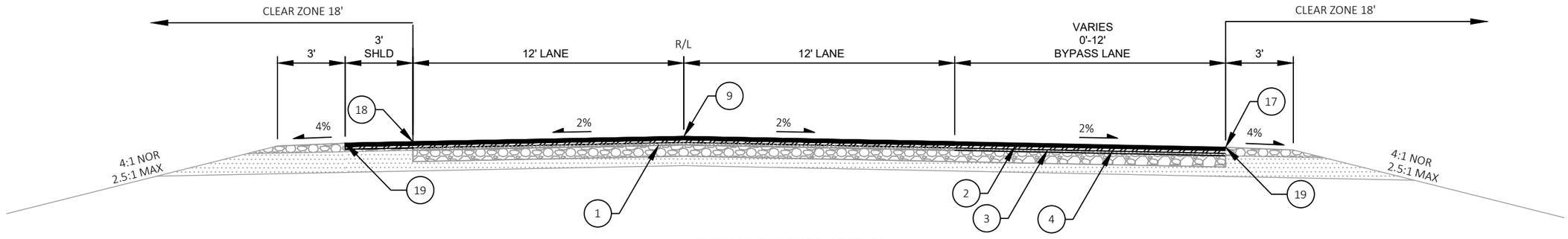
LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	7	BASE AGGREGATE DENSE 3/4-INCH
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
5	MGS GUARDRAIL 3	17	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
		19	SHAPING SHOULDERS



PARTIAL FINISHED SECTION

STA. 10+46 - STA. 13+04



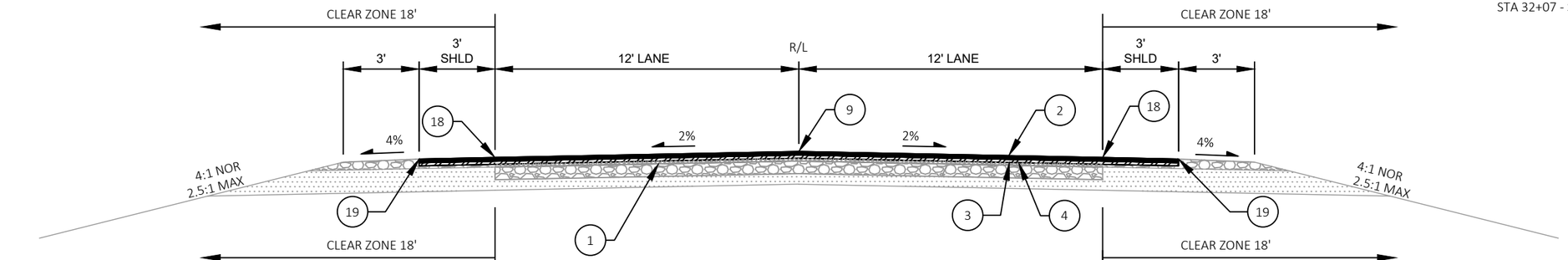
TYPICAL FINISHED SECTION

STA. 13+04 - STA. 18+91

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 14	E

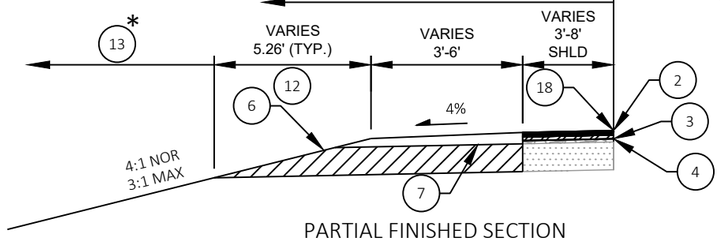
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LAYOUT NAME - 09
PLOT DATE : 2/18/2021 3:11 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

*USE EROSION MAT URBAN CLASS I TYPE B
STA 32+07 - STA 37+96



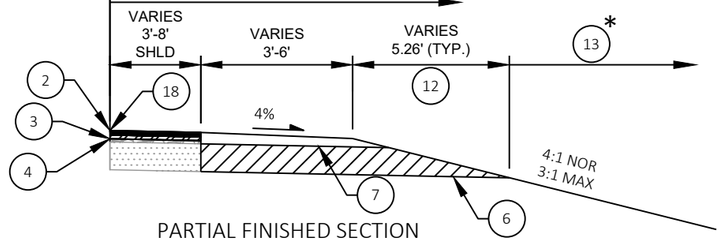
TYPICAL FINISHED SECTION

STA. 18+91 - STA. 42+74



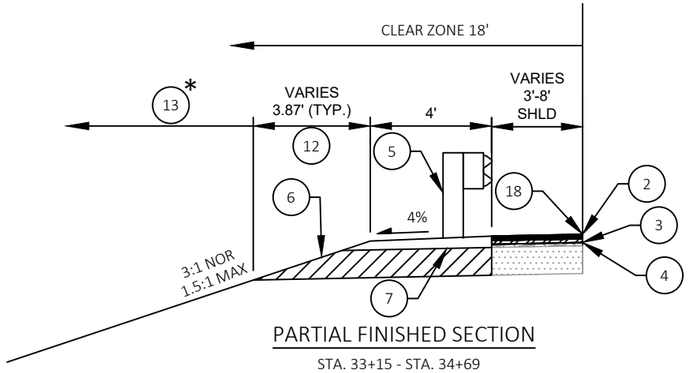
PARTIAL FINISHED SECTION

STA. 32+07 - STA. 33+15
STA. 36+87 - STA. 37+96



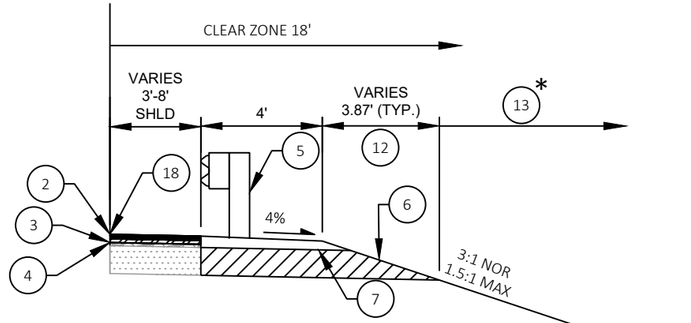
PARTIAL FINISHED SECTION

STA. 32+12 - STA. 33+15
STA. 36+87 - STA. 37+41



PARTIAL FINISHED SECTION

STA. 33+15 - STA. 34+69
STA. 35+32 - STA. 36+87

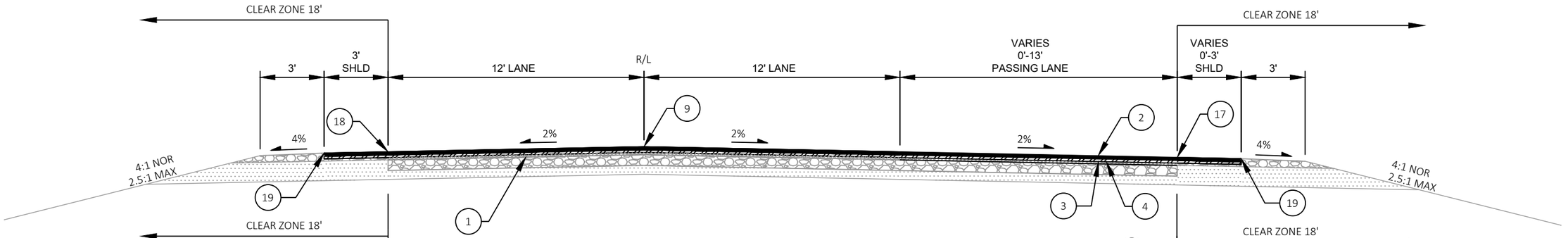


PARTIAL FINISHED SECTION

STA. 33+15 - STA. 34+69
STA. 35+32 - STA. 36+87

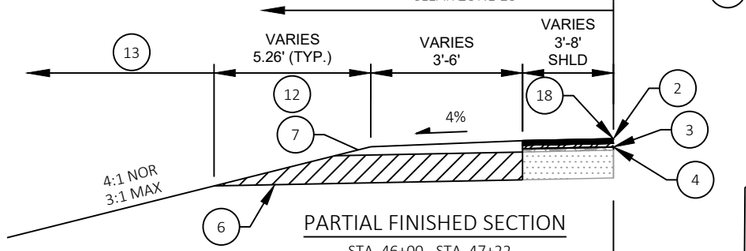
LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	7	BASE AGGREGATE DENSE 3/4-INCH
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
5	MGS GUARDRAIL 3	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	19	SHAPING SHOULDERS



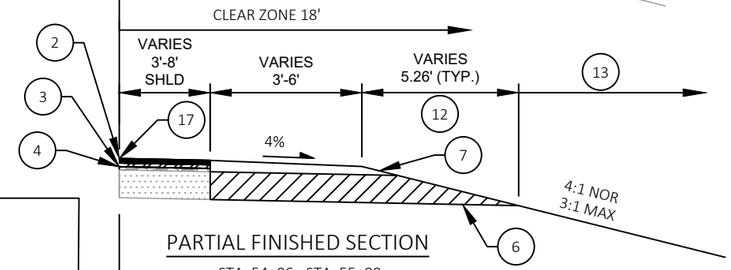
TYPICAL FINISHED SECTION

STA. 42+74 - STA. 122+85



PARTIAL FINISHED SECTION

STA. 46+00 - STA. 47+22
STA. 72+50 - STA. 73+70
STA. 76+02 - STA. 77+47
STA. 80+78 - STA. 82+25
STA. 90+23 - STA. 91+70



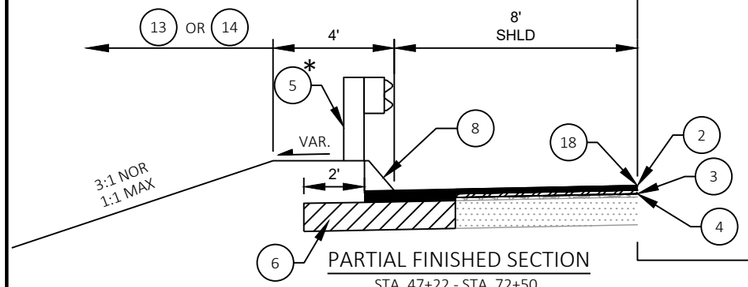
PARTIAL FINISHED SECTION

STA. 54+06 - STA. 55+99
STA. 59+94 - STA. 61+85
STA. 76+02 - STA. 77+71
STA. 80+78 - STA. 83+36

LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	8	ASPHALTIC CURB
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
5	MGS GUARDRAIL 3	14	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, SOIL STABILIZER TYPE A, AND EROSION MAT CLASS III TYPE D
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	17	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2
7	BASE AGGREGATE DENSE 3/4-INCH	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
		19	SHAPING SHOULDERS

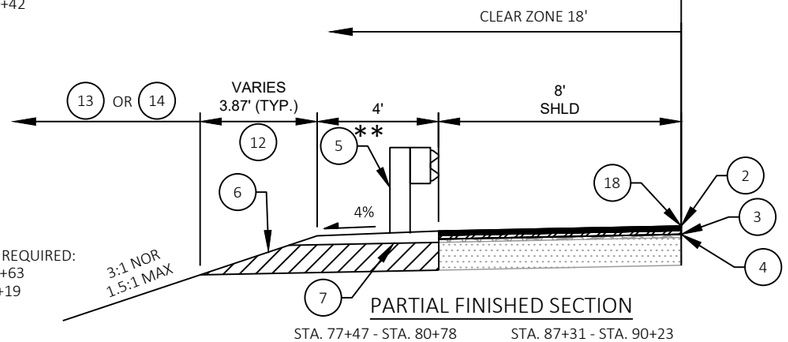
14 USED WHERE HALF POST SPACING IS REQUIRED



PARTIAL FINISHED SECTION

STA. 47+22 - STA. 72+50

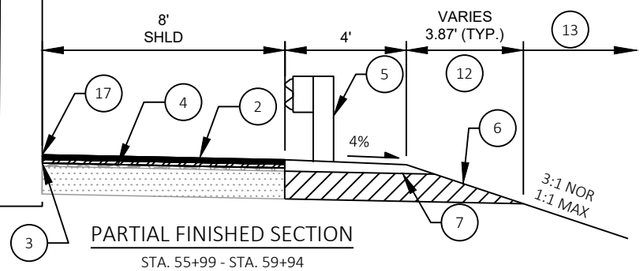
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STA. 49+00 - STA. 70+42



** HALF POST SPACING REQUIRED:
STA. 78+38 - STA. 78+63
STA. 88+07 -STA. 88+19

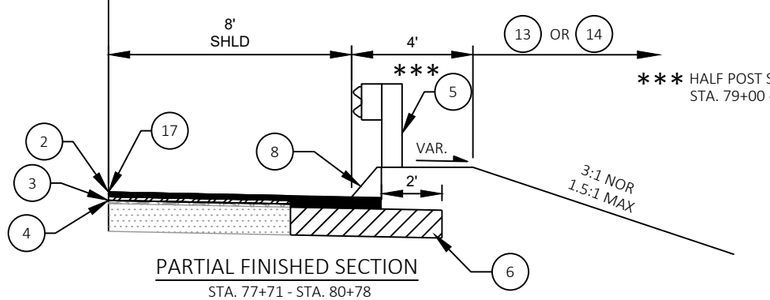
PARTIAL FINISHED SECTION

STA. 77+47 - STA. 80+78 STA. 87+31 - STA. 90+23



PARTIAL FINISHED SECTION

STA. 55+99 - STA. 59+94



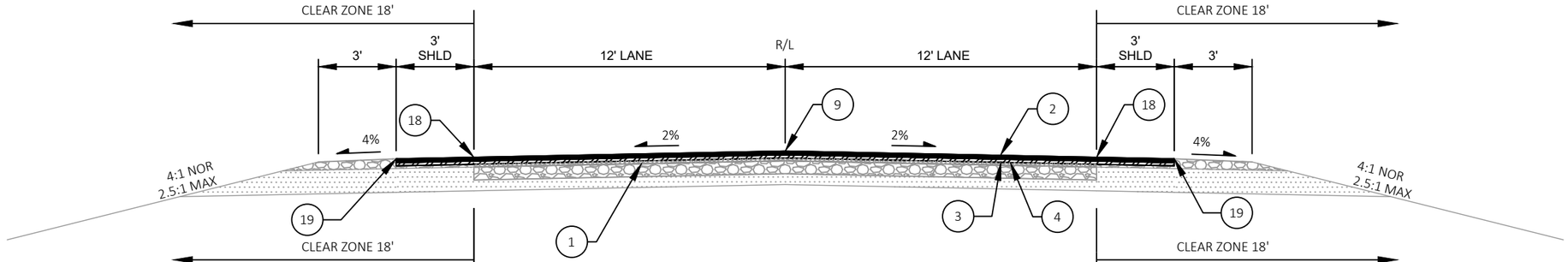
PARTIAL FINISHED SECTION

STA. 77+71 - STA. 80+78

*** HALF POST SPACING REQUIRED:
STA. 79+00 - STA. 79+50

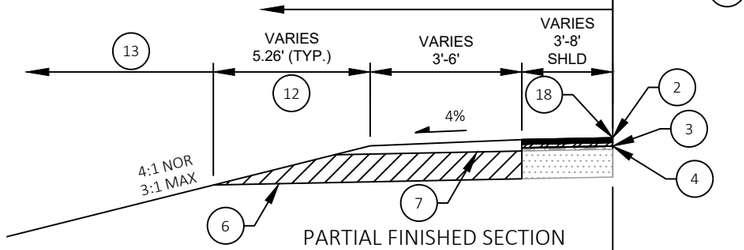
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 16	E

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LAYOUT NAME - 11
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PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



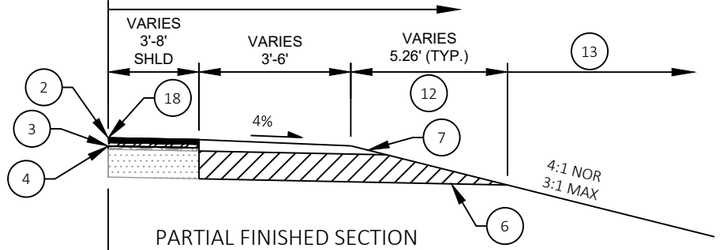
TYPICAL FINISHED SECTION

STA. 122+85 - STA. 296+03



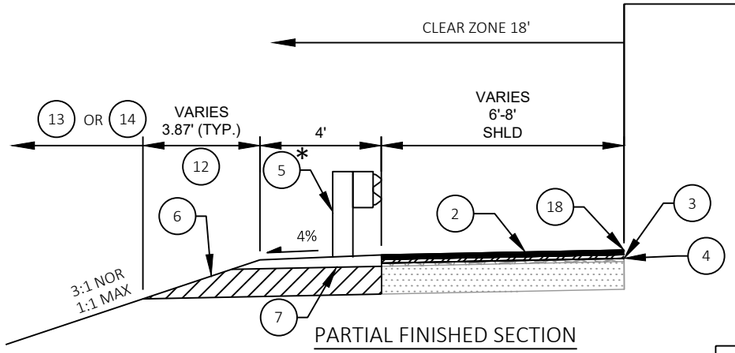
PARTIAL FINISHED SECTION

STA. 182+01 - STA. 183+47
STA. 191+88 - STA. 193+35
STA. 285+44 - STA. 286+90



PARTIAL FINISHED SECTION

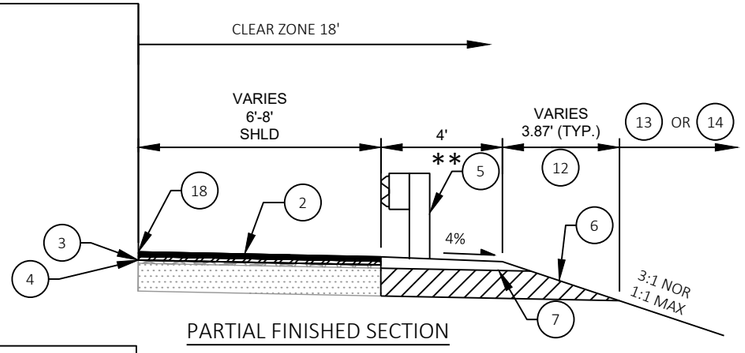
STA. 181+81 - STA. 183+27
STA. 189+77 - STA. 191+23
STA. 284+88 - STA. 286+34
STA. 294+53 - STA. 296+03



PARTIAL FINISHED SECTION

STA. 183+47 - STA. 191+88
STA. 286+90 - STA. 291+78

*HALF POST SPACING REQUIRED:
STA. 187+15 - STA. 188+50
STA. 289+00 - STA. 291+00



PARTIAL FINISHED SECTION

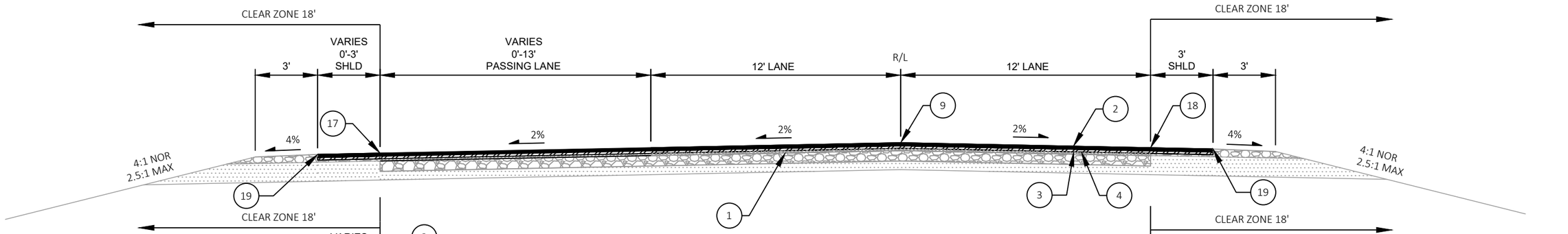
STA. 183+27 - STA. 189+77
STA. 286+34 - STA. 294+53

**HALF POST SPACING REQUIRED:
STA. 187+15 - STA. 187+65
STA. 290+00 -STA. 292+00

14 USED WHERE HALF POST SPACING IS REQUIRED

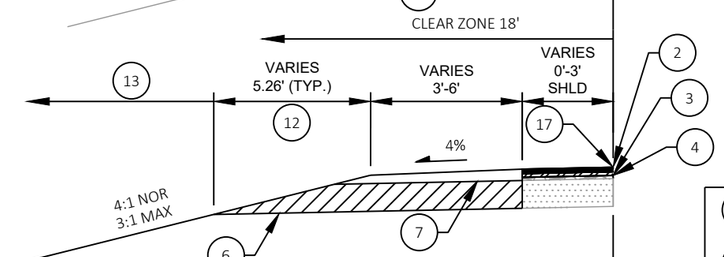
LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	7	BASE AGGREGATE DENSE 3/4-INCH
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
5	MGS GUARDRAIL 3	14	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, SOIL STABILIZER TYPE A, AND EROSION MAT CLASS III TYPE D
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
		19	SHAPING SHOULDERS



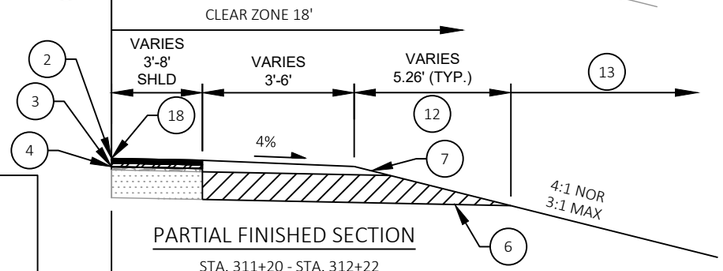
TYPICAL FINISHED SECTION

STA. 296+03 - STA. 391+78



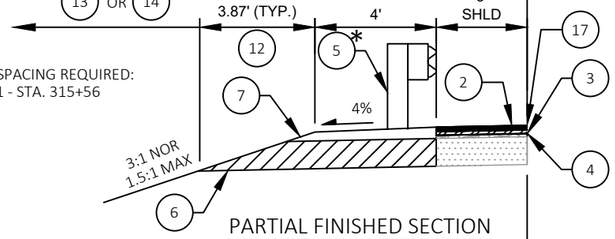
PARTIAL FINISHED SECTION

STA. 312+31 - STA. 313+47
STA. 318+78 - STA. 319+95



PARTIAL FINISHED SECTION

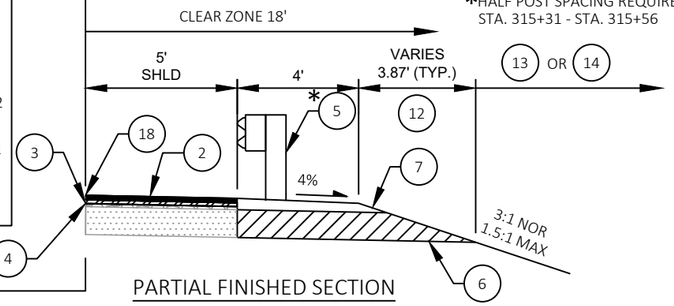
STA. 311+20 - STA. 312+22
STA. 317+53 - STA. 318+57
STA. 344+30 - STA. 345+51
STA. 359+27 - STA. 360+46
STA. 363+40 - STA. 364+59
STA. 380+80 - STA. 382+03



* HALF POST SPACING REQUIRED:
STA. 315+31 - STA. 315+56

PARTIAL FINISHED SECTION

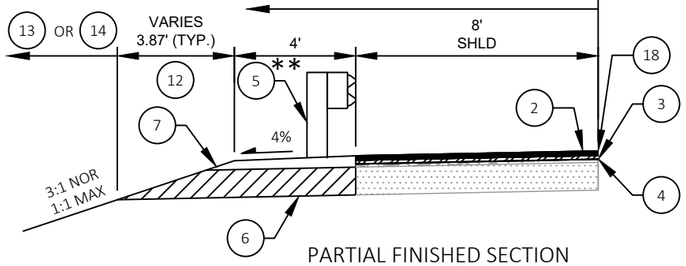
STA. 313+47 - STA. 315+31
STA. 315+57 - STA. 318+78



* HALF POST SPACING REQUIRED:
STA. 315+31 - STA. 315+56

PARTIAL FINISHED SECTION

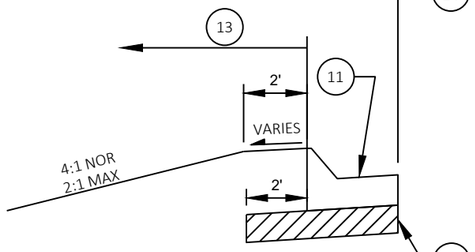
STA. 312+22 - STA. 315+31
STA. 315+57 - STA. 317+53



** HALF POST SPACING REQUIRED:
STA. 375+36 - STA. 389+00

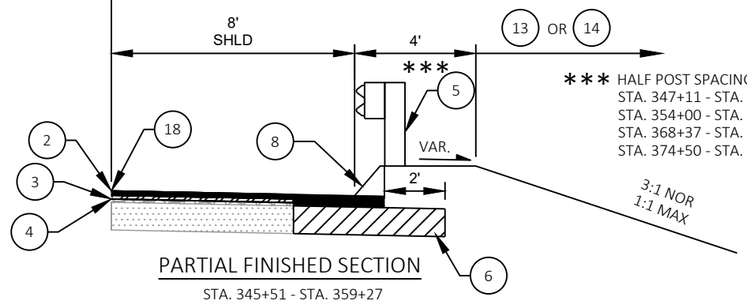
PARTIAL FINISHED SECTION

STA. 375+30 - STA. 391+78



PARTIAL FINISHED SECTION

STA. 357+92 - STA. 365+91



*** HALF POST SPACING REQUIRED:
STA. 347+11 - STA. 347+36
STA. 354+00 - STA. 358+39
STA. 368+37 - STA. 370+50
STA. 374+50 - STA. 379+39

PARTIAL FINISHED SECTION

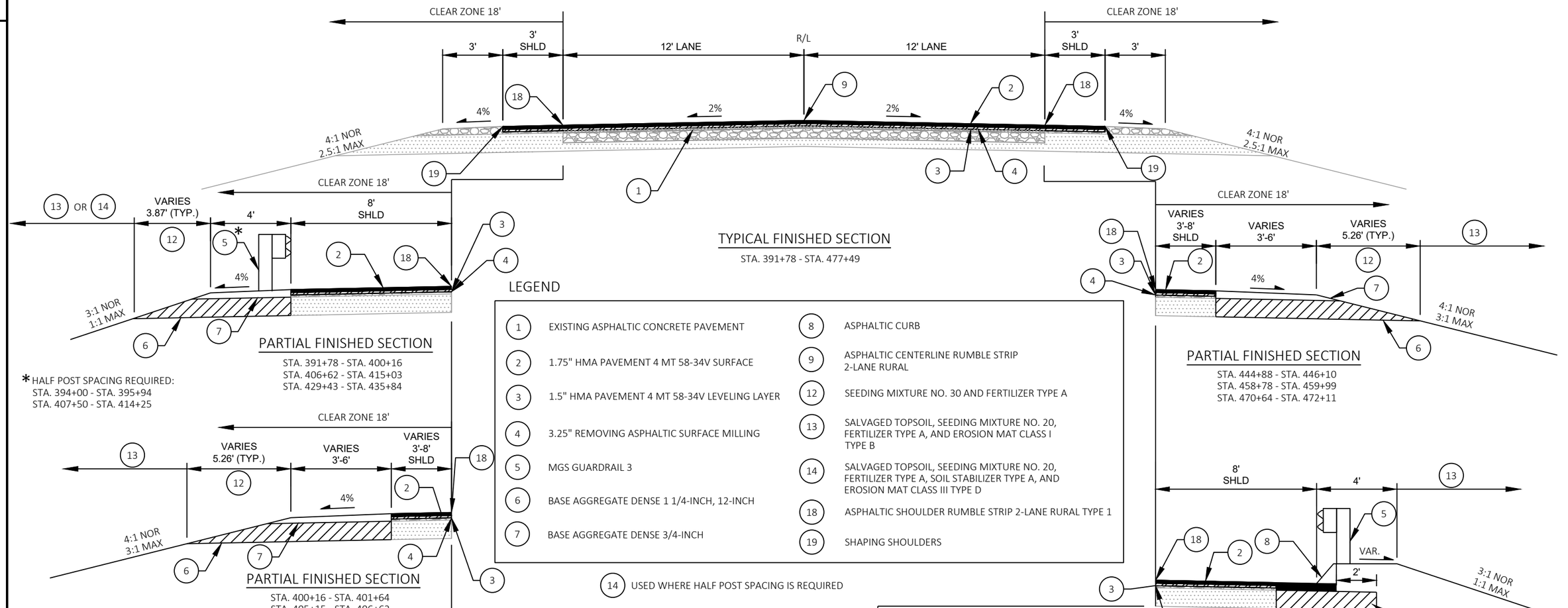
STA. 345+51 - STA. 359+27
STA. 364+59 - STA. 380+80

LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	11	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
5	MGS GUARDRAIL 3	14	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, SOIL STABILIZER TYPE A, AND EROSION MAT CLASS III TYPE D
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	17	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2
7	BASE AGGREGATE DENSE 3/4-INCH	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
8	ASPHALTIC CURB	19	SHAPING SHOULDERS

14 USED WHERE HALF POST SPACING IS REQUIRED

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 18 E



TYPICAL FINISHED SECTION

STA. 391+78 - STA. 477+49

PARTIAL FINISHED SECTION

STA. 391+78 - STA. 400+16
STA. 406+62 - STA. 415+03
STA. 429+43 - STA. 435+84

* HALF POST SPACING REQUIRED:
STA. 394+00 - STA. 395+94
STA. 407+50 - STA. 414+25

PARTIAL FINISHED SECTION

STA. 444+88 - STA. 446+10
STA. 458+78 - STA. 459+99
STA. 470+64 - STA. 472+11

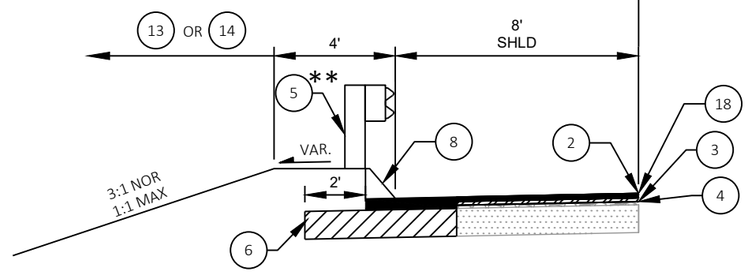
LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER
4	3.25" REMOVING ASPHALTIC SURFACE MILLING
5	MGS GUARDRAIL 3
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH
7	BASE AGGREGATE DENSE 3/4-INCH
8	ASPHALTIC CURB
9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
14	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, SOIL STABILIZER TYPE A, AND EROSION MAT CLASS III TYPE D
18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
19	SHAPING SHOULDERS

14 USED WHERE HALF POST SPACING IS REQUIRED

PARTIAL FINISHED SECTION

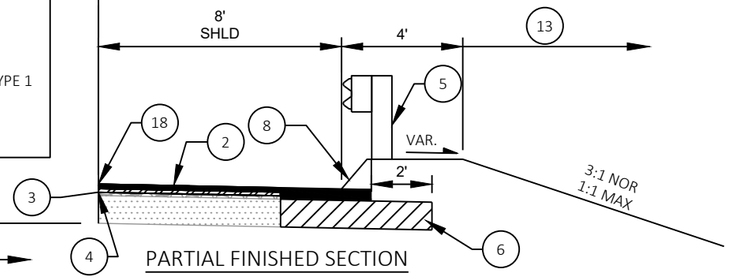
STA. 400+16 - STA. 401+64
STA. 405+15 - STA. 406+62
STA. 415+08 - STA. 415+84



** HALF POST SPACING REQUIRED:
STA. 437+20 - STA. 462+86
STA. 464+33 - STA. 465+82
STA. 472+00 - STA. 477+49

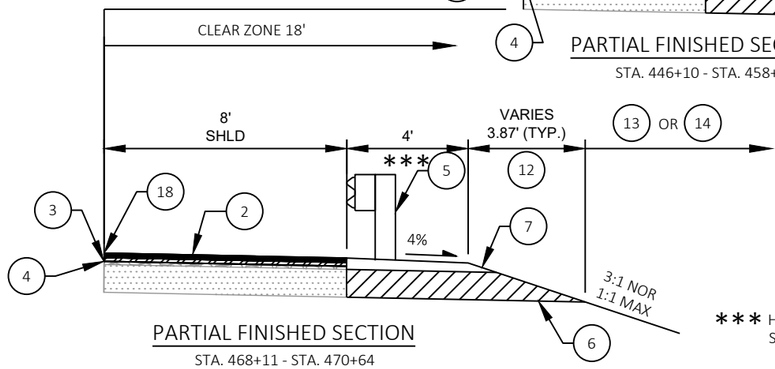
PARTIAL FINISHED SECTION

STA. 437+20 - STA. 463+23
STA. 463+96 - STA. 477+49



PARTIAL FINISHED SECTION

STA. 446+10 - STA. 458+78



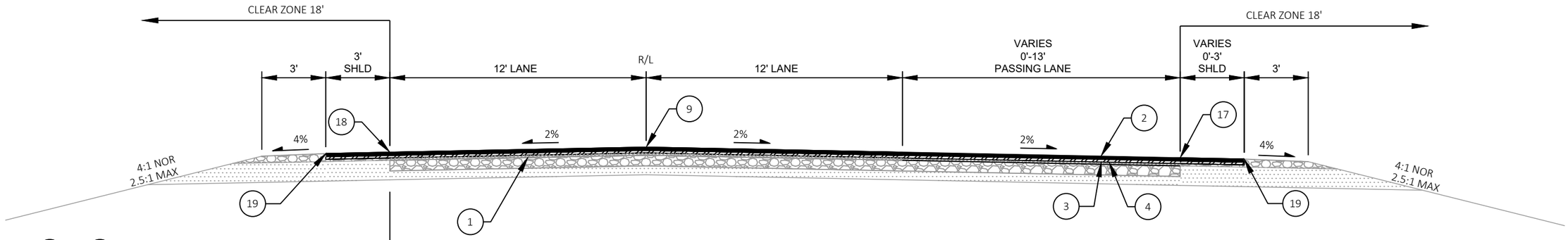
PARTIAL FINISHED SECTION

STA. 468+11 - STA. 470+64

*** HALF POST SPACING REQUIRED:
STA. 469+35 - STA. 469+60

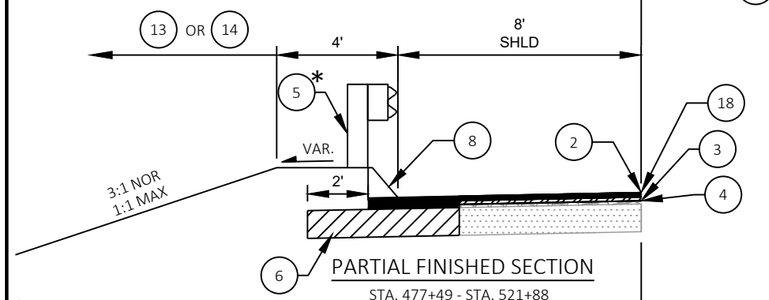
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 19 E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 14
PLOT DATE : 2/18/2021 3:11 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########



TYPICAL FINISHED SECTION

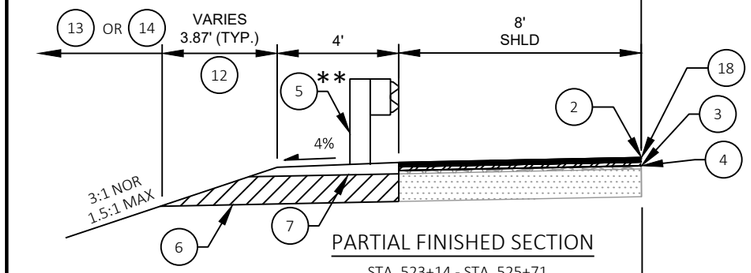
STA. 477+49 - STA. 575+98



PARTIAL FINISHED SECTION

STA. 477+49 - STA. 521+88

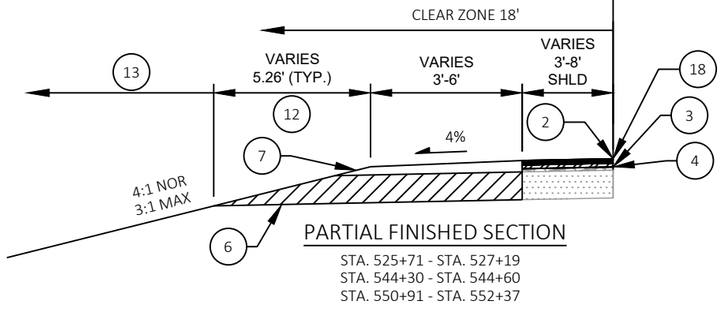
* HALF POST SPACING REQUIRED:
STA. 477+49 - STA. 504+29
STA. 507+50 - STA. 513+50



PARTIAL FINISHED SECTION

STA. 523+14 - STA. 525+71
STA. 544+60 - STA. 550+91

** HALF POST SPACING REQUIRED:
STA. 545+00 - STA. 547+50



PARTIAL FINISHED SECTION

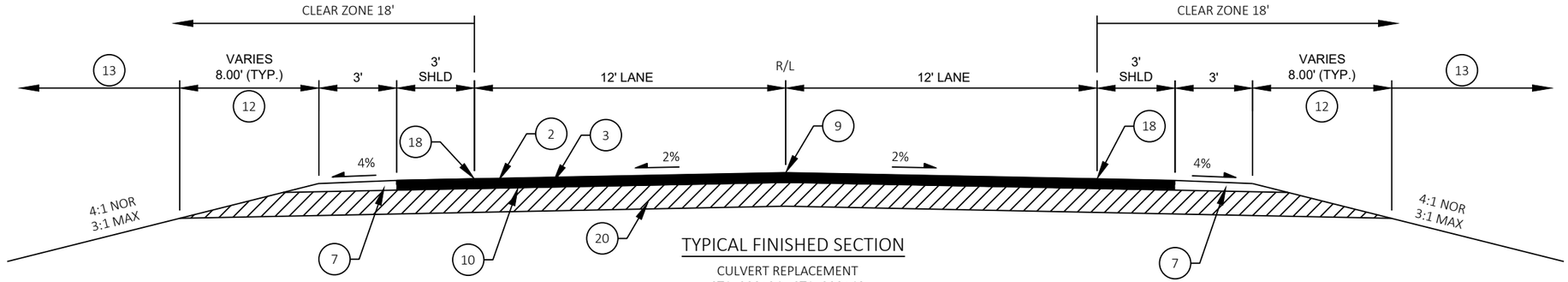
STA. 525+71 - STA. 527+19
STA. 544+30 - STA. 544+60
STA. 550+91 - STA. 552+37

LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	14	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, SOIL STABILIZER TYPE A, AND EROSION MAT CLASS III TYPE D
5	MGS GUARDRAIL 3	17	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
7	BASE AGGREGATE DENSE 3/4-INCH	19	SHAPING SHOULDERS
8	ASPHALTIC CURB		

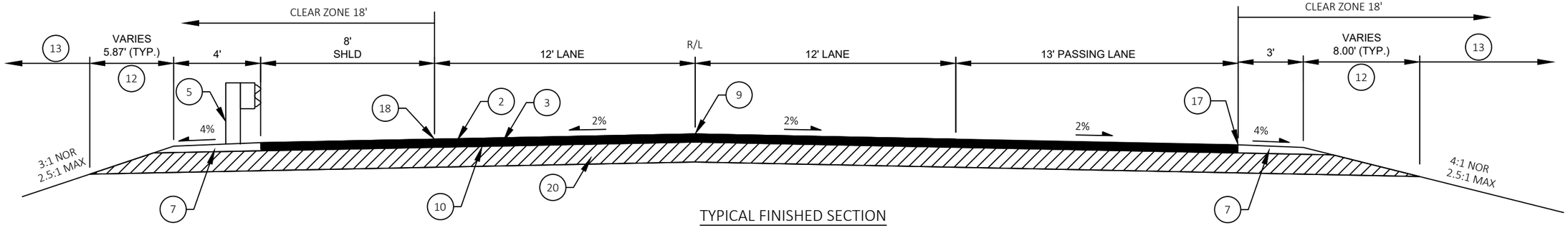
(14) USED WHERE HALF POST SPACING IS REQUIRED

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 20	E



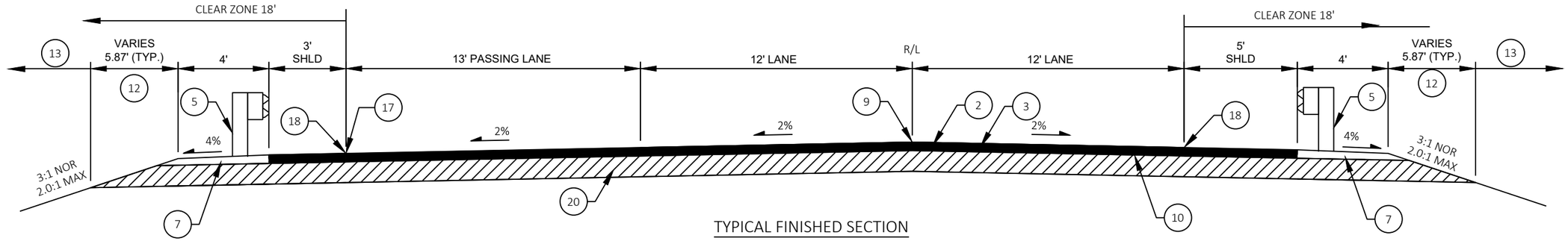
TYPICAL FINISHED SECTION

CULVERT REPLACEMENT
STA. 229+24 - STA. 229+40
STA. 251+21 - STA. 251+37



TYPICAL FINISHED SECTION

CULVERT REPLACEMENT
STA. 549+31 - STA. 549+47

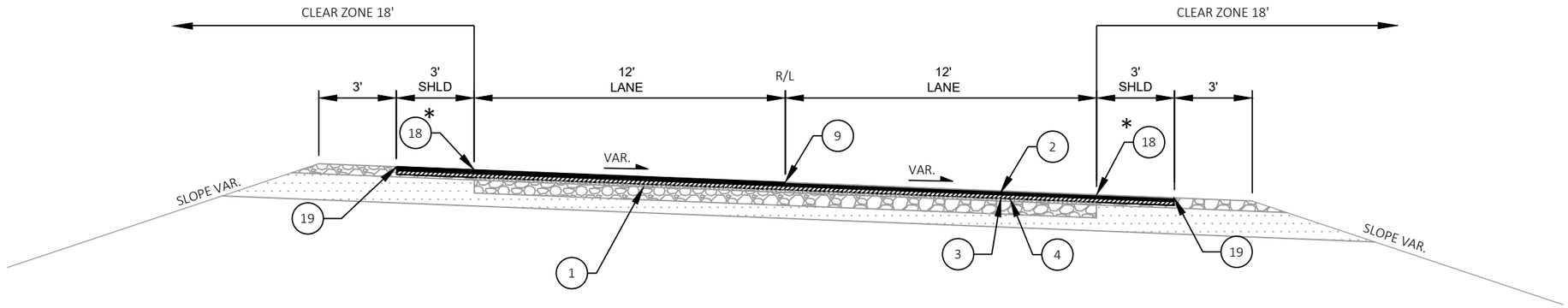


TYPICAL FINISHED SECTION

CULVERT REPLACEMENT
STA. 315+31- STA. 315+57

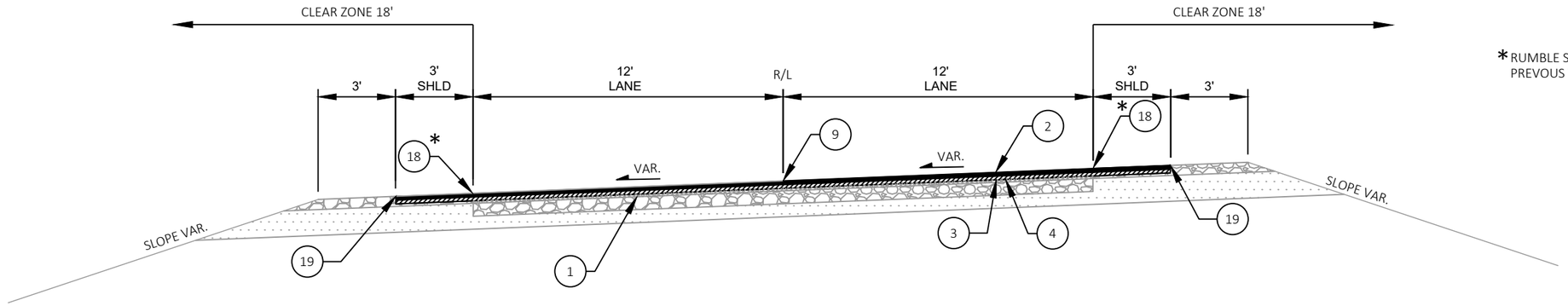
LEGEND

2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER
5	MGS GUARDRAIL 3
7	BASE AGGREGATE DENSE 3/4-INCH
9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
10	3.25" ASPHALTIC SURFACE LOWER LAYER
12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
17	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2
18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1
20	BASE AGGREGATE DENSE 1 1/4-INCH, 17-INCH



TYPICAL FINISHED SECTION

SUPERELEVATED



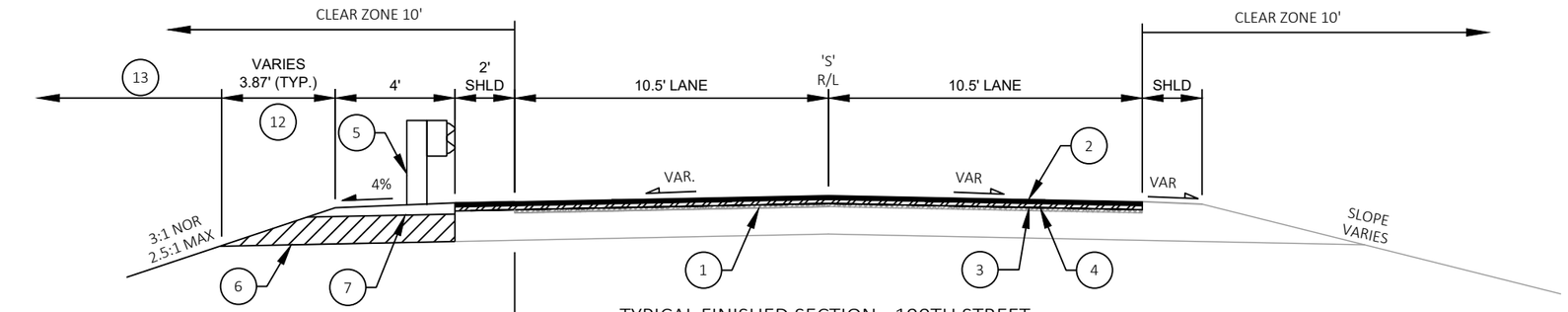
*RUMBLE STRIP TYPE DEPENDS ON STATION. SEE PREVOUS TYPICAL SECTIONS FOR INFORMATION

TYPICAL FINISHED SECTION

SUPERELEVATED

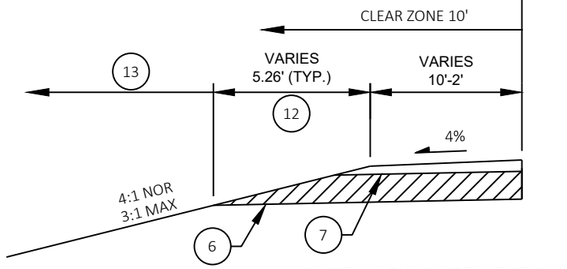
LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER
4	3.25" REMOVING ASPHALTIC SURFACE MILLING
9	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
18	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
19	SHAPING SHOULDERS



TYPICAL FINISHED SECTION - 190TH STREET

STA. 0+20'S' - STA. 1+67'S'

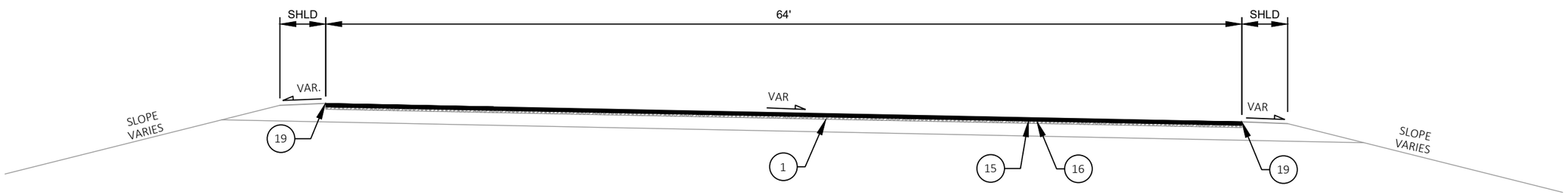


PARTIAL FINISHED SECTION

STA. 1+67 - STA. 3+06

LEGEND

1	EXISTING ASPHALTIC CONCRETE PAVEMENT	7	BASE AGGREGATE DENSE 3/4-INCH
2	1.75" HMA PAVEMENT 4 MT 58-34V SURFACE	12	SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE A
3	1.5" HMA PAVEMENT 4 MT 58-34V LEVELING LAYER	13	SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE A, AND EROSION MAT CLASS I TYPE B
4	3.25" REMOVING ASPHALTIC SURFACE MILLING	15	2" REMOVING ASPHALTIC SURFACE MILLING
5	MGS GUARDRAIL 3	16	2" HMA PAVEMENT 4 MT 58-34V SURFACE
6	BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH	19	SHAPING SHOULDERS

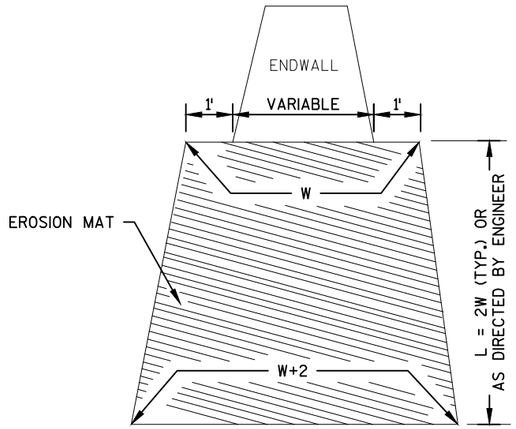


TYPICAL FINISHED SECTION - PARK & RIDE

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN: TYPICAL SECTIONS	SHEET 23	E

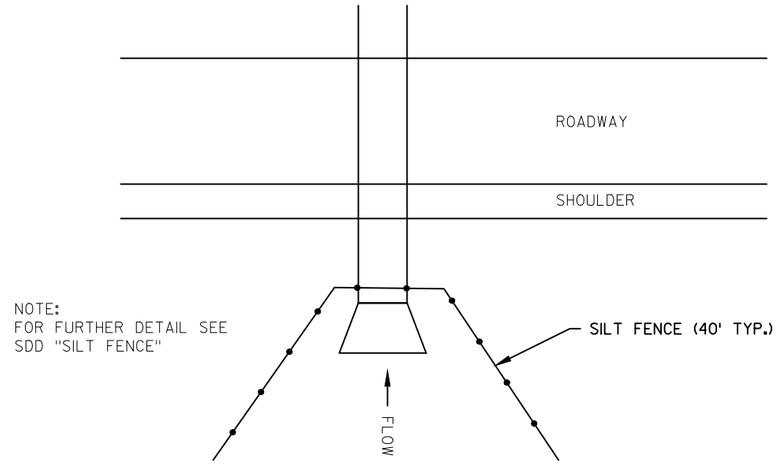
FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 18

PLOT DATE : 2/18/2021 3:11 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : #########



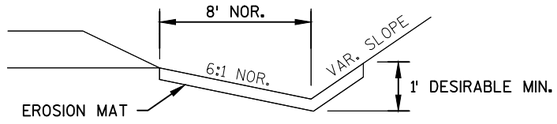
EROSION MAT TREATMENT AT ENDWALLS

(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)



TYPICAL SILT FENCE DETAIL AT PIPE INLET

(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)

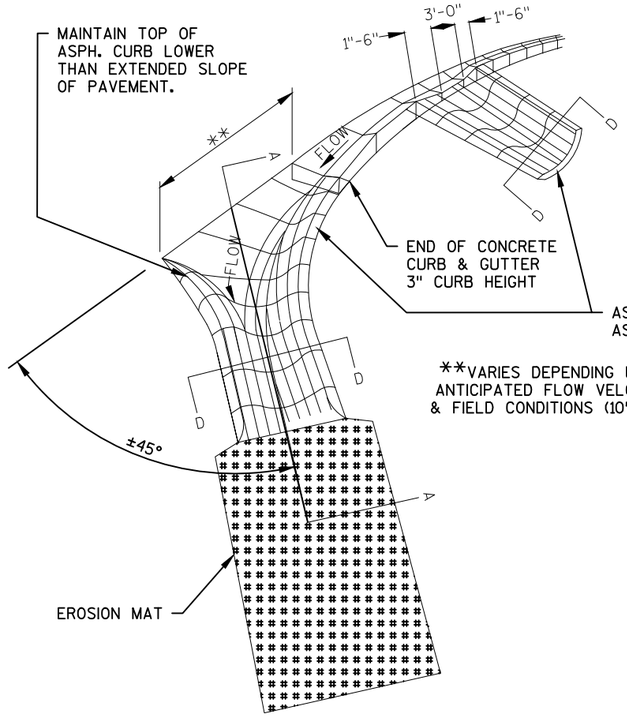


EROSION MAT DETAIL FOR DITCHES

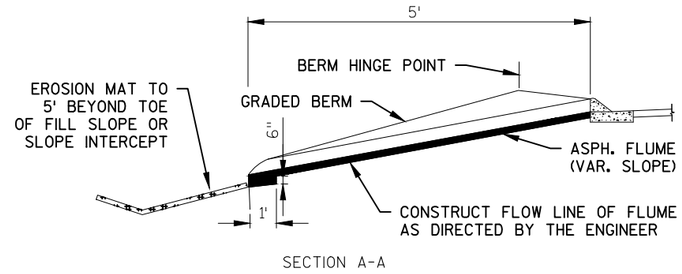
(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)

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

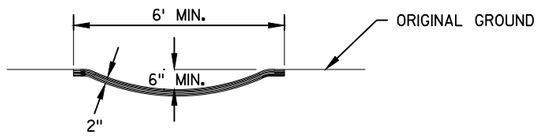
TOTAL PROJECT AREA = 269.09 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 58.25 ACRES



**VARIES DEPENDING UPON ANTICIPATED FLOW VELOCITY & FIELD CONDITIONS (10' MIN.)



SECTION A-A

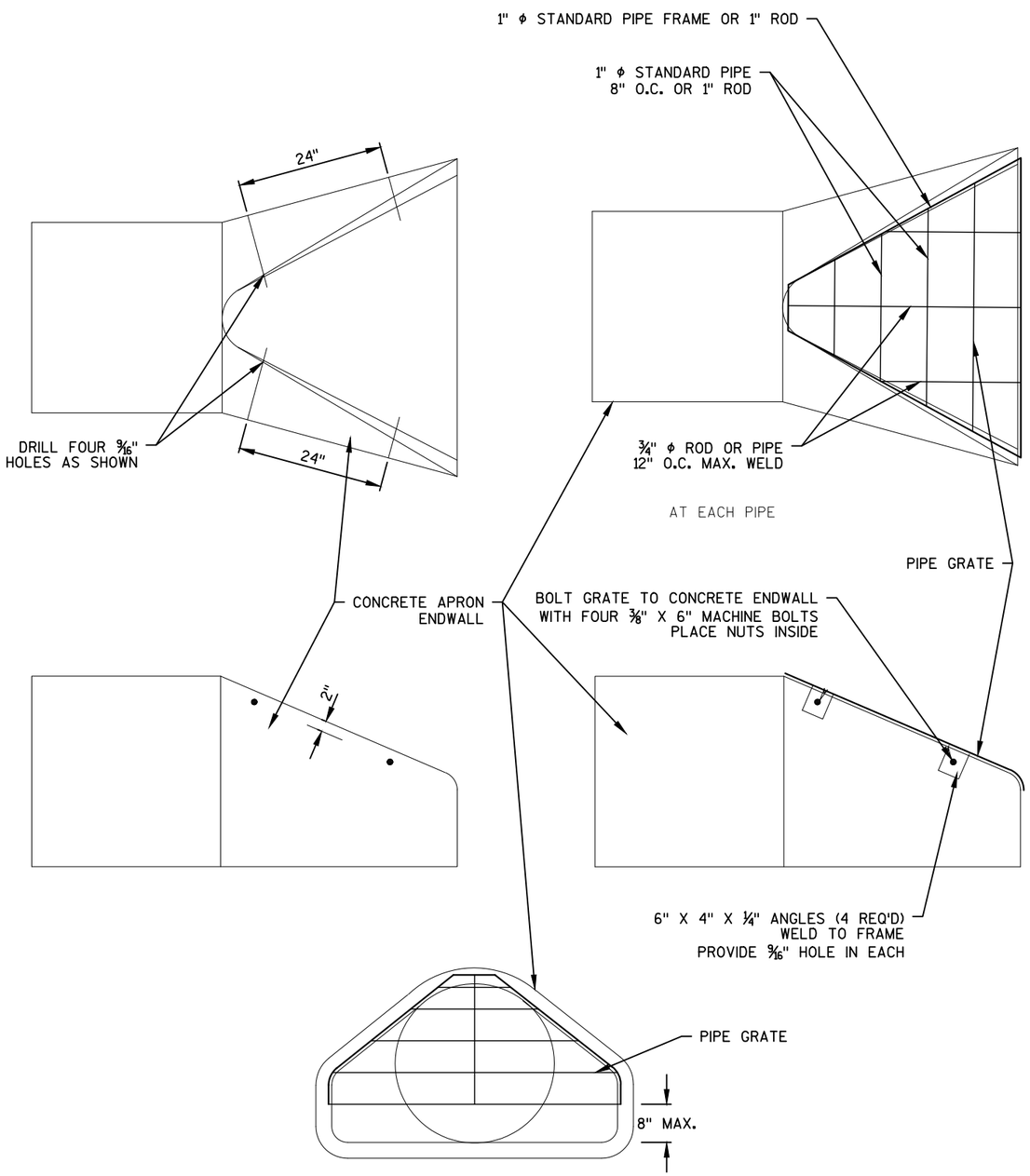


SECTION D-D

ASPHALTIC FLUME DETAIL

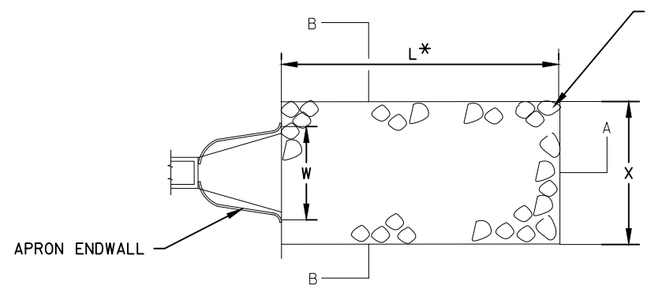
SEE MISCELLANEOUS QUANTITY SHEETS AND PLAN DETAIL SHEETS FOR LOCATIONS.

SEE SDD "CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES" FOR DETAILS NOT SHOWN.

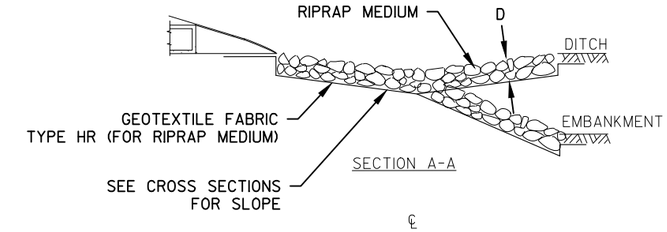


PIPE GRATE DETAIL

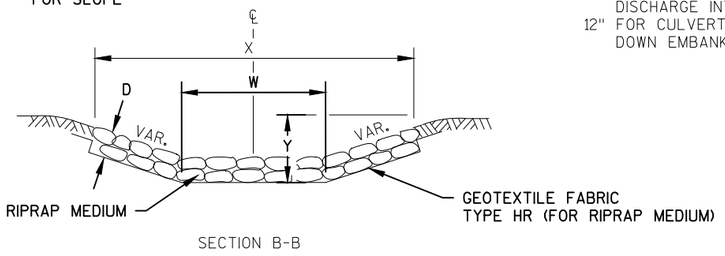
(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)



PLAN VIEW



SECTION A-A



SECTION B-B

L^* = 3 x W (NOR.) OR 10' MIN. OR AS INDICATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

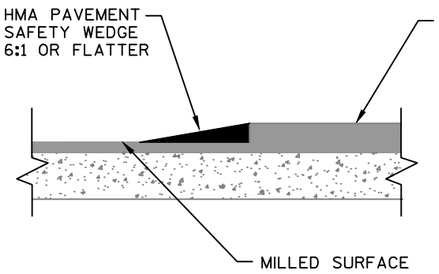
D = 18" FOR RIPRAP MEDIUM

X = W+2' FOR TYPICAL CULVERT DISCHARGE INTO DITCH
W+5' FOR CULVERT DISCHARGE DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE DOWN EMBANKMENT SLOPE

RIPRAP MEDIUM AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS

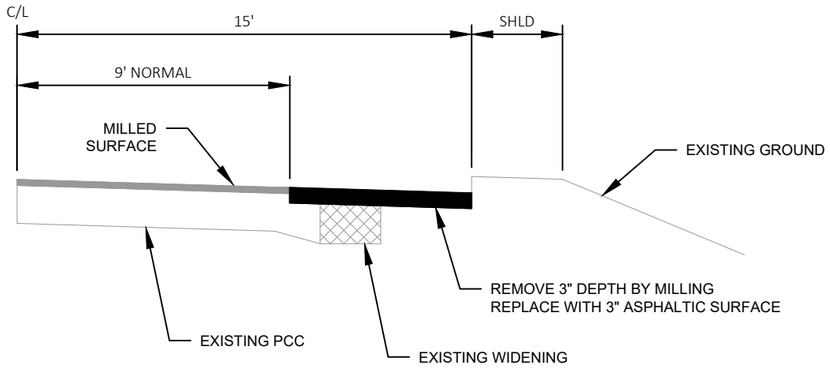
(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)



NOTE:
SAFETY WEDGE PAID FOR AS HMA PAVEMENT ASPHALTIC SURFACE. REMOVED AS "MILLING AND REMOVING TEMPORARY JOINT."

HMA PAVEMENT SAFETY WEDGE

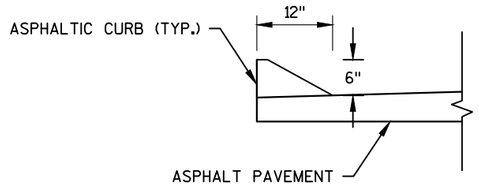
NOTE:
HMA PAVEMENT SAFETY WEDGE TO BE PLACED WHEN UNABLE TO MILL EXISTING PAVEMENT AND PAVE LOWER LAYER OF HMA PAVEMENT ON THE SAME DAY AND DROP OFF BETWEEN LAYERS EXCEEDS 2".



NOTE: THESE MILLED AREAS MUST BE REPAVED ON THE SAME DAY AS REMOVED/MILLED.
THE ASPHALTIC SURFACE MAY BE PLACED IN ONE LAYER.

USH 10 HMA LANE REPAIR DETAIL

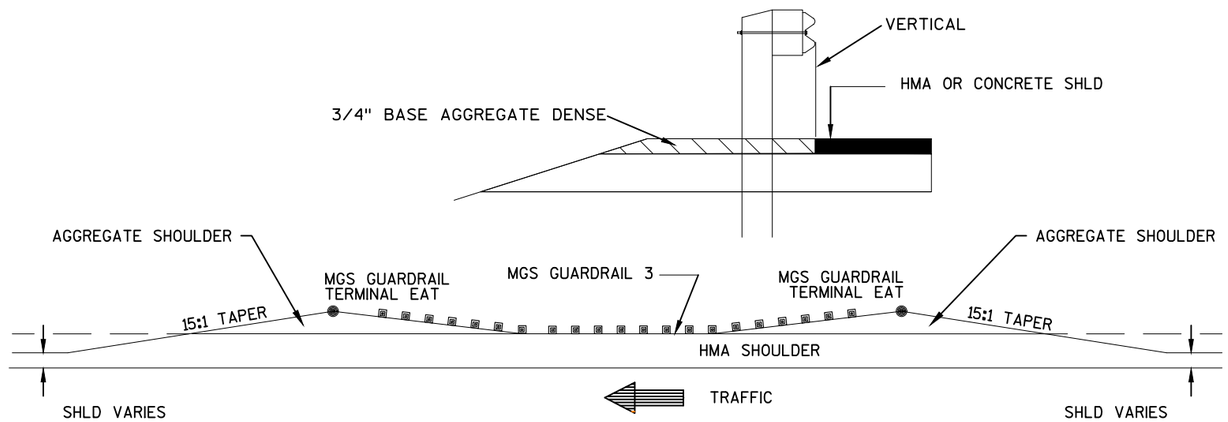
TO BE COMPLETED AFTER 3.25" MILLING
(SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS)



ASPHALTIC CURB

(SEE PLAN DETAILS FOR LOCATIONS)

2

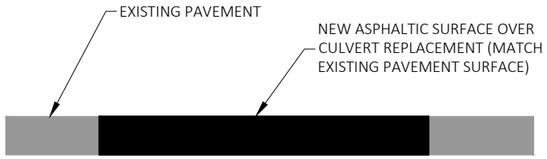


DETAIL FOR ASPHALTIC OR CONCRETE SHOULDER AT BEAM GUARD

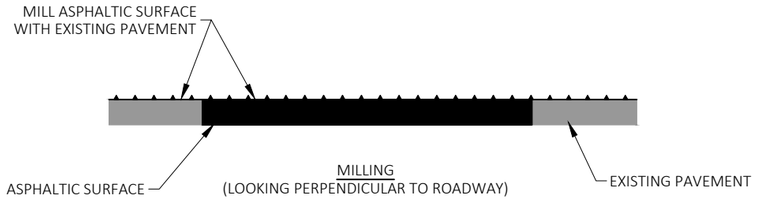
(SEE PLAN DETAIL SHEETS FOR LOCATIONS)

SEE S.D.D. "MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL",
"MIDWEST GUARDRAIL SYSTEM (MGS) ENERGY ABSORBING TERMINAL",
"MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION",
"MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL"
FOR DETAILS NOT SHOWN.

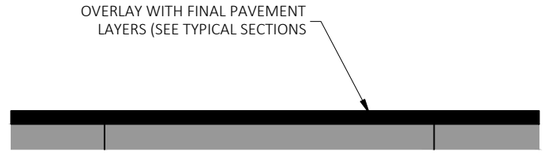
2



CULVERT REPLACEMENT
(LOOKING PERPENDICULAR TO ROADWAY)



MILLING
(LOOKING PERPENDICULAR TO ROADWAY)

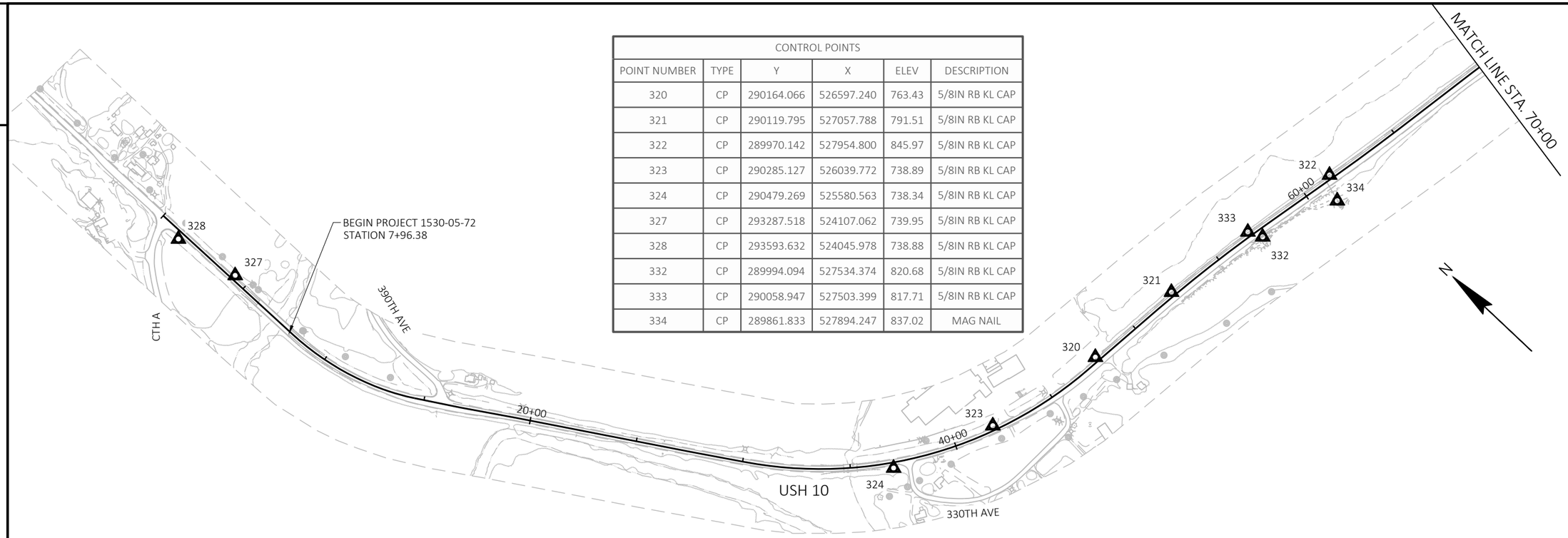


OVERLAY
(LOOKING PERPENDICULAR TO ROADWAY)

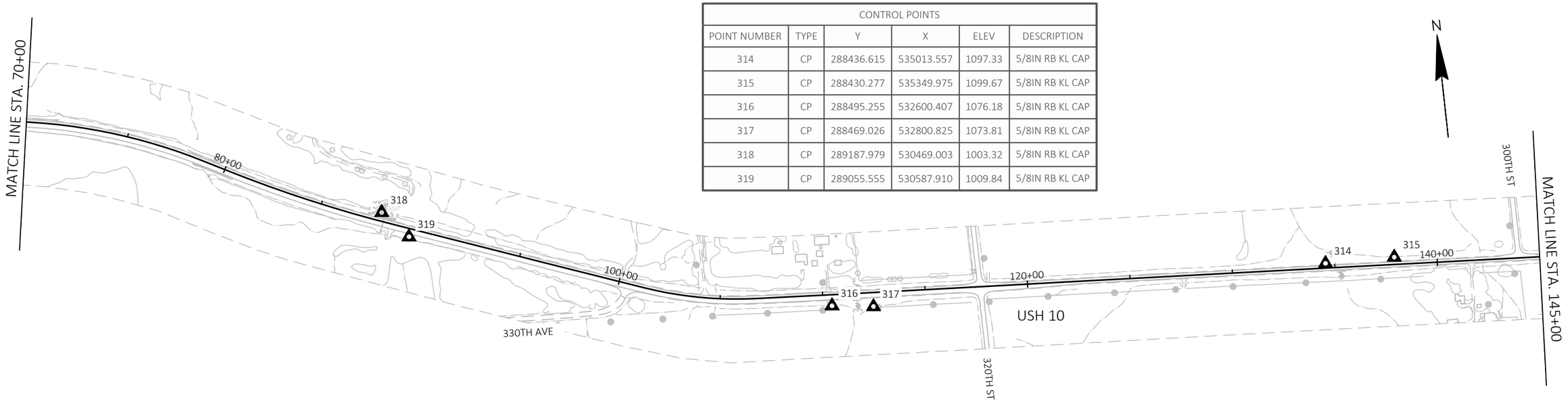
CULVERT REPLACEMENT PAVEMENT DETAIL

SEE TYPICAL SECTIONS AND PLAN DETAILS FOR LOCATIONS

CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
320	CP	290164.066	526597.240	763.43	5/8IN RB KL CAP
321	CP	290119.795	527057.788	791.51	5/8IN RB KL CAP
322	CP	289970.142	527954.800	845.97	5/8IN RB KL CAP
323	CP	290285.127	526039.772	738.89	5/8IN RB KL CAP
324	CP	290479.269	525580.563	738.34	5/8IN RB KL CAP
327	CP	293287.518	524107.062	739.95	5/8IN RB KL CAP
328	CP	293593.632	524045.978	738.88	5/8IN RB KL CAP
332	CP	289994.094	527534.374	820.68	5/8IN RB KL CAP
333	CP	290058.947	527503.399	817.71	5/8IN RB KL CAP
334	CP	289861.833	527894.247	837.02	MAG NAIL

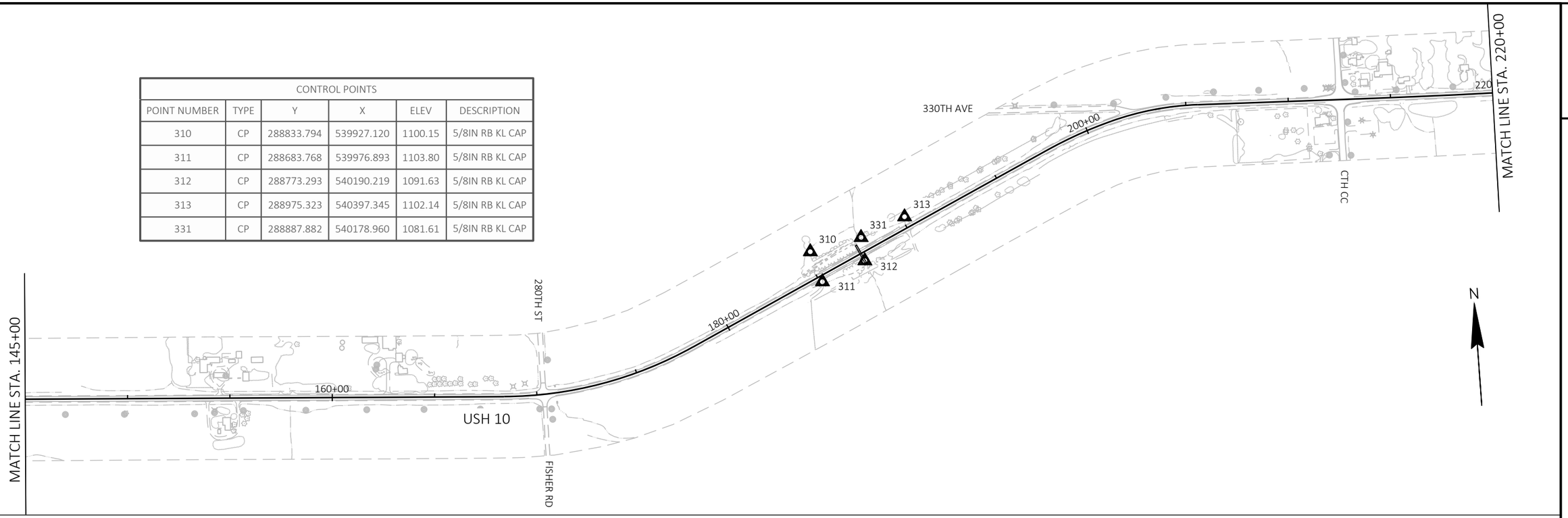


CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
314	CP	288436.615	535013.557	1097.33	5/8IN RB KL CAP
315	CP	288430.277	535349.975	1099.67	5/8IN RB KL CAP
316	CP	288495.255	532600.407	1076.18	5/8IN RB KL CAP
317	CP	288469.026	532800.825	1073.81	5/8IN RB KL CAP
318	CP	289187.979	530469.003	1003.32	5/8IN RB KL CAP
319	CP	289055.555	530587.910	1009.84	5/8IN RB KL CAP



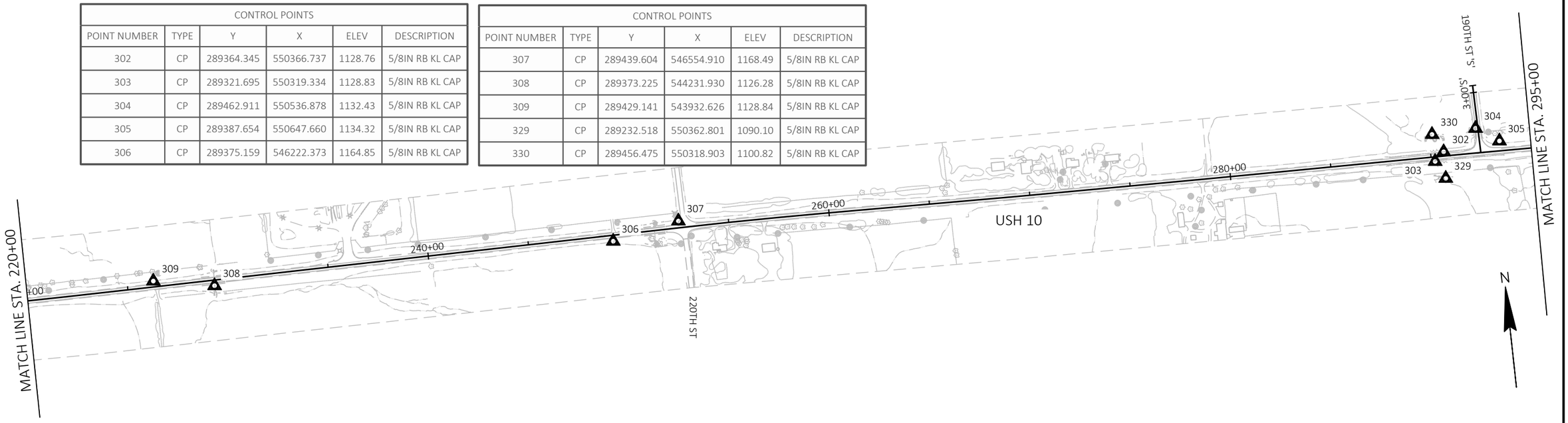
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	BENCHMARKS AND CONTROL POINTS	SHEET 29	E

CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
310	CP	288833.794	539927.120	1100.15	5/8IN RB KL CAP
311	CP	288683.768	539976.893	1103.80	5/8IN RB KL CAP
312	CP	288773.293	540190.219	1091.63	5/8IN RB KL CAP
313	CP	288975.323	540397.345	1102.14	5/8IN RB KL CAP
331	CP	288887.882	540178.960	1081.61	5/8IN RB KL CAP



CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
302	CP	289364.345	550366.737	1128.76	5/8IN RB KL CAP
303	CP	289321.695	550319.334	1128.83	5/8IN RB KL CAP
304	CP	289462.911	550536.878	1132.43	5/8IN RB KL CAP
305	CP	289387.654	550647.660	1134.32	5/8IN RB KL CAP
306	CP	289375.159	546222.373	1164.85	5/8IN RB KL CAP

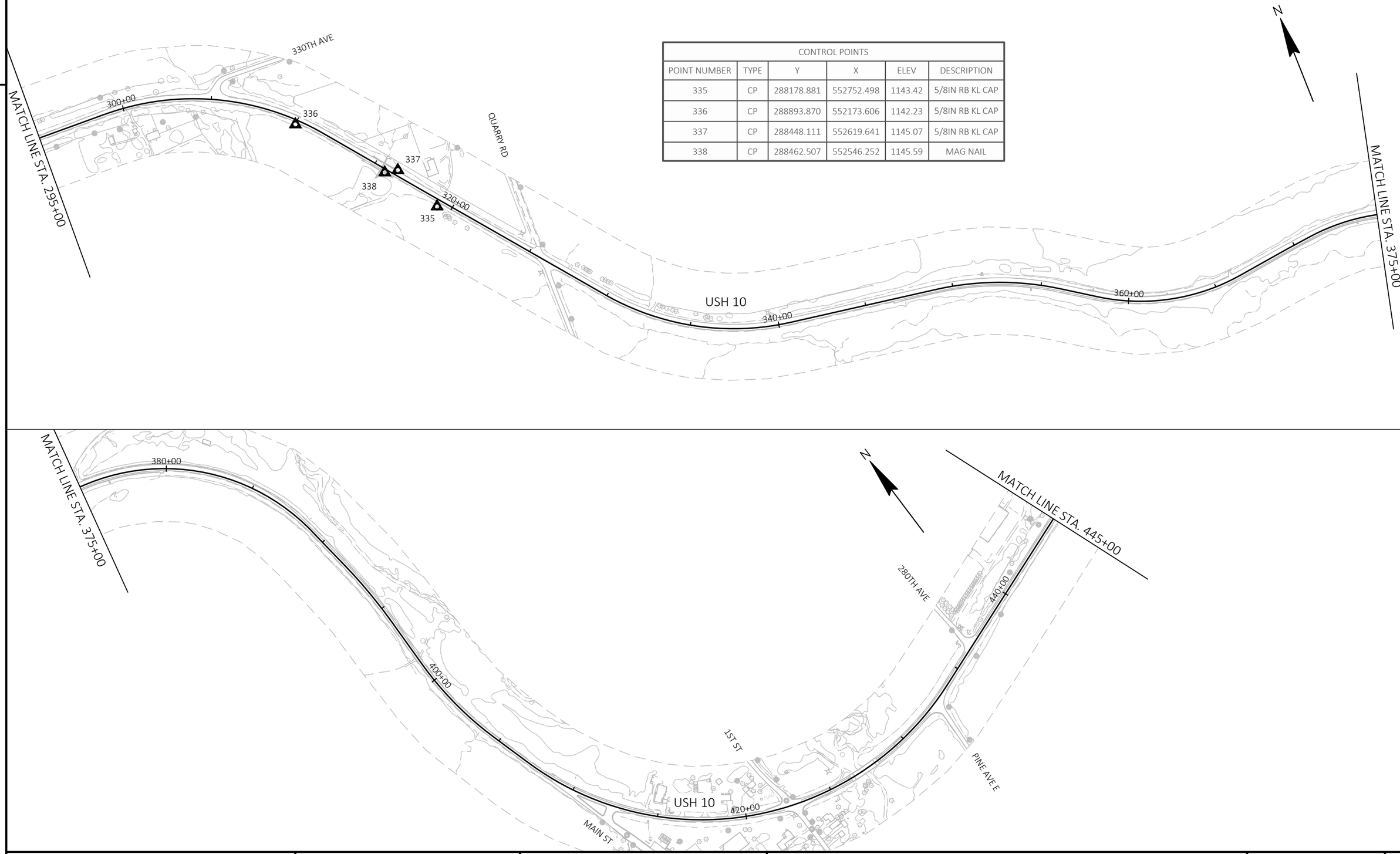
CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
307	CP	289439.604	546554.910	1168.49	5/8IN RB KL CAP
308	CP	289373.225	544231.930	1126.28	5/8IN RB KL CAP
309	CP	289429.141	543932.626	1128.84	5/8IN RB KL CAP
329	CP	289232.518	550362.801	1090.10	5/8IN RB KL CAP
330	CP	289456.475	550318.903	1100.82	5/8IN RB KL CAP



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	BENCHMARKS AND CONTROL POINTS	SHEET 30	E

2

CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
335	CP	288178.881	552752.498	1143.42	5/8IN RB KL CAP
336	CP	288893.870	552173.606	1142.23	5/8IN RB KL CAP
337	CP	288448.111	552619.641	1145.07	5/8IN RB KL CAP
338	CP	288462.507	552546.252	1145.59	MAG NAIL

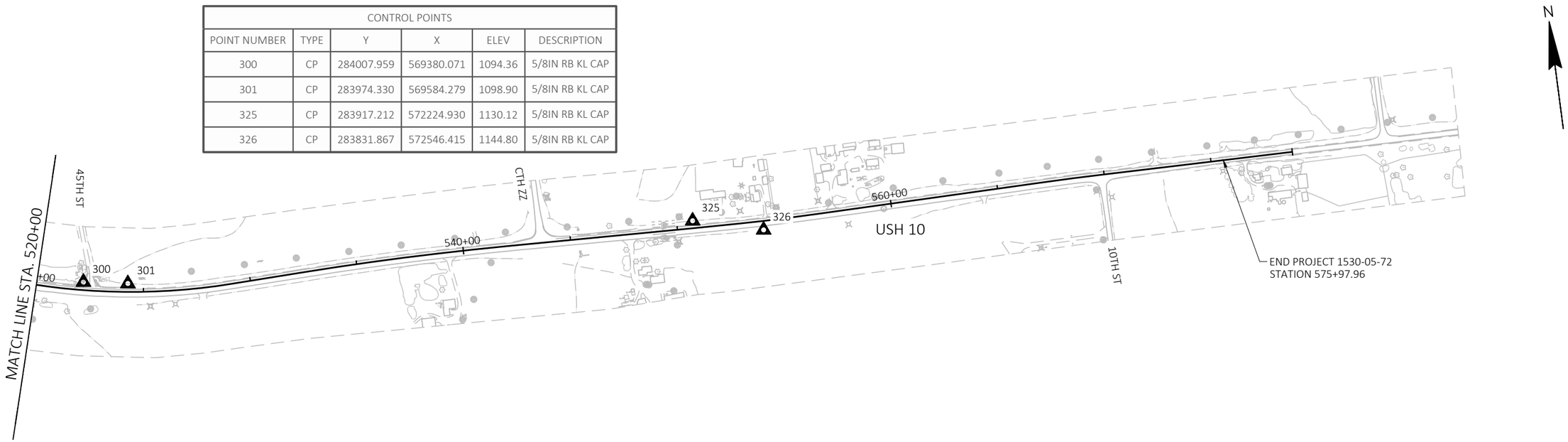


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	BENCHMARKS AND CONTROL POINTS	SHEET 31	E



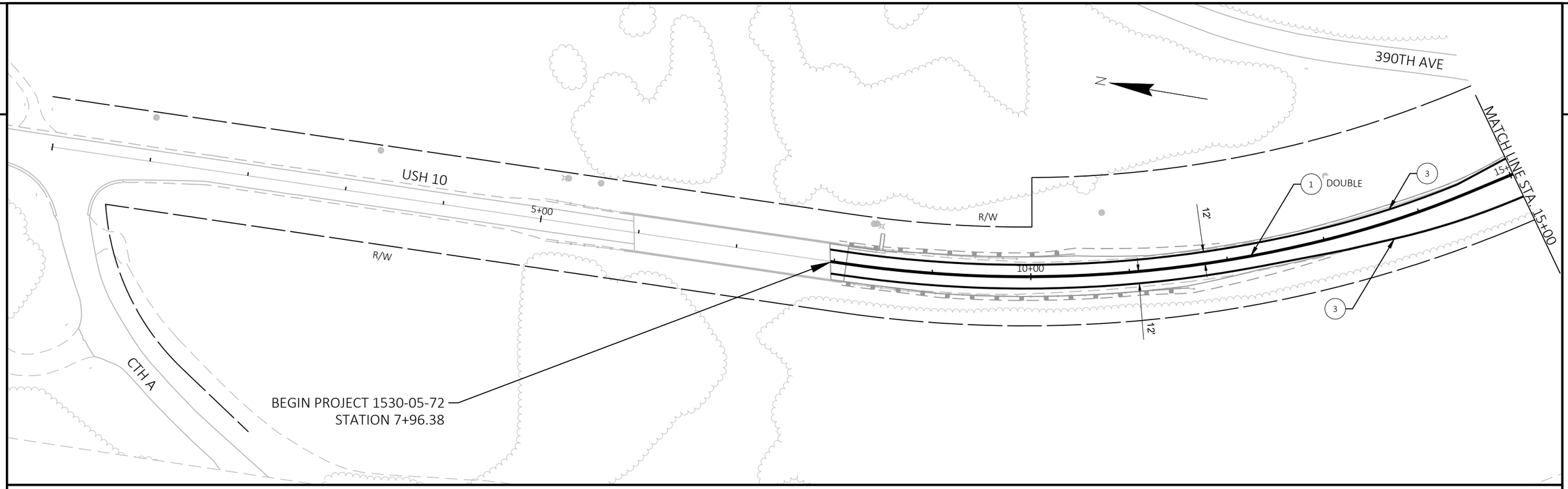
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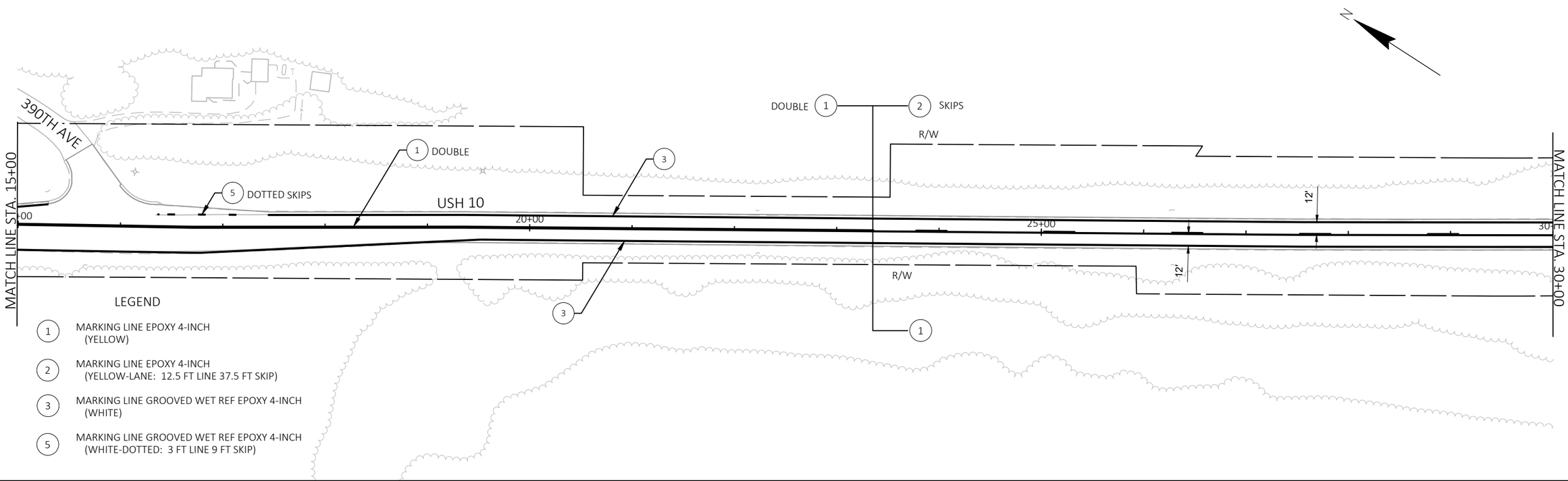
CONTROL POINTS					
POINT NUMBER	TYPE	Y	X	ELEV	DESCRIPTION
300	CP	284007.959	569380.071	1094.36	5/8IN RB KL CAP
301	CP	283974.330	569584.279	1098.90	5/8IN RB KL CAP
325	CP	283917.212	572224.930	1130.12	5/8IN RB KL CAP
326	CP	283831.867	572546.415	1144.80	5/8IN RB KL CAP



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	BENCHMARKS AND CONTROL POINTS	SHEET 32	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021002_CP.DWG
LAYOUT NAME - 4
PLOT DATE : 2/1/2021 2:40 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42



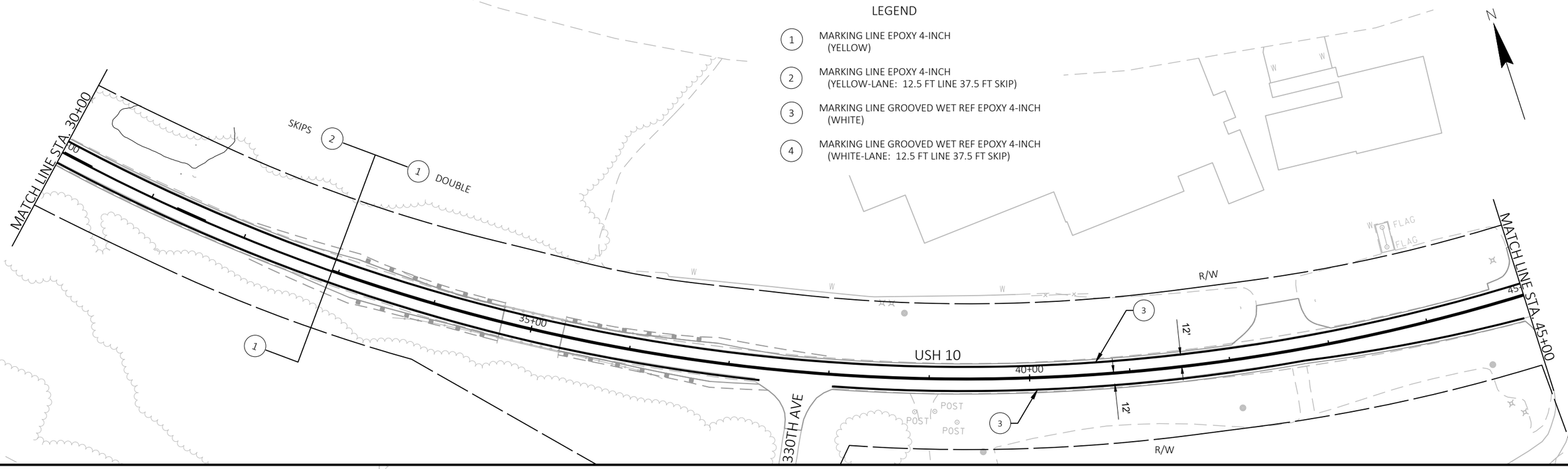


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 33	E

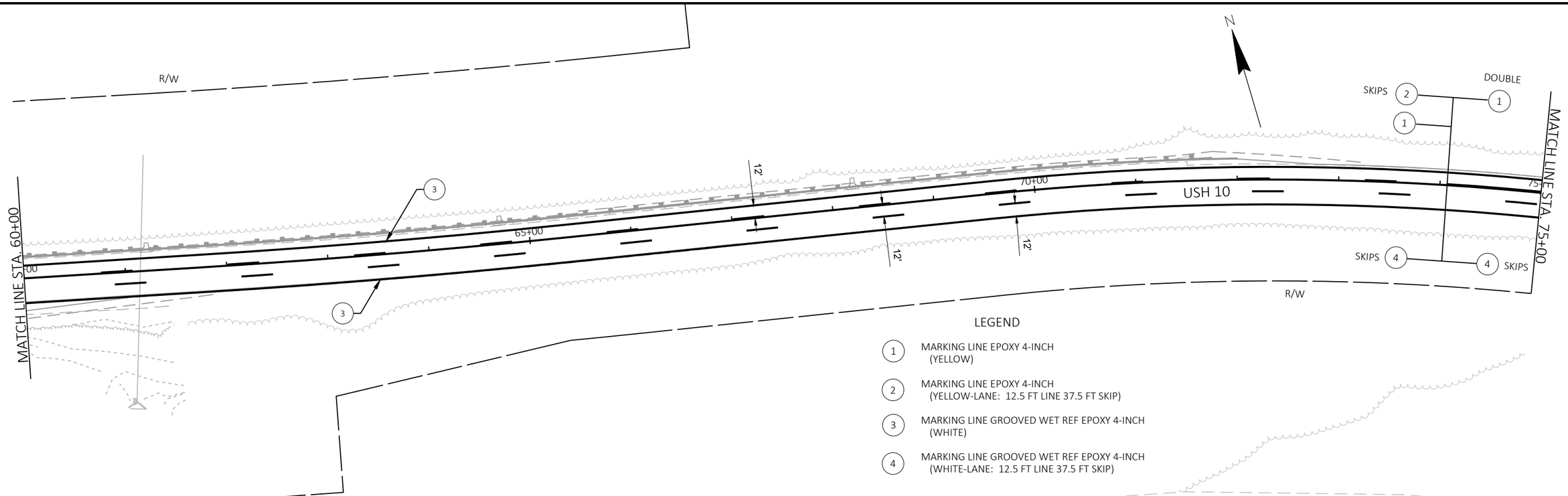
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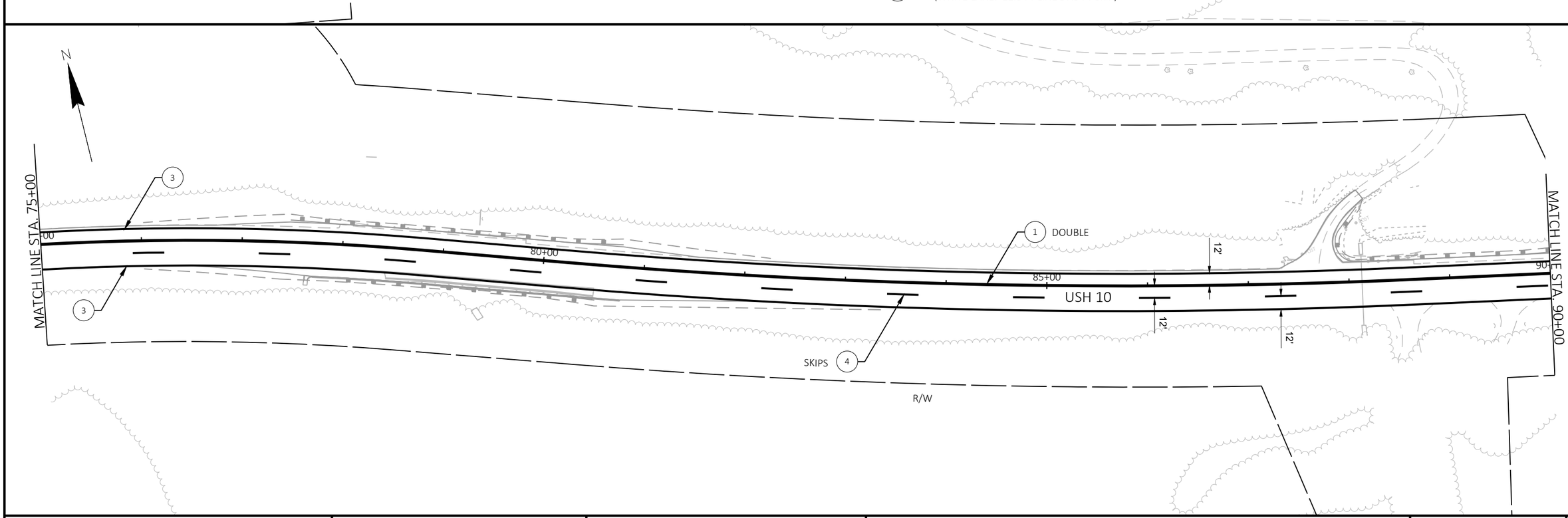
LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW-LANE: 12.5 FT LINE 37.5 FT SKIP)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
4. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 34	E





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 35	E

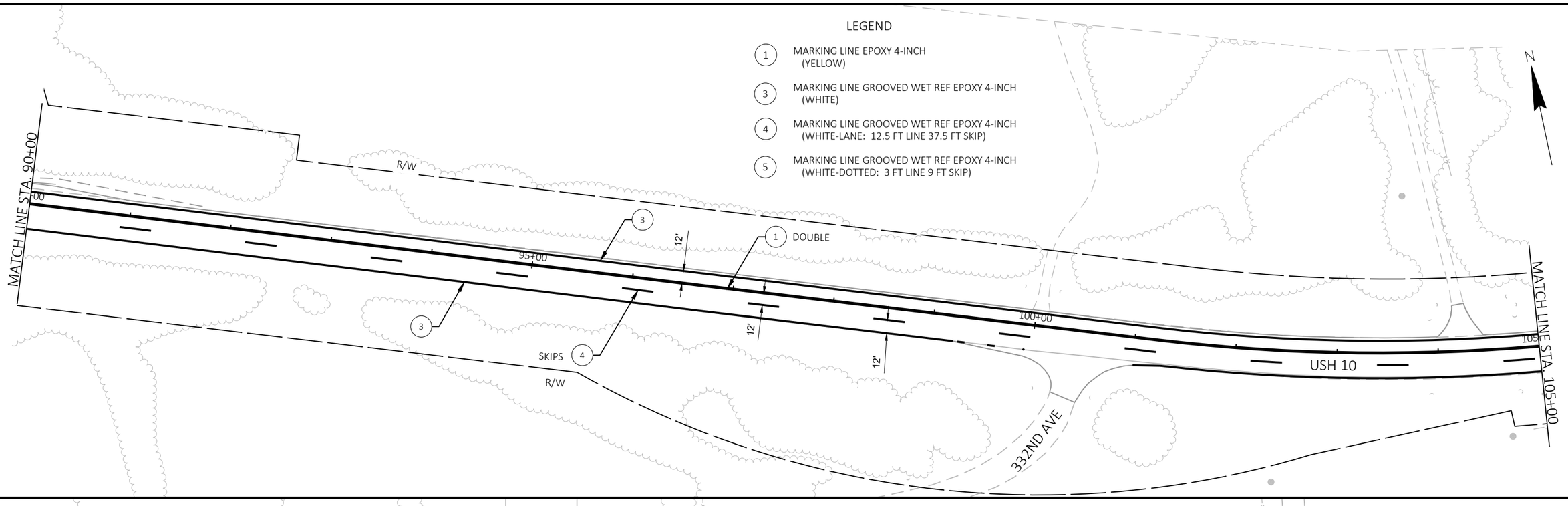
FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 2/26/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

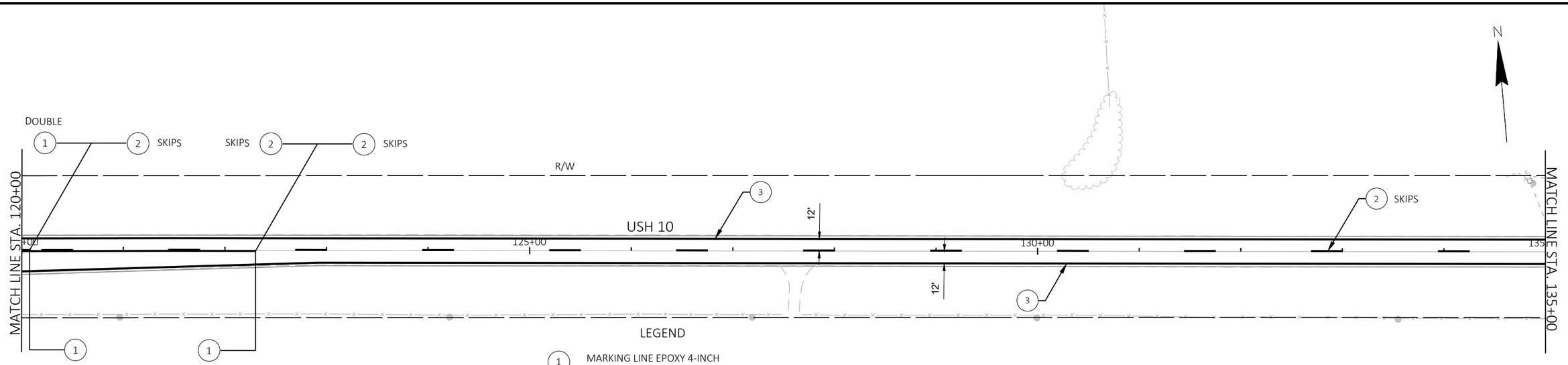
1. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
4. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 36	E

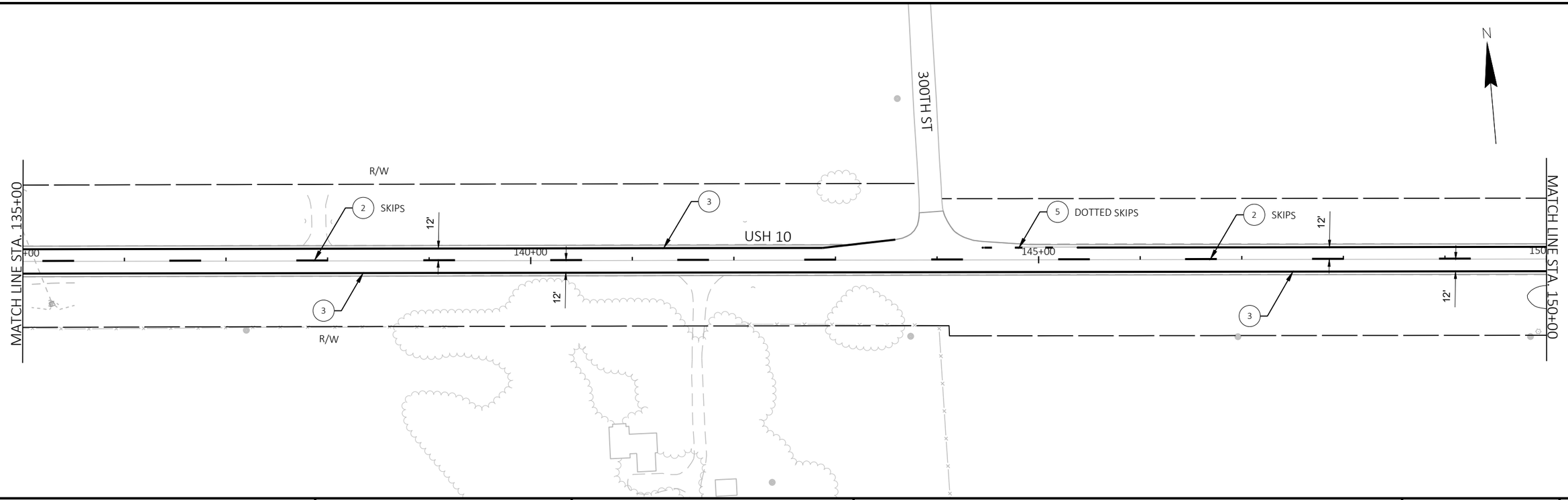
FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (4)

PLOT DATE : 2/26/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW-LANE: 12.5 FT LINE 37.5 FT SKIP)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
5. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)

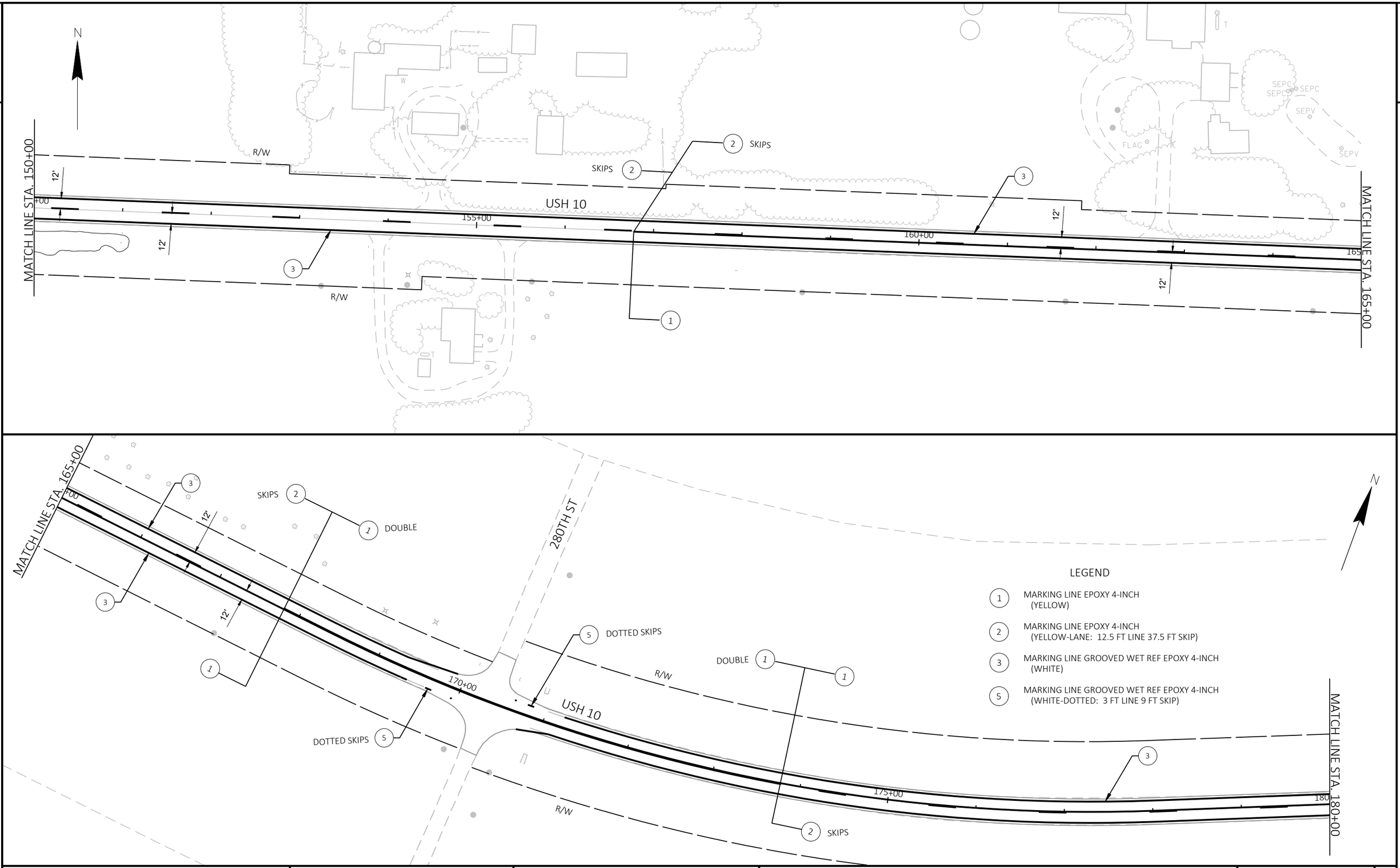


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 37	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (5)

PLOT DATE : 2/26/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

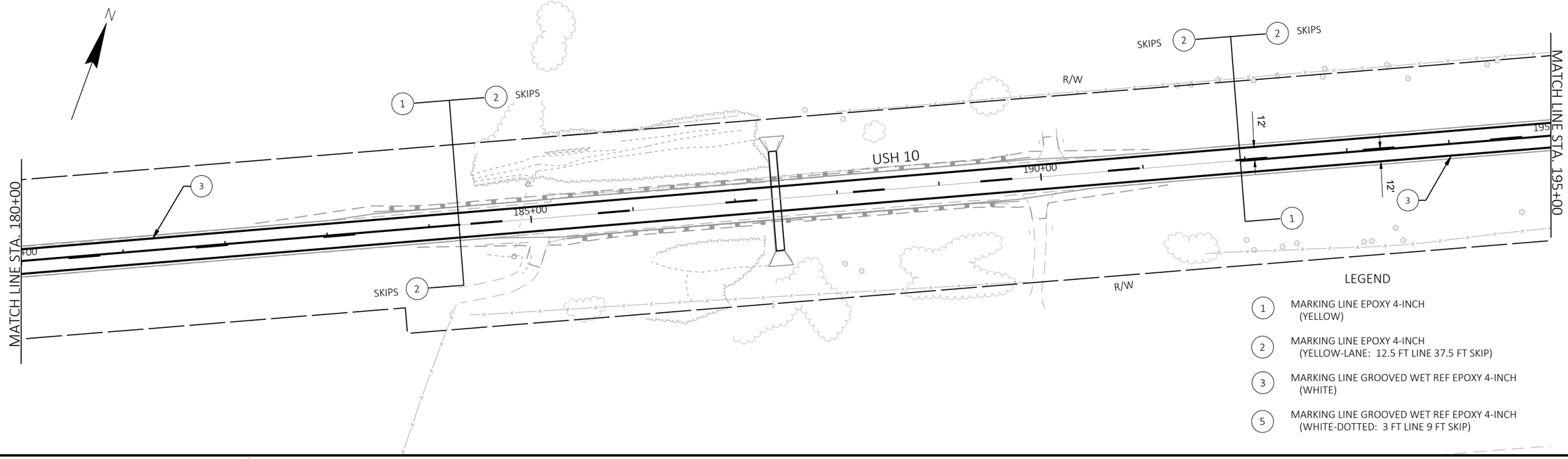


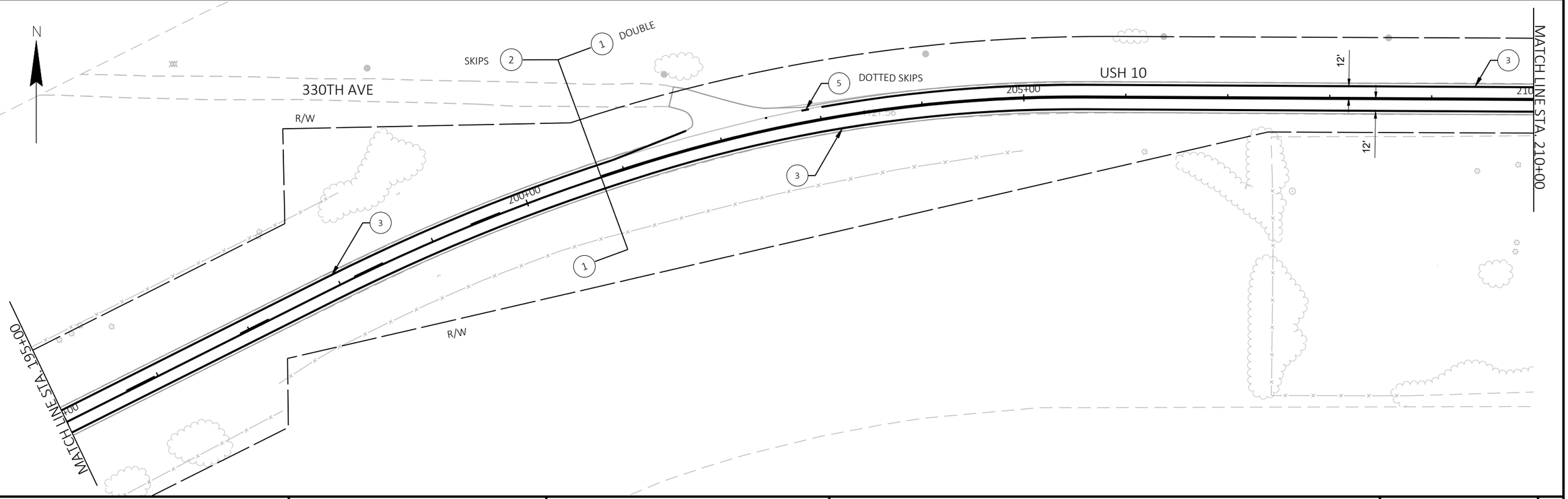
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 38	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (6)

PLOT DATE : 2/26/2021 7:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

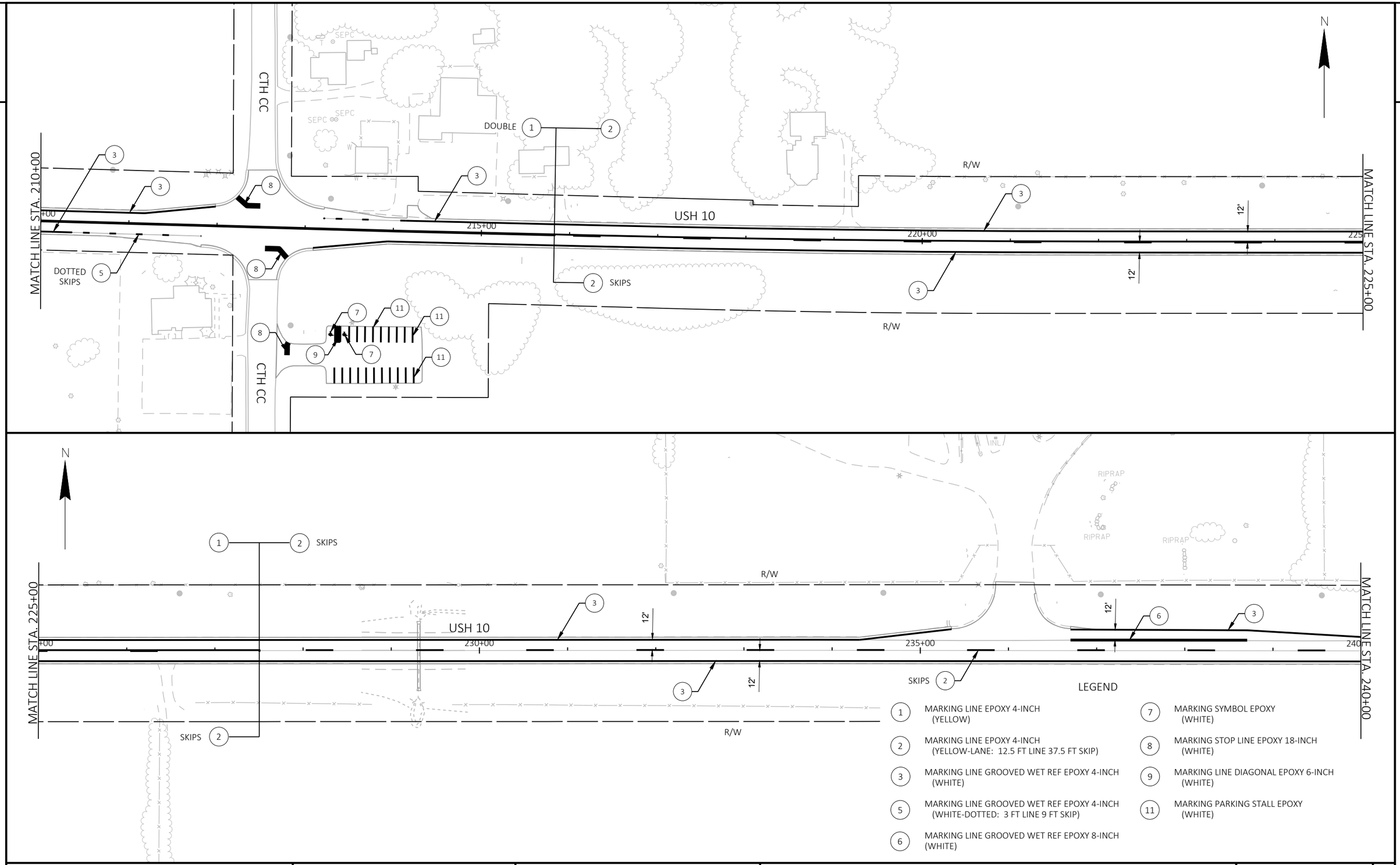




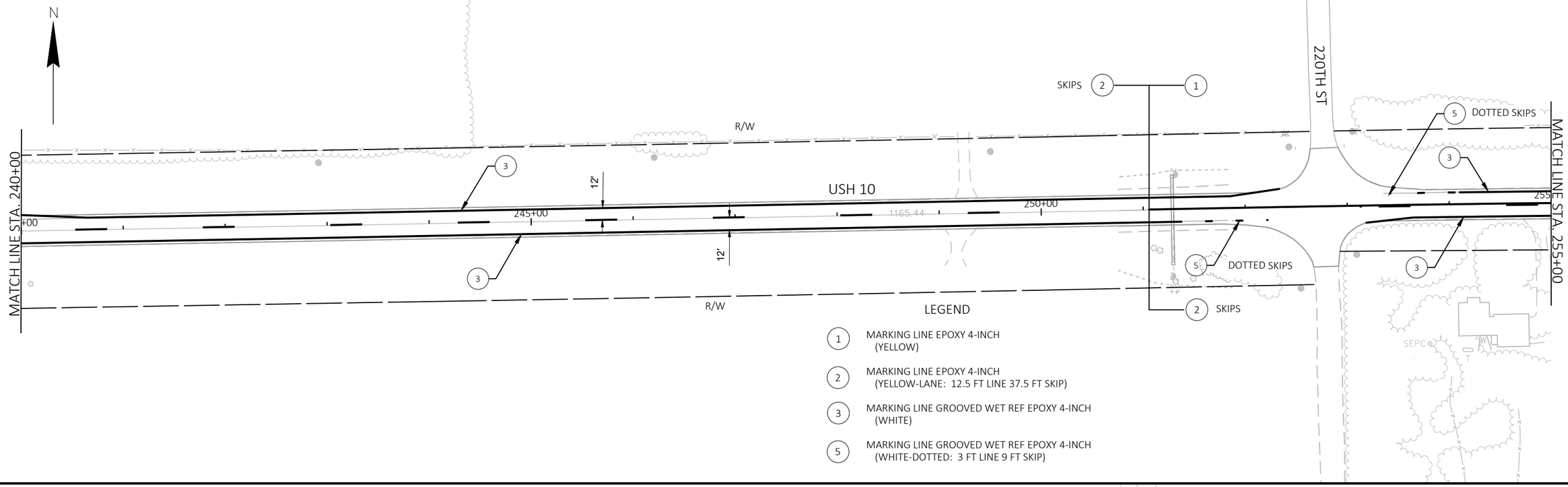
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 39	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (7)

PLOT DATE : 2/26/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

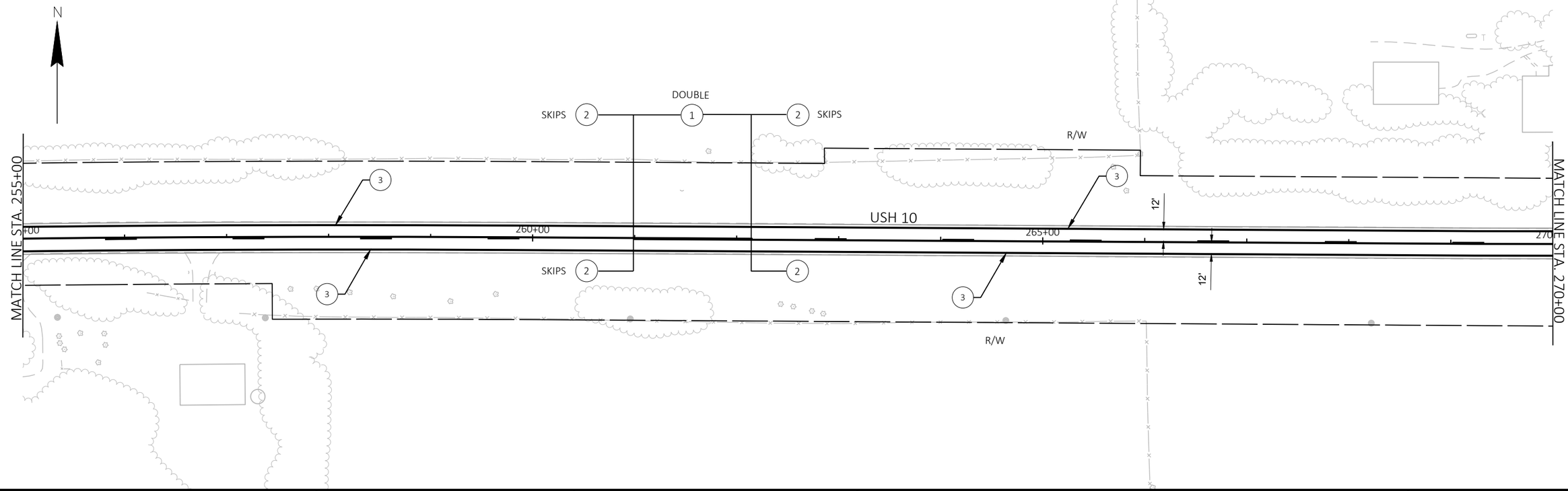


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 40	E



LEGEND

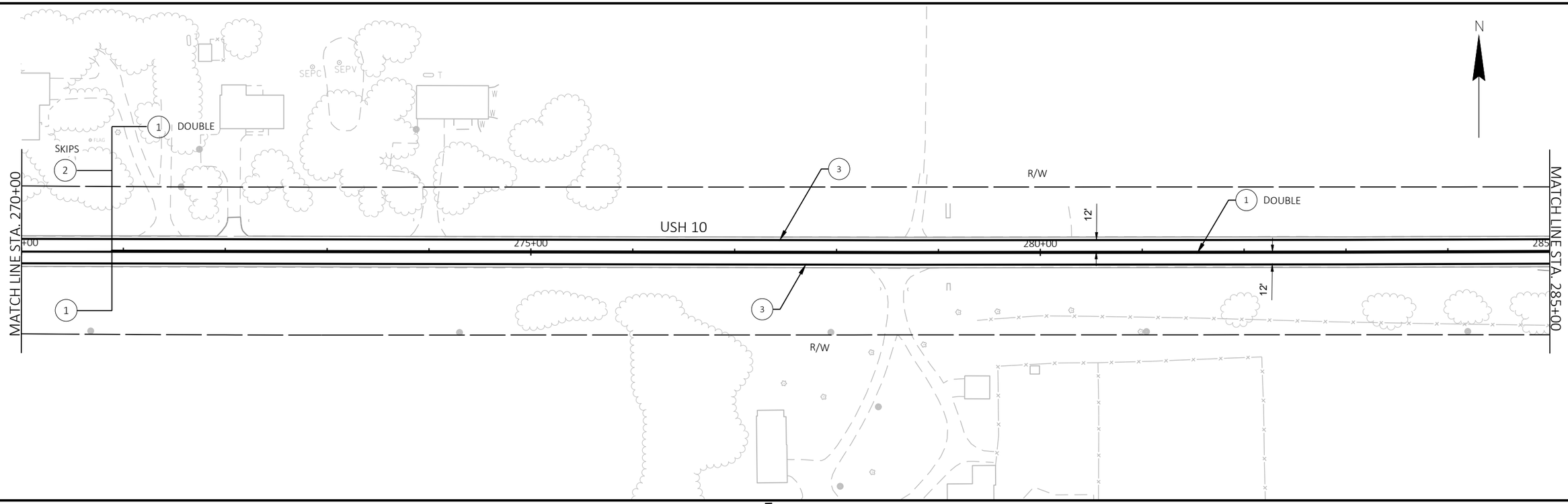
1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW-LANE: 12.5 FT LINE 37.5 FT SKIP)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
5. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)

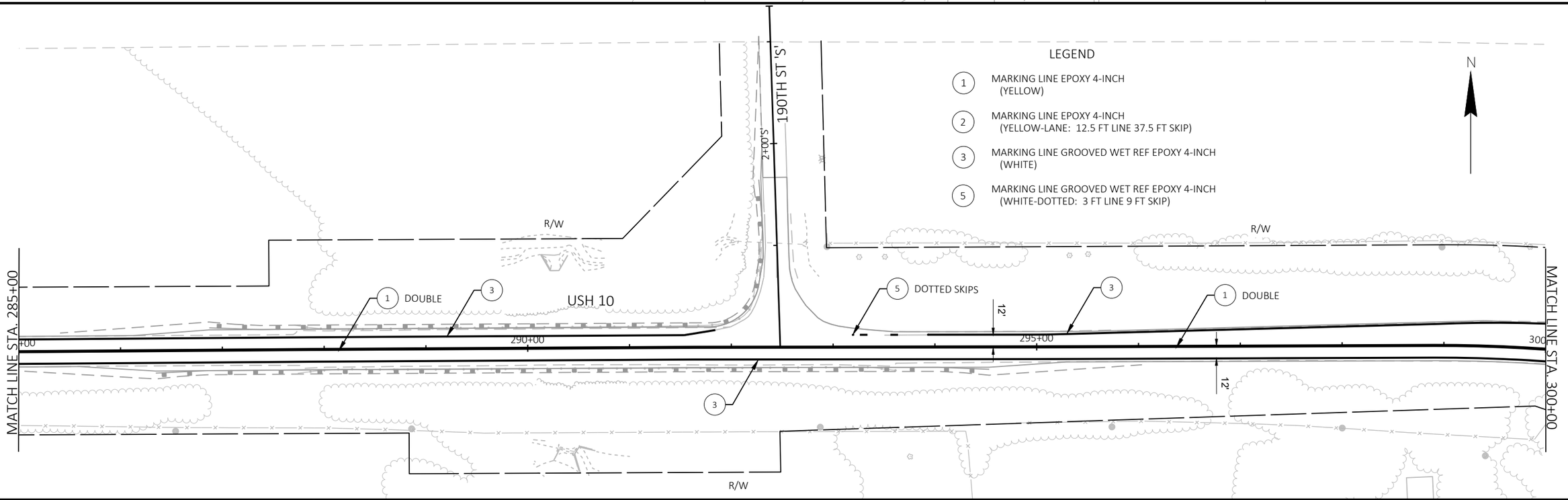


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 41	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 2/26/2021 7:45 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

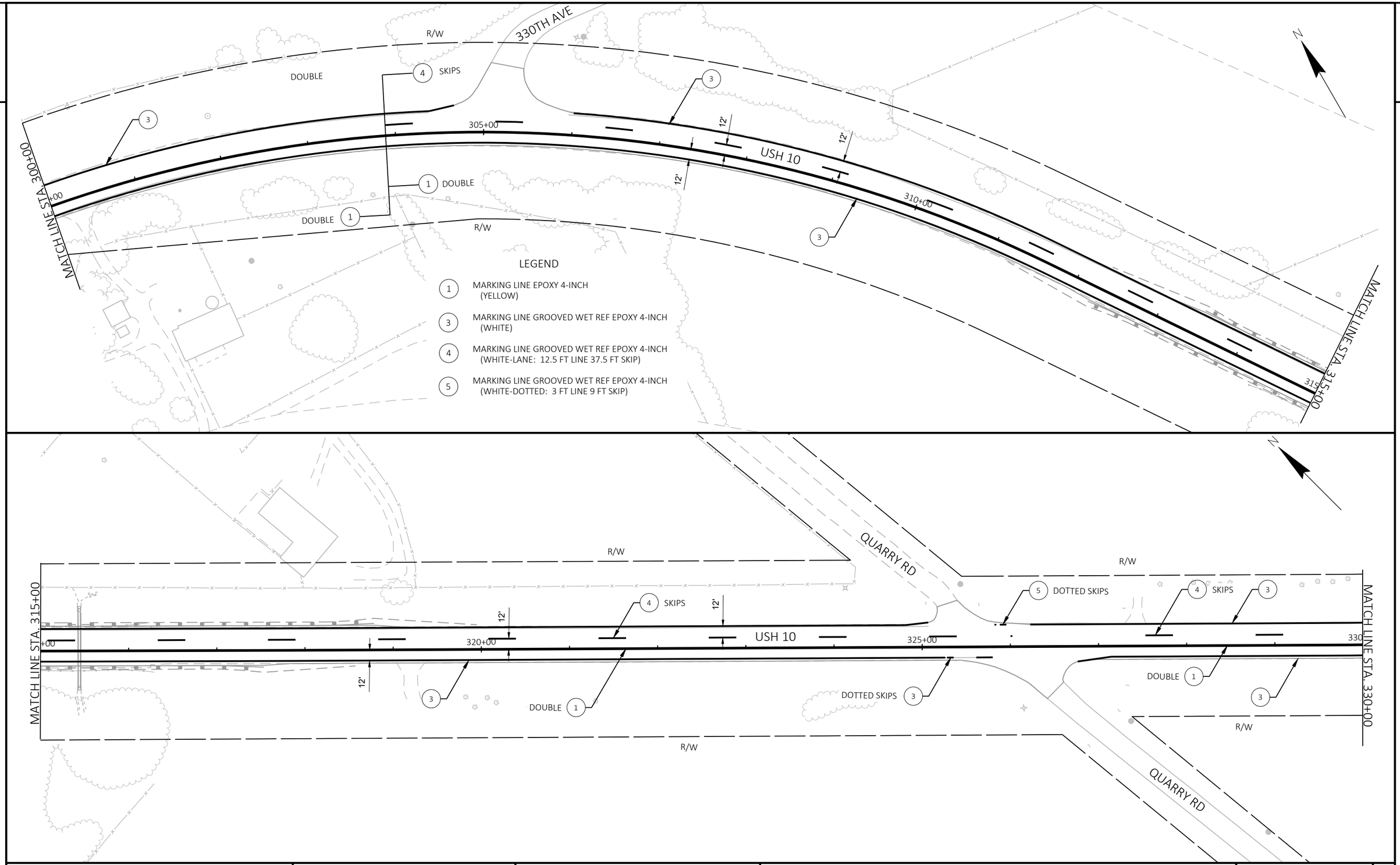




PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 42	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (10)
PLOT DATE : 2/26/2021 7:45 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 43	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (11)

PLOT DATE : 2/26/2021 7:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

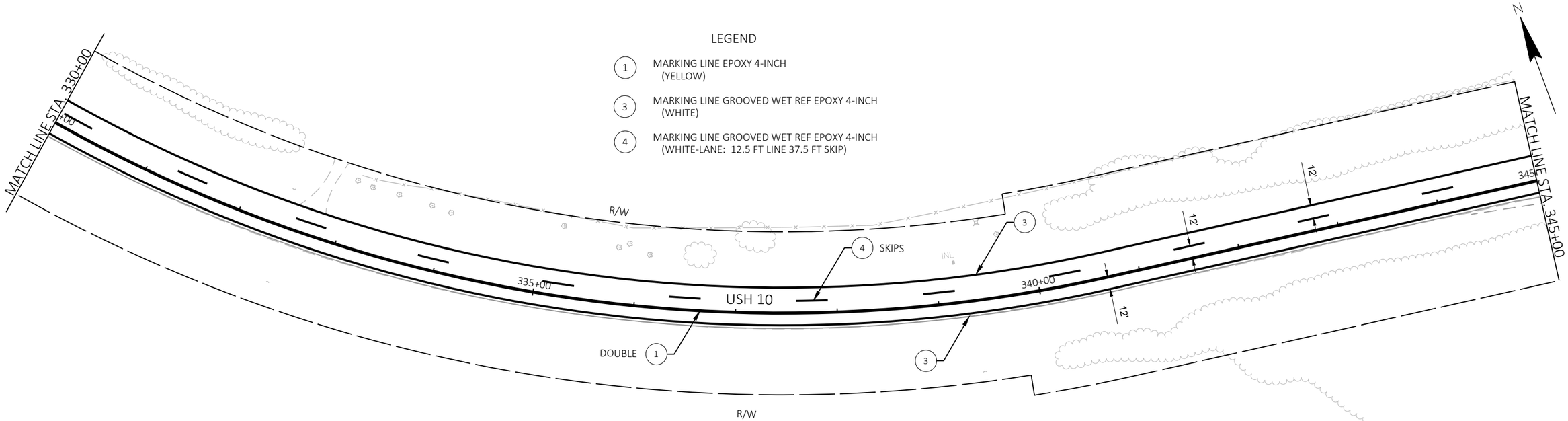
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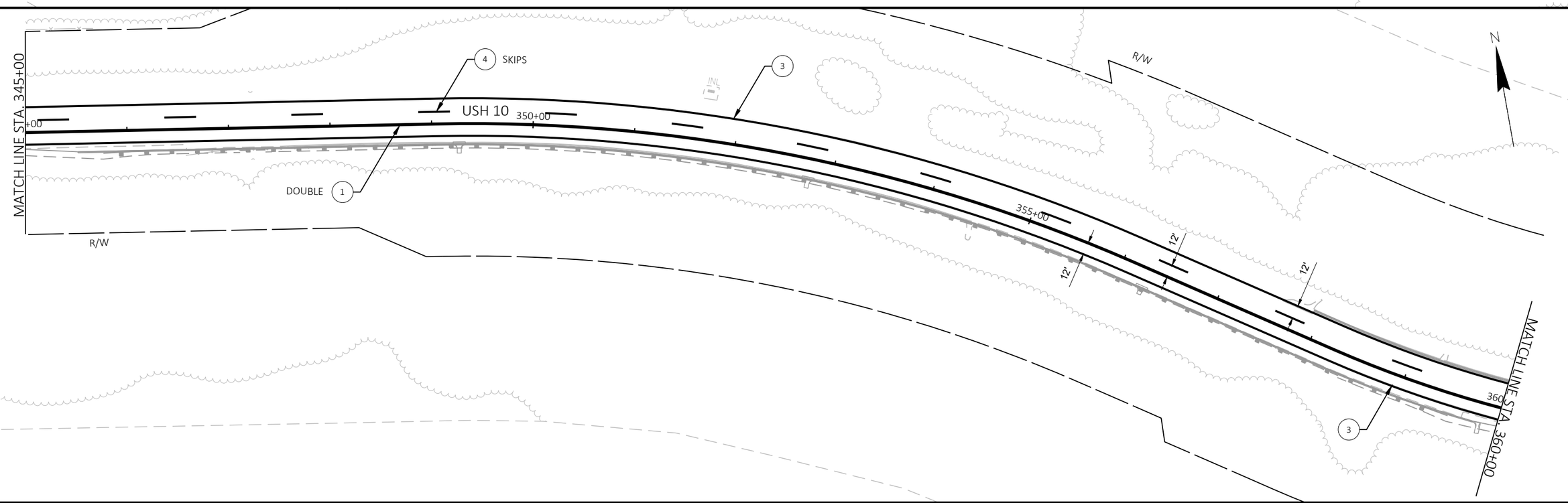
LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

3 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

4 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 44	E

2

N

R/W

LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

3 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

4 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)

5 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)

MATCH LINE STA. 360+00

4 SKIPS

365+00

DOUBLE 1

3

370+00

12'

12'

12'

USH 10

3

375+00

MATCH LINE STA. 375+00

R/W

N

SKIPS 4

5 DOTTED SKIPS

3

USH 10

385+00

SKIPS 4

380+00

DOUBLE 1

1 DOUBLE

3

MATCH LINE STA. 390+00

390

1 DOUBLE

12'

12'

12'

R/W

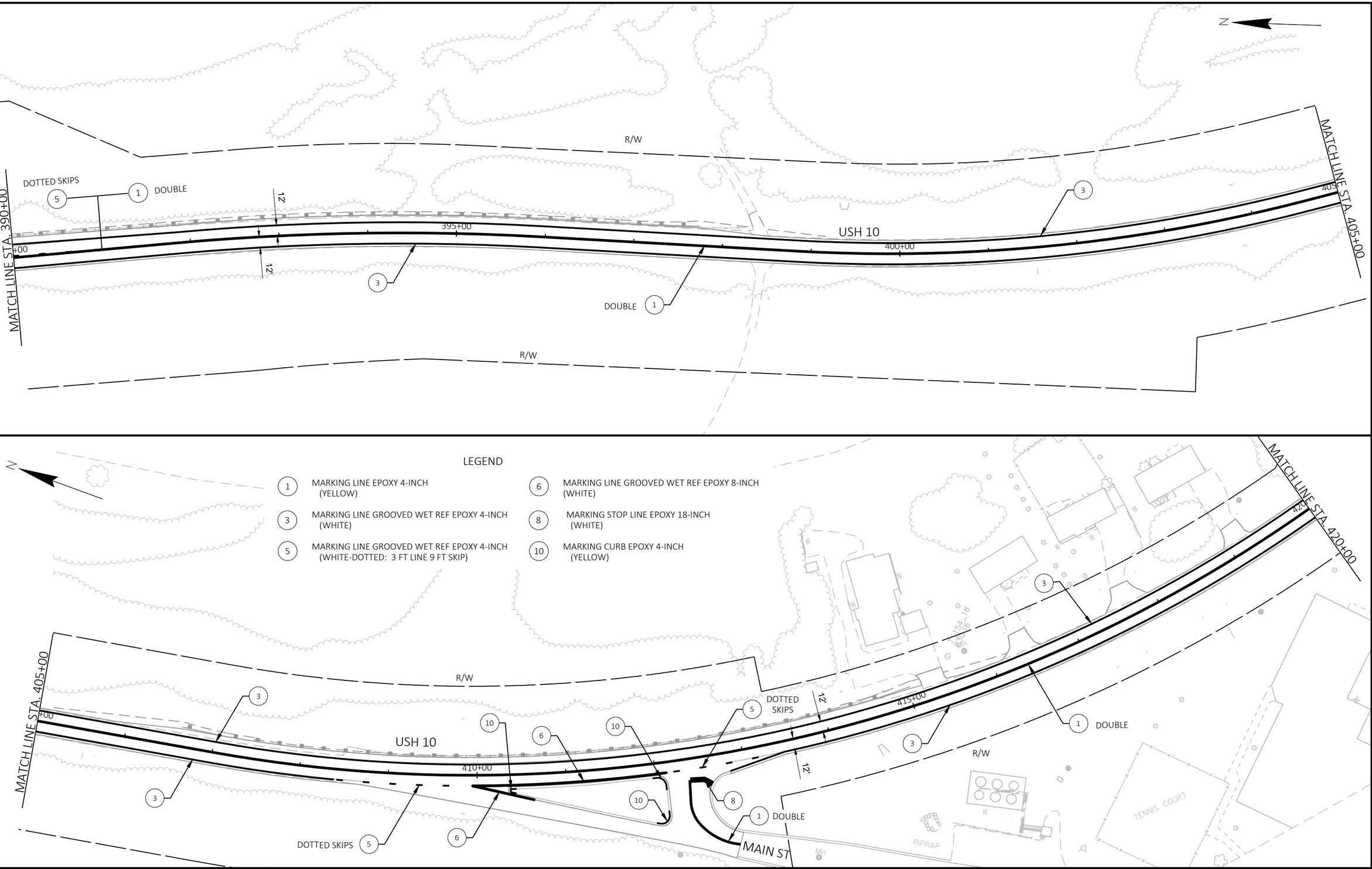
MATCH LINE STA. 375+00

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 45	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (13)

PLOT DATE : 2/26/2021 7:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



2

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 46	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (14)

PLOT DATE : 2/26/2021 7:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

LEGEND

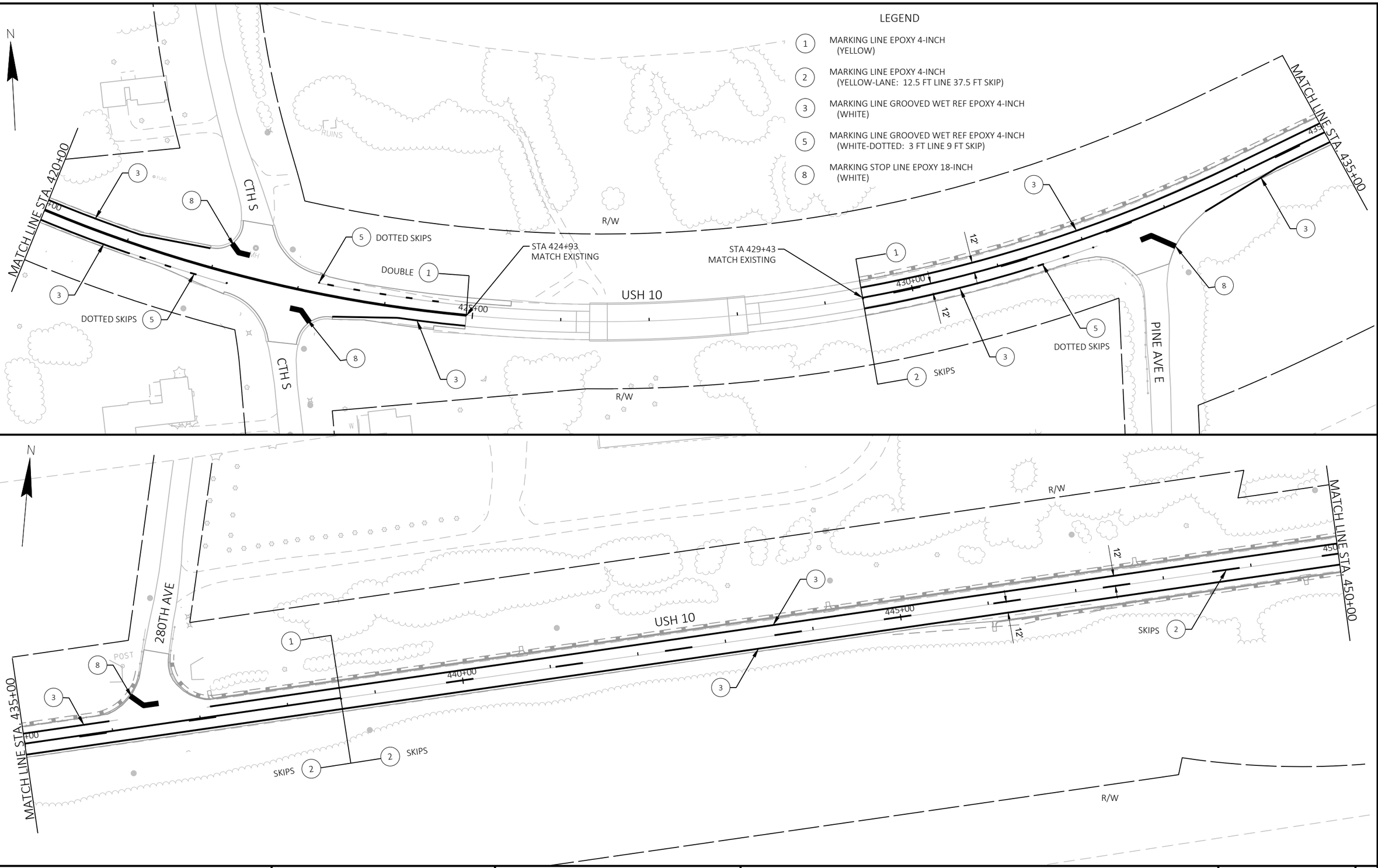
1 MARKING LINE EPOXY 4-INCH (YELLOW)

2 MARKING LINE EPOXY 4-INCH (YELLOW-LANE: 12.5 FT LINE 37.5 FT SKIP)

3 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

5 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)

8 MARKING STOP LINE EPOXY 18-INCH (WHITE)

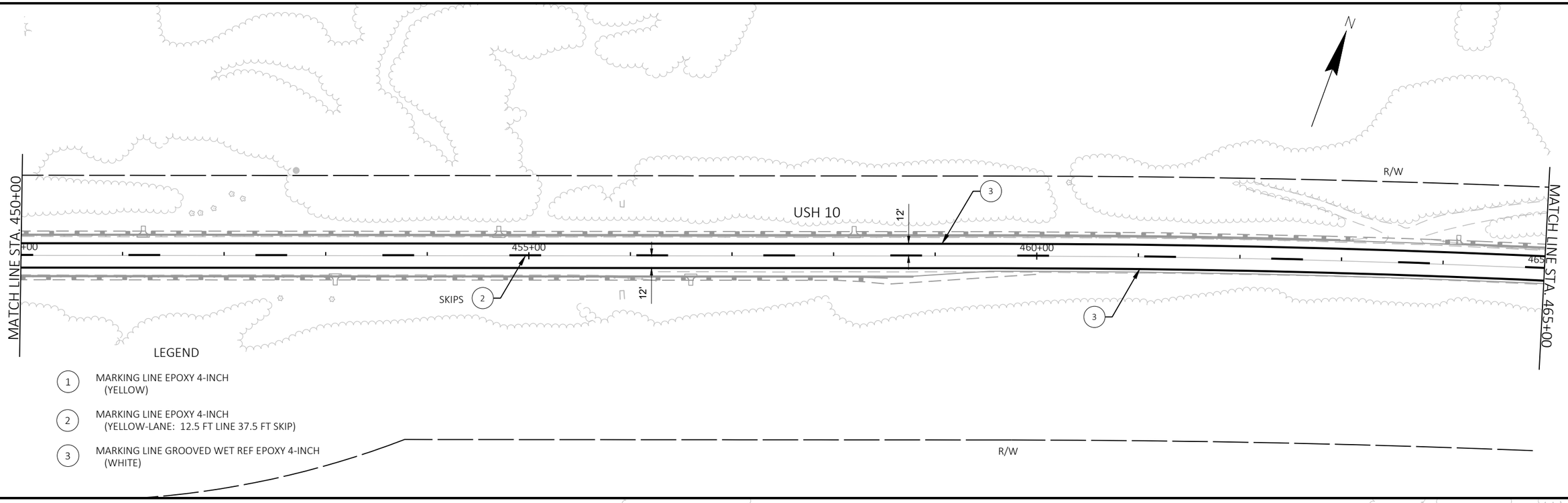


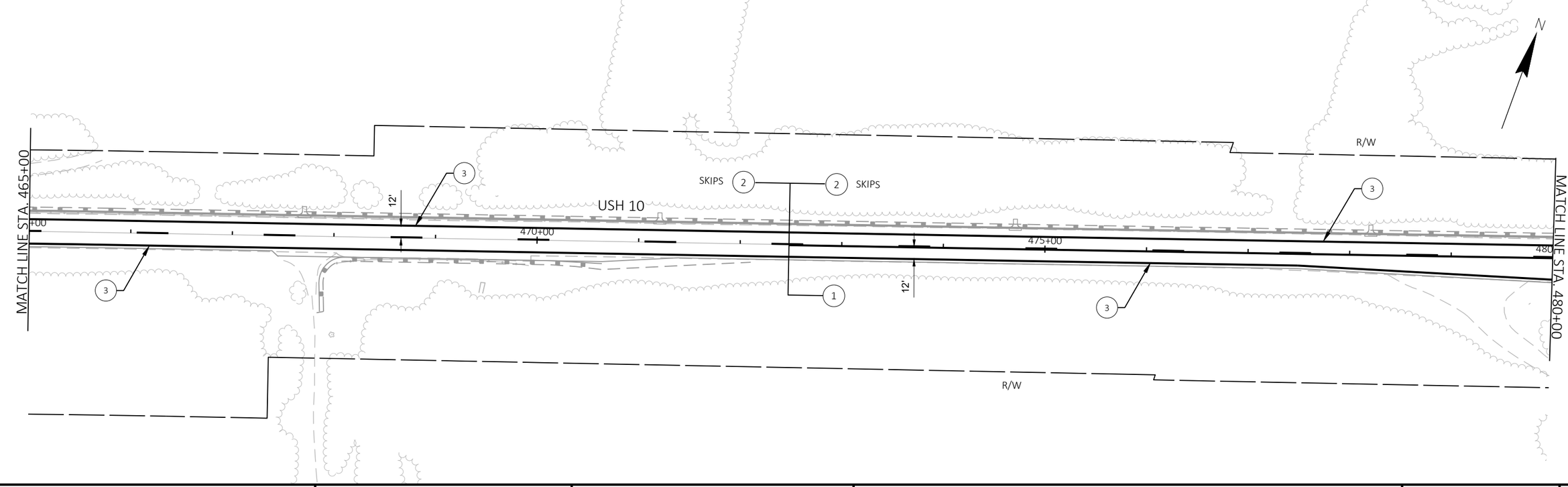
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 47	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (15)

PLOT DATE : 2/26/2021 7:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

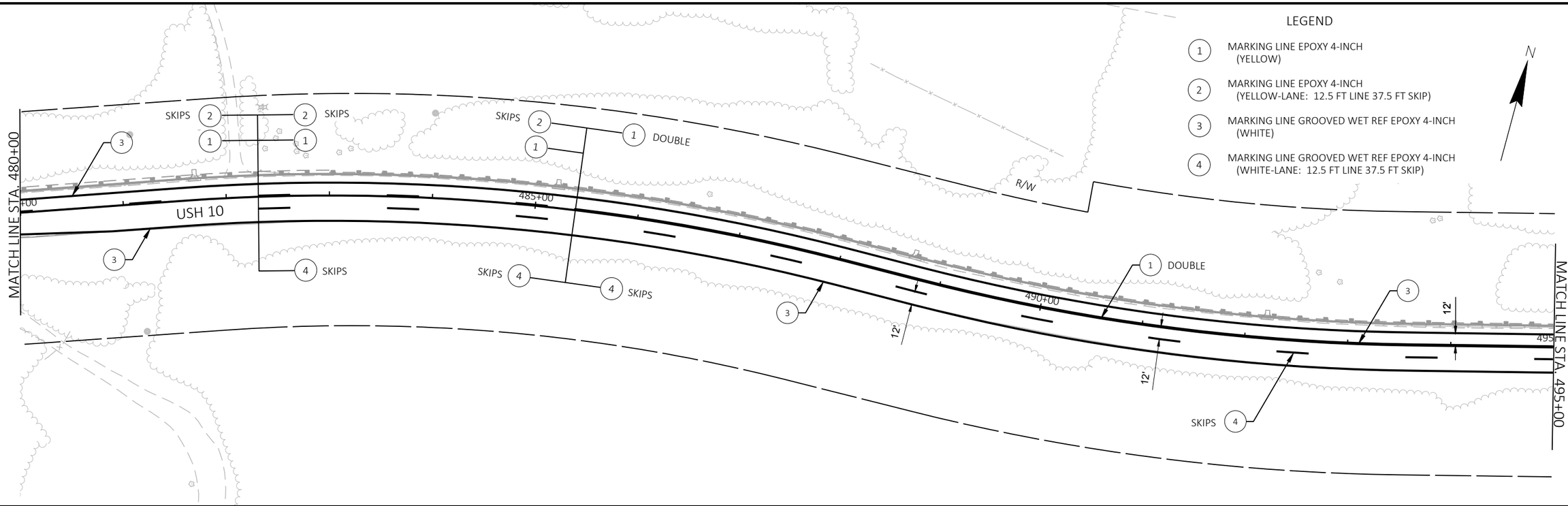
2

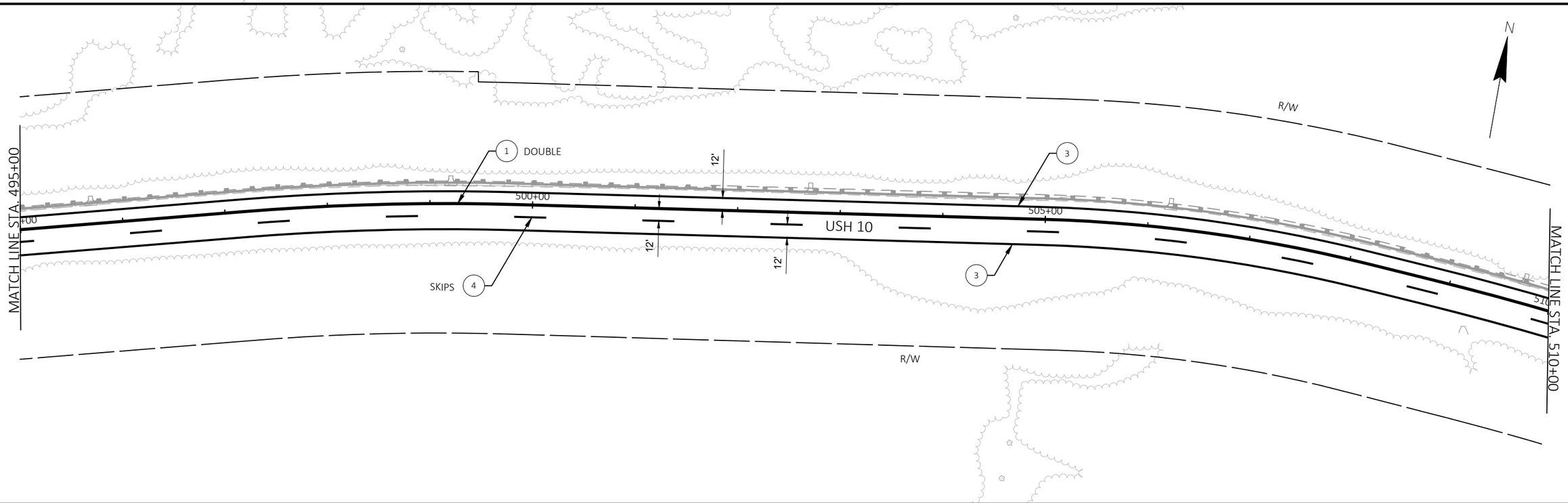




PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 48	E

2



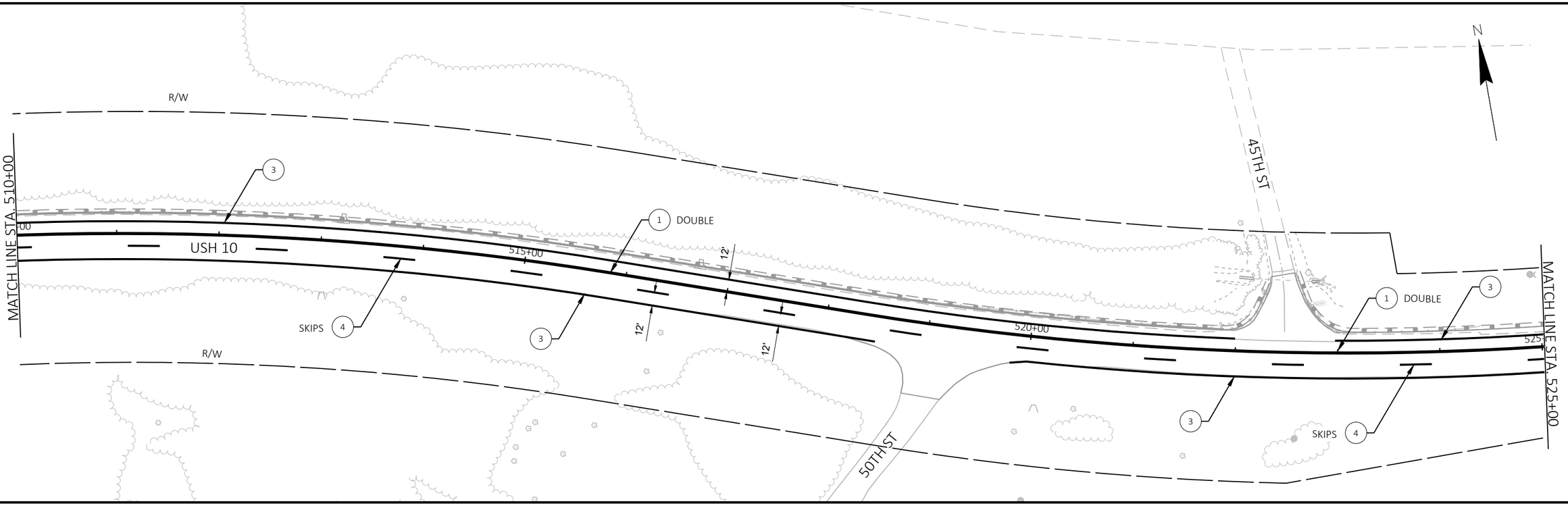


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 49	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (17)

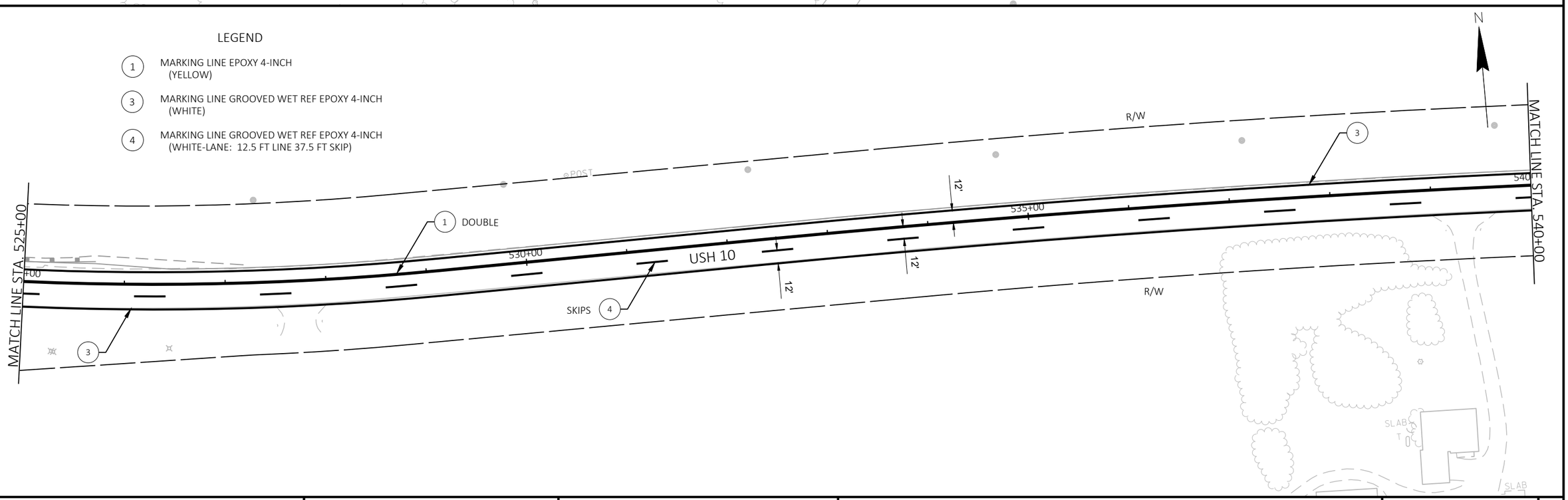
PLOT DATE : 2/26/2021 7:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
4. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)

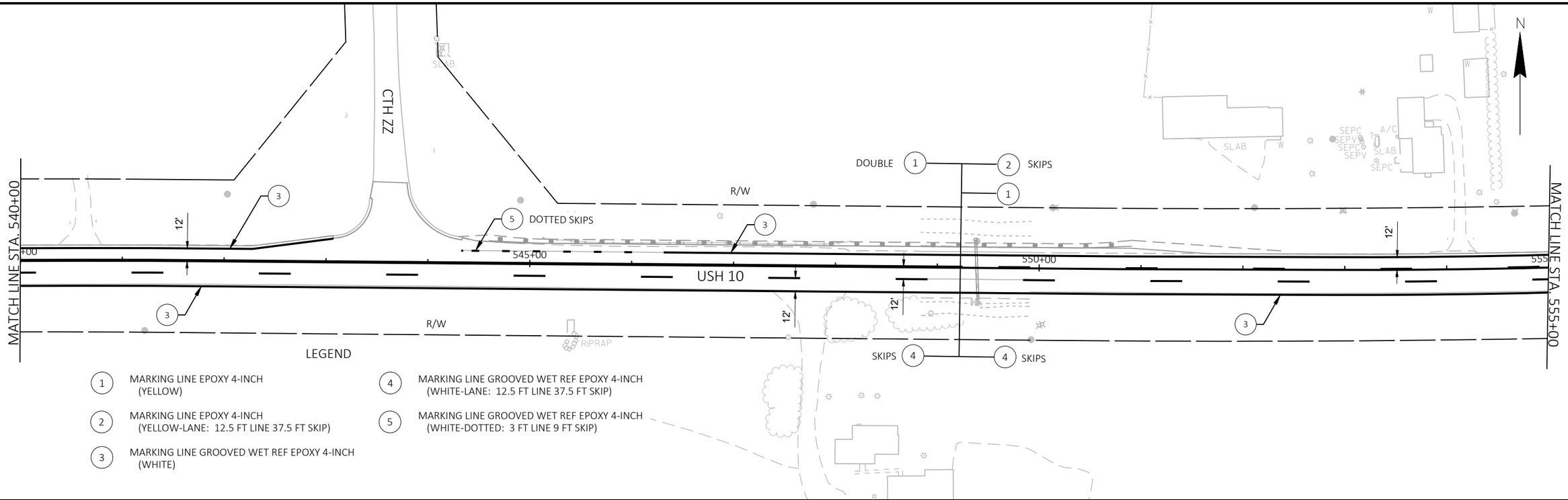


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 50	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (18)

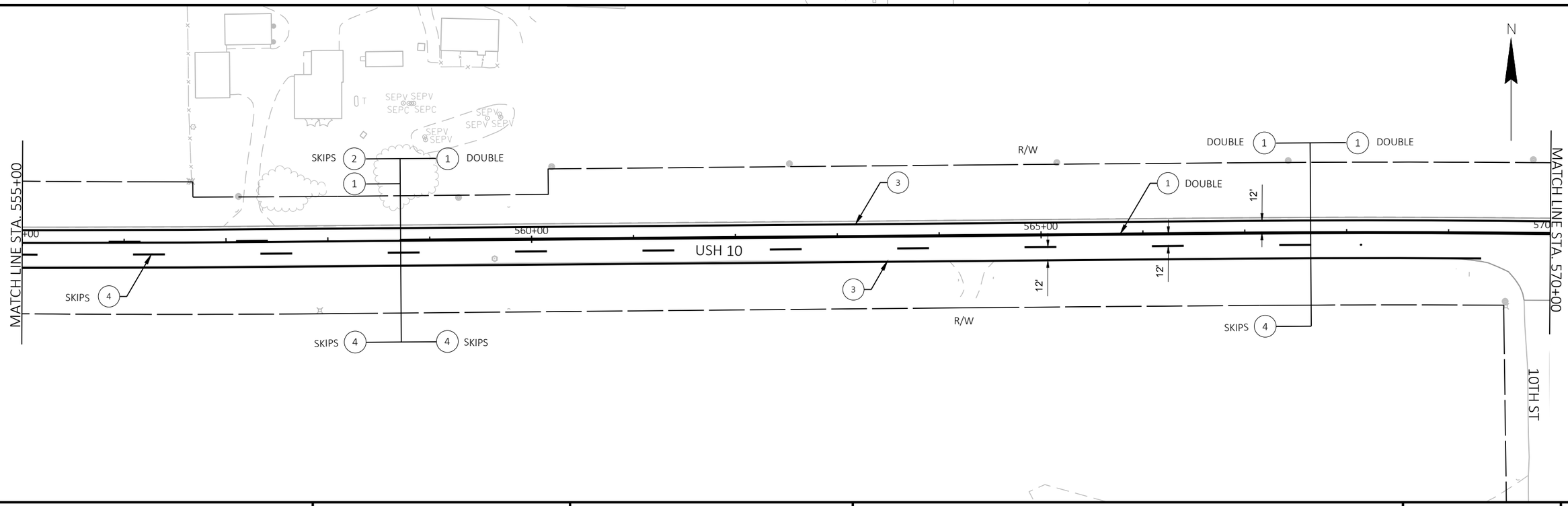
PLOT DATE : 2/26/2021 7:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW-LANE: 12.5 FT LINE 37.5 FT SKIP)
3. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
4. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-LANE: 12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE-DOTTED: 3 FT LINE 9 FT SKIP)

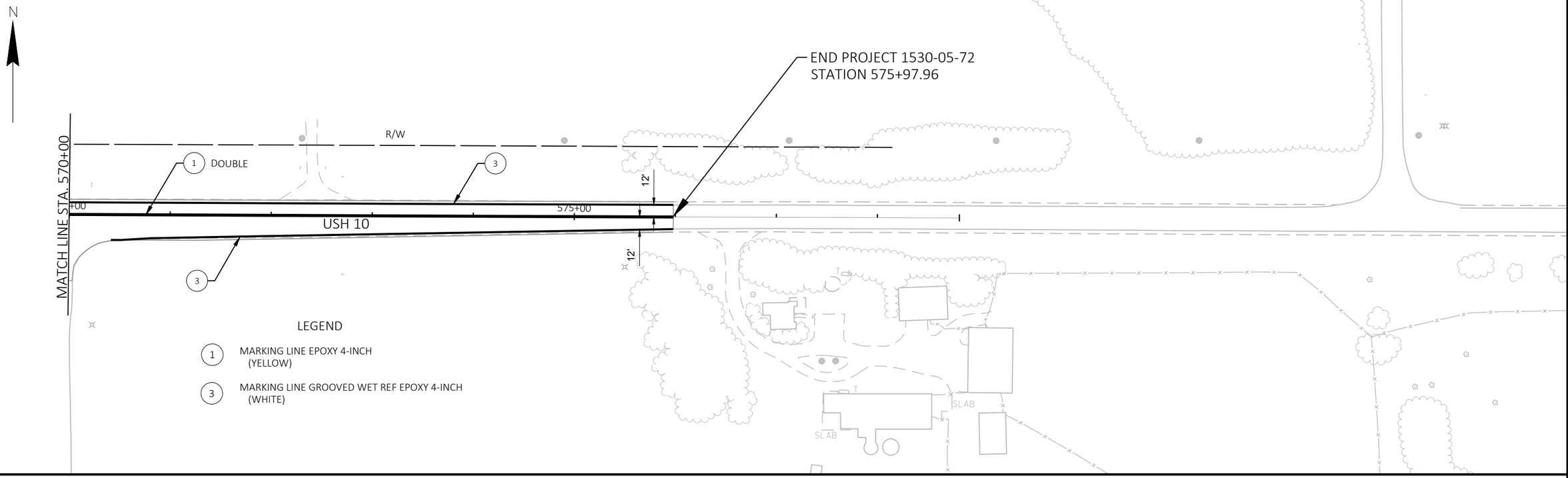


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 51	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - Sheet - (19)

PLOT DATE : 2/26/2021 7:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PAVEMENT MARKING	SHEET 52	E

MAINTENANCE OF TRAFFIC:

USH 10

- USH 10 SHALL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES EXCEPT FOR FLAGGING OPERATIONS AND SHOULDER CLOSURES AS NOTED IN THE CONTRACT SPECIAL PROVISIONS

PARK & RIDE

- PARK & RIDE WILL BE CLOSED TO TRAFFIC DURING CONSTRUCTION OPERATIONS INVOLVING THE PARK & RIDE

LOCAL ROADS AND DRIVEWAYS

- MAINTAIN LOCAL ACCESS AT ALL TIMES

CONSTRUCTION TO BE COMPLETED:

USH 10

- MILL & OVERLAY
- REPLACE BEAM GUARD
- REPLACE CULVERTS AT STA. 229+32, STA. 251+29, 315+44, AND STA. 549+39

PARK & RIDE

- MILL & OVERLAY

190TH STREET

- MILL & OVERLAY
- REPLACE BEAM GUARD

NOTES:

REFER TO THE FOLLOWING TRAFFIC CONTROL DETAILS, AS WELL AS STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

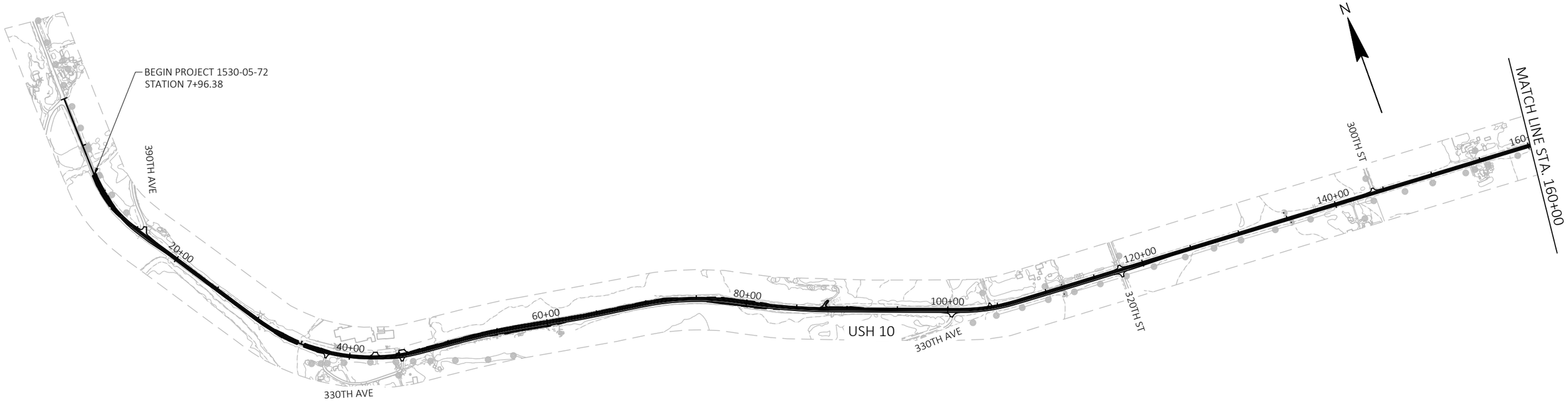
- SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"
- SEE S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION"
- SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

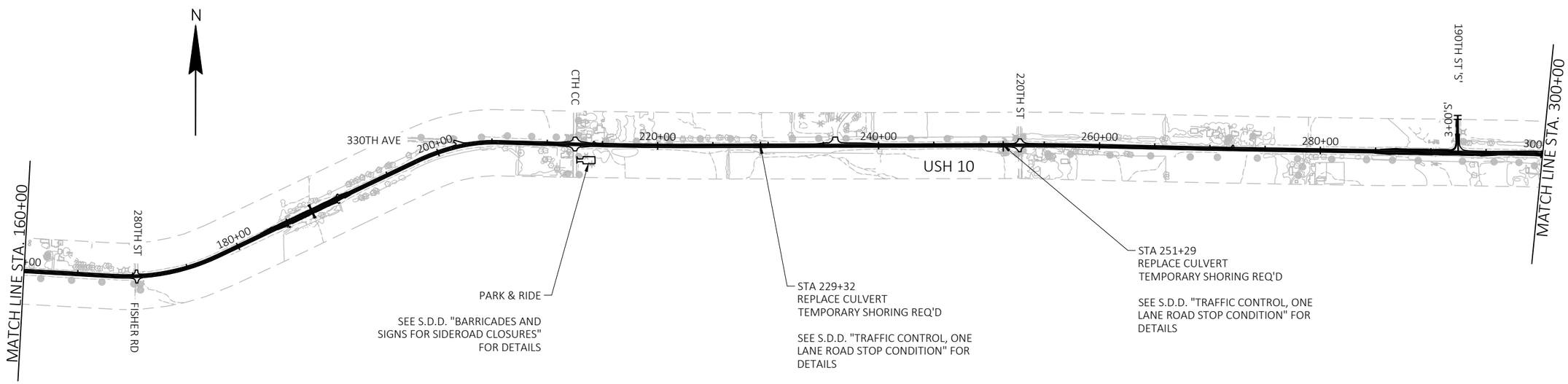
TRAFFIC CONTROL GENERAL NOTES:

- ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE SIGNS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE WISCONSIN SUPPLEMENT TO THE MUTCD, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.
- CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST.
- CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF: THE DISTANCE TO A 2 FOOT OR GREATER DROP-OFF THAT IS STEEPER THAN 3H:1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROP-OFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROP-OFF AND THE POSTED SPEED IS 45 MPH OR GREATER.
- USE OF FLAGGING OPERATIONS AND TEMPORARY RUMBLE STRIPS ARE INCIDENTAL TO THE CONTRACT AND SHALL BE PAID FOR WITH THE "TRAFFIC CONTROL" BID ITEM.

2

2

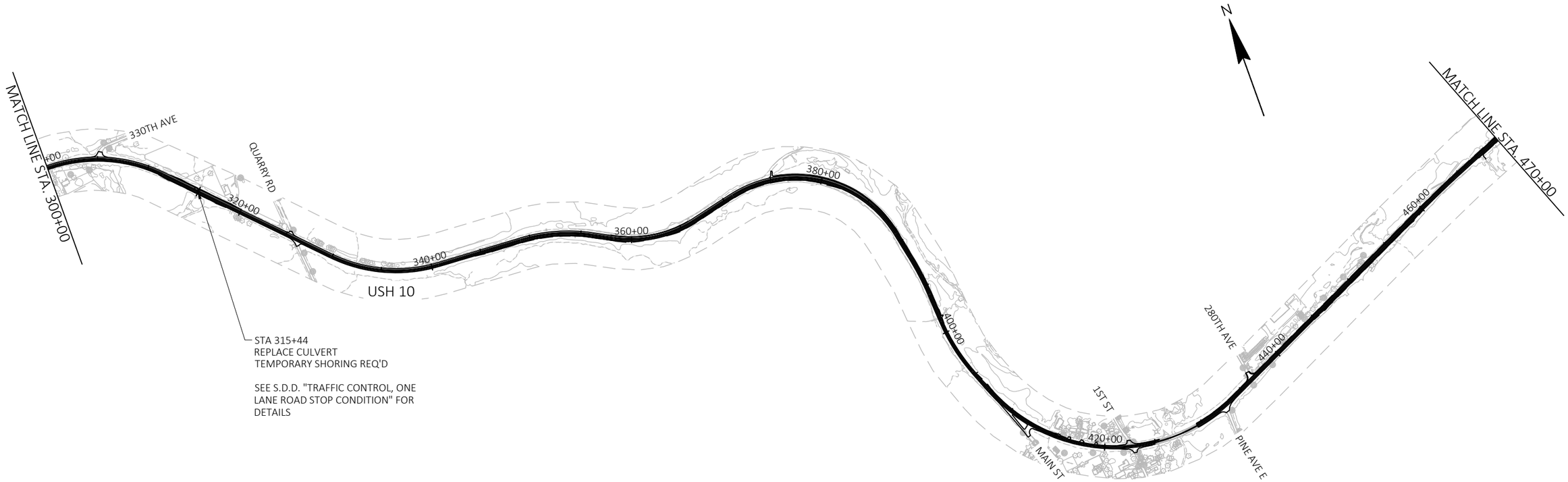


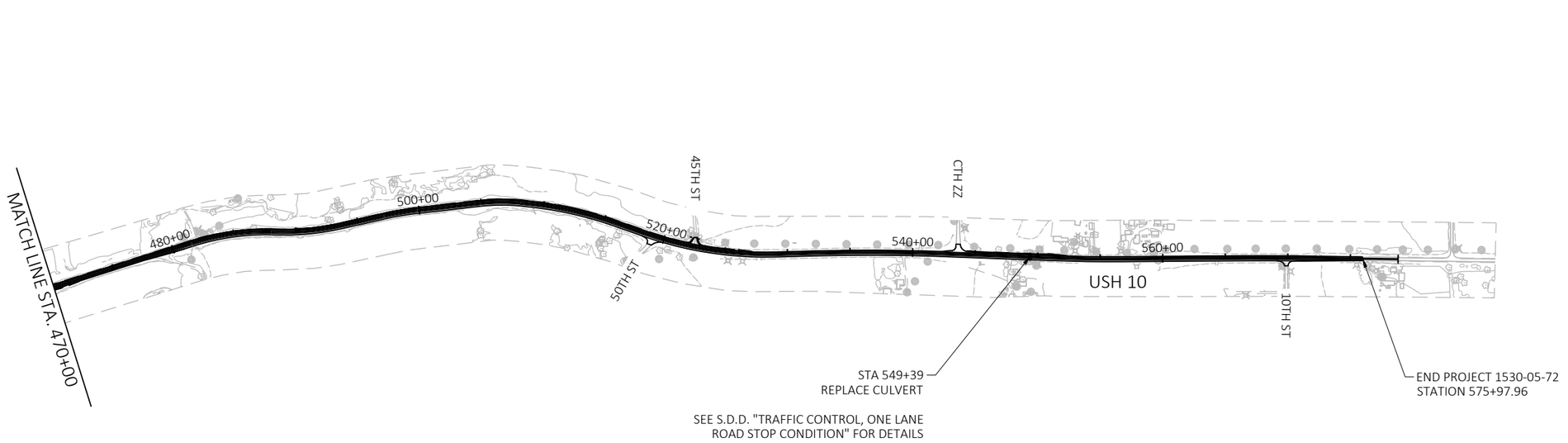


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	TRAFFIC CONTROL OVERVIEW	SHEET 54	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - Sheet - (1)
PLOT DATE : 2/26/2021 7:51 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	TRAFFIC CONTROL OVERVIEW	SHEET 55	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - Sheet - (2)

PLOT DATE : 2/26/2021 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:1000 FT

1530-05-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	111.000	111.000
0004	201.0205	Grubbing	STA	111.000	111.000
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0008	203.0200	Removing Old Structure (station) 01. 315+44	LS	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	304.000	304.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	253,860.000	253,860.000
0014	204.0150	Removing Curb & Gutter	LF	782.000	782.000
0016	204.0165	Removing Guardrail	LF	22,508.000	22,508.000
0018	205.0100	Excavation Common	CY	7,430.000	7,430.000
0020	208.0100	Borrow	CY	18,202.000	18,202.000
0022	213.0100	Finishing Roadway (project) 01. 1530-05-72	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,120.000	1,120.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	18,770.000	18,770.000
0028	305.0500	Shaping Shoulders	STA	795.000	795.000
0030	416.1010	Concrete Surface Drains	CY	2.000	2.000
0032	450.4000	HMA Cold Weather Paving	TON	23,200.000	23,200.000
0034	455.0605	Tack Coat	GAL	36,570.000	36,570.000
0036	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0038	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0040	460.2000	Incentive Density HMA Pavement	DOL	80.000	80.000
0042	460.2005	Incentive Density PWL HMA Pavement	DOL	18,400.000	18,400.000
0044	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	81,290.000	81,290.000
0046	460.2010	Incentive Air Voids HMA Pavement	DOL	44,800.000	44,800.000
0048	460.6644	HMA Pavement 4 MT 58-34 V	TON	44,915.000	44,915.000
0050	465.0105	Asphaltic Surface	TON	4,760.000	4,760.000
0052	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0054	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	185.000	185.000
0056	465.0310	Asphaltic Curb	LF	15,560.000	15,560.000
0058	465.0315	Asphaltic Flumes	SY	375.000	375.000
0060	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	80,402.000	80,402.000
0062	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	47,020.000	47,020.000
0064	511.1100	Temporary Shoring	SF	1,976.000	1,976.000
0066	520.8000	Concrete Collars for Pipe	EACH	6.000	6.000
0068	520.8700	Cleaning Culvert Pipes	EACH	10.000	10.000
0070	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0072	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	4.000	4.000
0074	521.1036	Apron Endwalls for Culvert Pipe Steel 36-Inch	EACH	2.000	2.000
0076	521.3136	Culvert Pipe Corrugated Steel 36-Inch	LF	17.000	17.000
0078	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	156.000	156.000
0080	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	90.000	90.000

1530-05-72

Line	Item	Item Description	Unit	Total	Qty
0082	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	56.000	56.000
0084	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0086	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	4.000	4.000
0088	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0090	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	900.000	900.000
0092	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	40.000	40.000
0094	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,400.000	1,400.000
0096	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,800.000	2,800.000
0098	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	300.000	300.000
0100	606.0200	Riprap Medium	CY	46.000	46.000
0102	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0104	611.8120.S	Cover Plates Temporary	EACH	1.000	1.000
0106	611.9800.S	Pipe Grates 01. 42-Inch	EACH	4.000	4.000
0108	611.9800.S	Pipe Grates 02. 48-Inch	EACH	2.000	2.000
0110	614.0396	Guardrail Mow Strip Asphalt	SY	4,070.000	4,070.000
0112	614.2300	MGS Guardrail 3	LF	10,378.100	10,378.100
0114	614.2330	MGS Guardrail 3 K	LF	13,137.500	13,137.500
0116	614.2350	MGS Guardrail Short Radius	LF	487.500	487.500
0118	614.2500	MGS Thrie Beam Transition	LF	240.000	240.000
0120	614.2610	MGS Guardrail Terminal EAT	EACH	41.000	41.000
0122	614.2630	MGS Guardrail Short Radius Terminal	EACH	5.000	5.000
0124	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1530-05-72	EACH	1.000	1.000
0126	619.1000	Mobilization	EACH	1.000	1.000
0128	624.0100	Water	MGAL	670.000	670.000
0130	625.0500	Salvaged Topsoil	SY	62,700.000	62,700.000
0132	627.0200	Mulching	SY	2,500.000	2,500.000
0134	628.1504	Silt Fence	LF	21,550.000	21,550.000
0136	628.1520	Silt Fence Maintenance	LF	64,450.000	64,450.000
0138	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0142	628.2004	Erosion Mat Class I Type B	SY	35,180.000	35,180.000
0144	628.2008	Erosion Mat Urban Class I Type B	SY	2,300.000	2,300.000
0146	628.2039	Erosion Mat Class III Type D	SY	25,920.000	25,920.000
0148	628.6505	Soil Stabilizer Type A	ACRE	7.500	7.500
0150	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0152	628.7504	Temporary Ditch Checks	LF	2,250.000	2,250.000

1530-05-72

Line	Item	Item Description	Unit	Total	Qty
0154	628.7555	Culvert Pipe Checks	EACH	370.000	370.000
0156	628.7560	Tracking Pads	EACH	45.000	45.000
0158	629.0205	Fertilizer Type A	CWT	48.000	48.000
0160	630.0120	Seeding Mixture No. 20	LB	1,700.000	1,700.000
0162	630.0130	Seeding Mixture No. 30	LB	300.000	300.000
0164	630.0500	Seed Water	MGAL	1,650.000	1,650.000
0166	633.5200	Markers Culvert End	EACH	16.000	16.000
0168	638.2102	Moving Signs Type II	EACH	25.000	25.000
0170	638.4000	Moving Small Sign Supports	EACH	25.000	25.000
0172	642.5001	Field Office Type B	EACH	1.000	1.000
0174	643.0300	Traffic Control Drums	DAY	77,100.000	77,100.000
0176	643.0420	Traffic Control Barricades Type III	DAY	135.000	135.000
0178	643.0705	Traffic Control Warning Lights Type A	DAY	270.000	270.000
0180	643.0900	Traffic Control Signs	DAY	9,480.000	9,480.000
0182	643.5000	Traffic Control	EACH	1.000	1.000
0184	645.0120	Geotextile Type HR	SY	130.000	130.000
0186	646.1020	Marking Line Epoxy 4-Inch	LF	88,750.000	88,750.000
0188	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	117,900.000	117,900.000
0190	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	510.000	510.000
0192	646.5220	Marking Symbol Epoxy	EACH	2.000	2.000
0194	646.6120	Marking Stop Line Epoxy 18-Inch	LF	320.000	320.000
0196	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	206,650.000	206,650.000
0198	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	510.000	510.000
0200	646.7020	Marking Diagonal Epoxy 6-Inch	LF	85.000	85.000
0202	646.8120	Marking Curb Epoxy	LF	65.000	65.000
0204	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0206	646.8320	Marking Parking Stall Epoxy	LF	425.000	425.000
0208	646.9000	Marking Removal Line 4-Inch	LF	7,800.000	7,800.000
0210	648.0100	Locating No-Passing Zones	MI	10.760	10.760
0212	649.0105	Temporary Marking Line Paint 4-Inch	LF	44,400.000	44,400.000
0214	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	18,550.000	18,550.000
0216	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	200.000	200.000
0218	650.4500	Construction Staking Subgrade	LF	25,441.000	25,441.000
0220	650.5000	Construction Staking Base	LF	25,441.000	25,441.000
0222	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	940.000	940.000
0224	650.6000	Construction Staking Pipe Culverts	EACH	9.000	9.000
0226	650.8000	Construction Staking Resurfacing Reference	LF	56,740.000	56,740.000
0228	650.9910	Construction Staking Supplemental Control (project) 01. 1530-05-72	LS	1.000	1.000
0230	650.9920	Construction Staking Slope Stakes	LF	25,441.000	25,441.000

1530-05-72

Line	Item	Item Description	Unit	Total	Qty
0232	690.0150	Sawing Asphalt	LF	1,335.000	1,335.000
0234	690.0250	Sawing Concrete	LF	300.000	300.000
0236	740.0440	Incentive IRI Ride	DOL	52,731.000	52,731.000
0238	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,500.000	2,500.000
0240	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,440.000	1,440.000
0242	SPV.0090	Special 01. Cleaning Ditch	LF	800.000	800.000
0244	SPV.0105	Special 01. Milling and Removing Temporary Joint	LS	1.000	1.000
0246	SPV.0105	Special 02. Material Transfer Vehicle	LS	1.000	1.000
0248	SPV.0105	Special 03. Box Culvert Joint Repair C-47-1869	LS	1.000	1.000
0250	SPV.0105	Special 04. Prepare Foundation for Asphaltic Paving Special	LS	1.000	1.000

CLEARING & GRUBBING

LOCATION	STATION - STATION		O/S	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
PROJECT 1530-05-72					
CATEGORY 0010					
S.O.P - 320TH ST	8+50	12+00	RT	4	4
S.O.P - 320TH ST	32+34	36+63	RT	2	2
S.O.P - 320TH ST	48+62	58+03	LT	8	8
S.O.P - 320TH ST	55+20	59+90	RT	5	5
S.O.P - 320TH ST	65+66	72+00	LT	5	5
S.O.P - 320TH ST	79+45	81+31	RT	2	2
S.O.P - 320TH ST	88+19	91+39	LT	3	3
320TH ST - CTH CC	185+63	188+52	LT	2	2
320TH ST - CTH CC	185+95	187+79	RT	2	2
CTH CC - QUARRY RD	285+78	293+48	RT	7	7
CTH CC - QUARRY RD	287+86	291+98	LT	4	4
CTH CC - QUARRY RD	314+47	316+36	RT	2	2
QUARRY RD - 280TH AVE	345+42	352+16	RT	2	2
QUARRY RD - 280TH AVE	375+42	385+57	LT	9	9
QUARRY RD - 280TH AVE	390+50	391+85	LT	1	1
QUARRY RD - 280TH AVE	396+51	397+91	LT	1	1
QUARRY RD - 280TH AVE	406+31	407+39	LT	1	1
280TH AVE - EOP	437+17	438+79	LT	2	2
280TH AVE - EOP	448+76	503+78	LT	37	37
280TH AVE - EOP	470+10	471+37	RT	1	1
280TH AVE - EOP	511+96	522+21	LT	10	10
190TH ST	0+62'S'	2+10'S'	LT	1	1
1530-05-72 PROJECT TOTALS				**111**	**111**

REMOVING ASPHALTIC SURFACE MILLING

LOCATION	STATION - STATION		204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	8+13	34+70	9,822
S.O.P - 320TH ST	34+70	47+22	5,179
S.O.P - 320TH ST	47+22	72+00	11,834
S.O.P - 320TH ST	72+00	77+71	2,639
S.O.P - 320TH ST	77+71	80+78	1,355
S.O.P - 320TH ST	80+78	117+69	17,278
320TH ST - CTH CC	117+69	212+50	33,693
CTH CC - QUARRY RD	212+50	325+90	44,364
QUARRY RD - 280TH AVE	325+90	345+51	8,939
QUARRY RD - 280TH AVE	345+51	359+76	6,696
QUARRY RD - 280TH AVE	359+76	364+59	2,181
QUARRY RD - 280TH AVE	364+59	380+80	8,154
QUARRY RD - 280TH AVE	380+80	437+20	23,124
280TH AVE - EOP	437+20	521+88	36,609
280TH AVE - EOP	521+88	575+98	25,034
LANE REPAIR	UNDISTRIBUTED		16,000
CATEGORY 0010 TOTALS			**252,901**
CATEGORY 0020			
PARK & RIDE	--		959
CATEGORY 0020 TOTALS			**959**
1530-05-72 PROJECT TOTALS			**253,860**

REMOVING SMALL PIPE CULVERTS

LOCATION	STATION	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	NOTES
PROJECT 1530-05-72			
CATEGORY 0010			
CTH CC - QUARRY RD	229+32	1	92 LF - EXISTING 30" CMCP
CTH CC - QUARRY RD	251+29	1	108 LF - EXISTING 30" CMCP
280TH - EOP	544+39	1	58 LF - EXISTING 24" CMCP
1530-05-72 PROJECT TOTALS		**3**	

REMOVING CONCRETE PAVEMENT

LOCATION	STATION	204.0100 REMOVING CONCRETE PAVEMENT (SY)
PROJECT 1530-05-72		
CATEGORY 0010		
CTH CC - QUARRY RD	229+32	67
CTH CC - QUARRY RD	251+29	67
CTH CC - QUARRY RD	315+44	67
280TH - EOP	544+39	103
1530-05-72 PROJECT TOTALS		**304**

REMOVING GUARDRAIL

LOCATION	STATION - STATION			O/S	204.0165 REMOVING GUARDRAIL (LF)
PROJECT 1530-05-72					
CATEGORY 0010					
SOP - 320TH ST	8+02	-	9+87	LT	185.0
SOP - 320TH ST	8+11	-	11+64	RT	359.0
SOP - 320TH ST	33+62	-	34+69	LT	107.0
SOP - 320TH ST	33+65	-	34+70	RT	107.0
SOP - 320TH ST	35+32	-	36+40	LT	107.0
SOP - 320TH ST	35+32	-	36+37	RT	107.0
SOP - 320TH ST	48+13	-	71+57	LT	2,347.0
SOP - 320TH ST	56+63	-	57+94	RT	131.0
SOP - 320TH ST	77+95	-	79+83	LT	189.0
SOP - 320TH ST	78+56	-	80+44	RT	189.0
SOP - 320TH ST	87+95	-	88+67	LT	75.0
320TH ST - CTH CC	185+18	-	189+70	LT	452.0
320TH ST - CTH CC	185+15	-	189+66	RT	452.0
CTH CC - QUARRY RD	287+74	-	293+62	RT	589.0
CTH CC - QUARRY RD	287+71	-	292+28	LT	522.0
CTH CC - QUARRY RD	314+27	-	316+29	RT	202.0
CTH CC - QUARRY RD	314+73	-	316+24	LT	152.0
QUARRY RD - 280TH AVE	346+58	-	358+39	RT	1,173.0
QUARRY RD - 280TH AVE	365+67	-	379+54	RT	1,373.0
QUARRY RD - 280TH AVE	375+30	-	398+29	LT	2,338.0
QUARRY RD - 280TH AVE	408+51	-	414+73	LT	614.0
QUARRY RD - 280TH AVE	429+43	-	436+53	LT	760.0
280TH AVE - EOP	436+87	-	463+25	LT	2,721.0
280TH AVE - EOP	447+11	-	456+26	RT	915.0
280TH AVE - EOP	463+87	-	481+83	LT	1,797.0
280TH AVE - EOP	468+02	-	469+92	RT	191.0
280TH AVE - EOP	482+33	-	505+27	LT	2,298.0
280TH AVE - EOP	507+07	-	522+32	LT	1,554.0
280TH AVE - EOP	522+63	-	524+40	LT	198.0
280TH AVE - EOP	545+12	-	548+15	LT	304.0
1530-05-72 PROJECT TOTALS					**22,508.0**

EXCAVATION SUMMARY

1530-05-72 CATEGORY 0010	FROM / TO STATION	DIVISION	LOCATION	CONSTRUCTION STAGE	205.0100 EXCAVATION COMMON (CY)	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL (2)	UNEXPANDED FILL (6)	EXPANDED FILL (3) FACTOR 1.30	MASS ORDINATE +/- (4)	WASTE (5)	208.0100 BORROW (7) (CY)	COMMENT
DIV. 1	7+96 - 13+02	1-1	USH 10	STAGE 1	286	0	286	390	506	-221	0	221	
	32+07 - 34+70	1-2	USH 10	STAGE 1	149	0	149	268	348	-200	0	200	
	35+32 - 37+96	1-3	USH 10	STAGE 1	143	0	143	154	201	-58	0	58	
	45+99 - 73+21	1-4	USH 10	STAGE 1	736	0	736	1,000	1,300	-564	0	564	
	76+02 - 83+36	1-5	USH 10	STAGE 1	452	0	452	318	414	38	38	0	Excess available matertial
	87+88 - 91+70	1-6	USH 10	STAGE 1	206	0	206	220	286	-80	0	80	
	182+31 - 191+23	1-7	USH 10	STAGE 1	339	0	339	2,455	3,192	-2,853	0	2,853	
	284+88 - 296+03	1-8	USH 10	STAGE 1	368	0	368	2,554	3,321	-2,953	0	2,953	
	311+20 - 319+95	1-9	USH 10	STAGE 1	374	0	374	996	1,295	-921	0	921	
	344+30 - 399+16	1-10	USH 10	STAGE 1	1,852	0	1,852	1,854	2,410	-558	0	558	
	405+15 - 416+20	1-11	USH 10	STAGE 1	339	0	339	1,138	1,480	-1,141	0	1,141	
	429+43 - 435+82	1-12	USH 10	STAGE 1	96	0	96	834	1,084	-987	0	987	
	437+20 - 521+88	1-13	USH 10	STAGE 1	1,670	0	1,670	6,433	8,362	-6,692	0	6,692	
	523+16 - 527+19	1-14	USH 10	STAGE 1	89	0	89	203	264	-175	0	175	
	544+34 - 552+37	1-15	USH 10	STAGE 1	263	0	263	702	913	-650	0	650	
	0+20'S' - 3+06'S'	1-16	190TH STREET	STAGE 1	68	0	68	168	219	-151	0	151	
			DIV 1 SUBTOTAL		7,430	0	7,430	19,688	25,594	-18,164	38	18,202	
	1530-05-72 PROJECT TOTALS				**7,430**							**18,202**	

Note 1) Salvaged/Unusable Pavement Material is included in Cut.
Note 2) Available Material = Cut - Salvaged/Unusable Pavement Material
Note 3) Expanded Fill Factor = 1.30
Note 4) The Mass Ordinate + or - Qty calculated for the Division.
Positive quantity indicates an excess of material within the Division.
Negative indicates a shortage of material within the Division.
Mass Ordinate = Available Material - Expanded Fill
Note 5) Waste = Positive Division Mass Ordinate
Note 6) Unexpanded Fill = Unexpanded Fill from individual Earthwork tables
Note 7) It was assumed that any excess material used as Fill between Divisions would be counted as Borrow.

REMOVING OLD STRUCTURE

LOCATION	STATION	203.0200.01 REMOVING OLD STRUCTURE 315+44 (LS)	NOTES
PROJECT 1530-05-72			
CATEGORY 0010			
CTH CC - QUARRY RD	315+44	1	84 LF - EXISTING 36"X72" BOX CULVERT
1530-05-72 PROJECT TOTALS		**1**	

REMOVING CURB & GUTTER

LOCATION	STATION - STATION		204.0150 REMOVING CURB & GUTTER (LF)
PROJECT 1530-05-72			
CATEGORY 0010			
QUARRY RD - 280TH AVE	357+92	365+91	782
1530-05-72 PROJECT TOTALS			**782**

ASPHALTIC FLUMES

LOCATION	STATION	O/S	465.0315 ASPHALTIC FLUMES (SY)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	47+18	LT	6
S.O.P - 320TH ST	50+72	LT	8
S.O.P - 320TH ST	54+22	LT	8
S.O.P - 320TH ST	57+72	LT	7
S.O.P - 320TH ST	61+22	LT	7
S.O.P - 320TH ST	64+72	LT	7
S.O.P - 320TH ST	68+22	LT	8
S.O.P - 320TH ST	77+67	RT	5
QUARRY RD - 280TH AVE	349+27	RT	8
QUARRY RD - 280TH AVE	352+77	RT	8
QUARRY RD - 280TH AVE	356+27	RT	7
QUARRY RD - 280TH AVE	359+82	RT	6
QUARRY RD - 280TH AVE	362+41	LT	7
QUARRY RD - 280TH AVE	365+91	LT	4
QUARRY RD - 280TH AVE	366+80	RT	8
QUARRY RD - 280TH AVE	370+30	RT	8
QUARRY RD - 280TH AVE	373+80	RT	8
QUARRY RD - 280TH AVE	377+30	RT	8
QUARRY RD - 280TH AVE	380+80	RT	6
280TH AVE - EOP	437+16	LT	5
280TH AVE - EOP	440+70	LT	8
280TH AVE - EOP	444+20	LT	8
280TH AVE - EOP	446+06	RT	6
280TH AVE - EOP	447+70	LT	8
280TH AVE - EOP	449+60	RT	8
280TH AVE - EOP	451+20	LT	8
280TH AVE - EOP	453+10	RT	8
280TH AVE - EOP	454+70	LT	8
280TH AVE - EOP	456+60	RT	8
280TH AVE - EOP	458+20	LT	8
280TH AVE - EOP	464+15	LT	5
280TH AVE - EOP	467+70	LT	8
280TH AVE - EOP	471+20	LT	8
280TH AVE - EOP	474+70	LT	8
280TH AVE - EOP	478+20	LT	8
280TH AVE - EOP	481+70	LT	8
280TH AVE - EOP	485+20	LT	7
280TH AVE - EOP	488+70	LT	7
280TH AVE - EOP	492+20	LT	7
280TH AVE - EOP	495+70	LT	7
280TH AVE - EOP	499+20	LT	7
280TH AVE - EOP	502+70	LT	8
280TH AVE - EOP	506+20	LT	8
280TH AVE - EOP	509+70	LT	8
280TH AVE - EOP	513+20	LT	7
280TH AVE - EOP	516+70	LT	7
UNDISTRIBUTED			28
1530-05-72 PROJECT TOTALS			**375**

SHAPING SHOULDERS

LOCATION	STATION - STATION		305.0500 SHAPING SHOULDERS (STA)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	8+00	118+00	140
320TH ST - CTH CC	118+00	213+00	168
CTH CC - QUARRY RD	213+00	326+00	187
QUARRY RD - 280TH AVE	326+00	437+00	135
280TH AVE - EOP	437+00	576+00	156
190TH STREET	0+20'S'	3+06'S'	4
CATEGORY 0010 TOTALS			**790**
CATEGORY 0020			
PARK & RIDE	-		5
CATEGORY 0020 TOTALS			**5**
1530-05-72 PROJECT TOTALS			**795**

CONCRETE SURFACE DRAIN

LOCATION	STATION	O/S	416.1010 CONCRETE SURFACE DRAINS (CY)
PROJECT 1530-05-72			
CATEGORY 0010			
280TH AVE - EOP	516+70	LT	2
1530-05-72 PROJECT TOTALS			**2**

ADJUSTING ITEMS

LOCATION	STATION	O/S	611.8120.S COVER PLATES TEMPORARY (EACH)	611.8110 ADJUSTING MANHOLE COVERS (EACH)
PROJECT 1530-05-72				
CATEGORY 0010				
QUARRY RD - 280TH AVE	422+43	34.5' LT	1	1
1530-05-72 PROJECT TOTALS			**1**	**1**

RUMBLE STRIPS

LOCATION	STATION - STATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1 (LF)	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 2 (LF)	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL (LF)
PROJECT 1530-05-72				
CATEGORY 0010				
S.O.P - 320TH ST	STA. 07+96 - STA. 118+00	9,766	5,850	8,836
320TH ST - CTH CC	STA. 118+00 - STA. 213+00	13,432	--	7,882
CTH CC - QUARRY RD	STA. 213+00 - STA. 326+00	13,788	1,773	9,471
QUARRY RD - 280TH AVE	STA. 326+00 - STA. 437+00	10,895	3,840	8,500
280TH AVE - EOP	STA. 437+00 - STA. 575+98	14,417	6,642	12,331
1530-05-72 PROJECT TOTALS		**80,402**		**47,020**

BASE AGGREGATE

LOCATION	STATION	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
PROJECT 1530-05-72				
CATEGORY 0010				
S.O.P - 320TH ST	8+00	13+00	60	682
S.O.P - 320TH ST	32+00	34+75	37	366
S.O.P - 320TH ST	35+50	38+00	32	336
S.O.P - 320TH ST	42+00	43+00	-	74
S.O.P - 320TH ST	44+65	45+80	-	96
S.O.P - 320TH ST	46+00	73+25	128	1,783
S.O.P - 320TH ST	76+00	83+50	98	991
S.O.P - 320TH ST	87+40	91+75	29	325
S.O.P - 320TH ST	104+00	104+50	-	28
320TH ST - CTH CC	182+25	191+25	111	1,037
CTH CC - QUARRY RD	214+20	214+45	-	10
CTH CC - QUARRY RD	229+21	229+46	9	118
CTH CC - QUARRY RD	251+18	251+43	9	118
CTH CC - QUARRY RD	271+95	272+25	-	13
CTH CC - QUARRY RD	285+50	296+00	86	1,226
CTH CC - QUARRY RD	311+25	320+00	91	1,092
QUARRY RD - 280TH AVE	344+25	361+25	34	759
QUARRY RD - 280TH AVE	363+50	399+25	103	2,236
QUARRY RD - 280TH AVE	405+25	416+60	60	663
QUARRY RD - 280TH AVE	417+45	417+95	-	29
QUARRY RD - 280TH AVE	418+95	419+30	-	20
QUARRY RD - 280TH AVE	429+50	436+50	16	461
280TH AVE - EOP	437+20	522+50	68	4,175
280TH AVE - EOP	522+50	527+25	32	387
280TH AVE - EOP	544+25	552+50	44	693
190TH STREET	0+20'S'	3+06'S'	19	160
UNDISTRIBUTED			54	892
1530-05-72 PROJECT TOTALS			**1,120**	**18,770**

HMA PAVEMENT

LOCATION	STATION	STATION	OFFSET	455.0605 TACK COAT (GAL)	460.6644 HMA PAVEMENT 4 MT 58-34 V (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (TON)	465.0310 ASPHALTIC CURB (LF)	450.4000 HMA COLD WEATHER PAVING (TON)
PROJECT 1530-05-72										
CATEGORY 0010										
S.O.P - 320TH ST	8+13	34+70	--	1,424	1,876	--	--	--	--	--
S.O.P - 320TH ST	34+70	47+22	--	736	875	--	--	88	--	--
S.O.P - 320TH ST	47+22	72+00	LT	1,800	2,363	--	--	--	2,481	--
S.O.P - 320TH ST	72+00	77+71	--	370	487	--	--	--	--	--
S.O.P - 320TH ST	77+71	80+78	RT	254	333	--	--	--	306	--
S.O.P - 320TH ST	80+78	117+69	--	2,440	3,159	--	--	42	--	--
320TH ST - CTH CC	117+69	212+50	--	4,748	6,263	--	--	--	--	--
CTH CC - QUARRY RD	212+50	325+90	--	6,378	8,333	113	--	11	--	--
QUARRY RD - 280TH AVE	325+90	345+51	--	1,252	1,646	--	--	--	--	--
QUARRY RD - 280TH AVE	345+51	359+76	RT	998	1,312	--	--	--	1,418	--
QUARRY RD - 280TH AVE	359+76	364+59	--	306	402	--	--	--	--	--
QUARRY RD - 280TH AVE	364+59	380+80	RT	1,206	1,584	--	--	--	1,606	--
QUARRY RD - 280TH AVE	380+80	437+20	--	3,304	4,301	--	--	44	--	--
280TH AVE - EOP	437+20	521+88	LT	5,466	7,187	--	--	--	8,480	--
280TH AVE - EOP	446+10	458+78	RT	--	--	--	--	--	1,269	--
280TH AVE - EOP	521+88	575+98	--	3,578	4,679	46	--	--	--	--
LANE REPAIR	UNDISTRIBUTED			2,240	--	2,693	--	--	--	--
LEVELING & WEDGING	UNDISTRIBUTED			--	--	1,908	--	--	--	--
MINOR REPAIRS	UNDISTRIBUTED			--	--	--	50	--	--	--
PROJECT	UNDISTRIBUTED			--	--	--	--	--	--	23,200
CATEGORY 0010 TOTALS				**36,500**	**44,800**	**4,760**	**50**	**185**	**15,560**	**23,200**
CATEGORY 0020										
PARK & RIDE	--		--	70	115	--	--	--	--	--
CATEGORY 0020 TOTALS				**70**	**115**	**--**	**--**	**--**	**--**	**--**
1530-05-72 PROJECT TOTALS				**36,570**	**44,915**	**4,760**	**50**	**185**	**15,560**	**23,200**

CONCRETE COLLARS FOR PIPE

LOCATION	STATION	520.8000 CONCRETE COLLARS FOR PIPE (EACH)	NOTE
PROJECT 1530-05-72			
CATEGORY 0010			
CTH CC - QUARRY RD	229+32	1	CUVLERT REPLACEMENT
CTH CC - QUARRY RD	251+29	1	CUVLERT REPLACEMENT
CTH CC - QUARRY RD	315+44	1	CUVLERT REPLACEMENT
280TH AVE - EOP	522+16	1	CULVERT EXTENSION
280TH AVE - EOP	522+74	1	CULVERT EXTENSION
280TH AVE - EOP	549+39	1	CUVLERT REPLACEMENT
1530-05-72 PROJECT TOTALS		**6**	

CULVERT PIPE

INLET STATION	INLET OFFSET	INLET ELEVATION	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	SKEW	SLOPE %	520.8700 CLEANING CULVERT PIPES (EACH)	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH (EACH)	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH (EACH)	521.1036 APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH (EACH)	521.3136 CULVERT PIPE CORRUGATED STEEL 36-INCH (LF)	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH (LF)	522.0148 CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH (LF)	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH (LF)	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH (EACH)	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH (EACH)	522.0148 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH (EACH)	611.9800.01 PIPE GRATES 42-INCH (EACH)	611.9800.02 PIPE GRATES 48-INCH (EACH)	633.5200 MARKERS CULVERT END (EACH)
PROJECT 1530-05-72																					
CATEGORY 0010																					
111+67	28.2' LT	1078.98	111+67	64.4' RT	1072.31	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	2
135+29	40.9' RT	1090.81	134+84	69.0' LT	1084.49	21.82° RHF	--	--	--	2	--	--	--	--	--	--	--	--	--	--	2
184+81	33.5' RT	1102.36	184+99	32.6' LT	1100.02	15.66° LHF	--	--	2	--	--	--	--	--	--	--	--	--	--	--	2
229+31	30.0' LT	1120.05	229+31	42.5' RT	1116.05	--	5.48%	--	--	--	--	--	73	--	--	--	2	--	2	--	2
251+29	30.8' LT	1159.84	251+29	51.4' RT	1153.27	--	7.92%	--	--	--	--	--	83	--	--	--	2	--	2	--	2
315+44	48.0' LT	1131.38	315+44	41.6' RT	1129.21	--	2.43%	--	--	--	--	--	--	90	--	--	--	2	--	2	2
522+16	71.3' LT	1083.14	522+04	71.8' LT	1082.36	--	6.78%	--	--	--	1	12	--	--	--	--	--	--	--	--	1
522+79	69.8' LT	1087.29	522+74	69.5' LT	1086.94	--	7.00%	--	--	--	1	5	--	--	--	--	--	--	--	--	1
549+40	29.1' RT	1125.75	549+37	26.5' LT	1124.54	2.64° RHF	2.17%	--	--	--	--	--	--	--	56	2	--	--	--	--	2
UNDISTRIBUTED								10	0	0	0	0	0	0	0	0	0	0	0	0	0
1530-05-72 PROJECT TOTALS								**10**	**2**	**4**	**2**	**17**	**156**	**90**	**56**	**2**	**4**	**2**	**4**	**2**	**16**

3

PROJECT 1530-05-72 PWL MIXTURE USE TABLE - ACCEPTANCE CRITERIA

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QMP TO BE USED	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
USH 10 LANES	7+96 - 575+98	UPPER LAYER	4 MT 58-28 V	4 MT 58-34 V	18,394	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENTSITY PWL HMA PAVEMENT 460.2005
USH 10 LANES	7+96 - 575+98	LEVELING LAYER	MILLED SURFACE	4 MT 58-34 V	15,766	1.50"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVES
USH 10 SHOULDERS	7+96 - 575+98	UPPER LAYER	4 MT 58-28 V	4 MT 58-34 V	5,729	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVES
USH 10 SHOULDERS	7+96 - 575+98	LEVELING LAYER	MILLED SURFACE	4 MT 58-34 V	4,911	1.50"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVES
PARK & RIDE	-	UPPER LAYER	MILLED SURFACE	4 MT 58-34 V	115	2.00"	QMP AS PER SS 465	INCENTIVE DENSITY HMA PAVEMENT 460.2000
LANE REPAIRS	-	LANE REPAIRS	BASE AGGREGATE	ASPHALTIC SURFACE	2,693	3.00"	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS	-	CULVERT REPLACEMENTS	BASE AGGREGATE	ASPHALTIC SURFACE	159	6.00"	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

PWL TEST STRIPS AND INCENTIVES

			460.0105.S	460.0110.S
			HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP	
	LOCATION	STATION - STATION	VOLUMETRICS (EACH)	DENSITY (EACH)
PROJECT 1530-05-72				
CATEGORY 0010				
	PROJECT	UNDISTRIBUTED	1	1
1530-05-72 PROJECT TOTALS			**1**	**1**

CONCRETE CURB & GUTTER

				601.0557	601.0588
				CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT
	LOCATION	STATION - STATION		(LF)	(LF)
PROJECT 1530-05-72					
CATEGORY 0010					
	S.O.P - 320TH ST	8+12	8+51	-	40
	QUARRY RD - 280TH AVE	357+92	365+91	782	-
	UNDISTRIBUTED			118	-
1530-05-72 PROJECT TOTALS				**900**	**40**

3

CONCRETE BARRIER TEMPORARY PRECAST

LOCATION	STATION - STATION		603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST (LF)	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	NOTE
PROJECT 1530-05-72						
CATEGORY 0010						
CTH CC - QUARRY RD	228+00	230+65	100	275	550	CUVLERT REPLACEMENT
CTH CC - QUARRY RD	249+97	252+62	100	275	550	CUVLERT REPLACEMENT
CTH CC - QUARRY RD	314+11	316+77	100	450	900	CUVLERT REPLACEMENT
280TH AVE - EOP	548+06	550+71	-	400	800	CUVLERT REPLACEMENT
1530-05-72 PROJECT TOTALS			**300**	**1,400**	**2,800**	

TEMPORARY SHORING

LOCATION	STATION	511.1100 TEMPORARY SHORING (SF)	NOTE
PROJECT 1530-05-72			
CATEGORY 0010			
CTH CC - QUARRY RD	229+32	546	CULVERT REPLACEMENT
CTH CC - QUARRY RD	251+29	656	CULVERT REPLACEMENT
CTH CC - QUARRY RD	315+44	774	CULVERT REPLACEMENT
1530-05-72 PROJECT TOTALS		**1,976**	

BEAM GUARD

LOCATION	STATION - STATION		O/S	614.2300 MGS GUARDRAIL 3 (LF)	614.2330 MGS GUARDRAIL 3 K (LF)	614.2350 MGS GUARDRAIL SHORT RADIUS (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL (EACH)	614.2500 MGS THRIE BEAM TRANSITION (LF)	NOTE
PROJECT 1530-05-72										
CATEGORY 0010										
S.O.P - 320TH ST	8+00	10+47	LT	150.0	-	-	1	-	40	-
S.O.P - 320TH ST	8+09	11+60	RT	262.5	-	-	1	-	40	-
S.O.P - 320TH ST	33+13	34+70	LT	62.5	-	-	1	-	40	-
S.O.P - 320TH ST	33+16	34+70	RT	62.5	-	-	1	-	40	-
S.O.P - 320TH ST	35+32	36+89	LT	62.5	-	-	1	-	40	-
S.O.P - 320TH ST	35+32	36+86	RT	62.5	-	-	1	-	40	-
S.O.P - 320TH ST	47+22	72+00	LT	175.0	2,150.0	-	2	-	-	-
S.O.P - 320TH ST	55+99	59+94	RT	287.5	-	-	2	-	-	-
S.O.P - 320TH ST	77+46	80+80	LT	200.0	25.0	-	2	-	-	-
S.O.P - 320TH ST	77+71	80+78	RT	100.0	50.0	-	2	-	-	-
S.O.P - 320TH ST	87+91	90+25	LT	178.1	12.5	50.0	1	1	-	20' RADIUS, 8 CRT POSTS
320TH ST - CTH CC	183+45	189+93	LT	400.0	137.5	-	2	-	-	-
320TH ST - CTH CC	185+31	189+79	RT	287.5	50.0	-	2	-	-	-
CTH CC - QUARRY RD	286+32	294+55	RT	512.5	200.0	-	2	-	-	-
CTH CC - QUARRY RD	286+88	292+31	LT	287.5	200.0	75.0	2	-	-	50' RADIUS, 12 CRT POSTS
CTH CC - QUARRY RD	312+20	317+55	RT	400.0	25.0	-	2	-	-	-
CTH CC - QUARRY RD	313+45	318+80	LT	400.0	25.0	-	2	-	-	-
QUARRY RD - 280TH AVE	345+51	359+76	RT	787.5	475.0	-	2	-	-	-
QUARRY RD - 280TH AVE	364+59	380+80	RT	725.0	725.0	-	2	-	-	-
QUARRY RD - 280TH AVE	375+21	397+75	LT	678.1	1,575.0	25.0	1	1	-	15' RADIUS, 4 CRT POSTS
QUARRY RD - 280TH AVE	406+65	415+10	LT	50.0	675.0	-	2	-	-	-
QUARRY RD - 280TH AVE	429+43	436+41	LT	637.5	-	87.5	-	-	-	60' RADIUS, 14 CRT POSTS
280TH AVE - EOP	446+10	458+78	RT	1,112.5	-	-	2	-	-	-
280TH AVE - EOP	467+88	470+66	RT	203.1	25.0	50.0	-	1	-	25' RADIUS, 8 CRT POSTS
280TH AVE - EOP	437+20	463+36	LT	-	2,550.0	87.5	1	-	-	45' RADIUS, 14 CRT POSTS
280TH AVE - EOP	463+83	521+88	LT	1,790.6	3,987.5	50.0	1	1	-	35' RADIUS, 8 CRT POSTS
280TH AVE - EOP	522+57	525+73	LT	228.1	-	62.5	1	1	-	50' RADIUS, 10 CRT POSTS
280TH AVE - EOP	544+58	550+93	LT	275.0	250.0	-	2	-	-	-
1530-05-72 PROJECT TOTALS				**10,378.1**	**13,137.50**	**487.5**	**41**	**5**	**240**	

MOW STRIPS

LOCATION	STATION - STATION		OFFSET	614.0396 GUARDRAIL MOW STRIP ASPHALT (SY)
PROJECT 1530-05-72				
CATEGORY 0010				
S.O.P - 320TH ST	8+00	10+47	LT	102
S.O.P - 320TH ST	8+09	11+60	RT	145
S.O.P - 320TH ST	33+13	34+70	LT	61
S.O.P - 320TH ST	33+16	34+70	RT	61
S.O.P - 320TH ST	35+32	36+89	LT	61
S.O.P - 320TH ST	35+32	36+86	RT	61
S.O.P - 320TH ST	55+97	59+96	RT	170
S.O.P - 320TH ST	77+46	80+80	LT	143
S.O.P - 320TH ST	87+91	90+25	LT	139
320TH ST - CTH CC	183+45	189+93	LT	240
320TH ST - CTH CC	185+31	189+79	RT	175
CTH CC - QUARRY RD	286+32	294+55	RT	324
CTH CC - QUARRY RD	286+88	292+31	LT	216
CTH CC - QUARRY RD	312+20	317+55	RT	215
CTH CC - QUARRY RD	313+45	318+80	LT	215
QUARRY RD - 280TH AVE	375+21	397+75	LT	591
QUARRY RD - 280TH AVE	406+65	415+10	LT	189
QUARRY RD - 280TH AVE	429+43	436+41	LT	301
280TH AVE - EOP	467+86	470+66	RT	100
280TH AVE - EOP	436+73	437+20	LT	47
280TH AVE - EOP	521+88	522+33	LT	44
280TH AVE - EOP	522+57	525+73	LT	157
280TH AVE - EOP	544+58	550+93	LT	258
190TH STREET	0+40'S'	1+67'S'	LT	55
PROJECT 1530-05-72 TOTALS				**4,070**

WATER

TASK	624.0100 WATER (MGAL)
PROJECT 1530-05-72	
CATEGORY 0010	
DUST CONTROL	335
COMPACTION	335
1530-05-72 PROJECT TOTALS	**670**

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
PROJECT 1530-05-72		
CATEGORY 0010		
PROJECT	8	4
1530-05-72 PROJECT TOTALS	**8**	**4**

EROSION CONTROL AT FLUMES

LOCATION	STATION	O/S	628.2004* EROSION MAT CLASS I TYPE B (SY)	628.2039** EROSION MAT CLASS III TYPE D (SY)
PROJECT 1530-05-72				
CATEGORY 0010				
S.O.P - 320TH ST	8+40	LT	23	-
S.O.P - 320TH ST	47+18	LT	15	-
S.O.P - 320TH ST	50+72	LT	-	6
S.O.P - 320TH ST	54+22	LT	-	11
S.O.P - 320TH ST	57+72	LT	-	7
S.O.P - 320TH ST	61+22	LT	-	4
S.O.P - 320TH ST	64+72	LT	-	4
S.O.P - 320TH ST	68+22	LT	-	5
S.O.P - 320TH ST	77+67	RT	9	-
QUARRY RD - 280TH AVE	349+27	RT	4	-
QUARRY RD - 280TH AVE	352+77	RT	9	-
QUARRY RD - 280TH AVE	356+27	RT	-	4
QUARRY RD - 280TH AVE	359+82	RT	7	-
QUARRY RD - 280TH AVE	362+41	LT	8	-
QUARRY RD - 280TH AVE	365+91	LT	8	-
QUARRY RD - 280TH AVE	366+80	RT	4	-
QUARRY RD - 280TH AVE	370+30	RT	-	10
QUARRY RD - 280TH AVE	373+80	RT	8	-
QUARRY RD - 280TH AVE	377+30	RT	-	6
QUARRY RD - 280TH AVE	380+80	RT	8	-
280TH AVE - EOP	437+16	LT	-	9
280TH AVE - EOP	440+70	LT	-	16
280TH AVE - EOP	444+20	LT	-	19
280TH AVE - EOP	446+06	RT	9	-
280TH AVE - EOP	447+70	LT	-	10
280TH AVE - EOP	449+60	RT	-	4
280TH AVE - EOP	451+20	LT	-	20
280TH AVE - EOP	453+10	RT	-	4
280TH AVE - EOP	454+70	LT	-	24
280TH AVE - EOP	456+60	RT	17	-
280TH AVE - EOP	458+20	LT	-	4
280TH AVE - EOP	464+15	LT	-	11
280TH AVE - EOP	467+70	LT	-	21
280TH AVE - EOP	471+20	LT	30	-
280TH AVE - EOP	474+70	LT	-	30
280TH AVE - EOP	478+20	LT	11	-
280TH AVE - EOP	481+70	LT	14	-
280TH AVE - EOP	485+20	LT	-	7
280TH AVE - EOP	488+70	LT	-	10
280TH AVE - EOP	492+20	LT	-	6
280TH AVE - EOP	495+70	LT	-	7
280TH AVE - EOP	499+20	LT	-	21
280TH AVE - EOP	502+70	LT	-	19
280TH AVE - EOP	506+20	LT	7	-
280TH AVE - EOP	509+70	LT	7	-
280TH AVE - EOP	513+20	LT	-	14
280TH AVE - EOP	516+70	LT	-	22
SUBTOTAL			198	335
UNDISTRIBUTED			52	85
1530-05-72 PROJECT TOTALS			**250**	**420**

*ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL AT ENDWALLS" TABLE AND IN "EROSION CONTROL SLOPES AND DITCHES" TABLE
**ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL SLOPES AND DITCHES" TABLE

EROSION CONTROL AT ENDWALLS

LOCATION	STATION	O/S	606.0200 RIPRAP MEDIUM (CY)	628.1504*** SILT FENCE (LF)	628.1520*** SILT FENCE MAINTENANCE (LF)	628.2004* EROSION MAT CLASS I TYPE B (SY)	628.7010 INLET PROTECTION TYPE B (EACH)	628.7555 CULVERT PIPE CHECKS (EACH)	645.0120 GEOTEXTILE TYPE HR (SY)	NOTE
PROJECT 1530-05-72										
CATEGORY 0010										
S.O.P - 320TH ST	78+22	LT	-	40	120	-	-	-	-	EXISTING 5' X 6' BOX CULVERT
S.O.P - 320TH ST	79+35	LT	-	40	120	-	-	7	-	ASSUME 36-INCH EXISTING ENDWALL
S.O.P - 320TH ST	79+35	RT	-	40	120	-	-	24	-	EXISTING 5' X 6' BOX CULVERT
S.O.P - 320TH ST	88+12	LT	-	40	120	-	-	18	-	EXISTING 4 'X 7' BOX CULVERT
S.O.P - 320TH ST	111+66	RT	-	40	120	6	-	-	-	PROPOSED 30-INCH ENDWALL
S.O.P - 320TH ST	111+66	LT	-	40	120	-	-	5	-	PROPOSED 30-INCH ENDWALL
320TH ST - CTH CC	134+85	LT	-	40	120	6	-	-	-	PROPOSED 30-INCH ENDWALL
320TH ST - CTH CC	135+28	RT	-	40	120	-	-	5	-	PROPOSED 30-INCH ENDWALL
320TH ST - CTH CC	184+81	RT	-	40	120	-	-	3	-	PROPOSED 24-INCH ENDWALL
320TH ST - CTH CC	184+99	LT	-	40	120	5	-	-	-	PROPOSED 24-INCH ENDWALL
320TH ST - CTH CC	187+41	LT	-	40	120	-	-	30	-	REPAIRING 7' X 7' BOX CULVERT
320TH ST - CTH CC	187+41	RT	-	40	120	-	-	-	-	REPAIRING 7' X 7' BOX CULVERT
320TH ST - CTH CC	189+84	RT	-	40	120	-	-	-	-	ASSUME 24-INCH EXISTING ENDWALL
320TH ST - CTH CC	190+01	LT	-	40	120	-	-	-	-	ASSUME 24-INCH EXISTING ENDWALL
320TH ST - CTH CC	190+06	RT	-	40	120	-	-	3	-	ASSUME 24-INCH EXISTING ENDWALL
320TH ST - CTH CC	190+24	LT	-	40	120	-	-	3	-	ASSUME 24-INCH EXISTING ENDWALL
CTH CC - QUARRY RD	229+30	RT	7	40	120	-	-	-	19	PROPOSED 42-INCH ENDWALL
CTH CC - QUARRY RD	229+33	LT	-	40	120	-	-	8	-	PROPOSED 42-INCH ENDWALL
CTH CC - QUARRY RD	251+27	RT	7	40	120	-	-	-	19	PROPOSED 42-INCH ENDWALL
CTH CC - QUARRY RD	251+30	LT	-	40	120	-	-	8	-	PROPOSED 42-INCH ENDWALL
CTH CC - QUARRY RD	290+28	LT	-	40	120	-	-	-	-	EXISTING 9' X 7' BOX CULVERT
CTH CC - QUARRY RD	290+57	RT	-	40	120	-	-	36	-	EXISTING 9' X 7' BOX CULVERT
CTH CC - QUARRY RD	315+44	LT	-	40	120	-	-	10	-	PROPOSED 48-INCH ENDWALL
CTH CC - QUARRY RD	315+44	RT	14	40	120	-	-	-	39	PROPOSED 48-INCH ENDWALL
QUARRY RD - 280TH AVE	347+24	RT	-	40	120	-	-	-	-	ASSUME 36" EXISTING ENDWALL
QUARRY RD - 280TH AVE	366+08	LT	-	40	120	-	1	-	-	ASSUME EXISTING MEDIAN GRATE
QUARRY RD - 280TH AVE	366+36	RT	-	40	120	-	-	-	-	EXISTING 30" ENDWALL
QUARRY RD - 280TH AVE	388+61	LT	-	40	120	-	-	-	-	EXISTING 24" ENDWALL
QUARRY RD - 280TH AVE	399+67	LT	-	40	120	-	-	-	-	ASSUME 5' X 5' EXISTING BOX CULVERT
QUARRY RD - 280TH AVE	409+84	LT	-	40	120	-	-	-	-	ASSUME 36-INCH EXISTING ENDWALL
QUARRY RD - 280TH AVE	414+25	LT	-	40	120	-	-	-	-	ASSUME 6' X 3' EXISTING BOX CULVERT
QUARRY RD - 280TH AVE	416+25	LT	-	40	120	-	-	3	-	ASSUME 24-INCH EXISTING ENDWALL
QUARRY RD - 280TH AVE	416+55	LT	-	40	120	-	-	-	-	ASSUME 24-INCH EXISTING ENDWALL
QUARRY RD - 280TH AVE	436+20	LT	-	40	120	-	-	-	-	EXISTING 16' X 6' BOX CULVERT
QUARRY RD - 280TH AVE	436+98	LT	-	40	120	-	-	66	-	EXISTING 16' X 6' BOX CULVERT
280TH AVE - EOP	447+22	LT	-	40	120	-	-	-	-	ASSUME 36-INCH EXISTING ENDWALL
280TH AVE - EOP	447+50	LT	-	40	120	-	-	7	-	ASSUME 36-INCH EXISTING ENDWALL
280TH AVE - EOP	455+92	LT	-	40	120	-	-	-	-	ASSUME 4' X 6' EXISTING BOX CULVERT
280TH AVE - EOP	455+92	RT	-	40	120	-	-	18	-	ASSUME 4' X 6' EXISTING BOX CULVERT
280TH AVE - EOP	469+48	RT	-	40	120	-	-	-	-	ASSUME 36-INCH EXISTING ENDWALL
280TH AVE - EOP	469+60	LT	-	40	120	-	-	7	-	ASSUME 36-INCH EXISTING ENDWALL
280TH AVE - EOP	481+78	LT	-	40	120	-	-	-	-	30-INCH EXISTING ENDWALL
280TH AVE - EOP	522+04	LT	8	40	120	-	-	-	25	PROPOSED 36-INCH ENDWALL
280TH AVE - EOP	522+79	LT	-	40	120	-	-	7	-	PROPOSED 36-INCH ENDWALL
280TH AVE - EOP	545+40	LT	-	40	120	-	-	24	-	6' X 8' EXISTING BOX CULVERT
280TH AVE - EOP	549+37	LT	-	40	120	5	-	-	-	PROPOSED 24-INCH ENDWALL
280TH AVE - EOP	549+40	RT	-	40	120	-	-	3	-	PROPOSED 24-INCH ENDWALL
SUBTOTAL			37	1,880	5,640	22	1	295	102	
UNDISTRIBUTED			9	470	1410	8	0	75	28	
1530-05-72 PROJECT TOTALS			**46**	**2,350**	**7,050**	**30**	**1**	**370**	**130**	

*ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL AT FLUMES" TABLE AND IN "EROSION CONTROL SLOPES AND D
***ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL SLOPES AND DITCHES" TABLE

3

EROSION CONTROL SLOPES AND DITCHES

LOCATION	STATION - STATION		628.1504*** SILT FENCE (LF)	628.1520*** SILT FENCE MAINTENANCE (LF)	628.2004* EROSION MAT CLASS I TYPE B (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	628.2039** EROSION MAT CLASS III TYPE D (SY)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)
PROJECT 1530-05-72									
CATEGORY 0010									
S.O.P - 320TH ST	7+96	13+02	983	2,949	620	503	-	-	2
S.O.P - 320TH ST	32+07	37+96	1,209	3,627	-	1,318	-	-	4
S.O.P - 320TH ST	46+00	73+21	2,572	7,716	1,824	-	1,902	310	2
S.O.P - 320TH ST	76+02	83+36	244	732	1,119	-	251	340	2
S.O.P - 320TH ST	87+88	91+70	-	-	636	-	102	80	1
320TH ST - CTH CC	182+31	191+23	416	1,248	2,930	-	1,047	190	2
CTH CC - QUARRY RD	229+15	229+45	-	-	131	-	-	-	2
CTH CC - QUARRY RD	251+15	251+40	-	-	170	-	-	-	2
CTH CC - QUARRY RD	284+88	296+03	703	2,109	2,488	-	2,590	140	3
CTH CC - QUARRY RD	311+20	319+95	574	1,722	856	-	1,779	80	2
QUARRY RD - 280TH AVE	344+30	399+16	2,662	7,986	4,463	-	2,824	330	4
QUARRY RD - 280TH AVE	405+20	416+27	815	2,445	2,277	-	-	-	1
280TH AVE - EOP	429+43	527+19	4,847	14,541	9,891	-	8,921	310	7
280TH AVE - EOP	544+30	552+37	266	798	476	-	984	-	2
SUBTOTAL			15,291	45,873	27,881	1,821	20,400	1,780	36
UNDISTRIBUTED			3,909	11,527	7,019	479	5,100	470	9
1530-05-72 PROJECT TOTALS			**19,200**	**57,400**	**34,900**	**2,300**	**25,500**	**2,250**	**45**

*ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL AT ENDWALLS" TABLE AND IN "EROSION CONTROL AT FLUMES" TABLE
**ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL AT FLUMES" TABLE
***ADDITIONAL QUANTITY FOUND IN "EROSION CONTROL AT ENDWALLS" TABLE

LANDSCAPING

LOCATION	STATION - STATION		625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.6505 SOIL STABILIZER TYPE A (ACRE)	629.0205 FERTILIZER TYPE A (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0500 SEED WATER (MGAL)
PROJECT 1530-05-72									
CATEGORY 0010									
S.O.P - 320TH ST	7+96	13+02	1,123	-	-	1.1	31	13	36
S.O.P - 320TH ST	32+07	37+96	1,318	-	-	1.5	36	28	53
S.O.P - 320TH ST	46+00	73+21	3,725	-	0.4	2.7	101	15	96
S.O.P - 320TH ST	76+02	83+36	1,369	-	0.1	1.3	37	17	45
S.O.P - 320TH ST	87+88	91+70	738	-	0.1	0.6	20	5	21
320TH ST - CTH CC	182+31	191+23	3,976	-	0.3	3.1	108	23	108
CTH CC - QUARRY RD	229+15	229+45	131	-	-	0.2	4	2	4
CTH CC - QUARRY RD	251+15	251+40	170	-	-	0.2	5	1	5
CTH CC - QUARRY RD	284+88	296+03	5,077	-	0.6	3.8	138	24	134
CTH CC - QUARRY RD	311+20	319+95	2,635	-	0.4	2.2	72	20	76
QUARRY RD - 280TH AVE	344+30	399+16	7,286	-	0.6	5.4	197	34	192
QUARRY RD - 280TH AVE	405+20	416+27	2,277	-	-	1.9	62	17	65
280TH AVE - EOP	429+43	527+19	18,811	-	1.9	12.5	508	27	444
280TH AVE - EOP	544+30	552+37	1,460	-	0.3	1.2	40	10	41
		SUBTOTAL	50,096	-	4.7	37.7	1,359	236	1,320
		UNDISTRIBUTED	12,604	2,500	2.8	9.7	341	64	330
1530-05-72 PROJECT TOTALS			**62,700**	**2,500**	**7.5**	**48.0**	**1,700**	**300**	**1,650**

TRAFFIC CONTROL

LOCATION	# OF DAYS	643.0300 TRAFFIC CONTROL DRUMS (DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAYS)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAYS)	643.0900 TRAFFIC CONTROL SIGNS (DAYS)
PROJECT 1530-05-72					
CATEGORY 0010					
USH 10	120	70,080	--	--	8,040
CULVERT REPLACEMENT STA 229+31	7	--	7	14	140
CULVERT REPLACEMENT STA 251+29	7	--	7	14	140
CULVERT REPLACEMENT STA 315+44	7	--	7	14	140
CULVERT REPLACEMENT STA 549+39	7	--	7	14	140
UNDISTRIBUTED		7,020	2	4	860
CATEGORY 0010 TOTALS		**77,100**	**30**	**60**	**9,460**
CATEGORY 0020					
PARK & RIDE	19	--	95	190	19
UNDISTRIBUTED		0	10	20	1
CATEGORY 0020 TOTALS		**0**	**105**	**210**	**20**
1530-05-72 PROJECT TOTALS		**77,100**	**135**	**270**	**9,480**

TEMPORARY PAVEMENT MARKING

LOCATION	STATION - STATION	646.9000 MARKING REMOVAL LINE 4-INCH (LF)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) (LF)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (LF)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) (LF)	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (LF)
PROJECT 1530-05-72						
CATEGORY 0010						
S.O.P - 320TH ST	STA. 07+96 - STA. 118+00	-	8,206	-	-	-
320TH ST - CTH CC	STA. 118+00 - STA. 213+00	-	7,125	-	-	-
CTH CC - QUARRY RD	STA. 213+00 - STA. 326+00	5,500	8,475	4,600	8,400	144
QUARRY RD - 280TH AVE	STA. 326+00 - STA. 437+00	-	7,988	-	-	-
280TH AVE - EOP	STA. 437+00 - STA. 575+98	1,900	10,424	1,800	2,800	48
UNDISTRIBUTED		400	2,182	350	600	8
1530-05-72 PROJECT TOTALS		**7,800**	**44,400**	**6,750**	**11,800**	**200**
				18,550		

MOVING SIGNS

LOCATION	638.2102 MOVING SIGNS TYPE II (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)
PROJECT 1530-05-72		
CATEGORY 0010		
UNDISTRIBUTED	25	25
PROJECT 1530-05-72 TOTALS	**25**	**25**

PAVEMENT MARKING

LOCATION	STATION - STATION	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE) (LF)	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (DASHED WHITE) (LF)	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE) (LF)	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) (LF)	646.1020 MARKING LINE EPOXY 4-INCH (DASHED YELLOW) (LF)	646.5220 MARKING SYMBOL EPOXY (WHITE) (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH (LF)	646.7020 MARKING DIAGONAL EPOXY 6-INCH (WHITE) (LF)	646.8120 MARKING CURB EPOXY (YELLOW) (LF)	646.8220 MARKING ISLAND NOSE EPOXY (YELLOW) (EACH)	646.8320 MARKING PARKING STALL EPOXY (WHITE) (LF)	646.6464 COLD WEATHER MARKING EPOXY 4-INCH WHITE (LF)	646.6464 COLD WEATHER MARKING EPOXY 4-INCH YELLOW (LF)	646.6468 COLD WEATHER MARKING EPOXY 8-INCH (LF)
PROJECT 1530-05-72															
CATEGORY 0010															
S.O.P - 320TH ST	STA. 07+96 - STA. 118+00	21,319	1,814	--	19,711	733	--	--	--	--	--	--	23,133	20,444	--
320TH ST - CTH CC	STA. 118+00 - STA. 213+00	17,925	131	--	6,677	1,877	--	60	--	--	--	--	18,056	8,554	--
CTH CC - QUARRY RD	STA. 213+00 - STA. 326+00	21,480	689	200	14,855	1,296	--	--	--	--	--	--	22,169	16,151	200
QUARRY RD - 280TH AVE	STA. 326+00 - STA. 437+00	19,651	1,804	291	20,911	229	--	162	--	61	1	--	21,455	21,140	291
280TH AVE - EOP	STA. 437+00 - STA. 575+98	27,351	2,238	--	18,462	1,407	--	30	--	--	--	--	29,589	19,869	--
UNDISTRIBUTED		3,274	224	19	2,424	168	0	48	0	4	0	0	3,498	2,592	19
CATEGORY 0010 TOTALS		**111,000**	**6,900**	**510**	**83,040**	**5,710**	**0**	**300**	**0**	**65**	**1**	**0**	**117,900**	**88,750**	**510**
		117,900			**88,750**								**206,650**		
CATEGORY 0020															
PARK & RIDE		--	--	--	--	--	2	15	77	--	--	406	--	--	--
UNDISTRIBUTED		--	--	--	--	--	--	5	8	--	--	19	--	--	--
CATEGORY 0020 TOTALS		**0**	**0**	**0**	**0**	**0**	**2**	**20**	**85**	**0**	**0**	**425**	**0**	**0**	**0**
		0													
1530-05-72 PROJECT TOTALS		**117,900**		**510**	**88,750**		**2**	**320**	**85**	**65**	**1**	**425**	**206,650**		**510**

CLEANING DITCH

LOCATION	CULVERT STATION	O/S	SPV.0090.01 CLEANING DITCH (LF)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	22+21	RT	50
S.O.P - 320TH ST	26+27	LT & RT	100
S.O.P - 320TH ST	57+12	LT & RT	100
S.O.P - 320TH ST	103+93	LT & RT	100
S.O.P - 320TH ST	104+79	LT & RT	100
S.O.P - 320TH ST	111+67	RT	50
320TH ST - CTH CC	135+12	LT & RT	100
320TH ST - CTH CC	142+15	LT	50
320TH ST - CTH CC	157+94	RT	50
CTH CC - QUARRY RD	315+44	LT & RT	100
1530-05-72 PROJECT TOTALS			**800**

LOCATE NO-PASSING ZONES

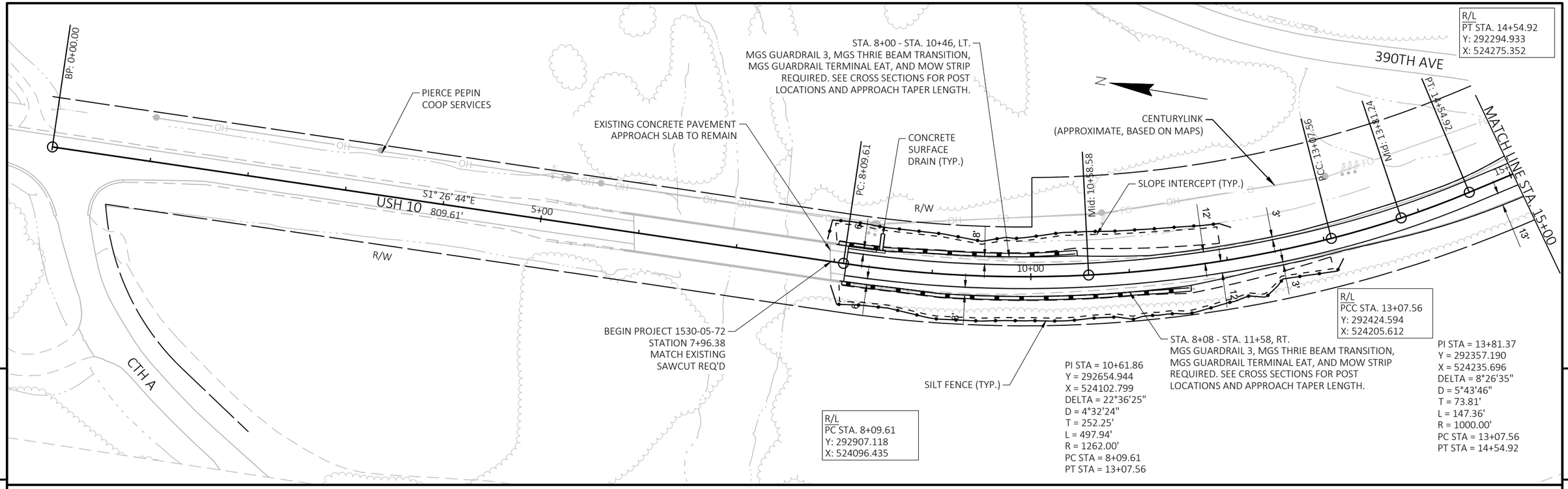
LOCATION	STATION - STATION		648.0100 LOCATE NO-PASSING ZONES (MI)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	7+96	118+00	2.08
320TH ST - CTH CC	118+00	213+00	1.80
CTH CC - QUARRY RD	213+00	326+00	2.14
QUARRY RD - 280TH AVE	326+00	437+00	2.10
280TH AVE - EOP	437+00	575+98	2.63
1530-05-72 PROJECT TOTALS			**10.76**

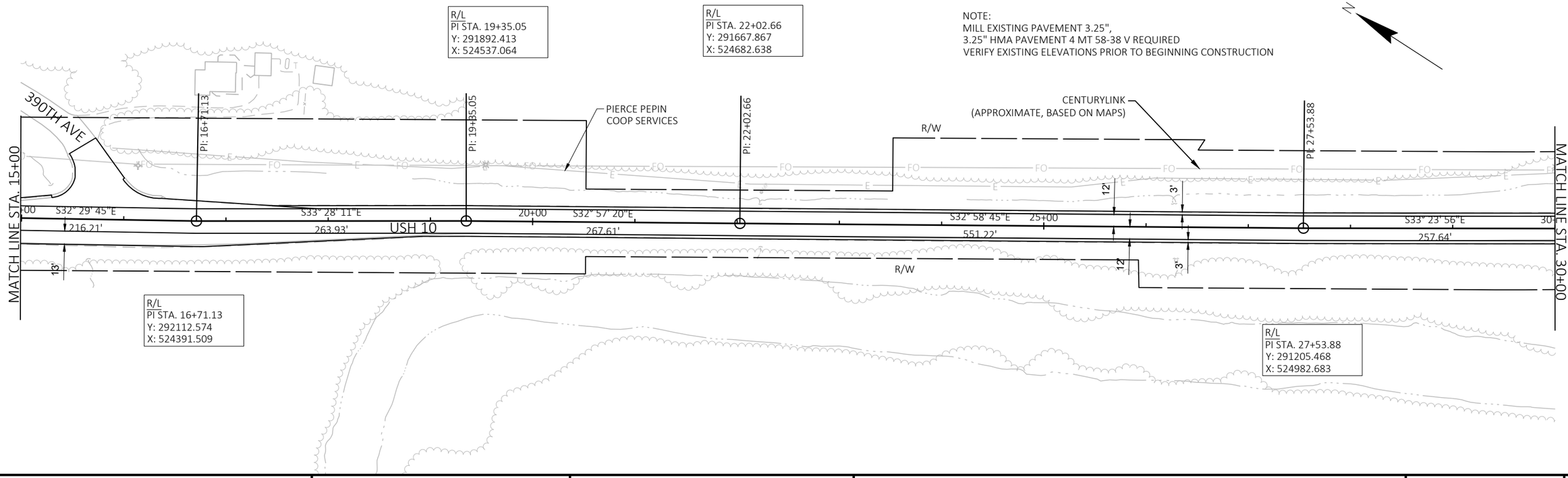
CONSTRUCTION STAKING

LOCATION	STATION - STATION		650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.5000 CONSTRUCTION STAKING BASE (LF)	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB AND GUTTER (LF)	650.6000 CONSTRUCTION STAKING PIPE CULVERT (EACH)	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
PROJECT 1530-05-72								
CATEGORY 0010								
S.O.P - 320TH ST	8+00	118+00	5,200	5,200	40	1	10,941	5,200
320TH ST - CTH CC	118+00	213+00	900	900	-	2	9,500	900
CTH CC - QUARRY RD	213+00	326+00	2,030	2,030	-	3	11,300	2,030
QUARRY RD - 280TH AVE	326+00	437+00	7,195	7,195	900	-	10,650	7,195
280TH AVE - EOP	437+00	576+00	9,830	9,830	-	3	13,898	9,830
190TH ST	0+20'S'	3+06'S'	286	286	-	-	286	286
CATEGORY 0010 TOTALS			**25,441**	**25,441**	**940**	**9**	**56,575**	**25,441**
CATEGORY 0020								
PARK & RIDE	--		-	-	-	-	165	-
CATEGORY 0020 TOTALS			**0**	**0**	**0**	**0**	**165**	**0**
1530-05-72 PROJECT TOTALS			**25,441**	**25,441**	**940**	**9**	**56,740**	**25,441**

SAWING

LOCATION	STATION - STATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
PROJECT 1530-05-72			
CATEGORY 0010			
S.O.P - 320TH ST	0+00 - 118+00	270	-
320TH ST - CTH CC	118+00 - 213+00	155	-
CTH CC - QUARRY RD	213+00 - 326+00	240	210
QUARRY - 280TH	326+00 - 437+00	450	-
280TH - EOP	437+00 - 576+00	155	90
CATEGORY 0010 TOTALS		**1,270**	**300**
CATEGORY 0020			
PARK & RIDE		65	-
CATEGORY 0020 TOTALS		**65**	**0**
1530-05-72 PROJECT TOTALS		**1,335**	**300**





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 68	E

STA. 33+15 - STA. 34+71, LT.
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED. SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

STA. 34+70
MATCH EXISTING B-47-13

STA. 35+32
MATCH EXISTING B-47-13

STA. 35+30 - STA. 36+87, LT.
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED. SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

PI STA = 39+24.15
Y = 290228.455
X = 525626.879
DELTA = 51°24'26"
D = 3°01'19"
T = 912.63'
L = 1701.14'
R = 1896.00'
PC STA = 30+11.52
PT STA = 47+12.66

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

STA 42+57, LT.
RESURFACE PE
HMA

ENVIRONMENTALLY SENSITIVE AREA

PIERCE PEPIN COOP SERVICES

SILT FENCE (TYP.)

