MAD MARCH 2024

PROJECT ID: 6020-04-72

WITH: N/A

COUNTY: COLUMBIA

05

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
~~Section No.~~	~~5~~	~~Plan and Profile~~
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
Section No.	8	Structure Plans
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 320



N

DESIGN DESIGNATION 6020-04-02

A.A.D.T.	2024	=	10,460
A.A.D.T.	2044	=	10,460
D.H.V.		=	
D.D.		=	50/50
T.		=	11.4%
DESIGN SPEED		=	40-60 MPH
ESALS		=	2,300,000

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

DEFOREST - PORTAGE

TOMLINSON RD TO ONTARIO ST

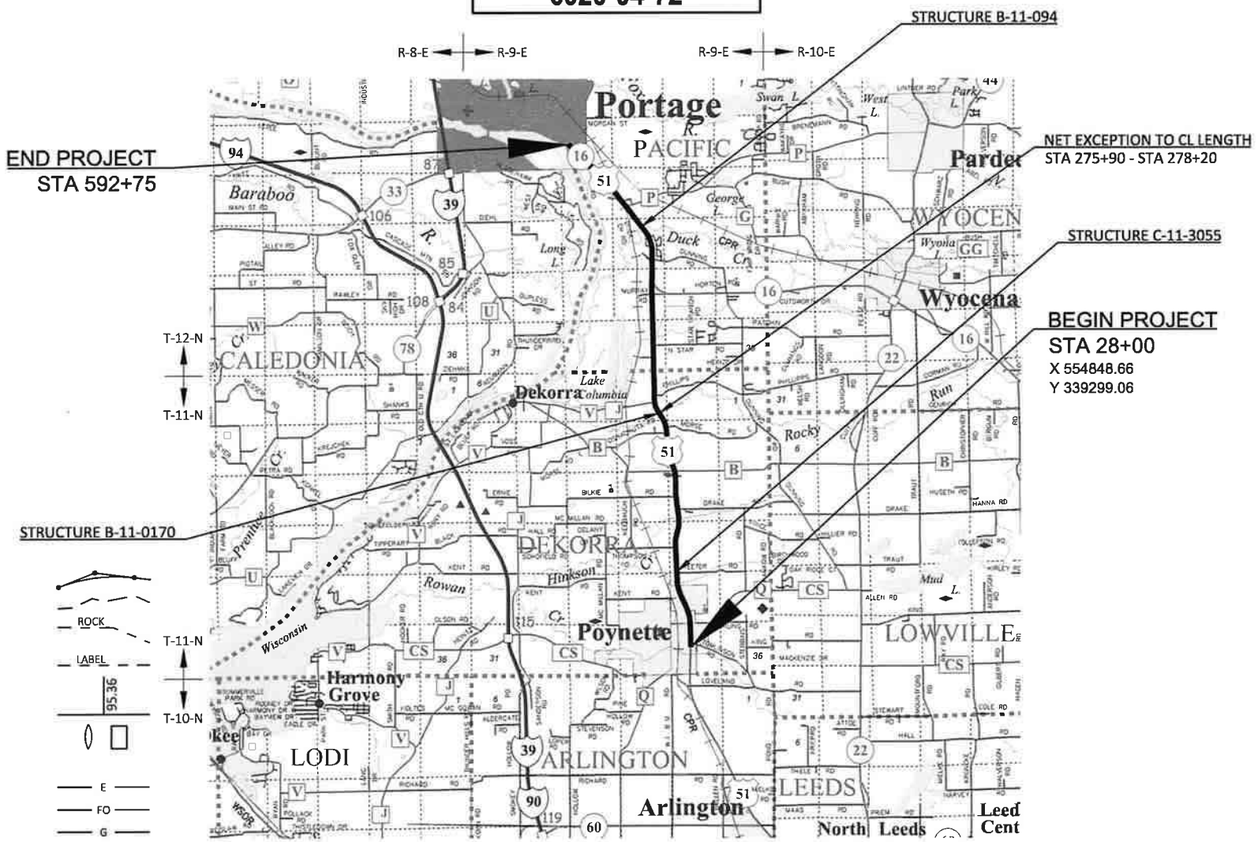
USH 51

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6020-04-72	WISC 2024061	1

STATE PROJECT NUMBER

6020-04-72



END PROJECT
STA 592+75

STRUCTURE B-11-094

NET EXCEPTION TO CL LENGTH
STA 275+90 - STA 278+20

STRUCTURE C-11-3055

BEGIN PROJECT
STA 28+00
X 554848.66
Y 339299.06

STRUCTURE B-11-0170

LAYOUT

SCALE 0 3 MI

TOTAL NET LENGTH OF CENTERLINE = 10.652 MI

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

ORIGINAL PLANS PREPARED BY

benesch

Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, Wisconsin 53233
414-308-1310

WISCONSIN
AMANDA E. ZACHARIAS
E-35716
MILWAUKEE
WISCONSIN
PROFESSIONAL ENGINEER

7-6-23

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SIGMA
Designer	ALFRED BENESCH & CO
Project Manager	MAHESH SHRESTHA, PE
Regional Examiner	SW REGION
Regional Supervisor	MARC SCHWEIGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 7/6/2023 Mahesh Shrestha
(Signature)

E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\6020472\SHEETSPLAN\010101_TI.DWG PLOT DATE : 7/6/2023 1:43 PM PLOT BY : WATT, TIMOTHY PLOT NAME :

UTILITY CONTACTS

ATC MANAGEMENT, INC. – ELECTRICITY-TRANSMISSION
PO BOX 47
WAUKESHA, WI 53187
CHRIS DAILEY
(262) 506-6884
cdailey@atcllc.com

ALLIANT ENERGY – ELECTRICITY
2777 COLUMBIA DRIVE
PORTAGE, WI 53901
RYAN SMEDEMA
(608) 963-0880
ryansmedema@alliantenergy.com

ALLIANT ENERGY – GAS/PETROLEUM
2777 COLUMBIA DRIVE
PORTAGE, WI 53901
RYAN SMEDEMA
(608) 963-0880
ryansmedema@alliantenergy.com

BRIGHTSPEED OF WESTERN WISCONSIN – COMMUNICATION LINE
144 N PEARL ST
BERLIN, WI 54923
SCOTT HEINZELMAN
(608) 716-5964
Scott.Heinzelman@brightspeed.com

EVERSTREAM – COMMUNICATIONS LINE
324 E WISCONSIN AVE
SUITE 730
MILWAUKEE, WI 53202
SHAD GARCIA
(414) 522-6685
sgarcia@everstream.net

FRONTIER COMMUNICATIONS OF WI LLC – COMMUNICATION LINE
451 BROADWAY DR
SUN PRAIRIE, WI 53590
CHRIS BLUMER
(608) 622-3807
christopher.blumer@ftr.com

NORTHERN NATRUAL GAS COMPANY – GAS/PETROLEUM
5557 COUNTY HIGHWAY D
PLATTEVILLE, WI 53818
PHIL CURRY
(608) 732-7642
phillip.curry@nngco.com

ROGERS TELECOM – COMMUNICATION LINE
4804 N 40TH ST
SHEBOYGAN, WI 53083
DAVID ARNDT
(920) 918-0160
darndt@gabes.com

SPECTRUM – COMMUNICATION LINE
2701 DANIELS ST.
MADISON, WI 53718
ANDY WIETECKA
(608) 288-6825
andy.wietecka@charter.com

VILLAGE OF POYNETTE PUBLIC WORKS – SEWER
106 S MAIN STREET
P.O. BOX 95
POYNETTE, WI 53955
SCOTT GORMAN
(608) 635-5120
sgorman@poynette-wi.gov

VILLAGE OF POYNETTE PUBLIC WORKS – WATER
106 S MAIN STREET
P.O. BOX 95
POYNETTE, WI 53955
SCOTT GORMAN
(608) 635-5120
SGorman@Poynette-wi.gov

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
USH 51 URBAN AND MAJOR INTERSECTIONS	5-INCHES	1.75-INCH UPPER	4 MT 58-28 S
		3.25-INCH LOWER	3 MT 58-28 S
USH 51 RURAL	4-INCHES	1.75-INCH UPPER	4 MT 58-28 S
		2.25-INCH LOWER	3 MT 58-28 S
USH 51 FULL DEPTH REPLACEMENT AT RAILROAD CROSSINGS	6.75-INCHES	1.75-INCH UPPER	4 MT 58-28 S
		2.5-INCH LOWER	3 MT 58-28 S
		2.5-INCH LOWER	3 MT 58-28 S

STANDARD ABBREVIATIONS

AGG	AGGREGATE	HORIZ	HORIZONTAL	SHLDR	SHOULDER
AADT	ANNUAL AVERAGE DAILY TRAFFIC	INL	INLET	SW	SIDEWALK
ASPH	ASPHALT DRIVEWAY	INV	INVERT	S	SOUTH
AVG	AVERAGE	JCT	JUNCTION	SPECS	SPECIFICATIONS
ADT	AVERAGE DAILY TRAFFIC	LT	LEFT	SF	SQUARE FEET
BM	BENCH MARK	LF	LINEAR FOOT	SY	SQUARE YARD
CB	CATCH BASIN	LS	LUMP SUM	STD	STANDARD
C/L	CENTERLINE	MH	MANHOLE	SDD	STANDARD DETAIL DRAWINGS
CONC	CONCRETE	ML	MATCH LINE	STH	STATE TRUNK HIGHWAYS
CO	COUNTY	N	NORTH	STA	STATION
CTH	COUNTY TRUNK HIGHWAY	Y	NORTH GRID COORDINATE	SS	STORM SEWER
CWT	HUNDREDWEIGHT	NO	NUMBER	STR	STRUCTURE OR STRUCTURAL
CY	CUBIC YARD	PAVT	PAVEMENT	TEL	TELEPHONE
DHV	DESIGN HOUR VOLUME	PERM	PERMANENT	TEMP	TEMPORARY
DIA	DIAMETER	PLE	PERMANENT LIMITED EASEMENT	TLE	TEMPORARY LIMITED EASEMENT
E	EAST	PT	POINT	T	TON
X	EAST GRID COORDINATE	PCC	PORTLAND CEMENT CONCRETE	TYP	TYPICAL
ELEC	ELECTRIC	PROJ	PROJECT	UG	UNDERGROUND
ELEV	ELEVATION	PL	PROPERTY LINE	USH	UNITED STATES HIGHWAY
ESALS	EQUIVALENT SINGLE AXLE LOADS	R/L	REFERENCE LINE	W	WATER
ESTR	EXISTING SIGN TO REMAIN	RT	RIGHT	WM	WATER MAIN
EXC	EXCAVATION	R/W	RIGHT-OF-WAY	WV	WATER VALVE
EBS	EXCAVATION BELOW SUBGRADE	RD	ROAD	W	WEST
EXIST	EXISTING	RDWY	ROADWAY	YD	YARD
FT	FOOT	SEC	SECTION		
GRVL	GRAVEL DRIVEWAY				

OTHER AGENCIES

WISDNR
DNR SOUTHERN REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ANDY BARTA
(608) 235-2955
andrew.barta@wisconsin.gov

WISDOT
SOUTHWEST REGION
2101 WRIGHT STREET
MADISON, WI 53704
MAHESH SHRESTHA
(608) 245-2674
mahesh.shrestha@dot.wi.gov

DESIGN
ALFRED BENESCH & CO
1300 WEST CANAL STREET
SUITE 150
MILWAUKEE, WI 53233
BEN WEIGAND
(414) 308-1322
bweigand@benesch.com

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
MGS DETAILS
CULVERT PLAN
EROSION CONTROL PLAN
RAILROAD CROSSING DETAILS
PAVEMENT MARKING
DETOUR PLAN

GENERAL NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE ARE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
2. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
3. THE COST OF GRADING, CONSTRUCTING, MAINTAINING, AND REMOVING TEMPORARY ACCESS IS INCIDENTAL TO THE CONTRACT.
4. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY-IN
5. APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO THE MILLED SURFACE AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.
6. THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.
7. CONTRACTOR TO PROTECT DH8542, DH8541, DH8539, DH4998, DH5579 AND DH8540 GPS AND KEEP EQUIPMENT AT LEAST10 FEET AWAY FROM DH8542, DH8541, DH8539, DH4998, DH5579 AND DH8540 GPS.

EROSION CONTROL GENERAL NOTES

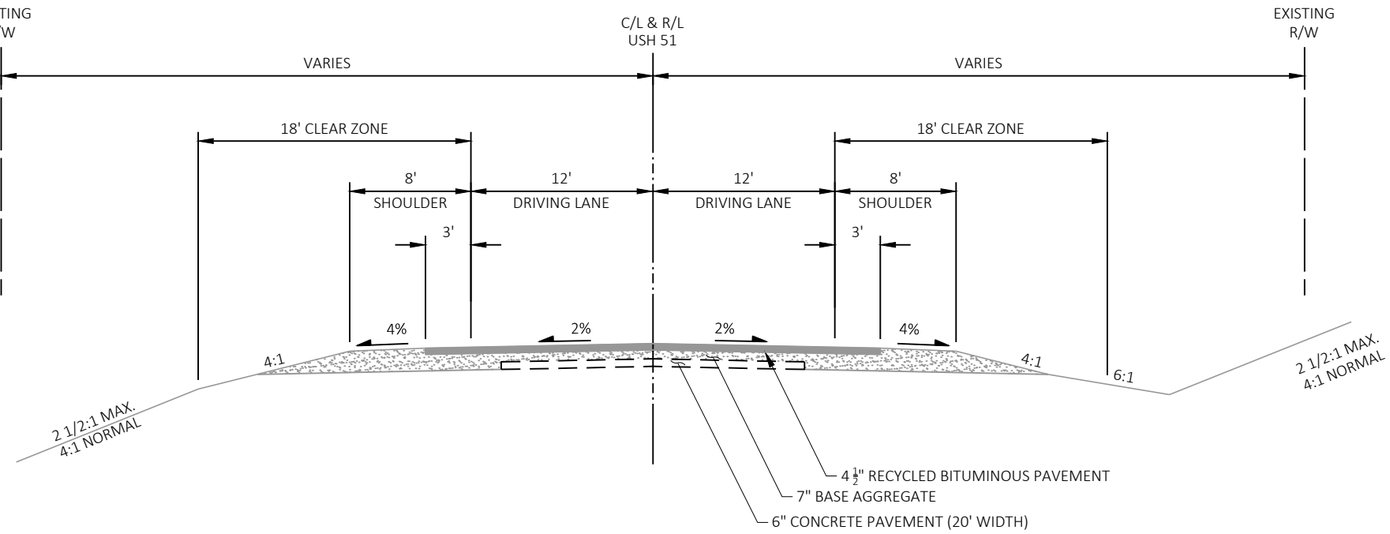
1. RE-TOPSOIL DISTURBED AREAS, AS DESIGNATED BY THE ENGINEER. SEED AND E-MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.
2. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
3. QUANTITIES FOR EROSION CONTROL ITEMS HAVE BEEN INCLUDED IN THE PROJECT, BUT MAY NOT BE REPRESENTED ON THE PLAN. THE LOCATIONS AND TYPE OF EROSION CONTROL ITEMS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE ITEM IS NO LONGER REQUIRED.

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

2

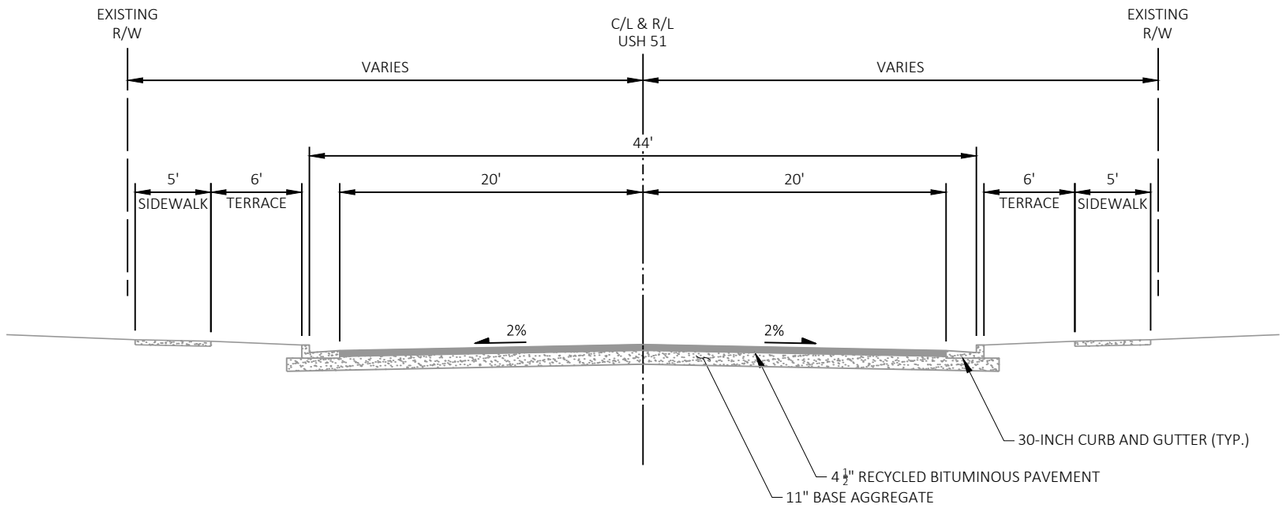


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 3	E



TYPICAL EXISTING SECTION

STA 53+00 - STA 275+95
STA 278+20 - STA 405+25

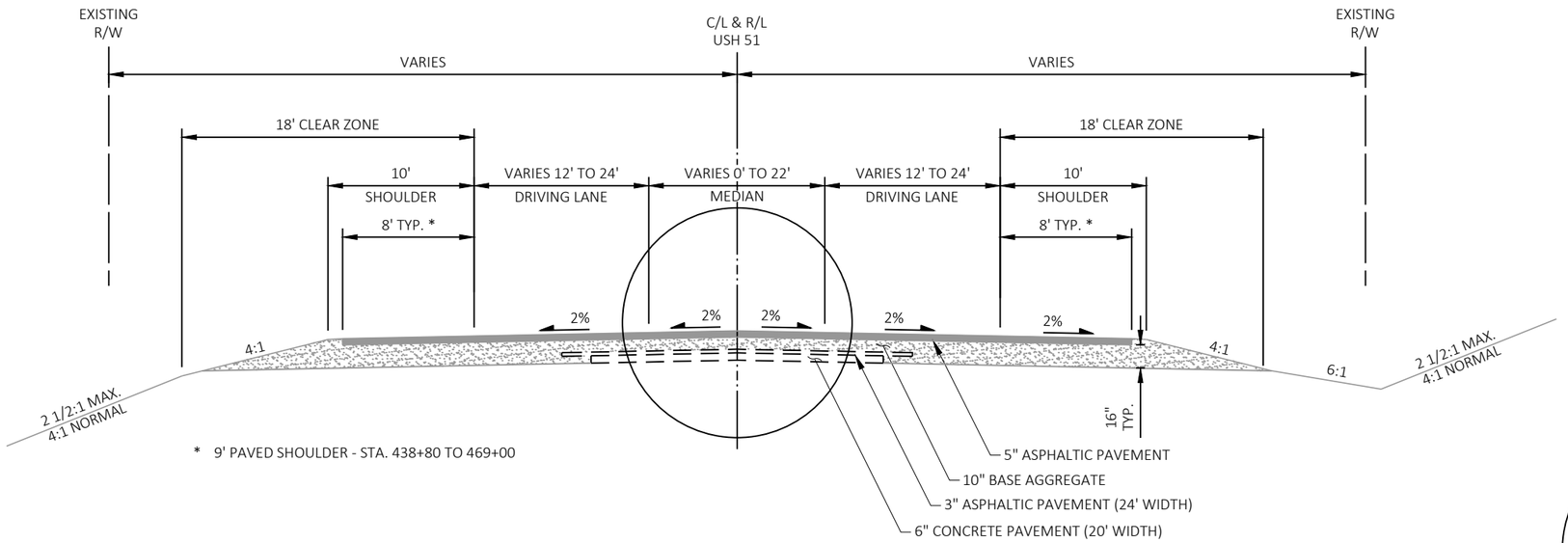


TYPICAL EXISTING SECTION

STA 28+00 - STA 53+00
STA 30+50 CURB & GUTTER LT BEGINS
STA 37+00 SIDEWALK LT & RT BEGINS

NOTE:
EXISTING PAVEMENT WIDTHS AND DEPTHS BASED ON AS-BUILT INFORMATION.
FIELD CONDITIONS MAY VARY.

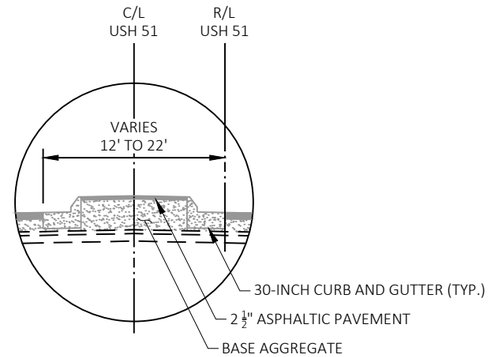
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 4	E



* 9' PAVED SHOULDER - STA. 438+80 TO 469+00

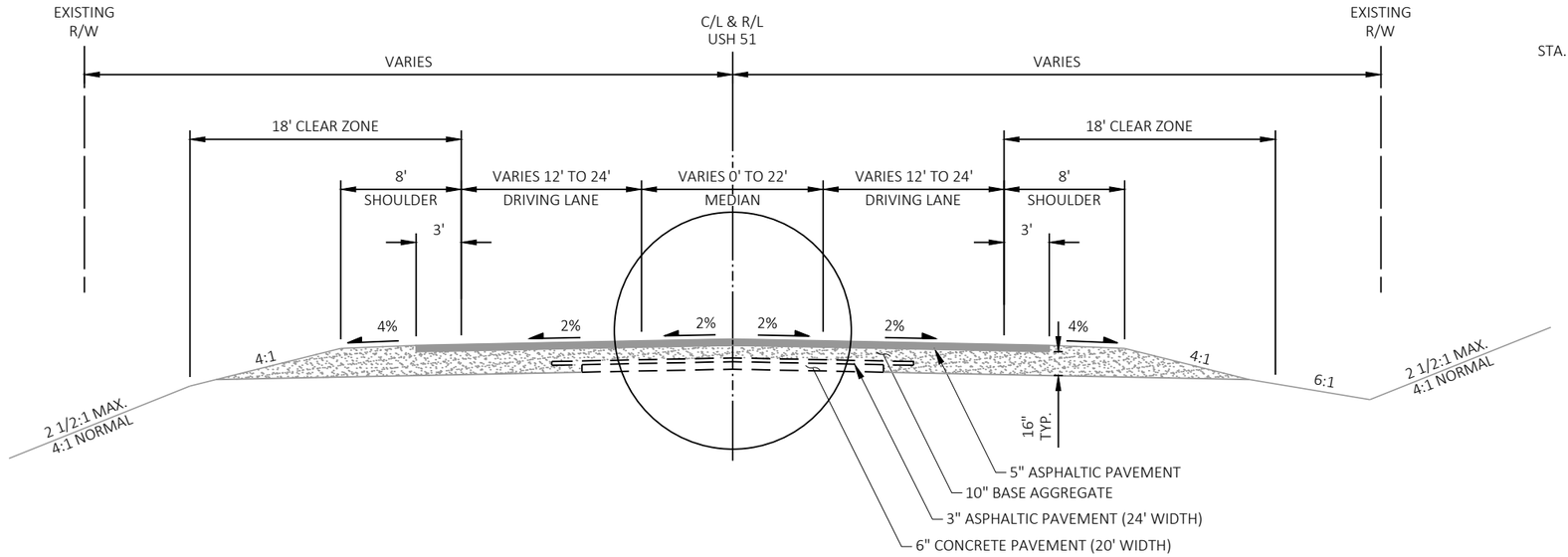
TYPICAL EXISTING SECTION

STA 438+80 - STA 475+05
STA 476+05 - STA 592+75



MEDIAN DETAIL

STA. 410+20 TO 422+20 (STH 16 & RR CROSSING)
STA. 499+65 TO 508+50 (RR CROSSING)

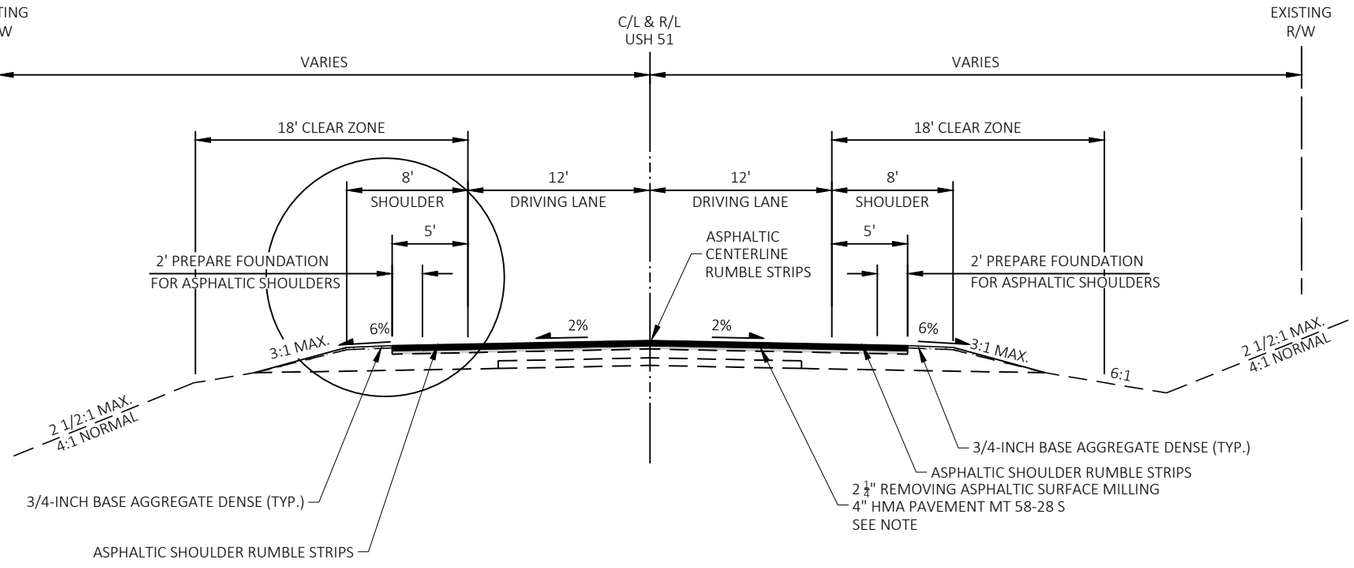


TYPICAL EXISTING SECTION

STA 405+25 - STA 438+80

NOTE:
EXISTING PAVEMENT WIDTHS AND DEPTHS BASED ON AS-BUILT INFORMATION.
FIELD CONDITIONS MAY VARY.

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 5	E



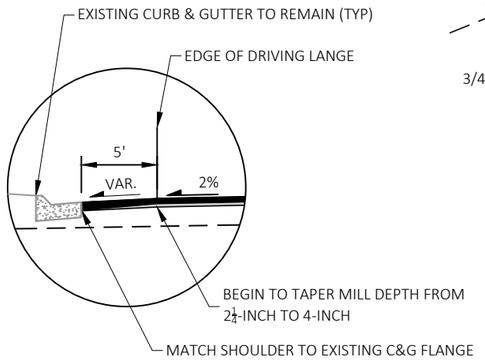
TYPICAL FINISHED SECTION

STA 53+00 - STA 275+95
STA 278+20 - STA 363+90
STA 364+94 - STA 405+25

NOTE:
EXISTING PAVEMENT WIDTHS AND DEPTHS BASED ON AS-BUILT INFORMATION. FIELD CONDITIONS MAY VARY.

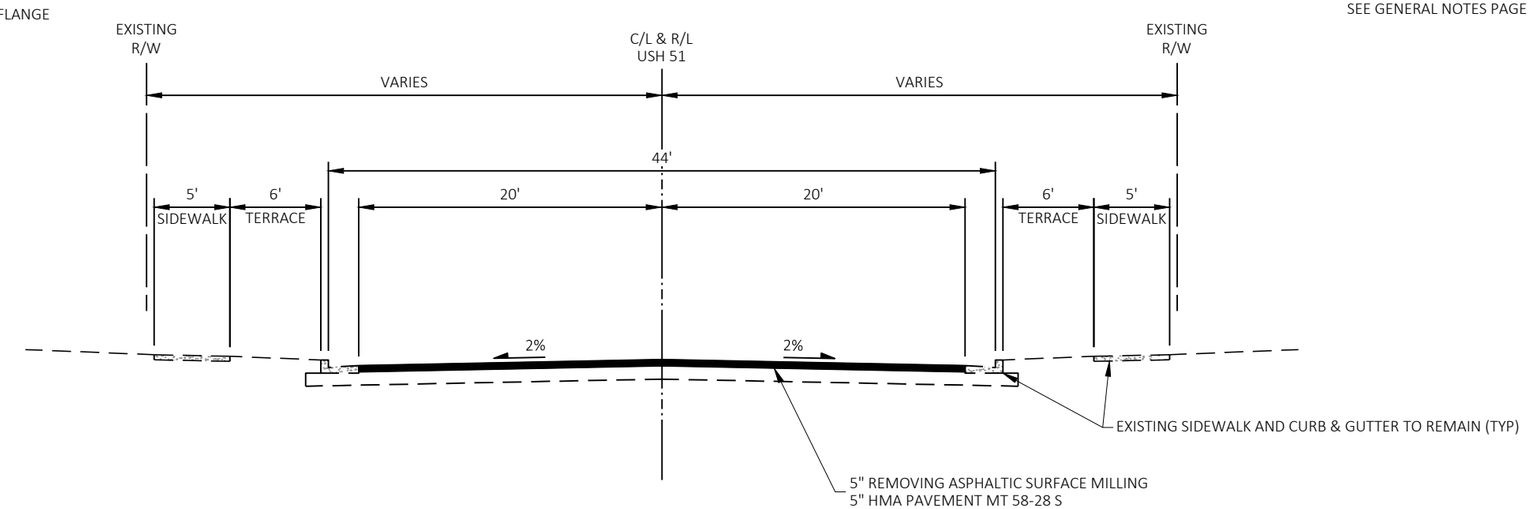
EXISTING ~4 ½" RECYCLED BITUMINOUS PAVEMENT:
TOP 2 ¼" TO BE MILLED (REMOVING ASPHALTIC SURFACE MILLING)
BOTTOM ~2 ¼" TO REMAIN

SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS



CURB & GUTTER DETAIL

STA. 320+30 LT TO STA 329+30 LT



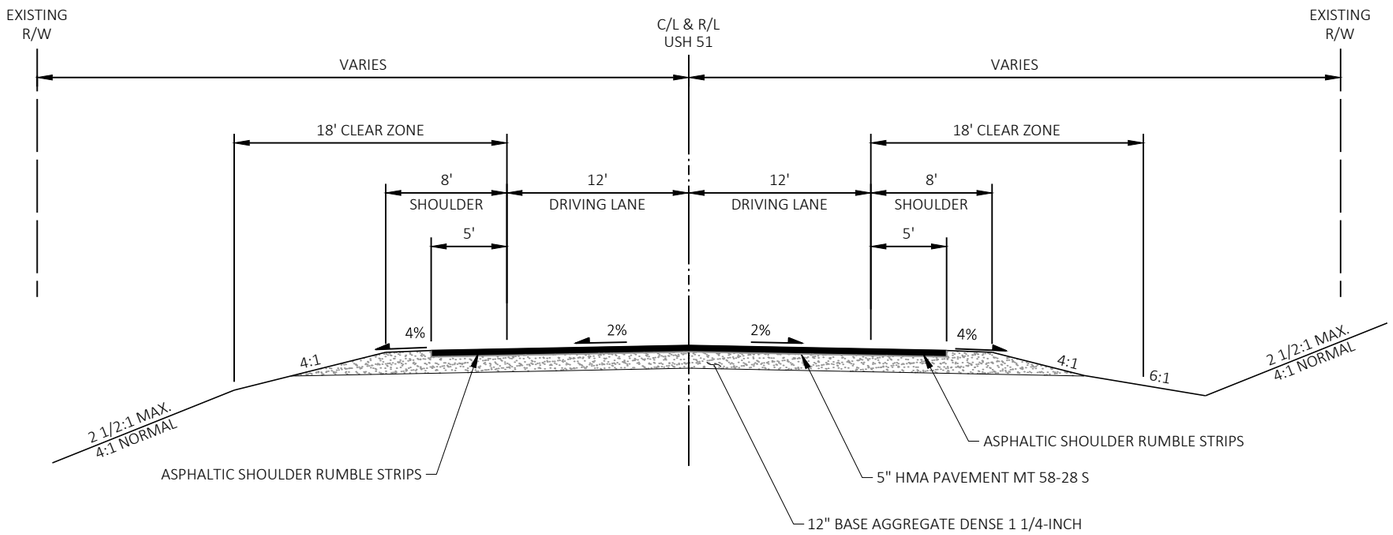
REMOVAL MAY INCLUDE BASE MATERIAL

TYPICAL FINISHED SECTION

STA 28+00 - STA 53+00
STA 30+50 CURB & GUTTER LT BEGINS
STA 37+00 SIDEWALK LT & RT BEGINS

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 6	E

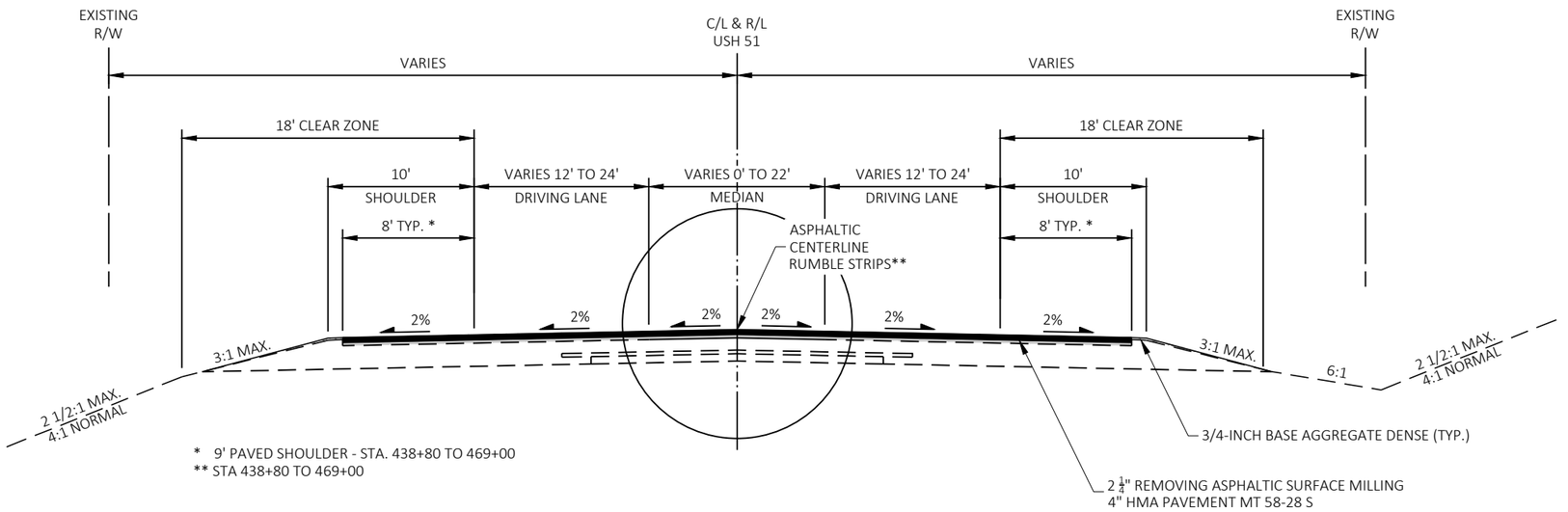
2



TYPICAL FINISHED SECTION

STA 363+90 - STA 364+94
(CULVERT REPLACEMENT)

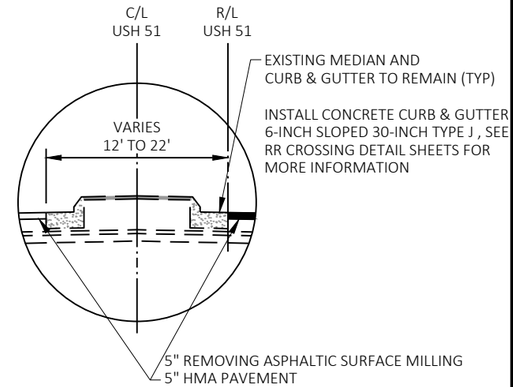
NOTE:
SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS



* 9' PAVED SHOULDER - STA. 438+80 TO 469+00
** STA 438+80 TO 469+00

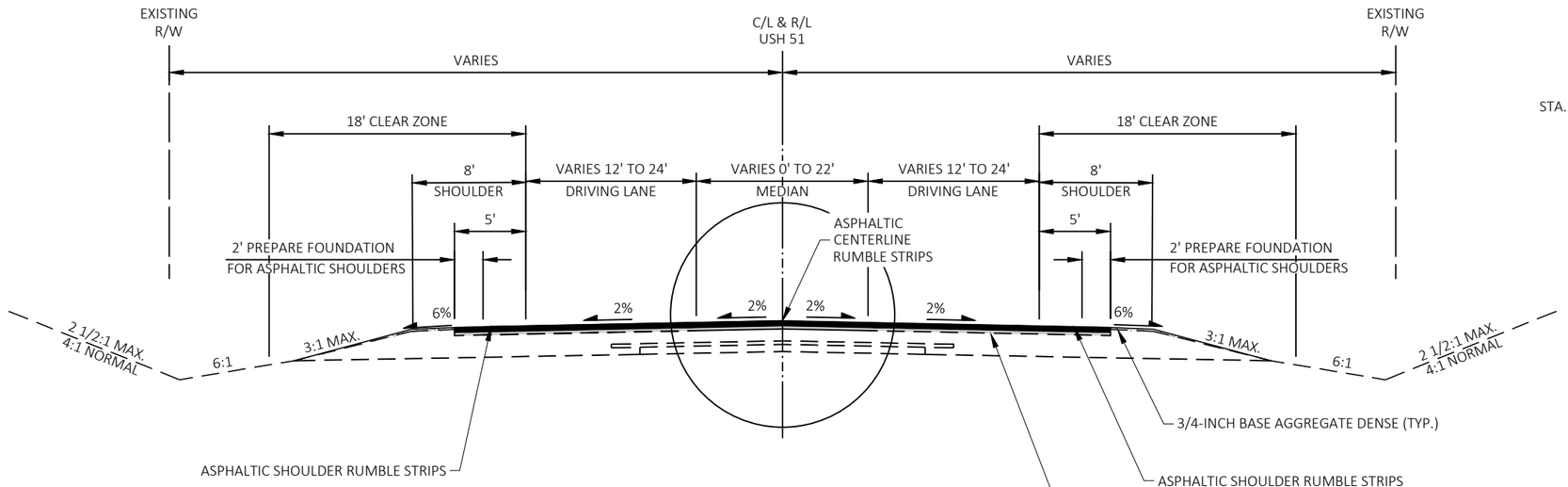
TYPICAL FINISHED SECTION

STA 438+80 - STA 475+05
STA 476+05 - STA 592+75



MEDIAN DETAIL

STA. 410+20 TO 422+20 (STH 16 & RR CROSSING)
STA. 499+65 TO 508+50 (RR CROSSING)



TYPICAL FINISHED SECTION

STA 405+25 - STA 438+80

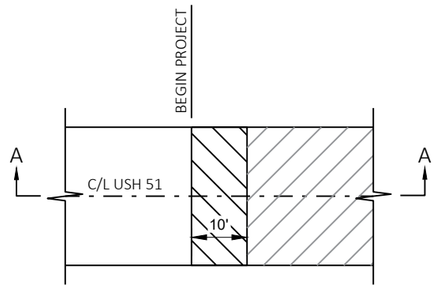
NOTE:
EXISTING PAVEMENT WIDTHS AND DEPTHS BASED ON AS-BUILT INFORMATION.
FIELD CONDITIONS MAY VARY.

EXISTING ~5" ASPHALTIC PAVEMENT:
TOP 2 1/4" TO BE MILLED (REMOVING ASPHALTIC SURFACE MILLING)
BOTTOM ~2 3/4" TO REMAIN

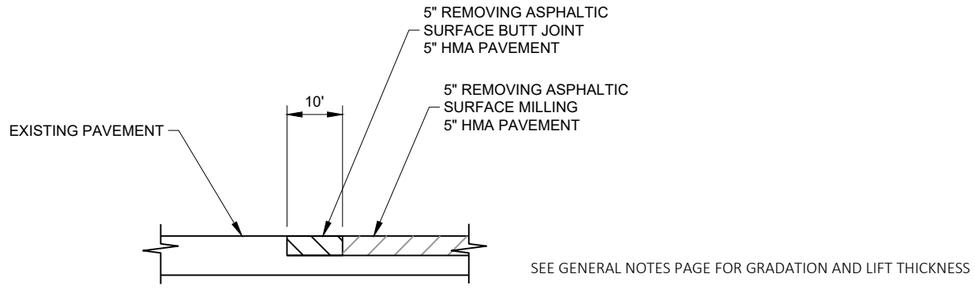
SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 05
PLOT DATE : 10/9/2023 10:14 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



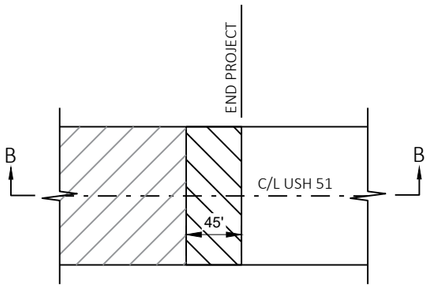
TYPICAL MAINLINE DETAIL



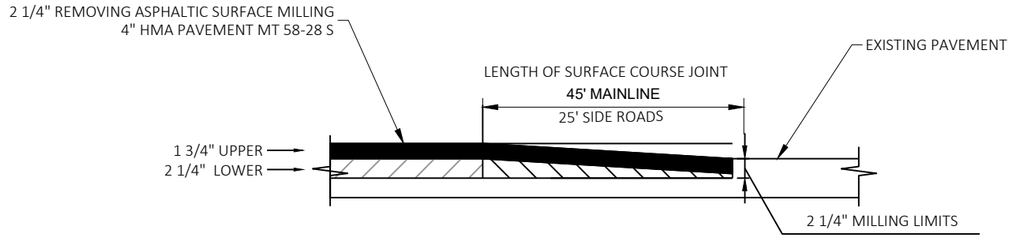
SECTION A-A

SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS

BUTT JOINT - 5" MILL / 5" OVERLAY TO EXISTING



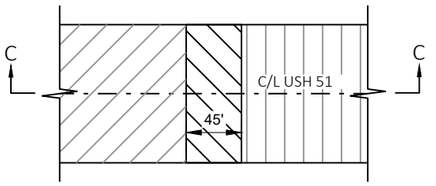
TYPICAL MAINLINE DETAIL



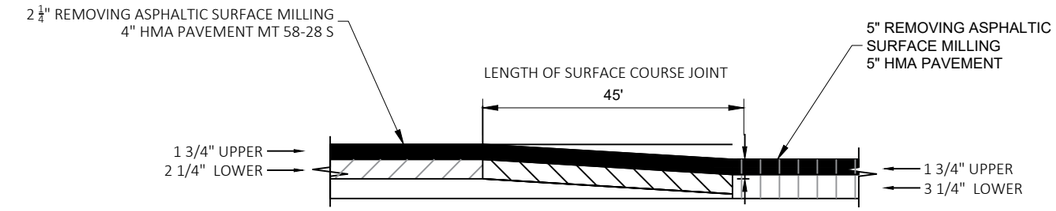
SECTION B-B

SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS

BUTT JOINT - 2 1/4" MILL / 4" OVERLAY TO EXISTING



TYPICAL MAINLINE DETAIL

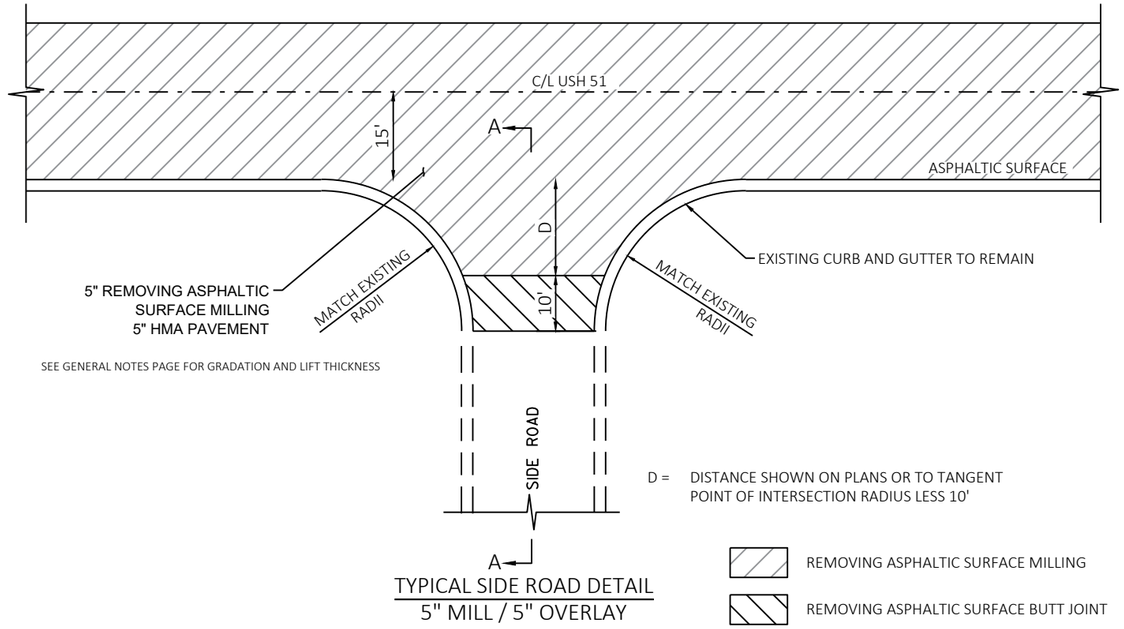


SECTION C-C

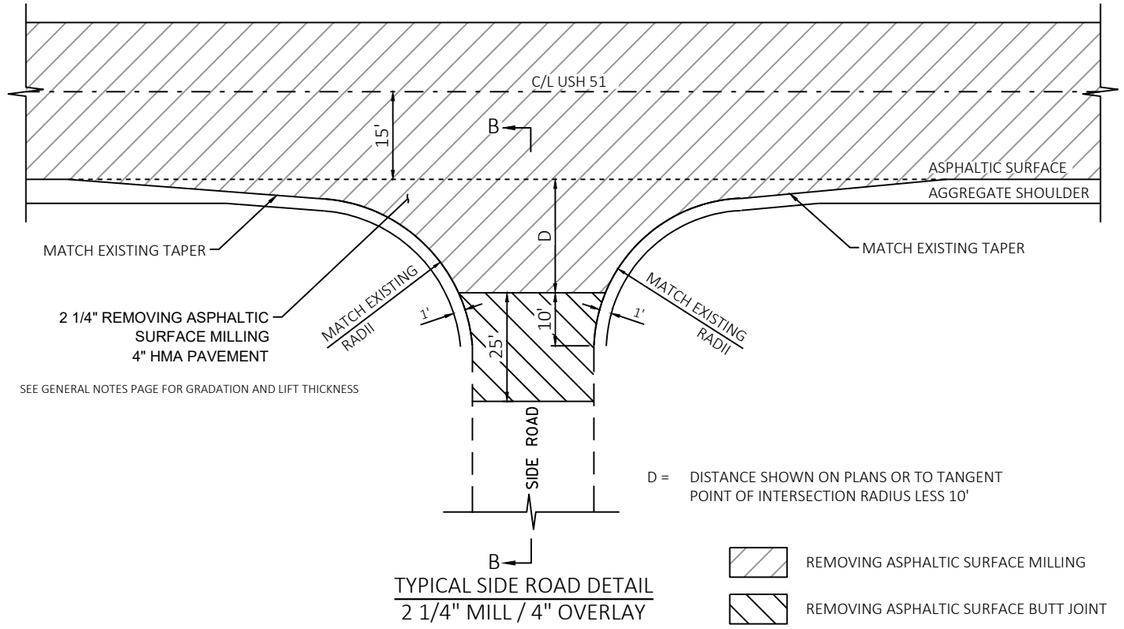
SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS

BUTT JOINT - 2 1/4" MILL / 4" OVERLAY TO 5" MILL / 5" OVERLAY

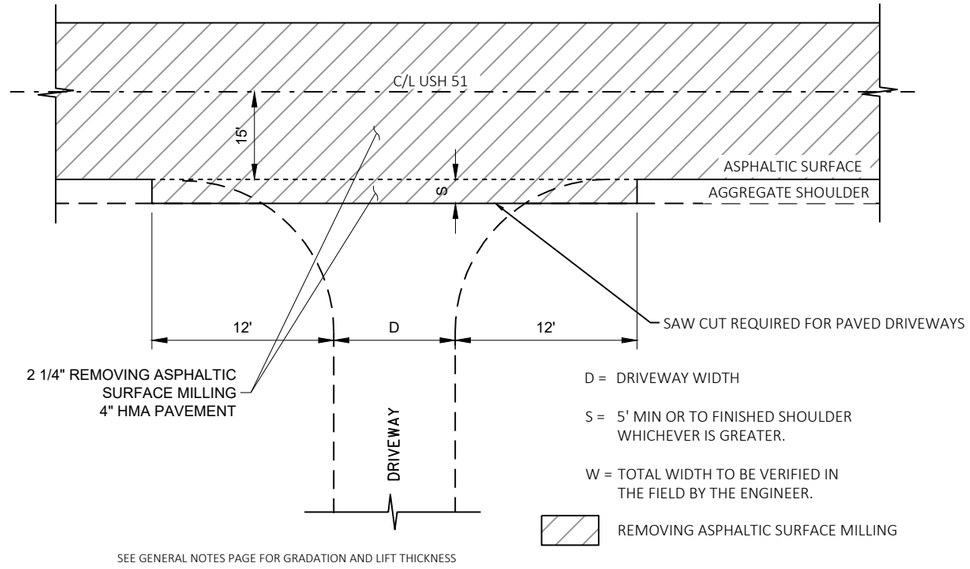
2



TYPICAL SIDE ROAD DETAIL
5" MILL / 5" OVERLAY



TYPICAL SIDE ROAD DETAIL
2 1/4" MILL / 4" OVERLAY

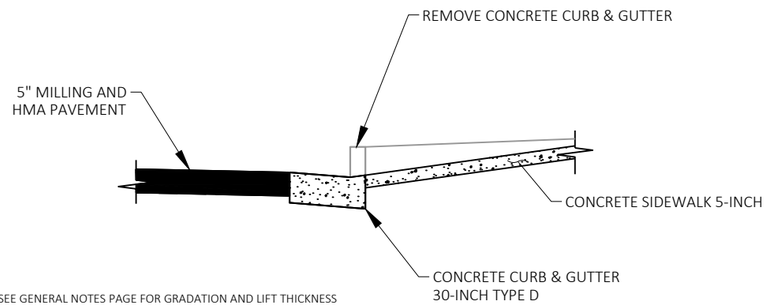


TYPICAL DRIVEWAY DETAIL

BUTT JOINT 2.25" MILL

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 10	E

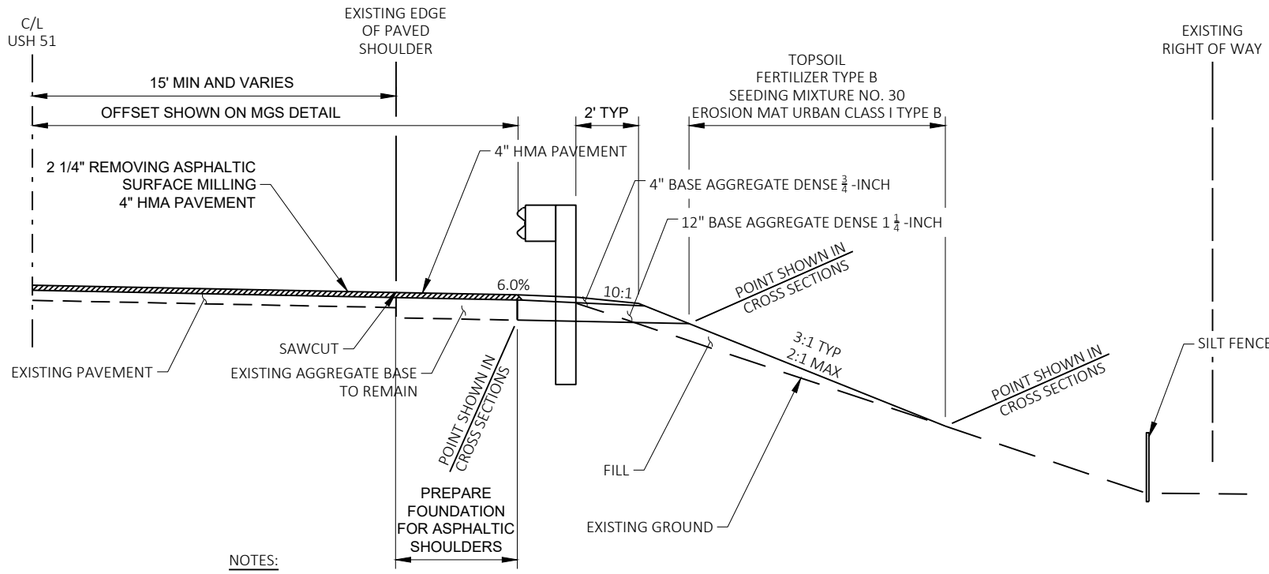
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 05
PLOT DATE : 10/9/2023 10:22 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS

CURB RAMP RECONSTRUCT DETAIL

SEE GENERAL NOTES PAGE FOR GRADATION AND LIFT THICKNESS



NOTES:

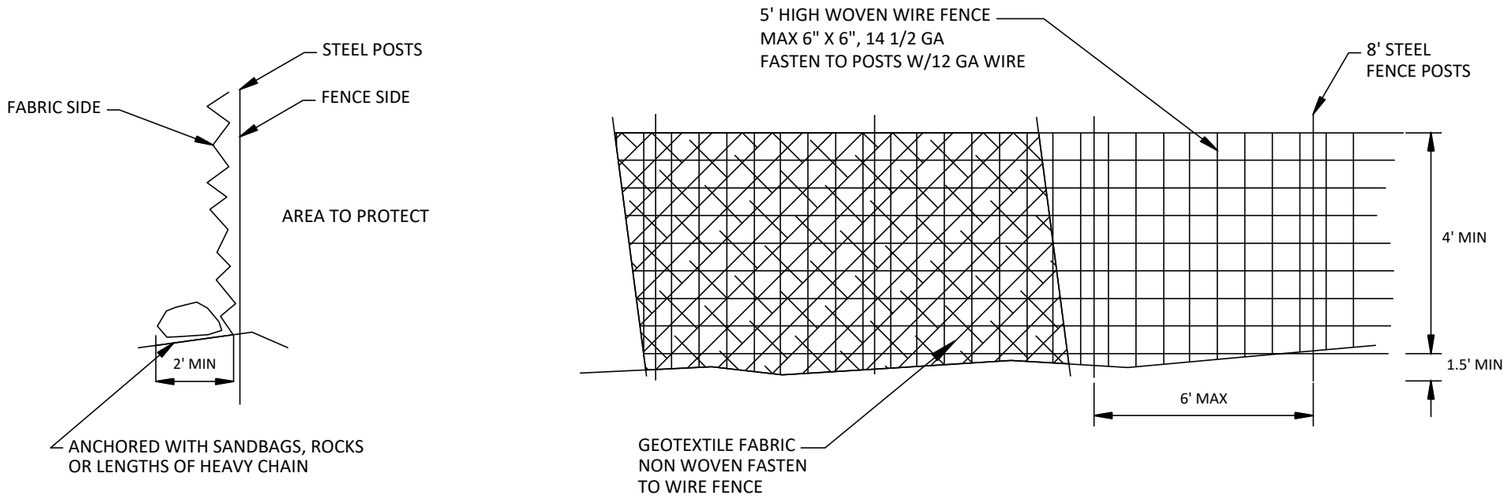
EXCAVATION COMMON , FILL, BORROW, SALVAGED TOPSOIL, FERTILIZER AND SEEDING ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

BARRIER SYSTEM GRADING SHAPING FINISHING WILL BE MEASURED BY THE ENTIRE BARRIER SYSTEM INCLUDING GRADING REQUIRED FOR BOTH TERMINALS AND BEHIND THE GUARDRAIL IN BETWEEN.

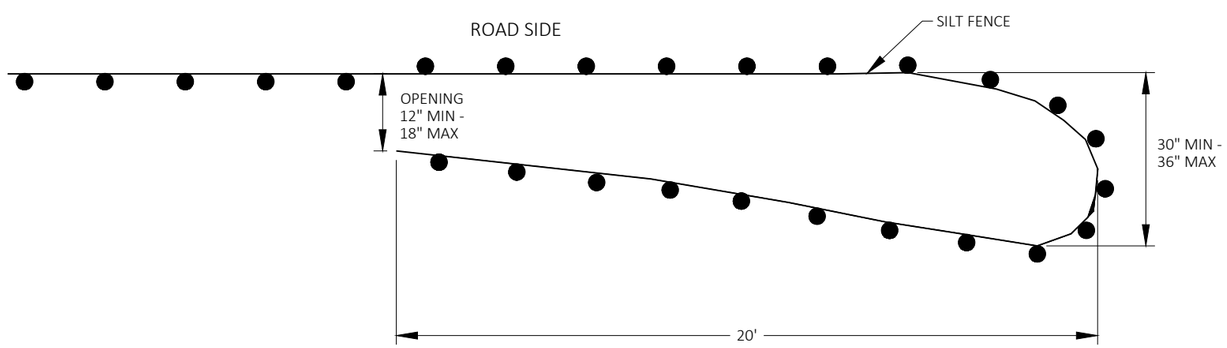
SEE STANDARD DETAIL DRAWINGS MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL FOR MORE INFORMATION.

MGS GUARDRAIL GRADING, SHAPING, AND FINISHING

2



SILT FENCE HEAVY DUTY



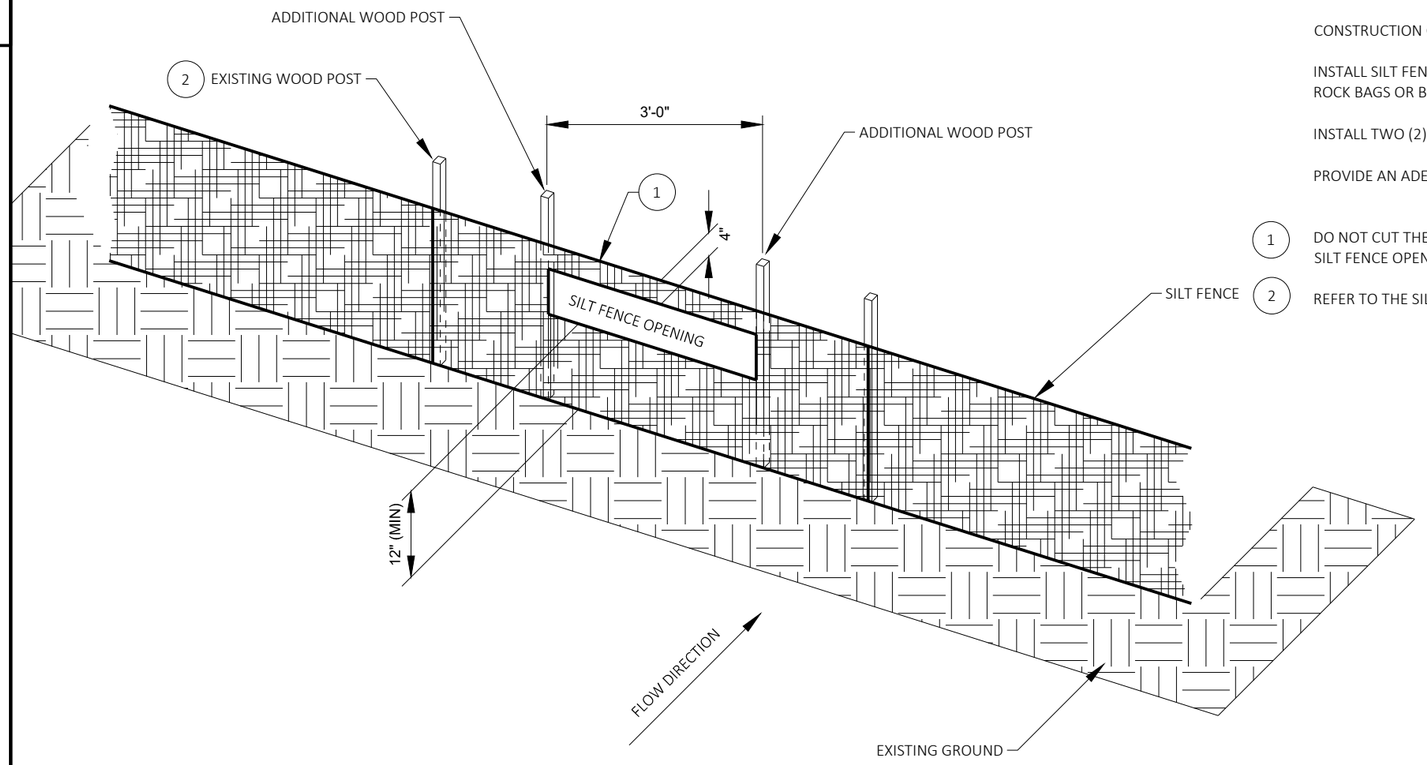
PLAN VIEW

TEMPORARY SMALL ANIMAL TURN-AROUND

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

WHEN USED AT THE TERMINATION POINT OF SILT FENCE HEAVY DUTY CONSTRUCT THE TURN-AROUND USING STANDARD SILT FENCE. PAID AS SILT FENCE.

2



GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE MAINTENANCE BID ITEM.

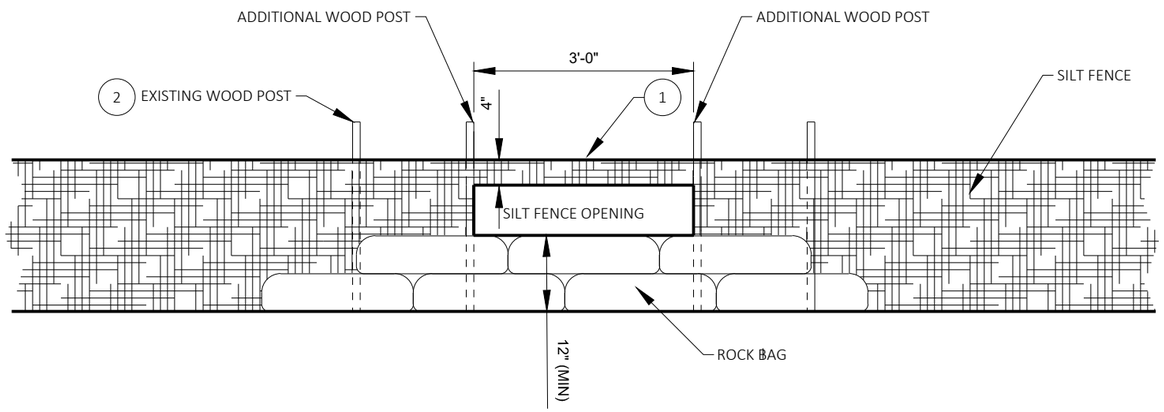
INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CUTTING THE SILT FENCE OPENING, PLACE ROCK BAGS OR BALES AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL. SILT FENCE OPENING SHOULD BE BETWEEN 4" - 8" TALL

INSTALL TWO (2) ADDITIONAL POSTS AT 3' SPACING AT LOCATION OF OPENING.

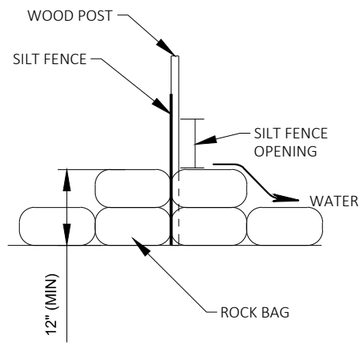
PROVIDE AN ADEQUATE NUMBER OF ROCK BAGS OR BALES TO STACK TO A HEIGHT OF 1' (MINIMUM). ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS

(1) DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. CUT THE SILT FENCE OPENING AT LEAST 1" BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.

(2) REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.



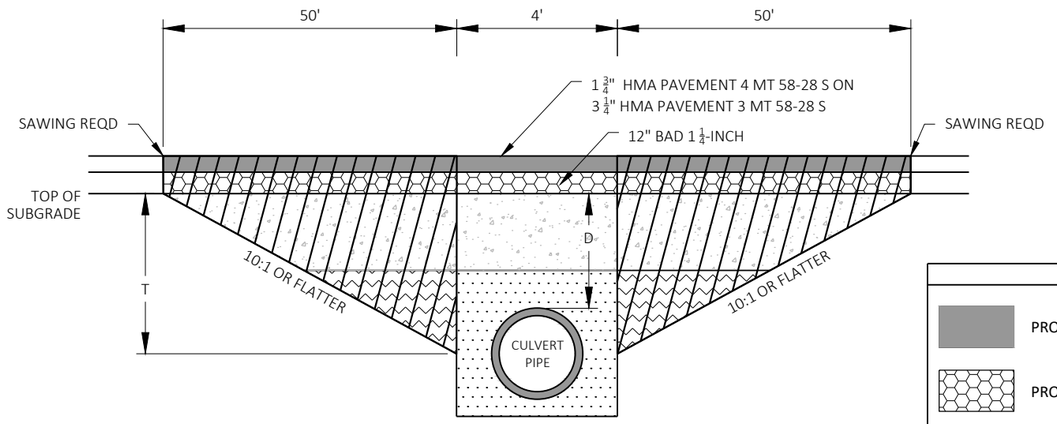
SECTION VIEW



SILT FENCE RELIEF DETAIL

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 13	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 06
PLOT DATE : 10/9/2023 10:23 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



DEPTH D < 6 FT

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

KEY

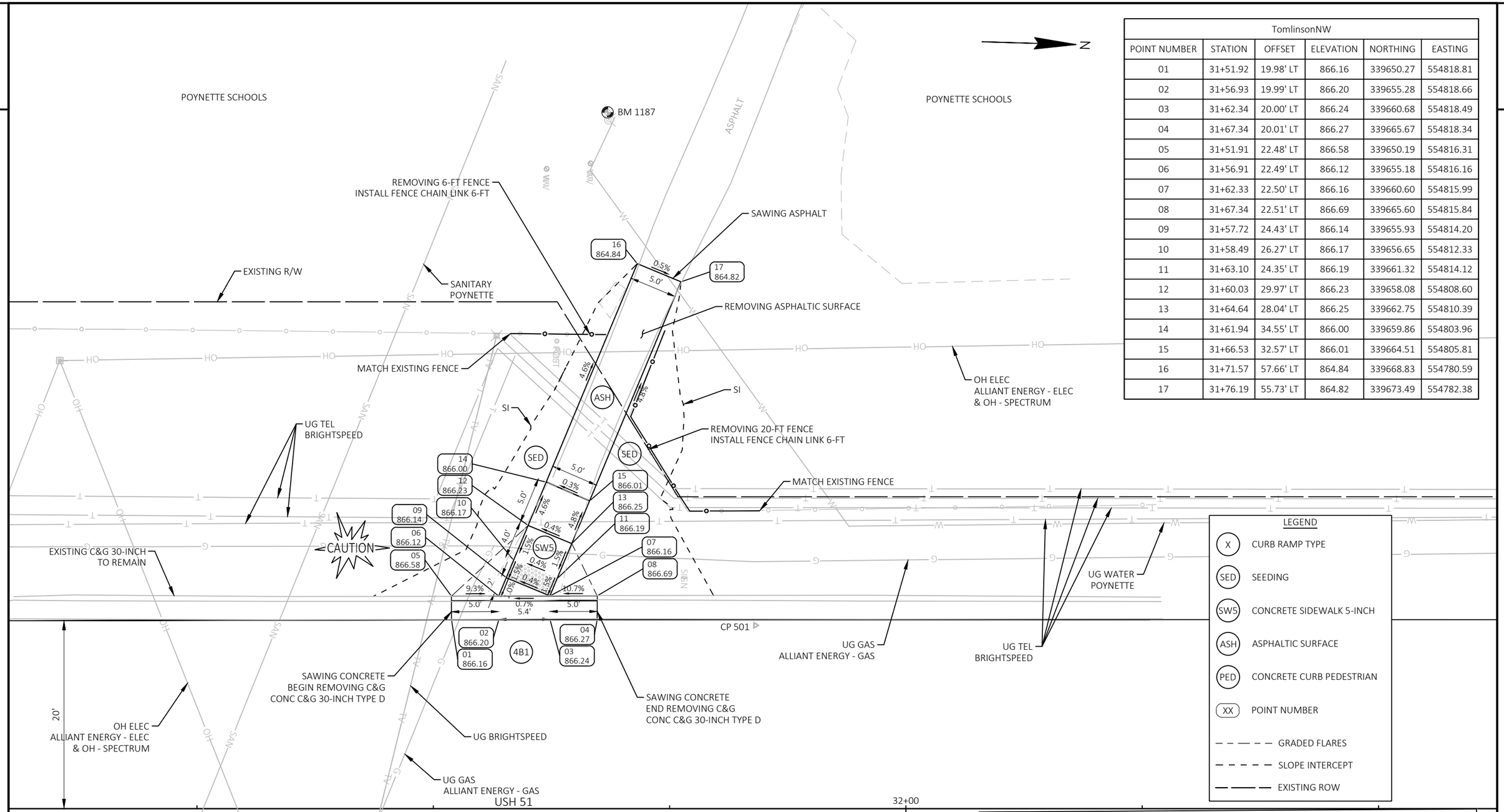
- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE HMA PAVING.
DEPTH IS MEASURED FROM TOP OF PIPE TO CENTERLINE OF ROADWAY

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
USH 51	364+42	5.6'	24"	NONE



TomlinsonNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	31+51.92	19.98' LT	866.16	339650.27	554818.81
02	31+56.93	19.99' LT	866.20	339655.28	554818.66
03	31+62.34	20.00' LT	866.24	339660.68	554818.49
04	31+67.34	20.01' LT	866.27	339665.67	554818.34
05	31+51.91	22.48' LT	866.58	339650.19	554816.31
06	31+56.91	22.49' LT	866.12	339655.18	554816.16
07	31+62.33	22.50' LT	866.16	339660.60	554815.99
08	31+67.34	22.51' LT	866.69	339665.60	554815.84
09	31+57.72	24.43' LT	866.14	339655.93	554814.20
10	31+58.49	26.27' LT	866.17	339656.65	554812.33
11	31+63.10	24.35' LT	866.19	339661.32	554814.12
12	31+60.03	29.97' LT	866.23	339658.08	554808.60
13	31+64.64	28.04' LT	866.25	339662.75	554810.39
14	31+61.94	34.55' LT	866.00	339659.86	554803.96
15	31+66.53	32.57' LT	866.01	339664.51	554805.81
16	31+71.57	57.66' LT	864.84	339668.83	554780.59
17	31+76.19	55.73' LT	864.82	339673.49	554782.38

LEGEND

- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 1034	SE FLNG BLT	30+51.34	99.6 RT	869.61
BM 1187	SW FLAG BLT	31+68.42	73.7 LT	867.48

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 501	PK NAIL	31+84.07	19.4 LT	339682.42	554818.48
CP 1000	PK NAIL	30+39.22	49.5 RT	339539.61	554891.48

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L
6. CONSTRUCTION PERMIT FROM POYNETTE SCHOOLS WILL BE ACQUIRED PRIOR TO CONSTRUCTION.

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - TOMLINSON NW	SHEET 15	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023101-CR.DWG
LAYOUT NAME - 01-TomlinsonNW
PLOT DATE : 7/19/2023 4:29 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

SewardSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
77	36+81.49	19.96' LT	863.86	340179.61	554803.58
78	36+83.69	19.96' LT	863.81	340181.81	554803.52
79	36+86.03	22.46' LT	864.19	340184.08	554800.95
80	36+90.02	22.46' LT	863.64	340188.07	554800.84
81	36+89.78	19.96' LT	863.72	340187.91	554803.34
82	36+95.02	23.25' LT	863.57	340193.05	554799.91
83	36+97.38	21.45' LT	863.61	340195.46	554801.63
84	36+98.30	21.88' LT	863.56	340196.37	554801.18
85	37+00.40	25.96' LT	863.70	340198.35	554797.04
86	37+04.89	26.75' LT	862.99	340202.82	554796.12
87	37+03.89	25.68' LT	863.07	340201.85	554797.22
88	37+03.96	29.47' LT	863.00	340201.80	554793.43
89	37+05.11	31.22' LT	862.80	340202.90	554791.65
90	37+08.30	32.10' LT	862.84	340206.06	554790.68
91	37+07.07	36.17' LT	862.69	340204.72	554786.64
92	37+09.83	37.60' LT	862.69	340207.44	554785.13
93	37+07.49	39.16' LT	863.01	340205.06	554783.64
94	37+10.02	39.65' LT	862.53	340207.57	554783.08
95	37+10.14	44.55' LT	862.02	340207.55	554778.17

SewardSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
96	36+90.02	23.25' LT	863.64	340188.05	554800.05
97	36+90.02	27.25' LT	863.70	340187.94	554796.05
98	36+95.02	27.25' LT	863.63	340192.93	554795.91
99	37+05.26	36.22' LT	862.72	340202.91	554786.65
100	36+90.02	31.60' LT	863.43	340187.81	554791.70
101	36+95.02	31.47' LT	863.35	340192.81	554791.68
102	36+95.02	36.48' LT	863.28	340192.67	554786.68
103	36+90.02	36.60' LT	863.35	340187.67	554786.70
104	36+97.58	41.14' LT	862.91	340195.09	554781.95
105	36+93.14	42.77' LT	862.87	340190.60	554780.44
106	36+96.25	48.94' LT	862.47	340193.54	554774.19
107	37+00.15	45.81' LT	862.54	340197.52	554777.21
108	37+03.84	50.40' LT	862.48	340201.08	554772.51
109	36+99.95	53.53' LT	862.41	340197.10	554769.49
110	36+92.16	59.80' LT	861.92	340189.13	554763.45
111	36+88.46	55.21' LT	862.03	340185.57	554768.15
112	36+92.36	52.07' LT	862.25	340189.55	554771.17
113	36+96.05	56.67' LT	862.16	340193.12	554766.47

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 2058	NW FLAG BLT	37+50.45	107.2 RT	865.45

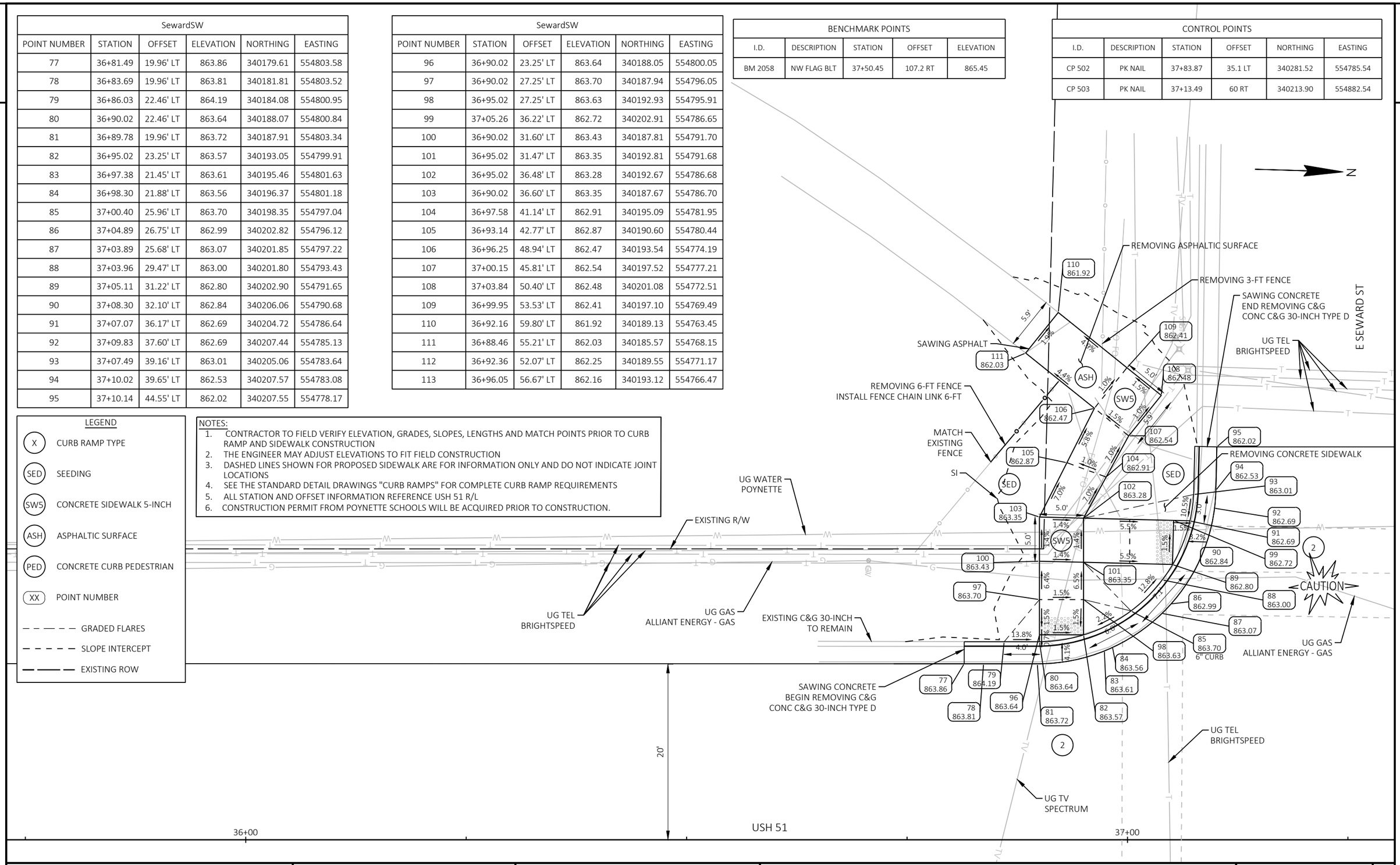
CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 502	PK NAIL	37+83.87	35.1 LT	340281.52	554785.54
CP 503	PK NAIL	37+13.49	60 RT	340213.90	554882.54

LEGEND

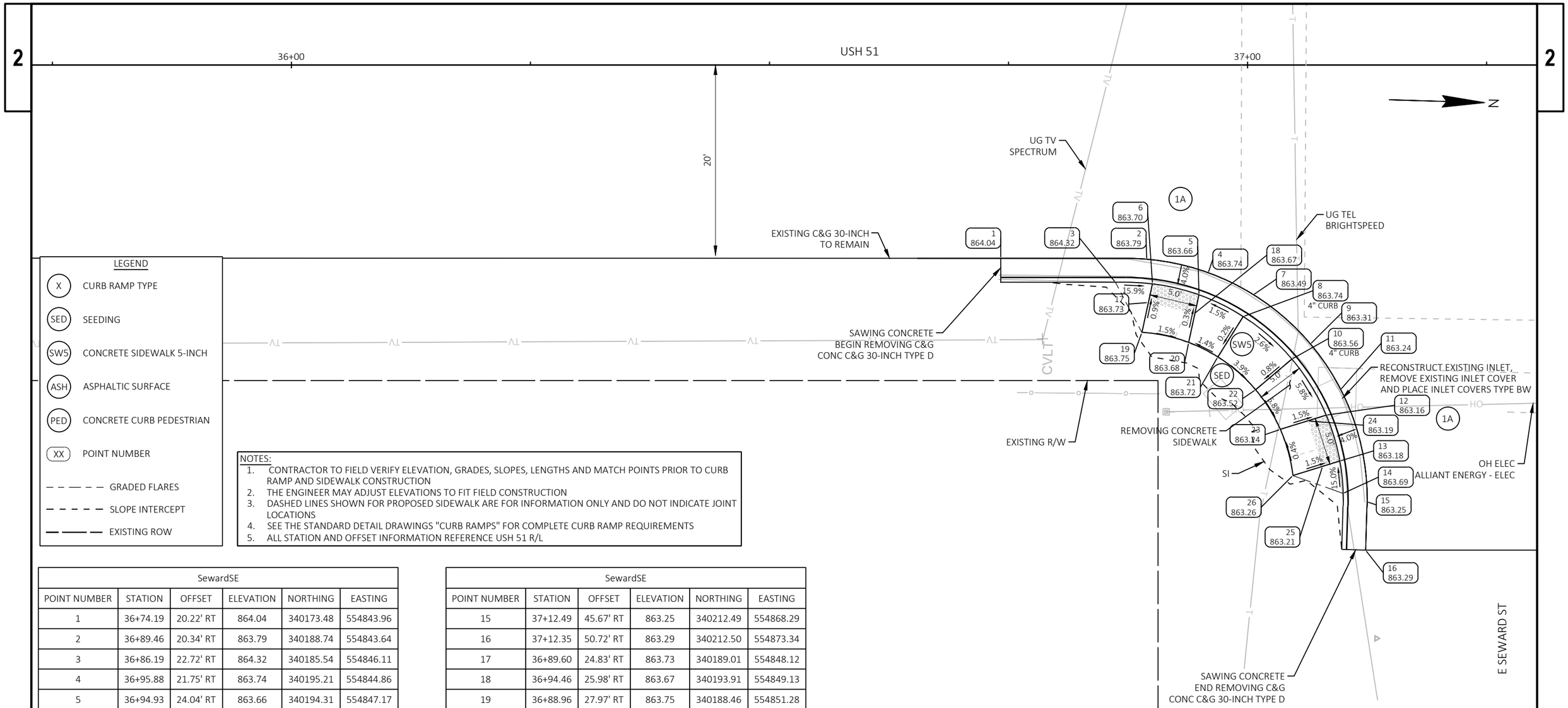
- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L
6. CONSTRUCTION PERMIT FROM POYNETTE SCHOOLS WILL BE ACQUIRED PRIOR TO CONSTRUCTION.



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - SEWARD SW	SHEET 16	E



LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

SewardSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	36+74.19	20.22' RT	864.04	340173.48	554843.96
2	36+89.46	20.34' RT	863.79	340188.74	554843.64
3	36+86.19	22.72' RT	864.32	340185.54	554846.11
4	36+95.88	21.75' RT	863.74	340195.21	554844.86
5	36+94.93	24.04' RT	863.66	340194.31	554847.17
6	36+90.06	22.89' RT	863.70	340189.42	554846.16
7	37+00.61	24.04' RT	863.49	340200.00	554847.01
8	36+99.55	26.31' RT	863.74	340199.00	554849.31
9	37+06.56	29.19' RT	863.31	340206.09	554851.99
10	37+04.63	30.76' RT	863.56	340204.21	554853.61
11	37+09.72	33.95' RT	863.24	340209.39	554856.66
12	37+08.22	36.61' RT	863.16	340207.97	554859.36
13	37+09.65	41.41' RT	863.18	340209.53	554864.11
14	37+09.99	44.79' RT	863.69	340209.97	554867.49

SewardSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
15	37+12.49	45.67' RT	863.25	340212.49	554868.29
16	37+12.35	50.72' RT	863.29	340212.50	554873.34
17	36+89.60	24.83' RT	863.73	340189.01	554848.12
18	36+94.46	25.98' RT	863.67	340193.91	554849.13
19	36+88.96	27.97' RT	863.75	340188.46	554851.28
20	36+93.85	29.03' RT	863.68	340193.38	554852.20
21	36+96.89	30.54' RT	863.72	340196.47	554853.62
22	37+00.84	33.97' RT	863.52	340200.51	554856.93
23	37+03.42	38.10' RT	863.24	340203.21	554860.99
24	37+06.32	37.22' RT	863.19	340206.08	554860.03
25	37+07.85	41.98' RT	863.21	340207.75	554864.74
26	37+04.75	42.93' RT	863.26	340204.68	554865.78

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 2058	NW FLAG BLT	37+50.45	107.2 RT	865.45

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 502	PK NAIL	37+83.87	35.1 LT	340281.52	554785.54
CP 503	PK NAIL	37+13.49	60 RT	340213.90	554882.54

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - SEWARD SE	SHEET 17	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023102-CR.DWG
LAYOUT NAME - 02-SewardSE

PLOT DATE : 7/19/2023 4:30 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 2058	NW FLAG BLT	37+50.45	107.2 RT	865.45

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 502	PK NAIL	37+83.87	35.1 LT	340281.52	554785.54
CP 503	PK NAIL	37+13.49	60 RT	340213.90	554882.54

SewardNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
51	37+84.29	20.03' LT	862.25	340282.37	554800.55
52	37+65.52	20.40' LT	862.34	340263.60	554800.72
53	37+67.20	22.63' LT	862.76	340265.21	554798.45
54	37+62.06	21.46' LT	862.33	340260.11	554799.77
55	37+63.22	23.69' LT	862.25	340261.21	554797.50
56	37+54.83	26.59' LT	862.30	340252.74	554794.84
57	37+58.29	26.67' LT	862.23	340256.19	554794.66
58	37+55.38	29.90' LT	862.19	340253.19	554791.51
59	37+56.74	28.19' LT	862.41	340254.60	554793.19
60	37+50.48	34.84' LT	862.16	340248.15	554786.73
61	37+53.01	34.99' LT	862.09	340250.68	554786.50
62	37+52.45	38.00' LT	862.46	340250.03	554783.51
63	37+49.92	38.70' LT	862.00	340247.48	554782.88
64	37+49.88	42.70' LT	861.84	340247.32	554778.88

SewardNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
65	37+63.30	26.56' LT	862.26	340261.20	554794.63
66	37+55.50	34.93' LT	862.12	340253.17	554786.49
67	37+58.38	29.87' LT	862.34	340256.19	554791.46
68	37+63.38	29.76' LT	862.37	340261.19	554791.43
69	37+63.50	34.76' LT	862.33	340261.17	554786.43
70	37+68.50	33.51' LT	862.55	340266.20	554787.53
71	37+68.50	29.16' LT	862.49	340266.33	554791.88
72	37+73.44	32.28' LT	862.67	340271.18	554788.62
73	37+73.35	28.59' LT	862.64	340271.19	554792.31
74	37+58.50	34.87' LT	862.27	340256.17	554786.46
75	37+58.50	39.87' LT	862.23	340256.03	554781.47
76	37+62.88	39.87' LT	862.29	340260.40	554781.34
77	37+58.52	44.87' LT	862.14	340255.90	554776.47
78	37+62.29	44.79' LT	862.15	340259.67	554776.44

N

E SEWARD ST

SAWING CONCRETE
BEGIN REMOVING C&G
CONC C&G 30-INCH TYPE D

UG TEL
BRIGHTSPEED

SAWING CONCRETE

EXISTING R/W

REMOVING CONCRETE SIDEWALK

EXISTING C&G 30-INCH
TO REMAIN

UG WATER
POYNETTE

UG GAS
ALLIANT ENERGY - GAS

SAWING CONCRETE
END REMOVING C&G
CONC C&G 30-INCH TYPE D

2" CURB HEAD
BETWEEN RAMPS

CAUTION

UG GAS
ALLIANT ENERGY - GAS

UG TEL
BRIGHTSPEED

USH 51

38+00

20'

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND

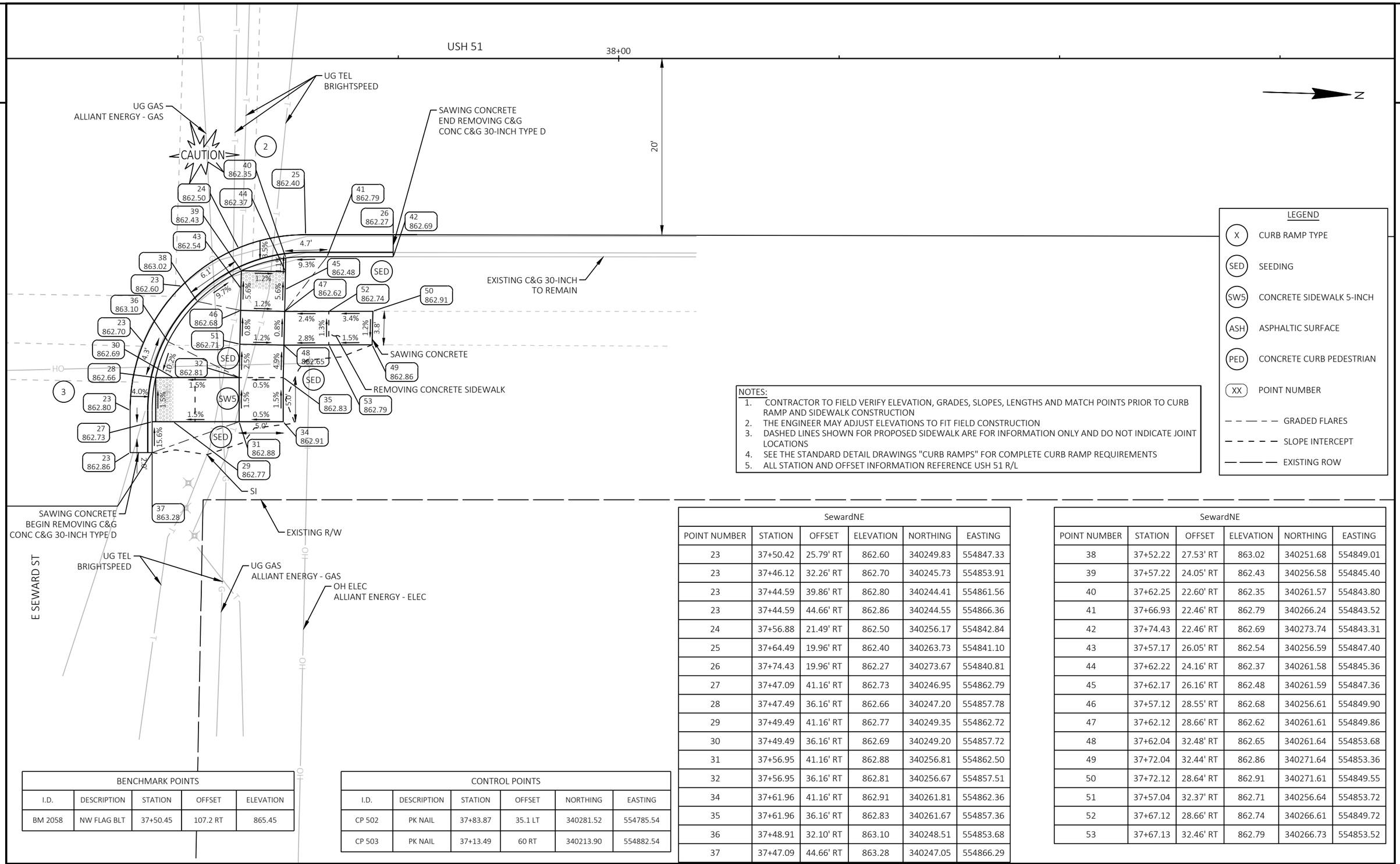
- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - SEWARD NW	SHEET 18	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023102-CR.DWG
LAYOUT NAME - 02-SewardNW

PLOT DATE : 7/19/2023 4:30 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND
- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 2058	NW FLAG BLT	37+50.45	107.2 RT	865.45

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 502	PK NAIL	37+83.87	35.1 LT	340281.52	554785.54
CP 503	PK NAIL	37+13.49	60 RT	340213.90	554882.54

SewardNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
23	37+50.42	25.79' RT	862.60	340249.83	554847.33
23	37+46.12	32.26' RT	862.70	340245.73	554853.91
23	37+44.59	39.86' RT	862.80	340244.41	554861.56
23	37+44.59	44.66' RT	862.86	340244.55	554866.36
24	37+56.88	21.49' RT	862.50	340256.17	554842.84
25	37+64.49	19.96' RT	862.40	340263.73	554841.10
26	37+74.43	19.96' RT	862.27	340273.67	554840.81
27	37+47.09	41.16' RT	862.73	340246.95	554862.79
28	37+47.49	36.16' RT	862.66	340247.20	554857.78
29	37+49.49	41.16' RT	862.77	340249.35	554862.72
30	37+49.49	36.16' RT	862.69	340249.20	554857.72
31	37+56.95	41.16' RT	862.88	340256.81	554862.50
32	37+56.95	36.16' RT	862.81	340256.67	554857.51
34	37+61.96	41.16' RT	862.91	340261.81	554862.36
35	37+61.96	36.16' RT	862.83	340261.67	554857.36
36	37+48.91	32.10' RT	863.10	340248.51	554853.68
37	37+47.09	44.66' RT	863.28	340247.05	554866.29

SewardNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
38	37+52.22	27.53' RT	863.02	340251.68	554849.01
39	37+57.22	24.05' RT	862.43	340256.58	554845.40
40	37+62.25	22.60' RT	862.35	340261.57	554843.80
41	37+66.93	22.46' RT	862.79	340266.24	554843.52
42	37+74.43	22.46' RT	862.69	340273.74	554843.31
43	37+57.17	26.05' RT	862.54	340256.59	554847.40
44	37+62.22	24.16' RT	862.37	340261.58	554845.36
45	37+62.17	26.16' RT	862.48	340261.59	554847.36
46	37+57.12	28.55' RT	862.68	340256.61	554849.90
47	37+62.12	28.66' RT	862.62	340261.61	554849.86
48	37+62.04	32.48' RT	862.65	340261.64	554853.68
49	37+72.04	32.44' RT	862.86	340271.64	554853.36
50	37+72.12	28.64' RT	862.91	340271.61	554849.55
51	37+57.04	32.37' RT	862.71	340256.64	554853.72
52	37+67.12	28.66' RT	862.74	340266.61	554849.72
53	37+67.13	32.46' RT	862.79	340266.73	554853.52

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - SEWARD NE	SHEET 19	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023102-CR.DWG
LAYOUT NAME - 02-SewardNE
PLOT DATE : 7/19/2023 4:30 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

ETomlinsonStSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
02	40+09.12	19.91' LT	860.09	340507.11	554794.20
03	40+14.93	19.95' LT	859.95	340512.92	554793.99
04	40+20.57	19.99' LT	859.90	340518.56	554793.79
05	40+23.98	20.04' LT	859.84	340521.96	554793.64
06	40+30.43	21.55' LT	859.55	340528.37	554791.95
07	40+36.82	25.75' LT	859.21	340534.64	554787.56
08	40+37.72	26.69' LT	859.16	340535.51	554786.59
10	40+41.32	32.46' LT	859.06	340538.94	554780.72
11	40+42.79	39.55' LT	858.62	340540.20	554773.60
12	40+42.87	43.16' LT	858.40	340540.18	554769.98
13	40+11.96	22.43' LT	860.44	340509.88	554791.60
14	40+15.40	22.45' LT	859.87	340513.32	554791.47
15	40+20.40	22.49' LT	859.82	340518.32	554791.29
16	40+23.83	22.53' LT	860.26	340521.74	554791.15
17	40+32.08	25.17' LT	859.82	340529.91	554788.28
18	40+35.92	28.42' LT	859.07	340533.65	554784.92
19	40+39.01	33.42' LT	858.98	340536.60	554779.83

ETomlinsonStSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
20	40+39.93	36.42' LT	859.26	340537.43	554776.80
21	40+15.36	28.42' LT	859.87	340513.10	554785.51
22	40+20.36	28.42' LT	859.83	340518.10	554785.36
23	40+35.92	33.42' LT	859.03	340533.51	554779.92
24	40+30.59	28.42' LT	859.45	340528.33	554785.07
25	40+30.59	33.42' LT	859.40	340528.19	554780.07
26	40+09.06	28.45' LT	860.04	340506.81	554785.67
27	40+09.14	32.42' LT	859.81	340506.77	554781.70
28	40+15.32	33.42' LT	859.88	340512.92	554780.51
29	40+20.36	33.42' LT	859.83	340517.96	554780.37
30	40+25.59	33.42' LT	859.48	340523.19	554780.22
31	40+25.59	28.42' LT	859.52	340523.33	554785.21
32	40+27.49	38.42' LT	859.14	340524.94	554775.16
33	40+31.47	38.42' LT	859.06	340528.92	554775.05
34	40+27.62	43.42' LT	858.83	340524.93	554770.16
35	40+31.47	43.42' LT	858.73	340528.78	554770.05

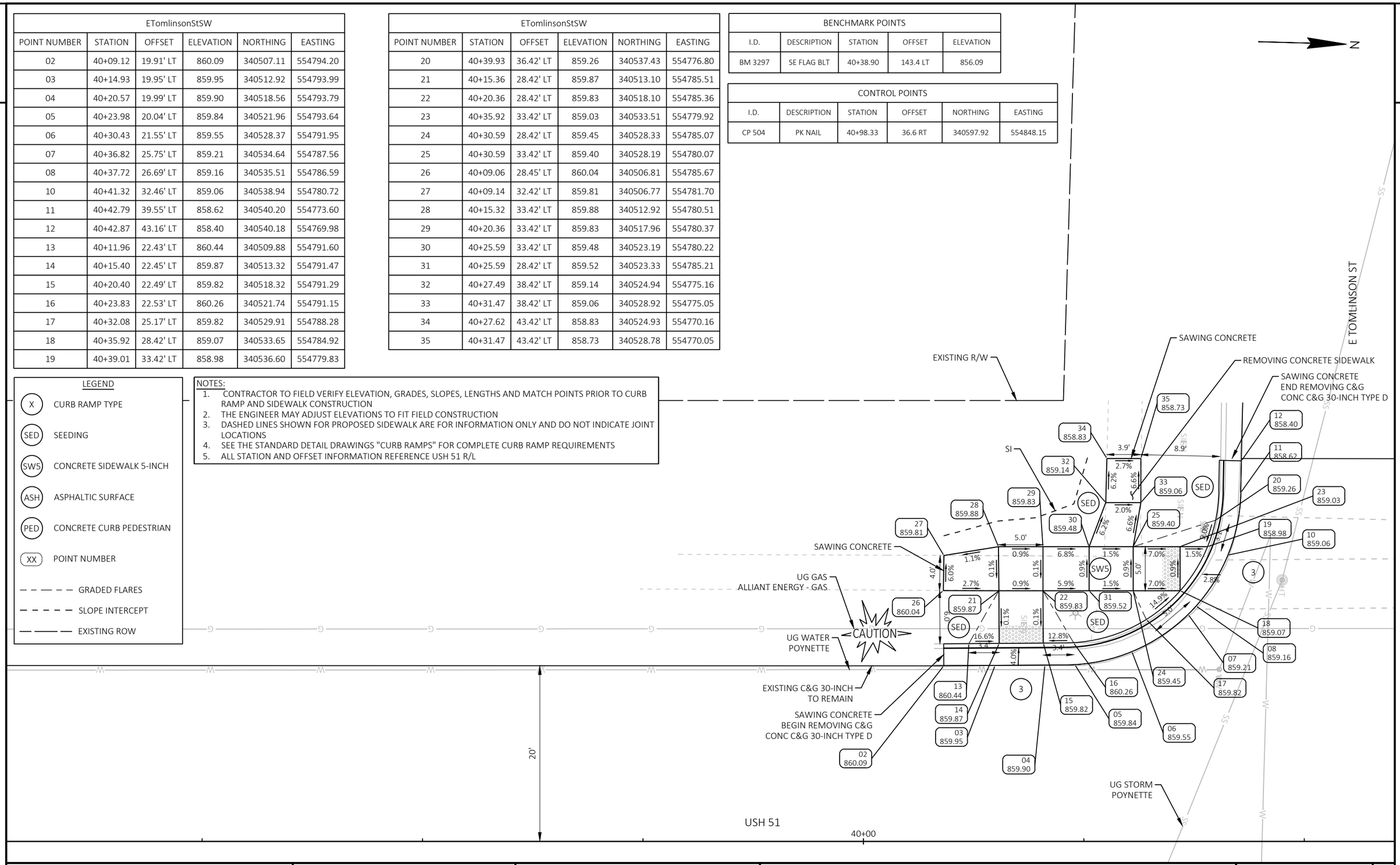
BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 3297	SE FLAG BLT	40+38.90	143.4 LT	856.09

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 504	PK NAIL	40+98.33	36.6 RT	340597.92	554848.15

LEGEND

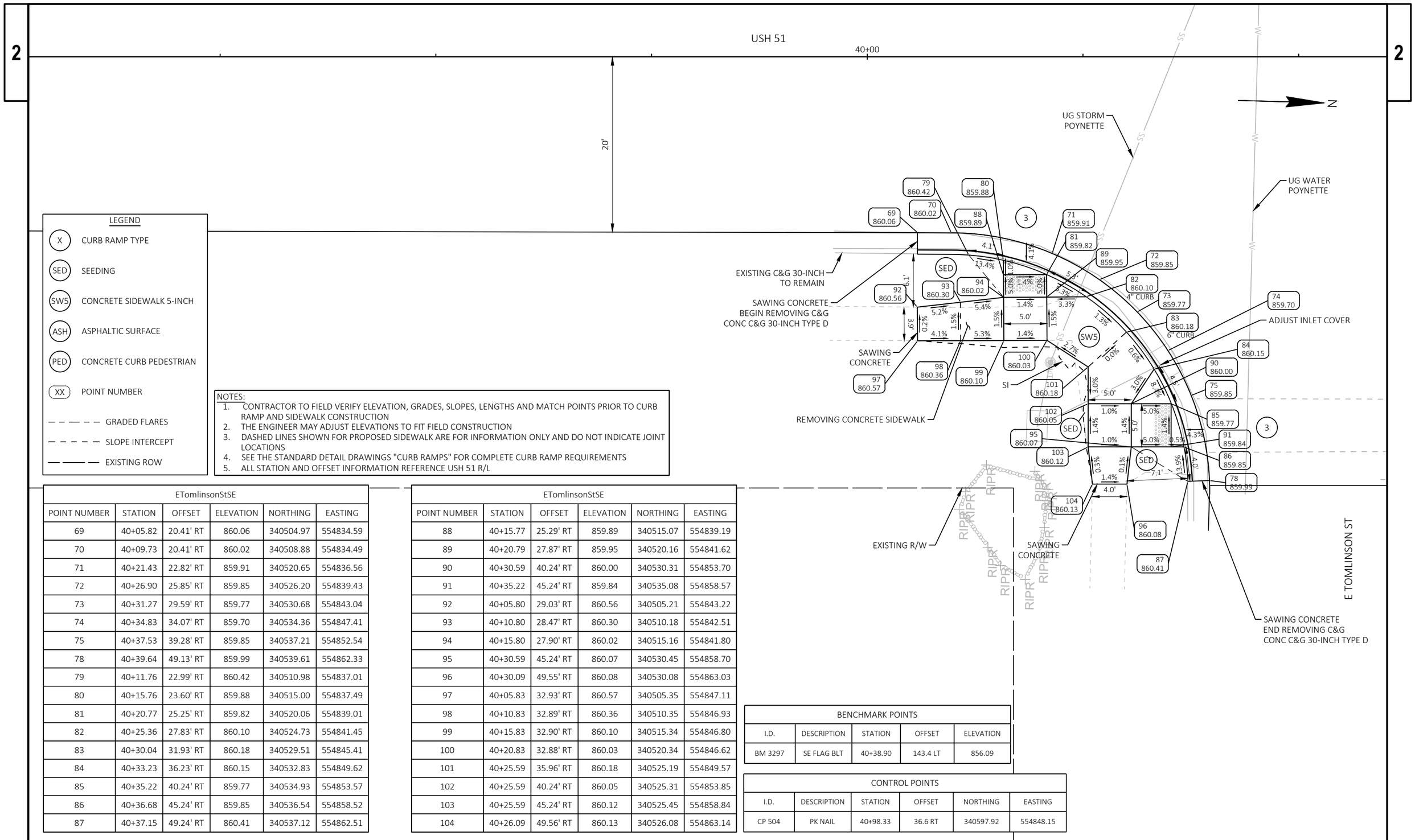
- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - E TOMLINSON SW	SHEET 20	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023103-CR.DWG
LAYOUT NAME - 03-ETomlinsonSW
PLOT DATE : 7/19/2023 4:31 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT



ETomlinsonStSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
69	40+05.82	20.41' RT	860.06	340504.97	554834.59
70	40+09.73	20.41' RT	860.02	340508.88	554834.49
71	40+21.43	22.82' RT	859.91	340520.65	554836.56
72	40+26.90	25.85' RT	859.85	340526.20	554839.43
73	40+31.27	29.59' RT	859.77	340530.68	554843.04
74	40+34.83	34.07' RT	859.70	340534.36	554847.41
75	40+37.53	39.28' RT	859.85	340537.21	554852.54
78	40+39.64	49.13' RT	859.99	340539.61	554862.33
79	40+11.76	22.99' RT	860.42	340510.98	554837.01
80	40+15.76	23.60' RT	859.88	340515.00	554837.49
81	40+20.77	25.25' RT	859.82	340520.06	554839.01
82	40+25.36	27.83' RT	860.10	340524.73	554841.45
83	40+30.04	31.93' RT	860.18	340529.51	554845.41
84	40+33.23	36.23' RT	860.15	340532.83	554849.62
85	40+35.22	40.24' RT	859.77	340534.93	554853.57
86	40+36.68	45.24' RT	859.85	340536.54	554858.52
87	40+37.15	49.24' RT	860.41	340537.12	554862.51

ETomlinsonStSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
88	40+15.77	25.29' RT	859.89	340515.07	554839.19
89	40+20.79	27.87' RT	859.95	340520.16	554841.62
90	40+30.59	40.24' RT	860.00	340530.31	554853.70
91	40+35.22	45.24' RT	859.84	340535.08	554858.57
92	40+05.80	29.03' RT	860.56	340505.21	554843.22
93	40+10.80	28.47' RT	860.30	340510.18	554842.51
94	40+15.80	27.90' RT	860.02	340515.16	554841.80
95	40+30.59	45.24' RT	860.07	340530.45	554858.70
96	40+30.09	49.55' RT	860.08	340530.08	554863.03
97	40+05.83	32.93' RT	860.57	340505.35	554847.11
98	40+10.83	32.89' RT	860.36	340510.35	554846.93
99	40+15.83	32.90' RT	860.10	340515.34	554846.80
100	40+20.83	32.88' RT	860.03	340520.34	554846.62
101	40+25.59	35.96' RT	860.18	340525.19	554849.57
102	40+25.59	40.24' RT	860.05	340525.31	554853.85
103	40+25.59	45.24' RT	860.12	340525.45	554858.84
104	40+26.09	49.56' RT	860.13	340526.08	554863.14

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 3297	SE FLAG BLT	40+38.90	143.4 LT	856.09

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 504	PK NAIL	40+98.33	36.6 RT	340597.92	554848.15

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - E TOMLINSON SE	SHEET 21	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023103-CR.DWG
LAYOUT NAME - 03-ETomlinsonSE
PLOT DATE : 7/19/2023 4:31 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 3297	SE FLAG BLT	40+38.90	143.4 LT	856.09

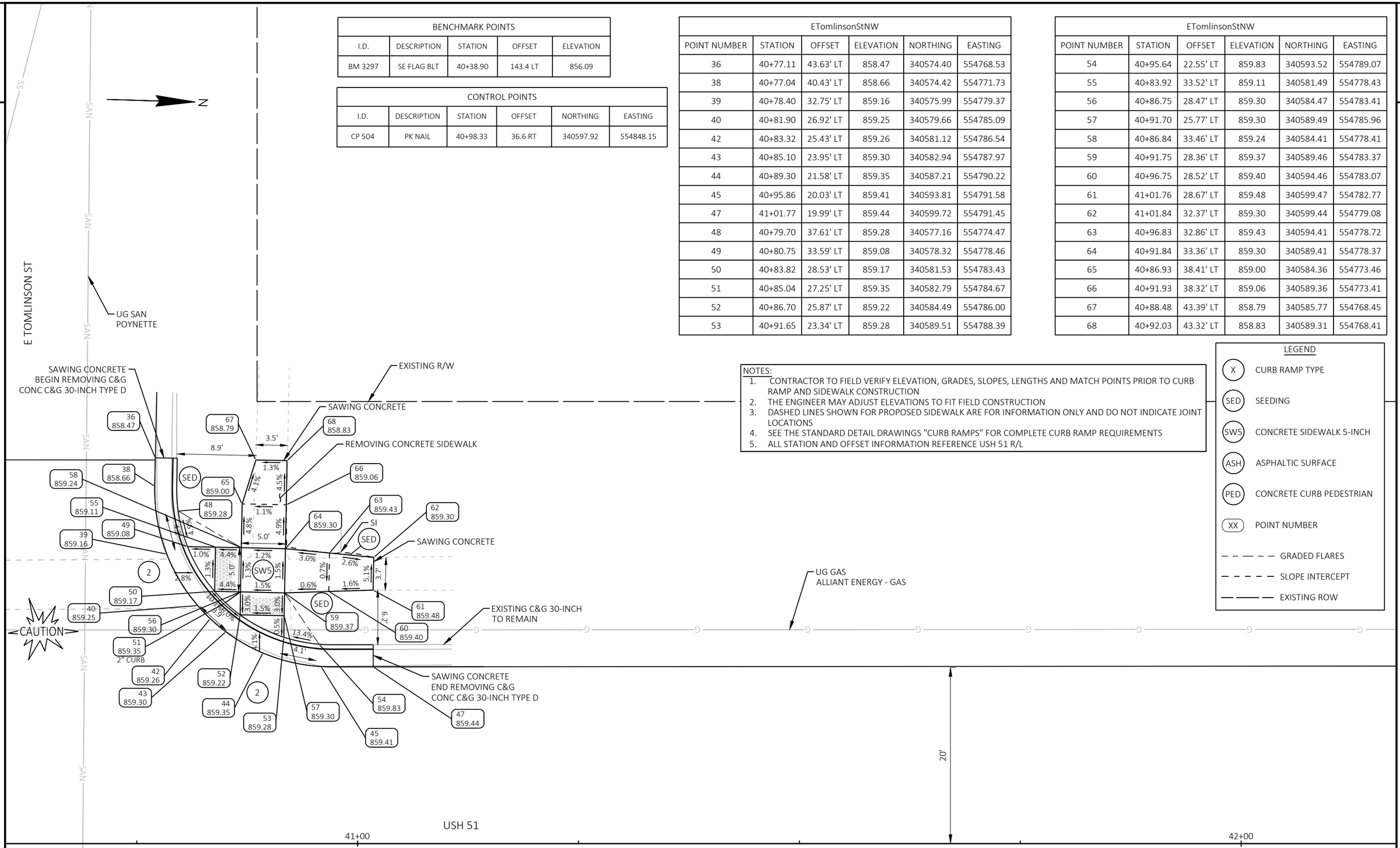
CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 504	PK NAIL	40+98.33	36.6 RT	340597.92	554848.15

ETomlinsonStNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
36	40+77.11	43.63' LT	858.47	340574.40	554768.53
38	40+77.04	40.43' LT	858.66	340574.42	554771.73
39	40+78.40	32.75' LT	859.16	340575.99	554779.37
40	40+81.90	26.92' LT	859.25	340579.66	554785.09
42	40+83.32	25.43' LT	859.26	340581.12	554786.54
43	40+85.10	23.95' LT	859.30	340582.94	554787.97
44	40+89.30	21.58' LT	859.35	340587.21	554790.22
45	40+95.86	20.03' LT	859.41	340593.81	554791.58
47	41+01.77	19.99' LT	859.44	340599.72	554791.45
48	40+79.70	37.61' LT	859.28	340577.16	554774.47
49	40+80.75	33.59' LT	859.08	340578.32	554778.46
50	40+83.82	28.53' LT	859.17	340581.53	554783.43
51	40+85.04	27.25' LT	859.35	340582.79	554784.67
52	40+86.70	25.87' LT	859.22	340584.49	554786.00
53	40+91.65	23.34' LT	859.28	340589.51	554788.39

ETomlinsonStNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
54	40+95.64	22.55' LT	859.83	340593.52	554789.07
55	40+83.92	33.52' LT	859.11	340581.49	554778.43
56	40+86.75	28.47' LT	859.30	340584.47	554783.41
57	40+91.70	25.77' LT	859.30	340589.49	554785.96
58	40+86.84	33.46' LT	859.24	340584.41	554778.41
59	40+91.75	28.36' LT	859.37	340589.46	554783.37
60	40+96.75	28.52' LT	859.40	340594.46	554783.07
61	41+01.76	28.67' LT	859.48	340599.47	554782.77
62	41+01.84	32.37' LT	859.30	340599.44	554779.08
63	40+96.83	32.86' LT	859.43	340594.41	554778.72
64	40+91.84	33.36' LT	859.30	340589.41	554778.37
65	40+86.93	38.41' LT	859.00	340584.36	554773.46
66	40+91.93	38.32' LT	859.06	340589.36	554773.41
67	40+88.48	43.39' LT	858.79	340585.77	554768.45
68	40+92.03	43.32' LT	858.83	340589.31	554768.41

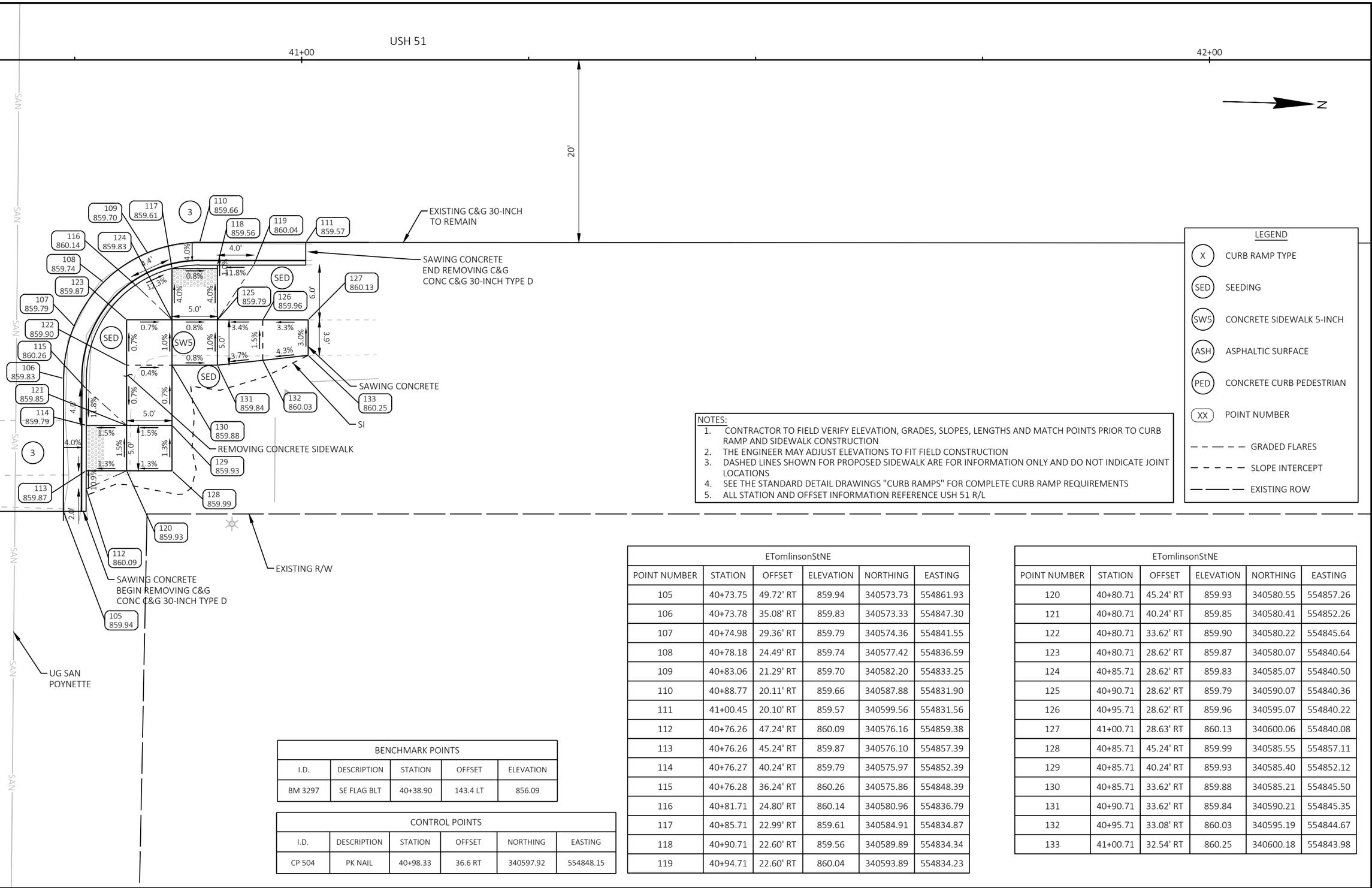
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND
- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - E TOMLINSON NW	SHEET 22	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023103-CR.DWG
LAYOUT NAME - 03-ETomlinsonRdNW
PLOT DATE : 7/19/2023 4:31 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND
- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 3297	SE FLAG BLT	40+38.90	143.4 LT	856.09

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 504	PK NAIL	40+98.33	36.6 RT	340597.92	554848.15

ETomlinsonStNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
105	40+73.75	49.72' RT	859.94	340573.73	554861.93
106	40+73.78	35.08' RT	859.83	340573.33	554847.30
107	40+74.98	29.36' RT	859.79	340574.36	554841.55
108	40+78.18	24.49' RT	859.74	340577.42	554836.59
109	40+83.06	21.29' RT	859.70	340582.20	554833.25
110	40+88.77	20.11' RT	859.66	340587.88	554831.90
111	41+00.45	20.10' RT	859.57	340599.56	554831.56
112	40+76.26	47.24' RT	860.09	340576.16	554859.38
113	40+76.26	45.24' RT	859.87	340576.10	554857.39
114	40+76.27	40.24' RT	859.79	340575.97	554852.39
115	40+76.28	36.24' RT	860.26	340575.86	554848.39
116	40+81.71	24.80' RT	860.14	340580.96	554836.79
117	40+85.71	22.99' RT	859.61	340584.91	554834.87
118	40+90.71	22.60' RT	859.56	340589.89	554834.34
119	40+94.71	22.60' RT	860.04	340593.89	554834.23

ETomlinsonStNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
120	40+80.71	45.24' RT	859.93	340580.55	554857.26
121	40+80.71	40.24' RT	859.85	340580.41	554852.26
122	40+80.71	33.62' RT	859.90	340580.22	554845.64
123	40+80.71	28.62' RT	859.87	340580.07	554840.64
124	40+85.71	28.62' RT	859.83	340585.07	554840.50
125	40+90.71	28.62' RT	859.79	340590.07	554840.36
126	40+95.71	28.62' RT	859.96	340595.07	554840.22
127	41+00.71	28.63' RT	860.13	340600.06	554840.08
128	40+85.71	45.24' RT	859.99	340585.55	554857.11
129	40+85.71	40.24' RT	859.93	340585.40	554852.12
130	40+85.71	33.62' RT	859.88	340585.21	554845.50
131	40+90.71	33.62' RT	859.84	340590.21	554845.35
132	40+95.71	33.08' RT	860.03	340595.19	554844.67
133	41+00.71	32.54' RT	860.25	340600.18	554843.98

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - E TOMLINSON NE	SHEET 23	E

HudsonSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	43+35.22	20.14' LT	857.94	340833.07	554784.57
02	43+50.26	23.02' LT	857.79	340848.02	554781.27
03	43+51.20	23.41' LT	857.78	340848.95	554780.85
04	43+62.18	30.46' LT	857.29	340859.73	554773.49
05	43+63.12	31.33' LT	857.27	340860.63	554772.59
06	43+67.66	36.53' LT	857.18	340865.02	554767.26
07	43+69.77	39.72' LT	857.04	340867.04	554764.01
08	43+71.91	43.86' LT	856.95	340869.06	554759.81
09	43+39.52	22.88' LT	858.31	340837.29	554781.71
10	43+44.78	23.84' LT	857.76	340842.52	554780.60
11	43+49.78	25.52' LT	857.70	340847.47	554778.78
12	43+53.70	27.44' LT	858.04	340851.34	554776.75
13	43+60.97	32.74' LT	857.20	340858.45	554771.24
14	43+65.44	37.74' LT	857.11	340862.77	554766.12
15	43+67.42	40.67' LT	857.47	340864.67	554763.12

HudsonSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
16	43+44.78	25.52' LT	857.77	340842.47	554778.92
17	43+60.97	37.74' LT	857.17	340858.30	554766.24
18	43+44.78	32.74' LT	857.92	340842.26	554771.71
19	43+49.78	32.74' LT	857.85	340847.26	554771.56
20	43+49.78	37.74' LT	857.87	340847.12	554766.57
21	43+44.78	37.74' LT	857.94	340842.12	554766.71
22	43+29.78	28.67' LT	858.30	340827.39	554776.20
23	43+29.78	32.54' LT	858.16	340827.28	554772.34
24	43+34.78	30.03' LT	858.10	340832.34	554774.70
25	43+34.78	34.27' LT	858.13	340832.22	554770.47
26	43+39.78	31.38' LT	858.01	340837.30	554773.21
27	43+39.78	36.00' LT	858.04	340837.17	554768.59
28	43+55.47	32.74' LT	857.52	340852.95	554771.40
29	43+55.47	37.74' LT	857.52	340852.80	554766.40

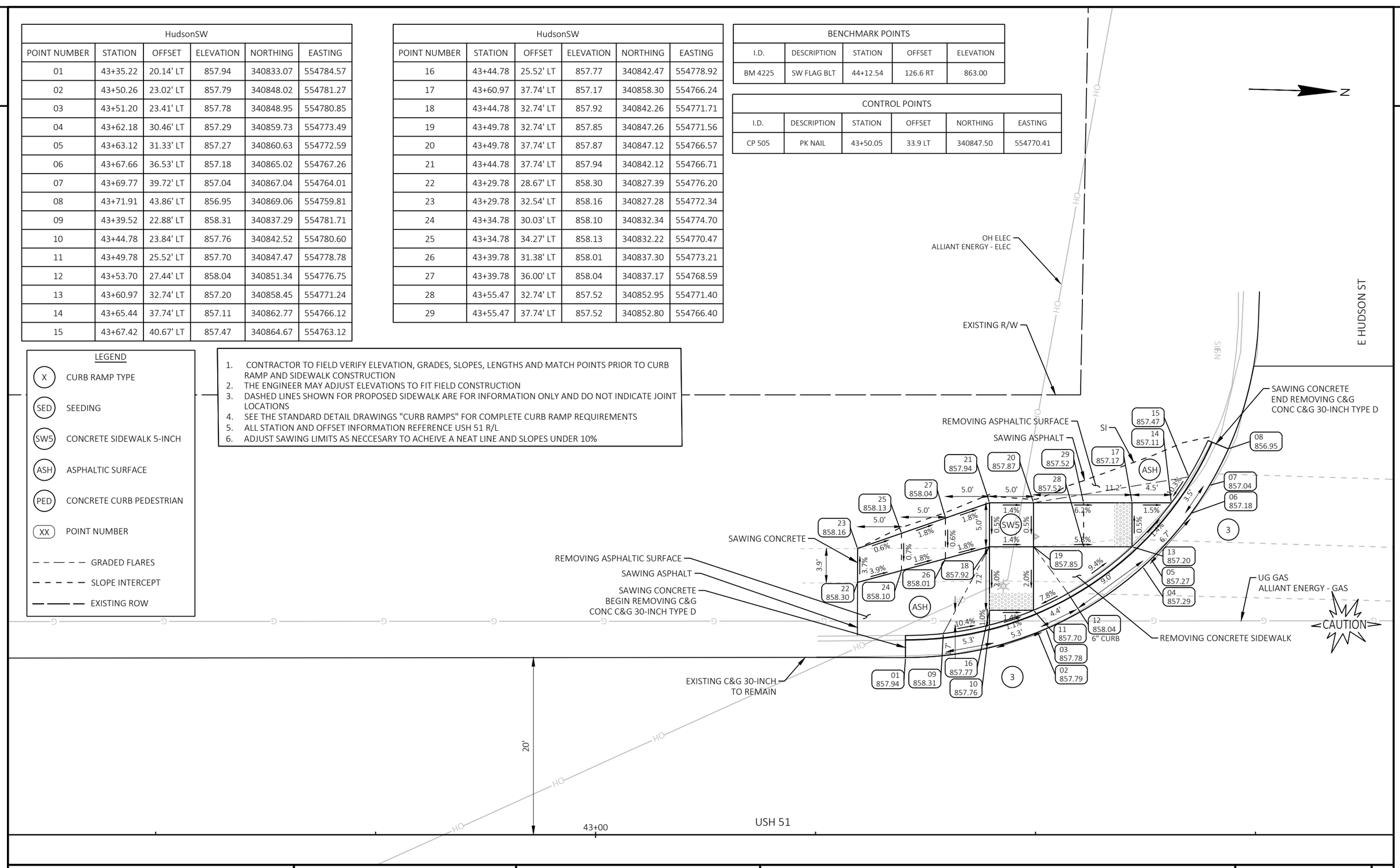
BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 4225	SW FLAG BLT	44+12.54	126.6 RT	863.00

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 505	PK NAIL	43+50.05	33.9 LT	340847.50	554770.41

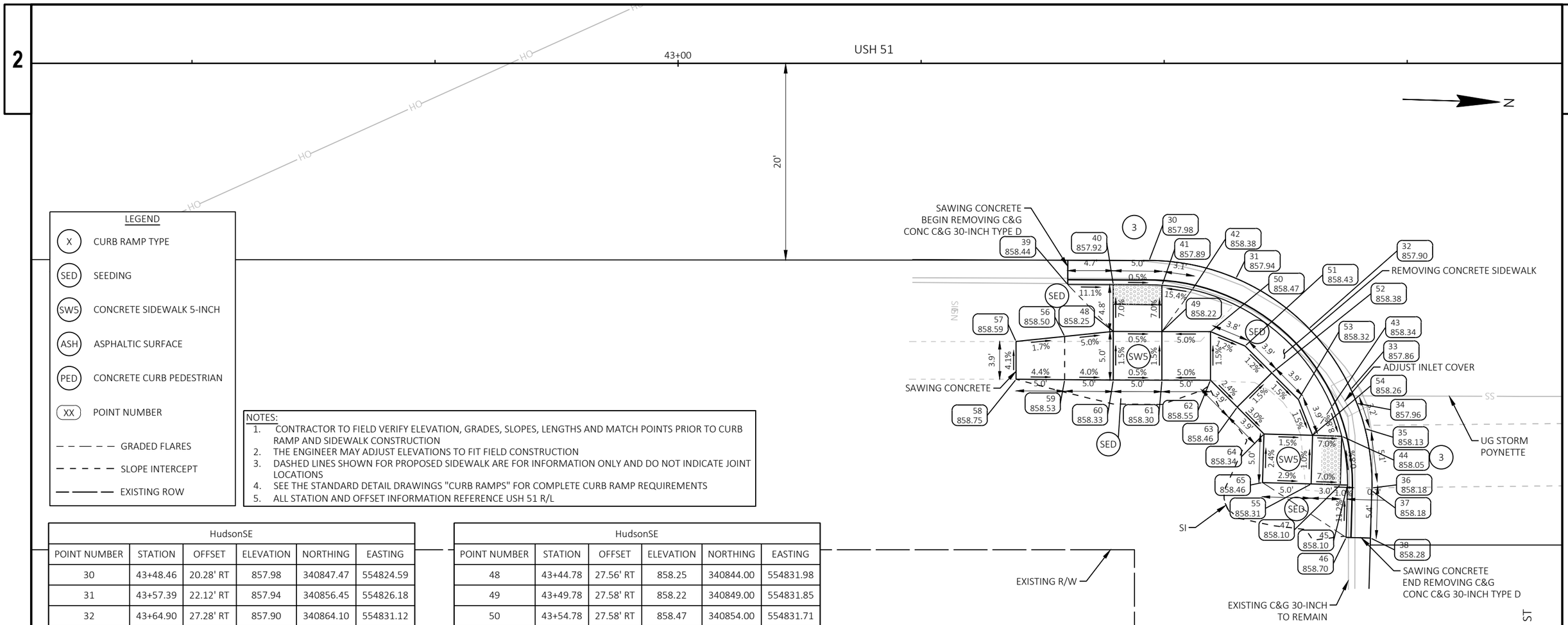
LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L
6. ADJUST SAWING LIMITS AS NECCESARY TO ACHEIVE A NEAT LINE AND SLOPES UNDER 10%



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL -HUDSON SW	SHEET 24	E



LEGEND

- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

HudsonSE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
30	43+48.46	20.28' RT	857.98	340847.47	554824.59
31	43+57.39	22.12' RT	857.94	340856.45	554826.18
32	43+64.90	27.28' RT	857.90	340864.10	554831.12
33	43+69.20	33.52' RT	857.86	340868.58	554837.24
34	43+69.82	34.96' RT	857.96	340869.24	554838.65
35	43+70.65	37.55' RT	858.13	340870.15	554841.22
36	43+71.37	43.65' RT	858.18	340871.04	554847.30
37	43+71.36	43.94' RT	858.18	340871.04	554847.59
38	43+71.22	48.80' RT	858.28	340871.04	554852.45
39	43+40.09	22.74' RT	858.44	340839.17	554827.30
40	43+44.78	22.76' RT	857.92	340843.86	554827.18
41	43+49.78	22.82' RT	857.89	340848.86	554827.10
42	43+52.88	23.28' RT	858.38	340851.97	554827.47
43	43+67.26	35.30' RT	858.34	340866.69	554839.07
44	43+68.27	38.33' RT	858.05	340867.79	554842.07
45	43+68.87	43.35' RT	858.10	340868.54	554847.07
46	43+68.72	48.73' RT	858.70	340868.54	554852.45
47	43+68.12	43.33' RT	858.10	340867.79	554847.07

HudsonSE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
48	43+44.78	27.56' RT	858.25	340844.00	554831.98
49	43+49.78	27.58' RT	858.22	340849.00	554831.85
50	43+54.78	27.58' RT	858.47	340854.00	554831.71
51	43+58.32	29.05' RT	858.43	340857.58	554833.08
52	43+61.07	31.81' RT	858.38	340860.41	554835.76
53	43+63.82	34.58' RT	858.32	340863.23	554838.45
54	43+65.27	38.25' RT	858.26	340864.79	554842.07
55	43+65.13	43.24' RT	858.31	340864.79	554847.07
56	43+39.78	28.08' RT	858.50	340839.02	554832.64
57	43+34.78	28.60' RT	858.59	340834.03	554833.30
58	43+34.78	32.48' RT	858.75	340834.14	554837.19
59	43+39.78	32.52' RT	858.53	340839.14	554837.08
60	43+44.78	32.56' RT	858.33	340844.14	554836.98
61	43+49.78	32.58' RT	858.30	340849.14	554836.85
62	43+54.78	32.58' RT	858.55	340854.14	554836.71
63	43+57.52	35.34' RT	858.46	340856.96	554839.39
64	43+60.27	38.10' RT	858.34	340859.79	554842.07
65	43+60.13	43.10' RT	858.46	340859.79	554847.07

BENCHMARK POINTS

I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 4225	SW FLAG BLT	44+12.54	126.6 RT	863.00

CONTROL POINTS

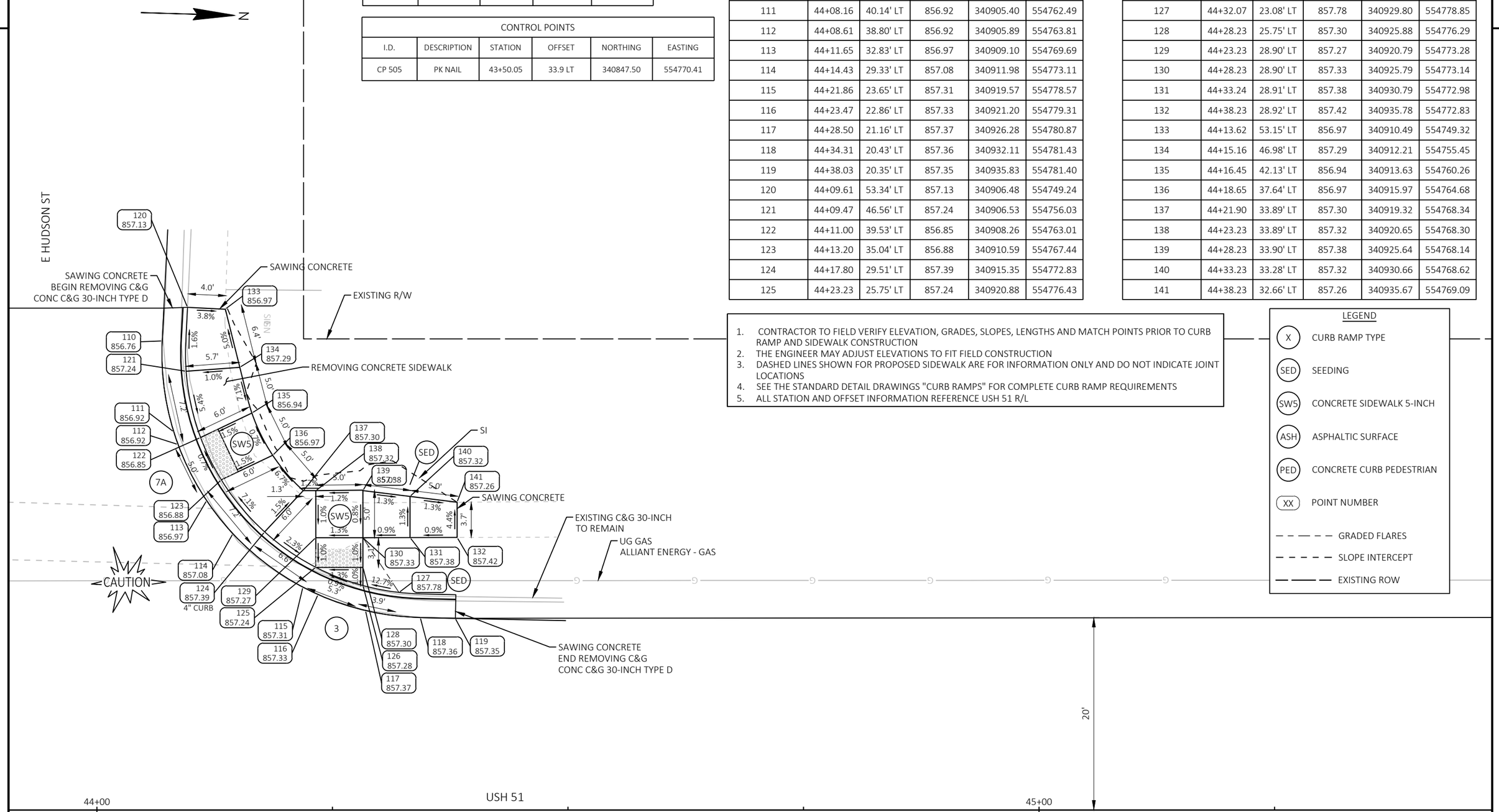
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 505	PK NAIL	43+50.05	33.9 LT	340847.50	554770.41

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - HUDSON SE	SHEET 25	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023104-CR.DWG
LAYOUT NAME - 04-HudsonSE
PLOT DATE : 7/19/2023 4:33 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 4225	SW FLAG BLT	44+12.54	126.6 RT	863.00

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 505	PK NAIL	43+50.05	33.9 LT	340847.50	554770.41



HudsonNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
110	44+06.94	49.78' LT	856.76	340903.90	554752.88
111	44+08.16	40.14' LT	856.92	340905.40	554762.49
112	44+08.61	38.80' LT	856.92	340905.89	554763.81
113	44+11.65	32.83' LT	856.97	340909.10	554769.69
114	44+14.43	29.33' LT	857.08	340911.98	554773.11
115	44+21.86	23.65' LT	857.31	340919.57	554778.57
116	44+23.47	22.86' LT	857.33	340921.20	554779.31
117	44+28.50	21.16' LT	857.37	340926.28	554780.87
118	44+34.31	20.43' LT	857.36	340932.11	554781.43
119	44+38.03	20.35' LT	857.35	340935.83	554781.40
120	44+09.61	53.34' LT	857.13	340906.48	554749.24
121	44+09.47	46.56' LT	857.24	340906.53	554756.03
122	44+11.00	39.53' LT	856.85	340908.26	554763.01
123	44+13.20	35.04' LT	856.88	340910.59	554767.44
124	44+17.80	29.51' LT	857.39	340915.35	554772.83
125	44+23.23	25.75' LT	857.24	340920.88	554776.43

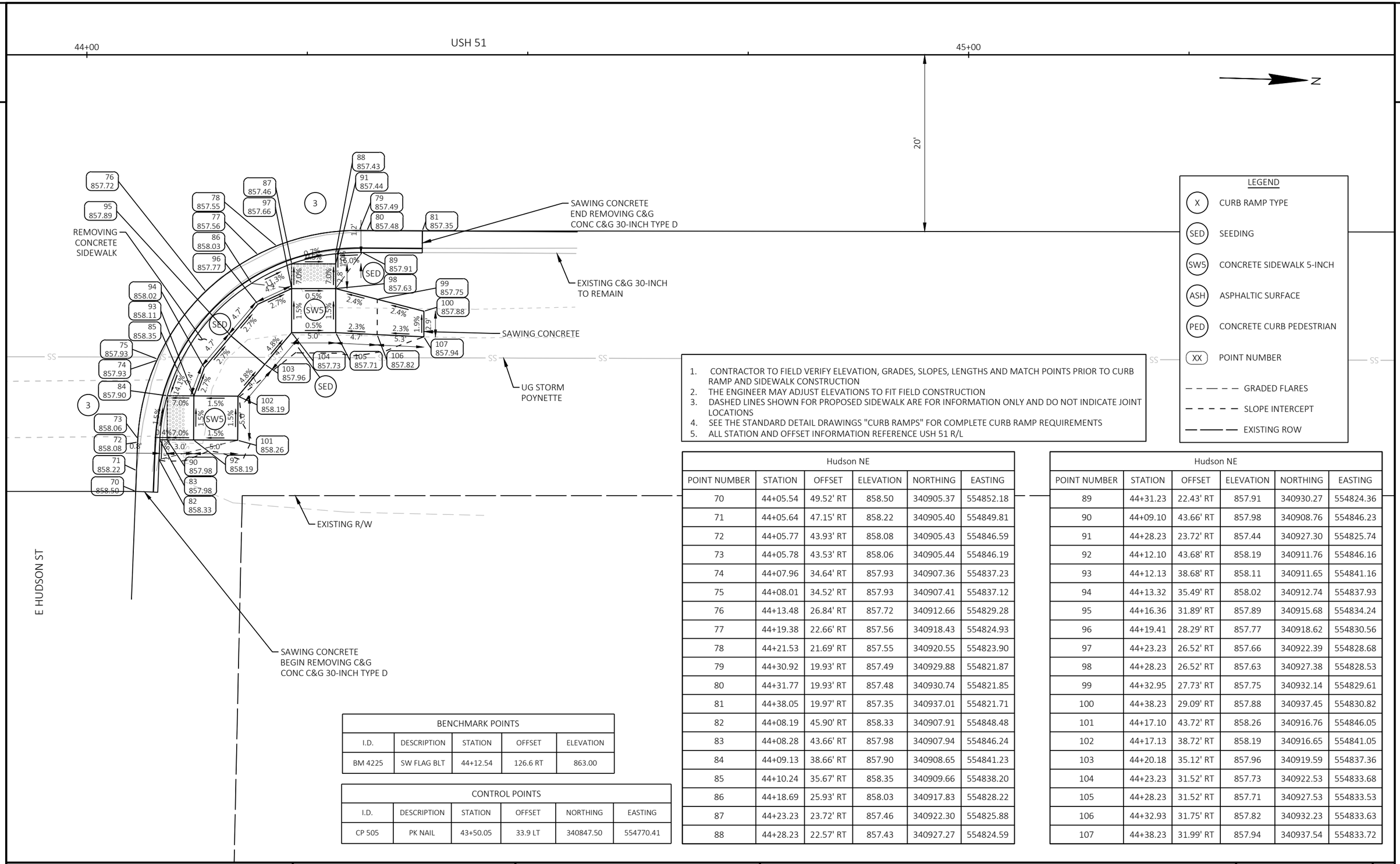
HudsonNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
126	44+28.23	23.86' LT	857.28	340925.93	554778.18
127	44+32.07	23.08' LT	857.78	340929.80	554778.85
128	44+28.23	25.75' LT	857.30	340925.88	554776.29
129	44+23.23	28.90' LT	857.27	340920.79	554773.28
130	44+28.23	28.90' LT	857.33	340925.79	554773.14
131	44+33.24	28.91' LT	857.38	340930.79	554772.98
132	44+38.23	28.92' LT	857.42	340935.78	554772.83
133	44+13.62	53.15' LT	856.97	340910.49	554749.32
134	44+15.16	46.98' LT	857.29	340912.21	554755.45
135	44+16.45	42.13' LT	856.94	340913.63	554760.26
136	44+18.65	37.64' LT	856.97	340915.97	554764.68
137	44+21.90	33.89' LT	857.30	340919.32	554768.34
138	44+23.23	33.89' LT	857.32	340920.65	554768.30
139	44+28.23	33.90' LT	857.38	340925.64	554768.14
140	44+33.23	33.28' LT	857.32	340930.66	554768.62
141	44+38.23	32.66' LT	857.26	340935.67	554769.09

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - HUDSON NW	SHEET 26	E



1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

Hudson NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
70	44+05.54	49.52' RT	858.50	340905.37	554852.18
71	44+05.64	47.15' RT	858.22	340905.40	554849.81
72	44+05.77	43.93' RT	858.08	340905.43	554846.59
73	44+05.78	43.53' RT	858.06	340905.44	554846.19
74	44+07.96	34.64' RT	857.93	340907.36	554837.23
75	44+08.01	34.52' RT	857.93	340907.41	554837.12
76	44+13.48	26.84' RT	857.72	340912.66	554829.28
77	44+19.38	22.66' RT	857.56	340918.43	554824.93
78	44+21.53	21.69' RT	857.55	340920.55	554823.90
79	44+30.92	19.93' RT	857.49	340929.88	554821.87
80	44+31.77	19.93' RT	857.48	340930.74	554821.85
81	44+38.05	19.97' RT	857.35	340937.01	554821.71
82	44+08.19	45.90' RT	858.33	340907.91	554848.48
83	44+08.28	43.66' RT	857.98	340907.94	554846.24
84	44+09.13	38.66' RT	857.90	340908.65	554841.23
85	44+10.24	35.67' RT	858.35	340909.66	554838.20
86	44+18.69	25.93' RT	858.03	340917.83	554828.22
87	44+23.23	23.72' RT	857.46	340922.30	554825.88
88	44+28.23	22.57' RT	857.43	340927.27	554824.59

Hudson NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
89	44+31.23	22.43' RT	857.91	340930.27	554824.36
90	44+09.10	43.66' RT	857.98	340908.76	554846.23
91	44+28.23	23.72' RT	857.44	340927.30	554825.74
92	44+12.10	43.68' RT	858.19	340911.76	554846.16
93	44+12.13	38.68' RT	858.11	340911.65	554841.16
94	44+13.32	35.49' RT	858.02	340912.74	554837.93
95	44+16.36	31.89' RT	857.89	340915.68	554834.24
96	44+19.41	28.29' RT	857.77	340918.62	554830.56
97	44+23.23	26.52' RT	857.66	340922.39	554828.68
98	44+28.23	26.52' RT	857.63	340927.38	554828.53
99	44+32.95	27.73' RT	857.75	340932.14	554829.61
100	44+38.23	29.09' RT	857.88	340937.45	554830.82
101	44+17.10	43.72' RT	858.26	340916.76	554846.05
102	44+17.13	38.72' RT	858.19	340916.65	554841.05
103	44+20.18	35.12' RT	857.96	340919.59	554837.36
104	44+23.23	31.52' RT	857.73	340922.53	554833.68
105	44+28.23	31.52' RT	857.71	340927.53	554833.53
106	44+32.93	31.75' RT	857.82	340932.23	554833.63
107	44+38.23	31.99' RT	857.94	340937.54	554833.72

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 4225	SW FLAG BLT	44+12.54	126.6 RT	863.00

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 505	PK NAIL	43+50.05	33.9 LT	340847.50	554770.41

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - HUDSON NE	SHEET 27	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023104-CR.DWG
LAYOUT NAME - 04-HudsonNE
PLOT DATE : 7/19/2023 4:33 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

GrantSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	46+72.64	20.53' LT	855.74	341170.34	554774.47
02	46+82.82	21.72' LT	855.68	341180.49	554772.98
03	46+96.50	30.53' LT	855.51	341193.90	554763.79
04	47+03.64	47.84' LT	855.33	341200.54	554746.27
05	46+88.73	27.06' LT	856.02	341186.23	554767.47
06	46+93.92	31.31' LT	855.45	341191.30	554763.08
07	46+97.61	36.24' LT	855.38	341194.84	554758.05
08	46+99.49	40.20' LT	855.83	341196.61	554754.03
09	46+94.02	36.31' LT	855.42	341191.25	554758.08
10	46+89.42	31.40' LT	855.61	341186.80	554763.12
11	46+89.52	36.40' LT	855.55	341186.75	554758.12
12	46+84.73	31.49' LT	855.77	341182.11	554763.17
13	46+84.73	36.49' LT	855.70	341181.96	554758.17
14	46+79.73	31.58' LT	855.78	341177.11	554763.22
15	46+79.73	36.58' LT	855.77	341176.96	554758.22
16	46+75.23	30.19' LT	855.83	341172.65	554764.74
17	46+75.23	34.58' LT	855.76	341172.52	554760.35
18	46+70.89	28.85' LT	855.88	341168.35	554766.20
19	46+70.91	32.66' LT	855.74	341168.26	554762.39

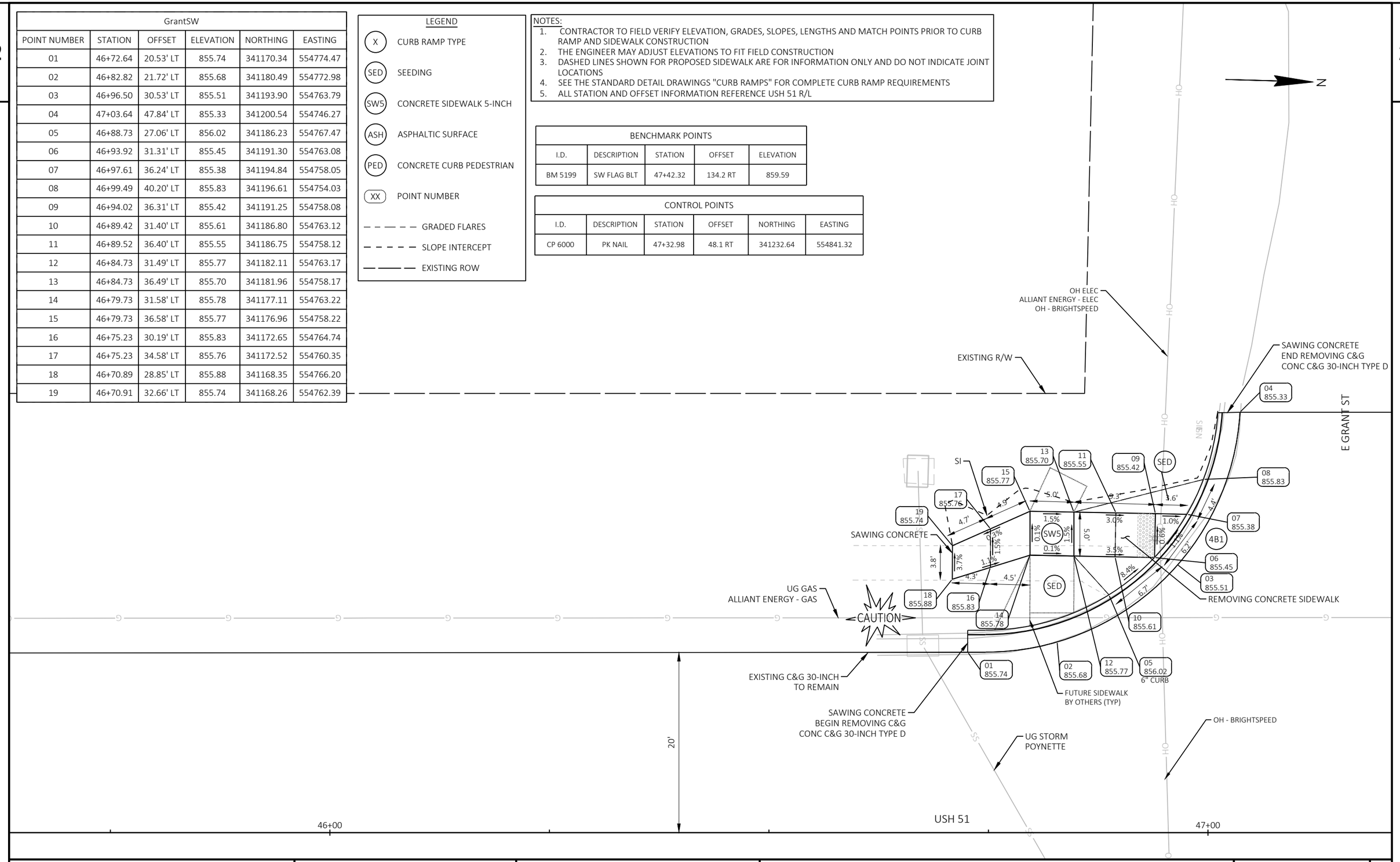
LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

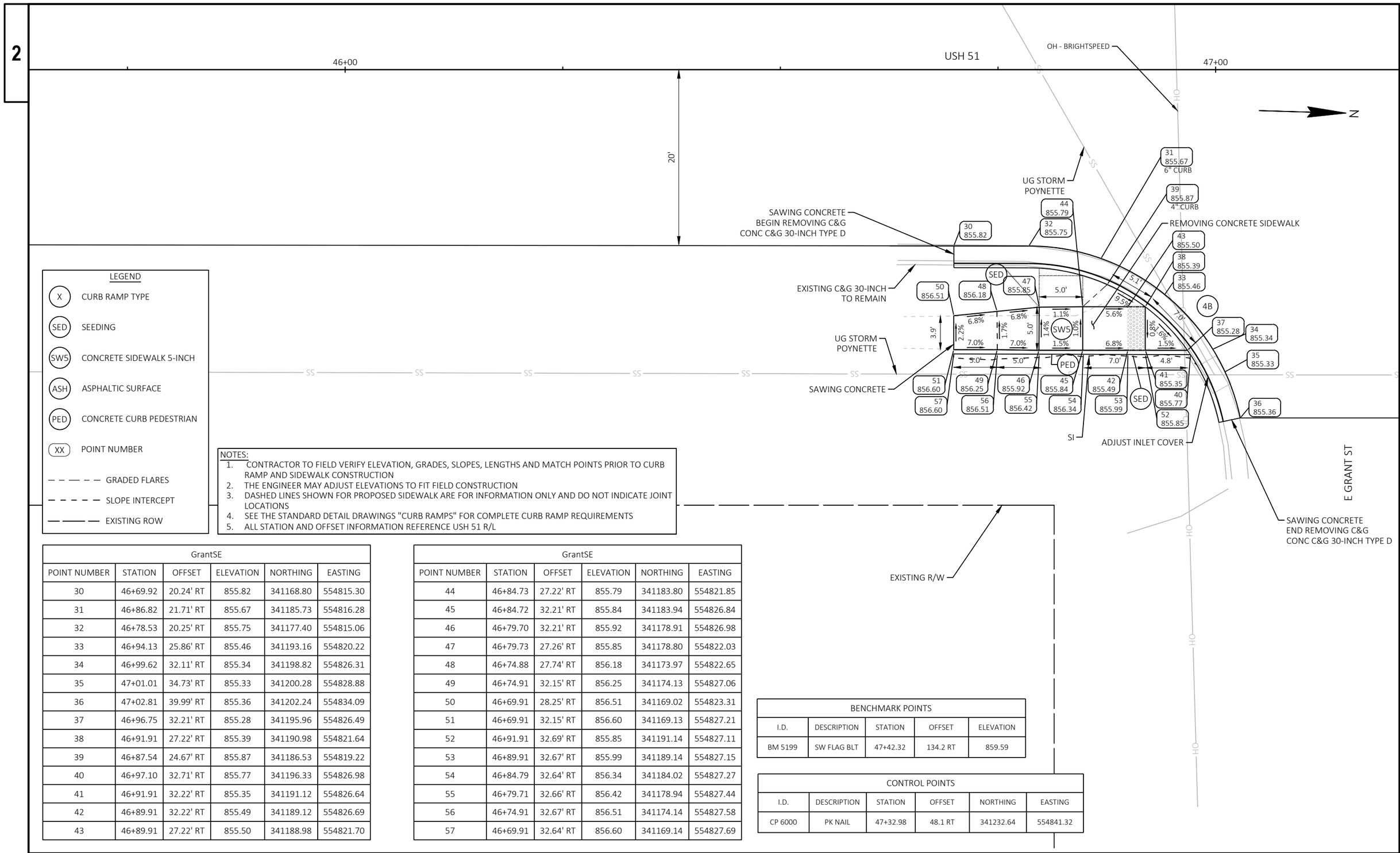
BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 5199	SW FLAG BLT	47+42.32	134.2 RT	859.59

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 6000	PK NAIL	47+32.98	48.1 RT	341232.64	554841.32



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - GRANT SW	SHEET 28	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023105-CR.DWG
LAYOUT NAME - 05-GrantSW
PLOT DATE : 9/14/2023 2:53 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT



LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

GrantSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
30	46+69.92	20.24' RT	855.82	341168.80	554815.30
31	46+86.82	21.71' RT	855.67	341185.73	554816.28
32	46+78.53	20.25' RT	855.75	341177.40	554815.06
33	46+94.13	25.86' RT	855.46	341193.16	554820.22
34	46+99.62	32.11' RT	855.34	341198.82	554826.31
35	47+01.01	34.73' RT	855.33	341200.28	554828.88
36	47+02.81	39.99' RT	855.36	341202.24	554834.09
37	46+96.75	32.21' RT	855.28	341195.96	554826.49
38	46+91.91	27.22' RT	855.39	341190.98	554821.64
39	46+87.54	24.67' RT	855.87	341186.53	554819.22
40	46+97.10	32.71' RT	855.77	341196.33	554826.98
41	46+91.91	32.22' RT	855.35	341191.12	554826.64
42	46+89.91	32.22' RT	855.49	341189.12	554826.69
43	46+89.91	27.22' RT	855.50	341188.98	554821.70

GrantSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
44	46+84.73	27.22' RT	855.79	341183.80	554821.85
45	46+84.72	32.21' RT	855.84	341183.94	554826.84
46	46+79.70	32.21' RT	855.92	341178.91	554826.98
47	46+79.73	27.26' RT	855.85	341178.80	554822.03
48	46+74.88	27.74' RT	856.18	341173.97	554822.65
49	46+74.91	32.15' RT	856.25	341174.13	554827.06
50	46+69.91	28.25' RT	856.51	341169.02	554823.31
51	46+69.91	32.15' RT	856.60	341169.13	554827.21
52	46+91.91	32.69' RT	855.85	341191.14	554827.11
53	46+89.91	32.67' RT	855.99	341189.14	554827.15
54	46+84.79	32.64' RT	856.34	341184.02	554827.27
55	46+79.71	32.66' RT	856.42	341178.94	554827.44
56	46+74.91	32.67' RT	856.51	341174.14	554827.58
57	46+69.91	32.64' RT	856.60	341169.14	554827.69

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 5199	SW FLAG BLT	47+42.32	134.2 RT	859.59

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 6000	PK NAIL	47+32.98	48.1 RT	341232.64	554841.32

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - GRANT SE	SHEET 29	E

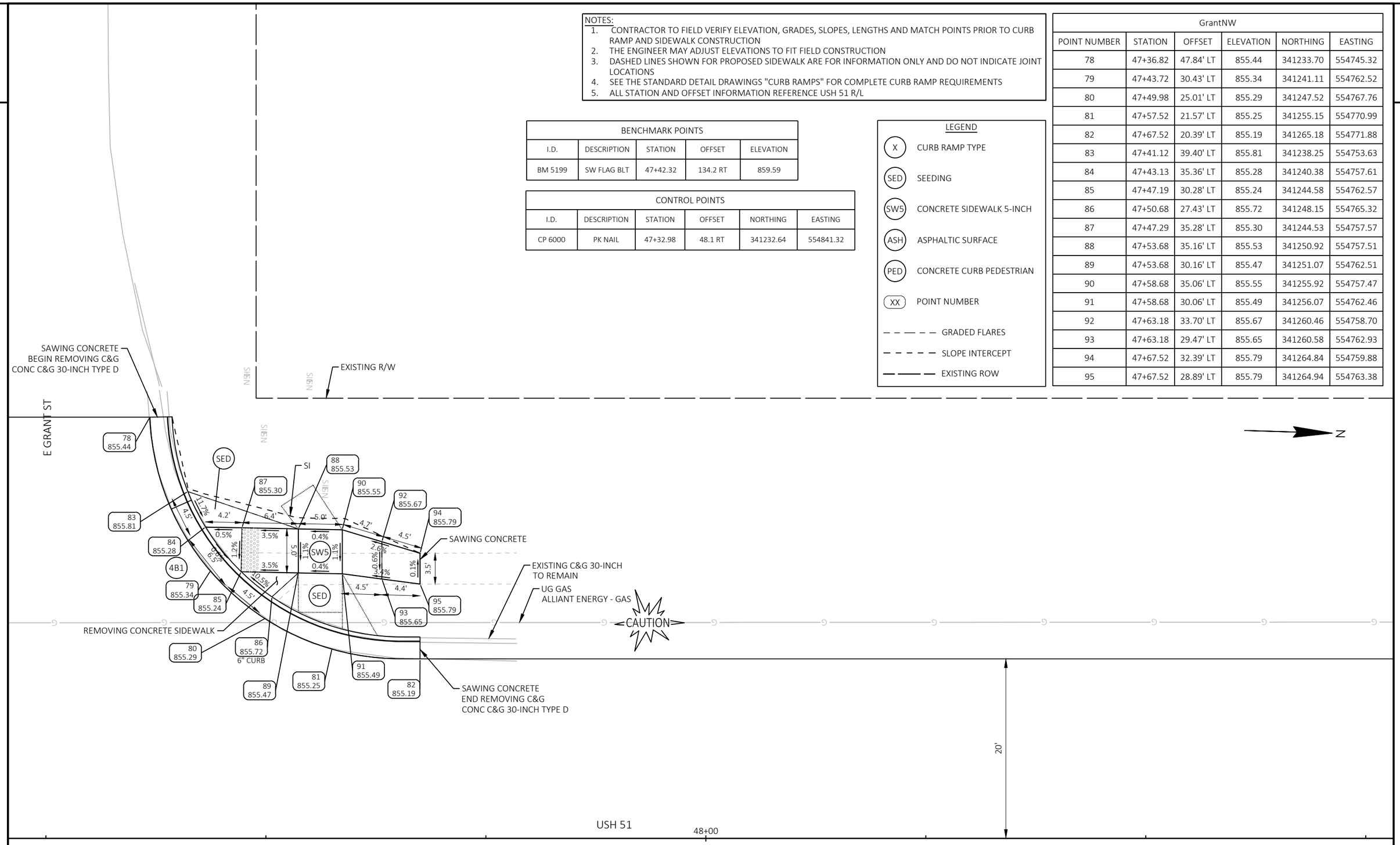
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 5199	SW FLAG BLT	47+42.32	134.2 RT	859.59

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 6000	PK NAIL	47+32.98	48.1 RT	341232.64	554841.32