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 30+00

PC: 30+11.52

R/L
PC STA. 30+11.52
Y: 290990.373
X: 525124.507

Mid: 38+62.09

35+00

40+00

45+00

MATCH LINE STA. 45+00

USH 10

R/W

3'

12'

STA. 33+18 - STA. 34+72, RT.
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED. SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

STA. 35+30 - STA. 36+84, RT.
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED. SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

330TH AVE

PIERCE PEPIN COOP SERVICES

N

5

5

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

STA 45+22, LT.
RESURFACE PE
HMA

STA. 47+47 - STA. 71+76, LT.
GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT REQUIRED.
MGS GUARDRAIL 3 K FROM STA. 49+00 - STA. 70+42
SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

R/W

DRIVEWAY CURB HEAD IN FRONT OF BEAM GUARD POST #3

SILT FENCE (TYP.)

R/L
PC STA. 51+37.88
Y: 290107.347
X: 526959.238

PC: 51+37.88

PT: 47+12.66

Mid: 54+53.28

STA. 47+22 - STA. 72+00, LT.
ASPHALTIC CURB

SLOPE INTERCEPT (TYP.)

PT: 57+68.69

R/L
PT STA. 57+68.69
Y: 290018.818
X: 527583.692

MATCH LINE STA. 45+00

MATCH LINE STA. 60+00

50+00

55+00

USH 10

S84° 48' 23"E
425.22'

S79° 14' 08"E
404.44'

8'

12'

13'

330TH AVE

R/L
PT STA. 47+12.66
Y: 290145.840
X: 526535.764

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

ASPHALTIC FLUME REQUIRED (TYP.)

PI STA = 54+53.53
Y = 290078.773
X = 527273.594
DELTA = 5°34'14"
D = 0°52'59"
T = 315.65'
L = 630.81'
R = 6488.00'
PC STA = 51+37.88
PT STA = 57+68.69

STA. 55+99 - STA. 59+94, RT.
MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED. SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

TEMPORARY DITCH CHECK (TYP.)

PIERCE PEPIN COOP SERVICES

R/W

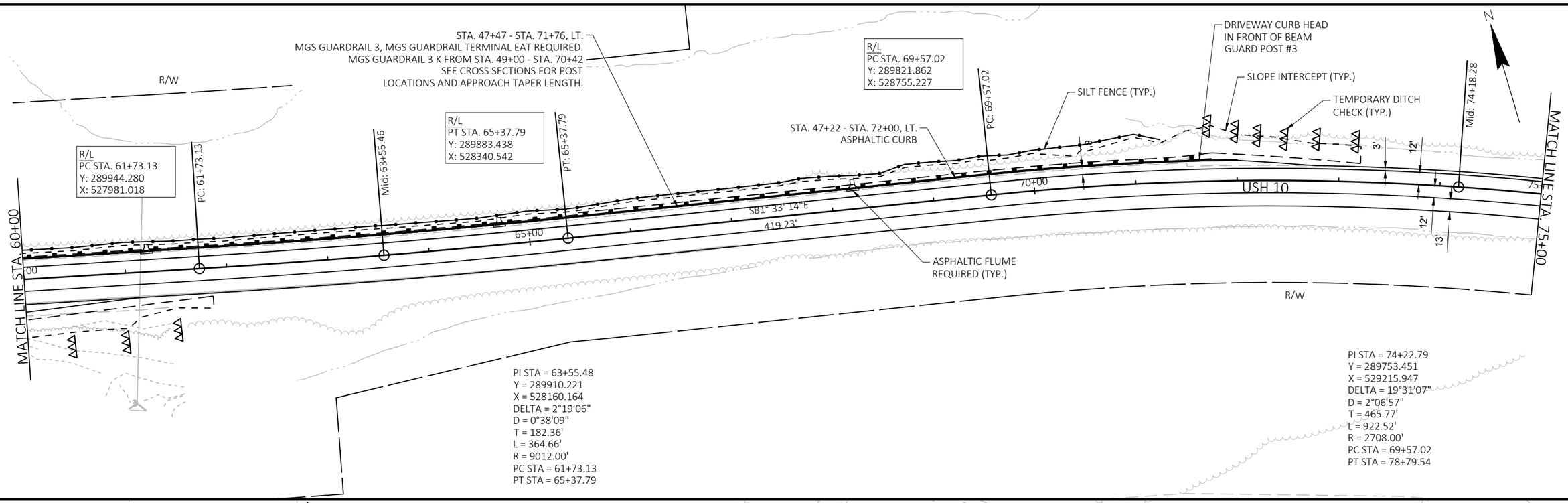
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 69	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (2)

PLOT DATE : 2/26/2021 9:54 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 70	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 2/26/2021 9:54 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

TEMPORARY DITCH CHECK (TYP.)

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 90+00

90+00

S69° 28' 39"E
801.91'

95+00

R/W

PIERCE PEPIN COOP SERVICES

R/L
PI STA. 96+67.46
Y: 288841.110
X: 531272.856

PI: 96+67.46

3'

12'

12'

13'

S69° 38' 01"E
453.37'

100+00

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

R/L
PC STA. 101+20.83
Y: 288683.329
X: 531697.882

PC: 101+20.83

PI STA = 103+97.56
Y = 288587.018
X = 531957.318
DELTA = 16°54'26"
D = 3°04'38"
T = 276.74'
L = 549.45'
R = 1862.00'
PC STA = 101+20.83
PT STA = 106+70.28

STA 104+22, LT.
RESURFACE PE
HMA

Mid: 103+95.55

105

MATCH LINE STA. 105+00

USH 10

R/W

332ND AVE

PIERCE PEPIN
COOP SERVICES

N

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

R/L
PT STA. 106+70.28
Y: 288570.321
X: 532233.550

PT: 106+70.28

R/L
PI STA. 110+84.56
Y: 288545.324
X: 532647.077

PI: 110+84.56

MATCH LINE STA. 105+00

105+00

S86° 32' 27"E
414.28'

110+00

USH 10

12'

3'

12'

13'

R/W

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

320TH ST

R/L
PI STA. 119+00.44
Y: 288500.139
X: 533461.704

PI: 119+00.44

115+00

S86° 49' 31"E
815.88'

120

MATCH LINE STA. 120+00

R/W

PIERCE PEPIN
COOP SERVICES

STA. 111+67, LT & RT
2-APRON ENDWALLS FOR CULVERT
PIPE STEEL 30-INCH REQ'D

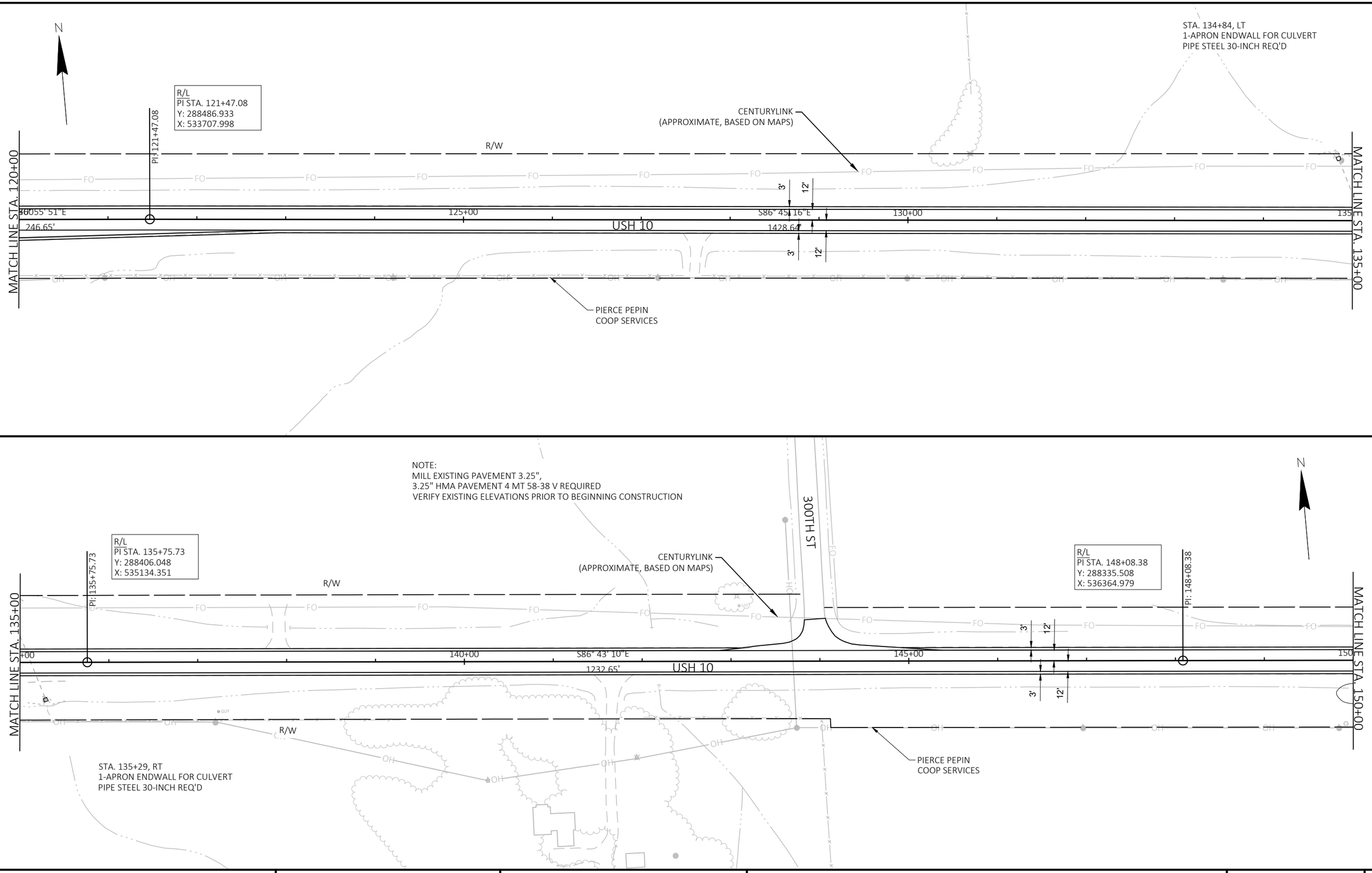
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 71	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (4)

PLOT DATE : 2/26/2021 9:54 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

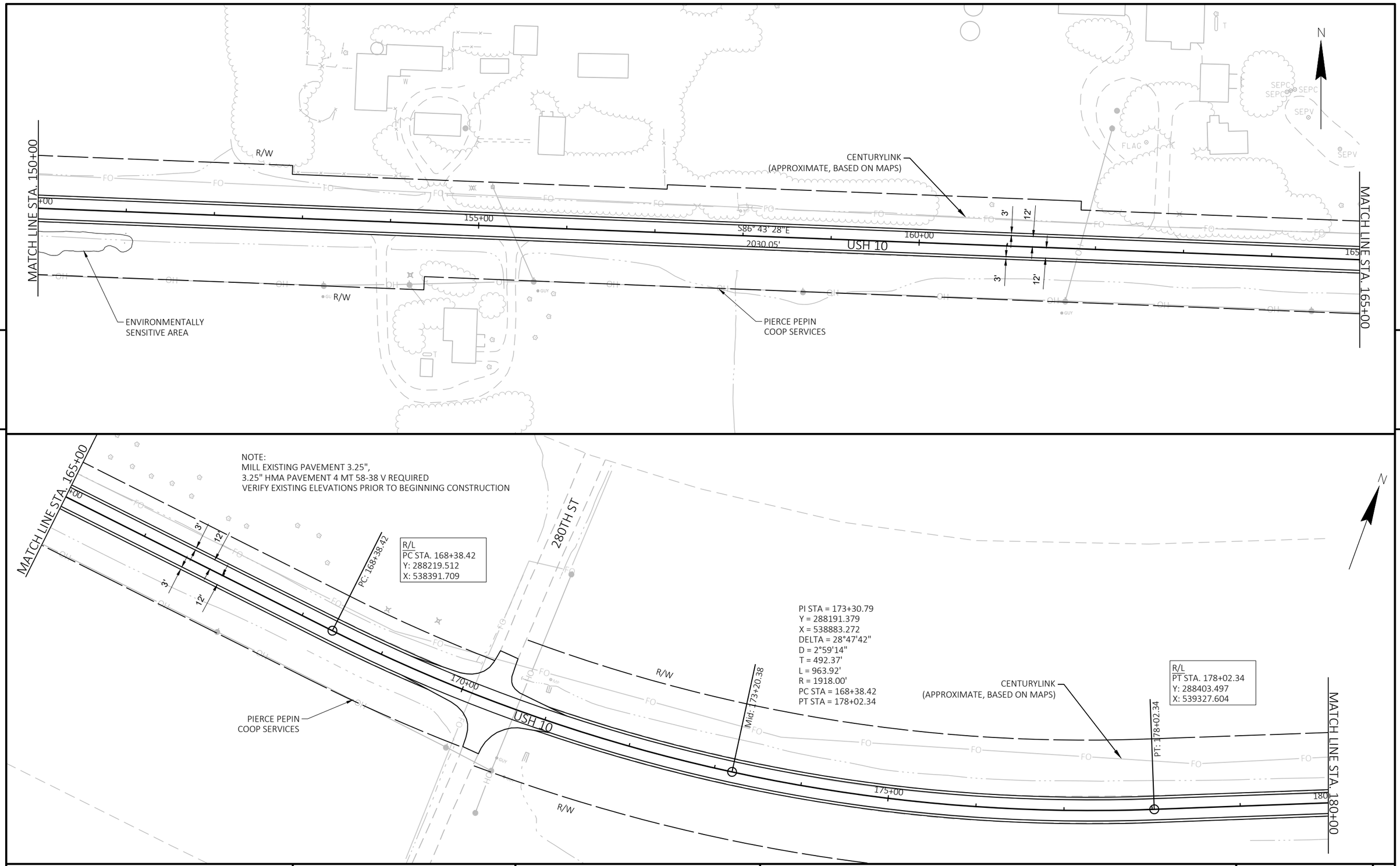


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 72	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (5)

PLOT DATE : 2/26/2021 9:55 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

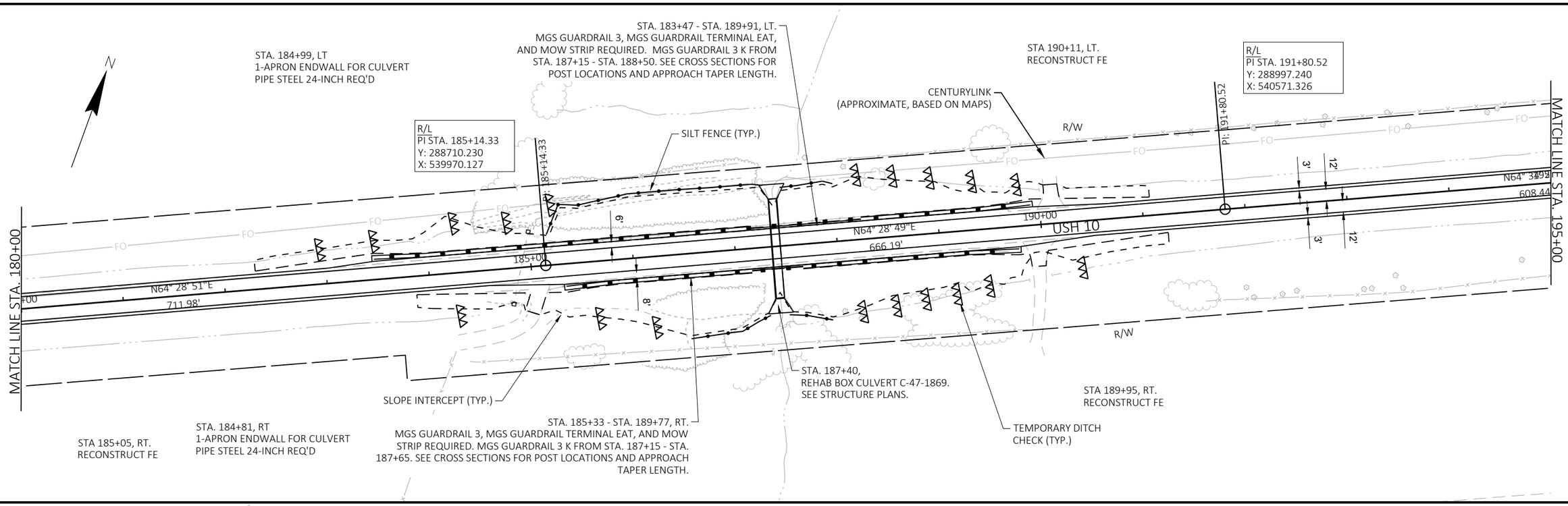


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 73	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (6)

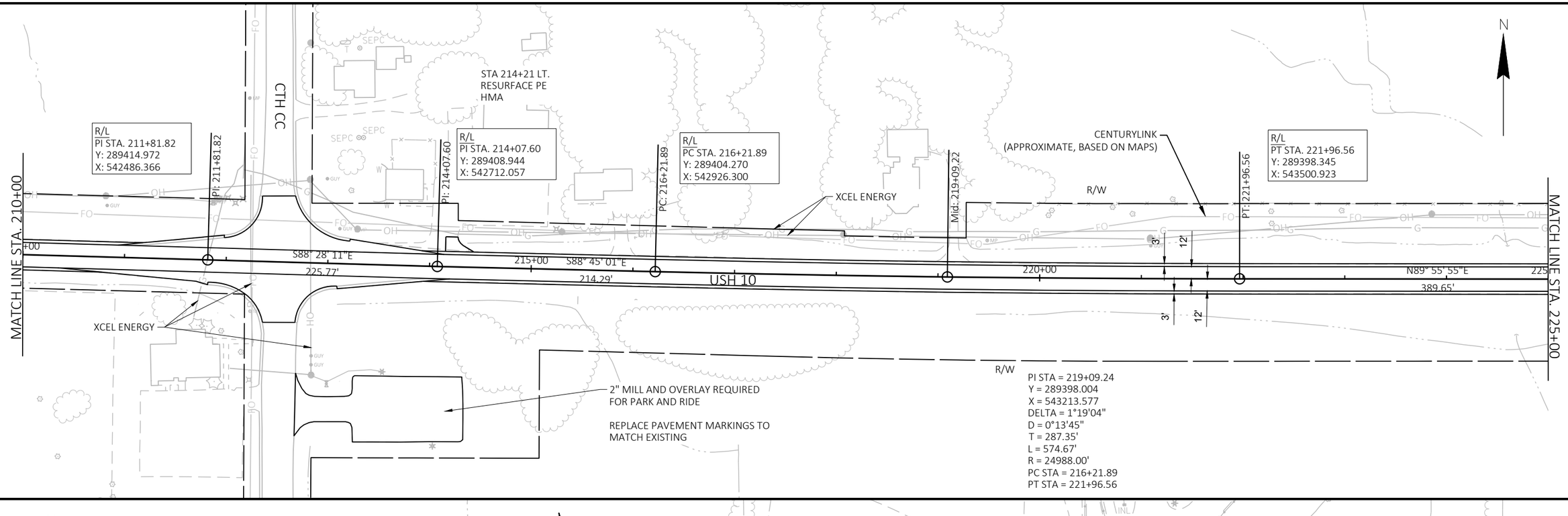
PLOT DATE : 2/26/2021 9:55 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

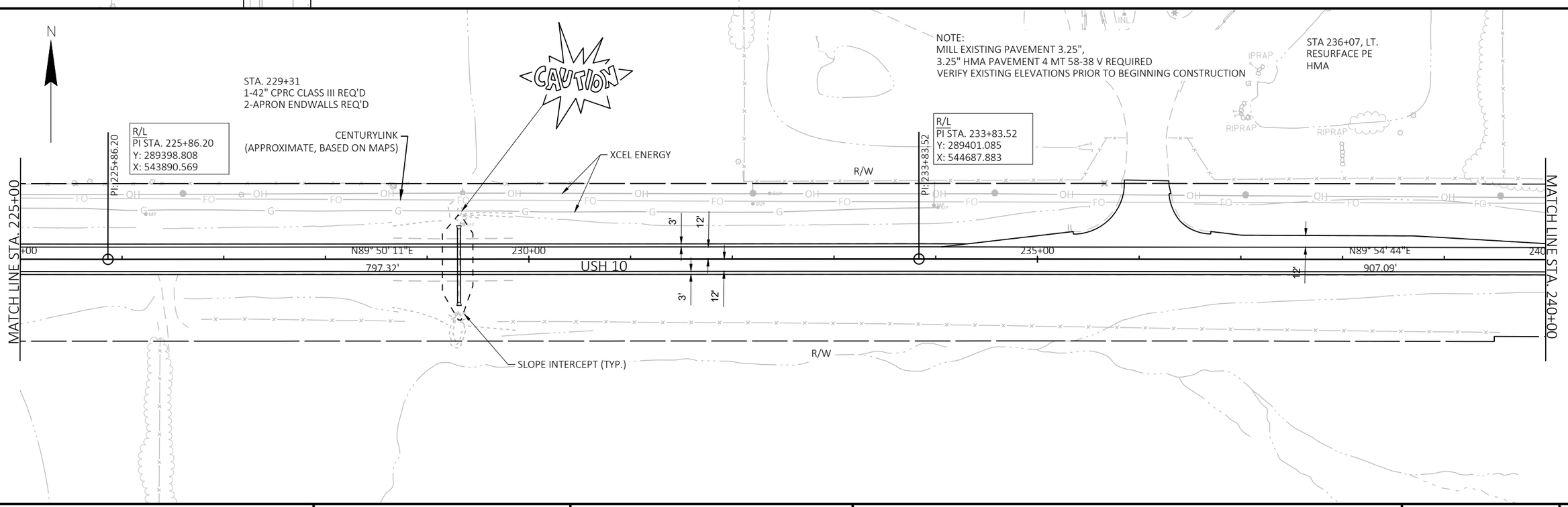
WISDOT/CADDS SHEET 44



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 74	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (7)
PLOT DATE : 2/26/2021 9:55 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 75	E

N

R/L
PI STA. 242+90.61
Y: 289402.475
X: 545594.969

PI: 242+90.61

XCEL ENERGY

R/W

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

STA. 251+29
1-42" CPRC CLASS III REQ'D
2-APRON ENDWALLS REQ'D

R/L
PC STA. 252+57.29
Y: 289404.779
X: 546531.649

220TH ST

PC: 252+57.29

MATCH LINE STA. 240+00

MATCH LINE STA. 255+00

3'
12'

245+00

250+00

255

N89° 51' 48"E
966.68'

USH 10

SLOPE INTERCEPT (TYP.)

XCEL ENERGY

SEPC

5

5

N

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

R/L
PT STA. 259+80.49
Y: 289397.331
X: 547284.791

Mid: 256+18.89

PT: 259+80.49

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

R/W

PI: 269+23.28

MATCH LINE STA. 255+00

MATCH LINE STA. 270+00

3'
12'

260+00

S88° 41' 00"E 265+00
942.79'

270

USH 10

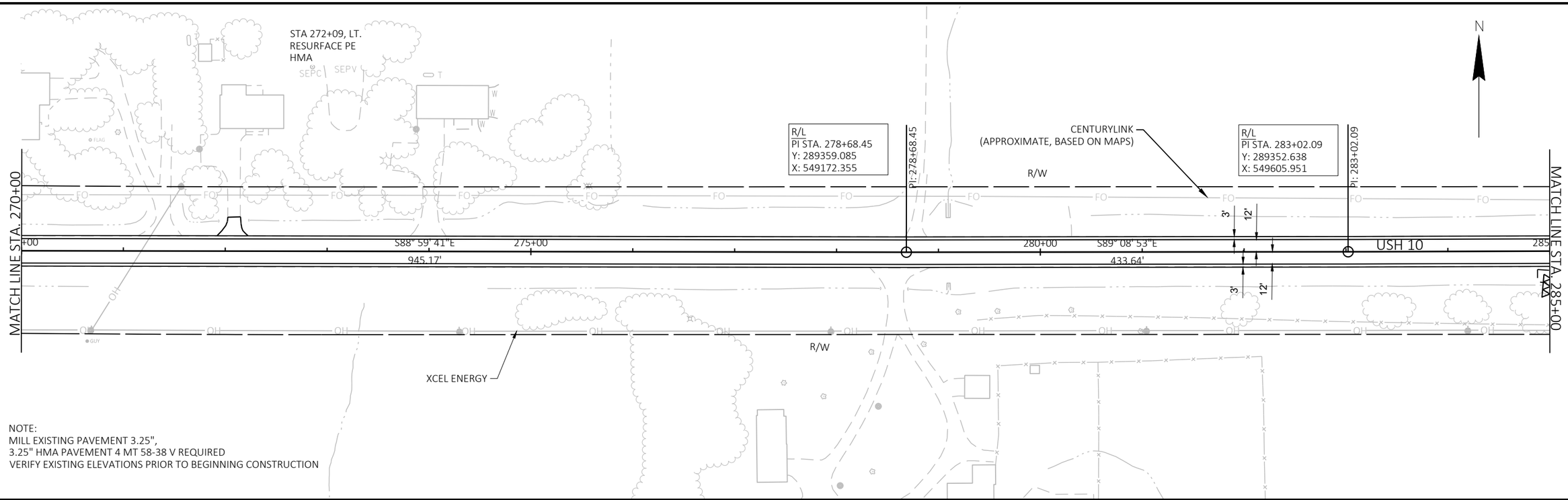
PI STA = 256+18.91
Y = 289405.641
X = 546923.267
DELTA = 1°27'12"
D = 0°12'03"
T = 361.62'
L = 723.20'
R = 28512.00'
PC STA = 252+57.29
PT STA = 259+80.49

XCEL ENERGY

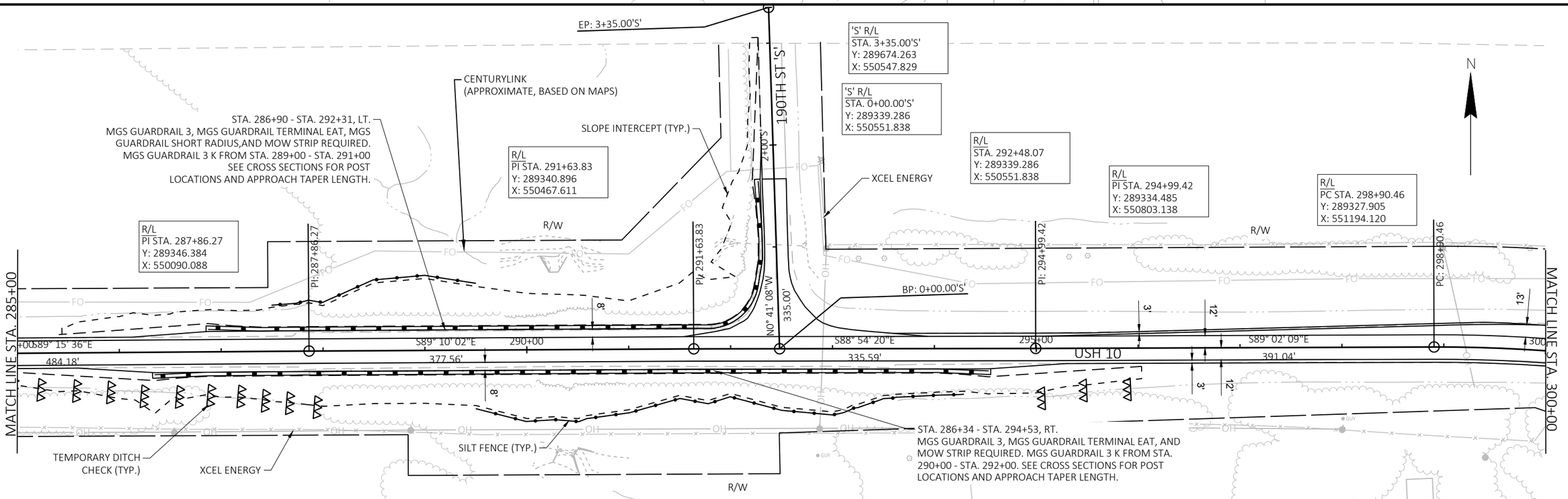
R/W

R/L
PI STA. 269+23.28
Y: 289375.666
X: 548227.331

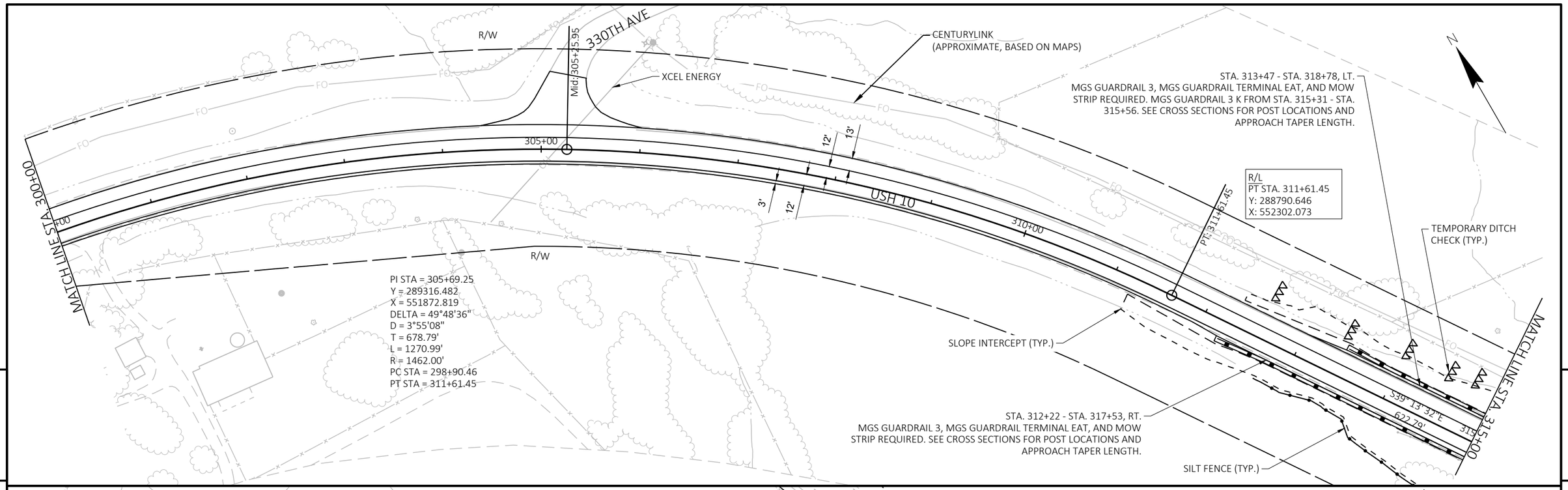
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 76	E



NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

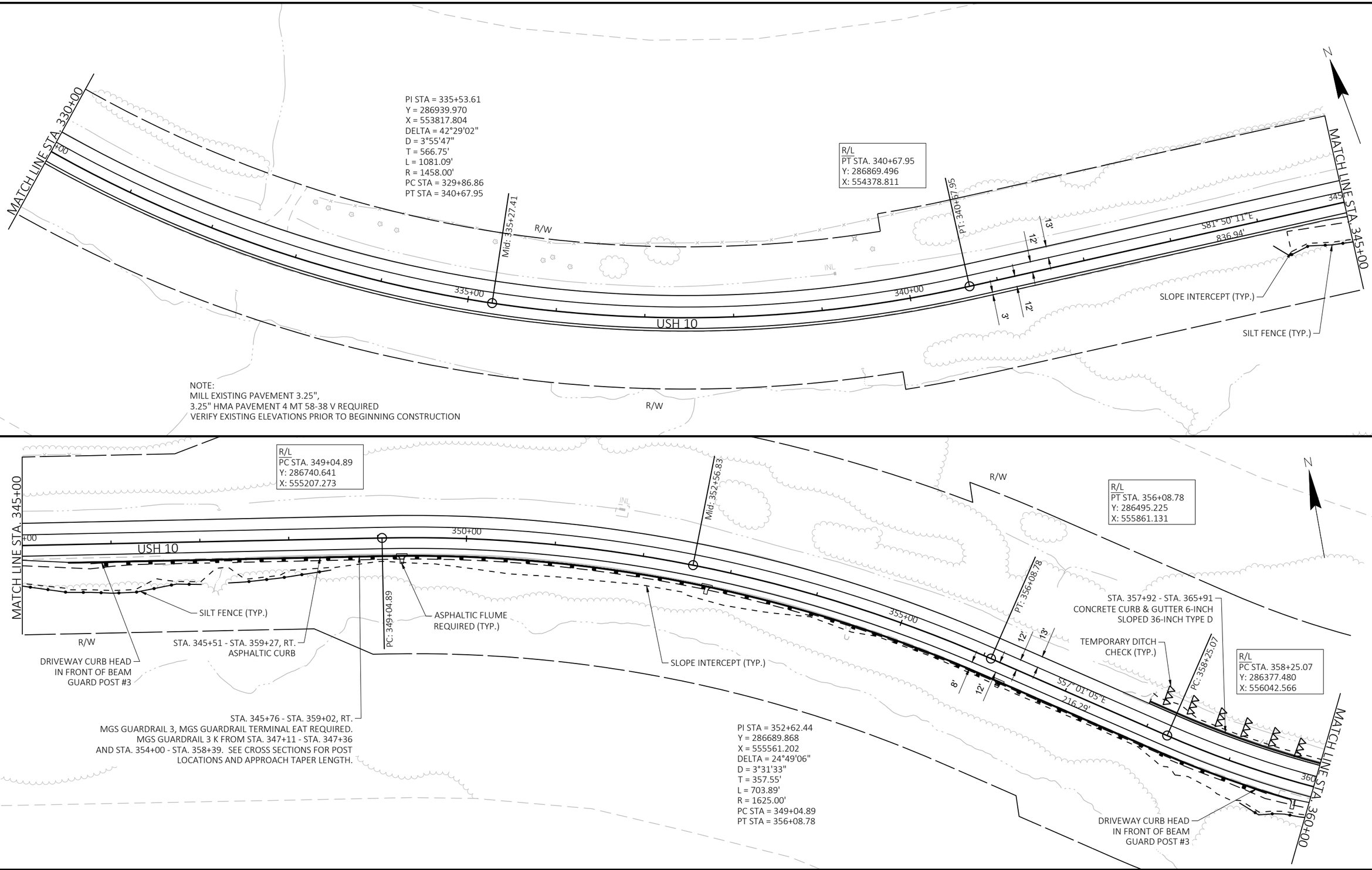


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 77	E



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 78	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (11)
PLOT DATE : 2/26/2021 9:57 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 79	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (12)
PLOT DATE : 2/26/2021 9:57 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

N

R/W

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

PI STA = 362+58.11
Y = 286141.742
X = 556405.820
DELTA = 41°20'04"
D = 4°59'27"
T = 433.04'
L = 828.19'
R = 1148.00'
PC STA = 358+25.07
PT STA = 366+53.26

STA. 357+92 - STA. 365+91
CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D

R/L
PI STA. 369+65.20
Y: 286249.957
X: 557142.894

R/L
PC STA. 370+97.07
Y: 286266.961
X: 557273.663

R/L
PT STA. 366+53.26
Y: 286204.646
X: 556834.270

TEMPORARY DITCH CHECK (TYP.)

MATCH LINE STA. 360+00

Mid: 362+39.17

PT: 366+53.26

PI: 369+65.20

PC: 370+97.07

MATCH LINE STA. 375+00

USH 10

360+00

365+00

370+00

375+00

N81° 38' 52"E
311.93'

N82° 35' 29"E
131.87'

13'

12'

8'

12'

SILT FENCE (TYP.)

SLOPE INTERCEPT (TYP.)

DRIVEWAY CURB HEAD
IN FRONT OF BEAM
GUARD POST #3

ASPHALTIC FLUME
REQUIRED (TYP.)

STA. 364+84 - STA. 380+54, RT.
MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT
REQUIRED. MGS GUARDRAIL 3 K FROM STA. 368+37 - STA.
370+50 AND STA. 374+50 - STA. 379+39. SEE CROSS
SECTIONS FOR POST LOCATIONS AND APPROACH TAPER
LENGTH.

STA. 364+59 - STA. 380+80, RT.
ASPHALTIC CURB

R/W

5

5

N

STA. 375+21 - STA. 397+73, LT.
MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT, MGS
GUARDRAIL SHORT RADIUS, MGS GUARDRAIL SHORT RADIUS
TERMINAL, AND MOW STRIP REQUIRED.
MGS GUARDRAIL 3 K FROM STA. 375+36 - STA. 389+00 AND
STA. 394+00 - STA. 395+94. SEE CROSS SECTIONS FOR POST
LOCATIONS AND APPROACH TAPER LENGTH.

STA 375+16, LT.
RECONSTRUCT PE
BAD

Mid: 380+05.65

380+00

385+00

USH 10

SILT FENCE (TYP.)

R/L
PT STA. 389+14.23
Y: 285264.181
X: 558563.686

PT: 389+14.23

MATCH LINE STA 390+00

TEMPORARY DITCH
CHECK (TYP.)

SLOPE INTERCEPT (TYP.)

DRIVEWAY CURB HEAD
IN FRONT OF BEAM
GUARD POST #3

ASPHALTIC FLUME
REQUIRED (TYP.)

8'

13'

12'

12'

8'

STA. 364+59 - STA. 380+80, RT.
ASPHALTIC CURB

STA. 364+84 - STA. 380+54, RT.
MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT REQUIRED.
MGS GUARDRAIL 3 K FROM STA. 368+37 - STA. 370+50
AND STA. 374+50 - STA. 379+39. SEE CROSS SECTIONS FOR POST
LOCATIONS AND APPROACH TAPER LENGTH.

R/W

MATCH LINE STA. 375+00

PI STA = 382+57.87
Y = 286416.640
X = 558424.774
DELTA = 90°32'08"
D = 4°58'56"
T = 1160.80'
L = 1817.17'
R = 1150.00'
PC STA = 370+97.07
PT STA = 389+14.23

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 80	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (13)

PLOT DATE : 2/26/2021 9:57 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

R/L
PC STA. 391+85.05
Y: 284995.313
X: 558596.094

STA. 375+21 - STA. 397+73, LT.
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION,
MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP REQUIRED.
MGS GUARDRAIL 3 K FROM STA. 375+36 - STA. 389+00 AND
STA. 394+00 - STA. 395+94. SEE CROSS SECTIONS FOR POST
LOCATIONS AND APPROACH TAPER LENGTH.

R/L
PT STA. 395+93.97
Y: 284587.205
X: 558615.390

STA 398+40, LT.
RECONSTRUCT PE
BAD

PI STA = 401+76.71
Y = 284004.655
X = 558600.552
DELTA = 17°47'42"
D = 3°04'38"
T = 291.50'
L = 578.30'
R = 1862.00'
PC STA = 398+85.21
PT STA = 404+63.51

R/L
PT STA. 404+63.51
Y: 283724.926
X: 558682.541

N

SLOPE INTERCEPT (TYP.)

SILT FENCE (TYP.)

R/L
PC STA. 398+85.21
Y: 284296.057
X: 558607.974

R/W

PC: 391+85.05

Mid: 393+89.51

PT: 395+93.97

PC: 398+85.21

Mid: 401+74.36

PT: 404+63.51

MATCH LINE STA 390+00

MATCH LINE STA 405+00

8'

12'

12'

3'

3'

395+00

400+00

405

S1° 27' 32"W

291.24'

+00 S6° 52' 23"E

270.81'

USH 10

PI STA = 393+89.87
Y = 284791.962
X = 558620.605
DELTA = 8°19'55"
D = 2°02'15"
T = 204.82'
L = 408.92'
R = 2812.00'
PC STA = 391+85.05
PT STA = 395+93.97

R/W

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

5

5

N

STA 415+29, LT.
RESURFACE PE
HMA

STA 416+40, LT.
RESURFACE PE
HMA

STA 417+68, LT.
RESURFACE PE
HMA

STA 419+13, LT.
RESURFACE PE
HMA

MATCH LINE STA. 420+00

(RESIDENTIAL
LATERAL
NEAR DWY)

CAUTION

STA. 406+62 - STA. 415+03, LT.
MGS GUARDRAIL 3, MGS GUARDRAIL TERMINAL EAT, AND MOW STRIP
REQUIRED. MGS GUARDRAIL 3 K FROM STA. 407+50 - STA. 414+25. SEE
CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

SILT FENCE (TYP.)

R/L
PC STA. 407+02.55
Y: 283495.538
X: 558749.774

SLOPE INTERCEPT (TYP.)

R/W

PC: 407+02.55

MATCH LINE STA. 405+00

8'

12'

12'

3'

3'

415+00

410+00

+00 S16° 20' 09"E

239.04'

USH 10

WE ENERGIES

XCEL ENERGY

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

412+85.58, 91.98' R

412+73.32, 119.01' R

MAIN ST

RIPRAP

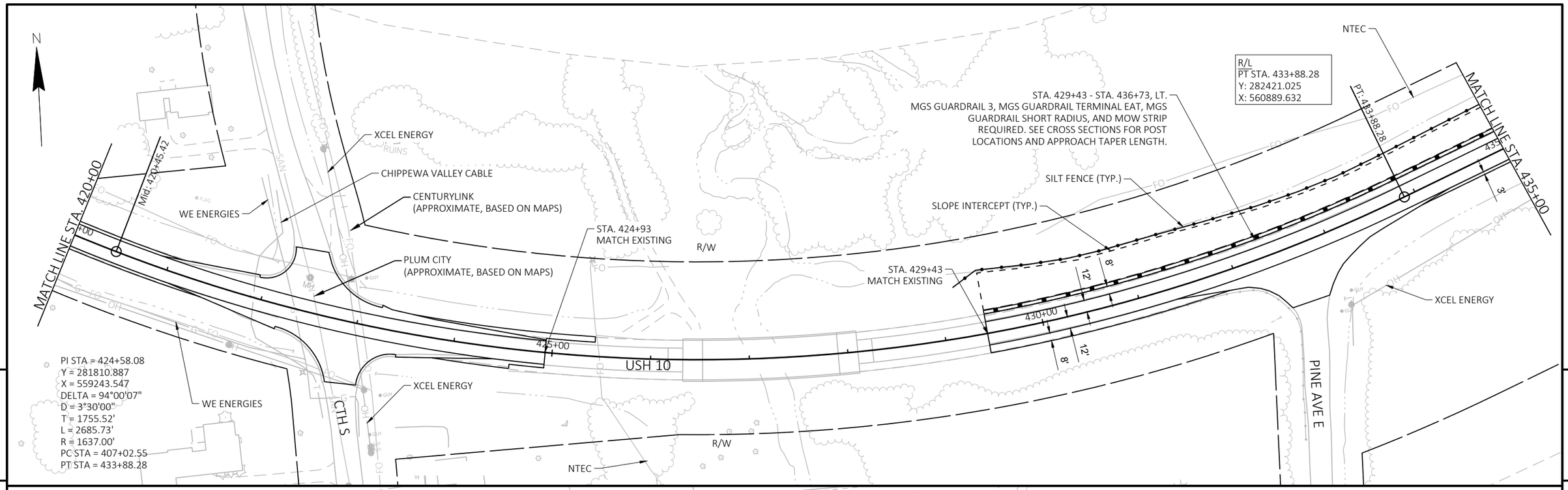
TENNIS COURT

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 81	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (14)

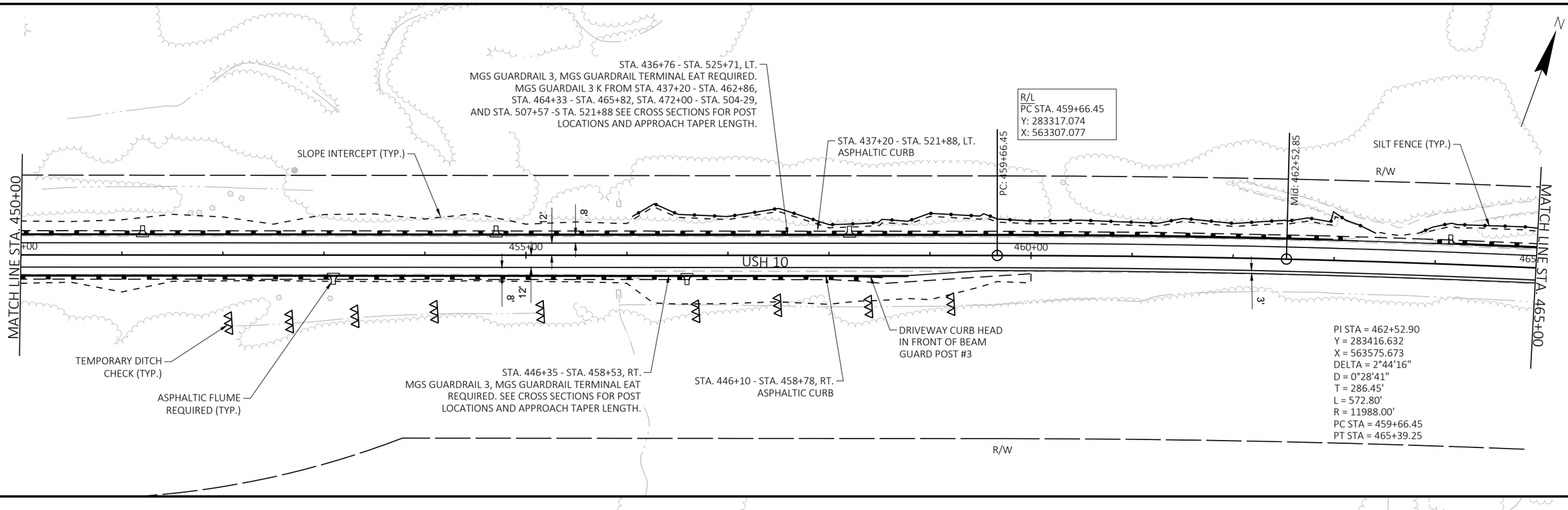
PLOT DATE : 2/26/2021 9:58 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

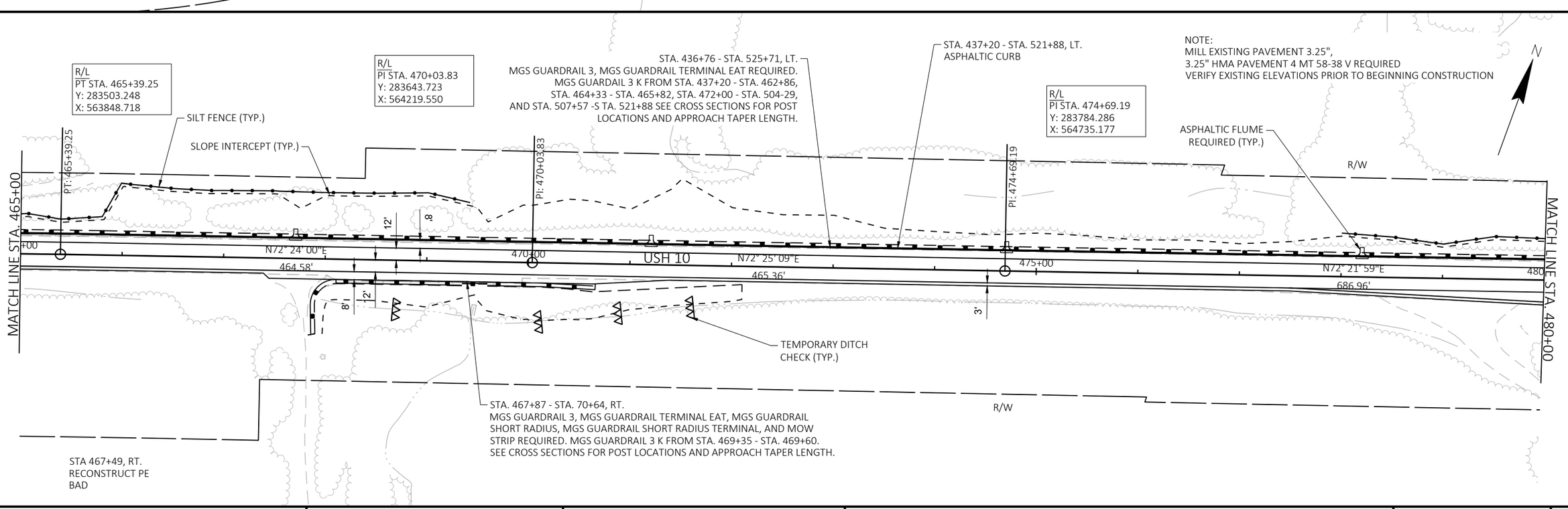
WISDOT/CADDS SHEET 44



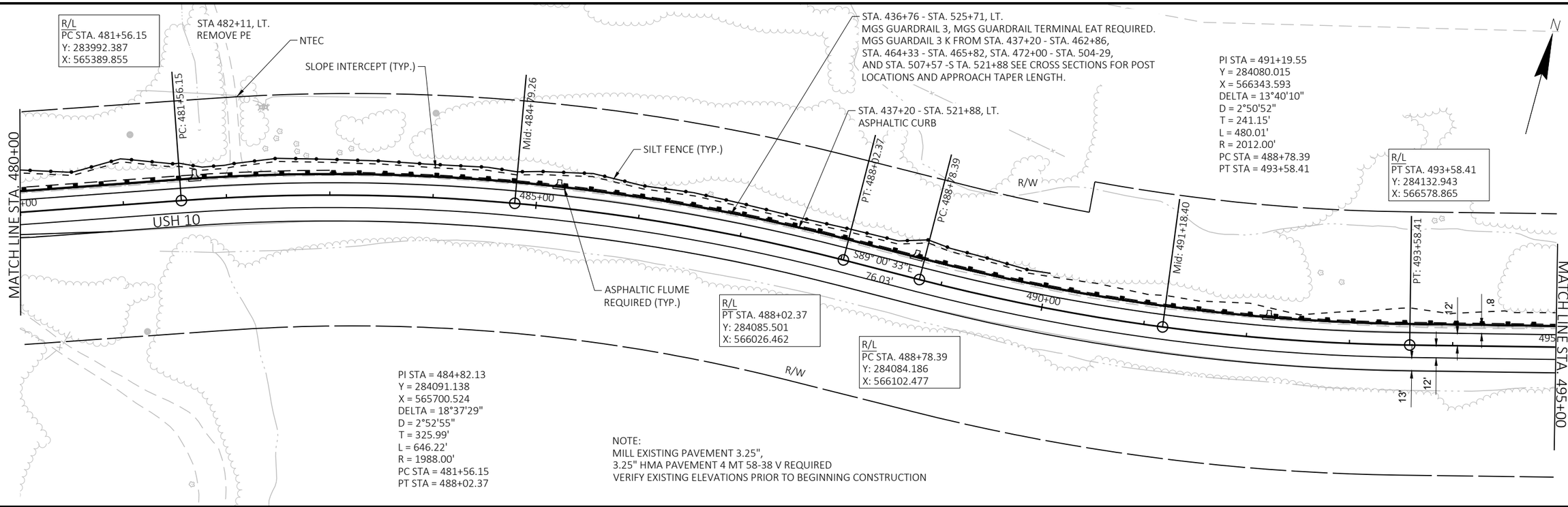
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 82	E

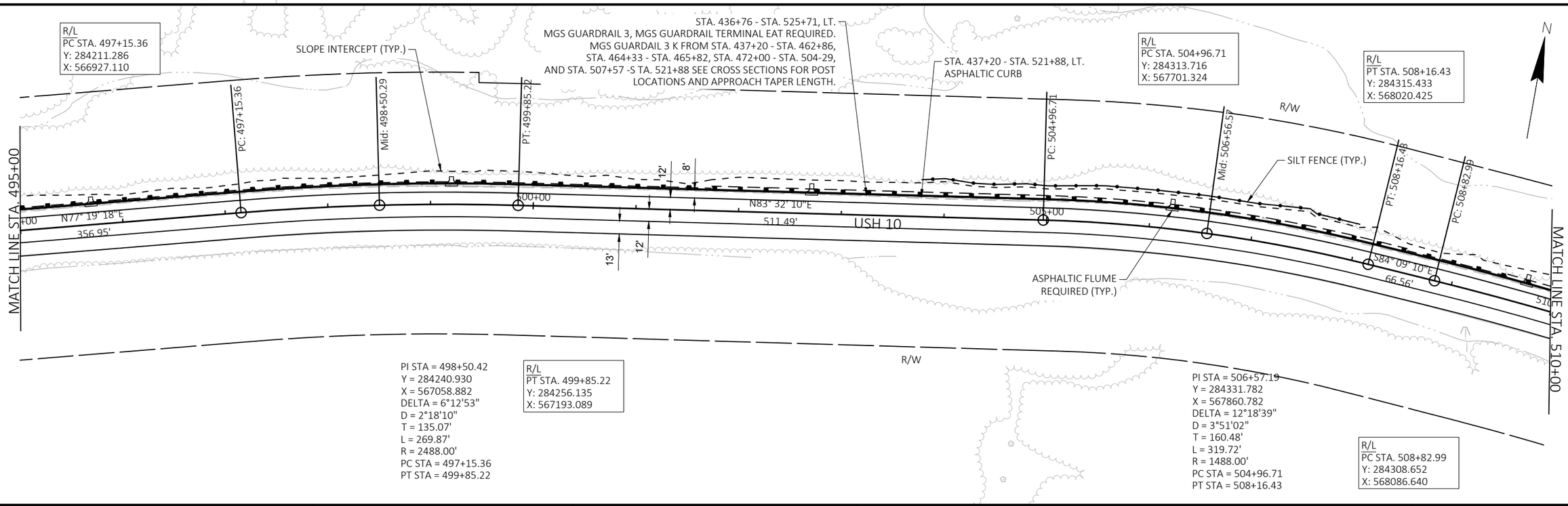
FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (15)
PLOT DATE : 3/25/2021 8:26 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 83	E





PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 84	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (17)
PLOT DATE : 3/25/2021 8:26 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

STA. 436+76 - STA. 525+71, LT.
MGS GUARDRAIL 3, MGS GUARDRAIL SHORT RADIUS, MGS GUARDRAIL SHORT RADIUS TERMINAL, AND MGS GUARDRAIL TERMINAL EAT REQUIRED.
MGS GUARDAIL 3 K FROM STA. 437+20 - STA. 462+86,
STA. 464+33 - STA. 465+82, STA. 472+00 - STA. 504-29,
AND STA. 507+57 -S TA. 521+88 SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

R/W

Mid: 512+33.63

STA. 437+20 - STA. 521+88, LT.
ASPHALTIC CURB

SLOPE INTERCEPT (TYP.)

R/L
PT STA. 515+84.28
Y: 284156.369
X: 568769.545

PT: 515+84.28

ASPHALTIC FLUME REQUIRED (TYP.)

R/L
PC STA. 518+36.64
Y: 284072.983
X: 569007.733

PC: 518+36.64

TEMPORARY DITCH CHECK (TYP.)

STA. 522+04
1-36" CPCS EXTENSION REQ'D
1-APRON ENDWALL REQ'D

NTEC

STA. 522+79
1-36" CPCS EXTENSION REQ'D
1-APRON ENDWALL REQ'D

45TH ST

PI STA = 523+80.45
Y = 283893.293
X = 569521.004
DELTA = 20°52'33"
D = 1°56'27"
T = 543.82'
L = 1075.57'
R = 2952.00'
PC STA = 518+36.64
PT STA = 529+12.21

Mid: 523+74.43

MATCH LINE STA. 510+00

MATCH LINE STA. 525+00

USH 10

515+00

520+00

525+00

12'

8'

13'

12'

N70° 42' 20"E
252.36'

R/W

PI STA = 512+35.25
Y = 284272.765
X = 568437.069
DELTA = 13°26'51"
D = 1°55'03"
T = 352.26'
L = 701.29'
R = 2988.00'
PC STA = 508+82.99
PT STA = 515+84.28

50TH ST

XCEL ENERGY

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION

STA. 436+76 - STA. 525+71, LT.
MGS GUARDRAIL 3, MGS GUARDRAIL SHORT RADIUS, MGS GUARDRAIL SHORT RADIUS TERMINAL, AND MGS GUARDRAIL TERMINAL EAT REQUIRED. MGS GUARDAIL 3 K FROM STA. 437+20 - STA. 462+86,
STA. 464+33 - STA. 465+82, STA. 472+00 - STA. 504-29,
AND STA. 507+57 -S TA. 521+88 SEE CROSS SECTIONS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

R/L
PT STA. 529+12.21
Y: 283908.301
X: 570064.613

R/L
PC STA. 532+40.55
Y: 283917.362
X: 570392.825

PT: 529+12.21

PC: 532+40.55

NTEC

SLOPE INTERCEPT (TYP.)

XCEL ENERGY

R/W

Mid: 537+18.94

MATCH LINE STA. 525+00

MATCH LINE STA. 540+00

530+00

535+00

540+00

N88° 25' 07"E
328.34'

USH 10

18'

12'

3'

12'

13'

R/W

CENTURYLINK
(APPROXIMATE, BASED ON MAPS)

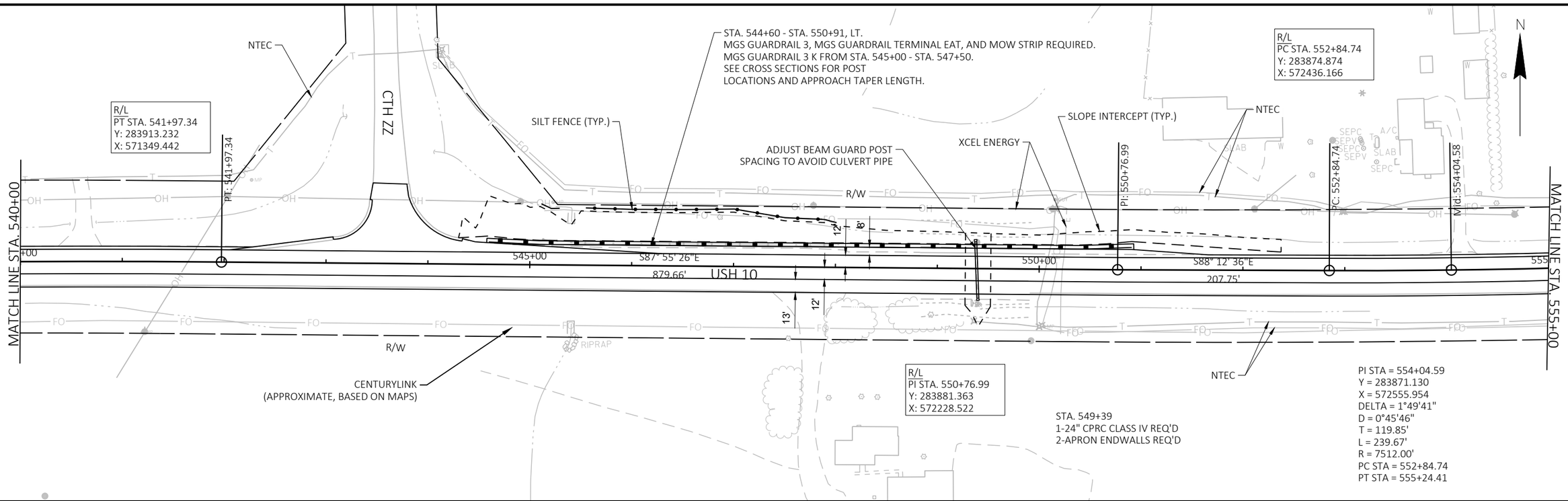
PI STA = 537+19.11
Y = 283930.569
X = 570871.199
DELTA = 3°39'27"
D = 0°22'56"
T = 478.56'
L = 956.79'
R = 14988.00'
PC STA = 532+40.55
PT STA = 541+97.34

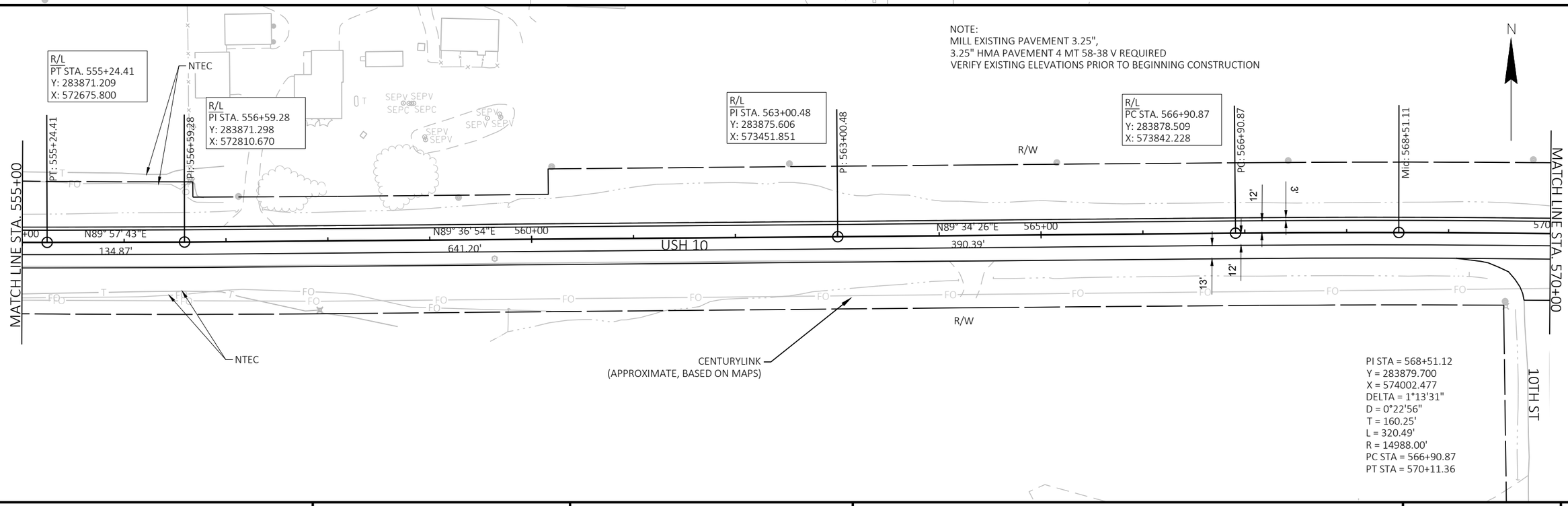
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 85	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (18)

PLOT DATE : 3/25/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





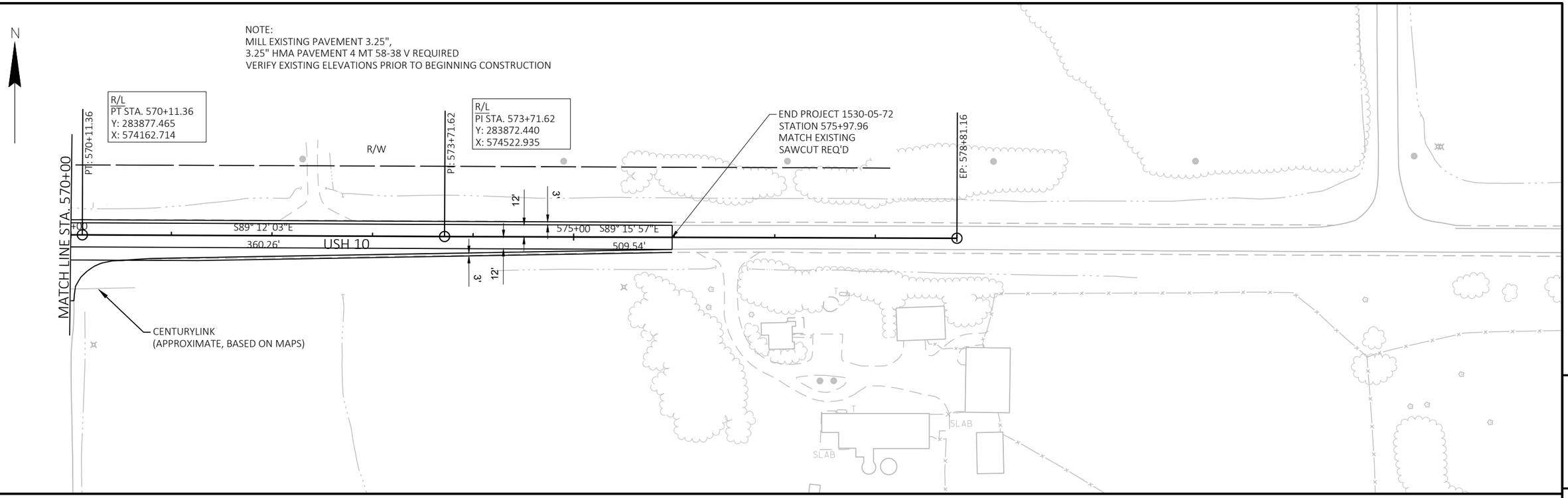
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 86	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (19)

PLOT DATE : 3/25/2021 8:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

NOTE:
MILL EXISTING PAVEMENT 3.25",
3.25" HMA PAVEMENT 4 MT 58-38 V REQUIRED
VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	PLAN DETAILS	SHEET 87	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - Sheet - (20)
PLOT DATE : 2/26/2021 9:59 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

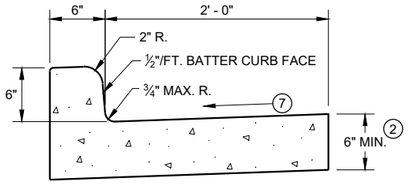
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

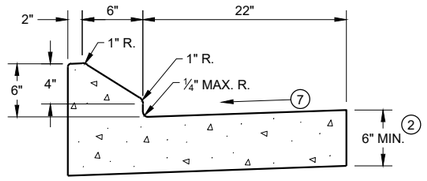
Standard Detail Drawing List

14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-15A	PAVEMENT MARKING SYMBOLS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C36-01	PARKING STALL MARKING
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D32-05	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

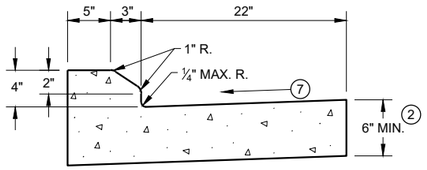
6



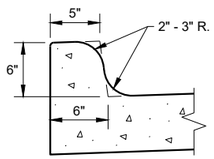
TYPES A (1) & D



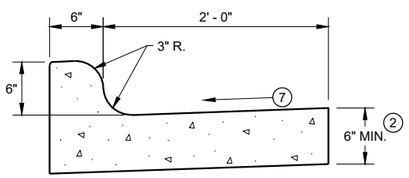
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

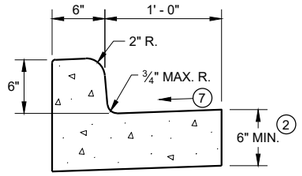


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



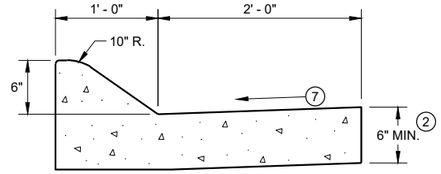
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

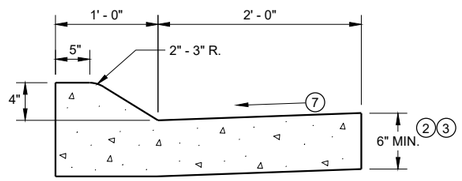


TYPES A (1) & D

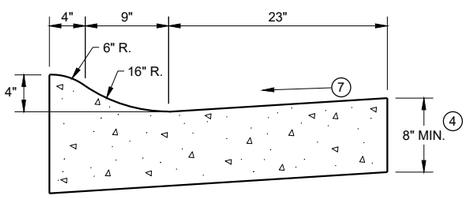
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D



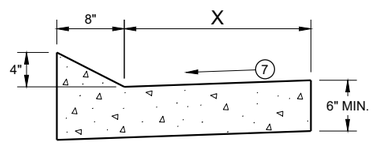
4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB AND GUTTER 36"

TBT & TBTT	X
30"	22"
36"	28"

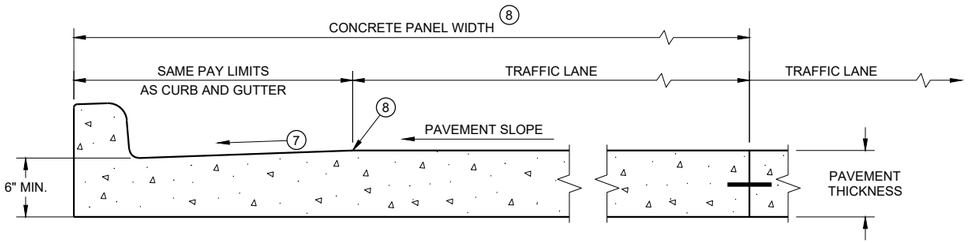


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

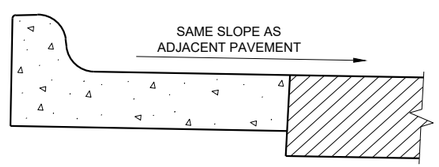
PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

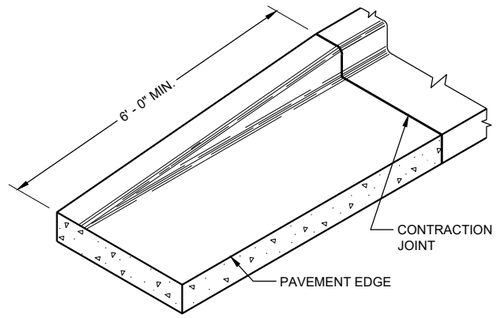
(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

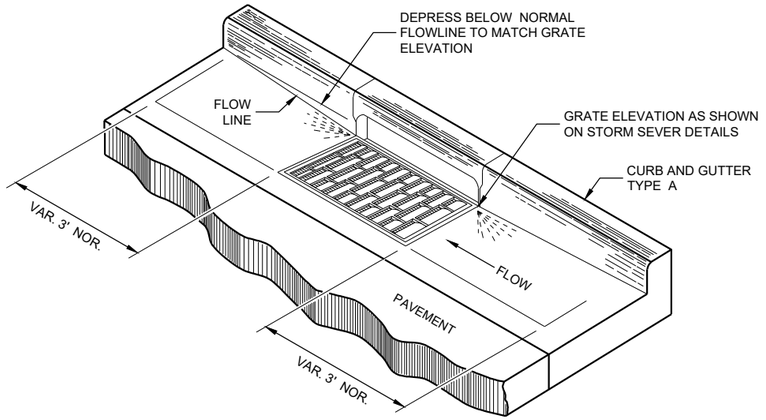
CONCRETE CURB AND GUTTER

SDD 08D01 - 21a

6



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

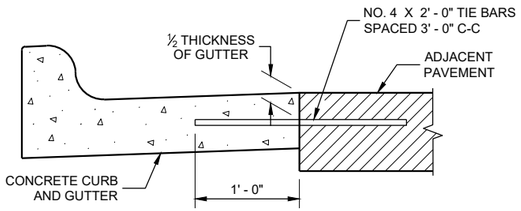
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

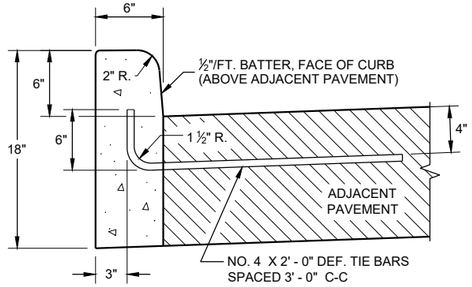
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

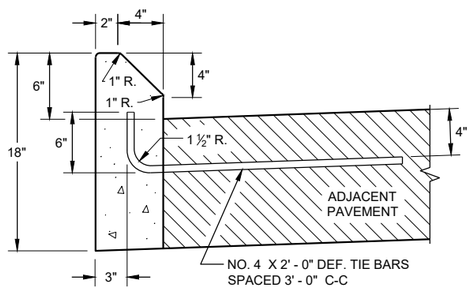
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

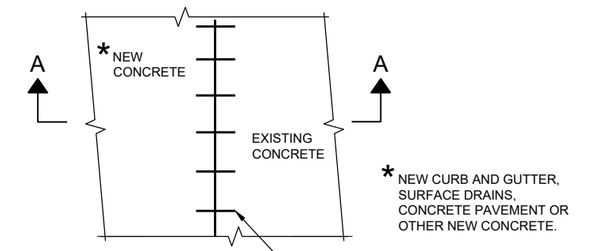


TYPES A (1) & D

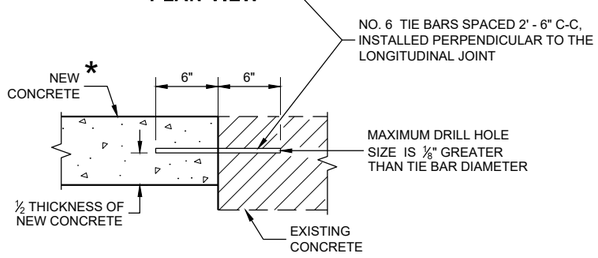


TYPES G (1) & J

CONCRETE CURB

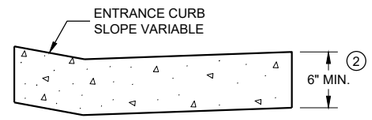


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD08D01 - 21b

6

SDD08D01 - 21b

GENERAL NOTES

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

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

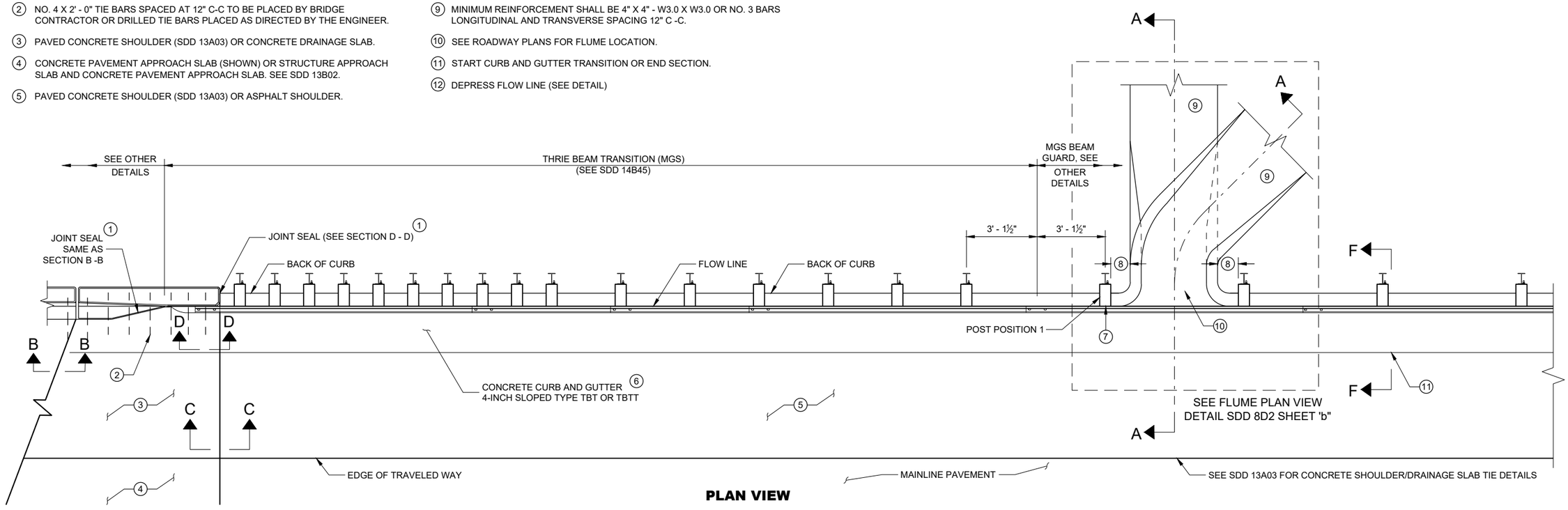
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

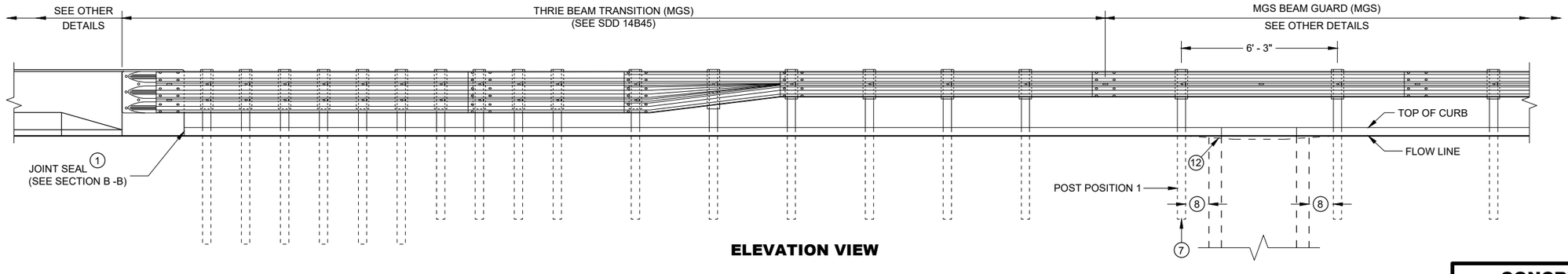
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



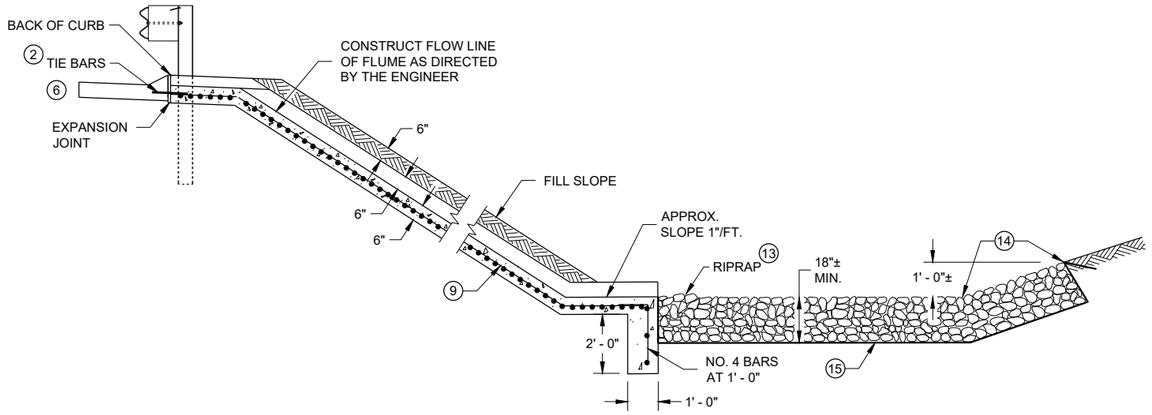
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

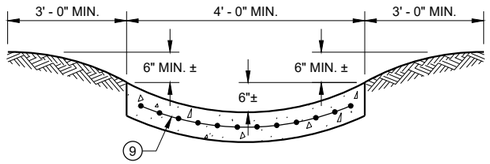
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 07a

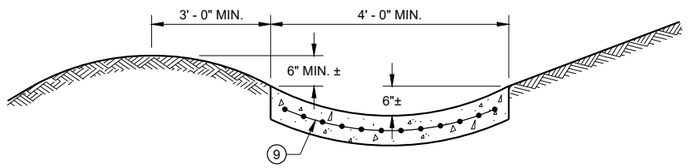
SDD 08D02 - 07a



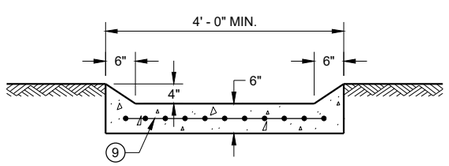
SECTION A - A



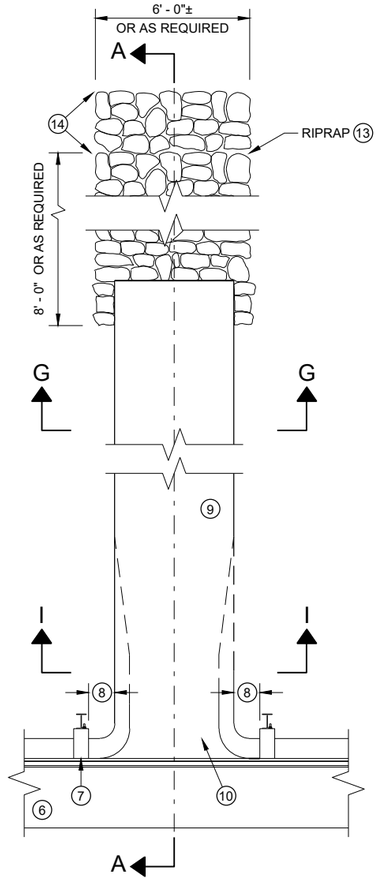
SECTION G - G



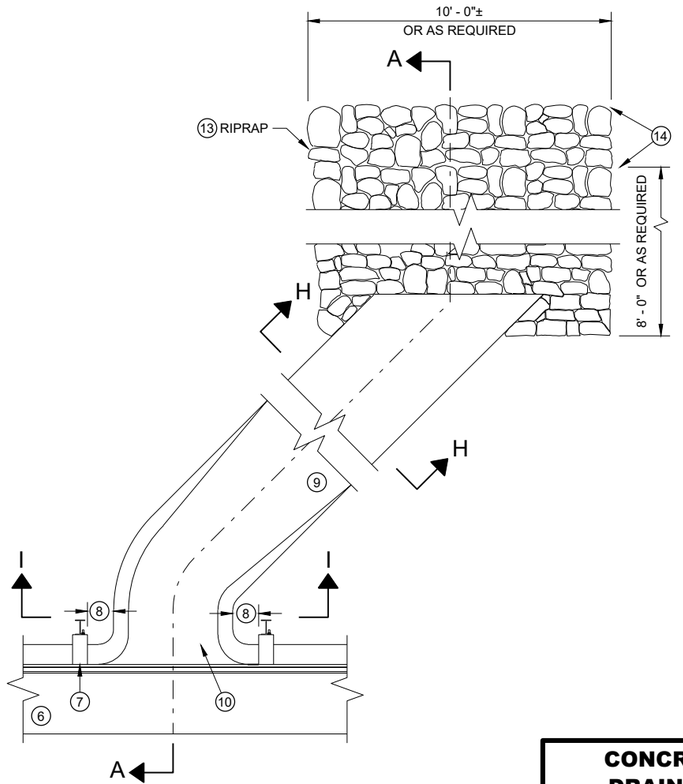
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

GENERAL NOTES

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

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

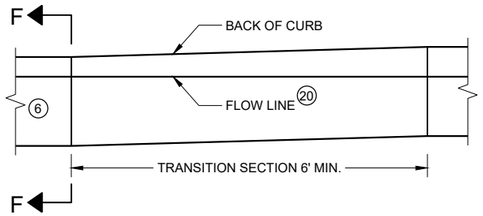
1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE FABRIC TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

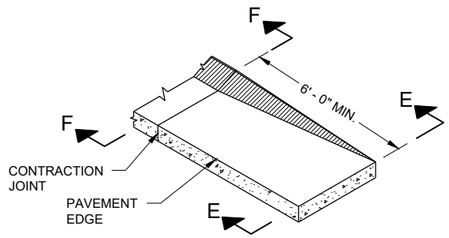
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

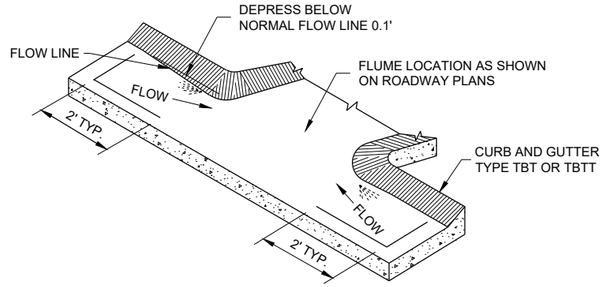
SDD 08D02 - 07b



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

GENERAL NOTES

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

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE FABRIC TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

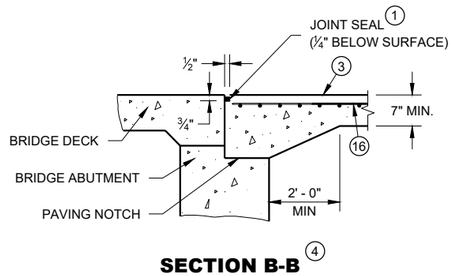
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

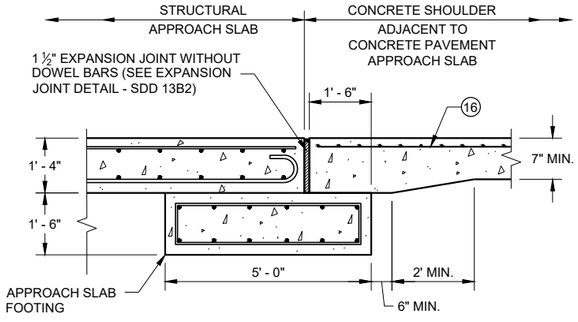
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

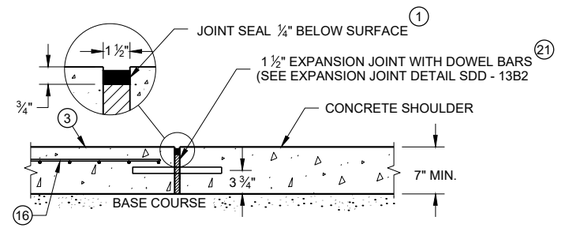
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



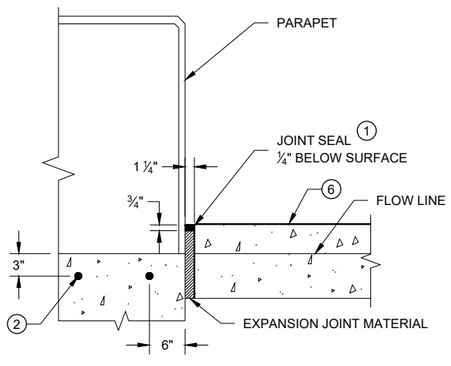
SECTION B-B



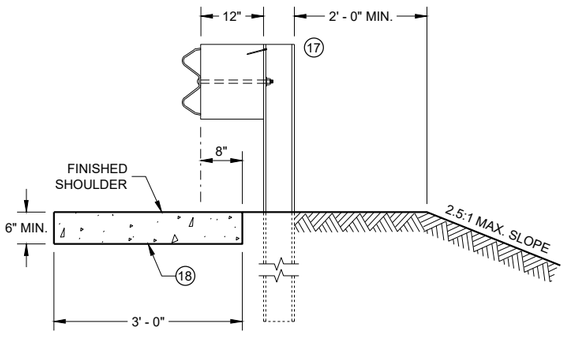
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



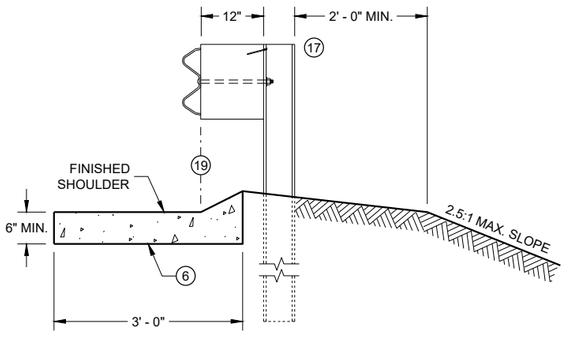
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

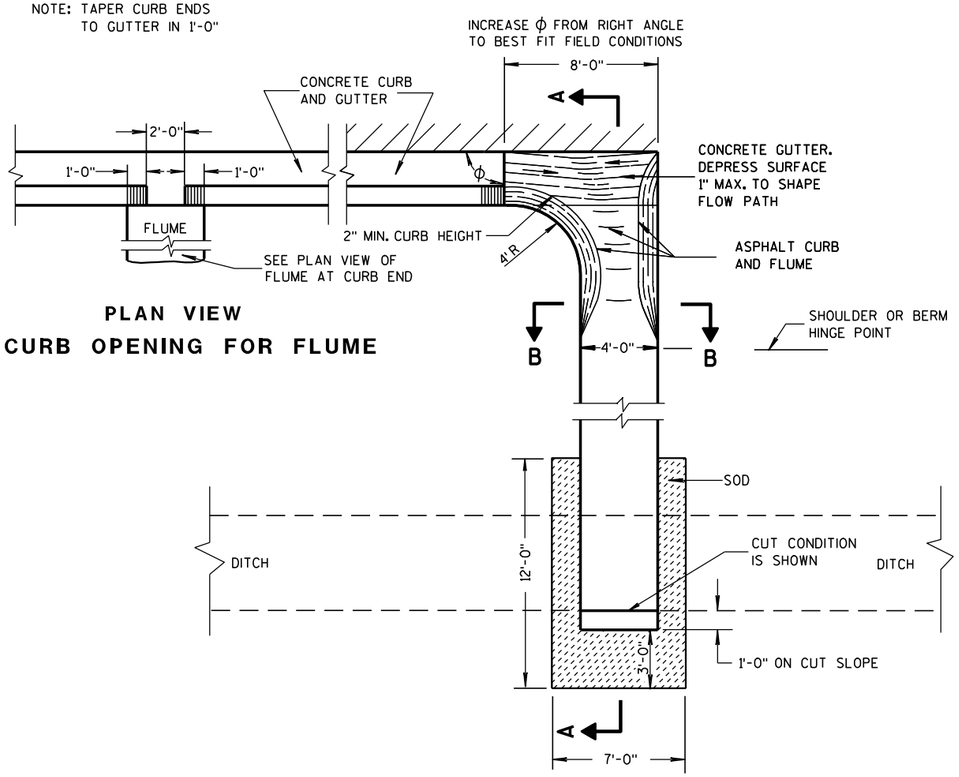
SDD 08D02 - 07c

SDD 08D02 - 07c

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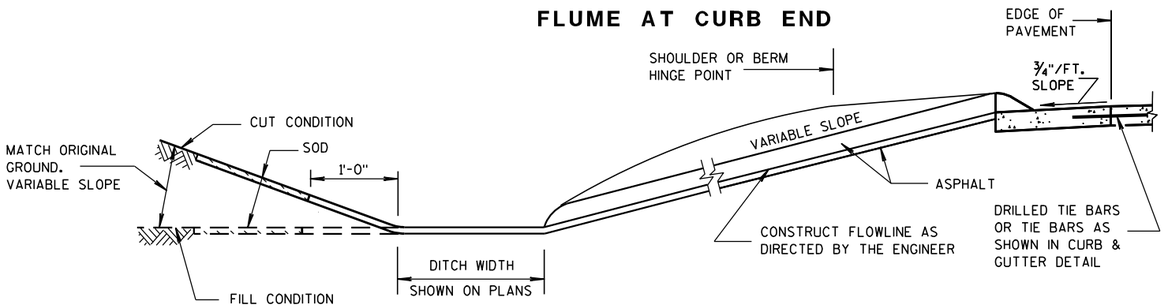
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ASPHALTIC FLUME

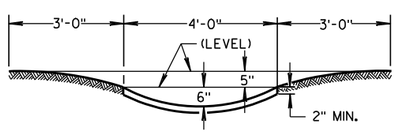


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

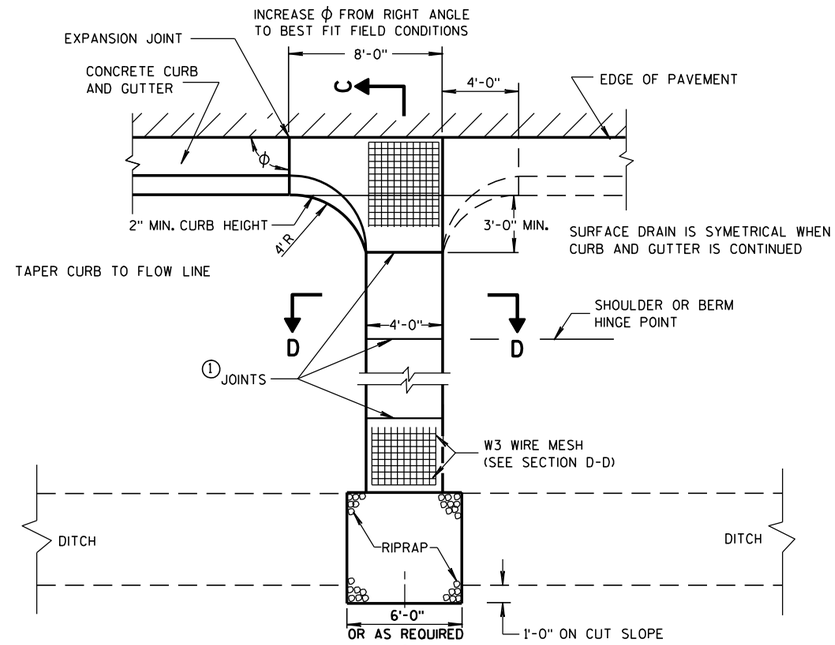
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

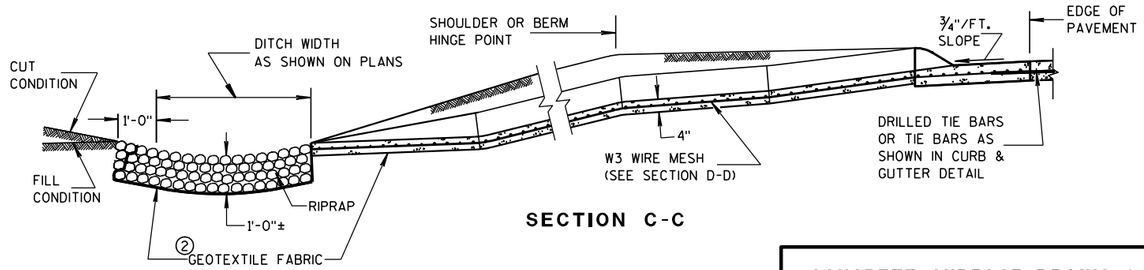
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

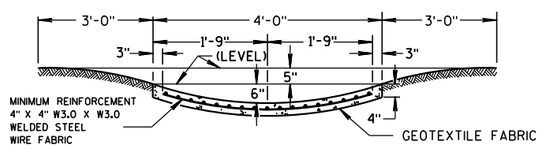
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

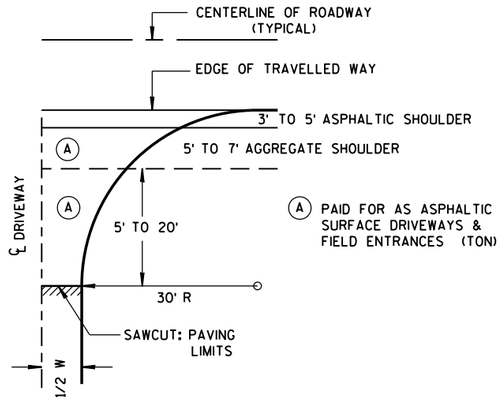
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
95
MENT
FHWA

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S.D.D. 8 D 4-5

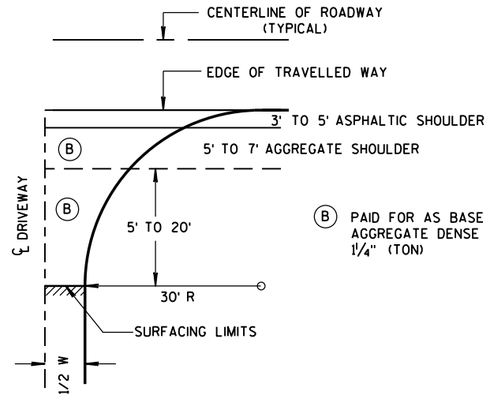
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S.D.D. 8 D 4-5



PLAN VIEW
HALF SECTION

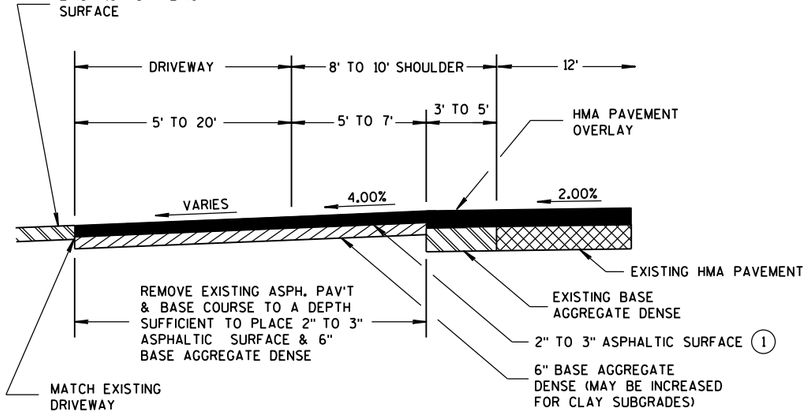
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

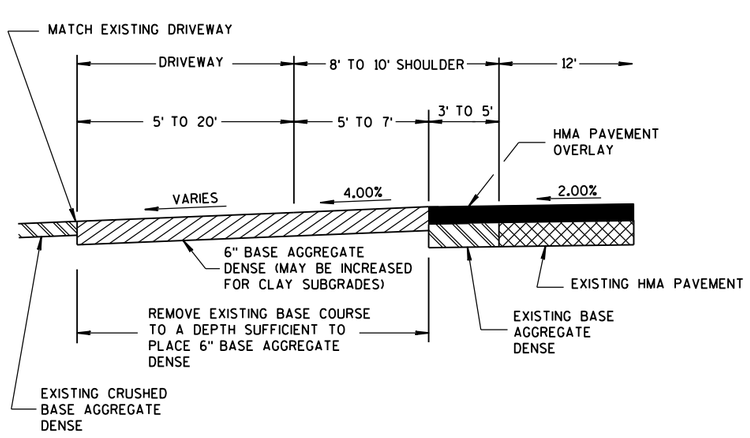
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

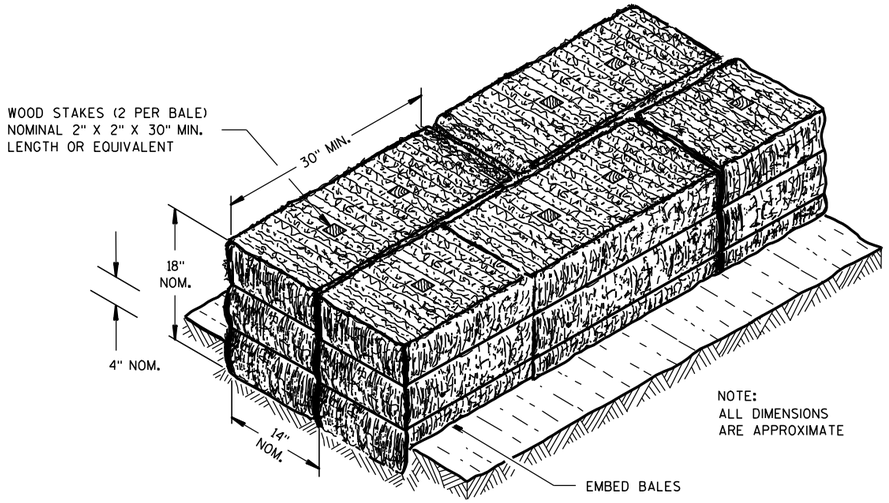
DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

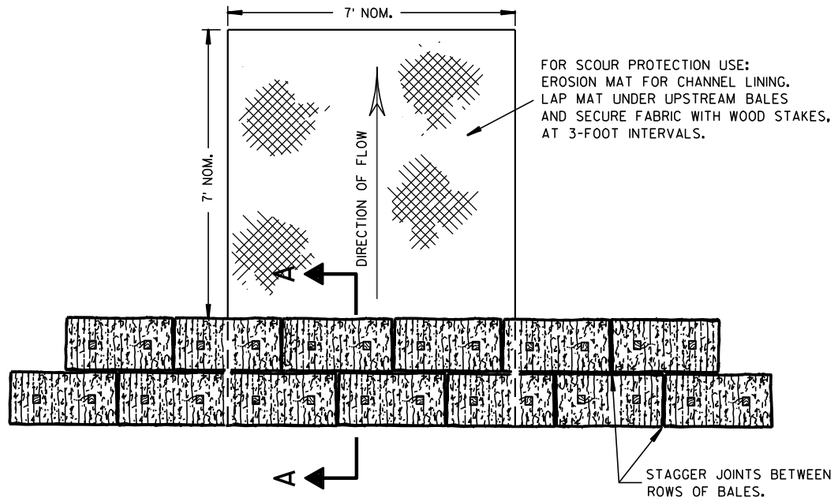
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

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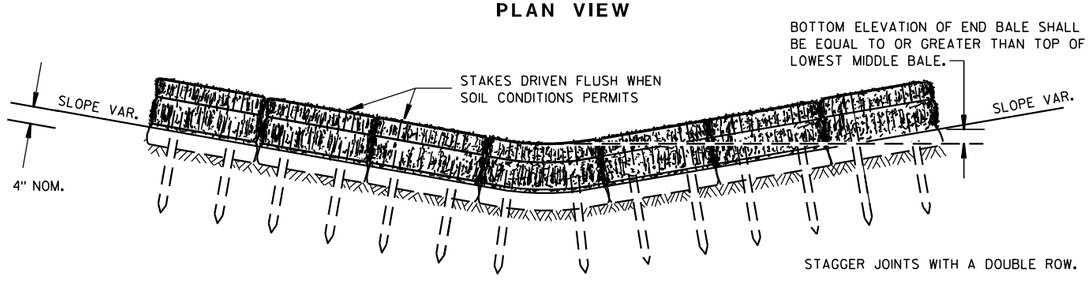
S.D.D. 8 D 22-1



SECTION A-A



PLAN VIEW



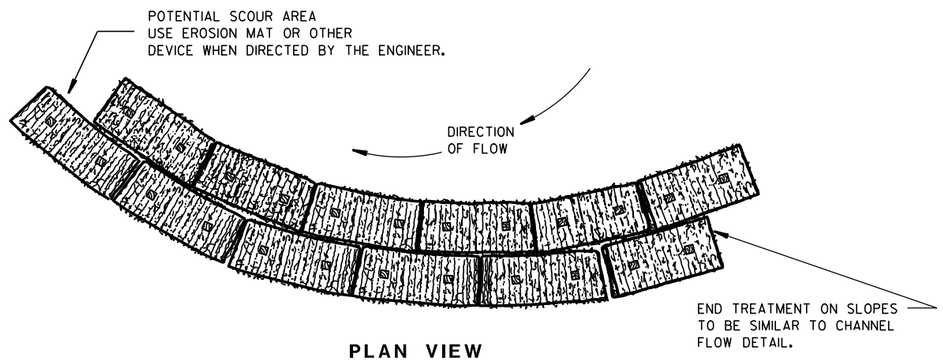
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

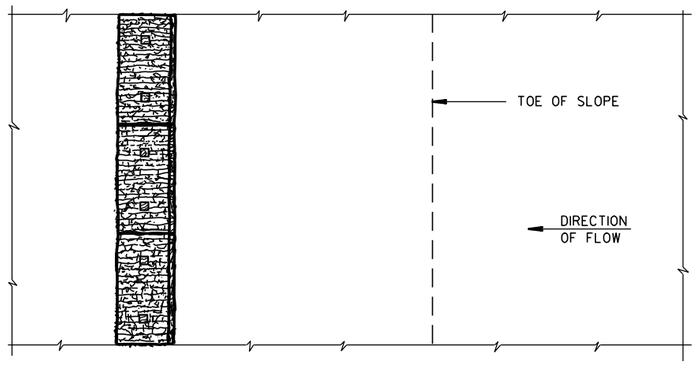
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

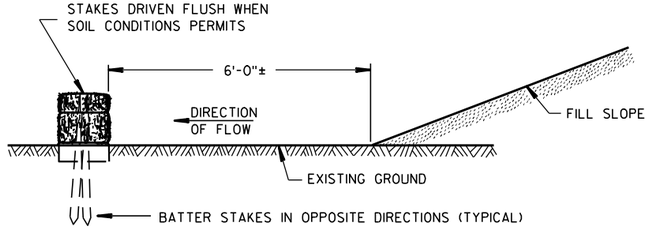


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

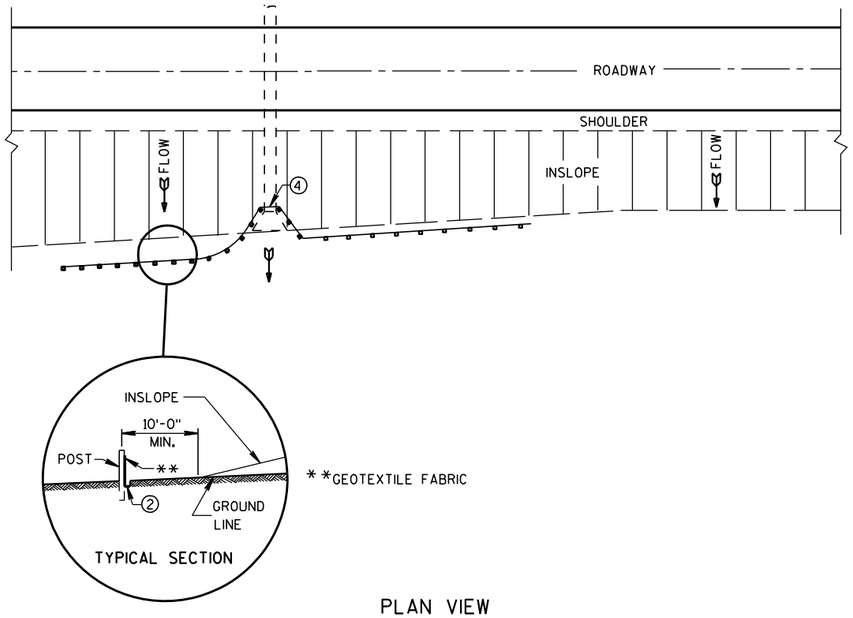
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

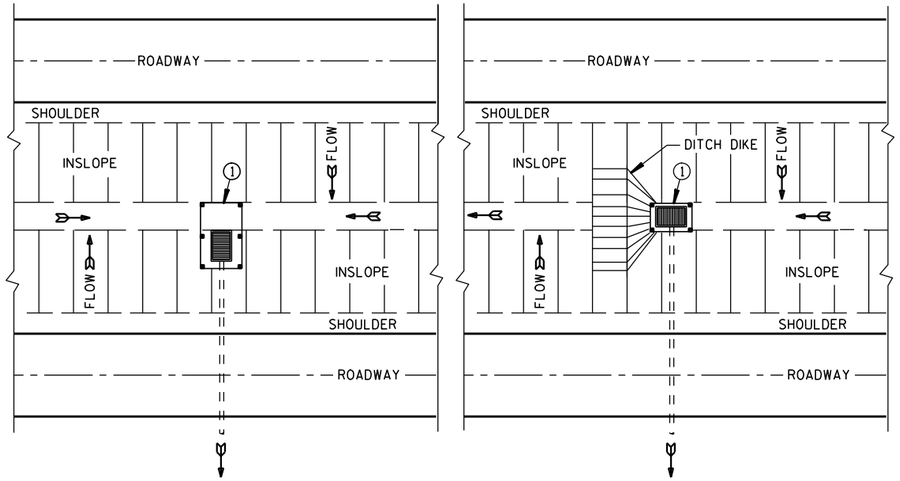
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

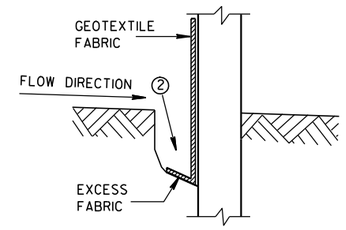
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

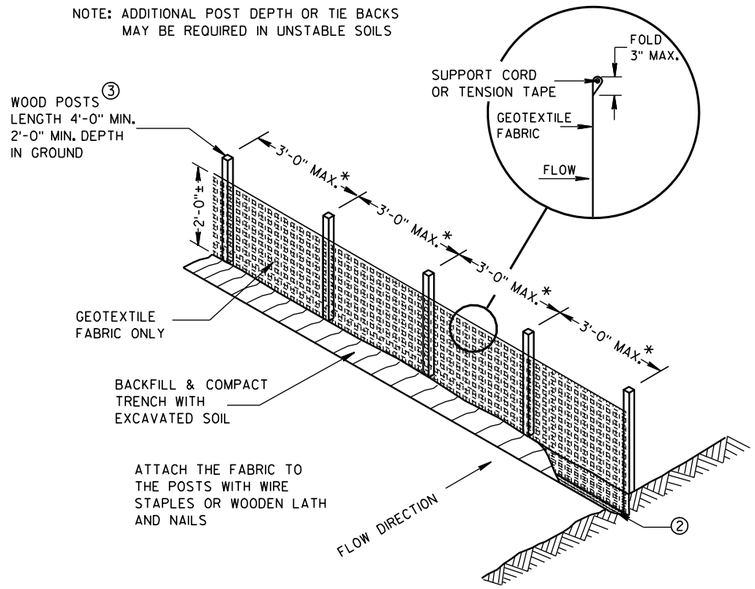
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

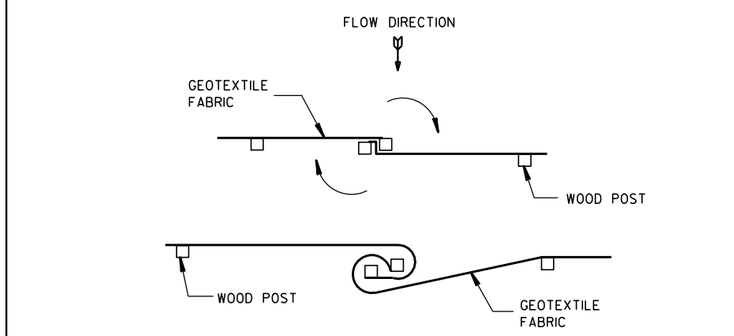
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



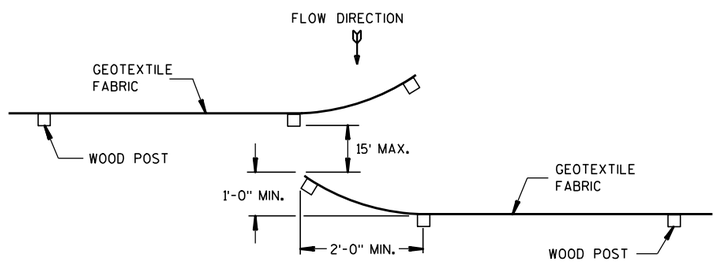
TRENCH DETAIL



SILT FENCE

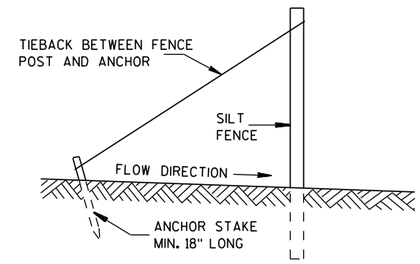


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

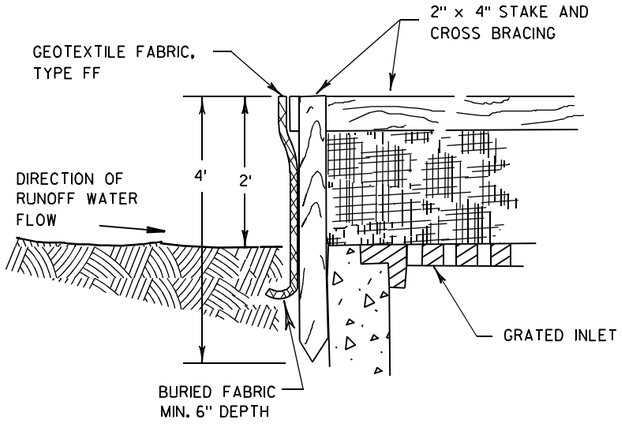
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

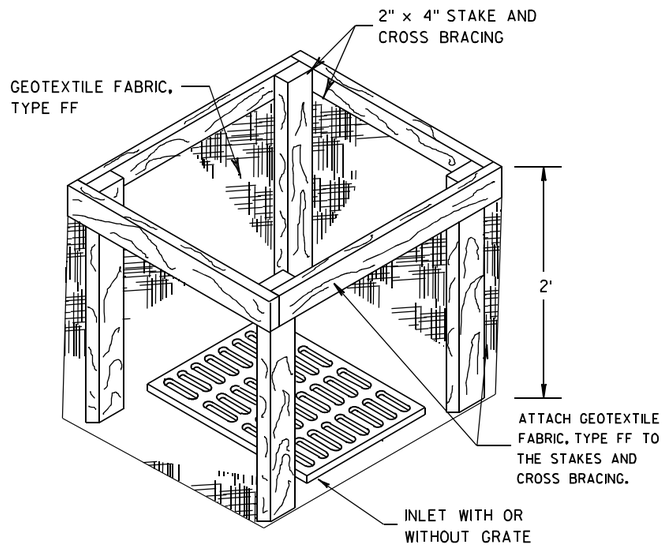
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S.D.D. 8 E 9-6

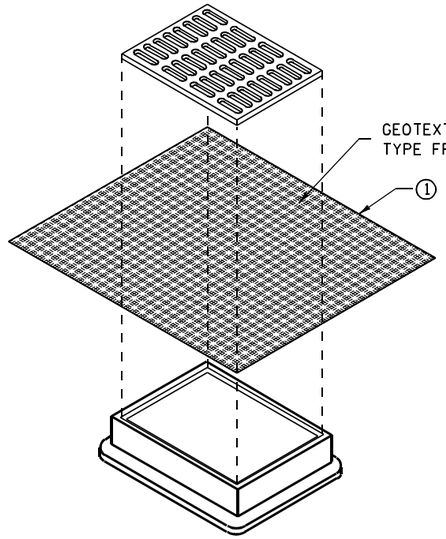
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S.D.D. 8 E 9-6



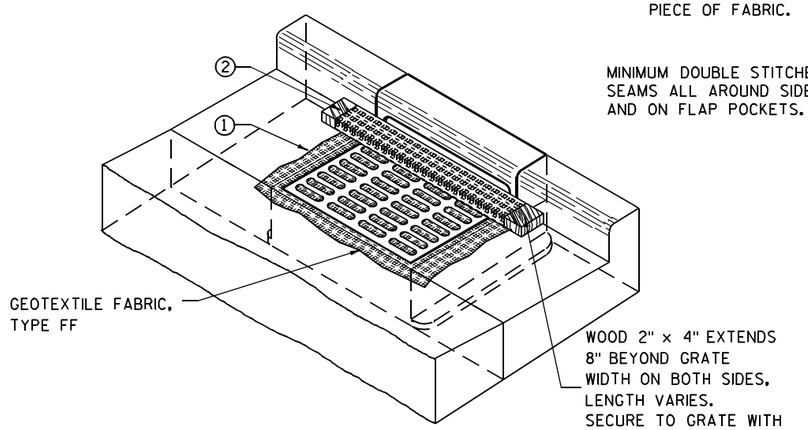


INLET PROTECTION, TYPE A

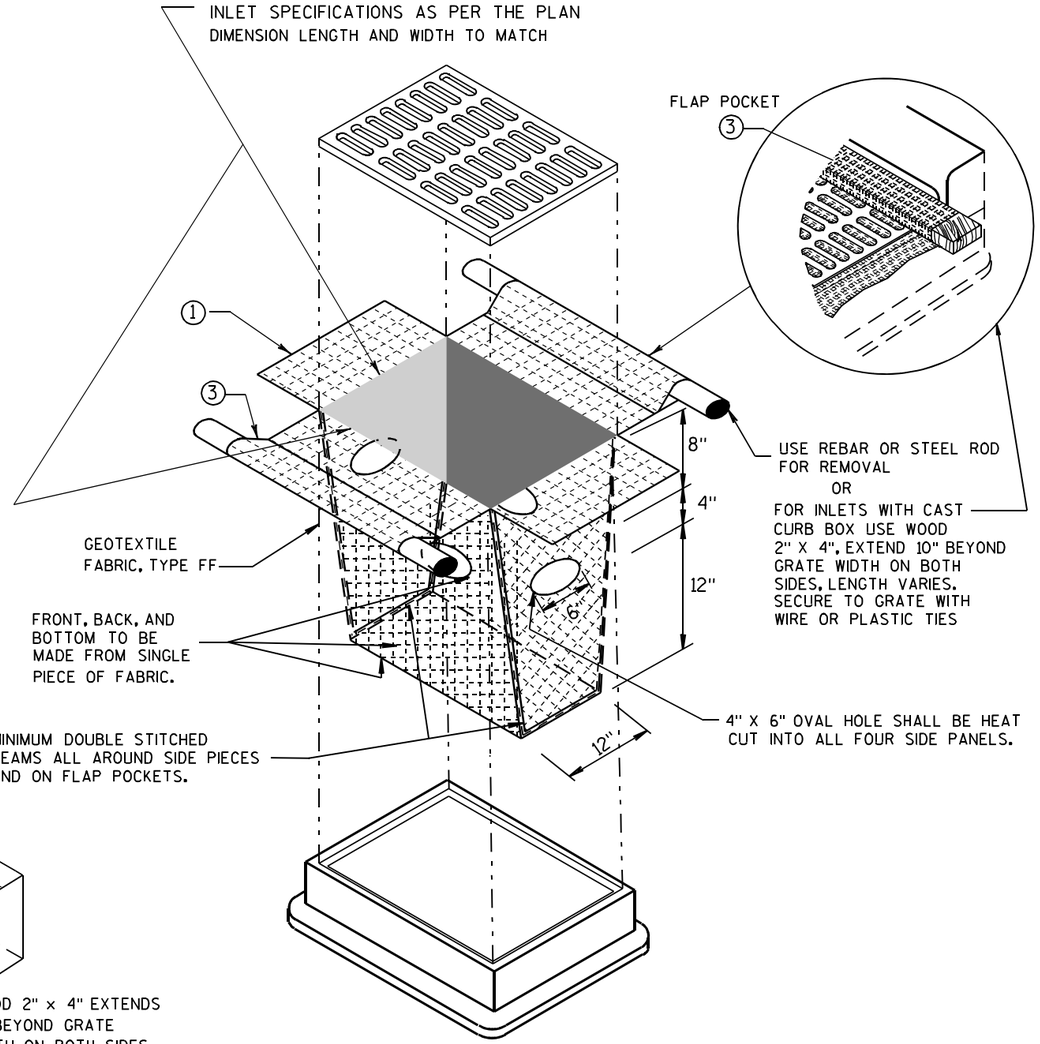


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

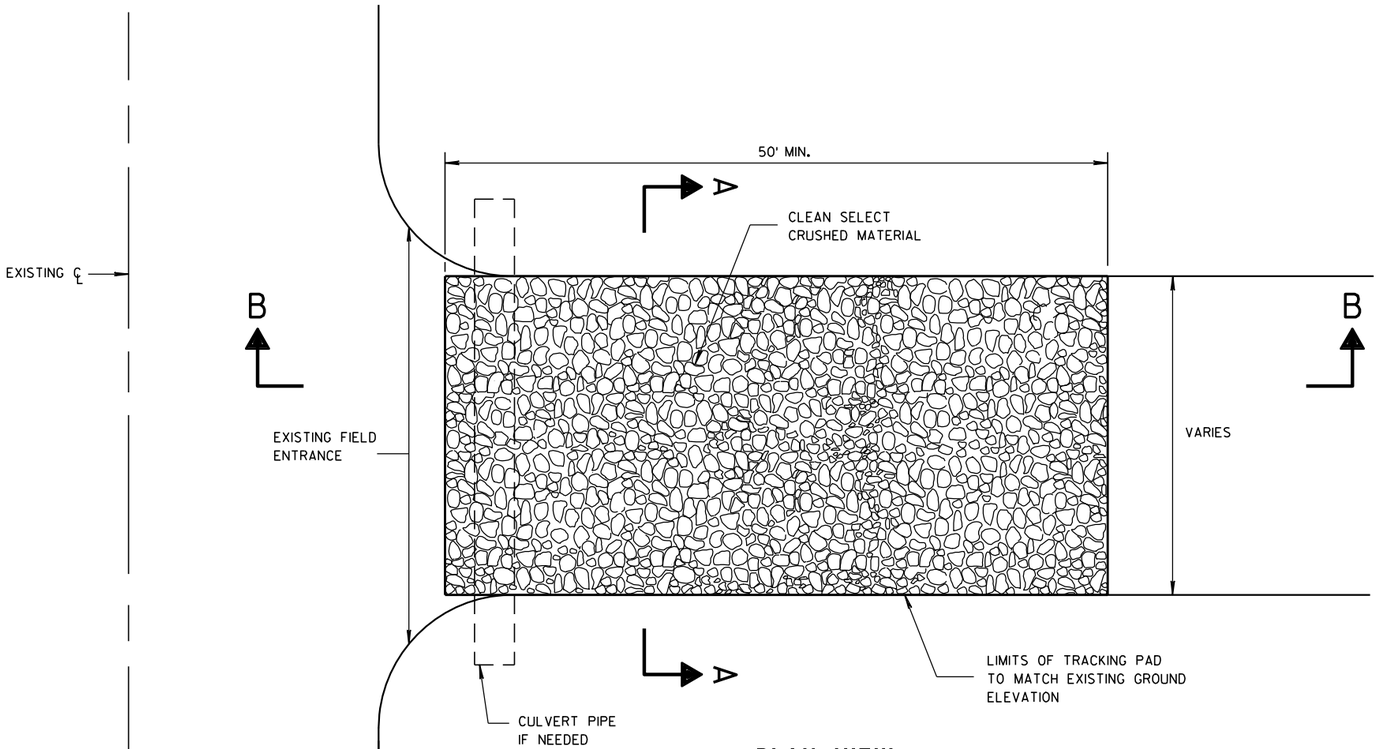
FHWA

6

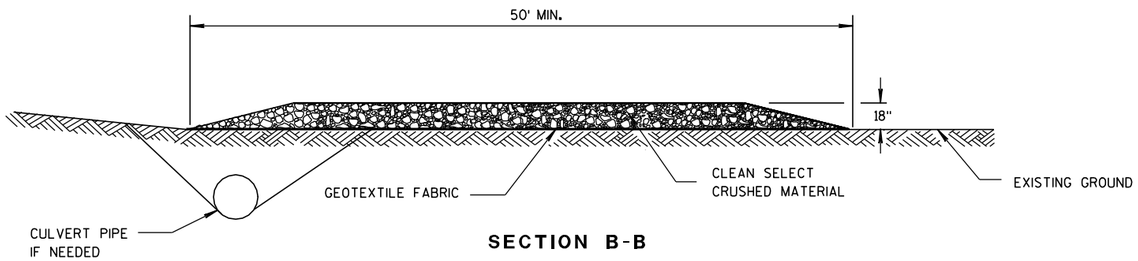
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

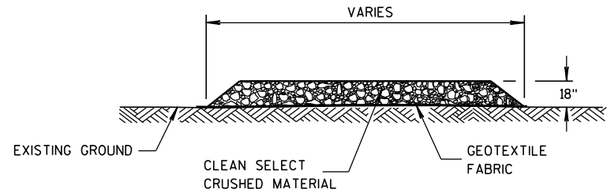
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

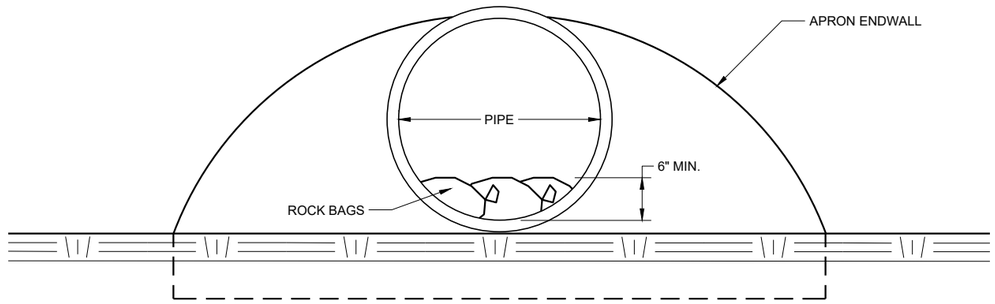
APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

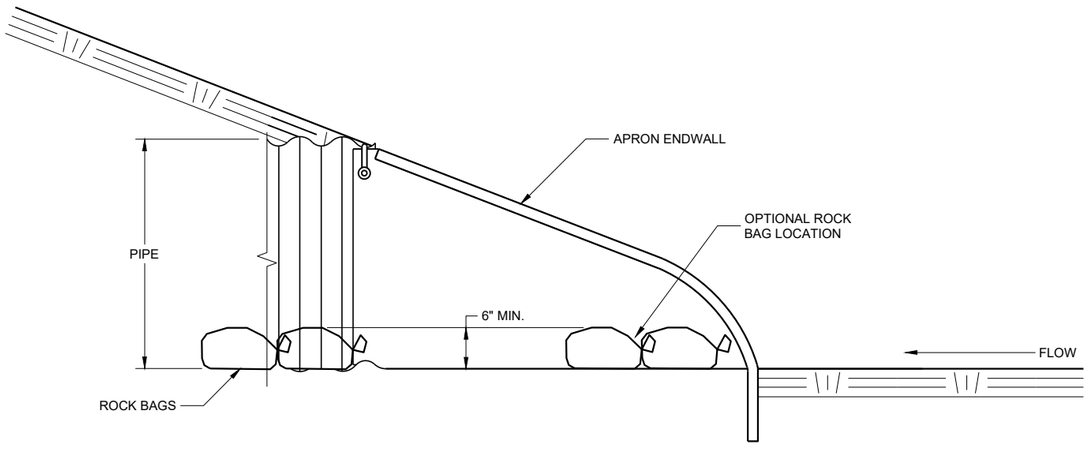
FHWA

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S.D.D. 8 E 14-1



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

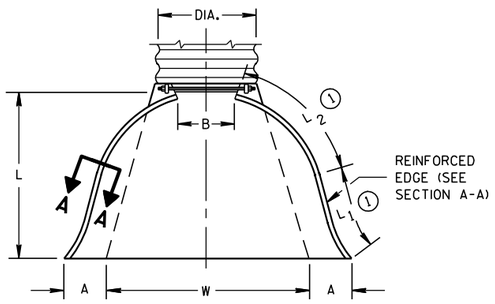
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

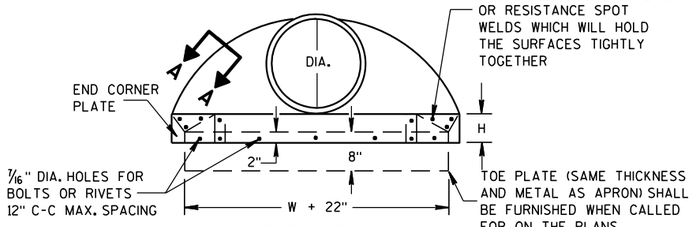
REINFORCED CONCRETE APRON ENDWALLS

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

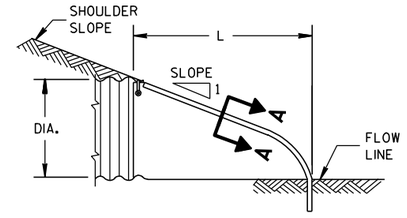
*MINIMUM
**MAXIMUM



PLAN VIEW

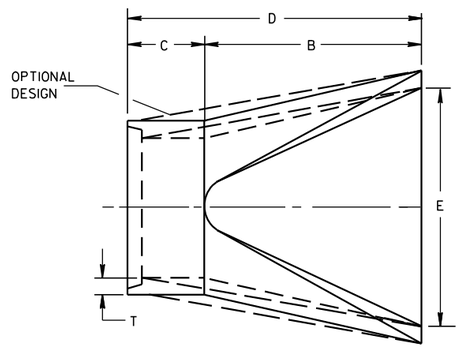


END VIEW

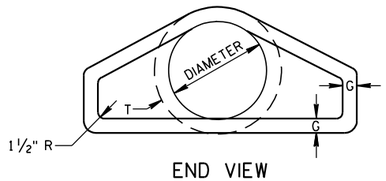


SIDE ELEVATION

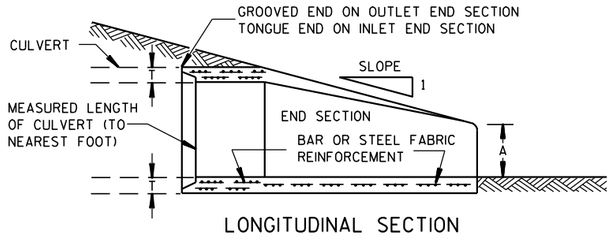
METAL ENDWALLS



PLAN

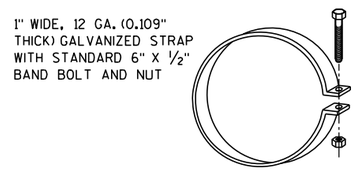


END VIEW



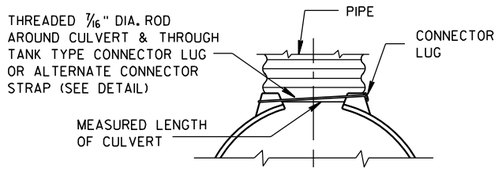
LONGITUDINAL SECTION

CONCRETE ENDWALLS

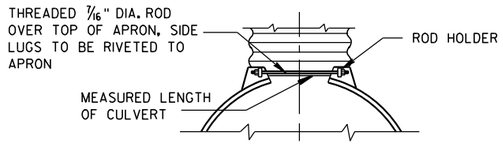


ALTERNATE FOR TYPE 1 CONNECTION

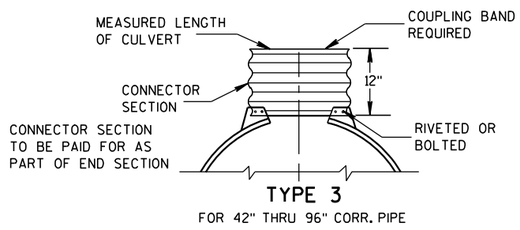
END SECTION CONNECTOR STRAP



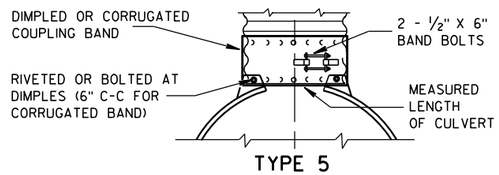
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

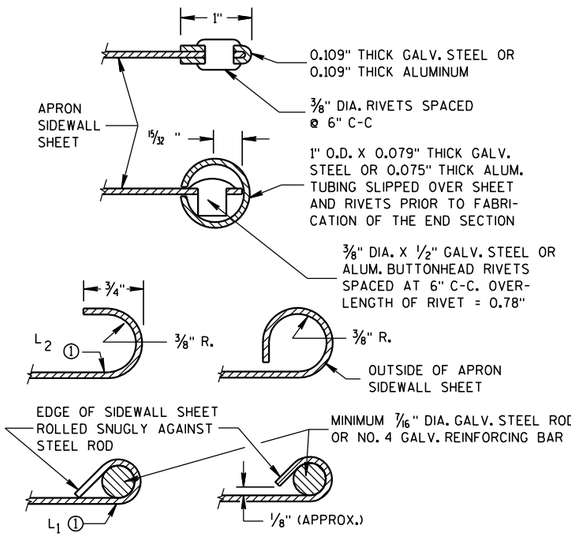
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

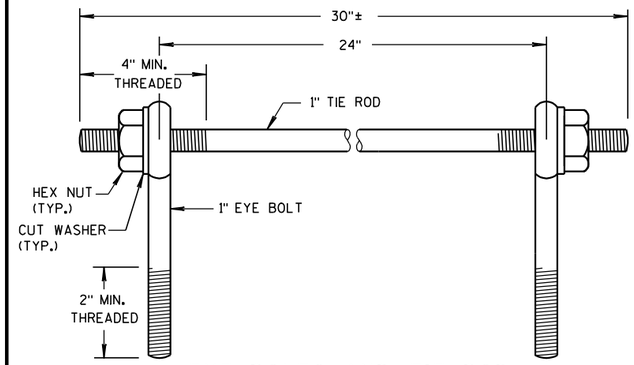
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

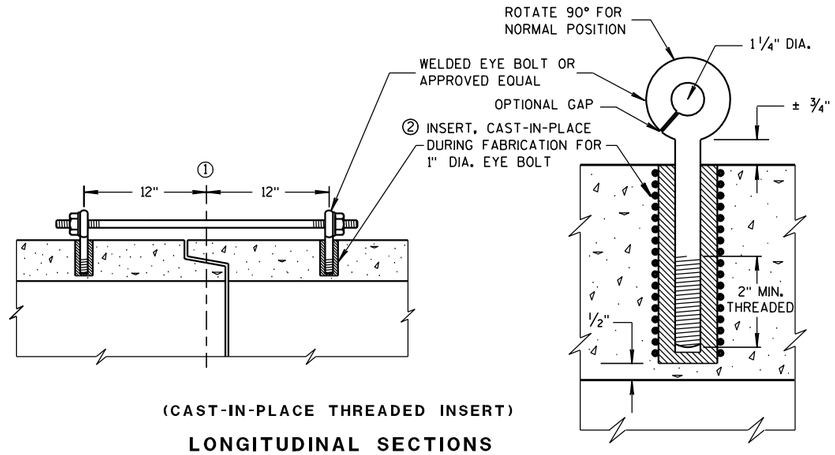
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

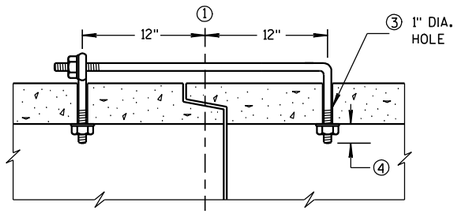
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

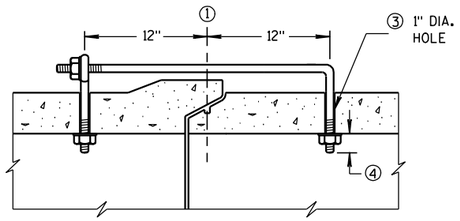
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

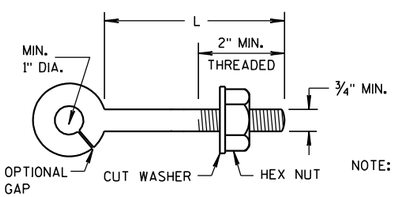


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

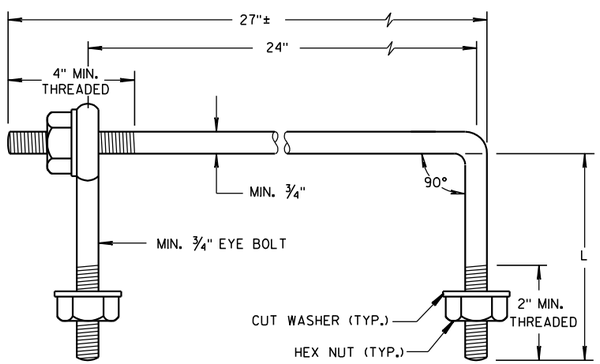
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

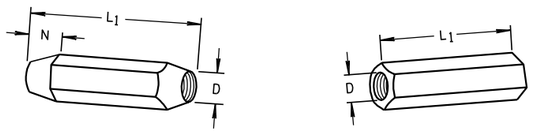
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

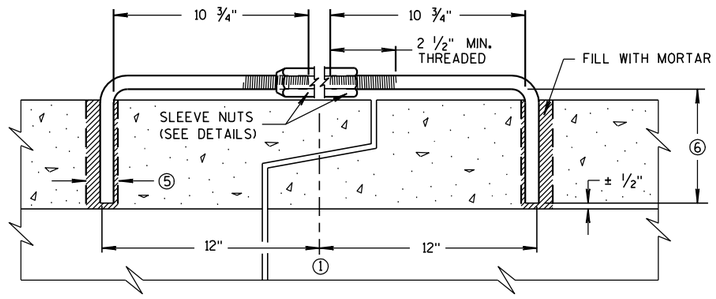
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

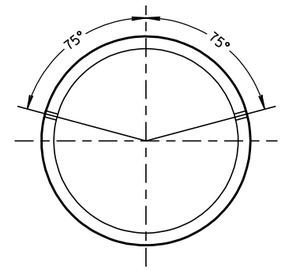
SLEEVE NUTS



LONGITUDINAL SECTION

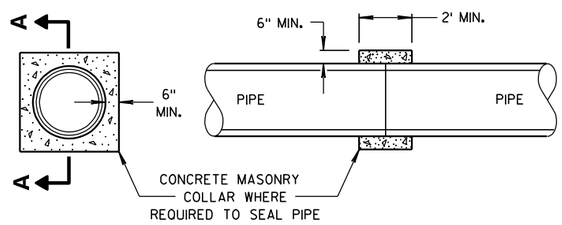
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

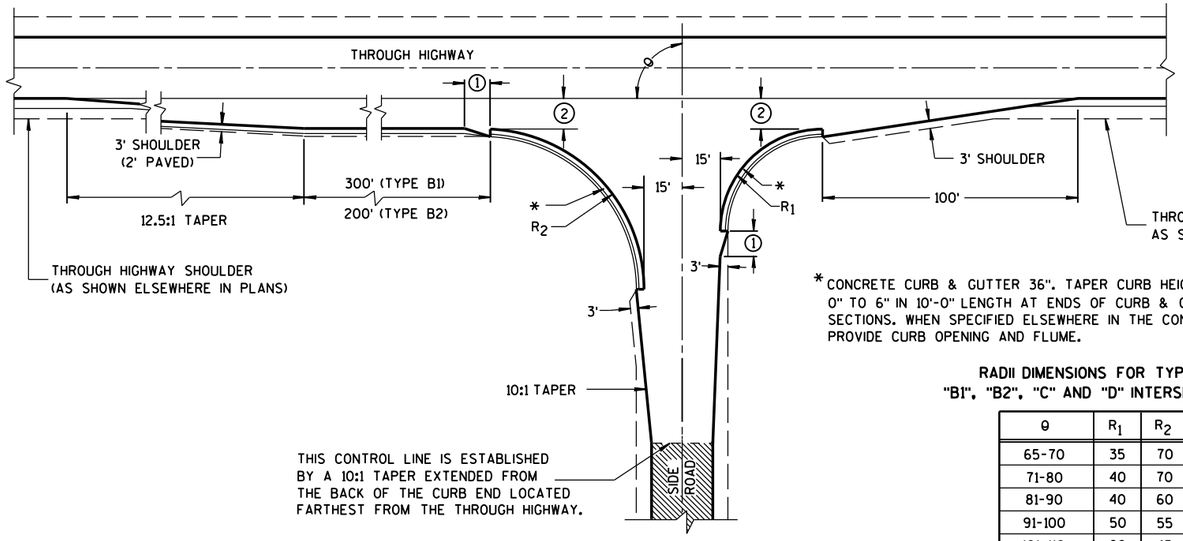
FHWA

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S.D.D. 8 F 4-7

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S.D.D. 8 F 4-7

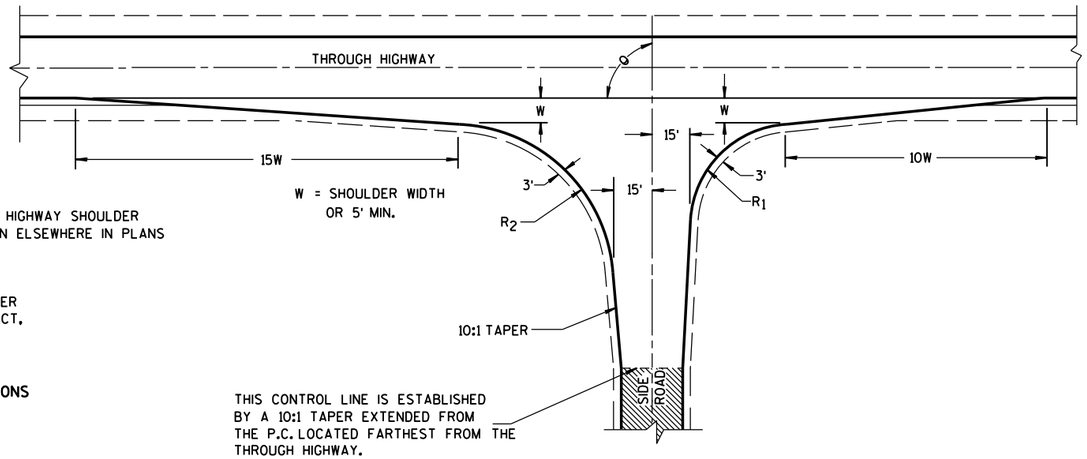


TYPE "B1" AND "B2"

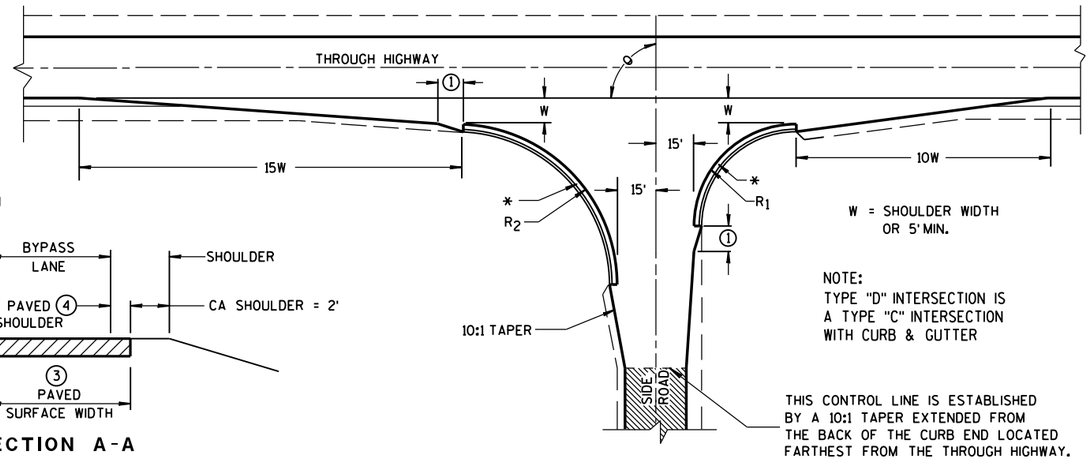
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

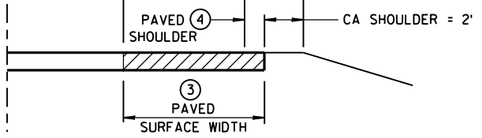
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

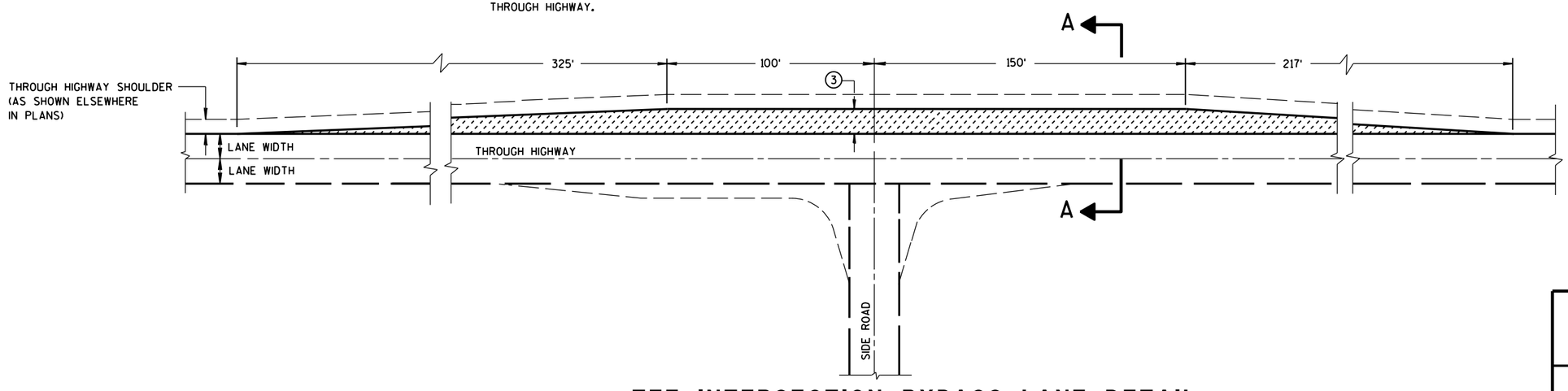
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

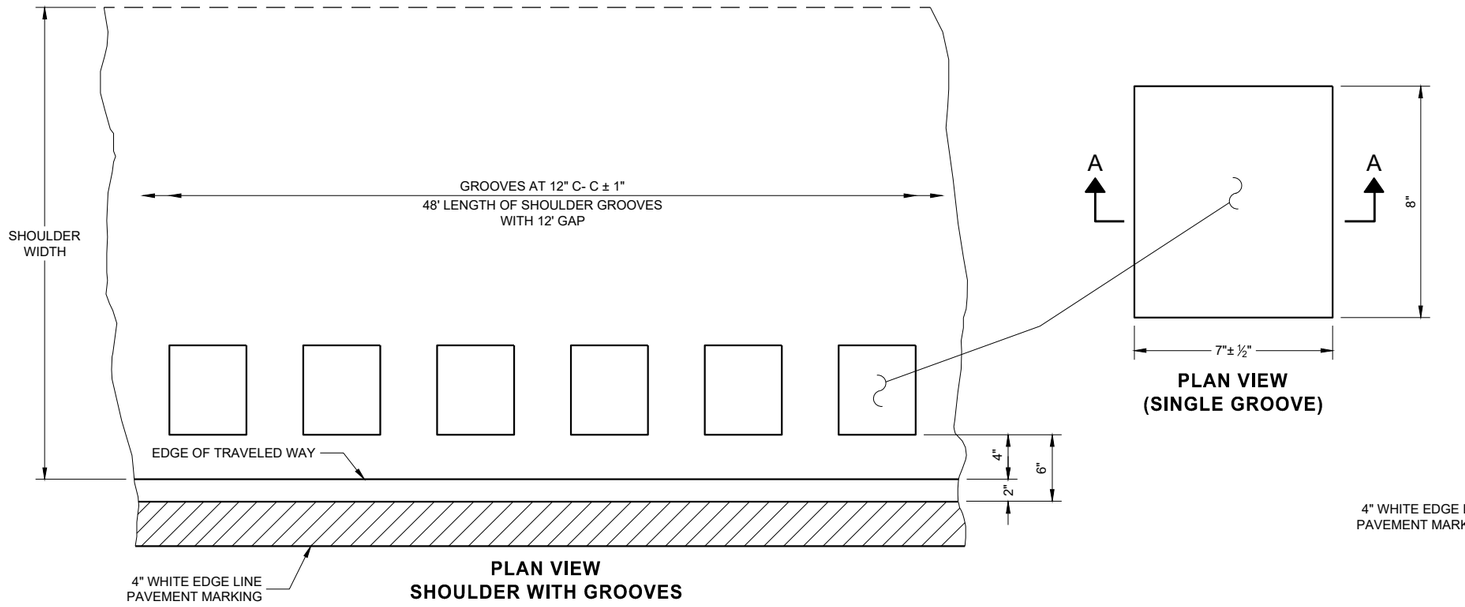


TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 9 A 1-13a



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

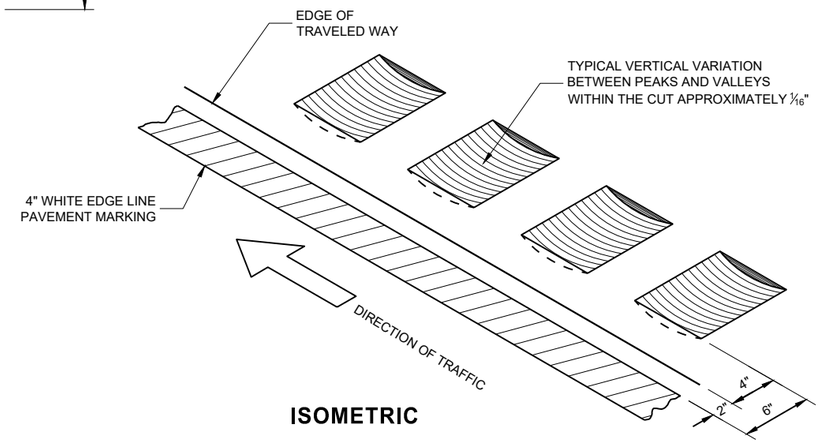
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

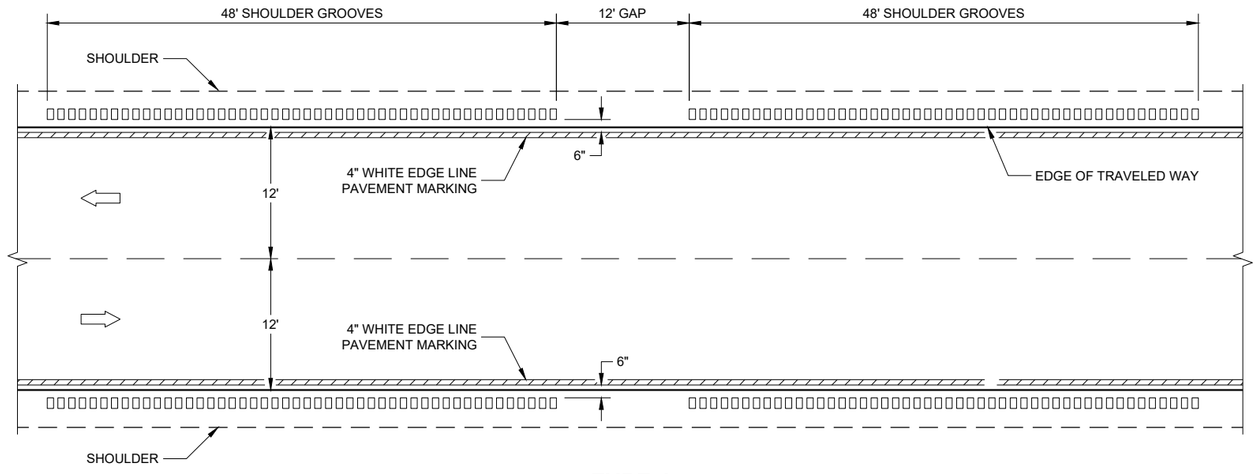
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

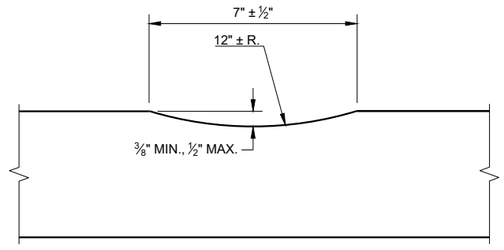
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

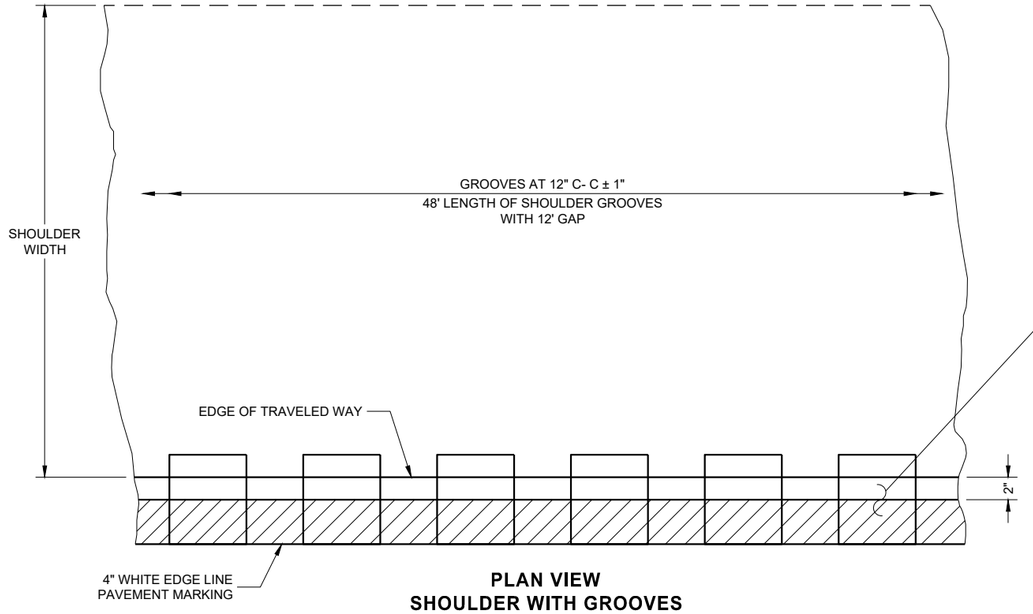
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

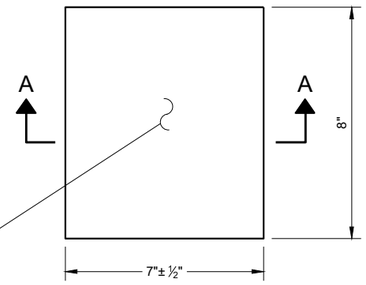
SDD 13A10 - 02a

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SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



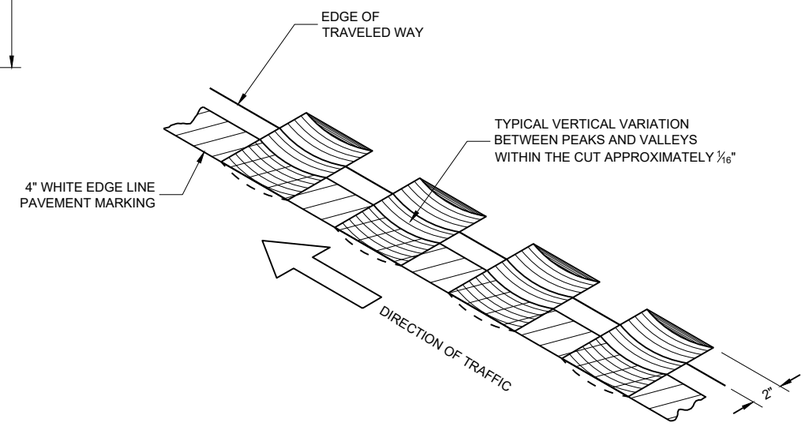
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

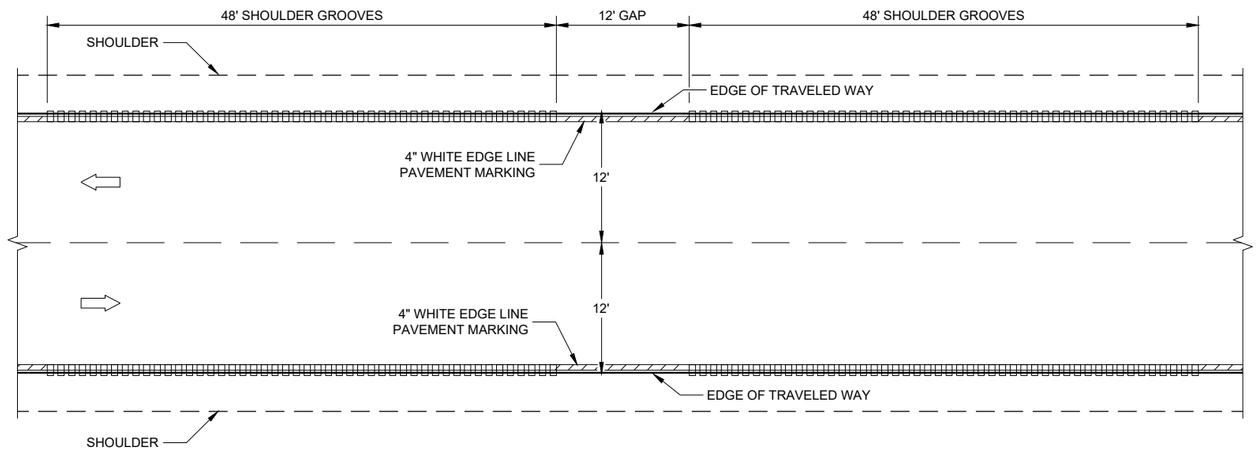
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

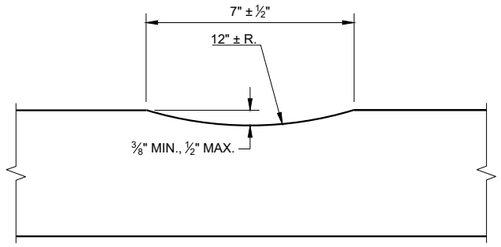


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



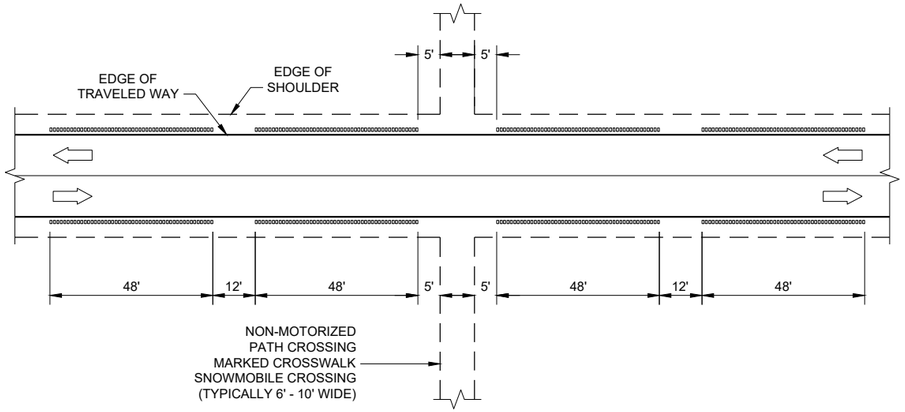
SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

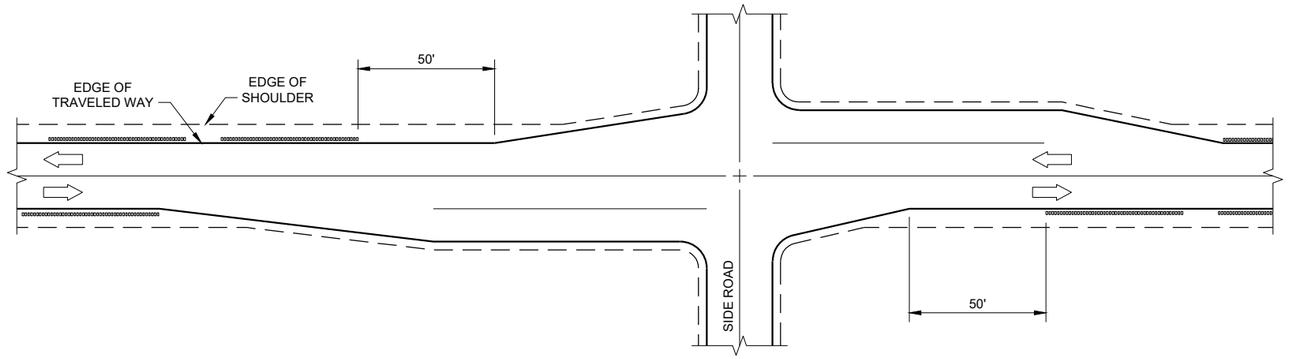
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

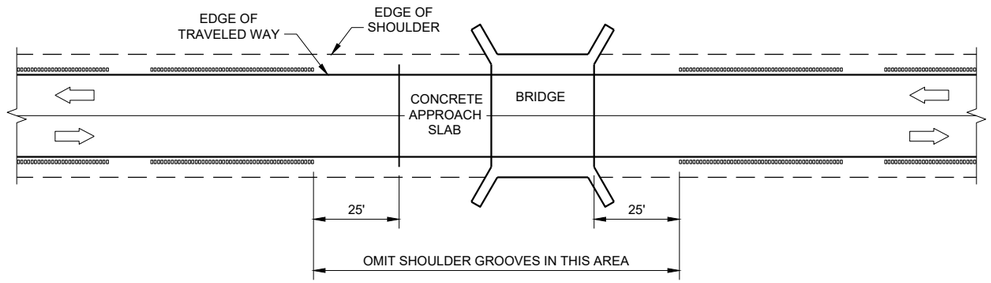
SDD 13A10 - 02b



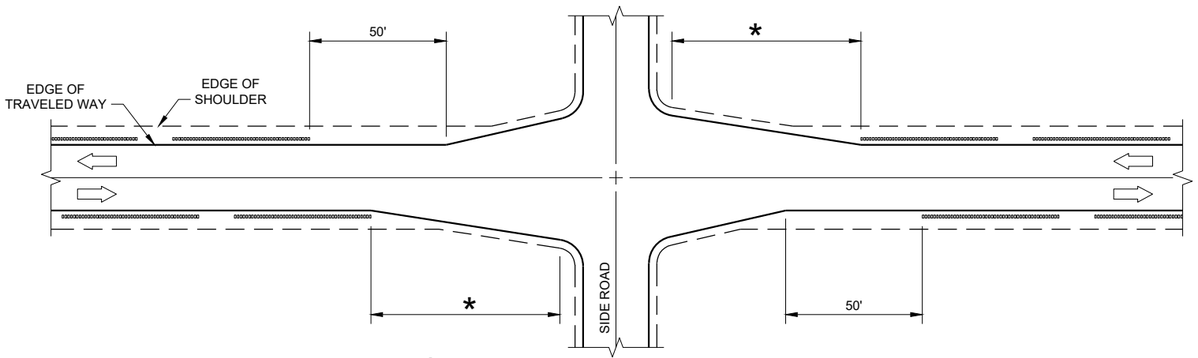
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

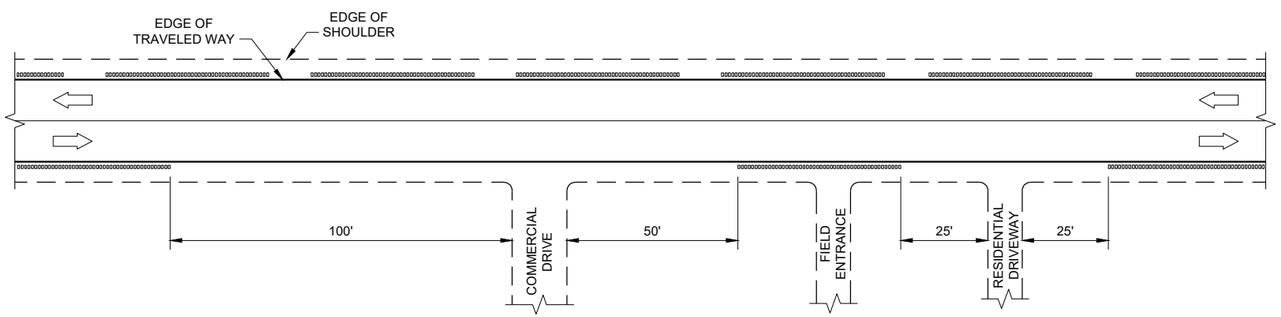


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

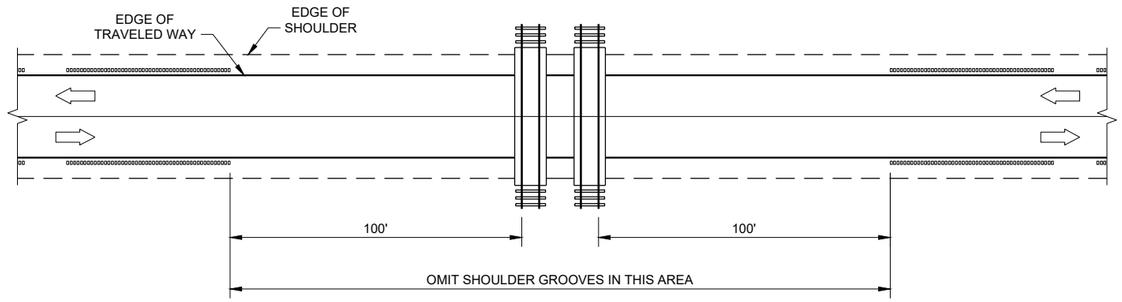
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

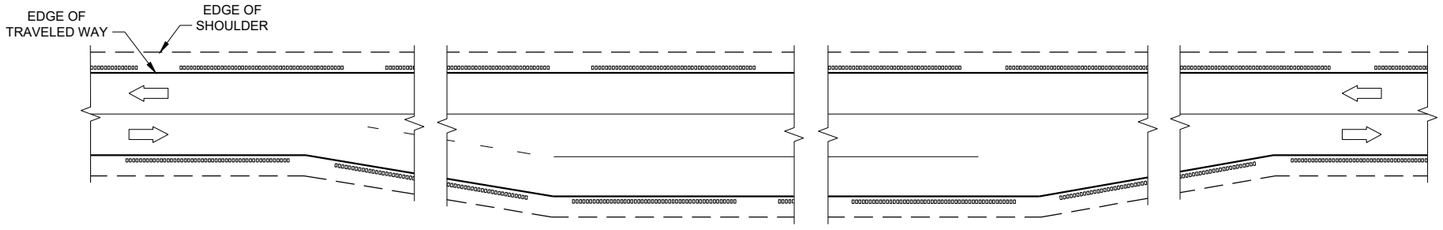
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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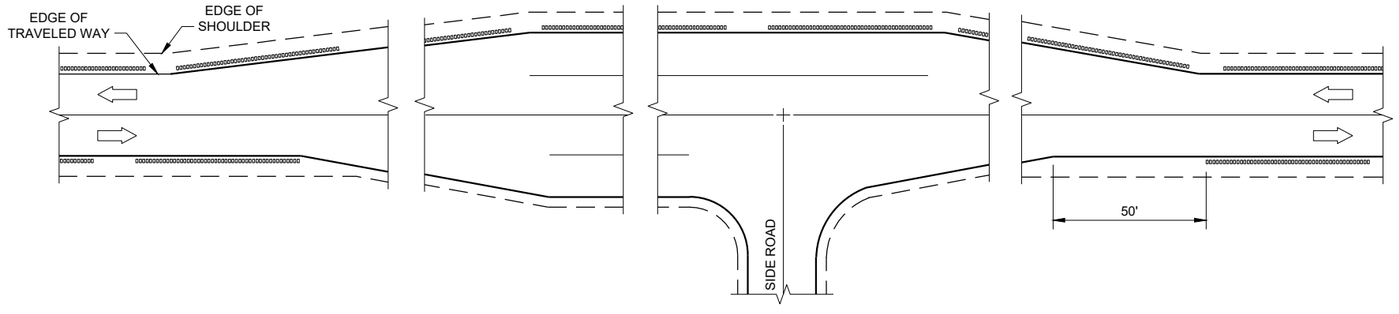
SDD 13A10 - 02c
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

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SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

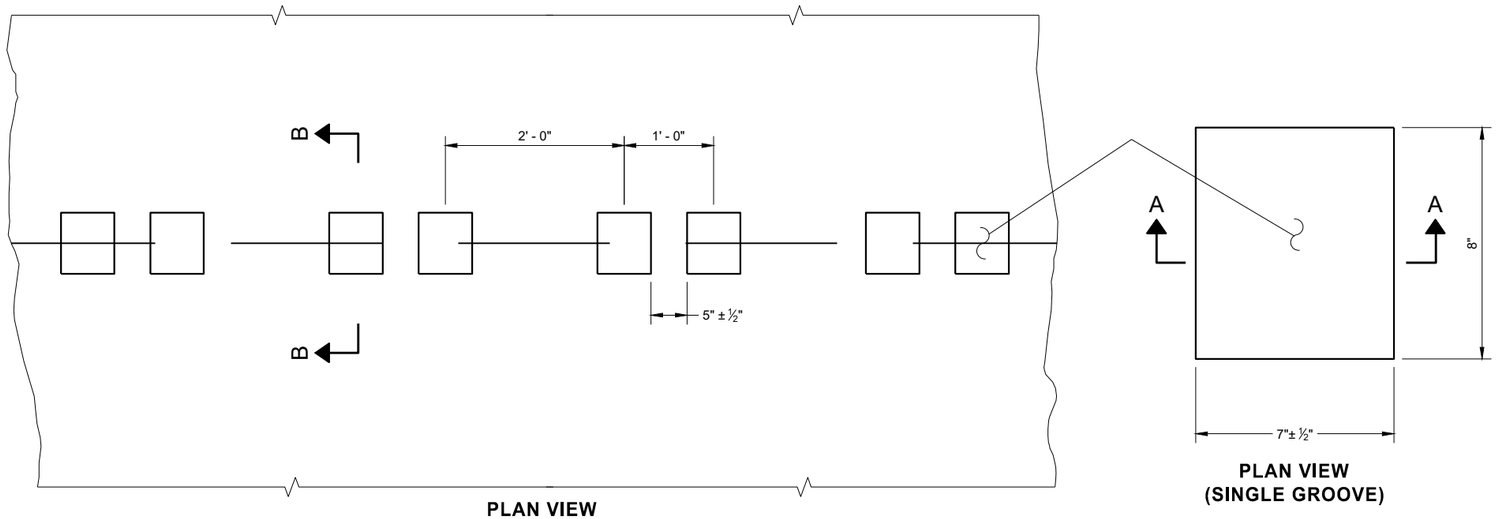
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

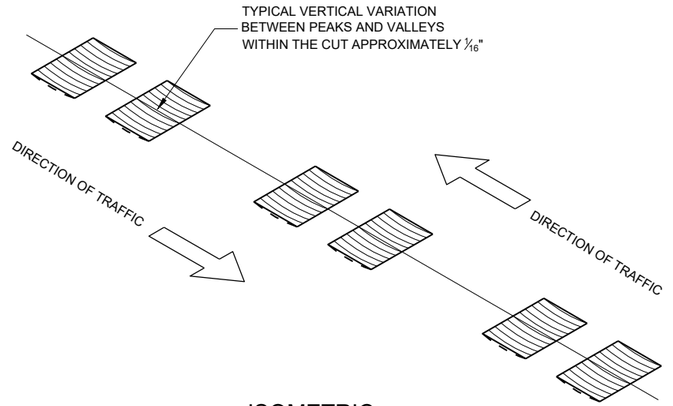
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

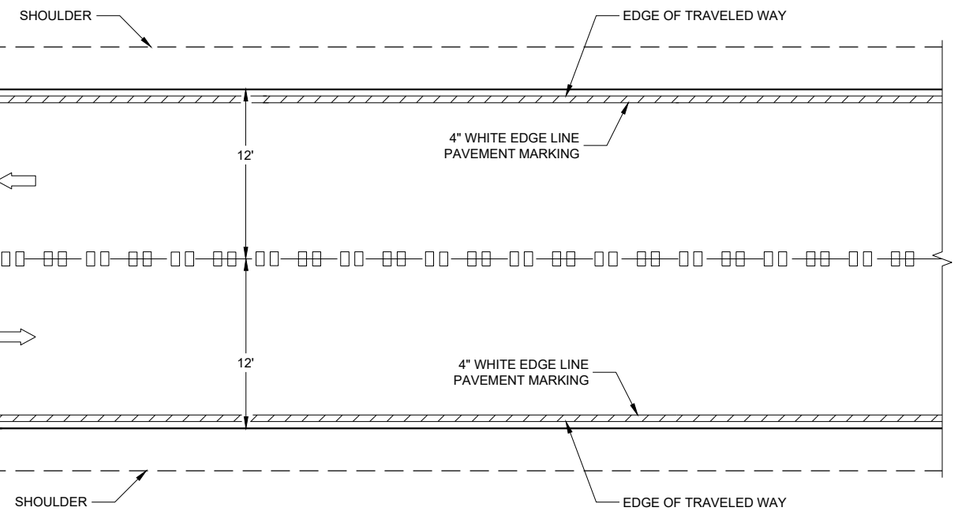
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

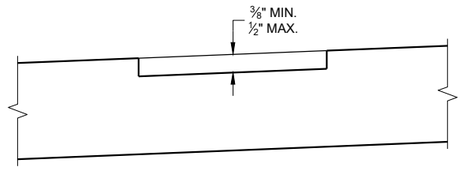
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



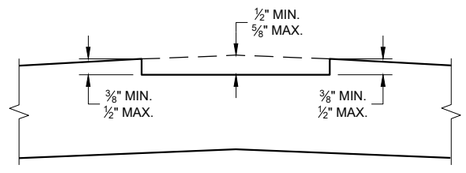
ISOMETRIC



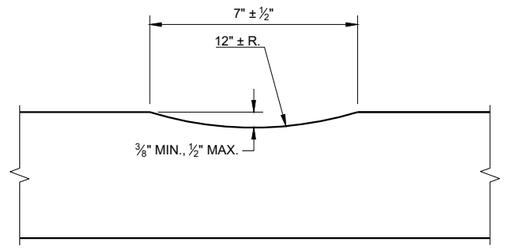
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

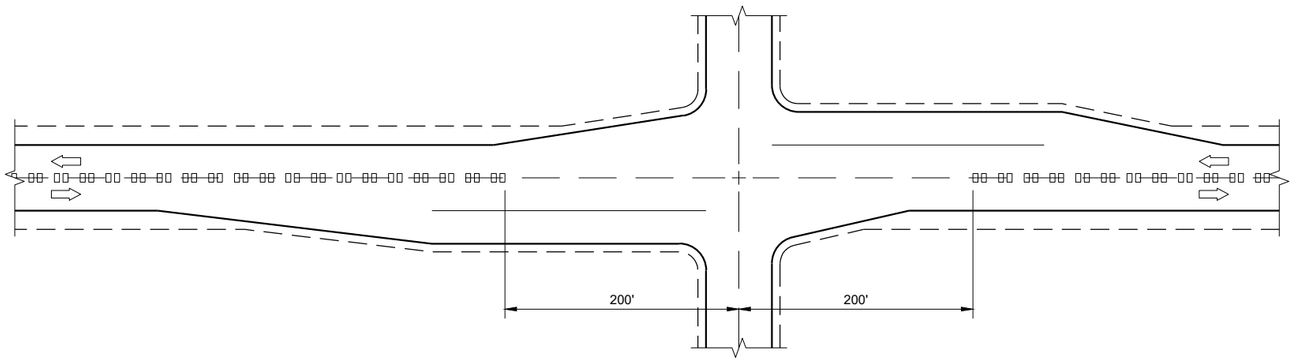
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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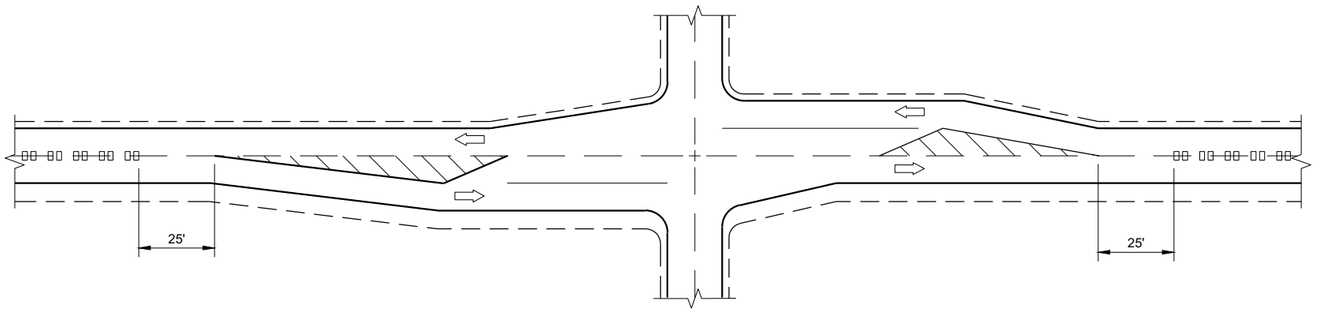
SDD 13A11 - 03a

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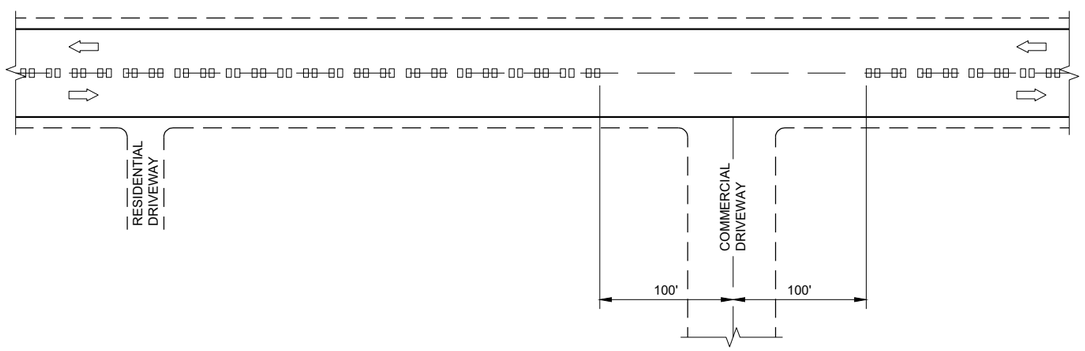
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



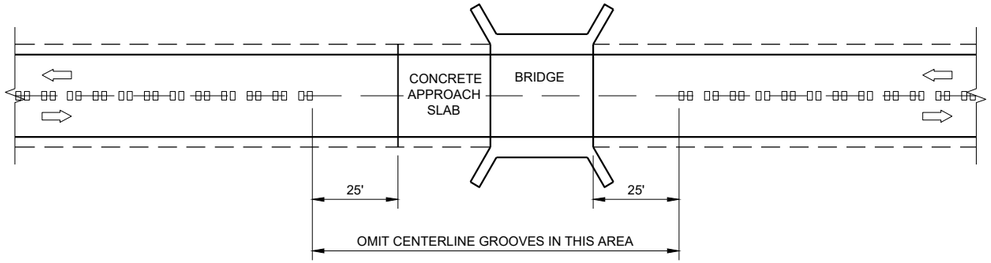
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



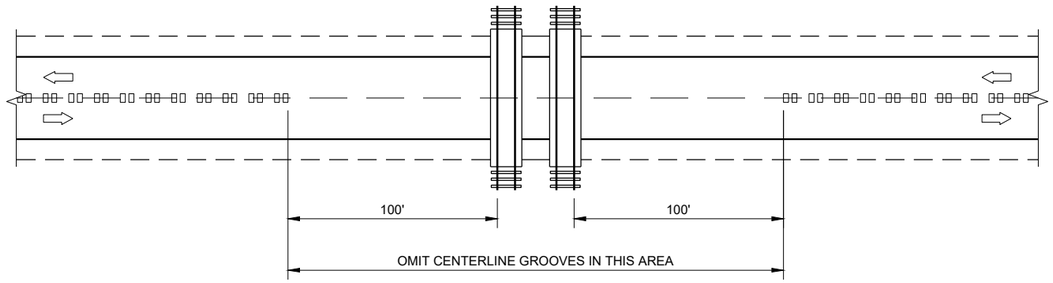
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

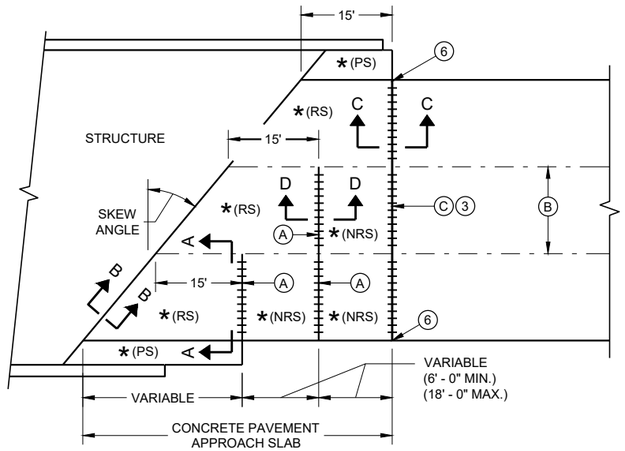
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

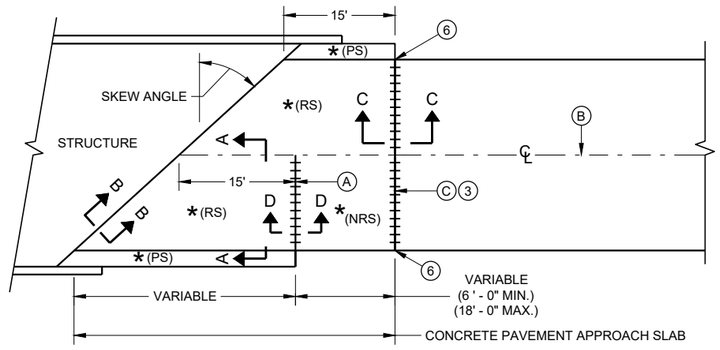
FHWA

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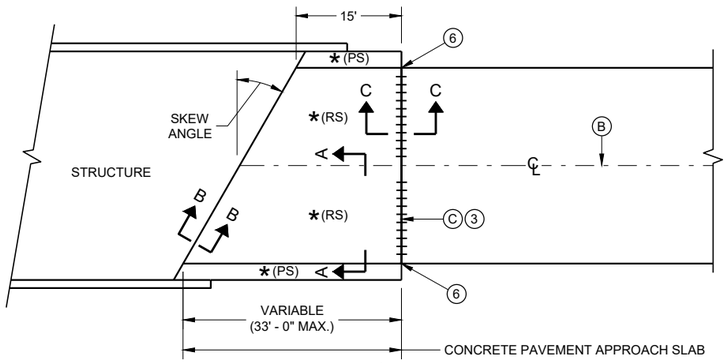
SDD 13A11 - 03b
SDD 13A11 - 03b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

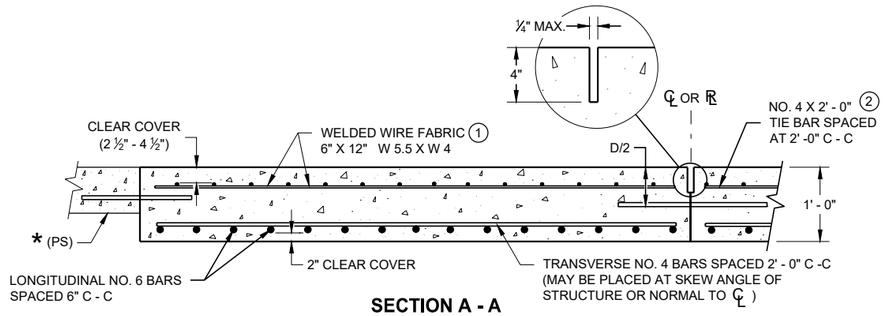
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

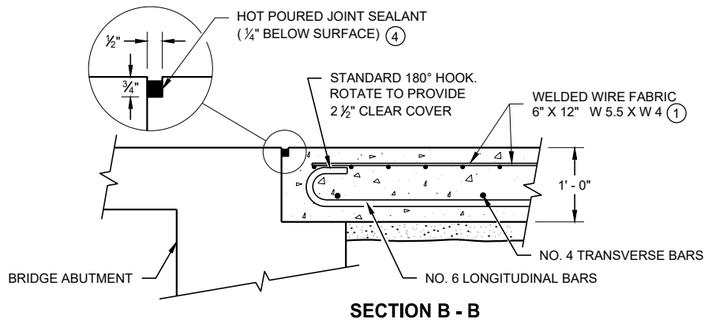
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

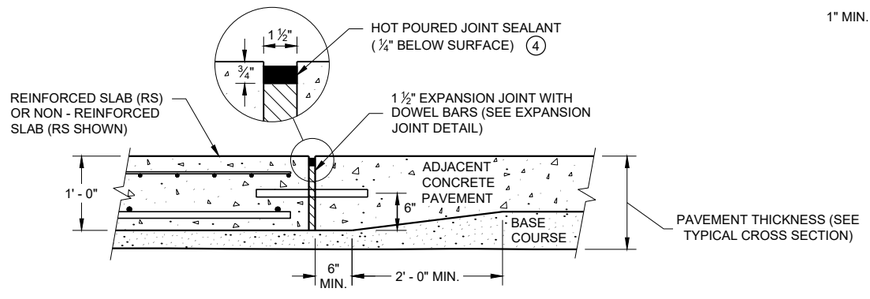
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

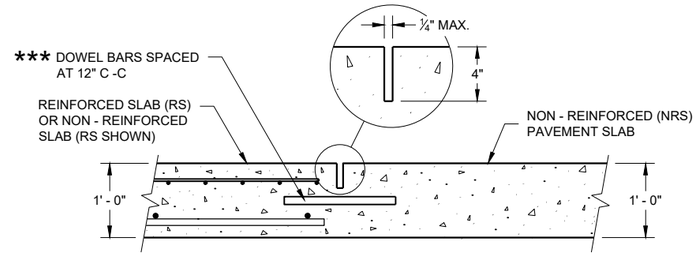
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

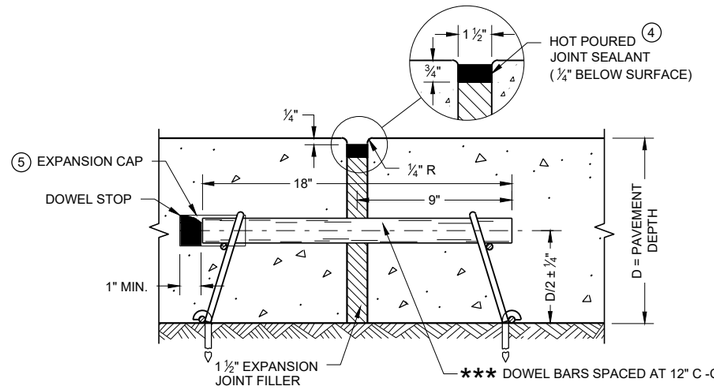
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

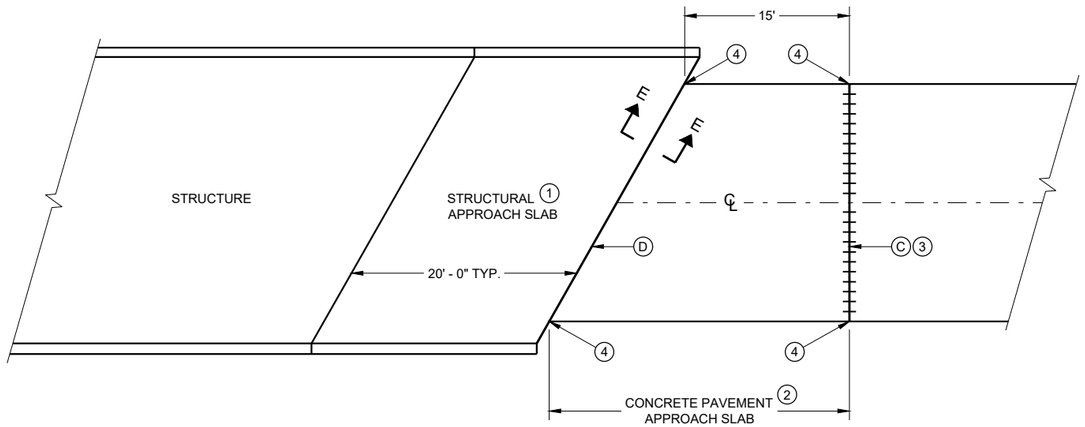
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

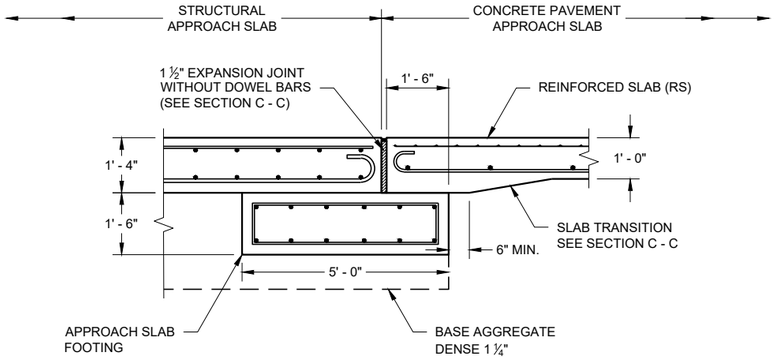
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
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APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

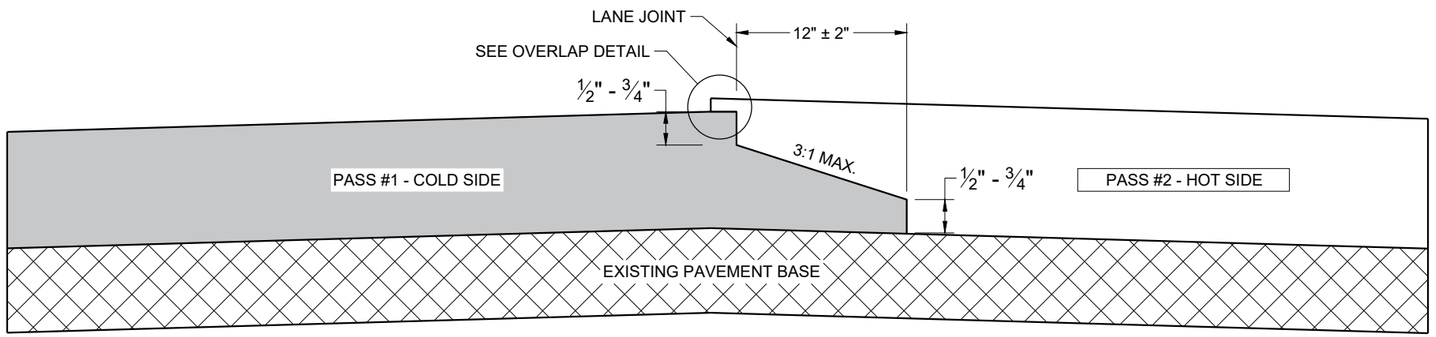
FHWA

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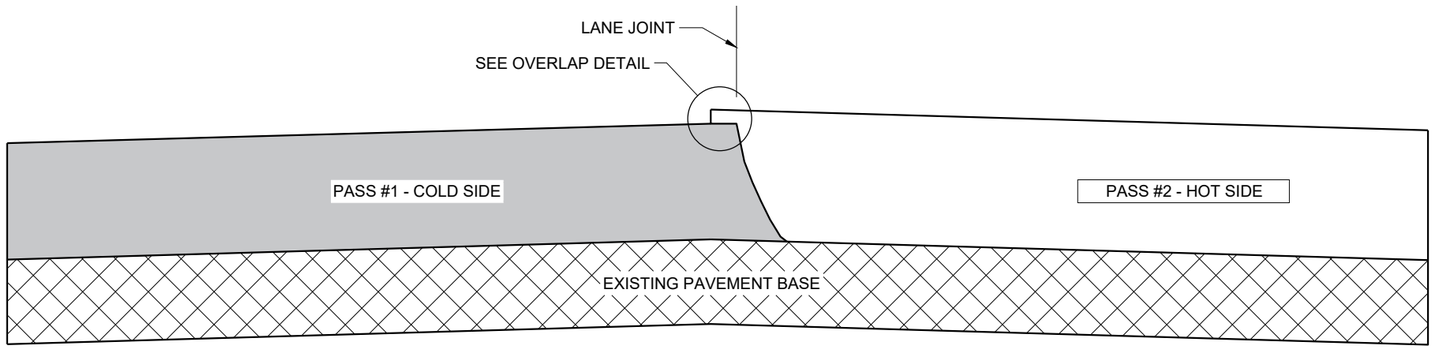
SDD 13B02 - 09b

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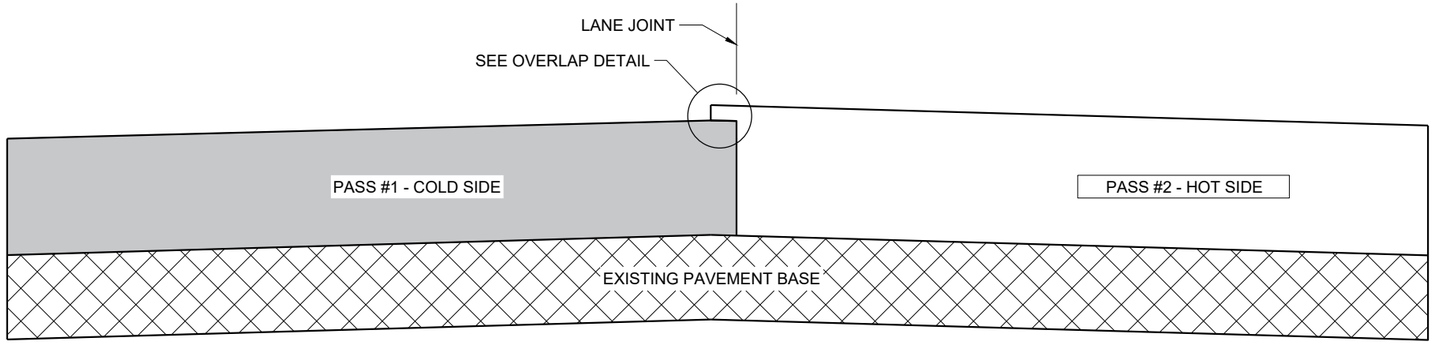
SDD 13B02 - 09b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

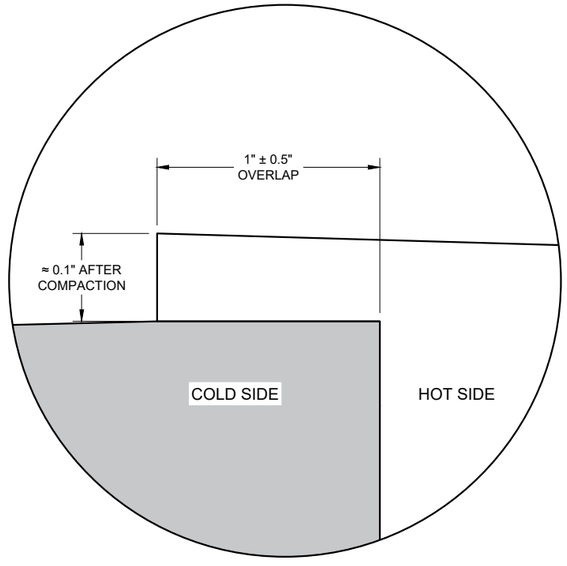
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

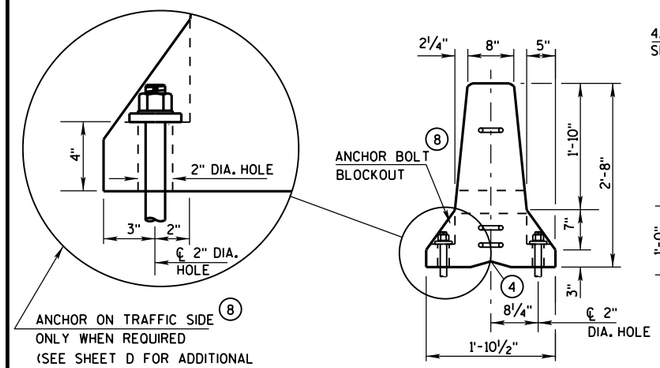
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

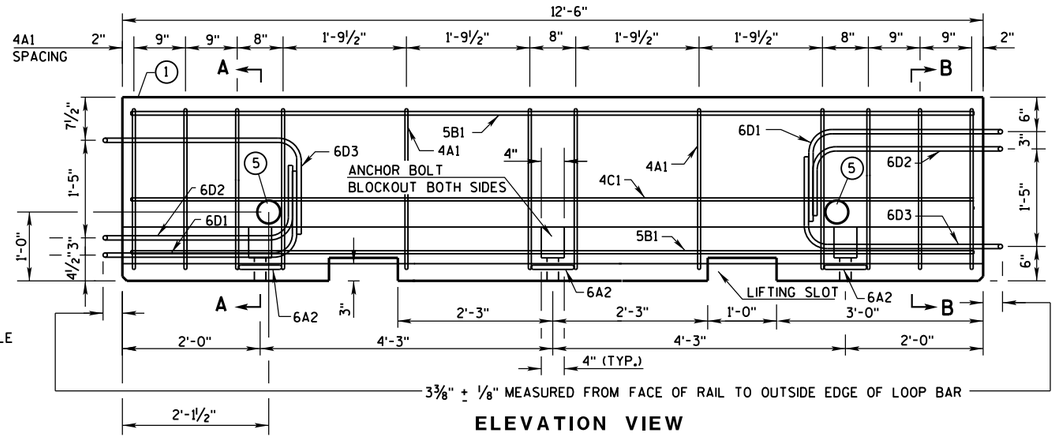
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

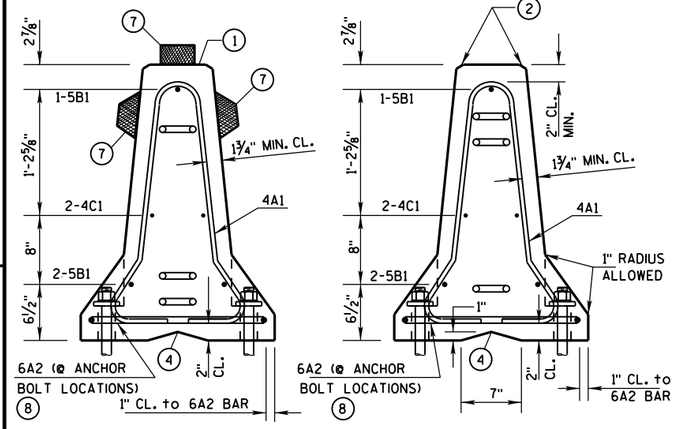
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END VIEW

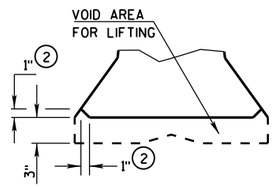


ELEVATION VIEW

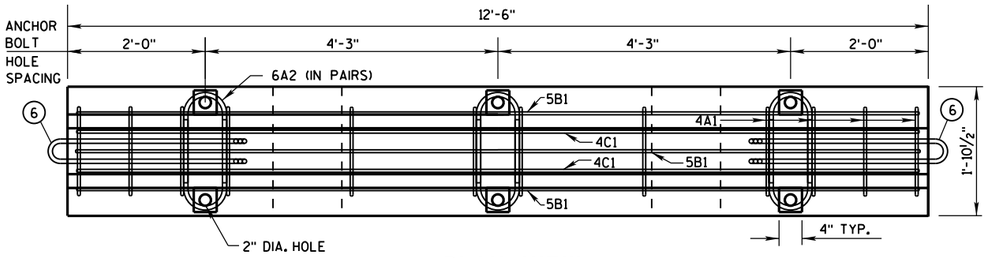


SECTION A-A
(STIRRUP PLACEMENT)

SECTION B-B
(STIRRUP PLACEMENT)

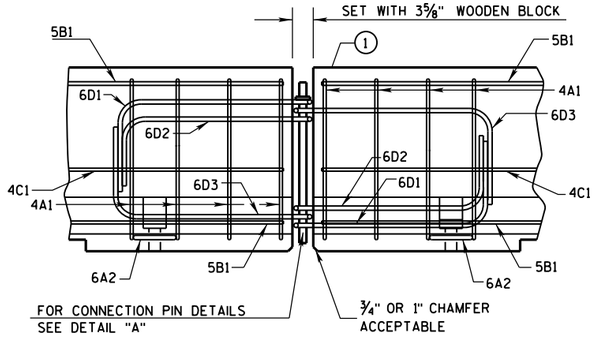


DETAIL "B"
LIFTING SLOT DETAIL

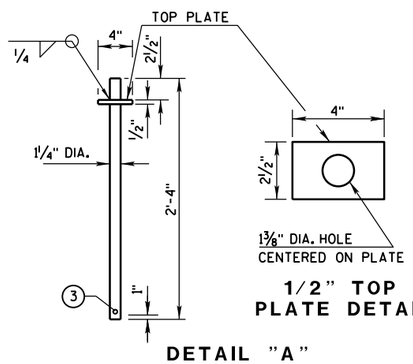


PLAN VIEW

DETAILS OF BARRIER SECTION

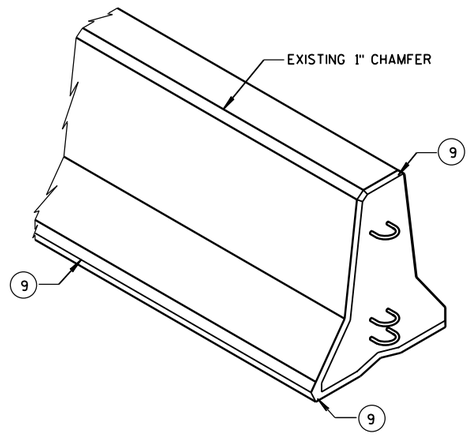


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

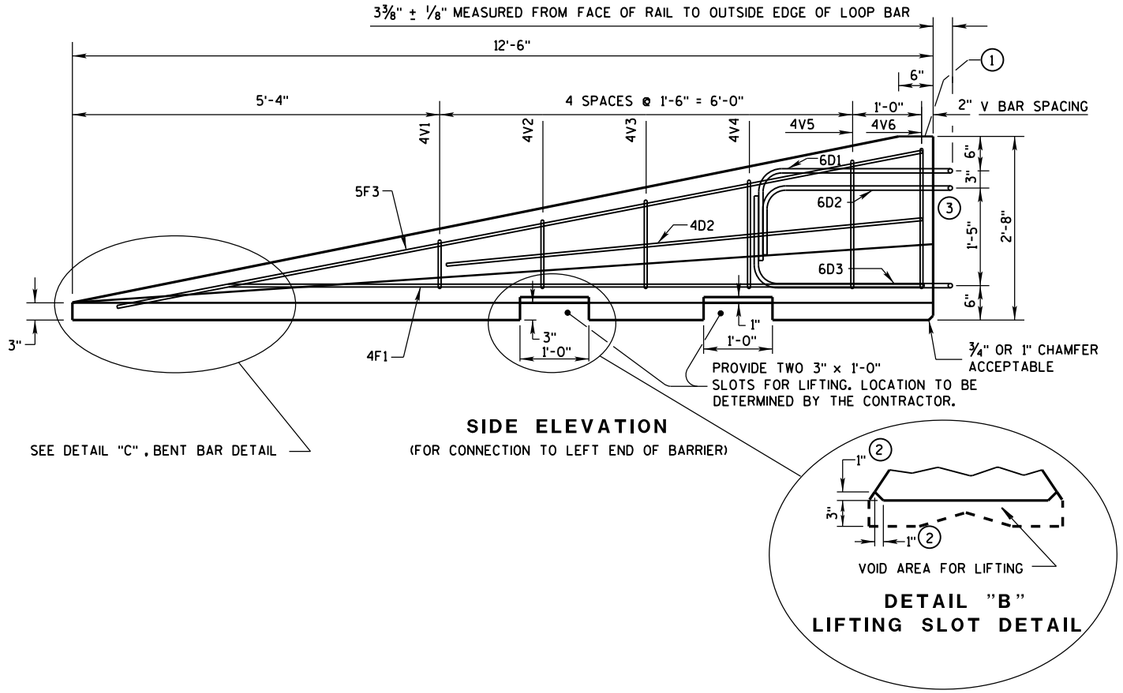
f'c = 4,000 psi

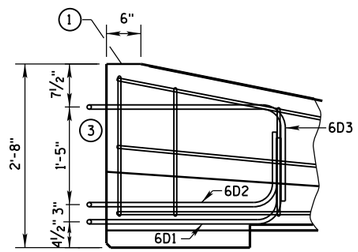
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

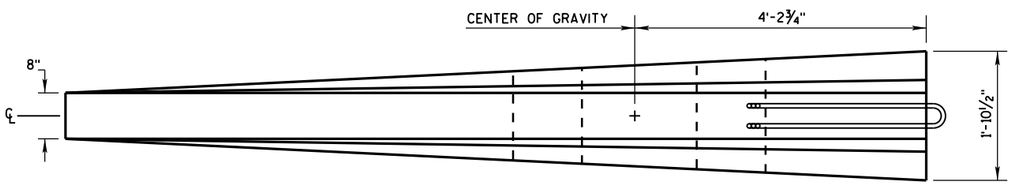
S.D.D. 14 B 7-15a

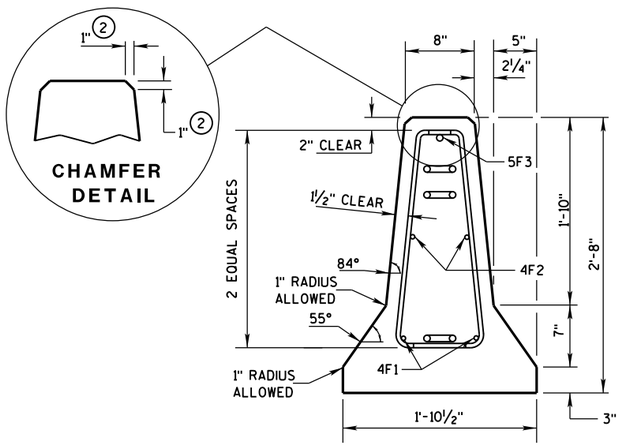


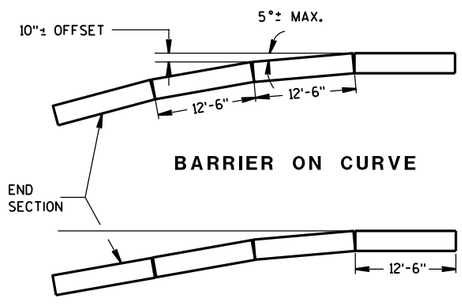


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

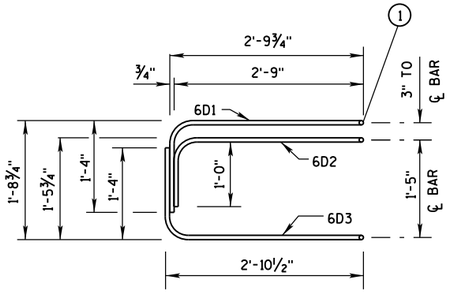
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S.D.D. 14 B 7-15b

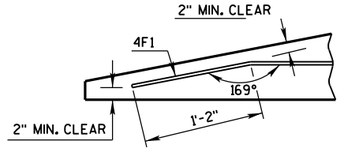
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

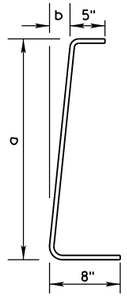
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

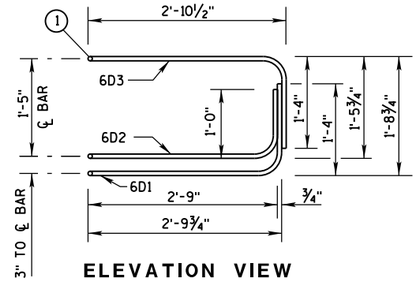
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

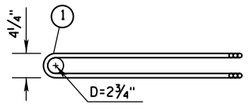
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

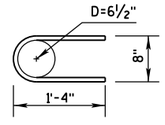
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



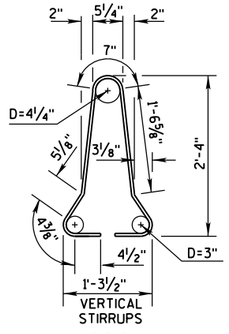
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

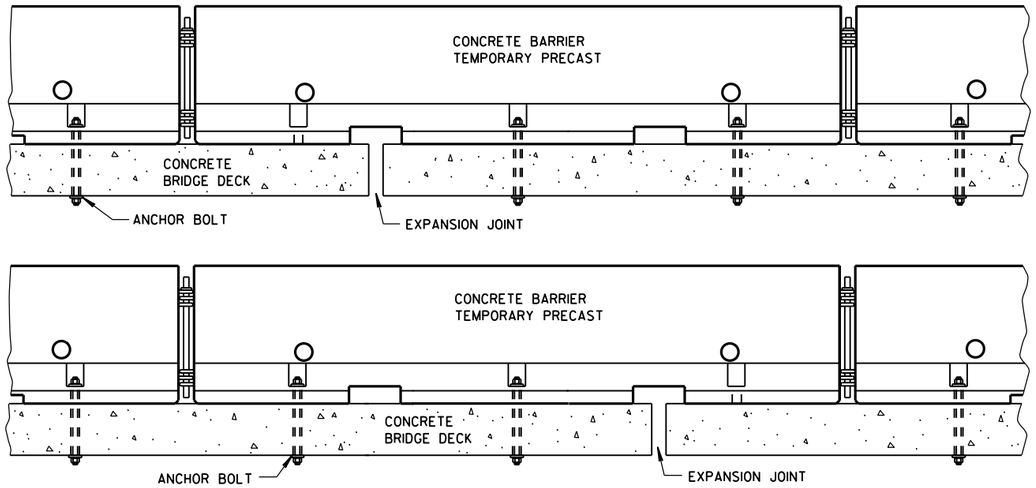
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

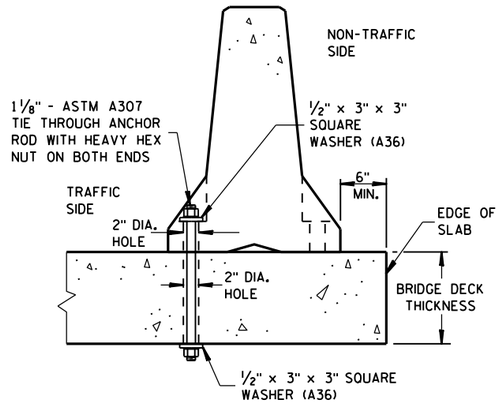
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

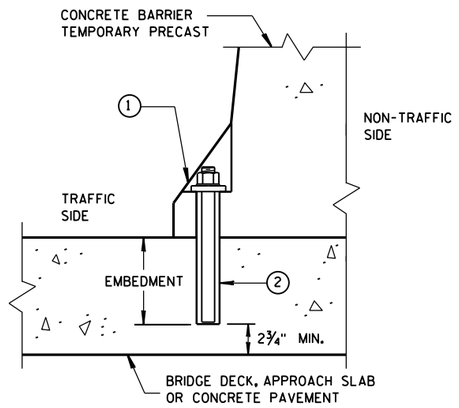
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



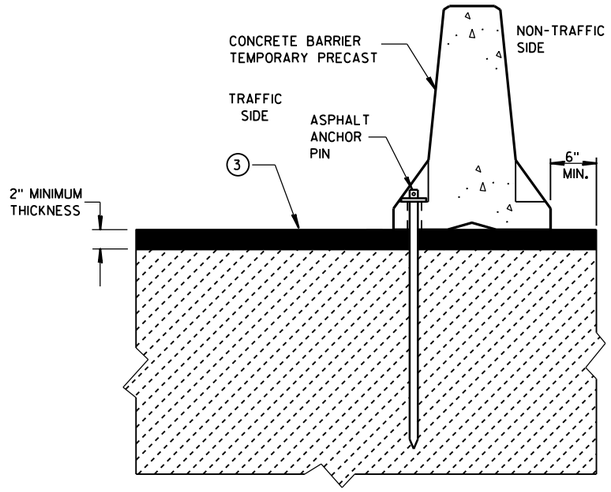
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

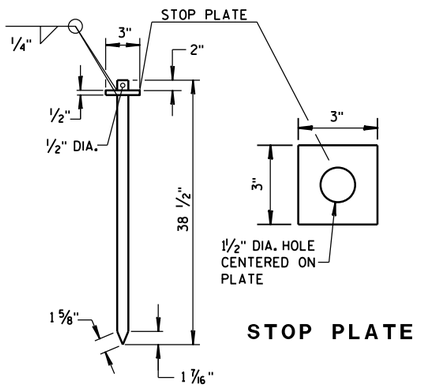


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



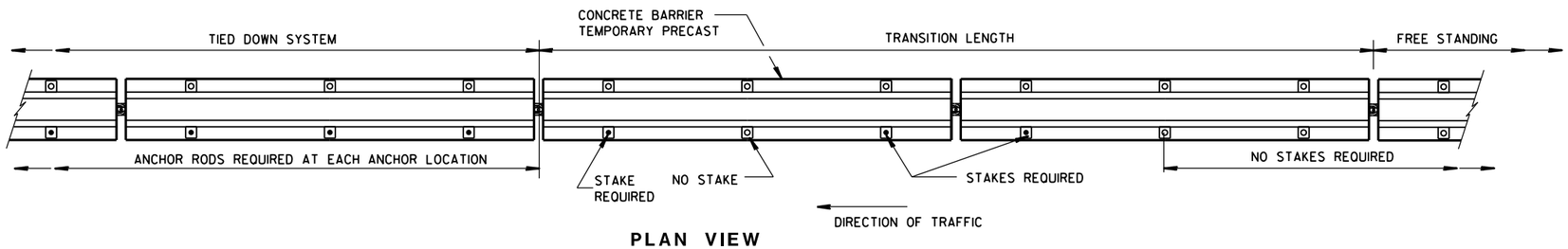
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

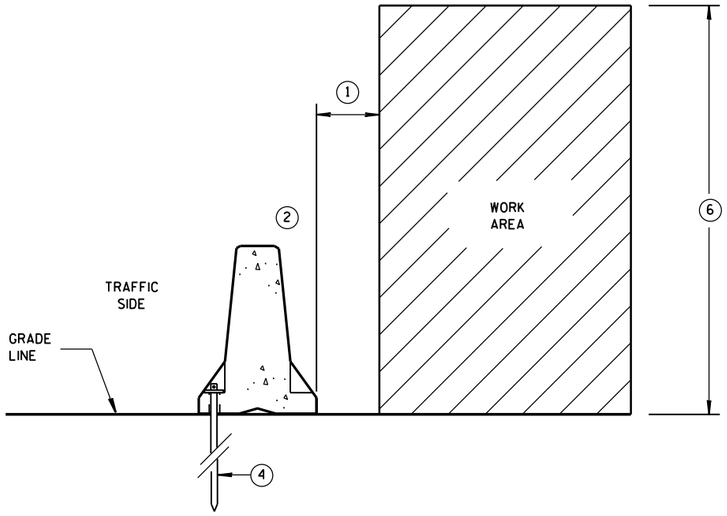
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

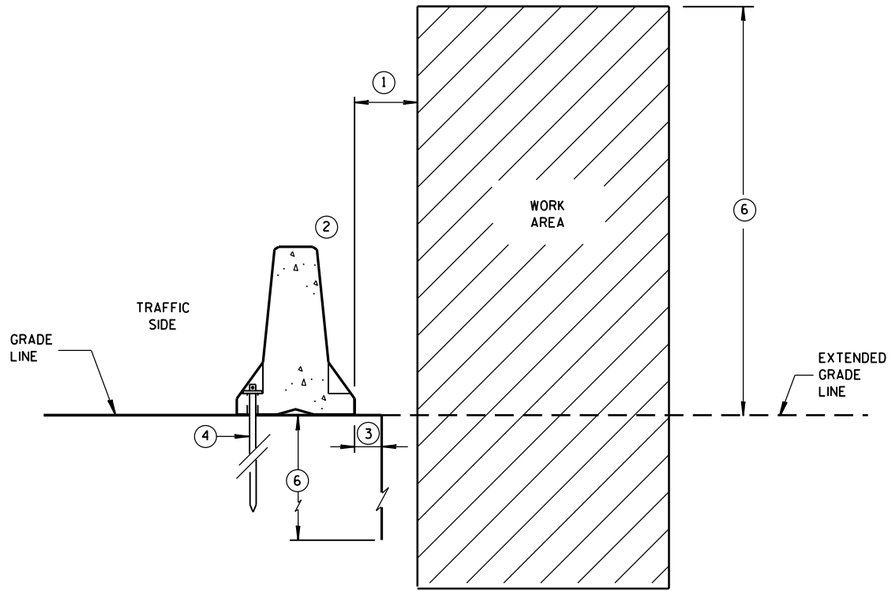
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

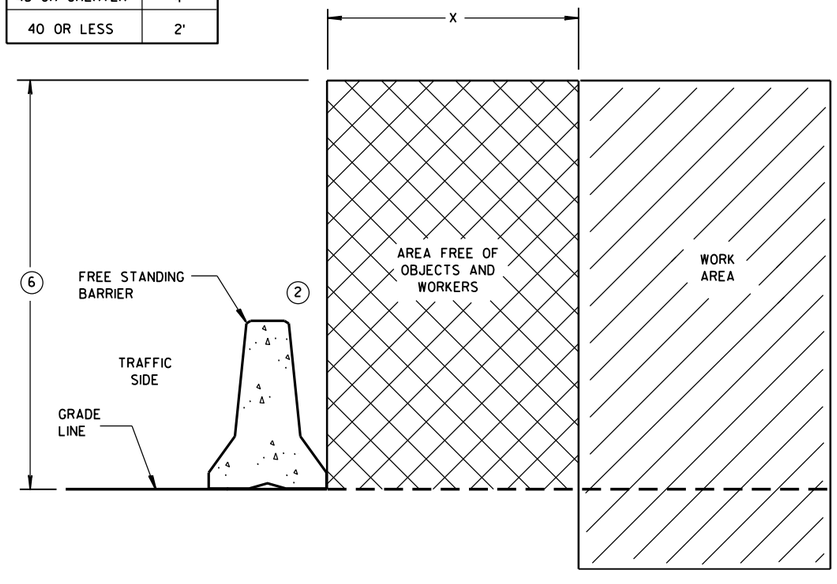


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

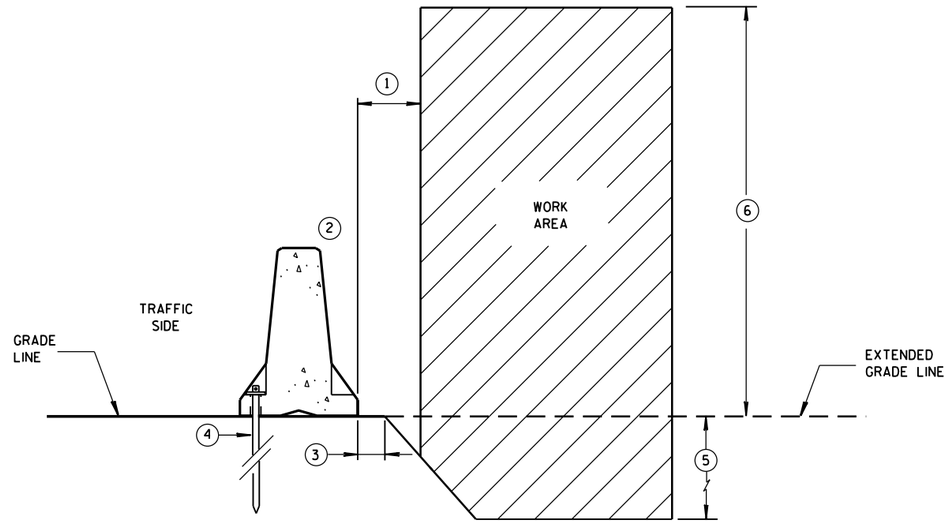
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



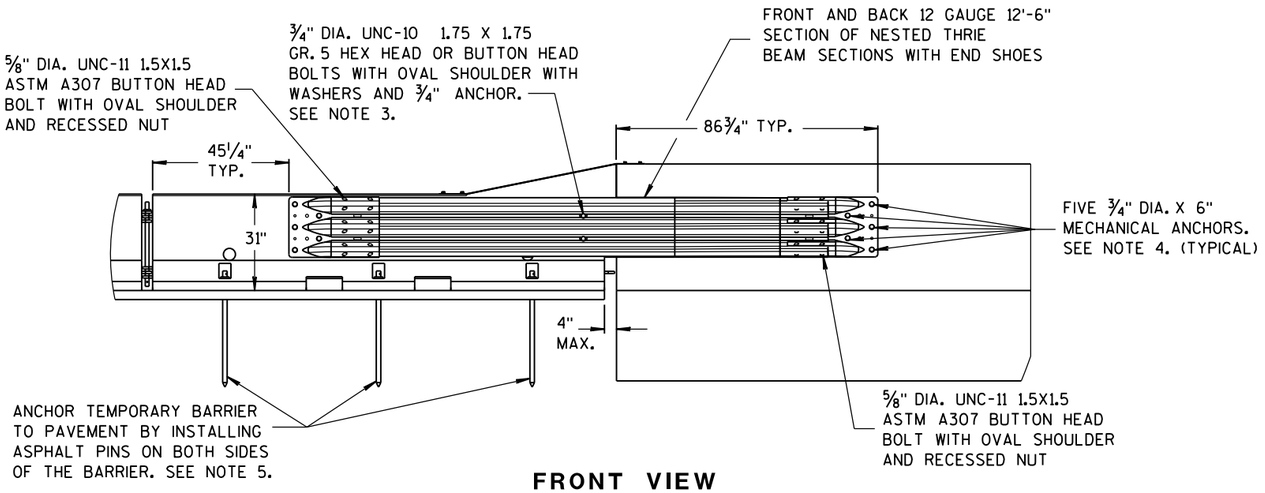
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

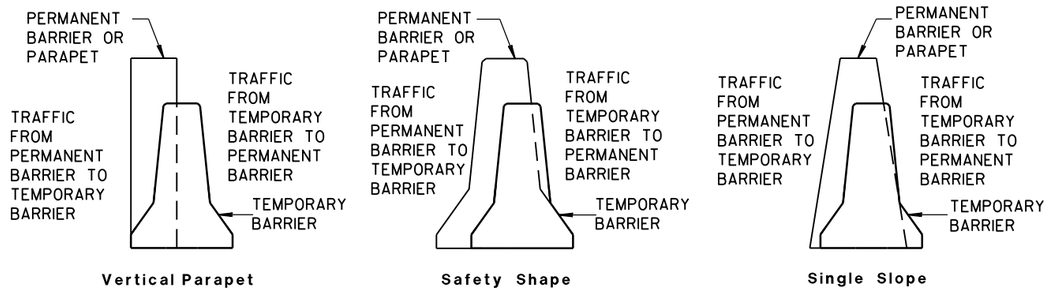
STATE OF WISCONSIN
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FRONT VIEW

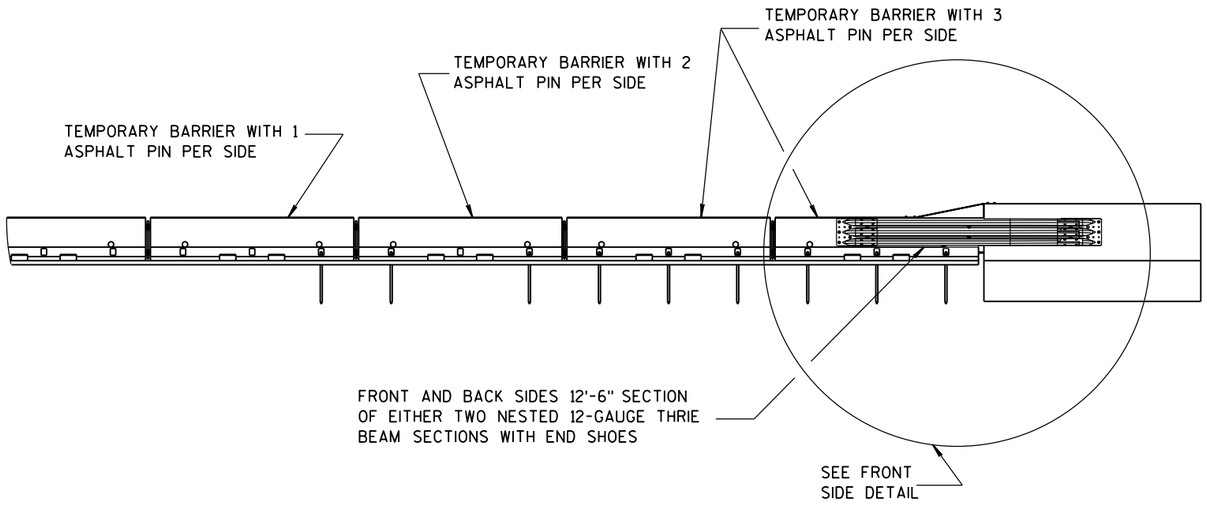


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

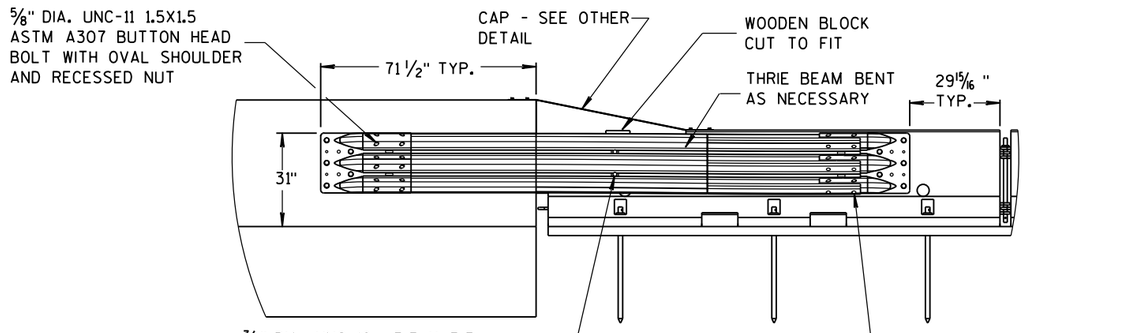
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

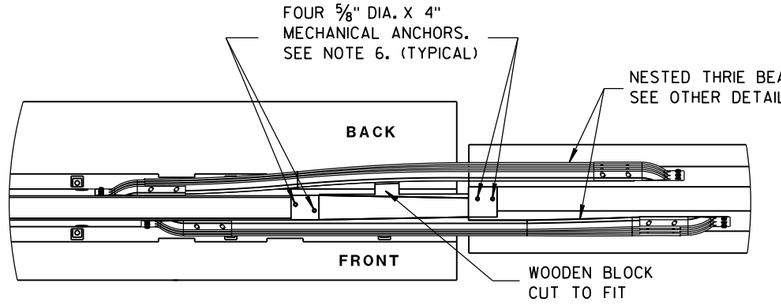
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



FRONT VIEW



BACK VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

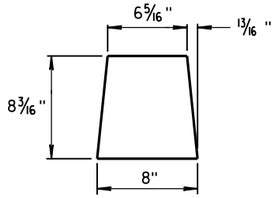
STATE OF WISCONSIN
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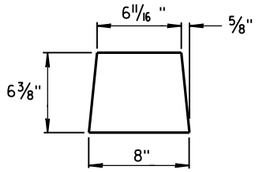
S.D.D. 14 B 7-15f

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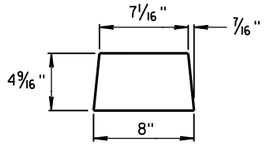
S.D.D. 14 B 7-15f



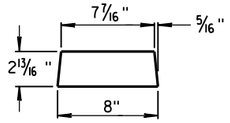
GUSSET 1



GUSSET 2

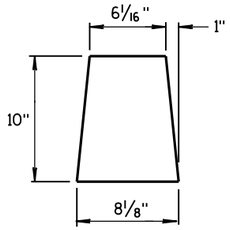


GUSSET 3

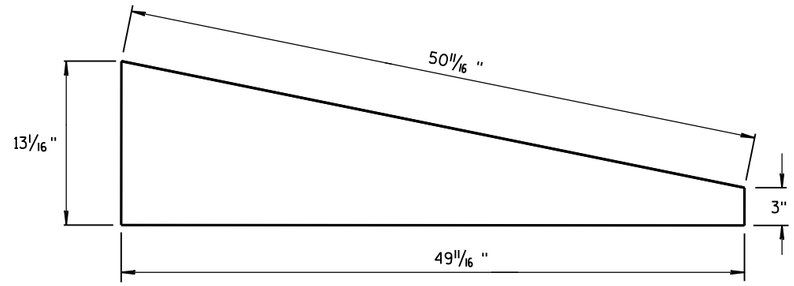


GUSSET 4

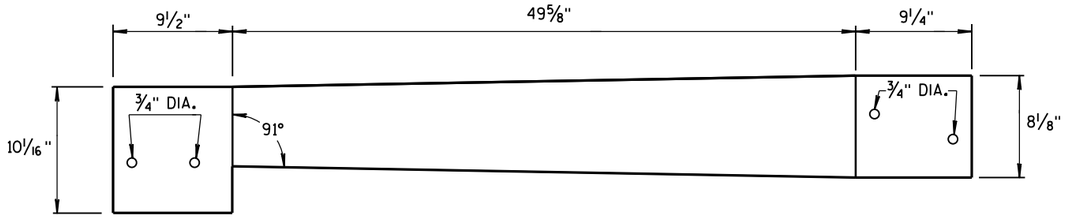
GUSSETS

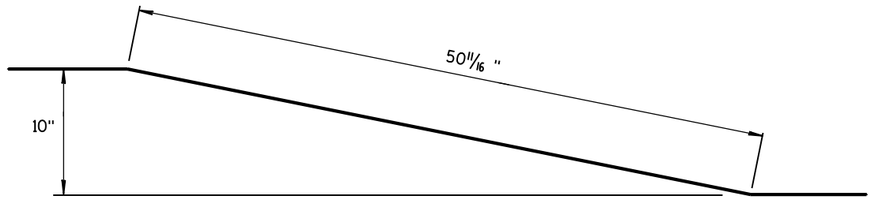


END PLATE



SIDE PLATE

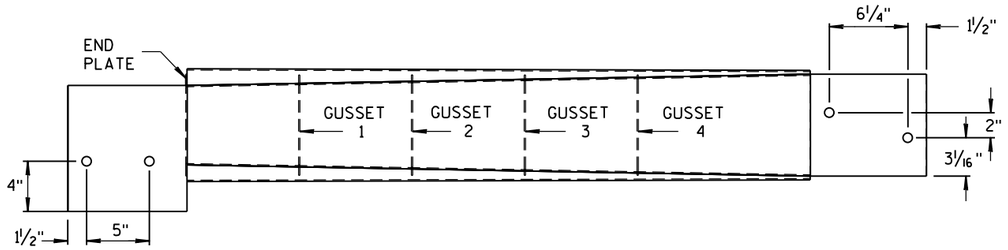


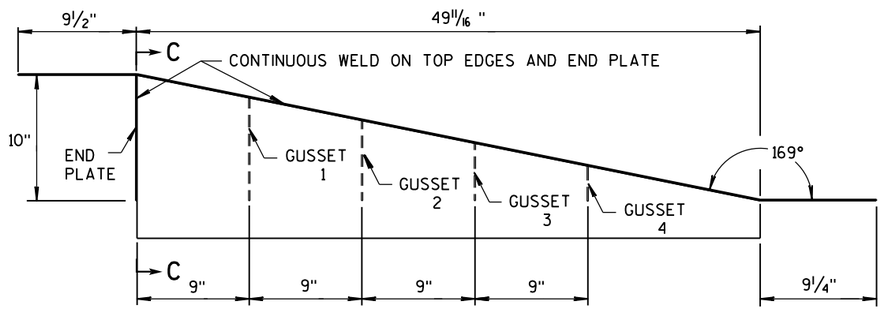


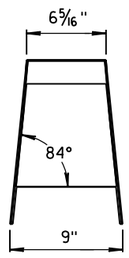
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

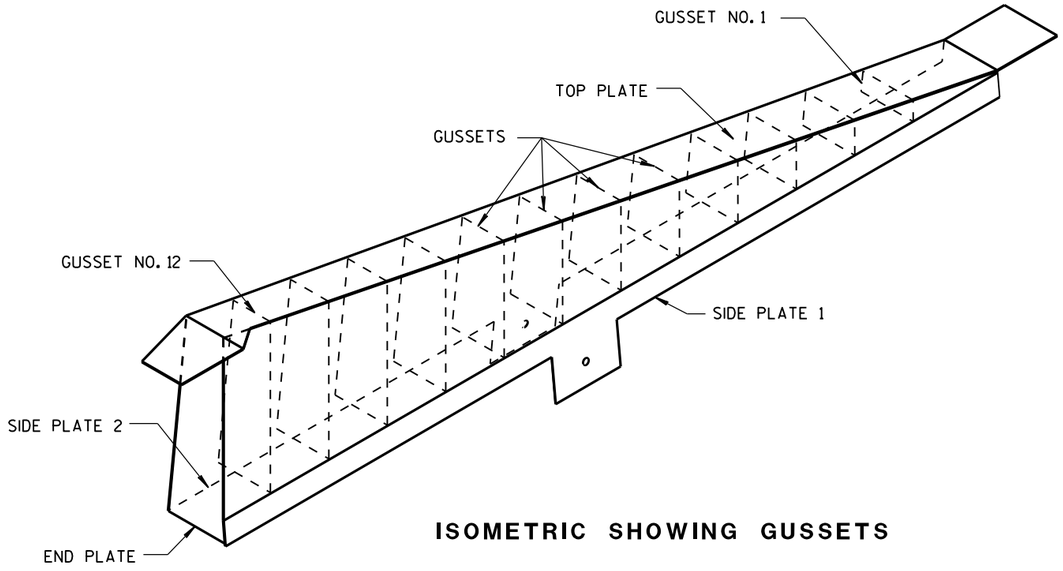
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

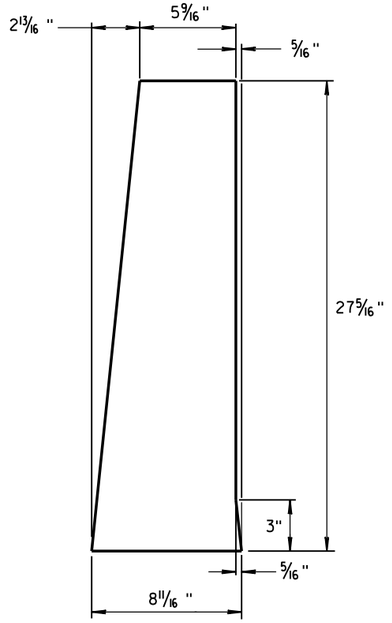
STATE OF WISCONSIN
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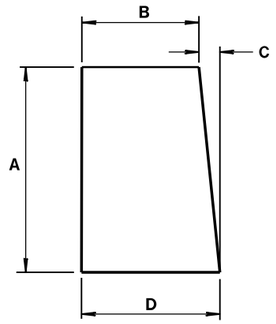


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



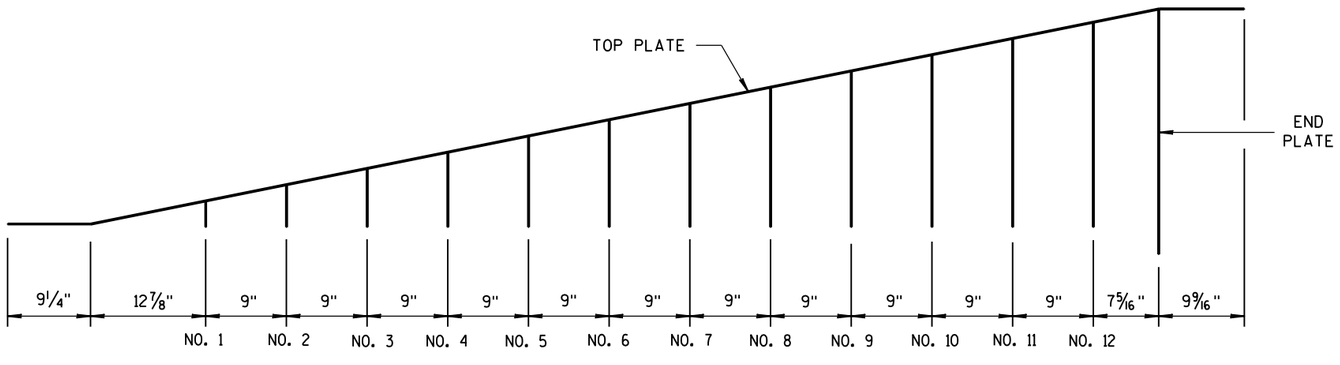
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

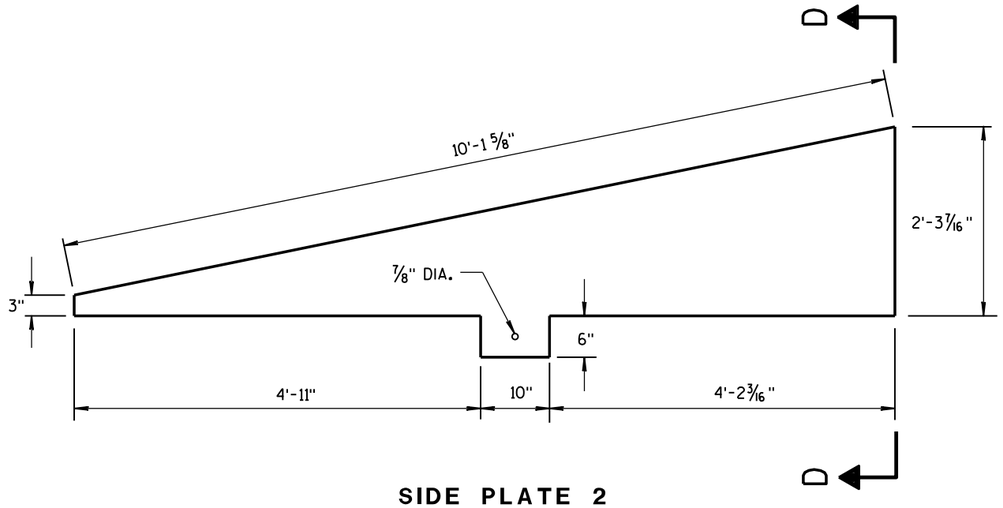
STATE OF WISCONSIN
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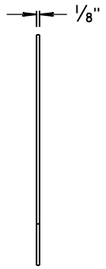
S.D.D. 14 B 7-15h

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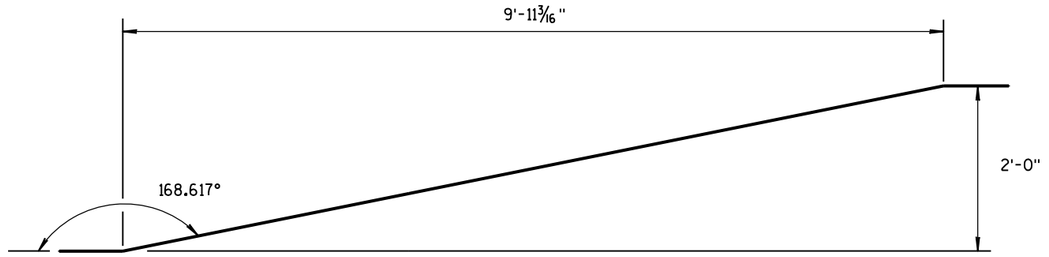
S.D.D. 14 B 7-15h



SIDE PLATE 2

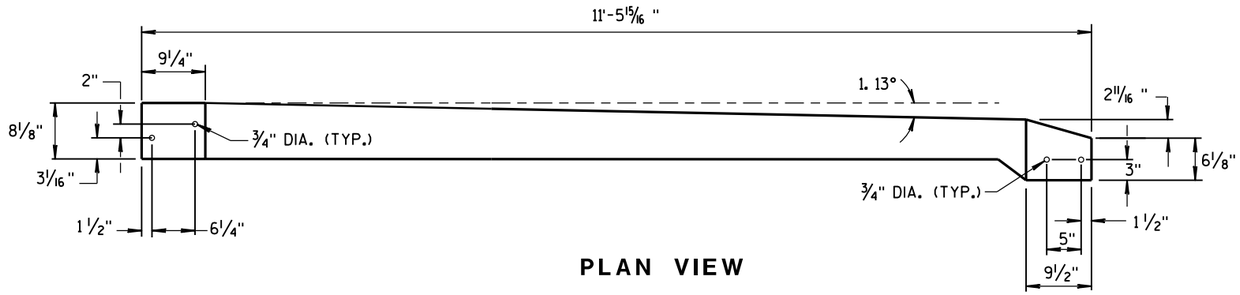


END VIEW



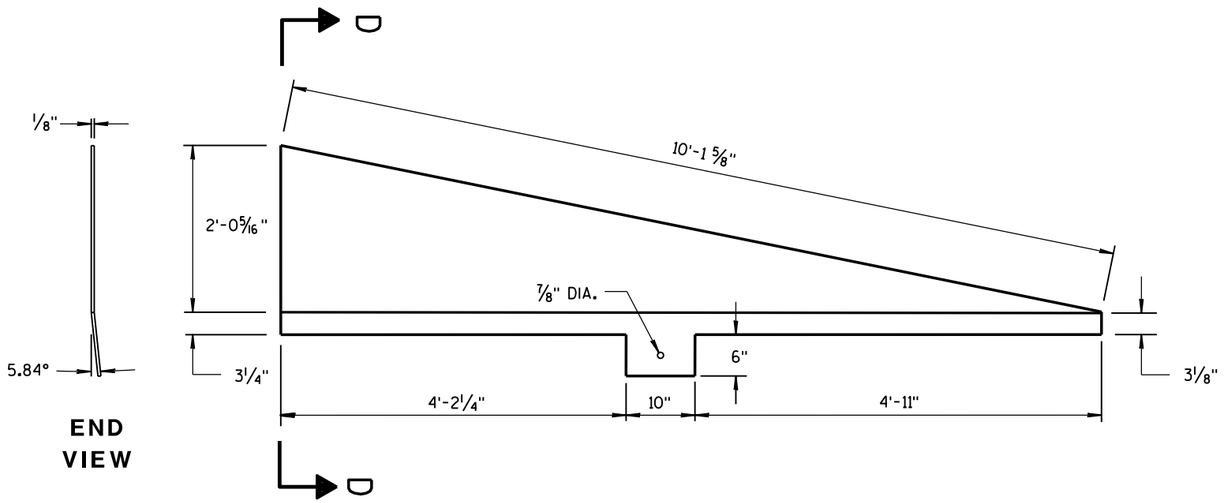
SIDE VIEW

TOP PLATE



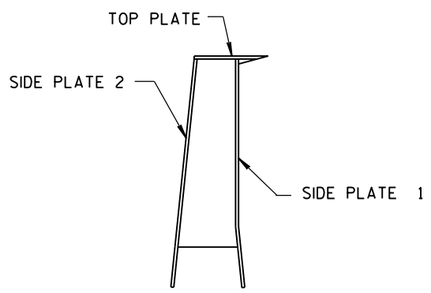
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV

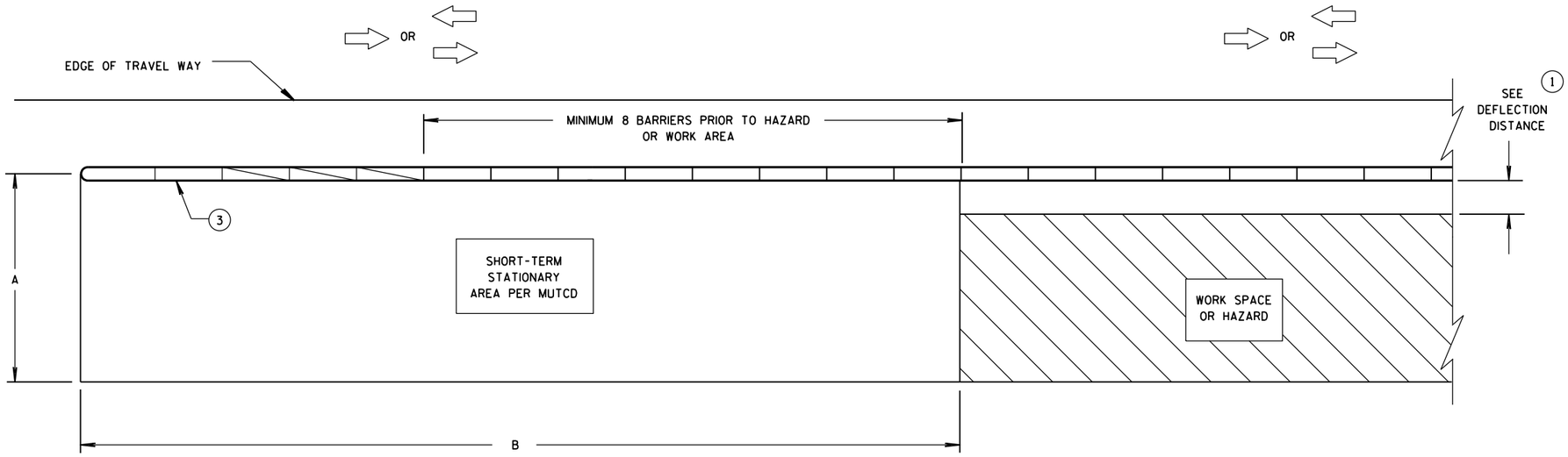
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S.D.D. 14 B 7-15i

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S.D.D. 14 B 7-15i



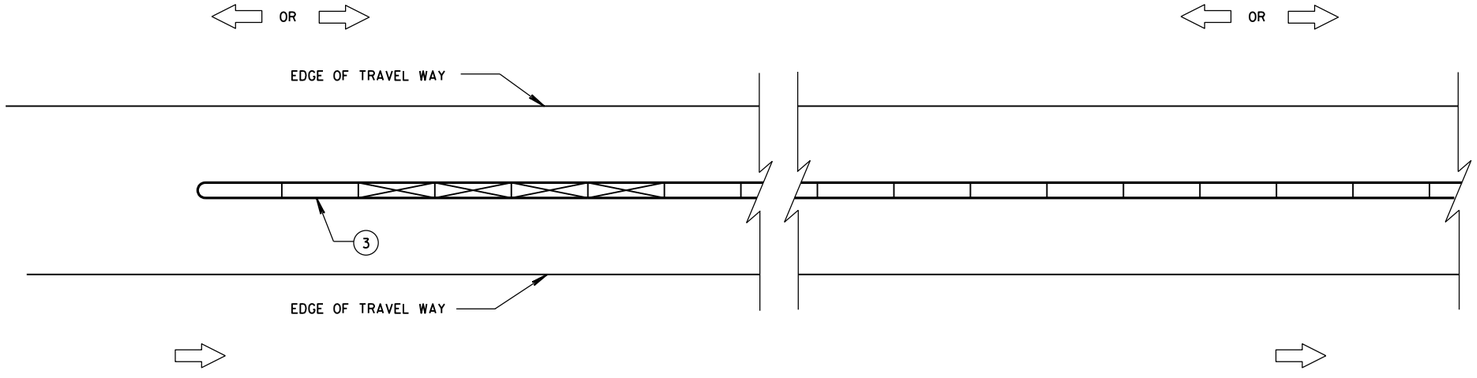
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

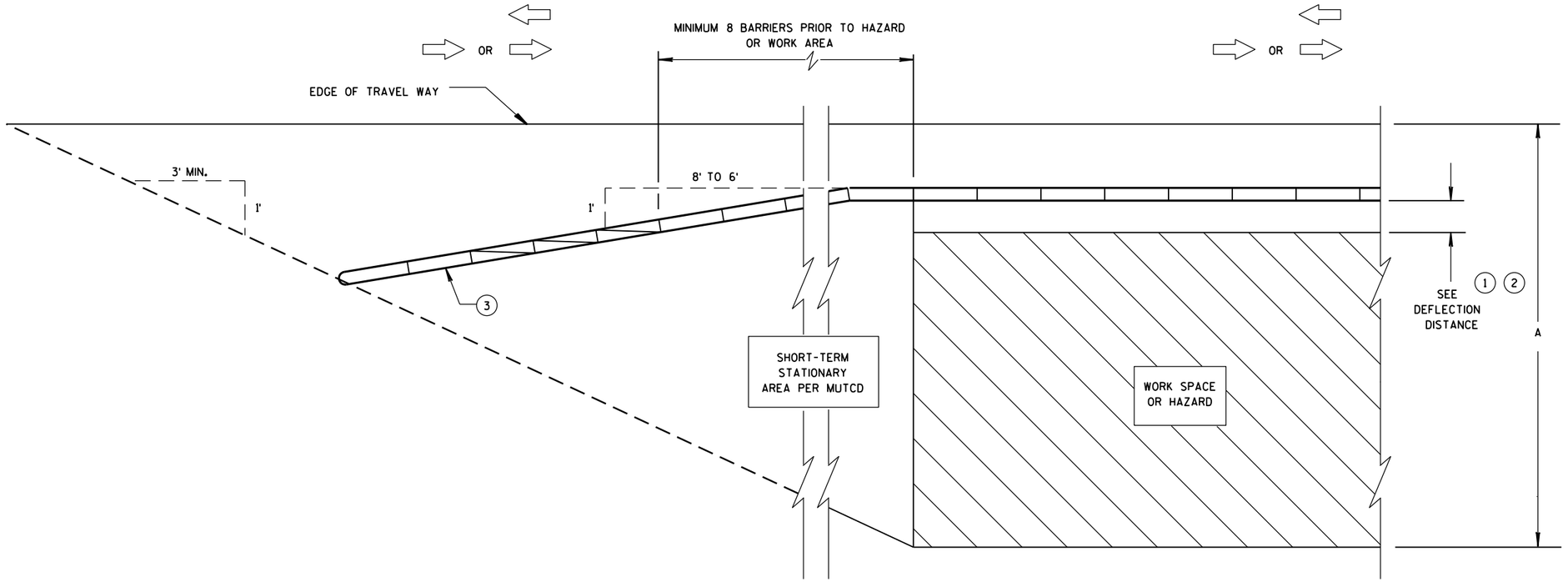
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

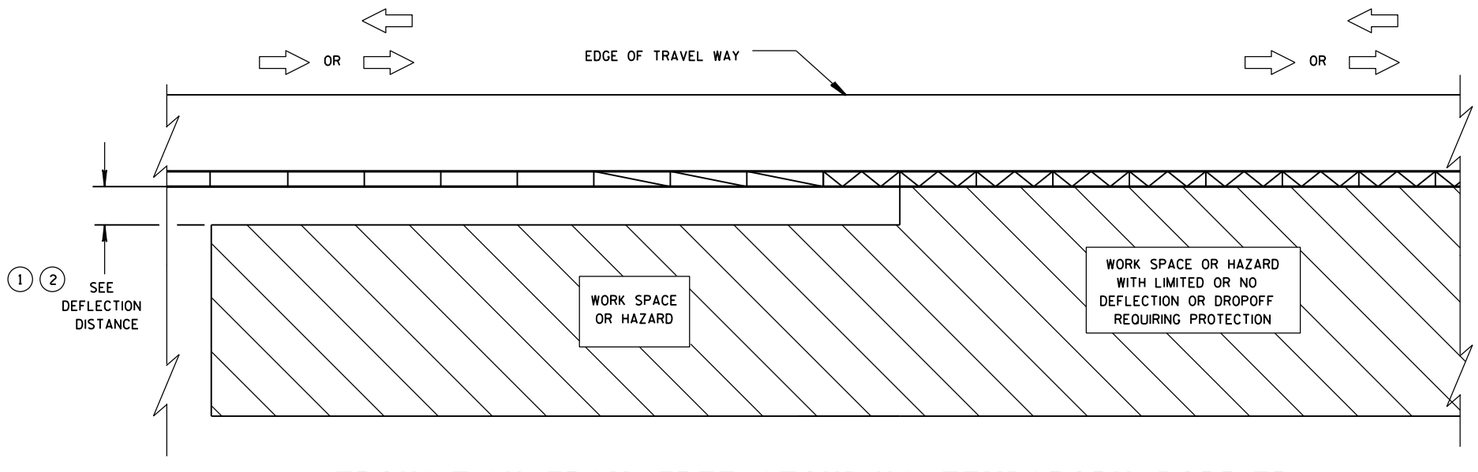
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

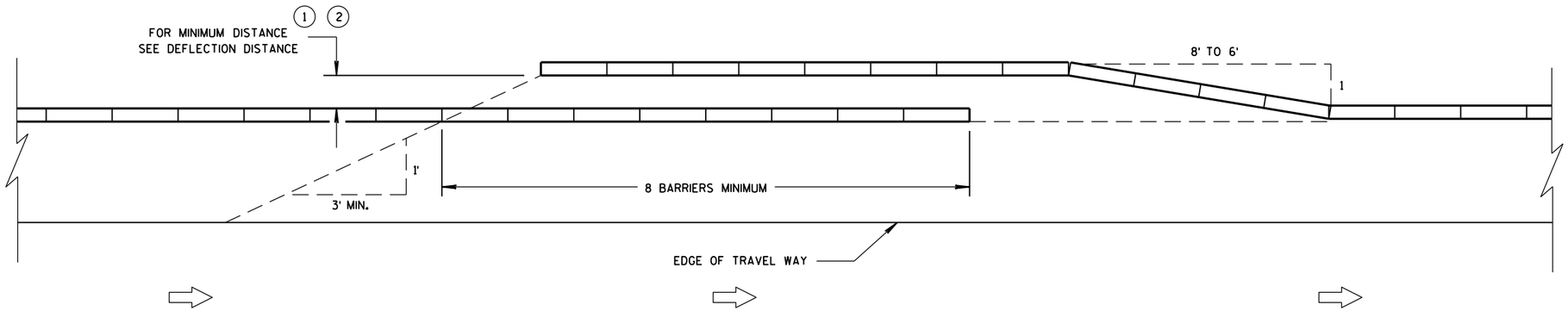
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

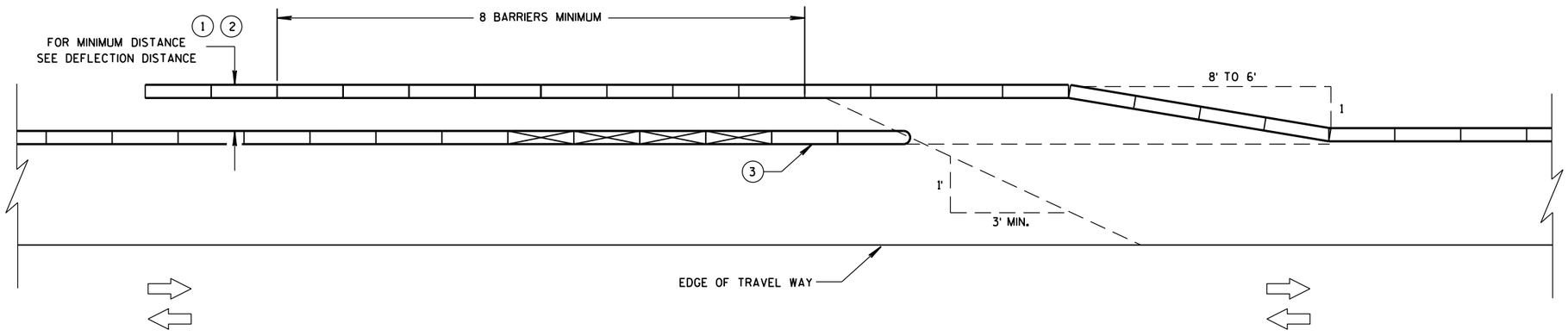
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

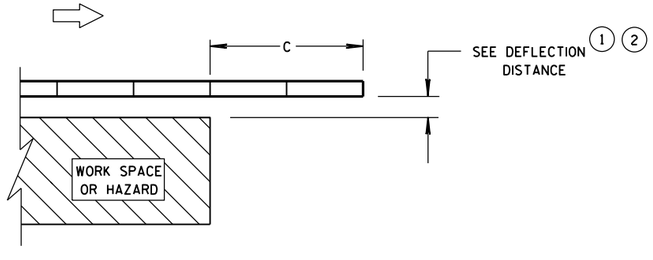
S.D.D. 14 B 8-2b



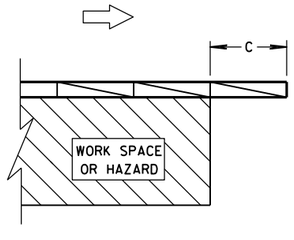
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

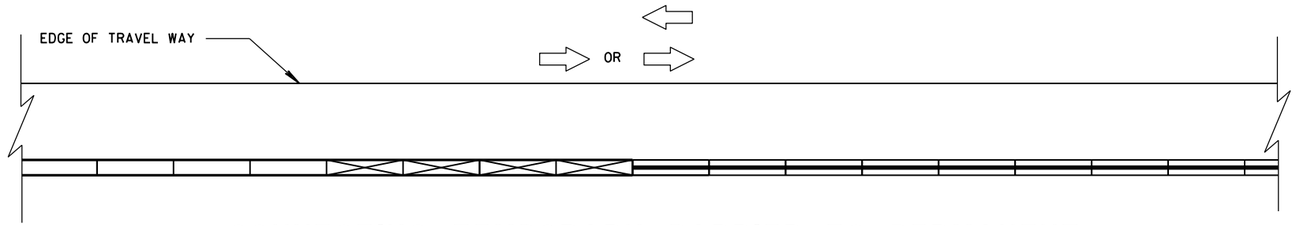
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

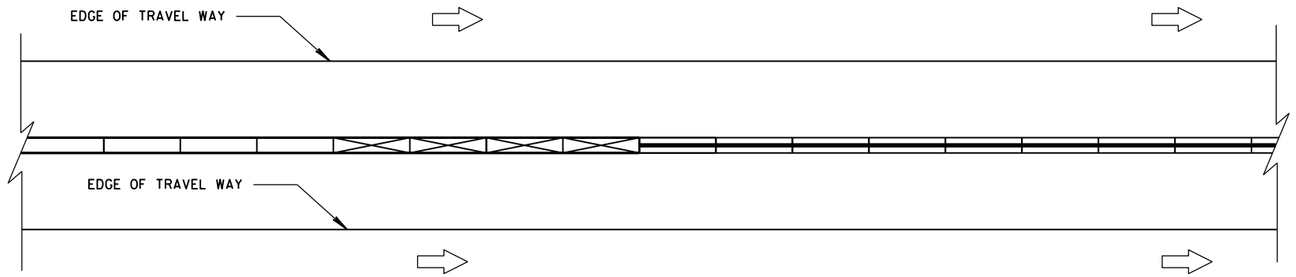
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



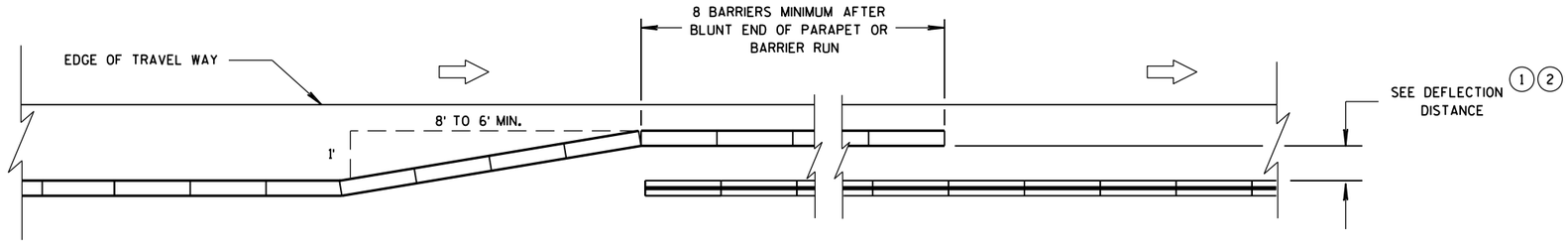
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



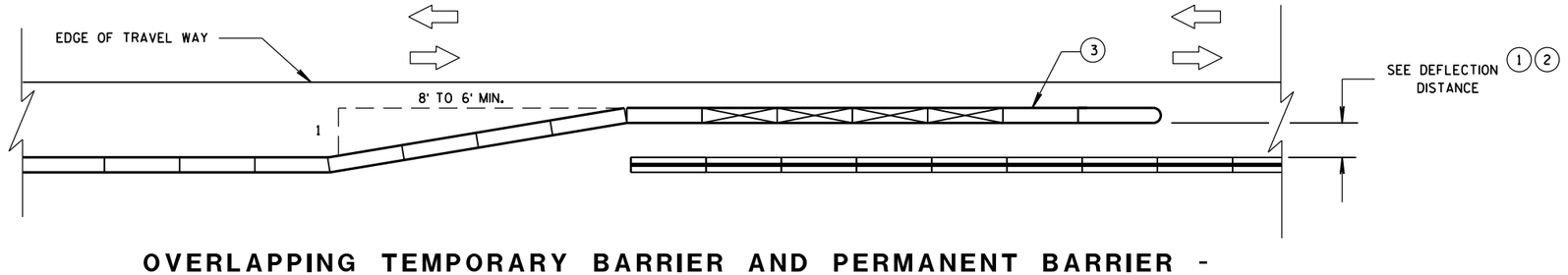
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

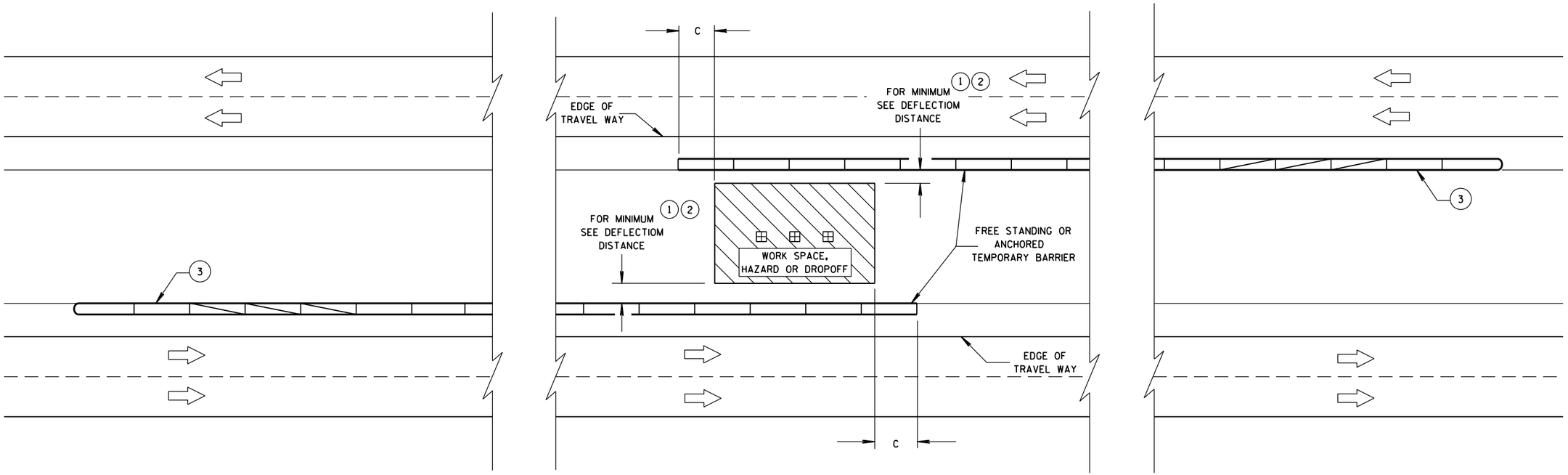
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



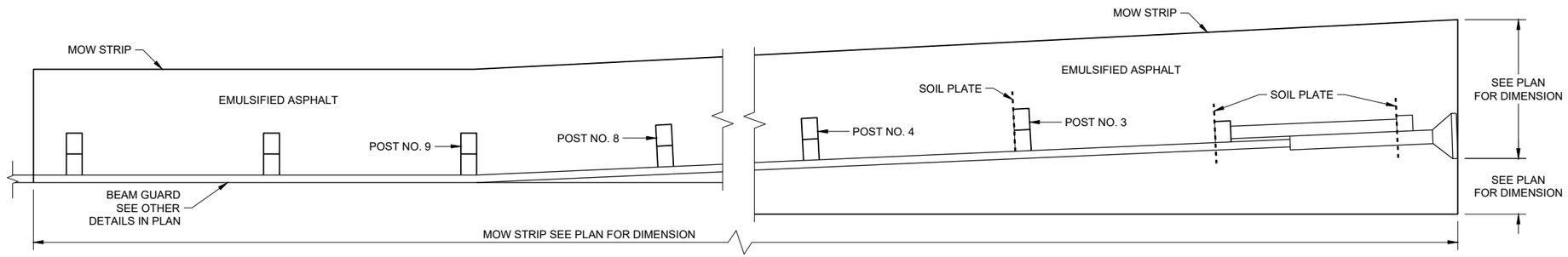
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 14 B 8-2e



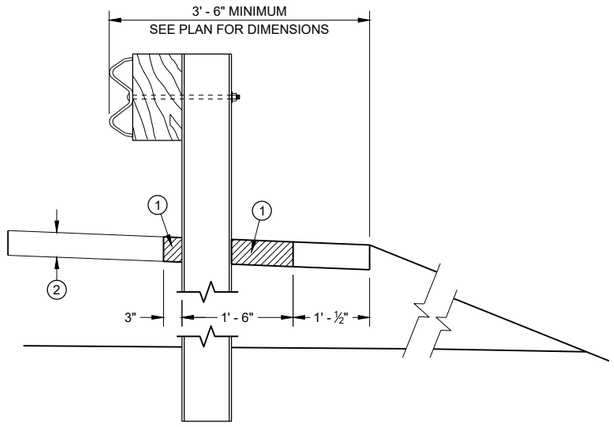
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

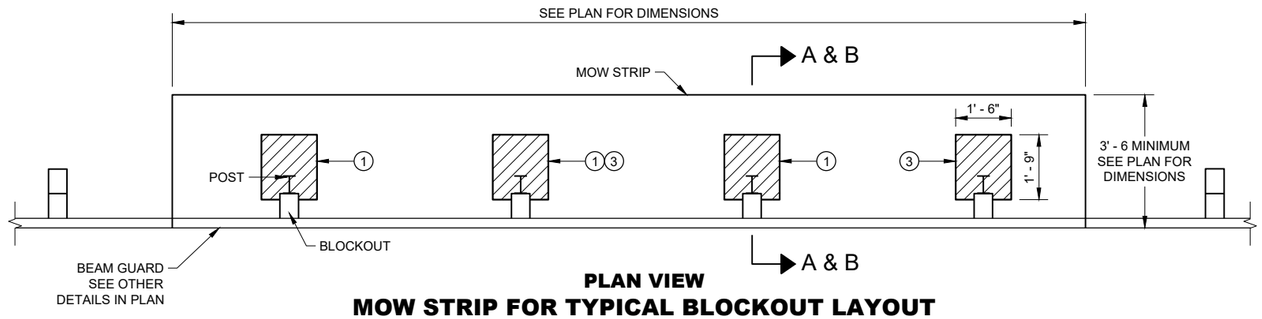
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

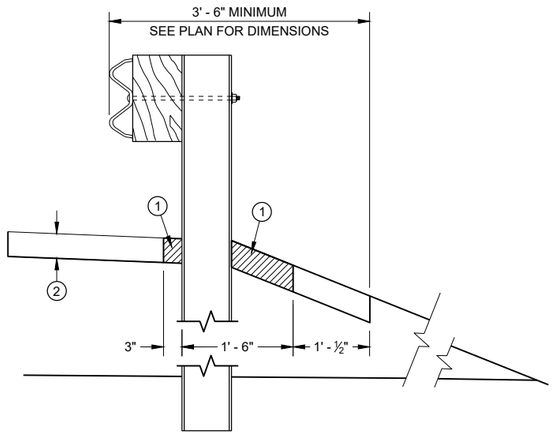


SECTION A - A

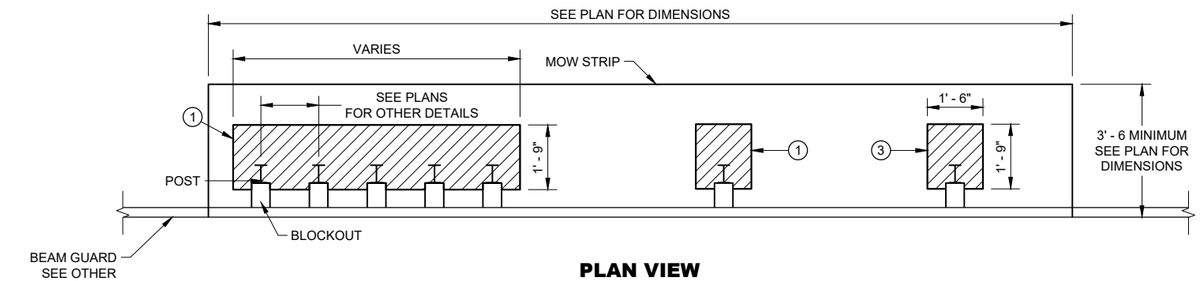


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

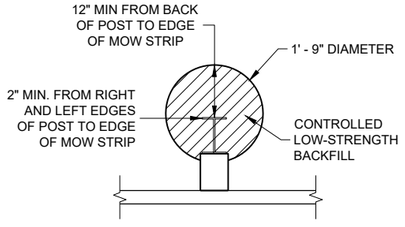


SECTION B - B

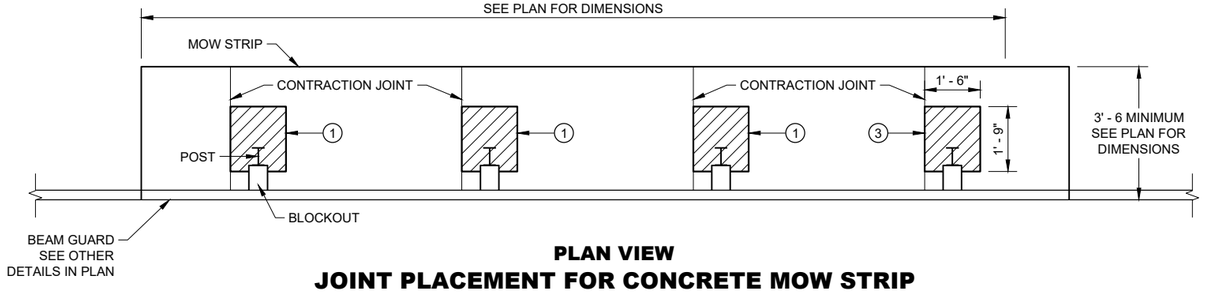


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a

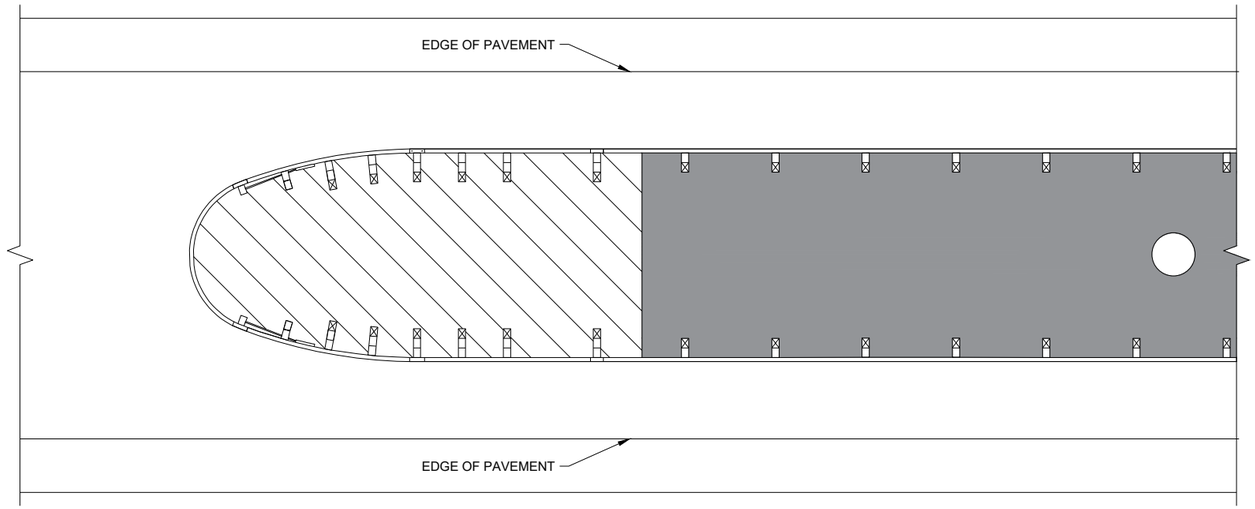
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

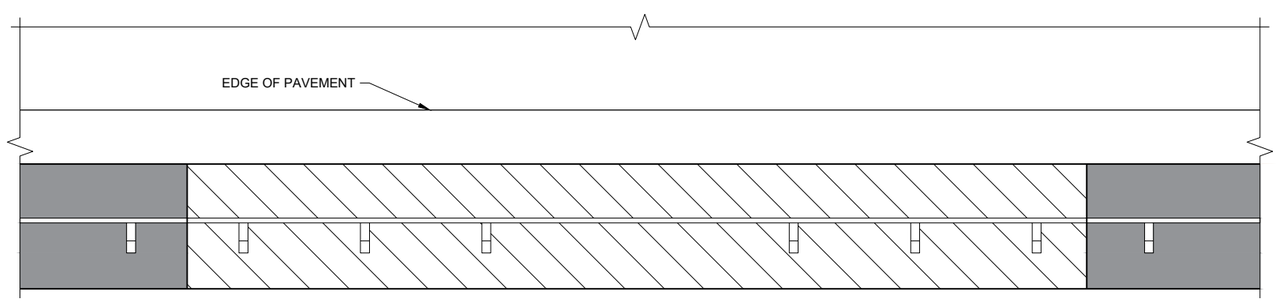
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

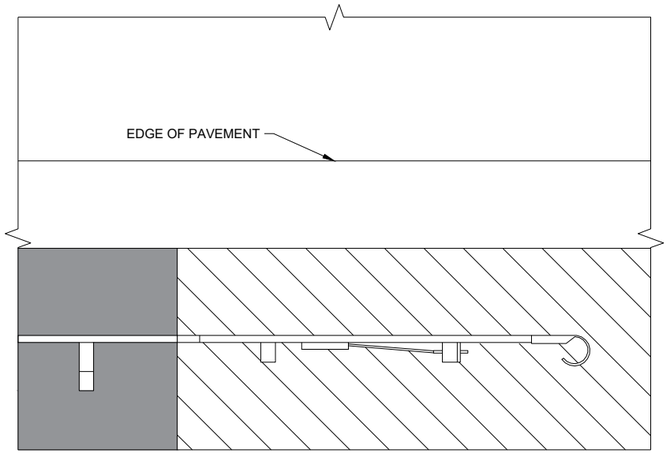
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



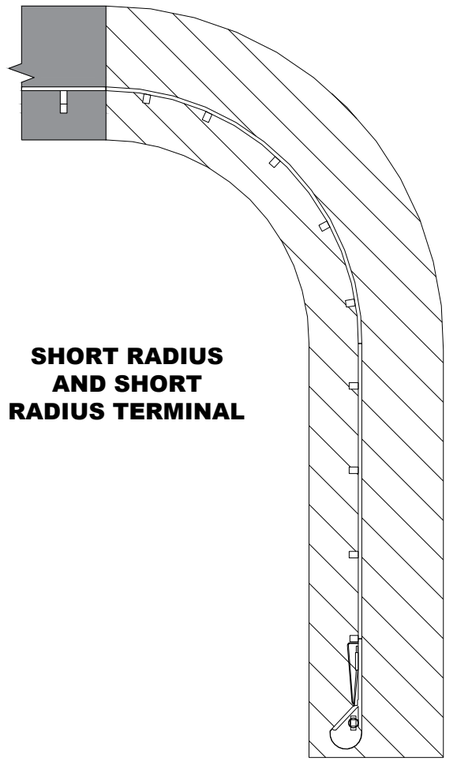
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

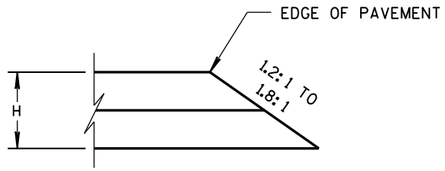
FHWA

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SDD 14B28 - 04b

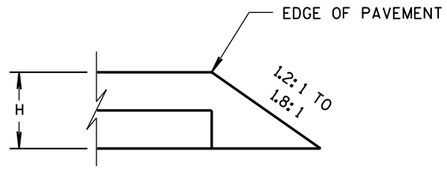
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SDD 14B28 - 04b



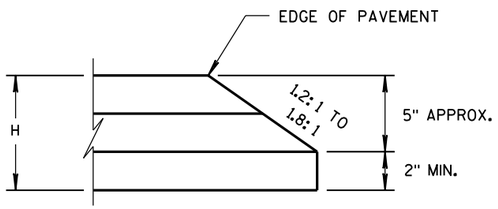
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



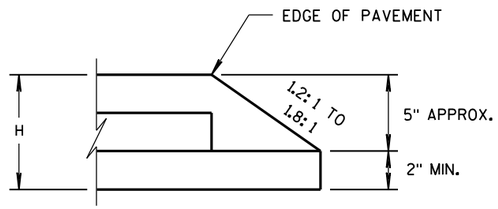
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

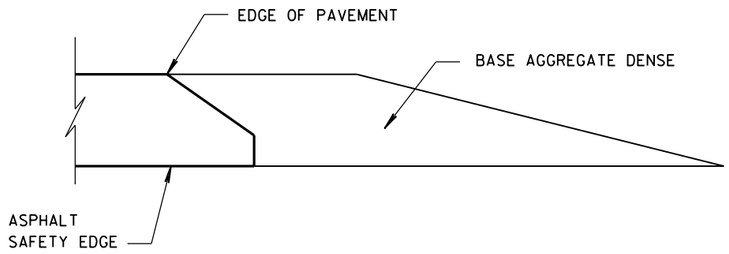
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

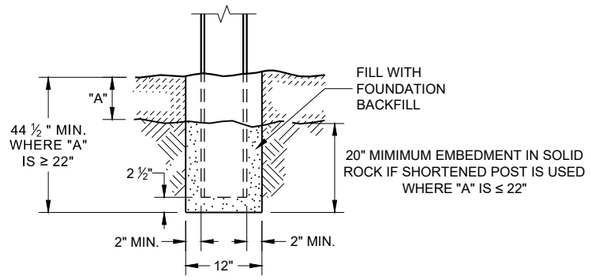
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

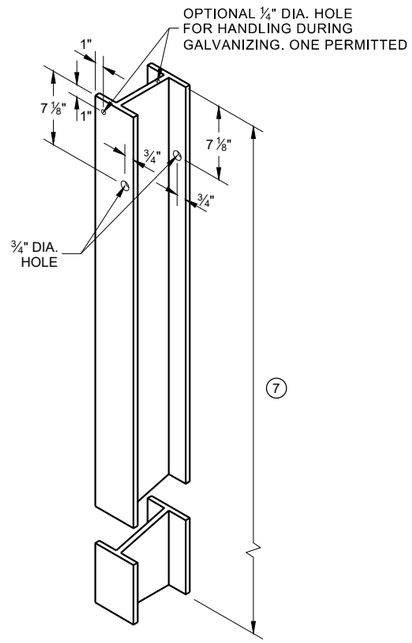
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

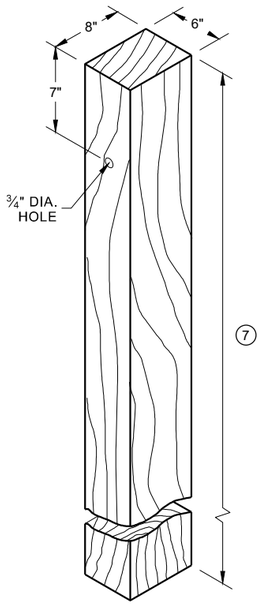
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



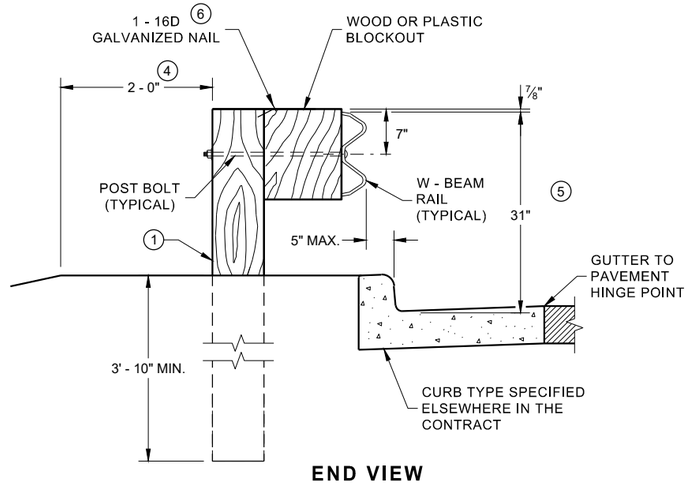
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



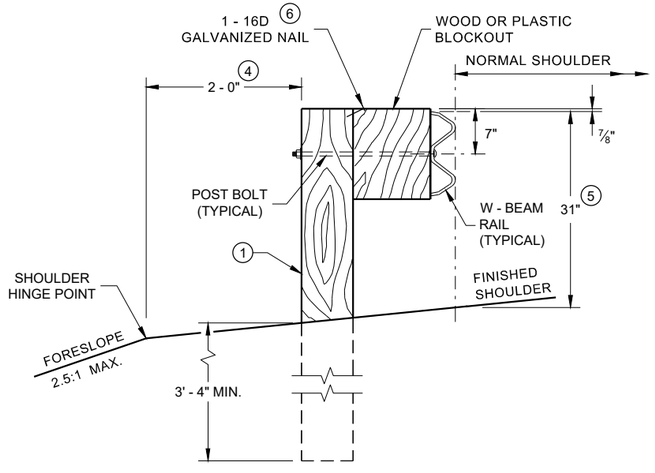
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



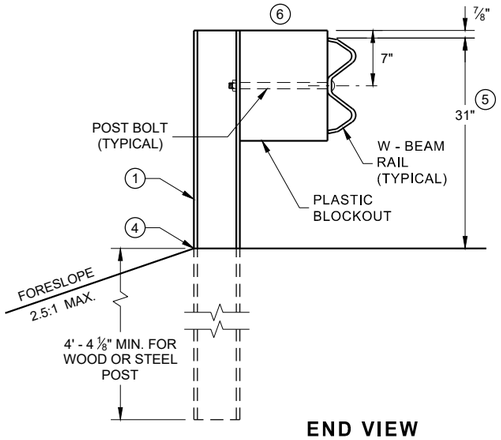
WOOD POST (6" X 8") NOMINAL (1)



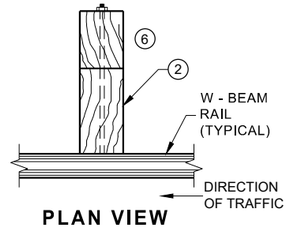
END VIEW
LOCATED ALONG A CURBED ROADWAY



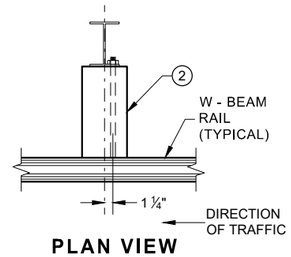
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



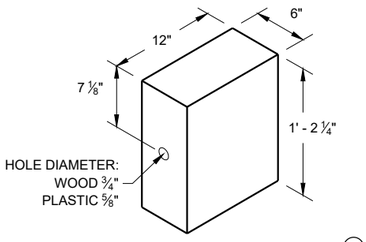
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

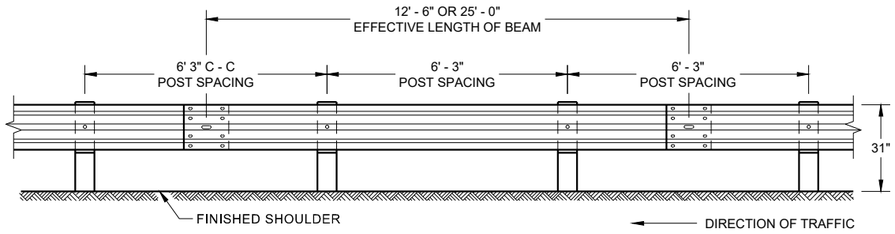


WOOD OR PLASTIC BLOCKOUT (2)

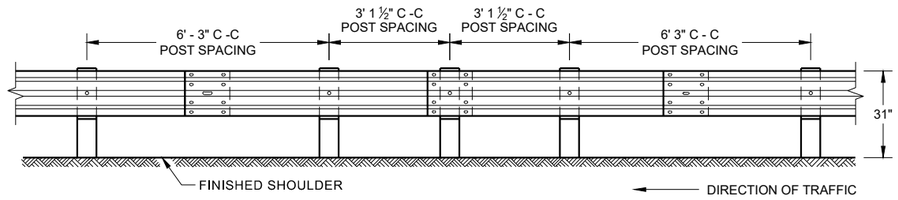
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

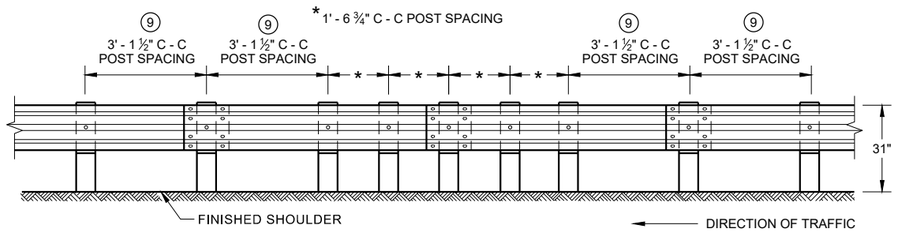
6
SDD 14B42 - 06a



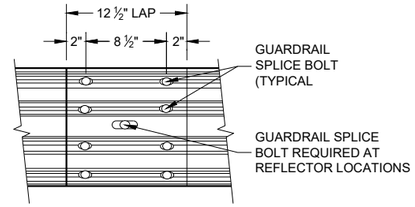
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

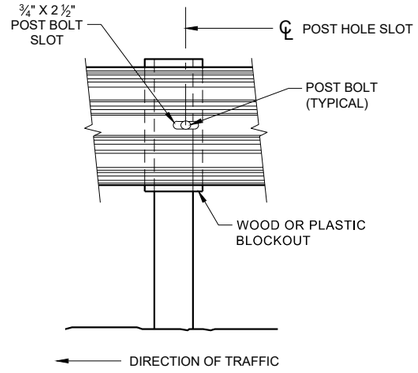
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

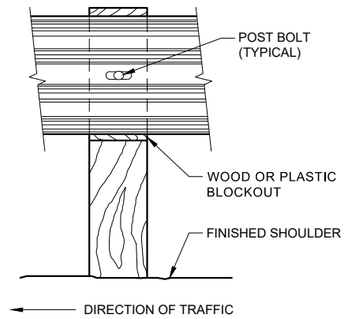
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

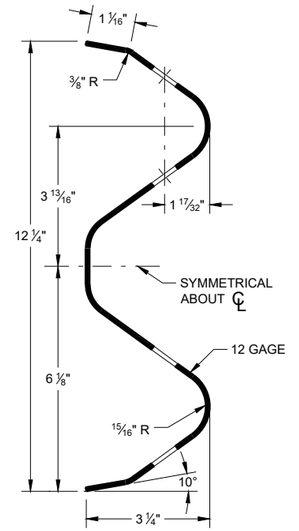
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



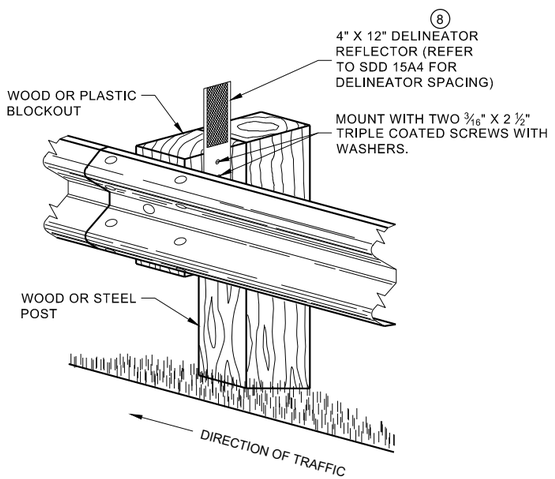
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



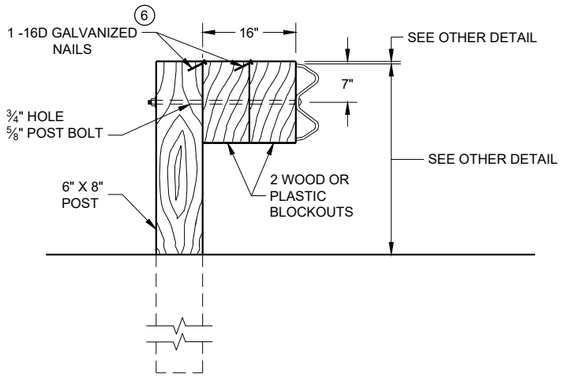
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

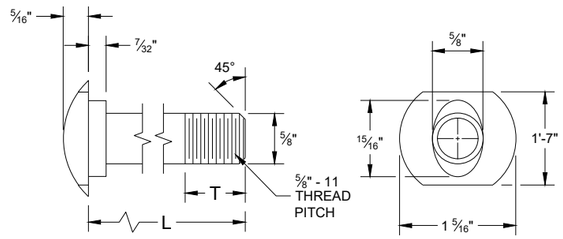


DETAIL FOR 16" BLOCKOUT DEPTH

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

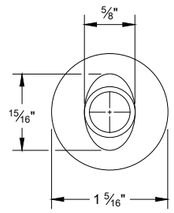
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

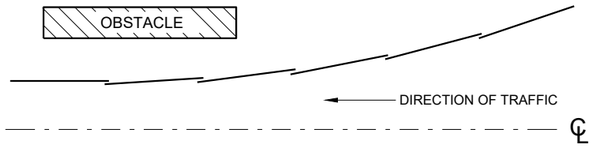


POST BOLT TABLE

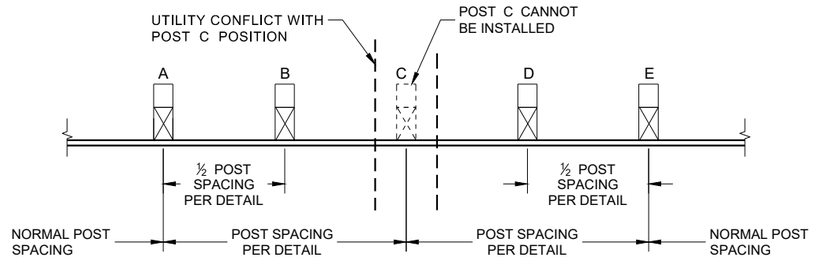
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



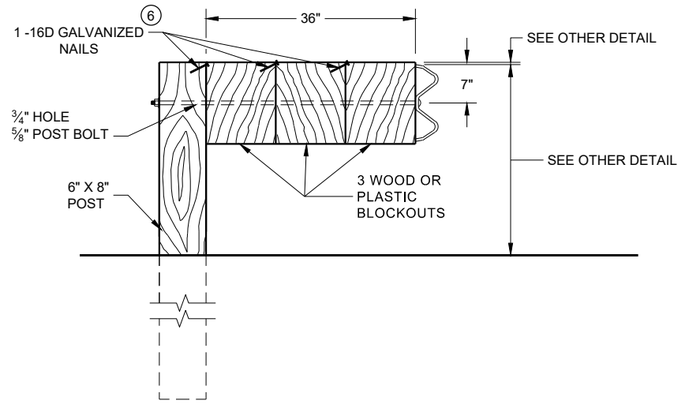
ALTERNATE BOLT HEAD



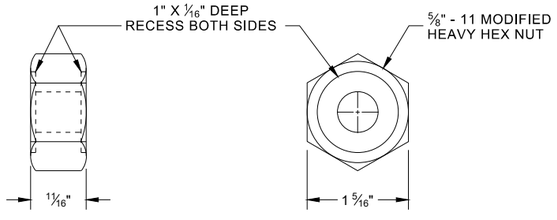
PLAN VIEW
BEAM LAPPING DETAIL



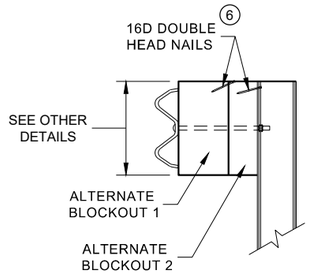
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



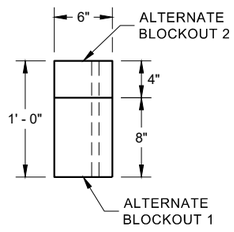
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

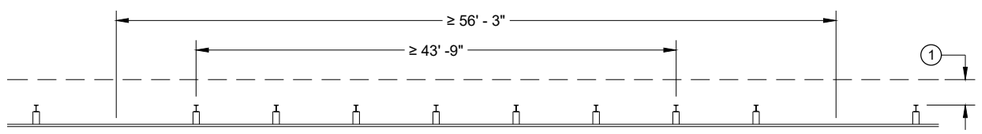
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

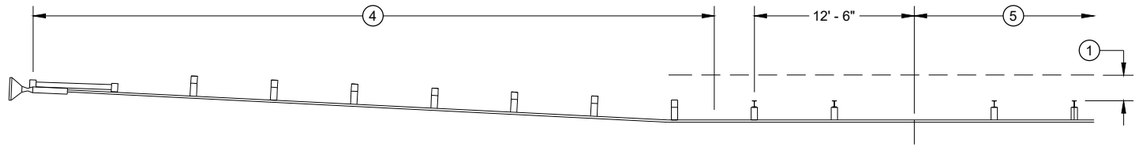
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

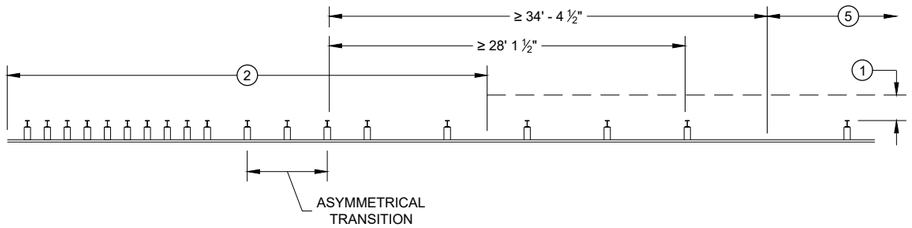
6
SDD 14B42 - 06c



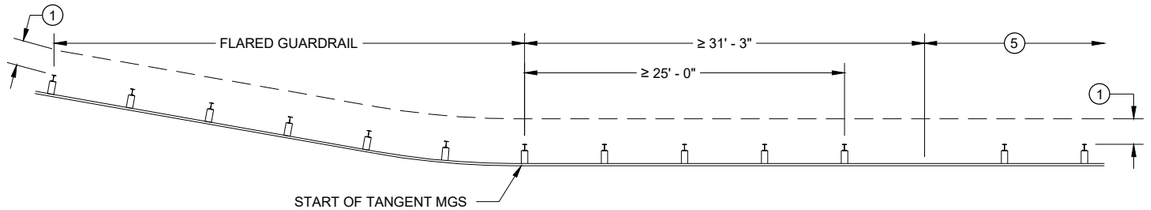
MISSING POST IN NORMAL BEAM GUARD RUN



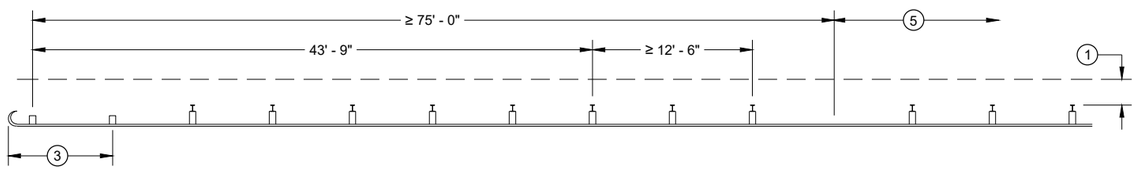
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



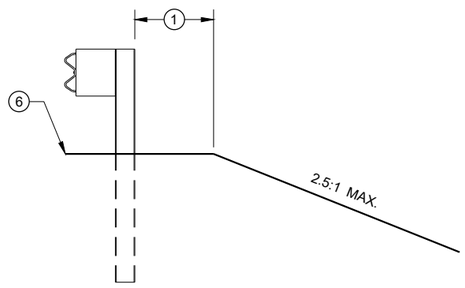
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

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

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

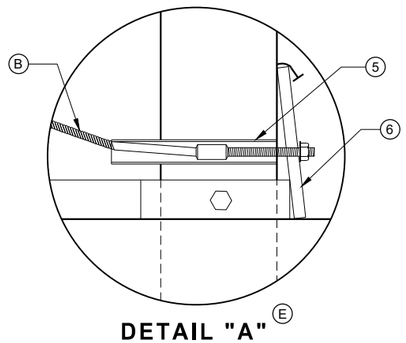
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

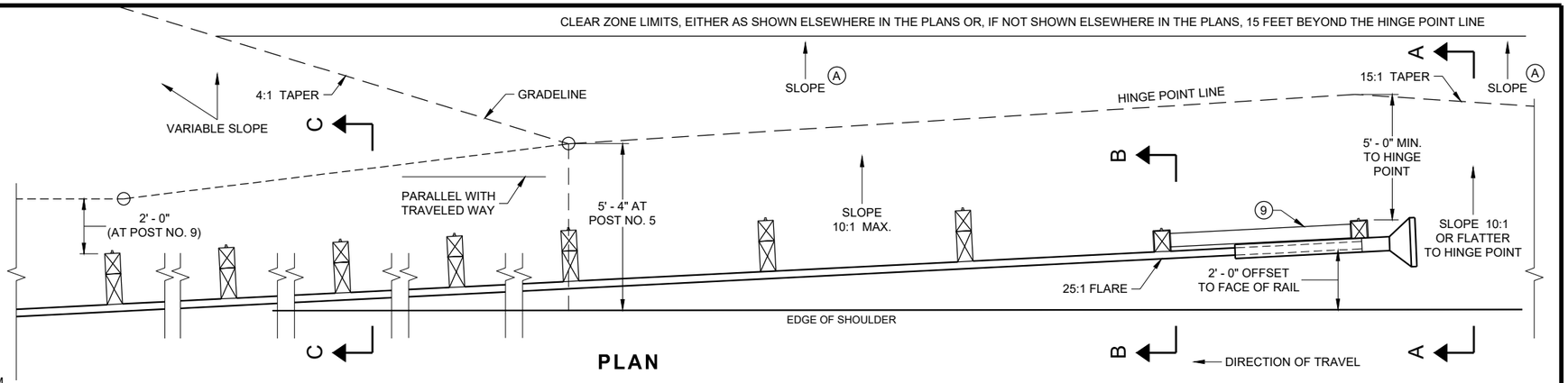
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

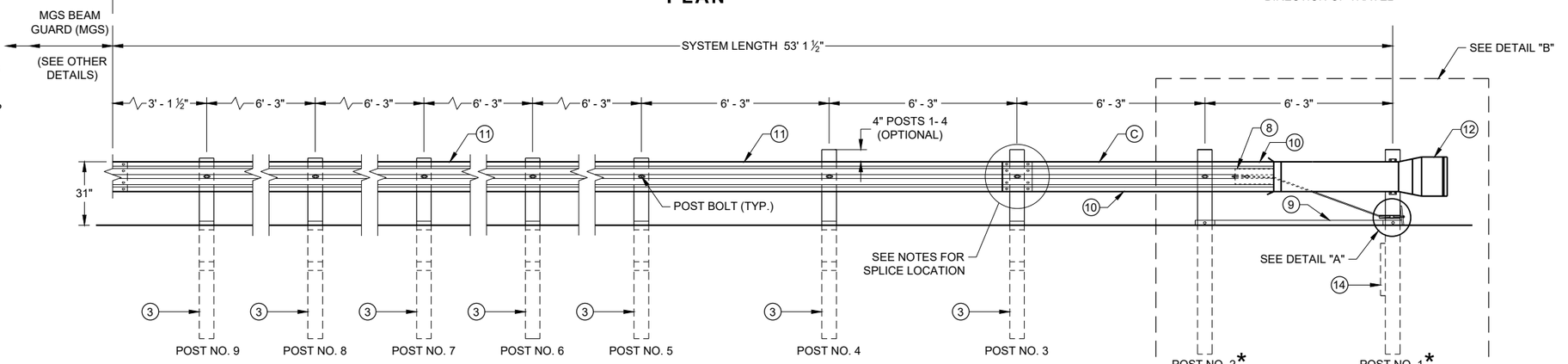
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



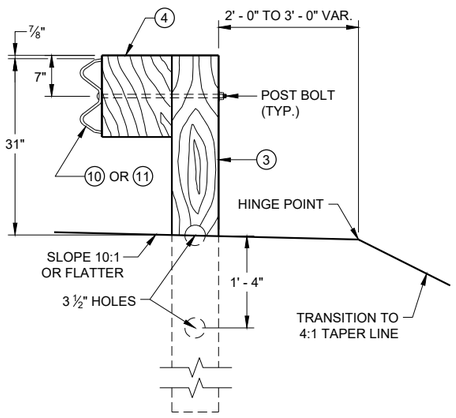
DETAIL "A" (E)



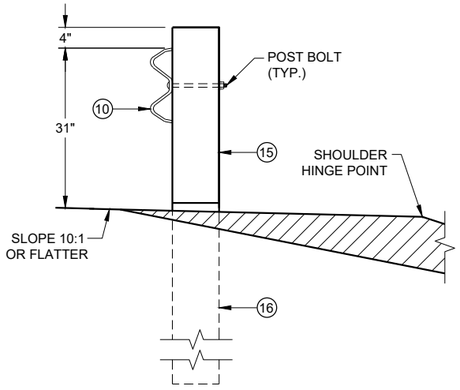
PLAN



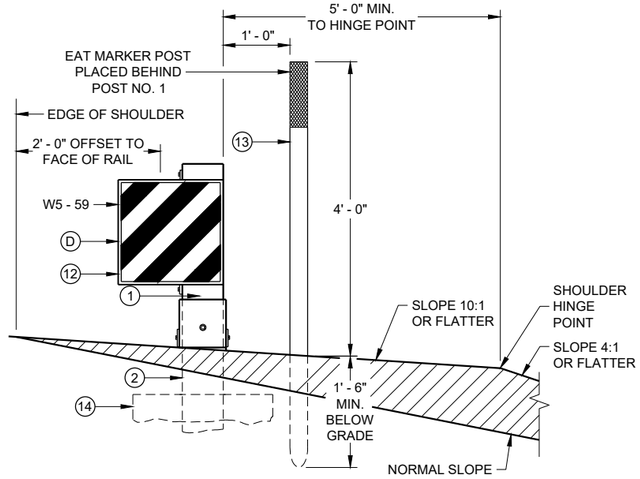
ELEVATION



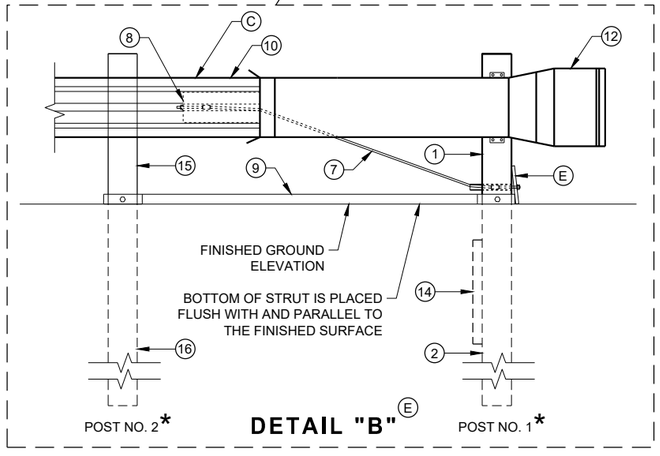
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



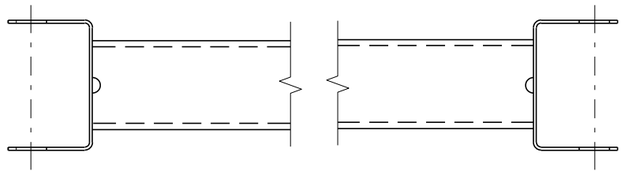
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

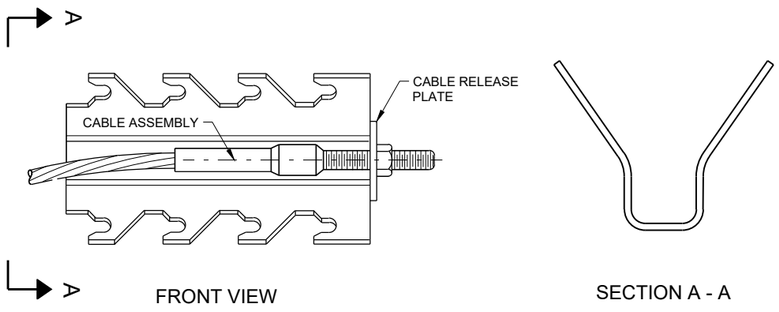
SDD 14B44 - 04a



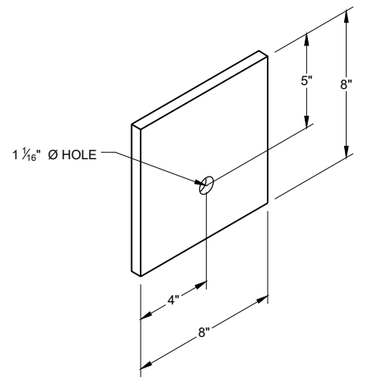
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

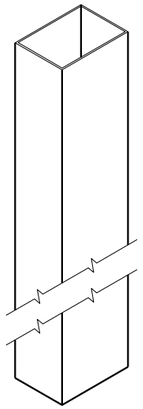
6

SDD 14B44 - 04b

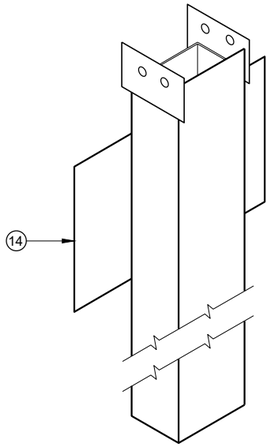
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

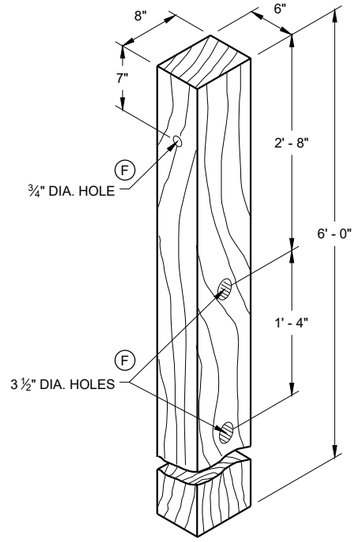
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



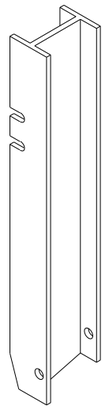
UPPER POST NO. 1 (1) (E)



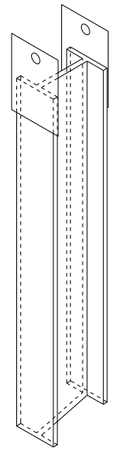
LOWER POST NO. 1 (2) (E)



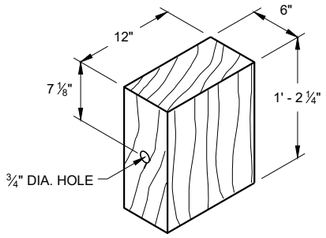
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



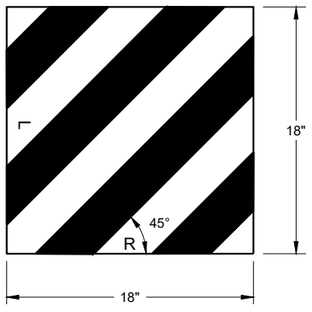
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

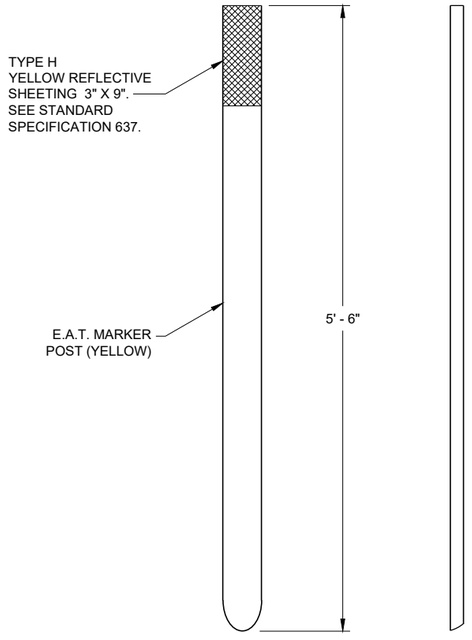


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



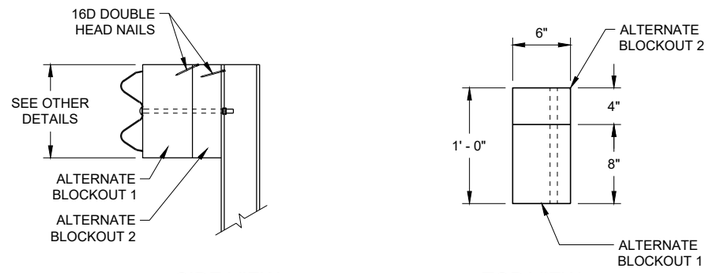
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

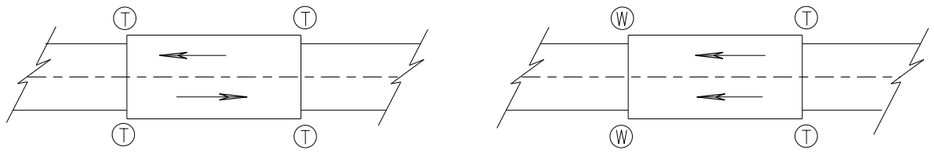
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

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.

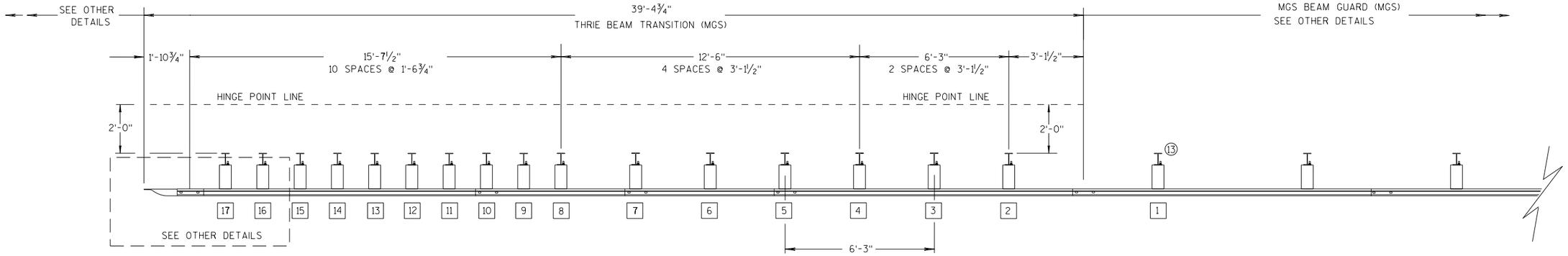
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

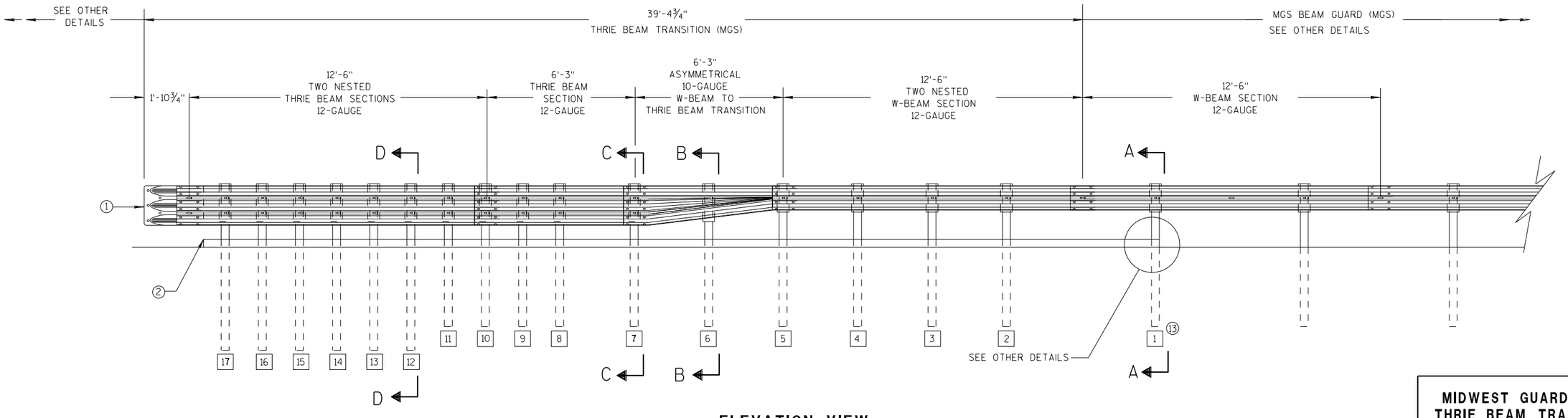
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

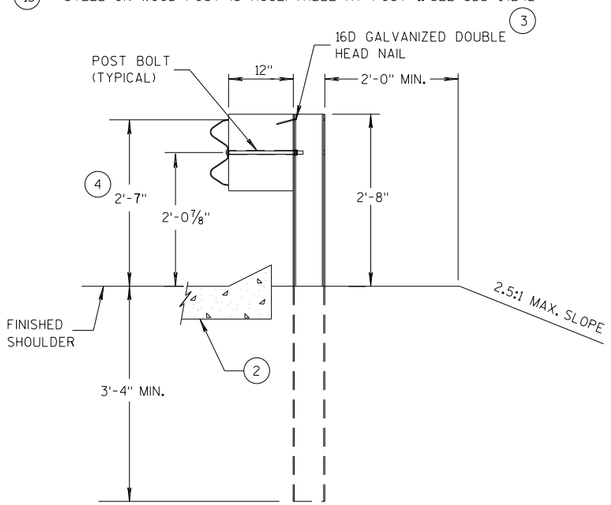
GENERAL NOTES

(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.

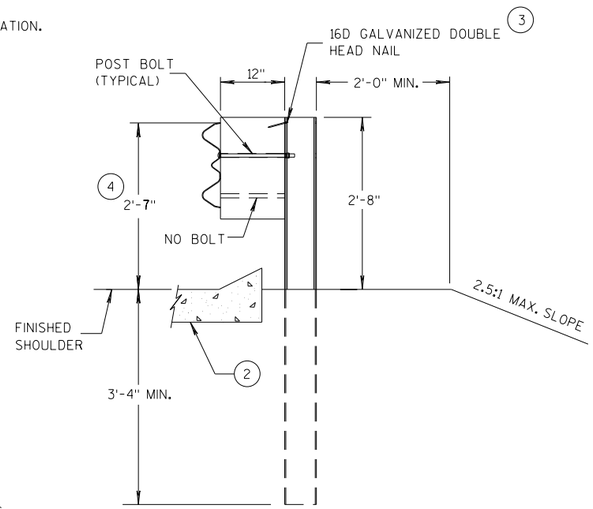
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



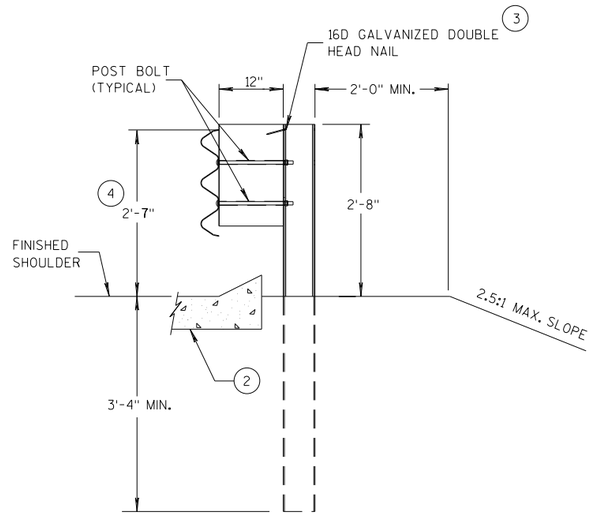
SECTION A-A (13)

POSTS 1-5



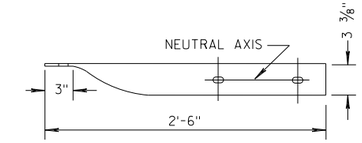
SECTION B-B

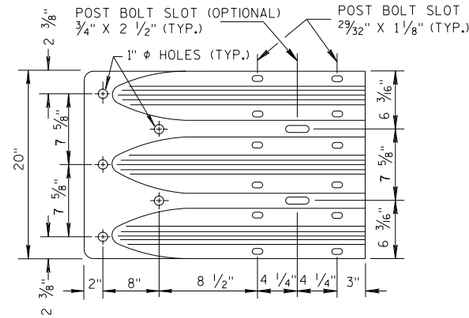
POST 6



SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR

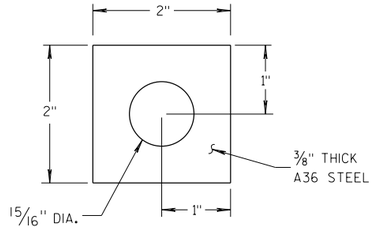
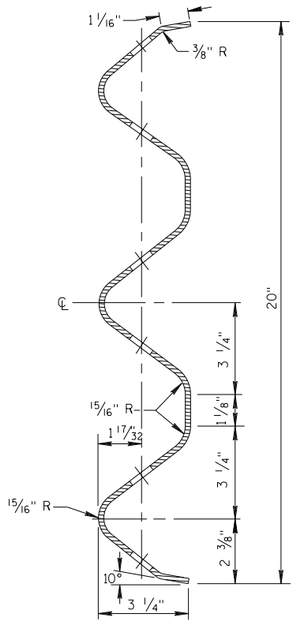
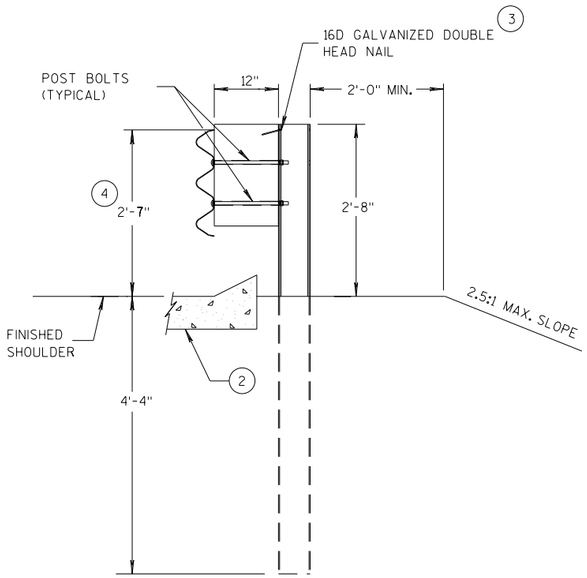


PLATE WASHER DETAIL

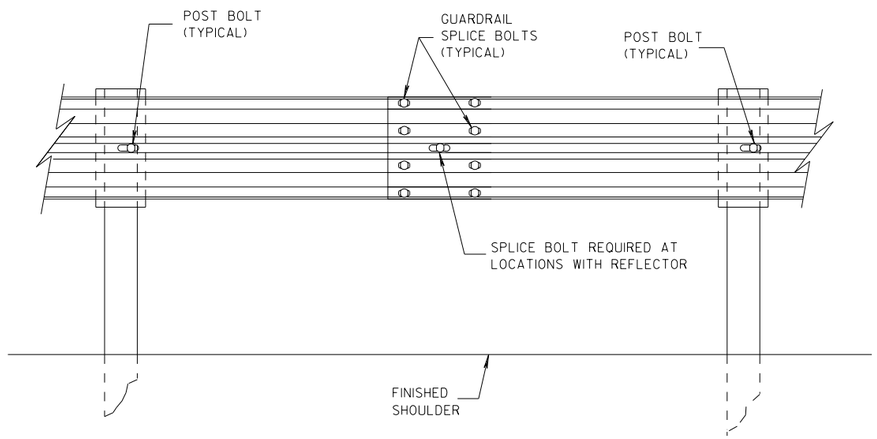


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



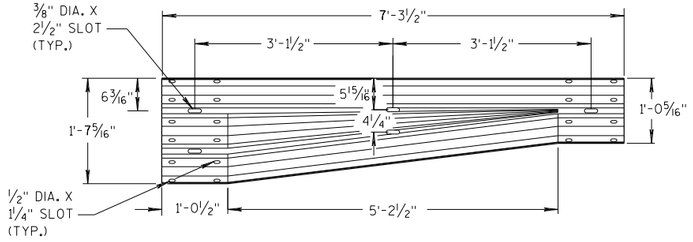
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

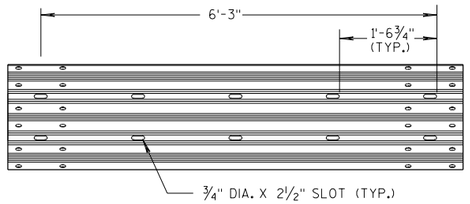
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

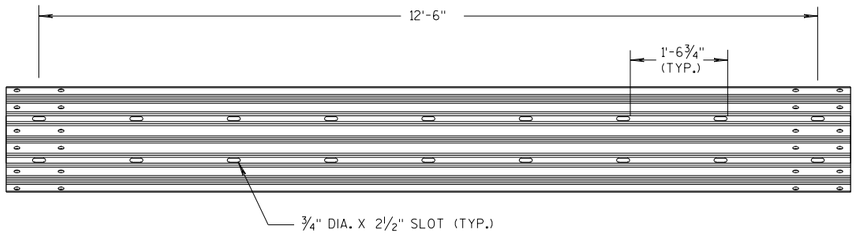
S.D.D. 14 B 45-5b



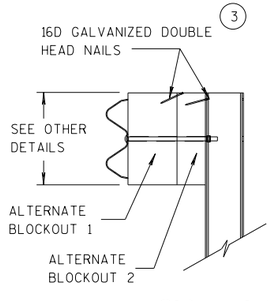
W-BEAM TO THRIE BEAM TRANSITION SECTION



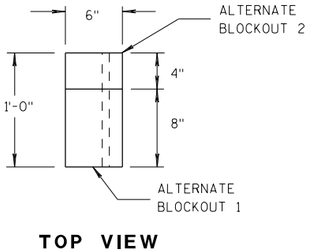
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

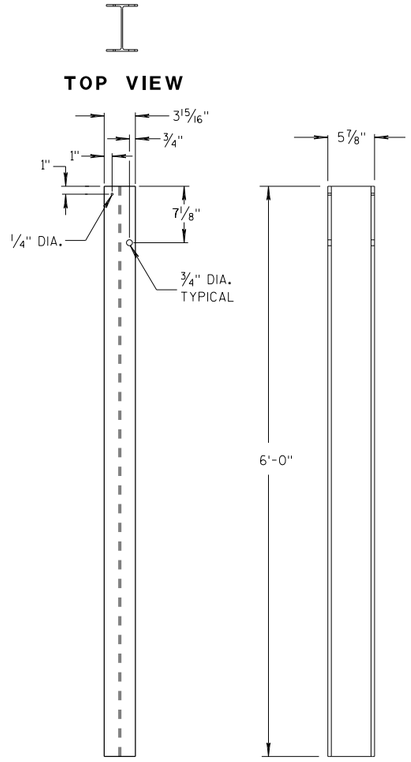


SIDE VIEW



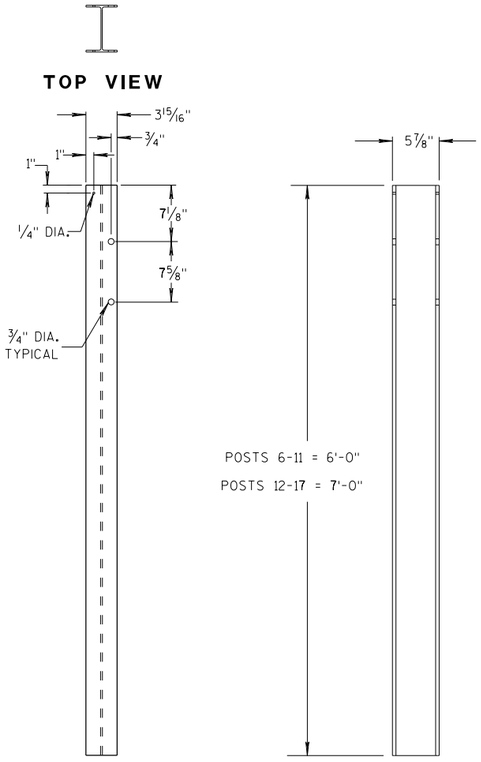
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



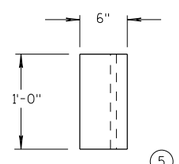
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

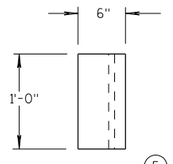


FRONT VIEW SIDE VIEW

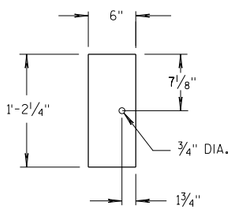
STEEL POSTS 6-17



TOP VIEW (5)

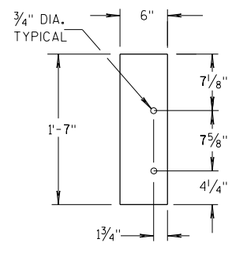


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



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.

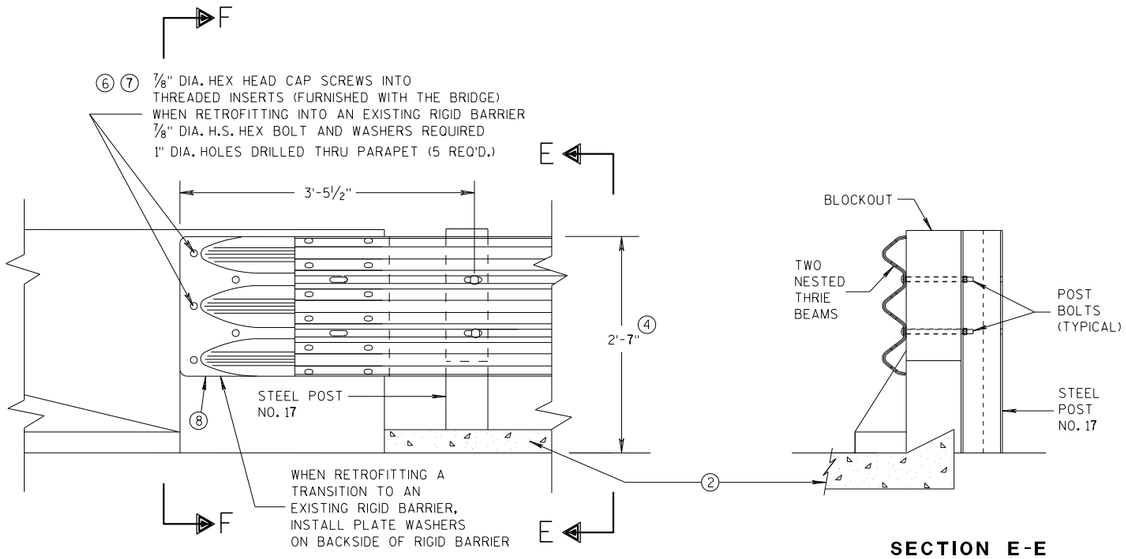
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

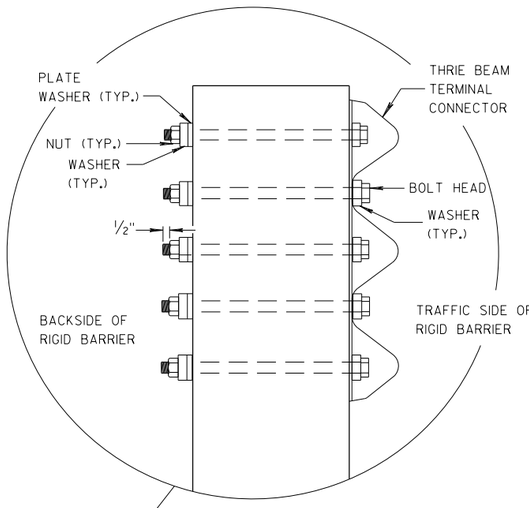
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

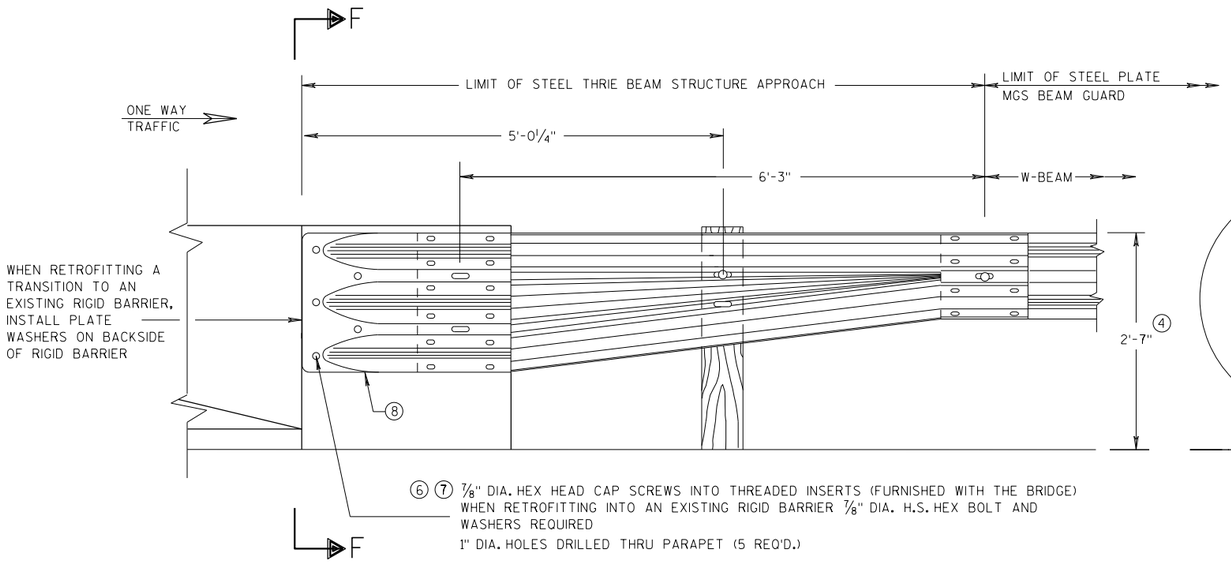
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

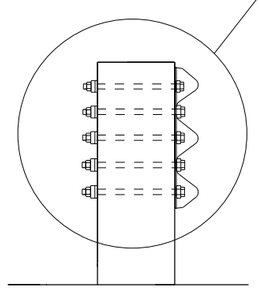
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

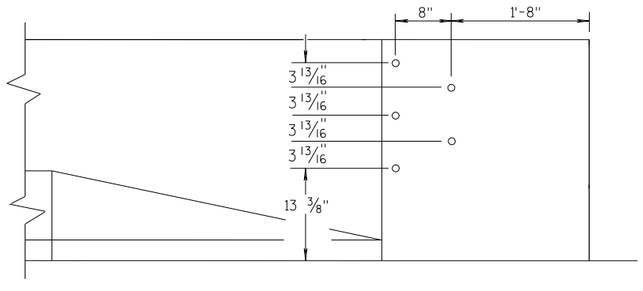




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible] — [illegible]NT
FHWA

6

S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

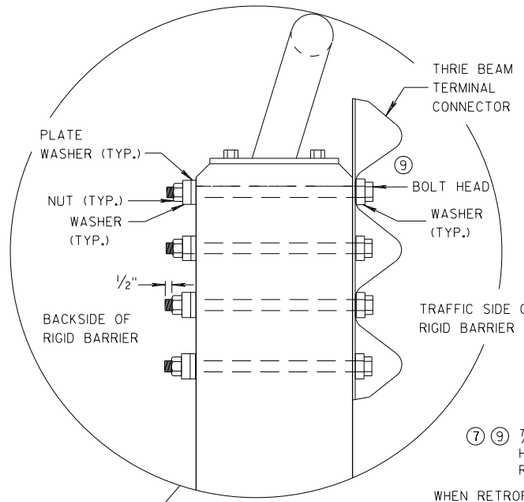
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

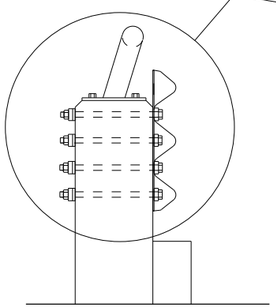
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

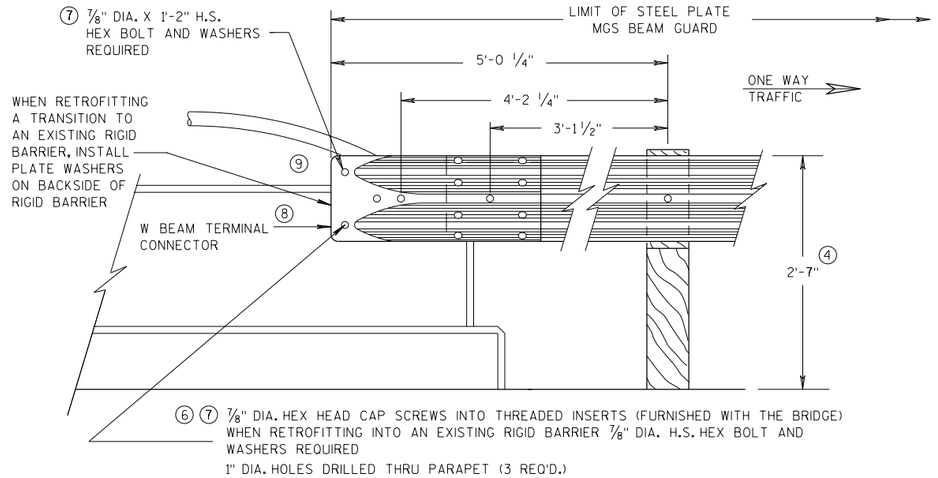
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





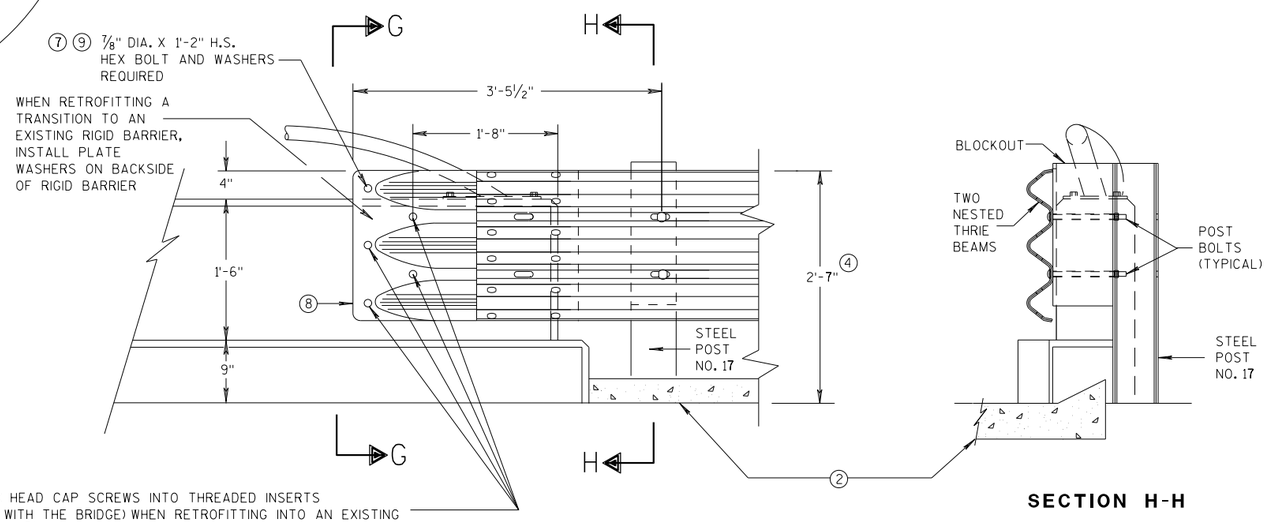
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

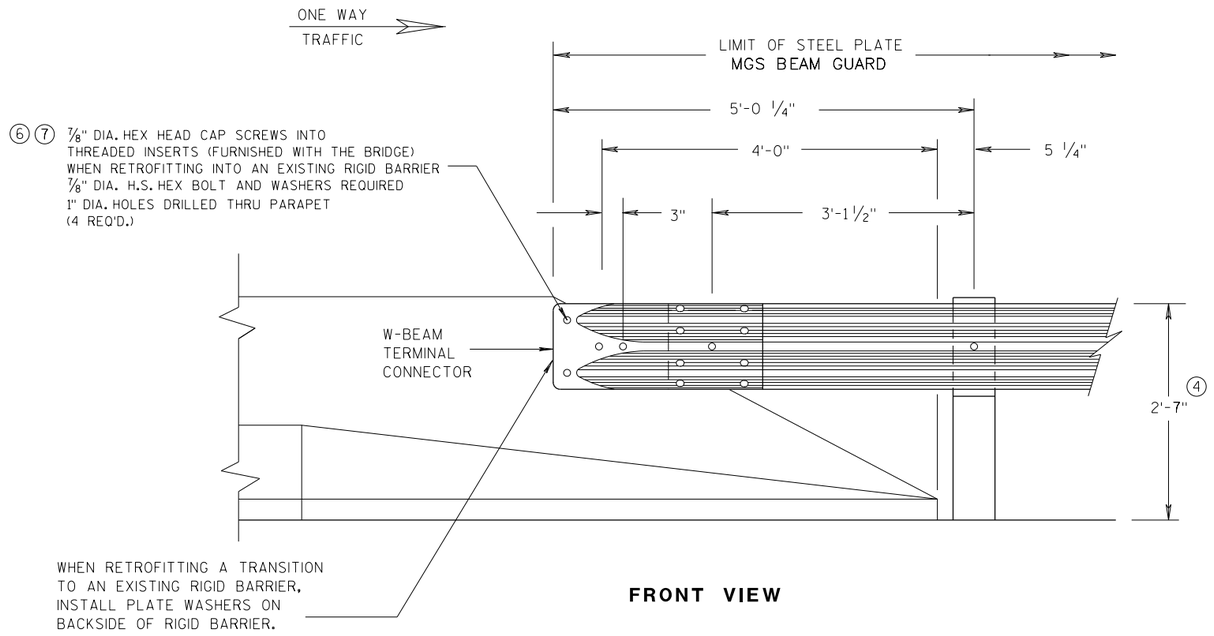
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS — NT
FHWA

6

S.D.D. 14 B 45-5e

6

S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

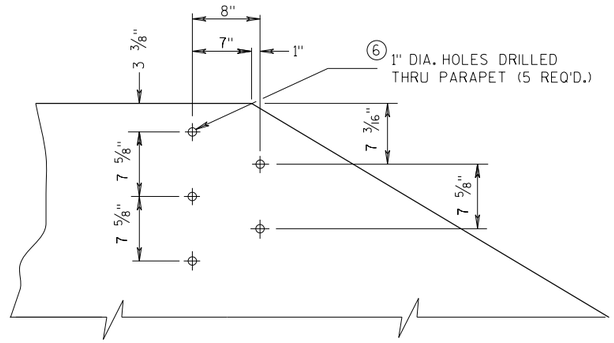
GENERAL NOTES

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

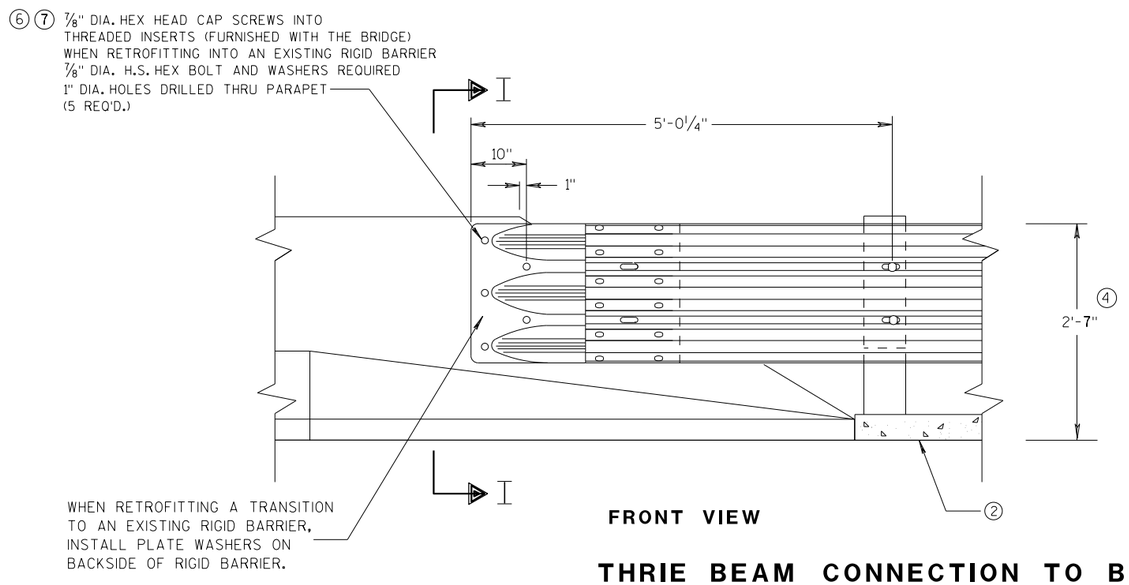
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

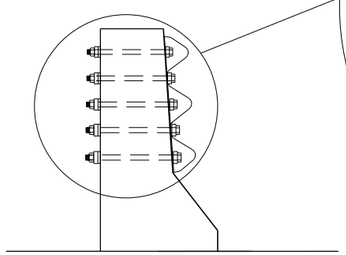
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



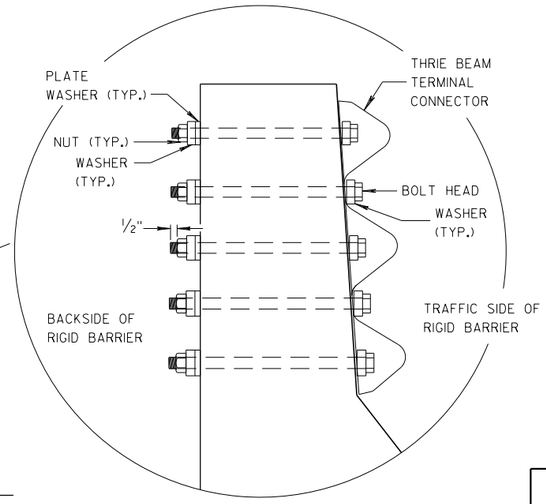
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

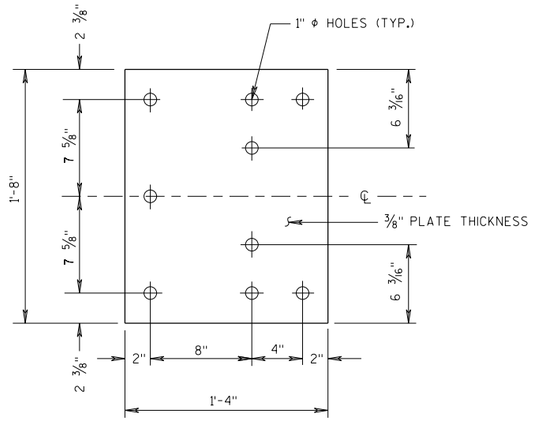
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

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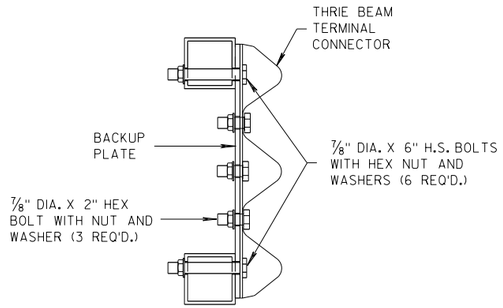
S.D.D. 14 B 45-5f

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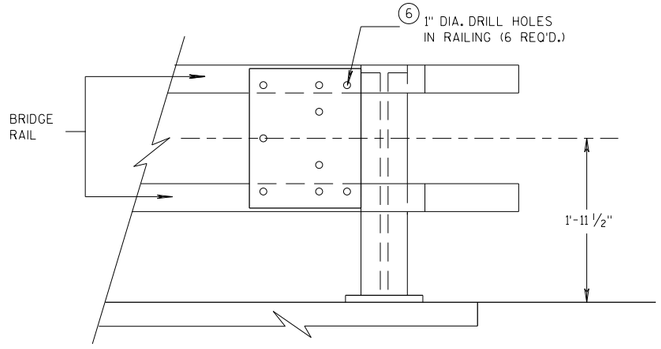
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

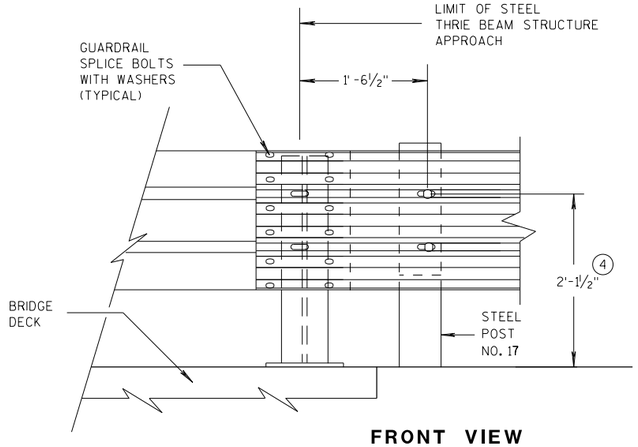


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

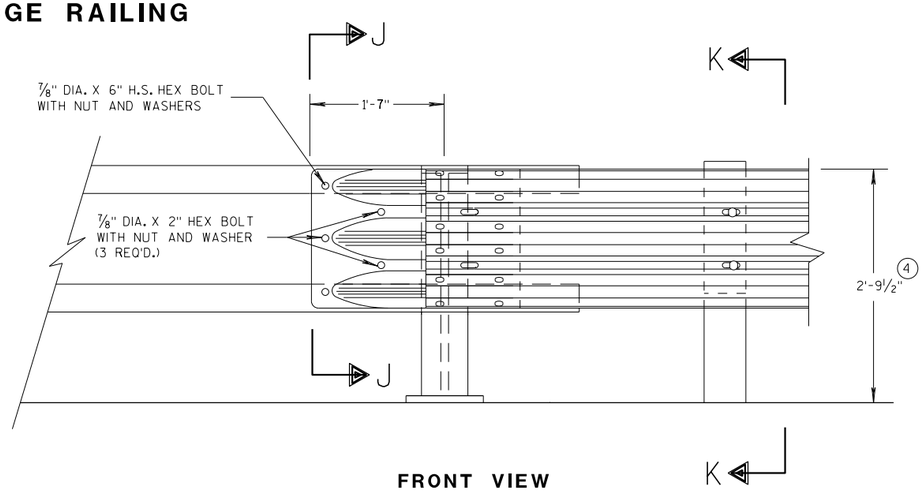
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

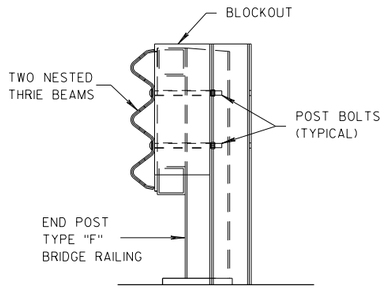


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE — FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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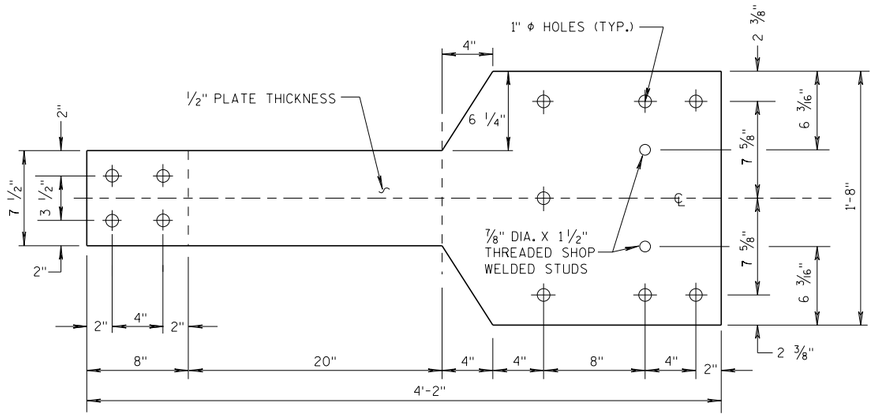
S.D.D. 14 B 45-5g

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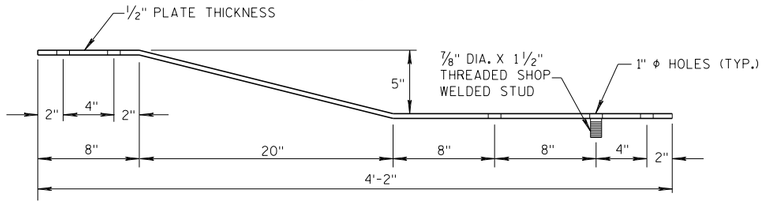
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

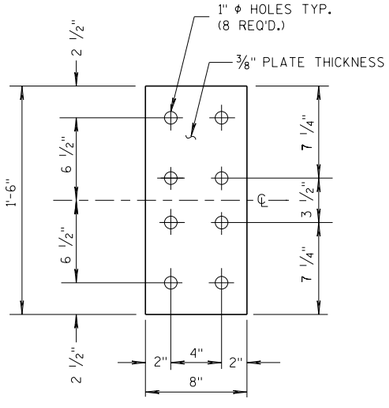


FRONT VIEW



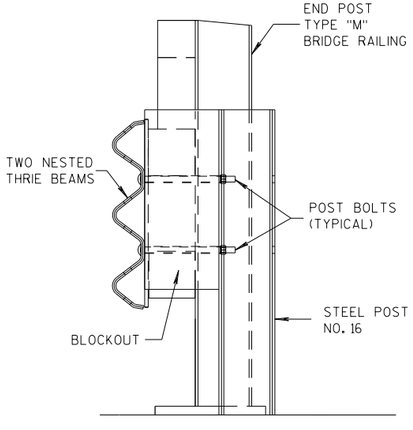
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

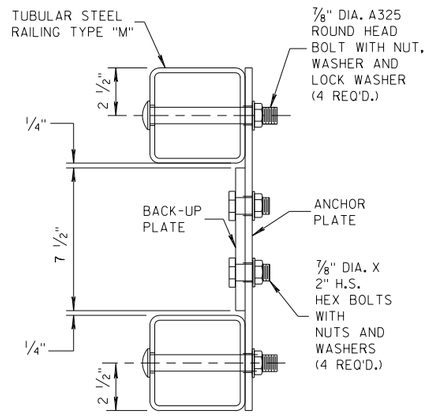


FRONT VIEW

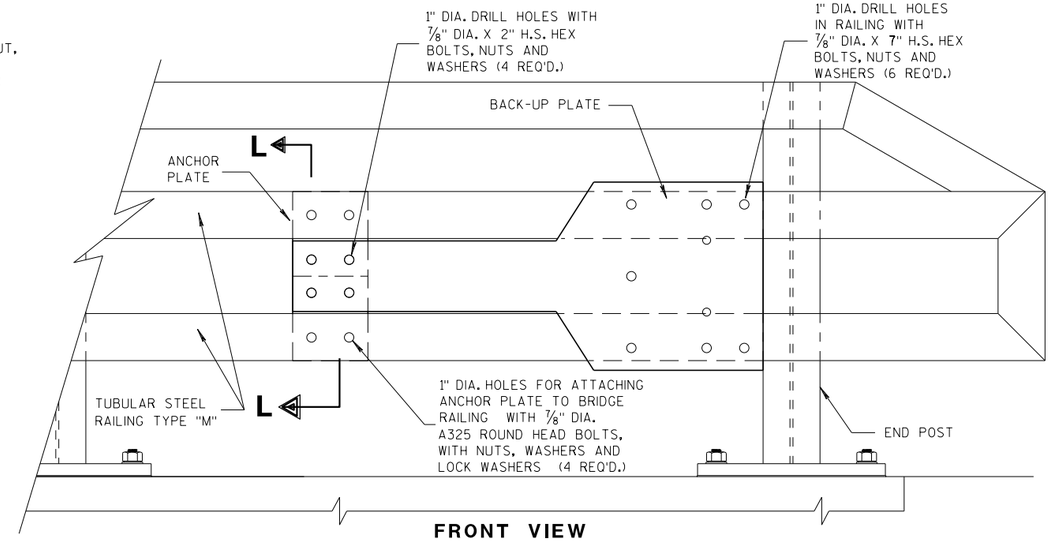
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

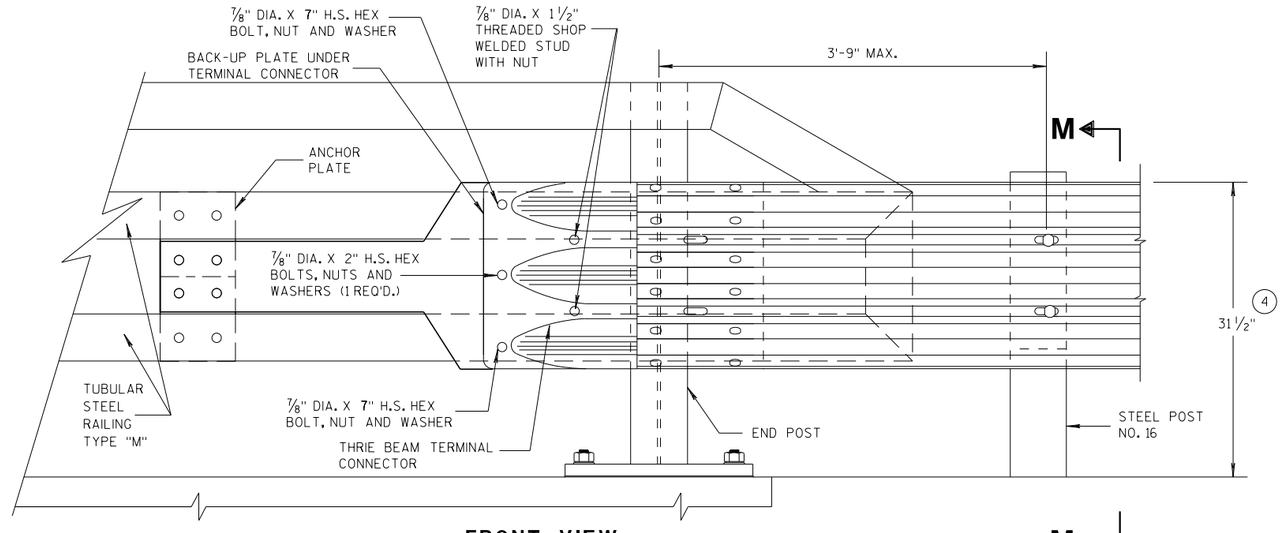


SECTION L-L

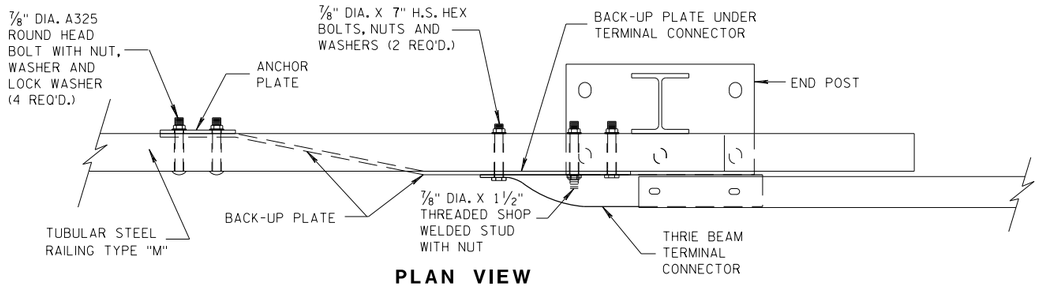


FRONT VIEW

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

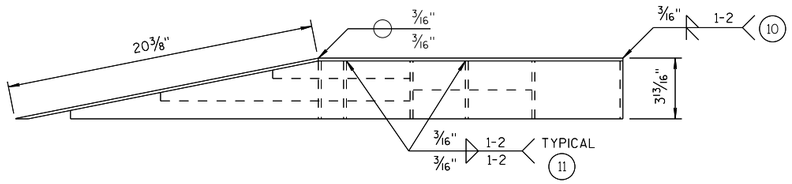
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/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

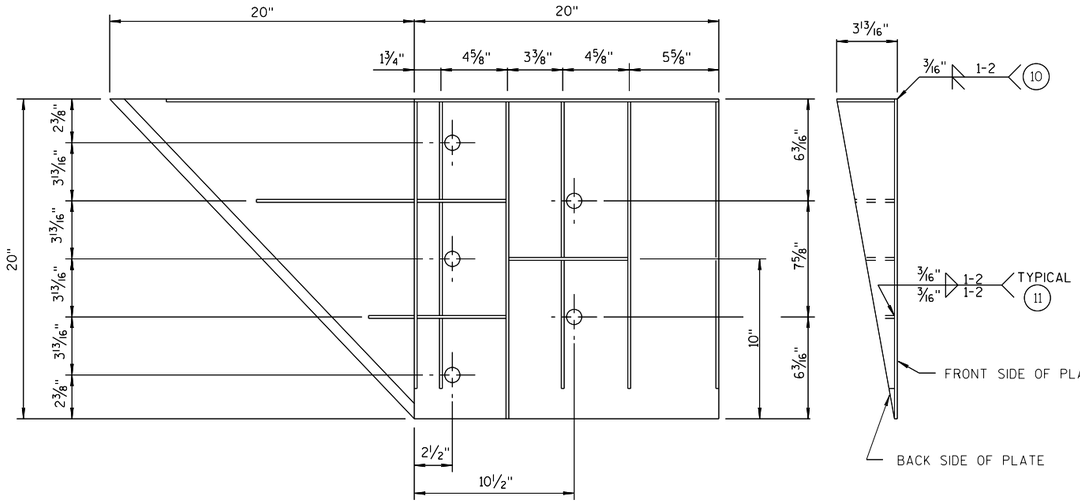
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S.D.D. 14 B 45-5h

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S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

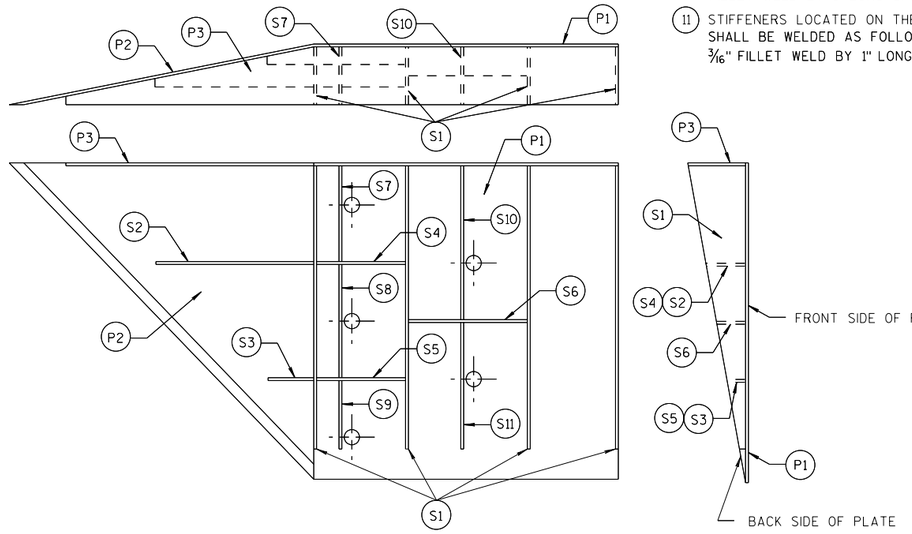


PLATE AND STIFFENER IDENTIFICATION

(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".

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 7/16" 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 7/16"	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 7/8"	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 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

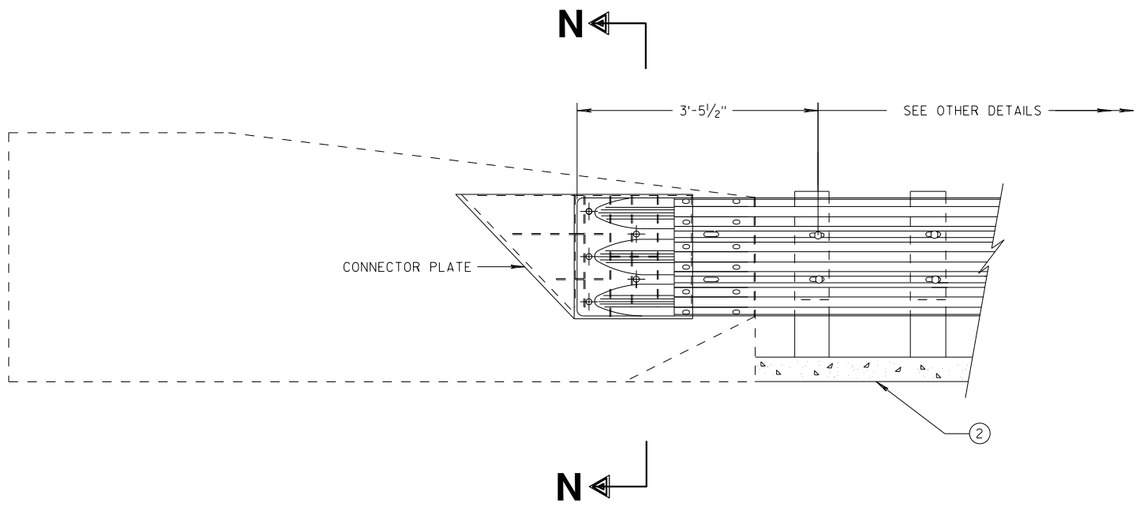
/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

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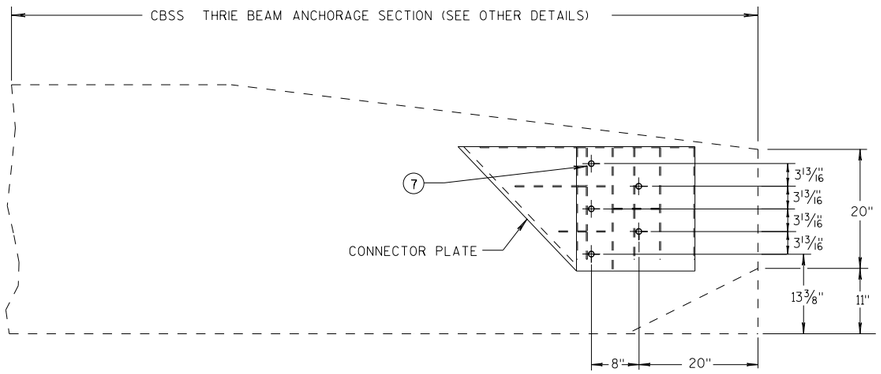
S.D.D. 14 B 45-5i

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S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



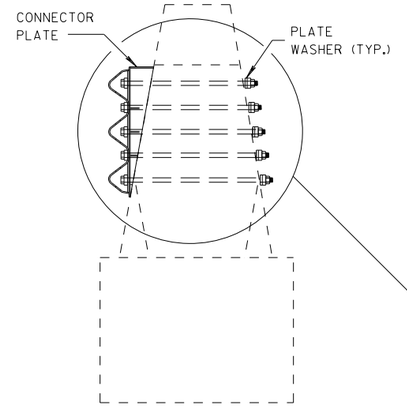
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

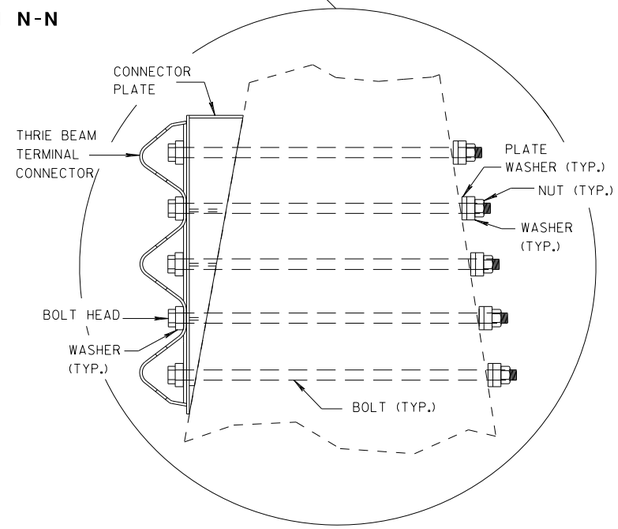
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 5/32" 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
7/2018
DATE
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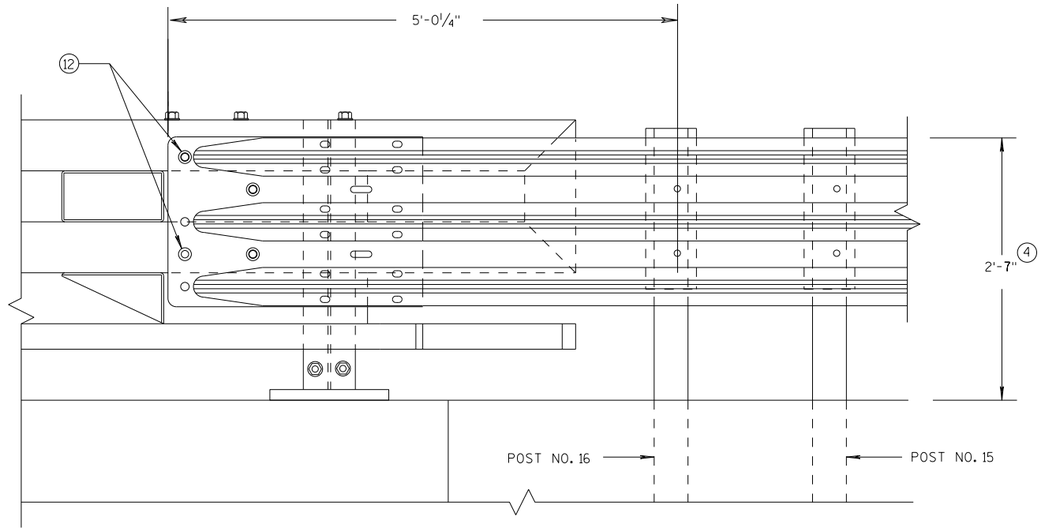
/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

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S.D.D. 14 B 45-5j

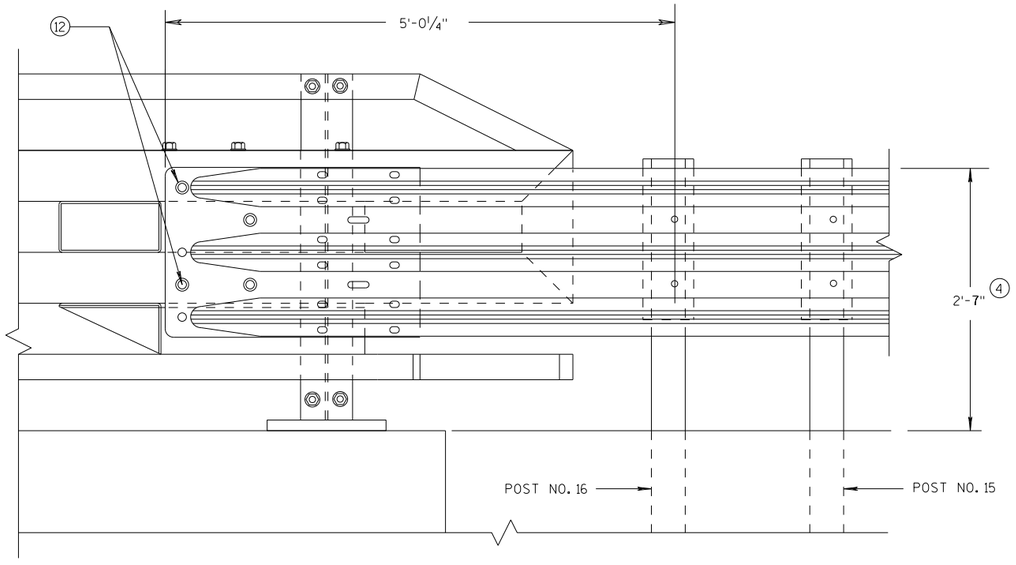
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS D
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FHWA

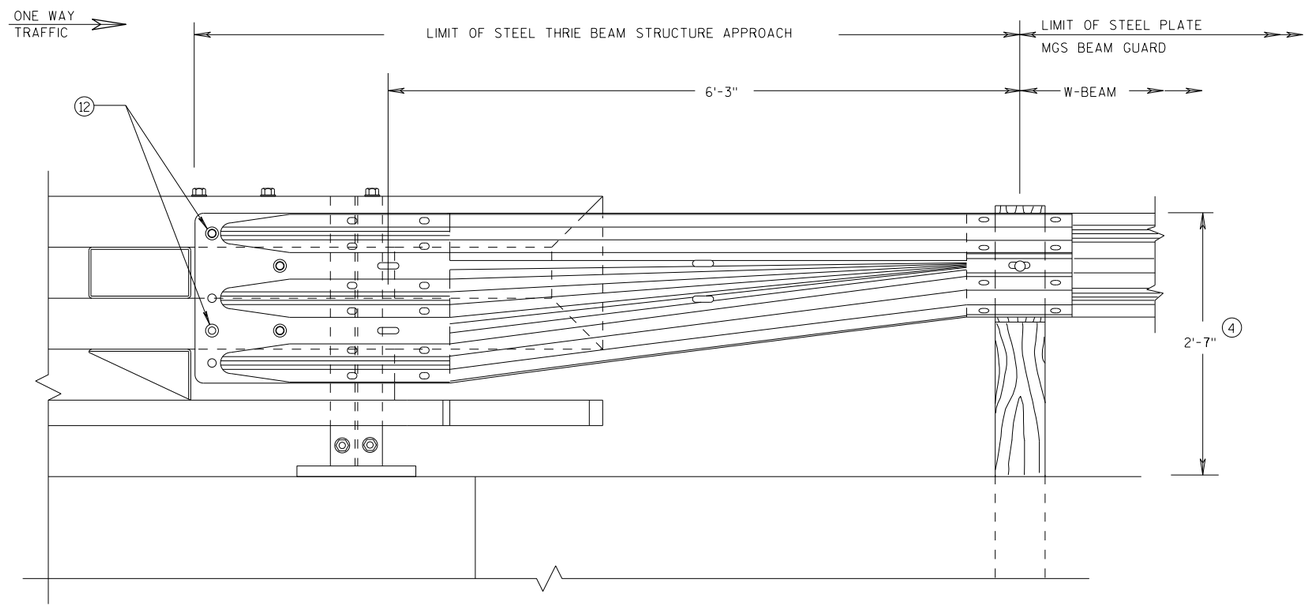
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S.D.D. 14 B 45-5k



FRONT VIEW

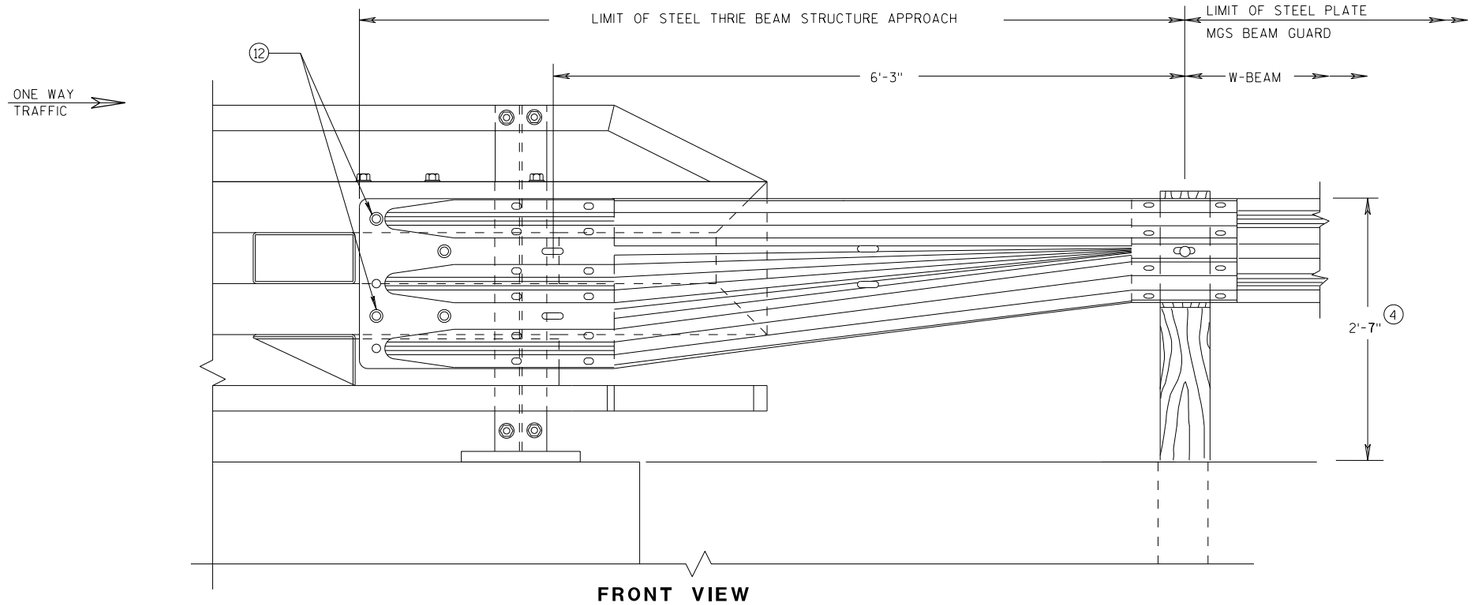
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

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FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS
FHWA

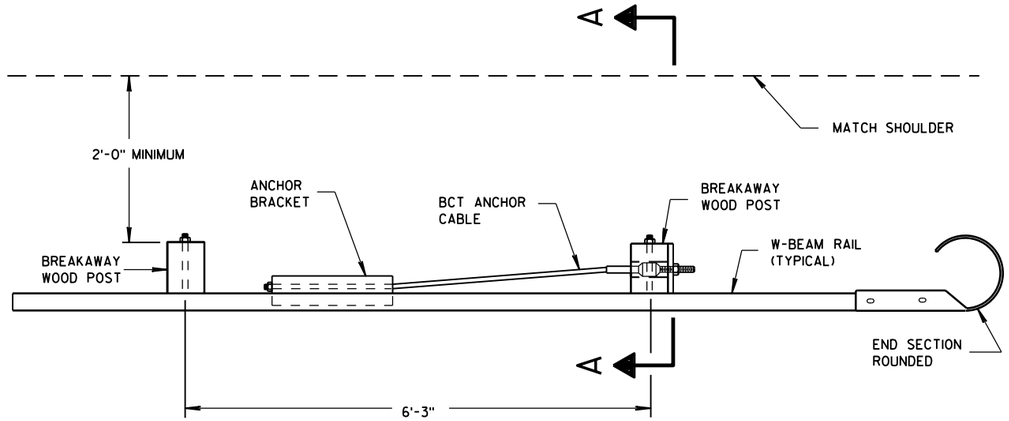
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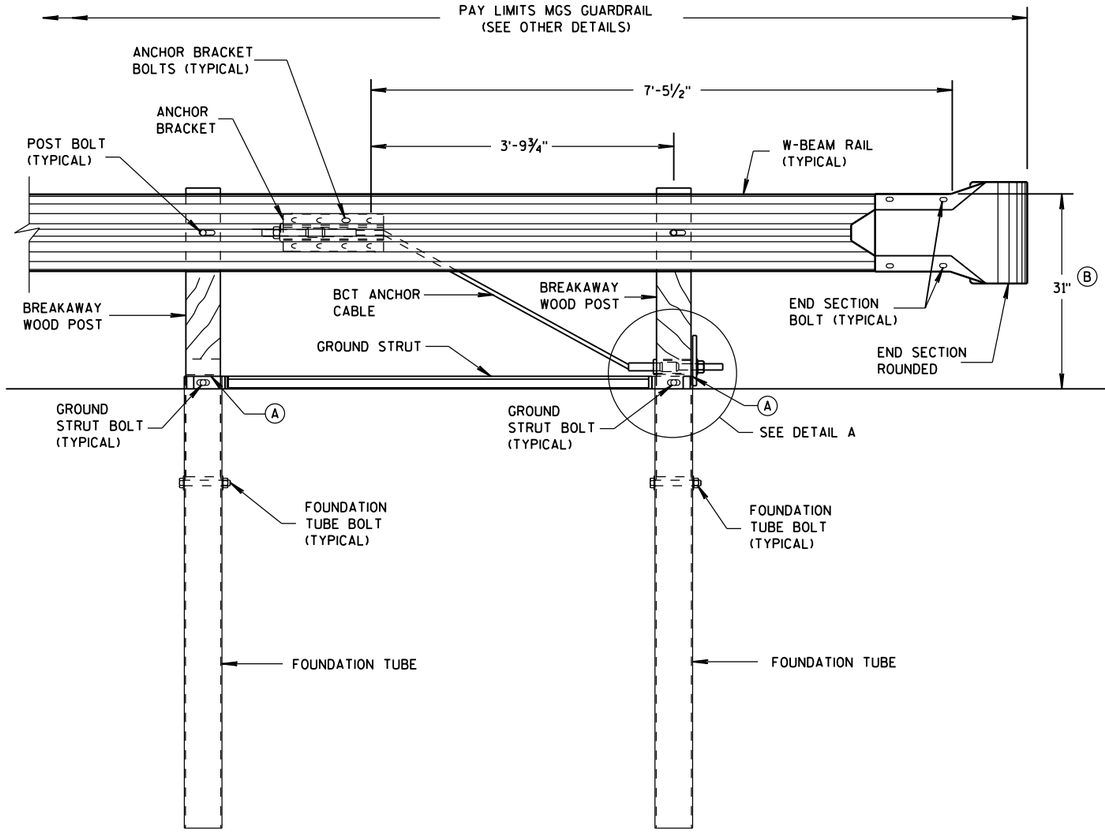
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S.D.D. 14 B 45-5L

S.D.D. 14 B 45-5L

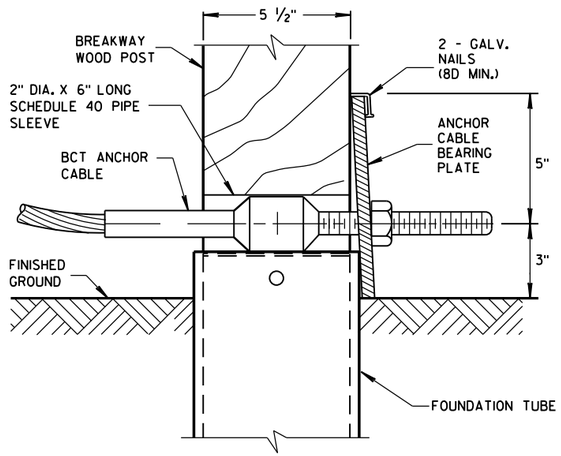


PLAN VIEW



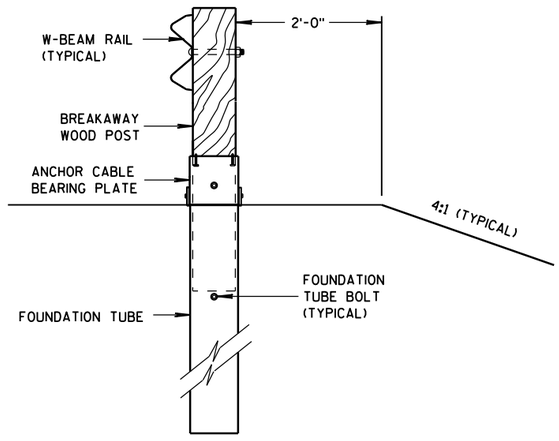
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

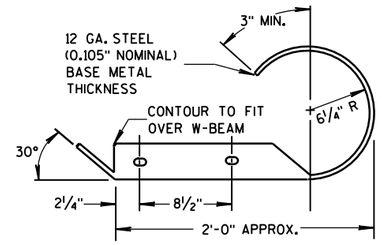
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

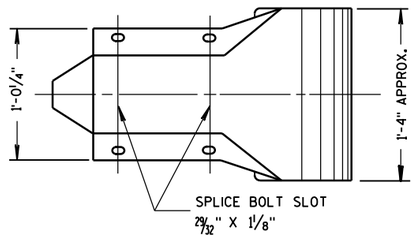
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



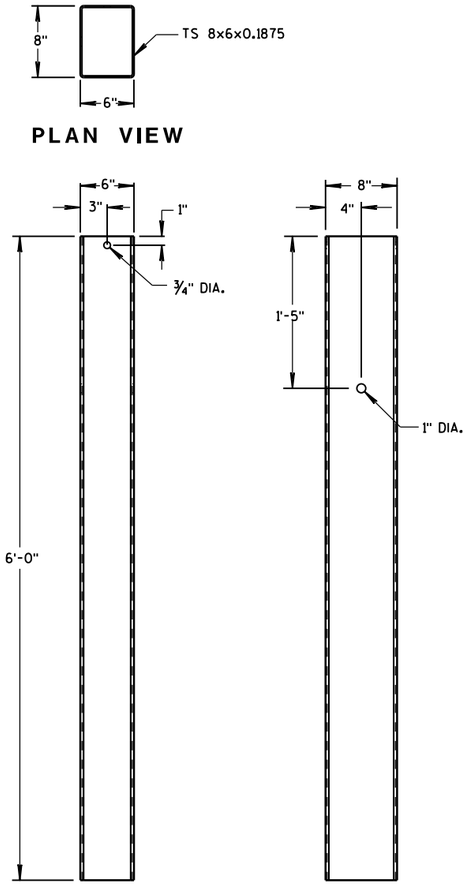
FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

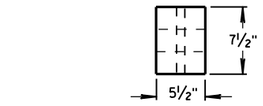
6
S.D.D. 14 B 47-2a



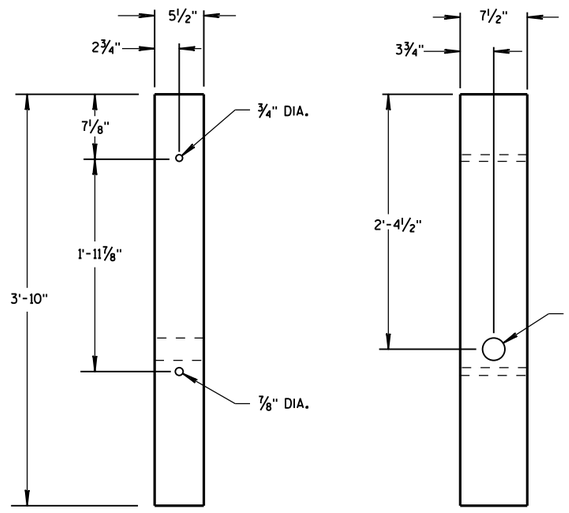
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW



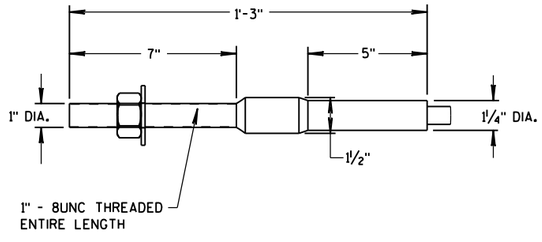
FRONT VIEW SIDE VIEW

BREAKAWAY WOOD POST

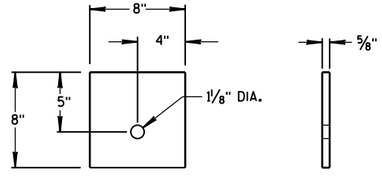
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

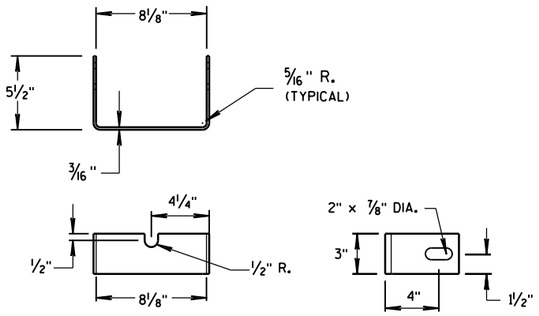
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

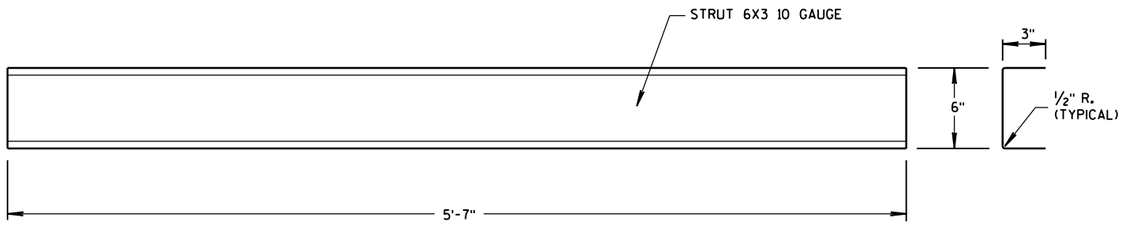
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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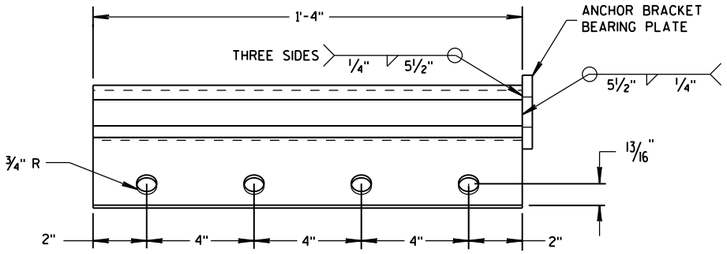
S.D.D. 14 B 47-2b

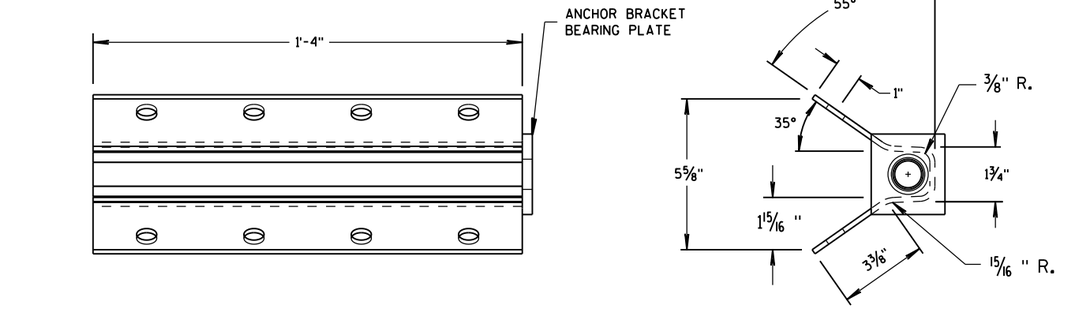


YOKE DETAIL

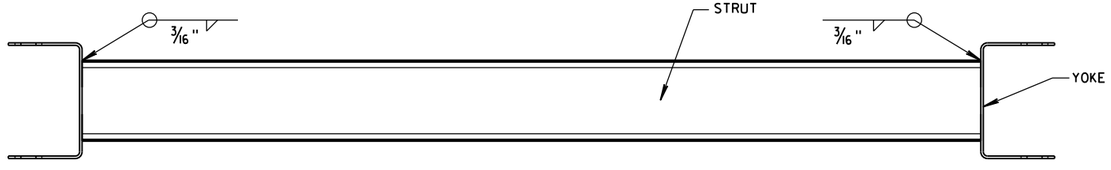


STRUT DETAIL

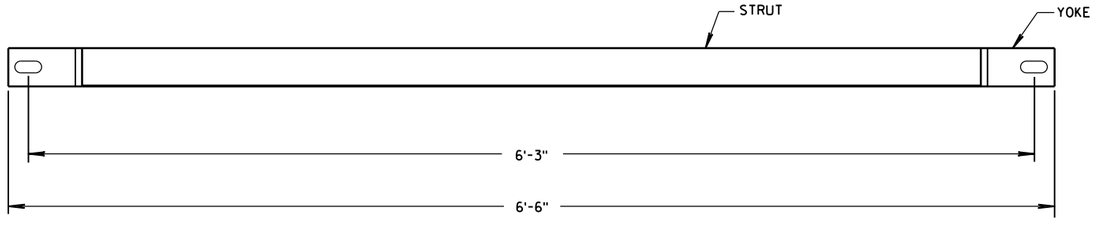




ANCHOR BRACKET

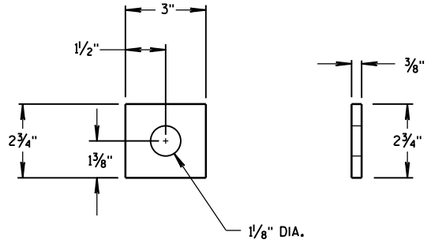


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

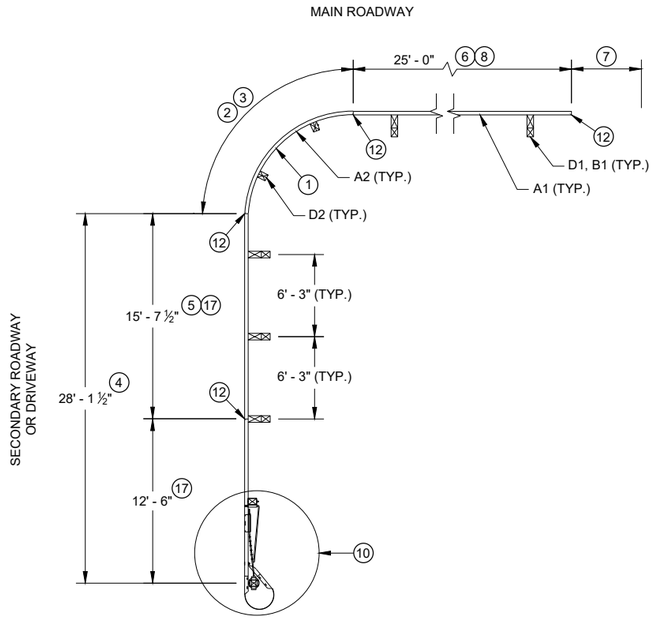
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 47-2c

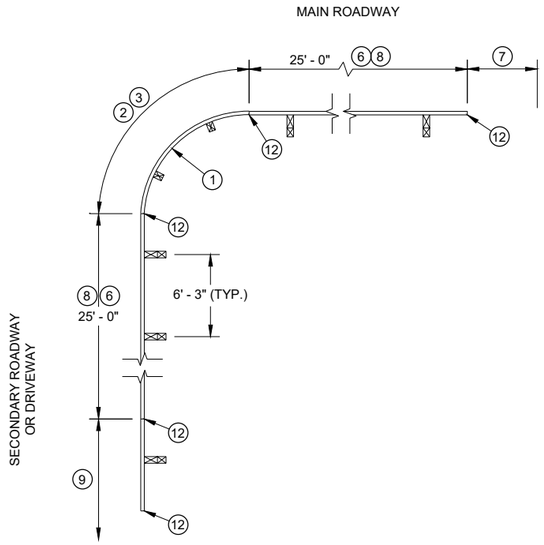
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S.D.D. 14 B 47-2c



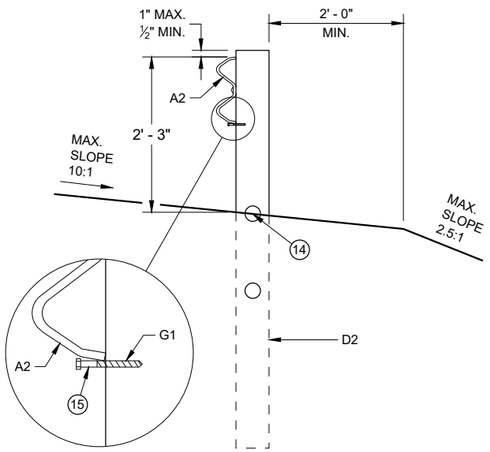
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

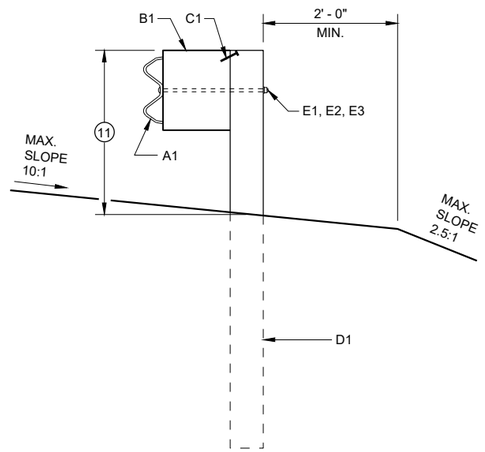


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



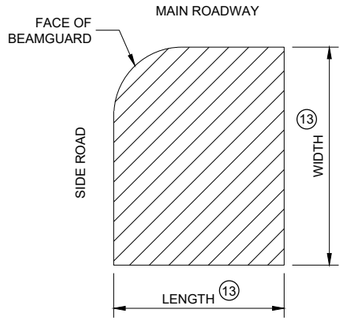
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION

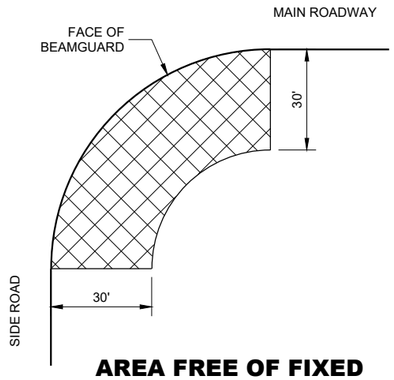
TABLE FOR RADIUS OF 32' AND LESS

RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30

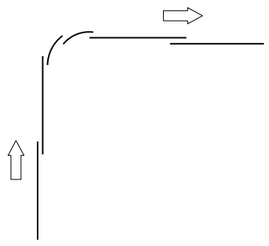


AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS

16



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

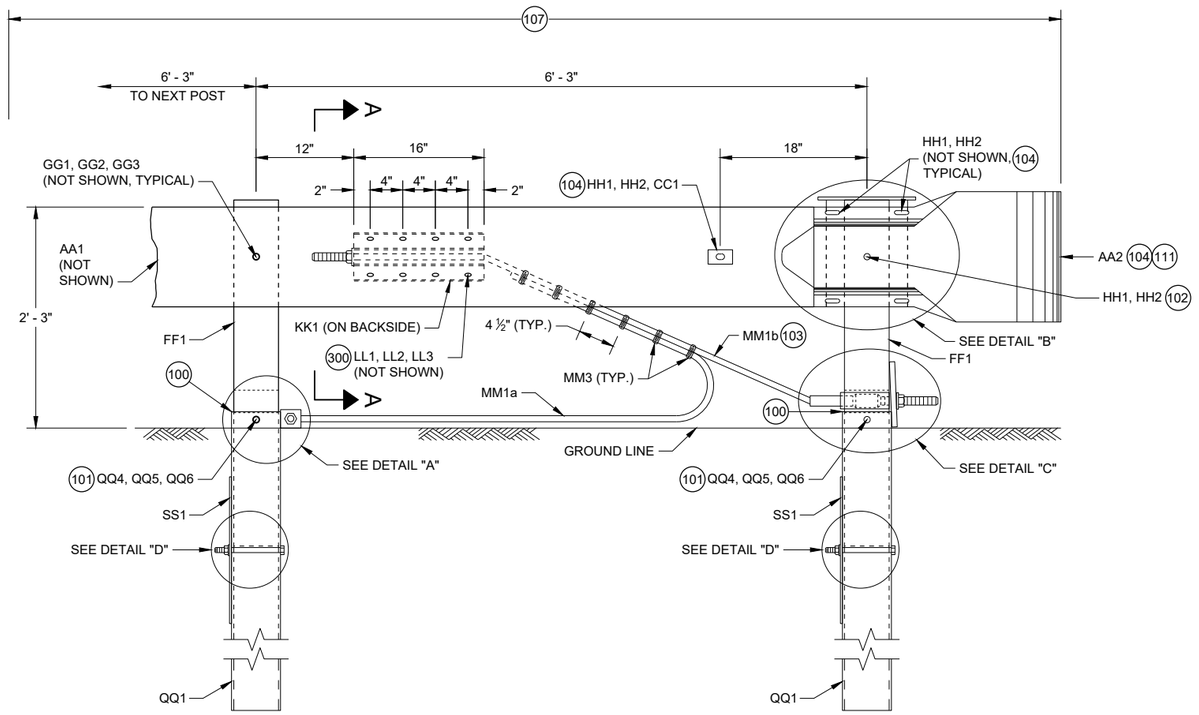
(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

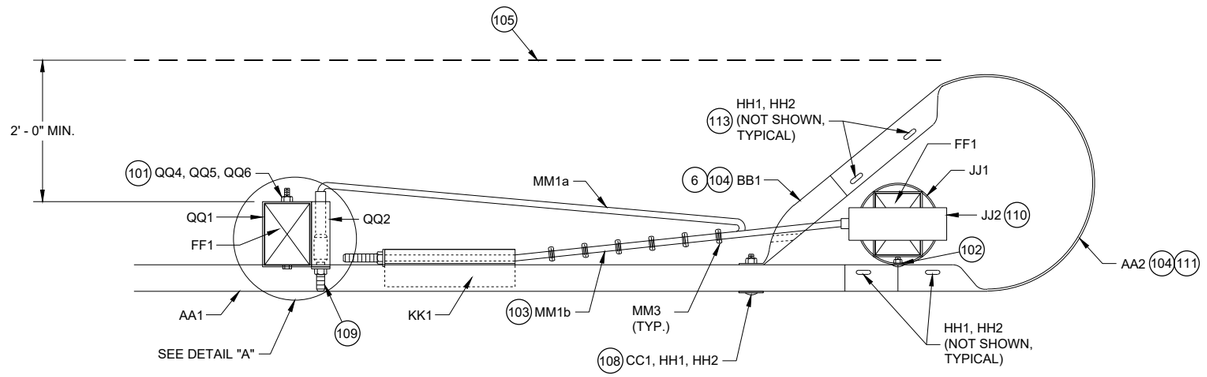
6

SDD 14B53 - 01a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

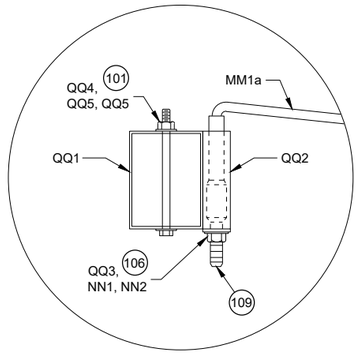
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

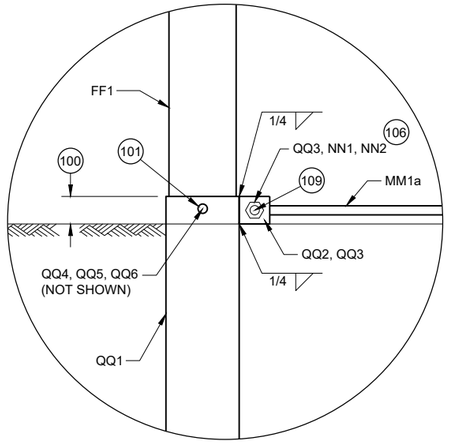
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

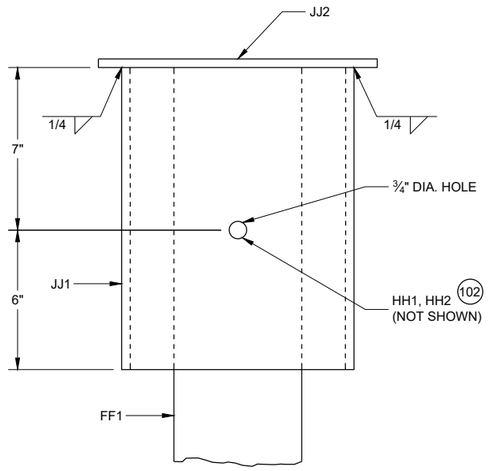
SDD 14B53 - 01b

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SDD 14B53 - 01b

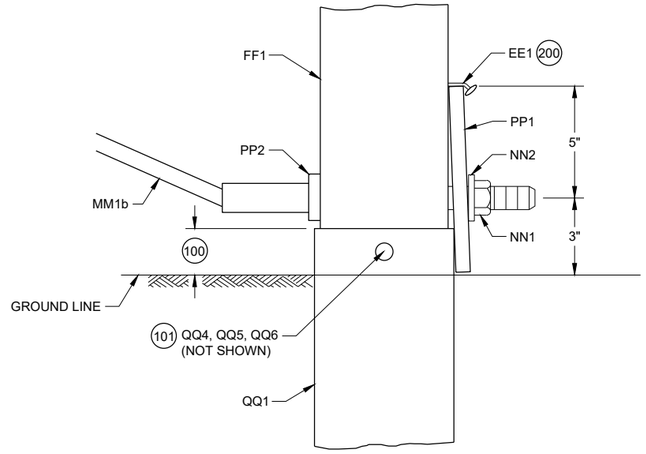
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



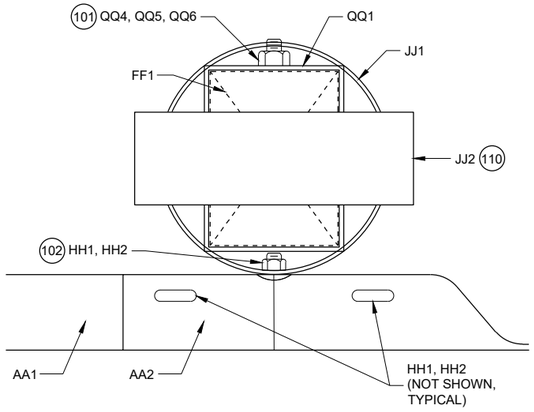
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



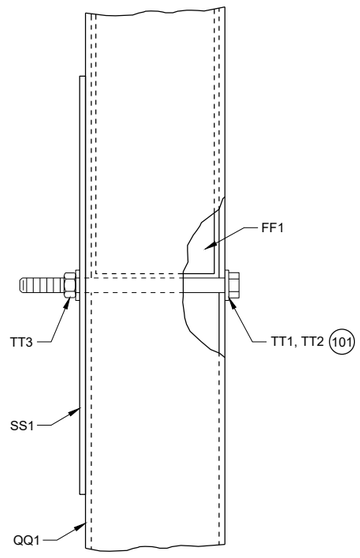
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

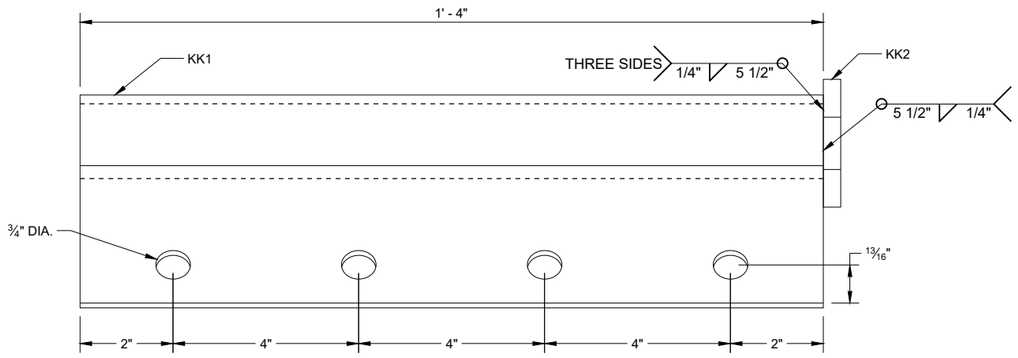
SDD 14B53 - 01c

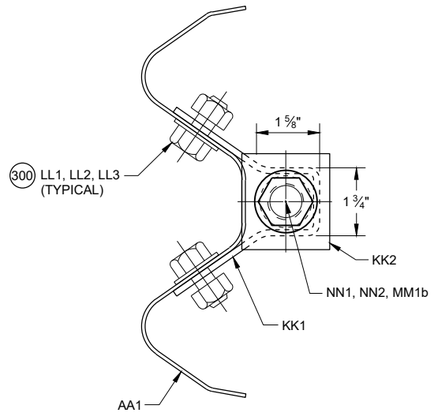
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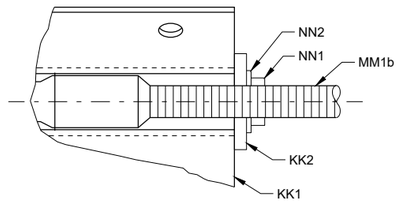
SDD 14B53 - 01c

GENERAL NOTES

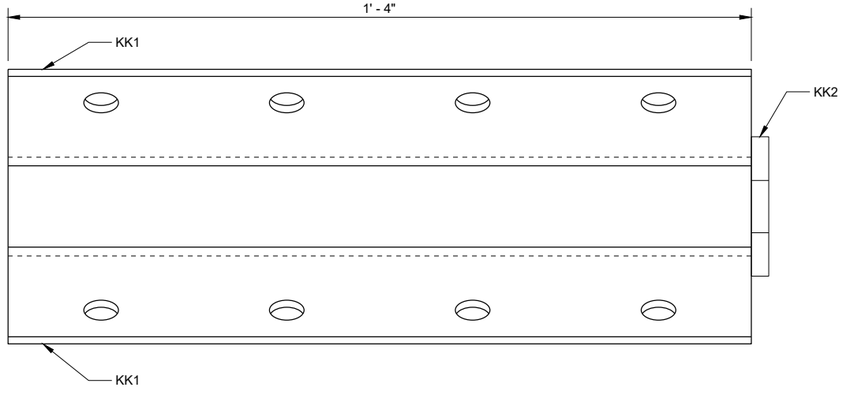
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

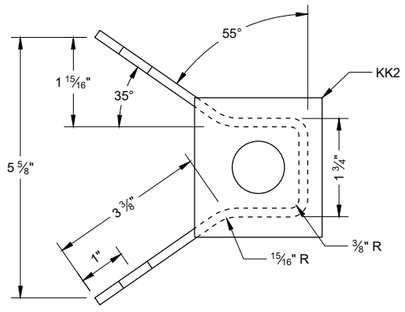




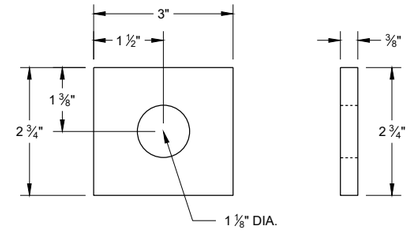


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

6

SDD 14B53 - 01d

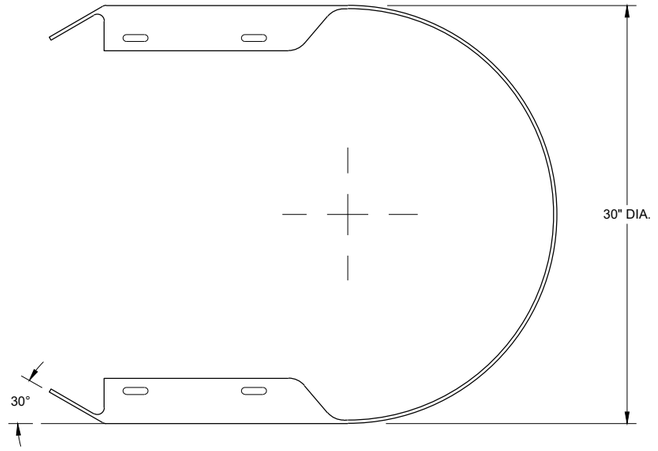
SDD 14B53 - 01d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

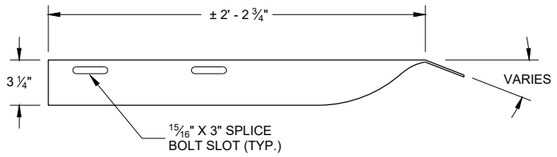
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

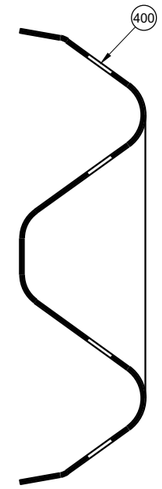
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



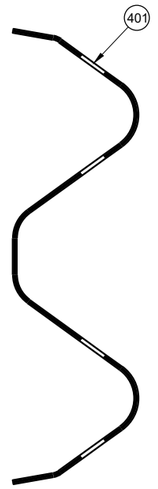
TOP VIEW



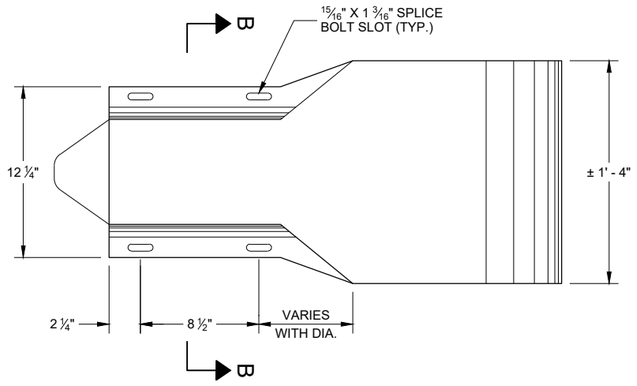
TOP VIEW



SECTION B -B

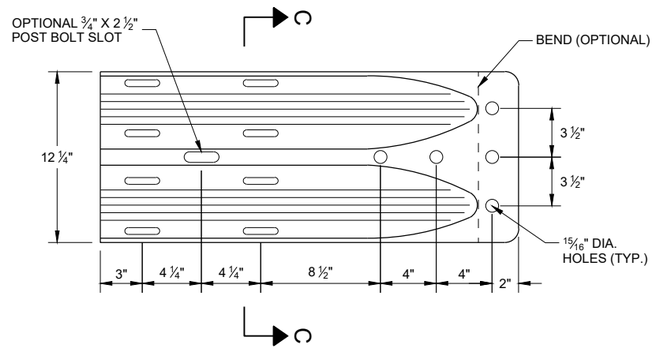


SECTION C -C



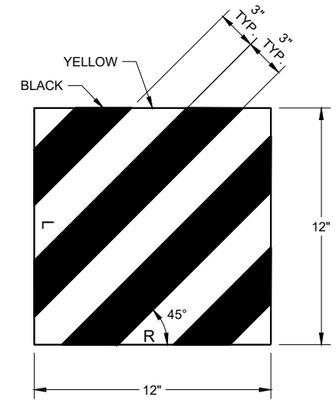
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



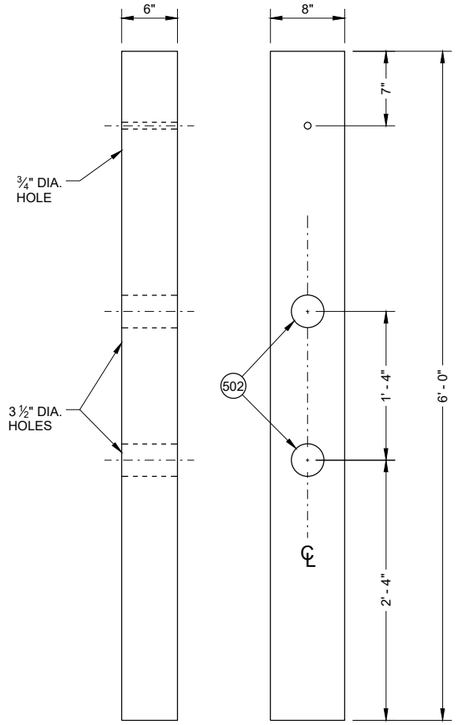
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

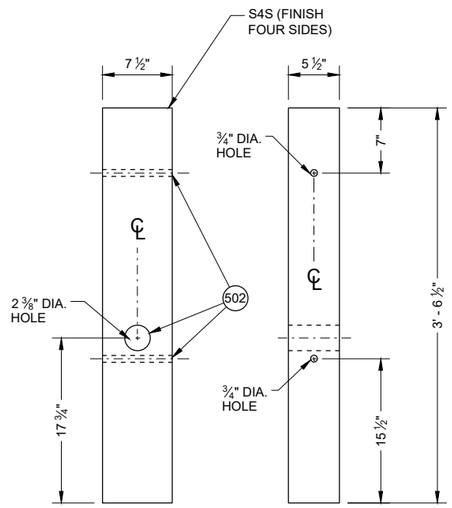
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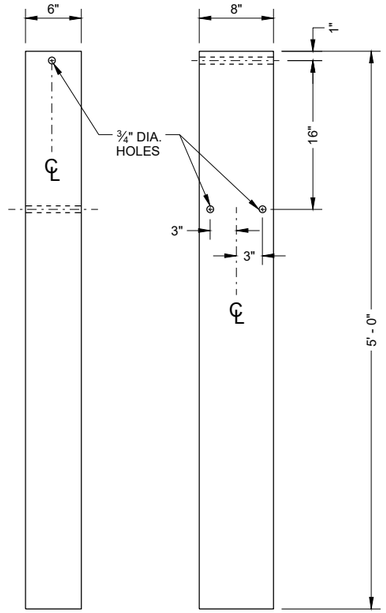
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

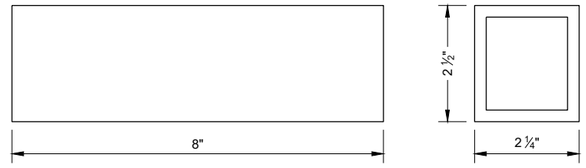
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

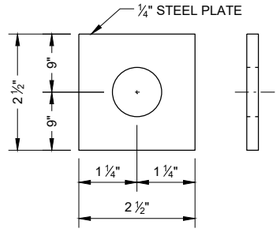
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

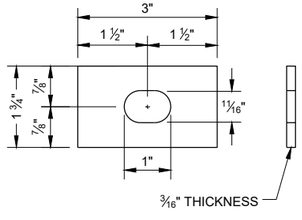
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



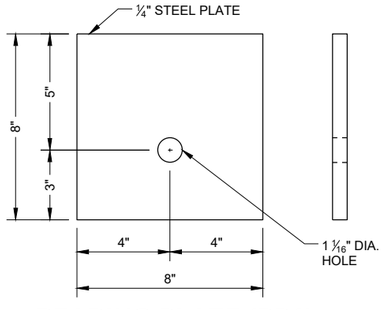
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



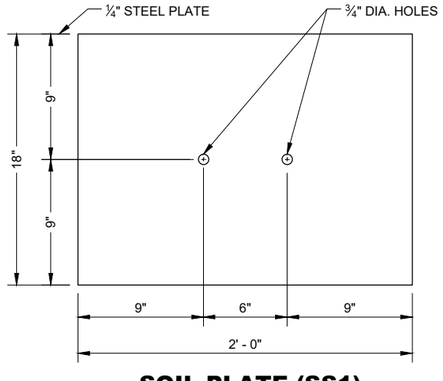
ANCHOR CABLE TUBE END PLATE (QQ3)



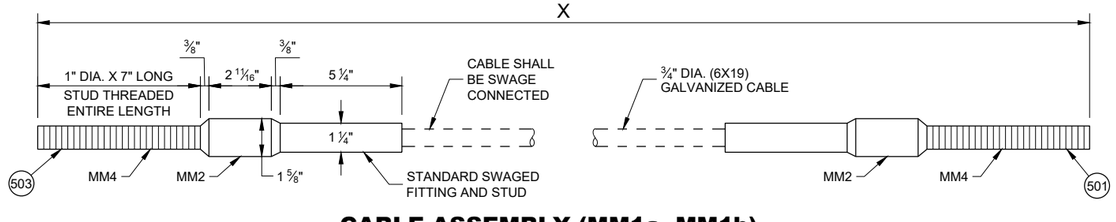
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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SDD 14B53 - 01f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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SDD 14B53 - 01g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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SDD 14B53 - 01h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

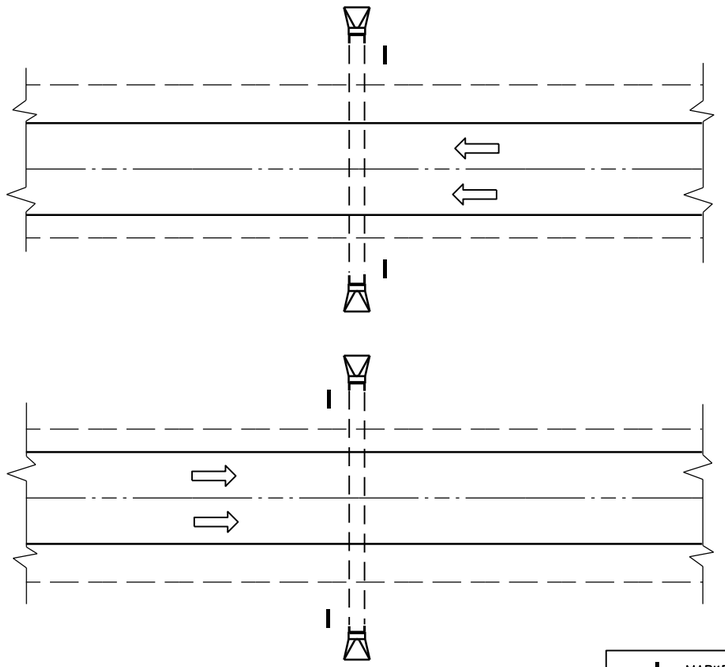
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

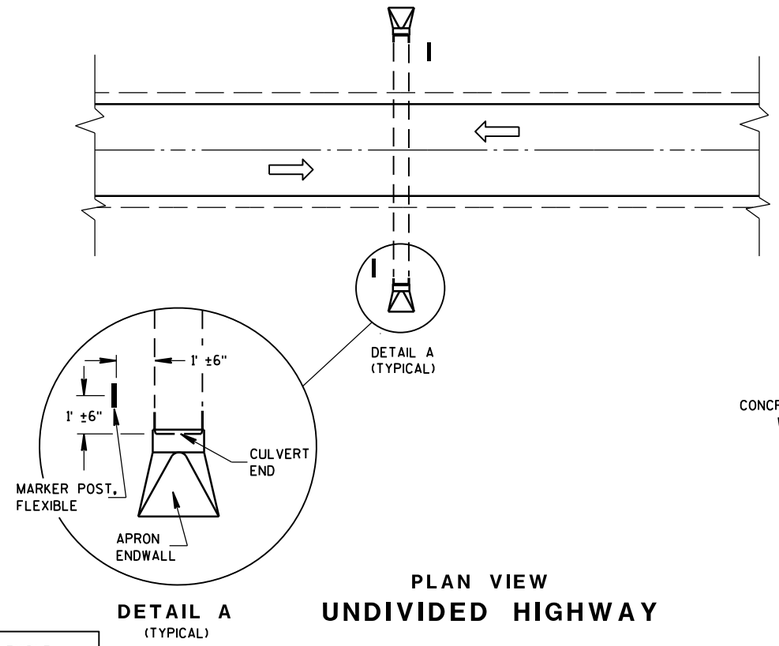
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SDD 14B53 - 01i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

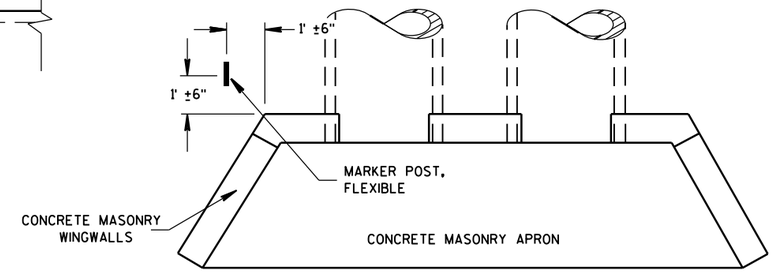
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

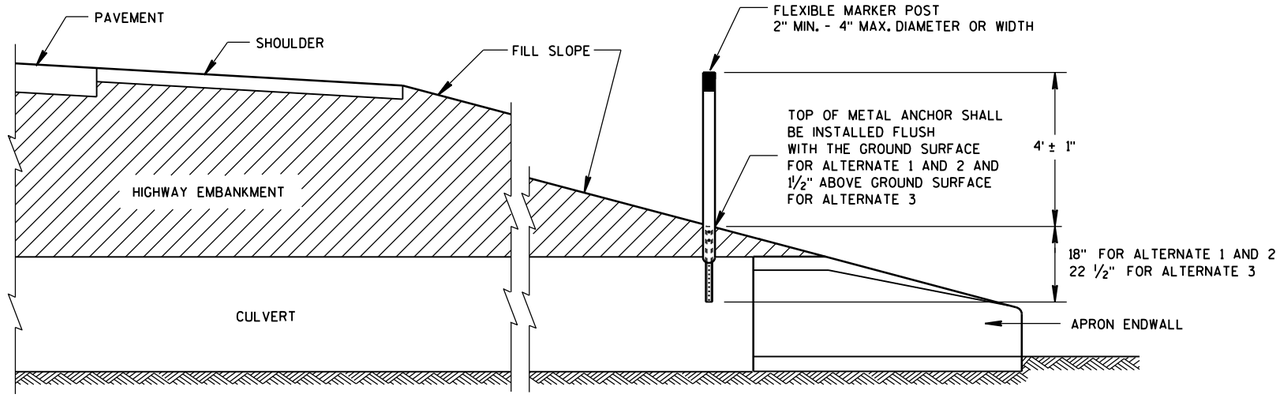
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

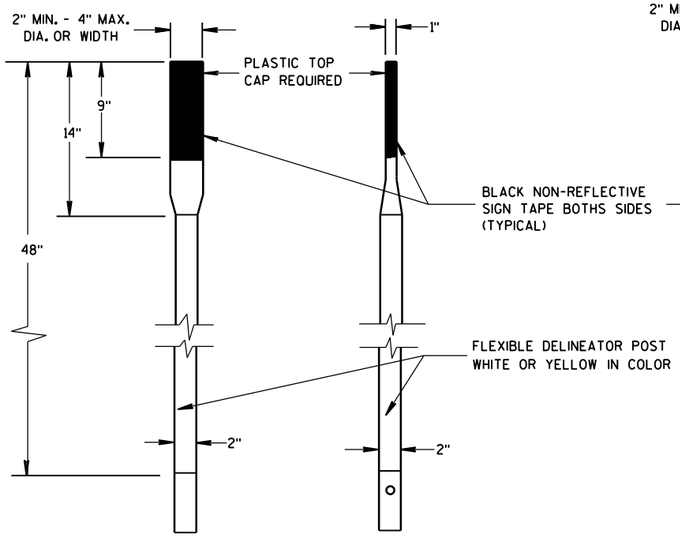
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

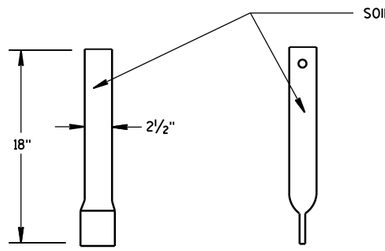
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S.D.D. 15 A 3-2a

6

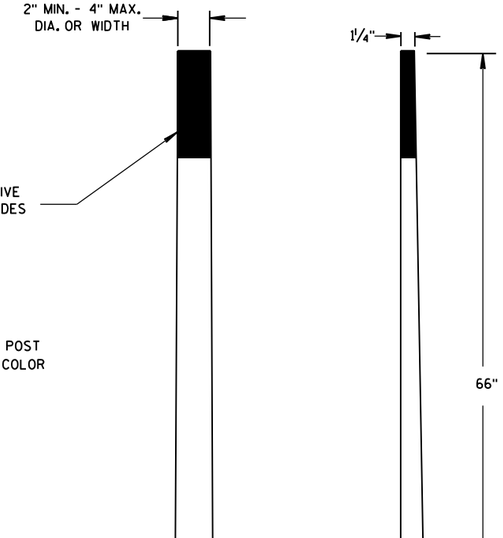
S.D.D. 15 A 3-2a





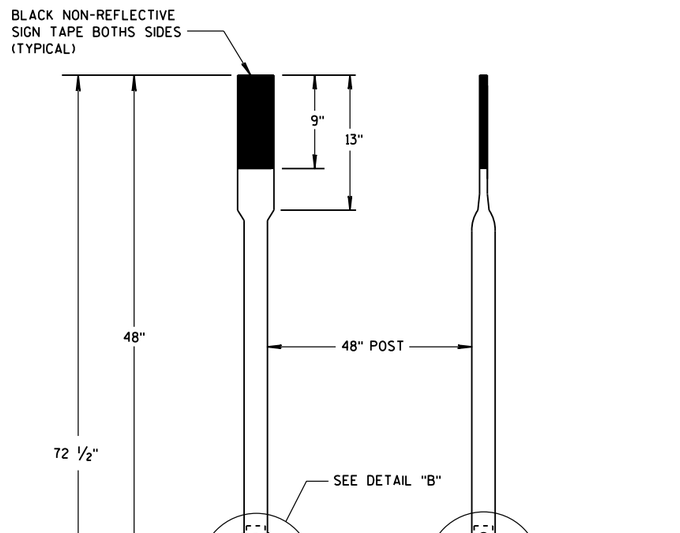
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

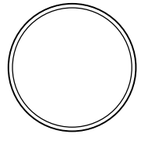
ALTERNATE 2



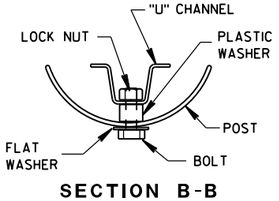
FRONT VIEW SIDE VIEW

ALTERNATE 3

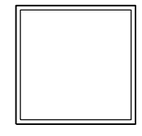
FLEXIBLE MARKER POSTS



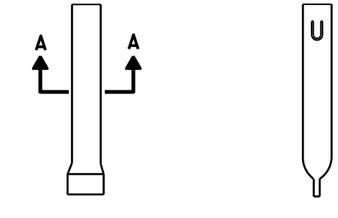
SECTION A-A



SECTION B-B

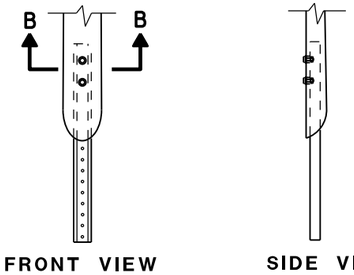


SECTION C-C



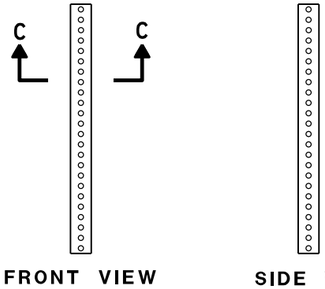
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

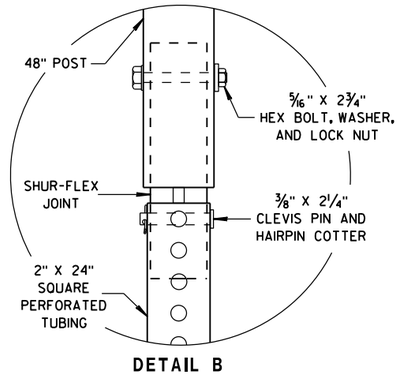
ALTERNATE 2



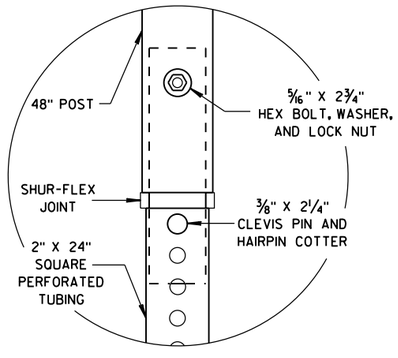
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

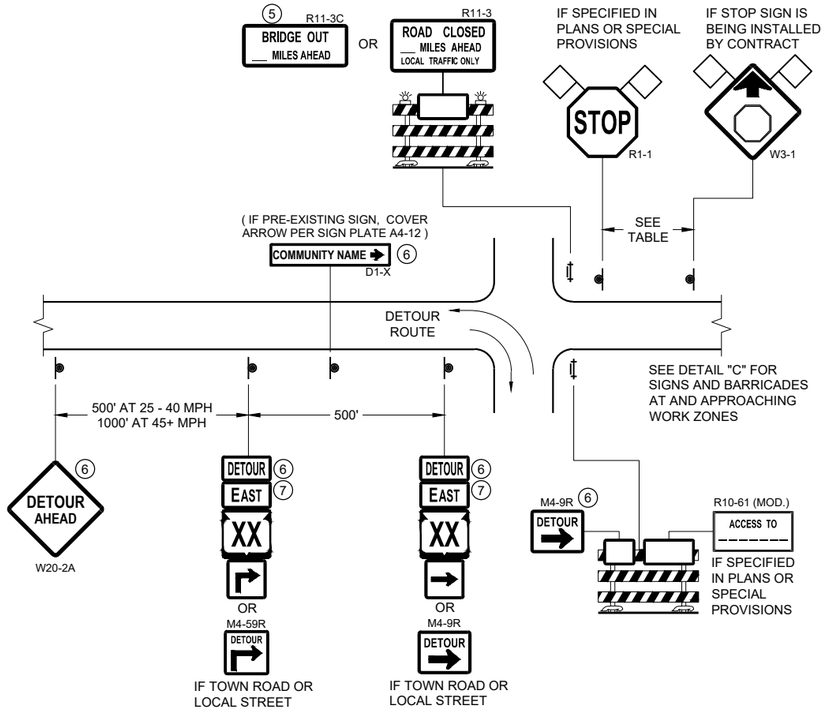
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

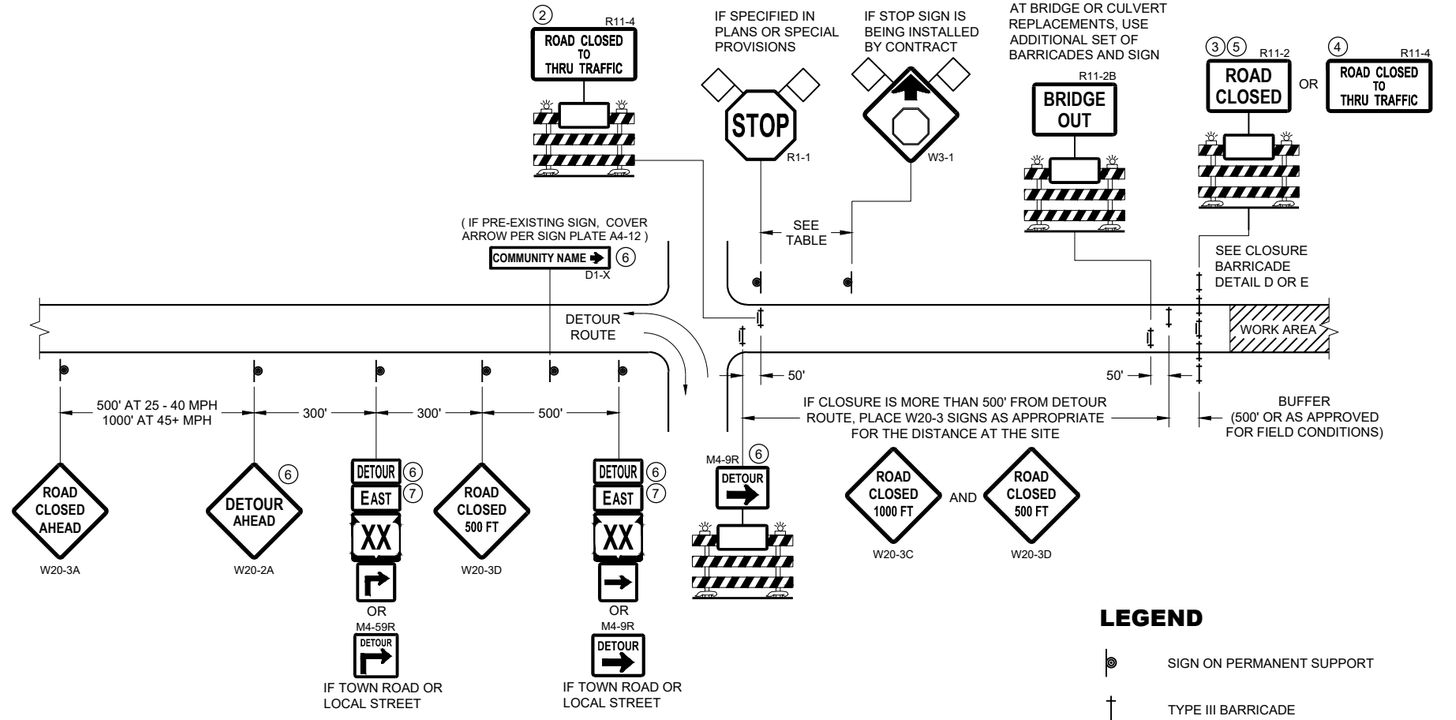
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S.D.D. 15 A 3-2b

6

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



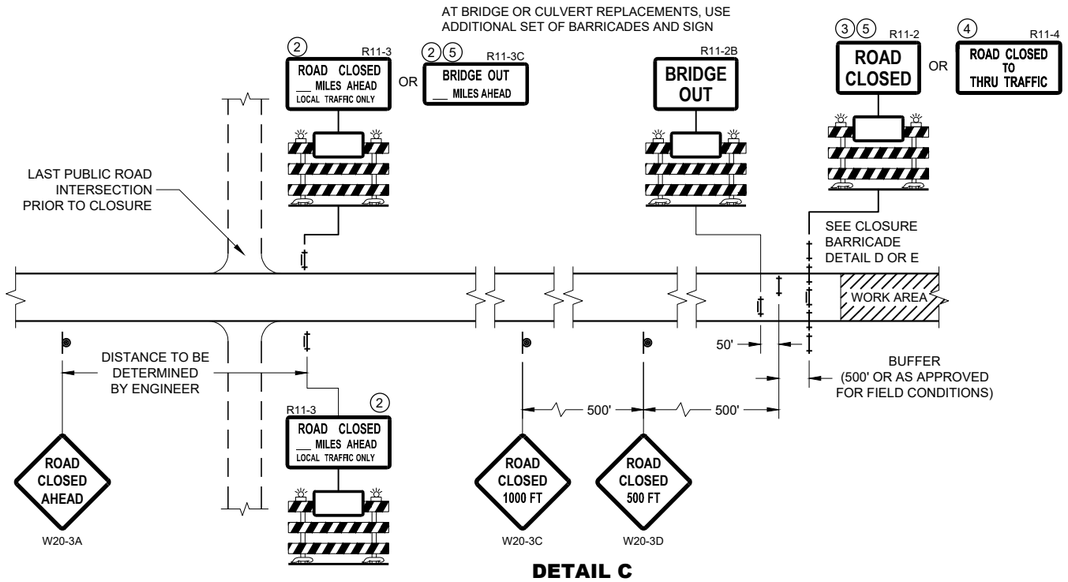


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

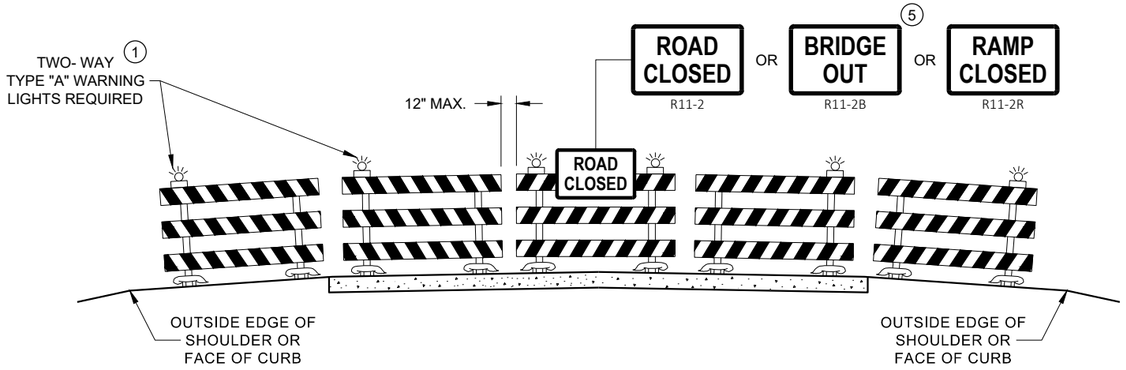
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

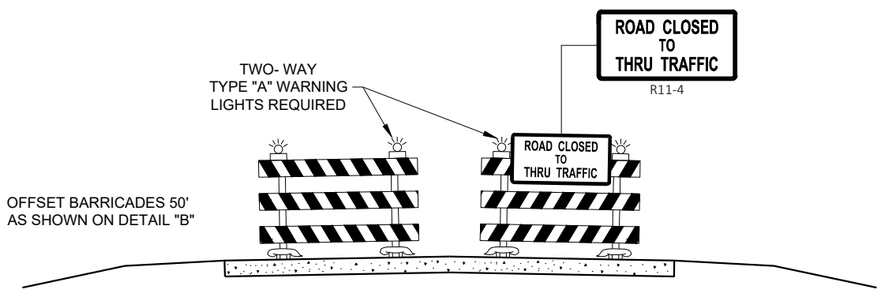
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SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

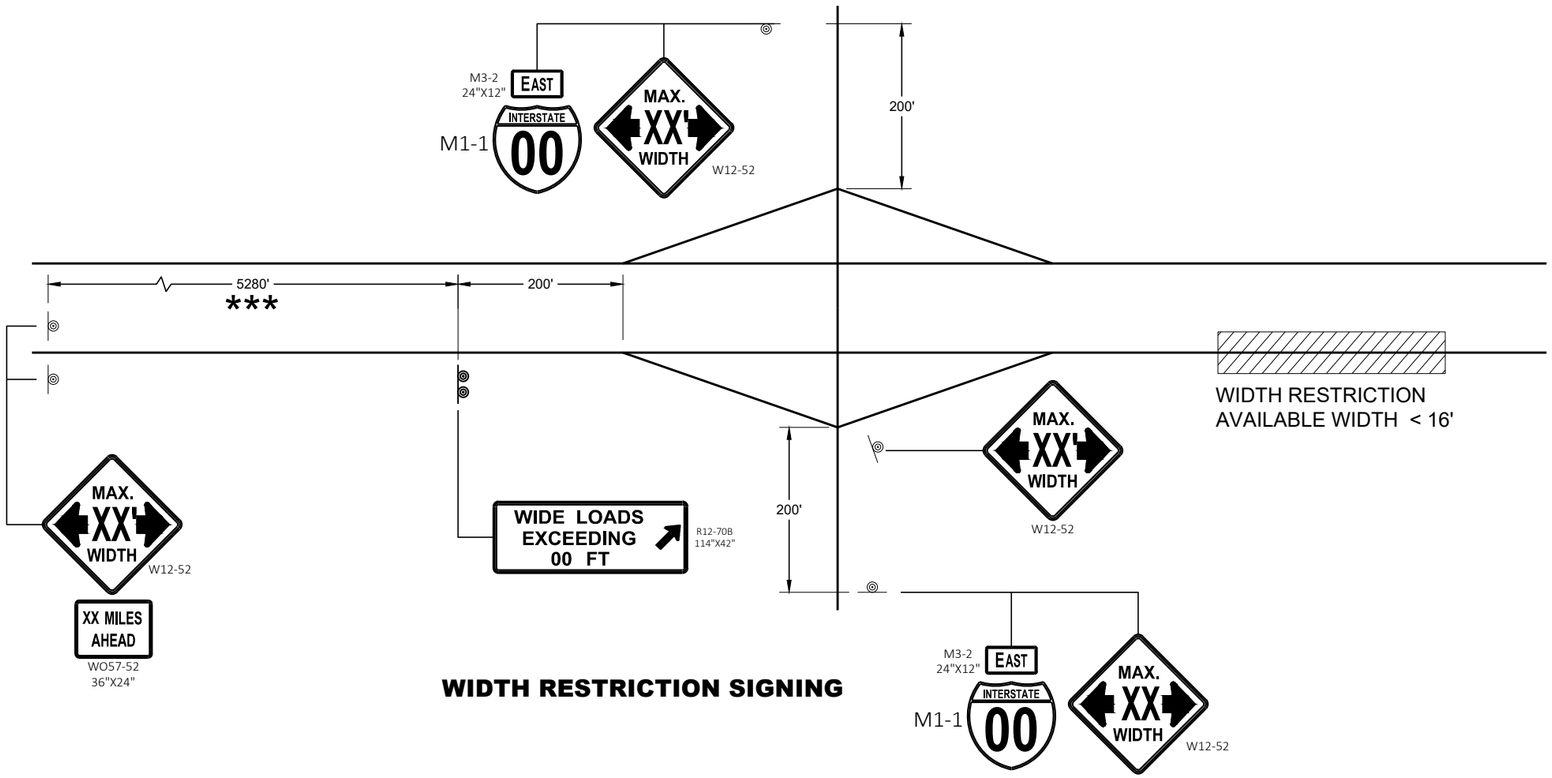
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