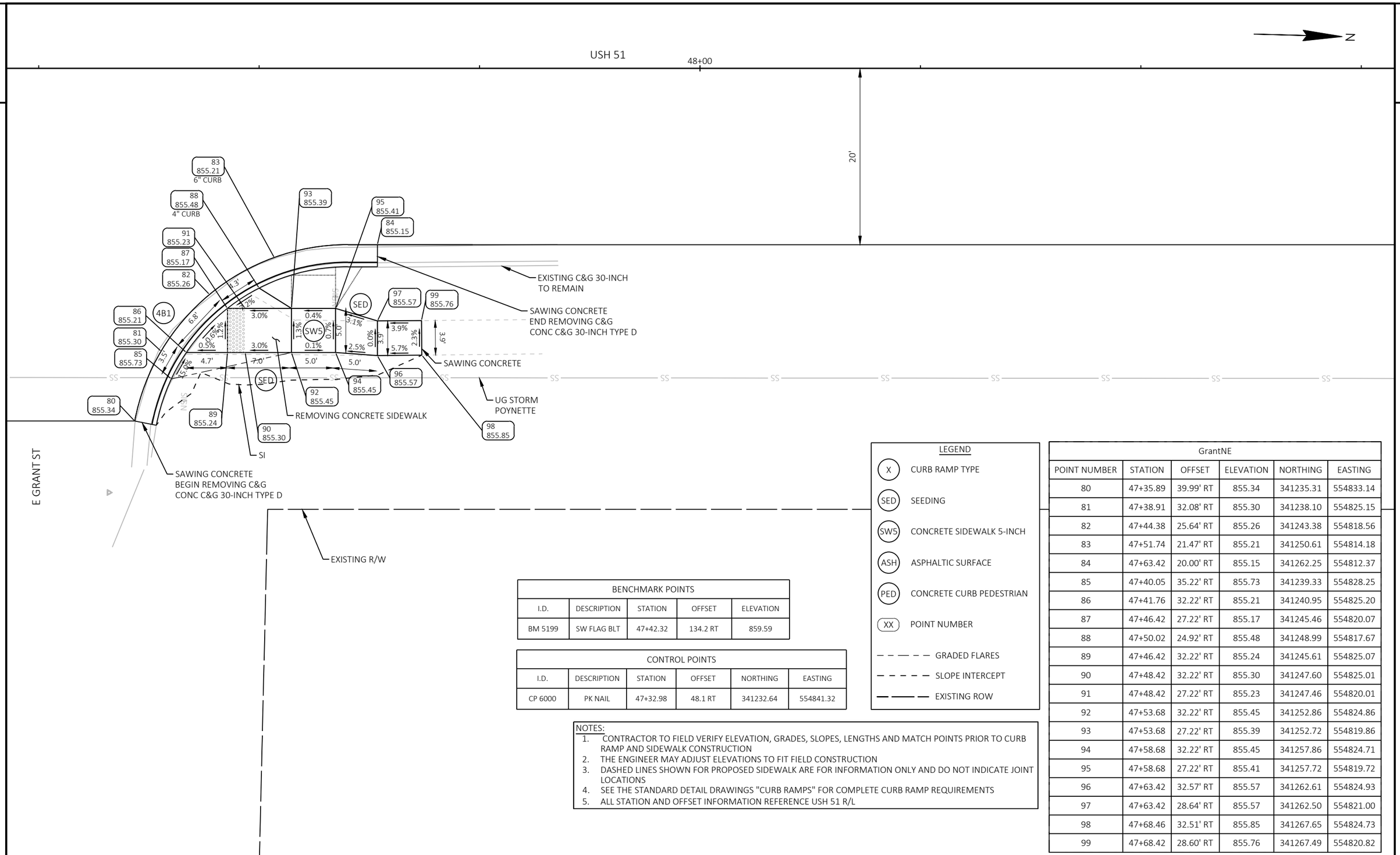
LEGEND
- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

GrantNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
78	47+36.82	47.84' LT	855.44	341233.70	554745.32
79	47+43.72	30.43' LT	855.34	341241.11	554762.52
80	47+49.98	25.01' LT	855.29	341247.52	554767.76
81	47+57.52	21.57' LT	855.25	341255.15	554770.99
82	47+67.52	20.39' LT	855.19	341265.18	554771.88
83	47+41.12	39.40' LT	855.81	341238.25	554753.63
84	47+43.13	35.36' LT	855.28	341240.38	554757.61
85	47+47.19	30.28' LT	855.24	341244.58	554762.57
86	47+50.68	27.43' LT	855.72	341248.15	554765.32
87	47+47.29	35.28' LT	855.30	341244.53	554757.57
88	47+53.68	35.16' LT	855.53	341250.92	554757.51
89	47+53.68	30.16' LT	855.47	341251.07	554762.51
90	47+58.68	35.06' LT	855.55	341255.92	554757.47
91	47+58.68	30.06' LT	855.49	341256.07	554762.46
92	47+63.18	33.70' LT	855.67	341260.46	554758.70
93	47+63.18	29.47' LT	855.65	341260.58	554762.93
94	47+67.52	32.39' LT	855.79	341264.84	554759.88
95	47+67.52	28.89' LT	855.79	341264.94	554763.38



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - GRANT NW	SHEET 30	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023105-CR.DWG
LAYOUT NAME - 05-GrantNW
PLOT DATE : 7/19/2023 4:35 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT



BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 5199	SW FLAG BLT	47+42.32	134.2 RT	859.59

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 6000	PK NAIL	47+32.98	48.1 RT	341232.64	554841.32

LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

GrantNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
80	47+35.89	39.99' RT	855.34	341235.31	554833.14
81	47+38.91	32.08' RT	855.30	341238.10	554825.15
82	47+44.38	25.64' RT	855.26	341243.38	554818.56
83	47+51.74	21.47' RT	855.21	341250.61	554814.18
84	47+63.42	20.00' RT	855.15	341262.25	554812.37
85	47+40.05	35.22' RT	855.73	341239.33	554828.25
86	47+41.76	32.22' RT	855.21	341240.95	554825.20
87	47+46.42	27.22' RT	855.17	341245.46	554820.07
88	47+50.02	24.92' RT	855.48	341248.99	554817.67
89	47+46.42	32.22' RT	855.24	341245.61	554825.07
90	47+48.42	32.22' RT	855.30	341247.60	554825.01
91	47+48.42	27.22' RT	855.23	341247.46	554820.01
92	47+53.68	32.22' RT	855.45	341252.86	554824.86
93	47+53.68	27.22' RT	855.39	341252.72	554819.86
94	47+58.68	32.22' RT	855.45	341257.86	554824.71
95	47+58.68	27.22' RT	855.41	341257.72	554819.72
96	47+63.42	32.57' RT	855.57	341262.61	554824.93
97	47+63.42	28.64' RT	855.57	341262.50	554821.00
98	47+68.46	32.51' RT	855.85	341267.65	554824.73
99	47+68.42	28.60' RT	855.76	341267.49	554820.82

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - GRANT NE	SHEET 31	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023105-CR.DWG
LAYOUT NAME - 05-GrantNE
PLOT DATE : 7/19/2023 4:35 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

NorthSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	50+49.66	24.20' LT	853.36	341547.10	554759.94
02	50+67.45	24.29' LT	853.25	341564.88	554759.34
03	50+75.01	25.82' LT	853.17	341572.39	554757.59
04	50+81.44	30.09' LT	853.09	341578.69	554753.14
05	50+82.70	31.47' LT	853.07	341579.91	554751.73
06	50+85.76	36.48' LT	853.01	341582.83	554746.63
07	50+87.36	44.68' LT	852.94	341584.19	554738.39
08	50+51.14	26.71' LT	853.77	341548.51	554757.39
09	50+54.62	26.73' LT	853.25	341551.98	554757.27
10	50+59.60	26.75' LT	853.21	341556.96	554757.10
11	50+63.14	26.77' LT	853.69	341560.50	554756.98
12	50+80.44	32.68' LT	853.49	341577.62	554750.58
13	50+82.54	35.60' LT	852.96	341579.63	554747.60
14	50+84.45	40.58' LT	852.90	341581.40	554742.57
15	50+84.84	43.57' LT	853.37	341581.70	554739.56

NorthSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
16	50+54.62	28.62' LT	853.27	341551.93	554755.38
17	50+59.60	28.62' LT	853.24	341556.91	554755.24
18	50+82.59	40.60' LT	852.93	341579.55	554742.60
19	50+49.62	32.65' LT	853.79	341546.81	554751.49
20	50+54.62	32.66' LT	853.48	341551.81	554751.34
21	50+59.60	32.66' LT	853.44	341556.79	554751.20
22	50+64.62	34.20' LT	853.51	341561.76	554749.51
23	50+69.64	35.74' LT	853.58	341566.73	554747.83
24	50+74.64	35.69' LT	853.51	341571.73	554747.74
25	50+49.62	36.53' LT	853.90	341546.70	554747.61
26	50+54.62	37.66' LT	853.55	341551.67	554746.34
27	50+59.60	37.66' LT	853.52	341556.65	554746.20
28	50+64.67	39.21' LT	853.54	341561.67	554744.51
29	50+69.69	40.74' LT	853.56	341566.65	554742.83
30	50+74.69	40.69' LT	853.48	341571.64	554742.74

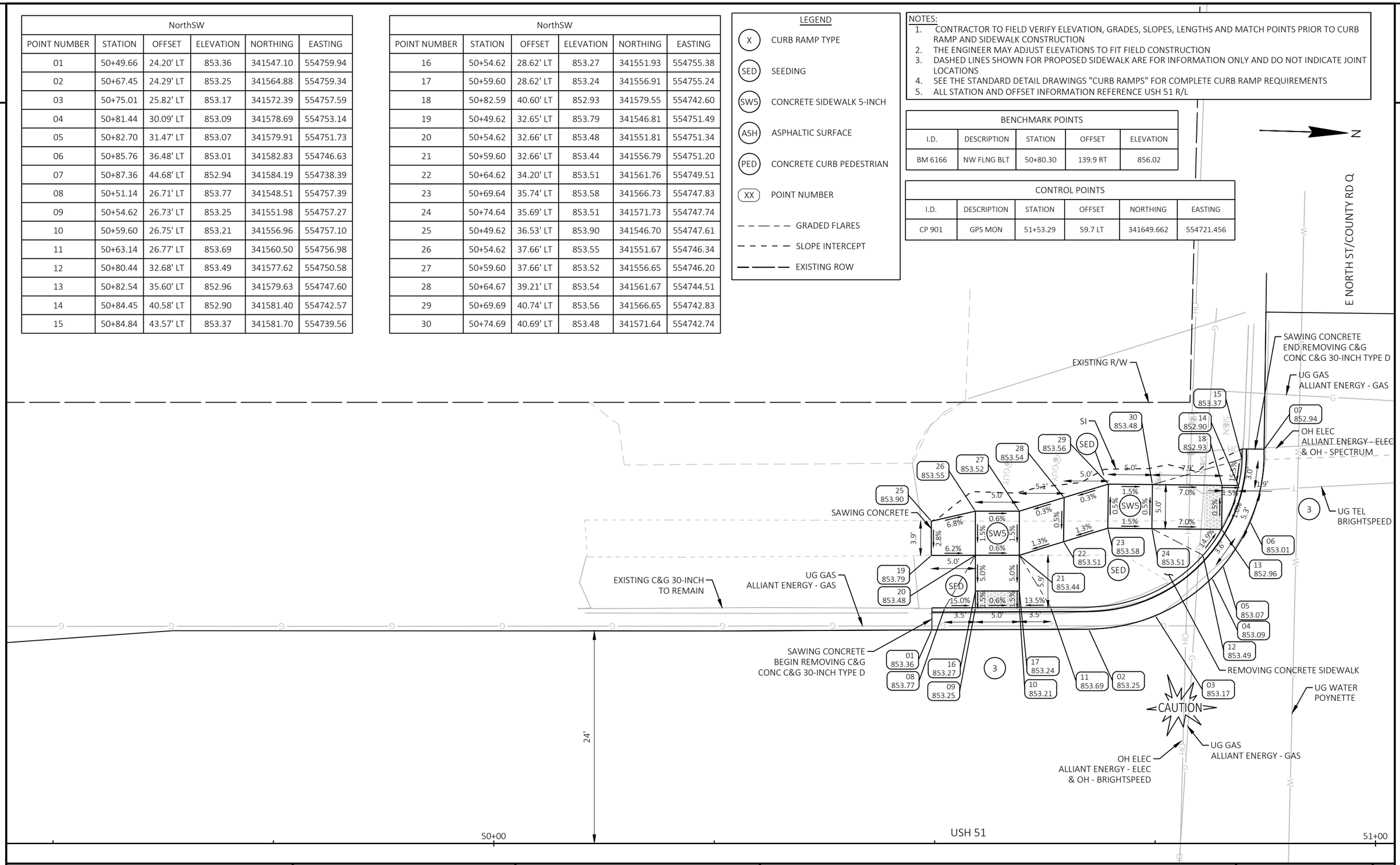
LEGEND

- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

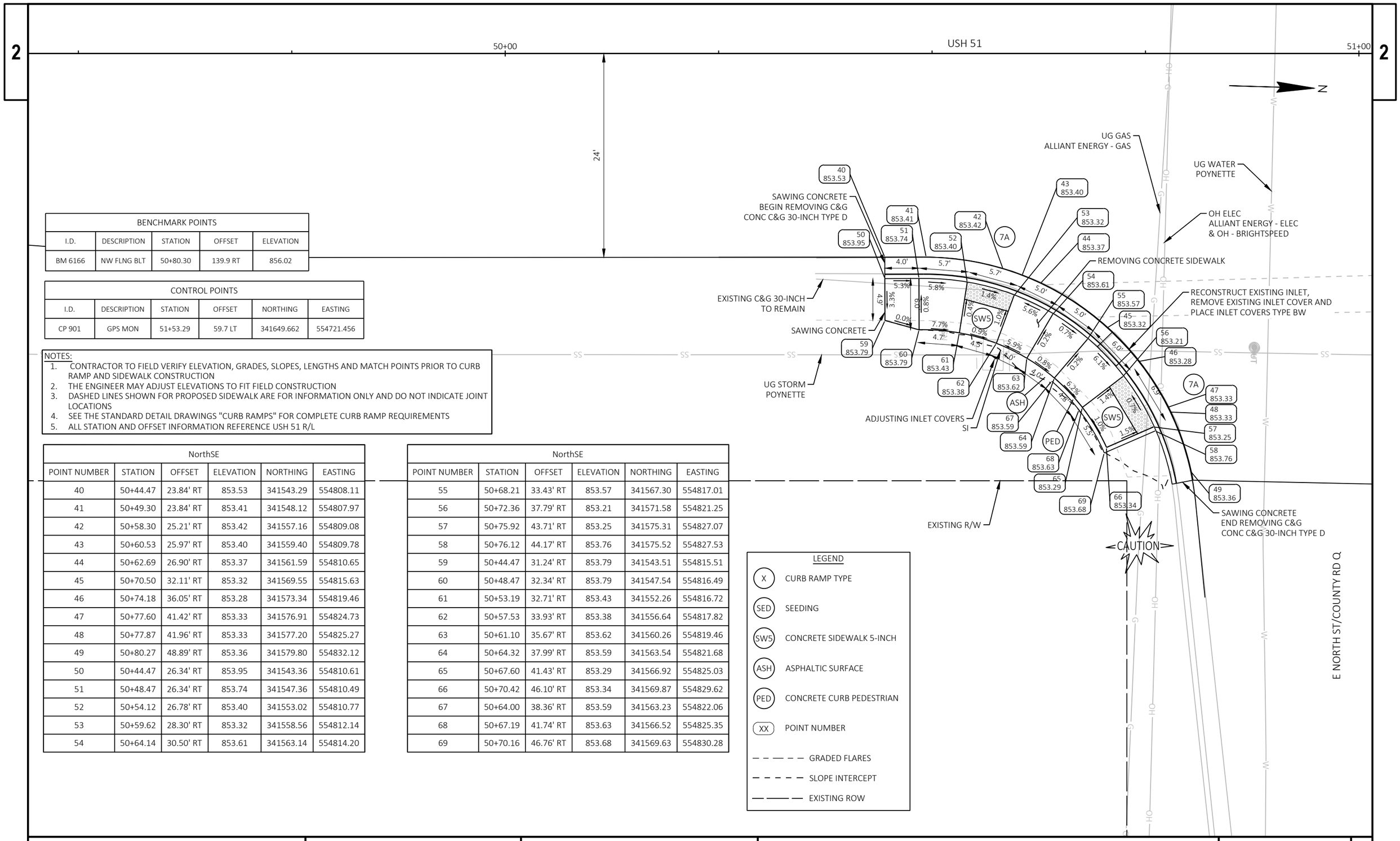
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 6166	NW FLNG BLT	50+80.30	139.9 RT	856.02

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 901	GPS MON	51+53.29	59.7 LT	341649.662	554721.456



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - NORTH SW	SHEET 32	E



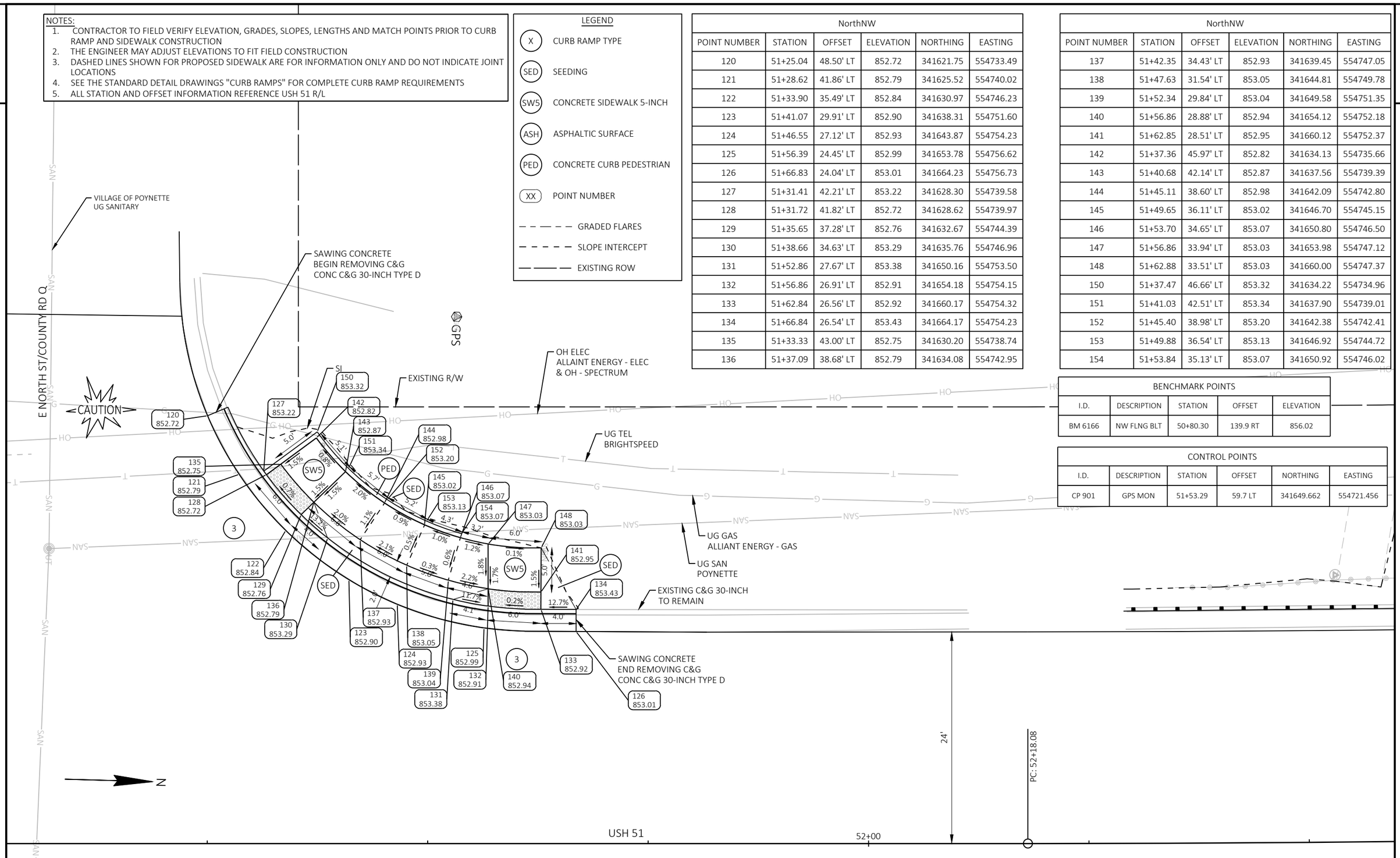
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - NORTH SE	SHEET 33	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023106-CR.DWG
LAYOUT NAME - 06-NorthSE
PLOT DATE : 7/19/2023 4:36 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

LEGEND

- (X) CURB RAMP TYPE
- (SED) SEEDING
- (SW5) CONCRETE SIDEWALK 5-INCH
- (ASH) ASPHALTIC SURFACE
- (PED) CONCRETE CURB PEDESTRIAN
- (XX) POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW



NorthNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
120	51+25.04	48.50' LT	852.72	341621.75	554733.49
121	51+28.62	41.86' LT	852.79	341625.52	554740.02
122	51+33.90	35.49' LT	852.84	341630.97	554746.23
123	51+41.07	29.91' LT	852.90	341638.31	554751.60
124	51+46.55	27.12' LT	852.93	341643.87	554754.23
125	51+56.39	24.45' LT	852.99	341653.78	554756.62
126	51+66.83	24.04' LT	853.01	341664.23	554756.73
127	51+31.41	42.21' LT	853.22	341628.30	554739.58
128	51+31.72	41.82' LT	852.72	341628.62	554739.97
129	51+35.65	37.28' LT	852.76	341632.67	554744.39
130	51+38.66	34.63' LT	853.29	341635.76	554746.96
131	51+52.86	27.67' LT	853.38	341650.16	554753.50
132	51+56.86	26.91' LT	852.91	341654.18	554754.15
133	51+62.84	26.56' LT	852.92	341660.17	554754.32
134	51+66.84	26.54' LT	853.43	341664.17	554754.23
135	51+33.33	43.00' LT	852.75	341630.20	554738.74
136	51+37.09	38.68' LT	852.79	341634.08	554742.95

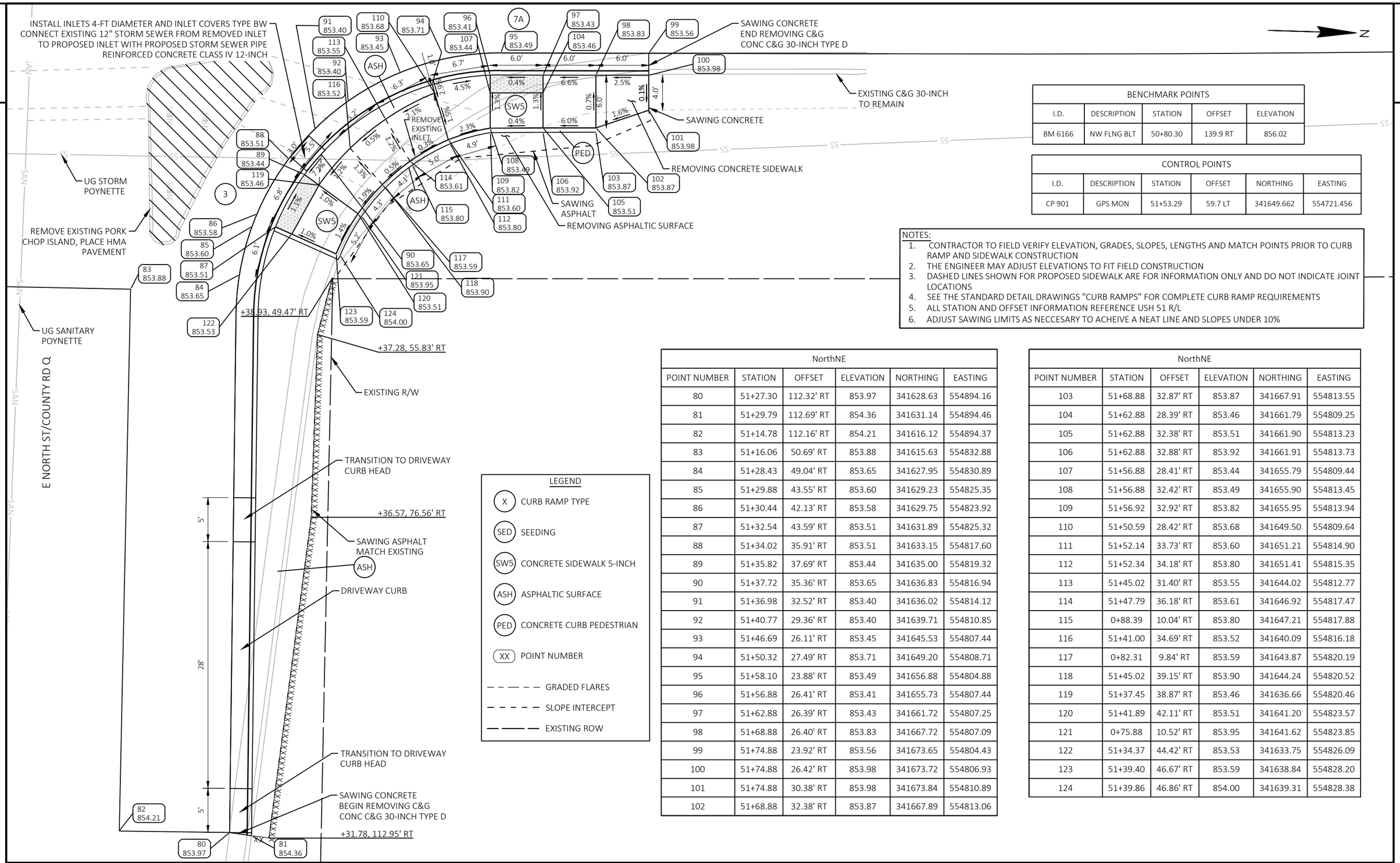
NorthNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
137	51+42.35	34.43' LT	852.93	341639.45	554747.05
138	51+47.63	31.54' LT	853.05	341644.81	554749.78
139	51+52.34	29.84' LT	853.04	341649.58	554751.35
140	51+56.86	28.88' LT	852.94	341654.12	554752.18
141	51+62.85	28.51' LT	852.95	341660.12	554752.37
142	51+37.36	45.97' LT	852.82	341634.13	554735.66
143	51+40.68	42.14' LT	852.87	341637.56	554739.39
144	51+45.11	38.60' LT	852.98	341642.09	554742.80
145	51+49.65	36.11' LT	853.02	341646.70	554745.15
146	51+53.70	34.65' LT	853.07	341650.80	554746.50
147	51+56.86	33.94' LT	853.03	341653.98	554747.12
148	51+62.88	33.51' LT	853.03	341660.00	554747.37
150	51+37.47	46.66' LT	853.32	341634.22	554734.96
151	51+41.03	42.51' LT	853.34	341637.90	554739.01
152	51+45.40	38.98' LT	853.20	341642.38	554742.41
153	51+49.88	36.54' LT	853.13	341646.92	554744.72
154	51+53.84	35.13' LT	853.07	341650.92	554746.02

BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 6166	NW FLNG BLT	50+80.30	139.9 RT	856.02

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 901	GPS MON	51+53.29	59.7 LT	341649.662	554721.456

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - NORTH NW	SHEET 34	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023106-CR.DWG
LAYOUT NAME - 06-NorthNW
PLOT DATE : 9/14/2023 3:02 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT



BENCHMARK POINTS				
I.D.	DESCRIPTION	STATION	OFFSET	ELEVATION
BM 6166	NW FLNG BLT	50+80.30	139.9 RT	856.02

CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 901	GPS MON	51+53.29	59.7 LT	341649.662	554721.456

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L
6. ADJUST SAWING LIMITS AS NECCESARY TO ACHEIVE A NEAT LINE AND SLOPES UNDER 10%

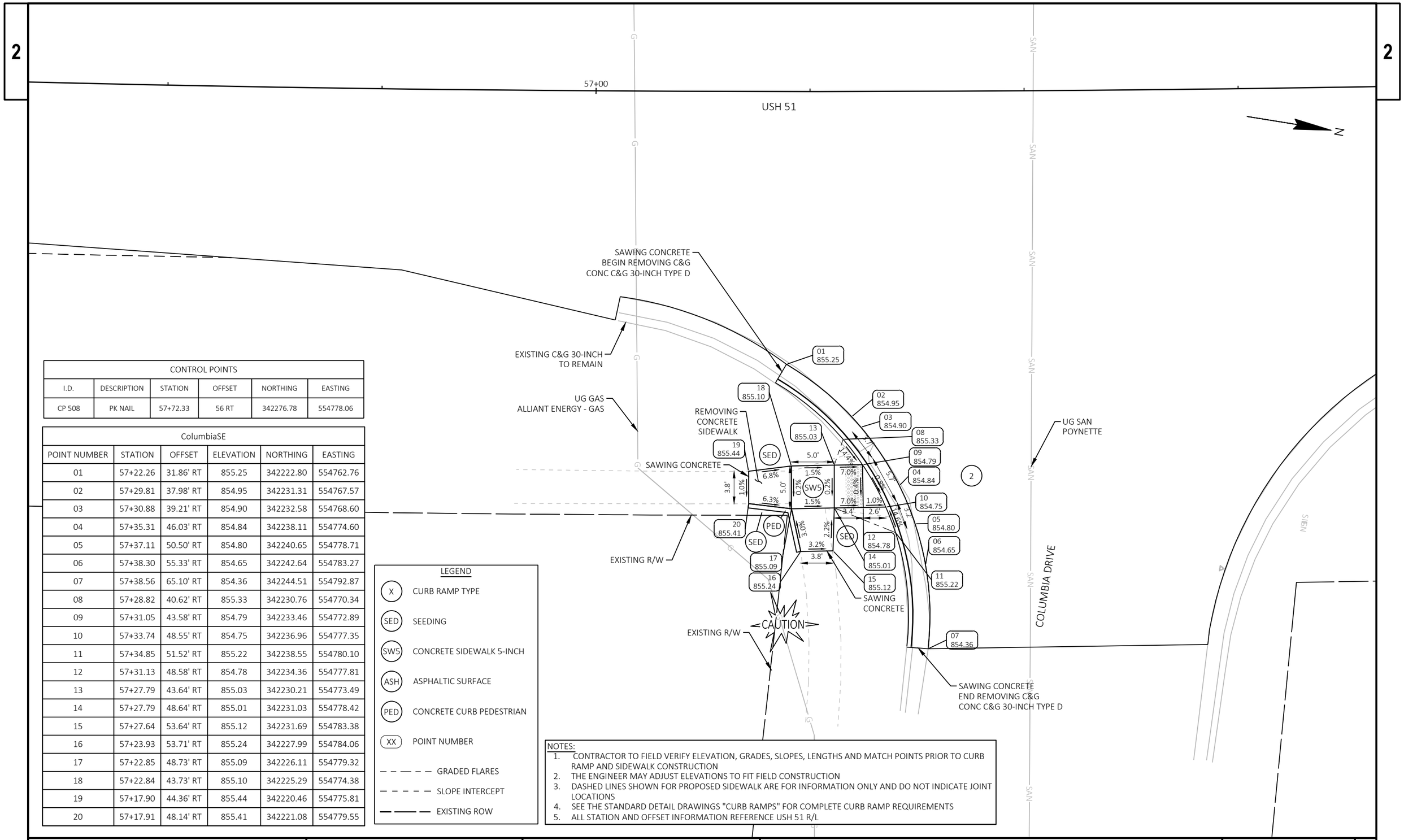
LEGEND
- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NorthNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
80	51+27.30	112.32' RT	853.97	341628.63	554894.16
81	51+29.79	112.69' RT	854.36	341631.14	554894.46
82	51+14.78	112.16' RT	854.21	341616.12	554894.37
83	51+16.06	50.69' RT	853.88	341615.63	554832.88
84	51+28.43	49.04' RT	853.65	341627.95	554830.89
85	51+29.88	43.55' RT	853.60	341629.23	554825.35
86	51+30.44	42.13' RT	853.58	341629.75	554823.92
87	51+32.54	43.59' RT	853.51	341631.89	554825.32
88	51+34.02	35.91' RT	853.51	341633.15	554817.60
89	51+35.82	37.69' RT	853.44	341635.00	554819.32
90	51+37.72	35.36' RT	853.65	341636.83	554816.94
91	51+36.98	32.52' RT	853.40	341636.02	554814.12
92	51+40.77	29.36' RT	853.40	341639.71	554810.85
93	51+46.69	26.11' RT	853.45	341645.53	554807.44
94	51+50.32	27.49' RT	853.71	341649.20	554808.71
95	51+58.10	23.88' RT	853.49	341656.88	554804.88
96	51+56.88	26.41' RT	853.41	341655.73	554807.44
97	51+62.88	26.39' RT	853.43	341661.72	554807.25
98	51+68.88	26.40' RT	853.83	341667.72	554807.09
99	51+74.88	23.92' RT	853.56	341673.65	554804.43
100	51+74.88	26.42' RT	853.98	341673.72	554806.93
101	51+74.88	30.38' RT	853.98	341673.84	554810.89
102	51+68.88	32.38' RT	853.87	341667.89	554813.06

NorthNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
103	51+68.88	32.87' RT	853.87	341667.91	554813.55
104	51+62.88	28.39' RT	853.46	341661.79	554809.25
105	51+62.88	32.38' RT	853.51	341661.90	554813.23
106	51+62.88	32.88' RT	853.92	341661.91	554813.73
107	51+56.88	28.41' RT	853.44	341655.79	554809.44
108	51+56.88	32.42' RT	853.49	341655.90	554813.45
109	51+56.92	32.92' RT	853.82	341655.95	554813.94
110	51+50.59	28.42' RT	853.68	341649.50	554809.64
111	51+52.14	33.73' RT	853.60	341651.21	554814.90
112	51+52.34	34.18' RT	853.80	341651.41	554815.35
113	51+45.02	31.40' RT	853.55	341644.02	554812.77
114	51+47.79	36.18' RT	853.61	341646.92	554817.47
115	0+88.39	10.04' RT	853.80	341647.21	554817.88
116	51+41.00	34.69' RT	853.52	341640.09	554816.18
117	0+82.31	9.84' RT	853.59	341643.87	554820.19
118	51+45.02	39.15' RT	853.90	341644.24	554820.52
119	51+37.45	38.87' RT	853.46	341636.66	554820.46
120	51+41.89	42.11' RT	853.51	341641.20	554823.57
121	0+75.88	10.52' RT	853.95	341641.62	554823.85
122	51+34.37	44.42' RT	853.53	341633.75	554826.09
123	51+39.40	46.67' RT	853.59	341638.84	554828.20
124	51+39.86	46.86' RT	854.00	341639.31	554828.38

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - NORTH NE	SHEET 35	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023106-CR.DWG
LAYOUT NAME - 06-NorthNE
PLOT DATE : 8/1/2023 9:27 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



CONTROL POINTS					
I.D.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
CP 508	PK NAIL	57+72.33	56 RT	342276.78	554778.06

ColumbiaSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	57+22.26	31.86' RT	855.25	342222.80	554762.76
02	57+29.81	37.98' RT	854.95	342231.31	554767.57
03	57+30.88	39.21' RT	854.90	342232.58	554768.60
04	57+35.31	46.03' RT	854.84	342238.11	554774.60
05	57+37.11	50.50' RT	854.80	342240.65	554778.71
06	57+38.30	55.33' RT	854.65	342242.64	554783.27
07	57+38.56	65.10' RT	854.36	342244.51	554792.87
08	57+28.82	40.62' RT	855.33	342230.76	554770.34
09	57+31.05	43.58' RT	854.79	342233.46	554772.89
10	57+33.74	48.55' RT	854.75	342236.96	554777.35
11	57+34.85	51.52' RT	855.22	342238.55	554780.10
12	57+31.13	48.58' RT	854.78	342234.36	554777.81
13	57+27.79	43.64' RT	855.03	342230.21	554773.49
14	57+27.79	48.64' RT	855.01	342231.03	554778.42
15	57+27.64	53.64' RT	855.12	342231.69	554783.38
16	57+23.93	53.71' RT	855.24	342227.99	554784.06
17	57+22.85	48.73' RT	855.09	342226.11	554779.32
18	57+22.84	43.73' RT	855.10	342225.29	554774.38
19	57+17.90	44.36' RT	855.44	342220.46	554775.81
20	57+17.91	48.14' RT	855.41	342221.08	554779.55

LEGEND

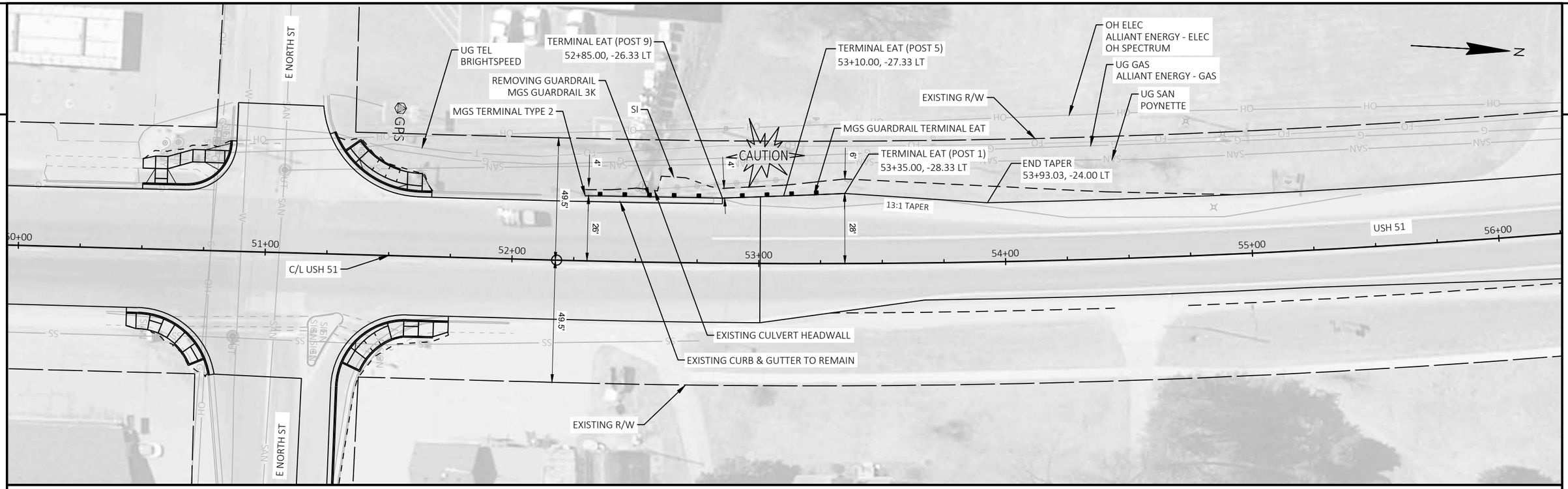
- X — CURB RAMP TYPE
- SED — SEEDING
- SW5 — CONCRETE SIDEWALK 5-INCH
- ASH — ASPHALTIC SURFACE
- PED — CONCRETE CURB PEDESTRIAN
- XX — POINT NUMBER
- GRADED FLARES
- SLOPE INTERCEPT
- EXISTING ROW

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS
5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CURB RAMP DETAIL - COLUMBIA SE	SHEET 36	E

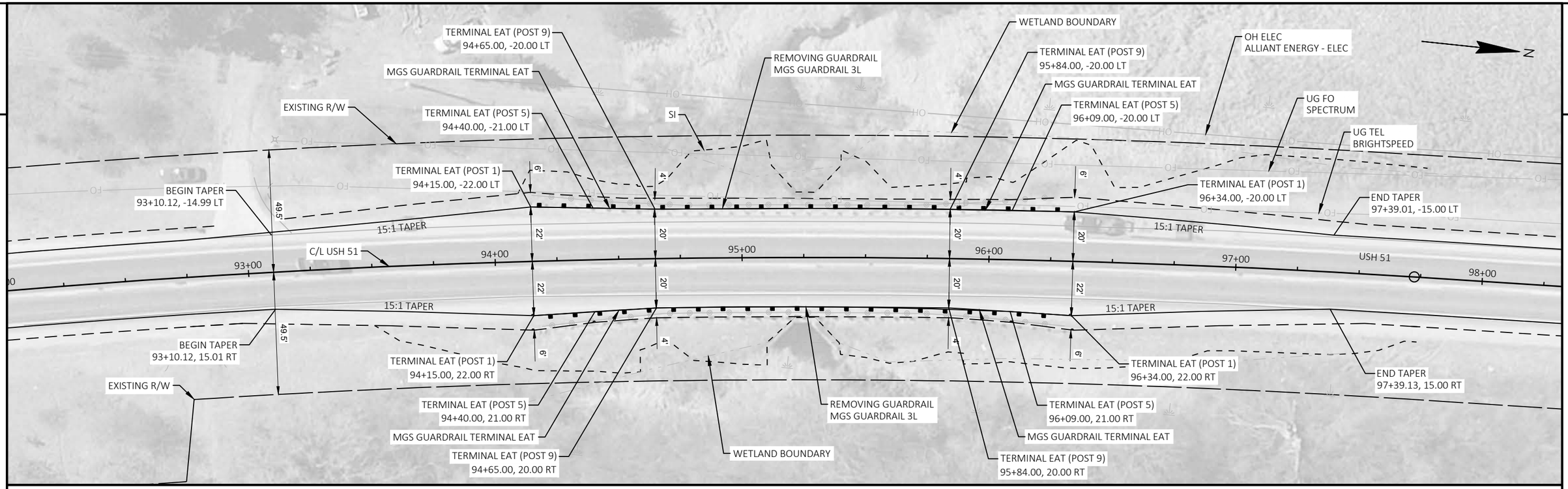
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\023107-CR.DWG
LAYOUT NAME - 07-ColumbiaSE
PLOT DATE : 7/19/2023 4:37 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 52+75 LT	SHEET 37	E

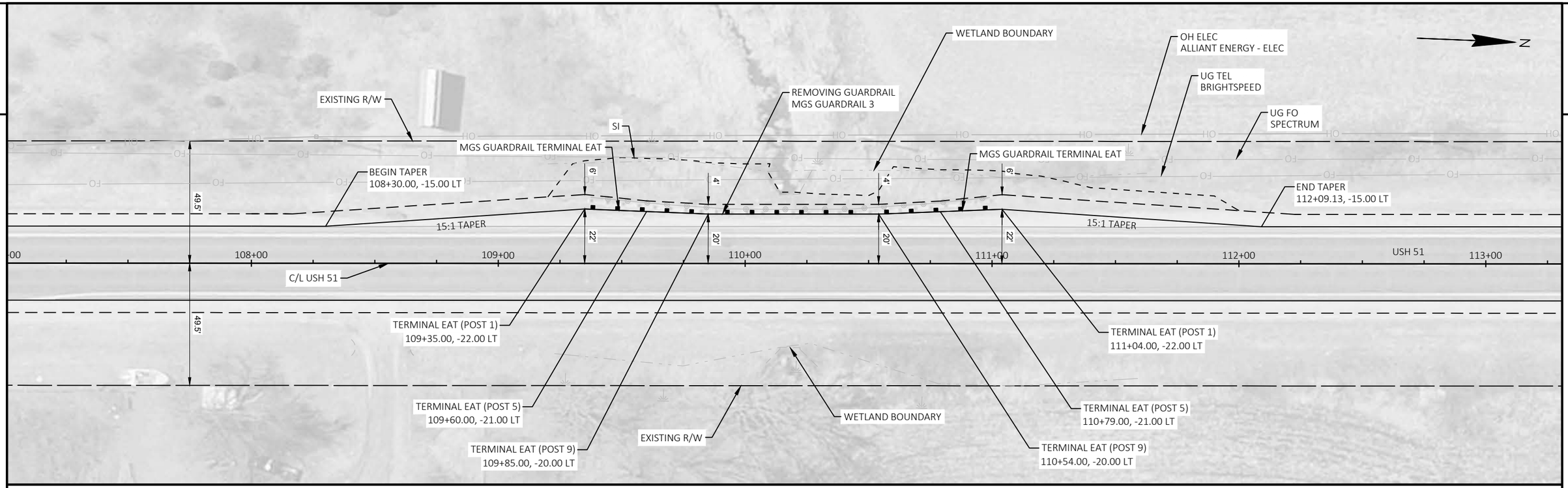
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 01
PLOT DATE : 7/20/2023 4:57 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 95+25	SHEET 38	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 7/20/2023 4:57 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

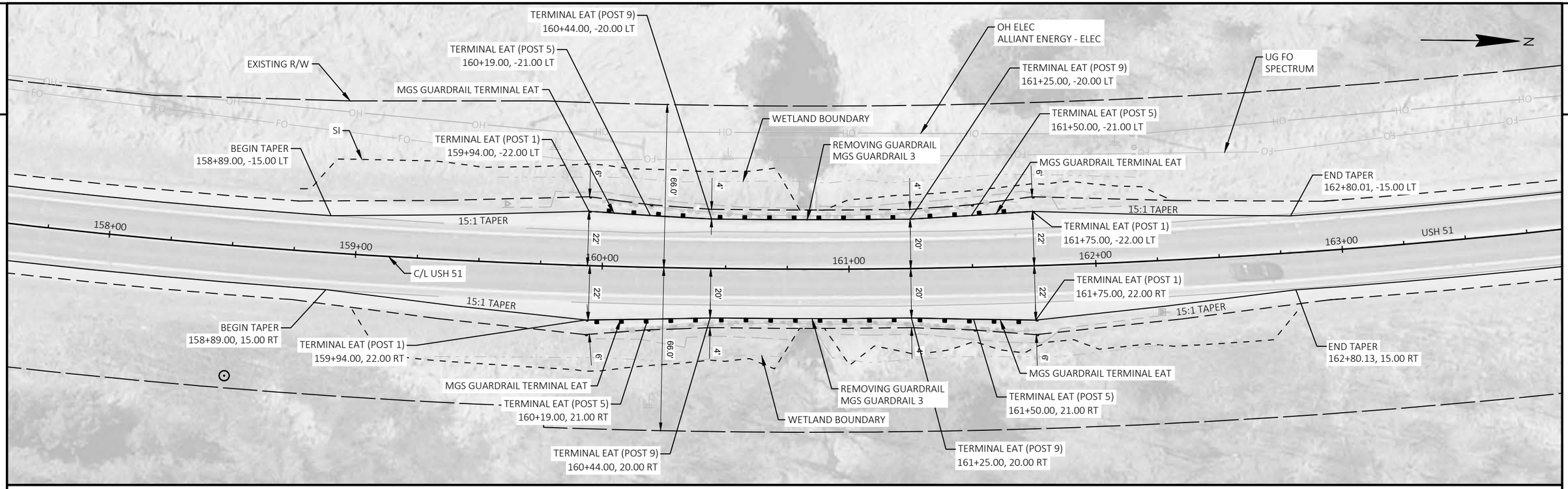


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 110+20 LT	SHEET 39	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 4:58 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

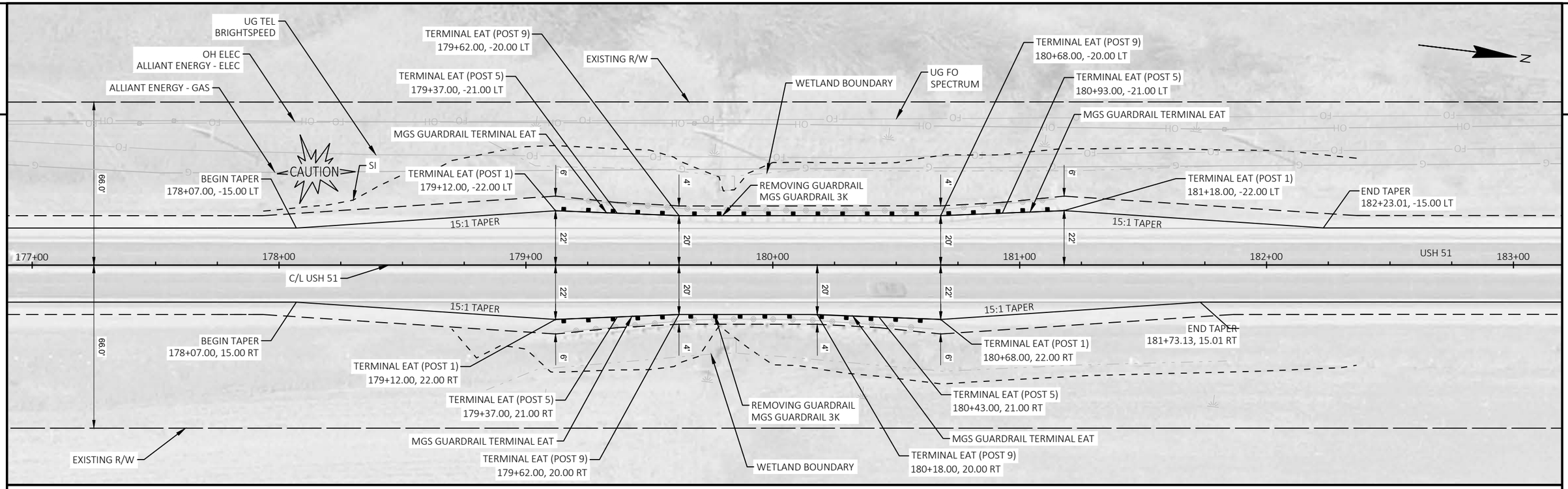
WISDOT/CADDS SHEET 44



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 160+85	SHEET 40	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 04

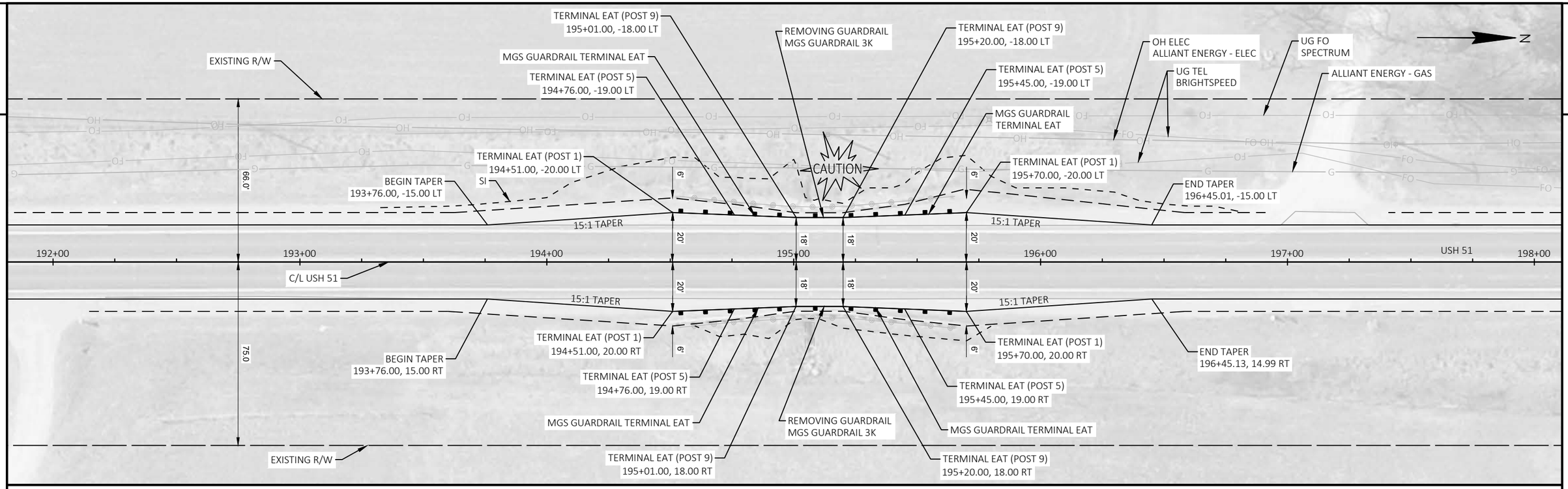
PLOT DATE : 7/20/2023 4:58 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT



2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 179+90	SHEET 41	E

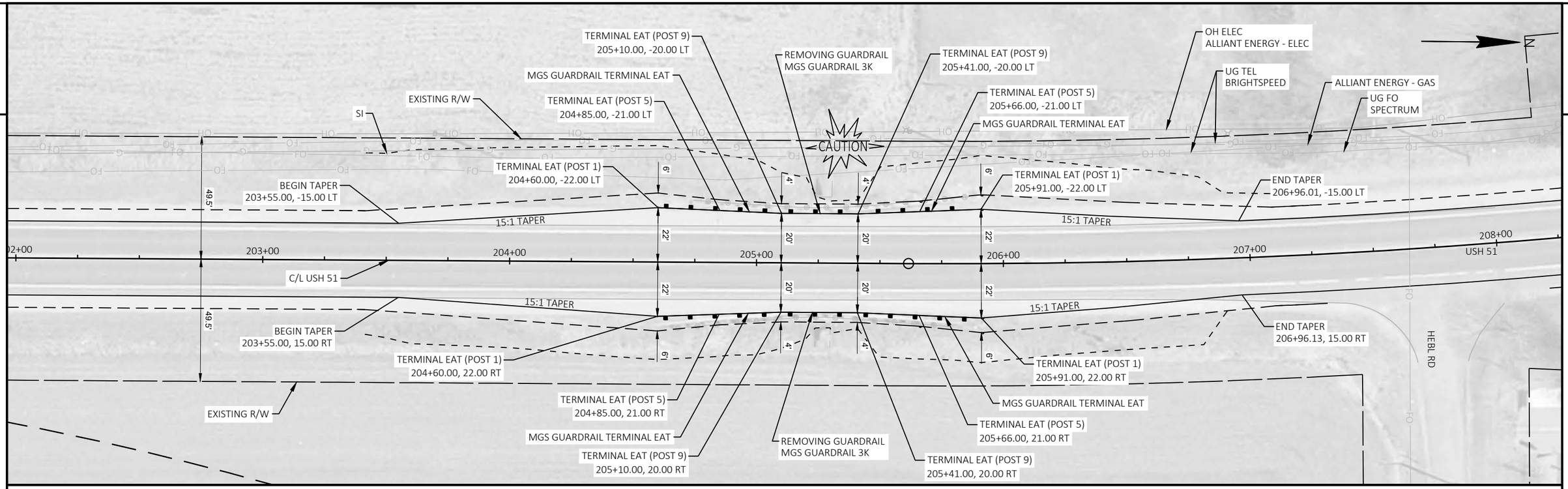
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 05
PLOT DATE : 7/20/2023 4:59 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 195+10	SHEET 42	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 06

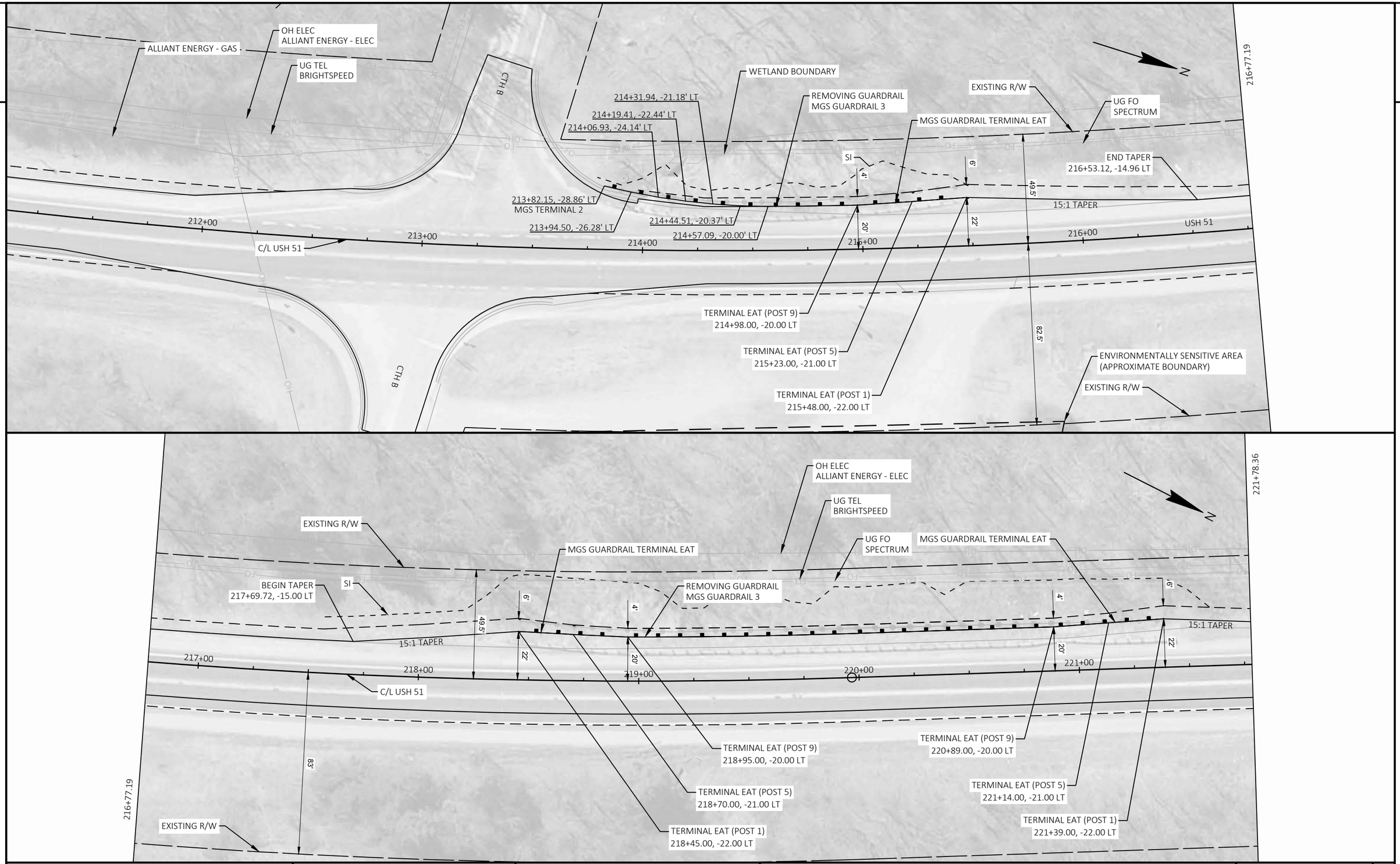
PLOT DATE : 7/20/2023 4:59 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT



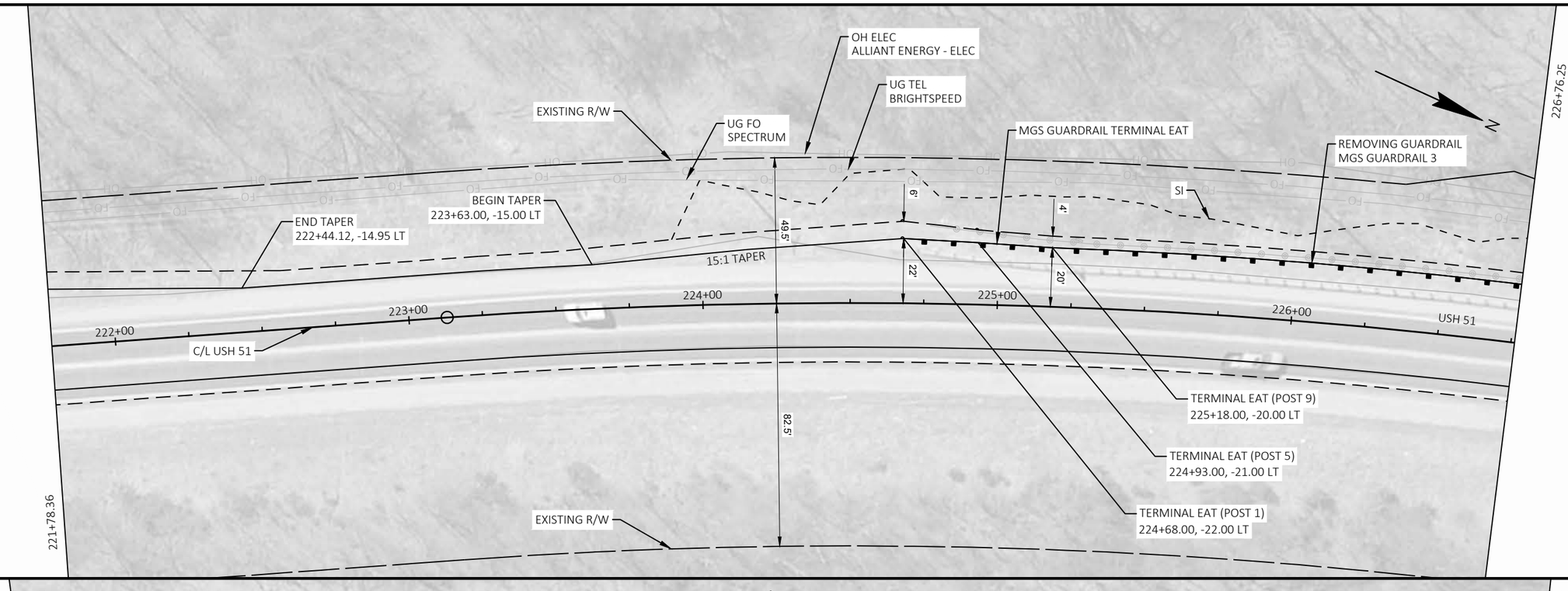
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 205+25	SHEET 43	E

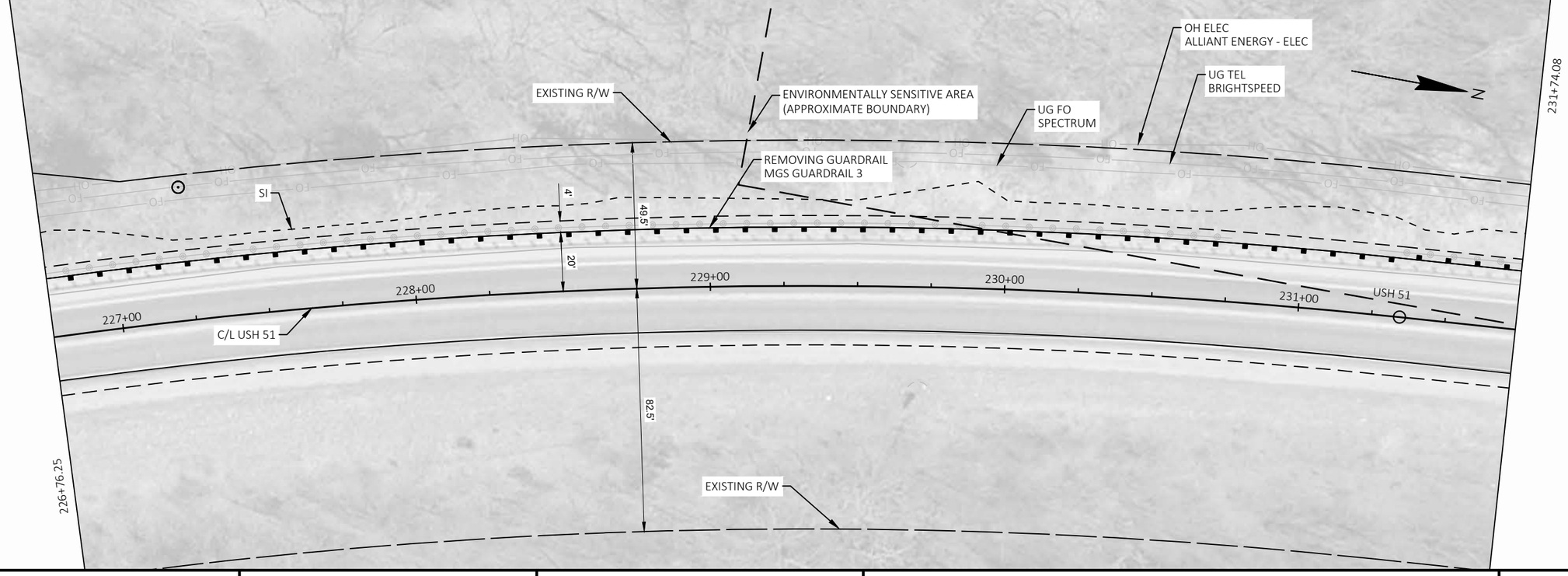
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 07
PLOT DATE : 7/20/2023 4:59 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



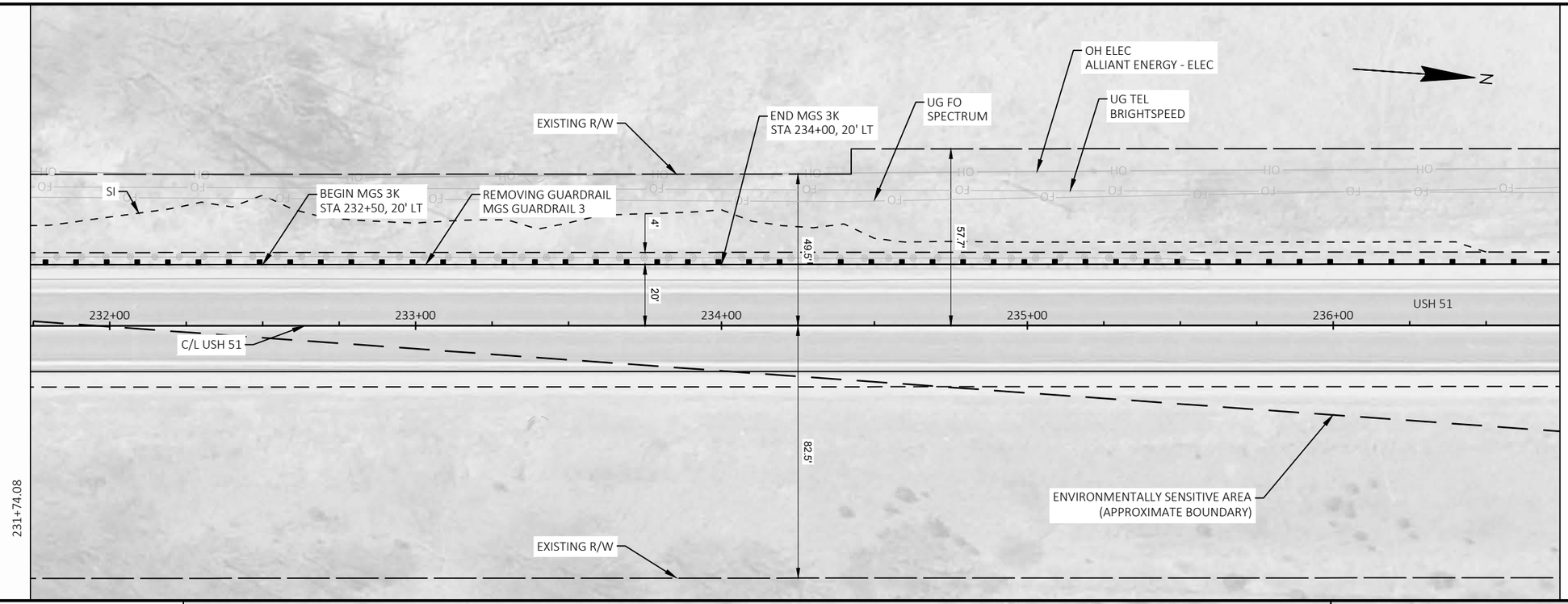
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 214+50 LT & STA: 219+90 LT	SHEET 44	E

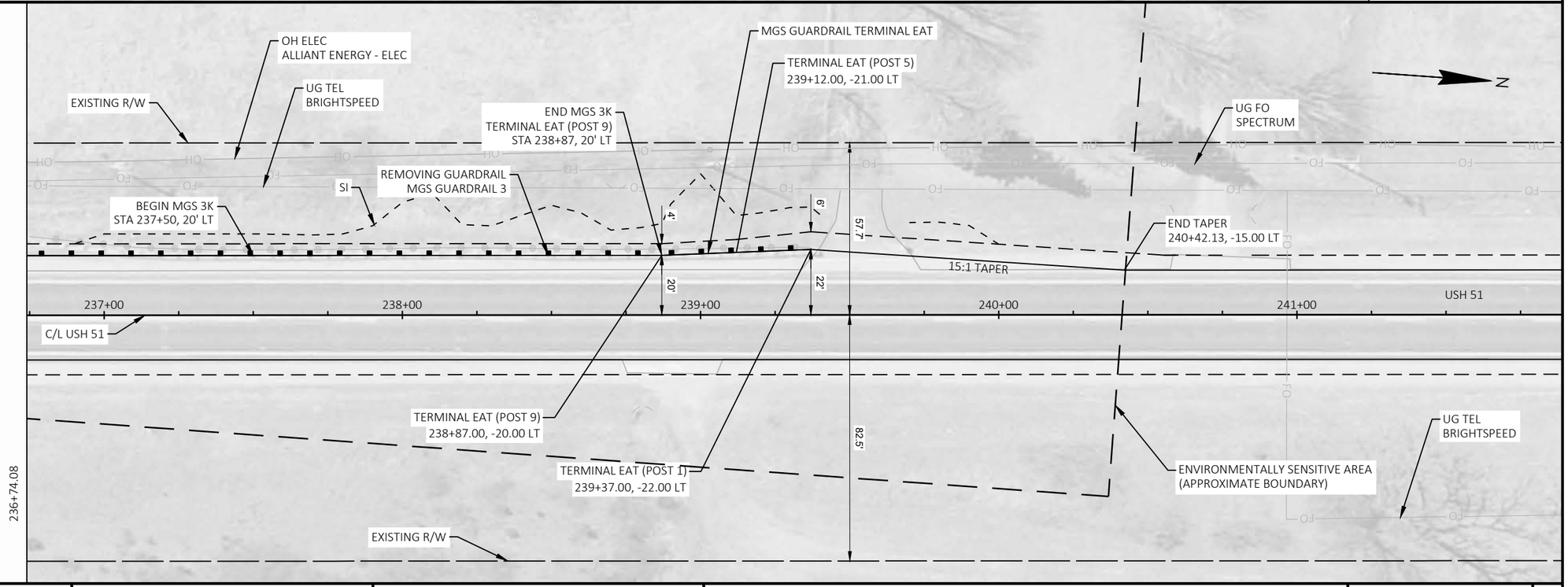




2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA:232+05 LT	SHEET 45	E

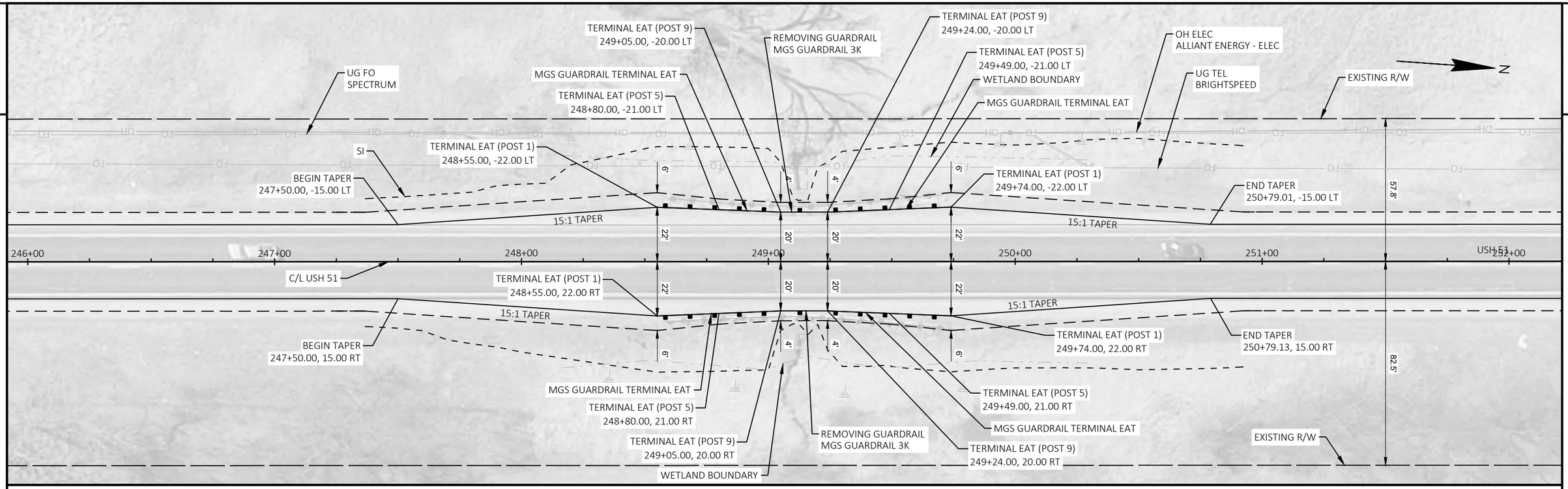




2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 232+05 LT	SHEET 46	E

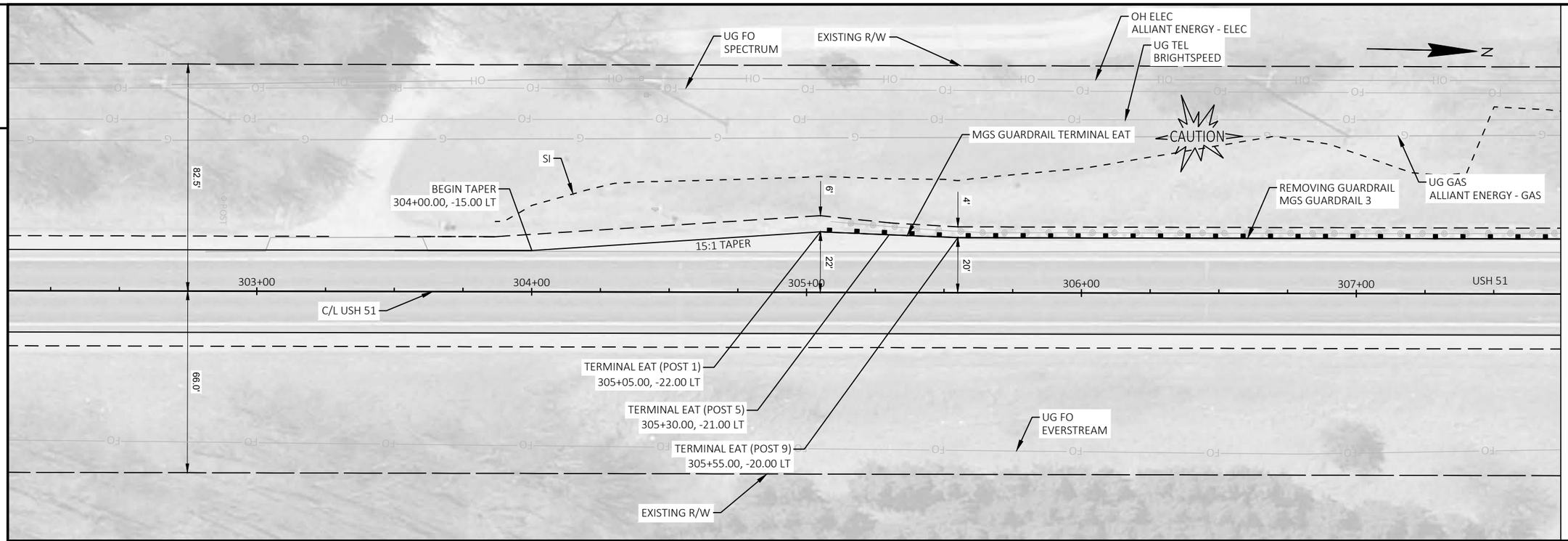
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 10
PLOT DATE : 7/20/2023 5:02 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

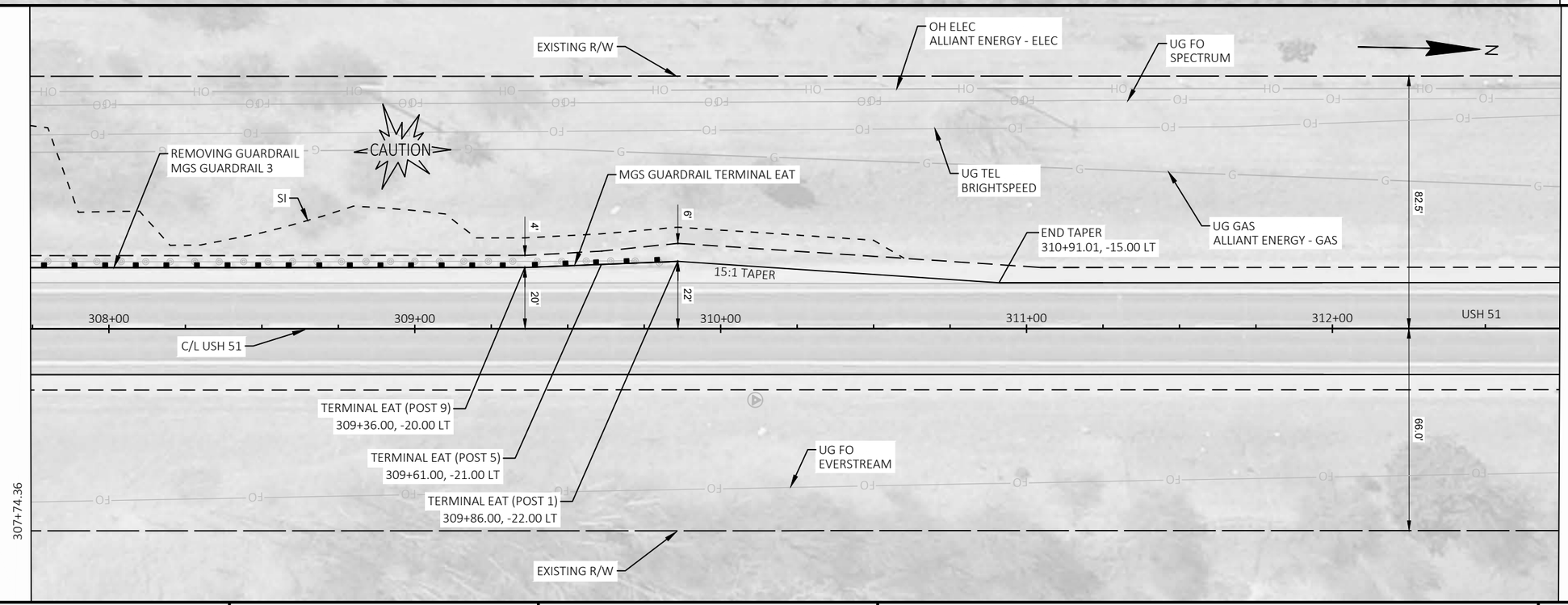


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA:249+15	SHEET 47	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 11

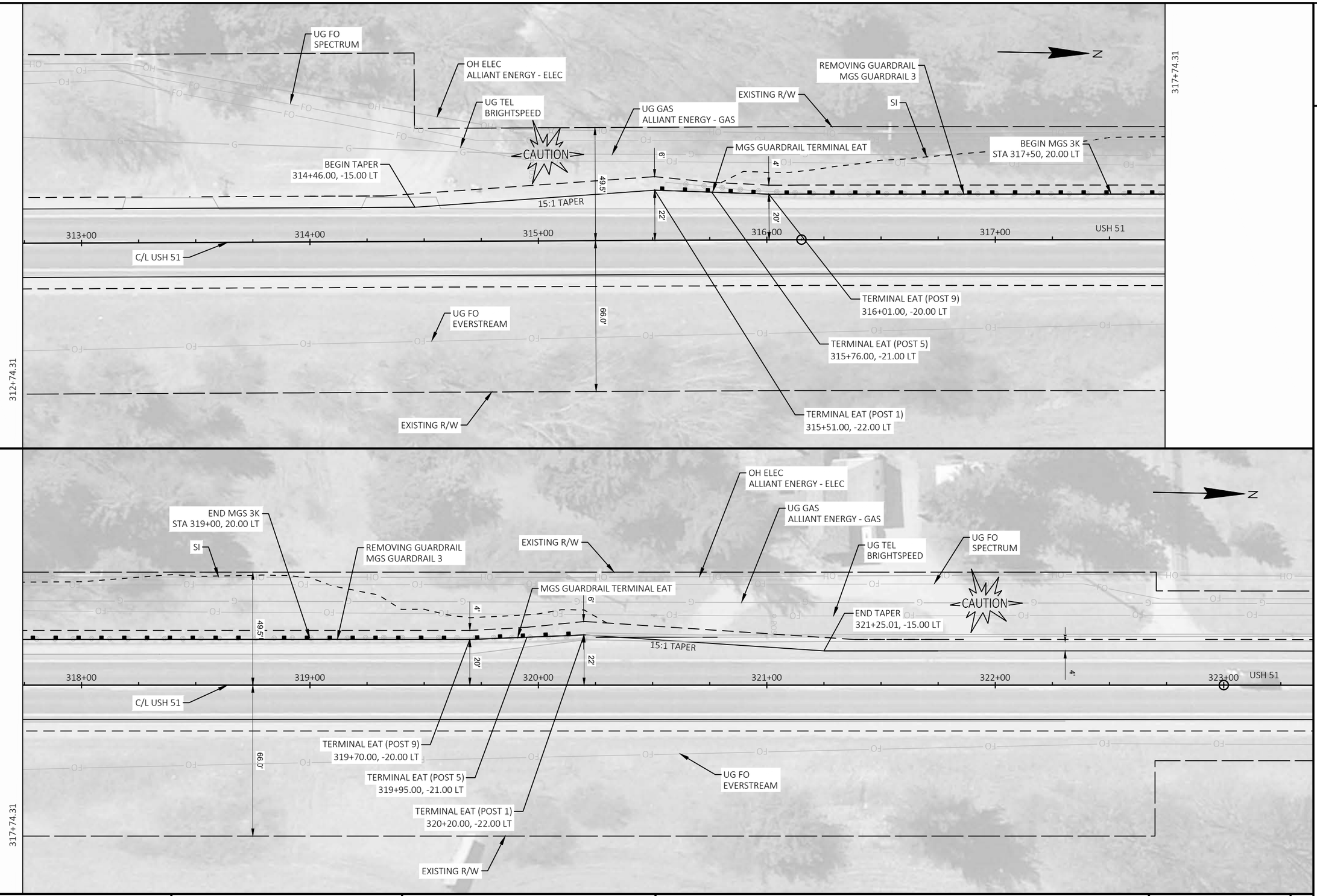
PLOT DATE : 7/20/2023 5:03 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT



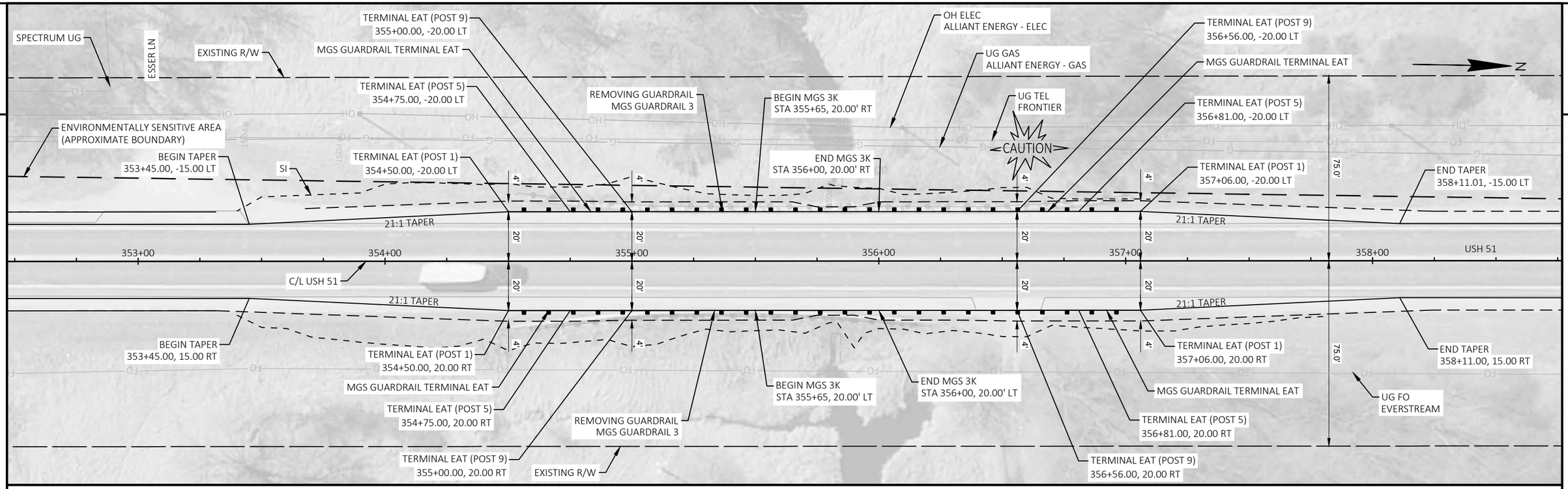


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA:307+45 LT	SHEET 48	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 12
PLOT DATE : 7/20/2023 5:03 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

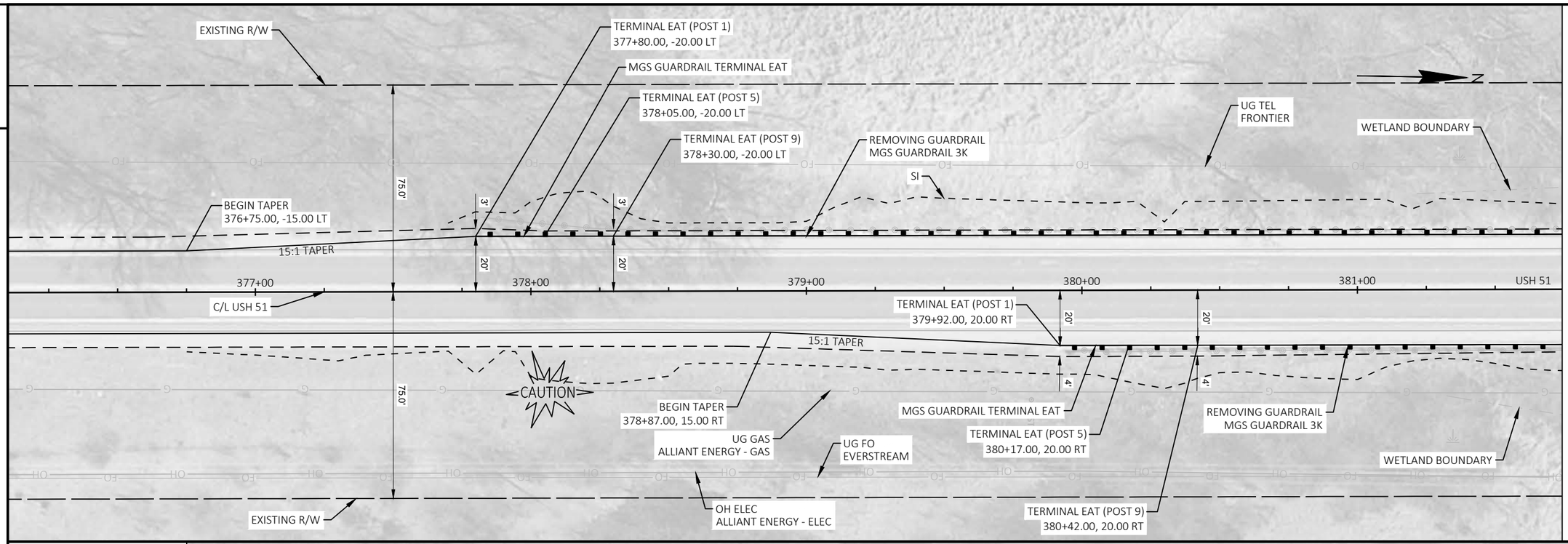


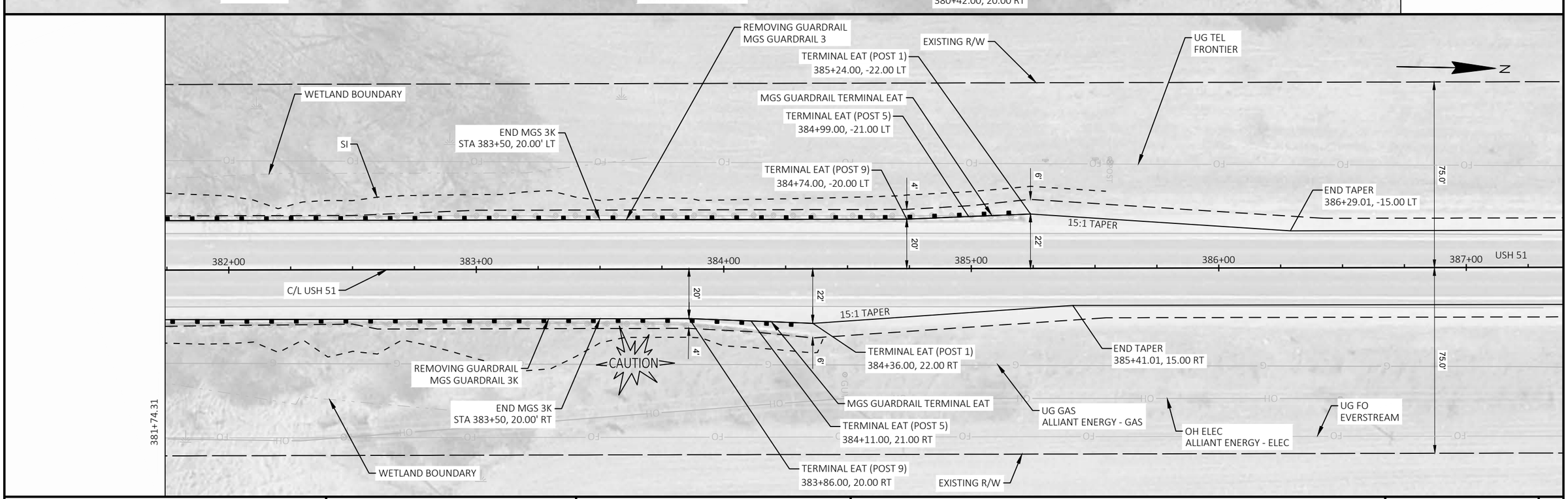
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 317+85 LT	SHEET 49	E



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA: 355+80	SHEET 50	E

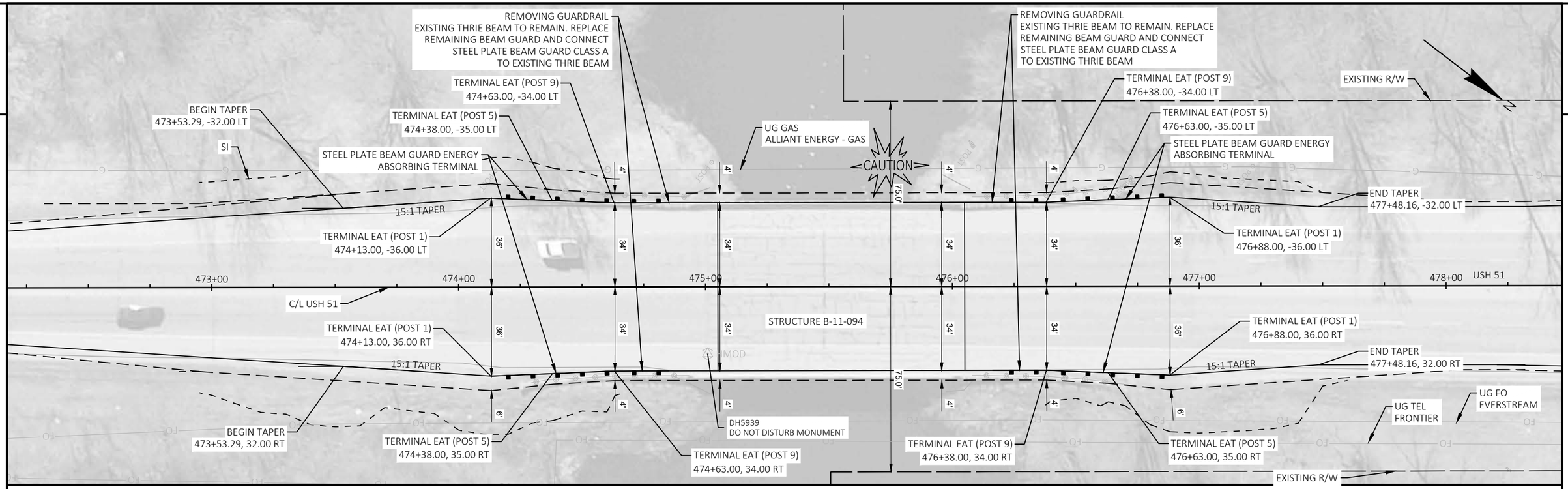
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 14
PLOT DATE : 7/20/2023 5:05 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44





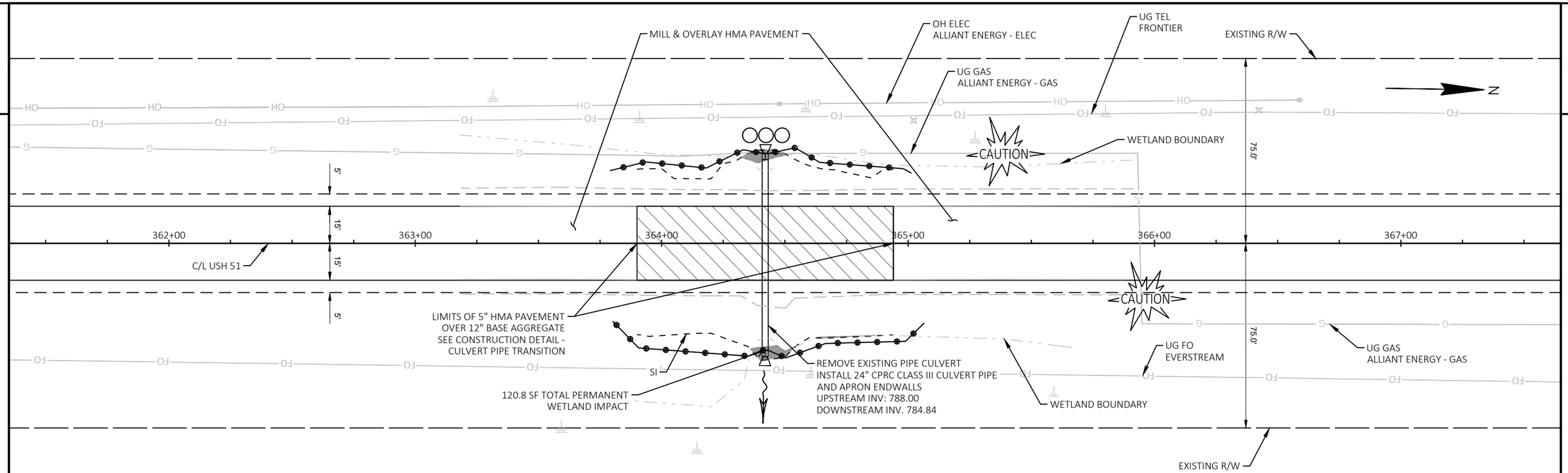
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	MGS DETAILS - STA:385+10 LT & STA: 382+15 RT	SHEET 51	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 15
PLOT DATE : 7/20/2023 5:06 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	STEEL PLATE BEAM GUARD DETAIL - B-11-094	SHEET 52	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021212-PD.DWG
LAYOUT NAME - 16
PLOT DATE : 7/20/2023 5:06 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

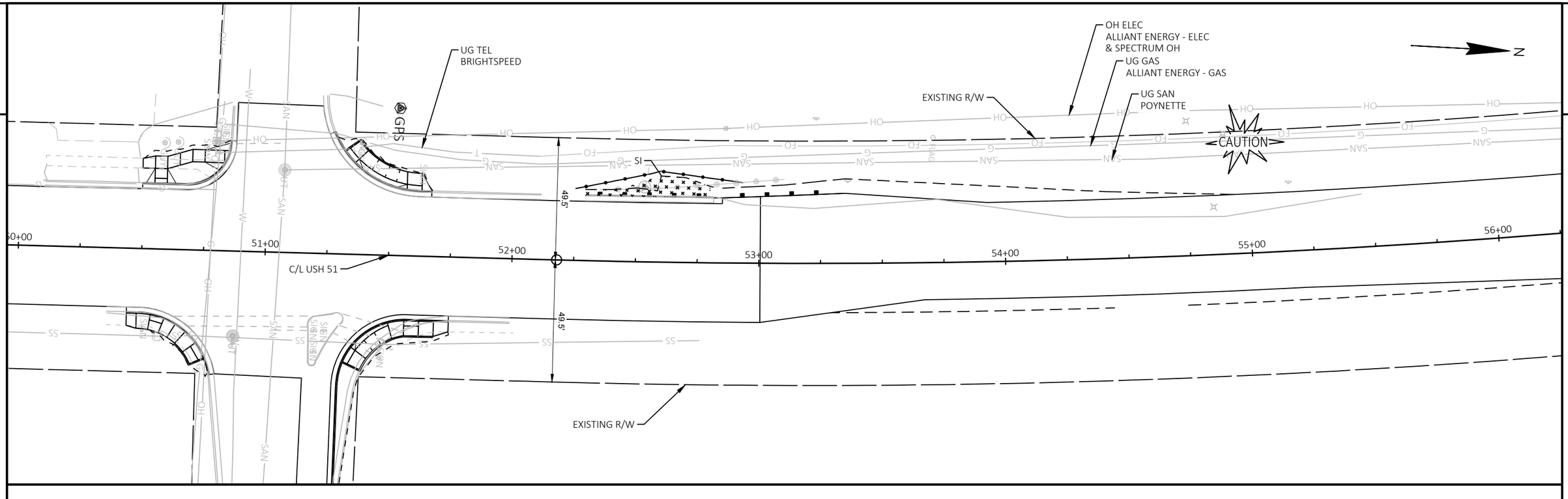
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK (SEE SDD)
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CULVERT DETAIL STA 364+42	SHEET 53	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

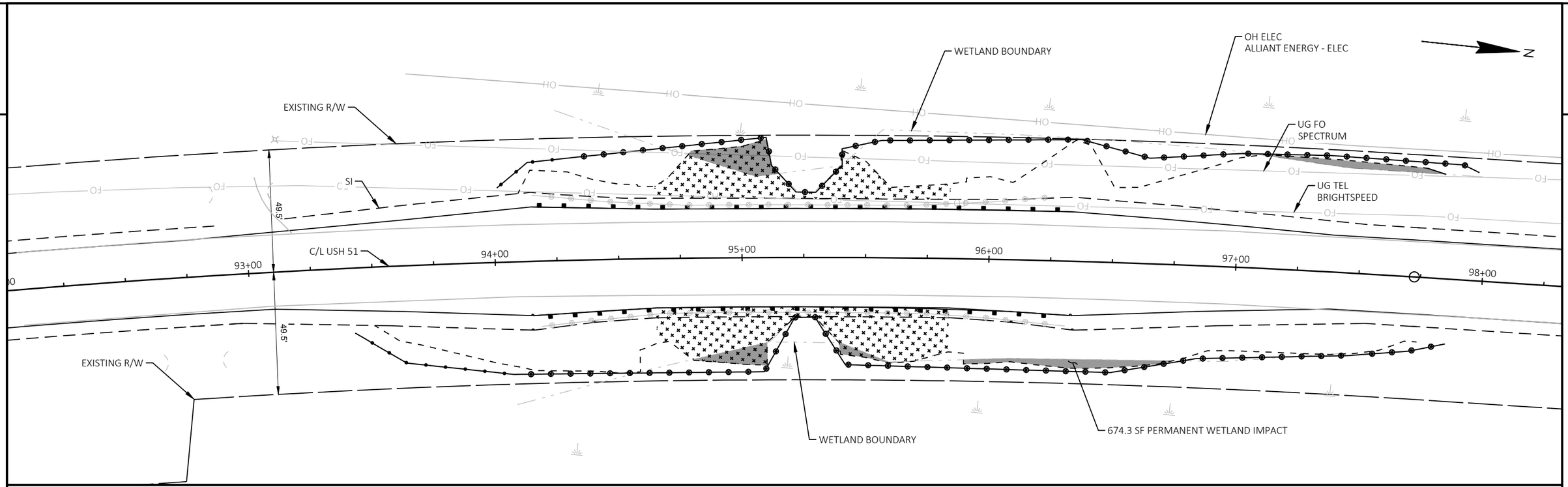
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 54	E



2

NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

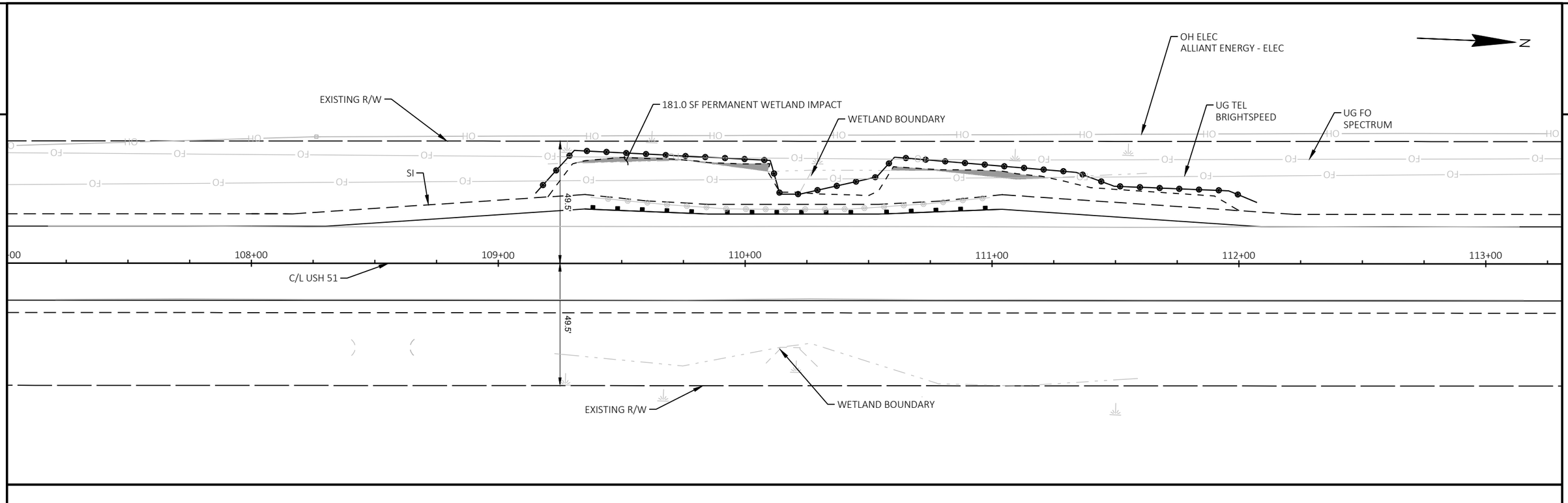
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 55	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 02
PLOT DATE : 7/20/2023 5:08 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

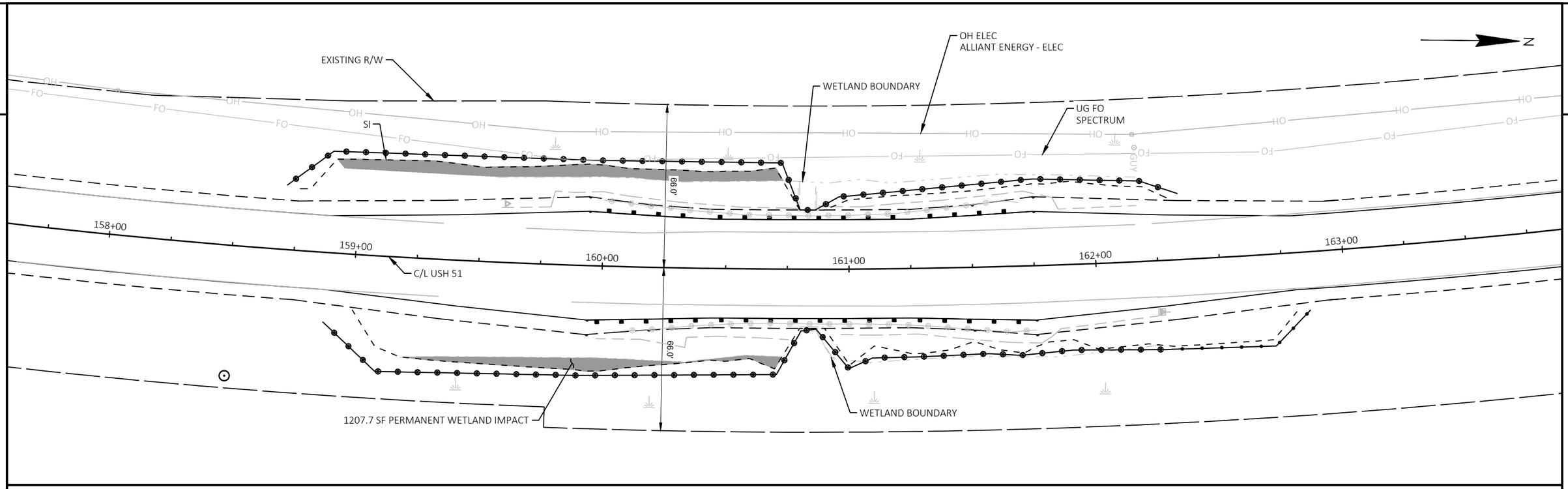
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 56	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

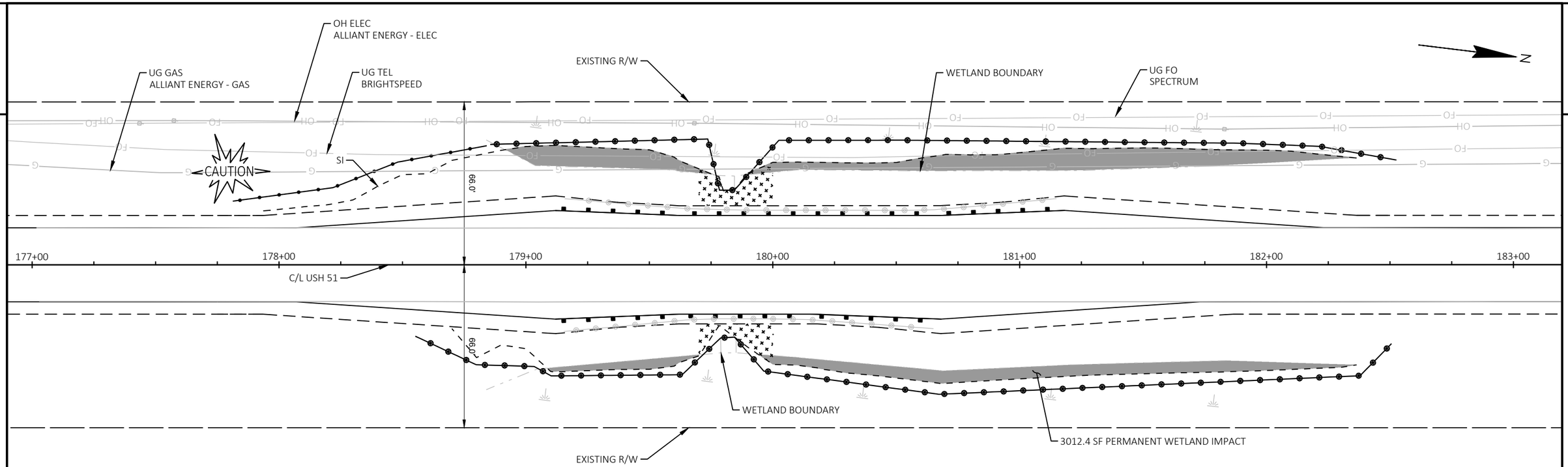
LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 57	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 7/20/2023 5:09 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

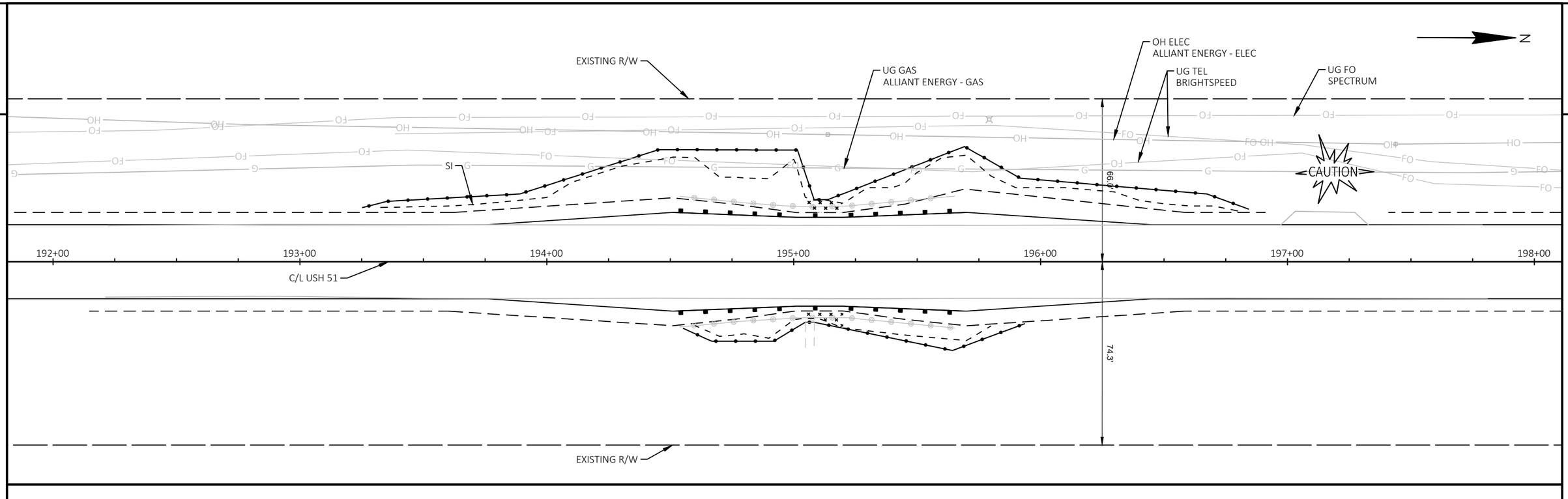
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 58	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

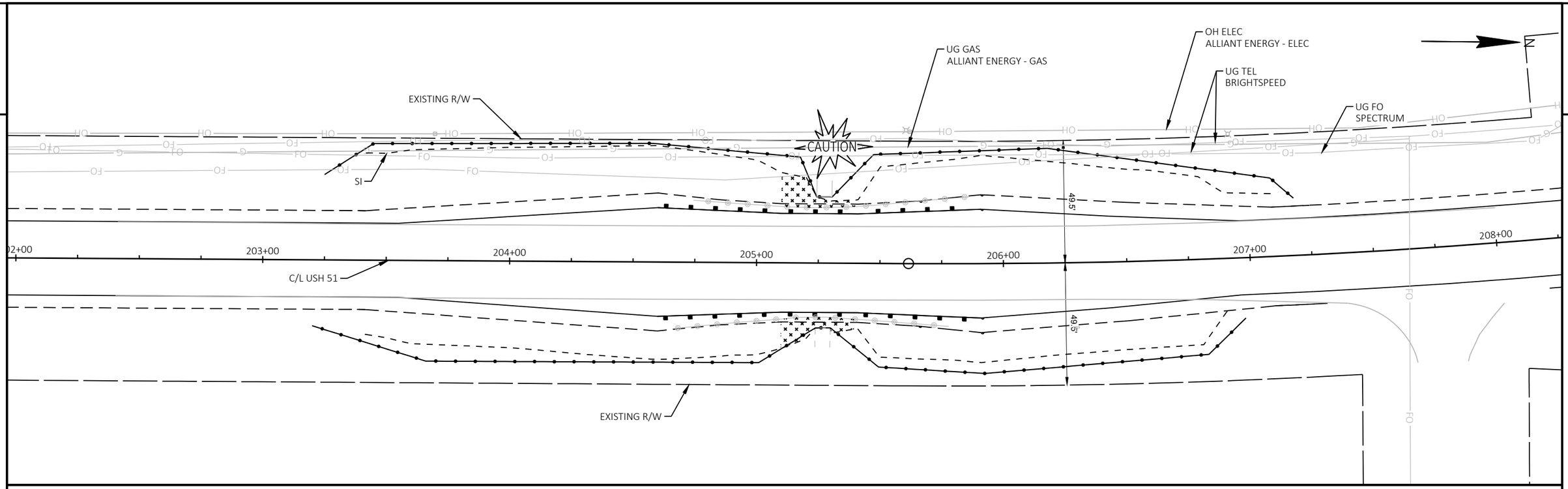
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 59	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

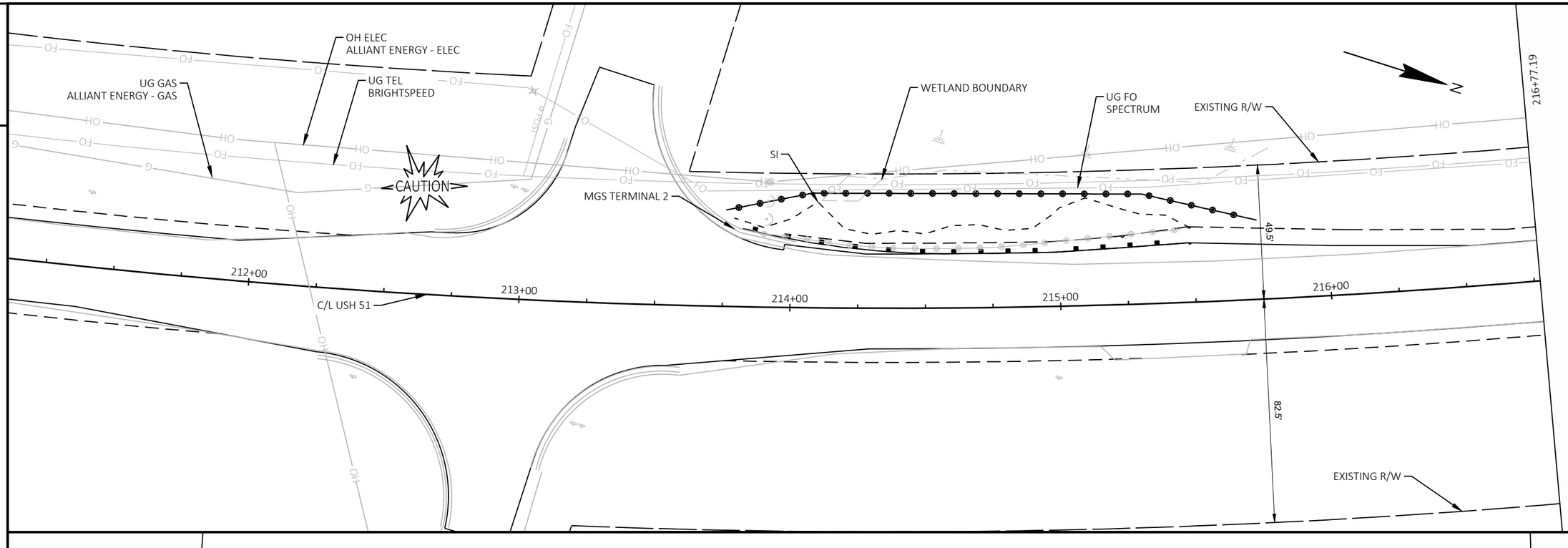
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

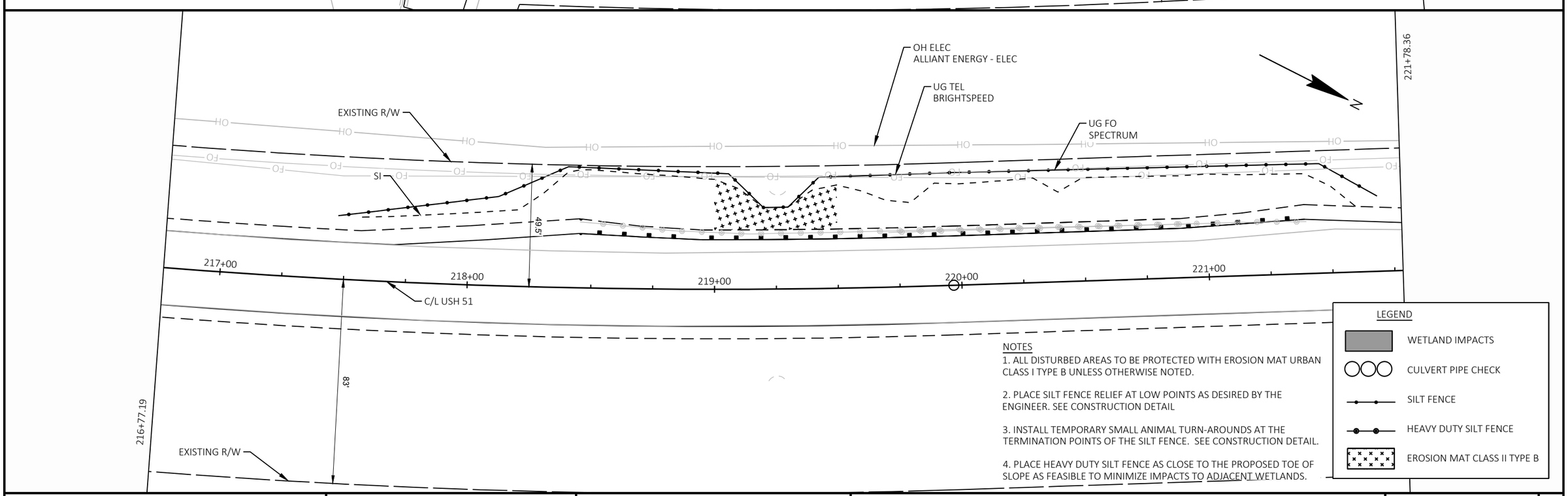
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 60	E





NOTES

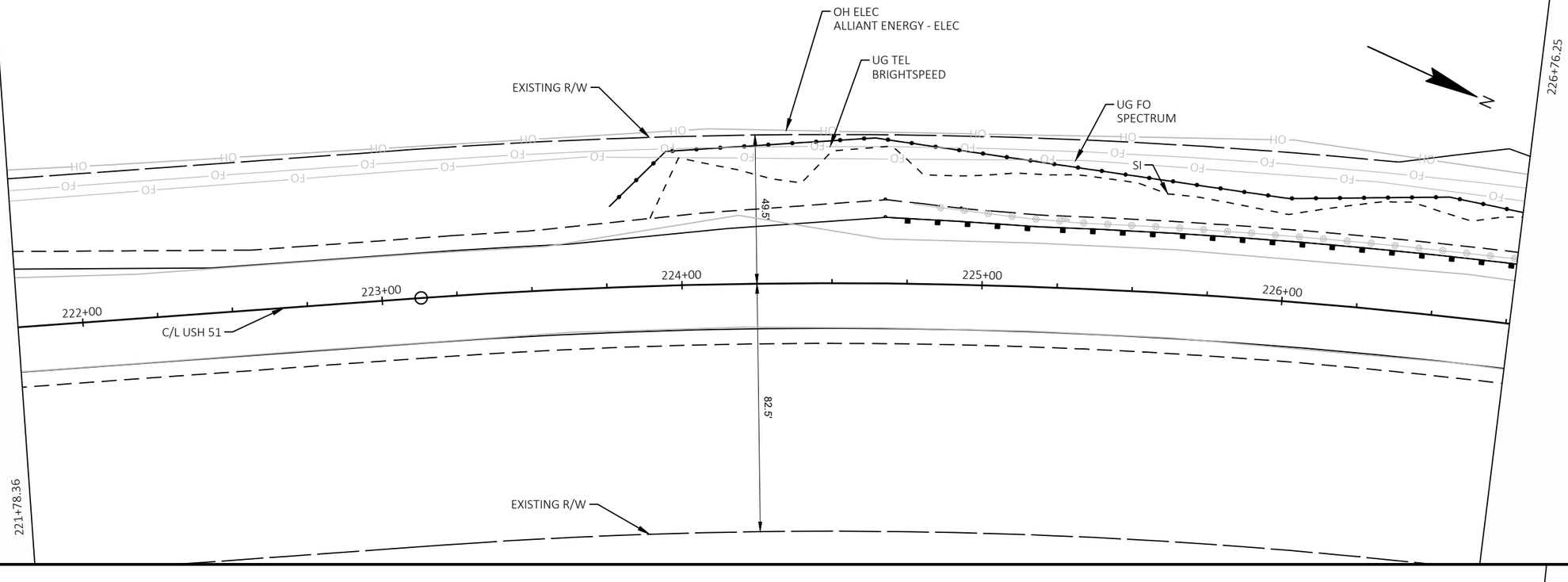
1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

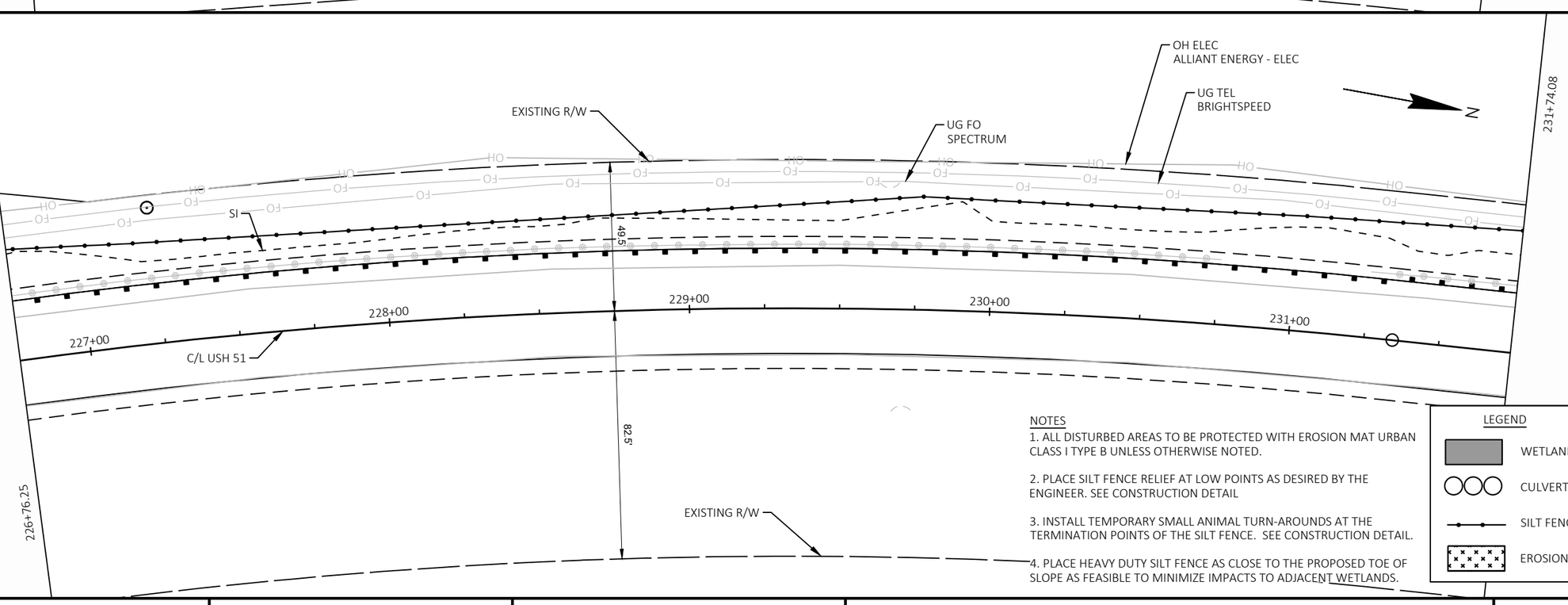
2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 61	E





NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

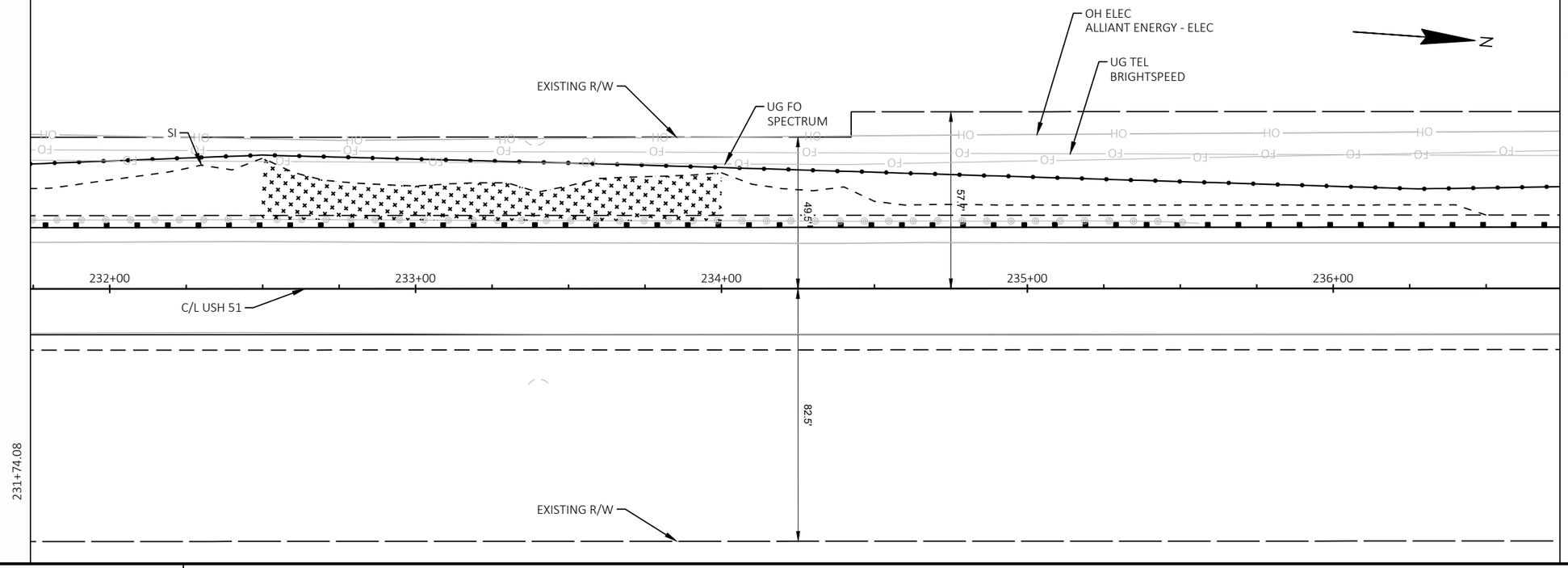
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

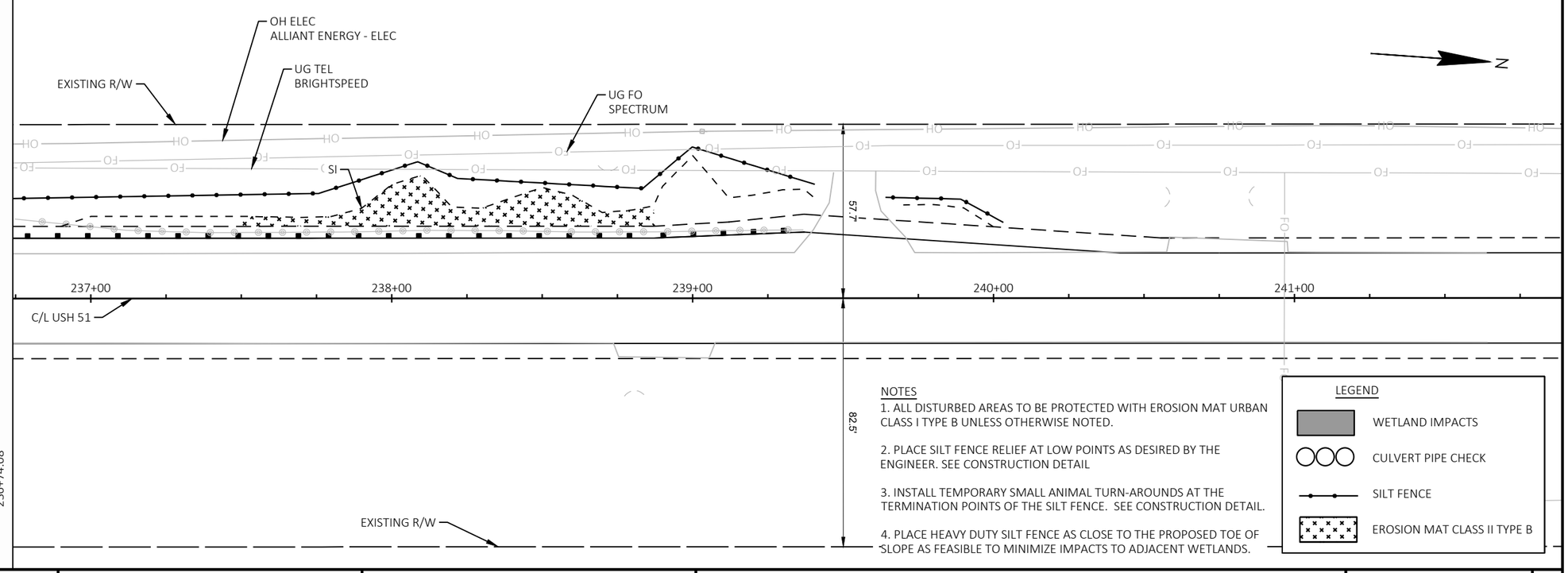
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 62	E





NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

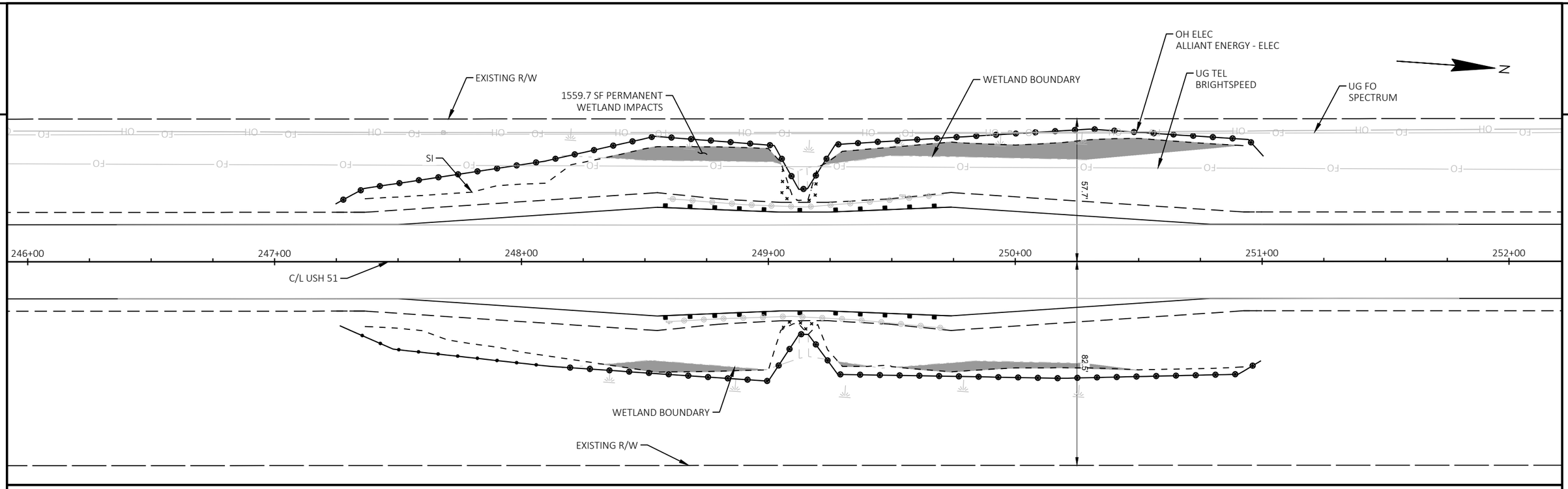
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 63	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 10
PLOT DATE : 7/20/2023 5:11 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

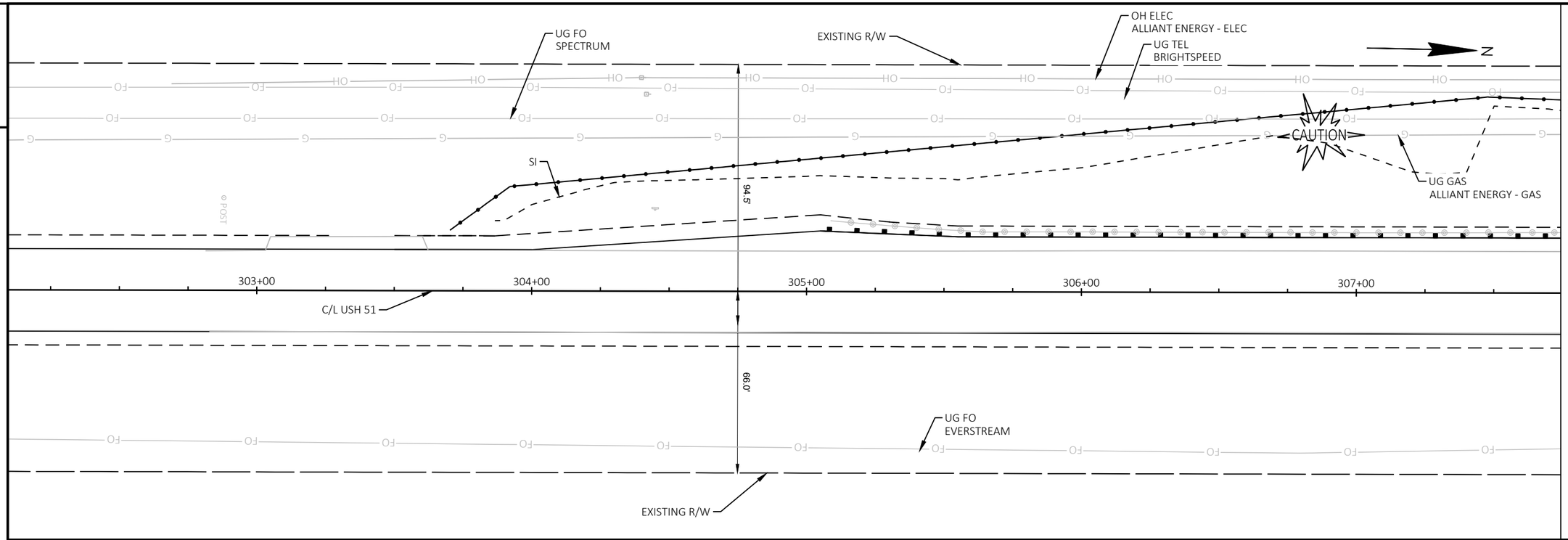
LEGEND

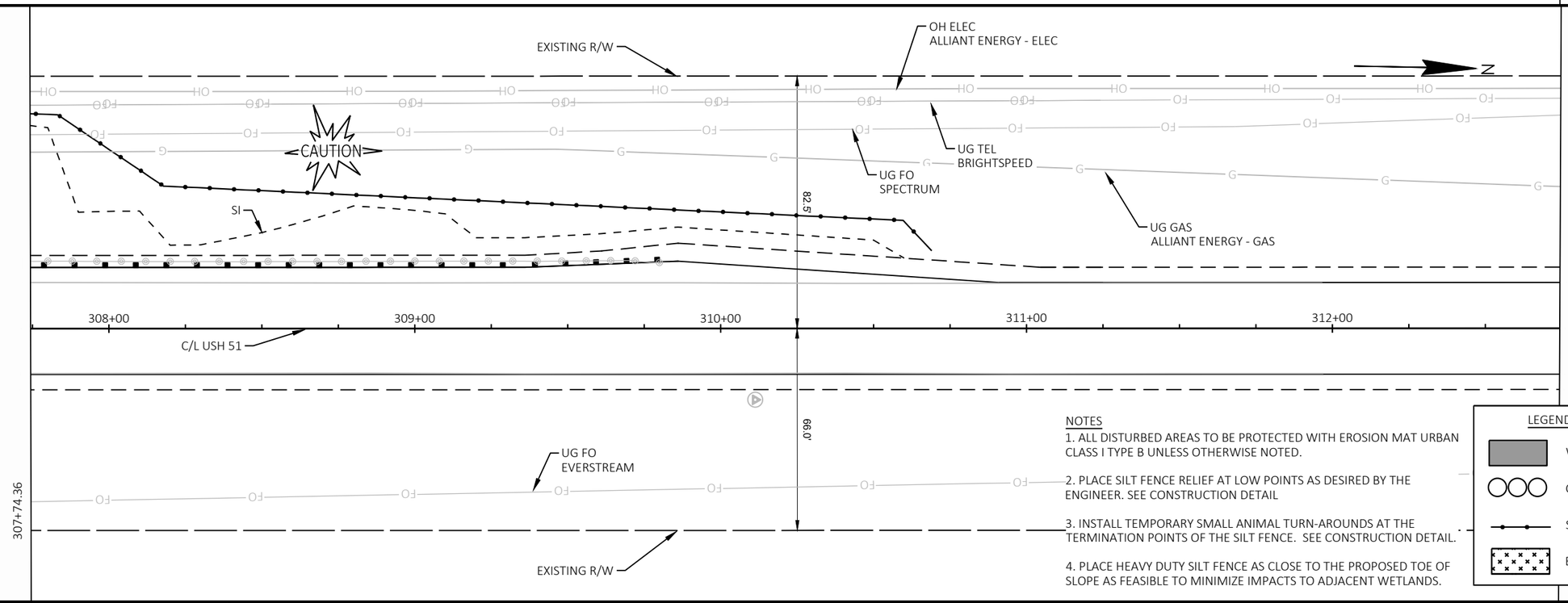
- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 64	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 11

PLOT DATE : 7/20/2023 5:11 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT





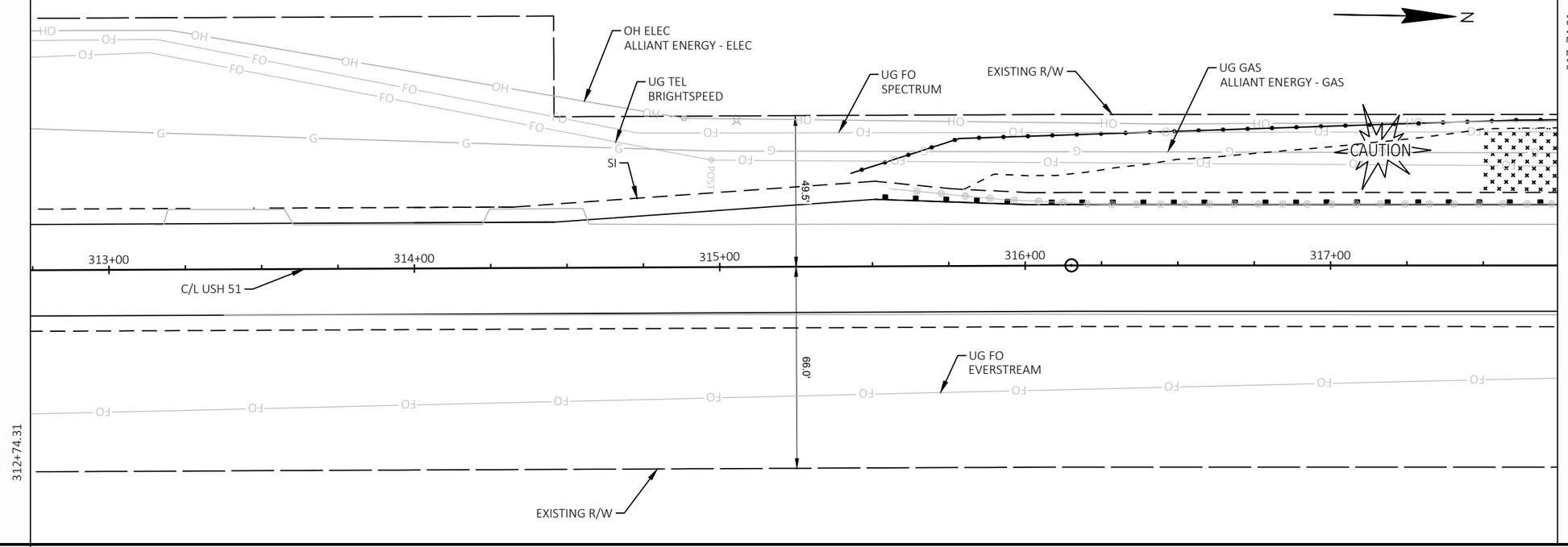
NOTES

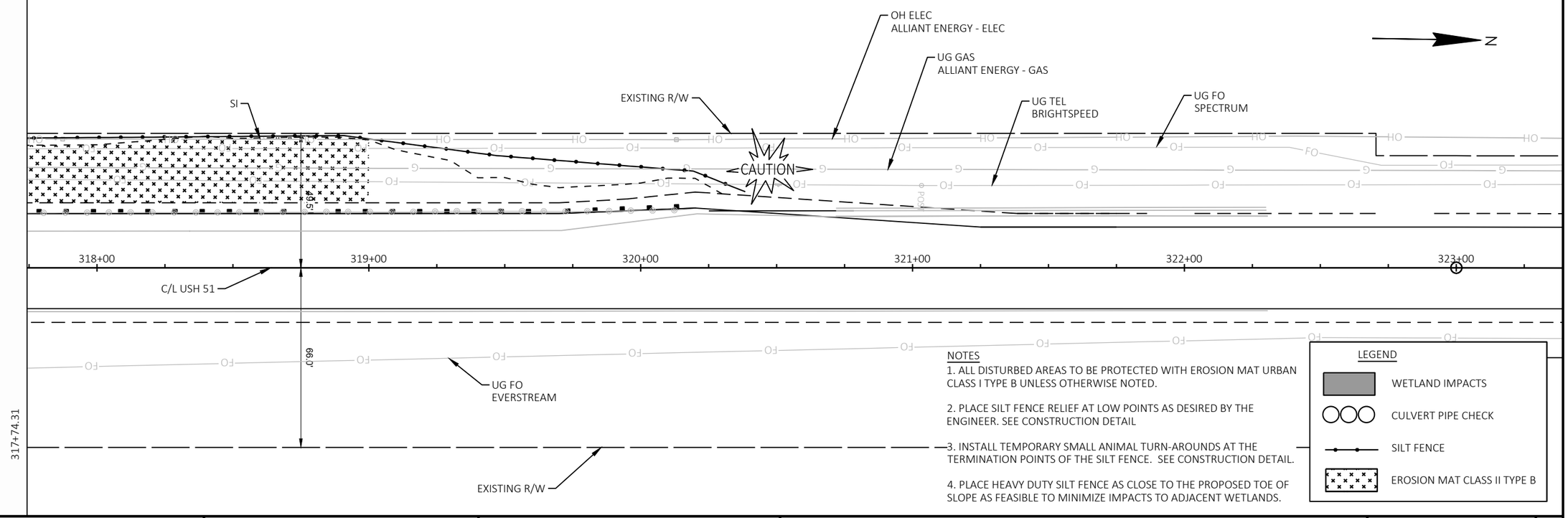
1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.
2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 65	E





NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

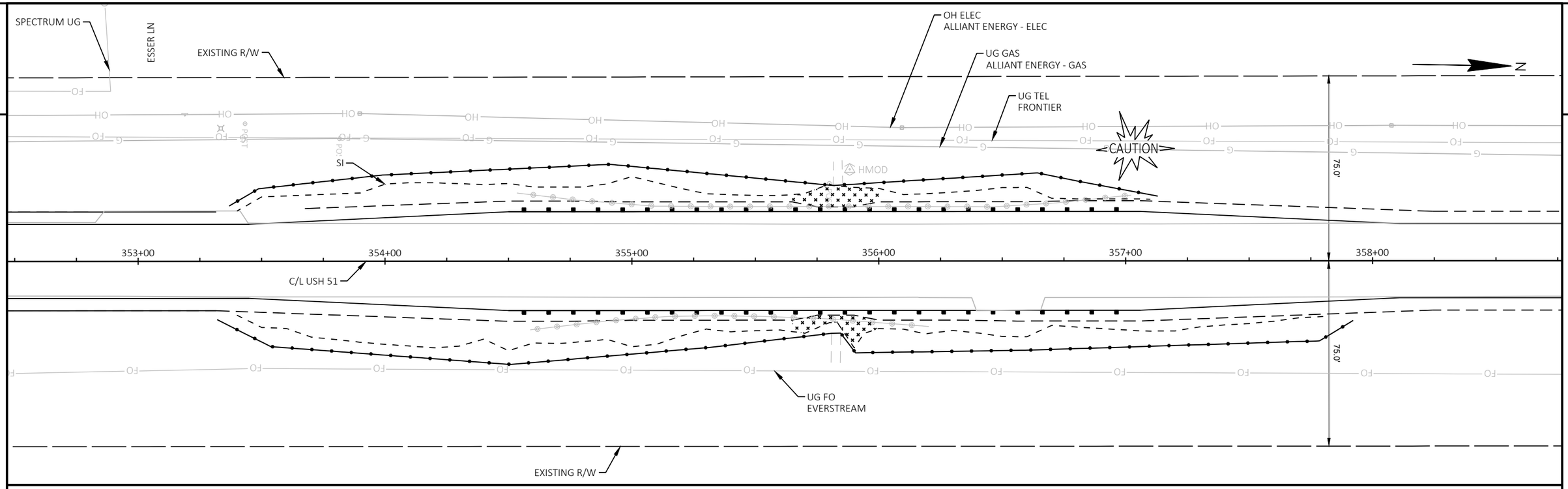
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 66	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

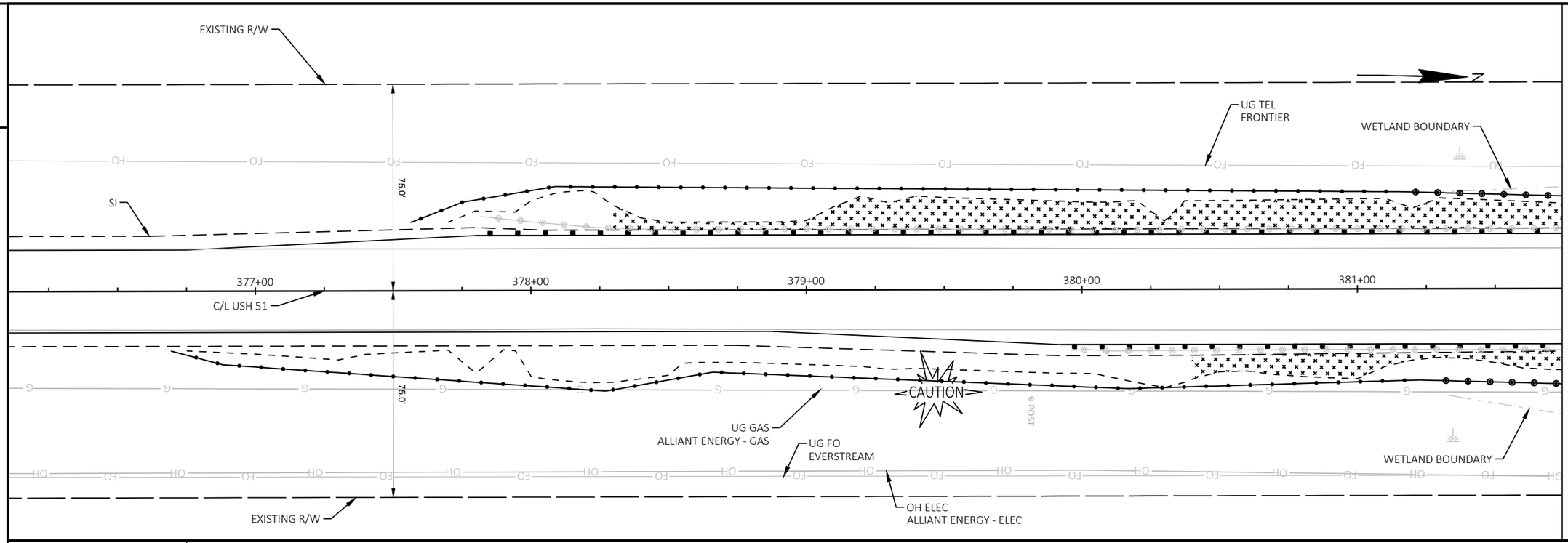
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

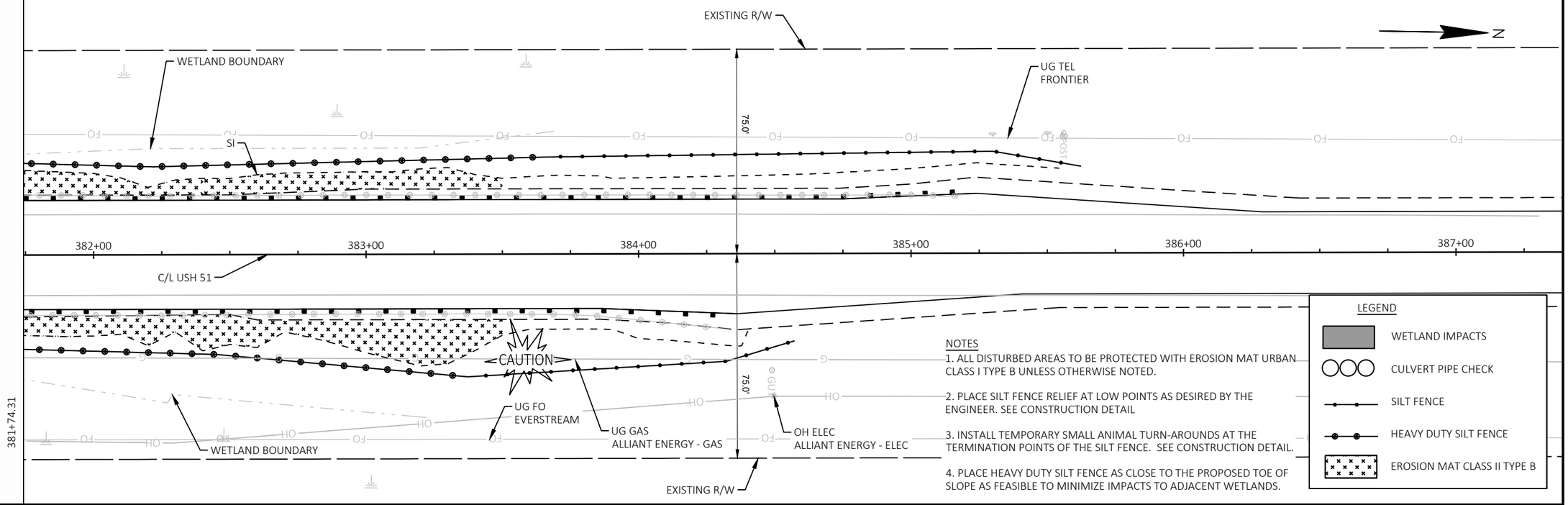
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 67	E





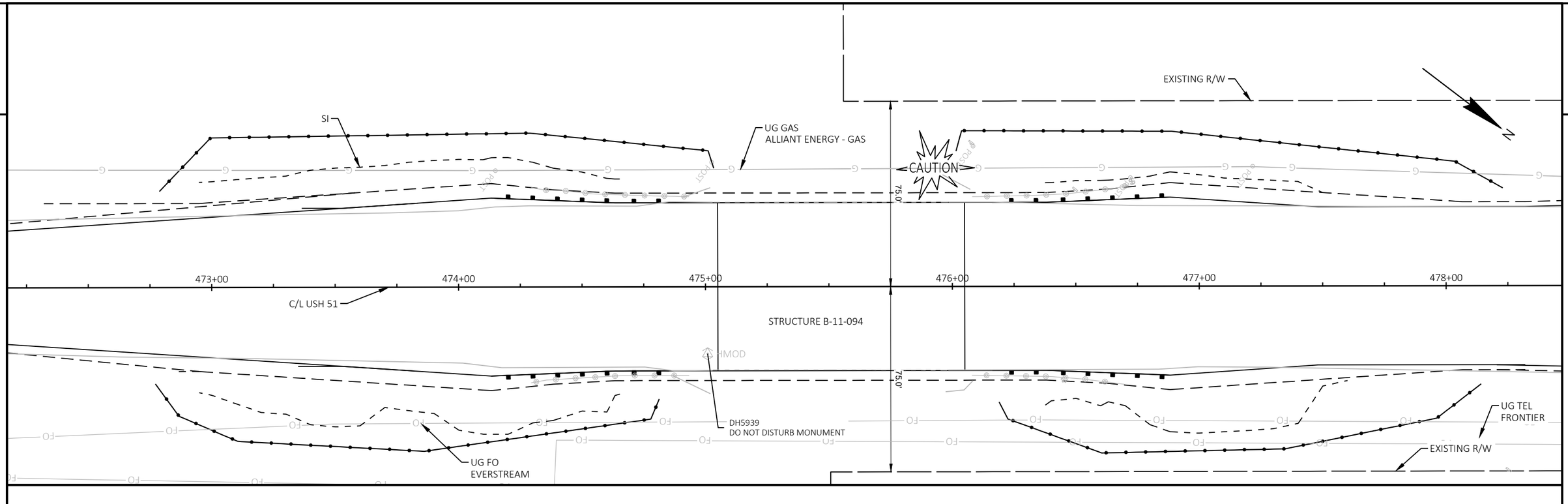
NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.
2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL
3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.
4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 68	E



NOTES

1. ALL DISTURBED AREAS TO BE PROTECTED WITH EROSION MAT URBAN CLASS I TYPE B UNLESS OTHERWISE NOTED.

2. PLACE SILT FENCE RELIEF AT LOW POINTS AS DESIRED BY THE ENGINEER. SEE CONSTRUCTION DETAIL

3. INSTALL TEMPORARY SMALL ANIMAL TURN-AROUNDS AT THE TERMINATION POINTS OF THE SILT FENCE. SEE CONSTRUCTION DETAIL.

4. PLACE HEAVY DUTY SILT FENCE AS CLOSE TO THE PROPOSED TOE OF SLOPE AS FEASIBLE TO MINIMIZE IMPACTS TO ADJACENT WETLANDS.

LEGEND

- WETLAND IMPACTS
- CULVERT PIPE CHECK
- SILT FENCE
- EROSION MAT CLASS II TYPE B

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 69	E

2

2

N

ATC

EXISTING ROAD ROW

MATCH LINE 427+25

791.322

RL USH 51

USH 51

CAUTION

425+00

426+00

427+00

FRONTIER UG

791.612

789.941

791.528

UG FO
EVERSTREAM

STA 427+46

790.603

790.301

SPECTRUM UG

EXISTING ROAD ROW

CAUTION

UG GAS
ALLIANT ENERGY GAS

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392273A DETAILS	SHEET 70	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/20/2023 5:16 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 430+25

MATCH LINE 427+25

N

OH ELEC
ALLIANT ENERGY

ASSUMED RR ROW

50'

FRONTIER UG

EXISTING ROAD ROW

EXISTING RR BUNGALOW

UG ELEC
ALLIANT ENERGY

OH ELEC
ALLIANT ENERGY ELEC

STA 429+01.8, -40' LT

PROPOSED RR SIGNAL AND GATE LOCATION

18'

6'

10:1 TAPER

STA 428+31.5, -32' LT

STA 428+11.5, -29' LT

STA 430+08.6, -28' LT

PROPOSED RR
CANTILEVER
LOCATION

STA 429+19.6, -27' LT

3:1 HMA PAVEMENT TAPER
TO CROSSING SURFACE

SAWCUT FOR REMOVAL *

STA 427+41.3, -13' LT

SLOPED NOSE
OVER 5 FEET

CONCRETE CURB & GUTTER
6-INCH SLOPED 30-INCH TYPE J

69' PROPOSED CROSSING (RUBBER)
OUTSIDE PANELS SINGLE TIE STAGGER
WORK COMPLETED BY OTHERS

STA 428+69, -11' LT

STA 428+95, -10' LT

STA 430+17.3, -8' LT

CONCRETE CURB & GUTTER
6-INCH SLOPED 30-INCH
TYPE J

128'

122'

USH 51

VARIES

STA 428+64.3, 0' RT

428+00

429+00

430+00

123'

127'

SLOPED NOSE
OVER 5 FEET

STA 427+41, 0' LT

STA 428+90.4, 0' RT

RL USH 51

SLOPED NOSE
OVER 5 FEET

STA 430+17.3, 0' RT

STA 428+43.2, 23' RT

3:1 HMA PAVEMENT
TAPER TO CROSSING
SURFACE

SAWCUT FOR REMOVAL *

STA 429+21.5, 24' RT

STA 429+47, 20' RT

STA 428+00.2, 31' RT

STA 428+38.1, 29' RT

STA 427+46.9, 26' RT

10:1 TAPER

UG FO
EVERSTREAM

PROPOSED RR
CANTILEVER
LOCATION

PROPOSED RR SIGNAL AND GATE LOCATION

10:1 TAPER (DO NOT CONTINUE BAD
OVER PRIVATE DRIVEWAY LINE IS
SHOWN FOR REFERENCE ONLY)

790.216
1379

REMOVE EXISTING PAVEMENT
AFTER SAWING AND RESTORE WITH
BASE AGGREGATE DENSE 3/4-INCH

CP RAILROAD

OH ELEC
ALLIANT ENERGY ELEC
& OH FRONTIER

EXISTING ROAD ROW

STA 428+08.1, 53' RT

UG GAS
ALLIANT ENERGY GAS

CAUTION

SAWCUT

ATC

CAUTION

STA 428+42.3, 53' RT

UG GAS
ALLIANT ENERGY GAS

ASSUMED RR ROW

PRIVATE UTILITY LINE OH

ASSUMED RR ROW

* REMOVE EXISTING HMA PAVEMENT FULL DEPTH. AFTER RAILROAD CROSSING SURFACE IS COMPLETE, ADD BASE AGGREGATE DENSE 1 1/4-INCH TO A DEPTH NEEDED TO PAVE HMA PAVEMENT IN 3 LIFTS THAT MATCHES THE NEW CROSSING SURFACE.

LOWER LIFT 1: 2.5 INCHES
LOWER LIFT 2: 2.5 INCHES
UPPER LIFT: 1.75 INCHES

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392273A DETAILS	SHEET 71	E

2

2

N

UG ELEC
ALLIANT ENERGY ELEC

EXISTING ROAD ROW

SPECTRUM UG

E FO G OH

RL USH 51

USH 51

431+00

432+00

433+00

SPECTRUM UG

UG GAS
ALLIANT ENERGY GAS

UG FO
EVERSTREAM

EXISTING ROAD ROW

CAUTION

OH ELEC
ALLIANT ENERGY ELEC
& OH FRONTIER

MATCH LINE 430+25

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392273A DETAILS	SHEET 72	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 04

PLOT DATE : 7/20/2023 5:16 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

HO HO HO OH

ATC

N

2

FO FO FO FO FO FO FO FO FO FO FO FO

SPECTRUM UG FO

2'

8'

12'

12'

USH 51 SB

498+00 499+00 500+00 501+

RL USH 51

22'

12'

12'

12'

USH 51 NB

2'

G G G G G G G G G G G G

UG GAS
ALLIANT ENERGY GAS

FO FO FO FO FO FO FO FO FO FO FO FO

UG FO FRONTIER

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392271L DETAILS	SHEET 73	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 11

PLOT DATE : 7/20/2023 5:16 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

* REMOVE EXISTING HMA PAVEMENT FULL DEPTH. AFTER RAILROAD CROSSING SURFACE IS COMPLETE, ADD BASE AGGREGATE DENSE 1 1/4-INCH TO A DEPTH NEEDED TO PAVE HMA PAVEMENT IN 3 LIFTS THAT MATCHES THE NEW CROSSING SURFACE.

LOWER LIFT 1: 2.5 INCHES
LOWER LIFT 2: 2.5 INCHES
UPPER LIFT: 1.75 INCHES

N

CP RAILROAD

EXISTING ROAD ROW

SPECTRUM UG FO

RR ROW

ATC

SPECTRUM UG FO

2'

8'

12'

12'

10" *

CAUTION

OH ELEC
ALLIANT ENERGY ELEC

USH 51 SB

00

502+00

503+00

504+00

RL USH 51

11'

12'

12'

USH 51 NB

8'

2'

SPECTRUM UG FO

790.595

CAUTION

UG FRONTIER

UG GAS
ALLIANT ENERGY GAS

UG FO
EVERSTREAM

CTH P

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392271L DETAILS	SHEET 74	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 12

PLOT DATE : 7/20/2023 5:17 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

EXISTING RR BUNGALOW

336' PROPOSED CROSSING (RUBBER)
OUTSIDE PANELS SINGLE TIE STAGGER

SPECTRUM UG FO

RR ROW

END 10:1 AGG SHOULDER TAPER

30'

BEGIN 10: 1 AGG SHOULDER TAPER

BEGIN 10:1 AGG SHOULDER TAPER

1'

ROGERS UG FO

3'

PROPOSED CANTILEVER

7'

7'

6'

8'

12'

SAWCUT

PROPOSED RR SIGNAL &
GATE LOCATION

USH 51 SB

10' *

10' *

SLOPE FULL CURB HEAD
TO ZERO OVER 5 FEET

SLOPE FULL CURB HEAD
TO ZERO OVER 5 FEET

REPLACE C&G

505+00

506+00

507+00

15'

19'

12'

333'

12'

15'

14'

SAWCUT

SAWCUT

ATC

RL USH 51

SAWCUT

SLOPE FULL CURB HEAD
TO ZERO OVER 5 FEET

CAUTION

REPLACE C&G

10'

SLOPE FULL CURB HEAD
TO ZERO OVER 5 FEET

10' *

CP RAILROAD

10' *

USH 51 NB

12'

12'

8'

PROPOSED RR SIGNAL &
GATE LOCATION

8'

PROPOSED CANTILEVER

6'

7'

7'

2'

336' PROPOSED CROSSING (RUBBER)
OUTSIDE PANELS SINGLE TIE STAGGER
WORK BY OTHERS

END 10:1 AGG SHOULDER TAPER

3'

1'

BEGIN 10:1 AGG SHOULDER TAPER

30'

UG FO
EVERSTREAM

BEGIN 10: 1 AGG SHOULDER TAPER

EXISTING ROAD ROW

CAUTION

END 10:1 AGG SHOULDER TAPER

UG GAS
ALLIANT ENERGY GAS

UG FO
FRONTIER

LINE SHOWN AS REFERENCE
(DO NOT PLACE AGG OVER PRIVATE ENTRANCE)

CRAWFORD RD

RR ROW

* REMOVE EXISTING HMA PAVEMENT FULL DEPTH. AFTER RAILROAD CROSSING SURFACE IS COMPLETE, ADD BASE AGGREGATE DENSE 1 1/4-INCH TO A DEPTH NEEDED TO PAVE HMA PAVEMENT IN 3 LIFTS THAT MATCHES THE NEW CROSSING SURFACE.

LOWER LIFT 1: 2.5 INCHES
LOWER LIFT 2: 2.5 INCHES
UPPER LIFT: 1.75 INCHES

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392271L DETAILS	SHEET 75	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 13
PLOT DATE : 7/20/2023 5:17 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

N

FO FO FO FO FO FO FO FO FO FO FO FO FO

SPECTRUM UG FO

END 10:1 AGG SHOULD TAPER

2'

8'

12'

12'

US 51 SB

RL USH 51

508+00

509+00

510+00

VARIES

792.520

SIGN

792.568 #

1232

12'

US 51 NB

12'

8'

10' *

2'

END SHOULDER TAPER FROM CROSSING SURFACE EDGE TO PROPOSED SHOULDER WIDTH

CAUTION

UG FRONTIER

UG GAS
ALLIANT ENERGY GAS

333' PROPOSED CROSSING (RUBBER) OUTSIDE PANELS SINGLE TIE STAGGER WORK BY OTHERS

ROGERS UG FO

UG FO
EVERSTREAM

RR ROW

EXISTING ROAD ROW

CP RAILROAD

788.556 #

* REMOVE EXISTING HMA PAVEMENT FULL DEPTH. AFTER RAILROAD CROSSING SURFACE IS COMPLETE, ADD BASE AGGREGATE DENSE 1 1/4-INCH TO A DEPTH NEEDED TO PAVE HMA PAVEMENT IN 3 LIFTS THAT MATCHES THE NEW CROSSING SURFACE.