6

SDD 15C02 - 08b



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

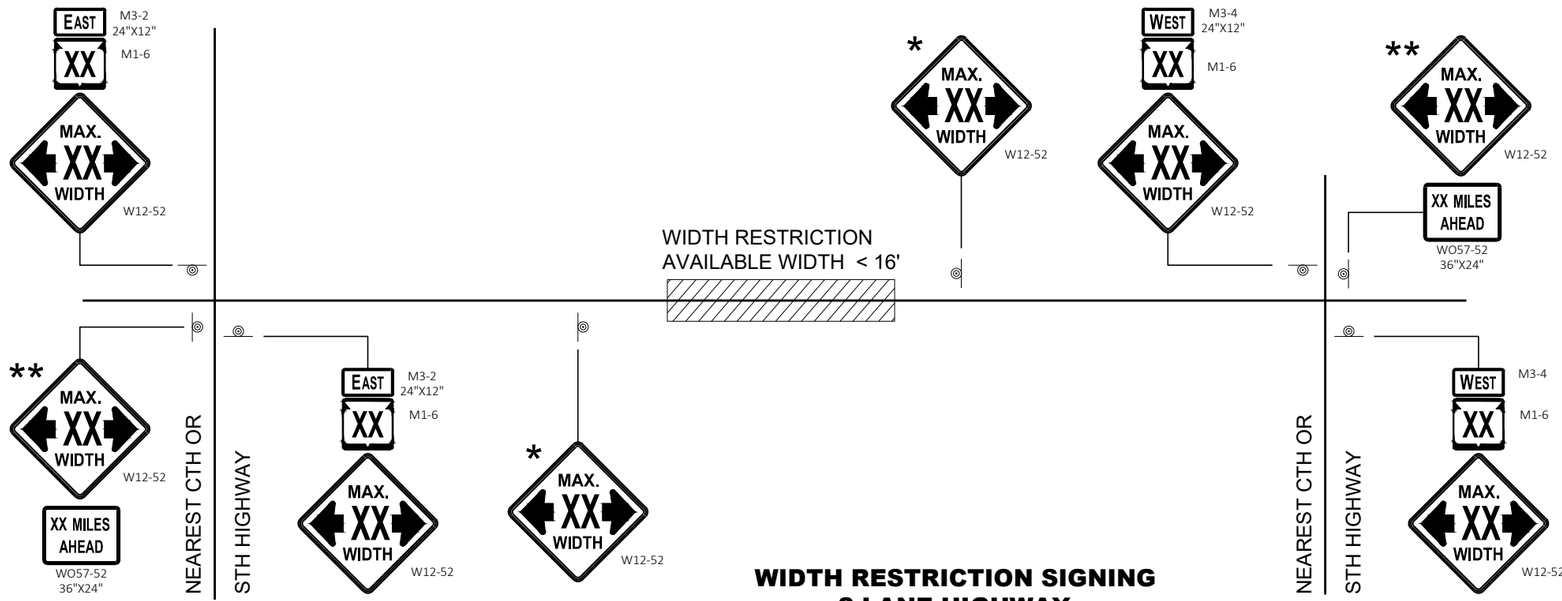
* PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

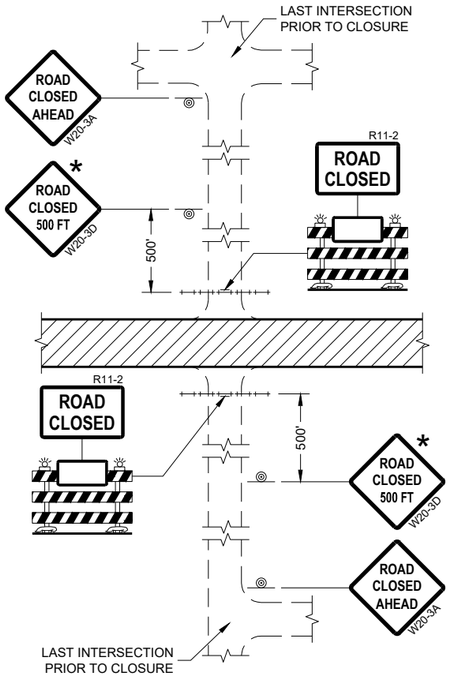
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

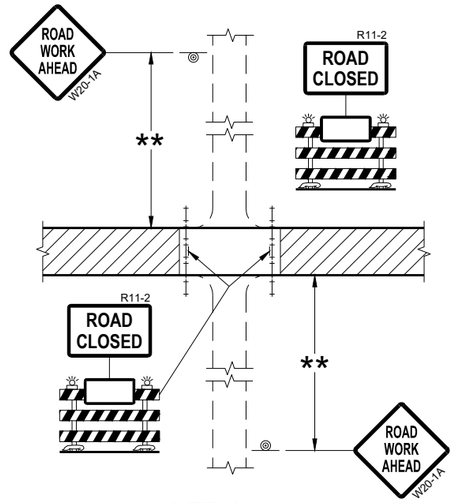
FHWA

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SDD 15C02 - 08f



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

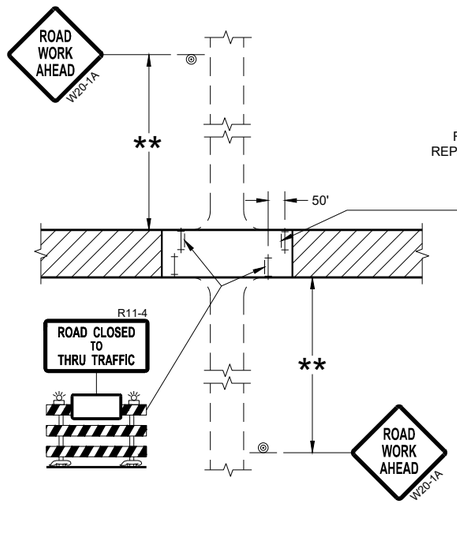
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

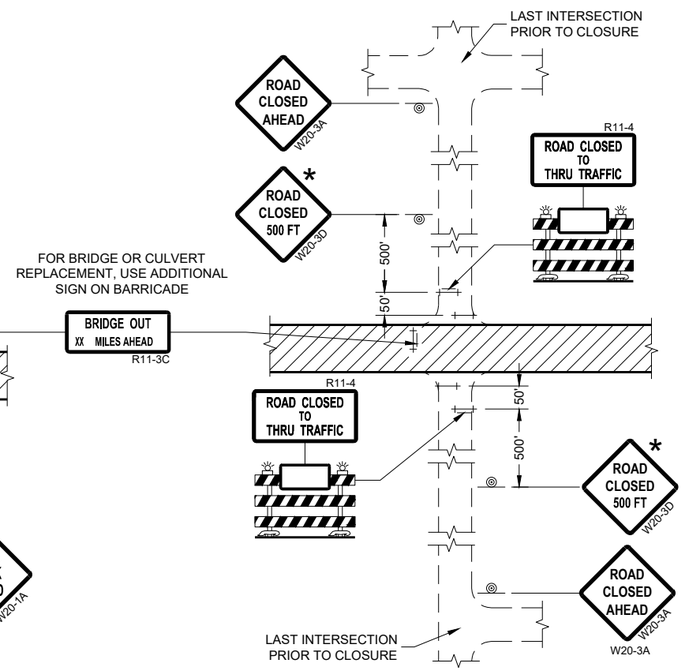
** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

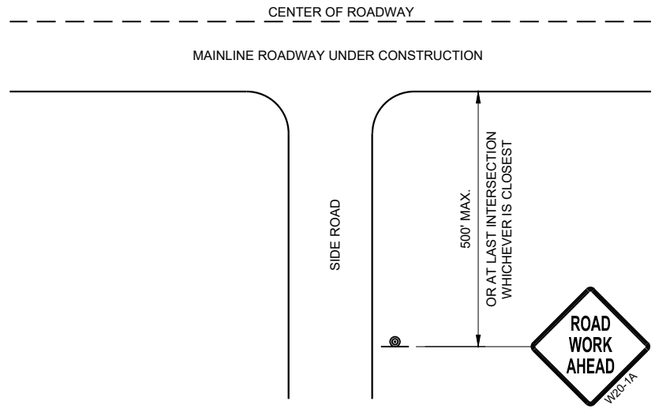
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



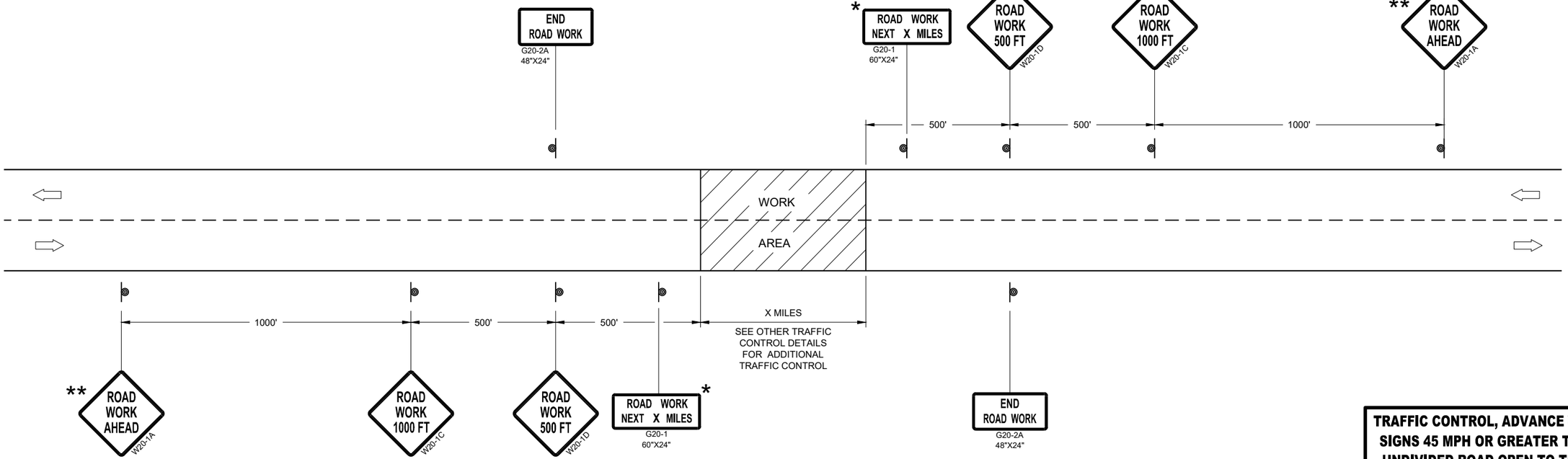
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

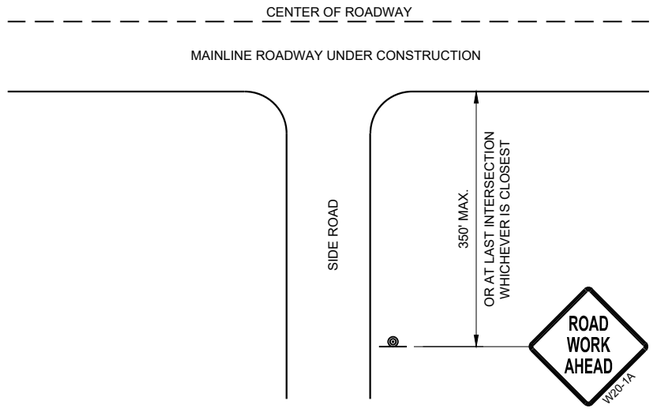
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

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

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



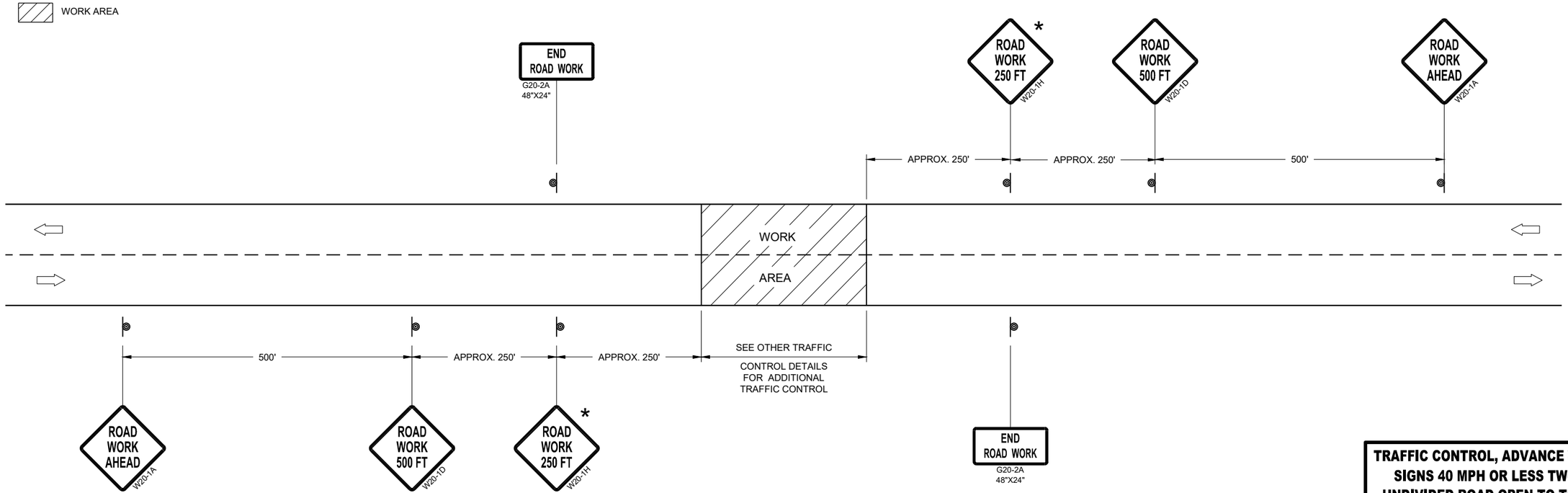
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

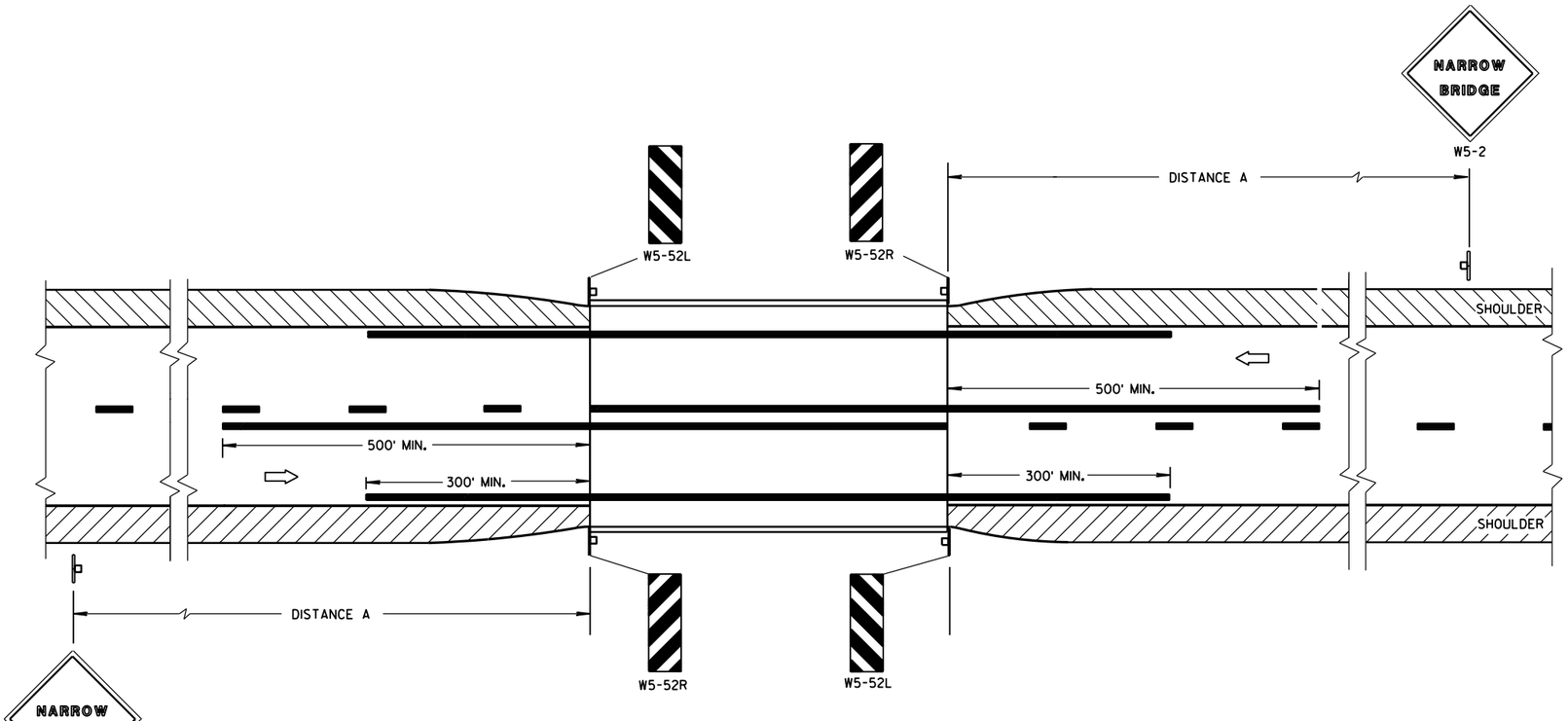
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C05 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

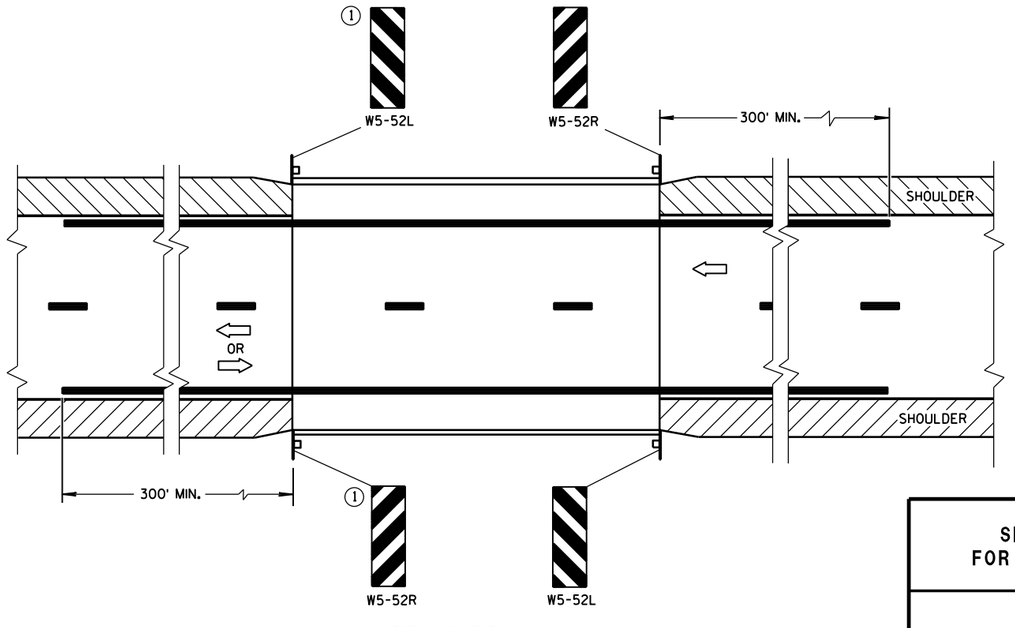
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

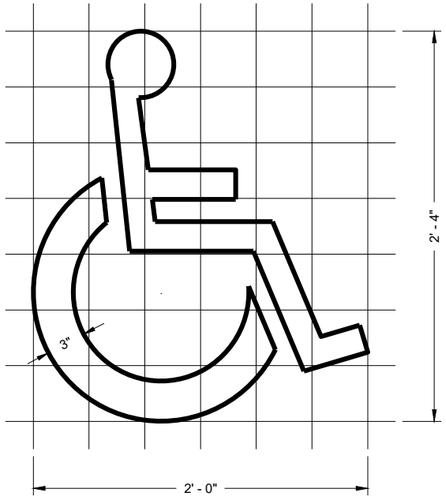
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

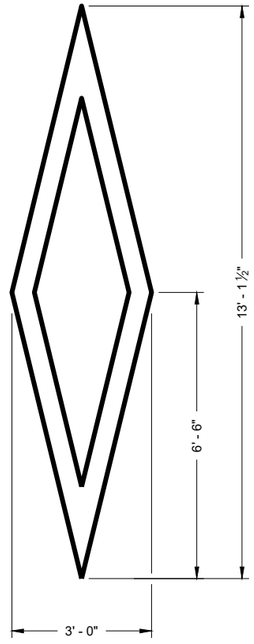
6
S.D.D. 15 C 6-9

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

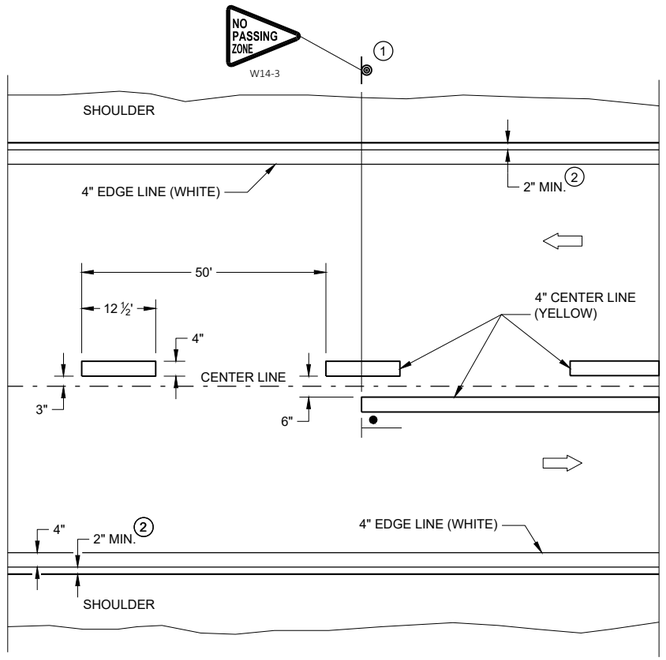
PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

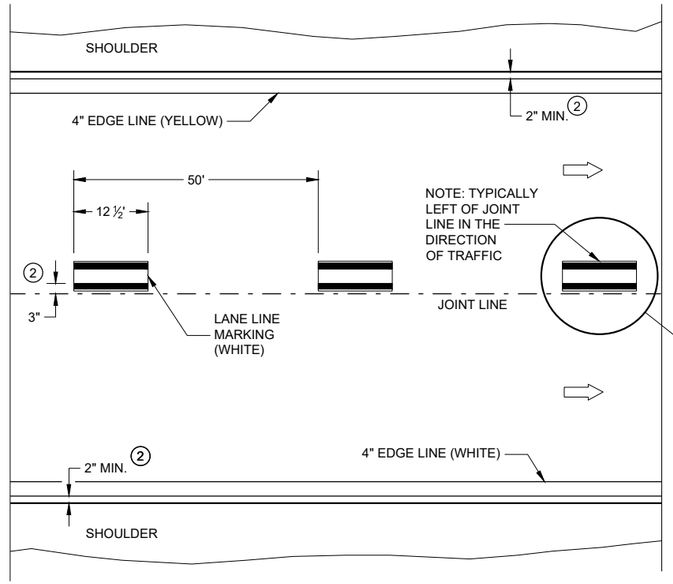
APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

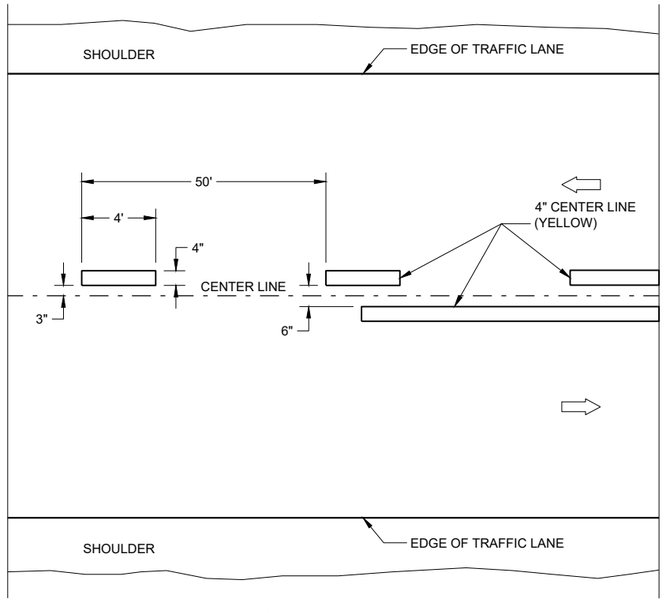


TWO WAY TRAFFIC

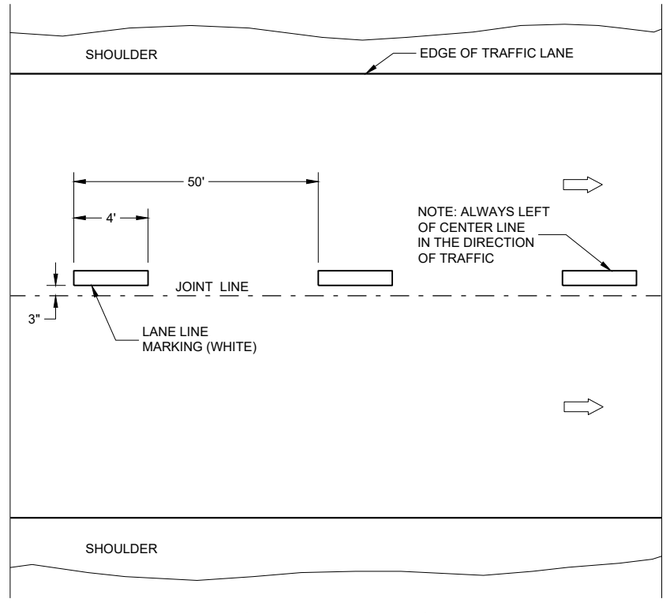


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

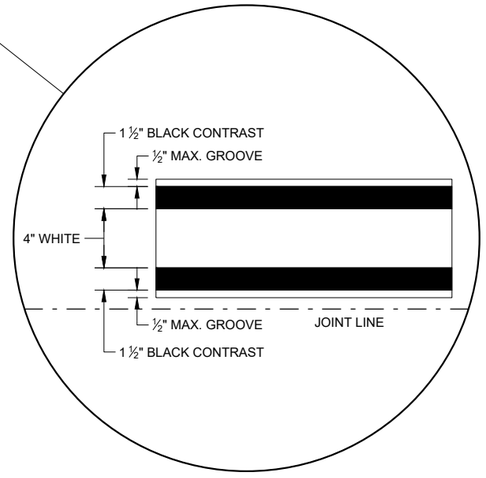
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

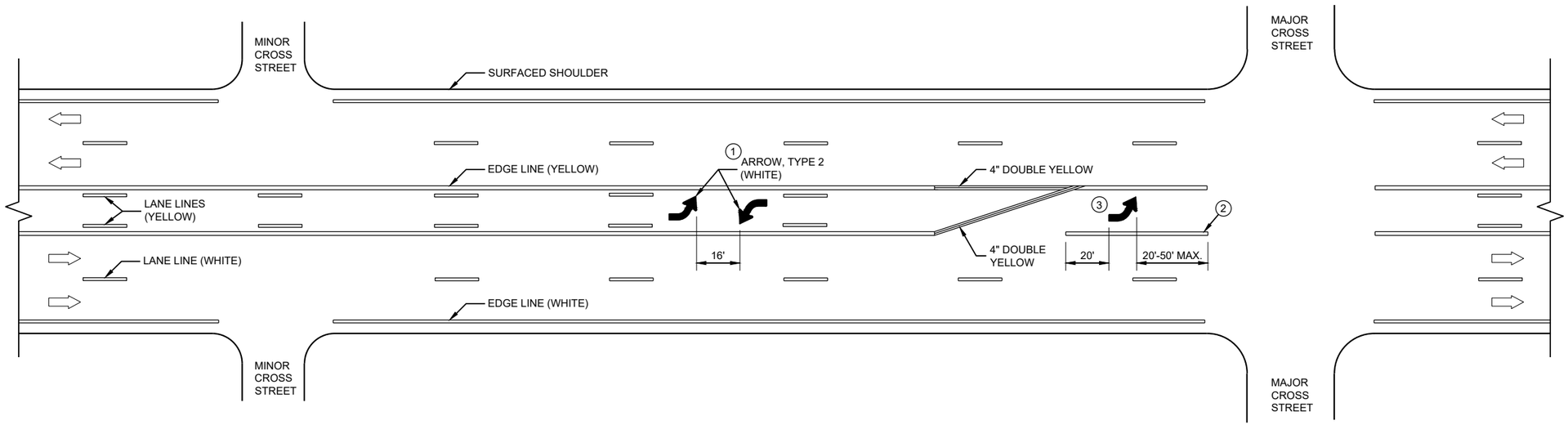
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

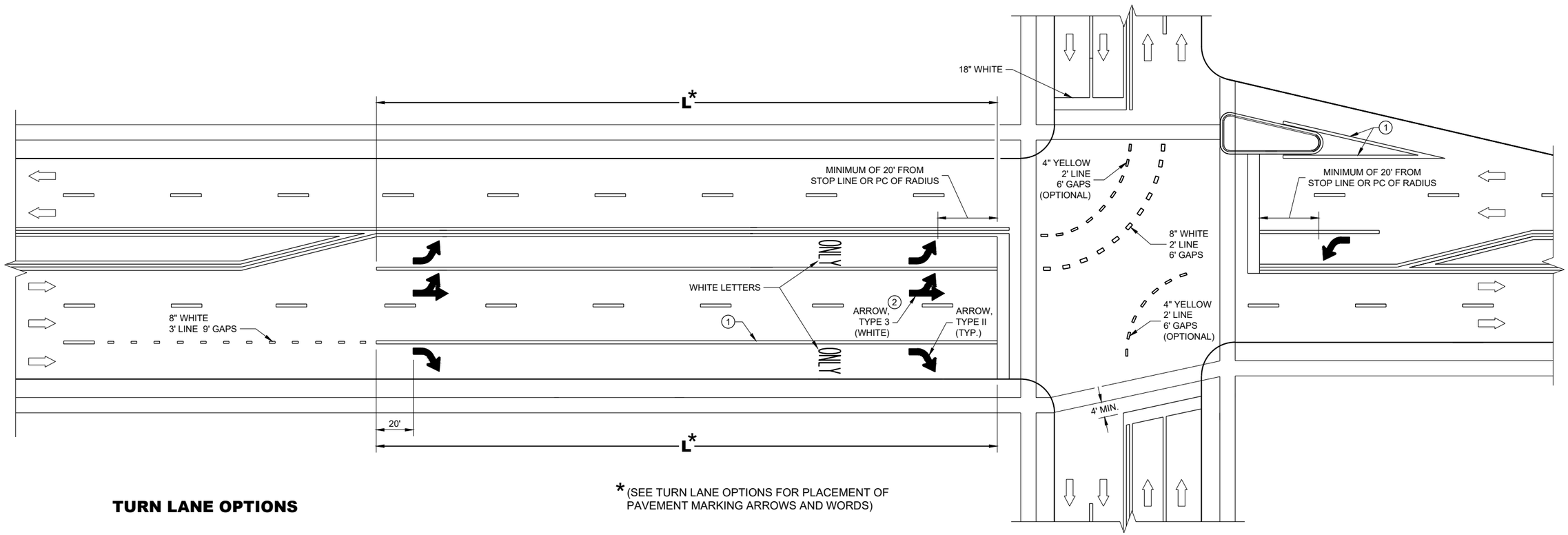
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

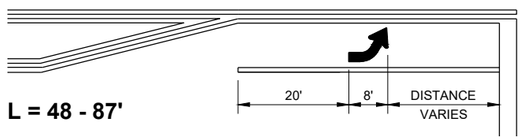
SDD 15C08 - 20b



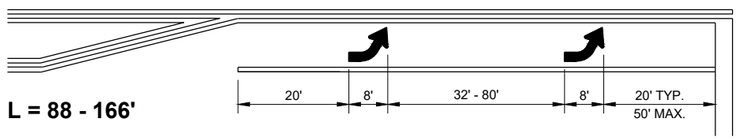
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

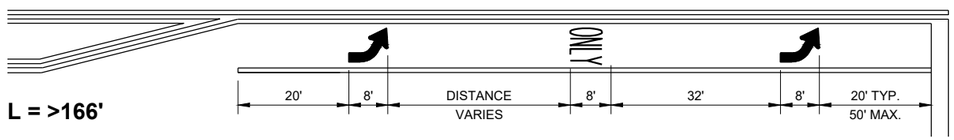
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

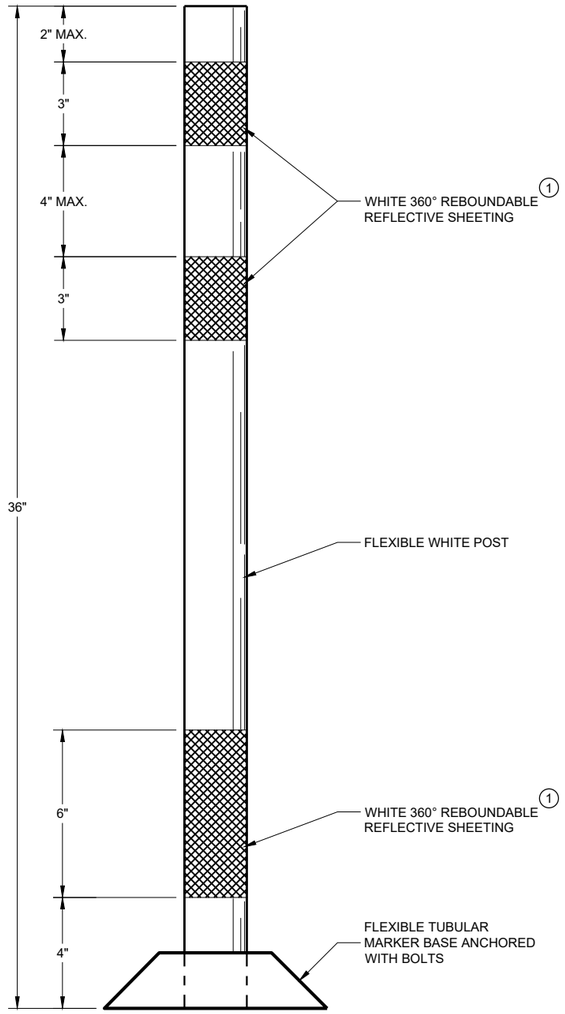
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

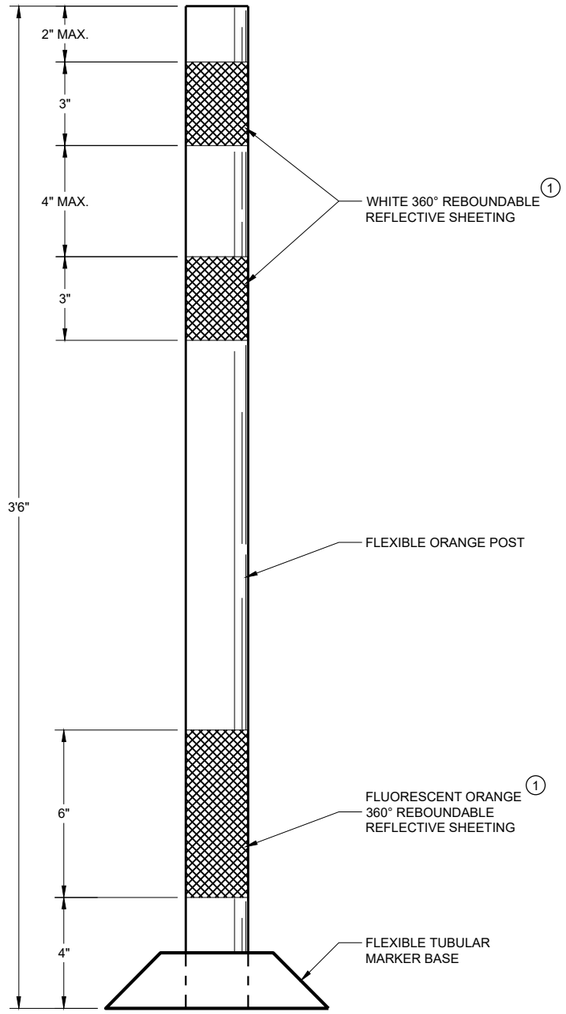
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 20c



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

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

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

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

6

SDD 15C11 - 08a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

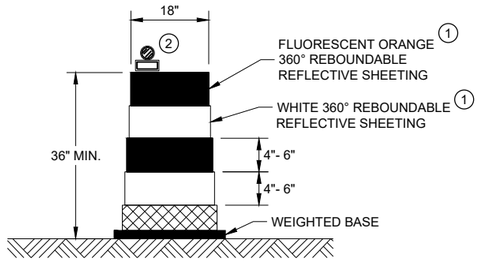
FHWA

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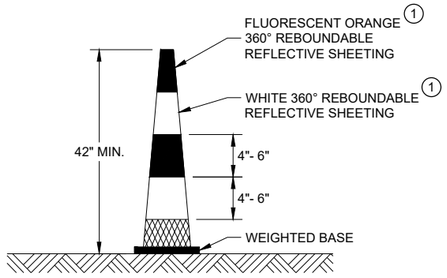
SDD 15C11 - 08a

GENERAL NOTES

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

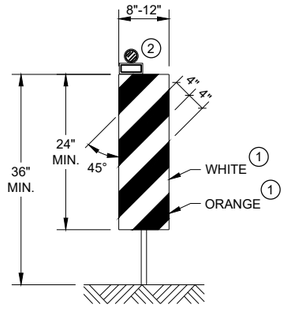


DRUM



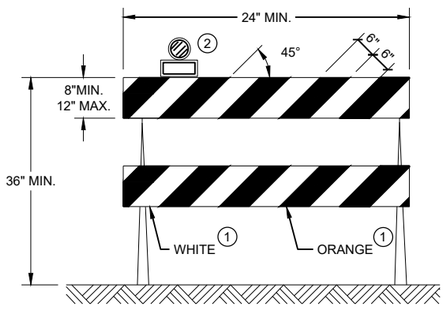
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



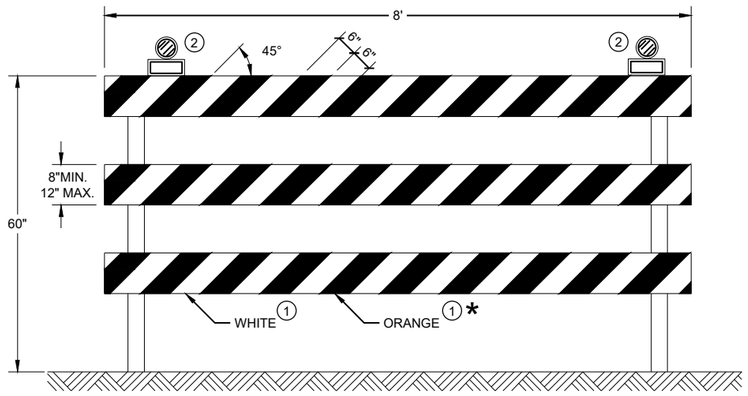
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 08b
SDD 15C11 - 08b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

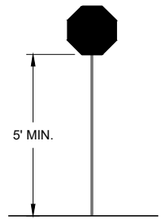
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

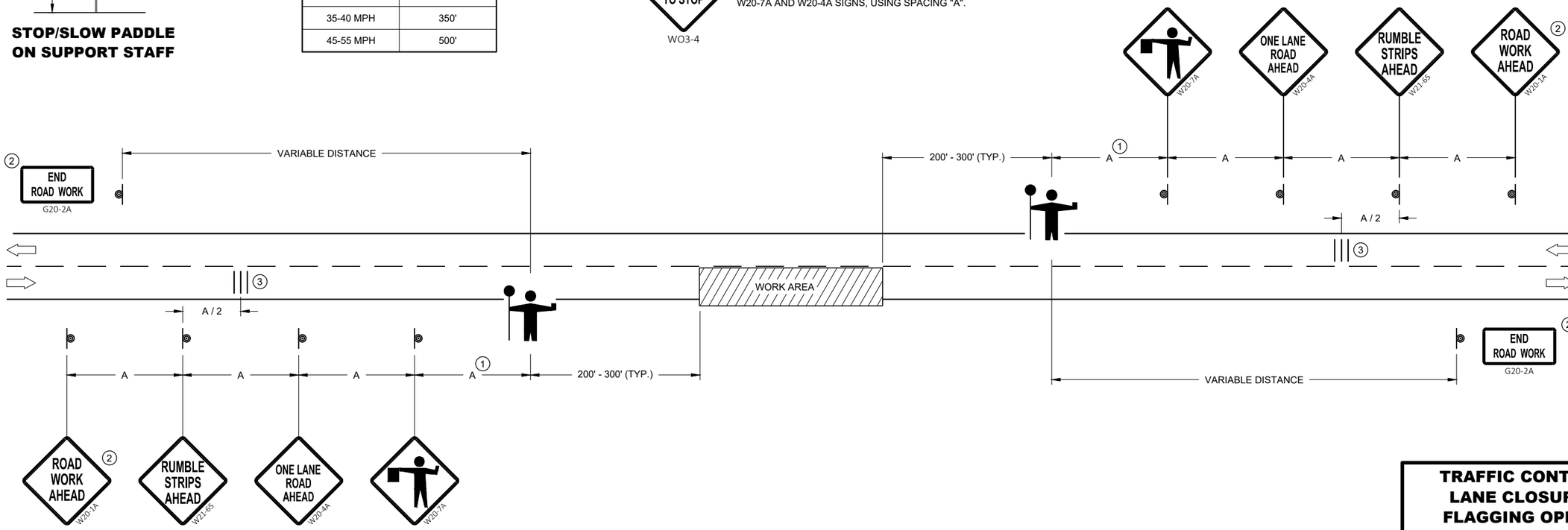
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

177

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SDD 15C12 - 07

6

SDD 15C12 - 07

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

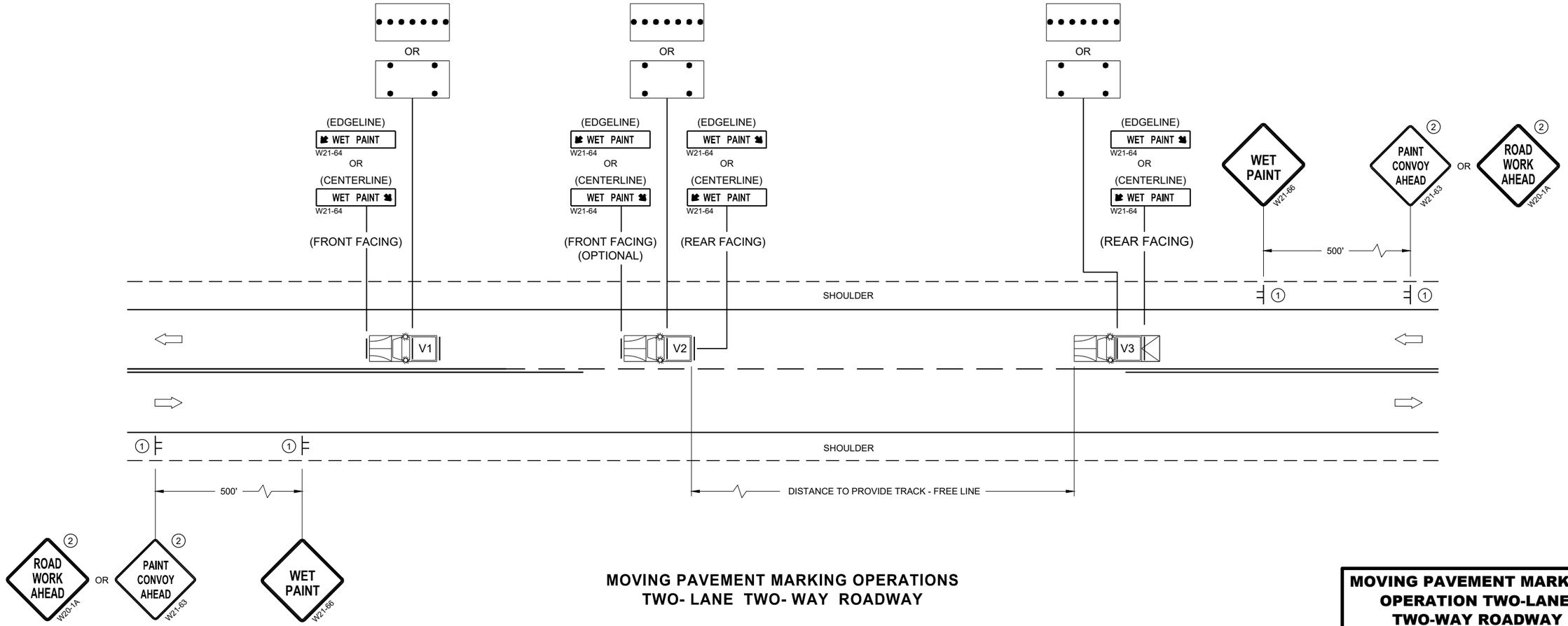
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

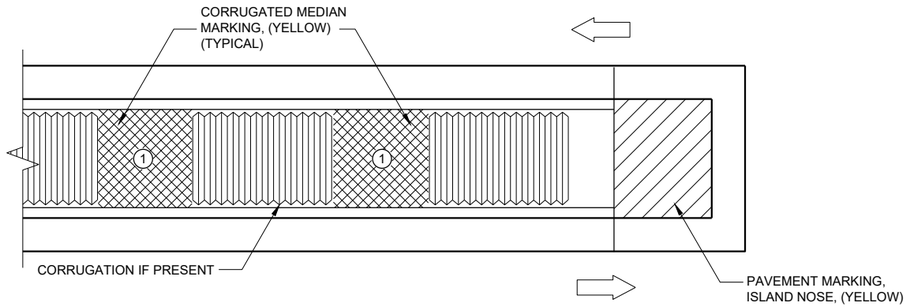
FHWA

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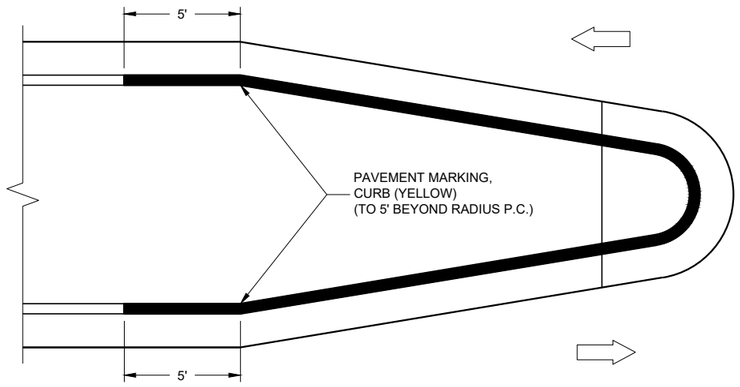
SDD 15C19 - 06a

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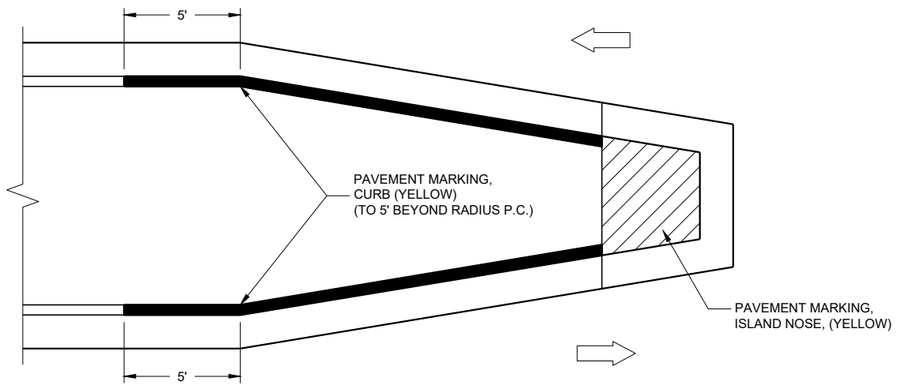
SDD 15C19 - 06a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

**TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS**

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS
(ISLANDS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

FHWA

6

6

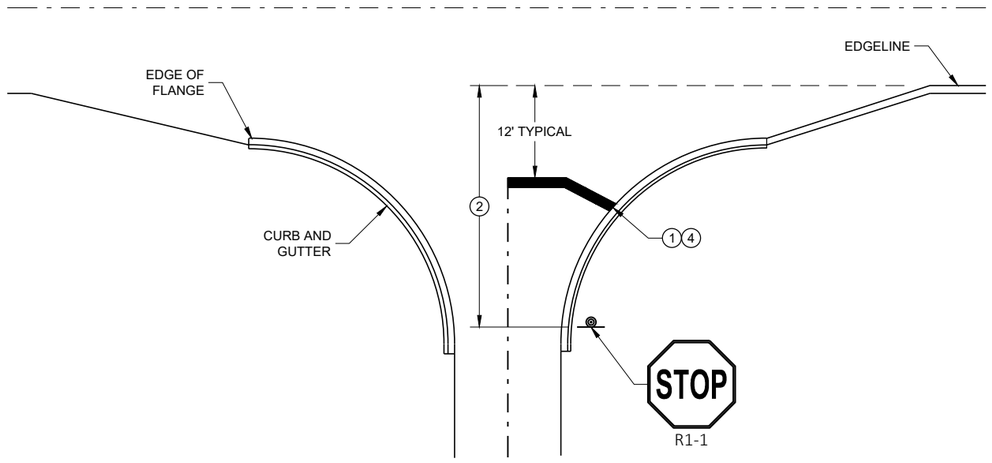
SDD 15C27 - 03b

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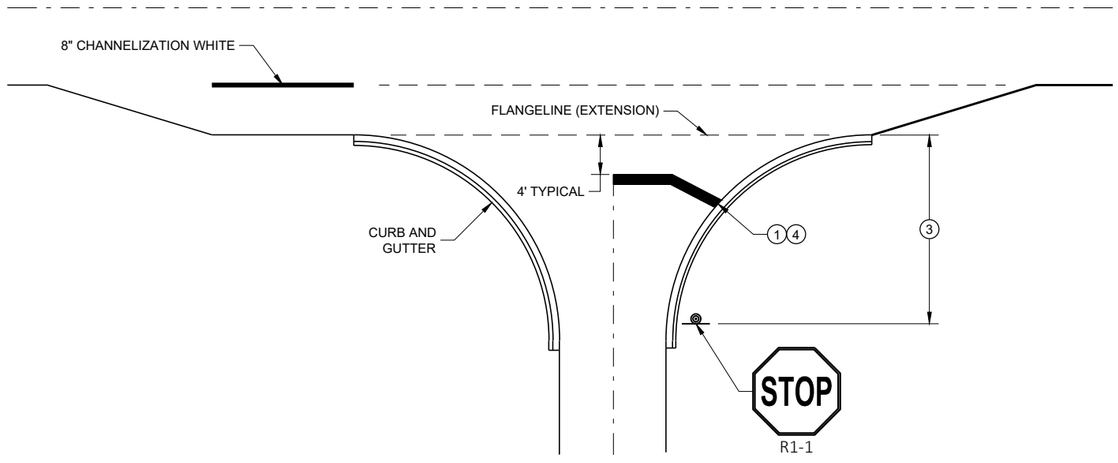
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

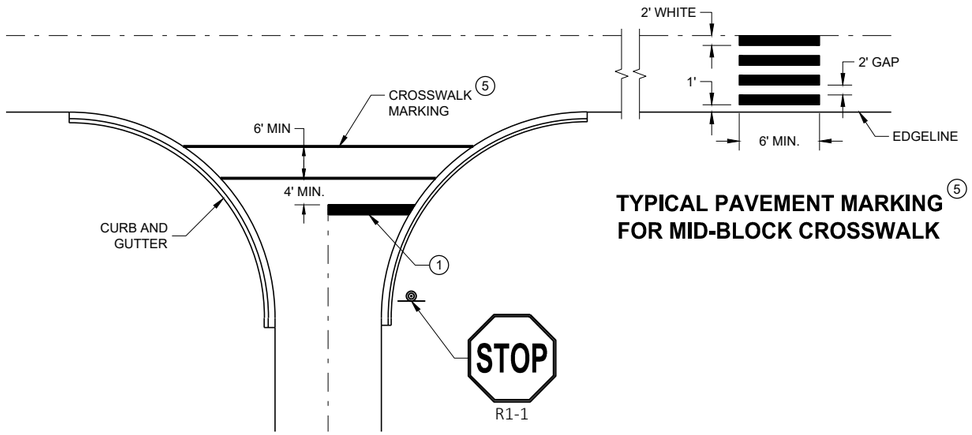
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

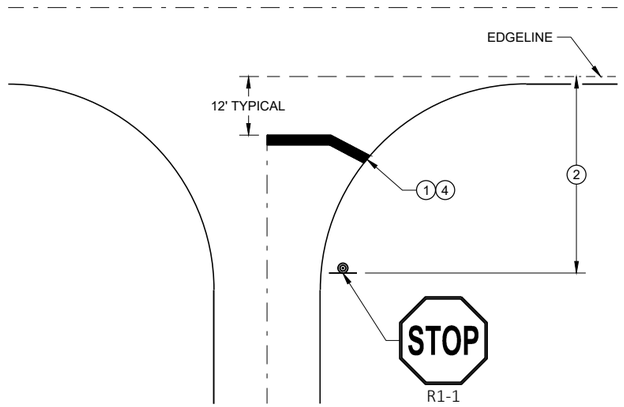


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

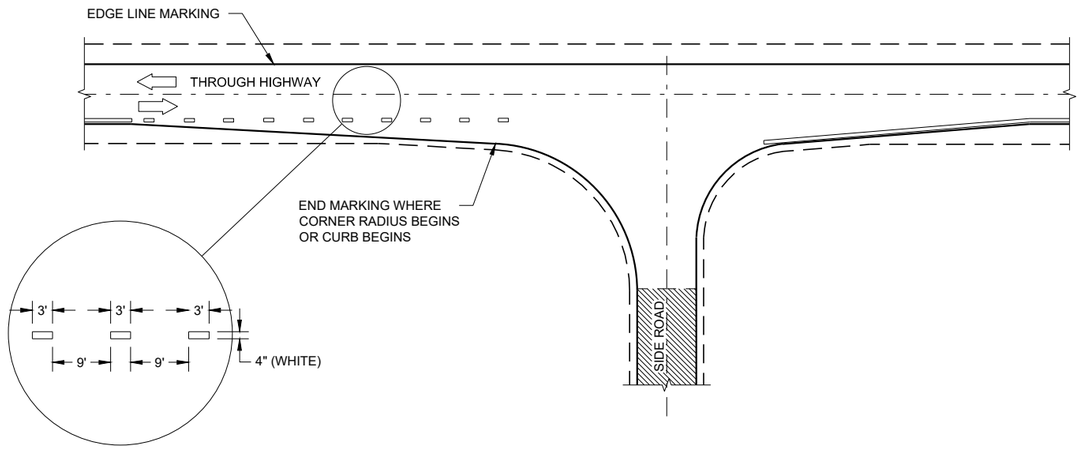
APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

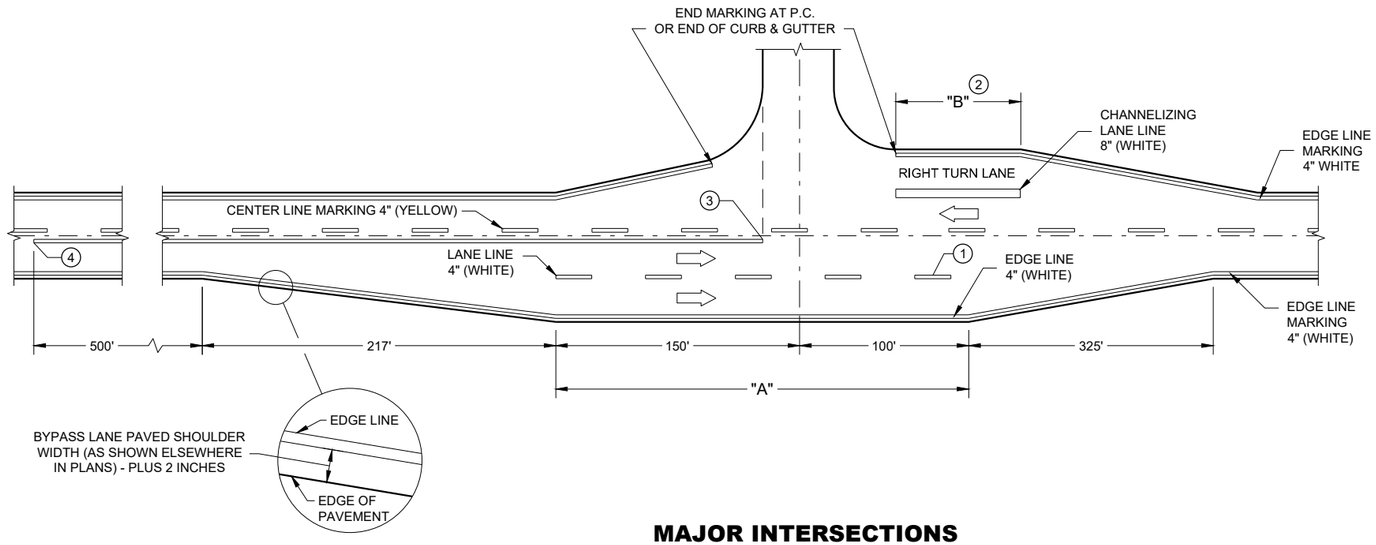
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SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

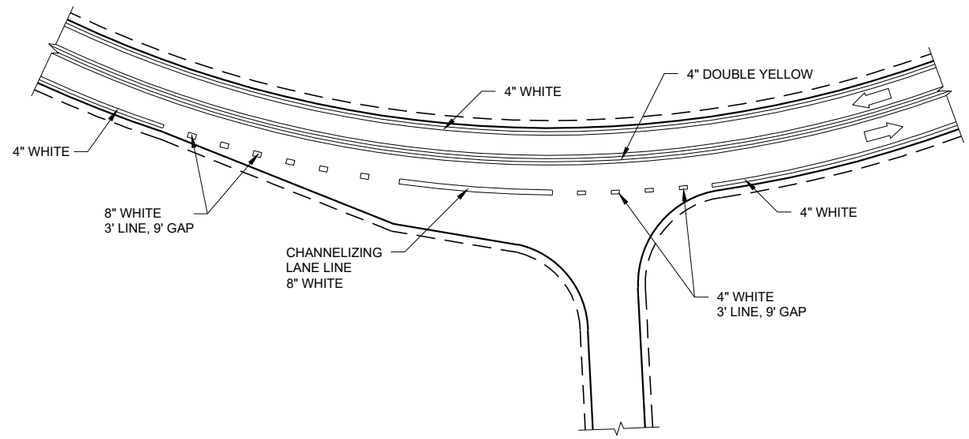
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

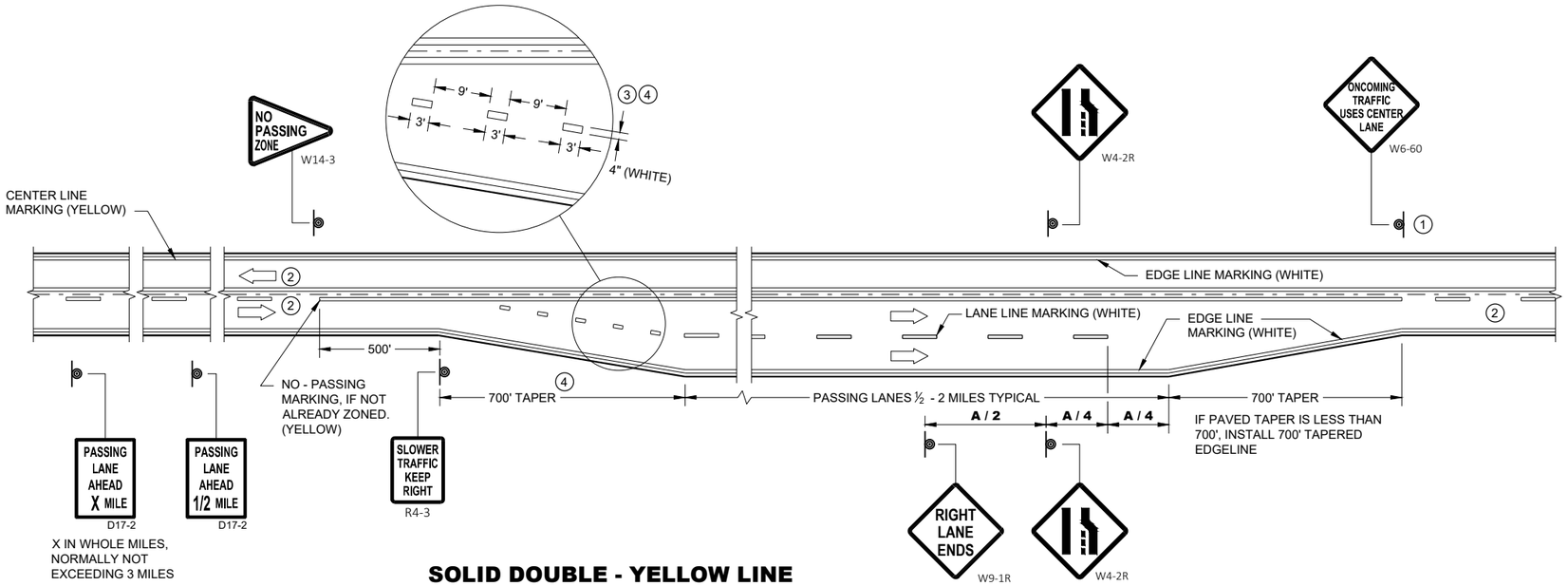
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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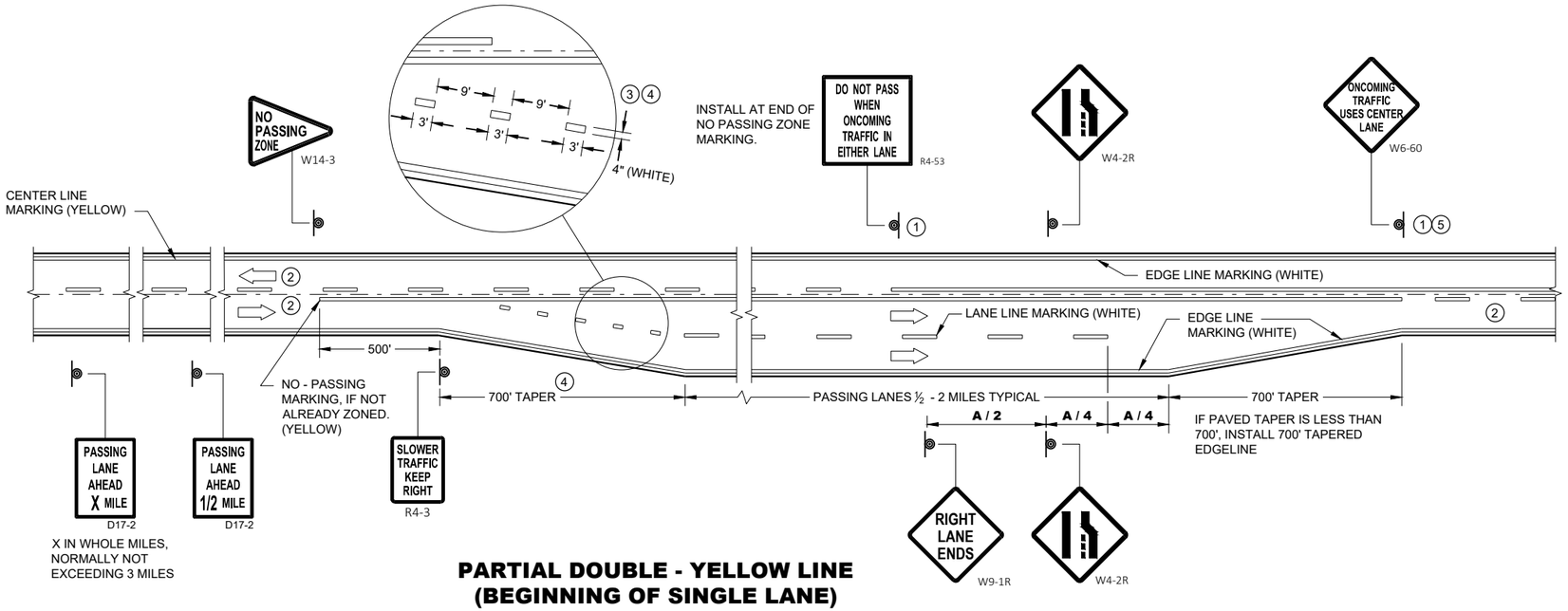
SDD 15C35 - 04a

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SDD 15C35 - 04a



SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)



PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

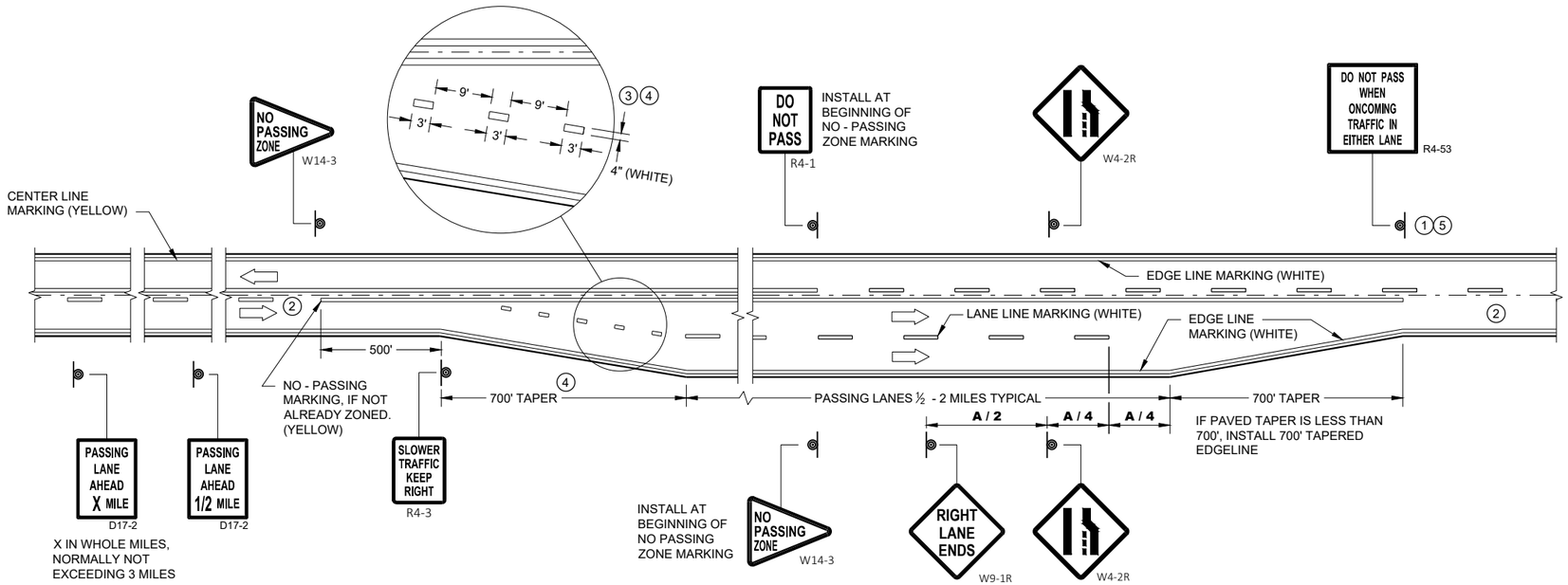
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

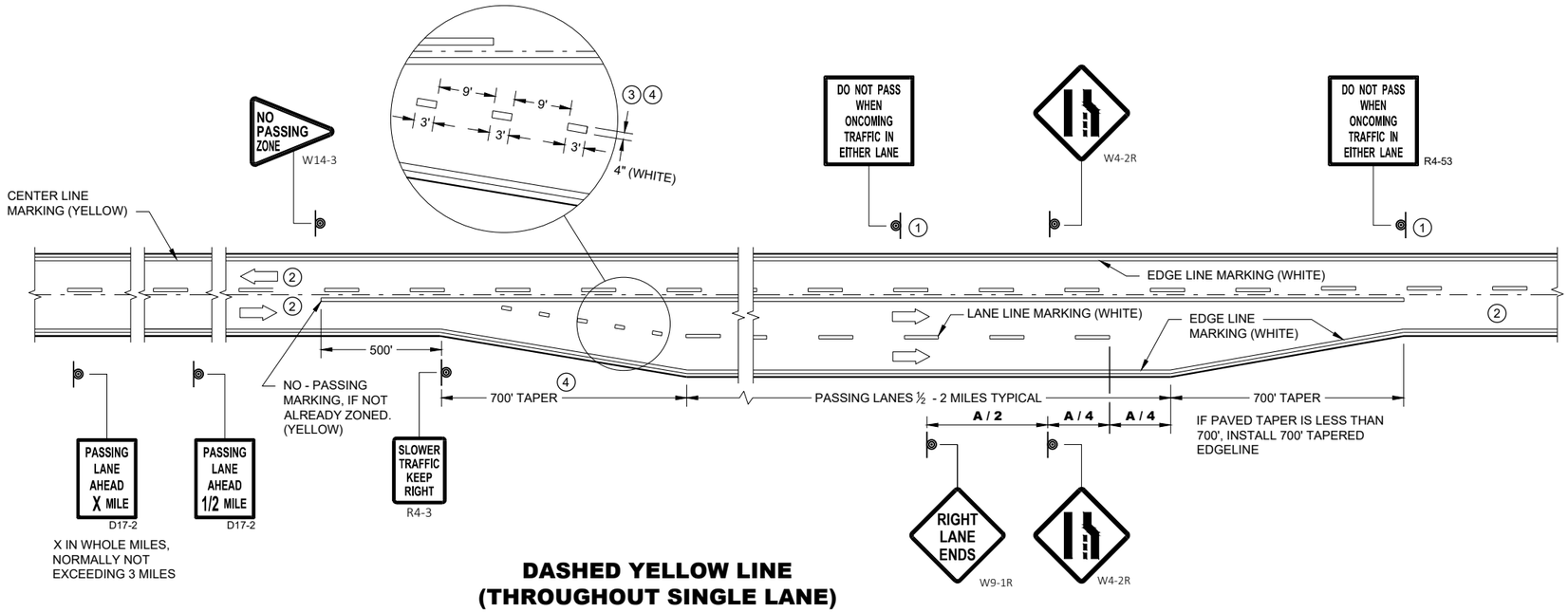
SDD 15C35 - 04b

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SDD 15C35 - 04b



SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

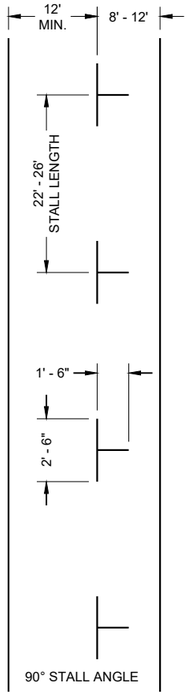
PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

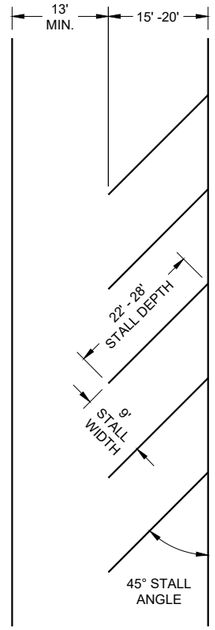
APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

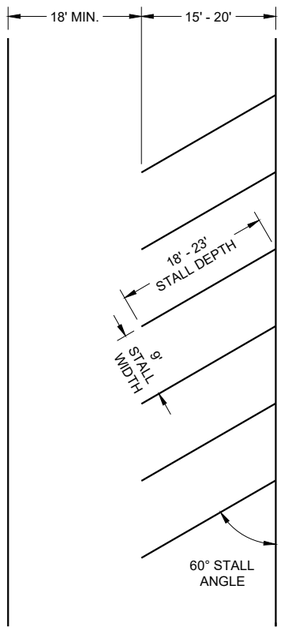
SDD 15C35 - 04c

SDD 15C35 - 04c



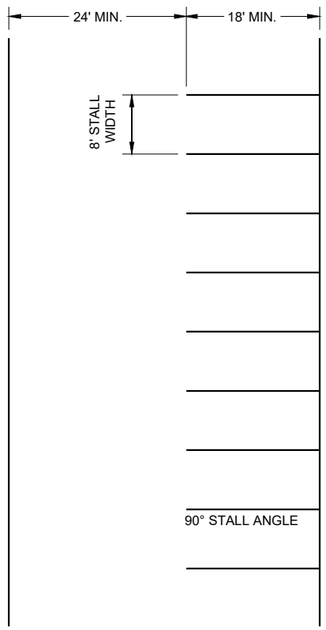
PARALLEL PARKING





ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

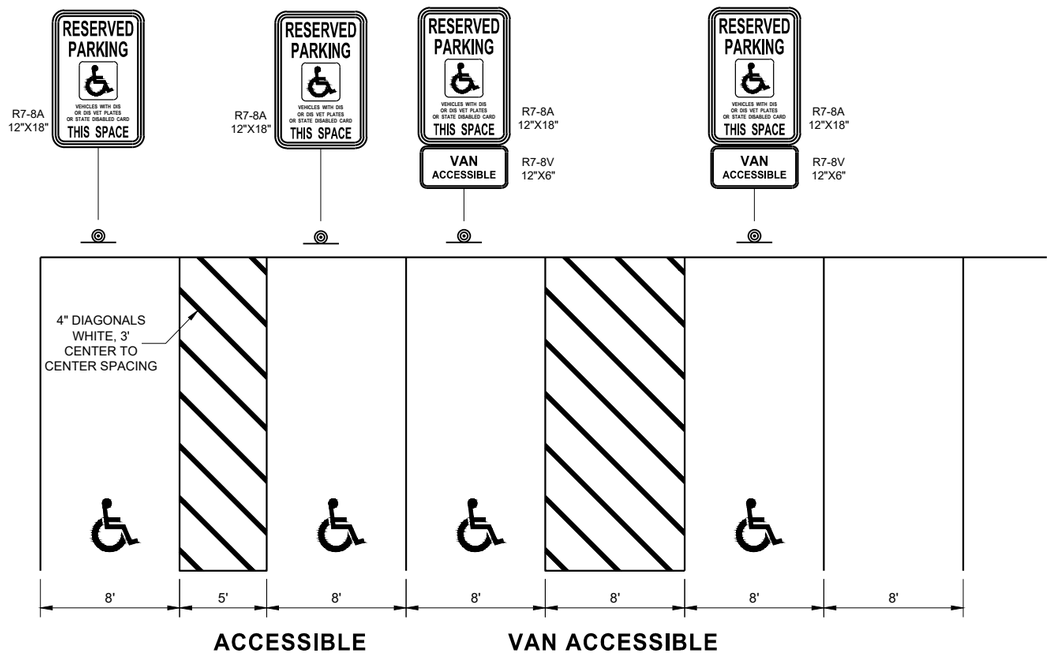
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.

LEGEND

SIGN ON PERMANENT SUPPORT



ACCESSIBLE VAN ACCESSIBLE

PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

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SDD 15C36 - 01
SDD 15C36 - 01

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

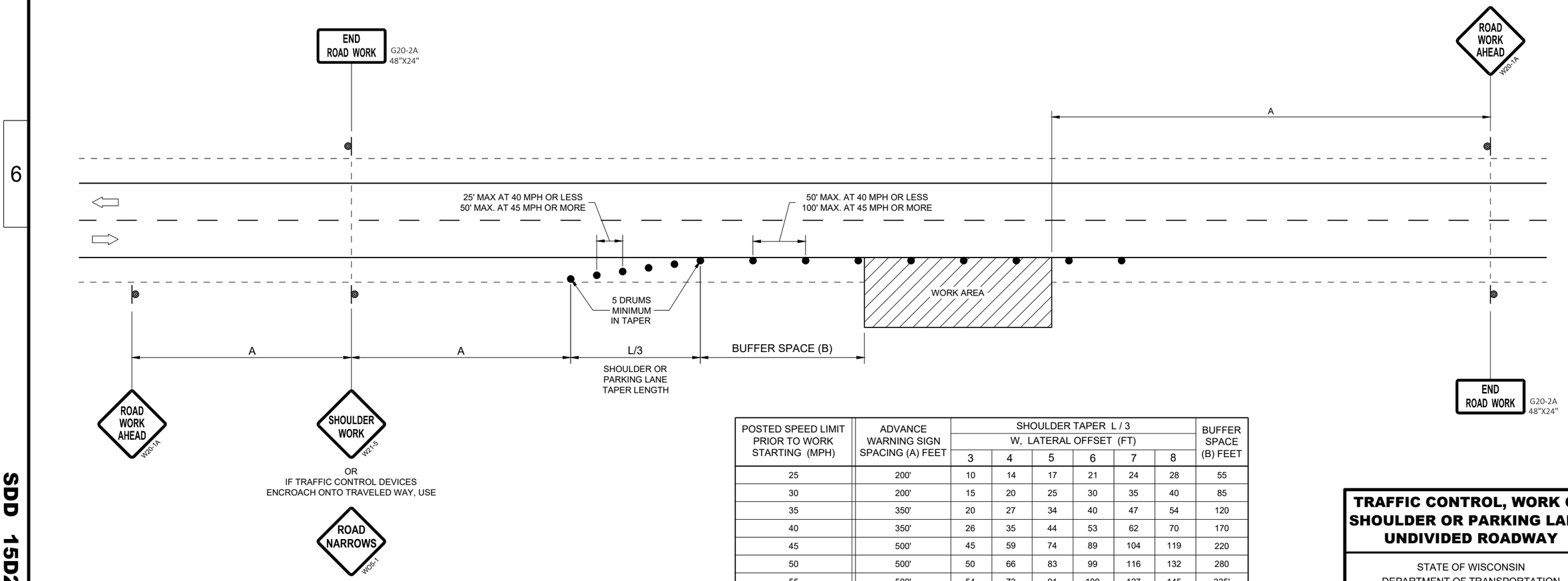
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

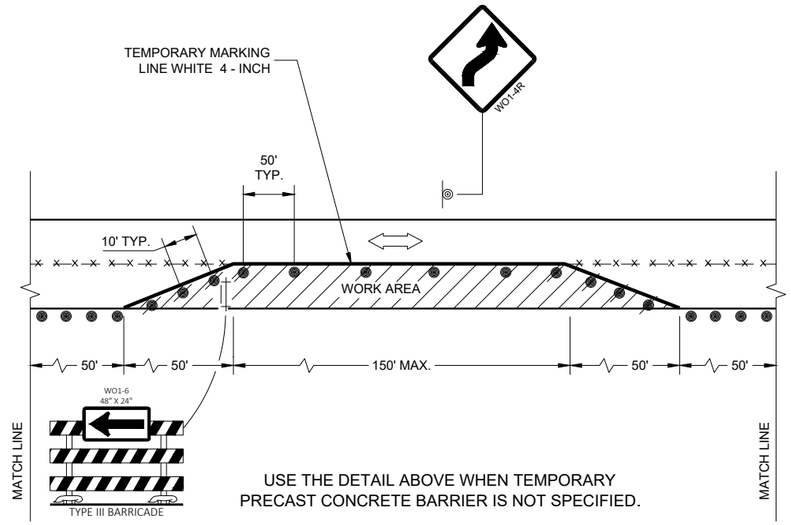
FLAGS, 16" X 16" MIN. (ORANGE)

REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

ASPHALTIC PAVEMENT WIDENING

CONCRETE BARRIER TEMPORARY PRECAST



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

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

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

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

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

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

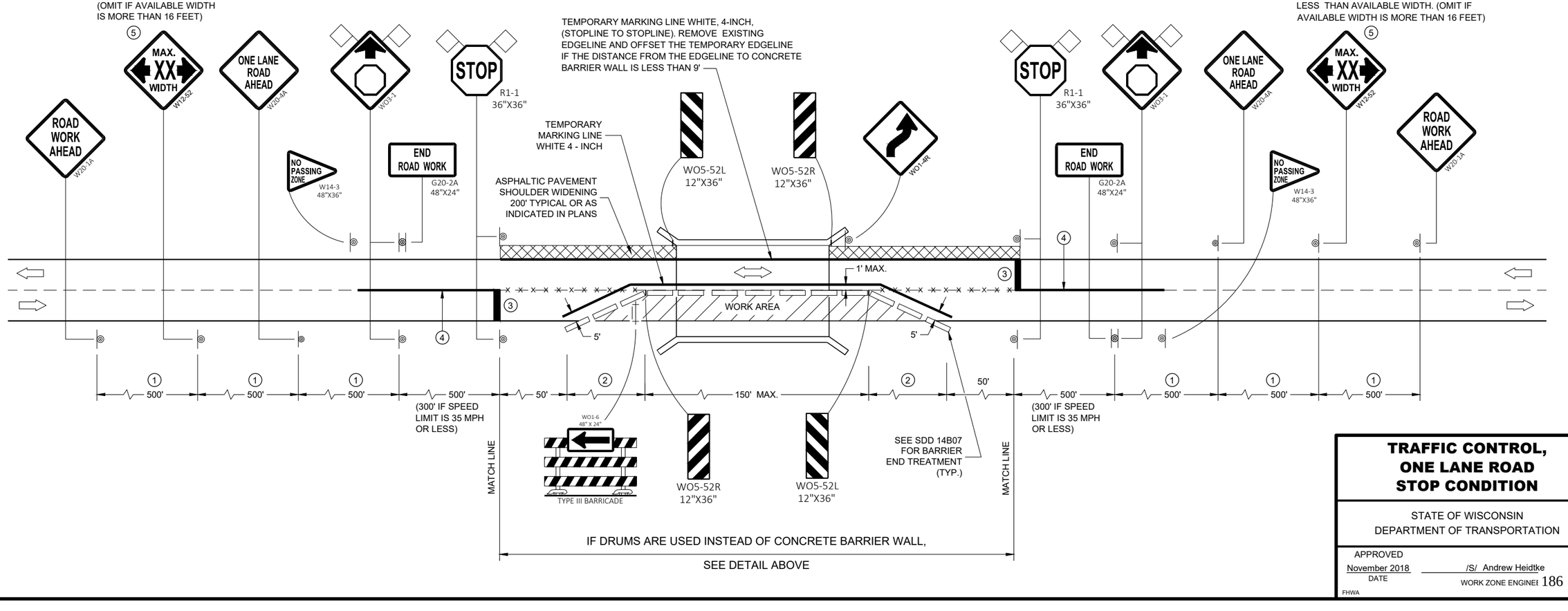
(1) 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.

(2) DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.

(3) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.

(4) 700 FOOT TEMPORARY MARKING LINE, DOUBLE YELLOW 4 - INCH . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(5) SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

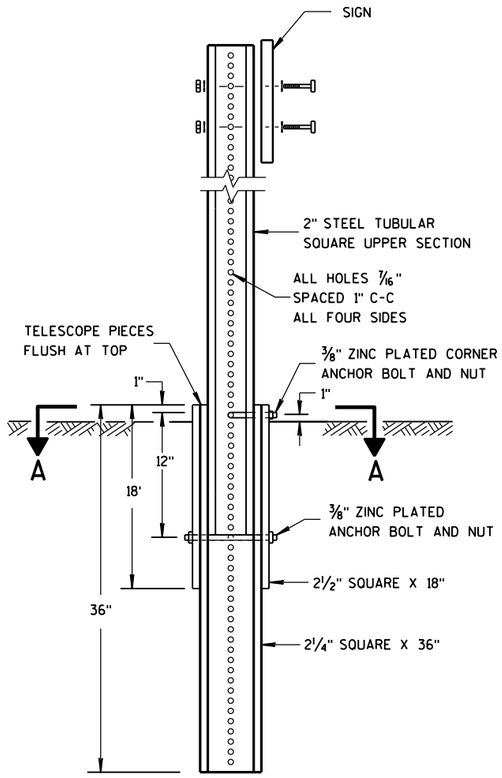
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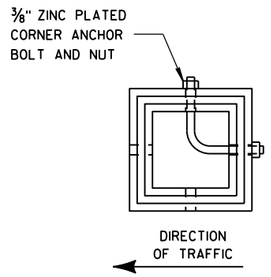
SDD 15D32 - 05

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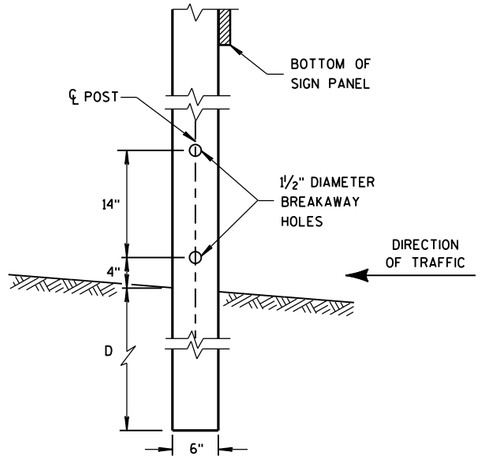
SDD 15D32 - 05



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



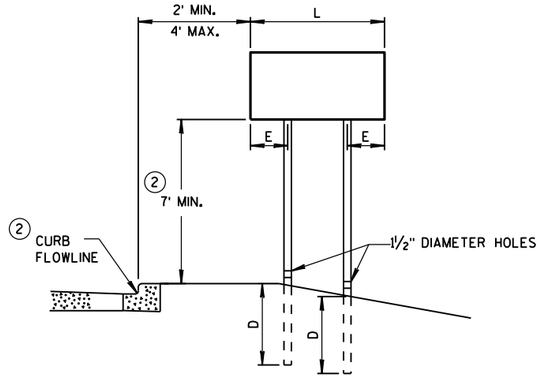
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

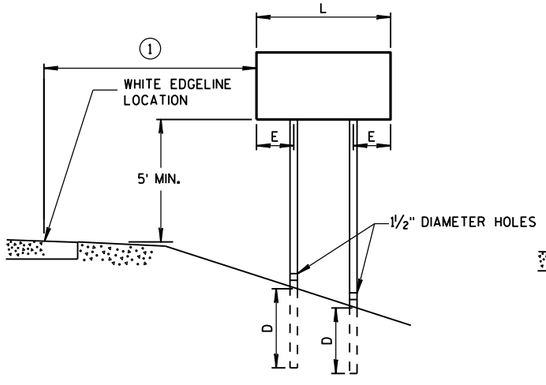
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

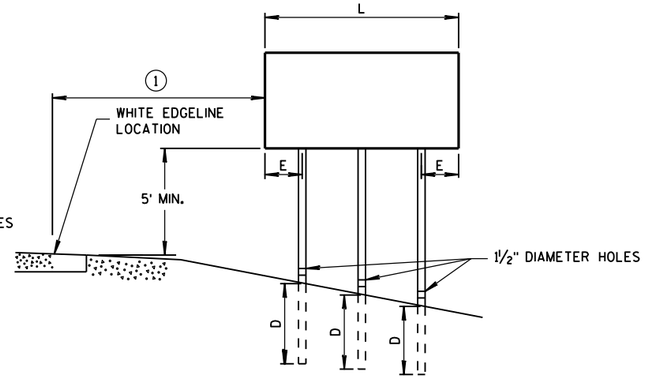
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

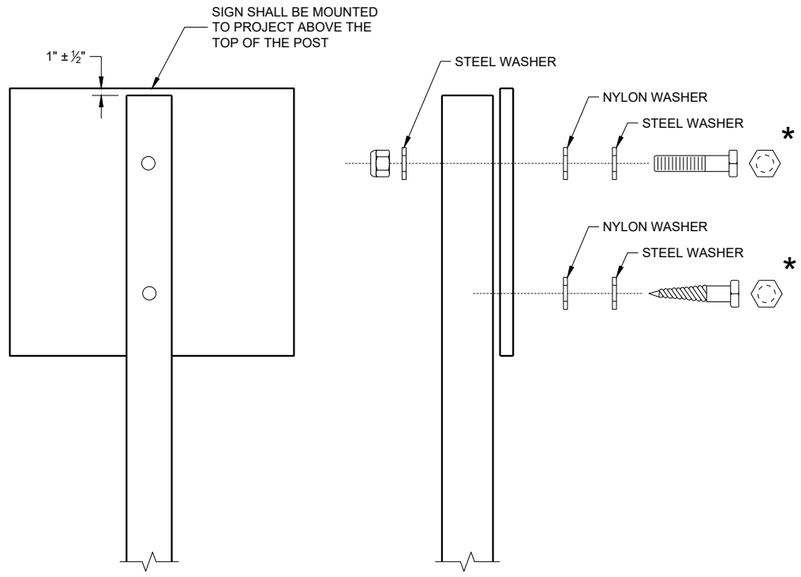
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

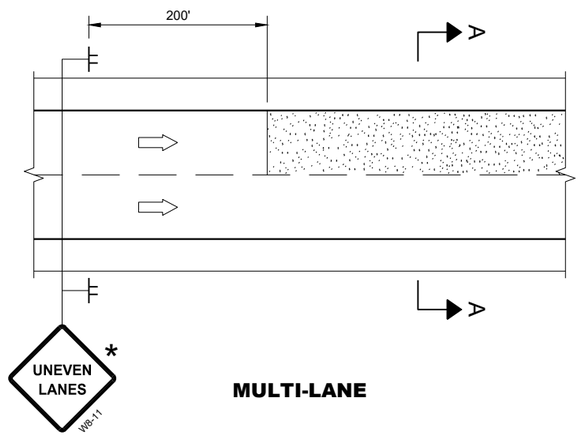
SDD 15D38 - 02b

SDD 15D38 - 02b

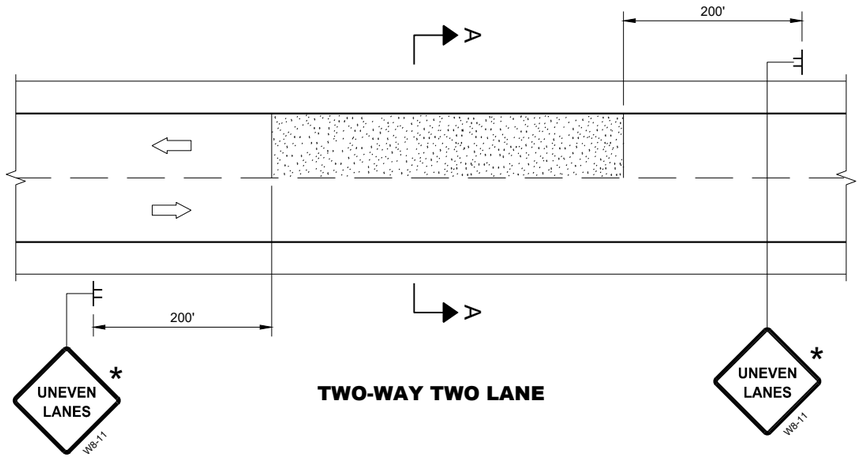
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

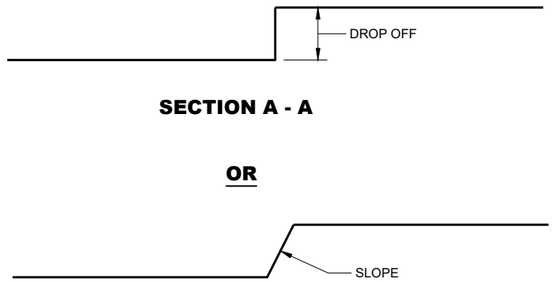
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

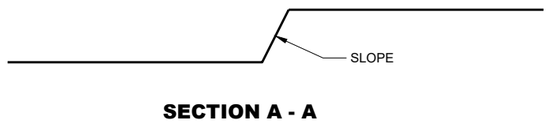
LEGEND

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

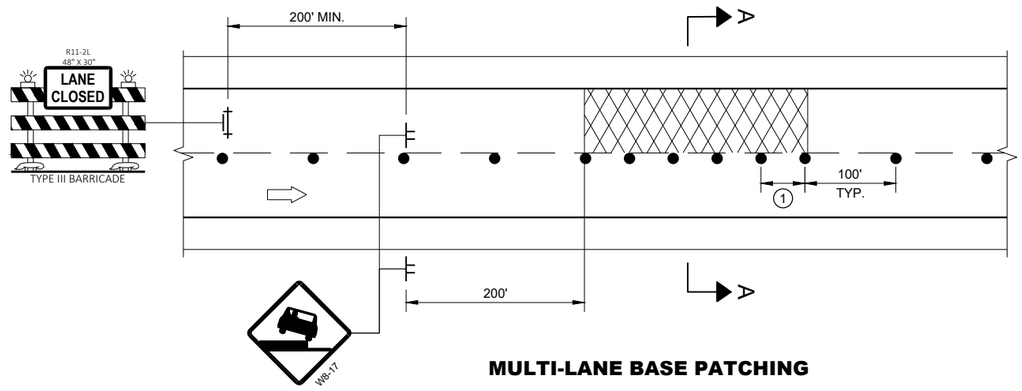


SECTION A - A

OR

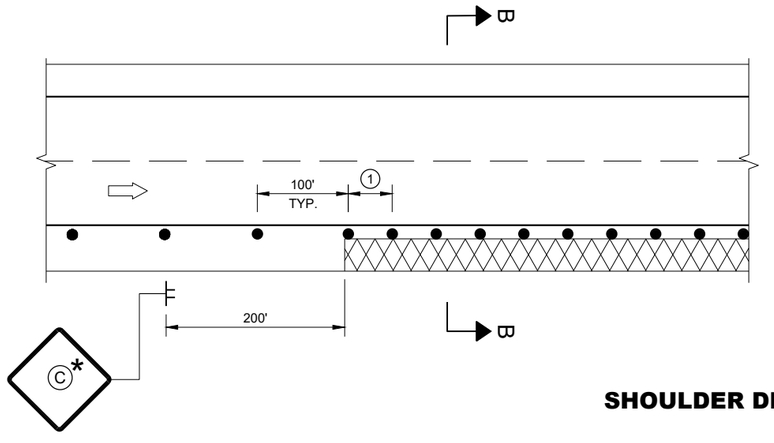


SECTION A - A

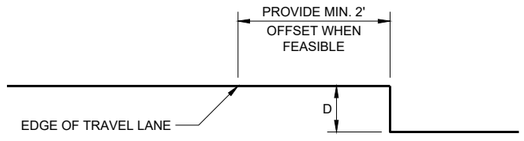


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

6

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND 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 SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

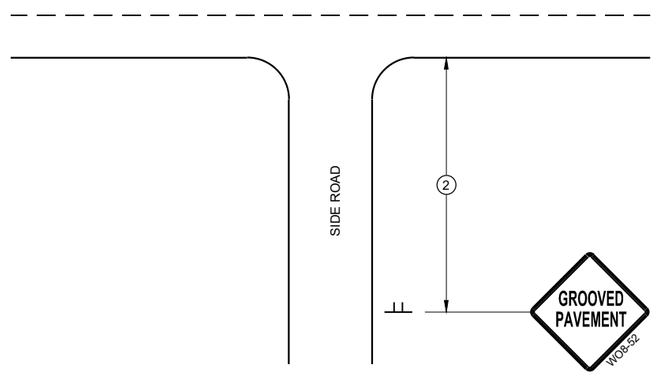
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

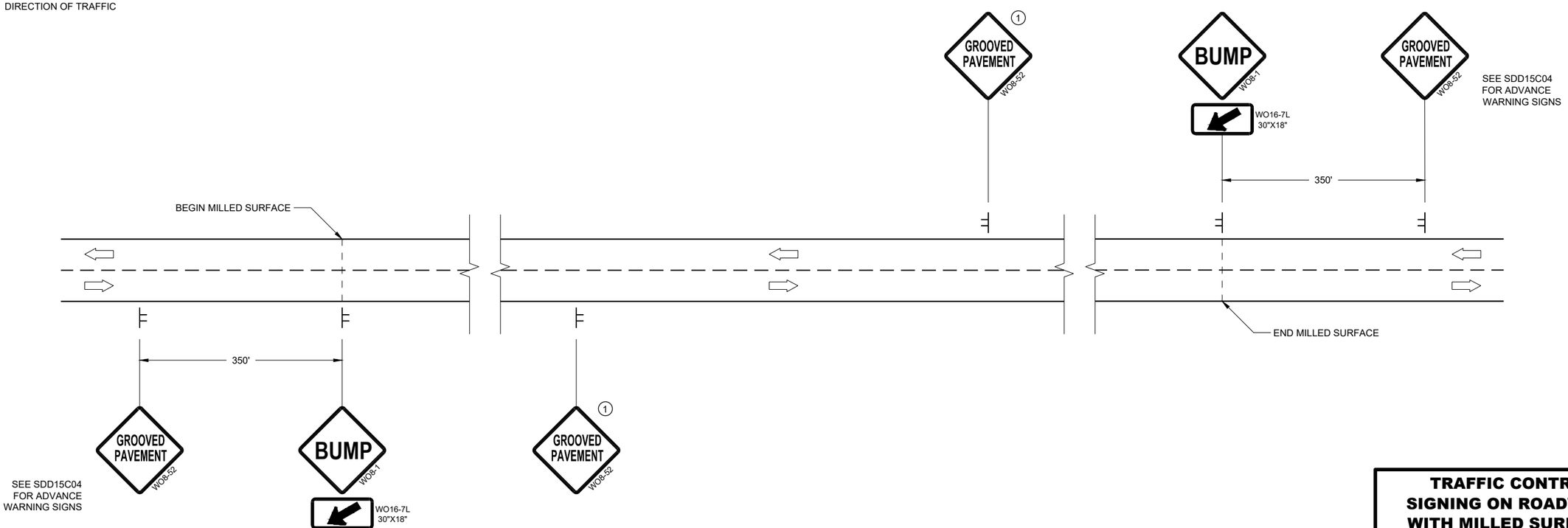
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

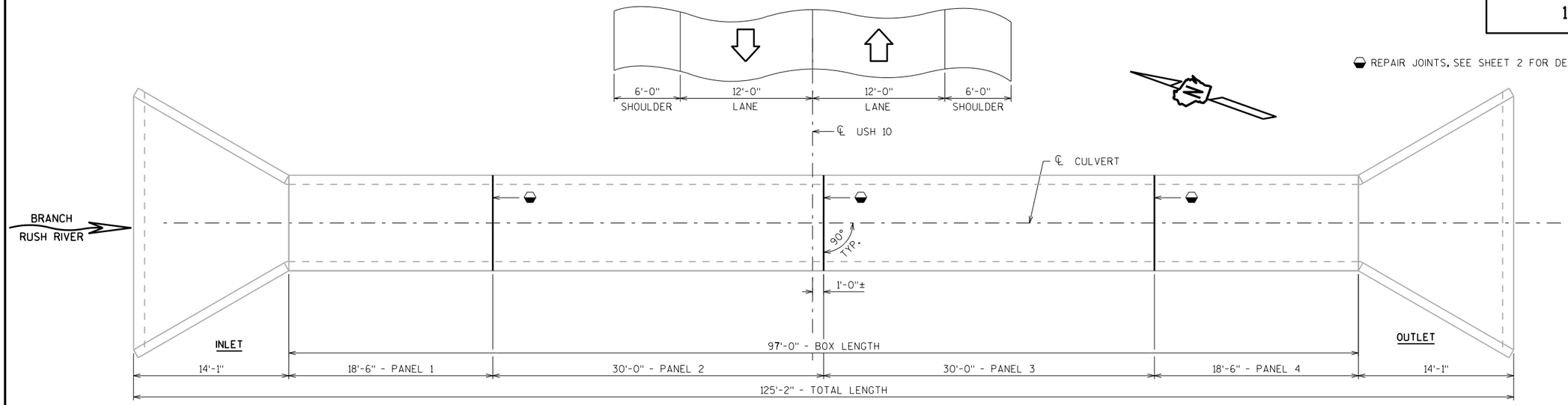
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

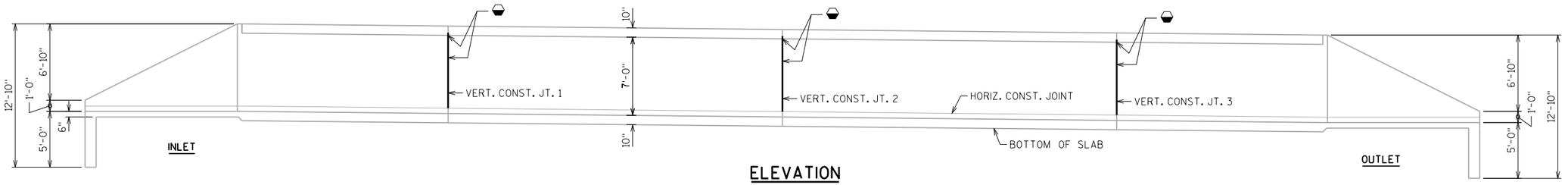
6
SDD 15D44 - 02

STATE PROJECT NUMBER

1530-05-72



PLAN



ELEVATION

TRAFFIC VOLUME

USH 10
ADT = 2,500
R.D.S. = 55 M.P.H.

DESIGN DATA

MATERIAL PROPERTIES:
HIGH STRENGTH STRUCTURAL STEEL:
ASTM A36, GRADE 36 ——— fy = 36,000 P.S.I.

GENERAL NOTES

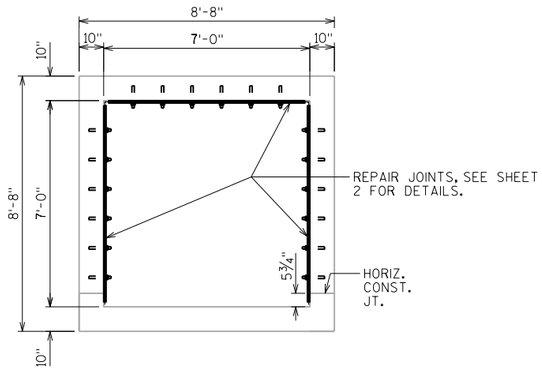
DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

REPAIR JOINTS (AT ALL THREE VERT. CONST. JOINT LOCATIONS) TO BE PAID FOR UNDER BID ITEM "BOX CULVERT JOINT REPAIR C-47-1869".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
SPV.0105	BOX CULVERT JOINT REPAIR C-47-1869	LS	1



TYPICAL SECTION THRU BOX
SHOWING JOINT REPAIR AT VERT. CONST. JOINTS

LIST OF DRAWINGS

1. CULVERT REPAIR
2. REPAIR DETAILS

STRUCTURE DESIGN CONTACTS:

EMILY KUEHNE (608) 266-5089
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 3/15/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-47-1869

USH 10 OVER BRANCH RUSH RIVER

COUNTY	TOWN
PIERCE	SALEM

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EMK	MJK	EMK	MJK

CULVERT REPAIR

SHEET 1 OF 2

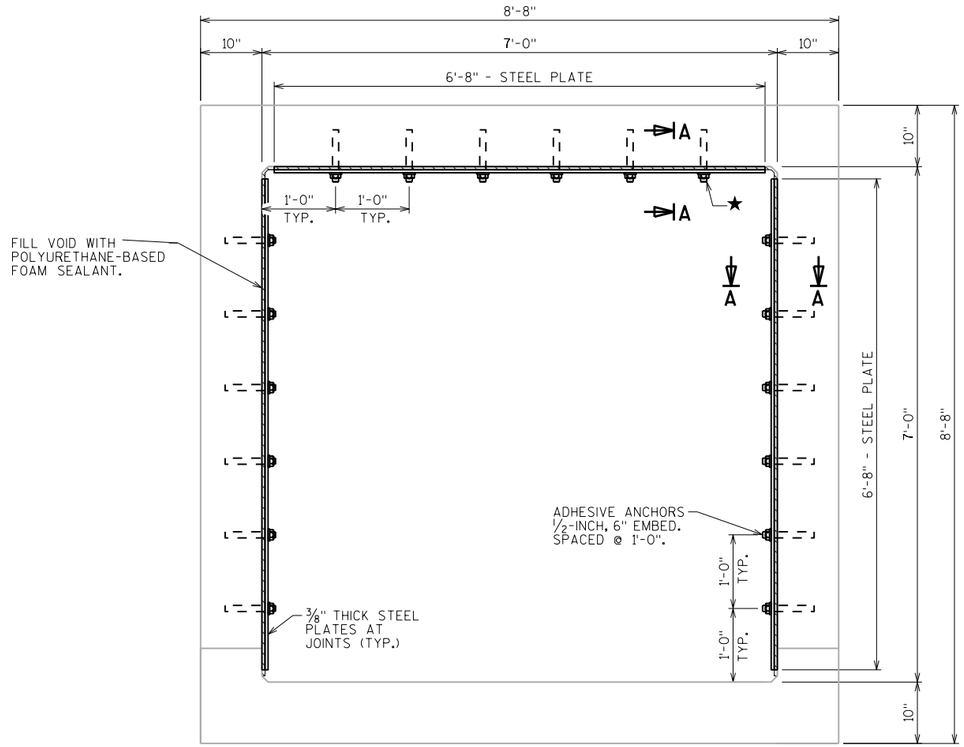
191

I.D. 1530-05-02A DATE: NOV. 2018

SCALE = 5.00

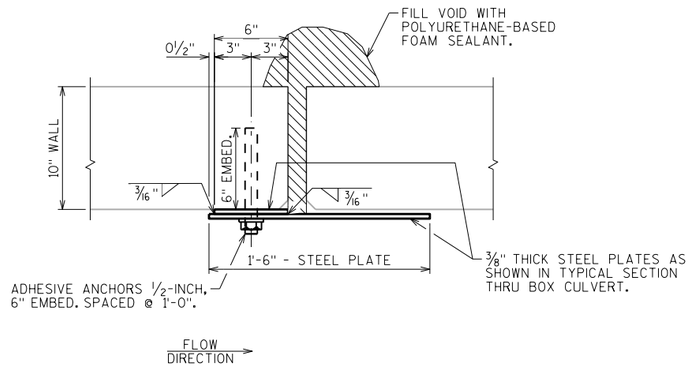
STATE PROJECT NUMBER

1530-05-72



TYPICAL SECTION THRU BOX CULVERT JOINT REPAIR

★ MECHANICAL ANCHORS WILL BE ALLOWED TO BE SUBSTITUTED FOR OVERHEAD INSTALLATION.



SECTION A-A

NOTES

REPAR JOINTS (AT ALL THREE VERT. CONST. JOINT LOCATIONS) TO BE PAID FOR UNDER BID ITEM "BOX CULVERT JOINT REPAIR C-47-1869".

ADHESIVE ANCHORS, STEEL PLATES, POLYURETHANE-BASED FOAM SEALANT, AND ANY OTHER MISCELLANEOUS WORK ASSOCIATED WITH BOX CULVERT JOINT REPAIRS TO BE INCLUDED IN BID ITEM "BOX CULVERT JOINT REPAIR C-47-1869".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-47-1869

DRAWN BY EMK | PLANS CK'D. MJK

REPAIR DETAILS

SHEET 2

192

8

8

SCALE = 1.00

DIVISION 1-1/CAT. 1000 (STA 7+96 - STA 13+02): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
7+96		8.8	18.6						
8+50	54	11.9	11.9	21	31	21	31	40	-19
9+00	50	13.5	24.2	23	33	44	64	83	-39
9+50	50	18.0	21.9	29	43	73	107	139	-65
9+95	45	18.9	25.5	31	40	104	146	190	-86
10+00	5	18.5	27.0	3	5	108	151	196	-89
10+20	20	18.0	32.3	14	22	121	173	225	-104
10+46	26	18.3	34.3	17	32	138	205	267	-128
10+50	4	18.2	34.1	3	5	141	210	273	-132
11+00	50	18.6	38.0	34	67	175	277	360	-185
11+09	9	21.8	36.3	7	12	182	289	376	-194
11+33	24	20.4	33.7	19	31	201	320	416	-216
11+50	17	21.1	32.3	13	21	214	341	443	-230
11+58	8	21.3	29.3	6	9	220	350	455	-235
11+95	37	17.4	13.0	27	29	247	379	493	-246
12+00	5	7.6	9.0	2	2	249	381	496	-247
12+50	50	9.2	0.0	16	8	265	390	506	-242
13+00	50	12.7	0.0	20	0	285	390	506	-222
13+02	2	13.0	0.0	1	0	286	390	506	-221
			Column totals	286	390				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-3/CAT. 1000 (STA 35+32 - STA 37+96): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
35+32		12.0	34.0						
35+50	18	12.0	34.0	8	23	8	23	30	-22
36+00	50	14.4	3.7	24	35	32	58	75	-43
36+34	34	18.0	17.4	20	13	53	71	92	-39
36+36	2	18.2	18.0	1	1	54	72	94	-40
36+50	14	17.8	17.8	9	9	64	82	106	-42
36+59	9	16.5	19.9	6	6	69	88	114	-45
36+62	3	16.7	20.5	2	2	71	90	117	-46
36+84	22	18.1	36.1	14	23	85	113	147	-62
36+87	3	18.3	35.2	2	4	87	117	152	-65
37+00	13	18.8	24.5	9	14	96	131	171	-75
37+50	50	10.9	0.1	27	23	124	154	201	-77
37+96	46	12.1	0.0	20	0	143	154	201	-58
			Column totals	143	154				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-2/CAT. 1000 (STA 32+07 - STA 34+70): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
32+07		8.1	13.3						
32+12	5	14.5	16.0	2	3	2	3	4	-1
32+50	38	15.3	26.6	21	30	23	33	42	-19
33+00	50	15.6	56.2	29	77	52	109	142	-90
33+15	15	16.5	72.1	9	36	60	145	188	-128
33+18	3	16.5	72.9	2	8	62	153	199	-137
33+40	22	18.6	32.0	14	43	77	196	254	-178
33+43	3	18.7	29.3	2	3	79	199	259	-180
33+50	7	17.3	26.1	5	7	83	206	268	-185
33+65	15	16.8	21.2	9	13	93	219	285	-192
33+68	3	16.6	22.0	2	2	95	222	288	-194
34+00	32	14.6	11.2	18	20	113	241	314	-201
34+50	50	13.3	9.7	26	19	139	261	339	-200
34+70	20	13.3	9.7	10	7	149	268	348	-200
			Column totals	149	268				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-5/CAT. 1000 (STA 76+02 - STA 83+36): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
76+02		18.0	0.0						
76+50	48	15.4	10.1	30	9	30	9	12	18
77+00	50	13.7	16.2	27	24	57	33	43	13
77+47	47	14.8	23.6	25	35	81	68	88	-7
77+50	3	15.1	22.5	2	3	83	70	91	-8
77+72	22	18.5	18.2	14	17	97	87	113	-16
77+96	24	21.9	14.4	18	14	115	101	132	-17
77+97	1	18.6	14.5	1	1	115	102	133	-17
78+00	3	18.3	15.2	2	2	117	104	135	-17
78+21	21	16.8	11.7	14	10	131	114	148	-17
78+47	26	9.6	12.7	13	12	144	126	164	-20
78+50	3	9.6	13.1	1	1	145	127	166	-21
79+00	50	12.7	5.4	21	17	166	144	188	-22
79+50	50	16.4	11.3	27	15	192	160	208	-15
80+00	50	18.4	20.6	32	29	225	189	246	-21
80+03	3	18.7	22.3	2	2	227	192	249	-22
80+28	25	30.6	23.6	23	21	250	213	277	-27
80+28	0	28.9	23.7	0	0	250	213	277	-27
80+50	22	28.2	26.1	23	20	273	233	303	-30
80+53	3	32.0	23.2	3	3	276	236	307	-31
80+53	0	31.8	23.3	0	0	276	236	307	-31
80+78	25	22.0	24.6	25	22	301	258	336	-34
81+00	22	25.0	20.0	19	18	320	276	359	-39
81+50	50	18.5	8.8	40	27	360	303	394	-33
82+00	50	19.3	3.6	35	12	395	314	409	-13
82+25	25	18.7	2.2	18	3	413	317	412	1
82+50	25	8.2	0.2	12	1	426	318	414	12
83+00	50	7.6	0.0	15	0	440	318	414	26
83+36	36	10.0	0.0	12	0	452	318	414	38
			Column totals	452	318				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-4/CAT. 1000 (STA 45+99 - STA 73+21): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
45+99		9.0	0.0						
46+00	1	9.0	0.0	0	0	0	0	0	0
46+50	50	17.5	0.0	25	0	25	0	0	25
47+00	50	22.3	0.0	37	0	62	0	0	62
47+47	47	8.7	4.9	27	4	89	4	5	83
47+50	3	8.3	5.6	1	1	90	5	6	83
47+72	22	8.1	13.6	7	8	96	13	16	80
47+97	25	6.6	29.4	7	20	103	33	42	61
48+00	3	6.7	32.3	1	3	104	36	47	57
48+50	50	4.5	102.5	10	125	114	161	209	-95
49+00	50	5.7	9.8	9	104	124	265	344	-221
49+50	50	5.7	4.0	10	13	134	278	361	-227
50+00	50	6.1	4.1	11	8	145	285	371	-226
50+50	50	5.2	5.5	10	9	155	294	382	-227
51+00	50	4.2	4.7	9	9	164	303	394	-230
51+50	50	2.5	5.4	6	9	170	313	407	-236
52+00	50	1.7	11.3	4	15	174	328	427	-252
52+50	50	1.0	6.4	3	16	177	345	448	-271
53+00	50	1.2	8.4	2	14	179	358	466	-287
53+50	50	1.5	15.5	2	22	181	380	495	-313
54+00	50	0.9	27.6	2	40	183	420	546	-363
54+06	6	11.9	28.3	1	6	185	427	555	-370
54+50	44	13.1	12.0	20	33	205	459	597	-392
55+00	50	14.9	10.4	26	21	231	480	624	-393
55+50	50	14.8	10.6	27	19	259	500	649	-391
55+99	49	16.3	12.4	28	21	287	521	677	-390
56+00	1	16.1	9.6	1	0	287	521	677	-390
56+24	24	14.0	8.6	13	8	301	529	688	-387
56+49	25	13.9	7.0	13	7	314	536	697	-383
56+50	1	13.9	7.0	1	0	314	537	697	-383
57+00	50	9.1	11.0	21	17	336	553	719	-384
57+50	50	8.8	14.5	17	24	352	577	750	-398
58+00	50	12.7	7.7	20	21	372	597	777	-405
58+50	50	10.1	6.2	21	13	393	610	793	-400
59+00	50	12.4	4.7	21	10	414	620	806	-392
59+44	44	12.8	7.8	21	10	435	631	820	-385
59+50	6	13.5	7.8	3	2	438	632	822	-384
59+69	19	14.8	7.2	10	5	447	638	829	-381
59+94	25	15.2	15.2	14	10	461	648	842	-381
60+00	6	15.0	13.6	3	3	465	651	846	-382
60+50	50	13.8	12.3	27	24	491	675	878	-386
61+00	50	13.9	7.5	26	18	517	693	901	-385
61+50	50	13.7	0.7	26	8	542	701	911	-369
61+85	35	15.9	0.6	19	1	562	702	912	-351
62+00	15	4.8	0.5	6	0	567	702	913	-345
62+50	50	4.4	1.0	8	1	576	704	915	-339
63+00	50	4.8	1.0	9	2	584	705	917	-333
63+50	50	4.2	1.0	8	2	593	707	919	-327
64+00	50	4.1	1.0	8	2	600	709	922	-321
64+50	50	4.4	0.6	8	1	608	710	924	-315
65+00	50	3.7	1.9	8	2	616	713	927	-311
65+50	50	4.1	1.0	7	3	623	715	930	-307
66+00	50	4.4	3.8	8	4	631	720	936	-305
66+50	50	4.4	3.7	8	7	639	727	945	-306
67+00	50	4.5	4.9	8	8	647	735	955	-308
67+50	50	3.4	5.0	7	9	655	744	967	-312
68+00	50	3.9	4.6	7	9	661	753	979	-317
68+50	50	3.7	4.5	7	8	668	761	989	-321
69+00	50	2.8	9.7	6	13	674	774	1,007	-332
69+50	50	1.7	9.7	4	18	679	792	1,030	-351
70+00	50	1.3	11.8	3	20	681	812	1,056	-375
70+50	50	2.9	9.1	4	19	685	832	1,081	-396
71+00	50	3.5	18.6	6	26	691	857	1,115	-423
71+26	26	3.6	9.5	3	14	695	871	1,132	-438
71+50	24	4.8	19.3	4	13	698	884	1,149	-450
71+51	1	8.2	19.9	0	1	699	884	1,150	-451
71+76	25	9.1	28.9	8	23	707	907	1,179	-472
72+00	24	5.5	31.3	6	27	713	934	1,214	-501
72+50	50	5.0	16.1	10	44	723	978	1,271	-548
73+00	50	5.0	5.2	9	20	732	997	1,296	-564
73+21	21	4.7	1.4	4	3	736	1,000	1,300	-564
			Column totals	736	1,000				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-6/CAT. 1000 (STA 87+88 - STA 91+70): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
87+88		9.6	3.2						
88+13	25	11.5	12.8	10	7	10	7	10	0
88+50	37	17.3	0.0	20	9	29	16	21	8
89+00	50	13.2	10.7	28	10	58	26	34	24
89+50	50	14.6	21.5	26	30	83	56	73	11
89+73	23	14.2	26.9	12	21	96	77	99	-4
89+98	25	12.4	40.2	12	31	108	108	140	-32
90+00	2	12.3	40.3	1	3	109	111	144	-35
90+23	23	14.5	35.6	11	32	120	143	186	-65
90+50	27	15.6	34.0	15	35	135	178	231	-96
91+00	50	16.4	5.8	30	37	165	214	279	-114
91+50	50	15.1	0.1	29	5	194	220	286	-92
91+70	20	18.0	0.0	12	0	206	220	286	-80
		Column Totals		206	220				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-9/CAT. 1000 (STA 311+20 - STA 319+95): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
311+20		7.0	3.2						
311+50	30	8.1	8.2	8	6	8	6	8	0
312+00	50	7.7	16.0	15	22	23	29	37	-14
312+22	22	6.6	19.0	6	14	29	43	56	-27
312+31	9	12.9	18.2	3	6	32	49	64	-32
312+47	16	12.2	15.3	7	10	40	59	77	-37
312+50	3	12.1	14.9	1	2	41	61	79	-38
312+72	22	12.2	13.9	10	12	51	73	94	-44
313+00	28	17.8	15.1	16	15	66	88	114	-48
313+47	47	17.3	14.8	31	26	97	114	148	-51
313+50	3	17.8	15.8	2	2	99	115	150	-51
313+72	22	15.4	17.8	14	14	112	129	168	-55
313+97	25	15.6	40.1	14	27	127	156	203	-76
314+00	3	15.8	44.0	2	5	129	161	209	-80
314+50	50	11.8	85.7	26	120	154	281	365	-211
315+00	50	7.6	74.9	18	149	172	429	558	-386
315+44	44	10.9	112.7	15	153	187	582	757	-570
315+50	6	10.6	11.6	2	14	189	596	775	-585
316+00	50	8.7	59.7	18	66	207	662	860	-653
316+50	50	12.6	41.6	20	94	227	756	982	-755
317+00	50	12.9	33.8	24	70	251	826	1,073	-823
317+03	3	13.1	32.3	1	4	252	829	1,078	-826
317+28	25	13.9	38.3	12	33	265	862	1,120	-856
317+50	22	14.5	41.3	12	32	276	894	1,163	-887
317+53	3	14.5	42.6	2	5	278	899	1,169	-891
318+00	47	14.3	19.2	25	54	303	953	1,239	-936
318+28	28	14.7	13.2	15	17	318	970	1,260	-943
318+50	22	14.0	10.0	12	9	329	979	1,273	-943
318+53	3	13.7	9.5	2	1	331	980	1,274	-943
318+57	4	13.5	9.5	2	1	333	981	1,276	-943
318+78	21	7.5	6.1	8	6	341	988	1,284	-943
319+00	22	8.3	2.8	6	4	348	991	1,289	-941
319+50	50	7.2	1.1	14	4	362	995	1,293	-931
319+95	45	6.8	0.3	12	1	374	996	1,295	-921
		Column totals		374	996				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-7/CAT. 1000 (STA 182+31 - STA 191+23): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
182+31		6.5	2.3						
182+50	19	6.4	4.6	5	2	5	2	3	1
183+00	50	5.8	11.5	11	15	16	17	23	-7
183+47	47	5.0	20.8	9	28	25	45	59	-34
183+50	3	5.1	20.8	1	2	26	48	62	-36
183+72	22	4.9	17.3	4	16	30	63	82	-52
183+86	14	12.7	18.6	5	9	34	73	94	-60
183+97	11	15.3	21.4	6	8	40	81	105	-65
184+00	3	16.6	21.6	2	2	42	83	108	-66
184+50	50	11.7	27.0	26	45	68	128	167	-98
185+00	50	19.0	5.0	28	30	97	158	205	-109
185+33	33	12.2	58.7	19	39	116	197	256	-140
185+50	17	9.0	75.1	7	42	122	239	310	-188
185+58	8	9.0	89.5	3	24	125	263	342	-217
185+83	25	8.4	131.4	8	102	133	365	475	-342
186+00	17	7.7	171.2	5	95	138	461	599	-461
186+50	50	6.4	294.9	13	432	151	892	1,160	-1,009
187+00	50	5.3	257.2	11	511	162	1,404	1,825	-1,663
187+40	40	3.3	37.6	6	218	168	1,622	2,109	-1,940
187+50	10	3.4	83.1	1	22	170	1,644	2,138	-1,968
188+00	50	6.0	156.4	9	222	178	1,866	2,426	-2,247
188+50	50	7.0	109.8	12	246	190	2,112	2,746	-2,556
189+00	50	8.1	77.1	14	173	204	2,285	2,971	-2,767
189+27	27	8.8	53.5	8	65	213	2,351	3,056	-2,843
189+41	14	10.3	45.8	5	26	218	2,377	3,089	-2,872
189+50	9	13.0	34.6	4	13	222	2,390	3,107	-2,885
189+52	2	13.8	32.3	1	2	223	2,392	3,110	-2,888
189+66	14	19.6	30.2	9	16	231	2,409	3,131	-2,900
189+77	11	22.7	21.7	9	11	240	2,419	3,145	-2,905
189+91	14	27.5	7.3	13	8	253	2,427	3,155	-2,902
190+00	9	27.5	1.6	9	1	262	2,428	3,157	-2,895
190+50	50	14.5	10.7	39	11	301	2,440	3,171	-2,870
191+00	50	14.8	3.8	27	13	328	2,453	3,189	-2,861
191+08	8	14.7	3.4	4	1	332	2,454	3,190	-2,858
191+23	15	8.7	1.1	7	1	339	2,455	3,192	-2,853
		Column totals		339	2,455				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-8/CAT. 1000 (STA 284+88 - STA 296+03): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
284+88		7.3	1.0						
285+00	12	7.1	3.1	3	1	3	1	1	2
285+41	41	15.5	12.0	17	11	20	12	16	4
285+50	9	14.9	12.5	5	4	25	16	21	4
286+00	50	14.8	26.7	27	36	53	53	69	-16
286+34	34	21.0	41.9	23	43	75	96	125	-49
286+50	16	14.9	43.2	11	25	86	121	158	-72
286+59	9	14.3	43.7	5	14	91	136	176	-86
286+84	25	13.3	48.8	13	43	104	179	232	-129
286+87	3	13.4	49.1	1	5	105	184	239	-134
287+00	13	13.2	47.3	6	23	111	207	269	-158
287+12	12	13.5	43.6	6	20	117	227	296	-178
287+37	25	15.0	51.1	13	44	131	271	353	-222
287+50	13	16.0	56.4	7	26	138	297	386	-248
288+00	50	10.6	86.0	25	132	163	429	558	-395
288+50	50	8.9	154.5	18	223	181	652	847	-667
289+00	50	7.2	181.7	15	311	196	963	1,252	-1,056
289+50	50	5.7	135.9	12	294	208	1,257	1,634	-1,426
290+00	50	4.8	109.8	10	227	217	1,484	1,930	-1,712
290+50	50	6.0	91.4	10	186	227	1,671	2,172	-1,944
291+00	50	6.1	72.3	11	152	239	1,822	2,369	-2,130
291+50	50	6.1	137.3	11	194	250	2,016	2,621	-2,371
292+00	50	3.0	24.4	8	150	258	2,166	2,816	-2,558
292+50	50	3.1	61.7	6	80	264	2,246	2,920	-2,656
293+00	50	3.8	63.5	6	116	270	2,362	3,070	-2,800
293+50	50	7.5	17.1	11	75	281	2,436	3,167	-2,886
294+00	50	9.0	15.4	15	30	296	2,467	3,207	-2,910
294+03	3	8.8	14.7	1	2	297	2,468	3,209	-2,912
294+28	25	8.8	13.5	8	13	305	2,481	3,226	-2,920
294+50	22	9.7	20.3	8	14	313	2,495	3,244	-2,931
294+53	3	9.8	21.6	1	2	314	2,497	3,247	-2,933
295+00	47	10.0	14.9	17	32	331	2,529	3,288	-2,957
295+50	50	9.0	5.8	18	19	349	2,548	3,313	-2,964
296+00	50	10.2	0.5	18	6	367	2,554	3,320	-2,954
296+03	3	10.4	0.1	1	0	368	2,554	3,321	-2,953
		Column totals		368	2,554				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-10/CAT. 1000 (STA 344+30 - STA 399+16): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
344+30		6.9	2.9						
344+50	20	6.7	5.7	5	3	5	3	4	1
345+00	50	6.3	17.3	12	21	17	24	32	-15
345+50	50	7.4	27.6	13	42	30	66	86	-56
345+76	26	7.9	43.8	7	34	37	100	130	-93
346+00	24	7.7	47.5	7	41	44	141	183	-139
346+01	1	7.6	47.9	0	2	44	143	186	-141
346+26	25	8.2	43.4	7	42	52	185	240	-189
346+50	24	9.4	11.4	8	24	60	209	272	-213
347+00	50	4.8	31.1	13	39	73	249	323	-251
347+24	24	3.9	2.3	4	15	77	264	343	-266
347+50	26	3.7	26.1	4	14	80	277	360	-280
348+00	50	6.3	6.2	9	30	90	307	399	-310
348+50	50	6.1	3.0	11	9	101	316	410	-309
349+00	50	7.0	0.7	12	3	113	319	415	-302
349+50	50	6.6	1.3	13	2	126	321	417	-291
350+00	50	6.0	2.6	12	4	137	325	422	-285
350+50	50	6.3	5.5	11	8	149	332	432	-283
351+00	50	6.5	4.9	12	10	161	342	444	-284
351+50	50	7.0	4.7	13	9	173	351	456	-282
352+00	50	6.4	4.1	12	8	186	359	466	-281
352+50	50	6.4	3.9	12	7	197	366	476	-278
353+00	50	7.2	4.5	13	8	210	374	486	-276
353+50	50	7.4	3.1	14	7	224	381	495	-271
354+00	50	7.0	0.1	13	3	237	384	499	-262
354+50	50	5.9	1.2	12	1	249	385	500	-252
355+00	50	6.7	0.1	12	1	261	386	502	-241
355+50	50	8.0	0.0	14	0	274	386	502	-228
356+00	50	6.3	0.2	13	0	287	386	502	-215
356+50	50	5.7	0.6	11	1	299	387	503	-205
357+00	50	5.5	0.5	10	1	309	388	505	-196
357+50	50	6.0	0.2	11	1	320	389	505	-186
358+00	50	13.0	0.4	18	1	337	389	506	-169
358+50	50	13.0	4.2	24	4	361	394	512	-150
359+00	50	13.1	5.7	24	9	385	403	524	-138
359+02	2	13.0	5.6	1	0	386	403	524	-138
359+27	25	13.0	9.4	12	7	398	410	533	-135
359+50	23	13.8	11.3	11	9	410	419	545	-135
359+52	2	13.9	11.3	1	1	411	420	546	-135
360+00	48	20.0	1.5	30	11	441	431	561	-120
360+50	50	23.5	0.2	40	2	481	433	563	-81
361+00	50	25.4	0.2	45	0	526	433	563	-37
361+20	20	30.1	0.4	21	0	547	433	563	-16
361+50	30	7.4	0.2	21	0	568	434	564	4
362+00	50	7.2	0.5	14	1	581	434	565	17
362+50	50	7.4	1.3	14	2	595	436	567	28
363+00	50	7.5	6.5	14	7	608	443	576	32
363+40	40	26.9	1.6	25	6	634	449	584	50
363+50	10	25.0	2.1	10	1	644	450	585	59
364+00	50	21.2	6.1	43	8	686	458	595	92
364+50	50	21.0	4.6	39	10	725	467	608	118
364+84	34	21.1	2.3	27	4	752	472	613	139
365+00	16	19.8	1.9	12	1	764	473	615	149
365+09	9	19.3	1.8	7	1	771	474	616	155
365+33	24	18.2	2.4	17	2	787	476	618	169
365+50	17	17.9	3.5	11	2	799	477	621	178
366+00	50	6.8	0.0	23	3	821	481	625	197
366+50	50	7.7	0.0	13	0	835	481	625	210
367+00	50	7.2	0.0	14	0	849	481	625	224
367+50	50	7.4	0.0	14	0	862	481	625	237
368+00	50	8.8	0.0	15	0	877	481	625	252
368+50	50	8.1	0.3	16	0	893	481	625	268
369+00	50	7.9	1.8	15	2	908	483	628	280
369+50	50	8.2	0.9	15	2	923	485	631	292
370+00	50	7.7	4.4	15	5	937	490	637	300
370+50	50	7.7	1.8	14	6	952	496	645	307
371+00	50	7.3	2.0	14	4	965	499	649	316
371+50	50	7.9	1.9	14	4	980	503	654	326
372+00	50	9.2	1.0	16	3	995	506	657	338
372+50	50	8.1	3.7	16	4	1,011	510	663	348
373+00	50	8.6	4.2	15	7	1,027	517	673	354
373+50	50	9.2	5.9	16	9	1,043	527	685	359
374+00	50	8.1	3.5	16	9	1,059	535	696	363
374+50	50	8.6	0.9	16	4	1,075	539	701	373
375+00	50	8.5	2.4	16	3	1,091	542	705	385
375+50	50	13.3	11.3	20	13	1,111	555	722	389
376+00	50	14.0	27.4	25	36	1,136	591	768	368

DIVISION 1-10/CAT. 1000 (STA 344+30 - STA 399+16): STAGE 1 CONSTRUCTION - USH 10 (CONTINUED)

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
376+50	50	14.9	12.8	27	37	1,163	628	817	346
377+00	50	12.7	14.3	26	25	1,189	653	849	339
377+50	50	13.0	13.0	24	25	1,212	679	882	330
378+00	50	13.0	18.6	24	29	1,237	708	920	316
378+50	50	11.3	15.5	23	32	1,259	739	961	298
379+00	50	13.0	15.2	22	28	1,282	768	998	283
379+50	50	11.1	12.8	22	26	1,304	794	1,032	272
380+00	50	13.9	16.2	23	27	1,327	821	1,067	260
380+03	3	13.6	15.5	2	2	1,329	822	1,069	260
380+29	26	12.9	17.4	13	16	1,341	838	1,090	252
380+50	21	13.1	21.0	10	15	1,351	853	1,109	242
380+54	4	13.1	22.9	2	3	1,353	856	1,113	240
381+00	46	17.1	13.2	26	31	1,379	887	1,153	226
381+50	50	17.7	11.3	32	23	1,411	910	1,183	229
382+00	50	15.3	12.4	31	22	1,442	932	1,211	231
382+03	3	15.4	11.9	2	1	1,444	933	1,213	231
382+50	47	3.9	10.7	17	20	1,460	953	1,238	222
383+00	50	5.0	5.7	8	15	1,469	968	1,258	211
383+50	50	4.2	4.2	9	9	1,477	977	1,270	207
384+00	50	5.4	1.9	9	6	1,486	983	1,277	209
384+50	50	3.8	5.6	9	7	1,495	989	1,286	208
385+00	50	6.7	9.3	10	14	1,504	1,003	1,304	200
385+50	50	5.0	8.1	11	16	1,515	1,019	1,325	190
386+00	50	5.0	0.8	9	8	1,524	1,028	1,336	189
386+50	50	3.3	3.0	8	3	1,532	1,031	1,340	192
387+00	50	3.9	0.4	7	3	1,539	1,034	1,344	194
387+50	50	4.1	0.0	7	0	1,546	1,035	1,345	201
388+00	50	3.0	0.9	7	1	1,553	1,035	1,346	207
388+50	50	3.0	0.2	6	1	1,558	1,036	1,347	211
389+00	50	3.9	1.5	6	2	1,565	1,038	1,349	215
389+50	50	7.7	0.0	11	1	1,575	1,039	1,351	224
390+00	50	12.2	0.0	18	0	1,594	1,039	1,351	243
390+50	50	15.9	0.0	26	0	1,620	1,039	1,351	269
391+00	50	7.5	0.2	22	0	1,642	1,039	1,351	290
391+50	50	7.8	0.0	14	0	1,656	1,040	1,351	304
392+00	50	6.0	0.1	13	0	1,668	1,040	1,352	317
392+50	50	6.2	0.0	11	0	1,680	1,040	1,352	328
393+00	50	5.8	0.2	11	0	1,691	1,040	1,352	339
393+50	50	3.9	1.2	9	1	1,700	1,041	1,354	346
394+00	50	5.1	0.1	8	1	1,708	1,042	1,355	353
394+50	50	6.6	0.1	11	0	1,719	1,042	1,355	364
395+00	50	5.3	0.6	11	1	1,730	1,043	1,356	374
395+50	50	5.9	0.1	10	1	1,740	1,044	1,357	384
396+00	50	4.6	0.6	10	1	1,750	1,044	1,358	393
396+50	50	3.8	0.2	8	1	1,758	1,045	1,358	399
397+00	50	7.6	166.4	11	154	1,768	1,199	1,559	209
397+23	23	9.1	167.7	7	142	1,776	1,342	1,744	32
397+48	25	8.0	160.0	8	152	1,784	1,493	1,941	-158
397+50	2	7.9	161.8	1	12	1,784	1,505	1,957	-173
397+73	23	7.6	177.8	7	145	1,791	1,650	2,145	-354
398+00	27	6.4	78.5	7	128	1,798	1,778	2,311	-514
398+50	50	19.4	0.0	24	73	1,822	1,851	2,406	-584
399+00	50	7.4	2.5	25	2	1,846	1,853	2,409	-562
399+16	16	11.0	0.0	5	1	1,852	1,854	2,410	-558
			Column totals	1,852	1,854				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-11/CAT. 1000 (STA 405+15 - STA 416+20): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
405+15		9.1	0.0						
405+50	35	7.7	6.3	11	4	11	4	5	6
406+00	50	9.4	19.5	16	24	27	28	36	-10
406+50	50	10.9	70.2	19	83	46	111	144	-99
406+62	12	11.7	101.4	5	38	51	149	194	-143
406+87	25	11.8	86.7	11	87	62	236	307	-246
407+00	13	12.1	81.4	6	40	67	277	360	-292
407+12	12	13.0	69.7	6	34	73	310	403	-330
407+50	38	15.2	0.0	20	49	93	359	467	-374
408+00	50	22.2	0.0	35	0	127	359	467	-340
408+50	50	15.7	0.0	35	0	162	359	467	-305
409+00	50	9.5	0.0	23	0	186	359	467	-281
409+50	50	7.8	0.0	16	0	202	359	467	-265
410+00	50	6.5	0.0	13	0	215	359	467	-252
410+50	50	5.3	0.0	11	0	226	359	467	-241
411+00	50	5.7	0.0	10	0	236	359	467	-231
411+50	50	3.1	0.6	8	1	244	360	468	-224
412+00	50	2.1	150.6	5	140	249	500	650	-401
412+50	50	3.9	126.3	6	256	254	756	983	-729
413+00	50	3.0	118.4	6	227	261	983	1,278	-1,017
413+50	50	1.6	0.0	4	110	265	1,093	1,420	-1,155
414+00	50	1.6	26.4	3	24	268	1,117	1,452	-1,184
414+25	25	2.4	1.2	2	13	270	1,130	1,469	-1,199
414+50	25	5.1	1.9	3	1	273	1,131	1,471	-1,197
414+52	2	5.7	1.8	0	0	274	1,131	1,471	-1,197
414+78	26	15.3	0.0	10	1	284	1,132	1,472	-1,188
415+00	22	15.3	0.0	12	0	296	1,132	1,472	-1,176
415+03	3	15.6	0.0	2	0	298	1,132	1,472	-1,174
415+50	47	9.0	0.1	21	0	319	1,132	1,472	-1,153
416+00	50	6.3	4.2	14	4	333	1,136	1,477	-1,144
416+20	20	7.6	1.6	5	2	339	1,138	1,480	-1,141
			Column totals	339	1,138				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-12/CAT. 1000 (STA 429+43 - STA 435+82): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
429+43		2.2	89.9						
429+50	7	2.2	89.9	1	23	1	23	30	-30
430+00	50	2.2	77.9	4	155	5	179	232	-228
430+50	50	3.3	41.8	5	111	10	290	376	-367
431+00	50	4.4	43.2	7	79	17	368	479	-462
431+50	50	5.1	36.1	9	73	26	442	574	-548
432+00	50	4.5	29.5	9	61	35	502	653	-619
432+50	50	5.0	19.3	9	45	43	548	712	-668
433+00	50	6.7	13.3	11	30	54	578	751	-697
433+50	50	4.2	17.3	10	28	64	606	788	-723
434+00	50	3.0	23.2	7	38	71	643	837	-765
434+50	50	2.5	28.7	5	48	76	692	899	-823
435+00	50	3.1	30.0	5	54	81	746	970	-888
435+50	50	5.9	28.5	8	54	90	800	1,040	-951
435+82	32	5.9	28.5	7	34	96	834	1,084	-987
			Column totals	96	834				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-13/CAT. 1000 (STA 437+20 - STA 521+88): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
437+20		4.4	22.7						
437+50	30	4.4	4.4	5	15	5	15	20	-15
438+00	50	4.3	5.3	8	9	13	24	31	-18
438+50	50	4.8	3.9	8	8	21	32	42	-21
439+00	50	4.4	4.0	9	7	30	40	52	-22
439+50	50	5.2	3.0	9	6	39	46	60	-21
440+00	50	4.7	5.1	9	7	48	54	70	-22
440+50	50	4.3	5.8	8	10	56	64	83	-27
441+00	50	4.1	8.7	8	13	64	77	100	-36
441+50	50	4.0	9.5	7	17	71	94	122	-51
442+00	50	3.9	29.4	7	36	79	130	169	-90
442+50	50	4.2	24.8	7	50	86	180	234	-148
443+00	50	4.5	35.2	8	56	94	236	307	-212
443+50	50	3.7	10.1	8	42	102	278	361	-259
444+00	50	3.7	9.3	7	18	109	296	385	-276
444+50	50	4.0	11.4	7	19	116	315	410	-294
444+88	38	10.9	10.3	10	15	126	330	429	-303
445+00	12	10.4	9.6	5	4	131	335	435	-304
445+50	50	10.6	12.6	19	21	150	355	462	-312
446+00	50	12.1	13.2	21	24	171	379	493	-322
446+35	35	12.6	29.0	16	27	187	407	529	-341
446+50	15	12.9	23.9	7	15	194	421	548	-353
446+60	10	13.1	22.4	5	9	199	430	559	-360
446+85	25	14.1	17.6	13	19	212	448	583	-371
447+00	15	14.5	12.8	8	8	220	457	594	-374
447+50	50	11.1	1.3	24	13	243	470	611	-367
448+00	50	10.4	11.7	20	12	263	482	626	-363
448+50	50	10.4	7.2	19	17	283	499	649	-366
449+00	50	10.6	5.4	19	12	302	511	664	-362
449+50	50	10.5	10.3	19	14	322	525	683	-361
450+00	50	10.6	8.1	20	17	341	542	705	-364
450+50	50	9.6	7.9	19	15	360	557	724	-365
451+00	50	8.9	14.5	17	21	377	578	751	-374
451+50	50	8.9	11.5	16	24	393	602	783	-389
452+00	50	9.4	7.2	17	17	410	619	805	-395
452+50	50	11.8	3.9	20	10	430	630	818	-389
453+00	50	10.2	10.0	20	13	450	642	835	-385
453+50	50	9.7	14.7	18	23	469	665	865	-396
454+00	50	8.0	10.2	16	23	485	688	895	-410
454+50	50	8.5	13.7	15	22	500	710	924	-423
455+00	50	8.8	5.4	16	18	516	728	947	-430
455+50	50	8.5	7.0	16	11	532	740	961	-429
456+00	50	8.7	8.1	16	14	548	753	979	-431
456+50	50	10.7	39.4	18	44	566	797	1,037	-470
457+00	50	11.1	33.6	20	68	587	865	1,124	-538
457+50	50	11.2	45.0	21	73	607	938	1,219	-612
458+00	50	12.0	34.0	21	73	629	1,011	1,314	-685
458+03	3	12.0	32.8	1	4	630	1,015	1,319	-689
458+28	25	12.2	28.8	11	29	641	1,043	1,356	-715
458+50	22	11.4	32.2	10	25	651	1,068	1,388	-737
458+53	3	11.2	34.1	1	4	652	1,072	1,393	-741
459+00	47	10.2	30.5	19	56	671	1,128	1,466	-795
459+50	50	10.3	13.1	19	40	690	1,168	1,519	-829
460+00	50	12.0	5.9	21	18	710	1,186	1,541	-831
460+50	50	4.3	7.5	15	12	725	1,198	1,558	-832
461+00	50	3.8	5.5	8	12	733	1,210	1,573	-840
461+50	50	3.8	8.1	7	13	740	1,223	1,590	-850
462+00	50	4.1	6.1	7	13	747	1,236	1,607	-860
462+50	50	4.7	6.5	8	12	755	1,248	1,622	-867
462+79	29	3.4	9.6	4	9	760	1,256	1,633	-873
462+98	19	2.6	8.5	2	6	762	1,263	1,641	-879
463+00	2	2.5	12.1	0	1	762	1,263	1,642	-880
463+23	23	4.1	5.8	3	8	765	1,271	1,652	-887
463+50	27	6.8	0.2	5	3	770	1,274	1,656	-886
463+96	46	3.0	2.8	8	3	779	1,276	1,659	-881
464+00	4	2.8	4.1	0	1	779	1,277	1,660	-881
464+21	21	2.6	10.9	2	6	781	1,283	1,668	-887
464+45	24	4.1	11.3	3	10	784	1,293	1,681	-896
464+50	5	4.2	10.8	1	2	785	1,295	1,683	-898
465+00	50	4.1	7.8	8	17	793	1,312	1,706	-913
465+50	50	4.4	5.1	8	12	800	1,324	1,721	-921
466+00	50	3.5	84.6	7	83	808	1,407	1,829	-1,021

DIVISION 1-13/CAT. 1000 (STA 437+20 - STA 521+88): STAGE 1 CONSTRUCTION - USH 10 (CONTINUED)

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
466+50	50	3.9	73.9	7	147	814	1,554	2,020	-1,205
467+00	50	2.8	68.6	6	132	821	1,686	2,191	-1,371
467+50	50	3.2	49.2	6	109	826	1,795	2,333	-1,507
468+00	50	12.9	59.0	15	100	841	1,895	2,464	-1,622
468+50	50	6.6	95.0	18	143	859	2,038	2,649	-1,790
469+00	50	5.5	116.5	11	196	870	2,233	2,903	-2,033
469+50	50	5.8	65.0	10	168	881	2,401	3,122	-2,241
470+00	50	12.1	103.0	17	156	898	2,557	3,324	-2,426
470+14	14	12.0	131.0	6	61	904	2,617	3,403	-2,499
470+39	25	10.4	163.8	10	136	914	2,754	3,580	-2,666
470+50	11	10.2	163.1	4	67	918	2,821	3,667	-2,748
470+64	14	10.1	147.0	5	80	924	2,901	3,771	-2,848
471+00	36	9.9	79.7	13	151	937	3,052	3,968	-3,031
471+50	50	10.9	105.3	19	171	956	3,223	4,190	-3,234
472+00	50	11.2	36.6	20	131	977	3,355	4,361	-3,385
472+11	11	11.7	31.3	5	14	981	3,369	4,379	-3,398
472+50	39	3.3	47.9	11	57	992	3,426	4,454	-3,462
473+00	50	3.8	51.0	7	92	998	3,517	4,573	-3,574
473+50	50	4.2	14.3	7	60	1,006	3,578	4,651	-3,645
474+00	50	3.7	11.5	7	24	1,013	3,602	4,682	-3,669
474+50	50	3.7	9.6	7	20	1,020	3,621	4,707	-3,687
475+00	50	4.7	10.2	8	18	1,028	3,639	4,731	-3,704
475+50	50	4.8	9.0	9	18	1,036	3,657	4,754	-3,718
476+00	50	5.3	6.2	9	14	1,046	3,671	4,773	-3,727
476+50	50	5.1	6.9	10	12	1,055	3,683	4,788	-3,733
477+00	50	4.0	5.6	8	12	1,064	3,695	4,803	-3,740
477+50	50	5.0	6.4	8	11	1,072	3,706	4,818	-3,746
478+00	50	4.2	18.0	9	23	1,081	3,729	4,847	-3,767
478+50	50	4.2	11.2	8	27	1,088	3,756	4,882	-3,794
479+00	50	4.0	5.9	8	16	1,096	3,772	4,903	-3,807
479+50	50	4.0	19.2	7	23	1,103	3,795	4,933	-3,830
480+00	50	4.1	16.2	7	33	1,111	3,828	4,976	-3,865
480+50	50	3.9	5.7	7	20	1,118	3,848	5,002	-3,884
481+00	50	3.0	16.9	6	21	1,125	3,869	5,029	-3,905
481+50	50	2.5	7.5	5	23	1,130	3,891	5,059	-3,929
482+00	50	4.0	2.3	6	9	1,136	3,900	5,070	-3,935
482+50	50	2.3	6.7	6	8	1,142	3,909	5,081	-3,939
483+00	50	2.9	4.5	5	10	1,146	3,919	5,095	-3,948
483+50	50	2.8	3.5	5	7	1,152	3,926	5,104	-3,952
484+00	50	2.8	2.1	5	5	1,157	3,931	5,111	-3,954
484+50	50	3.6	2.0	6	4	1,163	3,935	5,116	-3,953
485+00	50	3.6	1.8	7	4	1,169	3,939	5,120	-3,951
485+50	50	3.5	2.3	6	4	1,176	3,943	5,125	-3,949
486+00	50	3.6	1.7	7	4	1,182	3,946	5,130	-3,948
486+50	50	3.9	1.5	7	3	1,189	3,949	5,134	-3,944
487+00	50	3.6	1.1	7	2	1,196	3,952	5,137	-3,941
487+50	50	4.1	1.1	7	2	1,204	3,954	5,140	-3,936
488+00	50	3.5	2.0	7	3	1,211	3,956	5,143	-3,933
488+50	50	2.5	3.4	6	5	1,216	3,961	5,150	-3,934
489+00	50	1.0	11.3	3	14	1,219	3,975	5,168	-3,948
489+50	50	2.2	6.7	3	17	1,222	3,992	5,189	-3,967
490+00	50	3.3	3.0	5	9	1,227	4,001	5,201	-3,974
490+50	50	2.6	4.5	5	7	1,233	4,008	5,210	-3,977
491+00	50	2.9	2.1	5	6	1,238	4,014	5,218	-3,980
491+50	50	3.8	2.2	6	4	1,244	4,018	5,223	-3,979
492+00	50	3.8	3.2	7	5	1,251	4,023	5,230	-3,979
492+50	50	4.1	0.8	7	4	1,259	4,027	5,235	-3,976
493+00	50	3.8	4.5	7	5	1,266	4,031	5,241	-3,975
493+50	50	4.7	5.6	8	9	1,274	4,041	5,253	-3,979
494+00	50	4.0	3.1	8	8	1,282	4,049	5,263	-3,982
494+50	50	4.0	7.6	7	10	1,289	4,059	5,276	-3,987
495+00	50	2.1	6.7	6	13	1,295	4,072	5,294	-3,999
495+50	50	2.9	2.2	5	8	1,300	4,080	5,304	-4,005
496+00	50	3.3	1.2	6	3	1,305	4,083	5,308	-4,003
496+50	50	4.4	2.0	7	3	1,312	4,086	5,312	-4,000
497+00	50	3.4	1.9	7	4	1,320	4,090	5,317	-3,997
497+50	50	1.1	5.1	4	6	1,324	4,096	5,325	-4,001
498+00	50	1.6	3.0	3	8	1,326	4,104	5,335	-4,009
498+50	50	1.2	4.6	3	7	1,329	4,111	5,344	-4,015
499+00	50	0.6	8.9	2	12	1,331	4,123	5,360	-4,029
499+50	50	0.4	10.6	1	18	1,332	4,141	5,384	-4,052
500+00	50	1.0	6.6	1	16	1,333	4,157	5,404	-4,071
500+50	50	1.8	4.2	3	10	1,336	4,167	5,417	-4,082

DIVISION 1-13/CAT. 1000 (STA 437+20 - STA 521+88): STAGE 1 CONSTRUCTION - USH 10 (CONTINUED)

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
501+00	50	3.0	2.1	4	6	1,340	4,173	5,425	-4,085
501+50	50	3.6	1.3	6	3	1,346	4,176	5,429	-4,083
502+00	50	4.3	6.8	7	7	1,353	4,184	5,439	-4,085
502+50	50	4.4	5.3	8	11	1,361	4,195	5,453	-4,092
503+00	50	4.2	7.5	8	12	1,369	4,207	5,469	-4,099
503+50	50	4.0	7.4	8	14	1,377	4,220	5,486	-4,110
504+00	50	3.3	7.0	7	13	1,384	4,234	5,504	-4,120
504+50	50	3.8	4.8	7	11	1,390	4,244	5,518	-4,128
505+00	50	5.2	4.3	8	8	1,399	4,253	5,529	-4,130
505+50	50	5.8	4.4	10	8	1,409	4,261	5,539	-4,130
506+00	50	4.8	5.6	10	9	1,419	4,270	5,551	-4,133
506+50	50	4.5	5.5	9	10	1,427	4,280	5,565	-4,138
507+00	50	4.0	5.5	8	10	1,435	4,291	5,578	-4,143
507+50	50	4.8	8.7	8	13	1,443	4,304	5,595	-4,152
508+00	50	4.8	4.6	9	12	1,452	4,316	5,611	-4,159
508+50	50	2.3	1.0	7	5	1,458	4,321	5,617	-4,159
509+00	50	3.3	3.9	5	5	1,464	4,326	5,623	-4,160
509+50	50	3.9	7.0	7	10	1,470	4,336	5,636	-4,166
510+00	50	4.7	14.9	8	20	1,478	4,356	5,663	-4,185
510+50	50	5.2	8.4	9	22	1,487	4,378	5,691	-4,204
511+00	50	4.2	10.2	9	17	1,496	4,395	5,713	-4,217
511+50	50	3.3	8.3	7	17	1,503	4,412	5,735	-4,233
512+00	50	4.1	11.2	7	18	1,510	4,430	5,759	-4,249
512+50	50	2.9	21.6	7	30	1,516	4,460	5,798	-4,282
513+00	50	2.2	17.2	5	36	1,521	4,496	5,845	-4,324
513+50	50	3.8	18.7	6	33	1,527	4,530	5,888	-4,362
514+00	50	3.1	14.2	6	30	1,533	4,560	5,928	-4,395
514+50	50	3.4	13.9	6	26	1,539	4,586	5,962	-4,423
515+00	50	3.6	18.0	6	30	1,545	4,616	6,000	-4,455
515+50	50	2.7	49.2	6	62	1,551	4,678	6,081	-4,530
516+00	50	5.0	58.9	7	100	1,558	4,778	6,211	-4,653
516+50	50	4.8	57.6	9	108	1,567	4,886	6,351	-4,784
517+00	50	5.3	60.4	9	109	1,577	4,995	6,493	-4,917
517+50	50	6.1	51.8	11	104	1,587	5,099	6,628	-5,041
518+00	50	5.5	54.2	11	98	1,598	5,197	6,756	-5,158
518+50	50	4.8	67.9	9	113	1,607	5,310	6,903	-5,295
519+00	50	8.1	87.2	12	144	1,619	5,453	7,089	-5,470
519+50	50	6.7	99.1	14	172	1,633	5,626	7,314	-5,681
520+00	50	5.4	100.3	11	185	1,644	5,810	7,554	-5,910
520+50	50	2.7	108.9	8	194	1,652	6,004	7,805	-6,154
521+00	50	3.5	87.0	6	181	1,657	6,186	8,041	-6,384
521+50	50	4.2	92.3	7	166	1,664	6,352	8,257	-6,593
521+88	38	4.2	22.8	6	81	1,670	6,433	8,362	-6,692
			Column totals	1,670	6,433				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-14/CAT. 1000 (STA 523+16 - STA 527+19): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
523+16		2.9	41.0						
523+50	34	2.9	41.0	4	52	4	52	67	-63
524+00	50	3.7	22.7	6	59	10	110	144	-134
524+50	50	7.5	6.4	10	27	20	137	179	-159
525+00	50	7.0	10.5	13	16	33	153	199	-166
525+21	21	6.9	10.8	5	8	39	161	210	-171
525+46	25	6.8	8.0	6	9	45	170	221	-176
525+50	4	7.1	7.6	1	1	46	171	223	-176
525+71	21	7.3	8.8	6	6	52	178	231	-179
526+00	29	6.3	9.3	7	10	59	187	243	-184
526+50	50	7.9	3.2	13	12	72	199	258	-186
527+00	50	6.1	1.2	13	4	85	203	264	-179
527+19	19	6.4	0.0	4	0	89	203	264	-175
			Column totals	89	203				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-15/CAT. 1000 (STA 544+34 - STA 522+37): STAGE 1 CONSTRUCTION - USH 10

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
544+34		24.4	0.0						
544+50	16	11.8	0.0	11	0	11	0	0	11
544+60	10	9.3	33.5	4	6	15	6	8	7
544+85	25	3.9	48.5	6	38	21	44	57	-37
545+00	15	4.2	50.6	2	28	23	72	93	-70
545+10	10	4.9	51.4	2	19	25	91	118	-93
545+40	30	2.8	15.2	4	37	29	128	166	-137
545+50	10	2.8	45.6	1	11	30	139	180	-150
546+00	50	4.4	43.6	7	83	37	221	288	-251
546+50	50	4.1	44.6	8	82	45	303	394	-349
547+00	50	4.0	45.8	8	84	52	387	503	-451
547+50	50	4.7	31.7	8	72	60	459	596	-536
548+00	50	10.1	13.3	14	42	74	500	650	-576
548+50	50	6.7	15.2	16	26	90	527	685	-595
549+00	50	7.7	7.1	13	21	103	547	711	-609
549+39	39	96.0	22.2	75	21	178	568	739	-561
549+50	11	7.6	8.9	21	6	199	575	747	-548
550+00	50	6.8	7.2	13	15	212	590	767	-554
550+41	41	5.5	12.5	9	15	222	605	786	-564
550+50	9	5.2	15.1	2	5	223	609	792	-569
550+66	16	4.8	17.4	3	10	226	619	804	-578
550+91	25	5.4	21.9	5	18	231	637	828	-597
551+00	9	5.7	20.1	2	7	233	644	837	-604
551+50	50	4.7	15.6	10	33	242	677	880	-638
552+00	50	6.5	6.8	10	21	253	698	907	-654
552+37	37	8.7	0.0	10	5	263	702	913	-650
			Column totals	263	702				

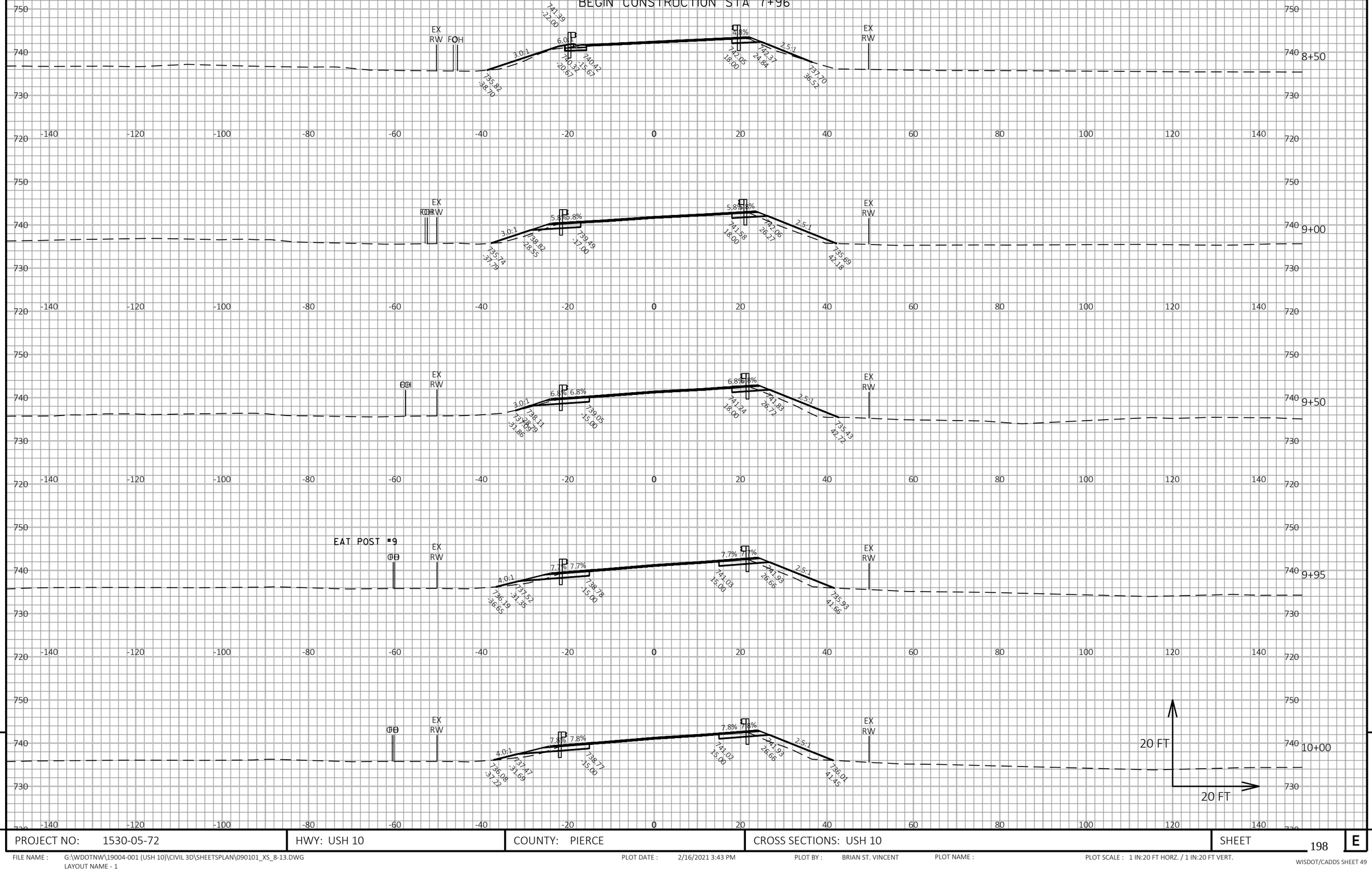
Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

DIVISION 1-16/CAT. 1000 (STA 0+20'S' - STA 3+06'S'): STAGE 1 CONSTRUCTION - 190TH STREET

STATION	Distance	Area Cut (SF)	Area Fill (SF)	Incremental Cut Note 1 (CY)	Incremental Fill Note 2 (CY)	Cumulative Vol (CY) Cut 1.00 Note 3	Cumulative Vol (CY) Fill 1.00 Note 4	Cumulative Vol (CY) Expanded Fill 1.3	Mass Ordinate Note 5
0+20		6.1	40.5						
1+00	80	6.2	17.1	18	85	18	85	111	-93
1+15	15	4.7	13.3	3	8	21	94	122	-101
1+40	25	5.1	39.8	5	25	26	118	154	-128
1+50	10	4.9	32.3	2	13	28	132	171	-143
1+65	15	5.5	29.6	3	17	31	149	194	-163
2+00	35	7.6	0.1	8	19	39	168	219	-179
2+50	50	7.9	0.0	14	0	53	168	219	-165
3+00	50	6.2	0.0	13	0	67	168	219	-152
3+06	6	6.1	0.0	1	0	68	168	219	-151
			Column totals	68	168				

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Fill: Does not include Unusable Pavement Excavation volume
3 - Cut: Cut includes Salvaged/Unusable Pavement Material
4 - Fill: Does not include Unusable Pavement Excavation volume
5 - Mass Ordinate: [Cut - Expanded Fill] (Fill Factor Adjusted)

BEGIN CONSTRUCTION STA 7+96

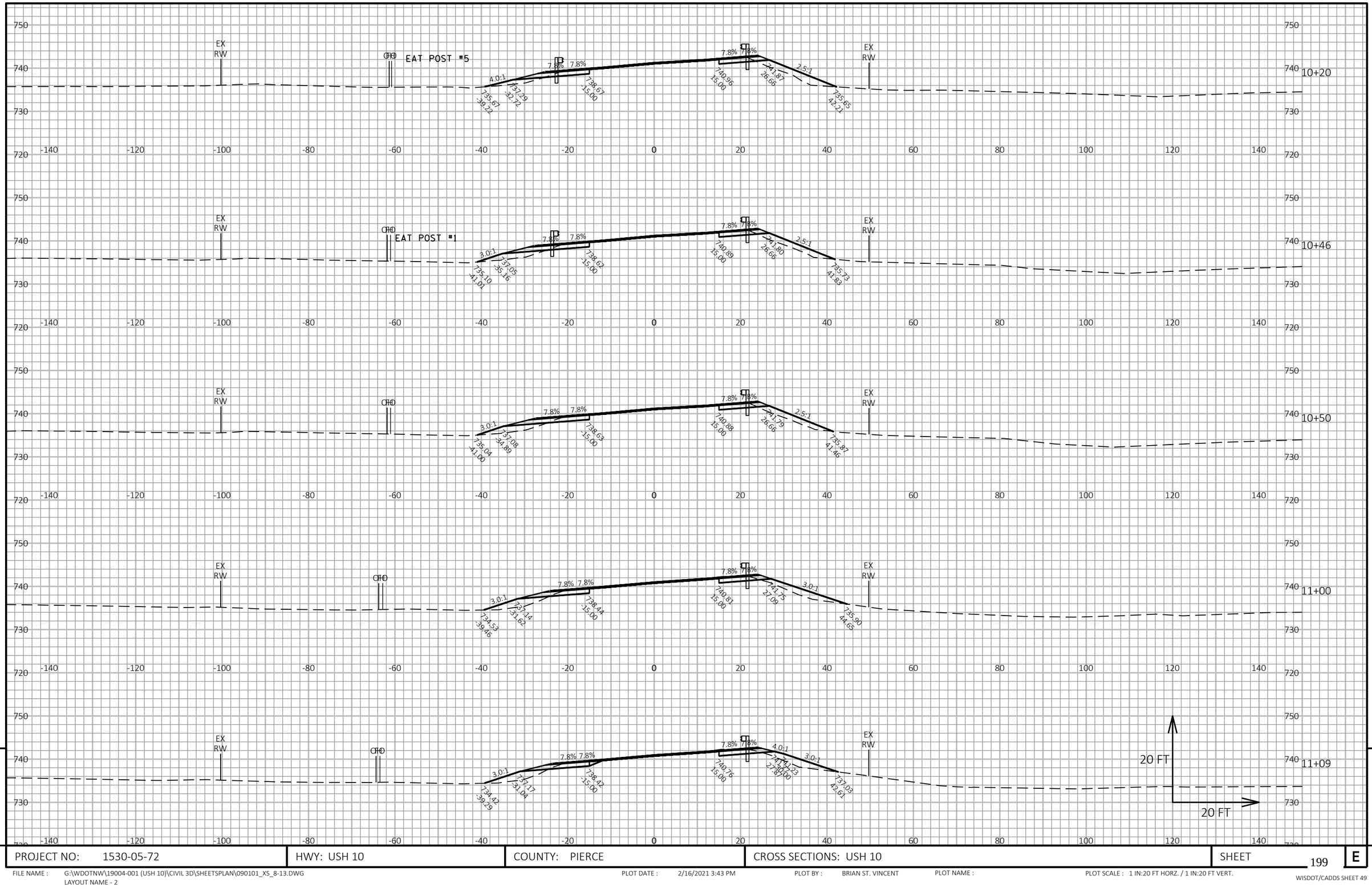


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 198	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_8-13.DWG
LAYOUT NAME - 1

PLOT DATE : 2/16/2021 3:43 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 199	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_8-13.DWG
LAYOUT NAME - 2

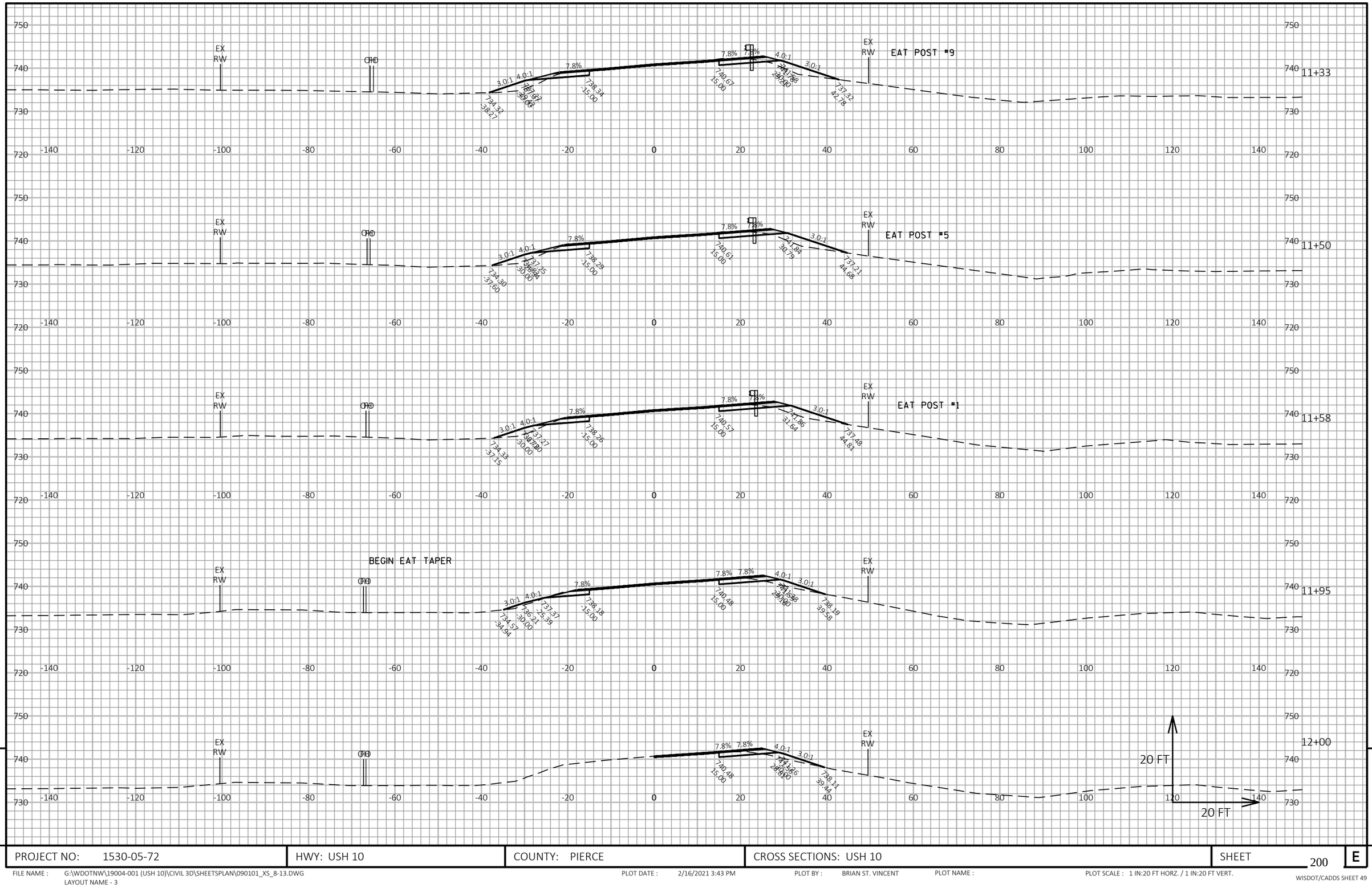
PLOT DATE : 2/16/2021 3:43 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

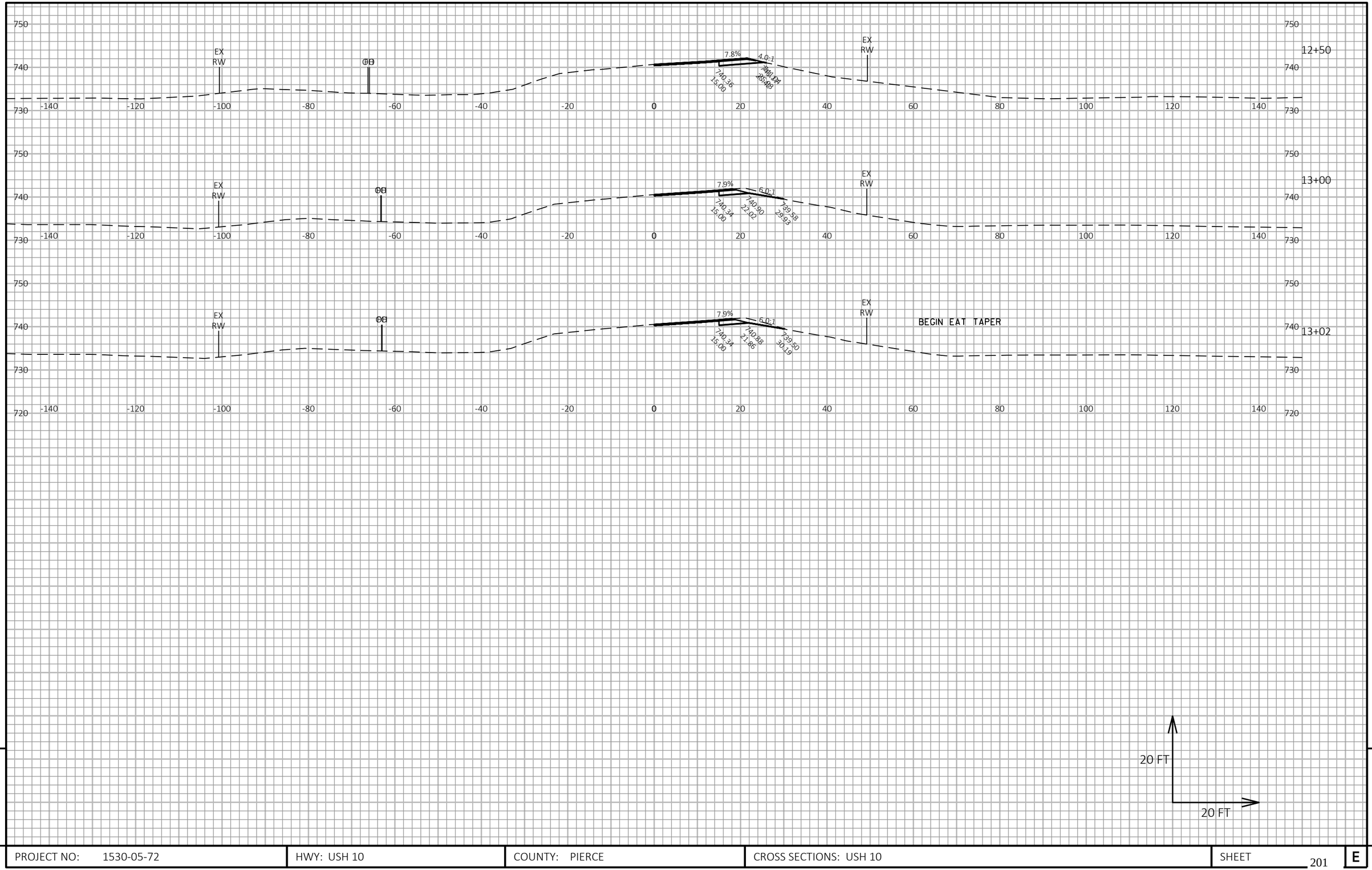
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FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_8-13.DWG
LAYOUT NAME - 3

PLOT DATE : 2/16/2021 3:43 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9

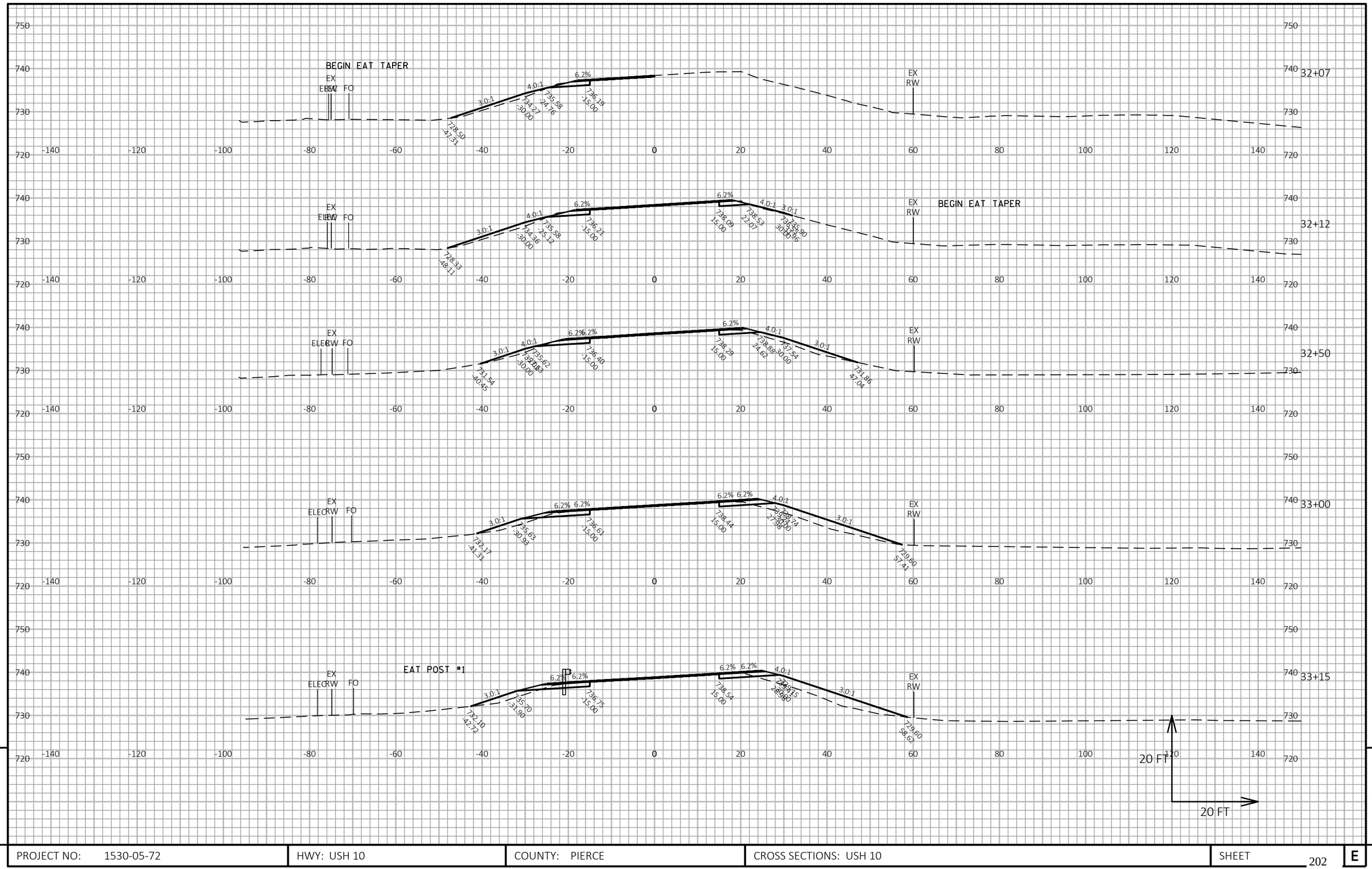


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 201	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_8-13.DWG
LAYOUT NAME - 4

PLOT DATE : 2/16/2021 3:43 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

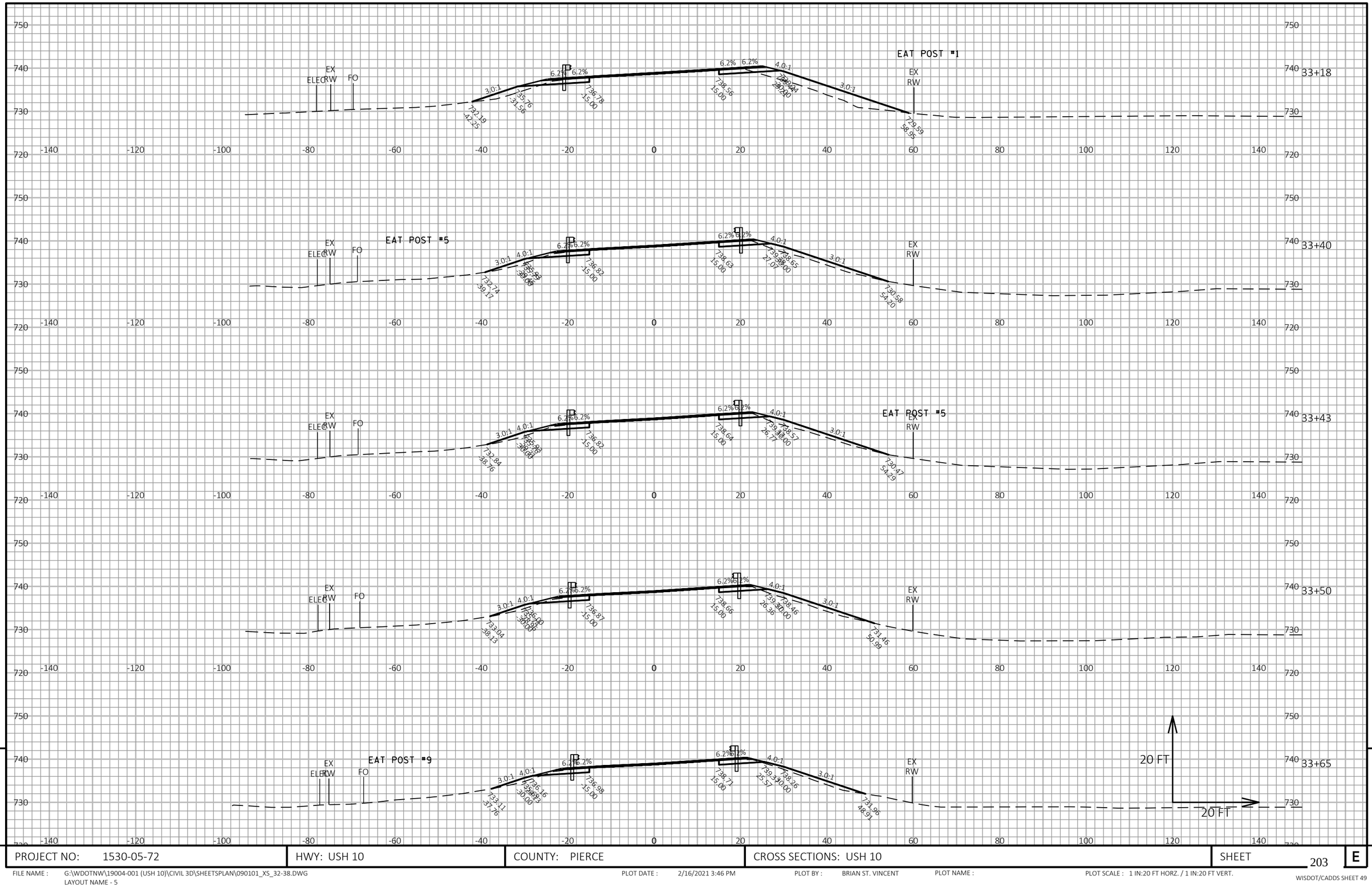


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 202	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_32-38.DWG
LAYOUT NAME - 4

PLOT DATE : 2/16/2021 3:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

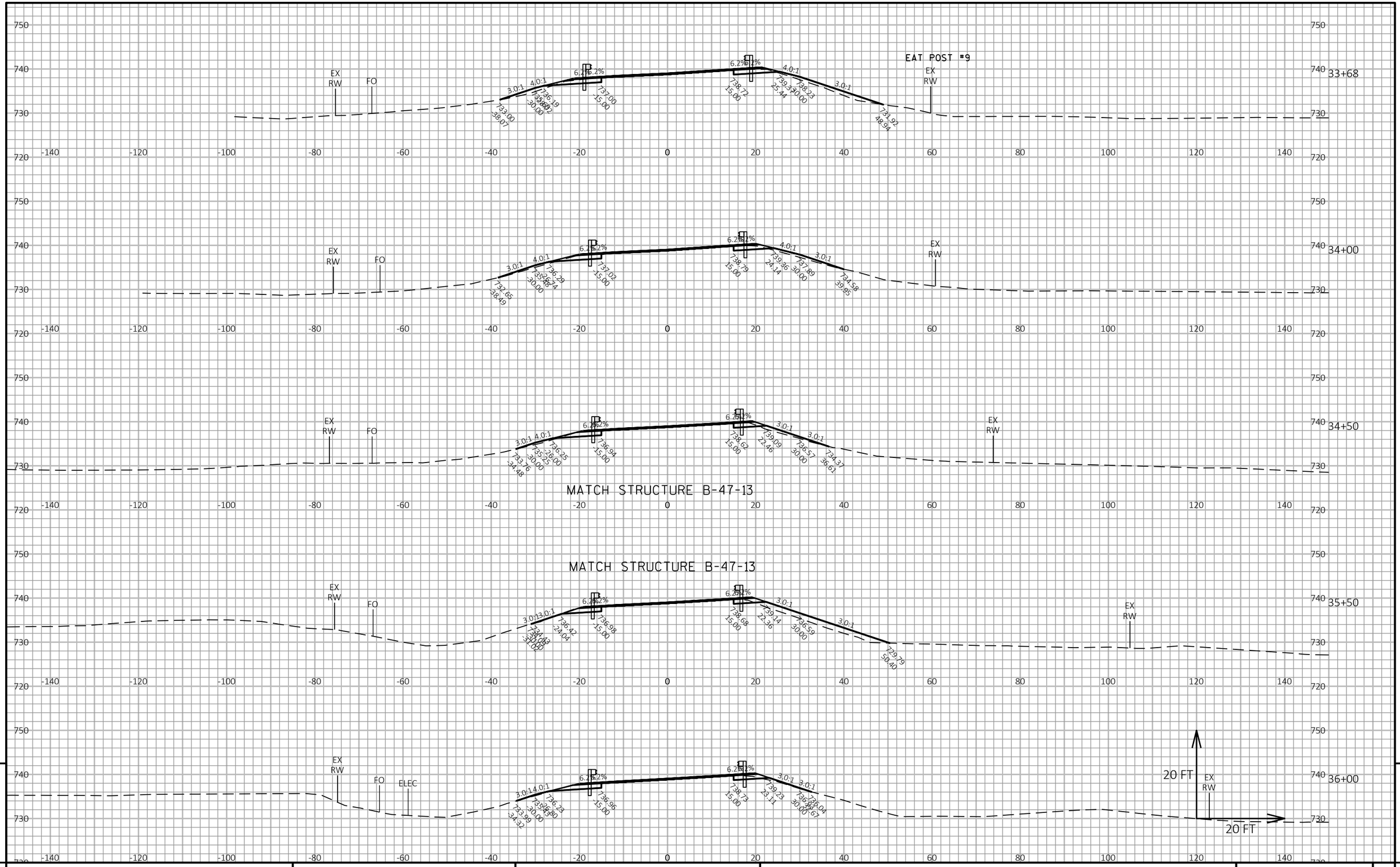


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 203	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_32-38.DWG
LAYOUT NAME - 5

PLOT DATE : 2/16/2021 3:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

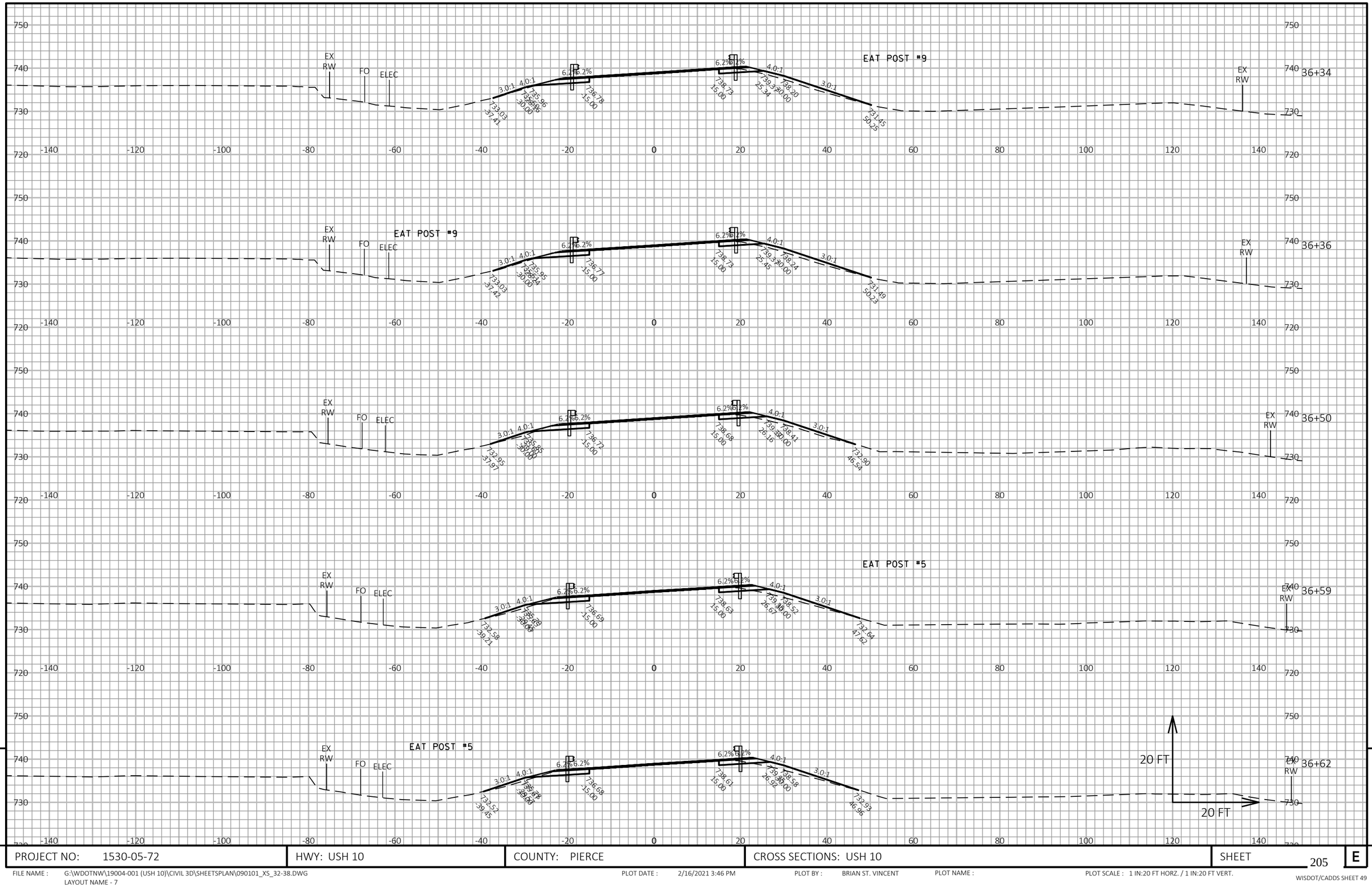
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 204	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_32-38.DWG
LAYOUT NAME - 6

PLOT DATE : 2/16/2021 3:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

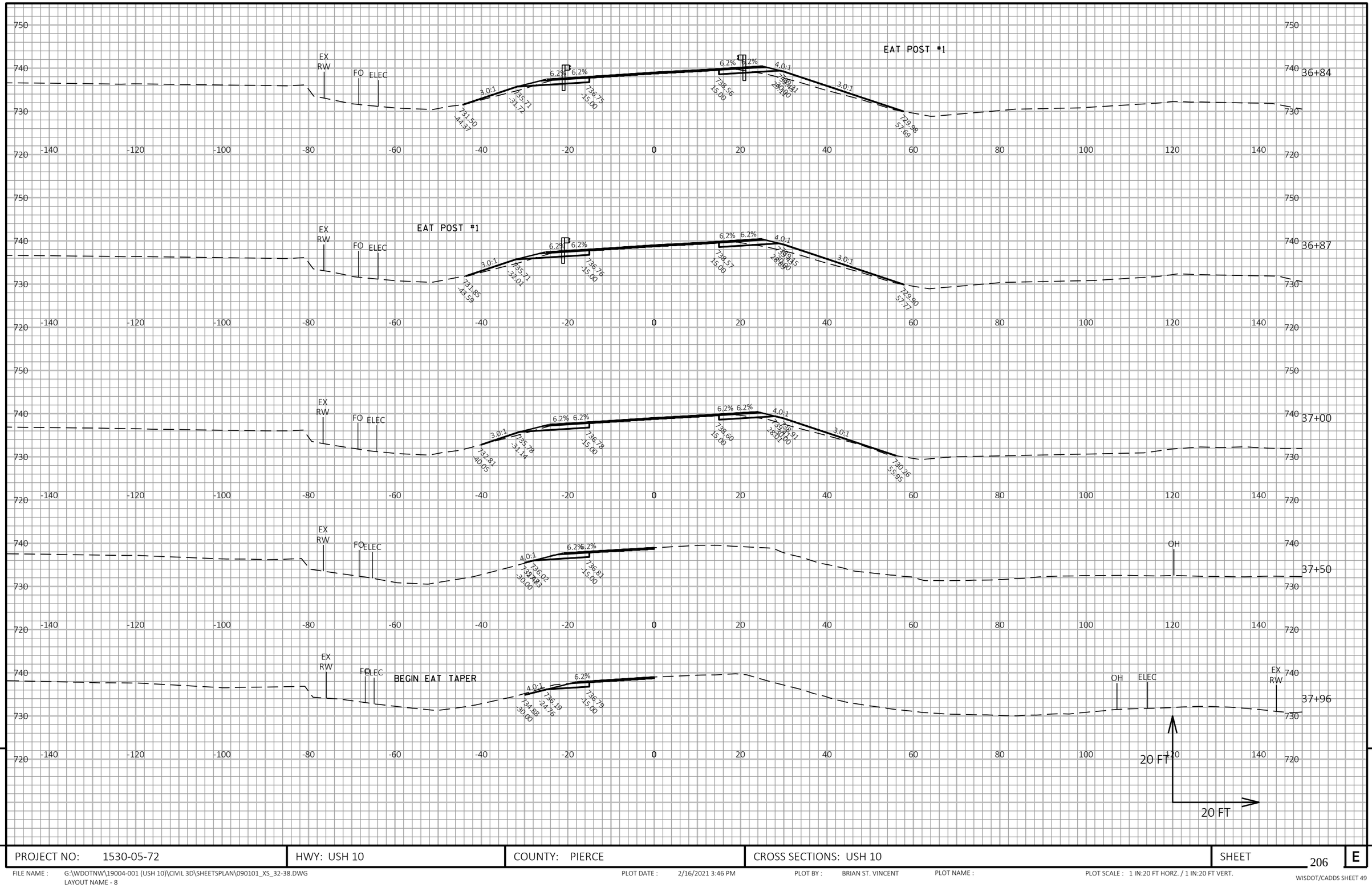
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 205	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_32-38.DWG
LAYOUT NAME - 7

PLOT DATE : 2/16/2021 3:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

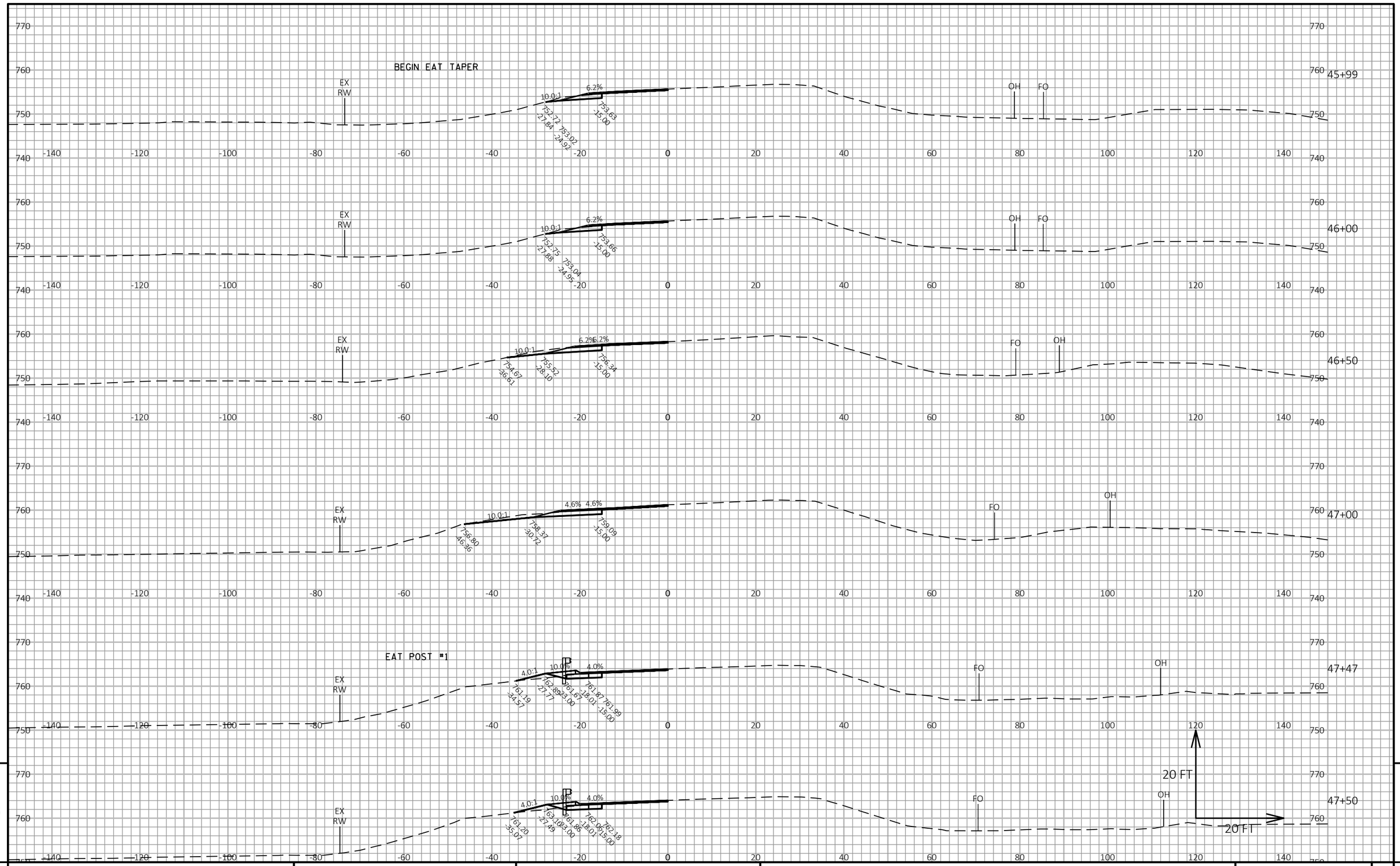


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 206	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_32-38.DWG
LAYOUT NAME - 8

PLOT DATE : 2/16/2021 3:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 207	E

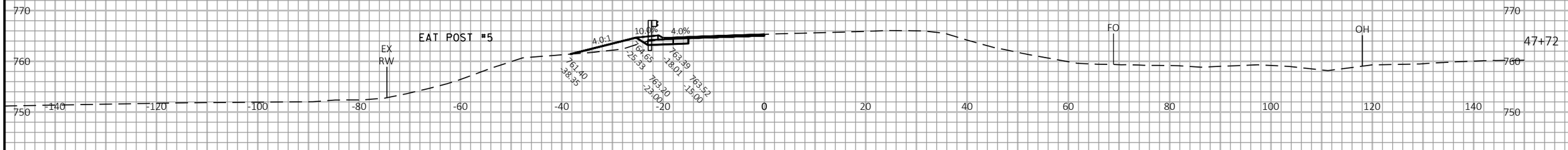
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FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 10

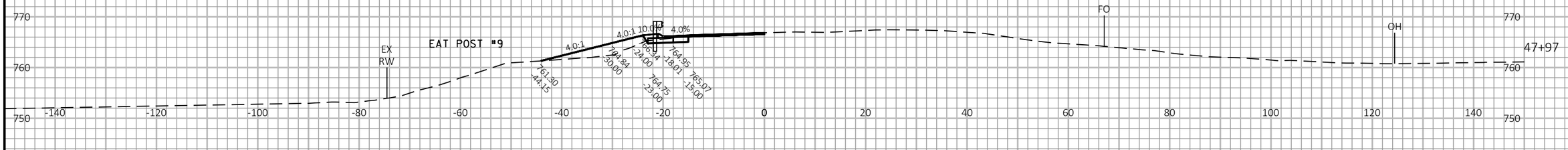
PLOT DATE : 2/16/2021 3:49 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

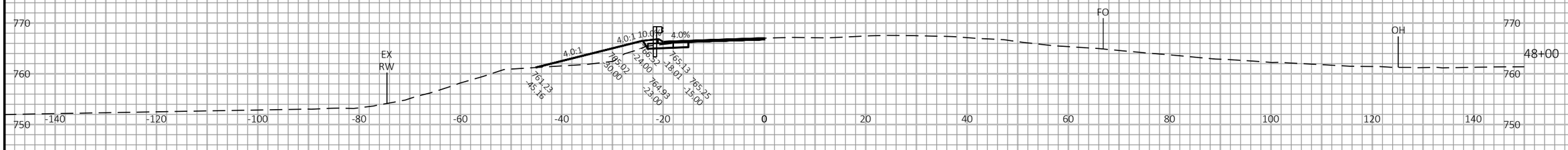
WISDOT/CADDS SHEET 49

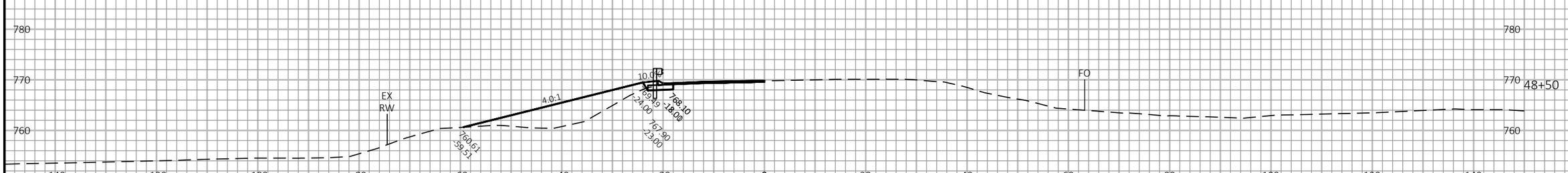
EAT POST #5

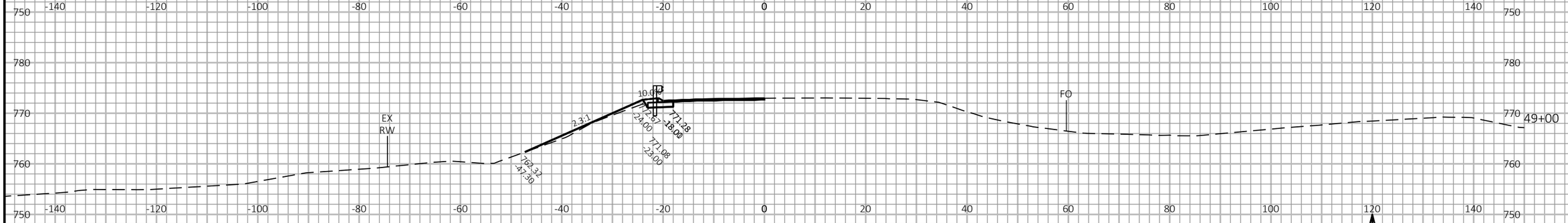


EAT POST #9







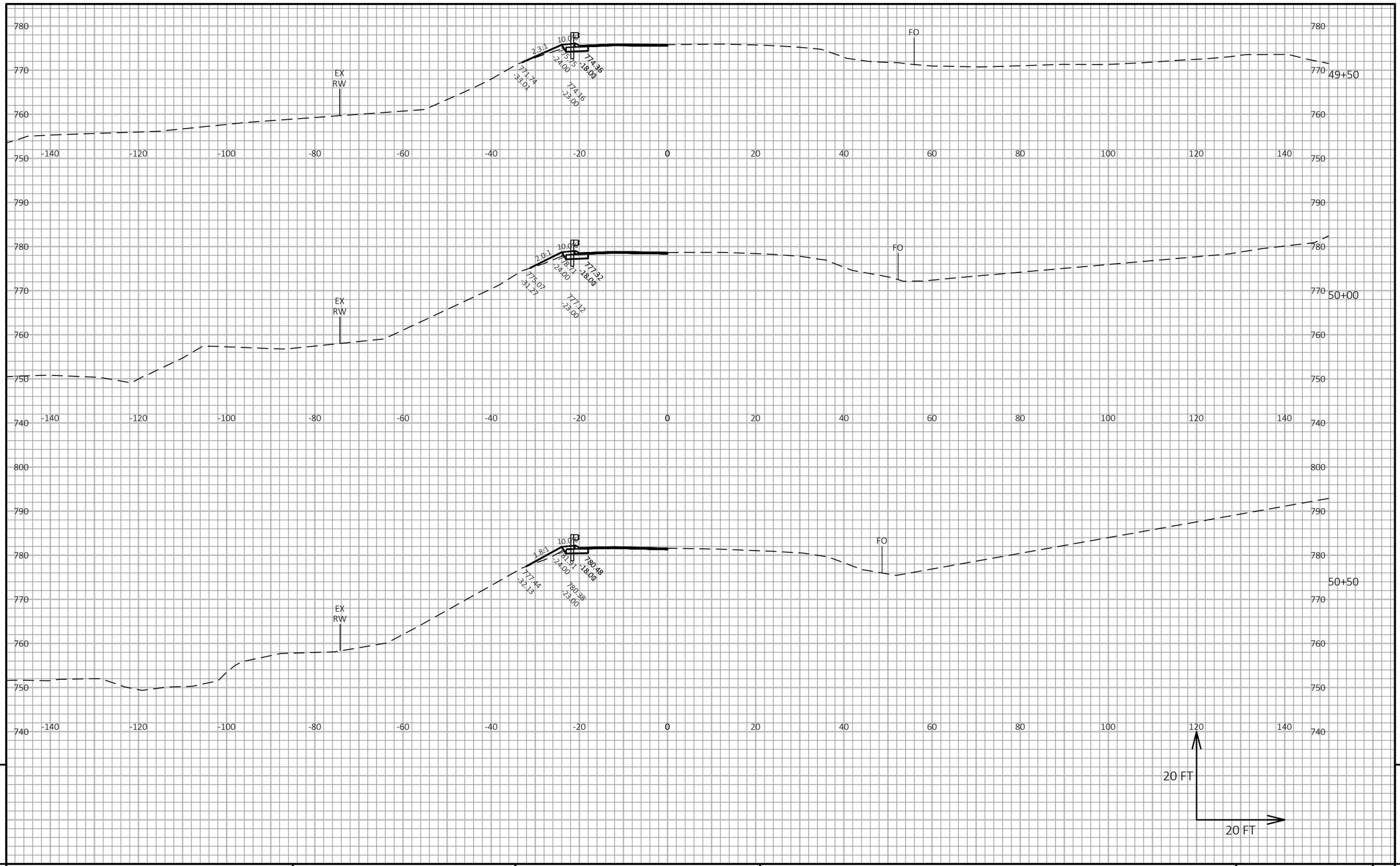


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 208	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 3:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

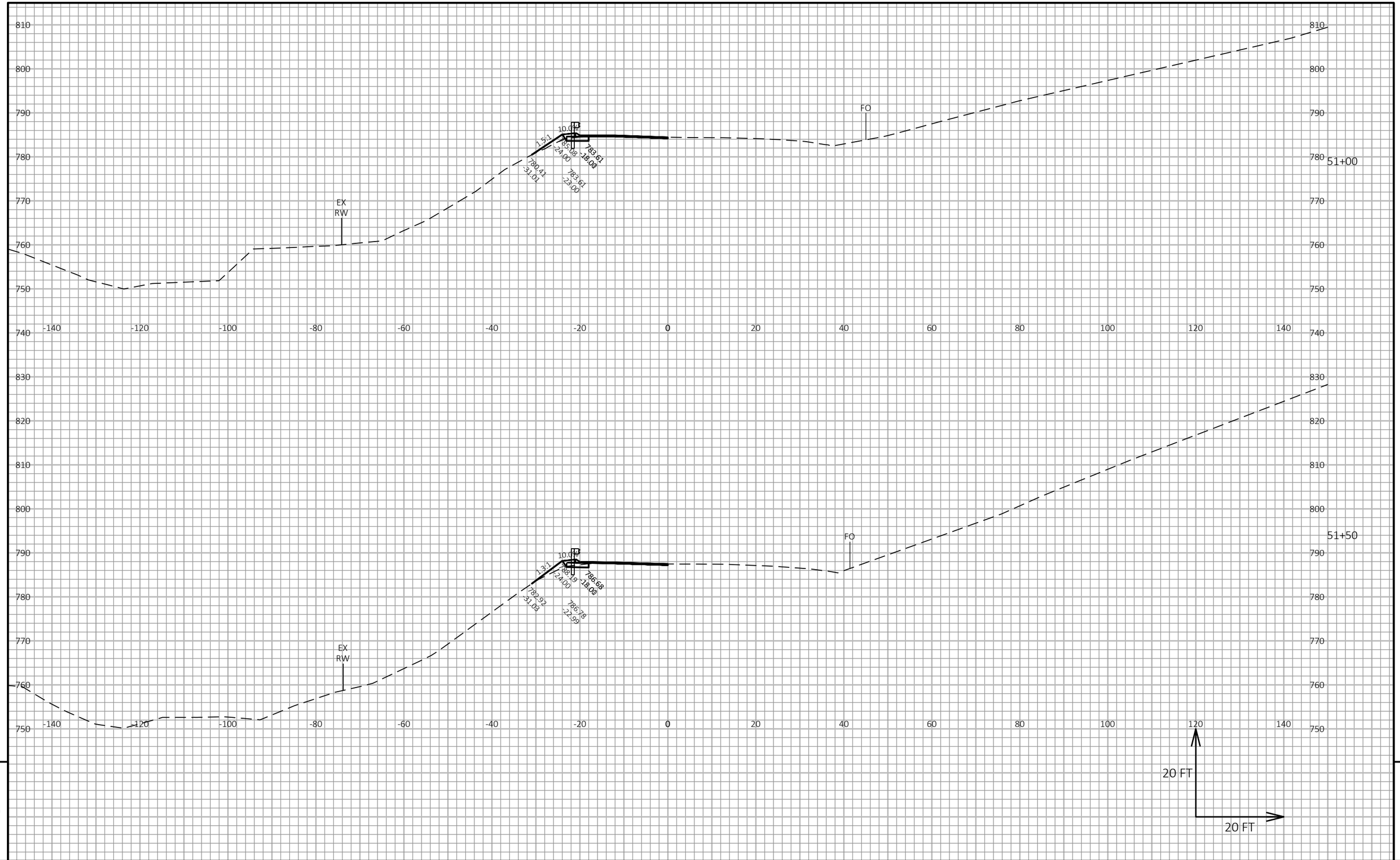


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 209	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 3:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 210	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 3:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

840
830
820
810
800
790
780
770
760
750

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

52+00

EX RW

FO

10.00%
1.57%
791.30
124.00
789.78
-18.00
784.33
-34.46
789.80
-22.99

20 FT

20 FT

9

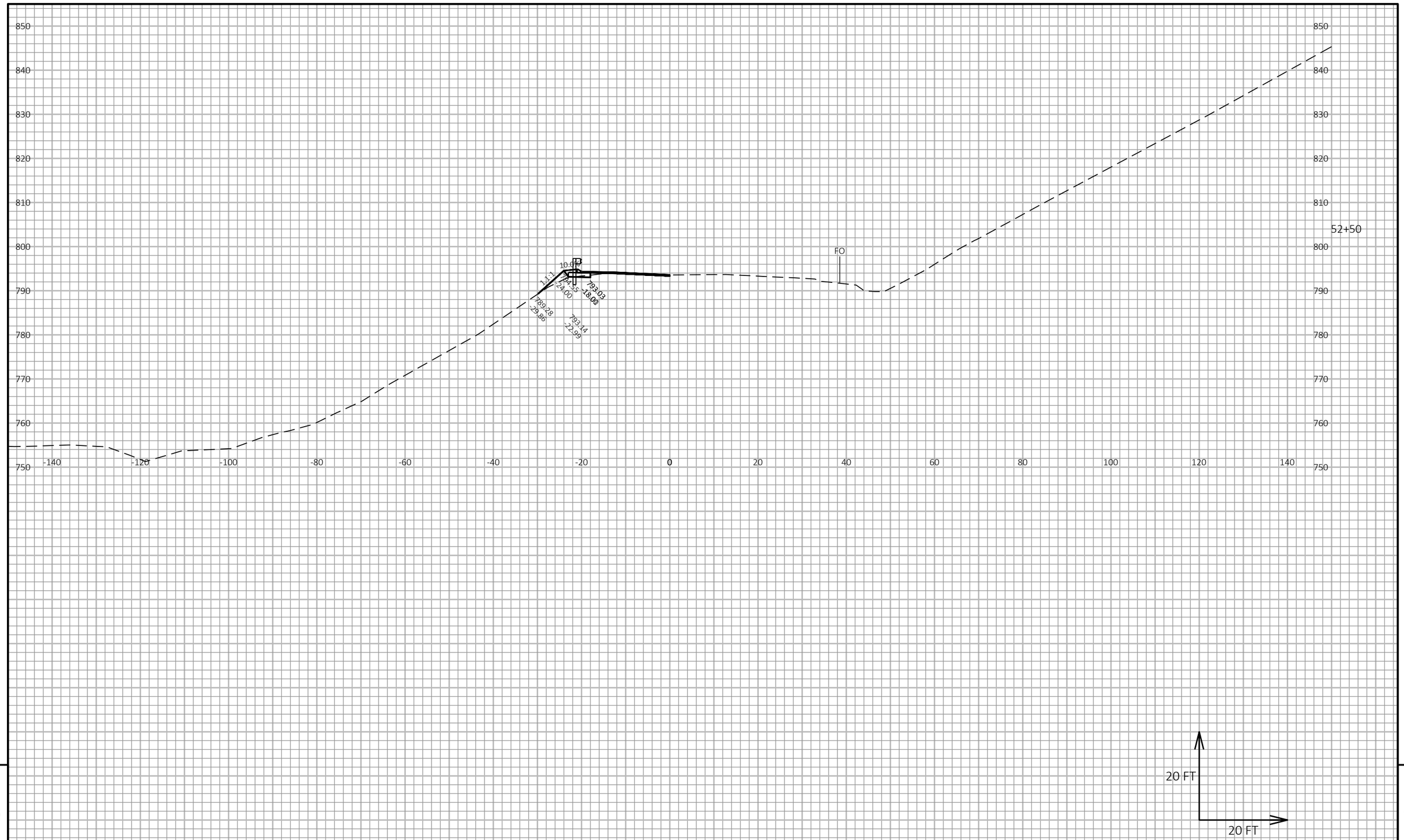
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 211	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 3:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

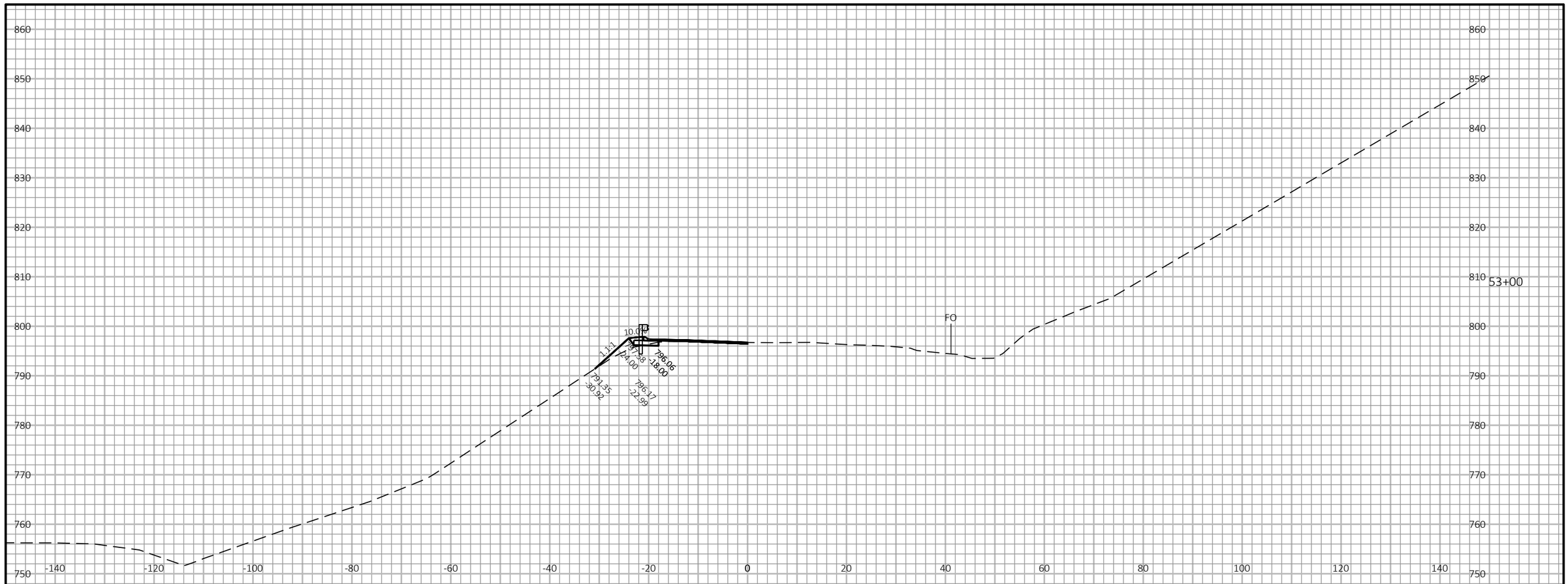
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 212	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 3:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

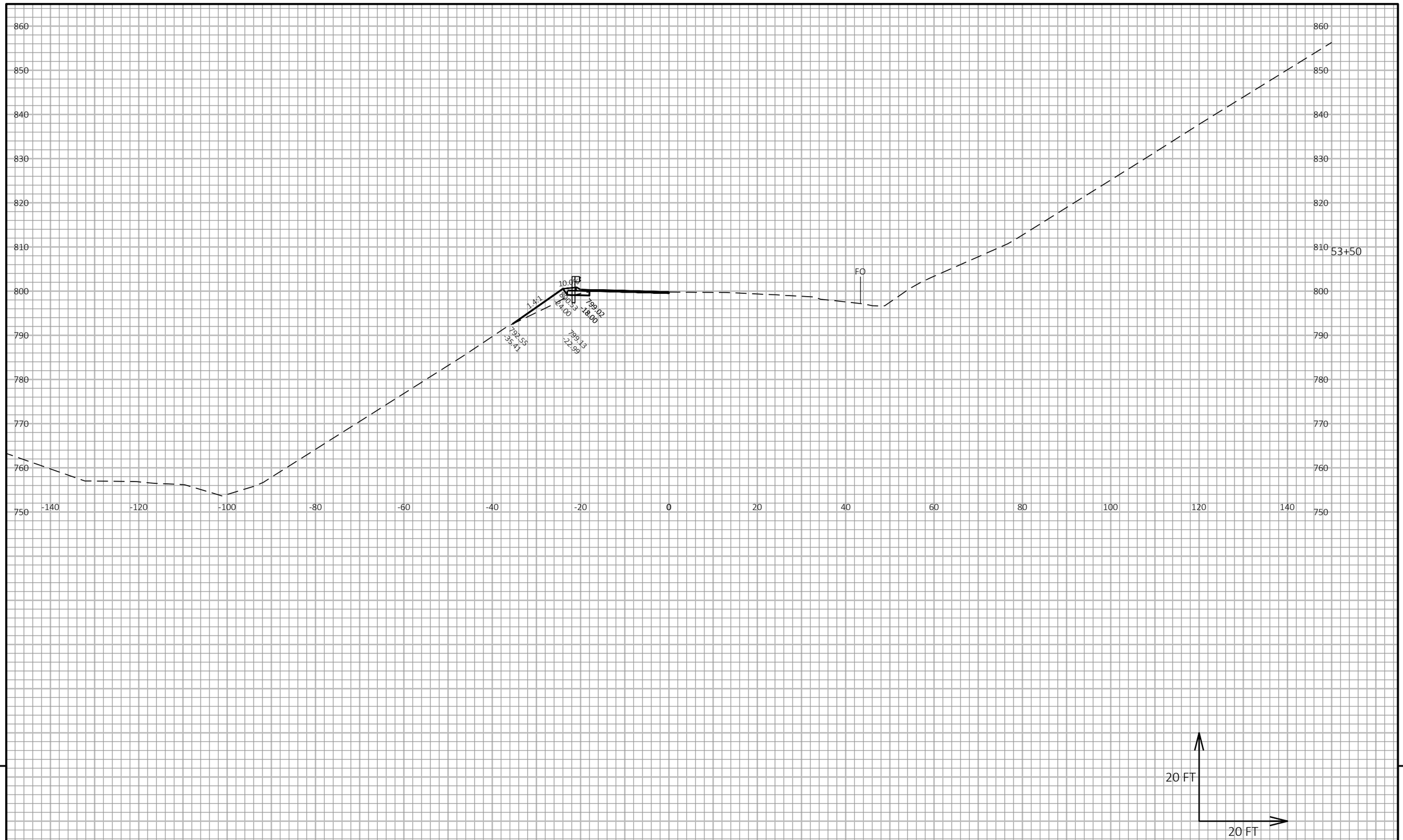
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 213	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 3:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

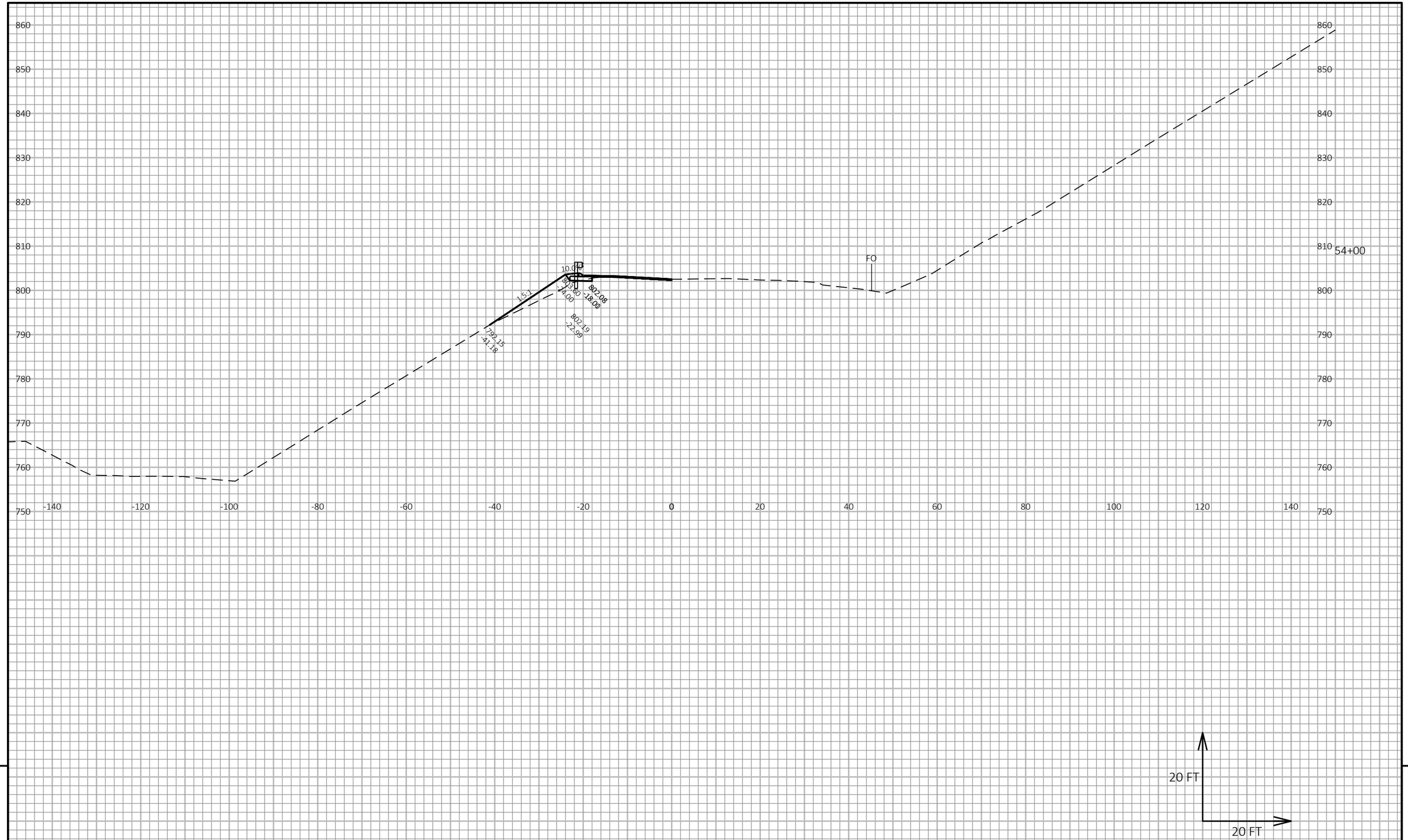
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 214	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 3:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



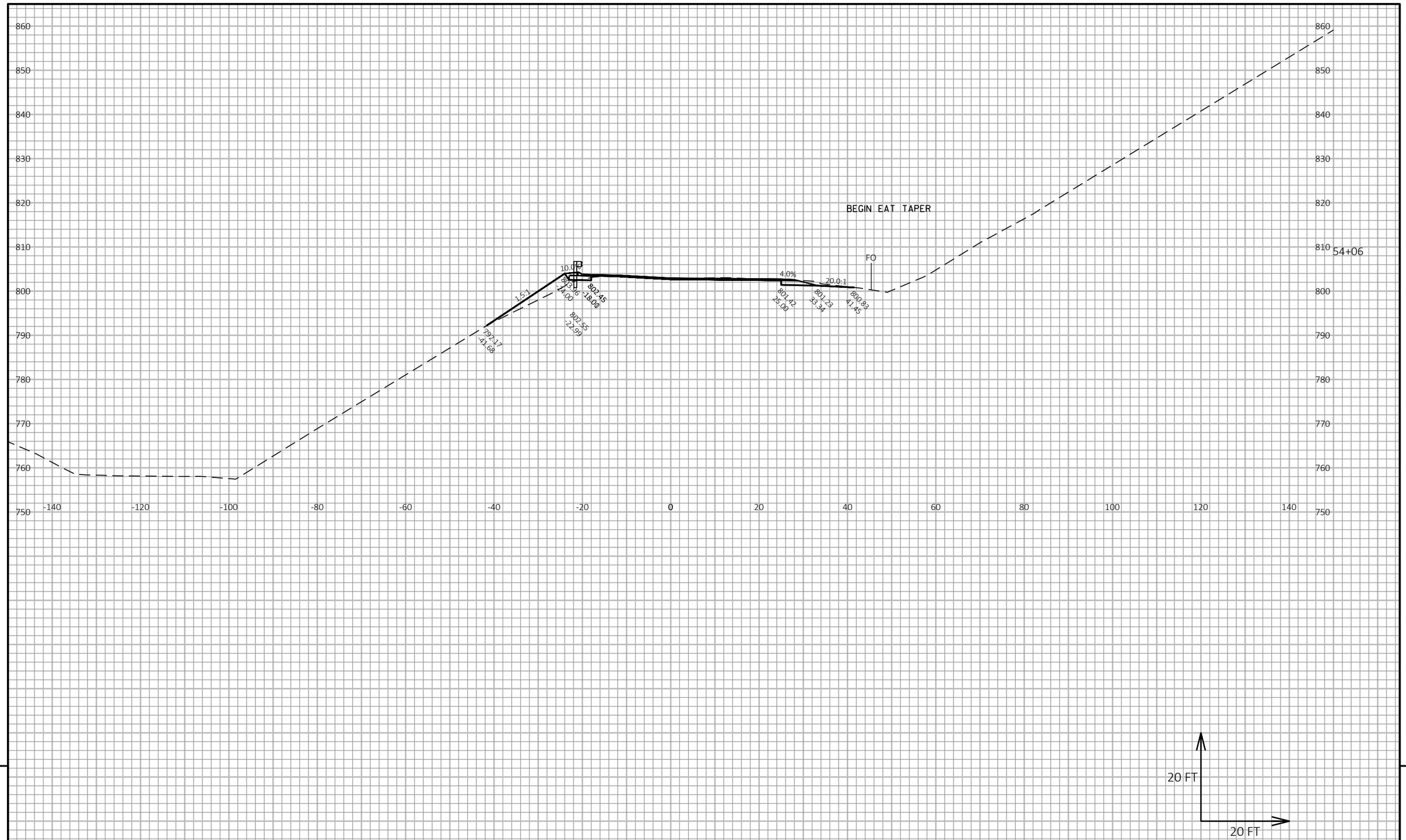
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9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 215	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 3:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

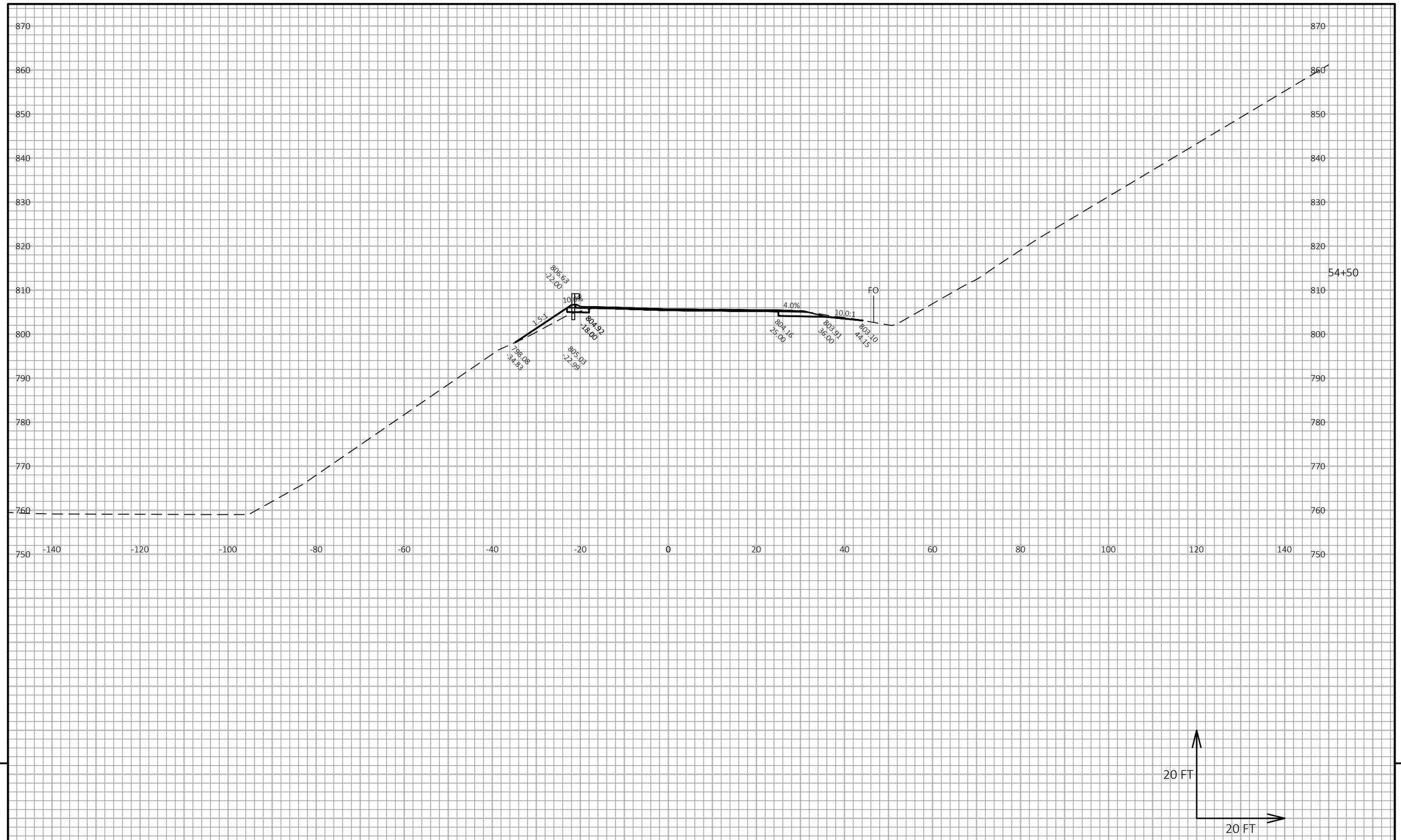
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 216	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 3:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 217	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 3:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

860
850
840
830
820
810
800
790
780
770
760

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

809.37
-22.00

10.0:1

1.5:1

807.65
-18.00

807.76
-22.99

799.37
-36.92

4.0% 4.0%

10.0:1

806.90
25.00

806.59
39.06

806.05
44.49

FO

55+00

20 FT

20 FT

9

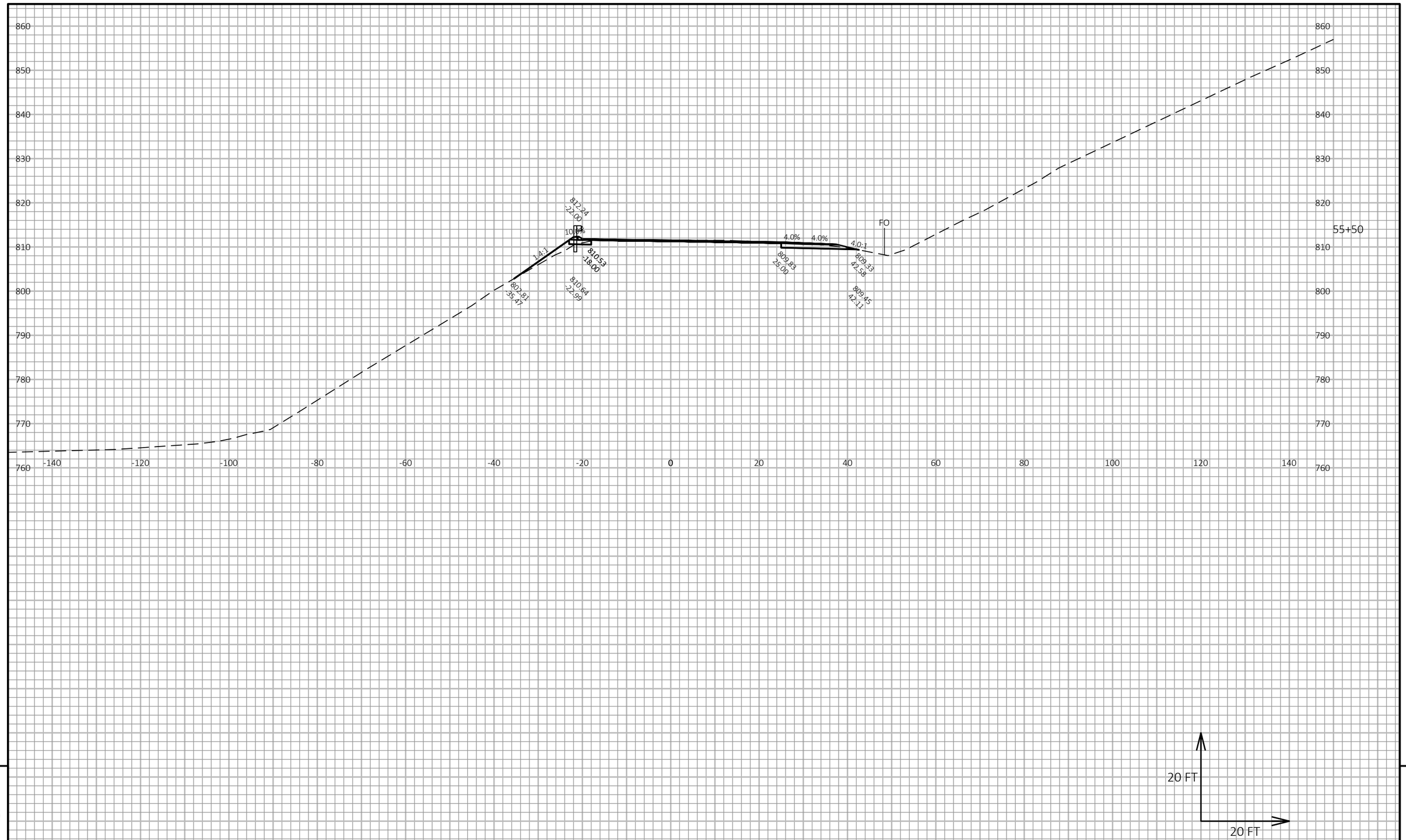
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 218	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 3:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



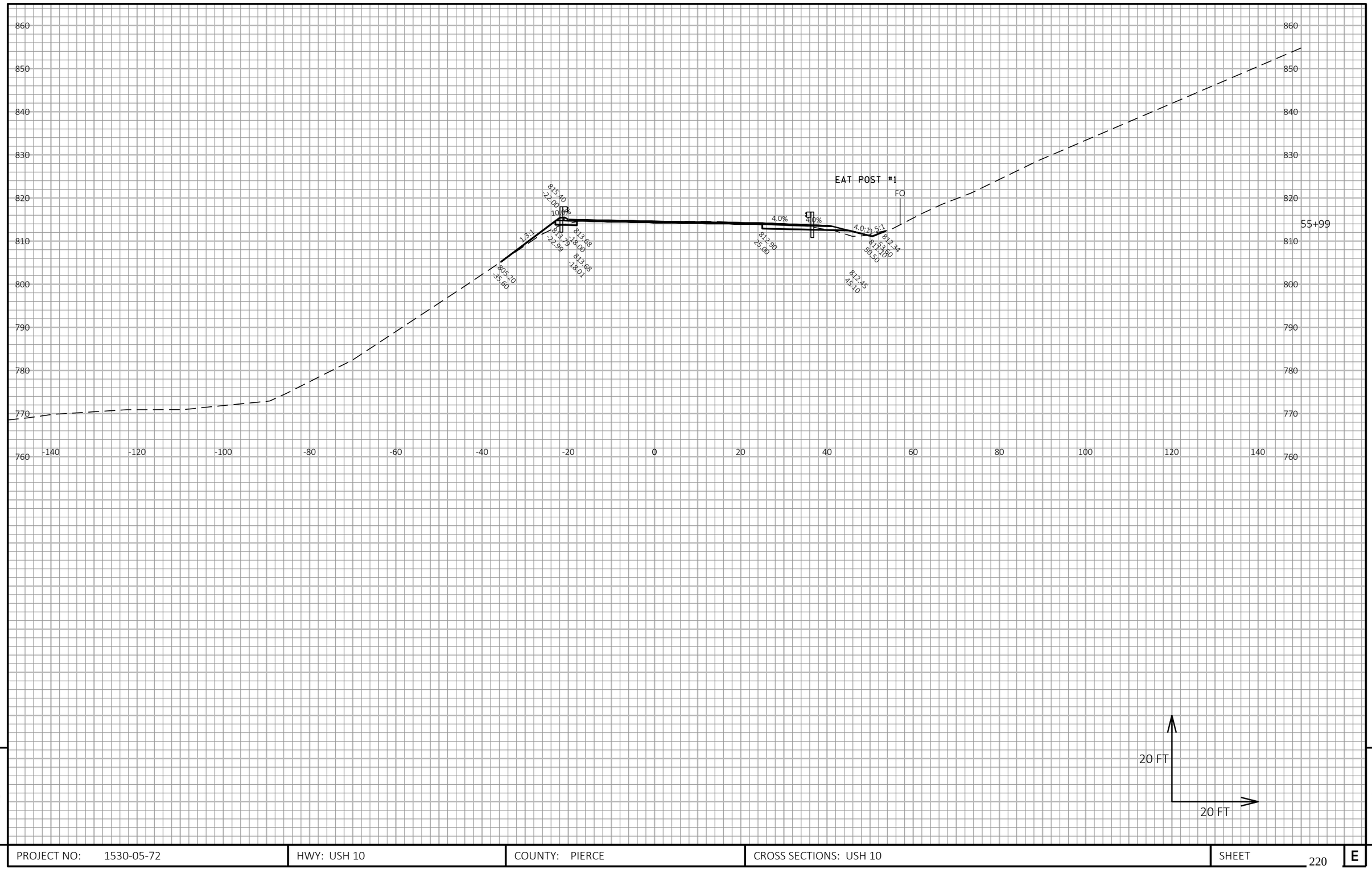
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 219	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 3:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

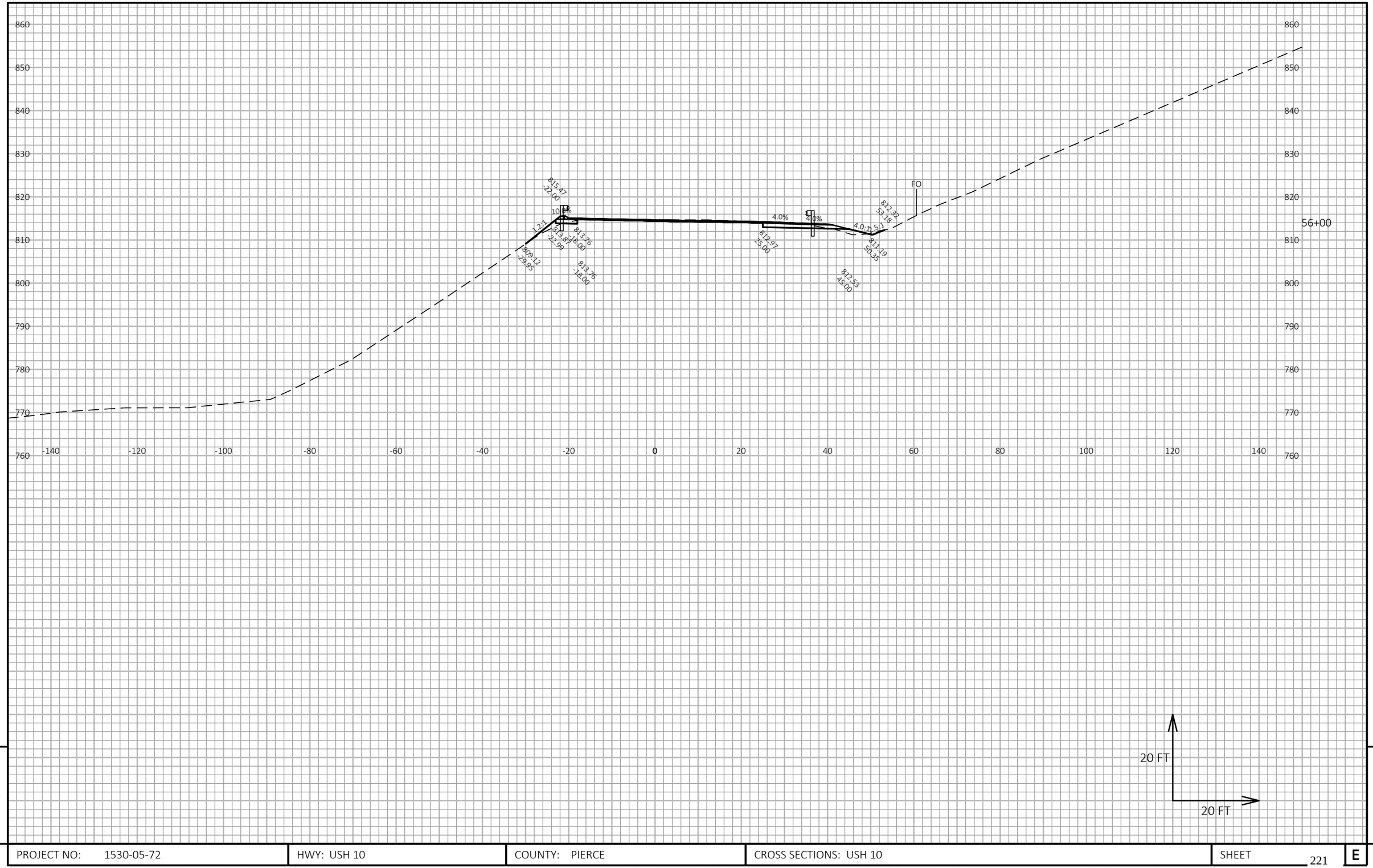
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 220	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 23

PLOT DATE : 2/16/2021 3:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

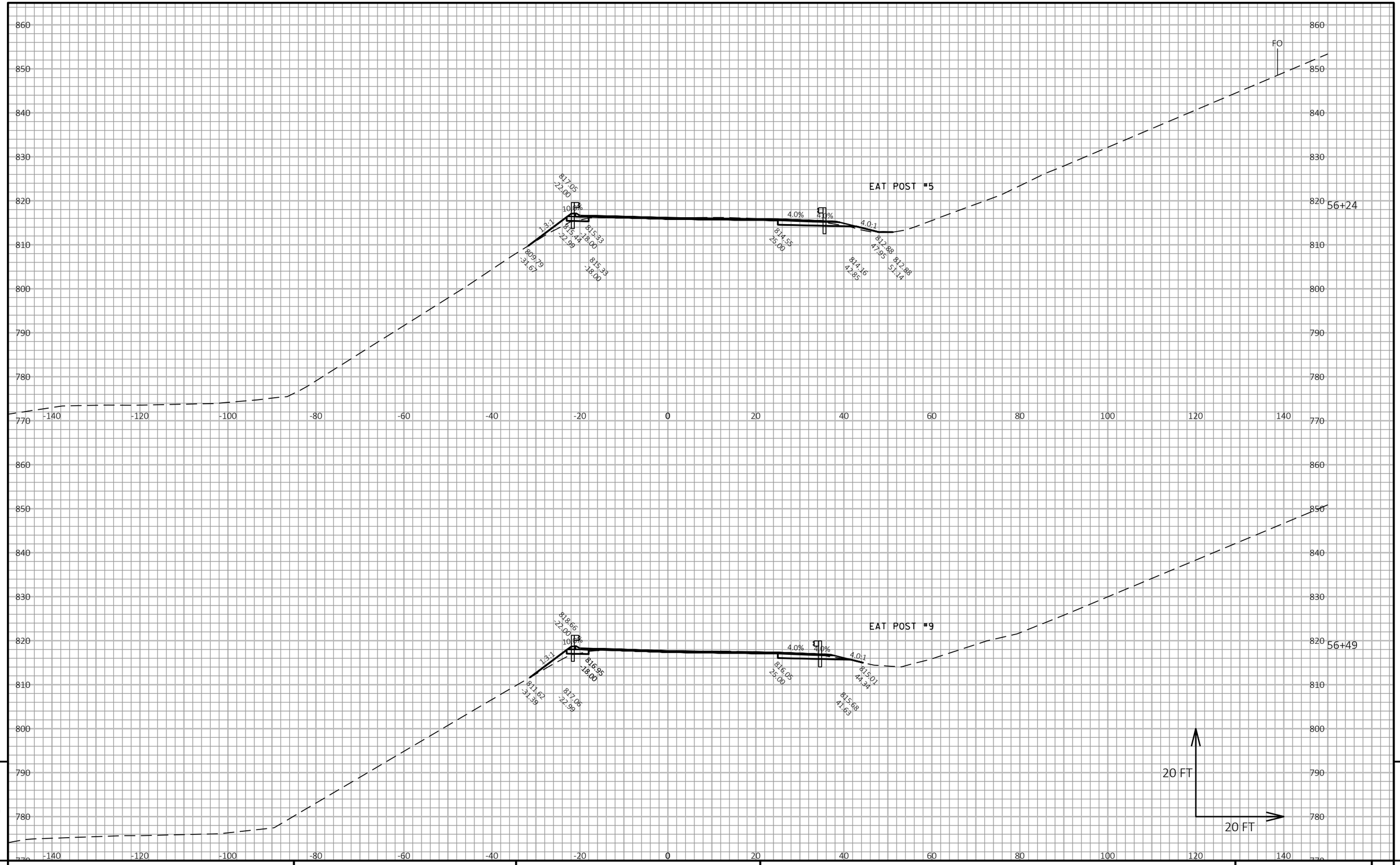
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 221	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 3:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

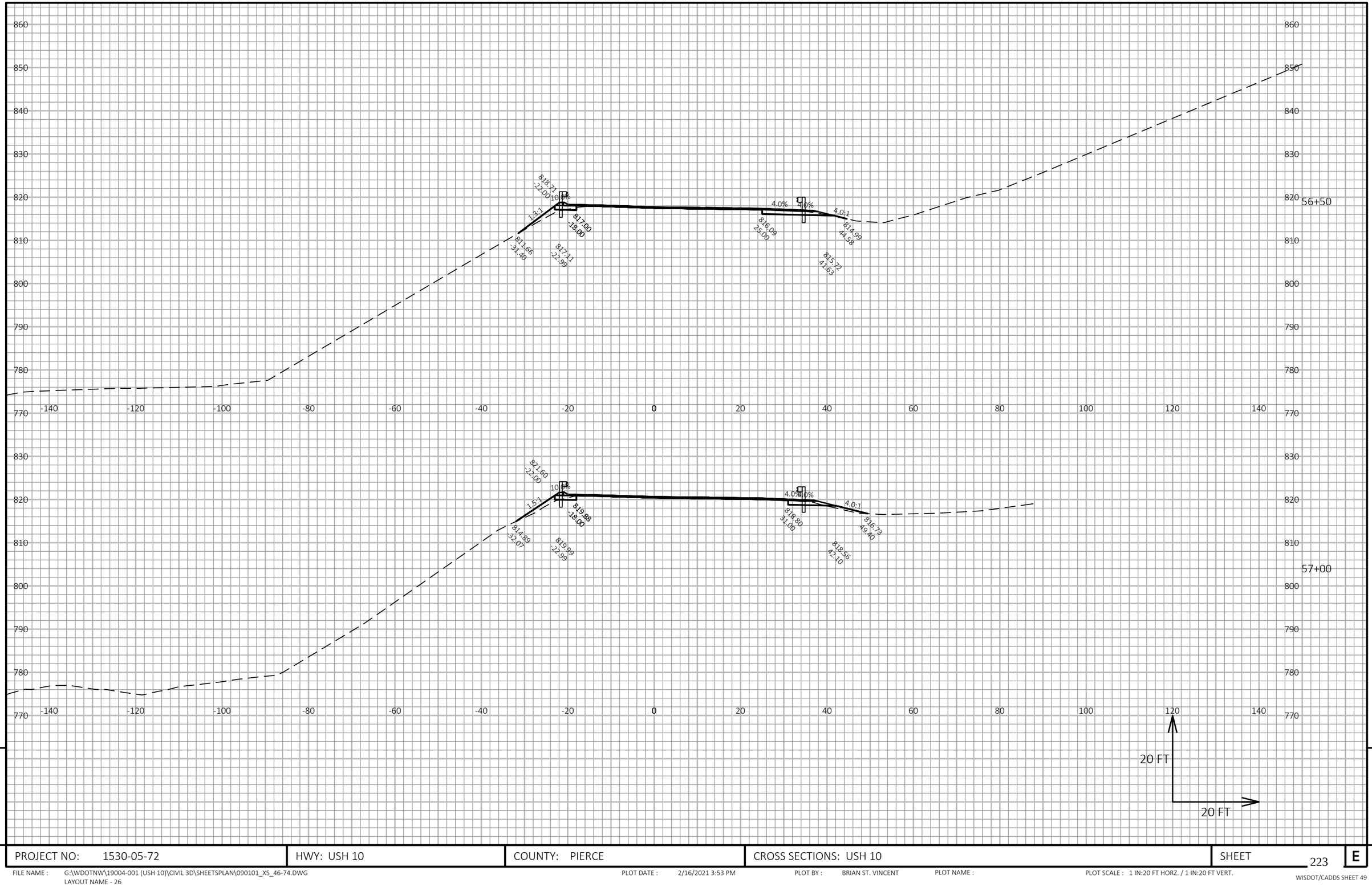
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 222	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 3:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

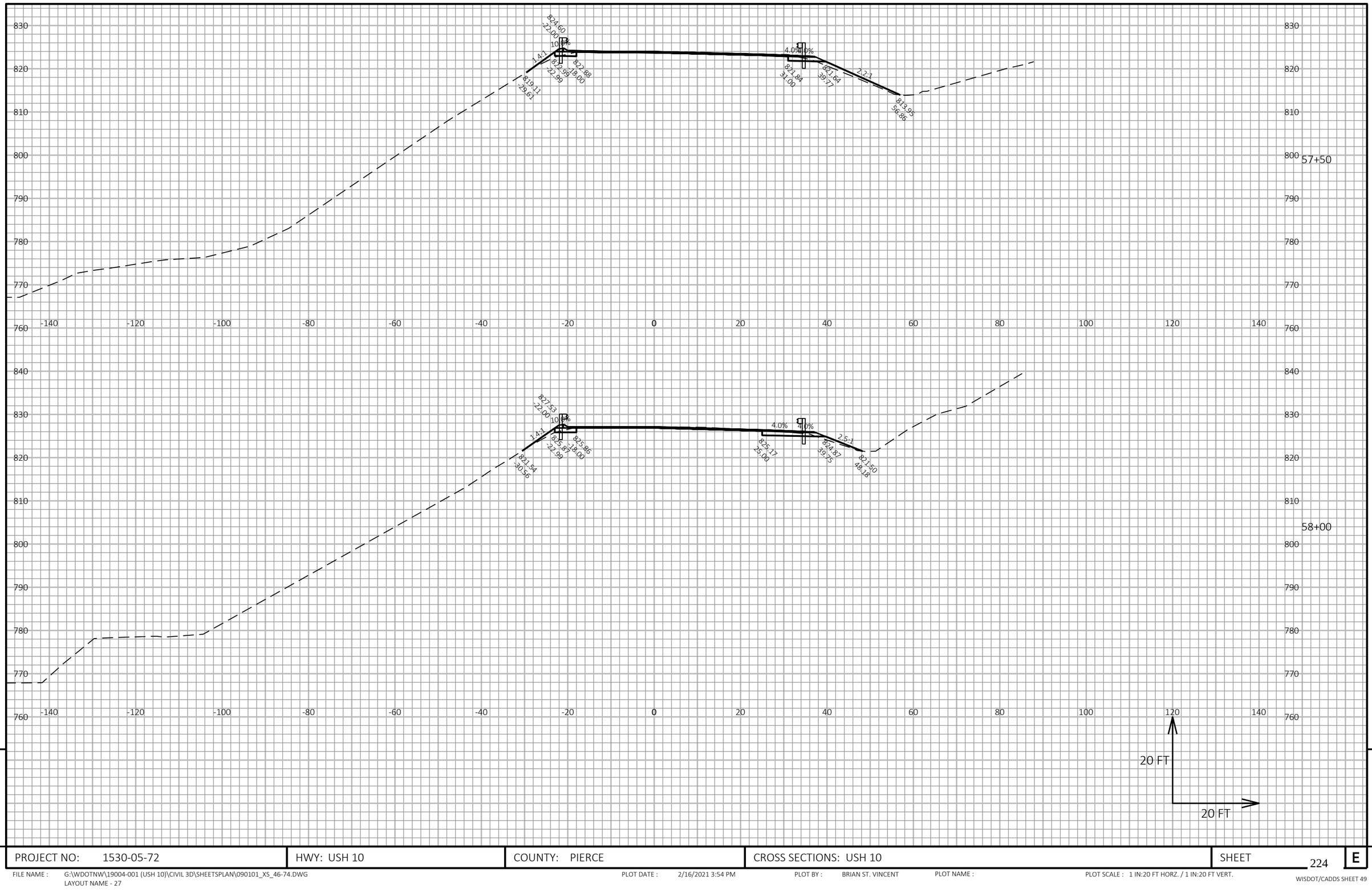
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 223	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 3:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

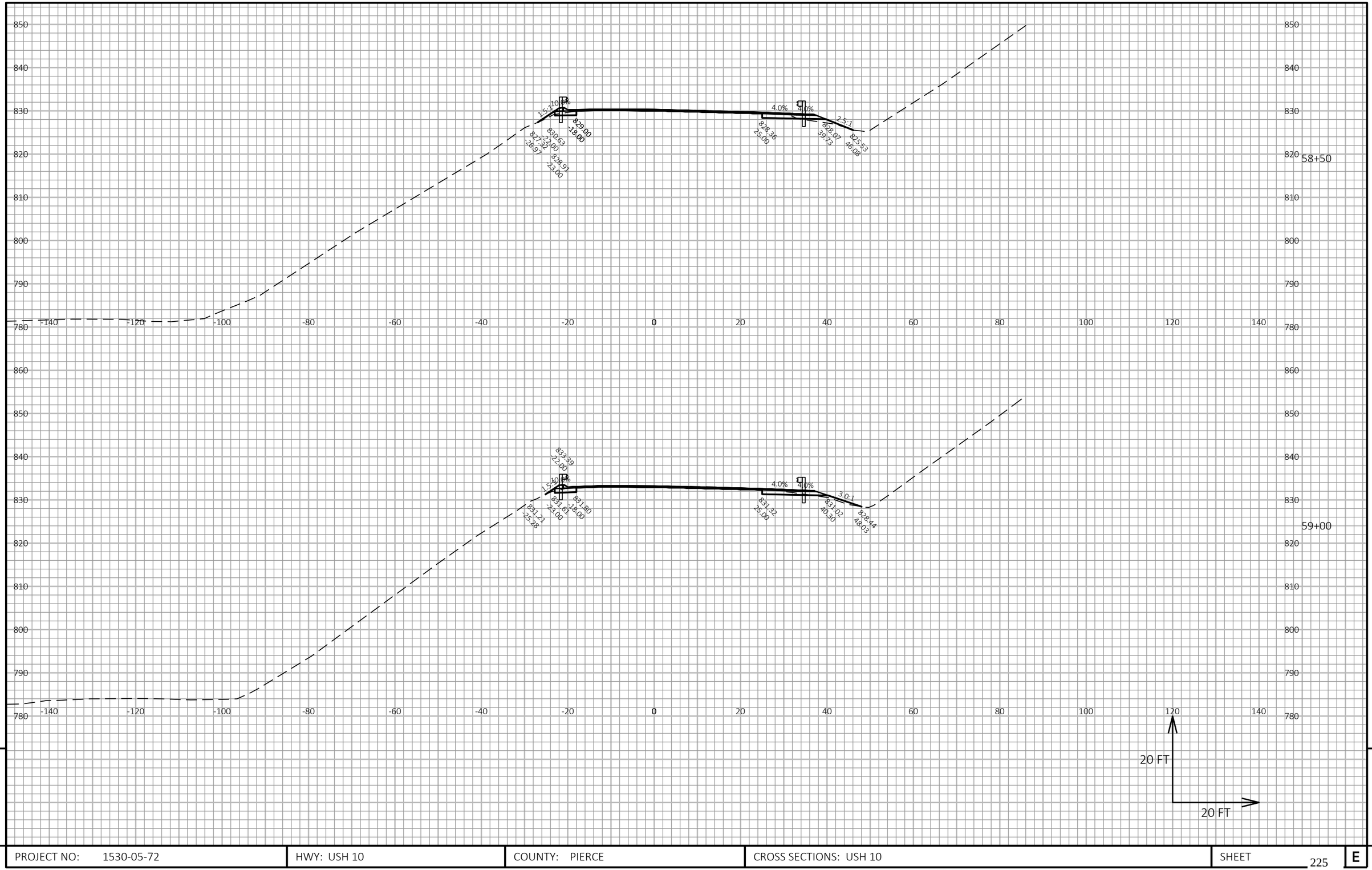
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 224	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 27

PLOT DATE : 2/16/2021 3:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 225	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 28

PLOT DATE : 2/16/2021 3:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST *9

59+43

835.70
22.00
10.0%
1.5%
833.38
25.49
834.11
-18.00
833.91
22.00
4.0%
4.0%
833.91
25.00
833.20
43.00
4.0:1
2.5:1
833.58
41.48
830.77
49.09

59+50

836.02
22.00
10.0%
1.5%
833.78
25.37
834.43
-18.00
834.23
23.00
4.0%
4.0%
834.24
25.00
833.61
49.06
4.0:1
2.5:1
833.91
41.80
831.04
49.41

20 FT
20 FT

9

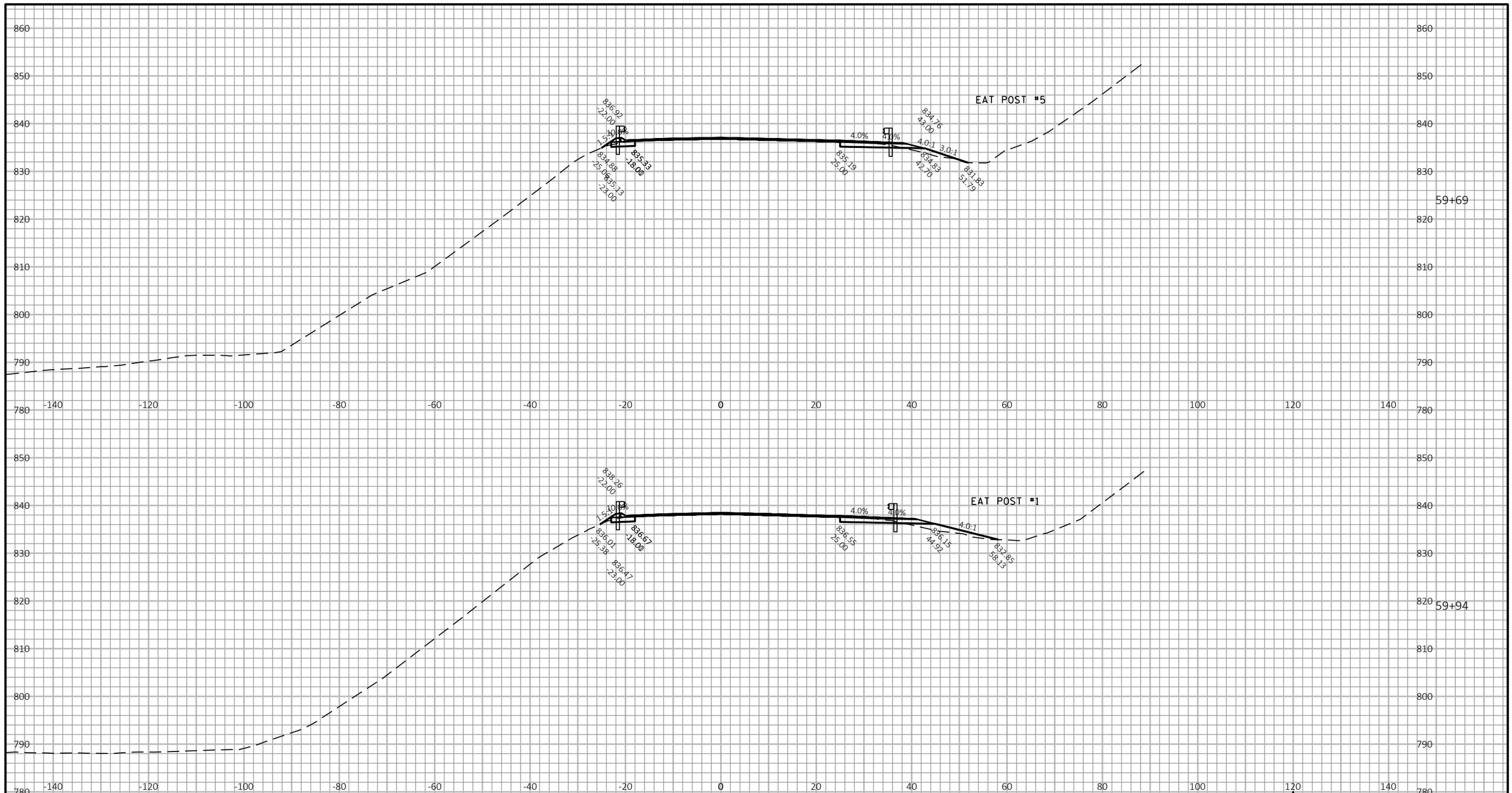
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 226	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 29

PLOT DATE : 2/16/2021 3:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

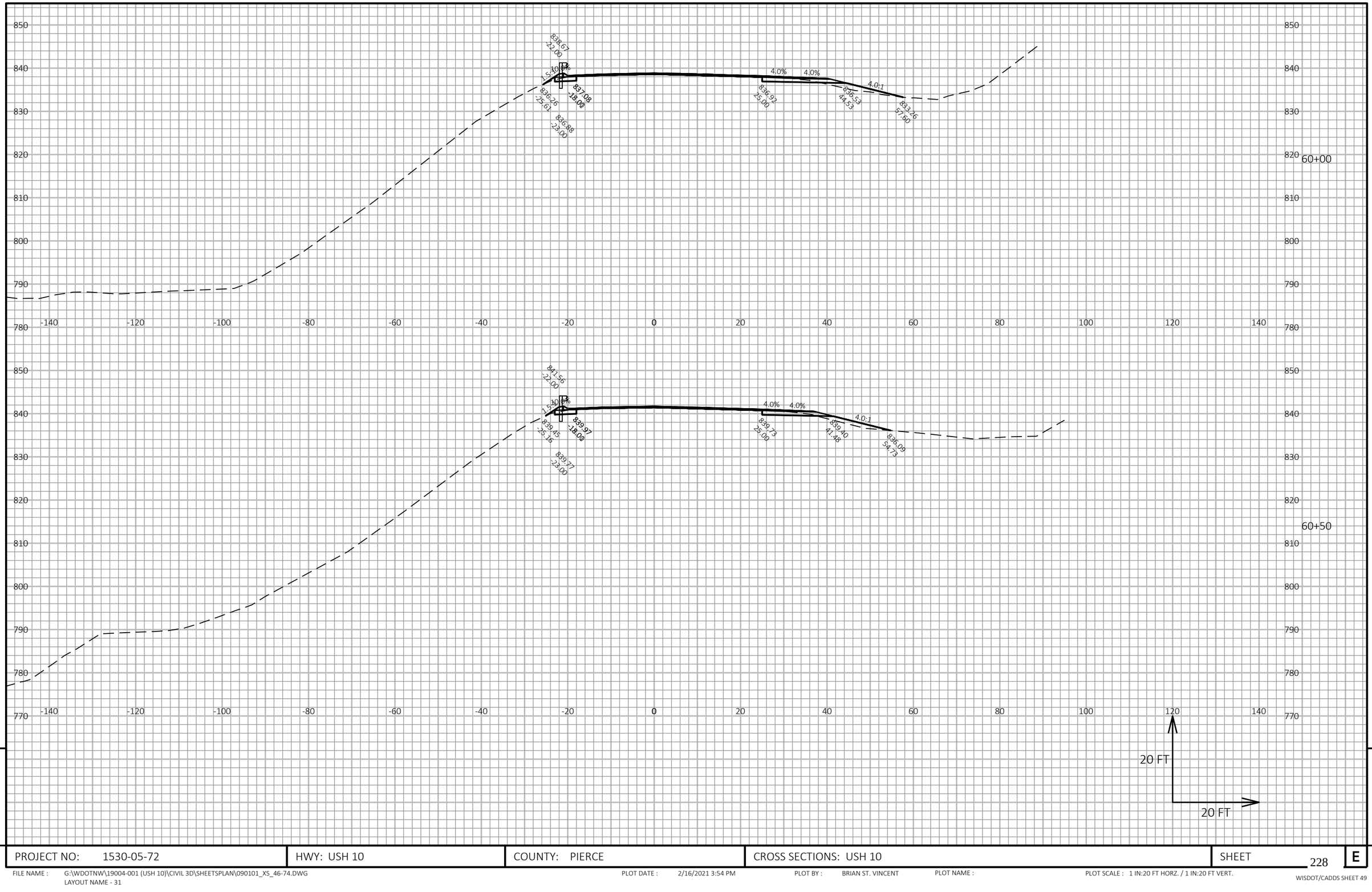
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 227	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 30

PLOT DATE : 2/16/2021 3:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



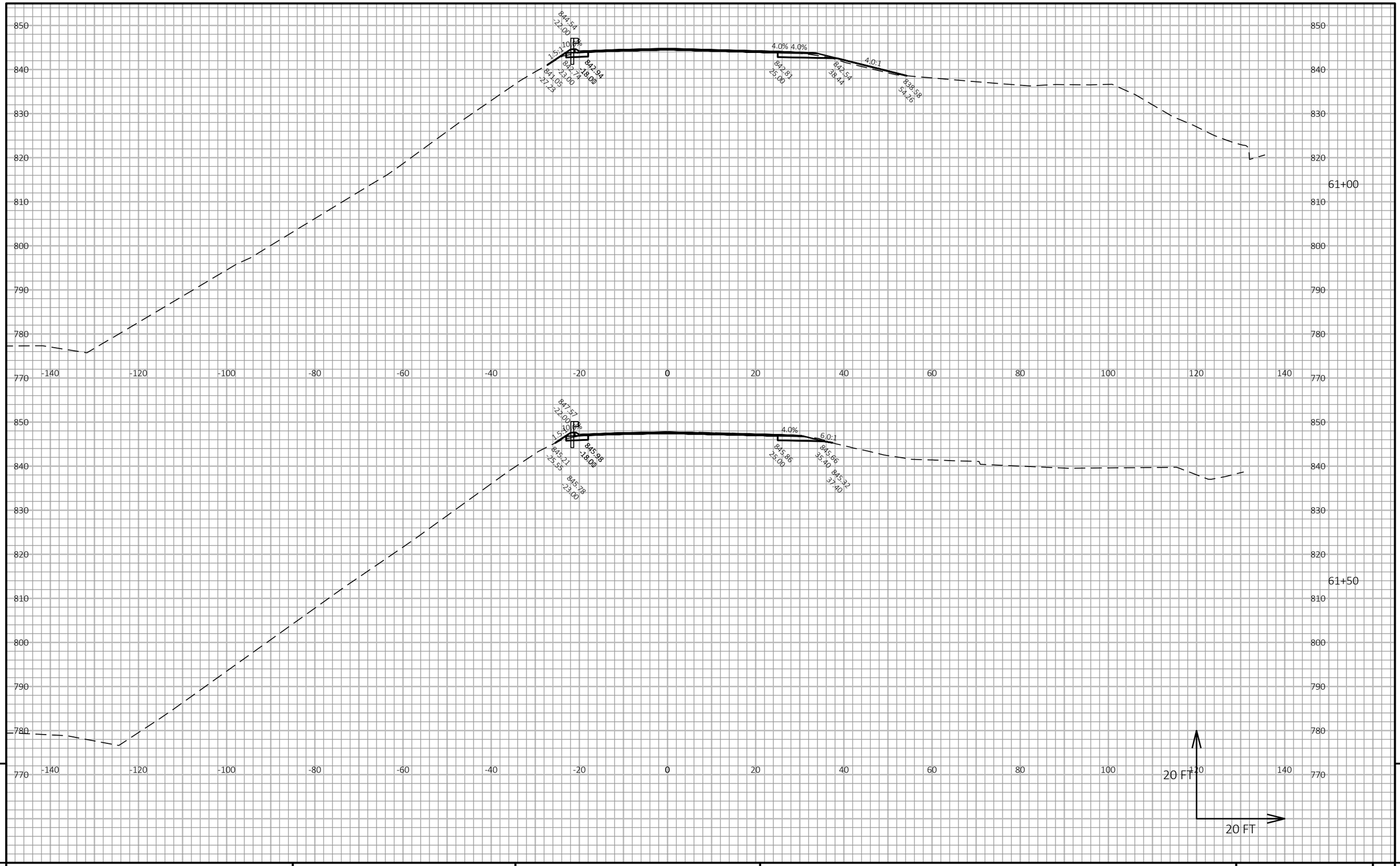
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 228	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 31

PLOT DATE : 2/16/2021 3:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

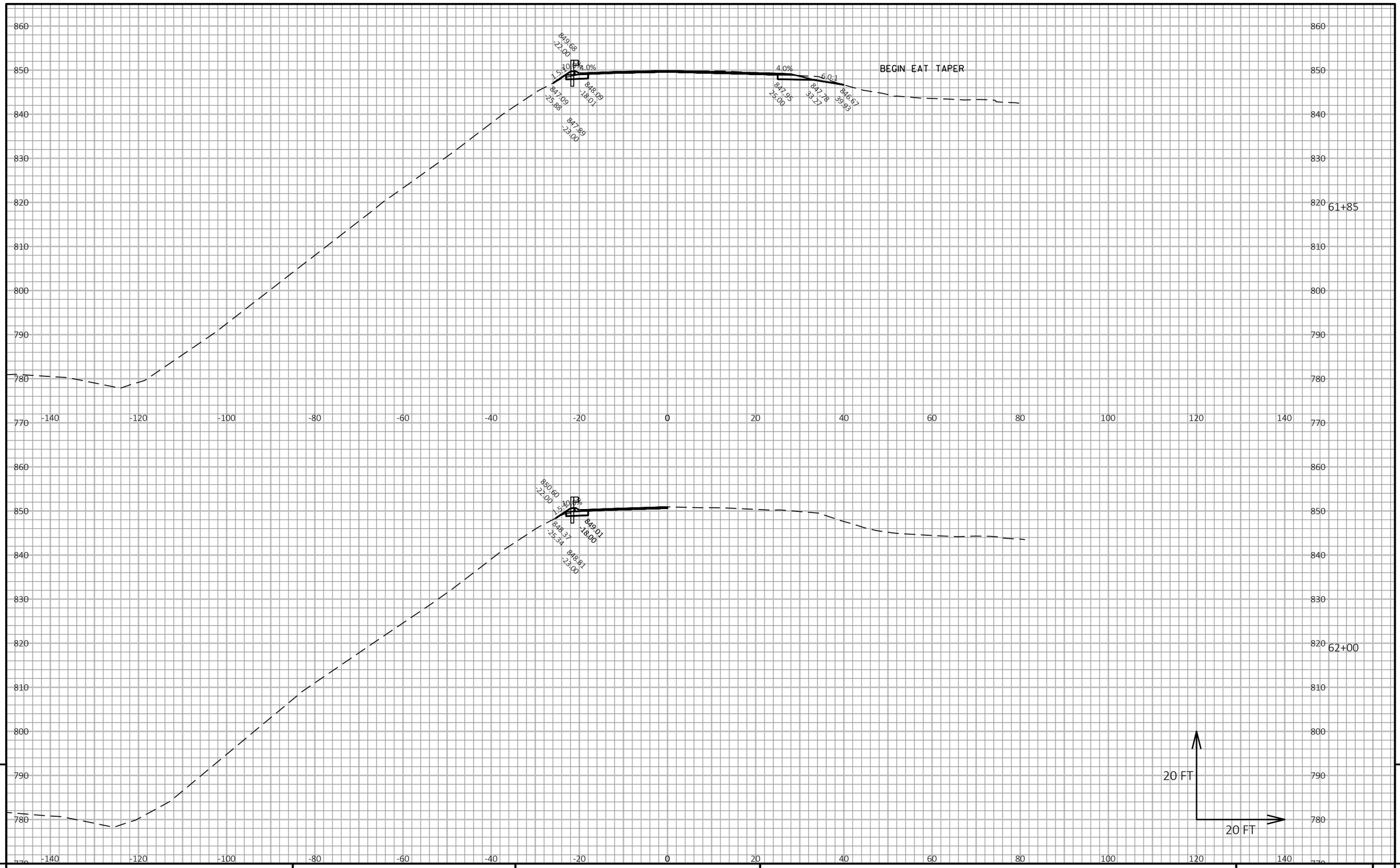
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 229	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 32

PLOT DATE : 2/16/2021 3:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

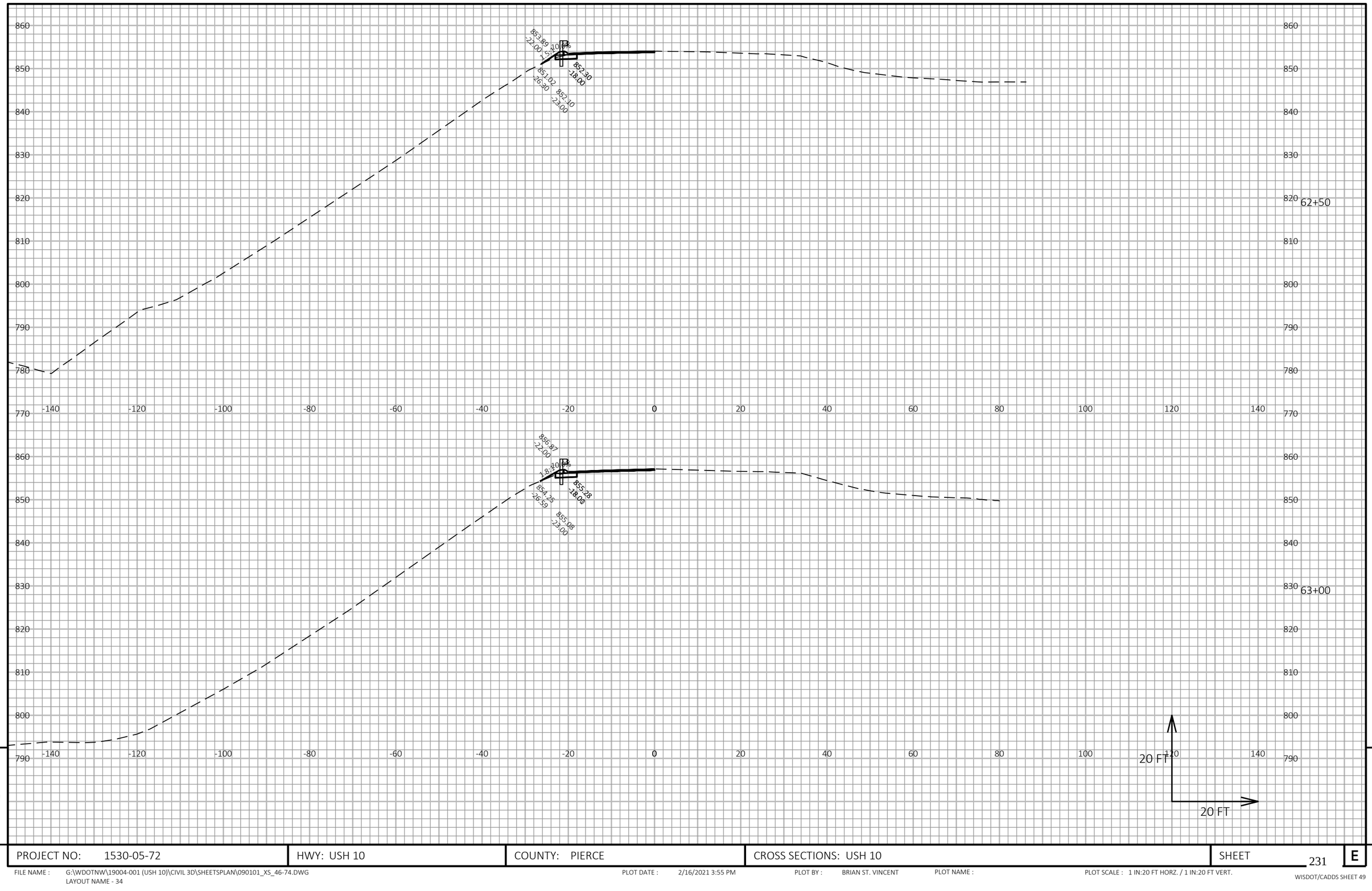
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 230	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 33

PLOT DATE : 2/16/2021 3:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

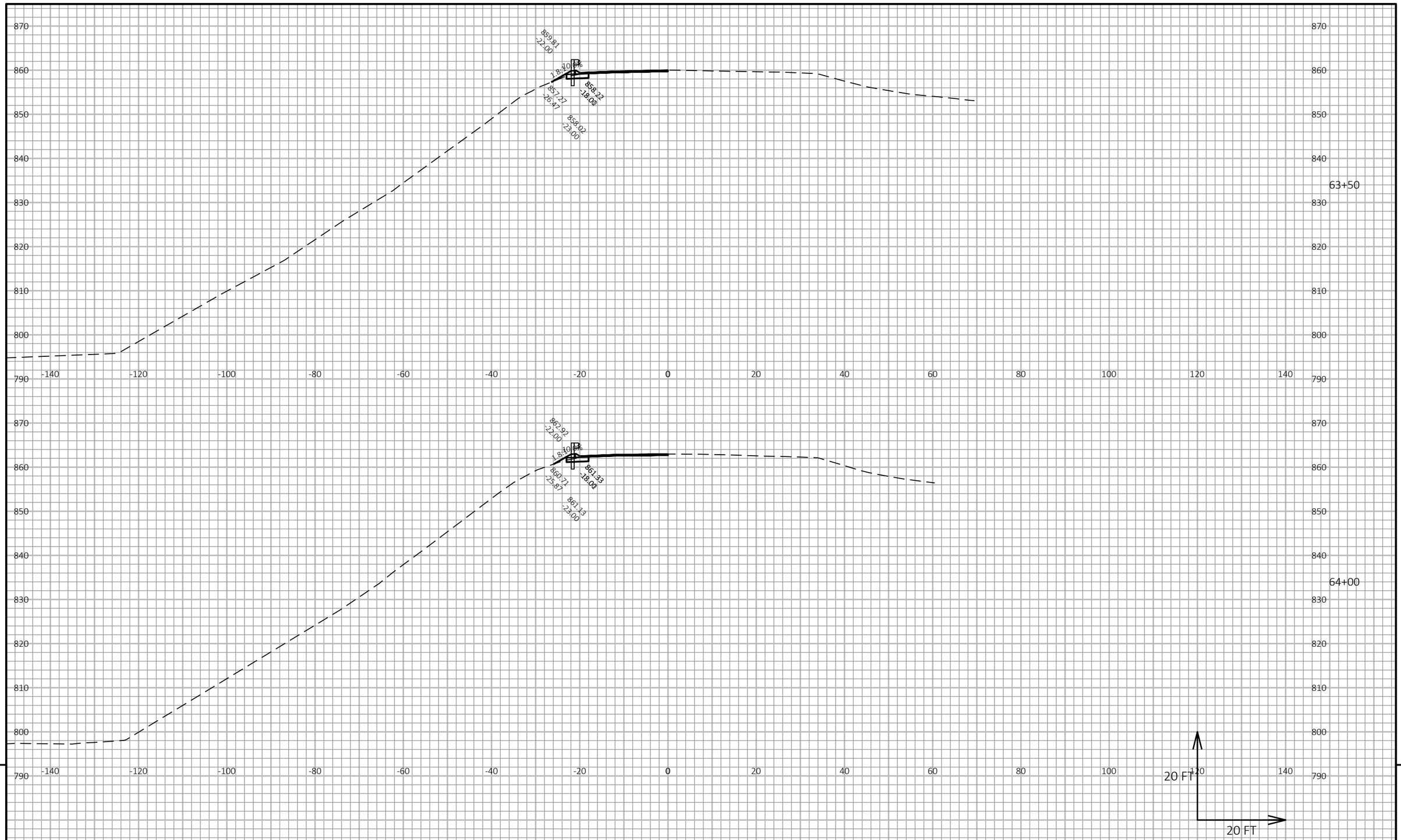


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 231	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 34

PLOT DATE : 2/16/2021 3:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

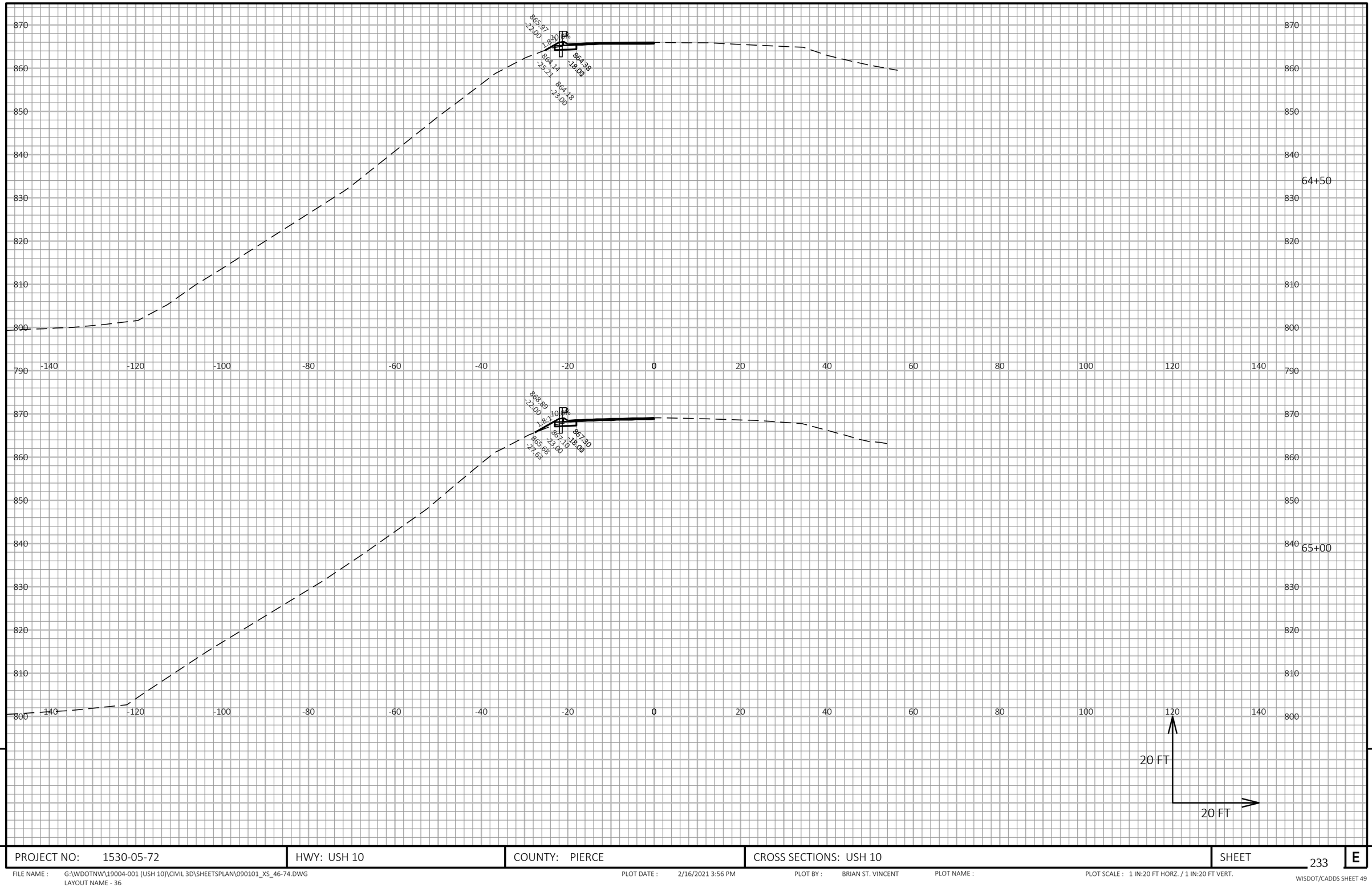
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 232	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 35

PLOT DATE : 2/16/2021 3:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



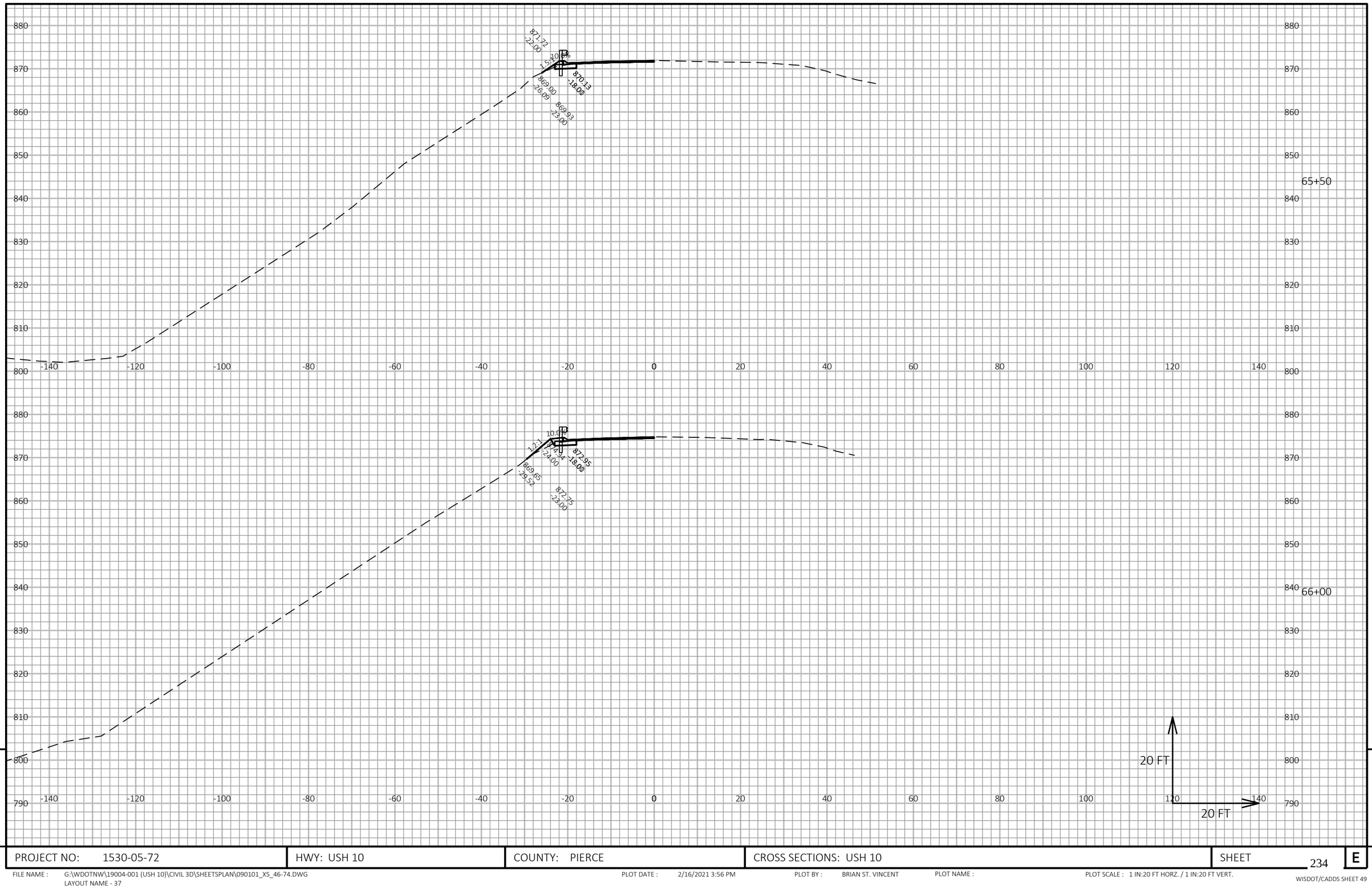
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 233	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 36

PLOT DATE : 2/16/2021 3:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

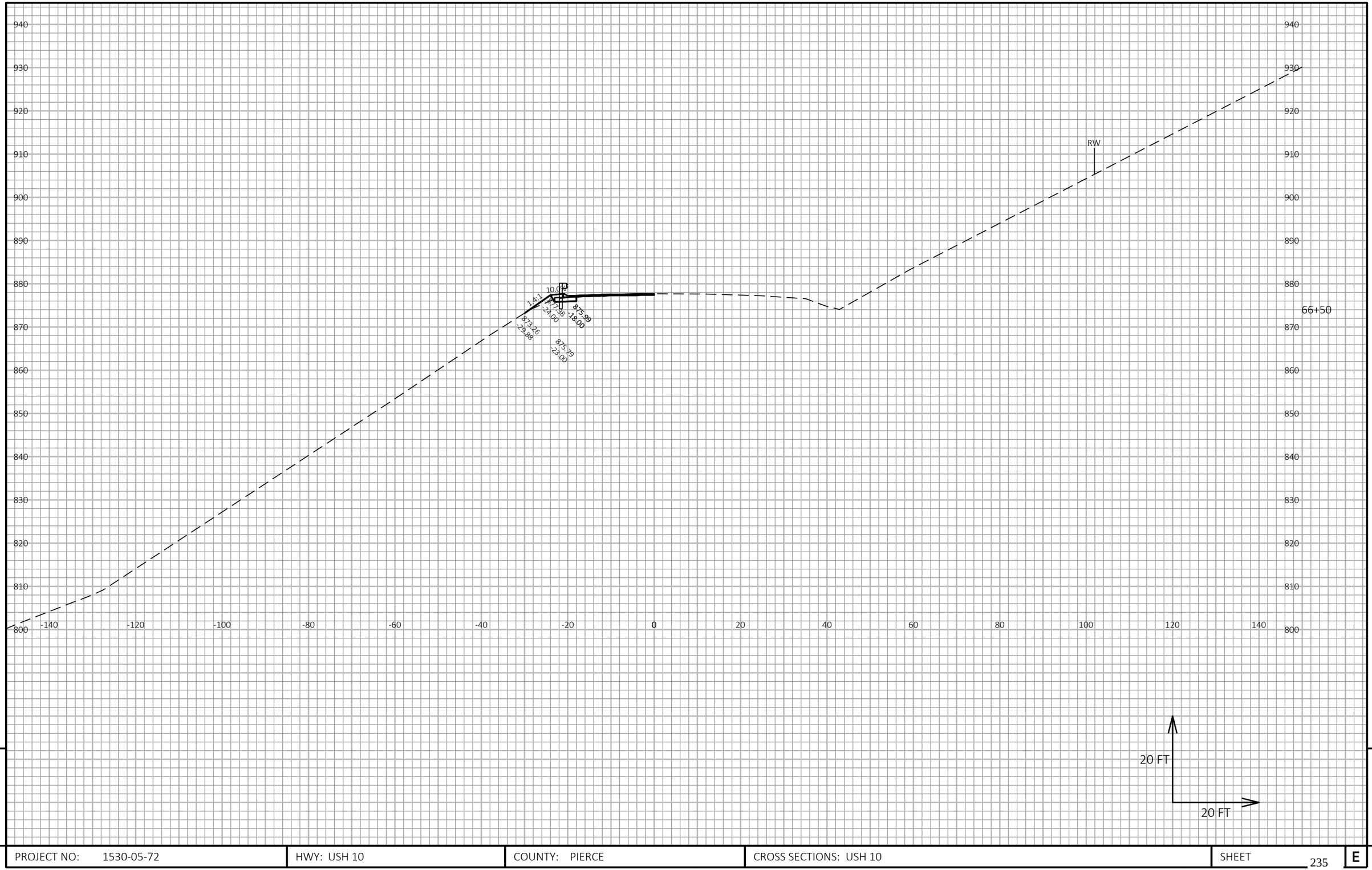


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 234	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 37

PLOT DATE : 2/16/2021 3:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 235	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 38

PLOT DATE : 2/16/2021 3:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

940
930
920
910
900
890
880
870
860
850
840
830
820
810
800

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

1.5:1
10.00
2.00
878.14
-18.00
878.14
-24.00
876.64
-29.84
878.94
-23.00

67+00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 236	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 39

PLOT DATE : 2/16/2021 3:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

940
930
920
910
900
890
880
870
860
850
840
830
820
810
800

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

10.00
1.4:1
883.78
224.00
879.34
-30.78
882.39
-18.000
882.19
-22.00

67+50

20 FT
20 FT

9

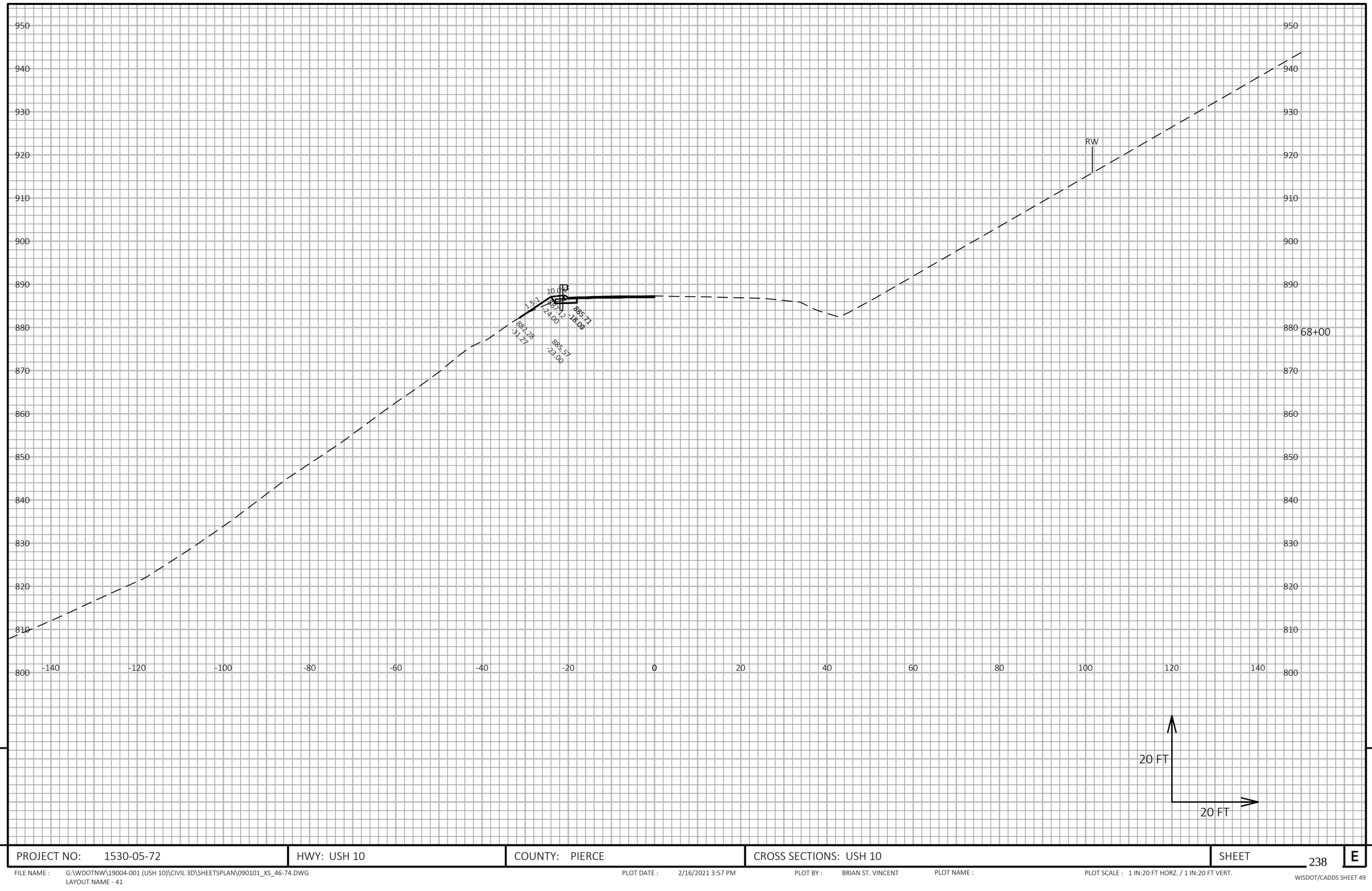
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 237	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 40

PLOT DATE : 2/16/2021 3:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 238	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 41

PLOT DATE : 2/16/2021 3:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

68+50

889.26
-18.00

889.21
-23.00

887.25
-28.94

10.0%

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 239	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 42

PLOT DATE : 2/16/2021 3:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

10.00%
-7.87%
-24.00
888.02
-35.19
893.68
-18.00
892.73
-22.99

69+00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 240	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 43

PLOT DATE : 2/16/2021 3:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

10.00
7.87
124.00
895.95
-16.00
890.69
-35.88
896.10
-22.99

69+50

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 241	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 44

PLOT DATE : 2/16/2021 3:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

RW

70+00

10.00
2.0%
900.06
-24.00
894.29
-36.74
899.33
-22.99
899.09
-18.00

20 FT
20 FT

9

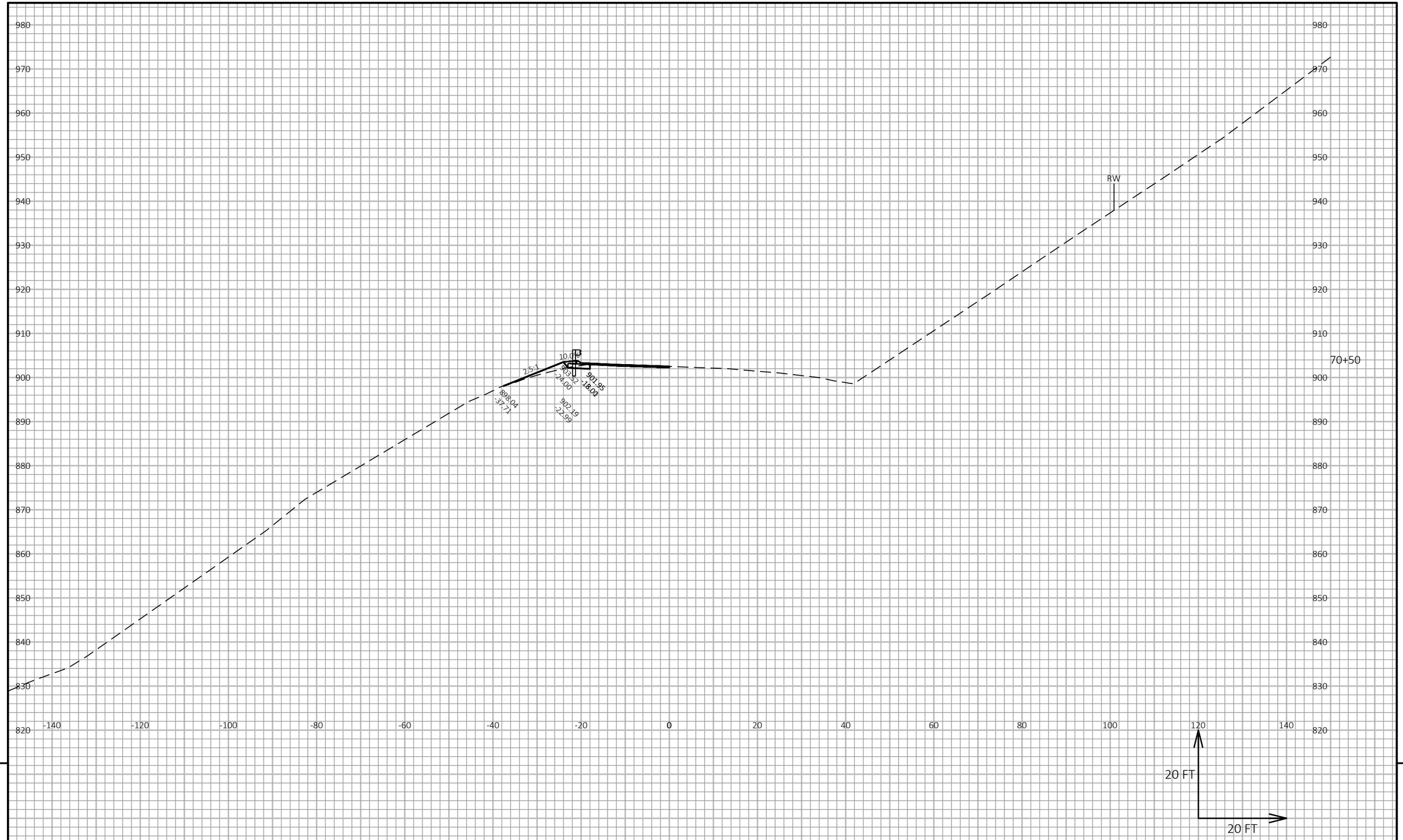
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 242	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 45

PLOT DATE : 2/16/2021 3:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



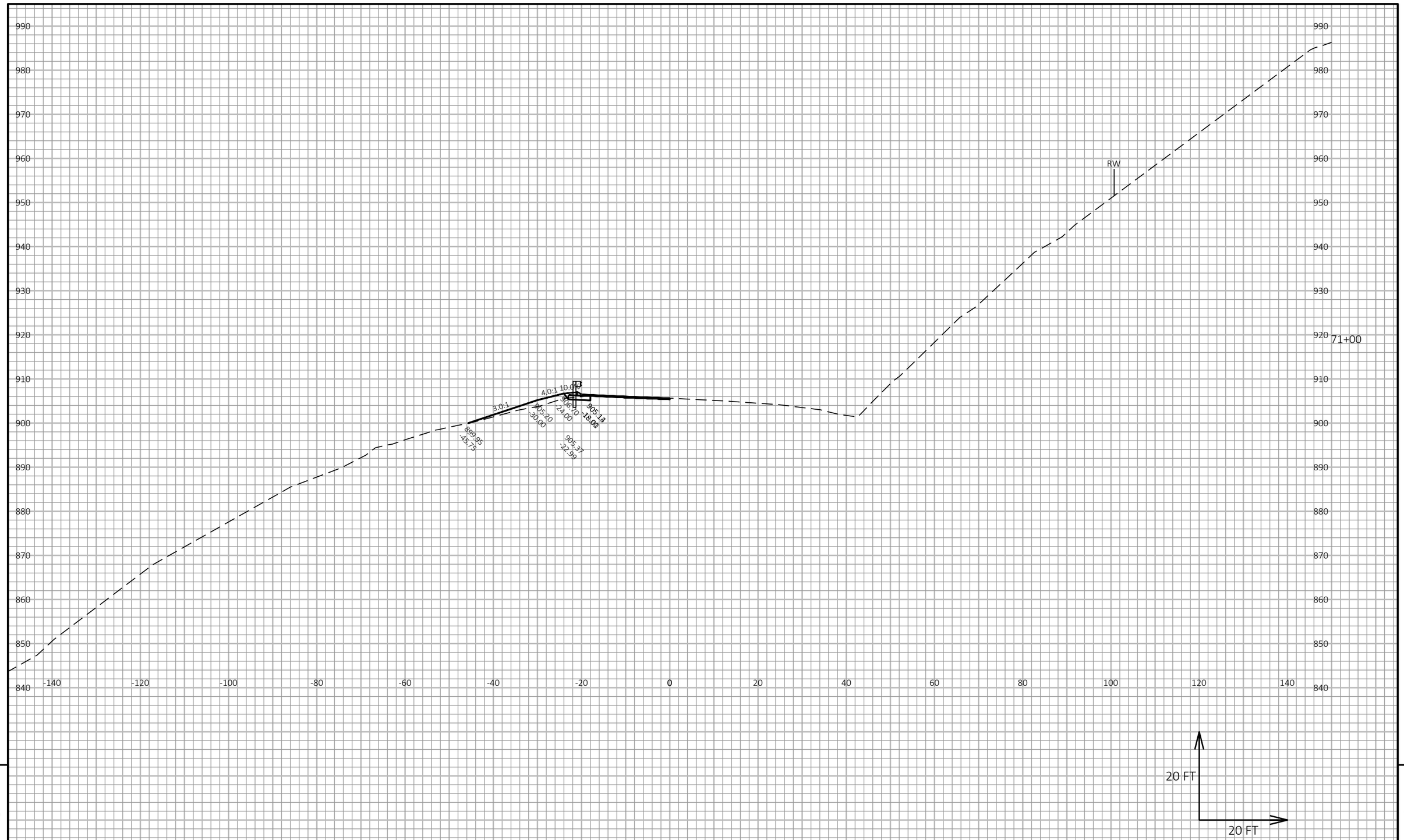
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 243	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 46

PLOT DATE : 2/16/2021 3:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

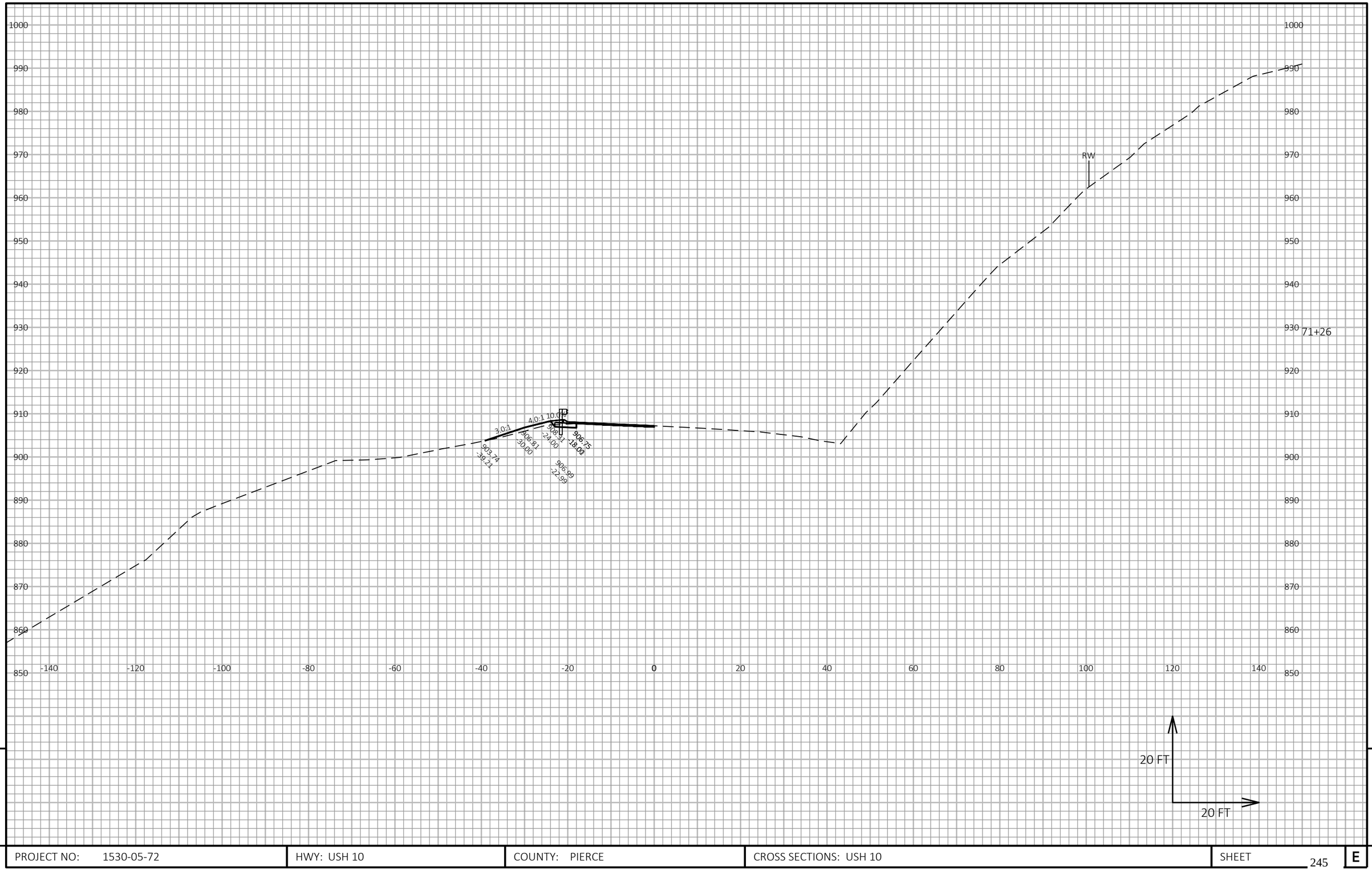


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 244	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 47

PLOT DATE : 2/16/2021 3:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



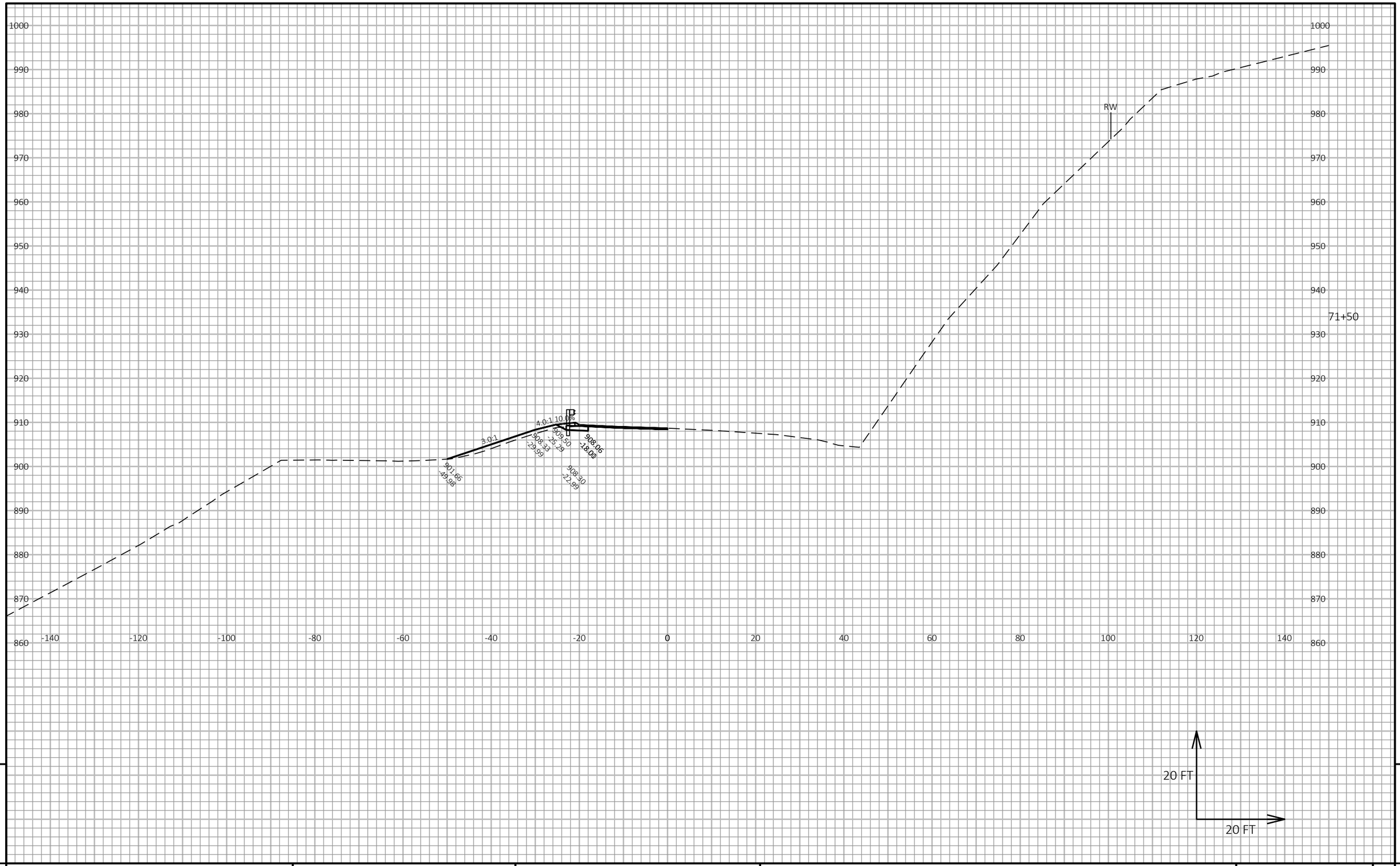
9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 245	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 48

PLOT DATE : 2/16/2021 3:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

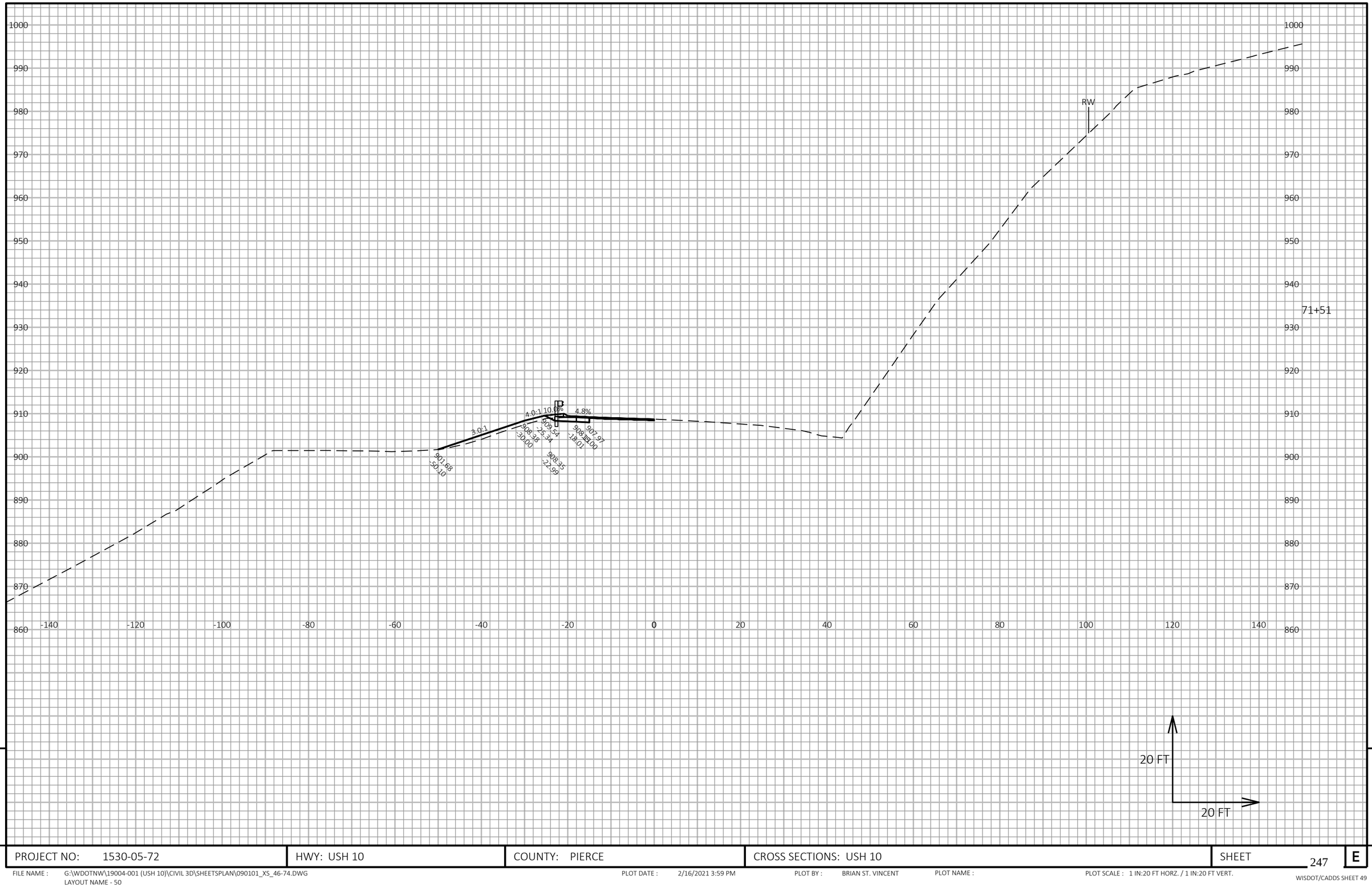
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 246	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 49

PLOT DATE : 2/16/2021 3:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

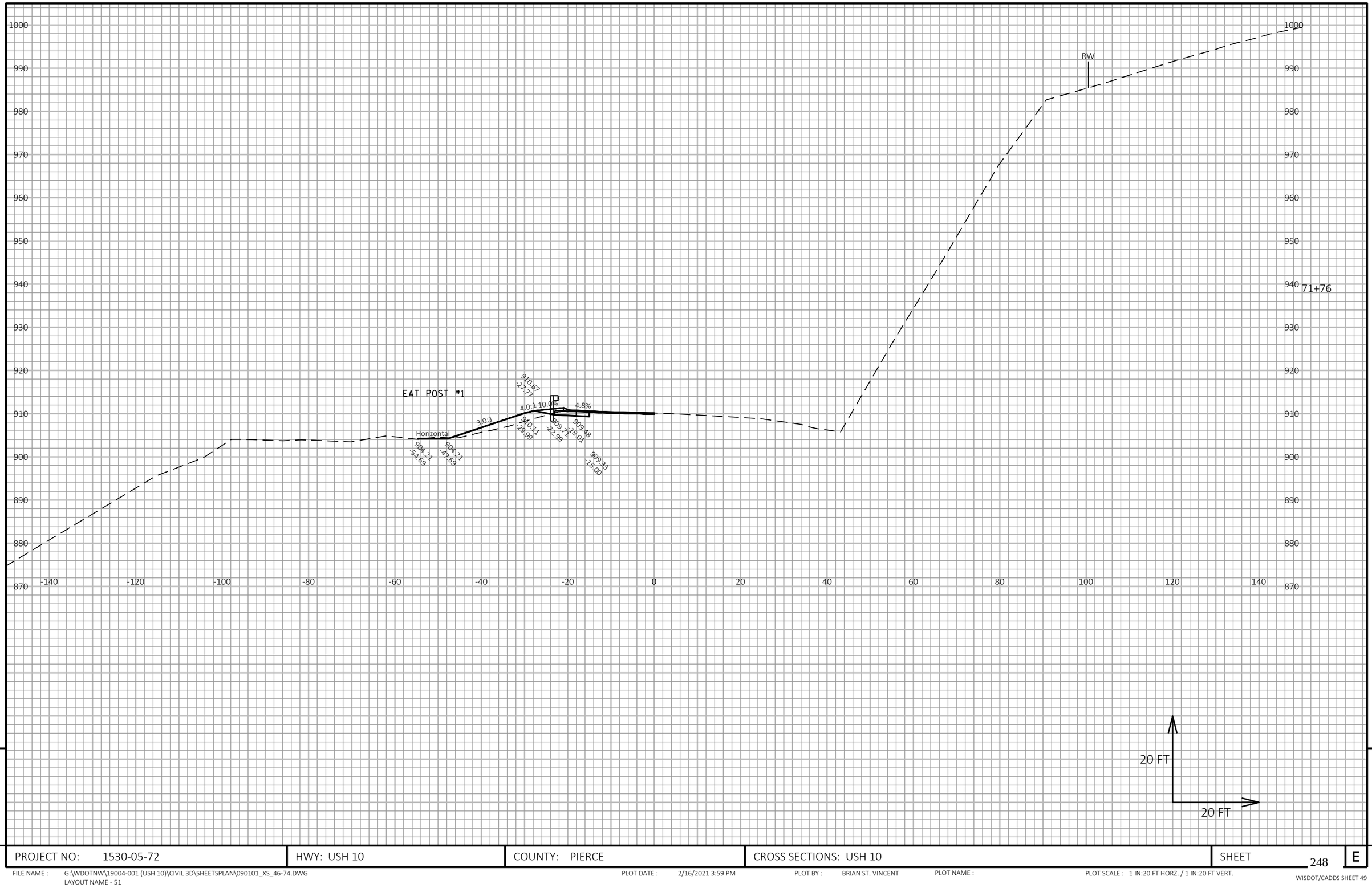
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 247	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 50

PLOT DATE : 2/16/2021 3:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



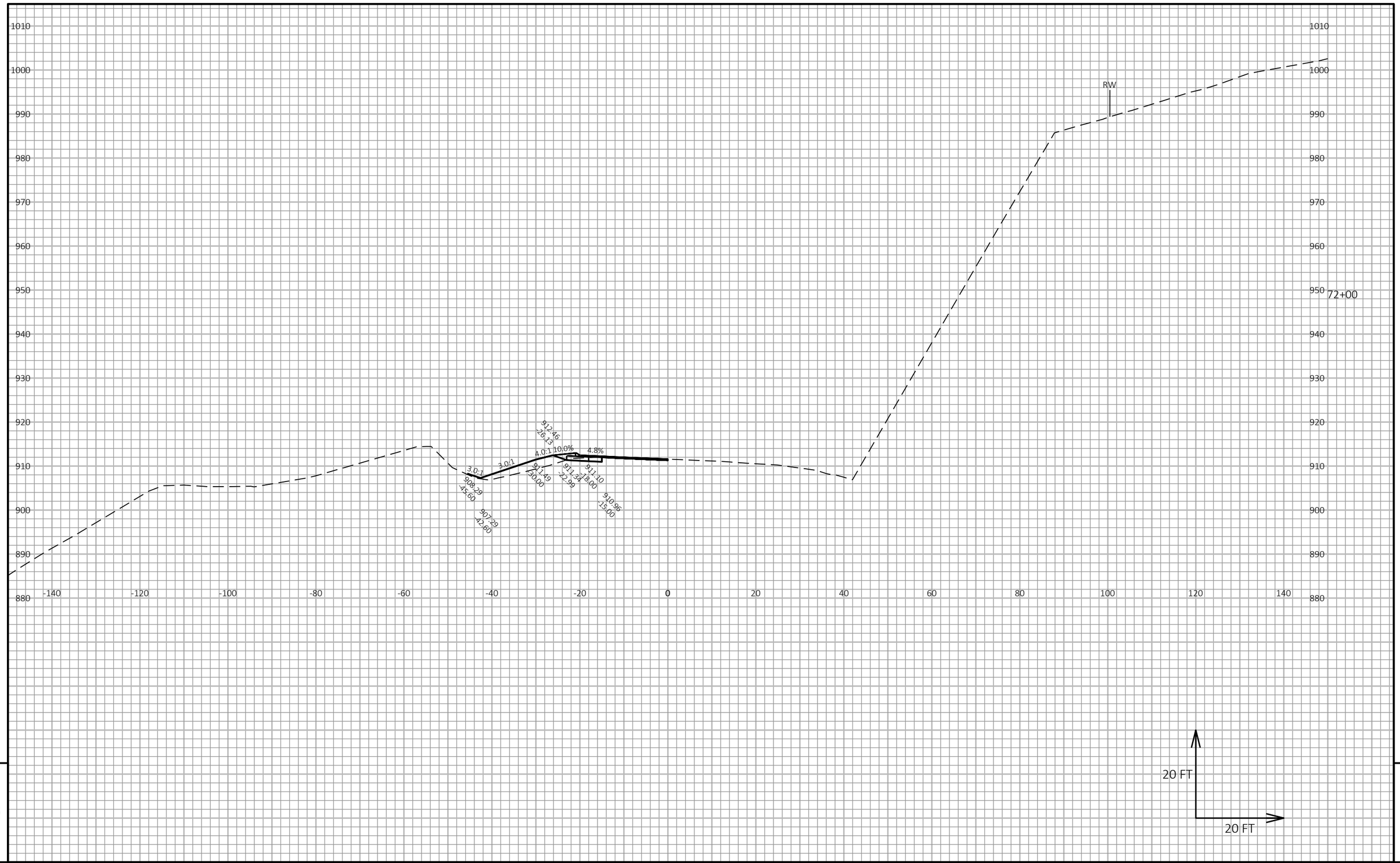
9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 248	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 51

PLOT DATE : 2/16/2021 3:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



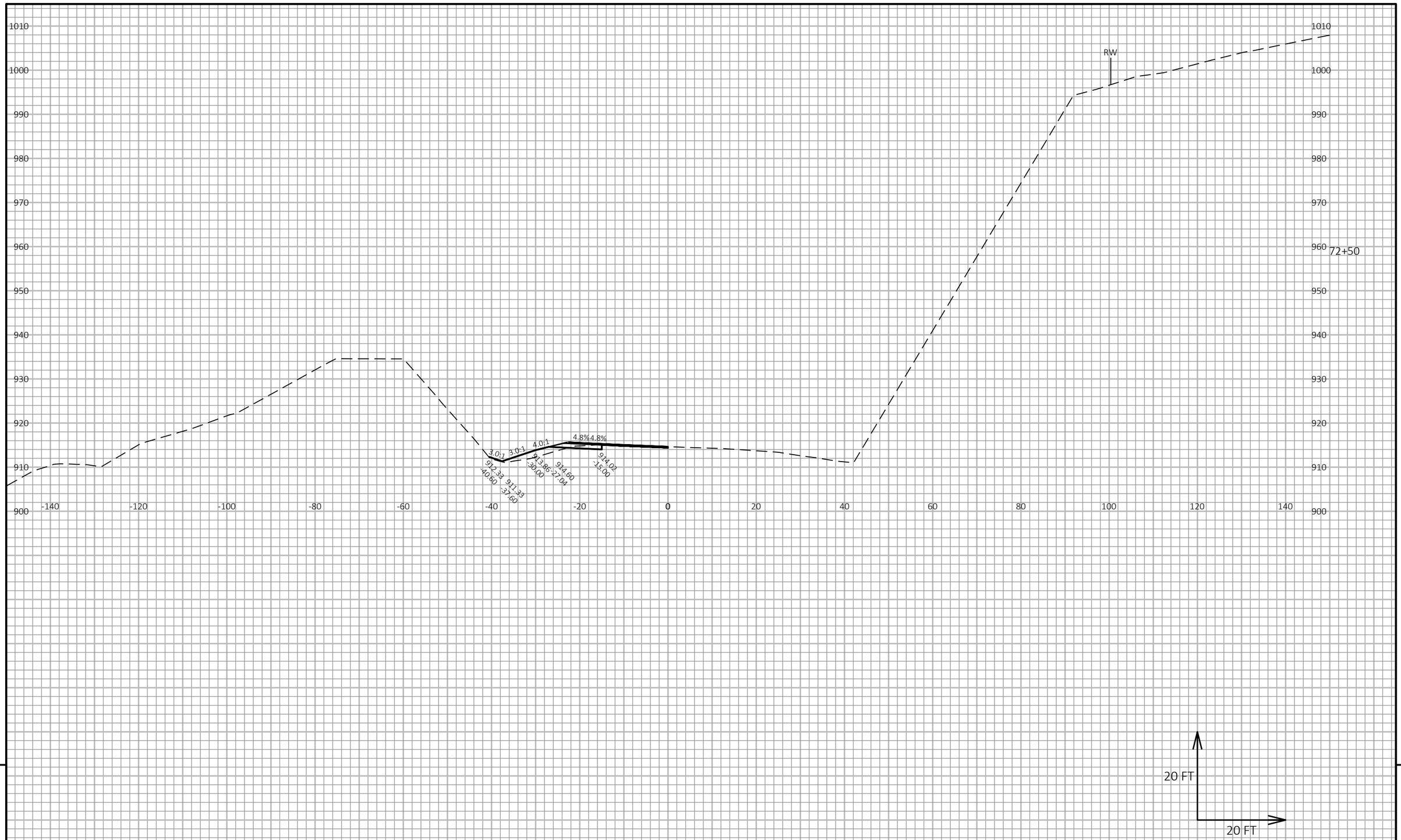
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 249	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 52

PLOT DATE : 2/16/2021 3:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

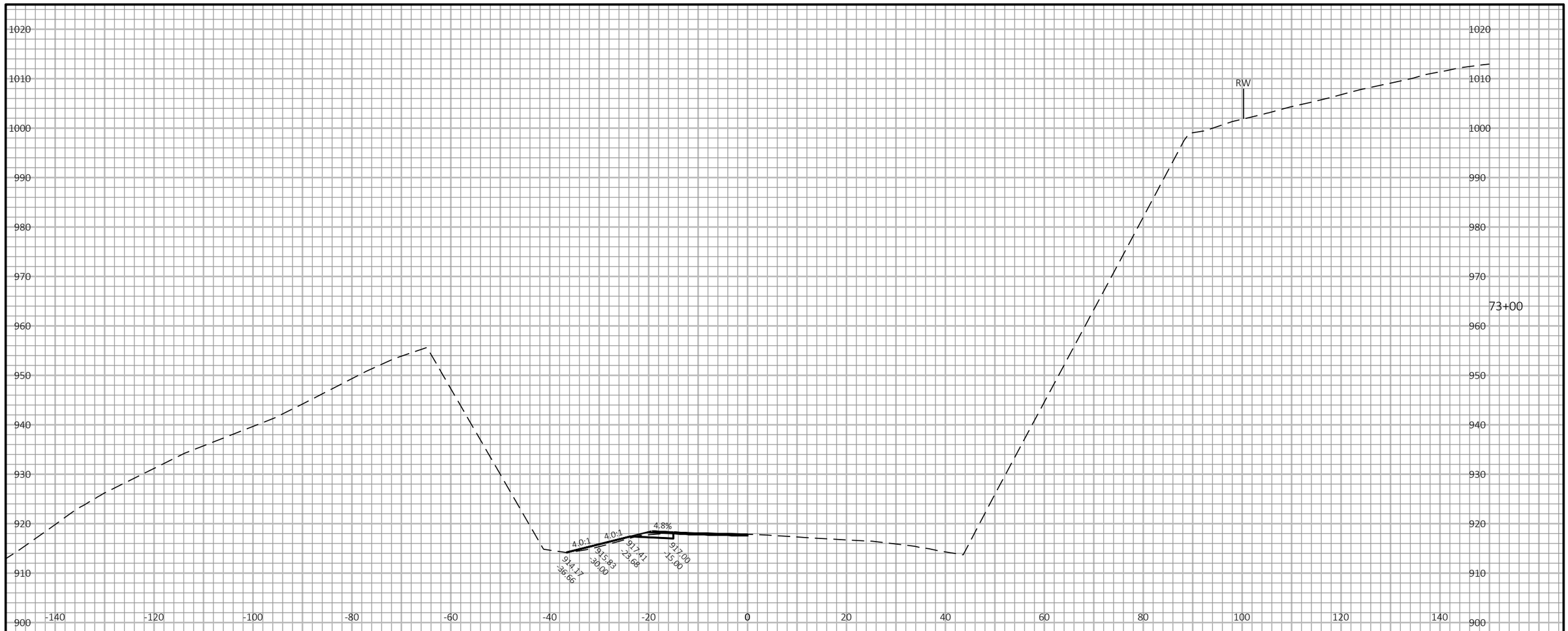
9

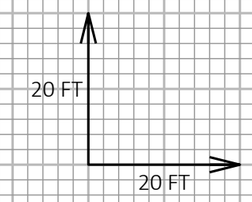
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 250	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 53

PLOT DATE : 2/16/2021 4:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

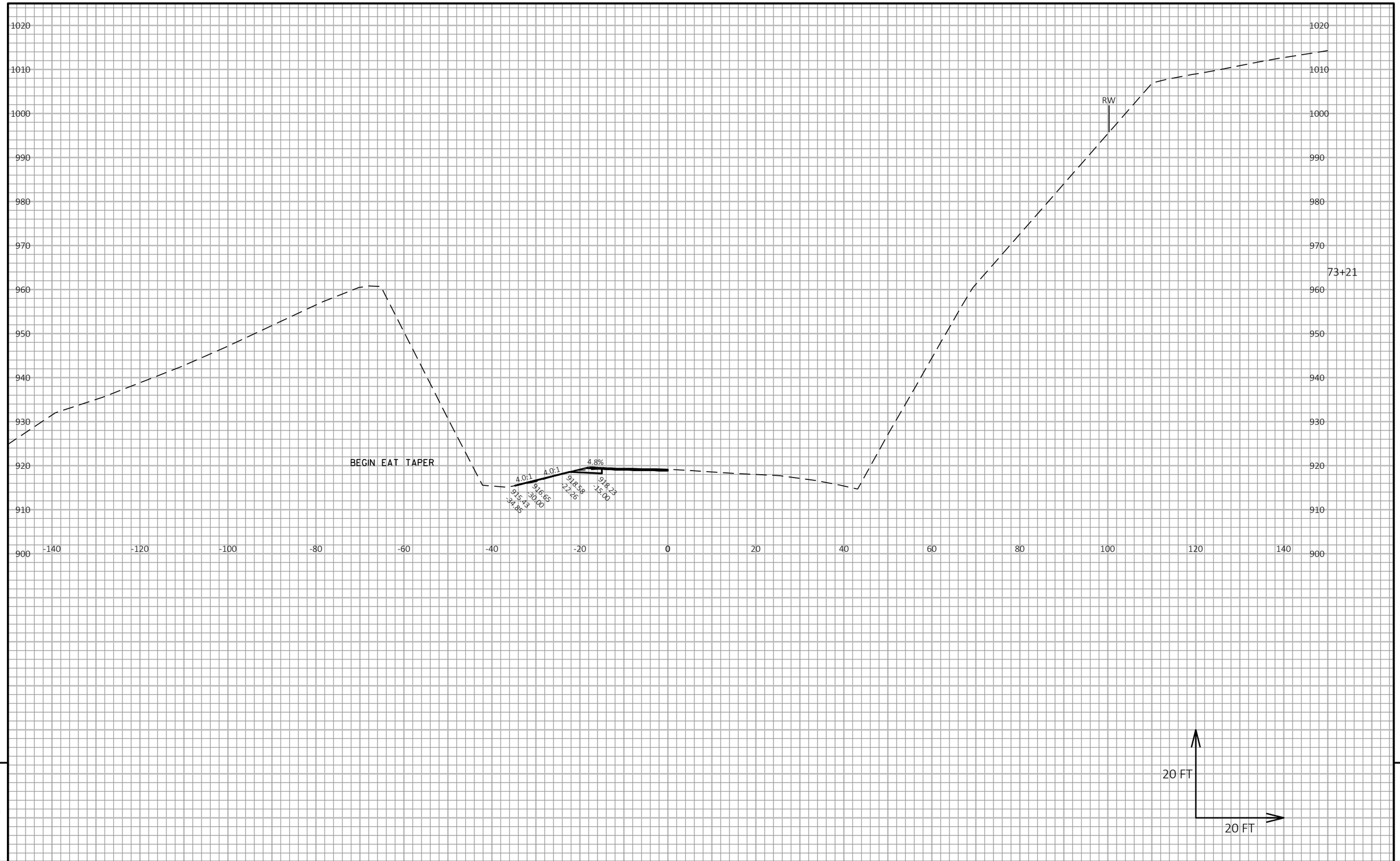
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 251	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 54

PLOT DATE : 2/16/2021 4:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

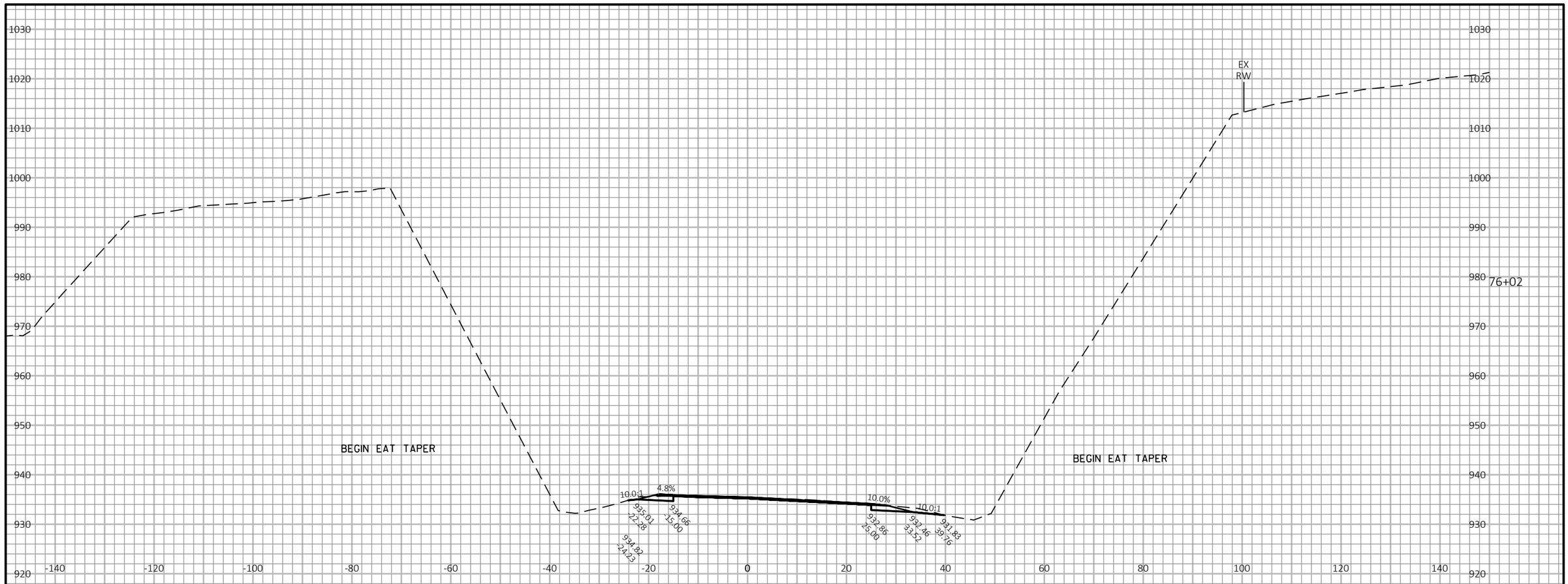
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 252	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_46-74.DWG
LAYOUT NAME - 55

PLOT DATE : 2/16/2021 4:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



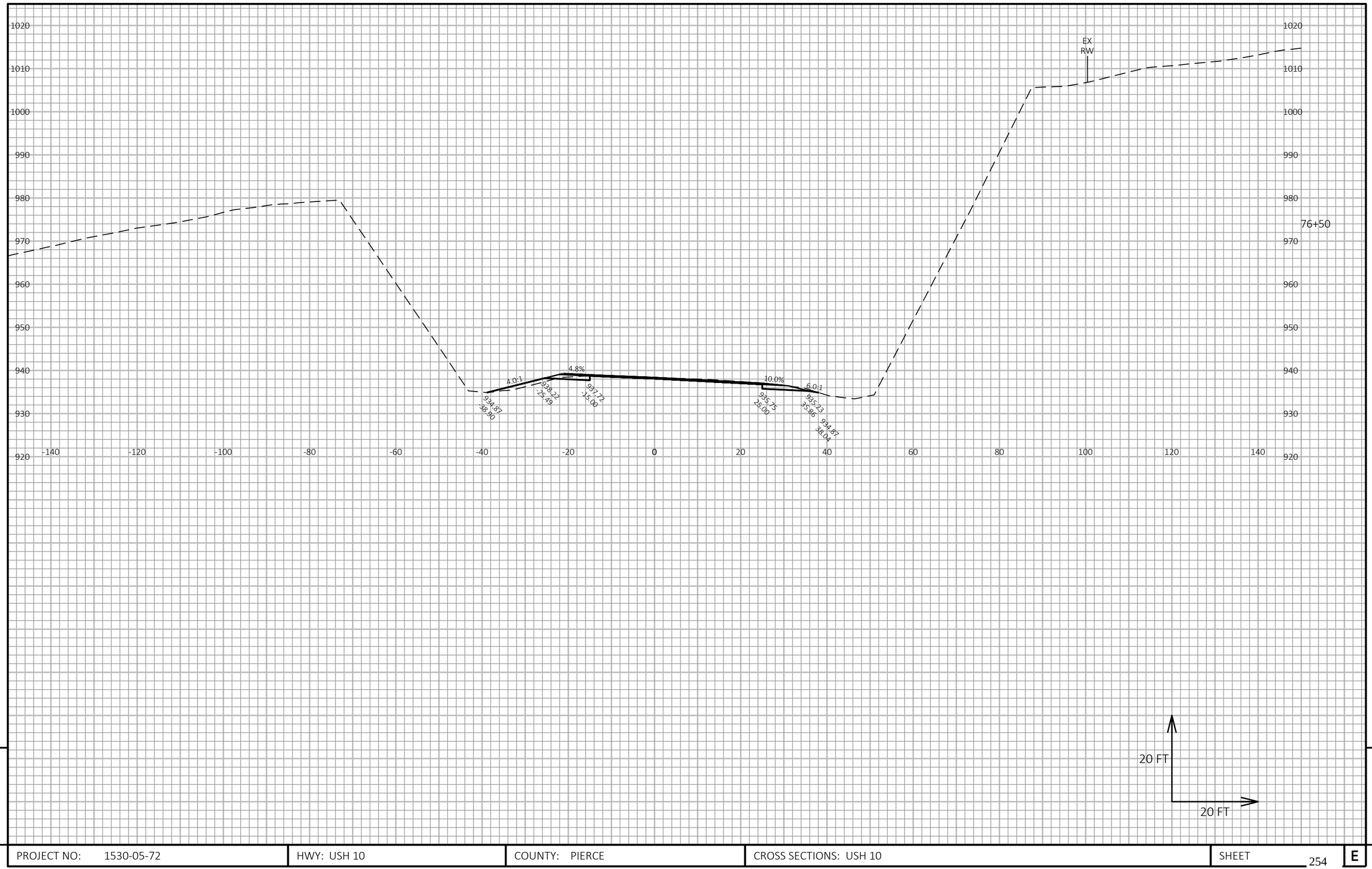
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 253	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:03 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



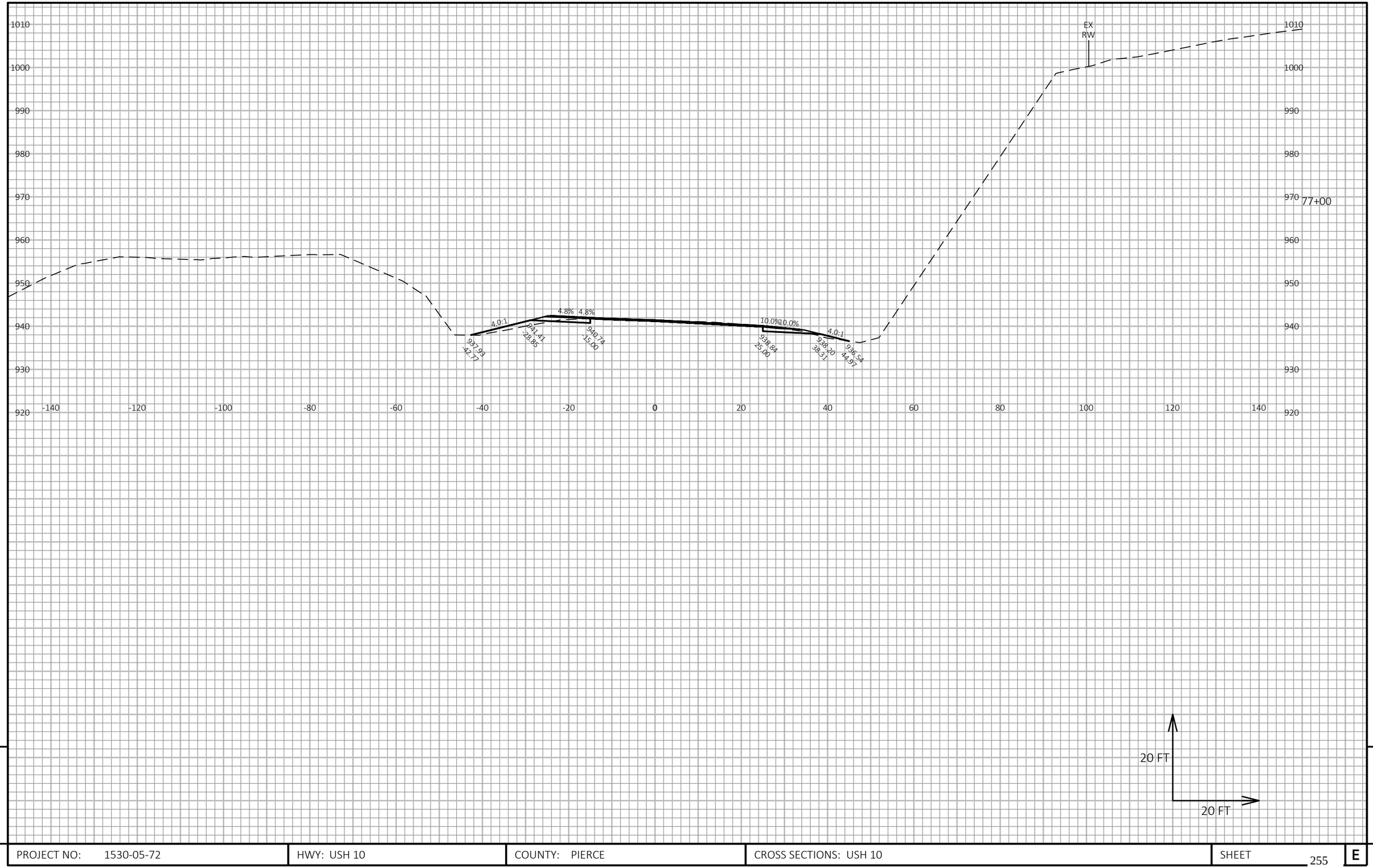
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 254	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:03 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



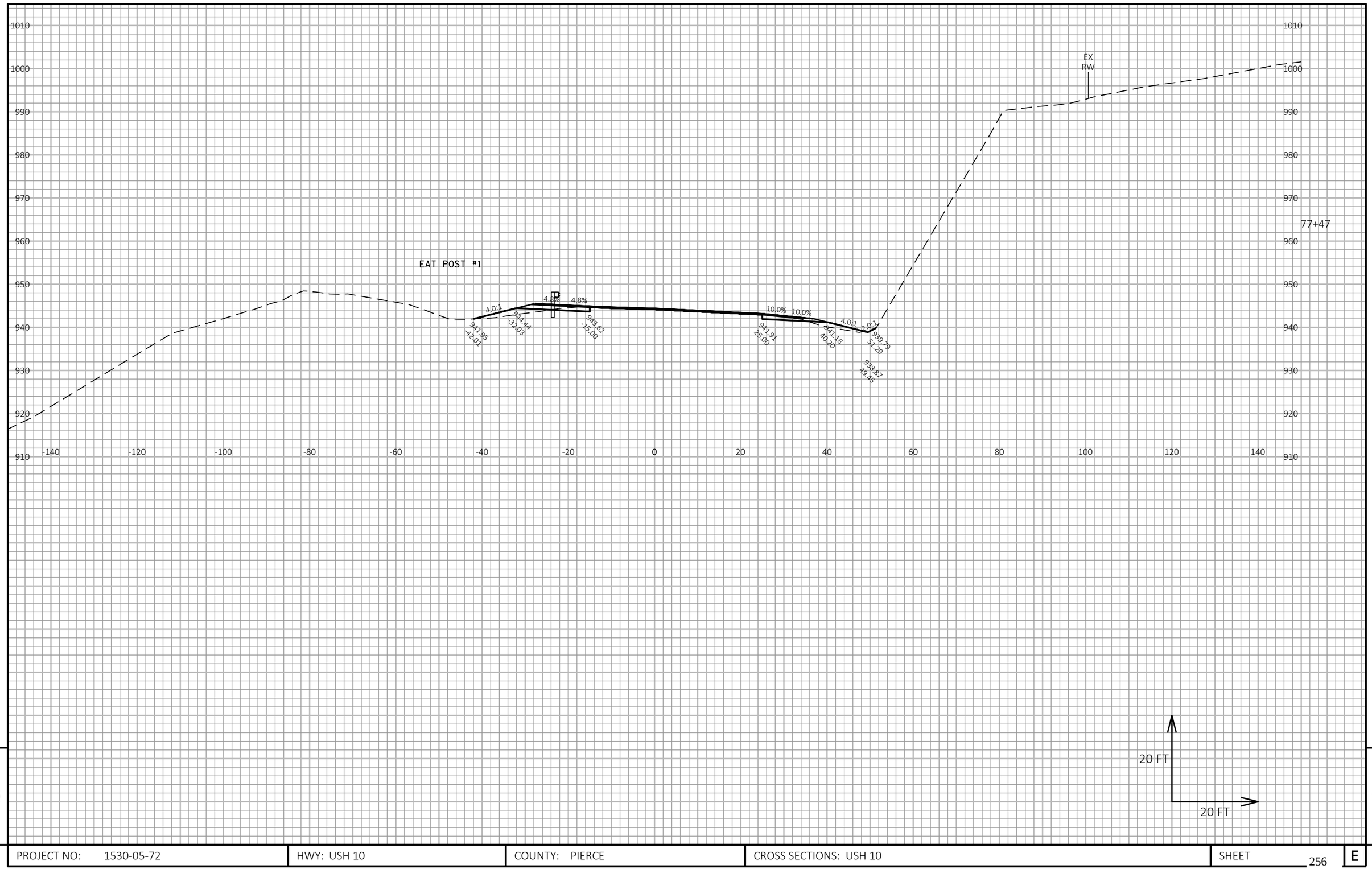
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 255	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:04 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

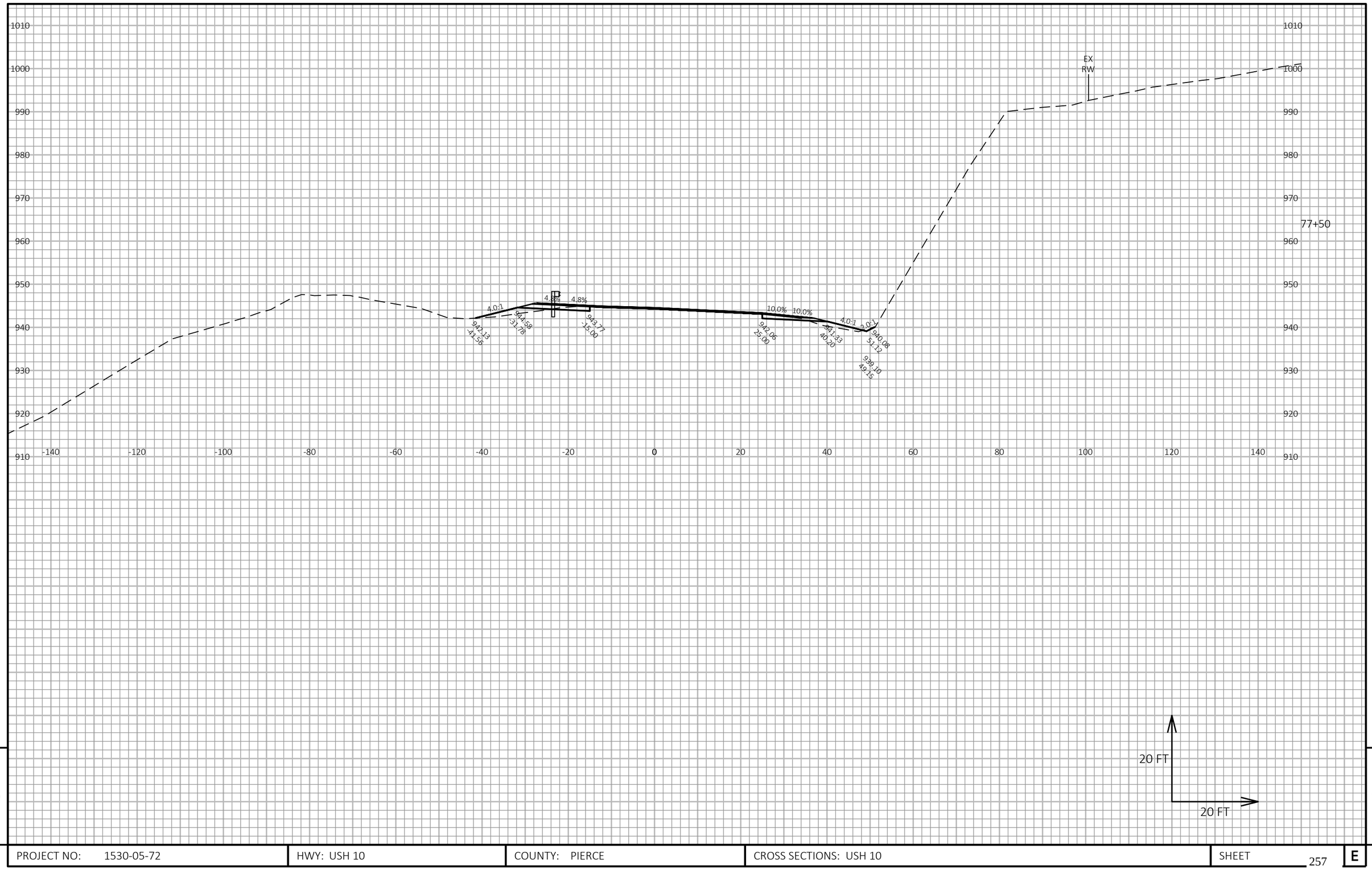


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 256	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:04 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

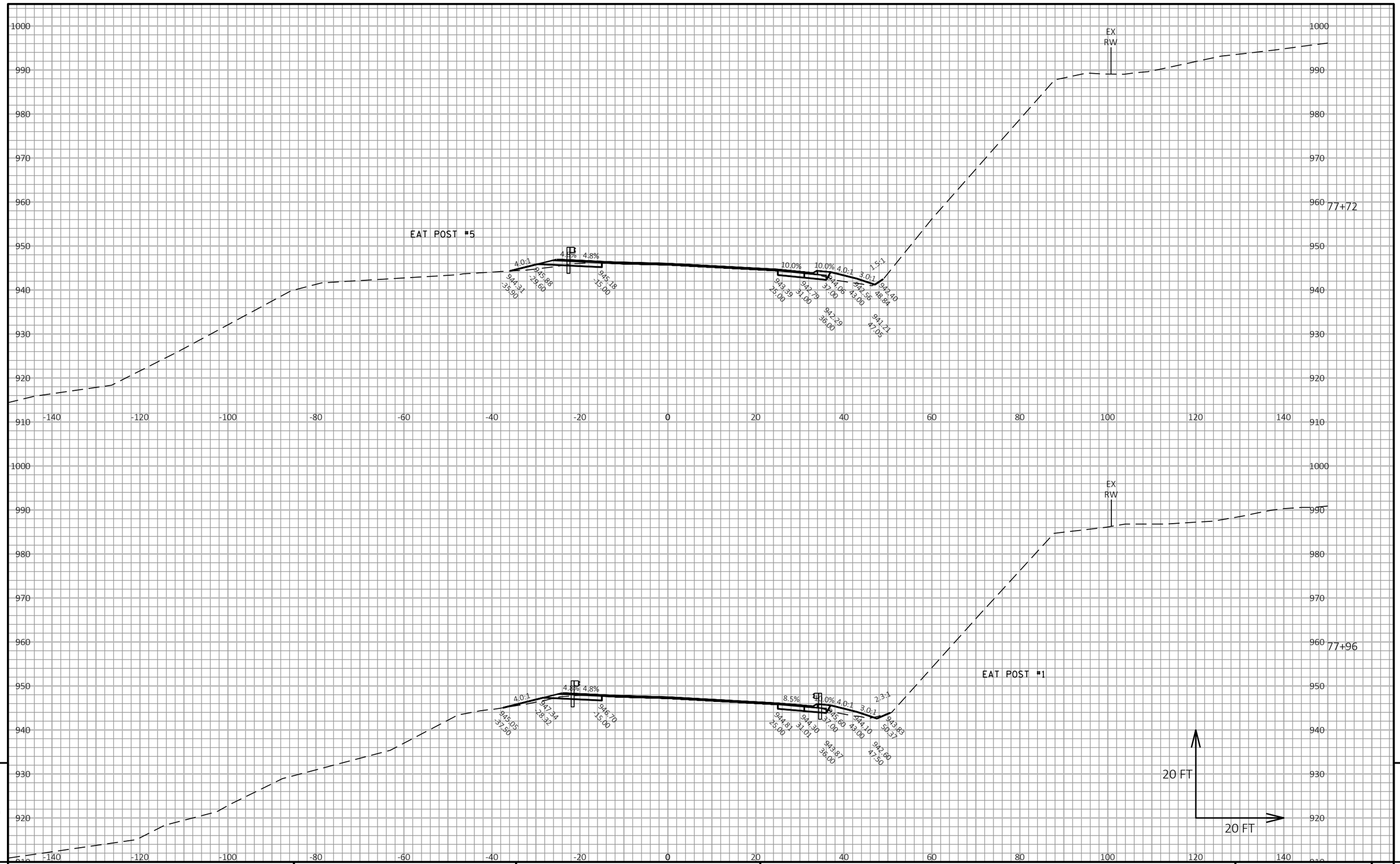
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 257	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:04 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

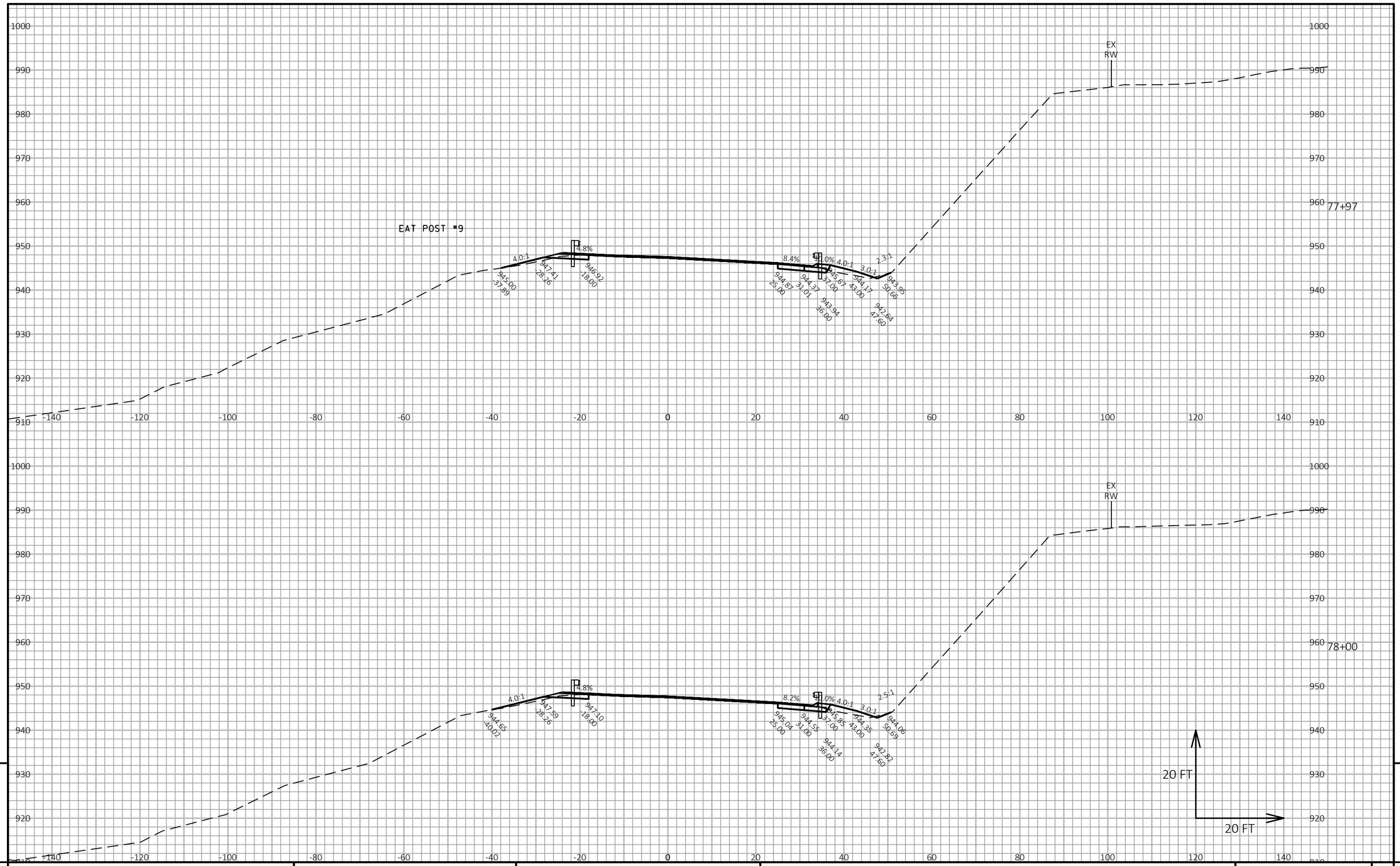


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 258	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:04 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

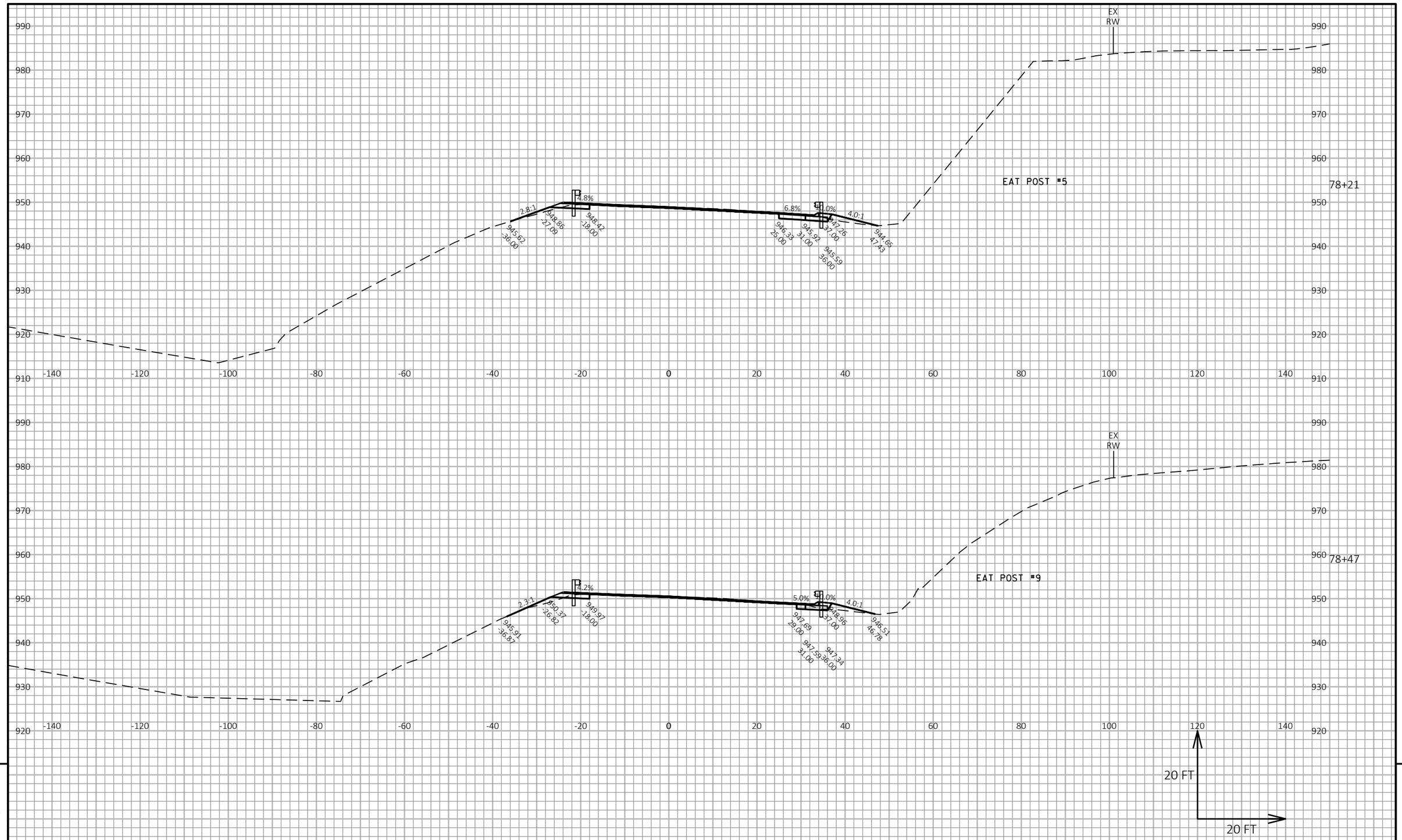
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 259	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:04 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

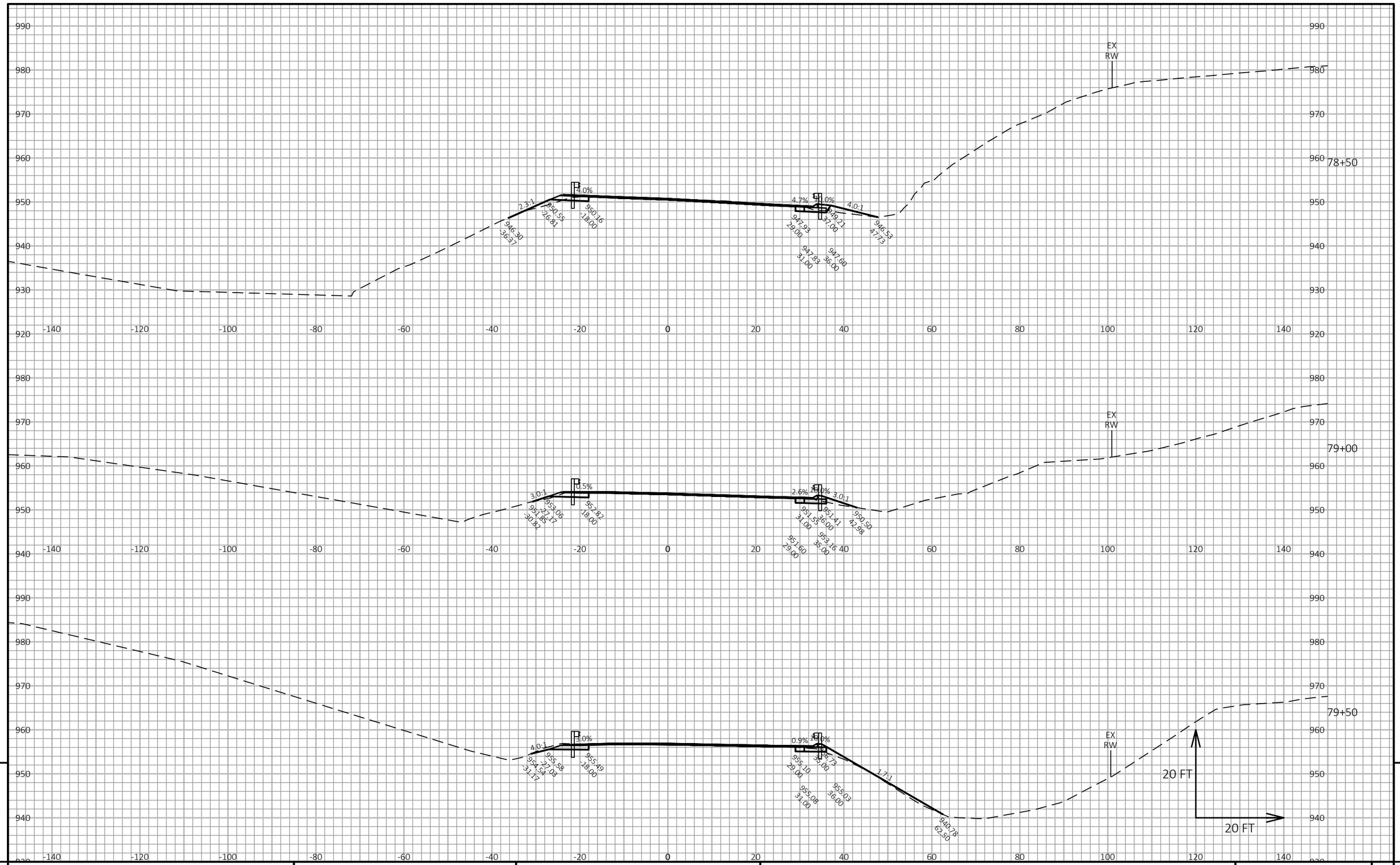
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 260	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 4:05 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

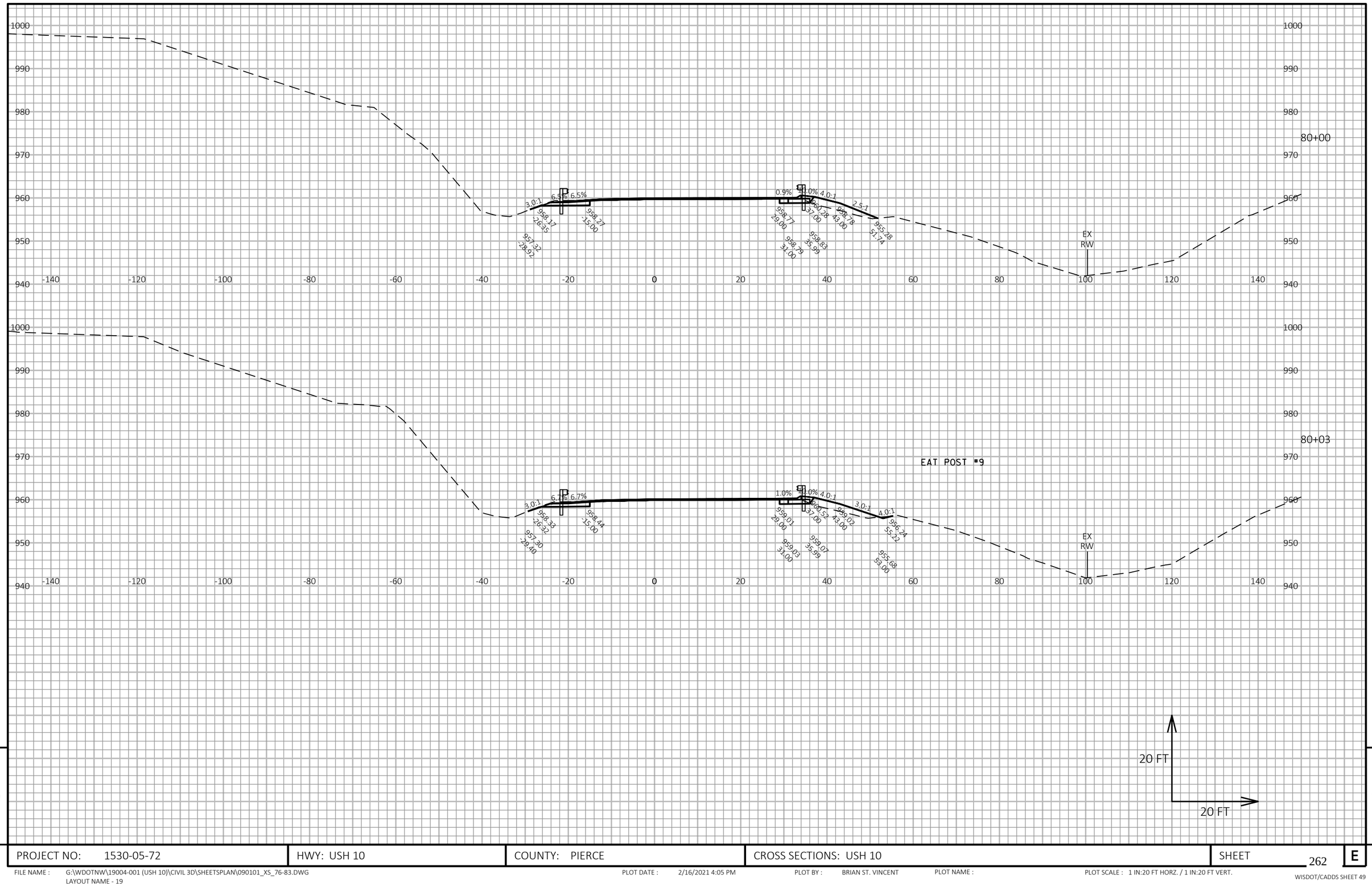


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 261	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 4:05 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

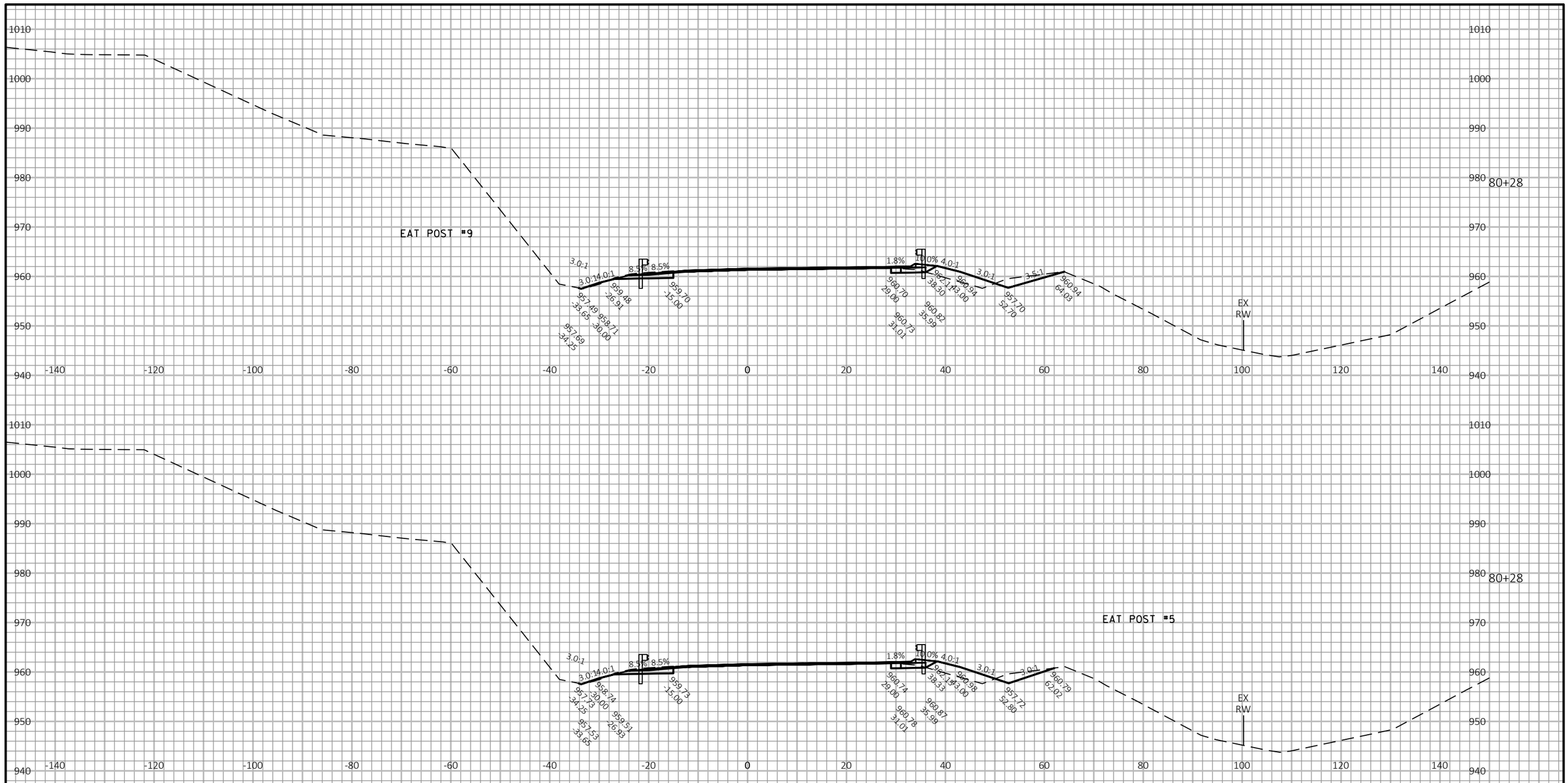
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 262	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 4:05 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

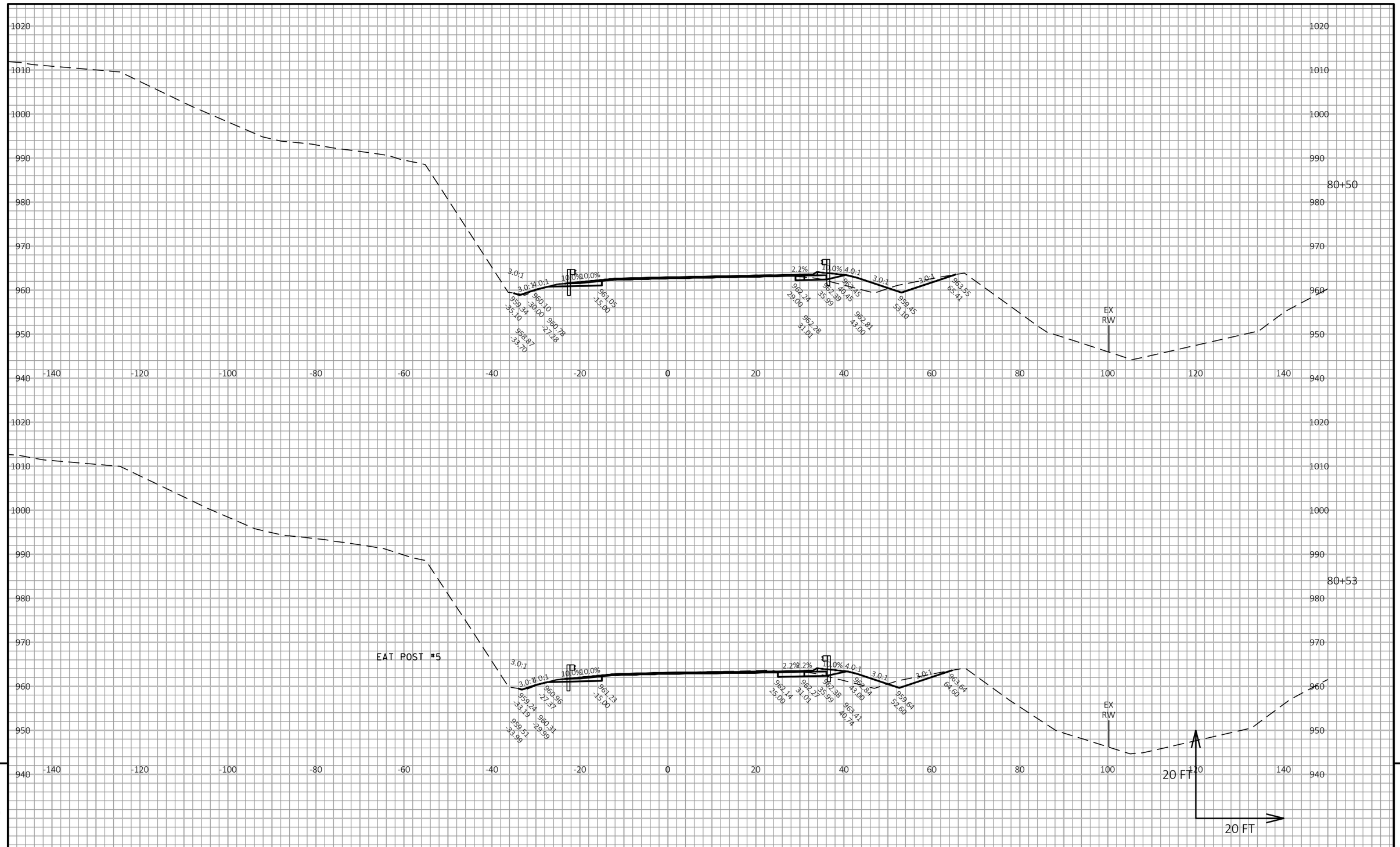
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 263	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 4:05 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 264	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 4:06 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

80+53

EAT POST #1

EX RW

3.0:1 4.0:1 3.0:1 10.0% 10.0% 2.2% 2.2% 10.0% 4.0:1 3.0:1 3.0:1

959.96 -34.19 960.33 -3.00 960.48 -28.98 959.26 -33.70 960.98 -27.39 961.25 -15.00 962.15 -25.00 962.25 -31.00 962.40 -35.99 963.43 -40.77 963.87 -43.00 959.67 -52.60 963.67 -64.60

80+78

EAT POST #1

EX RW

20 FT

20 FT

3.0:1 4.0:1 3.0:1 10.0% 10.0% 2.2% 2.2% 10.0% 4.0:1 3.0:1 3.0:1

961.07 -35.20 961.48 -28.98 962.14 -30.00 962.70 -15.00 963.73 -26.00 963.87 -31.01 963.98 -35.99 964.21 -49.00 961.31 -51.70 964.38 -60.55 965.17 -39.16

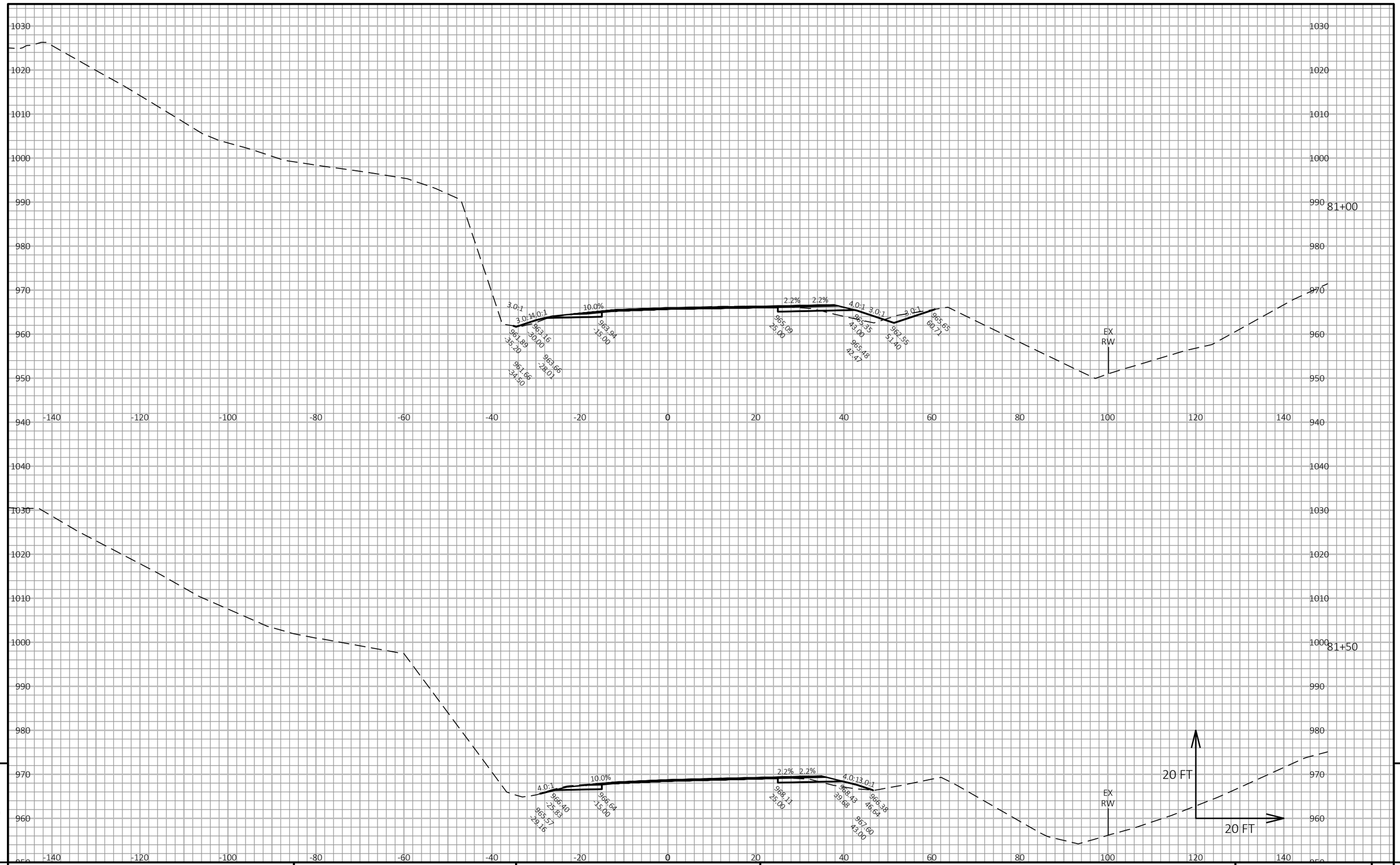
9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 265	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 4:06 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

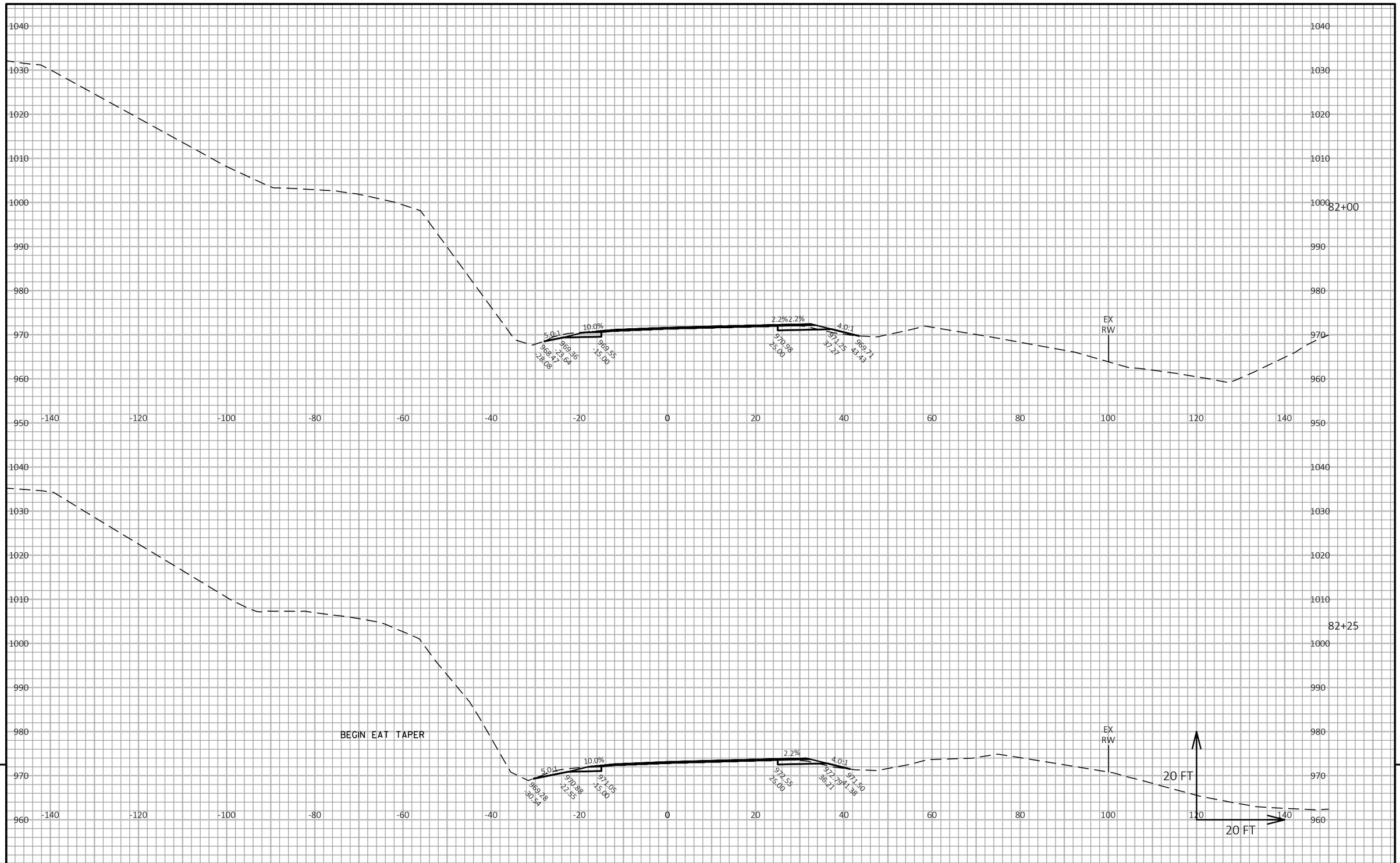
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 266	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 23

PLOT DATE : 2/16/2021 4:06 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 267	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 4:06 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

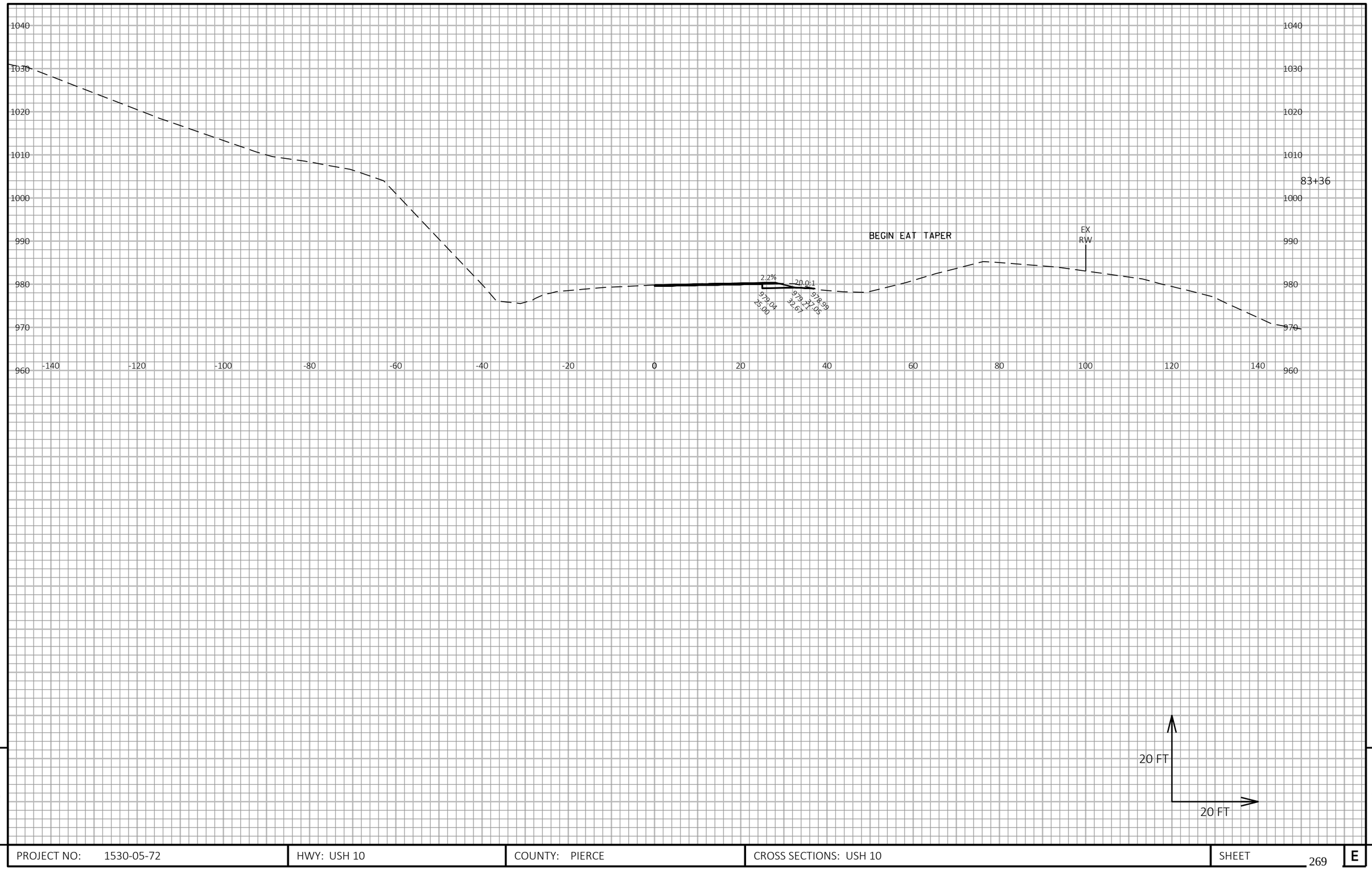


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 268	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 4:06 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

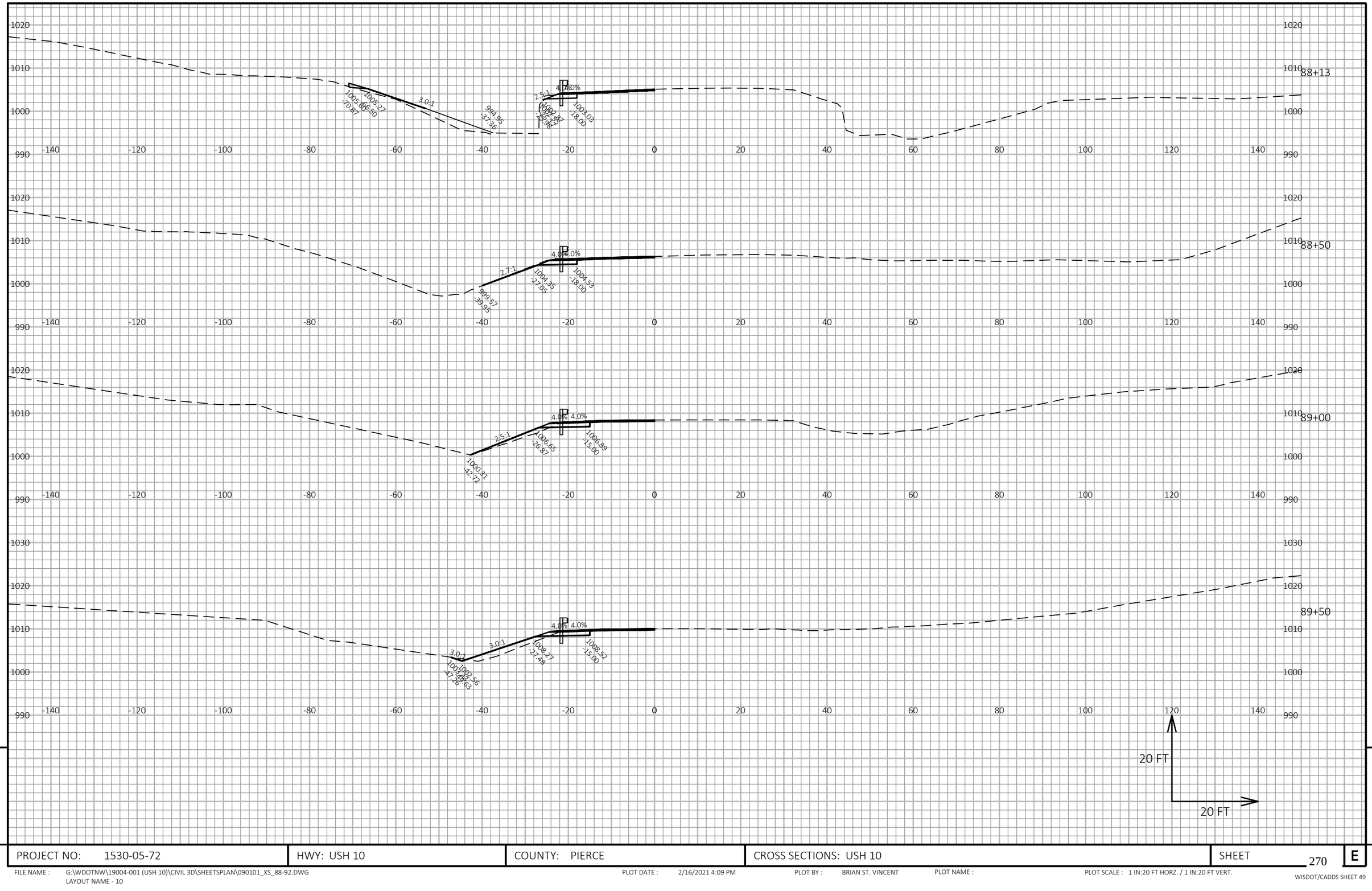
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 269	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_76-83.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 4:07 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

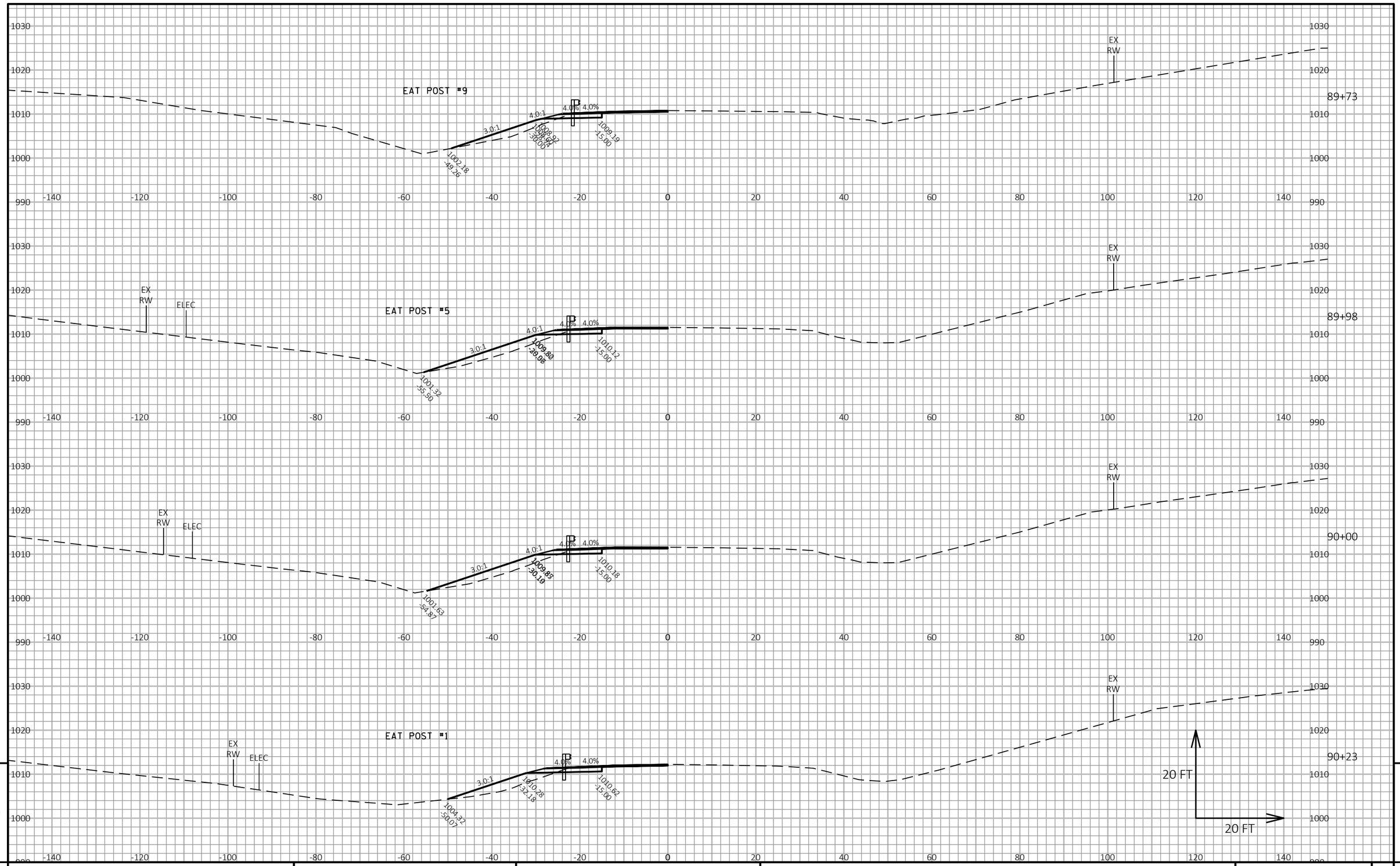


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 270	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_88-92.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:09 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

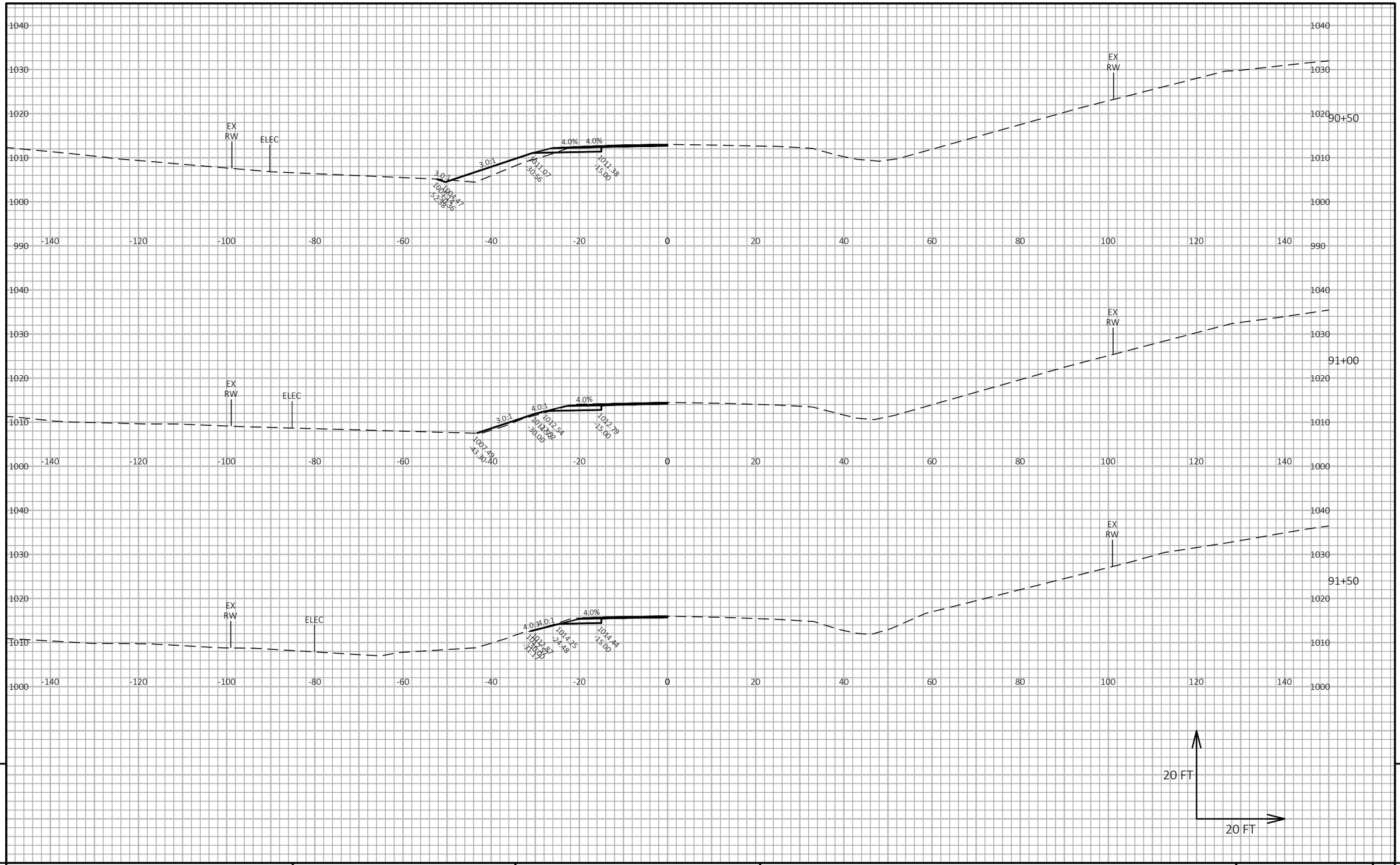
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 271	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_88-92.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:10 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

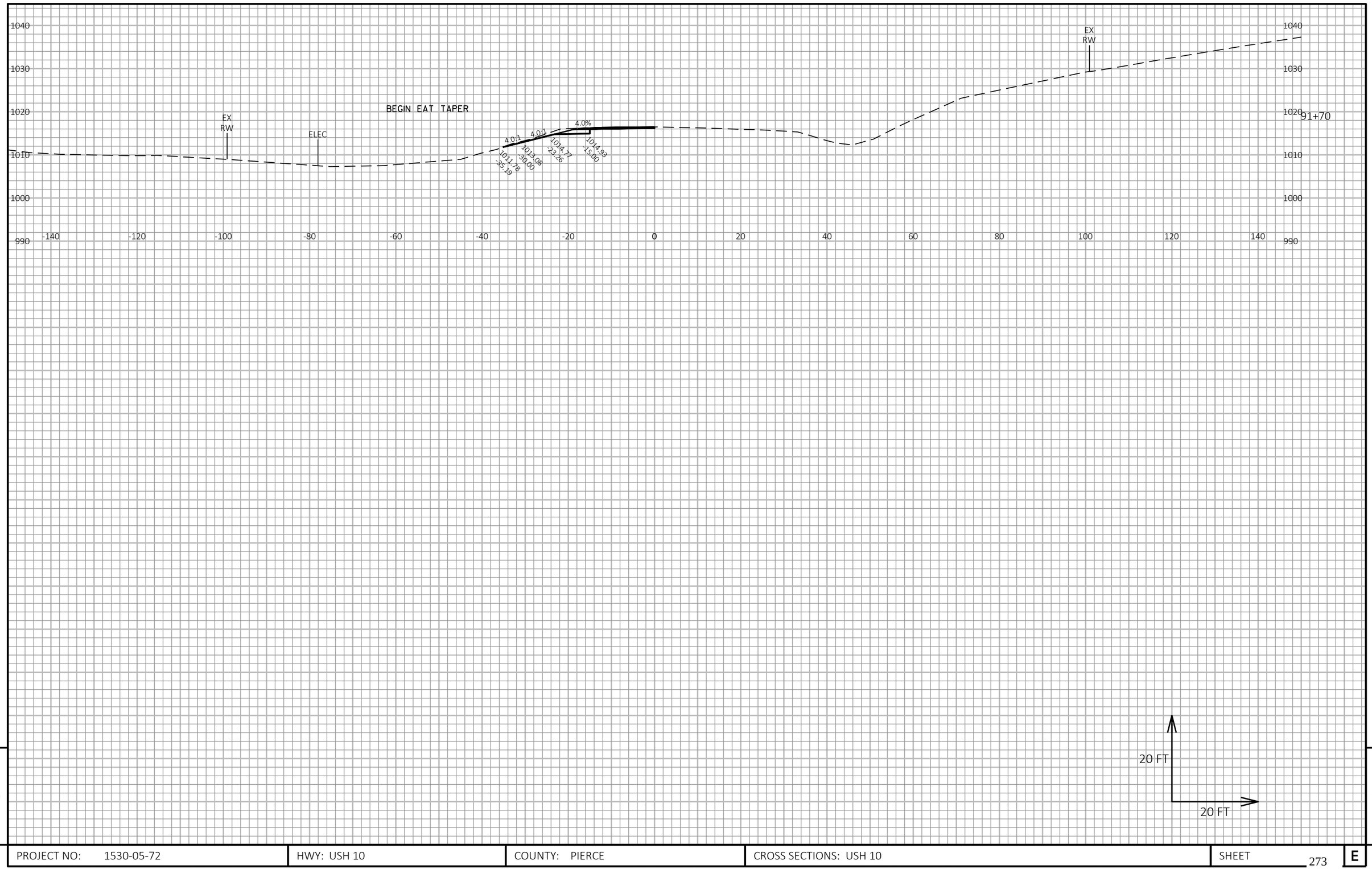
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 272	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_88-92.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:10 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

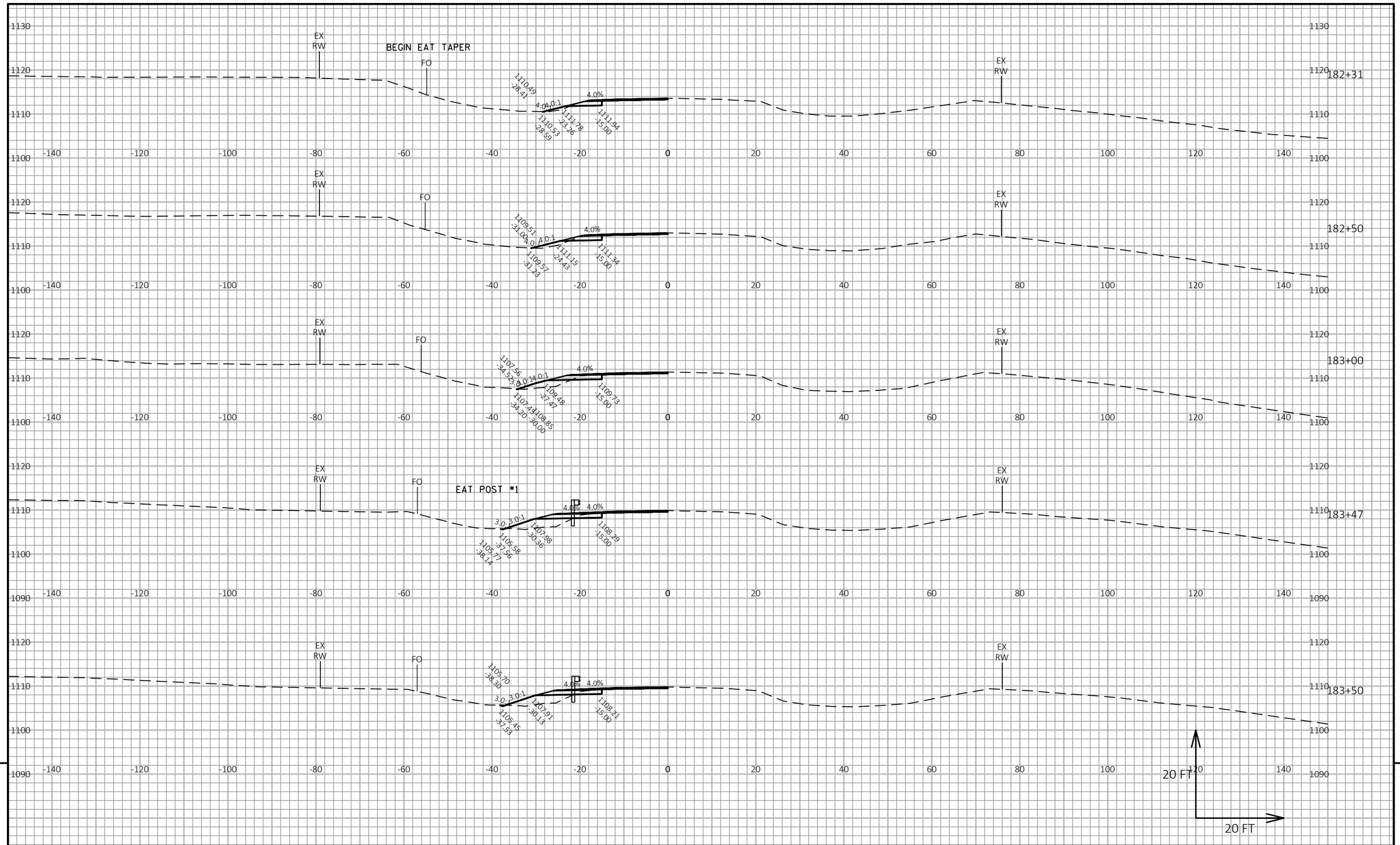
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 273	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_88-92.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:10 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 274	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:13 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST #5

EX RW — FO — 3.0:1 — 4.0:1 — 4.0% — 4.0% — EX RW

1104.60 -36.52 — 1106.77 -30.00 — 1107.24 28.13 — 1107.50 15.00

183+72

BEGIN EAT TAPER

EX RW — FO — 3.0:1 — 4.0:1 — 4.0% — 4.0% — 4.0% — 4.0:1 — EX RW

1103.88 -36.76 — 1106.13 -30.00 — 1106.77 27.45 — 1107.01 15.00 — 1106.93 15.00 — 1106.77 23.26 — 1104.95 30.52

183+86

EAT POST #9

EX RW — FO — 3.0:1 — 3.0:1 — 4.0:1 — 4.0% — 4.0% — 4.0% — 4.0:1 — EX RW

1103.85 -41.67 — 1107.78 38.50 — 1105.62 -30.00 — 1106.39 26.92 — 1106.63 15.00 — 1106.57 15.00 — 1106.39 22.94 — 1104.28 32.39

183+97

EX RW — FO — 3.0:1 — 3.0:1 — 4.0:1 — 4.0% — 4.0% — 4.0% — 4.0:1 — EX RW

1103.86 -42.97 — 1107.54 39.00 — 1105.53 -30.00 — 1106.31 26.92 — 1106.54 15.00 — 1106.48 15.00 — 1106.30 24.09 — 1104.12 32.81

184+00

EX RW — FO — 3.0:1 — 4.0% — 4.0% — 4.0% — 4.0:1 — EX RW

1099.12 -43.28 — 1105.01 25.61 — 1105.22 15.00 — 1104.98 15.00 — 1104.73 27.13 — 1102.49 37.37

184+50

20 FT

20 FT

9

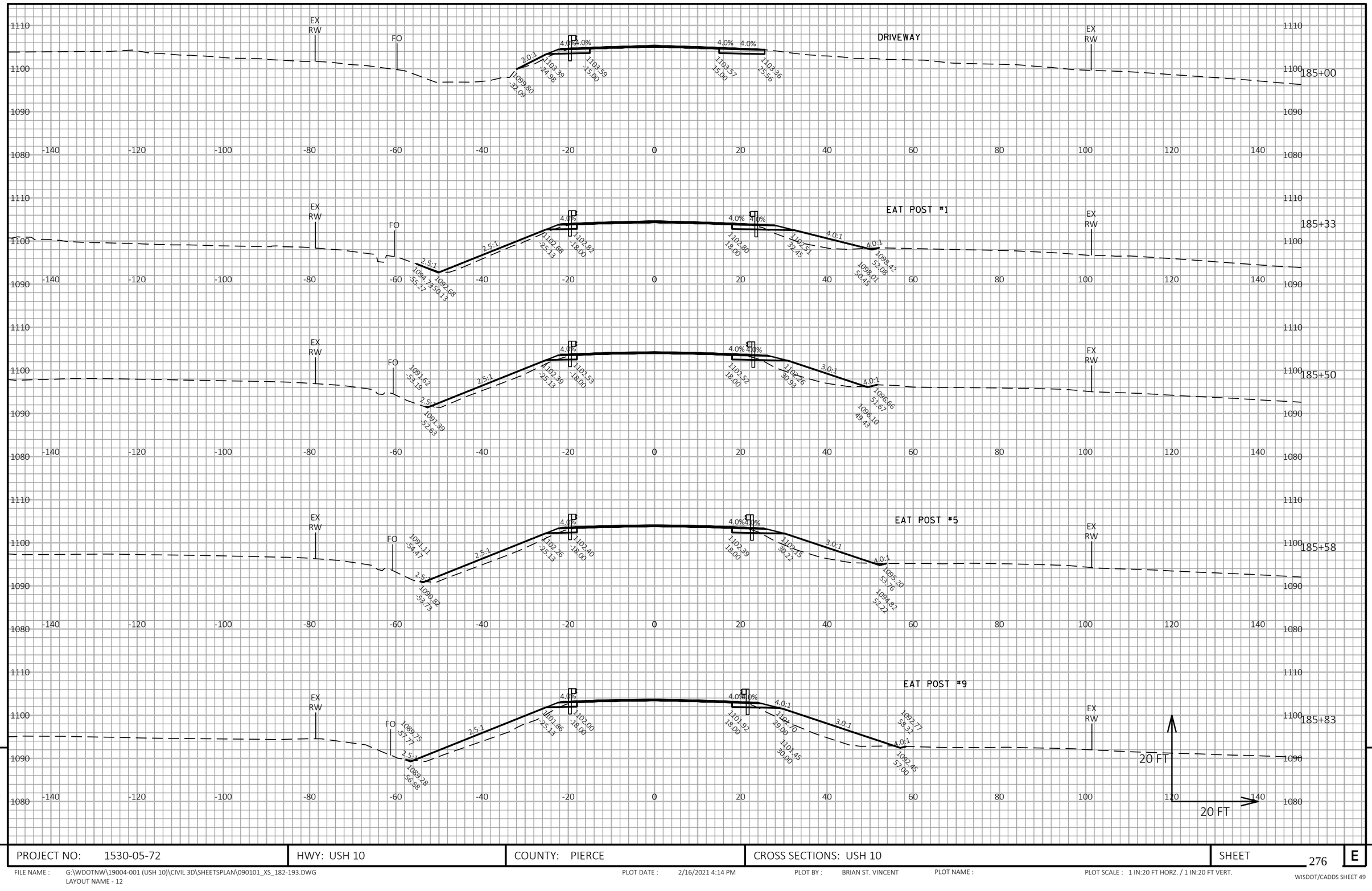
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 275	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:13 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

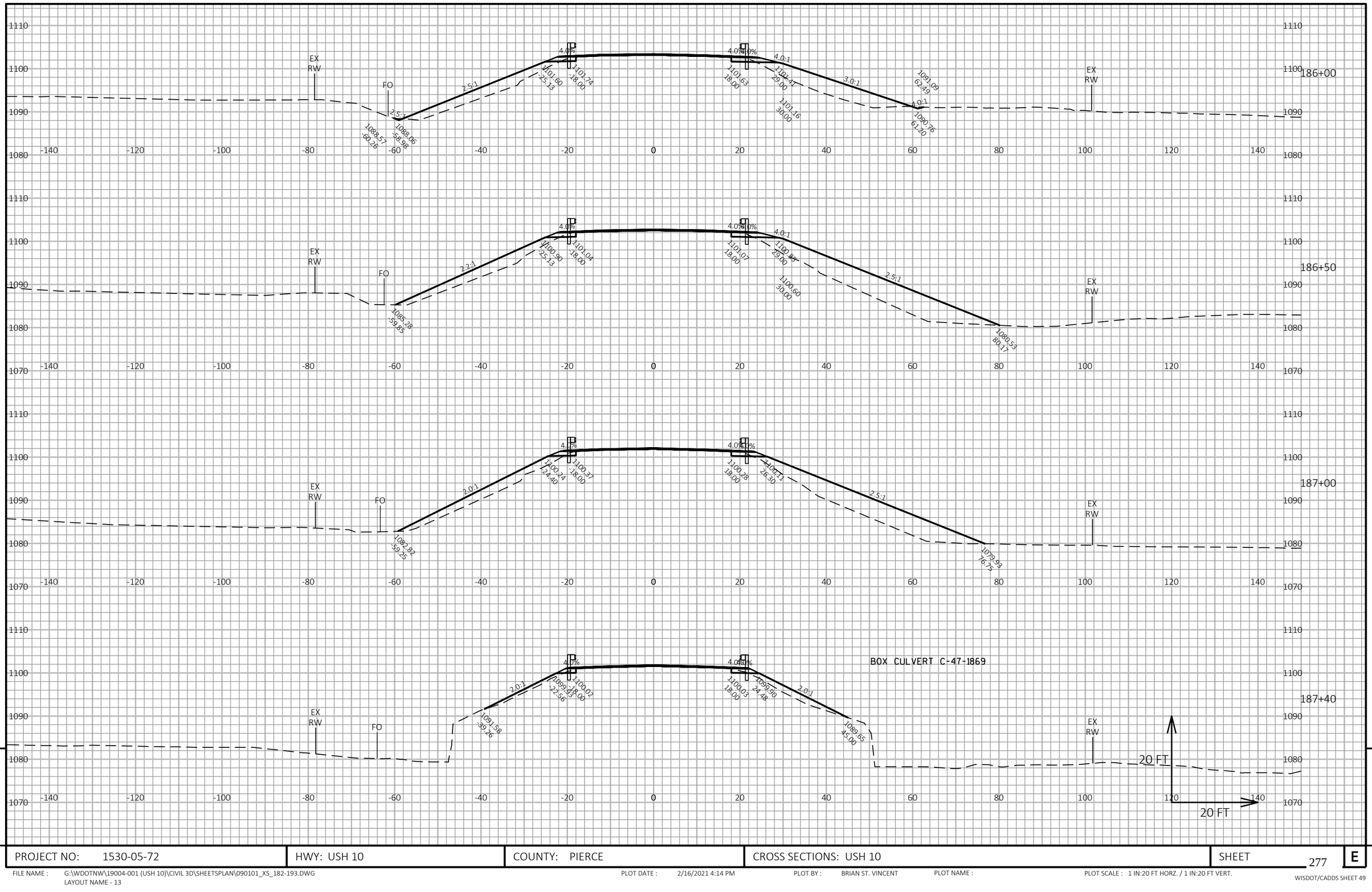
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 276	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

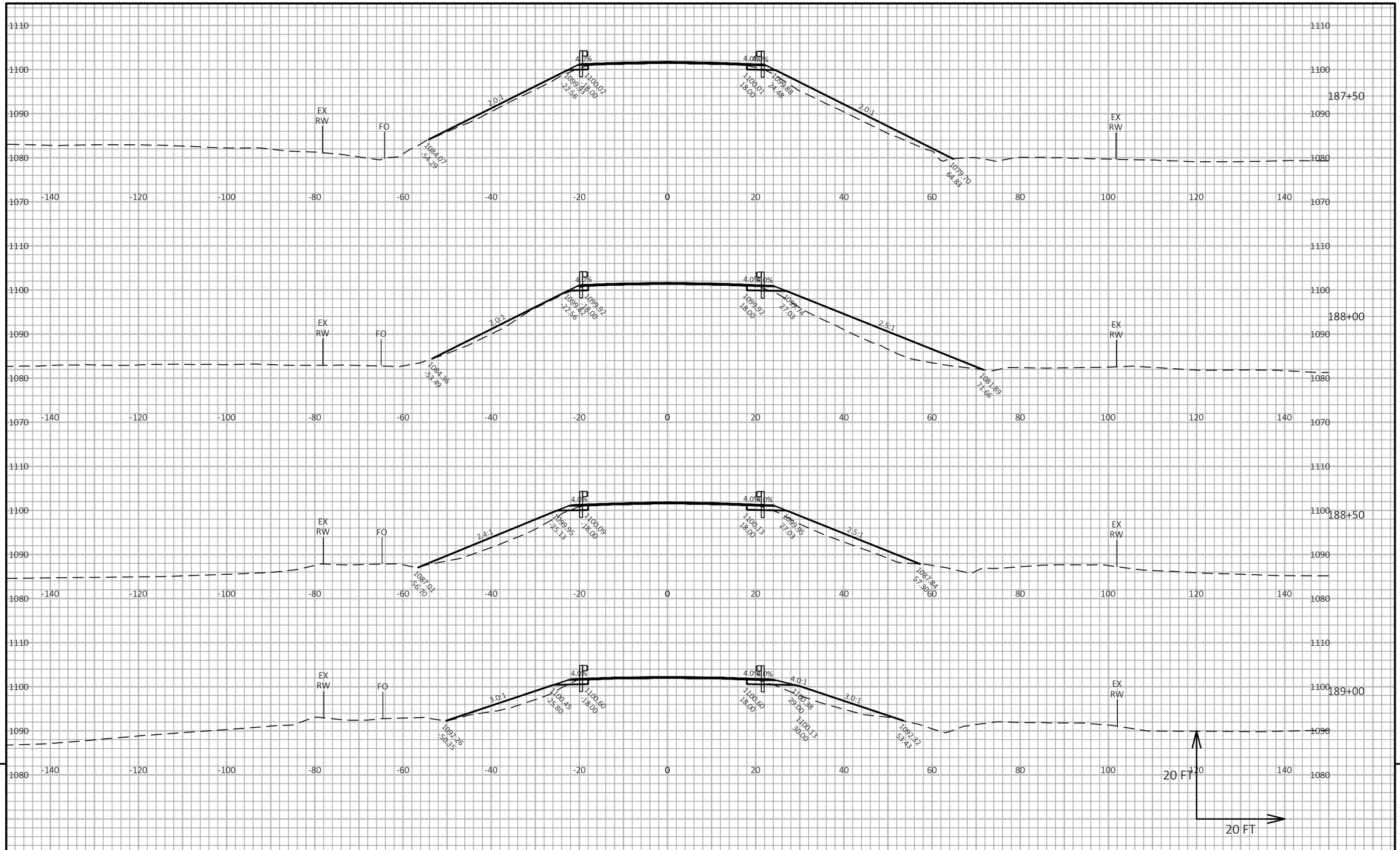


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 277	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

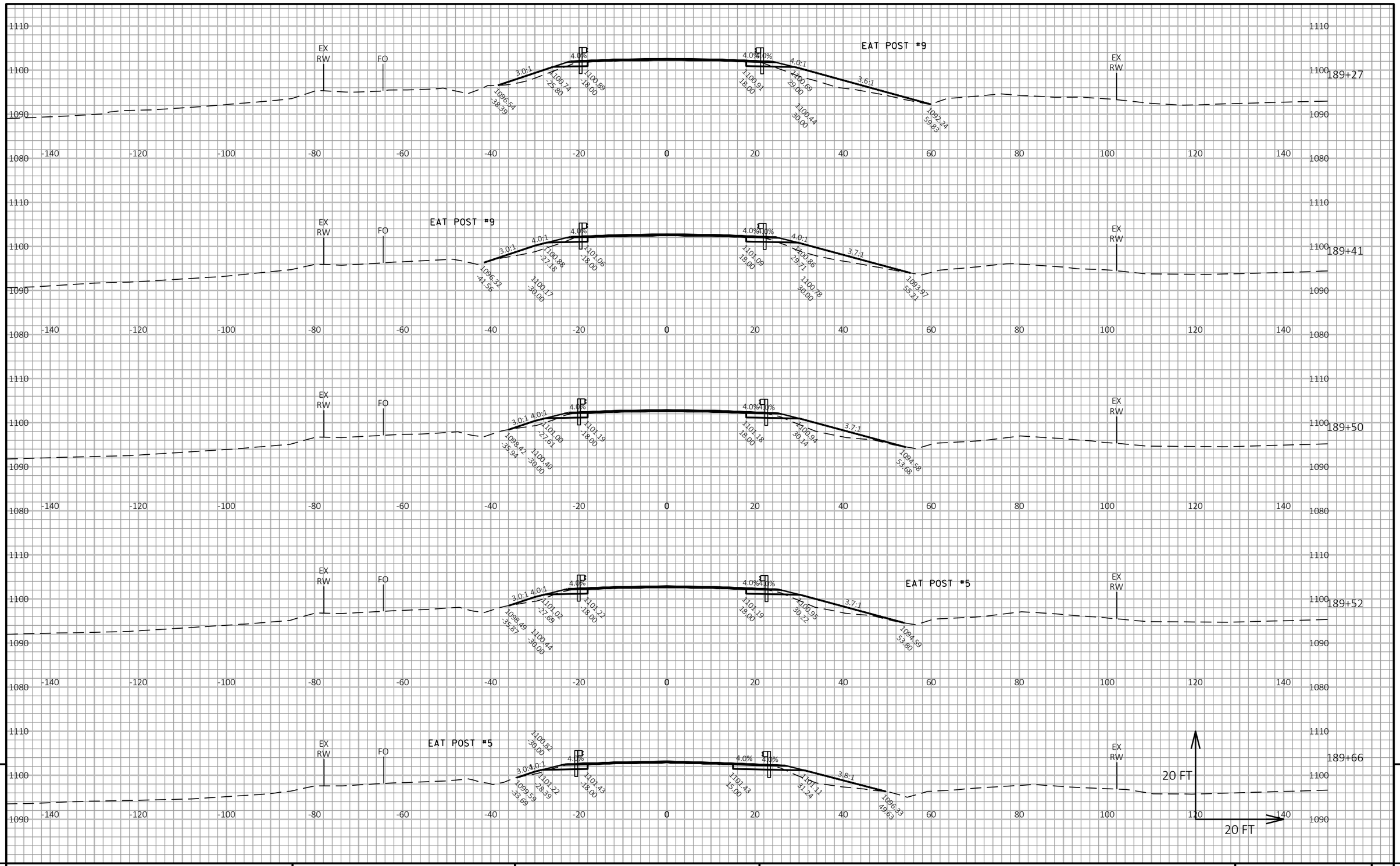


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 278	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

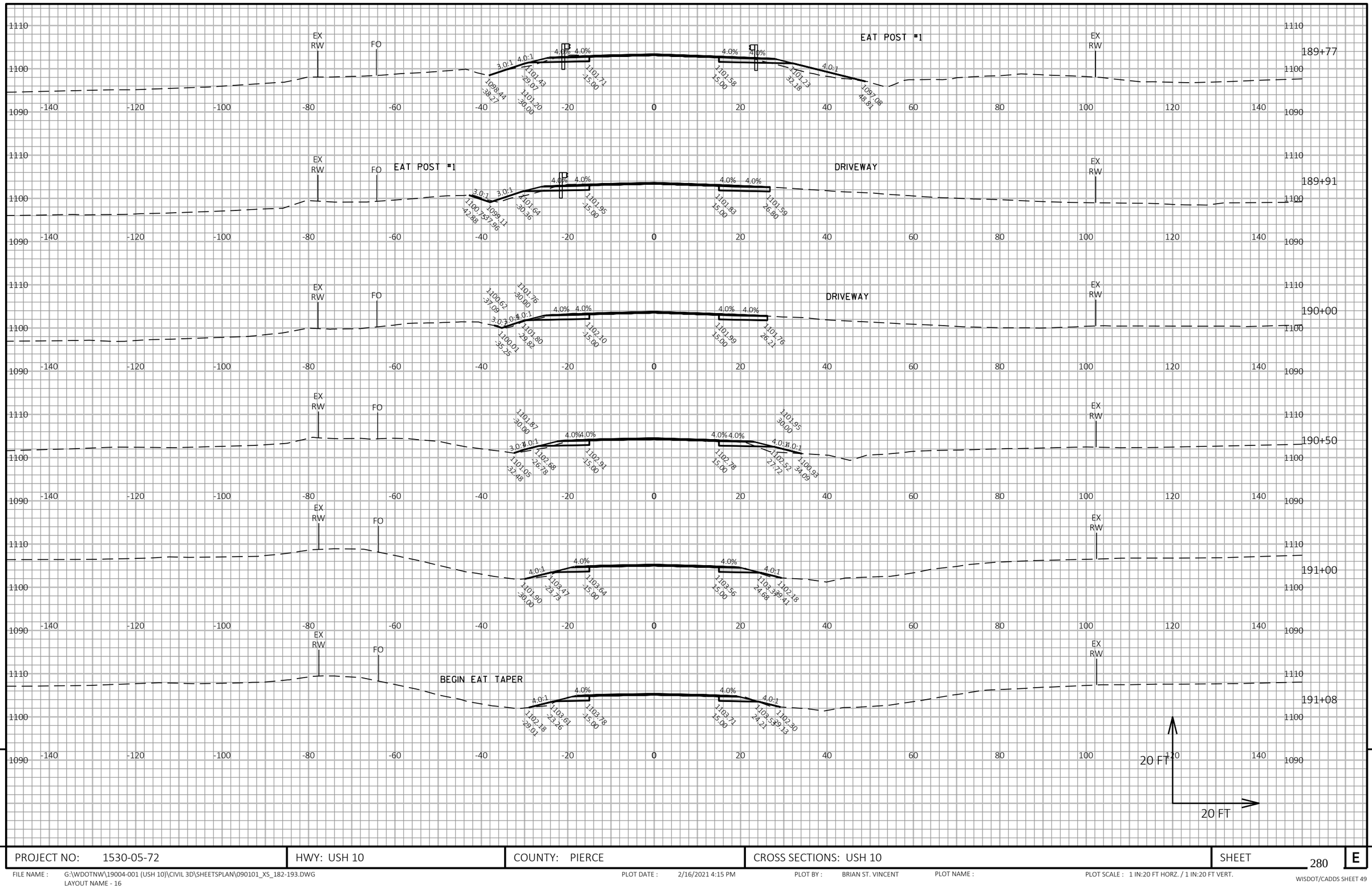


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 279 E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

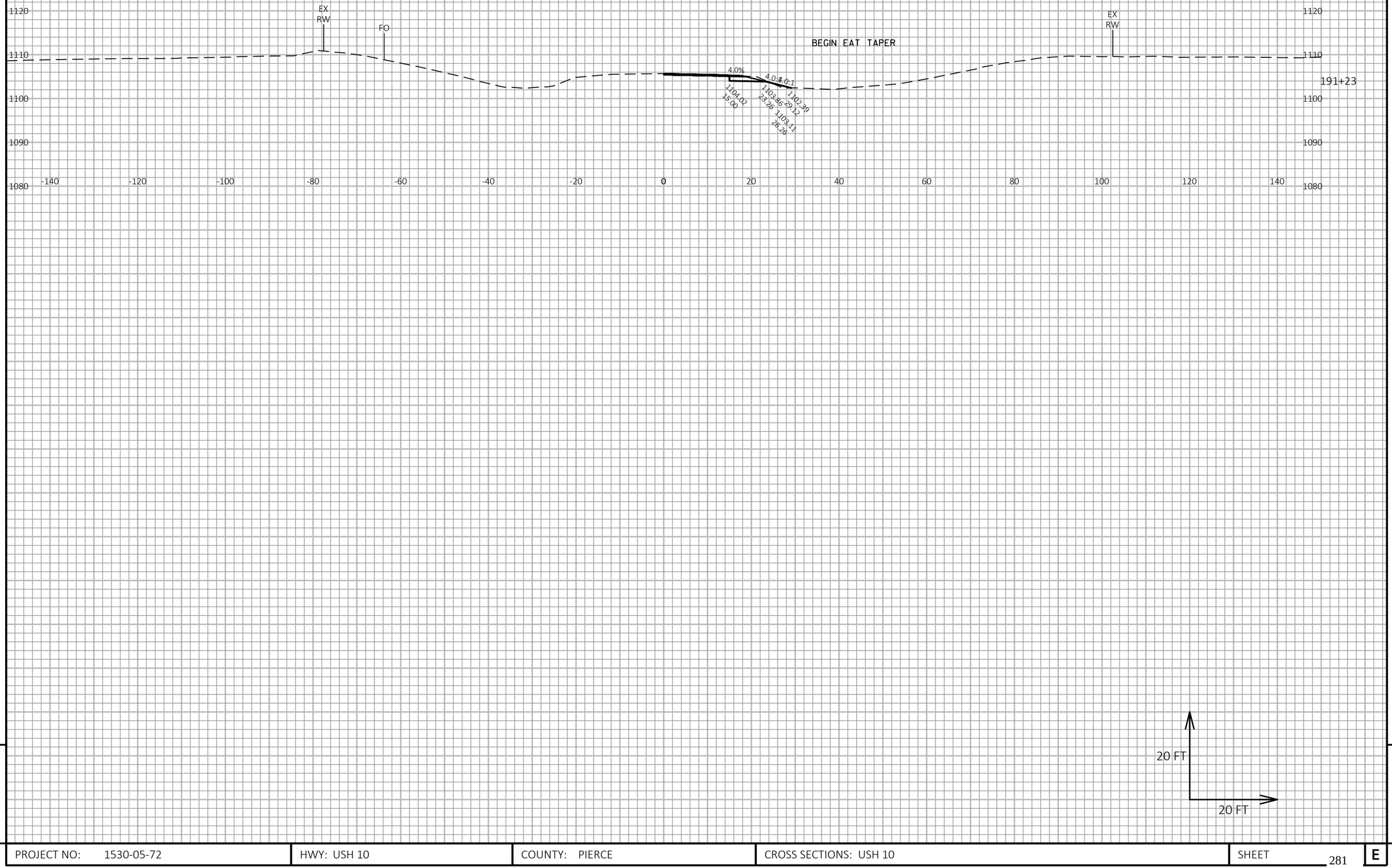


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 280	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

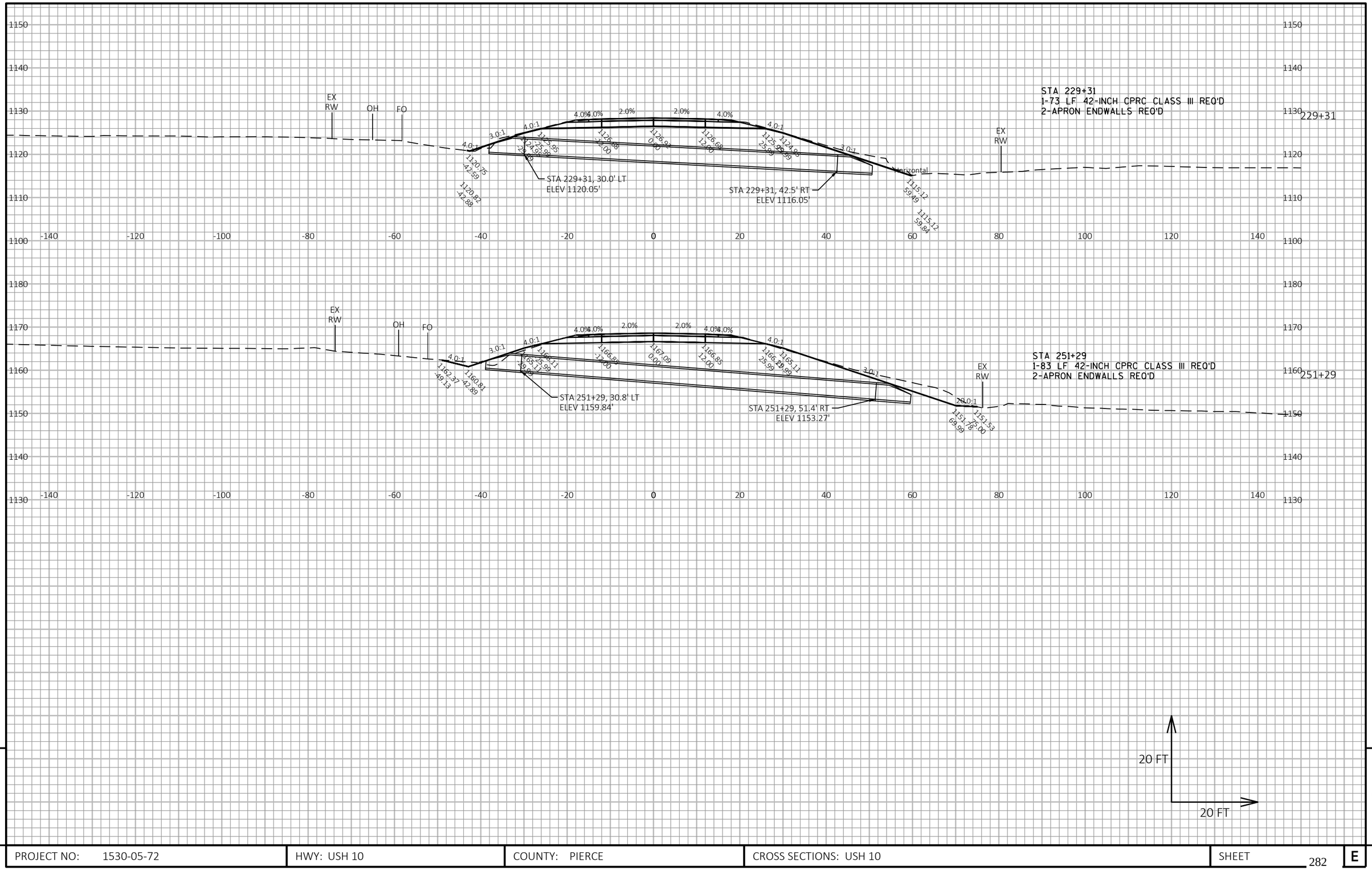
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 281	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 4:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

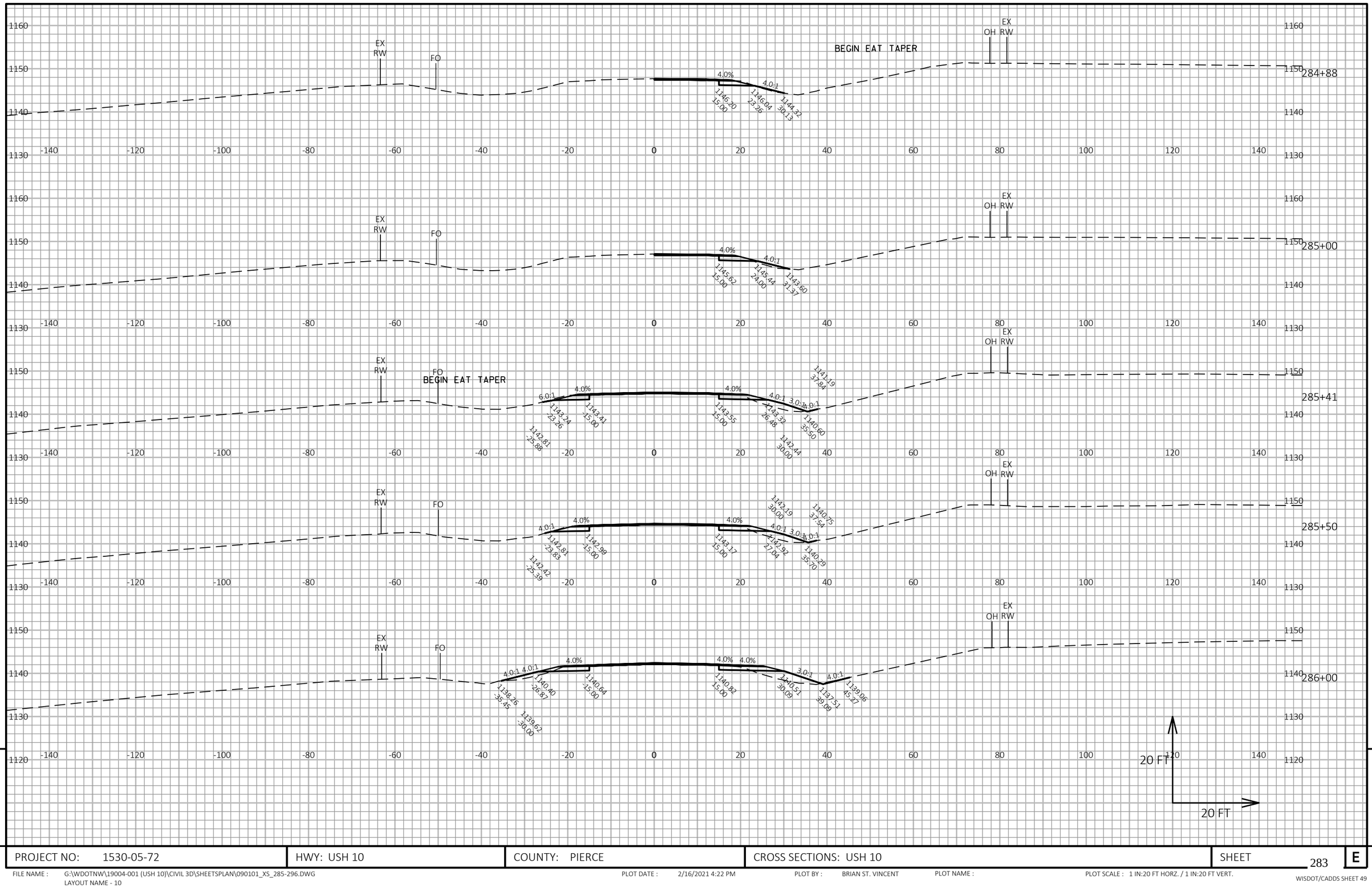


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 282	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_182-193.DWG
LAYOUT NAME - 81

PLOT DATE : 2/18/2021 3:29 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

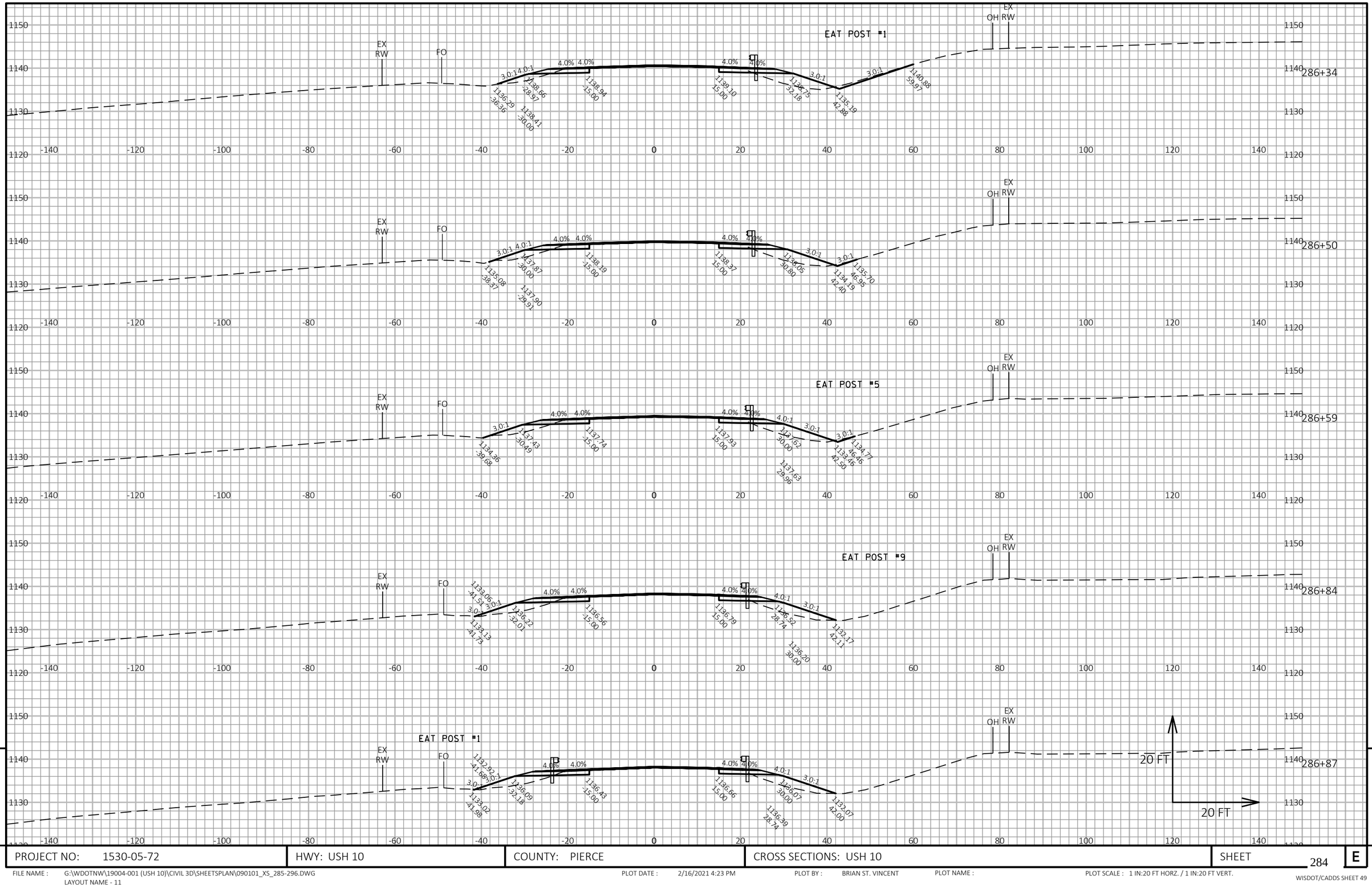


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 283	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



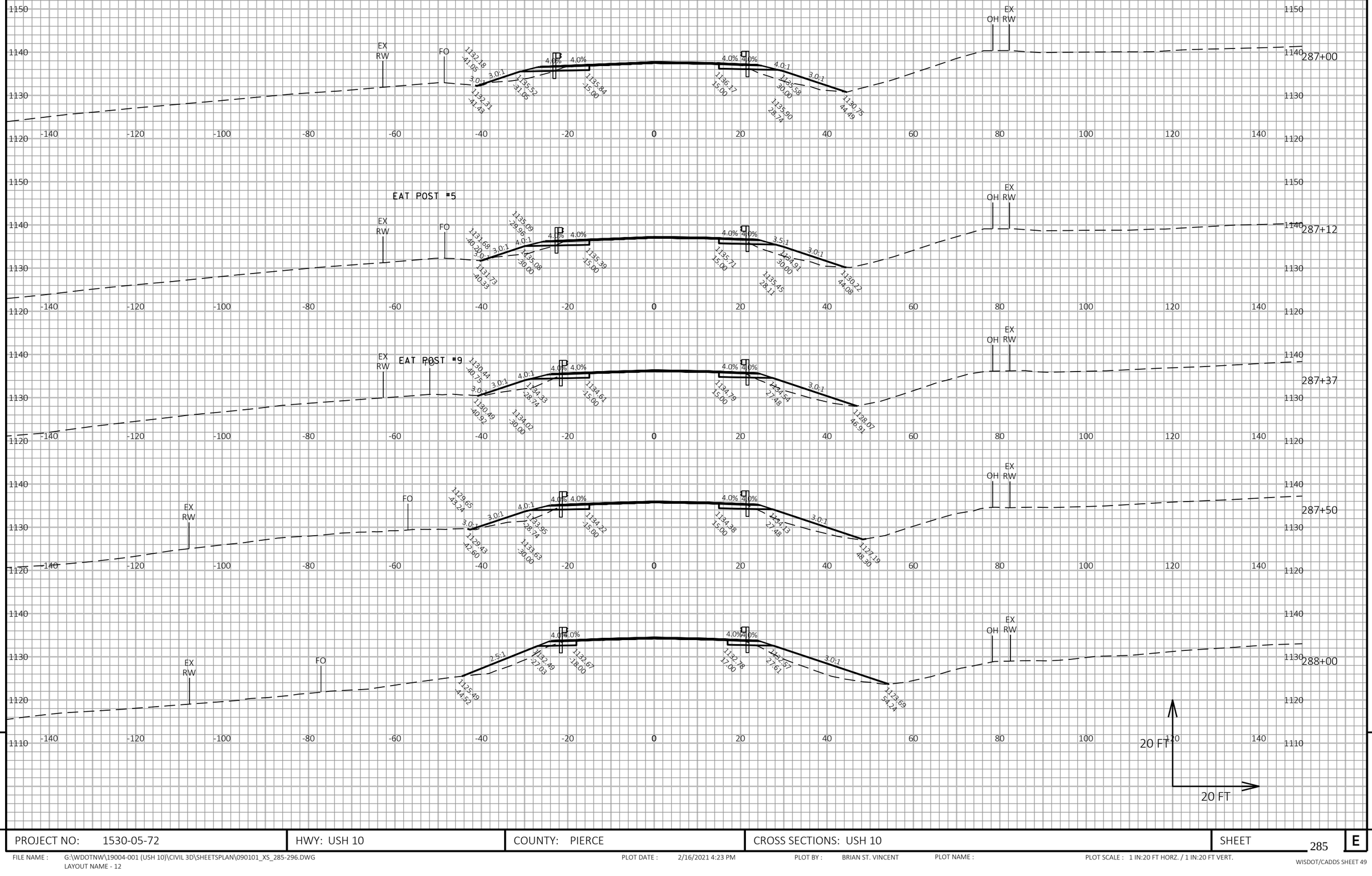
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 284	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 285	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 12

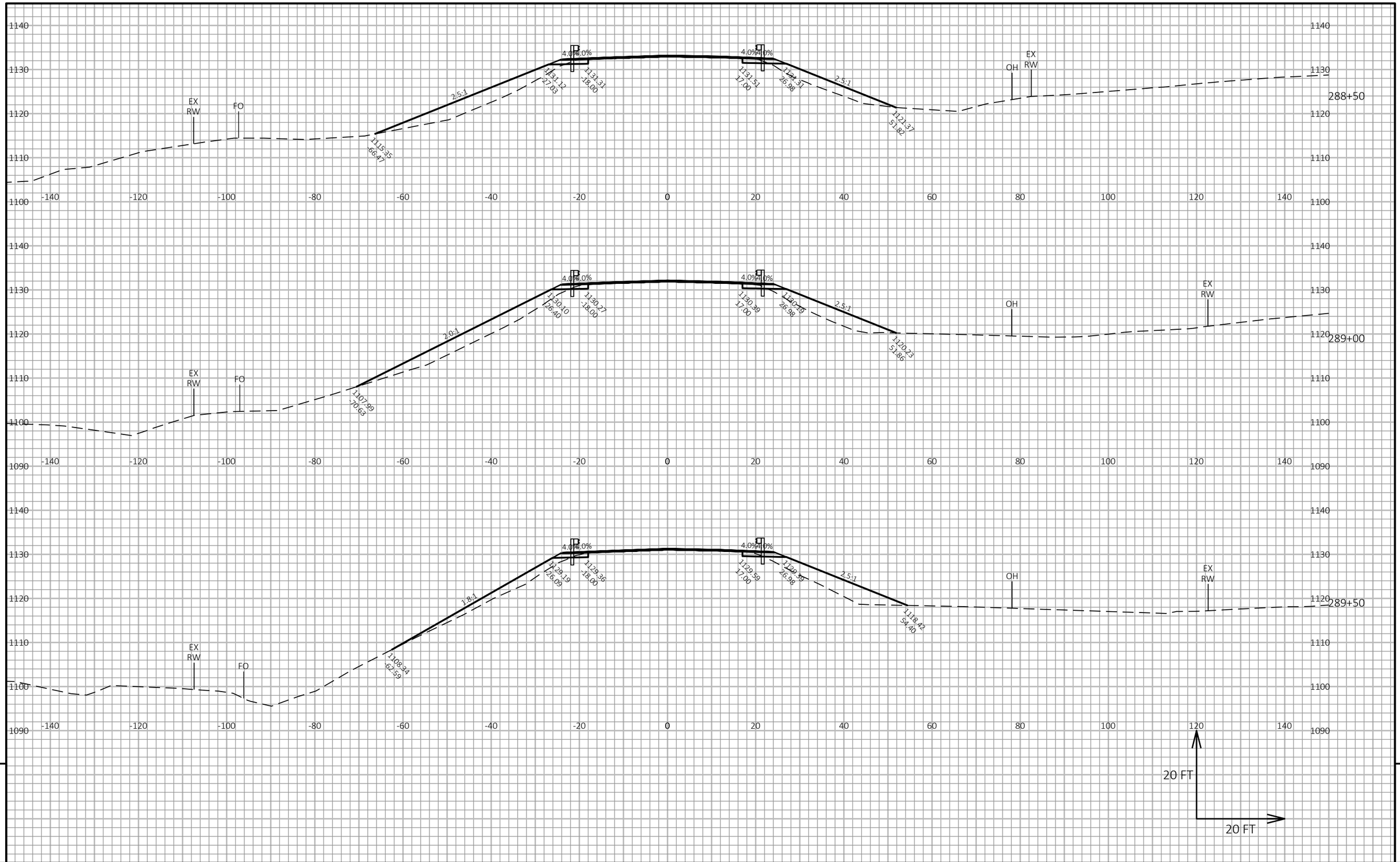
PLOT DATE : 2/16/2021 4:23 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

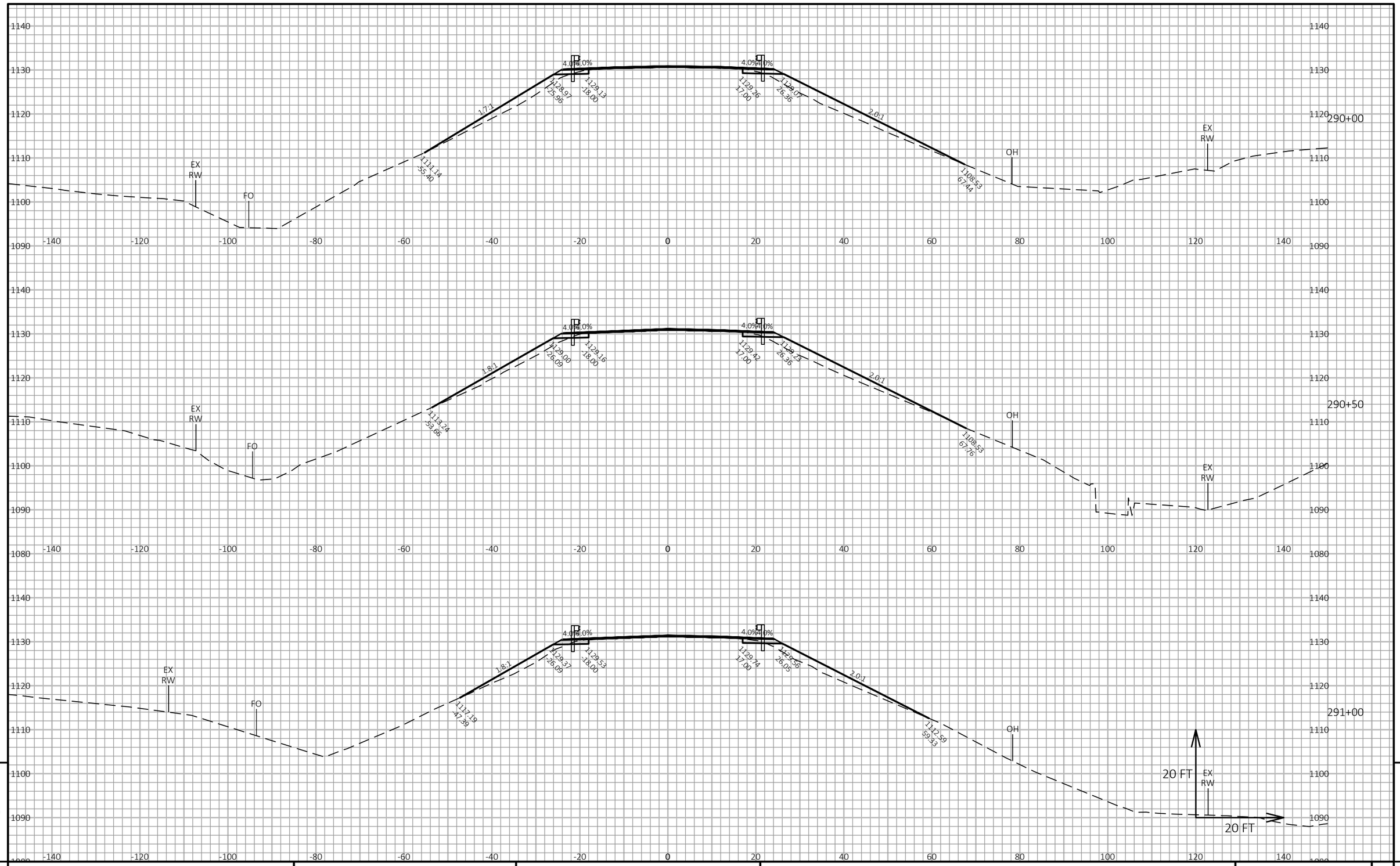


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 286	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