LOWER LIFT 1: 2.5 INCHES
LOWER LIFT 2: 2.5 INCHES
UPPER LIFT: 1.75 INCHES

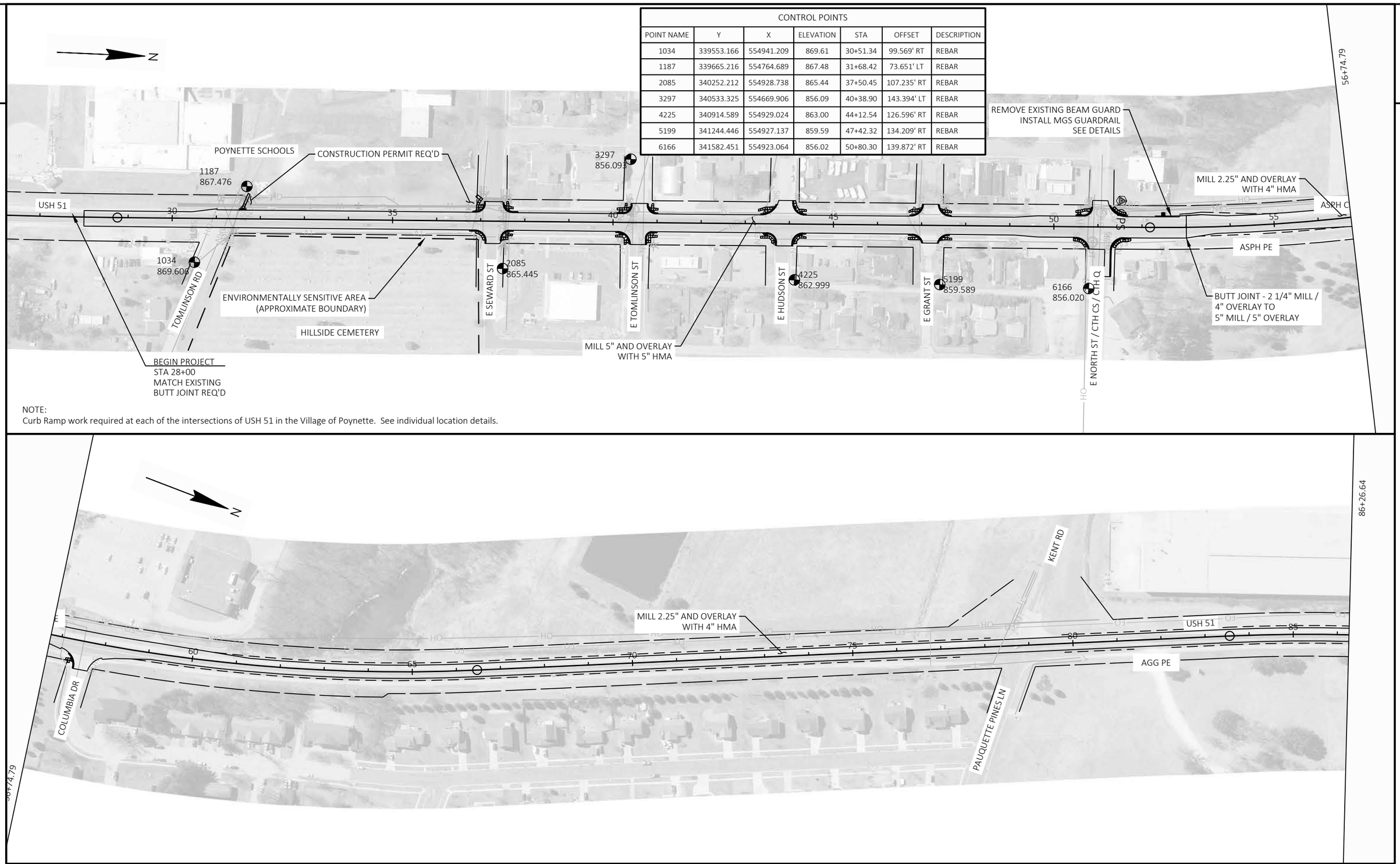
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSSING 392271L DETAILS	SHEET 76	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021213-PD.DWG
LAYOUT NAME - 14

PLOT DATE : 7/20/2023 5:17 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
1034	339553.166	554941.209	869.61	30+51.34	99.569' RT	REBAR
1187	339665.216	554764.689	867.48	31+68.42	73.651' LT	REBAR
2085	340252.212	554928.738	865.44	37+50.45	107.235' RT	REBAR
3297	340533.325	554669.906	856.09	40+38.90	143.394' LT	REBAR
4225	340914.589	554929.024	863.00	44+12.54	126.596' RT	REBAR
5199	341244.446	554927.137	859.59	47+42.32	134.209' RT	REBAR
6166	341582.451	554923.064	856.02	50+80.30	139.872' RT	REBAR

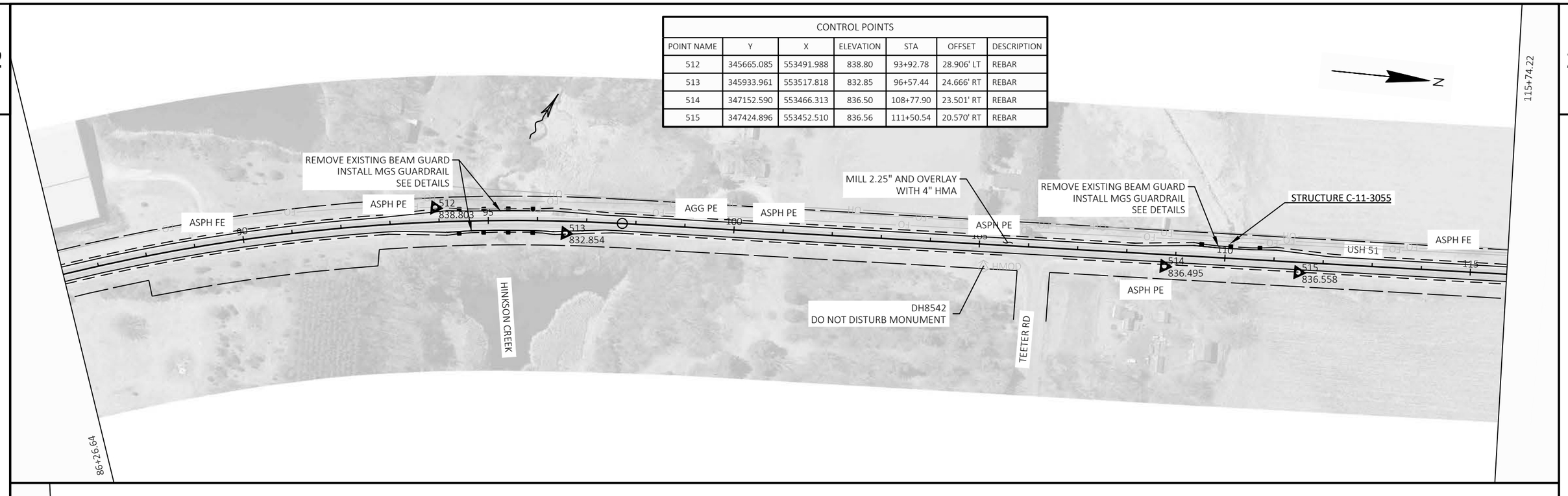


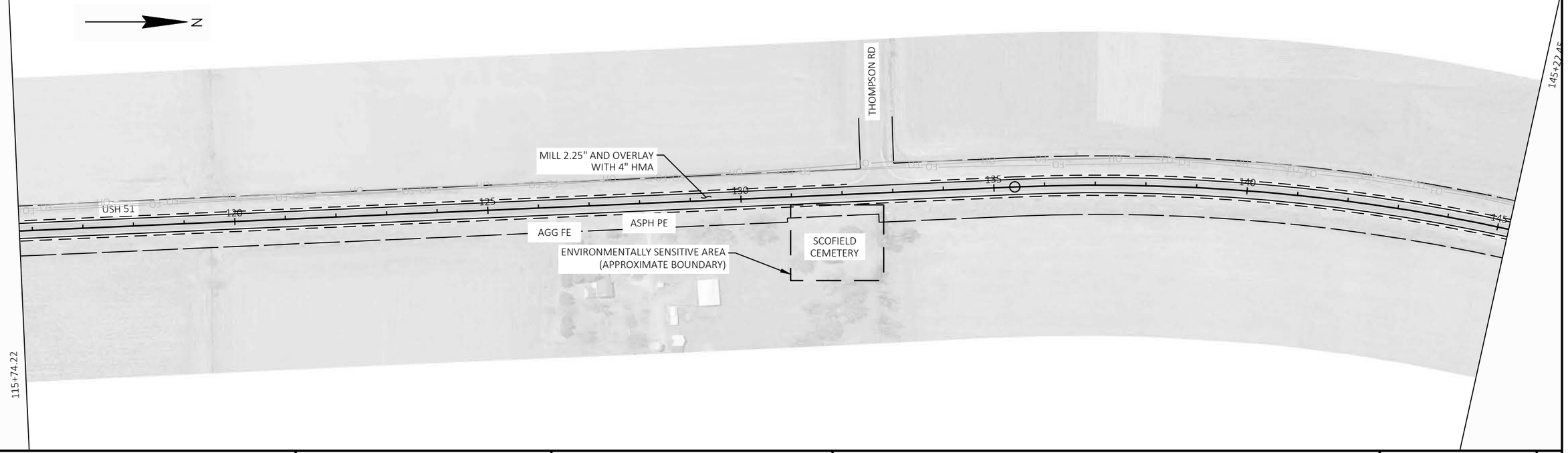
NOTE:
Curb Ramp work required at each of the intersections of USH 51 in the Village of Poynette. See individual location details.

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 77	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 01
PLOT DATE : 8/1/2023 1:43 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
512	345665.085	553491.988	838.80	93+92.78	28.906' LT	REBAR
513	345933.961	553517.818	832.85	96+57.44	24.666' RT	REBAR
514	347152.590	553466.313	836.50	108+77.90	23.501' RT	REBAR
515	347424.896	553452.510	836.56	111+50.54	20.570' RT	REBAR





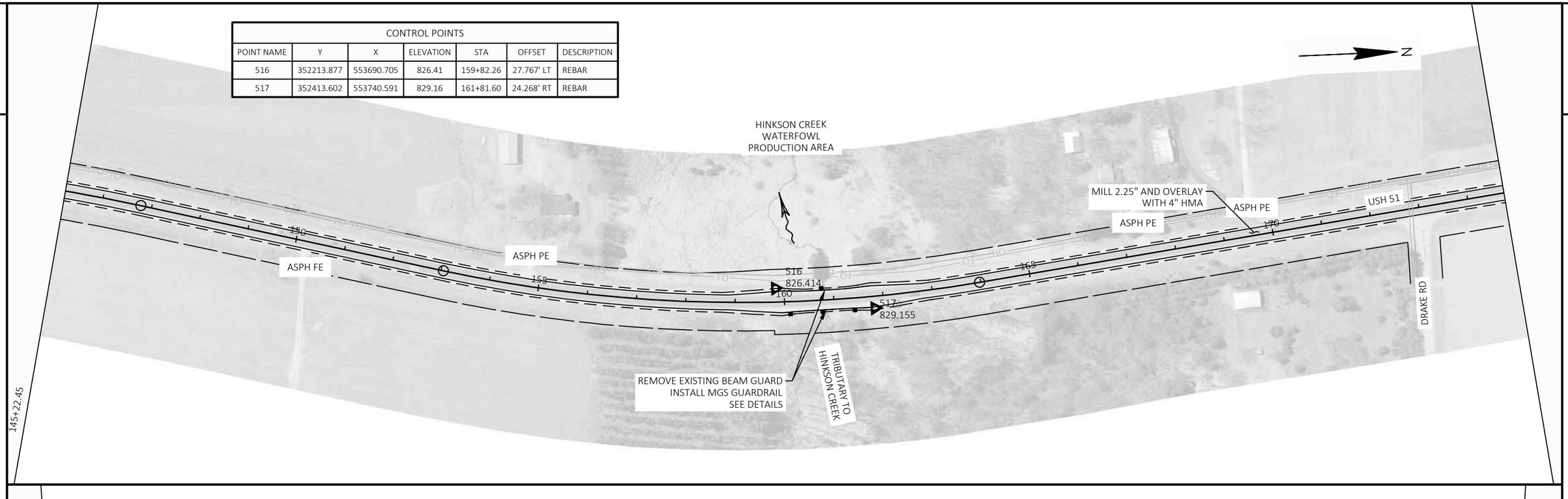
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 78	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 02

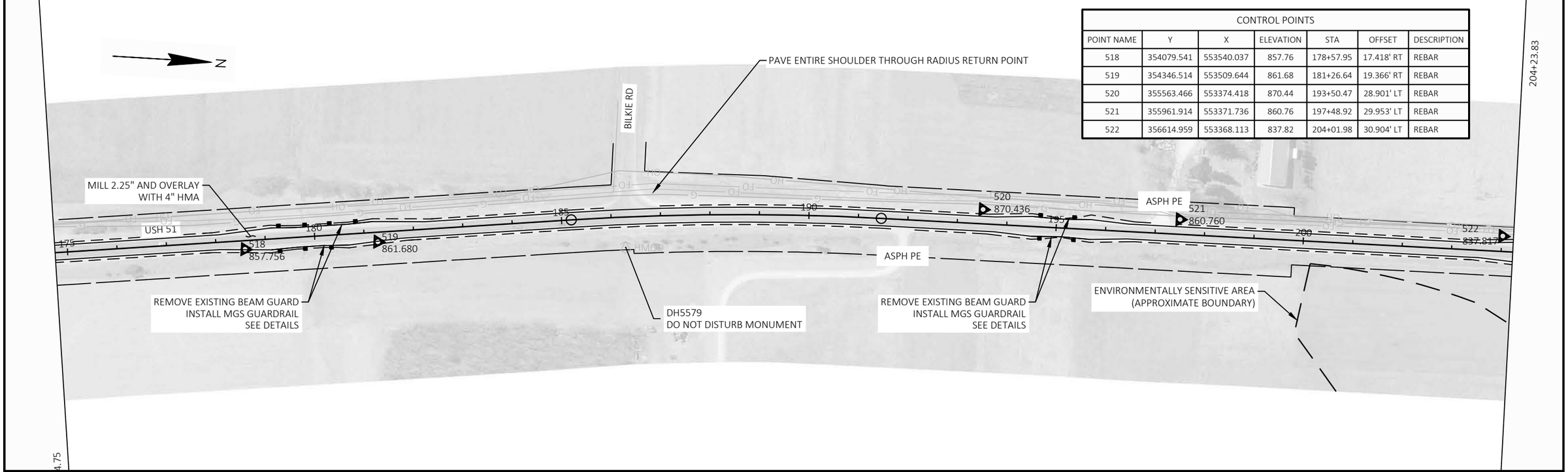
PLOT DATE : 8/1/2023 1:44 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
516	352213.877	553690.705	826.41	159+82.26	27.767' LT	REBAR
517	352413.602	553740.591	829.16	161+81.60	24.268' RT	REBAR

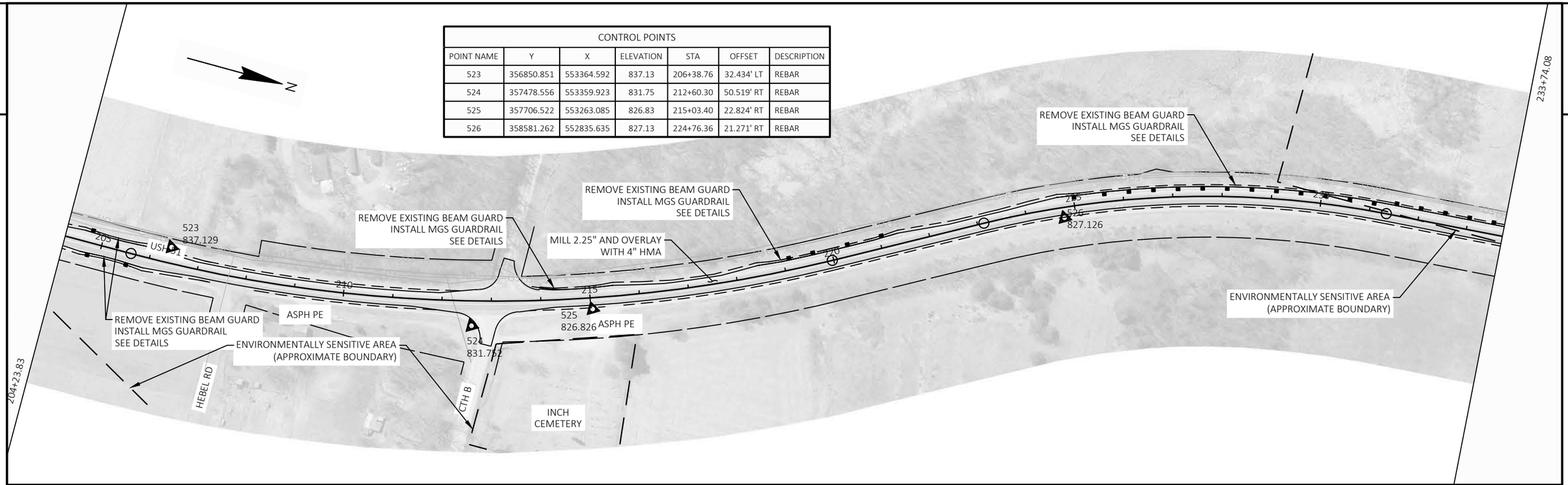


CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
518	354079.541	553540.037	857.76	178+57.95	17.418' RT	REBAR
519	354346.514	553509.644	861.68	181+26.64	19.366' RT	REBAR
520	355563.466	553374.418	870.44	193+50.47	28.901' LT	REBAR
521	355961.914	553371.736	860.76	197+48.92	29.953' LT	REBAR
522	356614.959	553368.113	837.82	204+01.98	30.904' LT	REBAR

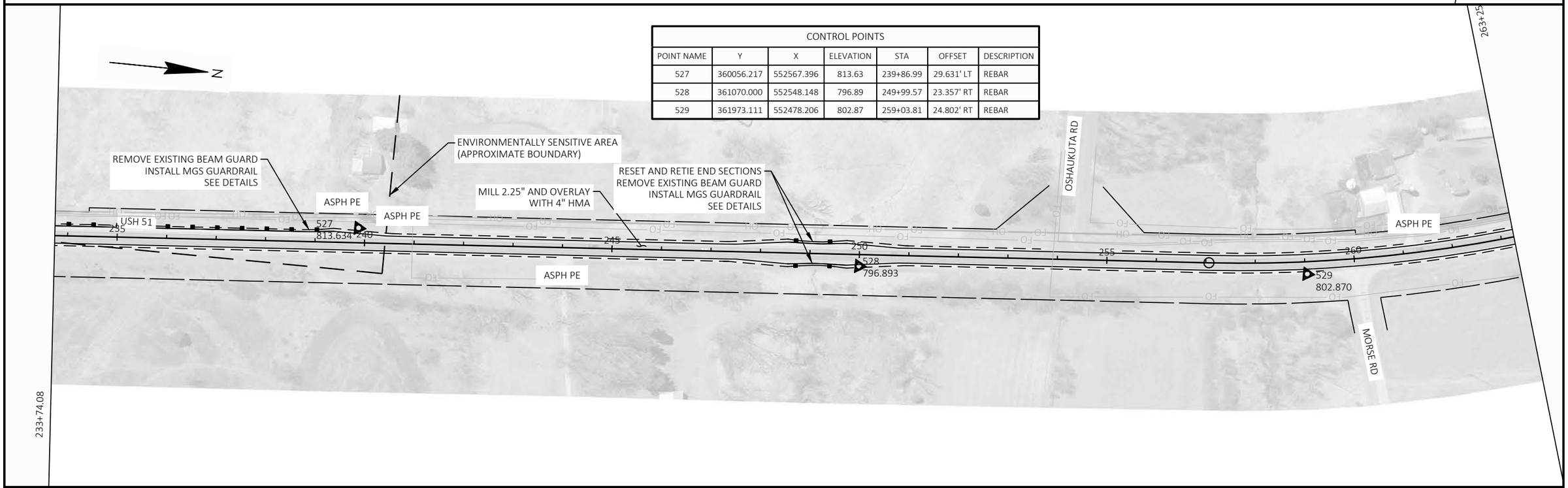


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 79	E

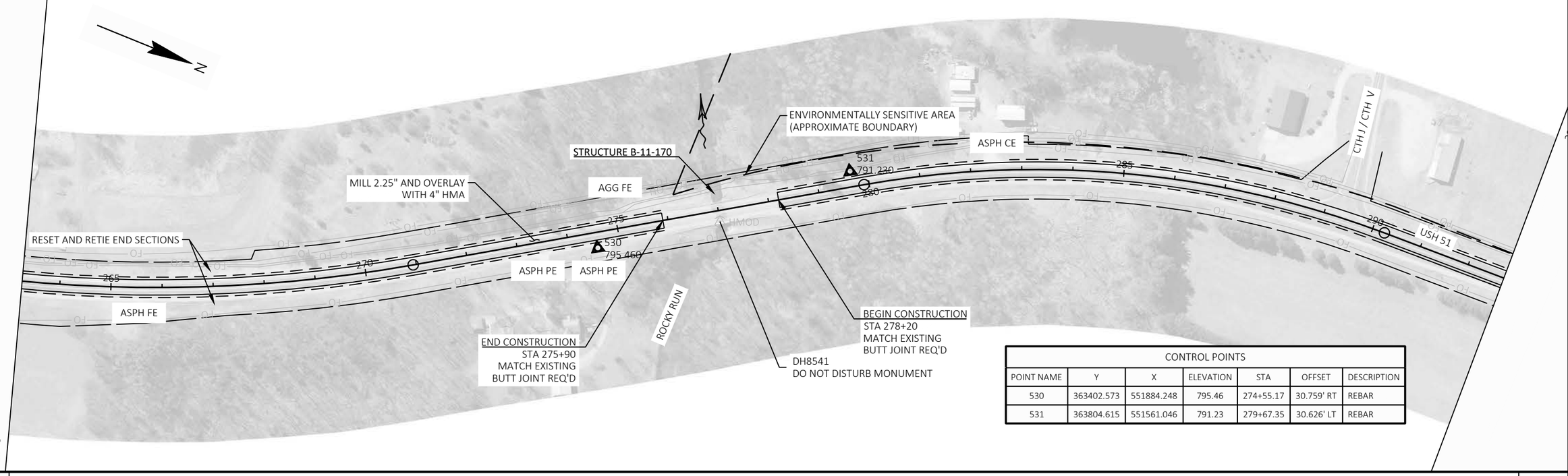
CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
523	356850.851	553364.592	837.13	206+38.76	32.434' LT	REBAR
524	357478.556	553359.923	831.75	212+60.30	50.519' RT	REBAR
525	357706.522	553263.085	826.83	215+03.40	22.824' RT	REBAR
526	358581.262	552835.635	827.13	224+76.36	21.271' RT	REBAR



CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
527	360056.217	552567.396	813.63	239+86.99	29.631' LT	REBAR
528	361070.000	552548.148	796.89	249+99.57	23.357' RT	REBAR
529	361973.111	552478.206	802.87	259+03.81	24.802' RT	REBAR



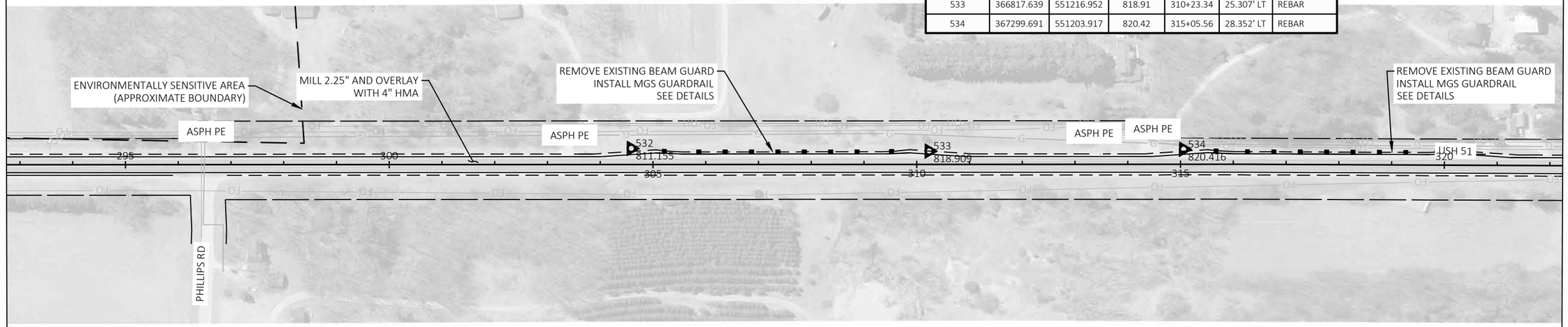
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 80	E



CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
530	363402.573	551884.248	795.46	274+55.17	30.759' RT	REBAR
531	363804.615	551561.046	791.23	279+67.35	30.626' LT	REBAR

292+74.36

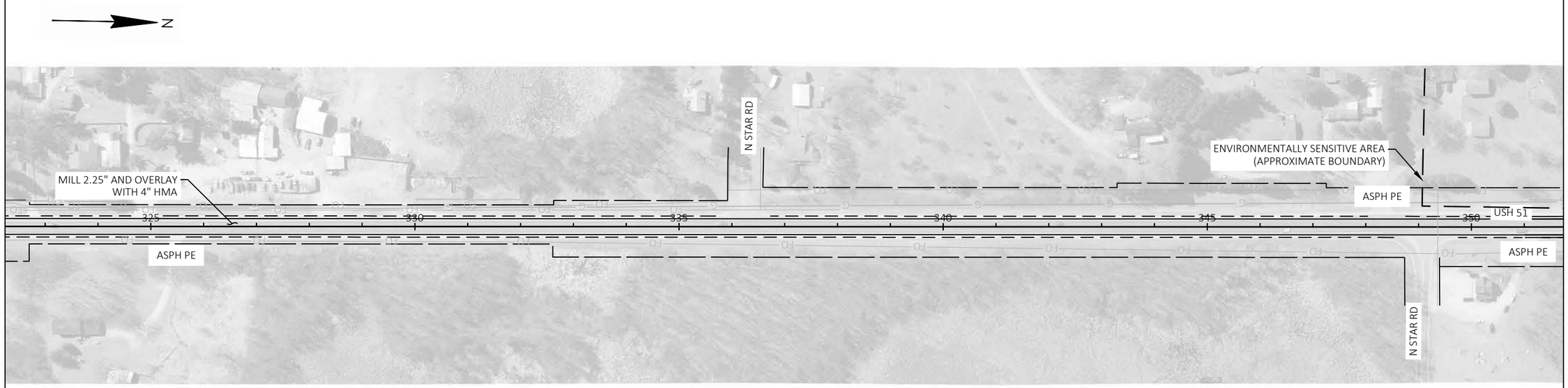
322+24.31



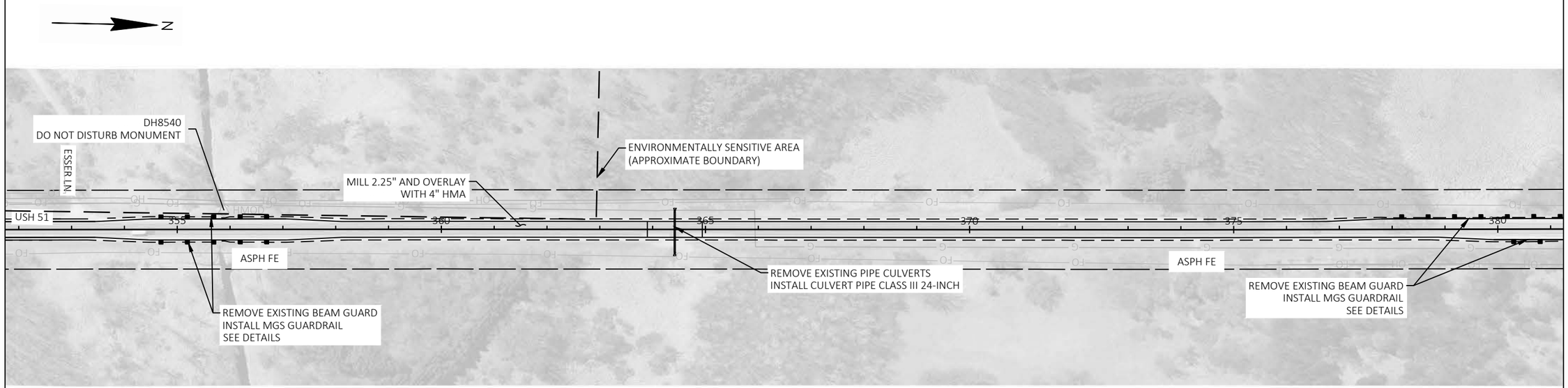
CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
532	366252.965	551223.503	811.16	304+58.65	30.457' LT	REBAR
533	366817.639	551216.952	818.91	310+23.34	25.307' LT	REBAR
534	367299.691	551203.917	820.42	315+05.56	28.352' LT	REBAR

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 81 E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 05
PLOT DATE : 8/1/2023 1:48 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



2



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 82	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 06
PLOT DATE : 10/9/2023 10:04 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

N

ATC - ELECTRIC TRANSMISSION

CAUTION

MILL 2.25" AND OVERLAY
WITH 4" HMA

ENVIRONMENTALLY SENSITIVE AREA
(APPROXIMATE BOUNDARY)

ASPH FE

USH 51

385 390 395 400 405 410

ASPH PE

ASPH FE

REMOVE EXISTING BEAM GUARD
INSTALL MGS GUARDRAIL
SEE DETAILS

MURRAY RD

BUTT JOINT - 2 1/4" MILL / 4" OVERLAY
TO 5" MILL / 5" OVERLAY

381+24.31

410+74.14

2

N

ATC - ELECTRIC TRANSMISSION

CAUTION

RAILROAD CROSSING
REPLACED BY OTHERS

CANADIAN PACIFIC RAILWAY

MILL 5" AND OVERLAY
WITH 5" HMA

MILL 5" AND OVERLAY
WITH 5" HMA

DUCK CREEK RD

DUNNING RD

ASPH PE

ENVIRONMENTALLY SENSITIVE AREA
(APPROXIMATE BOUNDARY)

USH 51

415 420 425 430 435 440

ASPH ASPH PE ASPH PE ASPH CE ASPH CE

ENVIRONMENTALLY SENSITIVE AREA
(APPROXIMATE BOUNDARY)

ASPH PE

ASPH PE

BUTT JOINT - 5" MILL / 5" OVERLAY
TO 2 1/4" MILL / 4" OVERLAY

STH 16

410+74.14

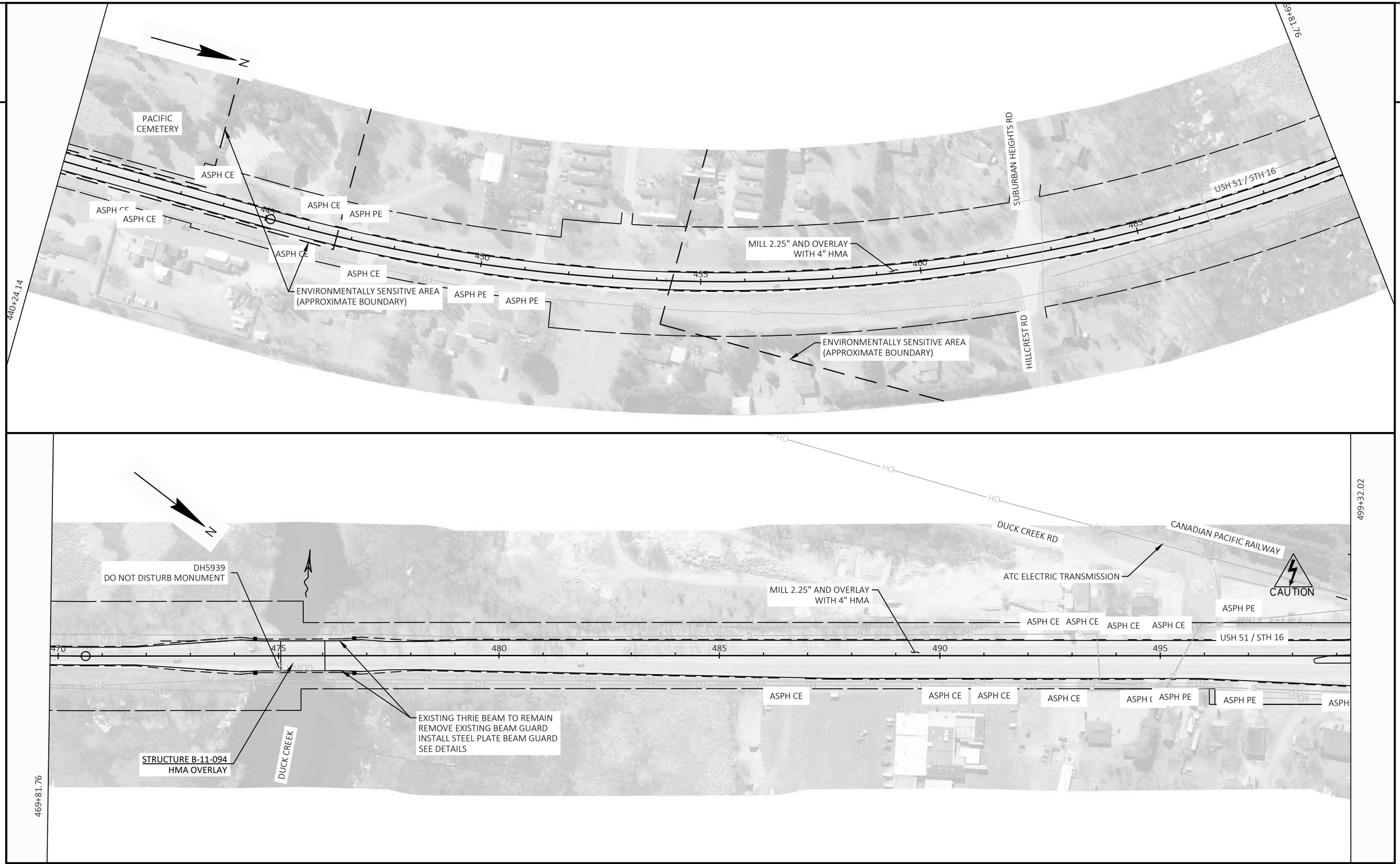
440+24.14

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 83	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 07

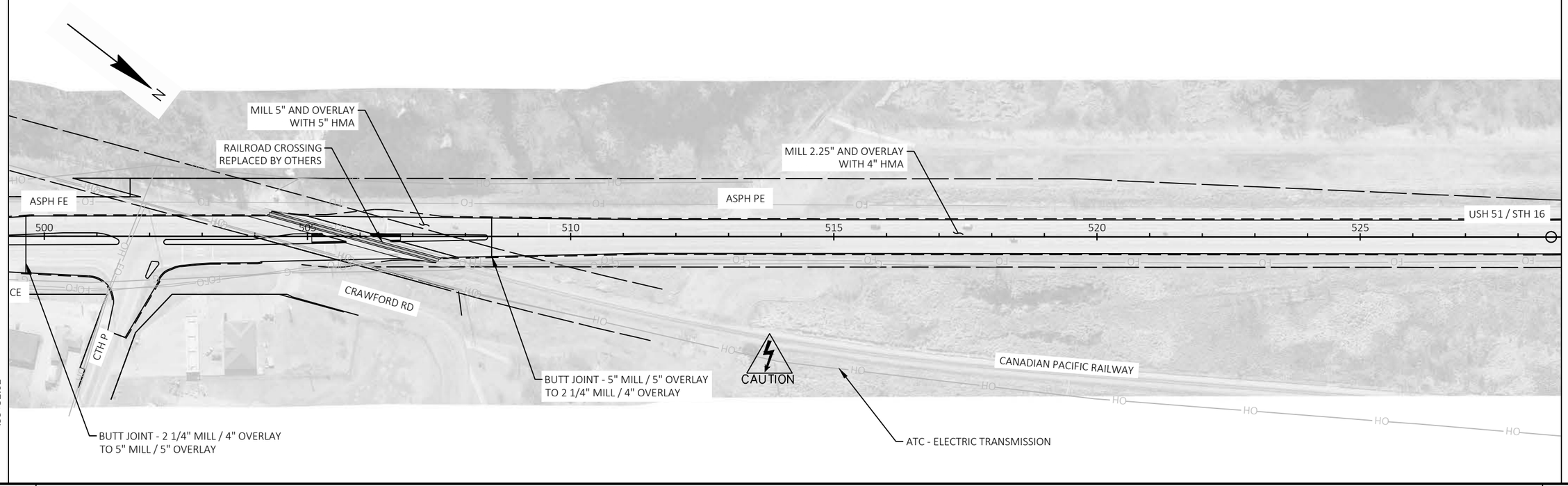
PLOT DATE : 8/1/2023 1:51 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

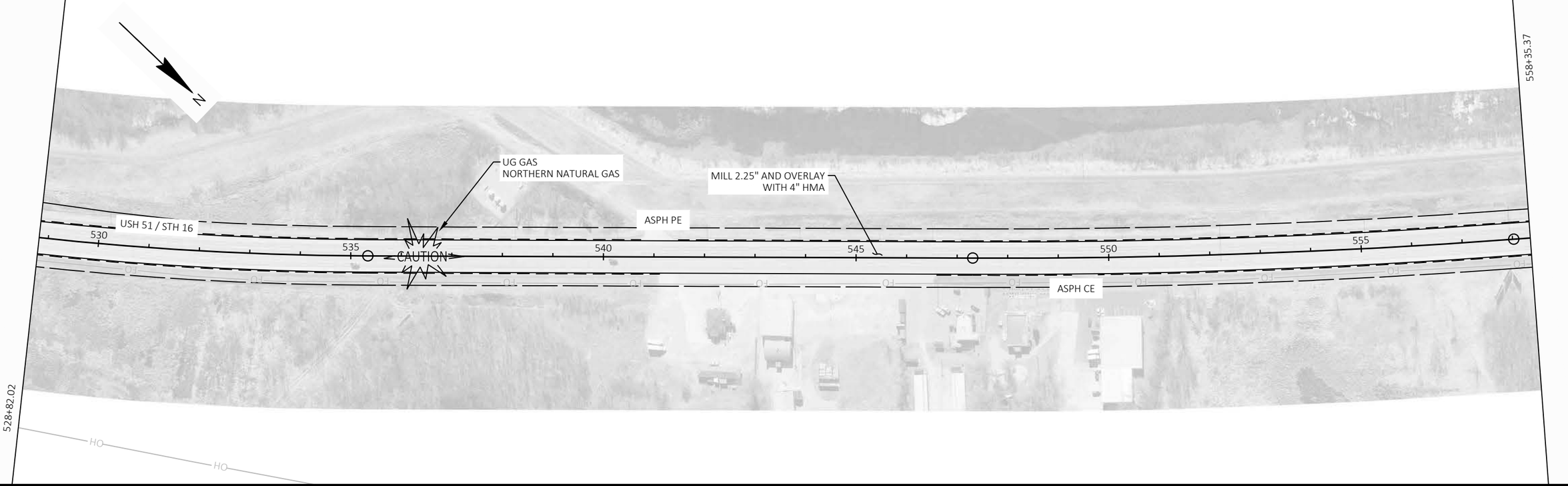


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 84	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 08
PLOT DATE : 8/1/2023 1:52 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



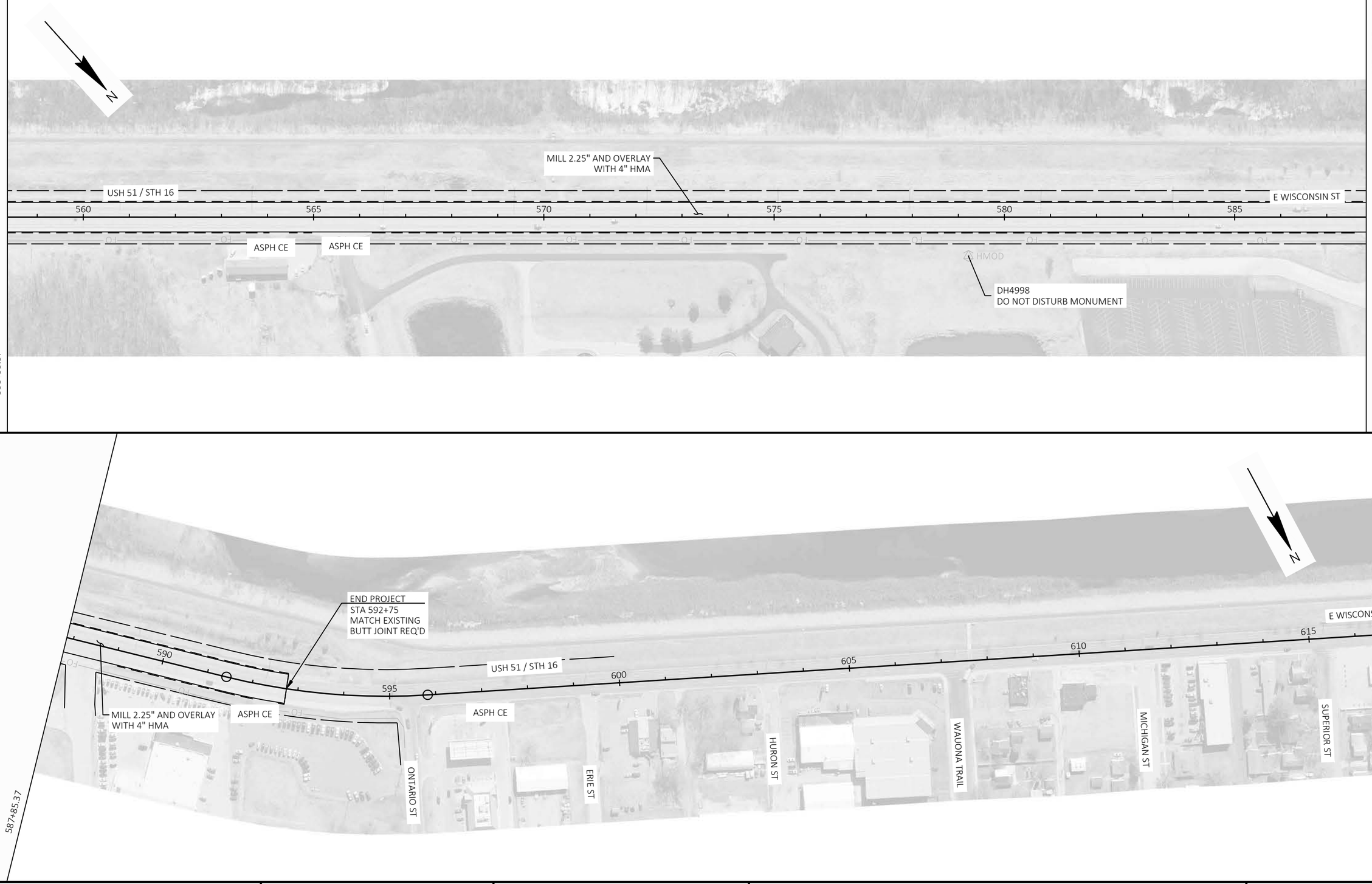
2



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 85	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 09
PLOT DATE : 8/1/2023 1:53 PM
PLOT BY : DEITCH, AIDAN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

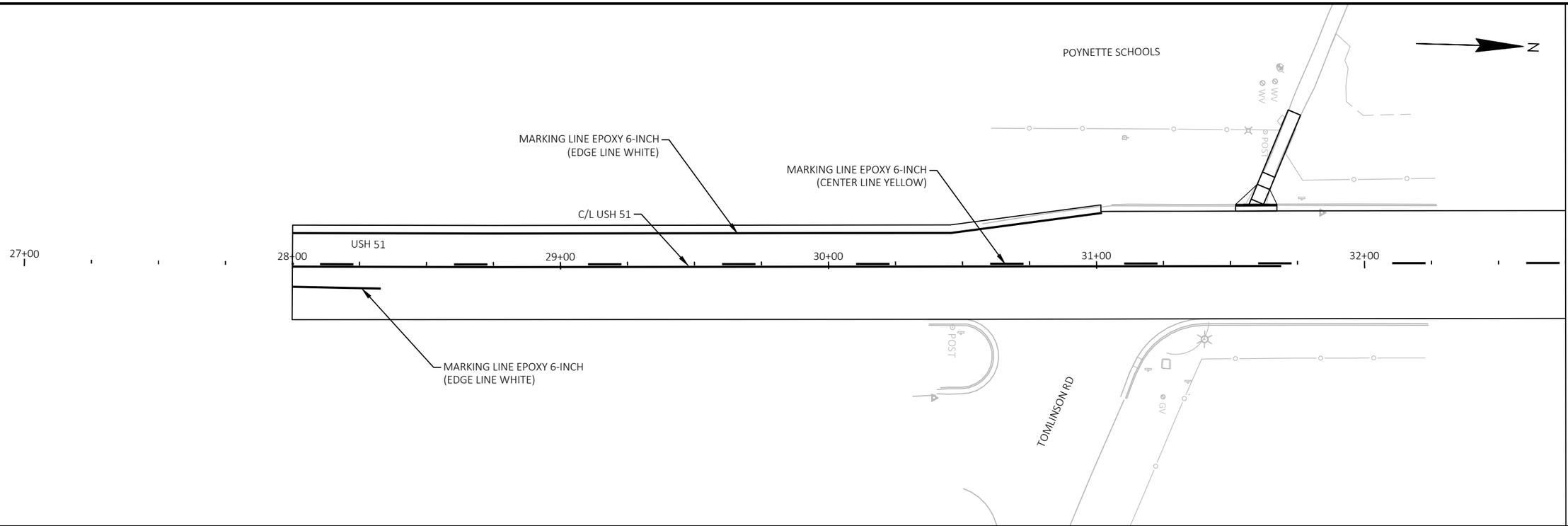


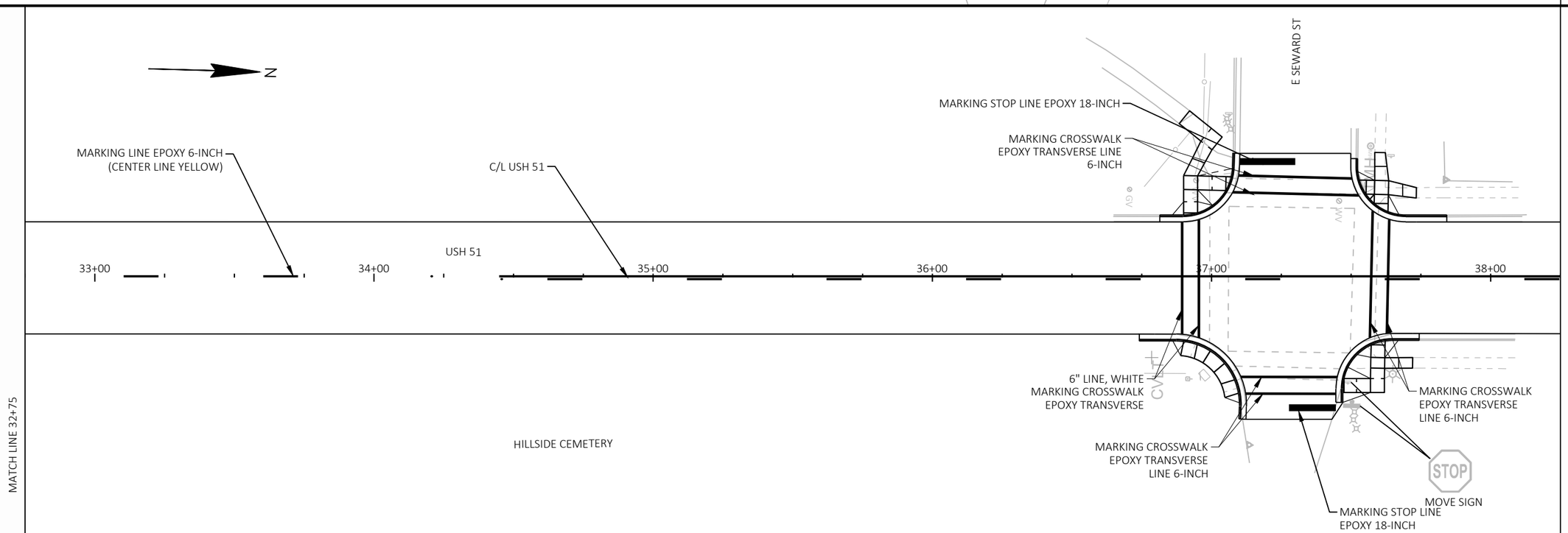
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PLAN DETAIL	SHEET 86	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 10

PLOT DATE : 8/1/2023 1:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

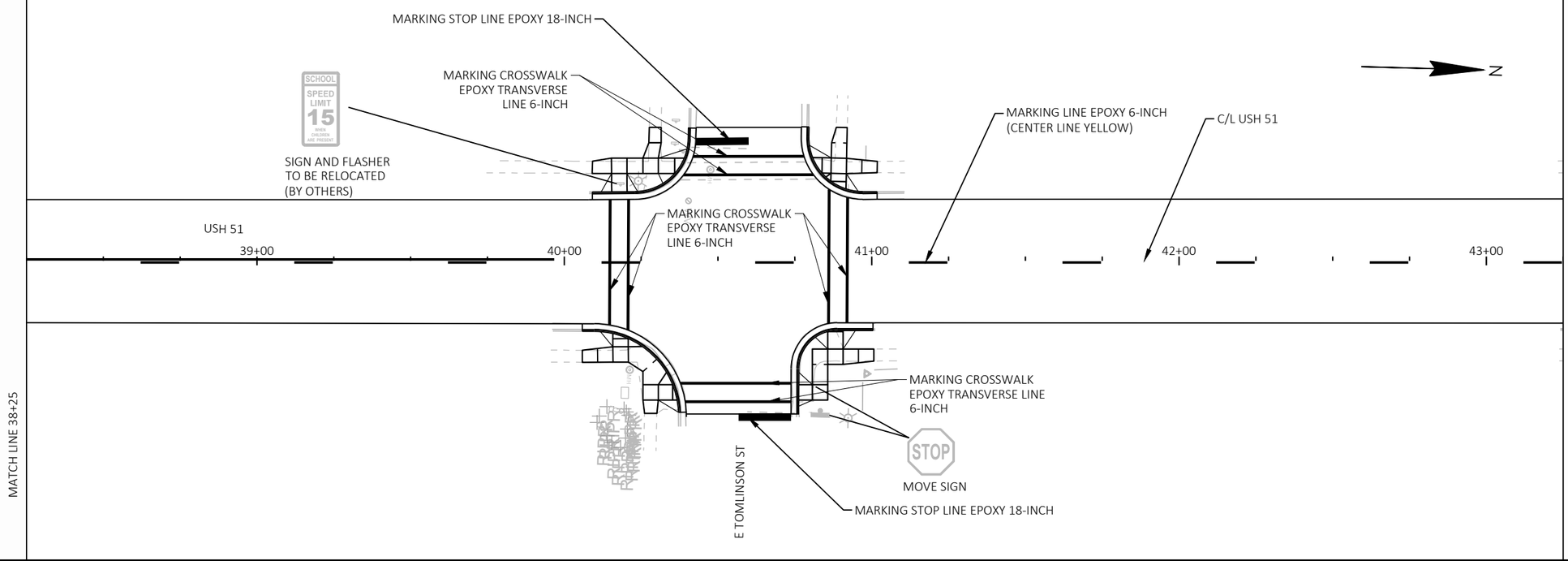


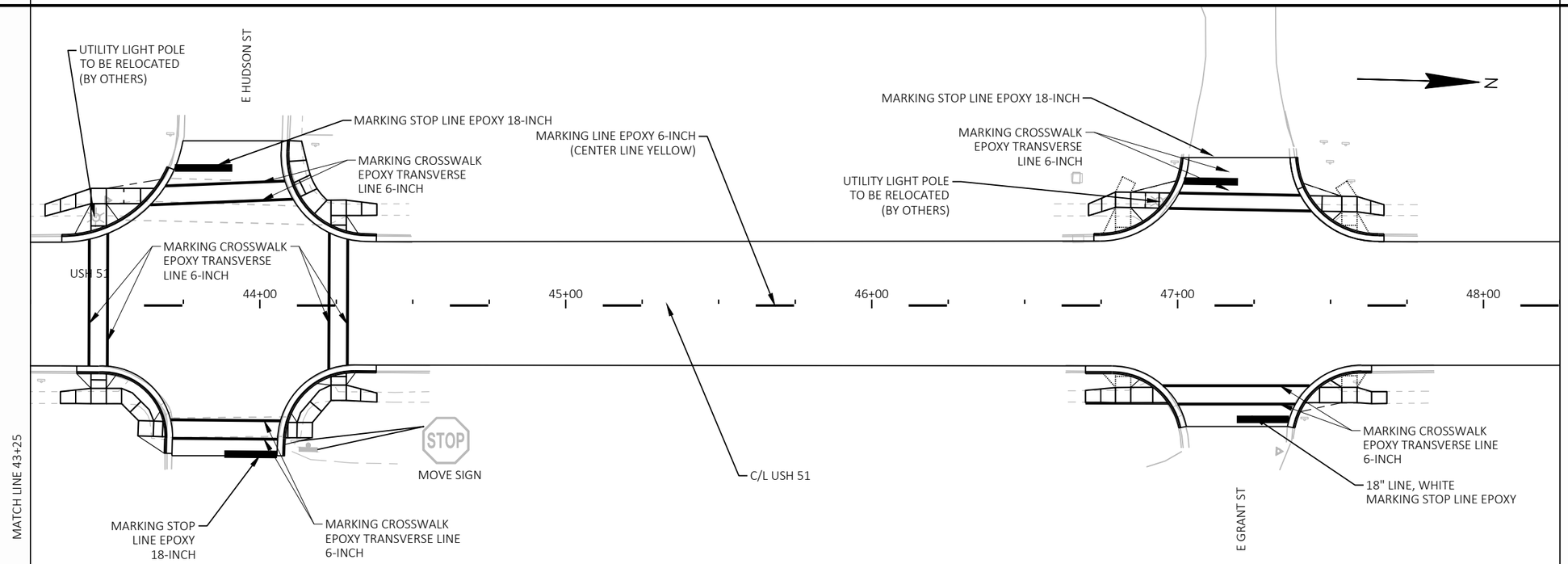


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - POYNETTE	SHEET 87	E

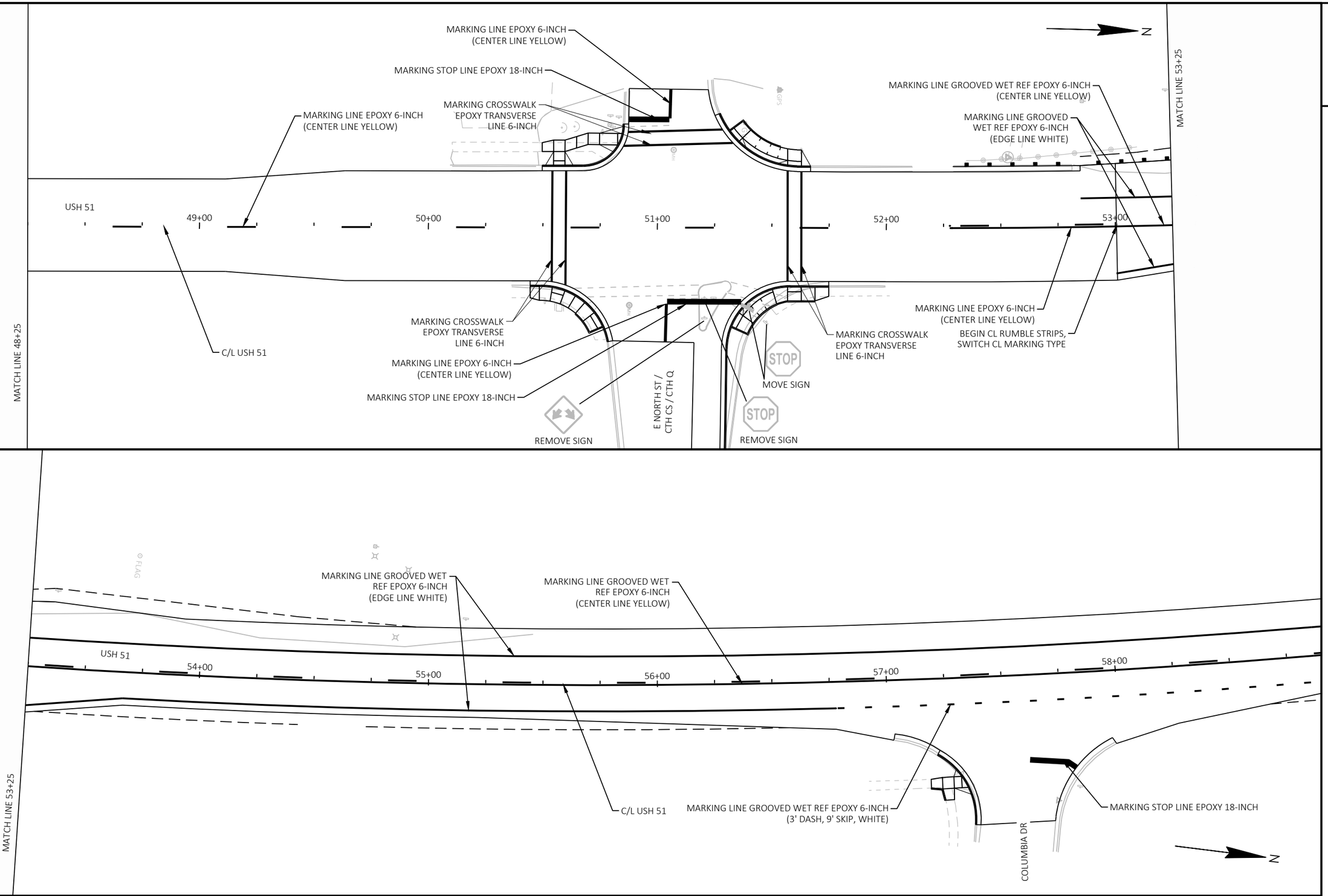
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 10/9/2023 9:57 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT





PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - POYNETTE	SHEET 88	E



2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - POYNETTE	SHEET 89	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 03
PLOT DATE : 10/9/2023 9:58 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

N

MARKING LINE EPOXY 6-INCH
(EDGE LINE WHITE)

MARKING LINE EPOXY 6-INCH
(YELLOW)

RAILROAD CROSSING EPOXY

MARKING LINE EPOXY 6-INCH
(YELLOW)

MARKING ISLAND NOSE EPOXY

422+00 423+00 424+00 425+00 426+00 427+00

MARKING LINE EPOXY 6-INCH
(EDGE LINE WHITE)

RAILROAD CROSSING EPOXY

MATCH LINE 427+86.58

2

N

MARKING LINE EPOXY 6-INCH
(EDGE LINE WHITE)

INCLUDED WITH RR EPOXY

MARKING LINE GROOVED WET REF
EPOXY 6-INCH (WHITE)

RAILROAD CROSSING EPOXY

MARKING LINE EPOXY 6-INCH (YELLOW)

428+00 429+00 430+00 431+00 432+00 433+00 434+00

MARKING ISLAND NOSE EPOXY

MARKING LINE EPOXY 6-INCH
(12.5' DASH, 37.5' SKIP, YELLOW)

INCLUDED WITH RR EPOXY

MARKING LINE GROOVED WET REF
EPOXY 6-INCH (WHITE)

BEGIN CL RUMBLE STRIPS, CHANGE CENTERLINE MARKING STRIPS
MARKING LINE GROOVED WET REF EPOXY 6-INCH
(CENTER LINE YELLOW)

MARKING LINE EPOXY 6-INCH
(EDGE LINE WHITE)

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - RR CROSSINGS	SHEET 90	E

2

2

MATCH LINE 497+16.96

MARKING LINE EPOXY 6-INCH (WHITE)

16

MARKING LINE GROOVED WET REF EPOXY 6-INCH
(12.5' WHITE DASH, 12.5' BLACK DASH, 25' GAP)

MARKING LINE GROOVED WET REF EPOXY
10-INCH (WHITE)

498+00 499+00 500+00 501+00 502+00 503+00

MARKING LINE EPOXY 6-INCH (YELLOW)

RAILROAD CROSSING EPOXY

MARKING LINE EPOXY 6-INCH
(12.5' DASH, 37.5' SKIP, YELLOW)

MARKING ISLAND NOSE EPOXY

RAILROAD CROSSING EPOXY

MARKING ISLAND NOSE EPOXY

MARKING LINE GROOVED WET REF EPOXY 6-INCH
(12.5' BLACK DASH, 12.5' WHITE DASH, 25' GAP)

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE EPOXY 6-INCH (YELLOW)

STOP LINE EPOXY
18-INCH

RAILROAD CROSSING EPOXY

MARKING ARROW EPOXY

MOVE SIGN

MARKING WORD EPOXY

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE GROOVED
WET REF EPOXY 10-INCH
(WHITE)

MARKING LINE
CHEVRON EPOXY
24-INCH

MARKING
ARROW
EPOXY

MARKING
LINE EPOXY
6-INCH
(WHITE)

MOVE SIGN

RAILROAD
CROSSING
EPOXY

MARKING LINE EPOXY 6-INCH
(3' DASH, 9' SKIP, WHITE)

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE GROOVED WET REF EPOXY
10-INCH (WHITE)

MARKING LINE GROOVED WET REF EPOXY 6-INCH
(12.5' WHITE DASH, 12.5' BLACK DASH, 25' GAP)

INCLUDED WITH RR EPOXY

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE GROOVED WET REF EPOXY 6-INCH
(12.5' WHITE DASH, 12.5' BLACK DASH, 25' GAP)

MARKING LINE EPOXY 6-INCH
DOUBLE (YELLOW)

504+00 505+00 506+00 507+00 508+00 509+00

MARKING LINE EPOXY 6-INCH (YELLOW)

MARKING LINE EPOXY 6-INCH (YELLOW)

MARKING ISLAND NOSE EPOXY

GROOVED WET REF EPOXY 6-INCH
(12.5' WHITE DASH, 12.5' BLACK DASH, 25' GAP)

MARKING LINE GROOVED WET REF EPOXY 6-INCH
(12.5' WHITE DASH, 12.5' BLACK DASH, 25' GAP)

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE EPOXY 6-INCH (WHITE)

MARKING LINE EPOXY 6-INCH (WHITE)

INCLUDED WITH RR EPOXY

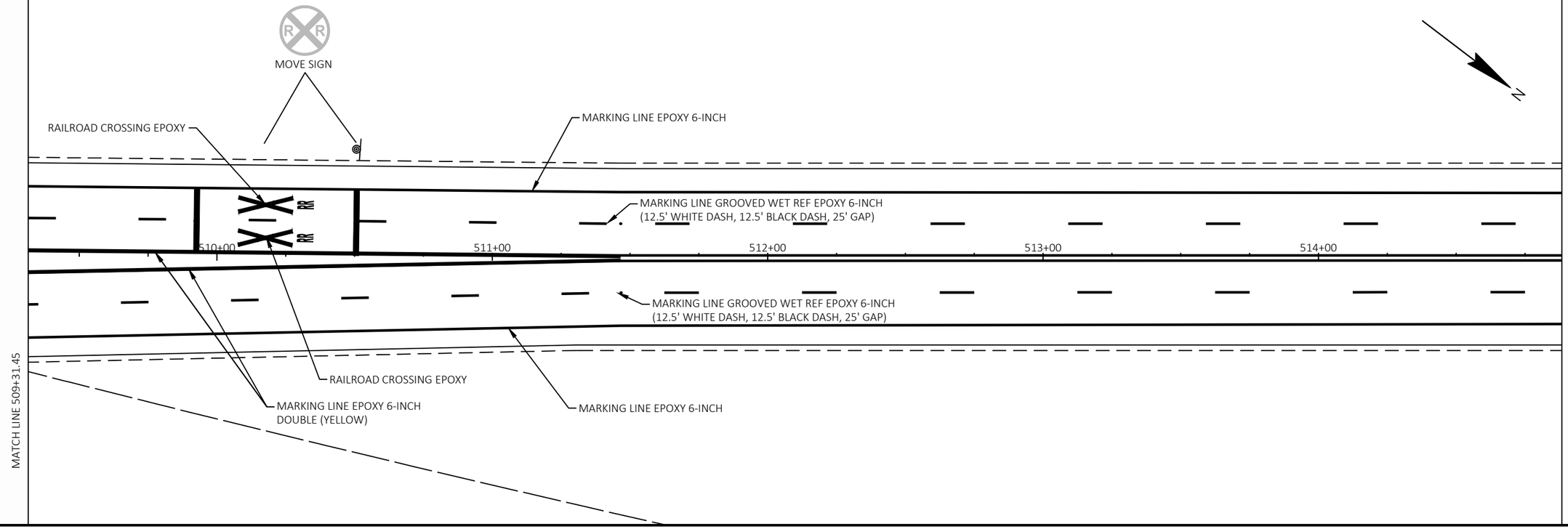
MATCH LINE 503+34.81

MATCH LINE 509+31.45

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - RR CROSSINGS	SHEET 91	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 05

PLOT DATE : 10/9/2023 9:58 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT



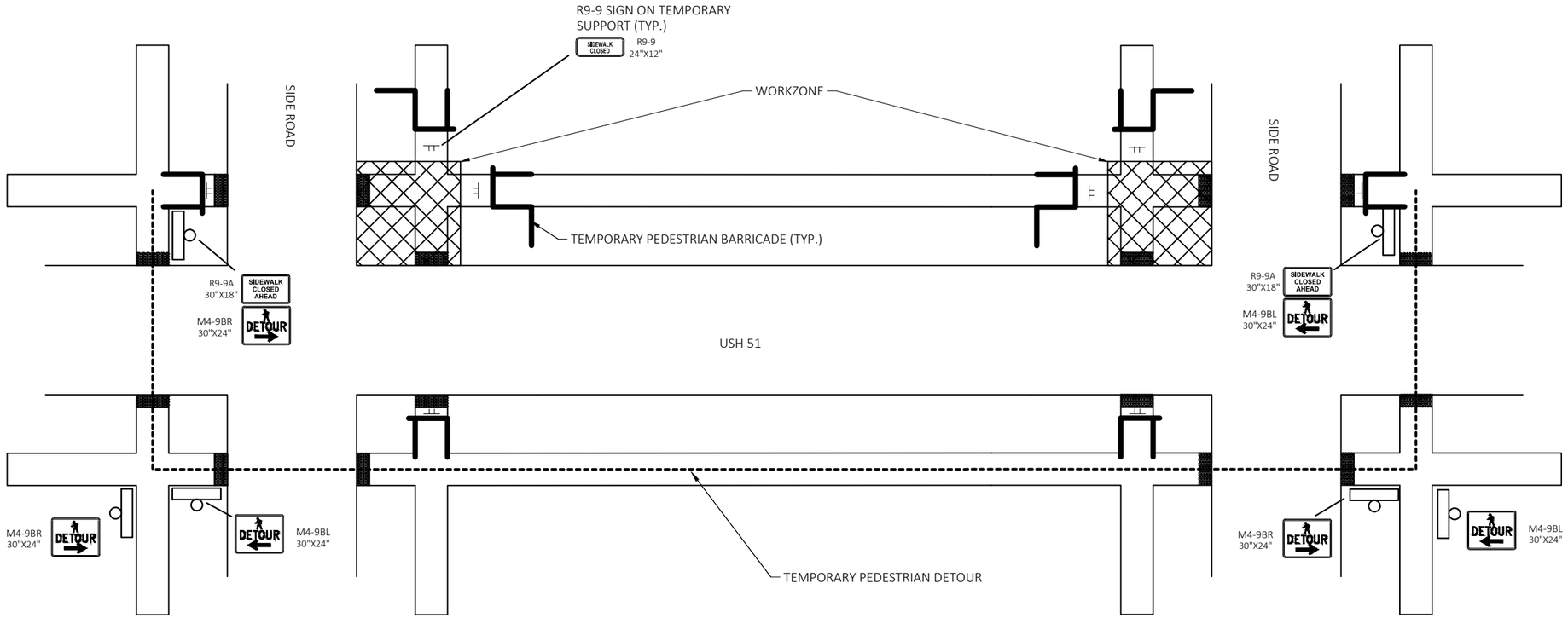
2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	PAVEMENT MARKINGS - RR CROSSINGS	SHEET 92	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 06
PLOT DATE : 10/9/2023 9:58 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

NOTES:

1. SEE SDD: TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
2. MAINTAIN 1 NORTH-SOUTH CROSSING AND 1 EAST-WEST CROSSING AT EACH INTERSECTION AT ALL TIMES
3. MIRROR PEDESTRIAN DETOUR FOR CURB RAMPS ON OPPOSITE SIDE OF USH 51
4. ADDITIONAL SIGNS AND BARRICADES MAY BE REQUIRED AND SHOULD BE PLACED AT THE DISCRETION OF THE ENGINEER



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	TRAFFIC CONTROL - PEDESTRIAN DETOUR FOR POYNETTE	SHEET 93	E

2

SOUTH BOUND USH 51 DETOUR



PLACE ON USH 51 1 MILE NORTH OF THE USH 51 & STH 33 INTERSECTION TO NOTIFY THRU TRAFFIC OF DETOUR



PLACE ON USH 51 1/2 MILE NORTH OF THE USH 51 & STH 33 INTERSECTION TO NOTIFY THRU TRAFFIC OF DETOUR

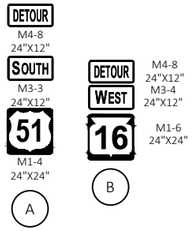
NORTH BOUND USH 51 DETOUR

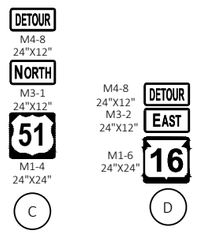


PLACE ON USH 51 1 MILE WEST OF THE USH 51 & STH 60 INTERSECTION AND 1 MILE SOUTH OF THE USH 51 & STH 22 INTERSECTION TO NOTIFY THRU TRAFFIC OF DETOUR



PLACE ON USH 51 1/2 MILE SOUTH OF THE USH 51 & STH 22 INTERSECTION TO NOTIFY THRU TRAFFIC OF DETOUR





FRAME 1	FRAME 2
USH 51 TO CLOSE	XXXDAY XX XX XX

PLACE 7 DAYS PRIOR TO BEGINNING OF CONSTRUCTION AND REMOVE WHEN CONSTRUCTION BEGINS

G



LEGEND:

- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE III BARRICADE
- 133 EXISTING SIGN
- EXISTING SIGN TO BE COVERED

NOTES:

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

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.

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

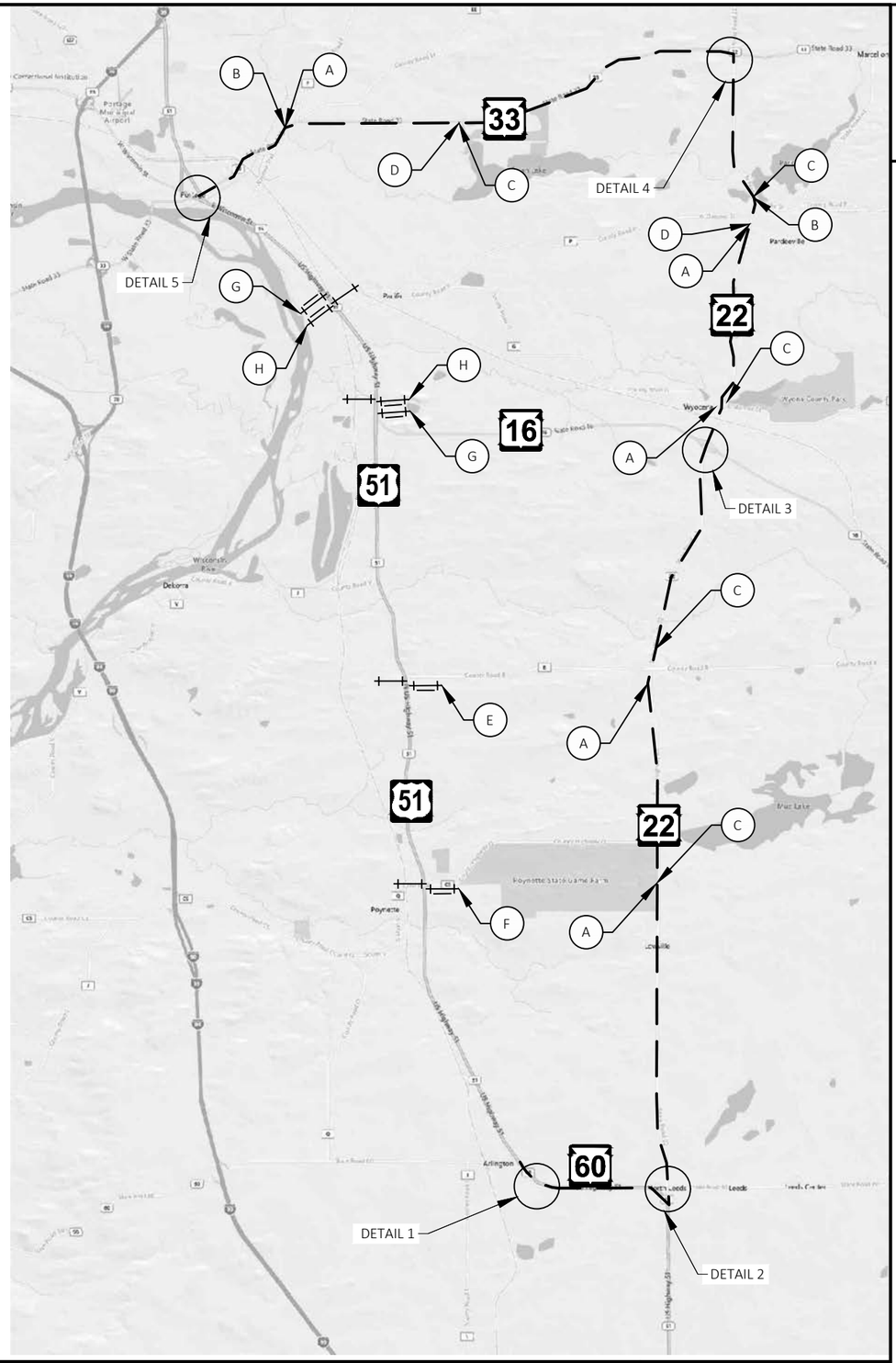
ANY SIGNS TEMPORARY OR EXISTING WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SEE STANDARD DETAIL DRAWING (SDD), "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "DETOUR SIGNING FOR MAINLINE CLOSURES", FOR SIGN SPACING, BARRICADE LOCATIONS AND OTHER DETAILS.

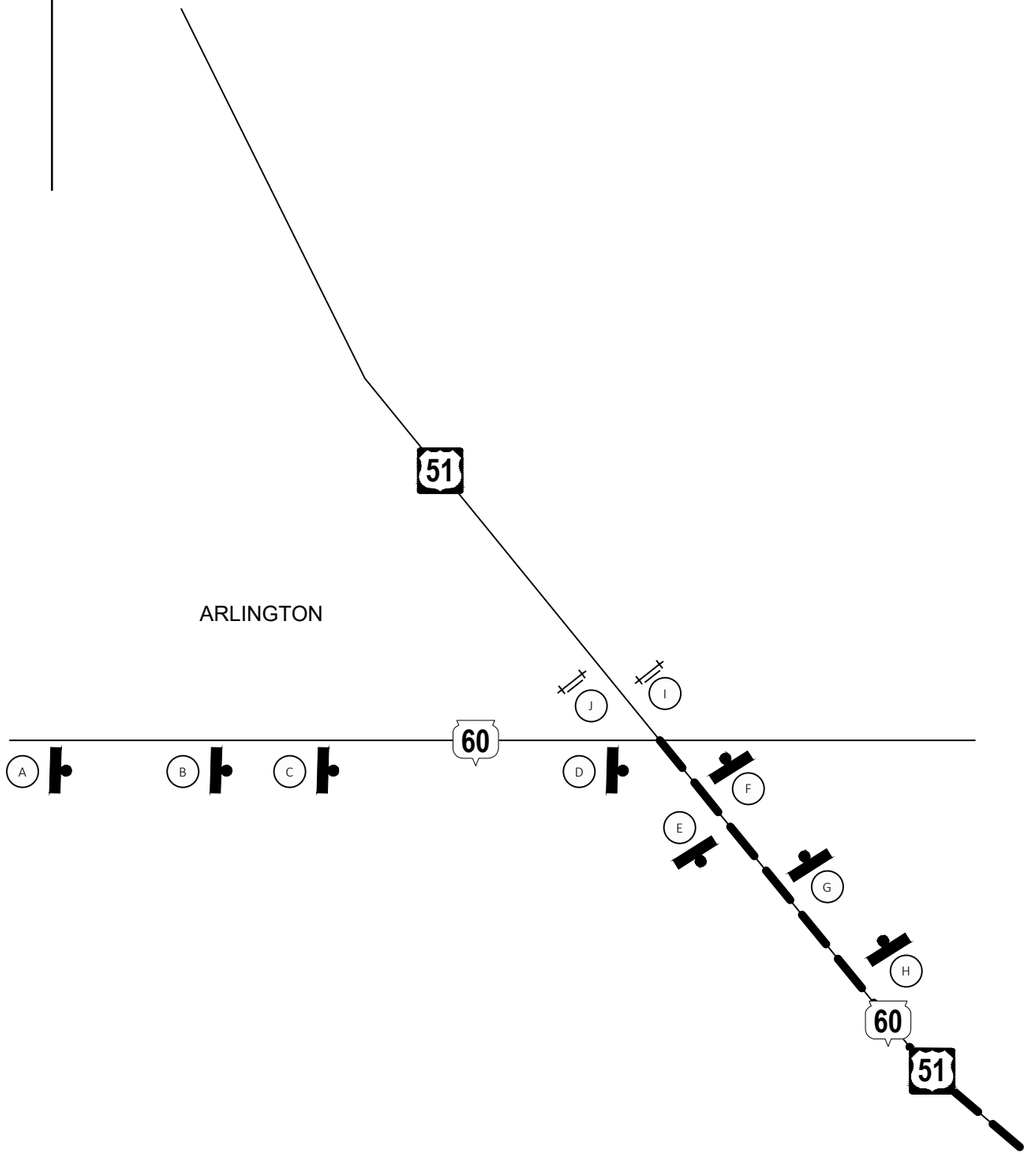
ALL SIGNS 48" X 48" UNLESS OTHERWISE NOTED.

DO NOT PLACE ANY TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT OF WAY.



2

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLAN - OVERVIEW FOR RAILROAD CROSSING REPLACEMENTS	SHEET 94	E



NORTH
M3-1
24"X12"
51
M1-4
24"X24"
DETOUR AHEAD
W20-2A
A

DETOUR
M4-8
24"X12"
NORTH 51
SOUTH 51
EAST 60
ALTERNATE INTERSTATE 39
MO5-1R
21"X21"
B

14"X14"
COVER
PORTAGE
MADISON
COLUMBUS
SEE SIGN PLATE A-4-12
C

DETOUR
M4-8
24"X12"
NORTH 51
SOUTH 51
EAST 60
ALTERNATE INTERSTATE 39
MO6-1
21"X21"
D

DETOUR
M4-8
24"X12"
NORTH
M3-1
24"X12"
51
M1-4
24"X24"
SOUTH 51
EAST 60
ALTERNATE INTERSTATE 39
E

ALTERNATE INTERSTATE 39
WEST 60
F

PORTAGE
COVER
ARLINGTON
SAUK CITY
G

ALTERNATE INTERSTATE 39
WEST 60
NORTH 51
H

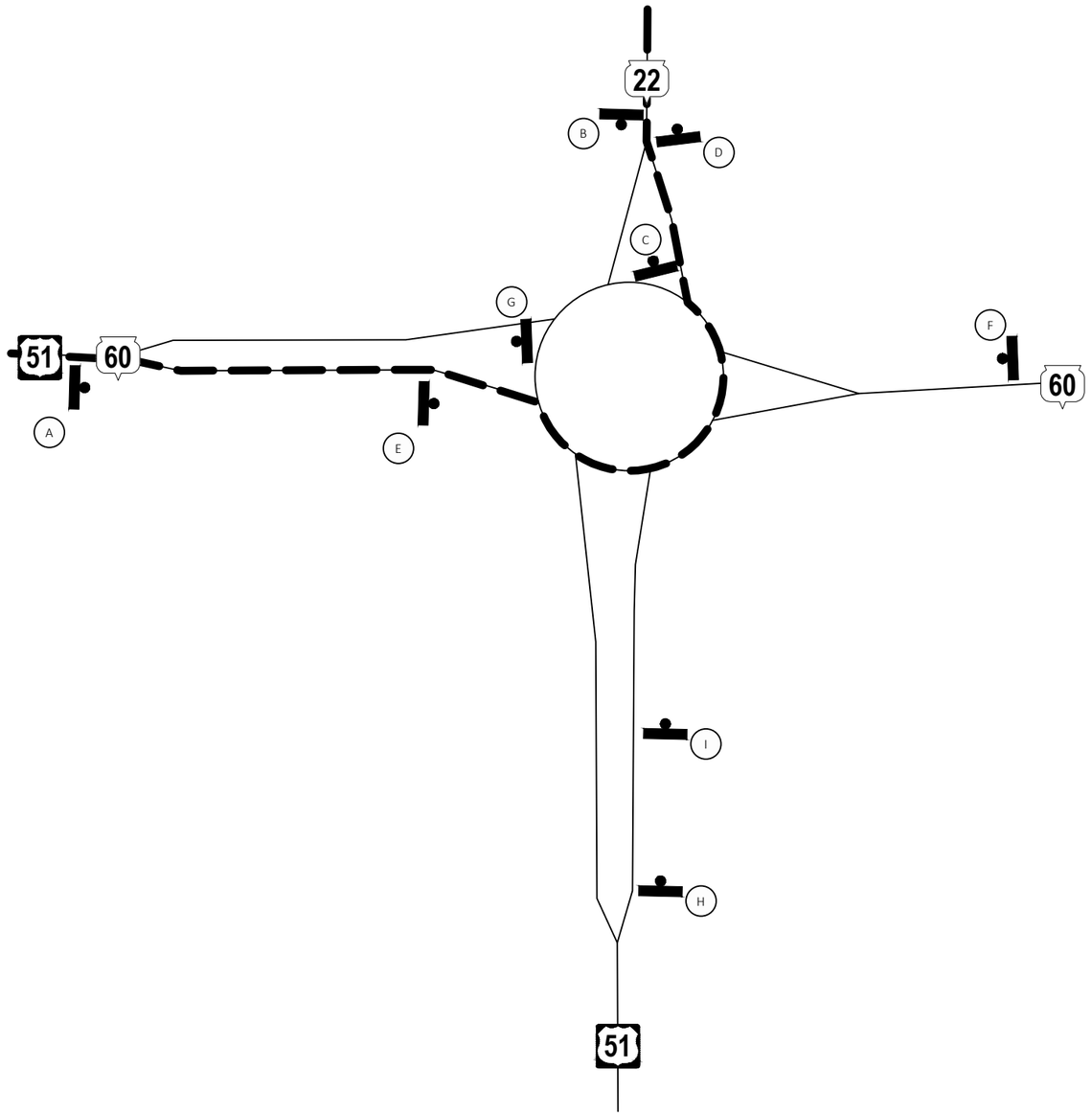
ROAD CLOSED
TO THRU TRAFFIC
11 1/2 MILES AHEAD
R11-3
60"X30"
I

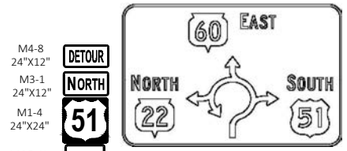
ACCESS TO
POYNETTE
R10-61 (MOD)
66"X24"
J

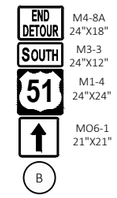
SIGN ON POST
BARRICADE TYPE III
SIGN ON BARRICADE TYPE III
POSTED DETOUR
EXISTING SIGN 133
EXISTING SIGN TO BE COVERED

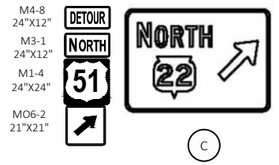
NOTES:

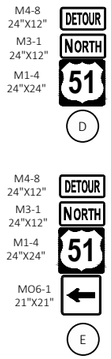
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

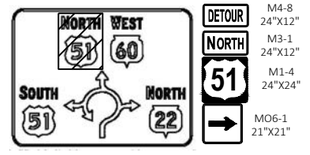




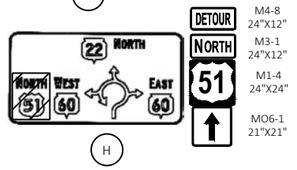


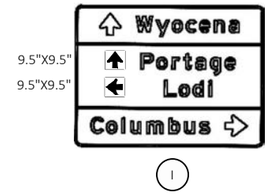












SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

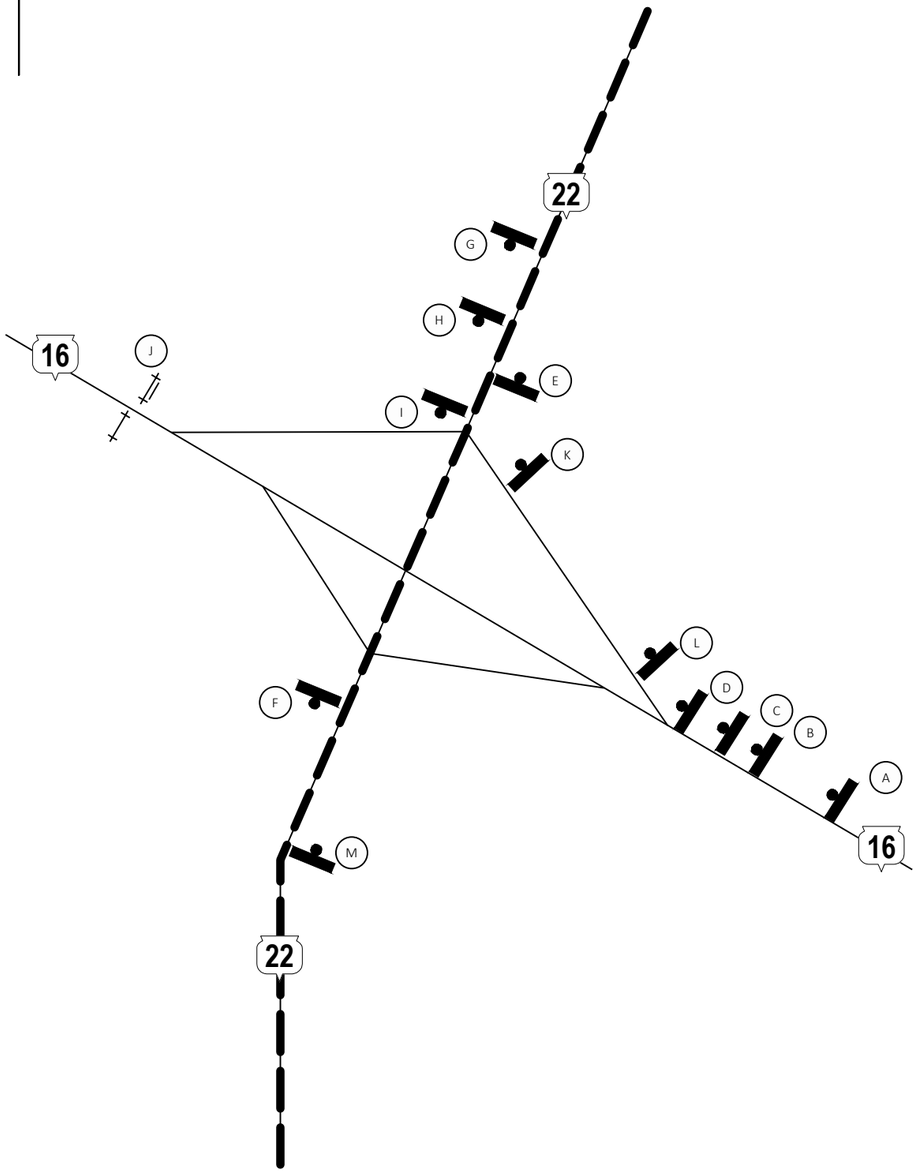
EXISTING SIGN 133

EXISTING SIGN TO BE COVERED

NOTES:

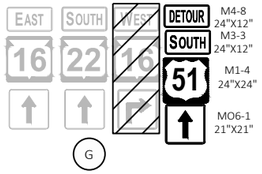
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL 2 FOR RAILROAD CROSSING REPLACEMENTS	SHEET 96	E





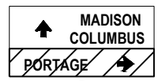
A



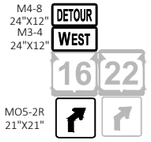
G



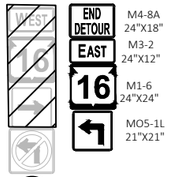
M



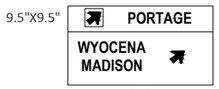
H



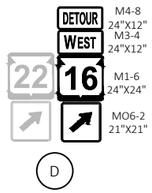
B



I



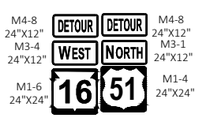
C



D



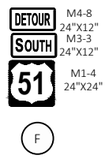
J



E



K



F



L

SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

EXISTING SIGN 133

EXISTING SIGN TO BE COVERED

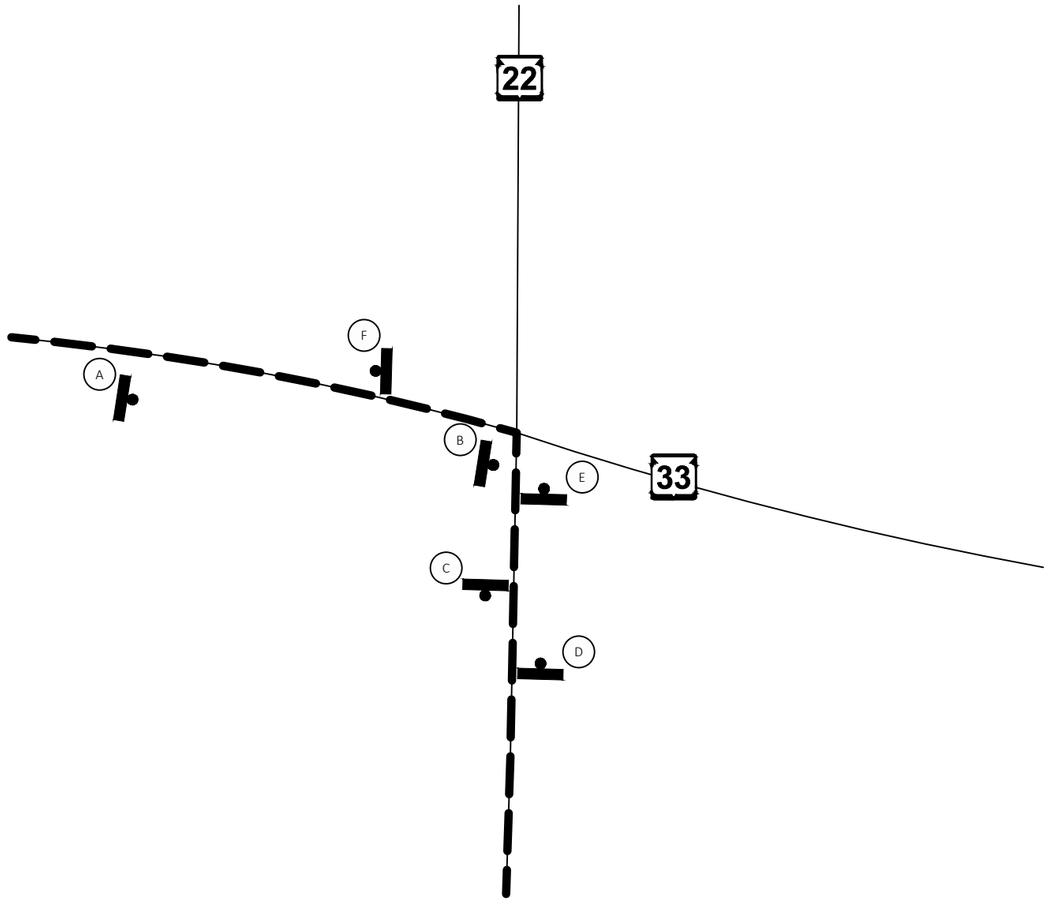
NOTES:

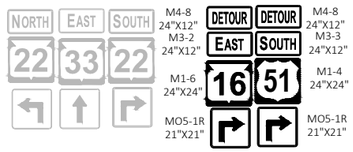
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL 3 FOR RAILROAD CROSSING REPLACEMENTS	SHEET 97	E

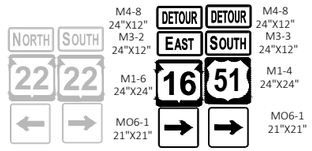
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\027001_DT USING 33.DWG
LAYOUT NAME - Detail 3

PLOT DATE : 7/19/2023 5:18 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : ######





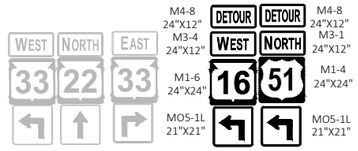
A



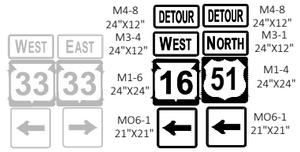
B



C



D



E



F

SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

EXISTING SIGN 133

EXISTING SIGN TO BE COVERED

NOTES:

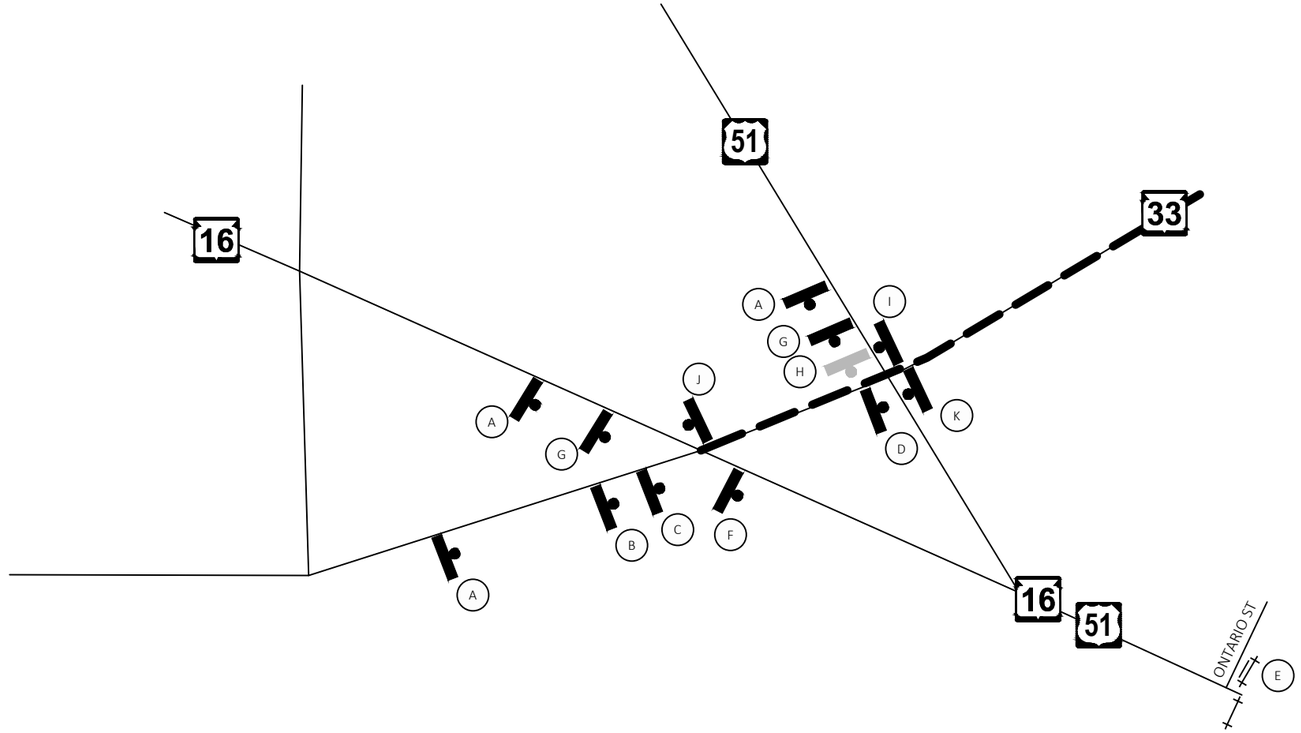
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

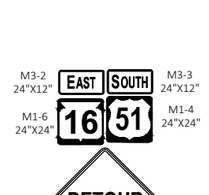
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL 4 FOR RAILROAD CROSSING REPLACEMENTS	SHEET 98	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\027001_DT USING 33.DWG
LAYOUT NAME - Detail 4

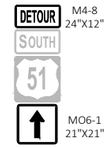
PLOT DATE : 7/19/2023 5:18 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : ######

WISDOT/CADDS SHEET 42

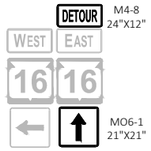




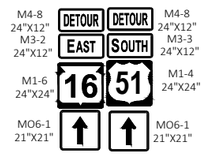
A



B



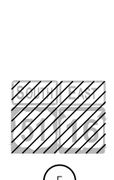
C



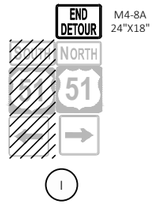
D



E



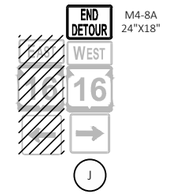
F



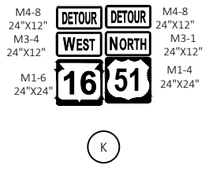
I



H



J



K

SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

EXISTING SIGN 133

EXISTING SIGN TO BE COVERED

NOTES:

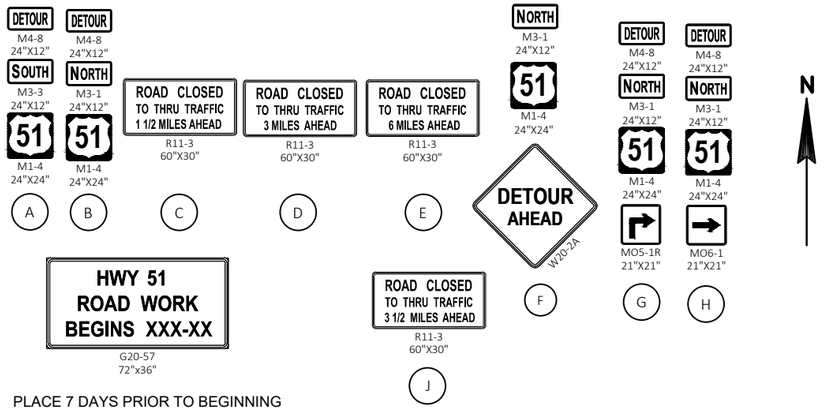
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL 5 FOR RAILROAD CROSSING REPLACEMENTS	SHEET 99	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\027001_DT USING 33.DWG
LAYOUT NAME - Detail 5

PLOT DATE : 7/19/2023 5:18 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : #######

WISDOT/CADDS SHEET 42



PLACE 7 DAYS PRIOR TO BEGINNING OF CONSTRUCTION AND REMOVE WHEN CONSTRUCTION BEGINS

I

CURB RAMPS TO BE CONSTRUCTED IN TWO NORTHBOUND AND TWO SOUTHBOUND STAGES. FOLLOW SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.

- STAGE 1A - CLOSE NORTHBOUND SHOULDER/PARKING LANE.
  RECONSTRUCT EAST CURB RAMPS. AT LEAST ONE EAST-WEST CROSSING SHALL REMAIN OPEN AT EVERY OTHER INTERSECTION.
- STAGE 1B - RECONSTRUCT REMAINING EAST CURB RAMPS.
- STAGE 2A - CLOSE SOUTHBOUND SHOULDER/PARKING LANE.
  RECONSTRUCT WEST CURB RAMPS. AT LEAST ONE EAST-WEST CROSSING SHALL REMAIN OPEN AT EVERY OTHER INTERSECTION.
- STAGE 2B - RECONSTRUCT REMAINING WEST CURB RAMPS.

LEGEND:

- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE III BARRICADE
- 133 EXISTING SIGN
- EXISTING SIGN TO BE COVERED

SOUTH BOUND USH 51 DETOUR ROUTE

NORTH BOUND USH 51 DETOUR ROUTE

NOTES:

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

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.

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

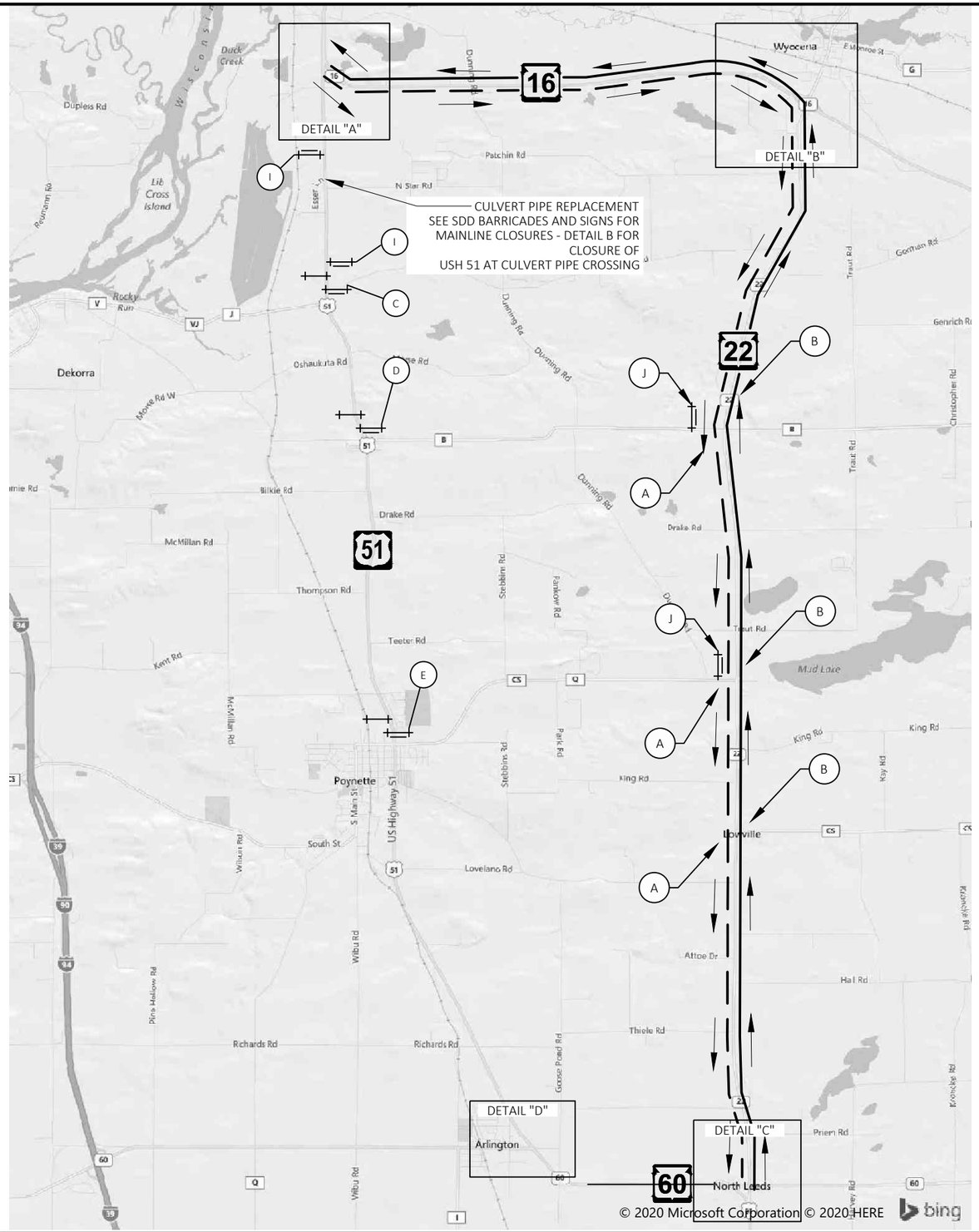
ANY SIGNS TEMPORARY OR EXISTING WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

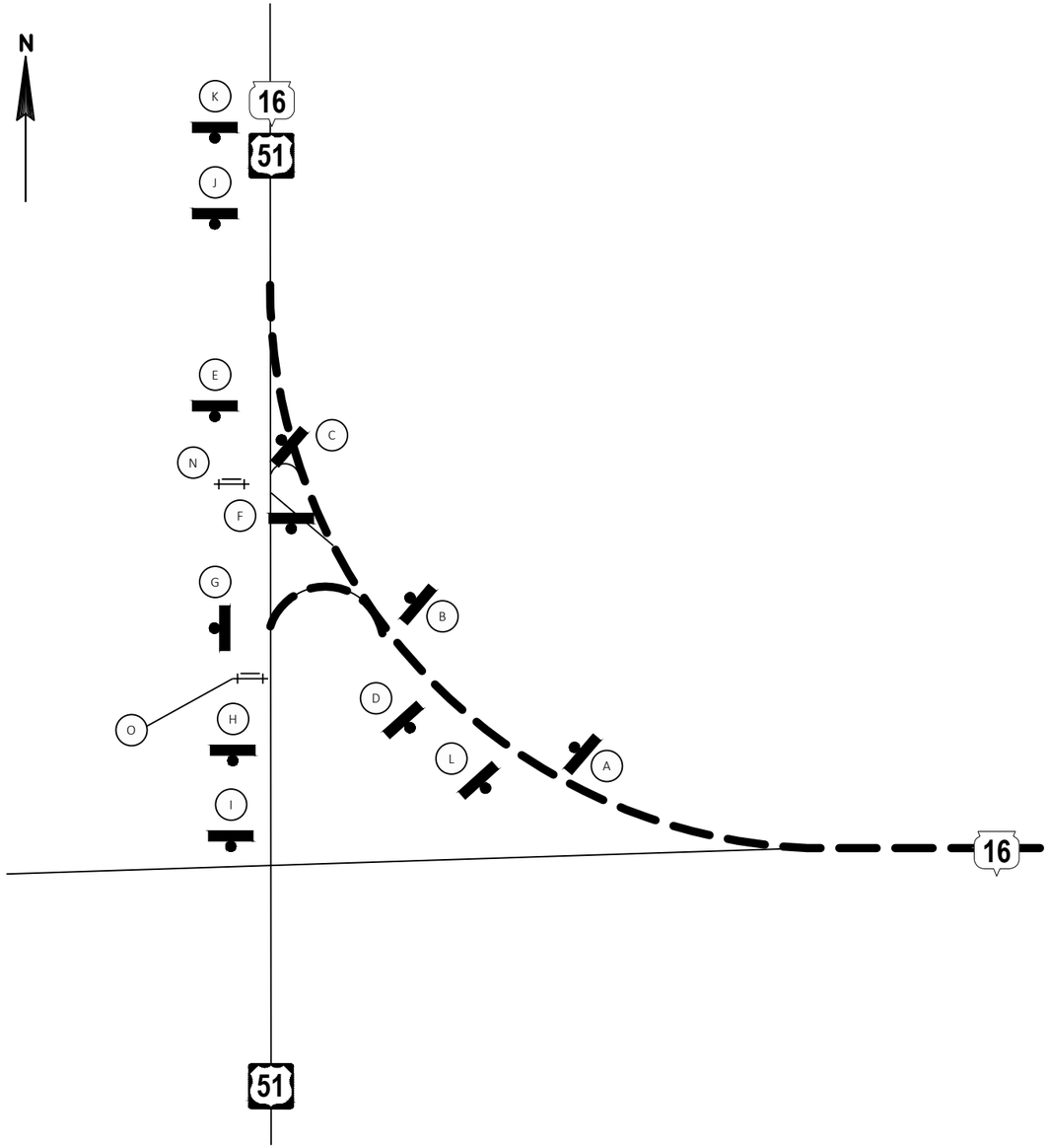
SEE STANDARD DETAIL DRAWING (SDD), "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "DETOUR SIGNING FOR MAINLINE CLOSURES", FOR SIGN SPACING, BARRICADE LOCATIONS AND OTHER DETAILS.

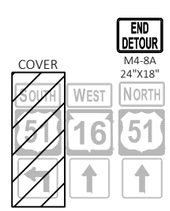
ALL SIGNS 48" X 48" UNLESS OTHERWISE NOTED.

DO NOT PLACE ANY TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT OF WAY.

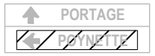


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLAN - OVERVIEW	SHEET 100	E





A



B



C

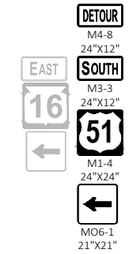


D



SEE SIGN PLATE A-4-12

E



F



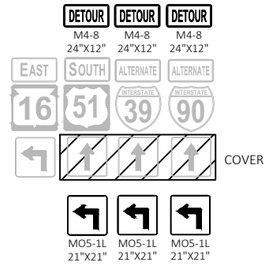
G



H



I



J



K



L



N



O

SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

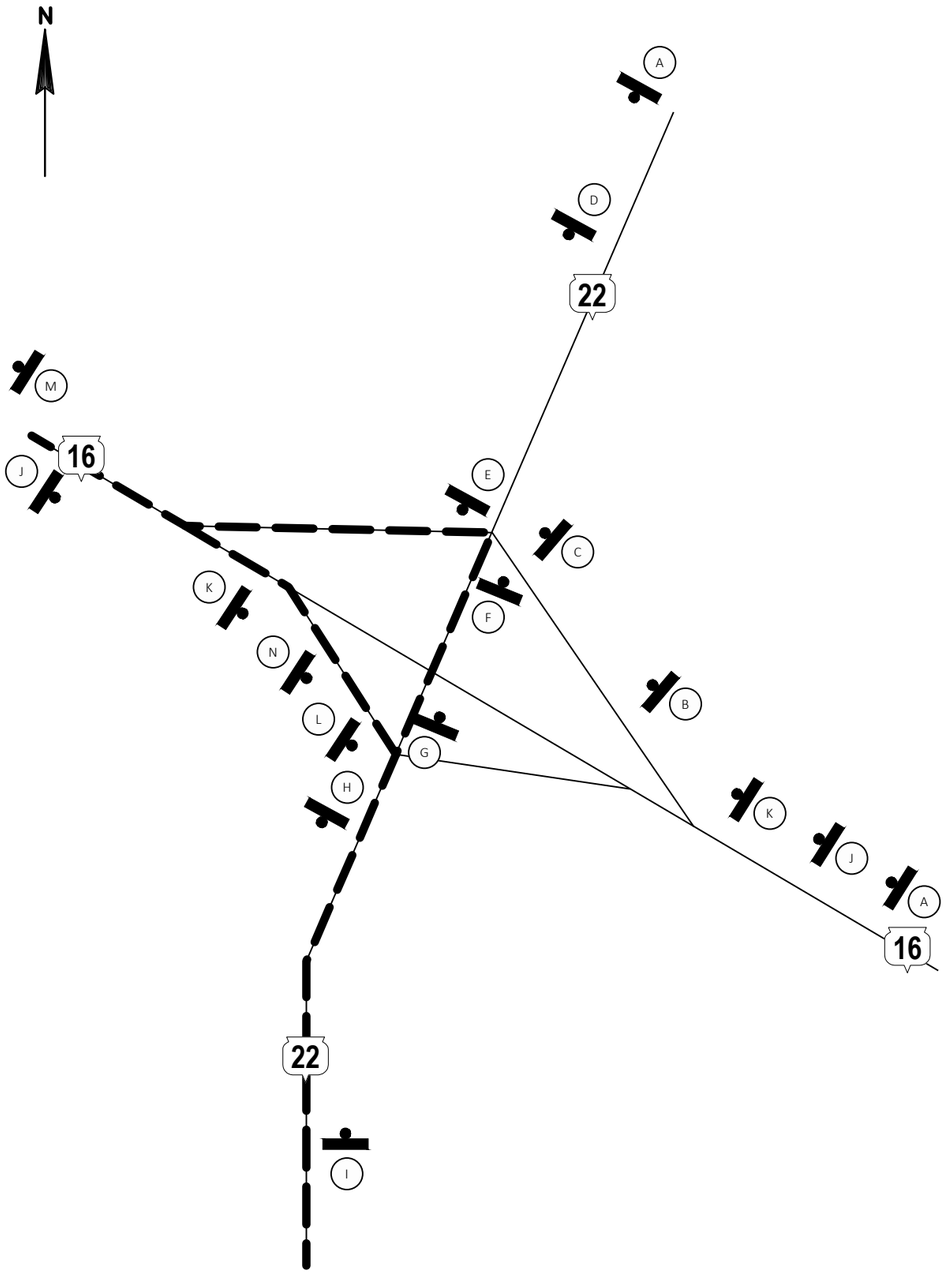
NOTES:

SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

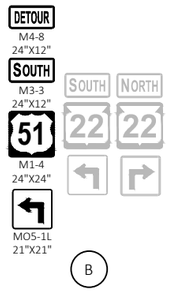
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL "A"	SHEET 101	E

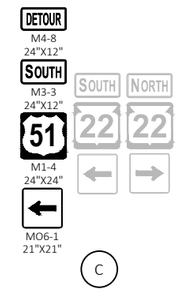
FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\027001_DT USING 16.DWG
LAYOUT NAME - 02

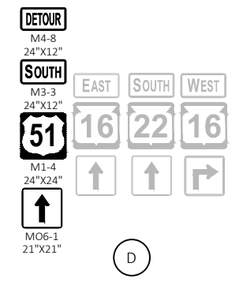
PLOT DATE : 7/19/2023 5:18 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : ######







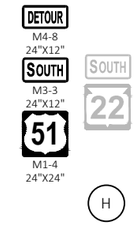


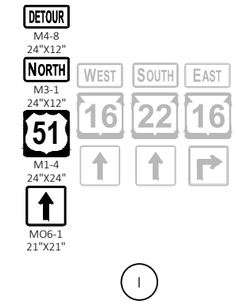


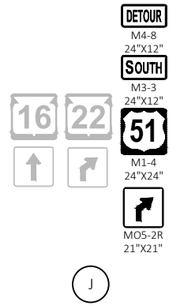




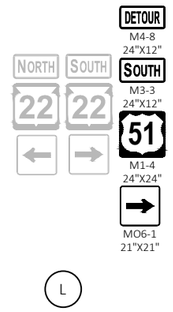
















SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

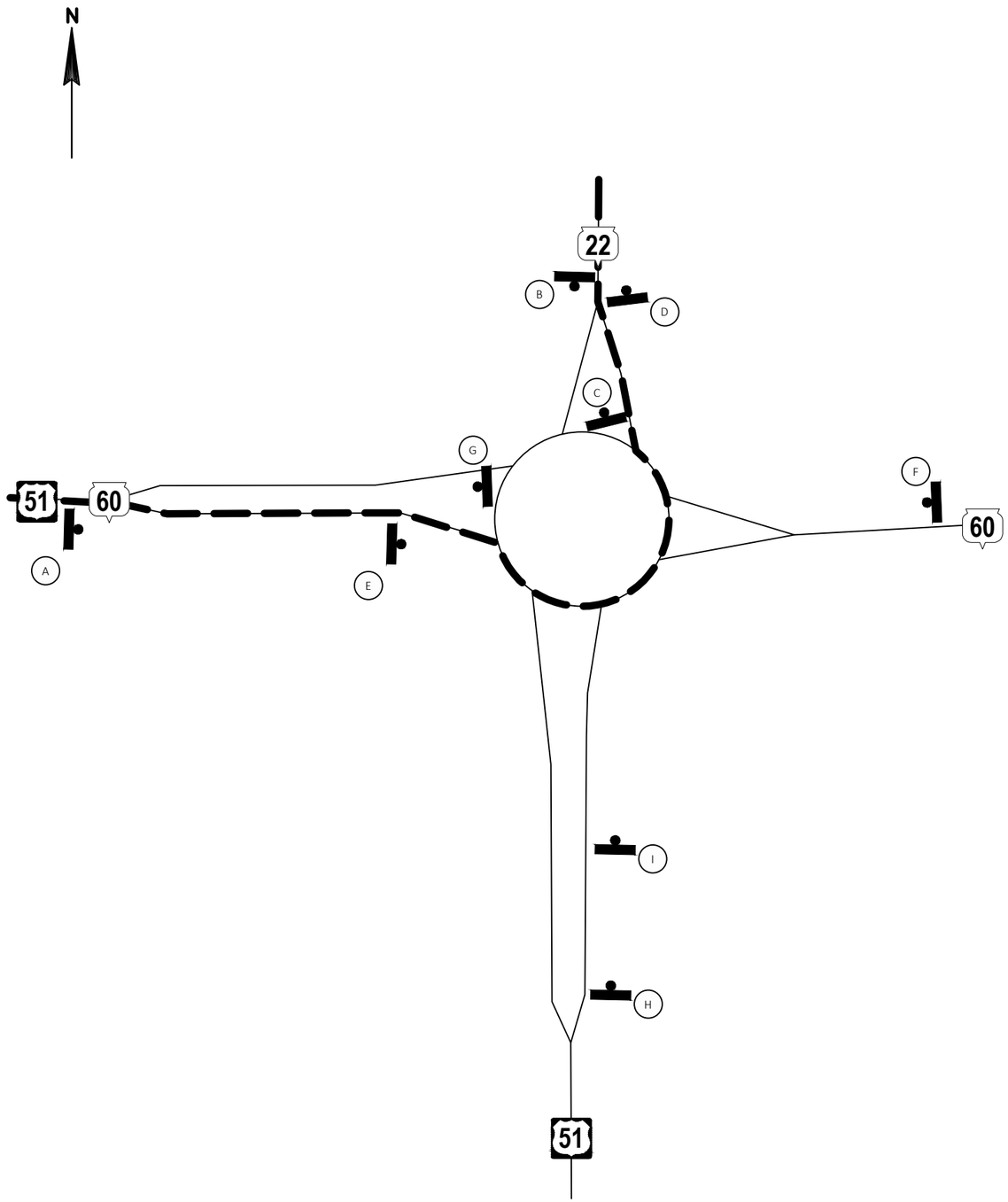
NOTES:

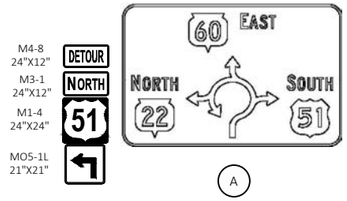
SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL "B"	SHEET 102	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\027001_DT USING 16.DWG
LAYOUT NAME - 03

PLOT DATE : 7/19/2023 5:18 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : #######

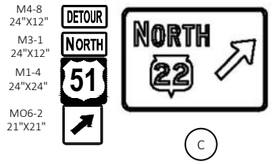




A



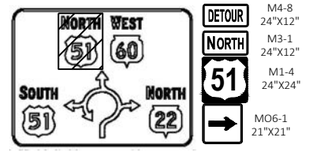
B



C

D

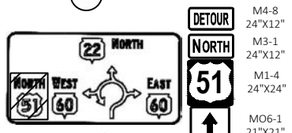
E



F



G



H



I

SIGN ON POST

BARRICADE TYPE III

SIGN ON BARRICADE TYPE III

POSTED DETOUR

EXISTING SIGN 133

EXISTING SIGN TO BE COVERED

NOTES:

SEE DETOUR PLAN - OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	DETOUR PLANS - DETAIL "C"	SHEET 103	E

Estimate Of Quantities

6020-04-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-11-094	EACH	1.000	1.000
0006	204.0110	Removing Asphaltic Surface	SY	300.000	300.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	3,750.000	3,750.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	257,500.000	257,500.000
0012	204.0130	Removing Curb	LF	59.000	59.000
0014	204.0150	Removing Curb & Gutter	LF	1,770.000	1,770.000
0016	204.0155	Removing Concrete Sidewalk	SY	3,050.000	3,050.000
0018	204.0165	Removing Guardrail	LF	6,660.000	6,660.000
0020	204.0170	Removing Fence	LF	58.000	58.000
0022	204.0220	Removing Inlets	EACH	1.000	1.000
0024	205.0100	Excavation Common	CY	700.000	700.000
0026	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6020-04-72	EACH	1.000	1.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	92.000	92.000
0030	213.0100	Finishing Roadway (project) 01. 6020-04-72	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	5,042.000	5,042.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	13,050.000	13,050.000
0036	455.0605	Tack Coat	GAL	29,001.000	29,001.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	3.000	3.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0042	460.2005	Incentive Density PWL HMA Pavement	DOL	36,600.000	36,600.000
0044	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	11,340.000	11,340.000
0046	460.2010	Incentive Air Voids HMA Pavement	DOL	60,093.000	60,093.000
0048	460.6223	HMA Pavement 3 MT 58-28 S	TON	34,630.000	34,630.000
0050	460.6224	HMA Pavement 4 MT 58-28 S	TON	25,550.000	25,550.000
0052	465.0105	Asphaltic Surface	TON	104.000	104.000
0054	465.0520	Asphaltic Rumble Strips, Shoulder	LF	76,750.000	76,750.000
0056	465.0560	Asphaltic Rumble Strips, Centerline	LF	38,510.000	38,510.000
0058	502.2000	Compression Joint Sealer Preformed Elastomeric (width) 01. 2 1/2-Inch	LF	68.000	68.000
0060	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	460.000	460.000
0062	509.1500	Concrete Surface Repair	SF	35.000	35.000
0064	509.2100.S	Concrete Masonry Deck Repair	CY	5.000	5.000
0066	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-11-0094	SY	722.000	722.000
0068	516.0600.S	Sheet Membrane Waterproofing for Asphalt Overlays	SY	722.000	722.000
0070	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	78.000	78.000
0072	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0074	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,095.000	1,095.000
0076	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	673.000	673.000
0078	601.0600	Concrete Curb Pedestrian	LF	132.000	132.000
0080	602.0410	Concrete Sidewalk 5-Inch	SF	4,018.000	4,018.000
0082	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	380.000	380.000
0084	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	16.000	16.000
0086	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0088	611.0610	Inlet Covers Type BW	EACH	3.000	3.000
0090	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0092	611.8115	Adjusting Inlet Covers	EACH	5.000	5.000
0094	614.0010	Barrier System Grading Shaping Finishing	EACH	27.000	27.000
0096	614.0305	Steel Plate Beam Guard Class A	LF	100.000	100.000
0098	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	4.000	4.000
0100	614.2300	MGS Guardrail 3	LF	836.000	836.000

6020-04-72

Line	Item	Item Description	Unit	Total	Qty
0102	614.2330	MGS Guardrail 3 K	LF	1,635.000	1,635.000
0104	614.2340	MGS Guardrail 3 L	LF	225.000	225.000
0106	614.2350	MGS Guardrail Short Radius	LF	25.000	25.000
0108	614.2610	MGS Guardrail Terminal EAT	EACH	44.000	44.000
0110	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000
0112	616.0204	Fence Chain Link 4-FT	LF	5.000	5.000
0114	616.0206	Fence Chain Link 6-FT	LF	53.000	53.000
0116	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6020-04-72	EACH	1.000	1.000
0118	619.1000	Mobilization	EACH	1.000	1.000
0120	624.0100	Water	MGAL	360.000	360.000
0122	625.0500	Salvaged Topsoil	SY	902.000	902.000
0124	628.1504	Silt Fence	LF	7,854.000	7,854.000
0126	628.1520	Silt Fence Maintenance	LF	7,854.000	7,854.000
0128	628.1530.S	Silt Fence Heavy Duty	LF	5,642.000	5,642.000
0130	628.1535.S	Silt Fence Heavy Duty Maintenance	LF	5,642.000	5,642.000
0132	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0134	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0136	628.2008	Erosion Mat Urban Class I Type B	SY	12,390.000	12,390.000
0138	628.2023	Erosion Mat Class II Type B	SY	2,120.000	2,120.000
0140	628.7010	Inlet Protection Type B	EACH	3.000	3.000
0142	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0144	628.7504	Temporary Ditch Checks	LF	24.000	24.000
0146	628.7555	Culvert Pipe Checks	EACH	3.000	3.000
0148	628.7570	Rock Bags	EACH	1,034.000	1,034.000
0150	629.0205	Fertilizer Type A	CWT	0.400	0.400
0152	629.0210	Fertilizer Type B	CWT	0.300	0.300
0154	630.0130	Seeding Mixture No. 30	LB	9.000	9.000
0156	630.0140	Seeding Mixture No. 40	LB	9.000	9.000
0158	630.0200	Seeding Temporary	LB	15.000	15.000
0160	630.0500	Seed Water	MGAL	20.000	20.000
0162	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	4.000	4.000
0164	638.2102	Moving Signs Type II	EACH	14.000	14.000
0166	638.2602	Removing Signs Type II	EACH	2.000	2.000
0168	638.4000	Moving Small Sign Supports	EACH	14.000	14.000
0170	642.5201	Field Office Type C	EACH	1.000	1.000
0172	643.0300	Traffic Control Drums	DAY	5,249.000	5,249.000
0174	643.0410	Traffic Control Barricades Type II	DAY	79.000	79.000
0176	643.0420	Traffic Control Barricades Type III	DAY	1,097.000	1,097.000
0178	643.0705	Traffic Control Warning Lights Type A	DAY	1,958.000	1,958.000
0180	643.0900	Traffic Control Signs	DAY	10,601.000	10,601.000
0182	643.0920	Traffic Control Covering Signs Type II	EACH	37.000	37.000
0184	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0186	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	108,476.000	108,476.000
0188	643.5000	Traffic Control	EACH	1.000	1.000
0190	644.1410	Temporary Pedestrian Surface Asphalt	SF	50.000	50.000
0192	644.1601	Temporary Pedestrian Curb Ramp	DAY	15.000	15.000
0194	644.1810	Temporary Pedestrian Barricade	LF	648.000	648.000
0196	645.0105	Geotextile Type C	SY	717.000	717.000
0198	646.2020	Marking Line Epoxy 6-Inch	LF	36,941.000	36,941.000
0200	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	5,810.000	5,810.000

Estimate Of Quantities

6020-04-72

Line	Item	Item Description	Unit	Total	Qty
0202	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	175,289.000	175,289.000
0204	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	2,131.000	2,131.000
0206	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	108,476.000	108,476.000
0208	646.5020	Marking Arrow Epoxy	EACH	10.000	10.000
0210	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0212	646.5320	Marking Railroad Crossing Epoxy	EACH	9.000	9.000
0214	646.6120	Marking Stop Line Epoxy 18-Inch	LF	279.000	279.000
0216	646.7220	Marking Chevron Epoxy 24-Inch	LF	199.000	199.000
0218	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,405.000	1,405.000
0220	646.8220	Marking Island Nose Epoxy	EACH	10.000	10.000
0222	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,768.000	1,768.000
0224	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0226	650.6501	Construction Staking Structure Layout (structure) 01. B-11-094	EACH	1.000	1.000
0228	650.8000	Construction Staking Resurfacing Reference	LF	56,700.000	56,700.000
0230	650.9000	Construction Staking Curb Ramps	EACH	38.000	38.000
0232	650.9911	Construction Staking Supplemental Control (project) 01. 6020-04-72	EACH	1.000	1.000
0234	650.9920	Construction Staking Slope Stakes	LF	6,804.000	6,804.000
0236	690.0150	Sawing Asphalt	LF	7,634.000	7,634.000
0238	690.0250	Sawing Concrete	LF	118.000	118.000
0240	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0242	740.0440	Incentive IRI Ride	DOL	52,000.000	52,000.000
0244	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,500.000	1,500.000
0246	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	775.000	775.000
0248	SPV.0060	Special 01. Reset and Retie End Section	EACH	4.000	4.000
0250	SPV.0180	Special 01. Preparation Prestressed Box Girder Overlay	SY	60.000	60.000

REMOVALS

LOCATION		203.0100 REMOVING SMALL PIPE CULVERTS (EA)	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)	204.0165 REMOVING GUARDRAIL (LF)	NOTES
28+00 to 53+00	POYNETTE	-	534	12869	75	
53+00 to 275+90		-	978	80063	3872	
NET EXCEPTION	ROCKY RUN	-	-	-	-	
278+20 to 405+25		1	900	43608	2521	24 INCH CULVERT PIPE
405+25 to 410+20		-		1982	-	
410+20 to 422+20	STH 16 / RR	-	344	11084	-	
422+20 to 438+80		-	152	2148	-	
438+80 to 475+05		-	489	16858	93	
BRIDGE	DUCK CREEK	-	-		-	
476+05 to 499+65		-	86	22055	93	
499+65 to 508+50	CTH P / RR	-	110	6671	-	
508+50 to 592+75		-	156	60053	-	
428+61 RT	DRIVEWAY	-	-	130	10	
TOTALS		**1**	**3750**	**257500**	**6660**	

BASE AGGREGATE DENSE

LOCATION		305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	624.0100 WATER (MGAL)
28+00 to 53+00	POYNETTE	223	266	9.8
53+00 to 275+90		1982	7221	184.1
NET EXCEPTION	ROCKY RUN	-	-	
278+20 to 405+25		1130	4352	109.7
405+25 to 410+20		44	-	0.9
410+20 to 422+20	STH 16 / RR	107	-	2.2
422+20 to 438+80		148	-	3.0
438+80 to 475+05		323	178	10.1
BRIDGE	DUCK CREEK	-	-	
476+05 to 499+65		210	178	7.8
499+65 to 508+50	CTH P / RR	79	-	1.6
508+50 to 595+00		769	-	15.4
428+61 to 428+94	392273A RR CROSSING	5	242	5.0
505+39 to 506+30	392271L RR CROSSING	20	559	11.6
	UNDISTRIBUTED	2	56	
TOTALS		**5042**	**13050**	**360**

MISCELLANEOUS RAILROAD CROSSING ITEMS

LOCATION	205.0100 EXCAVATION COMMON CY	645.0105 GEOTEXTILE TYPE C SY
392273A RR CROSSING	153	148
392271L RR CROSSING	546	569
TOTAL	**700**	**717**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

CURB AND SIDEWALK

QUADRANT	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SF	465.0105 ASPHALTIC SURFACE (TON)	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
NW	TOMILSON RD	17	-	16	70	5	16	-	-	185	10
NW	E SEWARD ST	-	-	40	125	-	40	-	-	160	20
NE	E SEWARD ST	-	-	44	103	-	44	-	-	176	20
SW	E SEWARD ST	17	-	52	61	-	52	-	-	270	20
SE	E SEWARD ST	-	-	53	103	-	53	-	35	128	20
NW	E TOMLINSON ST	-	-	40	147	-	40	-	-	160	20
NE	E TOMLINSON ST	-	-	51	210	-	51	-	-	200	20
SW	E TOMLINSON ST	-	-	50	190	-	50	-	-	211	20
SE	E TOMLINSON ST	-	-	52	265	-	52	-	-	265	20
NW	E HUDSON ST	-	-	52	202	-	52	-	-	250	20
NE	E HUDSON ST	-	-	52	167	-	52	-	-	190	20
SW	E HUDSON ST	35	-	62	117	6	62	-	-	201	20
SE	E HUDSON ST	-	-	56	200	-	56	-	-	218	20
NW	E GRANT ST	-	-	36	79	-	36	-	-	96	10
NE	E GRANT ST	-	-	38	95	-	38	-	-	95	10
SW	E GRANT ST	-	-	35	86	-	35	-	-	98	10
SE	E GRANT ST	-	-	43	107	-	43	-	28	120	10
NW	E NORTH ST	-	-	64	-	-	64	-	31	197	20
NE	E NORTH ST	12	-	105	110	12	105	-	18	288	20
SW	E NORTH ST	-	-	65	140	-	65	-		193	20
SE	E NORTH ST	14	-	49	205	4	49	-	20	225	20
PORK CHOP (NE)	E NORTH ST	202	59	-	175	-	-	-	-	-	-
SE	COMUMBIA DR	-	-	40	96	-	40	-	-	92	10
428+61 to 428+94	392273A RR CROSSING	-	-	511	-	32	-	511	-	-	-
505+39 to 506+30	392271L RR CROSSING	-	-	161	-	45	-	161	-	-	-
TOTALS		**300**	**59**	**1770**	**3050**	**104**	**1095**	**673**	**132**	**4018**	**380**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

3

PAVEMENT

LOCATION		CATEGORY	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING (EACH)	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (STA)	455.0605 TACK COAT (GAL)	460.6223 HMA PAVEMENT 3 MT 58-28 S (TON)	460.6224 HMA PAVEMENT 4 MT 58-28 S (TON)	645.0520 ASPHALTIC RUMBLE STRIPS SHOULDER (LF)	465.0560 ASPHALTIC RUMBLE STRIPS CENTERLINE (LF)
4" HMA PAVEMENT LOCATIONS									
53+00 to 275+90		10	-	-	8419	8839	6876	-	22395
NET EXCEPTION	ROCKY RUN	-	-	-	-	-	-	-	-
278+20 to 363+90		10	-	78	3223	3384	2632	-	8570
364+94 to 410+20		10			1583	1661	1292	-	4525
433+25 to 475+05		10	-	14	2284	2398	1865	-	3020
BRIDGE	DUCK CREEK	-	-	-	-	-	-	-	-
476+05 to 499+65		10	-	-	2647	2779	2162	-	-
508+50 to 592+75		10	-	-	7207	7567	5886	-	-
5" HMA PAVEMENT LOCATIONS									
28+00 to 53+00	POYNETTE	10	-	-	644	2343	1262	-	-
363+90 to 364+94	CULVERT REPLACEMENT	10	-	-	18	63	34	-	-
410+20 to 428+61	STH 16	10	-	-	378	1489	790	-	-
428+94 to 433+25	RR CROSSING	10	-	-	52	304	153	-	-
499+65 to 505+39	CTH P	10	-	-	313	1137	612	-	-
506+30 to 508+50	RR CROSSING	10	-	-	73	266	144	-	-
FULL DEPTH CROSSING REPLACEMENT									
428+61 to 428+94	392273A RR CROSSING	10	-	-	24	57	20	48	-
505+39 to 506+30	392271L RR CROSSING	10	-	-	77	160	56	-	-
CATEGORY 30 SHOULDER WIDENING									
53+00 to 275+90		30	-	-	1189	1249	971	44580	-
NET EXCEPTION	ROCKY RUN	-	-	-	-	-	-	-	-
278+20 to 405+25		30	-	-	678	712	554	25410	-
405+25 to 410+20		30	-	-	26	28	22	990	-
410+20 to 422+20	STH 16	30	-	-	27	98	53	2400	-
422+20 to 438+80	RR	30	-	-	89	93	73	3320	-
	PROJECT WIDE	10	1	-	-	-	-	-	-
	CATEGORY 10 TOTAL		**1**	**92**	**26940**	**32450**	**23780**	**-**	**38510**
	CATEGORY 30 TOTAL		**-**	**-**	**2010**	**2180**	**1670**	**76750**	**-**
TOTALS			**1**	**92**	**28950**	**34630**	**25450**	**76750**	**38510**

3

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
USH 51 LANES	28+00 to 53+00 410+20 to 433+25 499+65 to 508+50	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	4212	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
USH 51 SHOULDERS	28+00 to 53+00 410+20 to 433+25 499+65 to 508+50	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	3787	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
USH 51 LANES	53+00 to 275+95 278+20 to 410+20 433+25 to 499+65 508+50 to 595+00	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	18261	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
USH 51 SHOULDERS	53+00 to 275+95 278+20 to 410+20 433+25 to 499+65 508+50 to 595+00	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	8367	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
USH 51 LANES	53+00 to 592+75	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	16419	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
USH 51 SHOULDERS	53+00 to 592+75	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	9038	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE

STORM SEWER

LOCATION	204.0220 REMOVING INLETS (EACH)	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH (LF)	611.0430 RECONSTRUCTING INLETS (EACH)	611.0610 INLET COVERS TYPE BW (EACH)	611.3004 INLETS 4-FT DIAMETER (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)
37+08 RT	-	-	1	1	-	1
40+34 RT	-	-	-	-	-	1
43+68 RT	-	-	-	-	-	1
47+00 RT	-	-	-	-	-	1
50+60 RT	-	-	1	1	-	1
51+50 RT	1	16	-	1	1	-
TOTALS	**1**	**16**	**2**	**3**	**1**	**5**

CULVERT PIPE

LOCATION	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH (LF)	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH (EACH)	SPV 0060.01 RESET AND RETIE END SECTION (EACH)
249+00	-	-	2
267+00	-	-	2
364+45	78	2	-
TOTALS	**78**	**2**	**4**

FENCE

LOCATION	204.0170 REMOVING FENCE (LF)	616.0204 FENCE CHAIN LINK 4-FT (LF)	616.0206 FENCE CHAIN LINK 6-FT (LF)
Tomlinson NW	38	-	38
Seward St SW	20	5	15
PROJECT	-	-	-
TOTALS	**58**	**5**	**53**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

3

3

STEEL PLATE BEAM GUARD & MIDWEST GUARDRAIL SYSTEM

LOCATION				614.0305 STEEL PLATE BEAM GUARD CLASS A (LF)	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL (EACH)	614.2300 MGS GUARDRAIL 3 (LF)	614.2330 MGS GUARDRAIL 3 K (LF)	614.2340 MGS GUARDRAIL 3 L (LF)	614.2350 MGS GUARDRAIL SHORT RADIUS (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
52+29.00	to	53+35.00	Lt	-	-	-	50	-	-	1	1
94+15.00	to	96+34.00	Both	-	-	-	-	225	-	4	-
109+35.00	to	111+04.00	Lt	-	-	62.5	-	-	-	2	-
159+94.00	to	161+75.00	Both	-	-	150	-	-	-	4	-
179+12.00	to	180+68.00	Rt	-	-	-	50	-	-	2	-
179+12.00	to	181+18.00	Lt	-	-	-	100	-	-	2	-
195+25.00	to	195+70.00	Both	-	-	-	25	-	-	4	-
203+60.00	to	205+91.00	Both	-	-	-	50	-	-	4	-
213+82.00	to	215+48.00	Lt	-	-	87.5	-	-	25	1	1
218+45.00	to	221+39.00	Lt	-	-	187.5	-	-	-	2	-
224+68.00	to	239+37.00	Lt	-	-	1075.5	287	-	-	2	-
248+55.00	to	249+74.00	Both	-	-	-	25	-	-	4	-
305+05.00	to	309+86.00	Lt	-	-	375	-	-	-	2	-
315+51.00	to	320+20.00	Lt	-	-	213	150	-	-	2	-
354+50.00	to	356+44.00	Rt	-	-	58.5	35	-	-	2	-
355+90.00	to	357+06.00	Lt	-	-	115.0	35	-	-	2	-
379+92.00	to	384+36.00	Rt	-	-	30	308	-	-	2	-
377+80.00	to	385+24.00	Lt	-	-	118	520	-	-	2	-
474+13.28	to	475+03.30	Both	50	2	-	-	-	-	-	-
475+98.13	to	476+88.15	Both	50	2	-	-	-	-	-	-
		TOTALS		100	4	836.0	1,635.0	225.0	25	44	2

BARRIER SYSTEM GRADING SHAPING FINISHING

LOCATION				614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING (EACH)	* EXCAVATION COMMON (CY)	* FILL (CY)	* BORROW (CY)	* TOPSOIL (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B ** (SY)	628.2023 EROSION MAT CLASS II TYPE B (SY)	* FERTILIZER TYPE B ** (CWT)	* SEEDING MIXTURE NO. 30 ** (LB)
52+29.00	to	53+35.00	Lt	1	66	2	-	31	-	31	0.02	0.6
94+15.00	to	96+34.00	Both	2	279	234	-	1246	859	387	0.79	22.5
109+35.00	to	111+04.00	Lt	1	152	39	-	305	305	-	0.20	5.5
159+94.00	to	161+75.00	Both	2	244	116	-	873	873	-	0.56	15.8
179+12.00	to	180+68.00	Rt	1	128	258	130	734	701	33	0.47	13.3
179+12.00	to	181+18.00	Lt	1	128	258	130	923	889	34	0.59	16.7
195+25.00	to	195+70.00	Both	2	206	32	-	269	269	-	0.17	4.9
203+60.00	to	205+91.00	Both	2	238	310	72	1154	1108	46	0.73	20.8
213+82.00	to	215+48.00	Lt	1	497	11	-	134	134	-	0.09	2.5
218+45.00	to	221+39.00	Lt	1	213	205	-	630	554	76	0.40	11.4
224+68.00	to	239+37.00	Lt	1	767	153	-	1400	1067	334	0.89	25.3
248+55.00	to	249+74.00	Both	2	185	428	243	1464	1451	14	0.93	26.4
305+05.00	to	309+86.00	Lt	1	328	263	-	1238	1238	-	0.79	22.3
315+51.00	to	320+20.00	Lt	1	237	369	132	736	357	378	0.47	13.3
354+50.00	to	356+44.00	Rt	1	119	185	66	302	280	22	0.20	5.5
355+90.00	to	357+06.00	Lt	1	119	185	66	209	181	28	0.14	3.8
379+92.00	to	384+36.00	Rt	1	439	76	-	600	320	281	0.38	10.9
377+80.00	to	385+24.00	Lt	1	237	27	-	639	179	460	0.41	11.6
474+13.28	to	475+03.30	Both	2	212	33	-	498	498	-	0.32	9.0
475+98.13	to	476+88.15	Both	2	185	47	-	224	224	-	0.15	4.1
		TOTALS		27					11,490	2,120		

* NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY, ITEMS INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.
** ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

RESTORATION

QUADRANT	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0205 FERTILZIER TYPE A (CWT)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
NW	TOMILSON RD	40	40	0.03	-	-	0.8	-	0.9
									-
NW	E SEWARD ST	21	21	0.02	-	-	0.4	-	0.5
NE	E SEWARD ST	22	22	0.02	-	-	0.4	-	0.5
SW	E SEWARD ST	42	42	0.03	-	-	0.8	-	0.9
SE	E SEWARD ST	22	22	0.02	-	-	0.4	-	0.5
									-
NW	E TOMLINSON ST	16	16	0.02	-	-	0.3	-	0.4
NE	E TOMLINSON ST	24	24	0.02	-	-	0.5	-	0.5
SW	E TOMLINSON ST	31	31	0.02	-	-	0.6	-	0.7
SE	E TOMLINSON ST	13	13	0.01	-	-	0.3	-	0.3
									-
NW	E HUDSON ST	13	13	0.01	-	-	0.3	-	0.3
NE	E HUDSON ST	20	20	0.02	-	-	0.4	-	0.4
SW	E HUDSON ST	-	-	-	-	-	-	-	-
SE	E HUDSON ST	28	28	0.02	-	-	0.6	-	0.6
									-
NW	E GRANT ST	12	12	0.01	-	-	0.3	-	0.3
NE	E GRANT ST	19	19	0.02	-	-	0.4	-	0.4
SW	E GRANT ST	12	12	0.01	-	-	0.3	-	0.3
SE	E GRANT ST	12	12	0.01	-	-	0.3	-	0.3
									-
NW	E NORTH ST	12	12	0.01	-	-	0.3	-	0.3
NE	E NORTH ST	-	-	-	-	-	-	-	-
SW	E NORTH ST	29	29	0.02	-	-	0.6	-	0.7
SE	E NORTH ST	-	-	-	-	-	-	-	-
									-
SE	COMUMBIA DR	14	14	0.01	-	-	0.3	-	0.3
									-
364+45 Culvert		418	418	-	0.27	8.0	-	-	9.4
									-
UNDISTRIBUTED		82	82	0.07	0.03	1.00	0.70	15.00	1.5
TOTALS		**902**	**900**	**0.4**	**0.3**	**9**	**9**	**15**	**20**

CONSTRUCTION STAKING

LOCATION	650.5500 CURB GUTTER AND CURB & GUTTER (LF)	650.6000 PIPE CULVERTS (EACH)	650.8000 RESURFACING REFERENCE (LF)	650.9000 CURB RAMPS (EACH)	650.9910 SUPPLEMENTAL CONTROL (6020-04-72) (LS)	650.9920 SLOPE STAKES (LF)
364+45	-	1	-	-	-	-
Tomlinson Rd	16	-	-	1	-	-
E Seward St	189	-	-	8	-	-
E Tomlinson St	193	-	-	8	-	-
E Hudson St	222	-	-	8	-	-
E Grant St	152	-	-	4	-	-
E North St	283	-	-	8	-	-
Columbia Dr	40	-	-	1	-	-
52+29.00 to 53+35.00	-	-	-	-	-	106
94+15.00 to 96+34.00	-	-	-	-	-	438
109+35.00 to 111+04.00	-	-	-	-	-	169
159+94.00 to 161+75.00	-	-	-	-	-	362
179+12.00 to 180+68.00	-	-	-	-	-	156
179+12.00 to 181+18.00	-	-	-	-	-	206
195+25.00 to 195+70.00	-	-	-	-	-	90
203+60.00 to 205+91.00	-	-	-	-	-	462
213+82.00 to 215+48.00	-	-	-	-	-	166
218+45.00 to 221+39.00	-	-	-	-	-	294
224+68.00 to 239+37.00	-	-	-	-	-	1469
248+55.00 to 249+74.00	-	-	-	-	-	238
305+05.00 to 309+86.00	-	-	-	-	-	481
315+51.00 to 320+20.00	-	-	-	-	-	469
354+50.00 to 356+44.00	-	-	-	-	-	194
355+90.00 to 357+06.00	-	-	-	-	-	116
379+92.00 to 384+36.00	-	-	-	-	-	444
377+80.00 to 385+24.00	-	-	-	-	-	744
474+13.28 to 475+03.30	-	-	-	-	-	100
475+98.13 to 476+88.15	-	-	-	-	-	100
PROJECT	672	-	56700	-	1	-
TOTALS	**1768**	**1**	**56700**	**38**	**1**	**6804**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

3

EROSION CONTROL

LOCATION				628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.7010 INLET PROTECTION TYPE B (EACH)	628.7015 INLET PROTECTION TYPE C (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECK (EACH)	628.7570 ROCK BAGS (EACH)	628.1530.S HEAVY DUTY SILT FENCE (LF)	628.1535.S HEAVY DUTY SILT FENCE MAINTENANCE (LF)
52+29	to	53+35	Lt	75	75	-	-	-	-	-	-	-	-	-
94+15	to	96+34	Both	100	100	-	-	-	-	-	-	-	800	800
109+35	to	111+04	Lt	-	-	-	-	-	-	-	-	-	317	317
159+94	to	161+75	Both	65	65	-	-	-	-	-	-	-	750	750
179+12	to	180+68	Rt	-	-	-	-	-	-	-	-	-	418	418
179+12	to	181+18	Lt	106	106	-	-	-	-	-	-	-	393	393
195+25	to	195+70	Both	568	568	-	-	-	-	-	-	-	-	-
203+60	to	205+91	Both	815	815	-	-	-	-	-	-	-	-	-
213+82	to	215+48	Lt	-	-	-	-	-	-	-	-	-	197	197
218+45	to	221+39	Lt	426	426	-	-	-	-	-	-	-	-	-
224+68	to	239+37	Lt	1647	1647	-	-	-	-	-	-	-	-	-
248+55	to	249+74	Both	88	88	-	-	-	-	-	-	-	710	710
305+05	to	309+86	Lt	717	717	-	-	-	-	-	-	-	-	-
315+51	to	320+20	Lt	500	500	-	-	-	-	-	-	-	-	-
354+50	to	356+44	Rt	470	470	-	-	-	-	-	-	-	-	-
355+90	to	357+06	Lt	380	380	-	-	-	-	-	-	-	-	-
379+92	to	384+36	Rt	121	121	-	-	-	-	-	-	-	669	669
377+80	to	385+24	Lt	195	195	-	-	-	-	-	-	-	613	613
474+13	to	475+03	Both	445	445	-	-	-	-	2	-	-	-	-
475+98	to	476+88	Both	422	422	-	-	-	-	2	-	-	-	-
364+45 Culvert				-	-	-	-	-	-	-	1	-	262	262
UNDISTRIBUTED				714	714	8	5	3	8	20	2	1034	513	513
TOTALS				**7854**	**7854**	**8**	**5**	**3**	**8**	**24**	**3**	**1034**	**5642**	**5642**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

TRAFFIC CONTROL

LOCATION			DESCRIPTION	DURATION CALANDAR DAYS	643.0300 TC DRUMS #	643.0300 TC DRUMS (DAY)	643.0410 TC BARRICADES TYPE II #	643.0410 TC BARRICADES TYPE II (DAY)	643.0420 TC BARRICADES TYPE III #	643.0420 TC BARRICADES TYPE III (DAY)	643.0705 TC WARNING LIGHTS TYPE A #	643.0705 TC WARNING LIGHTS TYPE A (DAY)	643.0900 TC SIGNS #	643.0900 TC SIGNS (DAY)	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT (SF)	644.1601 TEMPORARY CURB RAMP (DAY)	644.1810 TEMPORARY PEDESTRAIN BARRICADE (LF)	643.1050 TC SIGNS PCMS (DAY)	643.0920 TC COVERING SIGNS TYPE II (EACH) CYCLES	
Projectw ide			*Detour for Railroad*	*28*	-	-	-		*32*	*896*	*60*	*1680*	*221*	*6188*	-	-	-	*14*	*1*	*7*
Projectw ide			*Detour for Culvert*	7	-	-	-	-	*12*	84	*20*	140	*160*	1120	-	-	-	-	2	25
Projectw ide			*Mainline Closure*	7	-	-	-	-	*14*	98	*16*	112	*42*	294	-	-	-	-	-	-
Projectw ide			*Flagging*	21	-	-	-	-	-	-	-	-	*5*	105	-	-	-	-	-	-
52+29.00	to	53+35.00	*Work on Shoulder*	7	*6*	45	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
94+15.00	to	96+34.00	*Work on Shoulder*	7	*15*	106	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
109+35.00	to	111+04.00	*Work on Shoulder*	7	*7*	49	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
159+94.00	to	161+75.00	*Work on Shoulder*	7	*14*	100	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
179+12.00	to	180+68.00	*Work on Shoulder*	7	*7*	48	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
179+12.00	to	181+18.00	*Work on Shoulder*	7	*7*	52	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
195+25.00	to	195+70.00	*Work on Shoulder*	7	*12*	81	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
203+60.00	to	205+91.00	*Work on Shoulder*	7	*15*	107	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
213+82.00	to	215+48.00	*Work on Shoulder*	7	*7*	49	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
218+45.00	to	221+39.00	*Work on Shoulder*	7	*8*	58	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
224+68.00	to	239+37.00	*Work on Shoulder*	7	*20*	140	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
248+55.00	to	249+74.00	*Work on Shoulder*	7	*13*	92	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
305+05.00	to	309+86.00	*Work on Shoulder*	7	*10*	71	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
315+51.00	to	320+20.00	*Work on Shoulder*	7	*10*	70	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
354+50.00	to	356+44.00	*Work on Shoulder*	7	*7*	51	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
355+90.00	to	357+06.00	*Work on Shoulder*	7	*7*	46	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
379+92.00	to	384+36.00	*Work on Shoulder*	7	*10*	69	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
377+80.00	to	385+24.00	*Work on Shoulder*	7	*13*	90	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
474+13.28	to	475+03.30	*Work on Shoulder*	7	*6*	44	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
475+98.13	to	476+88.15	*Work on Shoulder*	7	*6*	44	-	-	-	-	-	-	*5*	35	-	-	-	-	-	-
Poynette Curb Ramps				28	*120*	3360			-	-	-	-	*64*	1792	50	15	648	-	-	-
UNDISTRIBUTED						478		79		19		26		402	-	-	-	-	1	5
TOTALS					**5,249**		**0**	**79**	**58**	**1,097**	**96**	**1,958**	**592**	**10,601**	**50**	**15**	**648**	**14**		**37**

PERMANENT SIGNING

LOCATION	634.0616 POSTS WOOD 4x6-INCH x 16-FT (EA)	638.2102 MOVING SIGNS TYPE II (EA)	638.2602 REMOVING SIGNS TYPE II (EA)	638.4000 MOVING SMALL SIGN SUPPORTS (EA)
E Sew ard St	-	1	-	1
E Tomlinson St	-	1	-	1
E Hudson St	-	1	-	1
E North St	-	1	2	1
PASSING ZONE RELOCATIONS	4	10	-	10
TOTALS	**4**	**14**	**2**	**14**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

TEMPORARY PAVEMENT MARKING

LOCATION	643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH (LF)
PROJECT WIDE	108476

PAVEMENT MARKING LONGITUDINAL

LOCATION	646.2020 MARKING LINE EPOXY 6-INCH (LF)	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH (LF)	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH (LF)	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH (LF)	646.4720 MARKING LINE SAME DAY EPOXY 6-INCH (LF)
PROJECT WIDE	36941	5810	175289	2131	108476

PAVEMENT MARKING MISC ITEMS

LOCATION	646.5020 MARKING ARROW EPOXY (EACH)	646.5120 MARKING WORD EPOXY (EACH)	646.5320 MARKING RAILROAD CROSSING EPOXY (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH (LF)	646.7220 MARKING CHEVRON EPOXY 24-INCH (LF)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (LF)	646.8220 MARKING ISLAND NOSE EPOXY (EACH)
PROJECT WIDE	10	1	9	279	199	1405	10

SAWING

LOCATION			690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
Tomlinson			-	5
Seward			-	20
E Tomlinson			-	20
Hudson			-	20
Grant			-	20
North			66	20
Columbia			-	3
52+29	to	53+35	106	-
94+15	to	96+34	438	-
109+35	to	111+04	169	-
159+94	to	161+75	362	-
179+12	to	180+68	156	-
179+12	to	181+18	206	-
195+25	to	195+70	90	-
203+60	to	205+91	462	-
213+82	to	215+48	166	-
218+45	to	221+39	294	-
224+68	to	239+37	1469	-
248+55	to	249+74	238	-
305+05	to	309+86	481	-
315+51	to	320+20	469	-
354+50	to	356+44	194	-
355+90	to	357+06	116	-
379+92	to	384+36	444	-
377+80	to	385+24	744	-
474+13	to	475+03	100	-
475+98	to	476+88	100	-
363+90			30	-
364+95			30	-
392273A RR CROSSING			194	
392271L RR CROSSING			510	10
TOTALS			**7634**	**118**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

Standard Detail Drawing List

08A05-20D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
11B02-02	CONCRETE MEDIAN NOSE
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03E	EDGE LINE RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	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
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS

6

Standard Detail Drawing List

15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

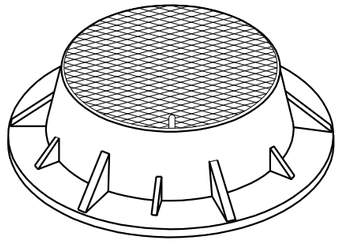
6

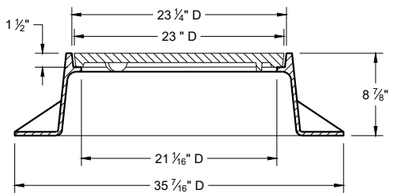
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

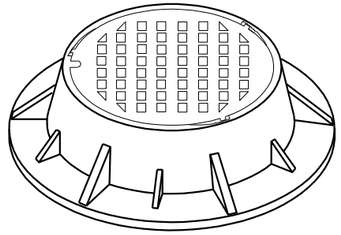
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

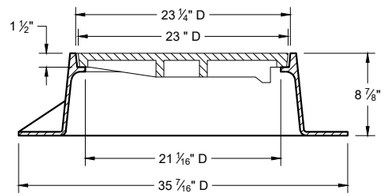




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

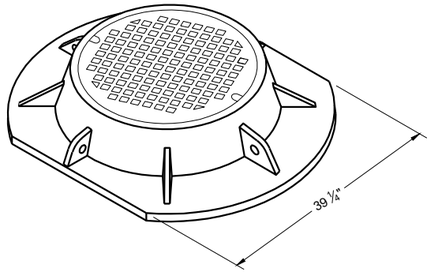


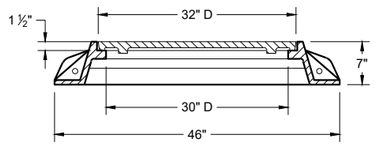


TYPE "J" SPECIAL

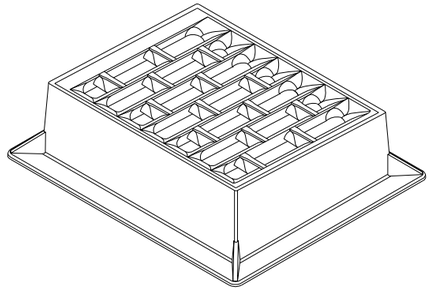
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

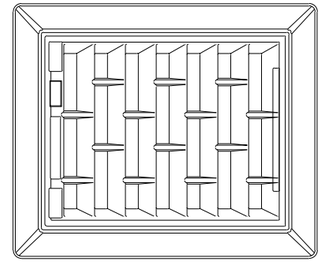
NOTE: EITHER CASTING IS ACCEPTABLE

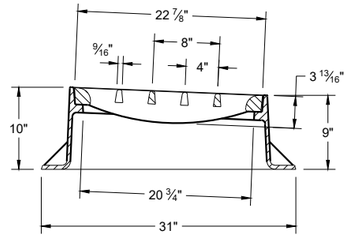


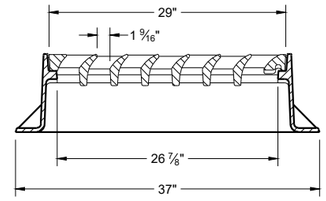


TYPE "K"

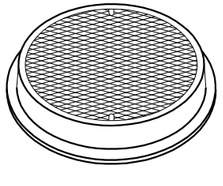


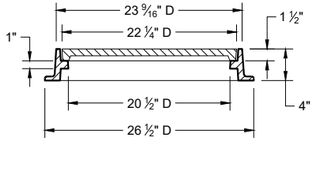




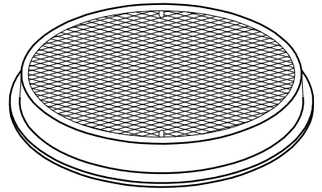


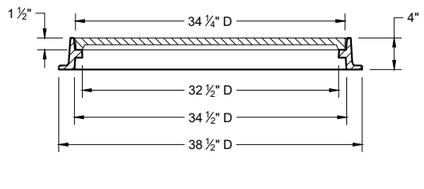
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

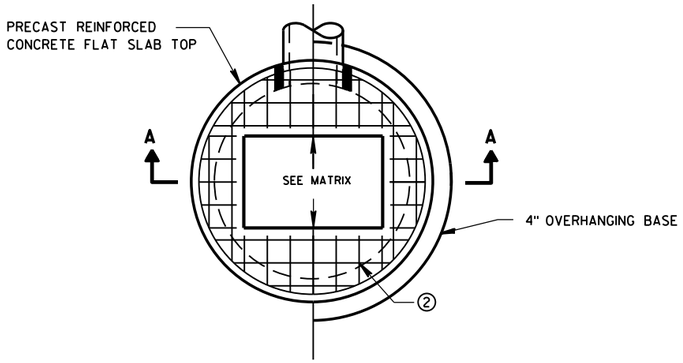
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

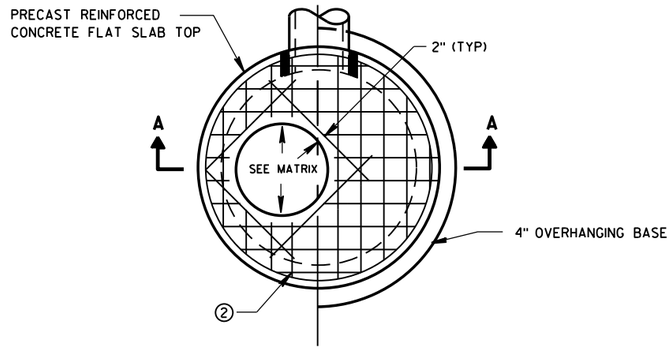
FHWA

6

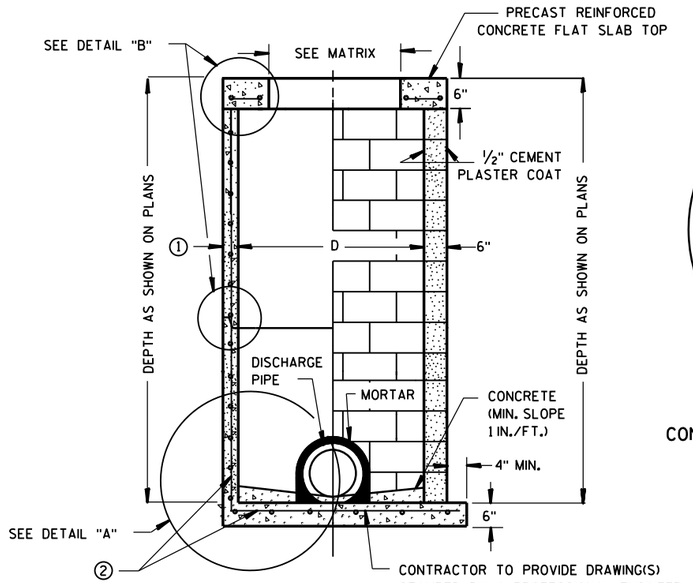
SDD 08A05-20d



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

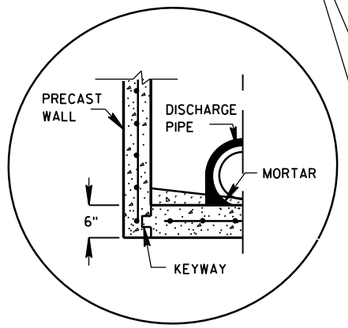


SECTION A-A

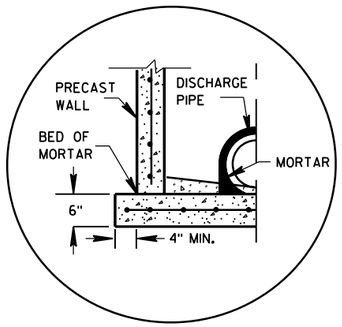
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

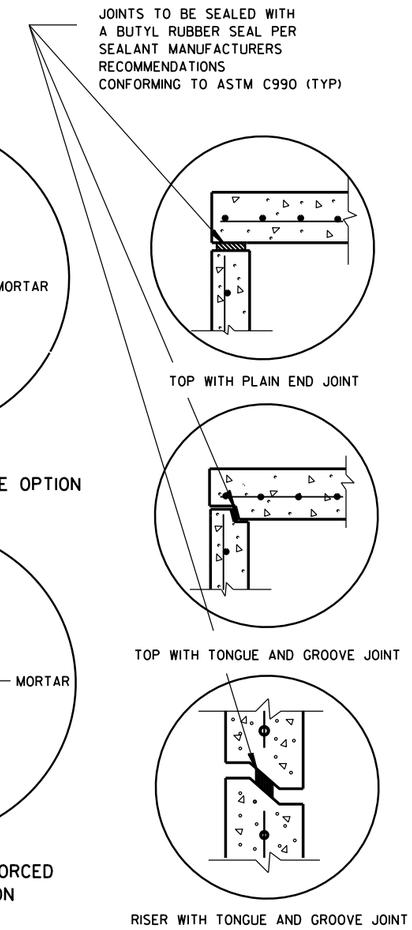


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "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.