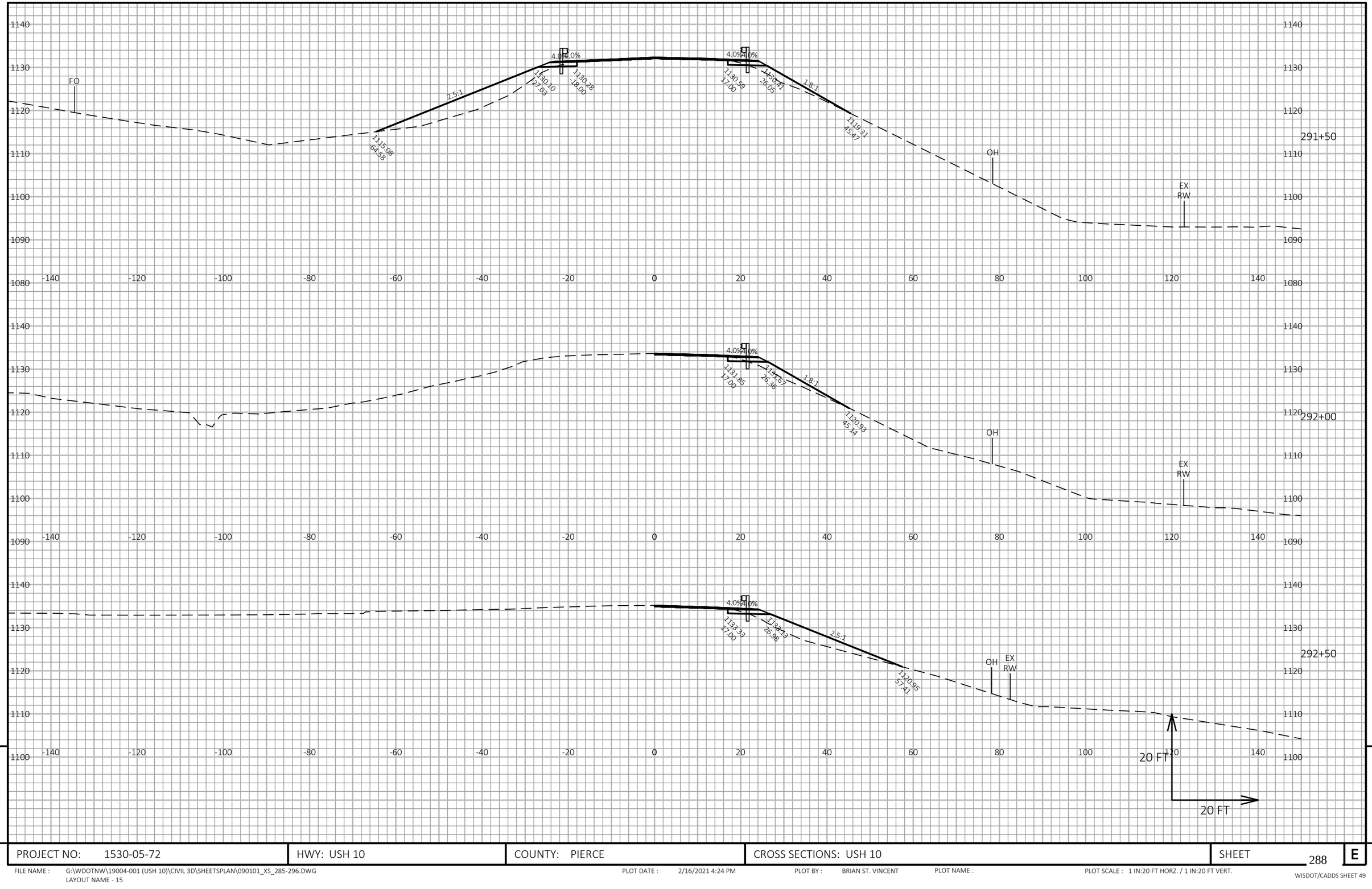


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 287	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

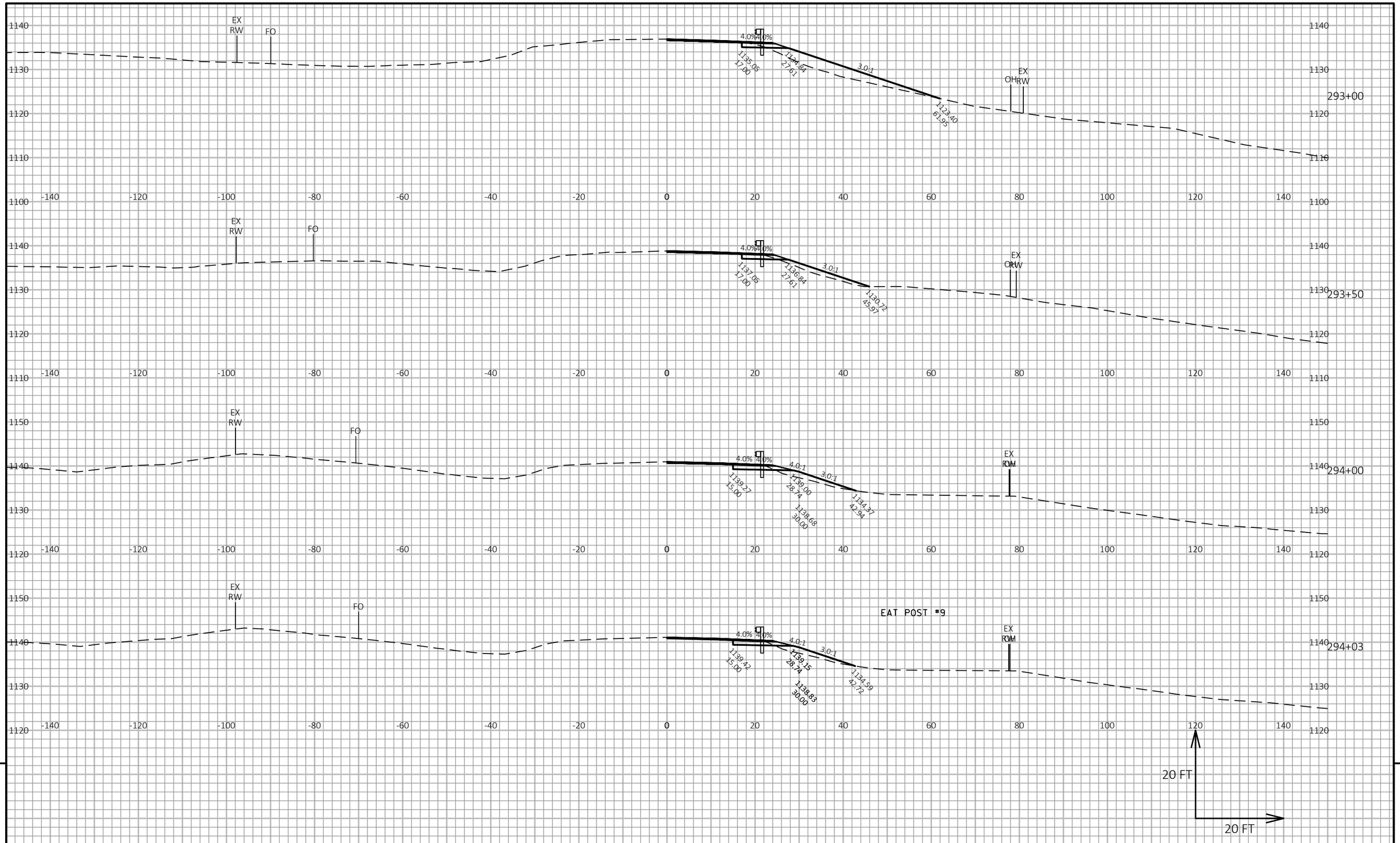


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 288	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

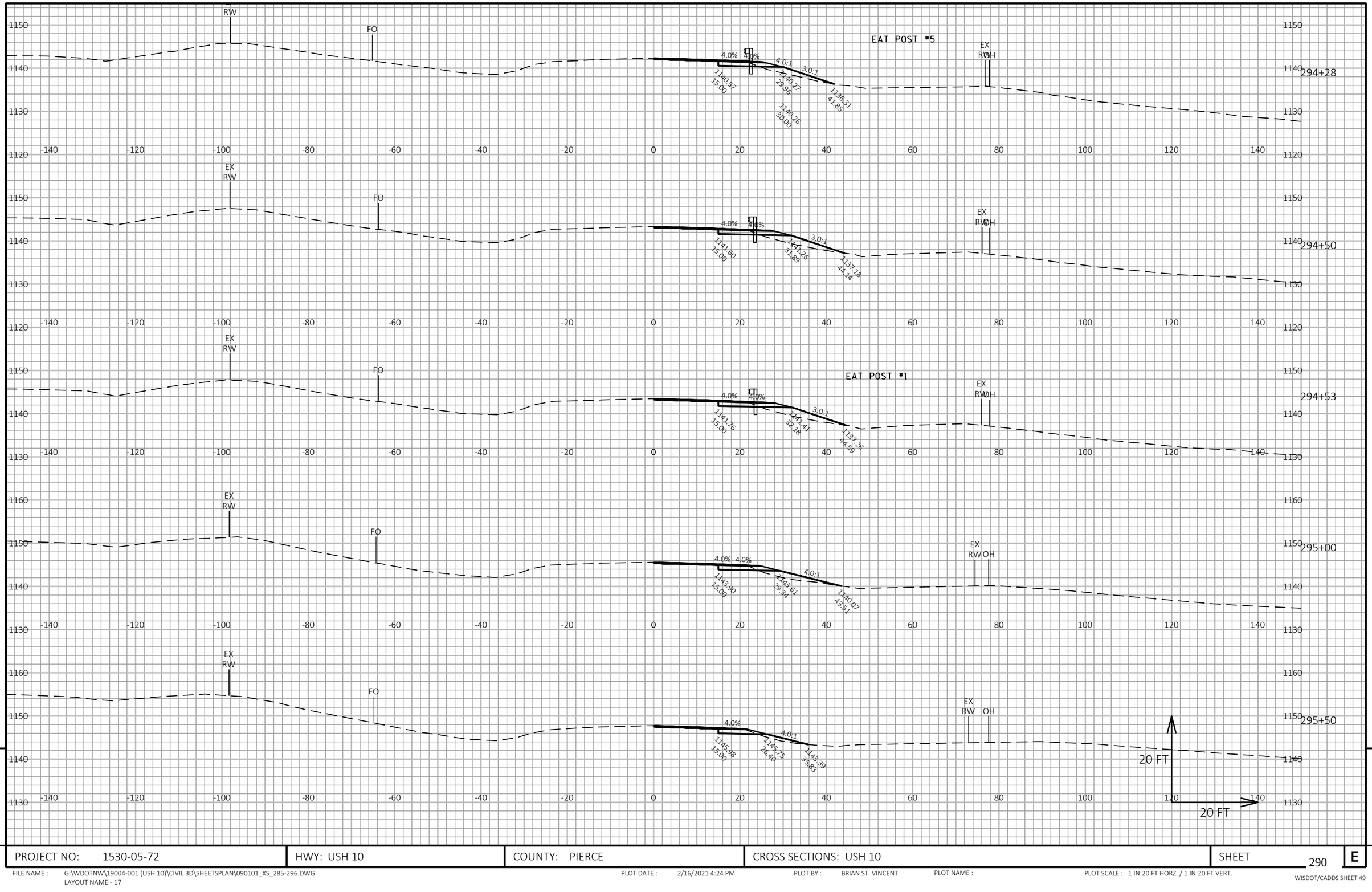
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 289	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

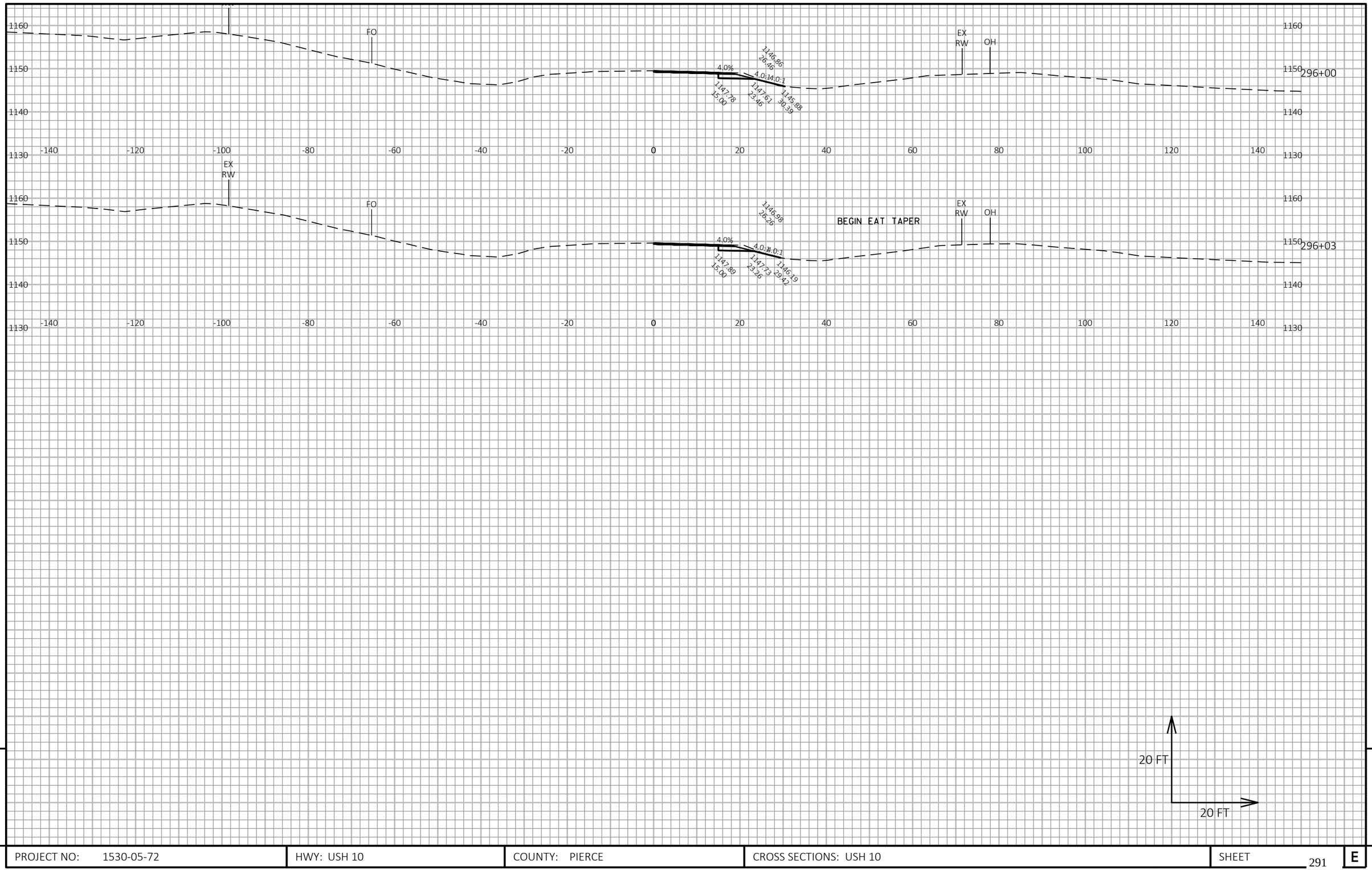


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 290	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 4:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

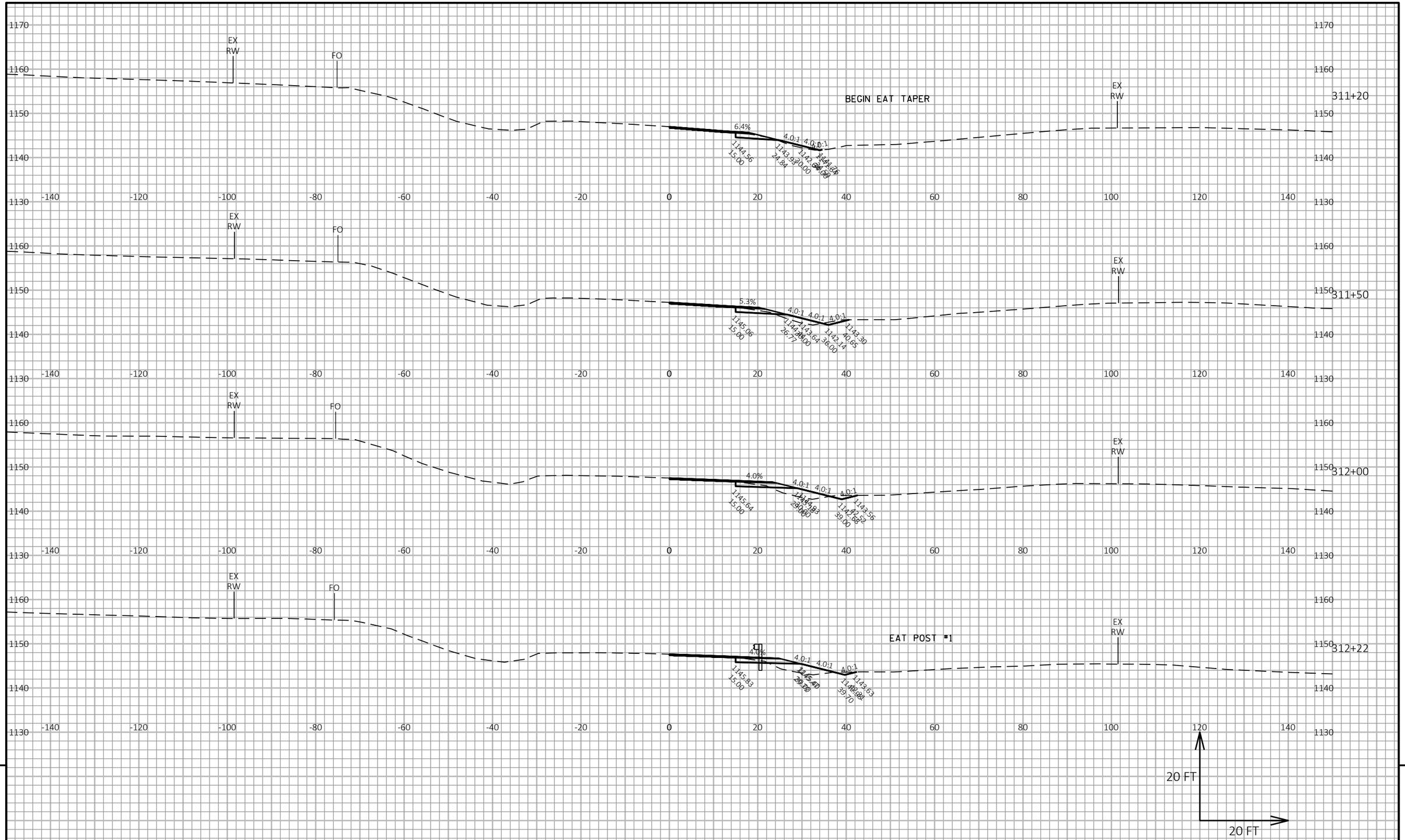
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 291	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 4:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

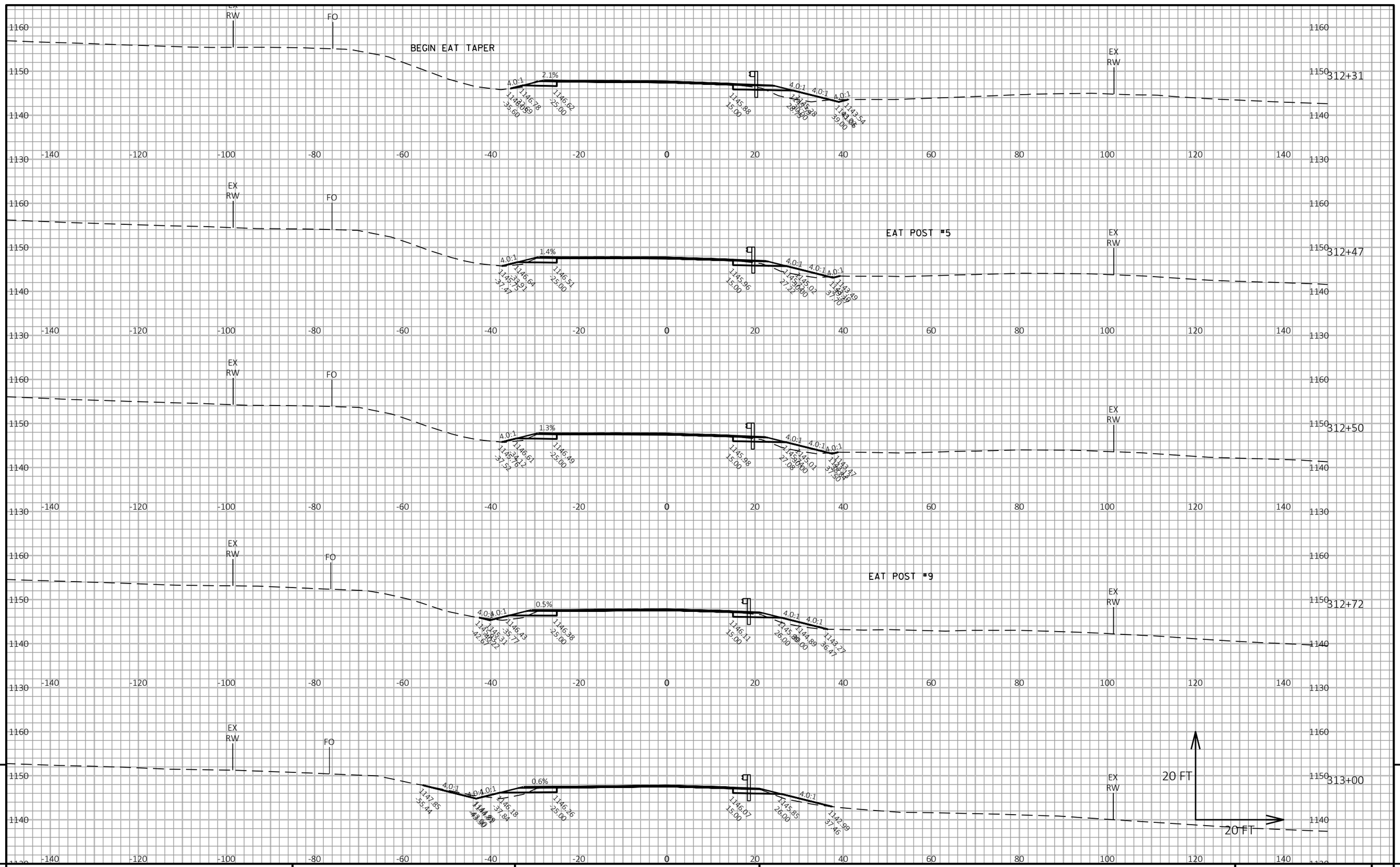


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 292	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

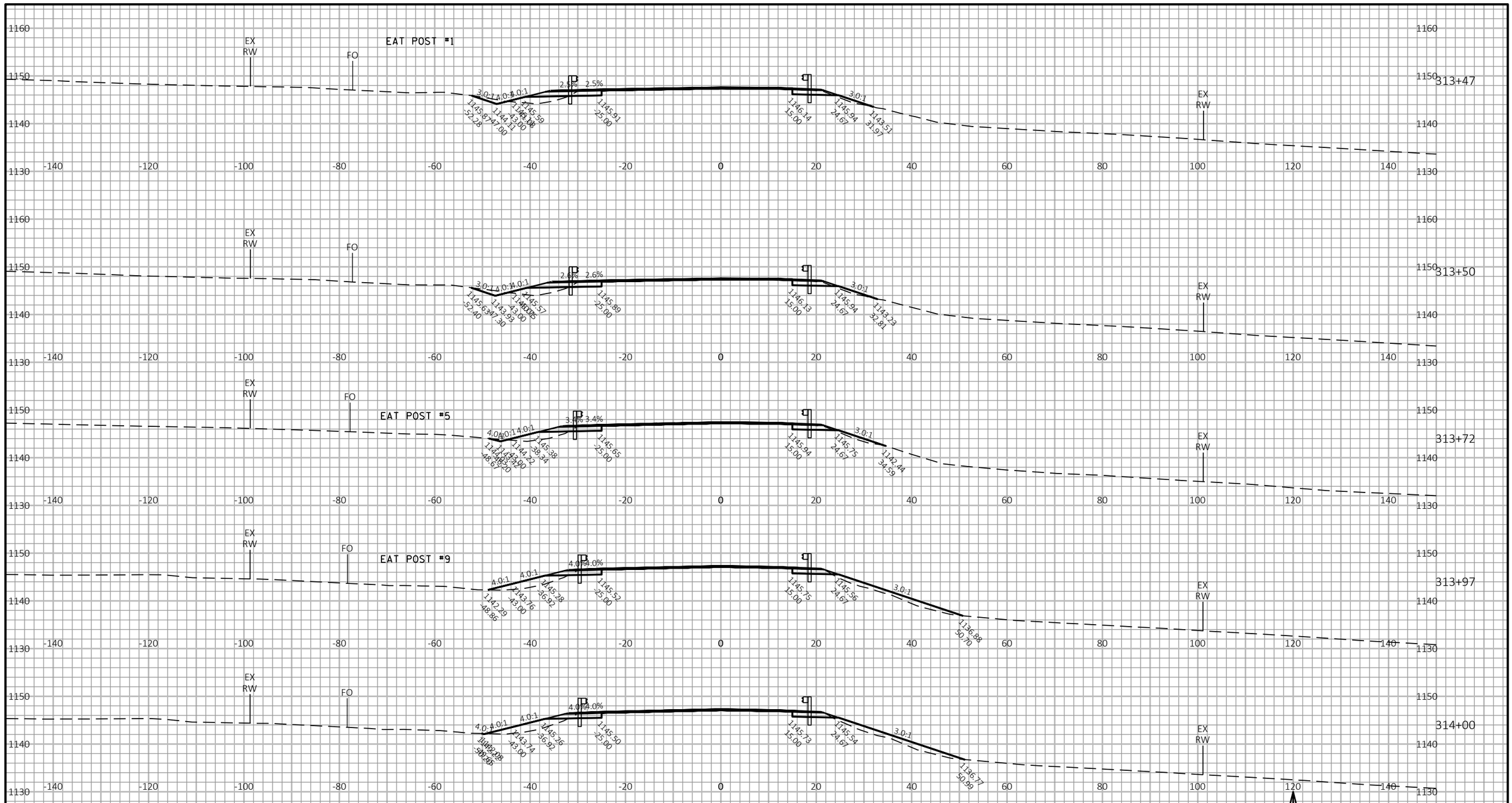
WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 293	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

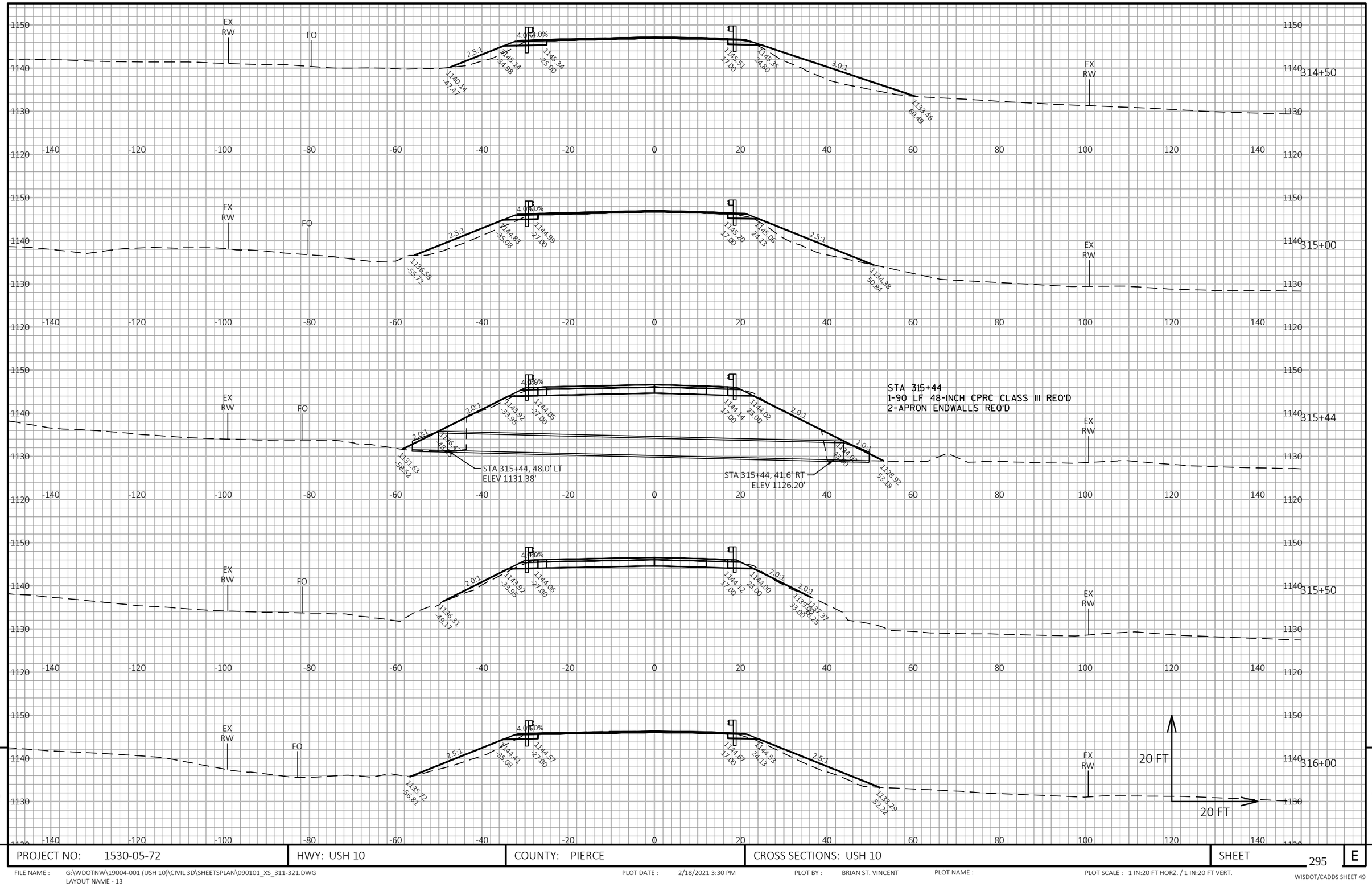


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 294	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

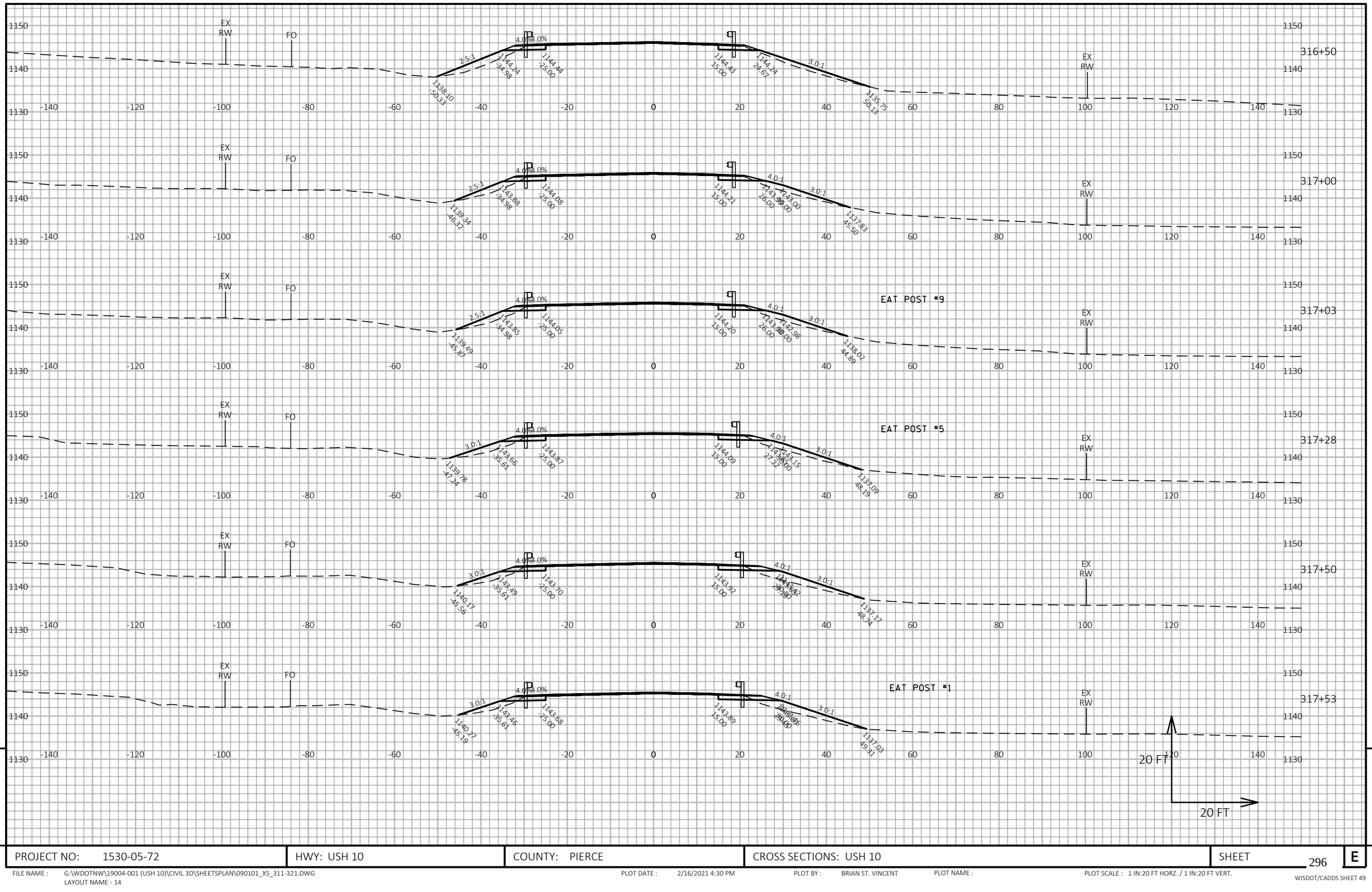


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 295	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 13

PLOT DATE : 2/18/2021 3:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

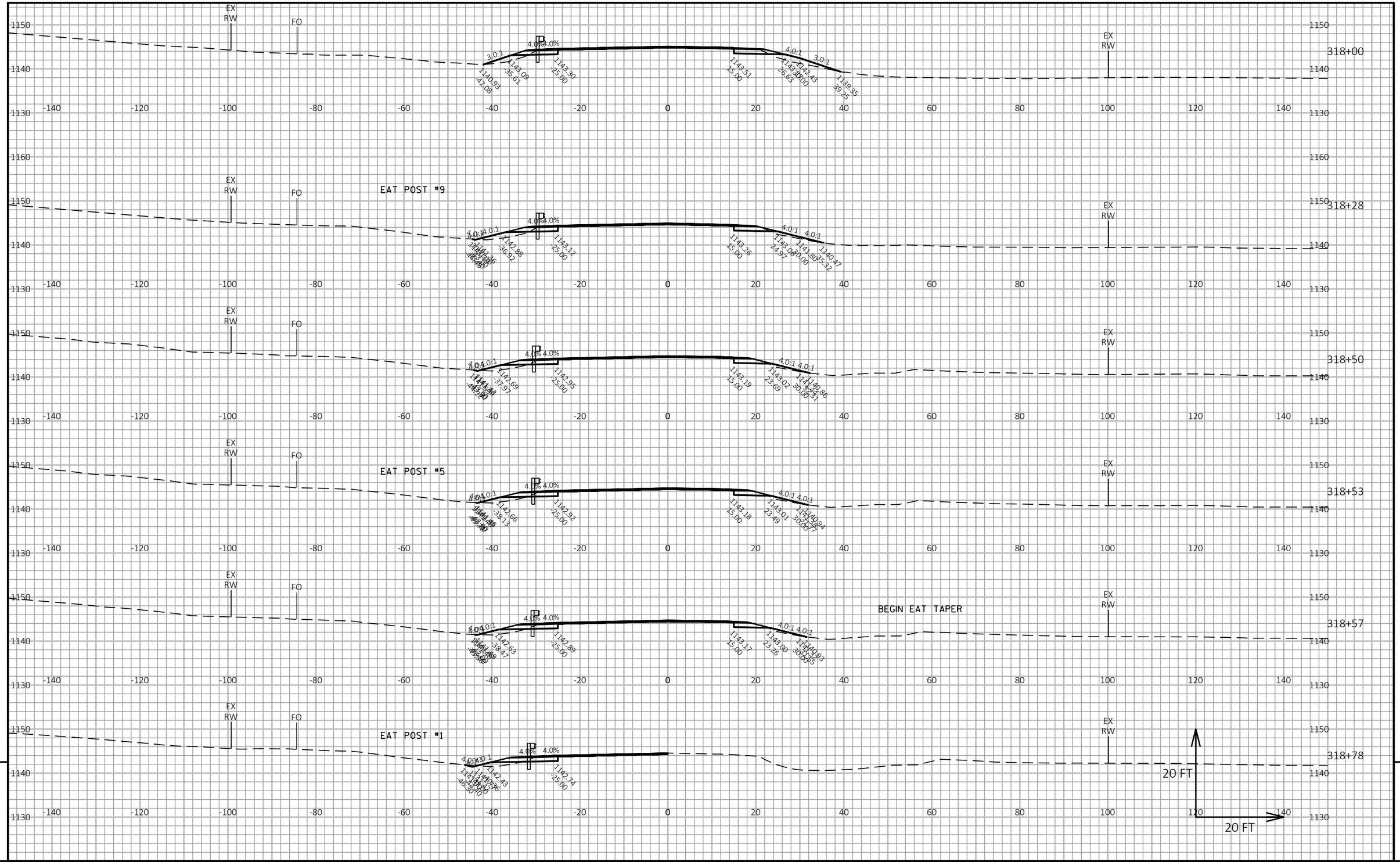


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 296	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

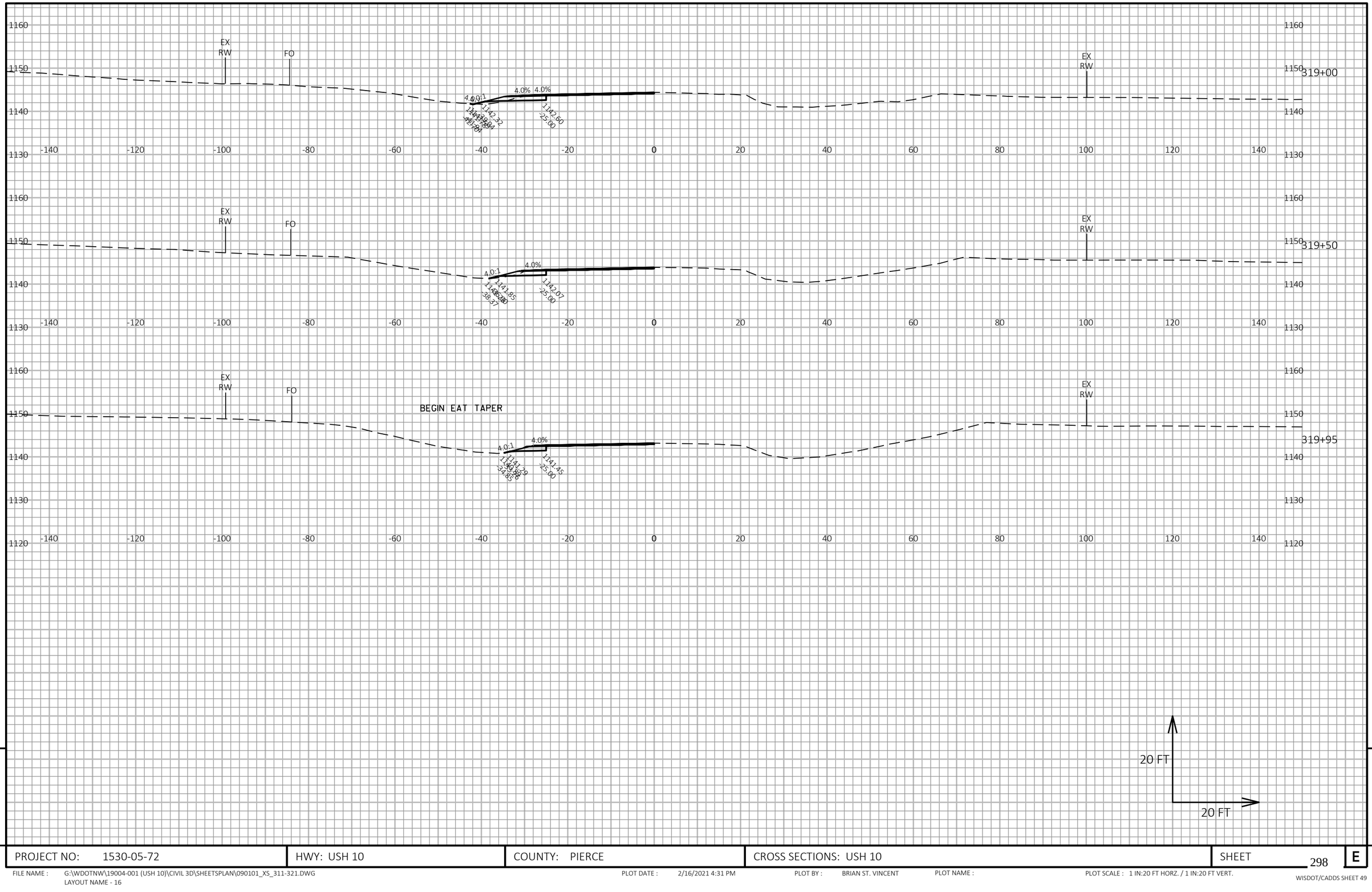
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 297	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:31 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

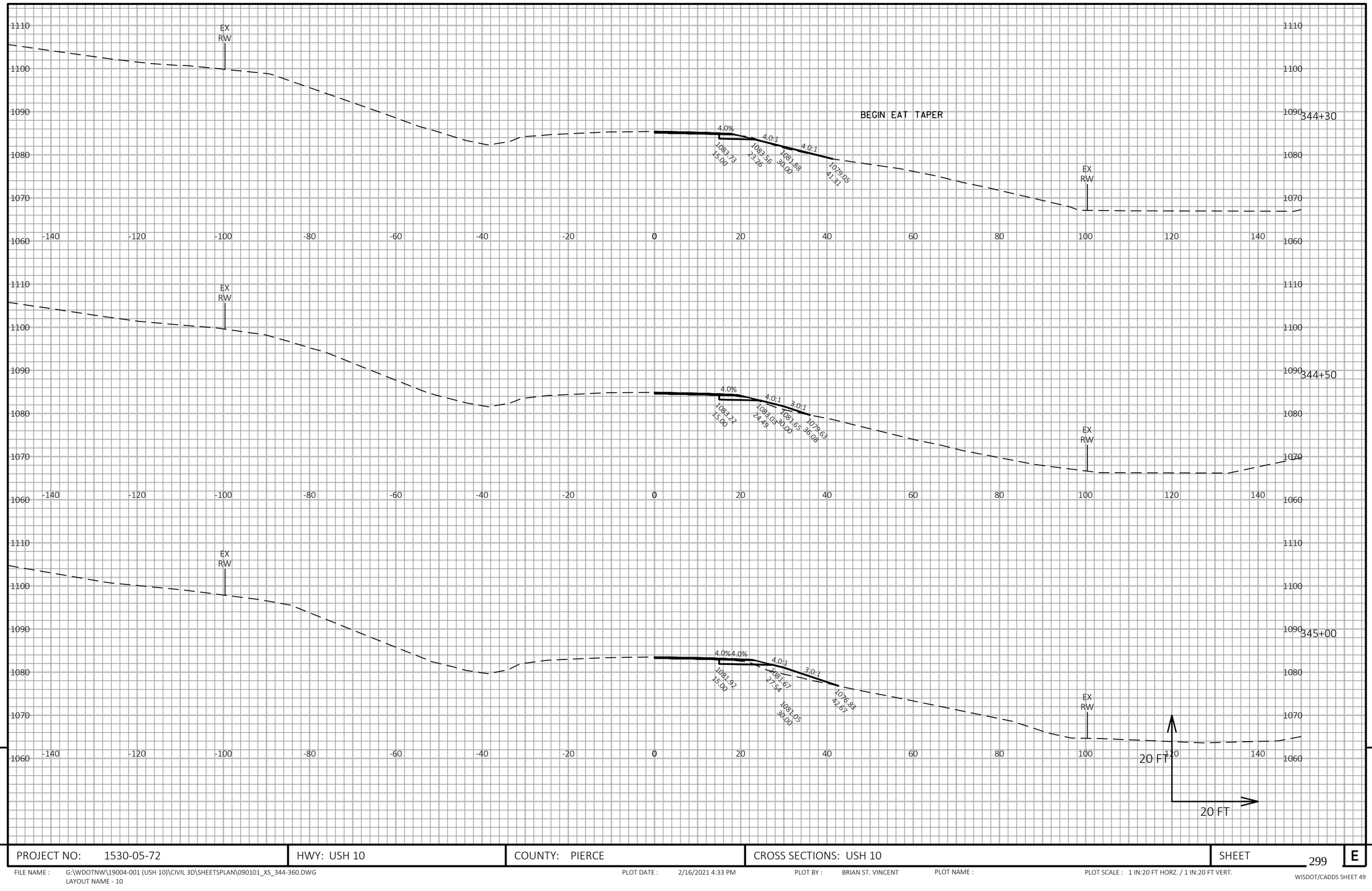
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 298	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_311-321.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:31 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

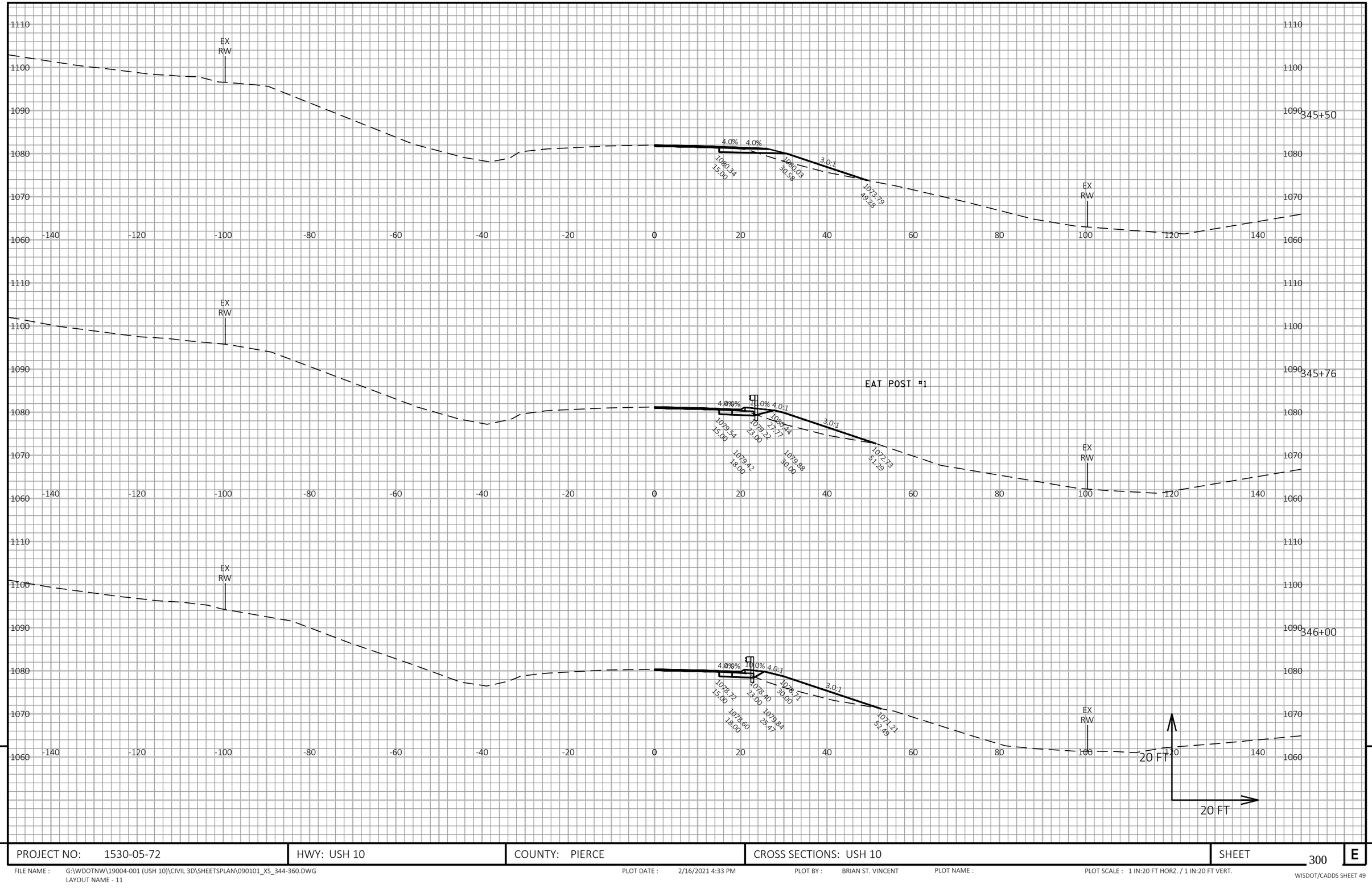


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 299	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:33 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

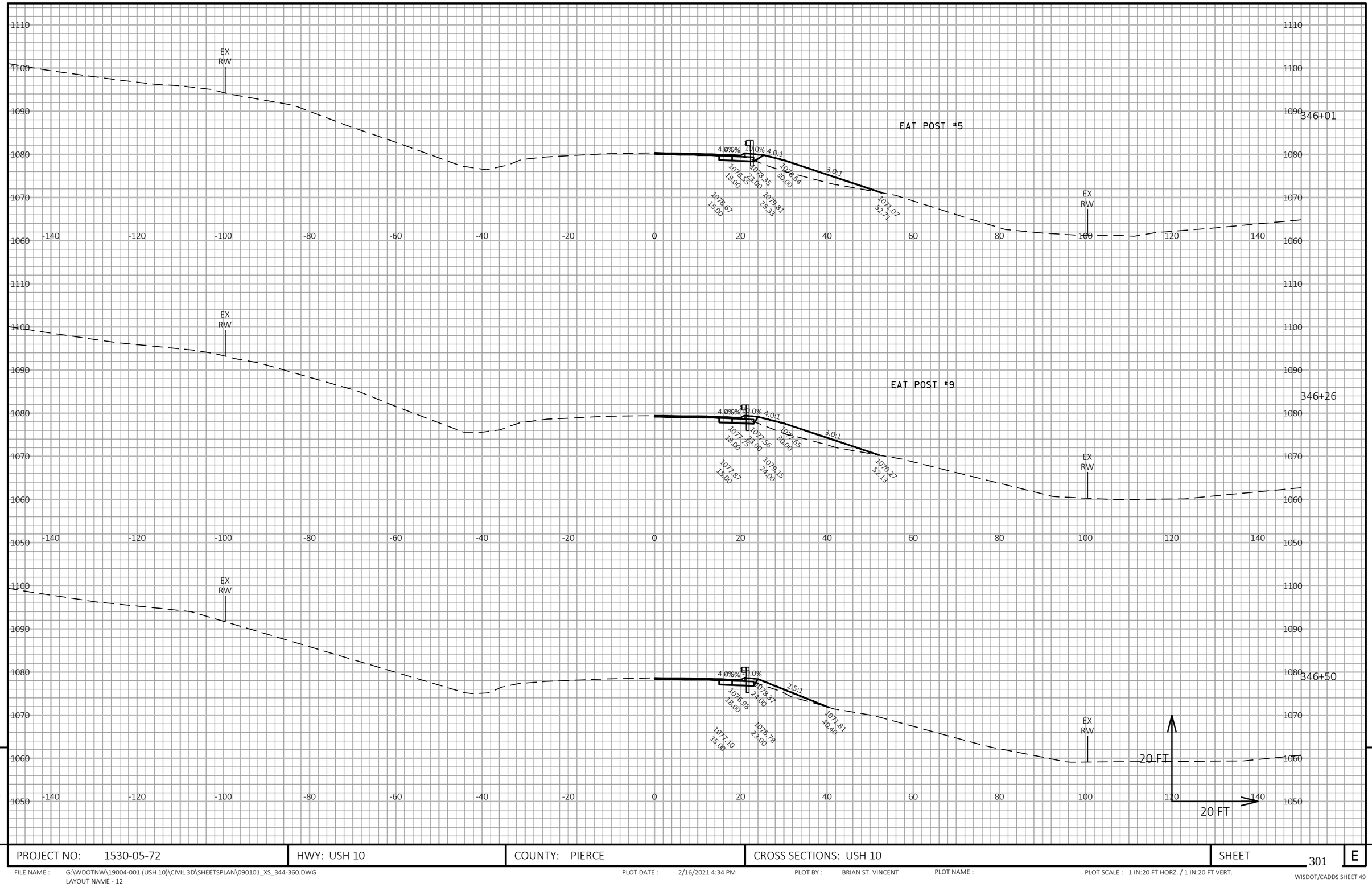
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 300	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:33 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

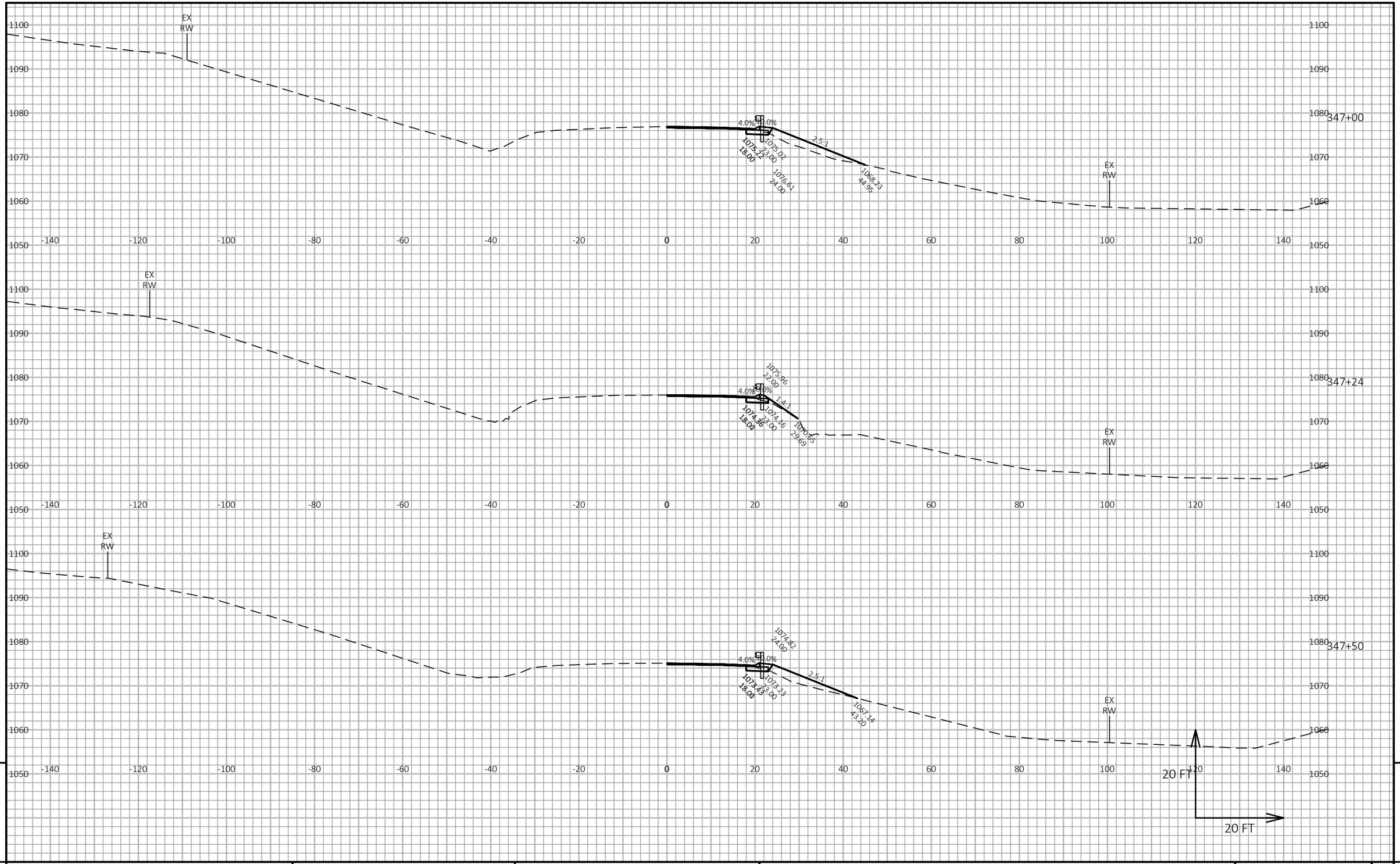
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 301	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:34 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

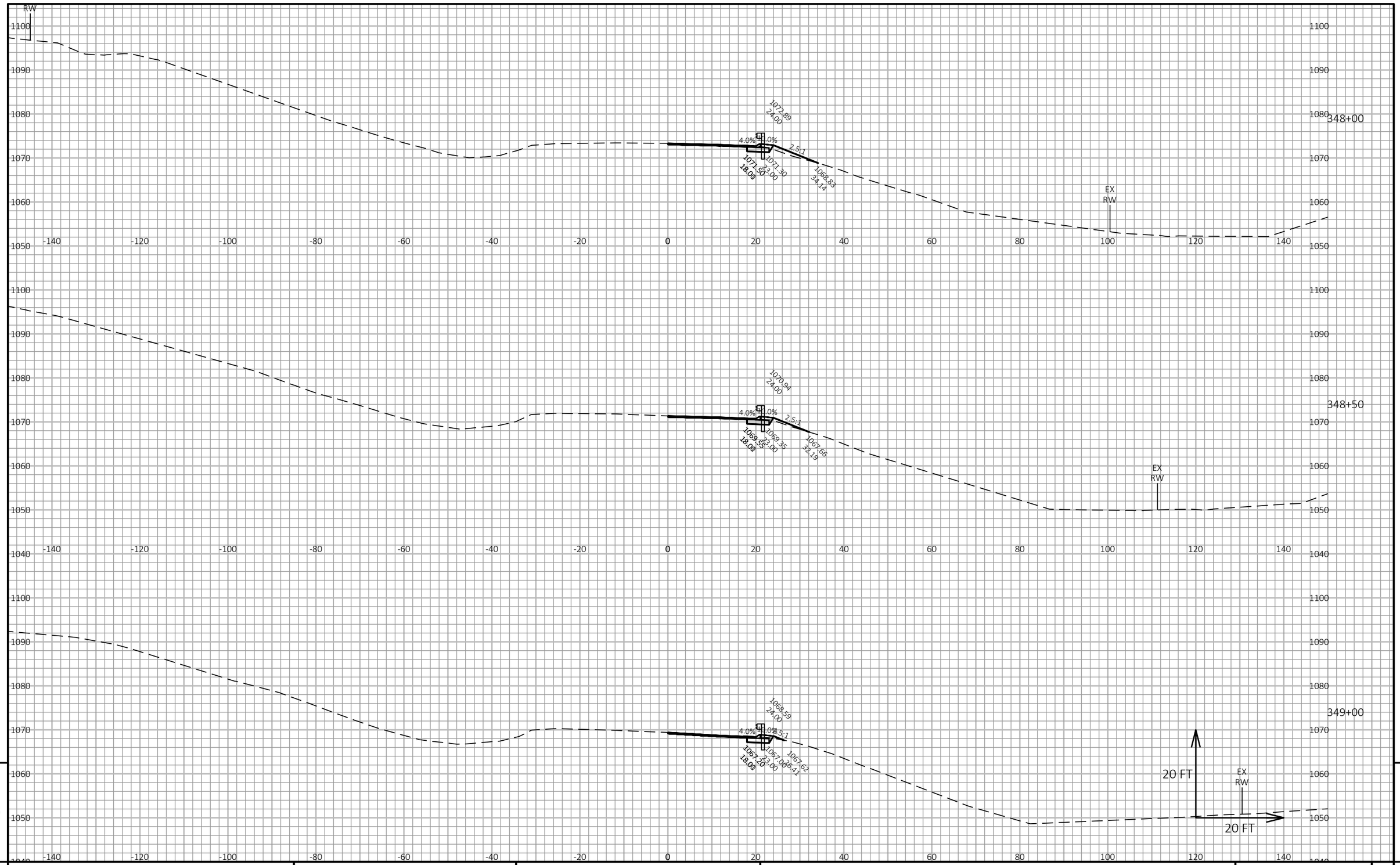


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 302	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:34 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

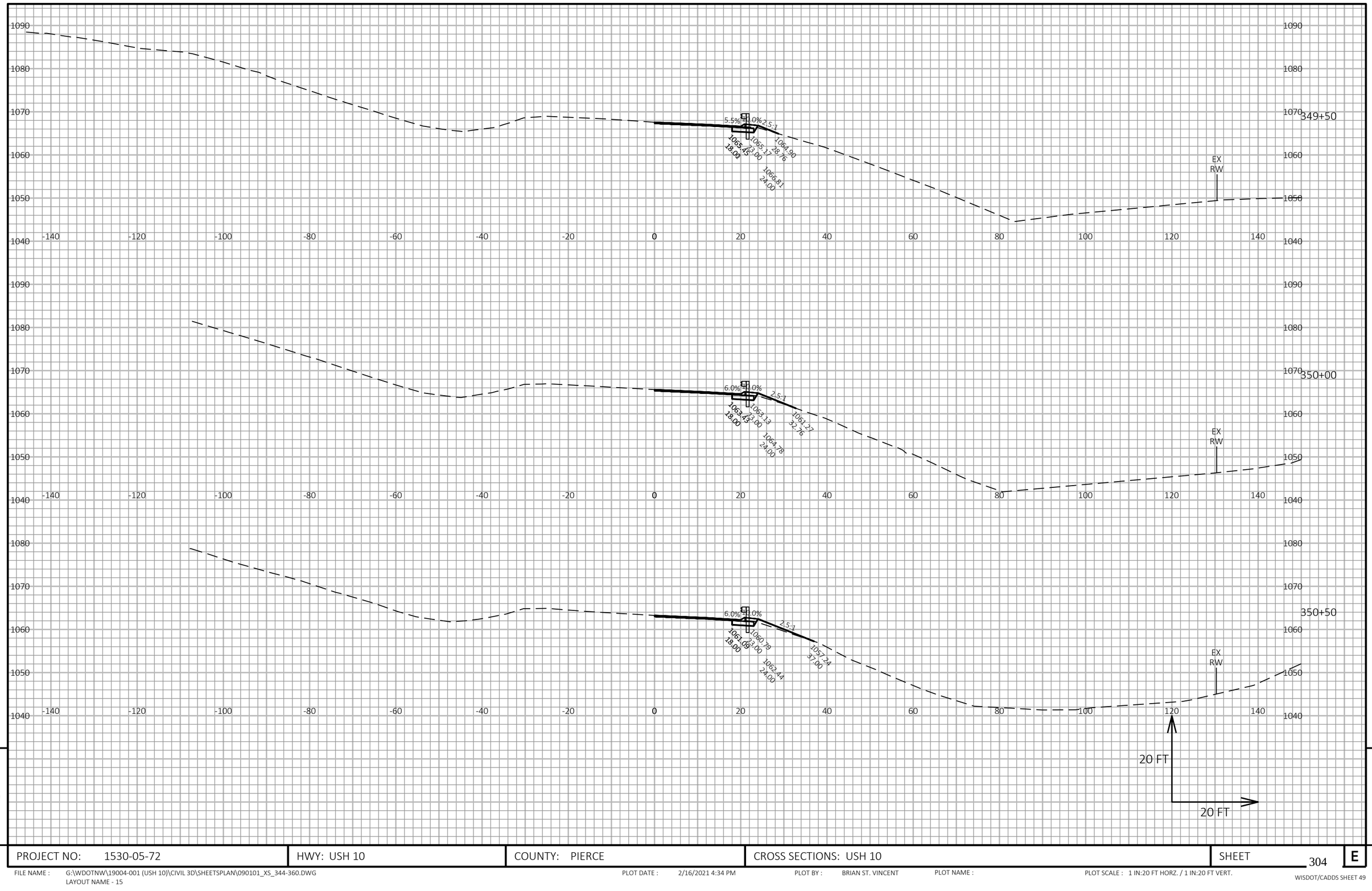
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 303	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:34 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

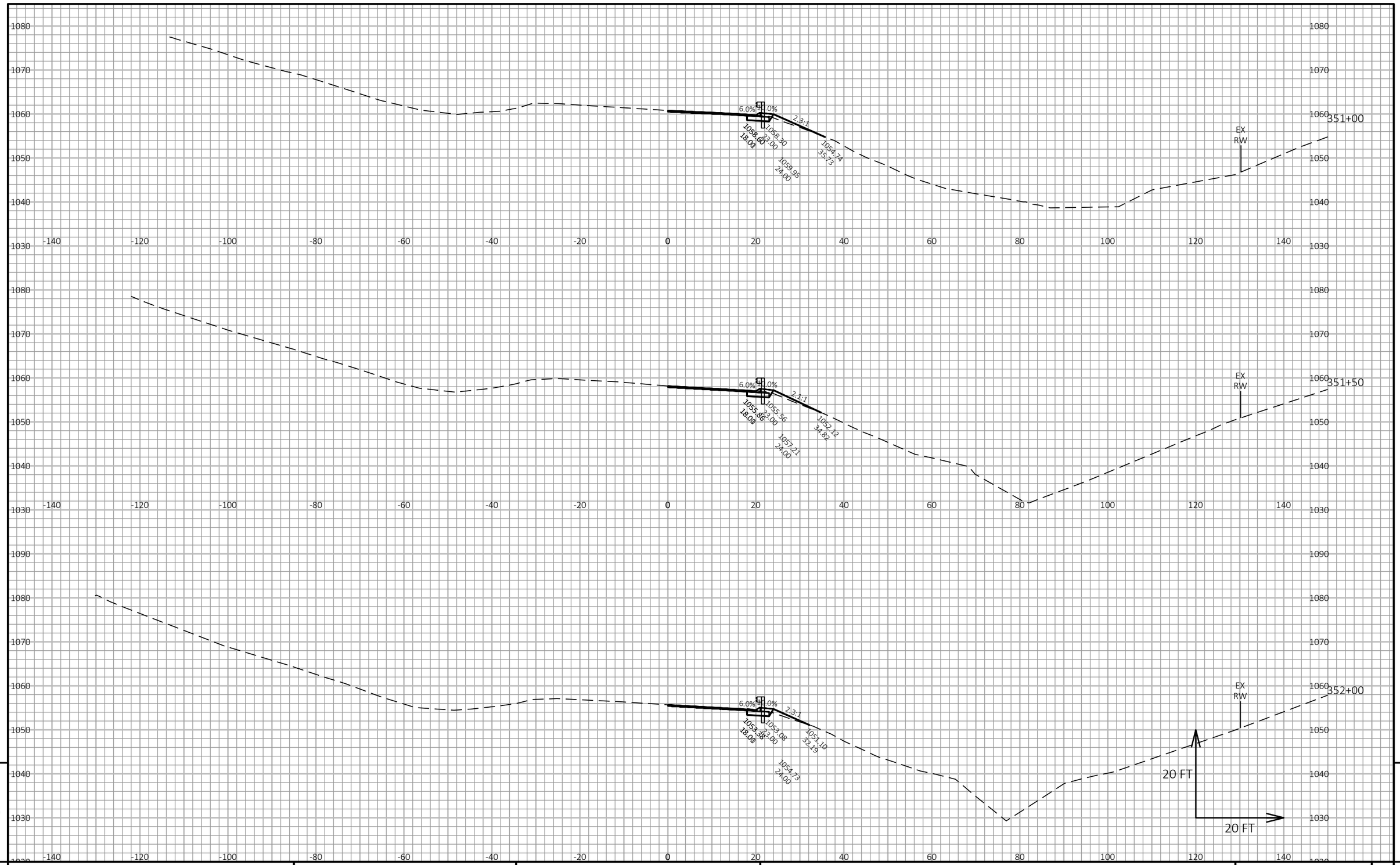
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 304	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:34 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

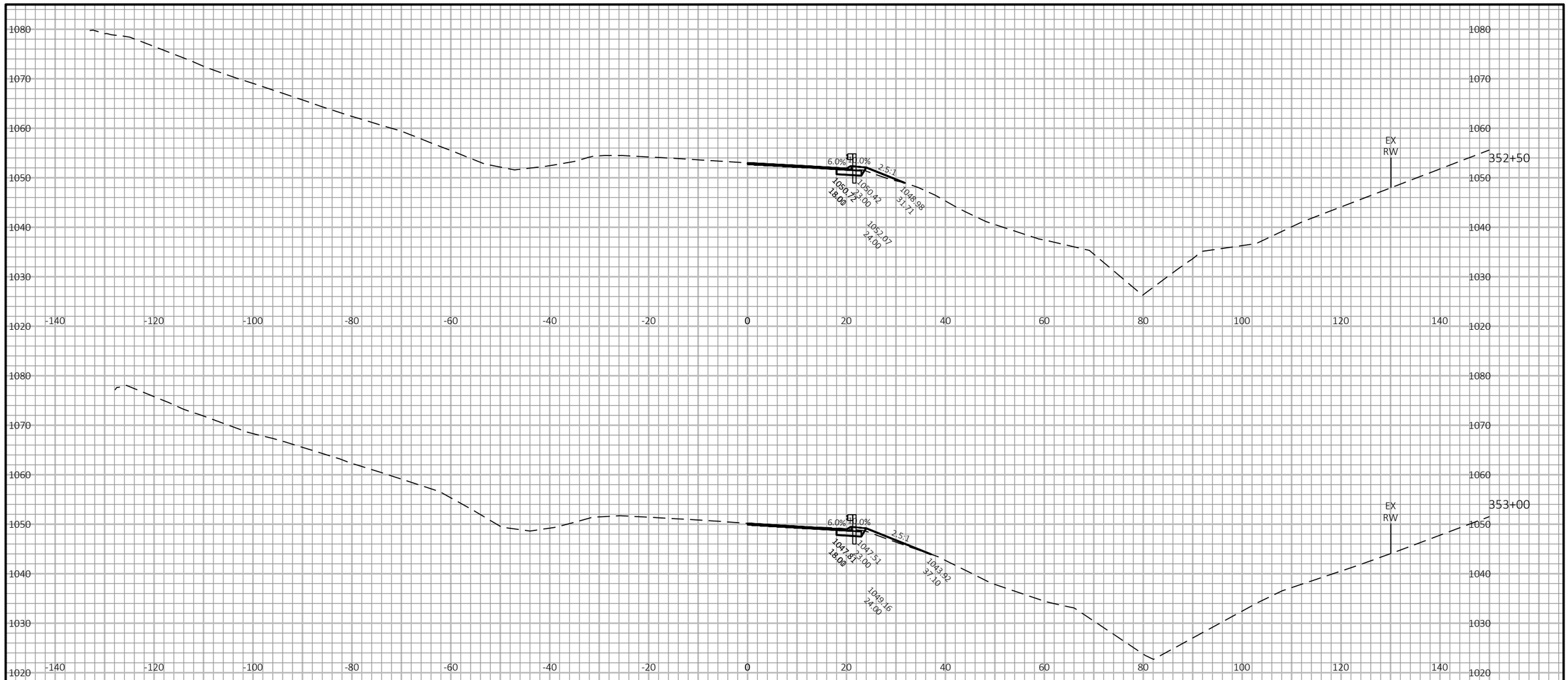


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 305	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:35 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 306	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 4:35 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 307	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 4:35 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

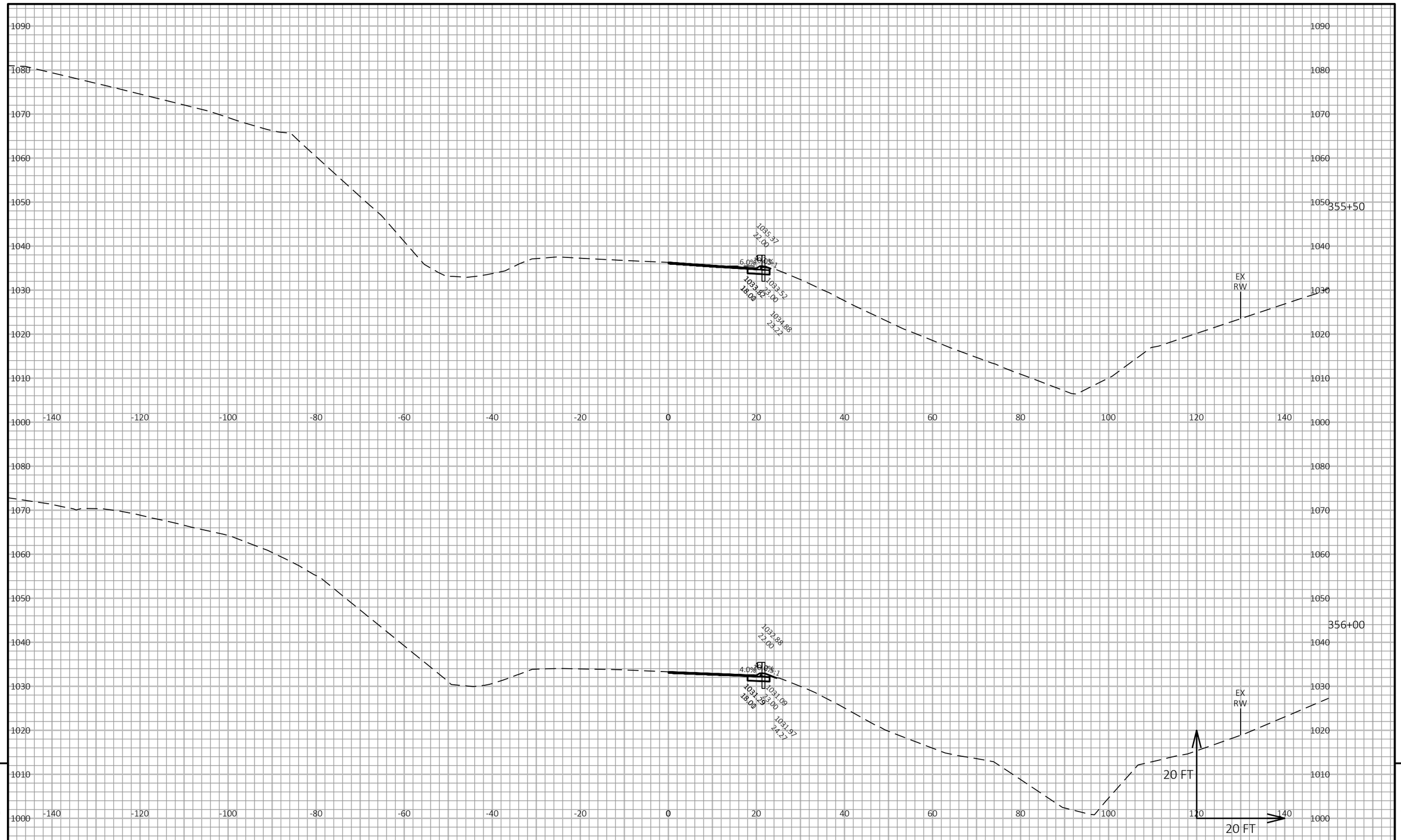


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 308	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 4:35 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

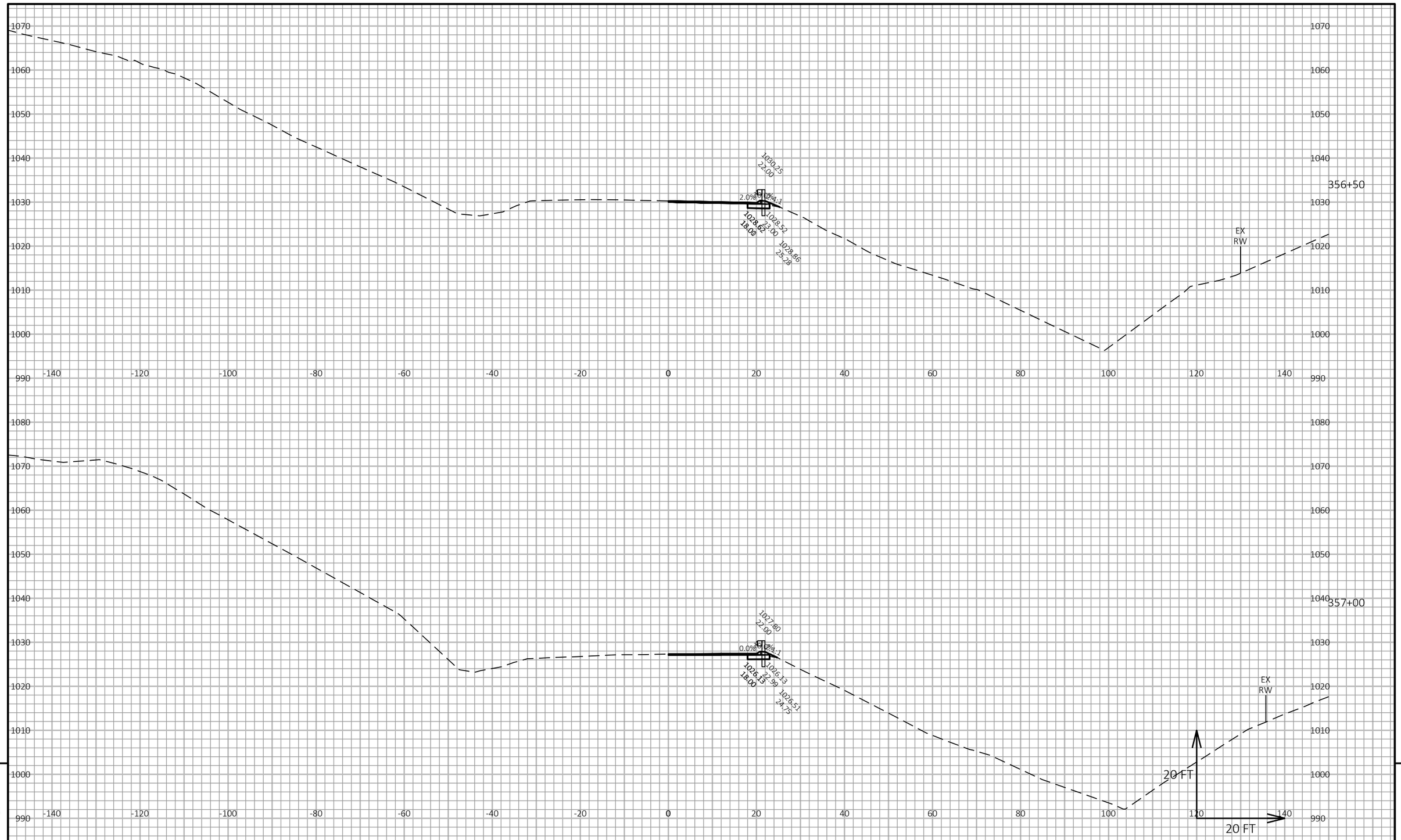
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 309	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 4:36 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

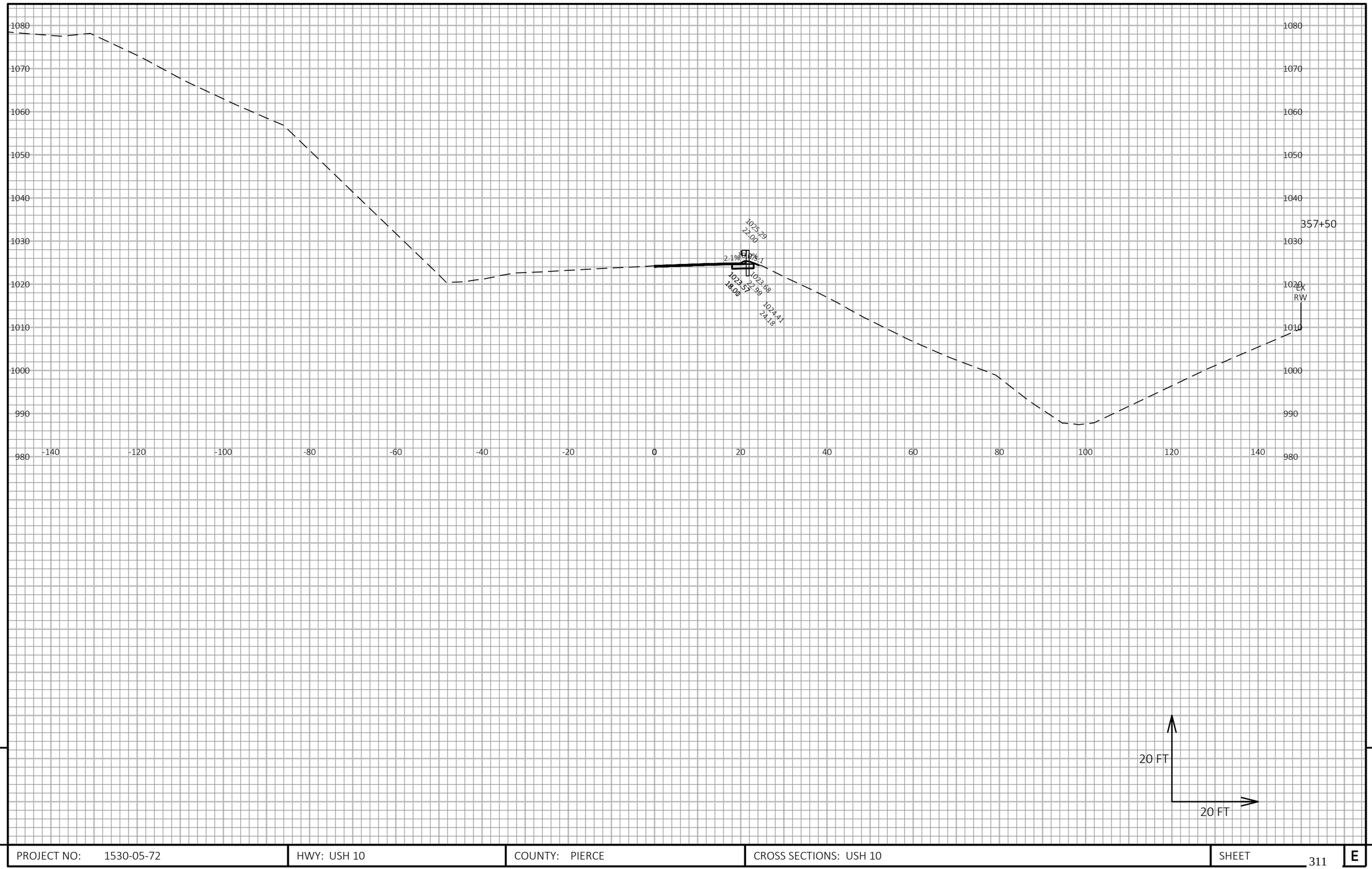
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 310	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 4:36 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

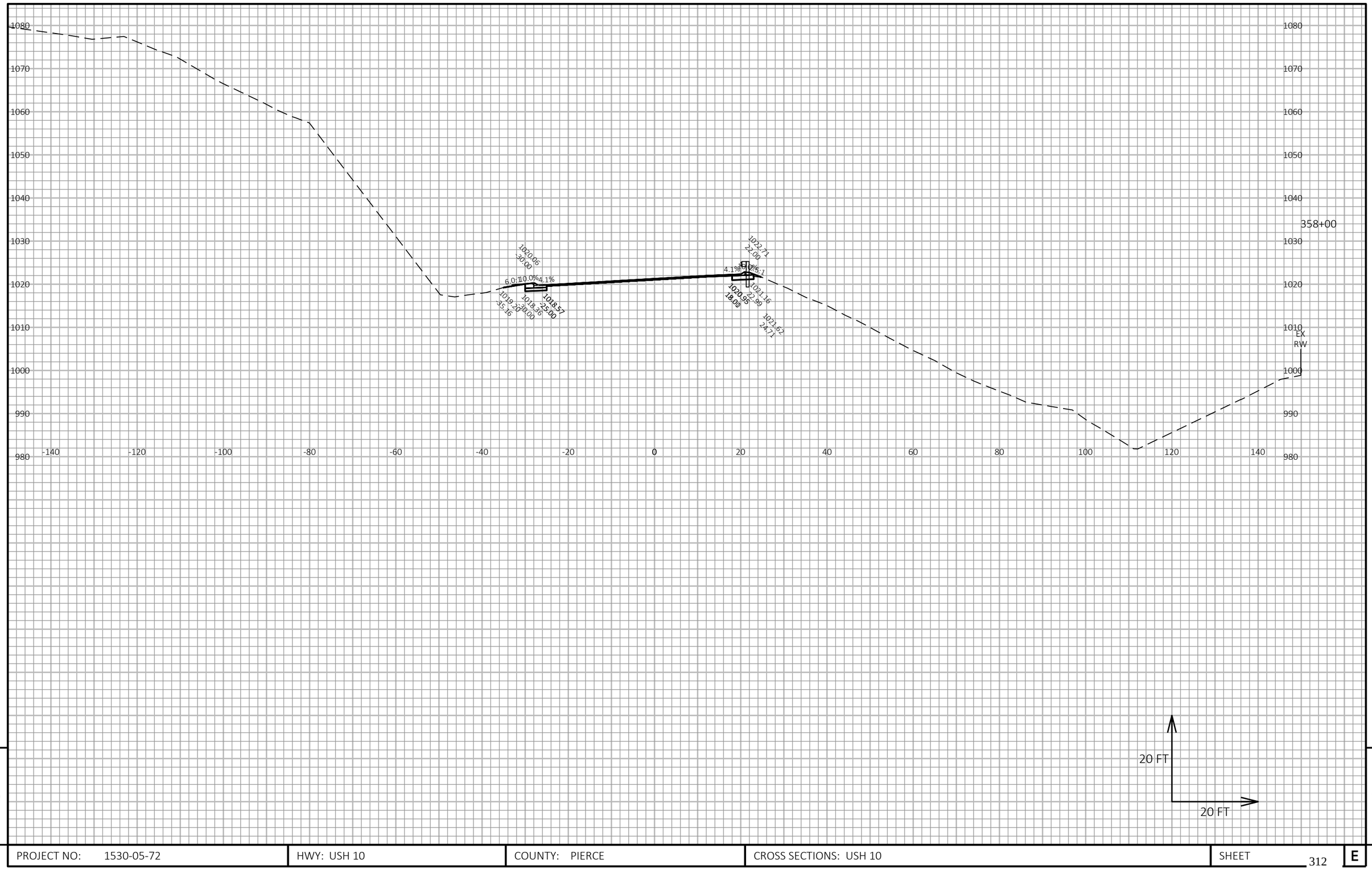
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 311	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 4:36 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

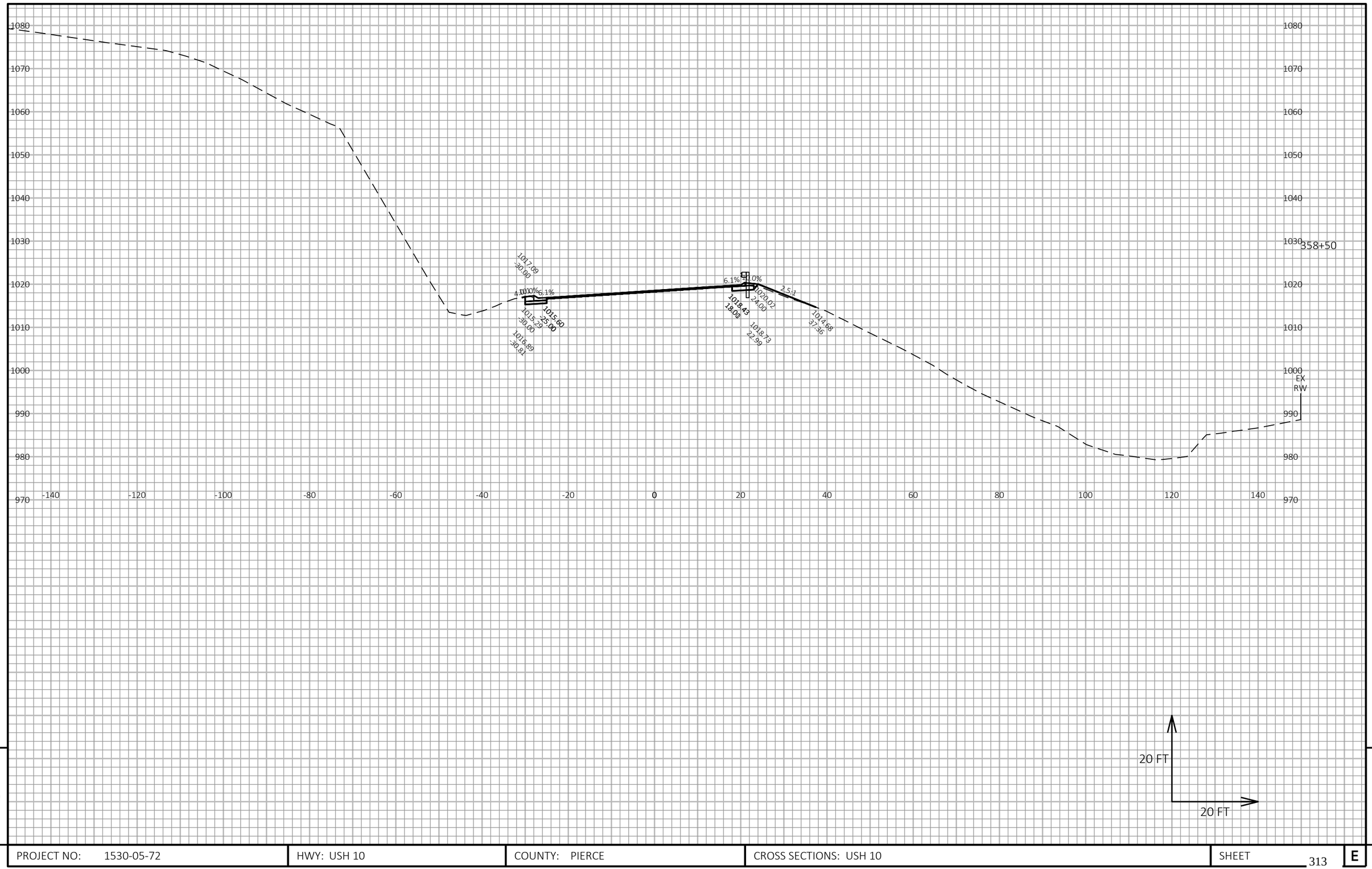
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 312	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 23

PLOT DATE : 2/16/2021 4:36 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

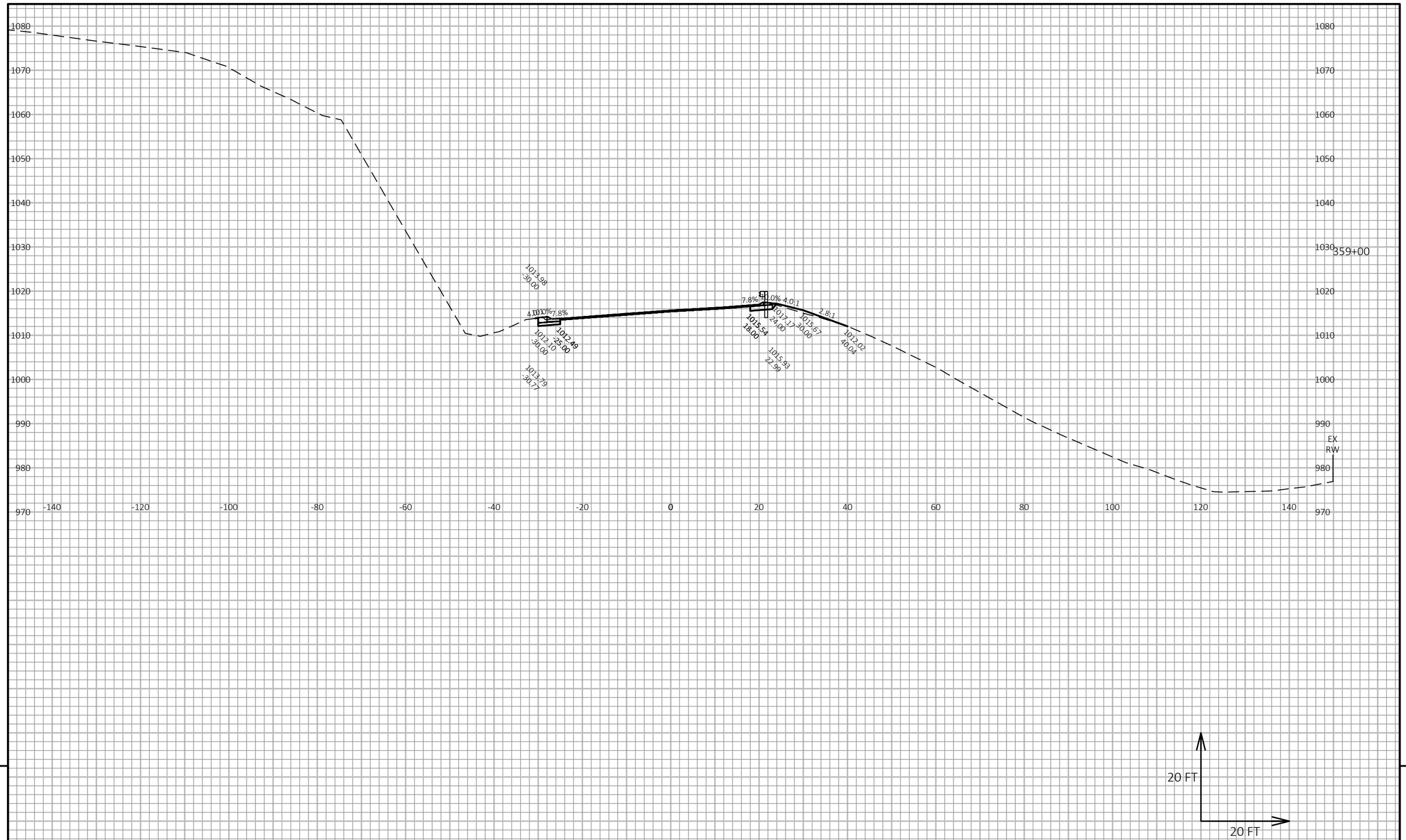
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 313	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 4:37 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



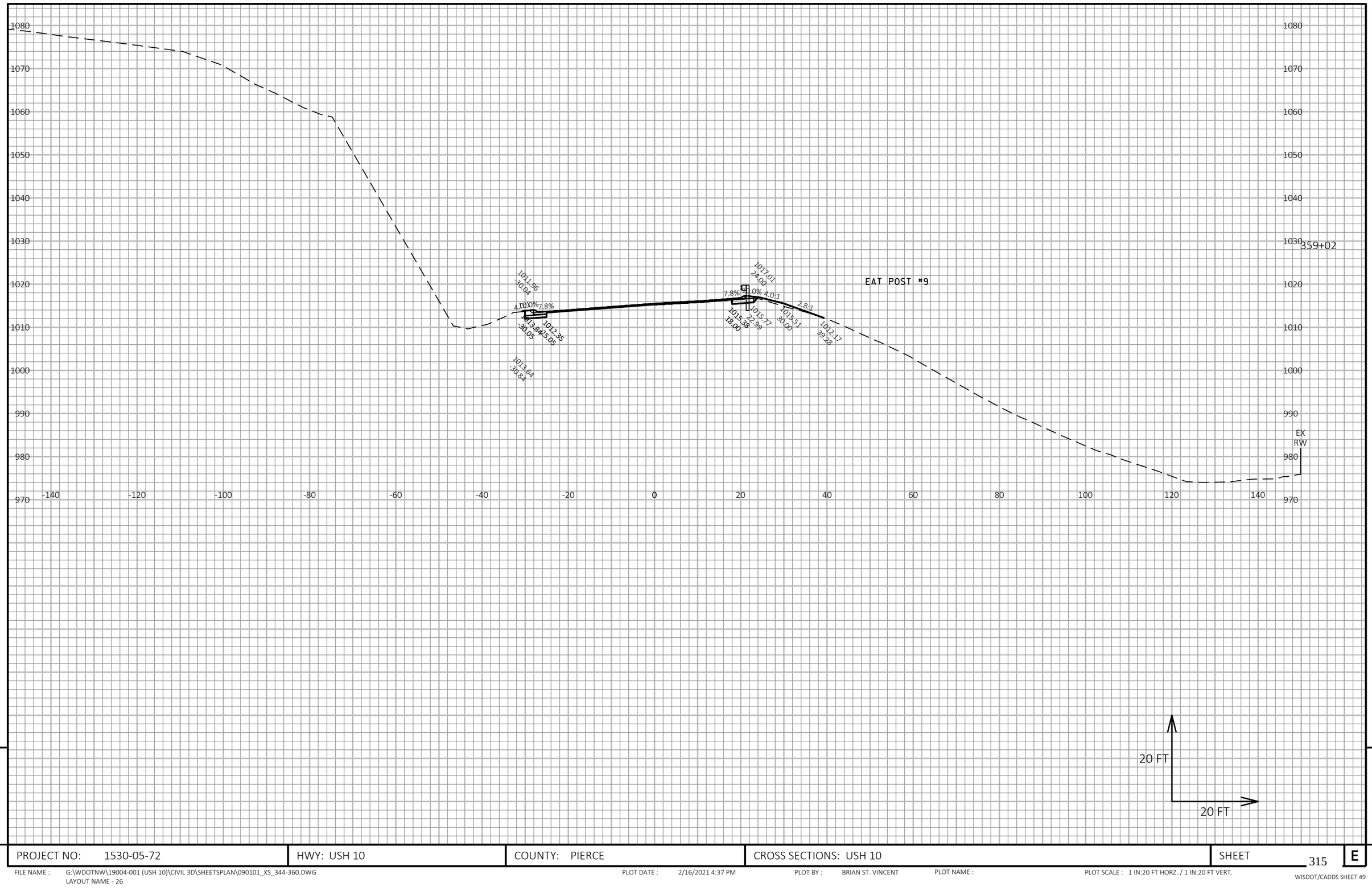
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9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 314	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 4:37 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

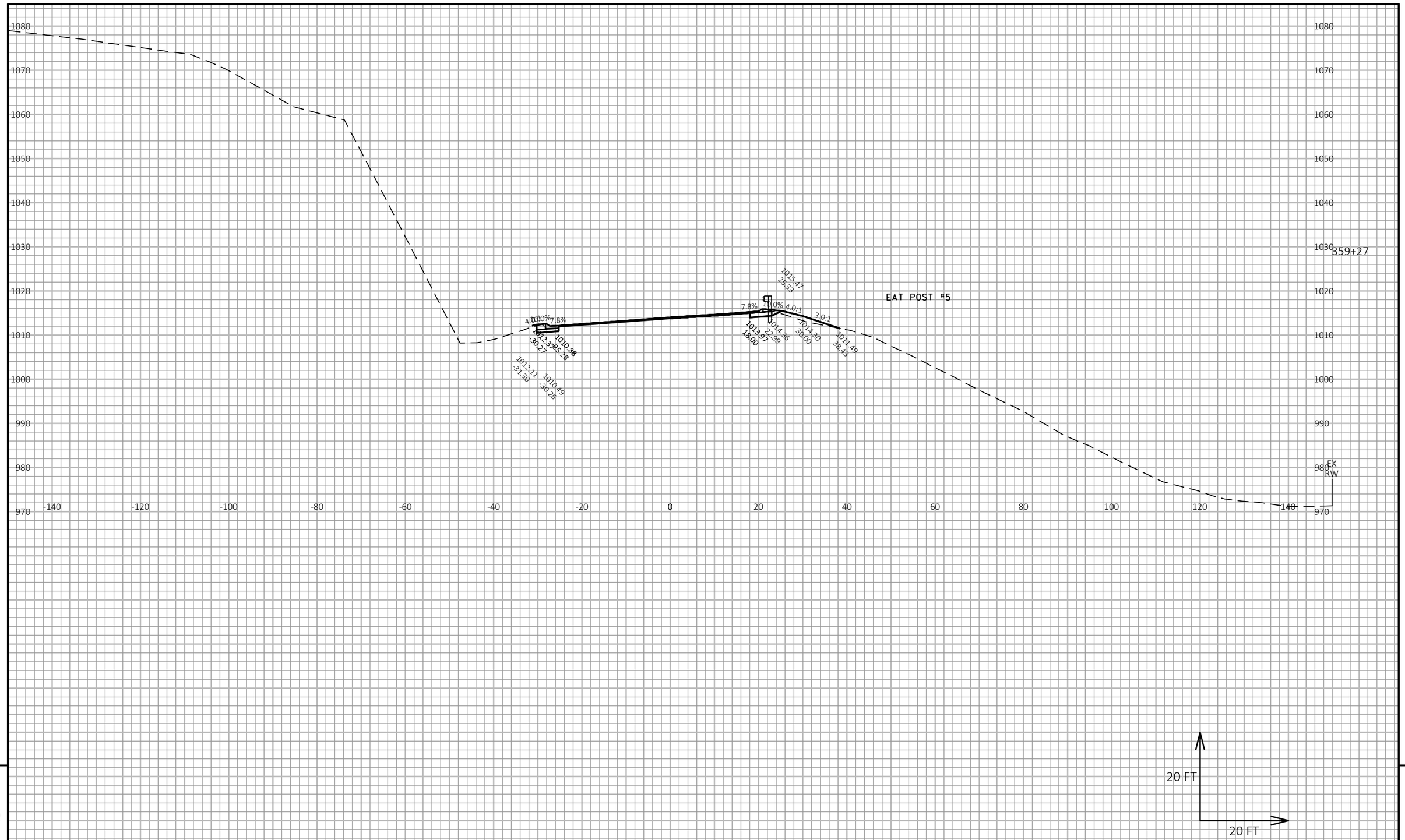
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 315	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 4:37 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

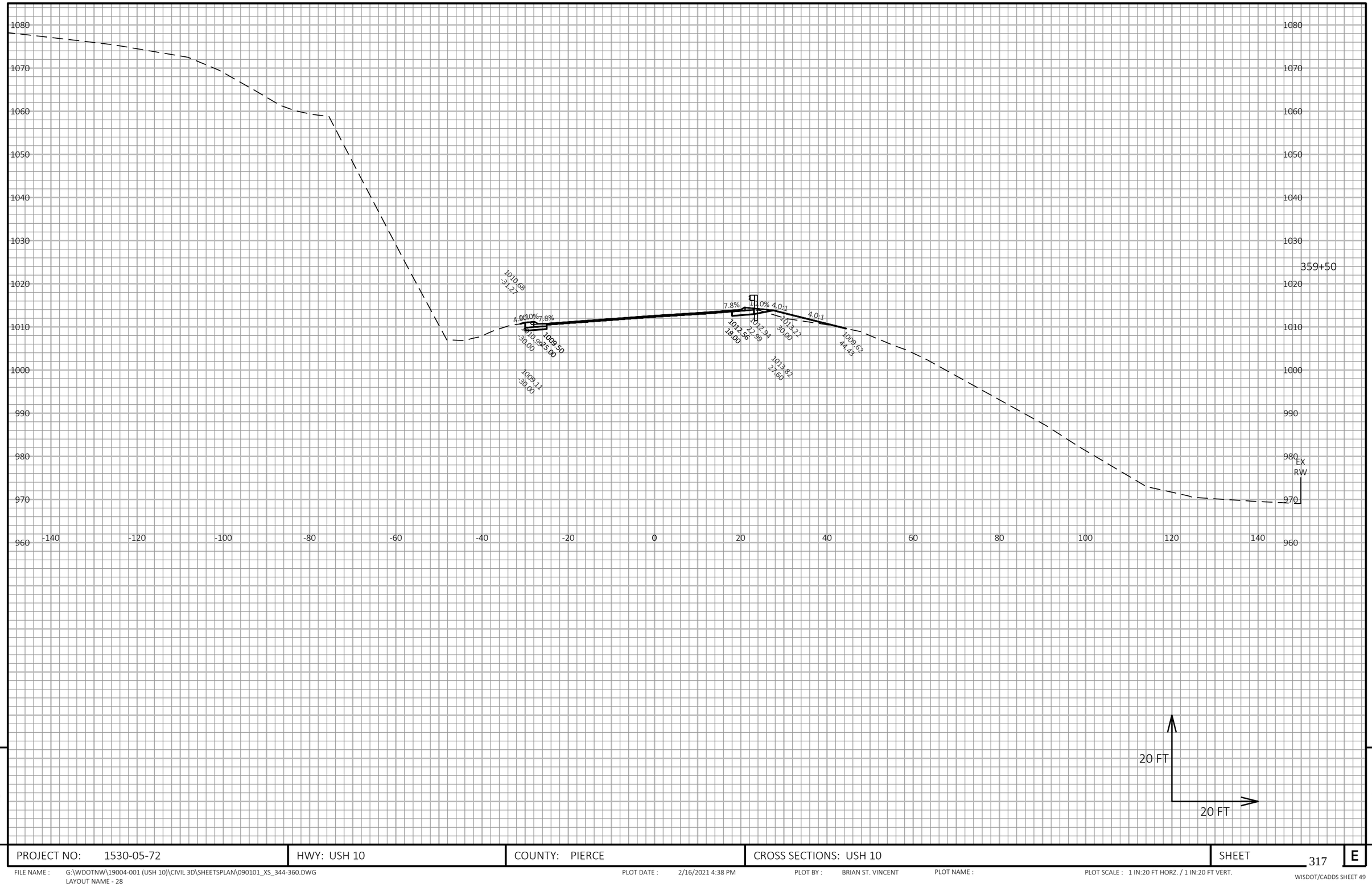
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 316	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 27

PLOT DATE : 2/16/2021 4:37 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

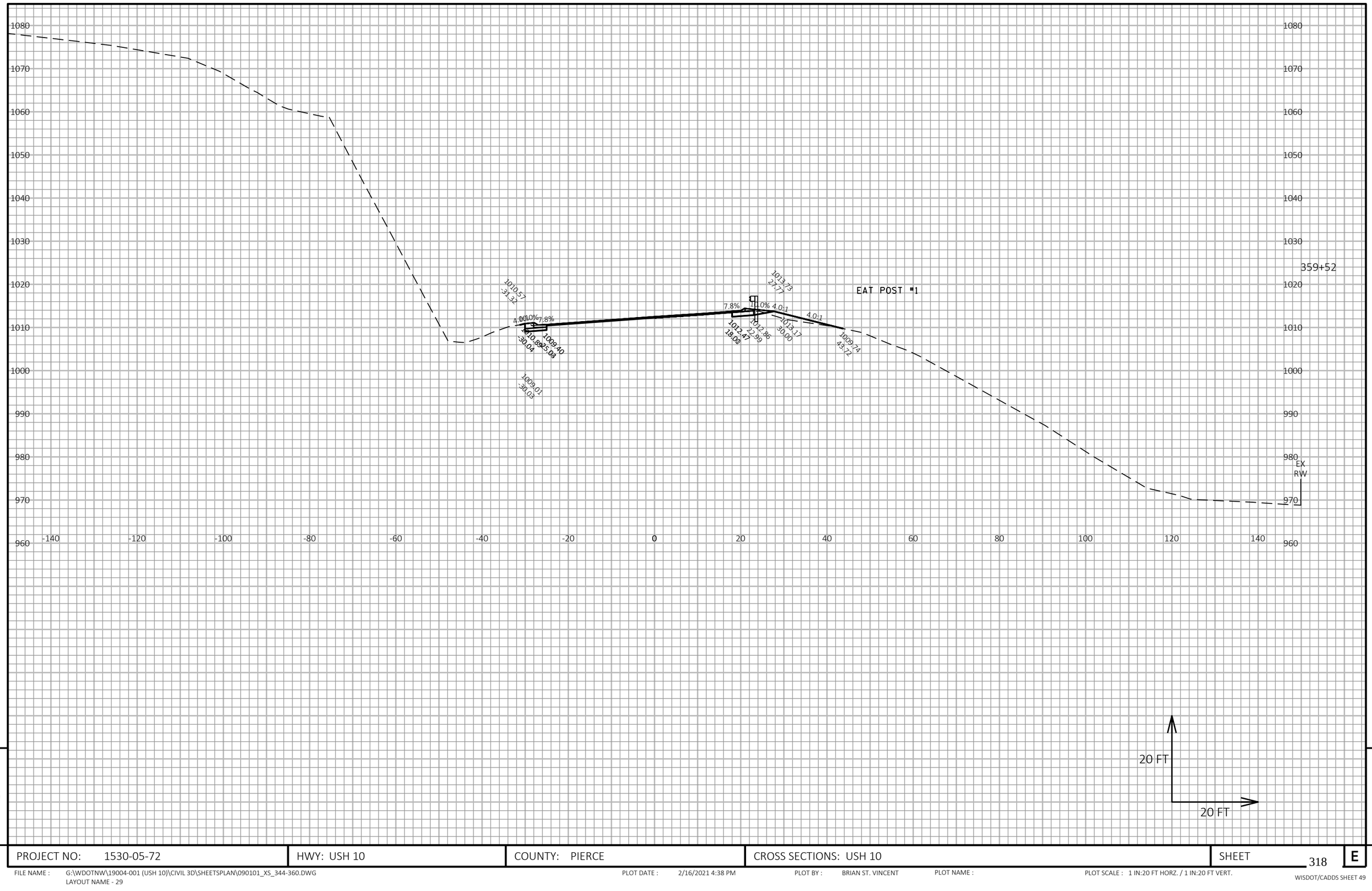
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 317	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 28

PLOT DATE : 2/16/2021 4:38 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

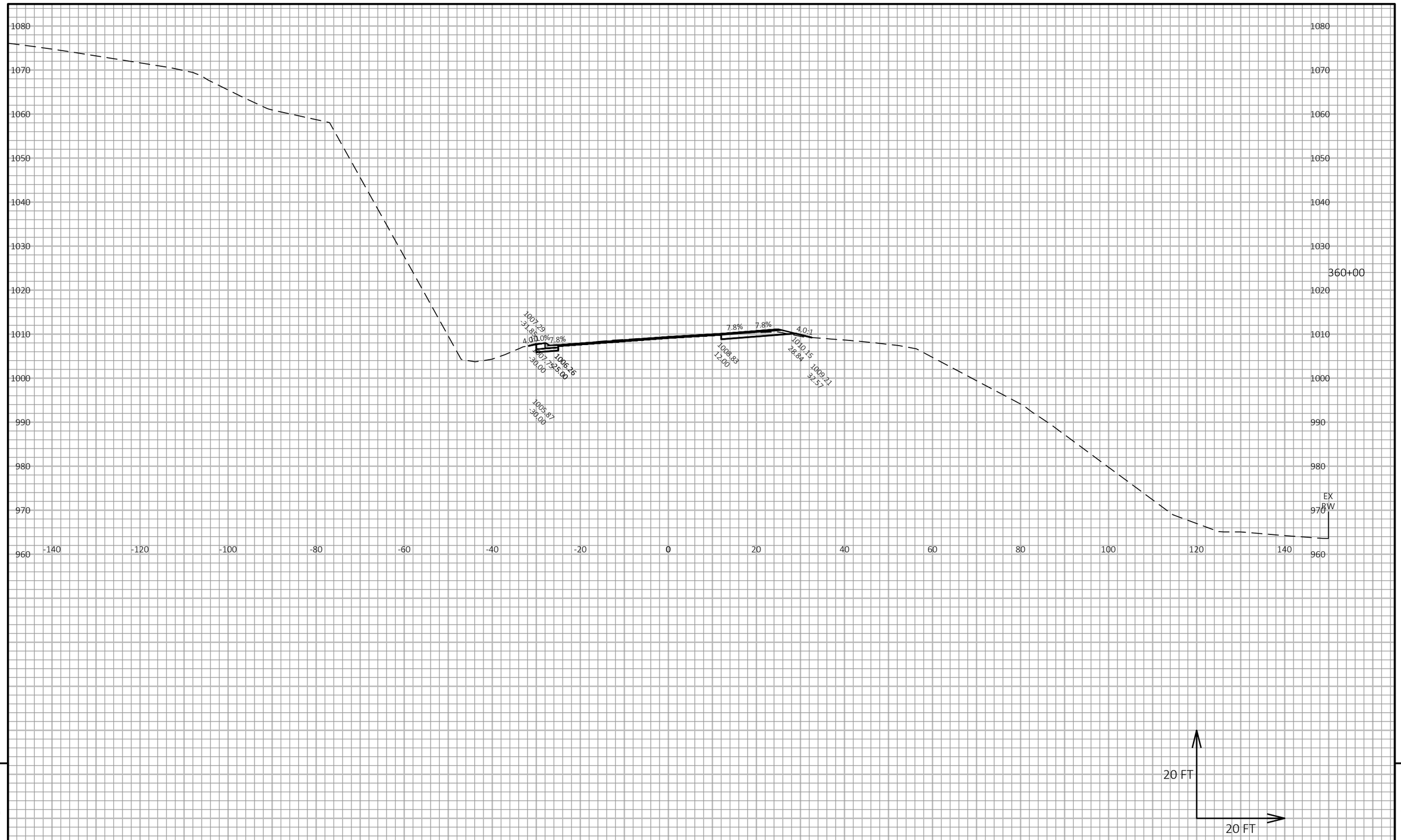
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 318	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 29

PLOT DATE : 2/16/2021 4:38 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

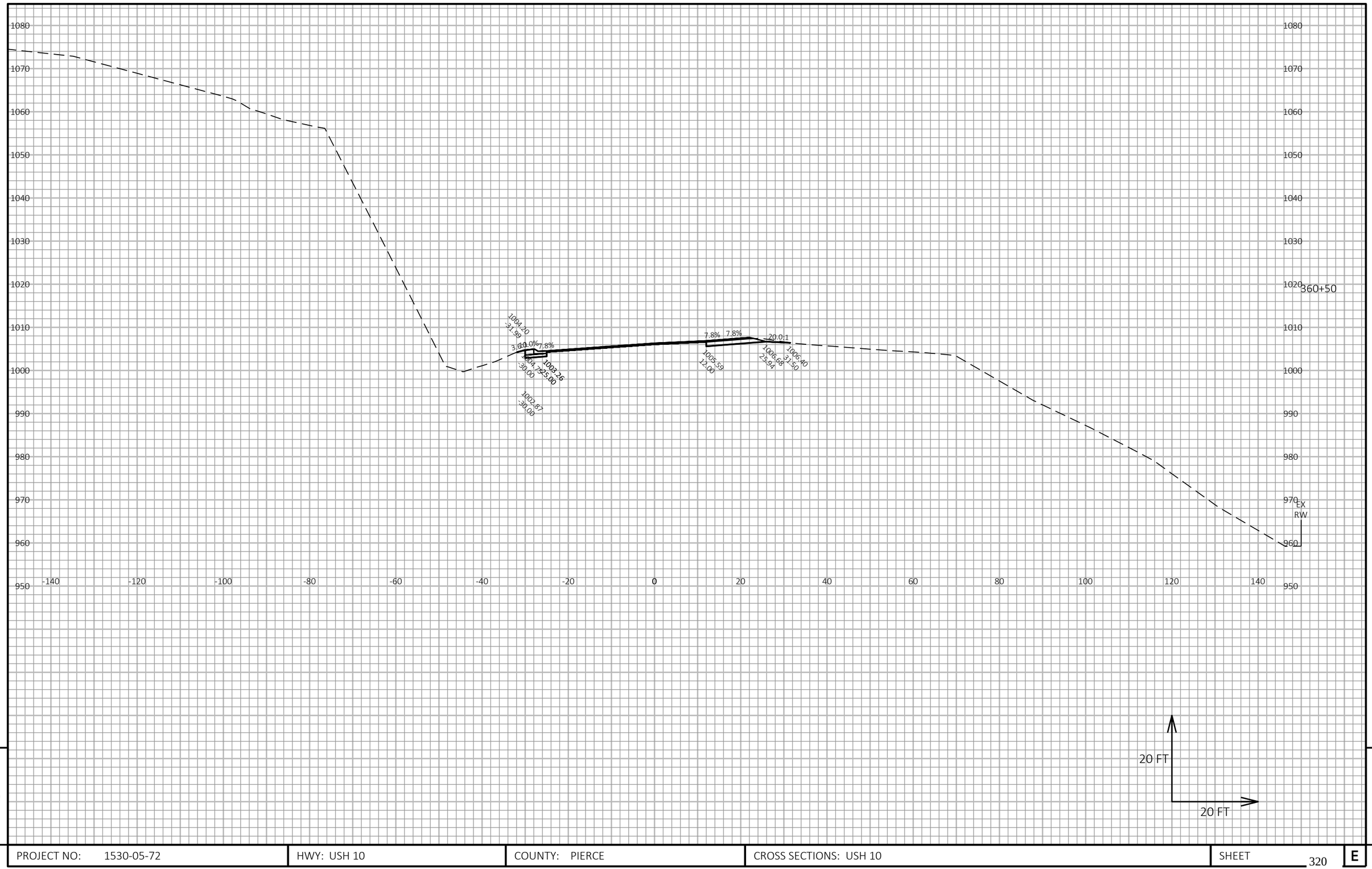
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 319	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 30

PLOT DATE : 2/16/2021 4:38 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

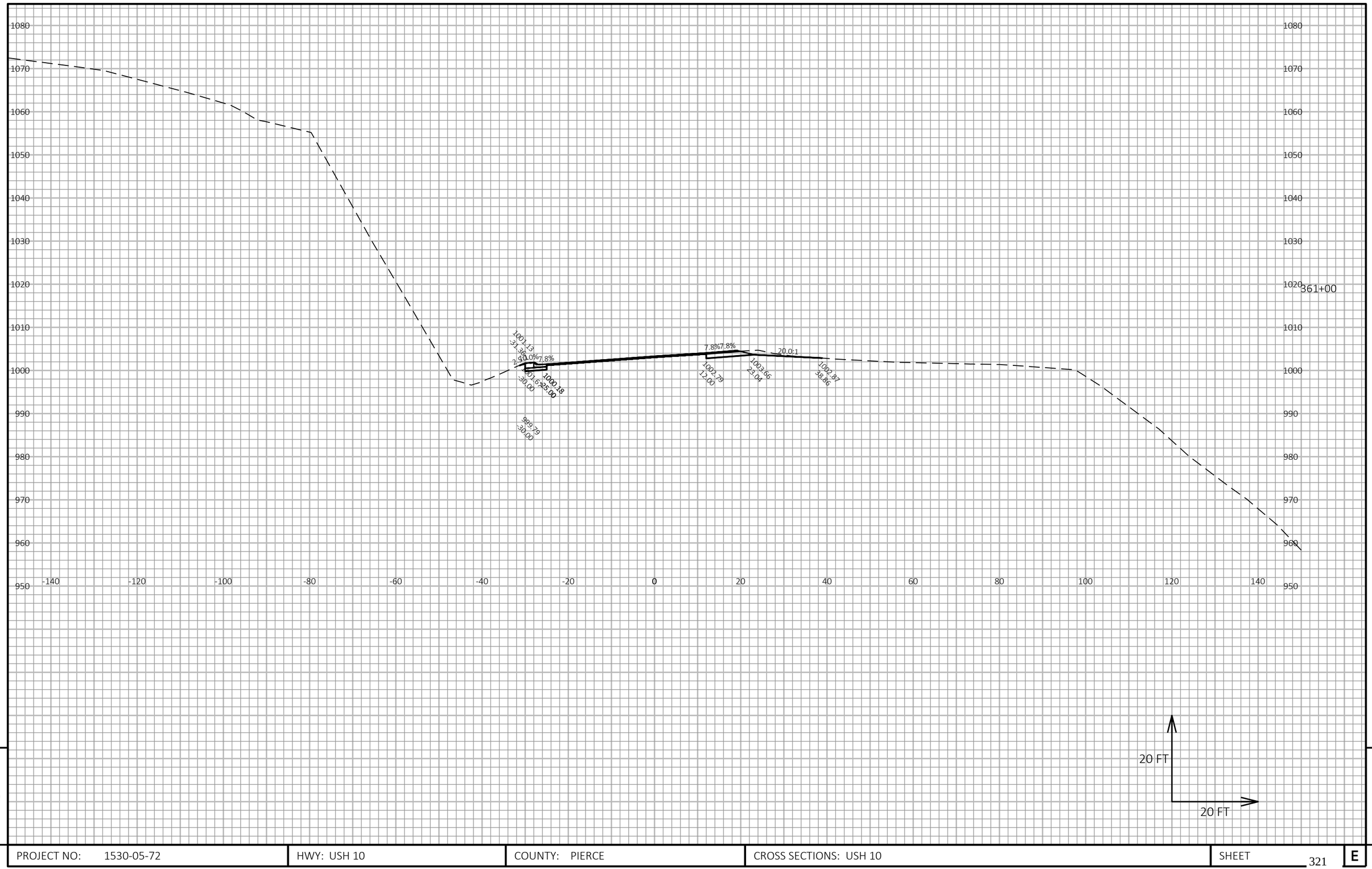
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 320	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 31

PLOT DATE : 2/16/2021 4:38 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

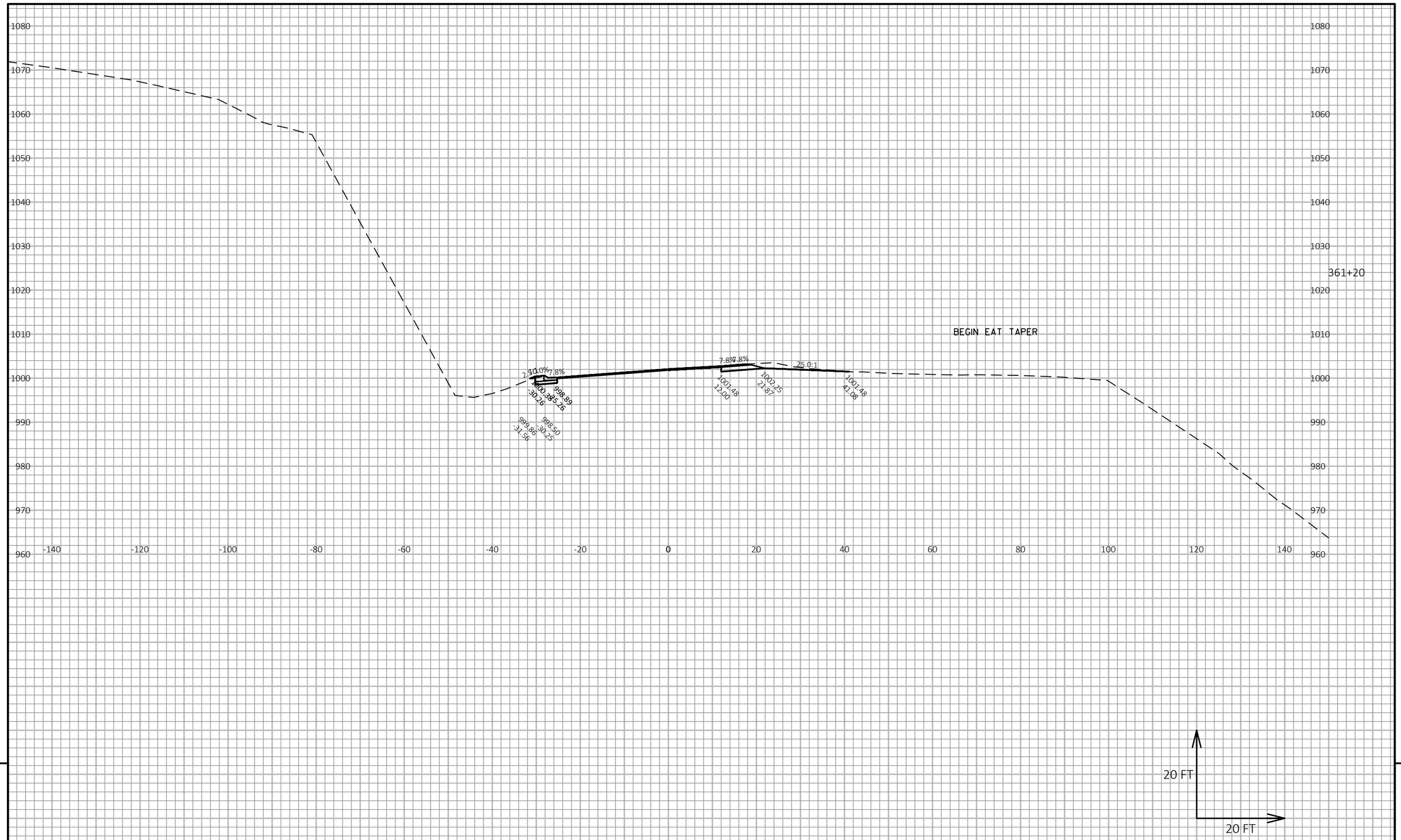


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 321	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 32

PLOT DATE : 2/16/2021 4:38 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 322	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 33

PLOT DATE : 2/16/2021 4:39 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1080
1070
1060
1050
1040
1030
1020
1010
1000
990
980
970

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

361+50

10.0% 7.8%

998.43 25.00 996.99

998.00 31.22 30.00 996.60 30.00

20 FT

20 FT

9

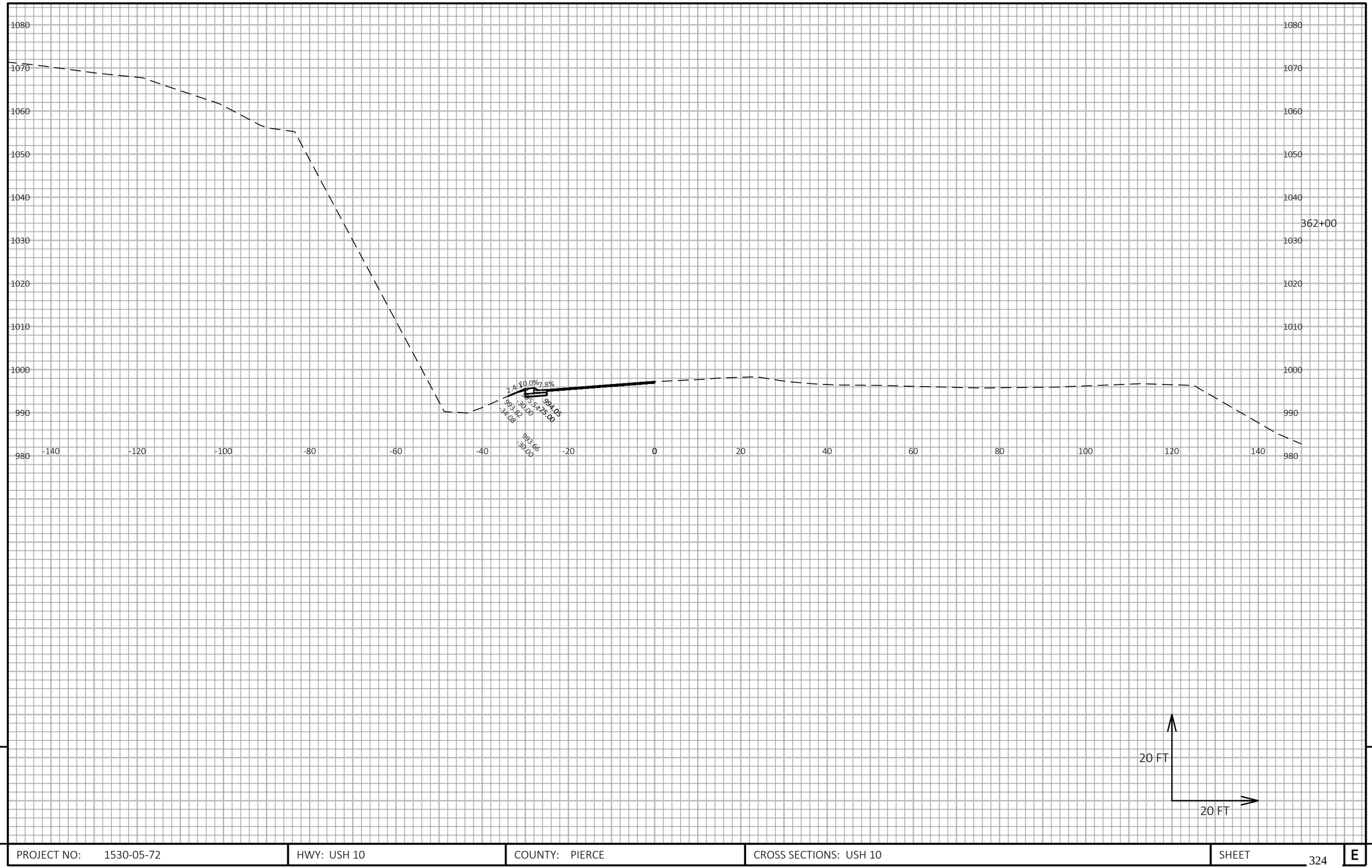
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 323	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 34

PLOT DATE : 2/16/2021 4:39 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

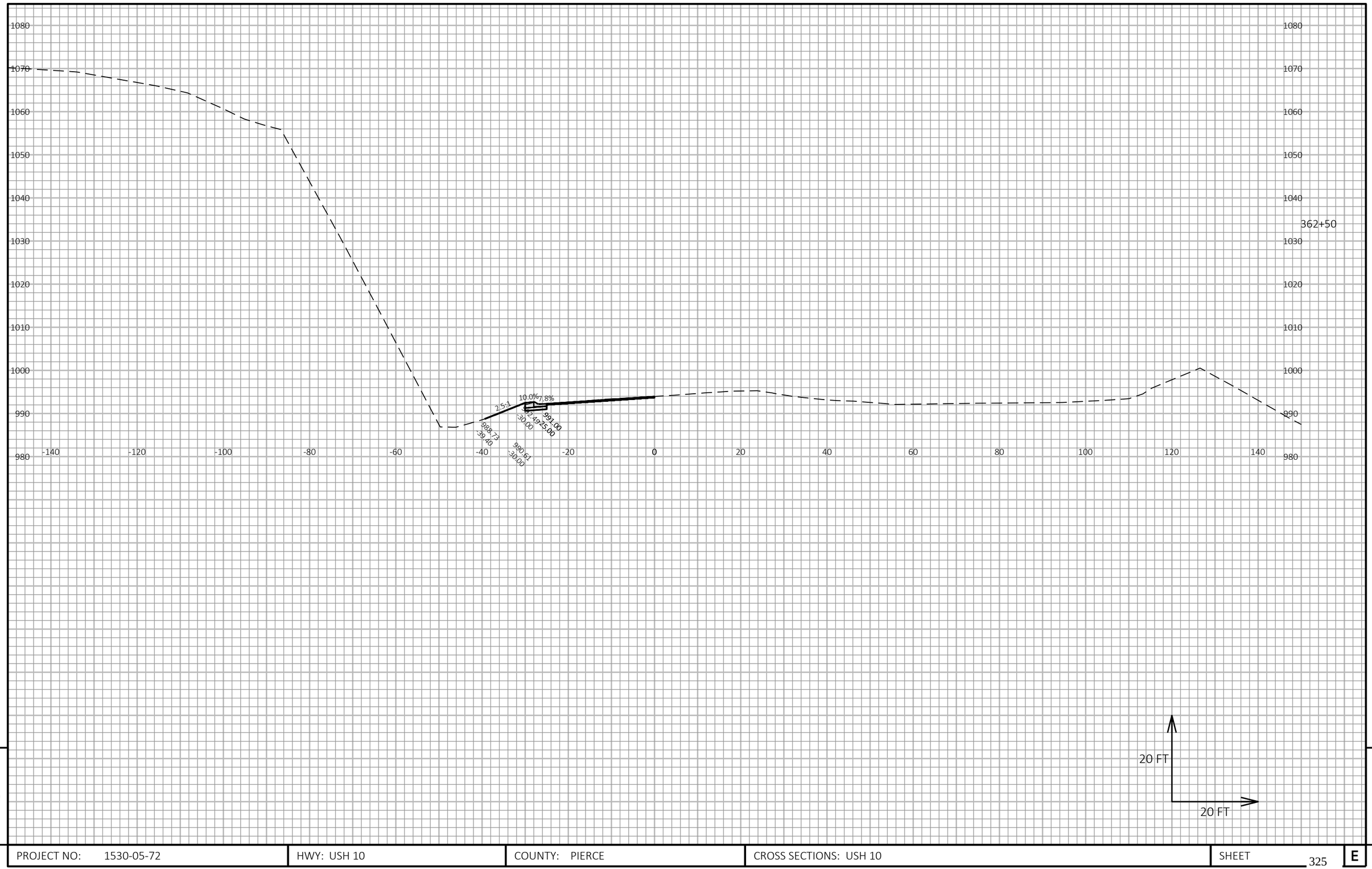
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 324	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 35

PLOT DATE : 2/16/2021 4:39 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

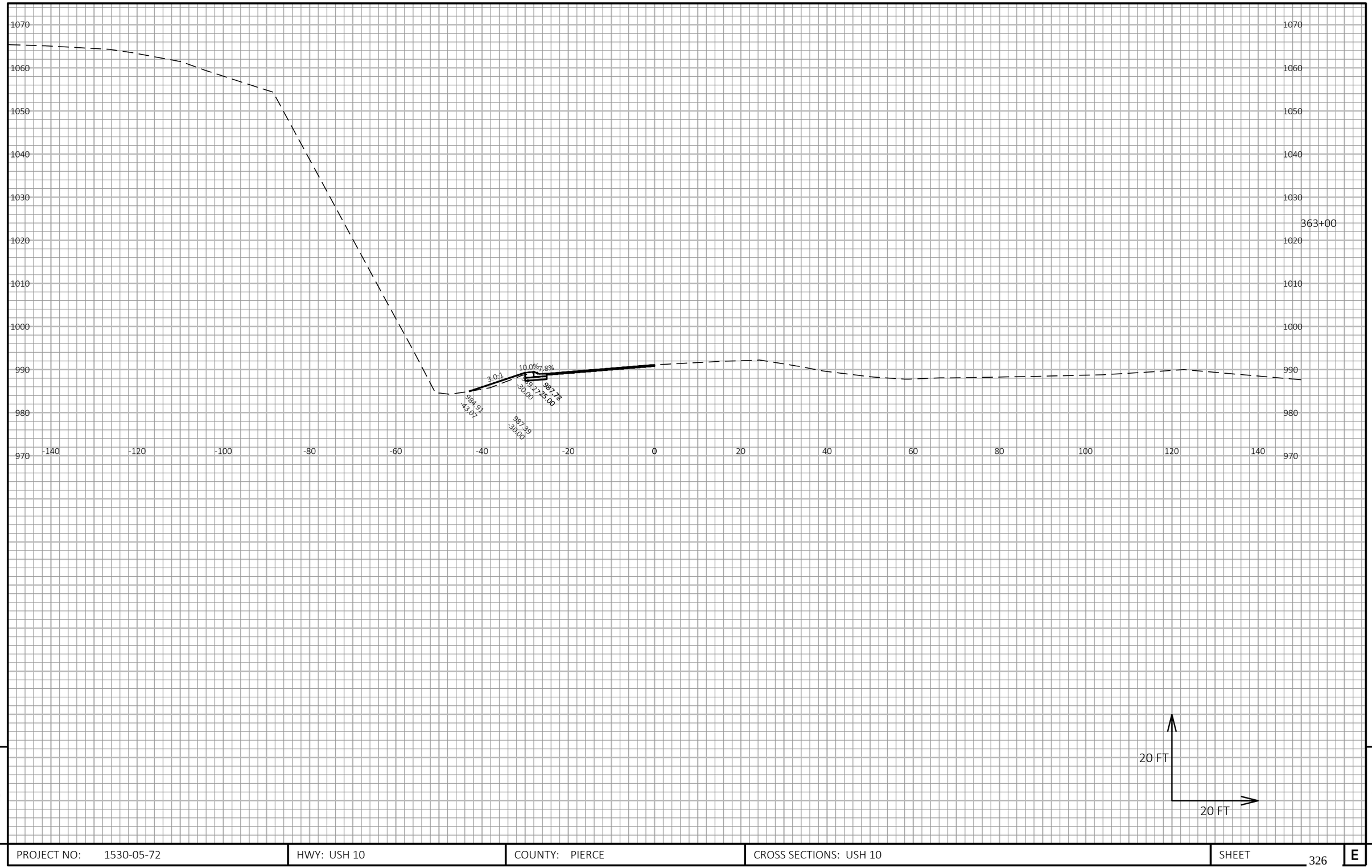
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 325	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 36

PLOT DATE : 2/16/2021 4:39 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

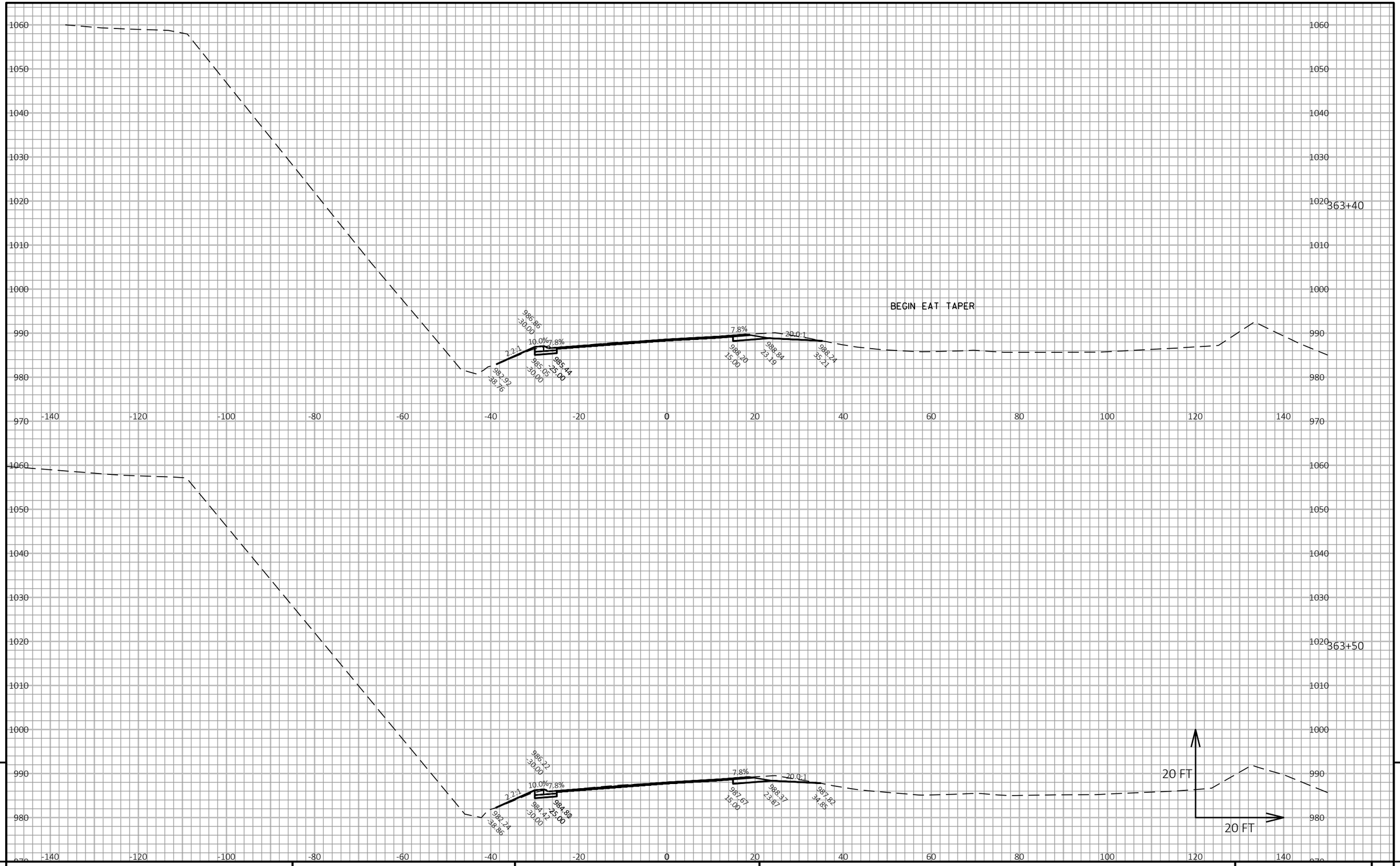
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 326	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_344-360.DWG
LAYOUT NAME - 37

PLOT DATE : 2/16/2021 4:40 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

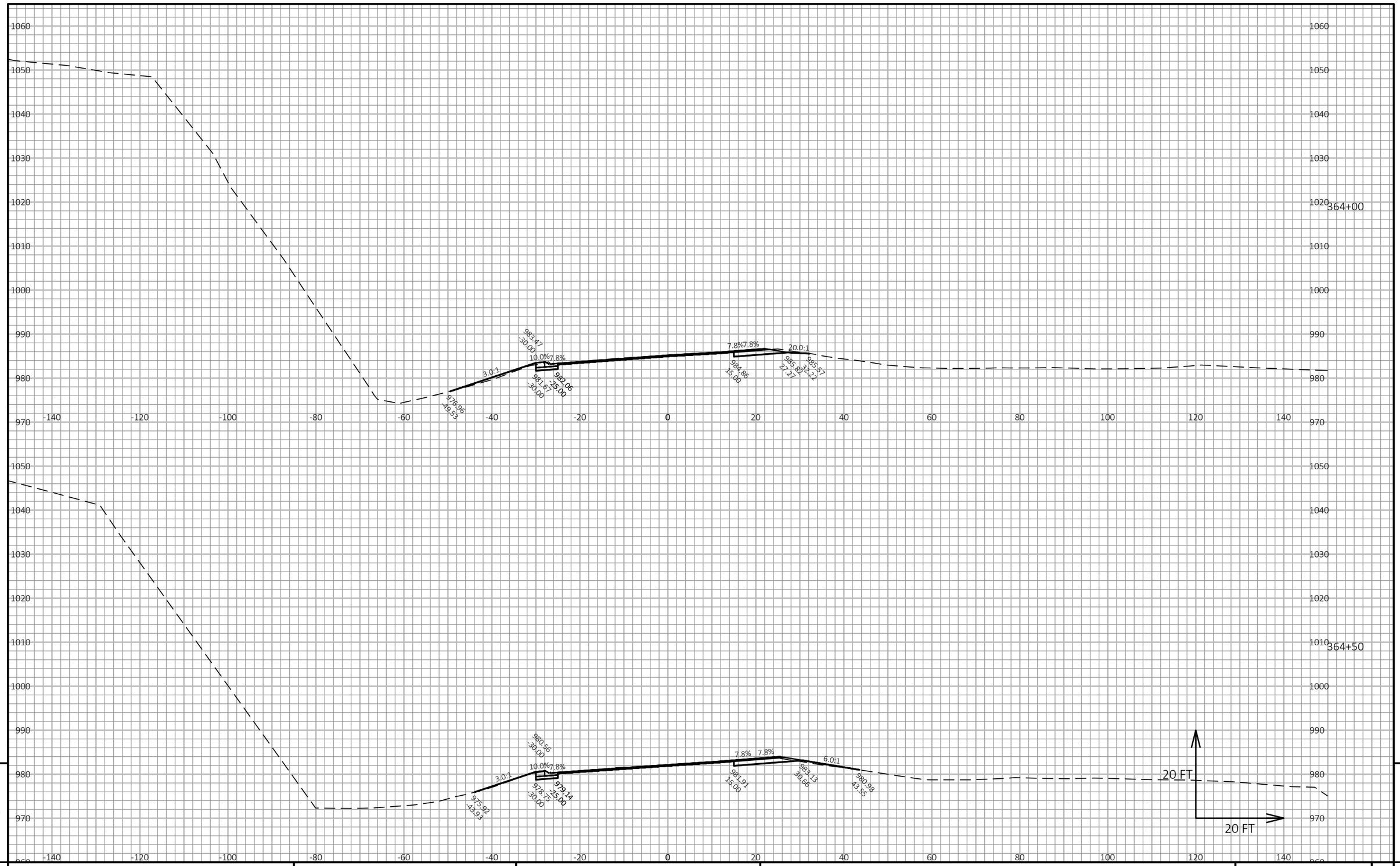
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 327	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 4:44 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

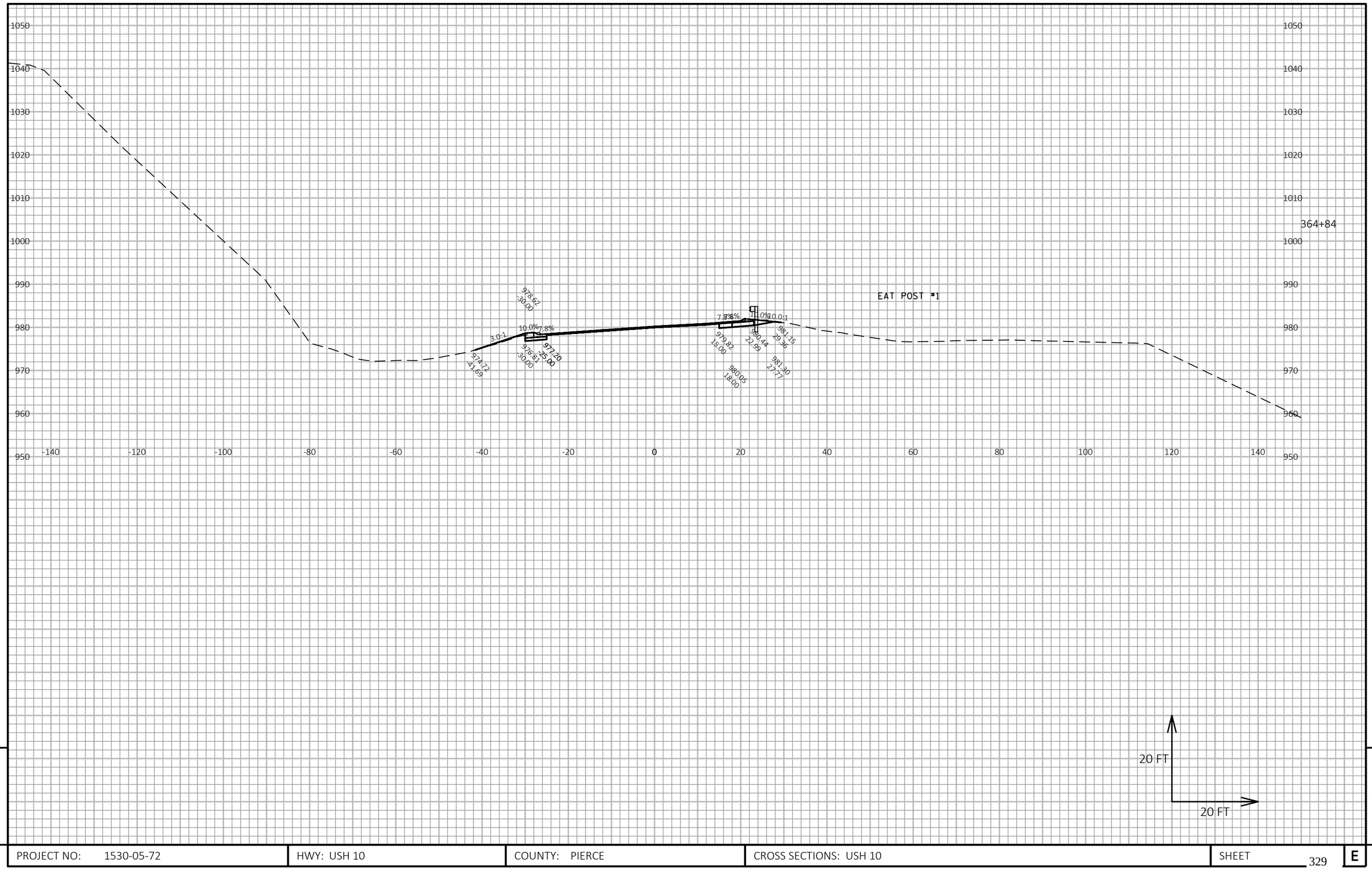
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 328	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 4:44 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

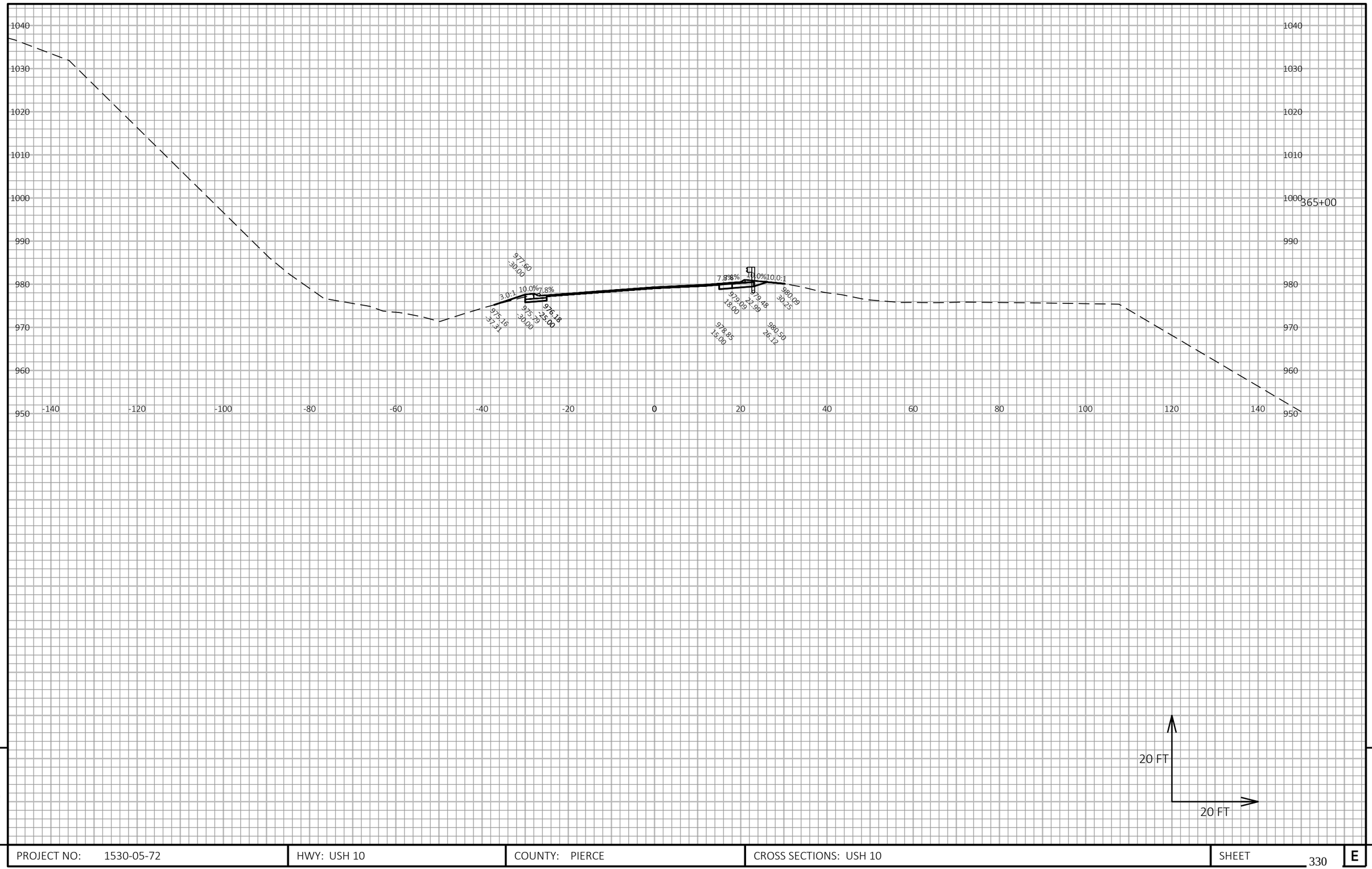
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 329	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 4:44 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

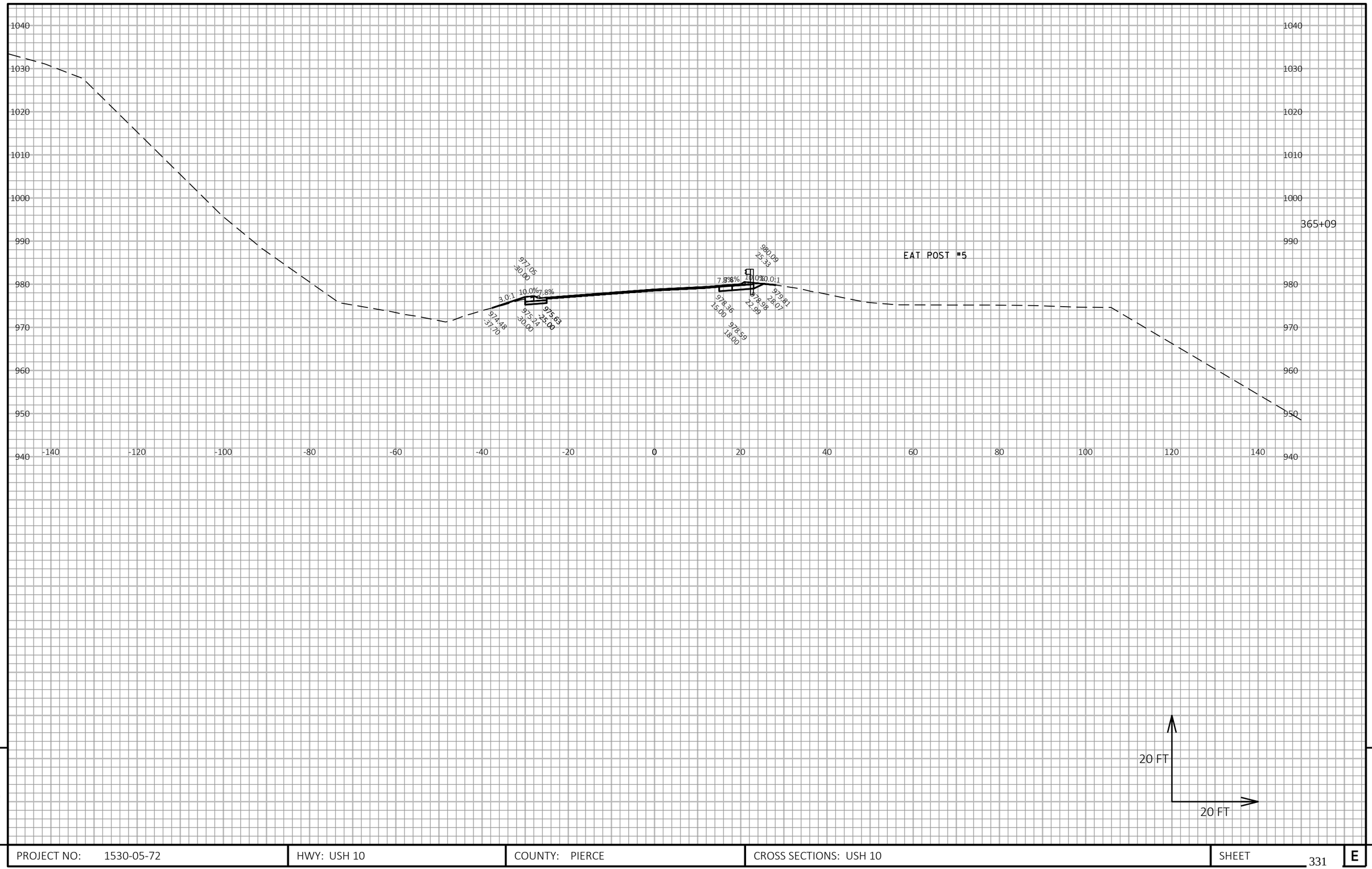
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 330	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 4:44 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



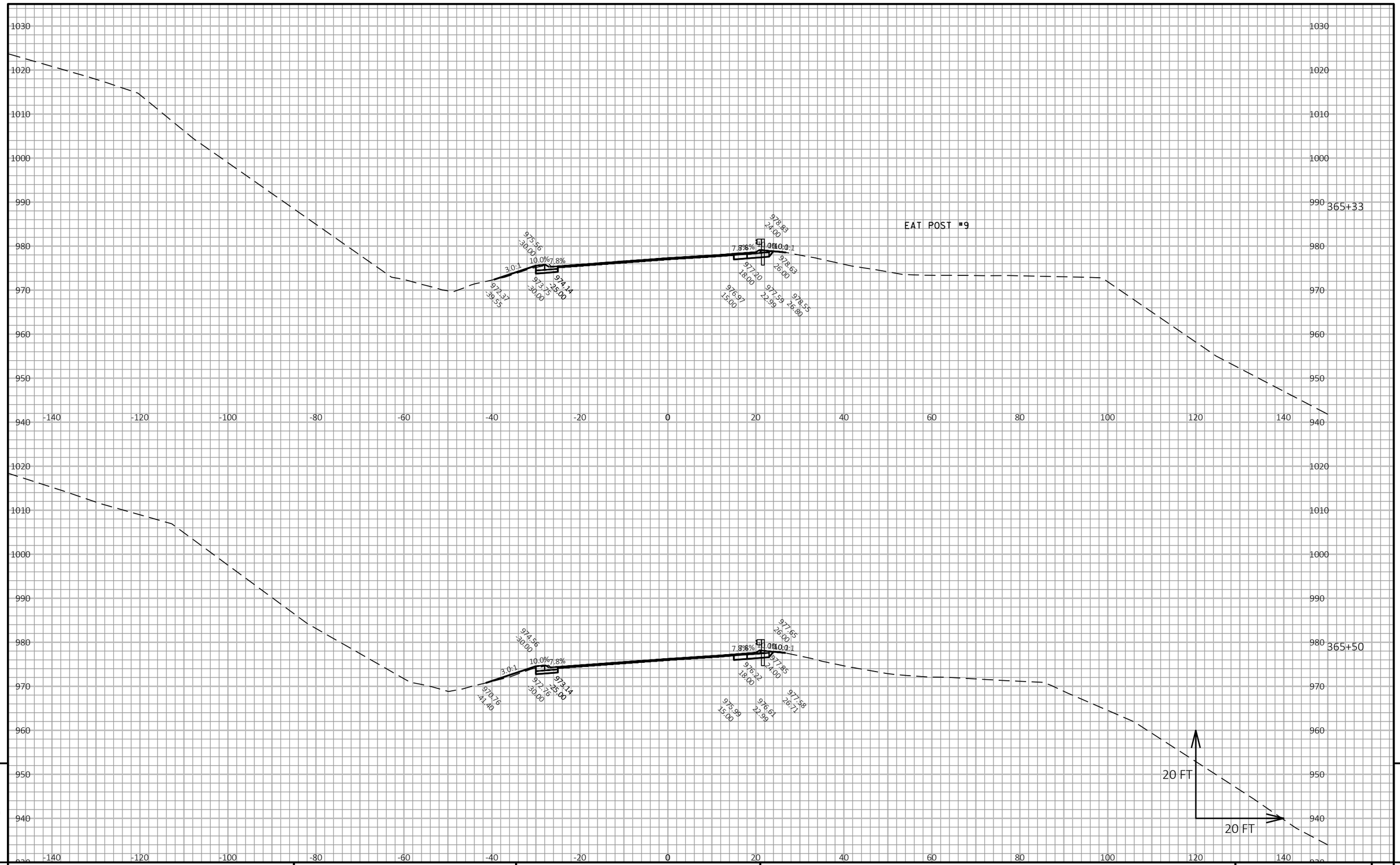
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 331	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 4:45 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

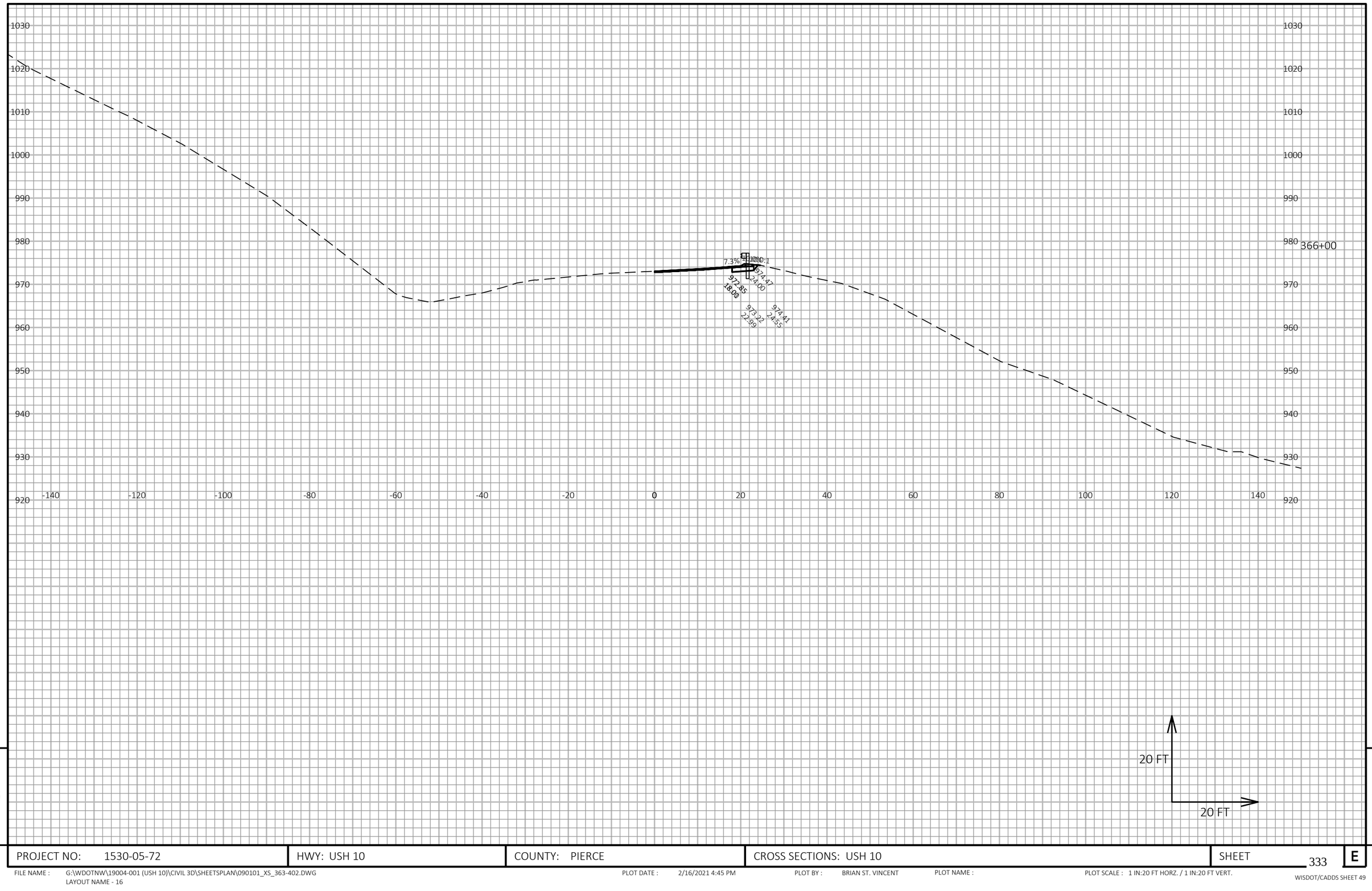


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 332	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 4:45 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

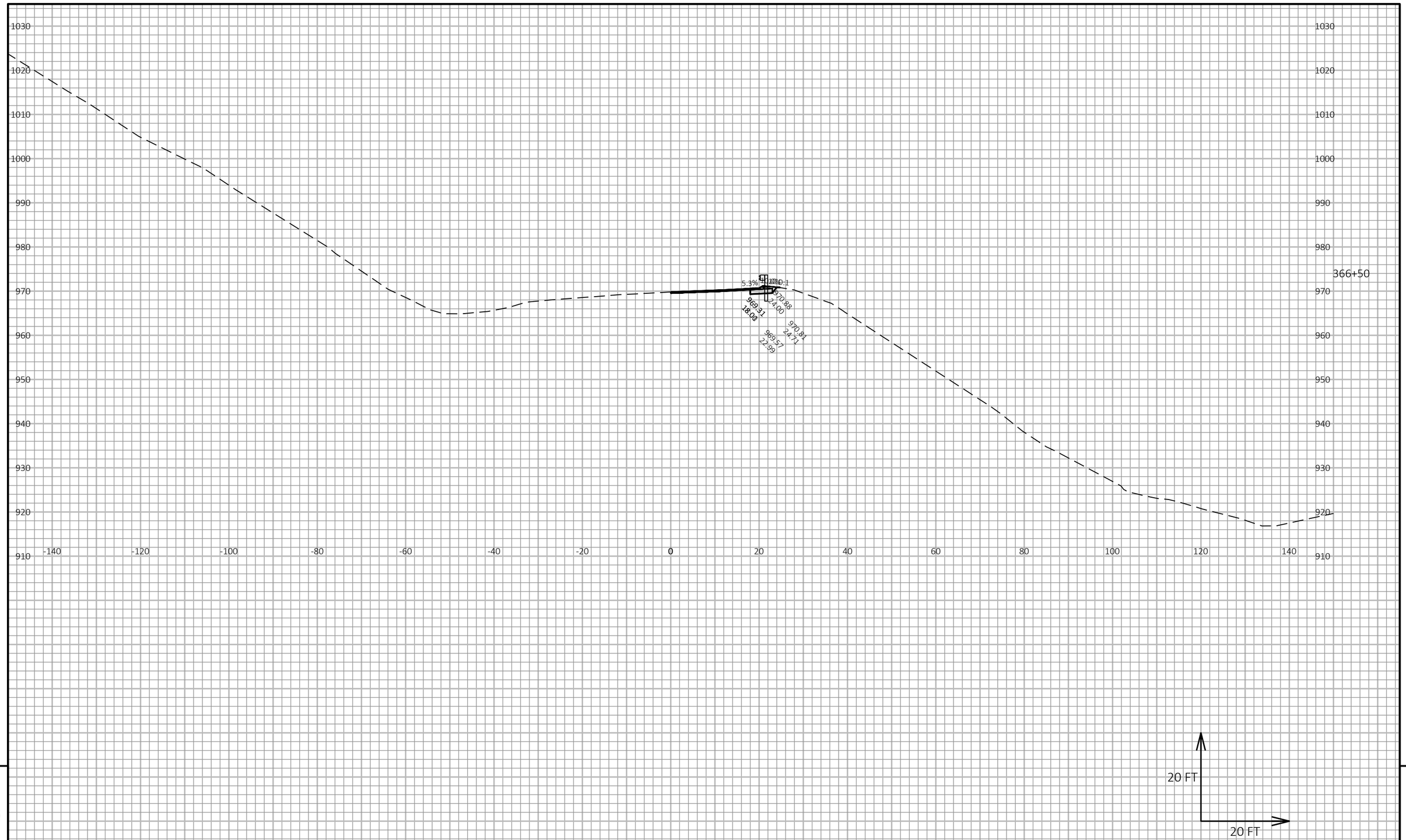
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 333	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 4:45 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 334	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 4:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1020
1010
1000
990
980
970
960
950
940
930
920
910
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140
367+00
3.4%
1000:1
967.32
24.00
965.78
18.00
965.94
22.99
967.28
24.40
20 FT
20 FT

9

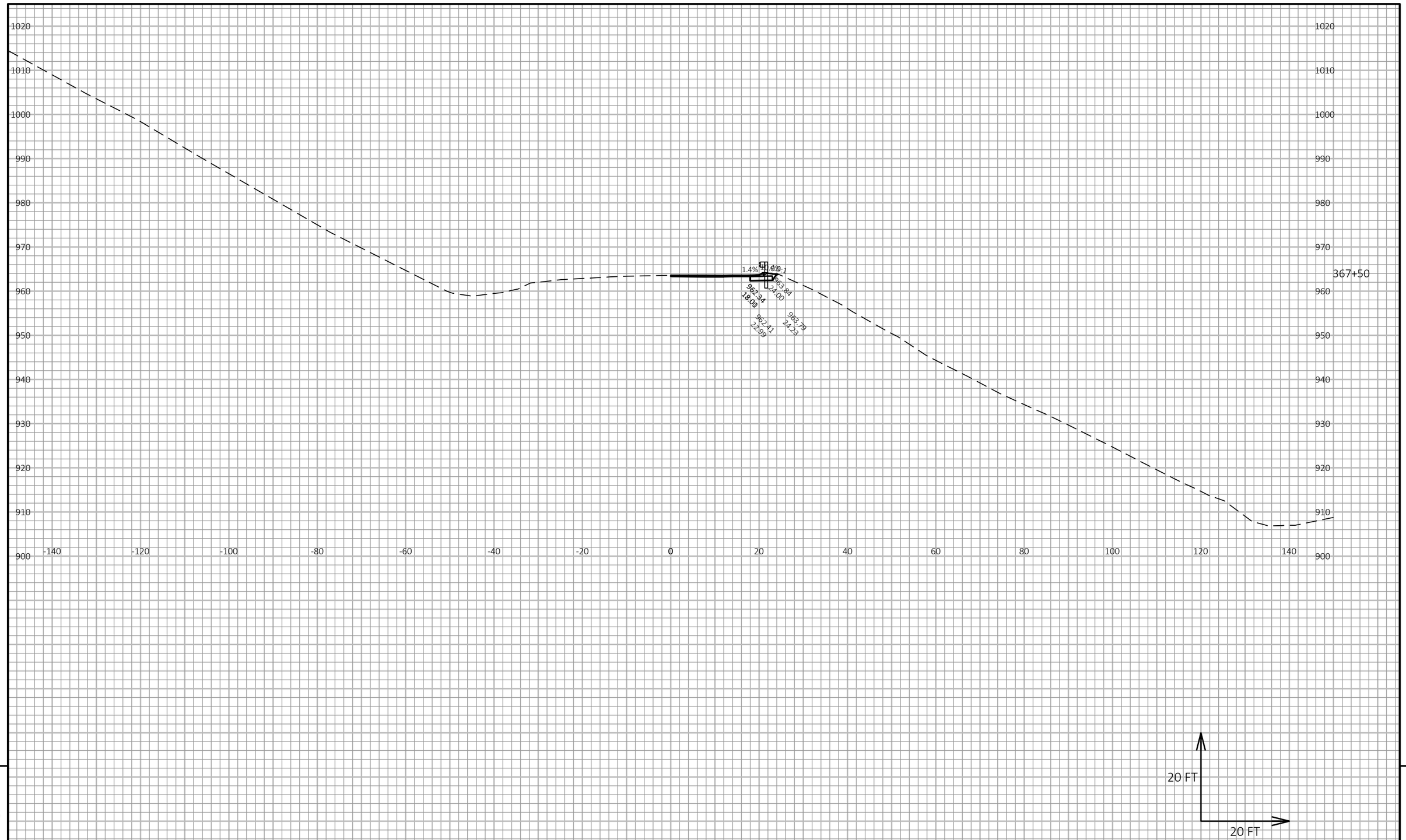
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 335	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 4:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

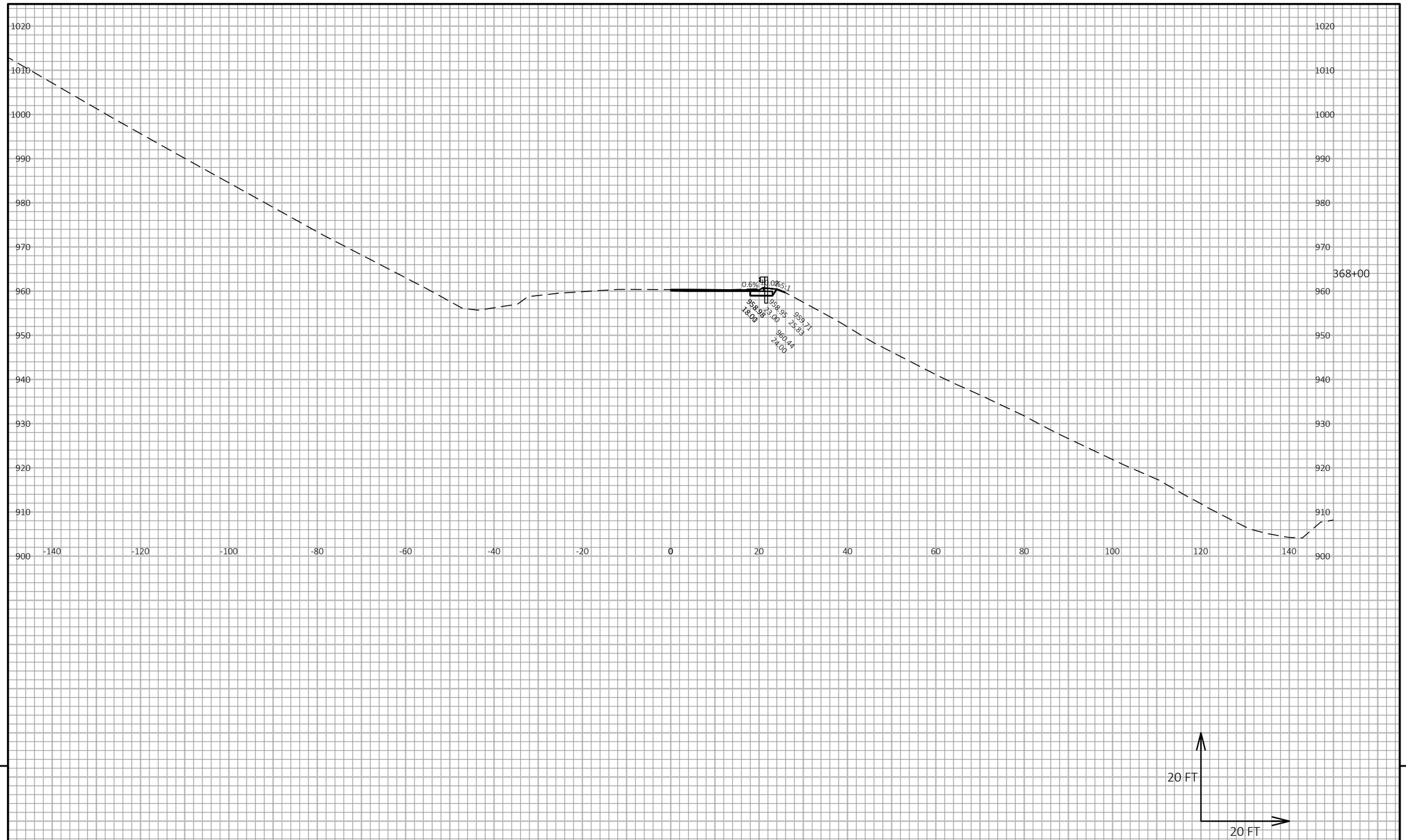
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 336	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 4:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

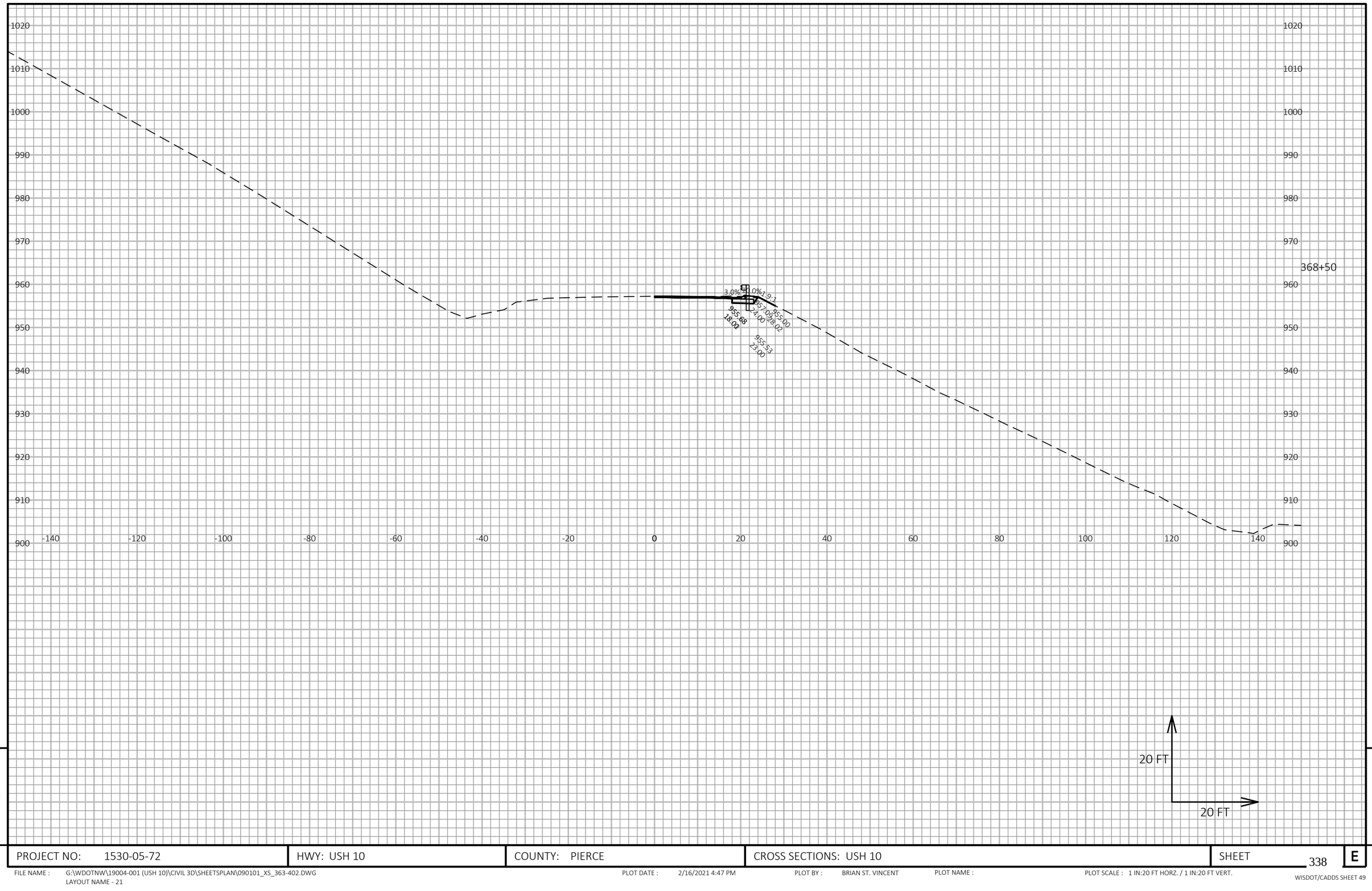
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 337	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 4:46 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

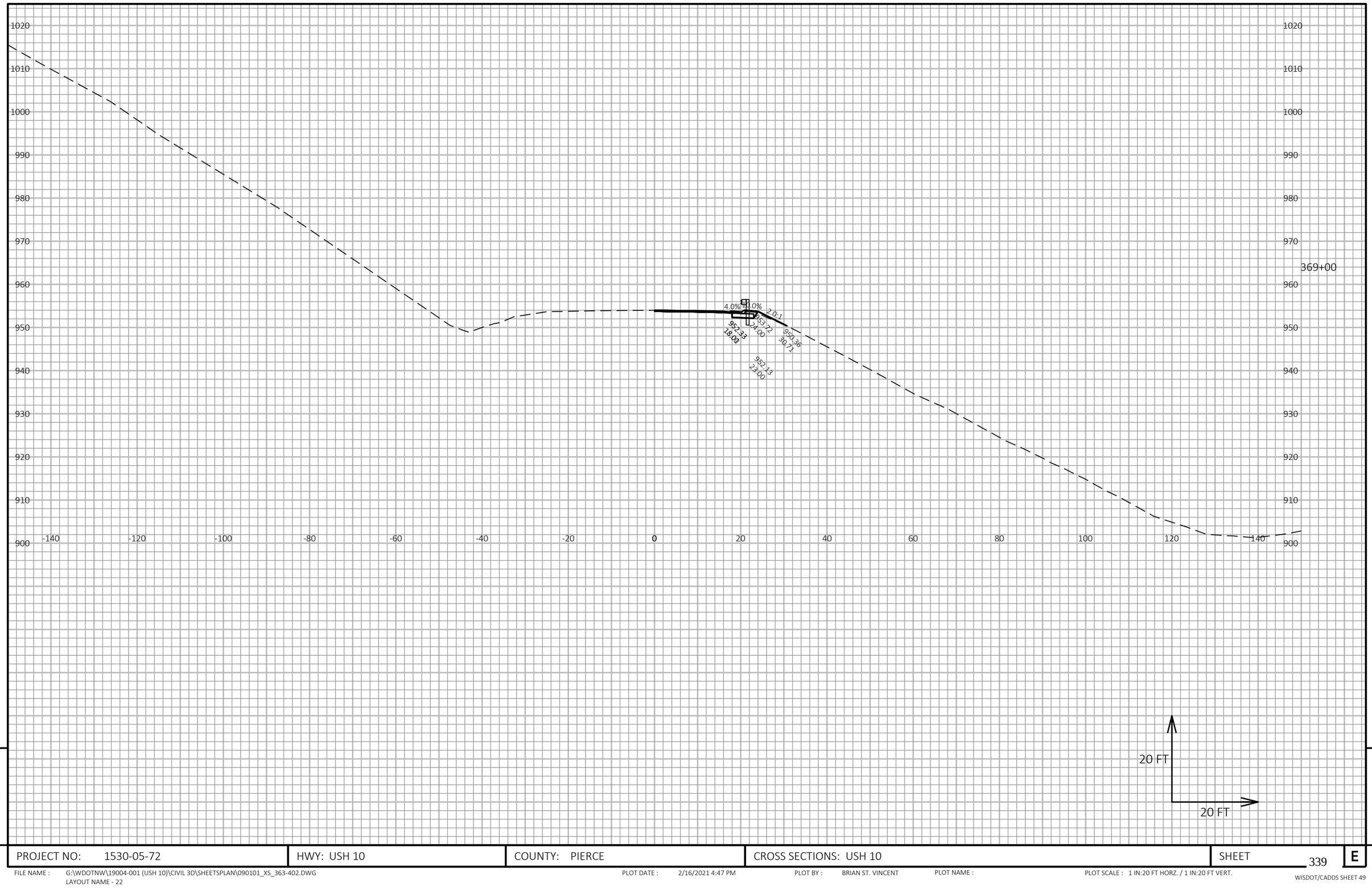
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 338	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

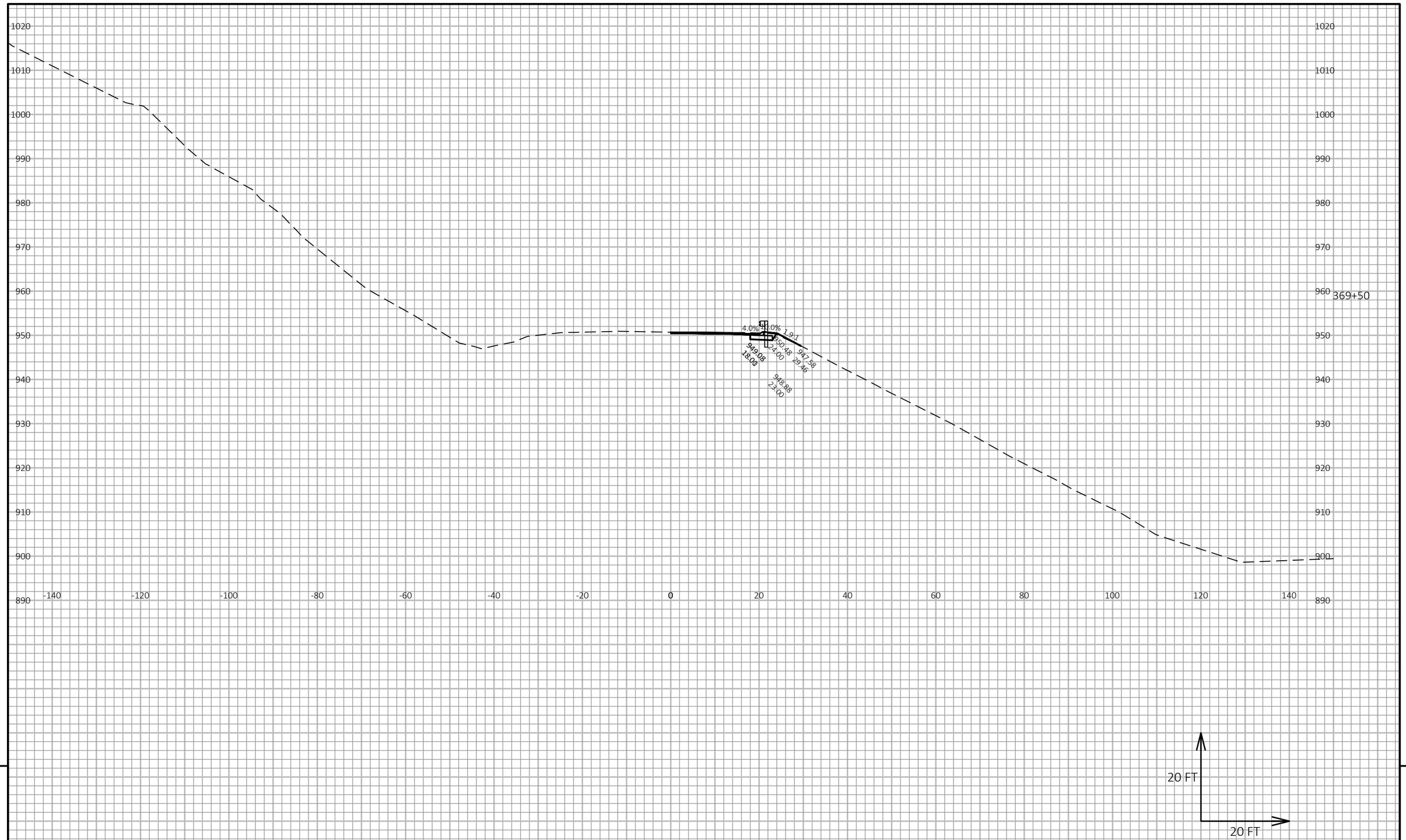
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 339	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 340	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 23

PLOT DATE : 2/16/2021 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

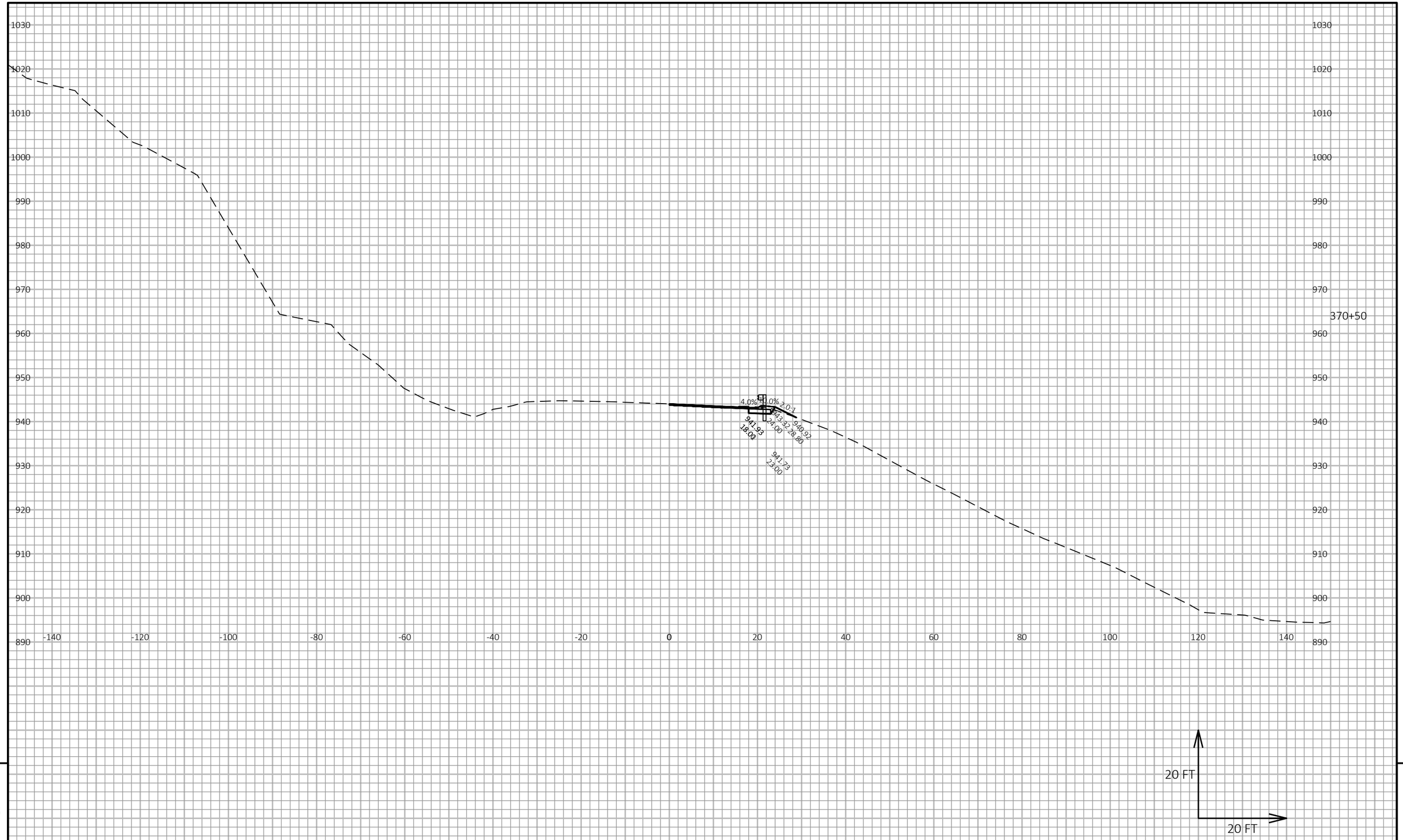
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 341	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

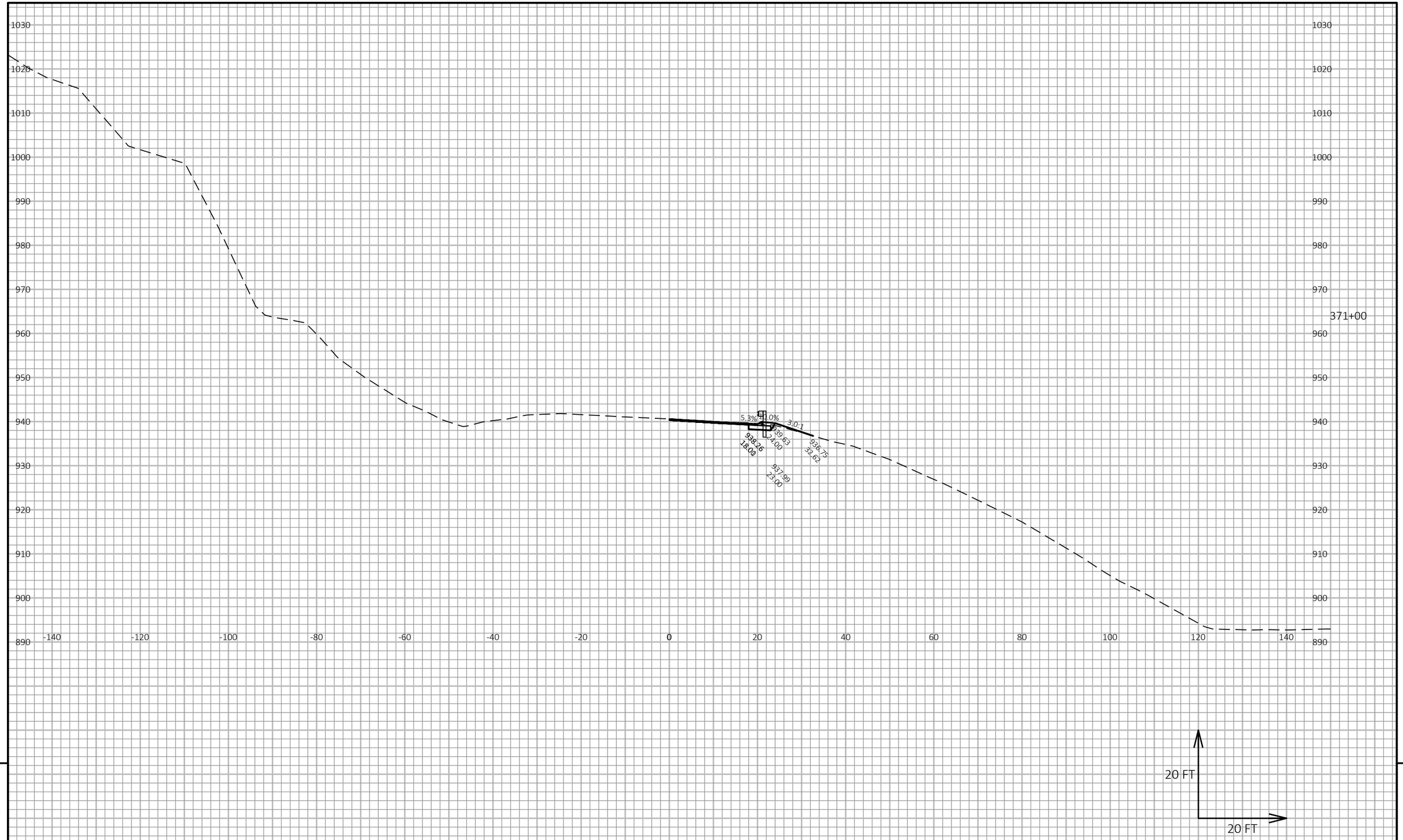
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 342	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 4:48 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



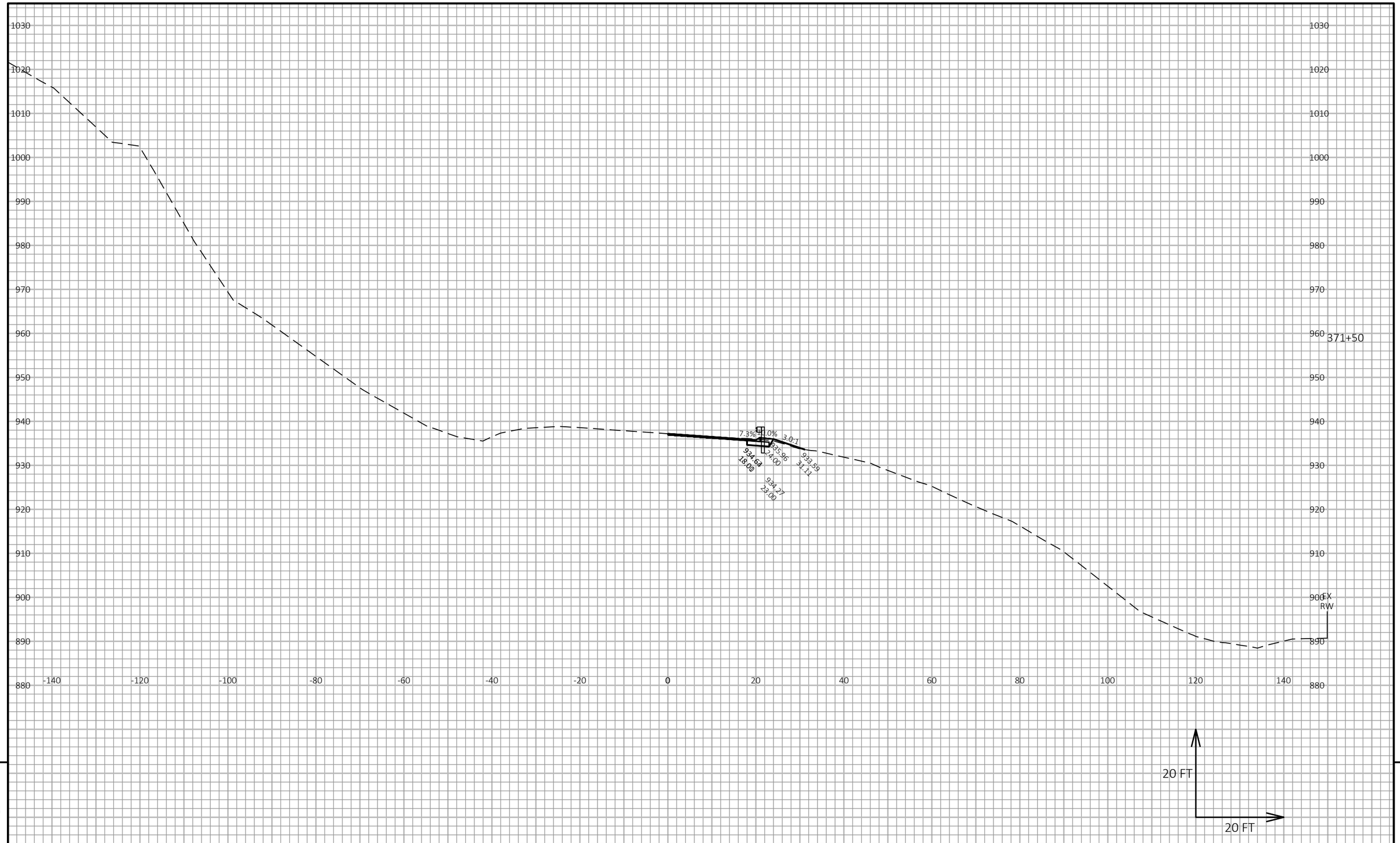
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 343	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 4:48 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

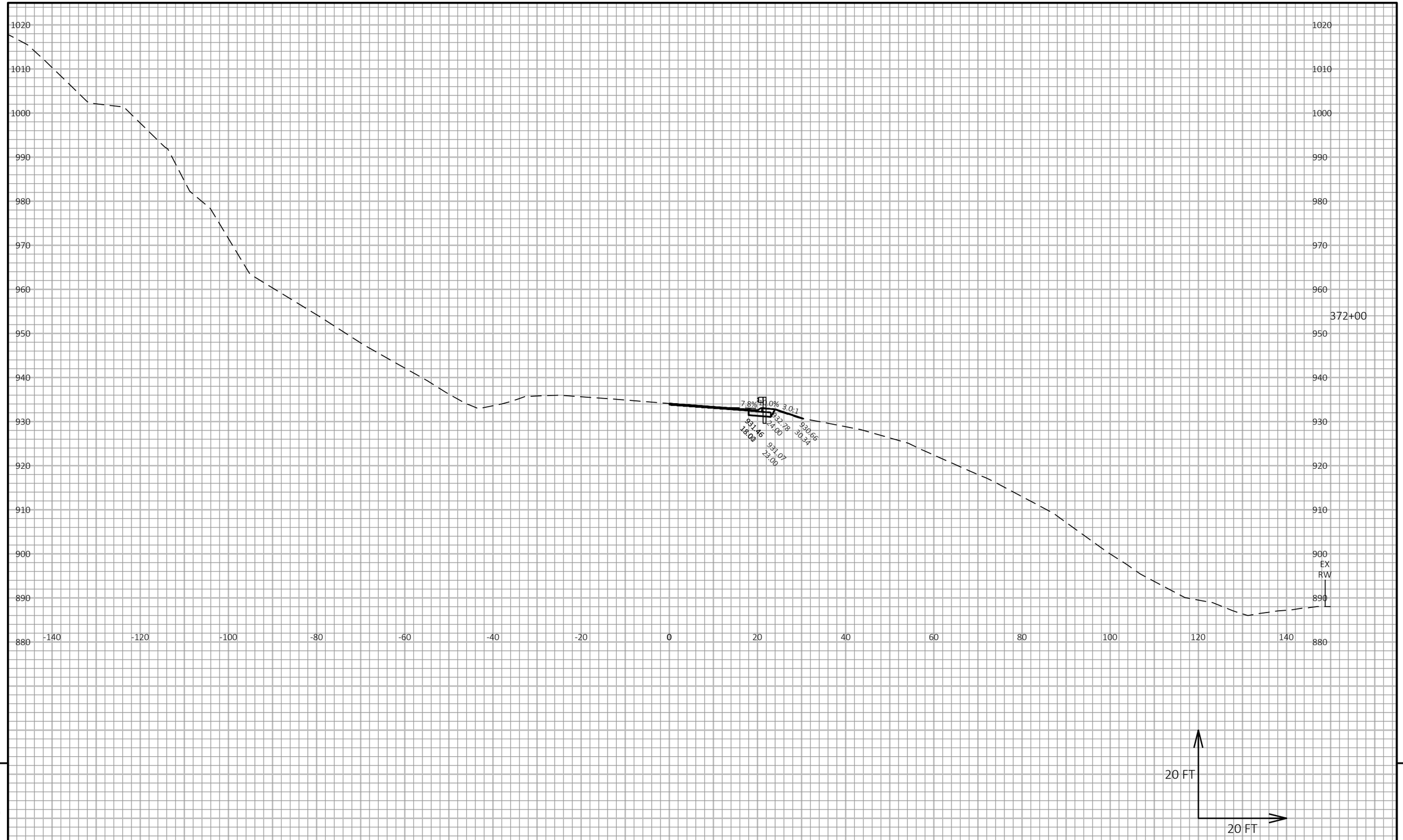
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 344	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 27

PLOT DATE : 2/16/2021 4:48 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

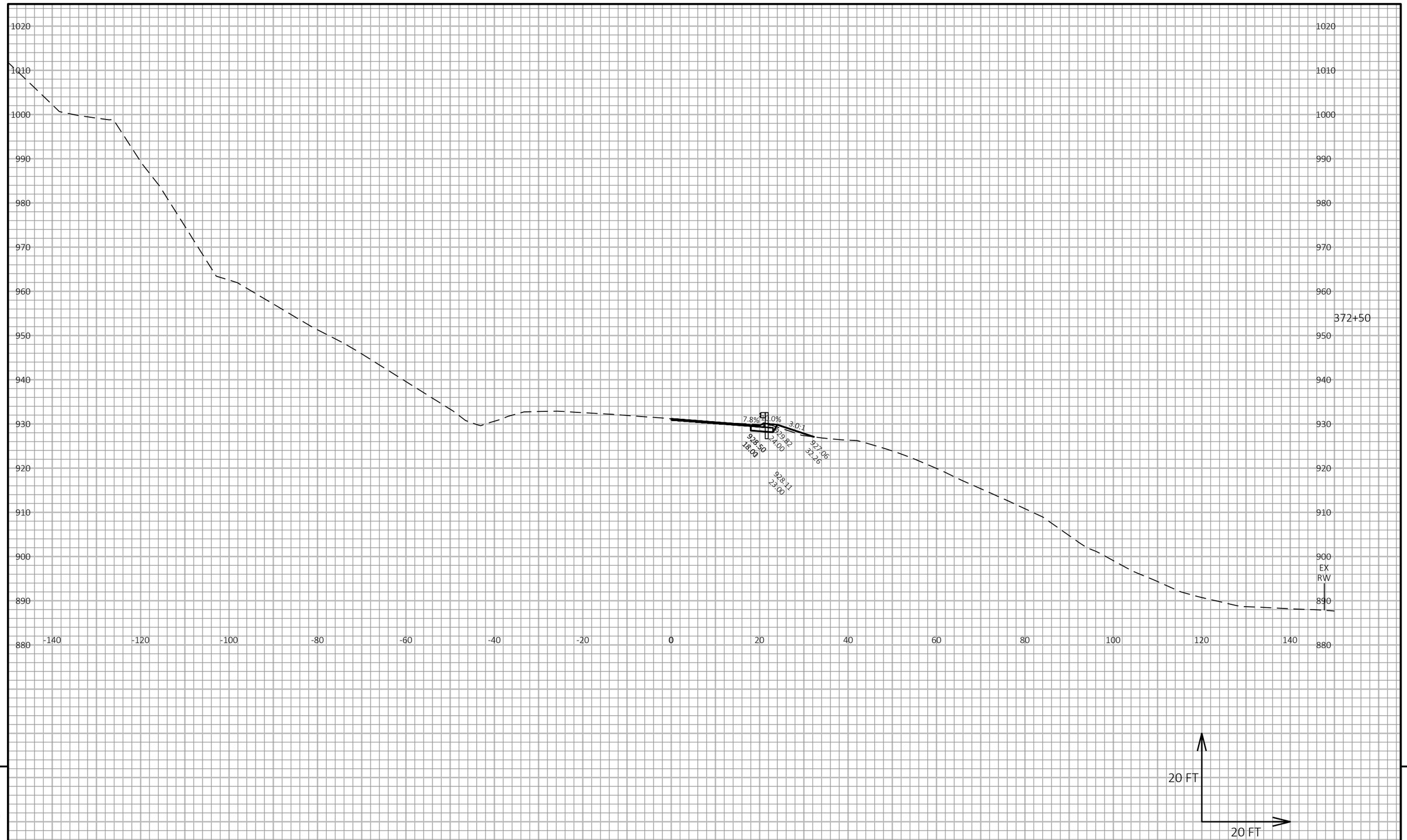
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 345	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 28

PLOT DATE : 2/16/2021 4:48 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 346	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 29

PLOT DATE : 2/16/2021 4:49 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1010
1000
990
980
970
960
950
940
930
920
910
900
890
880

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

373+00

7.8% 10.0% 3.0:1
925.73 18.00
927.04 24.00
924.37 33.02
925.34 23.00

EX RW

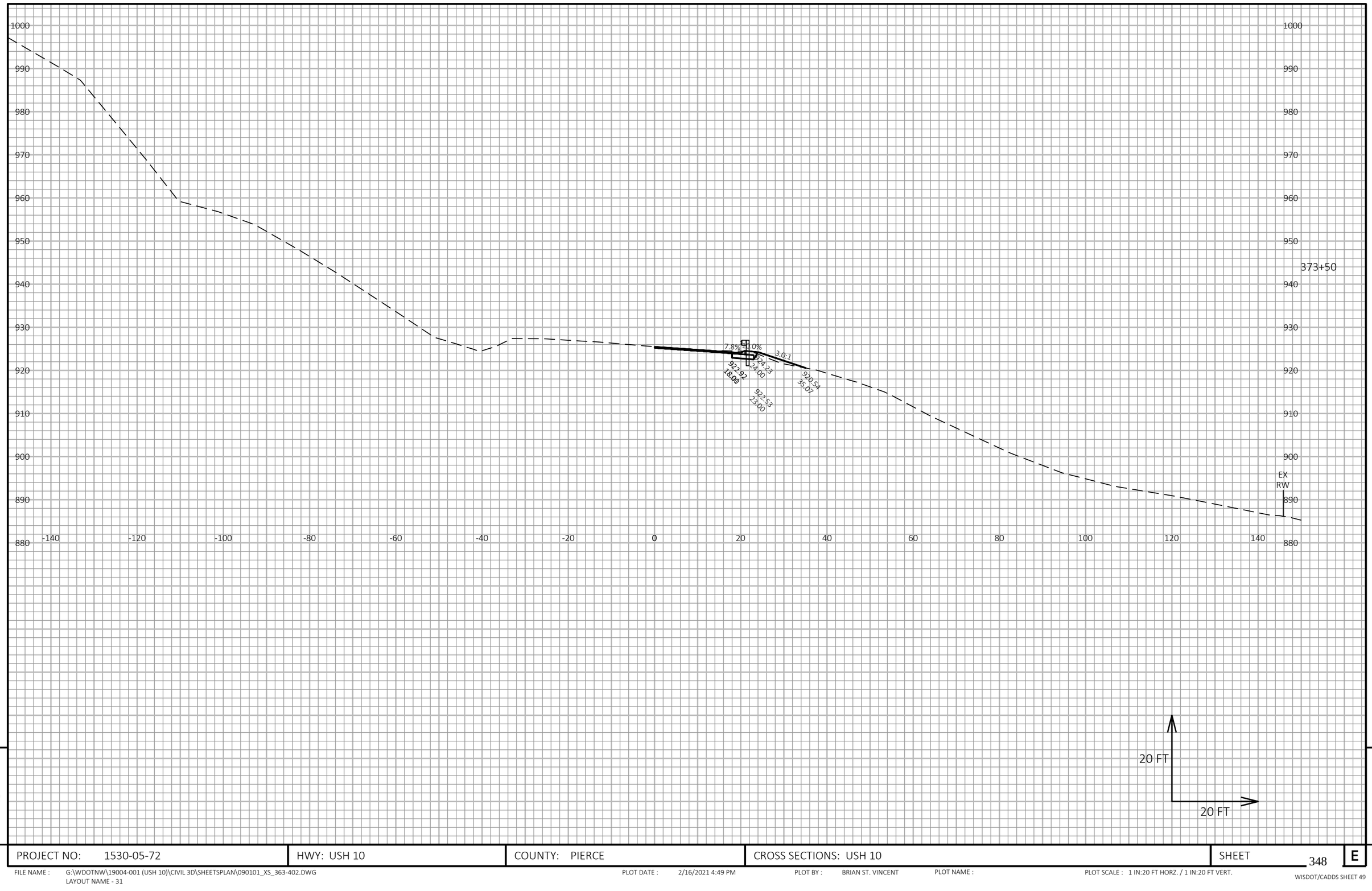
20 FT
20 FT

9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 347	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 30

PLOT DATE : 2/16/2021 4:49 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

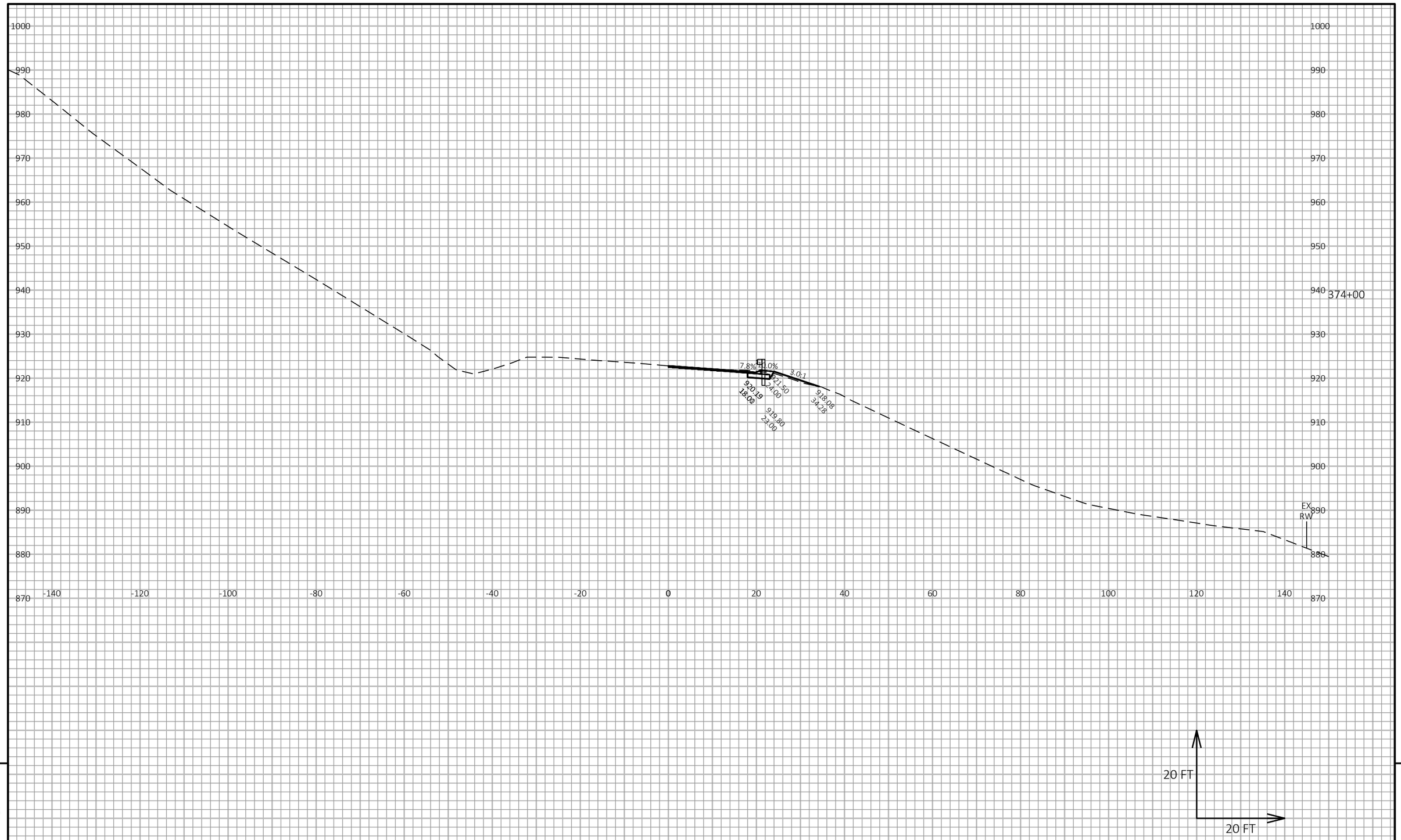
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 348	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 31

PLOT DATE : 2/16/2021 4:49 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



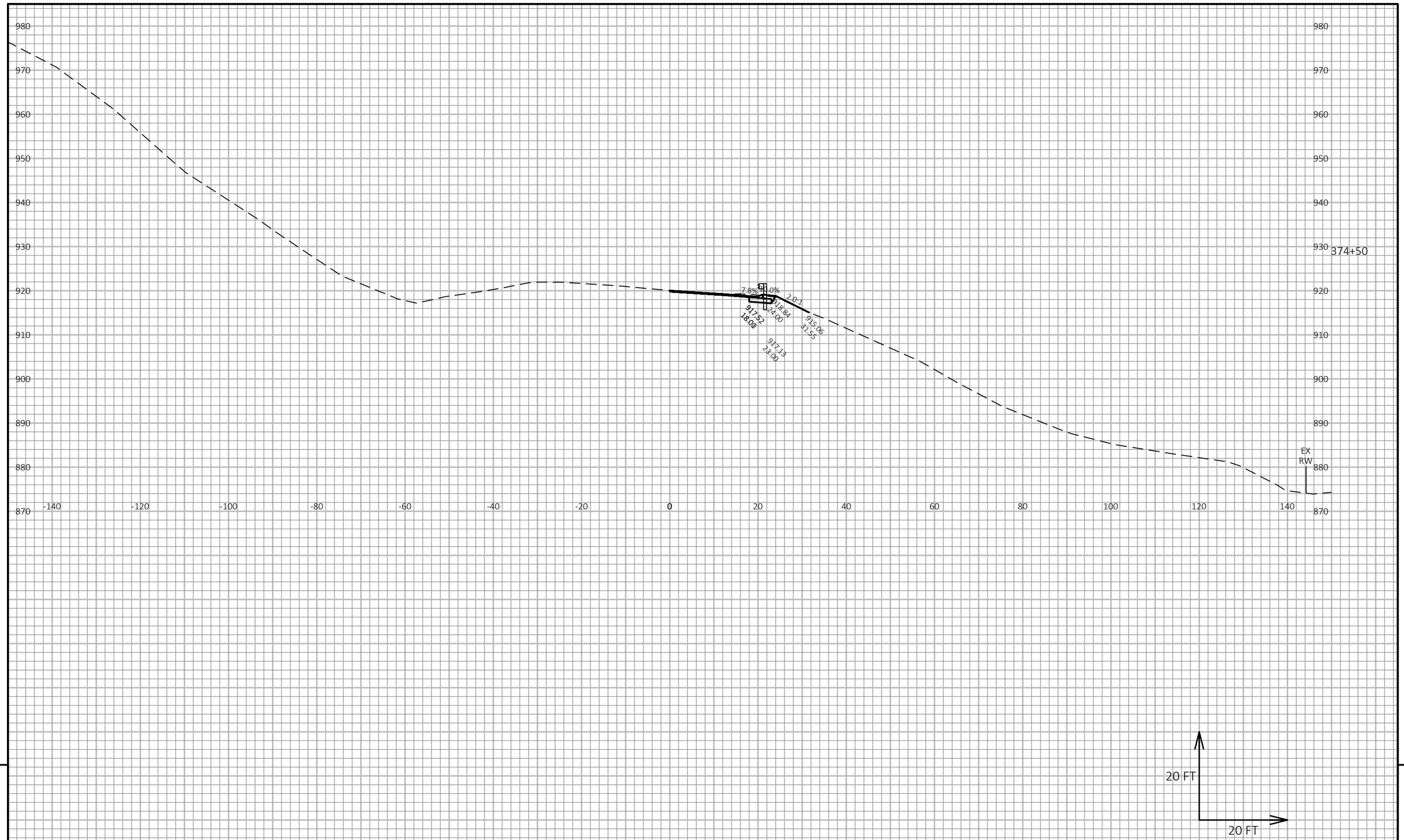
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 349	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 32

PLOT DATE : 2/16/2021 4:49 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



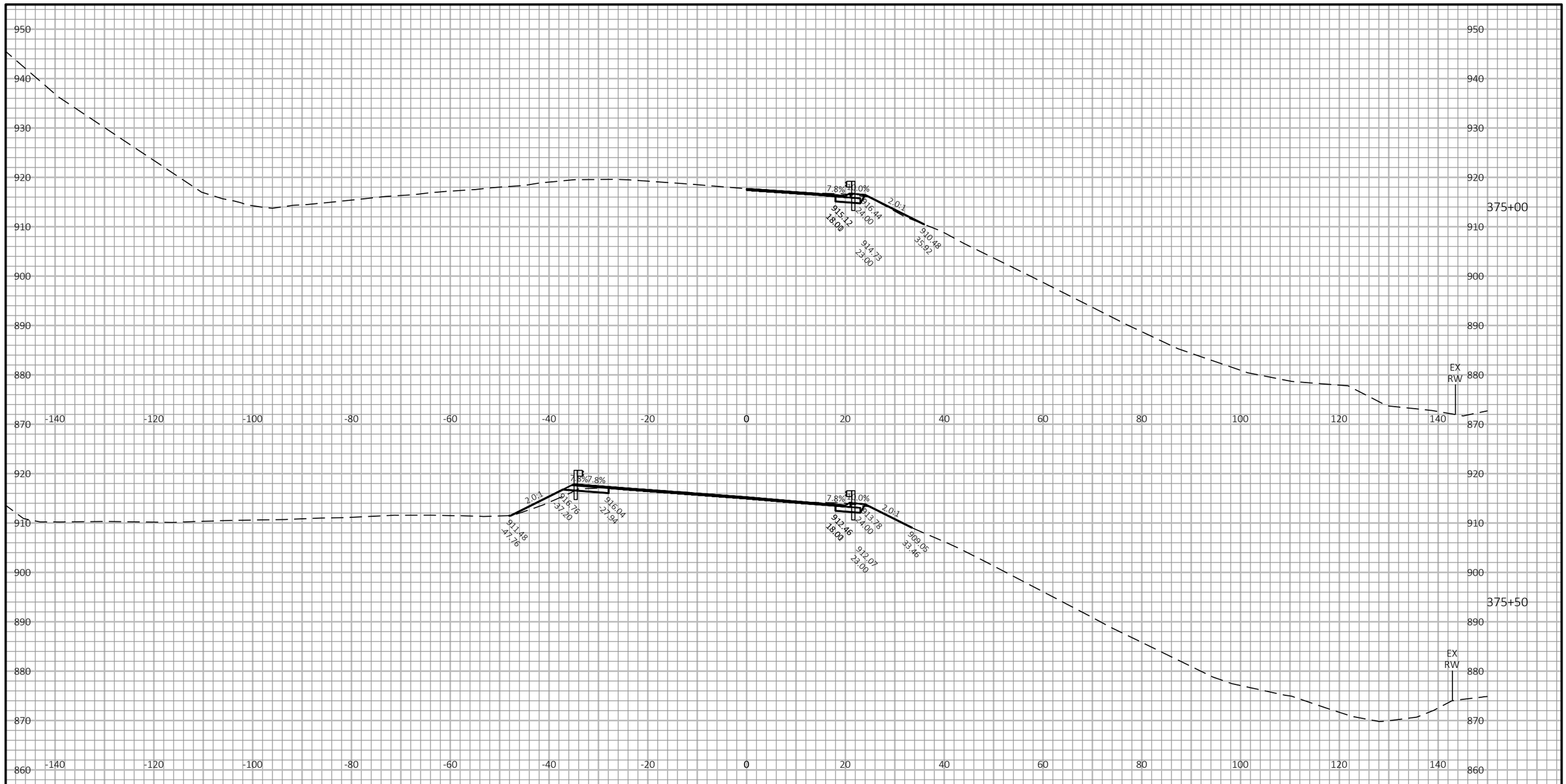
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 350	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 33

PLOT DATE : 2/16/2021 4:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

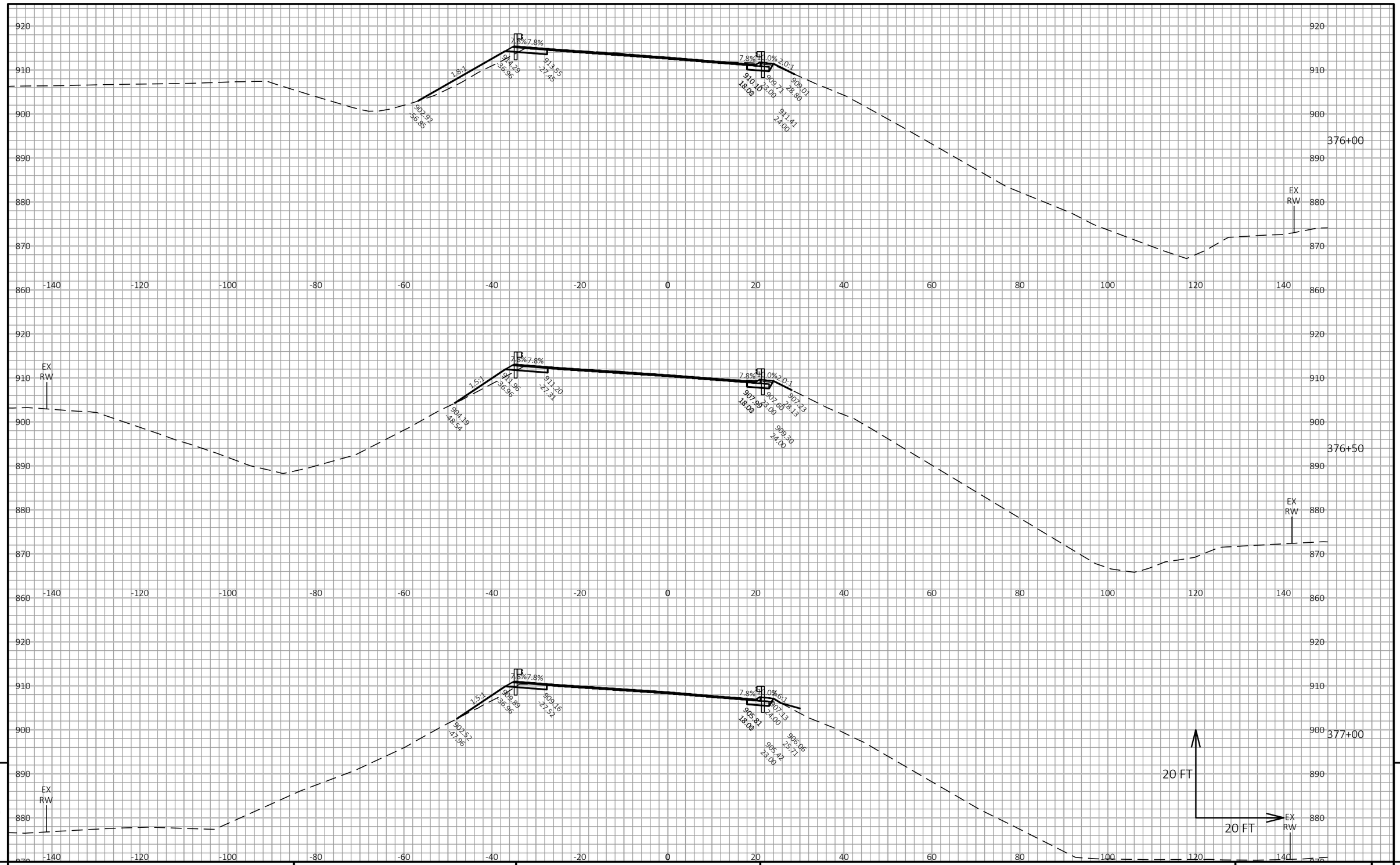


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 351	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 34

PLOT DATE : 2/16/2021 4:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

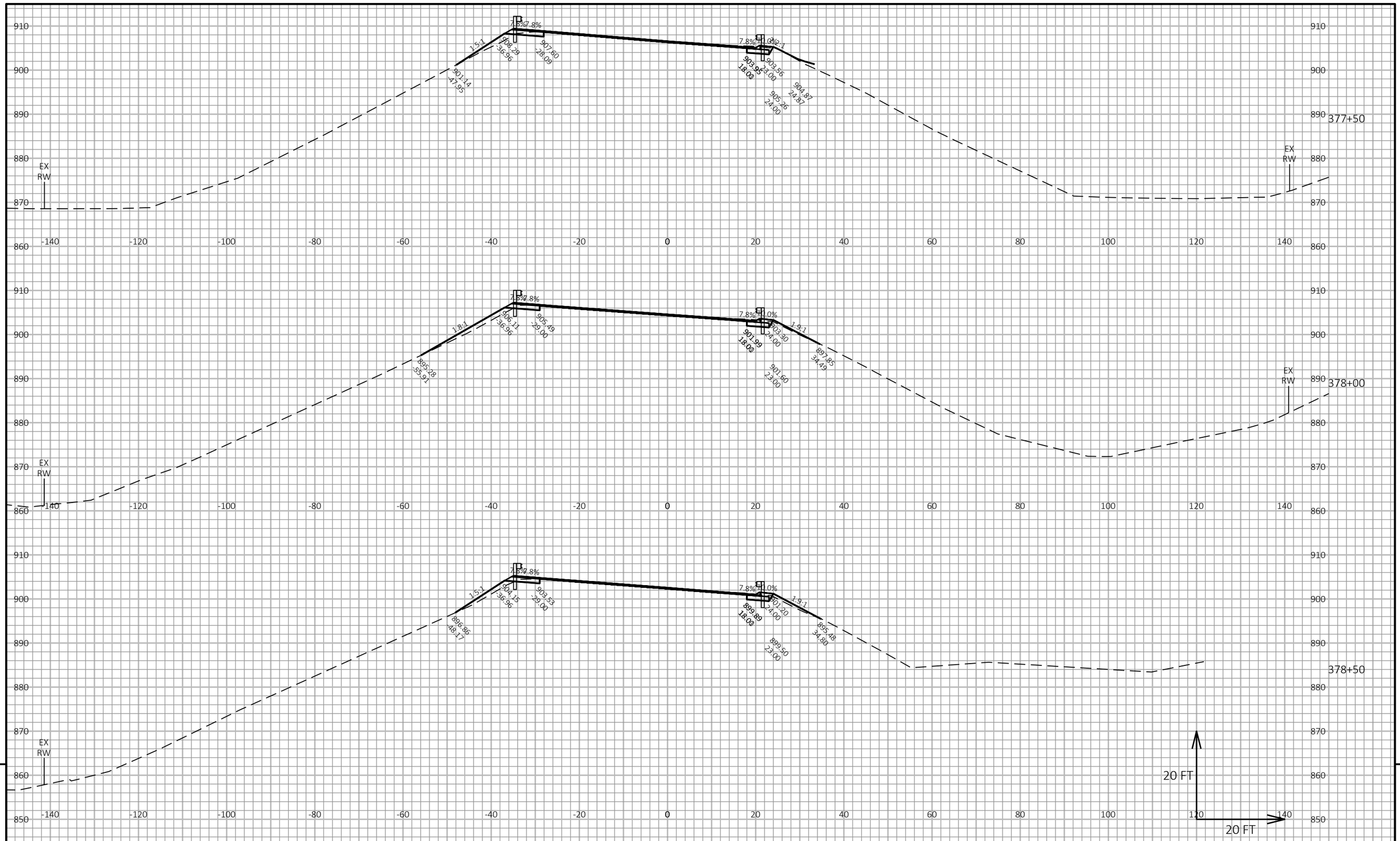
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 352	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 35