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

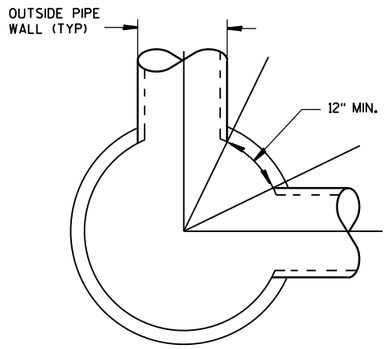
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

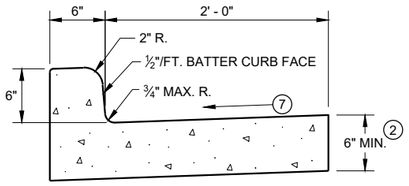
APPROVED
Sept., 2016 — /S/ Rodney Taylor
DATE — ROADWAY STANDARDS | UNIT SUPERVI ENT
FHWA

6

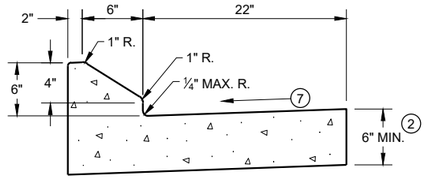
S.D.D. 8 C 6-2

6

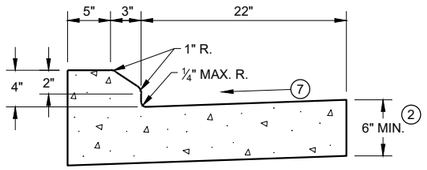
S.D.D. 8 C 6-2



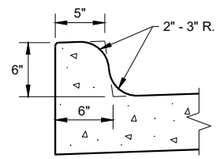
TYPES A (1) & D



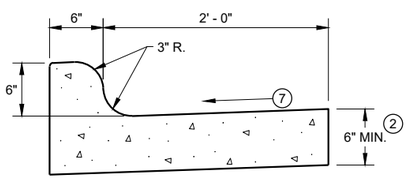
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

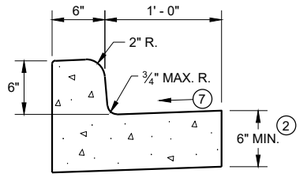


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



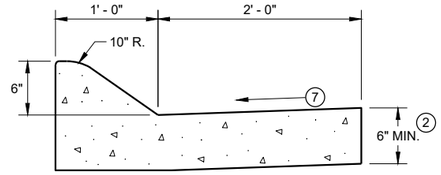
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

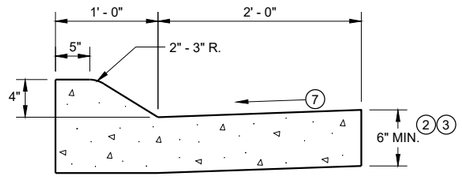


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

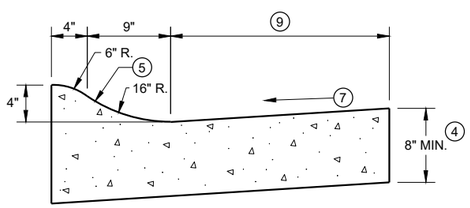


6" SLOPED CURB TYPES A (1) & D



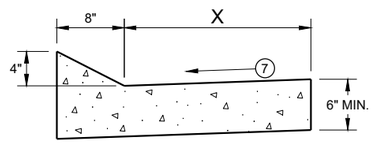
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

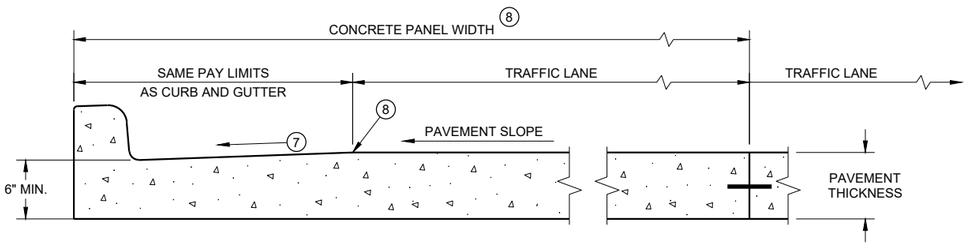


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

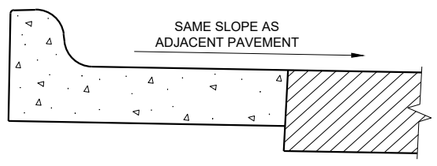
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



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) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES 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.

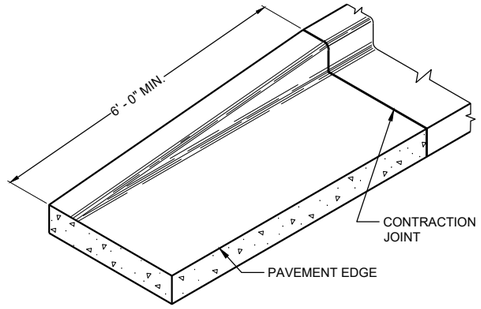
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

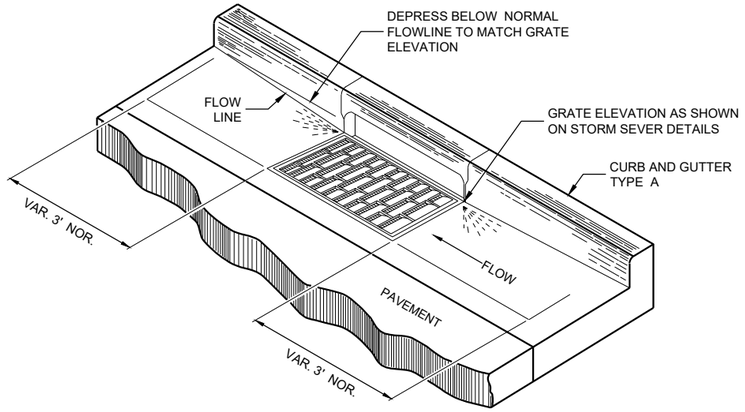
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



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.

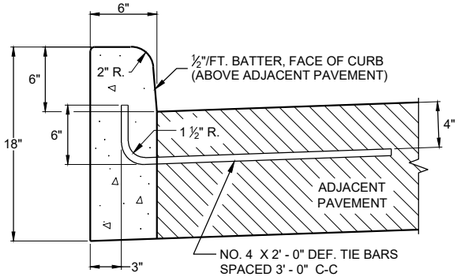
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

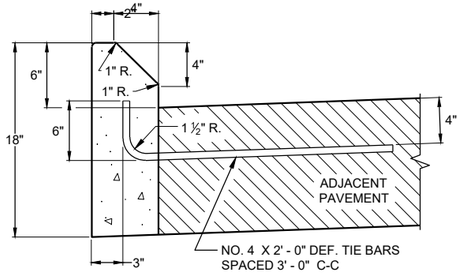
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

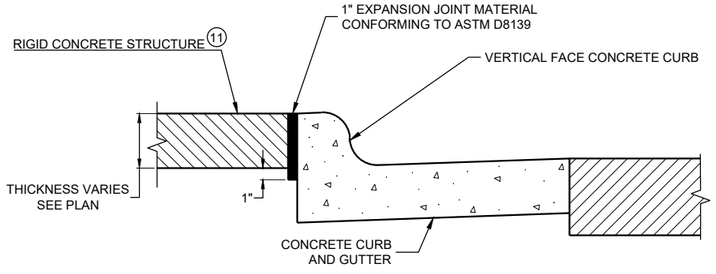


TYPES A (1) & D

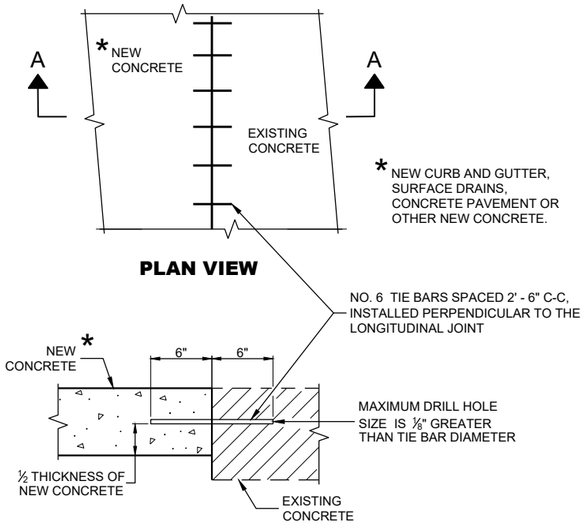


TYPES G (1) & J

CONCRETE CURB



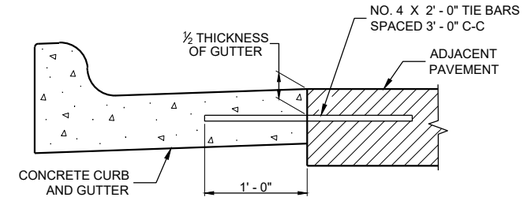
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



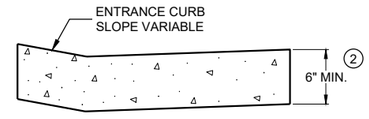
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

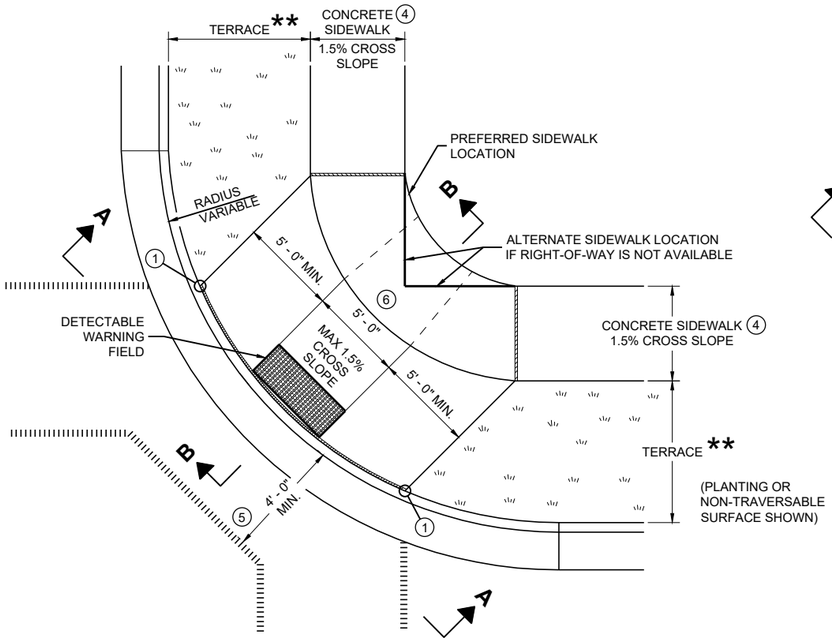
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

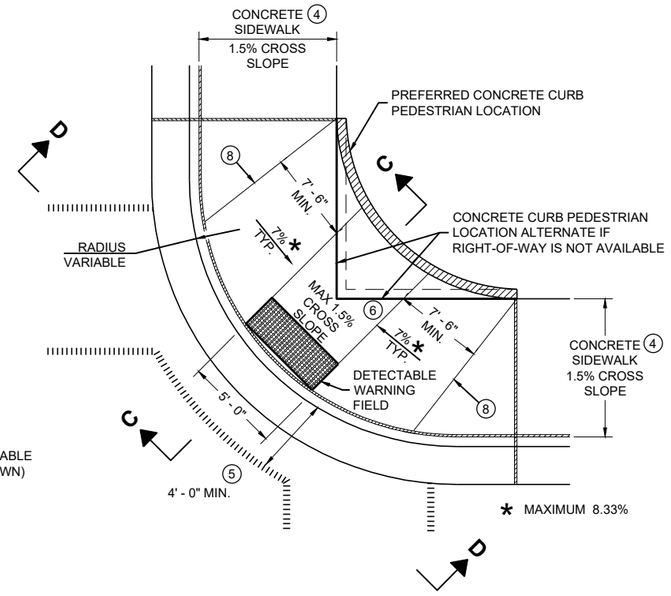
SDD08D01 - 23b



PLAN VIEW

CURB RAMP TYPE 1

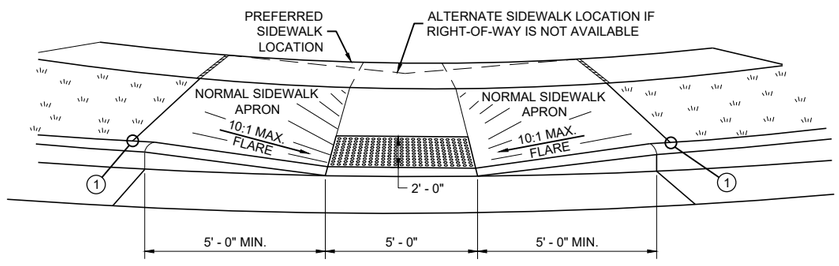
(CENTER OF CORNER RADIUS)



PLAN VIEW

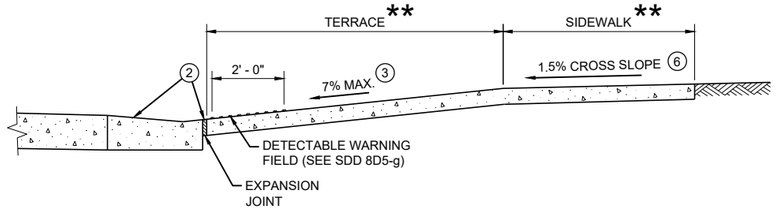
CURB RAMP TYPE 1 - A

(NO TERRACE)

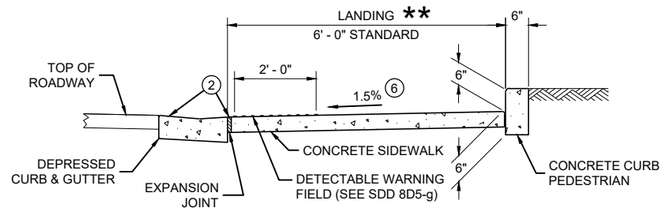


VIEW A - A FOR TYPE 1

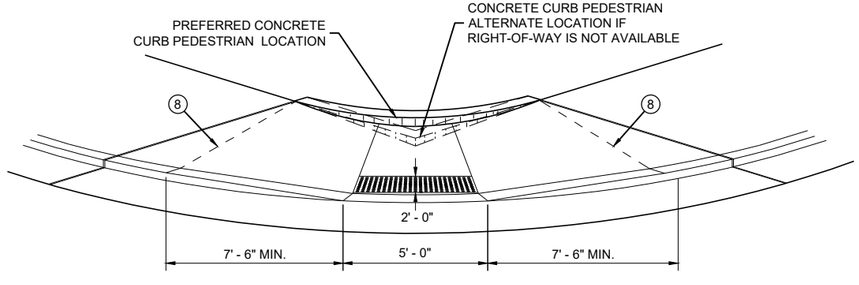
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

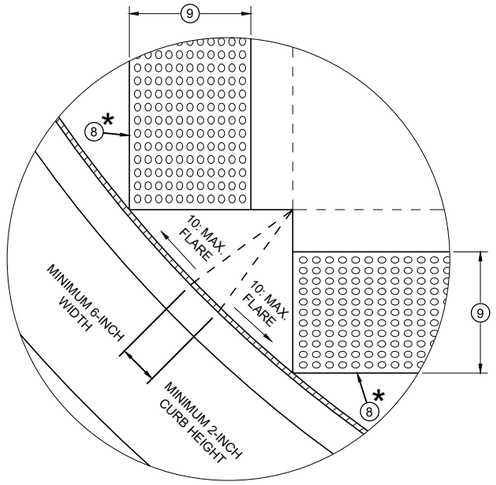
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

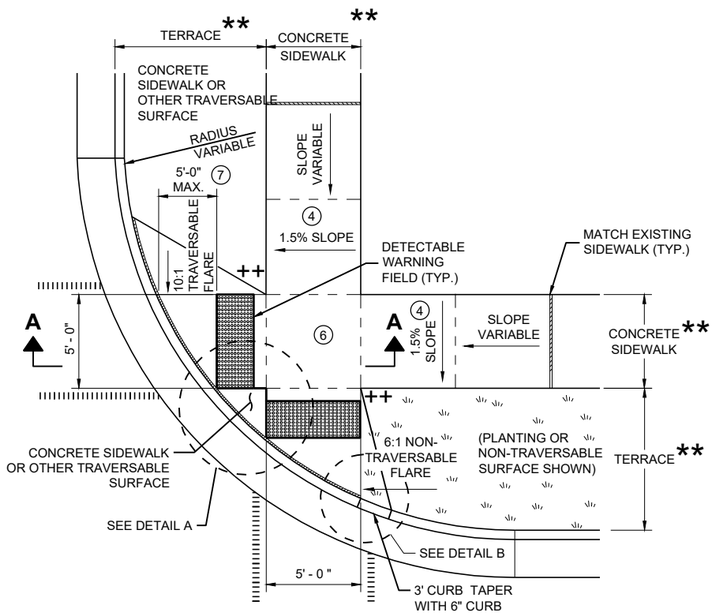
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

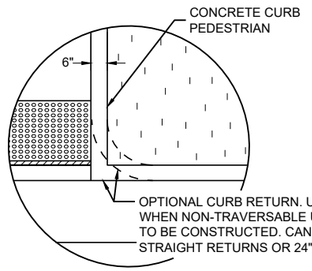
6
SDD 08D05-21a



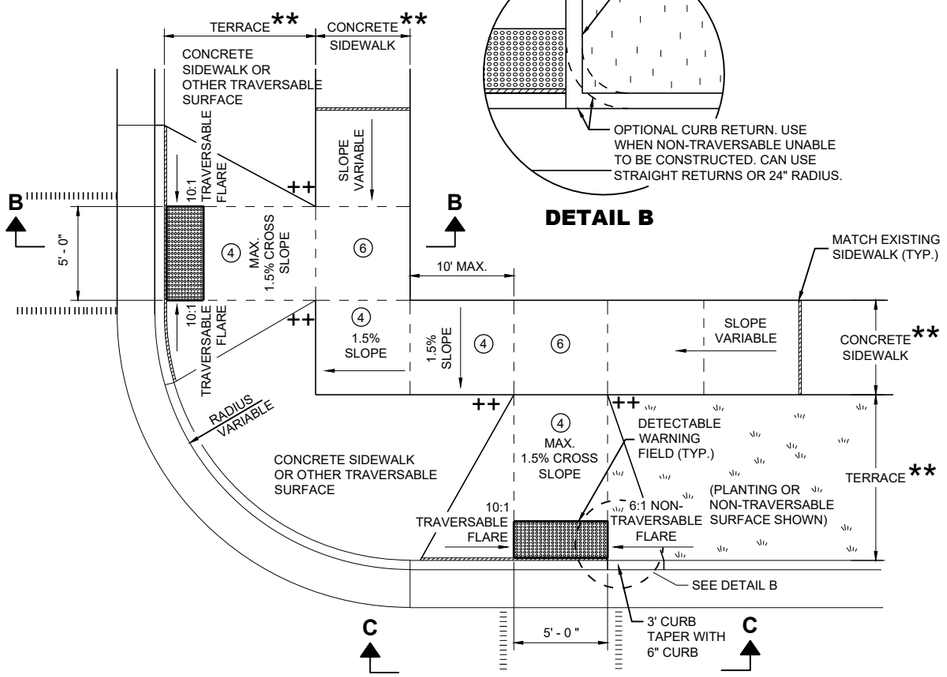
DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



DETAIL B



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

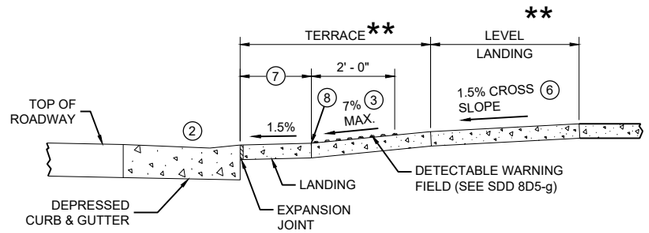
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

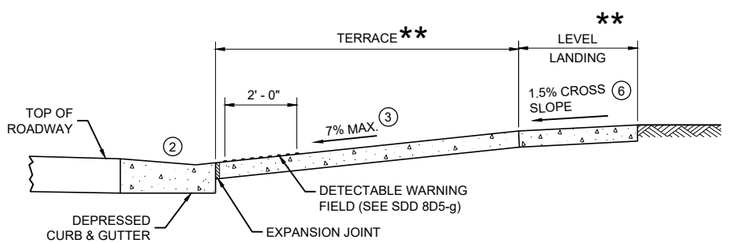


SECTION A - A FOR TYPE 2

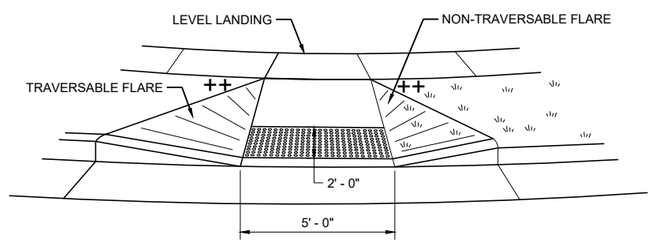
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



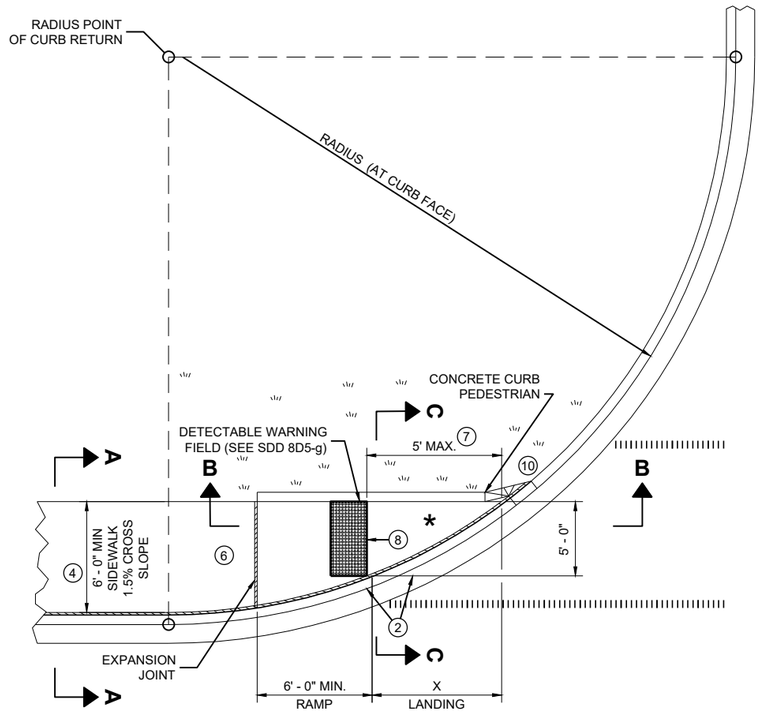
VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

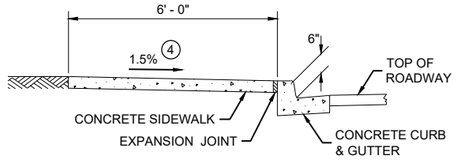


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

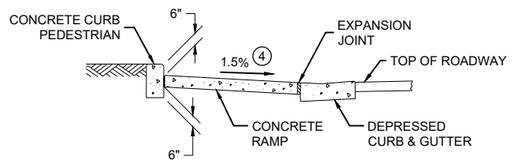
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

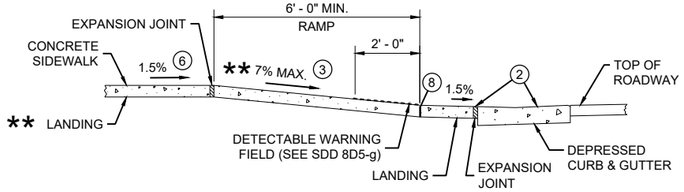
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

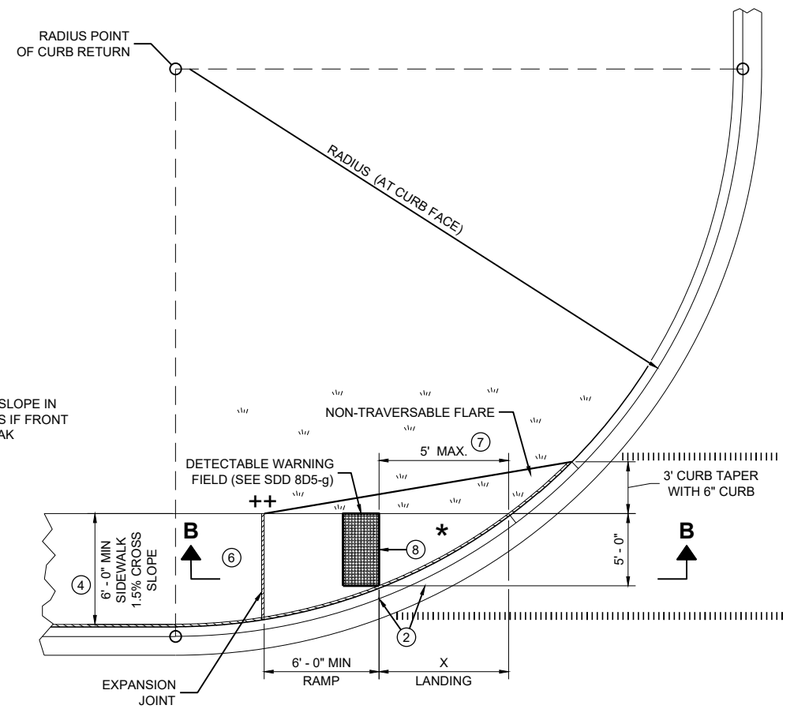


SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

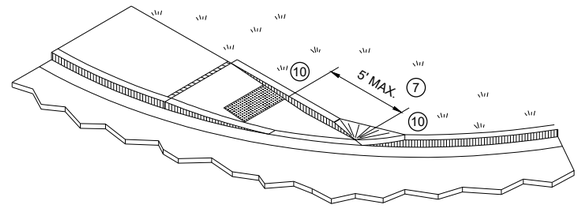


* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

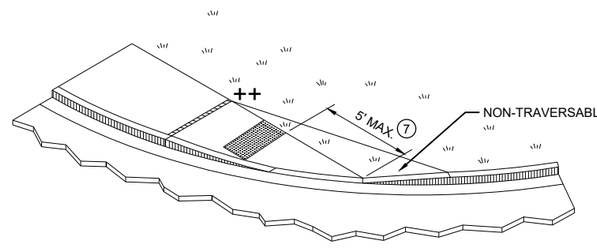
PLAN VIEW

CURB RAMP TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A



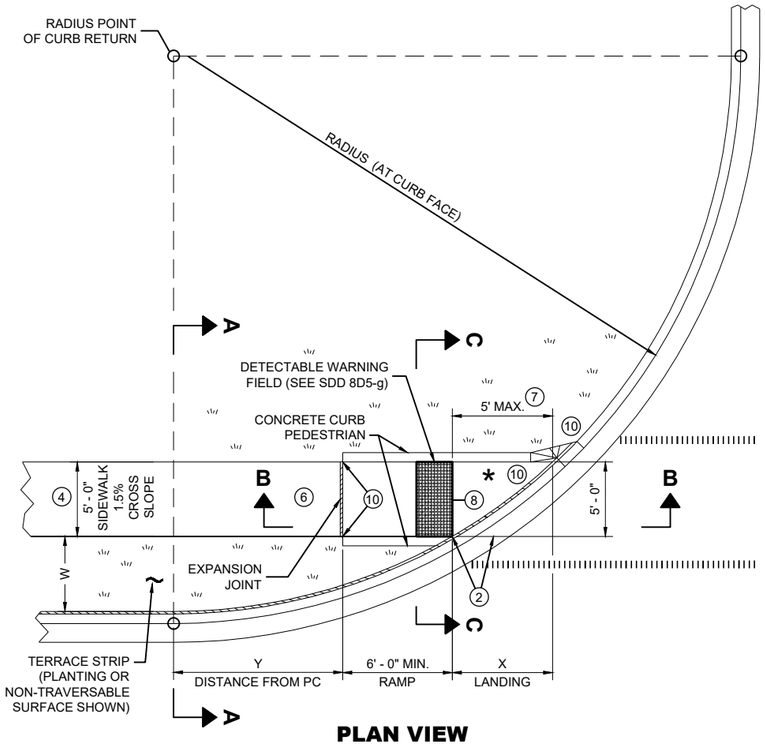
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

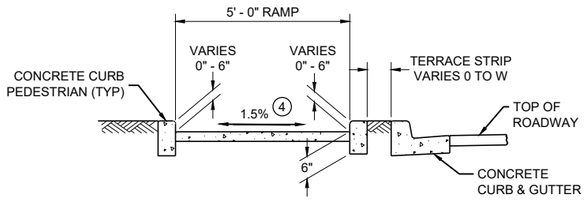
SDD 08D05-21c



PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

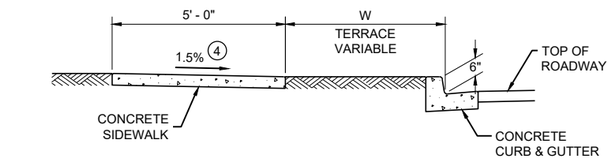
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

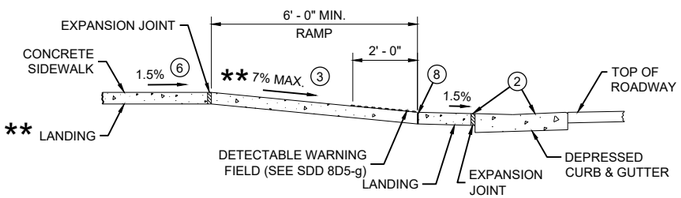
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



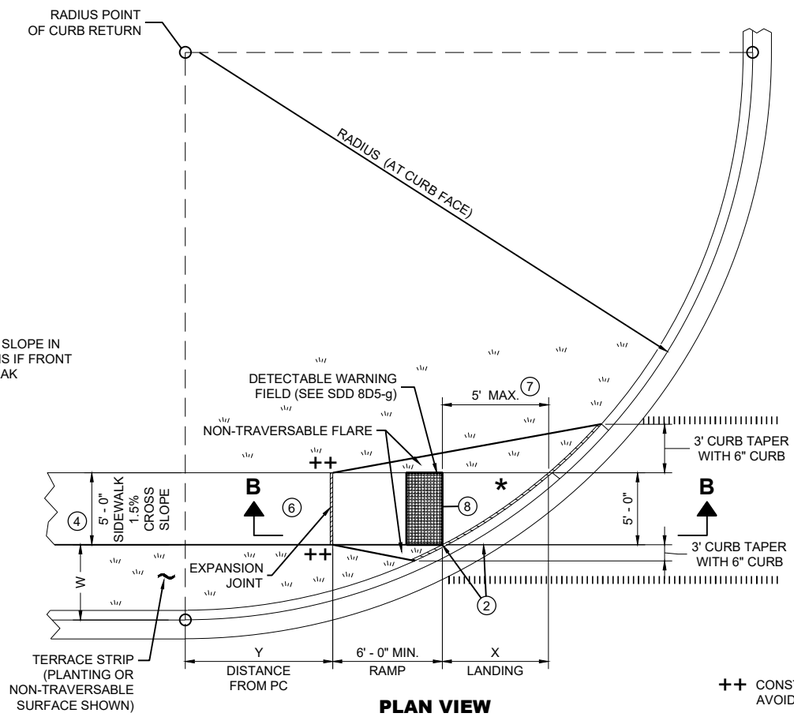
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

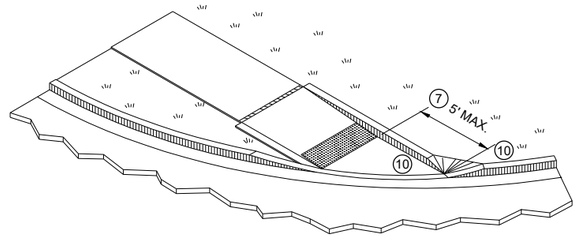
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

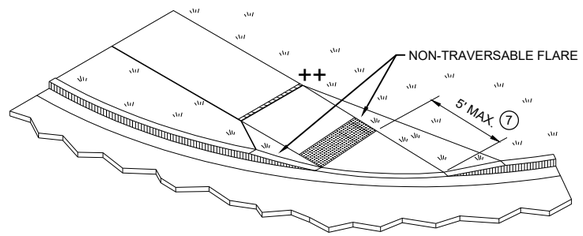


PLAN VIEW
CURB RAMP TYPE 4B1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4B



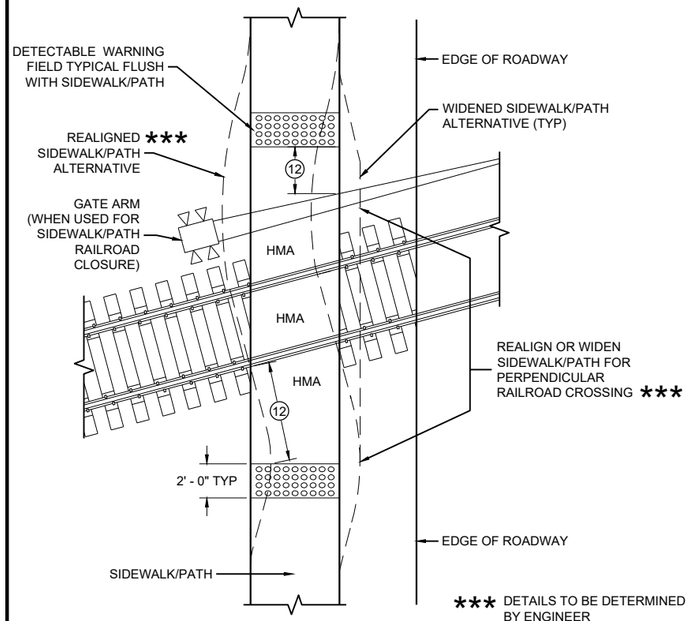
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

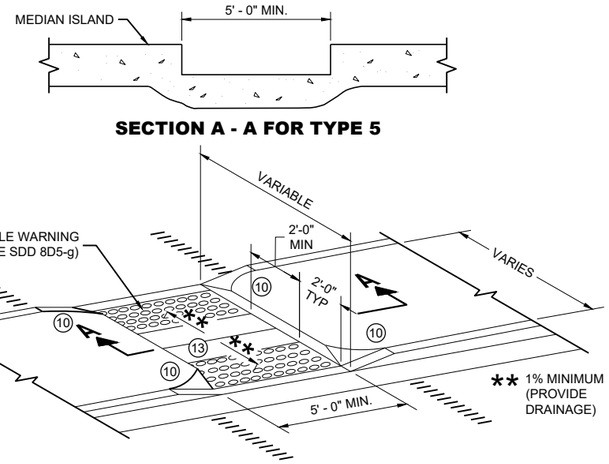
6

SDD 08D05-21d



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

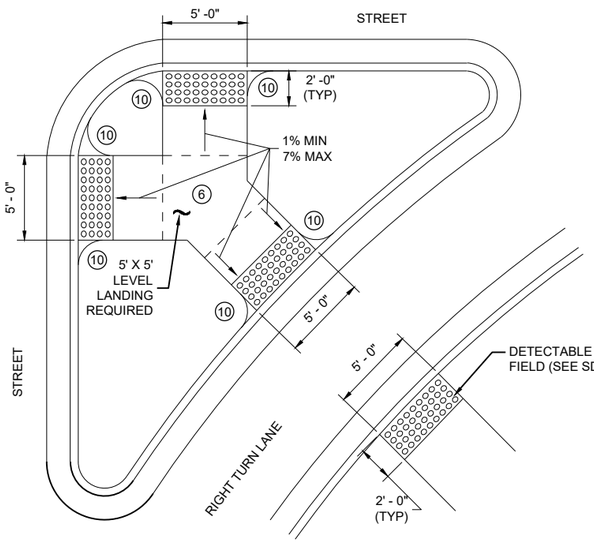
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

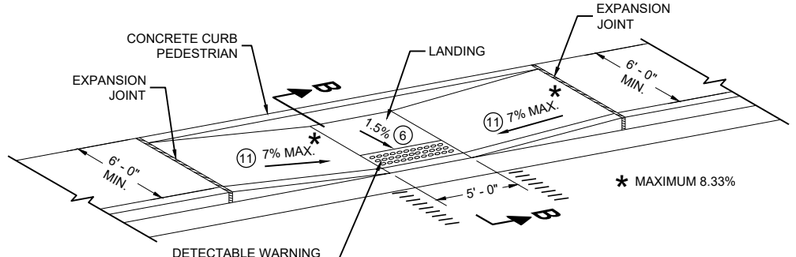
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

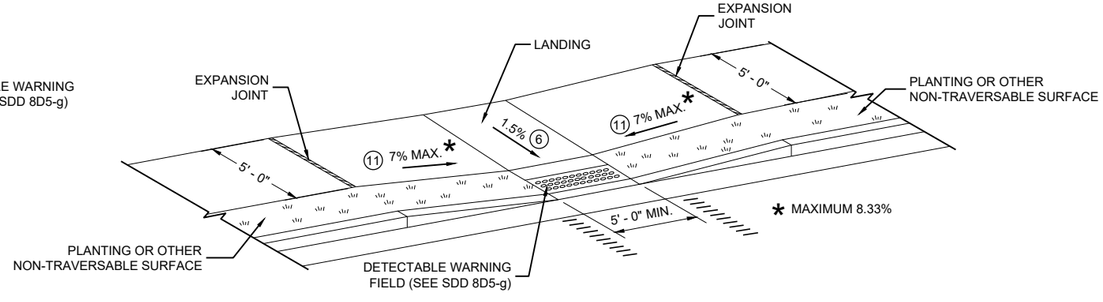
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



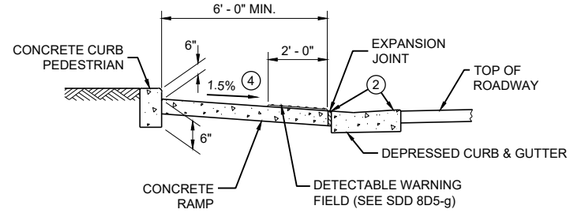
CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

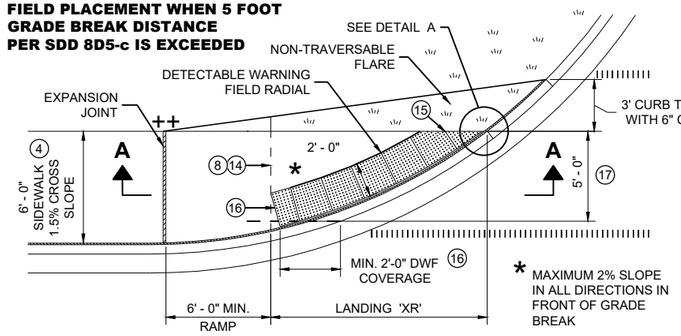


SECTION B - B FOR TYPE 7A

CURB RAMPS TYPE 5, 6, 7A, 7B & 8

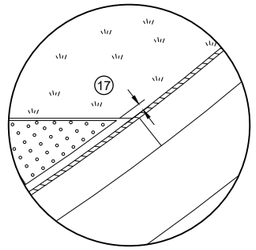
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED

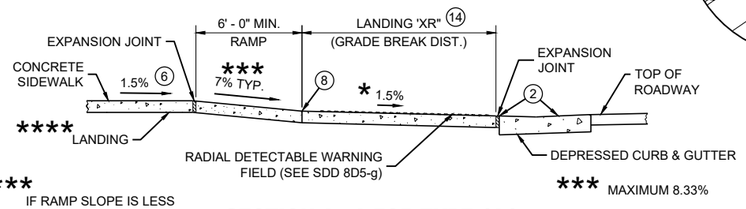


PLAN VIEW

CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

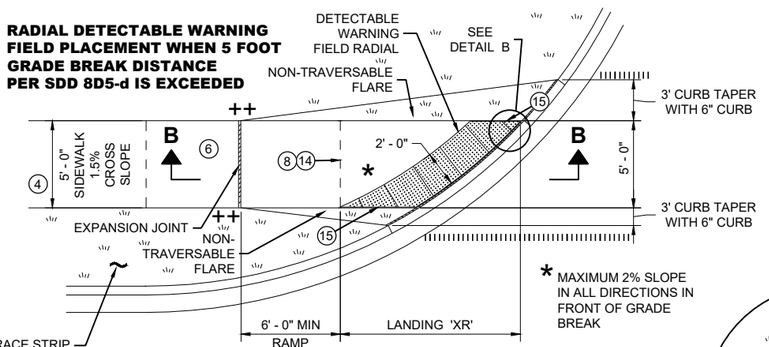
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

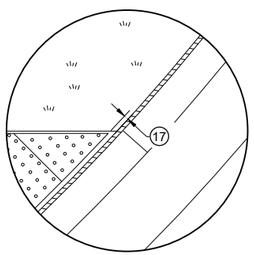
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED

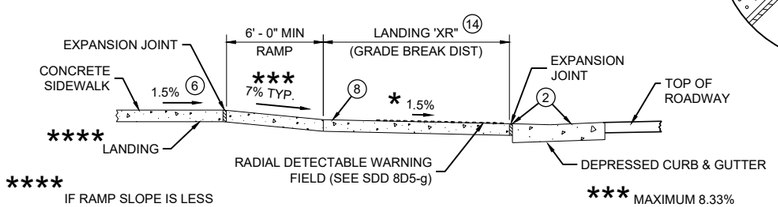


PLAN VIEW

CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

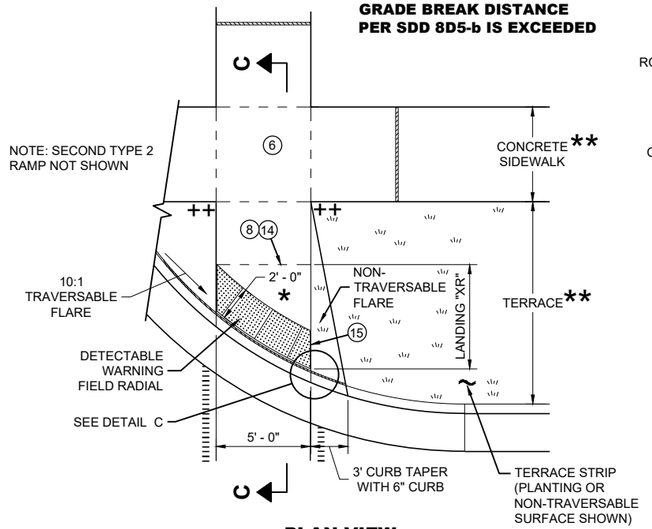


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

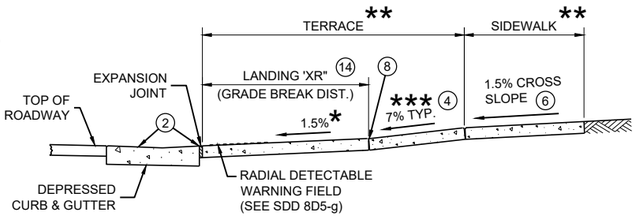
SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

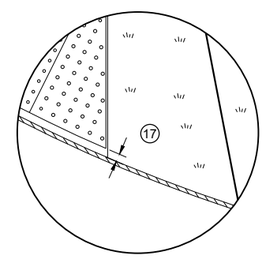


PLAN VIEW

CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

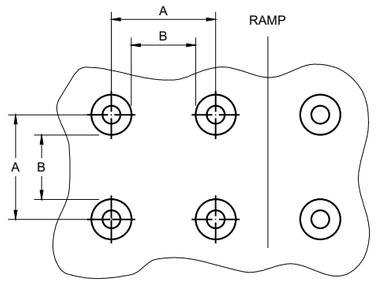
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

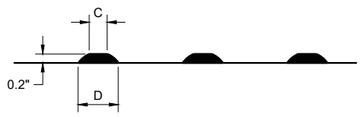
SDD 08D05-21f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

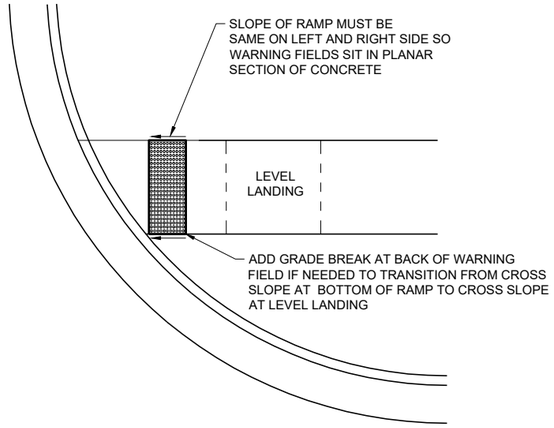
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

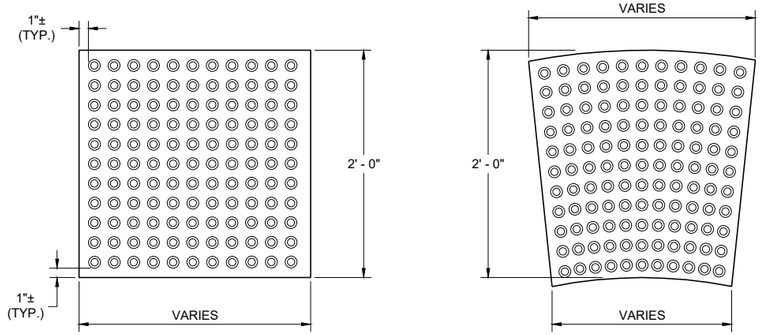
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

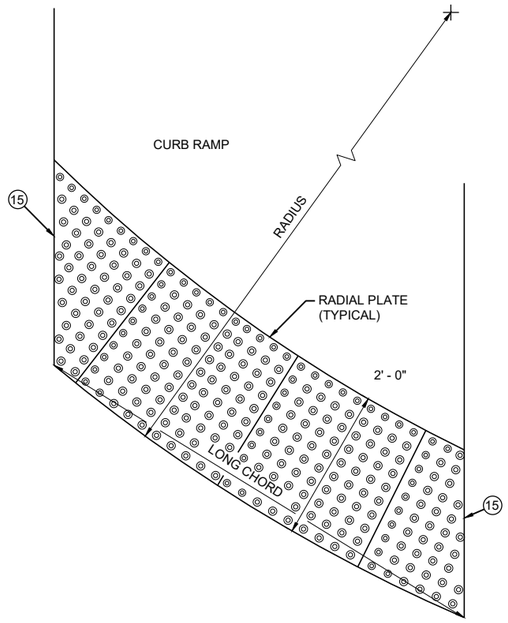
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



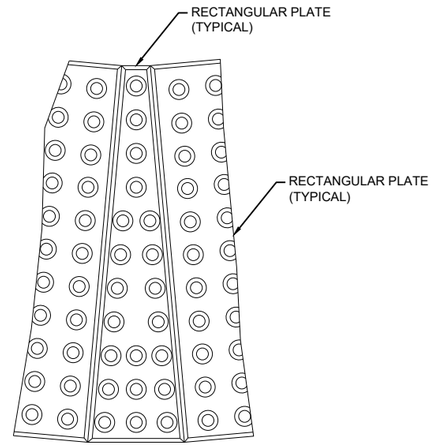
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

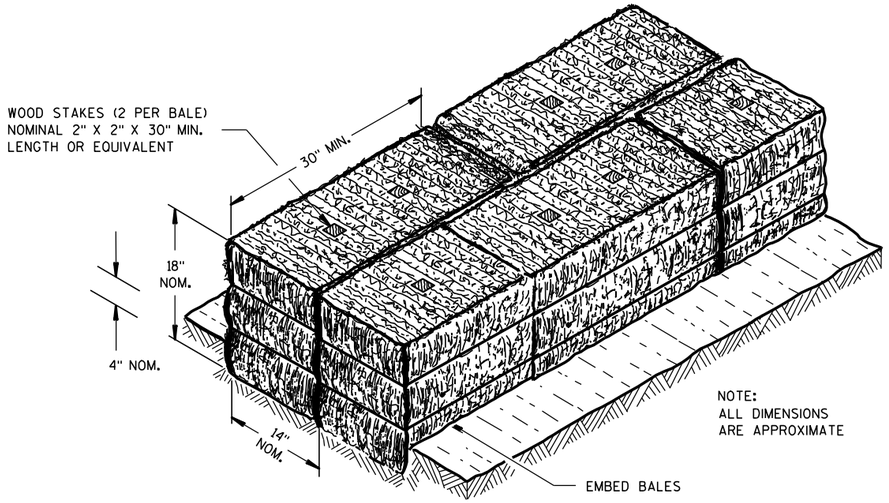
CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

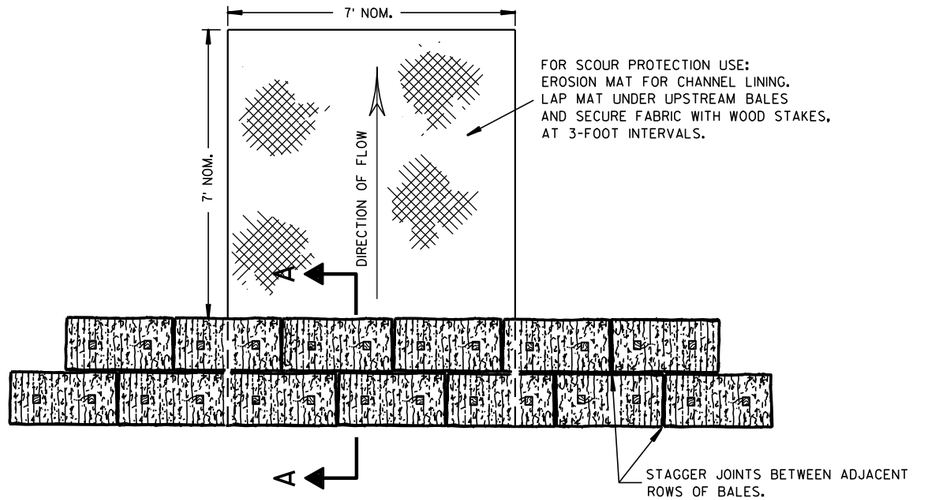
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

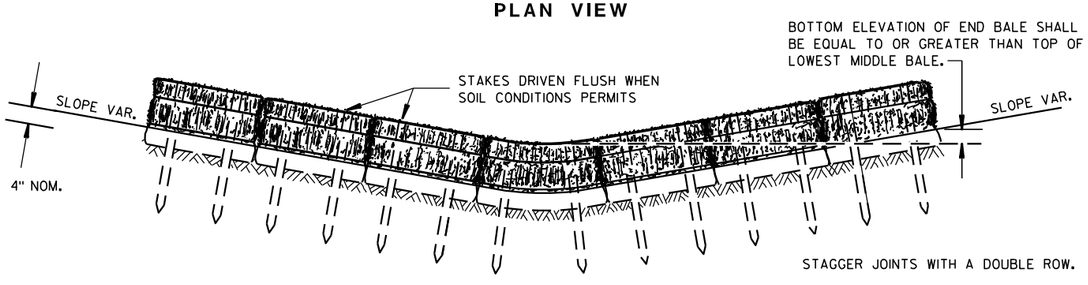
6
SDD 08D05-21g



SECTION A-A



PLAN VIEW



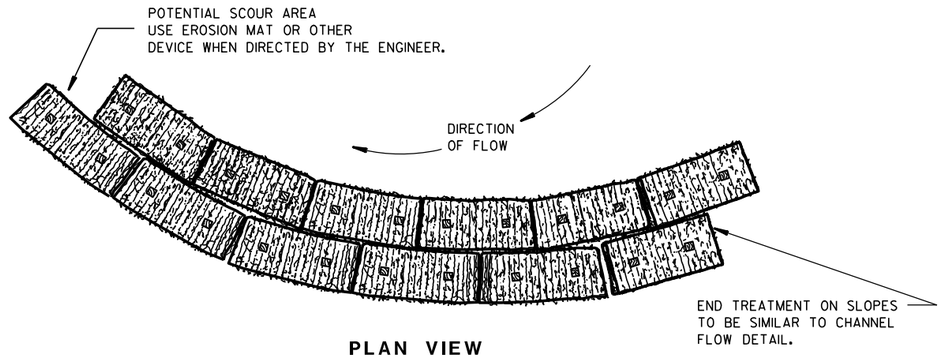
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

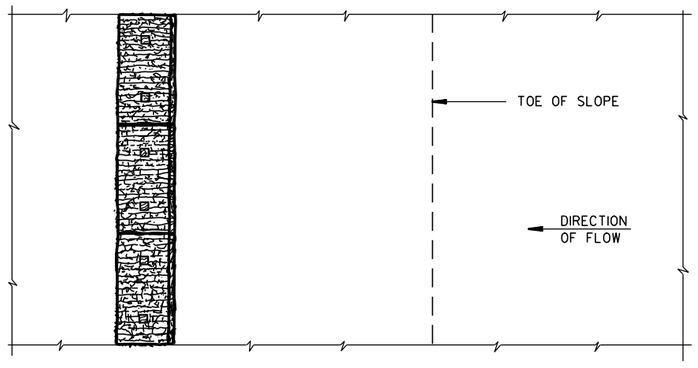
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

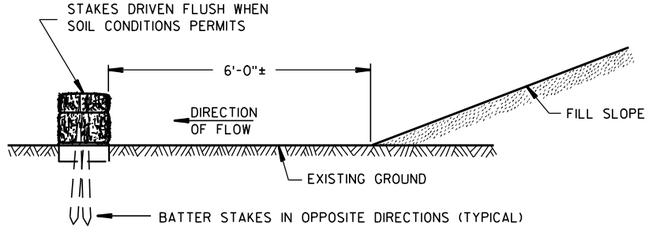


PLAN VIEW

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

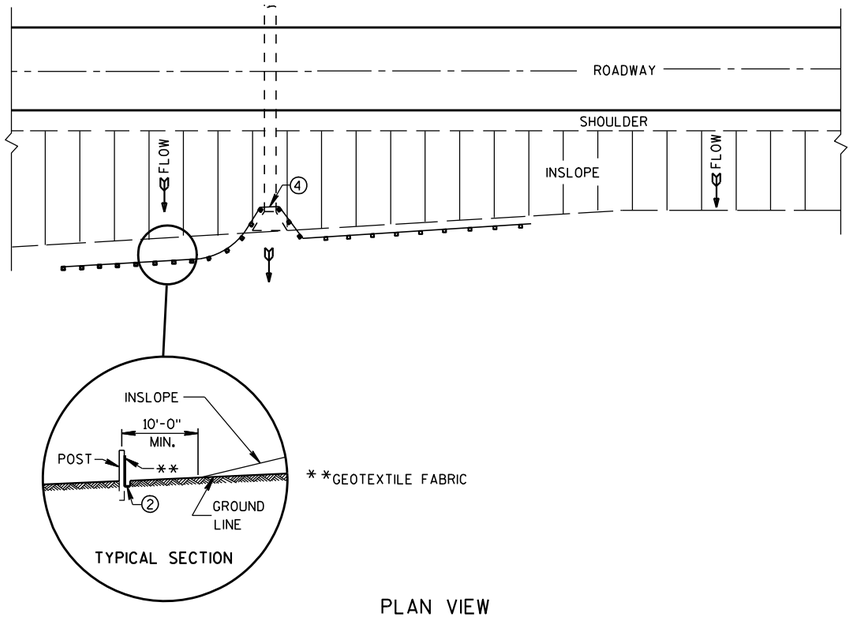
FHWA

6

S.D.D. 8 E 8-3

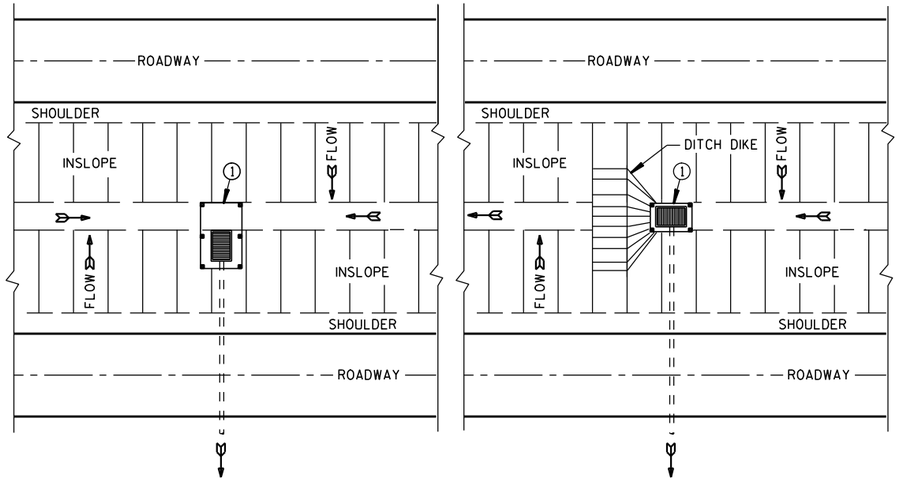
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



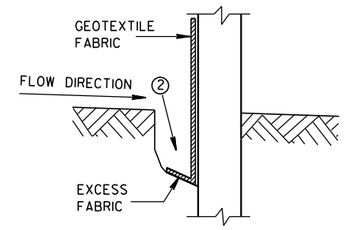
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

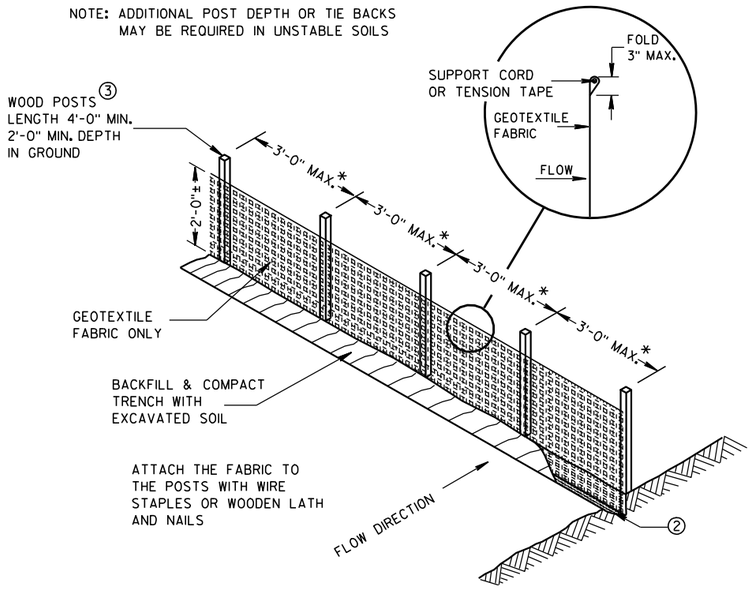
GENERAL NOTES

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

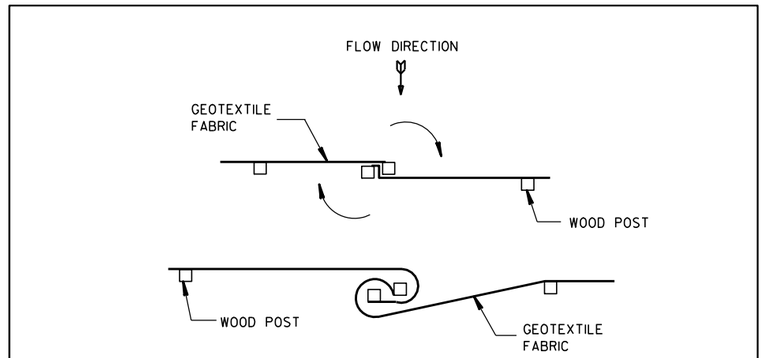
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



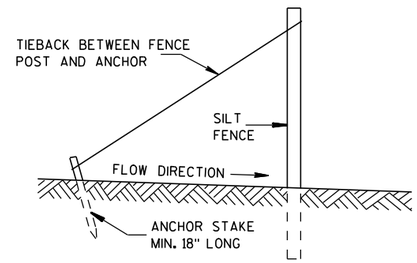
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

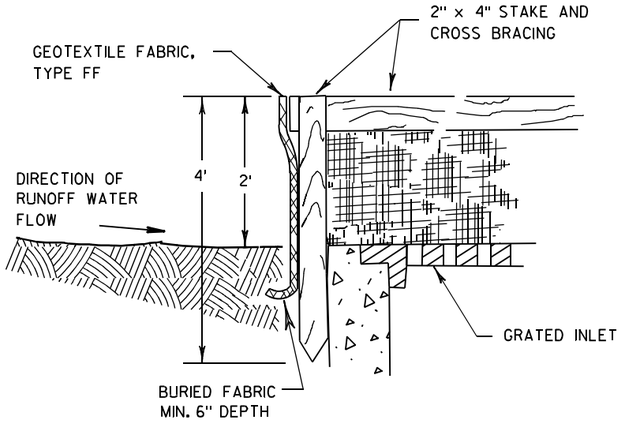
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

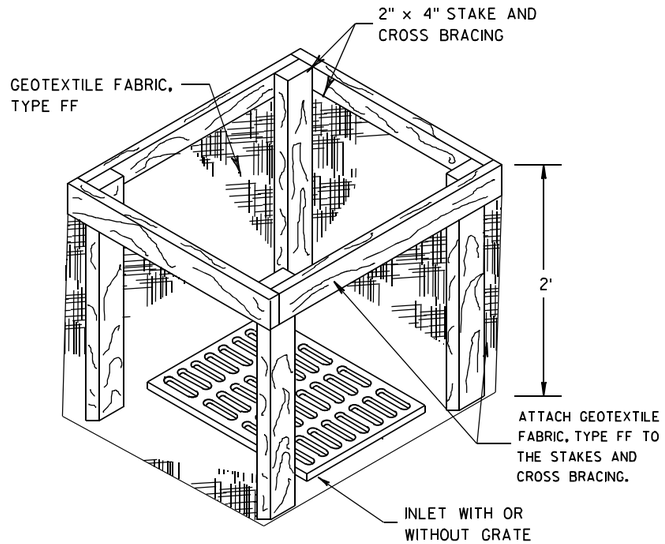
6

S.D.D. 8 E 9-6

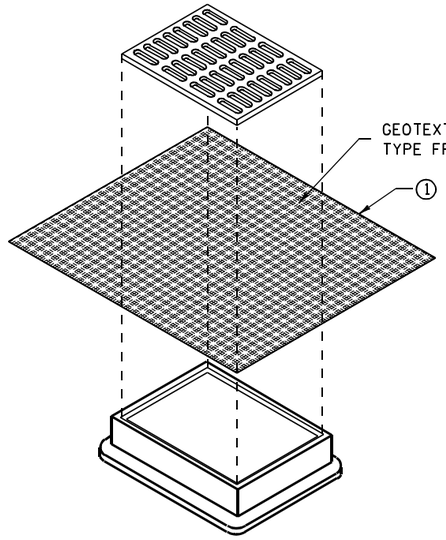
6

S.D.D. 8 E 9-6



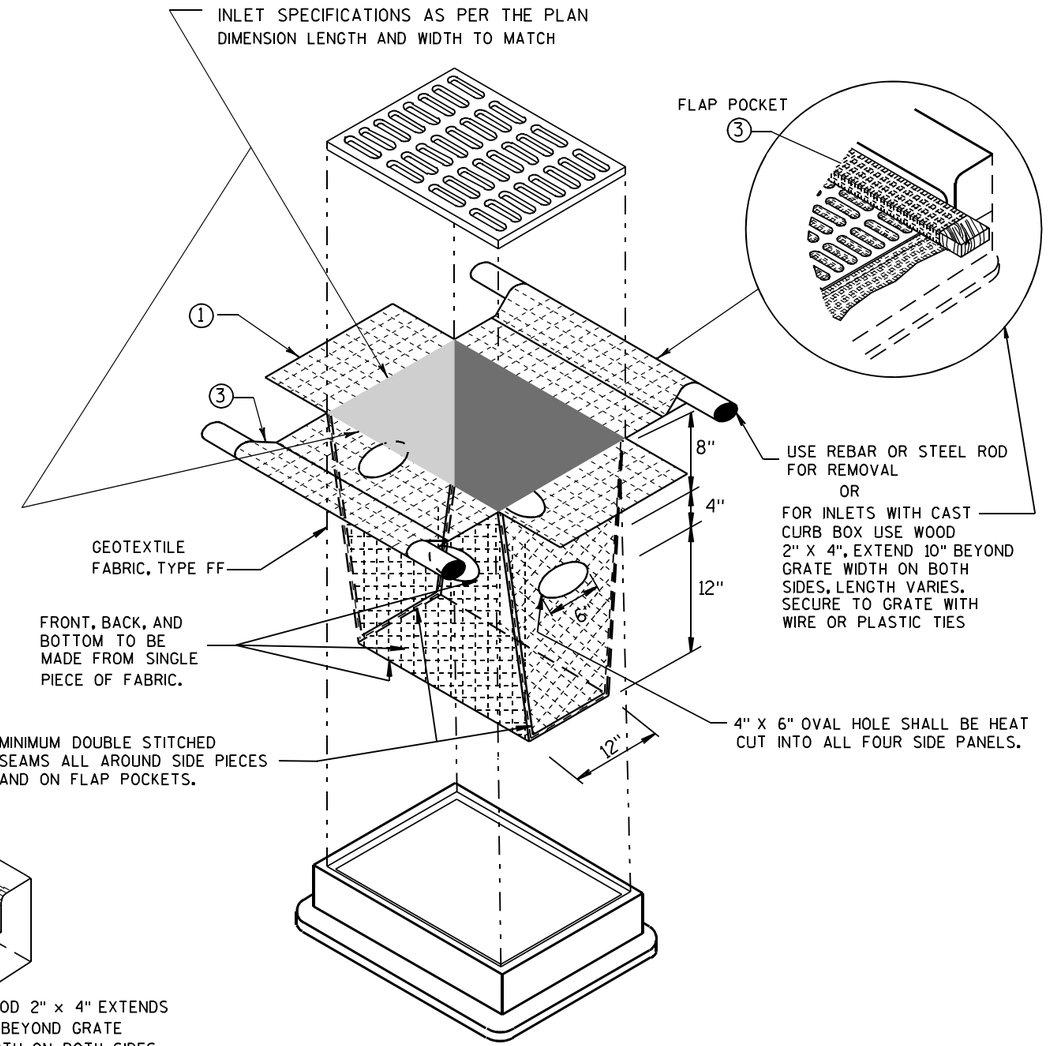


INLET PROTECTION, TYPE A



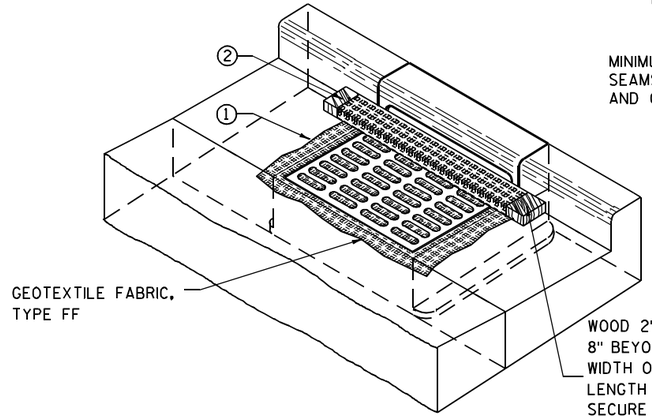
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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

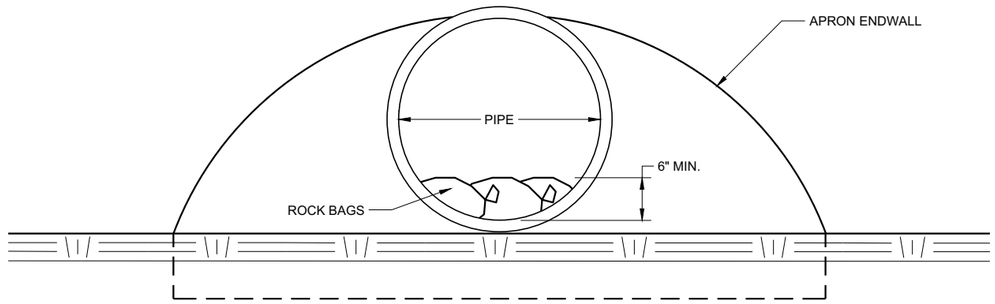
APPROVED

10/16/02
DATE

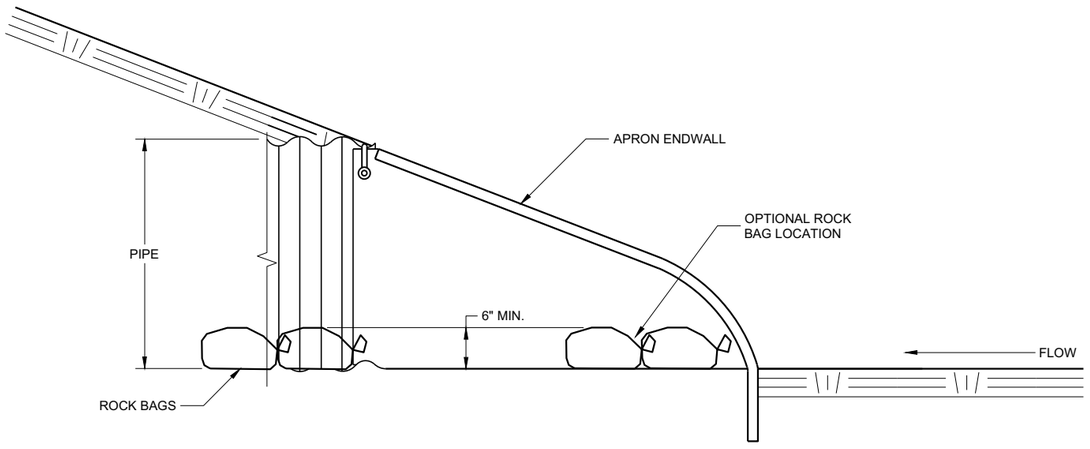
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

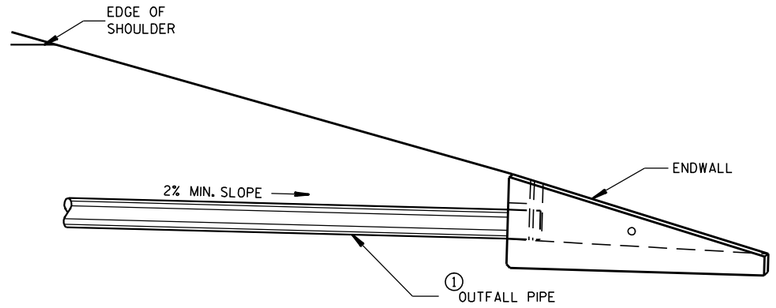
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

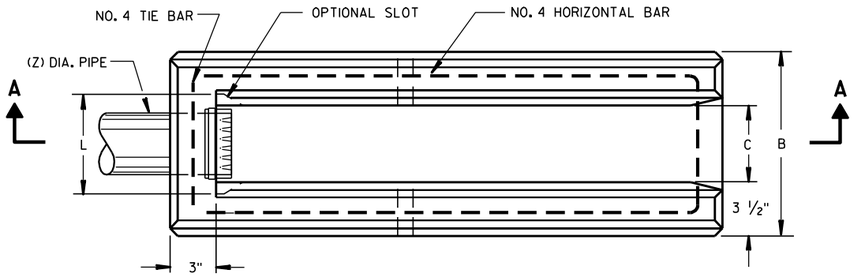
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

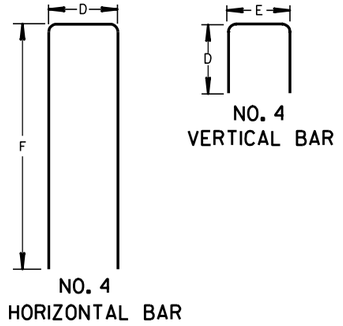
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

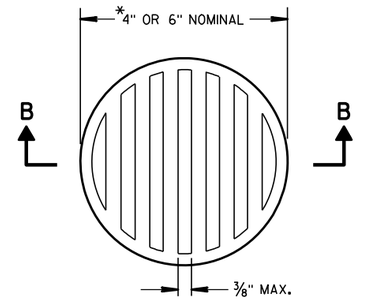
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



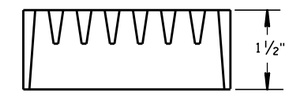
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS



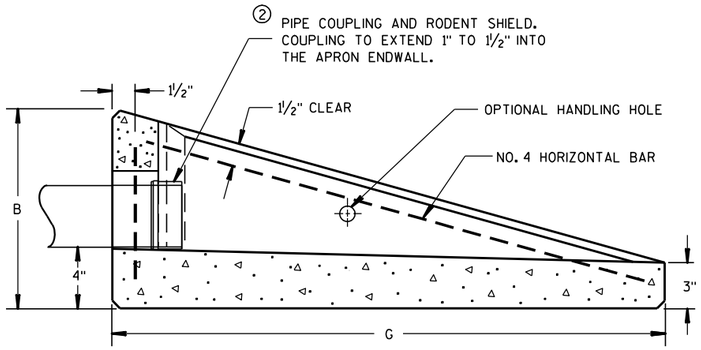
NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



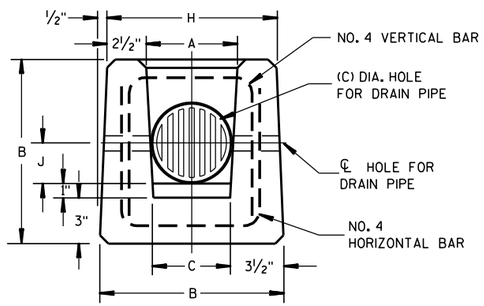
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

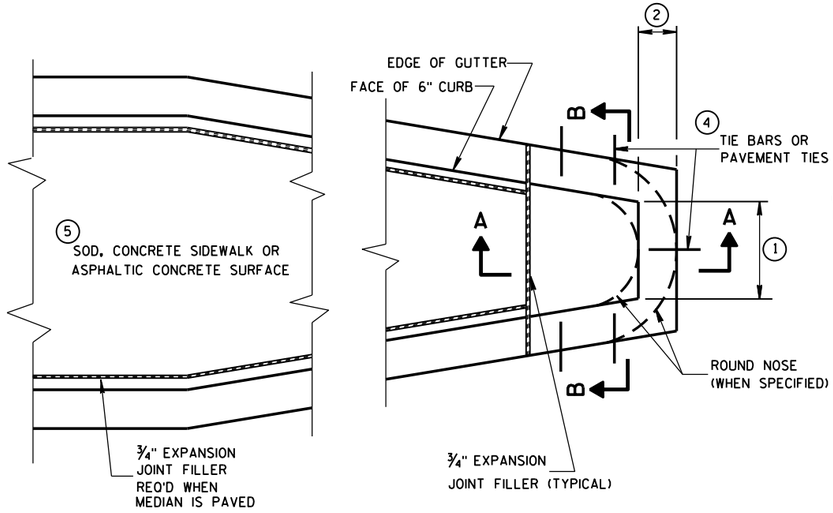
CONCRETE APRON ENDWALL FOR UNDERDRAIN

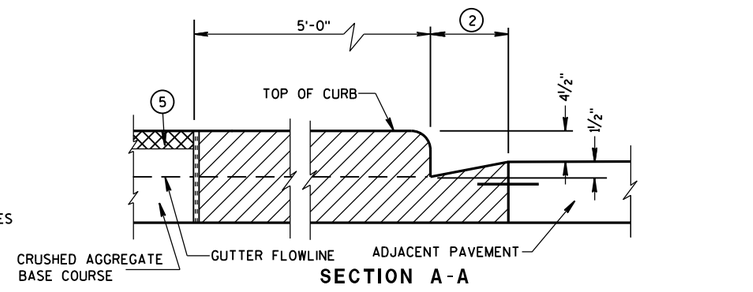
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

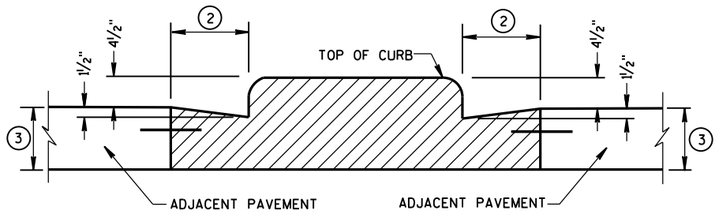
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 6-4







CONCRETE MEDIAN BLUNT NOSE DETAIL

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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

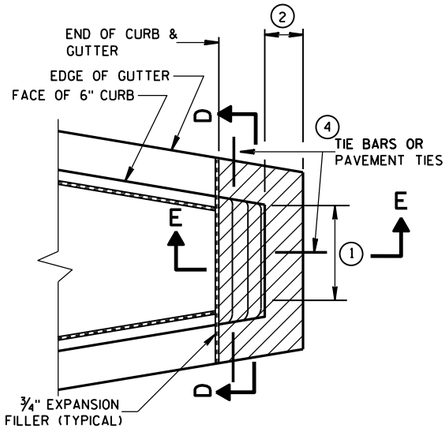
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

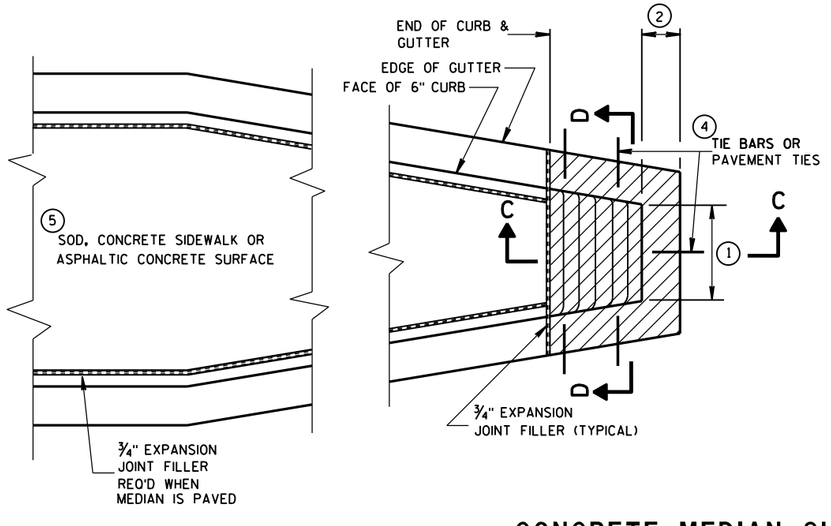
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

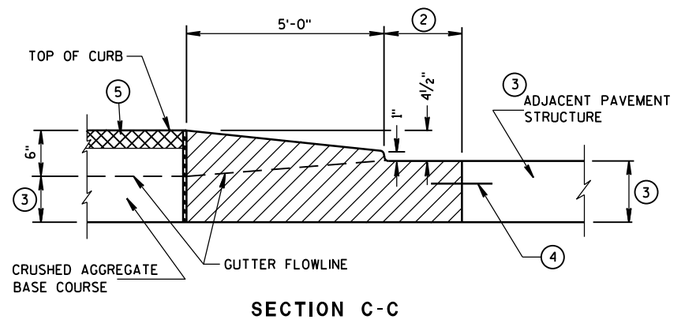
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

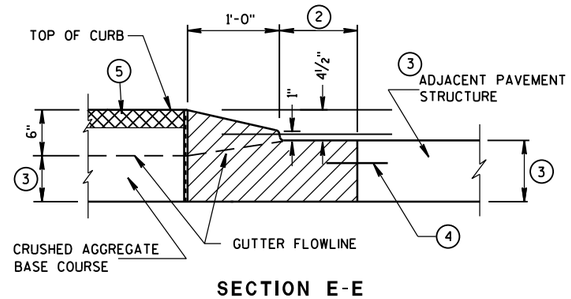
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



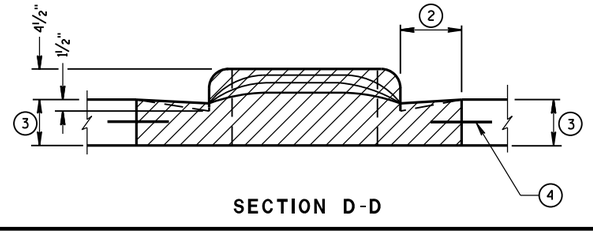






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

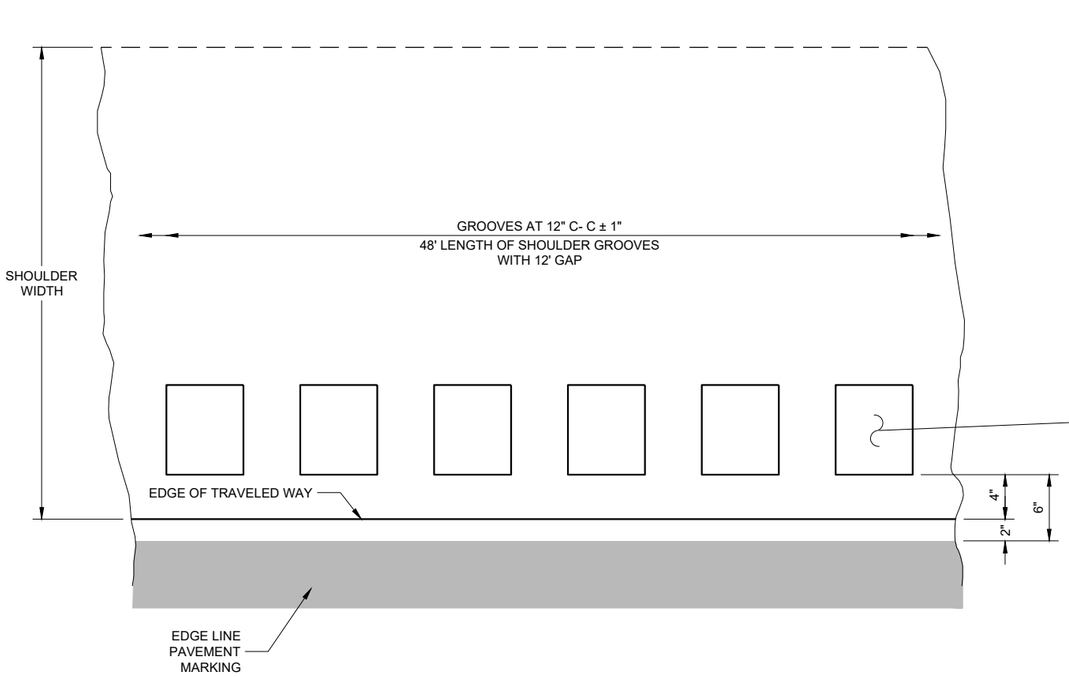
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

6

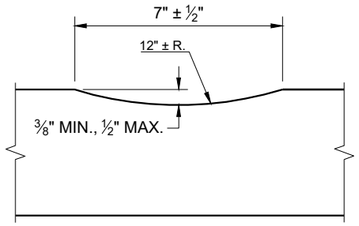
S.D.D. 11 B 2-2

6

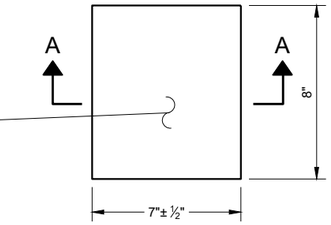
S.D.D. 11 B 2-2



PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

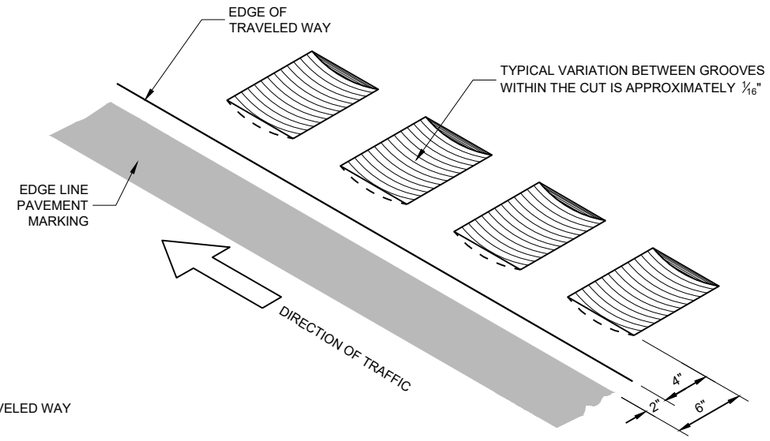


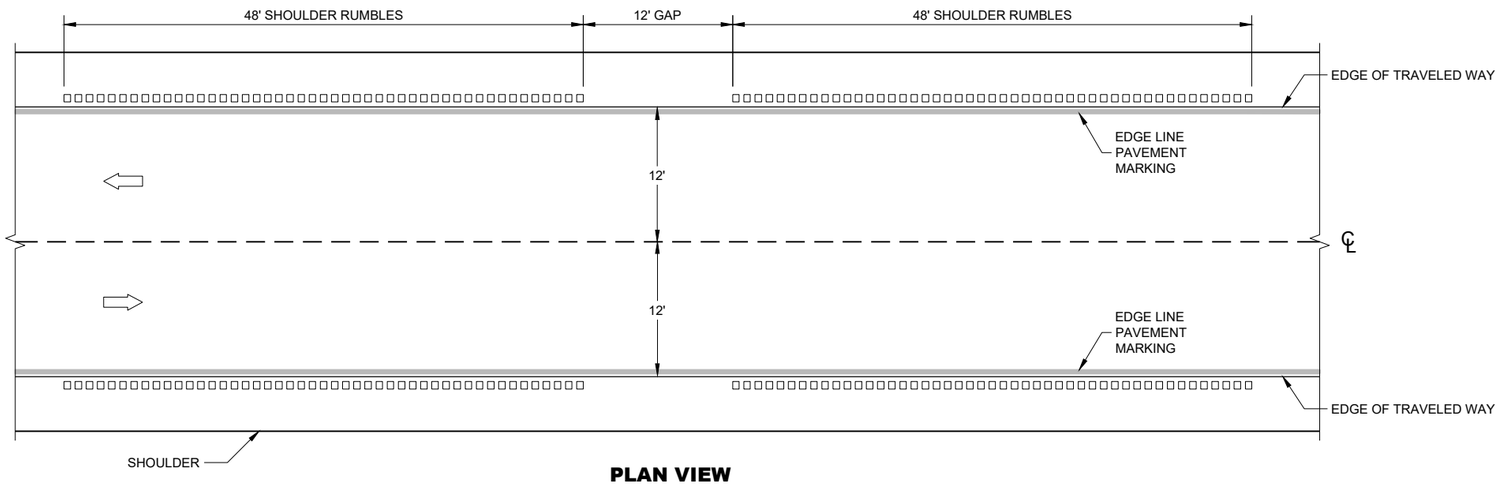
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

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





PLAN VIEW

SHOULDER RUMBLE STRIPS - ASPHALT

6

SDD 13A10 - 03a

SHOULDER RUMBLE STRIPS ASPHALT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

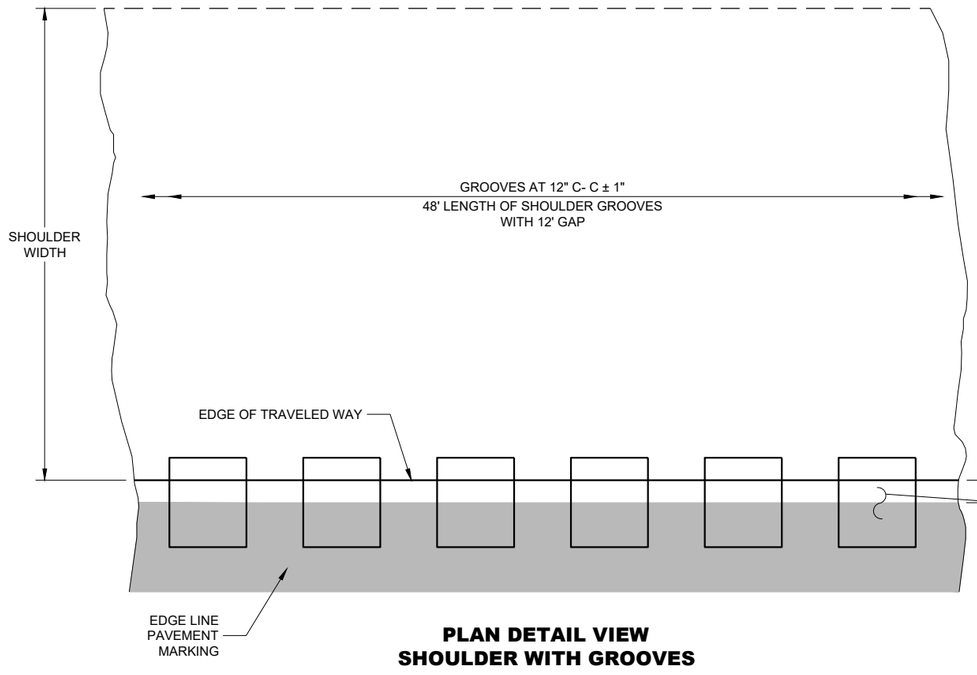
6

SDD 13A10 - 03a

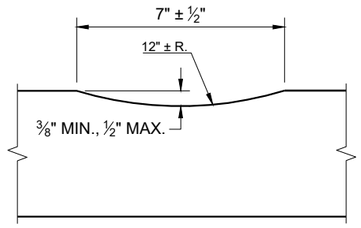
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

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

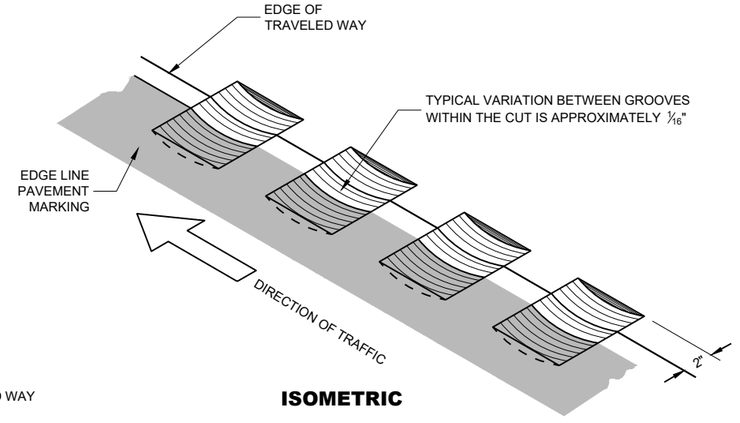


PLAN DETAIL VIEW
SHOULDER WITH GROOVES

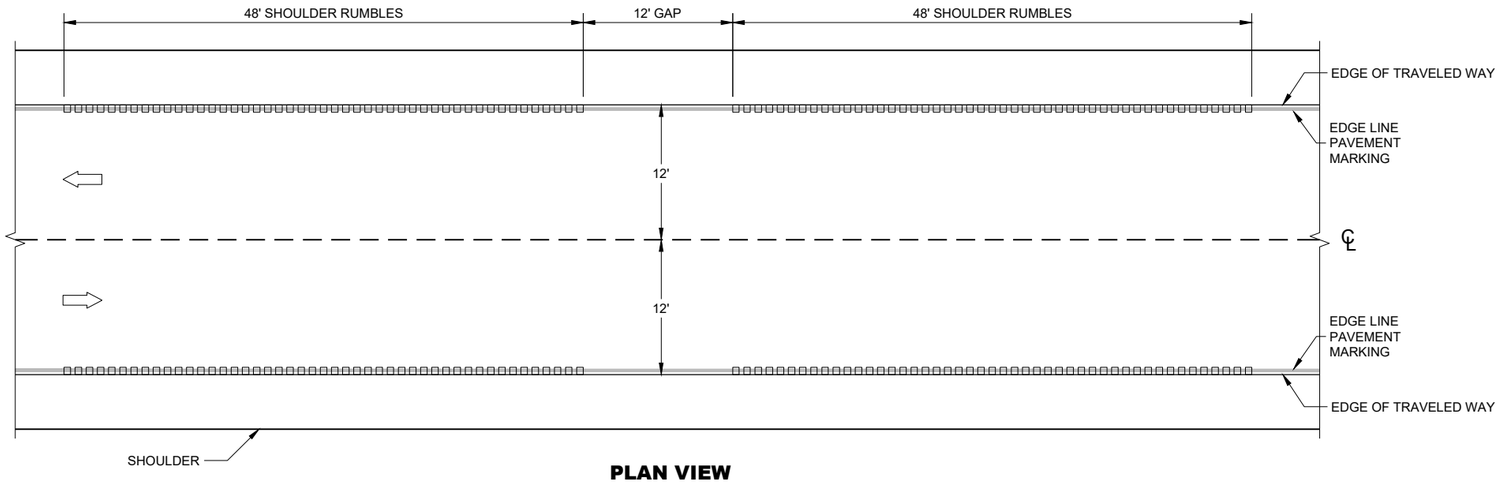


SECTION A - A

PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC



PLAN VIEW

EDGE LINE RUMBLE STRIPS - ASPHALT

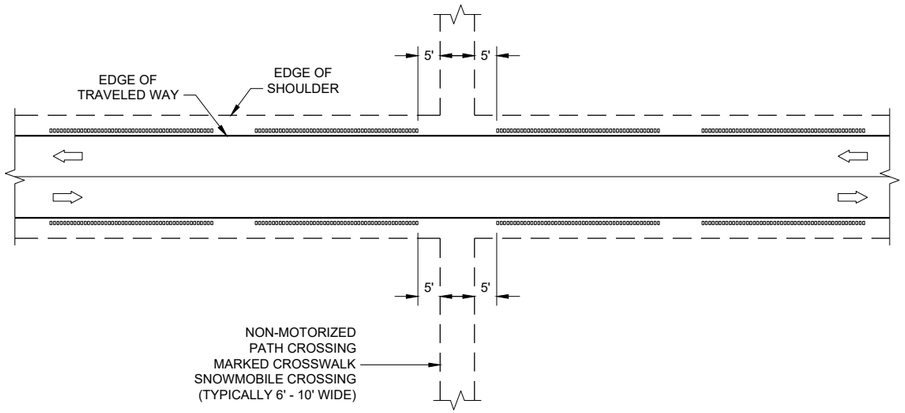
6

SDD 13A10 - 03e

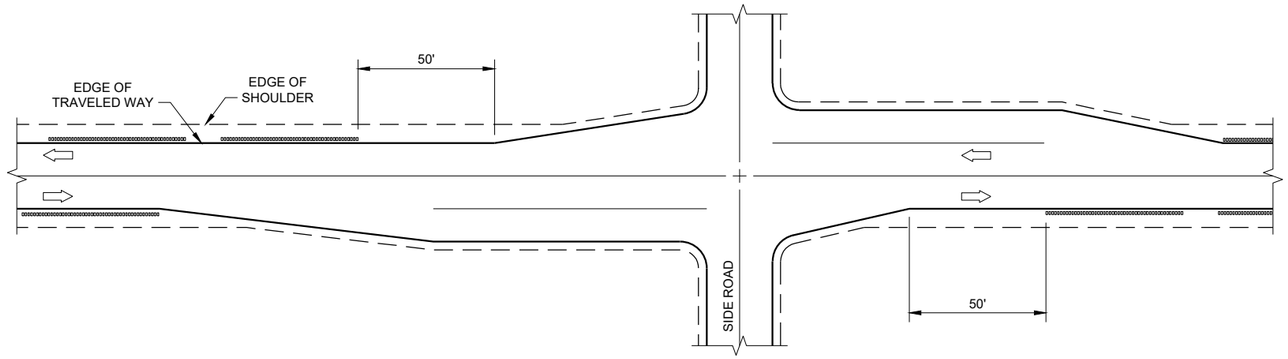
6

SDD13A10 - 03e

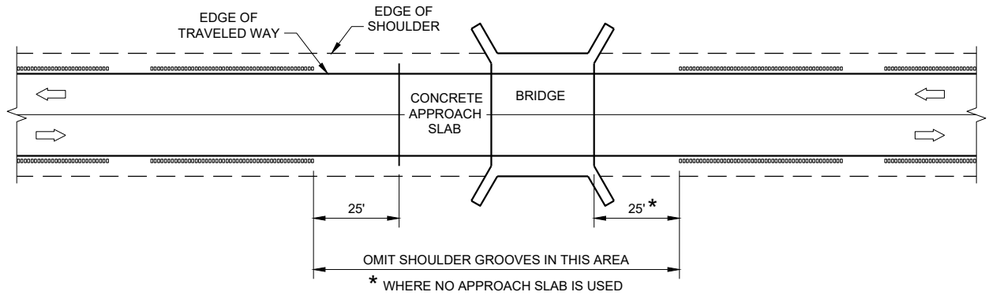
EDGE LINE RUMBLE STRIPS - ASPHALT



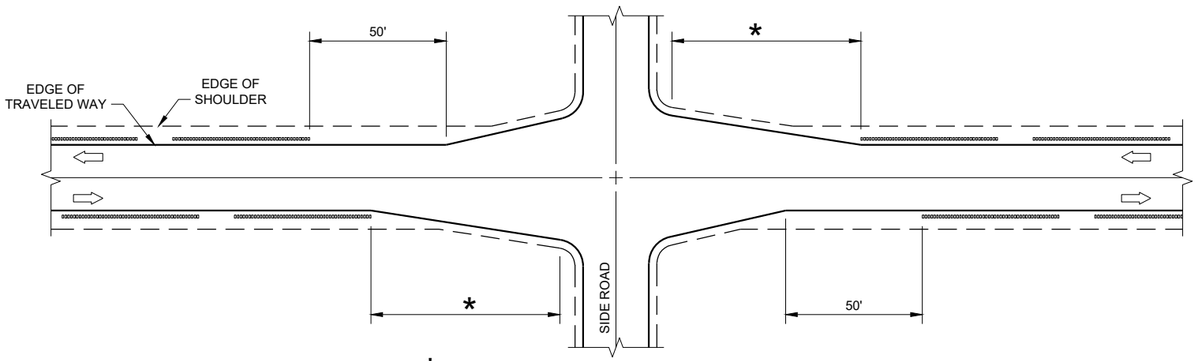
GROOVES AT MISCELLANEOUS CROSSINGS



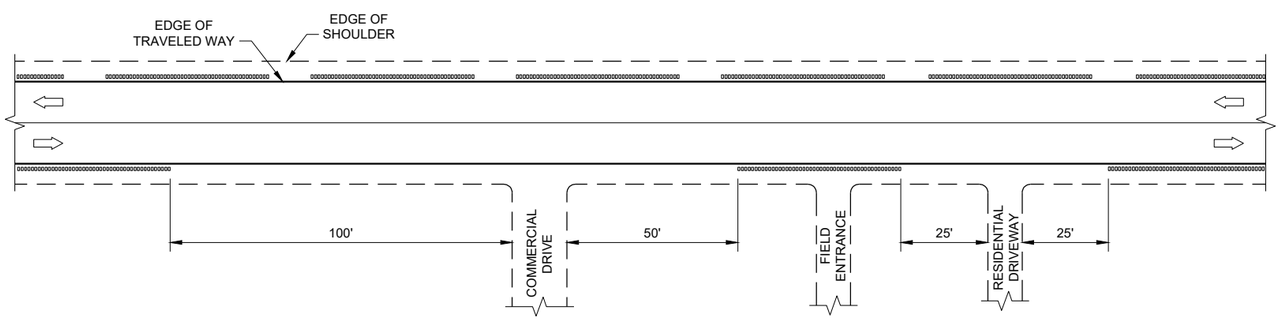
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



GROOVES AT DRIVEWAYS ①

GENERAL NOTES

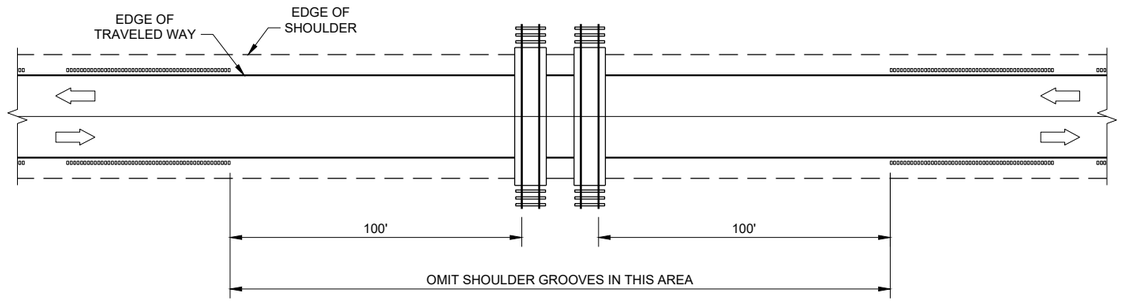
① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

SHOULDER AND EDGE LINE RUMBLE STRIPS CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS

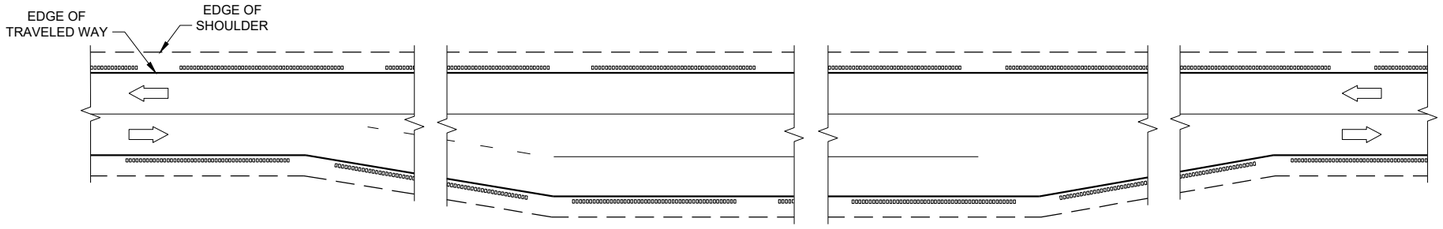
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

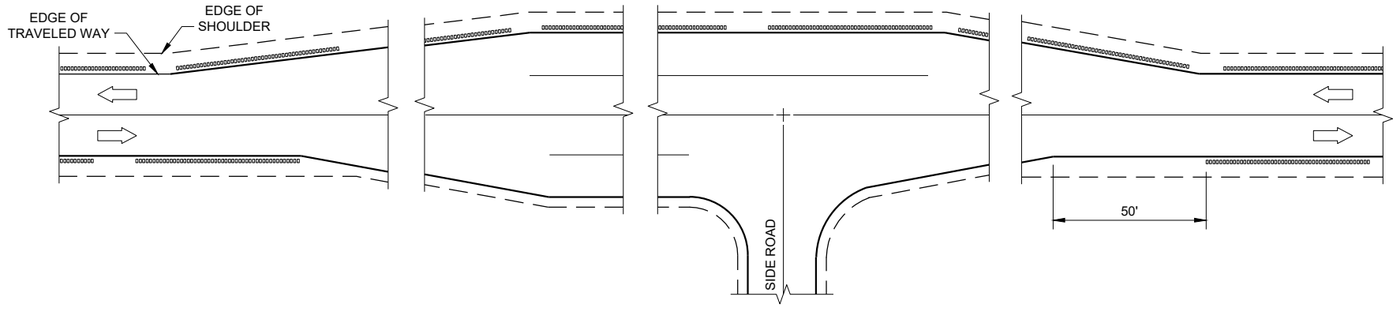
SDD 13A10 - 03g



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



GROOVES AT BYPASS LANES

6

SDD 13A10 - 03h

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ John Jenkins
ROADWAY STANDARDS DEVE ENGINEER

FHWA

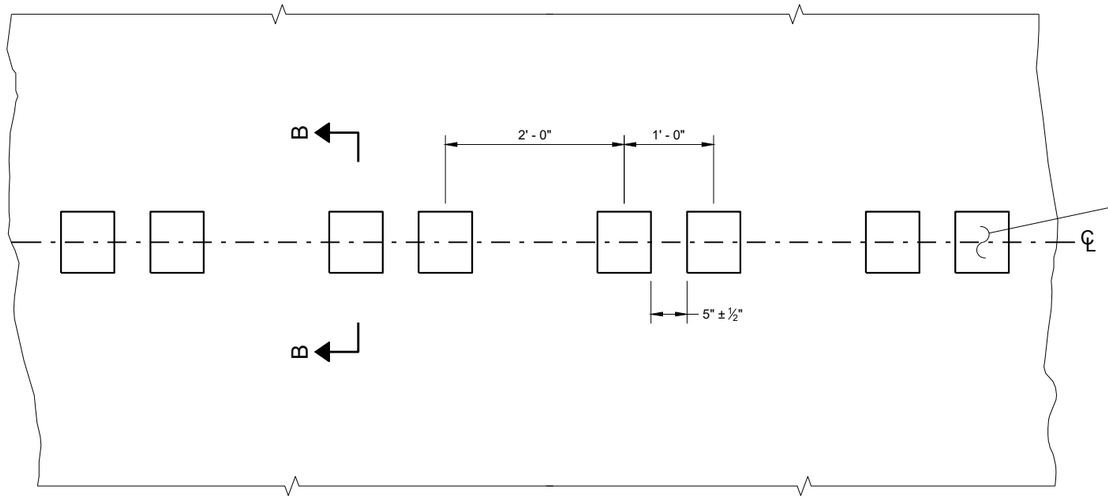
6

SDD 13A10 - 03h

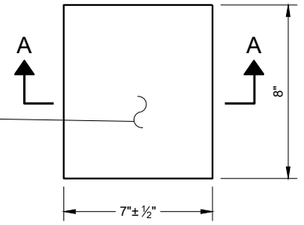
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

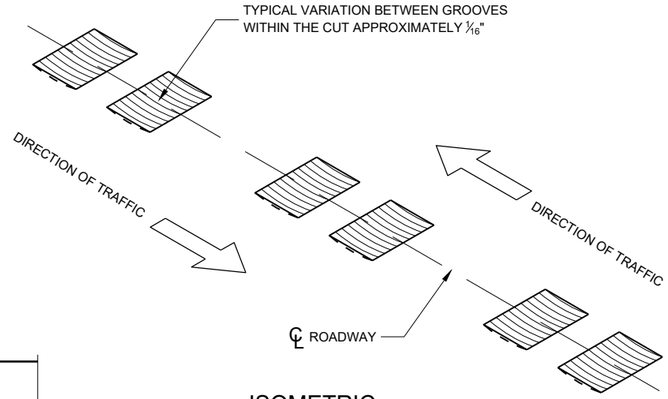
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



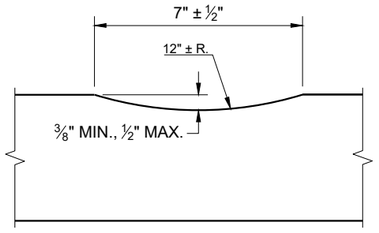
PLAN DETAIL VIEW



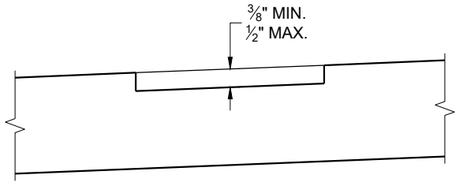
PLAN VIEW
(SINGLE GROOVE)



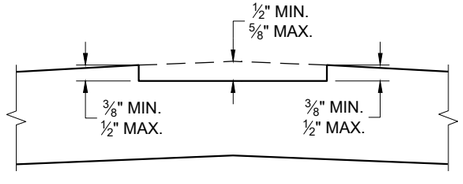
ISOMETRIC



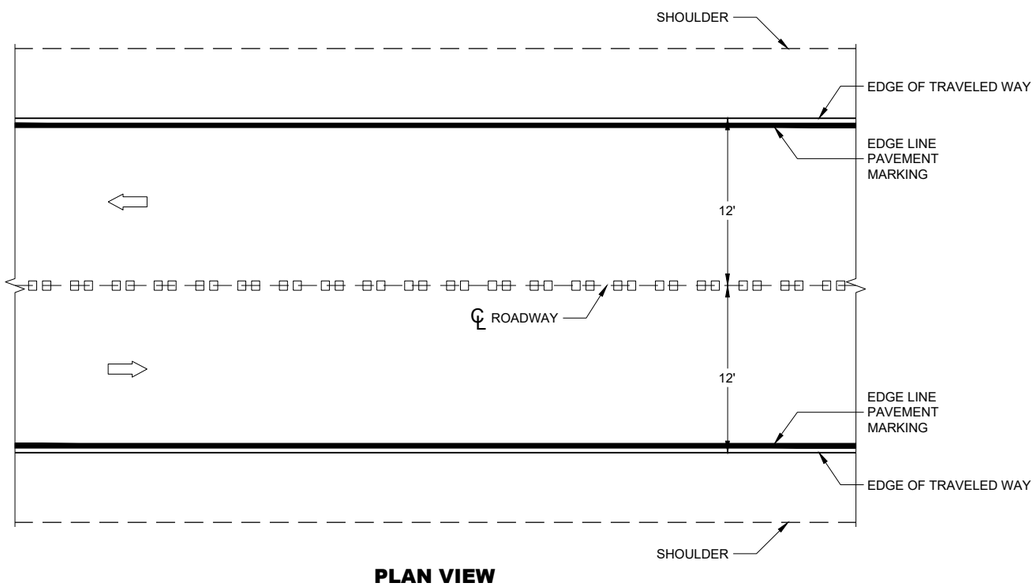
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

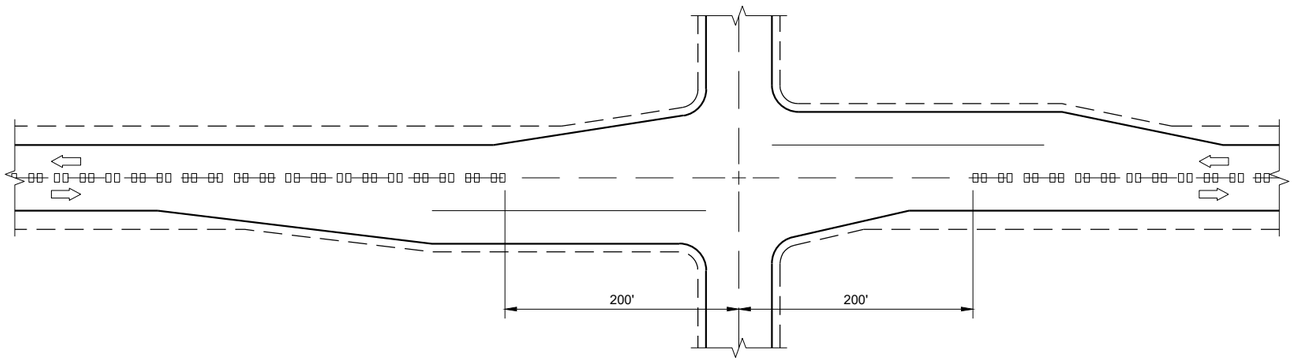
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

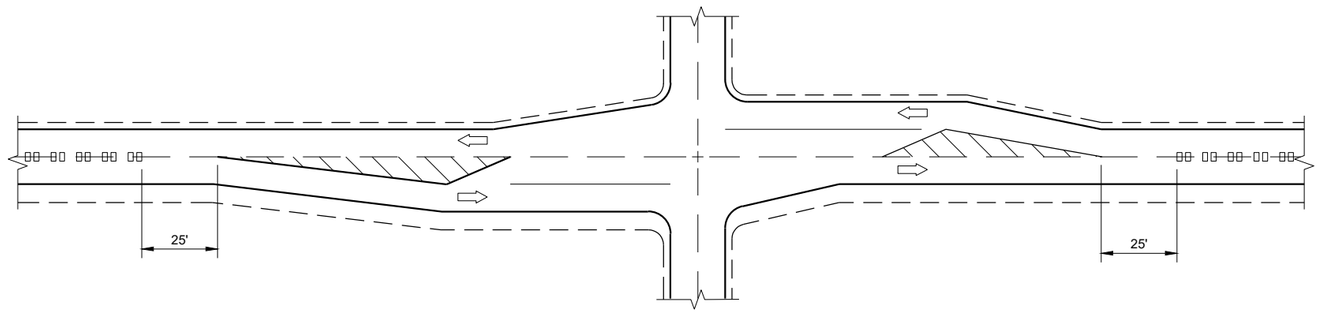
SDD 13A11 - 04a

6

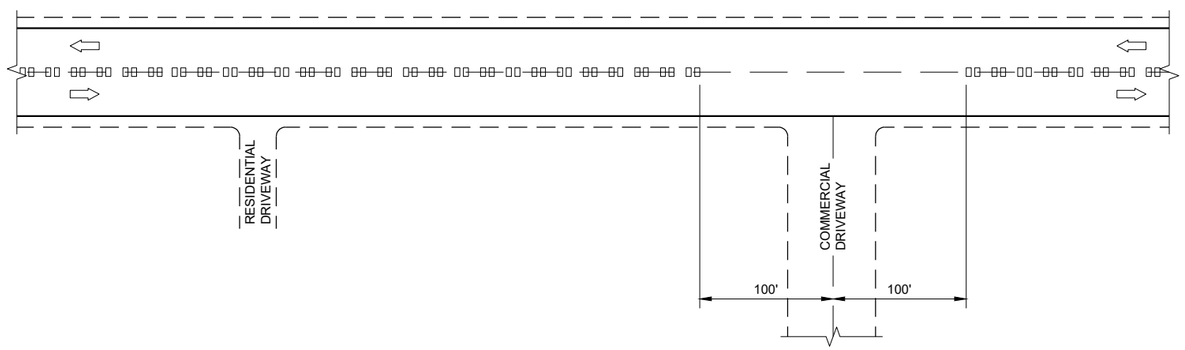
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



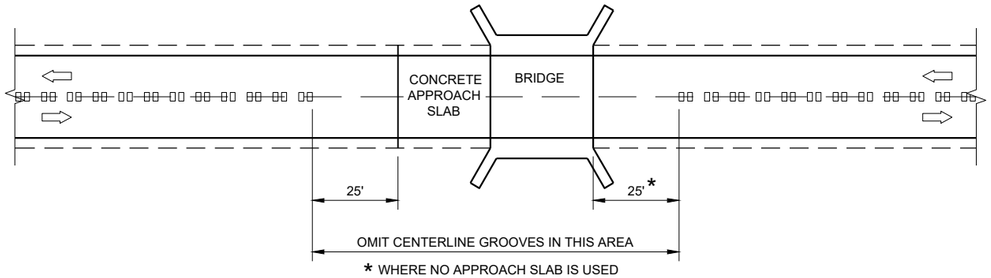
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



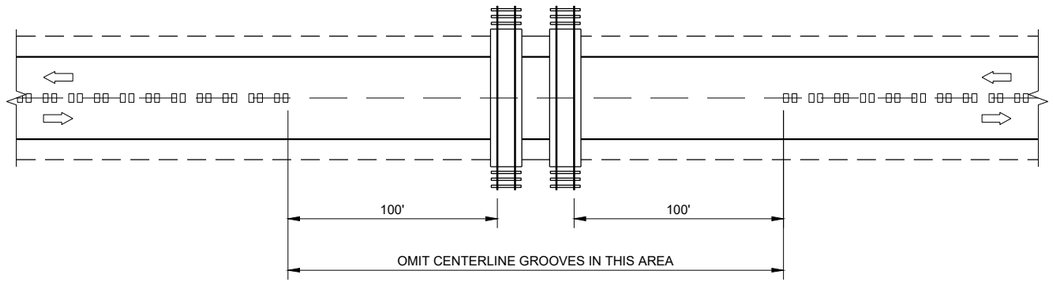
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

FHWA

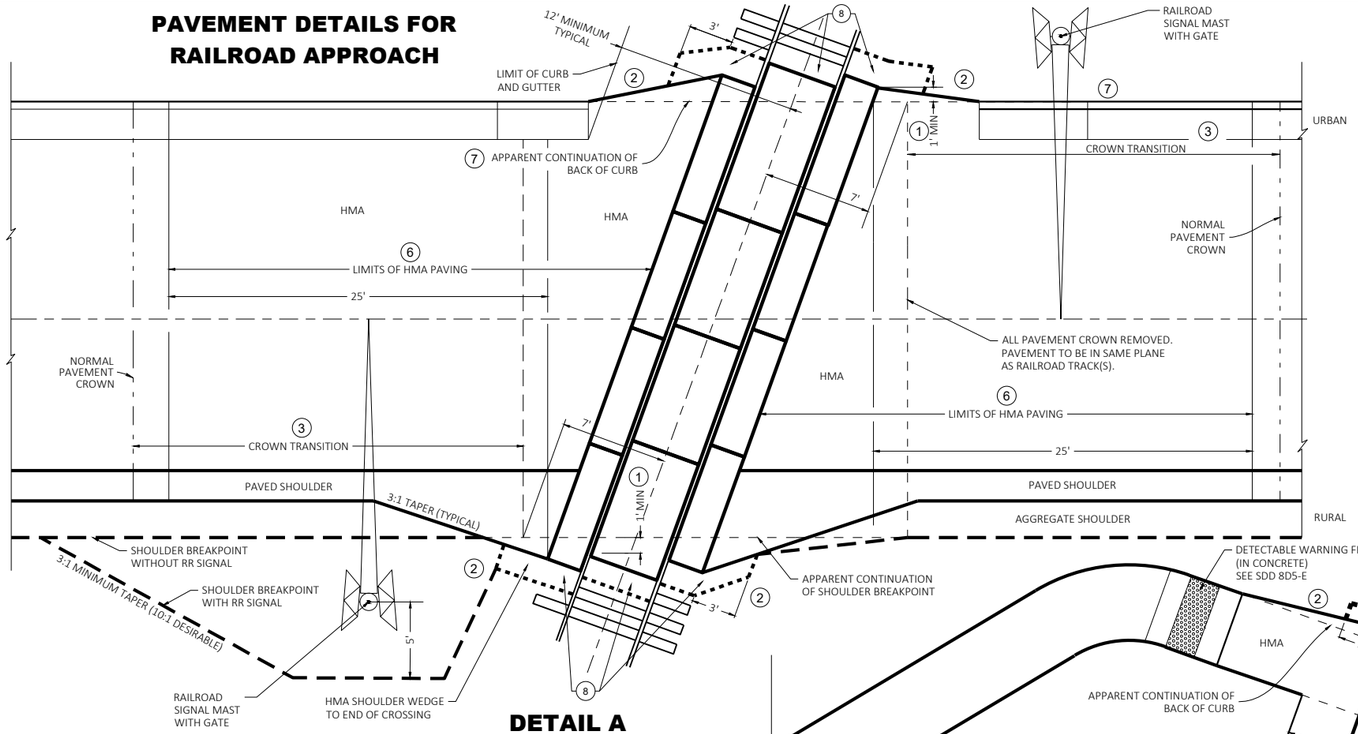
6

SDD 13A11 - 04d

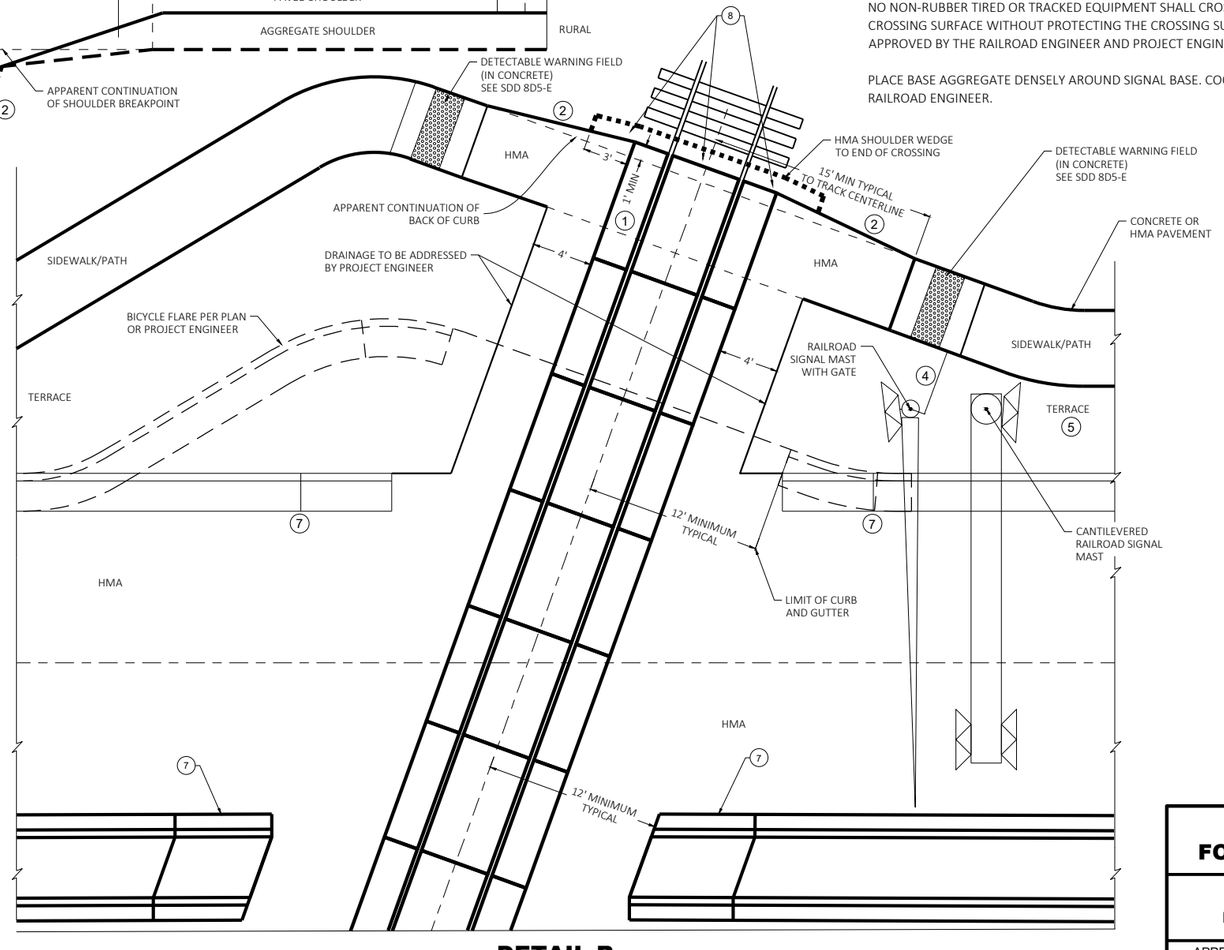
6

SDD 13A11 - 04d

PAVEMENT DETAILS FOR RAILROAD APPROACH



DETAIL A
RAILROAD APPROACH



DETAIL B
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH

GENERAL NOTES

PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.

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

CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.

HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGEWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.

THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

NO NON-RUBBER TIRED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.

PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.

GENERAL NOTES CONTINUED

(1) 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.

(2) HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.

(3) CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

(4) NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.

(5) TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.

(6) 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.

(7) REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

(8) IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Kristen Sommers
STATE RAILROAD ENGINEER AND SAFETY SUPERVISO

FHWA

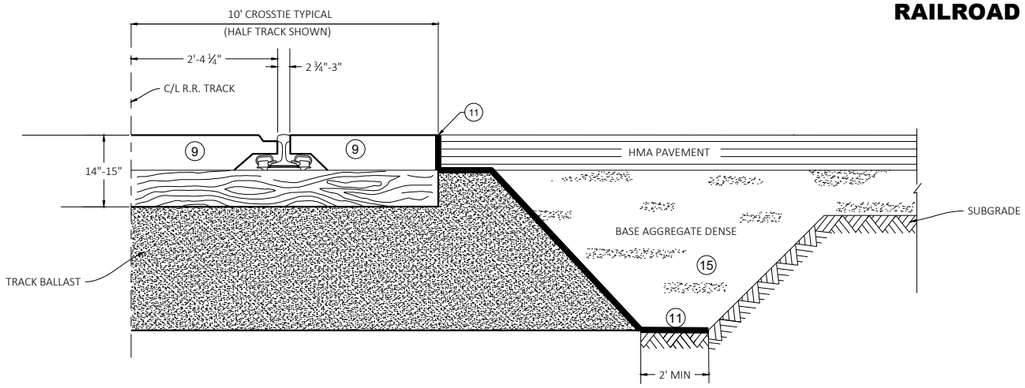
6

SDD 13B01-11a

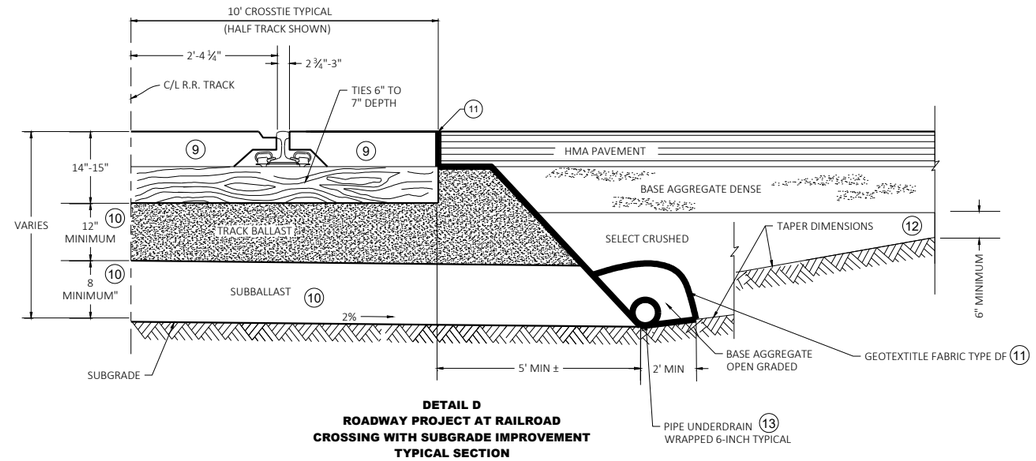
6

SDD 13B01-11a

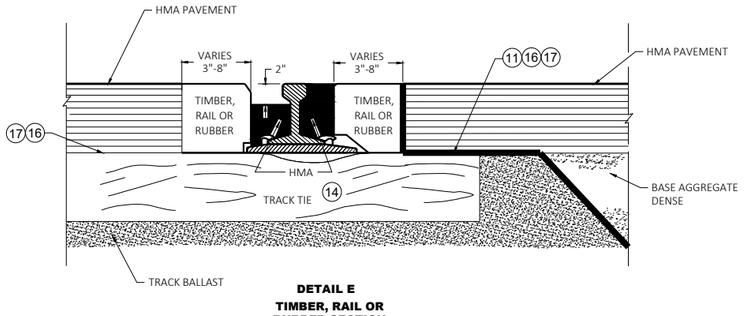
TYPICAL SECTIONS FOR RAILROAD APPROACH



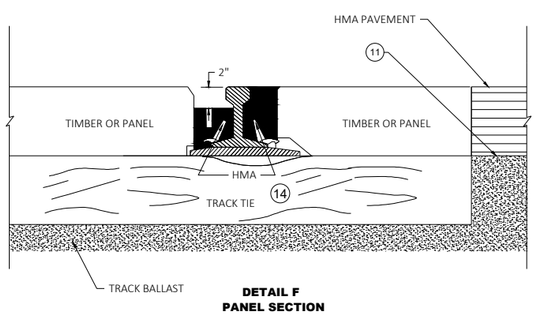
DETAIL C
ROADWAY PROJECT AT RAILROAD CROSSING WITHOUT SUBGRADE IMPROVEMENT TYPICAL SECTION



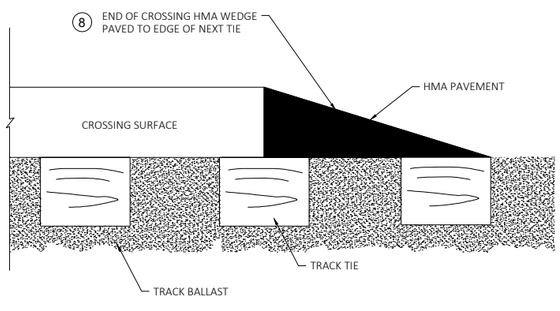
DETAIL D
ROADWAY PROJECT AT RAILROAD CROSSING WITH SUBGRADE IMPROVEMENT TYPICAL SECTION



DETAIL E
TIMBER, RAIL OR RUBBER SECTION HMA FLANGEWAY AND FIELD FILLERS



DETAIL F
PANEL SECTION HMA FLANGEWAY AND FIELD FILLERS



DETAIL G
END OF CROSSING HMA WEDGE

GENERAL NOTES

8. IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL A AND B.

9. MATCH THE CROSSING TYPE THAT IS INSTALLED UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.

10. TRACK BALLAST AND SUBBALLAST REQUIRED 12" AND 8" MINIMUM DEPTHS RESPECTIVELY. DIMENSION FROM BOTTOM OF TRACK TIE TO HIGH SIDE OF 2% SLOPE. THE 2% SLOPE IS REQUIRED ON RAILROAD SUBBALLAST. SEE PLAN FOR CROWN, MATERIAL THICKNESS, AND SLOPE DIRECTION. SUBBALLAST CAN BE HMA, 1 1/2" BASE AGGREGATE DENSE, SELECT CRUSHED, OR A COMBINATION OF THEM.

11. GEOTEXTILE FABRIC TYPE SAS PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION ON TOP OF THE TRACK BALLAST WHERE IT IS UNDER HMA PAVEMENT, BASE AGGREGATE DENSE OR SELECT CRUSHED MATERIAL AND THE FIELD SIDE BALLAST CRIBS. GEOTEXTILE FABRIC TYPE DF PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION UNDER AND AROUND THE PIPE UNDERDRAIN. PLACING GEOTEXTILE FABRIC OR GEOGRID UNDER THE SUBBALLAST IS OPTIONAL.

12. TAPER DIMENSIONS PROVIDED BY PLAN OR BY PROJECT ENGINEER.

13. IF SHOWN ON THE PLAN, TYPICAL 6-INCH PERFORATED PVC SCHEDULE 80 PIPE UNDERDRAIN TO BE PLACED ALONG THE TOE OF SLOPE, GRADED TO DRAIN AND DAYLIGHT OR INTO STORM SEWER. BASE AGGREGATE OPEN GRADED OVER PIPE UNDERDRAIN AND THEN WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE A IN ORDER TO STABILIZE AND SEPARATE FROM SELECT CRUSHED.

14. HMA FLANGEWAY AND FIELD FILLERS ARE TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR, WHEN NOT PROVIDED BY OTHERS AS PART OF THE CROSSING SURFACE MATERIAL. IF THE CROSSING SURFACE IS NOT BEING REPLACED, THEN REMOVE AND REPLACE THE HMA FLANGEWAY AND FIELD FILLERS AS DIRECTED BY THE RAILROAD OR PROJECT ENGINEER.

15. GRADE TO MATCH EXISTING OR PROPOSED TYPICAL SECTION OF ROADWAY. SEE PLAN OR PROJECT ENGINEER FOR MORE DETAIL. IF NOT NOTED OTHERWISE IN THE PLAN, BACKFILL ANY REMOVED BASE AND SUBGRADE WITH BASE AGGREGATE DENSE.

16. IF THE CROSSING IS NOT BEING REPLACED, REMOVE AND REPLACE HMA AS DIRECTED BY RAILROAD AND PROJECT ENGINEER. CARE MUST BE TAKEN TO NOT DAMAGE CROSSING PANELS, TIES, RAIL, PLATES AND SPIKES.

17. PLACE HMA FULL DEPTH. AGGREGATE IS NOT TO BE PLACED BETWEEN THE RAILROAD TIES AND THE HMA PAVEMENT.

TYPEICAL SECTIONS FOR RAILWAY APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

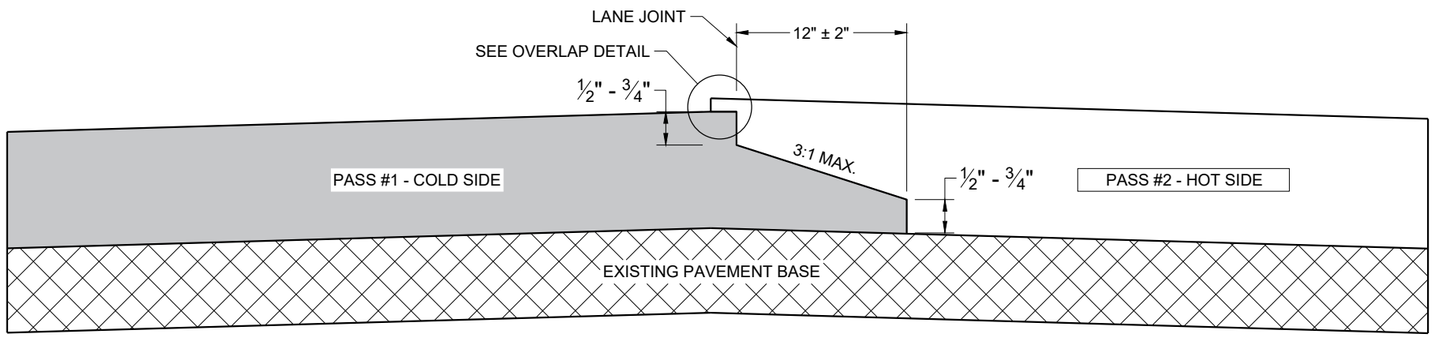
APPROVED
May 2023
DATE

/S/ Kristen Sommers
STATE RAILROAD ENGINEER AND SAFETY SUPERVISOR

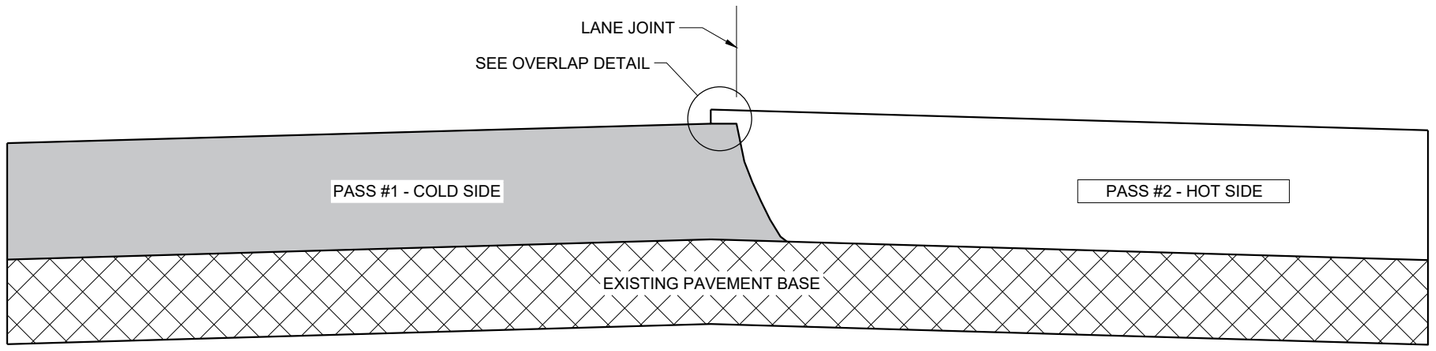
FHWA

6

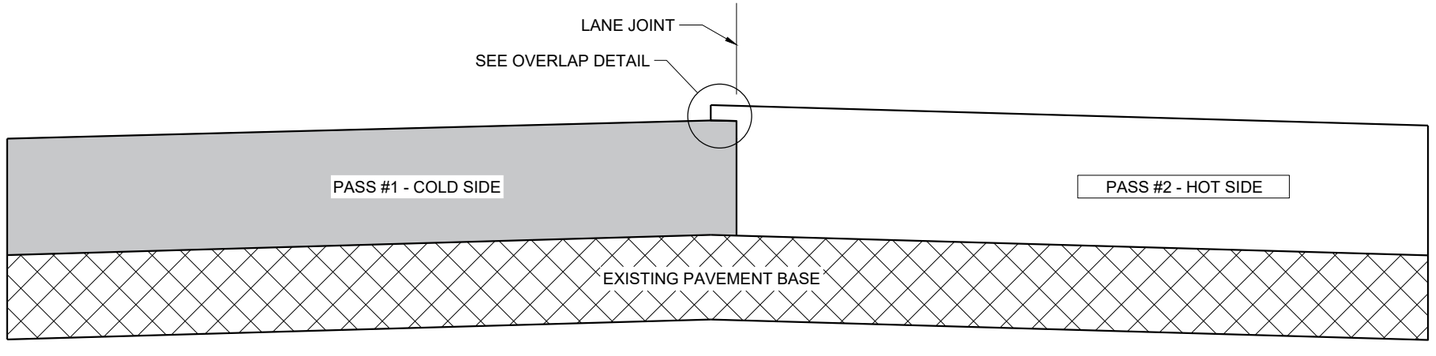
SDD 13B01-11b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

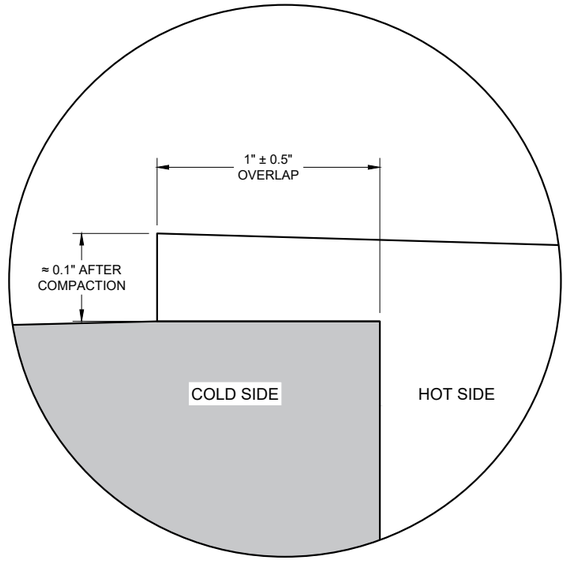
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

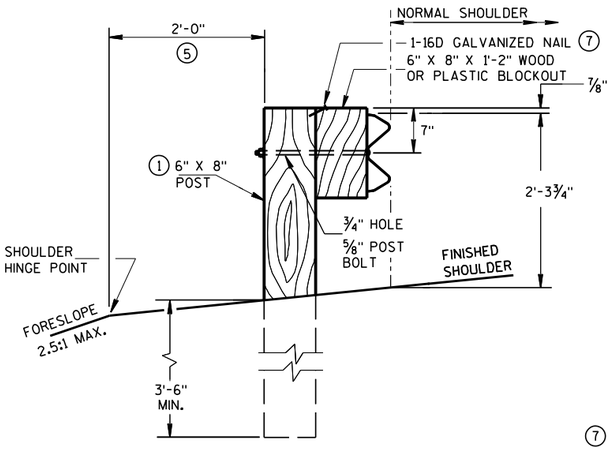
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

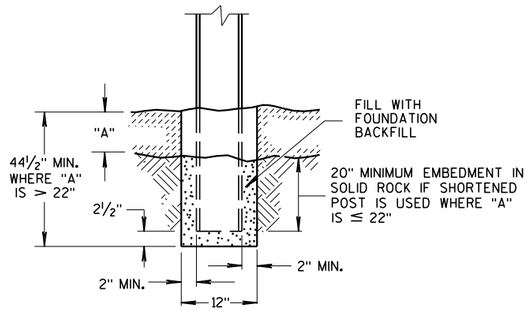
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

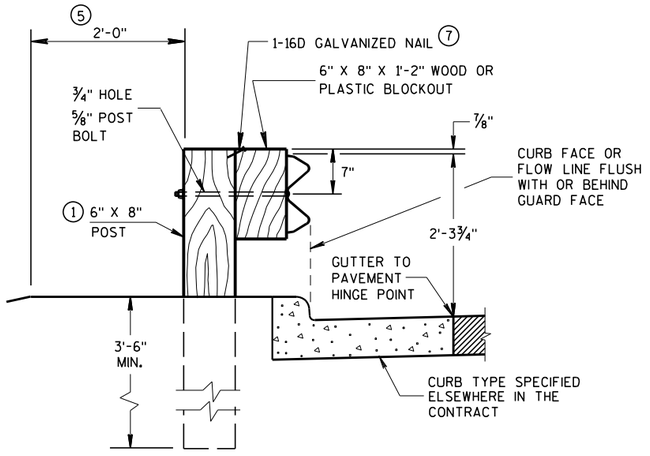
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



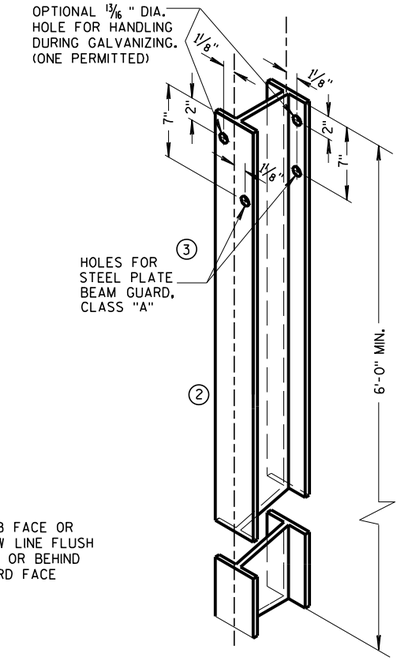
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

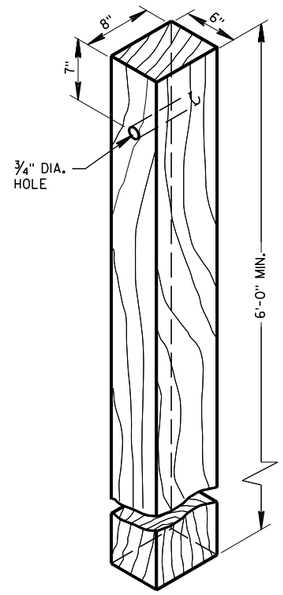


END VIEW
LOCATED ALONG A CURBED ROADWAY

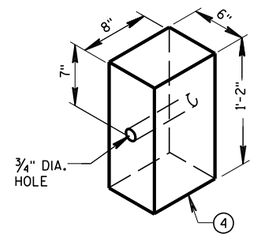


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

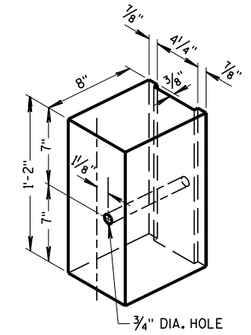
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



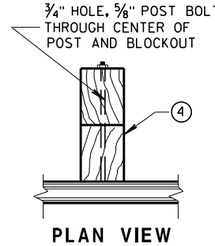
WOOD POST
(6"X8") NOMINAL



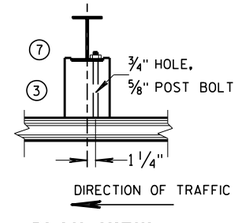
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



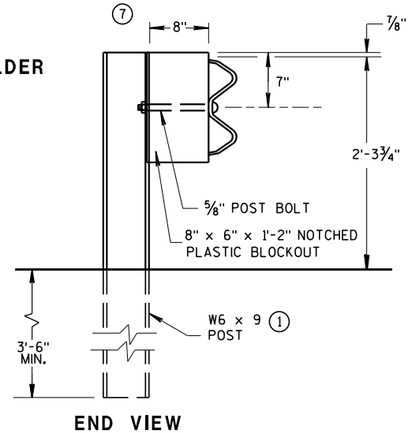
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



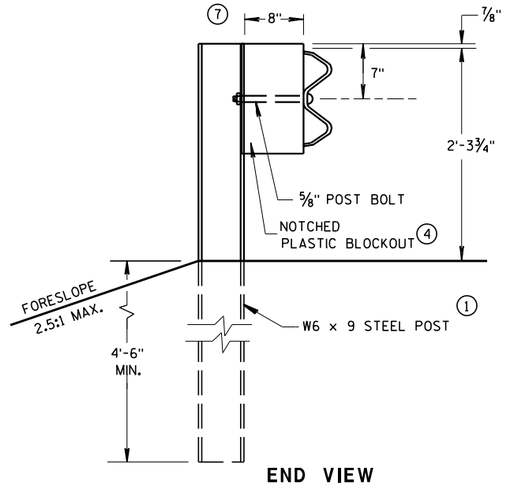
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



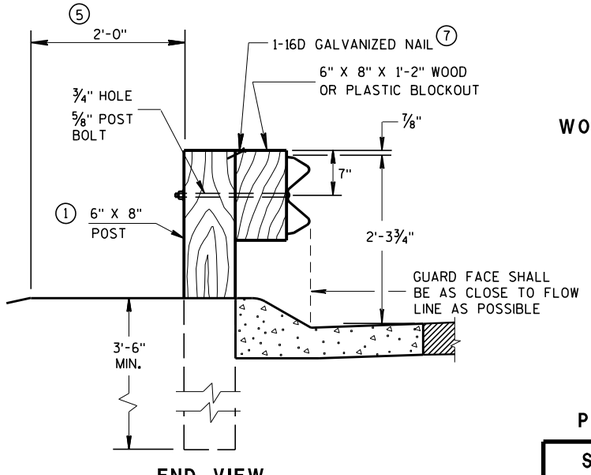
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



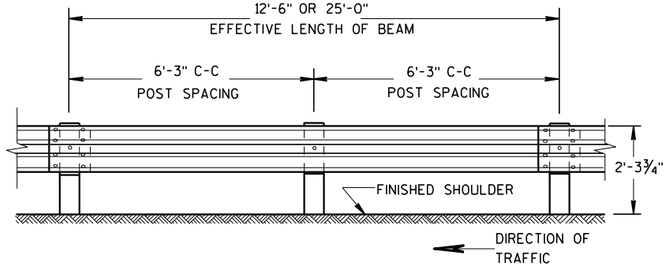
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

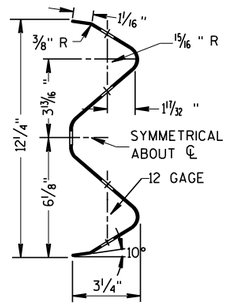
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-11a

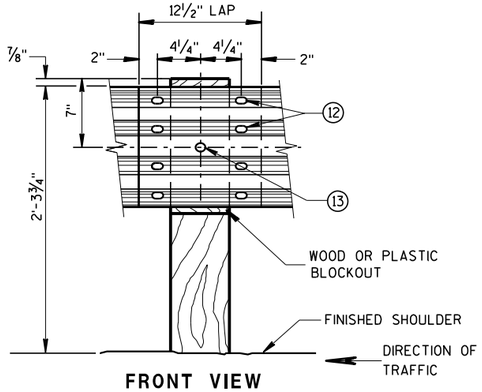


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

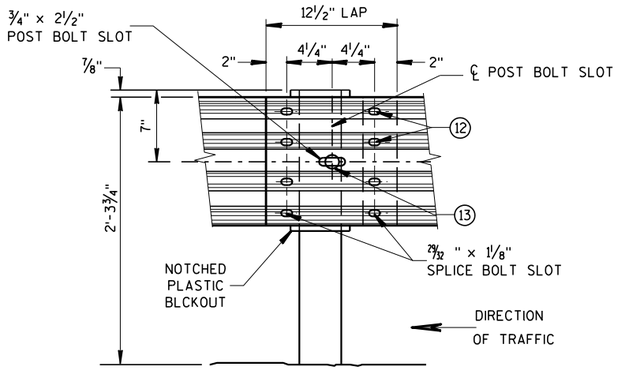
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

FRONT VIEW

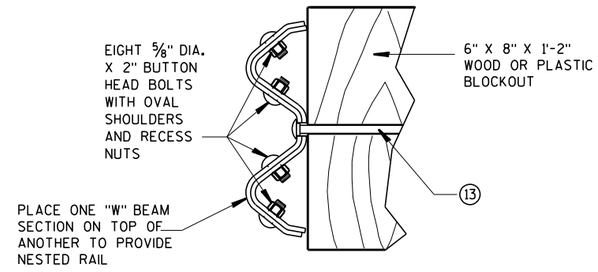
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

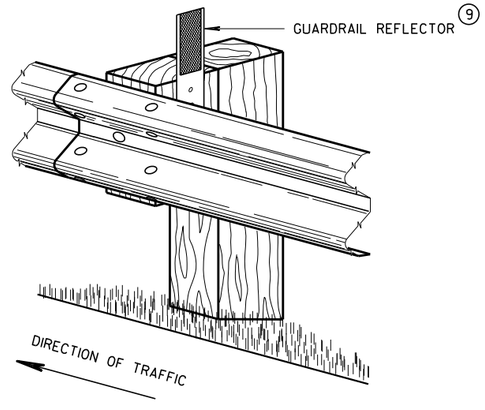
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



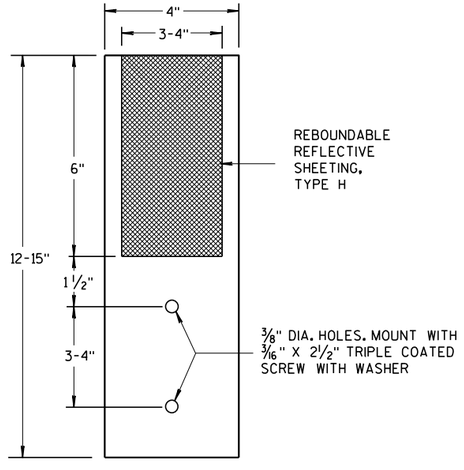
NESTED W BEAM (NW)

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

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

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

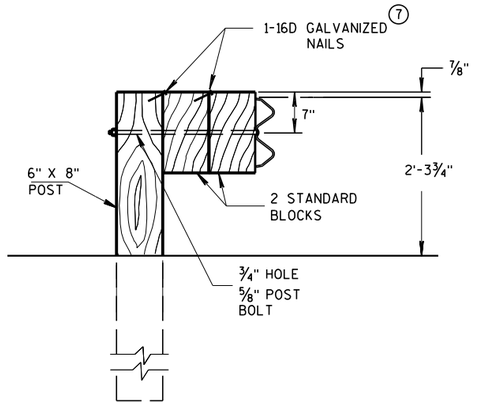
STATE OF WISCO 146
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

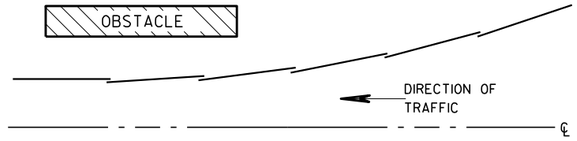
6

S.D.D. 14 B 15-11b

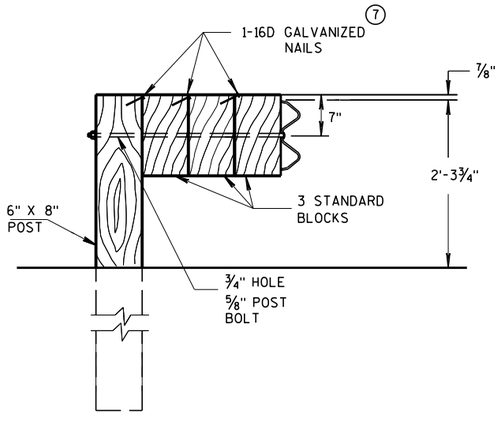


DETAIL FOR DOUBLE BLOCKS

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

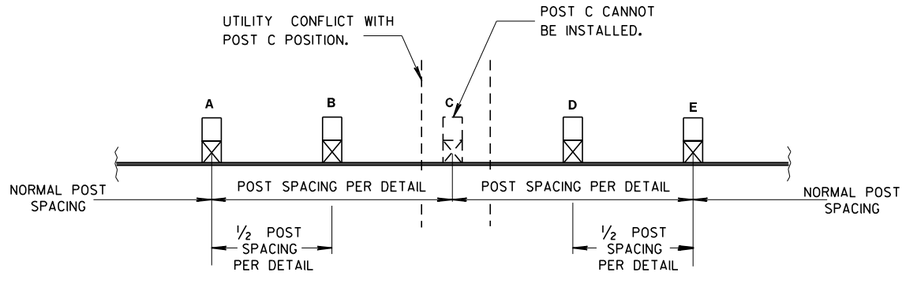


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

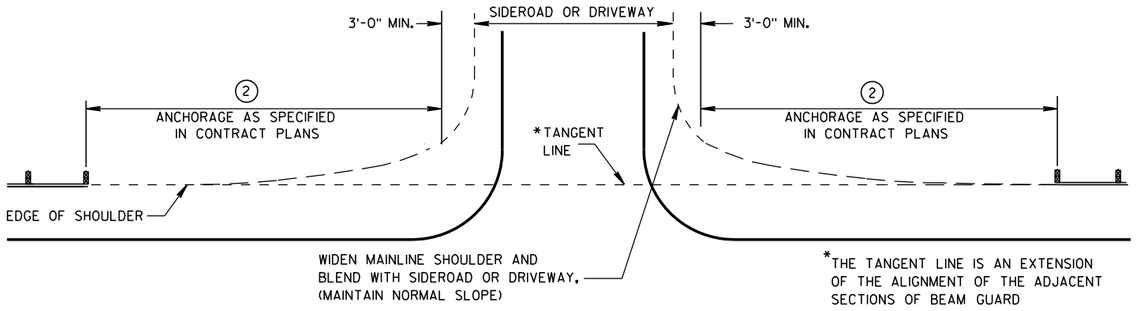
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

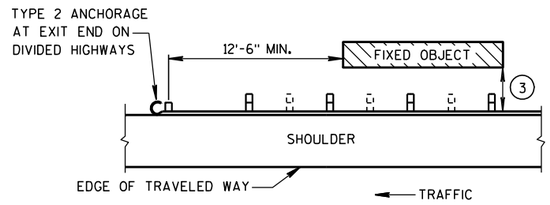
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

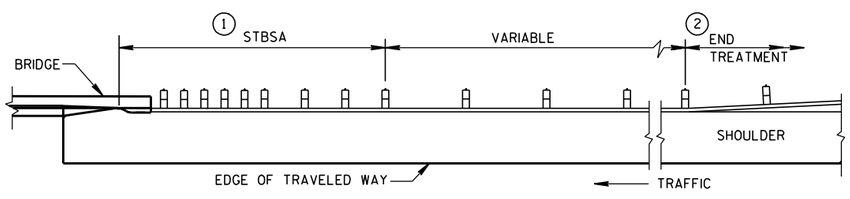
6
S.D.D. 14 B 15-11c



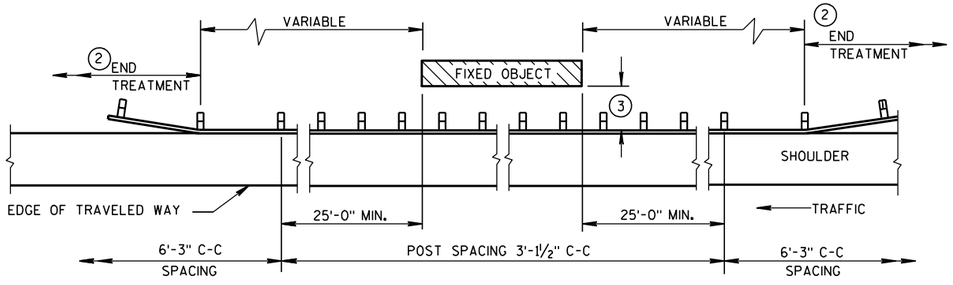
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

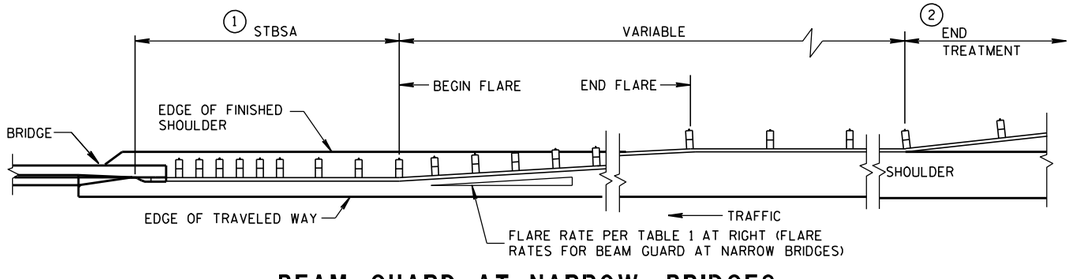


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

GENERAL NOTES

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

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

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

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 14 B 18-6a

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

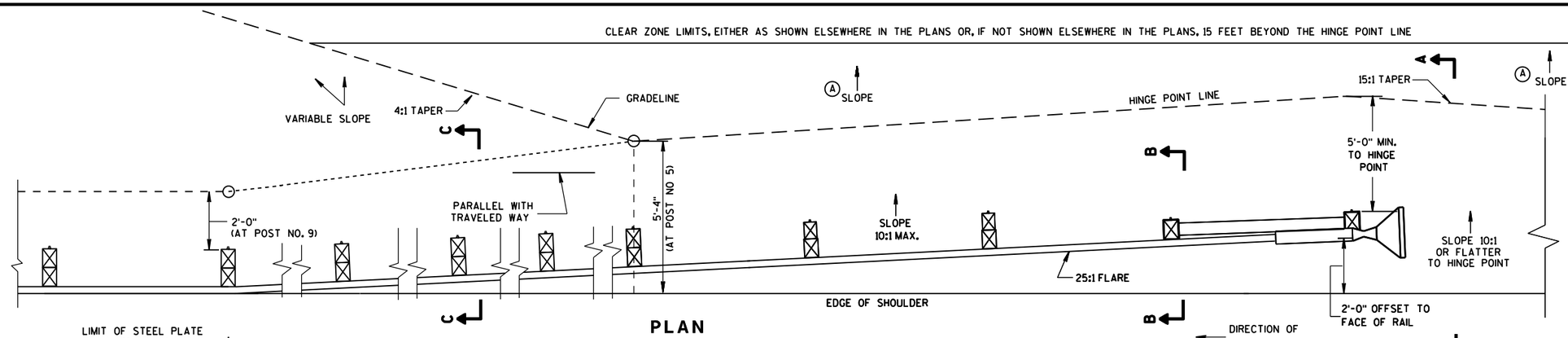
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

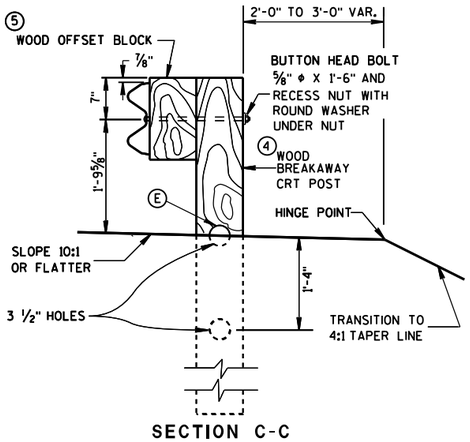
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

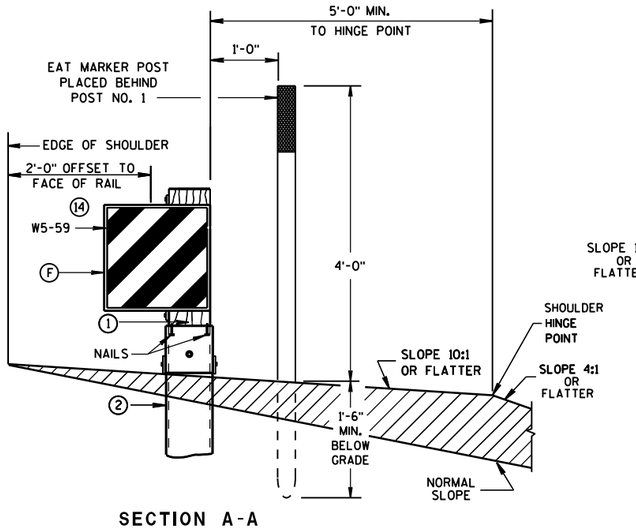
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

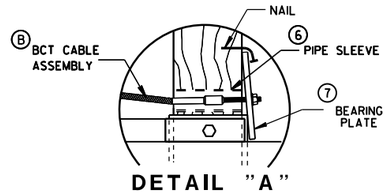
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

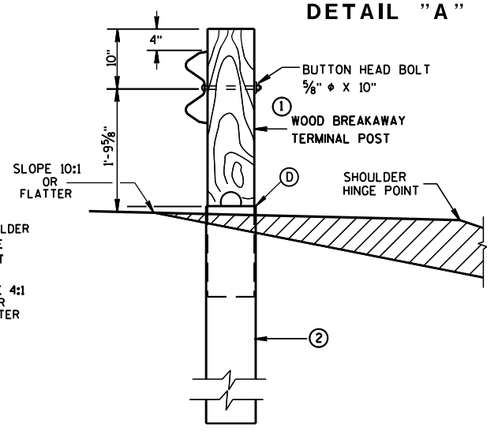
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

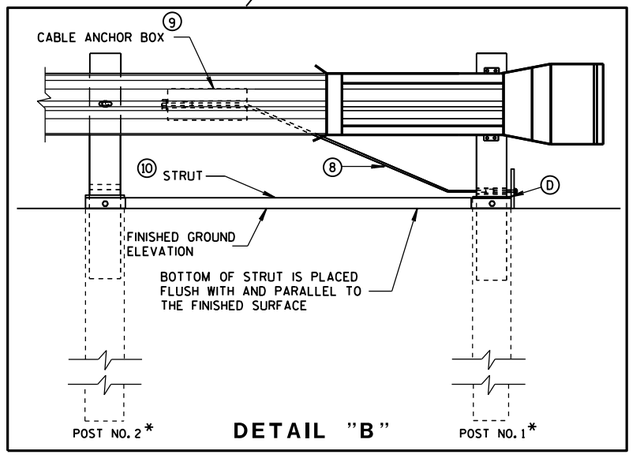










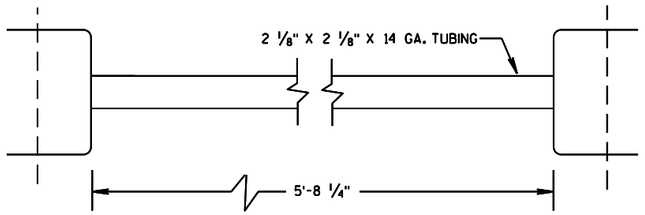


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

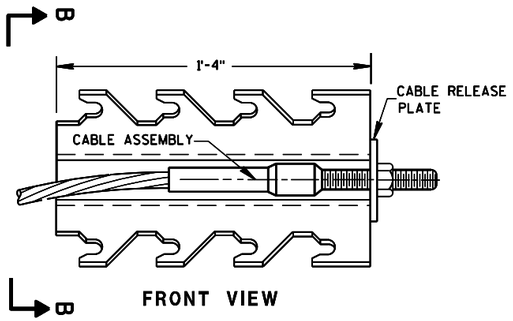
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

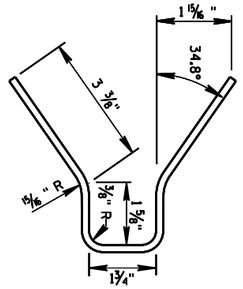
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

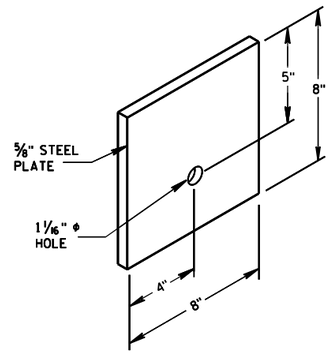


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

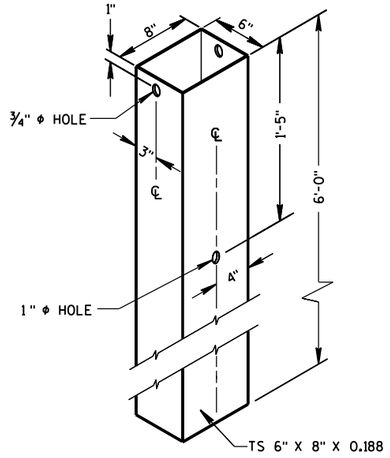
6

S.D.D. 14 B 24-9b

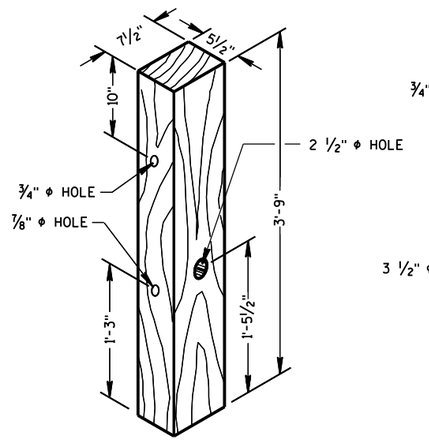
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

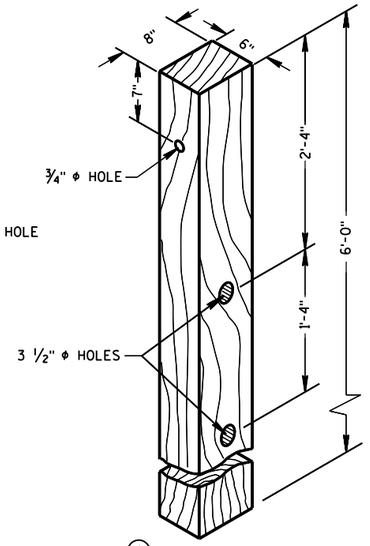
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

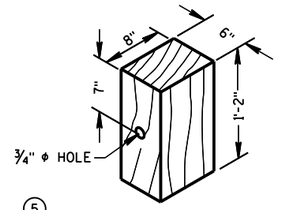


④ CRT POST
(POSTS NO'S 5-8

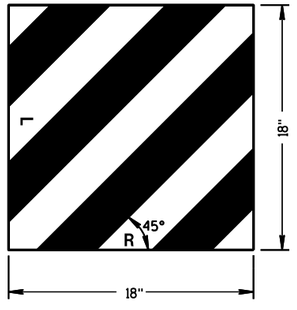
WOOD BREAKAWAY POSTS

GENERAL NOTES

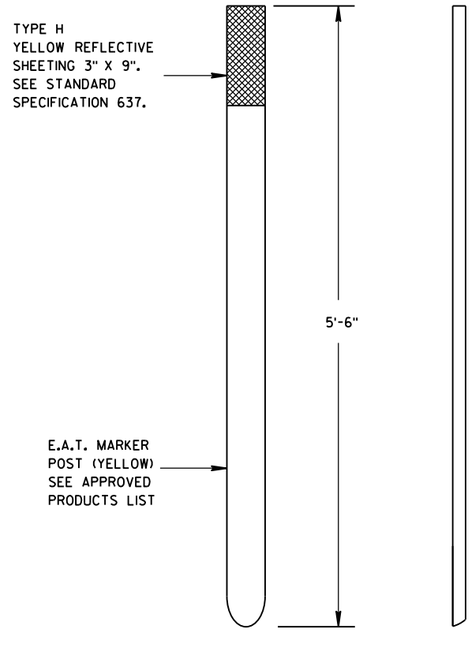
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



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



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV...

ENT

6

S.D.D. 14 B 24-9c

6

S.D.D. 14 B 24-9c

(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.

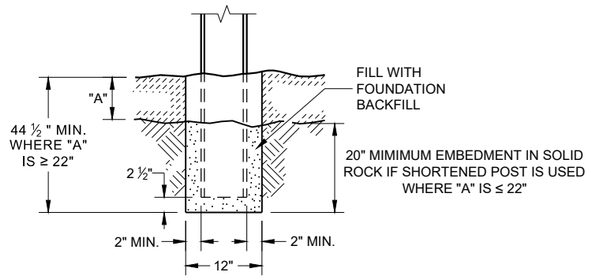
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

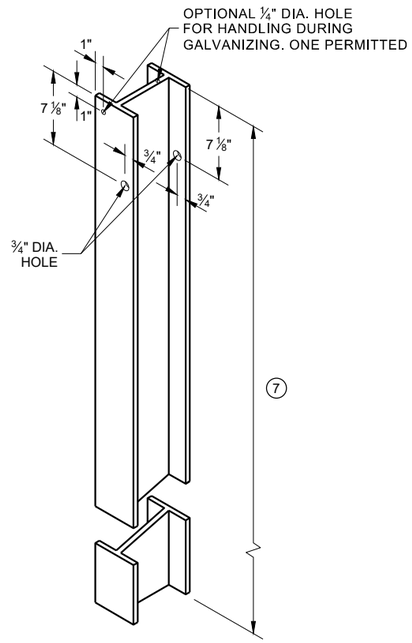
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

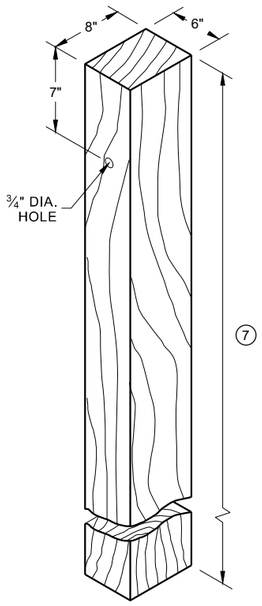
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



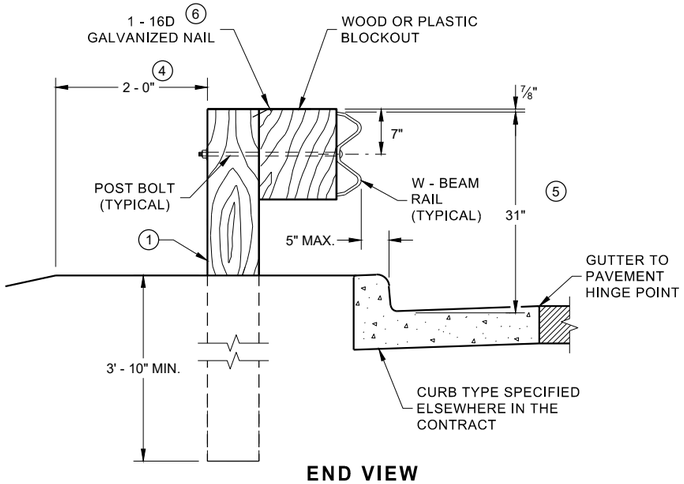
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



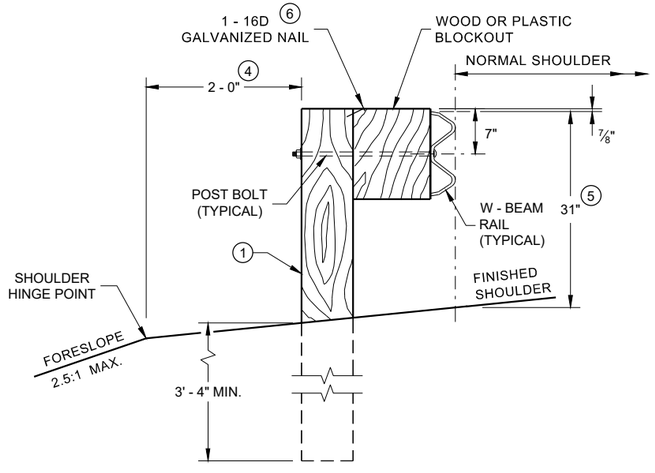
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



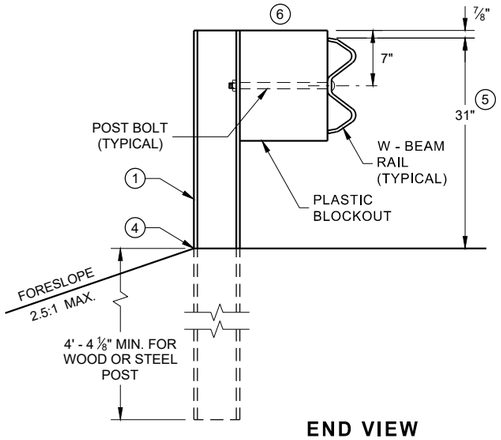
WOOD POST (6" X 8") NOMINAL (1)



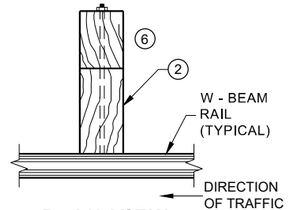
END VIEW
LOCATED ALONG A CURBED ROADWAY



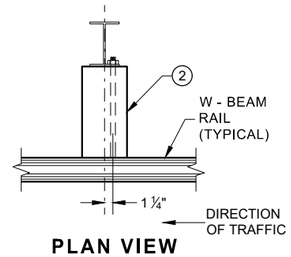
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



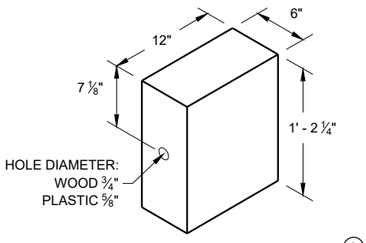
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

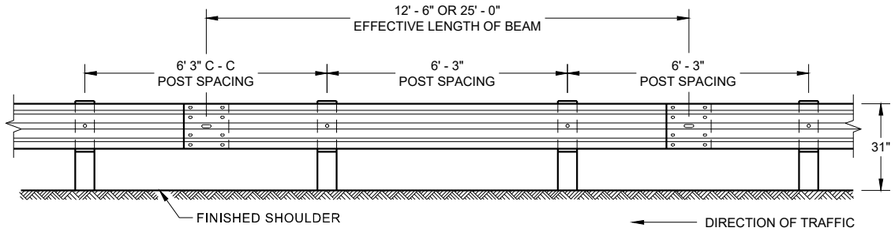
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 152

SDD 14B42 - 07a

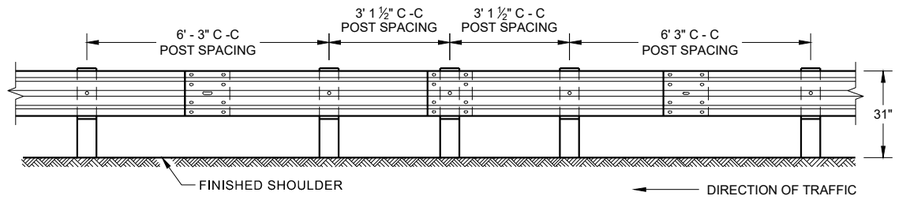
SDD 14B42 - 07a

6

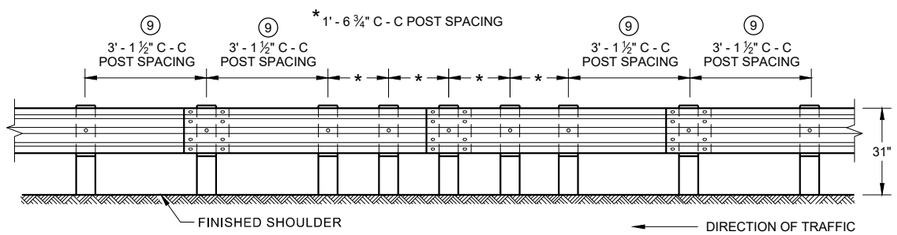
6



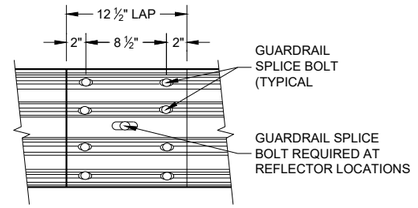
FRONT VIEW
POST SPACING STANDARD INSTALLATION



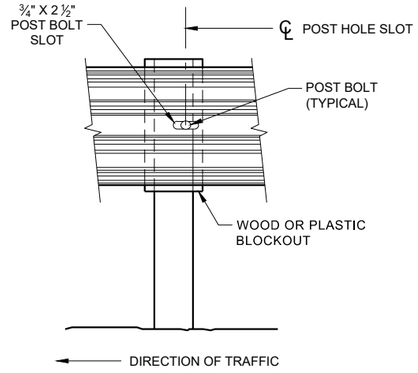
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



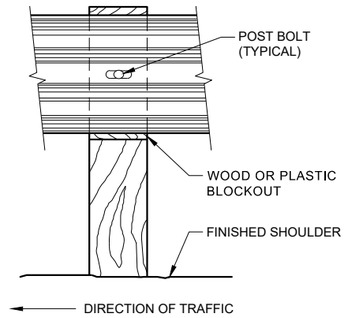
FRONT VIEW
QUARTER POST SPACING (QS)



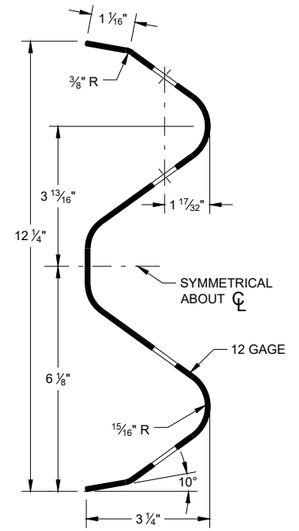
FRONT VIEW
MID-SPAN BEAM SPLICE



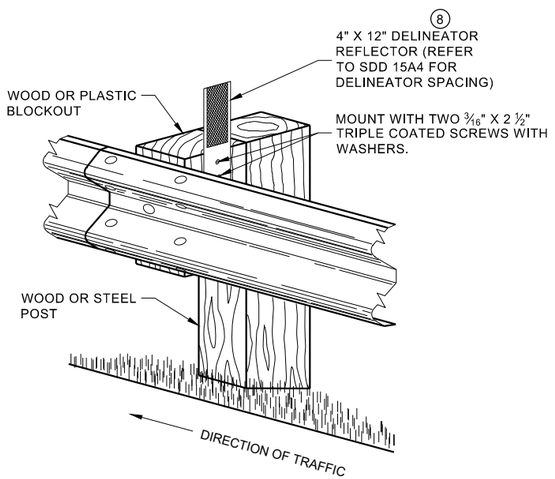
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

POST BOLTS ARE A 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.

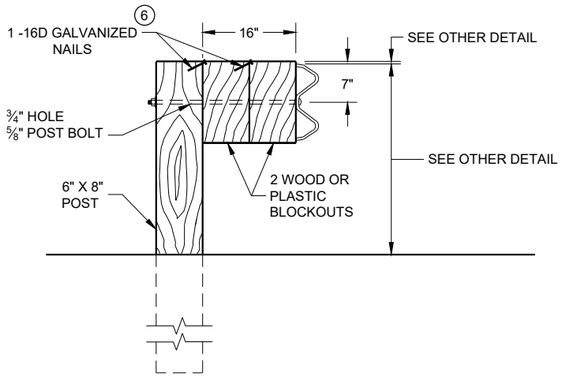
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

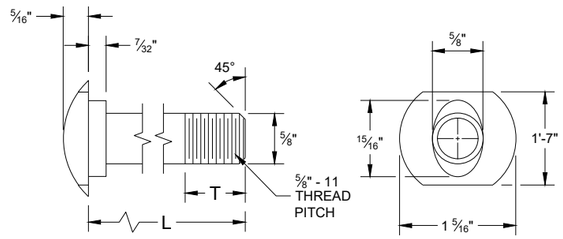


DETAIL FOR 16" BLOCKOUT DEPTH

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

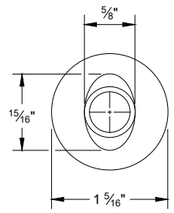
NOTE:

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

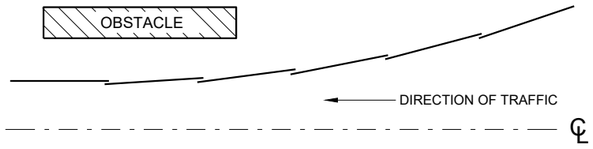


POST BOLT TABLE

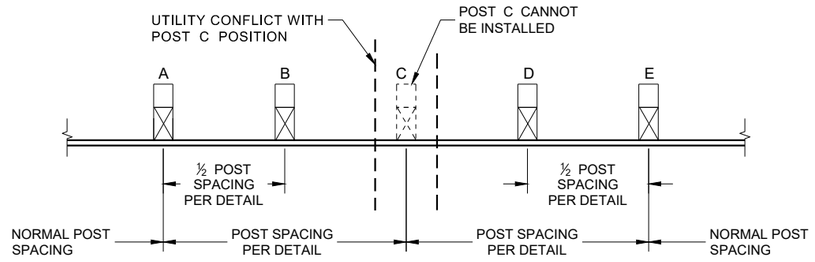
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



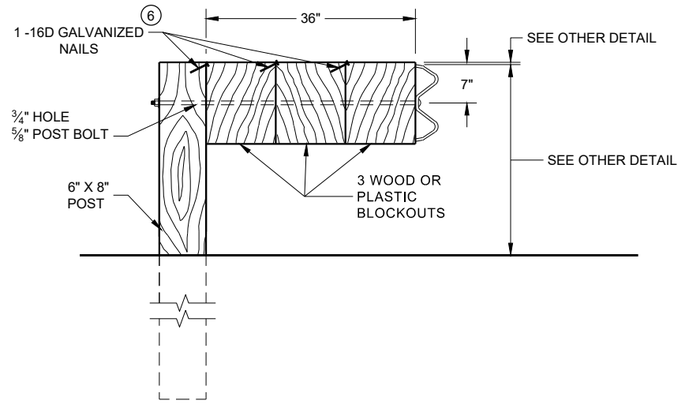
ALTERNATE BOLT HEAD



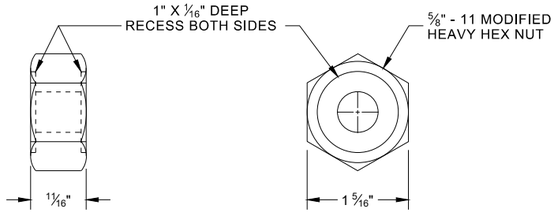
PLAN VIEW
BEAM LAPPING DETAIL



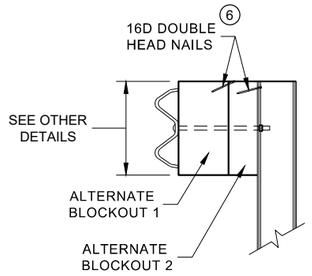
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



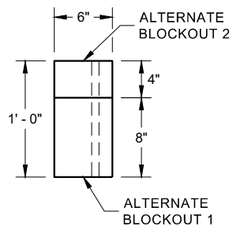
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

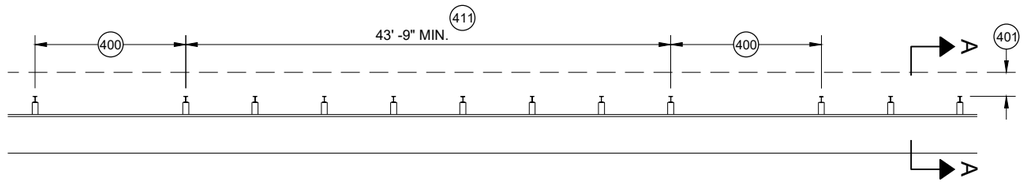
ALTERNATE WOOD BLOCKOUT DETAIL

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.

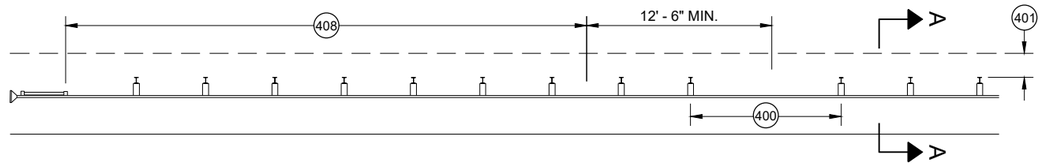
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

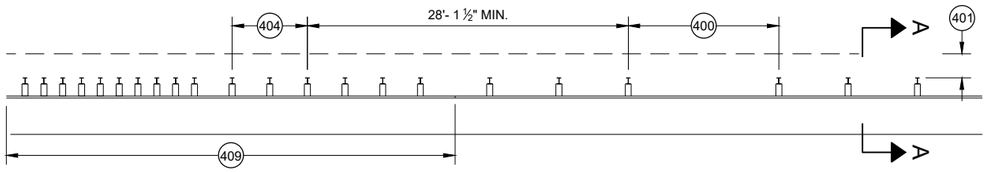
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



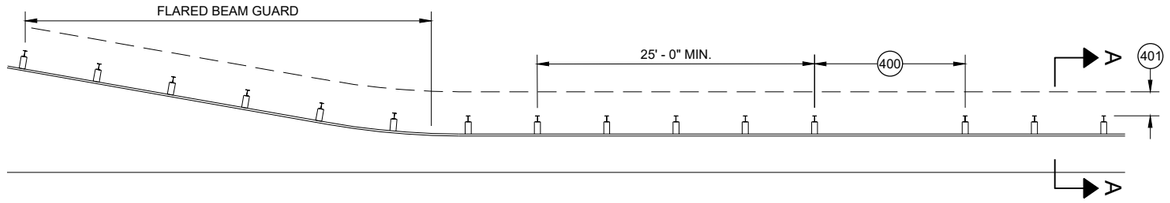
MISSING POST IN MGS GUARDRAIL



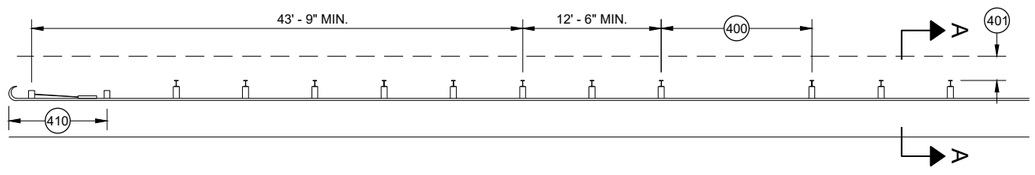
MISSING POST IN MGS GUARDRAIL NEAR EAT



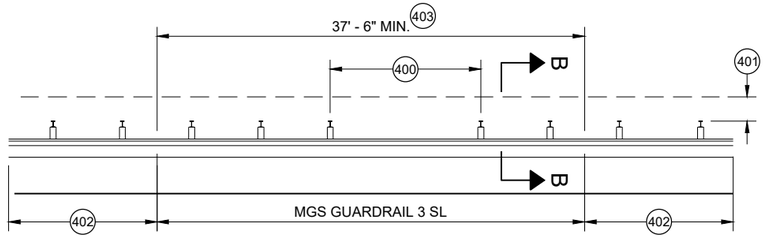
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

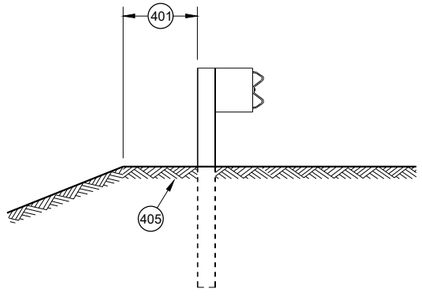


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

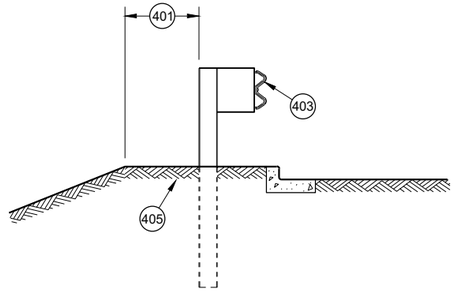


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

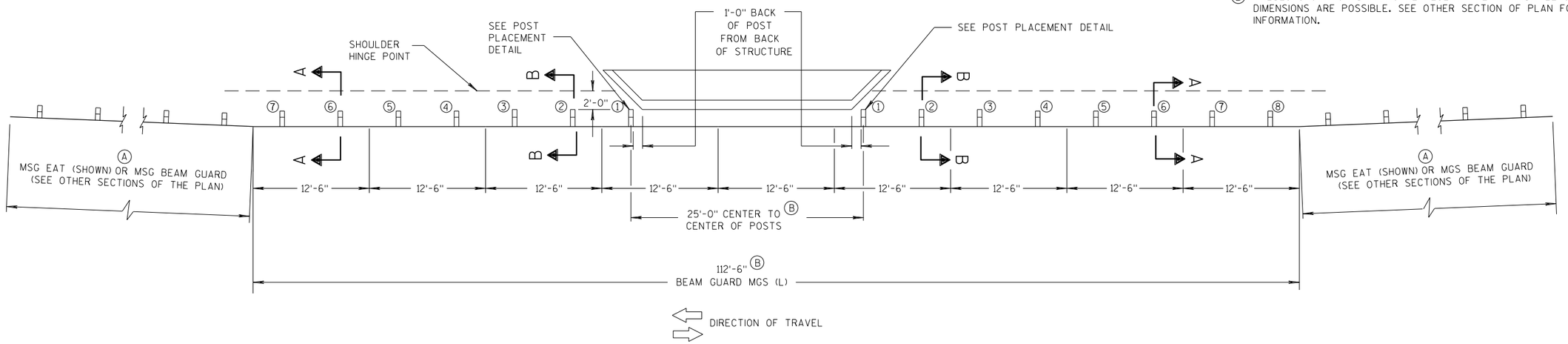
GENERAL NOTES

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

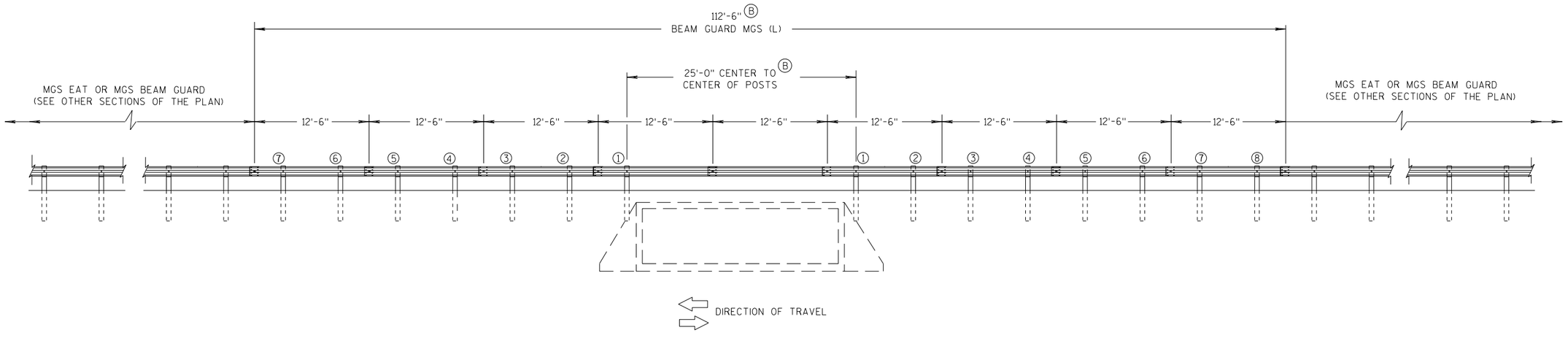
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

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

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 43-4a

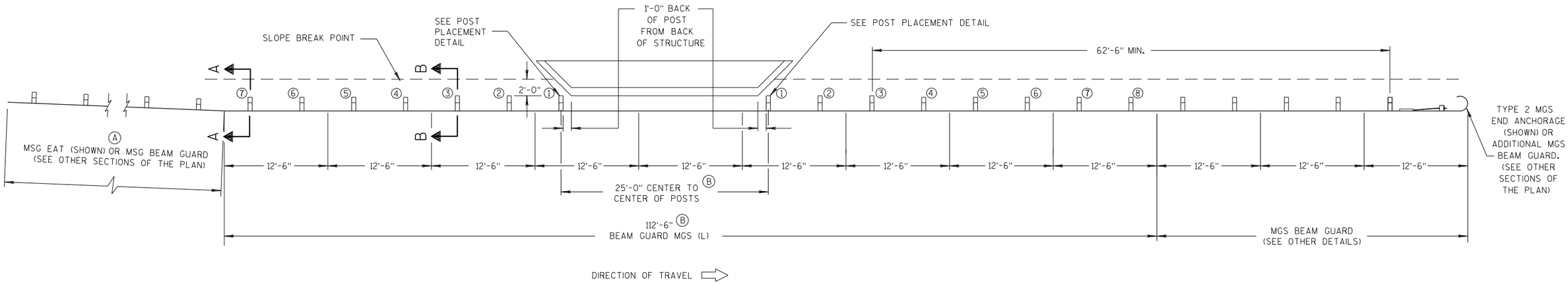
GENERAL NOTES

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

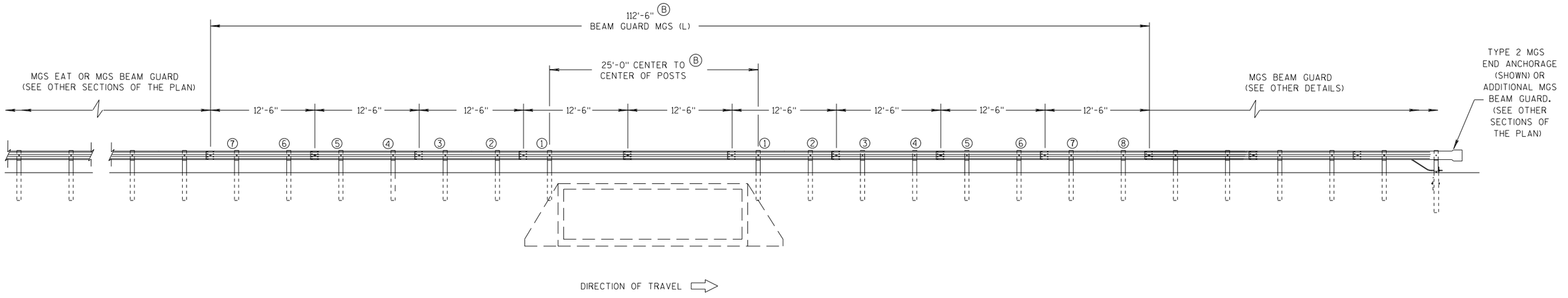
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



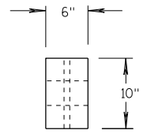
ELEVATION VIEW

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

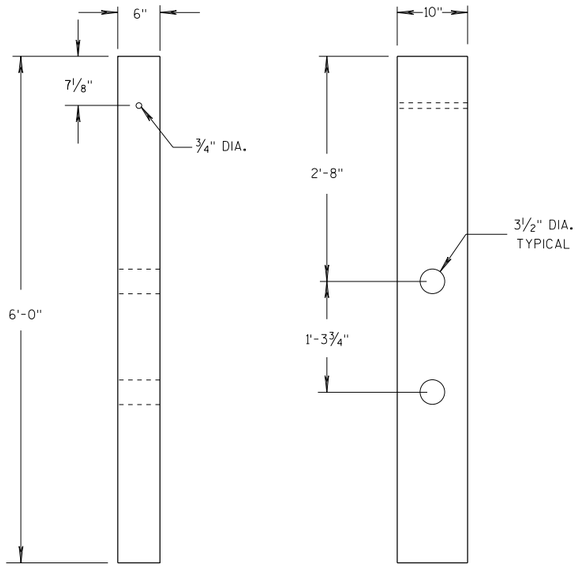
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	157

6

S.D.D. 14 B 43-4b

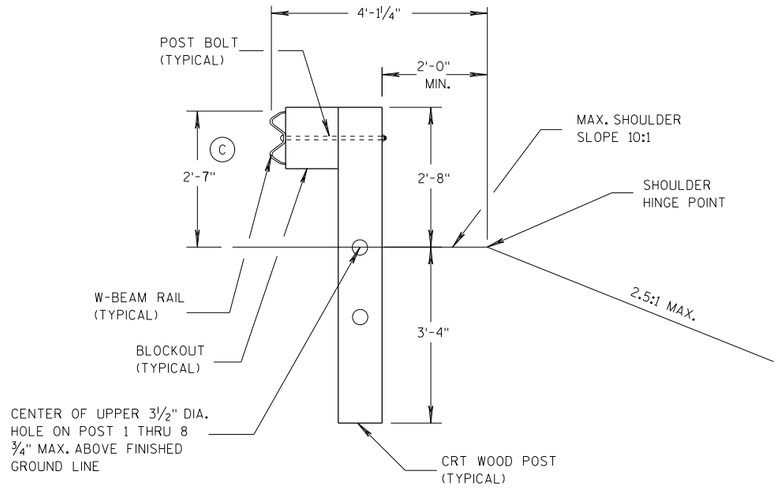


PLAN VIEW



FRONT VIEW SIDE VIEW

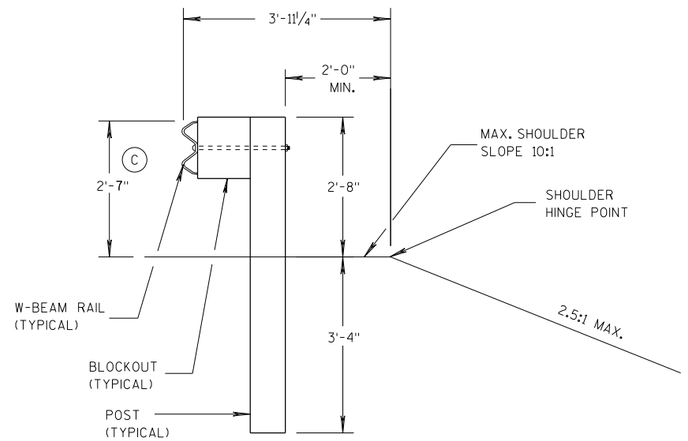
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



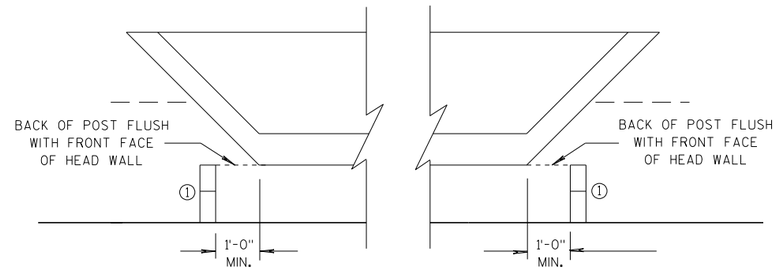
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS ENGINEER

D 158 NT

6

S.D.D. 14 B 43-4c

6

S.D.D. 14 B 43-4c

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.

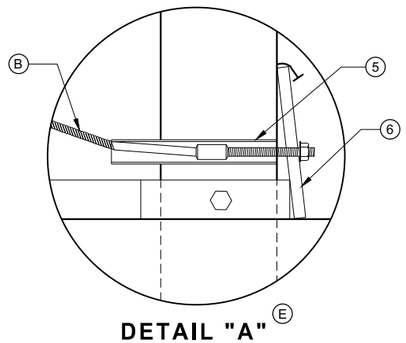
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

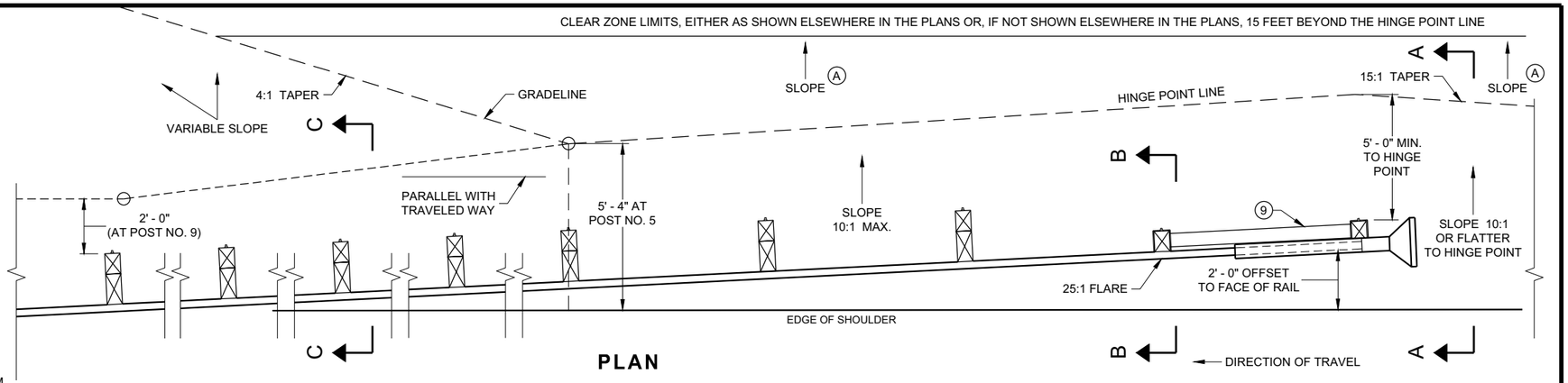
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

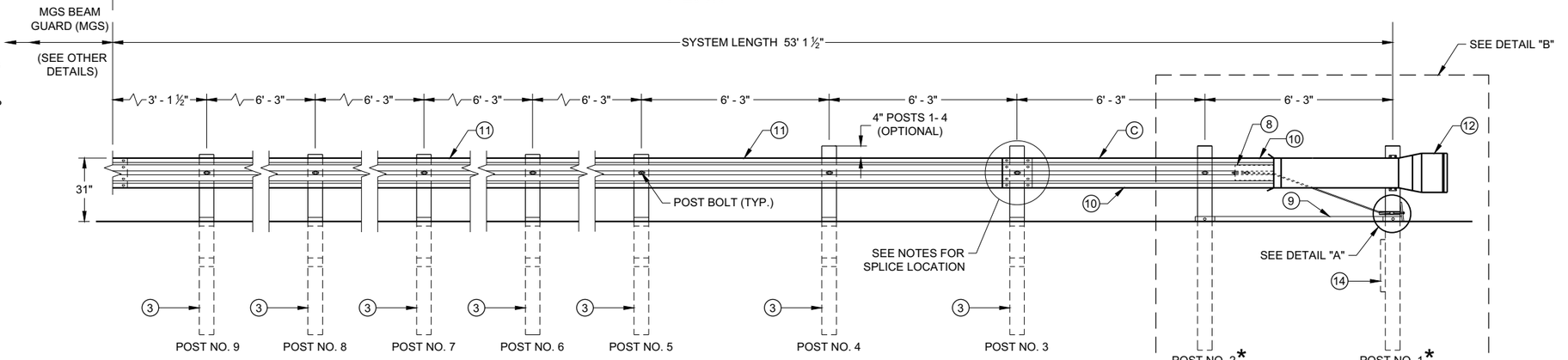
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



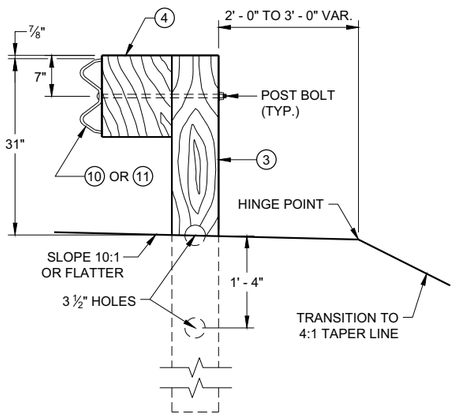
DETAIL "A" (E)



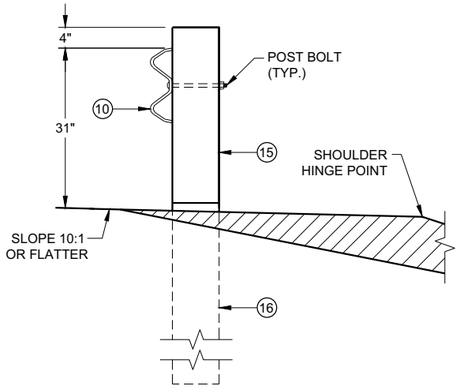
PLAN



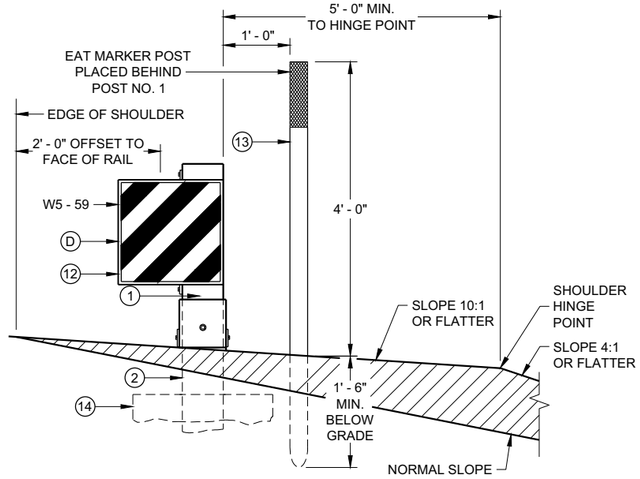
ELEVATION



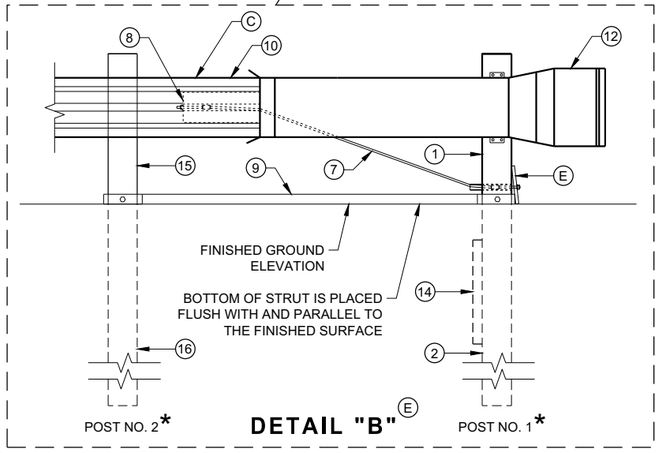
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



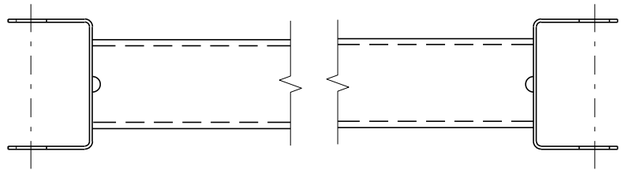
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

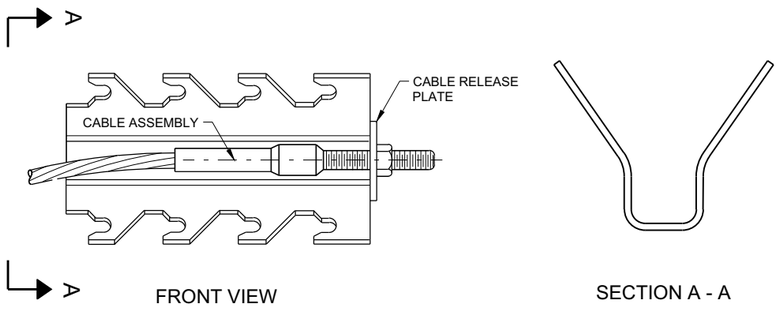
SDD 14B44 - 04a



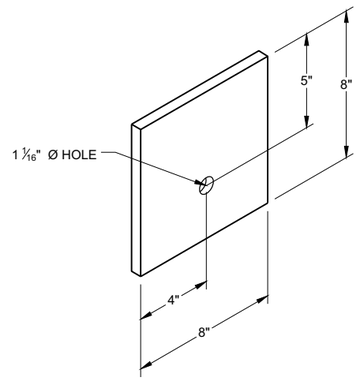
GENERIC GROUND STRUT (9) (E)

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 (9) (E)



BEARING PLATE (6) (E)

6

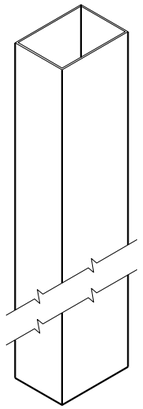
6

SDD 14B44 - 04b

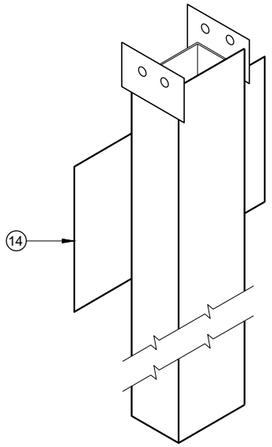
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

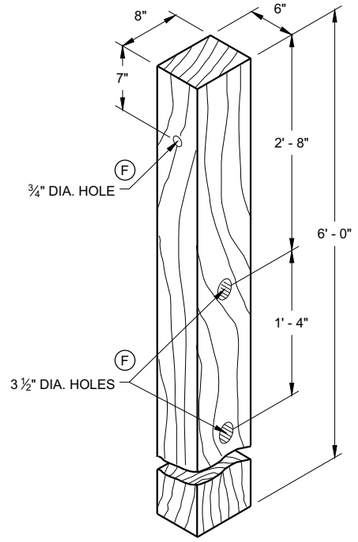
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



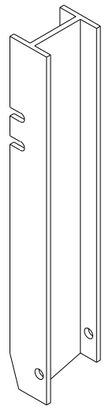
UPPER POST NO. 1 (1) (E)



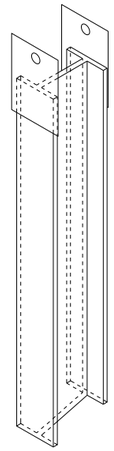
LOWER POST NO. 1 (2) (E)



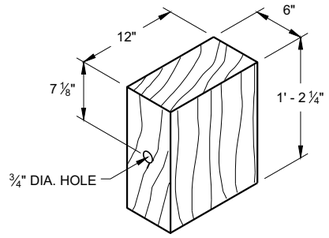
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



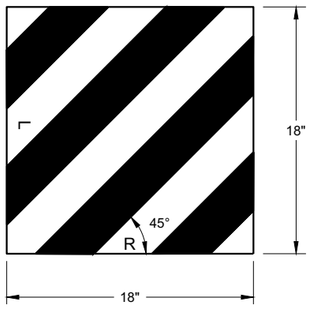
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

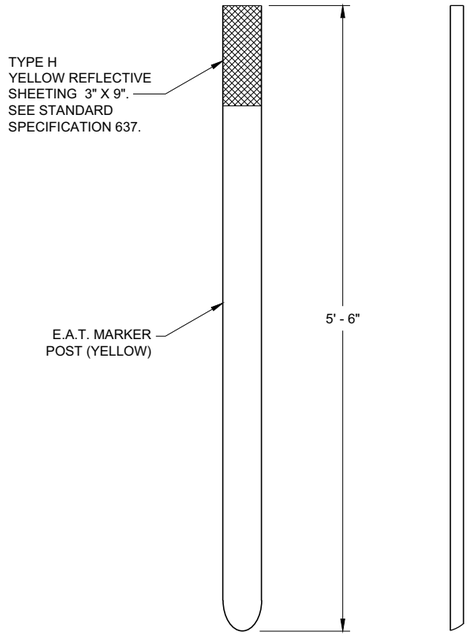


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



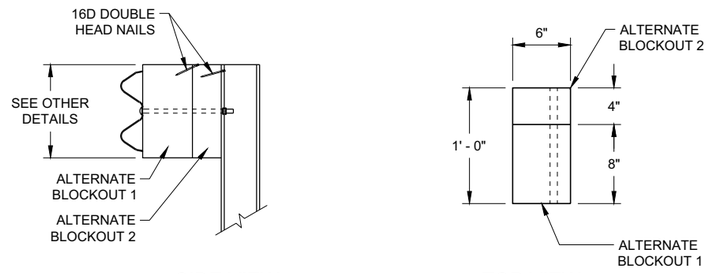
W5 - 59

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)

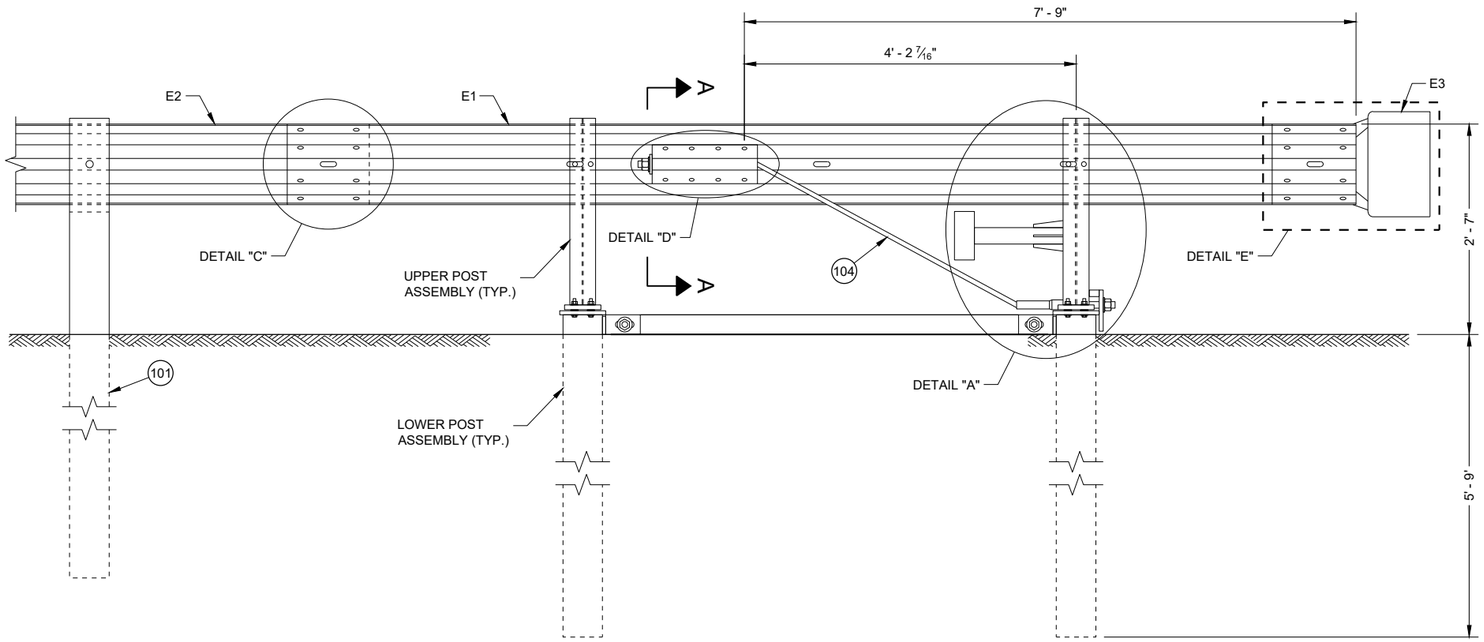
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

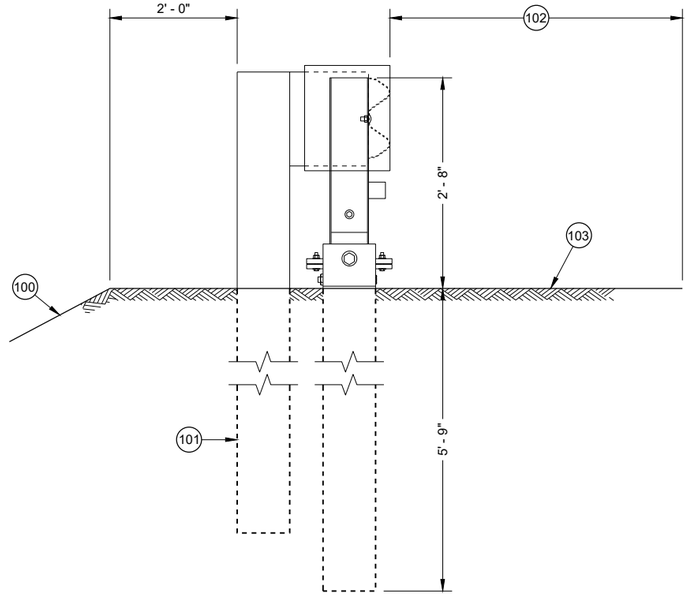
FHWA

6

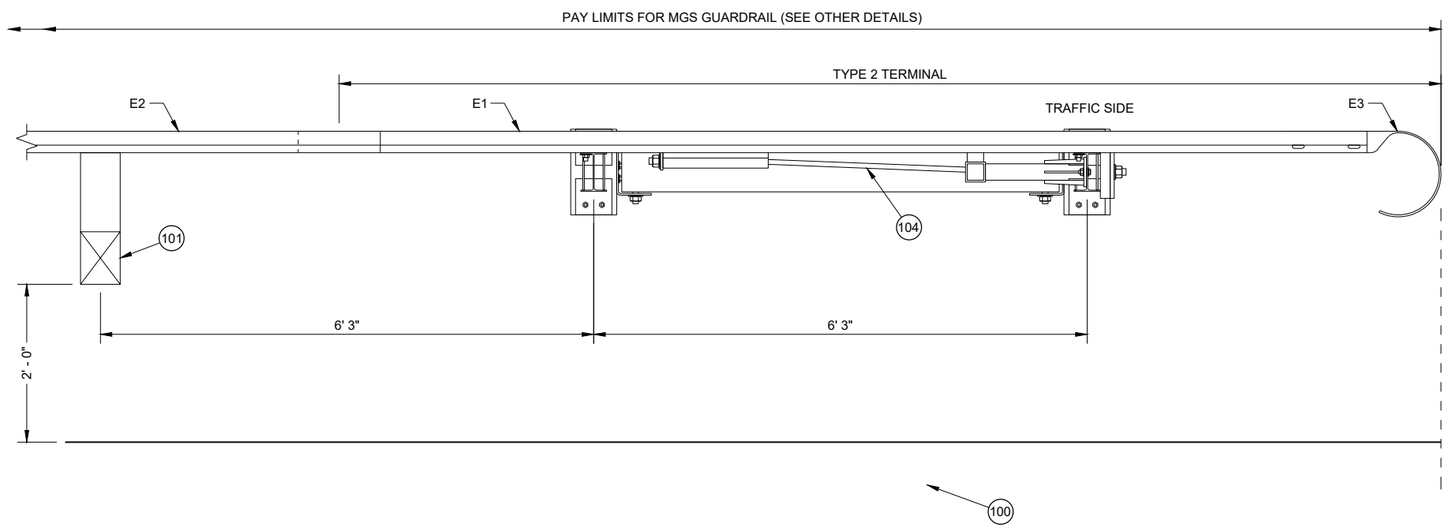
SDD 14B44 - 04c



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

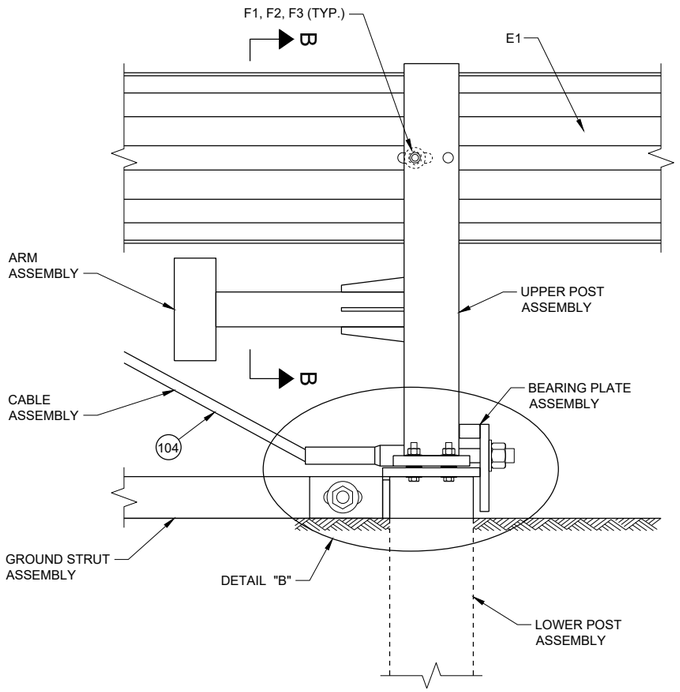
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

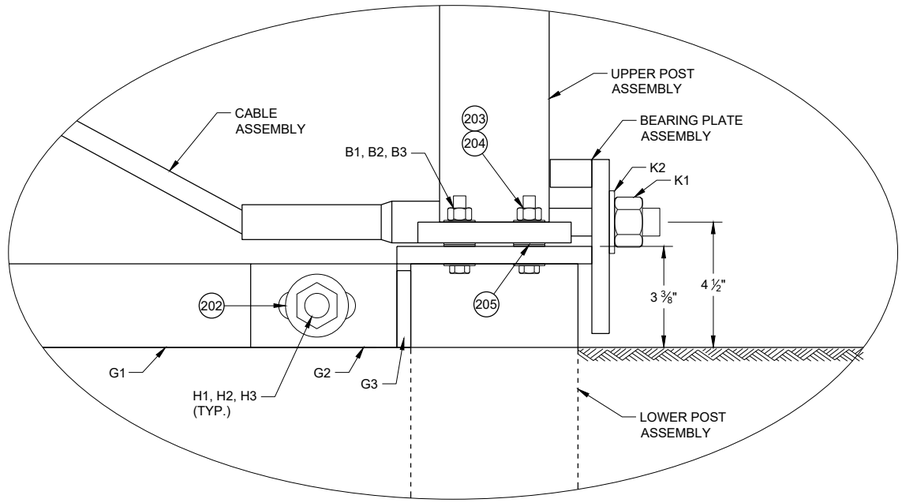
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

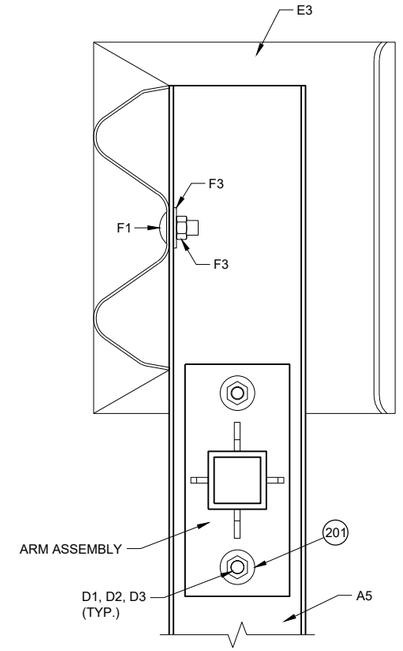
SDD 14B47 - 05a



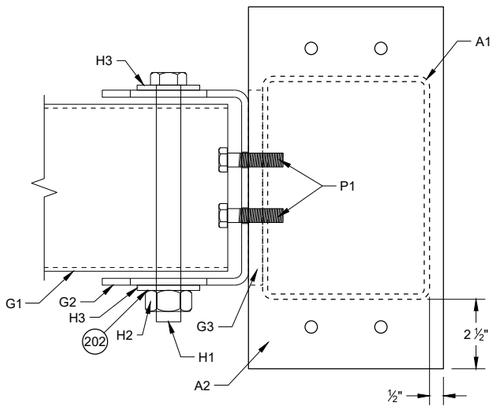
DETAIL "A"



DETAIL "B"

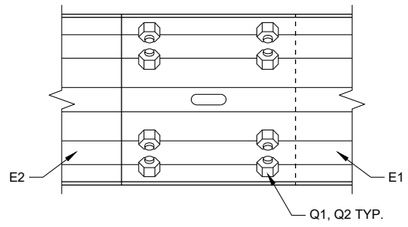


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

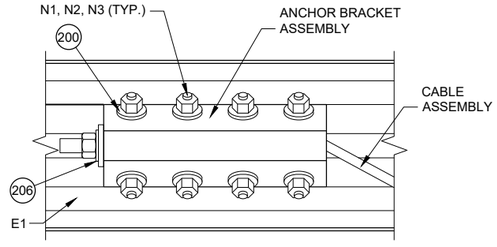
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

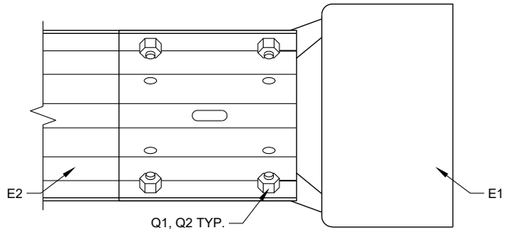
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

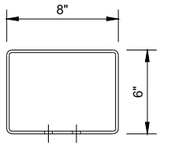
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

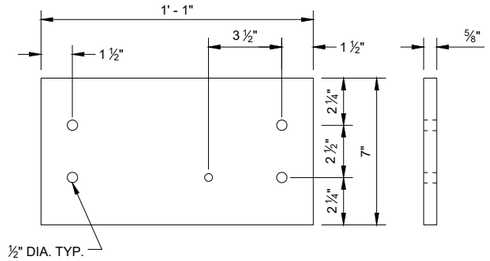
SDD 14B47 - 05b

GENERAL NOTES

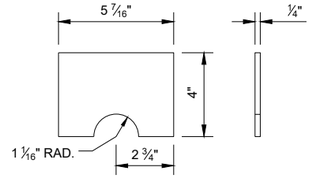
(300) TAP FOR 1/2" AFTER GALVANIZATION



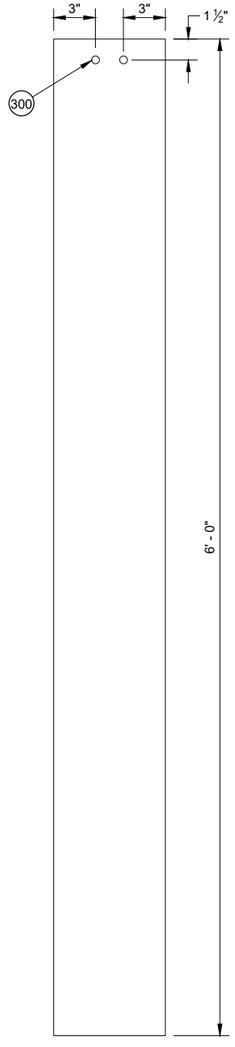
TOP VIEW



LOWER PLATE (A2)

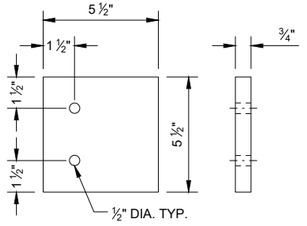


POST GUSSET (A3)

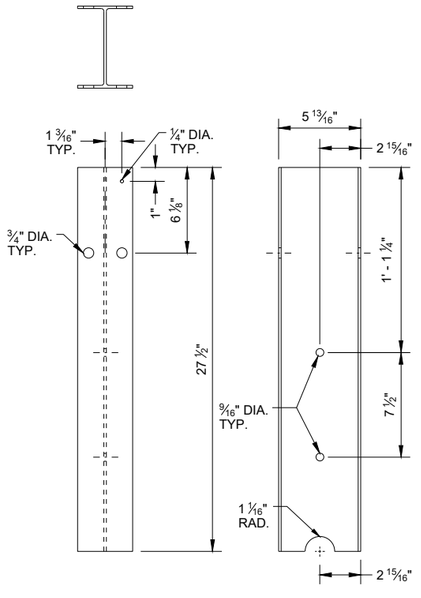


SIDE VIEW

FOUNDATION TUBE (A1)

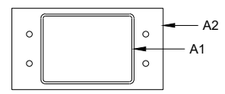


UPPER PLATE (A4)

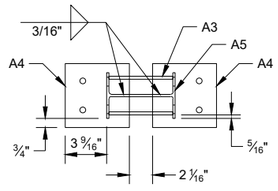


FRONT VIEW SIDE VIEW

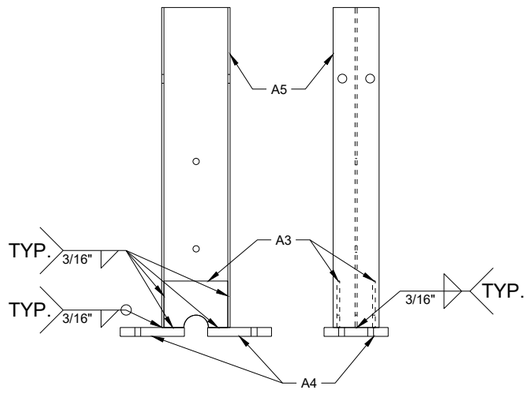
TYPE 2 POST (A5)



PLAN VIEW

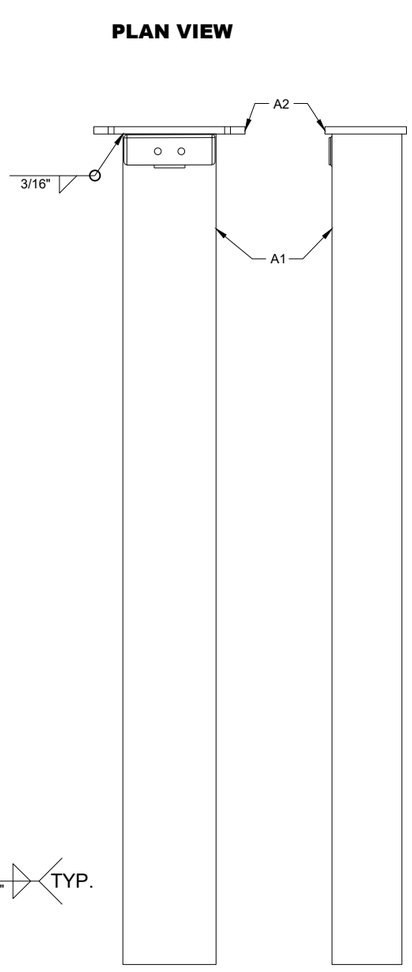


PLAN VIEW



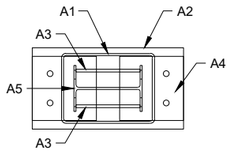
SIDE VIEW FRONT VIEW

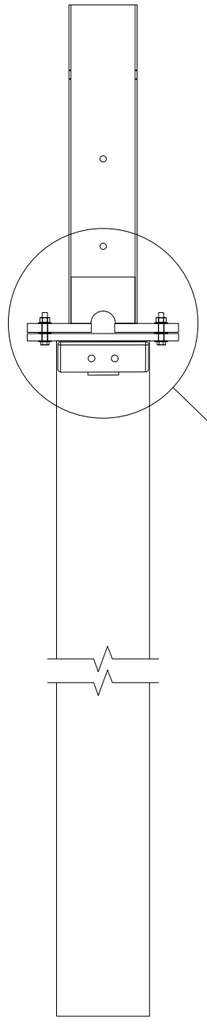
UPPER POST ASSEMBLY



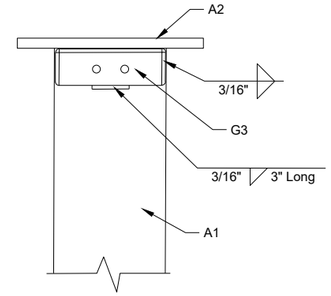
FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY

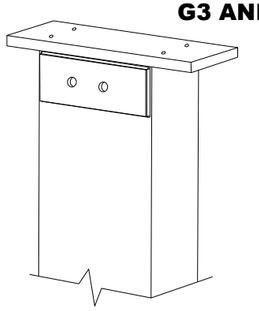




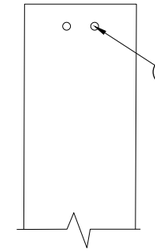
ASSEMBLED POST



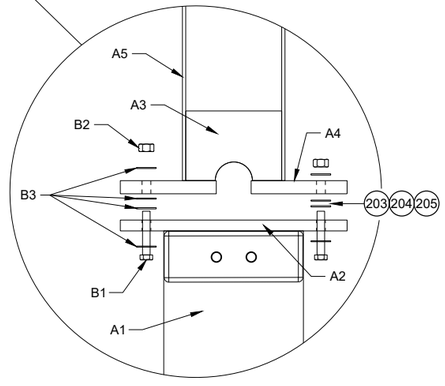
WELDING DETAIL G3 AND A1



ASSEMBLY DETAIL ISOMETRIC



A1



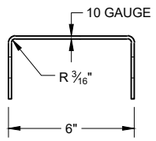
POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

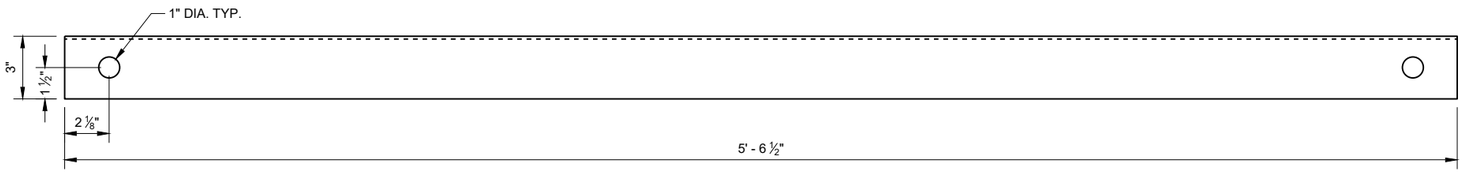
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B47 - 05c

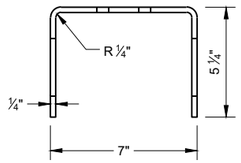


SIDE VIEW

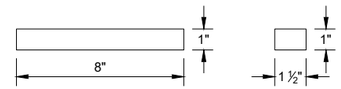


FRONT VIEW

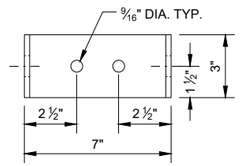
GROUND STRUT CHANNEL (G1)



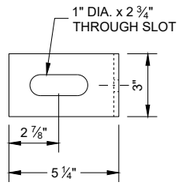
TOP VIEW



BEARING PLATE FLANGE (L2)

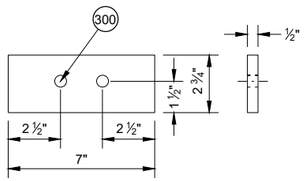


FRONT VIEW

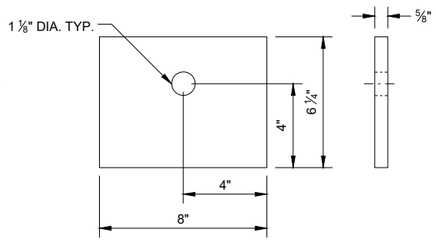


SIDE VIEW

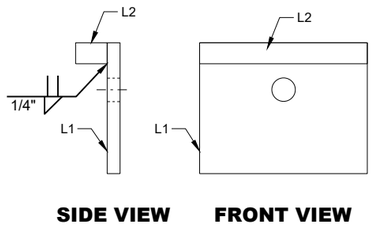
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

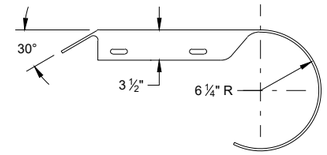


BEARING PLATE (L1)

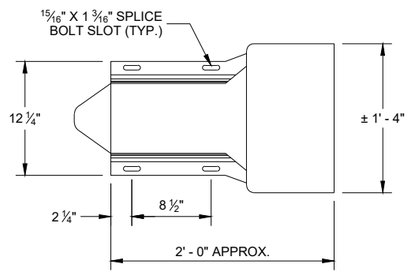


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

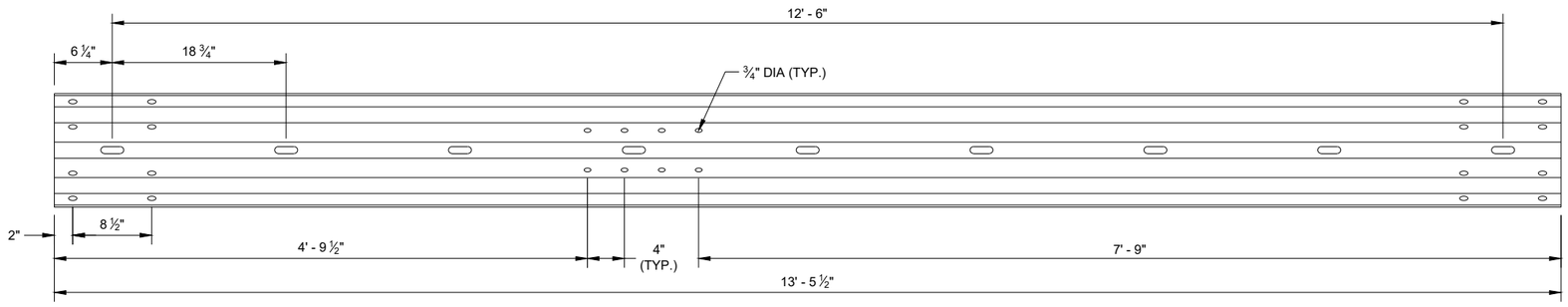


PLAN VIEW

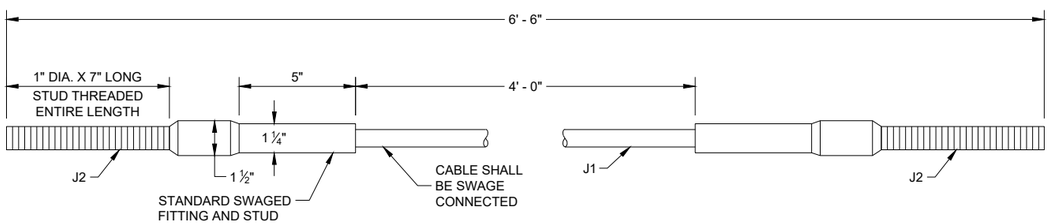


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



CABLE ASSEMBLY

6

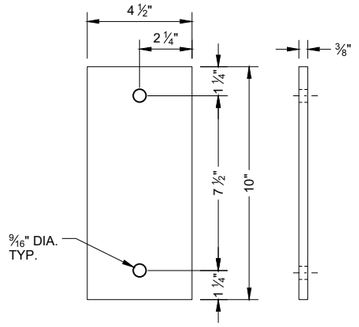
SDD 14B47 - 05d

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

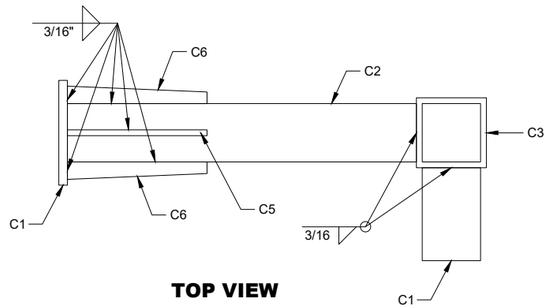
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

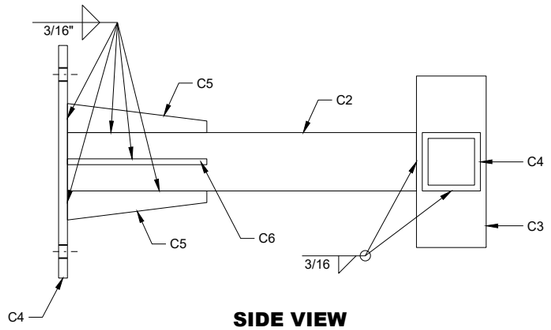
SDD 14B47 - 05d



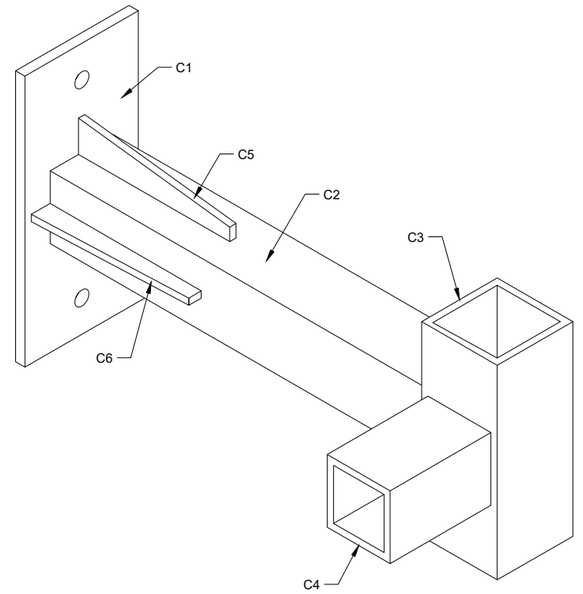
ARM PLATE (C1)



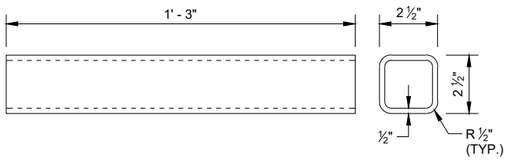
TOP VIEW
ARM ASSEMBLY



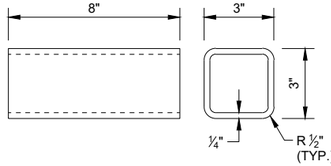
SIDE VIEW
ARM ASSEMBLY



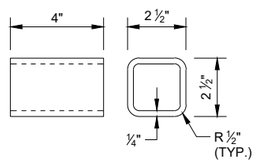
ISOMETRIC VIEW
ARM ASSEMBLY



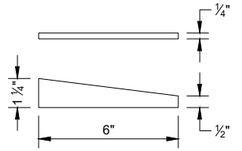
ARM TUBE 1 (C2)



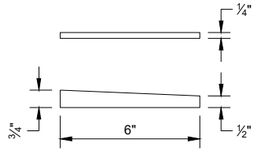
ARM TUBE 2 (C3)



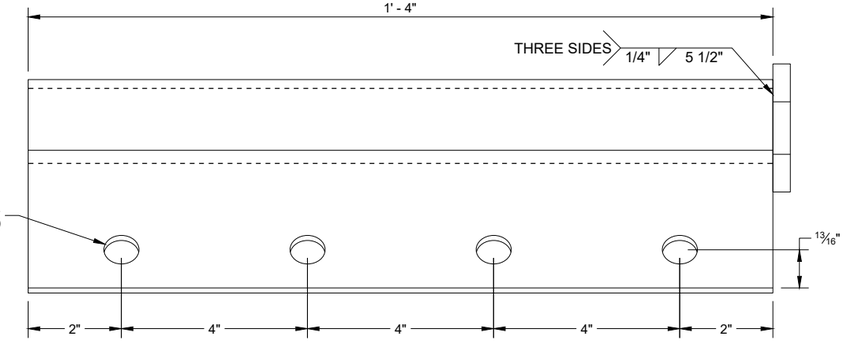
ARM TUBE 3 (C4)

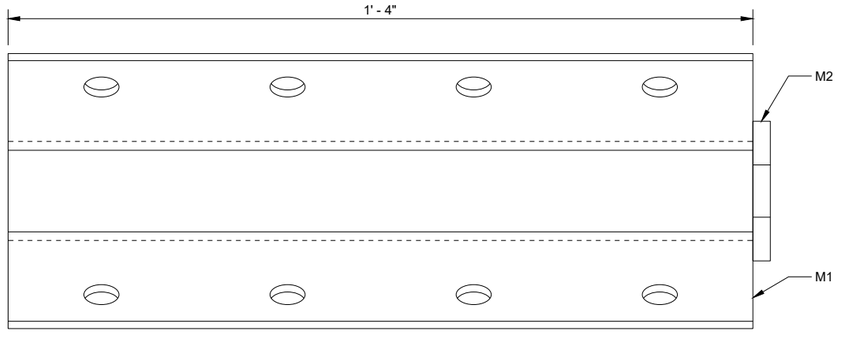


ARM GUSSET PLATE 1 (C5)

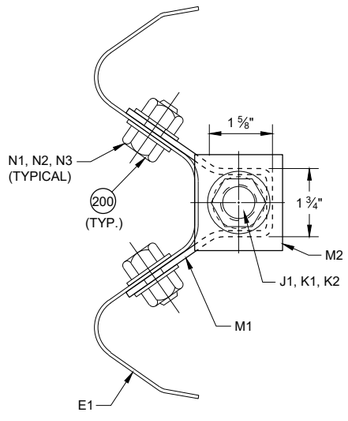


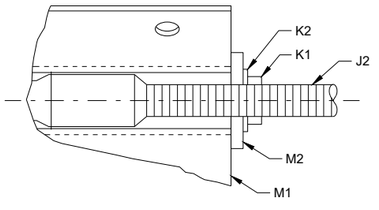
ARM GUSSET PLATE 2 (C6)



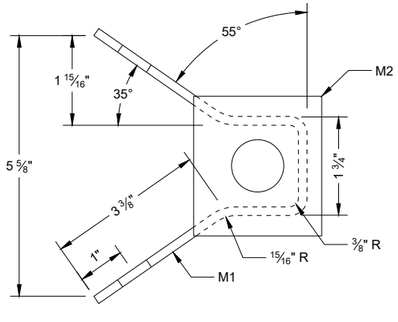


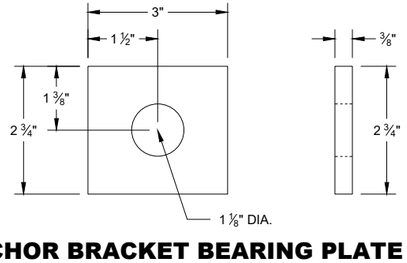
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B47 - 05e

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 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	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 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	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 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, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 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	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 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	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 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	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 14B47 - 05f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 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	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 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	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 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	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 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	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

6

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

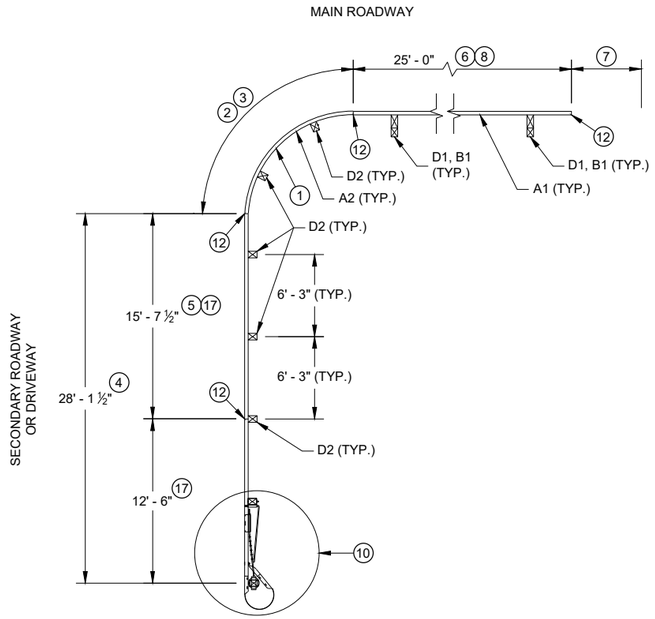
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

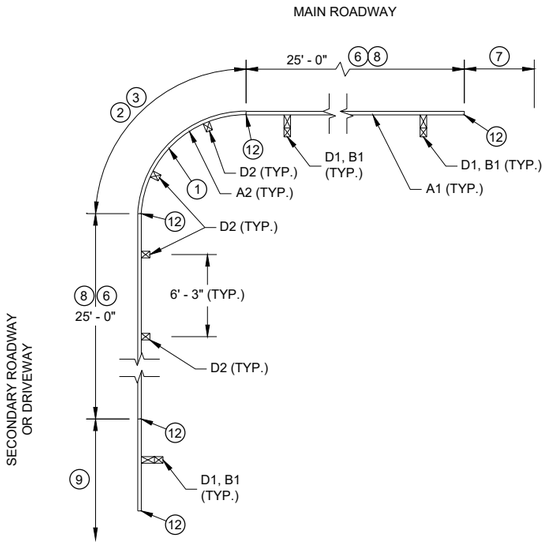
FHWA

SDD 14B47 - 05g



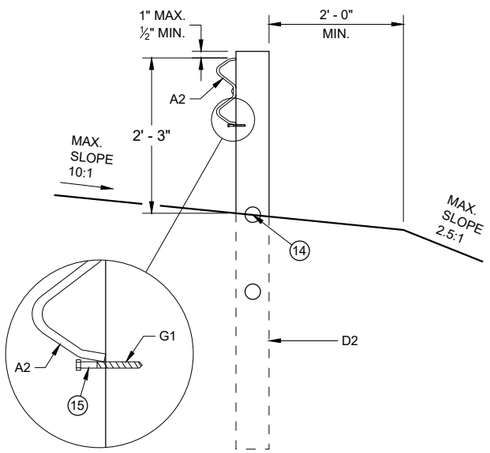
PLAN VIEW

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

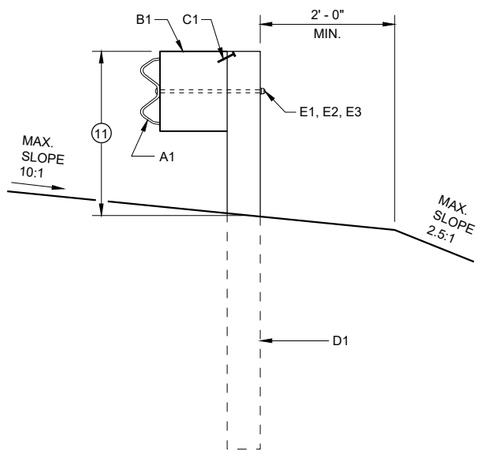


PLAN VIEW

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



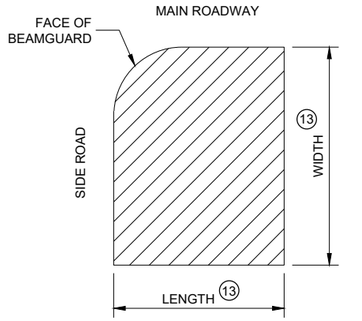
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION

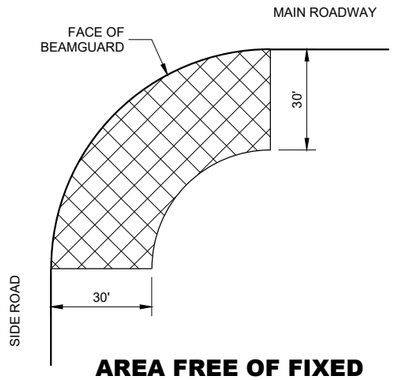
TABLE FOR RADIUS OF 32' AND LESS

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

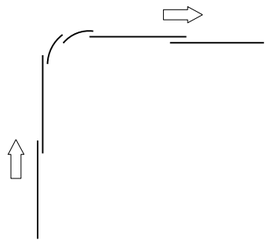


AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS

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.

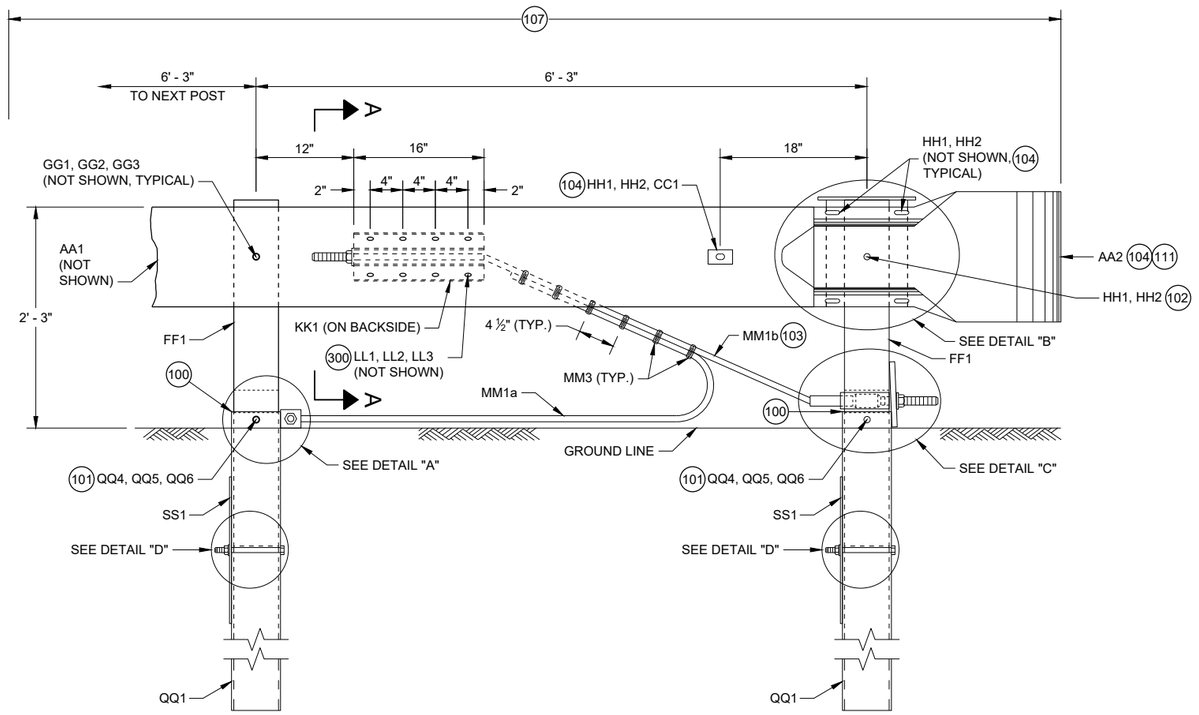
(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

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

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

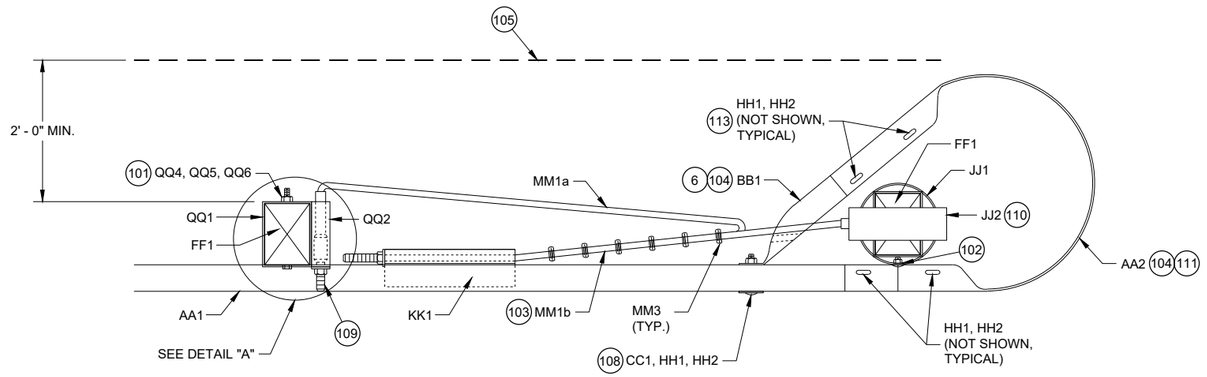
6

SDD 14B53 - 02a



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.

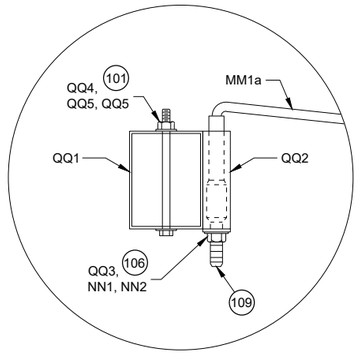
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

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.

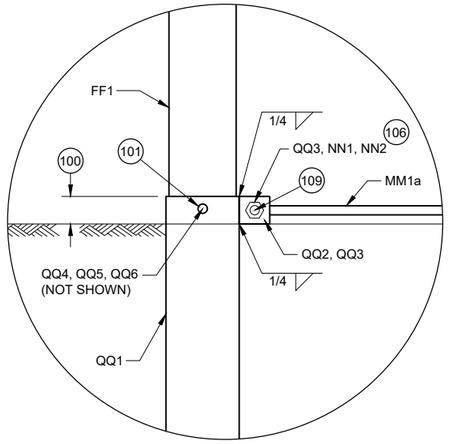
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

6

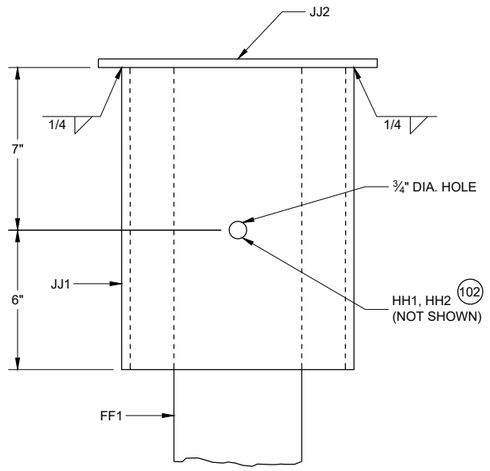
SDD 14B53 - 02b

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

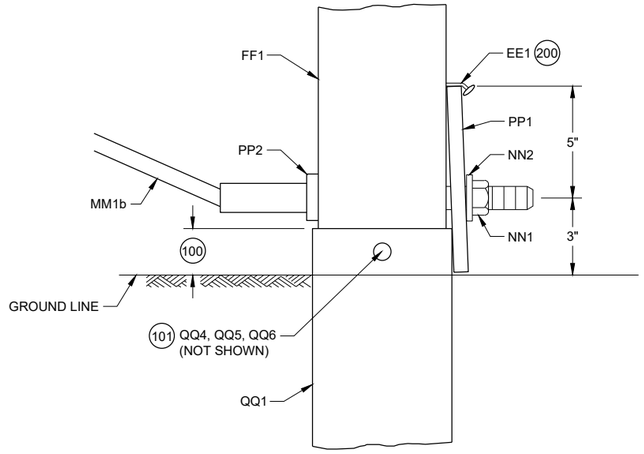
GENERAL NOTES

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



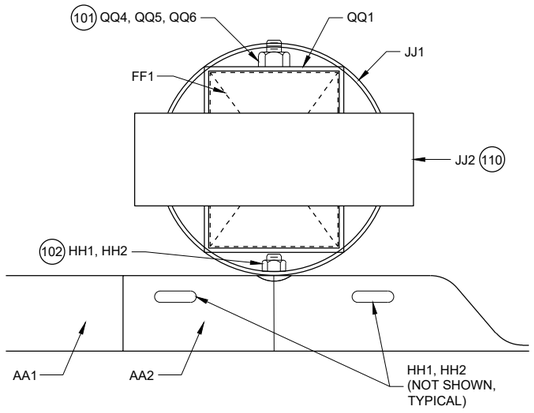
PROFILE VIEW

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



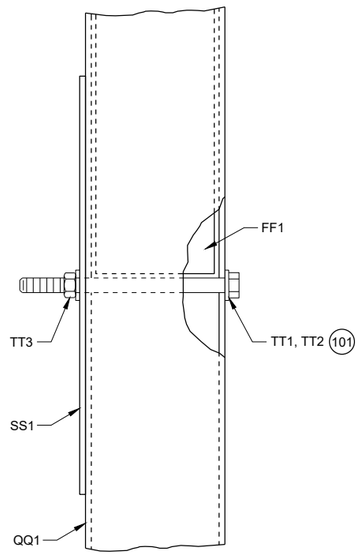
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

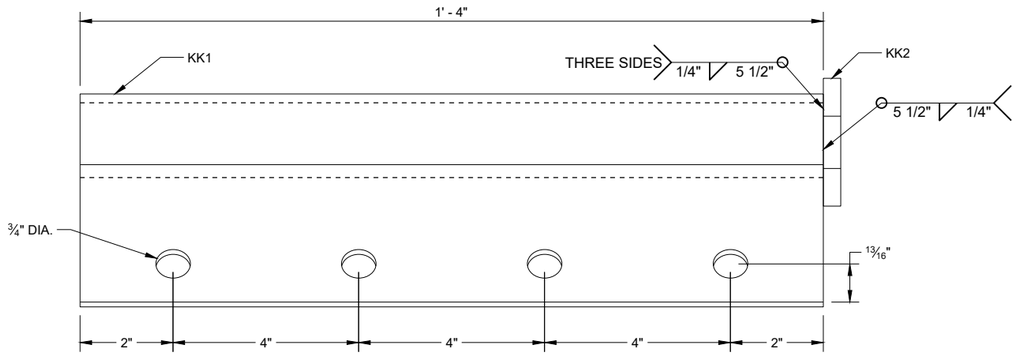
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

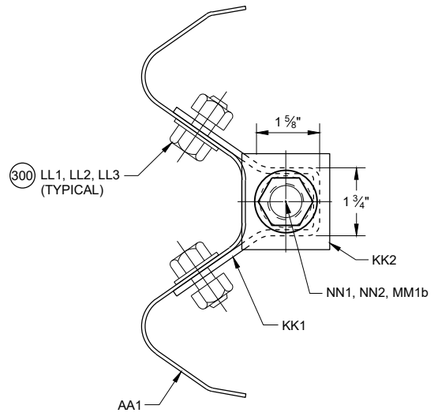
6

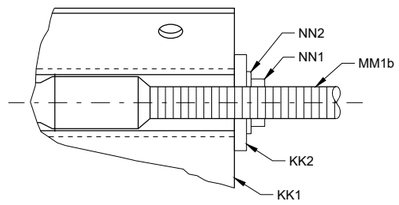
SDD 14B53 - 02c

GENERAL NOTES

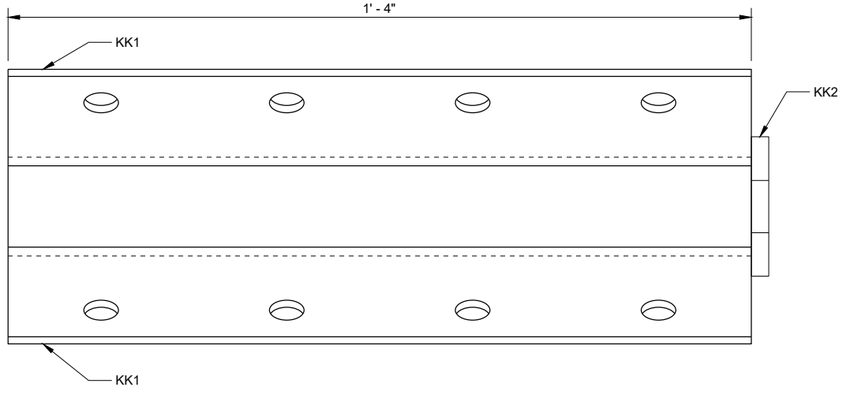
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

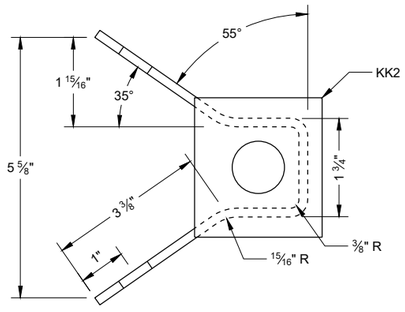




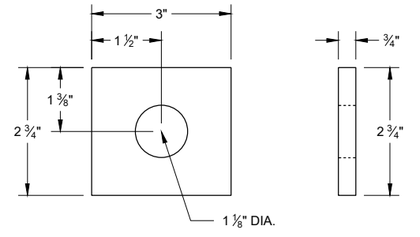


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



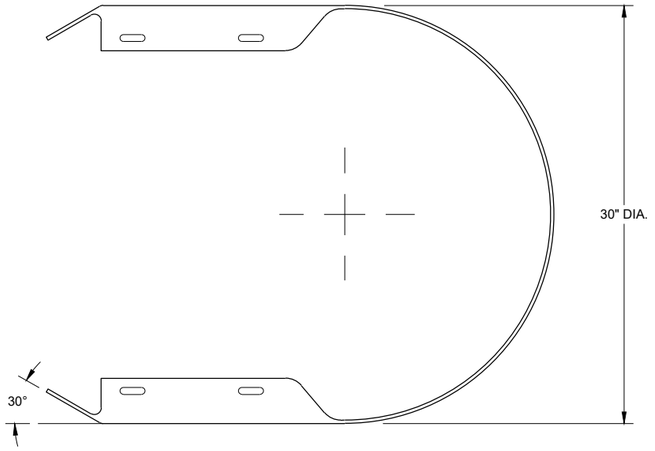
ANCHOR BRACKET BEARING PLATE (KK2)

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

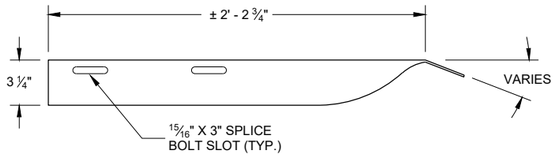
GENERAL NOTES

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

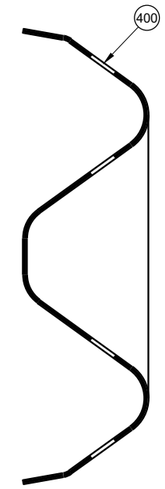
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



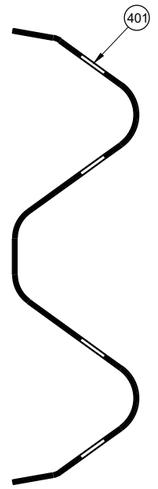
TOP VIEW



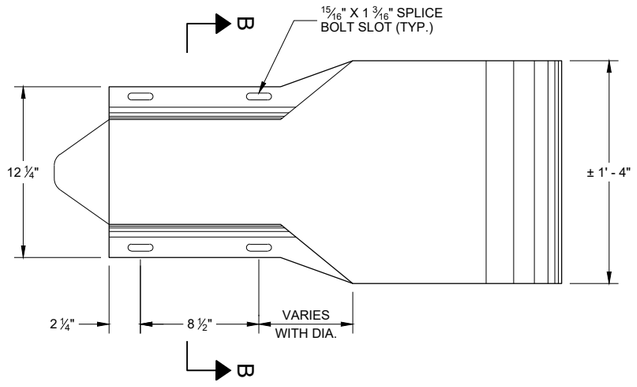
TOP VIEW



SECTION B -B

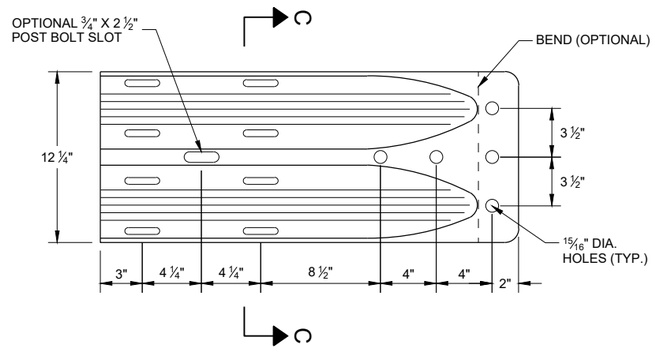


SECTION C -C



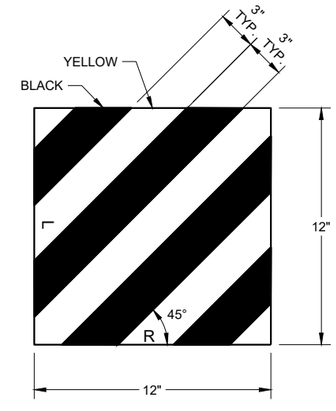
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)

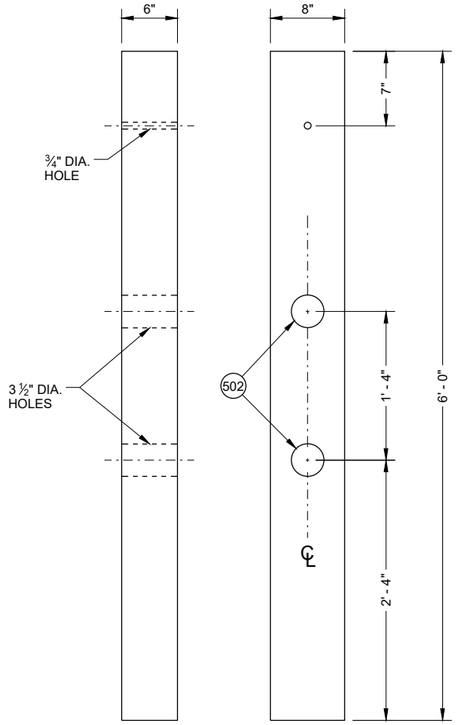


REFLECTIVE SHEETING (UU1, UU2)

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

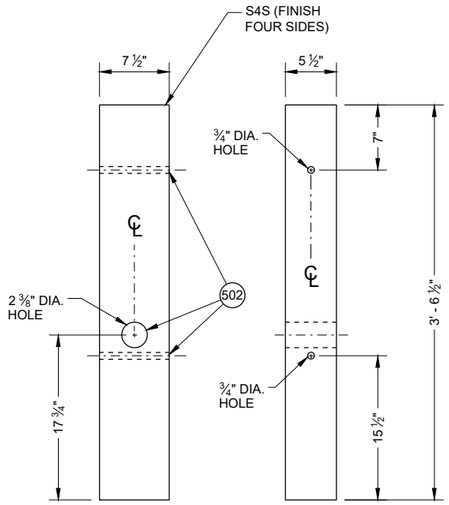
6

SDD 14B53 - 02e



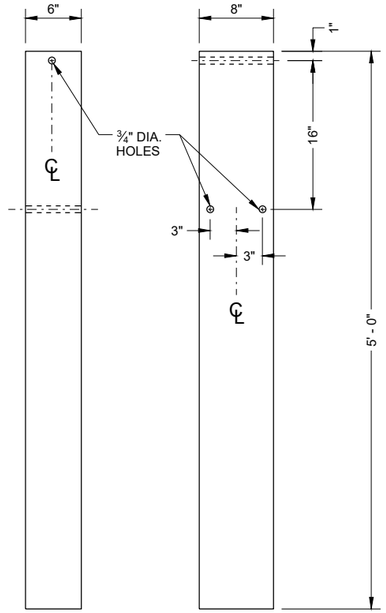
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

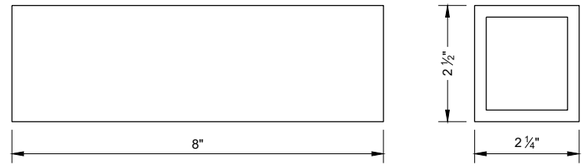
GENERAL NOTES

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

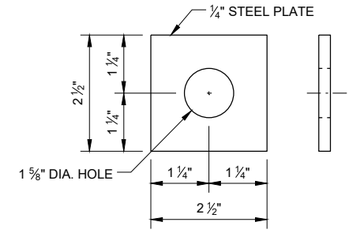
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

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

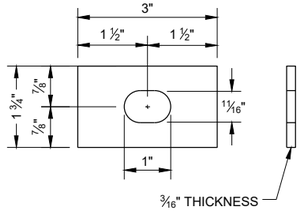
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



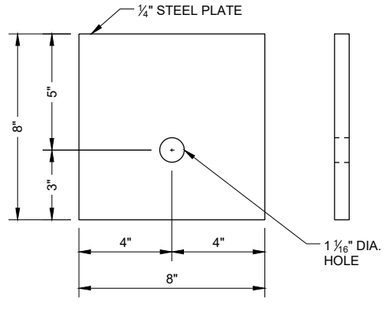
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



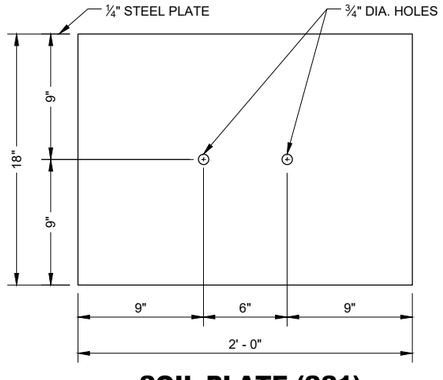
ANCHOR CABLE TUBE END PLATE (QQ3)



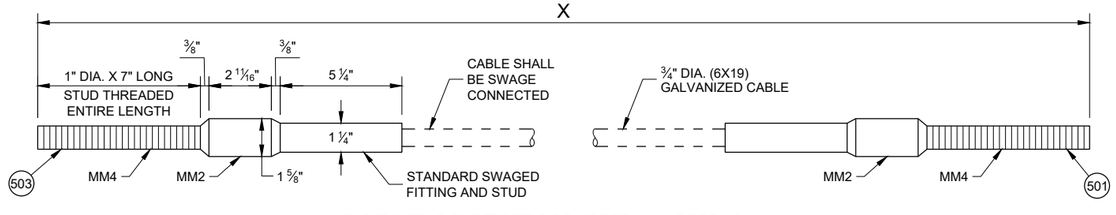
RECTANGULAR PLATE WASHER (CC1)



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)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B53 - 02f

6

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)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 14B53 - 02g

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	

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	

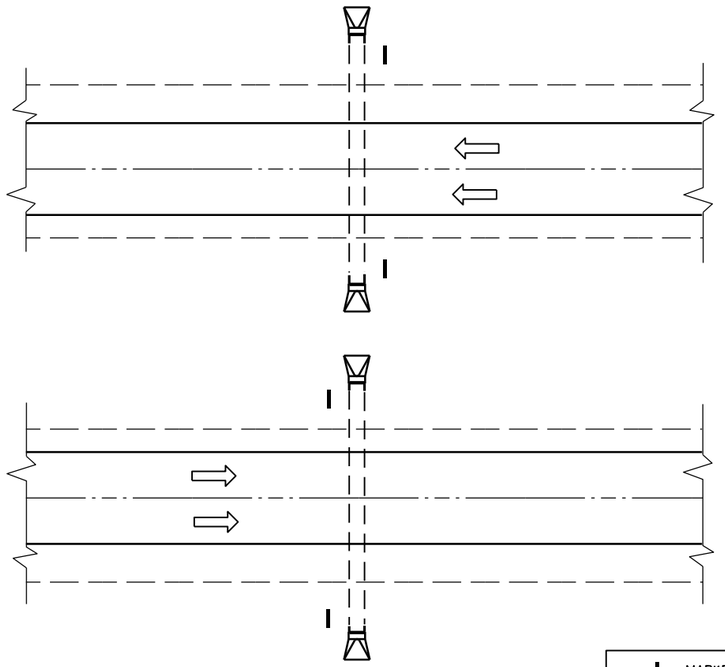
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

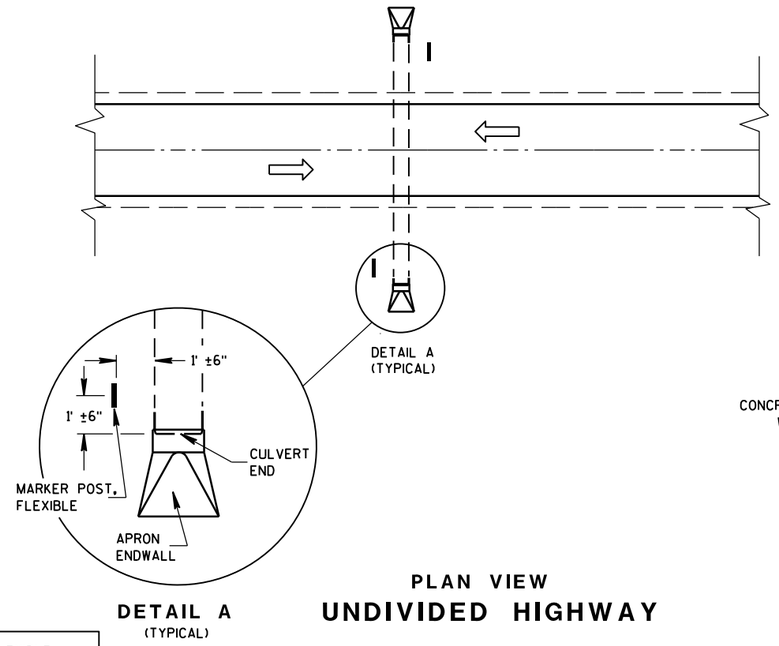
6

SDD 14B53 - 02i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

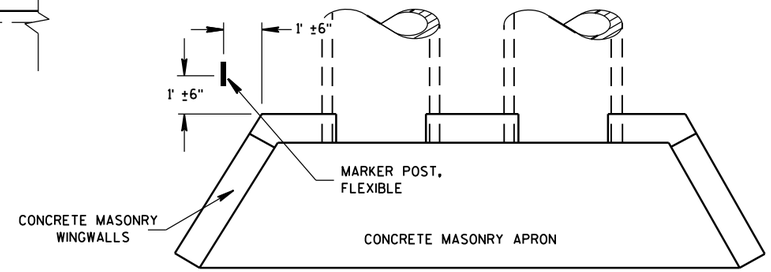
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

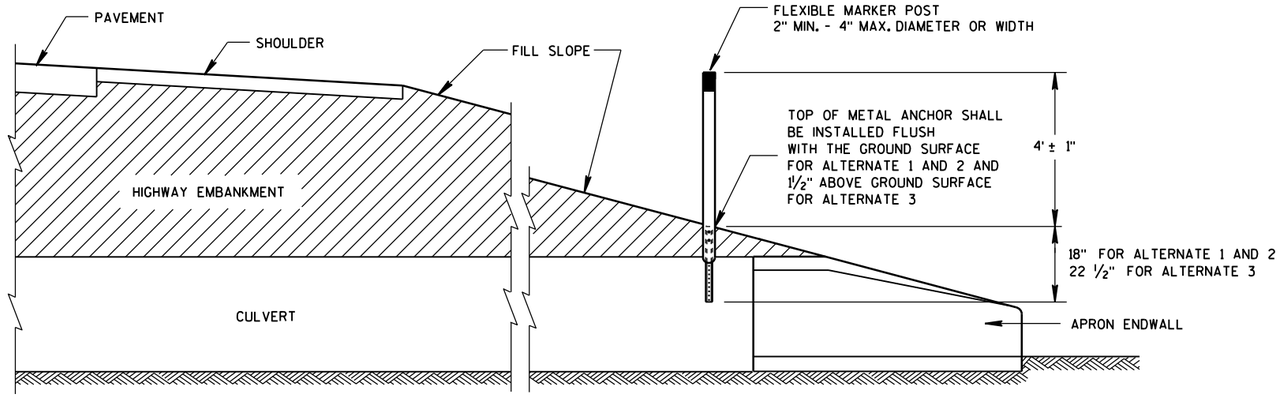
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

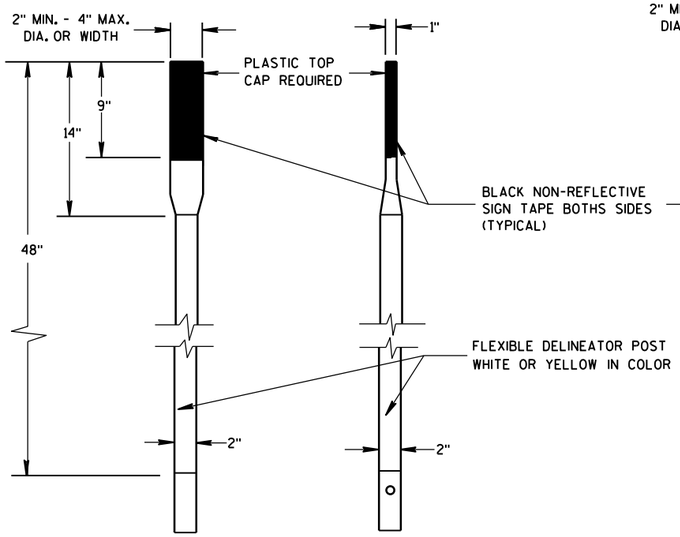
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

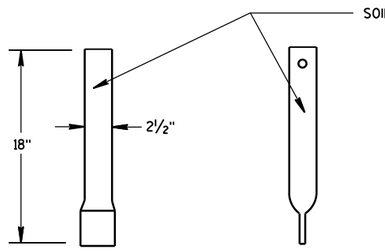
6

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

6

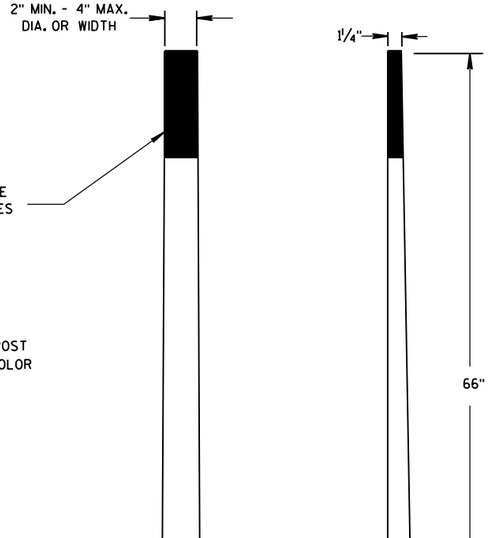
S.D.D. 15 A 3-2a





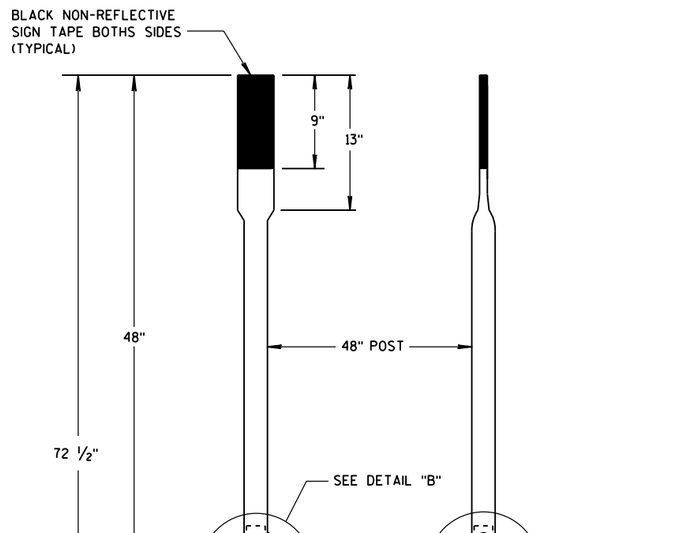
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

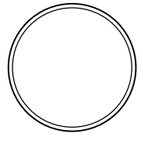
ALTERNATE 2



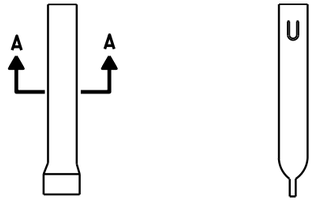
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

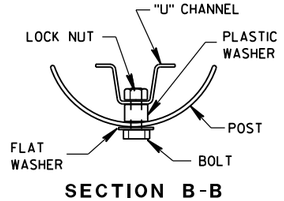


SECTION A-A

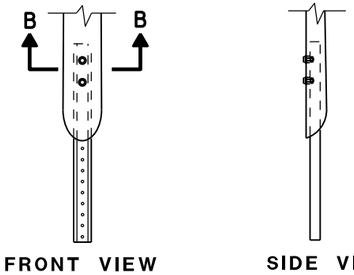


FRONT VIEW SIDE VIEW

ALTERNATE 1

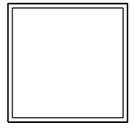


SECTION B-B

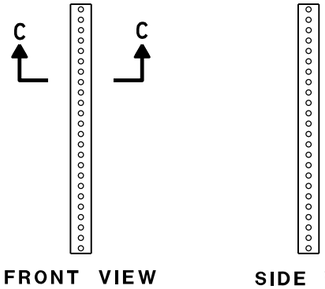


FRONT VIEW SIDE VIEW

ALTERNATE 2



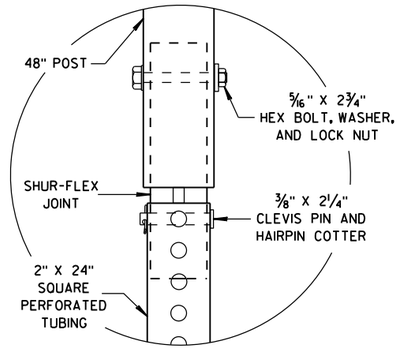
SECTION C-C



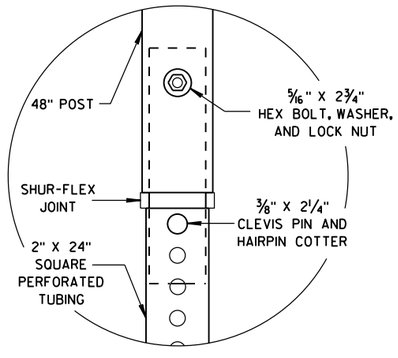
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

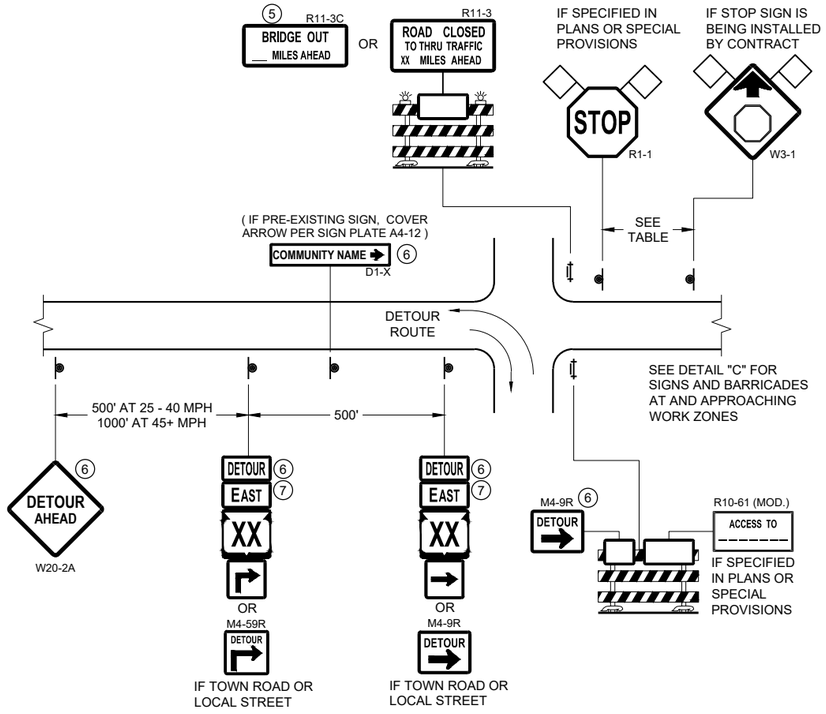
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

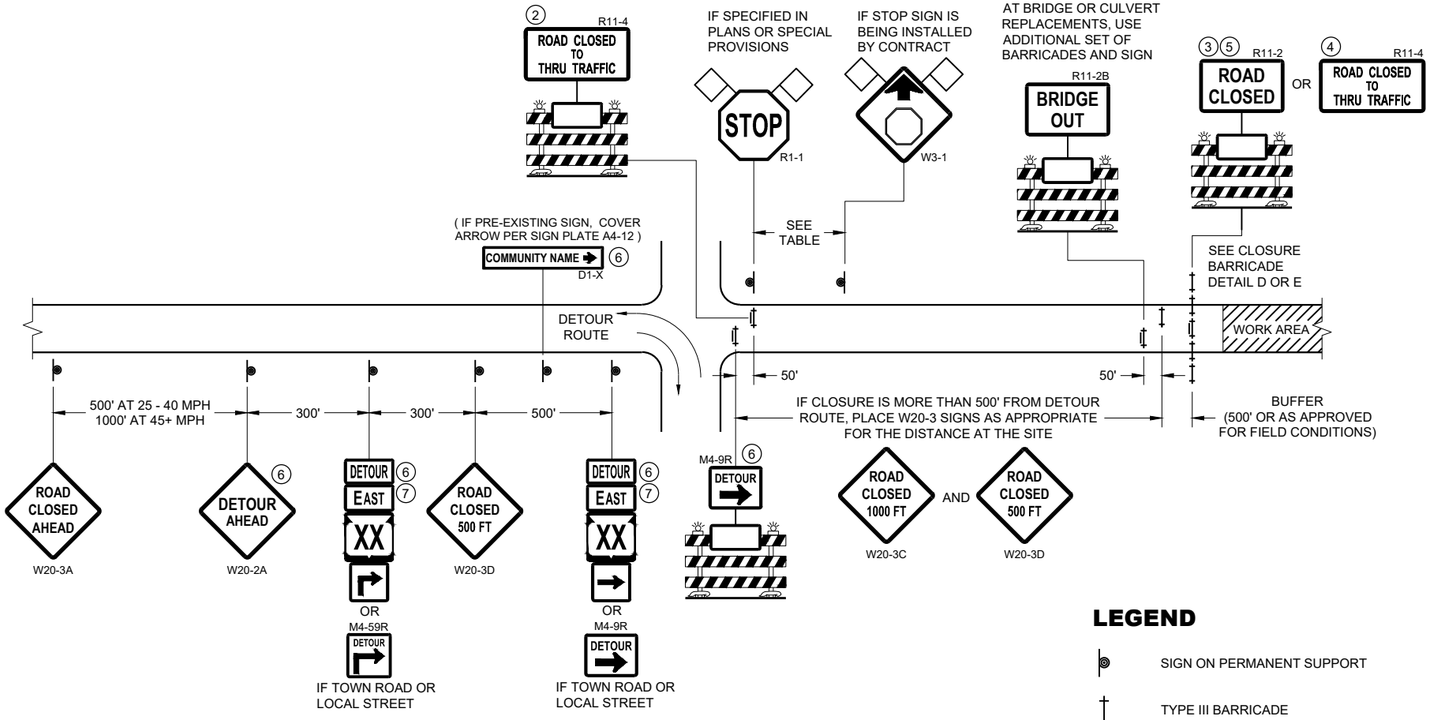
6

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



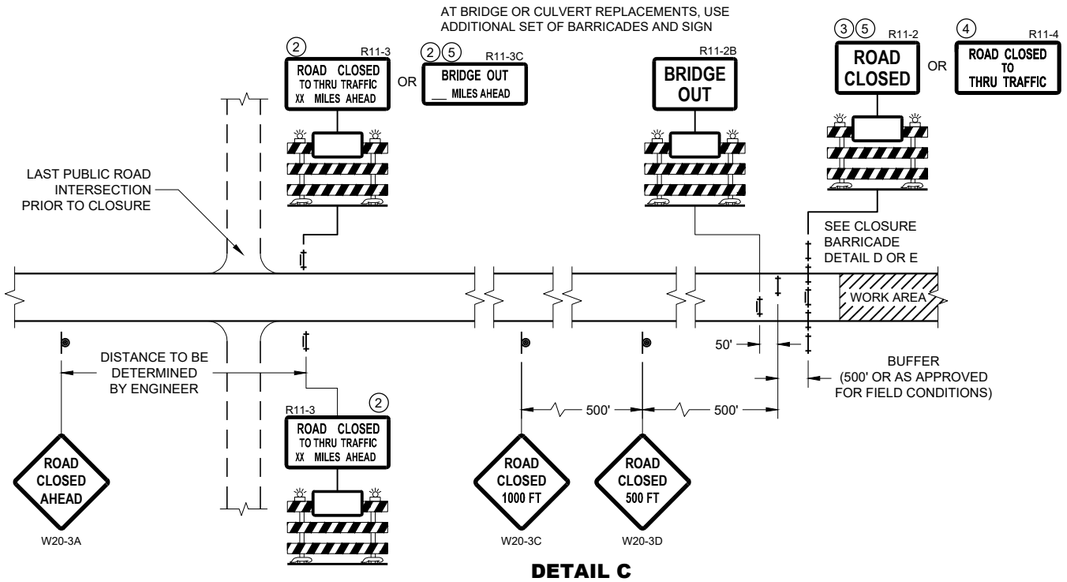
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

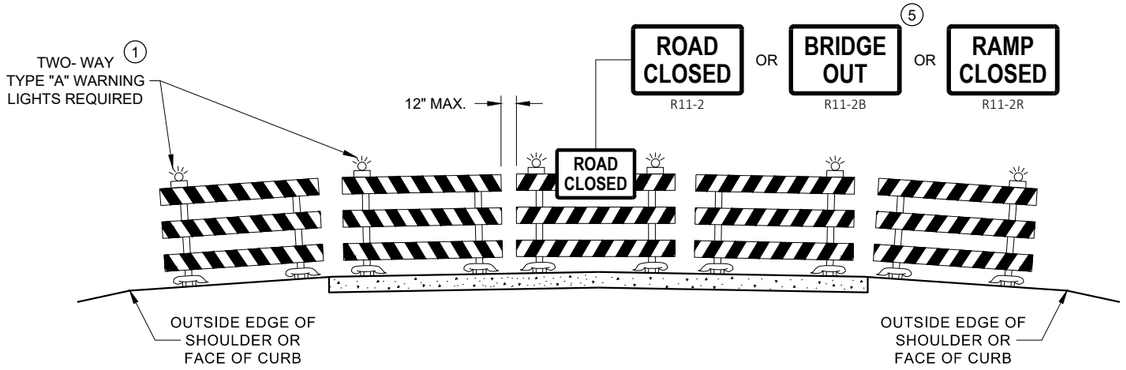
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

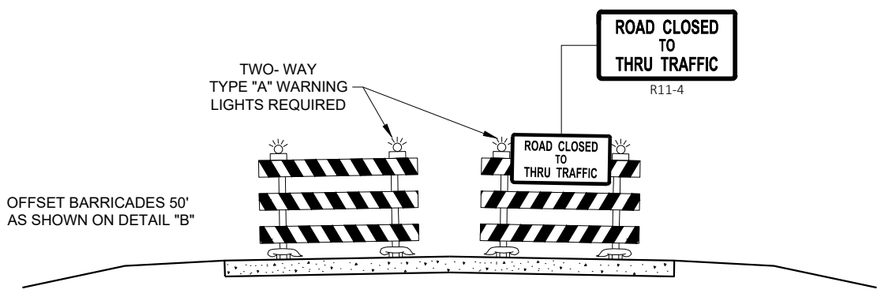
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 09a



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
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR 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.

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

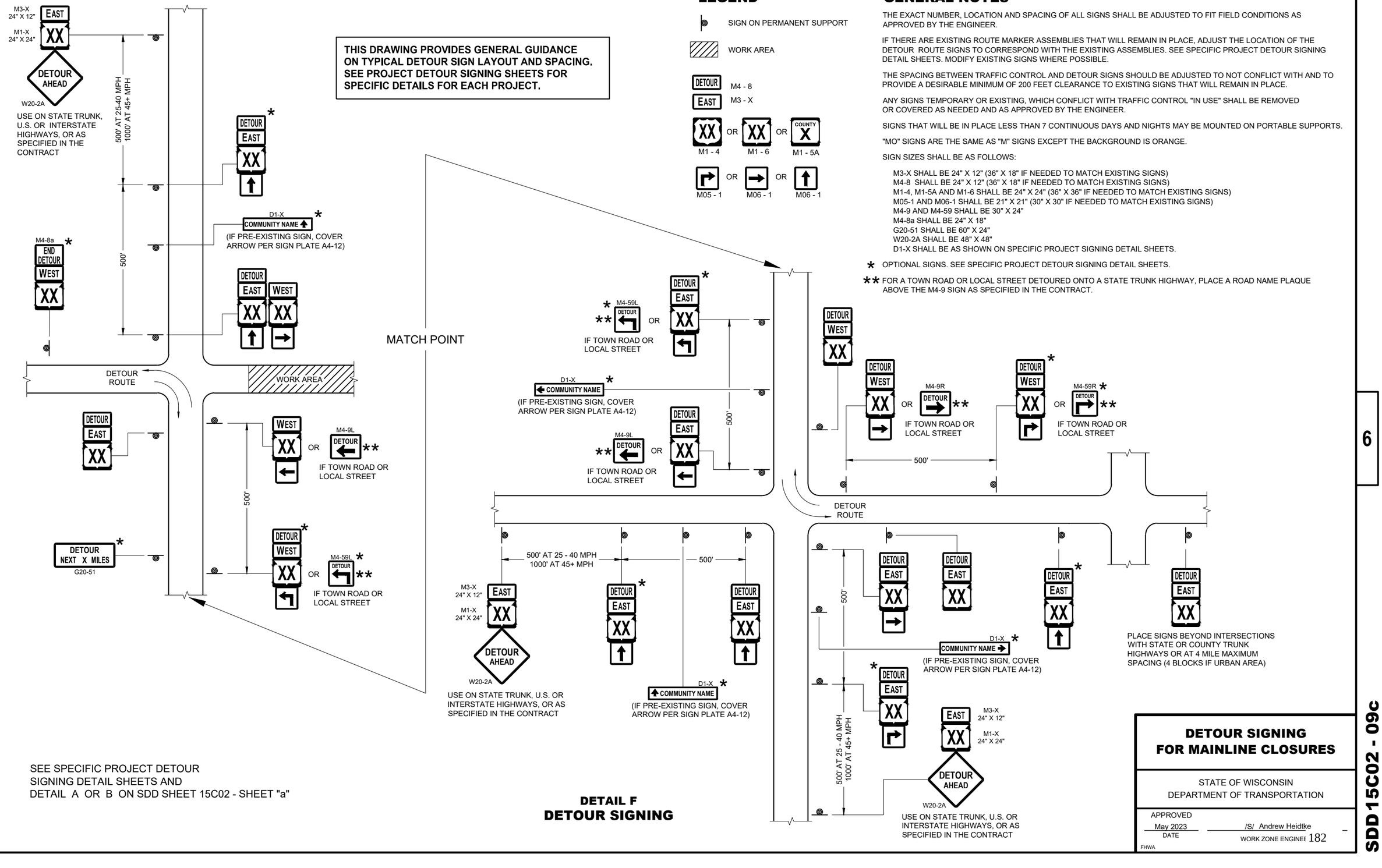
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- 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)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

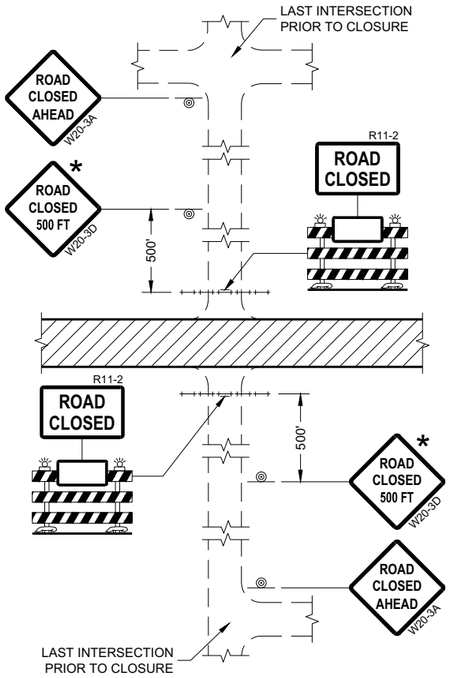
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

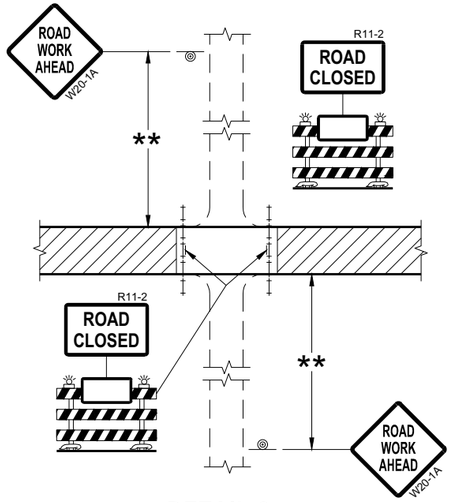
FHWA

6

SDD 15C02 - 09c



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.

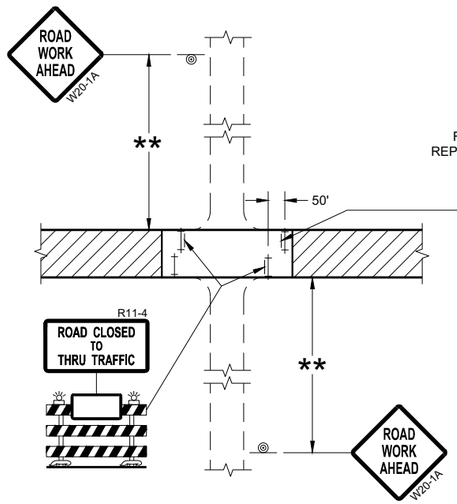
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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.

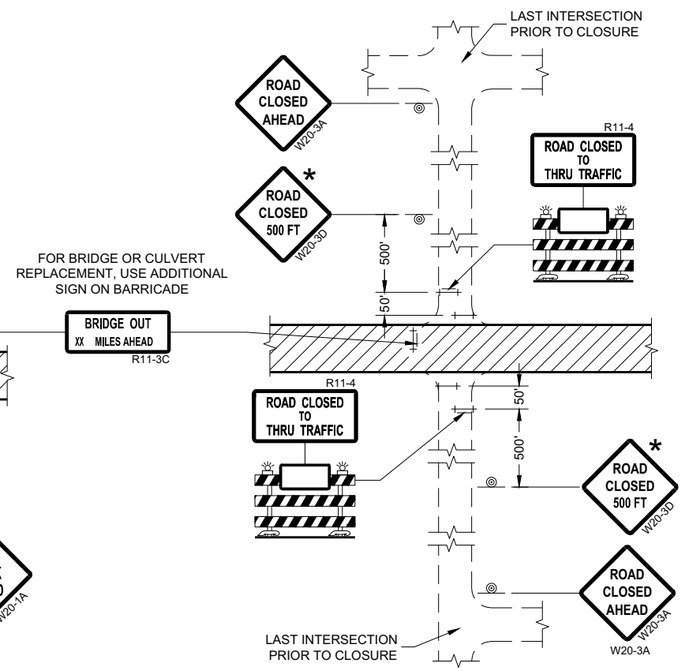
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* 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.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

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.

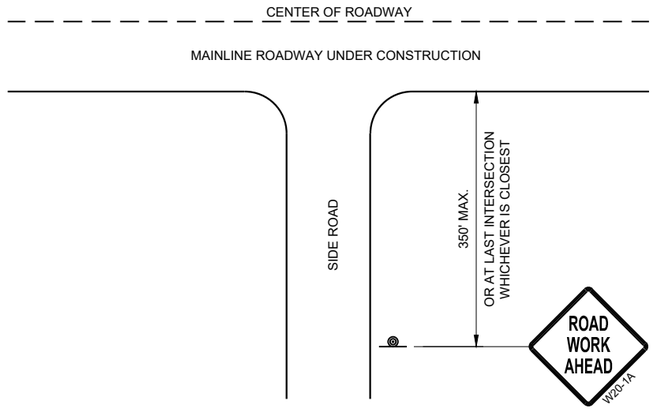
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

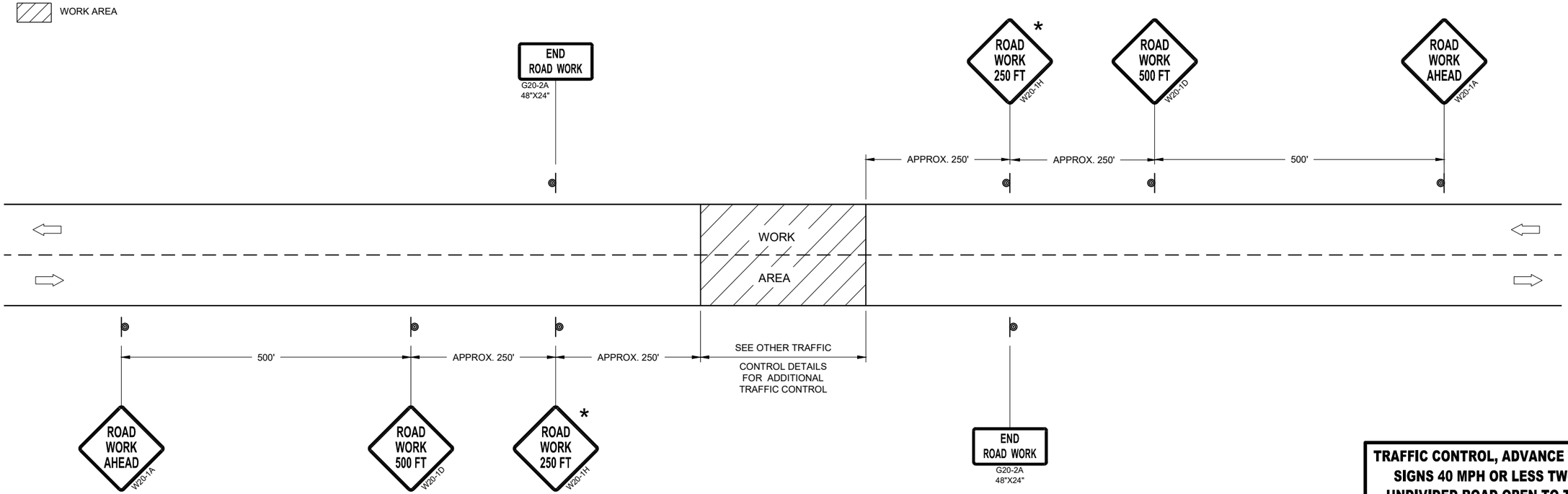
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



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 TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

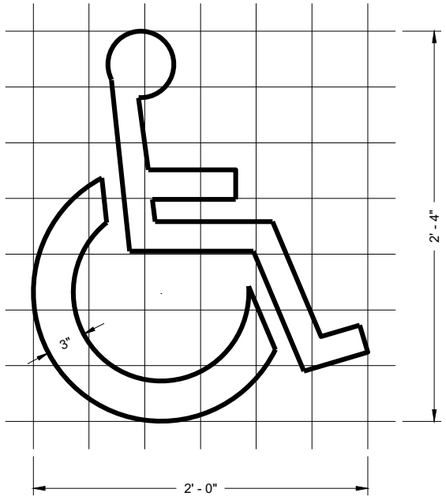
FHWA

6

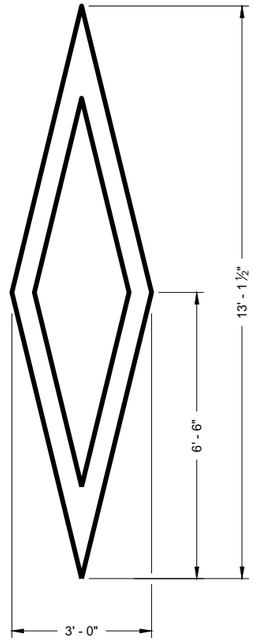
SDD 15C05 - 05

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

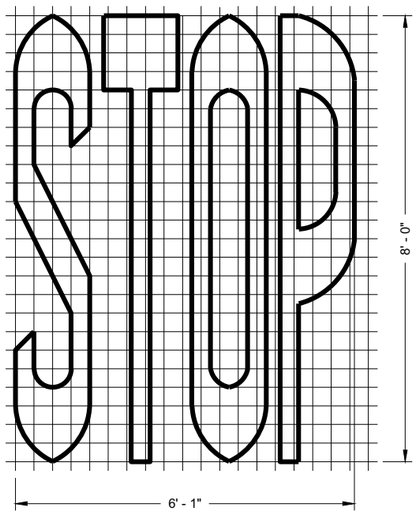
PAVEMENT MARKING SYMBOLS

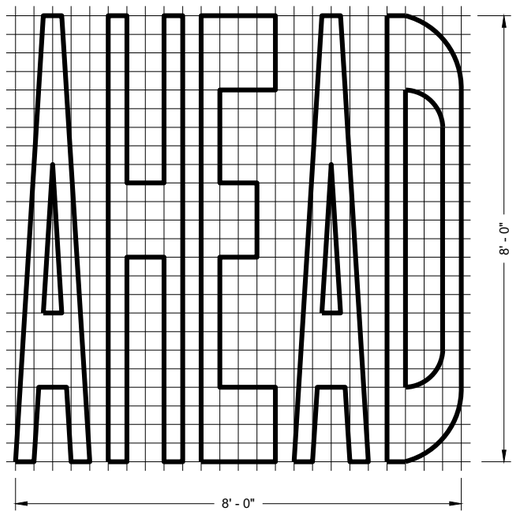
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

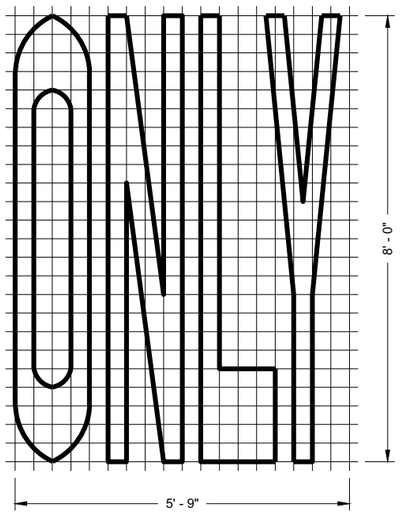
APPROVED
November 2019
DATE

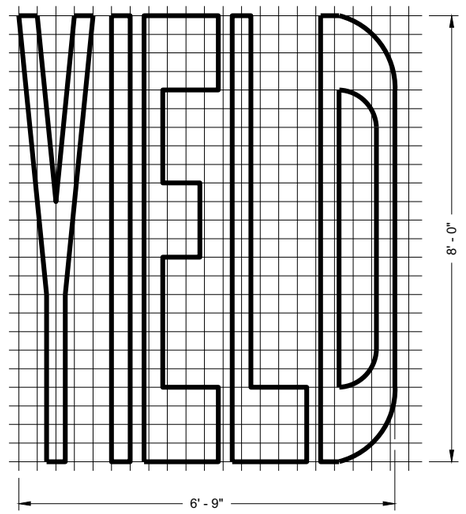
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

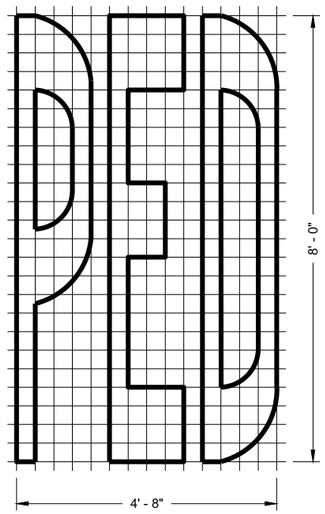
FHWA



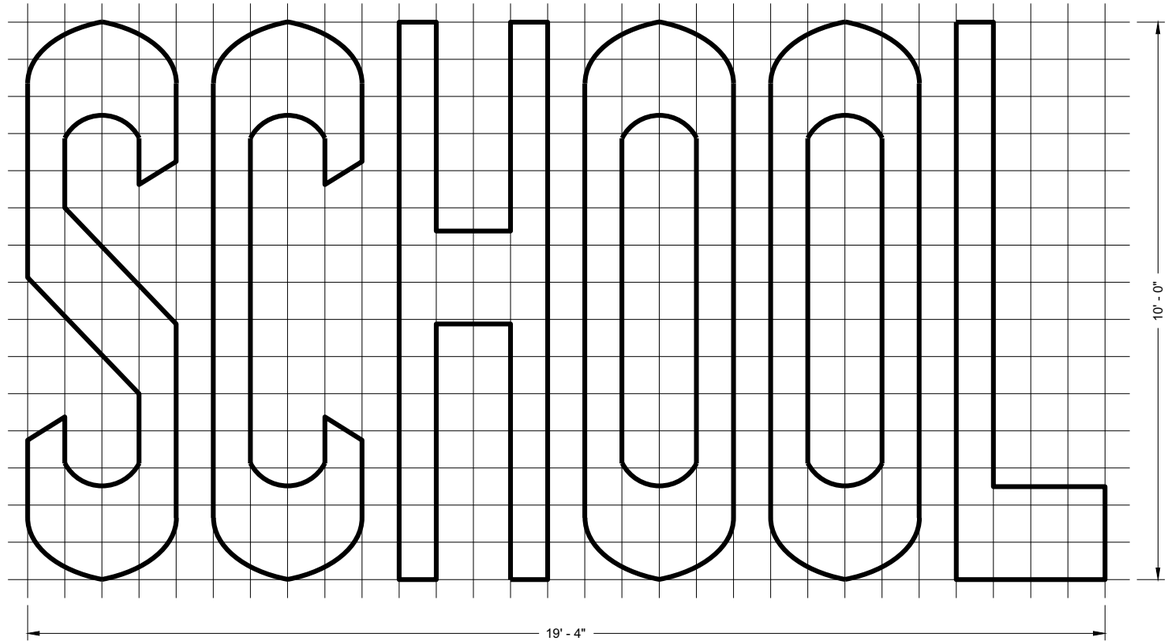








SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

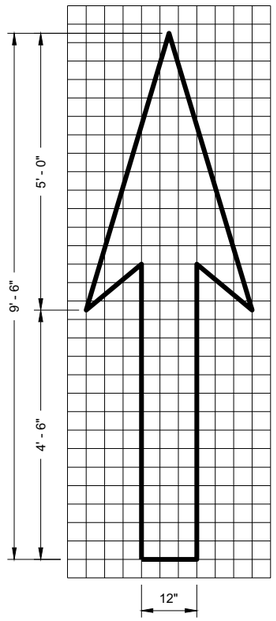
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

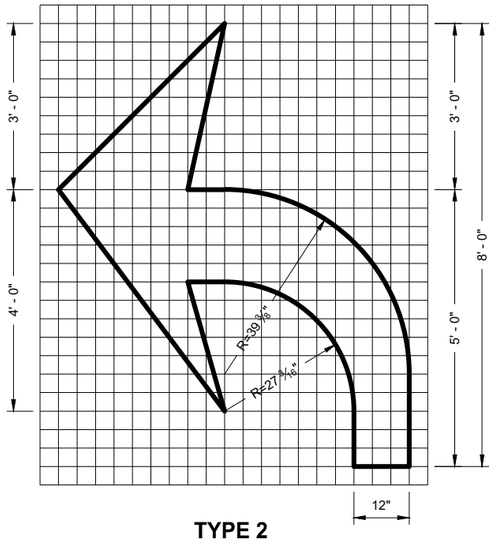
6

SDD 15C07 - 15b

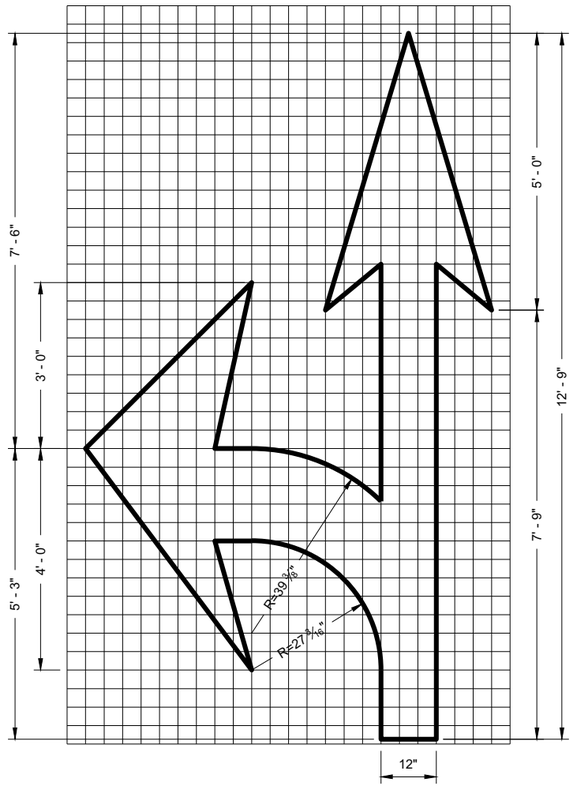
SDD 15C07 - 15b



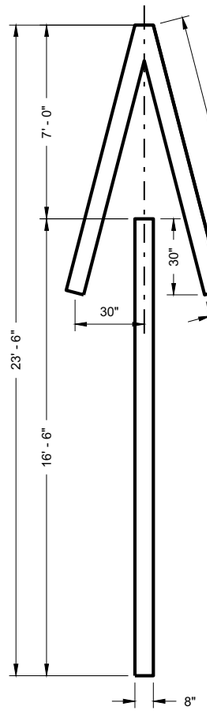
TYPE 1



TYPE 2



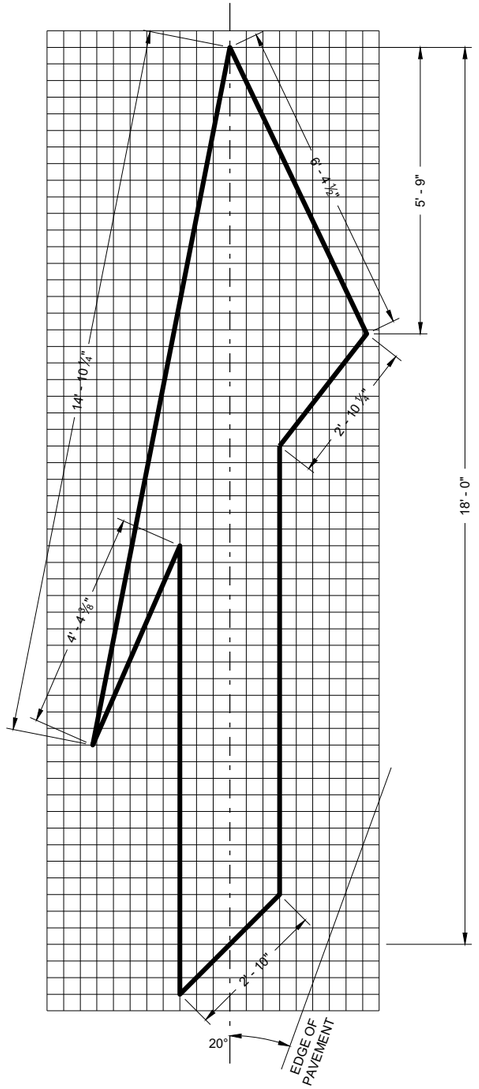
TYPE 3



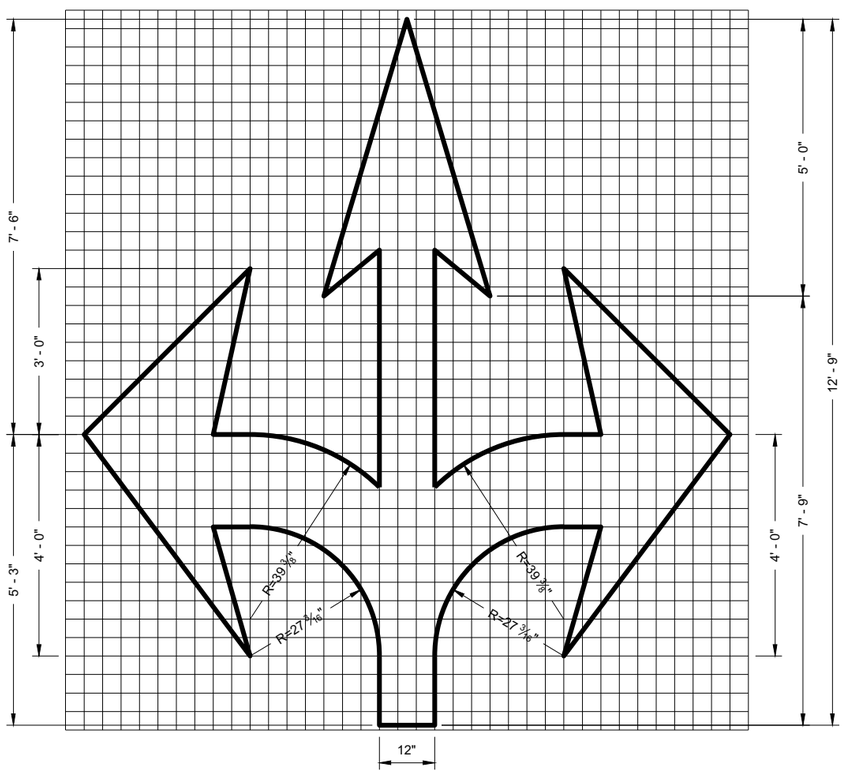
TYPE 4

GENERAL NOTES

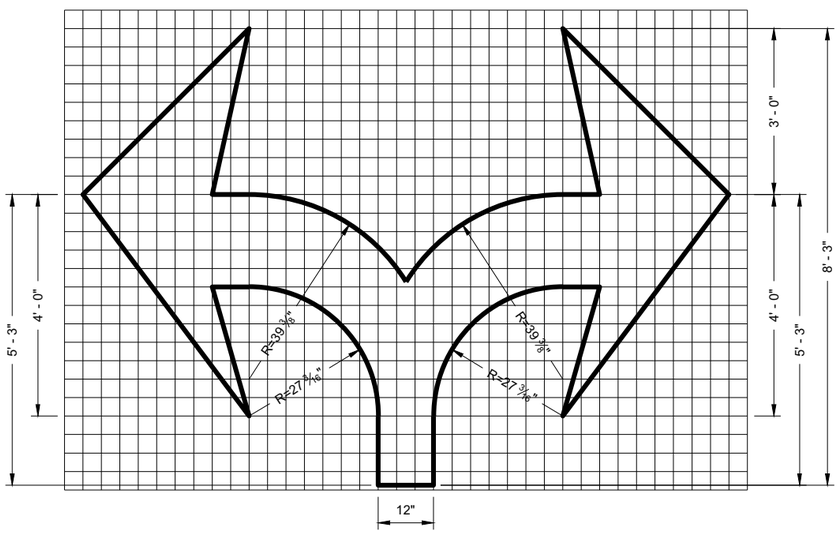
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

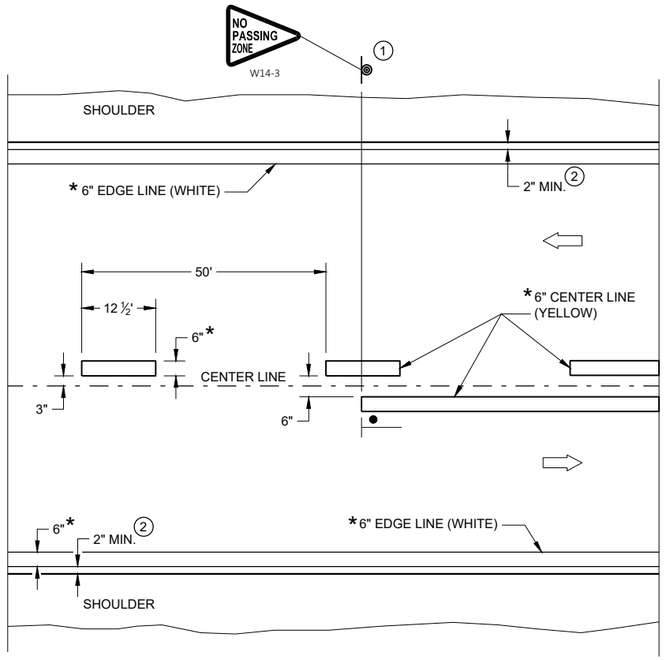
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

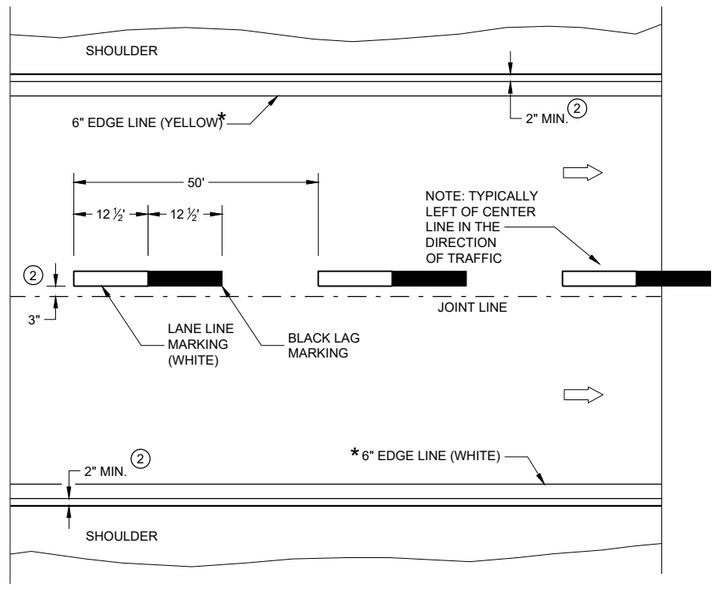
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

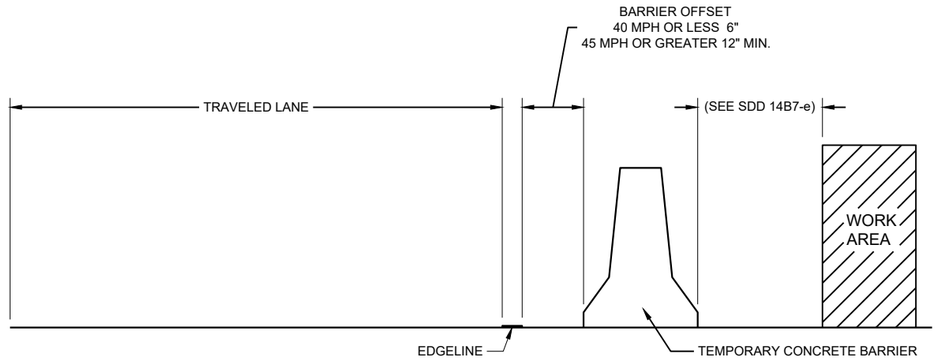
May 2023 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

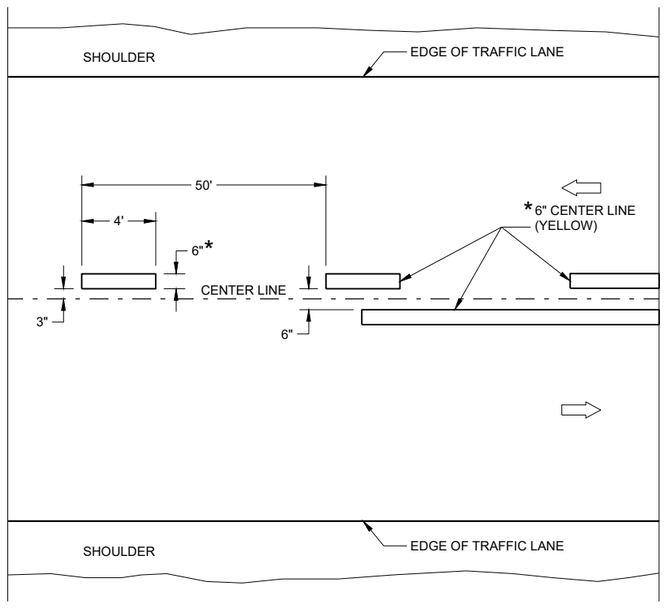
GENERAL NOTES

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

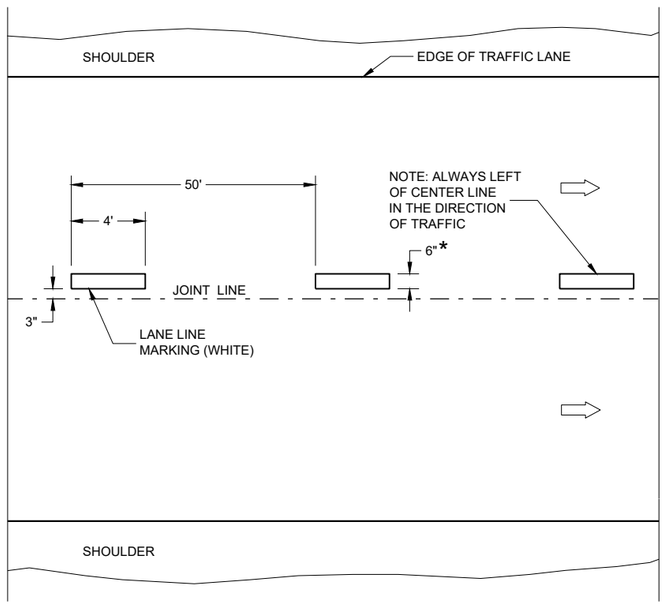
LEGEND

⇨ DIRECTION OF TRAFFIC

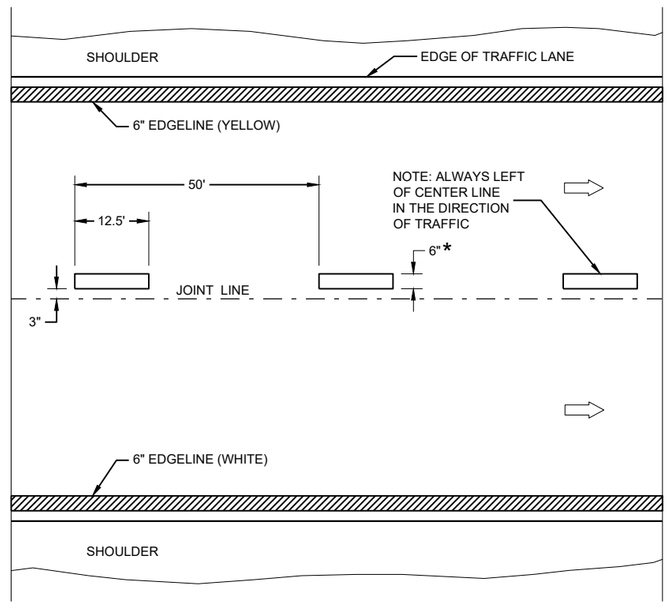
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08-23b

6

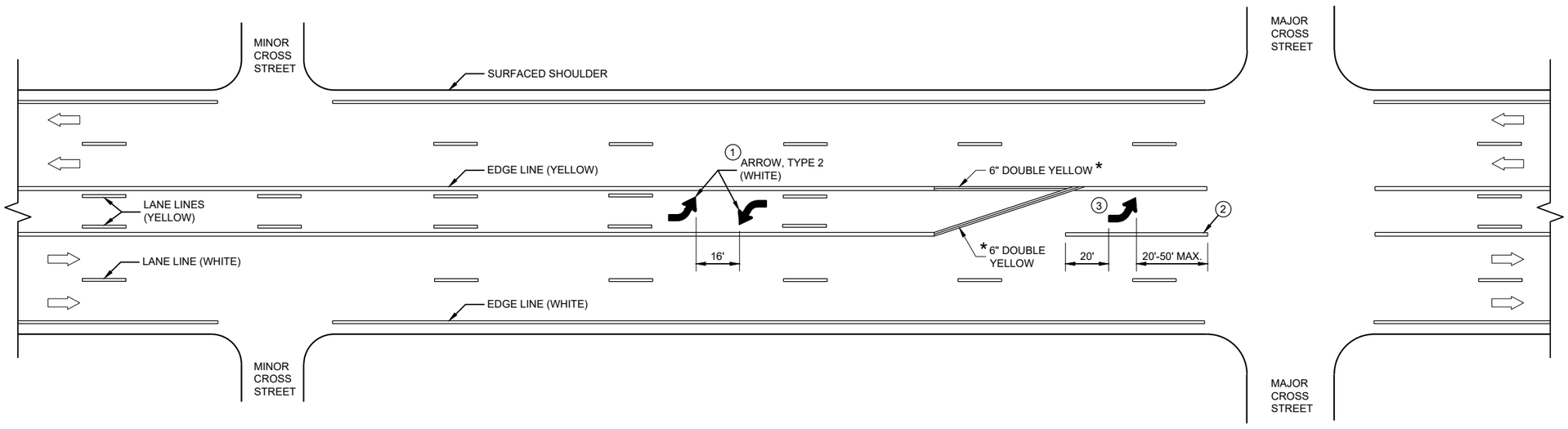
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



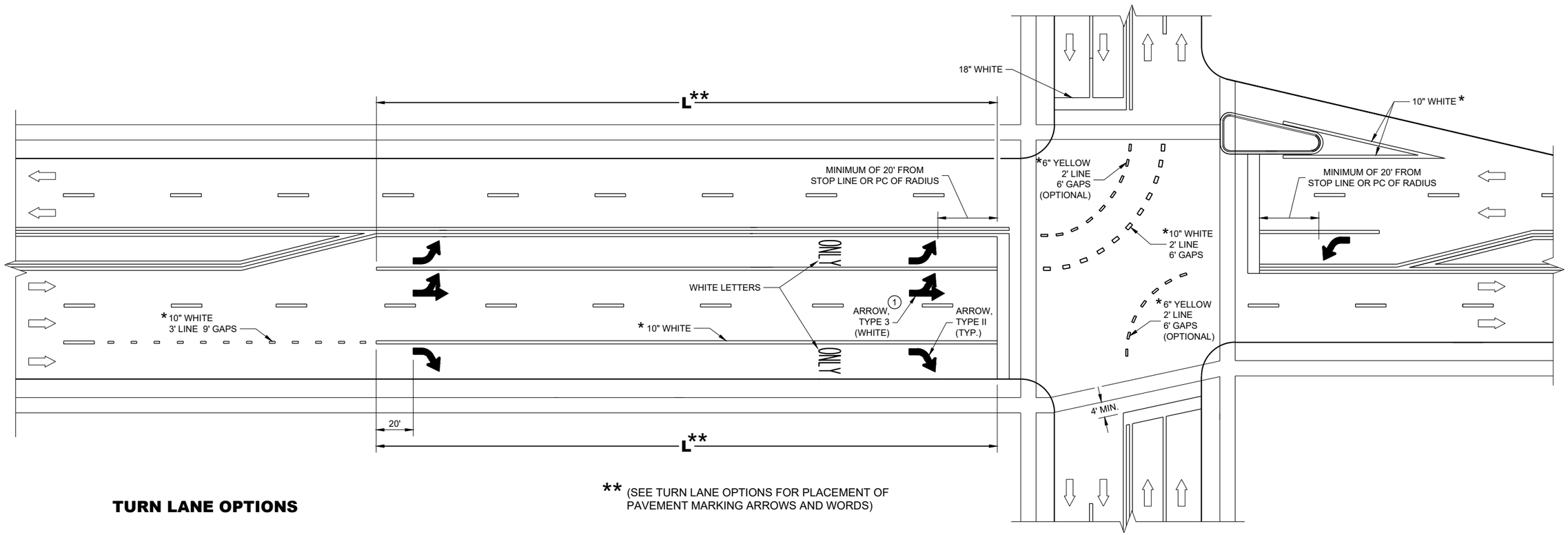
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 190

SDD 15C08-23c

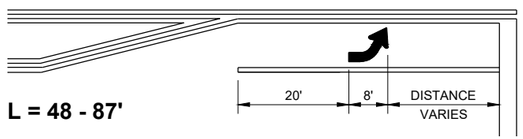
6



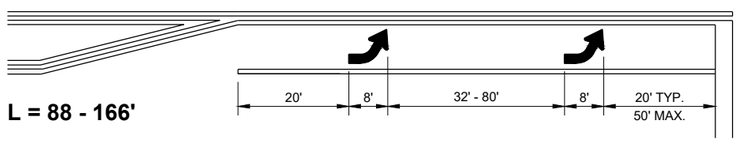
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

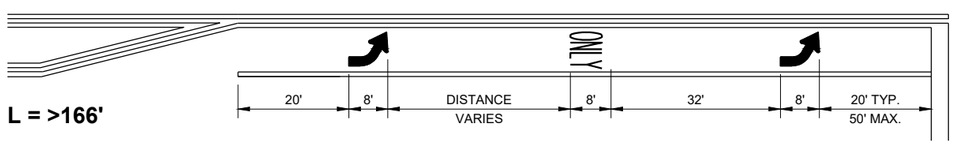
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

(1) 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

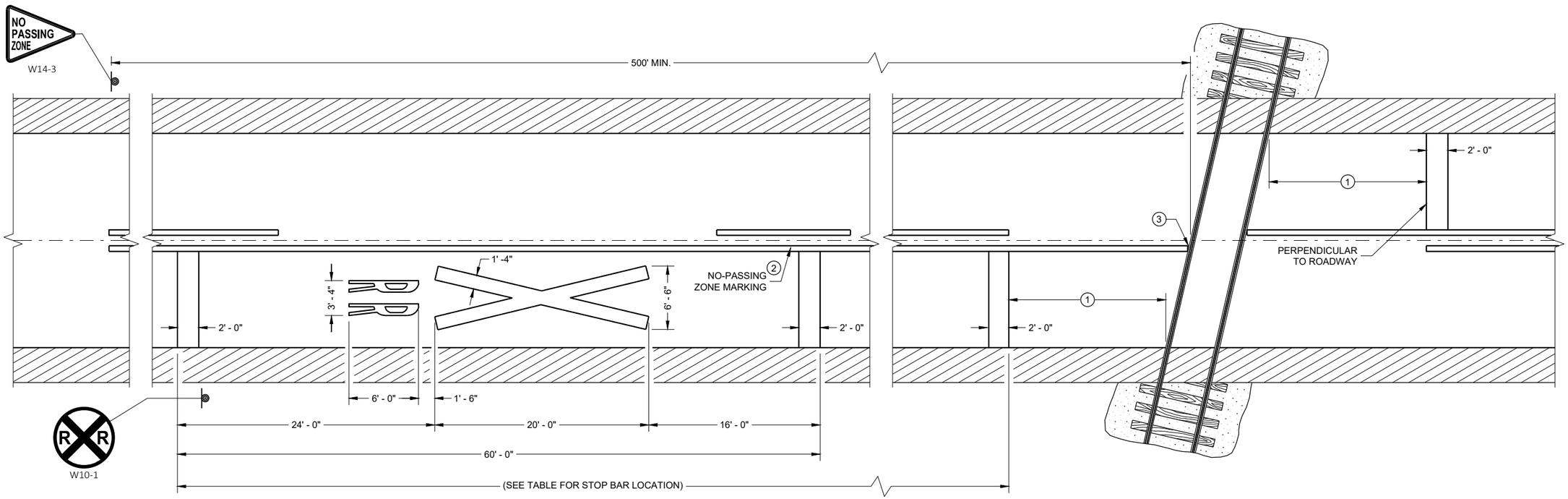
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

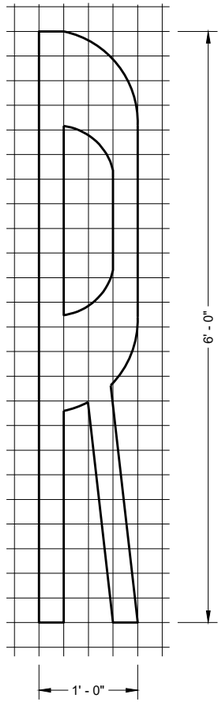
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d



PAVEMENT MARKING



LEGEND

SIGN ON PERMANENT SUPPORT

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

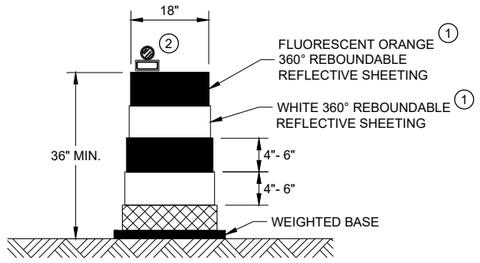
FHWA

6

SDD 15C09-13a

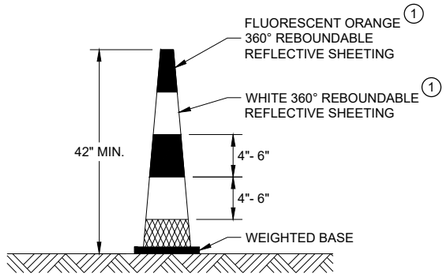
GENERAL NOTES

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

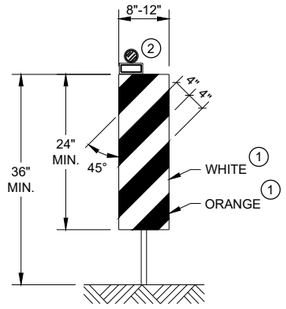
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

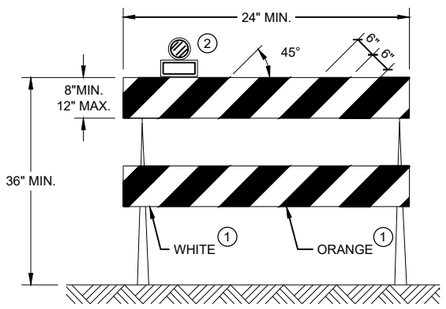
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



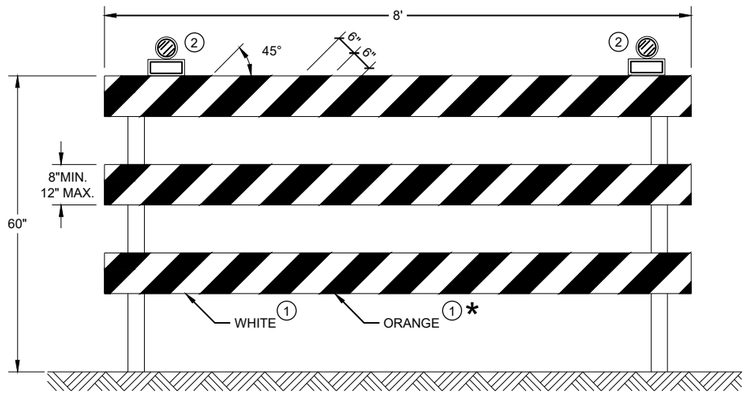
VERTICAL PANEL

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 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

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.