PLOT DATE : 2/16/2021 4:50 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

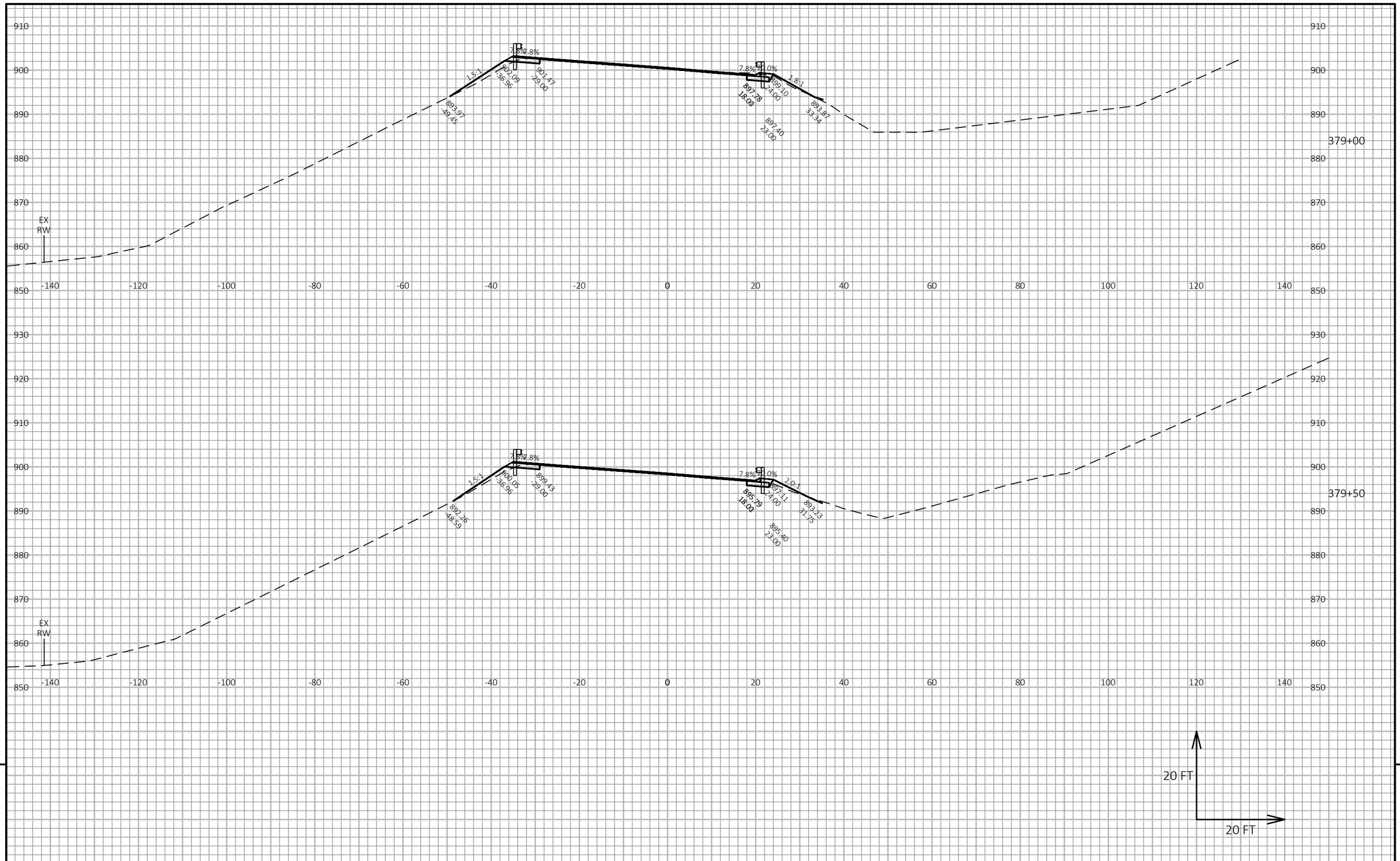


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 353	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 36

PLOT DATE : 2/16/2021 4:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

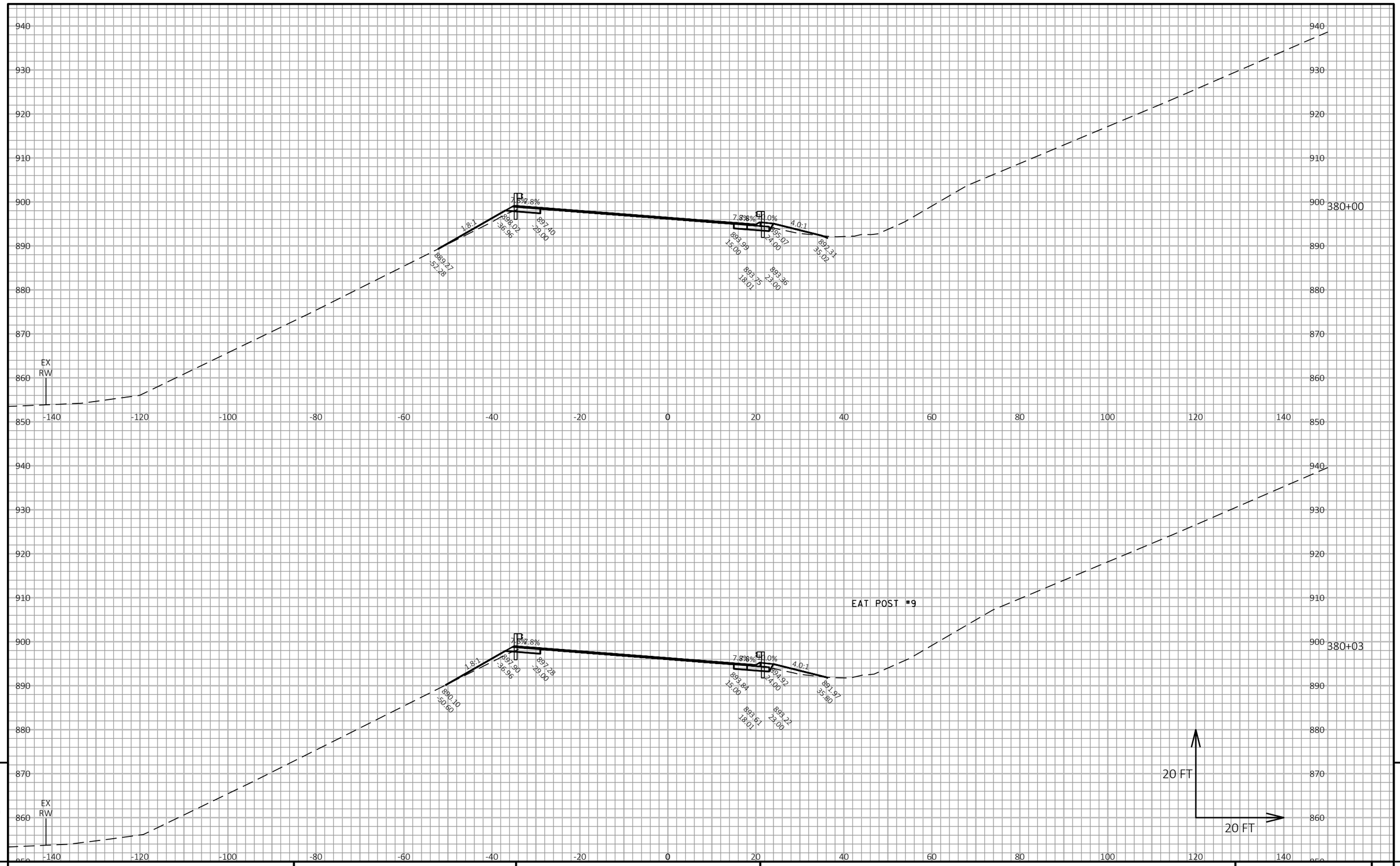


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 354	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 37

PLOT DATE : 2/16/2021 4:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 355	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 38

PLOT DATE : 2/16/2021 4:51 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850

EX RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EAT POST #5

380+29

7.8%
4.8%
4.0:1
3.0:1
2.0:1
889.13
-30.44
896.83
-36.96
896.21
-29.00
892.78
15.00
892.55
18.01
892.15
23.00
893.73
25.33
892.56
30.01
890.67
35.96

20 FT
20 FT

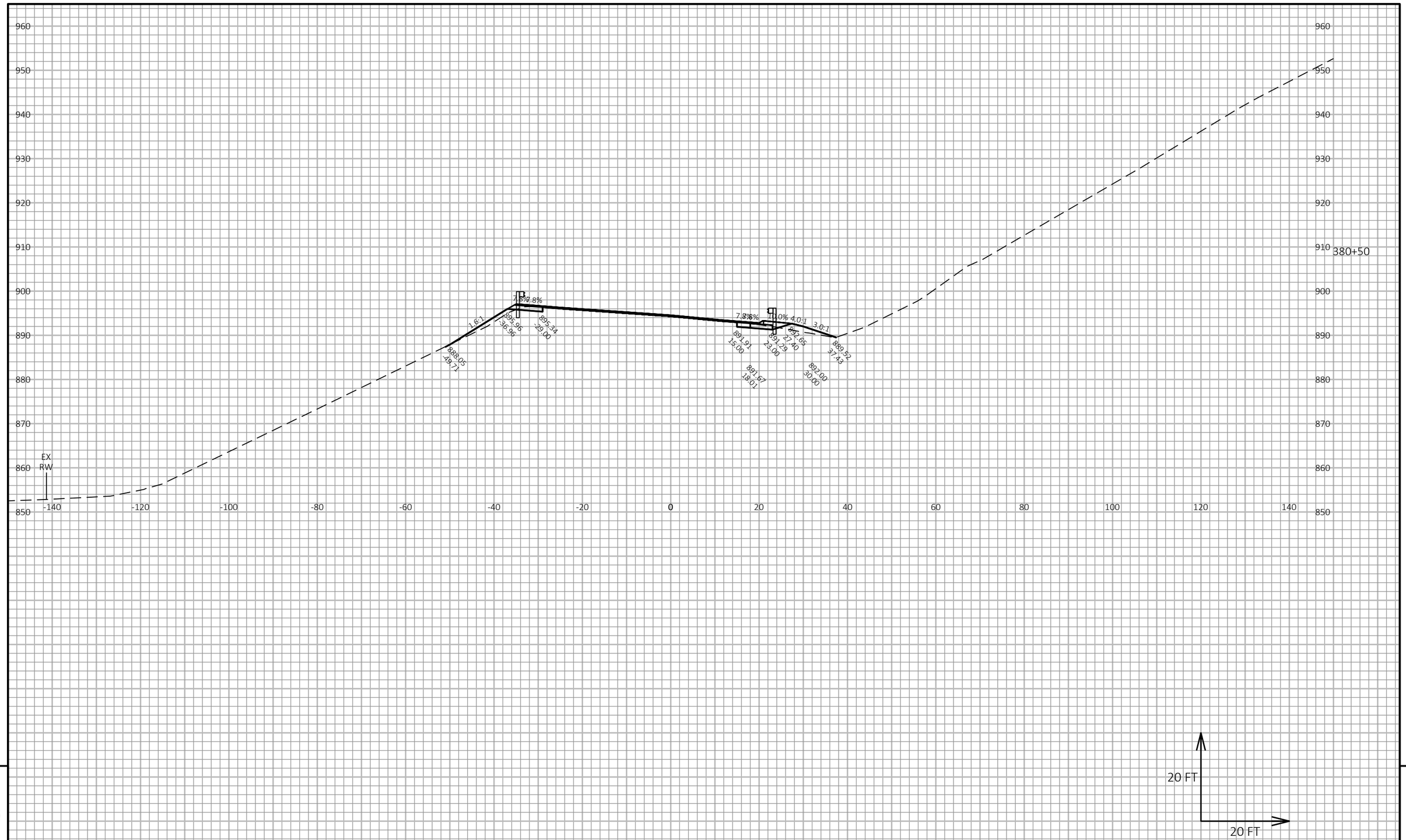
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 356	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 39

PLOT DATE : 2/16/2021 4:51 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 357	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 40

PLOT DATE : 2/16/2021 4:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EAT POST #1

380+54

7.8%
7.8%
4.8%
7.8%
7.8%
11.0%
4.0:1
3.0:1
7.8%
7.8%
7.8%

891.80
30.00
895.19
29.00
895.81
36.96
892.45
27.77
891.75
15.00
891.12
23.00
889.39
37.52
886.94
51.77
891.51
18.01

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 358	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 41

PLOT DATE : 2/16/2021 4:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

EX RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

381+00

7.8% 7.8%

7.8% 7.8%

4.0:1

894.19
-52.08

894.03
-36.96

893.41
-29.00

889.96
15.00

887.86
35.21

888.62
32.19

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 359	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 42

PLOT DATE : 2/16/2021 4:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

EX RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

381+50

7.8%
7.8%
5:1
883.48
-50.11
892.03
-36.96
891.41
-29.00
7.8%
7.8%
6.0:1
887.86
15.00
886.77
28.91
886.30
31.77

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 360	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 43

PLOT DATE : 2/16/2021 4:52 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

382+00

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

7.8%
7.8%
7.8%
6.0:1
6.0:1
-2.5%
-2.5%
-4.8%
-4.8%
-4.8

960
950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

382+03

BEGIN EAT TAPER

7.8%
-5.1%
7.8%
6.0:1
7.8%

382.05
48.97
386.87
36.96
889.25
29.00
885.79
15.00
884.98
25.39
884.03
31.07

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 362	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 45

PLOT DATE : 2/16/2021 4:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

382+50

878.29
-54.10

1.8%

888.08
-36.96

7.8%

887.46
29.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 363	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 46

PLOT DATE : 2/16/2021 4:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

383+00

7.8%
7.8%
7.8%
7.8%

879.65
-47.71

885.79
-36.96

885.17
-29.00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 364	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 47

PLOT DATE : 2/16/2021 4:53 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

383+50

879.61
-44.28

883.85
-36.85

883.23
-28.90

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 365	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 48

PLOT DATE : 2/16/2021 4:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

384+00

7.8%
7.8%
7.8%
7.8%
881.13
-28.22
881.25
-36.17
876.55
-41.78

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 366	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 49

PLOT DATE : 2/16/2021 4:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850
840

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

384+50

8.8%

879.11
27.51

879.73
35.47

881.40
45.15

20 FT

20 FT

9

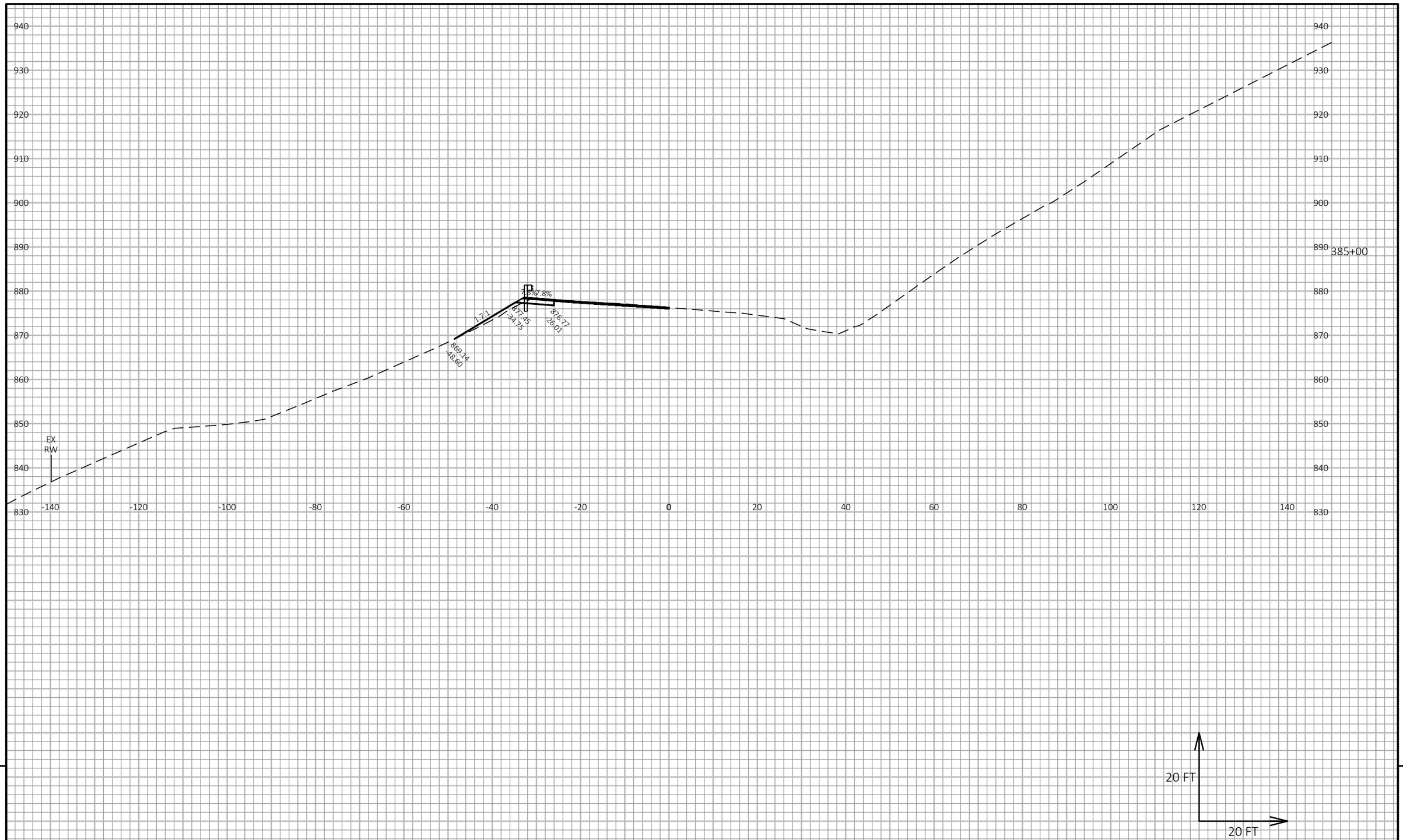
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 367	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 50

PLOT DATE : 2/16/2021 4:54 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 368	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 51

PLOT DATE : 2/16/2021 4:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

940
930
920
910
900
890
880
870
860
850
840
830
820

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

385+50

867.65
-47.30

7.7%

7.8%

825.63
-34.00

674.96
25.34

20 FT

20 FT

9

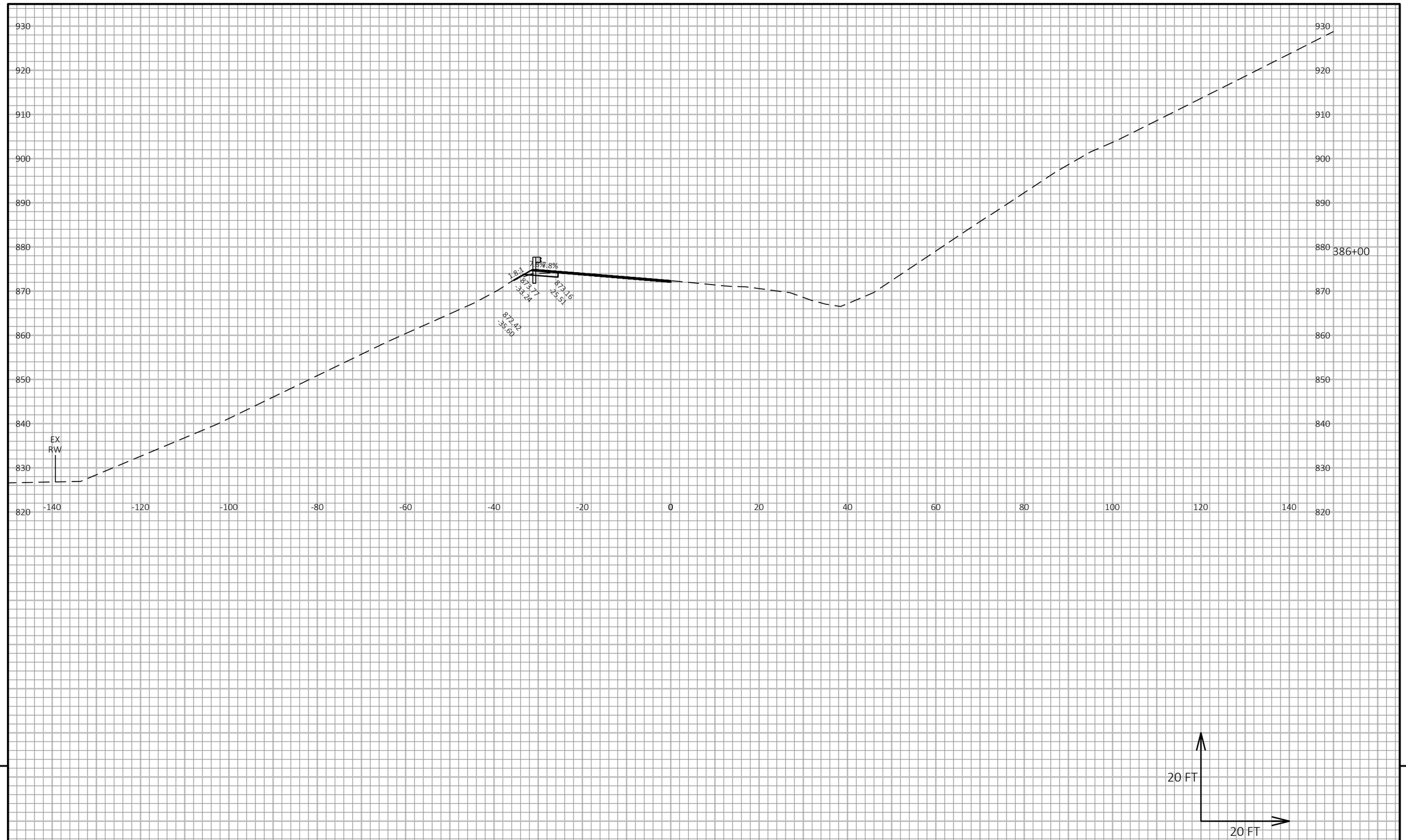
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 369	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 52

PLOT DATE : 2/16/2021 4:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

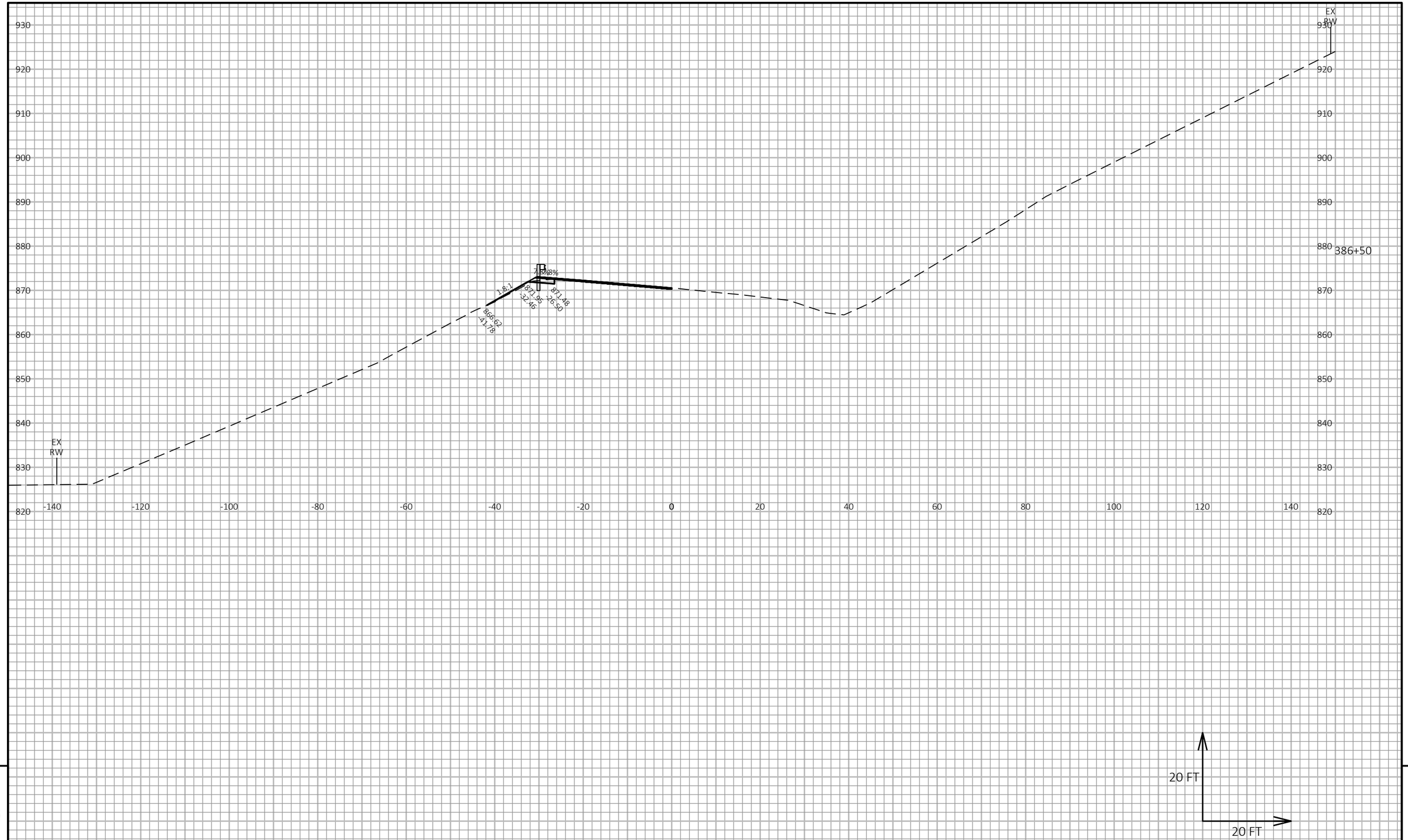
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 370	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 53

PLOT DATE : 2/16/2021 4:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

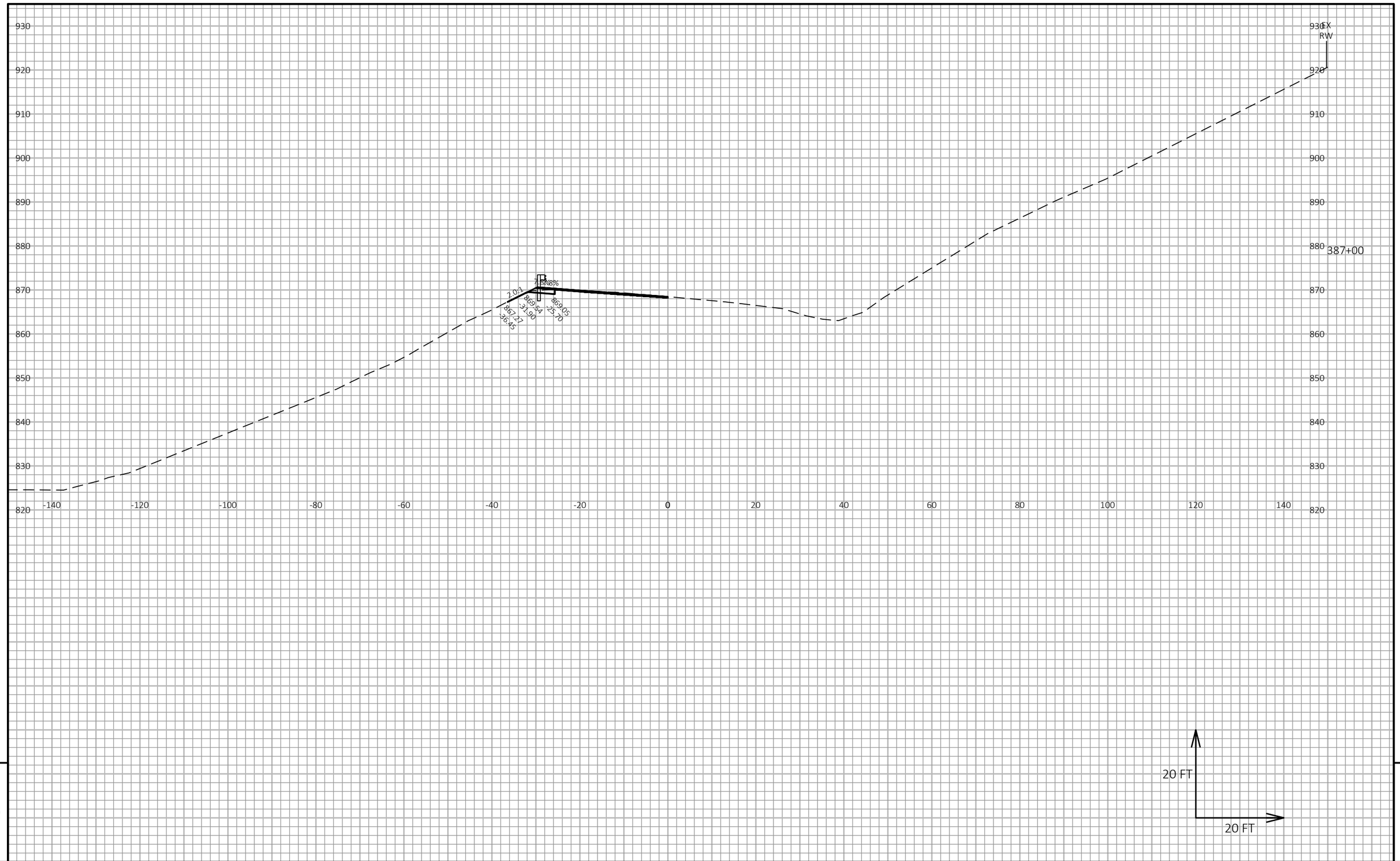
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 371	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 54

PLOT DATE : 2/16/2021 4:55 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

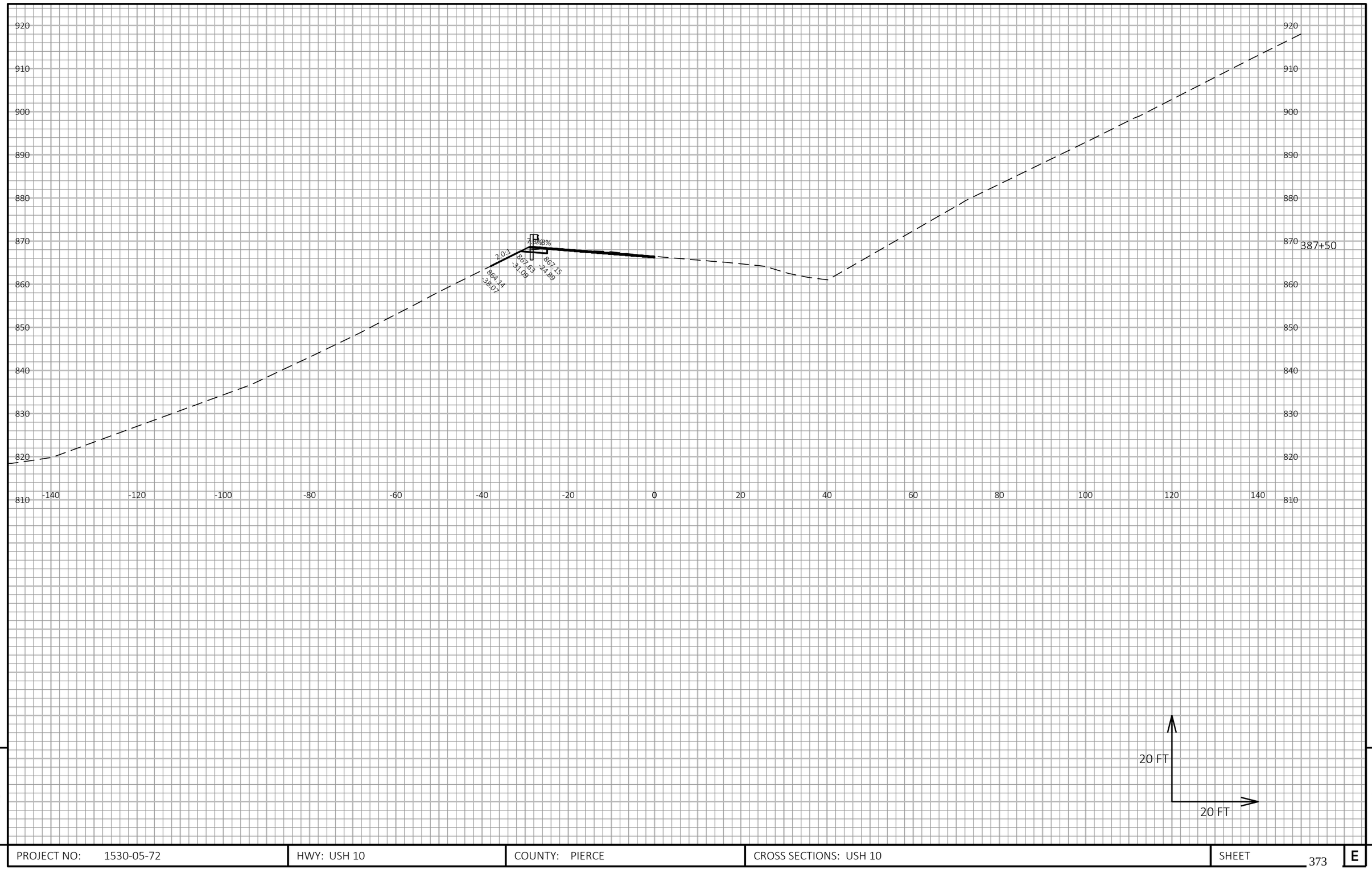
9

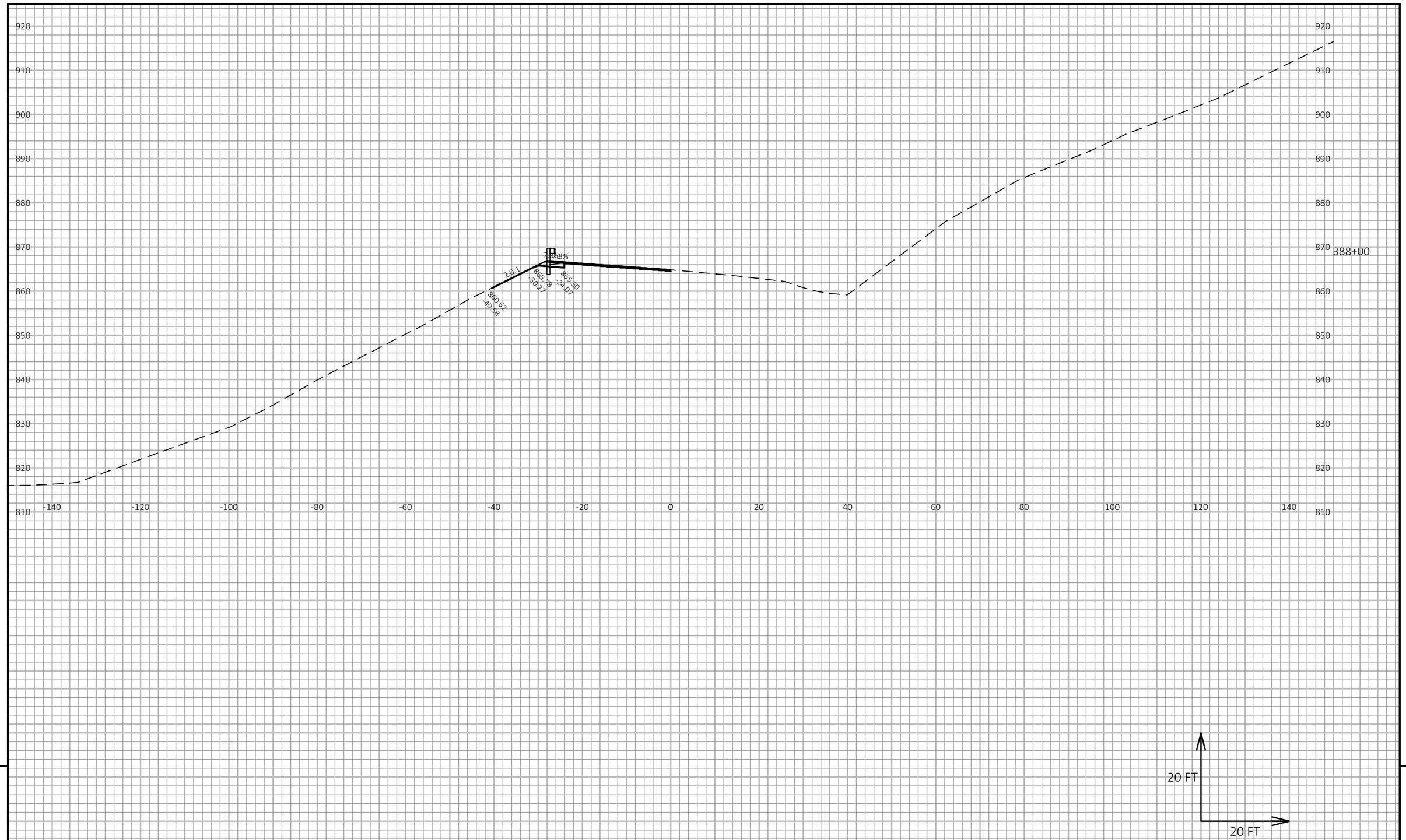
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 372	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 55

PLOT DATE : 2/16/2021 4:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49


920
910
900
890
880
870
860
850
840
830
820
810
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140
387+50
2.0%
2.0%
2.0%



9

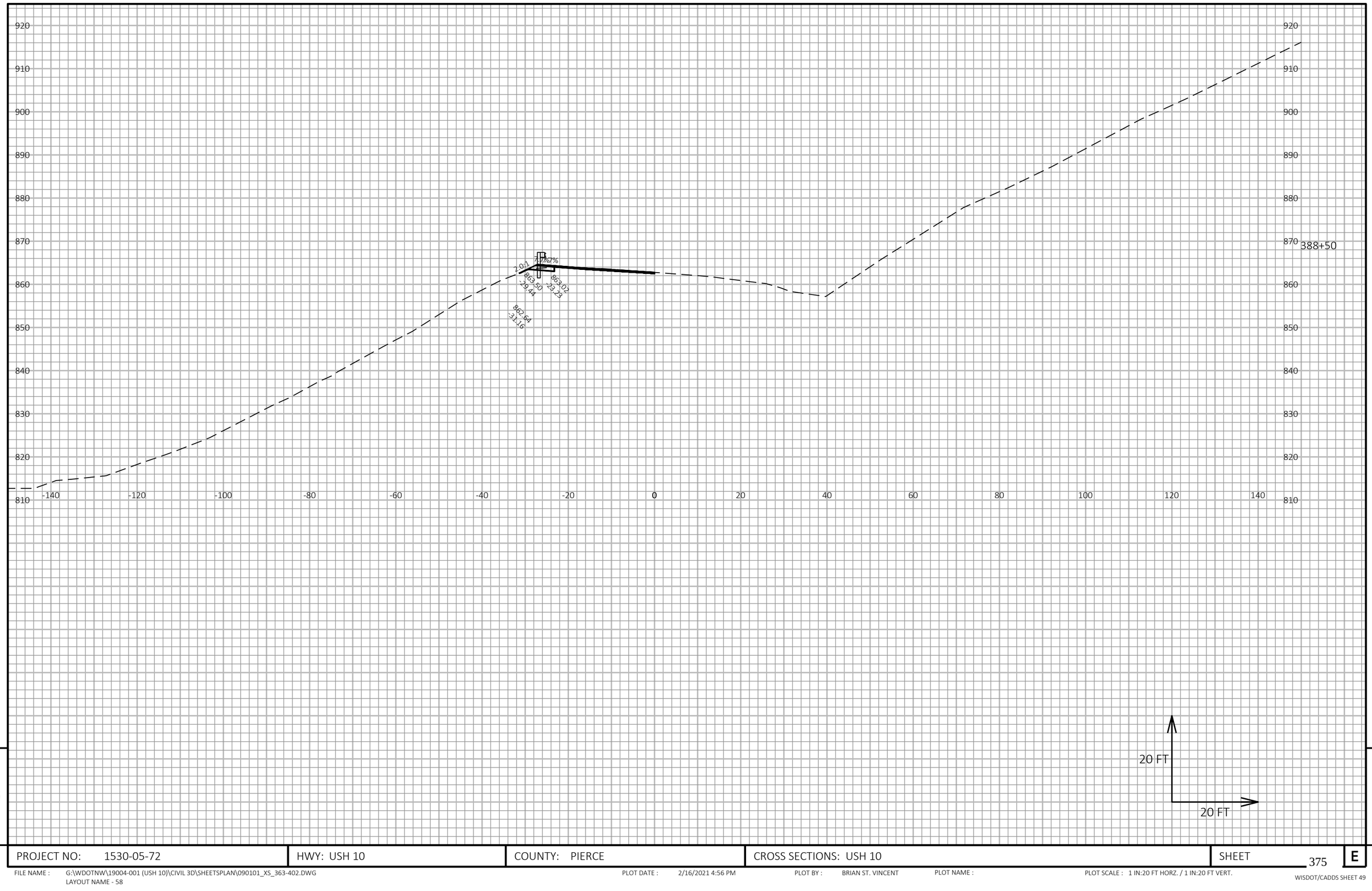
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 374	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 57

PLOT DATE : 2/16/2021 4:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

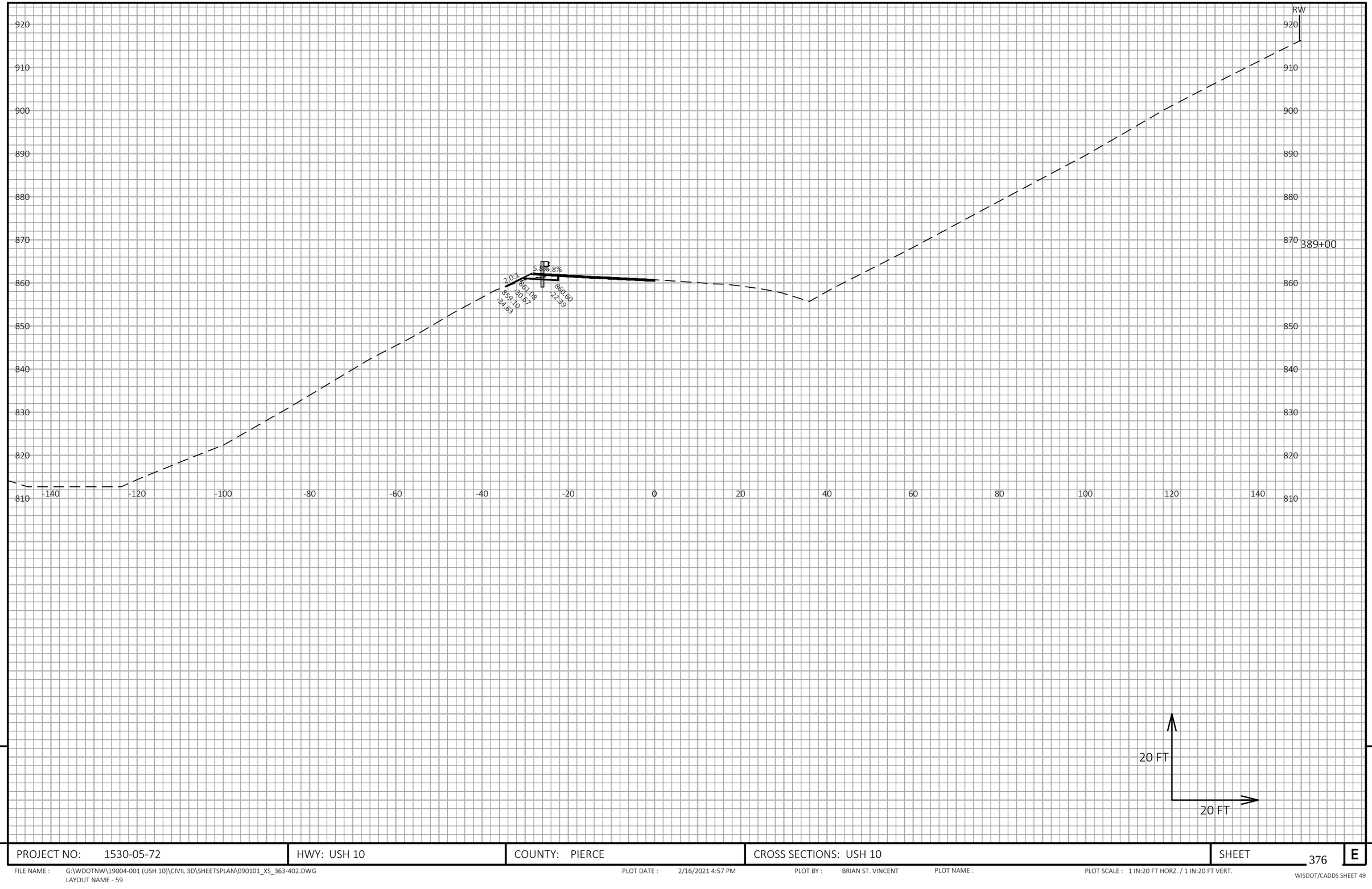
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 375	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 58

PLOT DATE : 2/16/2021 4:56 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

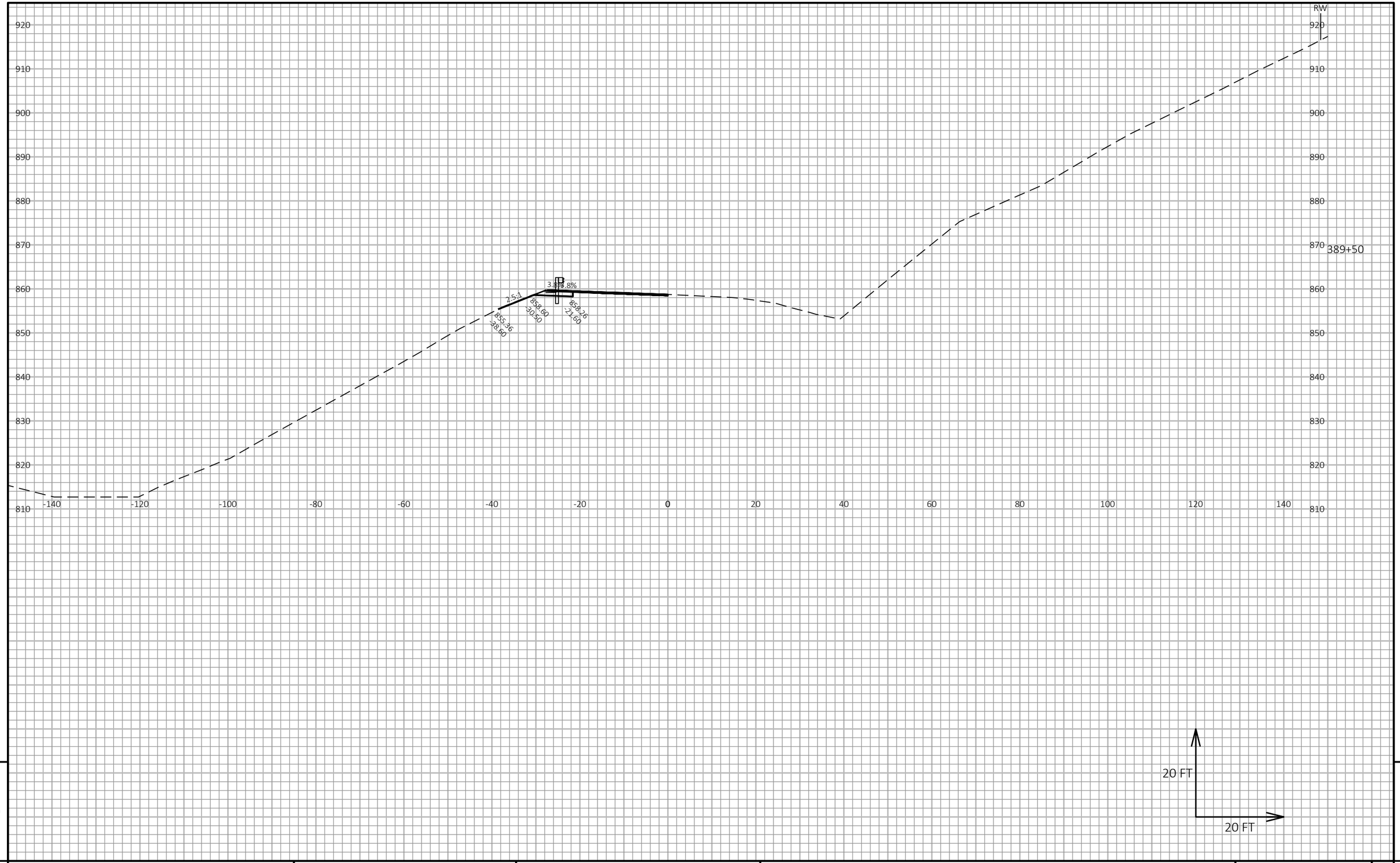
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 376	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 59

PLOT DATE : 2/16/2021 4:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

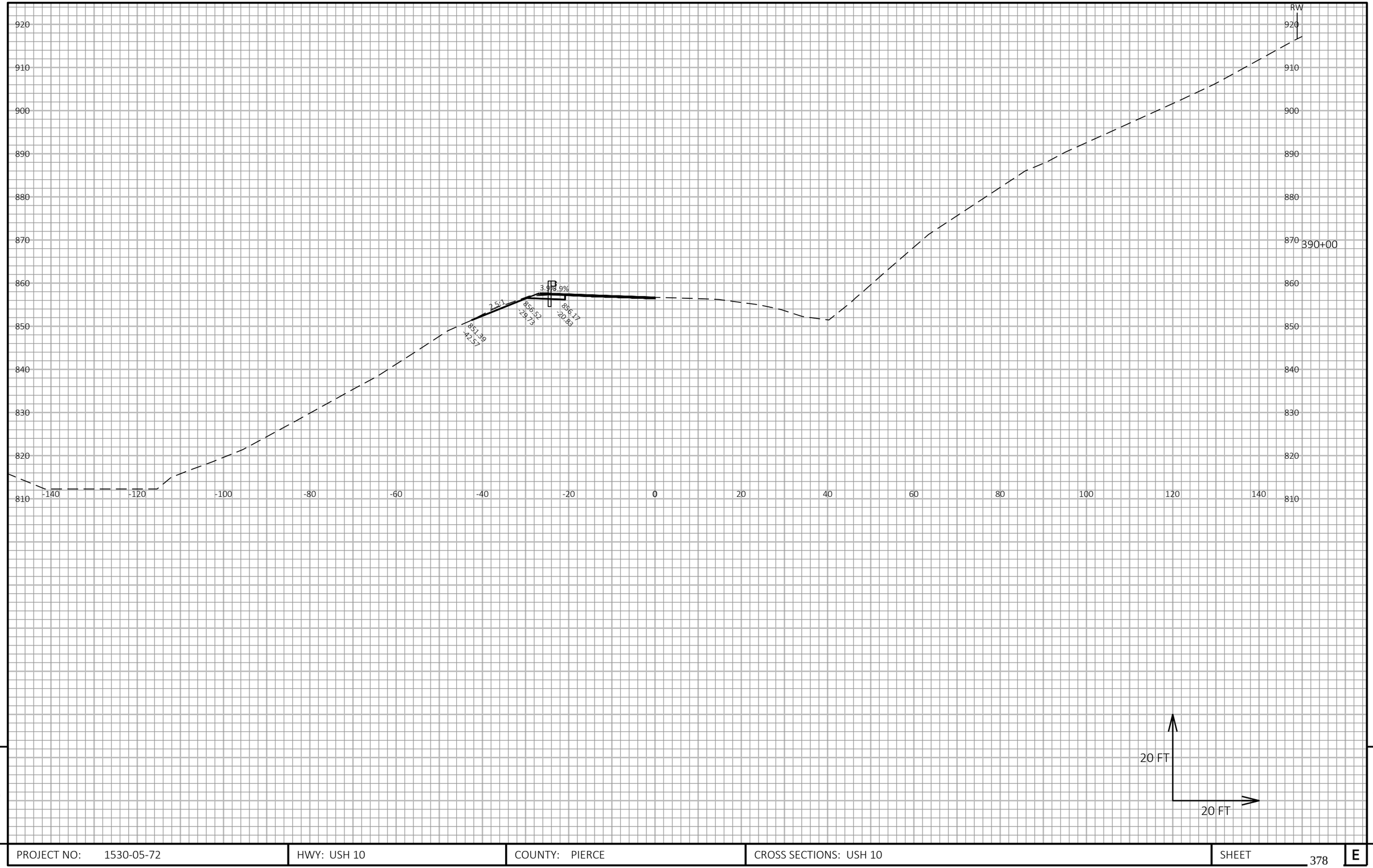
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 377	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 60

PLOT DATE : 2/16/2021 4:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

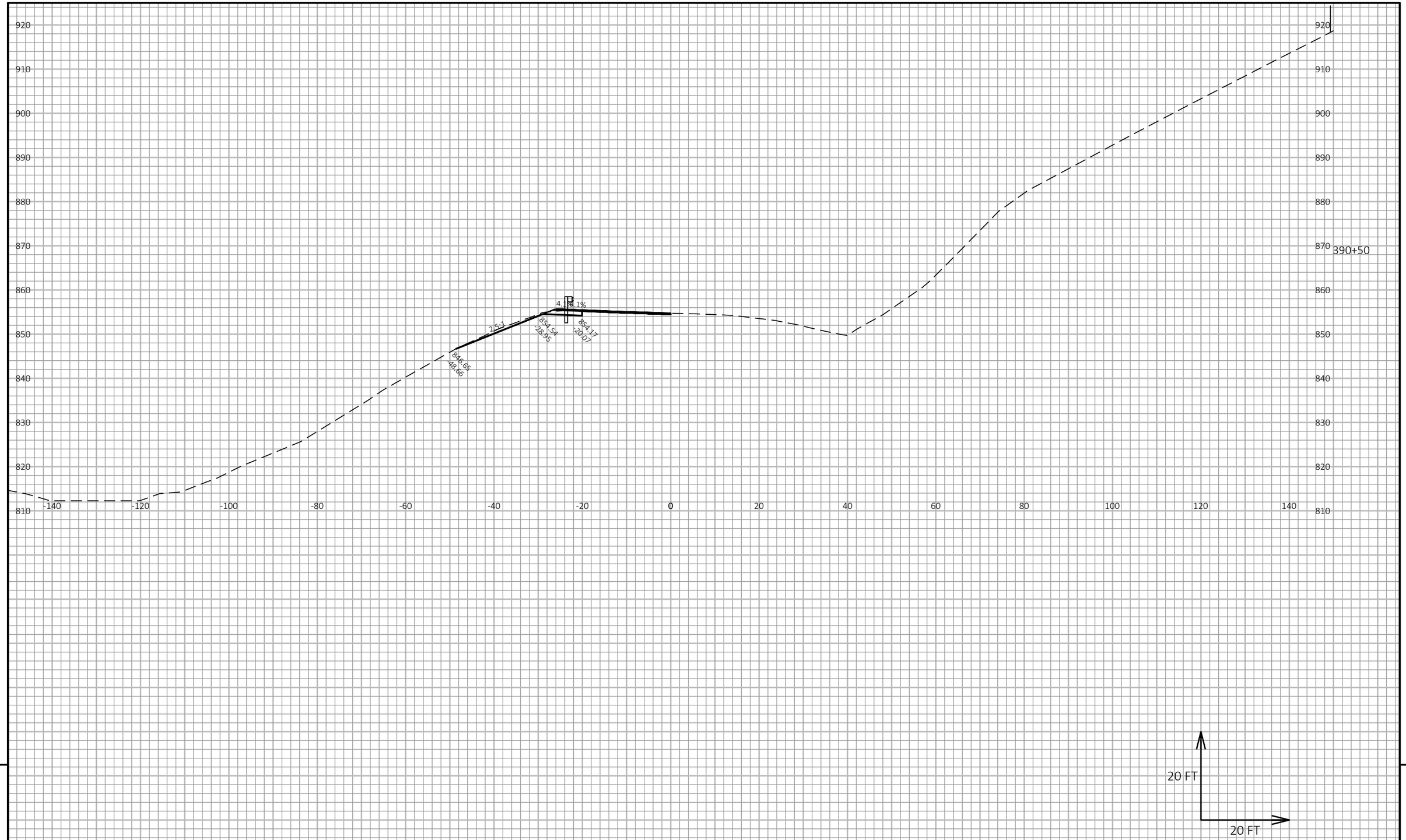
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 378	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 61

PLOT DATE : 2/16/2021 4:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 379	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 62

PLOT DATE : 2/16/2021 4:57 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

920
910
900
890
880
870
860
850
840
830
820
810

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

391+00

Δ 0.1%
852.63
-29.65
851.39
-33.81
4.2%
4.2%
852.19
-19.39

20 FT
20 FT

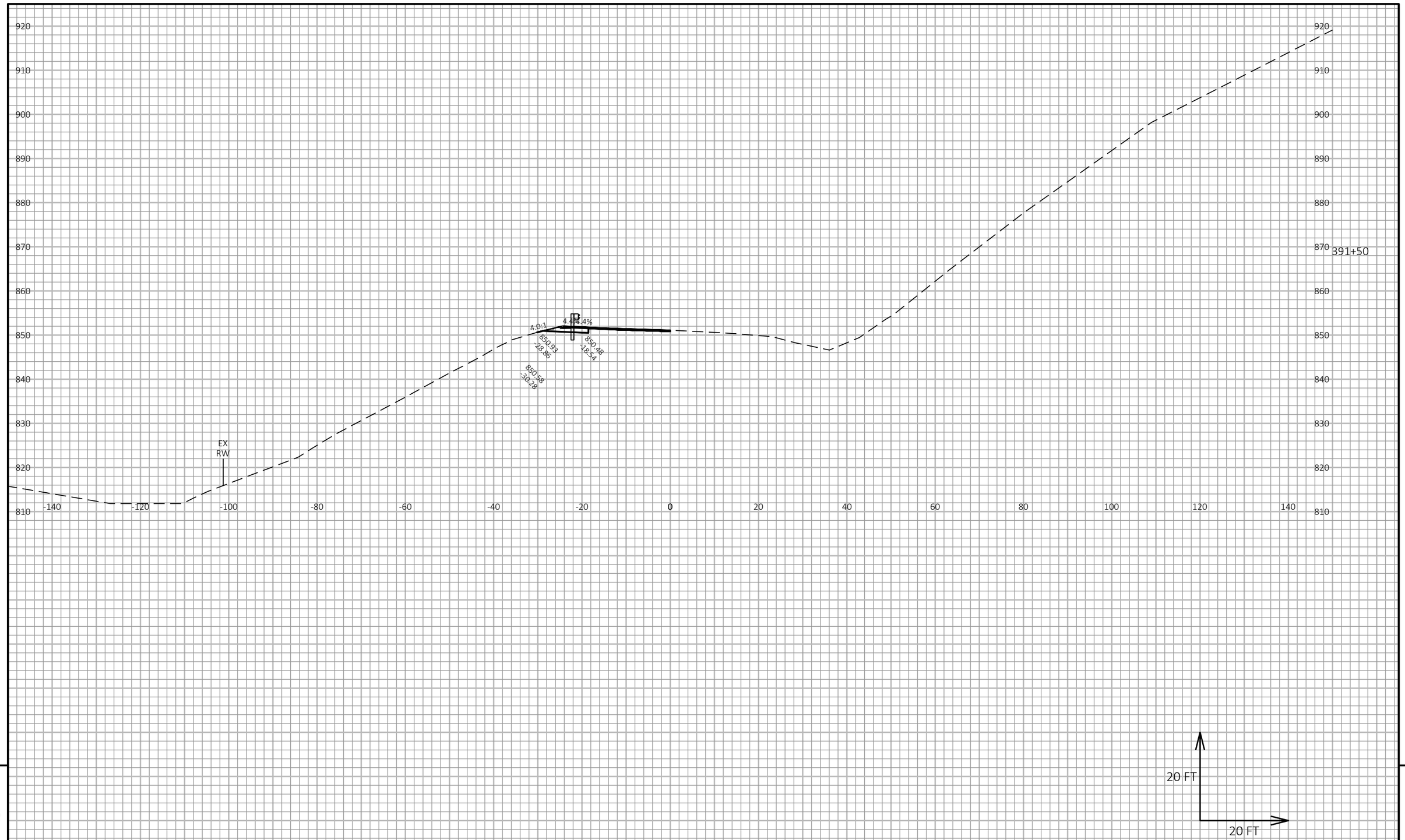
9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 380	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 63

PLOT DATE : 2/16/2021 4:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

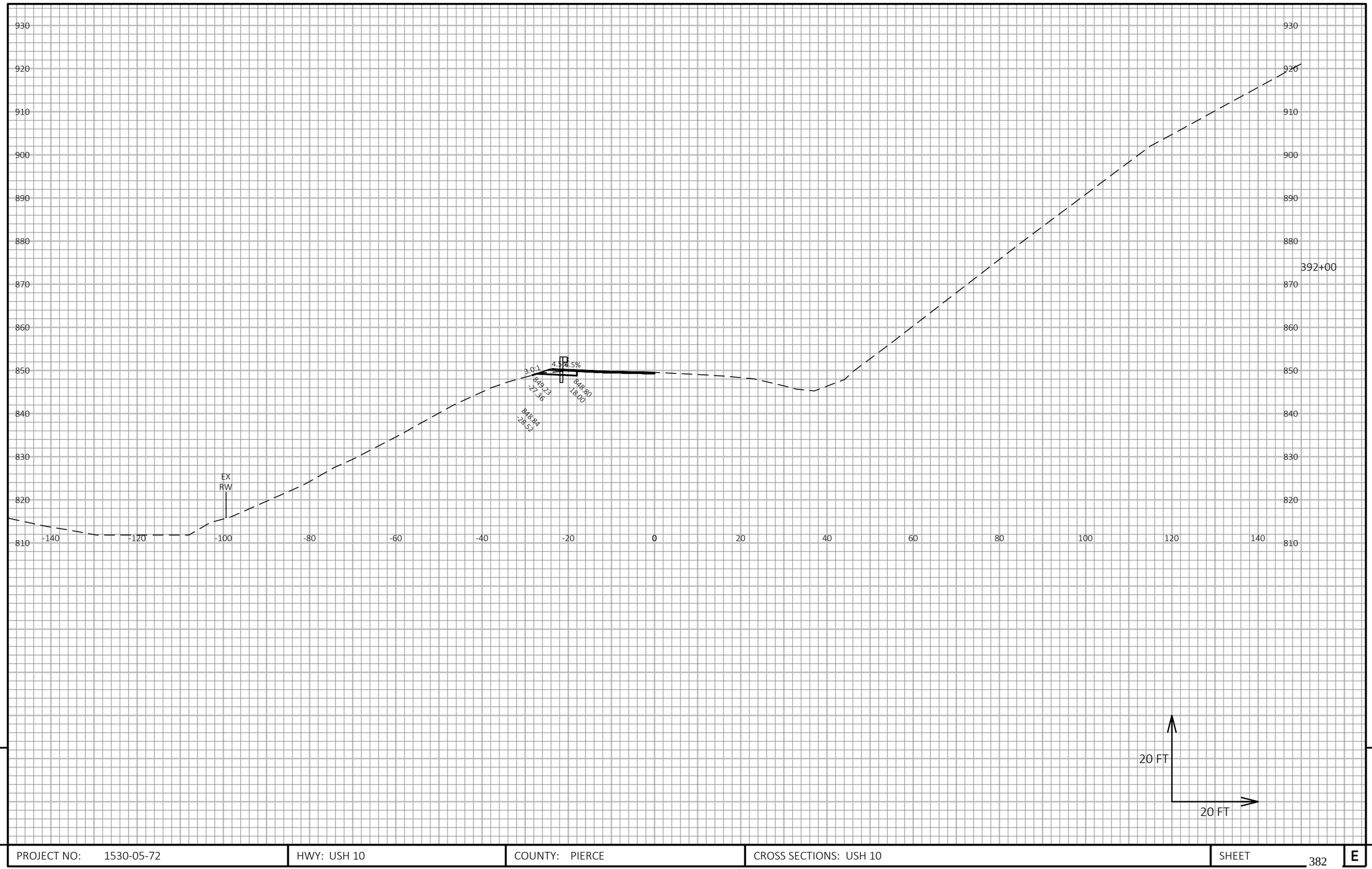
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 381	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 64

PLOT DATE : 2/16/2021 4:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

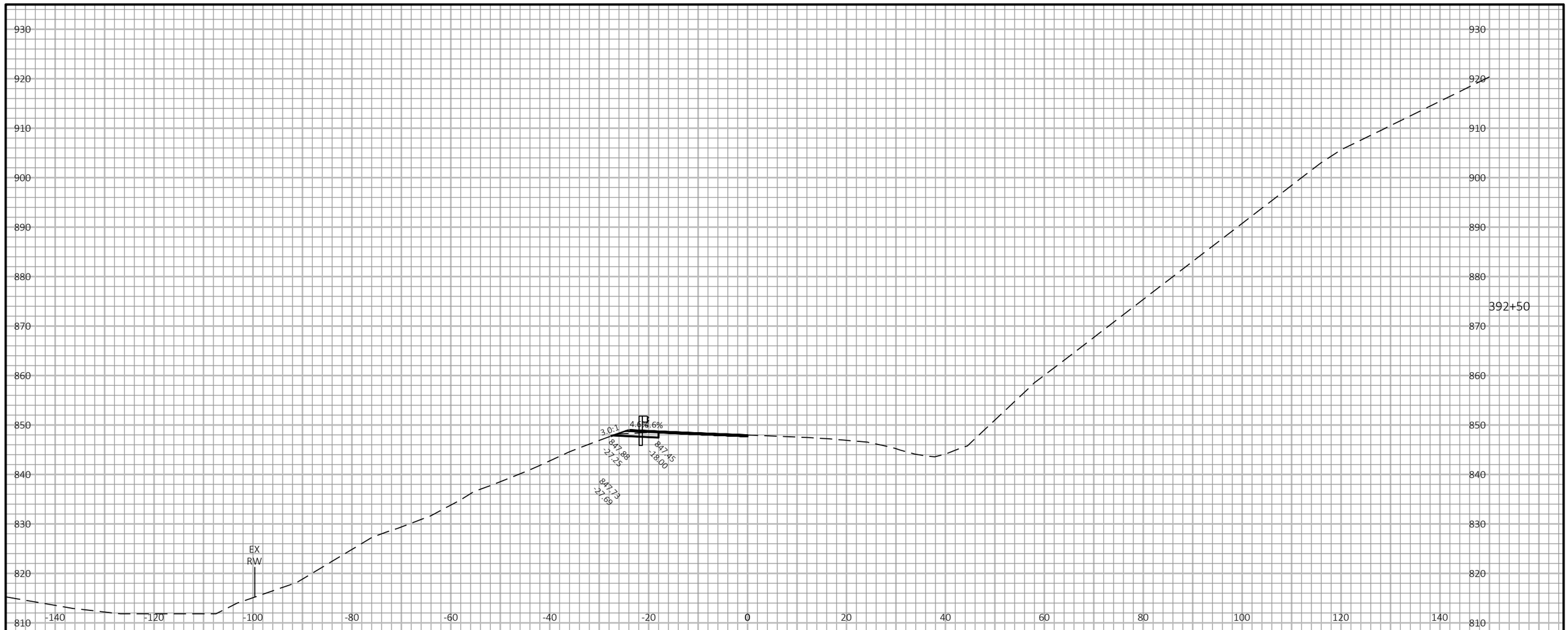
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 382	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 65

PLOT DATE : 2/16/2021 4:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

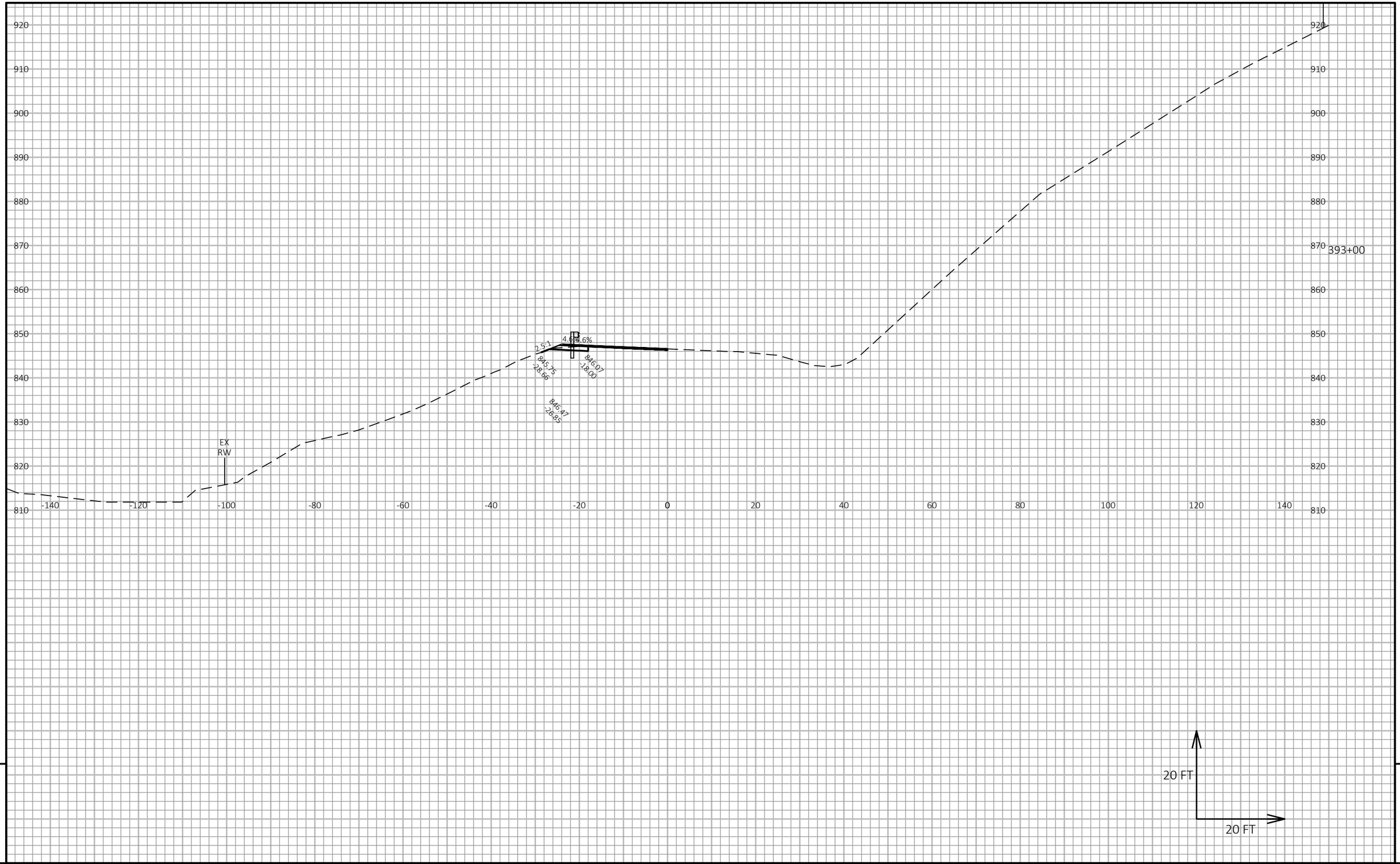
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 383	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 66

PLOT DATE : 2/16/2021 4:58 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 384	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 67

PLOT DATE : 2/16/2021 4:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



20 FT

20 FT

9

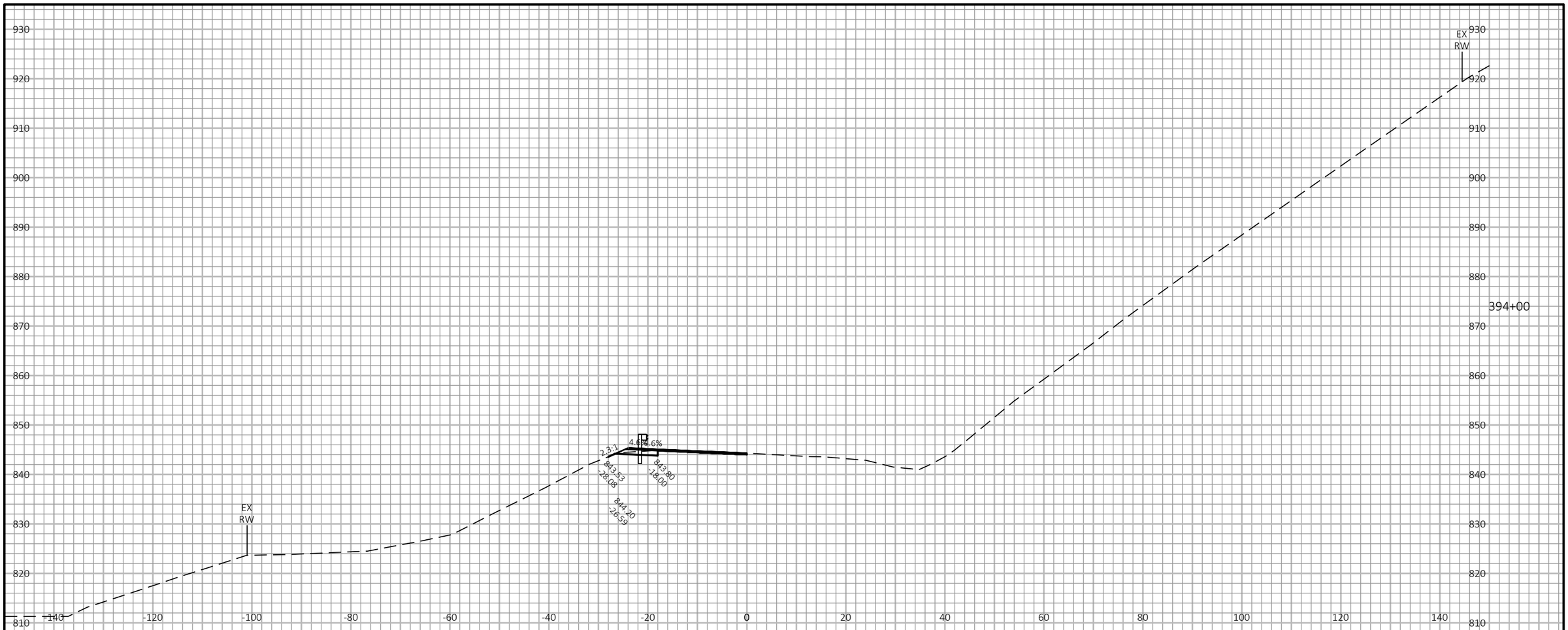
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 385	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 68

PLOT DATE : 2/16/2021 4:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

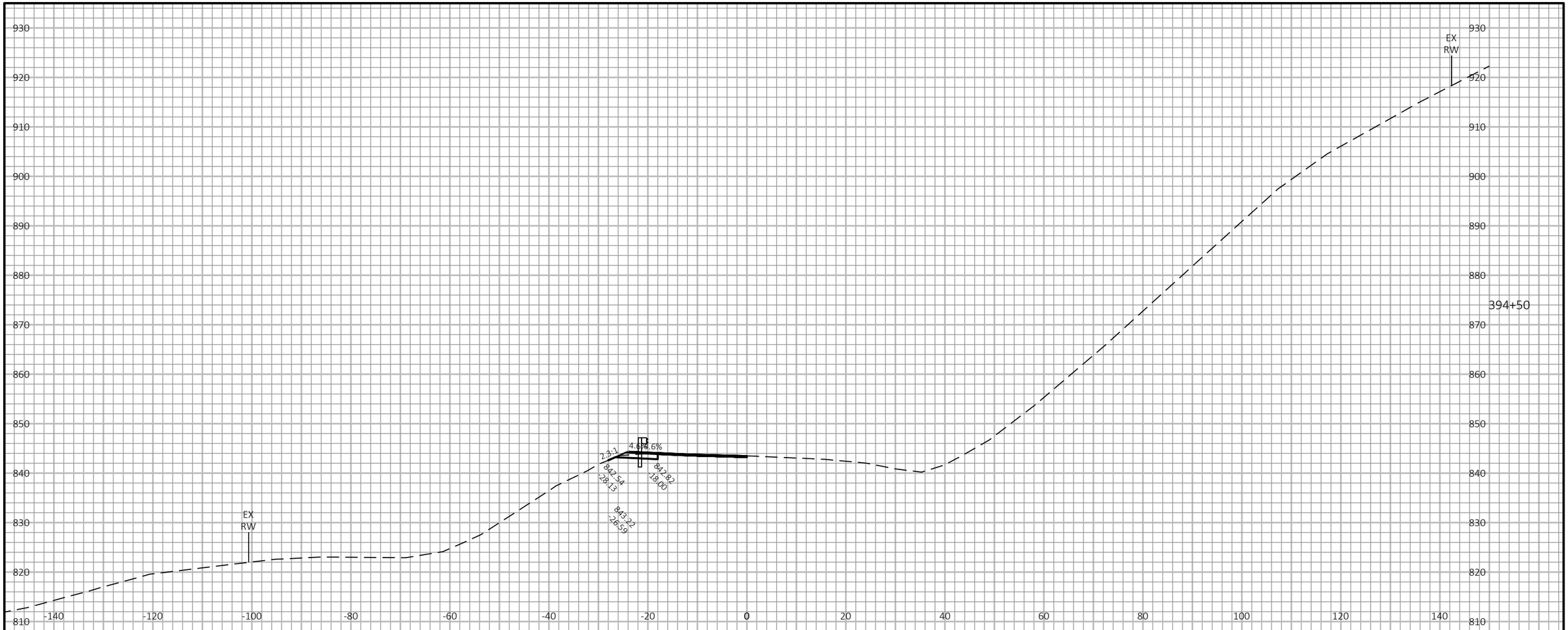
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 386	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 69

PLOT DATE : 2/16/2021 4:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

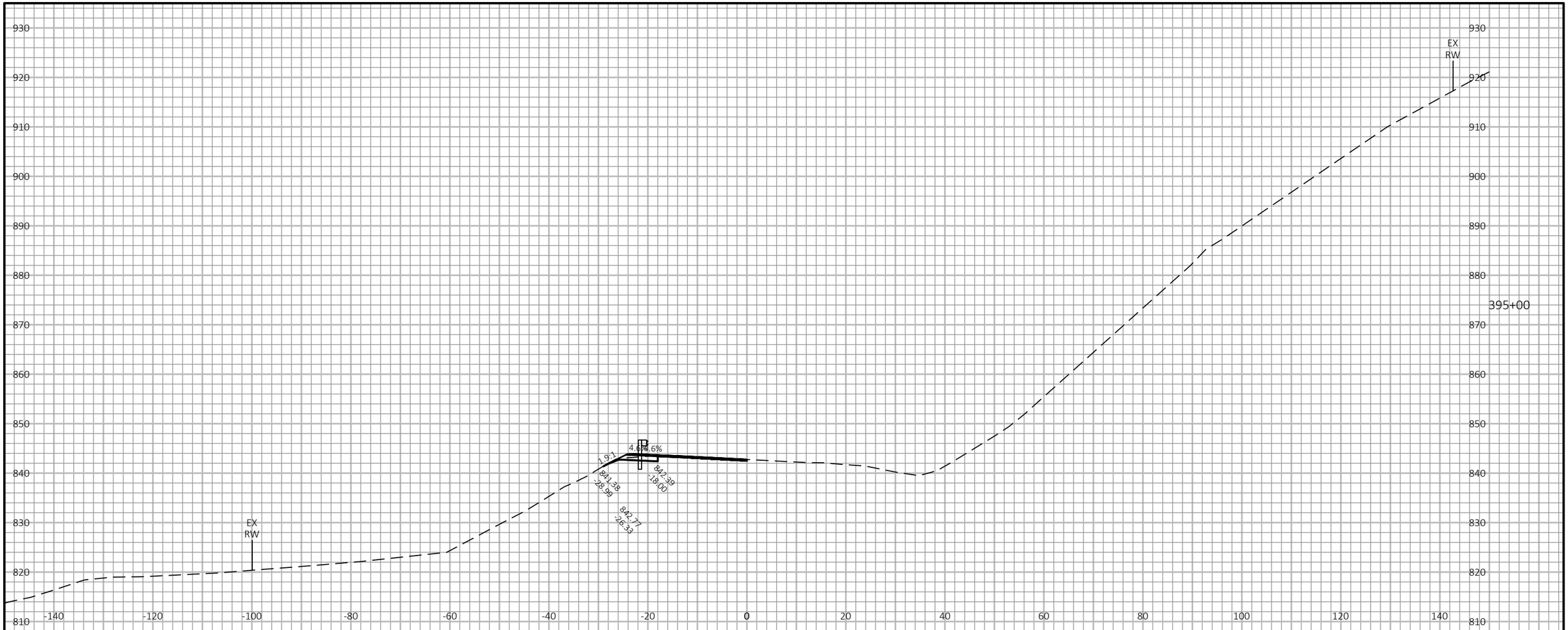
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 387	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 70

PLOT DATE : 2/16/2021 4:59 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

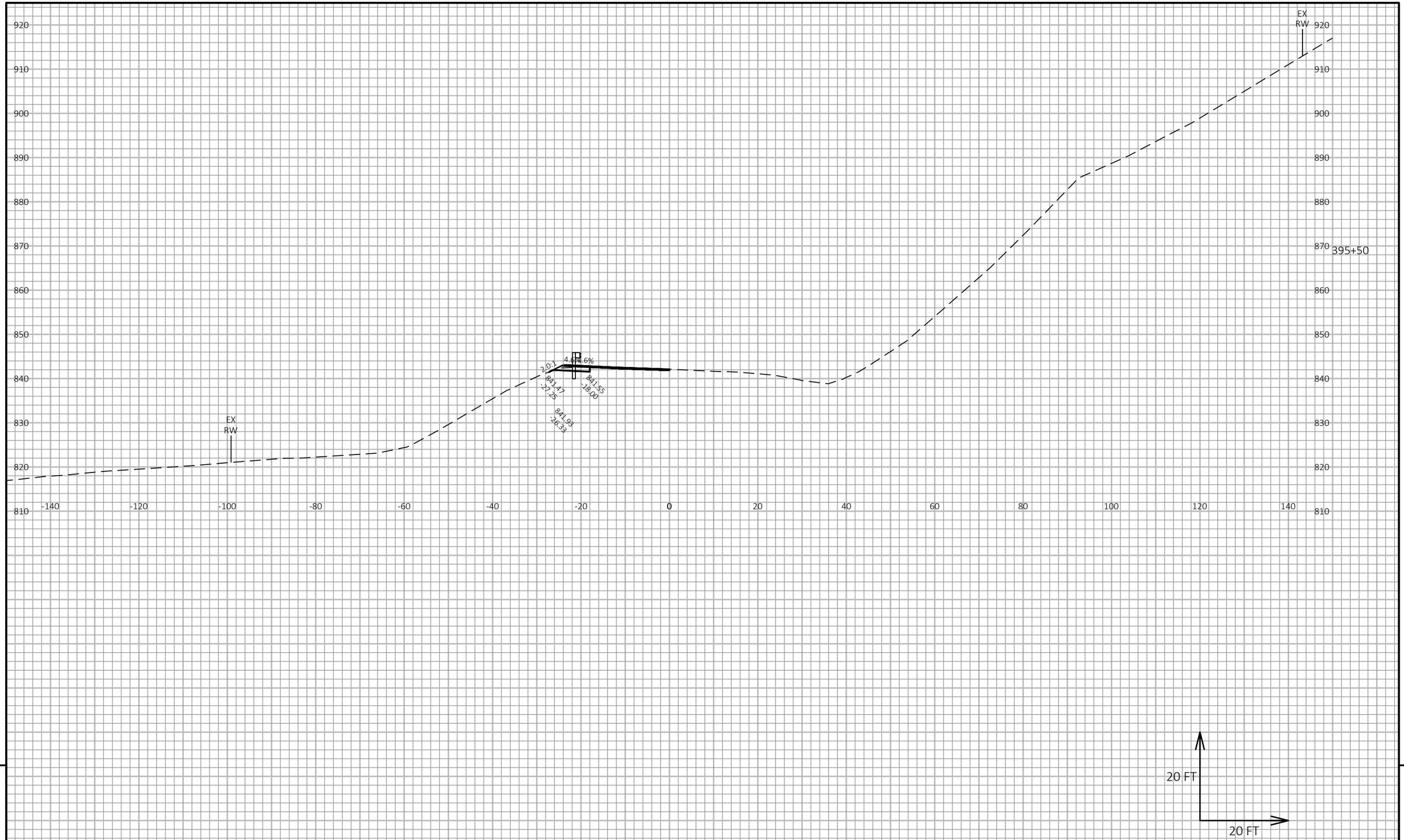
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 388	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 71

PLOT DATE : 2/16/2021 5:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

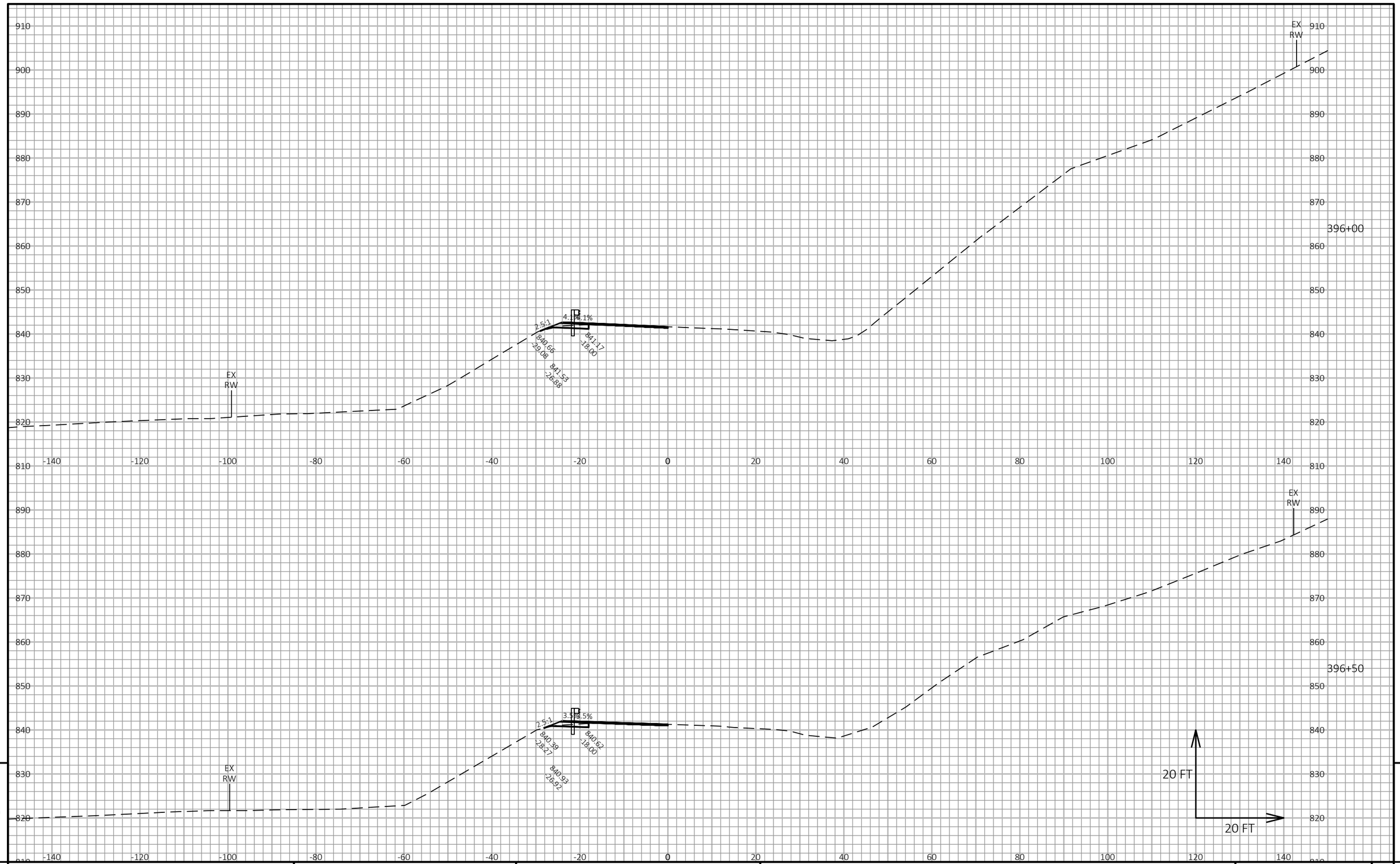
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 389	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 72

PLOT DATE : 2/16/2021 5:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 390	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 73

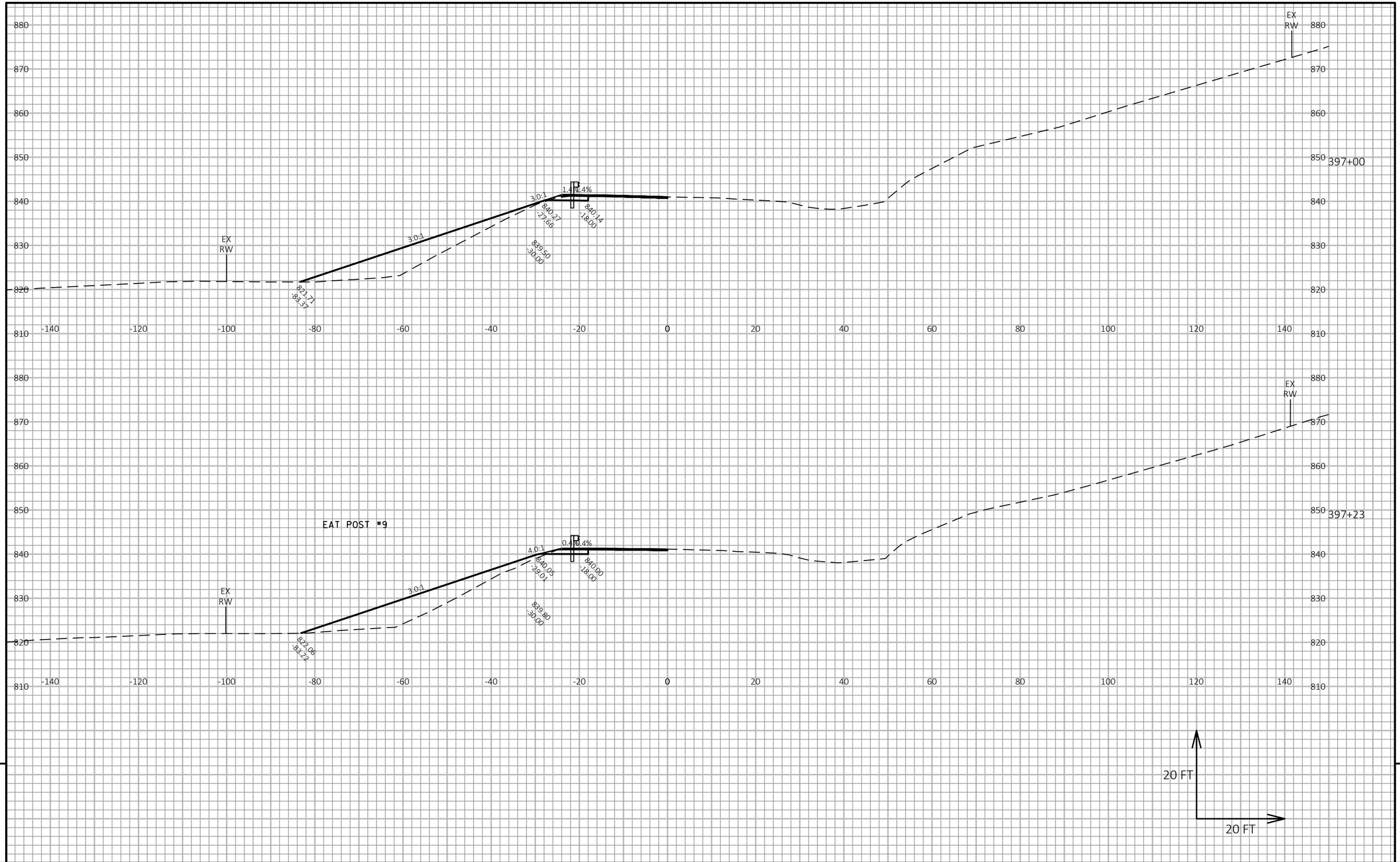
PLOT DATE : 2/16/2021 5:00 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

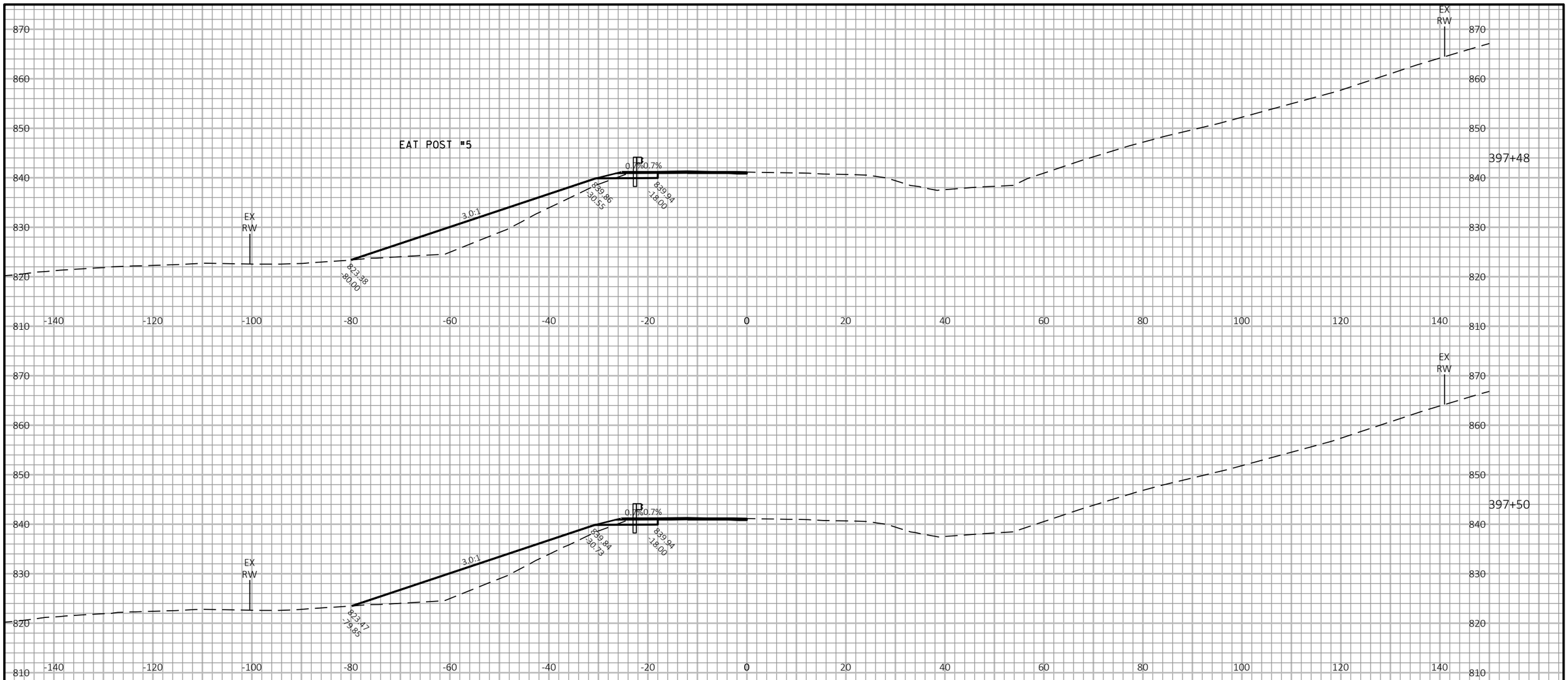
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 391	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 74

PLOT DATE : 2/16/2021 5:00 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 392	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 75

PLOT DATE : 2/16/2021 5:01 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST #1

397+73

EX RW

1.7% 1.7%

3.0:1

839.64
-35.23

839.90
-18.00

824.12
-79.80

398+00

EX RW

2.0% 2.0%

3.0:1

839.63
-31.52

839.90
-18.00

839.98
-60.48

398+50

EX RW

2.8%

4.0:1

4.0:1

839.60
-28.37

839.96
-15.00

834.52
-48.69

839.19
-30.00

20 FT

20 FT

9

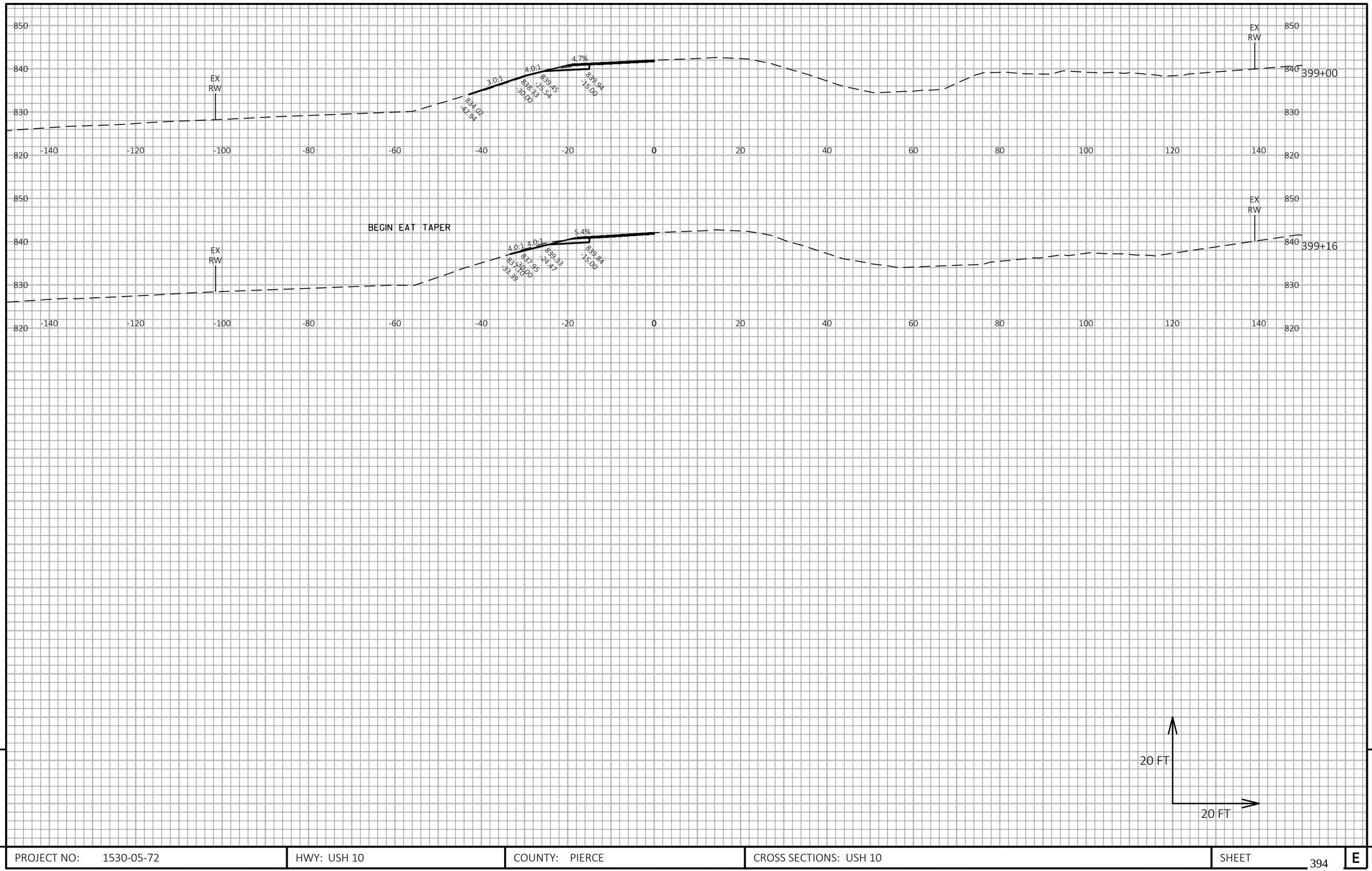
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 393	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 76

PLOT DATE : 2/16/2021 5:01 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 394	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_363-402.DWG
LAYOUT NAME - 77

PLOT DATE : 2/16/2021 5:01 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

BEGIN EAT TAPER

EX RW

4.0:1 4.8% 841.70 -24.31 840.53 -28.78 842.15 -15.00

405+15

EX RW

3.0:1 4.0:1 4.4% 841.50 -20.62 840.62 -30.00 839.11 -37.52 842.01 -15.00

405+50

EX RW

3.0:1 4.0:1 4.8% 4.8% 840.90 -39.99 834.57 -49.13 841.63 -15.00

406+00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 395	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 5:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

406+50

EX RW

EX RW

5.2%

5.2%

3.0:1

840.38
-33.38

841.25
-15.00

824.93
-79.72

406+62

EAT POST #1

EX RW

EX RW

5.3%

5.3%

3.0:1

840.24
-34.20

841.25
-15.00

822.13
-91.55

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 396	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 5:14 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

406+87

EAT POST #5

EX RW

EX RW

3.0:1

5.4%

5.4%

840.90

-31.83

841.22

-15.00

820.70

-90.53

407+00

EX RW

EX RW

3.0:1

5.5%

5.5%

840.24

-31.20

841.14

-15.00

821.40

-97.72

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 397	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 5:14 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EAT POST #9

EX RW

EX RW

822.86
822.47

3.0:1

840.15
-30.60

5.6% 5.6%

841.09
-15.00

407+12

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 398	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 5:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

407+50

5.9%

3.07

837.46
36.03

839.92
28.96

840.73
15.00

20 FT

20 FT

9

9

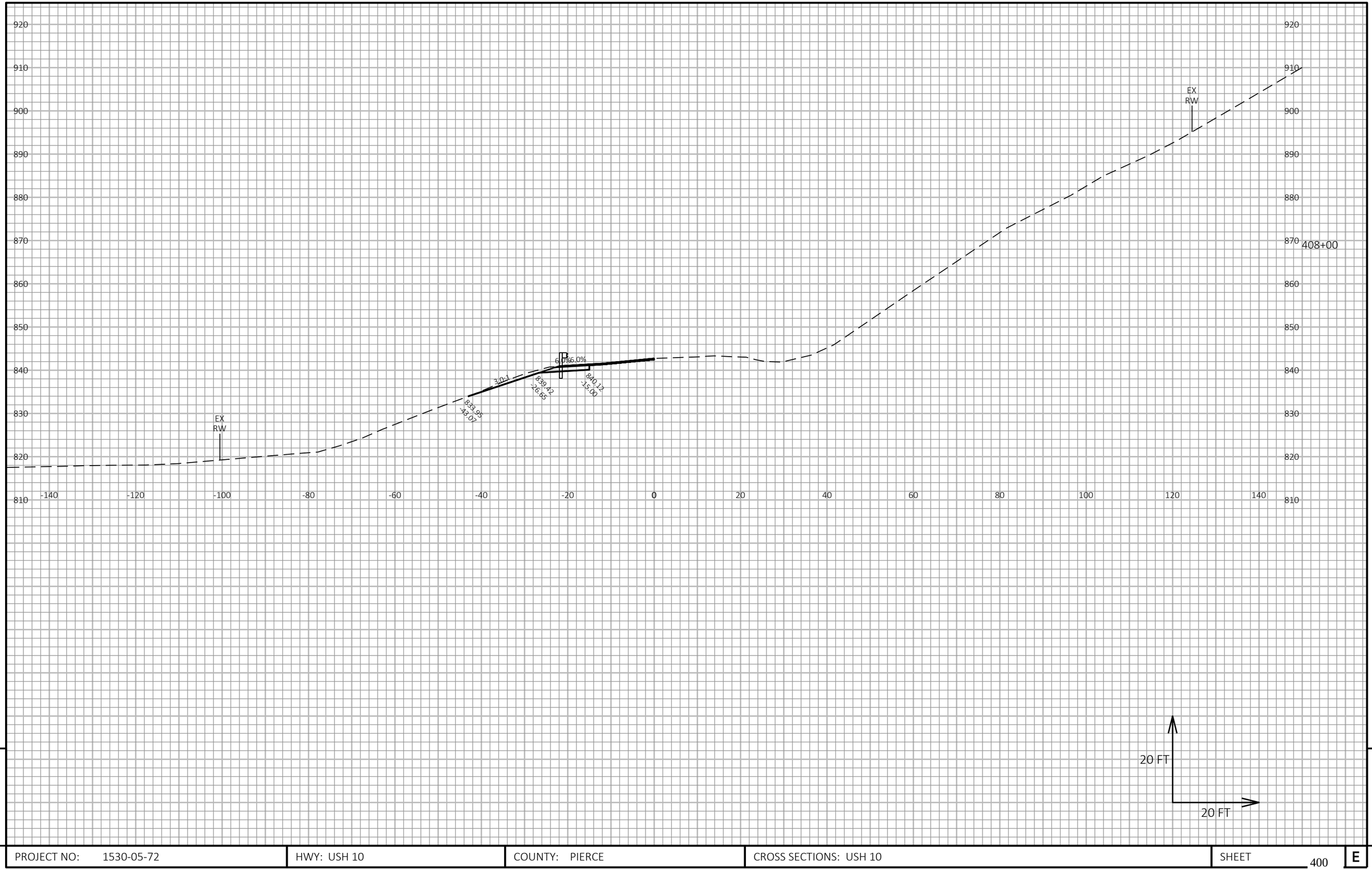
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 399	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 5:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 400	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 5:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

835.31
37.90

839.06
216.65

839.46
20.00

408+50

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 401	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 5:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

409+00

6.0%
3.0:1
838.69
836.89
839.09
-32.07
-21.65
-20.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 402	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 5:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

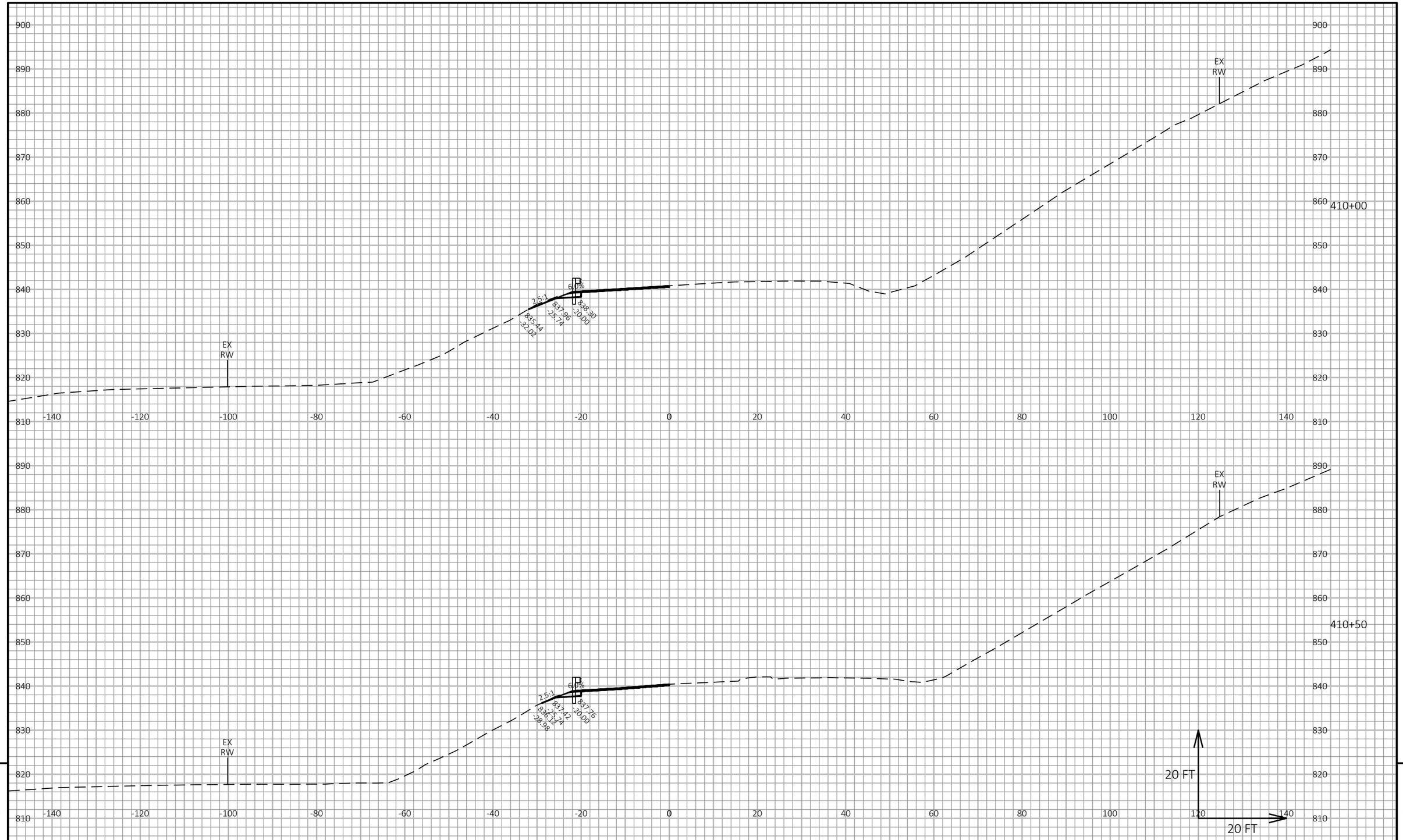
910
900
890
880
870
860
850
840
830
820
810
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140
EX RW
EX RW
409+50
6.0%
20:1
838.23
26.65
836.83
30.84
838.63
20.00
20 FT
20 FT
9
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 403	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 5:16 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



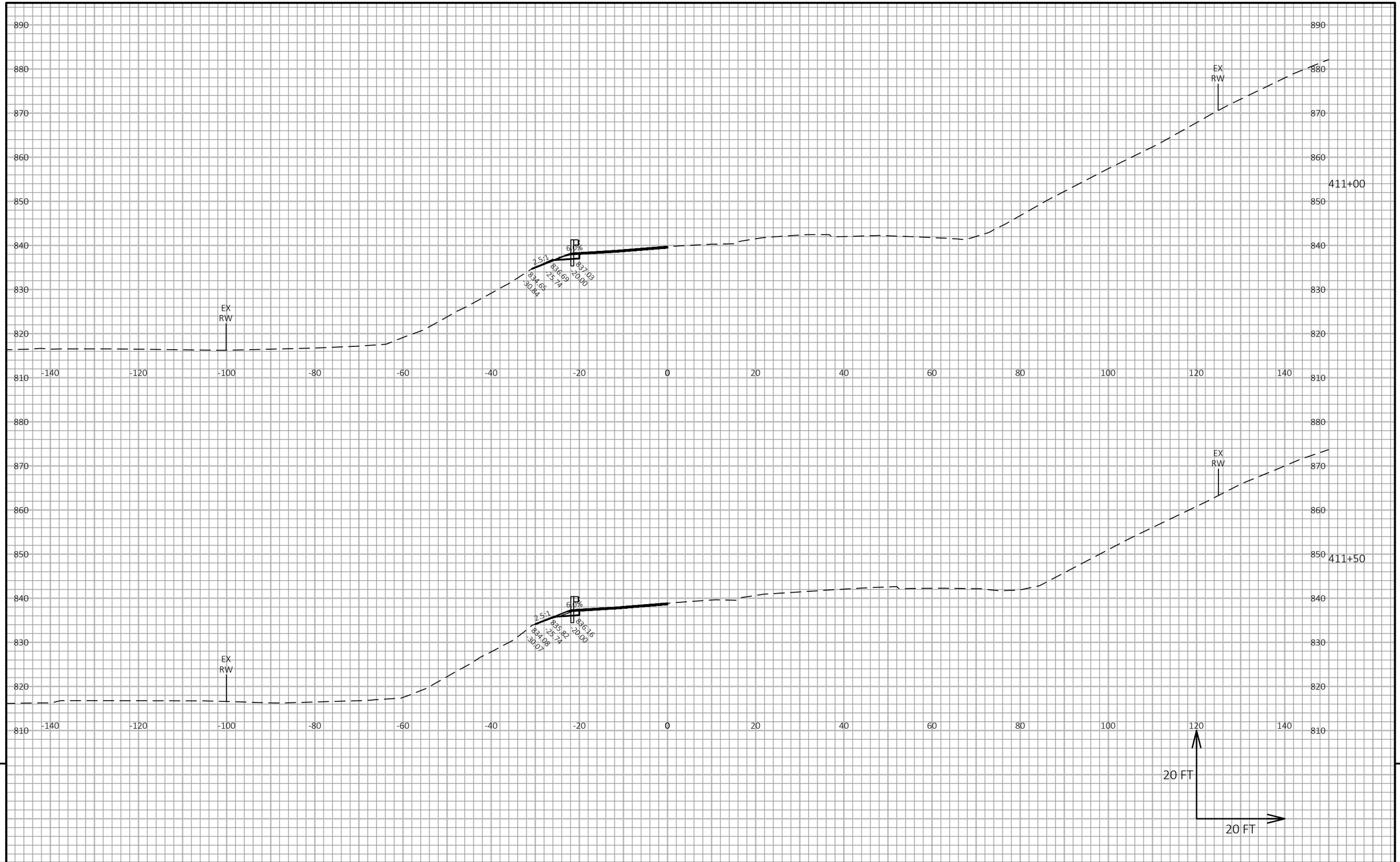
9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 404	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 5:16 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 405	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 5:16 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

412+00

EX RW

EX RW

6.0%

835.62
-20.00

835.28
-25.74

2.5:1

815.52
-73.12

412+50

EX RW

EX RW

6.0%

835.05
-20.00

834.71
-25.74

2.5:1

815.74
-73.35

413+00

EX RW

EX RW

6.0%

834.78
-20.00

834.43
-25.74

2.5:1

816.27
-74.14

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 406	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 21

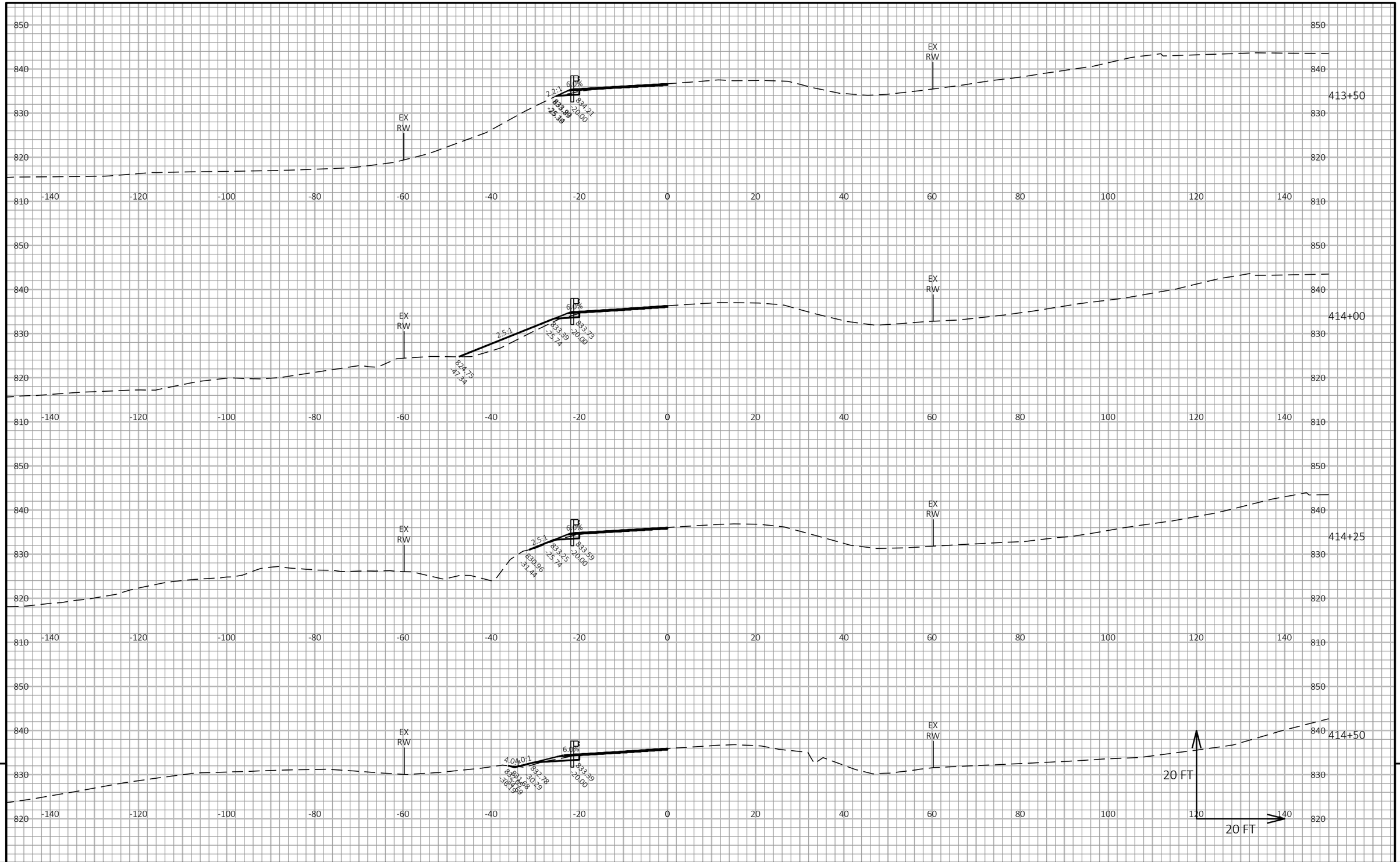
PLOT DATE : 2/16/2021 5:16 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 407	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 5:17 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EAT POST #9

EX RW

EX RW

414+52

4.0:1

6.0%

832.74
-30.42

833.36
-20.00

EAT POST #5

EX RW

EX RW

414+78

4.0:1

6.0%

832.36
-32.10

833.38
-15.00

831.86
-34.10

EX RW

EX RW

415+00

6.0%

832.05
-34.35

833.21
-15.00

EAT POST #1

EX RW

EX RW

415+03

6.0%

832.01
-34.61

833.18
-15.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 408	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 23

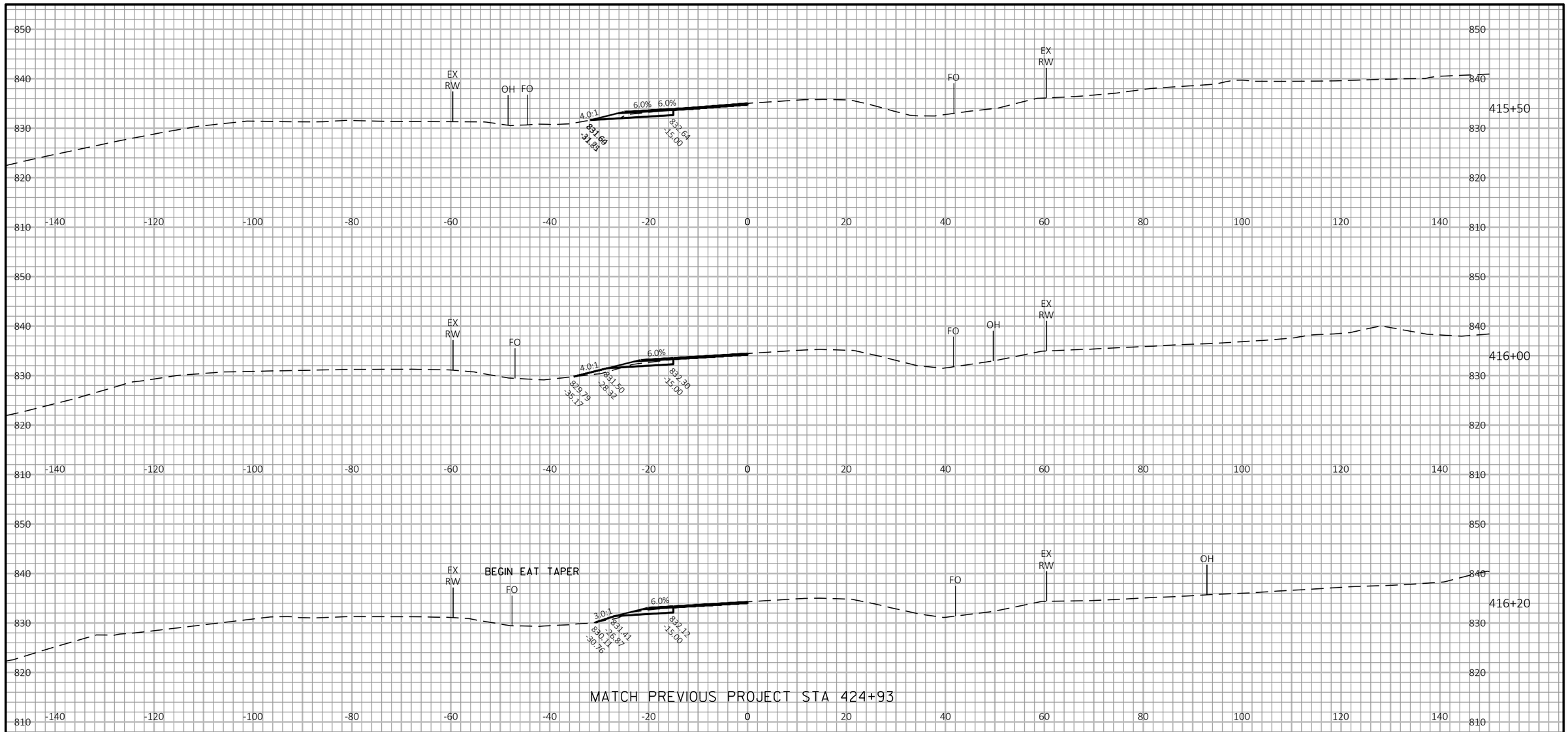
PLOT DATE : 2/16/2021 5:17 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

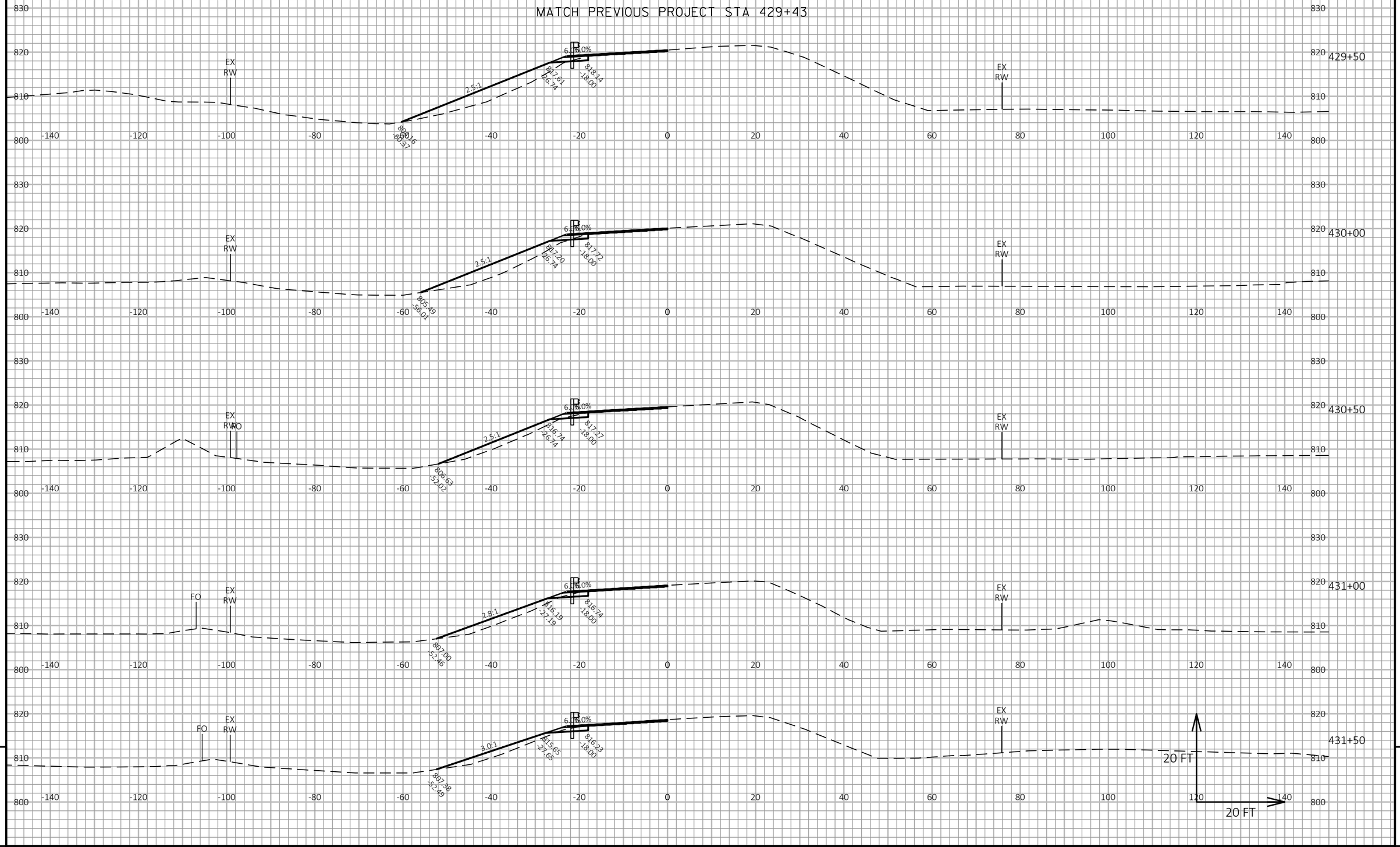
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 409	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_405-415.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 5:17 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

MATCH PREVIOUS PROJECT STA 429+43

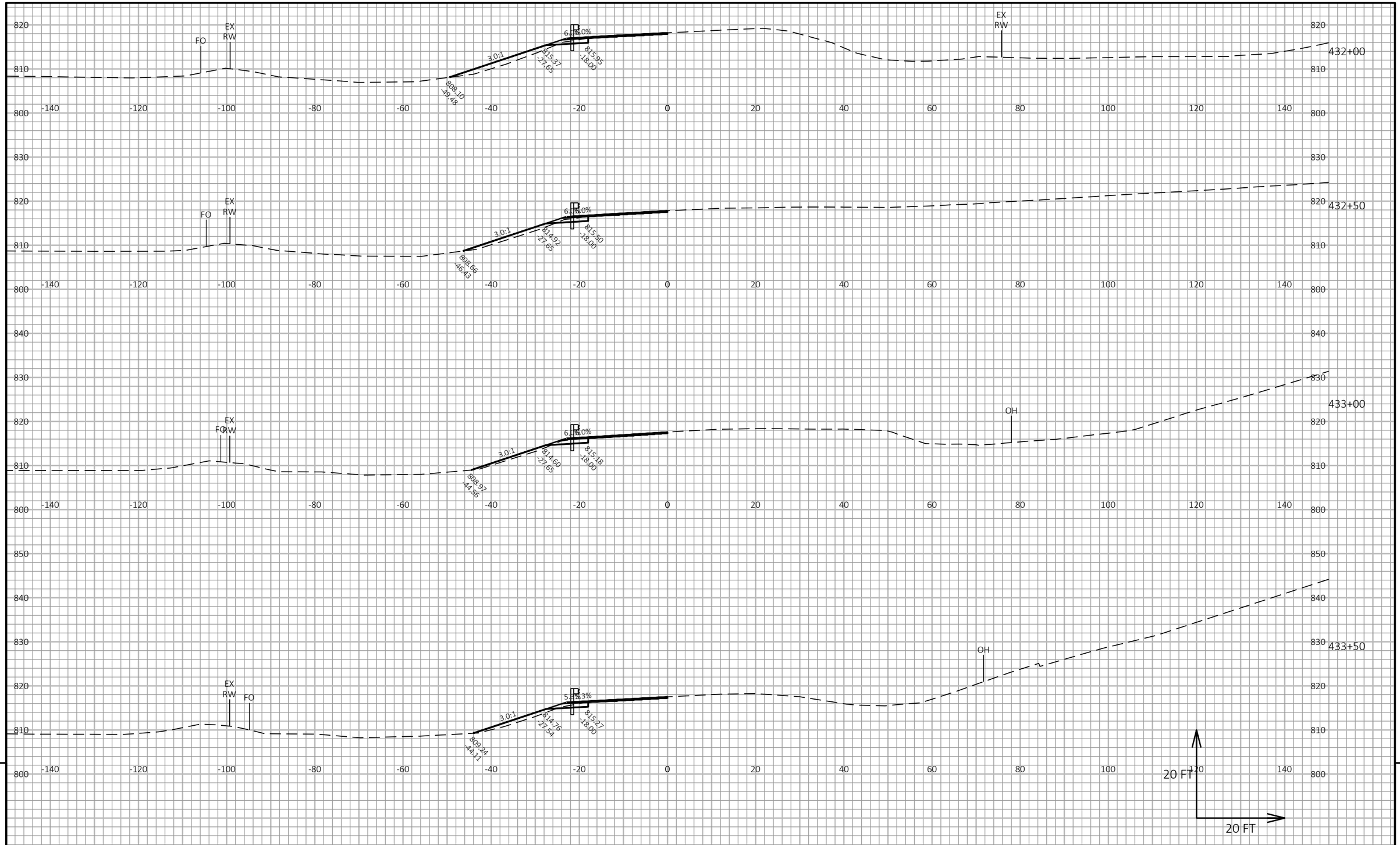


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 410	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_1.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 5:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

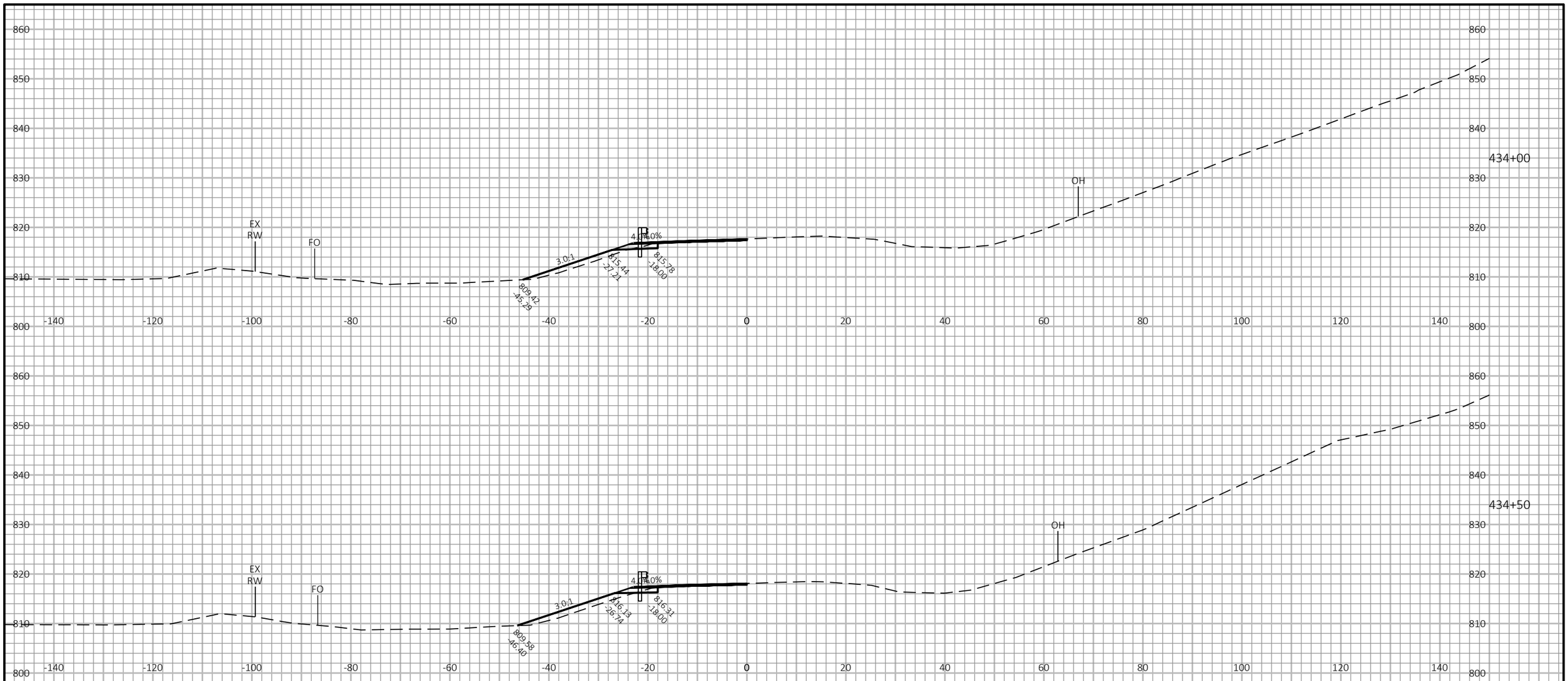
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 411	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_1.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 5:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

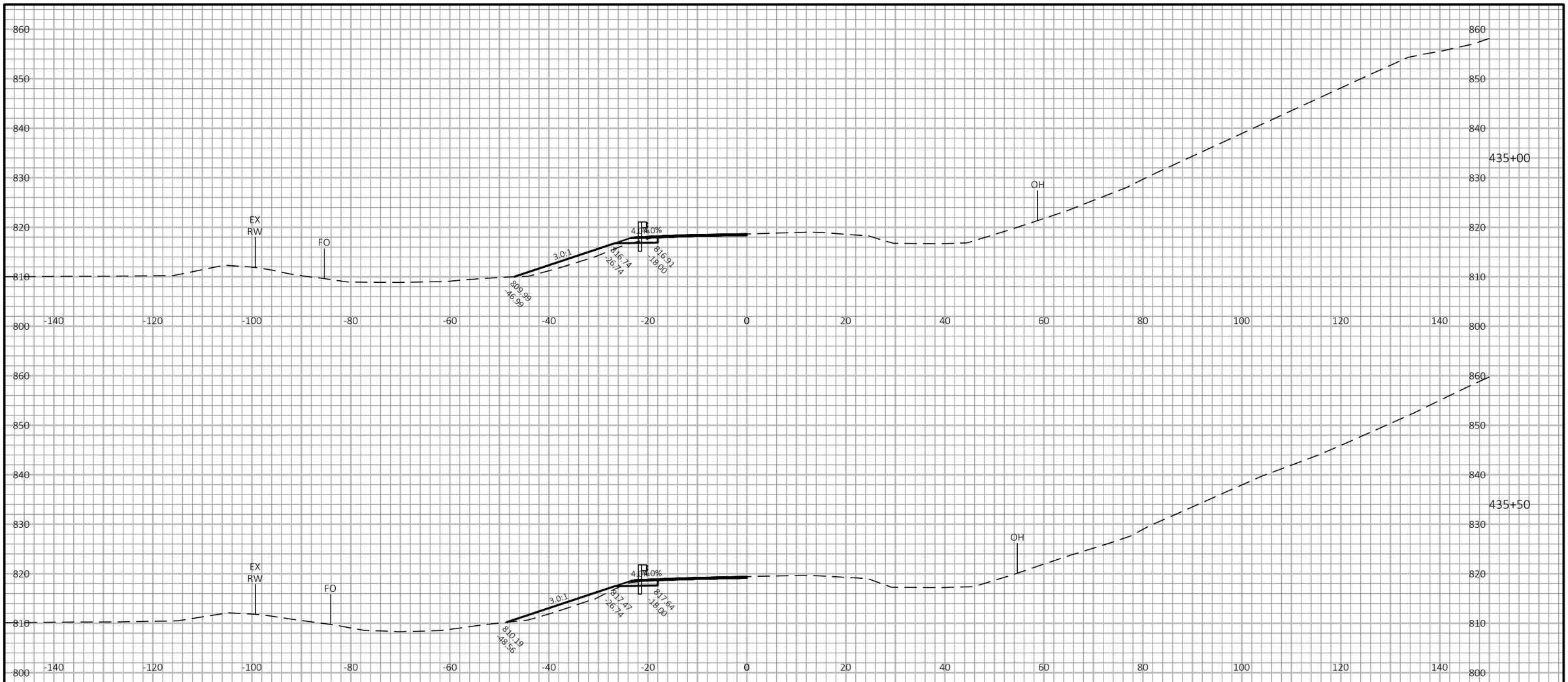
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 412	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_1.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 5:14 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

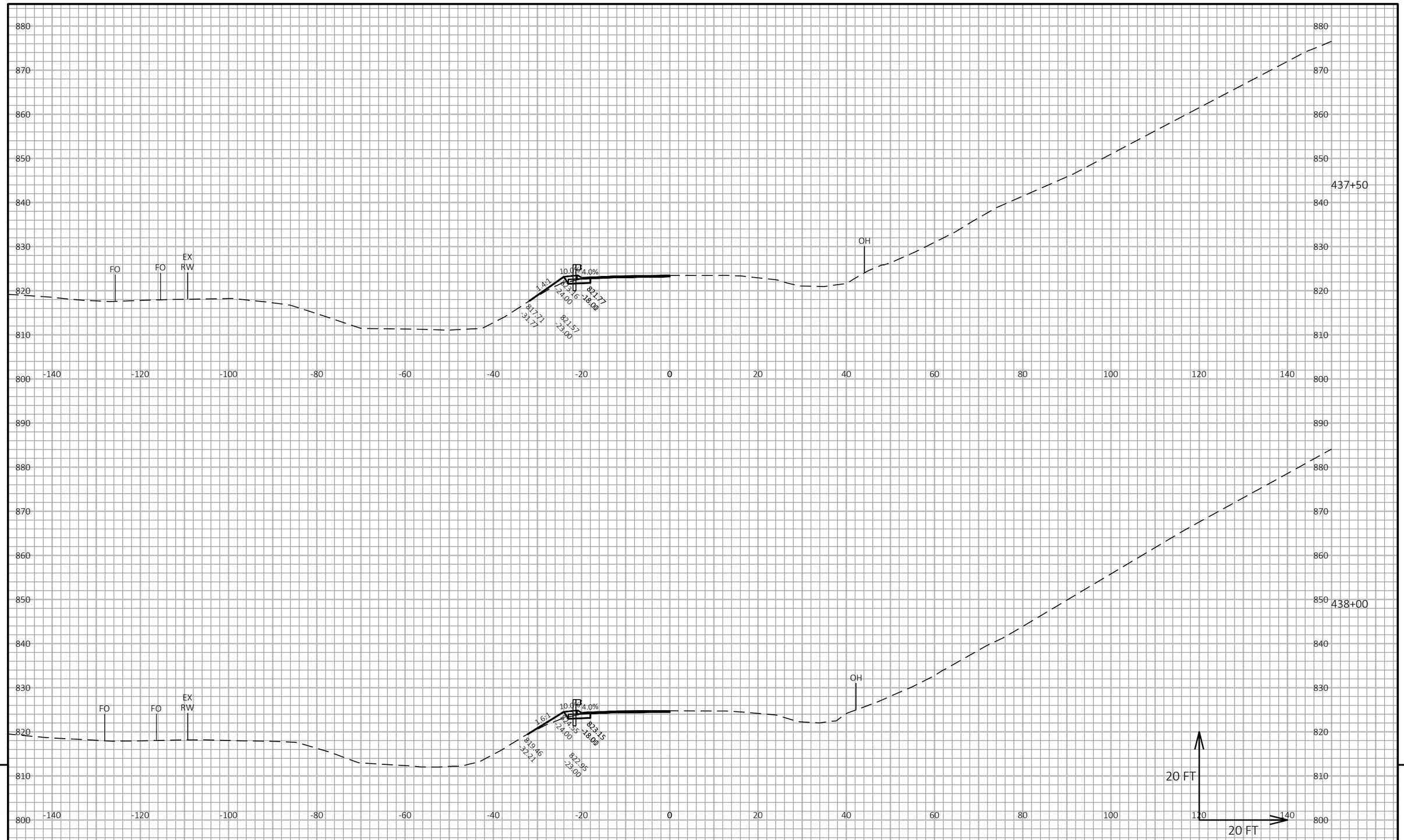


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 413	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_1.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 5:15 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

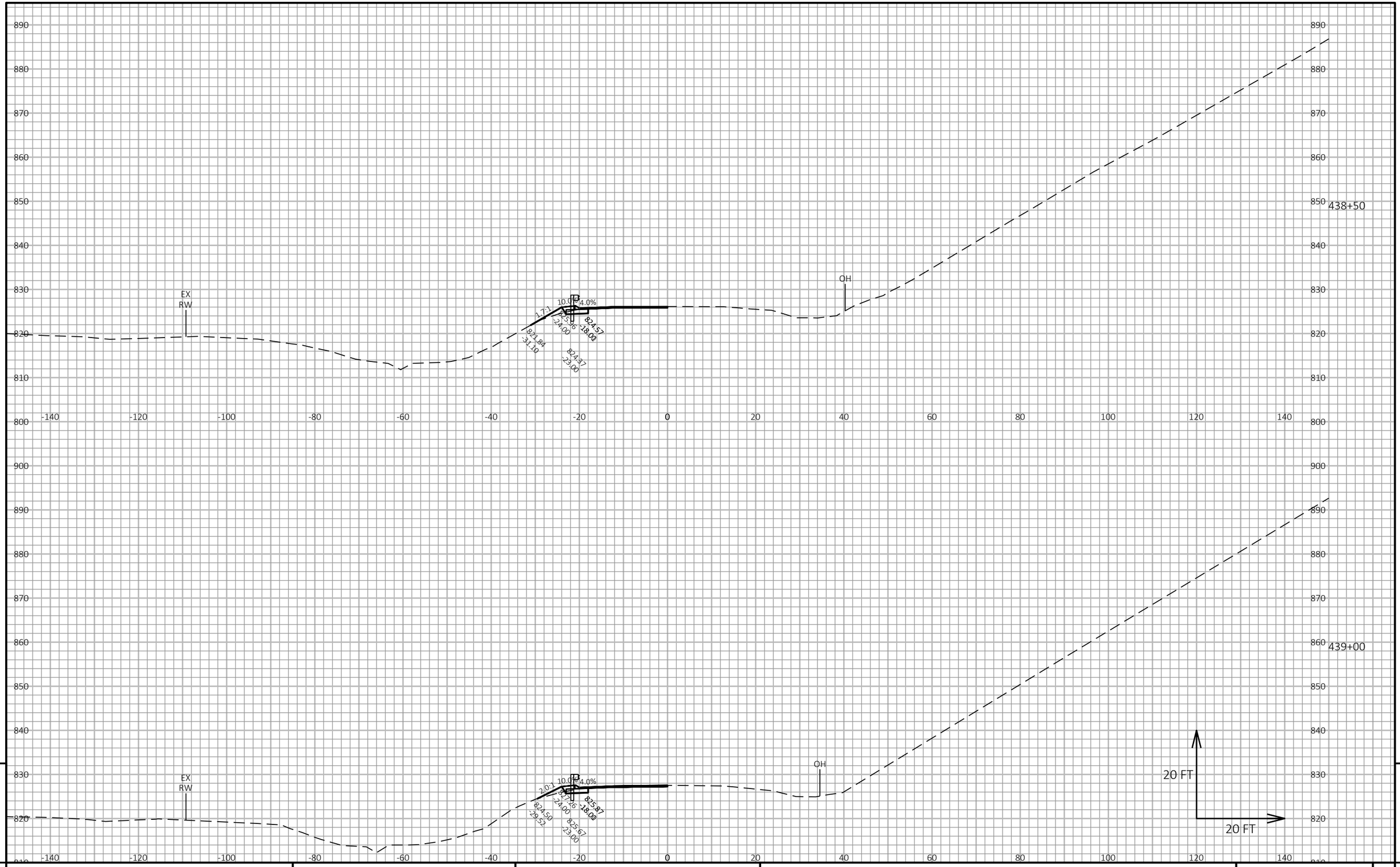


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 414	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 5:17 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 415	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 5:17 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

439+50

EX RW

OH

2.0:1 10.0 4.0%

826.11 -24.00 -28.55

826.38 -19.00

826.99

826.79 -23.00

440+00

EX RW

OH

2.0:1 10.0 4.0%

825.40 -22.90

827.91 -23.00

828.11 -18.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 416	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 5:18 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX
RW

OH

10.0%

4.0%

1.0:1

829.33
18.00

829.13
23.00

825.59
24.00

824.68

440+50

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 417	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 5:18 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

441+00

EX
RW

OH

10.0%
4.0%
7.8:1
823.52
-26.64
831.36
-24.00
830.49
-18.00
830.29
-23.00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 418	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 5:18 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

441+50

EX
RW

OH

10.0
4.0%
831.65
-18.00
831.45
-23.00
825.80
-36.52
-24.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 419	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 5:18 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX
RW

OH

2.0:1

10.0%

4.0%

832.80
-18.00

834.19
-24.00

832.64
-47.11

832.60
-23.00

442+00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 420	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 5:19 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

910
900
890
880
870
860
850
840
830
820
810

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

442+50

EX
RW

OH

2.0:1

10.0

4.0%

835.24
-24.00

833.75
-23.00

833.95
-18.00

833.81
-47.07

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 421	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 17

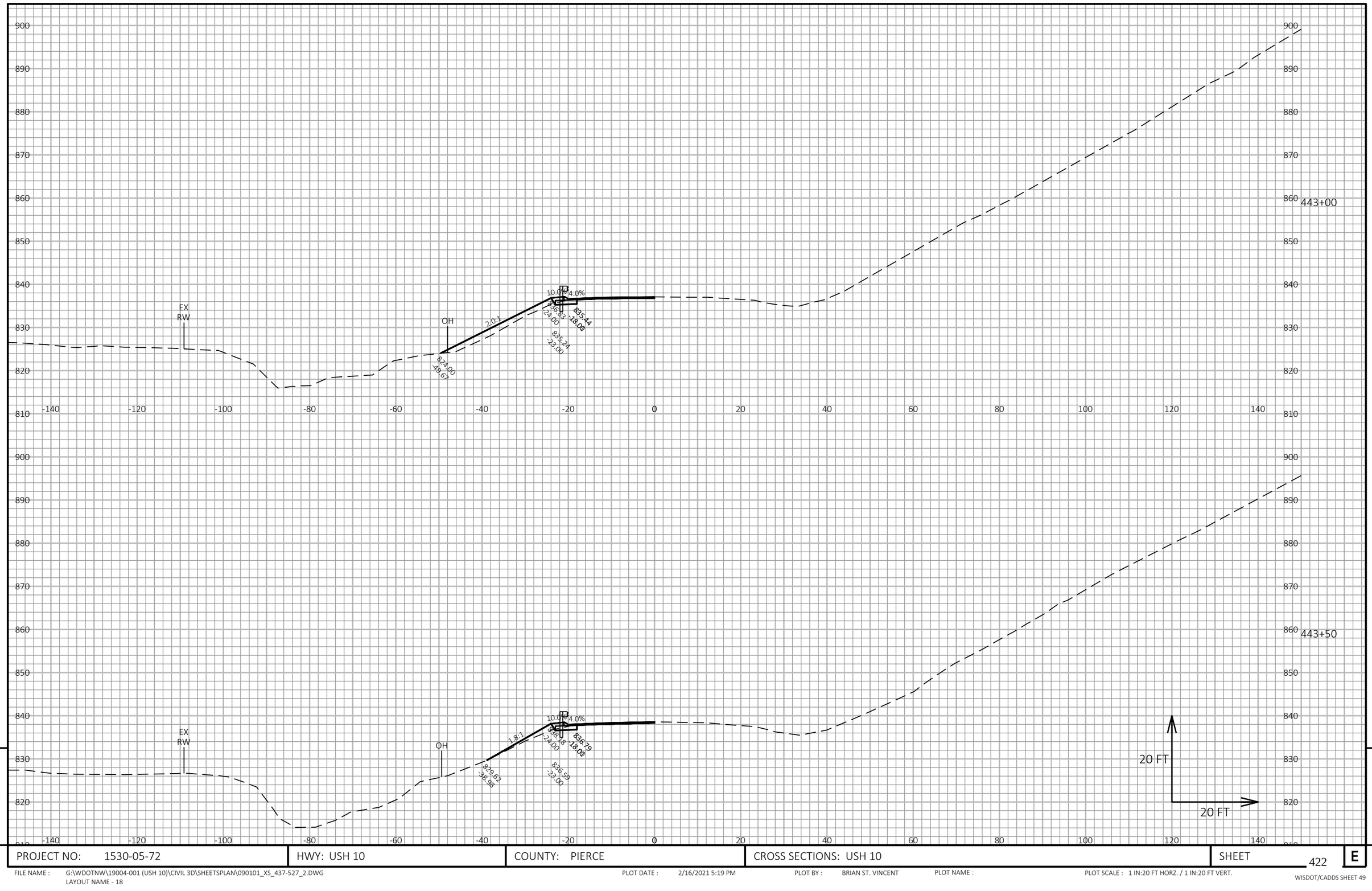
PLOT DATE : 2/16/2021 5:19 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 422	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 18

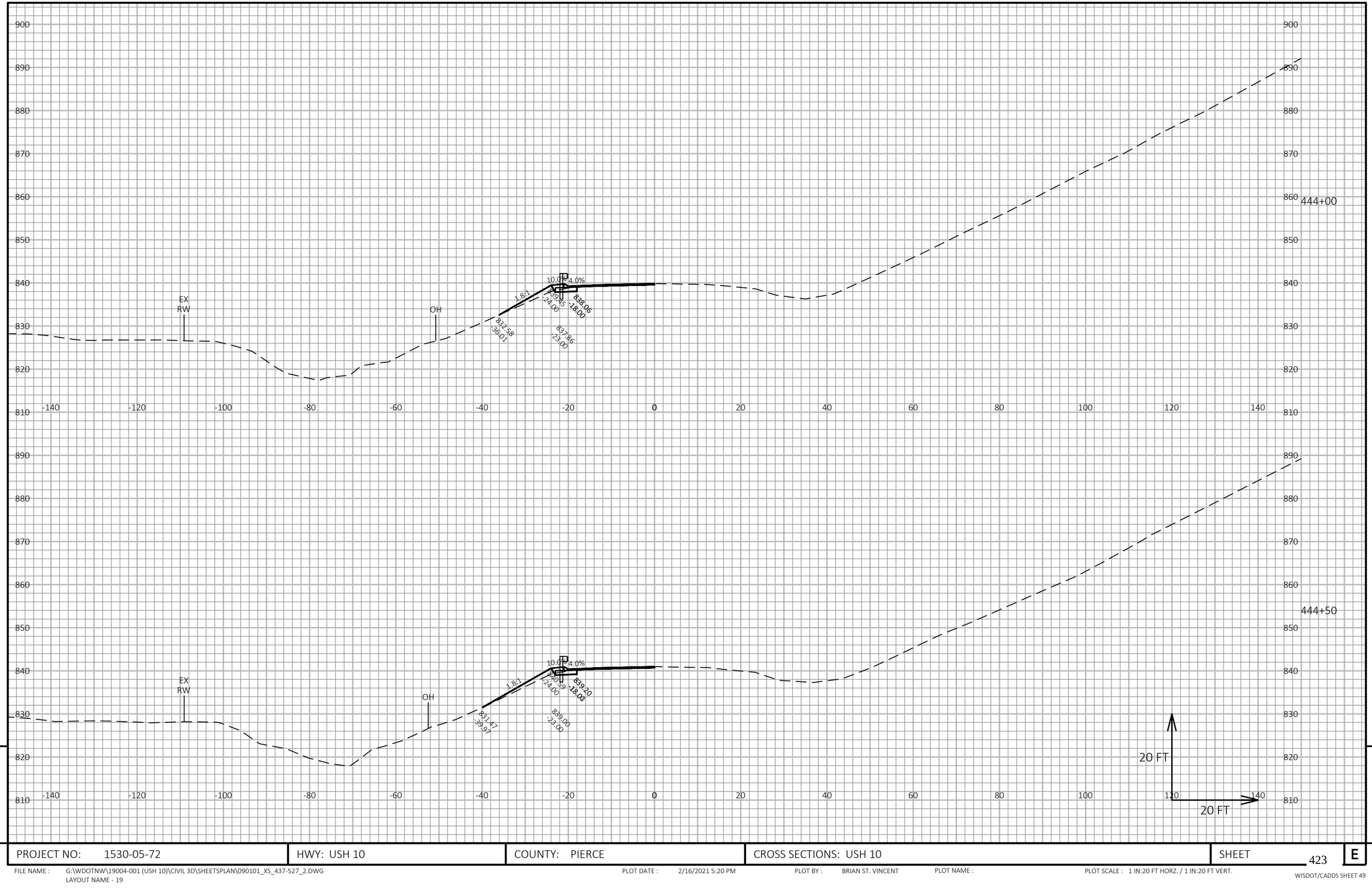
PLOT DATE : 2/16/2021 5:19 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



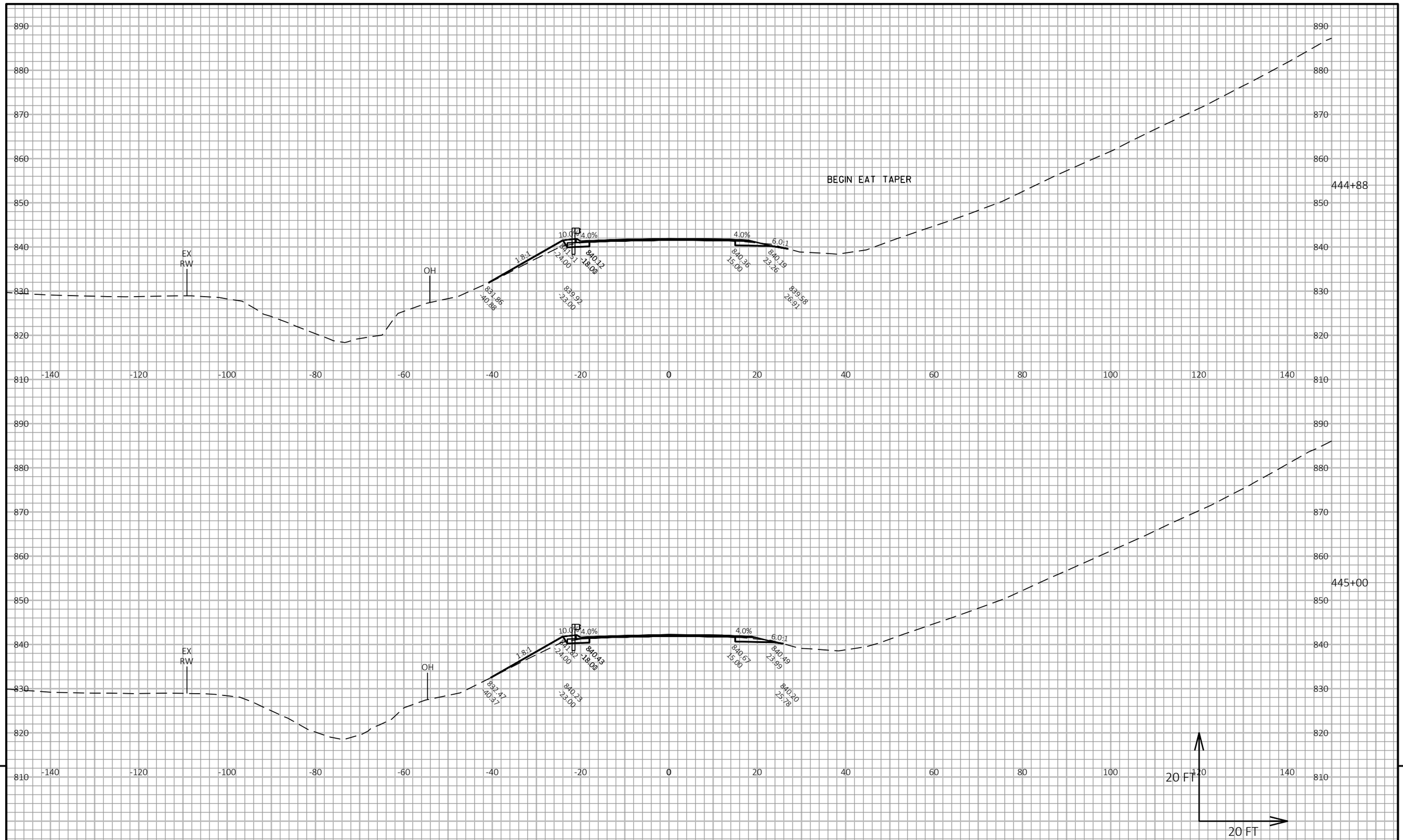
9 9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 423	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

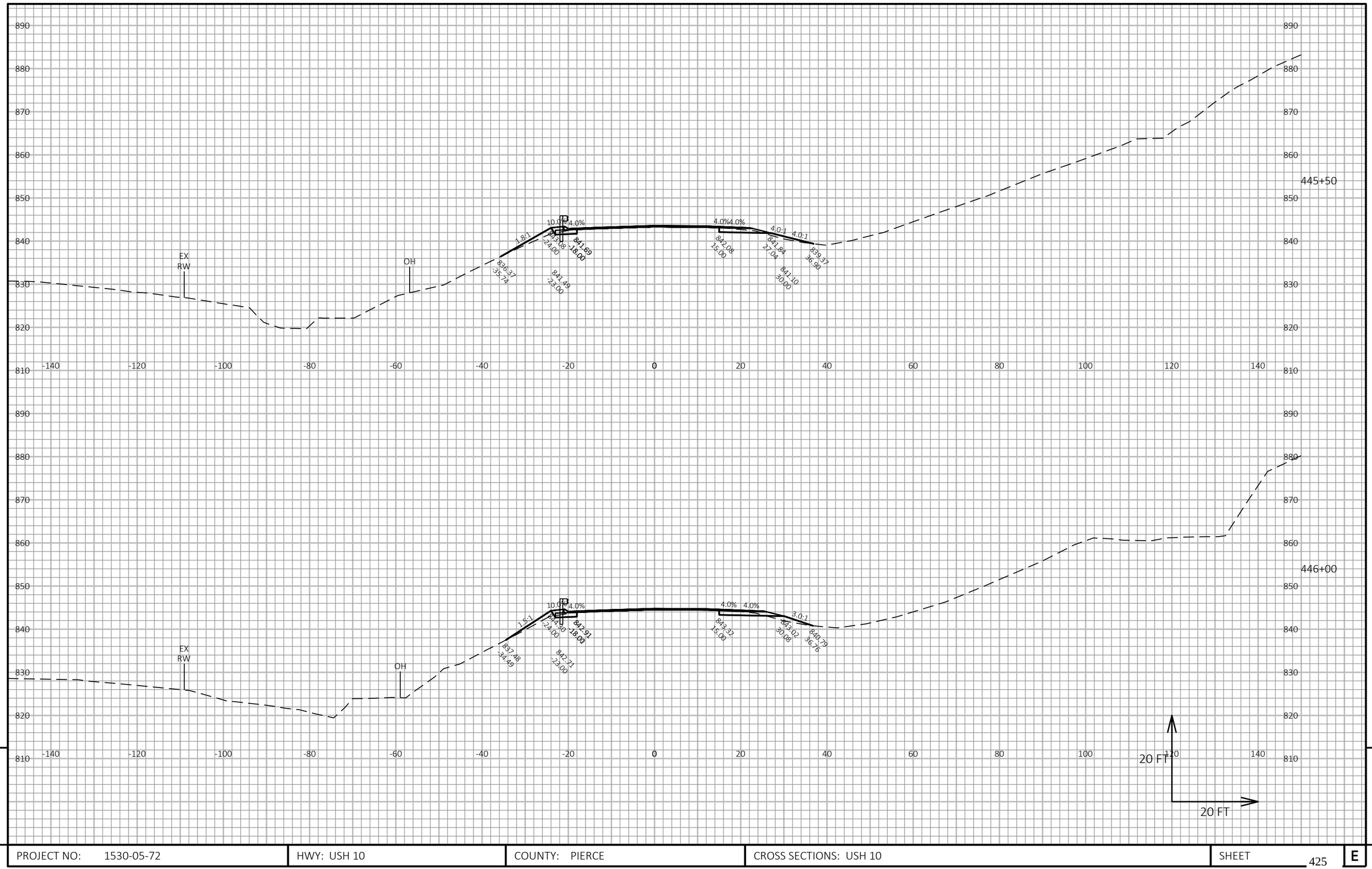


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 424	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

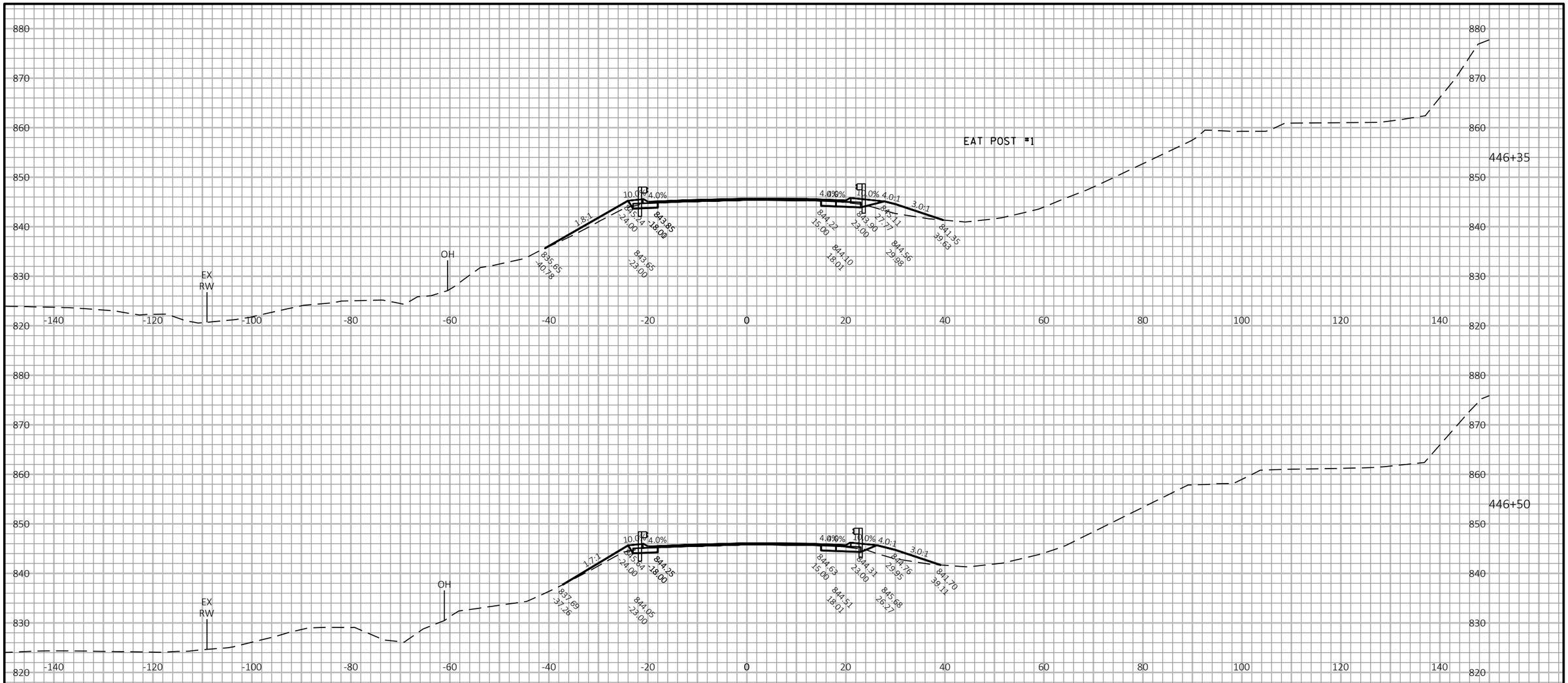


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 425	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 426	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST #5

446+60

EX RW

OH

10.0% 4.0% 1:7:1 838.89 35.66 844.50 18.00 844.30 23.00 4.0% 4.0% 10.0% 4.0:1 3:0:1 844.89 15.00 844.57 23.00 844.88 29.93 844.82 39.11 844.77 18.01 846.08 25.33

EAT POST #9

446+85

EX RW

OH

10.0% 4.0% 1:7:1 841.03 35.17 845.14 18.00 844.94 23.00 4.0% 4.0% 10.0% 4.0:1 3:0:1 845.52 15.00 845.20 23.00 845.30 30.00 842.42 38.63 845.40 18.01 846.80 24.00

447+00

EX RW

OH

10.0% 4.0% 1:8:1 839.59 36.88 845.56 18.00 845.36 23.00 4.0% 4.0% 10.0% 3:0:1 845.91 15.00 845.59 23.00 843.27 35.74 845.79 18.01 847.19 24.00

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 427	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 23

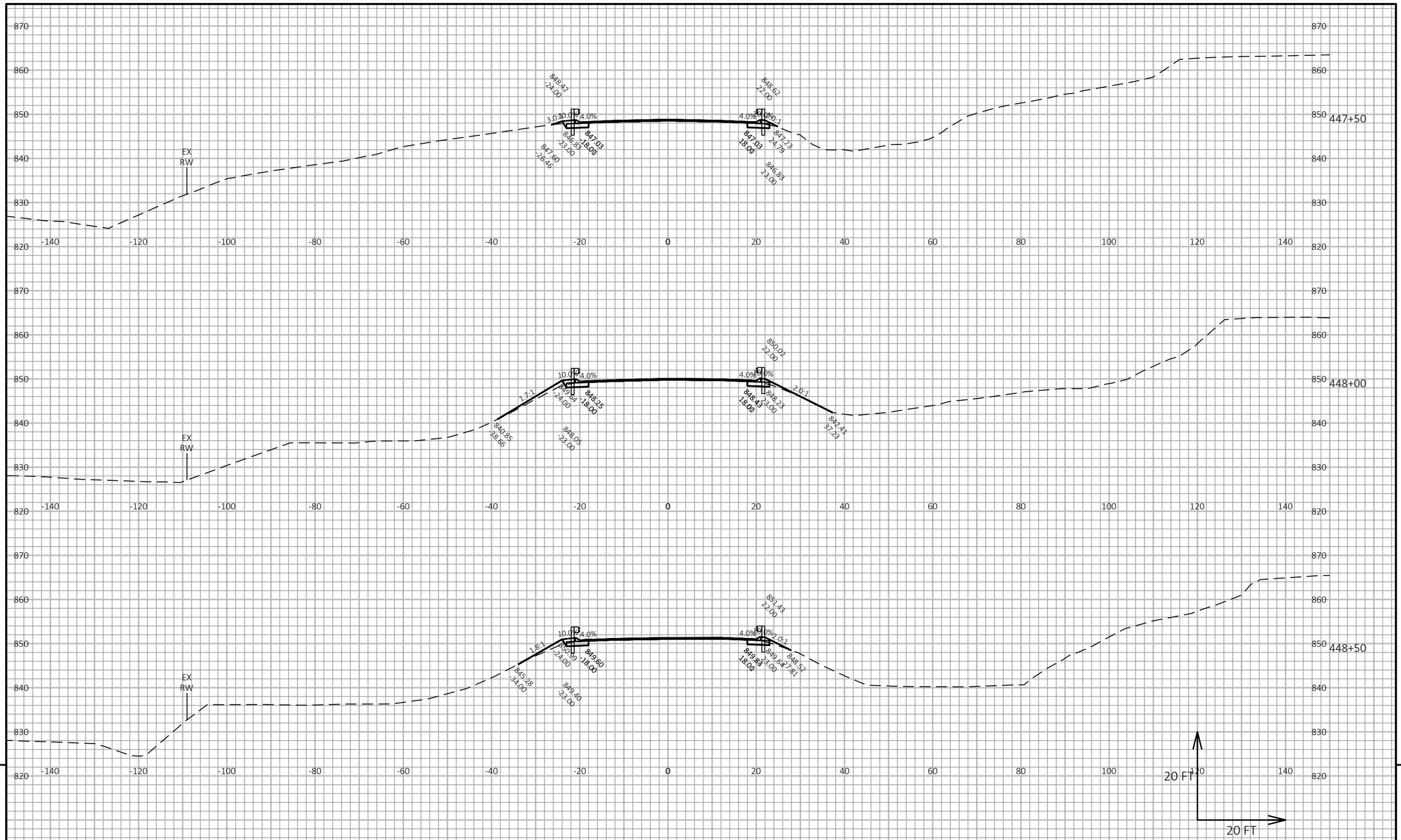
PLOT DATE : 2/16/2021 5:21 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

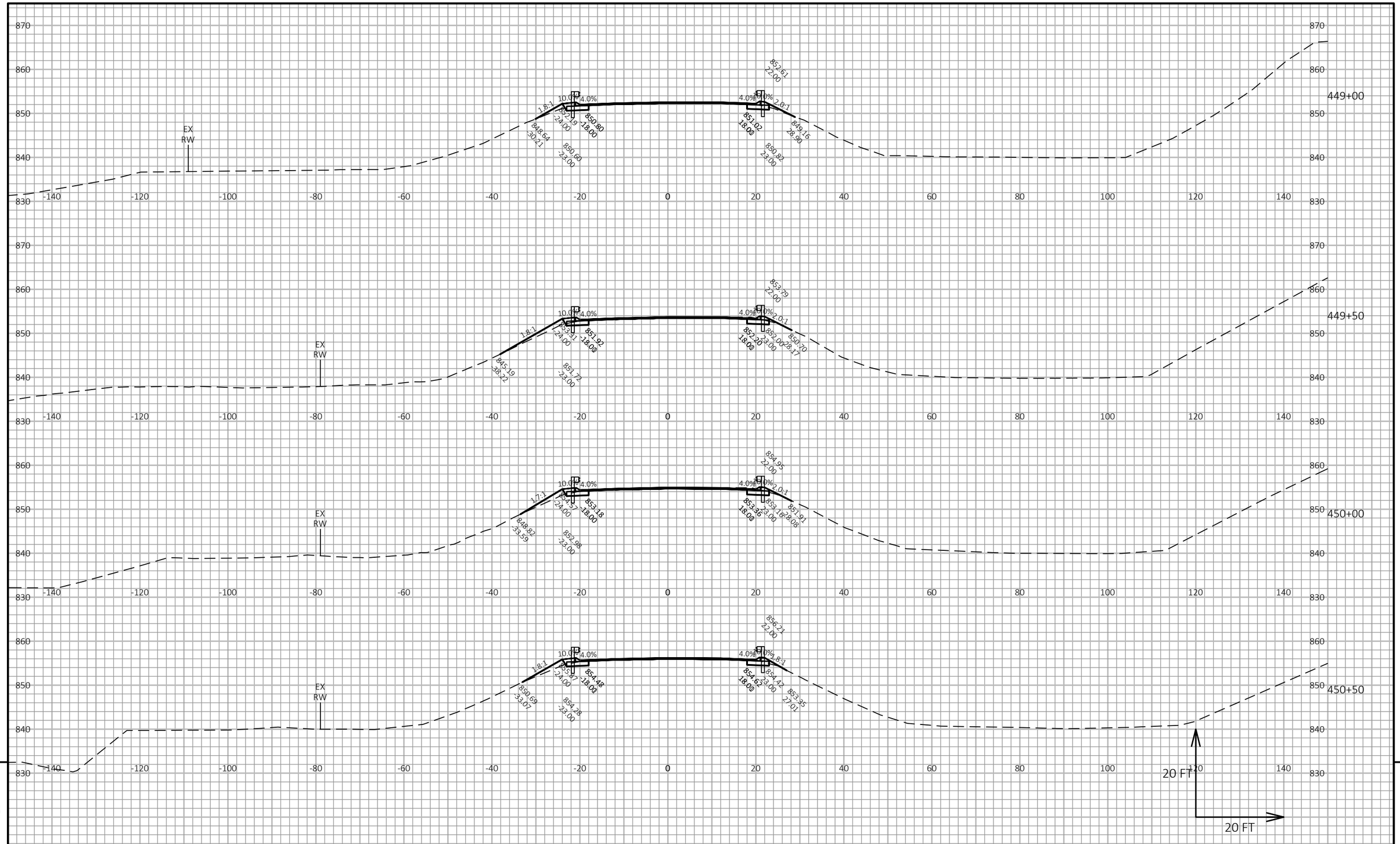


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 428	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

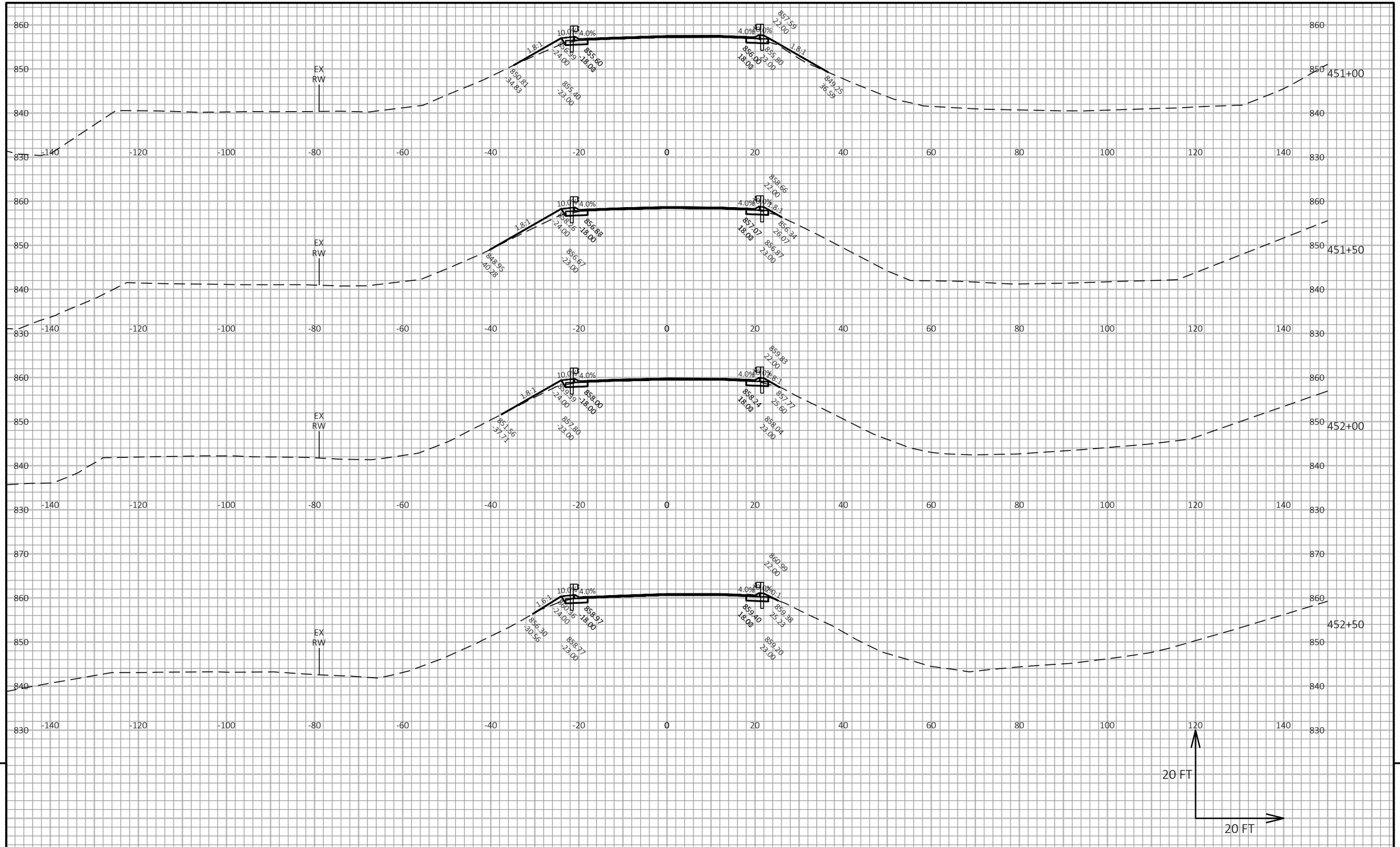


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 429	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

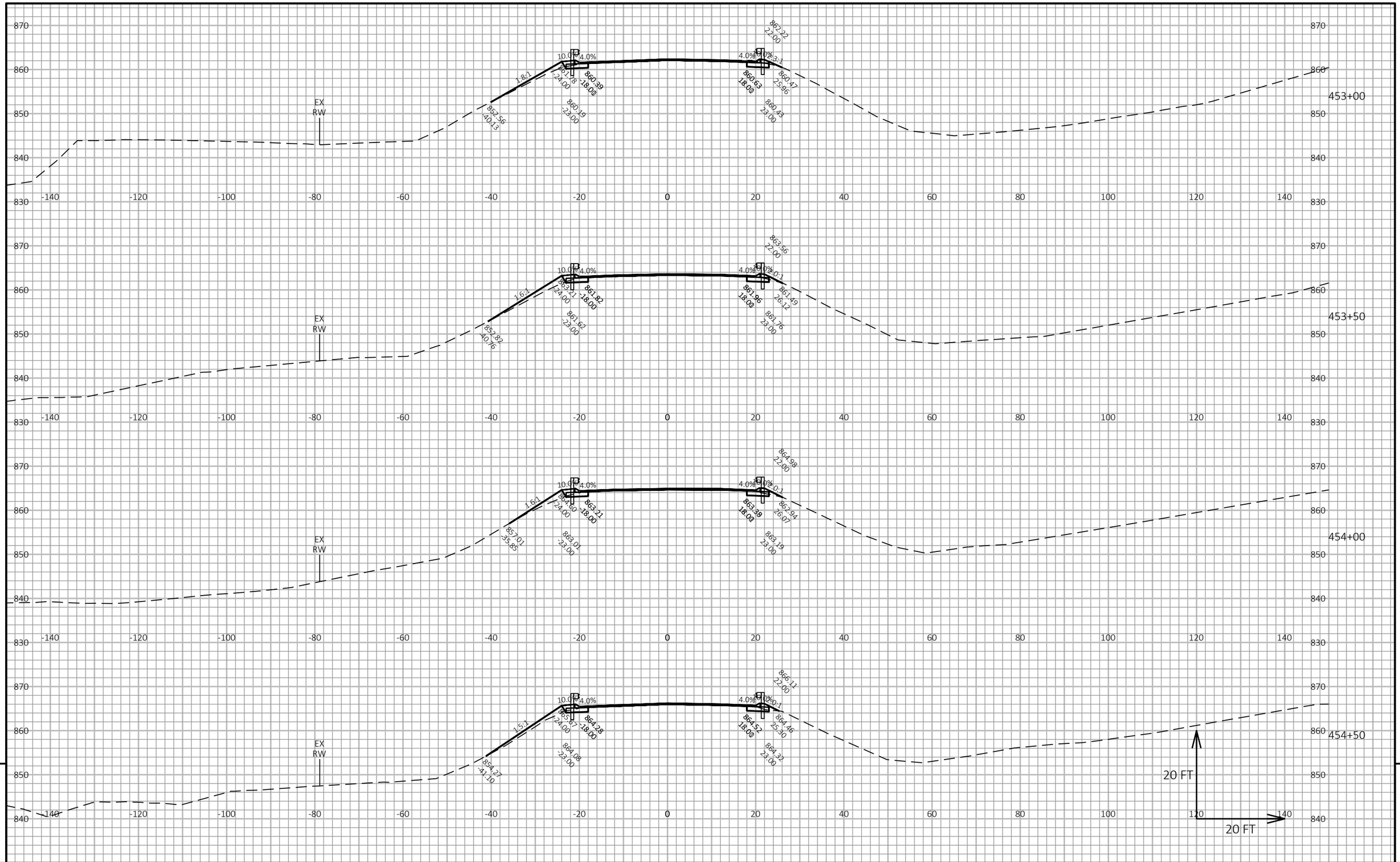


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 430	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 431	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 27

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

455+00

455+50

456+00

456+50

457+00

20 FT

20 FT

9

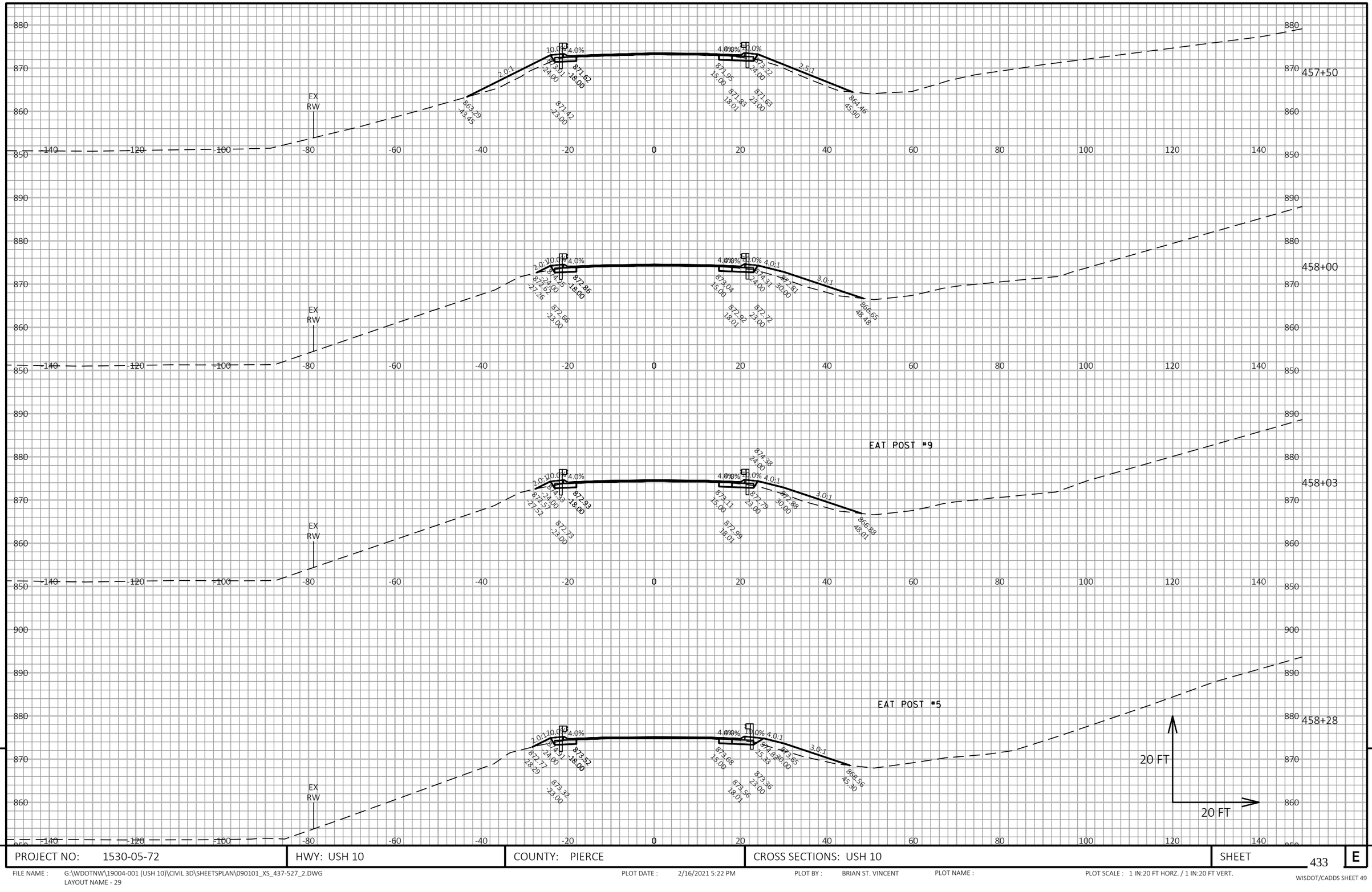
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 432	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 28

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 433	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 29

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

458+50

EX RW

458+53

EAT POST #1

459+00

EX RW

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 434	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 30

PLOT DATE : 2/16/2021 5:22 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

459+50

EX RW

10.0:1 4.0% 4.0% 4.0% 4.0% 10.0:1

2.4:1 874.17 -35.95 | 877.33 -24.00 | 875.44 -18.00 | 875.94 -22.00 | 876.44 15.00 | 876.22 26.30 | 875.02 31.07

460+00

EX RW

10.0:1 4.0% 4.0% 10.0:1

2.0:1 874.92 -31.42 | 877.33 -24.00 | 877.23 -18.00 | 877.03 -22.00 | 877.55 15.00 | 877.38 23.26 | 877.01 27.00

20 FT

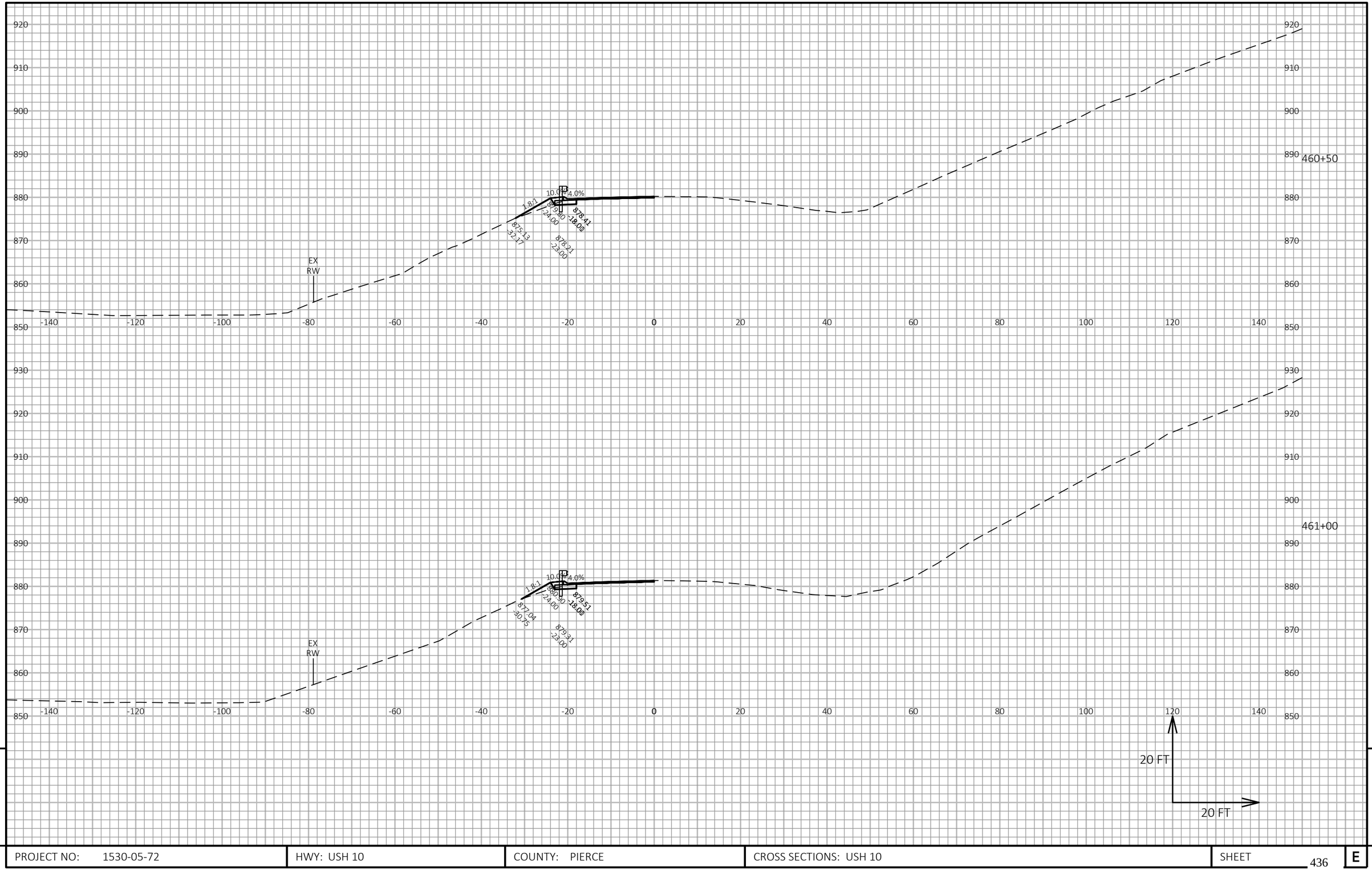
20 FT

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 435	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 31

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 436	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 32

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX
RW

875.80
-35.19

7.87

10.0'
4.0%

882.10
-24.00

880.80
-18.00

880.60
-23.00

461+50

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 437	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 33

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

462+00

EX
RW

10.0
4.0%
7.7
883.17
24.00
881.77
18.00
878.90
31.11
881.57
23.00

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 438	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 34

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX
RW

877.63
-35.33

882.51
-23.00

882.71
-18.00

889.10
-24.00

10.0
4.0%
2.8%

462+50

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 439	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 35

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

462+73

EAT POST #9

EX
RW

10.0
4.0%
8.7
884.24
224.00
883.24
18.00
876.80
39.24
883.04
22.00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 440	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 36

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

462+98

EAT POST #5

10.0%
4.0%
1.8%
883.18
-24.00
883.79
-18.00
879.28
-34.72
883.59
-23.00

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 441	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 37

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

463+00

EX
RW

876.23
43.40

2.37
863.65
26.71

4.0%
4.0%
863.82
18.00

20 FT
20 FT

9

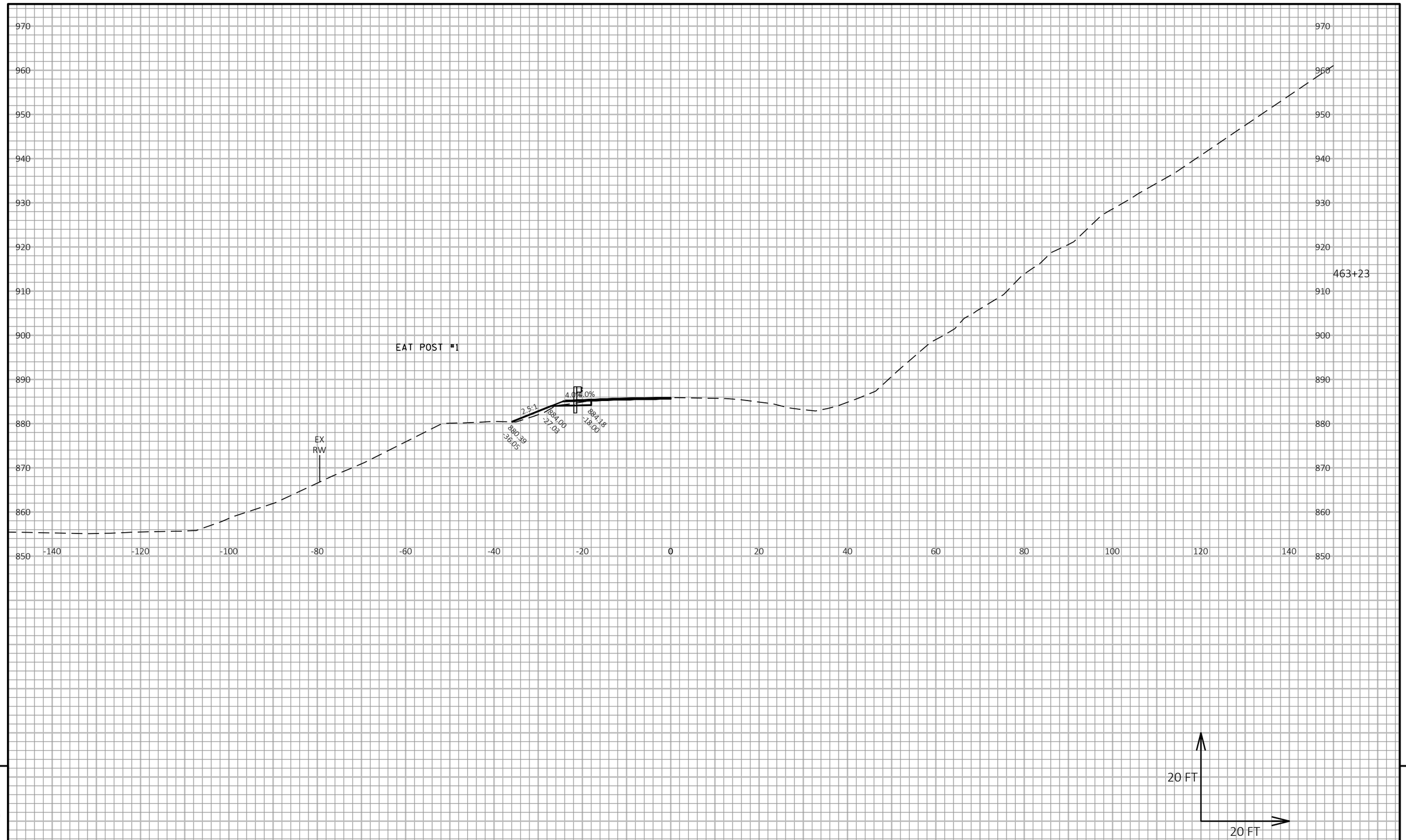
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 442	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 38

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 443	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 39

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

463+50

10.0%

883.99
-22.99
884.86
28.00

884.59
-18.00

EX
RW

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 444	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_2.DWG
LAYOUT NAME - 40

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

463+96

EAT POST #1

EX
RW

2.0%
885.01
-26.40
882.03
-32.39
4.0%
4.0%
885.18
-18.00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 445	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 10

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

464+00

EX
RW

4.0%
4.0%

2.0%
885.07
-26.40
881.39
-33.76
885.24
-18.00

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 446	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 11

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
860
850

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EAT POST #5

EX
RW

7.81
10.0%
4.0%
886.65
124.01
885.46
18.00
879.75
36.43
885.26
22.00

464+21

20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 447	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 12

PLOT DATE : 2/16/2021 5:20 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EAT POST #9

EX
RW

879.62
-37.00

885.45
-23.00

887.05
-24.00

885.66
-18.01

885.90
-12.00

10.0%

4.0%

4.0%

1:8:1
1:1

464+45

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 448	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 13

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX
RW

879.69
-36.99

1.5:1

10.0%

4.0%

4.0%

887.09
-24.00

885.70
-18.01

885.94
-12.00

885.50
-22.00

464+50

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 449	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 14

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

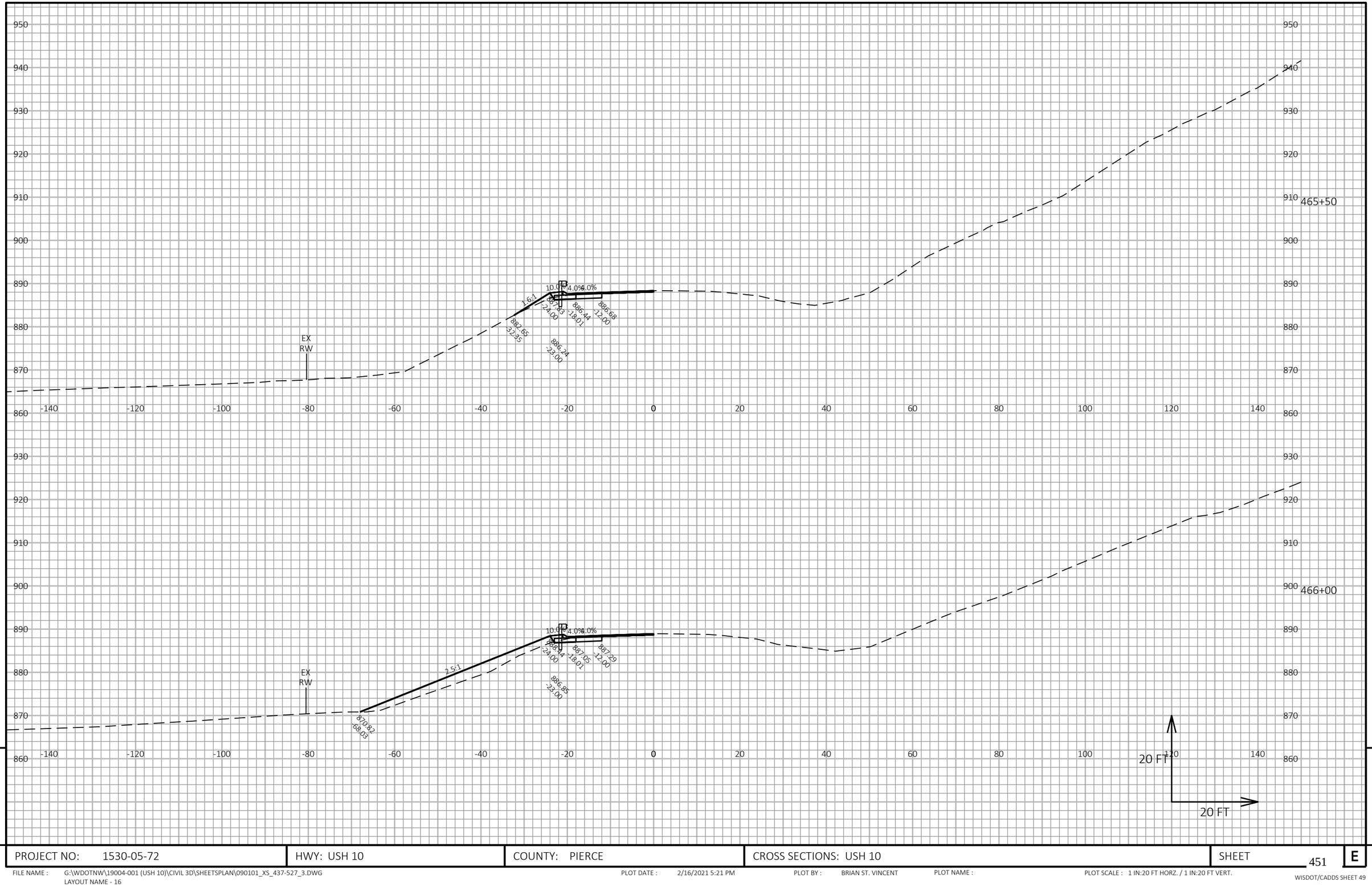
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

960
950
940
930
920
910
900
890
880
870
860
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140
465+00
EX
RW
10.00
4.0%
4.0%
4.7%
880.12
-36.28
883.49
-24.00
885.90
-23.00
886.10
-18.01
886.34
-12.00
20 FT
20 FT
9
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 450	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 15

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

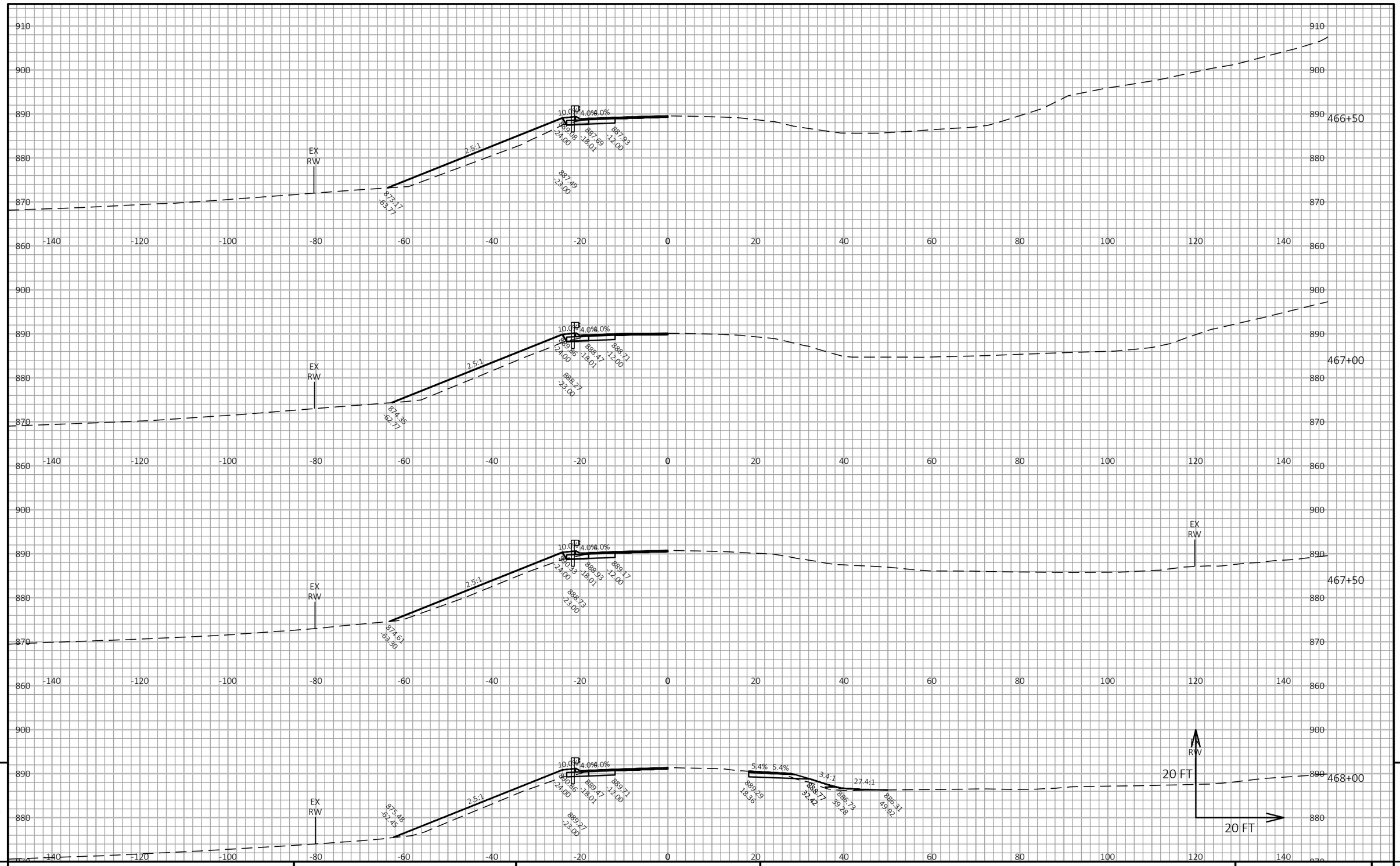
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 451	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 16

PLOT DATE : 2/16/2021 5:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

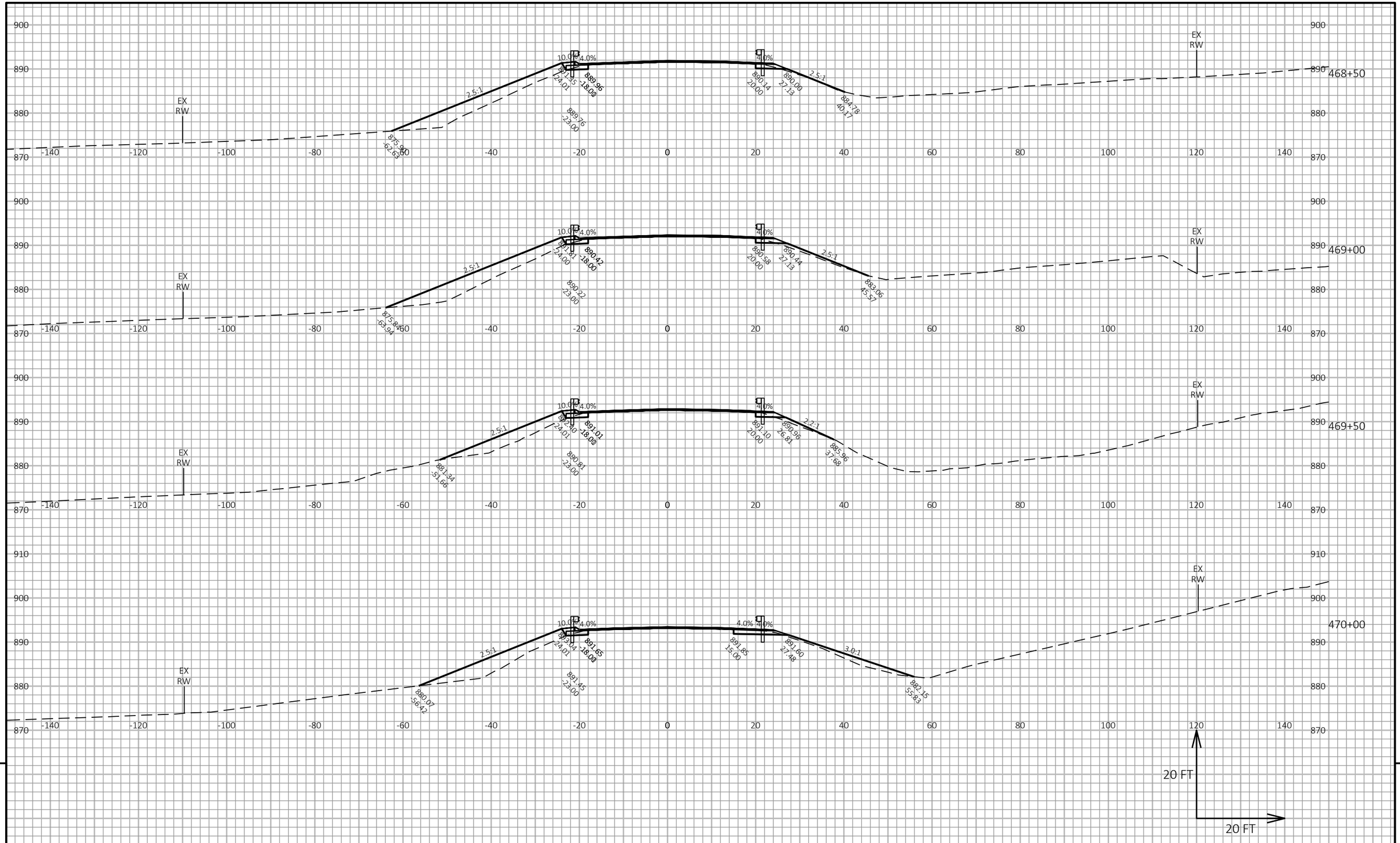
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 452	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 17

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 453	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 18

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST #9

470+14

EAT POST #5

470+39

470+50

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 454	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 19

PLOT DATE : 2/16/2021 5:22 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EAT POST #1

470+64

EX RW

10.0% 4.0% 4.0% 4.0% 4.0% 3.0:1 3.0:1

2.5:1

878.67 -61.54

892.10 -23.00

892.30 -18.00

893.89 -14.00

892.57 -15.00

892.23 -32.18

884.89 -54.20

471+00

EX RW

10.0% 4.0% 4.0% 4.0% 3.0:1 3.0:1

2.5:1

881.86 -54.34

892.40 -23.00

892.60 -18.00

893.39 -14.00

893.03 -15.00

892.73 -30.00

887.86 -44.64

20 FT

20 FT

9

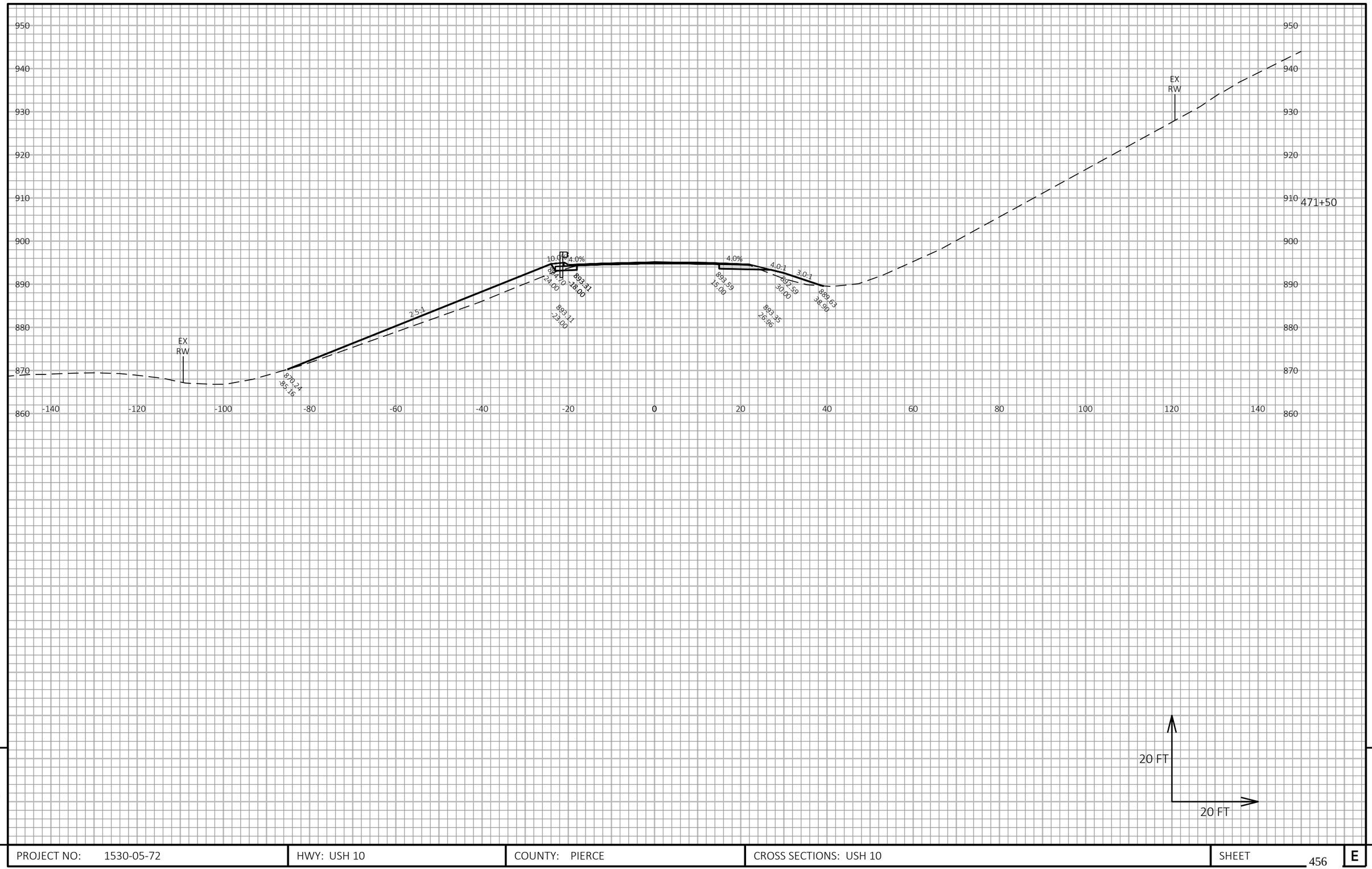
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 455	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 20

PLOT DATE : 2/16/2021 5:22 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 456	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 21

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

960
950
940
930
920
910
900
890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

472+00

10.0%

4.0%

4.0%

4.0:1

4.0:1

2.37

895.92
24.00

893.93
15.00

893.73
23.00

880.41
57.57

894.13
15.00

893.95
23.92

892.43
30.00

891.23
4.78

20 FT

20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 457	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 22

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
920
910
900
890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

472+11

BEGIN EAT TAPER

10.00
4.0%
4.0%
4.0%
4.0:1
4.0:1
2.3:1
891.11
-56.23
894.53
-24.00
894.04
-18.00
893.84
-22.00
894.24
15.00
894.07
23.26
892.39
30.00
891.70
32.73

20 FT

20 FT

9

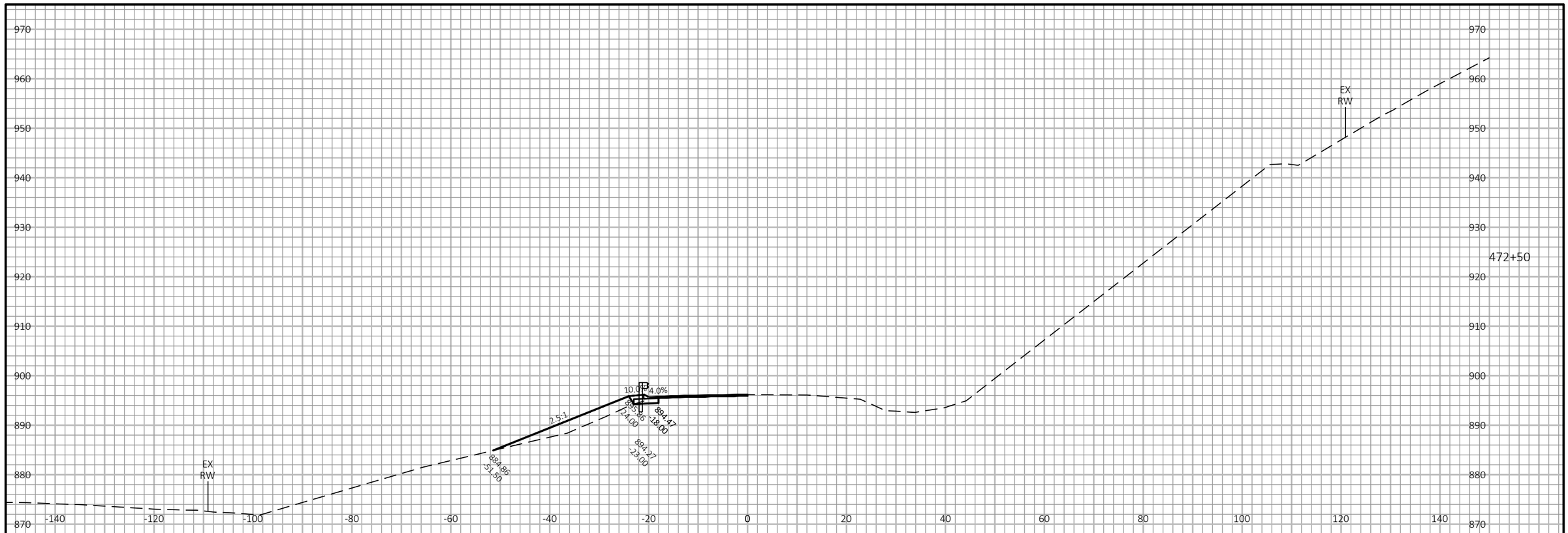
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 458	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 23

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

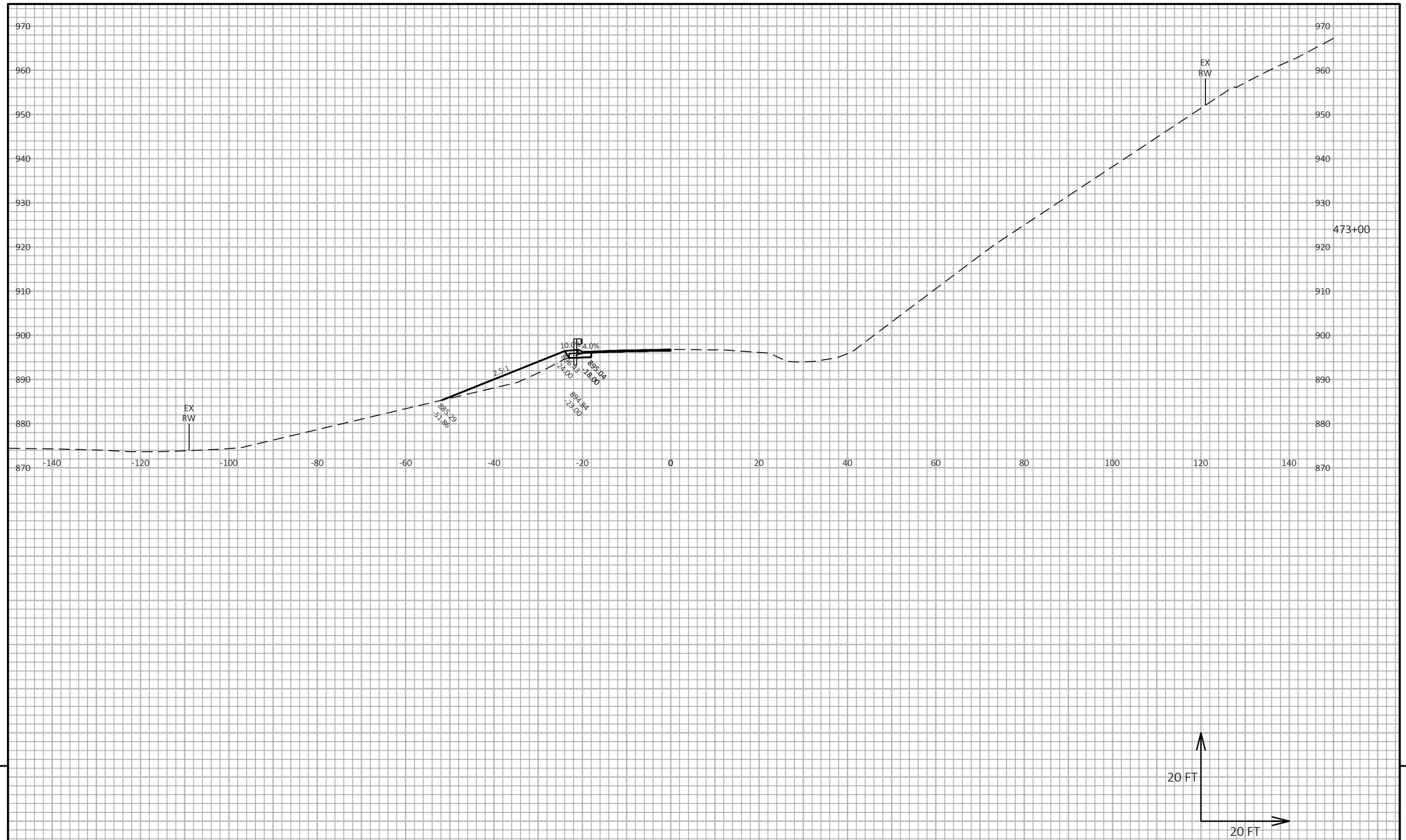
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 459	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 24

PLOT DATE : 2/16/2021 5:23 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 460	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 25

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870
-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

473+50

10.0 4.0%

2.5:1

895.60
-18.00

890.59
-40.00

895.40
-23.00

-24.00

20 FT

20 FT

9

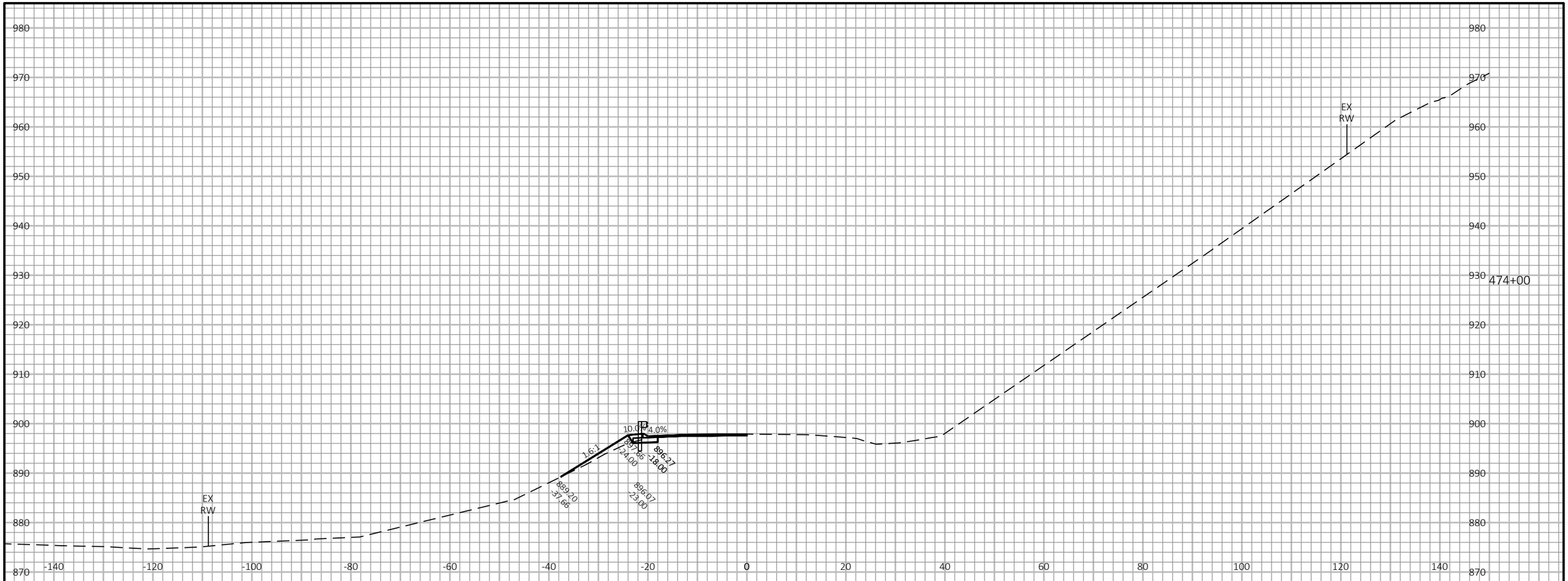
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 461	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 26

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

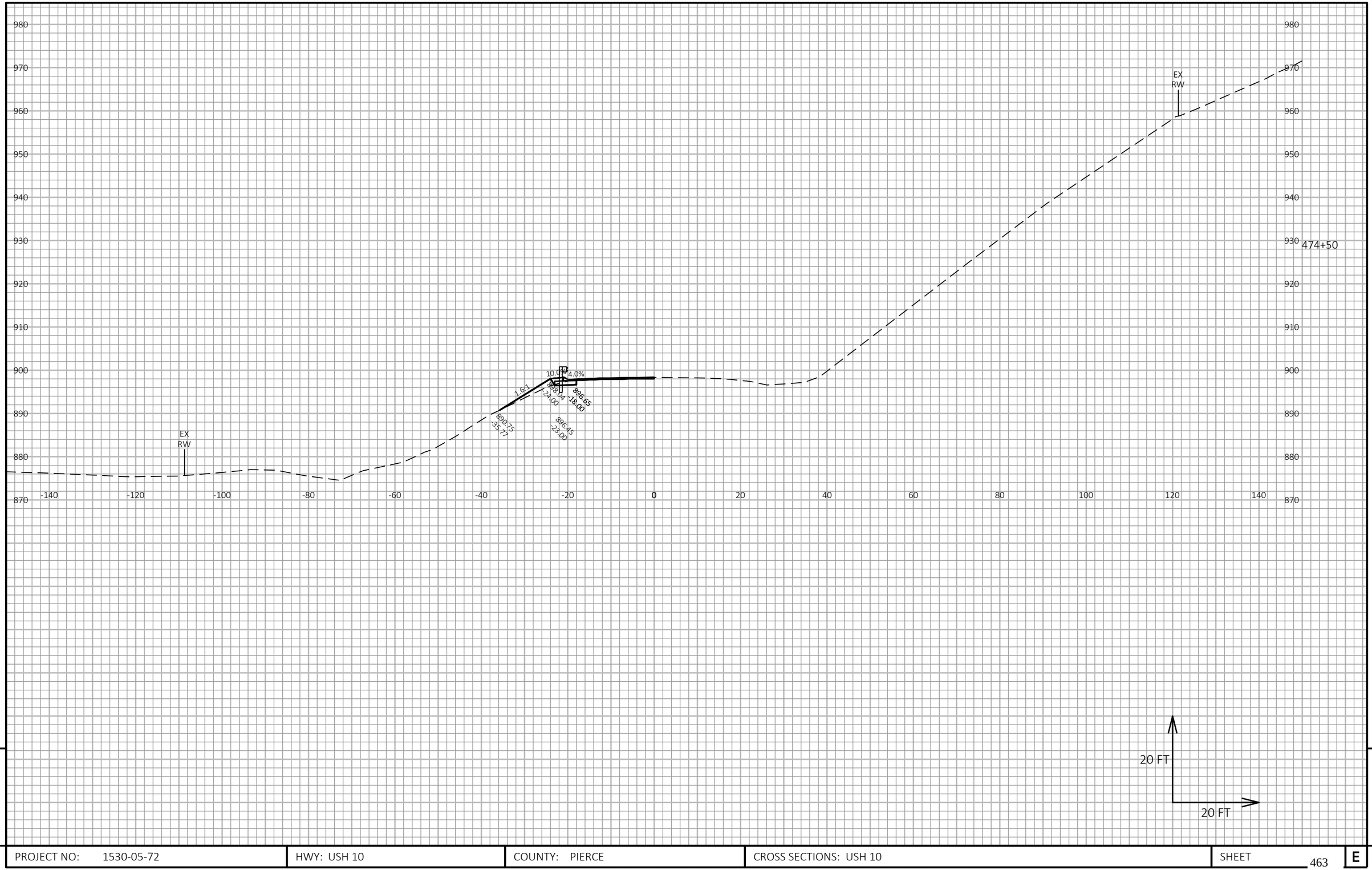
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 462	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 27

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 463	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 28

PLOT DATE : 2/16/2021 5:24 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
930
920
910
900
890
880
870

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

475+00

10.0%

4.0%

-7.5%

898.40
-24.00

897.01
-18.00

889.81
-37.86

886.81
-22.99

20 FT

20 FT

9

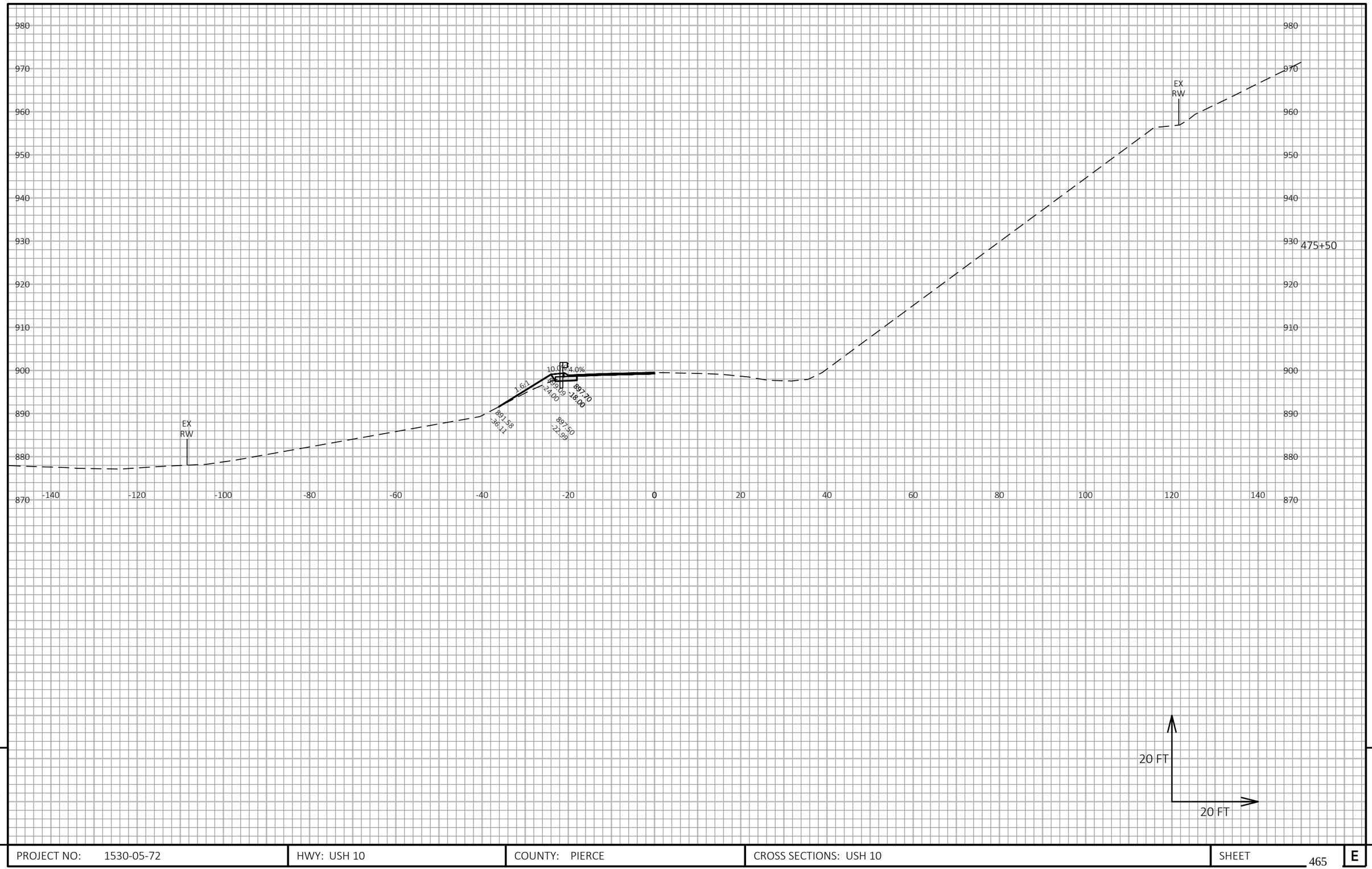
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 464	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 29

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

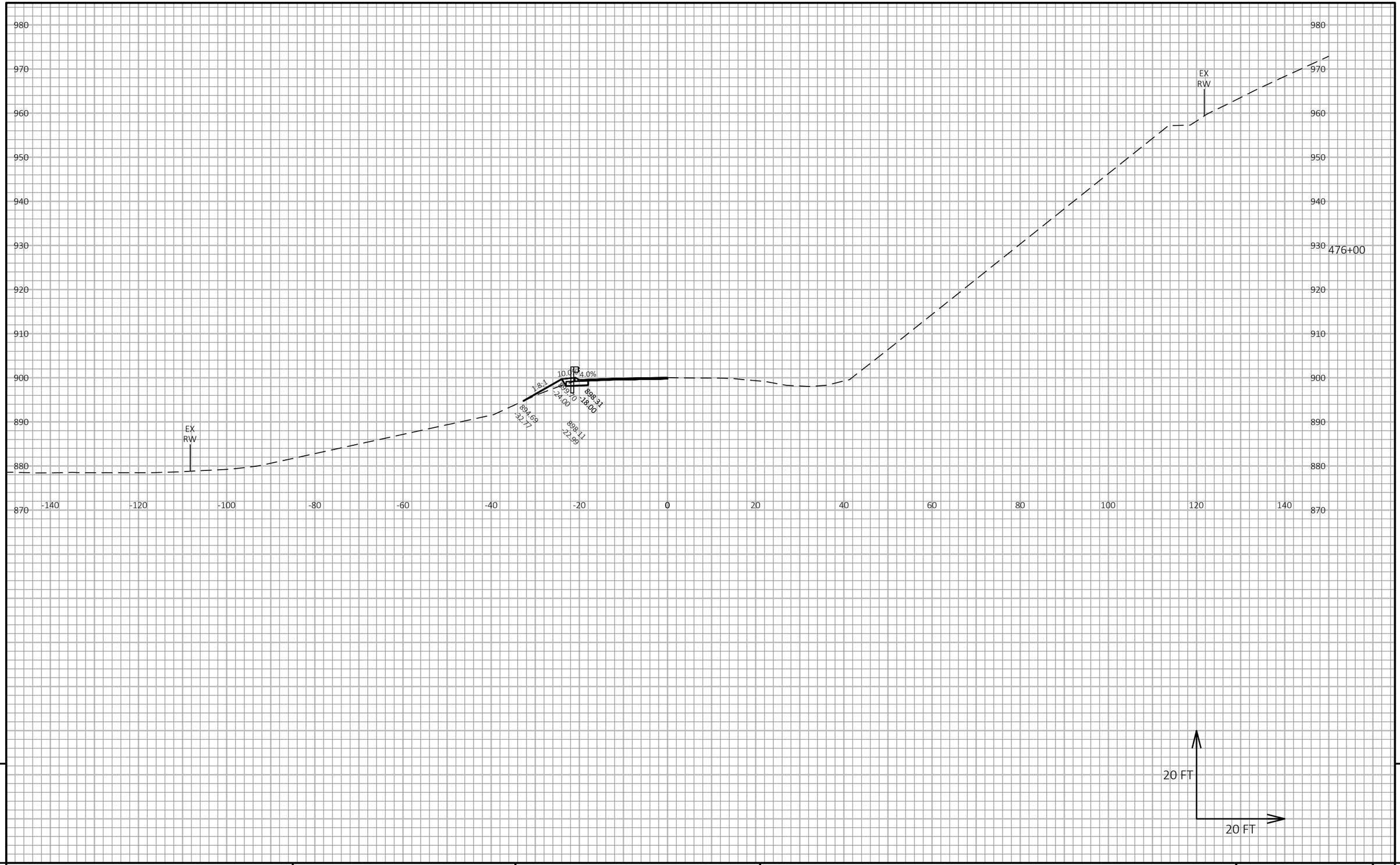
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 465	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 30