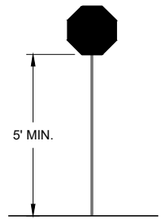
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM 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

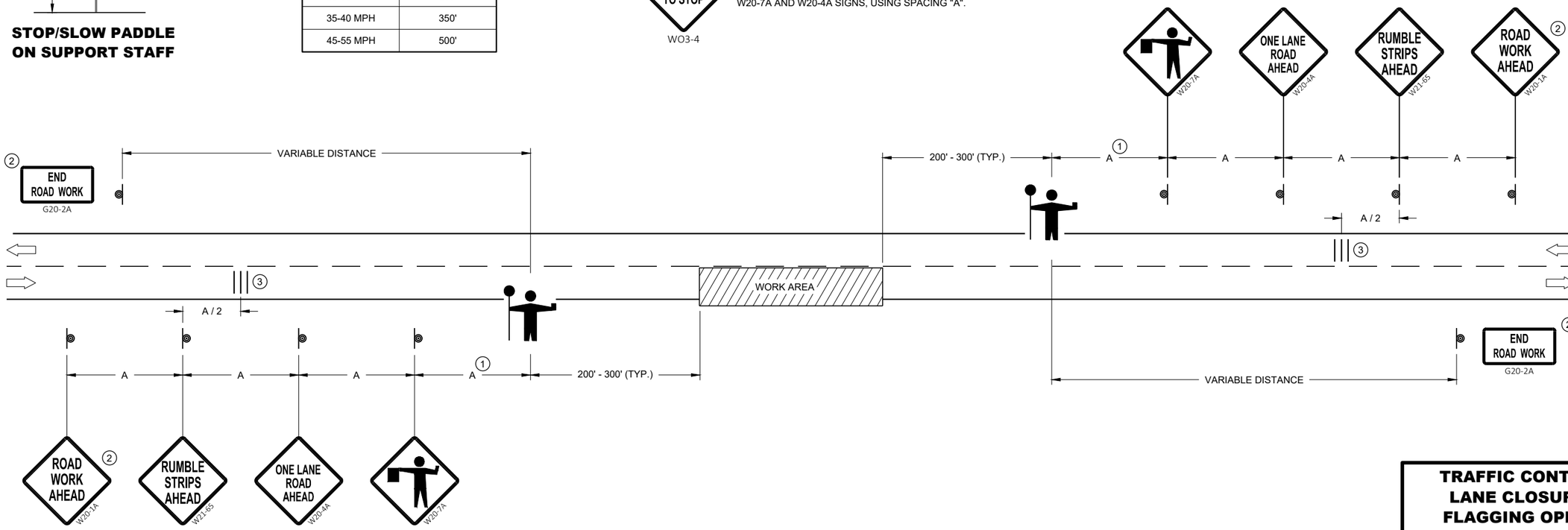
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

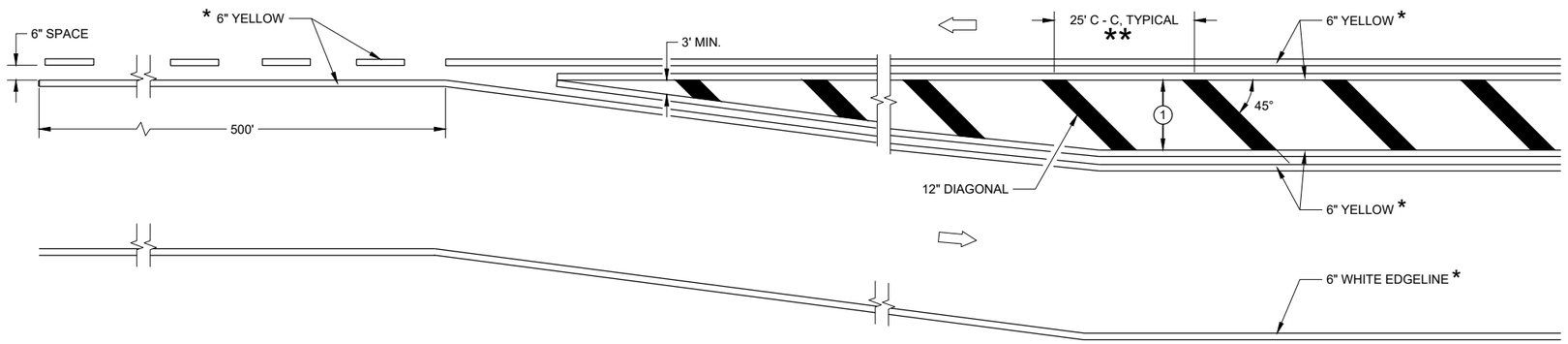
194

6

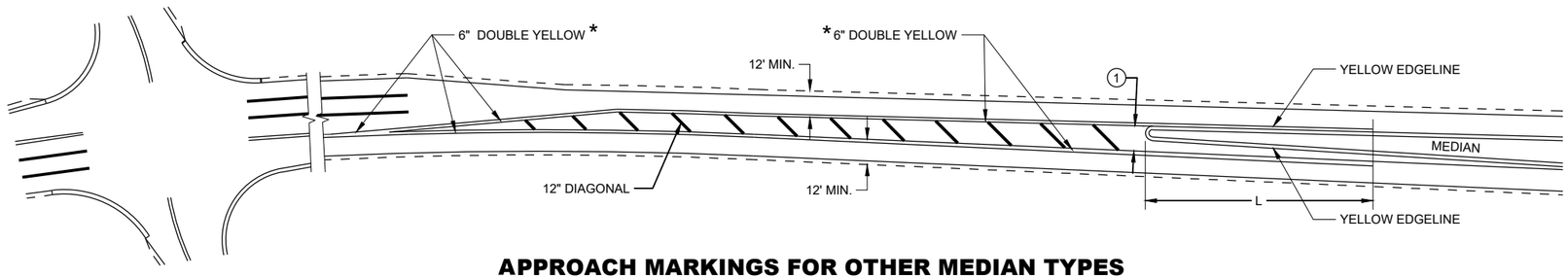
SDD 15C12 - 09a

6

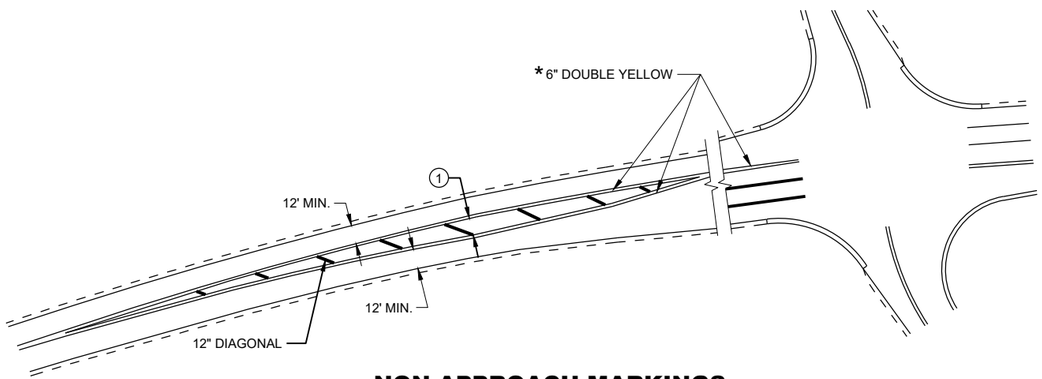
SDD 15C12 - 09a



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

⇨ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

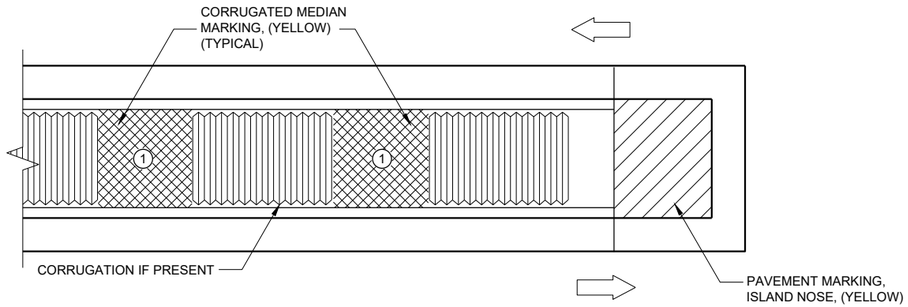
APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER
FHWA

6

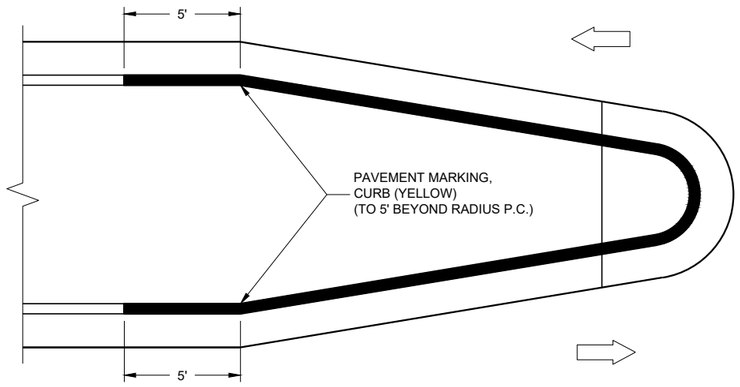
SDD 15C18-08a

6

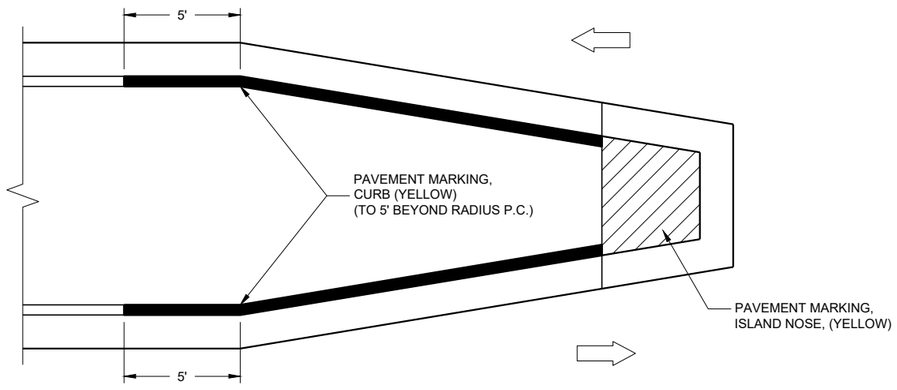
SDD 15C18-08a



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.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA

6

SDD 15C18-08b

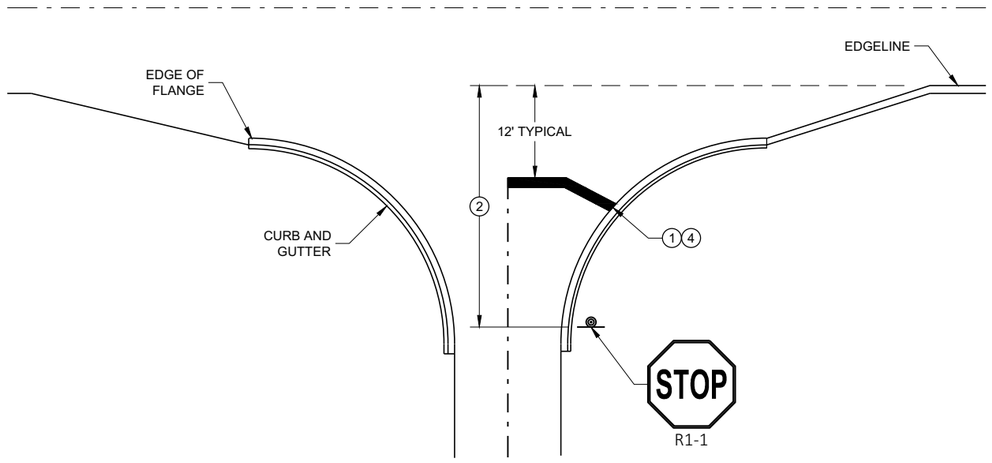
6

SDD 15C18-08b

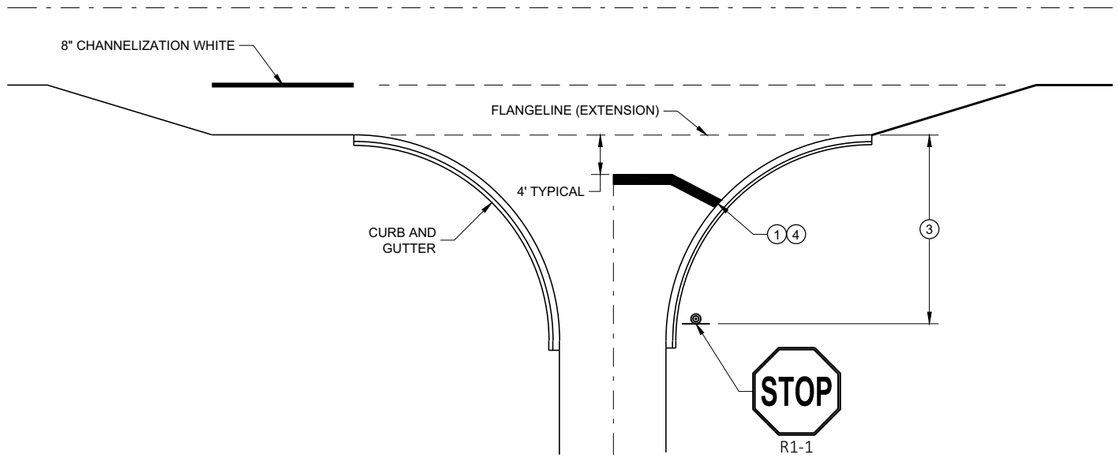
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

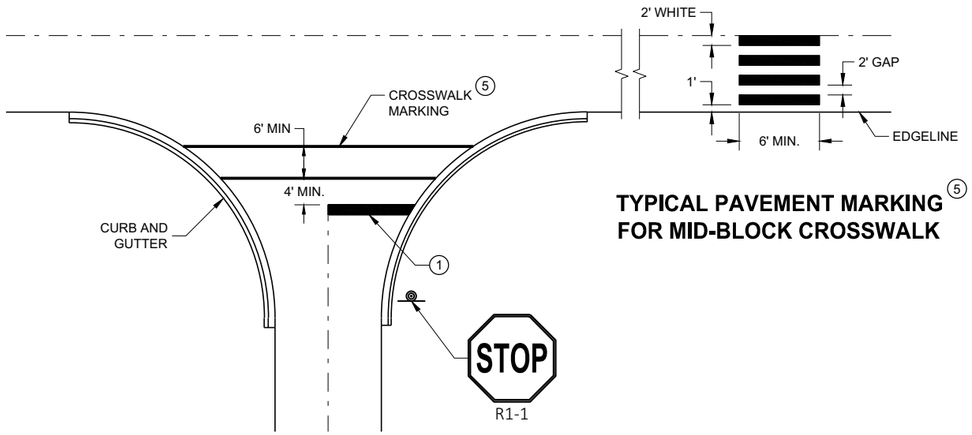
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

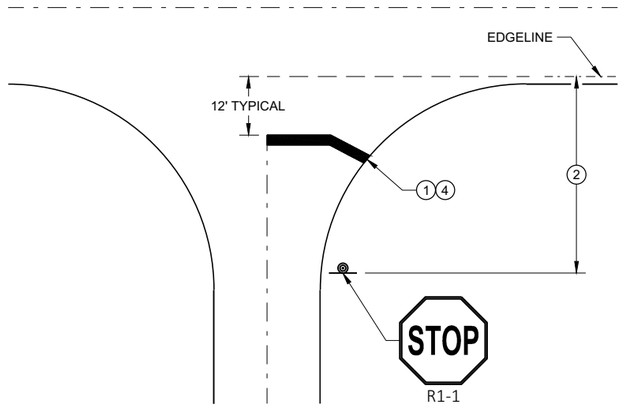


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



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 MAF ENGINEER

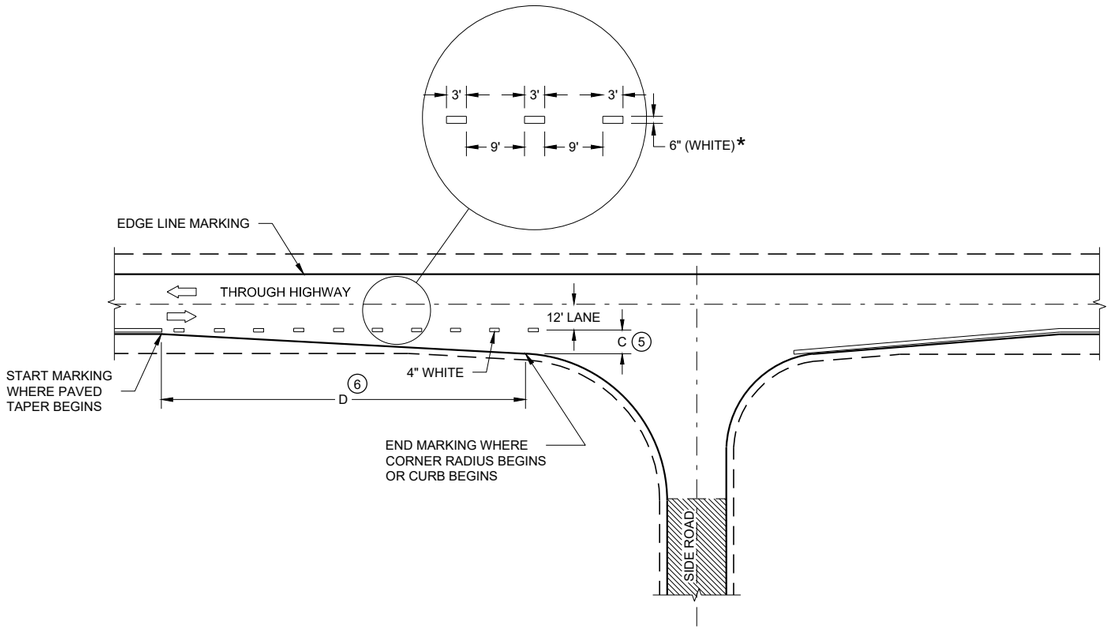
FHWA

6

SDD 15C33 - 04

6

SDD 15C33 - 04



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

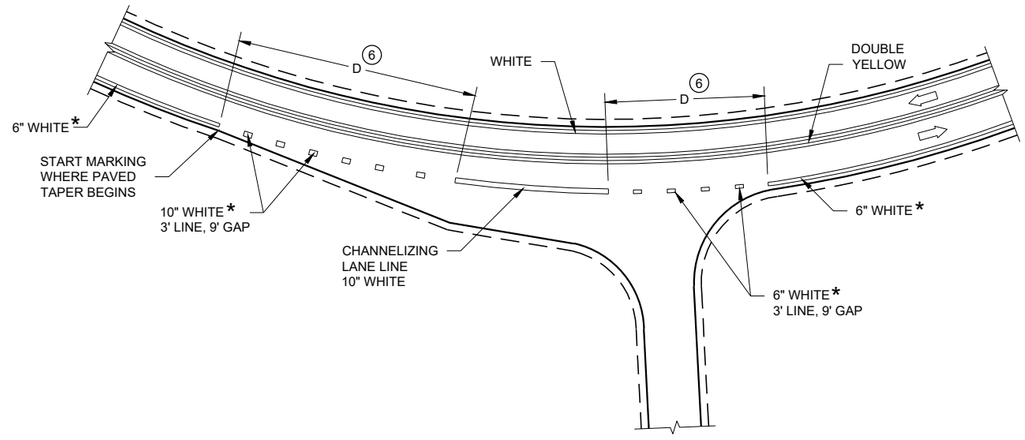
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

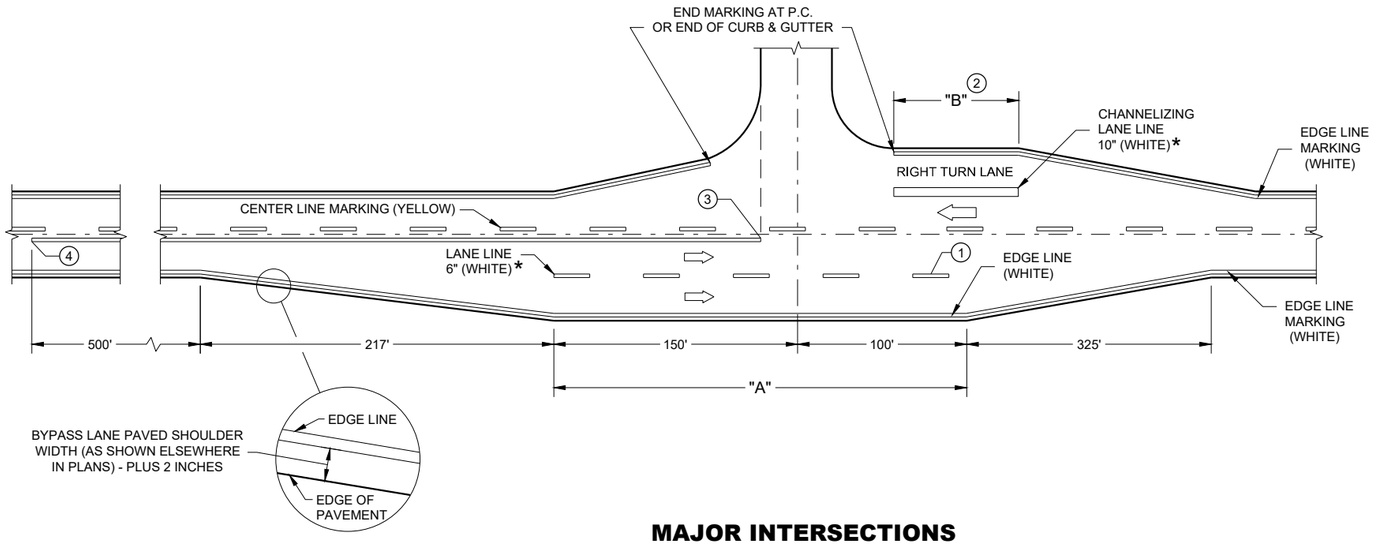
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

SDD 15C35-06a

6

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.

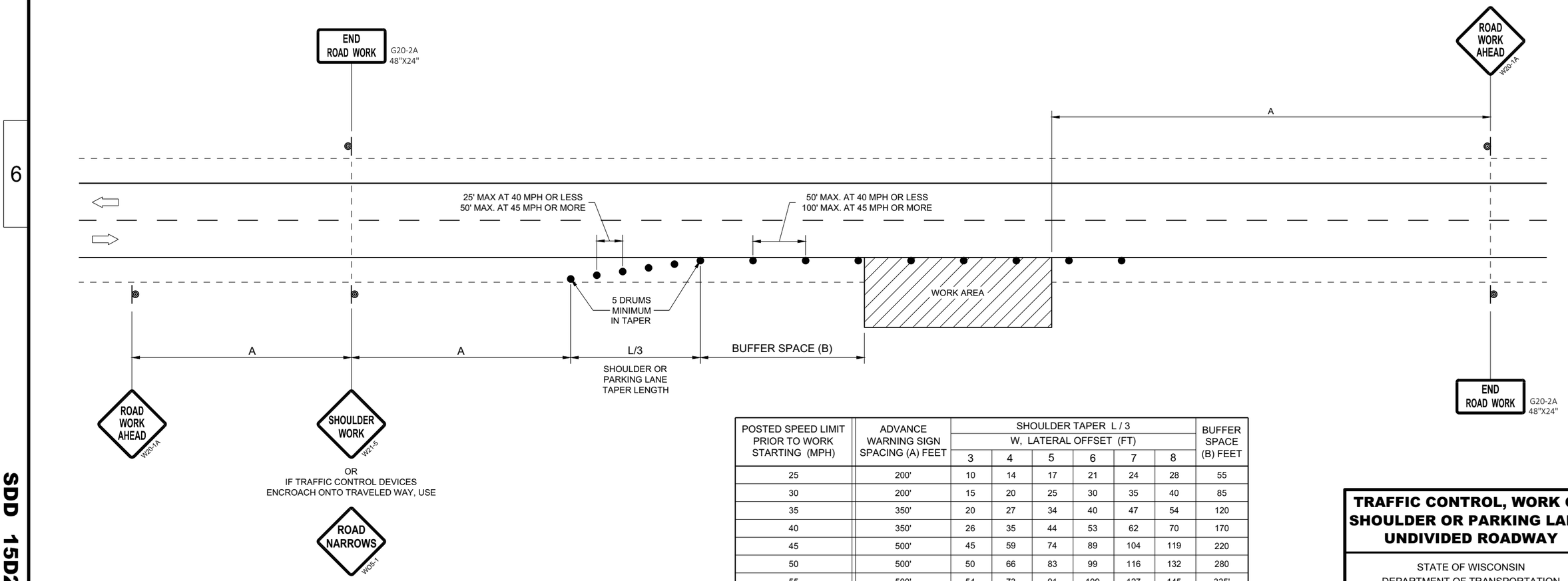
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

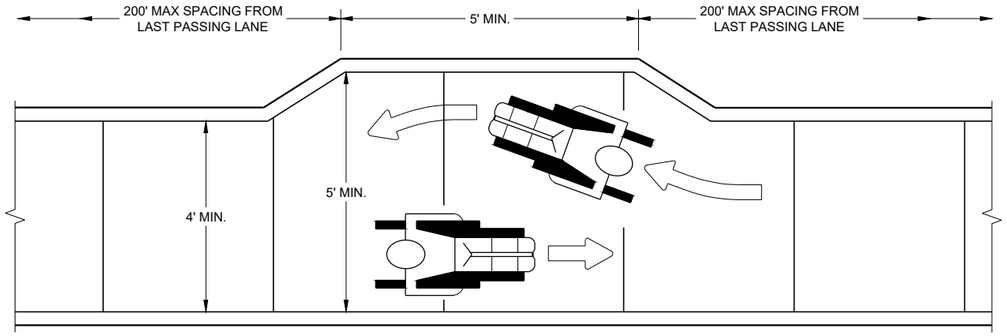
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

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

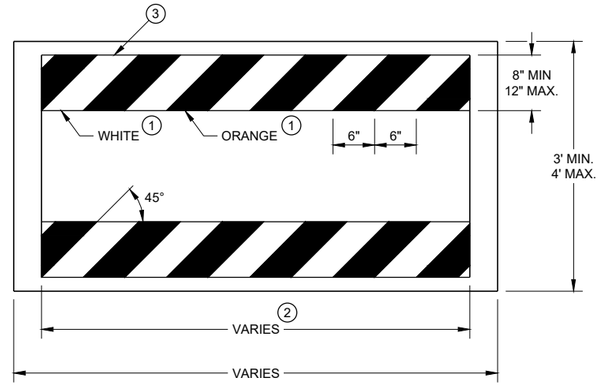
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

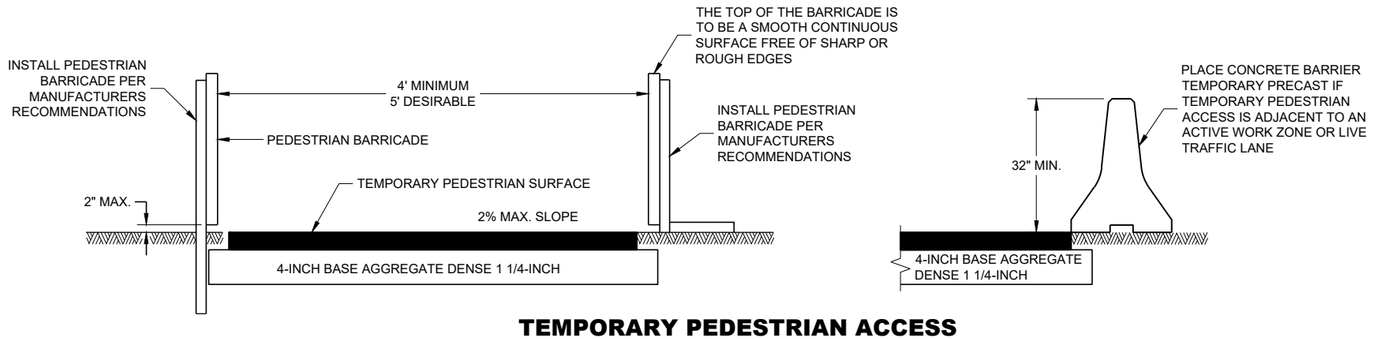
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



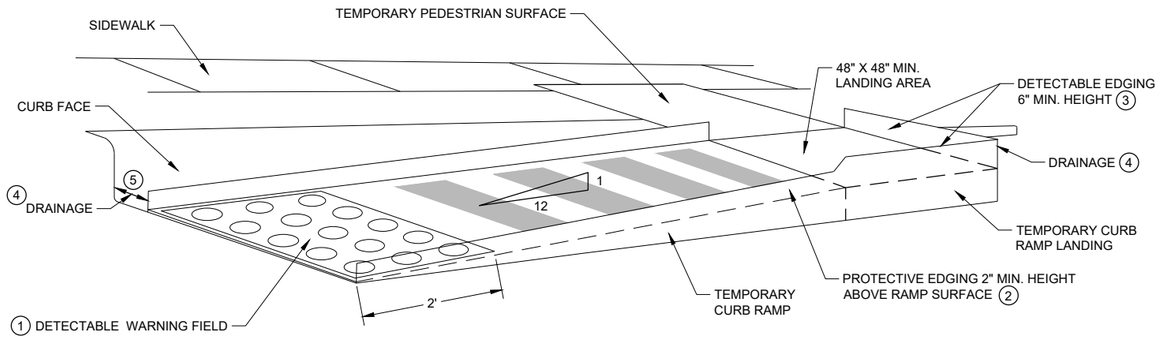
TEMPORARY PEDESTRIAN ACCESS

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 200

6

SDD 15D30 - 09a



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

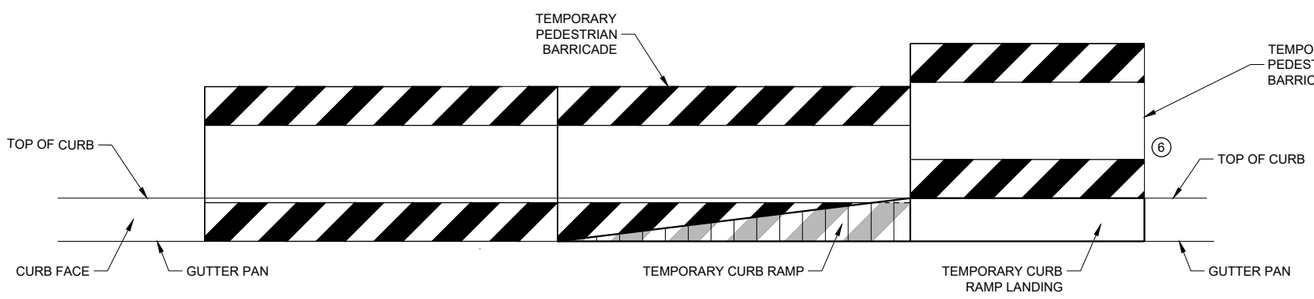
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

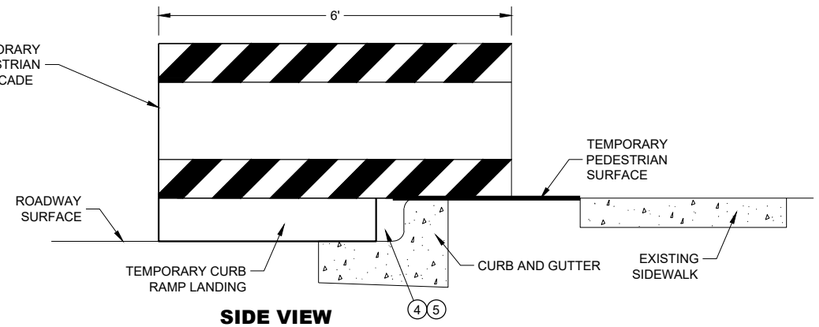
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

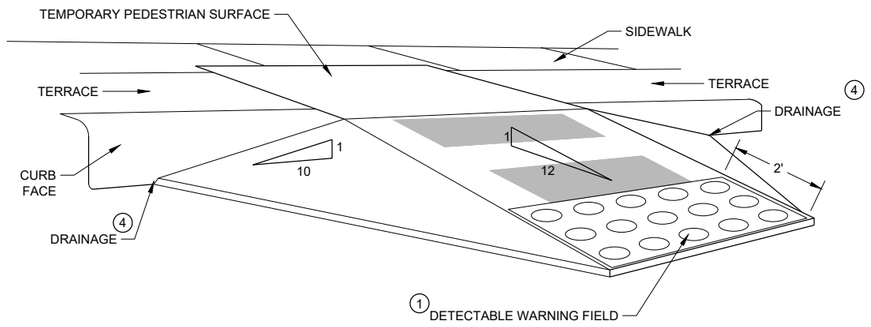
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

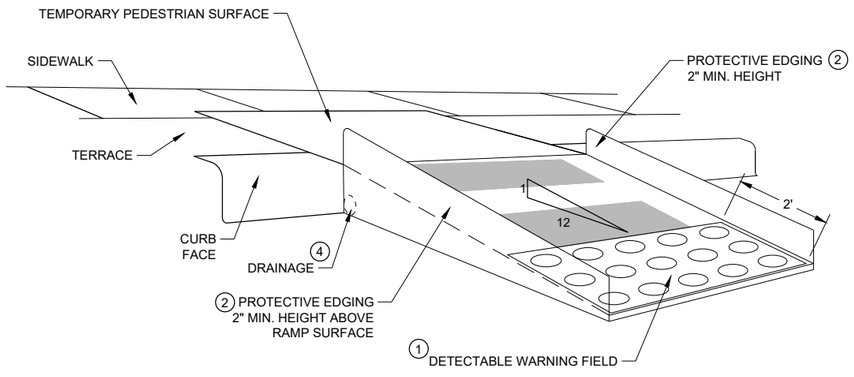
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES

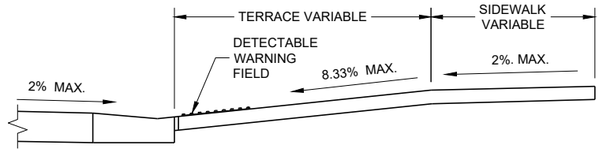
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

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

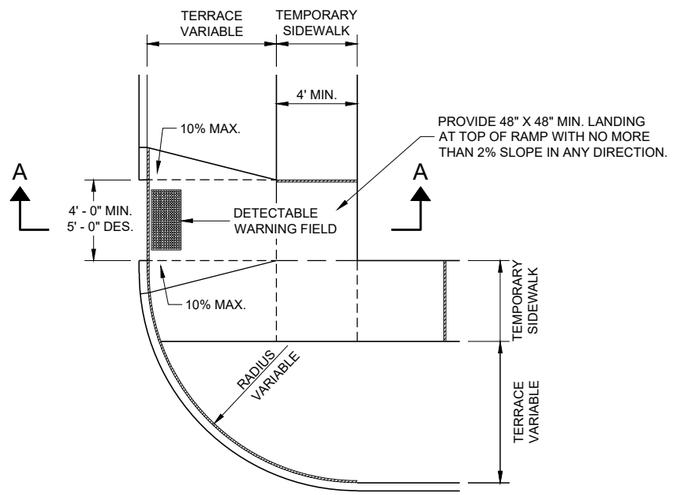
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

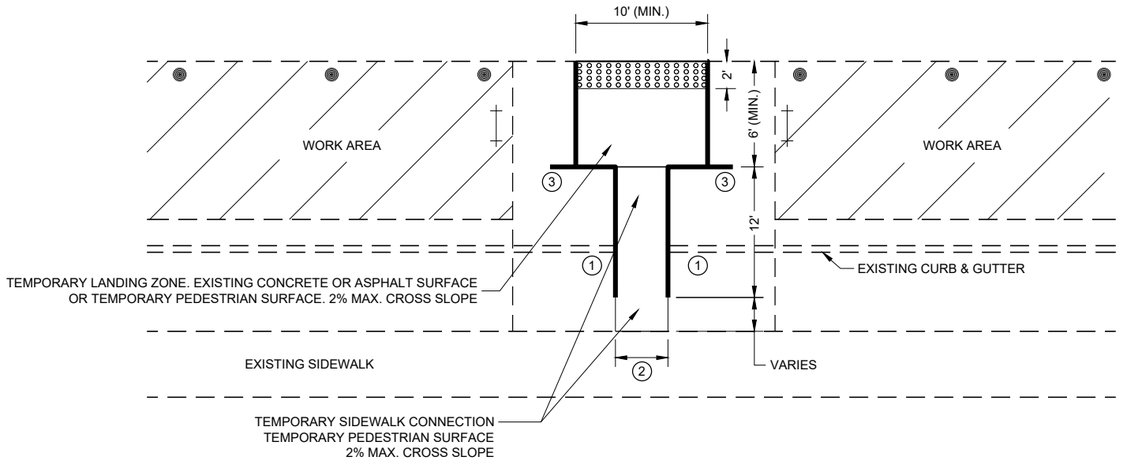
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

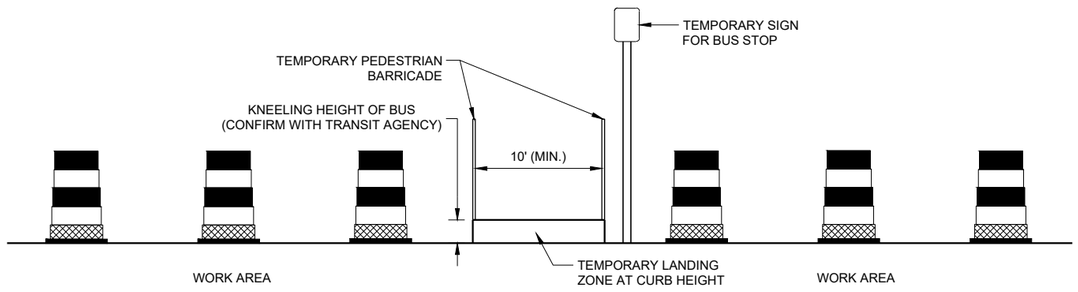
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D30-09d



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

6

SDD 15D30 - 09e

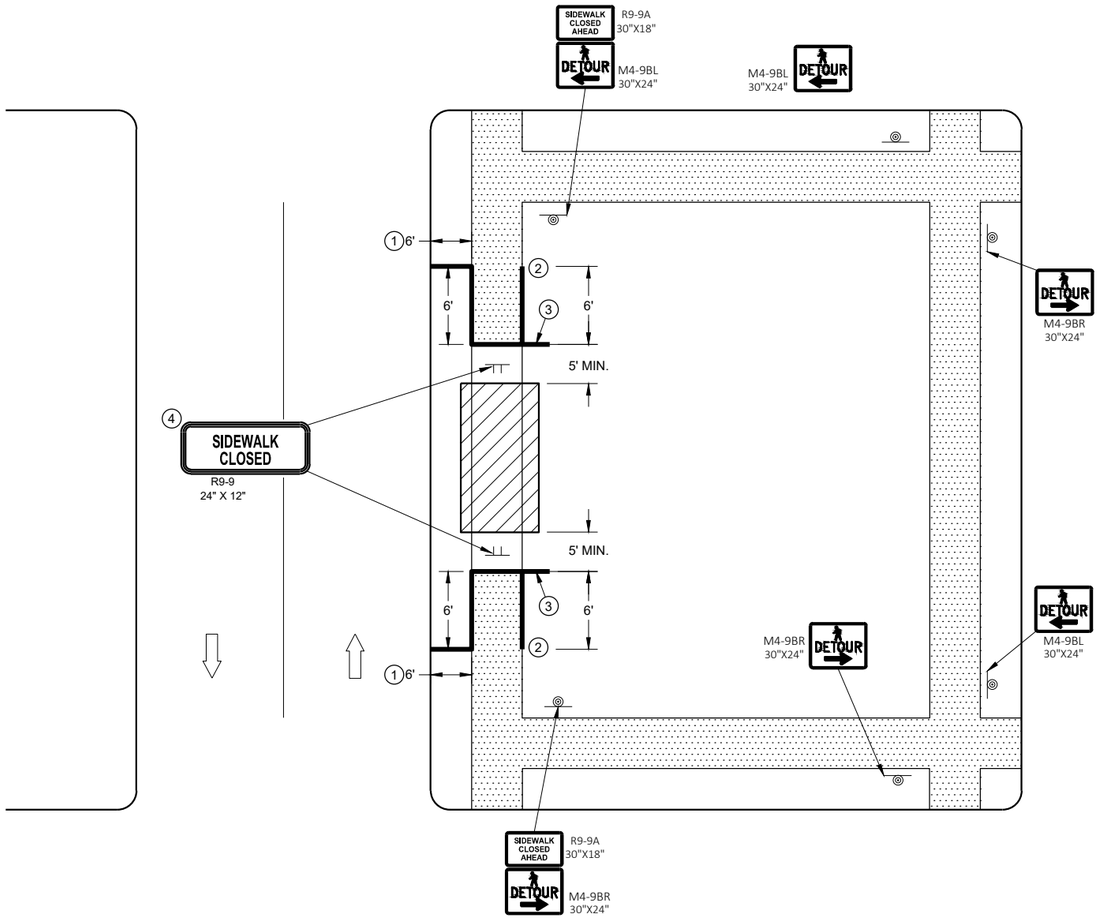
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09e

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09f

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

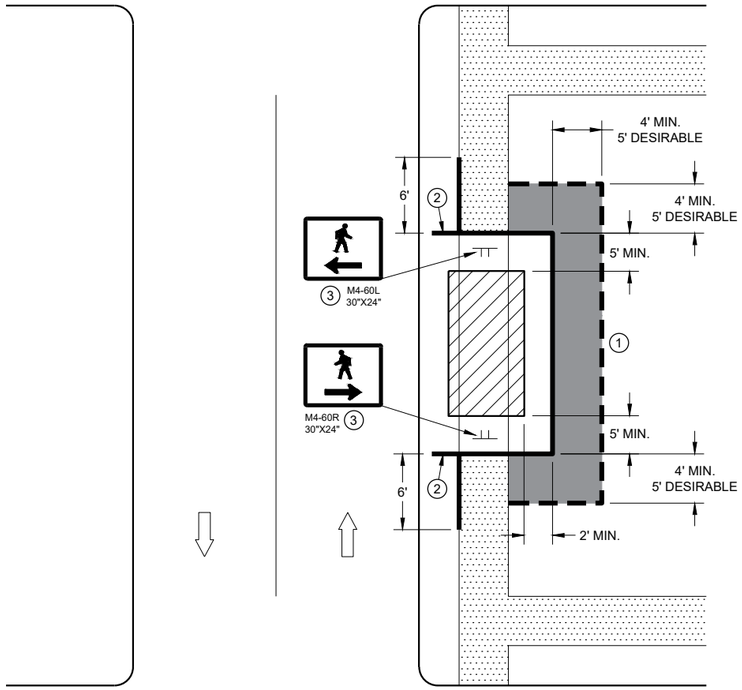
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

1. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
2. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DIVERSION
SINGLE SIDE

6

SDD 15D30 - 09g

6

SDD15D30 - 09g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

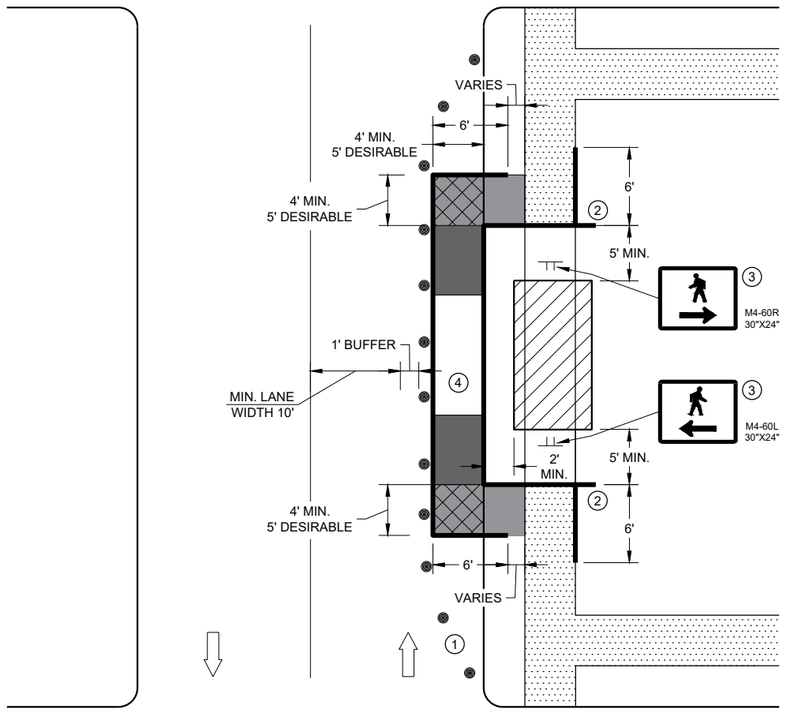
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

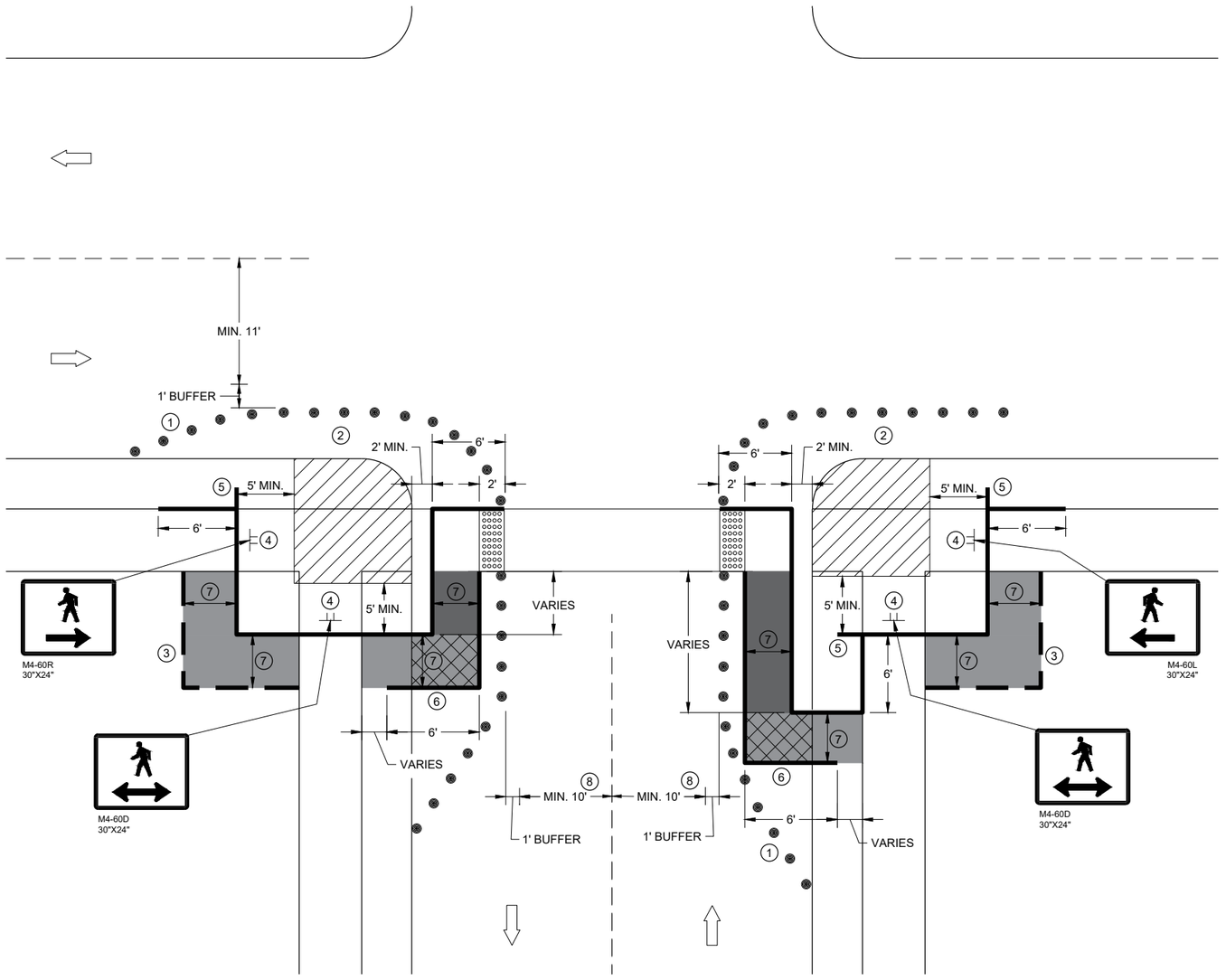
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09h

6

SDD 15D30 - 09h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

(3) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(7) 4 FEET MINIMUM, 5 FEET DESIRABLE

(8) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

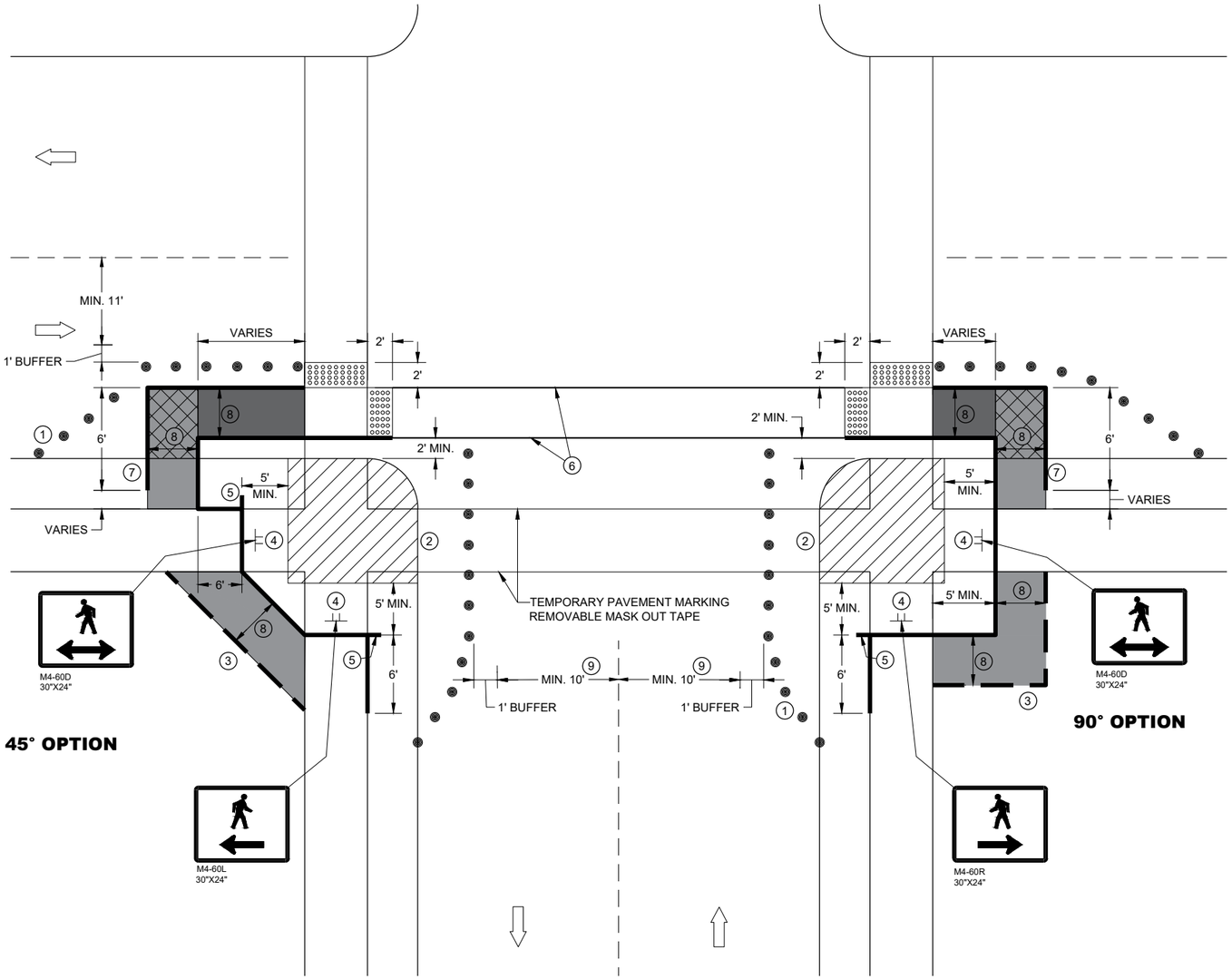
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09i

6



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

LEGEND

SIGN ON PERMANENT SUPPORT

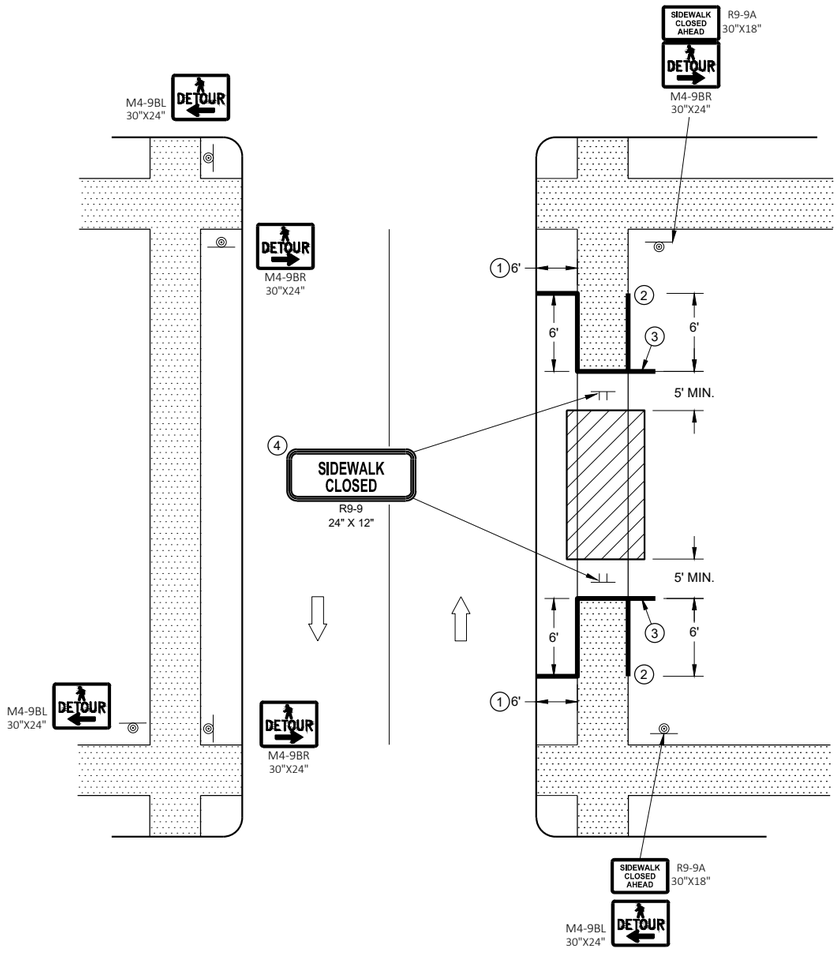
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

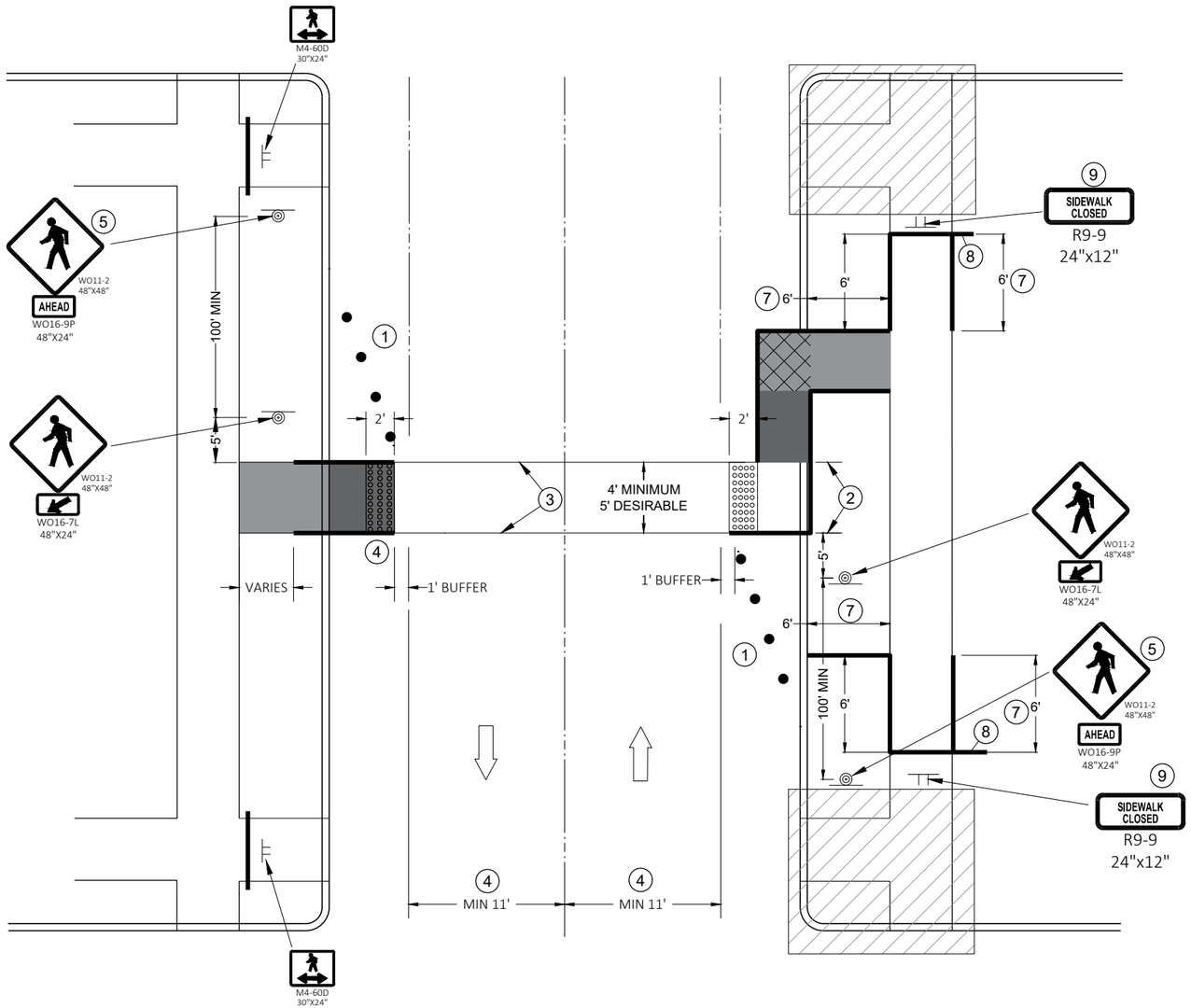
PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

(1) SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) 4 FEET MINIMUM, 5 FEET DESIRABLE.

(3) WHITE 6" TEMPORARY PAVEMENT MARKING.

(4) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.

(5) IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.

(6) IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.

(7) PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.

(8) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(9) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

6

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09L

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.

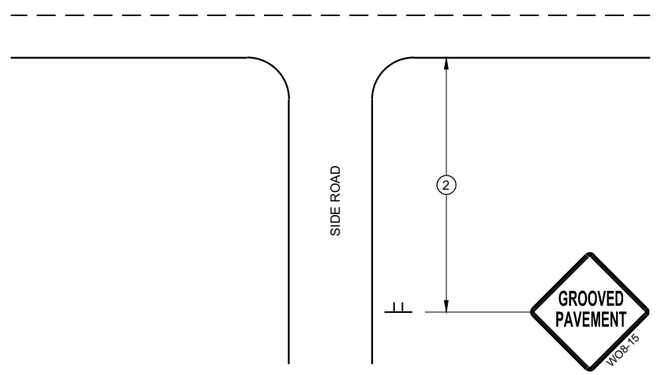
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

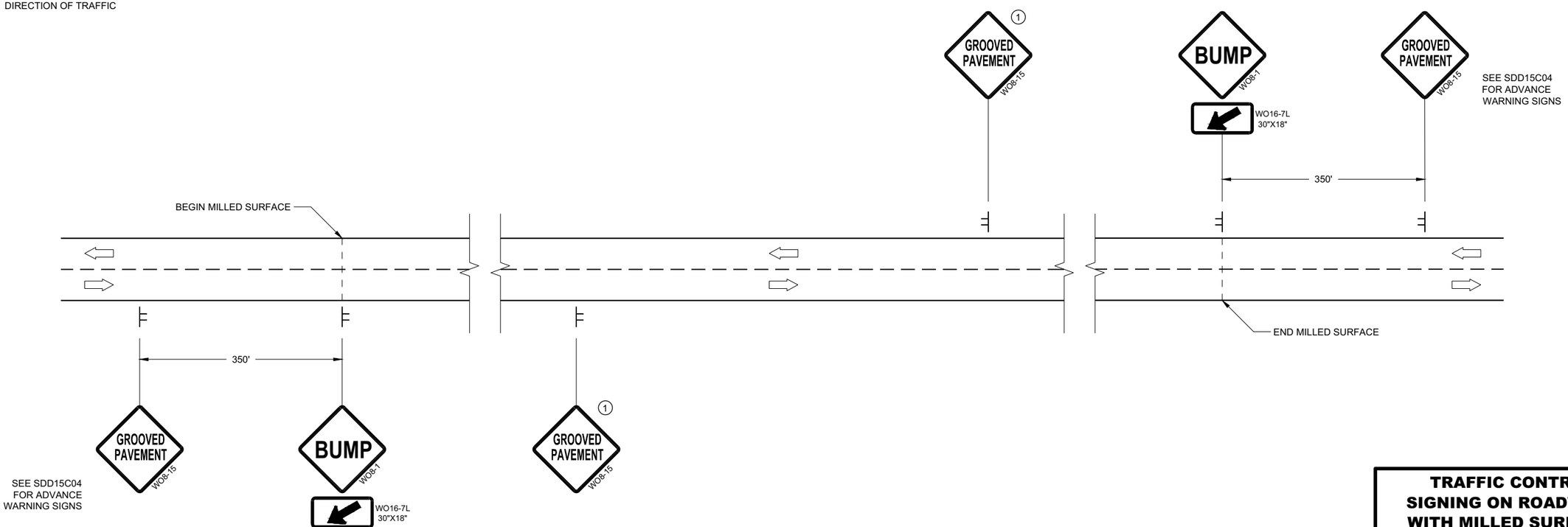
LEGEND

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 ENGINEER

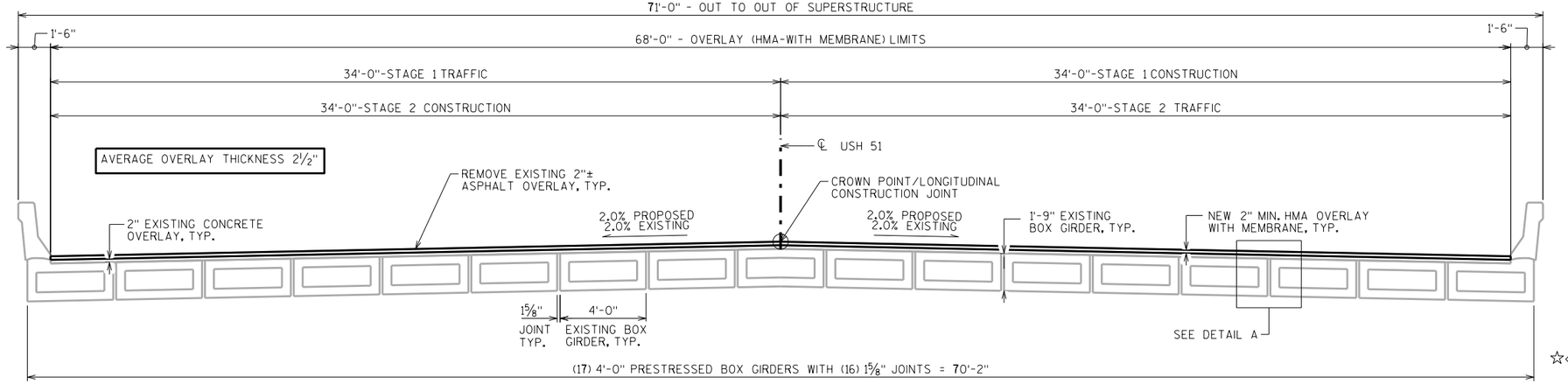
FHWA

SDD 15D44 - 02

SDD 15D44 - 02

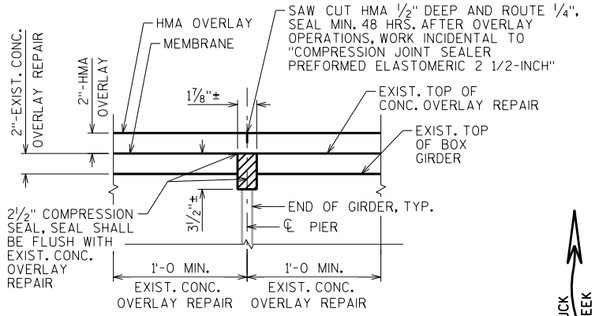
STATE PROJECT NUMBER

6020-04-72



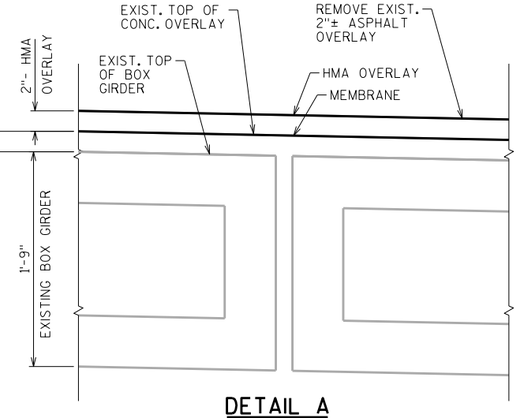
CROSS SECTION THRU ROADWAY

LOOKING NORTH

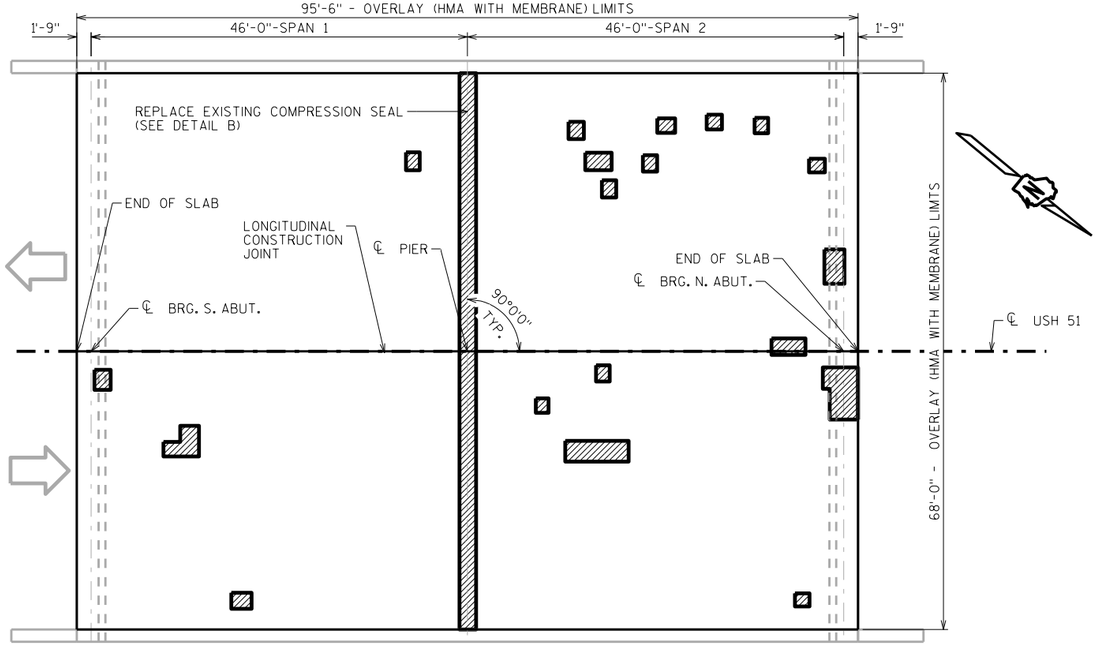


DETAIL B





DETAIL A



PLAN

2 SPAN - 4'-0" X 1'-9" PRESTRESSED BOX GIRDER

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-17
OPERATING RATING: HS-29
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 175 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
CONCRETE SURFACE REPAIR ——— f'c = 3,500 P.S.I.
CONCRETE MASONRY DECK REPAIR — f'c = 4,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS (1989).

☆◆ SAWCUT AND REMOVE EXISTING 2" UNREINFORCED CONCRETE OVERLAY TO TOP OF GIRDERS IN AREAS DENOTED AS "ESTIMATED OVERLAY REPAIR AREAS" AND AS DIRECTED BY THE ENGINEER. REMOVAL IS PAID UNDER SPECIAL PROVISION "PREPARATION PRESTRESSED BOX GIRDER OVERLAY". REPLACE WITH CONCRETE UNDER BID ITEM "CONCRETE MASONRY DECK REPAIR". CURE FOR A MINIMUM OF 7 DAYS PRIOR TO PLACEMENT OF MEMBRANE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

◆ "ESTIMATED OVERLAY REPAIR AREAS" SHOWN ON THE PLAN ARE TAKEN FROM THE INFRARED THERMOGRAPHIC REPORT BY AECOM (DEC 2019). SEE SHEET 2 OF THIS PLAN.

CARE SHALL BE TAKEN TO ENSURE TOP OF PRESTRESSED BOX GIRDERS ARE NOT DAMAGED DURING REMOVALS.

CARE SHALL BE TAKEN TO NOT DAMAGE REINFORCEMENT EXTENDING OUT OF THE ABUTMENT DIAPHRAGMS AND INTO THE EXISTING CONCRETE OVERLAY. THE REINFORCEMENT SHALL BE SALVAGED AND INCORPORATED INTO NEW WORK.

⬭ CONCRETE SURFACE REPAIRS ARE REQUIRED AT THE SOUTHWEST WINGWALL AND THE NORTHEAST WINGWALL AND PARAPET. QUANTITIES TO BE DETERMINED BY THE ENGINEER.

ASBESTOS CONTAINING MATERIAL WAS DETECTED IN THE GREY CAULK PRESENT AT THE WINGWALL AND ABUTMENT JOINTS.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA PAVEMENT 4 MT 58-28 S".

THE PLAN QUANTITY FOR THE BID ITEM "HMA PAVEMENT 4 MT 58-28 S" IS BASED ON THE AVERAGE OVERLAY THICKNESS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½" CONTACT THE STRUCTURES DESIGN SECTION.

LIST OF DRAWINGS

1. HMA OVERLAY WITH MEMBRANE
2. INFRARED THERMOGRAPIC SURVEY

TRAFFIC VOLUME

USH 51
ADT = 10460 (2044)
R.D.S. = 45 M.P.H.

STRUCTURE DESIGN CONTACTS:

MAXWELL KULICK (608) 261-6108
KYLE BUSCH (608) 267-0465

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
	203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-11-94	EACH	1
	455.0605	TACK COAT	GAL	51
	460.6224	HMA PAVEMENT 4 MT 58-28 S	TON	100
	502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC 2 1/2-INCH	LF	68
☆	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	460
⬭	509.1500	CONCRETE SURFACE REPAIR	SF	35
☆	509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	5
	509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-11-94	SY	722
	516.0600.S	SHEET MEMBRANE WATERPROOFING FOR ASPHALT OVERLAY	SY	722
☆	SPV.0180	PREPARATION PRESTRESSED BOX GIRDER OVERLAY	SY	60

LEGEND

ESTIMATED OVERLAY REPAIR AREAS ◆

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 5/8/23
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-94

USH 51 OVER DUCK CREEK

COUNTY: COLUMBIA | TOWN: PACIFIC

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
MJK	AWP	MJK	NJK

HMA OVERLAY WITH MEMBRANE

SHEET 1 OF 2

213

I.D. 6020-04-02A

DATE: MARCH 2023

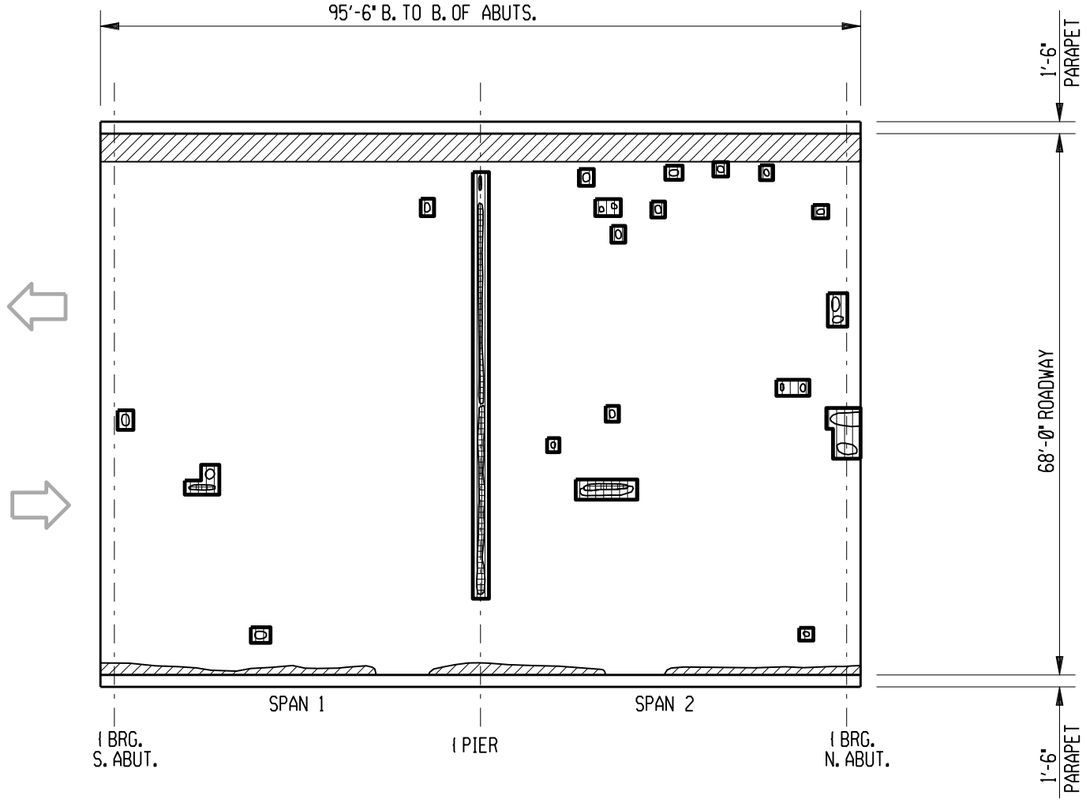
SCALE = 9.00

8

8

STATE PROJECT NUMBER

6020-04-72



PLAN

PROPOSED REHABILITATION AREAS

N

REHABILITATION AREA SUMMARY		STRUCTURE NO. B-11-94	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	721.6	
SHADE/DEBRIS	yd^2	46.7	
PREPARATION, DECKS, TYPE 1	yd^2	29.3	4.3
PREPARATION, DECKS, TYPE 2	yd^2	7.3	1.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SURFACE TYPE: BITUMINOUS OVERLAY

INFRARED INSPECTION DATE: 11/22/19

THIS SHEET IS FOR INFORMATION ONLY. BID ITEMS AND QUANTITIES USED FOR CONSTRUCTION ARE TO BE TAKEN FROM SHEET 1.

INFORMATION TAKEN FROM INFRARED THERMOGRAPHIC SURVEY REPORT BY AECOM (DEC. 2019)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-94

DRAWN BY MJK | PLANS CK'D. NJK

INFRARED THERMOGRAPHIC SURVEY

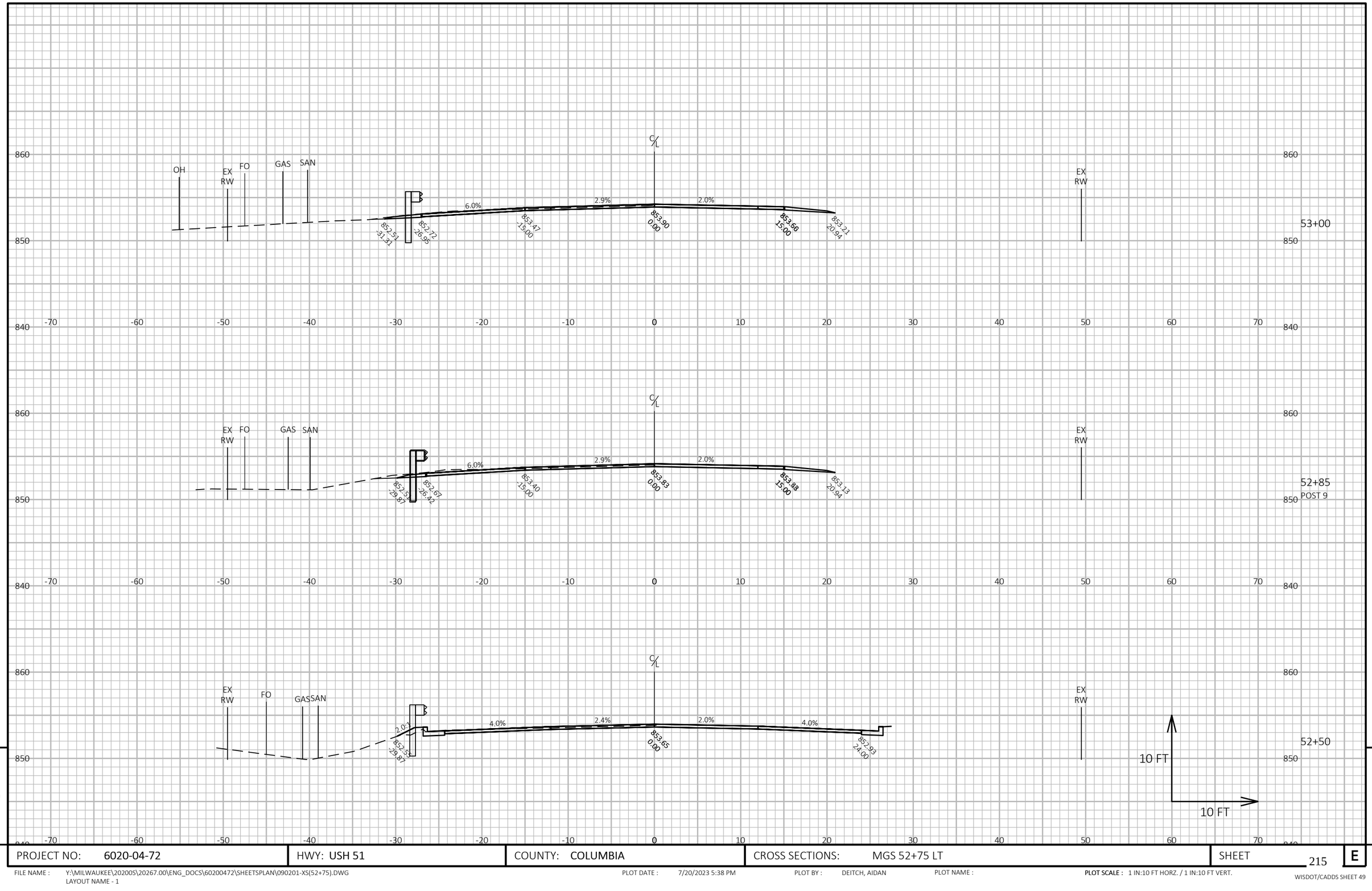
SHEET 2

214

SCALE = 9.25

8

8



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 52+75 LT	SHEET 215	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090201-XS(52+75).DWG
LAYOUT NAME - 1

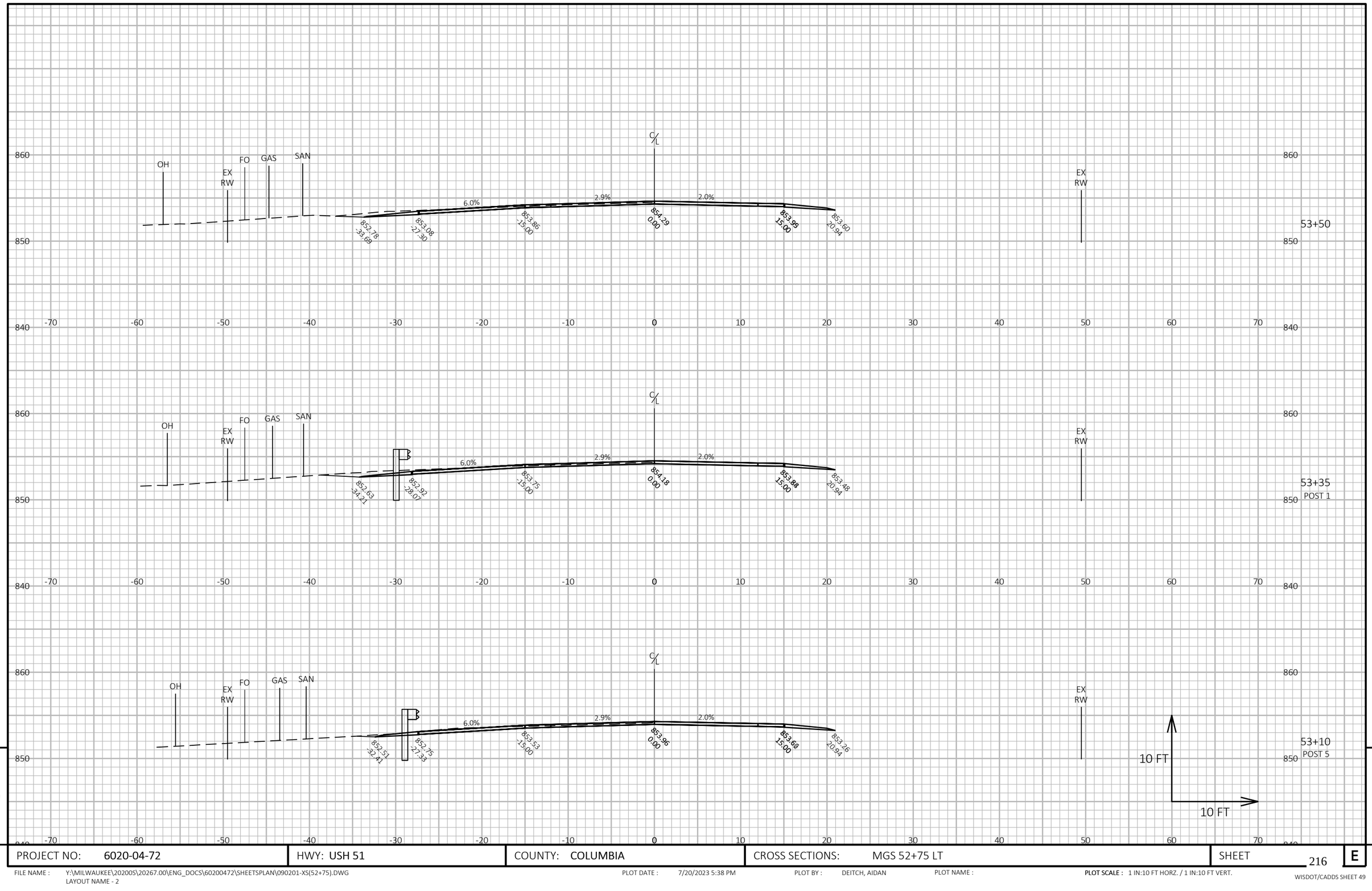
PLOT DATE : 7/20/2023 5:38 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 52+75 LT	SHEET 216	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090201-XS(52+75).DWG
LAYOUT NAME - 2

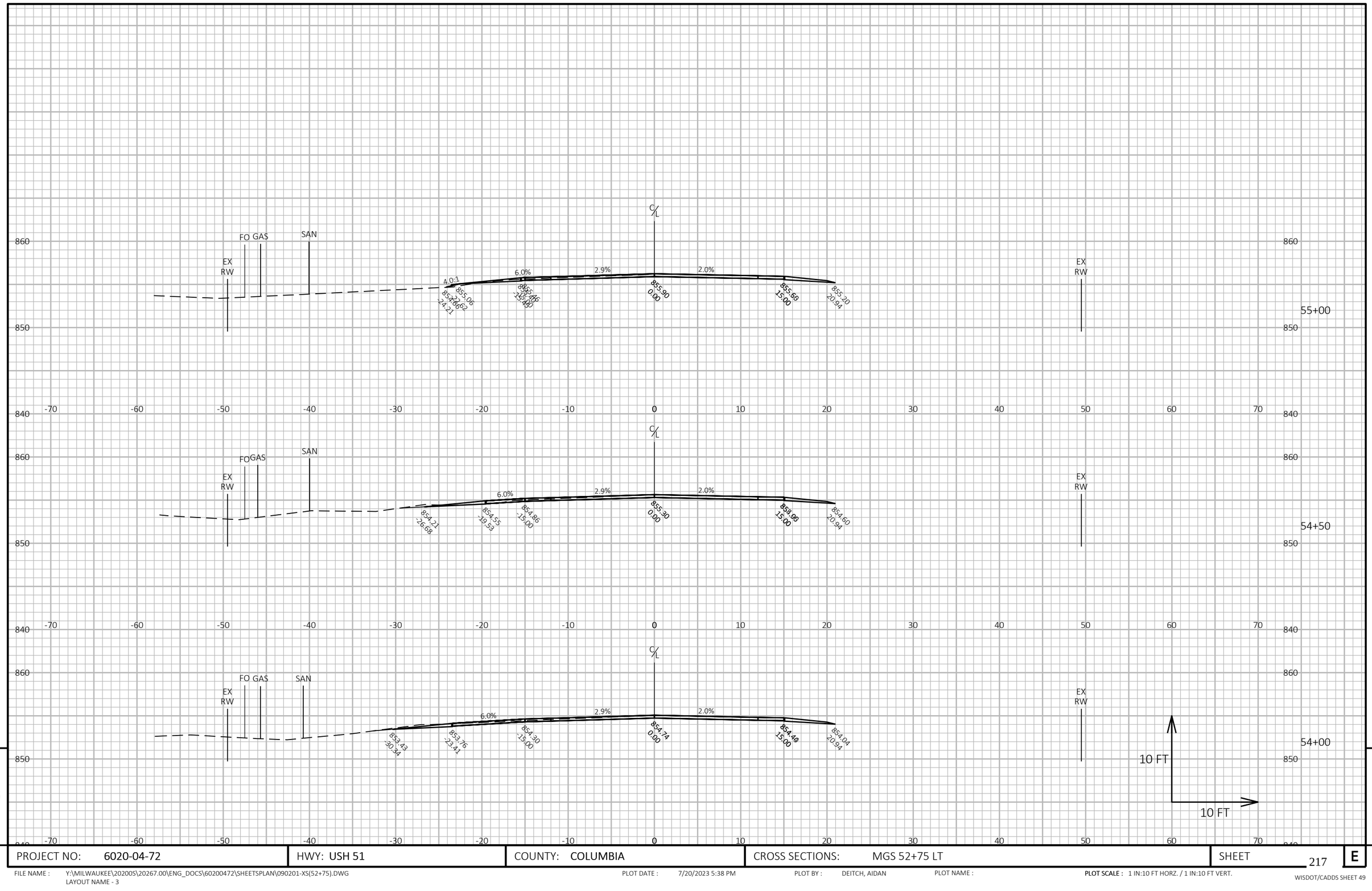
PLOT DATE : 7/20/2023 5:38 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 52+75 LT	SHEET 217	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090201-XS(52+75).DWG
LAYOUT NAME - 3

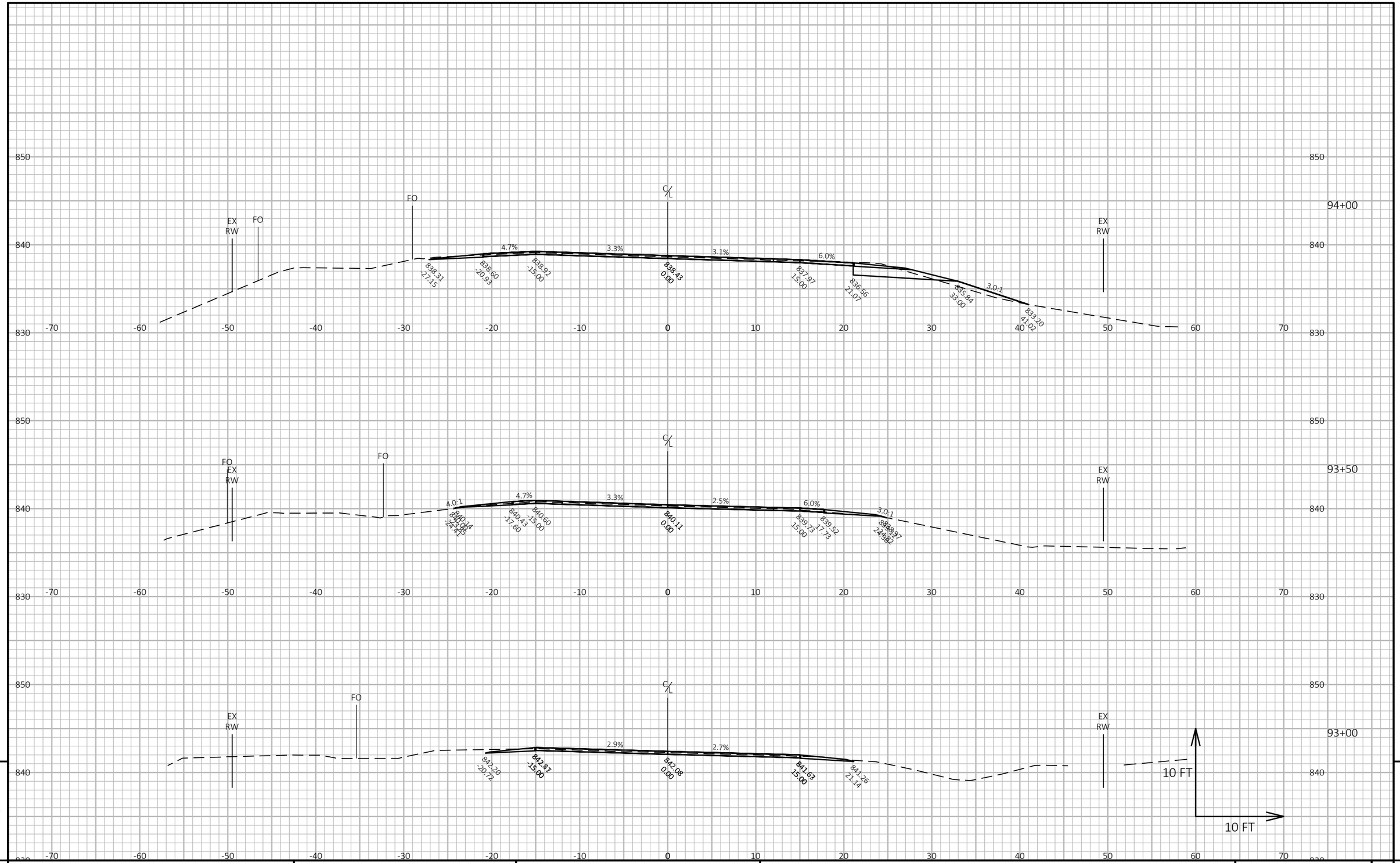
PLOT DATE : 7/20/2023 5:38 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

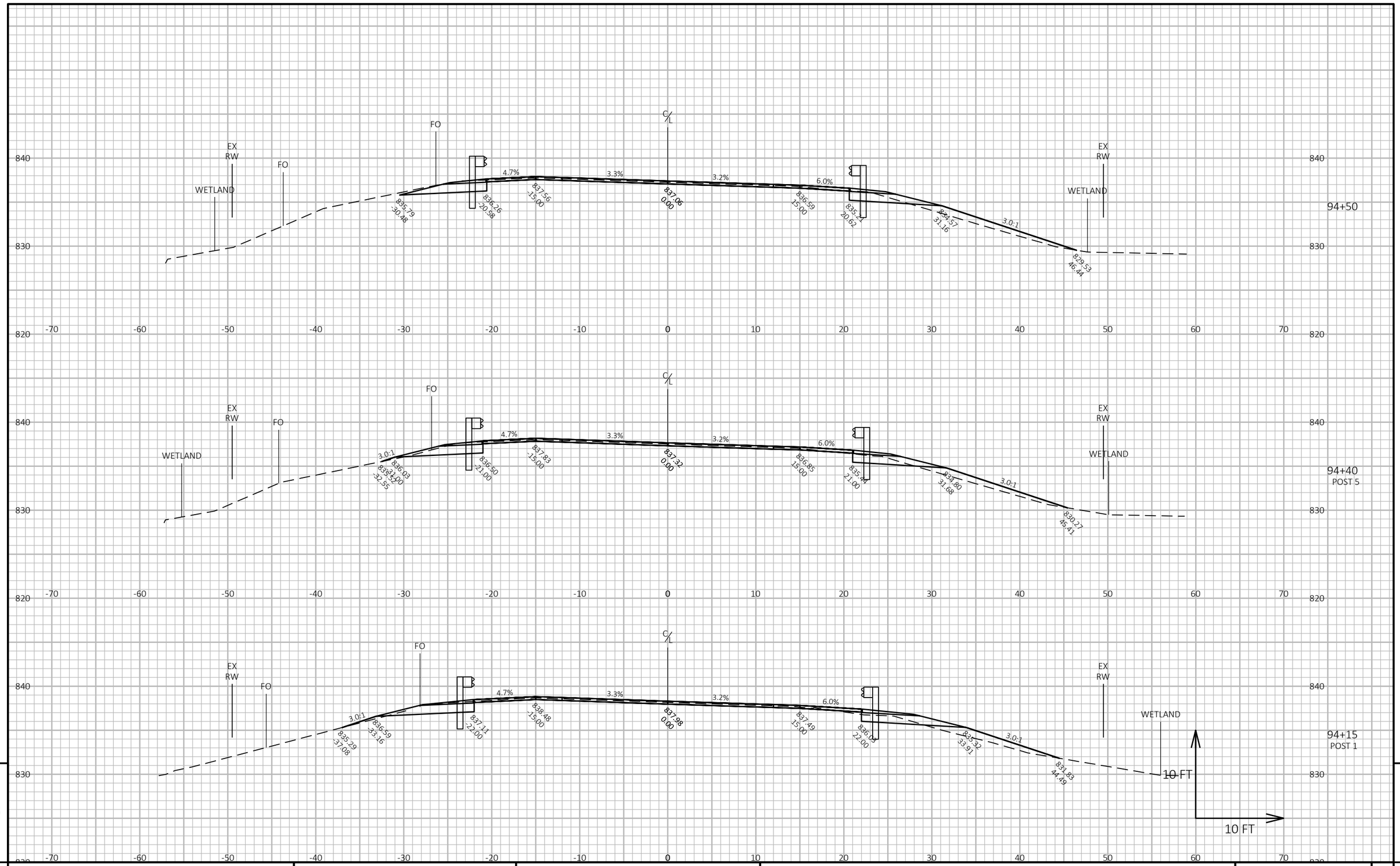
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 218	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 1

PLOT DATE : 7/20/2023 5:39 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 219	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 2

PLOT DATE : 7/20/2023 5:39 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 220	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 3

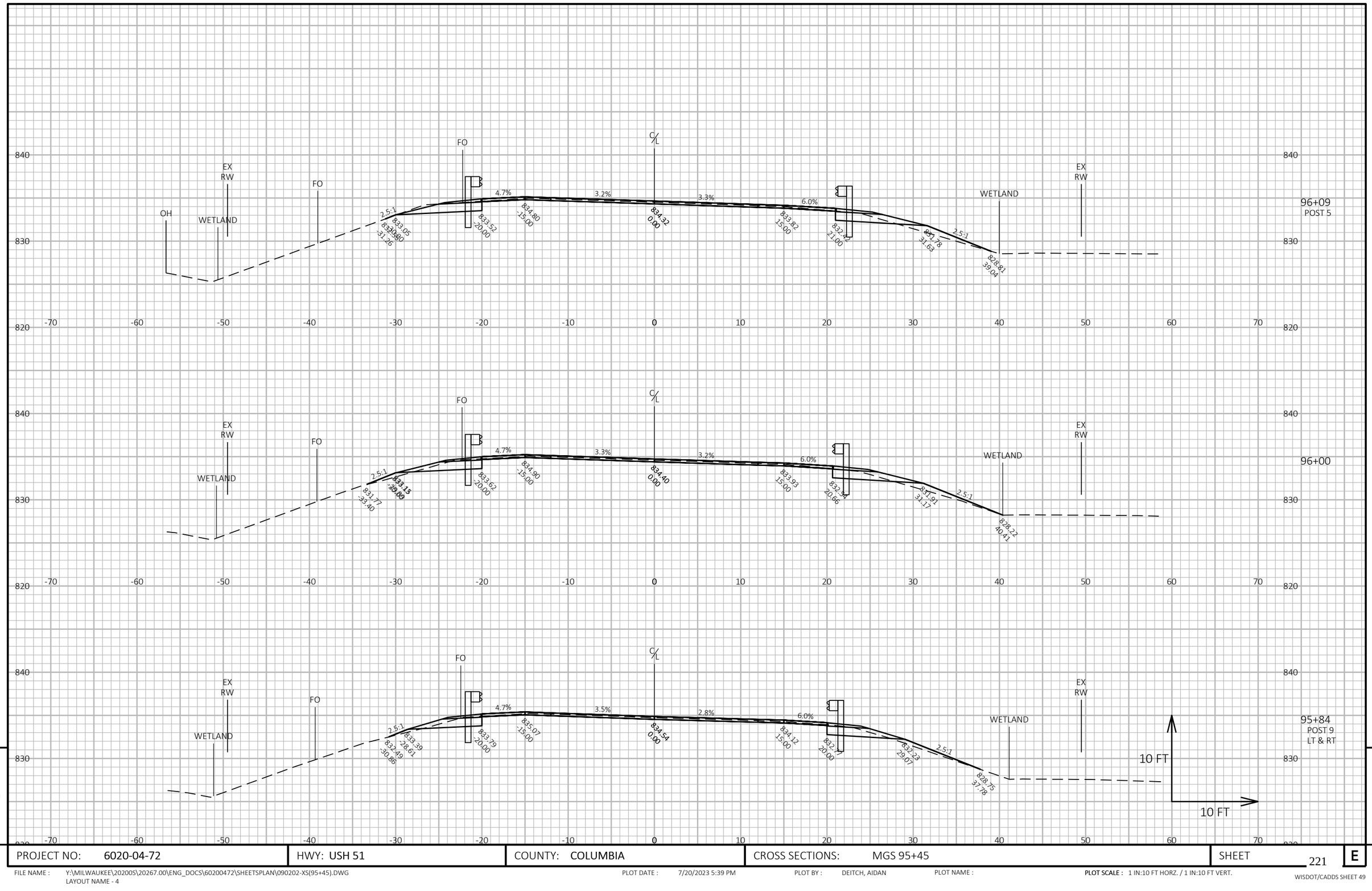
PLOT DATE : 7/20/2023 5:39 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 221	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 4

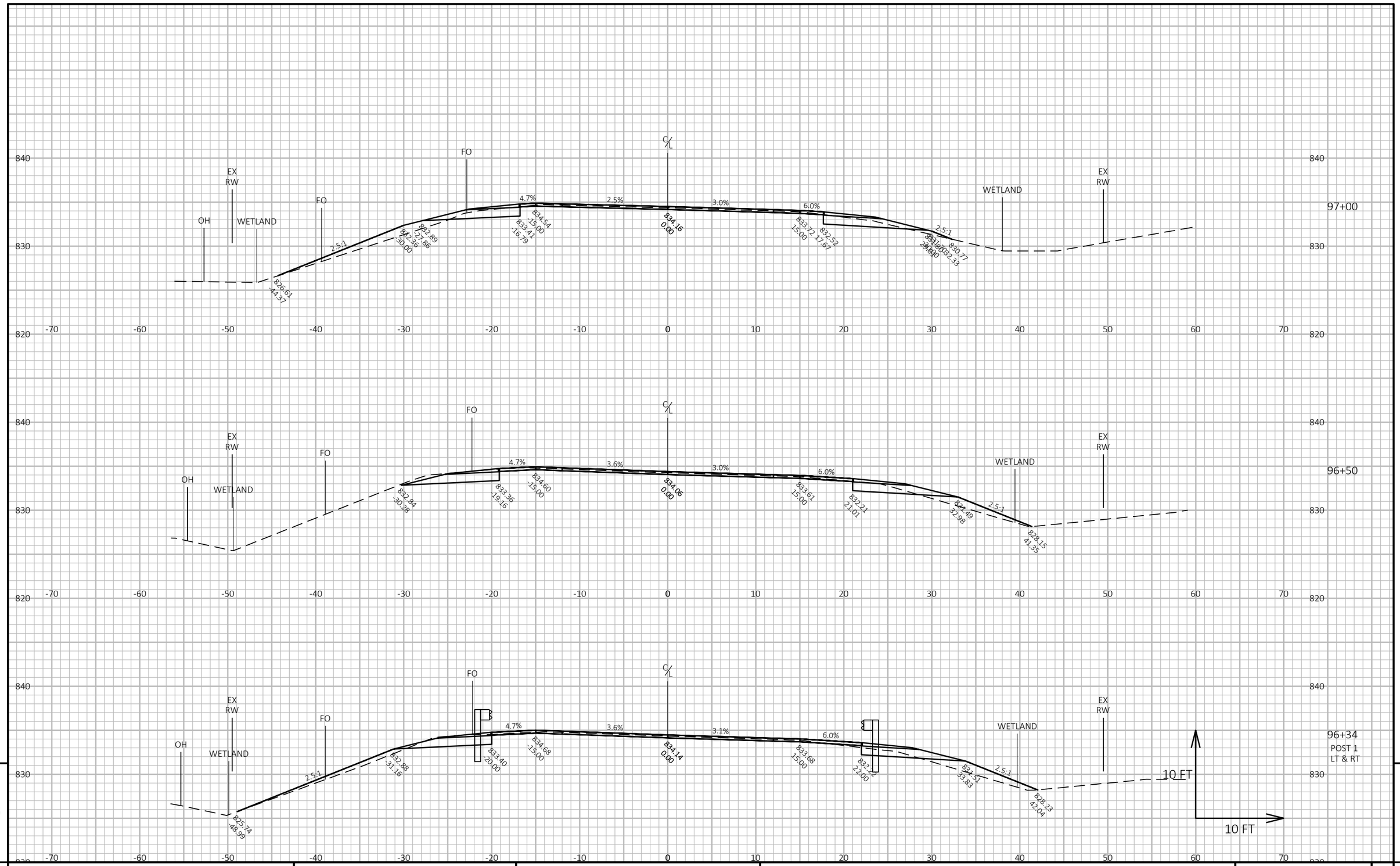
PLOT DATE : 7/20/2023 5:39 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 222	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 5

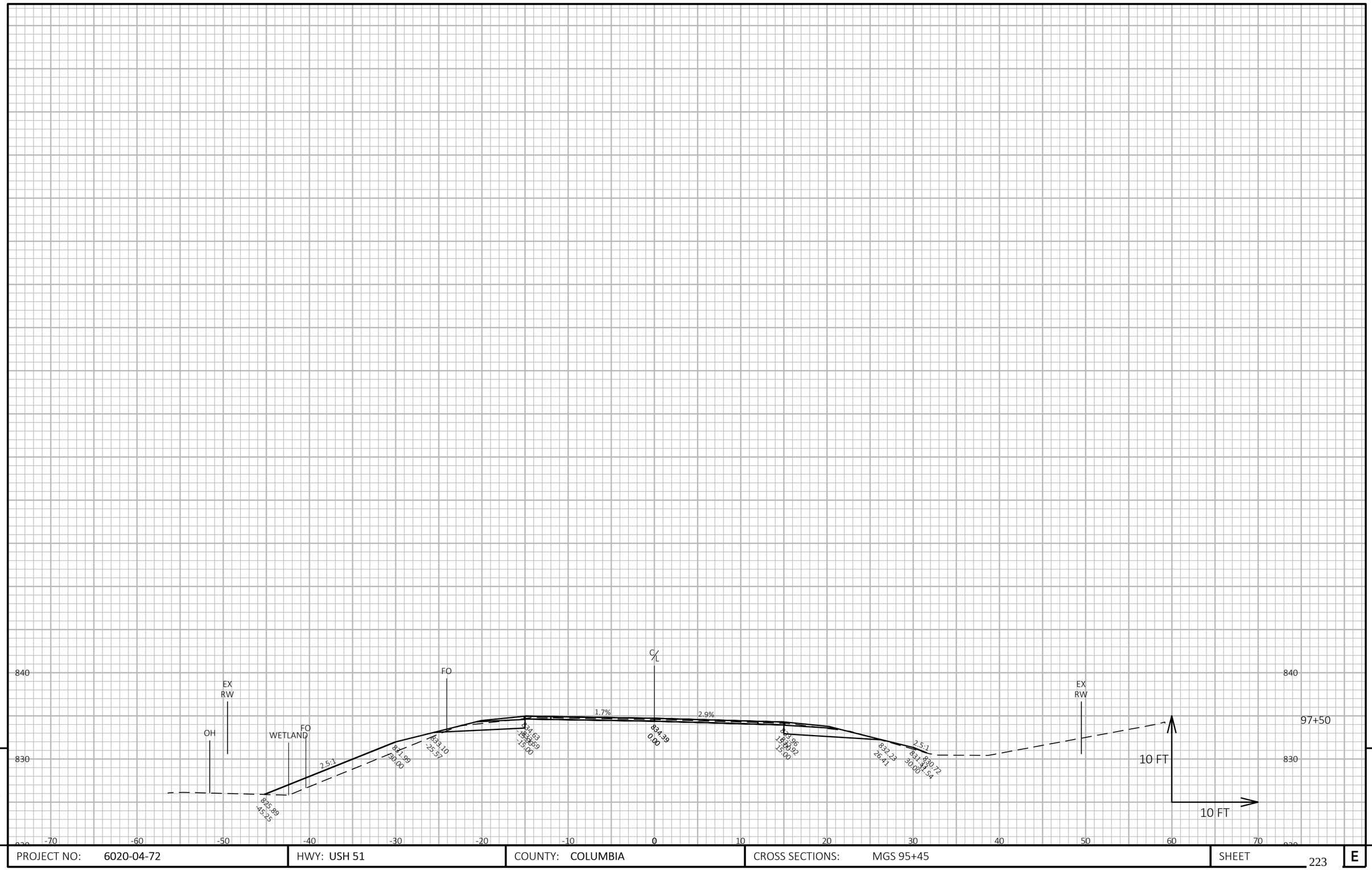
PLOT DATE : 7/20/2023 5:39 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

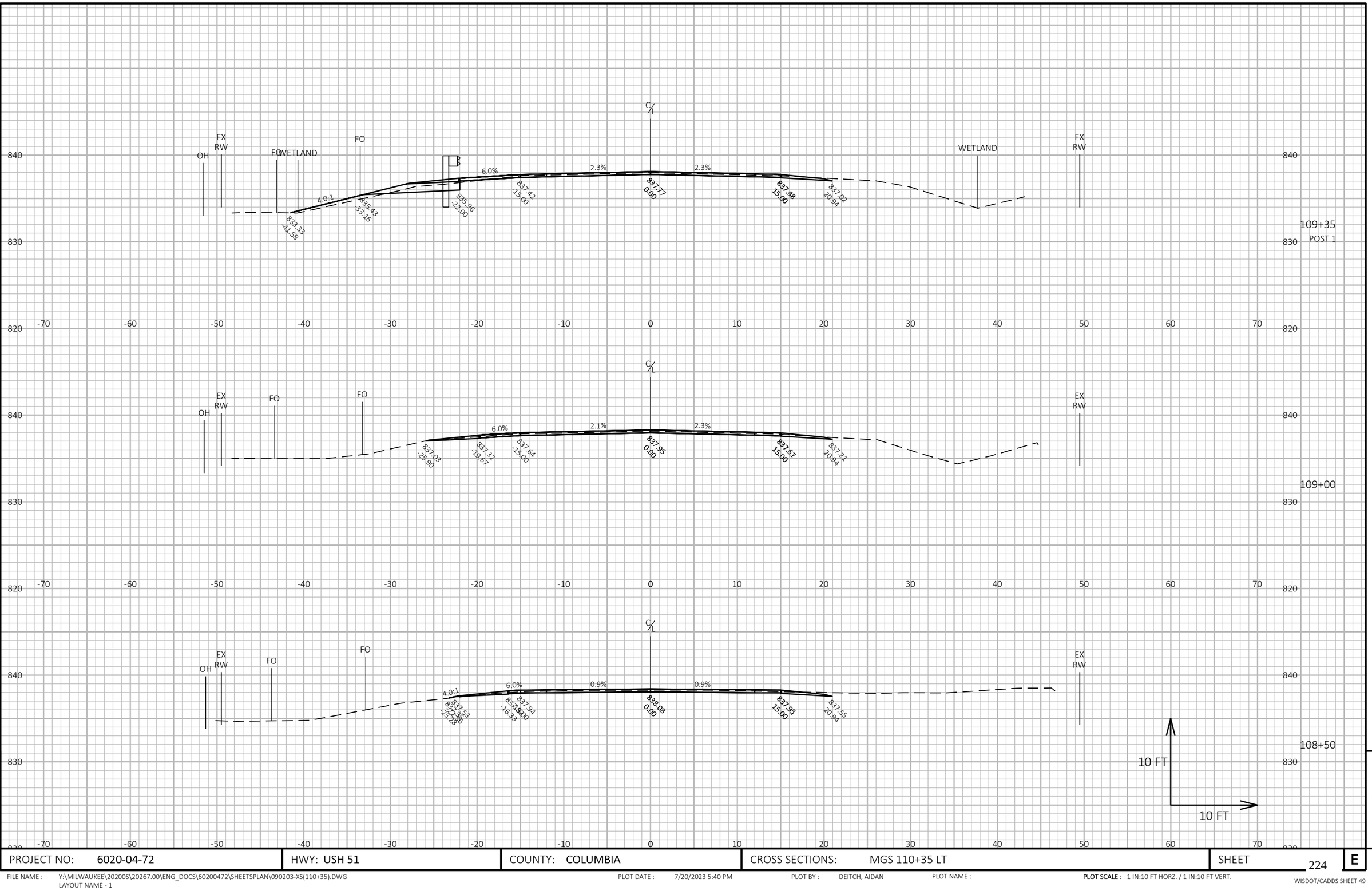
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 95+45	SHEET 223	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090202-XS(95+45).DWG
LAYOUT NAME - 6

PLOT DATE : 7/20/2023 5:39 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 110+35 LT	SHEET 224	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090203-XS(110+35).DWG
LAYOUT NAME - 1

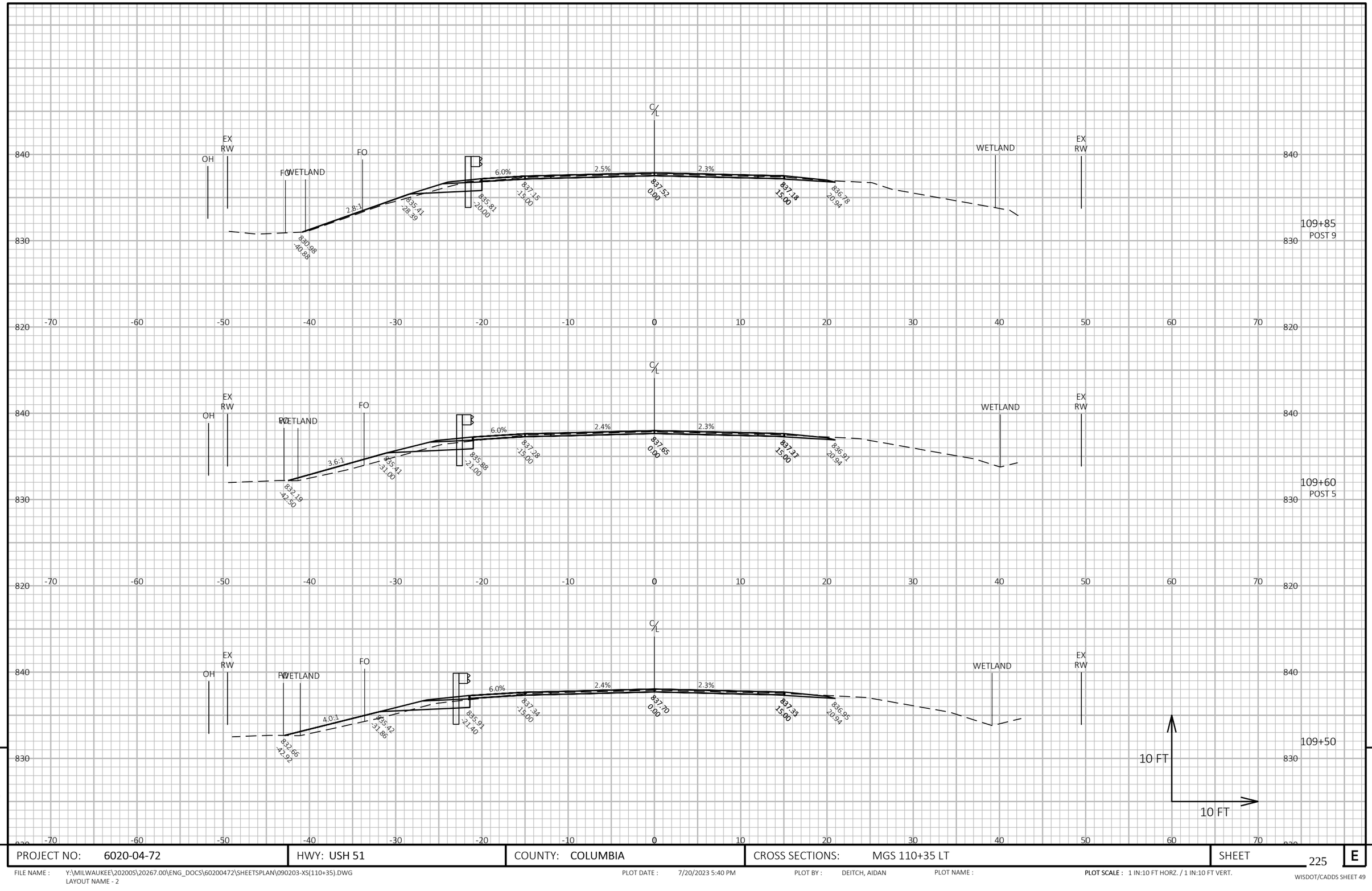
PLOT DATE : 7/20/2023 5:40 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 110+35 LT	SHEET 225	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090203-XS(110+35).DWG
LAYOUT NAME - 2

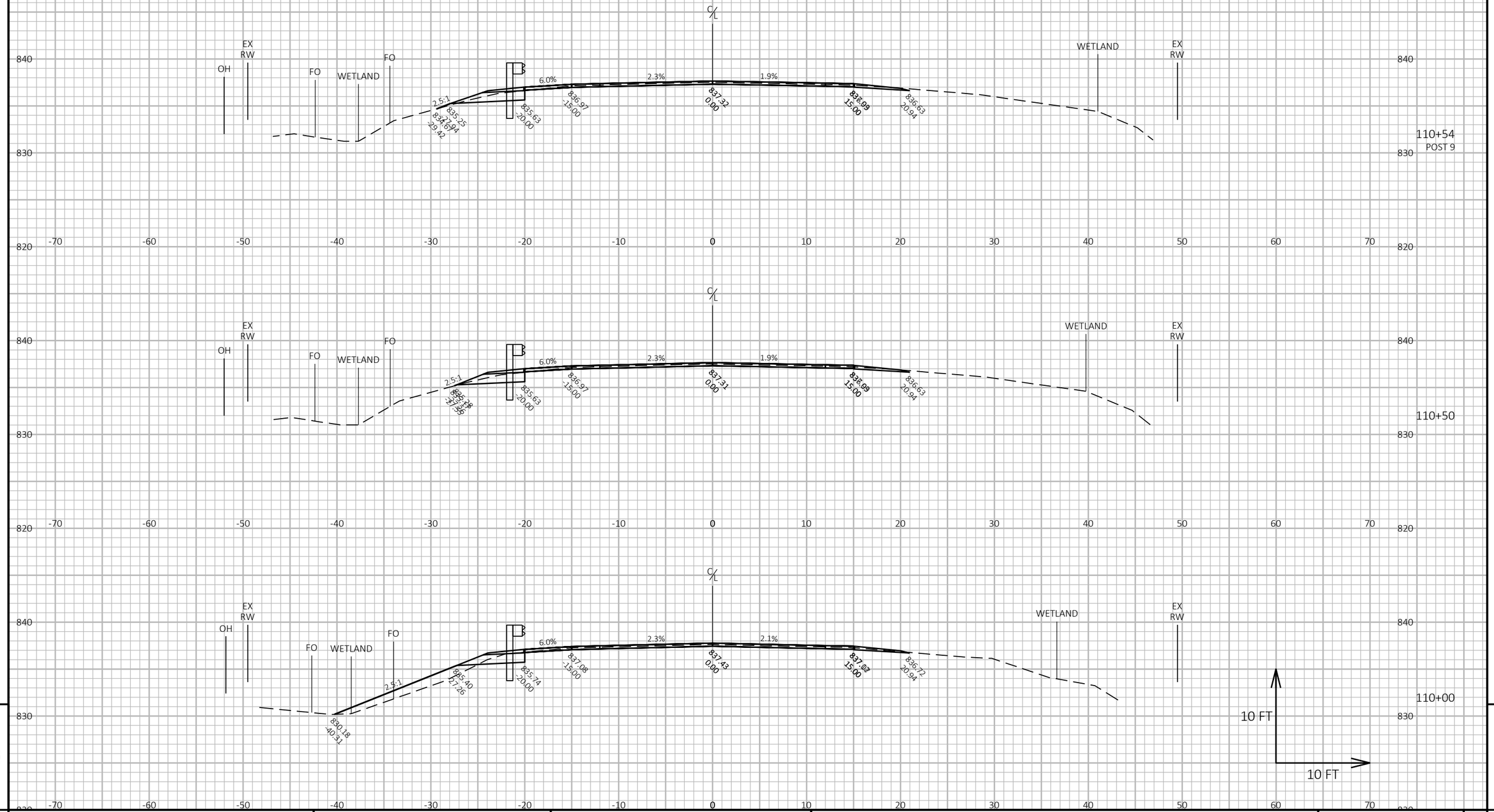
PLOT DATE : 7/20/2023 5:40 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 110+35 LT	SHEET 226	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090203-XS(110+35).DWG
LAYOUT NAME - 3

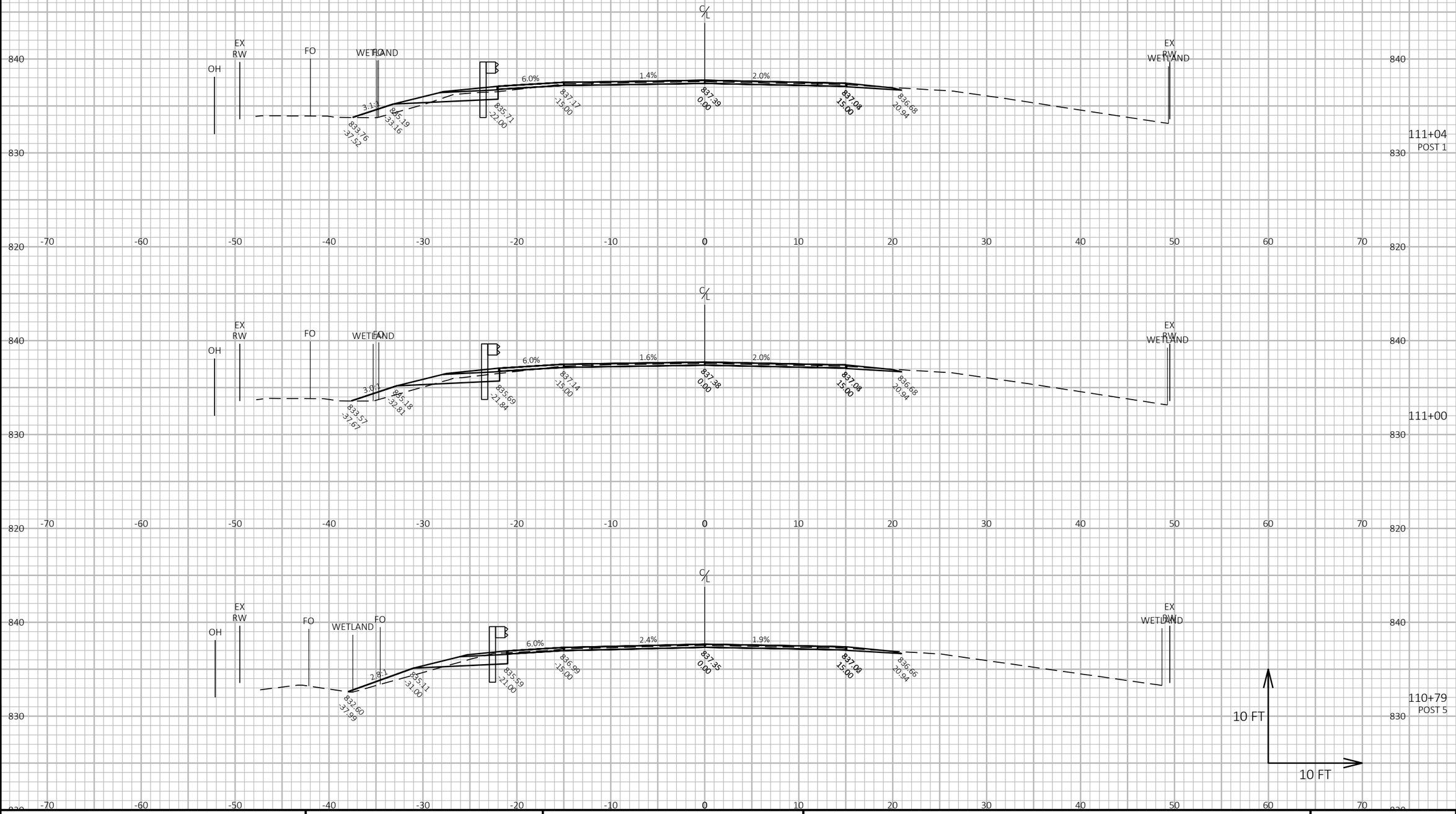
PLOT DATE : 7/20/2023 5:40 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 110+35 LT	SHEET 227	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090203-XS(110+35).DWG
LAYOUT NAME - 4

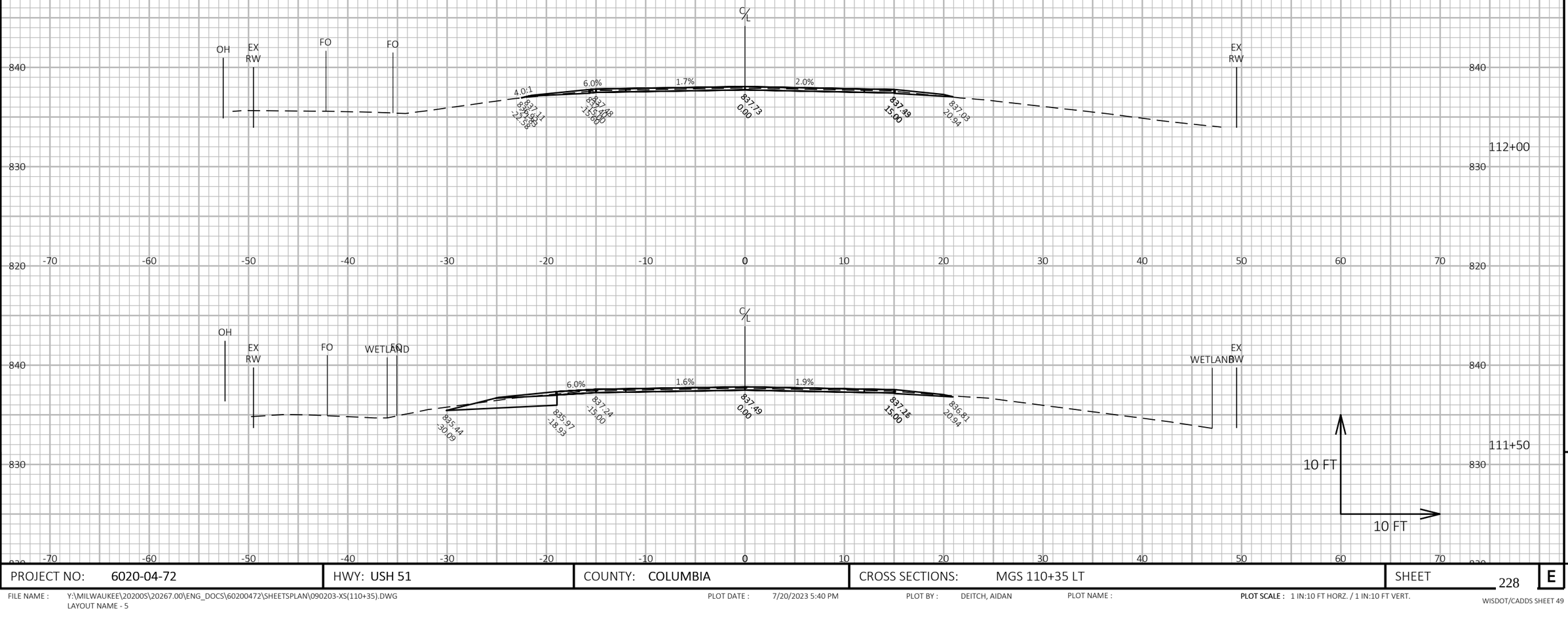
PLOT DATE : 7/20/2023 5:40 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 110+35 LT	SHEET 228	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090203-XS(110+35).DWG
LAYOUT NAME - 5

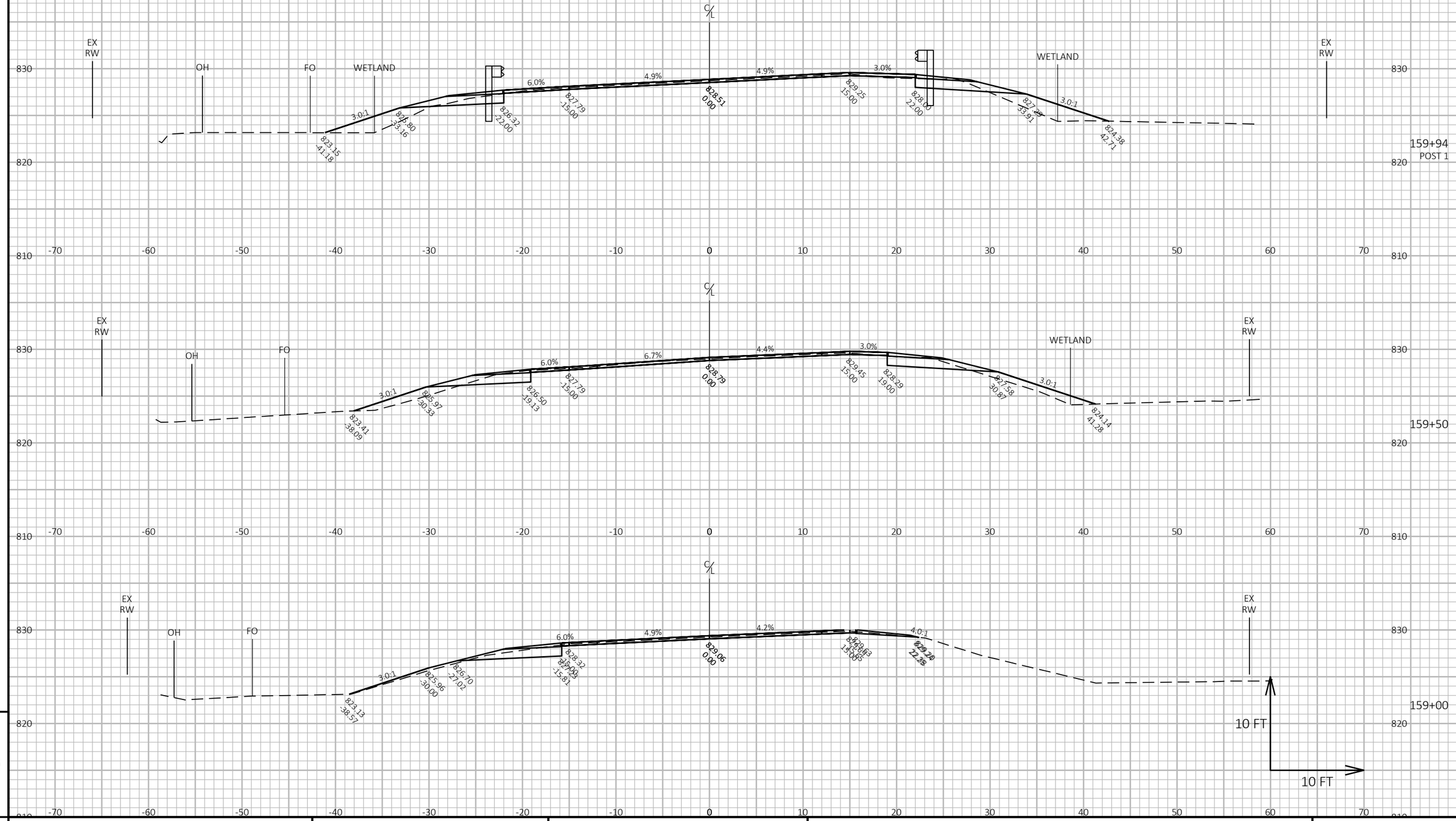
PLOT DATE : 7/20/2023 5:40 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 161+00	SHEET 229	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090204-XS(161+00).DWG
LAYOUT NAME - 01

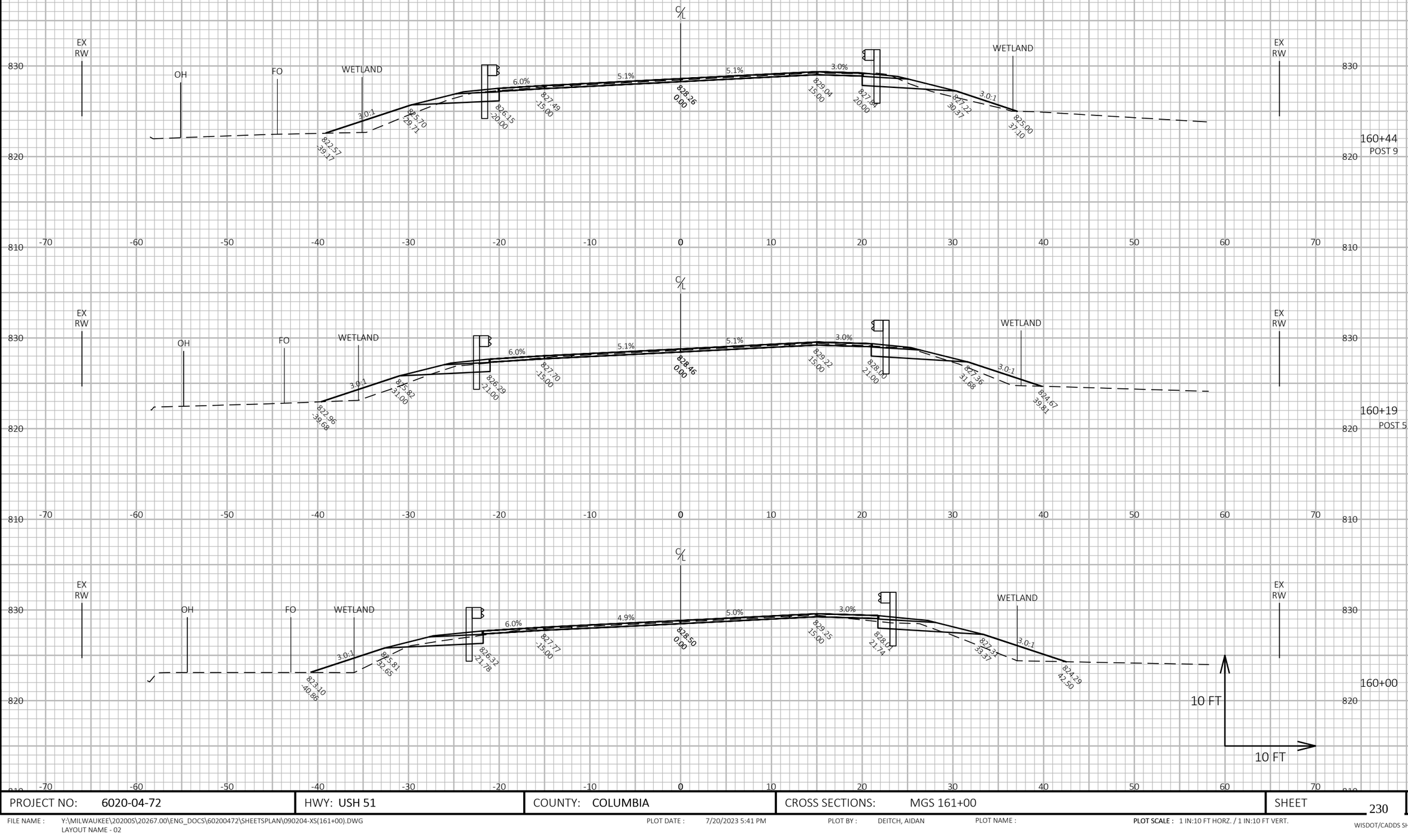
PLOT DATE : 7/20/2023 5:41 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 161+00	SHEET 230	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090204-XS(161+00).DWG
LAYOUT NAME - 02

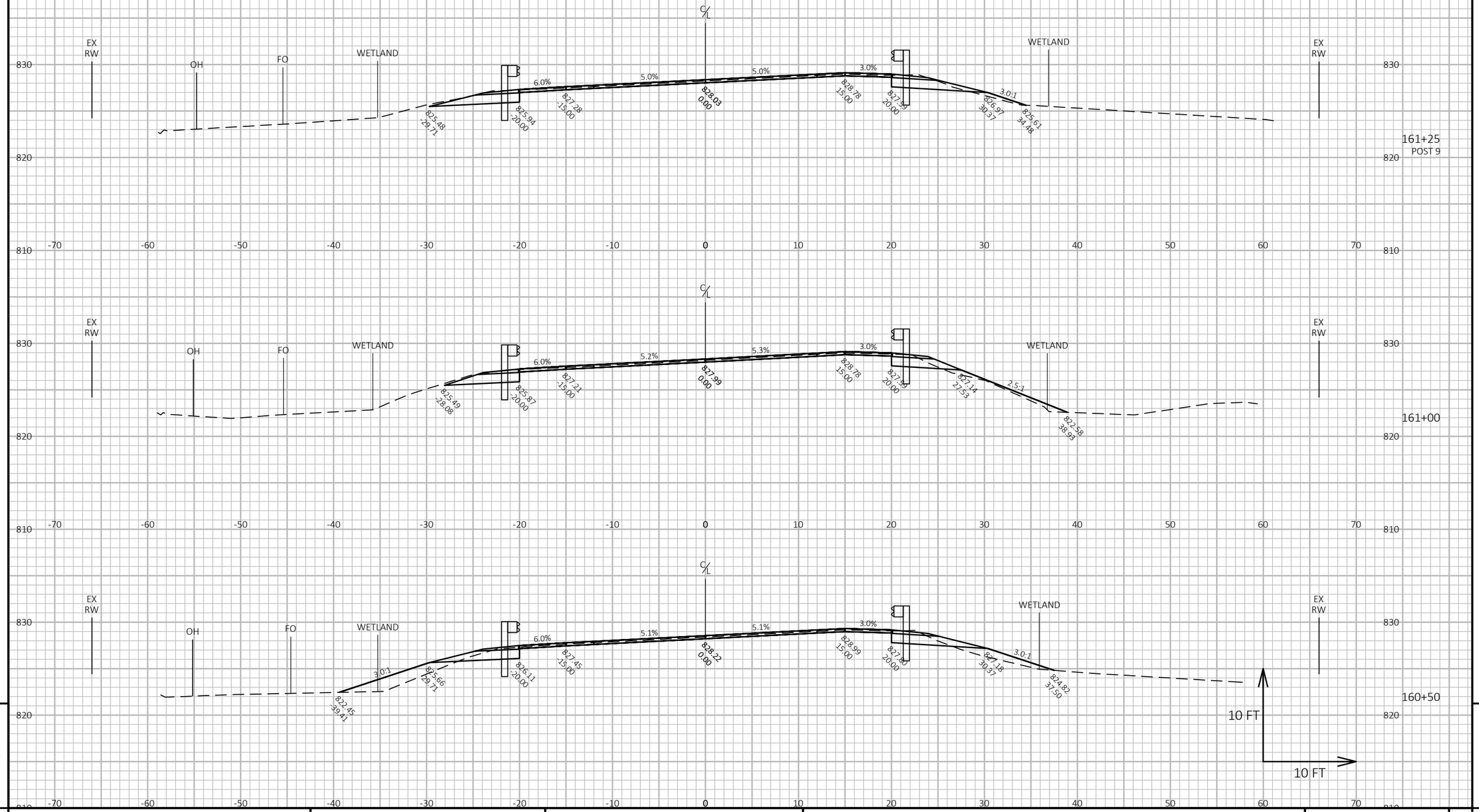
PLOT DATE : 7/20/2023 5:41 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 161+00	SHEET 231	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090204-XS(161+00).DWG
LAYOUT NAME - 03

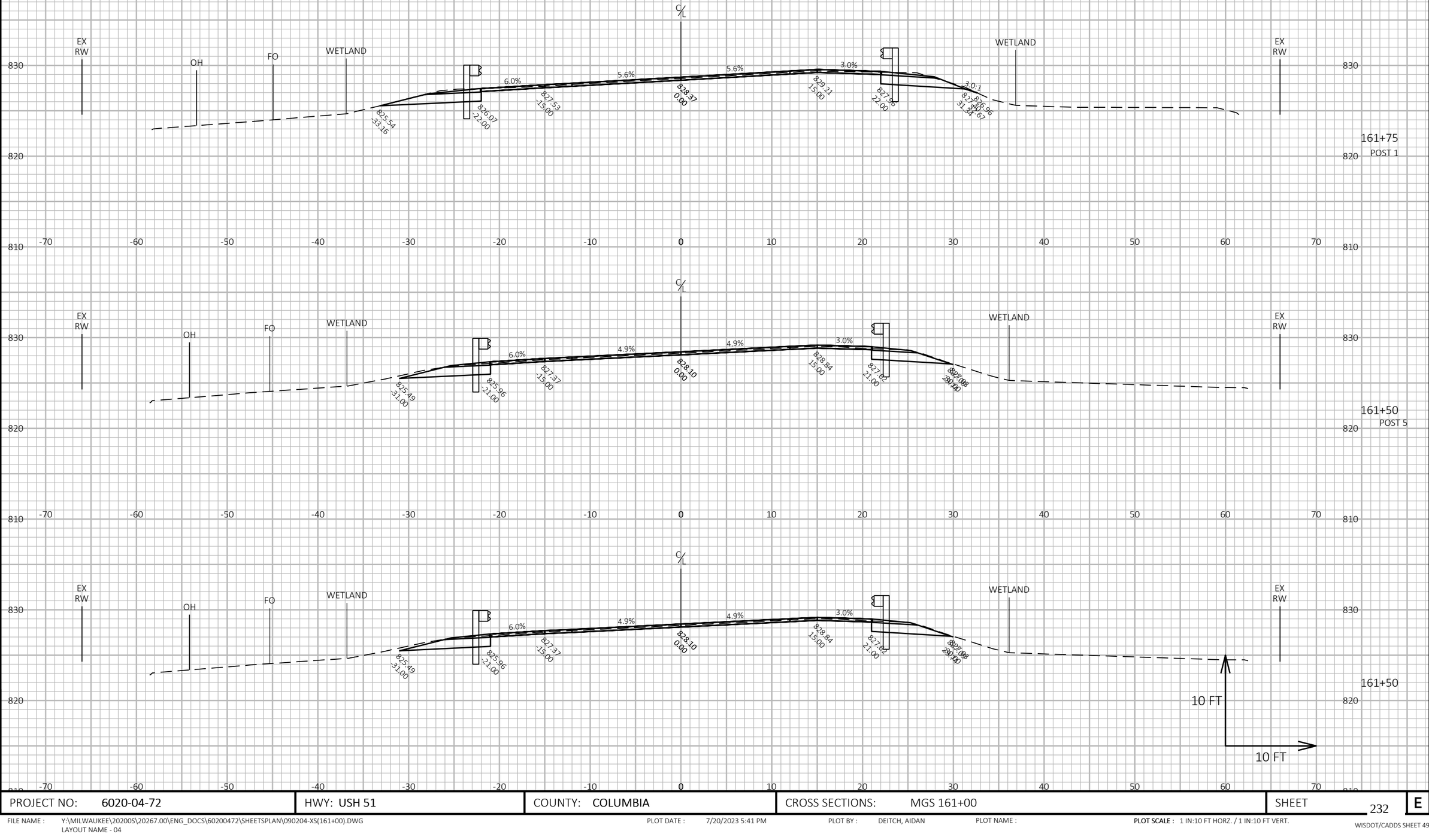
PLOT DATE : 7/20/2023 5:41 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 161+00	SHEET 232	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090204-XS(161+00).DWG
LAYOUT NAME - 04

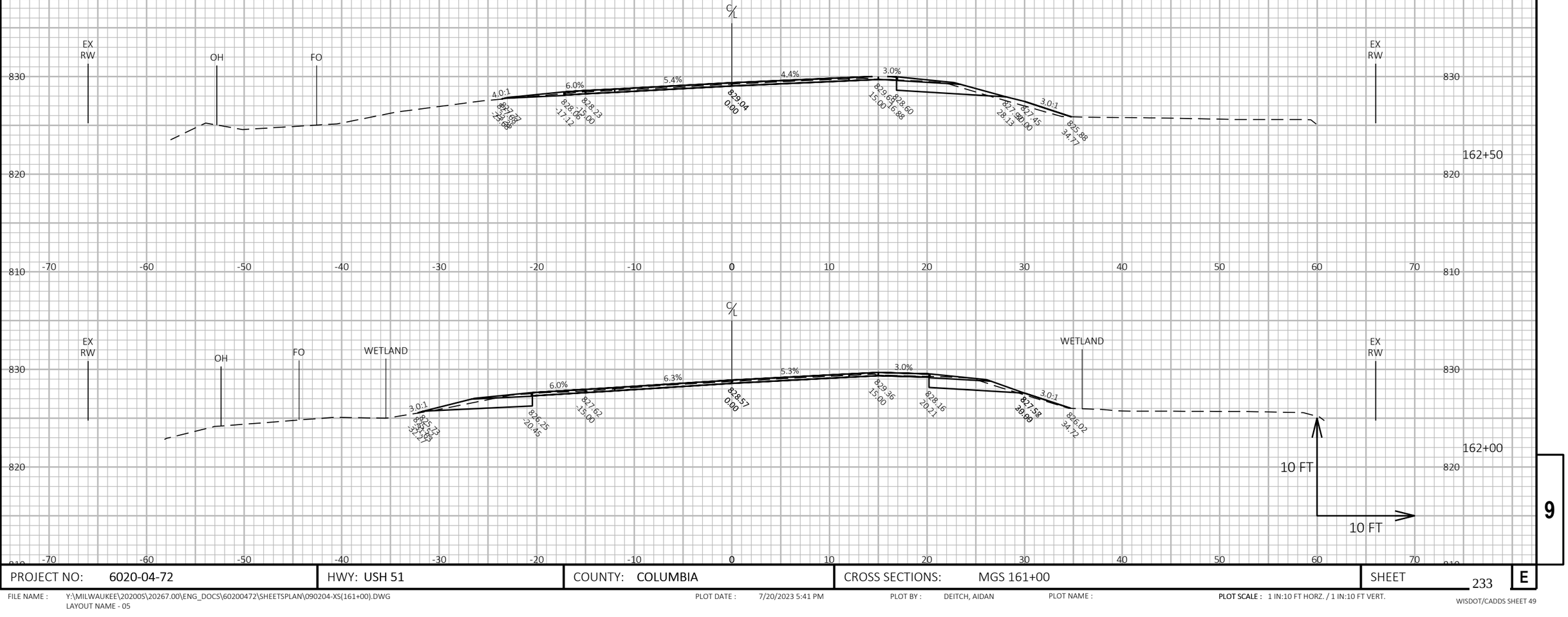
PLOT DATE : 7/20/2023 5:41 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 161+00	SHEET 233	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090204-XS(161+00).DWG
LAYOUT NAME - 05