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



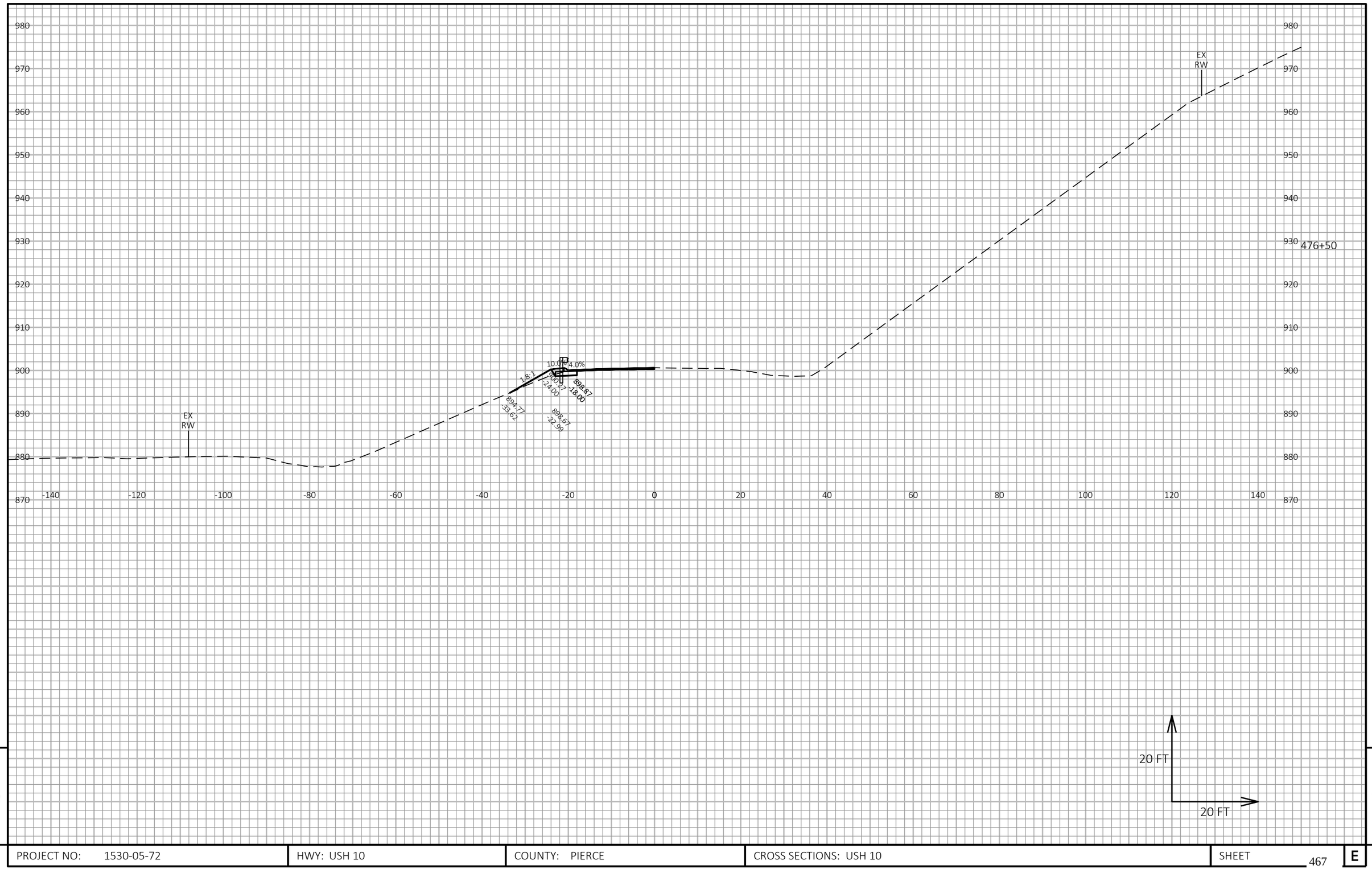
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 466	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 31

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

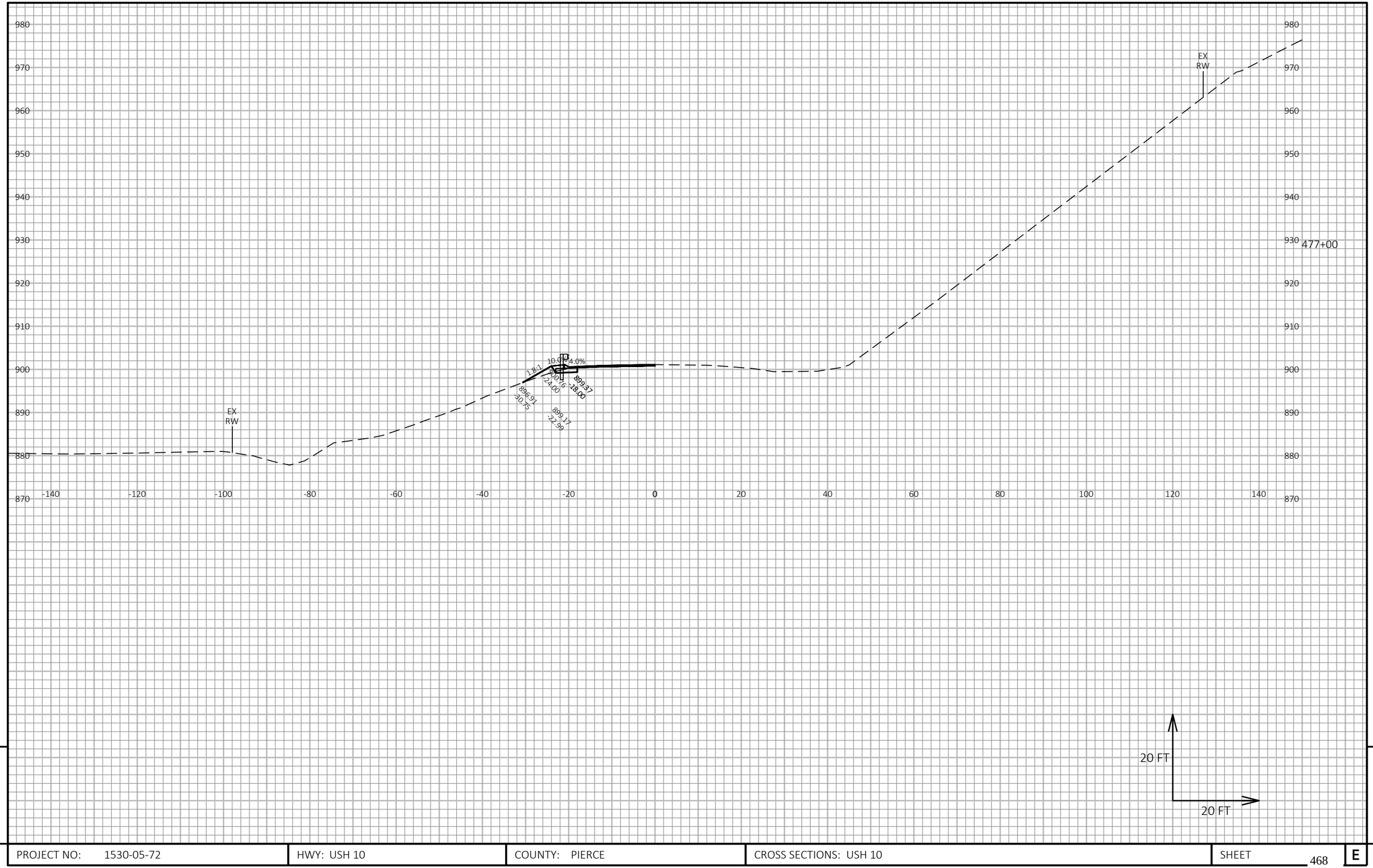
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 467	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 32

PLOT DATE : 2/16/2021 5:25 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 468	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 33

PLOT DATE : 2/16/2021 5:26 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

980
970
960
950
940
930
920
910
900
890
880
-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

10.0% 4.0%

2.0:1

2.0:1

899.71
-18.00

899.10
-24.00

899.05
-33.68

899.51
-22.99

477+50

20 FT

20 FT

9

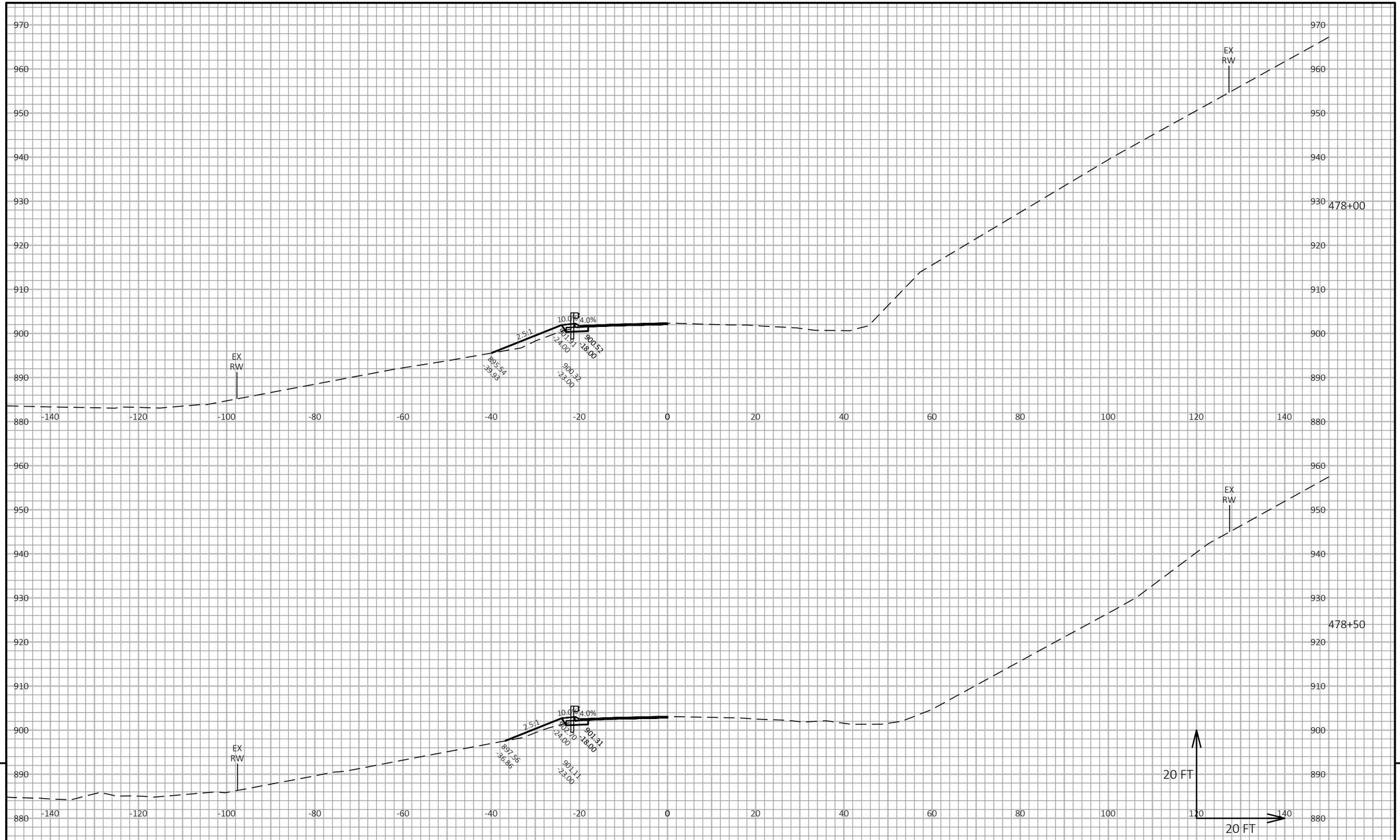
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 469	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 34

PLOT DATE : 2/16/2021 5:26 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 470	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 35

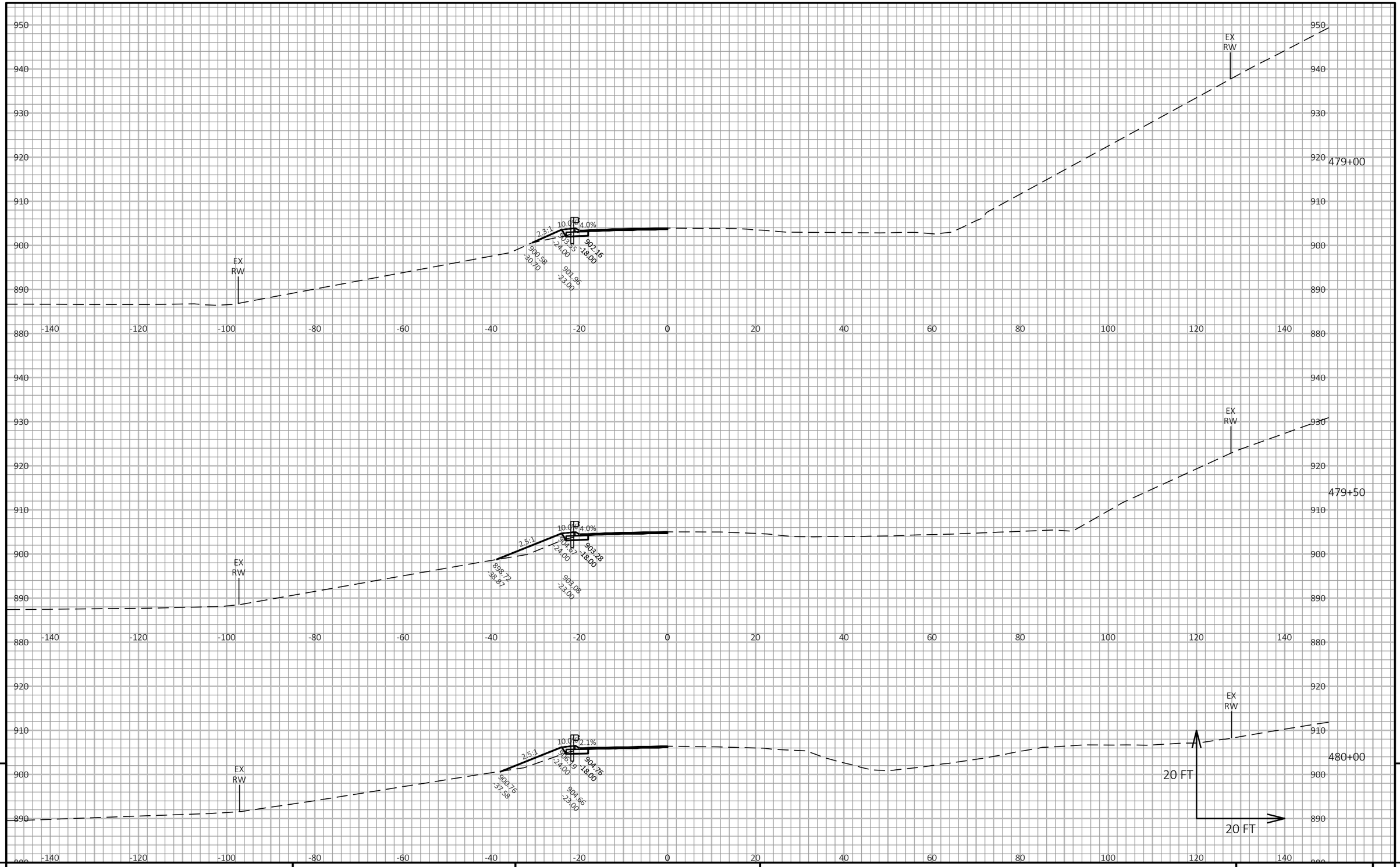
PLOT DATE : 2/16/2021 5:26 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49


479+00
EX RW
10.0
4.0%
2.5:1
904.37
-24.00
903.28
-18.00
898.72
-38.87
903.08
-23.00
479+50
EX RW
10.0
2.1%
2.5:1
906.19
-24.00
904.76
-18.00
900.76
-37.58
904.66
-22.00
480+00
EX RW
20 FT
20 FT

480+50

481+00

481+50

482+00

482+50

20 FT

20 FT

9

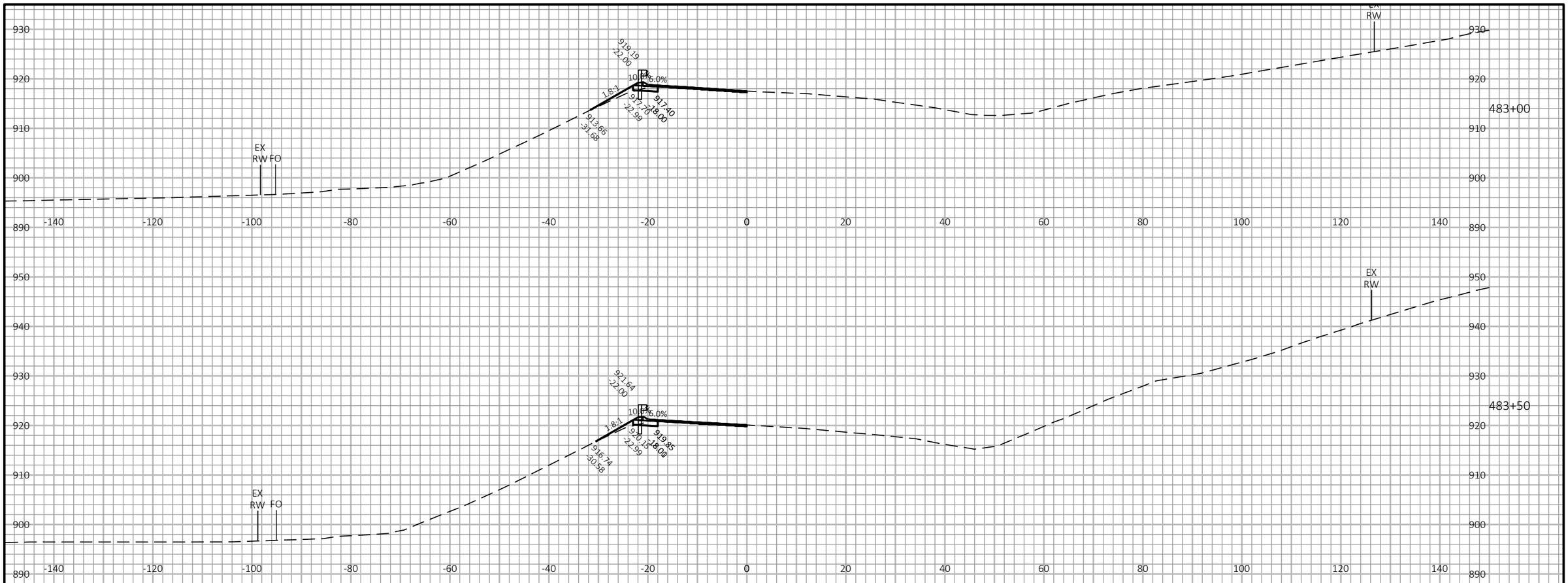
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 472	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 37

PLOT DATE : 2/16/2021 5:27 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

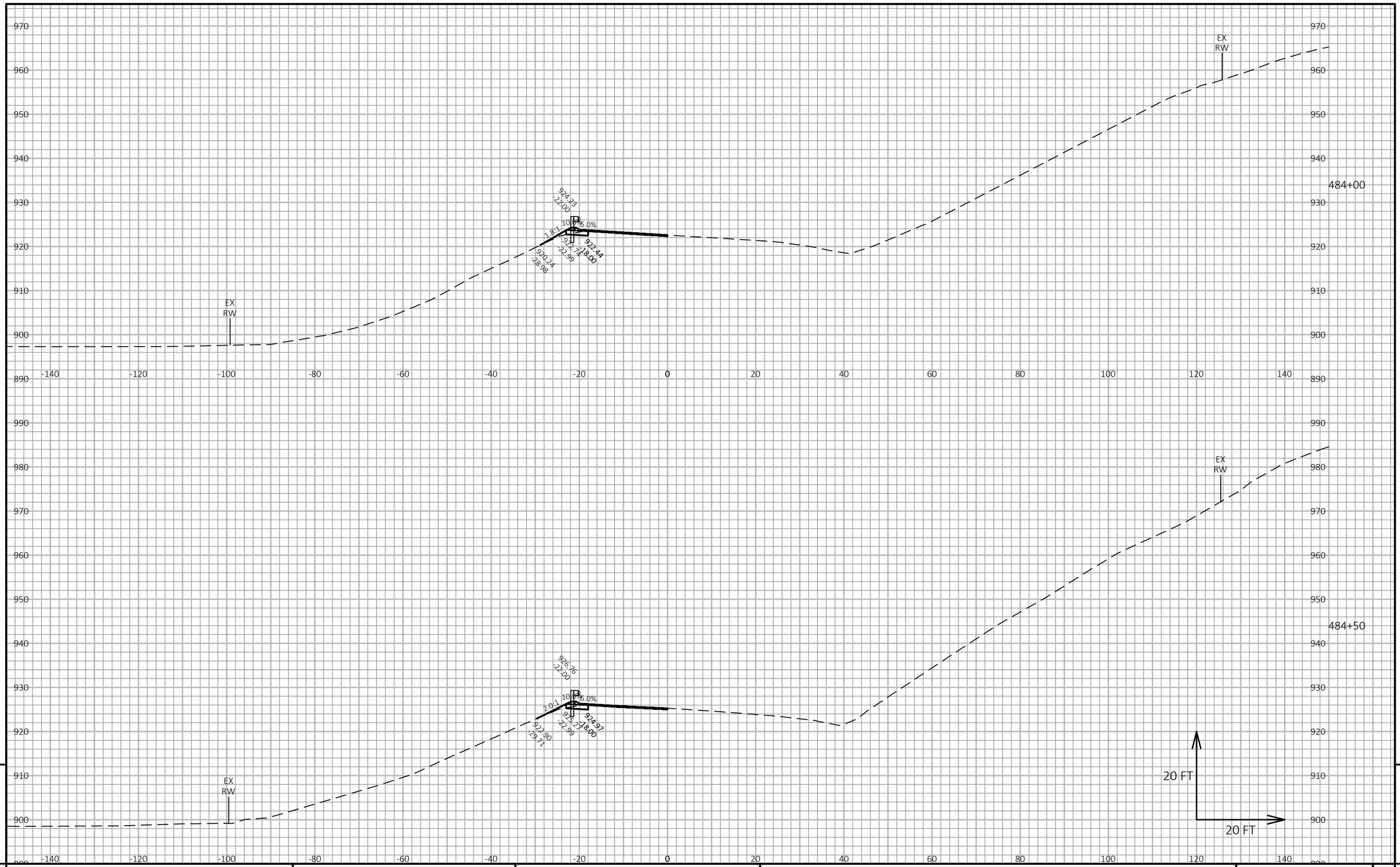


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 473	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 38

PLOT DATE : 2/16/2021 5:27 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 474	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 39

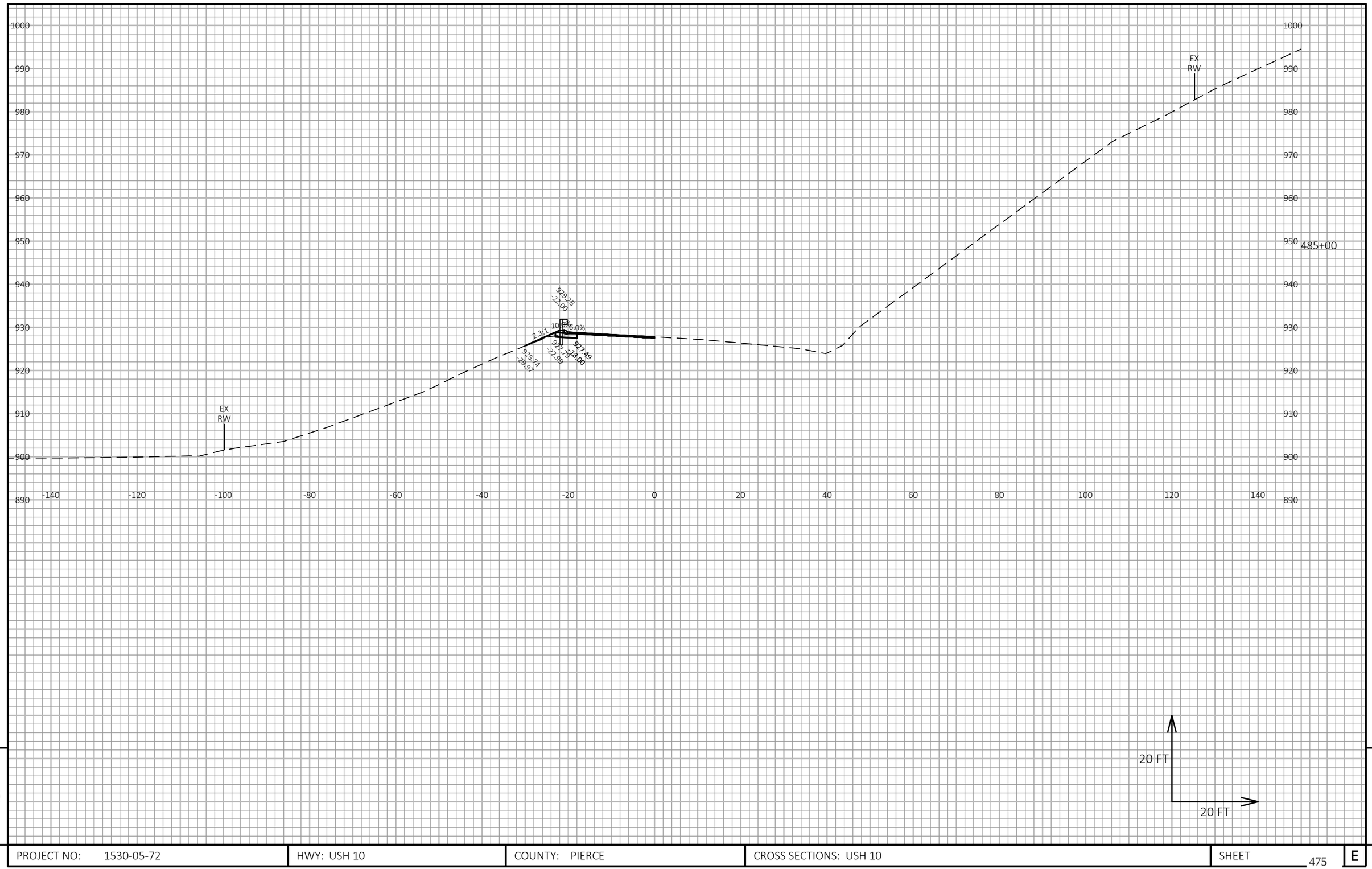
PLOT DATE : 2/16/2021 5:27 PM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

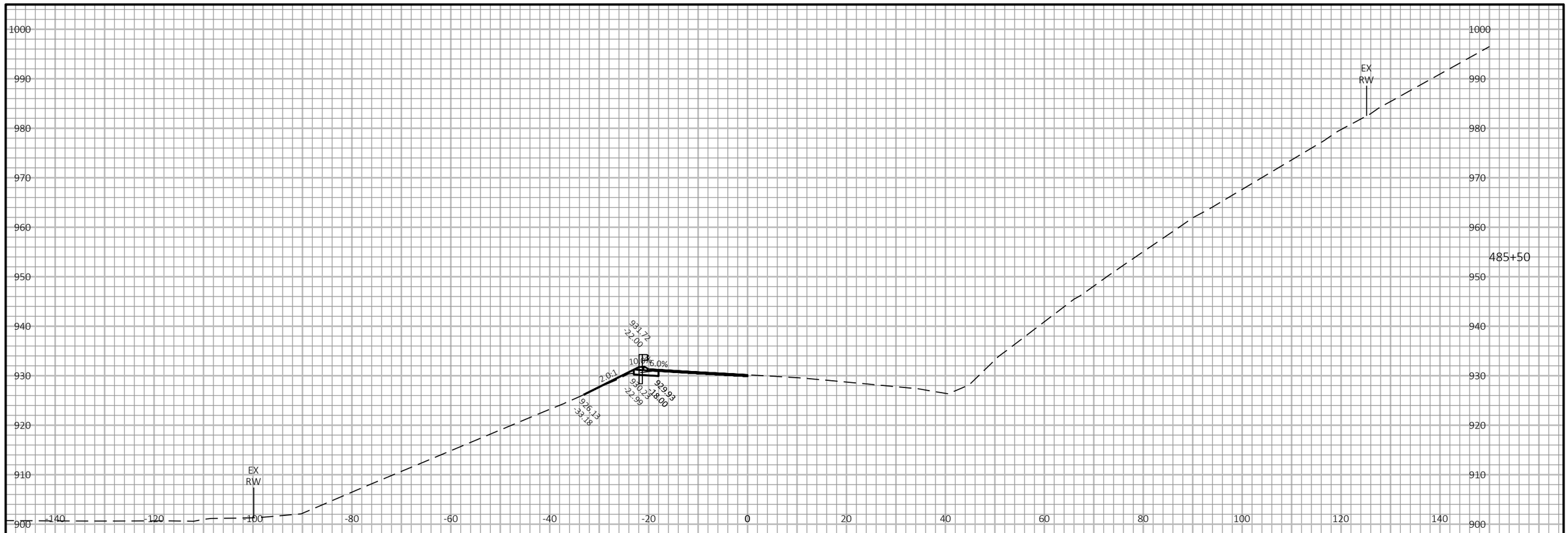
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 475	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 40

PLOT DATE : 2/16/2021 5:27 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 476	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 41

PLOT DATE : 2/16/2021 5:28 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1000
990
980
970
960
950
940
930
920
910
900

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

EX RW

EX RW

934.30
-22.00

2.3:1 10.0% 6.0%

931.29
-28.76

931.89
-22.99

933.51
-18.00

486+00

20 FT

20 FT

9

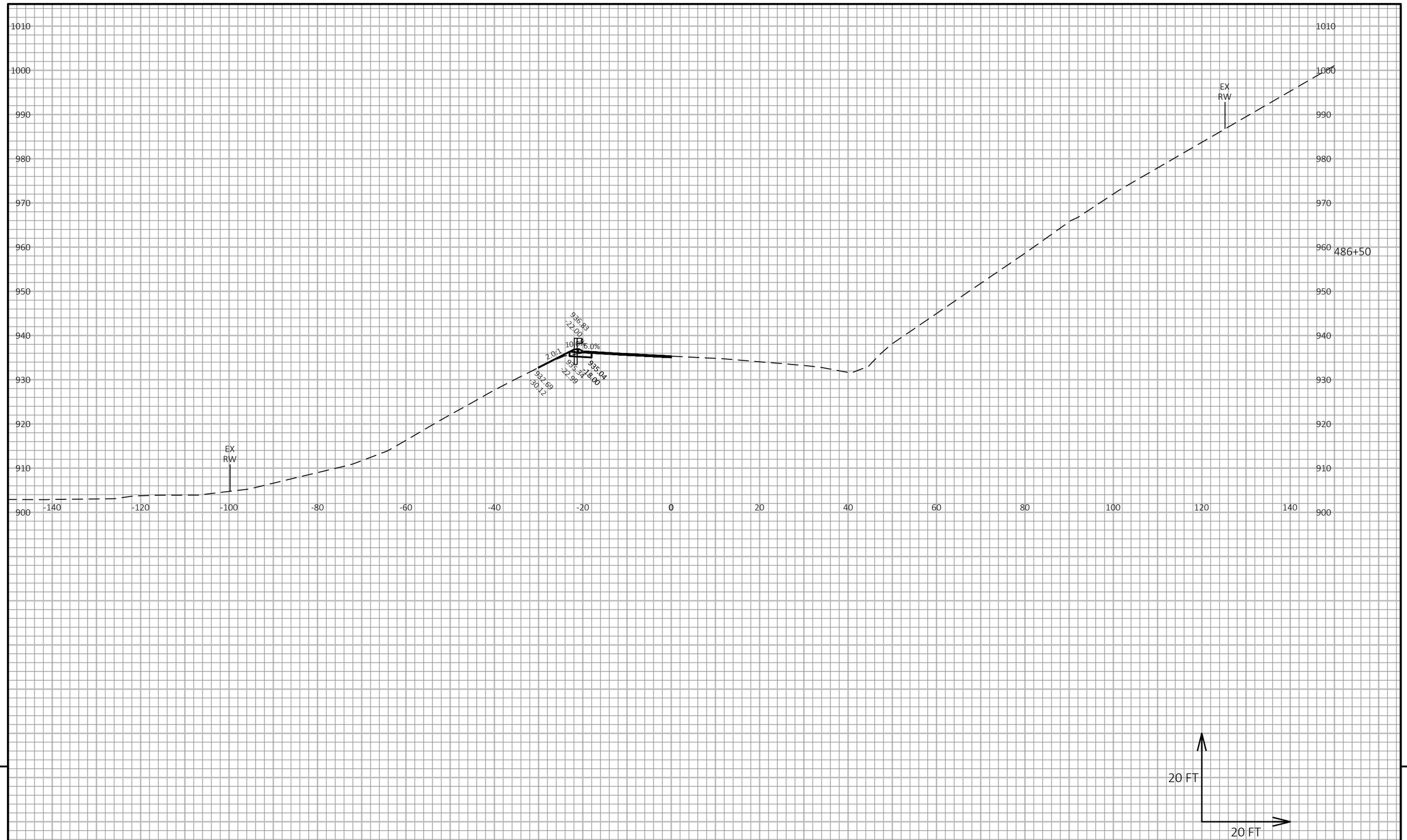
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 477	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 42

PLOT DATE : 2/16/2021 5:28 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

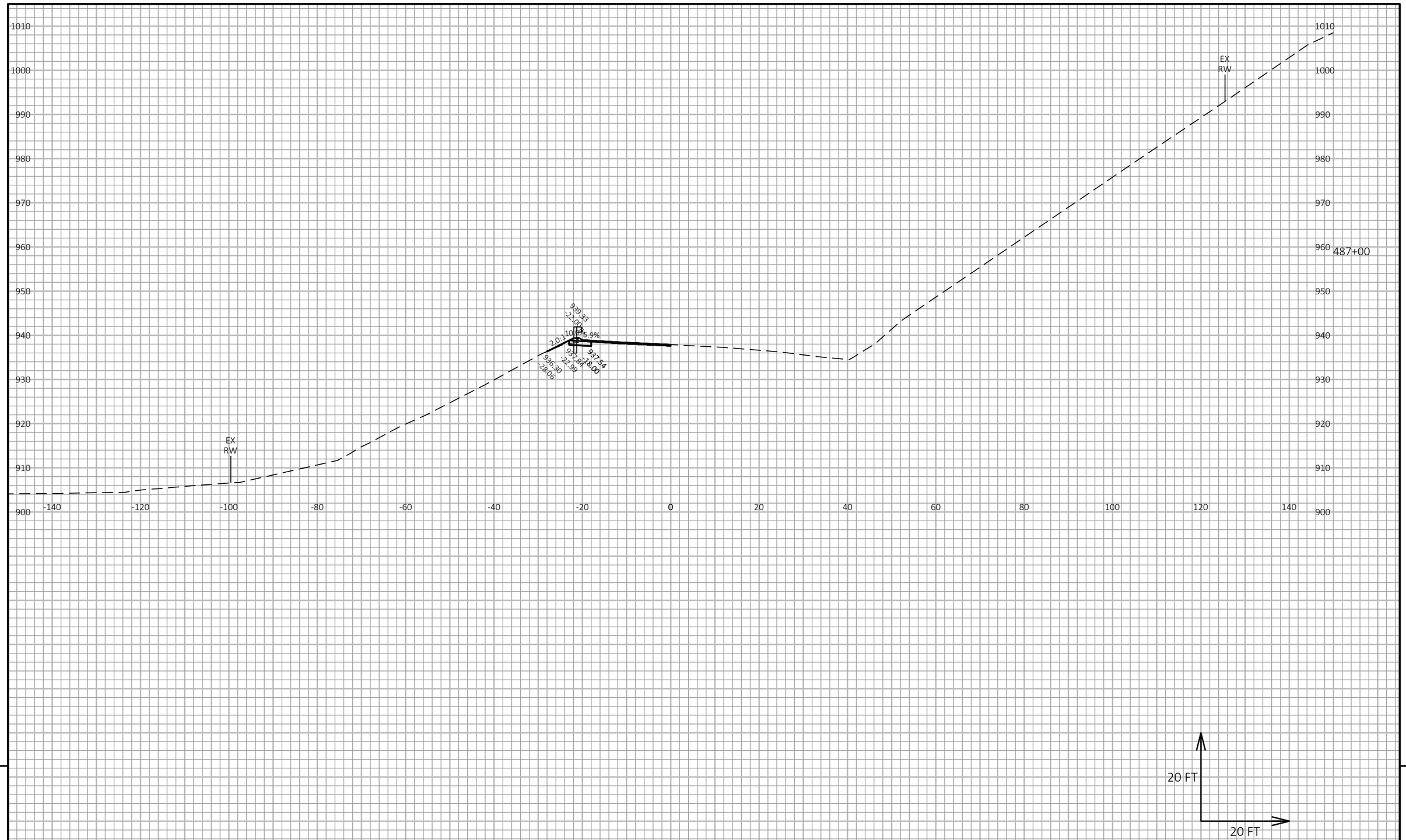
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 478	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 43

PLOT DATE : 2/16/2021 5:28 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9



9

9

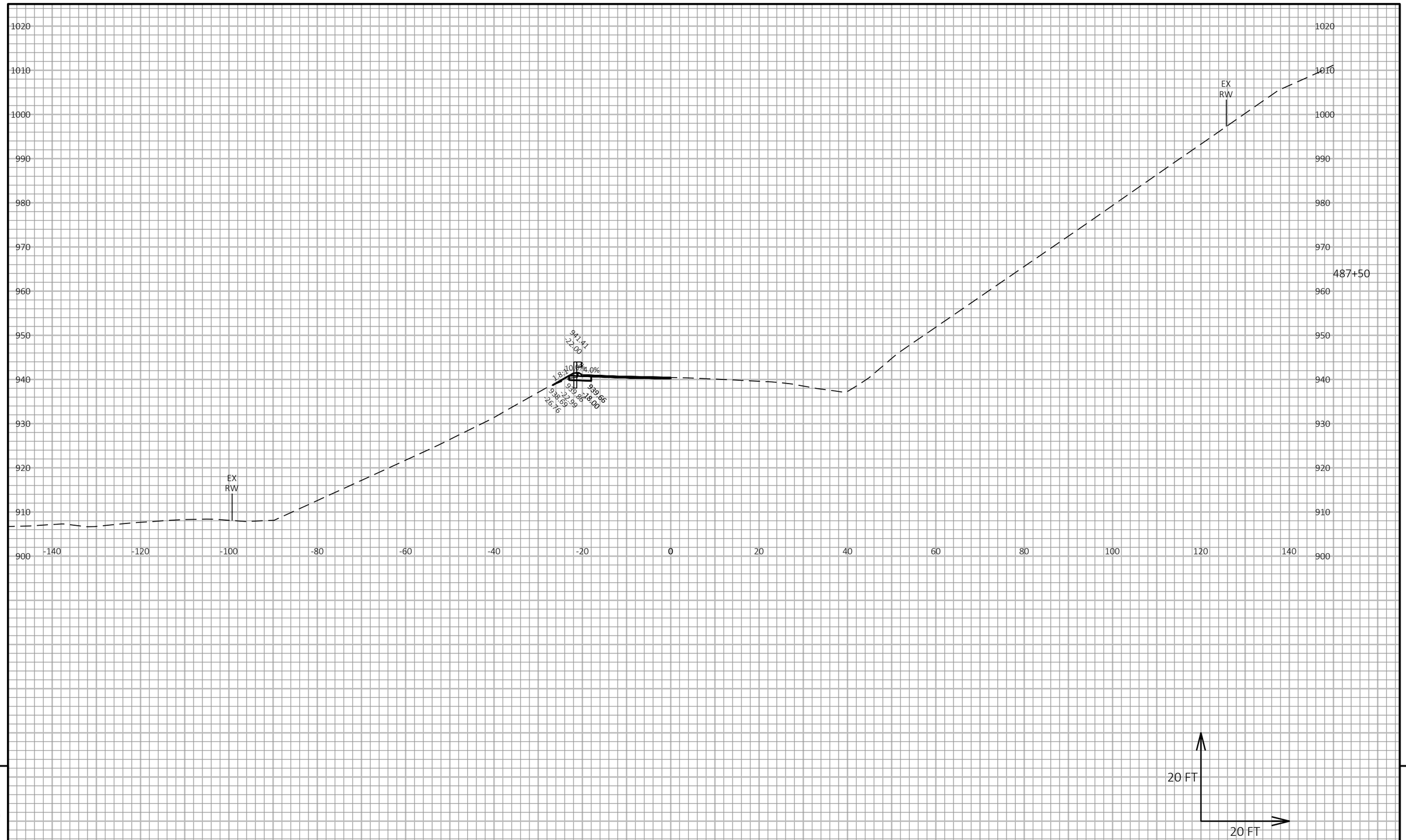
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 479	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 44

PLOT DATE : 2/16/2021 5:28 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

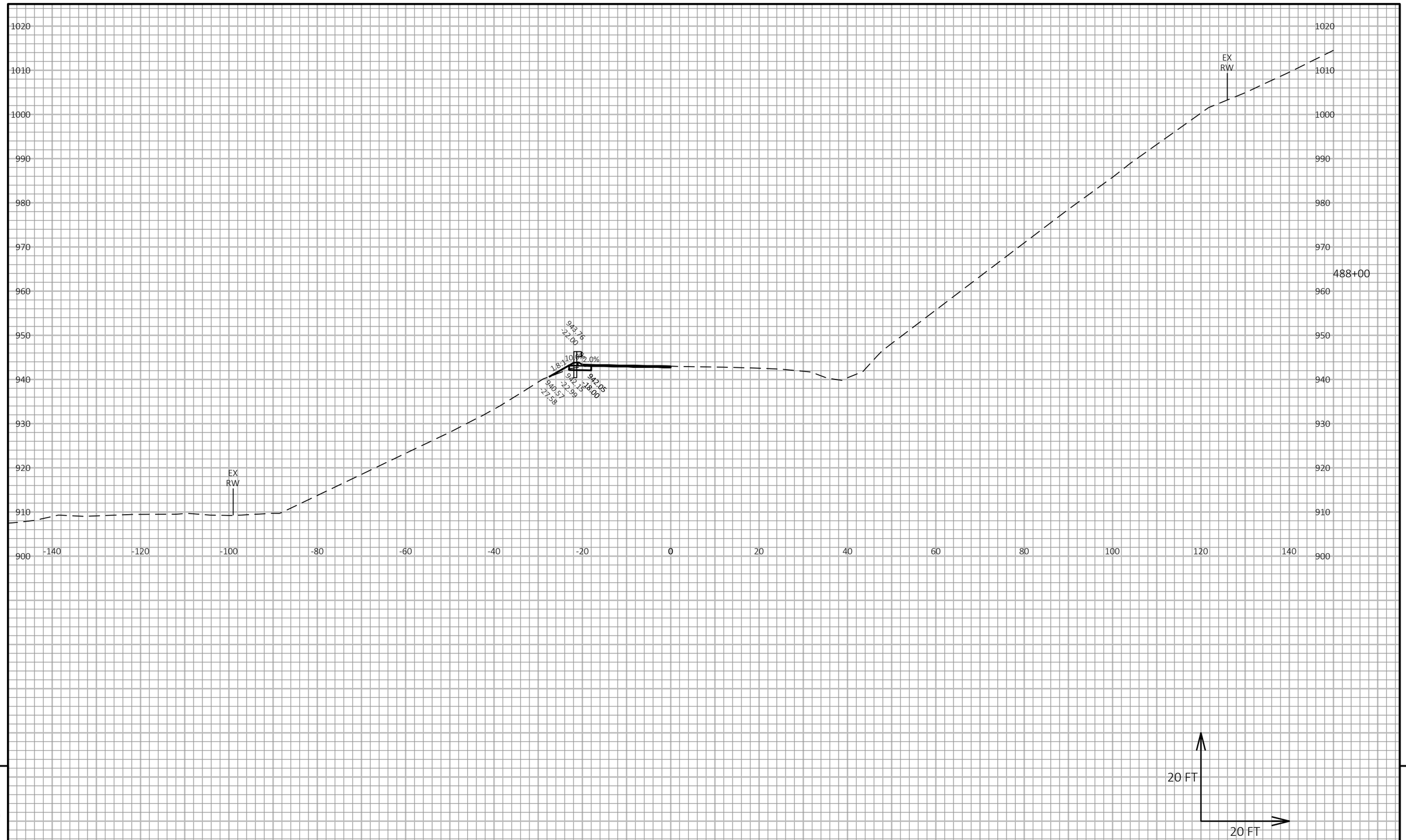
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 480	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 45

PLOT DATE : 2/16/2021 5:29 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

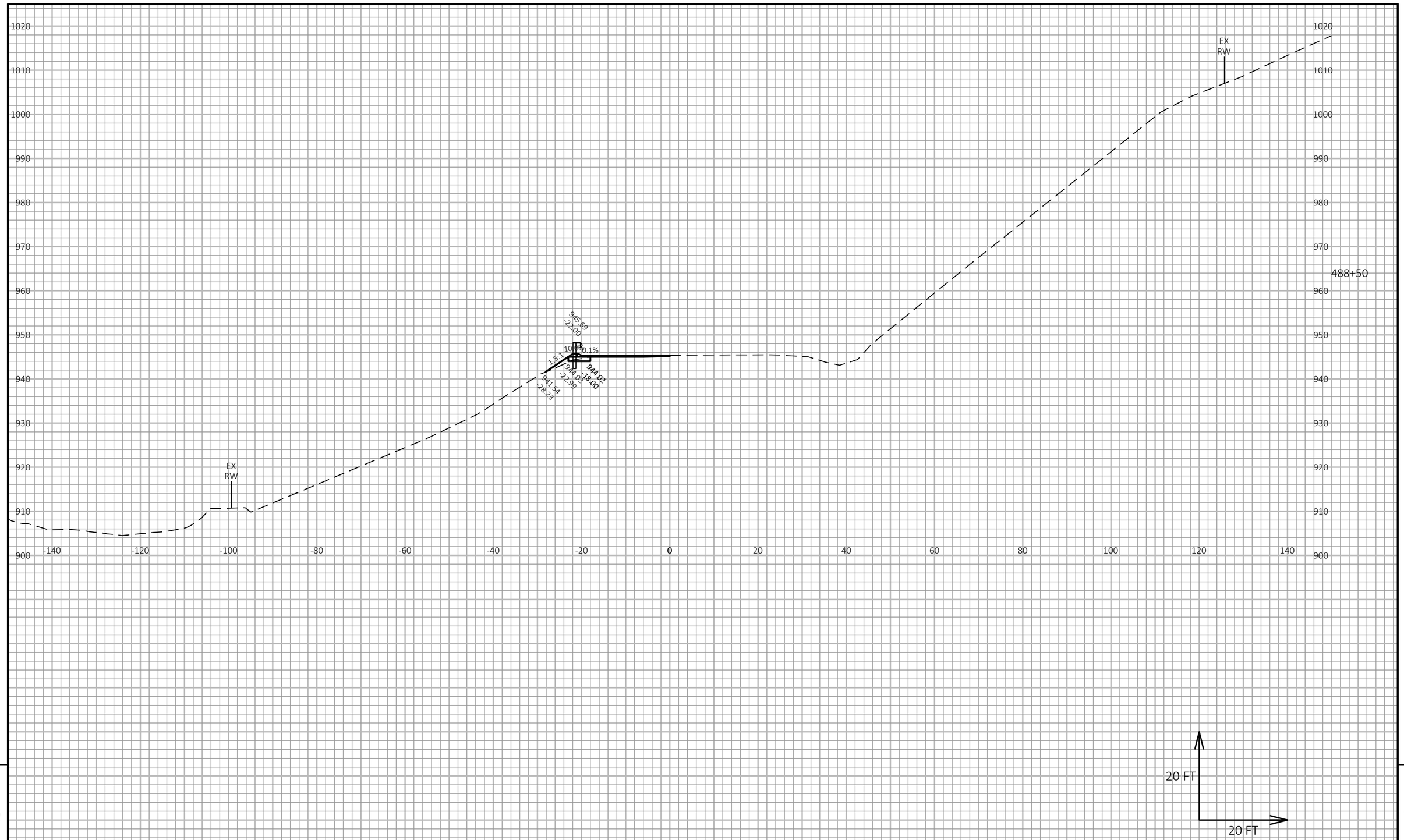
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 481	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 46

PLOT DATE : 2/16/2021 5:29 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

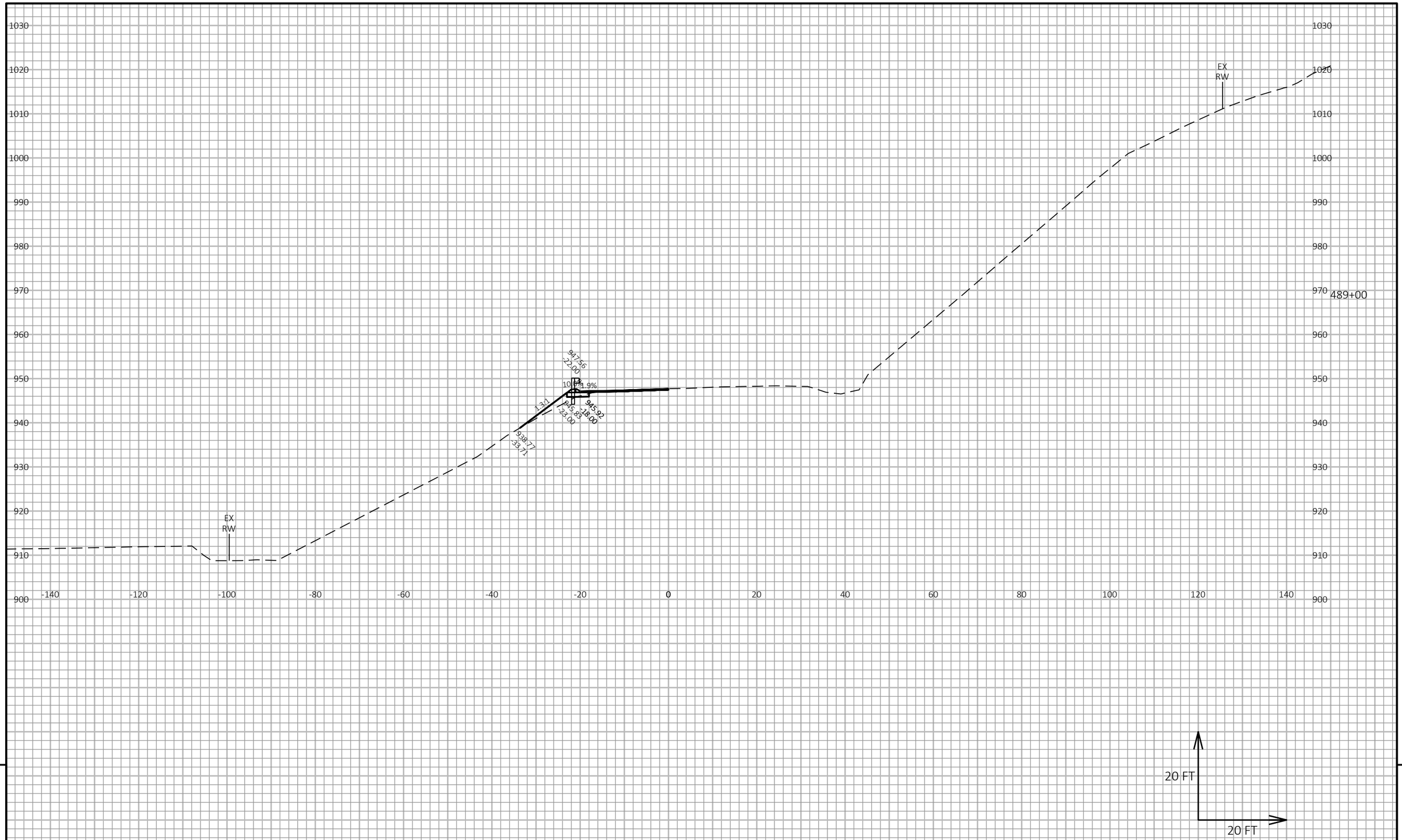
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 482	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 47

PLOT DATE : 2/16/2021 5:29 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

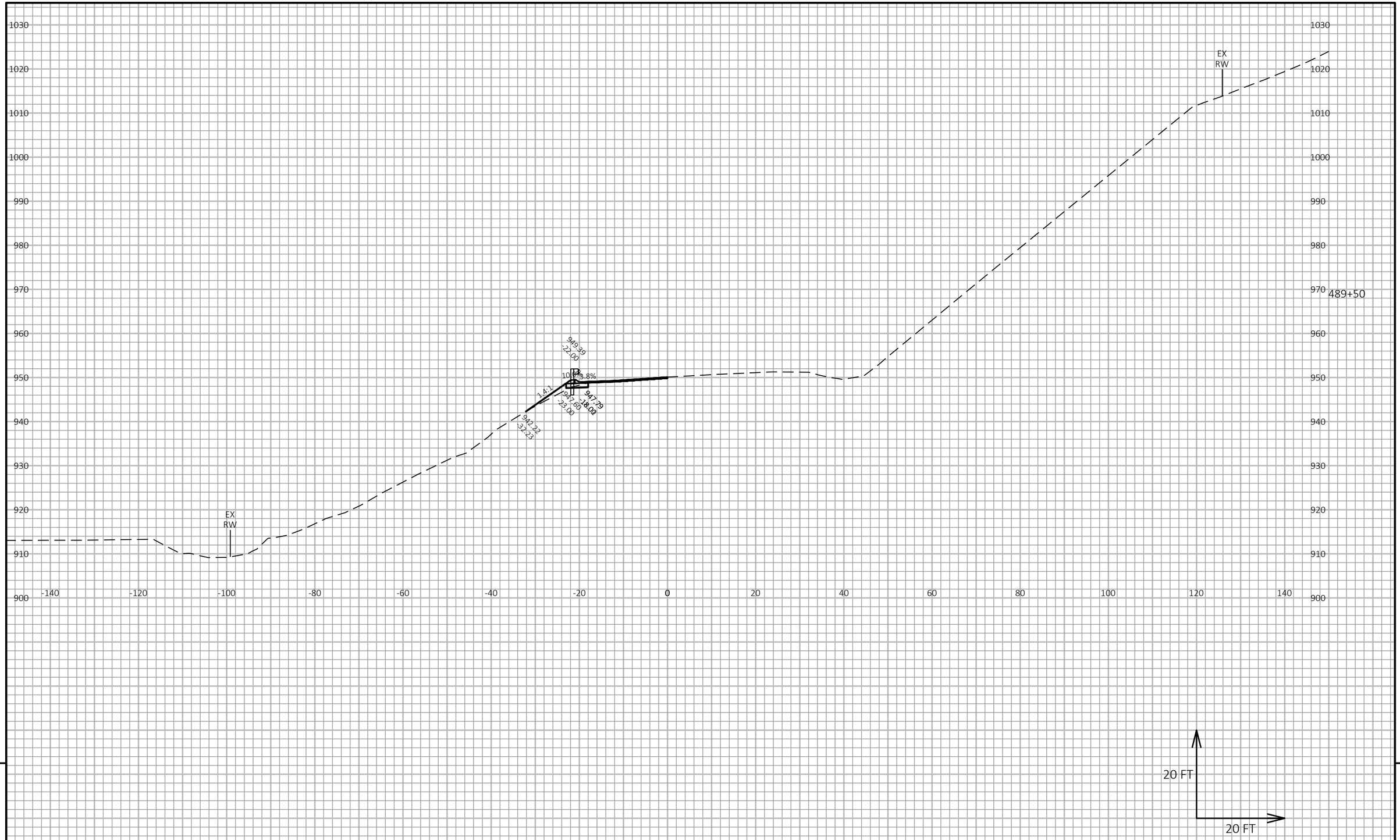
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 483	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 48

PLOT DATE : 2/16/2021 5:29 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

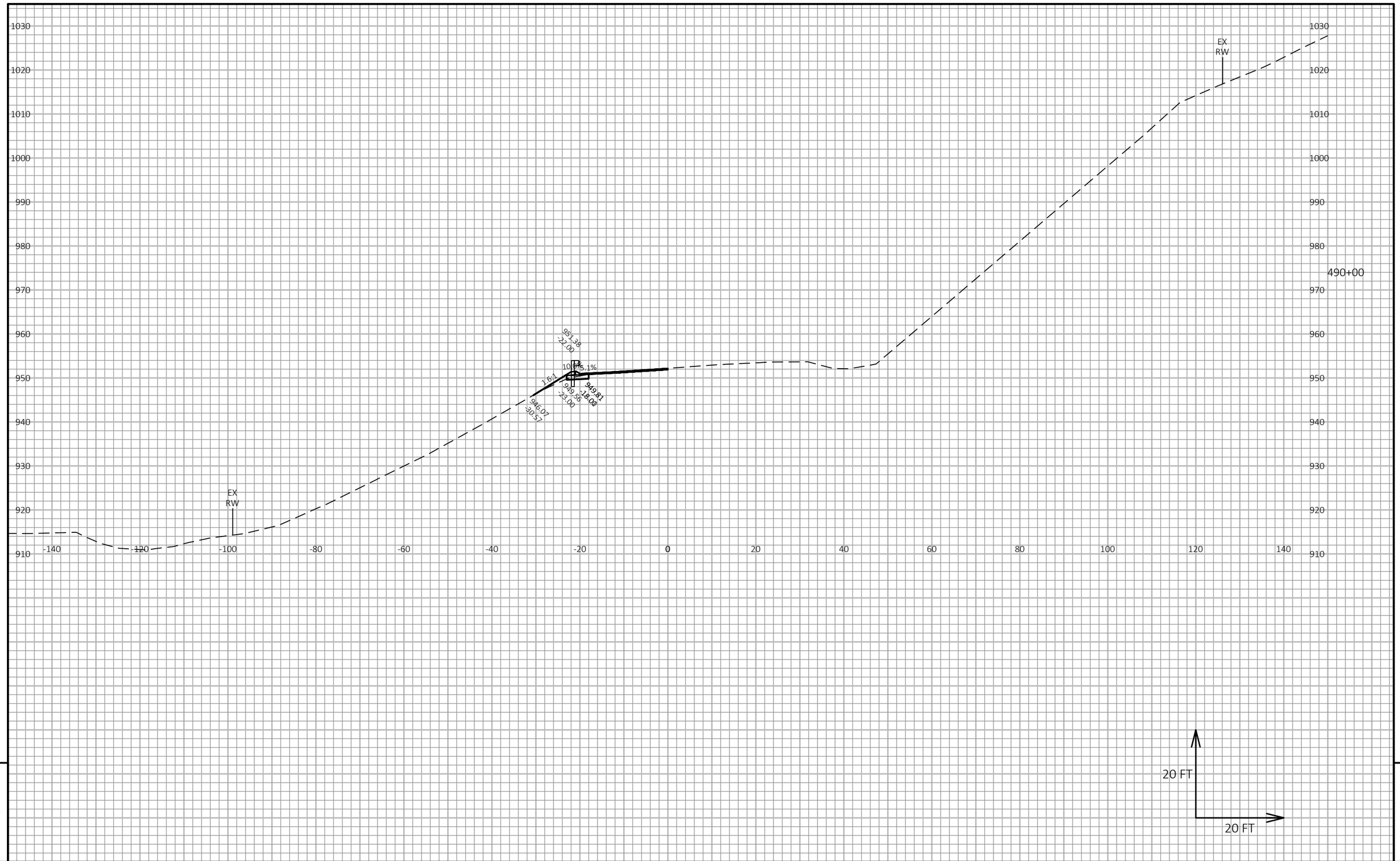
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 484	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 49

PLOT DATE : 2/16/2021 5:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

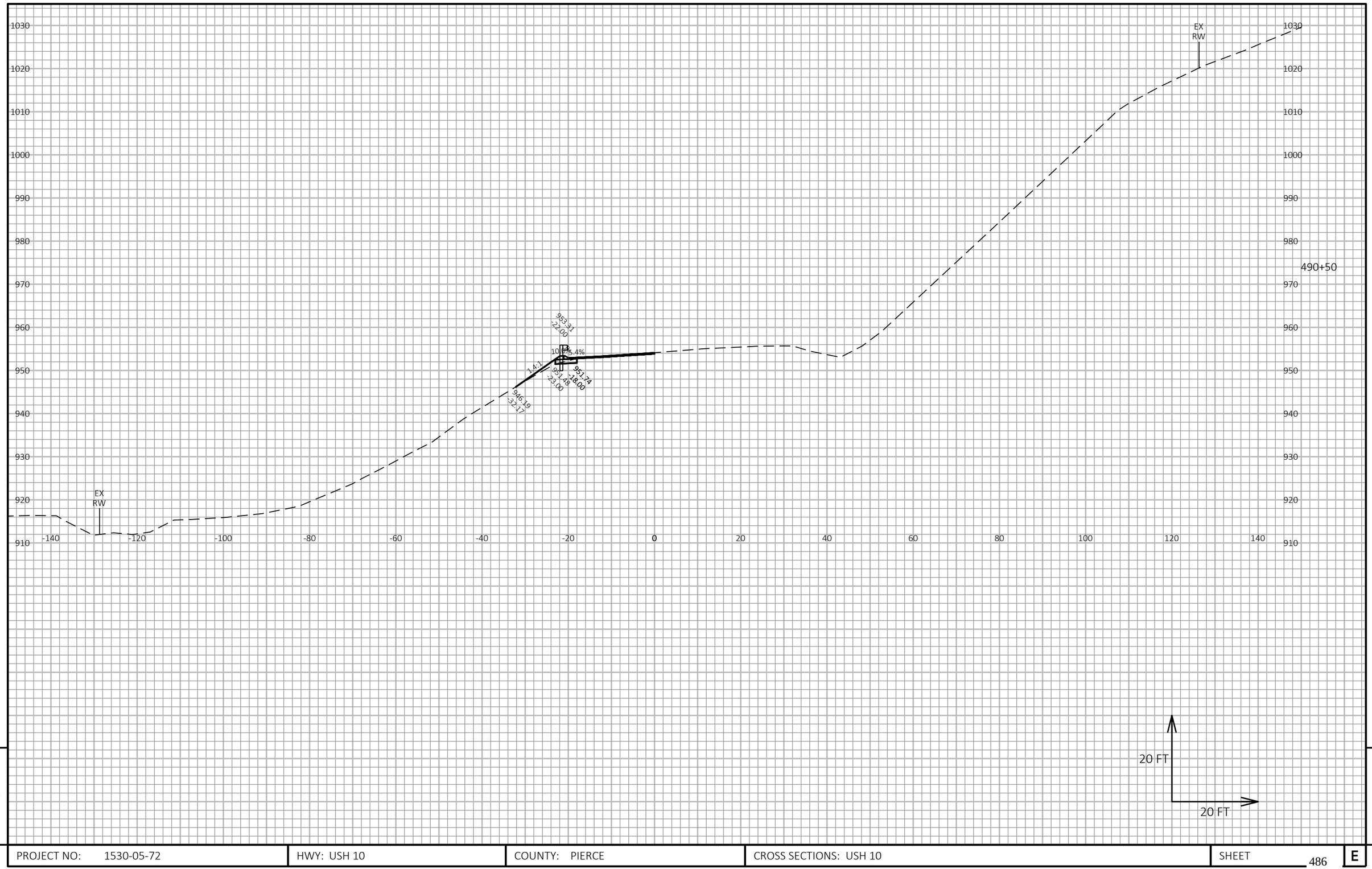
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 485	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 50

PLOT DATE : 2/16/2021 5:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

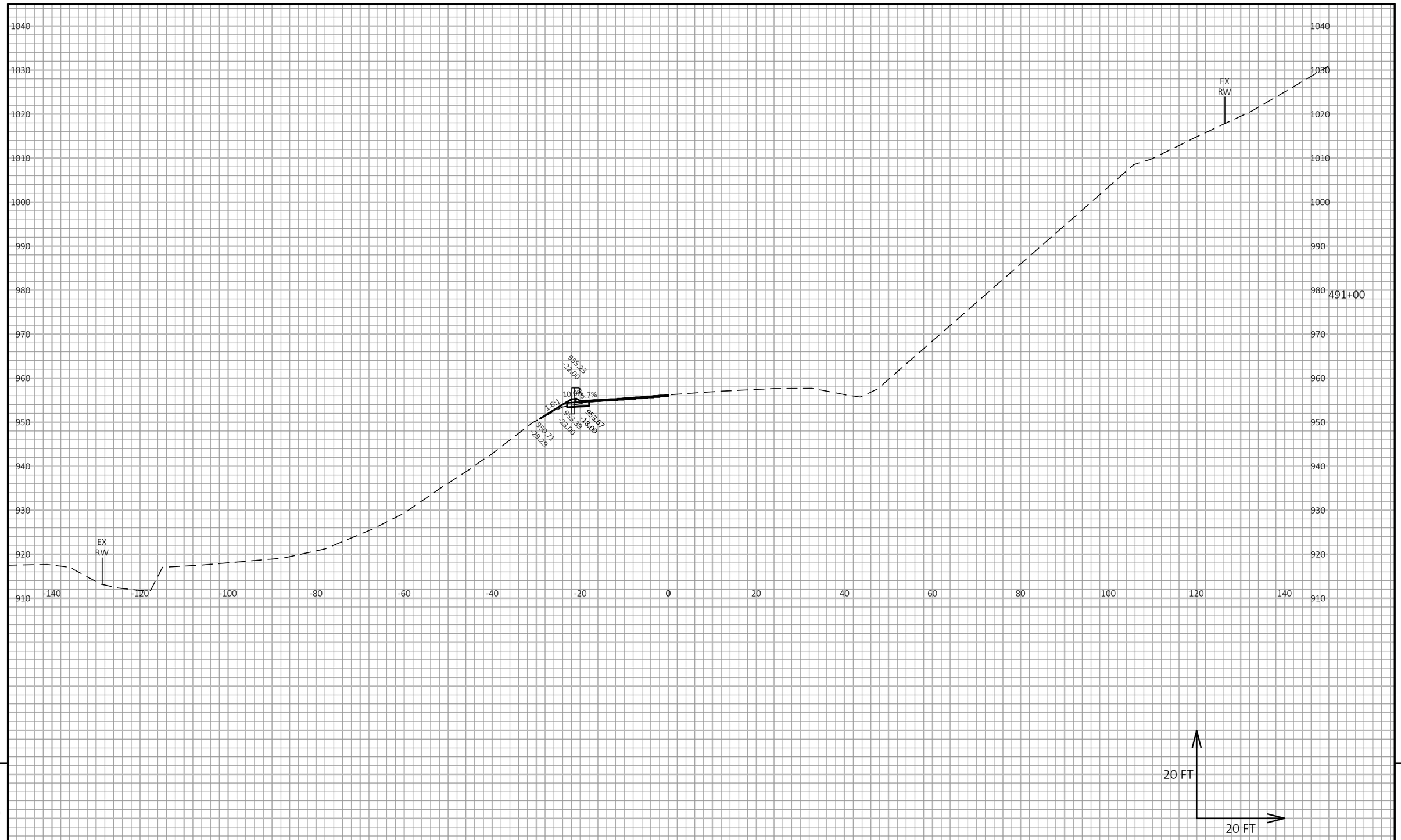
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 486	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 51

PLOT DATE : 2/16/2021 5:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

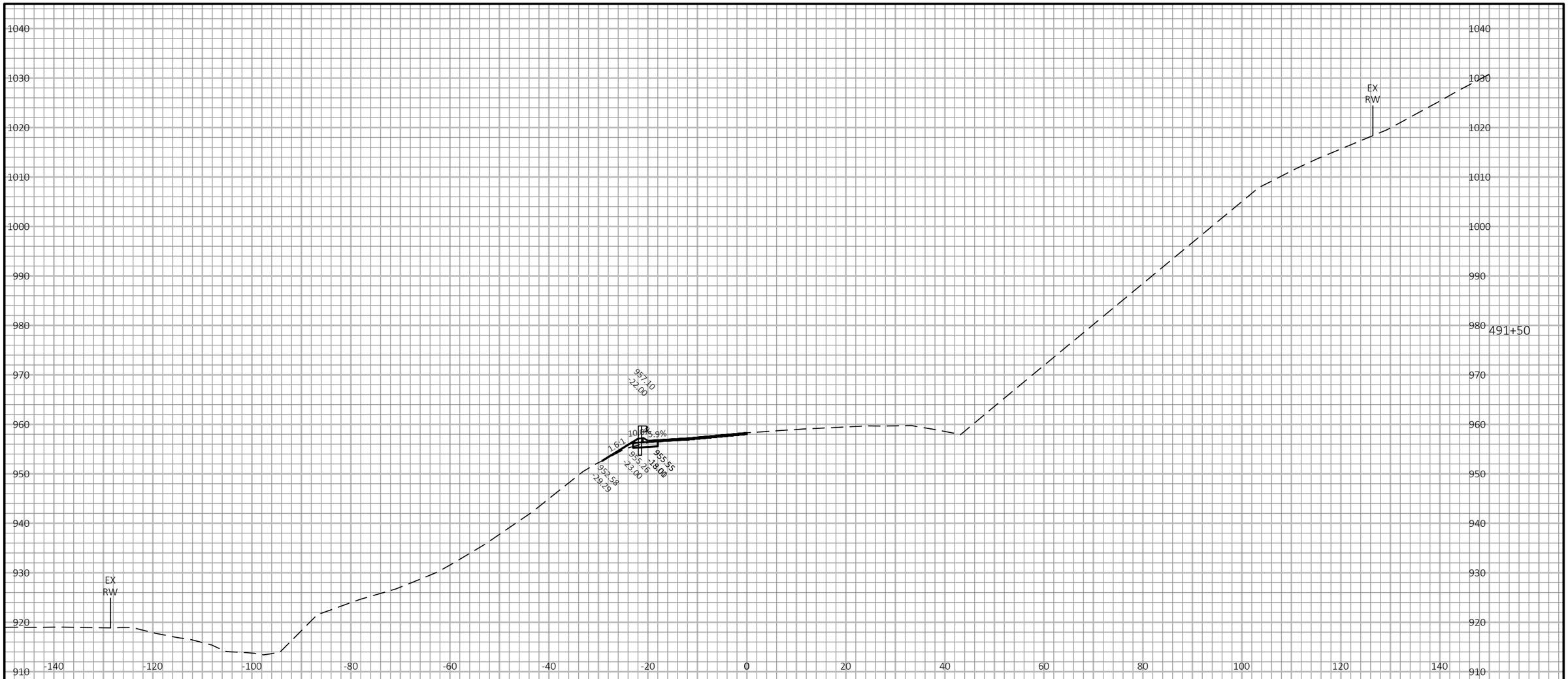
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 487	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 52

PLOT DATE : 2/16/2021 5:30 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

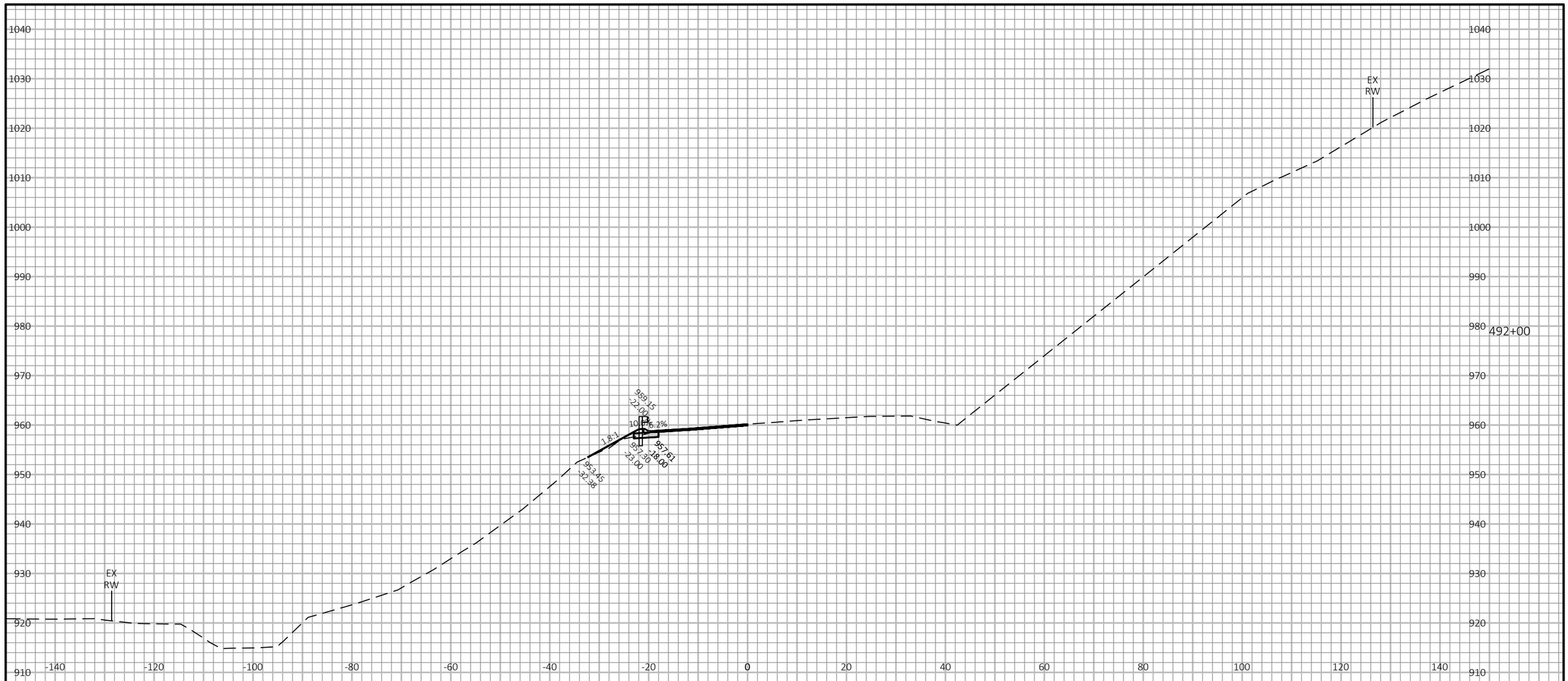
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 488	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 53

PLOT DATE : 2/16/2021 5:31 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 489	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 54

PLOT DATE : 2/16/2021 5:31 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1030
1020
1010
1000
990
980
970
960
950
940
930
920
910

EX
RW

492+50

961.05
-22.00

10.0%
6.5%

959.51
-18.00

959.18
-23.00

959.23
-25.03

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

20 FT

20 FT

9

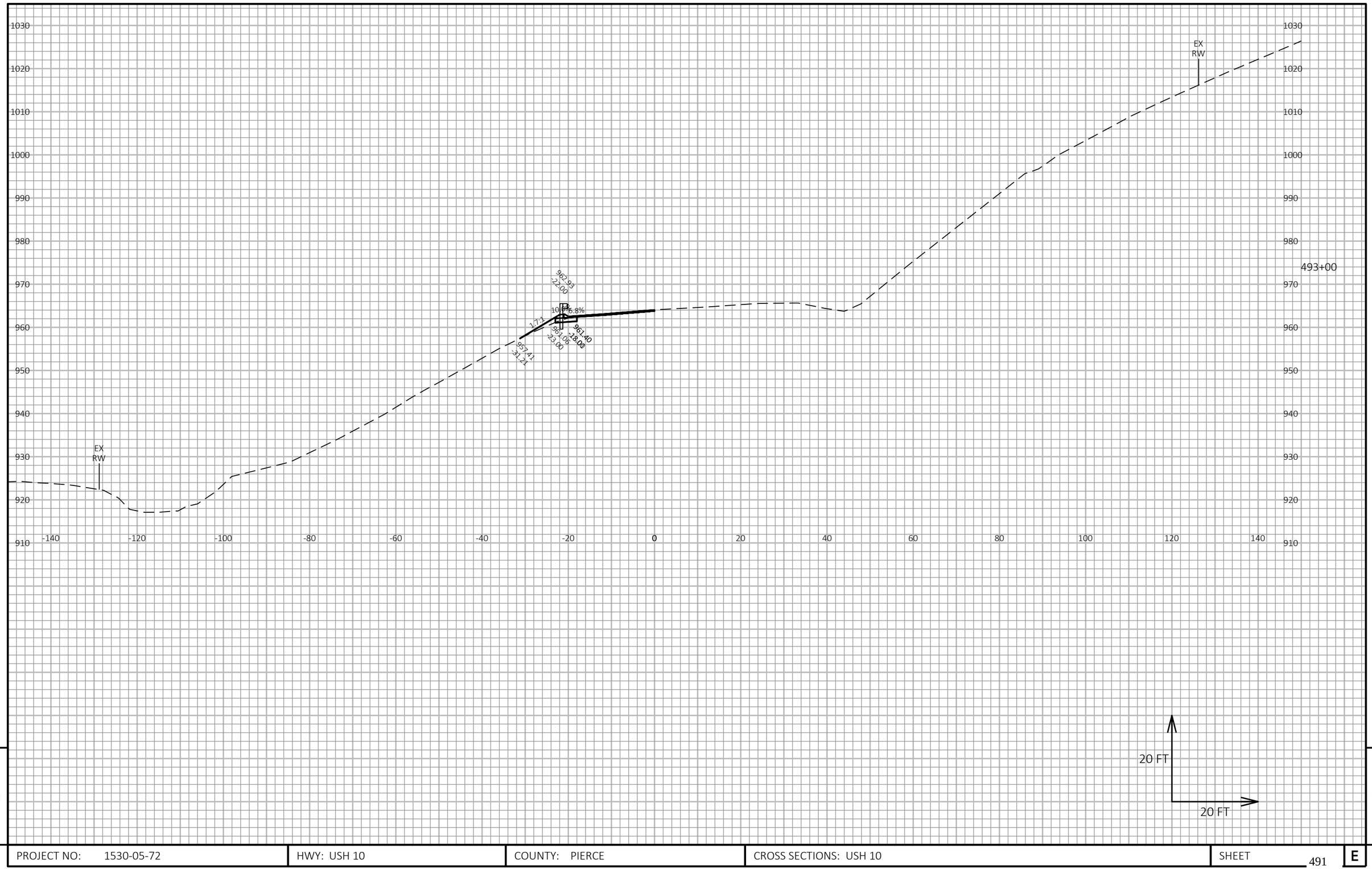
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 490	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 55

PLOT DATE : 2/16/2021 5:31 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

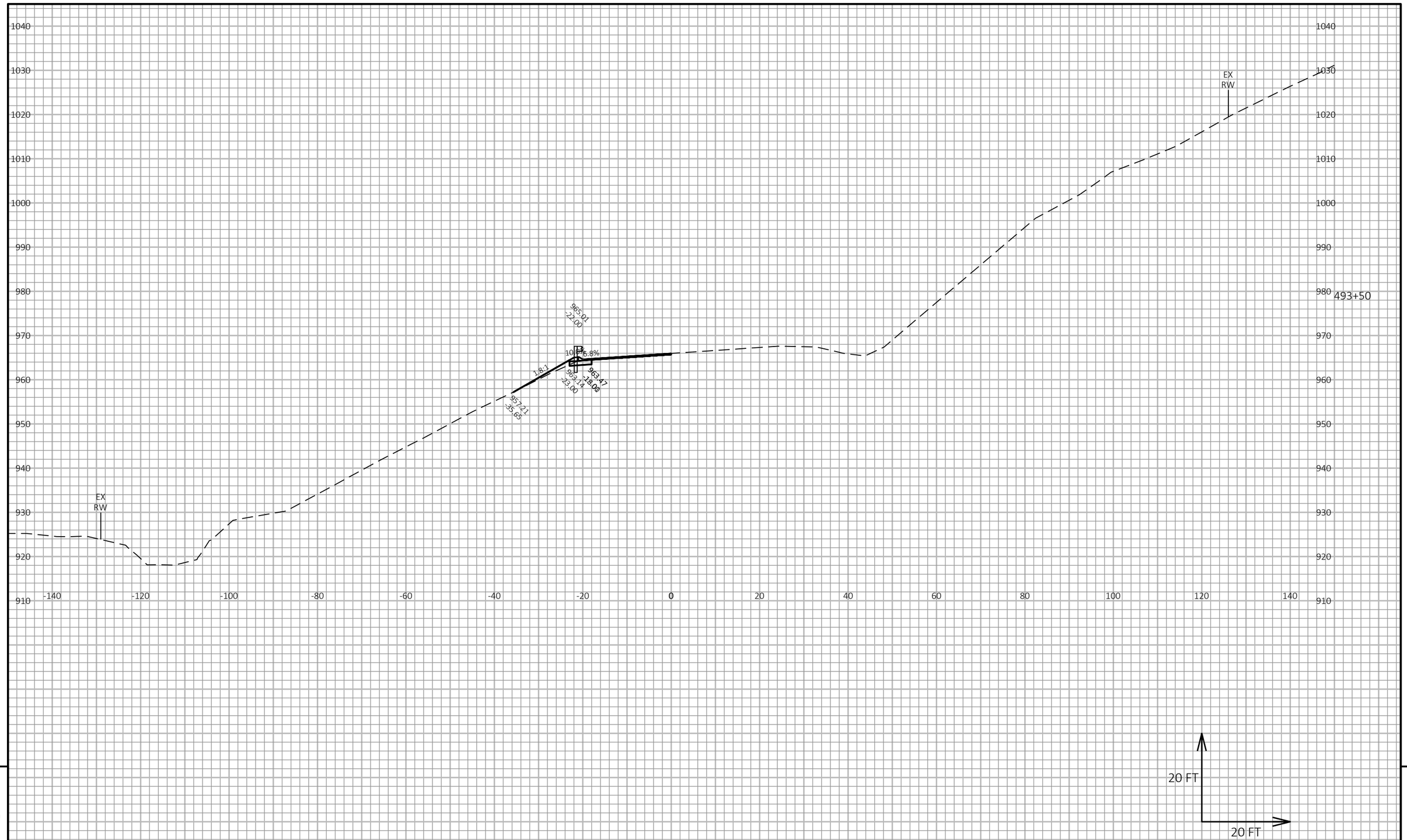
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 491	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 56

PLOT DATE : 2/16/2021 5:32 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

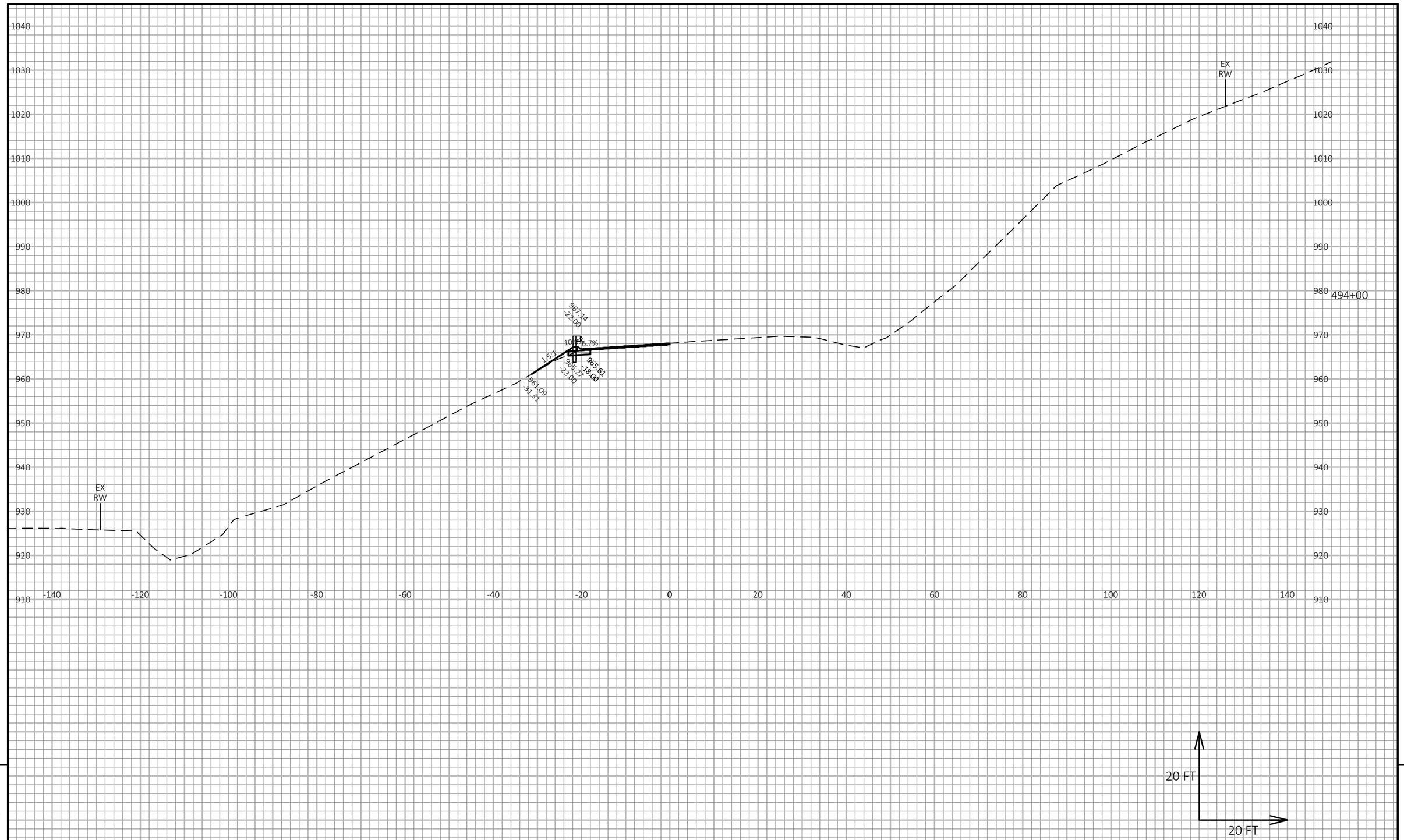
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 492	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 57

PLOT DATE : 2/16/2021 5:32 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 493	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 58

PLOT DATE : 2/16/2021 5:32 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

1040
1030
1020
1010
1000
990
980
970
960
950
940
930
920

EX
RW

494+50

969.30
22.00

10 6.5%

967.47
23.00

1.47

960.65
24.37

96774
18.00

EX
RW

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

20 FT

20 FT

9

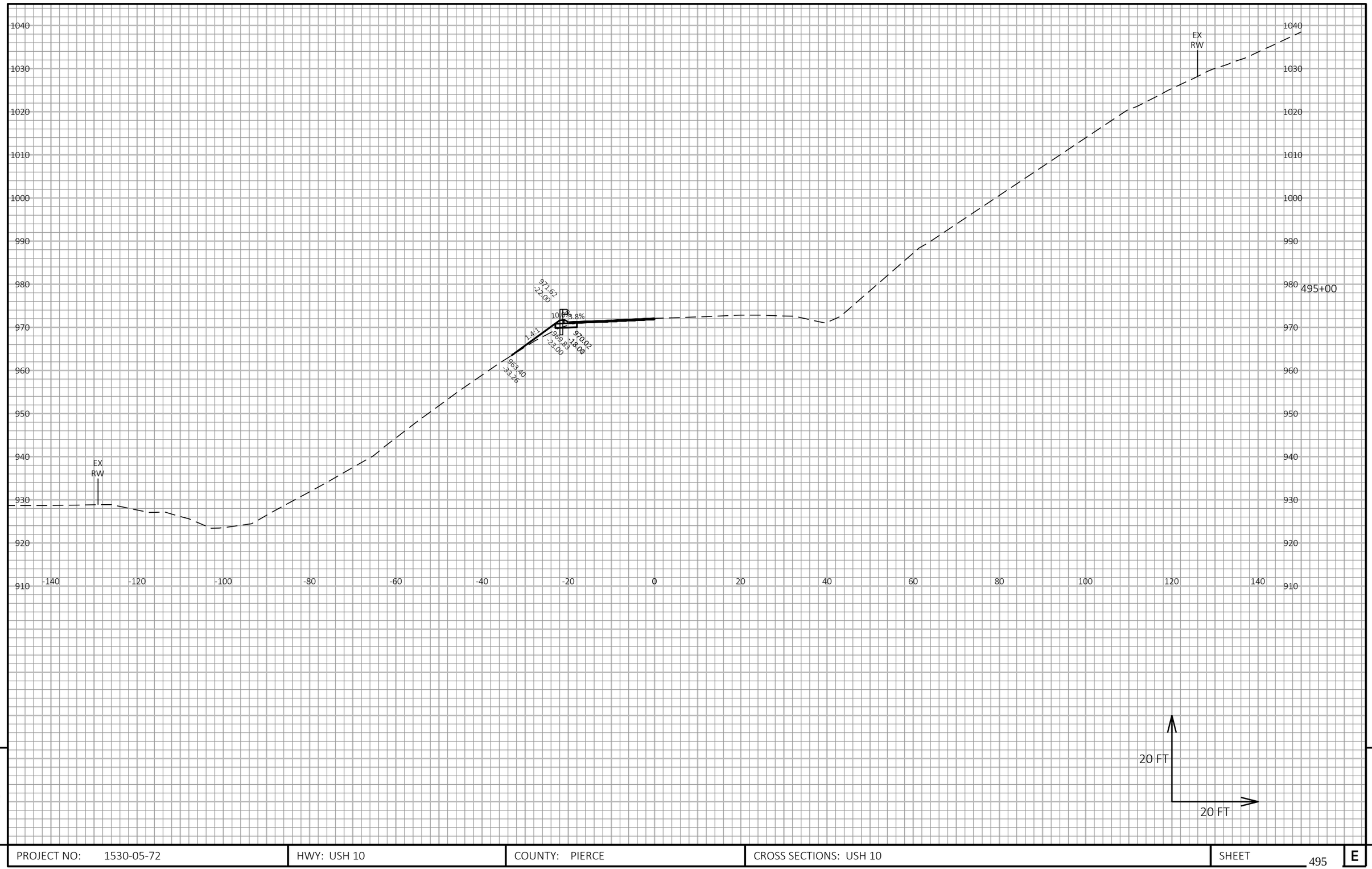
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 494	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_3.DWG
LAYOUT NAME - 59

PLOT DATE : 2/16/2021 5:32 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

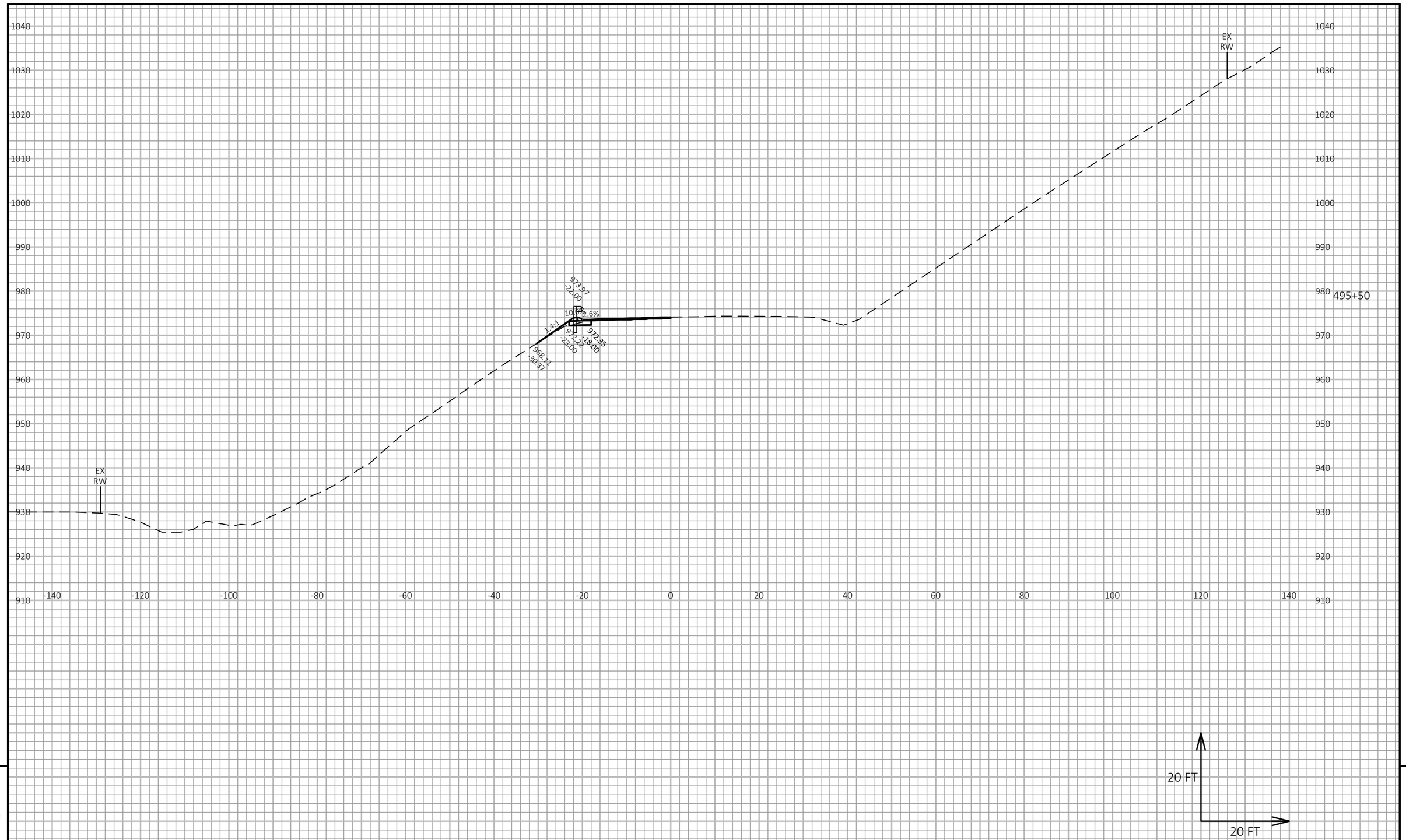
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 495	E

9

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 10

PLOT DATE : 2/17/2021 7:39 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

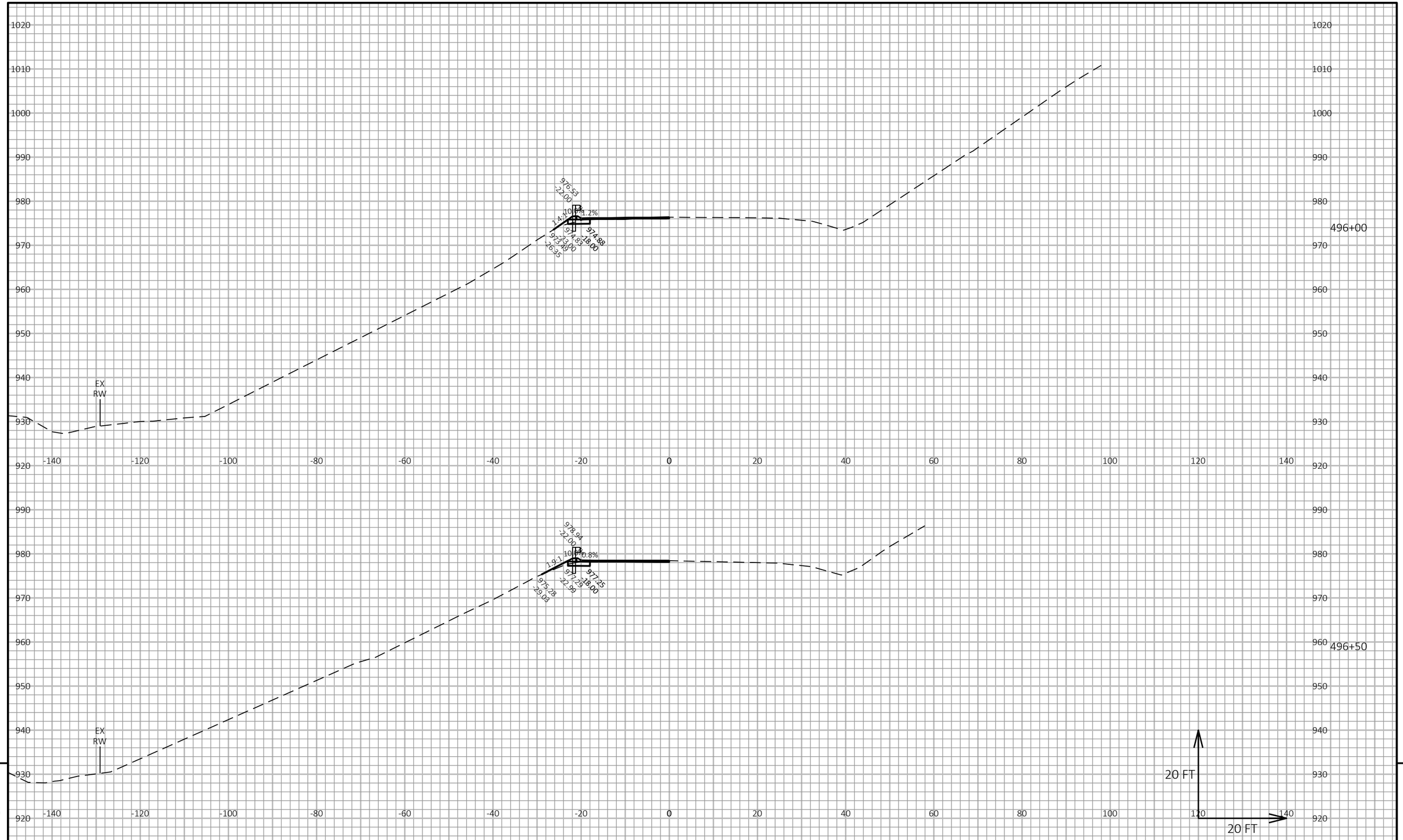
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 496	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 11

PLOT DATE : 2/17/2021 7:40 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

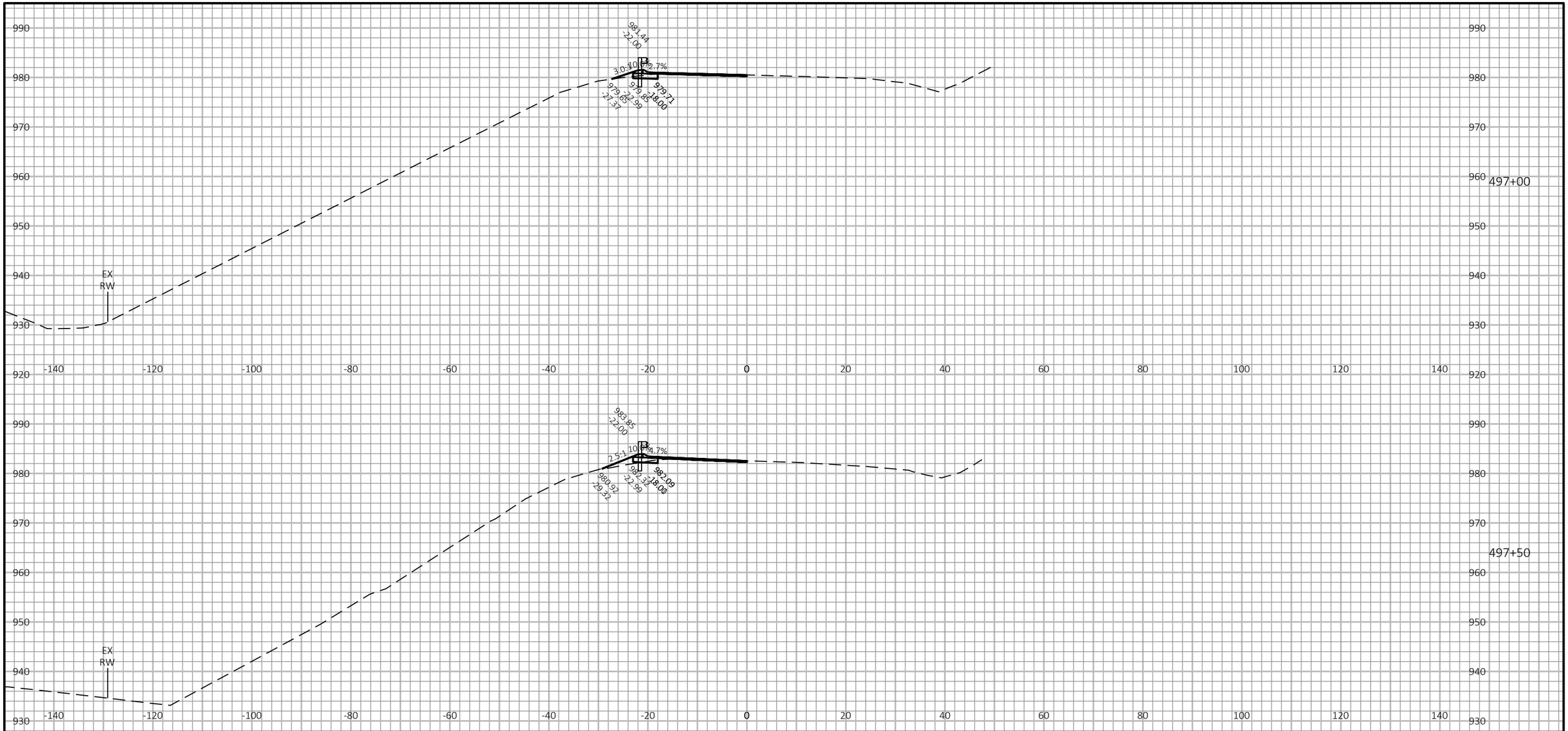
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 497	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 12

PLOT DATE : 2/17/2021 7:40 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



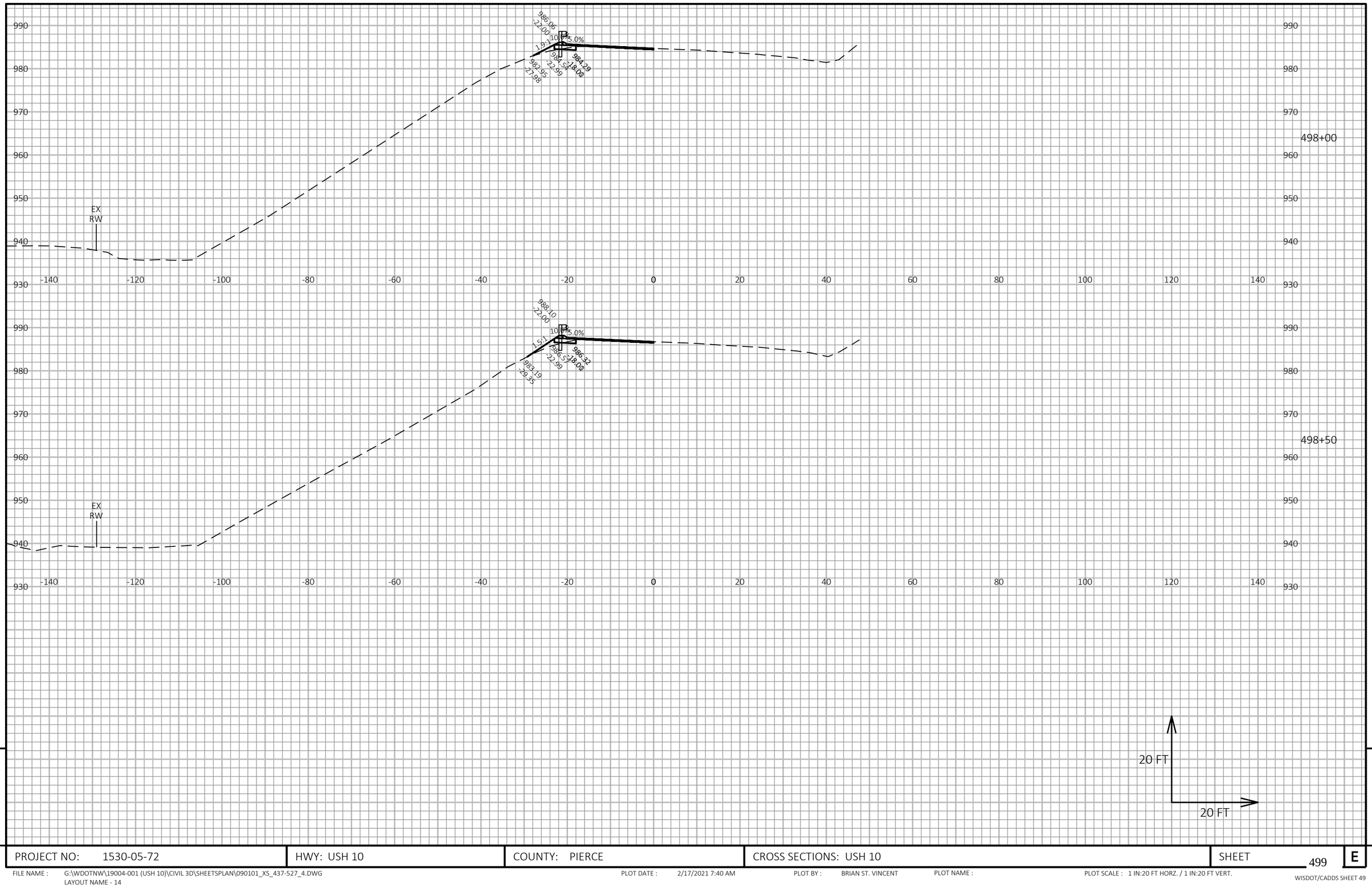
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9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 498	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 13

PLOT DATE : 2/17/2021 7:40 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

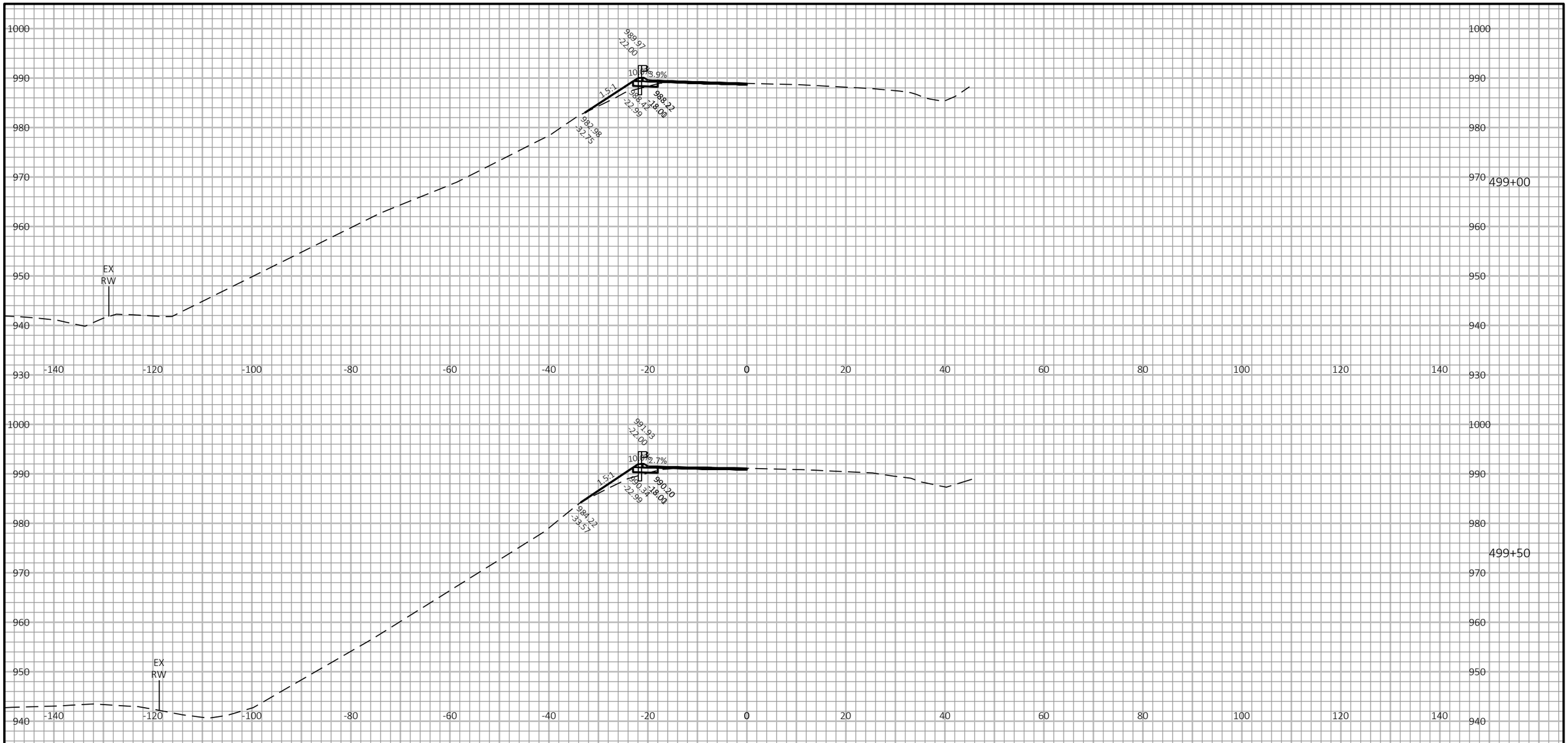
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 499	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 14

PLOT DATE : 2/17/2021 7:40 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

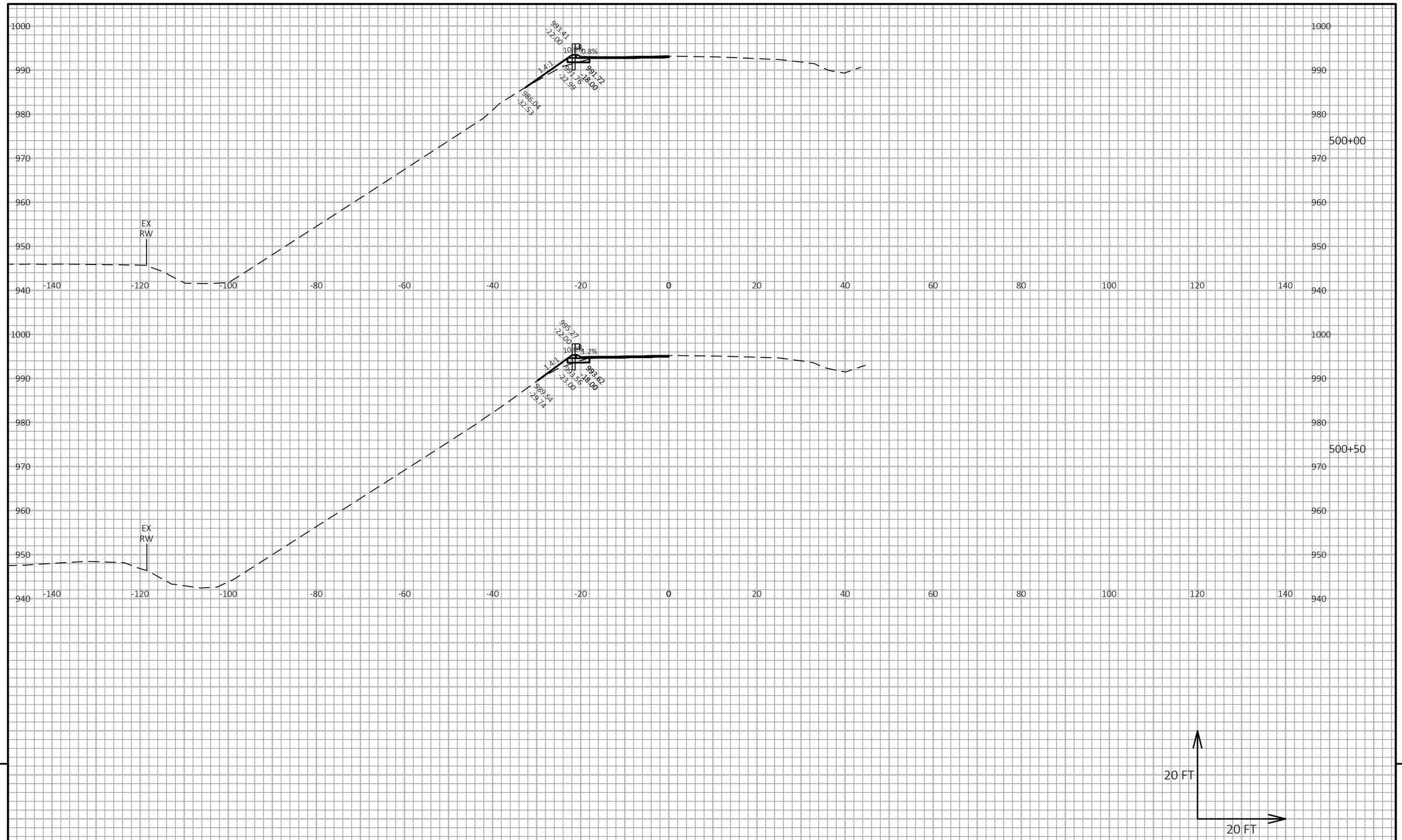
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 500	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 15

PLOT DATE : 2/17/2021 7:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

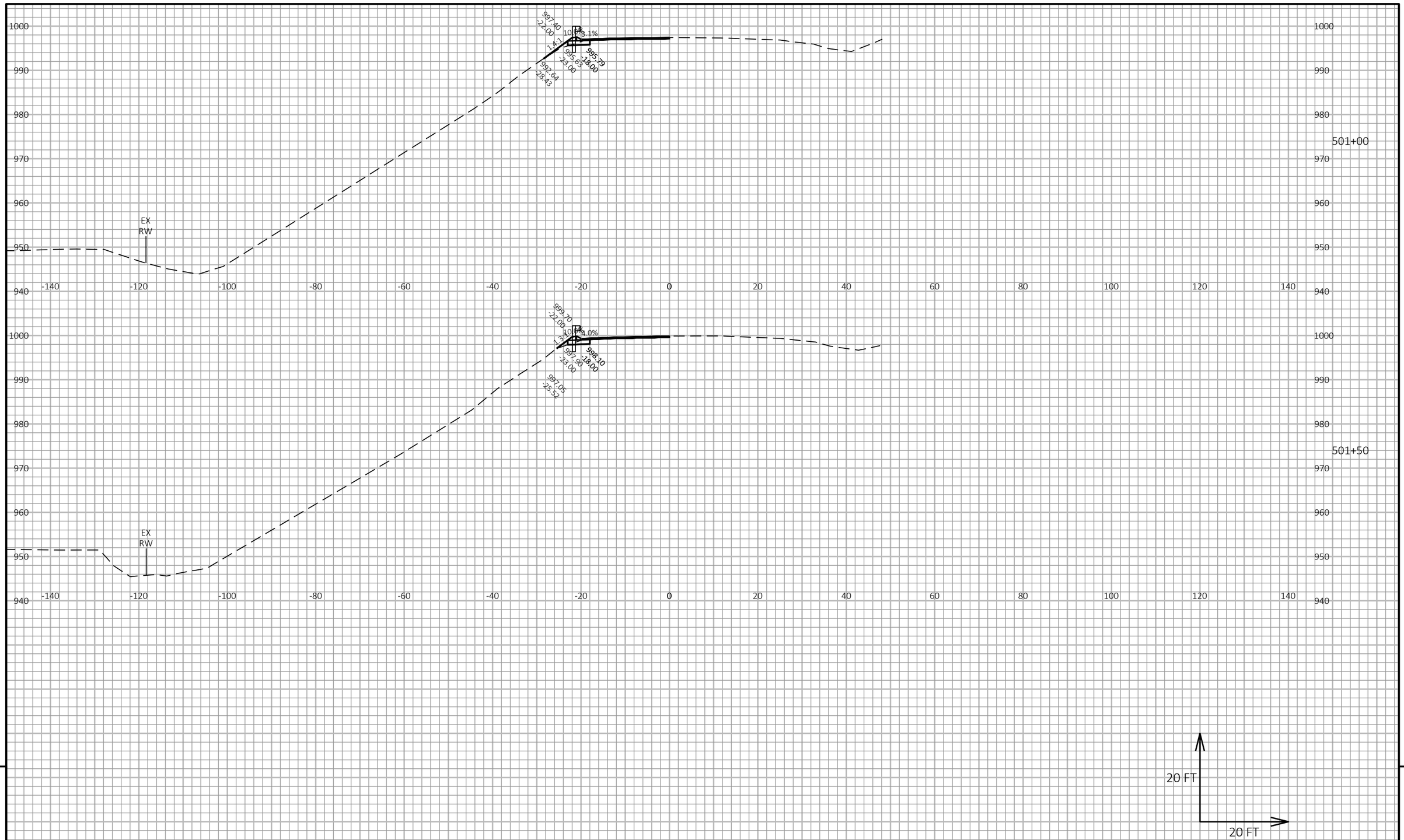


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 501	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 16

PLOT DATE : 2/17/2021 7:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

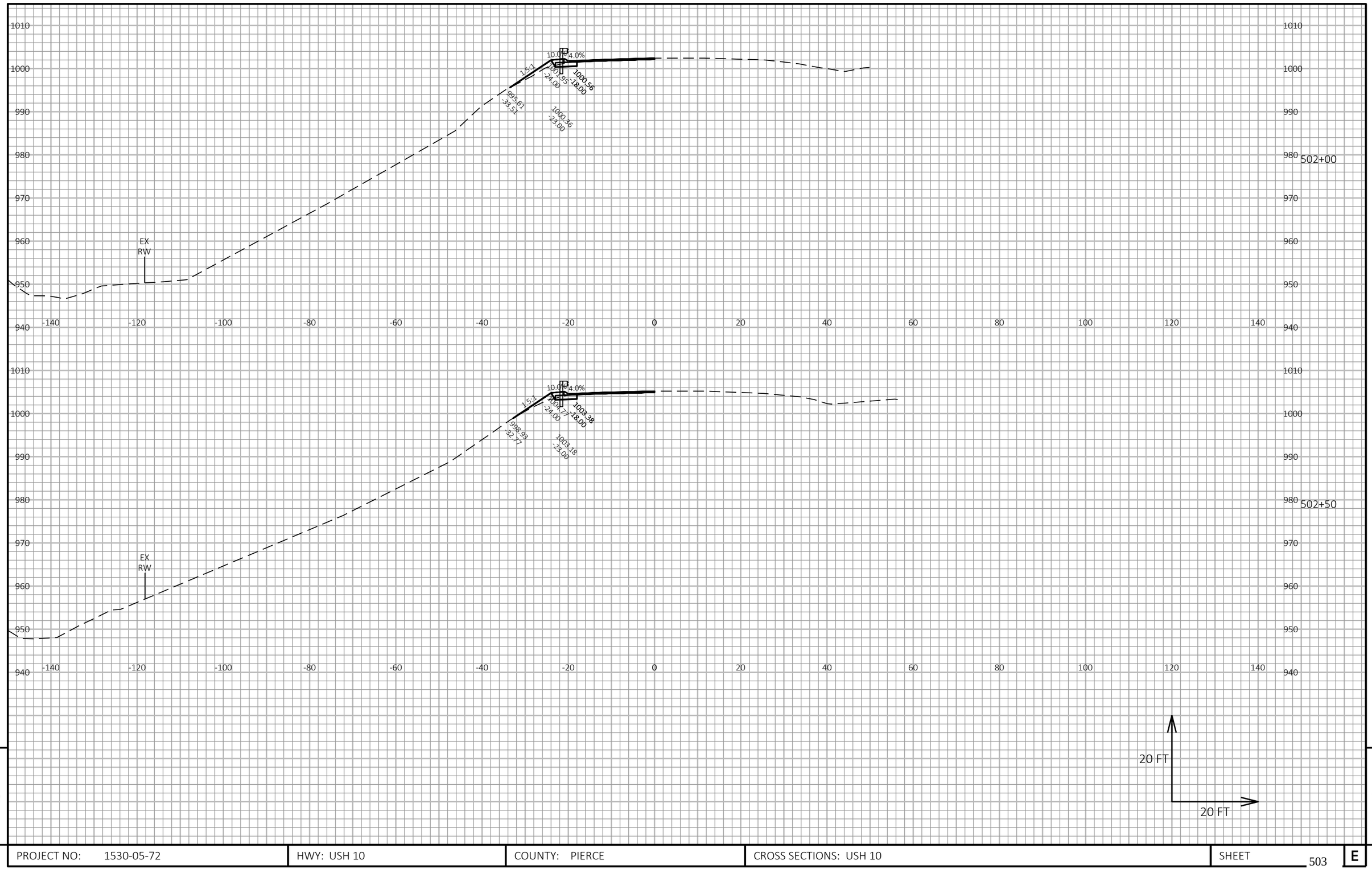
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 502	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 17

PLOT DATE : 2/17/2021 7:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

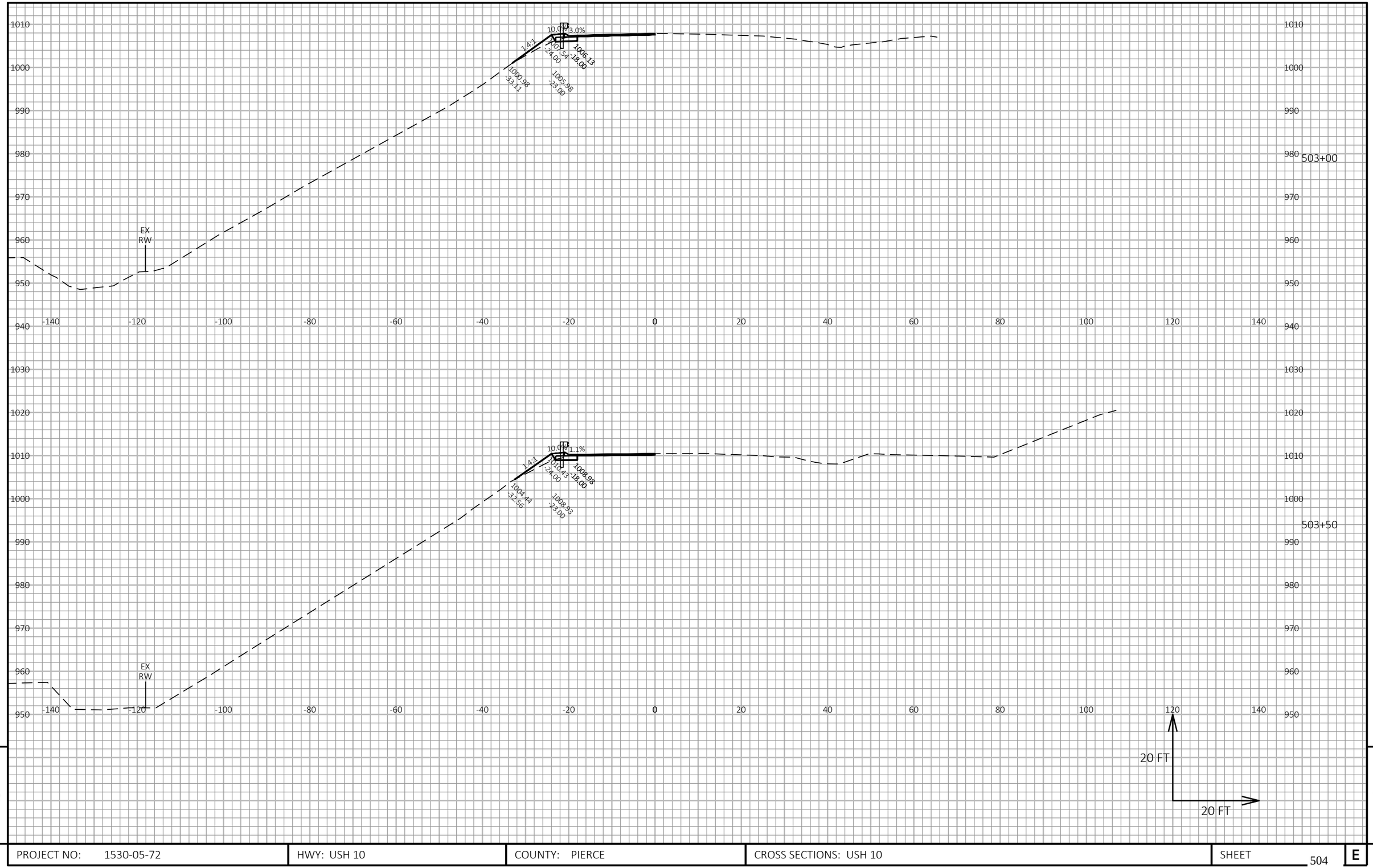
PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 503	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 18

PLOT DATE : 2/17/2021 7:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9

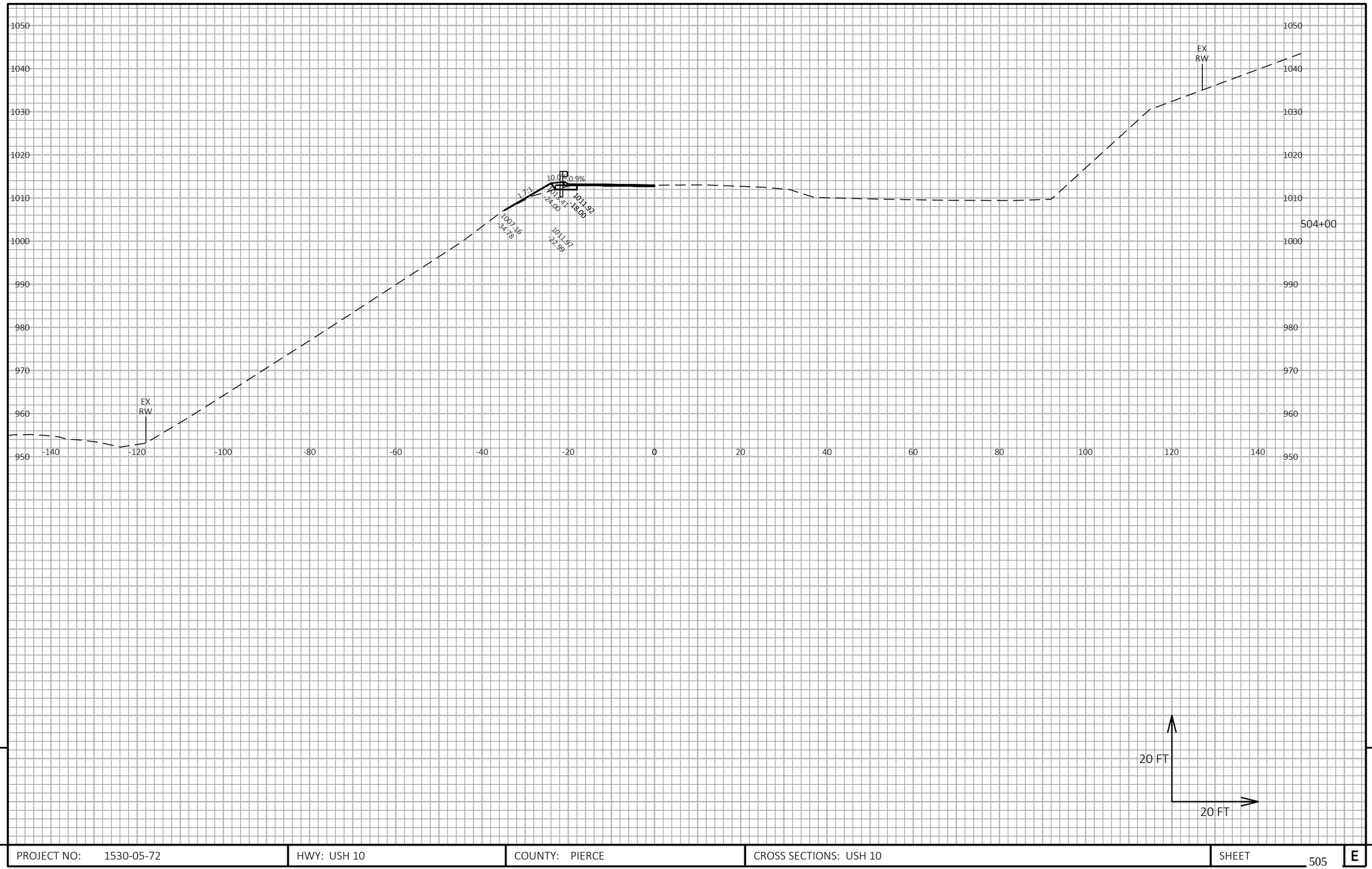


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 504	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 19

PLOT DATE : 2/17/2021 7:42 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

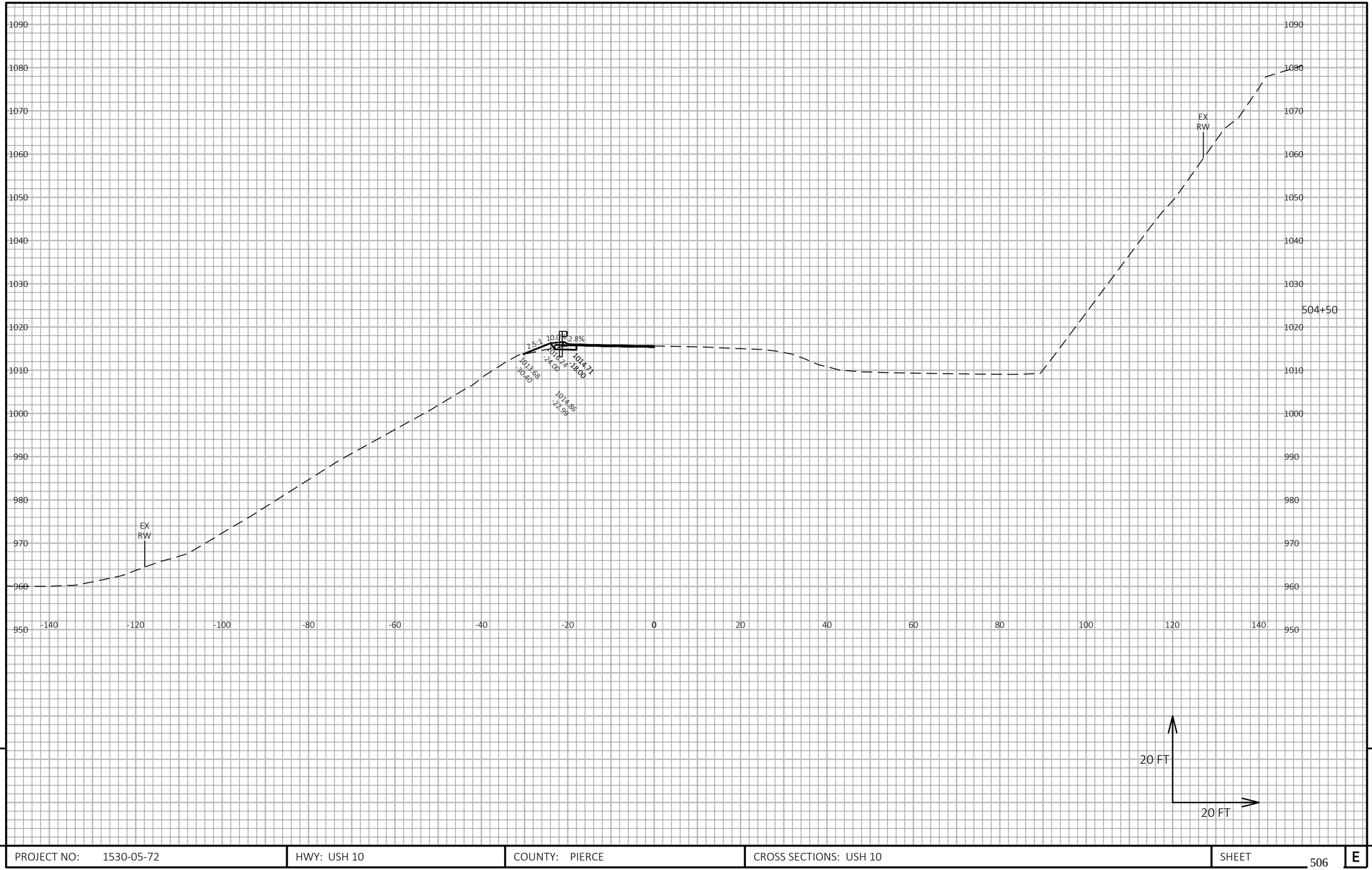
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 505	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 20

PLOT DATE : 2/17/2021 7:42 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

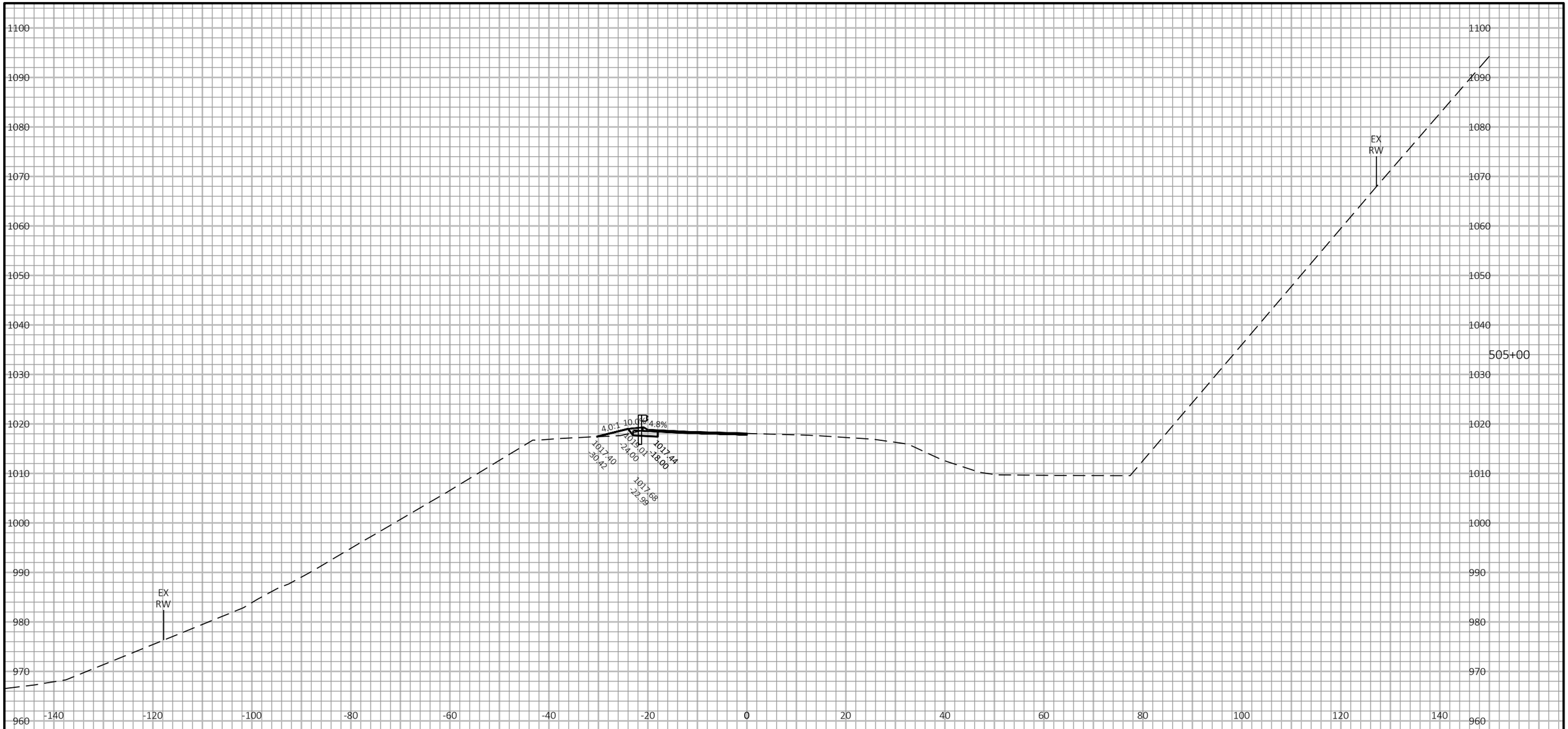
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 506	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 21

PLOT DATE : 2/17/2021 7:42 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

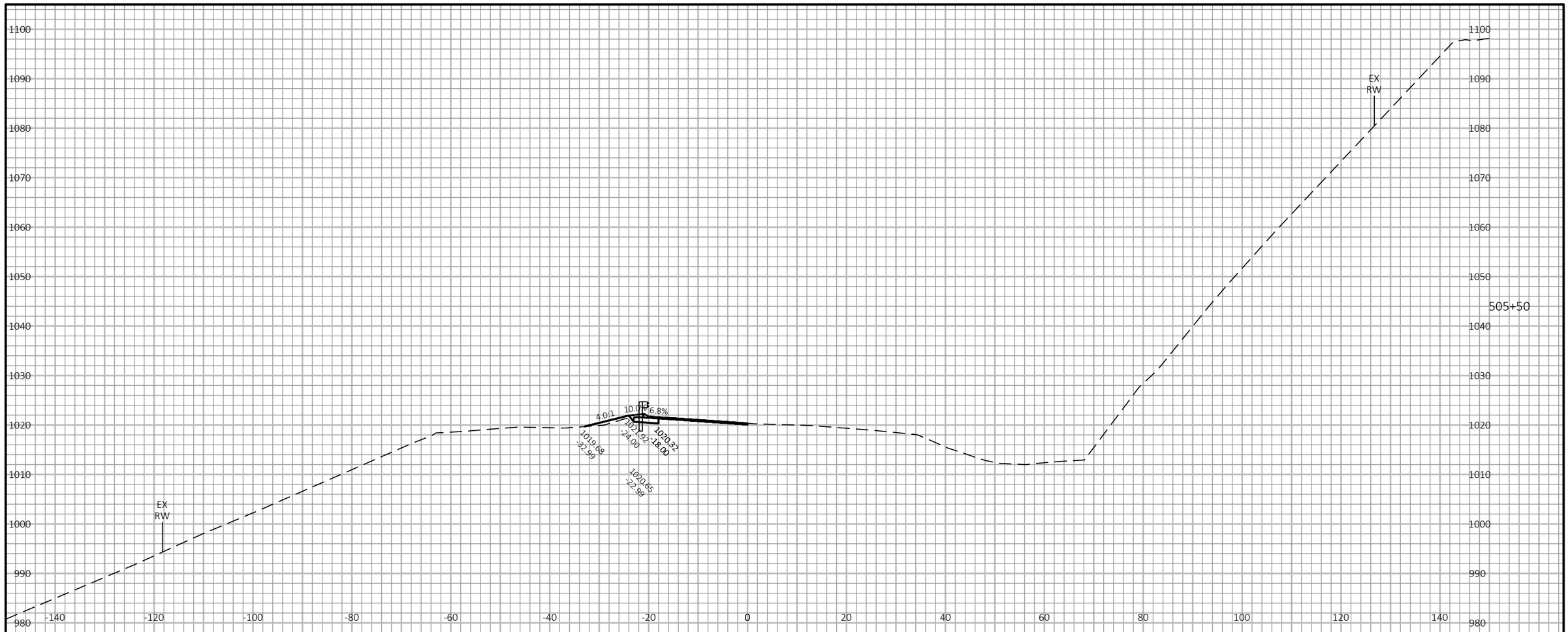
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 507	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 22

PLOT DATE : 2/17/2021 7:42 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

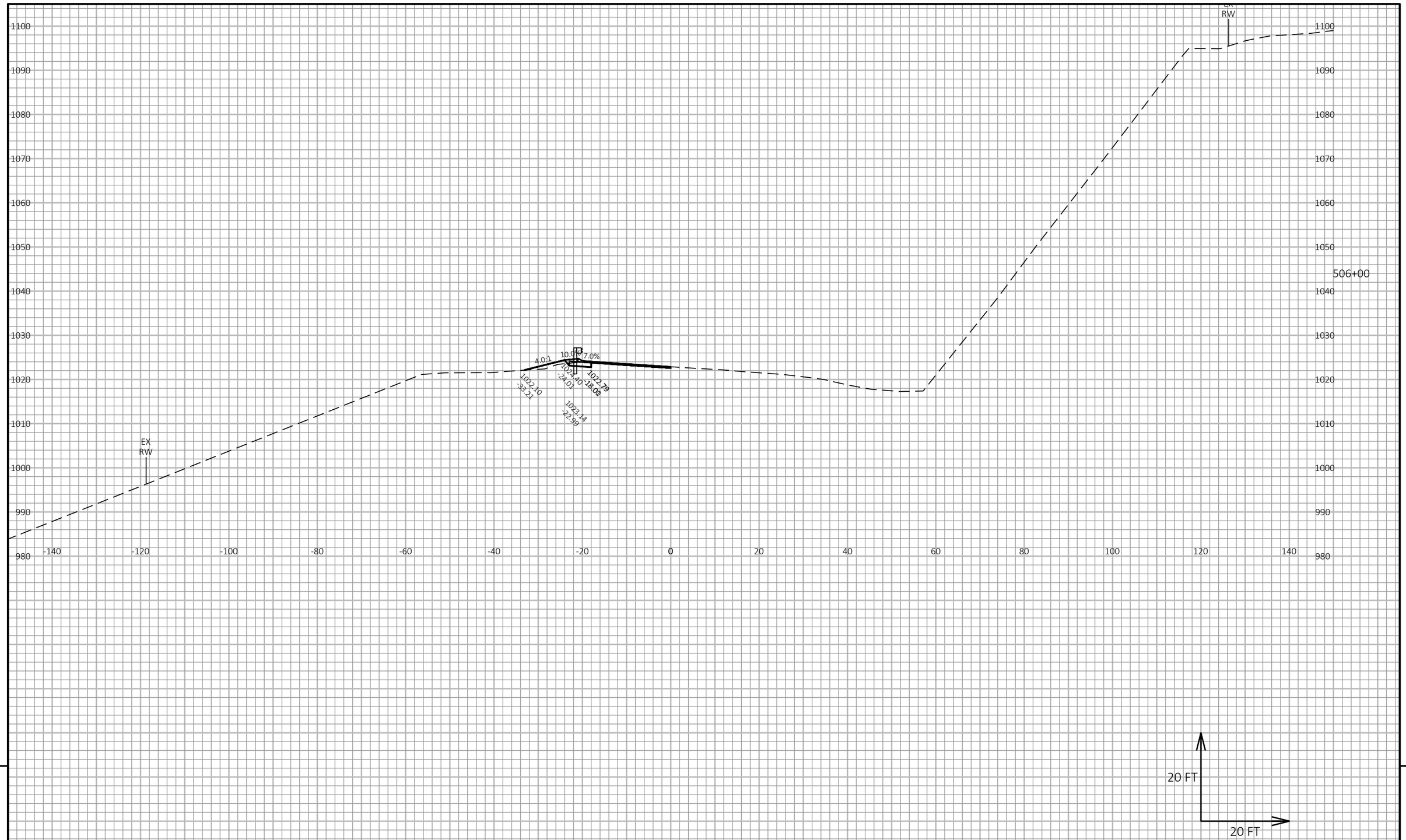
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 508	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 23

PLOT DATE : 2/17/2021 7:43 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

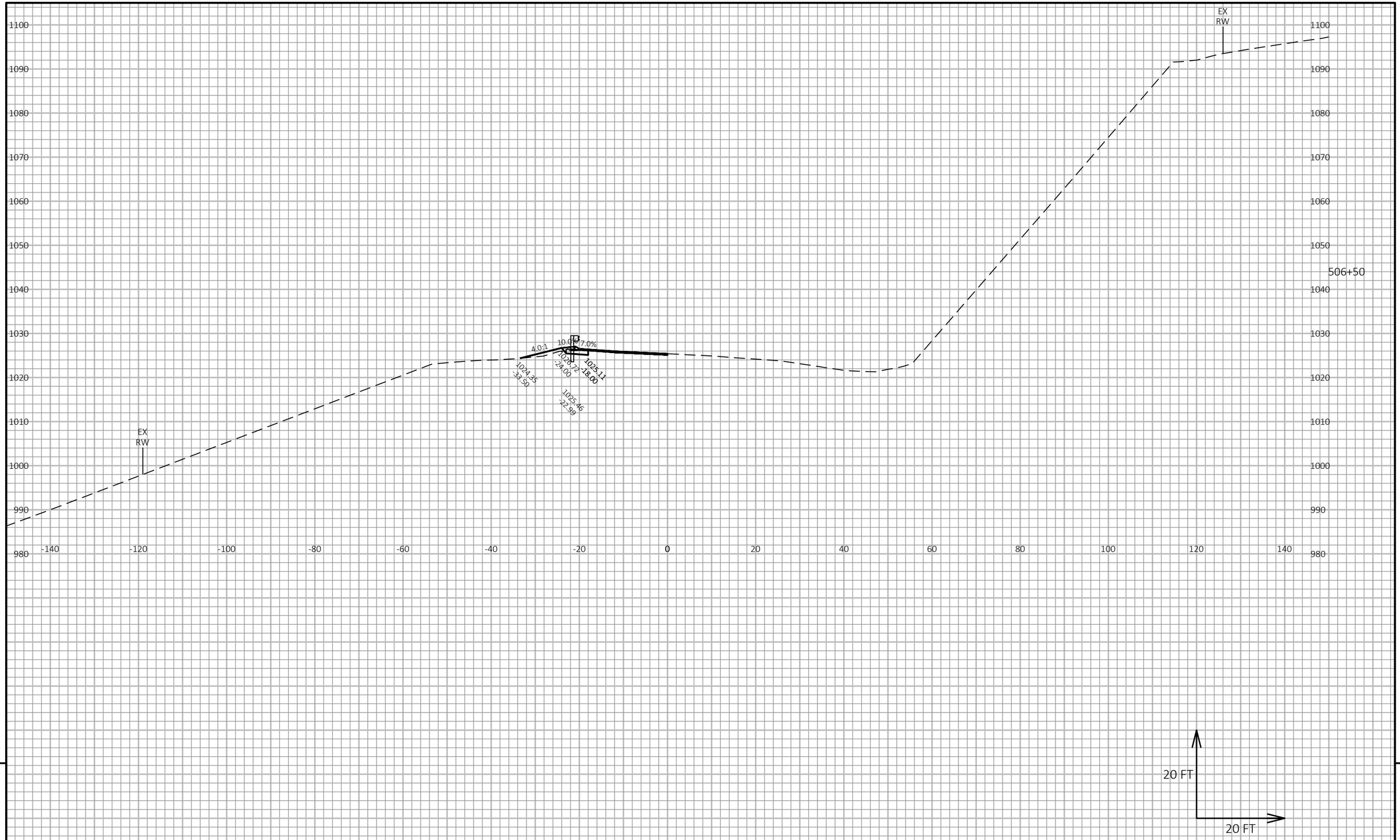
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 509	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 24

PLOT DATE : 2/17/2021 7:43 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

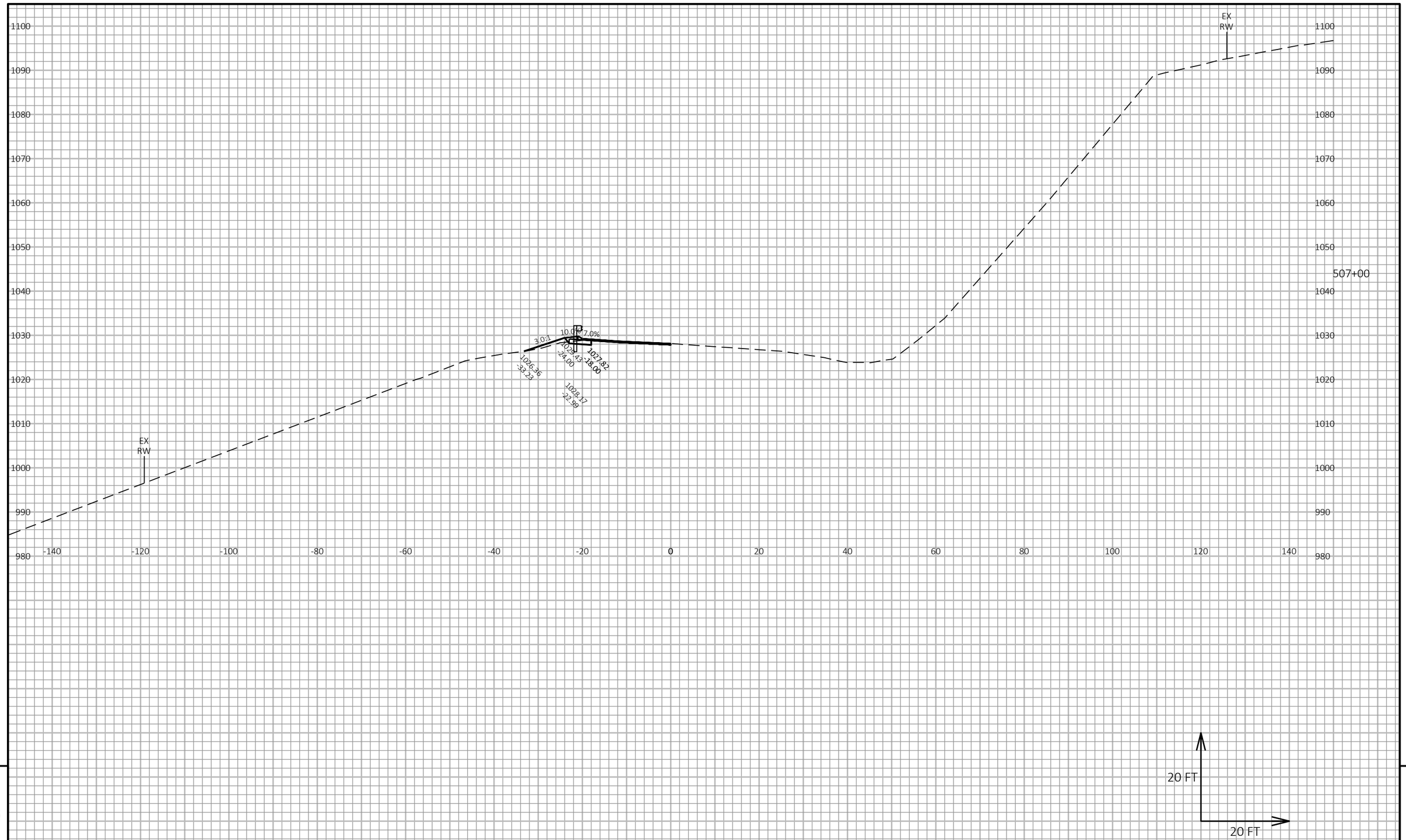
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 510	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 25

PLOT DATE : 2/17/2021 7:43 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

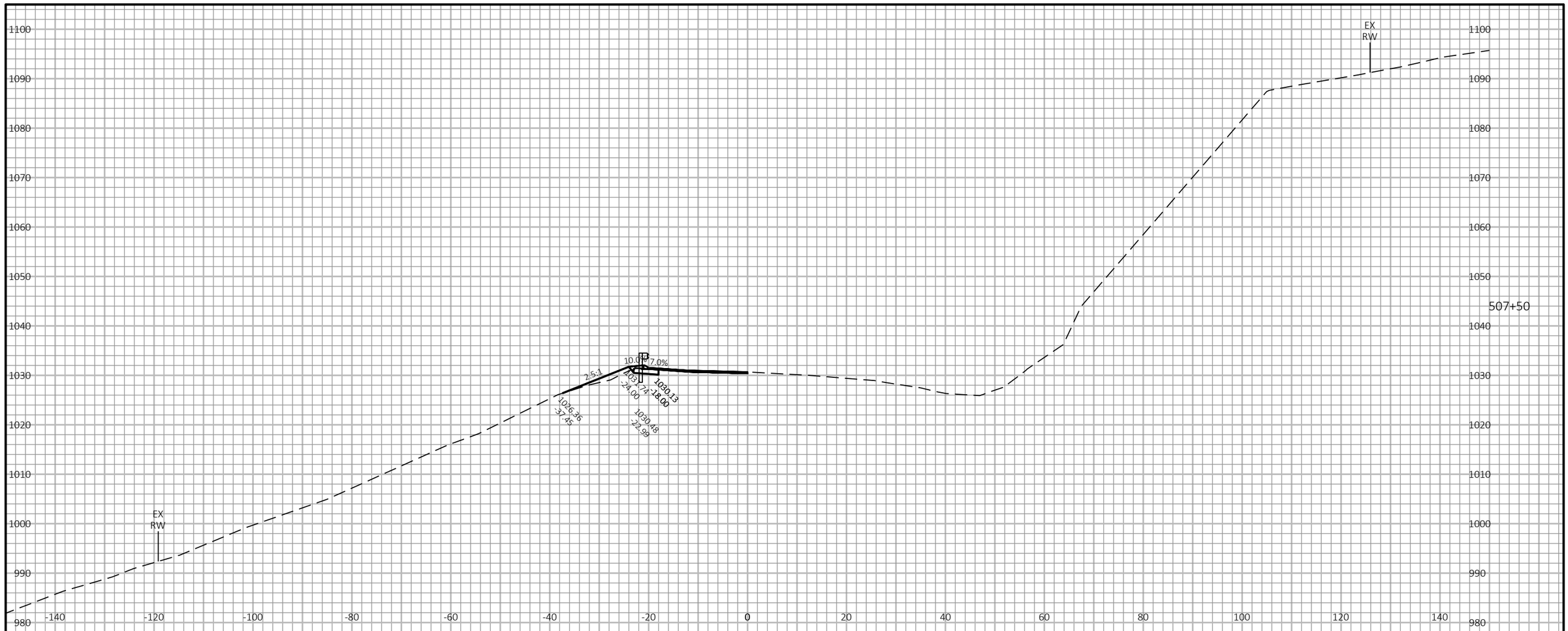
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 511	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 26

PLOT DATE : 2/17/2021 7:43 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

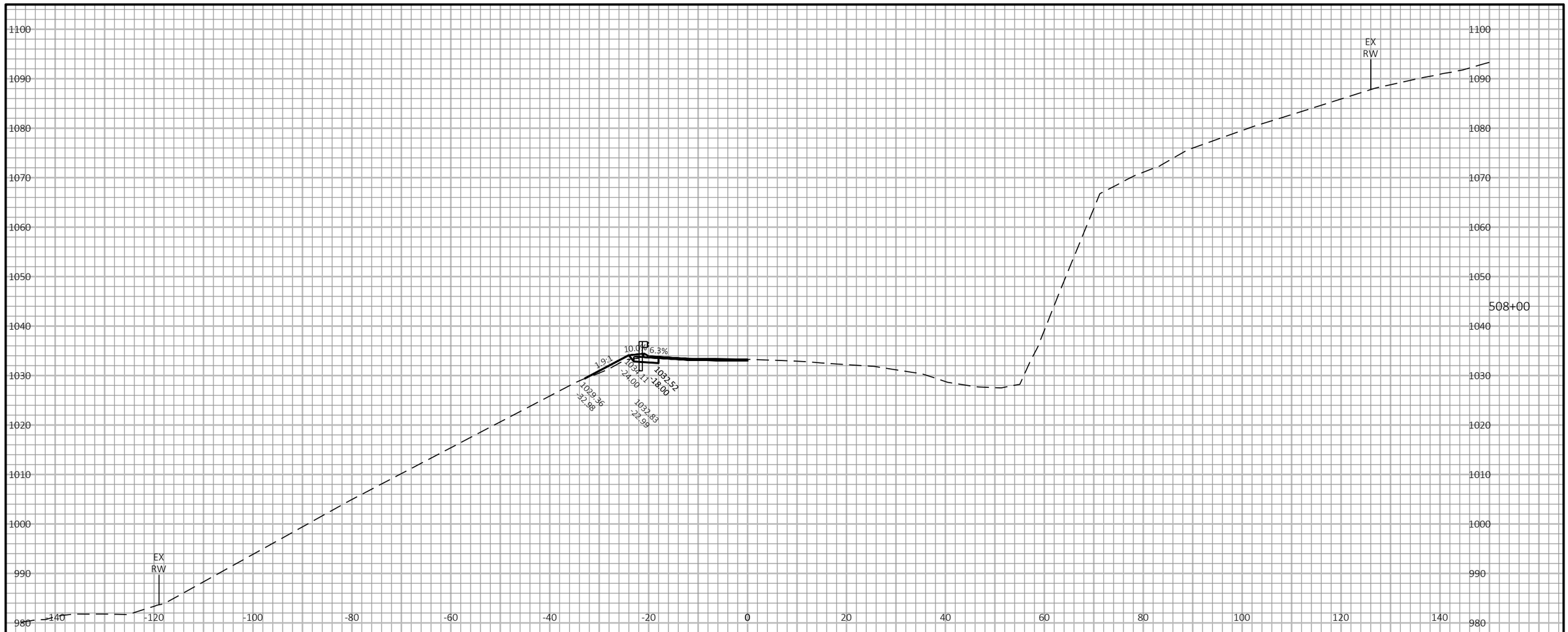
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 512	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 27

PLOT DATE : 2/17/2021 7:44 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

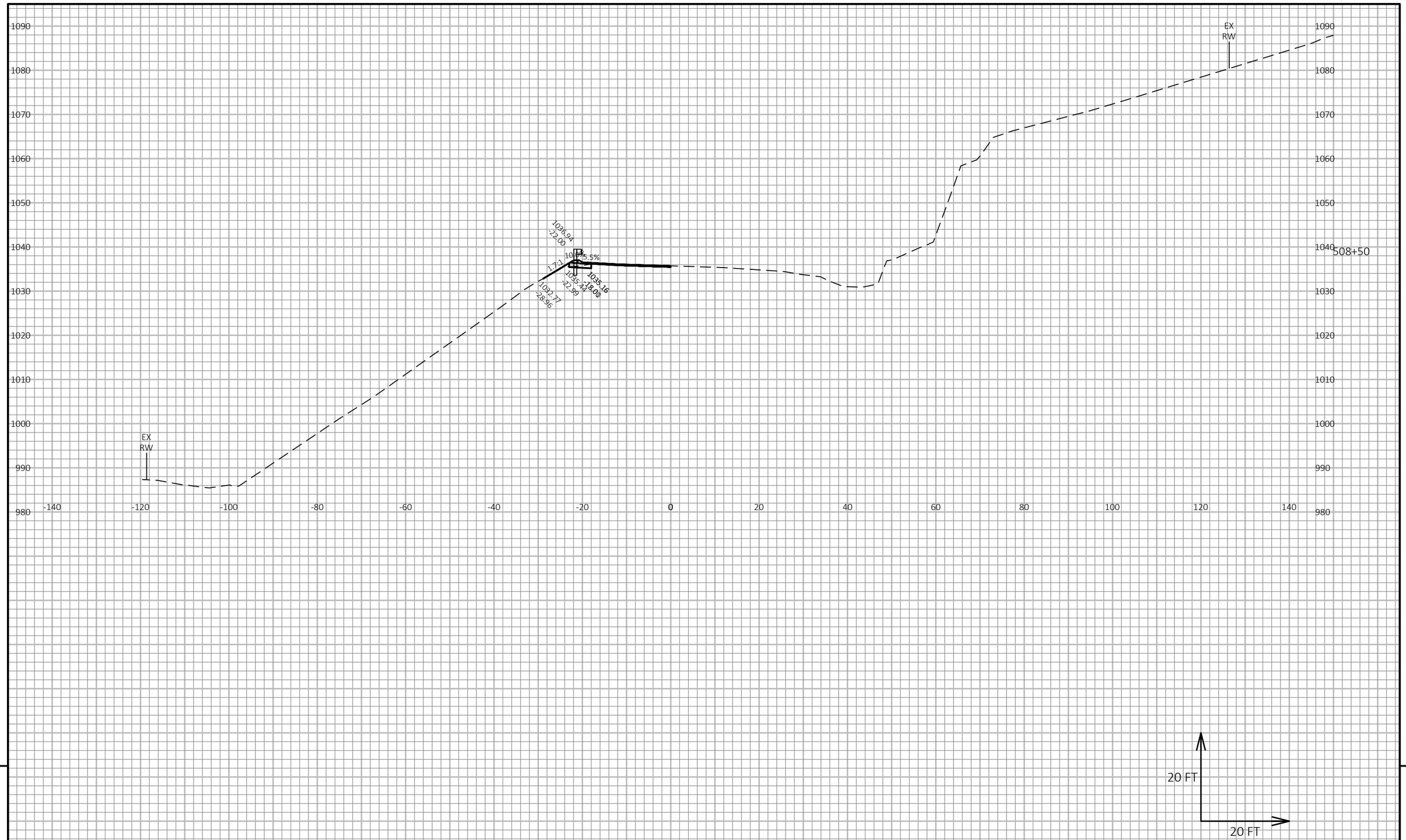
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 513	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 28

PLOT DATE : 2/17/2021 7:44 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

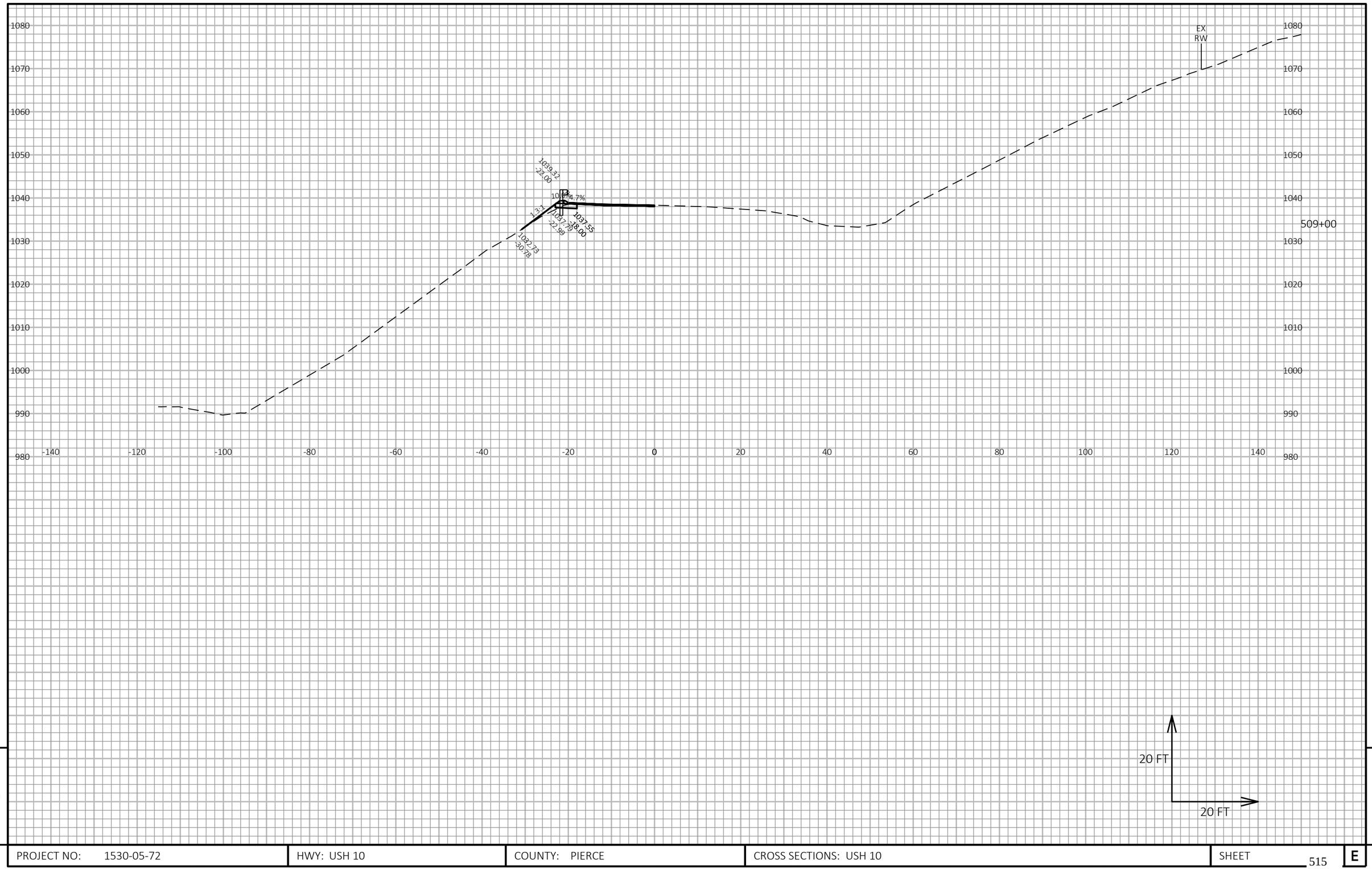
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 514	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 29

PLOT DATE : 2/17/2021 7:44 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

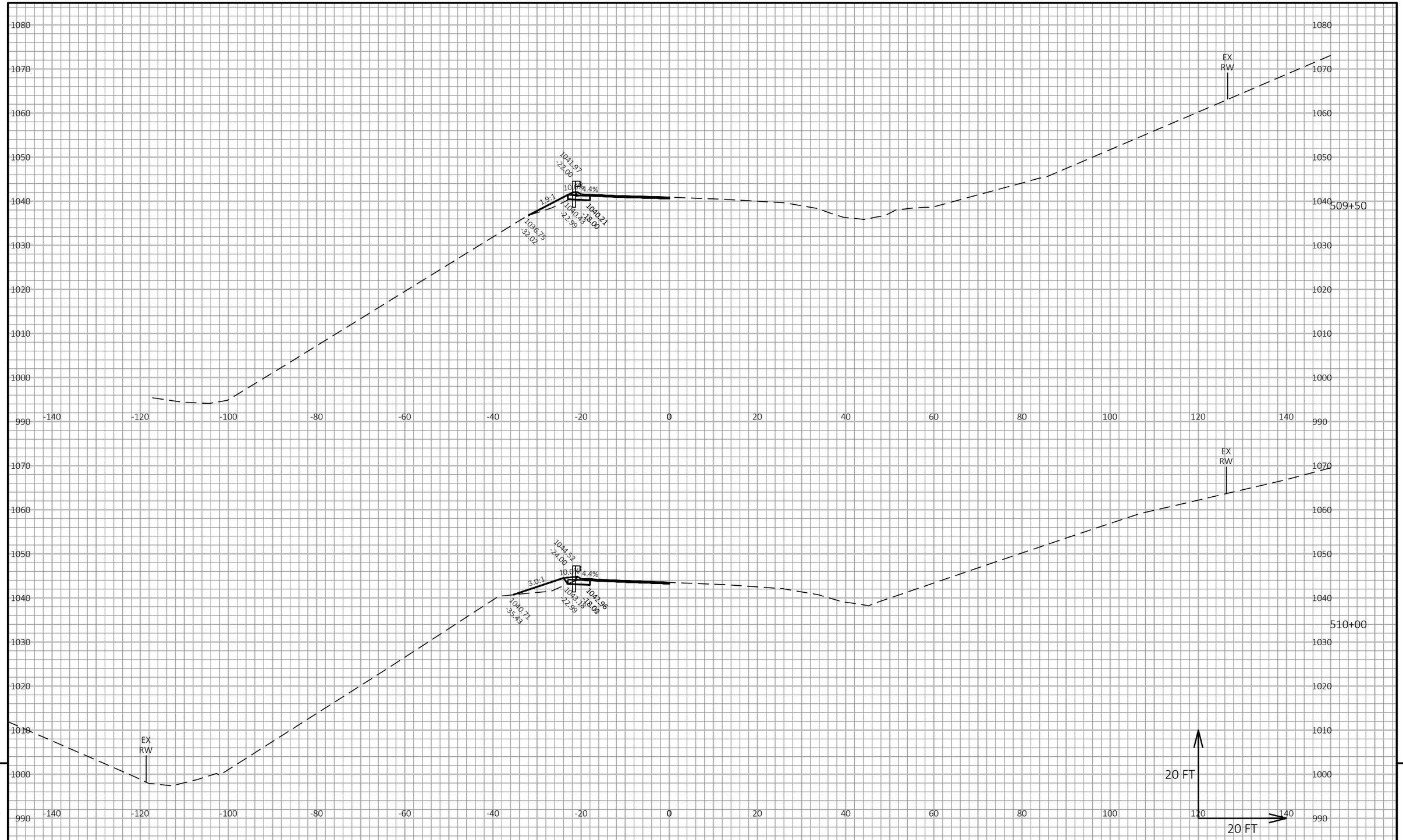
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 515	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 30

PLOT DATE : 2/17/2021 7:44 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

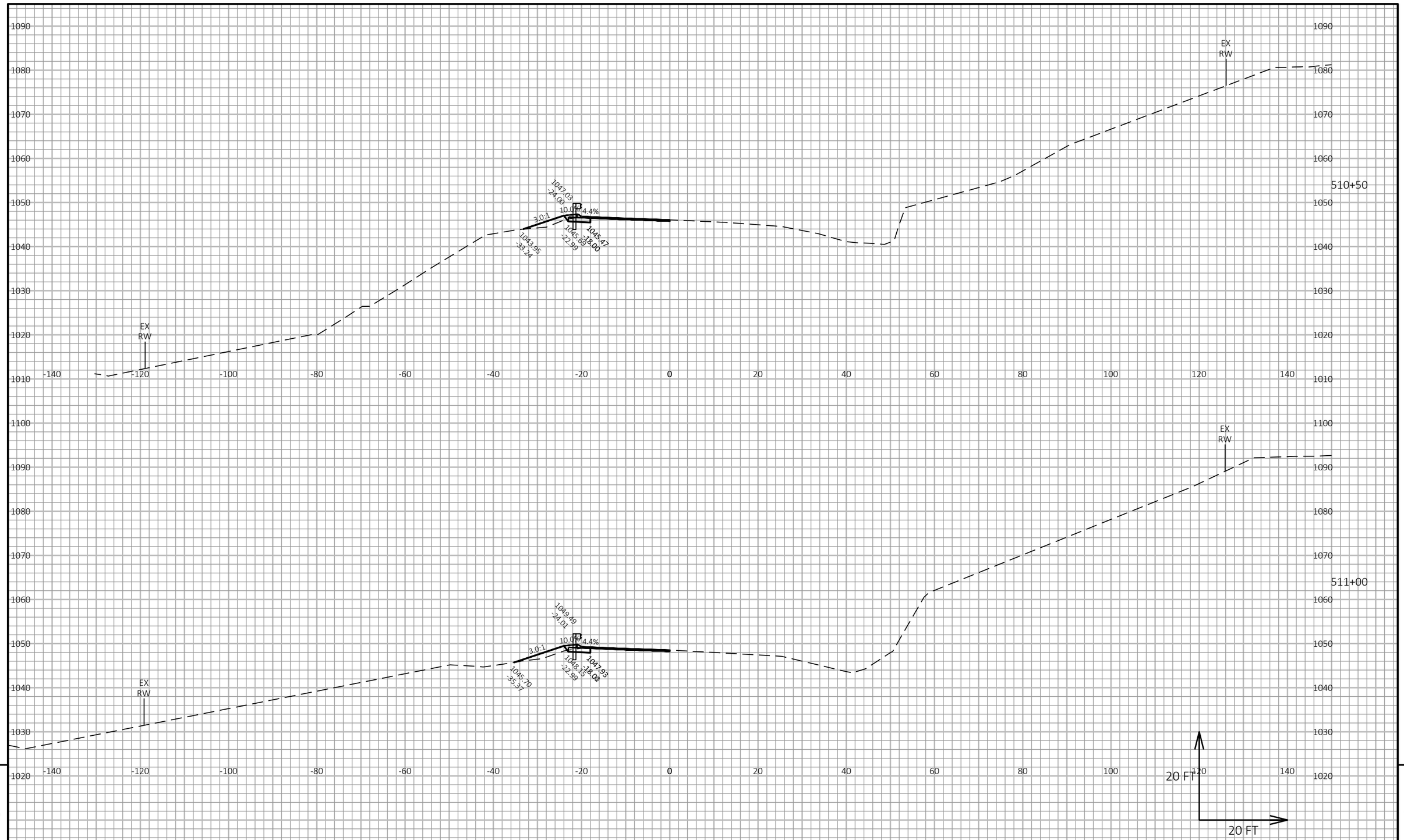


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 516	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 31

PLOT DATE : 2/17/2021 7:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

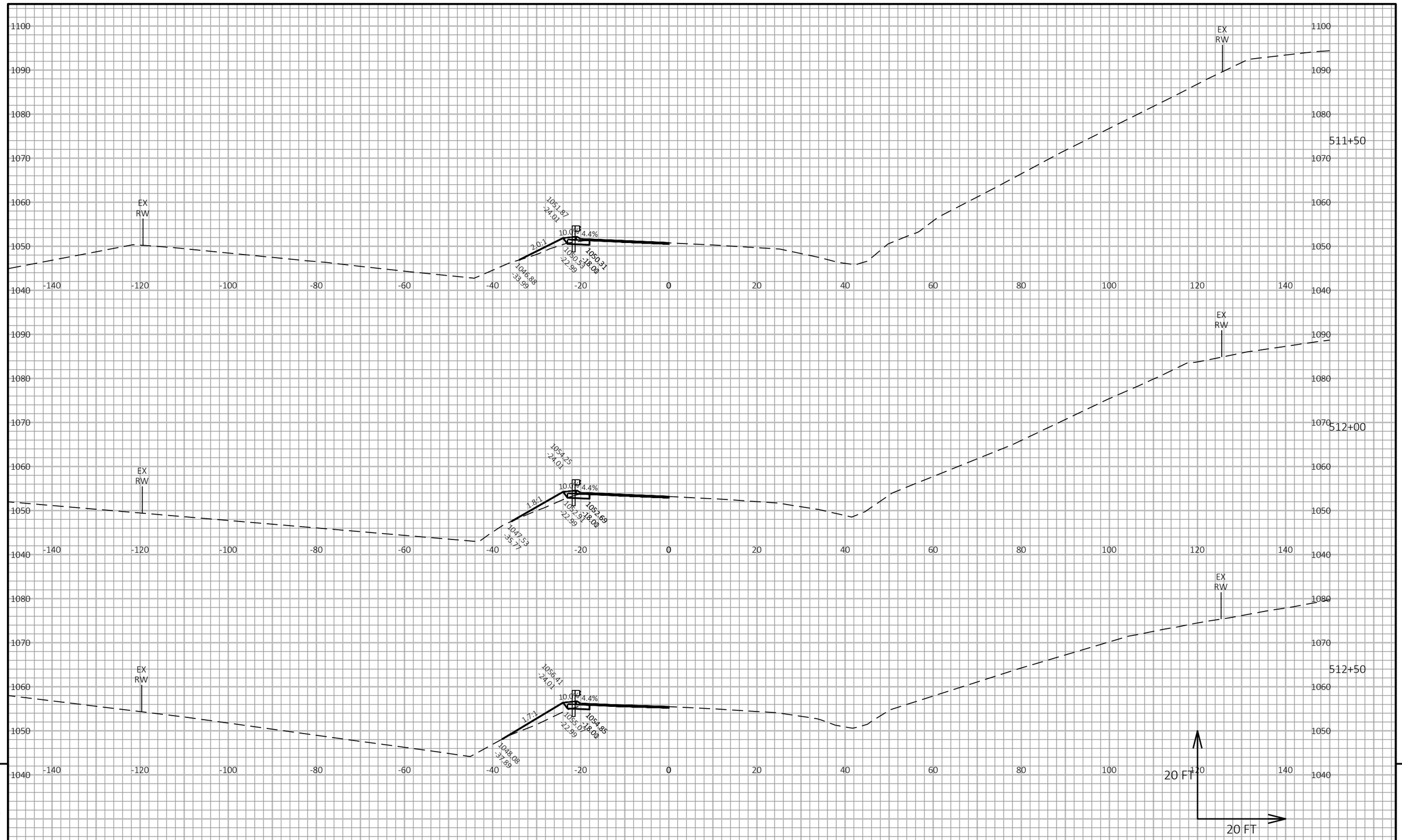


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 517	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 32

PLOT DATE : 2/17/2021 7:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

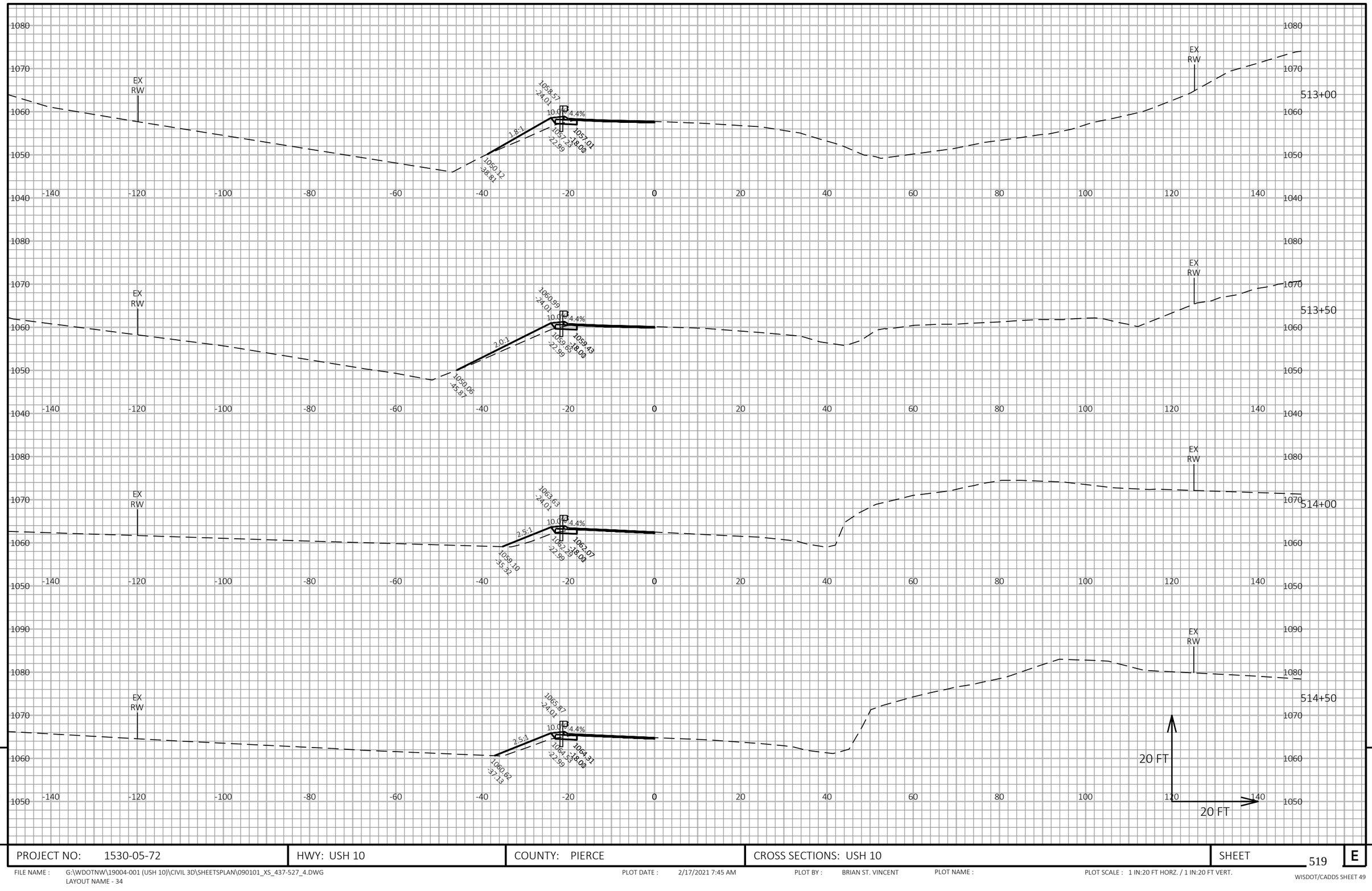


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 518	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 33

PLOT DATE : 2/17/2021 7:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

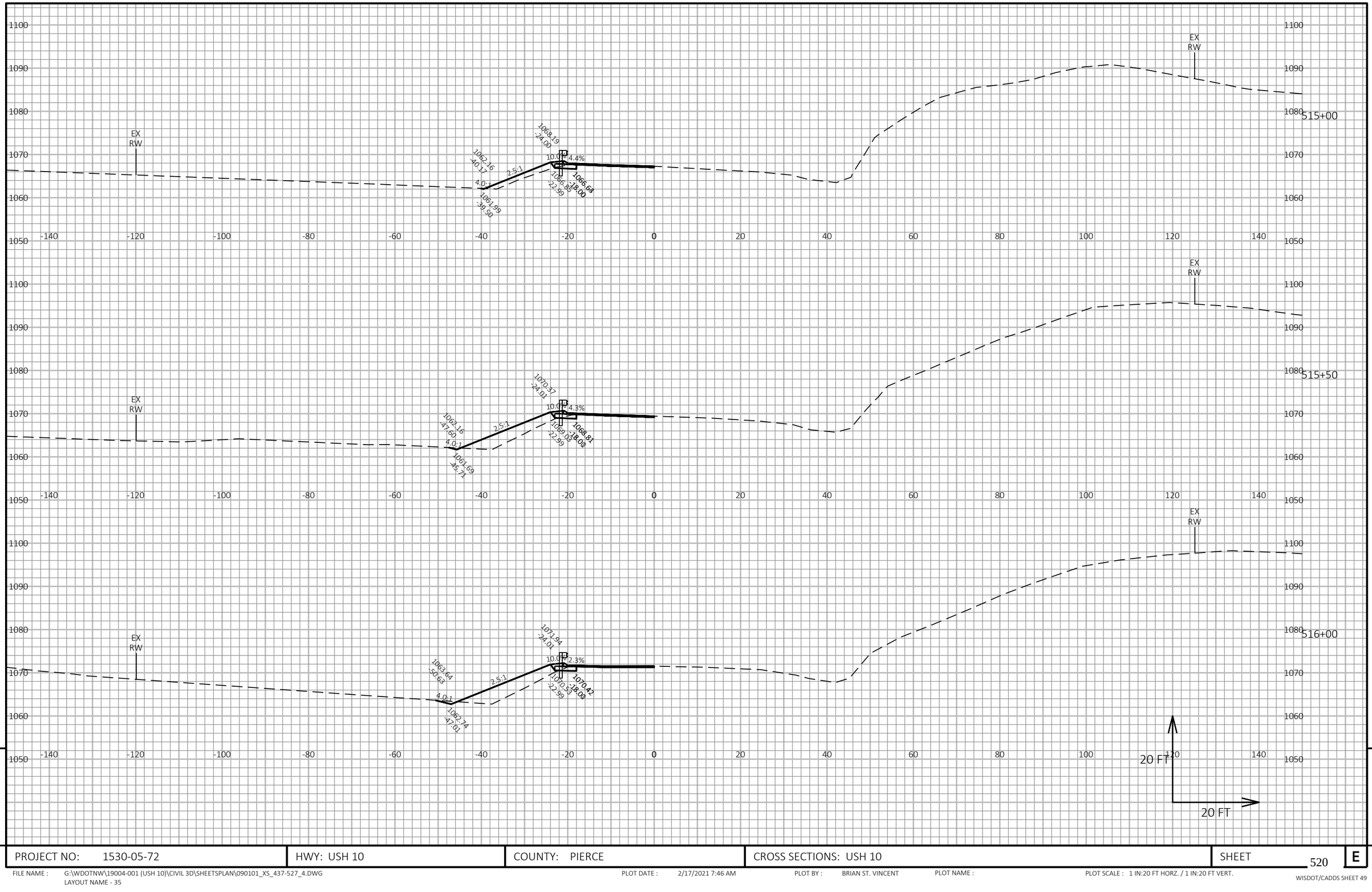


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 519	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 34

PLOT DATE : 2/17/2021 7:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

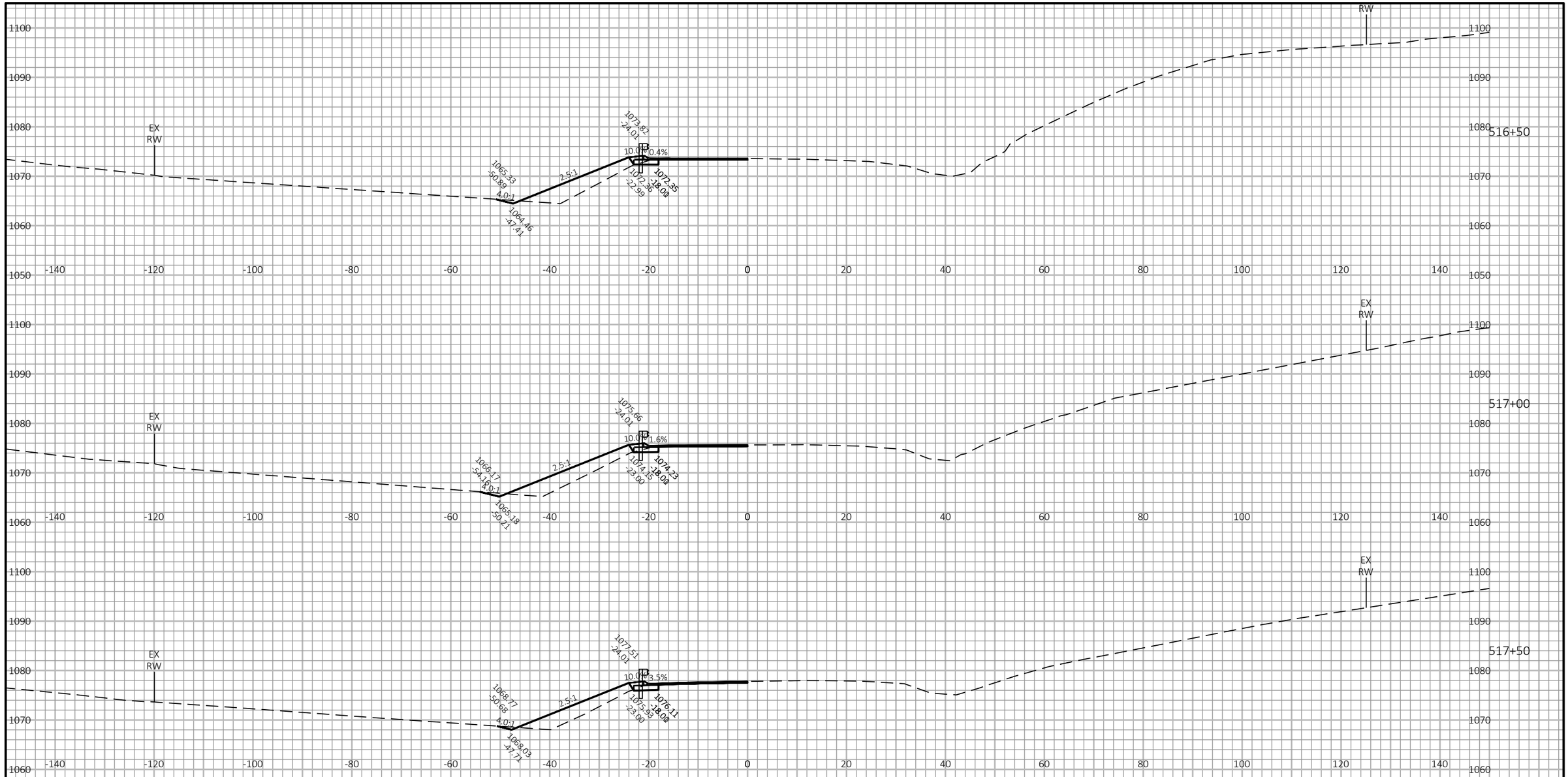


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 520 E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 35

PLOT DATE : 2/17/2021 7:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

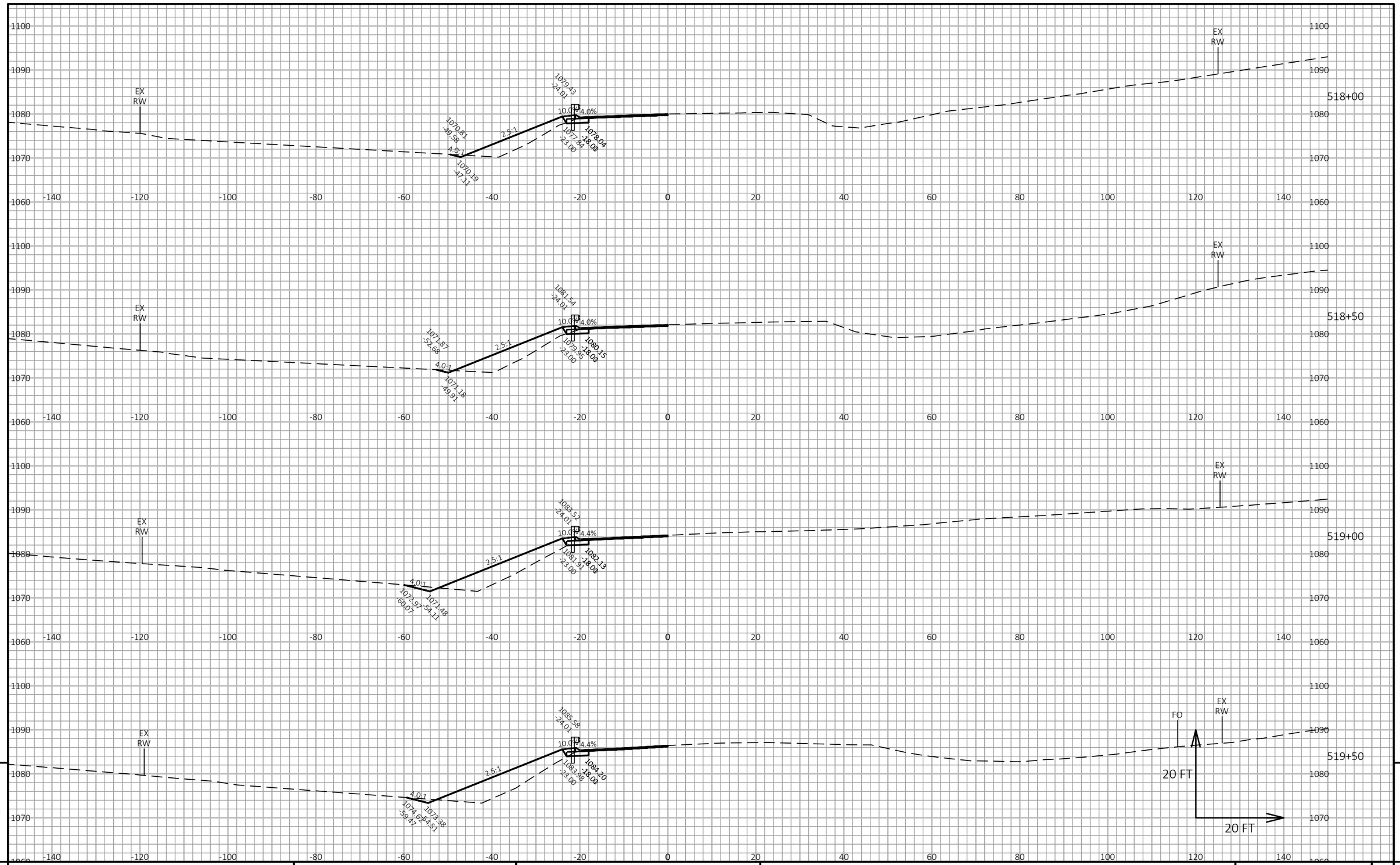


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 521	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 36

PLOT DATE : 2/17/2021 7:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

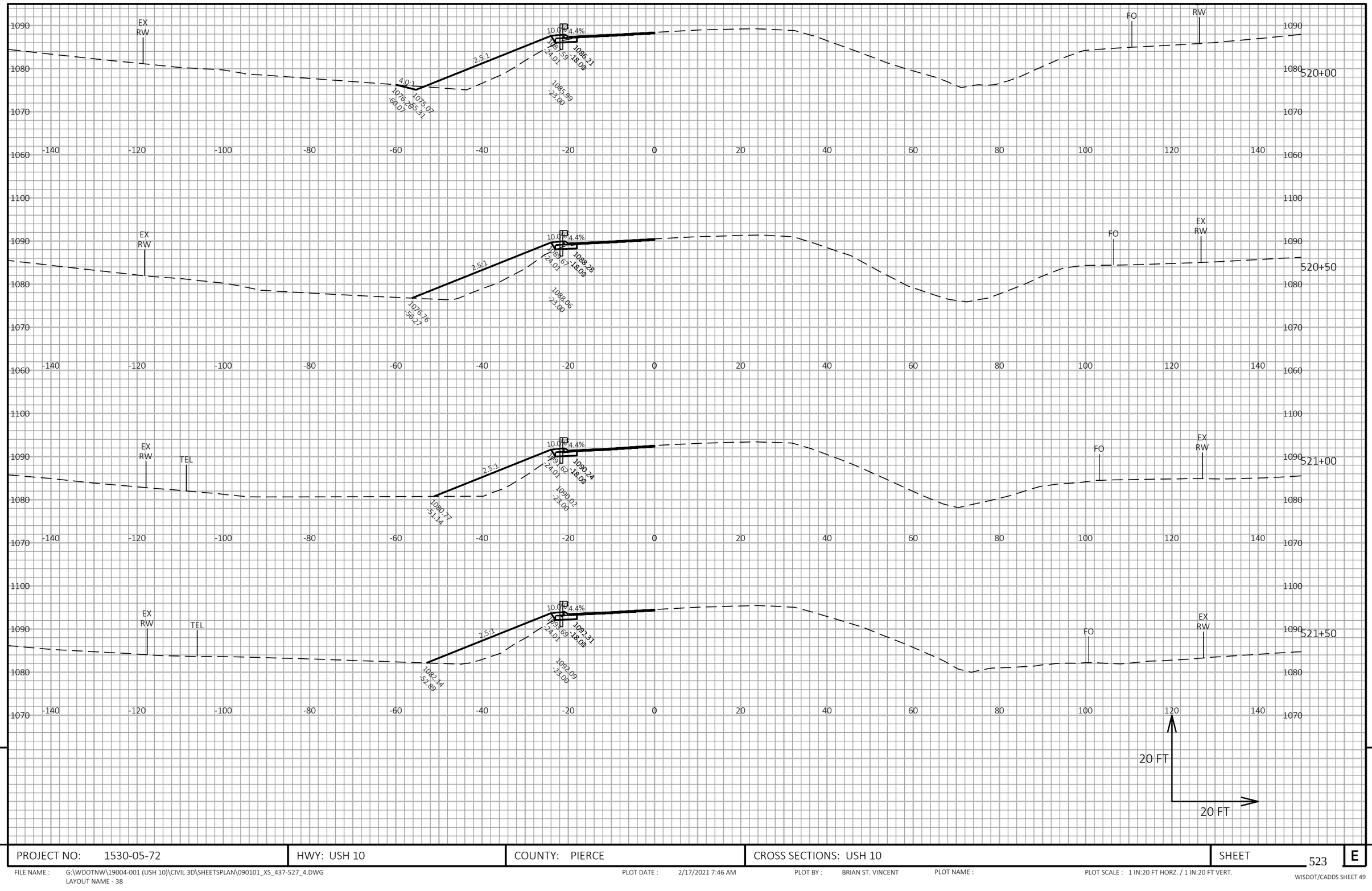
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PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 522	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 37

PLOT DATE : 2/17/2021 7:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

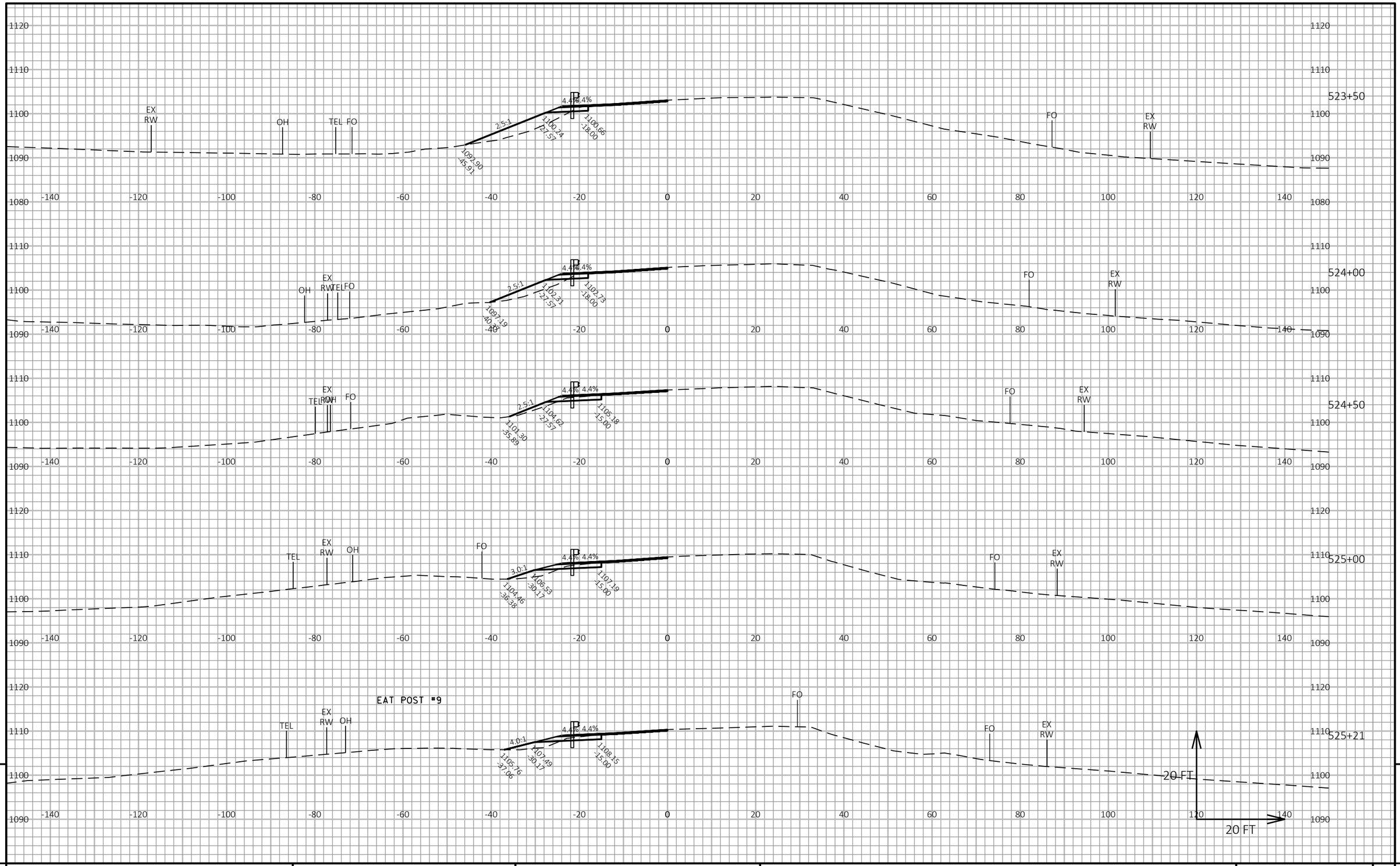


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 523	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_4.DWG
LAYOUT NAME - 38

PLOT DATE : 2/17/2021 7:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 524	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_5.DWG
LAYOUT NAME - 10

PLOT DATE : 2/17/2021 7:39 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EAT POST #5

525+46

TEL
EX RW
OH
4.4%
4.4%
4.0:1
1107.16
-36.57
1108.42
-31.50
1109.15
-15.00
FO
EX RW

525+50

TEL
EX RW
OH
4.4%
4.4%
4.0:1
1107.36
-36.66
1108.55
-31.89
1109.30
-15.00
FO
EX RW

EAT POST #1

525+71

TEL
EX RW
OH
4.4%
4.4%
4.0:1
1108.14
-38.58
1109.30
-33.94
1110.13
-15.00
FO
EX RW

526+00

TEL
EX RW
4.4%
4.4%
4.0:1
1109.57
-37.30
1110.74
-32.62
1111.52
-15.00
FO
EX RW

526+50

TEL
EX OH RW
4.4%
4.0:1
1110.93
-32.93
1112.09
-15.00
FO
EX RW

527+00

TEL
EX OH RW
4.4%
4.0:1
1114.36
-30.09
1115.40
-25.85
1115.88
-15.00
FO
EX RW
20 FT
20 FT

9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 525	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_5.DWG
LAYOUT NAME - 11

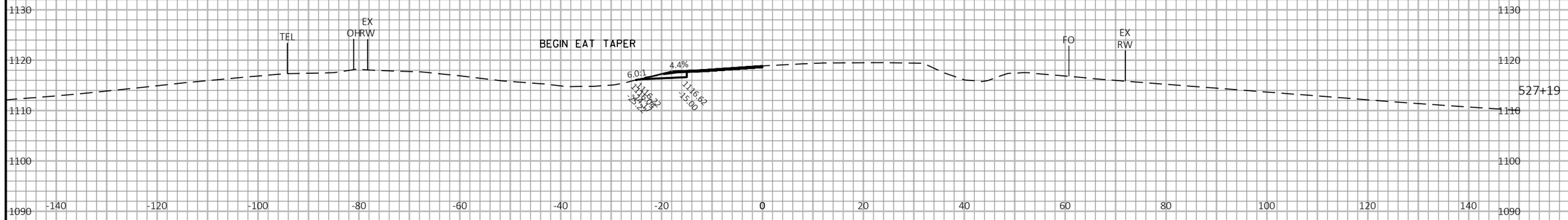
PLOT DATE : 2/17/2021 7:39 AM

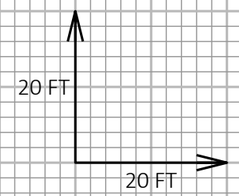
PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

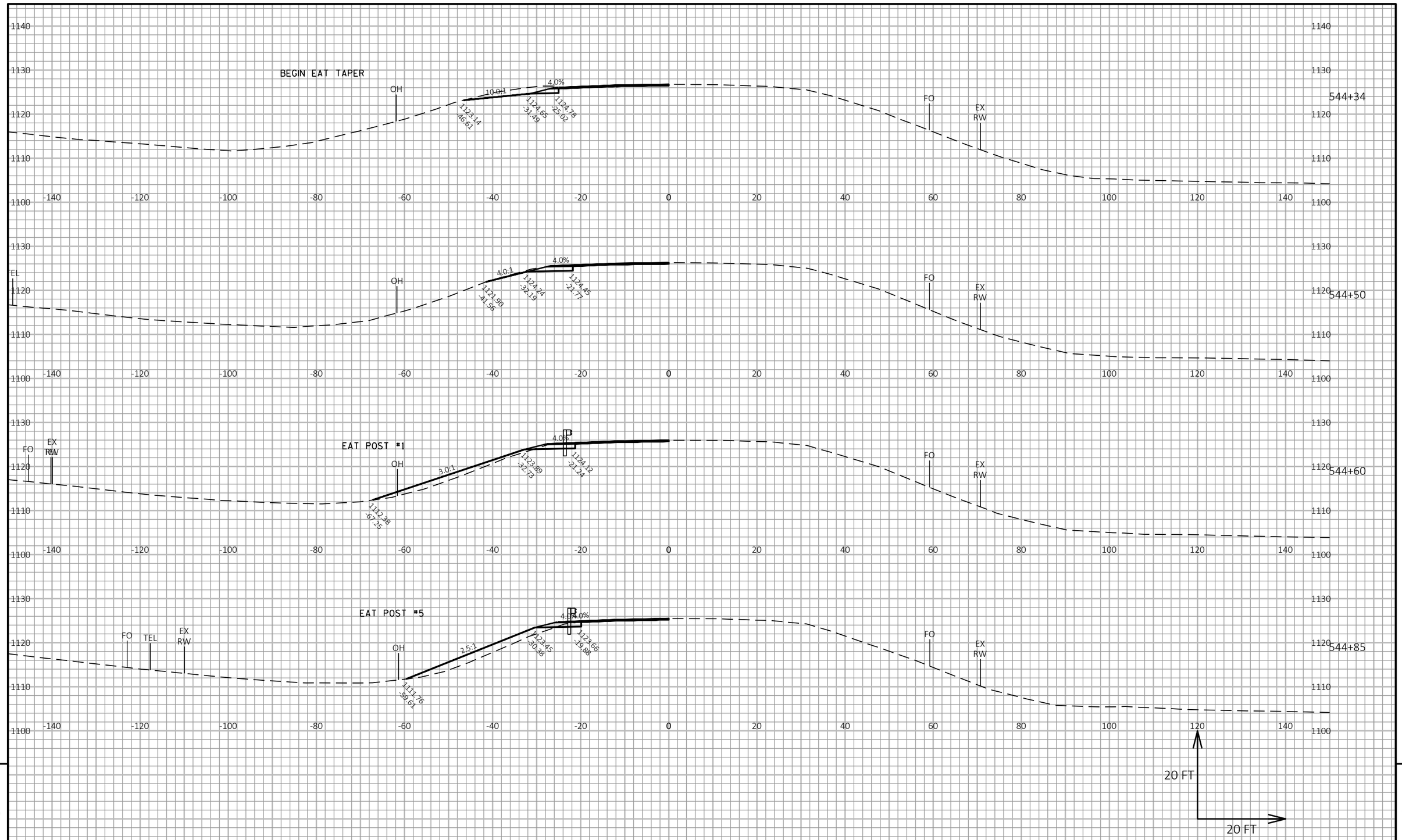
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 526	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_437-527_5.DWG
LAYOUT NAME - 12

PLOT DATE : 2/17/2021 7:40 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

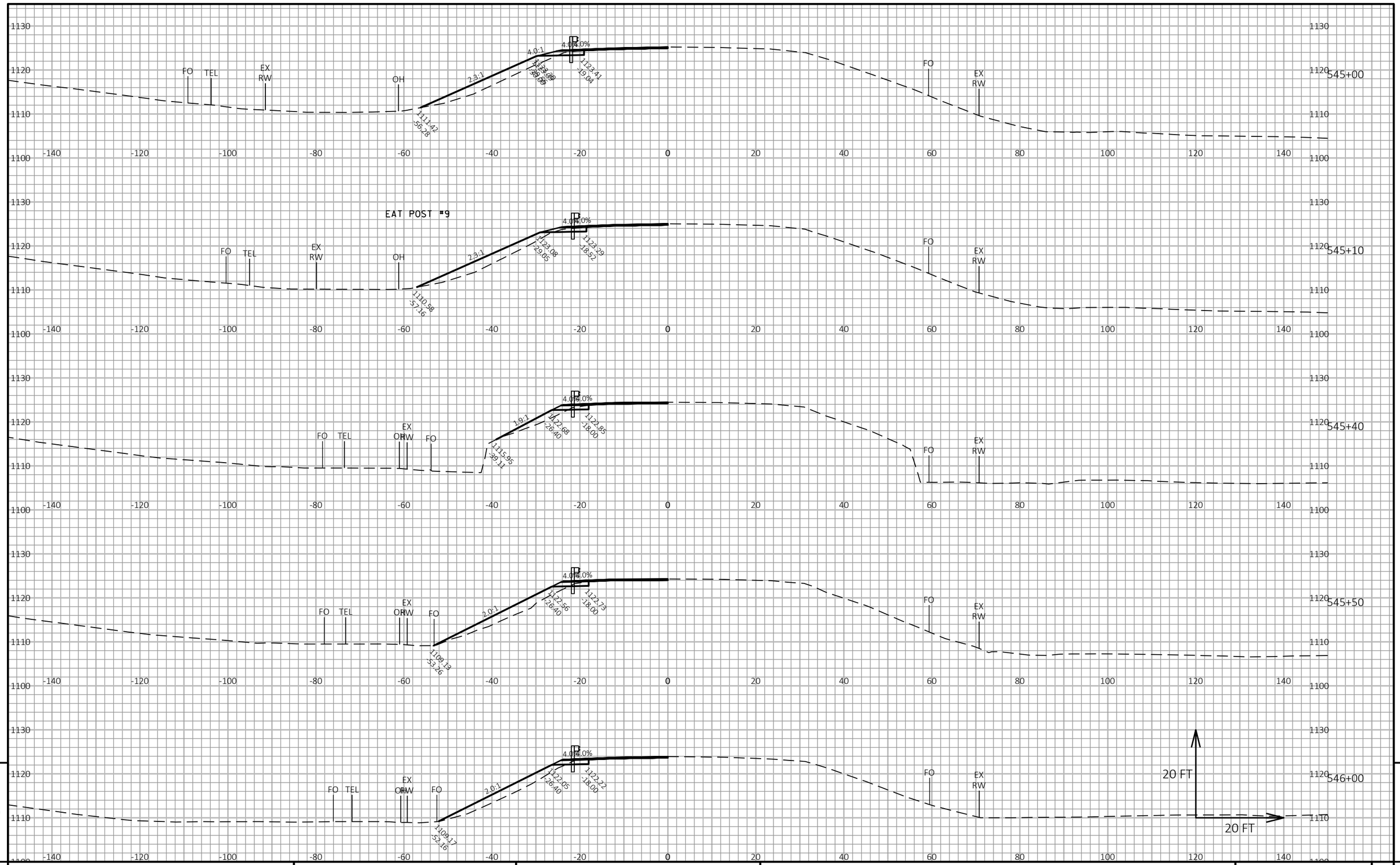


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 527	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_544-552.DWG
LAYOUT NAME - 10

PLOT DATE : 2/17/2021 7:48 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

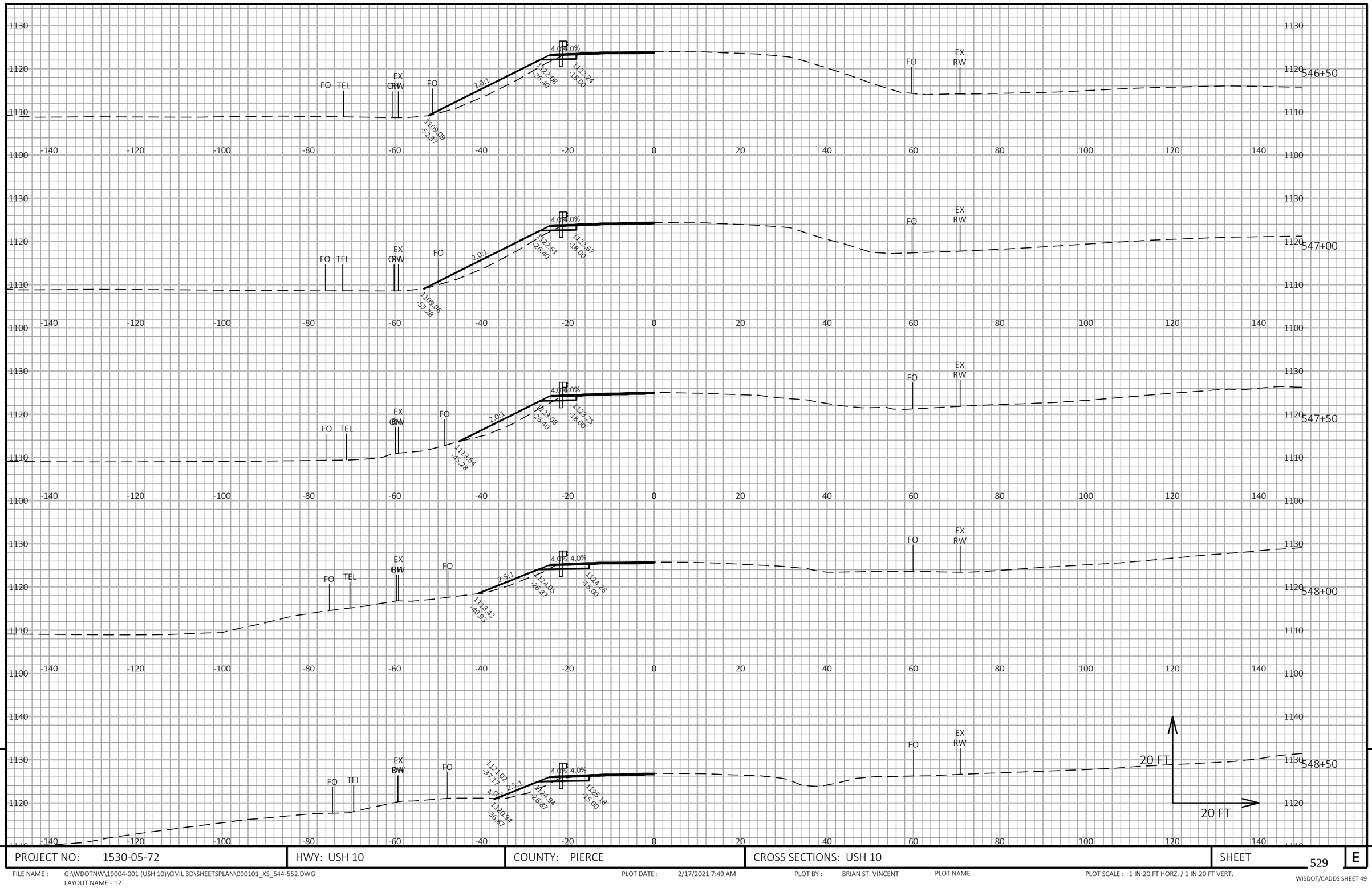
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 528	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_544-552.DWG
LAYOUT NAME - 11

PLOT DATE : 2/17/2021 7:49 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 529	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_544-552.DWG
LAYOUT NAME - 12

PLOT DATE : 2/17/2021 7:49 AM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

549+00

549+39

STA 549+39 (SKEWED SECTION)
SKEW 2.64° RHF
1-56 LF 24-INCH CPRC CLASS IV REQ'D
2-APRON ENDWALLS REQ'D

STA 549+37, 26.5' LT
ELEV 1124.54'

STA 549+40, 29.1' RT
ELEV 1125.75'

549+50

550+00

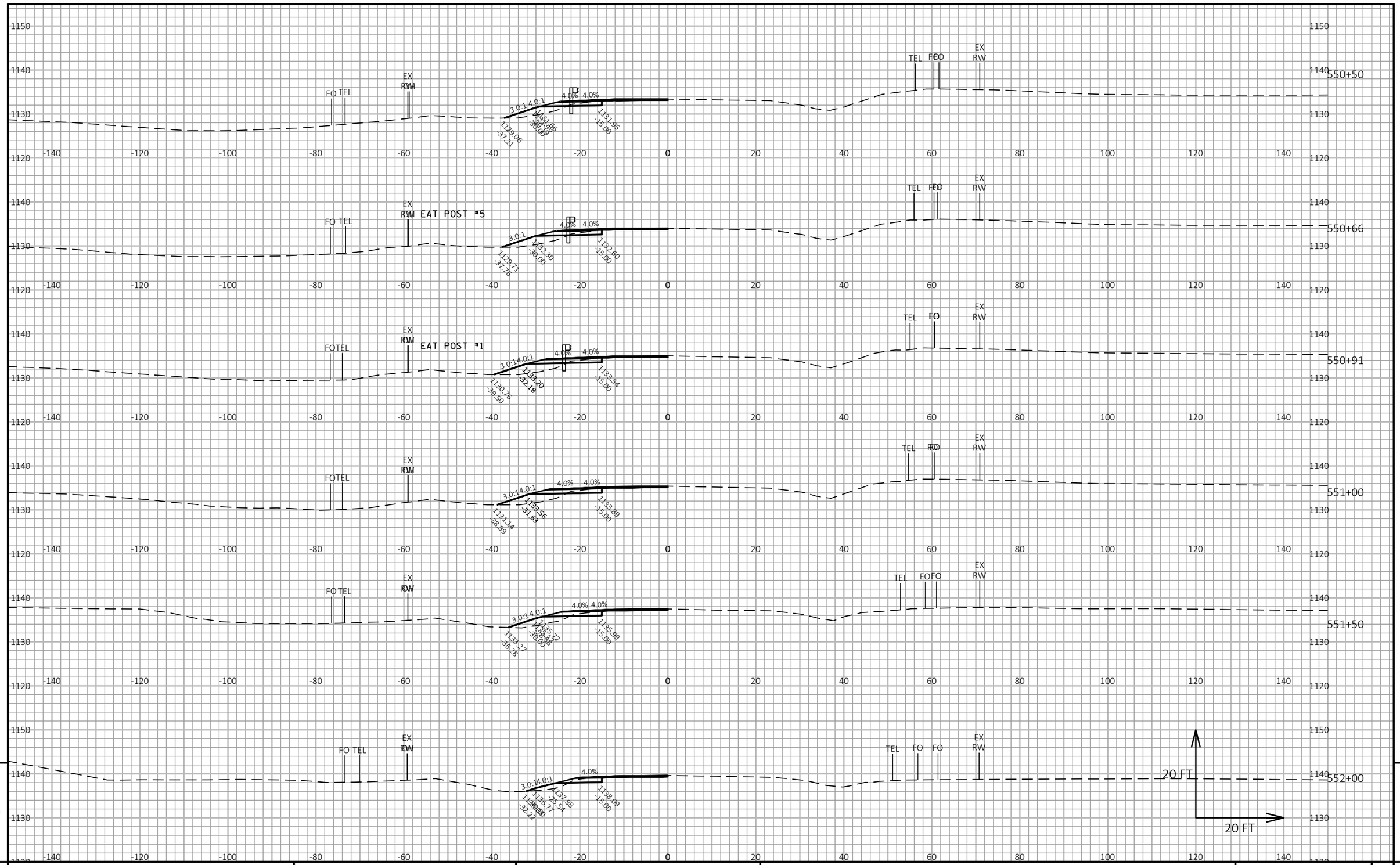
EAT POST #9

550+41

20 FT

20 FT

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 530 E



PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 531	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_544-552.DWG
LAYOUT NAME - 14

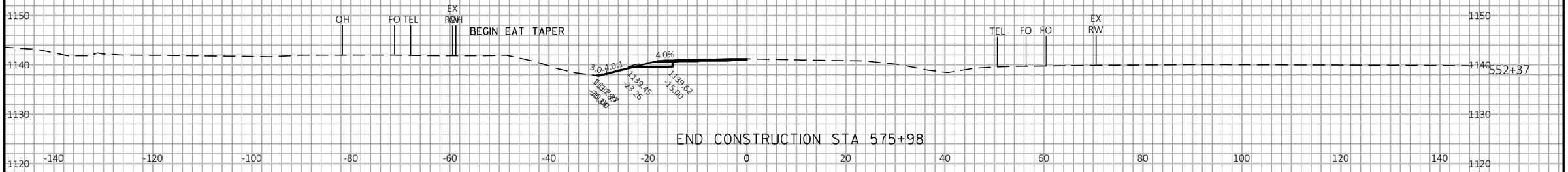
PLOT DATE : 2/17/2021 7:49 AM

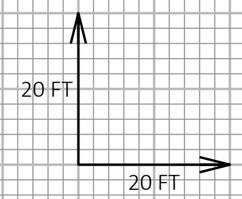
PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

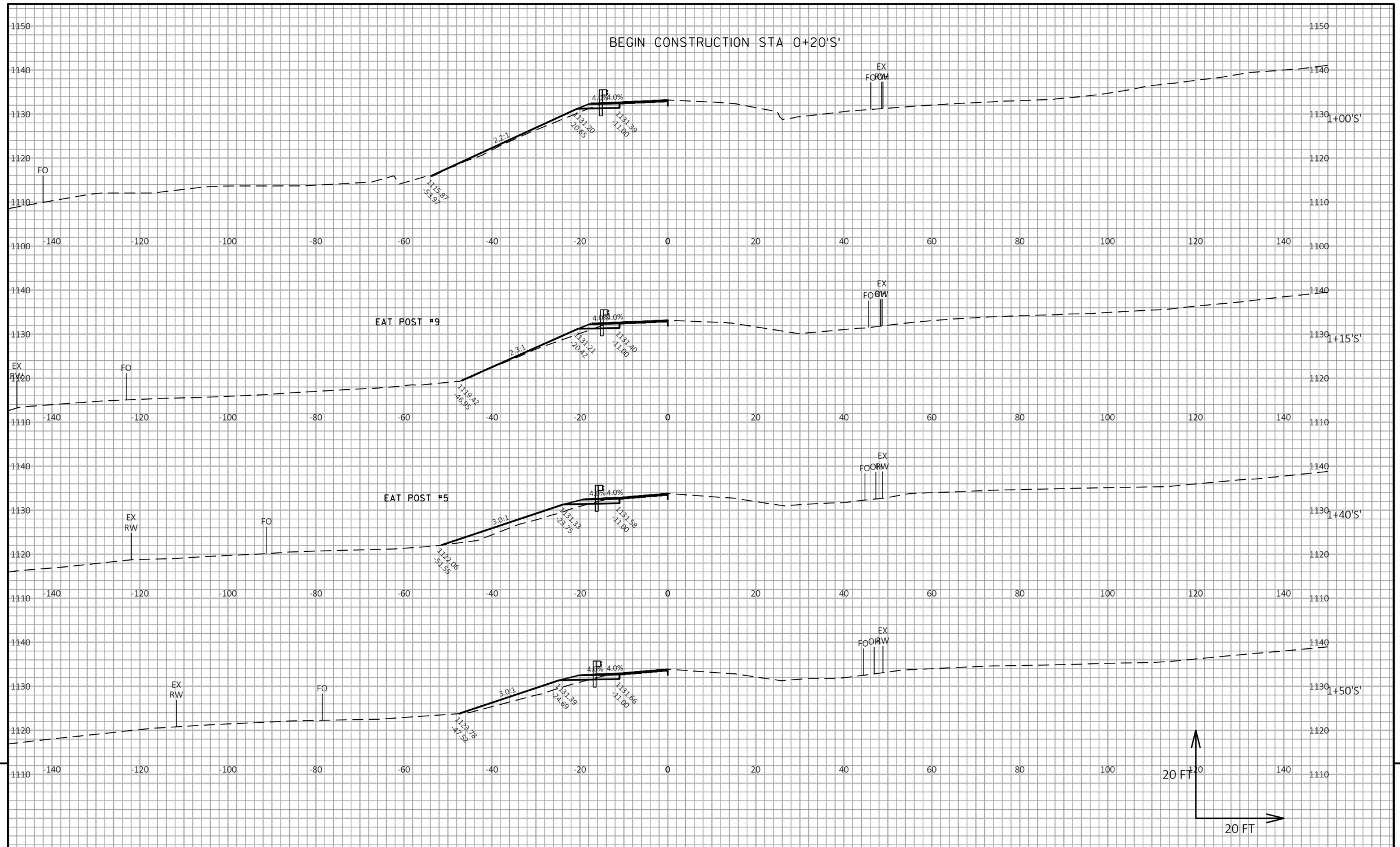
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: USH 10	SHEET 532	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_544-552.DWG
LAYOUT NAME - 15

PLOT DATE : 2/17/2021 7:50 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

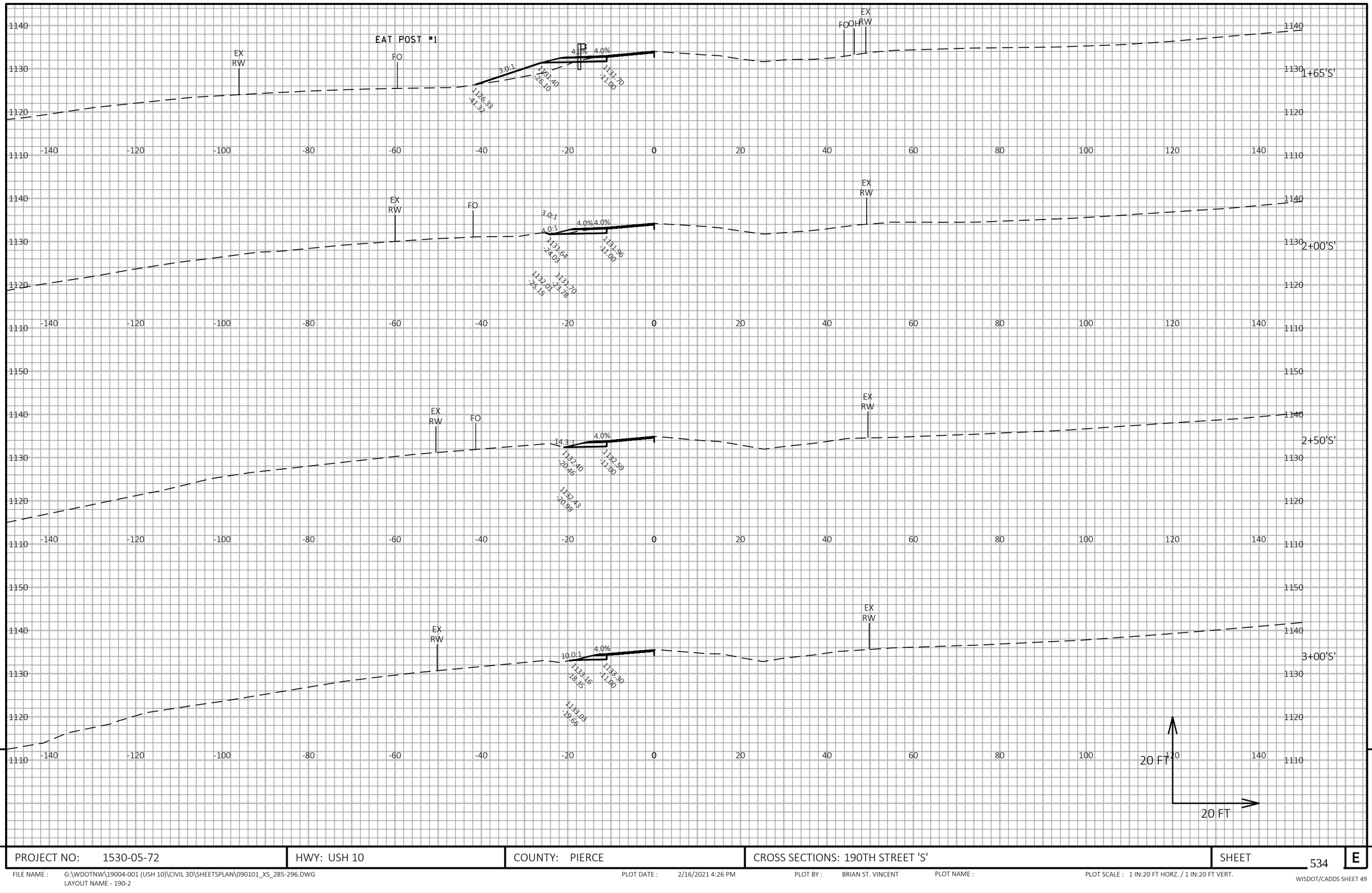
9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: 190TH STREET 'S'	SHEET 533	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 190-1

PLOT DATE : 2/16/2021 4:26 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

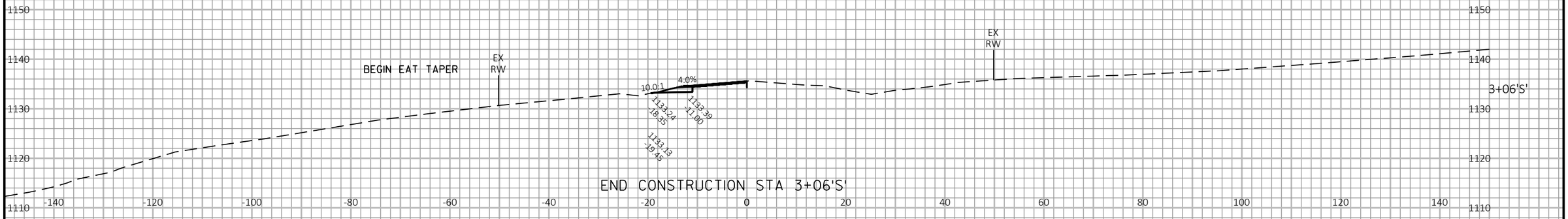


PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: 190TH STREET 'S'	SHEET 534	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 190-2

PLOT DATE : 2/16/2021 4:26 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 1530-05-72	HWY: USH 10	COUNTY: PIERCE	CROSS SECTIONS: 190TH STREET 'S'	SHEET 535	E

FILE NAME : G:\WDOTNW\19004-001 (USH 10)\CIVIL 3D\SHEETSPLAN\090101_XS_285-296.DWG
LAYOUT NAME - 190-3

PLOT DATE : 2/16/2021 4:27 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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