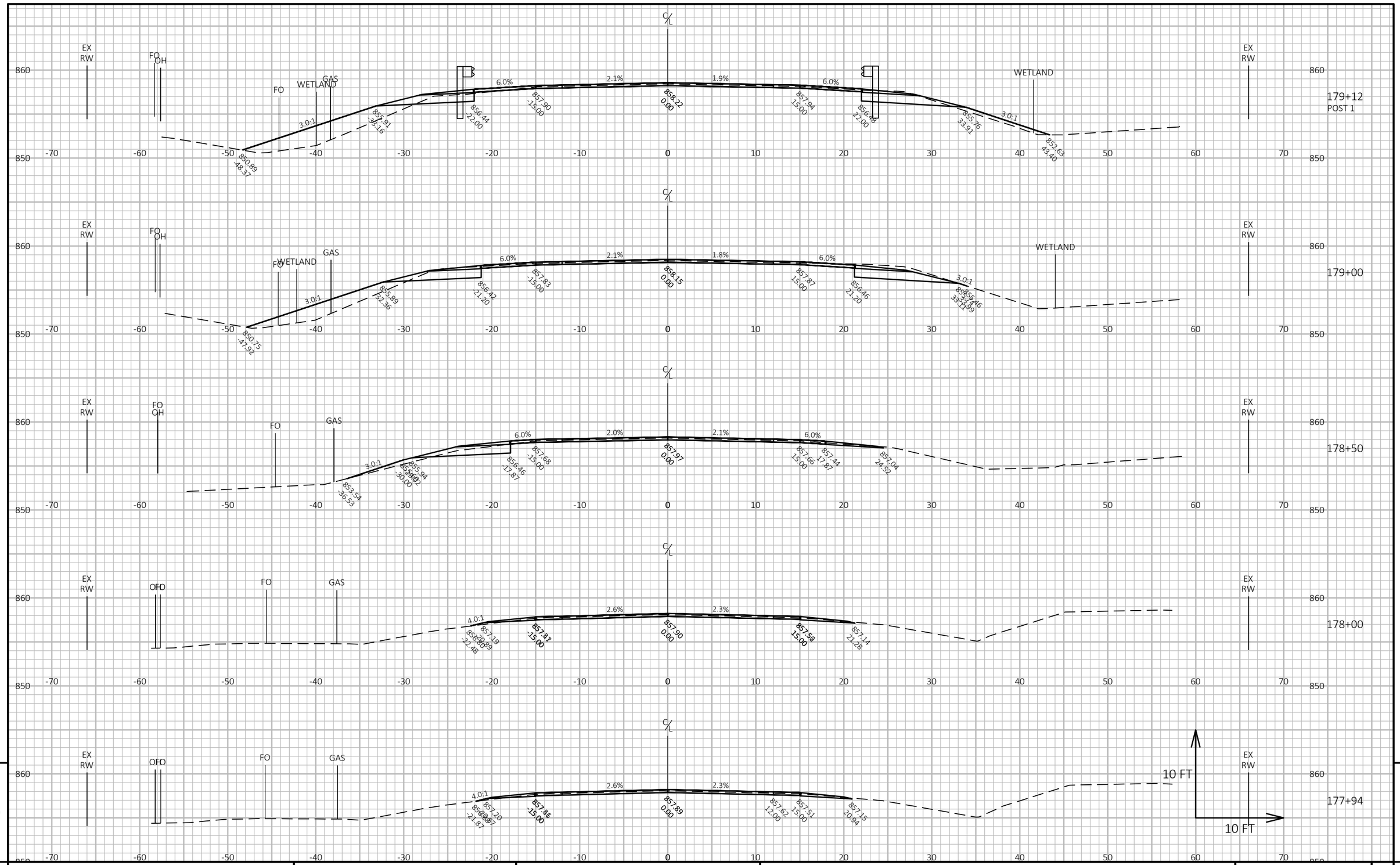
PLOT DATE : 7/20/2023 5:41 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 180+00	SHEET 234	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090205-XS(180+00).DWG
LAYOUT NAME - 01

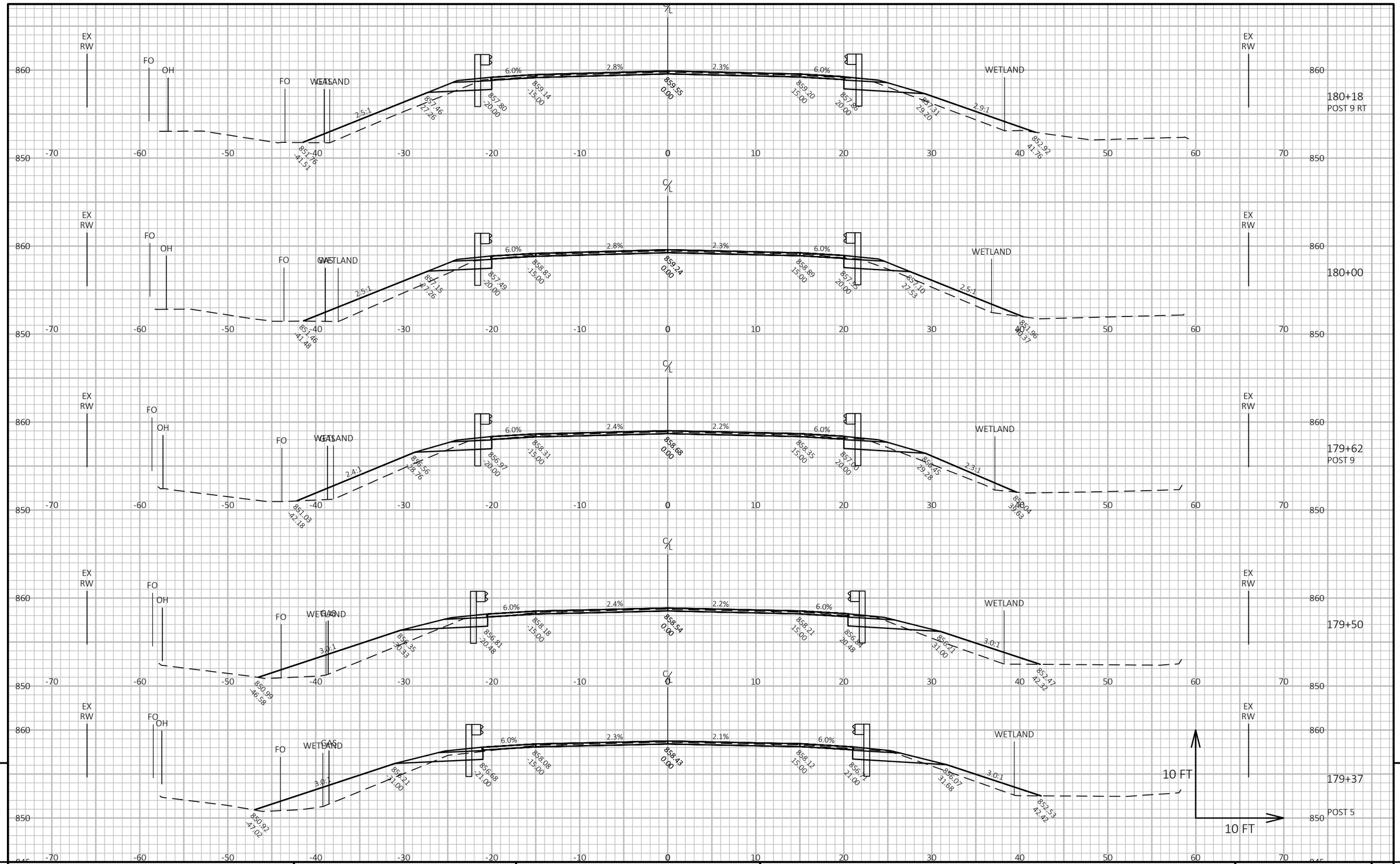
PLOT DATE : 7/20/2023 5:42 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 180+00	SHEET 235	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090205-XS(180+00).DWG
LAYOUT NAME - 02

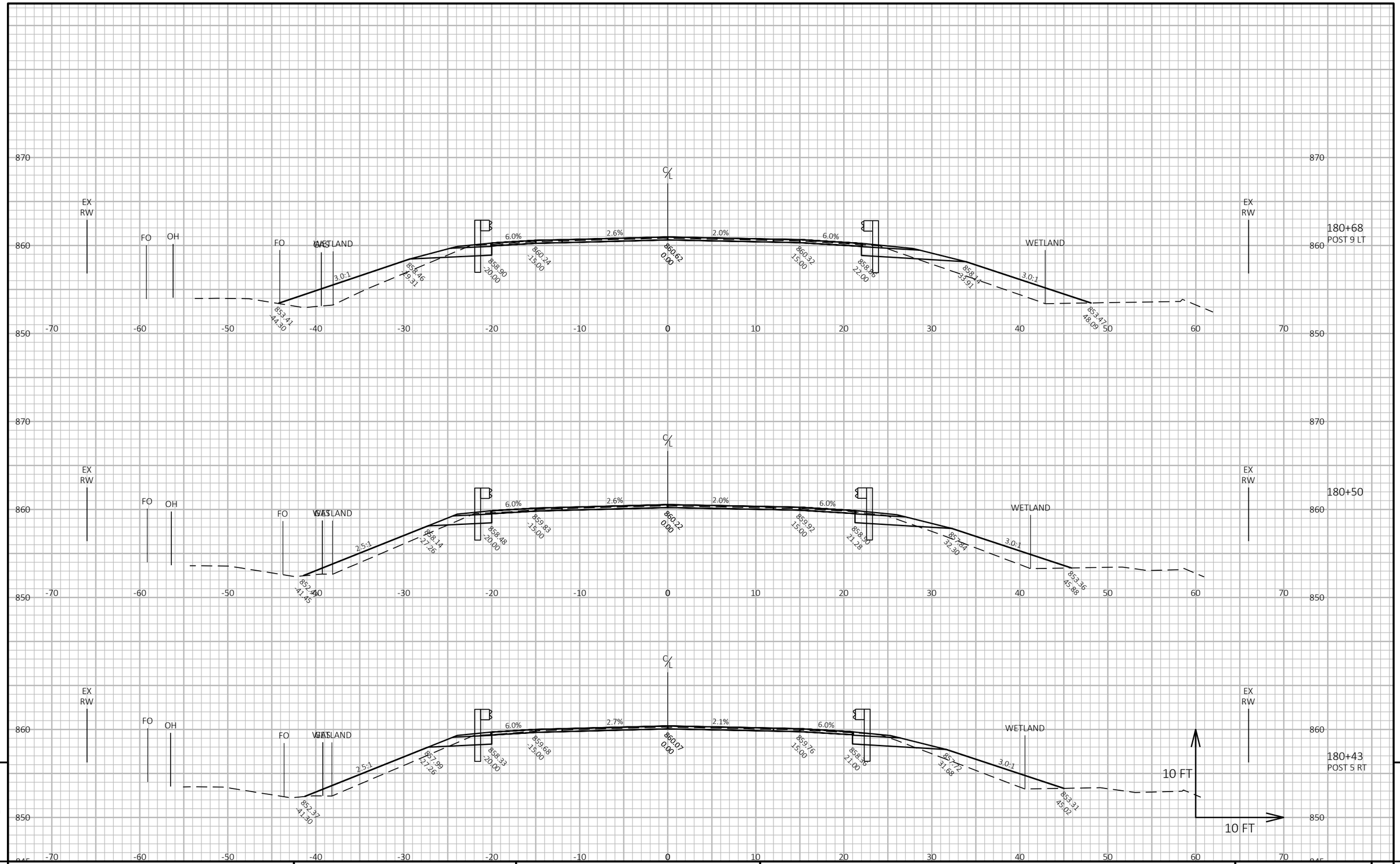
PLOT DATE : 7/20/2023 5:42 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

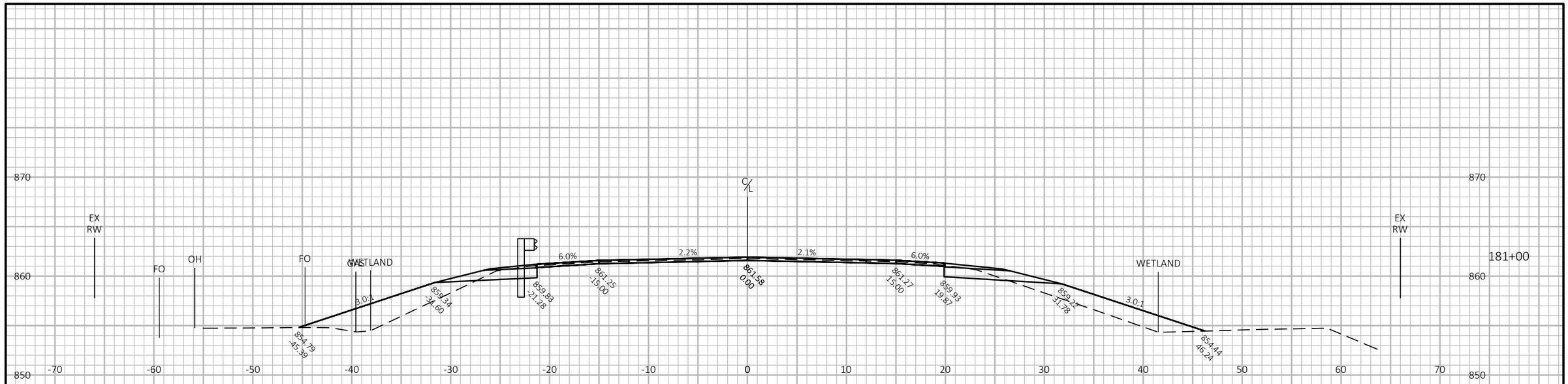
9

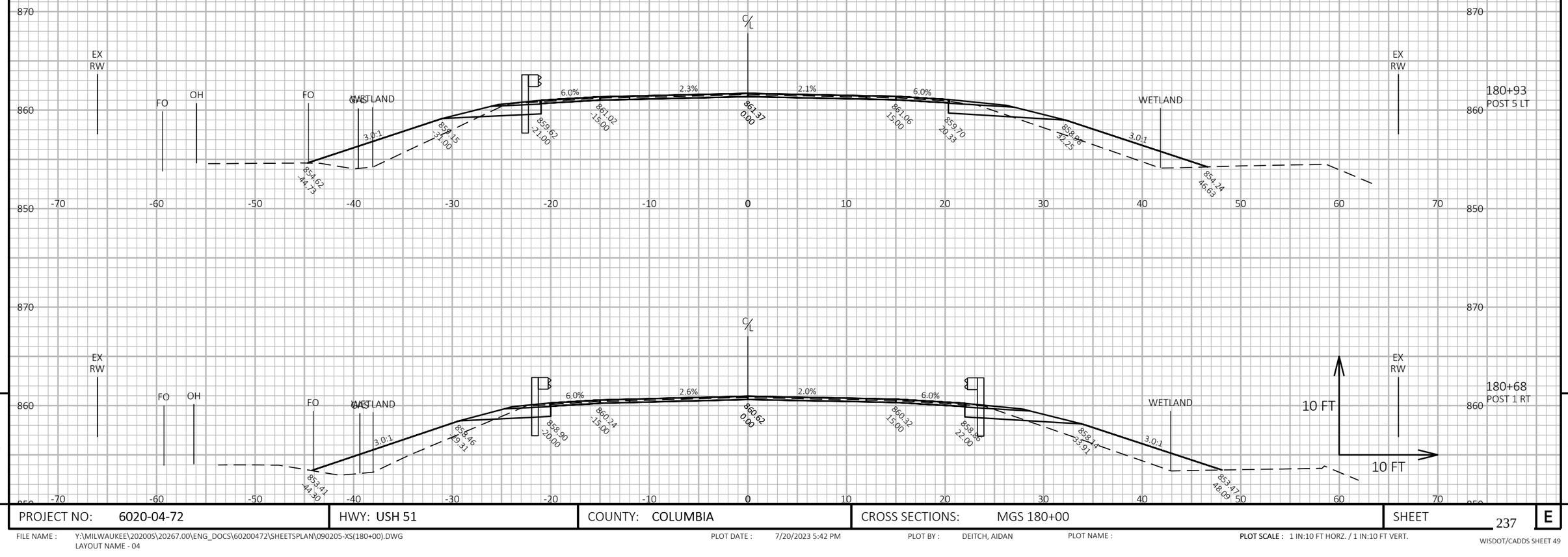
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 180+00	SHEET 236	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090205-XS(180+00).DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 5:42 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 180+00	SHEET 237	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090205-XS(180+00).DWG
LAYOUT NAME - 04

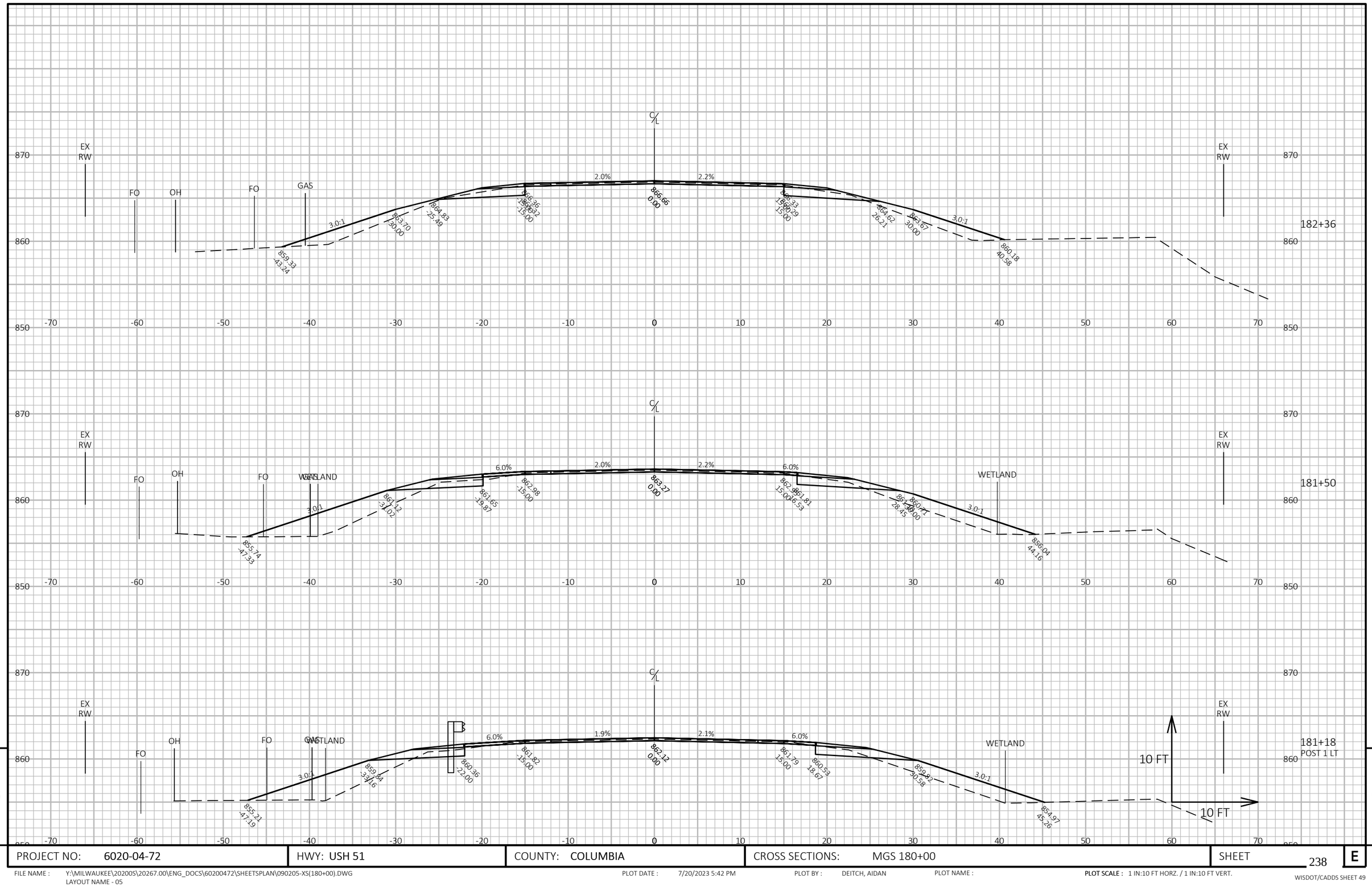
PLOT DATE : 7/20/2023 5:42 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

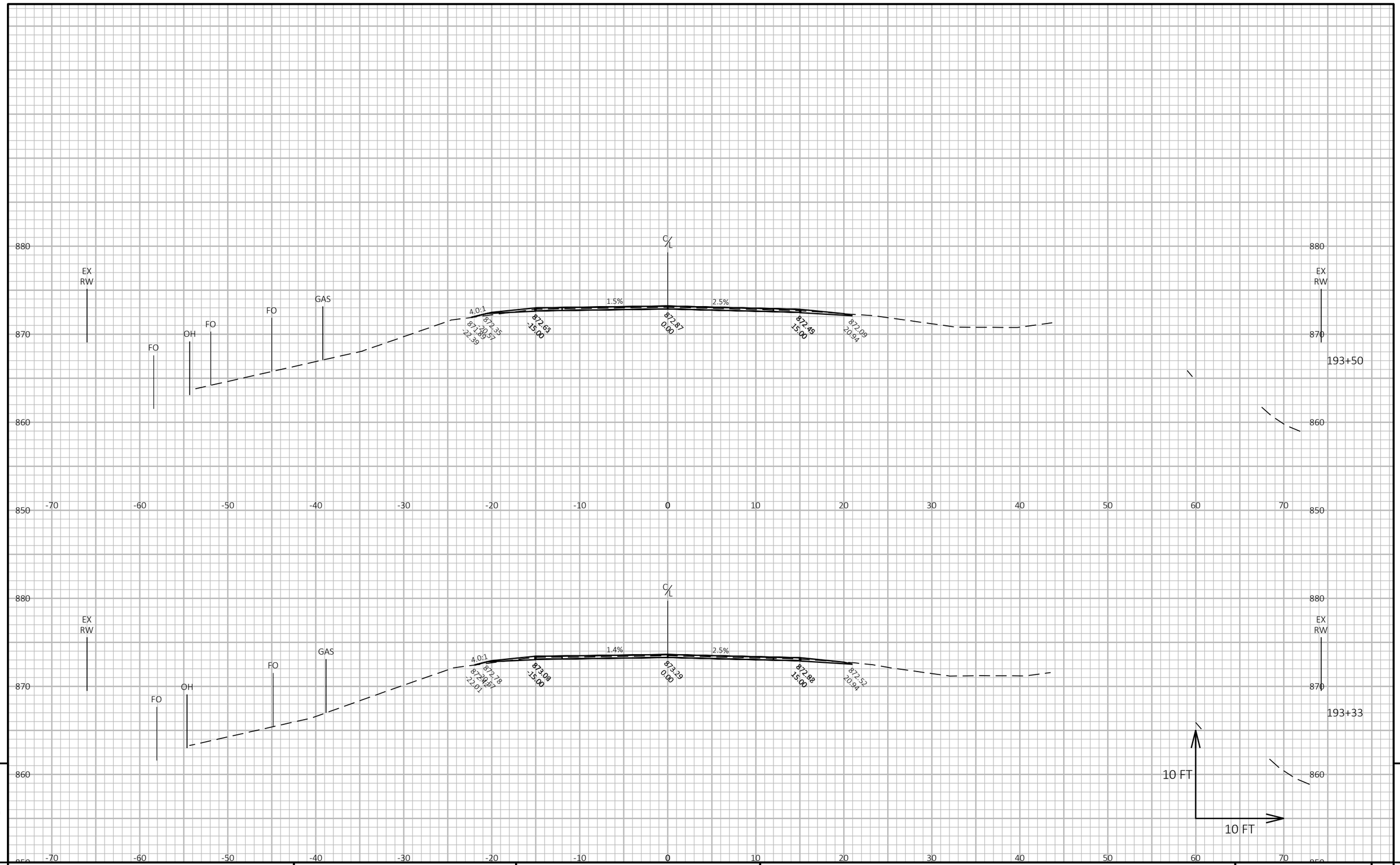


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 180+00	SHEET 238	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090205-XS(180+00).DWG
LAYOUT NAME - 05

PLOT DATE : 7/20/2023 5:42 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 239	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 01

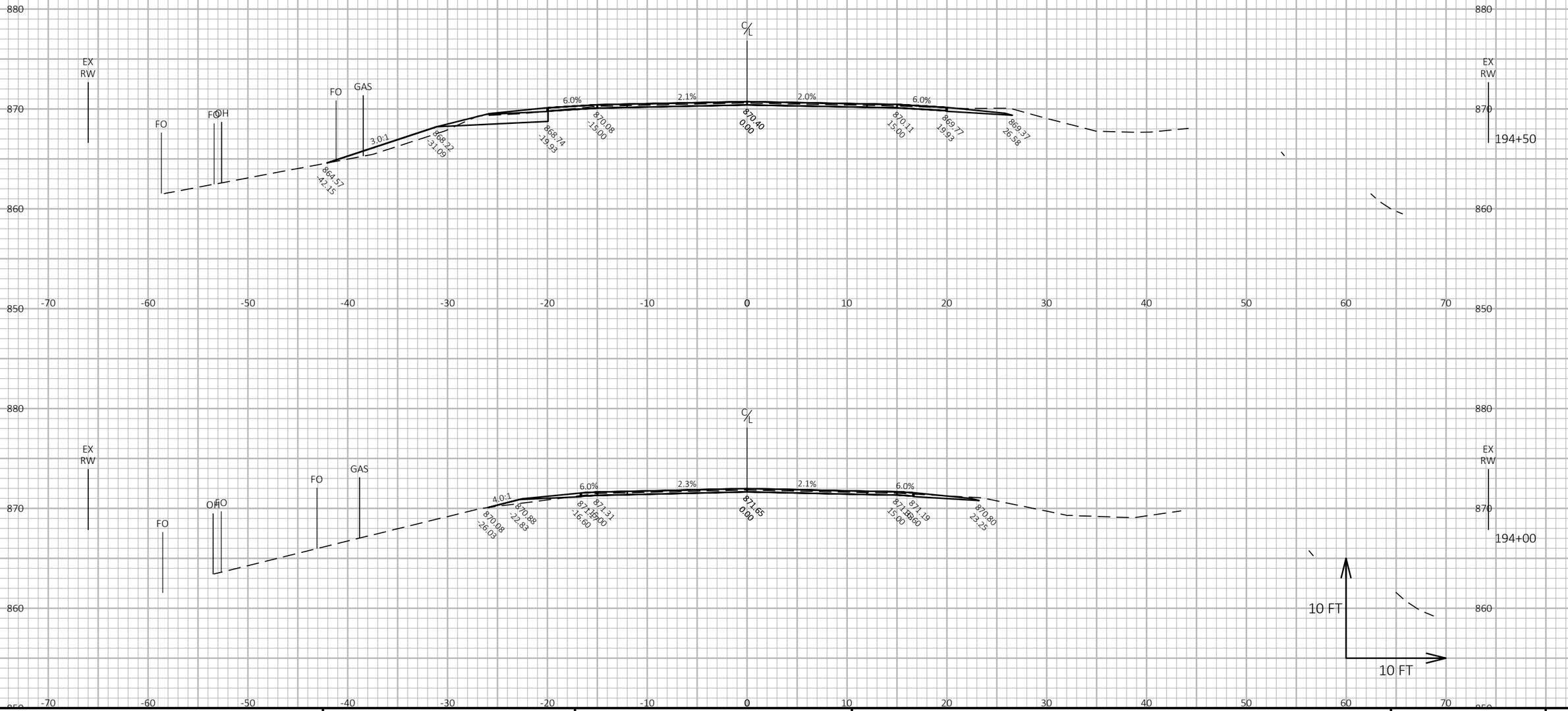
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 240	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 02

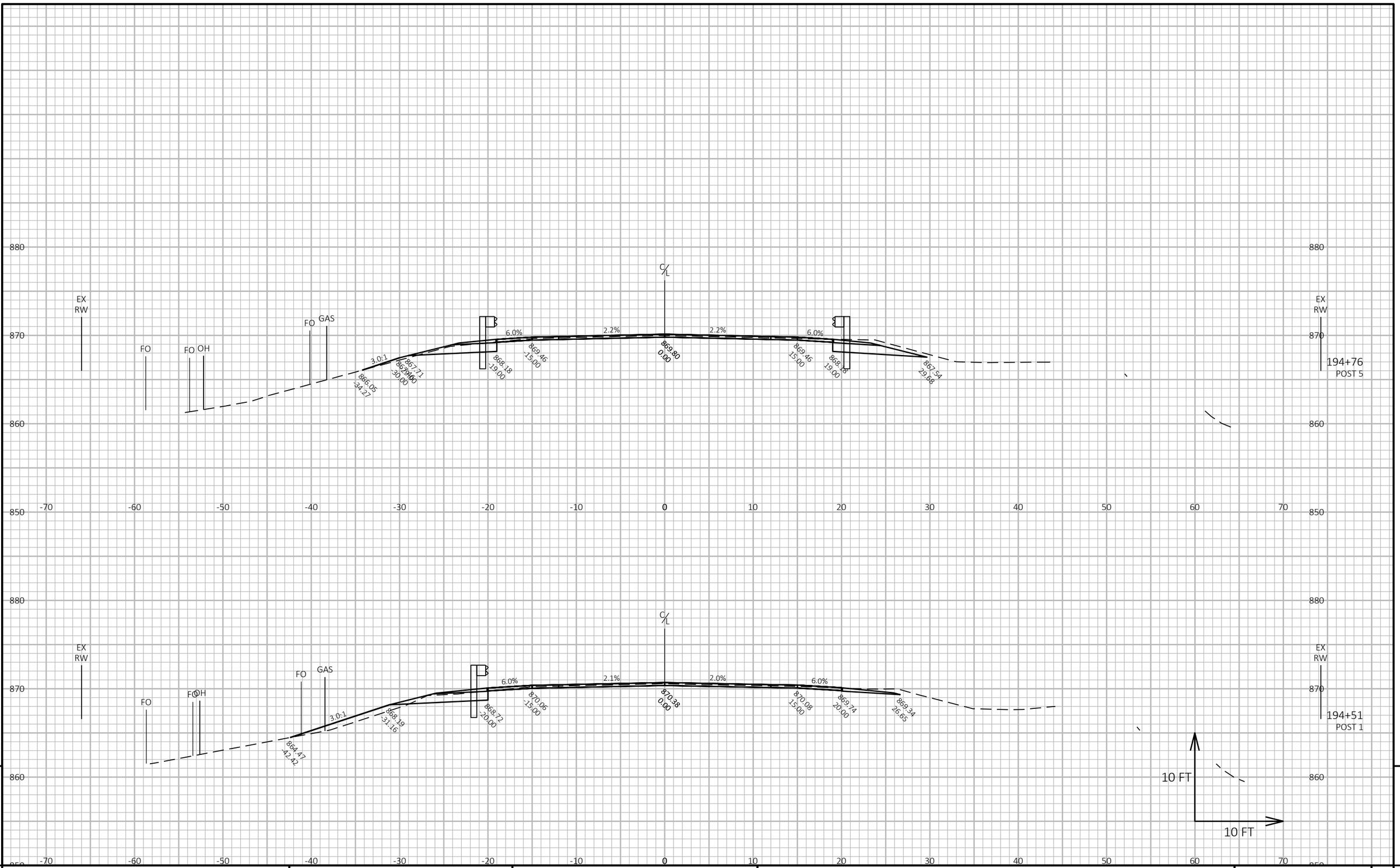
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 241	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 03

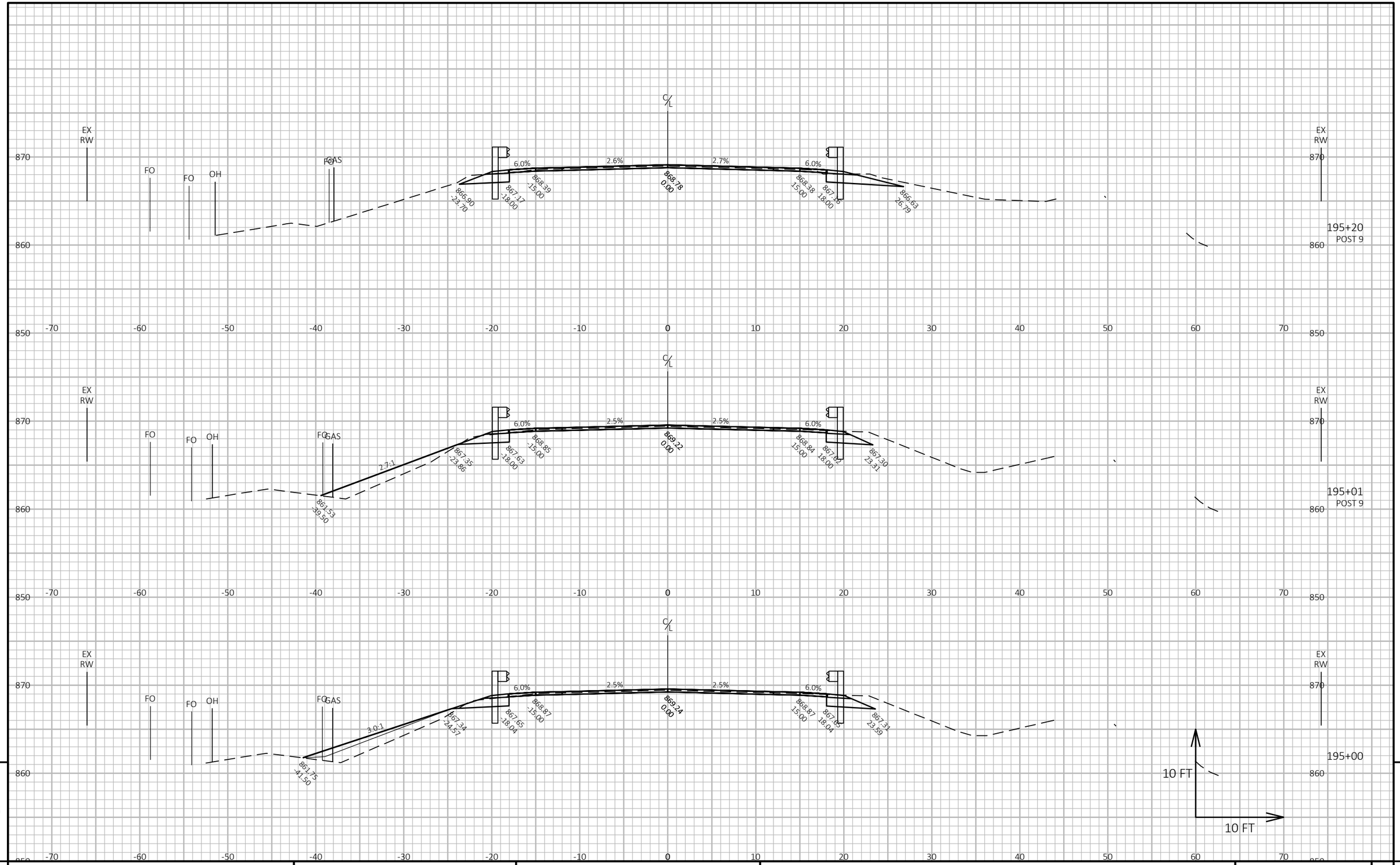
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 242	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 04

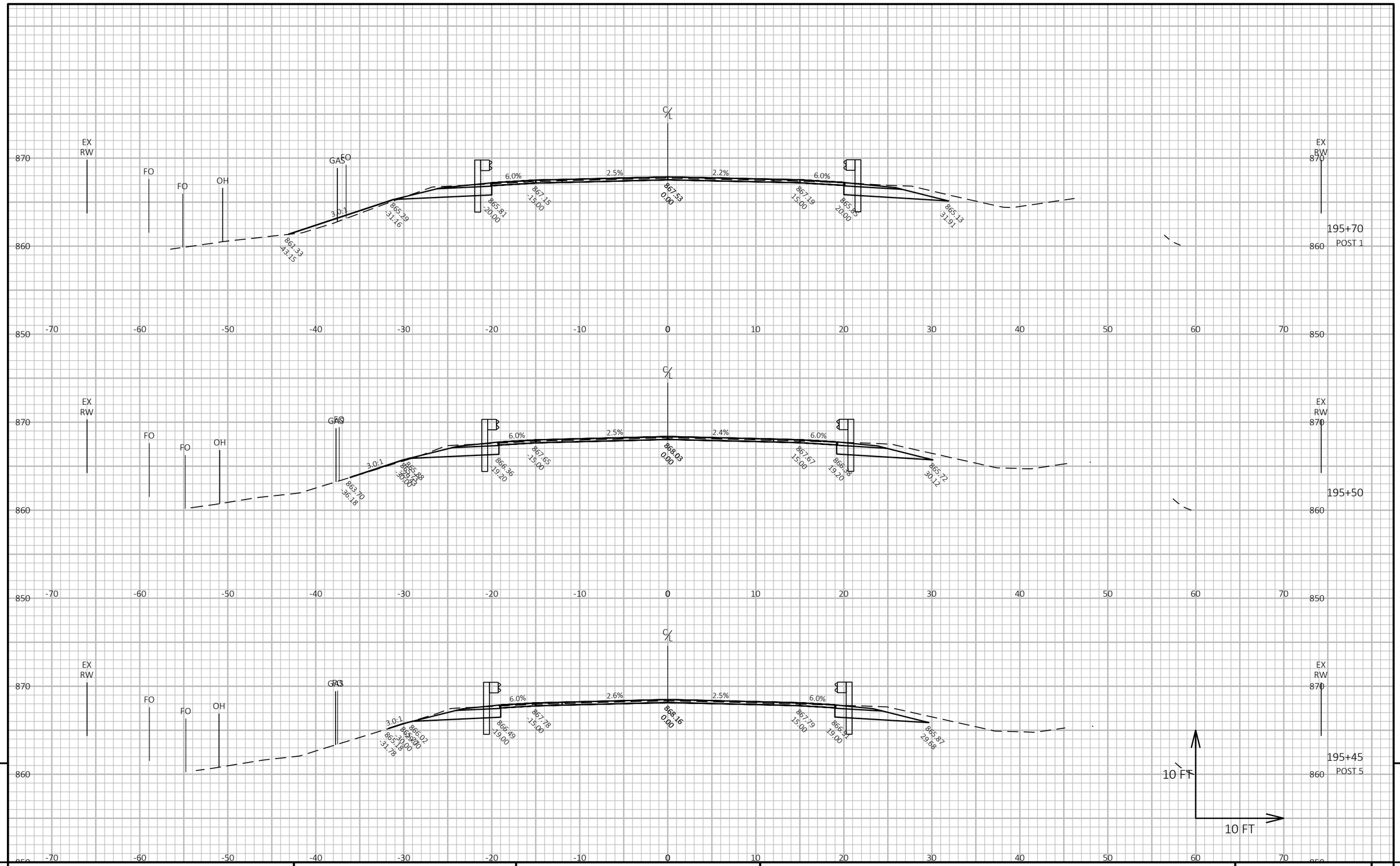
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 243	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 05

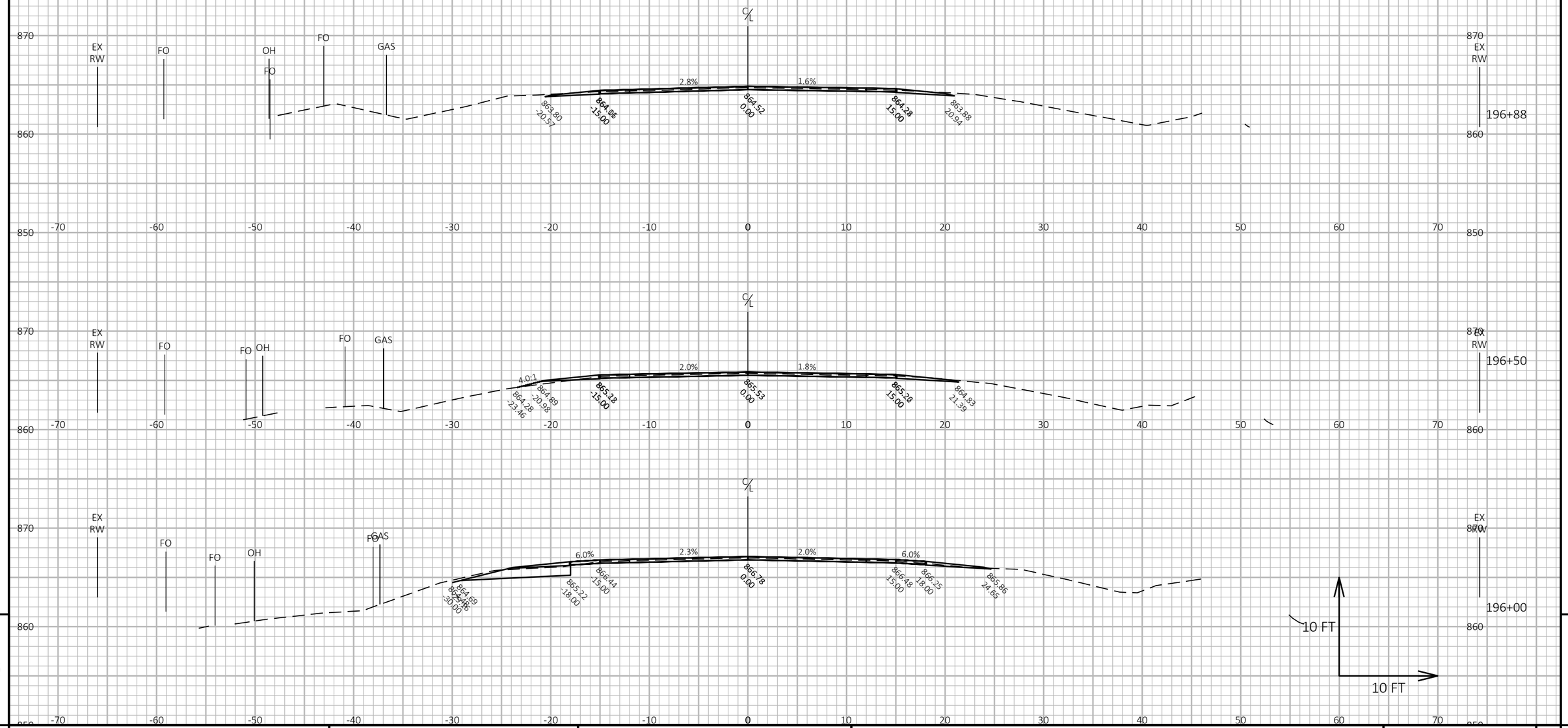
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 195+25	SHEET 244	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090206-XS(195+25).DWG
LAYOUT NAME - 06

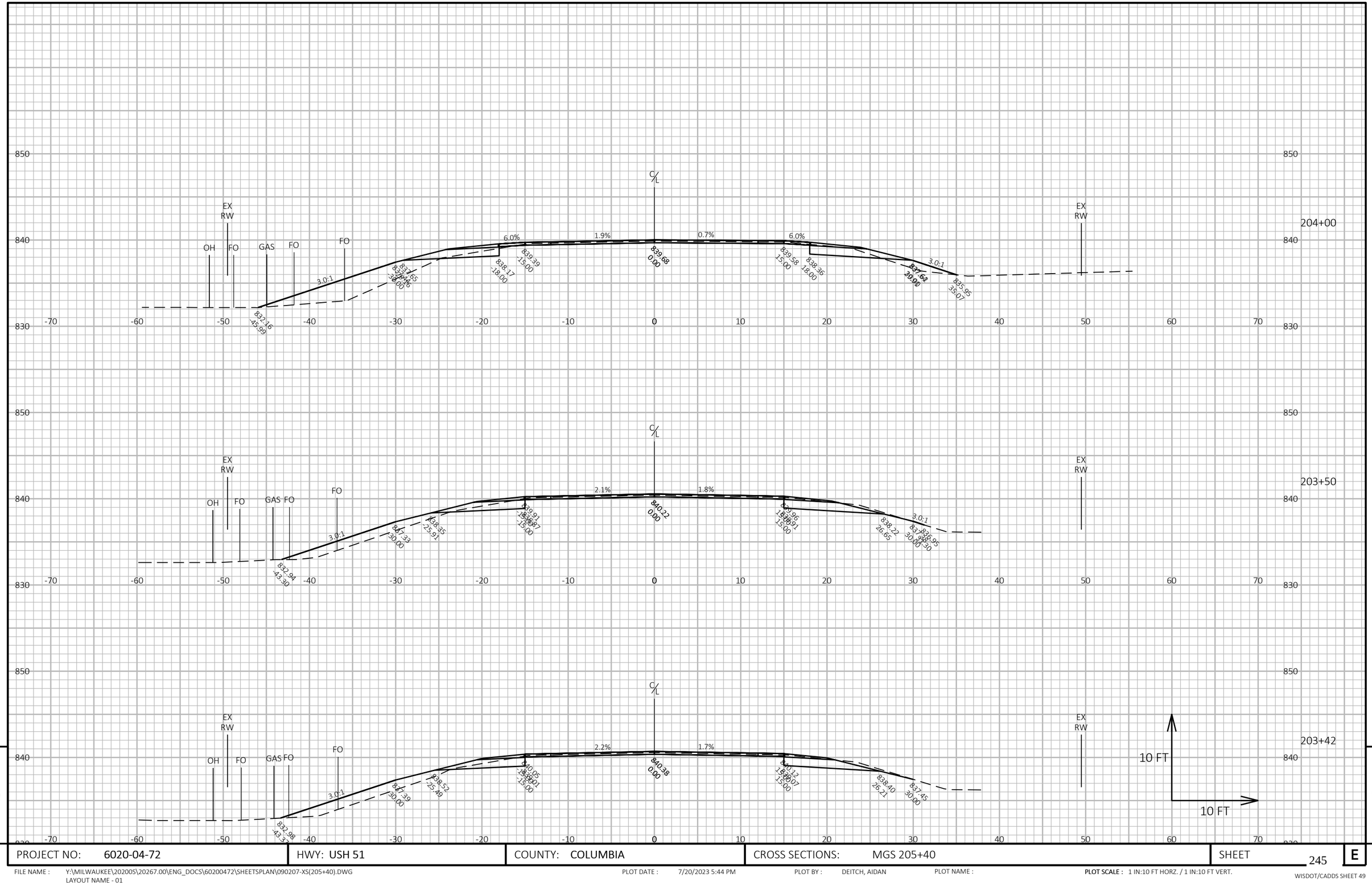
PLOT DATE : 7/20/2023 5:43 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 205+40	SHEET 245	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090207-XS(205+40).DWG
LAYOUT NAME - 01

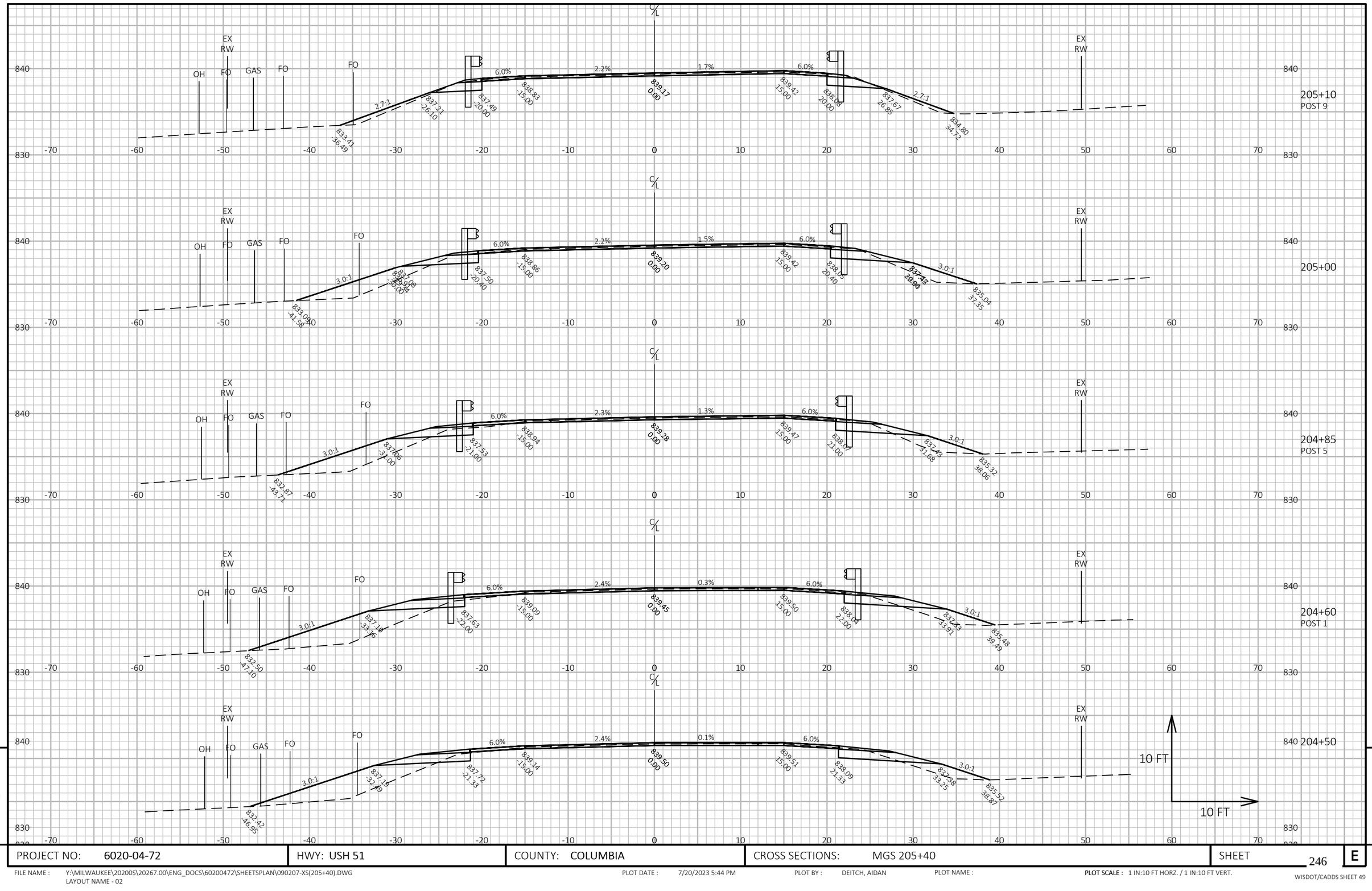
PLOT DATE : 7/20/2023 5:44 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

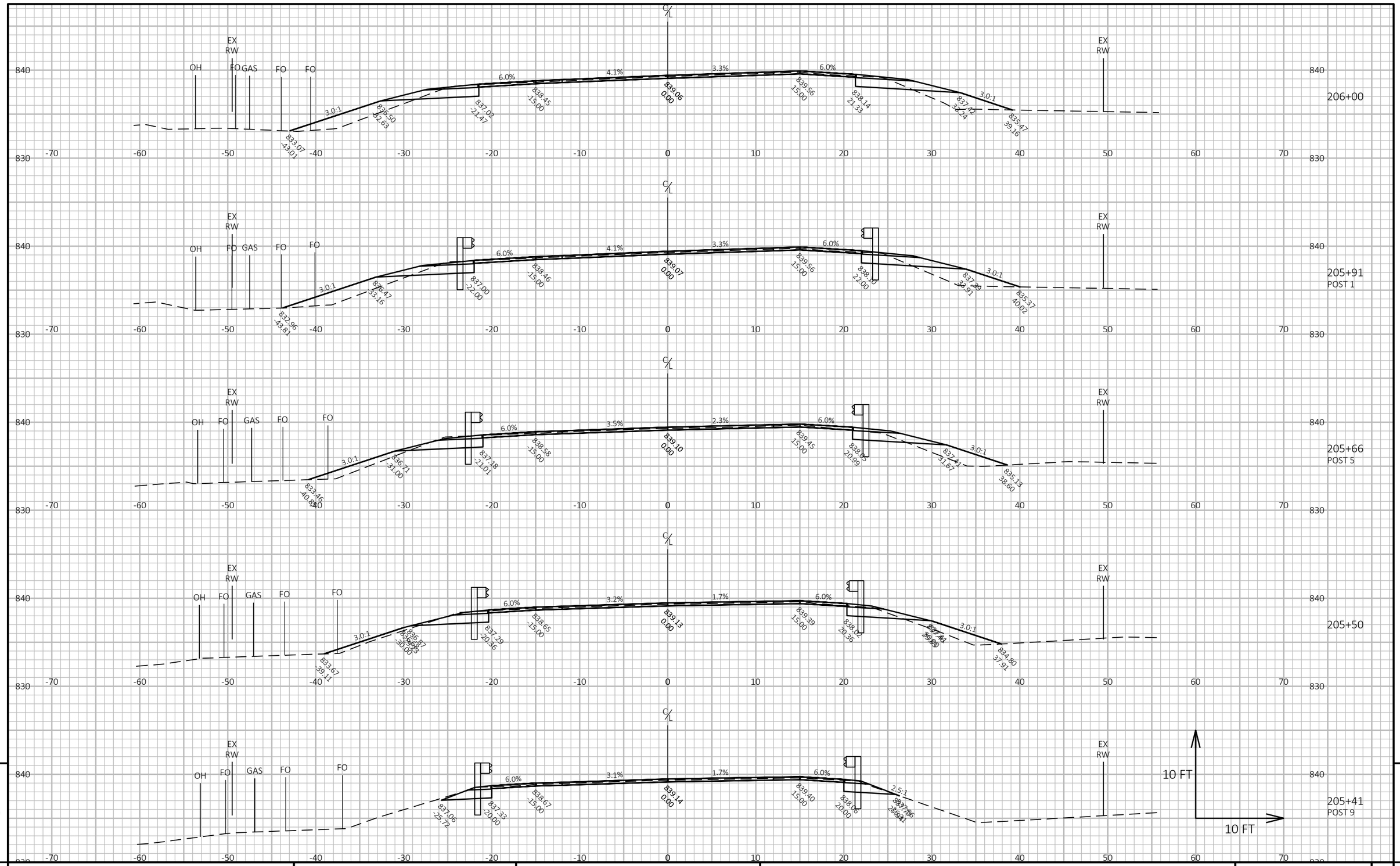
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 205+40	SHEET 246	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090207-XS(205+40).DWG
LAYOUT NAME - 02

PLOT DATE : 7/20/2023 5:44 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 205+40	SHEET 247	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090207-XS(205+40).DWG
LAYOUT NAME - 03

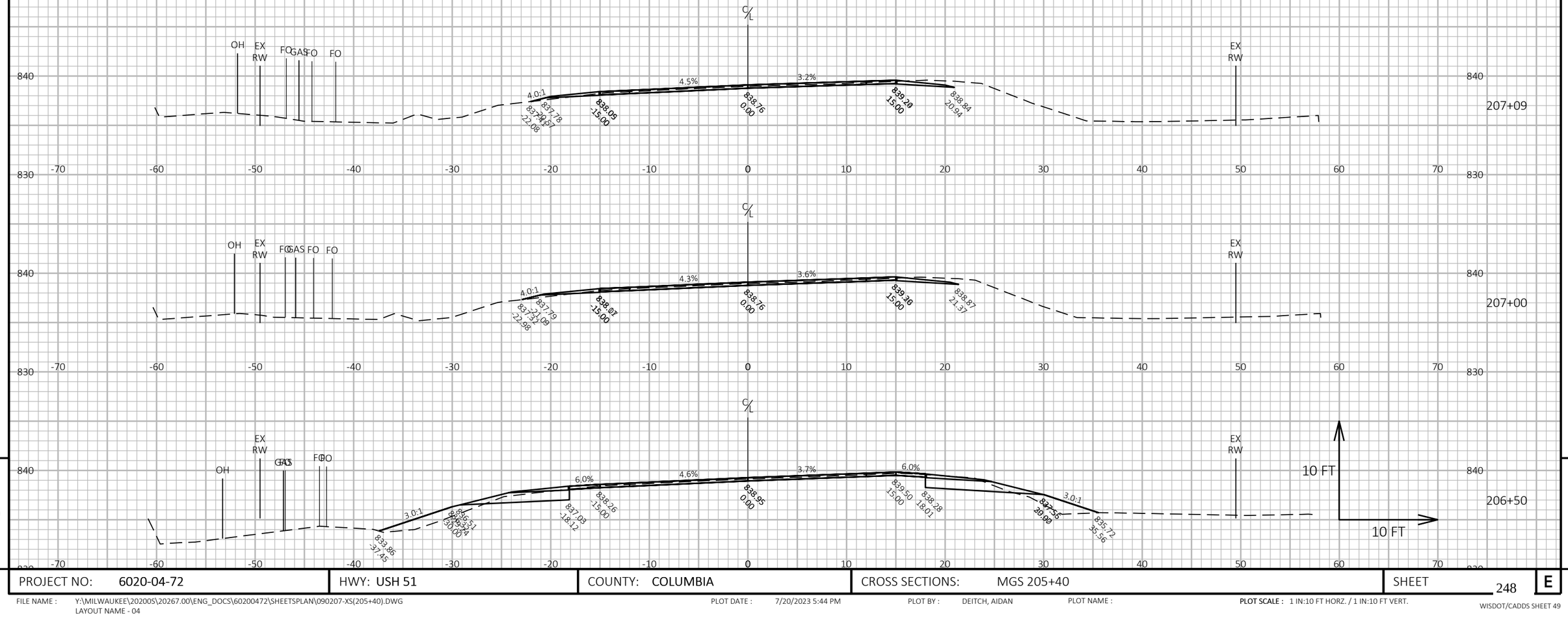
PLOT DATE : 7/20/2023 5:44 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 205+40	SHEET 248	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090207-XS(205+40).DWG
LAYOUT NAME - 04

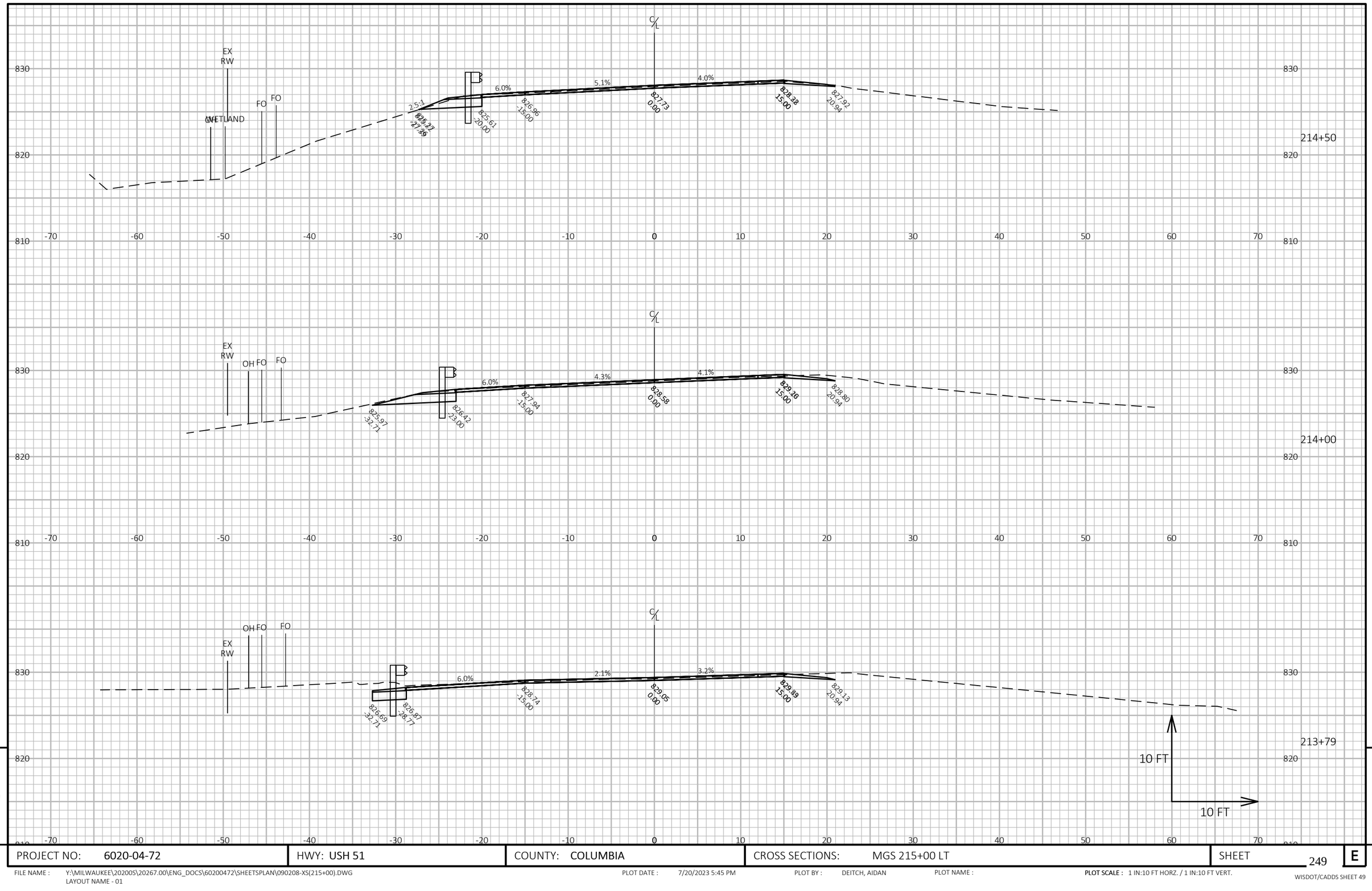
PLOT DATE : 7/20/2023 5:44 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 215+00 LT	SHEET 249	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(215+00).DWG
LAYOUT NAME - 01

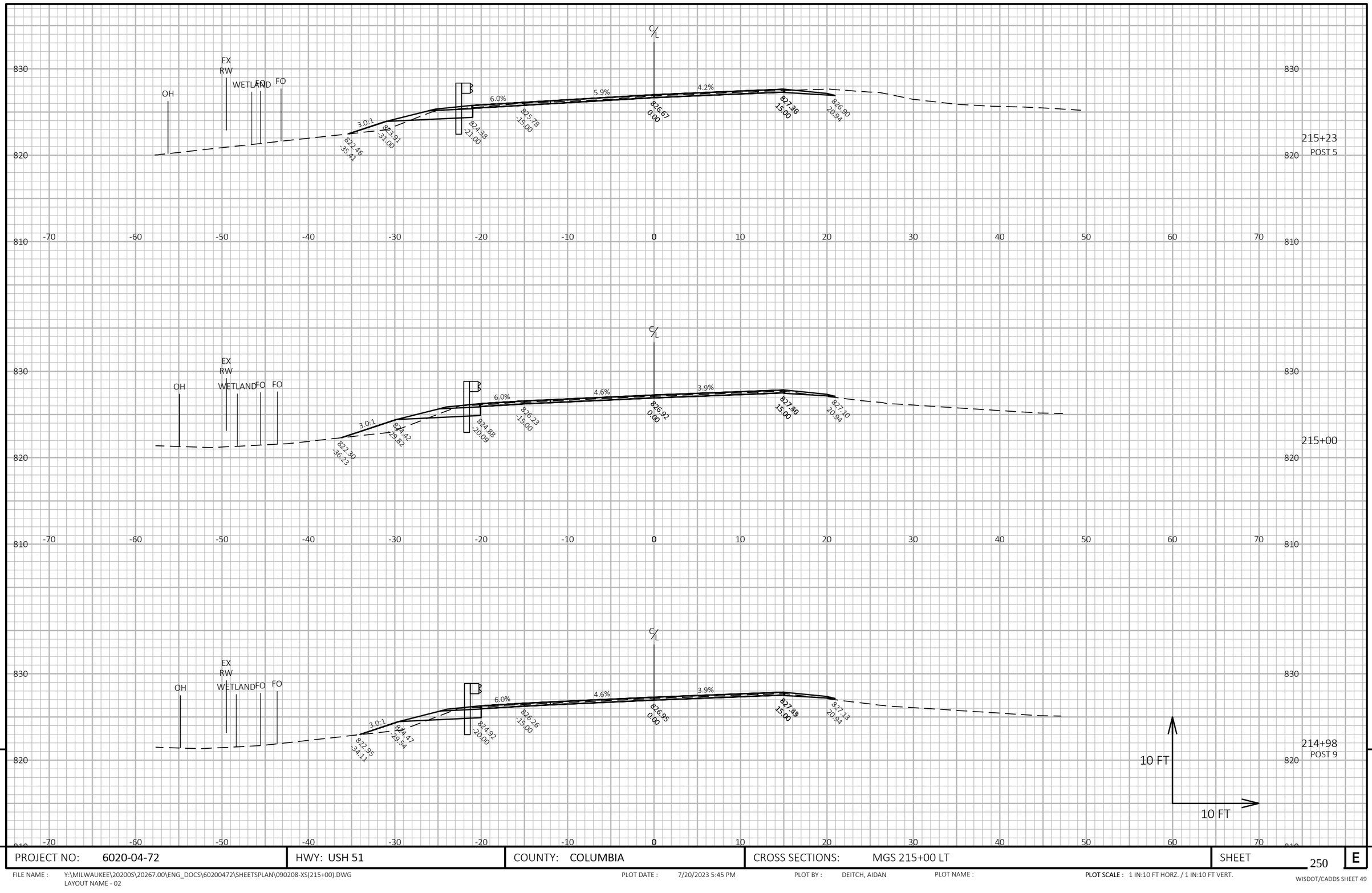
PLOT DATE : 7/20/2023 5:45 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 215+00 LT	SHEET 250	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(215+00).DWG
LAYOUT NAME - 02

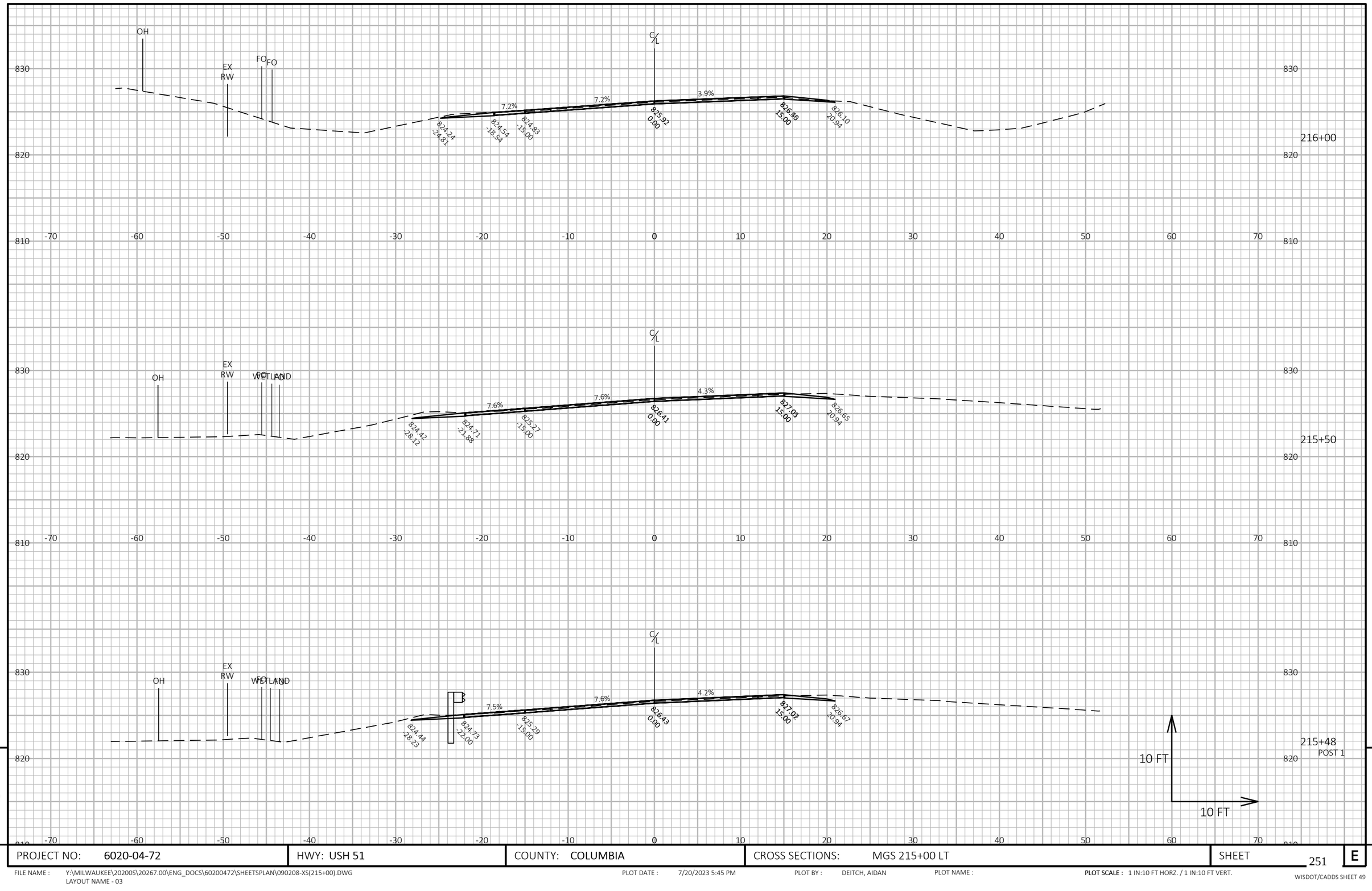
PLOT DATE : 7/20/2023 5:45 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

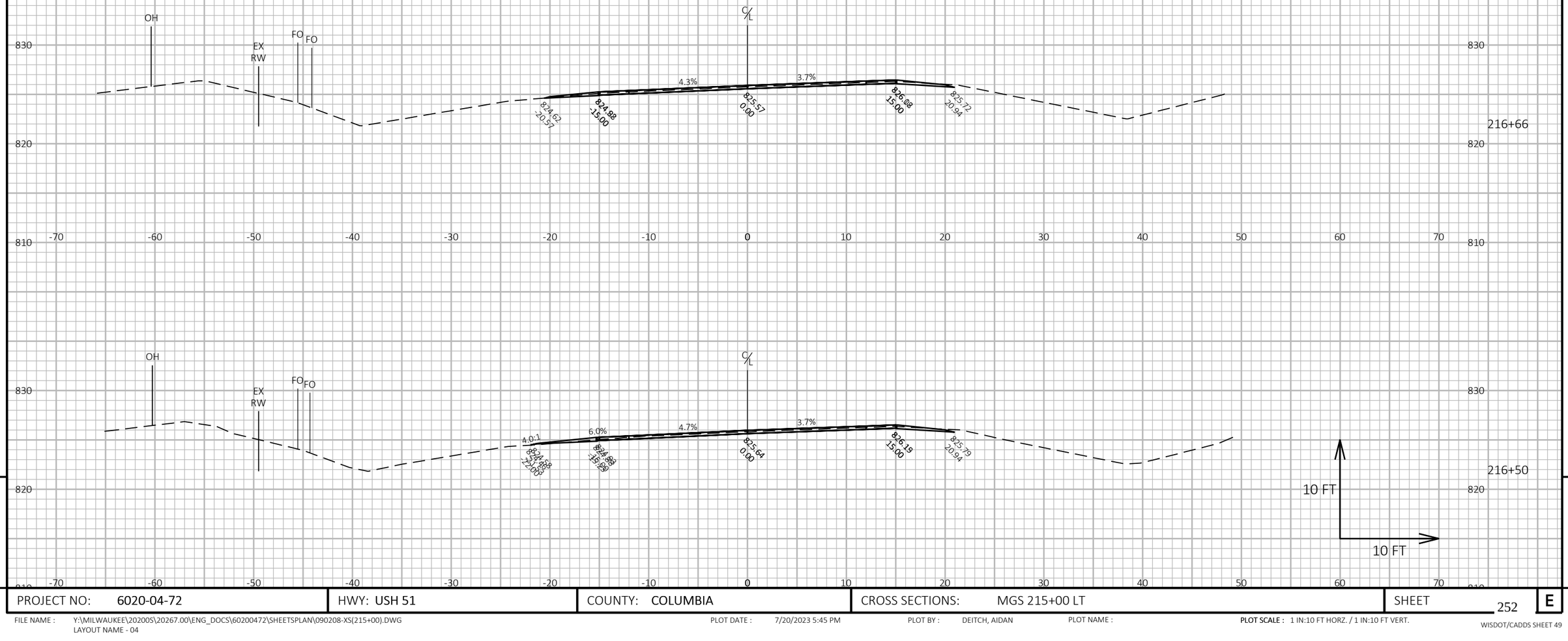
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 215+00 LT	SHEET 251	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(215+00).DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 5:45 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

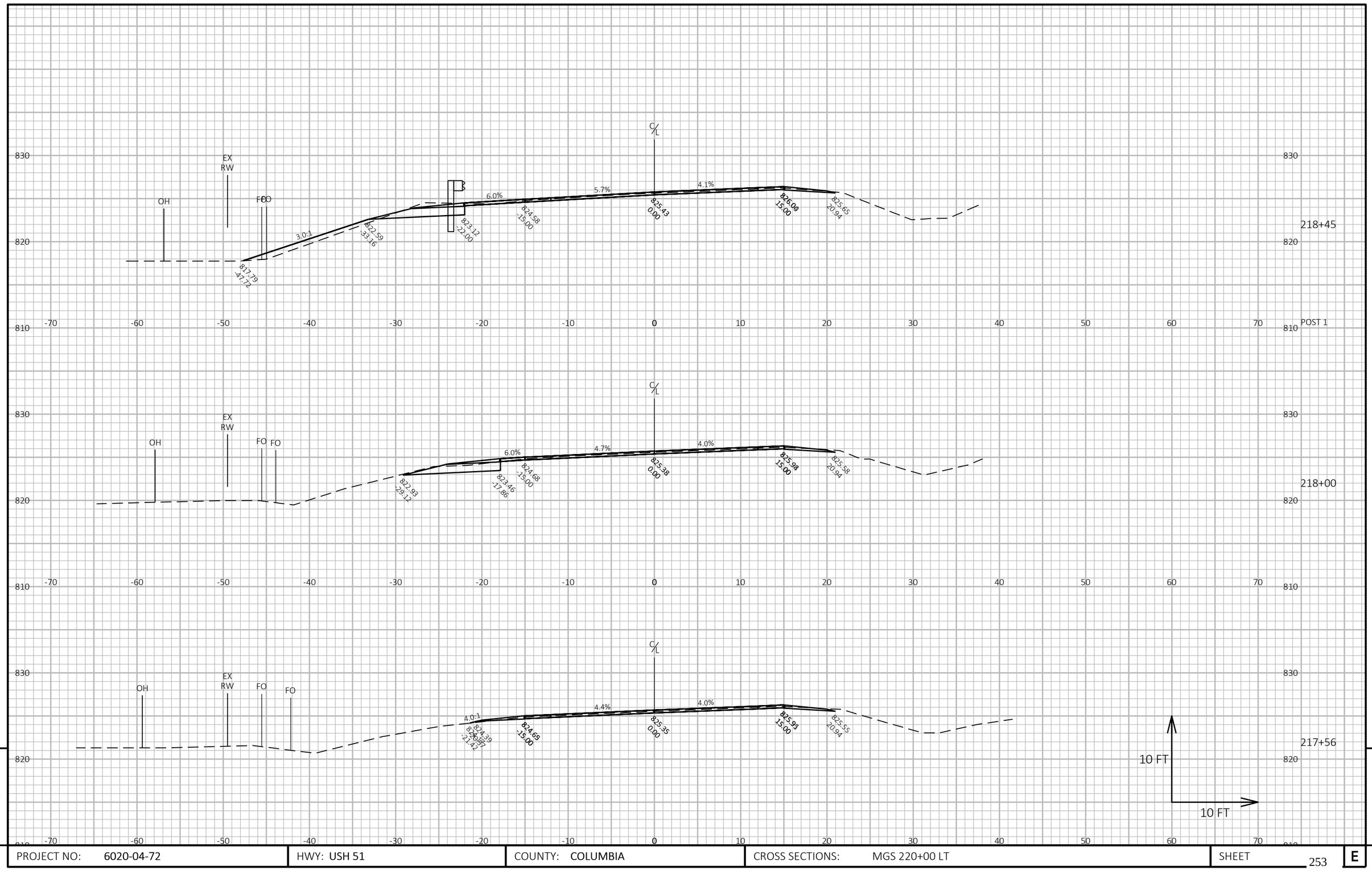
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 215+00 LT	SHEET 252	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(215+00).DWG
LAYOUT NAME - 04

PLOT DATE : 7/20/2023 5:45 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 253 E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 01

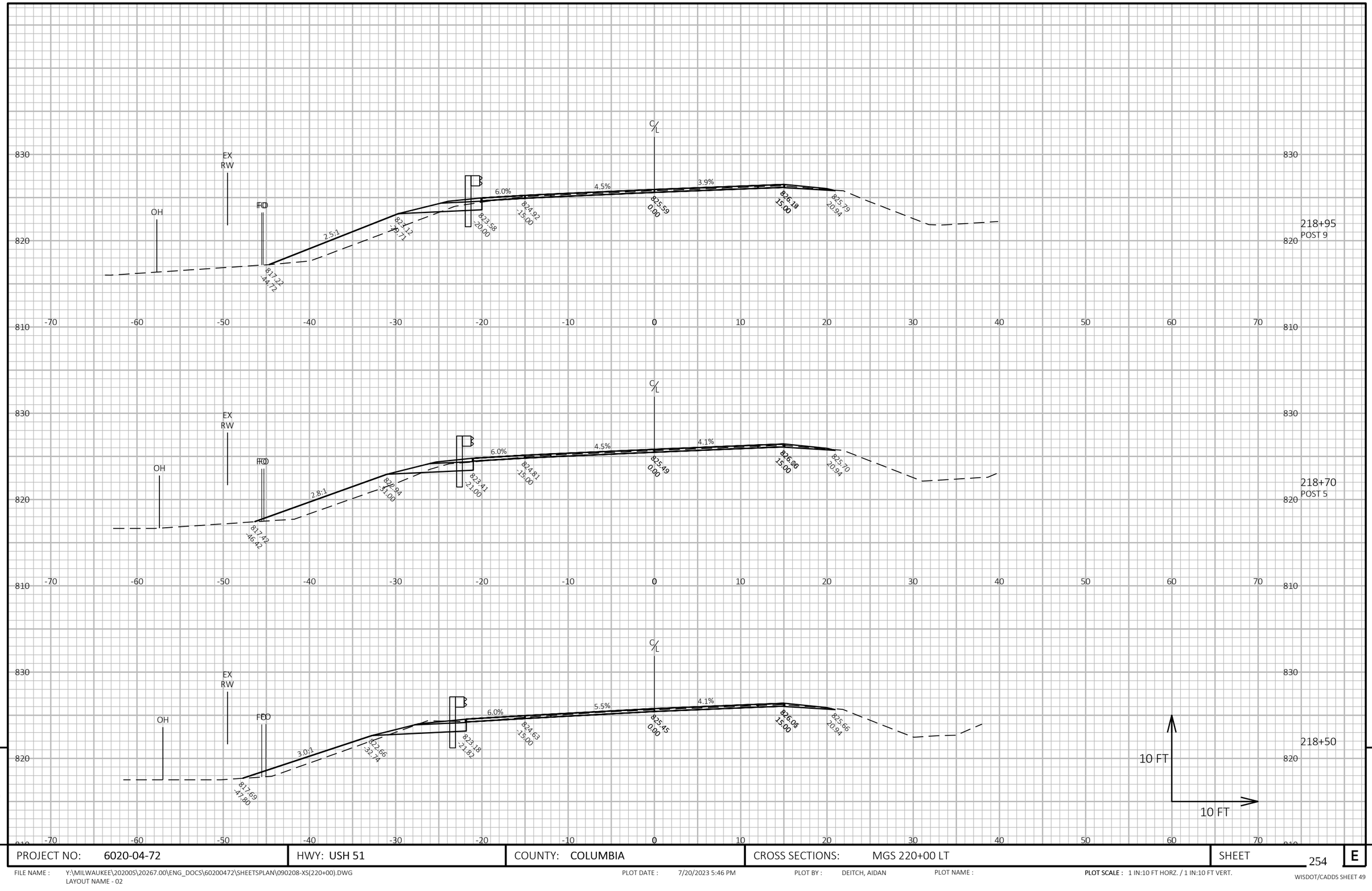
PLOT DATE : 7/20/2023 5:46 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

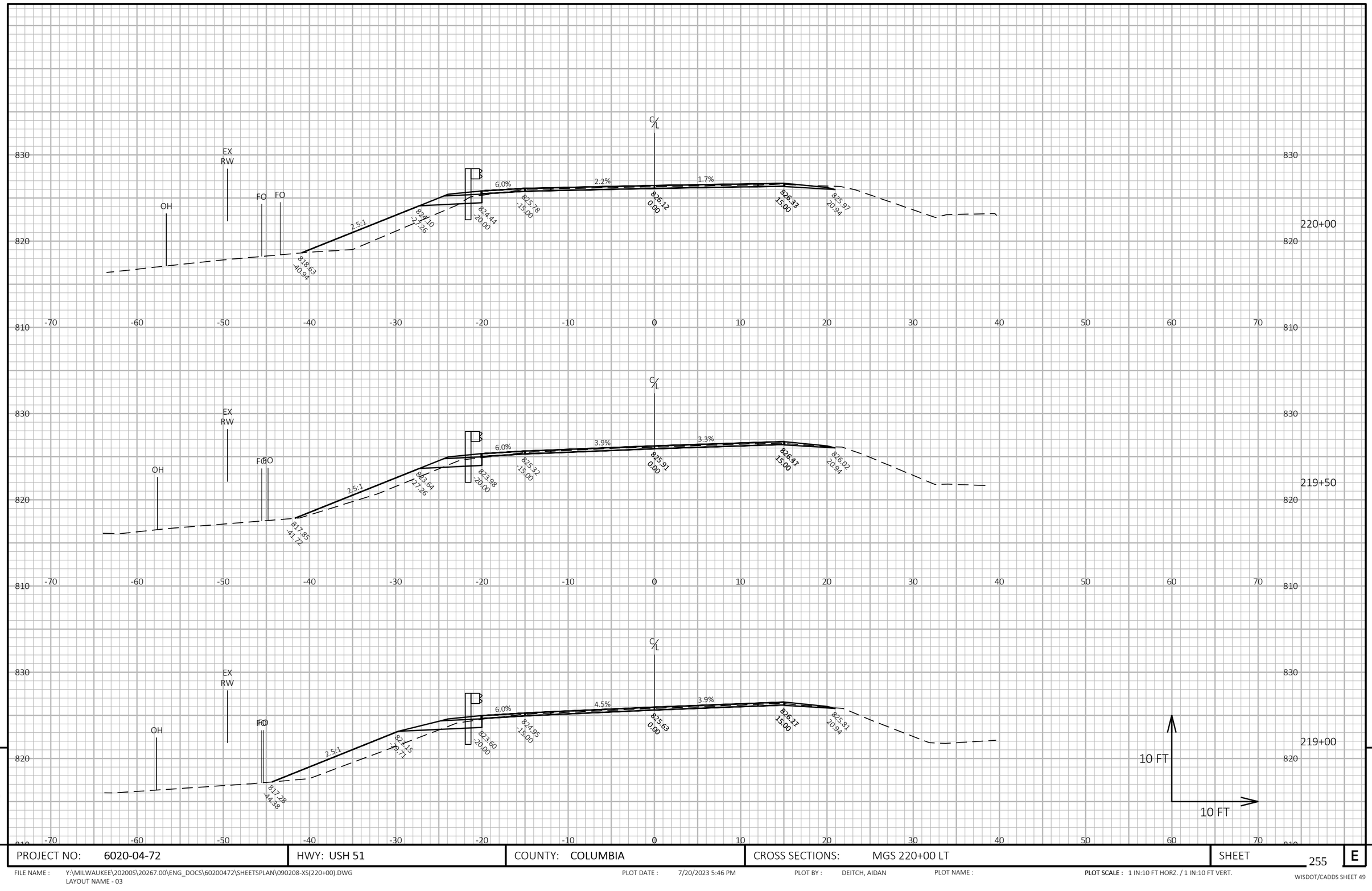
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 254	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 02

PLOT DATE : 7/20/2023 5:46 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 255	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 03

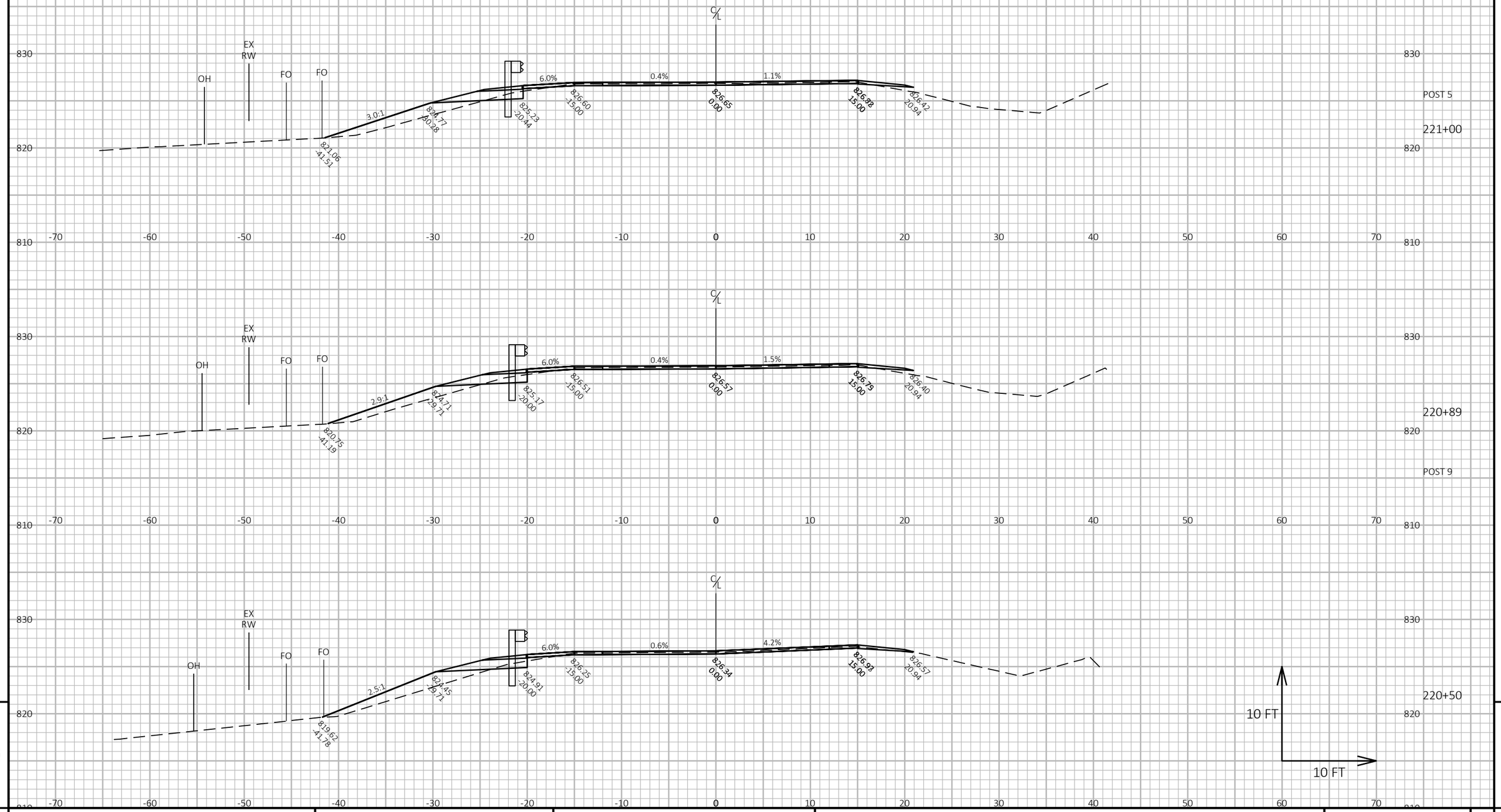
PLOT DATE : 7/20/2023 5:46 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 256	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 04

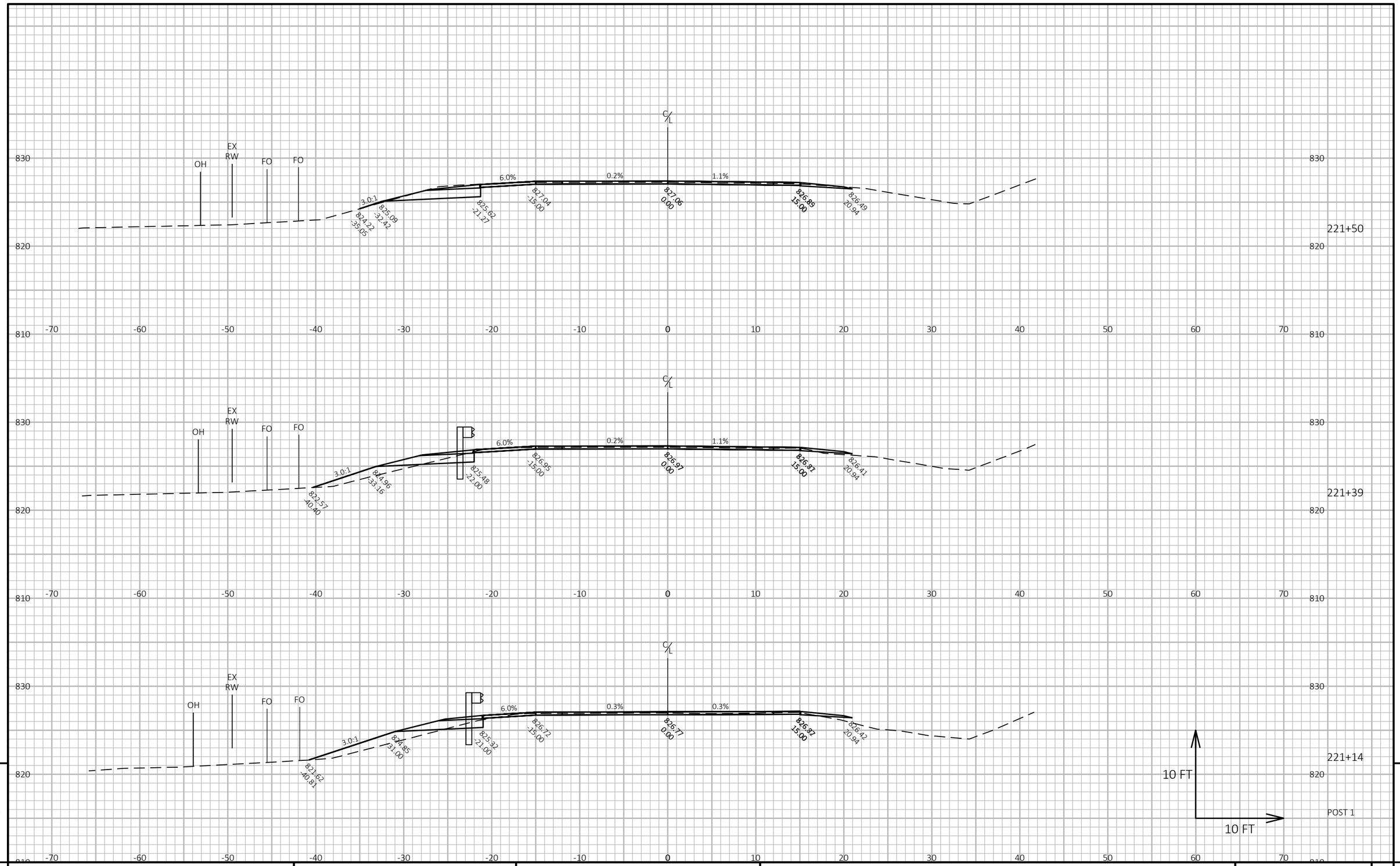
PLOT DATE : 7/20/2023 5:46 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 257	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 05

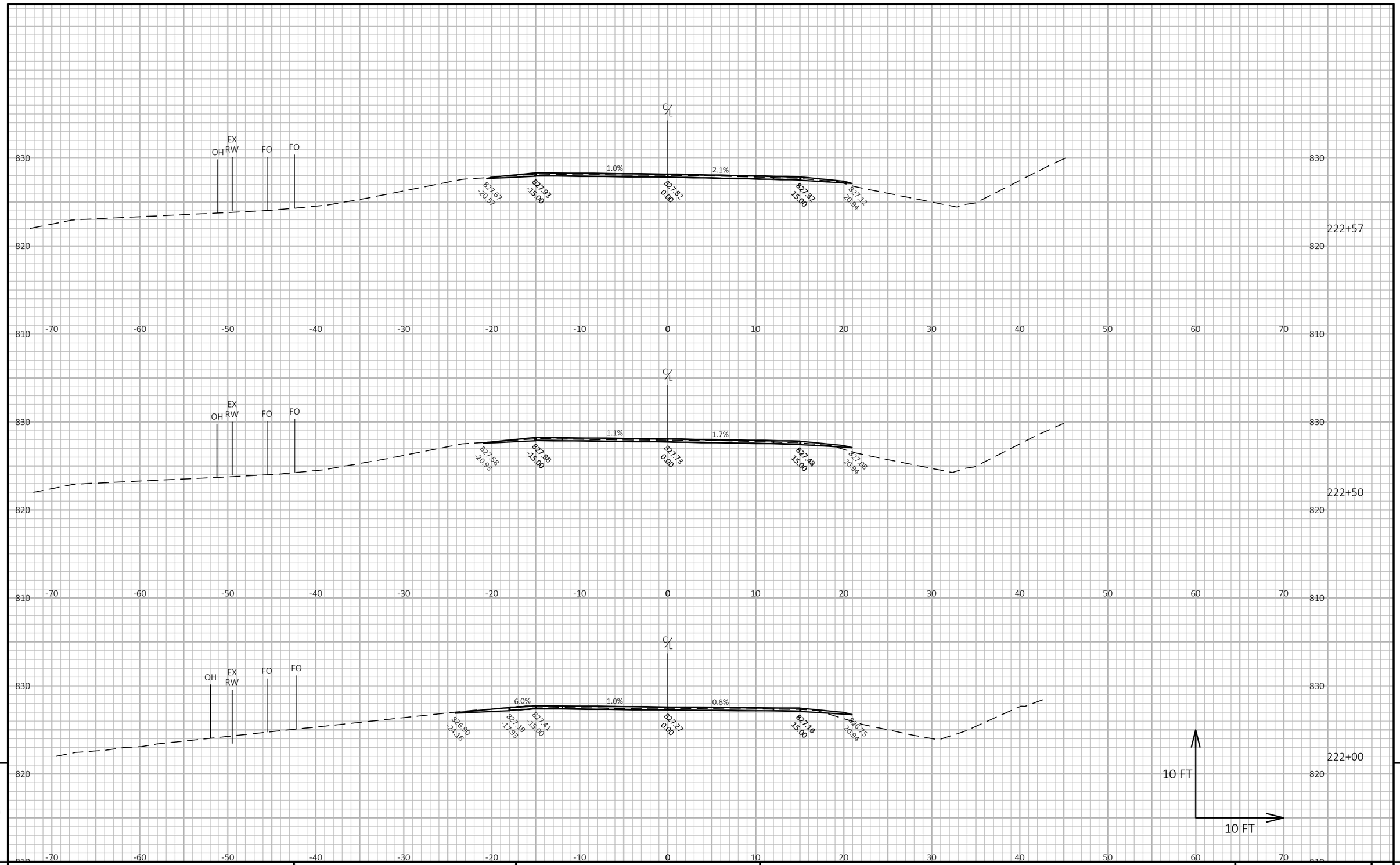
PLOT DATE : 7/20/2023 5:46 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 220+00 LT	SHEET 258	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090208-XS(220+00).DWG
LAYOUT NAME - 06

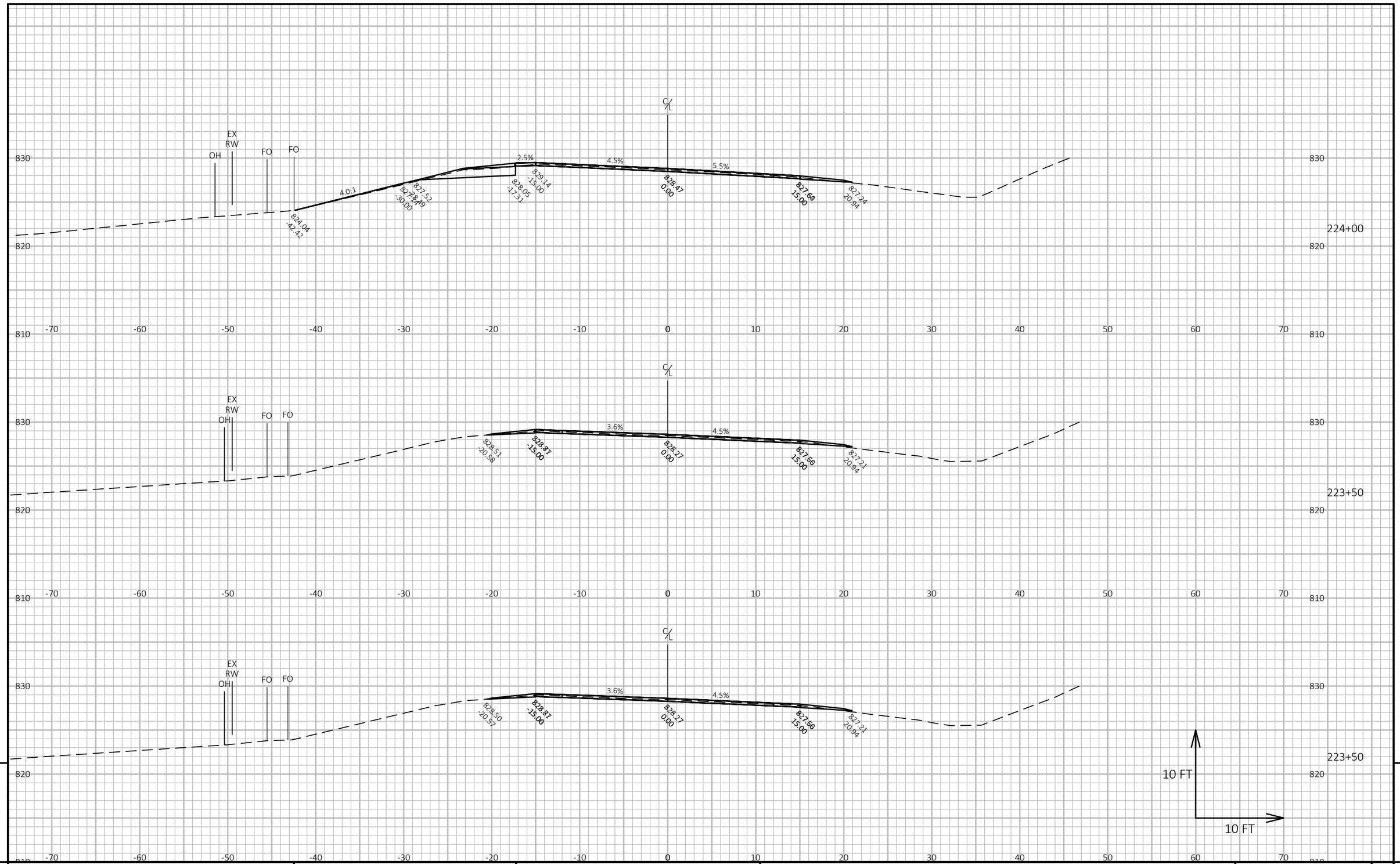
PLOT DATE : 7/20/2023 5:46 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 259	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 01

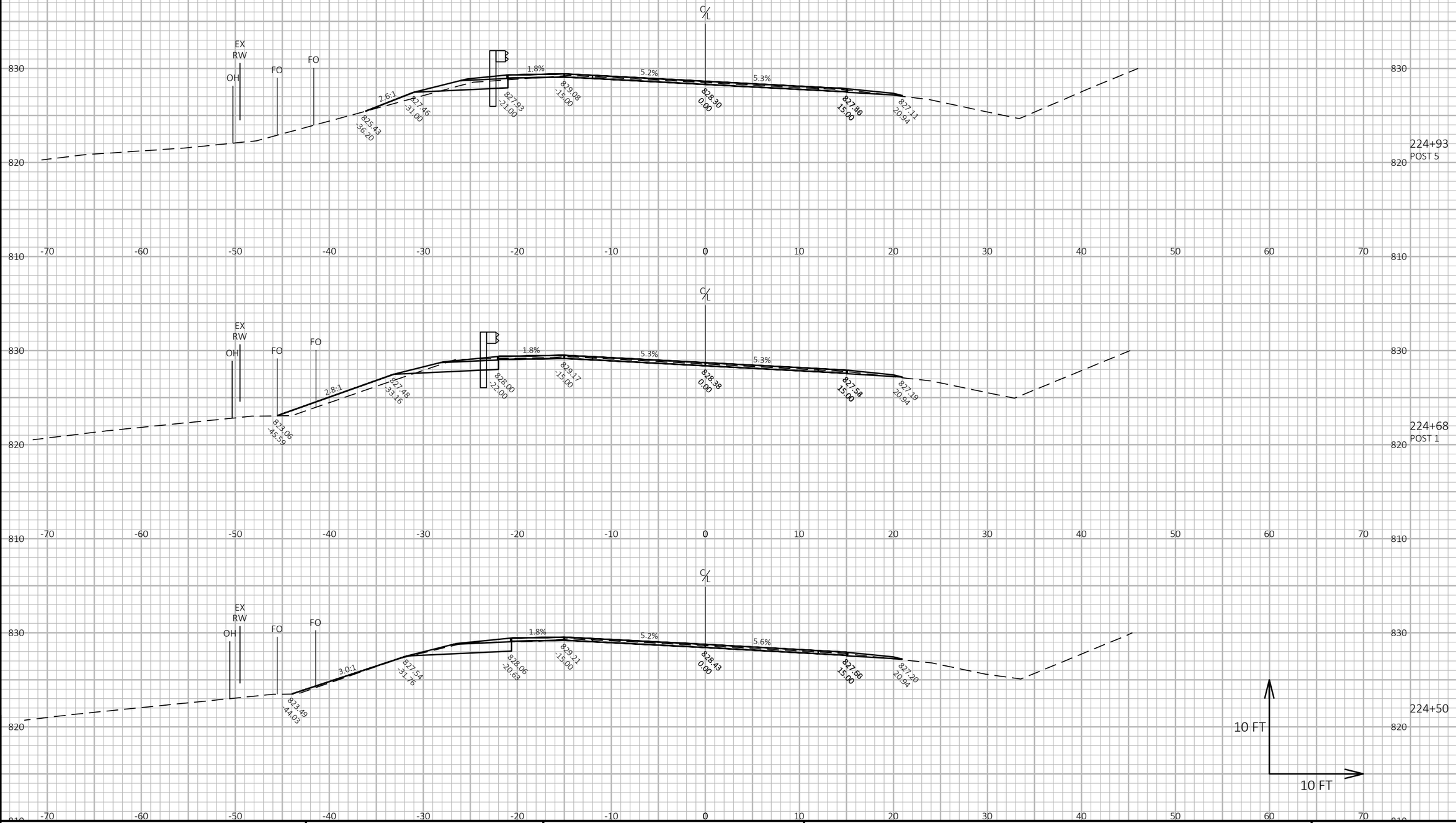
PLOT DATE : 7/20/2023 5:47 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 260	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 02

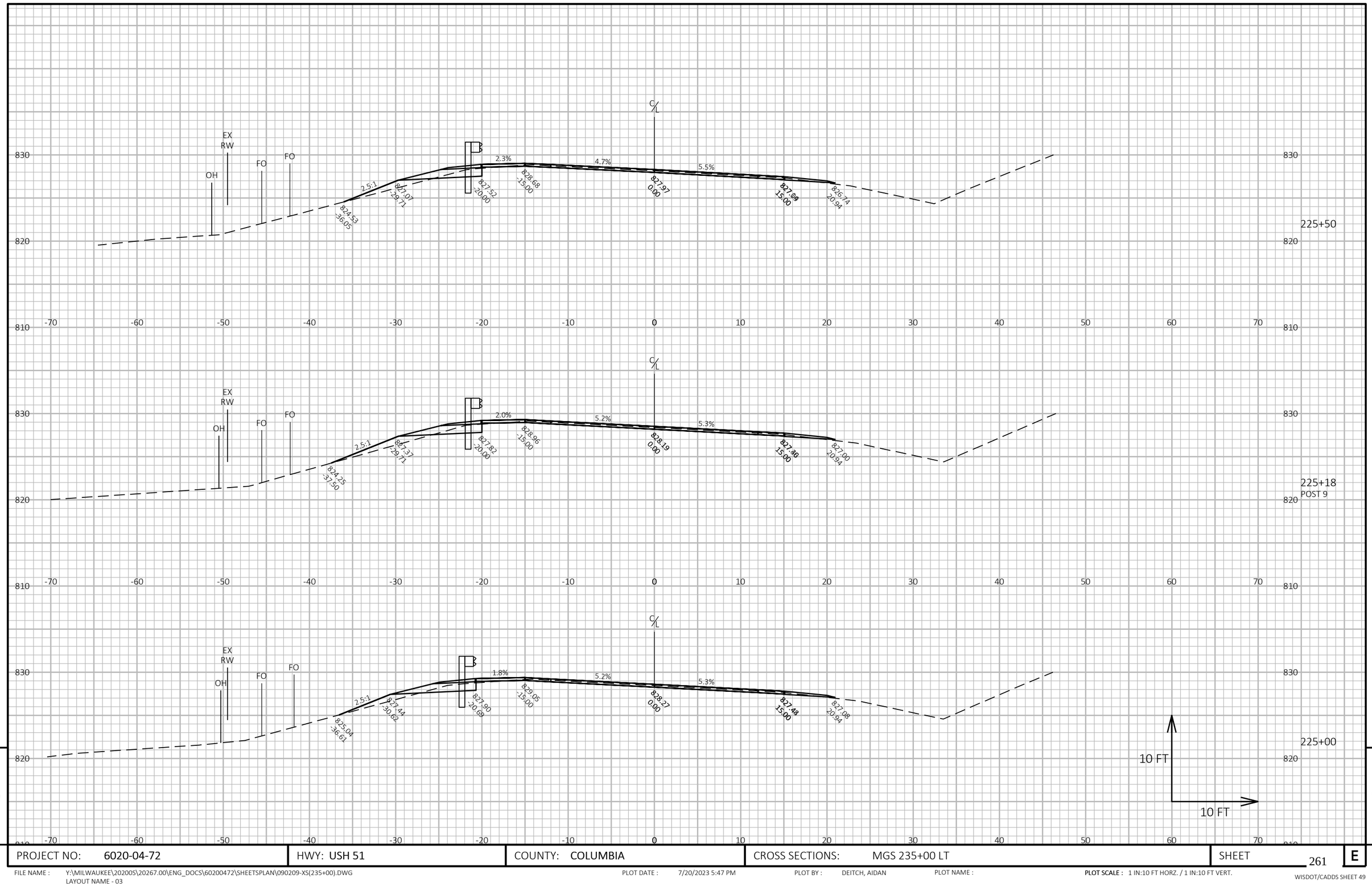
PLOT DATE : 7/20/2023 5:47 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

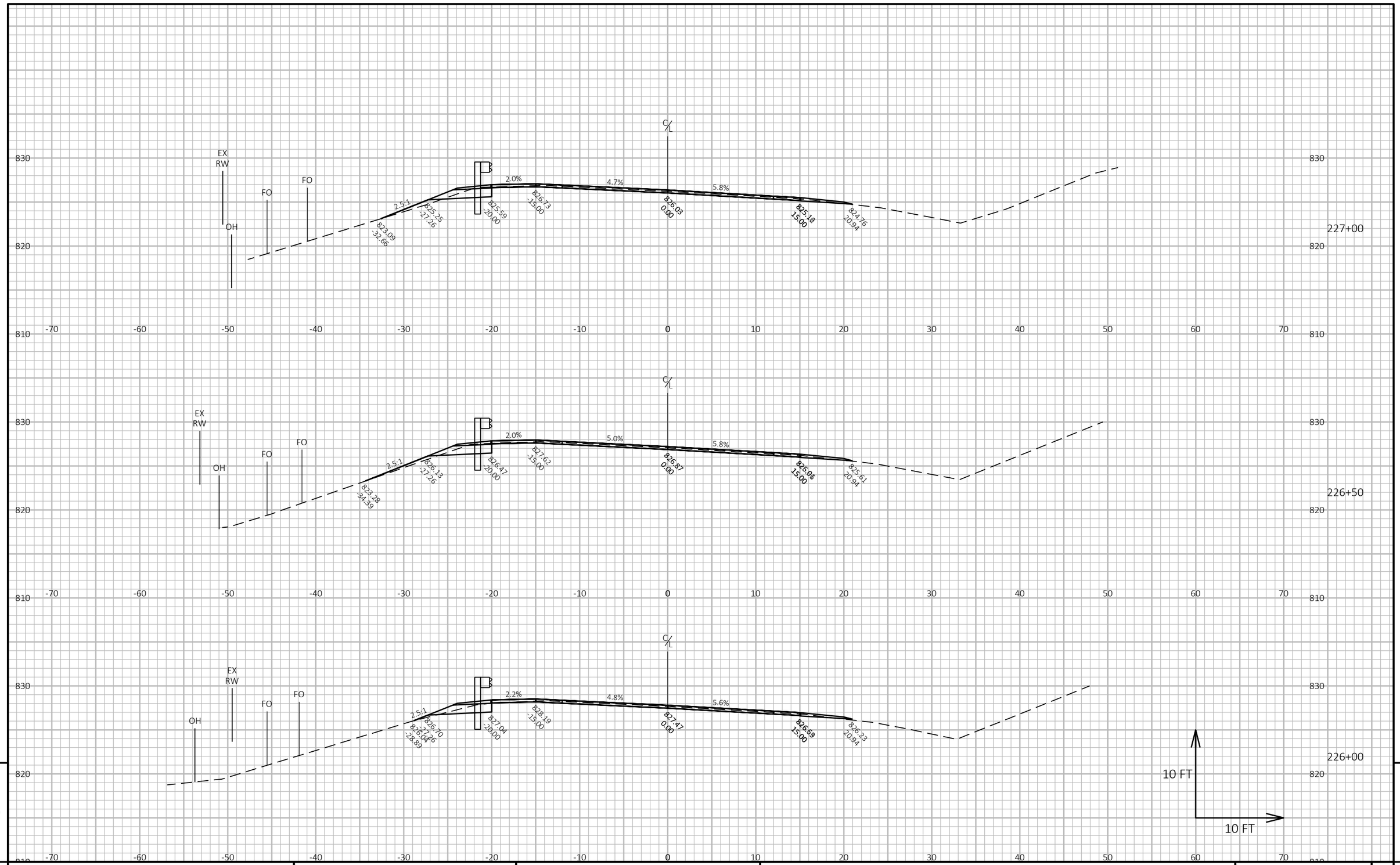


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 261	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 5:47 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

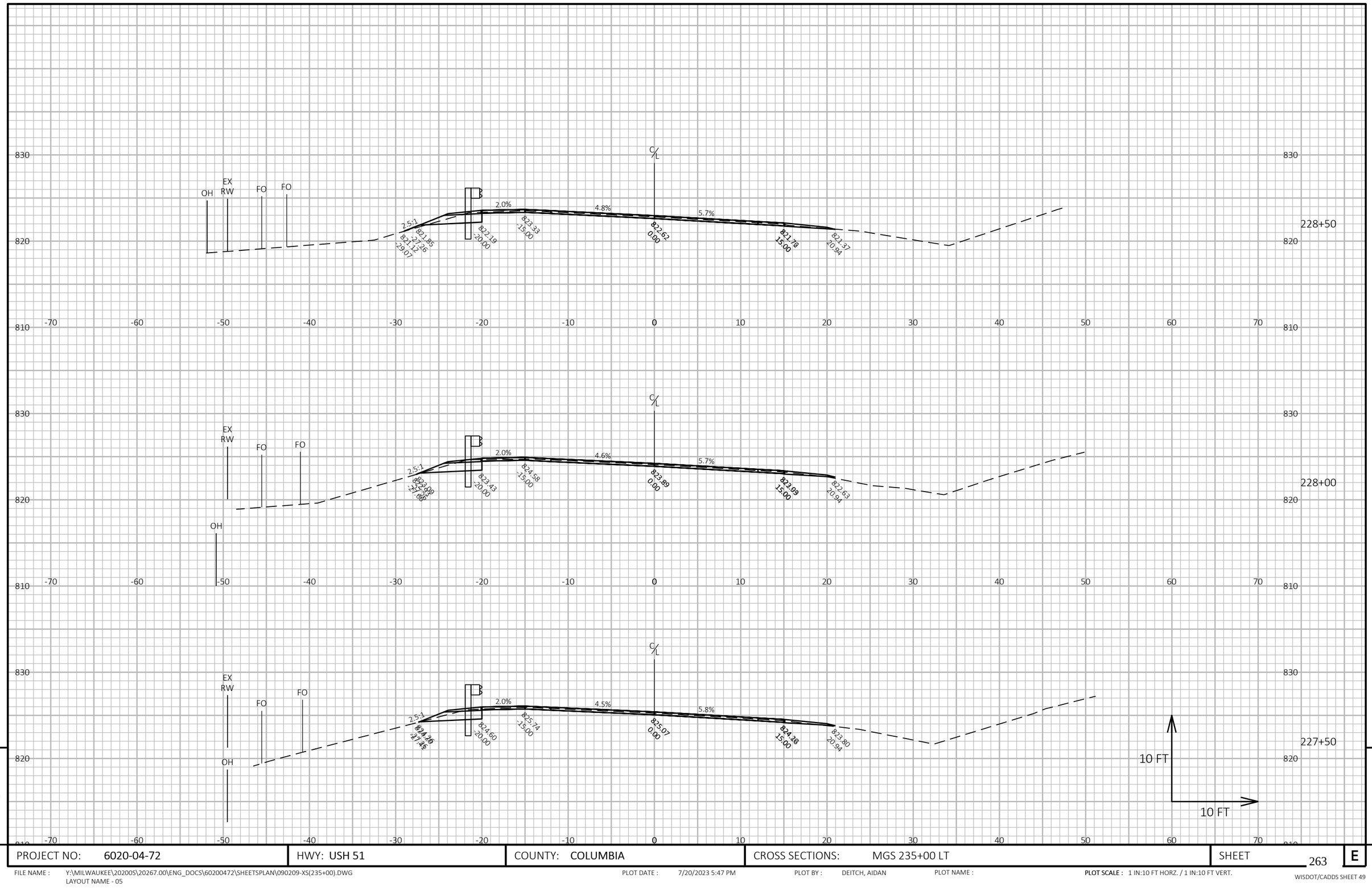


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 262	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 04

PLOT DATE : 7/20/2023 5:47 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

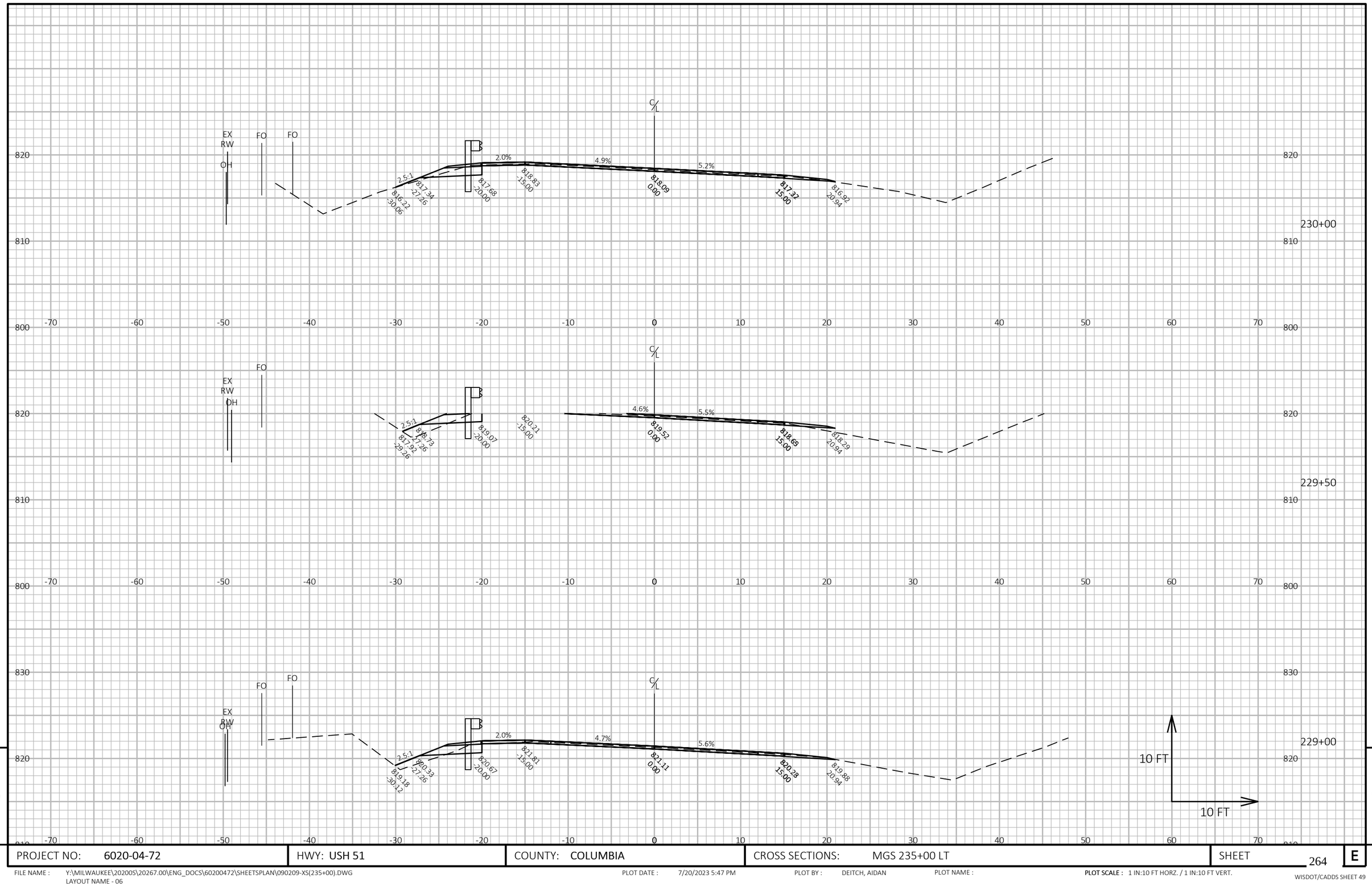


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 263	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 05

PLOT DATE : 7/20/2023 5:47 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

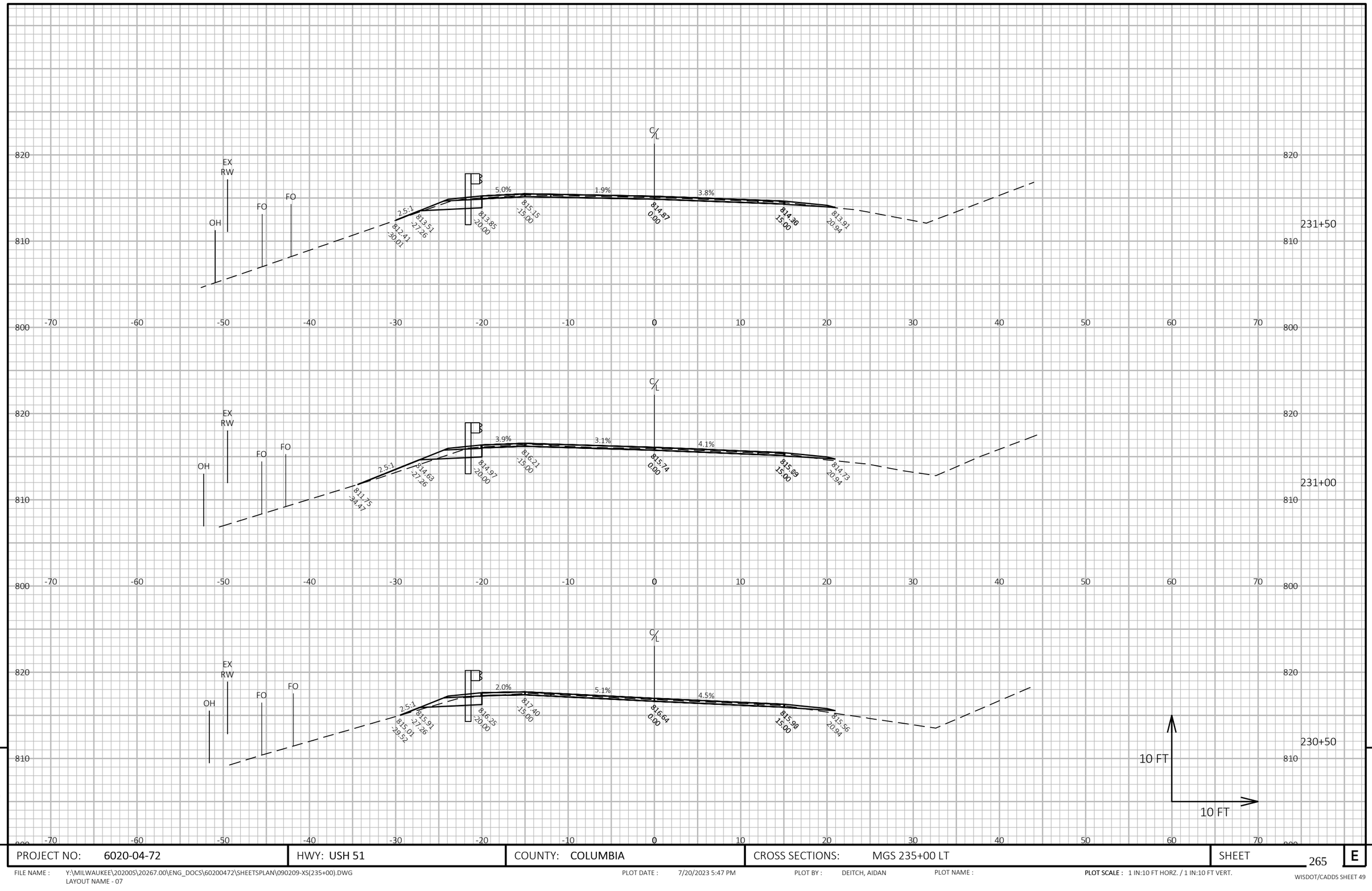


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 264	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 06

PLOT DATE : 7/20/2023 5:47 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 265	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 07

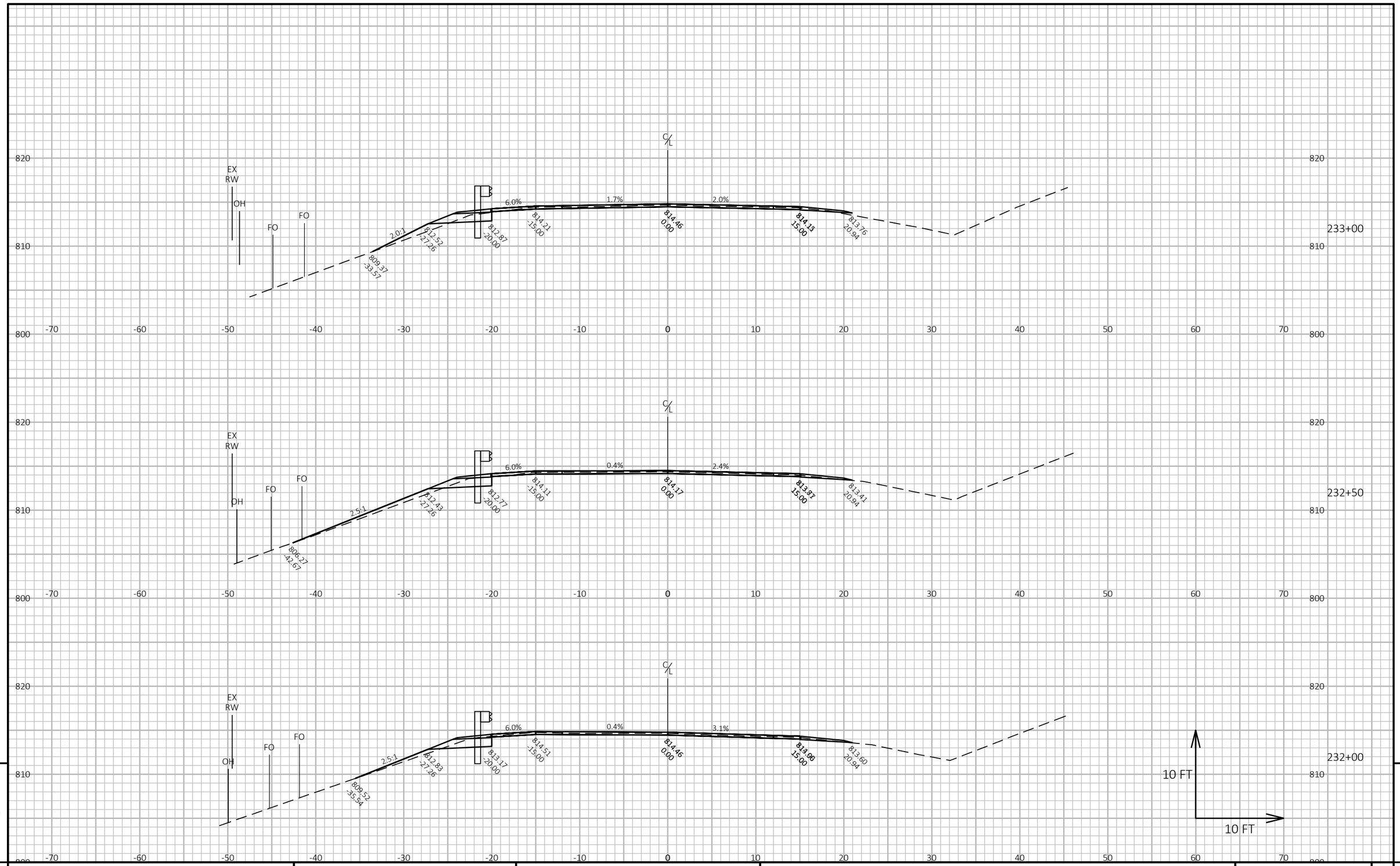
PLOT DATE : 7/20/2023 5:47 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 266	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 08

PLOT DATE : 7/20/2023 5:47 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 267	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 09

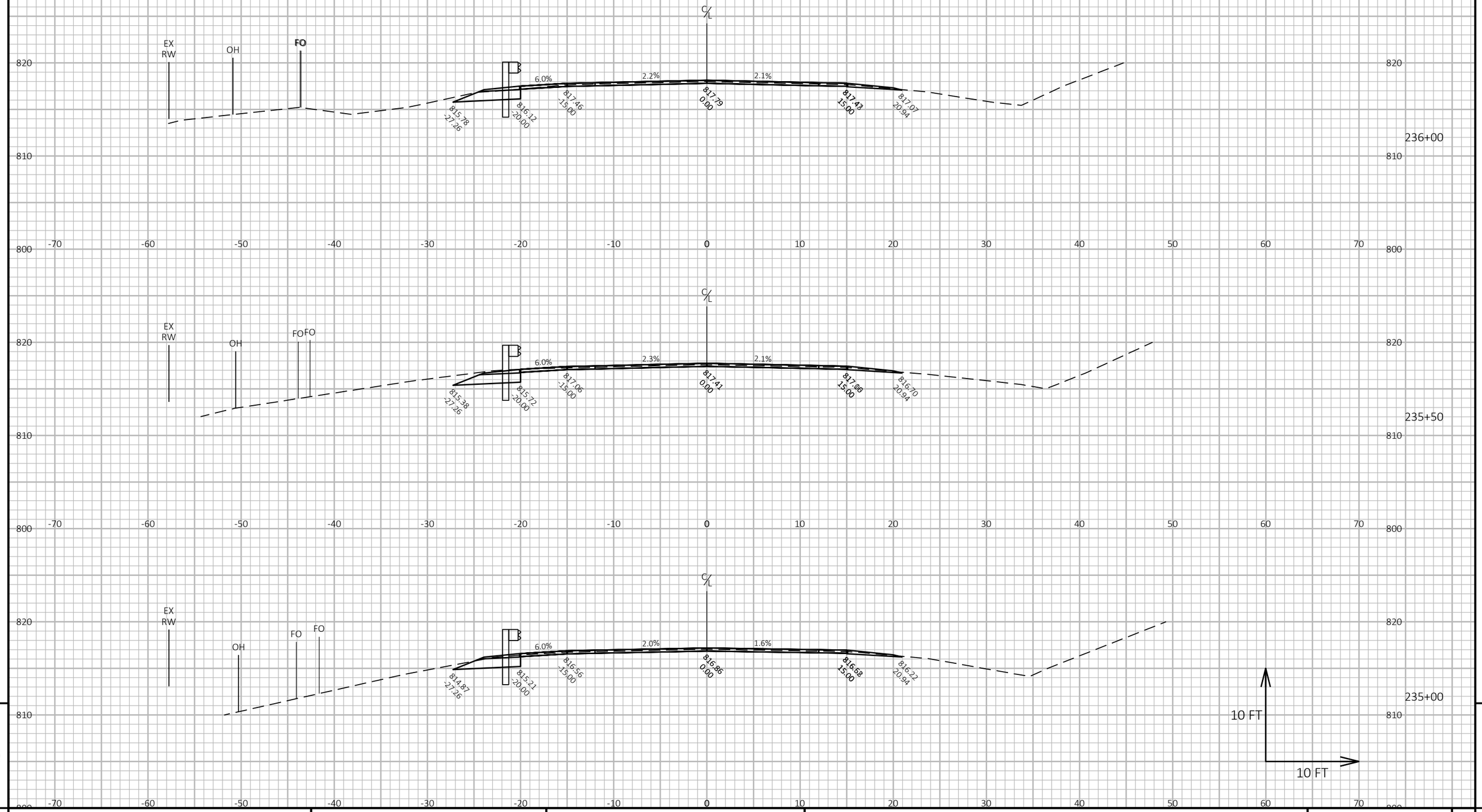
PLOT DATE : 7/20/2023 5:47 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 268	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 10

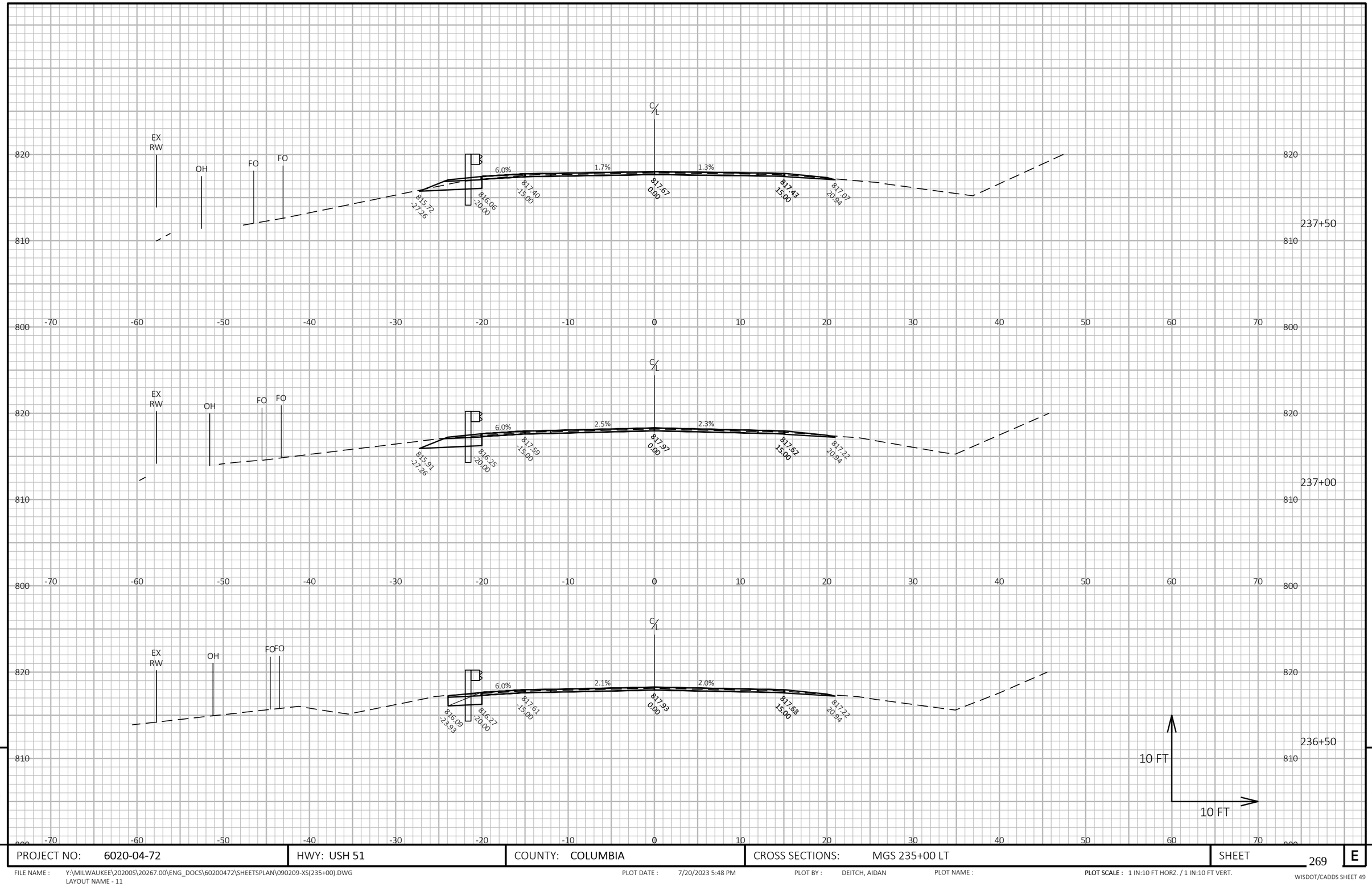
PLOT DATE : 7/20/2023 5:48 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 269	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 11

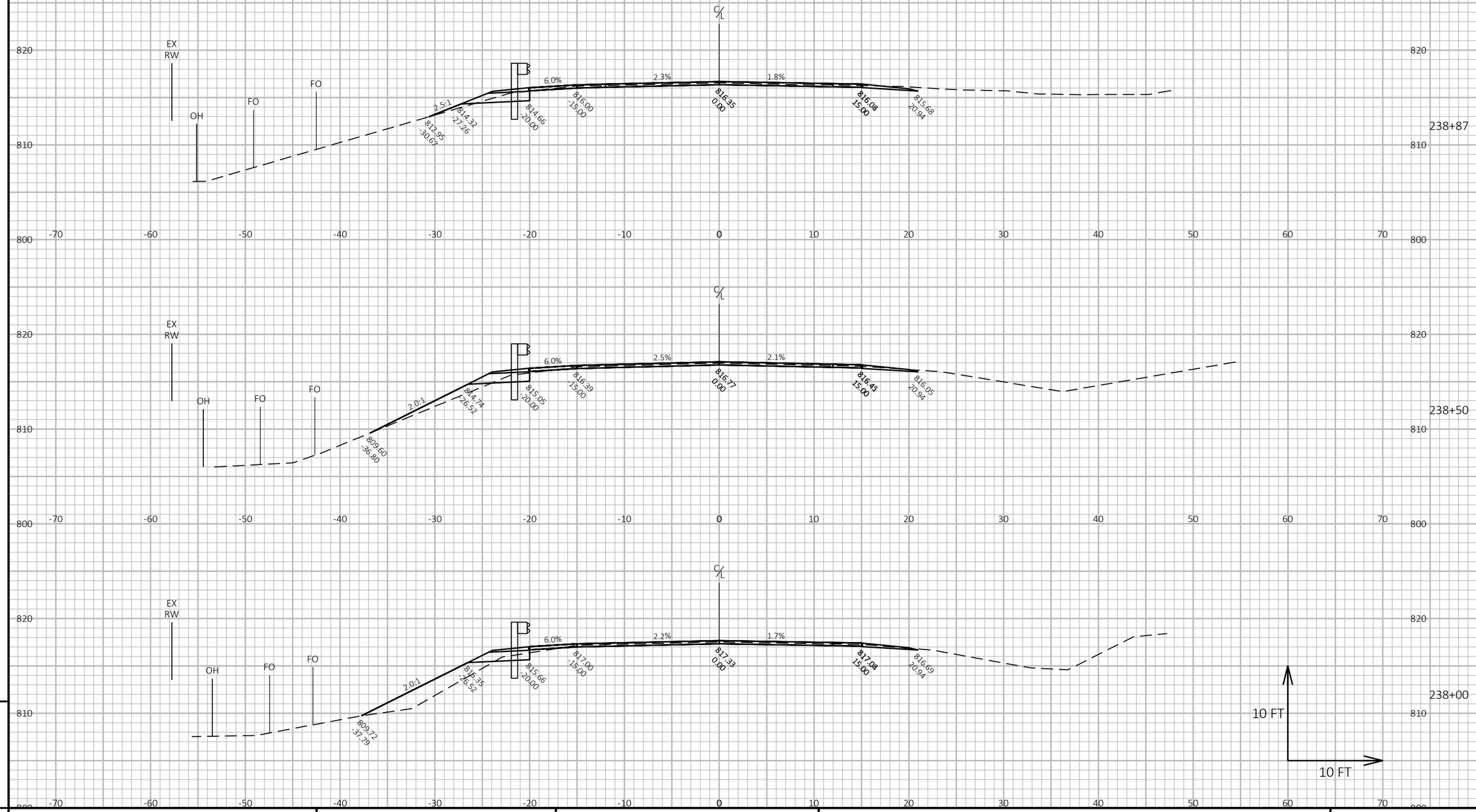
PLOT DATE : 7/20/2023 5:48 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 270	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 12

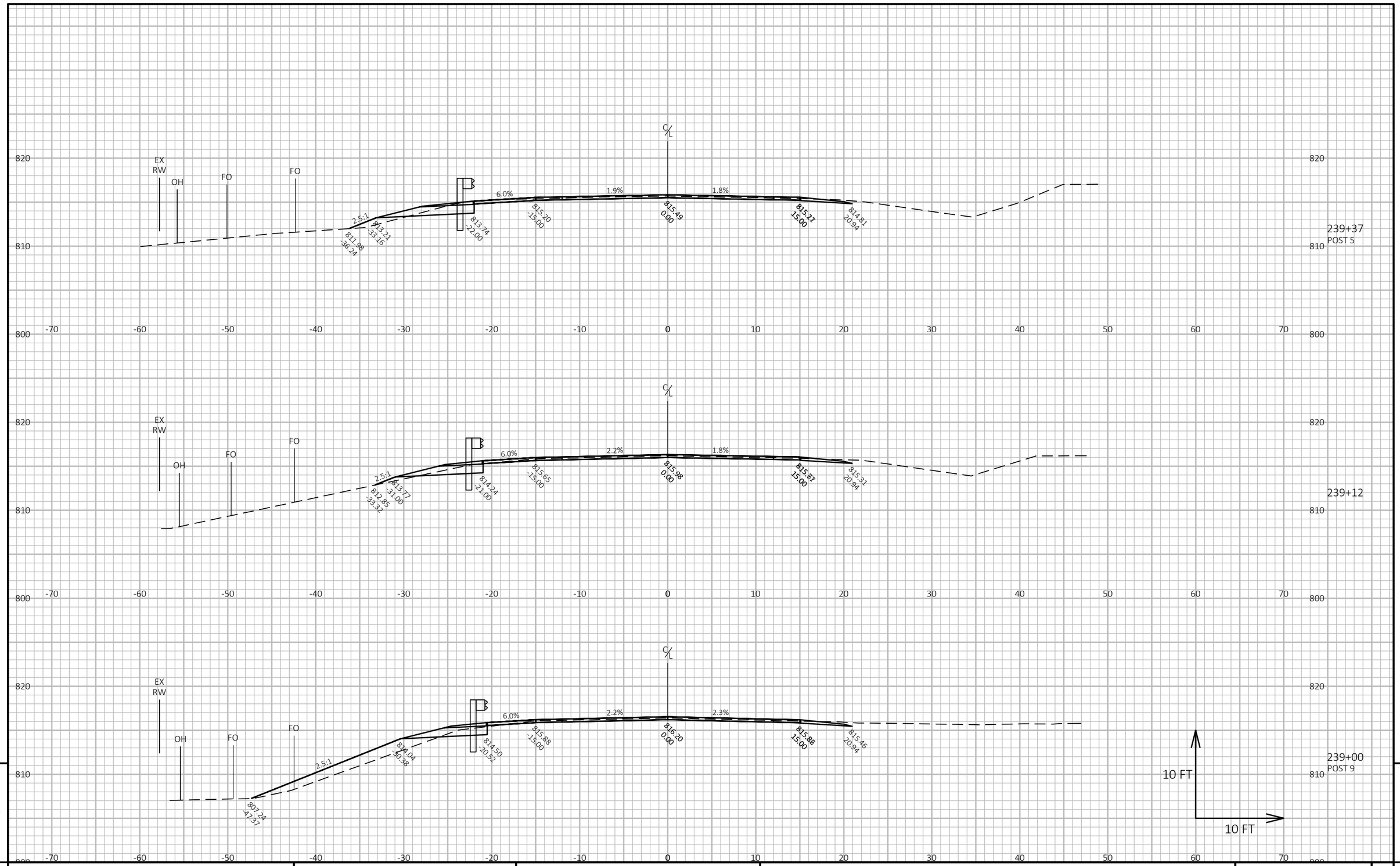
PLOT DATE : 7/20/2023 5:48 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

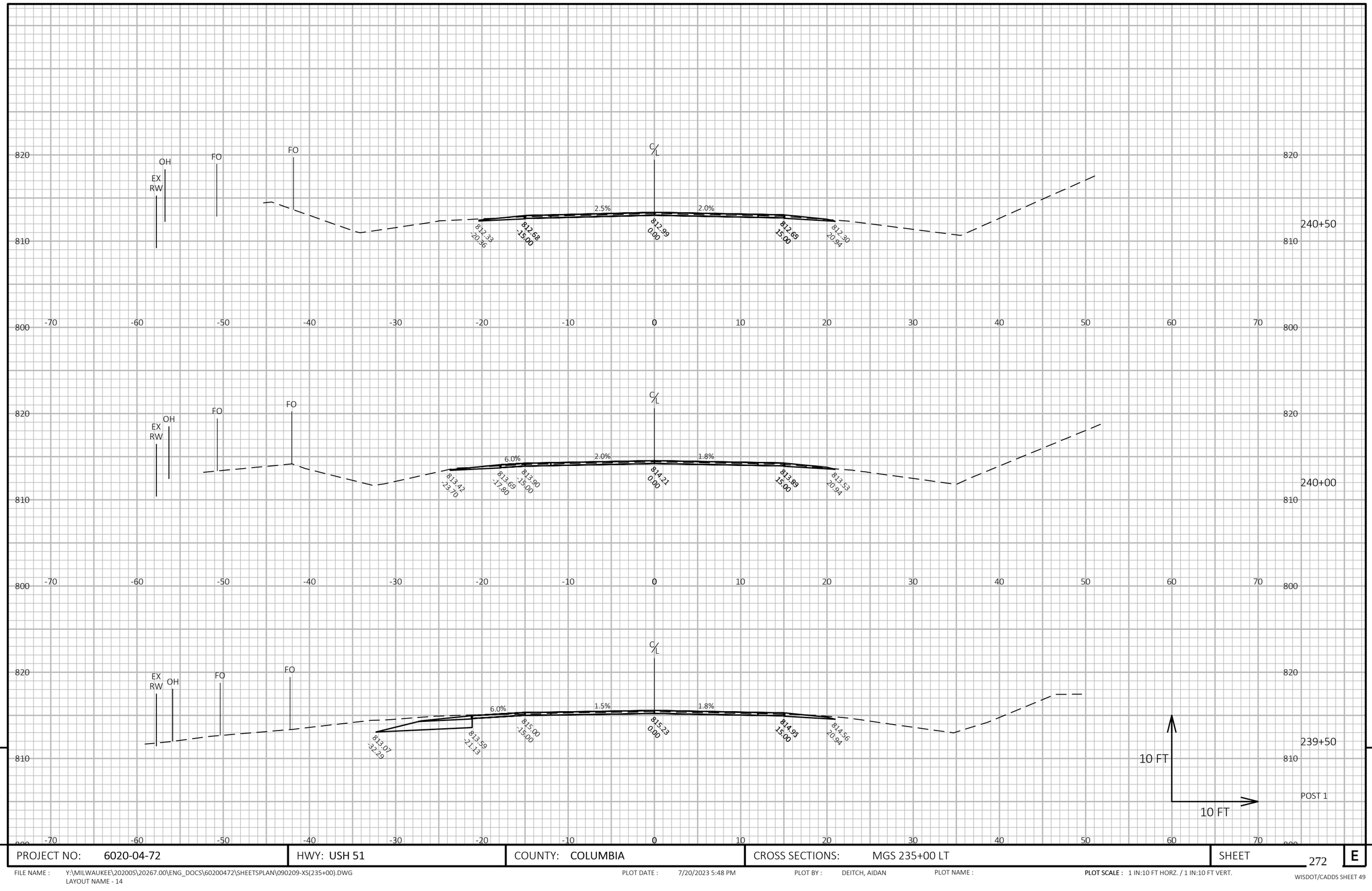
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 271	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 13

PLOT DATE : 7/20/2023 5:48 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 235+00 LT	SHEET 272	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090209-XS(235+00).DWG
LAYOUT NAME - 14

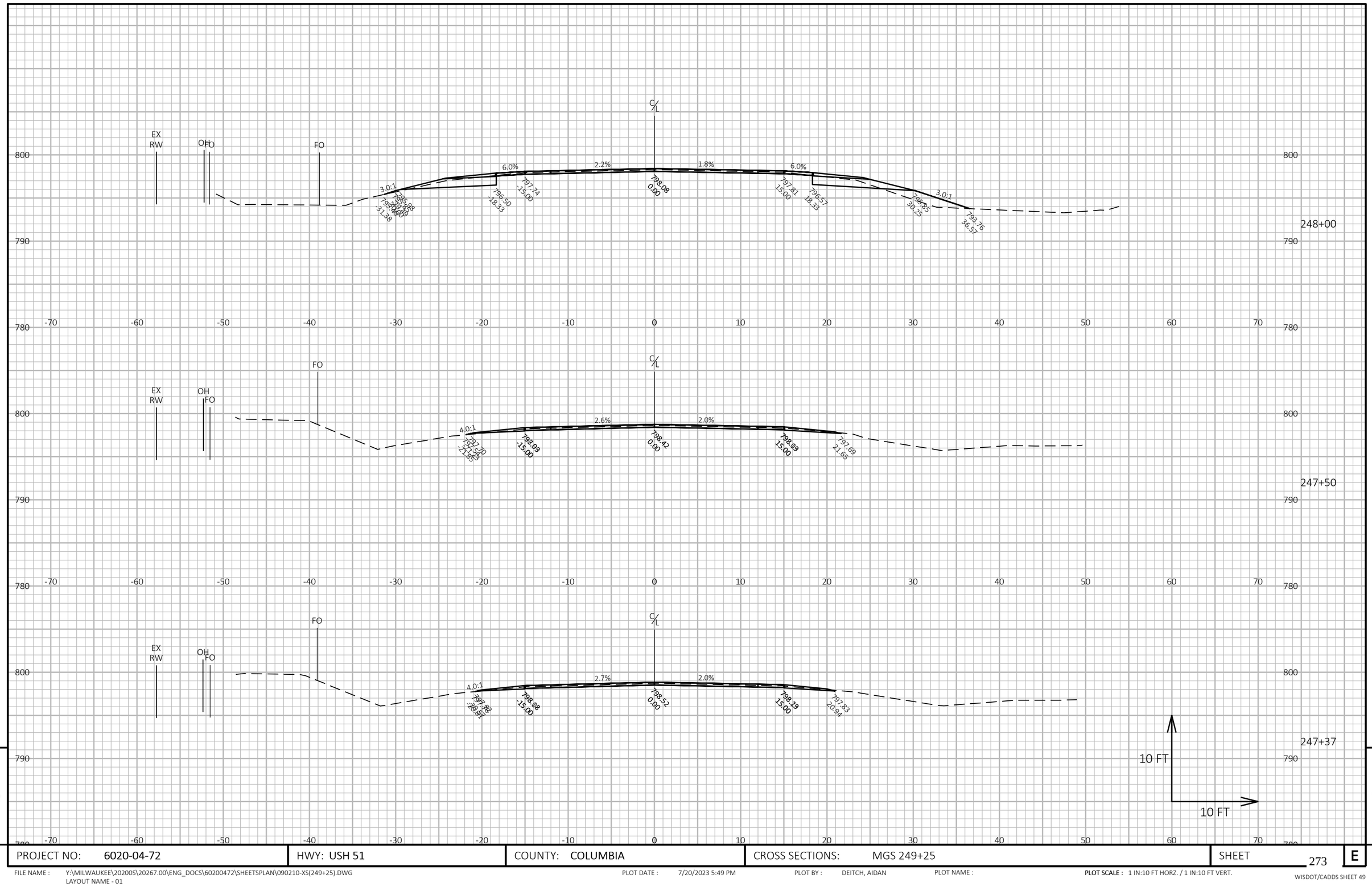
PLOT DATE : 7/20/2023 5:48 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 249+25	SHEET 273	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090210-XS(249+25).DWG
LAYOUT NAME - 01

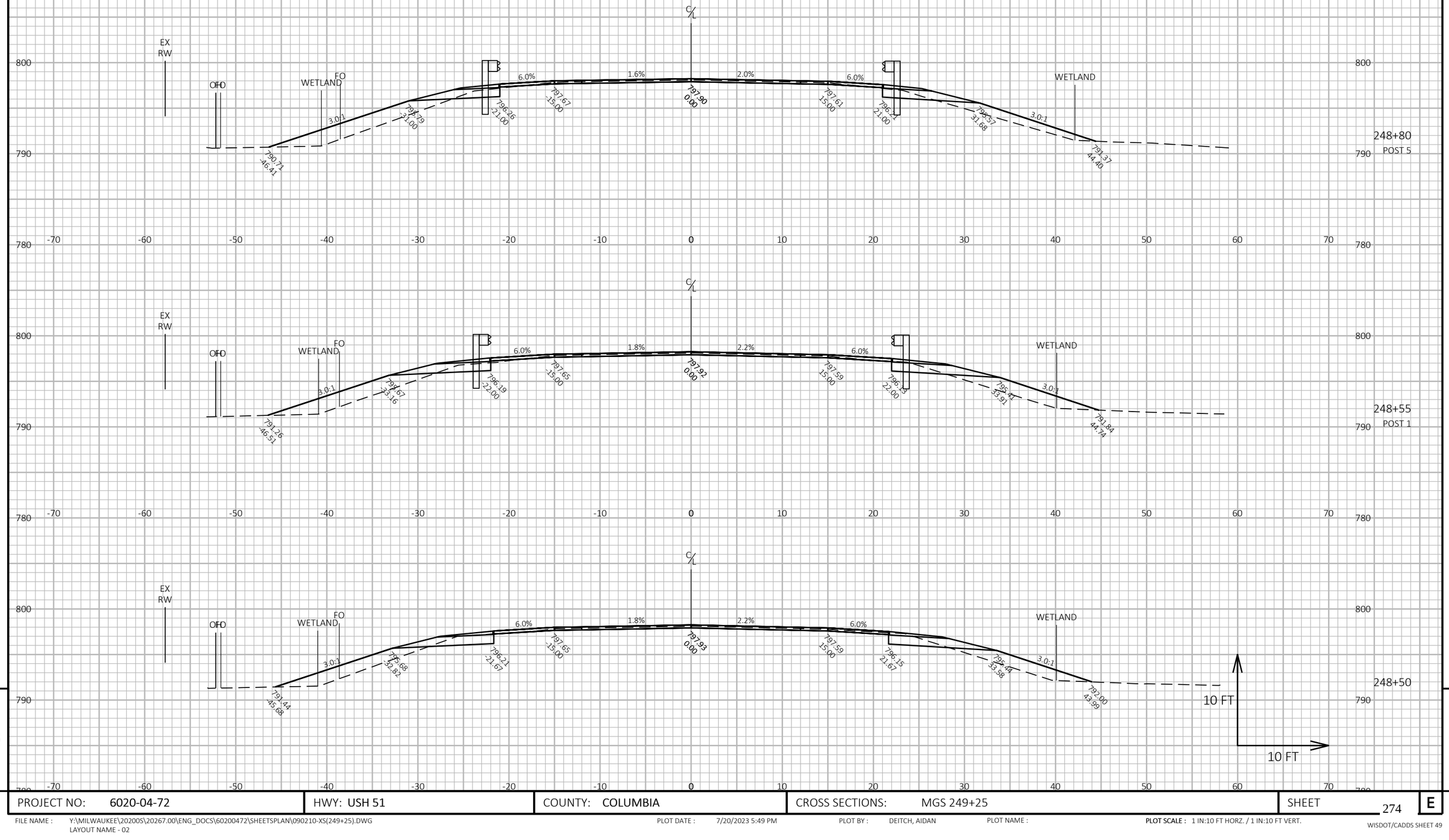
PLOT DATE : 7/20/2023 5:49 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 249+25	SHEET 274	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090210-XS(249+25).DWG
LAYOUT NAME - 02

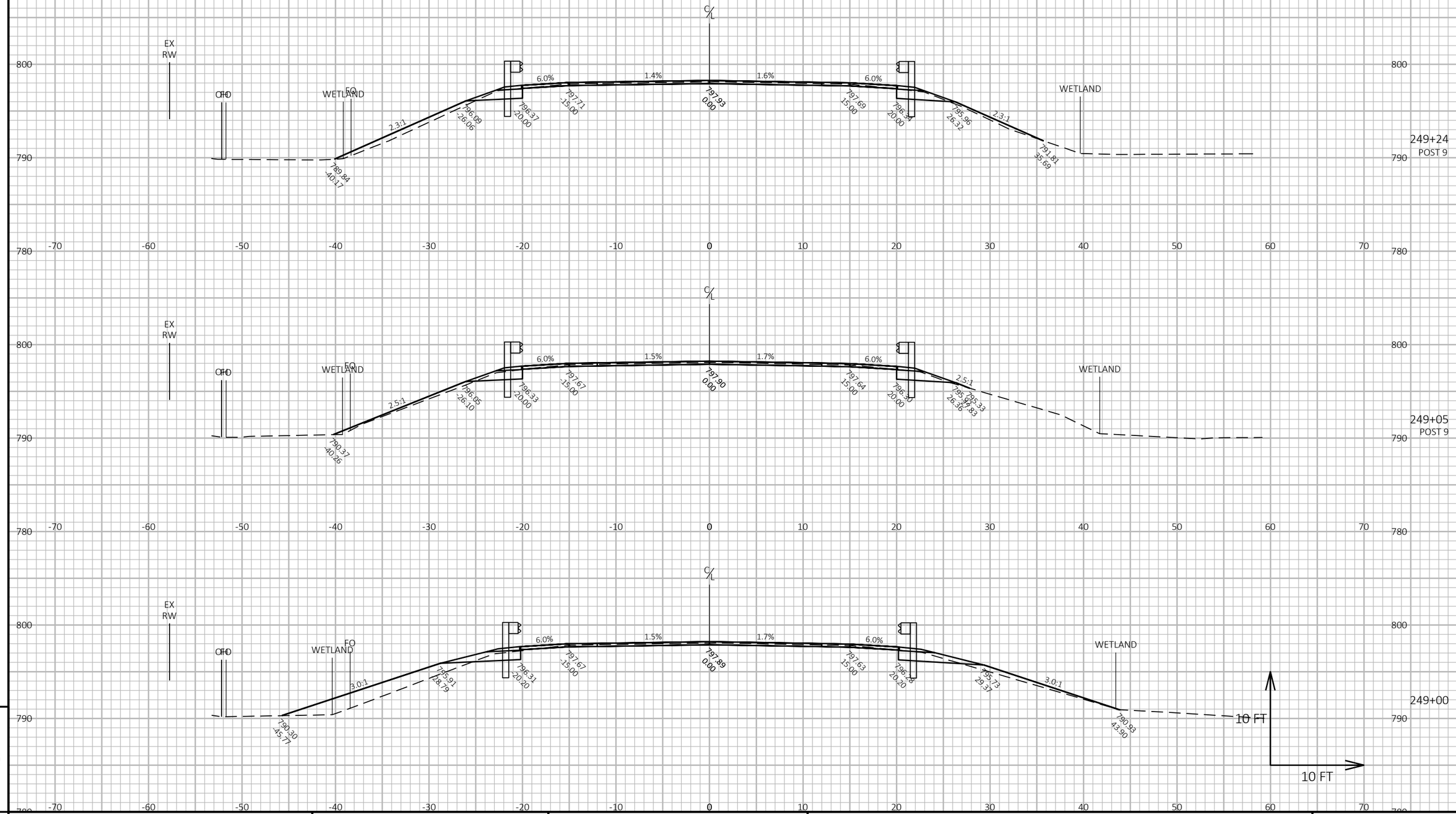
PLOT DATE : 7/20/2023 5:49 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 249+25	SHEET 275	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090210-XS(249+25).DWG
LAYOUT NAME - 03

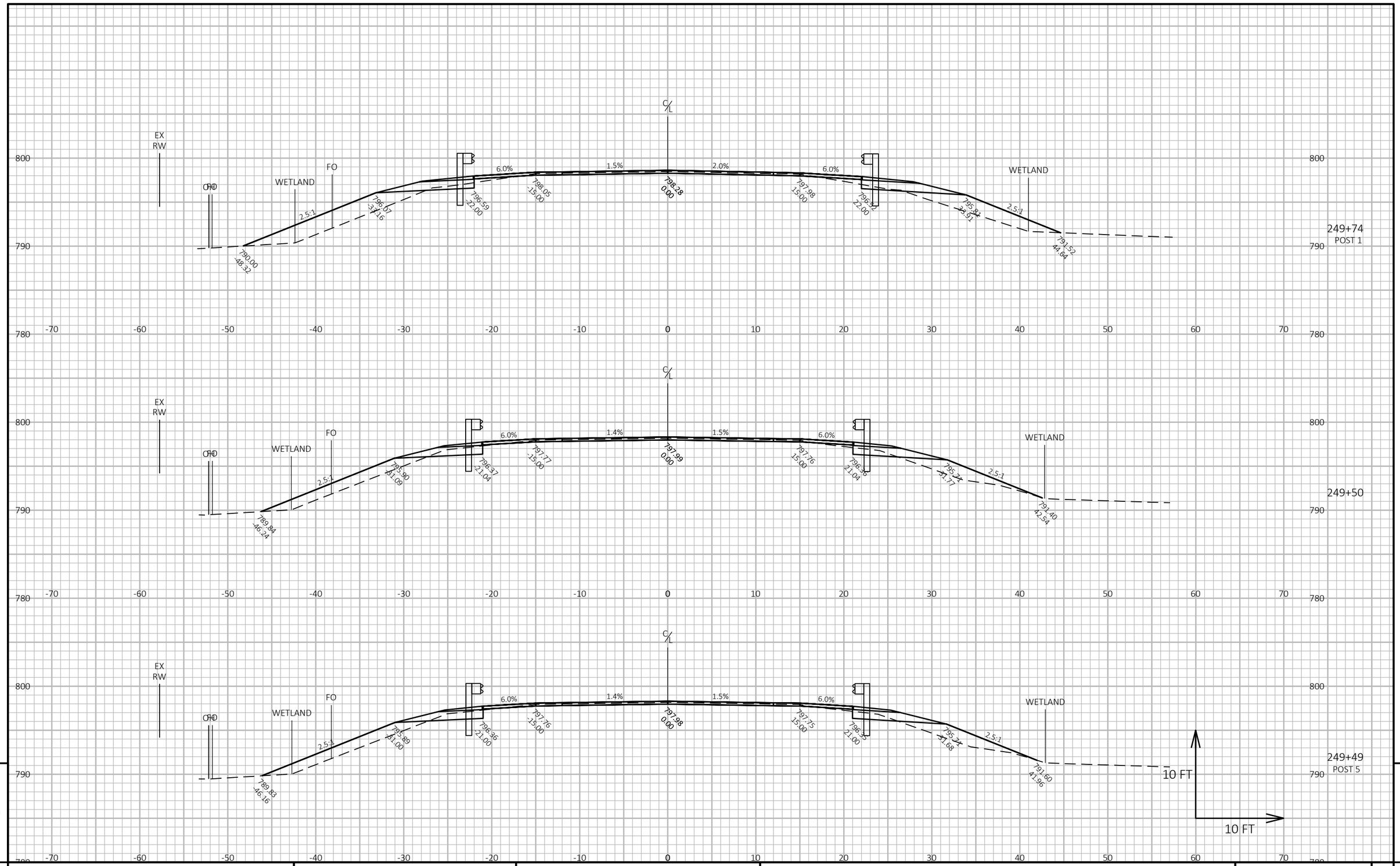
PLOT DATE : 7/20/2023 5:49 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 249+25	SHEET 276	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090210-XS(249+25).DWG
LAYOUT NAME - 04

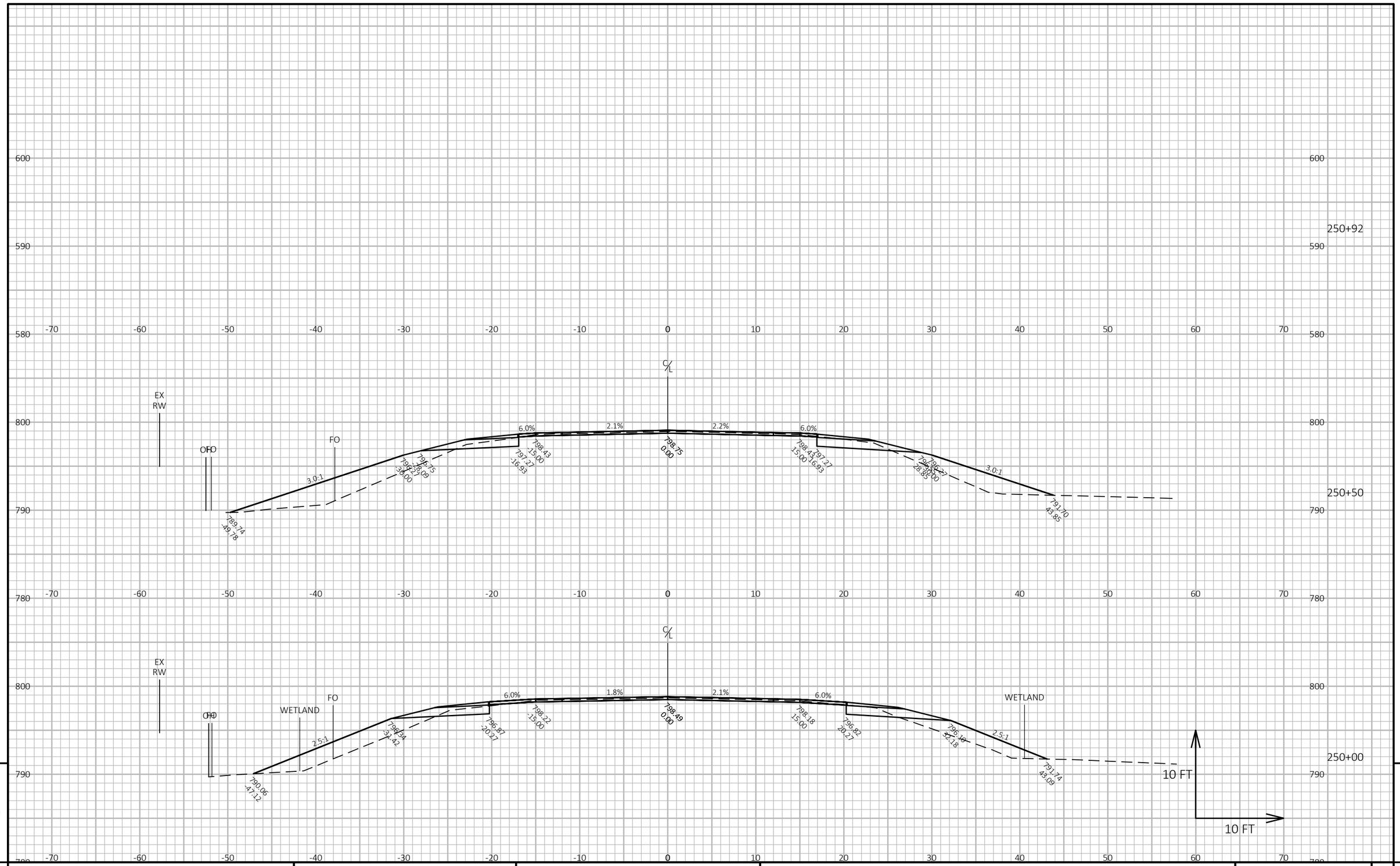
PLOT DATE : 7/20/2023 5:49 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 249+25	SHEET 277	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090210-XS(249+25).DWG
LAYOUT NAME - 05

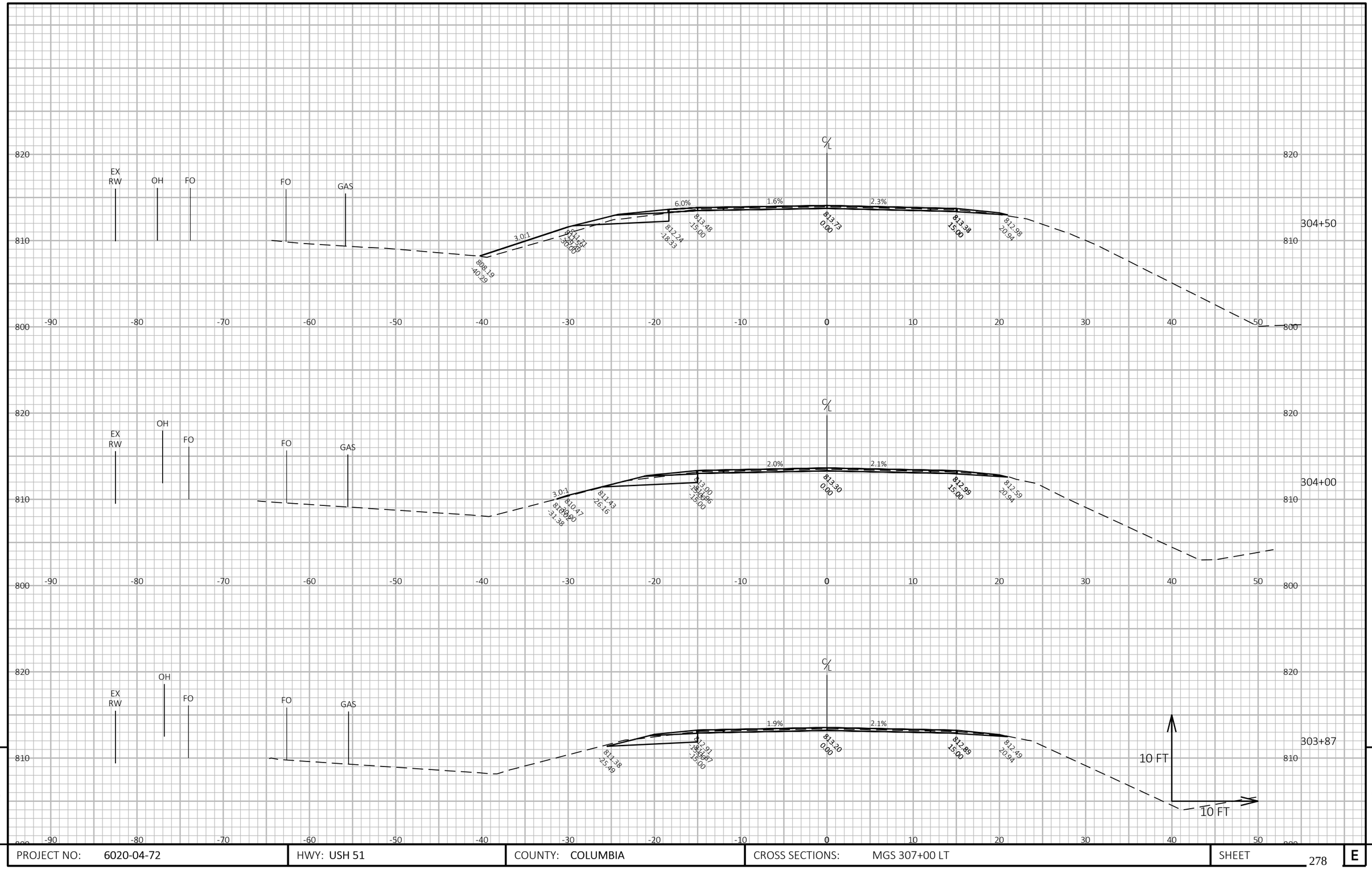
PLOT DATE : 7/20/2023 5:49 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 278	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 01

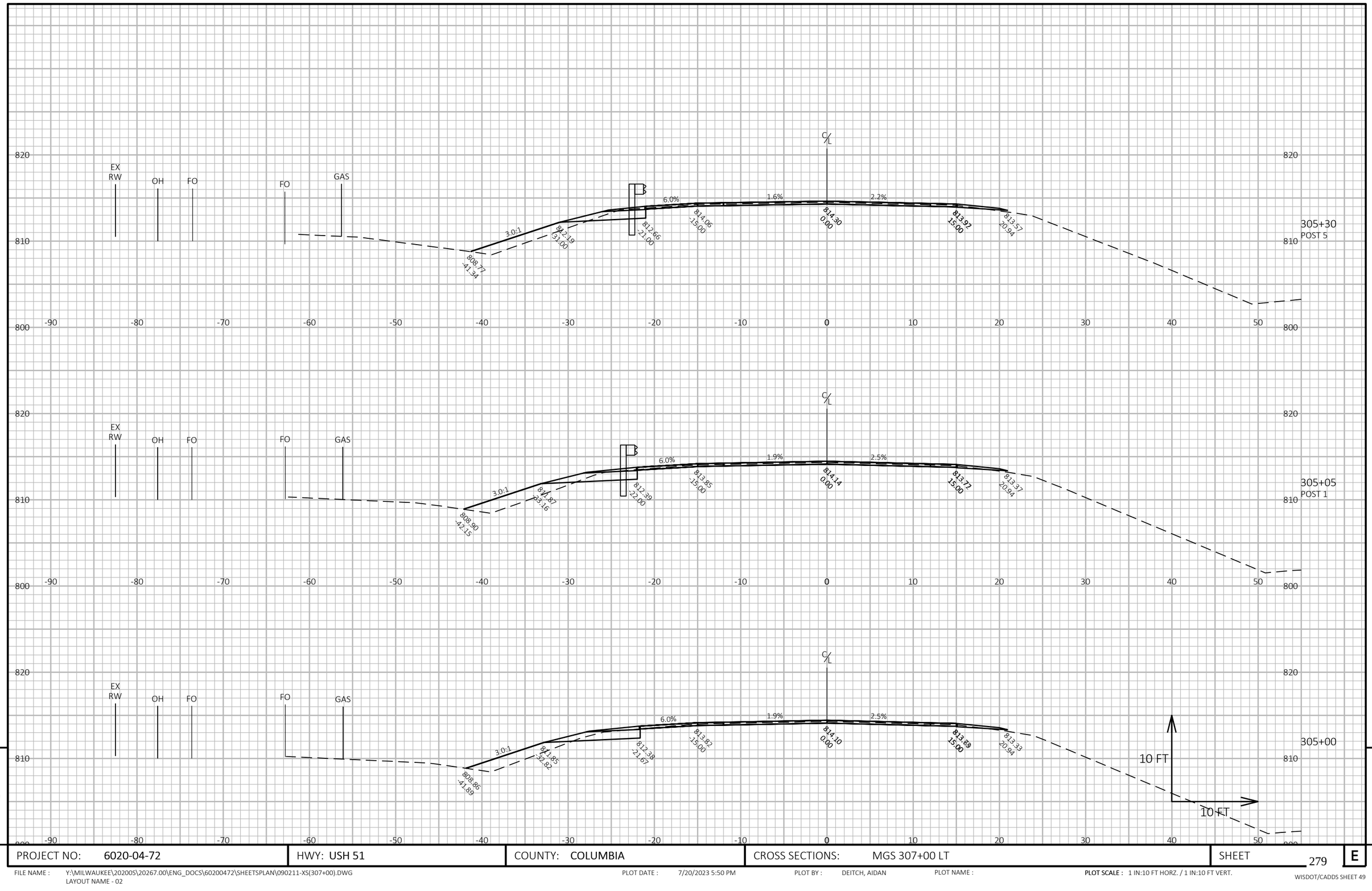
PLOT DATE : 7/20/2023 5:50 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 279	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 02

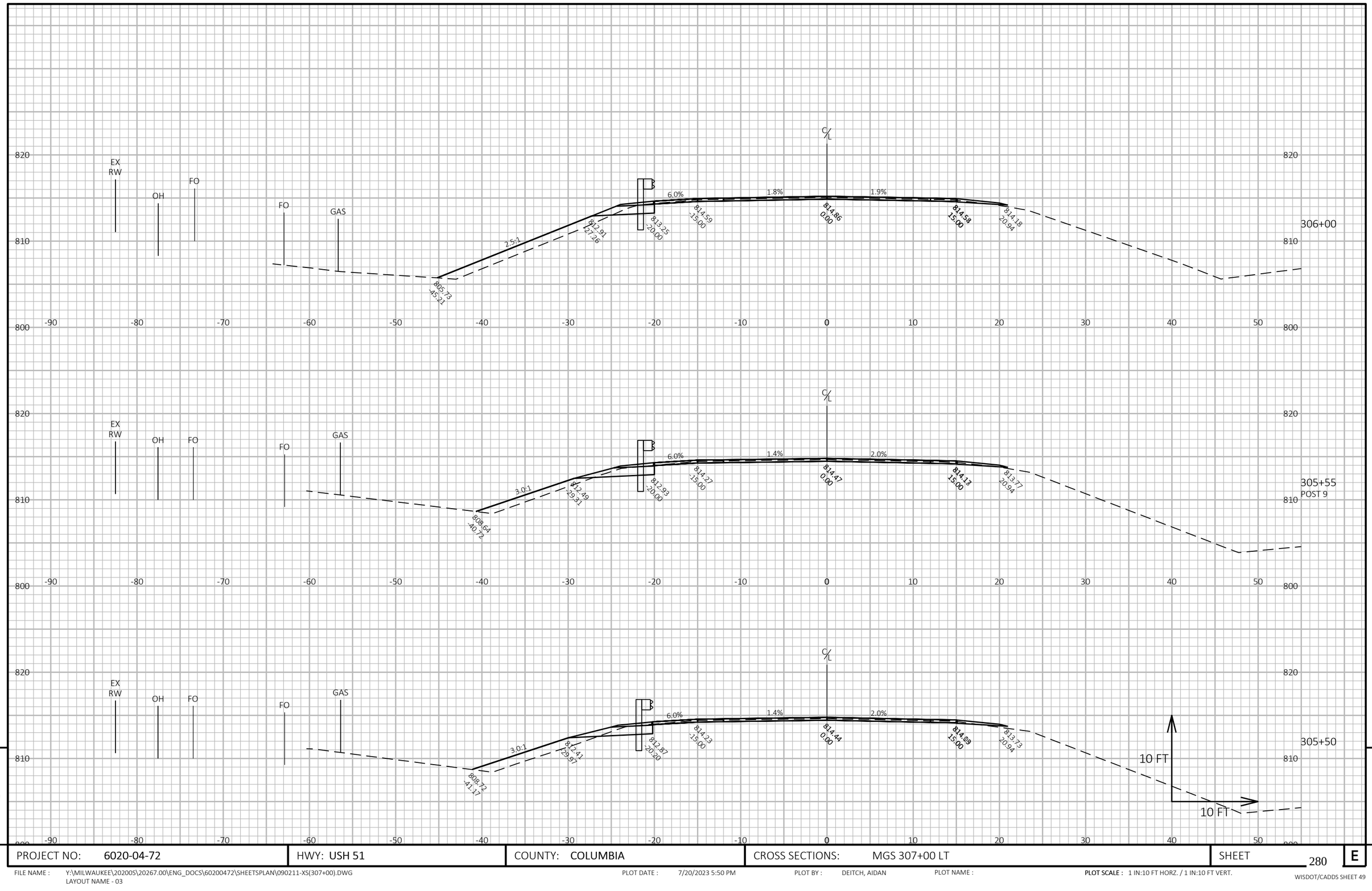
PLOT DATE : 7/20/2023 5:50 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 280	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 03

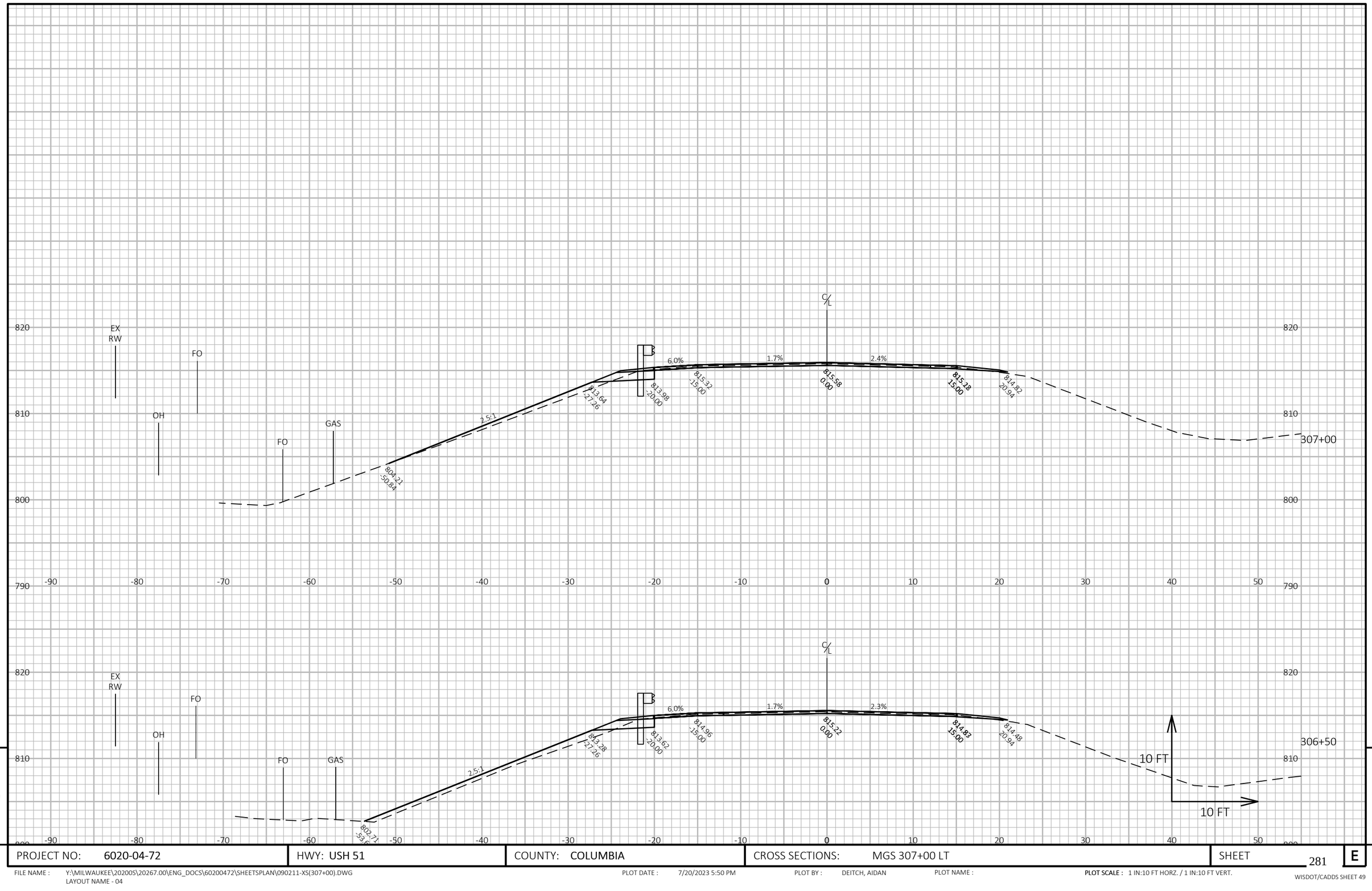
PLOT DATE : 7/20/2023 5:50 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

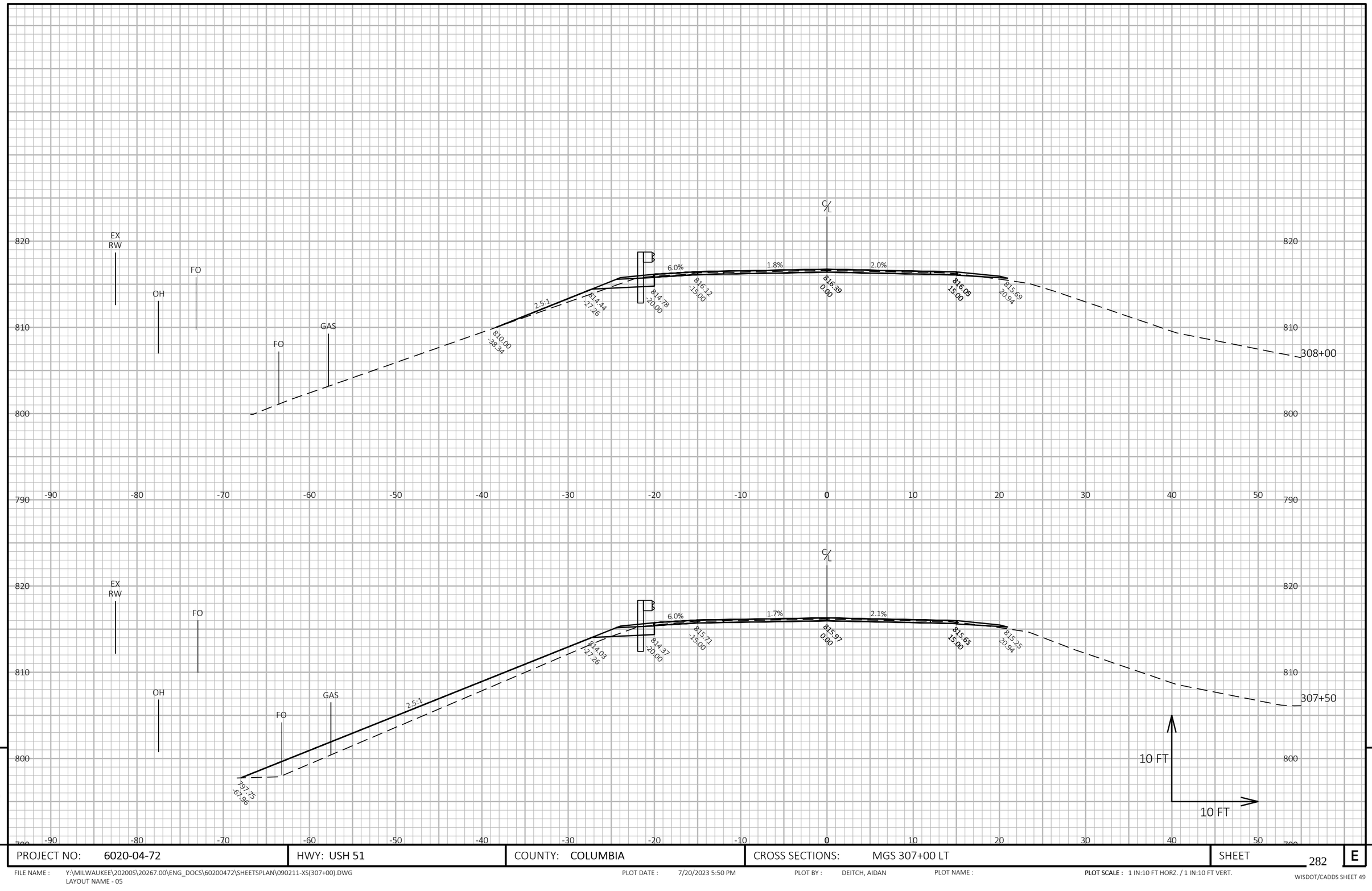


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 281	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 04

PLOT DATE : 7/20/2023 5:50 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

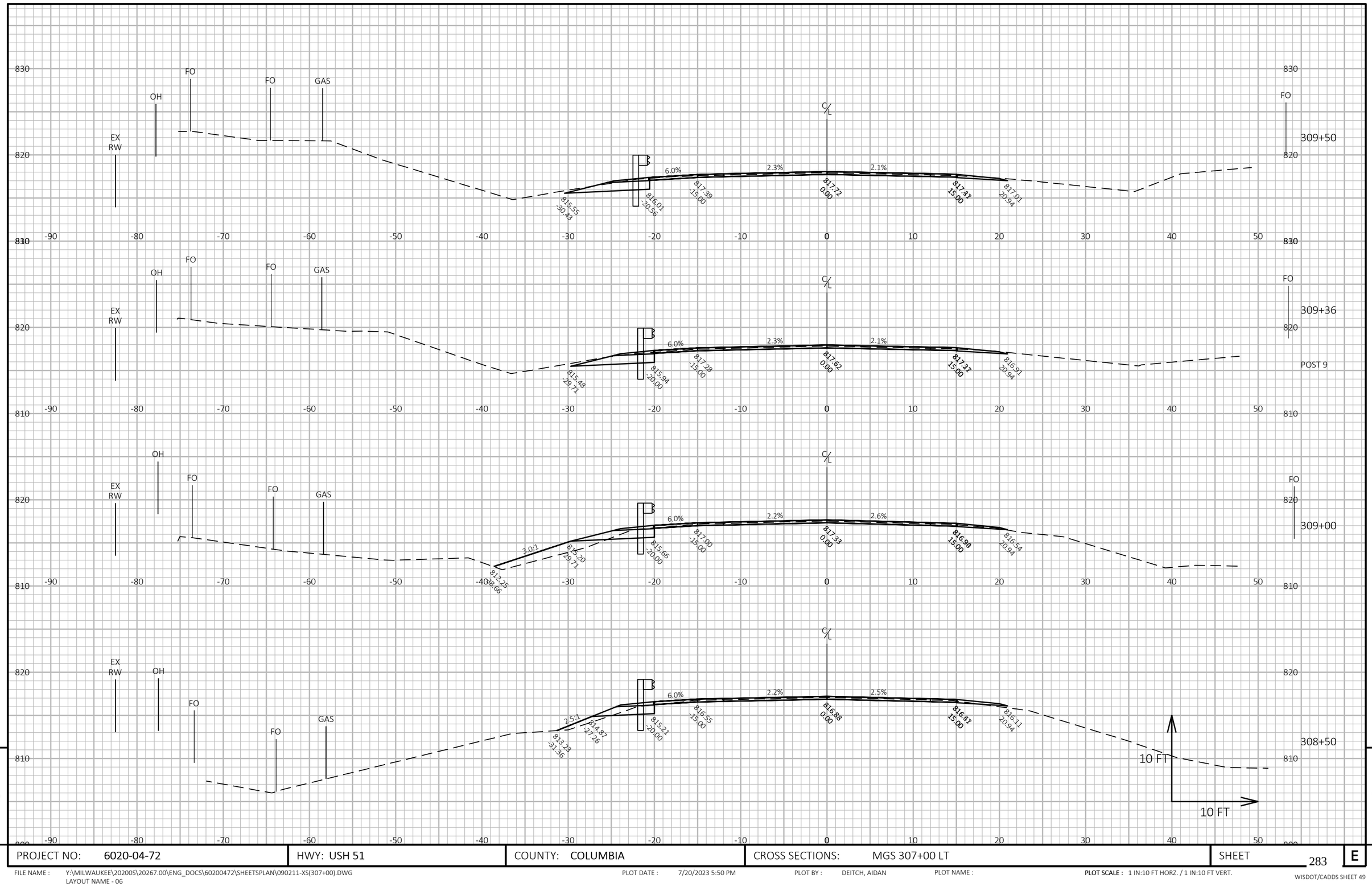


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 282	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 05

PLOT DATE : 7/20/2023 5:50 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 283	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 06

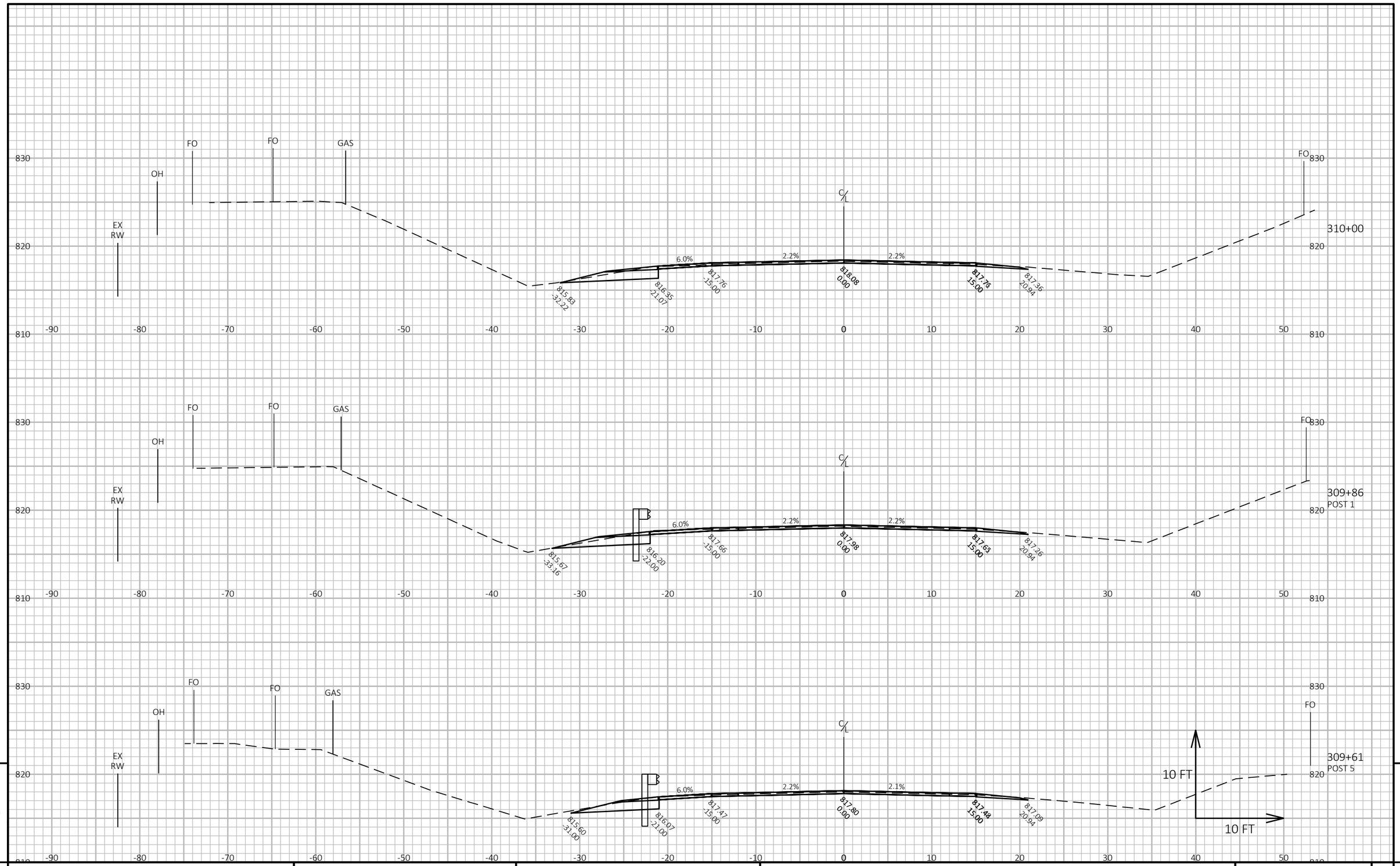
PLOT DATE : 7/20/2023 5:50 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

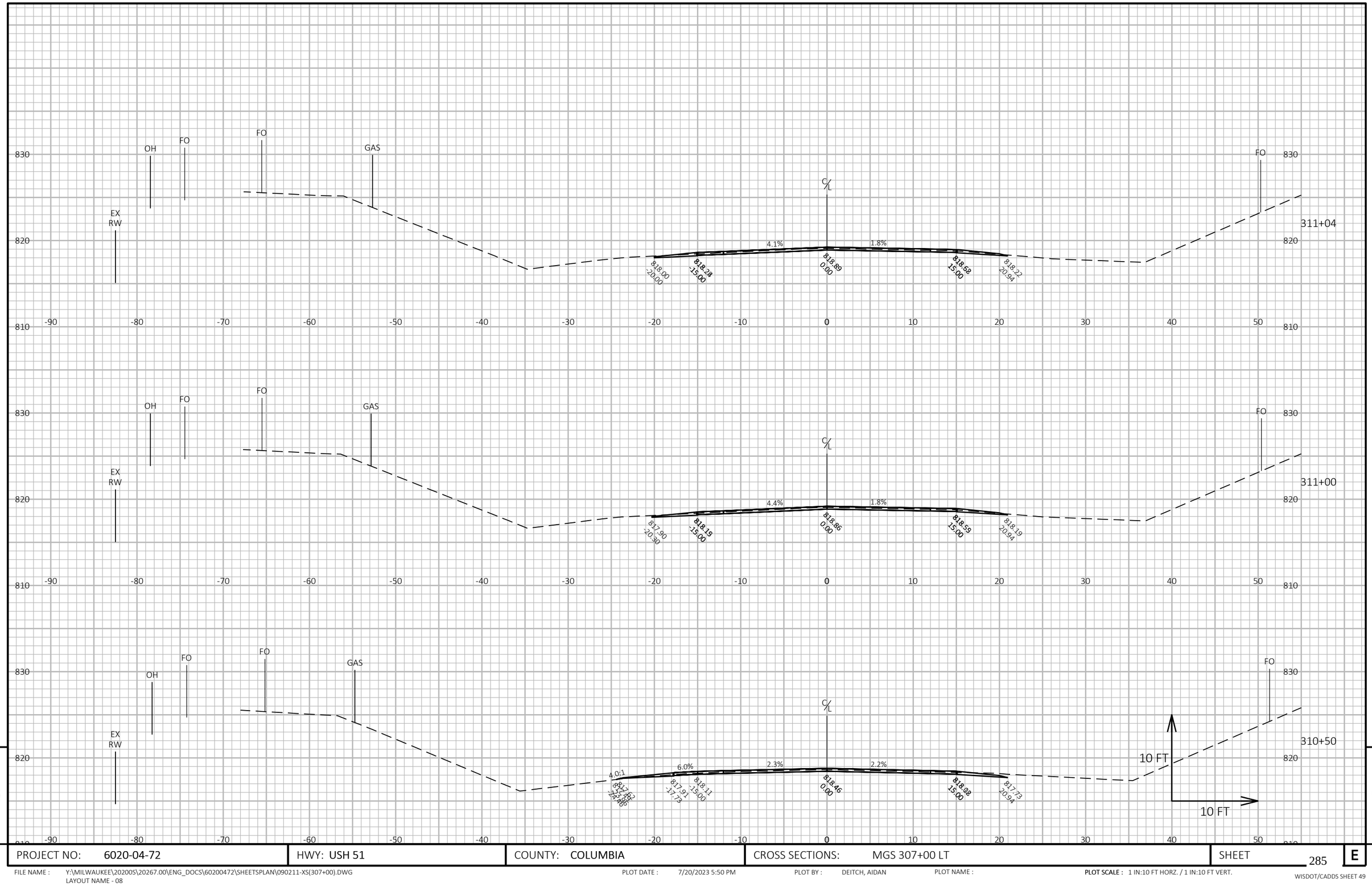
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 284	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 07

PLOT DATE : 7/20/2023 5:50 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 307+00 LT	SHEET 285	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090211-XS(307+00).DWG
LAYOUT NAME - 08

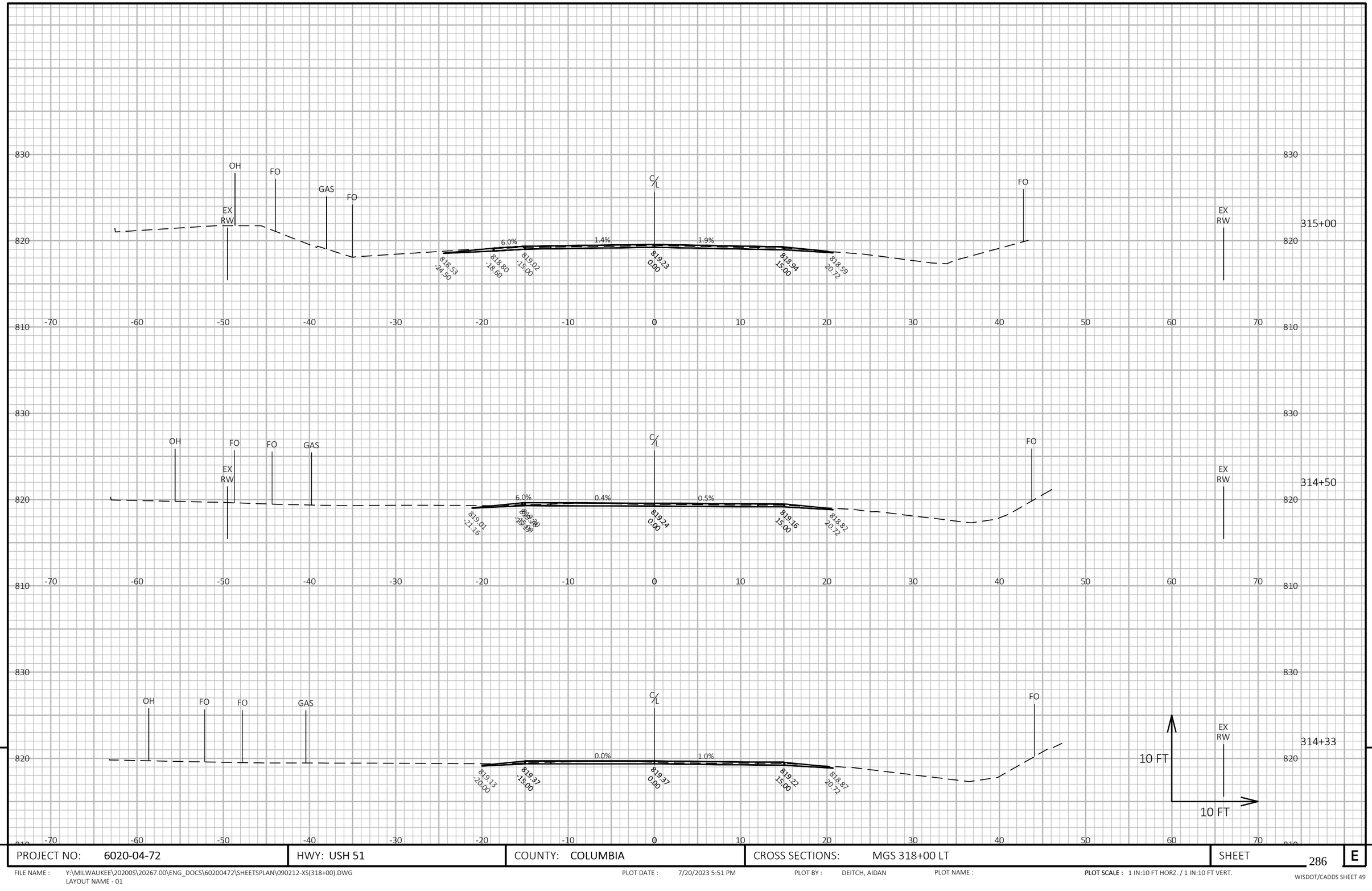
PLOT DATE : 7/20/2023 5:50 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 286	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 01

PLOT DATE : 7/20/2023 5:51 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

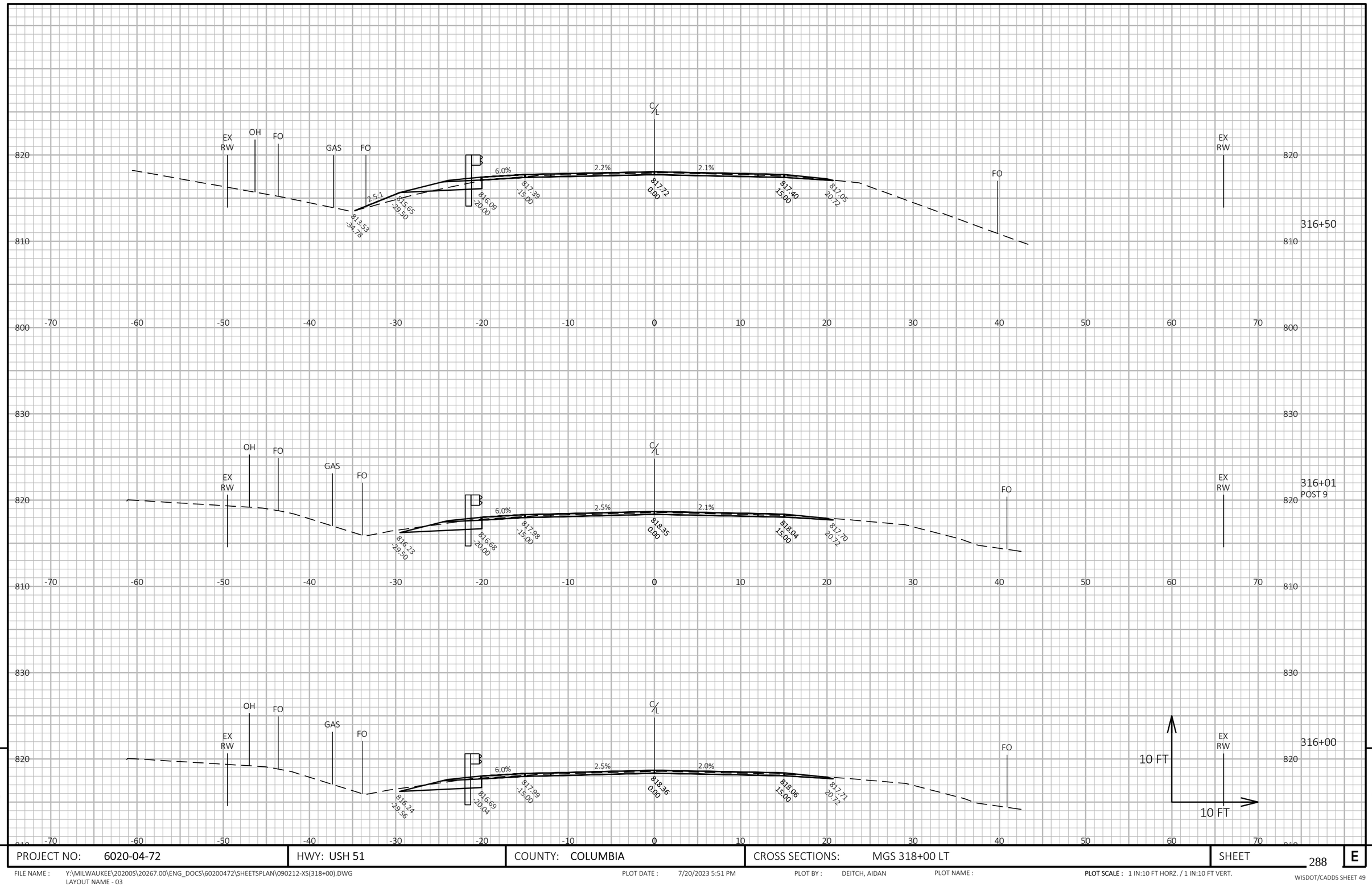
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 287	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 02

PLOT DATE : 7/20/2023 5:51 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

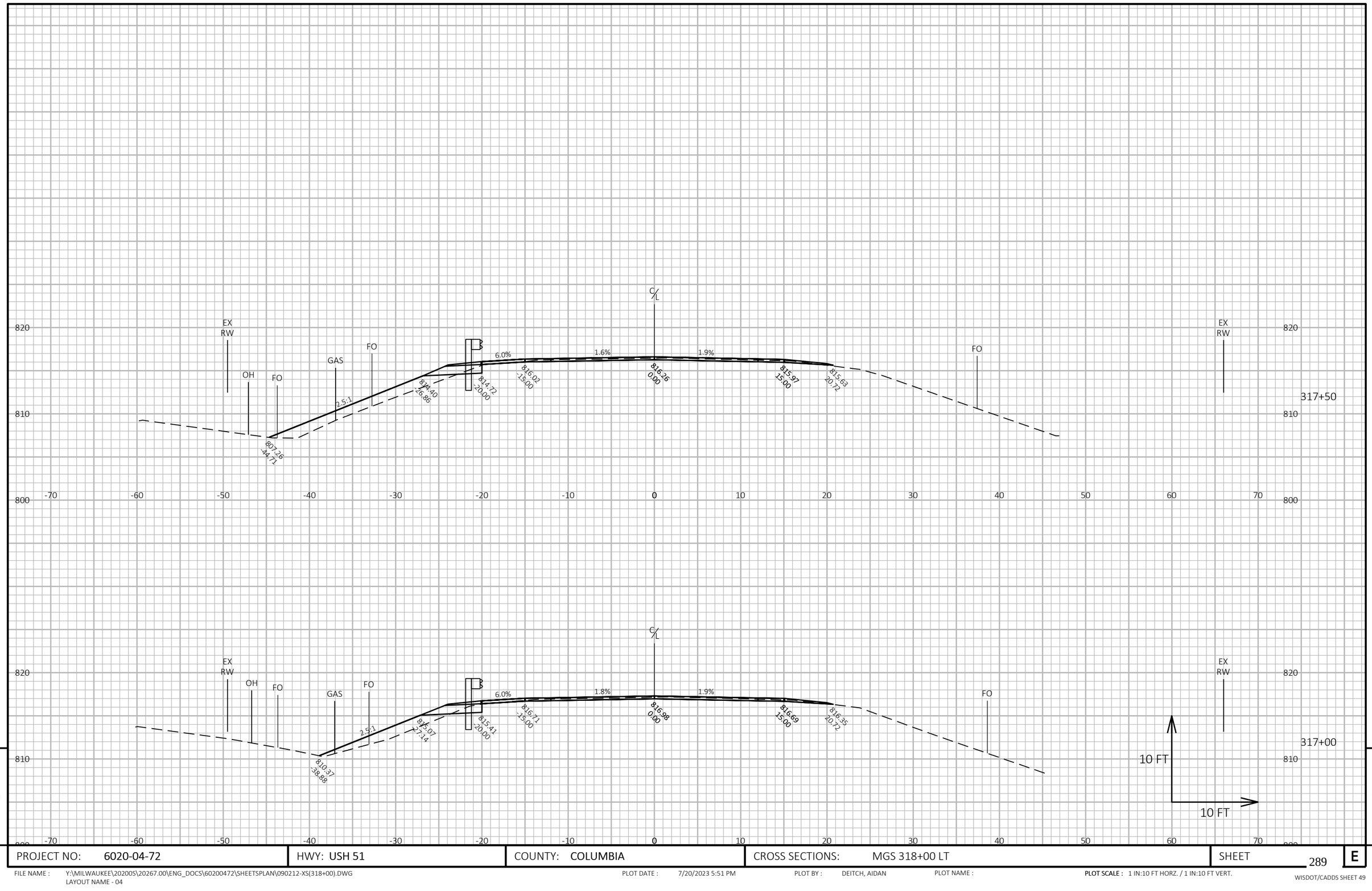
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 288	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 5:51 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 289	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 04

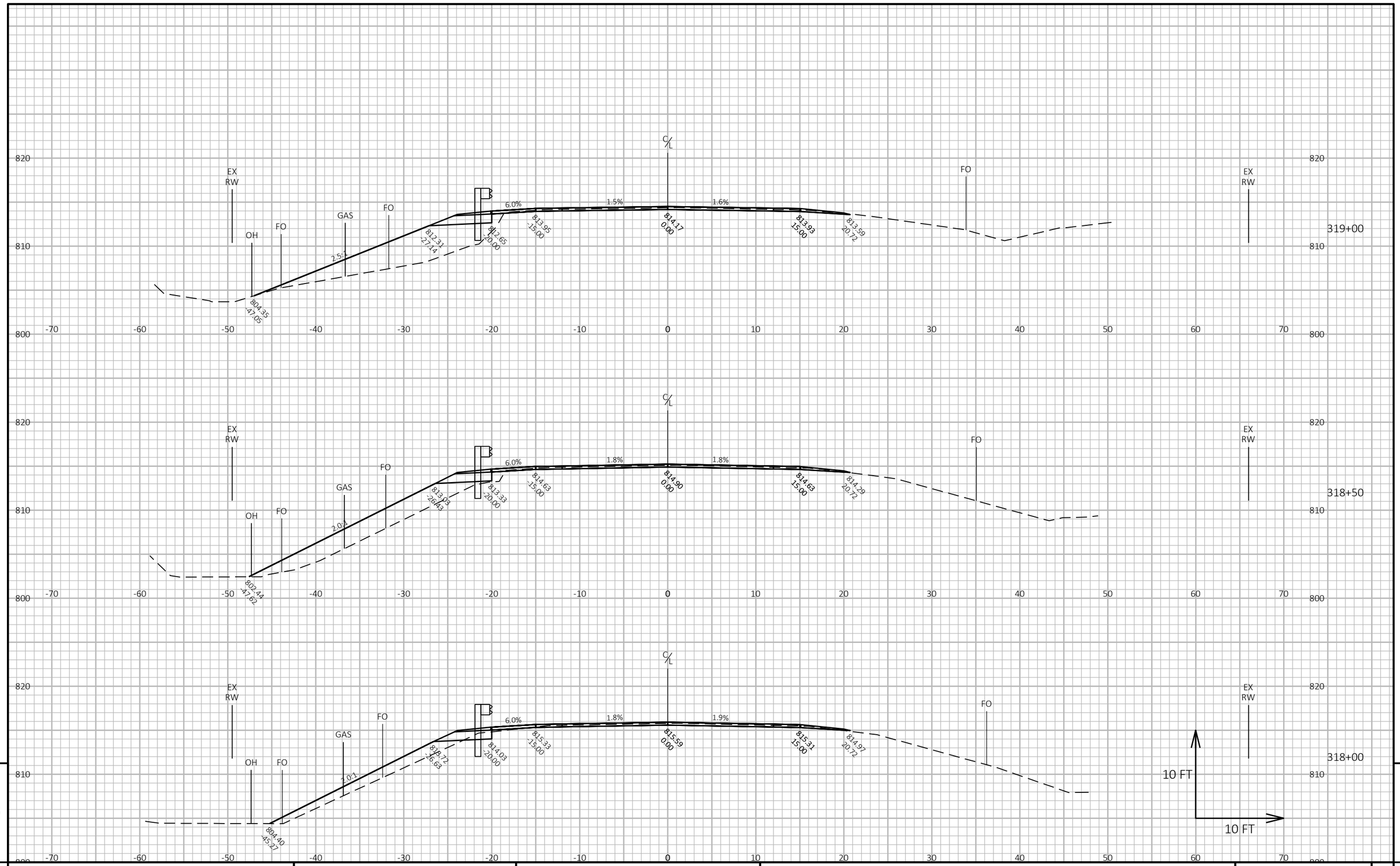
PLOT DATE : 7/20/2023 5:51 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 290	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 05

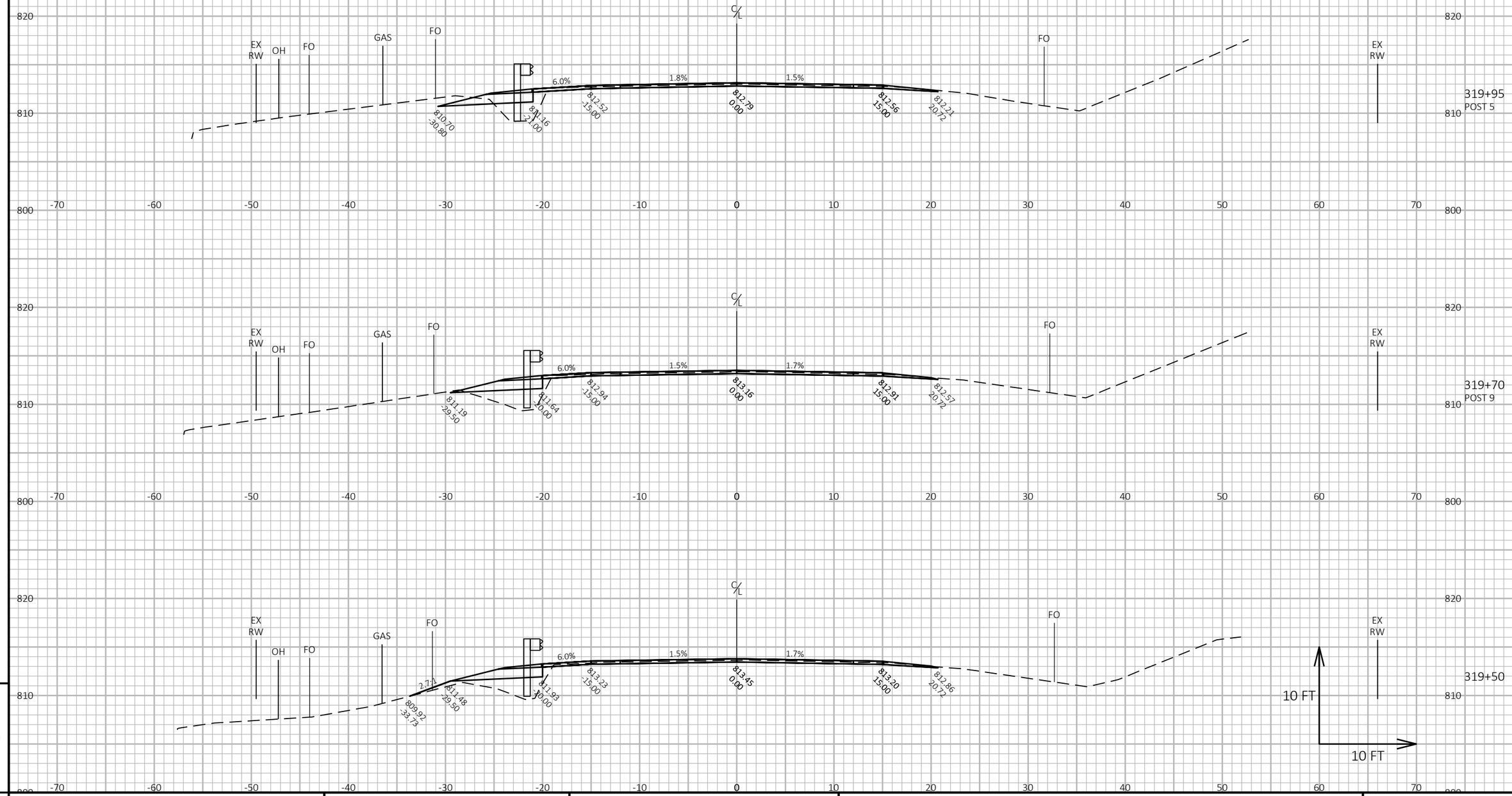
PLOT DATE : 7/20/2023 5:51 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

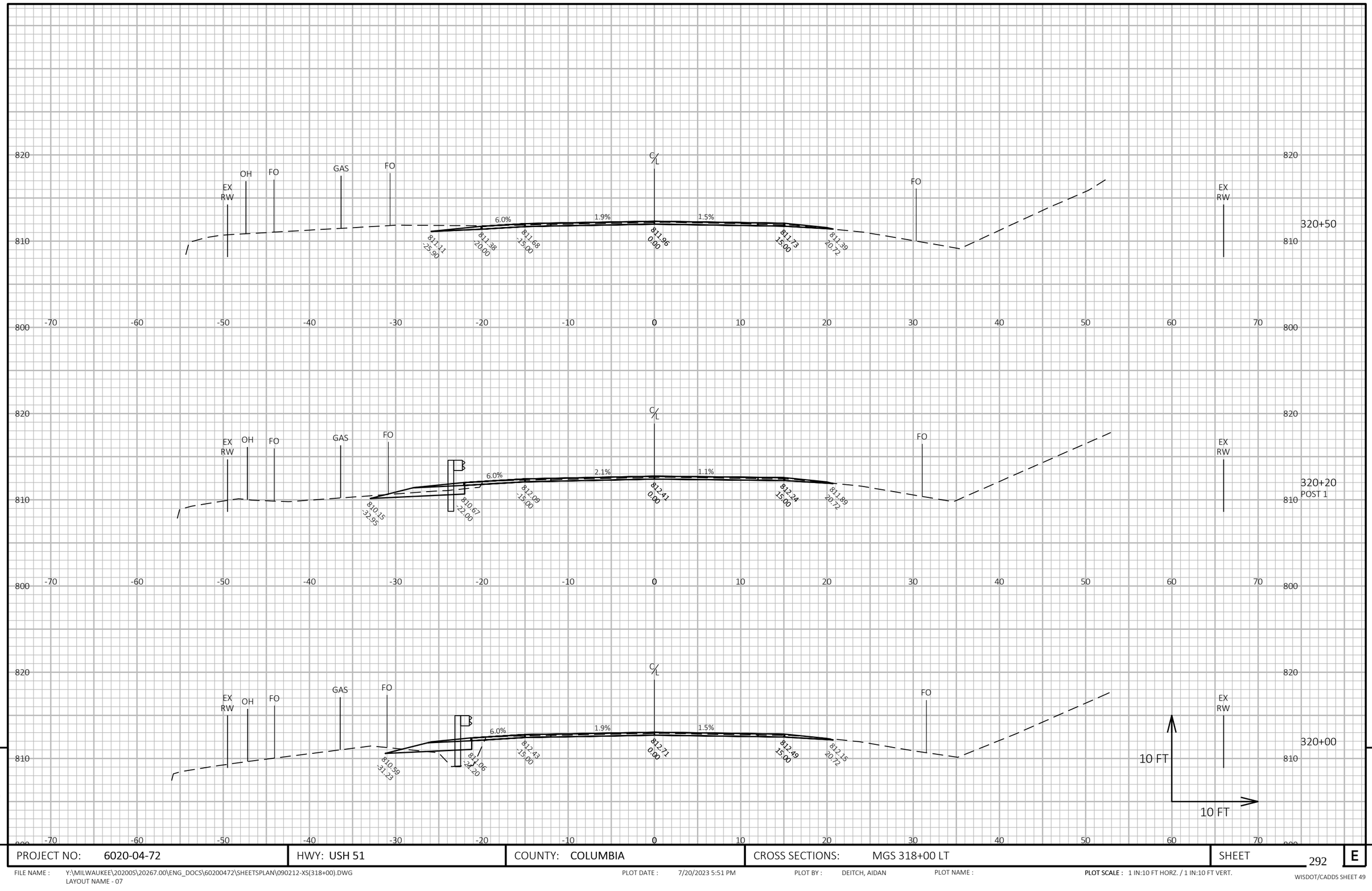
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 291	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 06

PLOT DATE : 7/20/2023 5:51 PM PLOT BY : DEITCH, AIDAN PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 292	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 07

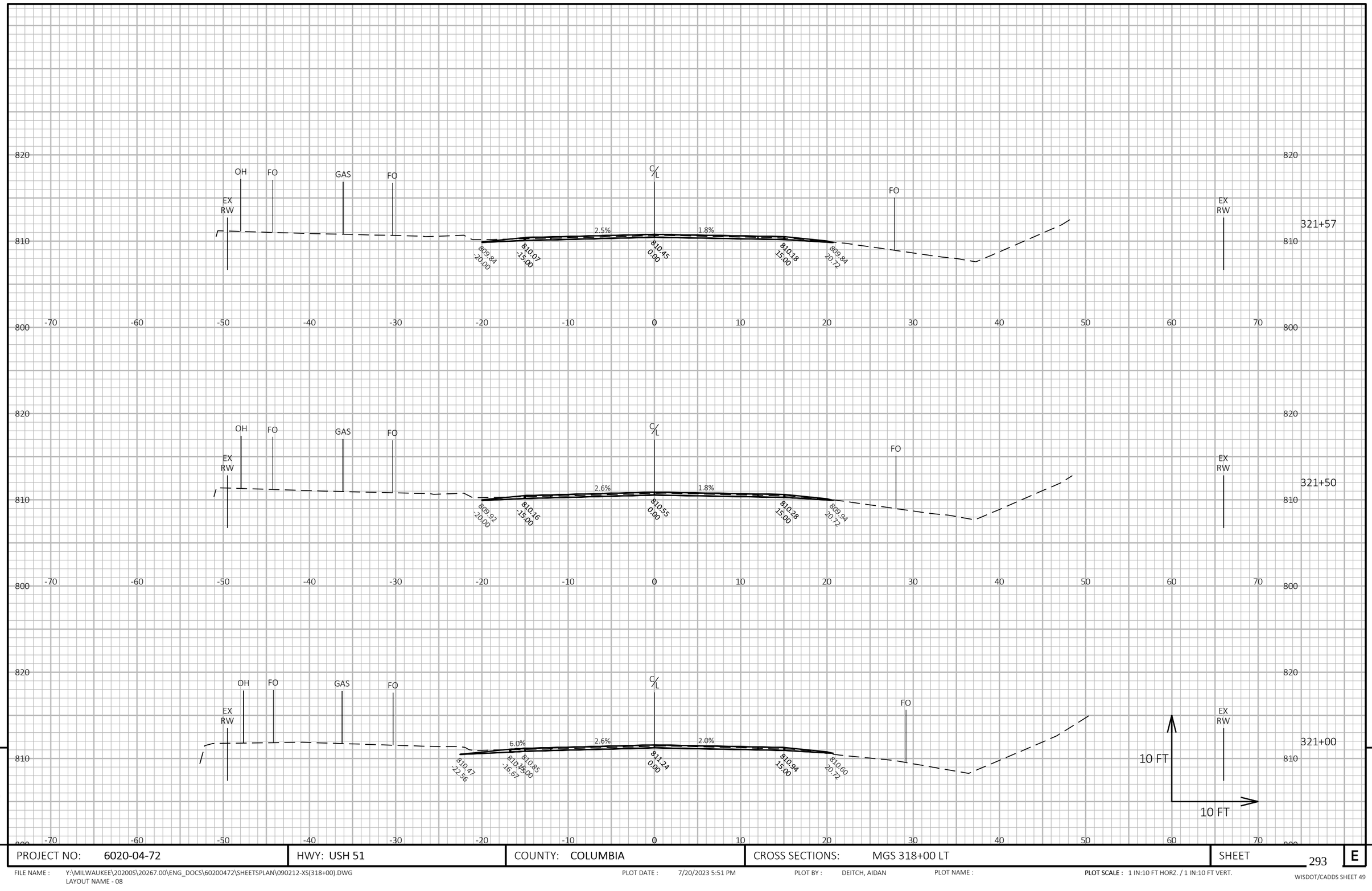
PLOT DATE : 7/20/2023 5:51 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 318+00 LT	SHEET 293	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090212-XS(318+00).DWG
LAYOUT NAME - 08

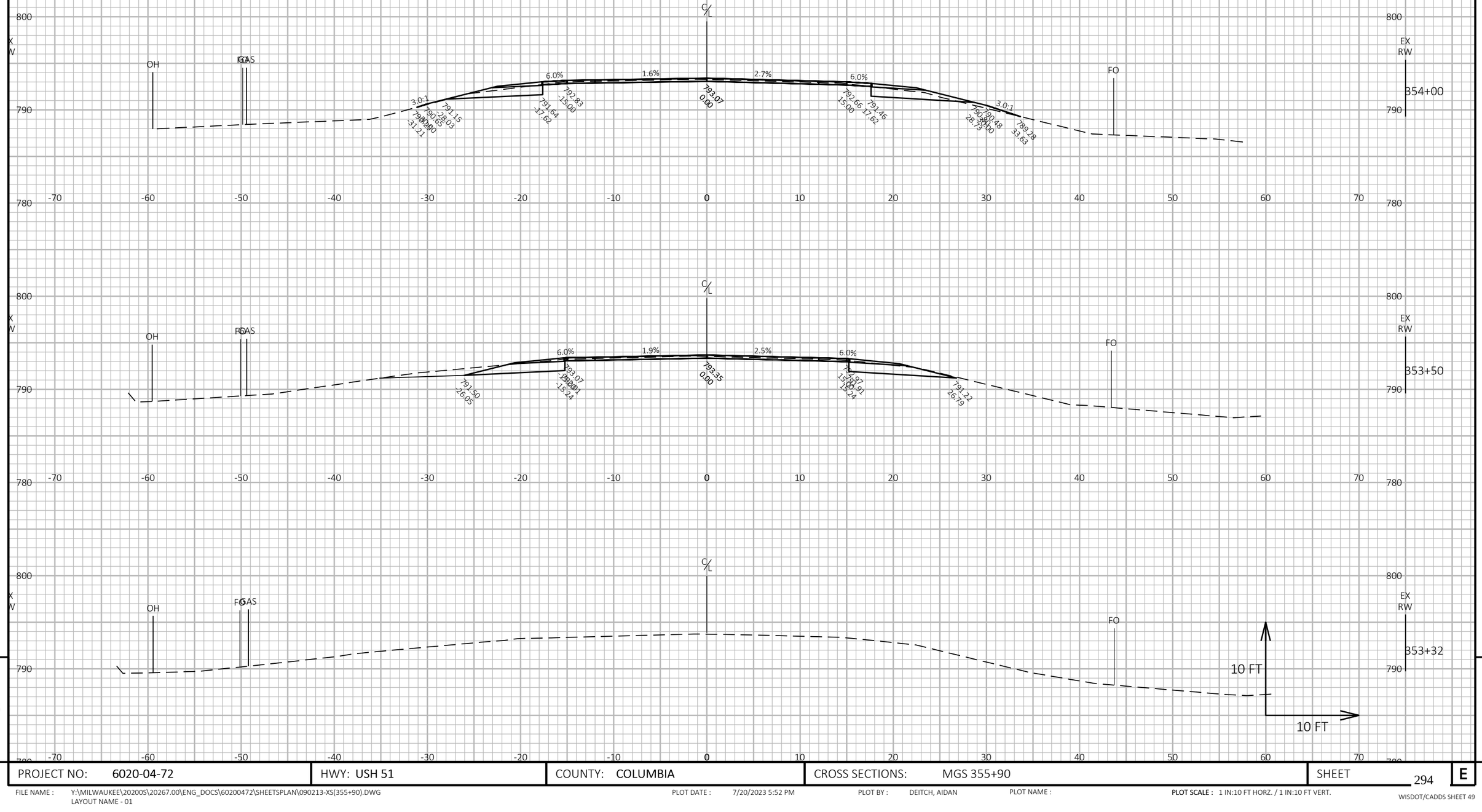
PLOT DATE : 7/20/2023 5:51 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 294	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 01

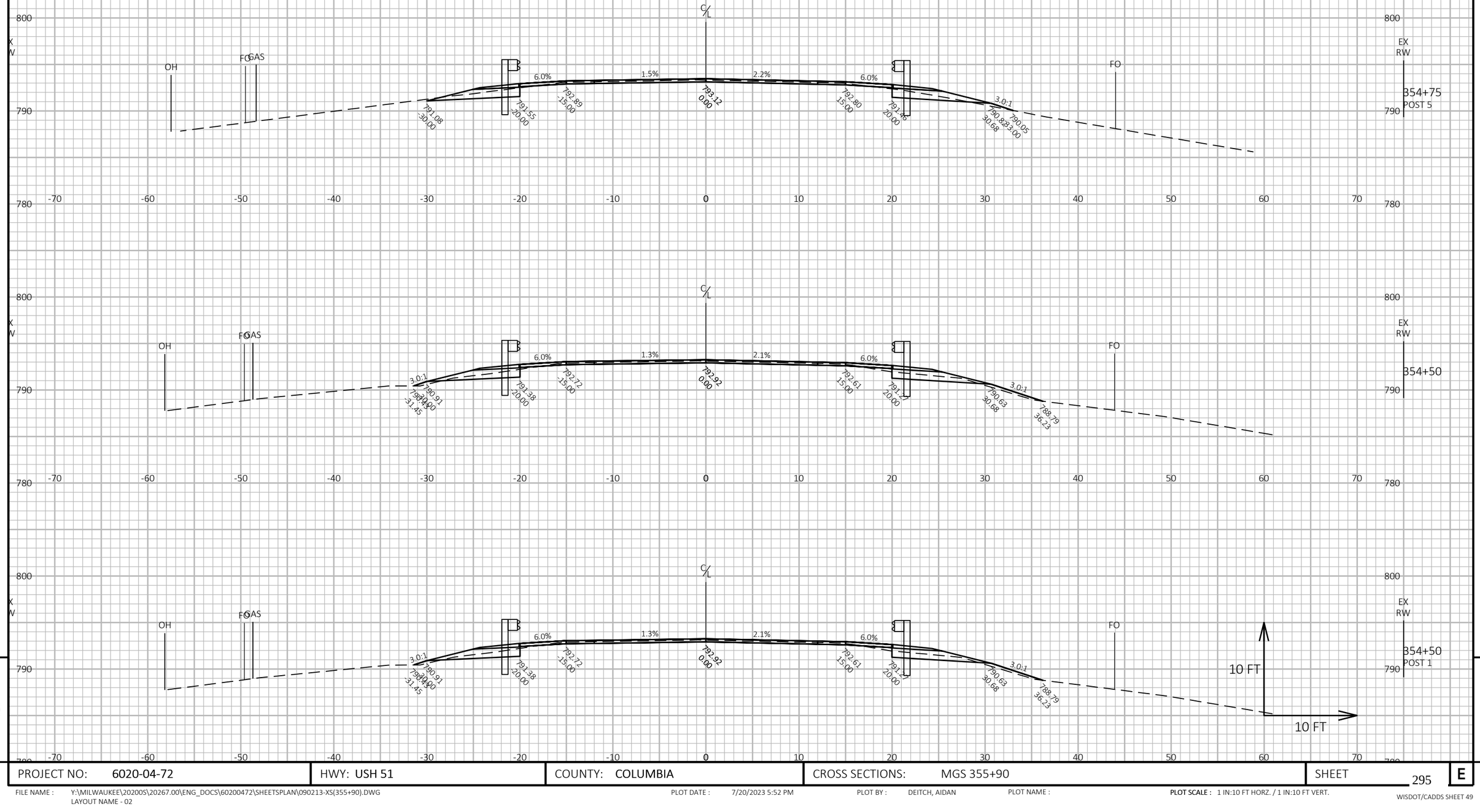
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 295	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 02

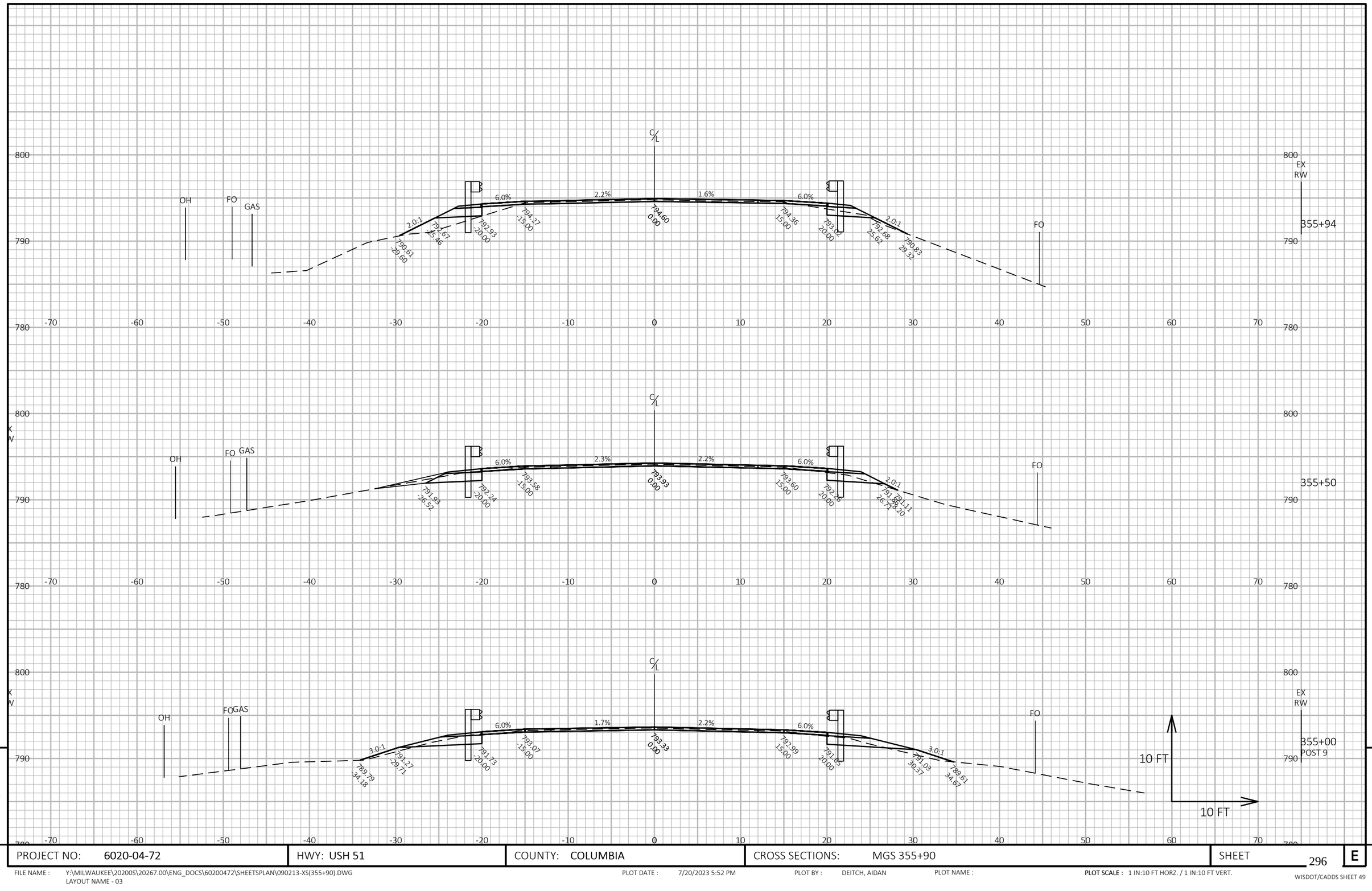
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 296	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 03

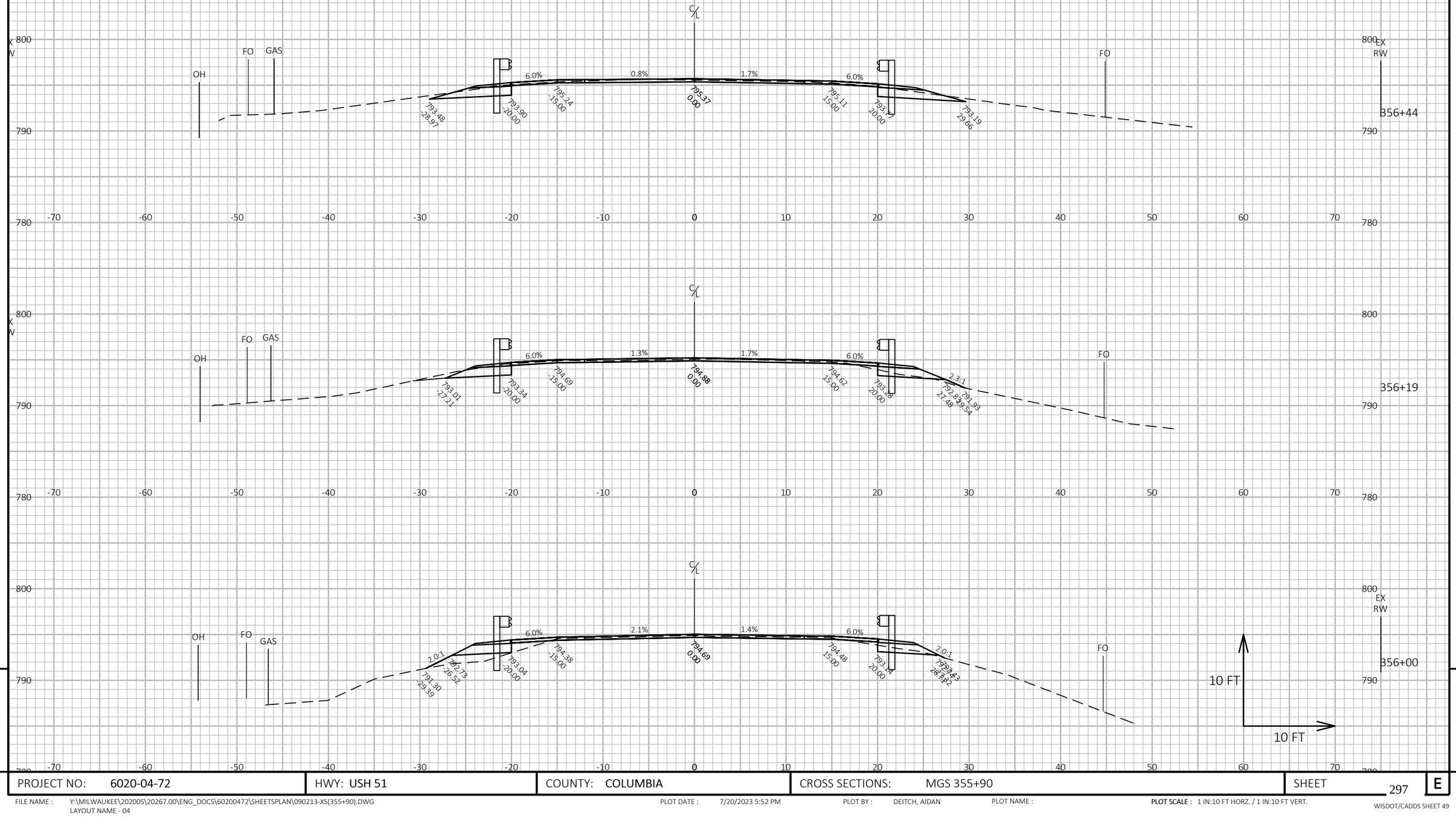
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 297	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 04

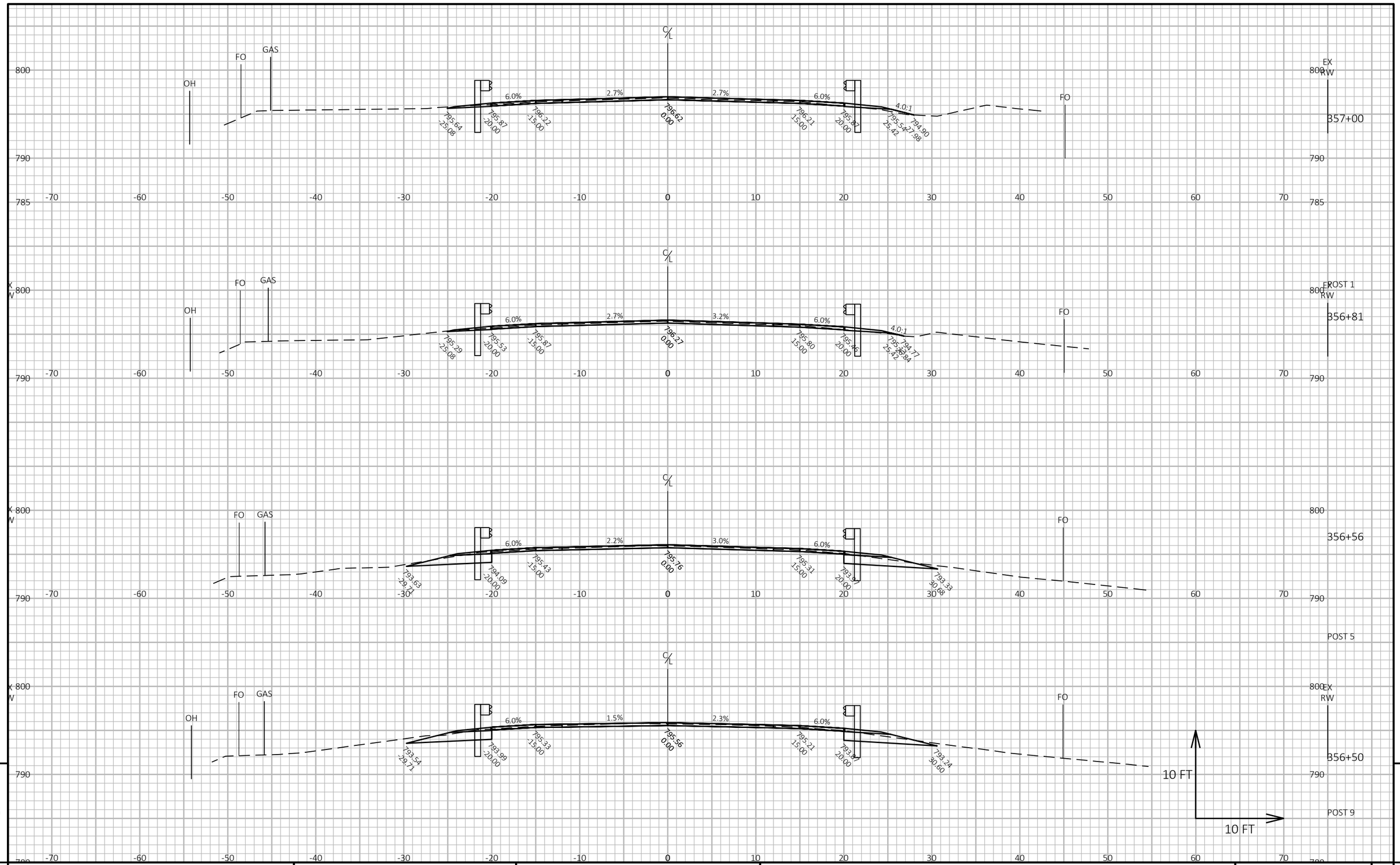
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 298	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 05

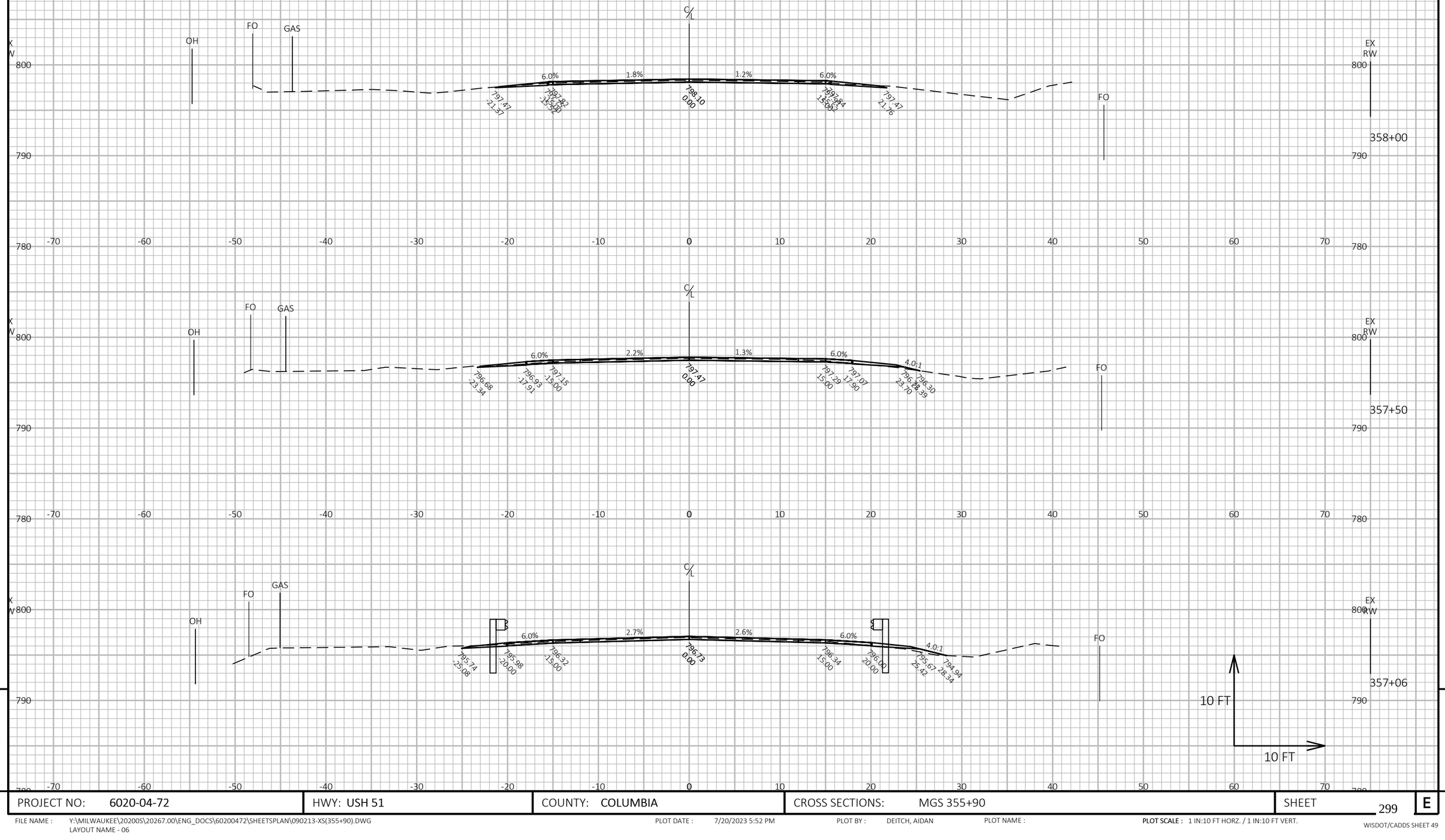
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 355+90	SHEET 299	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(355+90).DWG
LAYOUT NAME - 06

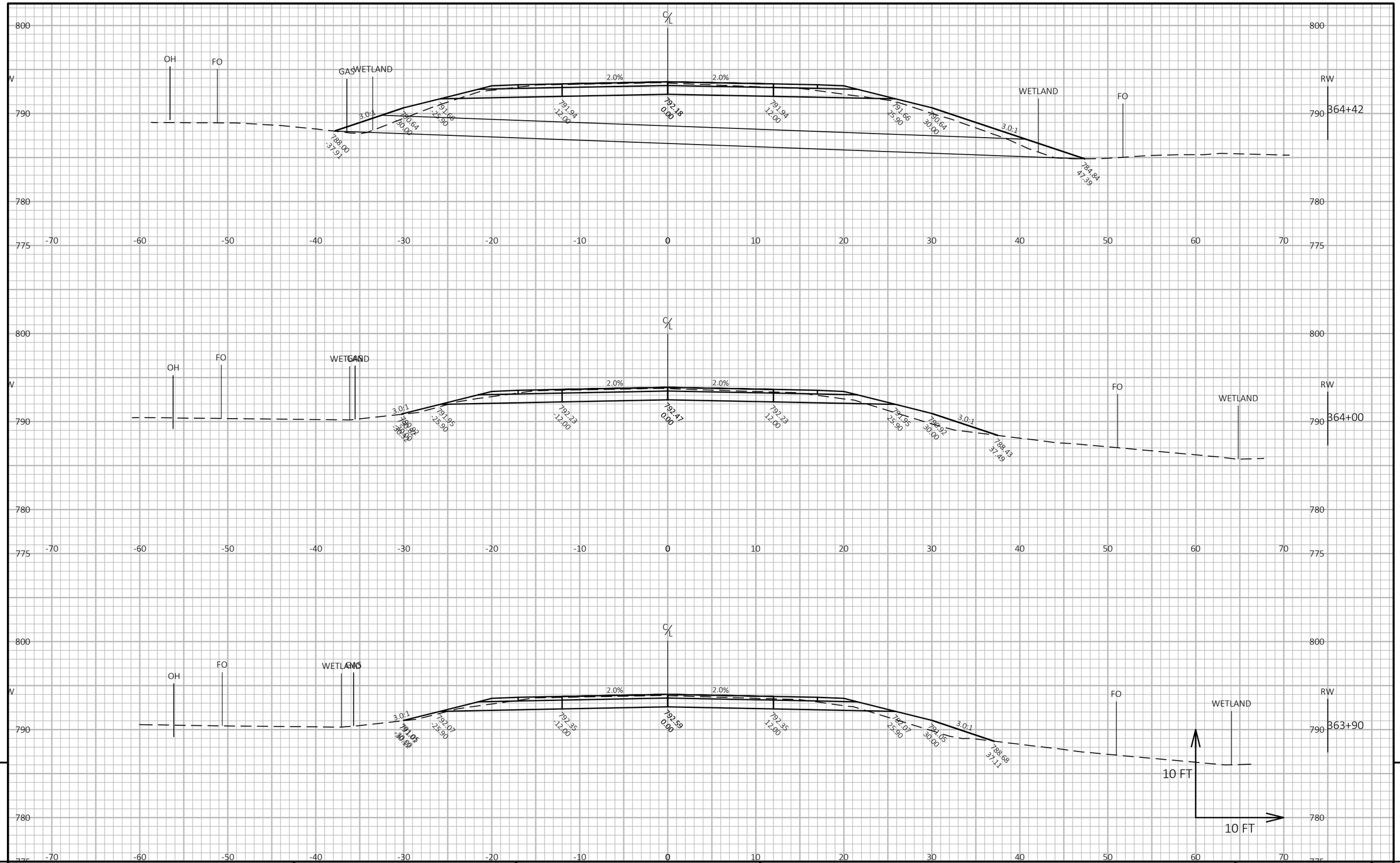
PLOT DATE : 7/20/2023 5:52 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT - 364+42	SHEET 300	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(364+40).DWG
LAYOUT NAME - 01

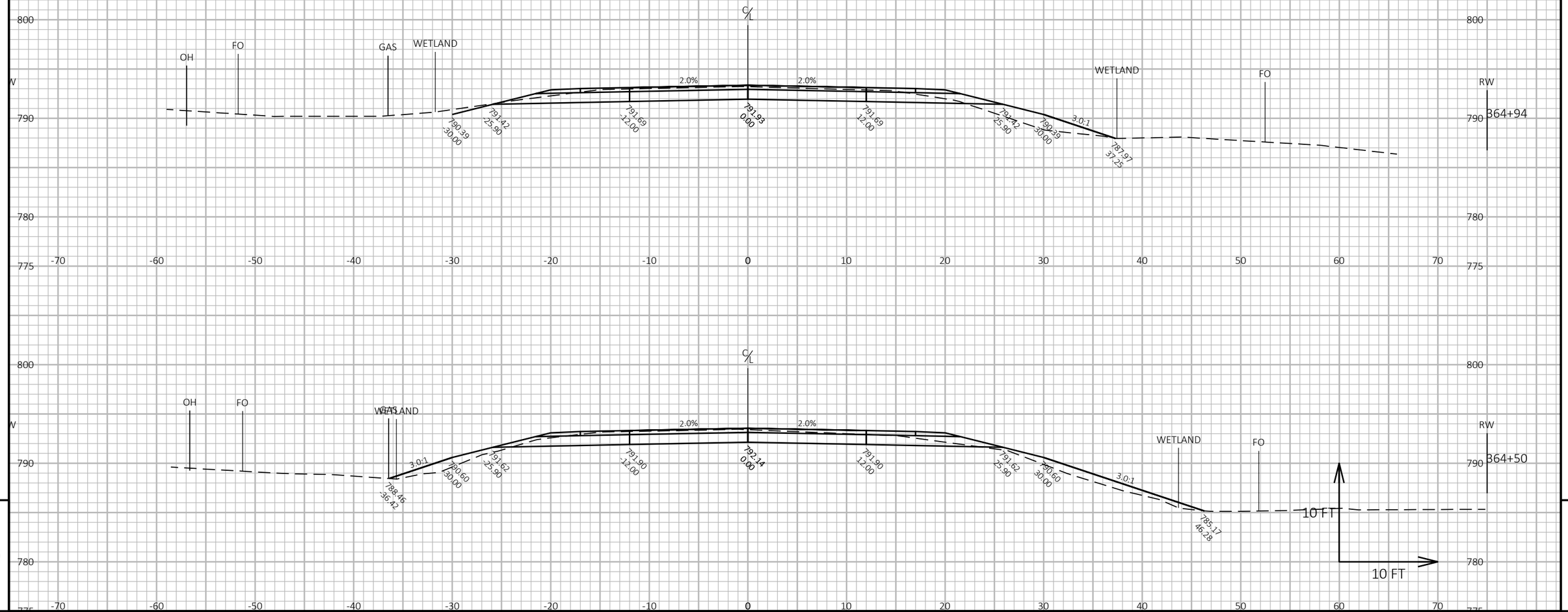
PLOT DATE : 7/20/2023 5:53 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT - 364+42	SHEET 301 E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090213-XS(364+40).DWG
LAYOUT NAME - 02

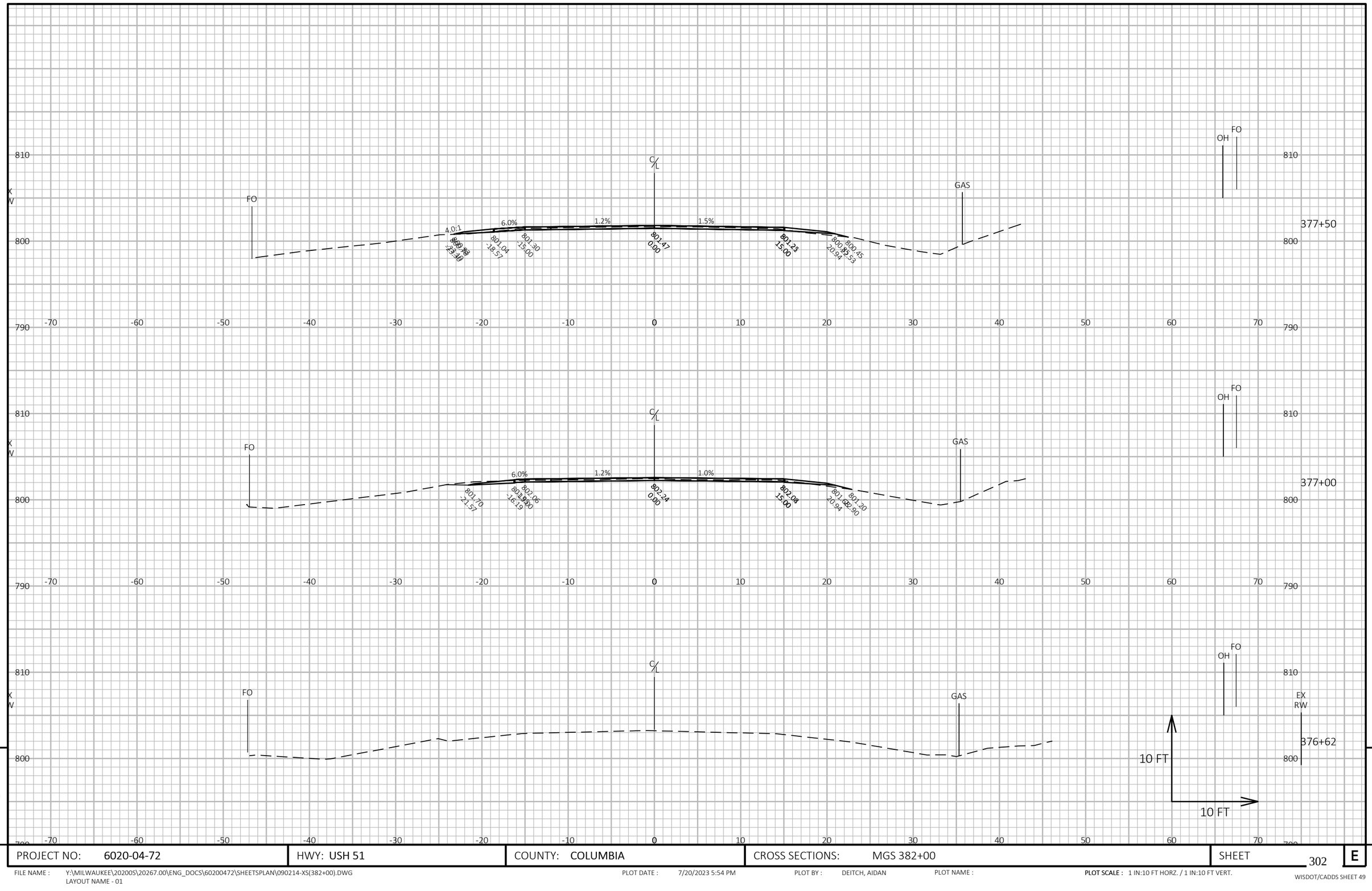
PLOT DATE : 7/20/2023 5:53 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



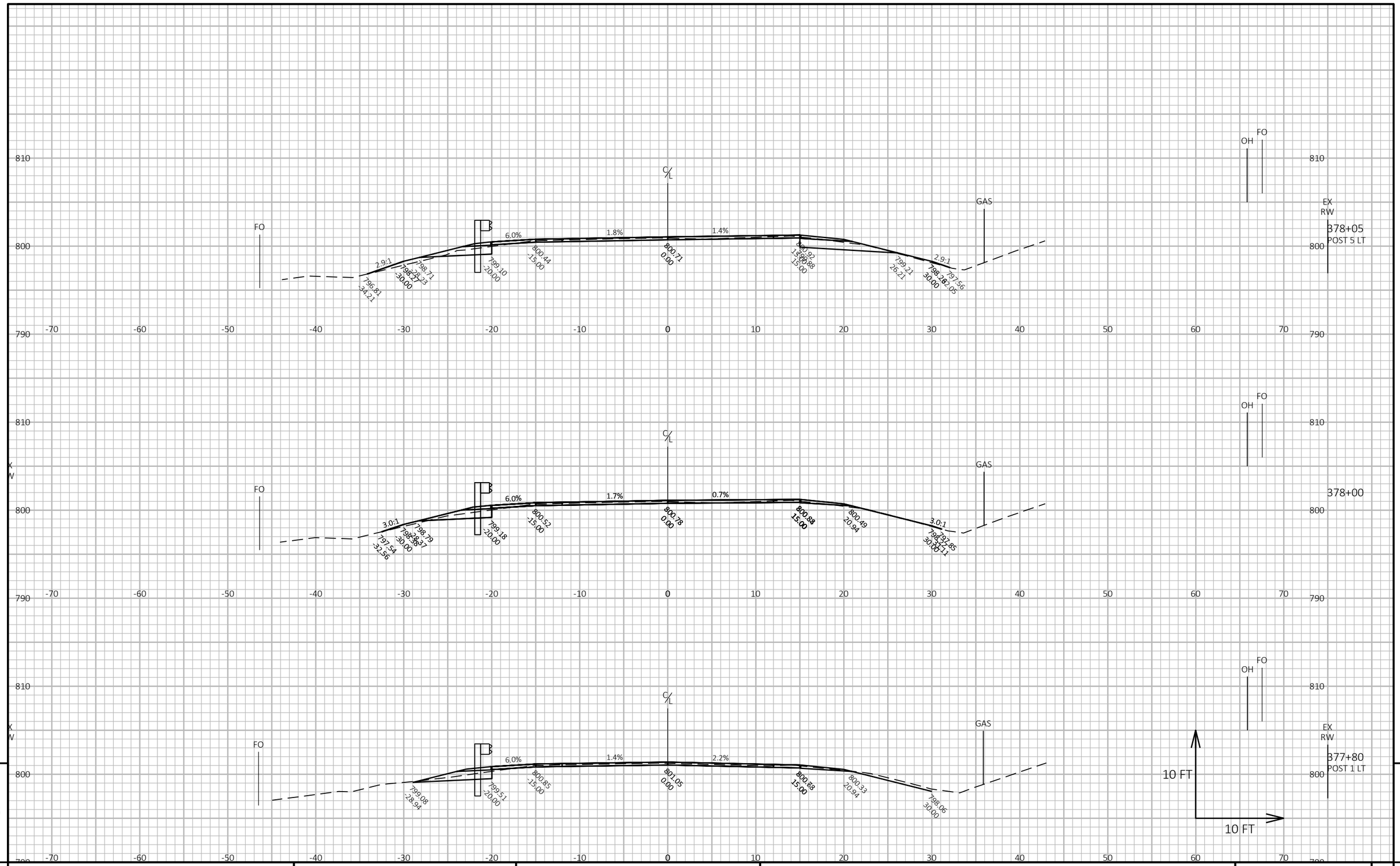
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 302	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 01

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME :

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

WISDOT/CADDS SHEET 49



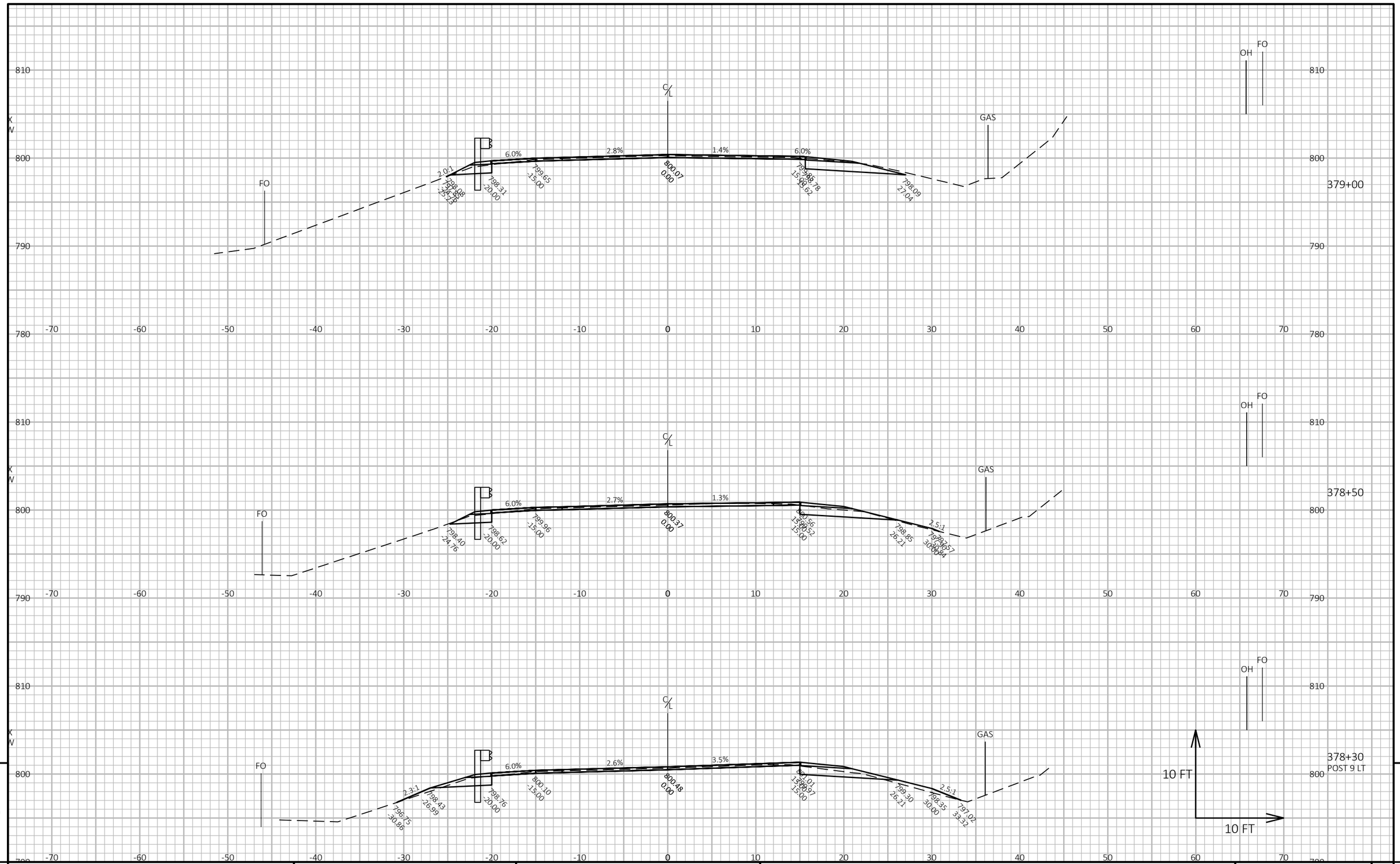
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 303	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 02

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME :

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

WISDOT/CADDS SHEET 49

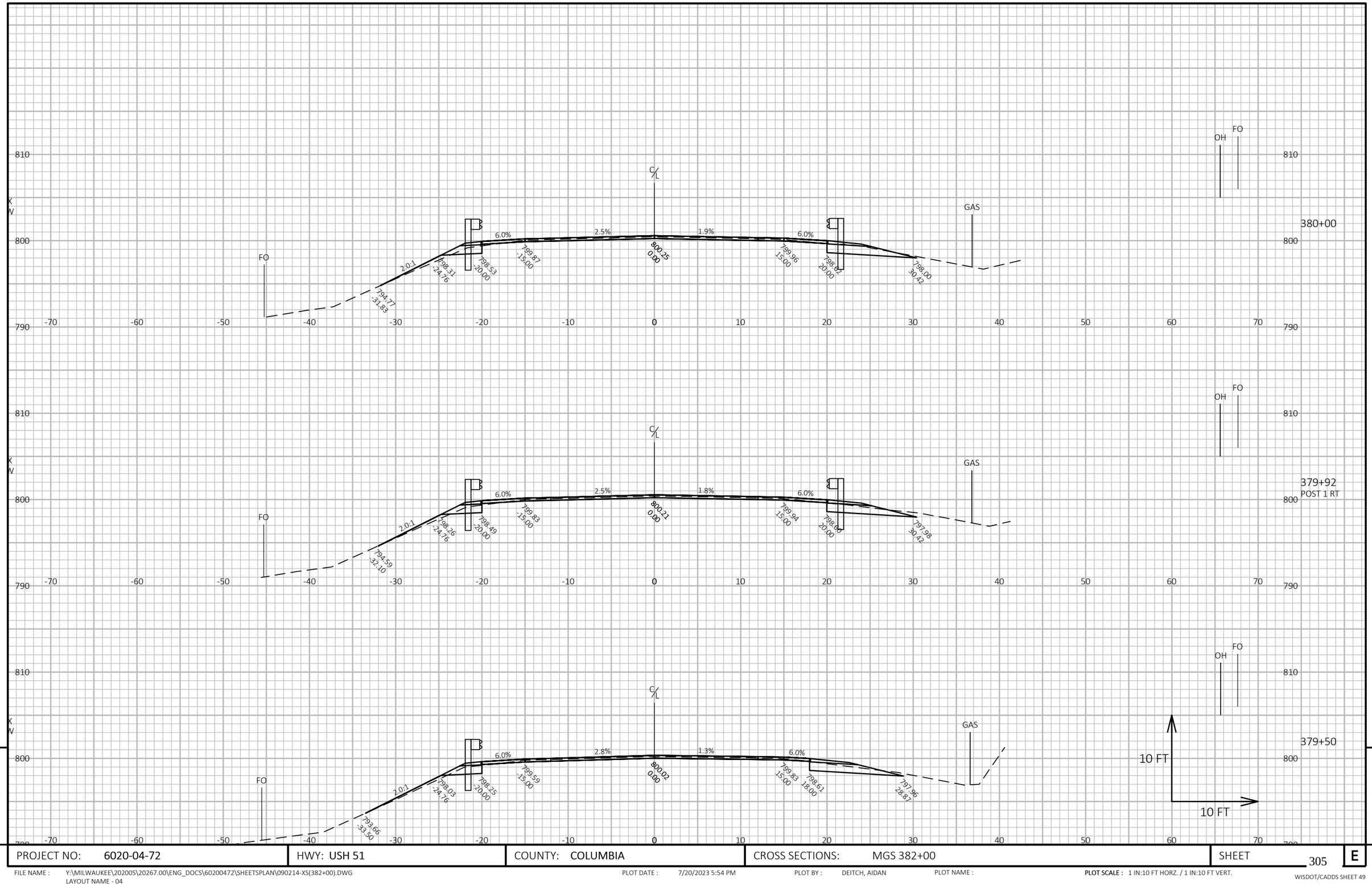


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 304	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 03

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 305	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 04

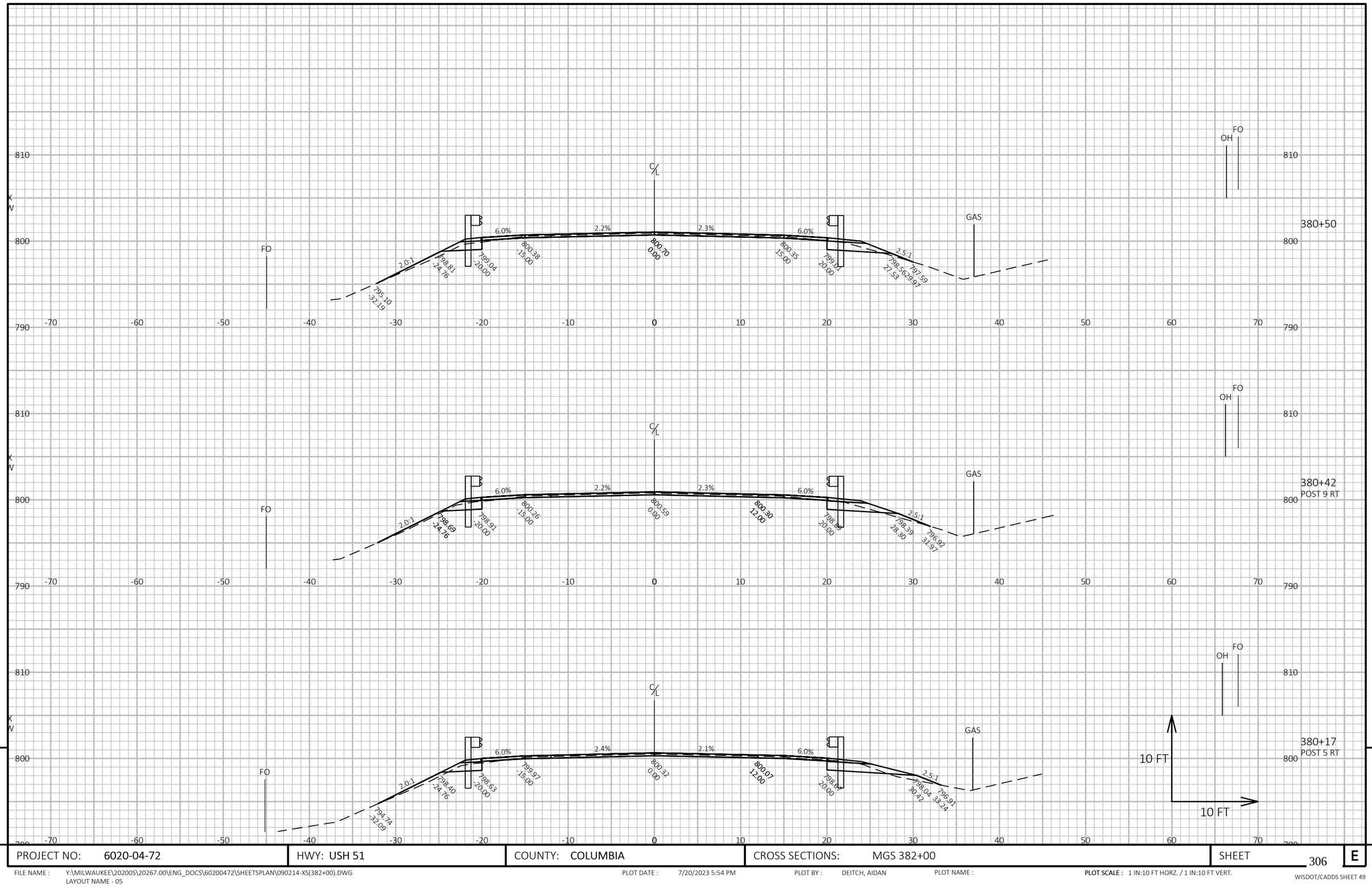
PLOT DATE : 7/20/2023 5:54 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

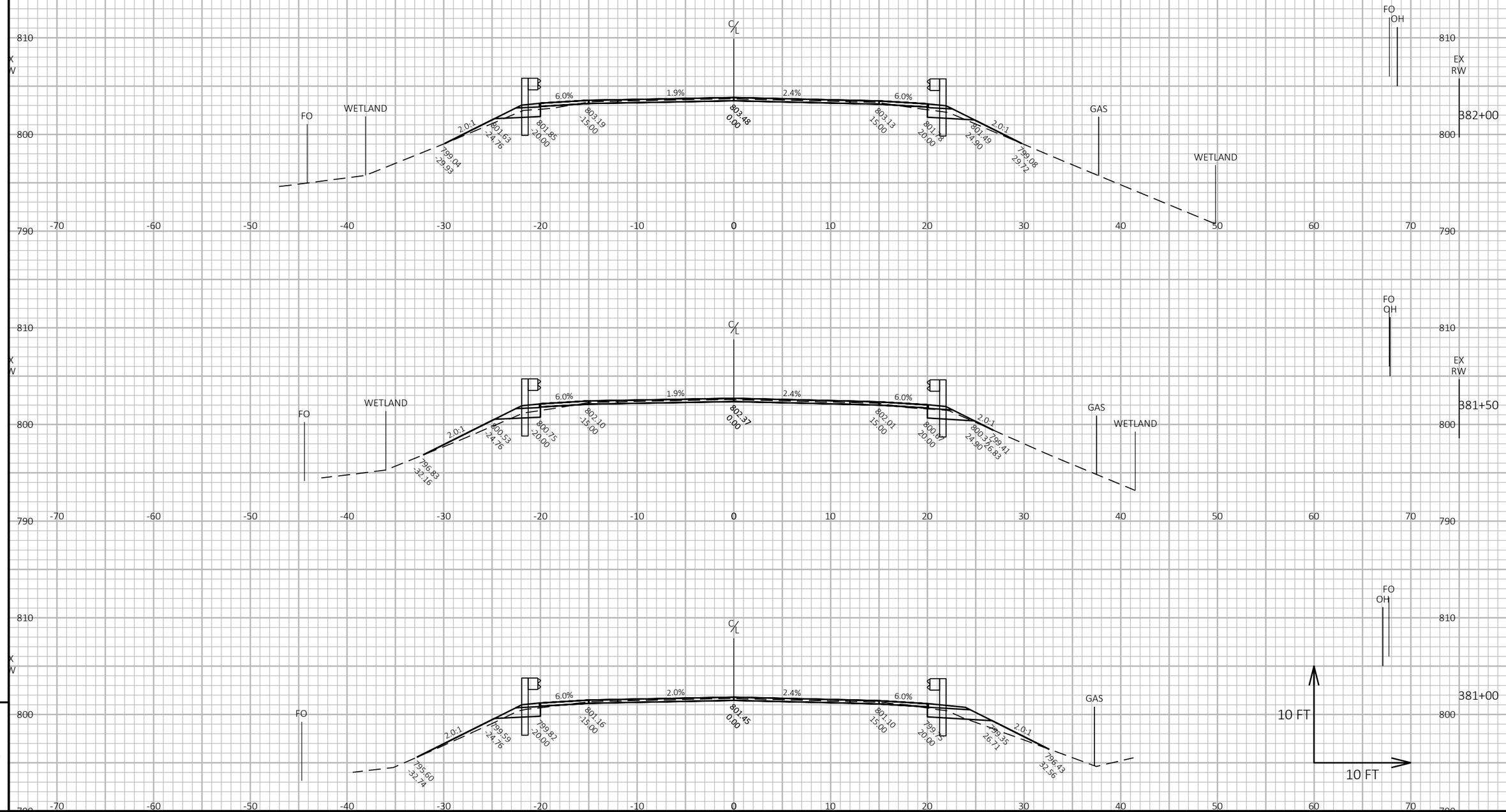
9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 306	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 05

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 307	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 06

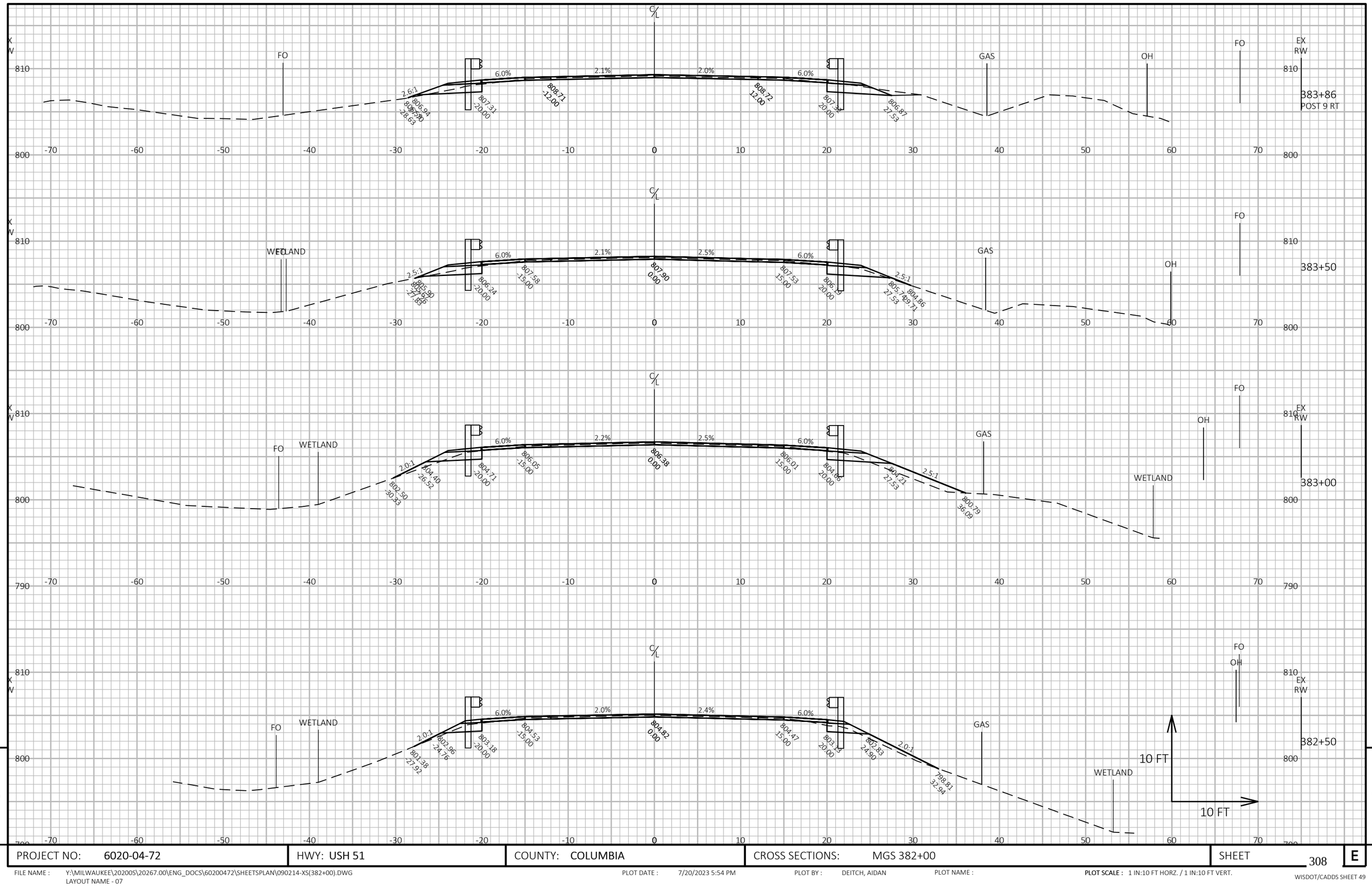
PLOT DATE : 7/20/2023 5:54 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

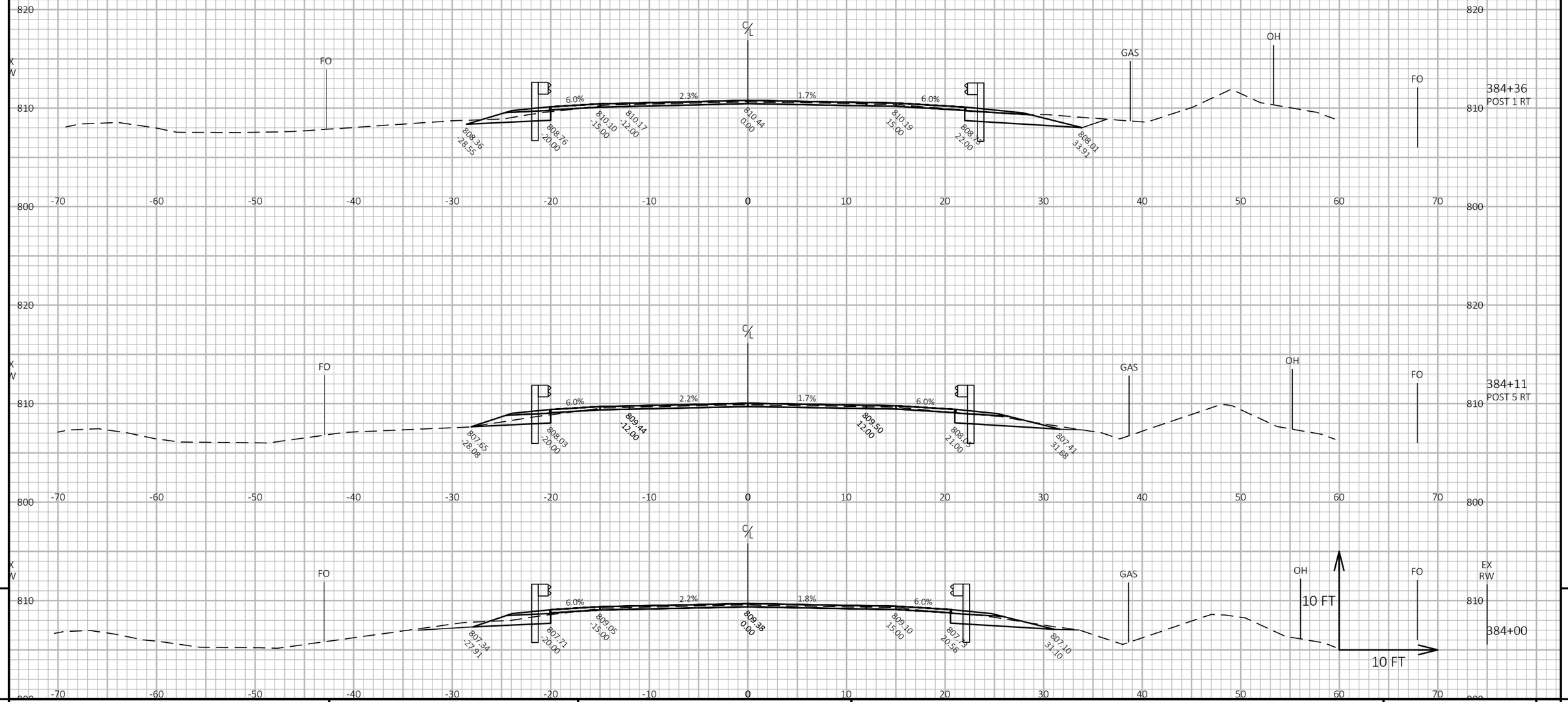
PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 308	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 07

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 309	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 08

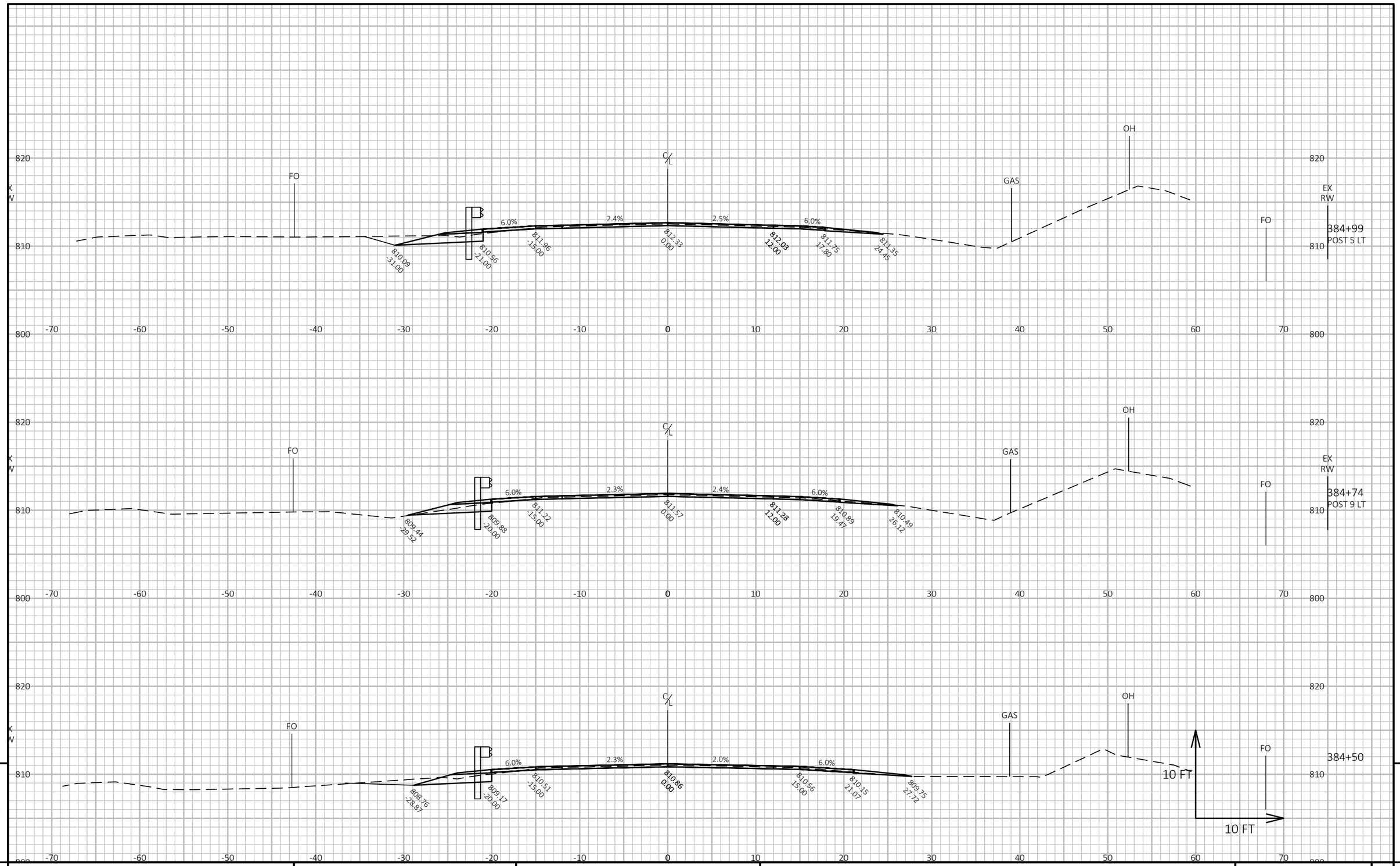
PLOT DATE : 7/20/2023 5:54 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 310	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 09

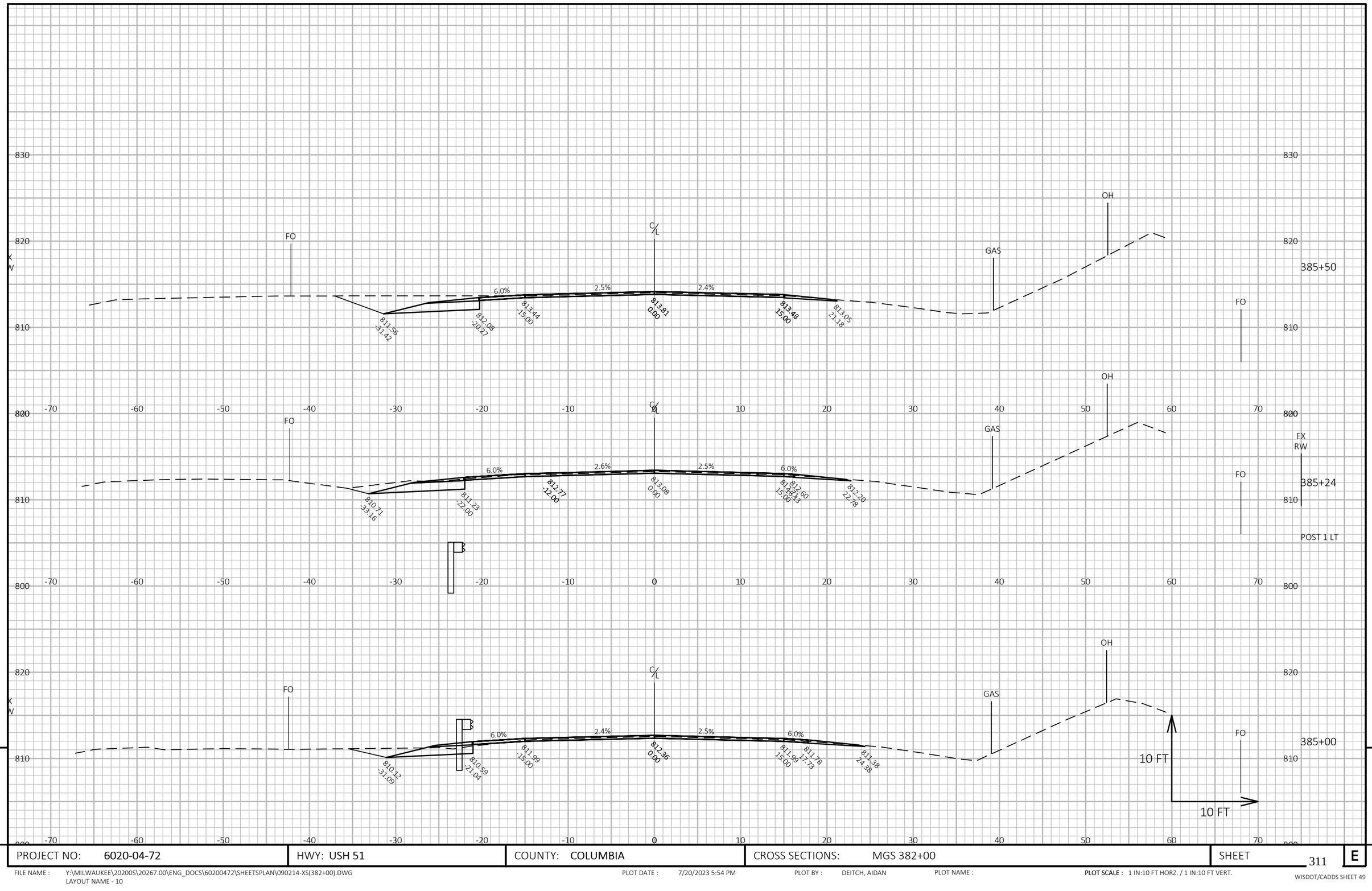
PLOT DATE : 7/20/2023 5:54 PM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

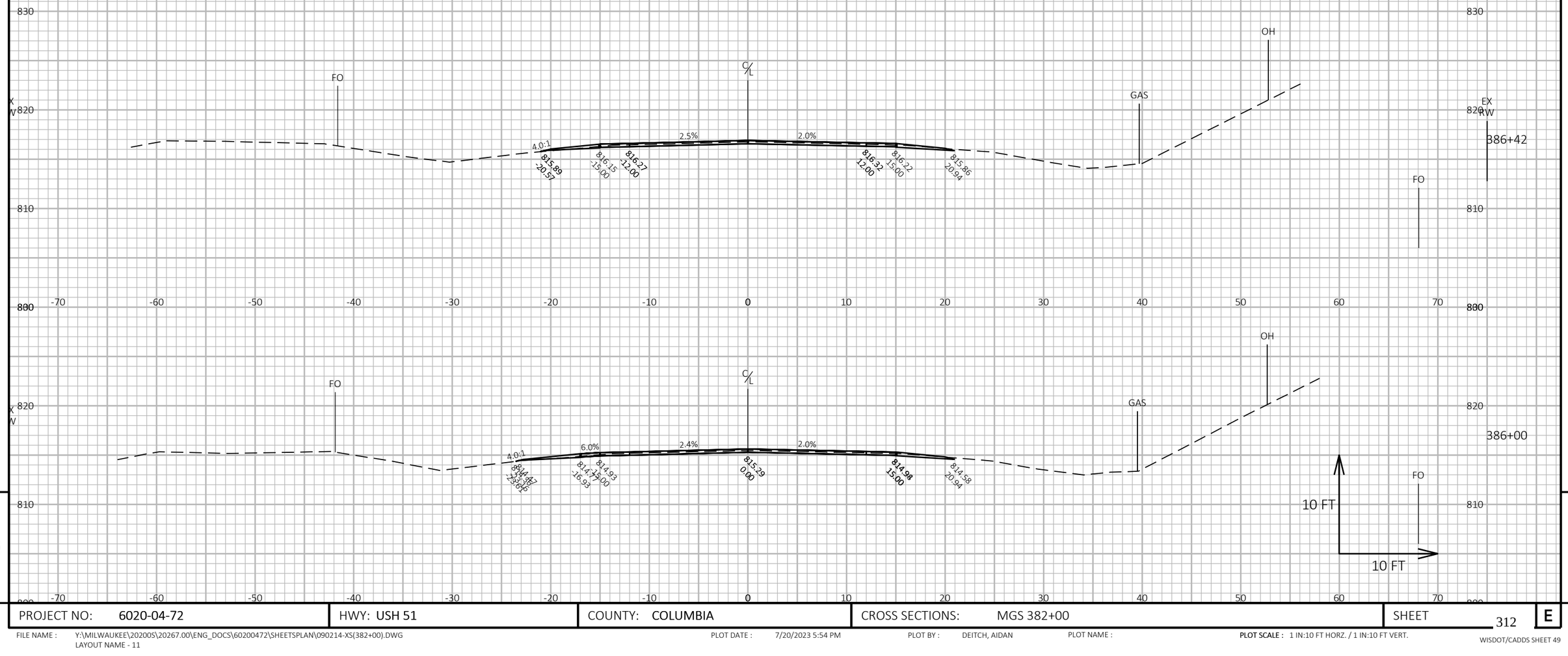


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 311	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 10

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

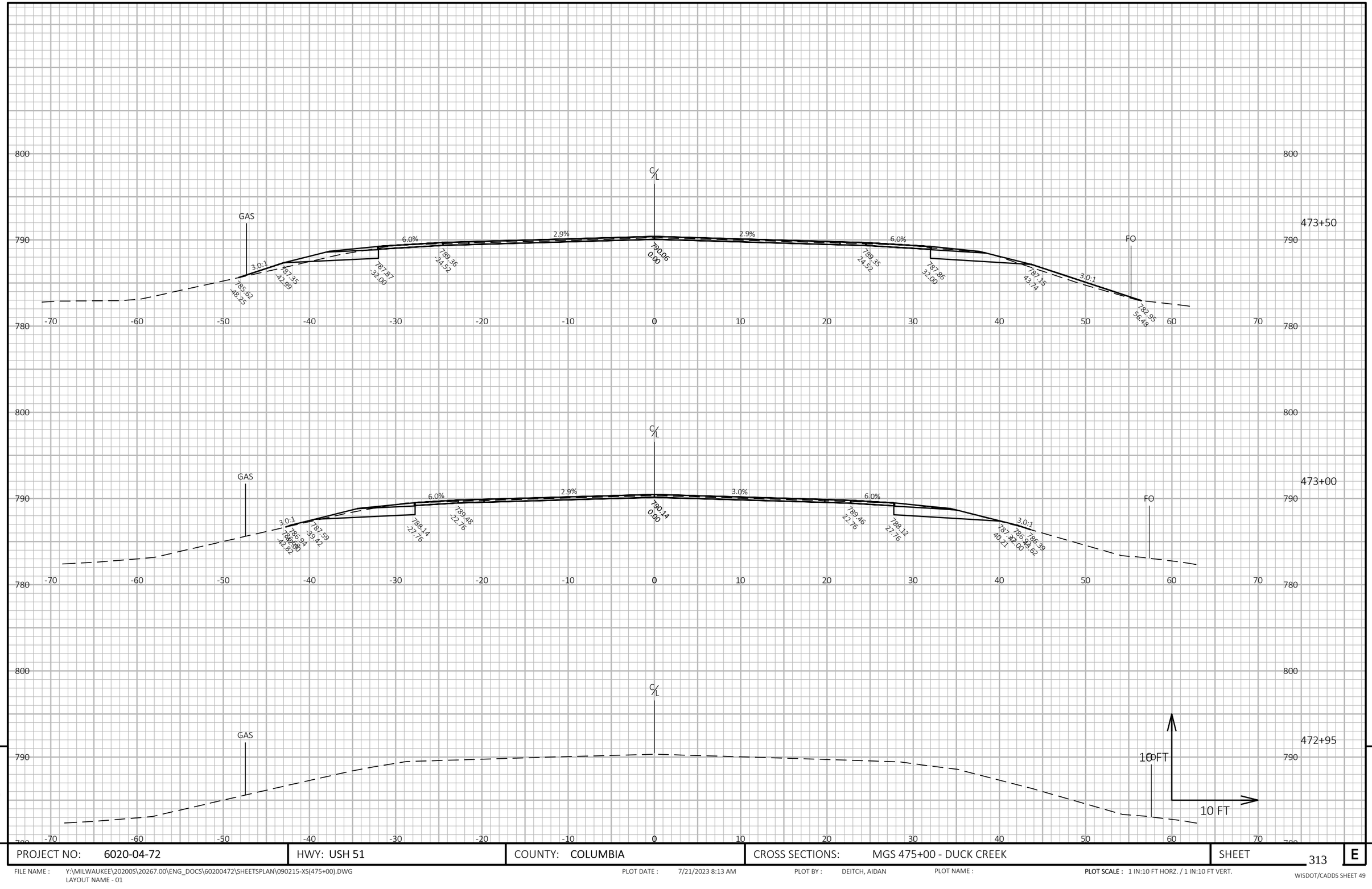


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 382+00	SHEET 312	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090214-XS(382+00).DWG
LAYOUT NAME - 11

PLOT DATE : 7/20/2023 5:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

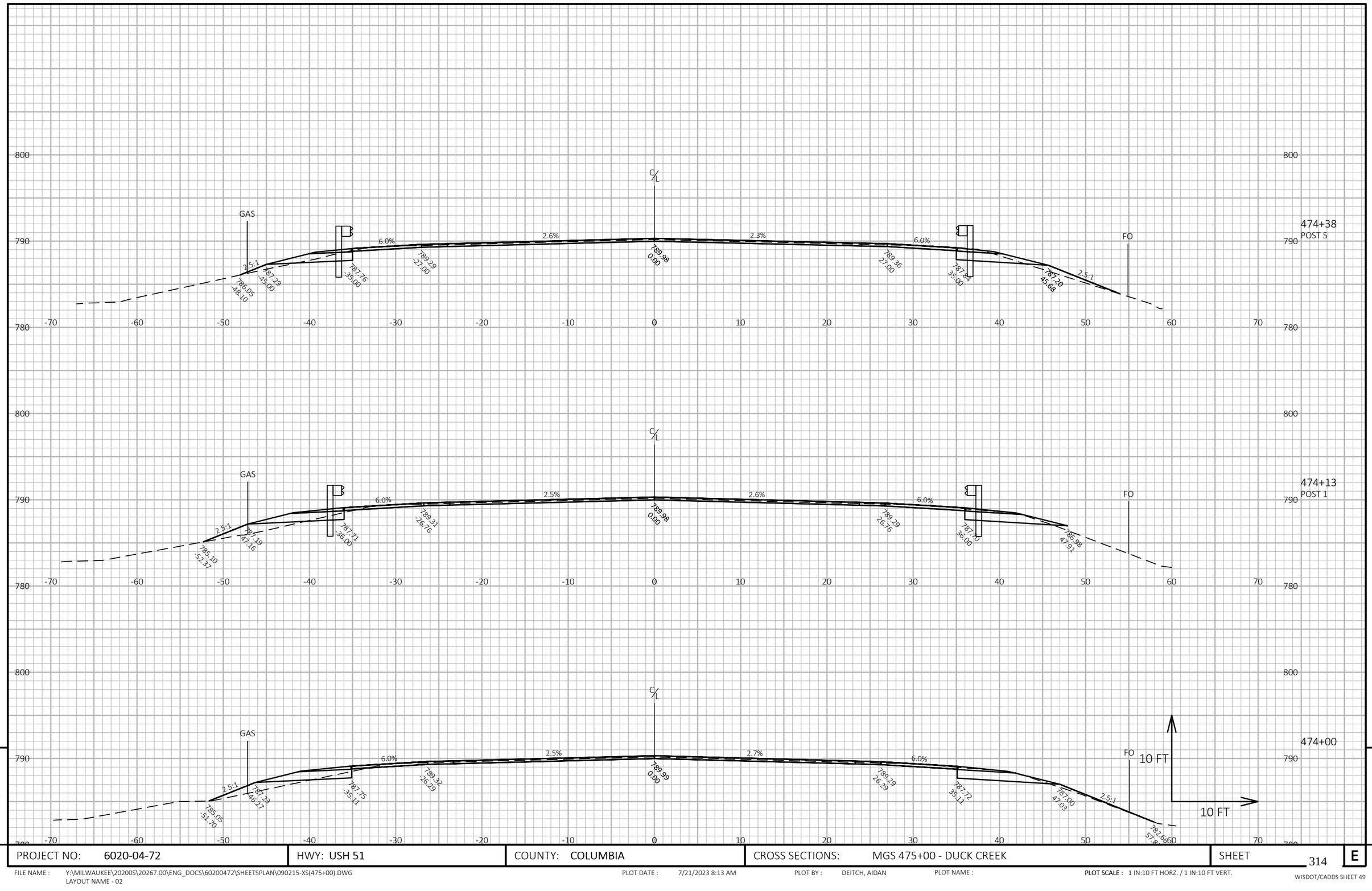


PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 313 E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 01

PLOT DATE : 7/21/2023 8:13 AM PLOT BY : DEITCH, AIDAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 314	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 02

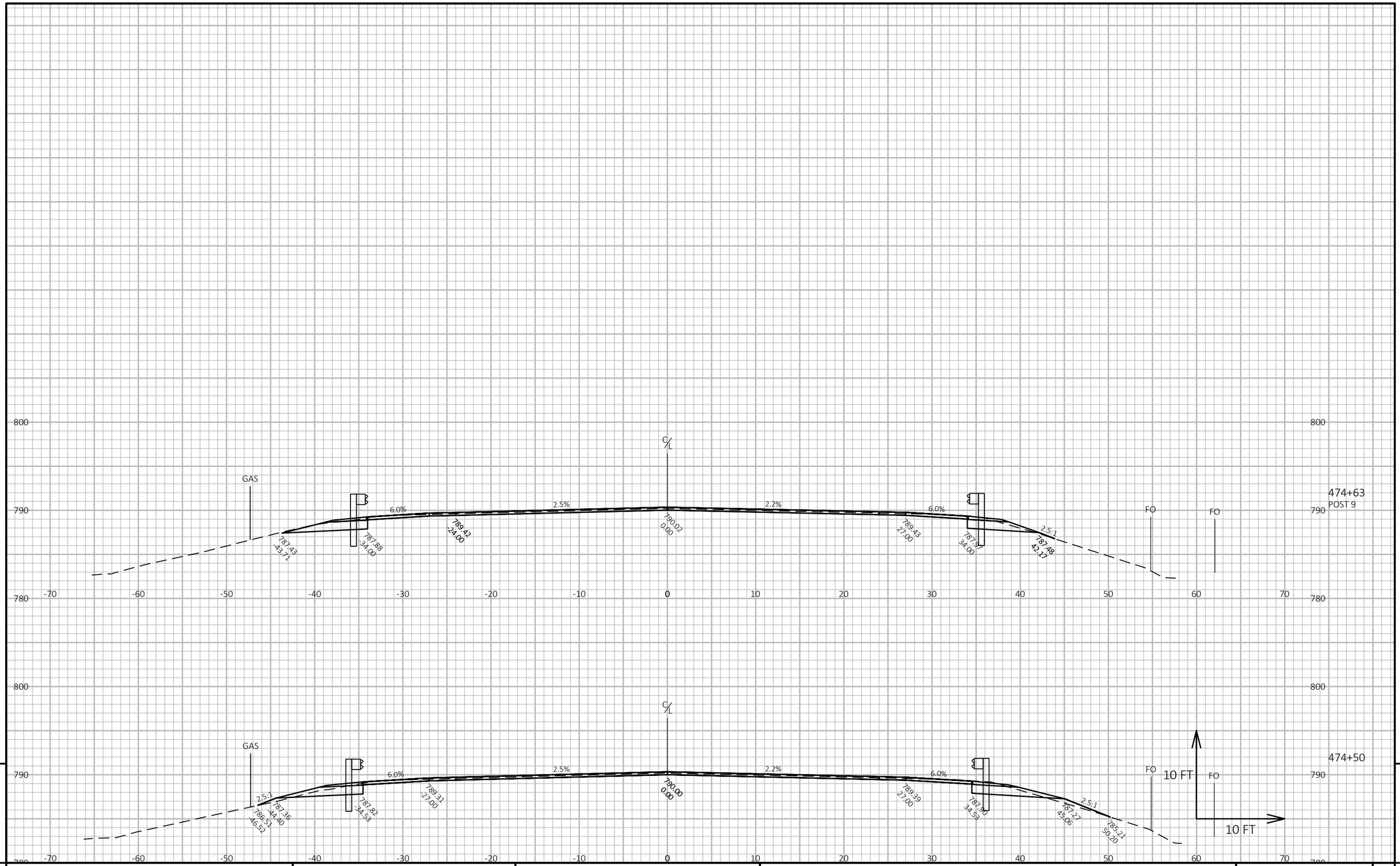
PLOT DATE : 7/21/2023 8:13 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 315	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 03

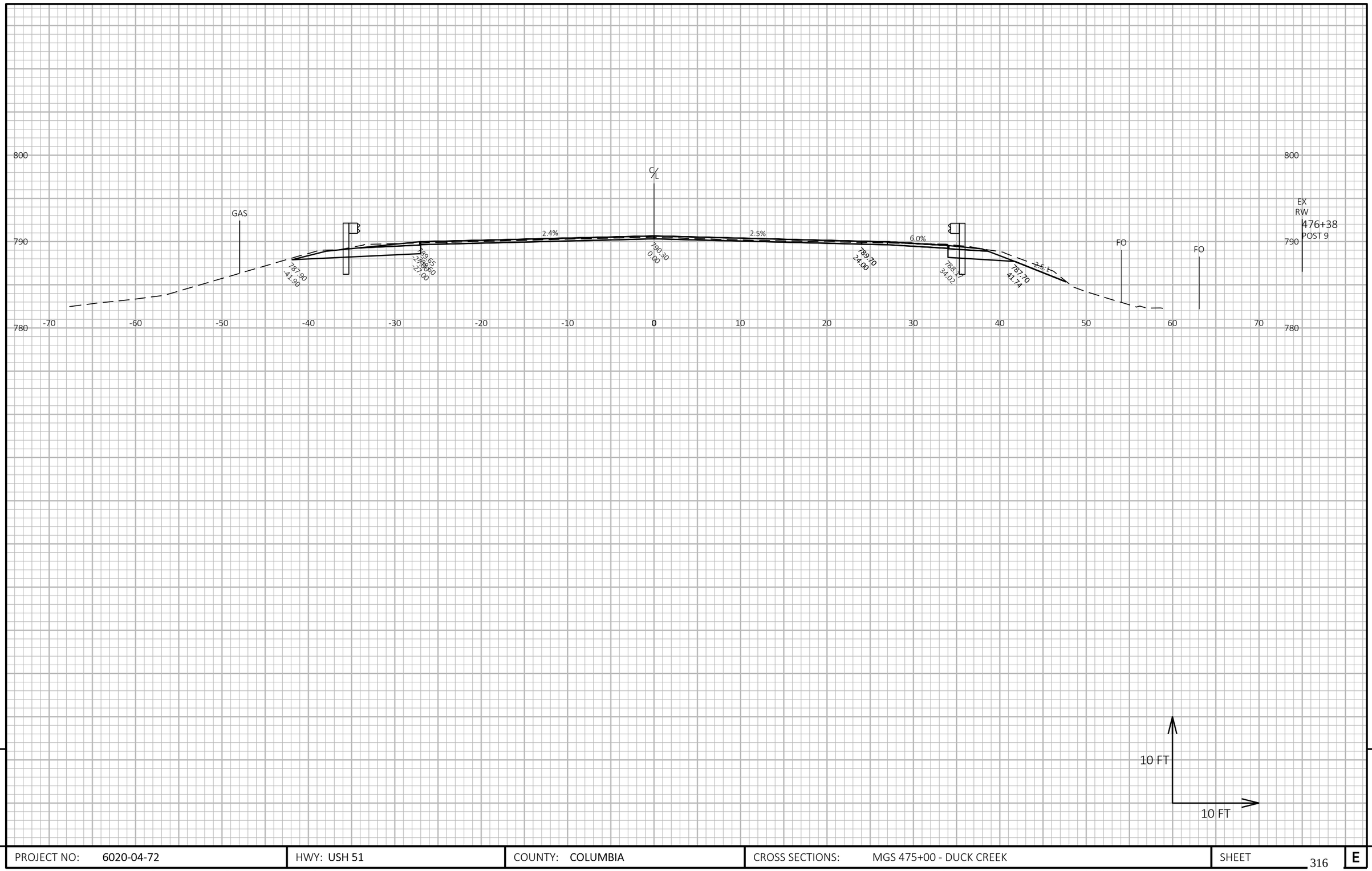
PLOT DATE : 7/21/2023 8:13 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 316	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 04

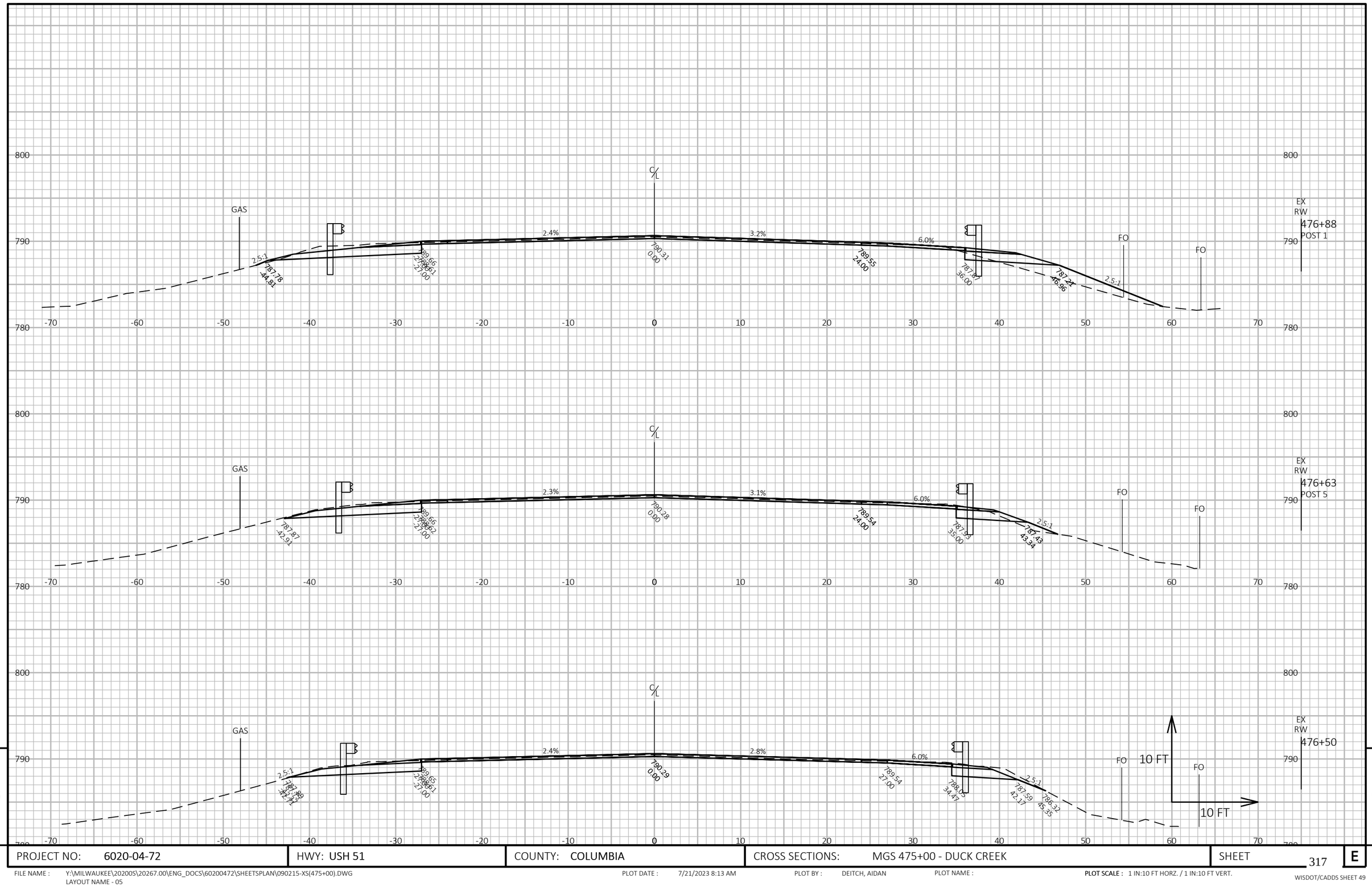
PLOT DATE : 7/21/2023 8:13 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 317	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 05

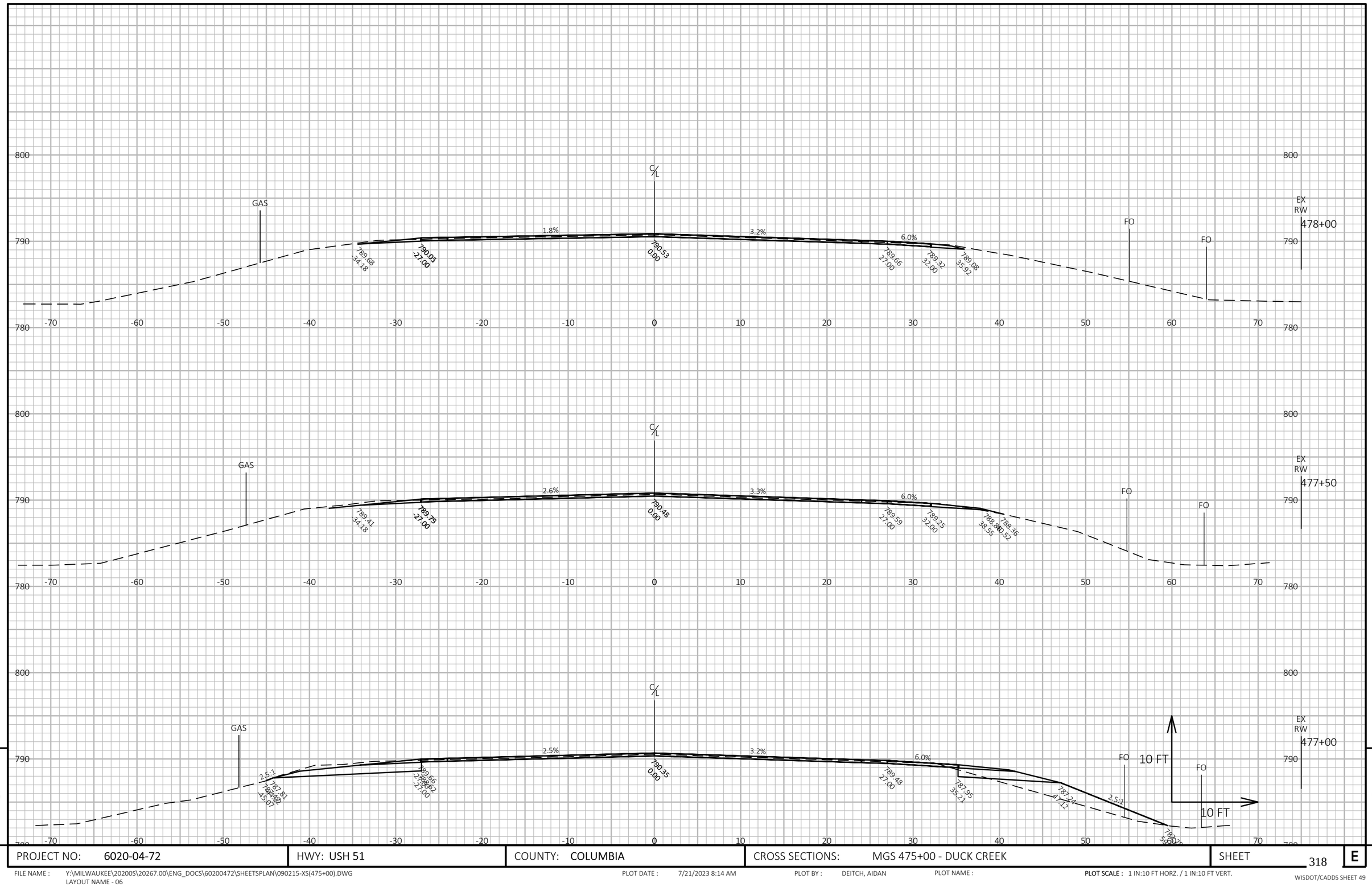
PLOT DATE : 7/21/2023 8:13 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 318	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 06

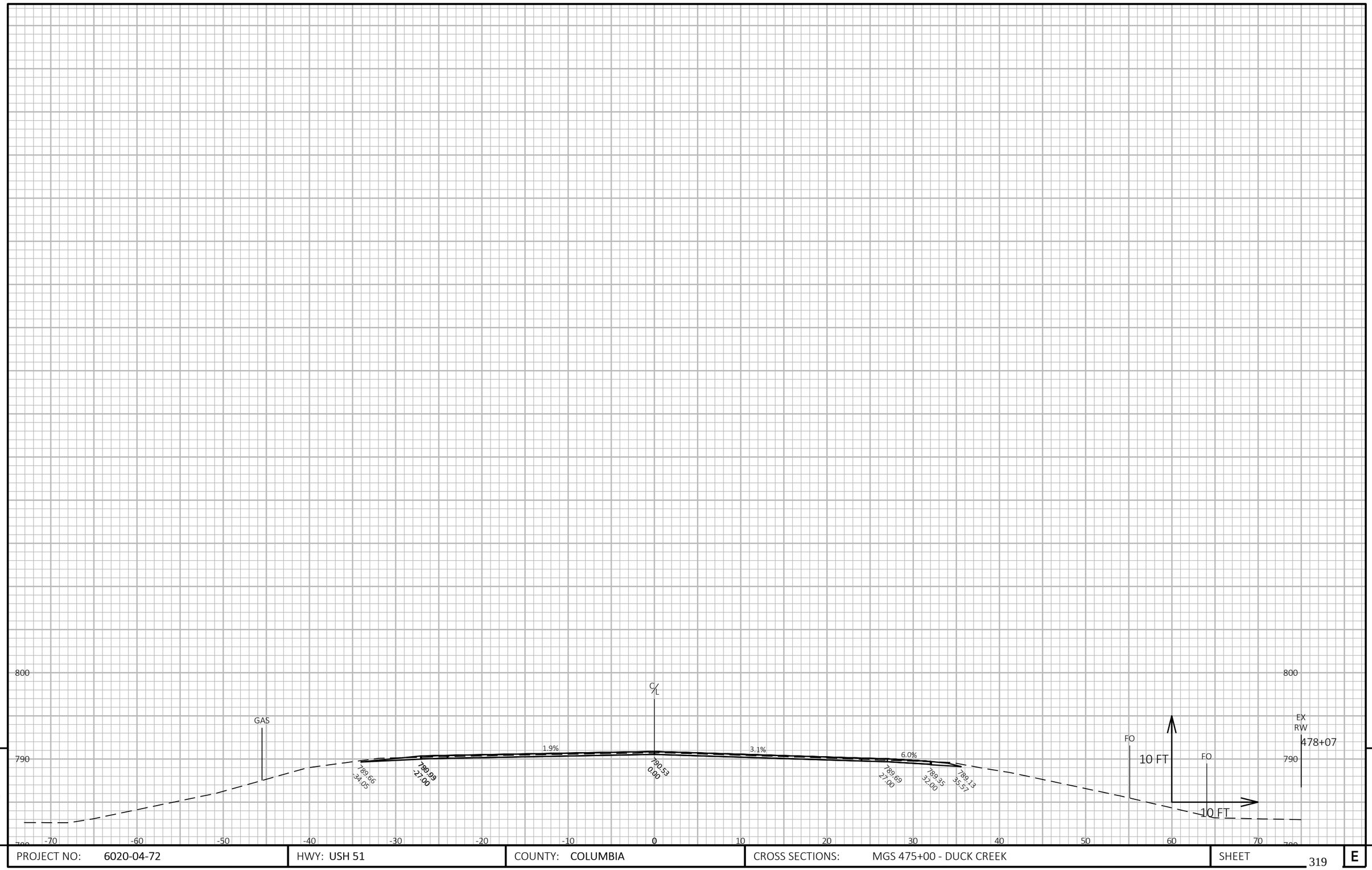
PLOT DATE : 7/21/2023 8:14 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6020-04-72	HWY: USH 51	COUNTY: COLUMBIA	CROSS SECTIONS: MGS 475+00 - DUCK CREEK	SHEET 319	E

FILE NAME : Y:\MILWAUKEE\20200S\20267.00\ENG_DOCS\60200472\SHEETSPLAN\090215-XS(475+00).DWG
LAYOUT NAME - 07

PLOT DATE : 7/21/2023 8:14 AM

PLOT BY : DEITCH, AIDAN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov