Section No.

Section No. Section No. Section No.

Section No.

Section No.

Section No.

TOTAL SHEETS =

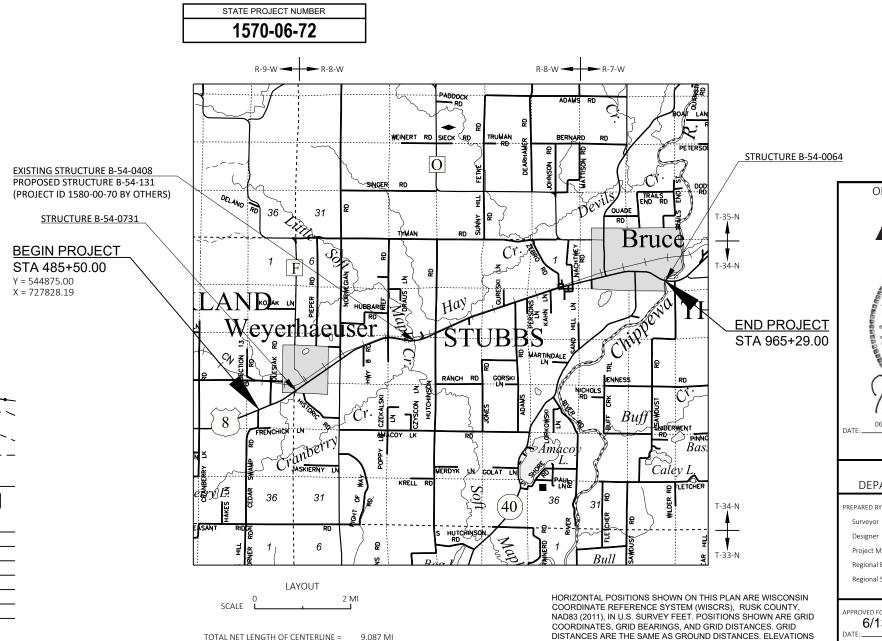
SEPTEMBER 2022 STATE OF WISCONSIN ORDER OF SHEETS **DEPARTMENT OF TRANSPORTATION** Section No. Typical Sections and Details Section No. Estimate of Quantities

PLAN OF PROPOSED IMPROVEMENT

CAMERON - LADYSMITH

CEDAR SWAMP ROAD TO CHIPPEWA RIVER

USH 8 **RUSK COUNTY**



FEDERAL PROJECT STATE PROJECT CONTRACT PROJECT 1570-06-72 WISC 2022521



Miscellaneous Quantities

Standard Detail Drawings

Computer Earthwork Data

Right of Way Plat

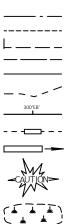
DESIGN DESIGNATION

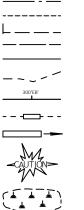
AADT (2022) = 6300 A.A.D.T. (2042)= 7300 D.H.V. D.D. = 60/40 = 28.5% DESIGN SPEED = 55 MPH = 1,600,000

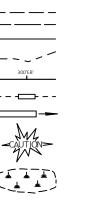
CONVENTIONAL SYMBOLS

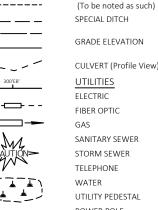
| CONVENTIONAL SYMBOLS |) |
|--|-----------|
| PLAN CORPORATE LIMITS | <u> </u> |
| PROPERTY LINE | |
| LOT LINE LIMITED HIGHWAY EASEMENT EXISTING RIGHT OF WAY PROPOSED OR NEW R/W LINE | L |
| SLOPE INTERCEPT REFERENCE LINE | 300/EB' |
| EXISTING CULVERT PROPOSED CULVERT (Box or Pipe) | |
| COMBUSTIBLE FLUIDS | -CAUTION- |
| MARSH AREA | |
| | |

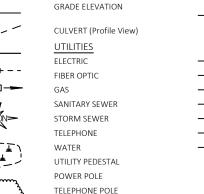
WOODED OR SHRUB AREA





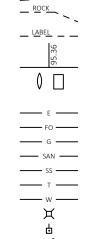






GRADE LINE

ORIGINAL GROUND MARSH OR ROCK PROFILE



Ø

DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

Surveyor

Designer

6/13/2022 Matthew J Dickenson

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

ORIGINAL PLANS PREPARED BY

ABRAMSON

32337

(Professional Engineer Signature)

AYRES ASSOCIATES INC

Ε

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE EARTHWORK. EBS IS MEASURED AND PAID FOR AS EXCAVATION COMMON, EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

SHRINKAGE OF EARTHWORK IS VARIABLE. AN AVERAGE FACTOR FOR EXCAVATION COMMON IS 25%.

SEED, INSTALL EROSION MAT, AND FERTILIZE ALL SALVAGED TOPSOIL AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATER BODY OR WETLAND.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL BY THE ENGINEER.

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

FOR ALL WORK AT CULVERT PIPES APPLY SEED, TEMPORARY SEED, MULCH, AND FERTILIZER TO DISTURBED AREAS OR AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

INTERSECTION RADII TO MATCH EXISTING. RADII SHOWN ON PLAN IS FOR INFORMATION ONLY. ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

CURB AND GUTTER ELEVATIONS AND RADIUS POINTS ARE ALONG THE FLAG LINE UNLESS OTHERWISE NOTED.

THE EXACT LOCATION AND WIDTH OF DRIVEWAY ENTRANCES WILL BE DETERMINED BY THE FIELD ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS.

EXISTING ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

THE CONTRACTOR IS TO TAKE ALL REASONABLE MEASURES TO ASSURE THAT NO SURVEY MONUMENTS WILL BE DESTROYED, DISTURBED, REMOVED OR BURIED TO THE DEGREE THAT THEY ARE NO LONGER USABLE. THE CONTRACTOR MUST CONTACT A LICENSED LAND SURVEYOR OR LOCAL COUNTY LAND SURVEYOR TO PROTECT, PRESERVE, AND RE-MONUMENT ANY CORNER OF THE PUBLIC LAND SURVEY SYSTEM THAT WOULD BE DESTROYED, DISTURBED, REMOVED OR BURIED DURING THE CONSTRUCTION PROCESS.

PROPOSED ROADWAY IMPROVEMENTS SHALL MATCH EXISTING SUPERELEVATIONS AND ROADWAY CROSS SLOPES.

UTILITY CONTACTS

BRUCE TELEPHONE COMPANY INC - COMMUNICATION LINE 620 NORTH ALVEY STREET BRUCE, WI 54819

BRUCE, WI 54819 ATTN: JOHN WARNER OFFICE: 715-403-3267 Jwb101@brucetel.net

SPECTRUM - COMMUNICATION LINE

2304 SOUTH MAIN STREET RICE LAKE, WI 54868 ATTN: JAMEY OLDEEN OFFICE: 715-719-0561 CELL: 715-651-7488 jamey.oldeen@charter.com

BEVCOMM - COMMUNICATION LINE N3767 4TH ATREET WEYERHAUSER, WI 54895 ATTN: RANDY MONNIER OFFICE: 715-353-2434 CELL: 715-492-5029 rmonnier@bevcomm.com

BRUCE MUN WATER & SEWER UTILITY - SEWER AND WATER PO BOX 238
BRUCE, WI 54819-0238
ATTN: DARLENE WUNDROW
OFFICE: 715-868-2188
bruceutility@brucetel.net

WEYERHAEUSER MUNICIPAL WATER UTILITY - SEWER AND WATER PO BOX 168
WEYERHAEUSER, WI 54895
ATTN: PAUL DACHEL
OFFICE: 715-353-2571
CELL: 715-642-1265
weywatu@bevcomm.net

WE ENERGIES - GAS/PETROLEUM 104 WEST SOUTH STREET RICE LAKE, WI 54868 ATTN: STEVEN CHAVERS OFFICE: 715-234-9605 CELL: 715-213-4327 steven.chavers@we-energies.com

BARRON ELECTRIC COOPERATIVE - ELECTRICITY
1434 NORTH STH 25
BARRON, WI 54812
ATTN: JEFF NELSON
OFFICE: 715-537-3171
CELL: 715-418-1167
jnelson@barronelectric.com

XCEL ENERGY - ELECTRICTY
310 HICKORY HILLS LANE
PHILLIPS, WI 54555
ATTN: ANDY HALOPKA
OFFICE: 715-737-1183
CELL: 715-316-1356
andrew.a.halopka@xcelenergy.com

DNR CONTACT

DNR WEST CENTRAL REGOIN HQ 1300 WEST CLAIRMONT AVENUE EAU CLAIRE, WI 54701 ATTN: LEAH NICOL 715-934-9014 LEAH.NICOL@WISCONSIN.GOV

DESIGN CONTACT

AYRES ASSOCIATES INC
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: JEFF ABRAMSON
715-834-3161
ABRAMSONJ@AYRESASSOCIATES.COM

WISDOT DESIGN CONTACT

DEPARTMENT OF TRANSPORTATION 1701 NORTH 4TH STREET SUPERIOR, WI 54880 ATTN: MATTHEW DICKENSON, PE 715-395-3022 MATTHEW.DICKENSON@DOT.WI.GOV

RAILROAD CONTACT

CN RAILROAD
3192 S. POKEGAMA ROAD
SUPERIOR, WI 54880
ATTN: JACKIE SAP, MANAGER PUBLIC WORKS
715-345-2503
JACKIE SAPP@CN.CA



PROJECT NO: 1570-06-72 HWY: USH 8 COUNTY: RUSK GENERAL NOTES SHEET **E**

4/27/2022 2:28 PM

WOOLEVER, NATHAN

PLOT NAME

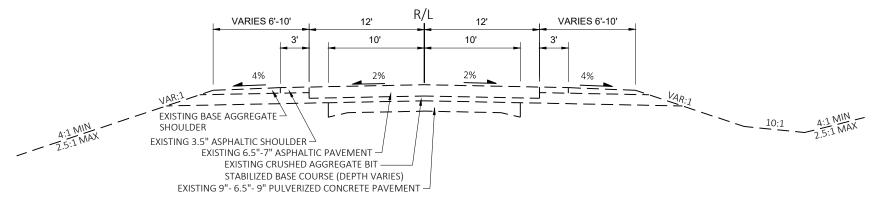
PLOT SCALE :

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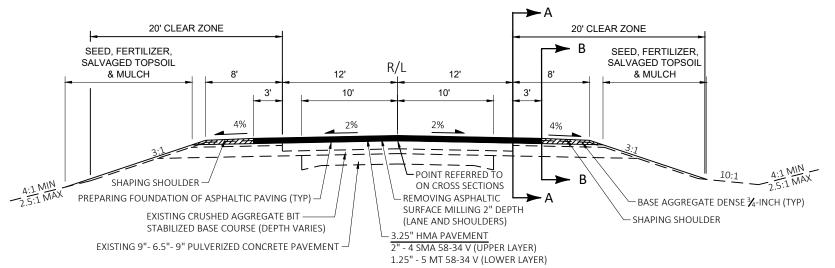
PLOT DATE:

I:\41\410819 USH 8 CEDAR SWAMP\C3D\SHEETSPLAN\020101-GN.DWG LAYOUT NAME - 020101-gn





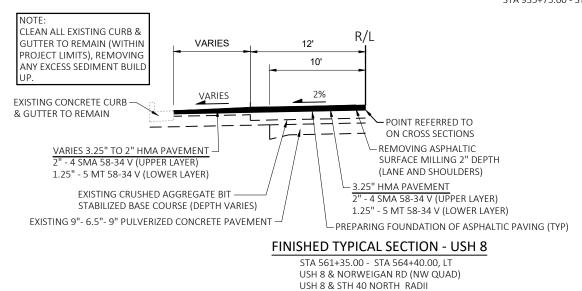
EXISTING TYPICAL SECTION - USH 8



FINISHED TYPICAL SECTION - USH 8

STA 485+50.00 - STA 922+75.00 STA 935+75.00 - STA 965+29.00

COUNTY: RUSK



HWY: USH 8

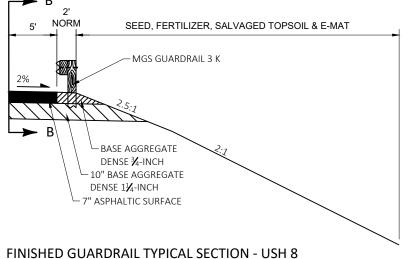
DENSE 11/4-INCH - 7" ASPHALTIC SURFACE

STA 503+65.85 - STA 507+84.60

CLEAN ALL EXISTING CURB & 12' GUTTER TO REMAIN (WITHIN PROJECT LIMITS), REMOVING ANY EXCESS SEDIMENT BUILD VARIES EXISTING CONCRETE CURB & GUTTER TO REMAIN - REMOVING ASPHALTIC SURFACE MILLING 2" DEPTH (LANE AND SHOULDERS) VARIES 3.25" TO 2" HMA PAVEMENT 2" - 4 SMA 58-34 V (UPPER LAYER) 1.25" - 5 MT 58-34 V (LOWER LAYER)

FINISHED TYPICAL SECTION - USH 8

STA 549+50.00 - STA 551+00.00 (STATION RANGE IS APPROXIMATE, CURB & GUTTER COVERED IN SAND)



PROJECT NO: 1570-06-72

FILE NAME

PLOT DATE: 4/27/2022 2:28 PM **TYPICAL SECTIONS**

1 IN:10 FT

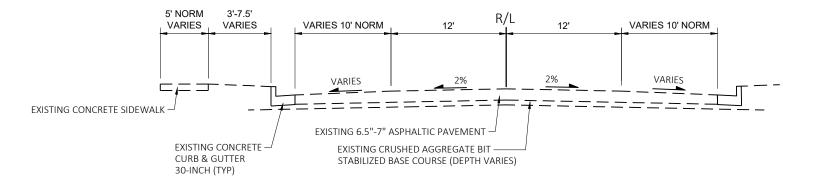
SHEET

WISDOT/CADDS SHEET 42

Ε

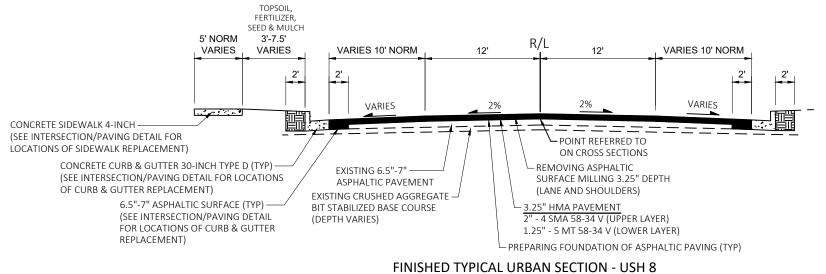
STA 940+97.00 - STA 944+29.00, LT





EXISTING TYPICAL URBAN SECTION - USH 8

STA 922+75.00 - STA 935+75.00



STA 922+75.00 - STA 935+75.00

NOTE: CLEAN ALL EXISTING CURB & GUTTER TO REMAIN (WITHIN PROJECT LIMITS), REMOVING ANY EXCESS SEDIMENT BUILD

PROJECT NO: 1570-06-72 HWY: USH 8 COUNTY: RUSK TYPICAL SECTIONS SHEET **E**

FILE NAME : I:\41\410819 USH 8 CEDAR SWAMP\C3D\SHEETSPLAN\020301-TS.DWG LAYOUT NAME - 020302-ts

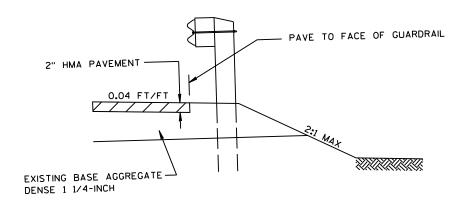
PLOT SCALE :

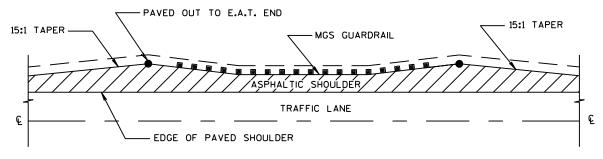
1 IN:10 FT

RUNOFF COEFFICIENT TABLE

| | Н | 'DROLOG | IC SOIL GROUP | | | | | | | | | | |
|-----------------------|-----------------------|------------|---------------|-----------------------|-----|------------|-----------------------|------------|------------|-----------------------|------------|------------|--|
| А | 1 | В | С | | | | | | | | D | | |
| | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | |
| LAND USE: | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | |
| ROW CROPS | .08 | .16 | .22 | .12 | .20 | .27 | .15 | .24 | .33 | .19 | .28 | .38 | |
| | .22 | .30 | .38 | .26 | .34 | .44 | .30 | .37 | .50 | .34 | .41 | .56 | |
| MEDIAN STRIP- TURF | .19 .24 | .20 .26 | .24 .30 | .19 .25 | .22 | .26 .33 | .20 .26 | .23 .30 | .30 .37 | .20 .27 | .25 .32 | .30 .40 | |
| SIDE SLOPE: TURF | | | .25 .32 | | | .27 .34 | | | .28 .36 | | | .30 .38 | |
| PAVEMENT: | | | | • | | • | | | • | • | | • | |
| ASPHALT | | | | | | .7095 | | | | | | | |
| CONCRETE .8095 | | | | | | | | | | | | | |
| BRICK | | | | · | | .7080 | | | | | | | |
| DRIVES, WALKS | | | | | | .7585 | | | | | | | |
| ROOFS | | | | | | .7595 | | | | | | | |
| GRAVEL ROADS, SHO | DULDERS | | | | | .4060 | | | | | | | |

TOTAL PROJECT AREA = ____ 55___ ACRES TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 8 ACRES





ASPHALTIC PAVING ALONG BEAMGUARD

HWY: USH 8

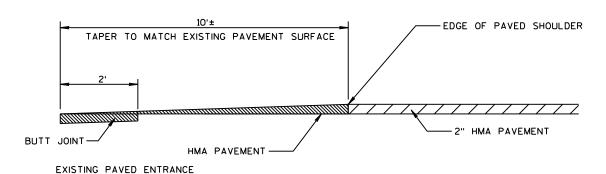
STA 503+66 - STA 507+85, RT STA 962+84 - STA 965+36, LT STA 963+47 - STA 965+36, RT

COUNTY: RUSK

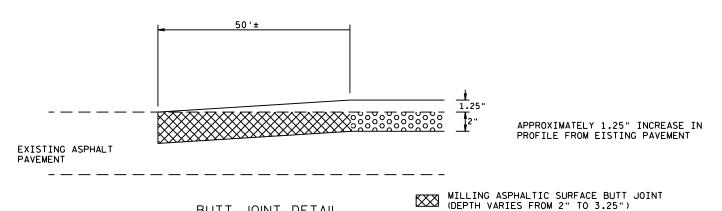
TAPER TO MATCH EXISTING PAVEMENT SURFACE EXISTING AGGREGATE ENTRANCE 2" HMA PAVEMENT BASE AGGREGATE DENSE 3/4-INCH BASE AGGREGATE PRIVATE ENTRANCE DETAIL PROFILE VIEW

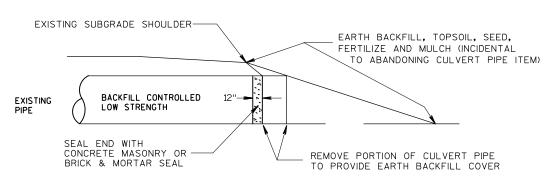
-EDGE OF PAVED SHOULDER

10'±



PAVED PRIVATE ENTRANCE DETAIL PROFILE VIEW





ABANDONING CULVERT PIPE DETAIL NOTE: SEE PLAN DETAILS FOR LOCATIONS.

Ε **CONSTRUCTION DETAILS** SHEET

I:\41\410819 USH 8 CEDAR SWAMP\C3D\SHEETSPLAN\021001-CD.DWG

1570-06-72

LAYOUT NAME - 021001-cd

PROJECT NO:

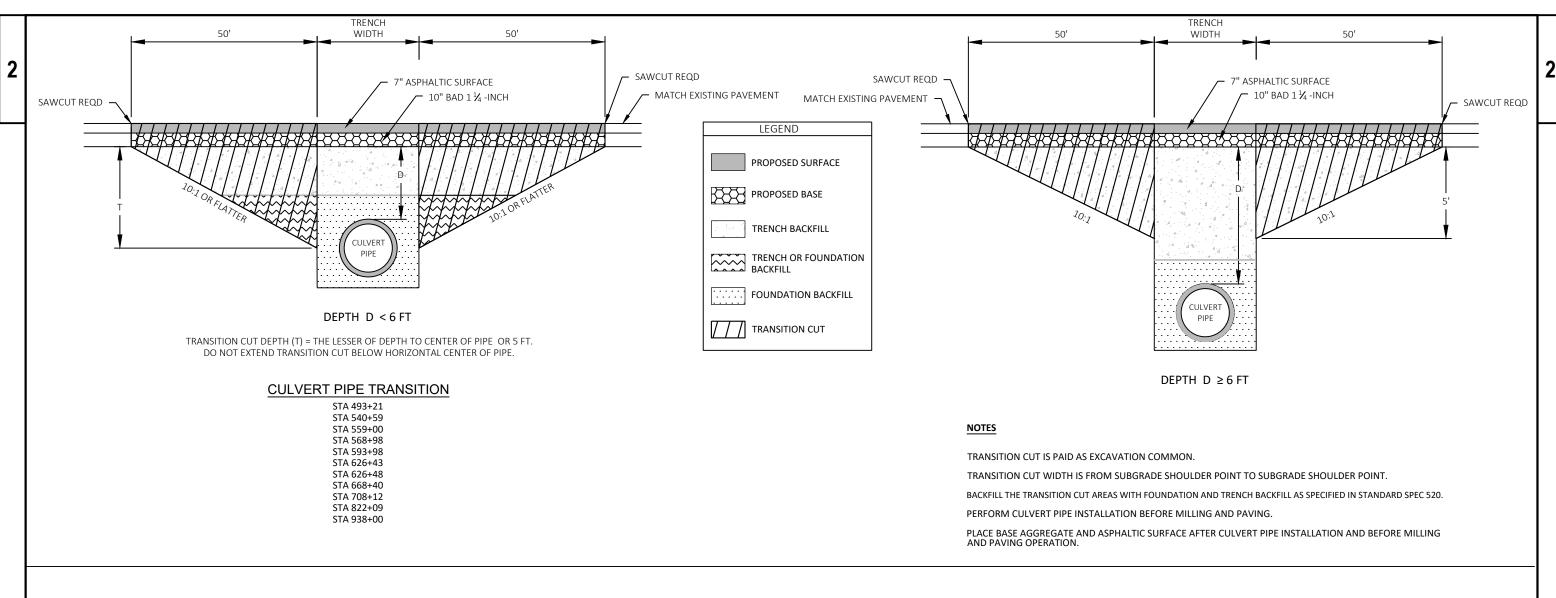
4/27/2022 2:28 PM

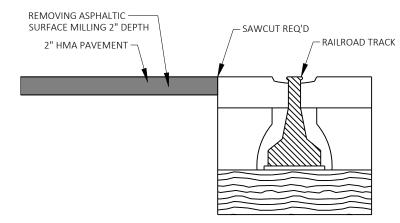
PLOT BY: WOOLEVER, NATHAN

BUTT JOINT DETAIL

PLOT SCALE : 1 IN:10 FT

MILLING ASPHALTIC SURFACE 2"



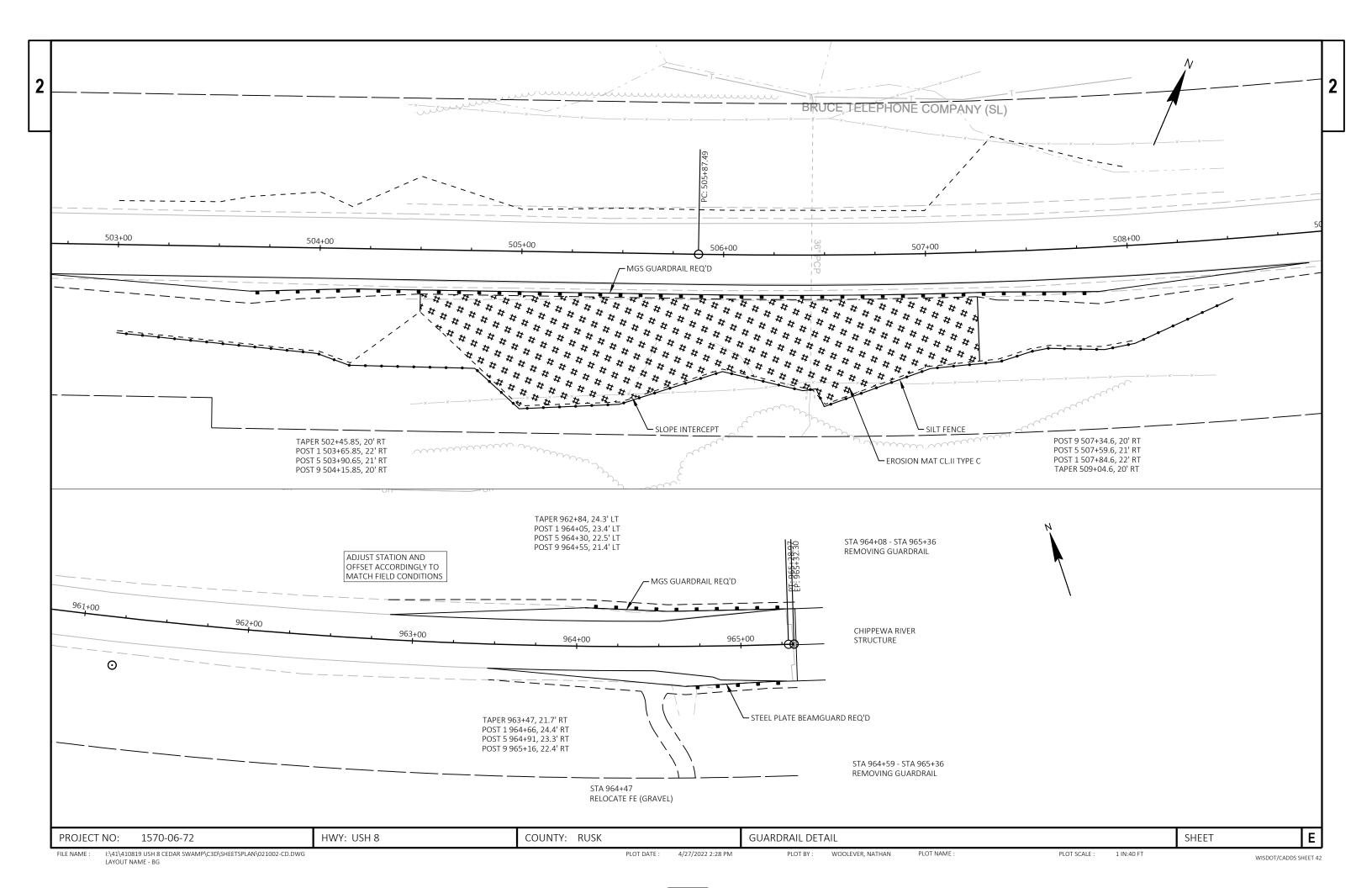


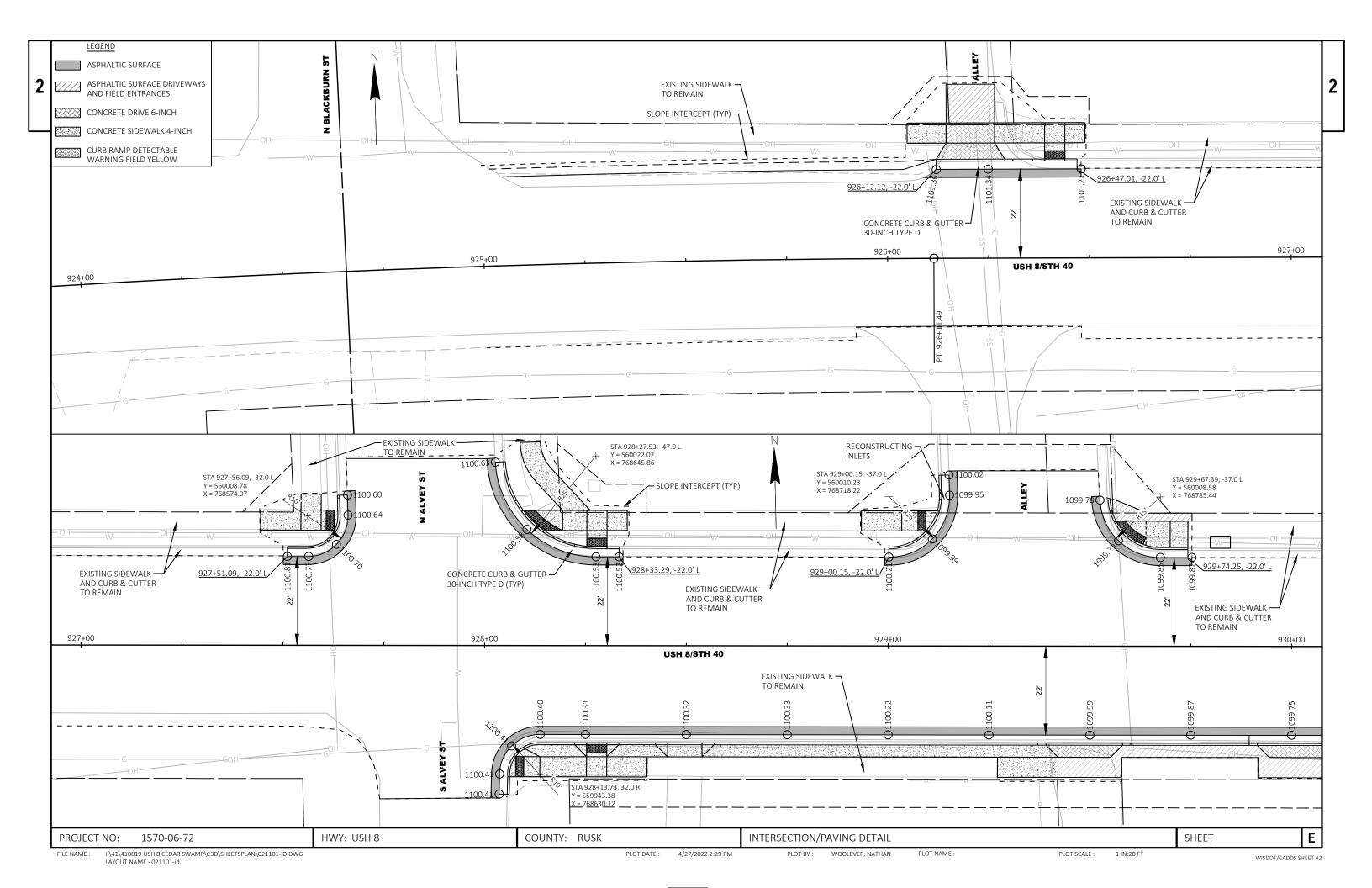
PAVING DETAIL AT RAILROAD CROSSING

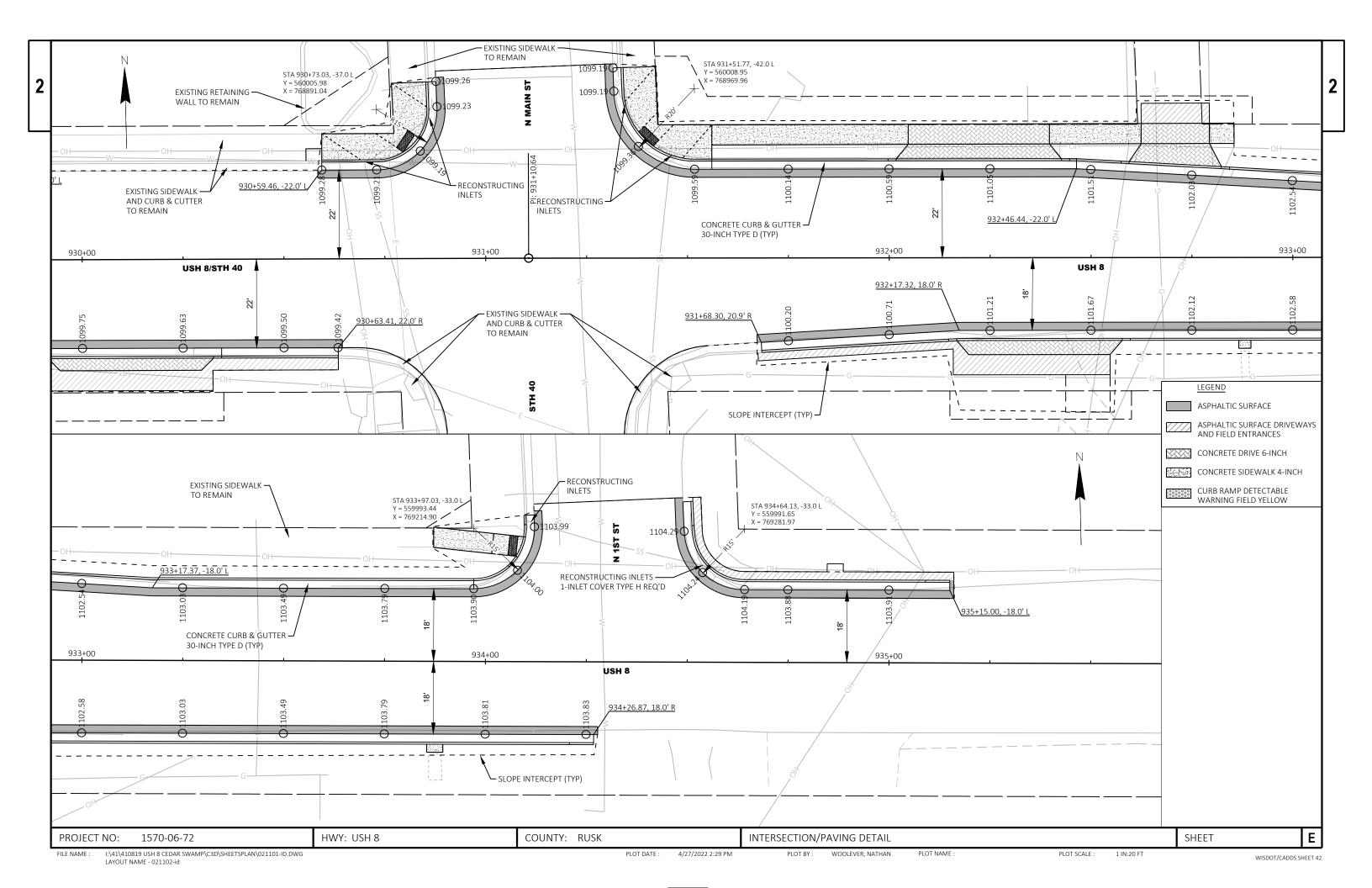
HUTCHINSON RD KIEF RD GURESKI LN ZEBRO RD

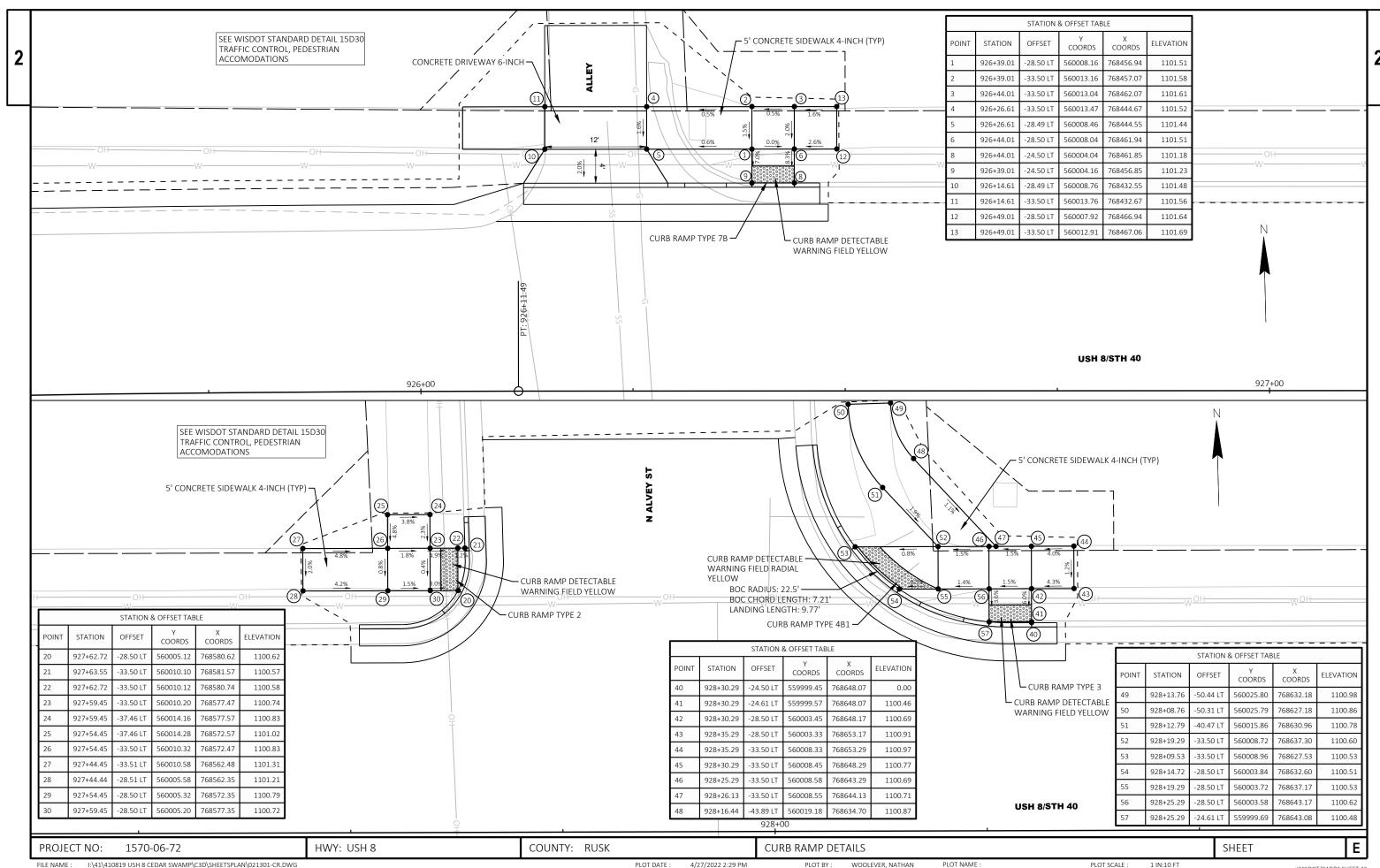
PROJECT NO: 1570-06-72 HWY: USH 8 COUNTY: RUSK CONSTRUCTION DETAILS SHEET **E**

FILE NAME: I:\41\410819 USH 8 CEDAR SWAMP\C3D\SHEETSPLAN\021001-CD.DWG PLOT DATE: 4/27/2022 2:28 PM PLOT BY: WOOLEVER, NATHAN PLOT NAME: PLOT SCALE: 1 IN:10 FT WISDOT/CADDS SHEET 42 AYOUT NAME - 021002-cd









LAYOUT NAME - 021301-cr

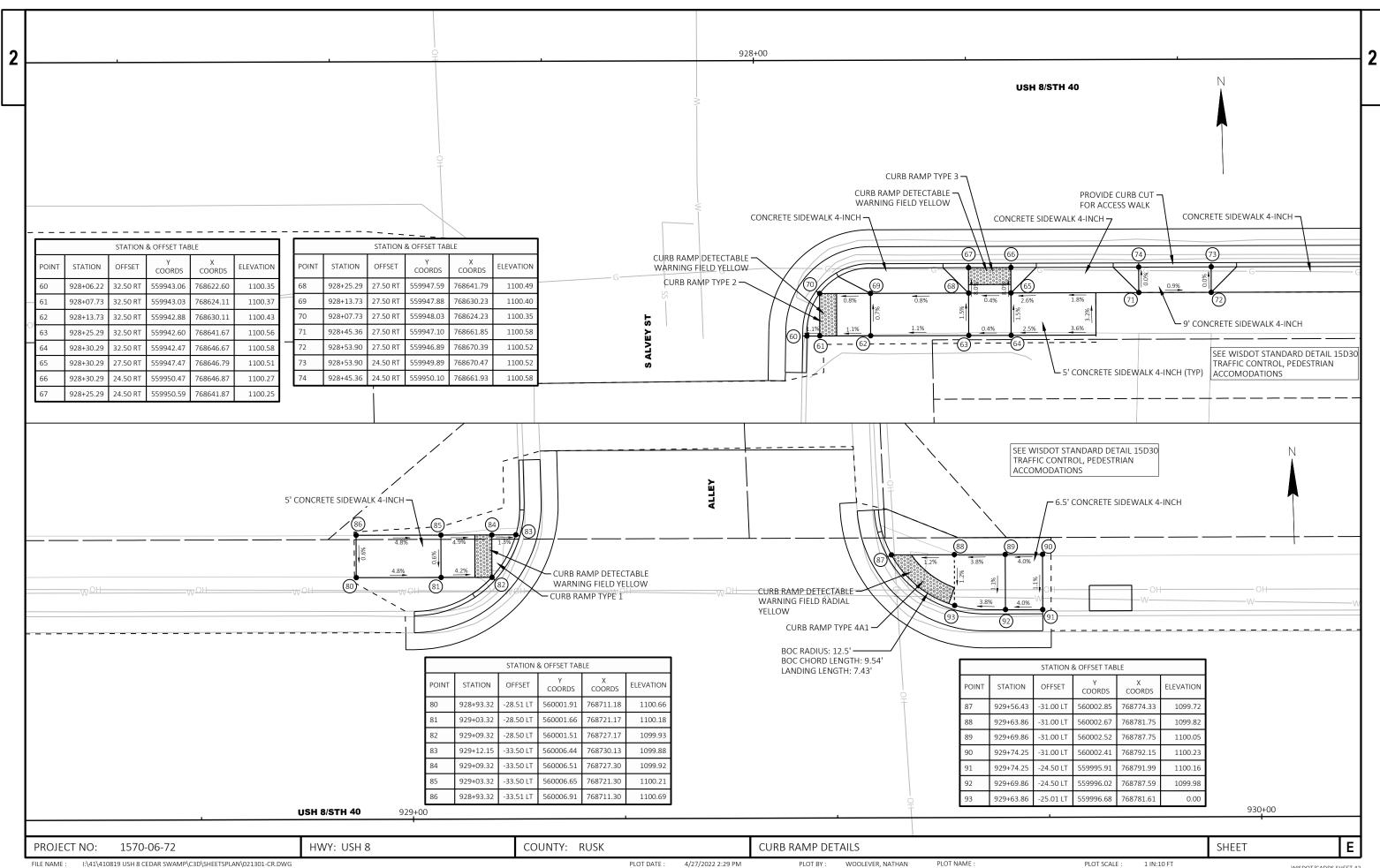
PLOT DATE :

WOOLEVER, NATHAN

PLOT NAME

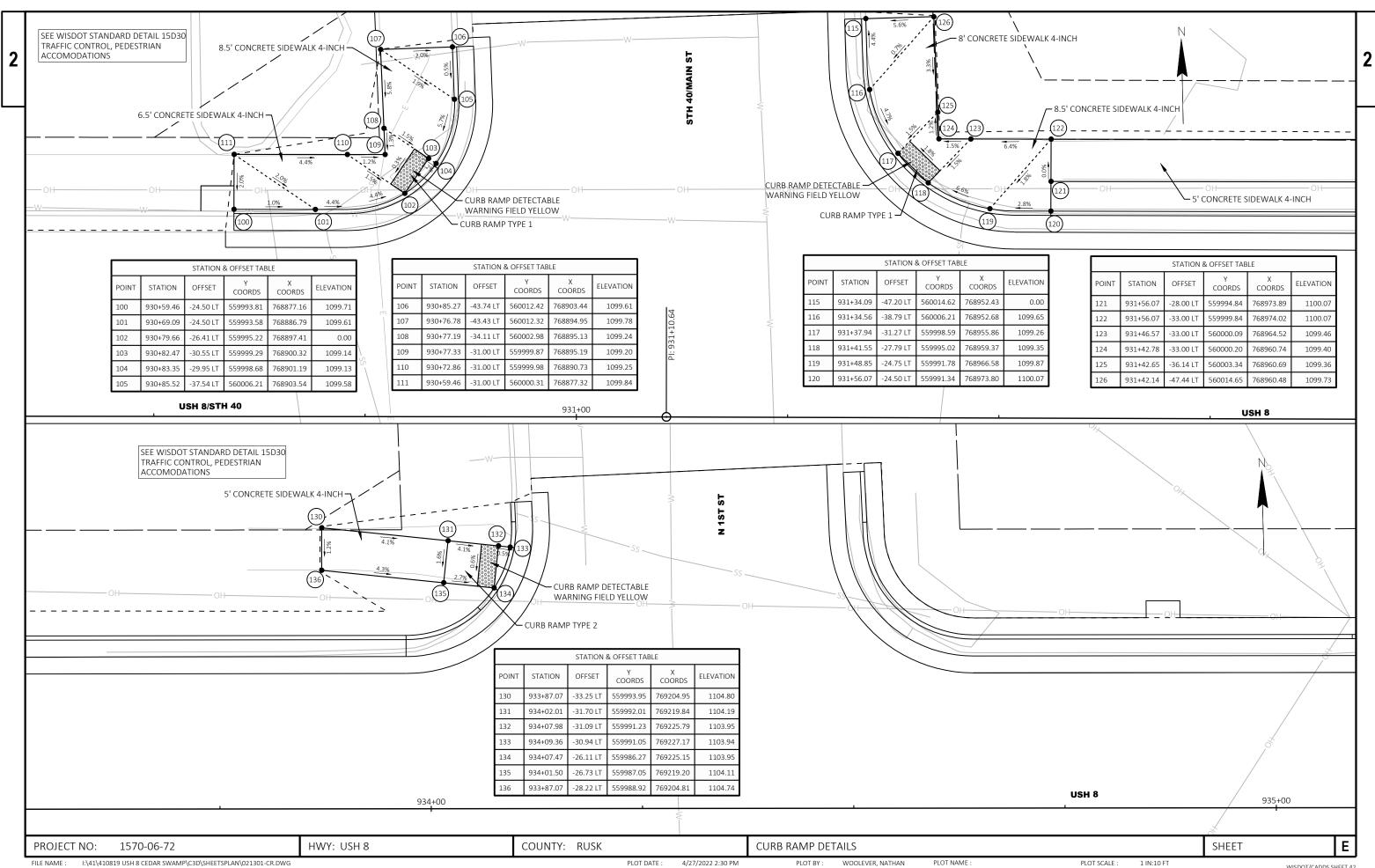
PLOT SCALE: 1 IN:10 FT

WISDOT/CADDS SHEET 42



LAYOUT NAME - 021302-cr

WISDOT/CADDS SHEET 42



LAYOUT NAME - 021303-cr

WISDOT/CADDS SHEET 42

3

1570-06-72

| | | | | | 1570-06-72 | |
|------|------------|--|-------|-------------|-------------|--|
| Line | Item | Item Description | Unit | Total | Qty | |
| 0002 | 201.0105 | Clearing | STA | 18.000 | 18.000 | |
| 0004 | 201.0205 | Grubbing | STA | 18.000 | 18.000 | |
| 0006 | 203.0100 | Removing Small Pipe Culverts | EACH | 9.000 | 9.000 | |
| 8000 | 203.0220 | Removing Structure (structure) 01. STA 493+21 | EACH | 1.000 | 1.000 | |
| 0010 | 204.0100 | Removing Concrete Pavement | SY | 76.000 | 76.000 | |
| 0012 | 204.0115 | Removing Asphaltic Surface Butt Joints | SY | 1,405.000 | 1,405.000 | |
| 0014 | 204.0120 | Removing Asphaltic Surface Milling | SY | 163,485.000 | 163,485.000 | |
| 0016 | 204.0150 | Removing Curb & Gutter | LF | 1,108.000 | 1,108.000 | |
| 0018 | 204.0155 | Removing Concrete Sidewalk | SY | 223.000 | 223.000 | |
| 0020 | 204.0165 | Removing Guardrail | LF | 205.000 | 205.000 | |
| 0022 | 204.0170 | Removing Fence | LF | 225.000 | 225.000 | |
| 0024 | 204.0270 | Abandoning Culvert Pipes | EACH | 3.000 | 3.000 | |
| 0026 | 205.0100 | Excavation Common | CY | 2,027.000 | 2,027.000 | |
| 0028 | 208.0100 | Borrow | CY | 6,097.000 | 6,097.000 | |
| 0030 | 208.1500.S | Temporary Lane Shift During Culvert Work | EACH | 20.000 | 20.000 | |
| 0032 | 211.0100 | Prepare Foundation for Asphaltic Paving (project) 01. 1570-06-72 | LS | 1.000 | 1.000 | |
| 0034 | 211.0400 | Prepare Foundation for Asphaltic Shoulders | STA | 2.000 | 2.000 | |
| 0036 | 213.0100 | Finishing Roadway (project) 01. 1570-06-72 | EACH | 1.000 | 1.000 | |
| 0038 | 305.0110 | Base Aggregate Dense 3/4-Inch | TON | 6,870.000 | 6,870.000 | |
| 0040 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 2,756.000 | 2,756.000 | |
| 0042 | 305.0500 | Shaping Shoulders | STA | 48.000 | 48.000 | |
| 0044 | 416.0160 | Concrete Driveway 6-Inch | SY | 104.000 | 104.000 | |
| 0046 | 455.0605 | Tack Coat | GAL | 11,550.000 | 11,550.000 | |
| 0048 | 460.0105.S | HMA Percent Within Limits (PWL) Test Strip Volumetrics | EACH | 1.000 | 1.000 | |
| 0050 | | HMA Percent Within Limits (PWL) Test Strip Density | EACH | 1.000 | 1.000 | |
| 0052 | | HMA Pavement Test Strips Volumetrics | EACH | 1.000 | 1.000 | |
| 0054 | | HMA Pavement Test Strips Density | EACH | 1.000 | 1.000 | |
| 0056 | 460.2000 | Incentive Density HMA Pavement | DOL | 12,780.000 | 12,780.000 | |
| 0058 | 460.2005 | Incentive Density PWL HMA Pavement | DOL | 9,060.000 | 9,060.000 | |
| 0060 | 460.2007 | Incentive Density HMA Pavement Longitudinal Joints | DOL | 48,450.000 | 48,450.000 | |
| 0062 | 460.2010 | Incentive Air Voids HMA Pavement | DOL | 12,490.000 | 12,490.000 | |
| 0064 | 460.6645 | HMA Pavement 5 MT 58-34 V | TON | 12,362.000 | 12,362.000 | |
| 0066 | 460.8644 | HMA Pavement 4 SMA 58-34 V | TON | 19,760.000 | 19,760.000 | |
| 0068 | | Material Transfer Vehicle (project) 01. 1570-06-72 | EACH | 1.000 | 1.000 | |
| 0070 | 465.0105 | Asphaltic Surface | TON | 1,578.000 | 1,578.000 | |
| 0072 | 465.0110 | Asphaltic Surface Patching | TON | 200.000 | 200.000 | |
| 0074 | 465.0120 | Asphaltic Surface Driveways and Field Entrances | TON | 107.000 | 107.000 | |
| 0076 | 465.0475 | Asphalt Centerline Rumble Strips 2-Lane Rural | LF | 31,350.000 | 31,350.000 | |
| 0078 | 522.0124 | Culvert Pipe Reinforced Concrete Class III 24-Inch | LF | 532.000 | 532.000 | |
| 0800 | 522.0130 | Culvert Pipe Reinforced Concrete Class III 30-Inch | LF | 308.000 | 308.000 | |
| 0082 | 522.0148 | Culvert Pipe Reinforced Concrete Class III 48-Inch | LF | 110.000 | 110.000 | |
| 0084 | 522.1024 | Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch | EACH | 14.000 | 14.000 | |
| 0086 | 522.1030 | Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch | EACH | 6.000 | 6.000 | |
| 0088 | 522.1048 | Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch | EACH | 2.000 | 2.000 | |
| 0090 | 601.0411 | Concrete Curb & Gutter 30-Inch Type D | LF | 1,100.000 | 1,100.000 | |
| 0092 | 602.0405 | Concrete Sidewalk 4-Inch | SF | 2,364.000 | 2,364.000 | |
| 0094 | 602.0505 | Curb Ramp Detectable Warning Field Yellow | SF | 208.000 | 208.000 | |
| 0096 | 611.0430 | Reconstructing Inlets | EACH | 7.000 | 7.000 | |
| 0098 | 611.0624 | Inlet Covers Type H | EACH | 1.000 | 1.000 | |
| 3000 | 011.0024 | mos covoro rypo ri | LACIT | 1.000 | 1.000 | |

| | | | | | 1570-06-72 | |
|------|----------|--|------|------------|------------|--|
| Line | Item | Item Description | Unit | Total | Qty | |
| 0100 | 614.0010 | Barrier System Grading Shaping Finishing | EACH | 2.000 | 2.000 | |
| 0102 | 614.0200 | Steel Thrie Beam Structure Approach | LF | 20.600 | 20.600 | |
| 0104 | 614.0370 | Steel Plate Beam Guard Energy Absorbing Terminal | EACH | 1.000 | 1.000 | |
| 0106 | 614.2300 | MGS Guardrail 3 | LF | 37.500 | 37.500 | |
| 0108 | 614.2330 | MGS Guardrail 3 K | LF | 312.500 | 312.500 | |
| 0110 | 614.2500 | MGS Thrie Beam Transition | LF | 39.400 | 39.400 | |
| 0112 | 614.2610 | MGS Guardrail Terminal EAT | EACH | 3.000 | 3.000 | |
| 0114 | 618.0100 | Maintenance And Repair of Haul Roads (project) 01. 1570-06-72 | EACH | 1.000 | 1.000 | |
| 0116 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 | |
| 0118 | 624.0100 | Water | MGAL | 140.000 | 140.000 | |
| 0120 | 625.0100 | Topsoil | SY | 285.000 | 285.000 | |
| 0122 | 625.0500 | Salvaged Topsoil | SY | 12,322.000 | 12,322.000 | |
| 0124 | 627.0200 | Mulching | SY | 12,825.000 | 12,825.000 | |
| 0126 | 628.1504 | Silt Fence | LF | 2,851.000 | 2,851.000 | |
| 0128 | 628.1520 | Silt Fence Maintenance | LF | 2,851.000 | 2,851.000 | |
| 0130 | 628.1905 | Mobilizations Erosion Control | EACH | 2.000 | 2.000 | |
| 0132 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 2.000 | 2.000 | |
| 0134 | 628.2027 | Erosion Mat Class II Type C | SY | 2,290.000 | 2,290.000 | |
| 0136 | 628.7555 | Culvert Pipe Checks | EACH | 32.000 | 32.000 | |
| 0138 | 629.0210 | Fertilizer Type B | CWT | 10.000 | 10.000 | |
| 0140 | 630.0120 | Seeding Mixture No. 20 | LB | 418.000 | 418.000 | |
| 0142 | 630.0140 | Seeding Mixture No. 40 | LB | 6.000 | 6.000 | |
| 0144 | 630.0500 | Seed Water | MGAL | 354.000 | 354.000 | |
| 0146 | 633.5200 | Markers Culvert End | EACH | 22.000 | 22.000 | |
| 0148 | 634.0612 | Posts Wood 4x6-Inch X 12-FT | EACH | 14.000 | 14.000 | |
| 0150 | 637.2210 | Signs Type II Reflective H | SF | 42.000 | 42.000 | |
| 0152 | 642.5001 | Field Office Type B | EACH | 1.000 | 1.000 | |
| 0154 | 643.0300 | Traffic Control Drums | DAY | 300.000 | 300.000 | |
| 0156 | 643.0900 | Traffic Control Signs | DAY | 10,950.000 | 10,950.000 | |
| 0158 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 | |
| 0160 | 644.1420 | Temporary Pedestrian Surface Plywood | SF | 1,600.000 | 1,600.000 | |
| 0162 | 644.1601 | Temporary Pedestrian Curb Ramp | DAY | 230.000 | 230.000 | |
| 0164 | 646.1020 | Marking Line Epoxy 4-Inch | LF | 53,858.000 | 53,858.000 | |
| 0166 | 646.1040 | Marking Line Grooved Wet Ref Epoxy 4-Inch | LF | 86,940.000 | 86,940.000 | |
| 0168 | 646.3020 | Marking Line Epoxy 8-Inch | LF | 725.000 | 725.000 | |
| 0170 | 646.4520 | Marking Line Same Day Epoxy 4-Inch | LF | 48,060.000 | 48,060.000 | |
| 0172 | 646.6020 | Marking Stop Line Epoxy 12-Inch | LF | | 119.000 | |
| 0174 | 646.7420 | Marking Crosswalk Epoxy Transverse Line 6-Inch | LF | 260.000 | 260.000 | |
| 0176 | 646.7520 | Marking Crosswalk Epoxy Block Style 24-Inch | LF | 216.000 | 216.000 | |
| 0178 | 649.0120 | Temporary Marking Line Epoxy 4-Inch | LF | 38,000.000 | 38,000.000 | |
| 0180 | 650.5500 | Construction Staking Curb Gutter and Curb & Gutter | LF | 1,100.000 | 1,100.000 | |
| 0182 | 650.6000 | Construction Staking Pipe Culverts | EACH | 11.000 | 11.000 | |
| 0184 | 650.8000 | Construction Staking Resurfacing Reference | LF | 47,979.000 | 47,979.000 | |
| 0186 | 650.9000 | Construction Staking Curb Ramps | EACH | 11.000 | 11.000 | |
| 0188 | 650.9910 | Construction Staking Supplemental Control (project) 01. 1570-06-72 | LS | 1.000 | 1.000 | |
| 0190 | 690.0150 | Sawing Asphalt | LF | 3,623.000 | 3,623.000 | |
| 0192 | 690.0250 | Sawing Concrete | LF | 686.000 | 686.000 | |
| 0194 | 740.0440 | Incentive IRI Ride | DOL | 36,720.000 | 36,720.000 | |
| 0196 | ASP.1T0A | On-the-Job Training Apprentice at \$5.00/HR | HRS | 2,400.000 | 2,400.000 | |

 06/17/2022 07:58:01

 Bestimate Of Quantities
 Page 3

1570-06-72 0198 ASP.1T0G On-the-Job Training Graduate at \$5.00/HR HRS 2,000.000 2,000.000

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| | | <u>CL</u> | EARING & (| <u>GRUBBING</u> | | | | REMOVING A | SPHALTIC SURFACE | BUTT JOINTS | | REMOVI | NG GUARDRAIL | | PRFP | ARE FOUNDATION FOR |
|-----------|-------------|--------------|------------|-----------------|---------------|----------------------|----------|------------------|------------------|----------------------|------------------|----------------|-------------------|---------------|---------------------------------------|----------------------------|
| | | | | | | 201.0205 GRUBBING | | | | 204.0115 | | | | 204.0165 | · · · · · · · · · · · · · · · · · · · | TIC PAVING (1570-06-72) |
| STATION | TO | STATION | LOCATI | | STA | STA | | | RE | MOVING ASPHALTIC | | | | REMOVING | | 211.0100.01 |
| 017111011 | | 517111011 | 20 0, 111 | | 0.77 | | | | | IRFACE BUTT JOINTS | | | | GUARDRAIL | | PREPARE FOUNDATION FOI |
| 555+00 | _ | 560+00 | USH | 8 | 5 | 5 | : | STATION | LOCATION | SY | STATION | TO STATION | | LF | | ASPHALTIC PAVING (PROJEC |
| 592+00 | - | 595+00 | USH | | 3 | 3 | | | | | | | | | | (01. 1570-06-72) |
| 625+00 | - | 629+00 | USH | 8 | 4 | 4 | | 485+50 | USH 8 | 179 | 964+08 | - 965+36 | LT | 128 | LOCATION | LS |
| 668+00 | - | 669+00 | USH | 8 | 1 | 1 | | 527+33 | USH 8 | 245 | 964+59 | - 965+36 | RT | 77 | | |
| 821+00 | - | 823+00 | USH | 8 | 2 | 2 | | 528+77 | USH 8 | 245 | | | | _ | 1570-06-72 | 1 |
| 937+00 | - | 940+00 | USH | 8 | 3 | 3 | | 965+29 | USH 8 | 271 | | | TOTAL 0010 | 205 | | |
| | | | | | | | D | RIVEWAYS AND SII | DE STREETS | 465 | | | | | TOTAL 0010 | 1 |
| | | | TOTAL C | 0010 | 18 | 18 | | - | | 1 105 | | | | | | |
| | | | | | | | | | OTAL 0010 | 1,405 | | <u>R</u> E | EMOVING FENCE | | | |
| | | REMOVING | SMALL PIP | E CULVERTS | <u>-</u> | | | | | | | | | 204.0170 | | |
| | | | | | | | | REMOVING | ASPHALTIC SURFA | CE MILLING | | | | REMOVING | | |
| | | | | | 203.0100 | | | | | | | | | FENCE | | |
| | | | | | REMOVING SMA | | | | | 204.0120 | STATION | TO STATIO | ION LOCATION | LF | | |
| CTATION | | LOCATION | CIZE | MATERIAL | PIPE CULVERTS | S | | | | REMOVING | | | | | | |
| STATION | | LOCATION | SIZE | MATERIAL | _ EACH | | | | | ASPHALTIC | 504+75 | - 507+0 | 00 RT | 225 | | |
| 540+59 | | USH 8 | 48" | RCCP | 1 | | | | | SURFACE MILLIN | G | | | | <u> </u> | |
| 568+98 | | USH 8 | 46 24" | RCCP | 1 | _ | STATION | I TO STA | ATION LOCA | TION SY | | | TOTAL 0010 | 225 | | |
| 593+98 | | USH 8 | 24" | RCCP | 1 | | | | . 75 | | | | | | | |
| 626+43 | | USH 8 | 30" | RCCP | 1 | | 485+50 | | 2+75 USF | | | | | | FINISHING | ROADWAY (1570-06-72) |
| 626+48 | | USH 8 | 30" | RCCP | 1 | | 922+75 | | 5+75 USF | · | | | | | <u>i inisilint</u> | |
| 668+40 | | USH 8 | 30" | RCCP | 1 | | 935+75 | - 965 | 5+29 USF | 18 11,062 | | | | | | 213.0100.01 |
| 708+12 | | USH 8 | 24" | RCCP | 1 | | | | TOTAL | 0010 163,485 | _ | <u>AB</u> | ANDONING CULVERT | <u>PIPES</u> | | FINISHING ROADWAY |
| 822+09 | | USH 8 | 24" | RCCP | 1 | | | | TOTAL | 0010 165,465 | | | | | | (PROJECT) (01. 1570-06-72) |
| 938+00 | | USH 8 | 24" | RCCP | 1 | | | | | | | | | 204.0270 | LOCATION | EACH |
| | | | | | | | | REMOVING O | CURB & GUTTER | | | | | ABANDONING | | |
| | • | TOTAL 0010 | | | 9 | | | | | | | CTATION | | CULVERT PIPES | 1570-06-72 | 1 |
| | | | | | | | | | | 204.0150 | | STATION | LOCATION | EACH | - | |
| | | | | | | | | | | REMOVING CURB | | 555+72 | USH 8 | 1 | TOTAL 0010 | 1 |
| | | | | | | STATIO | N TO | STATION | LOCATION | & GUTTER LF | | 559+98 | USH 8 | 1 | | |
| | | | | | | JIAIIO | 10 | SIATION | LOCATION | LI | | 908+12 | USH 8 | 1 | | |
| | | | | | | 926+1 |) - | 926+47 | LT | 35 | | | | | | |
| | REMO | OVING STRUCT | URE (STA 4 | 93+21) | | 927+5 | | 927+66 | LT | 24 | | | TOTAL 0010 | 3 | | |
| | | | | | | 928+0 | 3 - | 928+33 | LT | 42 | | | | | | |
| | | | | 203.0220 | 0.01 | 928+0- | 1 - | 930+64 | RT | 268 | | | | | | |
| | | | | REMOVING STR | | 929+0 | | 929+15 | LT | 27 | | | | | | |
| | | | | (STRUCTURE) (| | 929+5 | | 929+74 | LT | 28 | | | | | | |
| | CT A T' ~ • | | TION | 493+21 | | 930+5 | | 930+88 | LT | 41 | | | | | | |
| | STATION | N LOCA | HUN | EACH | | 931+3 | | 934+12 | LT | 303 | TEMPORARVIA | ANE SHIET DUD! | NG CULVERT WORK | Р | REPARE FOUNDATION FOR | ASPHALTIC SHOULDERS |
| , | 493+21 | USI | 1 8 | 1 | | 931+6 | | 934+27 | RT | 260 | ILWII OKAKI LI | Jilli I DOMII | TO COLVENT WORK | - | | |
| 2 | 122121 | USI | | 1 | | 934+49 | | 935+15 | LT | 80 | | | 208.1500.S | | | 211.0400 |
| | | TOTAL | 0010 | 1 | | | - | | TOTAL 0010 | 1,108 | | | PORARY LANE SHIFT | | | PREPARE |
| | | | | - | | | | | 1014F 0010 | 1,100 | | DURI | ING CULVERT WORK | | | FOUNDATION I |
| | | | | | | | | | | | STATION | | EACH | | | ASPHALTIC |
| | | REMOVING | CONCRETE | PAVEMENT | | | | | | | | | | a=:=:- | TO 071715 | SHOULDERS |
| | | | | = | | | | REMOVING CO | ONCRETE SIDEWALI | <u>C</u> | 493+21 | | 2 | STATION | TO STATION | LOCATION STA |
| | | | | | 204.0100 | | | | | 204.0155 | 540+59 | | 2 | 925+04 | - 926+12 | USH 8, LT 2 |
| | | | | | REMOVING | | | | | 204.0155 REMOVING | 559+00 | | 2 | 323+04 | - 370+17 | USH 8, LT 2 |
| | | | | | CONCRETE | | | | | CONCRETE | 568+98 | | 2 | | т | OTAL 0010 2 |
| | | | | | PAVEMENT | | | | | SIDEWALK | 593+98 626+45 | | 2 | | | 5 // L 0010 Z |
| STATION | N 7 | TO STATIO | N L | OCATION | SY | - STATI | ON TO | O STATION | LOCATION | SY | 668+40 | | 2 | | | |
| | | | | | | | 10 | 21/11/01 | LOGATION | 31 | 708+12 | | 2 | | | |
| 931+57 | , | - 932+43 | 3 (| JSH 8, LT | 76 | BLACKBU | JRN ST - | ALVEY ST | USH 8, LT | 33 | 822+09 | | 2 | | | |
| | | | | | | · ALVE | | MAIN ST | USH 8, LT/RT | 159 | 938+00 | | 2 | | | |
| | | | то | TAL 0010 | 76 | MAIN | | | USH 8, LT/RT | 31 | 333.00 | | = | | | |
| | | | | | | 1ST | | 2ND ST | USH 8, LT | 14+2 | TOTAL 001 | ۰0 | 20 | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | TOTAL 0010 | 223 | | | | | | |
| | | | | | | | | | TOTAL OUTU | 225 | | | | | | |
| ECT NO: | | | | | Y: USH 8 | | | OUNTY: RUS | | 225 | MISCELLANEOU | | | | | SHEET NO: |

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SHEET NO:

EARTHWORK SUMMARY

| Division Project - USH 8 | From/To Station | Location | 205.0100 Common Excavation (1) Cut (2) | Salvaged/Unusable Pavement Material (4) | Available Material (5) | 205.0500 Marsh Excavation (6) | Reduced Marsh in Fill (8) Factor 1.00 | Expanded Marsh Backfill (10) Factor 1.00 | Unexpanded Fill | Expanded Fill (13) Factor 1.25 | Mass Ordinate +/- (14) | Waste | 208.0100 Borrow |
|---------------------------------|-----------------|----------|---|---|------------------------------|--|---|--|--------------------|--|------------------------------|-------|--------------------|
| Grail 503+66-507+85 | 503+00/508+00 | USH 8 | 215 | 0 | 215 | 0 | 0 | 0 | 915 | 1,144 | -929 | 0 | 929 |
| CP STA 493+21 | 492+50/494+00 | USH 8 | 191 | 0 | 191 | 0 | 0 | 0 | 97 | 121 | 70 | 70 | 0 |
| CP STA 540+59 | 540+00/541+00 | USH 8 | 152 | 0 | 152 | 0 | 0 | 0 | 156 | 195 | -42 | 0 | 42 |
| CP STA 559+00 | 554+50/560+50 | USH 8 | 386 | 0 | 386 | 0 | 0 | 0 | 2,180 | 2,725 | -2,339 | 0 | 2,339 |
| CP STA 568+98 | 568+50/569+50 | USH 8 | 153 | 0 | 153 | 0 | 0 | 0 | 42 | 53 | 100 | 100 | 0 |
| CP STA 593+98 | 593+50/594+50 | USH 8 | 79 | 0 | 79 | 0 | 0 | 0 | 144 | 180 | -100 | 0 | 100 |
| CP STA 626+43 | 624+50/627+50 | USH 8 | 155 | 0 | 155 | 0 | 0 | 0 | 744 | 930 | -774 | 0 | 774 |
| CP STA 668+40 | 667+00/670+00 | USH 8 | 343 | 0 | 343 | 0 | 0 | 0 | 1,729 | 2,161 | -1,818 | 0 | 1,818 |
| CP STA 708+12 | 707+50/708+50 | USH 8 | 122 | 0 | 122 | 0 | 0 | 0 | 118 | 148 | -26 | 0 | 26 |
| CP STA 822+09 | 821+50/823+00 | USH 8 | 120 | 0 | 120 | 0 | 0 | 0 | 151 | 189 | -69 | 0 | 69 |
| CP STA 938+00 | 937+50/938+50 | USH 8 | 109 | 0 | 109 | 0 | 0 | 0 | 38 | 48 | 62 | 62 | 0 |
| Project Subtotal | · | | 2,027 | 0 | 2,027 | 0 | 0 | 0 | 6,313 | 7,892 | -5,865 | 232 | 6,097 |
| Undistributed | Various Areas | USH 8 | | | | | | | | | | | |
| Grand Total | | | 2,027 | 0 | 2,027 | 0 | 0 | 0 | 6,313 | 7,892 | -5,865 | 232 | 6,097 |
| | Total Comm | on Exc | 2,027 | | | | | | | | | | |

Notes

PROJECT NO: 1570-06-72

- (1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- (2) Salvaged/Unsuable Pavement Material is included in Cut.
- (5) Available Material = Cut Salvaged/Unusuable Pavement Material

HWY: USH 8

- (13) Expanded Fill Factor = 1.25
- (14) The Mass Ordinate + or Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

COUNTY: RUSK

BASE AGGREGATE DENSE

ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL

| | | | | 305.0 BASE AGGREG | | 305.0120 AGGREGATE DENSE | 305.0500 | | | <u>MA</u> | TERIAL TRANSFER VEHICLE | | | | | | 5.0475 CENTERLINE |
|---------------------------|---|--|--|-------------------------|---|---|------------------|------------------|--------------|------------------|--|--|---|--|------------------------|----------------------------------|--|
| | | | | 3/4-IN | NCH | 1 1/4-INCH | SHAPING SHOULDER | IS | | | 460.9000.S.01 | | | | | | TRIPS 2-LANE |
| STATION TO | STATION | V | LOCATION | TO | N | TON | STA | | | | MATERIAL | | | | | | JRAL |
| | | | | | | | | | | | TRANSFER VEHICLE | | STATION TO | STATION | LOCATION | | LF |
| 485+50 - | 925+00 | | USH 8 | 5,70 | 04 | | 44 | | | | (PROJECT) (01. | _ | | | | | |
| 935+15 - | 965+29 | | USH 8 | 393 | 3 | | 4 | | | | 1570-06-72) | | 485+50 - | 672+50 | USH 8 | 15 | 5,450 |
| | | | PIPE REPLACEMENT AREAS (10) | 330 | 6 | 1,863 | | | | PF | ROJECT EACH | | 679+00 - | 897+00 | USH 8 | | , 900 |
| | | | MGS GUARDRAIL AREAS | 28: | 2 | 833 | | | | ENTID | E DODIECT 4 | | | | | | , |
| | | TEMPO | RARY PEDESTRAIN SIDEWALK AND | RAMPS | | 60 | | | | ENTIR | E PORJECT 1 | | | | TOTAL 0010 | 31 | ,350 |
| | | | DRIVEWAYS (52) | 15 | 5 | | | | | | | | | | | - | , |
| | | | | | | | | | | 101. | AL 0010 1 | | MA PAVEMENT | | | | |
| | | | TOTAL 0010 | 6,87 | 70 | 2,756 | 48 | | | | | <u>n</u> | WIA PAVEIVIENI | | | | |
| | | | | | | | | | | | | 455.0605 | 460.6645 | 460.8644 | 465.0105 | 465.0110 | 465.0120 |
| | | | | | | | | | | | | | | | | ACDULATEC | |
| <u>HM</u> | MA PAVEMEI | ENT TEST ST | <u>TRIPS</u> | <u>HMA P</u> | ERCENT WITHIN LIN | MITS (PWL) | | | | | | TACK COAT | HMA PAVEMENT 5 MT 58-34 V | HMA PAVEMENT | ASPHALTIC SURFACE | ASPHALTIC SURFACE PATCHING | ASPHALTIC SURFACI DRIVEWAYS AND |
| <u>HM</u> | MA PAVEMEI | ENT TEST ST | <u>TRIPS</u> | НМА Р | | - | | STATION | TO | STATION | IOCATION | TACK COAT | HMA PAVEMENT 5 MT 58-34 V | HMA PAVEMENT 4 SMA 58-34 V | SURFACE | SURFACE PATCHING | ASPHALTIC SURFACI DRIVEWAYS AND FIELD ENTRANCES |
| НМ | MA PAVEME 460.0: | | <u>TRIPS</u> 460.0120.S | <u>нма р</u> | 460.0105.S | 460.0110.S | - | STATION | TO | STATION | LOCATION | | HMA PAVEMENT | HMA PAVEMENT | | SURFACE | ASPHALTIC SURFACI DRIVEWAYS AND |
| НМ | |)115.S | | нма Р | 460.0105.S HMA PERCENT | 460.0110.S HMA PERCENT | - | | TO_ | | | TACK COAT GAL | HMA PAVEMENT 5 MT 58-34 V TON | HMA PAVEMENT 4 SMA 58-34 V TON | SURFACE | SURFACE PATCHING | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES |
| <u>нм</u> | 460.03 | 0115.S NVEMENT | 460.0120.S | нма Р | 460.0105.S HMA PERCENT WITHIN LIMITS | 460.0110.S HMA PERCENT WITHIN LIMITS | - | 485+50 | TO - - | 922+75 | USH 8 | TACK COAT GAL 10,270 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 | SURFACE TON | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON |
| <u>HM</u> | 460.03 HMA PA\ | 0115.S NEMENT STRIPS | 460.0120.S HMA PAVEMENT | НМА Р | 460.0105.S HMA PERCENT | 460.0110.S HMA PERCENT | - | 485+50 922+75 | TO - - | 922+75 935+75 | USH 8 USH 8 | TACK COAT GAL 10,270 470 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 470 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 750 | SURFACE TON | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON |
| <u>HM</u> PROJECT | 460.0: HMA PA\ TEST S | 0115.S NVEMENT STRIPS METRICS | 460.0120.S HMA PAVEMENT TEST STRIPS | <u>HMA P</u> PROJECT | 460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP | 460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP | - | 485+50 | TO - - | 922+75 | USH 8 USH 8 USH 8 | TACK COAT GAL 10,270 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 | SURFACE TON | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON |
| | 460.02 HMA PAV TEST S VOLUM | 0115.S NVEMENT STRIPS METRICS | 460.0120.S HMA PAVEMENT TEST STRIPS DENSITY | | 460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS | 460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY | - | 485+50 922+75 | TO | 922+75 935+75 | USH 8 USH 8 USH 8 CURB REPLACEMENT AREAS | TACK COAT GAL 10,270 470 770 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 470 800 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 750 1,270 | SURFACE TON 103 | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON |
| | 460.0: HMA PA\ TEST S VOLUM EAG | 0115.S NVEMENT STRIPS METRICS | 460.0120.S HMA PAVEMENT TEST STRIPS DENSITY | | 460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS | 460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY | - | 485+50 922+75 | TO | 922+75 935+75 | USH 8 USH 8 USH 8 CURB REPLACEMENT AREAS PIPE REPLACEMENT AREAS (10 | TACK COAT GAL 10,270 470 770 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 470 800 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 750 1,270 | SURFACE TON 103 475 | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON 23 |
| PROJECT ENTIRE PROJECT | 460.0: HMA PA\ TEST S VOLUM EAG | 0115.S NVEMENT STRIPS METRICS | 460.0120.S HMA PAVEMENT TEST STRIPS DENSITY | PROJECT | 460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH | 460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH | - | 485+50 922+75 | TO | 922+75 935+75 | USH 8 USH 8 USH 8 USH 8 CURB REPLACEMENT AREAS PIPE REPLACEMENT AREAS (10) GUARDRAIL AREAS | TACK COAT GAL 10,270 470 770 40 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 470 800 36 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 750 1,270 57 | SURFACE TON 103 475 | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON 23 |
| PROJECT | 460.0: HMA PA\ TEST S VOLUM EAG | 0115.S NVEMENT STRIPS METRICS | 460.0120.S HMA PAVEMENT TEST STRIPS DENSITY | PROJECT | 460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH | 460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH | - | 485+50 922+75 | TO | 922+75 935+75 | USH 8 USH 8 USH 8 CURB REPLACEMENT AREAS PIPE REPLACEMENT AREAS (10 | TACK COAT GAL 10,270 470 770 | HMA PAVEMENT 5 MT 58-34 V TON 11,056 470 800 | HMA PAVEMENT 4 SMA 58-34 V TON 17,683 750 1,270 | SURFACE TON 103 475 | SURFACE PATCHING TON | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON 23 |

MISCELLANEOUS QUANTITIES

E

| | | | | | NDWALLS FOR CUL\ | | | | | | <u>IN</u> L | ET COVERS | TYPE H | | | | |
|------------------|-------------|----------------------------|----------------------------|----------------------------|--------------------------------|------------------|-----------------------------|---------|------------|------------|-------------|------------|---------------|-------------------|---------|---------------|-------|
| | | 522.0124 | 522.0130 | 522.0148 | 522.1024 | 522.1030 | 522.1048 | | | | | | | | | | |
| | | CLIIV (EDT DIDE | CLUVEDT DIDE | CLIIVEDT DIDE | APRON ENDWALLS | | APRON ENDWALLS | | | | | | | 1.0624 | | | |
| | | CULVERT PIPE REINFORCED | CULVERT PIPE REINFORCED | CULVERT PIPE REINFORCED | FOR CULVERT PIPE REINFORCED | REINFORCED | FOR CULVERT PIPE REINFORCED | | | | | | | Γ COVERS YPE H | | | |
| | | CONCRETE CLASS | CONCRETE CLASS | CONCRETE CLASS | CONCRETE 24- | CONCRETE 30- | CONCRETE 48- | | | STATI | ΟN | LOCATION | | TPE H EACH | | | |
| | | III 24-INCH | III 30-INCH | III 48-INCH | INCH | INCH | INCH | | | JIAII | ON | LOCATION | | LACIT | | | |
| STATION | LOCATION | LF | LF | LF | EACH | EACH | EACH | | | 634+ | 54 | LT | | 1 | | | |
| | | - | | | | | | | | | | | | _ | | | |
| 493+21 | USH 8 | 82 | | | 2 | | | | | | | TOTAL 001 | , | 1 | | | |
| 540+59 | USH 8 | | | 110 | | | 2 | | | | | | | | | | |
| 559+00 | USH 8 | 66 | | | 2 | | | | | | | | | | | | |
| 568+98 | USH 8 | 42 | | | 2 | | | | | | | | | | | | |
| 593+98 | USH 8 | 86 | | | 2 | | | | | | | | | | | | |
| 626+43 | USH 8 | | 92 | | | 2 | | | | | | MGS | GUARDRAIL | | | | |
| 626+48 | USH 8 | | 92 | | | 2 | | | | | | | | • | | | |
| 668+40 | USH 8 | | 124 | | | 2 | | | | | | 614 | .2300 | 614.233 | 0 | 614.2500 | |
| 708+12 | USH 8 | 92 | | | 2 | | | | | | | | | | | MGS THRIE BEA | AM |
| 822+09 | USH 8 | 80 | | | 2 | | | | | | | MGS GU | ARDRAIL 3 | MGS GUARDR | AIL 3 K | TRANSITION | 1 |
| 938+00 | USH 8 | 84 | | | 2 | | | STATION | TO STA | TION LO | OCATION | | LF | LF | | LF | |
| | TOTAL 0010 | 532 | 308 | 110 | 14 | 6 | 2 | | | | | | | | | | |
| | | 552 | 555 | 110 | | ŭ | - | 503+66 | - 507 | | RT | | | 312.5 | | | |
| | | | | | | | | 964+05 | - 965 | +36 | LT | 3 | 7.5 | | | 39.4 | |
| | CONCRETE CU | RB & GUTTER 30-IN | ICH TYPE D | | | | | | | то | TAL 0010 | 3 | 7.5 | 312.5 | | 39.4 | |
| | | | 601.041 | 1 | | | | | | | | | | | | | |
| | | | CONCRETE CI | | - | SECONOTRUCTING U | NI ETC | | | | | | | | | | |
| | | | GUTTER 30- | | <u>!</u> | RECONSTRUCTING I | NLE 15 | | | | | | | | | | |
| | | | TYPE D | | | | 611.0430 | | | | | | | | | | |
| STATION | TO STAT | ON LOCATIO | | | | | RECONSTRUCTING | | | | | | | | | | |
| | | | | | STATION | LOCATION | EACH | | | | BARR | IER SYSTEM | GRADING | SHAPING FINE | SHING | | |
| 926+12 | - 926+ | 47 LT | 35 | | SIAHON | LOCATION | LACIT | | | | <u> </u> | | | | <u></u> | | |
| 927+51 | - 927+ | 66 LT | 23 | | 929+14 | LT | 1 | | | | | | | | | | 61 |
| 928+03 | - 928+ | 33 LT | 41 | | 930+70 | LT | 1 | | | ** | | ** | ** | ** | | | BARR |
| 928+04 | - 930+ | 64 RT | 267 | | 930+86 | LT | 1 | | | EXCAVATION | ** | SALVAGED | FERTILIZER | SEEDING | ** | ** | GRADI |
| 929+00 | - 929+ | 15 LT | 26 | | 931+34 | LT | 1 | | STATION | COMMON | BORROW | TOPSOIL | TYPE B | NO.20 MUL | CHING S | SEED WATER | FII |
| 929+53 | - 929+ | 74 LT | 27 | | 931+46 | LT | 1 | | LOCATION | CY | CY | SY | CWT | LB | SY | MGAL | |
| 930+59 | - 930+ | 88 LT | 41 | | 934+11 | LT | 1 | | | | | | | | • | | |
| 931+32 | - 934+ | | 303 | | 934+54 | LT | 1 | | 964+30, LT | 160 | 80 | 120 | 0.10 | 3.50 1 | .20 | 0.75 | |
| | - 934+ | 27 RT | 259 | | | | | | 964+66, RT | 300 | 0.0 | 100 | 0.10 | 4.00 1 | .80 | 1.00 | |
| 931+68 934+49 | - 935+ | | 78 | | | | | | 964+66, KI | 300 | 80 | 180 | 0.10 | 4.00 1 | .80 | 1.00 | |

COUNTY: RUSK

CONCRETE DRIVEWAY 6-INCH, CONCRETE SIDEWALK 4-INCH, & CURB RAMP DETECTABLE WARNING FIELD

1,100

TOTAL 0010

| | | | | 416.0160 | 602.0405 | 602.0505 CURB RAMP DETECTABLE |
|--------------|----|----------|------------|-----------------|-----------------|-------------------------------------|
| | | | | CONCRETE | CONCRETE | WARNING FIELD |
| | | | | DRIVEWAY 6-INCH | SIDEWALK 4-INCH | YELLOW |
| STATION | TO | STATION | LOCATION | SY | SF | SF |
| | | | | | | |
| BLACKBURN ST | - | ALVEY ST | LT | 14 | 296 | 20 |
| ALVEY ST | - | MAIN ST | LT | | 681 | 60 |
| ALVEY ST | - | MAIN ST | RT | 19 | 637 | 20 |
| MAIN ST | - | 1ST ST | LT | 56 | 736 | 20 |
| MAIN ST | | 1ST ST | RT | 15 | 14 | |
| | | | TOTAL 0010 | 104 | 2,364 | 120 |

HWY: USH 8

PROJECT NO: 1570-06-72

MISCELLANEOUS QUANTITIES SHEET NO:

STEEL PLATE BEAM GUARD

** ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY.

TOTAL 0010

MGS THRIE BEAM MGS GUARDRAIL

614.2610

TERMINAL EAT

1

614.0010 BARRIER SYSTEM

GRADING SHAPING

FINISHING EACH

| | | | | 614.0200 | 614.0370 |
|---------|----|---------|------------|------------------|------------------|
| | | | | | STEEL PLATE BEAM |
| | | | | STEEL THRIE BEAM | GUARD ENERGY |
| | | | | STRUCTURE | ABSORBING |
| | | | | APPROACH | TERMINAL |
| STATION | TO | STATION | LOCATION | LF | EACH |
| | | | | | |
| 964+66 | - | 965+36 | RT | 20.6 | 1 |
| | | | | | |
| | | | TOTAL 0010 | 20.6 | 1 |

^{*} QUANTITY LOCATED ELSEWHERE IN THE PLAN

| MAINTENANCE AND REPAIR OF HAUL ROADS (1570-06-72) | | | | | <u>WAT</u> | <u>ER</u> | CULVERT PIPE CHECKS 628.7555 | | | | | | EDESTRIAN CURB RAN TECTABLE WARNING | | TRAFFIC CONTROL | | | | |
|---|----------|-----------------------------|------------------------------|-----------------------|------------------|------------------------|------------------------------|------------------|----------------------|----------------------|----------------------|-----------------|---|--------------------|----------------------|---------------------------|----------------------|--------------------|--|
| | | | | 624.0100 | | | 628.7555 CULVERT PIPE | | | | <u>co</u> 1 | NAIVII DE | TECTABLE WARRING | TILLD | | | | | |
| | M | 618.0100.0 AINTENANCE AN | | | | WATER | | | CHE | CKS | | | * | | | | TRAFFIC CONTROL | | |
| | | F HAUL ROADS (F | | LOCATI | ON | MGAL | STATION | LOCATION | EAG | CH | | | 602.0505 CURB RAMP | 644.1601 | | PROJECT | EACH | _ | |
| | | (01. 1570-06 | -72) | BASE COMP | ACTION | 100 | 493+21 | LT | 3 | | | | DETECTABLE | TEMPORARY | | 1570-06-72 | 1 | | |
| <u>LOCATION</u> | | EACH | | DUST CON | | 40 | 540+59 | LT | 10 | | | | WARNING FIELD | PEDESTRIAN | | | | - | |
| 1570-06-72 | | 1 | | | | | 559+00 | LT | 3 | | 100 | ATION | YELLOW SF | CURB RAMP | | TOTAL 0010 | 1 | | |
| | | _ | | TOTAL C | 010 | 140 | 593+98 626+43 | RT LT | 3 | | | CATION | SF | DAY | | | | | |
| TOTAL 0010 | | 1 | <u> </u> | | | | 626+43 | LT LT | 5 | | N BLACKBURI | N ST TO N 1ST | ST 88 | 230 | | | | | |
| | | | SILT FENCE | | | | 668+40 | RT | 3 | | | | | | | | | | |
| | | | | 500.450 | | 500.4500 | | | | | TOTA | L 0010 | 88 | 230 | | TRAFFIC COI | ITROL ITEMS | | |
| | | | | 628.1504 | ļ | 628.1520 SILT FENCE | | TOTAL 001 | 0 3: | 2 | * QUANTITY I | OCATED FLSEW | VHERE IN THE PLAN | | | C 1 | 3.0300 643 | .0900 | |
| | | | | SILT FENC | E f | MAINTENANCE | | | | | | | | | | | | CONTROL | |
| STATION | TO | STATION | LOCATION | LF | | LF | | | | | | | | | | | | GNS | |
| 400 50 | | 400.50 | 17/07 | 0.45 | | 2.45 | TEMPO | DADY DEDECTO | LIAN CUREACE | DI VIMO O D | | | | | | PROJECT | DAY [| DAY | |
| 492+50 503+00 | - | 493+50 508+50 | LT/RT RT | 245 582 | | 245 582 | <u>TEMPO</u> | RARY PEDESTR | IIAN SURFACE | PLYWOOD | | | | | ENITI | IRE PROJECT | 300 10 | ,950 | |
| 540+00 | - | | RT | 26 | | 26 | | | 6 | 44.1420 | | | | | ENII | INE FINOJECT | 300 II | ,, , , , ∪ | |
| 554+50 | - | 560+50 | RT | 575 | | 575 | | LOCATION | | SF | | | | | то | TAL 0010 | 300 10 | ,950 | |
| 593+50 | - | | LT/RT | 134 | | 134 | DIACKE | BURN ST TO 1ST S | er. | 1,600 | | | | | | | | | |
| 625+00 667+75 | - | | RT LT/RT | 287 441 | | 287 441 | BLACKE | OUN 31 10 131 3 | 01 | 1,600 | | | | | | | | | |
| 707+50 | - | | RT | 109 | | 109 | Т | OTAL 0010 | | 1,600 | | | | | | | | | |
| 821+50 | | | 325 | | 325 | | | | | | <u>T0</u> | PSOIL, MULCHING | , FERTILIZER, 8 | SEEDING | | | | | |
| 937+50 | - | 938+50 | LT/RT | 127 | | 127 | | | | | | | | | | | | | |
| | | | TOTAL 001 | 0 2,851 | | 2,851 | | | | | | 625.0100 | | 627.0200 | 629.0210 | 630.0120 | 630.0140 | 630.0500 | |
| | | | 101712 001 | 2,001 | | 2,001 | | | | | | TOPSOIL | SALVAGED TOPSOIL | MULCHING | FERTILIZER TYPE B | SEEDING MIXTURE NO. 20 | NO. 40 | SEED WATER | |
| | | | | | | | | STA | TION TO | STATION | LOCATION | SY | SY | SY | CWT | LB | LB | MGAL | |
| | | ZATION EDOCI | ION CONTROL | | | MARKER CULVERT E | <u>ND</u> | | | | | | | | | | | | |
| | | ZATION EROSI | SION CONTROL | | | | 633.5200 | | 3+66 - EPLACEMENT | 507+85 | RT, USH 8 USH 8 | | 1,784 10,538 | 508 9,524 | 1.2 6.7 | 49 285 | | 40 237 | |
| 7114 | D LIVII | LINGENCT LINGS | SIGIT CONTINUE | | | | MARKERS | | 5+00 - | 934+25 | USH 8 | 228 | | 228 | 0.2 | 283 | 5 | 6 | |
| | | 628.1905 | 628.1910 | | | | CULVERT END | UNDIS | TRIBUTED | | | 57 | | 2,565 | 2.0 | 84 | 1 | 71 | |
| 1 | М | OBILIZATIONS EROSION | MOBILIZATIO EMERGENCY ERO | | STATION | LOCATION | EACH | _ | | | | | | | | | | | |
| | | CONTROL | CONTROL | | 493+21 | LT/RT | 2 | | | | TOTAL 0010 | 285 | 12,322 | 12,825 | 10 | 418 | 6 | 354 | |
| PROJECT | | EACH | EACH | | 540+59 | LT/RT | 2 | | | | | | | | | | | | |
| | | | _ | | 559+00 | LT/RT | 2 | | | | | | | | | | | | |
| 1570-06-72 | | 2 | 2 | | 568+98 593+98 | LT/RT LT/RT | 2 | | | | | | | | | | | | |
| TOTAL 0010 | | 2 | 2 | | 626+43 | LT/RT | 2 | | | | | | MARKING | <u> LINES</u> | | | | | |
| · · · · · · · · · · · · · · · · · · · | | | _ | | 626+48 | LT/RT | 2 | | | | | | | 646.1020 | 646.10 | 40 646.3020 | 646.4520 | 649.0120 | |
| | | | | | 668+40 | LT/RT LT/RT | 2 | | | | | | | | MARKING | S LINE | MARKING LINE | TEMPORARY | |
| | FD. | 001011 1447 0 | ACC II TVDE C | | 708+12 822+09 | LT/RT | 2 | | | | | | | MARKING LINE | | | | MARKING LINE | |
| | EK | OSION MAT CL | LASS II ITPE C | | 938+00 | LT/RT | 2 | | STATION | TO STATION | I LOCATIO | ON | DESCRIPTION/COLOR | EPOXY 4-INCH LF | I REF EPOXY (LF | 4-INCH EPOXY 8-INCI LF | H EPOXY 4-INCH LF | EPOXY 4-INCH LF | |
| | | | | 628.2027 | | | | | 3.7.11011 | | 20 0, (11) | - | 11 11014 302011 | <u> </u> | Li | LI | <u> </u> | <u></u> | |
| | | | | EROSION MAT | | TOTAL 0010 | 22 | | 480+80 | - 911+00 | USH 8 | | CENTERLINE/YELLOW | 40,144 | | | 48,060 | | |
| STATION TO | 1 | STATION | LOCATION | CLASS II TYPE C SY | | | | | 480+80 485+50 | - 911+00 - 672+50 | USH 8 USH 8 | | EDGELINES/WHITE CENTERLINE/YELLOW | | 83,08 | | | 17,500 | |
| STATION IC | <u> </u> | SIMILON | LOCATION | 31 | - | | | | 485+50 679+00 | - 672+50 - 897+00 | USH 8 | | CENTERLINE/YELLOW | | | | | 17,500 20,500 | |
| 504+50 - | | 507+25 | RT | 1,276 | | FIELD OFFICE | TYPE B | | _ | | USH 8/KIE | F RD DO | OTTED EDGELINE/WHITE | 47 | | | | | |
| 540+00 - | | 540+75 | RT | 193 | | | 642.5001 | | | | USH 8/HUTCHI | | CHANNELIZING/WHITE | | | | | | |
| 540+50 - 554+50 - | · | 541+00 556+00 | LT RT | 97 724 | | | FIELD OFFICE | | | | USH 8/ST USH 8/ST | | BYPASS LANE/WHITE CHANNELIZING/WHITE | 63 | | 325 | | | |
| 331.30 | | 200.00 | 131 | | | D2 0 150= | TYPE B | | | | STH 40 | | CENTERLINE/YELLOW | 40 | | | | | |
| | | | TOTAL 0010 | 2,290 | | PROJECT | EACH | | 911+00 | - 965+29 | USH 8 | } | CENTERLINE/YELLOW | 7,758 | | | | | |
| | | | | | | 1570-06-72 | 1 | | 911+00 | - 946+00 | USH 8 | | EDGELINES/WHITE | 5,806 | | | | | |
| | | | | | | _ | | | 946+00 | - 965+29 | USH 8 | • | EDGELINES/WHITE | | 3,858 | 3 | | | |
| | | | | | | TOTAL 0010 | 1 | | | | | | TOTAL 0010 | 53,858 | 86,94 | 725 | 48,060 | 38,000 | |
| PROJECT NO: | 15 | 70-06-72 | | HWY: USH | 1 8 | | COUNTY: R | USK | | | MISCELLA | NEOUS | QUANTITIES | | | | SHEET NO | D: E | |
| | | | | 1 | - | | | | | | | | | | | 10 | TOTILLE NO. | | |

| 3 | |
|---|--|
|---|--|

E

SHEET NO:

| POSTS AND SIGNING TYPE II | | | | | MARKING STOP L | | CONSTRUCTION STAKING RESURFACING REFERENCE | | | | | | CONSTRUCTION STAKING PIPE CULVERTS | | | | | |
|---------------------------|------------------|--------------------|---------------------------|--|---|------------------|---|--------------|-------------|----|---------|------------------|------------------------------------|---|---------|--------------|----------------|---|
| IN NO. API | PROX. STATION | N SIGN CODE | SIGN SIZE WxH (INCHES) | 634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH | 637.2210 SIGNS TYPE II REFLECTIVE H SF | | 646.6020 MARKING STOP L EPOXY 12-INCI | | STATION | TO | STATION | LOCATIC | RESU | 650.8000 STRUCTION STAKING IRFACING REFERENCE LF | c.T. | ATION | LOCATION | 650.6000 CONSTRUCTION STA PIPE CULVERTS |
| | | | | | | LOCATION | LF | | | | | | | | | ATION | LOCATION | EACH |
| 1-1 | 925+40 | R-7-53D | 18X24 | 1 | 3.0 | STH 40 | 25 | | 485+50 | - | 965+29 | USH 8 | | 47,979 | 49 | 3+21 | USH 8 | 1 |
| 1-2 | 927+12 | R-7-53D | 18X24 18X24 | 1 | 3.0 3.0 | BLACKBURN ST | 18 | | | | | | — | | 54 | 0+59 | USH 8 | 1 |
| 1-3 1-4 | 928+33 928+85 | R-7-53D R-7-53D | 18X24 18X24 | 1 | 3.0 | ALVERY ST | 16 | | | | | TOTAL 00 | 010 | 47,979 | | 9+00 | USH 8 | 1 |
| 1-4 1-5 | 929+83 | R-7-53D R-7-53D | 18X24 18X24 | 1 | 3.0 | STH 40/MAIN ST | 20 | | | | | | | | | 8+98 | USH 8 | 1 |
| 1-6 | 928+35 | R-7-53D | 18X24 | 1 | 3.0 | MAIN ST | 24 | | | | | | | | | 3+98 | USH 8 | 1 |
| 1-7 | 929+21 | R-7-53D | 18X24 | 1 | 3.0 | 1ST ST | 16 | | | | | | | | | 6+43 | USH 8 | 1 |
| 1-8 | 929+82 | R-7-53D | 18X24 | 1 | 3.0 | | | | | | | | | | | 6+48 | USH 8 | 1 |
| 1-9 | 930+58 | R-7-53D | 18X24 | 1 | 3.0 | TOTAL 0010 | 119 | | | | | | | | | 8+40 8+13 | USH 8 | 1 |
| L-10 | 931+67 | R-7-53D | 18X24 | 1 | 3.0 | | | | | | | | | | | 8+12 2+09 | USH 8 USH 8 | 1 |
| -11 | 933+82 | R-7-53D | 18X24 | 1 | 3.0 | | | | | | | | | | | 2+09 8+00 | USH 8 | 1 |
| 12 | 934+87 | R-7-53D | 18X24 | 1 | 3.0 | | | | | | | | | | 55 | 8100 | 03116 | 1 |
| 13 | 931+66 | R-7-53D | 18X24 | 1 | 3.0 | | MARKING CROSS | WALK EPOXY | | | | | | | | т | OTAL 0010 | 11 |
| -14 | 934+01 | R-7-53D | 18X24 | 1 | 3.0 | | | | | | | | | | | | 0175 0010 | |
| | | | | | | | 646.7420 | | 546.7520 | | | | | | | | | |
| | | TOTAL 0010 | | 14 | 42 | | MARKING | | MARKING | | | | | | | | | |
| | | | | | | | CROSSWALK E | | SWALK EPOXY | | | | | | | | | |
| | | | | | | | TRANSVERSE | | OCK STYLE | | | | | | | | | |
| | | | | | | LOCATION | 6-INCH | | 24-INCH | | | | | | | | | |
| | | | | | | LOCATION | LF | | LF | | | | | CANAIIA | ıc | | | |
| | | | | | | USH 8 | | | 54 | | | | | SAWI | 10 | | | |
| CONS | TRUCTION S | TAKING CURB | GUTTER AND | CURB & GUTTER | | ALVERY ST | 80 | | | | | | | | | 690.0150 | 690.0250 | |
| | | | | | | USH 8 | | | 54 | | | | | | | SAWING | SAWING | |
| | | | | 650.5500 | | TOWN RD | 80 | | | | | | | | | ASPHALT | CONCRETE | |
| | | | | CONSTRUCTION | | USH 8 | | | 54 | | | STATION | TO STATI | ON LOCATI | ON | LF | LF | |
| | | | | STAKING CURB G | | STH 40/MAIN | ST 100 | | | | | | | | | | | |
| TATION | TO S | STATION | LOCATION | AND CURB & GU LF | JIIEK | USH 8 | | | 54 | | | | | KIEF F | lD. | 35 | | |
| MINION | 10 3 | DIATION | LOCATION | LI | | | | | | | | | | HUTCHINS | | 43 | | |
| 926+12 | _ 0 | 926+47 | LT | 35 | | TOTAL 0010 | 0 260 | | 216 | | | | | GURESK | | 35 | | |
| 927+51 | | 927+66 | LT | 23 | | | | | | | | | | ZEBRO | | 36 | | |
| 928+03 | | 928+33 | LT | 41 | | | | | | | | 006.45 | 000 | NW QUAD | | | 5 | |
| 928+04 | - 9 | 930+64 | RT | 267 | | | | | | | | 926+15 | - 926+ | | | 53 | | |
| 929+00 | - 9 | 929+15 | LT | 26 | | | | | | | | | | COLEMA | | 22 | 7 F | |
| 929+53 | - 9 | 929+74 | LT | 27 | | CONSTRUCTI | ON STAKING CUR | RRAMPS | | | | | | NE QUAD, NW QUAD, A | | 35 | 7.5 15 | |
| 930+59 | | 930+88 | LT | 41 | | CONSTRUCTI | ON STAKING CON | ID IVAIVII S | | | | 927+66 | - 928+ | · | | 37 | | |
| 931+32 | | 934+12 | LT | 303 | | | | 650.9000 | | | | 327.00 | 320. | NE QUAD, A | | 51 | 15 | |
| 931+68 | | 934+27 | RT | 259 | | | | CONSTRUCTION | 1 | | | | | ALVEY S | | 30 | | |
| 934+49 | - 9 | 935+15 | LT | 78 | | | | STAKING CURB | | | | 928+00 | - 930+ | | | 418 | 102 | |
| | | | TOTAL 0010 | 1 100 | | | | RAMPS | | | | | | NW QUAD | , ALLEY | 36 | 10 | |
| | | | TOTAL 0010 | 1,100 | | STATION | LOCATION | EACH | | | | 929+15 | - 929+ | | | 37 | | |
| | | | | | | | | | | | | | | NE QUAD, | | 62 | 11.5 | |
| | | | | | | 926+42 | LT | 1 | | | | | | NW QUAD, | | 54 | 20 | |
| | <u>CON</u> S | TRUCTION STA | AKING SUPPLE | <u>EMENTAL</u> | | 927+63 | LT pt | 1 | | | | 930+88 | - 931+ | | | 44 | | |
| | | | (1570-06-72) | | | 928+08 | RT | 1 | | | | 024:20 | 00: | MAIN ST | , KI | 44 | | |
| | | | | | | 928+12 928+28 | LT RT | 1 1 | | | | 931+30 931+67 | - 934+ - 933+ | | | 319 | 88 | |
| | | | 650.9910.0 | | | 928+28 | LT | 1 | | | | 331+0/ | - 933+ | 28 KT 1ST S | т | 350 37 | 9.5 | |
| | | | ONSTRUCTION S | | | 929+09 | LT | 1 | | | | | | NE QUAD, | | 37 171 | 2.5 | |
| | | | JPPLEMENTAL C | | | 929+59 | LT | 1 | | | | | | PIPE REPLACEMEN | | 640 | 400 | |
| | | | OJECT) (01. 157 | 70-06-72) | | 930+81 | LT | 1 | | | | | | SIDEROADS & I | , , | 1,034 | | |
| | LOCATI | IUN | LS | | | 931+40 | LT | 1 | | | | | | 3.32.10/133 Q 1 | | 2,001 | | |
| | - | | | | | | LT | 1 | | | | | | TOTAL (| 010 | 3,623 | 686 | _ |
| | 4570.0 | c 70 | 4 | | | 934+08 | LI | | | | | | | IUIALI | 010 | J.UZJ | 000 | |
| | 1570-06 | 6-72 | 1 | | | 934+08 | | 1 | | | | | | TOTAL | ,010 | 3,023 | 000 | |

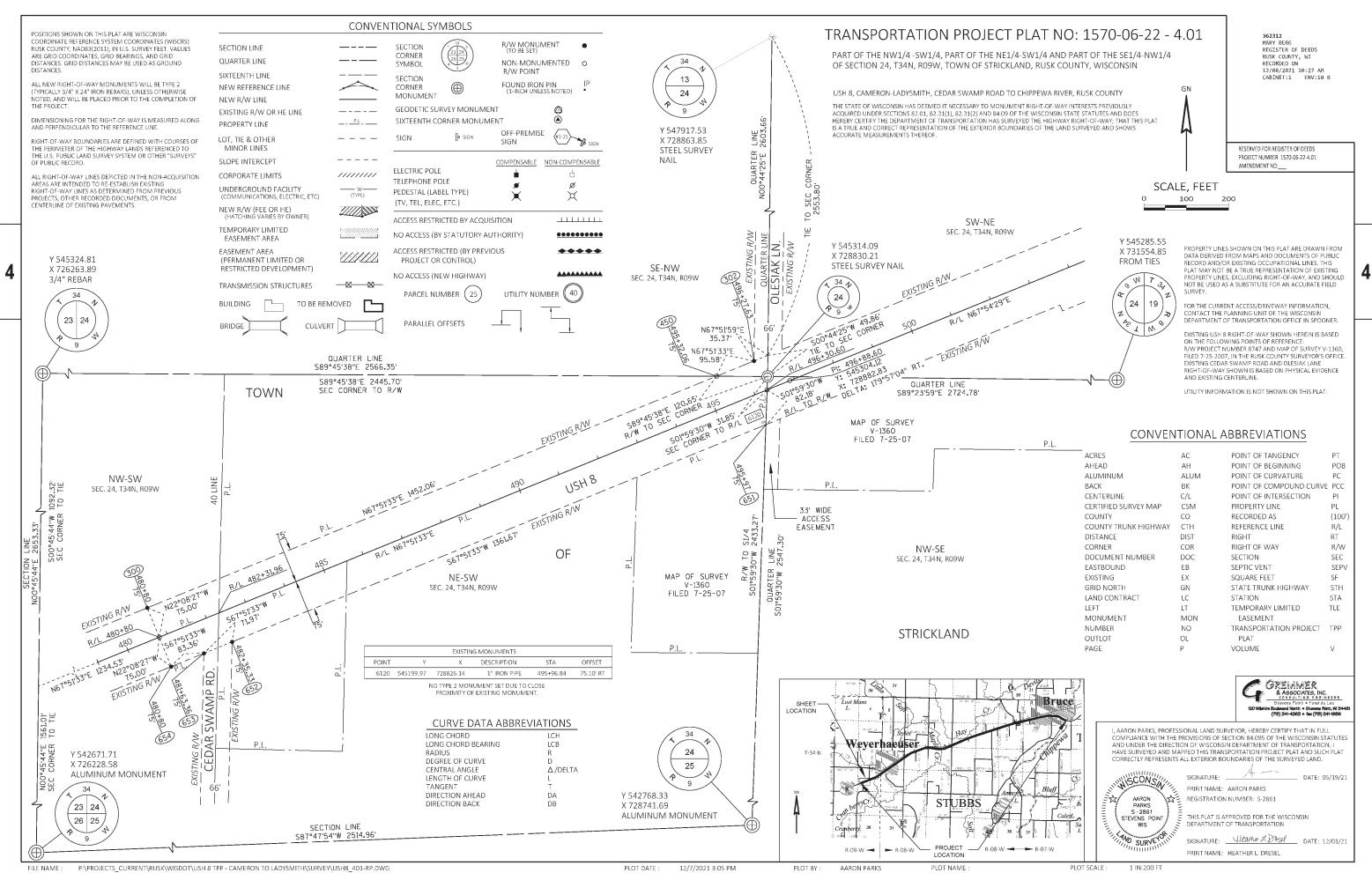
MISCELLANEOUS QUANTITIES

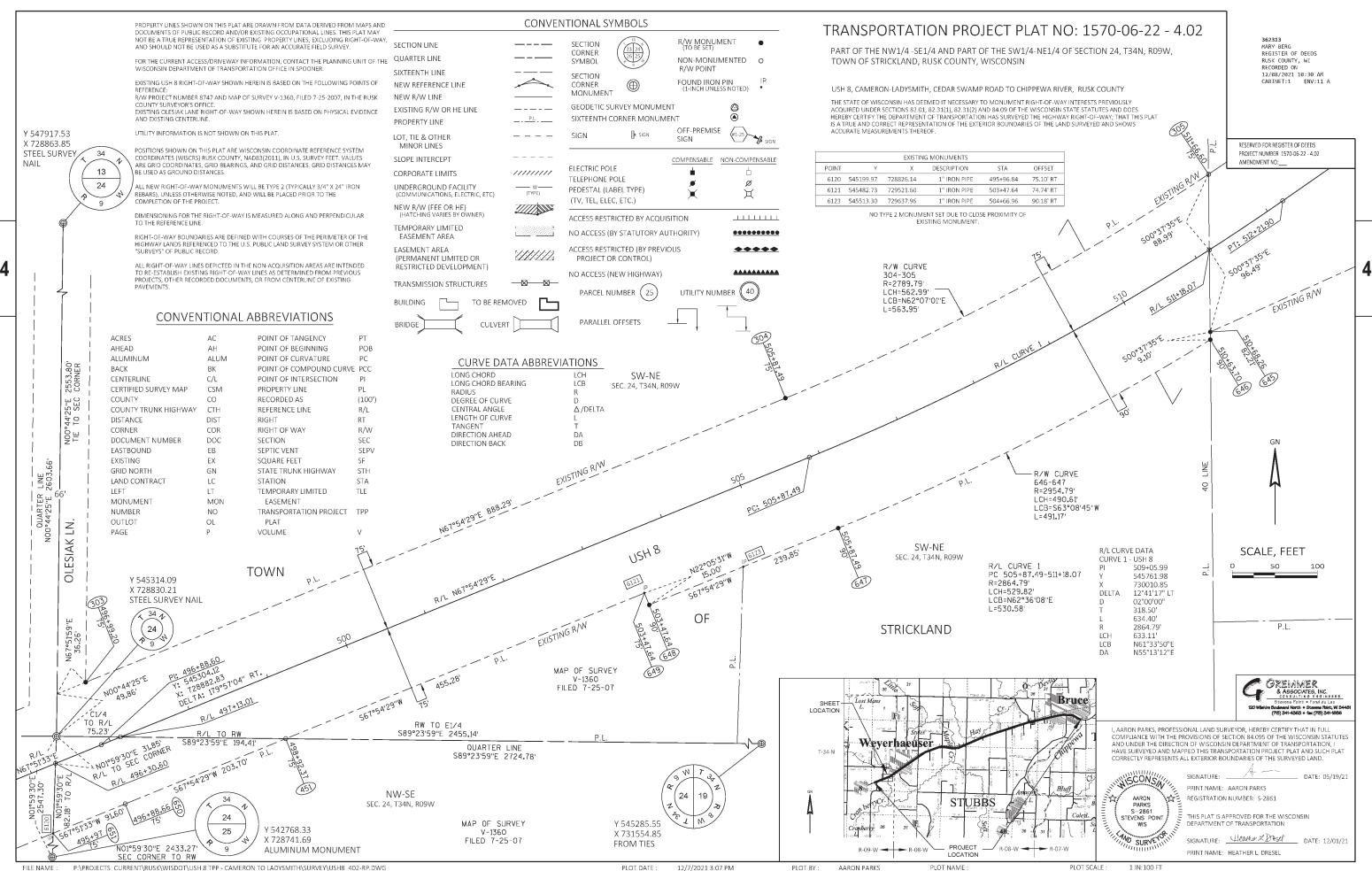
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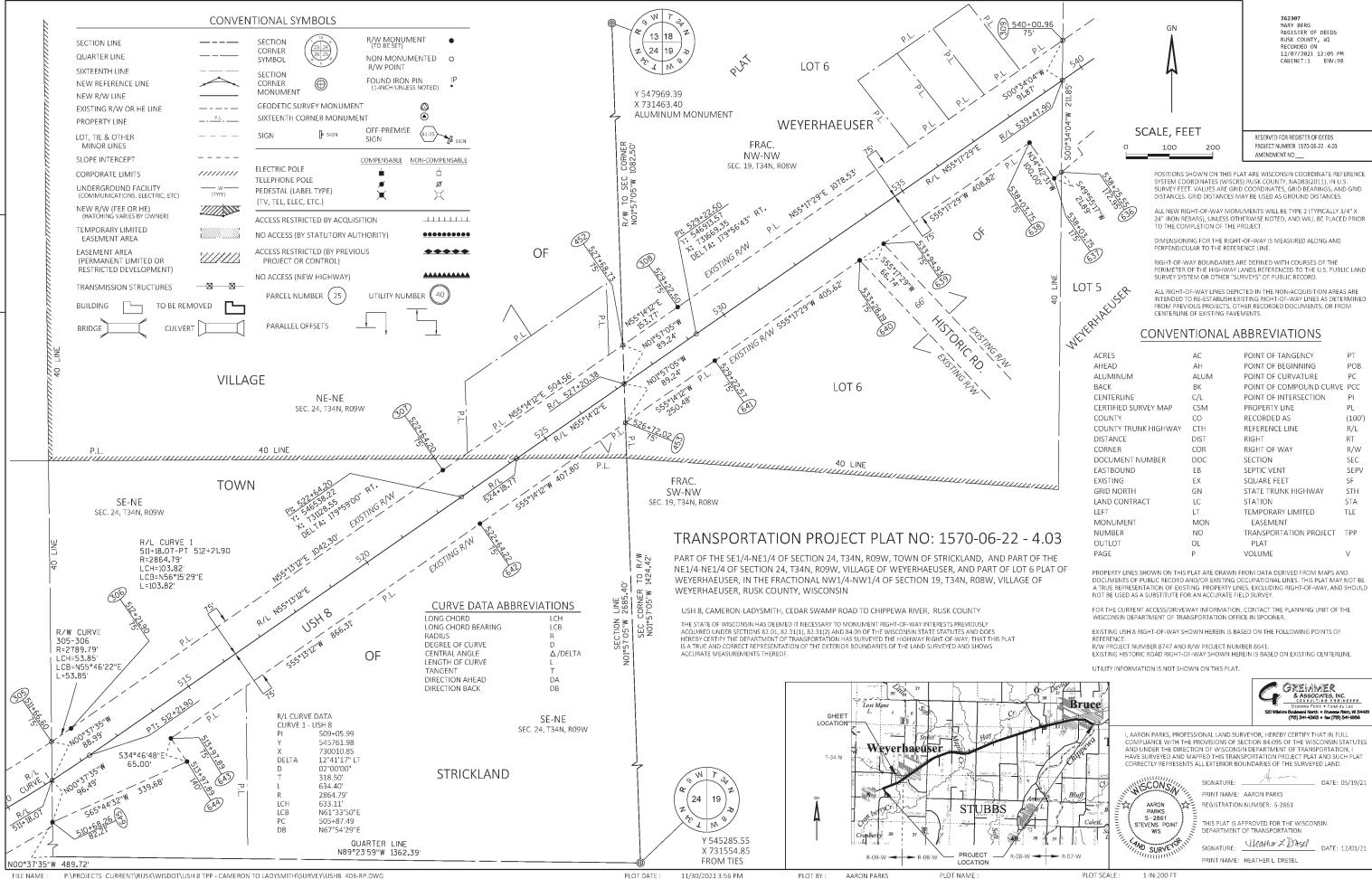
PROJECT NO: 1570-06-72

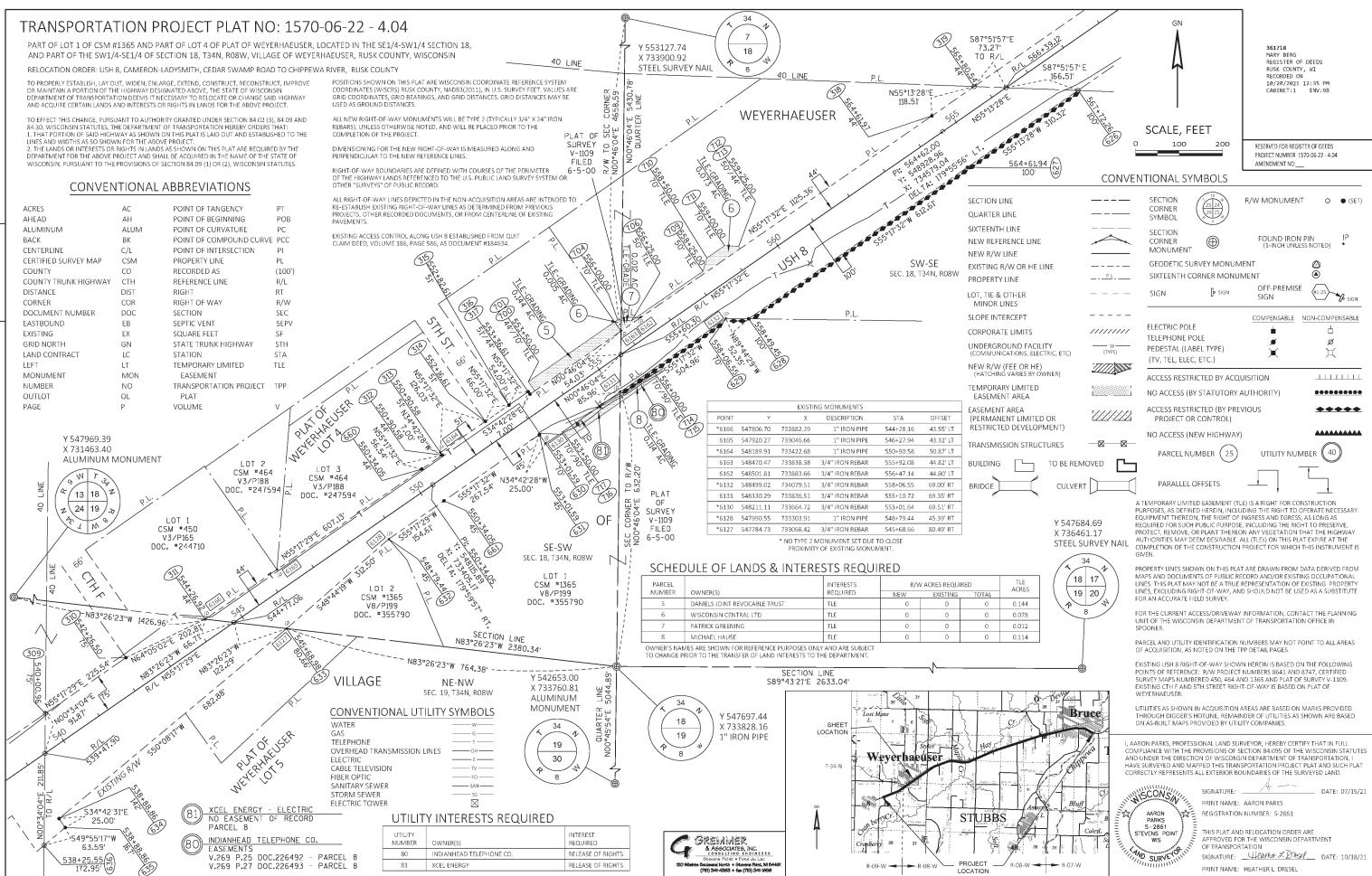
COUNTY: RUSK

PROJECT NO: 1570-06-72 HWY: USH 8 COUNTY: RUSK MISCELLANEOUS QUANTITIES SHEET NO: E



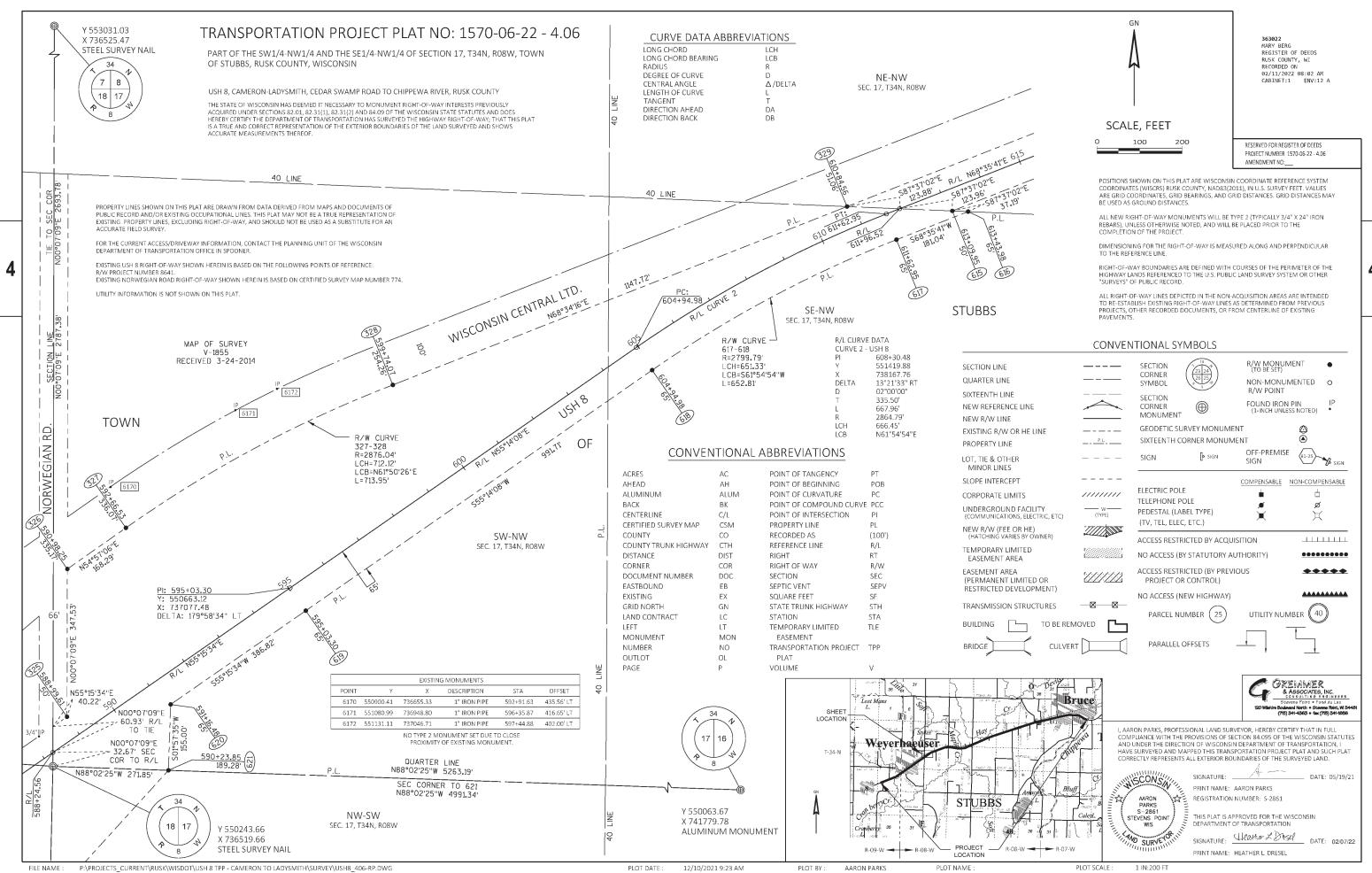


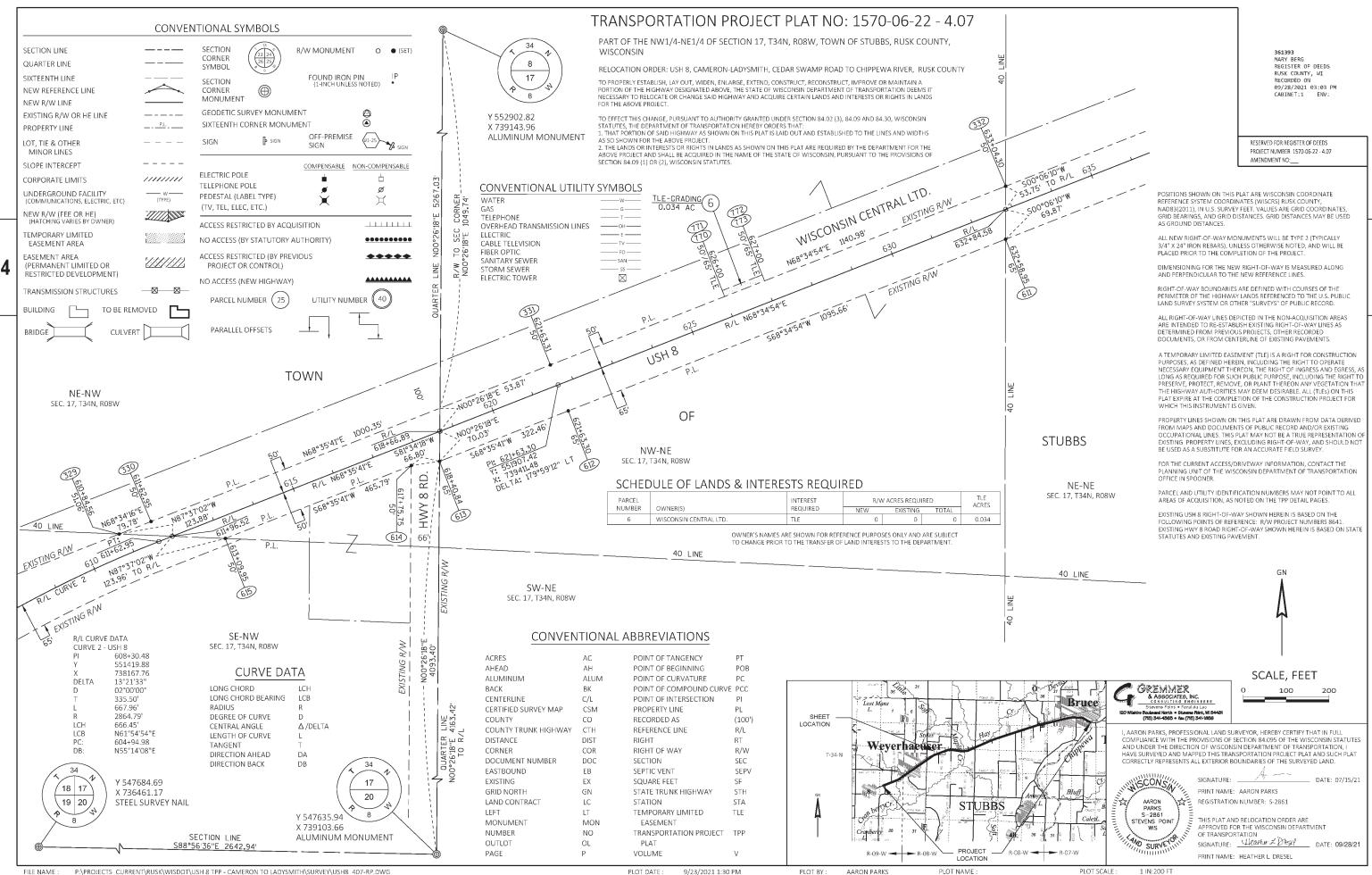


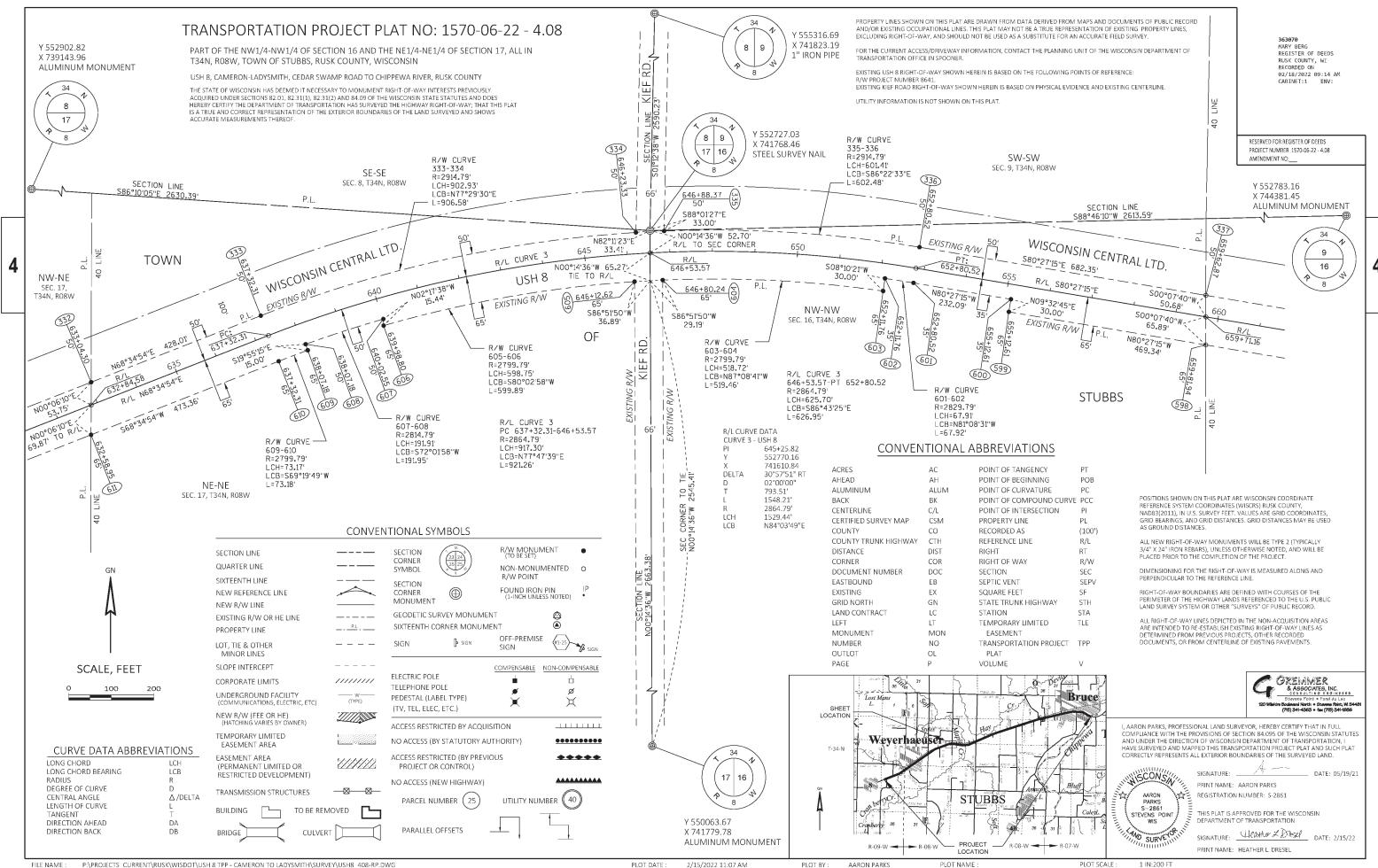


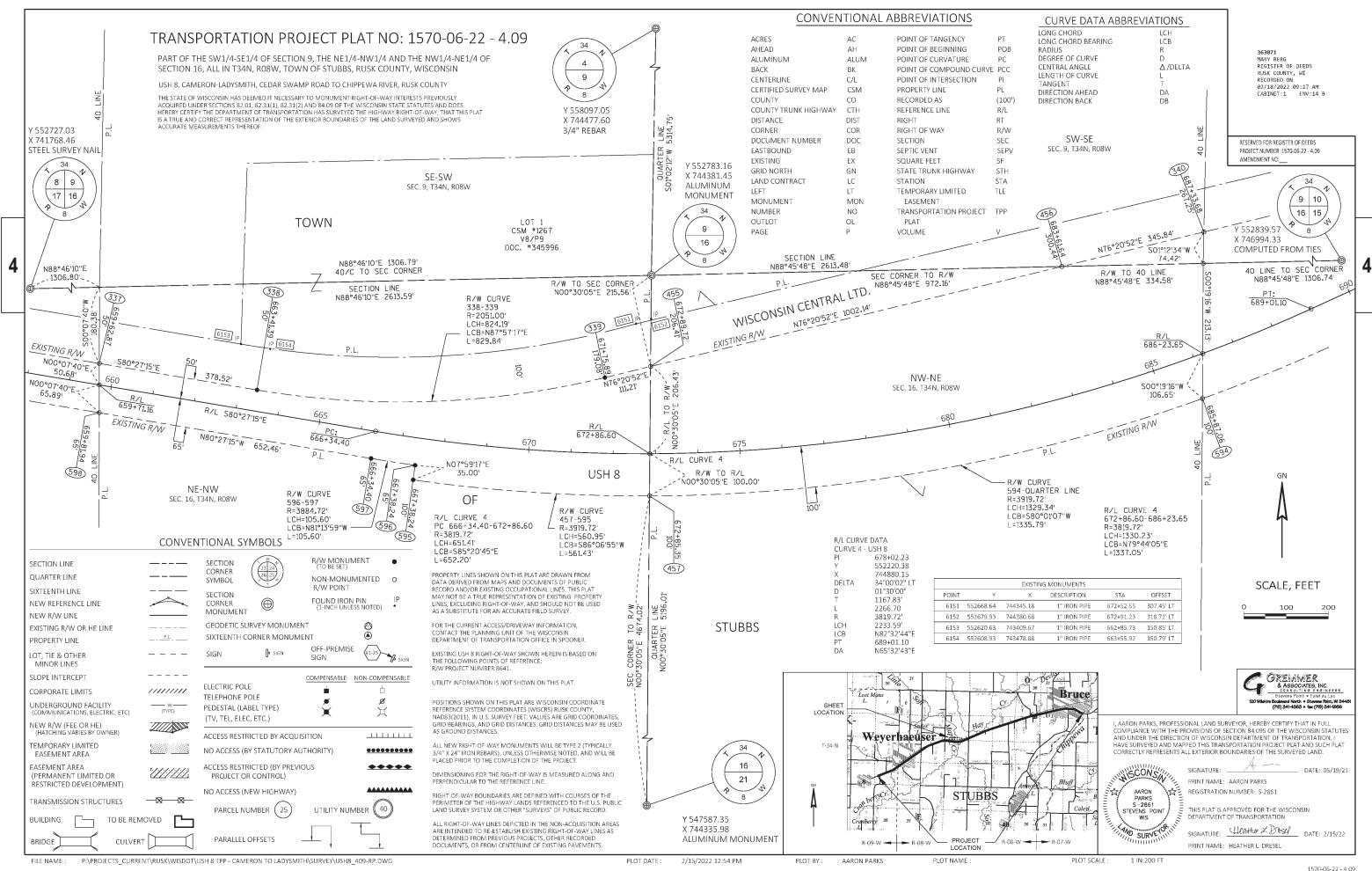
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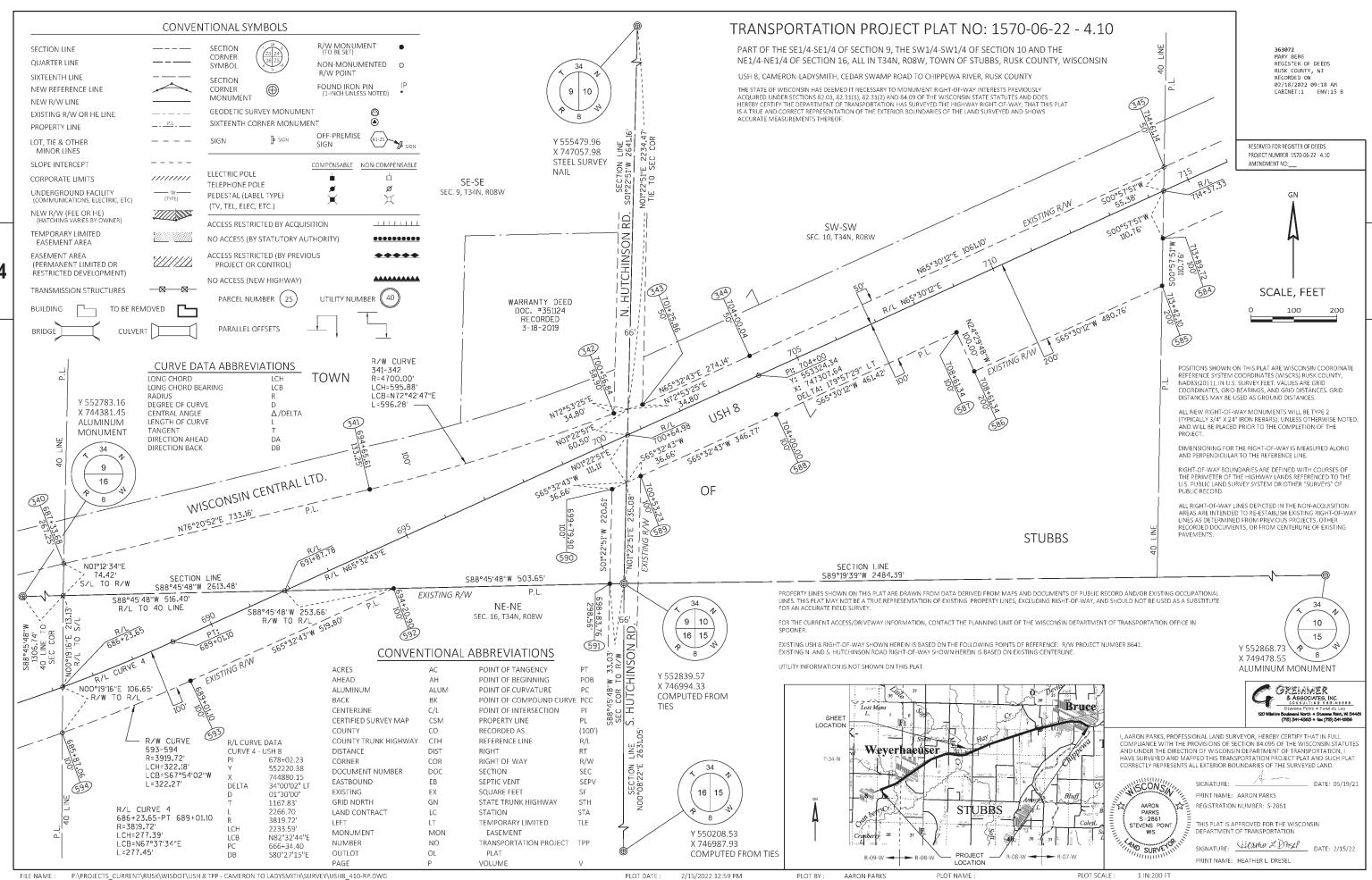
1570-06-22 - 4.05

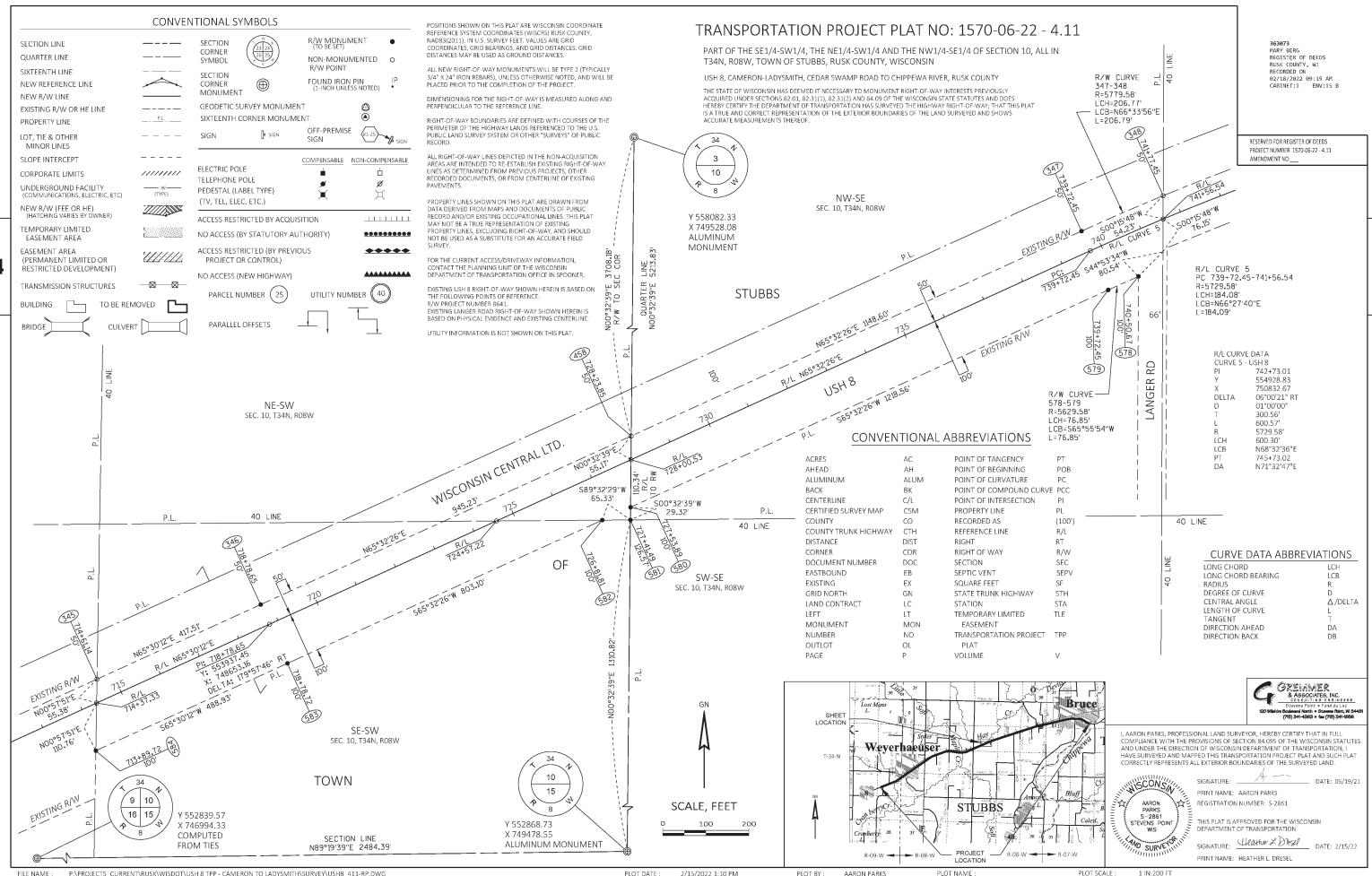








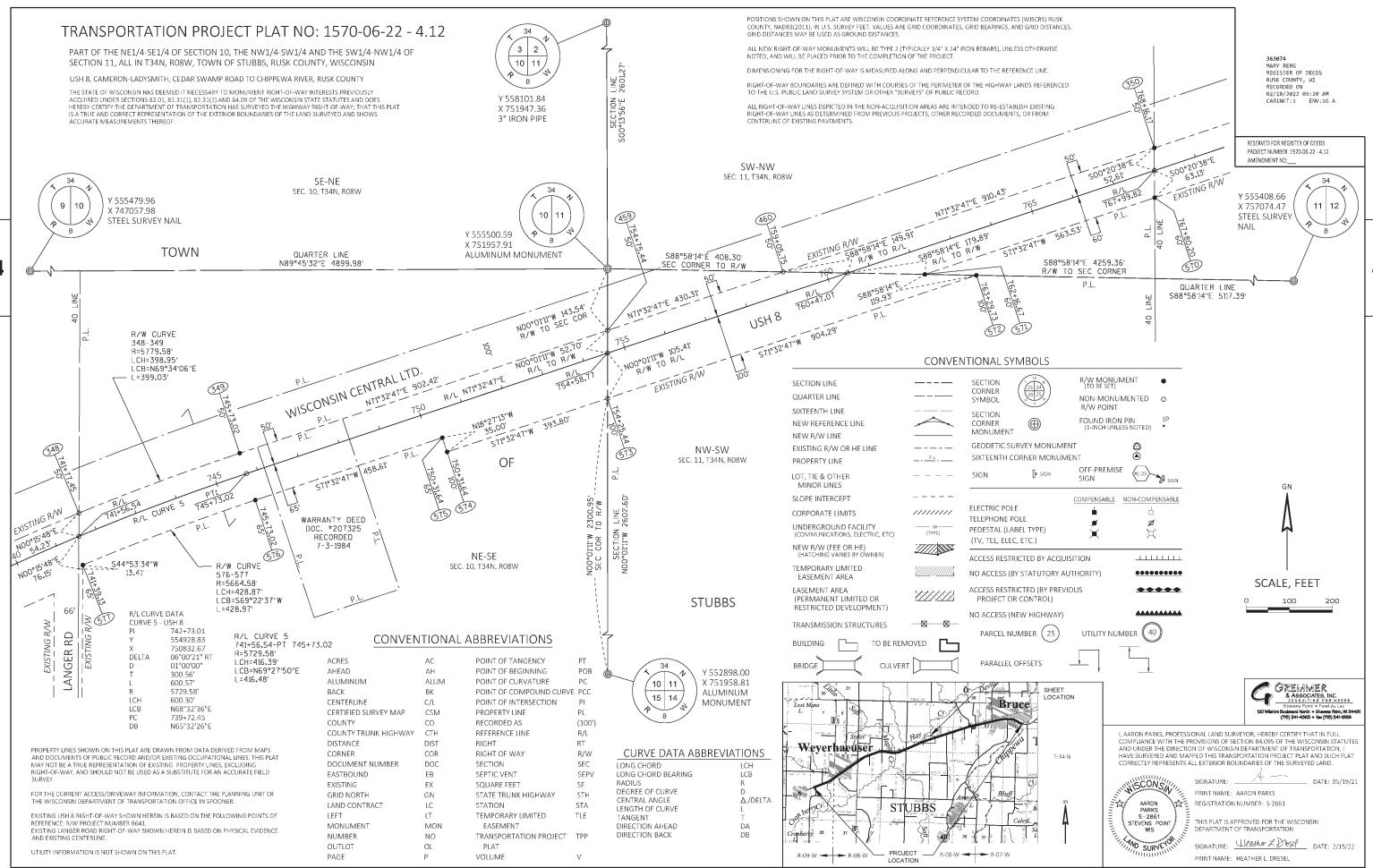




1 IN:200 FT

FILE NAME:

AARON PARKS



2/15/2022 1:13 PM

PLOT BY

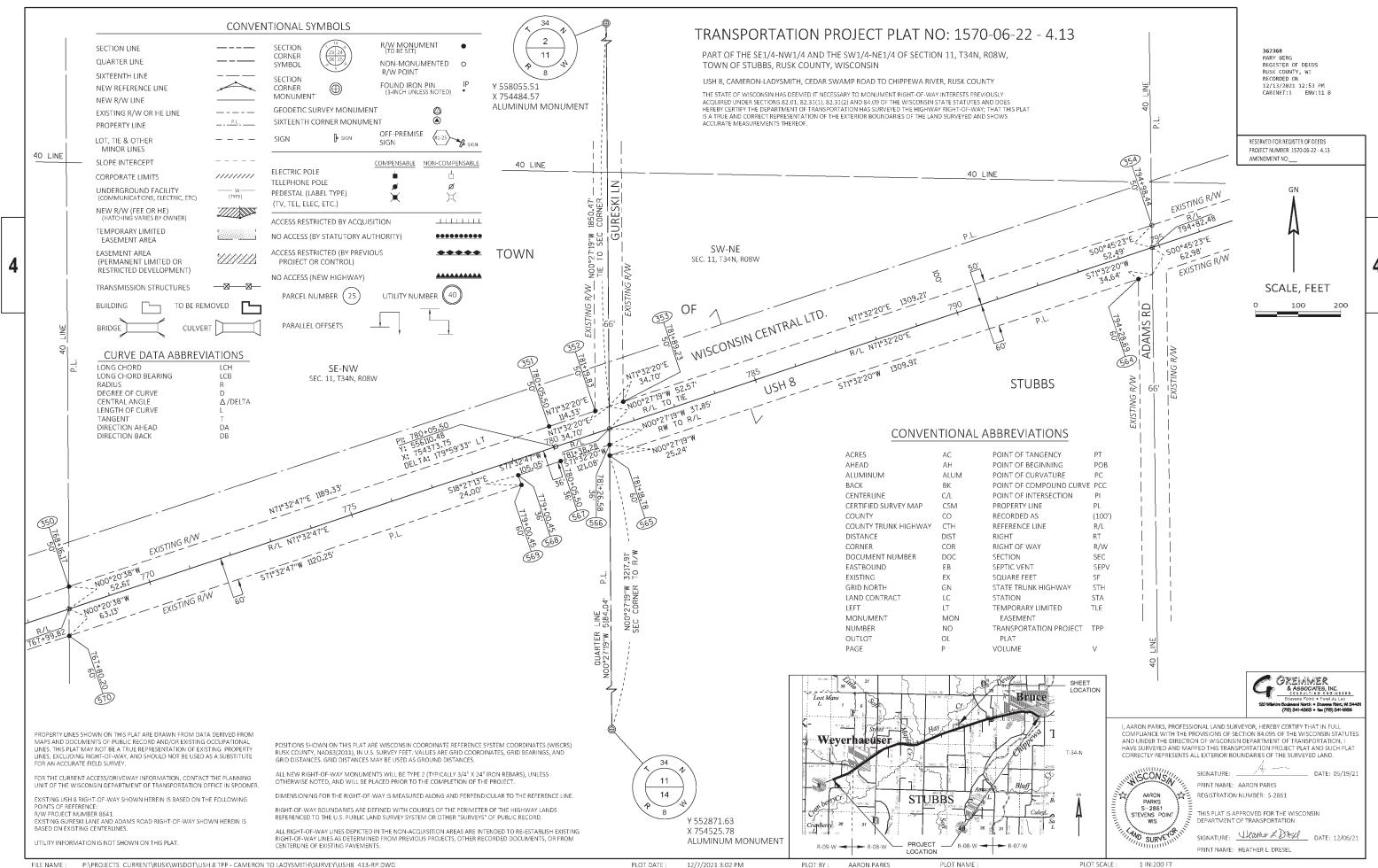
AARON PARKS

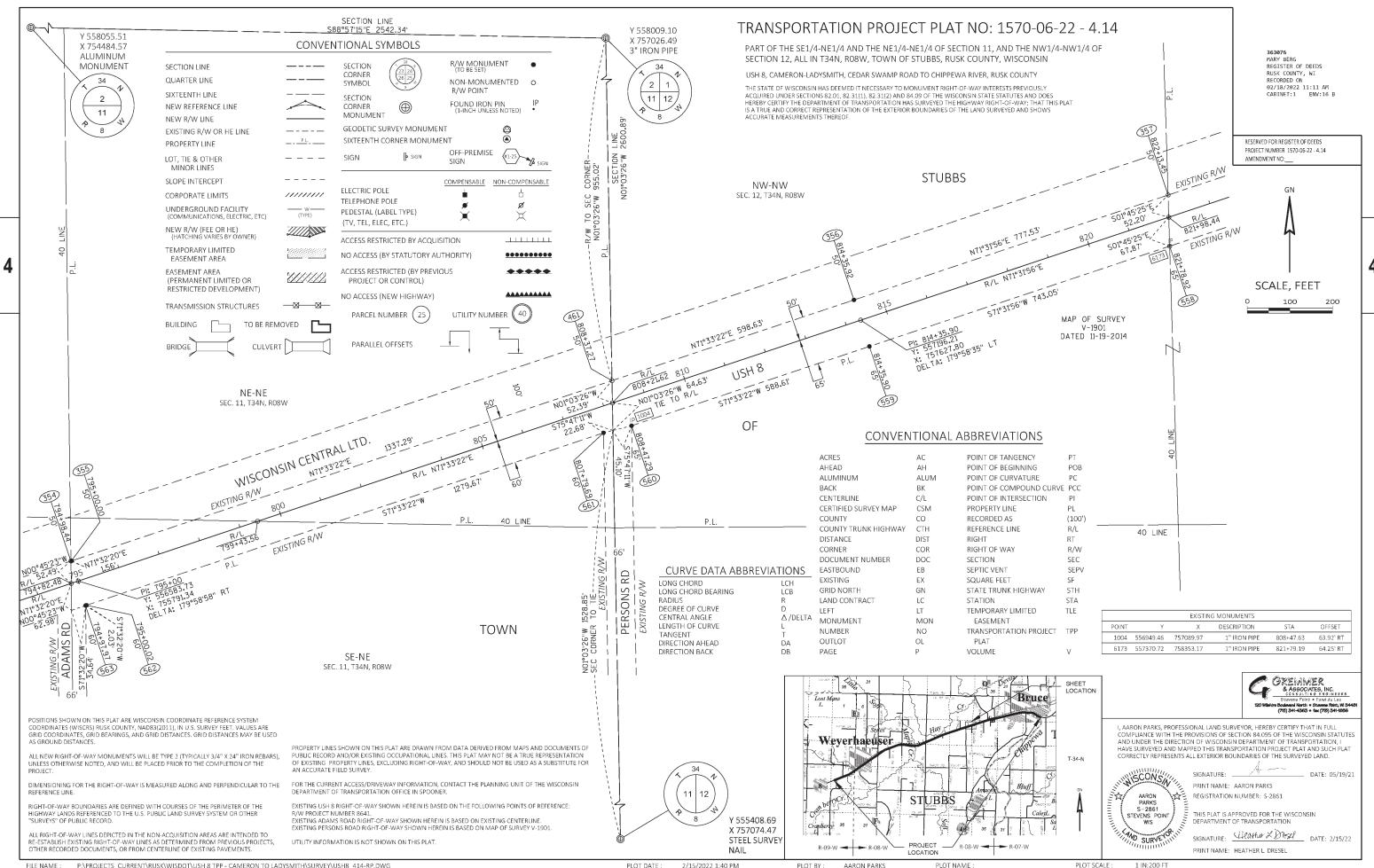
PLOT NAME

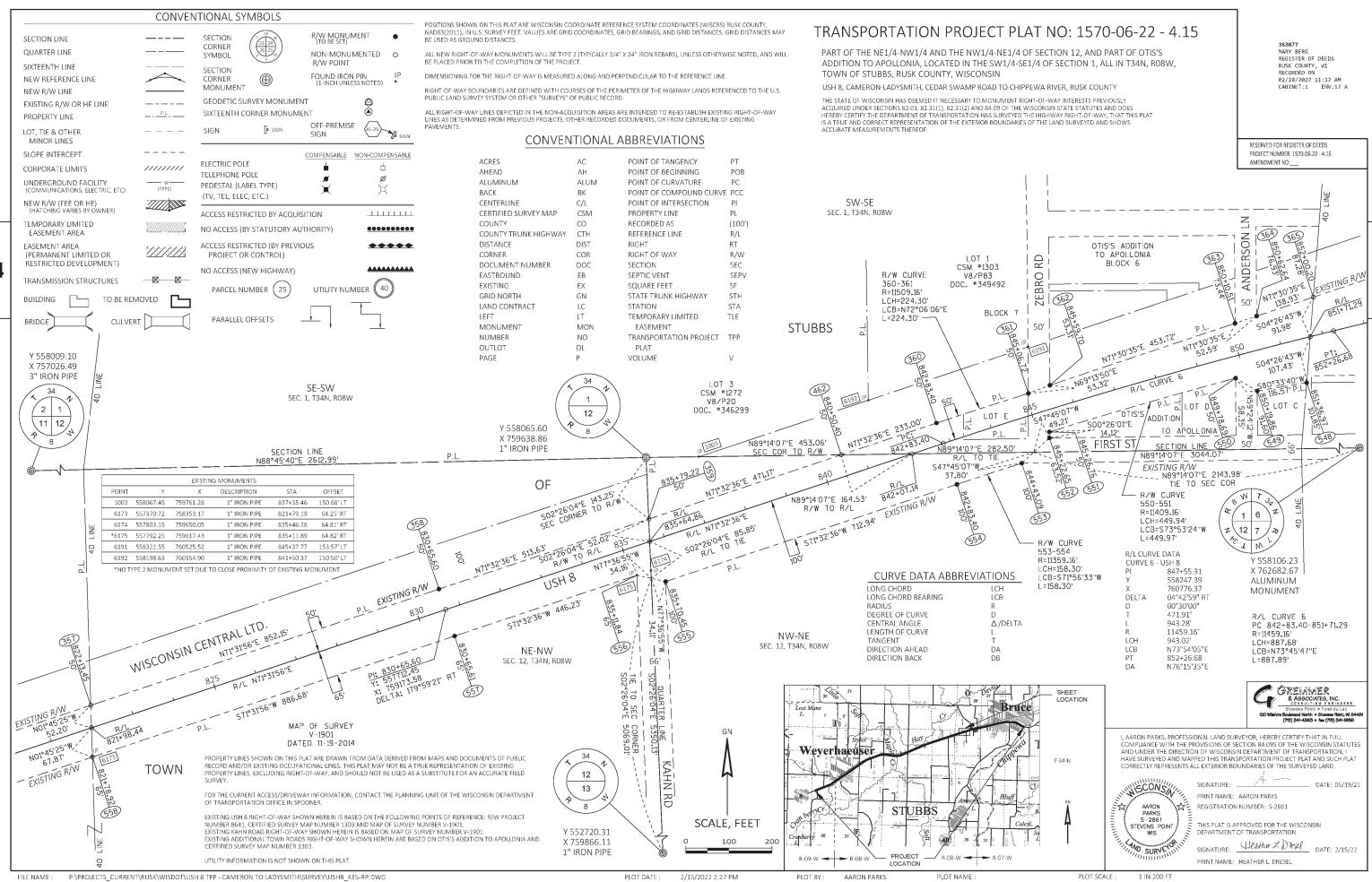
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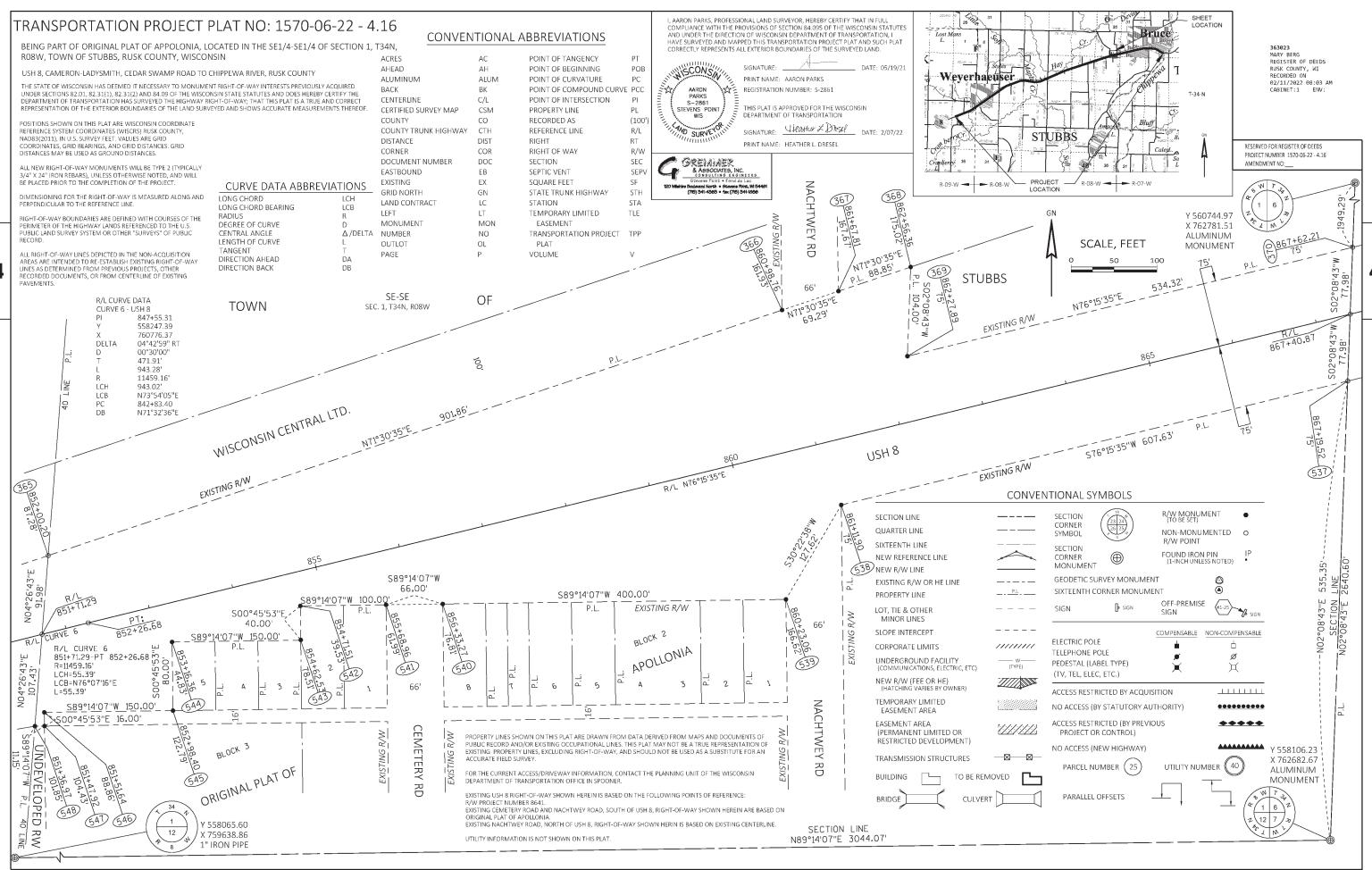
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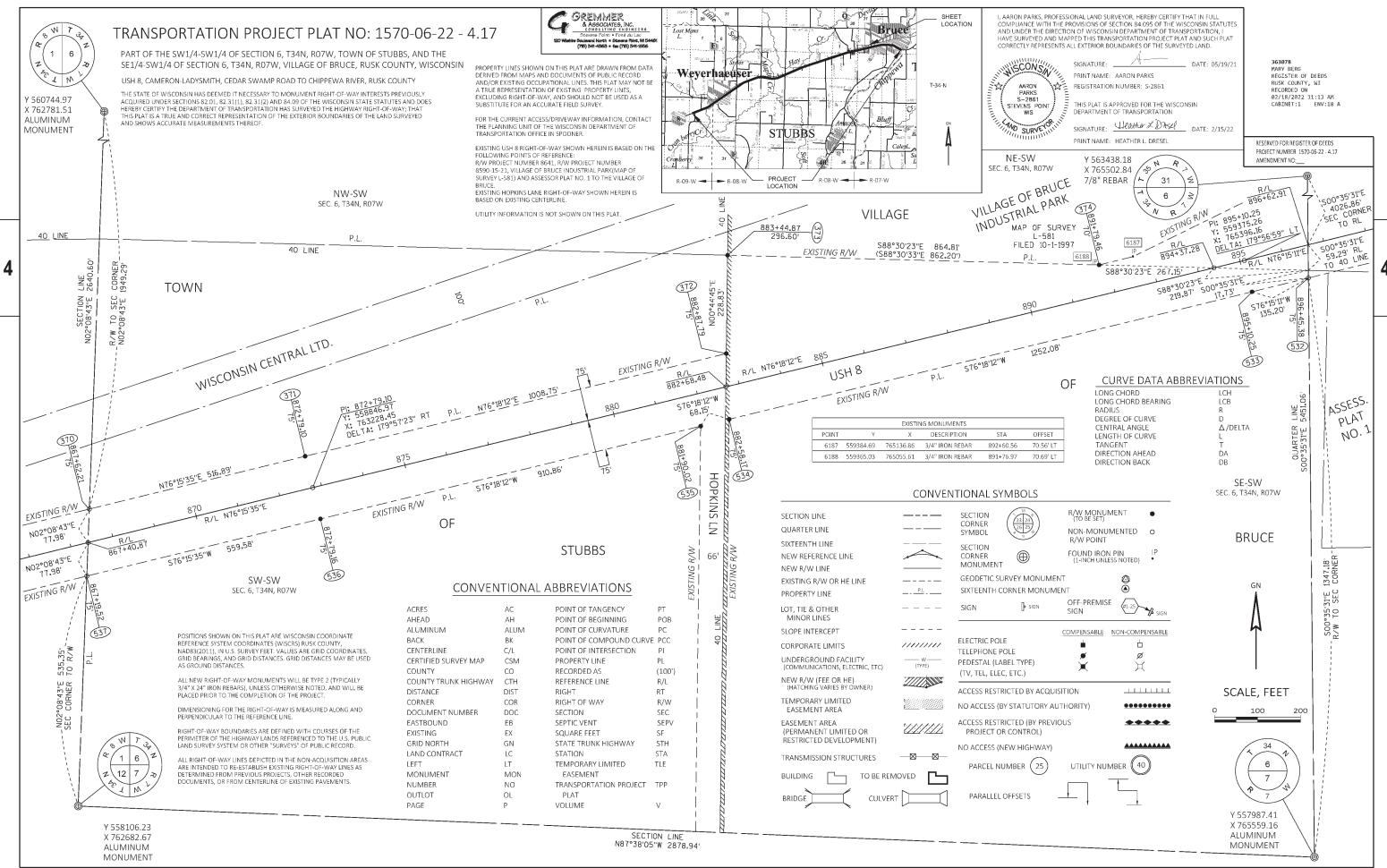




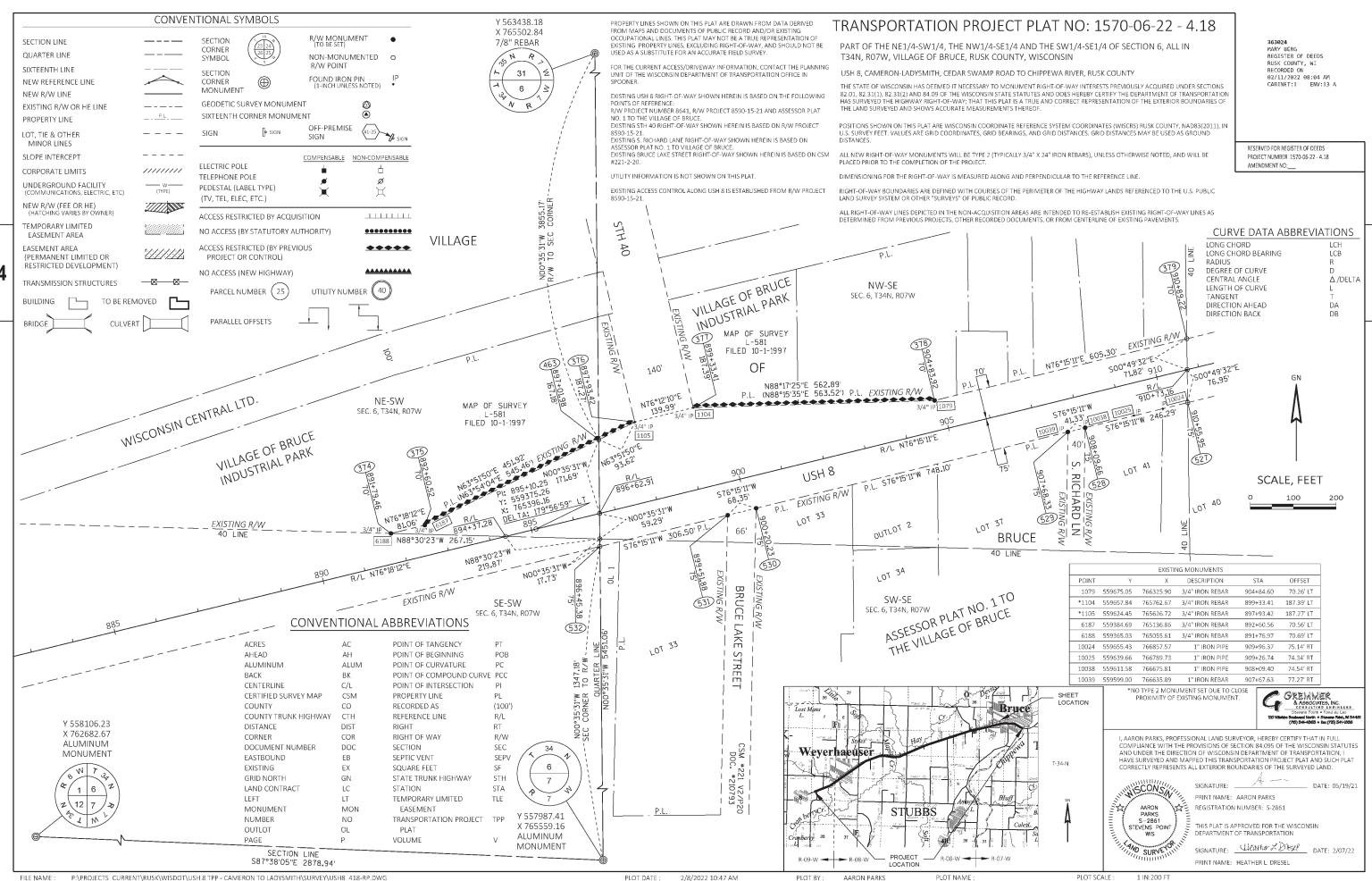


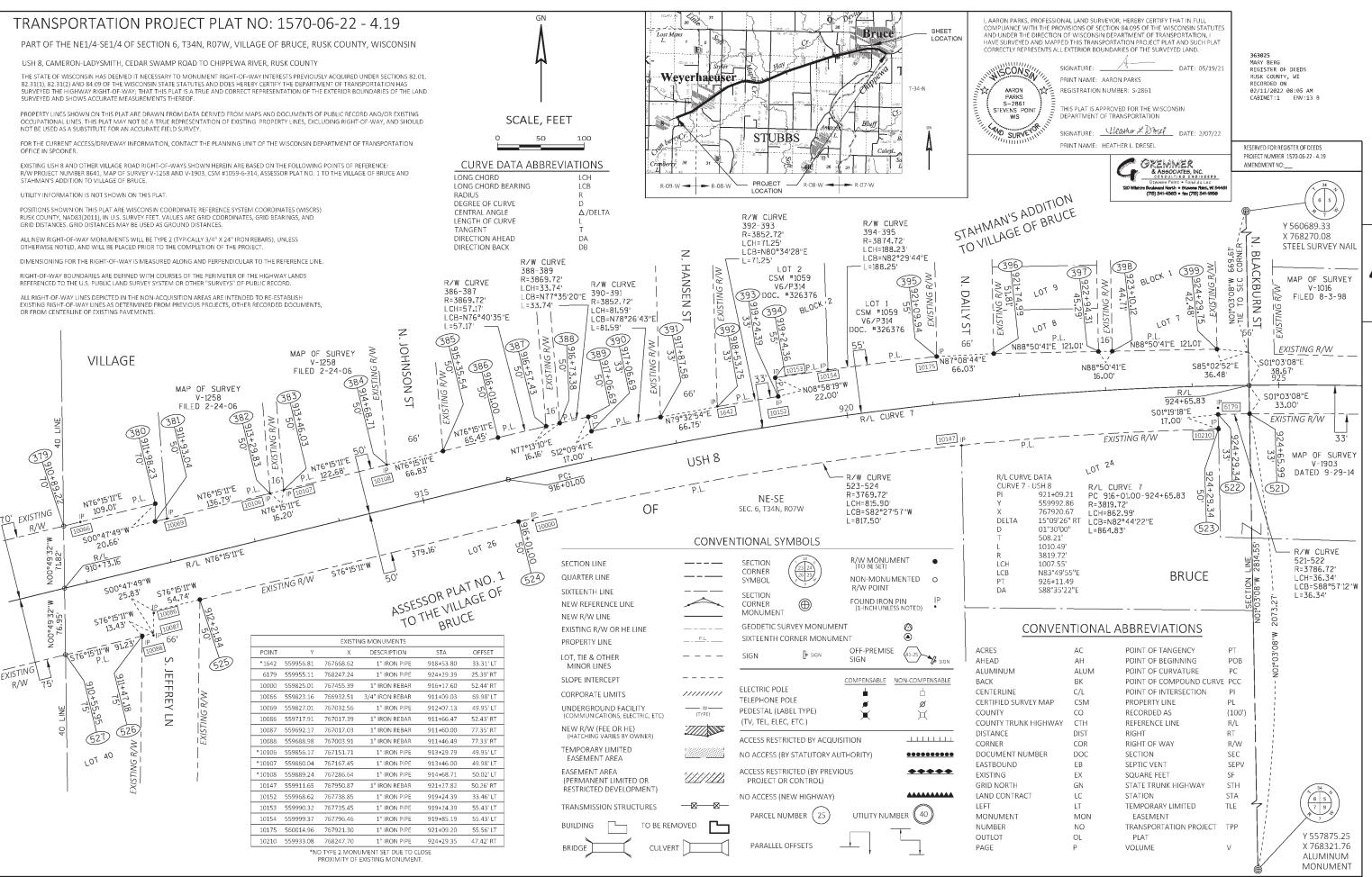


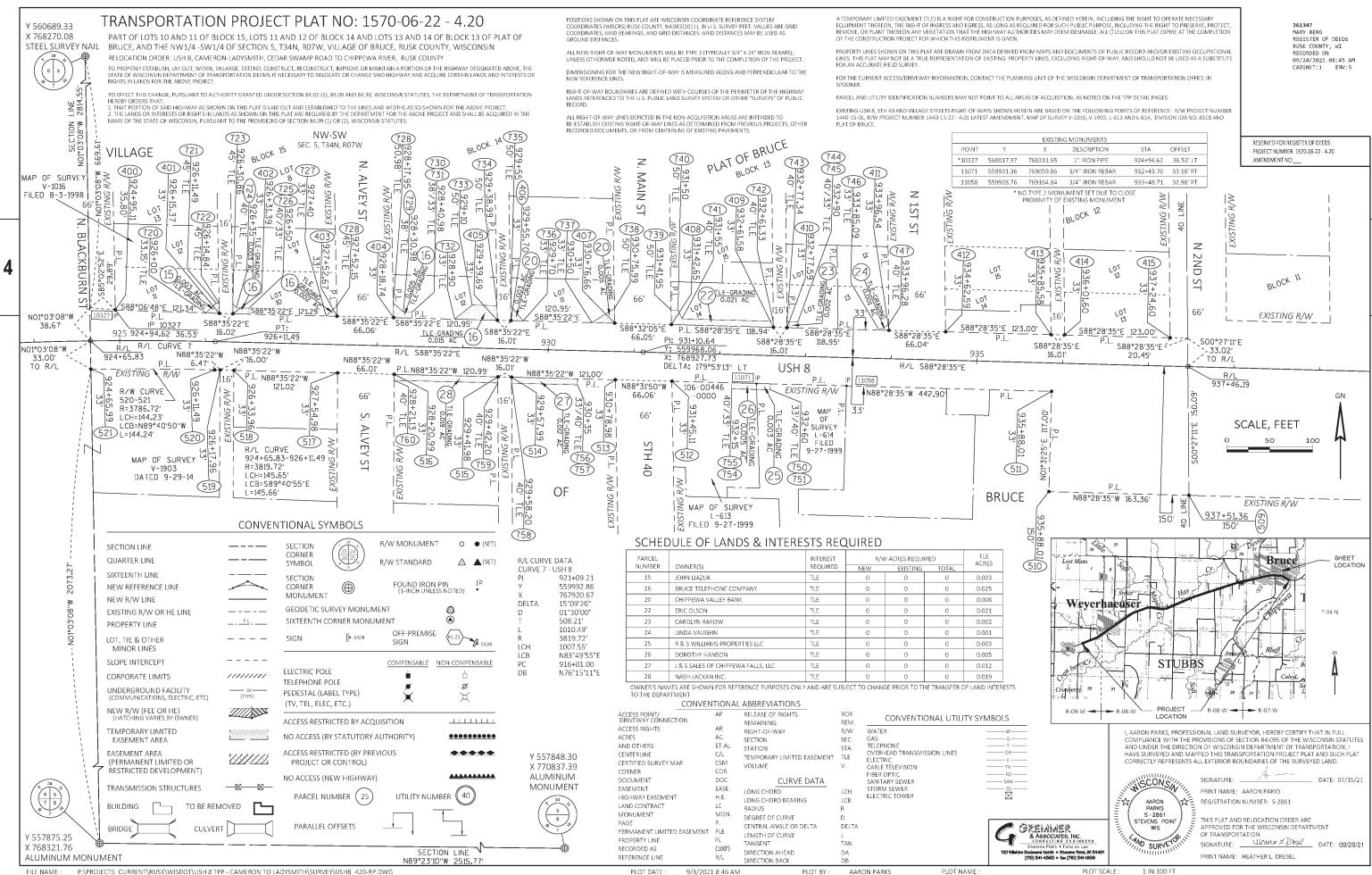
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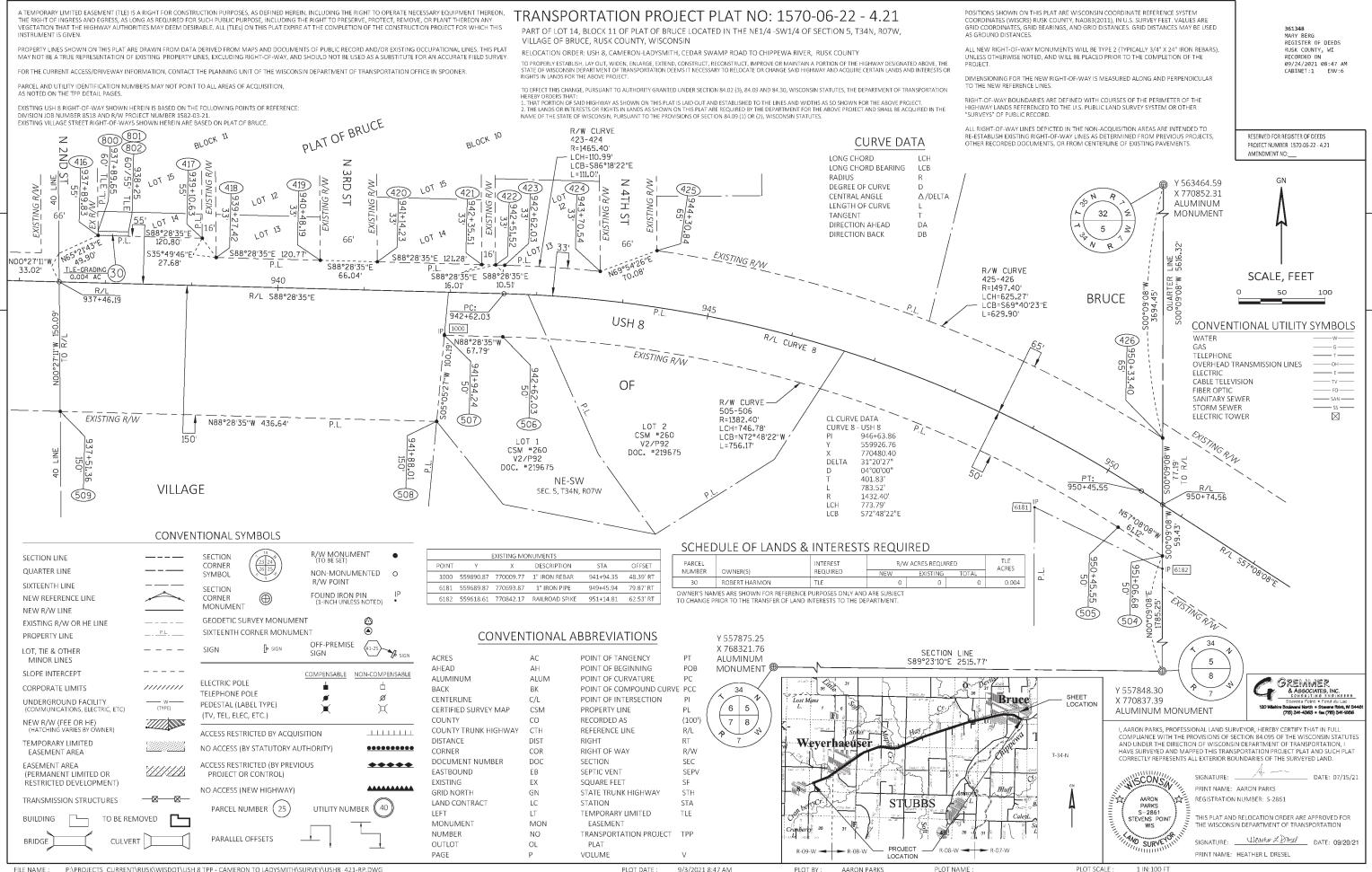


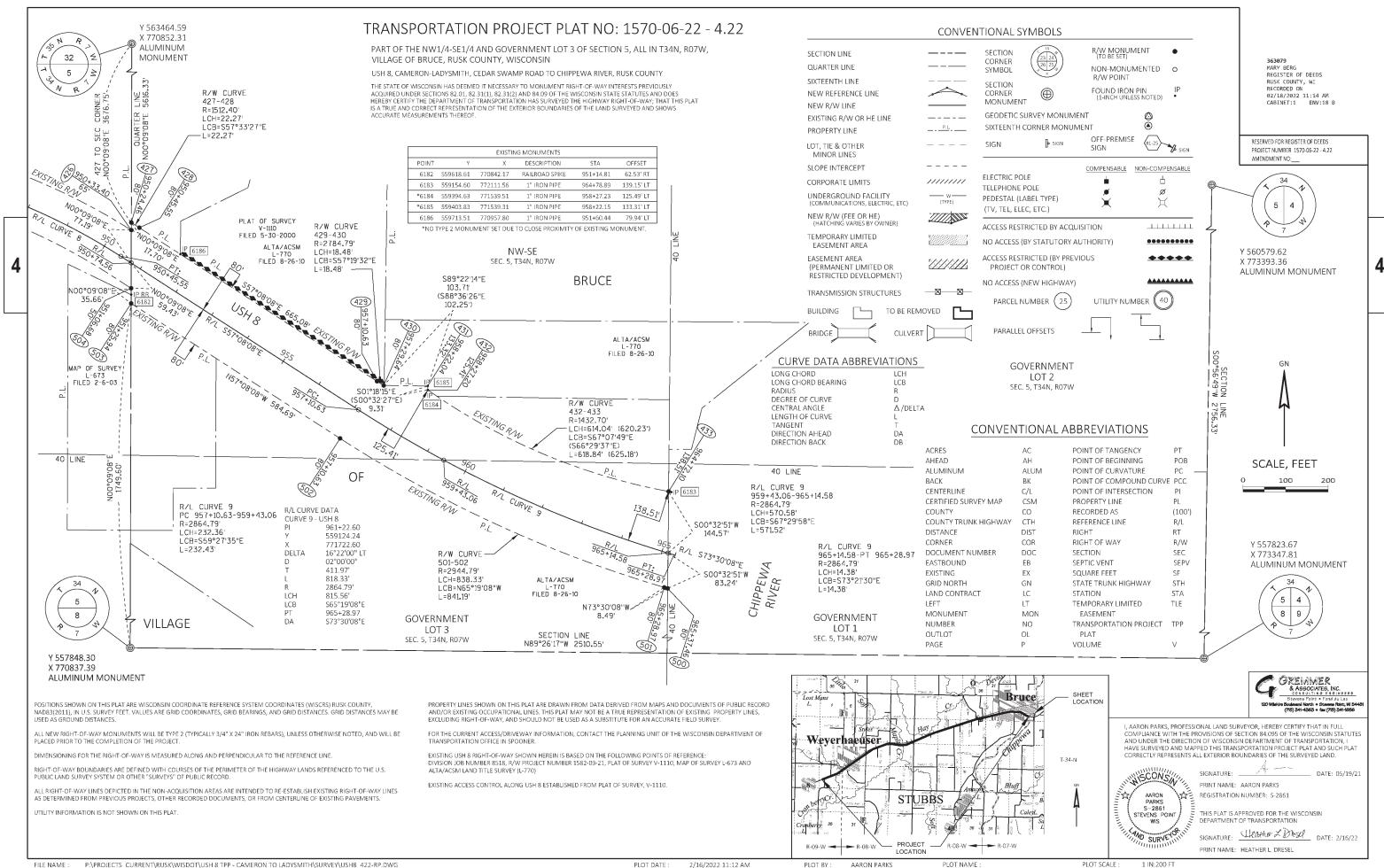
P:\PROJECTS_CURRENT\RUSK\WISDOT\USH 8 TPP - CAMERON TO LADYSMITH\SURVEY\USH8_417-RP.DWG

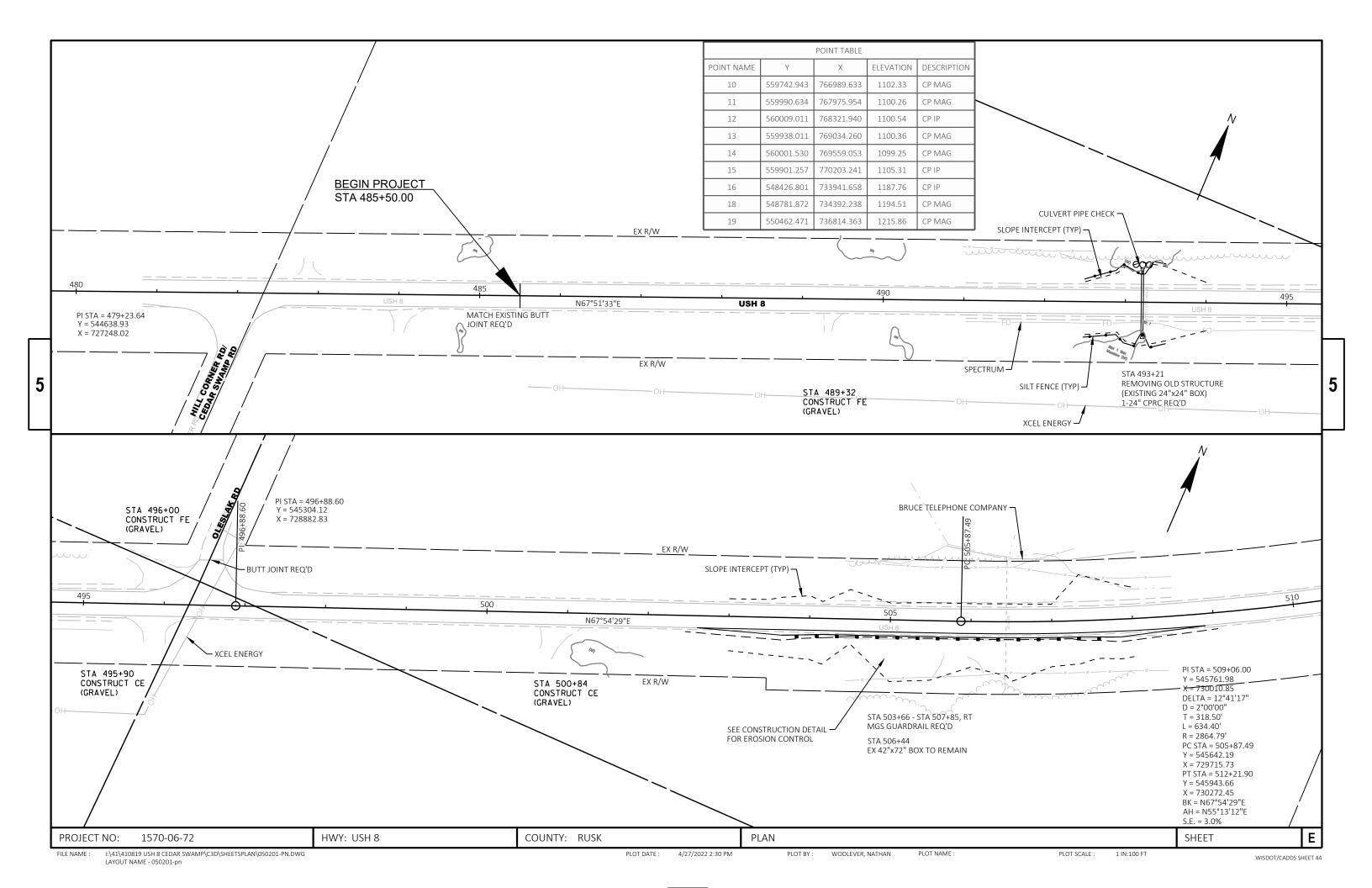


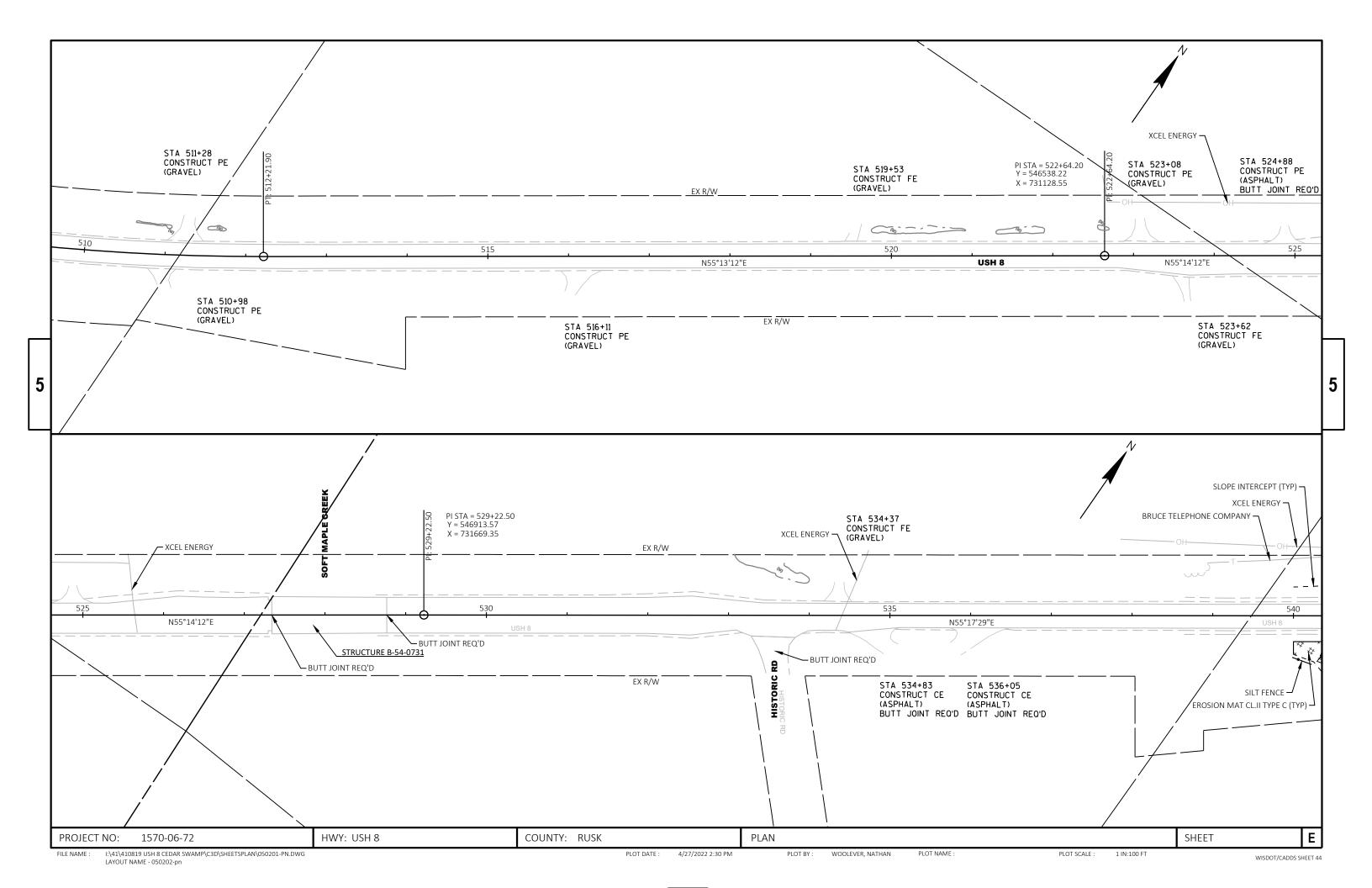


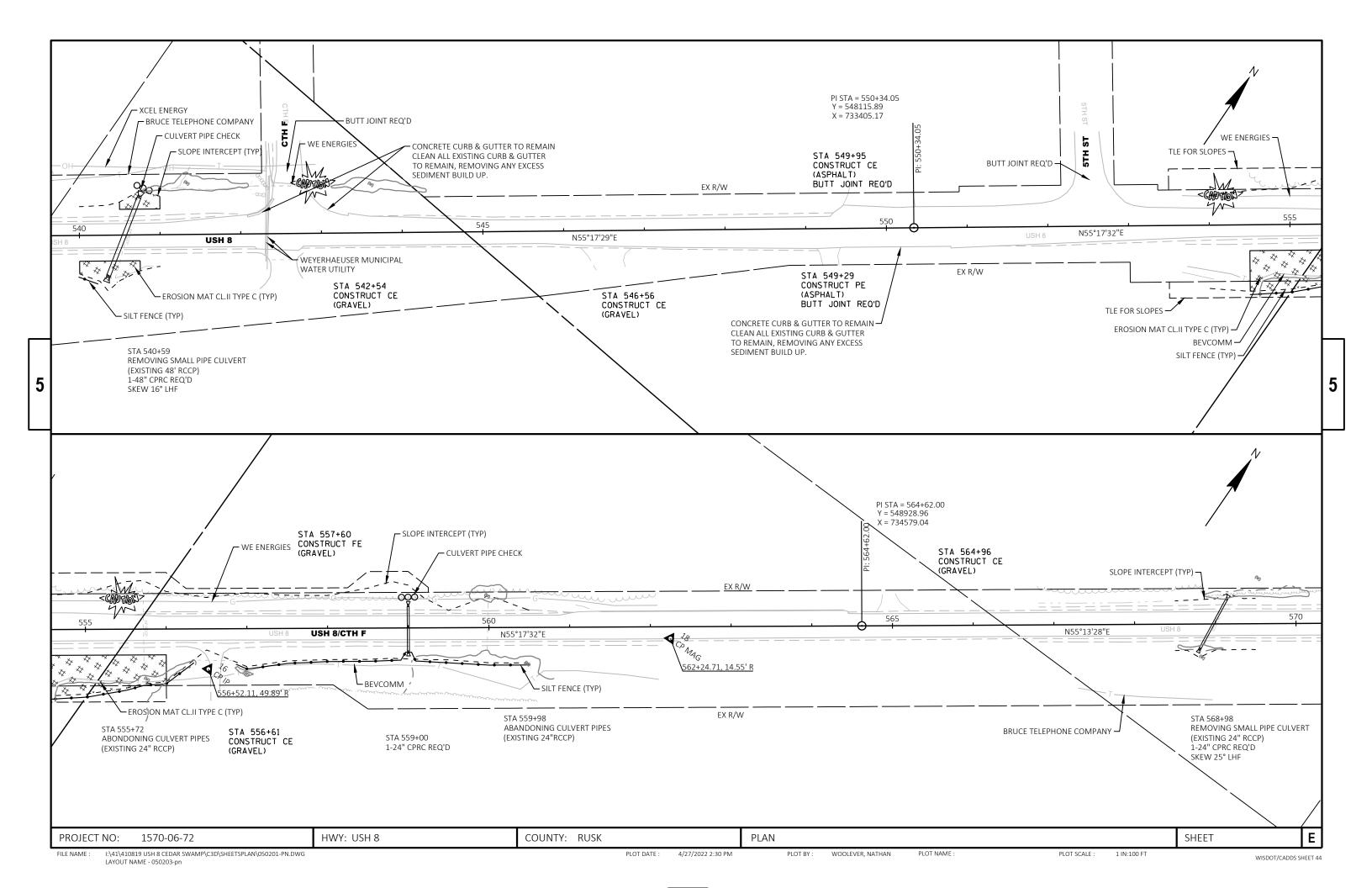


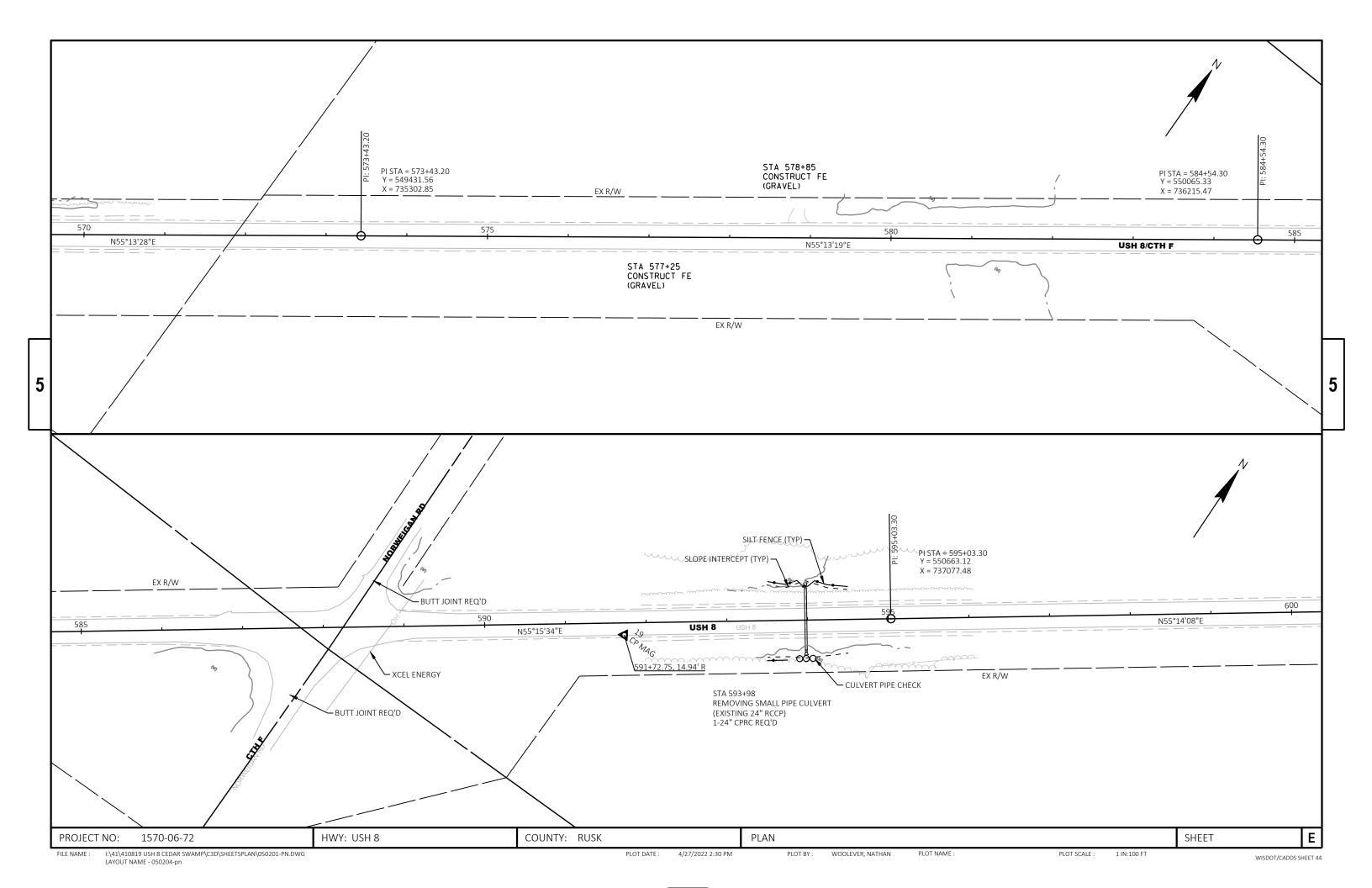


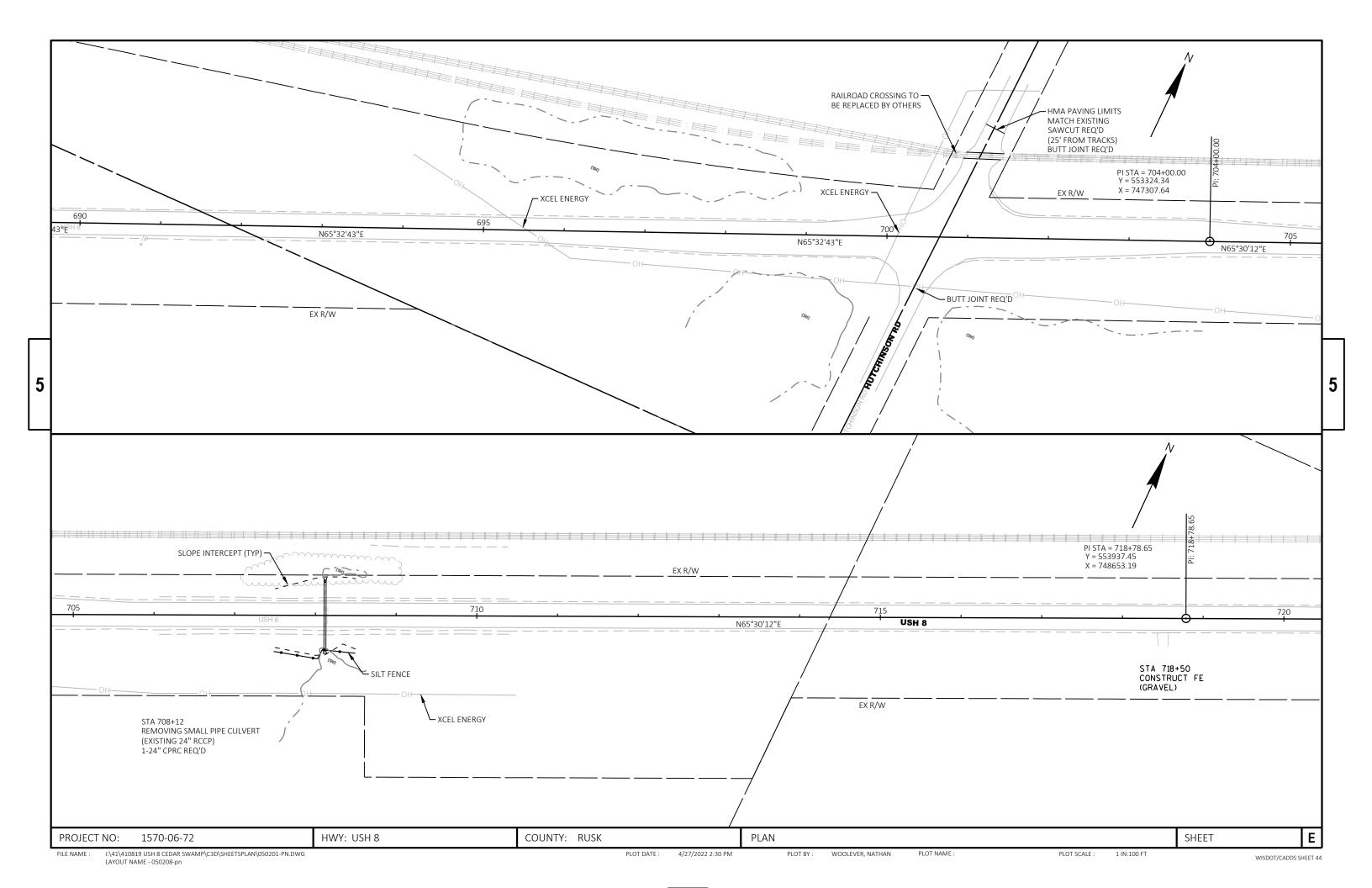


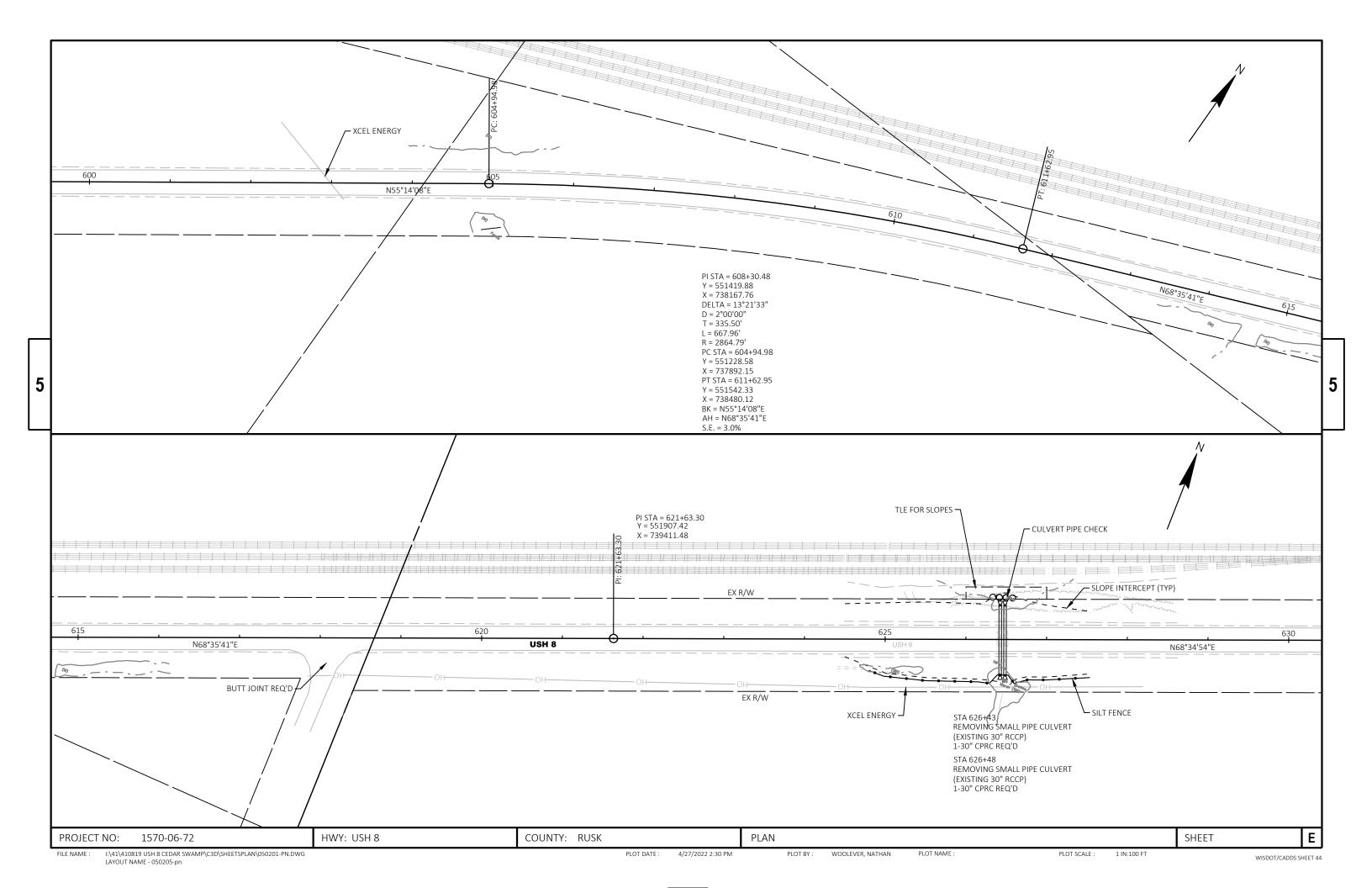


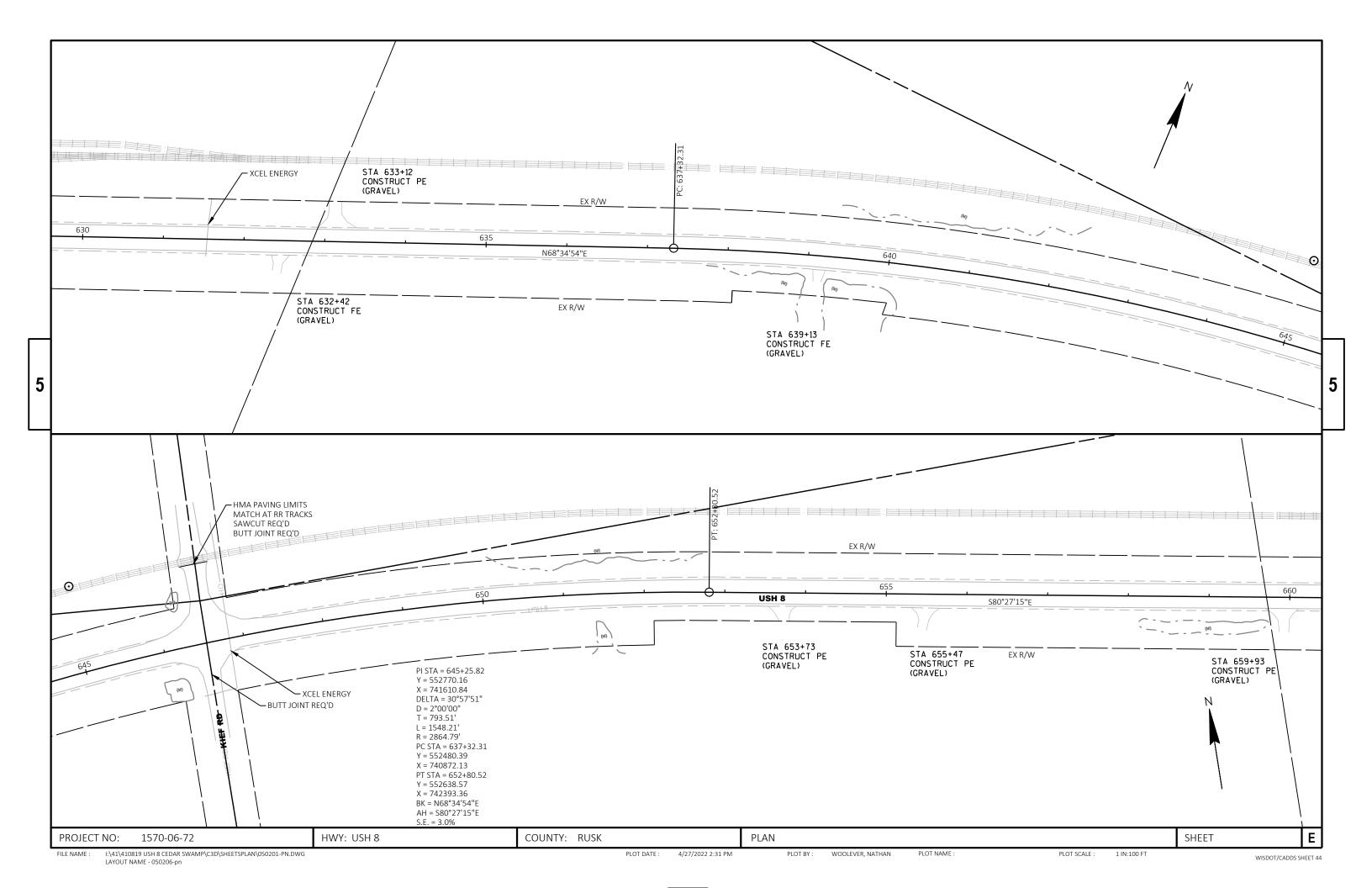


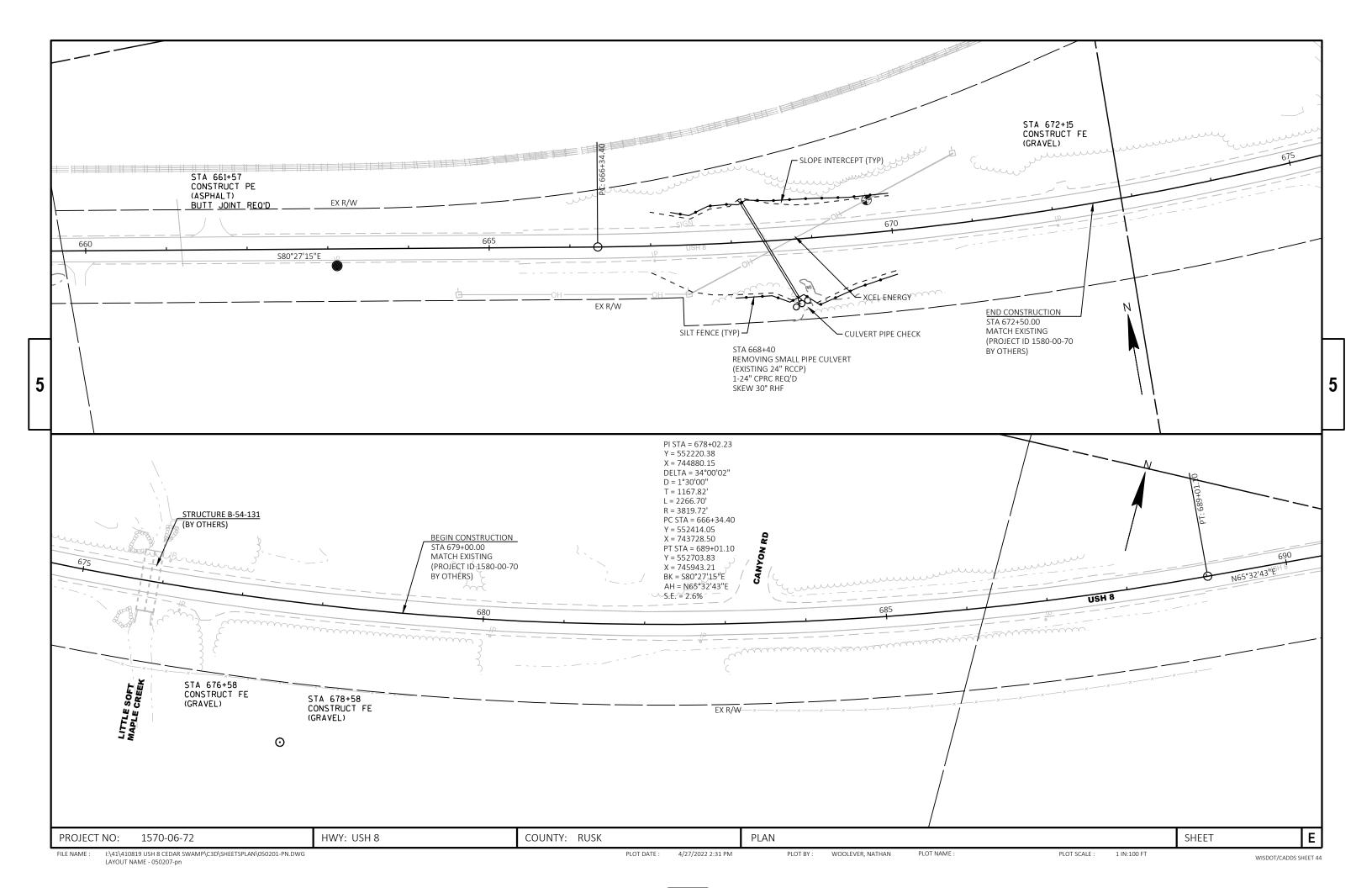


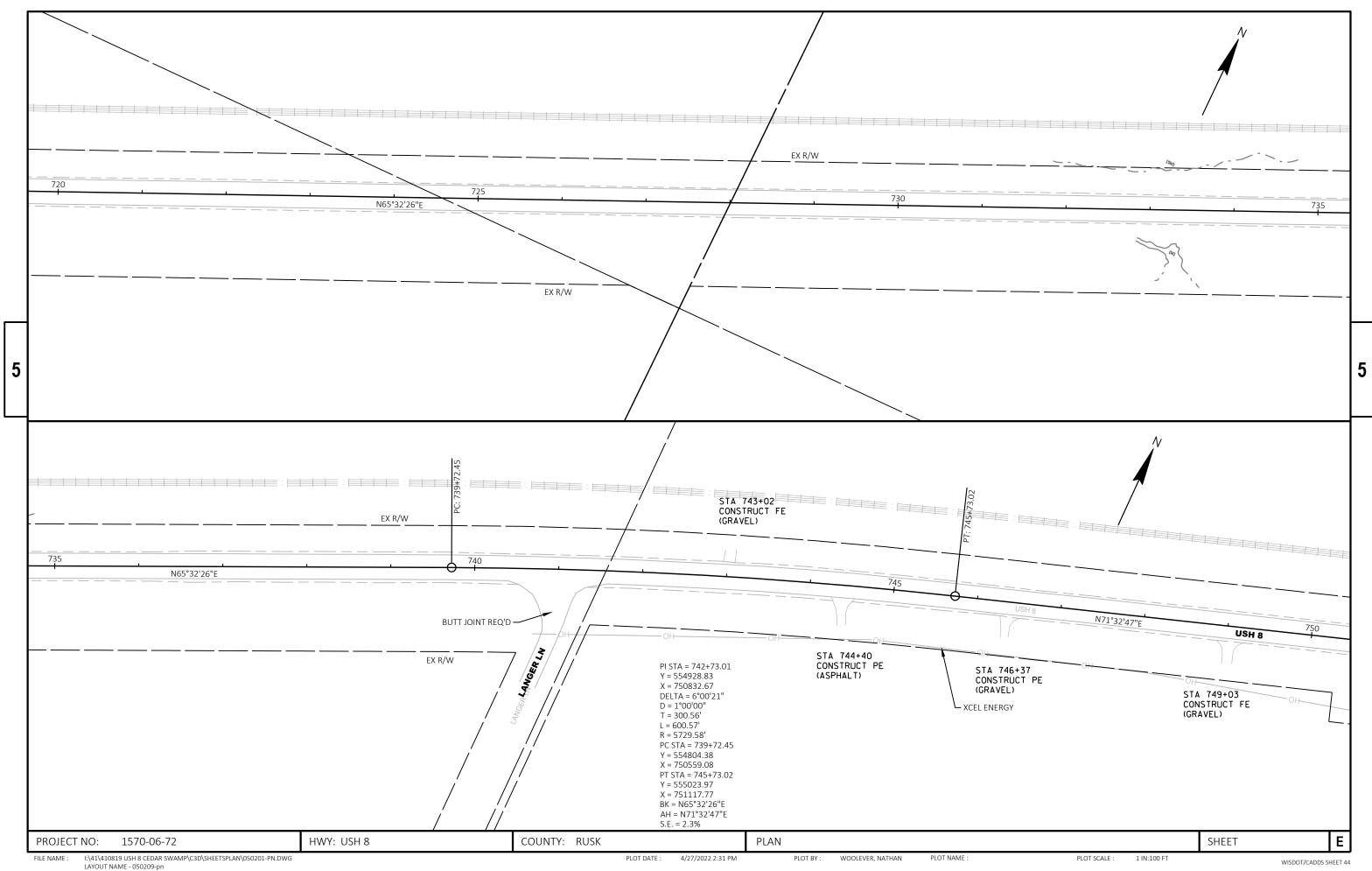


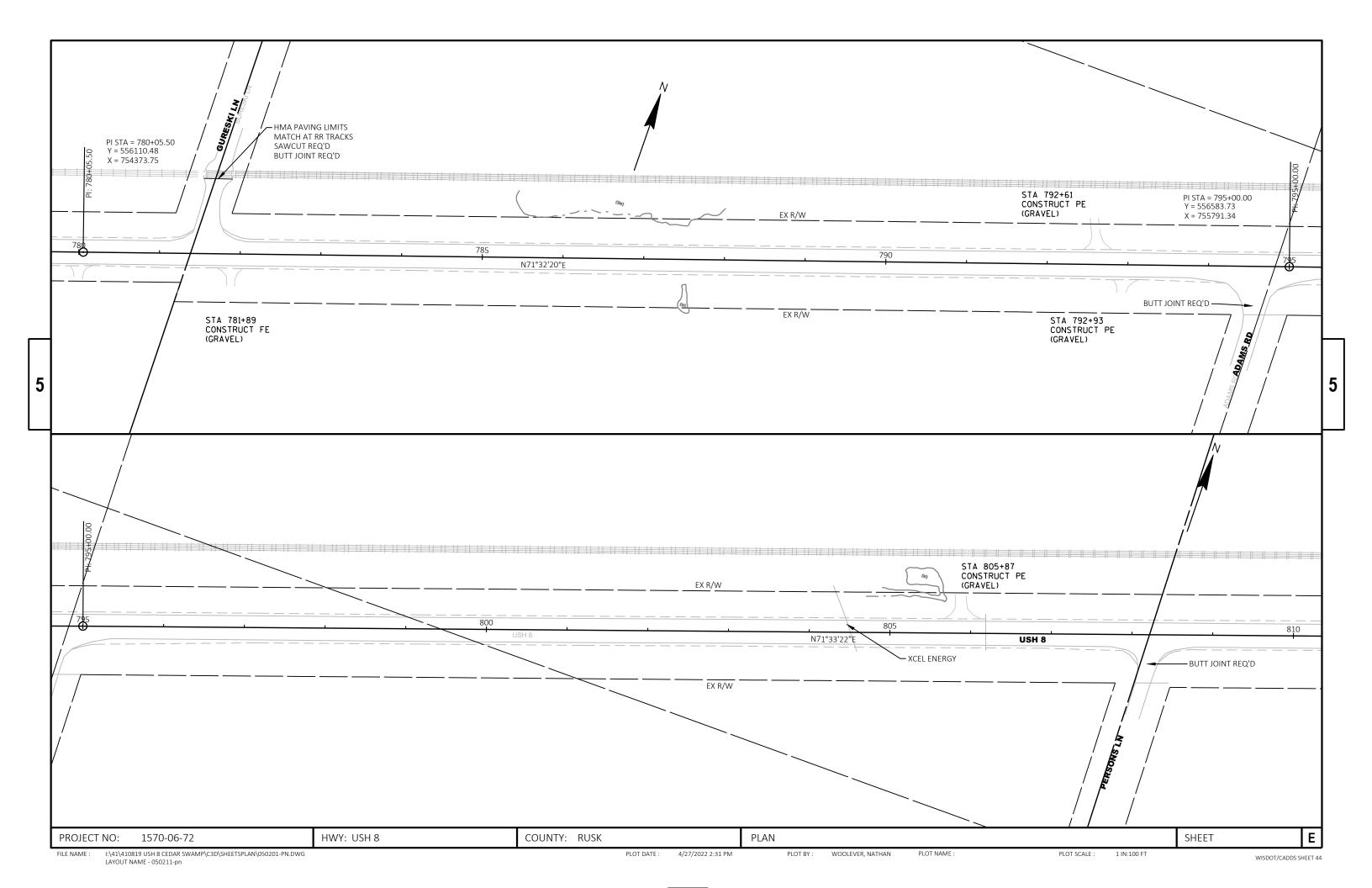


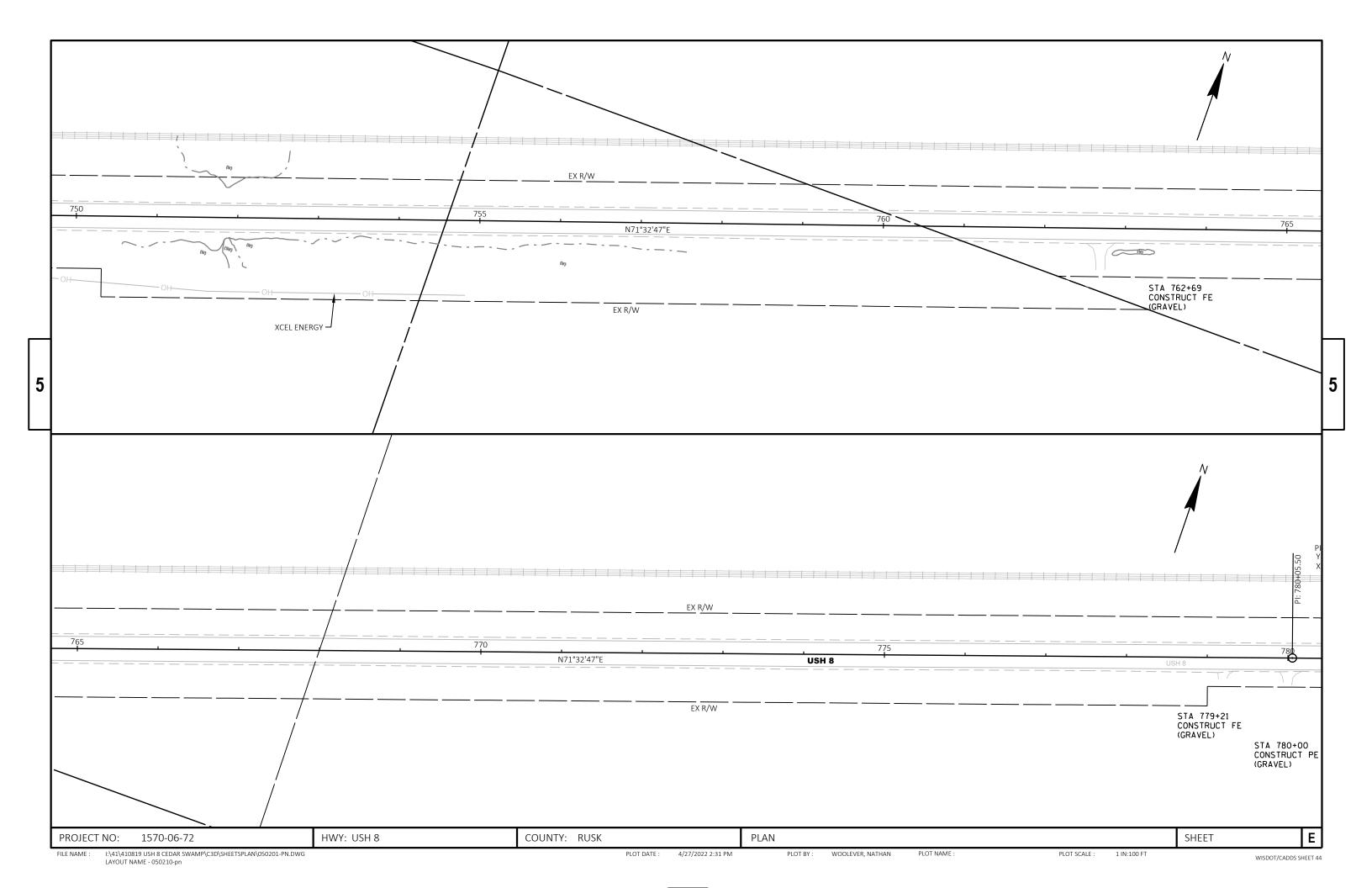


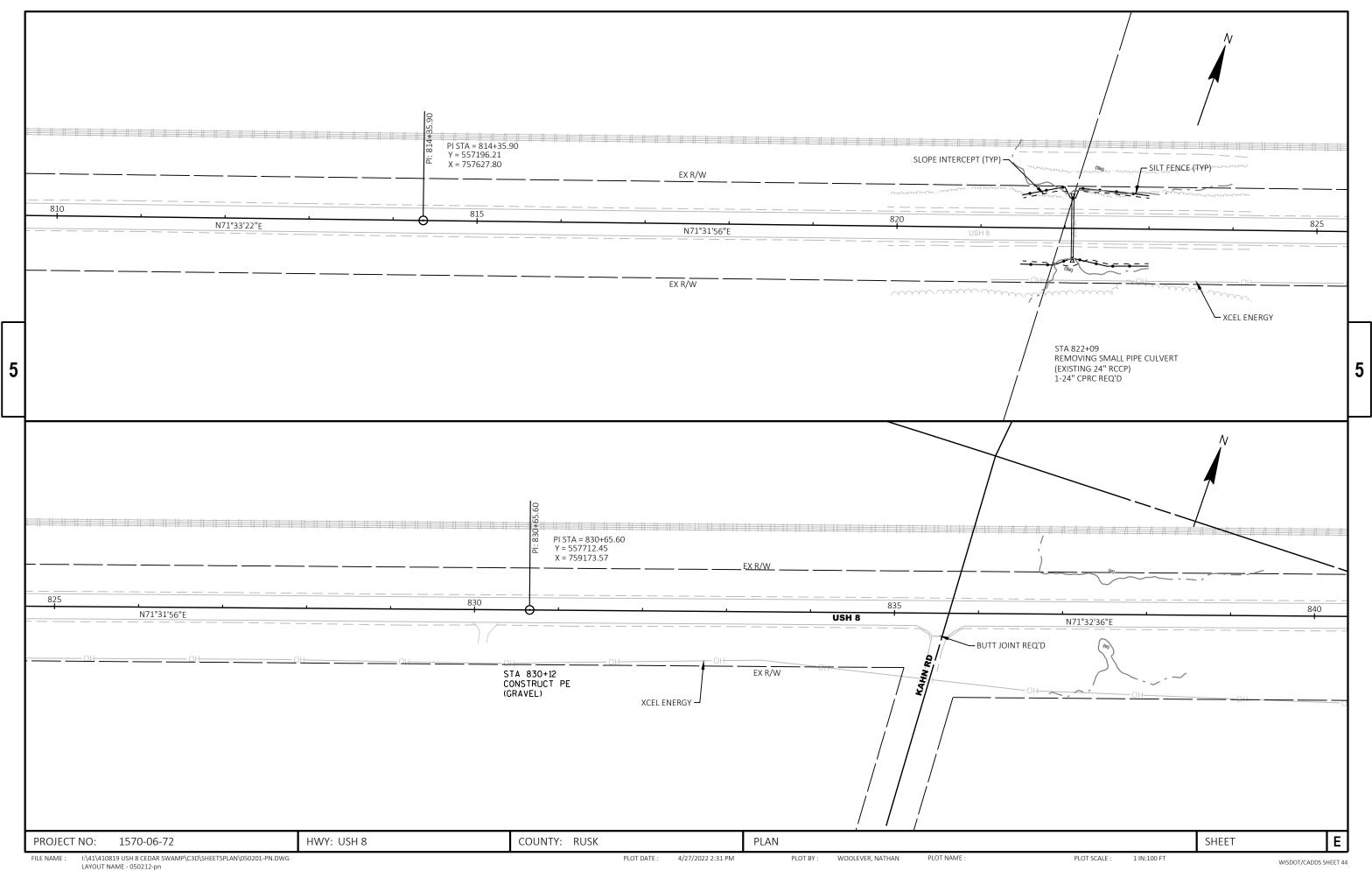


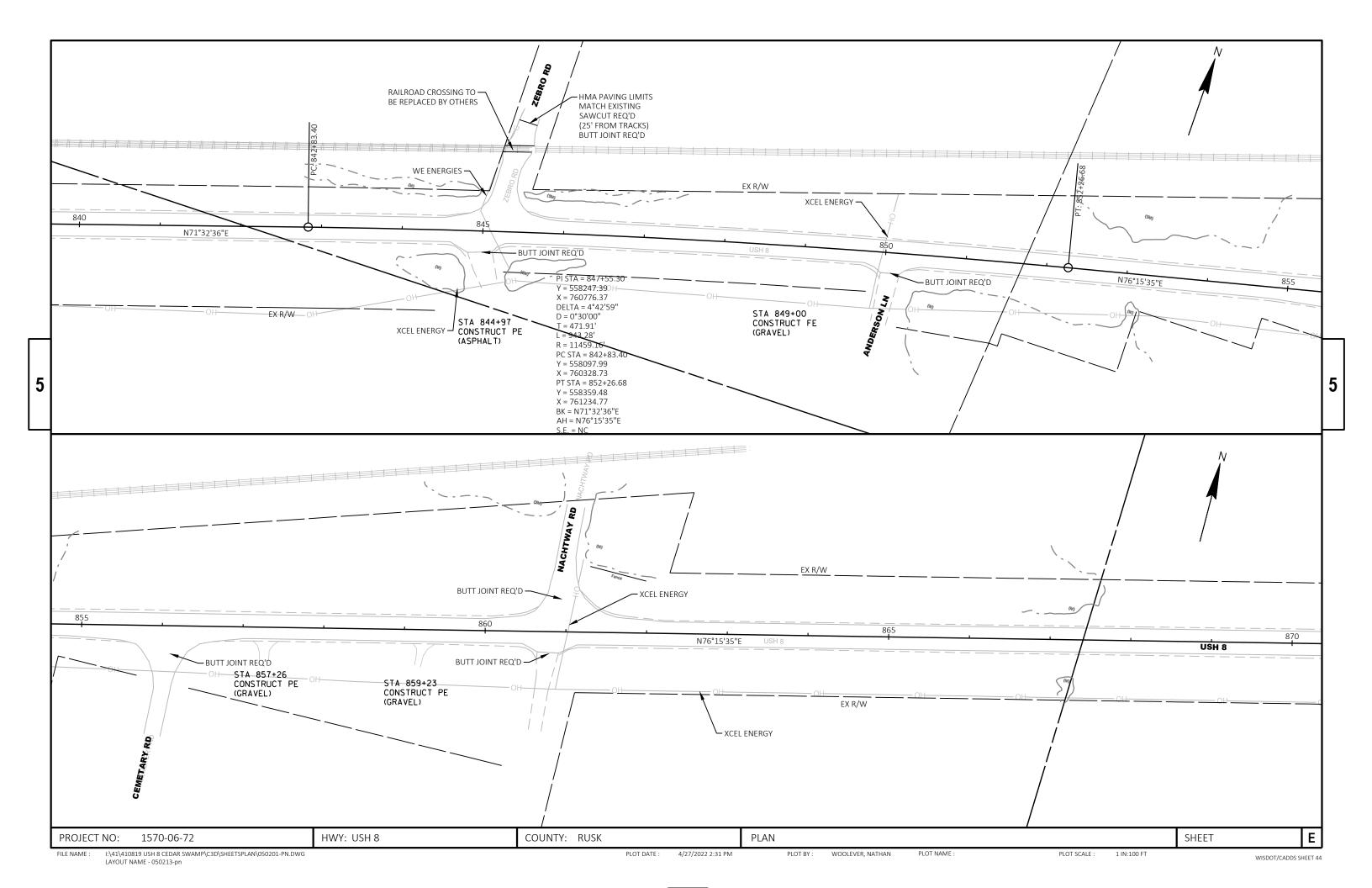


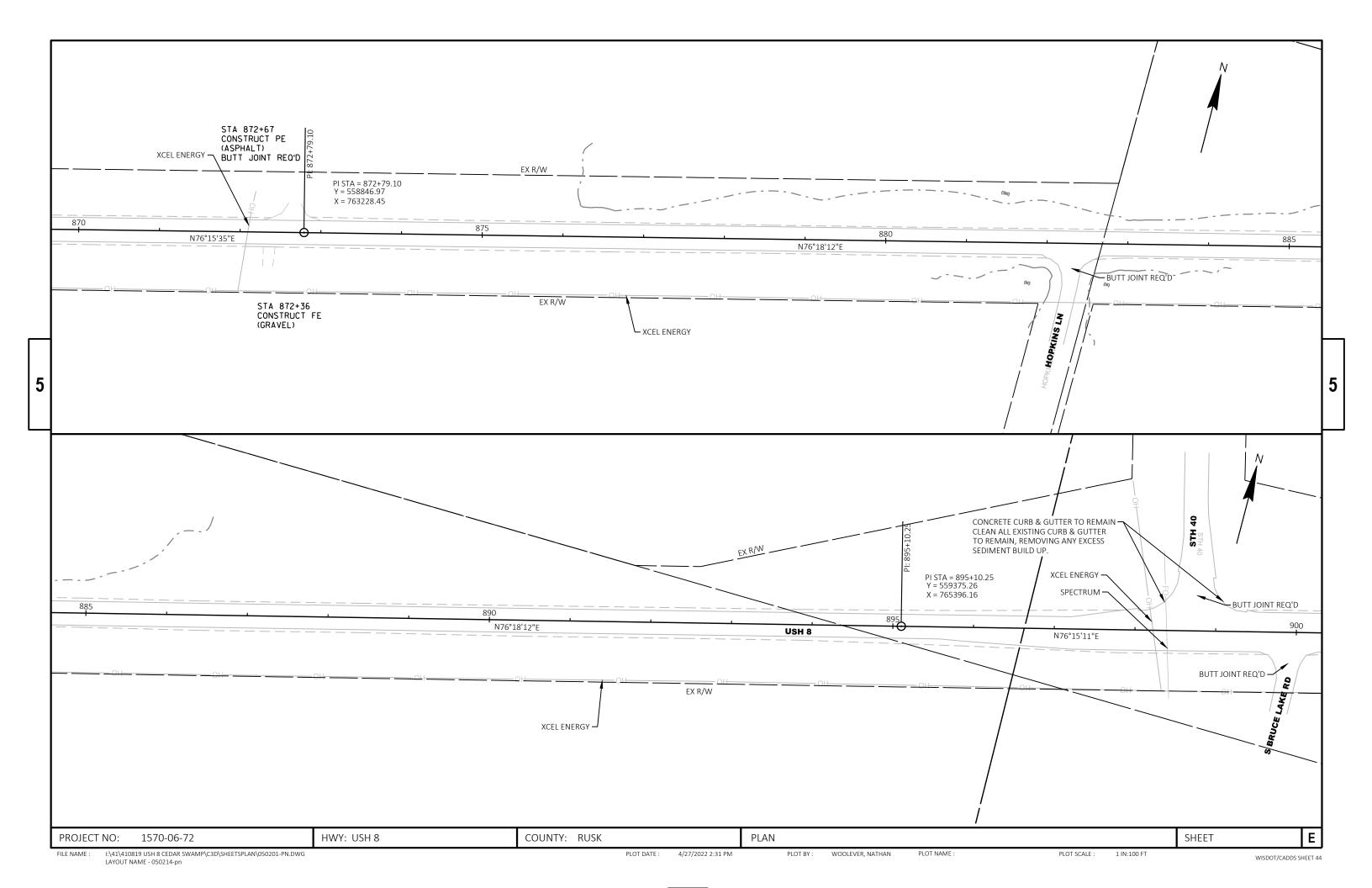


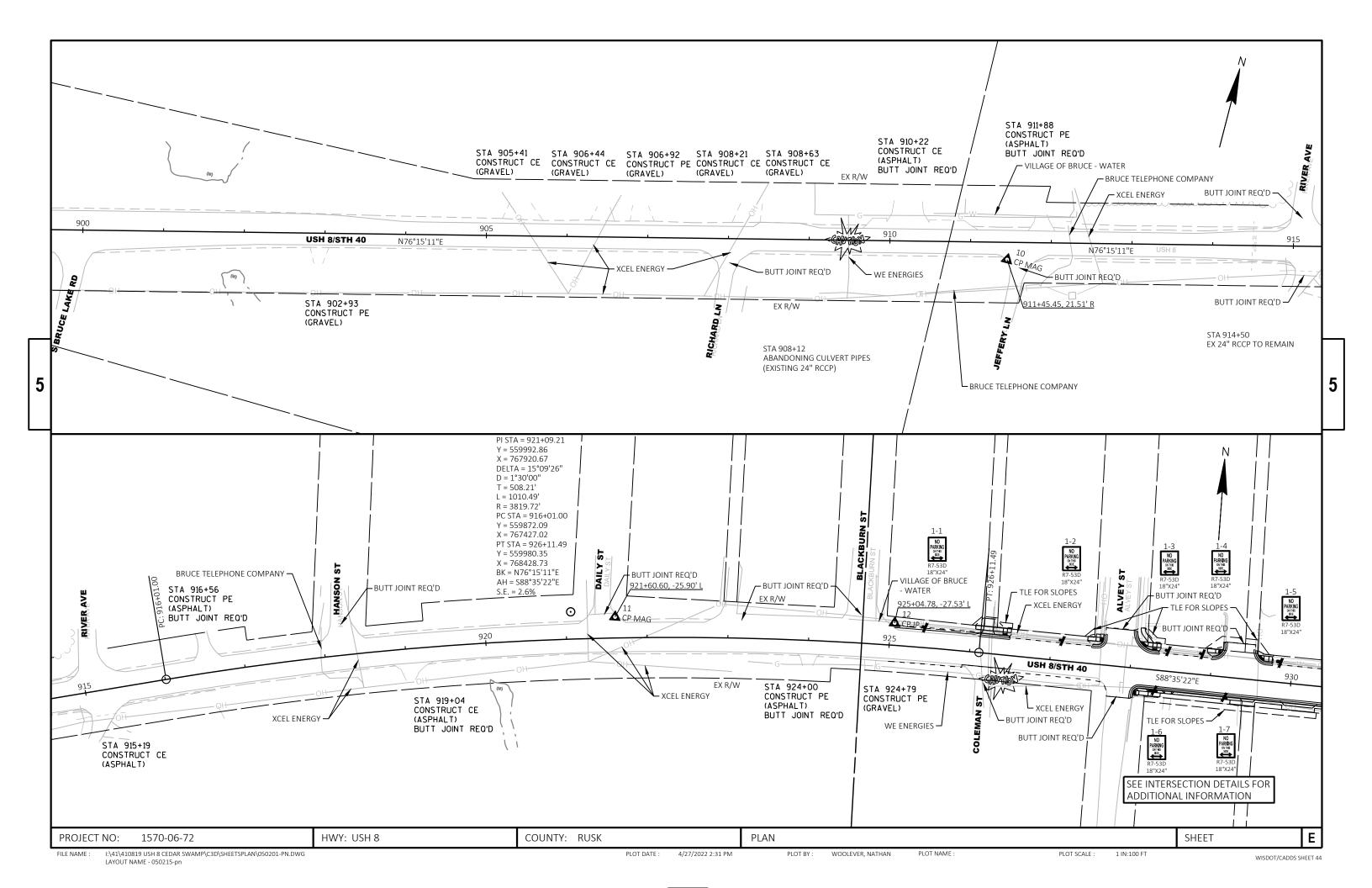


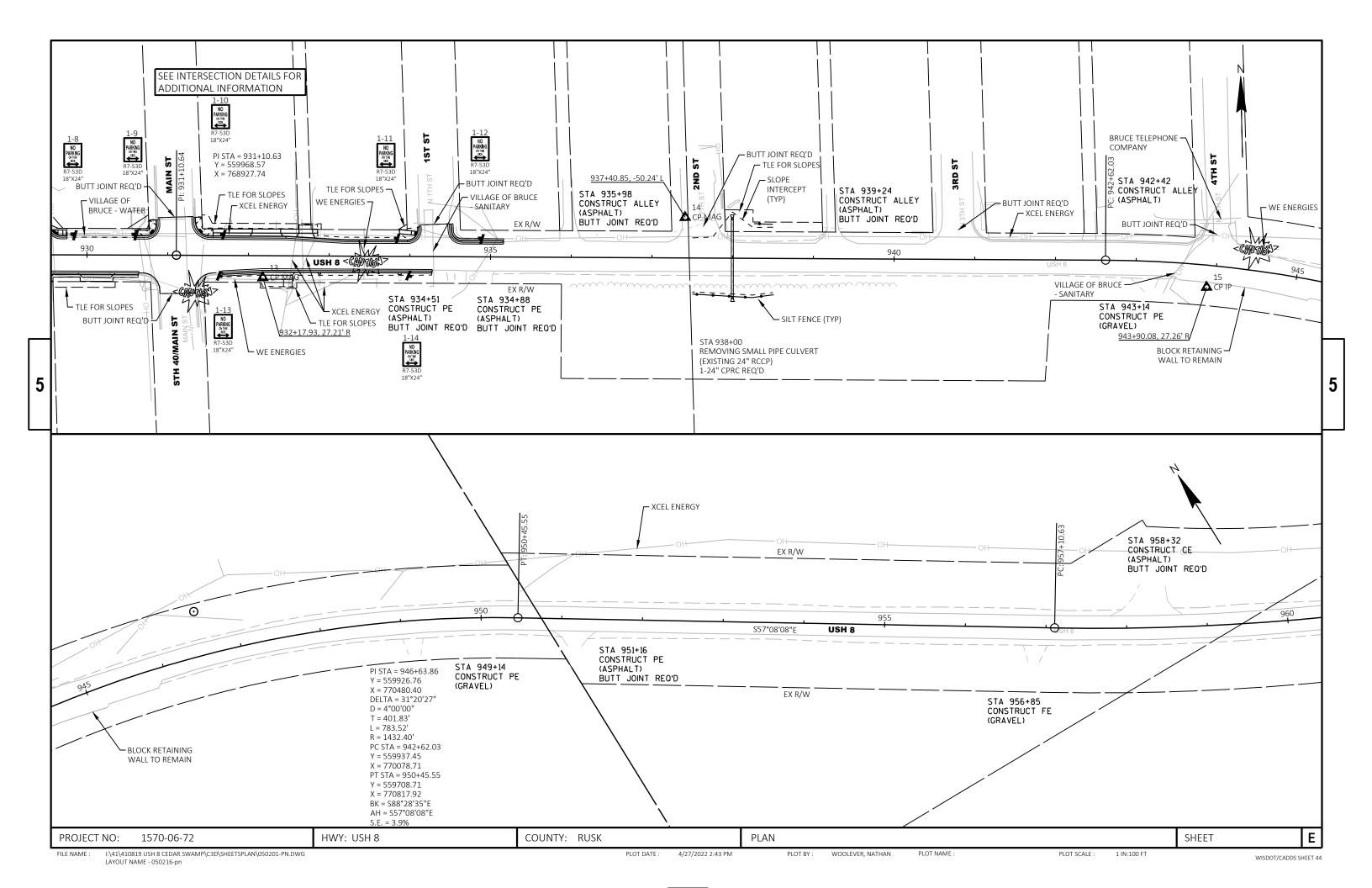


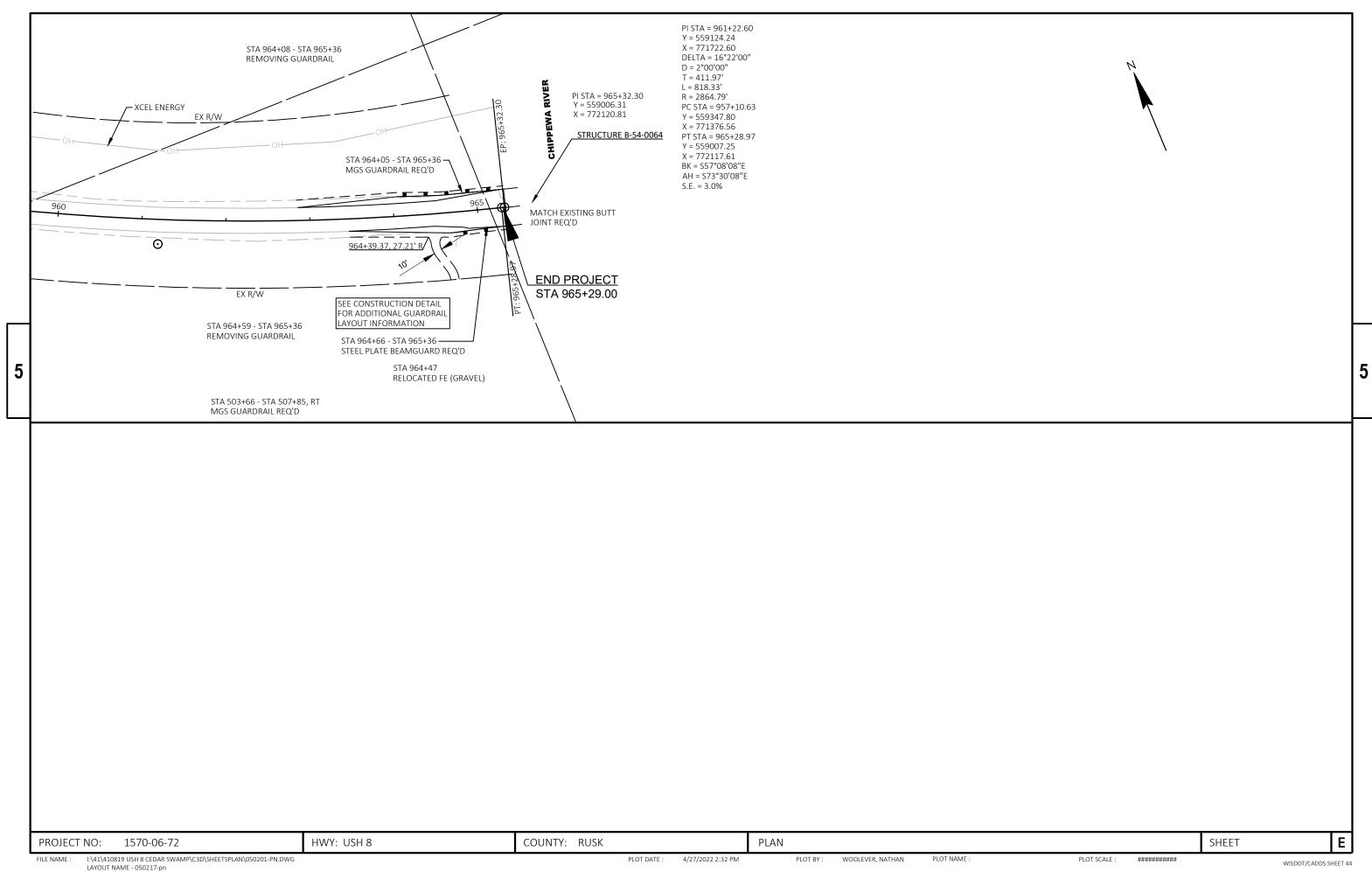










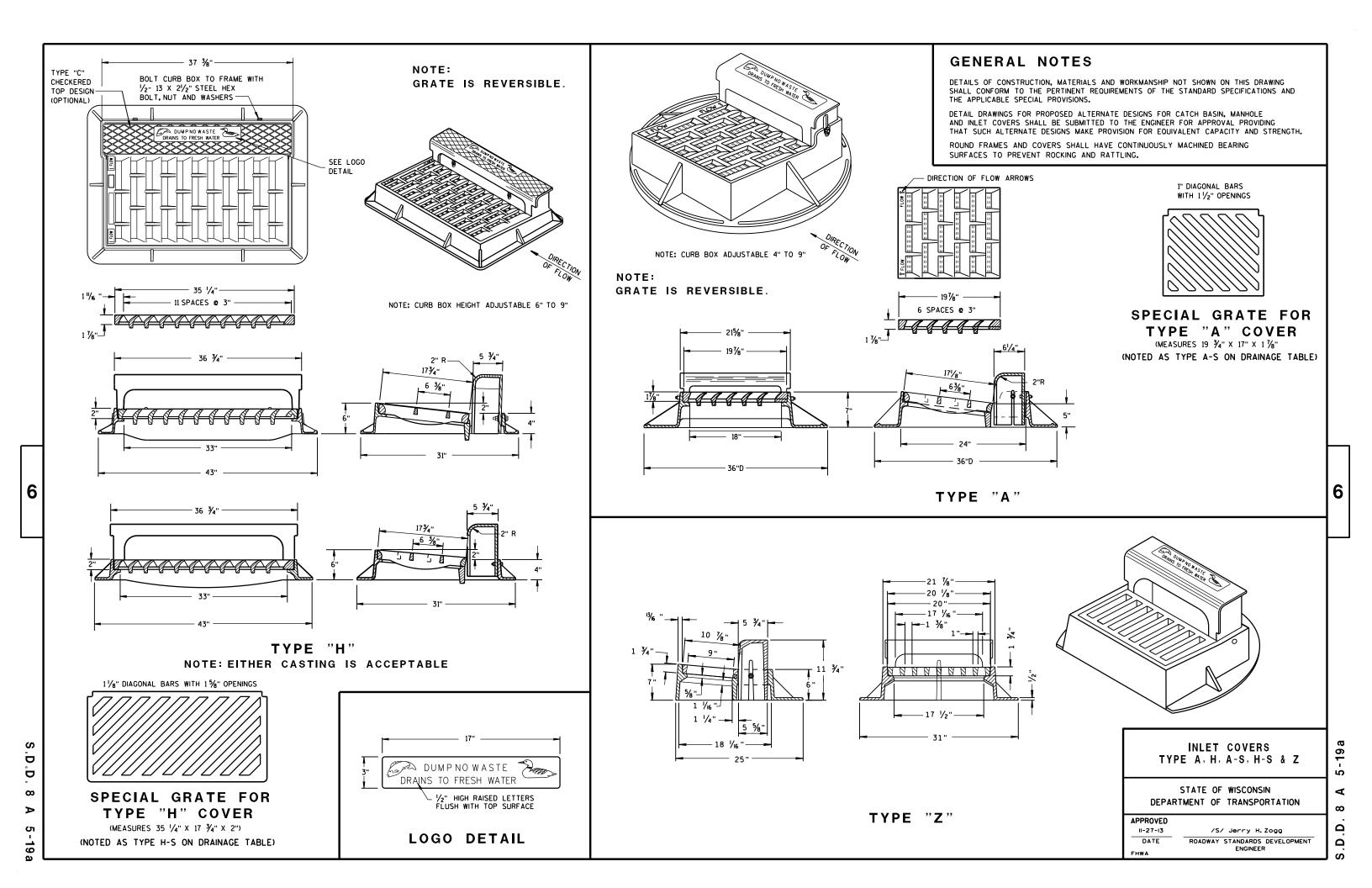


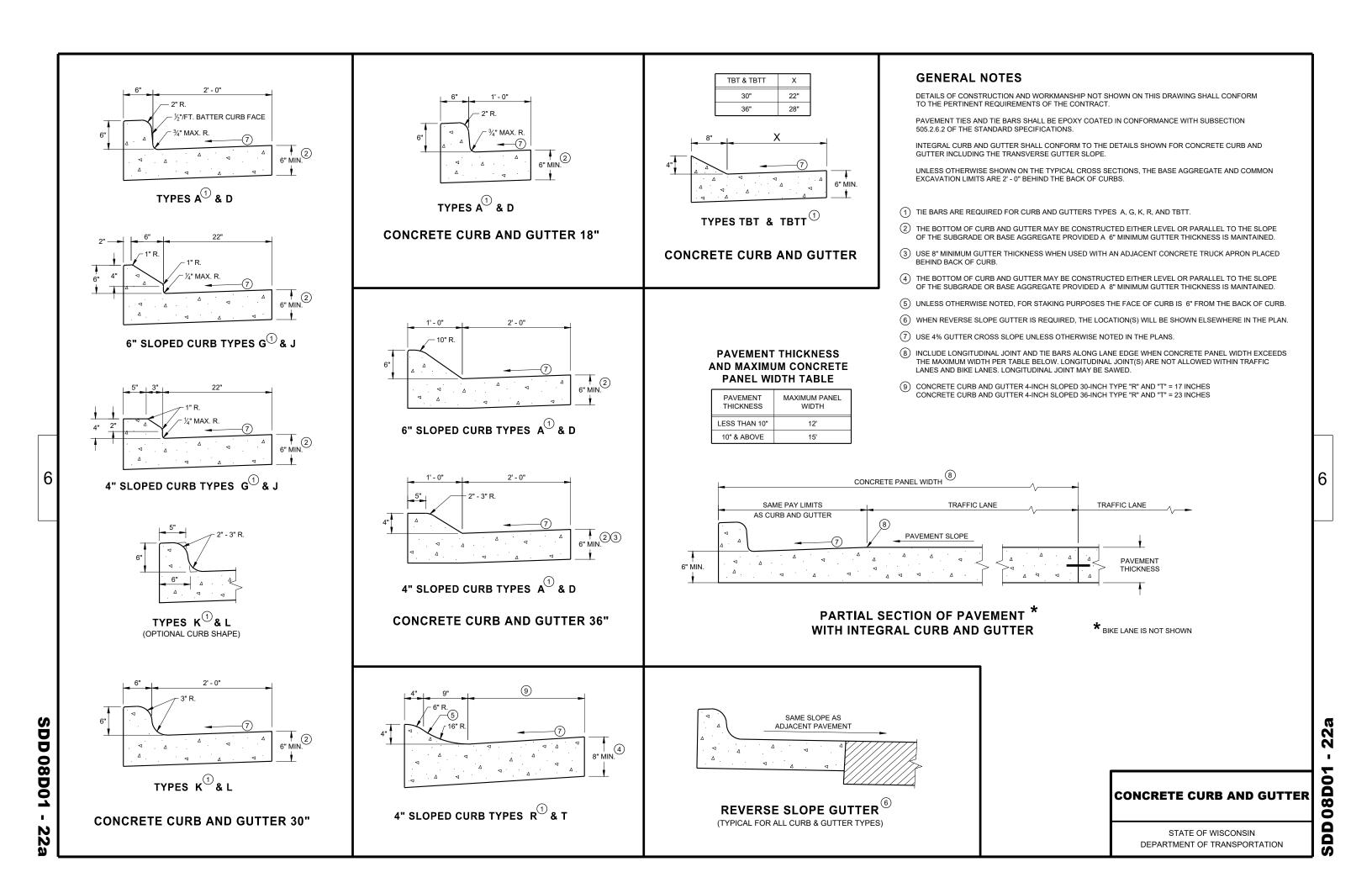
WISDOT/CADDS SHEET 44

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Standard Detail Drawing List

| 08A05-19A | INLET COVERS TYPE A, H, A-S, H-S & Z |
|-----------|--|
| 08D01-22A | CONCRETE CURB & GUTTER |
| 08D01-22B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS |
| 08E09-06 | SILT FENCE |
| 08E15-01 | CULVERT PI PE CHECK |
| 08F01-11 | APRON ENDWALLS FOR CULVERT PIPE |
| 08F04-08 | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL |
| 13C19-03 | HMA LONGITUDINAL JOINTS |
| 14B42-07A | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-07B | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-07C | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-07D | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B44-04A | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B44-04B | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B44-04C | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B45-05A | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05B | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05C | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05D | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05E | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05F | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05G | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05H | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05I | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05J | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05K | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 14B45-05L | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) |
| 15C05-05 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS |
| 15C08-20A | LONGI TUDI NAL MARKI NG (MAI NLI NE) |
| 15C11-09A | CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST |
| 15C11-09B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 15C12-08 | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION |
| 15C19-06A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY |
| 15C35-04A | PAVEMENT MARKING (INTERSECTIONS) |
| 15D28-04 | TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY |
| 15D30-06A | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-06B | TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION |
| 15D30-06C | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D39-02 | TRAFFIC CONTROL, DROP-OFF SIGNING |
| 15D44-02 | TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES |
| 15D45-03 | TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL |
| 15D48-01 | TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION |
| 15D51-01 | TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY |





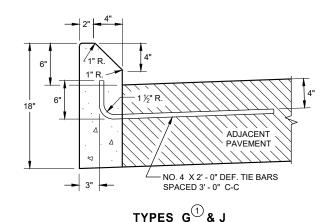
END SECTIONCURB AND GUTTER

DETAIL OF CURB AND GUTTER AT INLETS

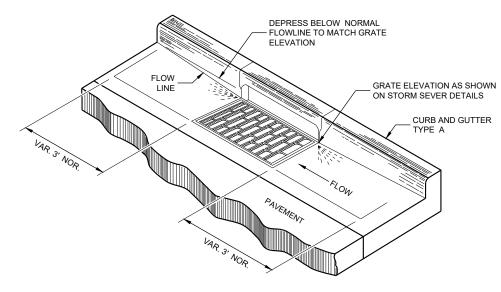
(TYPICAL H INLET COVER SHOWN)

½"/FT. BATTER, FACE OF CURB (ABOVE ADJACENT PAVEMENT) ADJACENT PAVEMENT - NO. 4 X 2' - 0" DEF. TIE BARS

TYPES A D



CONCRETE CURB



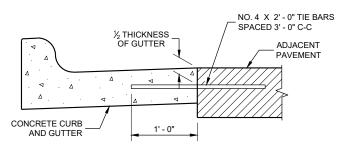
GENERAL NOTES

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

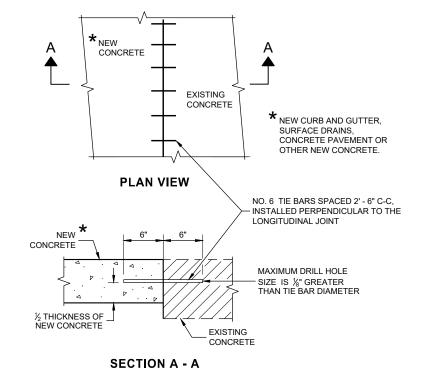
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

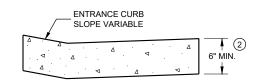
- 1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- 2 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 9 REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION $^{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{1}}}}}}$



TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB® (WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

22

08DO

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED /S/ Rodnery Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER February 2021 DATE

TYPICAL APPLICATION OF SILT FENCE

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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.

- \bigcirc 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 11/8" X 11/8" OF OAK OR HICKORY.
- 4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- (5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

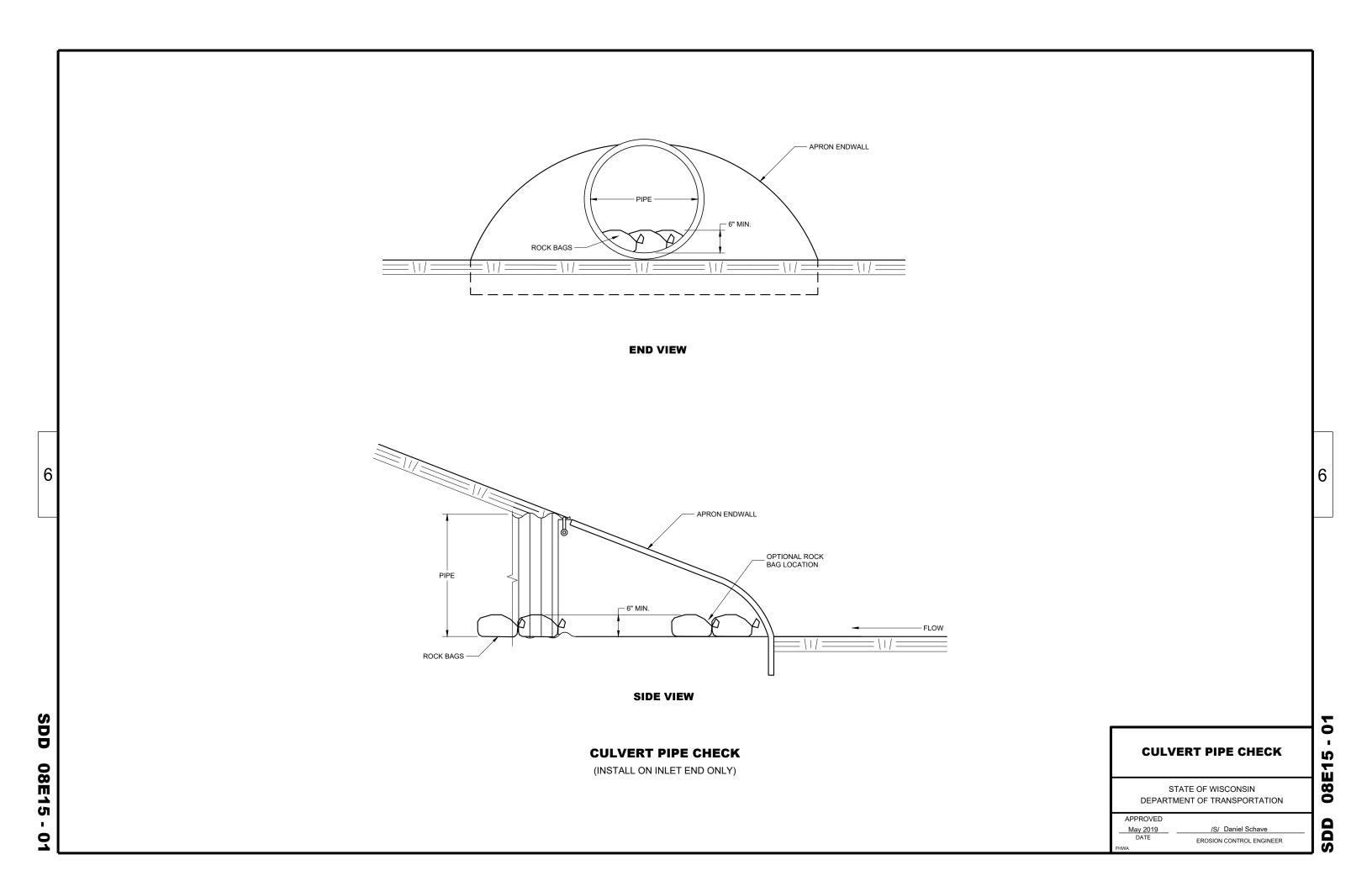
(WHEN REQUIRED BY THE ENGINEER)



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D.D. 8 E 9-6



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END CORNER

1/16" DIA. HOLES FOR

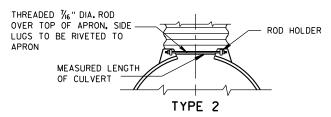
BOLTS OR RIVETS -

12" C-C MAX. SPACING

| | METAL APRON ENDWALLS | | | | | | | | | | |
|------------------|----------------------|---------------------|------------|-------------|------------|--------------|-----------|--------------------------------|------------|------------------------------------|-------|
| PIPE MIN. THICK. | | DIMENSIONS (Inches) | | | | | | APPROX. | | | |
| DIA. (IN.) | (Inch | | A (±]") | B (MAX.) | H (±]") | L (±1 ½") | L1 (1) | L 2 ① | W (±2") | SLOPE | BODY |
| 12 | .064 | .060 | 6 | 6 | 6 | 21 | 12 | 171/2 | 24 | 2½+o 1 | 1Pc. |
| 15 | .064 | .060 | 7 | 8 | 6 | 26 | 14 | 213/4 | 30 | 21/2+o 1 | 1 Pc. |
| 18 | .064 | .060 | 8 | 10 | 6 | 31 | 15 | 281/4 | 36 | $2\frac{1}{2}$ to 1 | 1Pc. |
| 21 | .064 | .060 | 9 | 12 | 6 | 36 | 18 | 29% | 42 | $2\frac{1}{2}$ to 1 | 1Pc. |
| 24 | .064 | .075 | 10 | 13 | 6 | 41 | 18 | 371/4 | 48 | 2½+o 1 | 1Pc. |
| 30 | .079 | .075 | 12 | 16 | 8 | 51 | 18 | 52 ¹ / ₄ | 60 | 21/2+0 1 | 1Pc. |
| 36 | .079 | .105 | 14 | 19 | 9 | 60 | 24 | 59¾ | 72 | 2½+o 1 | 2 Pc. |
| 42 | .109 | . 105 | 16 | 22 | 11 | 69 | 24 | 75% | 84 | 21/2+o 1 | 2 Pc. |
| 48 | .109 | .105 | 18 | 27 | 12 | 78 | 24 | 81 | 90 | 2 ¹ / ₄ †o 1 | 3 Pc. |
| 54 | .109 | .105 | 18 | 30 | 12 | 84 | 30 | 851/2 | 102 | 2 ¹ / ₄ †o 1 | 3 Pc. |
| 60 | .109× | .105× | 18 | 33 | 12 | 87 | _ | _ | 114 | 2 to 1 | 3 Pc. |
| 66 | .109× | .105× | 18 | 36 | 12 | 87 | _ | _ | 120 | 2 to 1 | 3 Pc. |
| 72 | .109× | .105× | 18 | 39 | 12 | 87 | _ | _ | 126 | 2 to 1 | 3 Pc. |
| 78 | .109× | .105× | 18 | 42 | 12 | 87 | _ | _ | 132 | 11/2+0 1 | 3 Pc. |
| 84 | .109× | .105× | 18 | 45 | 12 | 87 | _ | _ | 138 | 1½+o 1 | 3 Pc. |
| 90 | .109× | .105× | 18 | 37 | 12 | 87 | _ | _ | 144 | 11/2 to 1 | 3 Pc. |
| 96 | .109× | .105× | 18 | 35 | 12 | 87 | ı | - | 150 | 1½+0 1 | 3 Pc. |

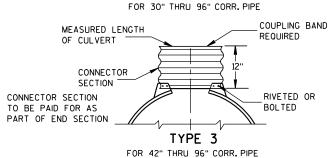
| | REINFORCED CONCRETE APRON ENDWALLS | | | | | | | |
|------|------------------------------------|---------------|---------------|--|-------------------------|-----|------|----------|
| PIPE | | APPROX. | | | | | | |
| DIA. | T | A | В | С | D | E | G | SLOPE |
| 12 | 2 | 4 | 24 | 48 1/8 | 721/8 | 24 | 2 | 3 to 1 |
| 15 | 21/4 | 6 | 27 | 46 | 73 | 30 | 21/4 | 3 to 1 |
| 18 | $2\frac{1}{2}$ | 9 | 27 | 46 | 73 | 36 | 21/2 | 3 to 1 |
| 21 | 23/4 | 9 | 36 | 371/2 | 731/2 | 42 | 23/4 | 3 to 1 |
| 24 | 3 | 91/2 | 431/2 | 30 | 731/2 | 48 | 3 | 3 to 1 |
| 27 | 31/4 | 101/2 | $49^{1}/_{2}$ | 24 | 731/2 | 54 | 31/4 | 3 to 1 |
| 30 | $3\frac{1}{2}$ | 12 | 54 | 193⁄4 | 731/2 | 60 | 31/2 | 3 to 1 |
| 36 | 4 | 15 | 63 | 34¾ | 97¾ | 72 | 4 | 3 to 1 |
| 42 | $4\frac{1}{2}$ | 21 | 63 | 35 | 98 | 78 | 41/2 | 3 to 1 |
| 48 | 5 | 24 | 72 | 26 | 98 | 84 | 5 | 3 to 1 |
| 54 | 51/2 | | 65 | ************************************** | 98 ¹ /4- 100 | 90 | 51/2 | 2% to 1 |
| 60 | 6 | * ** 30-35 | 60 | 39 | 99 | 96 | 5 | 2 to 1 |
| 66 | 61/2 | | * ** 72-78 | * * * 21-27 | 99 | 102 | 51/2 | 2 to 1 |
| 72 | 7 | * ** 24-36 | 78 | 21 | 99 | 108 | 6 | 2 to 1 |
| 78 | 71/2 | * ** 24-36 | 78 | 21 | 99 | 114 | 61/2 | 2 to 1 |
| 84 | 8 | 36 | 901/2 | 21 | 1111/2 | 120 | 61/2 | 11/2+0 1 |
| 90 | 81/2 | 41 | 871/2 | 24 | 1111/2 | 132 | 61/2 | 11/2+0 1 |

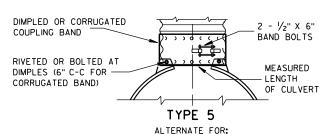
END SECTION CONNECTOR STRAP THREADED 76" DIA. ROD AROUND CULVERT & THROUGH CONNECTOR TANK TYPE CONNECTOR LUG LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL) MEASURED LENGTH OF CULVERT



TYPE 1

FOR 12" THRU 24" CORR. PIPE





ALL SIZES CORRUGATED CIRCULAR PIPE

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

> FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5

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

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

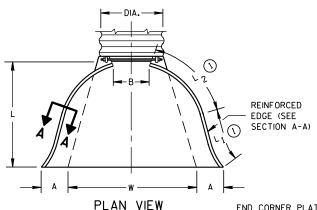
CONNECTION DETAILS

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

*MINIMUM **MAXIMUM

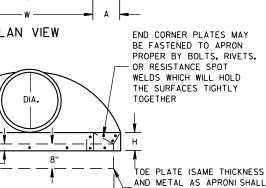
OPTIONAL

DESIGN



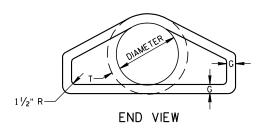
* EXCEPT CENTER PANEL

SEE GENERAL NOTES

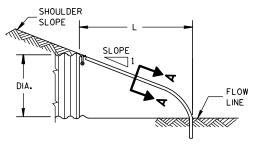


BE FURNISHED WHEN CALLED

FOR ON THE PLANS

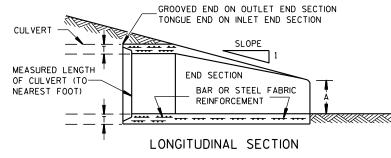


PLAN

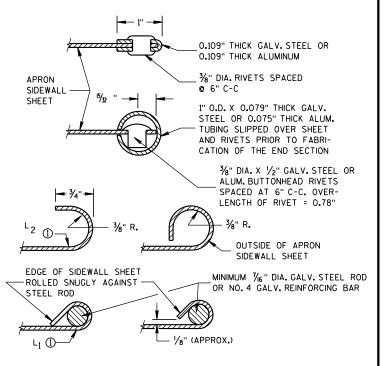


END VIEW





CONCRETE ENDWALLS



SECTION A-A

GENERAL NOTES

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

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

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

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

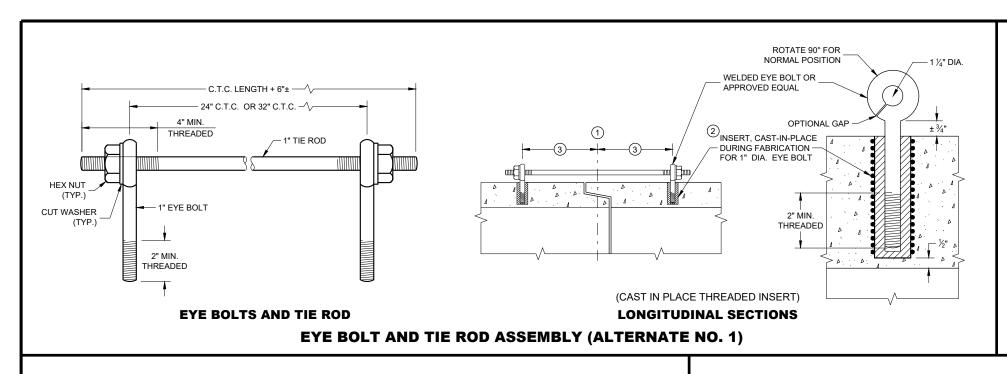
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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



GENERAL NOTES

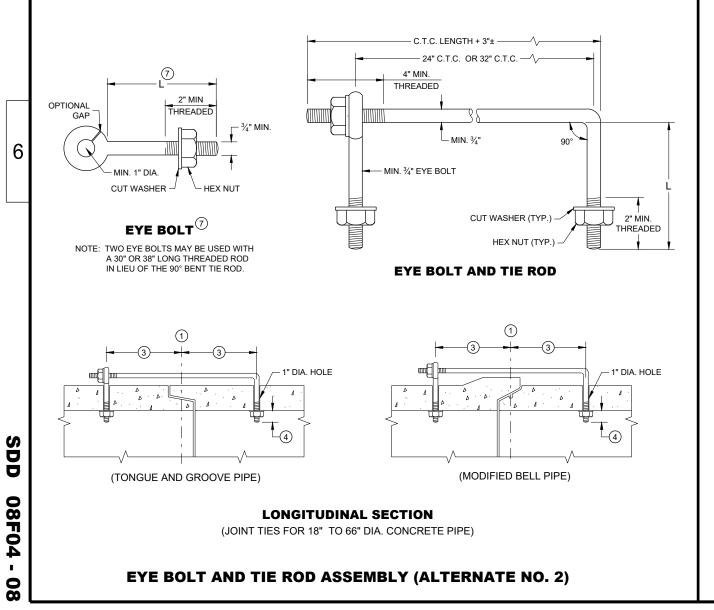
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

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

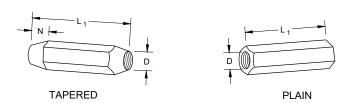
- 1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- (3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
- (7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



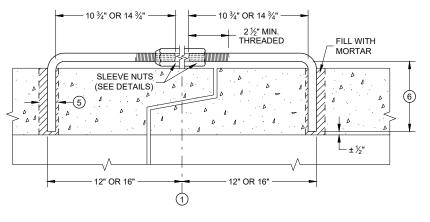
ADJUSTABLE TIE ROD TABLE

| PIPE DIAMETER | TIE ROD DIAMETER | D | L ₁ | N |
|------------------|---------------------|-----|----------------|--------|
| 12 - 60 | 5/8 | 5/8 | 5 | 1/2 |
| 66 - 84 | 3/4 | 3/4 | 5 | 1/2 |
| 90 - 144 | 1 | 1 | 7 | 1 1/16 |

DIMENSIONS SHOWN ARE IN INCHES

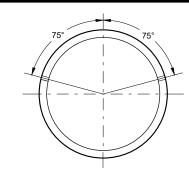


RIGHT AND LEFT THREADS
SLEEVE NUTS



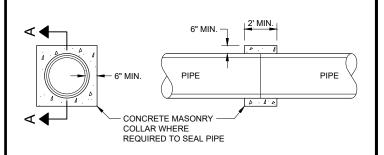
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

 APPROVED

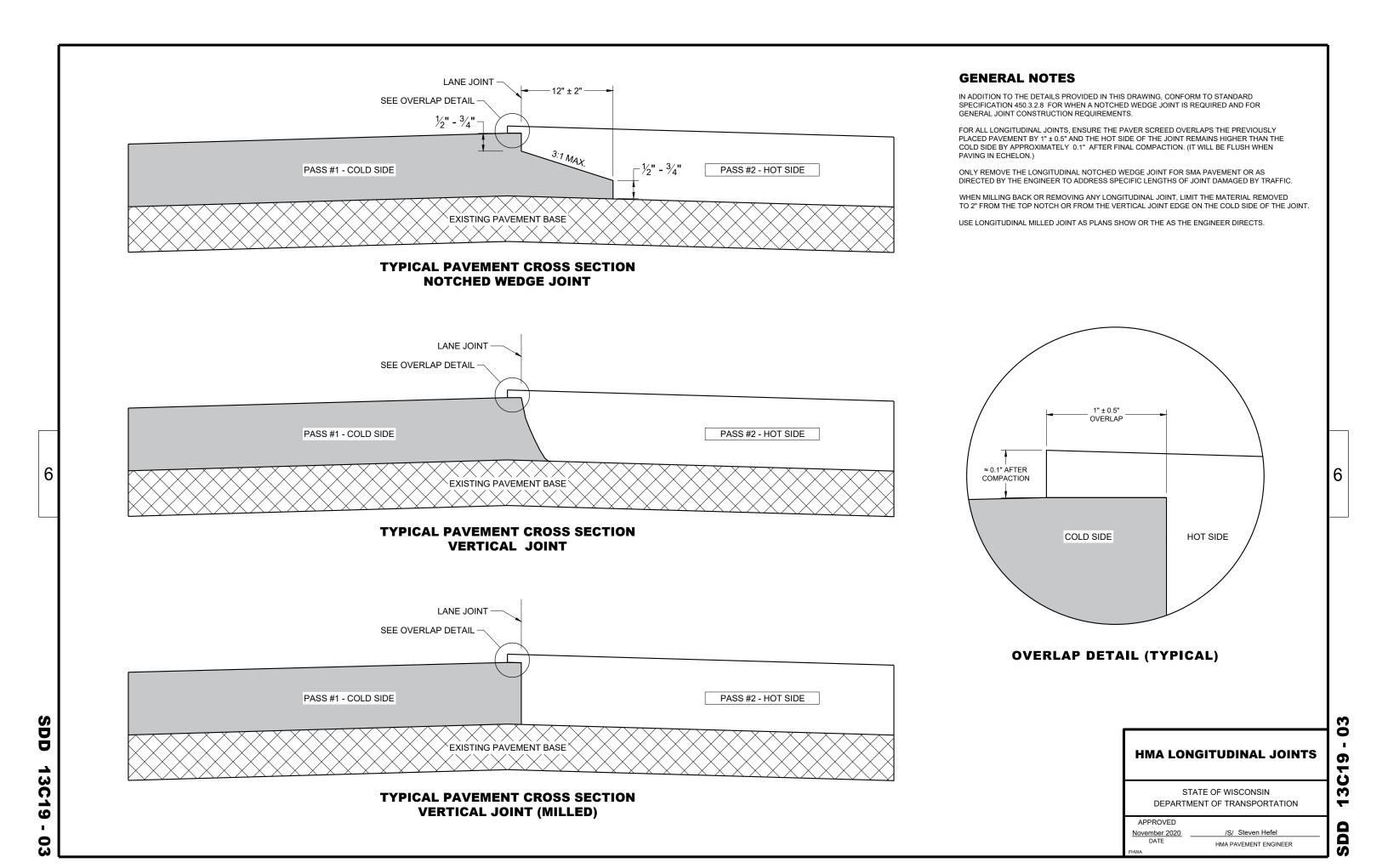
 November 2021

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 ROADWA

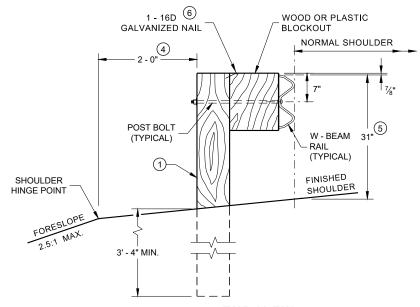
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT
ENGINEER

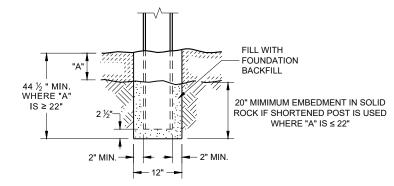
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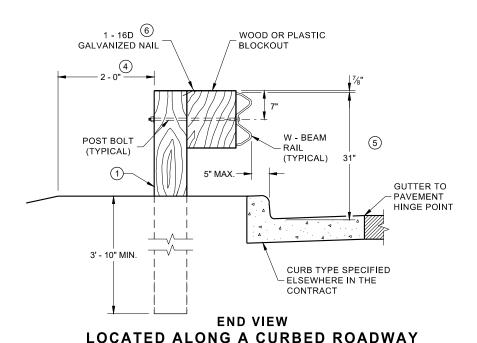
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- (3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES 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).
- $\fill \ensuremath{5}$ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 % " 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.
- \bigcirc TOTAL POST LENGTH FOR TYPE K IS 7' 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' 0".



END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



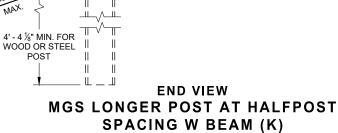
SETTING STEEL OR WOOD POST IN ROCK

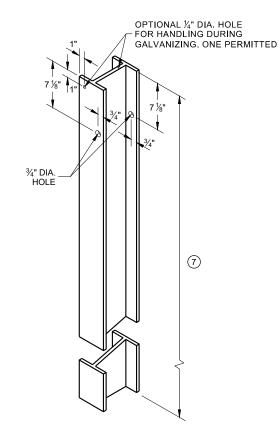


POST BOLT
(TYPICAL)

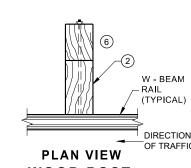
W - BEAM
RAIL
(TYPICAL)

PLASTIC
BLOCKOUT

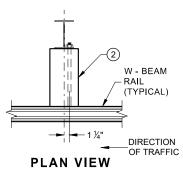




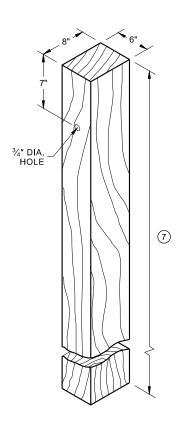
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) ^①



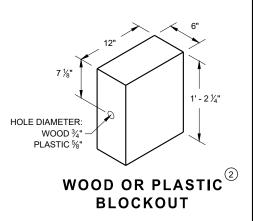
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SD

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

3' 1½" C -C 3' 1½" C - C POST SPACING POST SPACING

6' 3" C - C

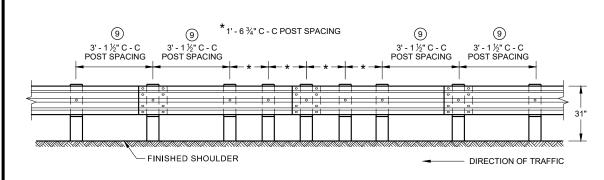
POST SPACING

DIRECTION OF TRAFFIC

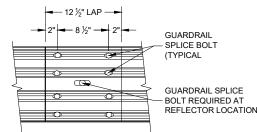
6' - 3" C -C

POST SPACING

FINISHED SHOULDER



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



FRONT VIEW MID-SPAN BEAM SPLICE

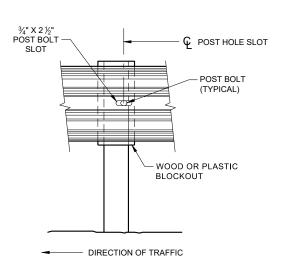
REFLECTOR LOCATIONS

GENERAL NOTES

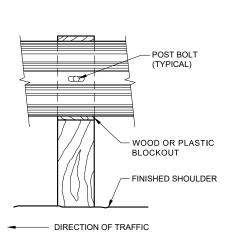
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- (9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

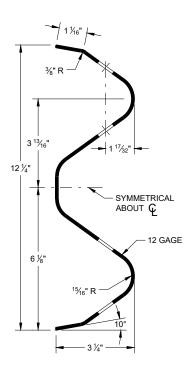
GUARD RAIL SPLICE BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES %" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



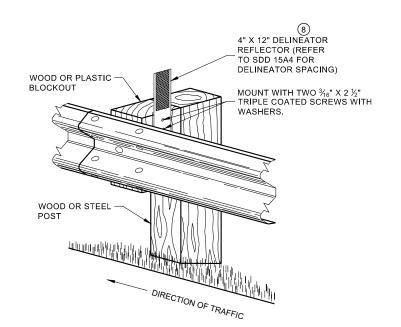
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

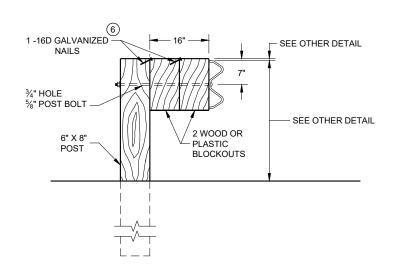
> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

07b

SDD

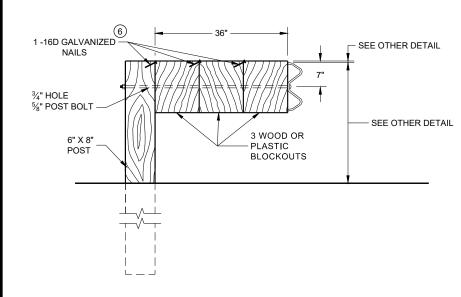
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DETAIL FOR 16" BLOCKOUT DEPTH

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



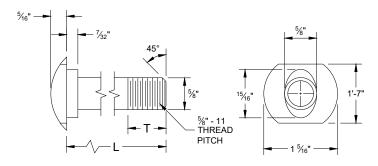
DETAIL FOR 36" BLOCKOUT DEPTH

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

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

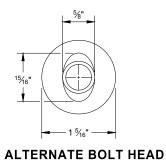
NOTE:

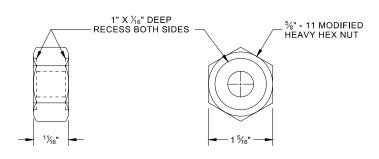
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
- 2. IF THE BOLT EXTENDS MORE THAN $\mbox{\ensuremath{\mbox{\sc M}}}\mbox{\sc "}\mbox{\sc FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.}$



POST BOLT TABLE

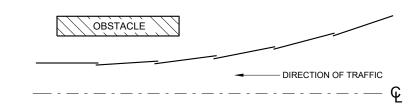
| L | T (MIN.) |
|--------|----------|
| 1 1/4" | 1 1/8" |
| 2" | 1 3/4" |
| 10" | 4" |
| 14" | 4 1/16" |
| 18" | 4" |
| 21" | 4 1/16" |
| 25" | 4" |



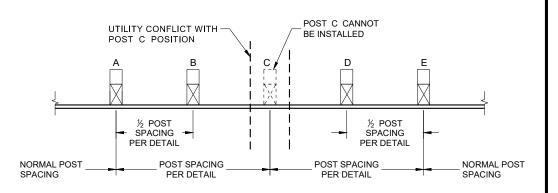


POST BOLT, SPLICE BOLT **AND RECESS NUT**

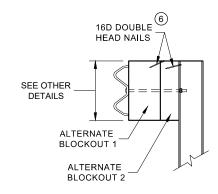
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D (6) GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

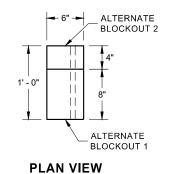


PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

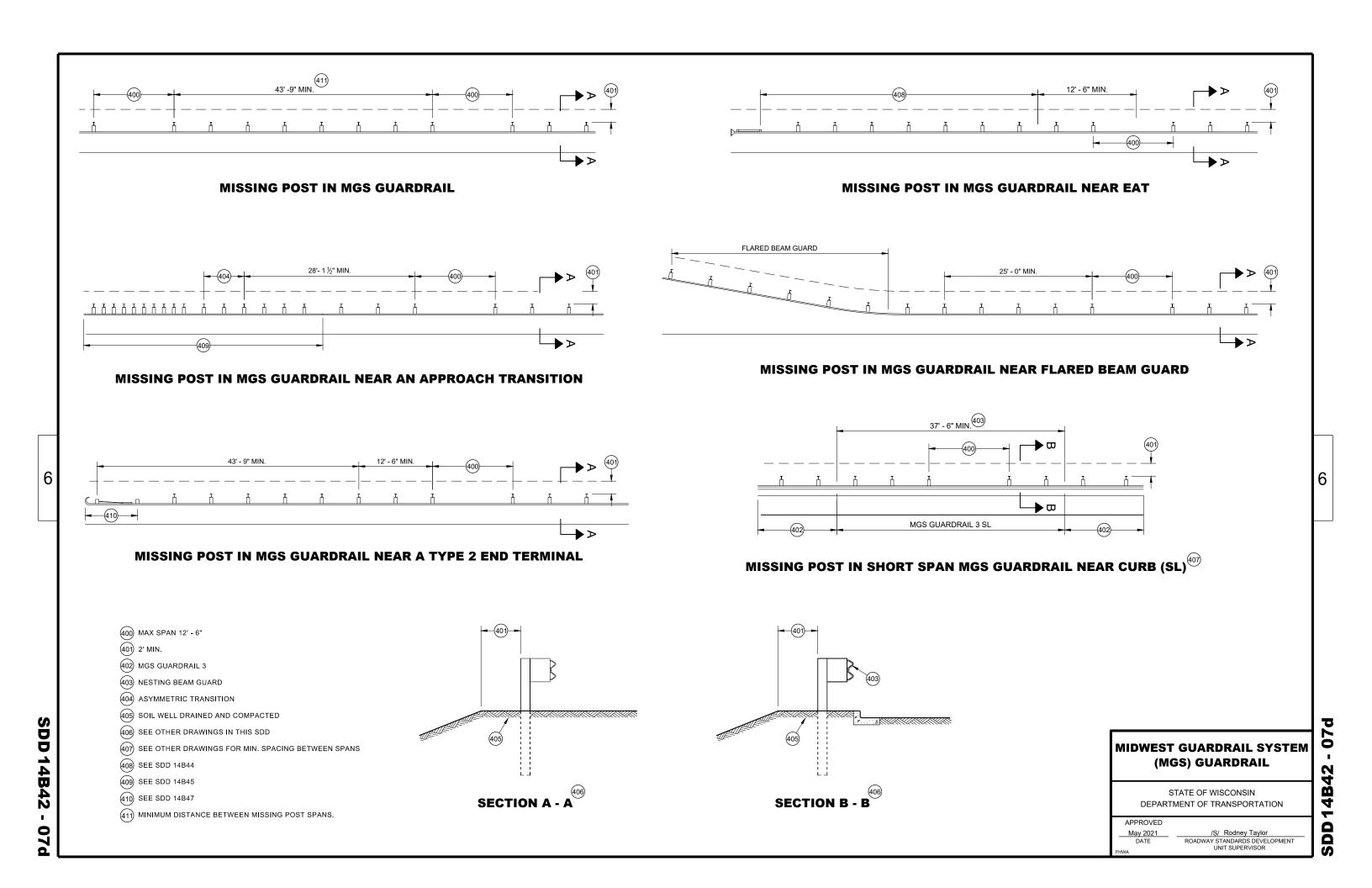
ALTERNATE WOOD BLOCKOUT DETAIL

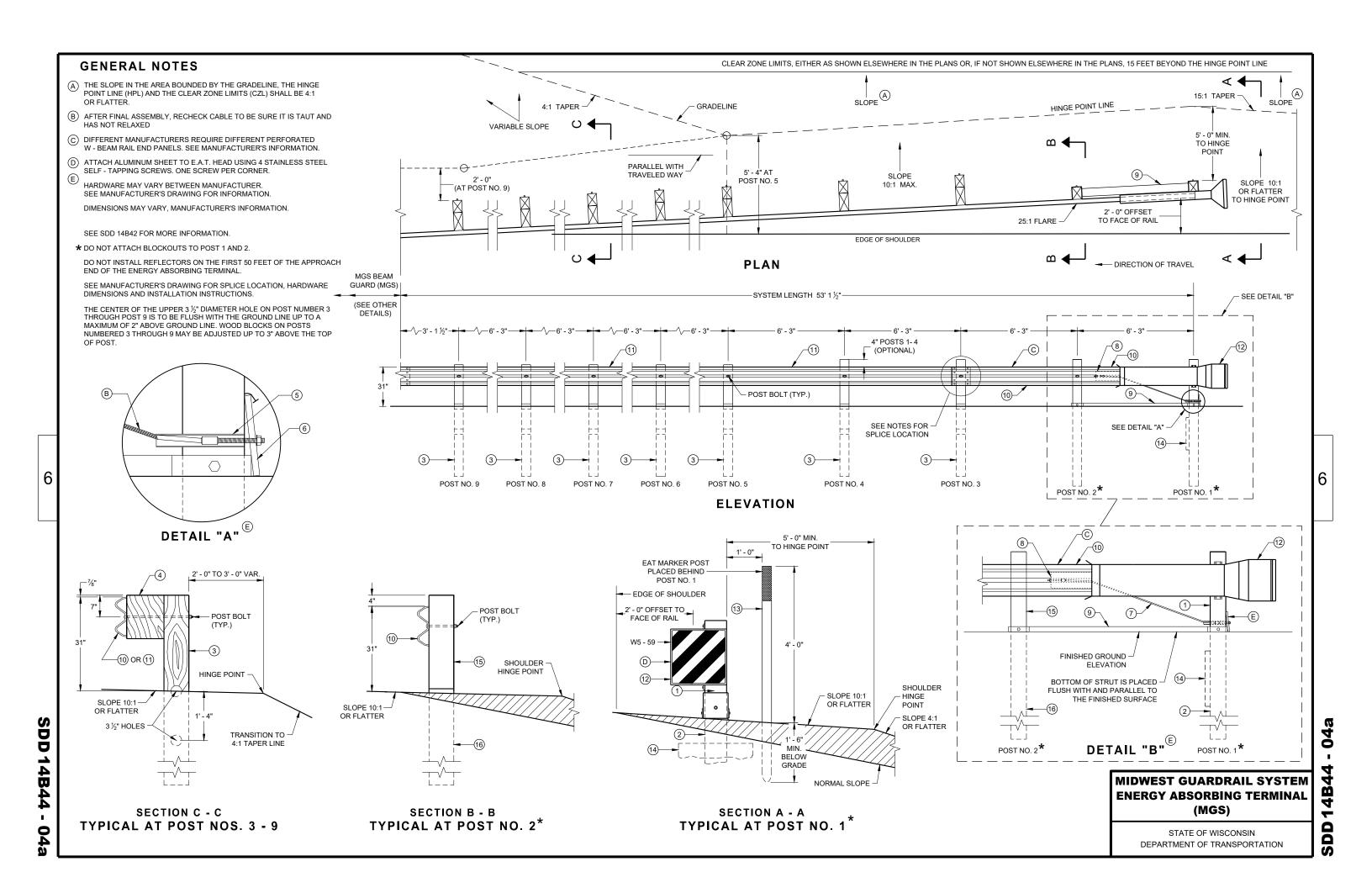
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

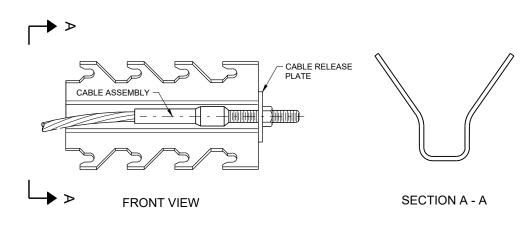
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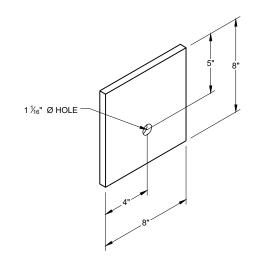




GENERIC GROUND STRUT



GENERIC ANCHOR CABLE BOX ^{(9) (E)}



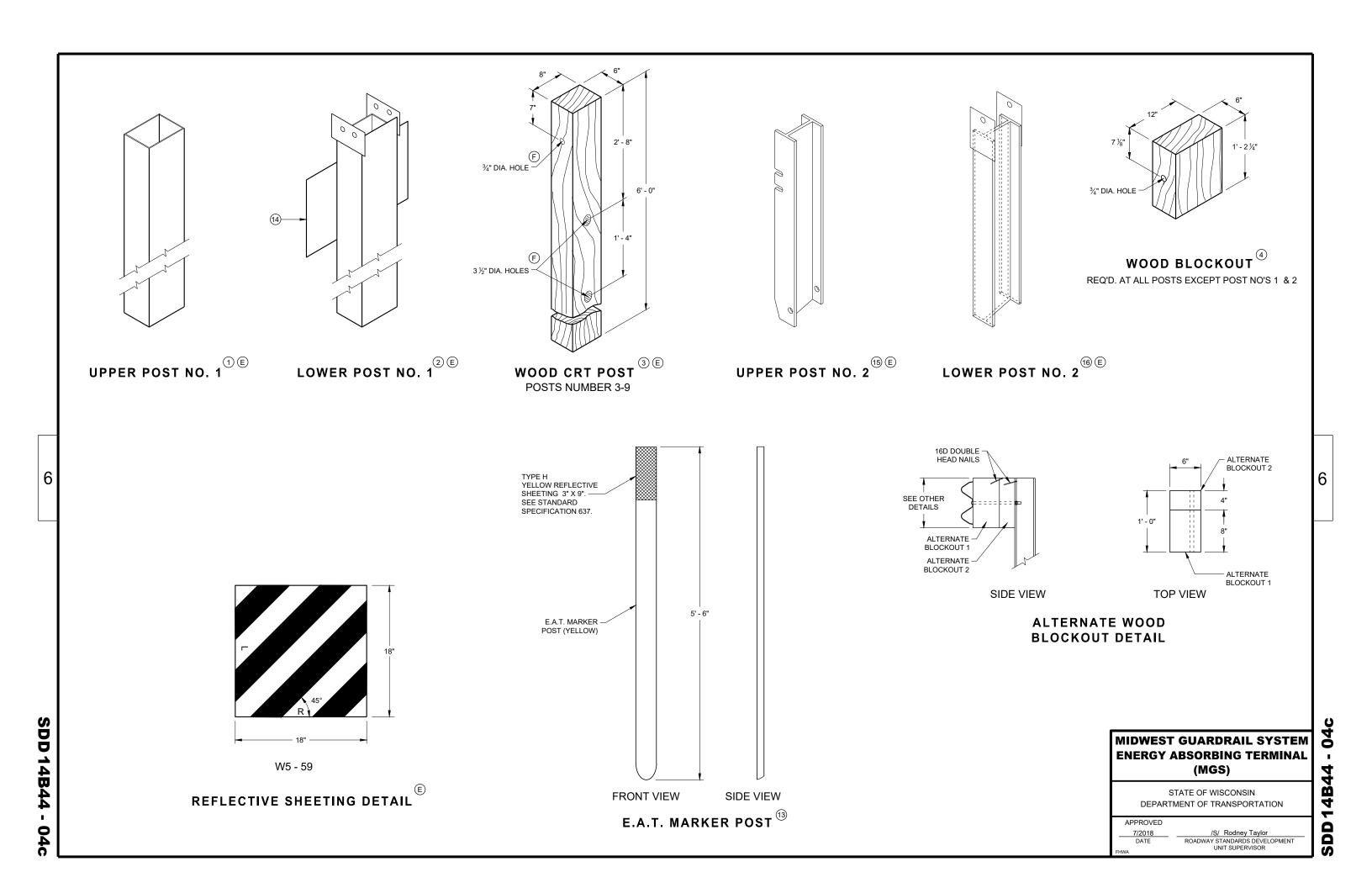
BEARING PLATE

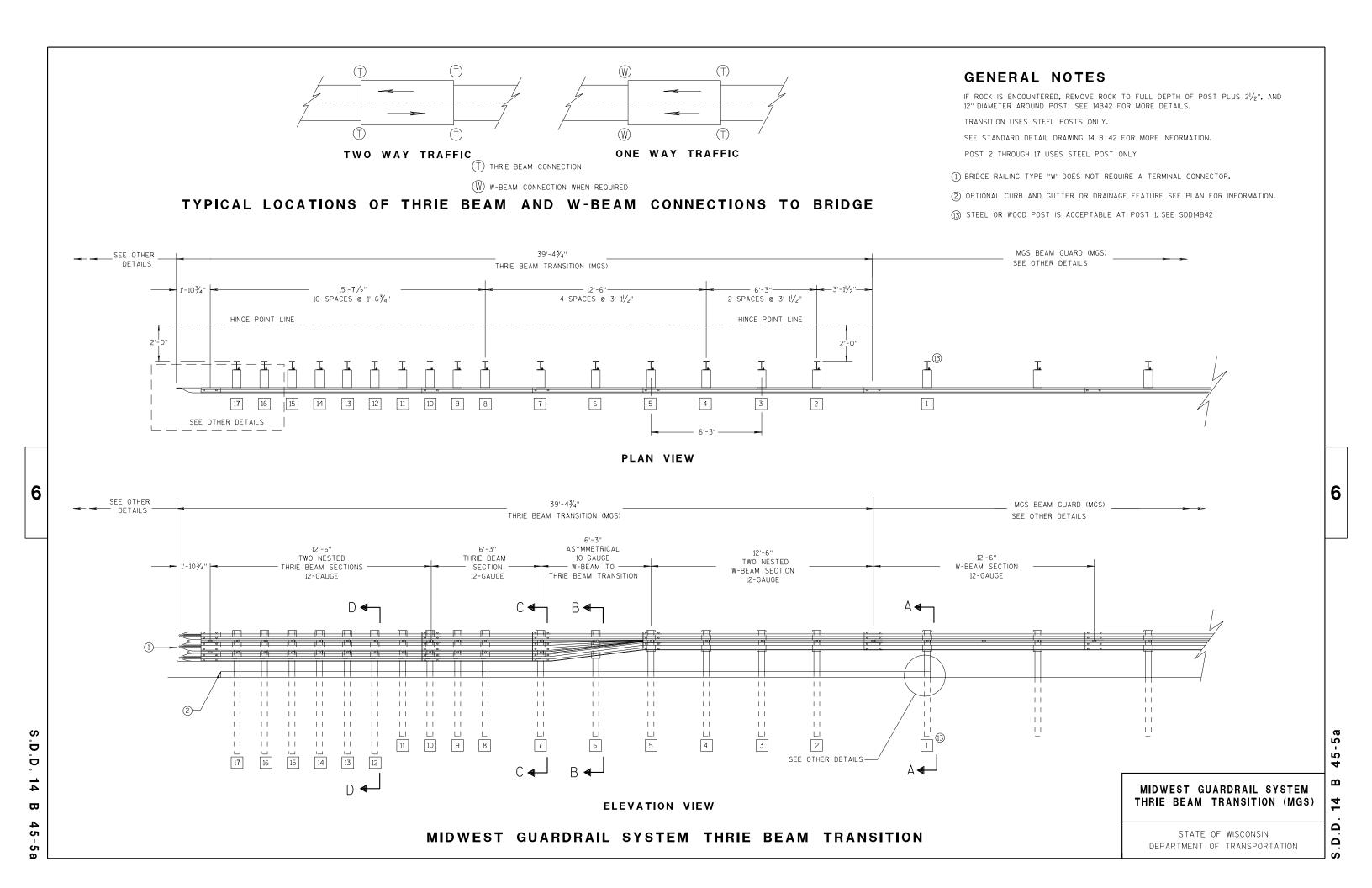
MIDWEST GUARDRAIL SYSTEM **ENERGY ABSORBING TERMINAL** (MGS)

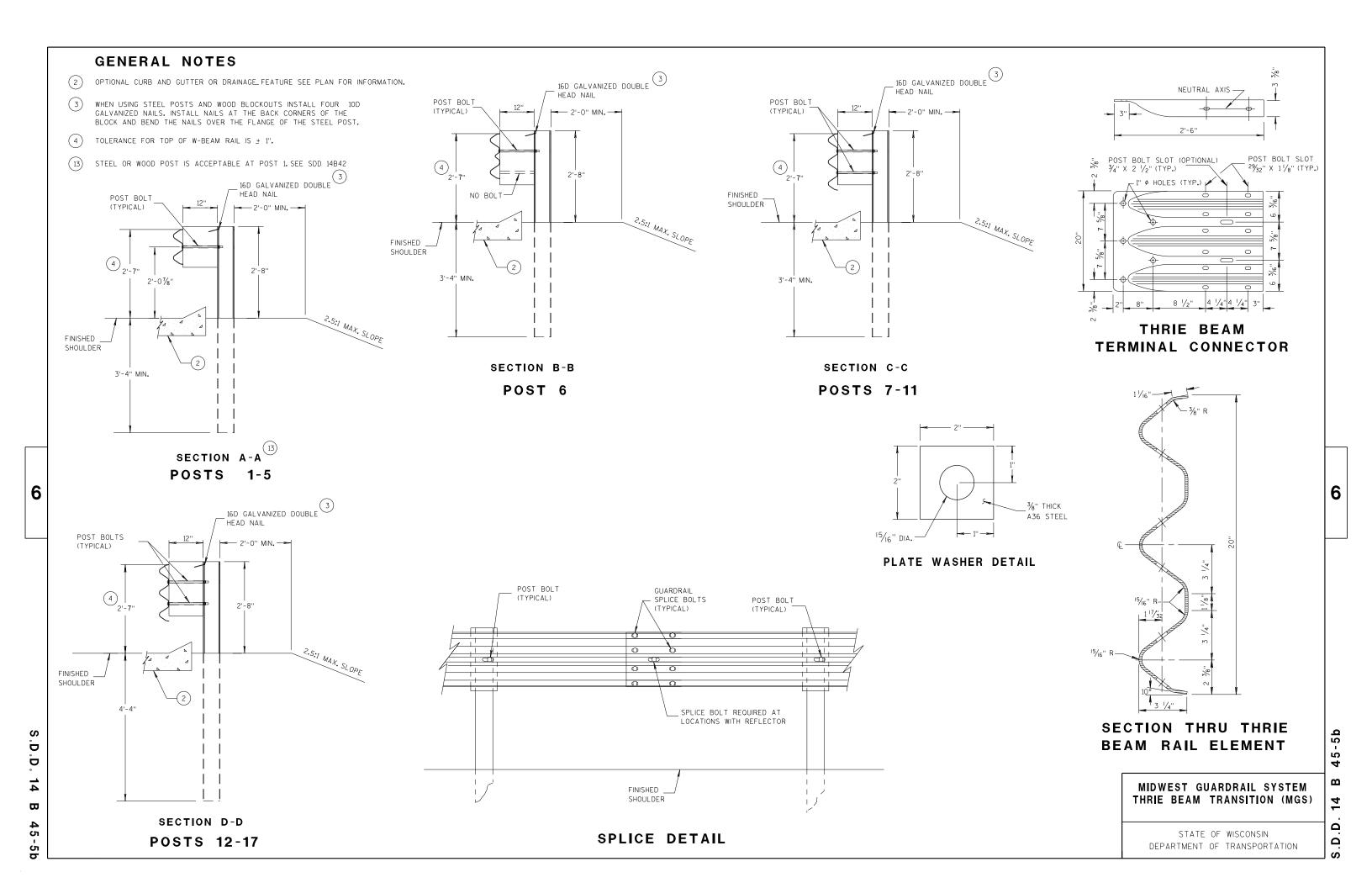
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

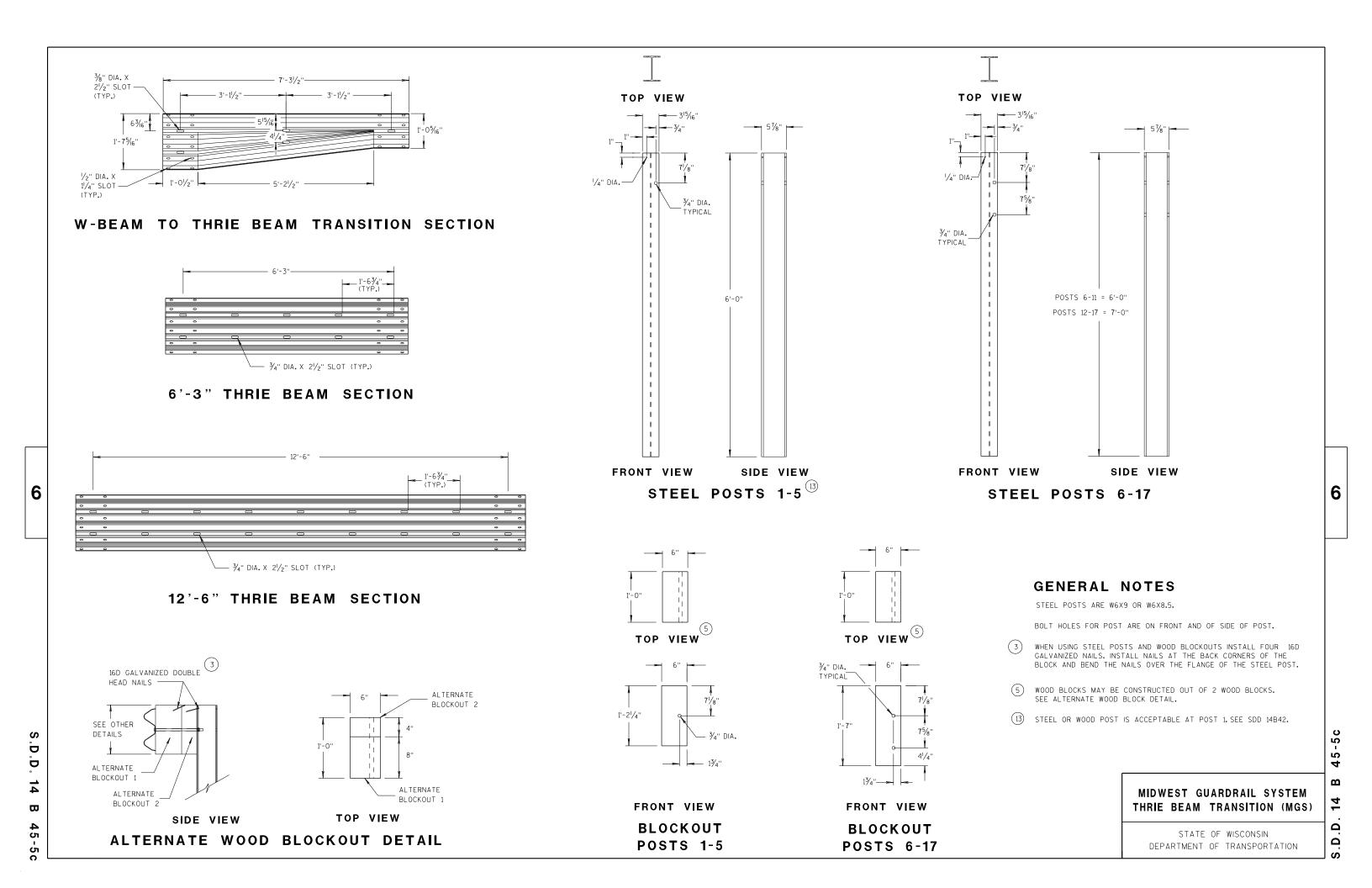
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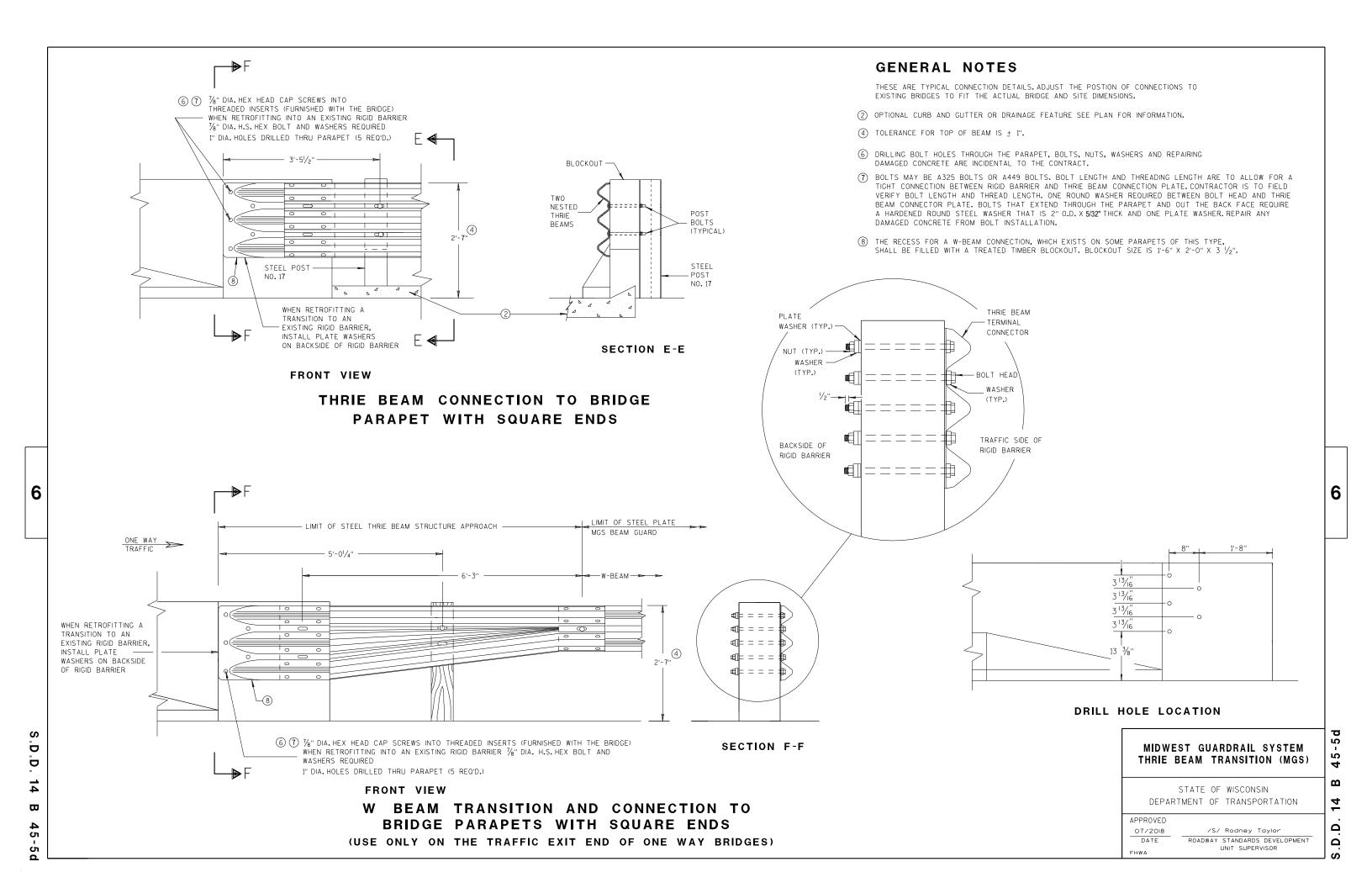
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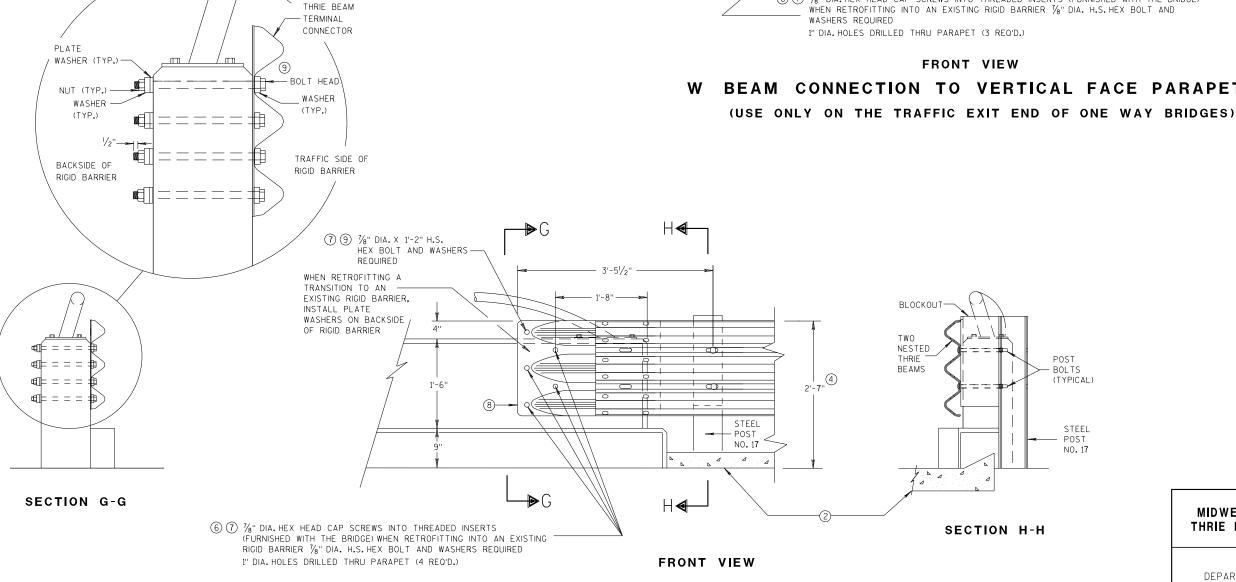








- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS ± 1".
- 6 DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- 7 BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE, BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- (9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.



THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

LIMIT OF STEEL PLATE 7 7/8" DIA. X 1'-2" H.S. MGS BEAM GUARD HEX BOLT AND WASHERS REQUIRED 5'-0 1/4" ONE WAY
TRAFFIC WHEN RETROFITTING A TRANSITION TO AN EXISTING RIGID BARRIER, INSTALL 9 PLATE WASHERS ON BACKSIDE OF RIGID BARRIER W BEAM TERMINAL 8 CONNECTOR (4) 2'-7' 6 7 %" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER 1/8" DIA. H.S. HEX BOLT AND

BEAM CONNECTION TO VERTICAL FACE PARAPET

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 DATE

/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

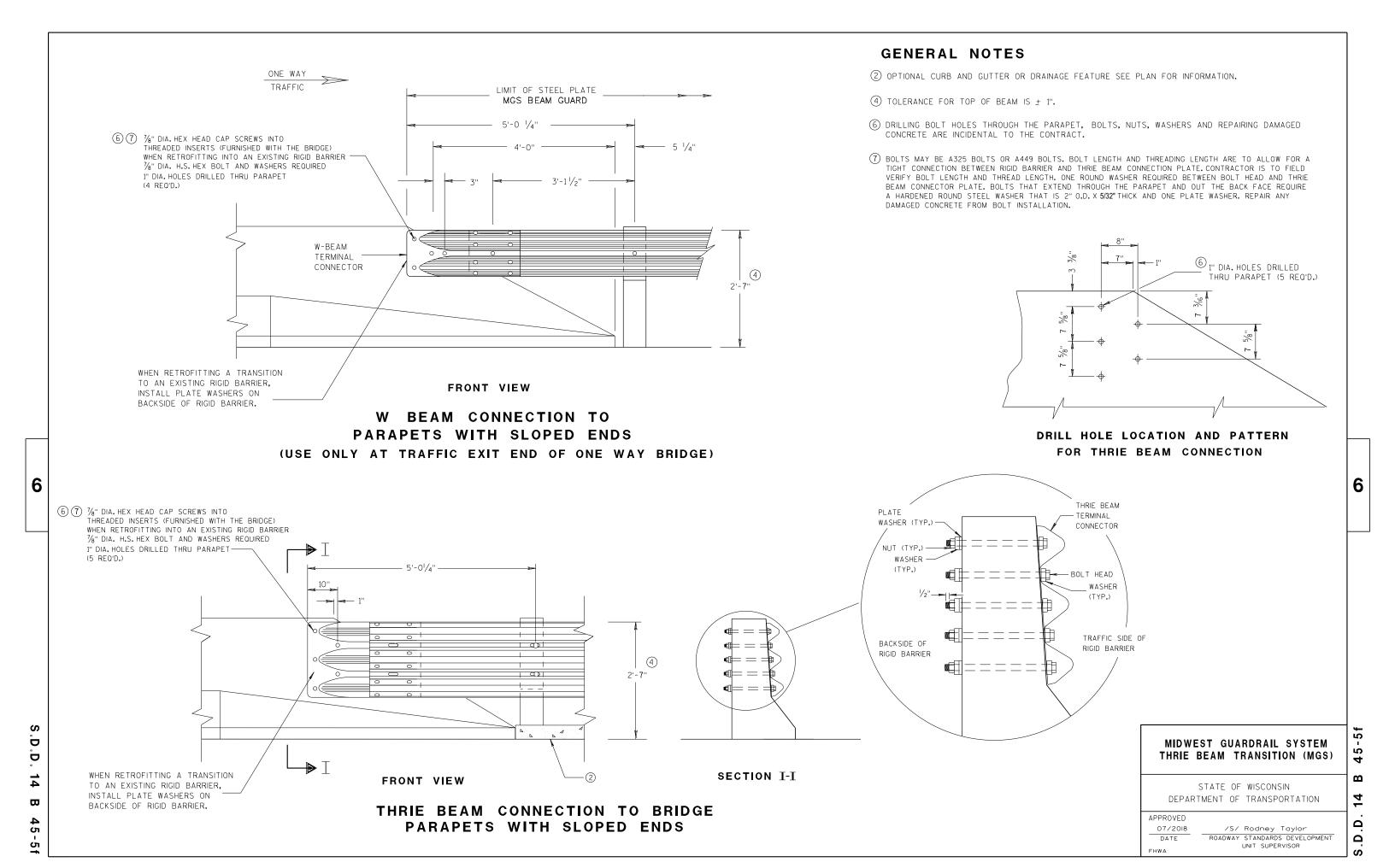
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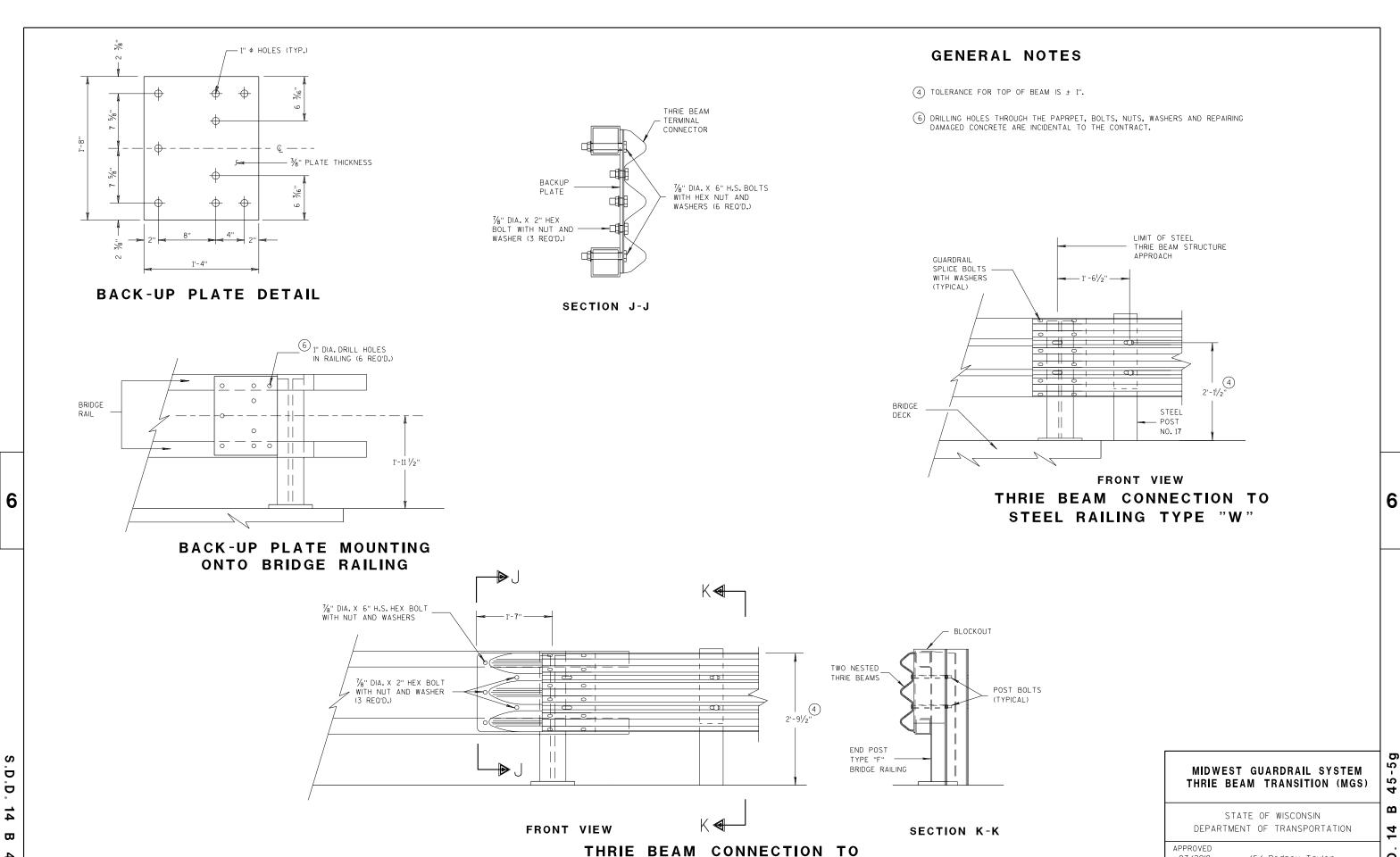
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TUBULAR RAILING TYPE "F"

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S.D.D. 14 B 45-5

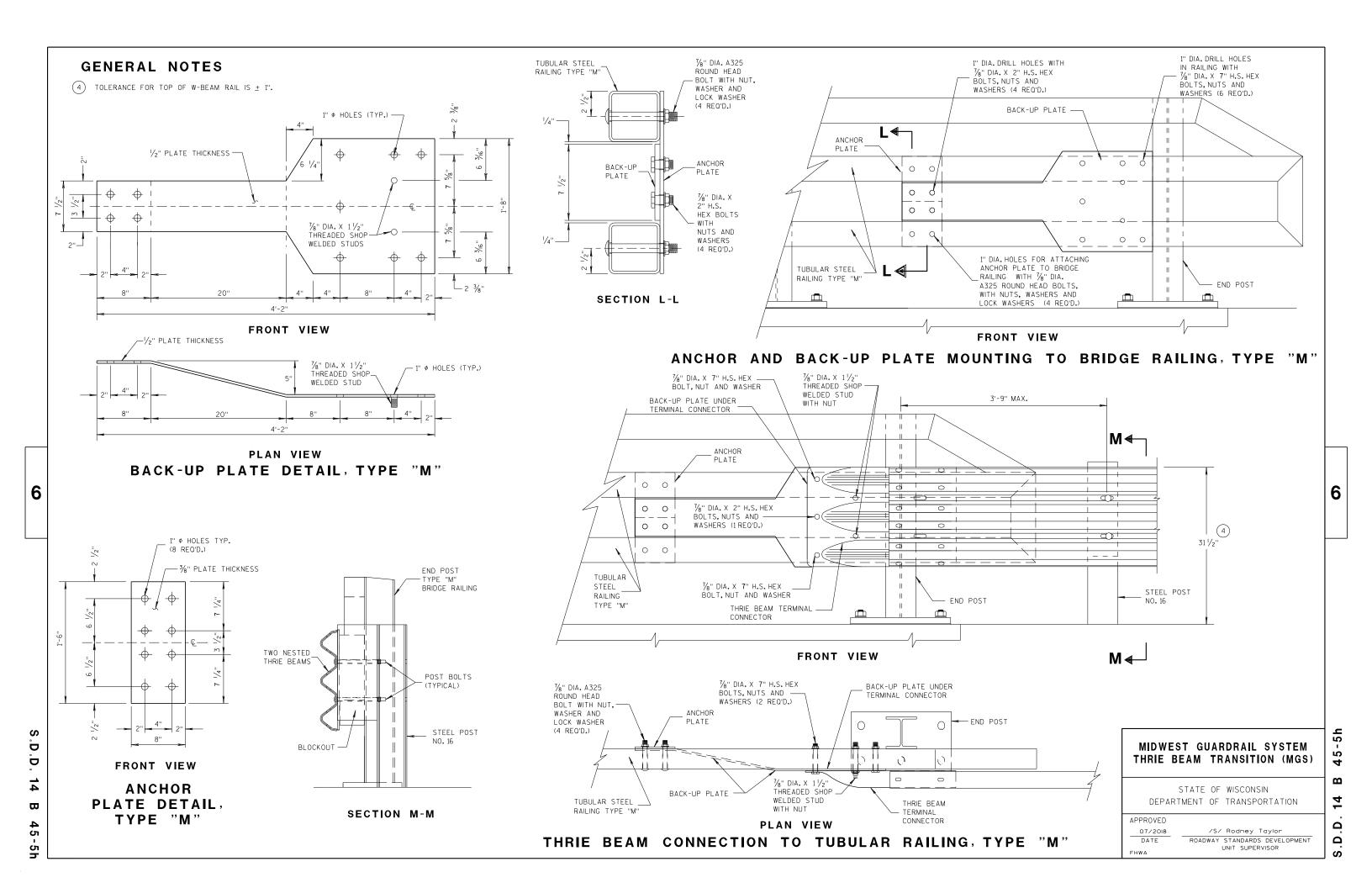
07/2018

DATE

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR



WELDING INSTRUCTION

21/2"

101/2"

(VIEWED FROM BACK SIDE OF PLATE)

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

| CONNECTOR PLATE DIMENSION (PER ASSEMBLY) | | | | | | |
|--|----------|--------------------|--|-----------|--|--|
| PLATE | QUANTITY | SHAPE | SIZE (A × B × C × D) | THICKNESS | | |
| P1 | 1 | ВЁ | 20" × 20" | 3/16" | | |
| P2 | 1 | B₽€ | 20" × 20" × 28%6" | 3/16" | | |
| Р3 | 1 | B A C D | 39" × 35/8" × 20" × 195//6" | 3/16" | | |
| S1 | 4 | B A | 187/6" × 35/8" × 183/4" | 1/4" | | |
| S2 | 1 | B O | $10^{1}/_{4}$ " × $2\frac{7}{16}$ " × $10\frac{3}{8}$ " × $\frac{1}{2}$ " | 1/4" | | |
| S3 | 1 | B₽D | 3" × 1½6" × 3½" × ½" | 1/4" | | |
| S4 | 1 | В□ | 61/8" × 27/16" | 1/4" | | |
| S5 | 1 | в∟ | 6½" × ½'6" | 1/4" | | |
| S6 | 1 | вФ | 7¾" × 1¾" | 1/4" | | |
| S7 | 1 | ABC | 2%6" × 6" × 3%" × 5%" | 1/4" | | |
| S8 | 1 | ABC | 1 ⁵ / ₃₂ " × 7 ¹ / ₂ " × 2 ¹ / ₂ " × 7 ³ / ₈ " | 1/4" | | |
| S9 | 1 | CLA B | $6\frac{1}{16}$ " × $6\frac{3}{16}$ " × $1\frac{3}{32}$ " | 1/4" | | |
| S10 | 1 | ABC | 1%" × 9%" × 3%" × 9"/ ₁₆ " | 1/4" | | |
| S11 | 1 | C A | 8½" × 8¾" × 1 ¹³ / ₁₆ " | 1/4" | | |

BACK SIDE OF PLATE

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

GENERAL NOTES

COVER PLATE PANELS ARE 3/6" THICK.

BACK SIDE OF PLATE

7/2018 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

S.D.D. 14 B 45-5

6

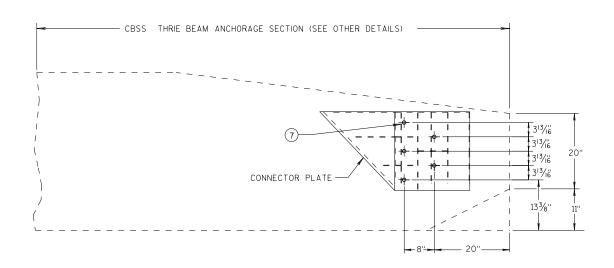
/S/ Rodney Taylo

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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

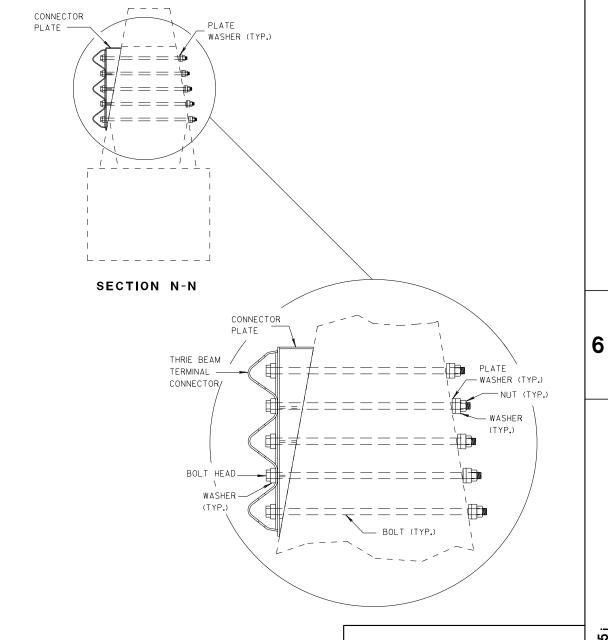


SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

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

- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE
ROADWAY

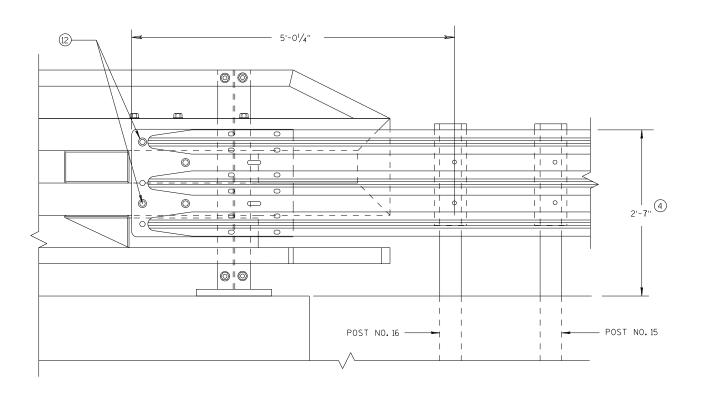
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

D.D. 14 B

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

- 4) TOLERANCE FOR TOP OF BEAM IS ± 1".
- (2) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 /S/ RODNEY Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

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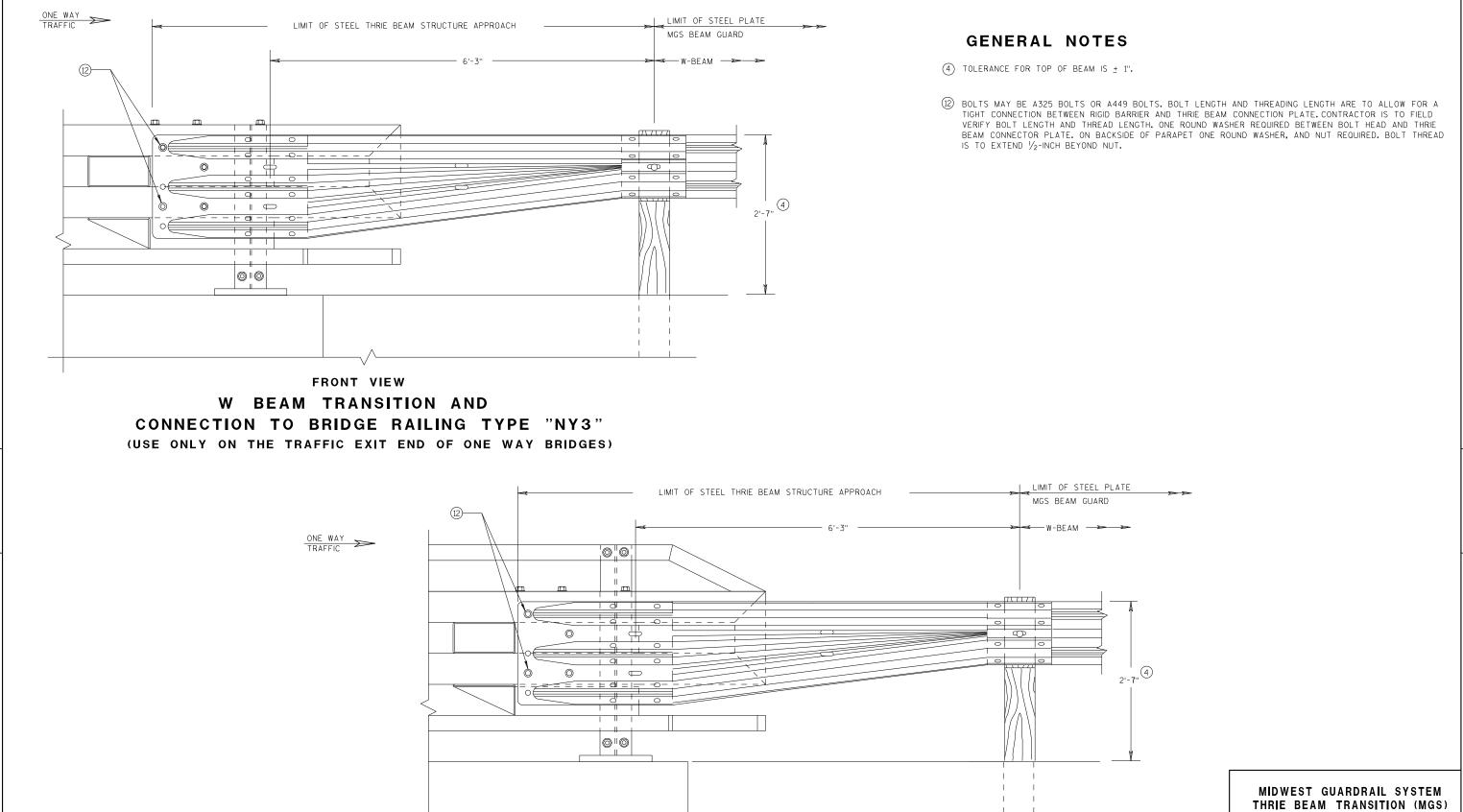
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1 B 45-5k

.D.D. 14 B



FRONT VIEW

W BEAM TRANSITION AND

CONNECTION TO BRIDGE RAILING TYPE "NY4"

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

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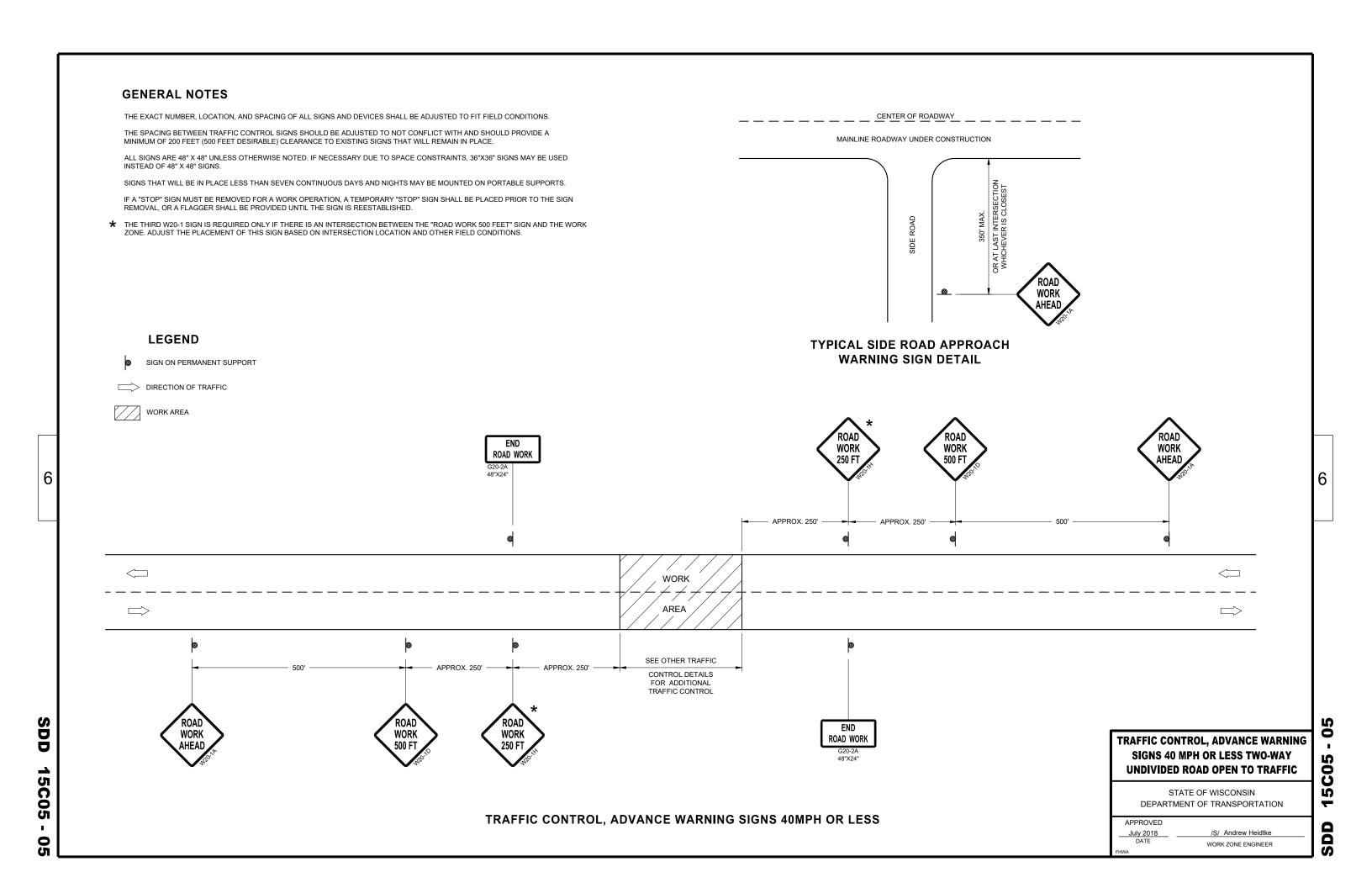
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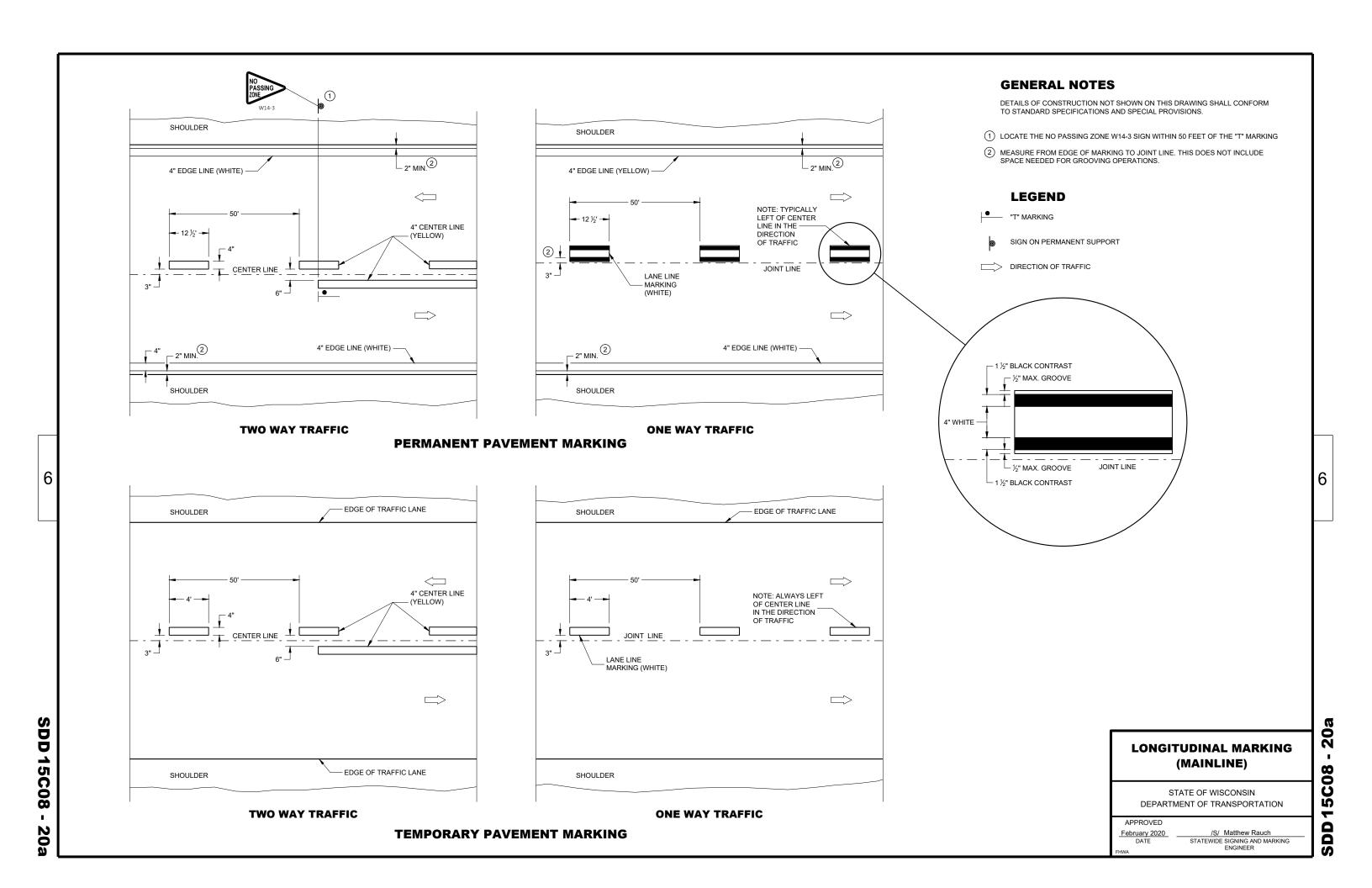
/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

DATE





GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

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SDD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

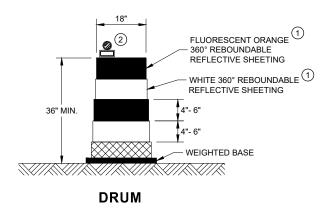
 APPROVED

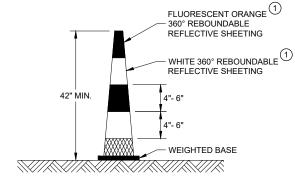
 May 2021
 /S/ Andrew Heidtke

 DATE
 WORK ZONE ENGINEER

GENERAL NOTES

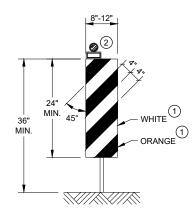
- (1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- (2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



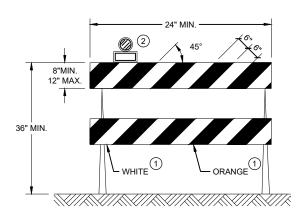


½ SPACING OF DRUMS



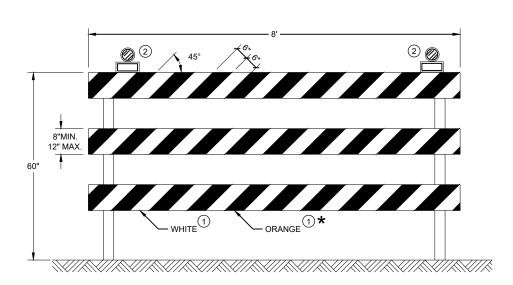


VERTICAL PANEL THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION <u>60</u>

15C

| APPROVED | |
|----------|--------------------|
| May 2021 | /S/ Andrew Heidtke |
| DATE | WORK ZONE ENGINEER |
| EHWA | |

RUMBLE

STRIPS

ROAD

WORK

GENERAL NOTES FLAGGING LEGEND 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 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 SIGN ON PORTABLE OR PERMANENT SUPPORT UNIFORM TRAFFIC CONTROL DEVICES. 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 ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. TEMPORARY PORTABLE RUMBLE WORK OPERATION OR AS APPROVED BY THE ENGINEER. STRIP ARRAY "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE. (2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE DIRECTION OF TRAFFIC ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. 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. THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP WORK AREA TEMPORARY PORTABLE RUMBLE STRIPS WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS. TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED FLAGGER, EQUIPPED WITH STOP/SLOW ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT PADDLE FASTENED ON SUPPORT STAFF 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. SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE 5' MIN BE SPACING "A" SPEED LIMIT USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, PREPARED THIS SIGN SHALL BE LOCATED BETWEEN THE 25-30 MPH TO STOP W20-7A AND W20-4A SIGNS, USING SPACING "A". 35-40 MPH 350' STOP/SLOW PADDLE ŔUMBLĖ 45-55 MPH 500' WO3-4 WORK **ON SUPPORT STAFF** ROAD STRIPS 1 VARIABLE DISTANCE - 200' - 300' (TYP.) END ROAD WORK |||3 WORK AREA A/2 END ROAD WORK 200' - 300' (TYP.) VARIABLE DISTANCE

TRAFFIC CONTROL FOR LANE CLOSURE WITH **FLAGGING OPERATION**

2

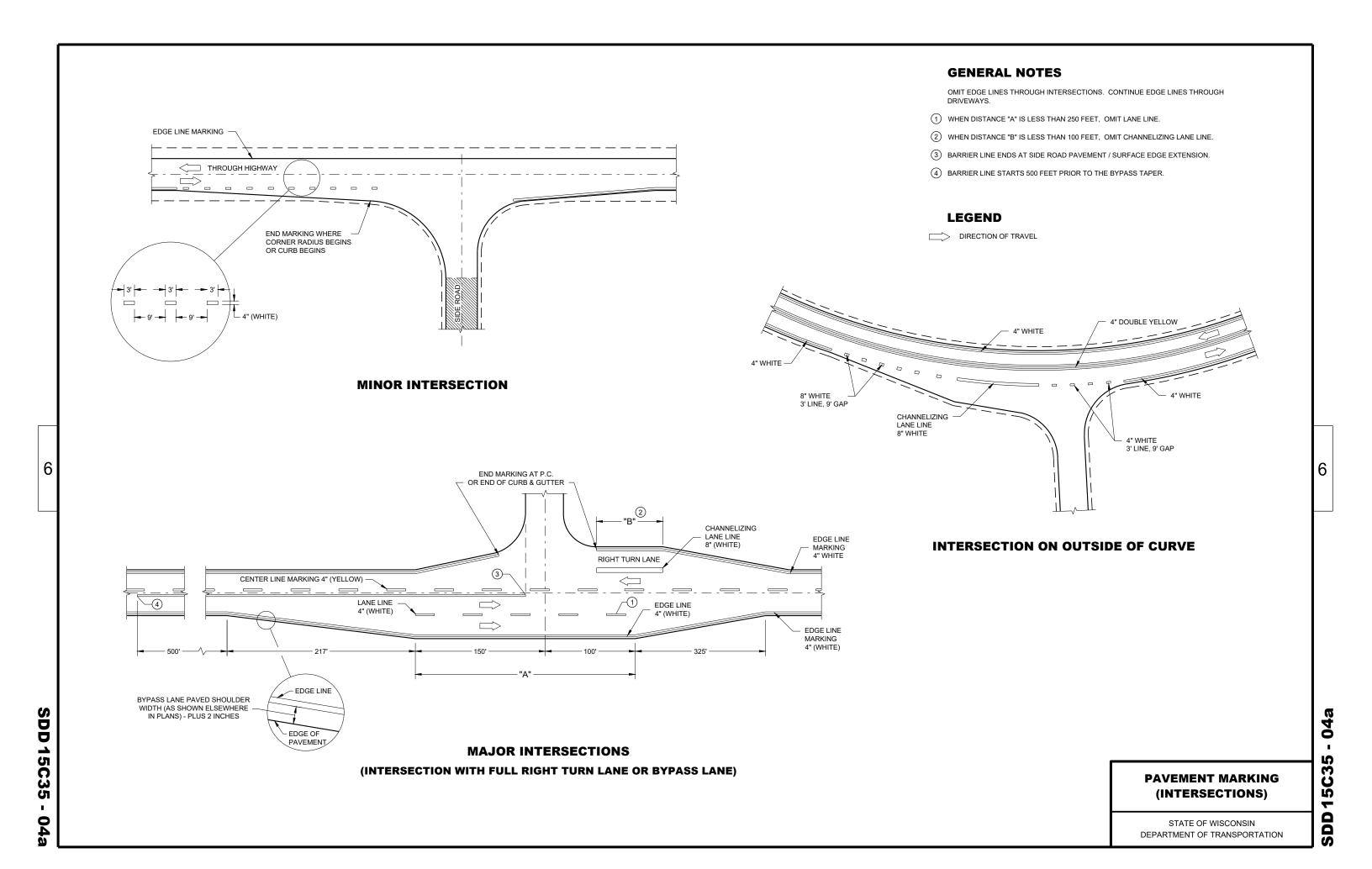
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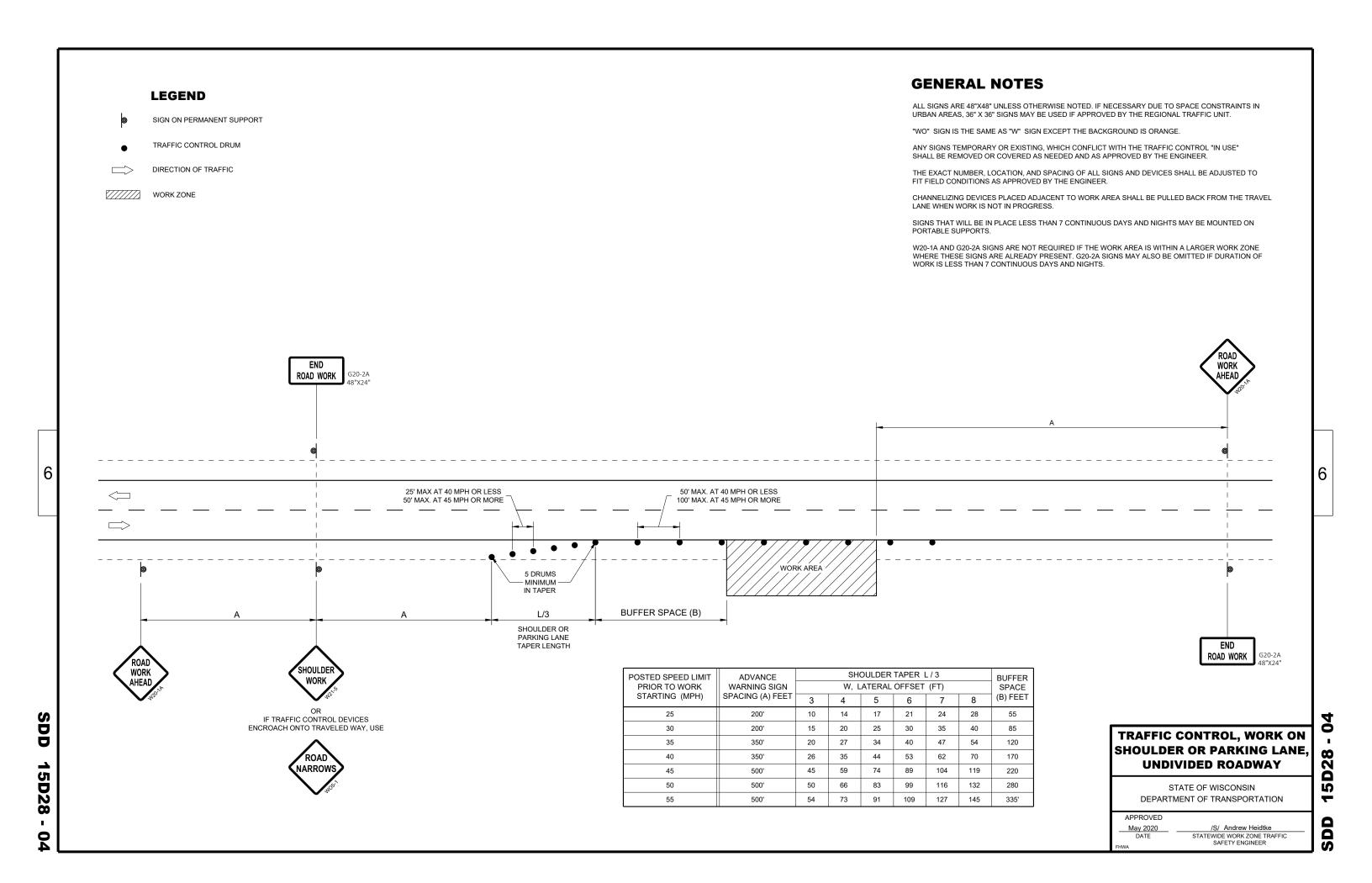
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

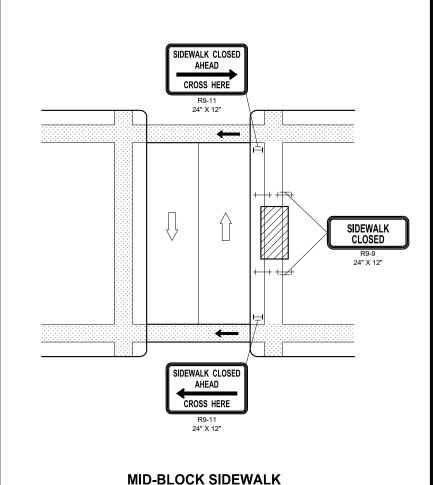
November 2021 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER

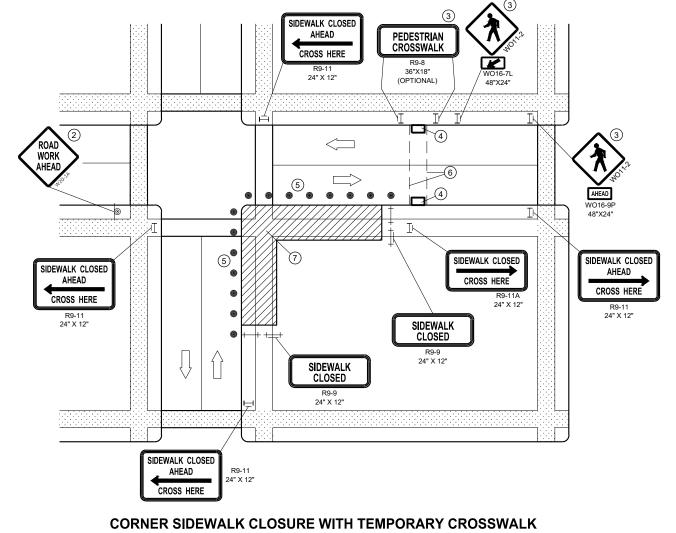
3DD 15C19 - 06a





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GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

CLOSURE

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK
- (4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- [7] LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

+ / + TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

UNDER PEDESTRIAN TRAFFIC

////// WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

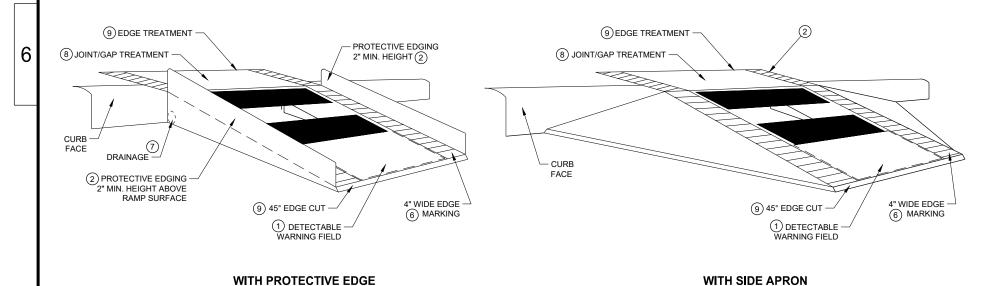
SDD 15D30 - 06a

4" WIDE EDGE MARKING (6)

TEMPORARY CURB RAMP PARALLEL TO CURB

CROSS SLOPE 2% MAX. (4)

ABOVE RAMP SURFACE (2)



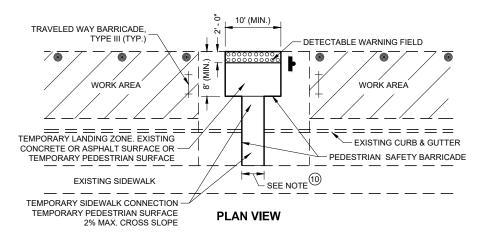
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

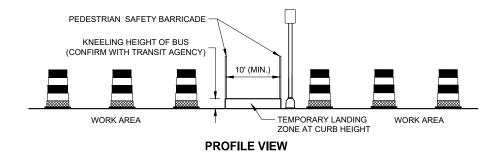
GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- (1) CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "6".
- (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) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- (5) CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
- (10) 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.





TEMPORARY BUS STOP PAD

LEGEND



TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

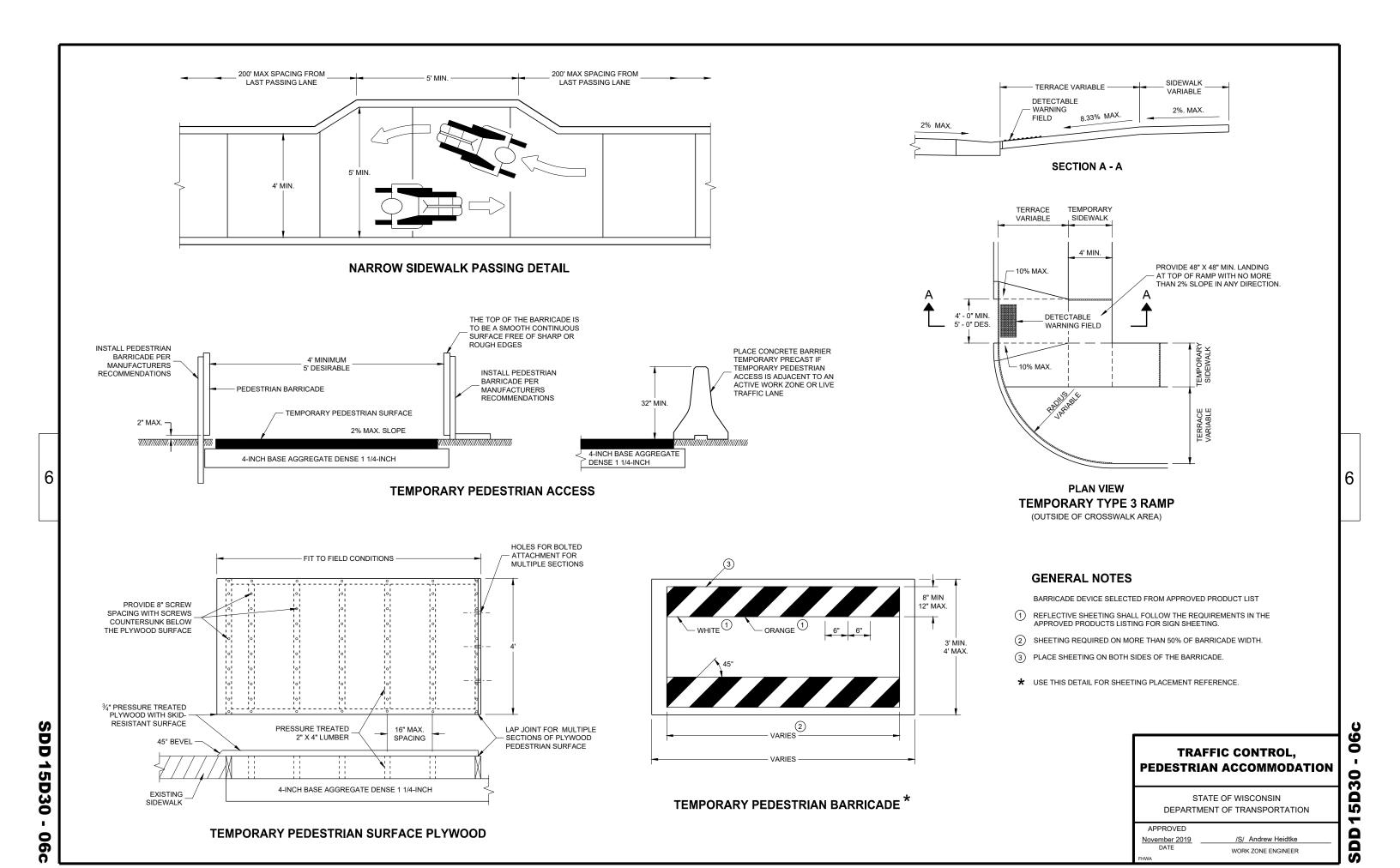
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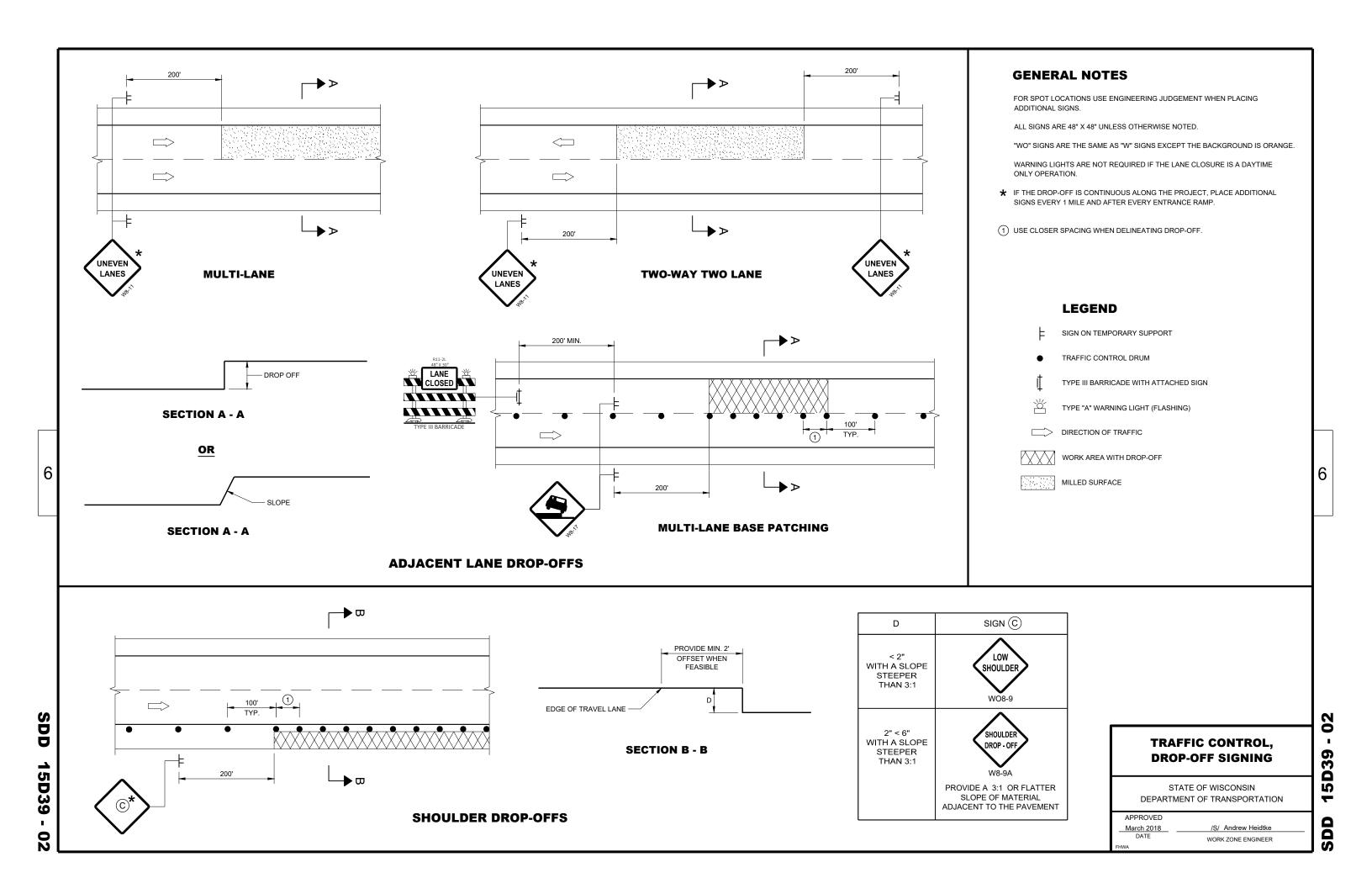
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(5) CLEAR SPACE

(9) EDGE TREATMENT

SDD 15D30 - 06b





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.

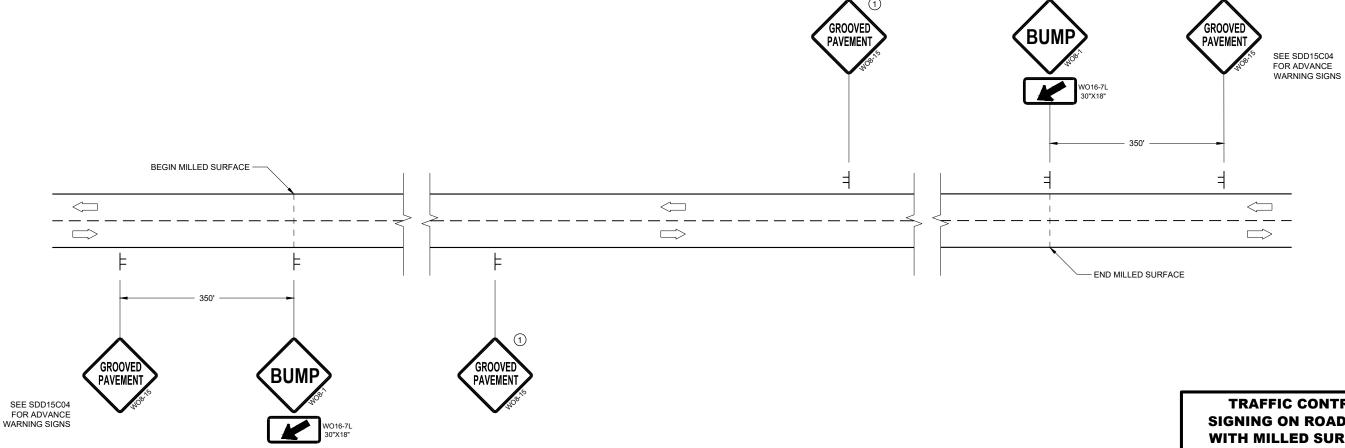
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED

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.

DIRECTION OF TRAFFIC



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, **SIGNING ON ROADWAYS WITH MILLED SURFACES**

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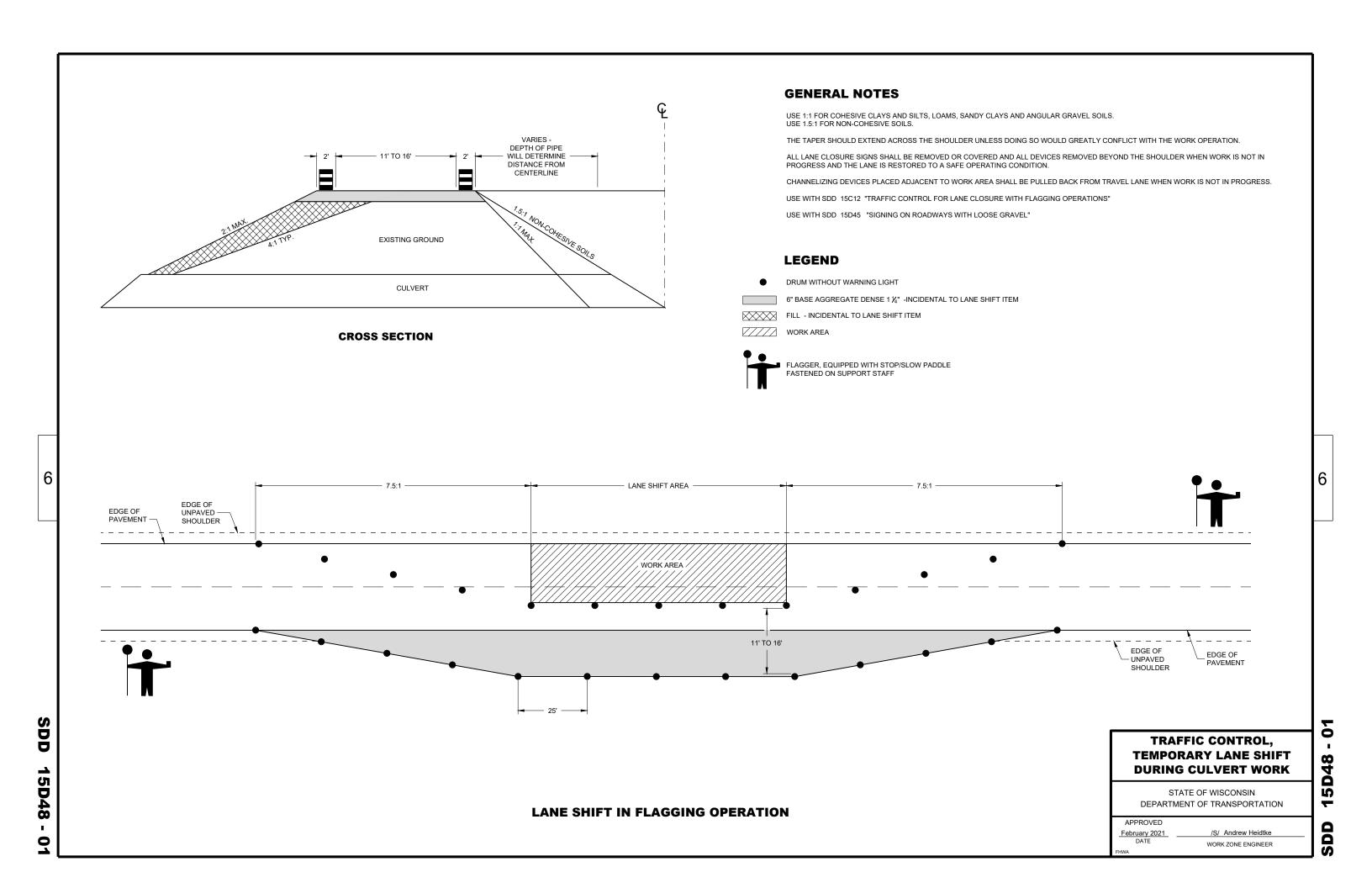
TYPICAL SIDE ROAD APPROACH SIGN DETAIL

PAVEMENT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION Ò D

APPROVED February 2020 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER

45



V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION

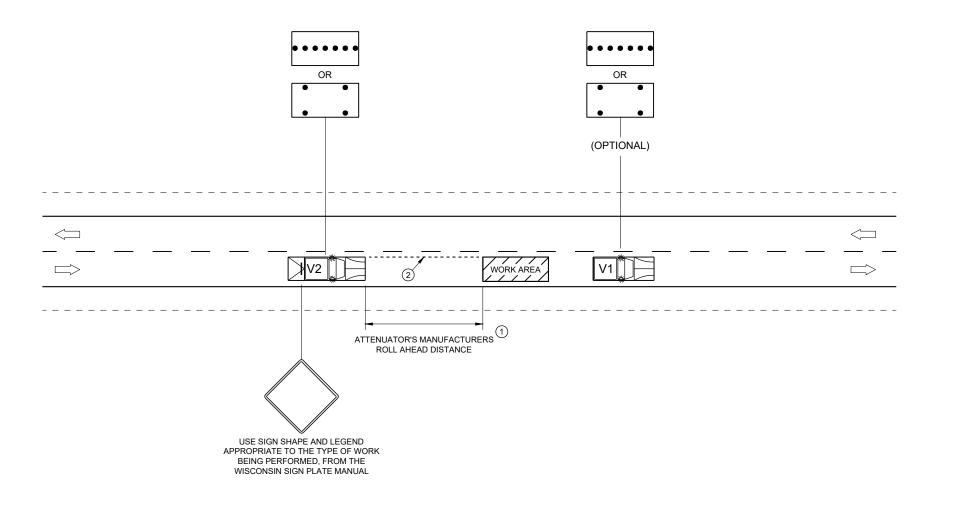
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

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

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

2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



POSTED SPEED PRIOR TO DECISION SIGHT

DISTANCE (D)

550'

700'

700'

900'

900'

1200'

WORK STARTING (MPH)

30

35

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

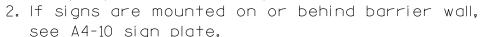
APPROVED

February 2021 DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

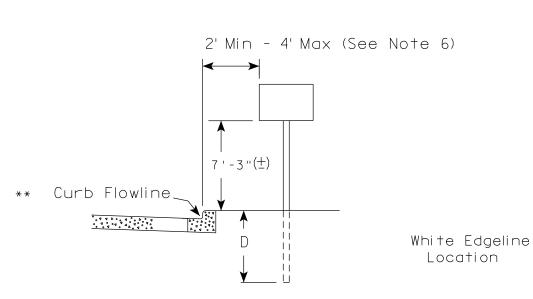
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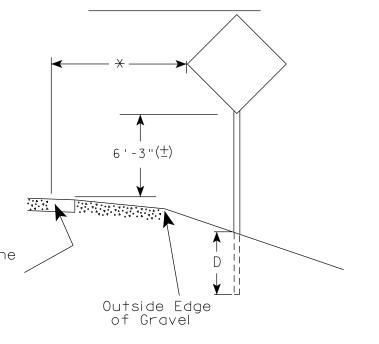
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The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52). Mile Markers (D10 series). In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3'' ($\frac{+}{-}$).

- 3. For expressways and freeways, mounting height is $7'-3''(\pm)$ or 6'-3'' (\pm) depending upon existence of a sub-sign.
- 4. Minimum mounting height for signs mounted on traffic signal poles is $5' - 3'' \stackrel{(\pm)}{-}$.
- 5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 6. The (+) tolerance for mounting height is 3 inches.
- 7. Folding signs shall be mounted at a height of 5'-3'' (\pm) or as directd by the Engineer.





2' Min - 4' Max (See Note 6) 6'-3"(±) ** Curb Flowline D

5'-3"(士) White Edgeline $D \parallel$ Location Outside Edge of Gravel

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated.

That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

HWY:

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED For State Traffic Engineer

DATE 5/13/2020

SHEET NO:

Ε

PROJECT NO: FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.dgn COUNTY:

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

PLOT DATE: 13-MAY 2020 1:04



NOTES: 1. ALL MATERIAL TO BE APPROVED

BY ENGINEER PRIOR TO INSTALLATION

- 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
- 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

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



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

HWY:



PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

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

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

GENERAL NOTES

- 1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- 2. See tables below for required number of posts.
- 3. For expressways and freeways, mounting height is 7'-3'' (±) or 6'-3'' (±) depending upon existence of sub-sign.
- 4. The (±) tolerance for mounting height is 3 inches.
- 5. J-Assemblies are considered to be one sign for mounting height.
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. Folding signs shall be mounted at a height of 5'-3'' (±) or as directed by the engineer.
- 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8). Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4''-3'' (±).
- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- ** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

| D |
|-------|
| (Min) |
| 4' |
| 5' |
| |

WISCONSIN DEPT OF TRANSPORTATION APPROVED For State Traffic Engineer DATE 8/21/17 PLATE NO. <u>A4-4.15</u>





| | SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED) | | | |
|-----|--|-----|--|--|
| *** | L | E | | |
| | Greater than 48" Less than 60" | 12" | | |
| | 60" to 108" | L/5 | | |

HWY:

| SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED) | | | | |
|--|------|--|--|--|
| L | E | | | |
| Greater than 108" to 144" | 12'' | | | |

COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 21-AUG-2017 15:54

PLOT SCALE: 108.188297:1.000000

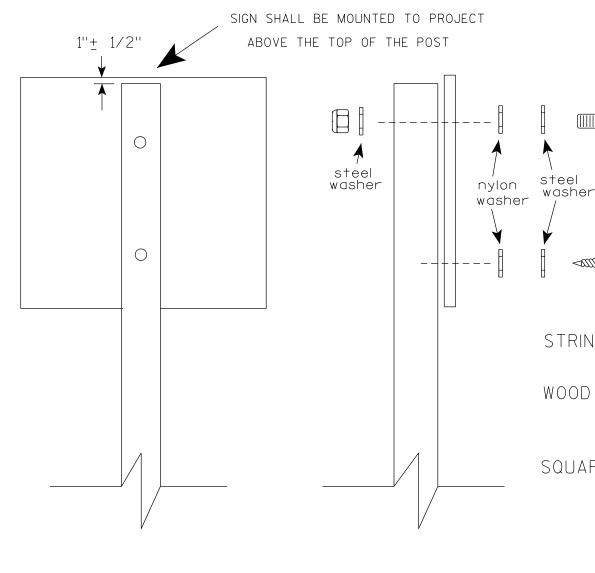
WISDOT/CADDS SHEET 42

OF TYPE II SIGNS ON MULTIPLE POSTS

TYPICAL INSTALLATION

SHEET NO:

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS $(4'' \times 6'')$

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN) 3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN) 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 3/32 " (6605-9-6) BULB-TITE. TRI-FOLD. ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

APPROVED

DATE 4/1/2020

PLATE NO. <u>A4-8.9</u>

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN

PROJECT NO:

PLOT DATE: 01-APRIL-2020

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

Ε

WISCONSIN DEPT OF TRANSPORTATION

Matther ≠or State Traffic Engineer

SHEET NO:



PROJECT NO: HWY: COUNTY: SHEET NO: FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE: 05-FEB-2015 17:09 PLOT BY: mscsja PLOT NAME : PLOT SCALE: 13.659812:1.000000

DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer



BANDING



SINGLE SIGN





WASHER PLACEMENT



HWY:

WASHERS (ALL POSTS) -

1-1/4" O.D. X³/₈" I.D. X¹/₁₆" STEEL 1-1/4" O.D. $\times \frac{3}{8}$ " I.D. \times .080 NYLON FOR ALL TYPE H SIGNS

CHANNEL

GENERAL NOTES

- 1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
- 2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
- 3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
- 4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

DATE 6/10/19

PLATE NO. A5-9.4

Ε

State Traffic Engineer

COUNTY:

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

PROJECT NO:

31/2"

VIEW FROM TOP

GENERAL NOTES

- 1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
- 2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
- 3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
- 4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
- 5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation: B 633, TYPE III, SC 3
- 6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
- 7. STEEL WASHERS SHALL BE $1^{1}/_{4}$ " O.D. X $3/_{16}$ " I.D. X $1/_{16}$ "
- 8. NYLON WASHERS SHALL BE $1^{1}/_{4}$ " O.D. X $3/_{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

 \times LAG BOLTS SHALL BE $\frac{3}{8}$ " X $\frac{2}{2}$ "

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/19/2022 PLATE NO. A5-10.3

SHEET NO:

APPROVED

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgr

PLOT DATE: 19-APRIL 2022 11:55

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

Ε

SIGN



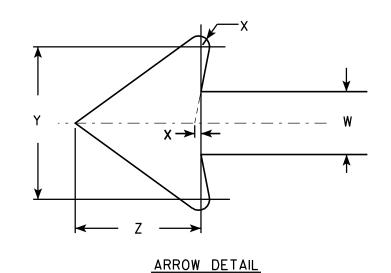
COUNTY:

NOTES

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Red

- 3. Message Series See Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1, 3 and 4 are series C, line 2 is series B.
- 6. R7-53D (double arrow) R7-53L (left arrow) R7-53R (right arrow)



| J | K | L | М | N | 0 | Р | 0 | R | S | Т | U | ٧ | W | X | Y | Z | Area sq. ft. |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-----|-------|-------|-----------------|
| 5/8 | 1 1/2 | 2 1/2 | 2 | 2 | 4 % | 4 1/8 | 2 % | 1 3/4 | 1/4 | 4 1/2 | 2 3/8 | 3 % | 3/4 | 1/8 | 1 3/4 | 1 1/2 | 1.5 |
| 1 | 2 | 3 1/4 | 2 3/4 | 2 % | 7 1/8 | 7 | 3 3/8 | 1 1/2 | 5/8 | 5 3/8 | 3 | 5 % | 1 1/8 | 1/4 | 2 % | 2 1/4 | 3.0 |
| 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 4 | 2 | 5/8 | 6 % | 3 % | 7 3/4 | 1 1/2 | 1/4 | 3 ½ | 3 | 5.0 |
| 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 4 | 2 | 5/8 | 6 % | 3 % | 7 3/4 | 1 1/2 | 1/4 | 3 1/2 | 3 | 5.0 |

APPROVED

for State Traffic Engineer

DATE 3/31/2011

PLATE NO. R7-53.6 SHEET NO:

STANDARD SIGN

WISCONSIN DEPT OF TRANSPORTATION

R7-53

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R753.DGN

1 1/8

1 1/8

1 1/8

30 1 1/8

24

30

3⁄8

3/8

3/8

3/8

3/8

1/2

1/2

1/2

3

4

5

5

1 1/8

3

3

2

2 1/2 2 1/2 1 1/4

3

3

HWY:

1∕8

2

2

SIZE

2S

2M

3

4

5

12

18

24

24

PROJECT NO:

PLOT DATE: 31-MAR-2011 13:28

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 3.476110:1.000000

WISDOT/CADDS SHEET 42

GUARDRAIL STA 50366-50785 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ulative Vol | (CY) |
|-----------|-------|--------|-----------------|-------------------|------|-------------|----------|
| | | | | | | Expanded | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass |
| STATION | | | | | 1.00 | 1.25 | Ordinate |
| | | | | | | | |
| 503+00 | 15.00 | 13.05 | 0 | 0 | 0 | 0 | 0 |
| 503+50 | 16.20 | 25.32 | 29 | 36 | 29 | 44 | -16 |
| 503+65.85 | 16.13 | 28.75 | 9 | 16 | 38 | 64 | -26 |
| 503+90.85 | 16.71 | 26.40 | 15 | 26 | 54 | 96 | -43 |
| 504+00 | 16.76 | 26.07 | 6 | 9 | 59 | 107 | -48 |
| 504+15.85 | 16.73 | 35.29 | 10 | 18 | 69 | 130 | -61 |
| 504+50 | 17.05 | 0.87 | 21 | 23 | 90 | 158 | -68 |
| 505+00 | 10.95 | 119.03 | 26 | 111 | 116 | 297 | -181 |
| 505+50 | 8.76 | 82.79 | 18 | 187 | 135 | 531 | -396 |
| 506+00 | 8.36 | 57.89 | 16 | 130 | 150 | 694 | -543 |
| 506+44 | 5.91 | 61.18 | 12 | 97 | 162 | 815 | -653 |
| 507+00 | 9.93 | 14.85 | 16 | 79 | 179 | 913 | -735 |
| 507+34.6 | 10.40 | 58.95 | 13 | 47 | 192 | 972 | -781 |
| 507+59.6 | 9.88 | 55.88 | 9 | 53 | 201 | 1,039 | -838 |
| 507+84.6 | 9.24 | 60.34 | 9 | 54 | 210 | 1,106 | -896 |
| 508+00 | 8.88 | 45.04 | 5 | 30 | 215 | 1,144 | -929 |

CP STA 55900 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ulative Vol | (CY) |
|---------|-------|--------|-----------------|-------------------|--------------------|---------------------|------------------|
| Γ | | | | | | Expanded | |
| STATION | Cut | Fill | Cut | Fill | Cut 1.00 | Fill 1.25 | Mass Ordinate |
| 554+50 | 5.58 | 230.95 | 0 | 0 | 0 | 0 | 0 |
| 555+00 | 1.27 | 240.53 | 6 | 437 | 6 | 546 | -539 |
| 555+50 | 0.77 | 277.86 | 2 | 480 | 8 | 1,146 | -1,137 |
| 555+72 | 0.80 | 305.33 | 1 | 238 | 9 | 1,443 | -1,434 |
| 556+00 | 1.30 | 169.54 | 1 | 246 | 10 | 1,750 | -1,741 |
| 556+50 | 0.64 | 38.73 | 2 | 193 | 12 | 1,992 | -1,980 |
| 557+00 | 0.51 | 65.61 | 1 | 97 | 13 | 2,112 | -2,099 |
| 557+50 | 0.60 | 61.05 | 1 | 117 | 14 | 2,259 | -2,245 |
| 558+00 | 5.24 | 39.74 | 5 | 93 | 19 | 2,376 | -2,356 |
| 558+50 | 53.47 | 23.96 | 54 | 59 | 74 | 2,449 | -2,376 |
| 559+00 | 99.67 | 12.84 | 142 | 34 | 215 | 2,492 | -2,276 |
| 559+50 | 13.29 | 21.80 | 105 | 32 | 320 | 2,532 | -2,212 |
| 560+00 | 17.42 | 62.28 | 28 | 78 | 348 | 2,629 | -2,281 |
| 560+50 | 22.81 | 20.15 | 37 | 76 | 386 | 2,725 | -2,339 |

CP STA 49321 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ılative Vol | (CY) |
|---------|-------|-------|-----------------|-------------------|----------|-------------|----------|
| | | | | | Expanded | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass |
| STATION | | | | | 1.00 | 1.25 | Ordinate |
| | | | | | | | |
| 492+50 | 2.65 | 12.01 | 0 | 0 | 0 | 0 | 0 |
| 493+00 | 52.06 | 14.21 | 51 | 24 | 51 | 30 | 20 |
| 493+21 | 61.50 | 47.37 | 44 | 24 | 95 | 60 | 35 |
| 493+50 | 40.00 | 13.84 | 55 | 33 | 149 | 101 | 48 |
| 494+00 | 5.02 | 2.90 | 42 | 15 | 191 | 121 | 70 |

CP STA 56898 - Alignment - US 8

| | AREA (SF) | | Incremental Vol | Incremental Vol (CY) (Unadjusted) | | | Cumulative Vol (CY) | | |
|---------|-----------|-------|-----------------|-----------------------------------|------|------|---------------------|--|--|
| | | | | | | | | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass | | |
| STATION | | | | | 1.00 | 1.25 | Ordinate | | |
| | | | | | | | | | |
| 568+50 | 5.53 | 10.21 | 0 | 0 | 0 | 0 | 0 | | |
| 568+80 | 61.51 | 10.55 | 37 | 12 | 37 | 14 | 23 | | |
| 569+00 | 54.87 | 11.84 | 43 | 8 | 80 | 25 | 56 | | |
| 569+15 | 58.72 | 12.60 | 32 | 7 | 112 | 33 | 79 | | |
| 569+50 | 4.94 | 11.42 | 41 | 16 | 153 | 53 | 100 | | |

CP STA 54059 - Alignment - US 8

| | AREA (SF) | | Incremental Vol | Incremental Vol (CY) (Unadjusted) | | | Cumulative Vol (CY) | | |
|---------|-----------|-------|-----------------|-----------------------------------|------|------|---------------------|--|--|
| | | | | | | | | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass | | |
| STATION | | | | | 1.00 | 1.25 | Ordinate | | |
| 540+00 | 5.02 | 29.74 | 0 | 0 | 0 | 0 | 0 | | |
| 540+35 | 60.12 | 26.71 | 42 | 37 | 42 | 46 | -4 | | |
| 540+50 | 55.03 | 46.20 | 32 | 20 | 74 | 71 | 3 | | |
| 540+75 | 54.46 | 62.67 | 51 | 50 | 125 | 134 | -9 | | |
| 541+00 | 4.84 | 42.26 | 27 | 49 | 152 | 195 | -42 | | |

CP STA 59398 - Alignment - US 8

| | AREA (SF) | | Incremental Vol | Cumulative Vol (CY) | | | |
|---------|-----------|-------|-----------------|---------------------|------|------|----------|
| | | | | Expanded | | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass |
| STATION | | | | | 1.00 | 1.25 | Ordinate |
| 593+50 | 3.70 | 34.03 | 0 | 0 | 0 | 0 | 0 |
| 593+98 | 37.70 | 56.76 | 37 | 81 | 37 | 101 | -64 |
| 594+00 | 38.04 | 56.80 | 3 | 4 | 40 | 106 | -67 |
| 594+50 | 4.71 | 6.64 | 40 | 59 | 79 | 180 | -100 |

PROJECT NUMBER: 1570-06-02

HWY: USH 8

COUNTY: RUSK

COMPUTER EARTHWORK DATA

SHEET NO: 1

Ε

CP STA 62643 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cumu | lative Vol | (CY) | | |
|---------|-------|--------|-----------------|-------------------|------|------------|----------|--|--|
| Γ | | | | | | | Expanded | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass | | |
| STATION | | | | | 1.00 | 1.25 | Ordinate | | |
| 624+50 | 5.70 | 27.92 | 0 | 0 | 0 | 0 | 0 | | |
| 625+00 | 4.04 | 50.82 | 9 | 73 | 9 | 91 | -82 | | |
| 625+50 | 4.96 | 80.55 | 8 | 122 | 17 | 243 | -226 | | |
| 626+00 | 4.41 | 69.35 | 9 | 139 | 26 | 417 | -391 | | |
| 626+43 | 56.84 | 111.03 | 49 | 144 | 75 | 596 | -521 | | |
| 626+48 | 59.95 | 96.83 | 11 | 19 | 86 | 620 | -535 | | |
| 627+00 | 4.25 | 58.88 | 62 | 150 | 147 | 808 | -660 | | |
| 627+50 | 4.40 | 46.61 | 8 | 98 | 155 | 930 | -774 | | |

CP STA 82209 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ulative Vol | (CY) |
|---------|-------|-------|-----------------|-------------------|------|-------------|----------|
| | | | | Expanded | | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass |
| STATION | | | | | 1.00 | 1.25 | Ordinate |
| | | | | | | | |
| 821+50 | 4.10 | 22.93 | 0 | 0 | 0 | 0 | 0 |
| 822+00 | 52.78 | 23.67 | 53 | 43 | 53 | 54 | -1 |
| 822+09 | 52.54 | 41.53 | 18 | 11 | 70 | 68 | 3 |
| 822+50 | 3.49 | 28.85 | 43 | 53 | 113 | 134 | -22 |
| 823+00 | 4.48 | 18.30 | 7 | 44 | 120 | 189 | -69 |

CP STA 66840 - Alignment - US 8

| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ulative Vol | (CY) | | |
|---------|-------|--------|-----------------|-------------------|------|-------------|----------|--|--|
| | | | | | | | Expanded | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass | | |
| STATION | | | | | 1.00 | 1.25 | Ordinate | | |
| 667+00 | 5.31 | 20.37 | 0 | 0 | 0 | 0 | 0 | | |
| 667+50 | 5.47 | 154.65 | 10 | 162 | 10 | 203 | -193 | | |
| 668+00 | 52.73 | 160.74 | 54 | 292 | 64 | 568 | -504 | | |
| 668+14 | 80.74 | 156.03 | 35 | 82 | 98 | 670 | -572 | | |
| 668+40 | 54.39 | 174.02 | 65 | 159 | 164 | 869 | -705 | | |
| 668+80 | 52.19 | 272.26 | 79 | 331 | 242 | 1,282 | -1,040 | | |
| 669+00 | 52.11 | 238.45 | 39 | 189 | 281 | 1,519 | -1,237 | | |
| 669+50 | 4.82 | 119.67 | 53 | 332 | 334 | 1,933 | -1,599 | | |
| 670+00 | 5.08 | 77.39 | 9 | 182 | 343 | 2,161 | -1,818 | | |

CP STA 93800 - Alignment - US 8

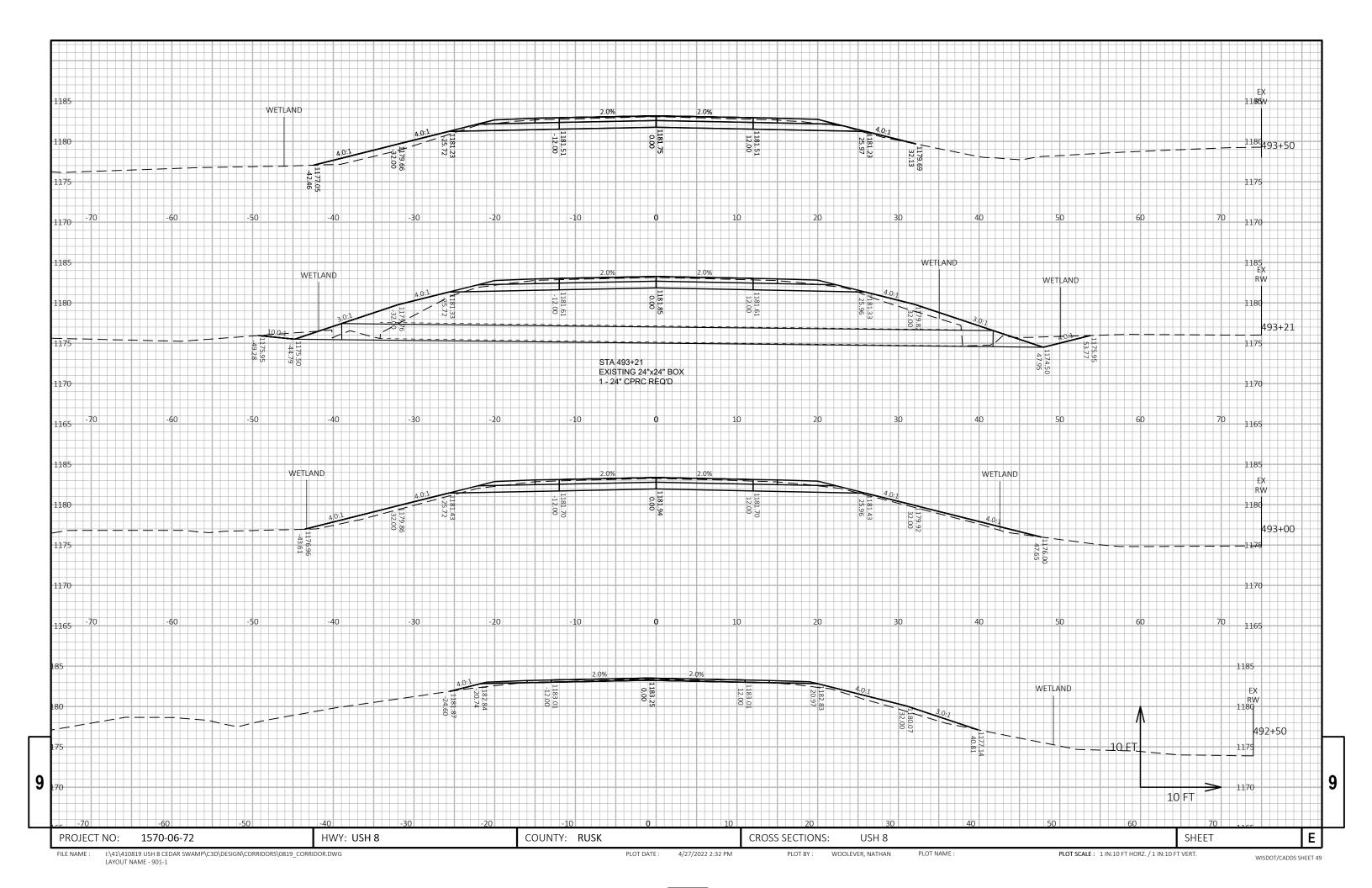
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|---------|-----------|-------|-----------------|-----------------------------------|----------|------|---------------------|--|--|
| | | | | | Expanded | | | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass | | |
| STATION | | | | | 1.00 | 1.25 | Ordinate | | |
| | | | | | | | | | |
| 937+50 | 3.34 | 3.70 | 0 | 0 | 0 | 0 | 0 | | |
| 938+00 | 55.10 | 6.03 | 54 | 9 | 54 | 11 | 43 | | |
| 938+50 | 4.67 | 25.46 | 55 | 29 | 109 | 48 | 62 | | |

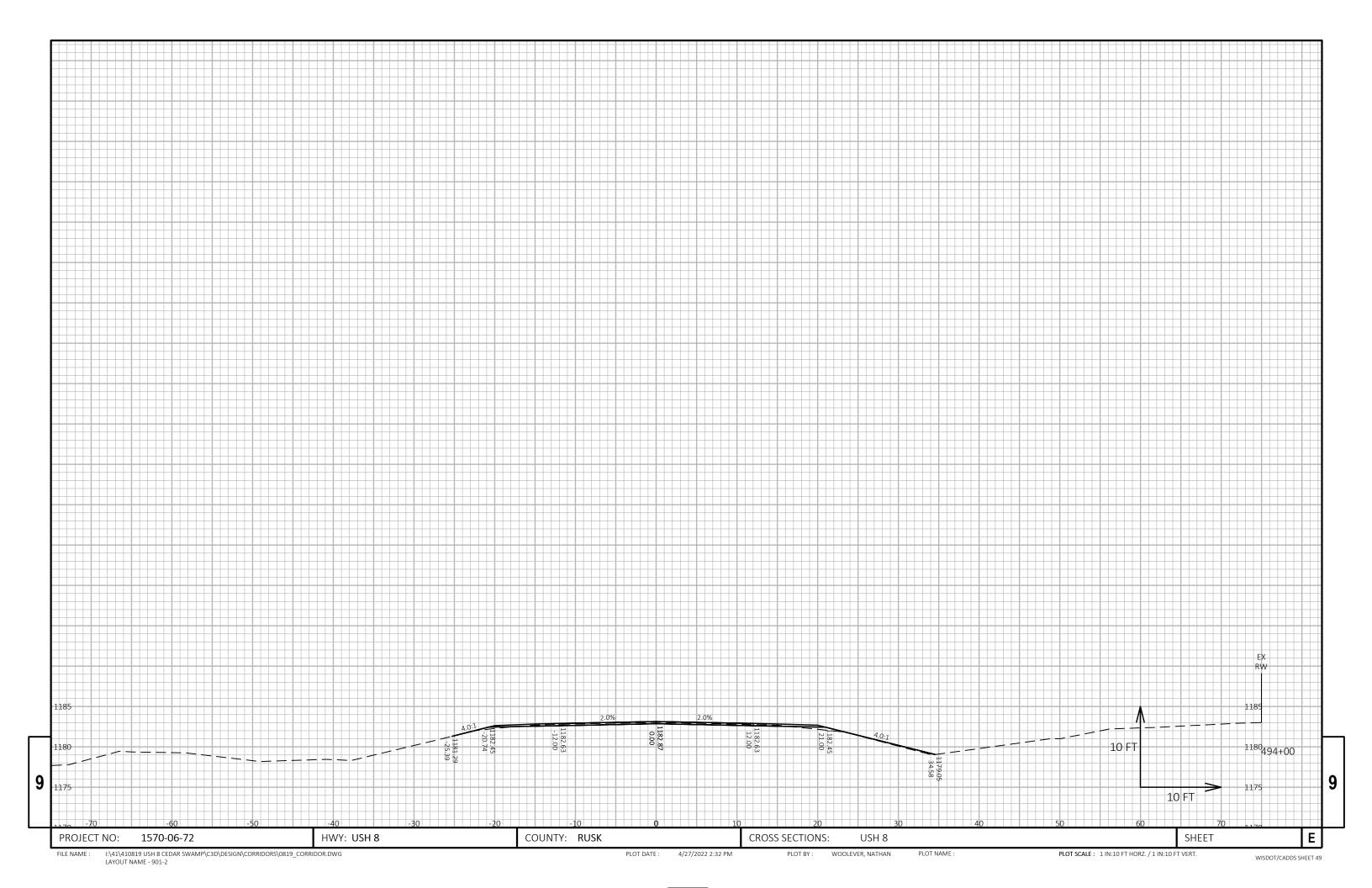
CP STA 70812 - Alignment - US 8

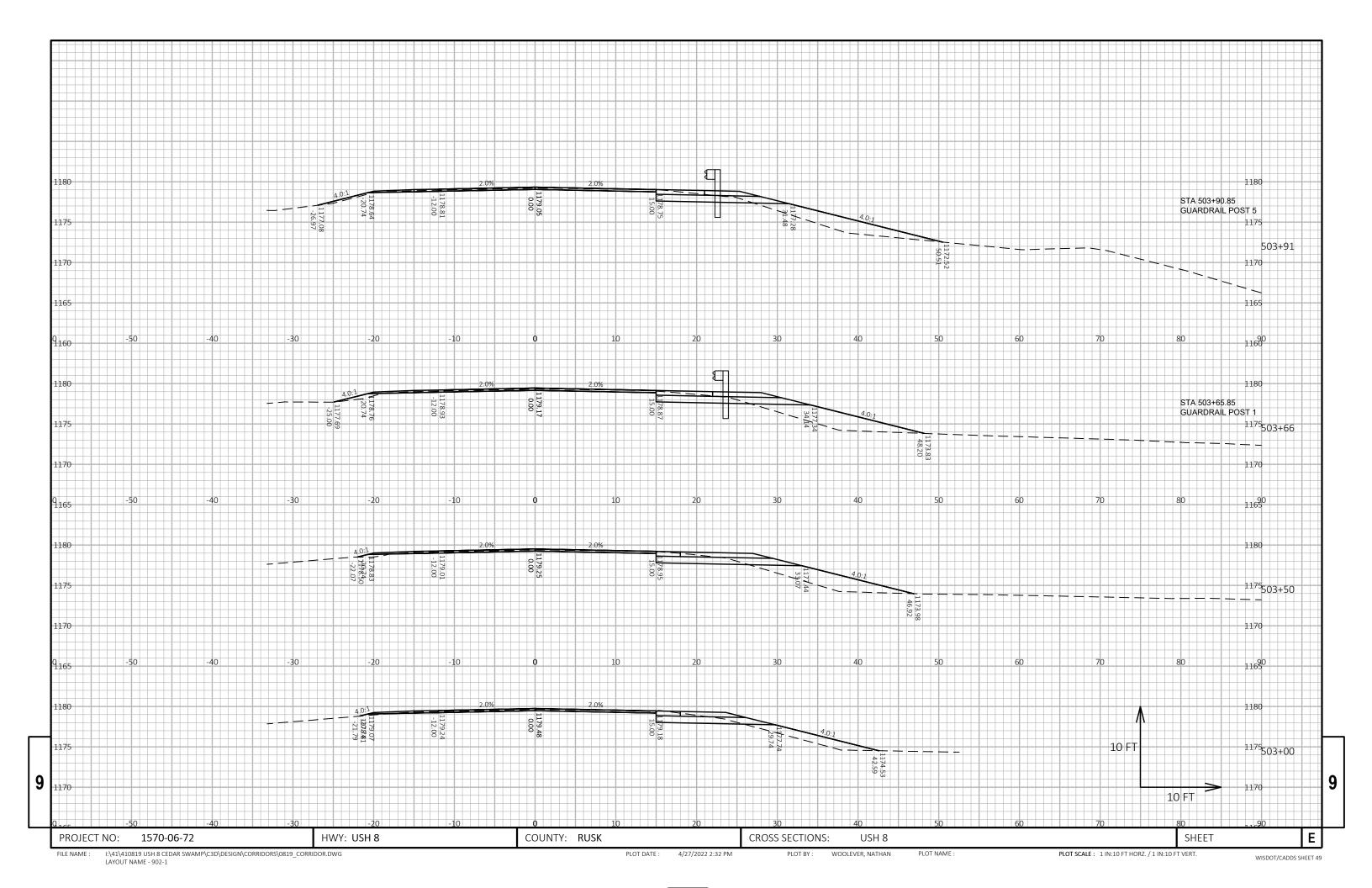
| | AREA | (SF) | Incremental Vol | (CY) (Unadjusted) | Cum | ulative Vol | (CY) |
|---------|-------|-------|-----------------|-------------------|----------|-------------|----------|
| | | | | | Expanded | | |
| | Cut | Fill | Cut | Fill | Cut | Fill | Mass |
| STATION | | | | | 1.00 | 1.25 | Ordinate |
| | | | | | | | |
| 707+50 | 6.32 | 15.16 | 0 | 0 | 0 | 0 | 0 |
| 708+00 | 53.66 | 45.99 | 56 | 57 | 56 | 71 | -15 |
| 708+12 | 53.47 | 41.12 | 24 | 19 | 79 | 95 | -16 |
| 708+50 | 7.37 | 18.93 | 43 | 42 | 122 | 148 | -26 |

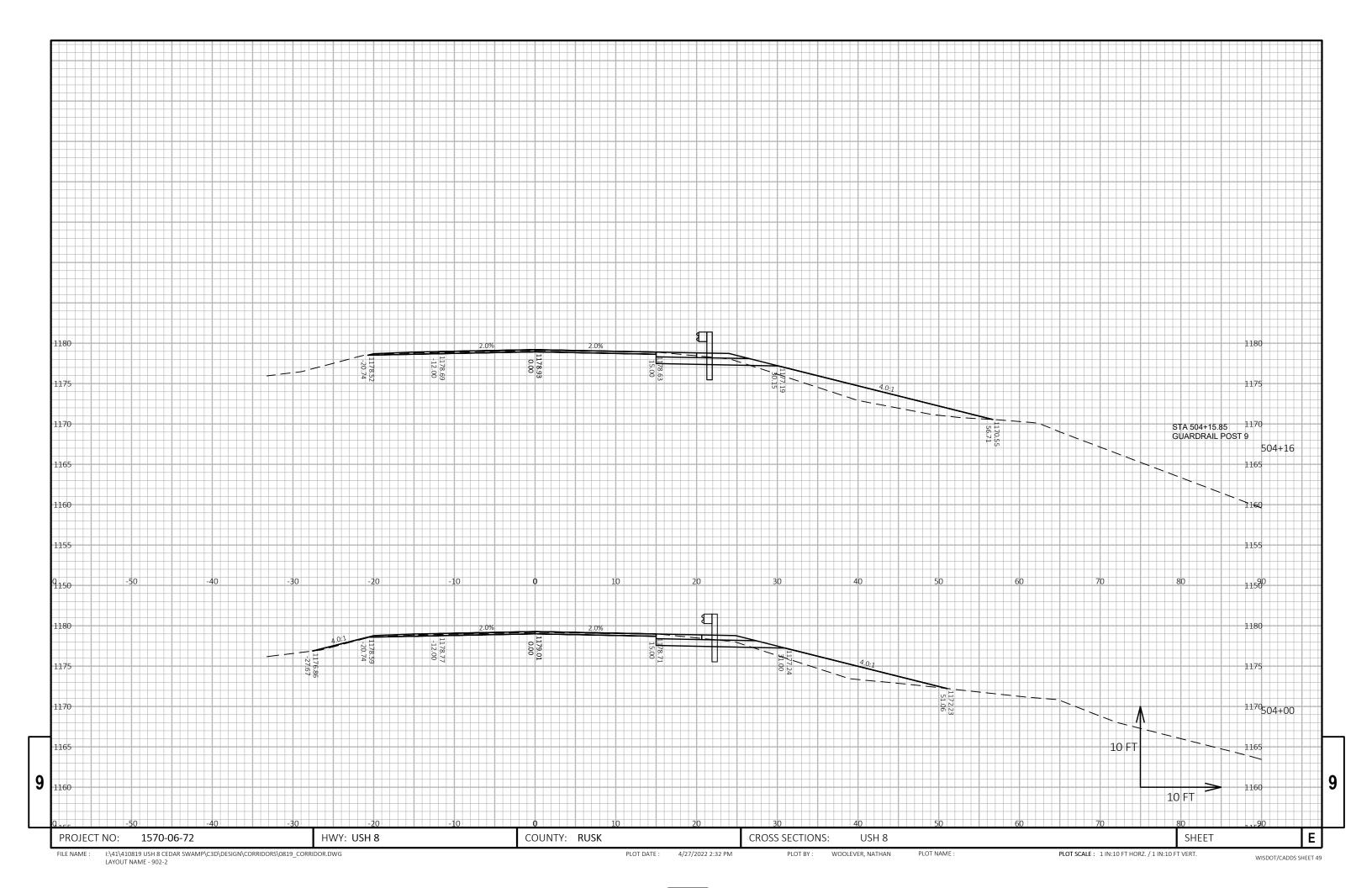
9

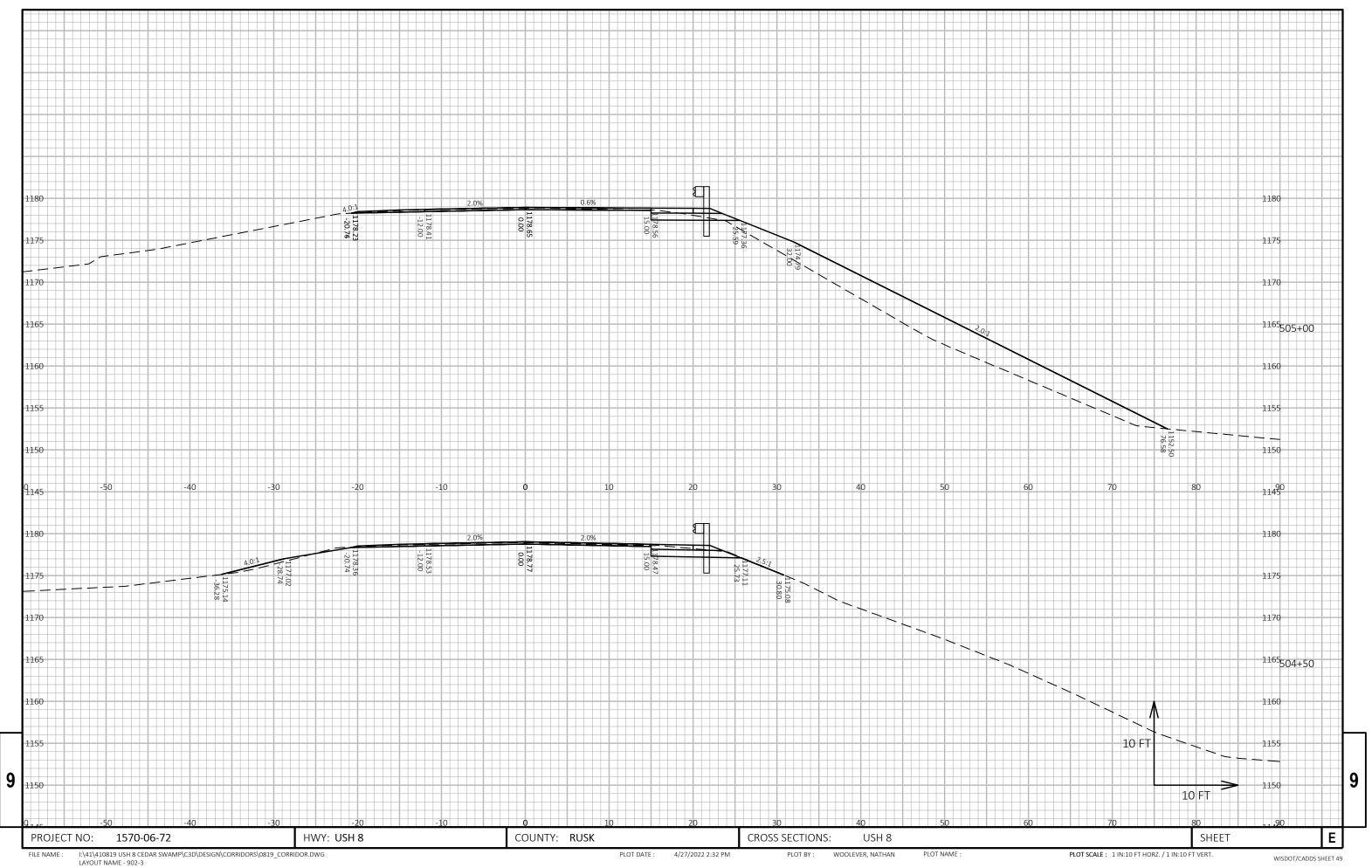
PROJECT NUMBER: 1570-06-02 HWY: USH 8 COUNTY: RUSK COMPUTER EARTHWORK DATA SHEET NO: 1 **E**

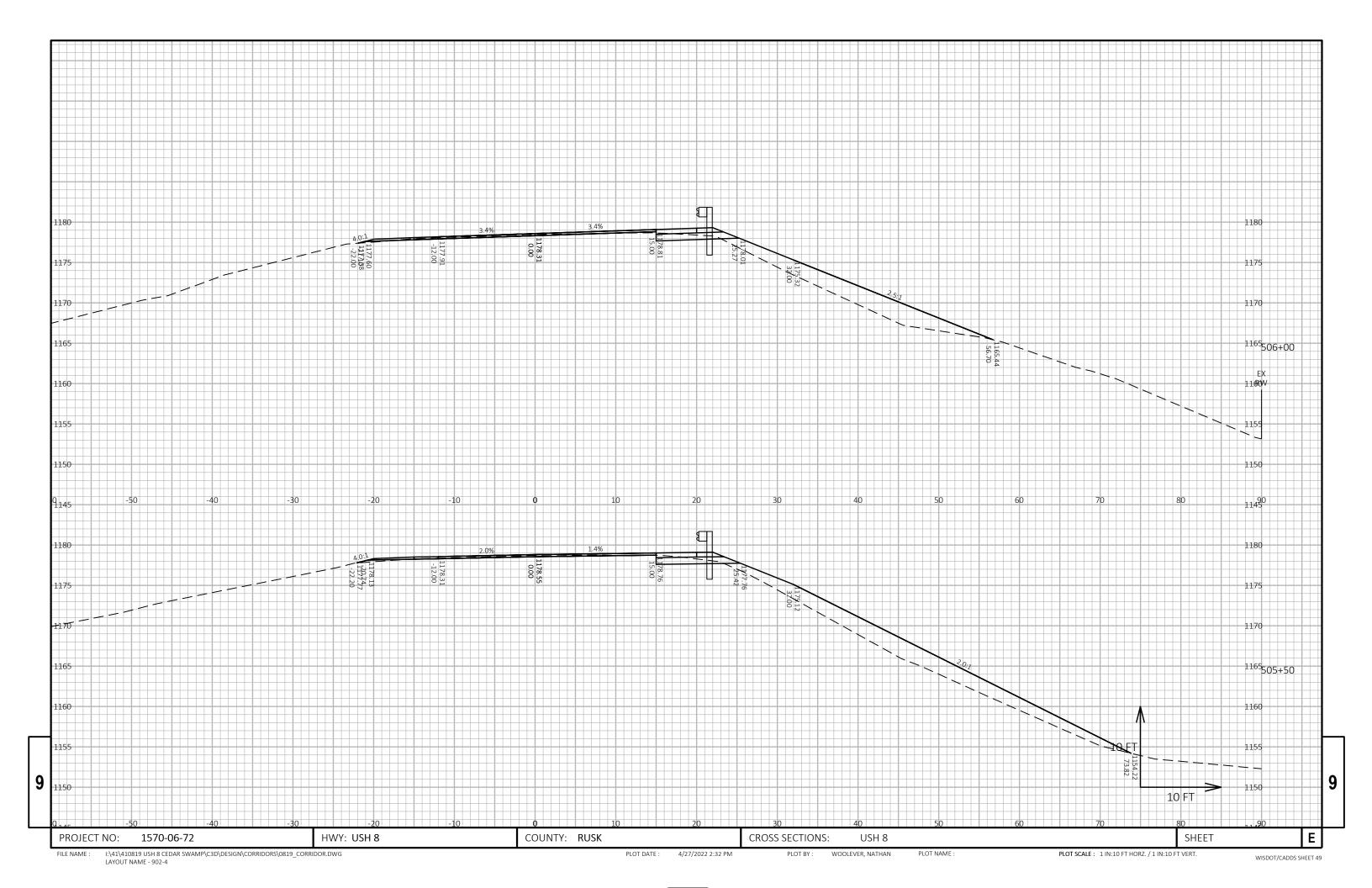


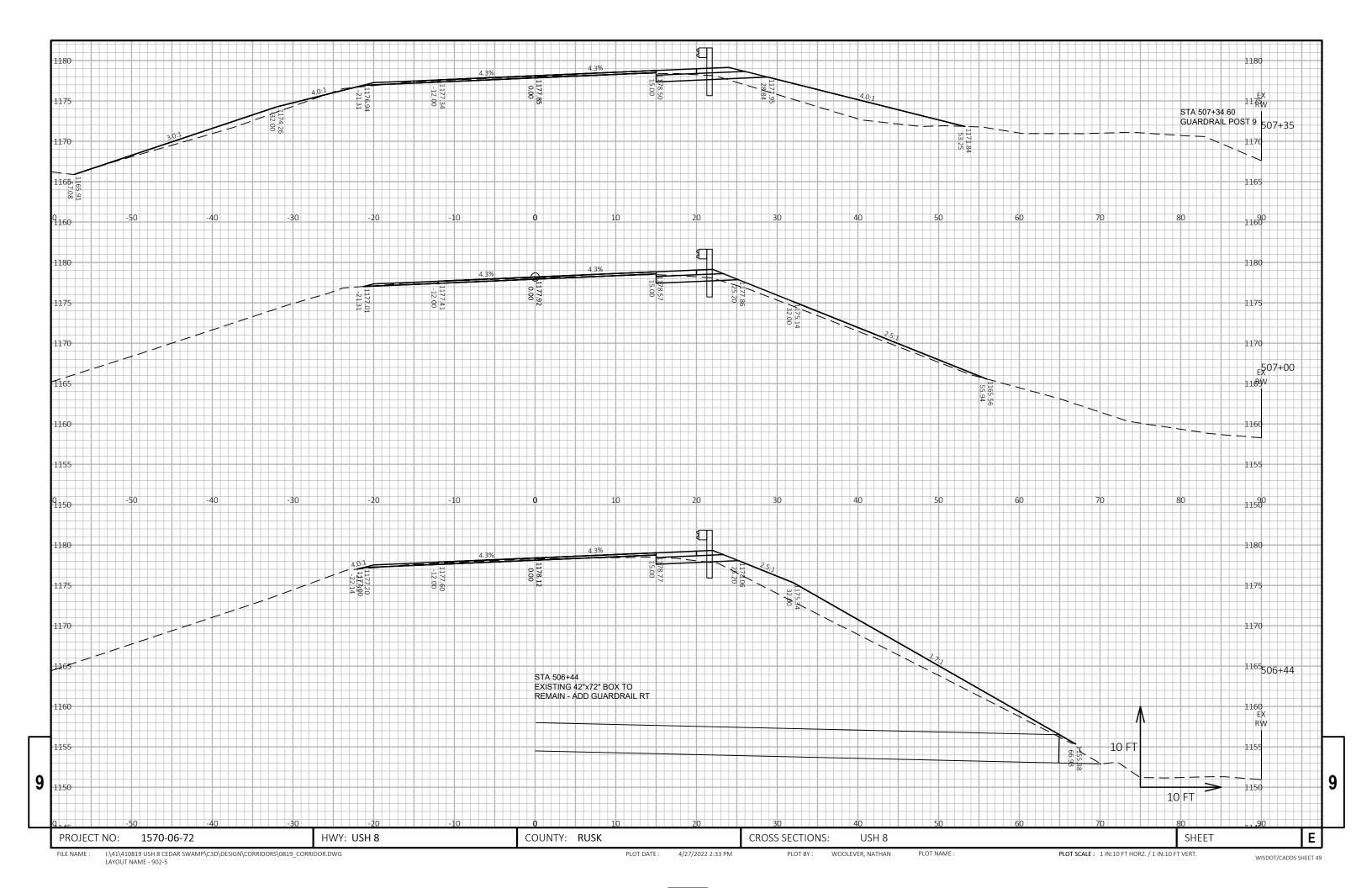


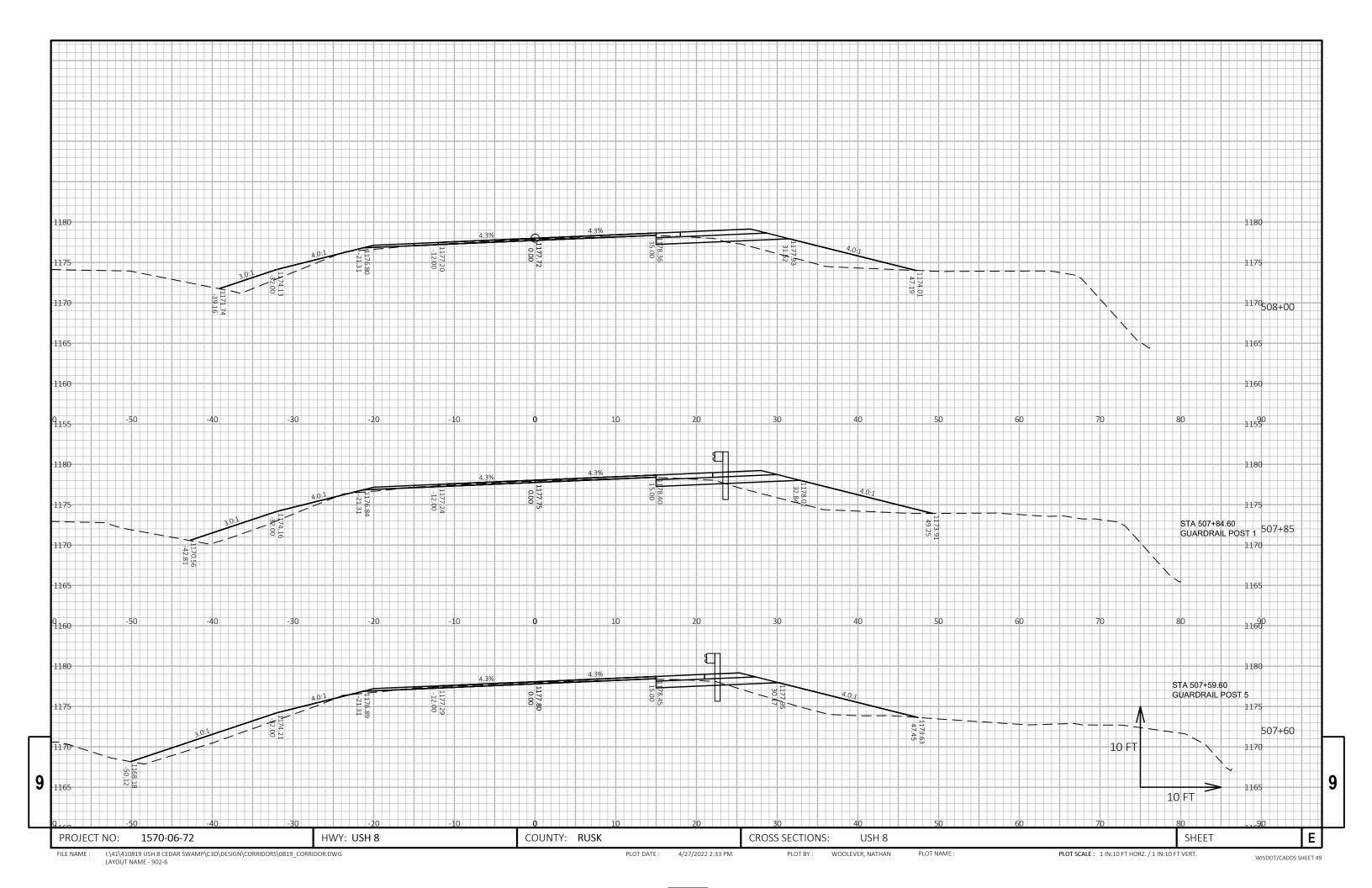


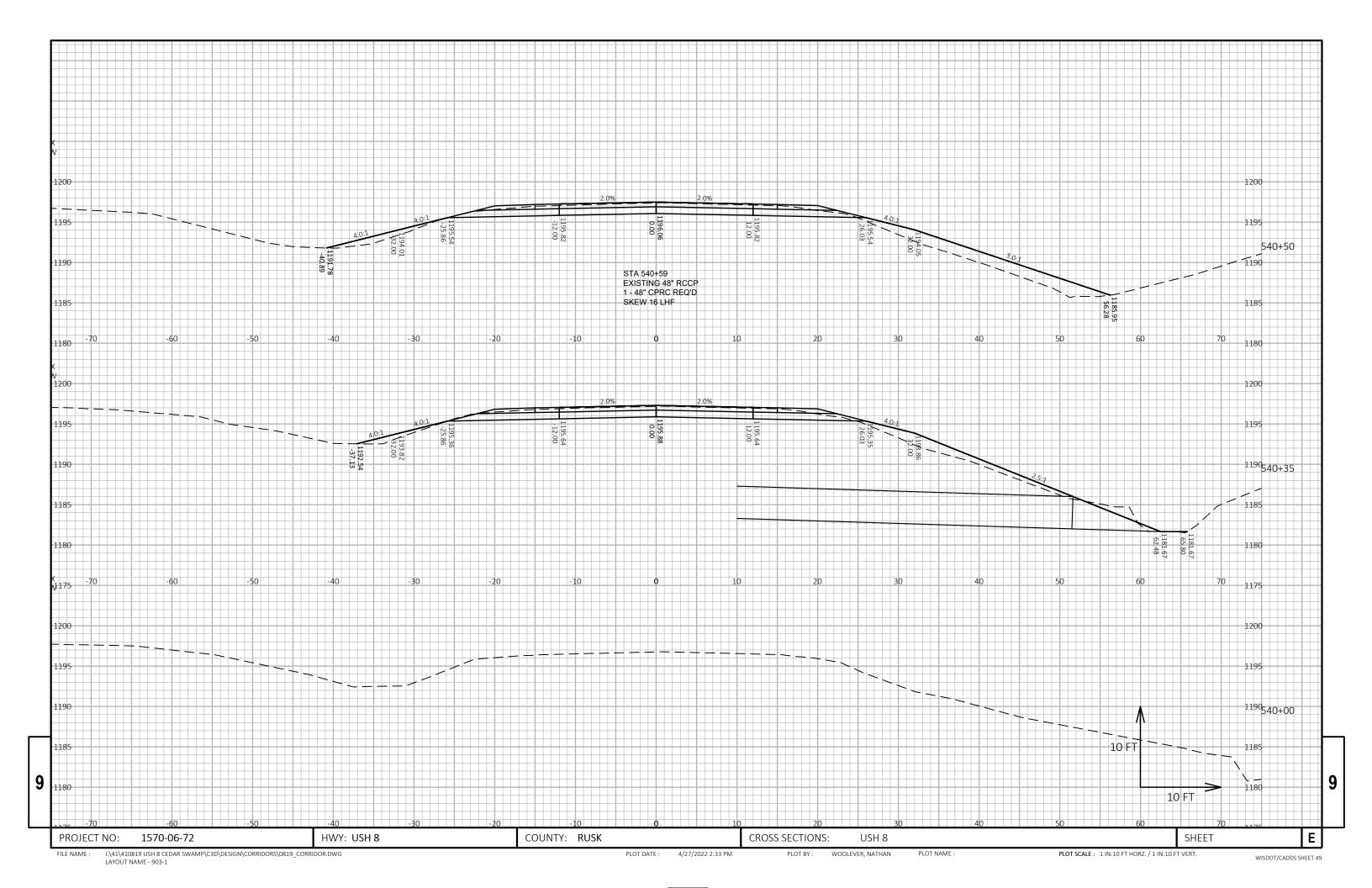


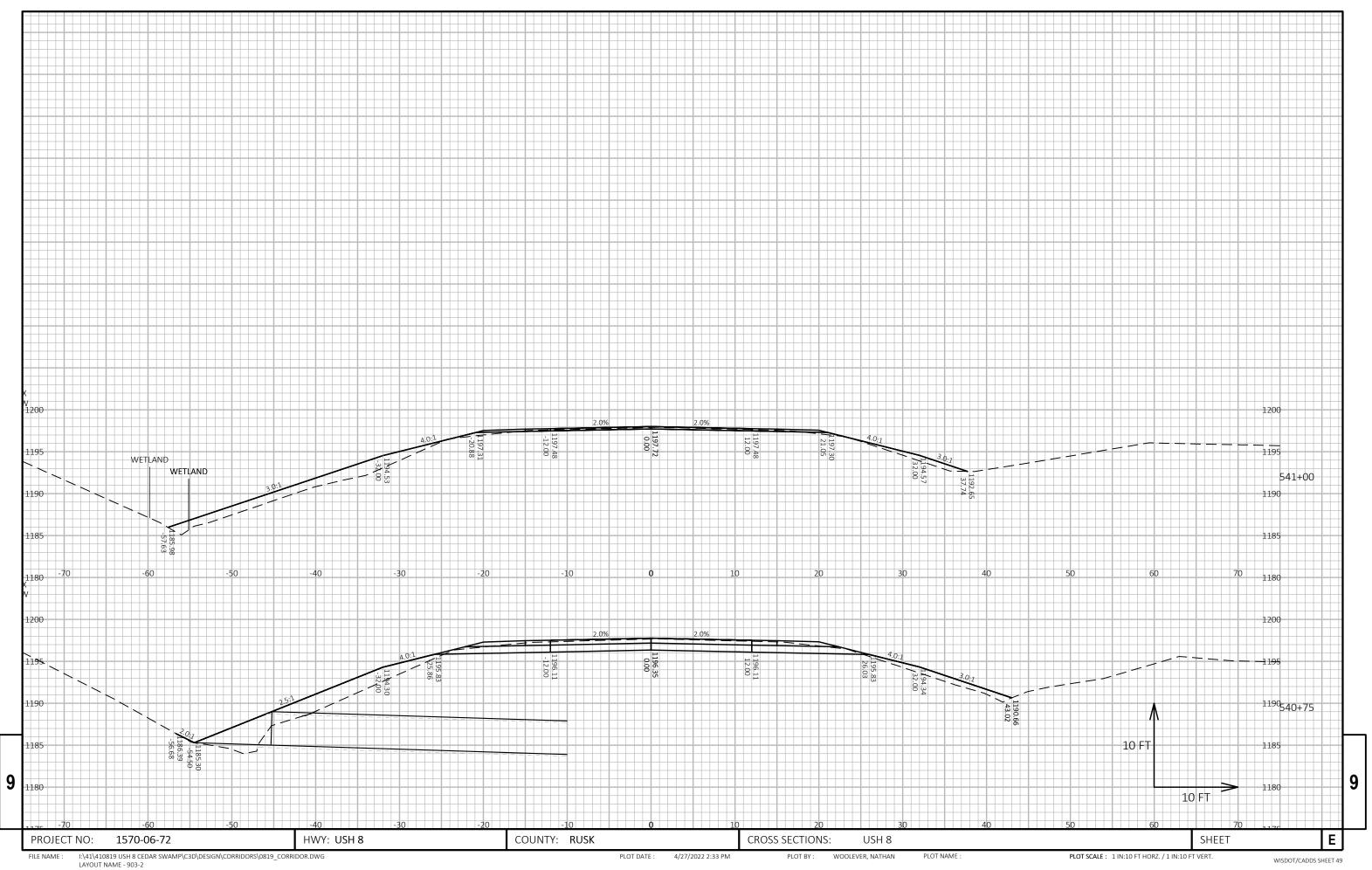




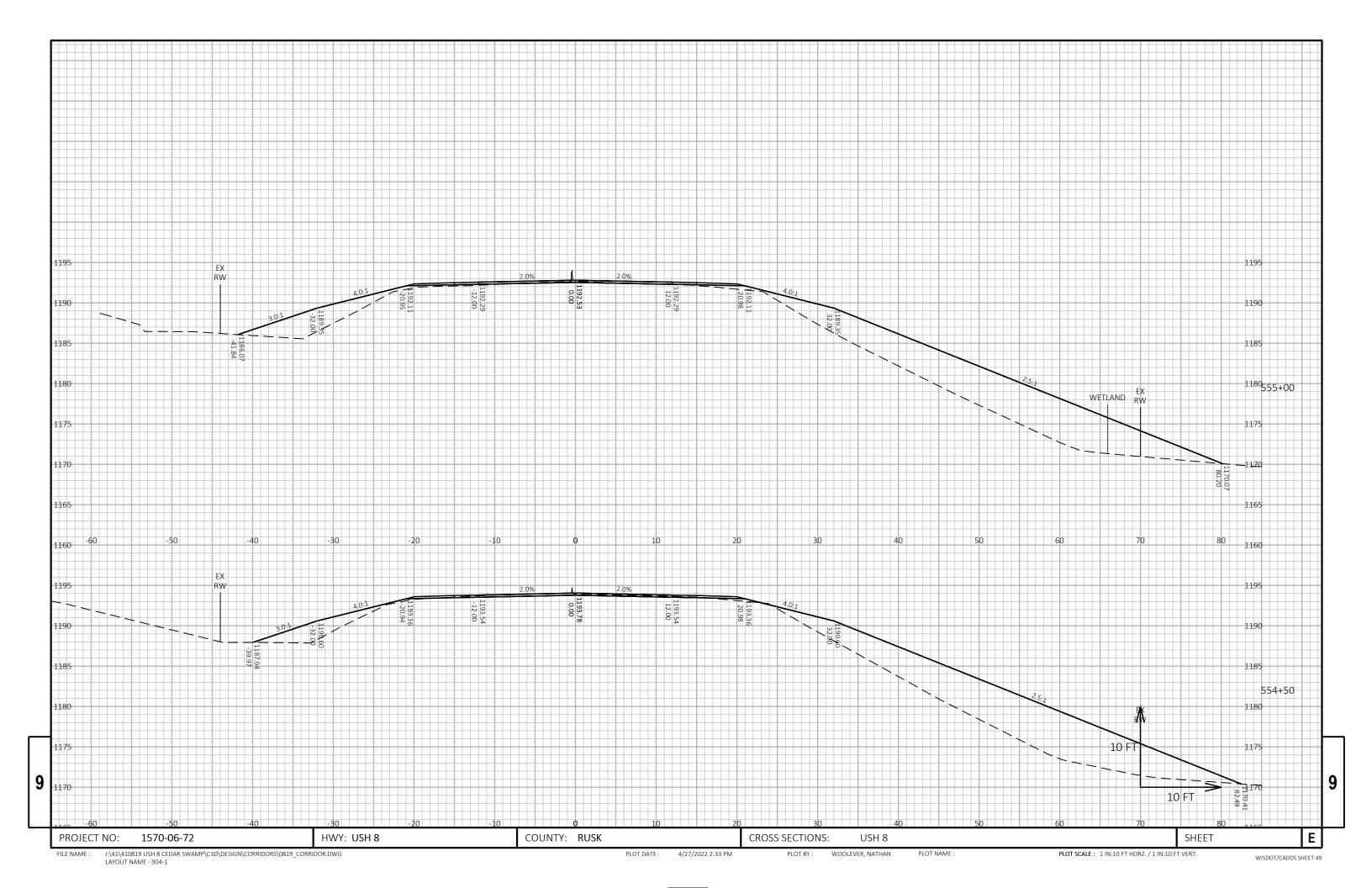


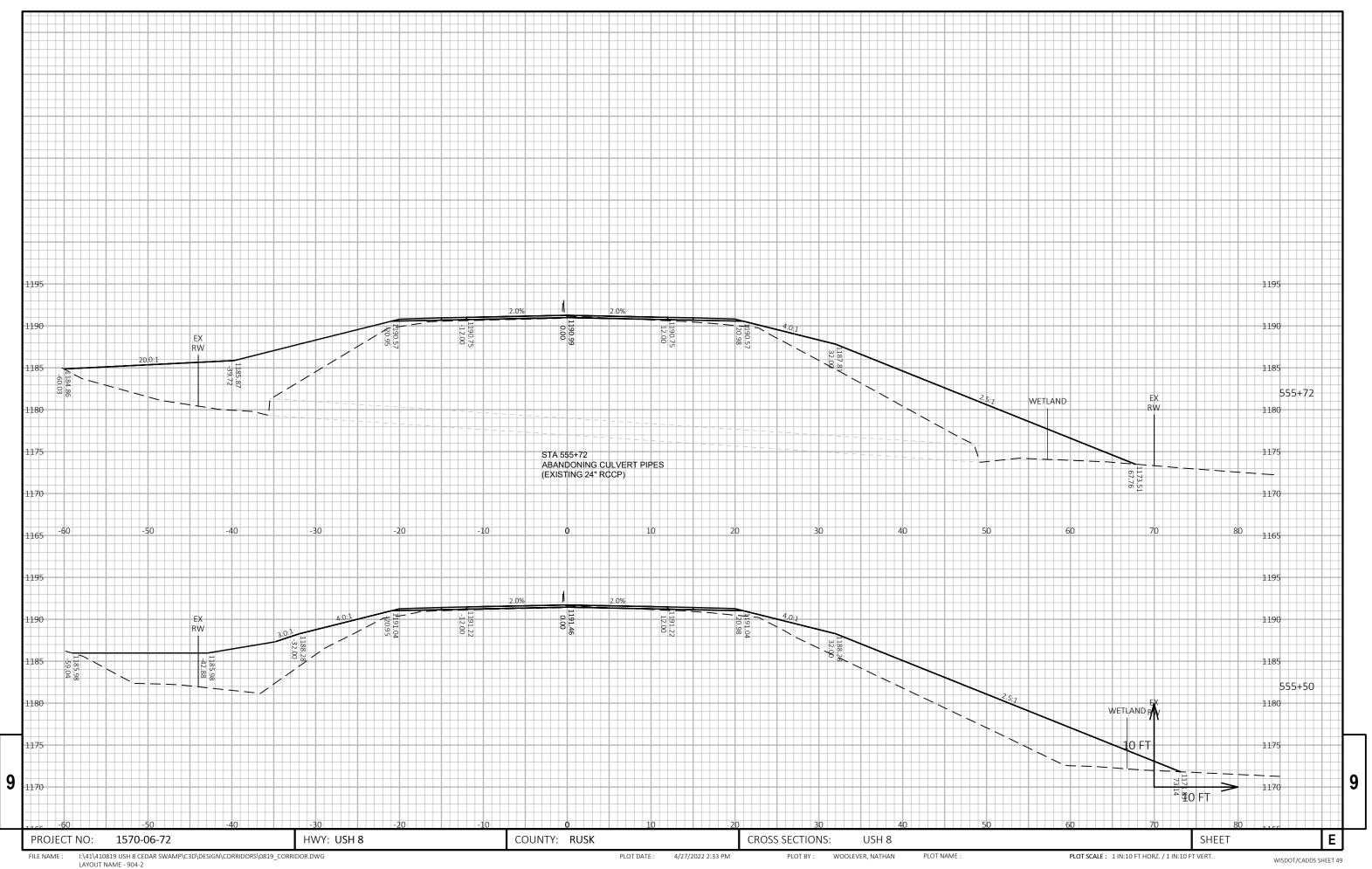




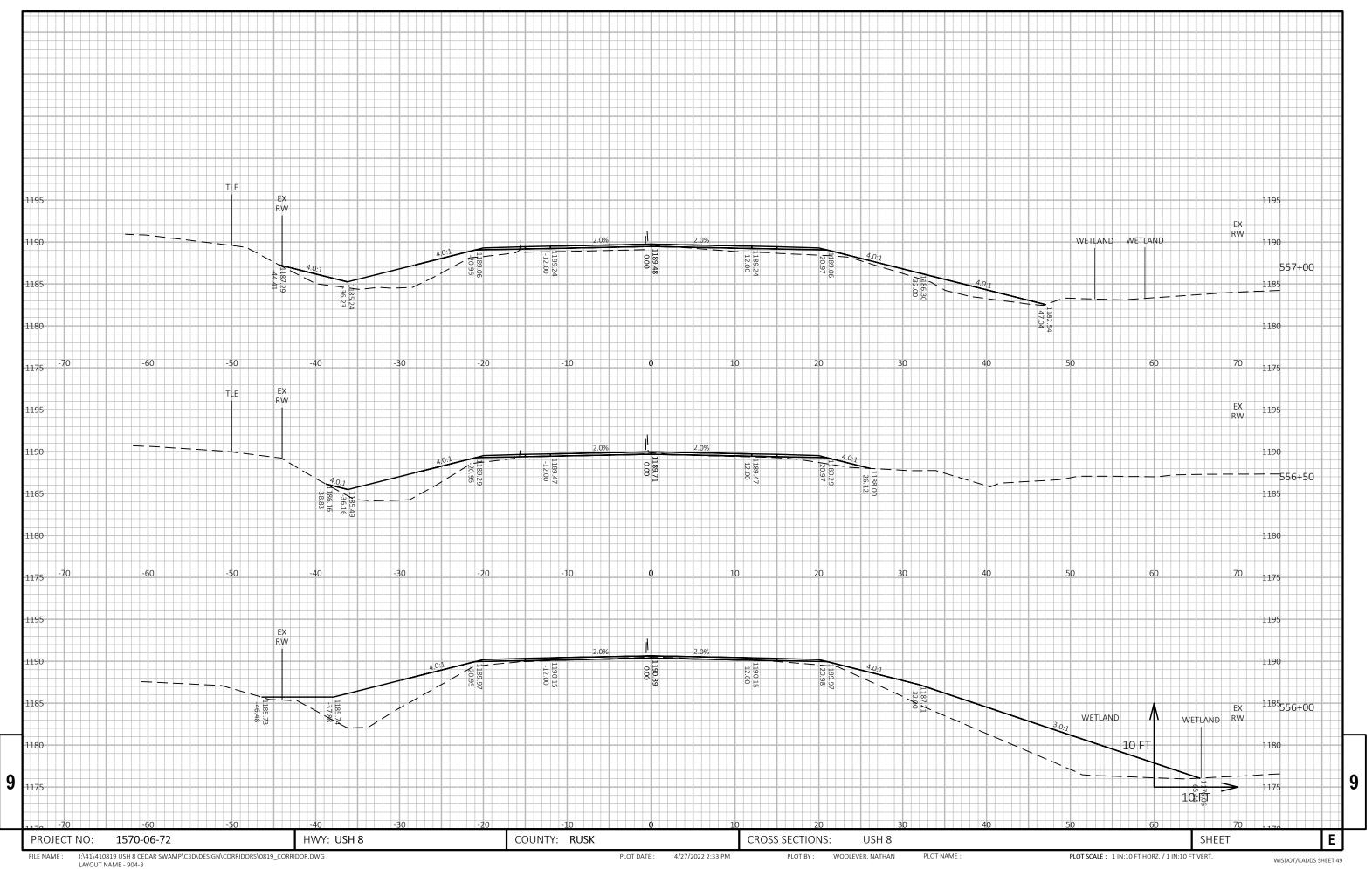


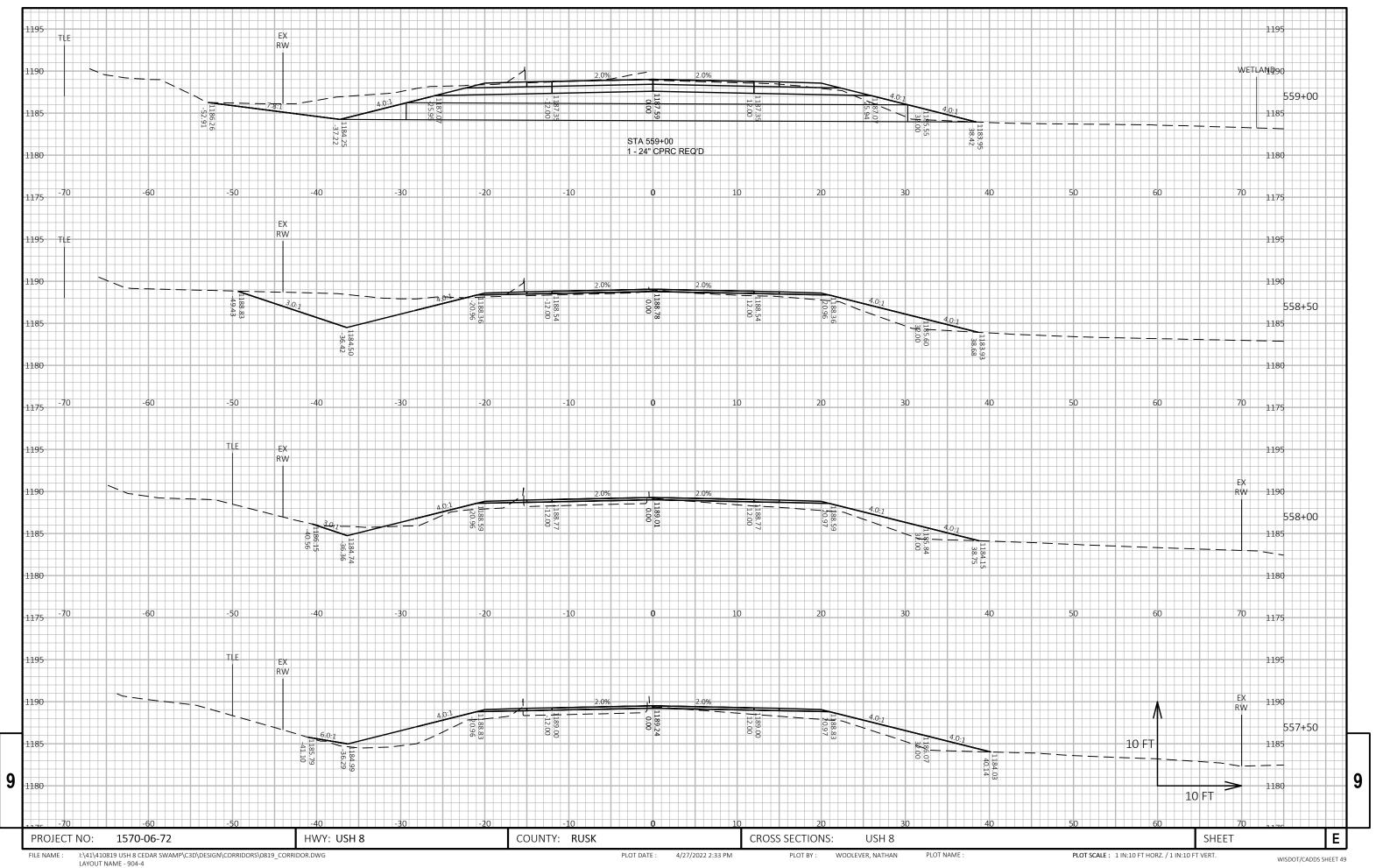
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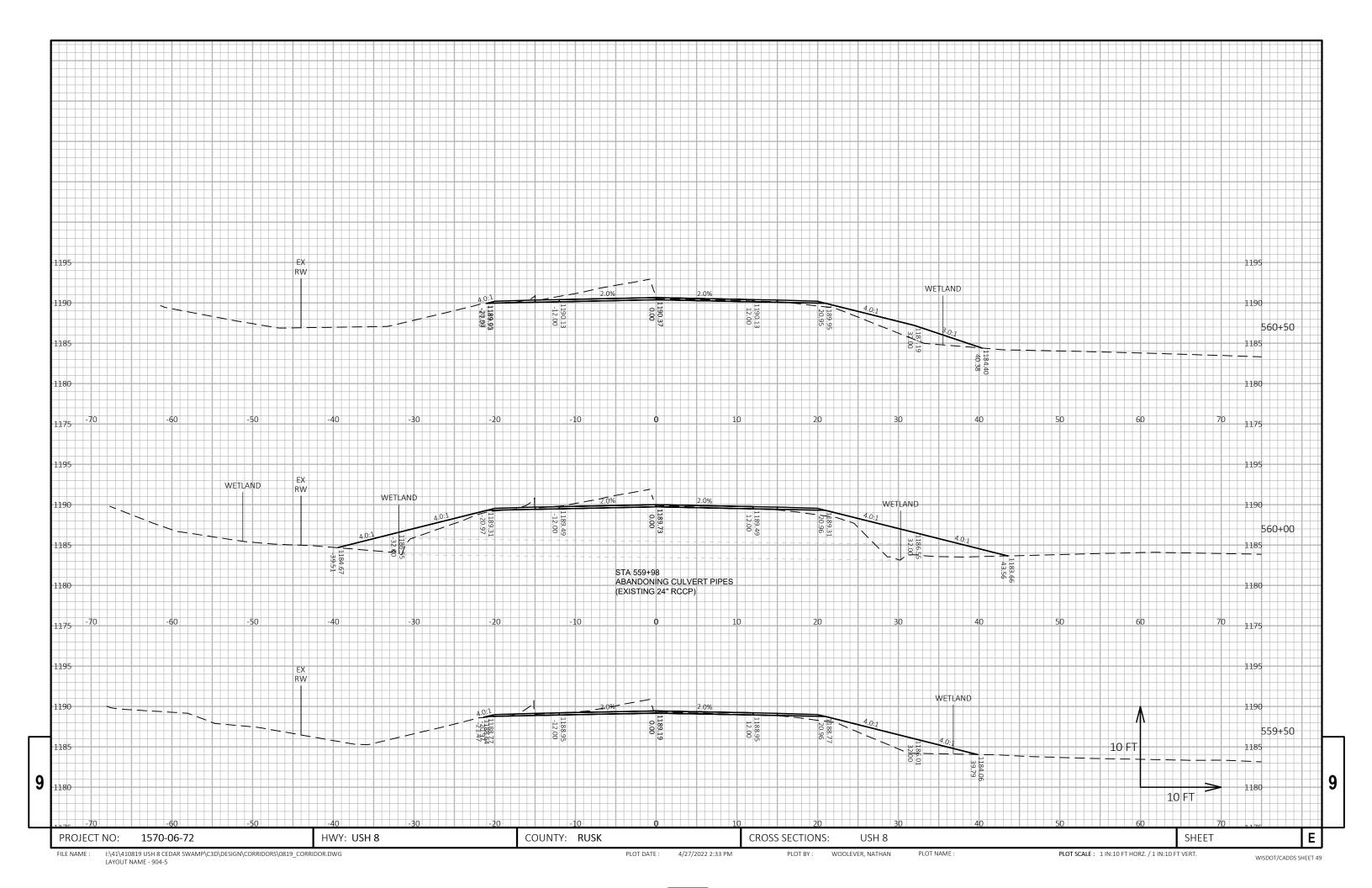


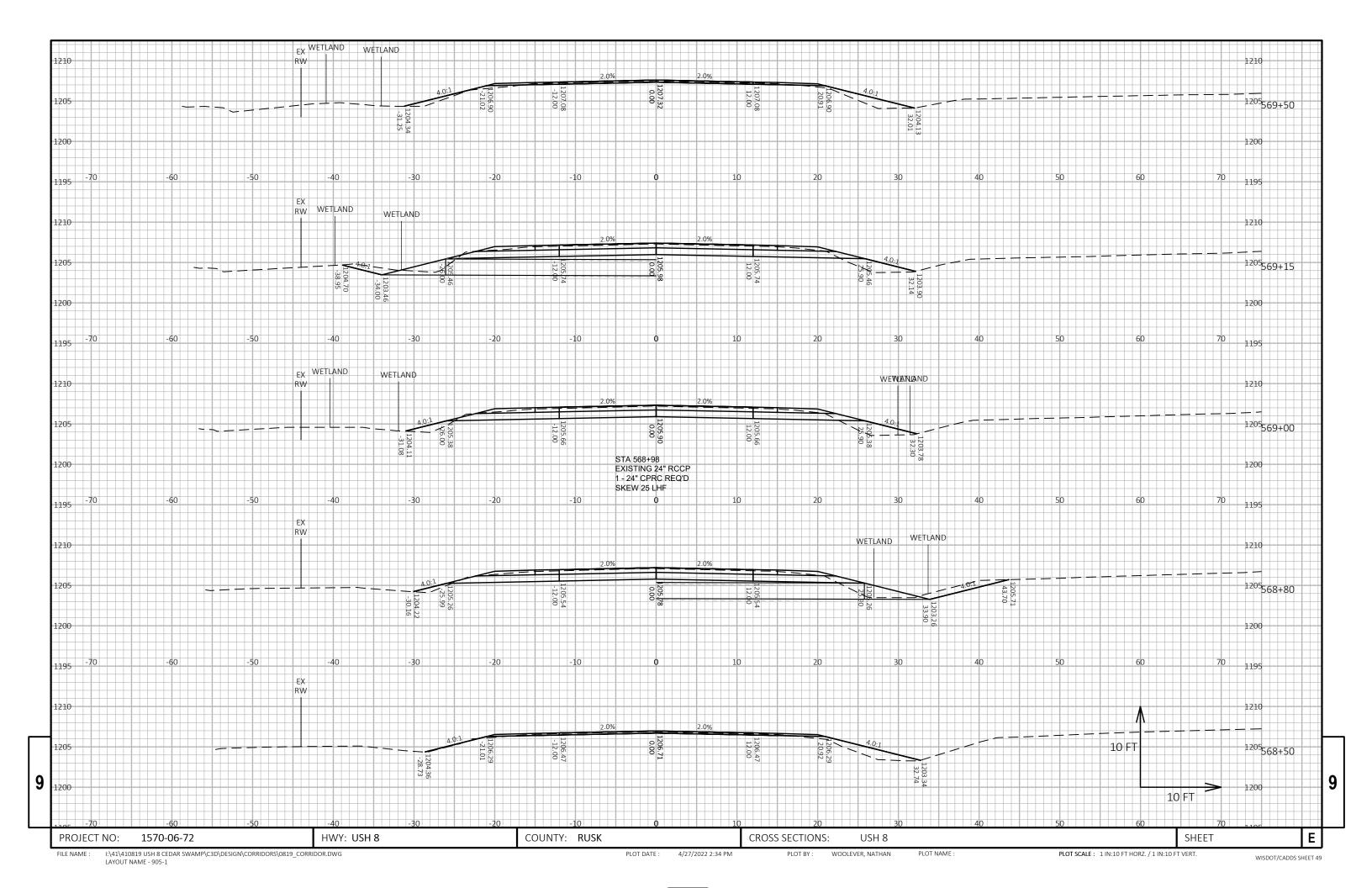


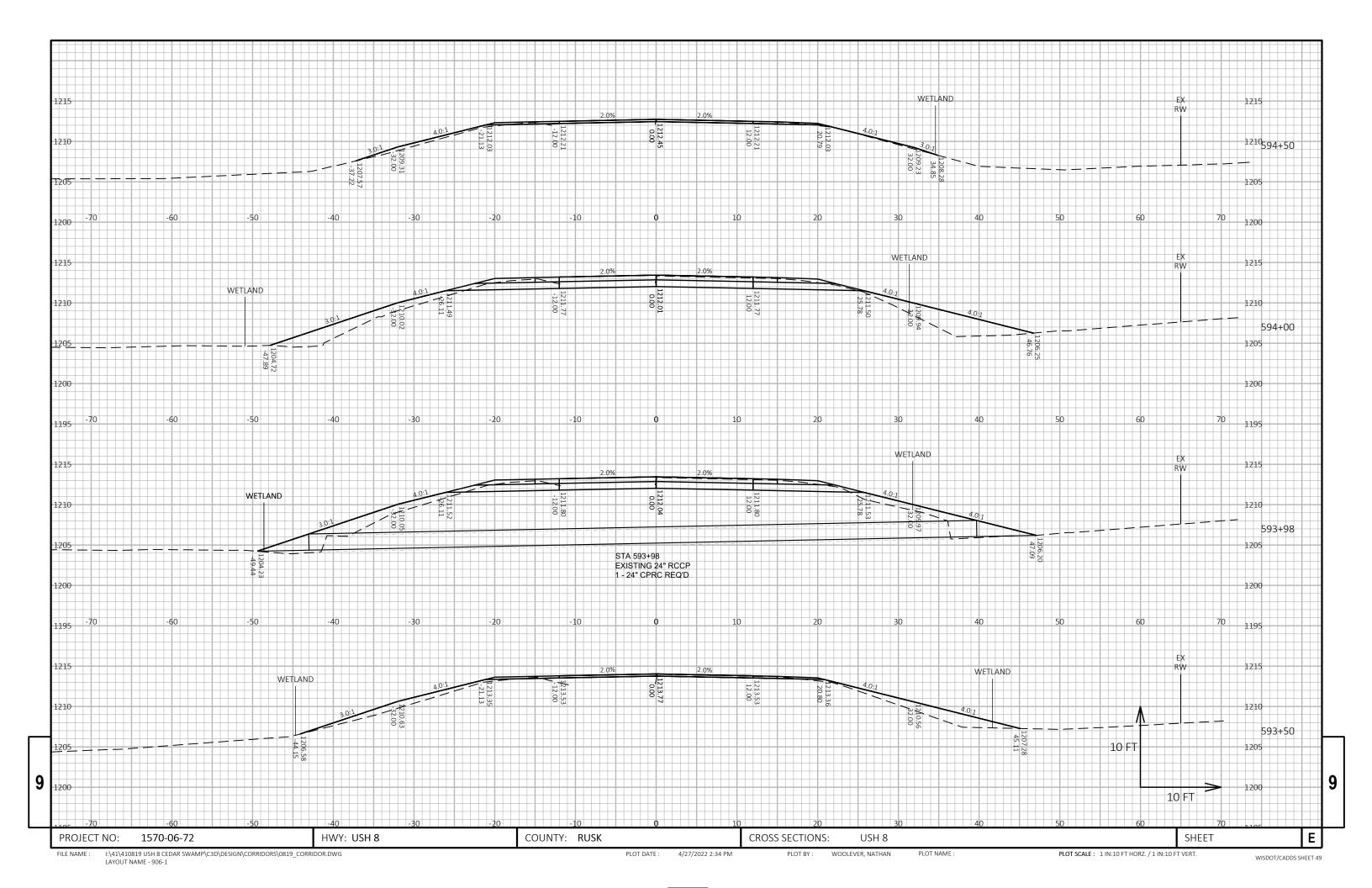
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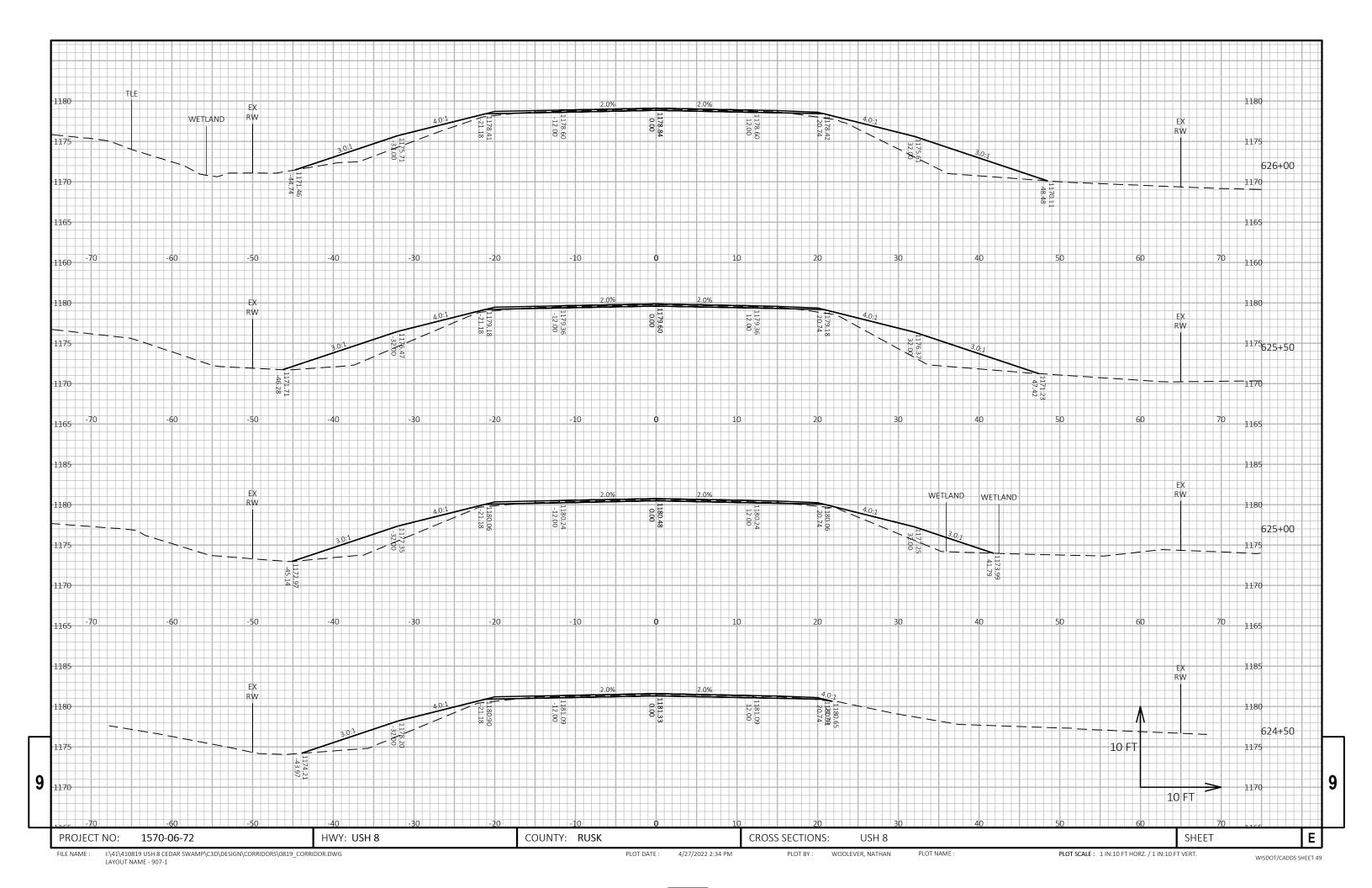


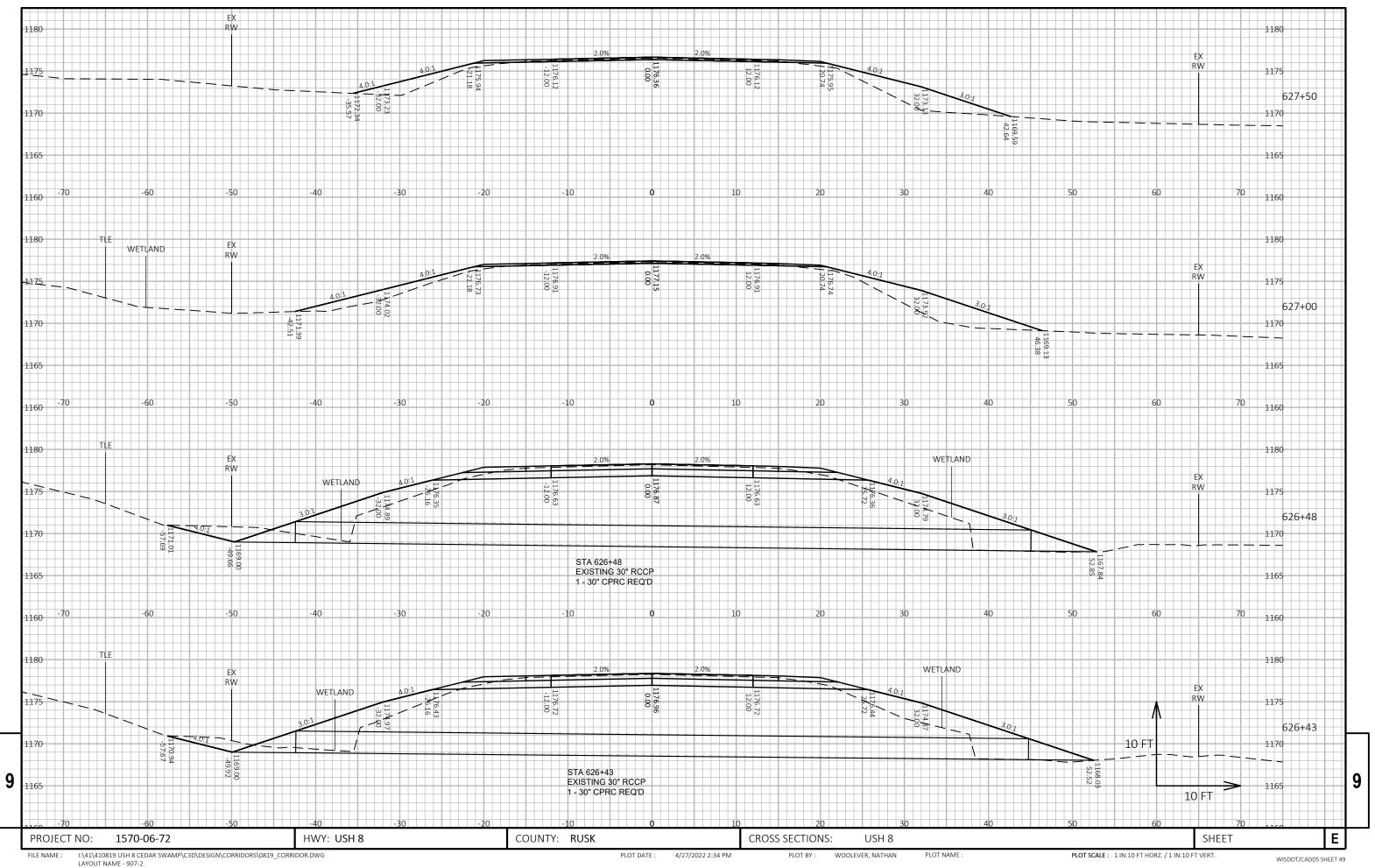


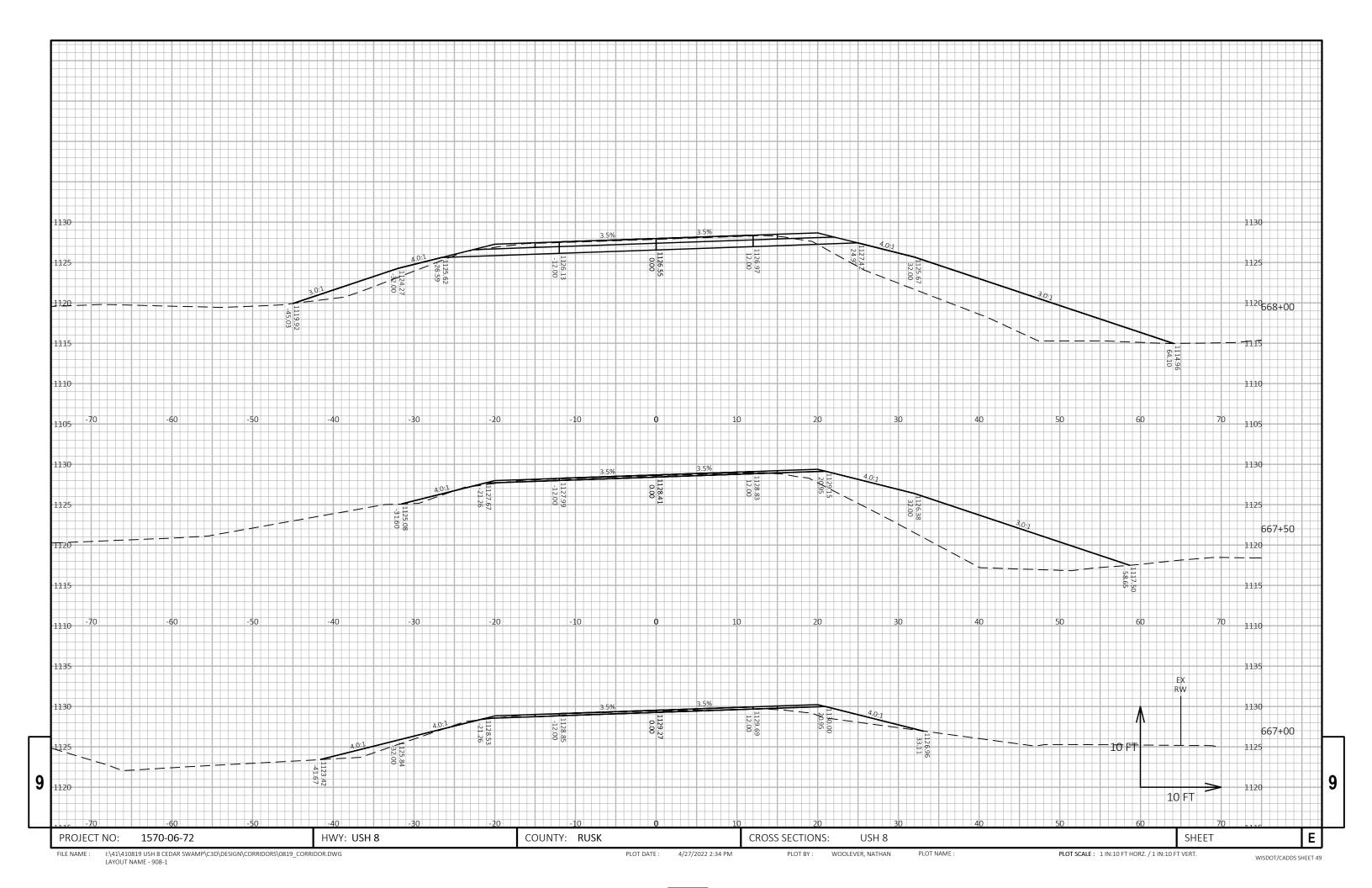


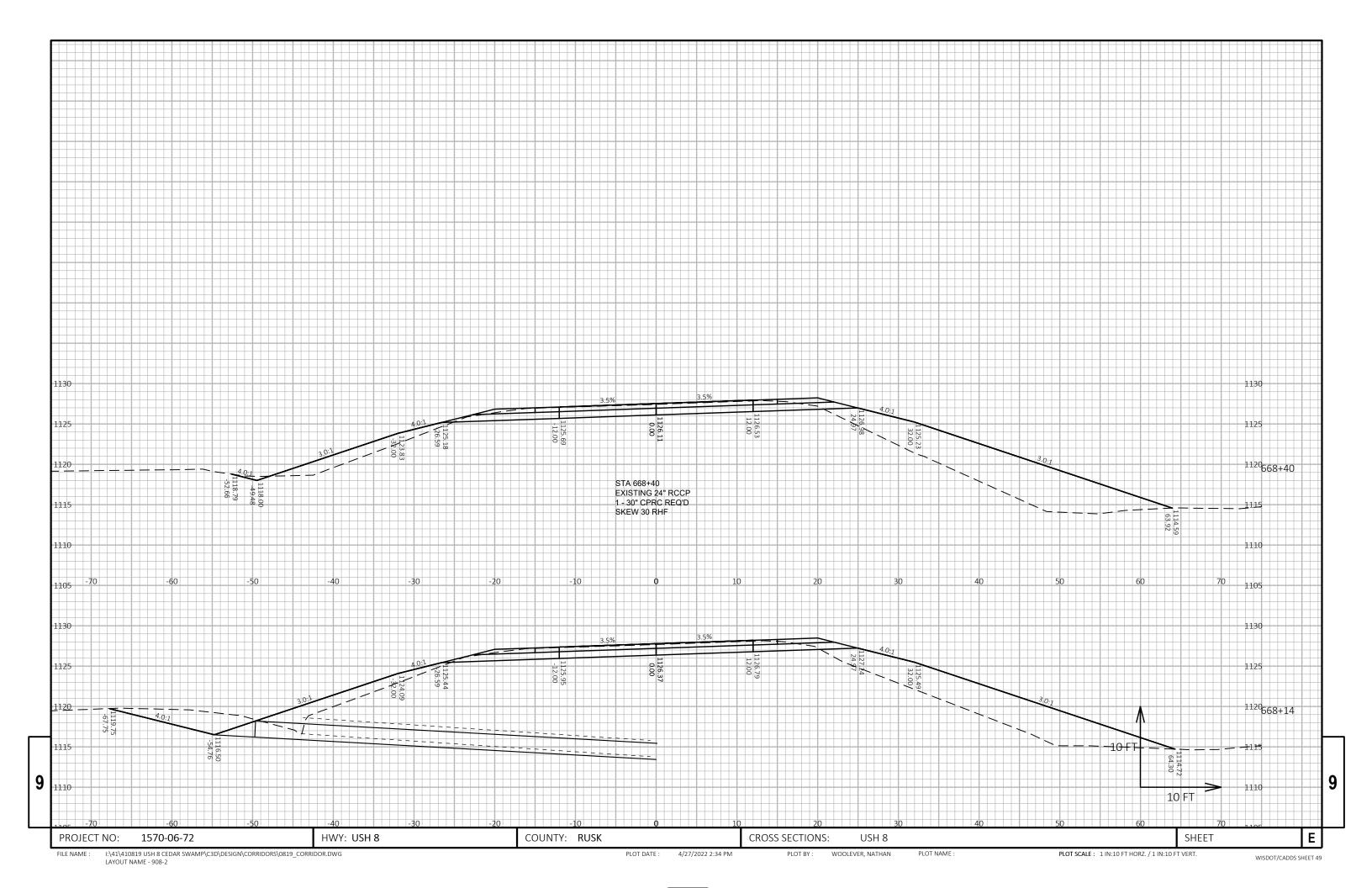


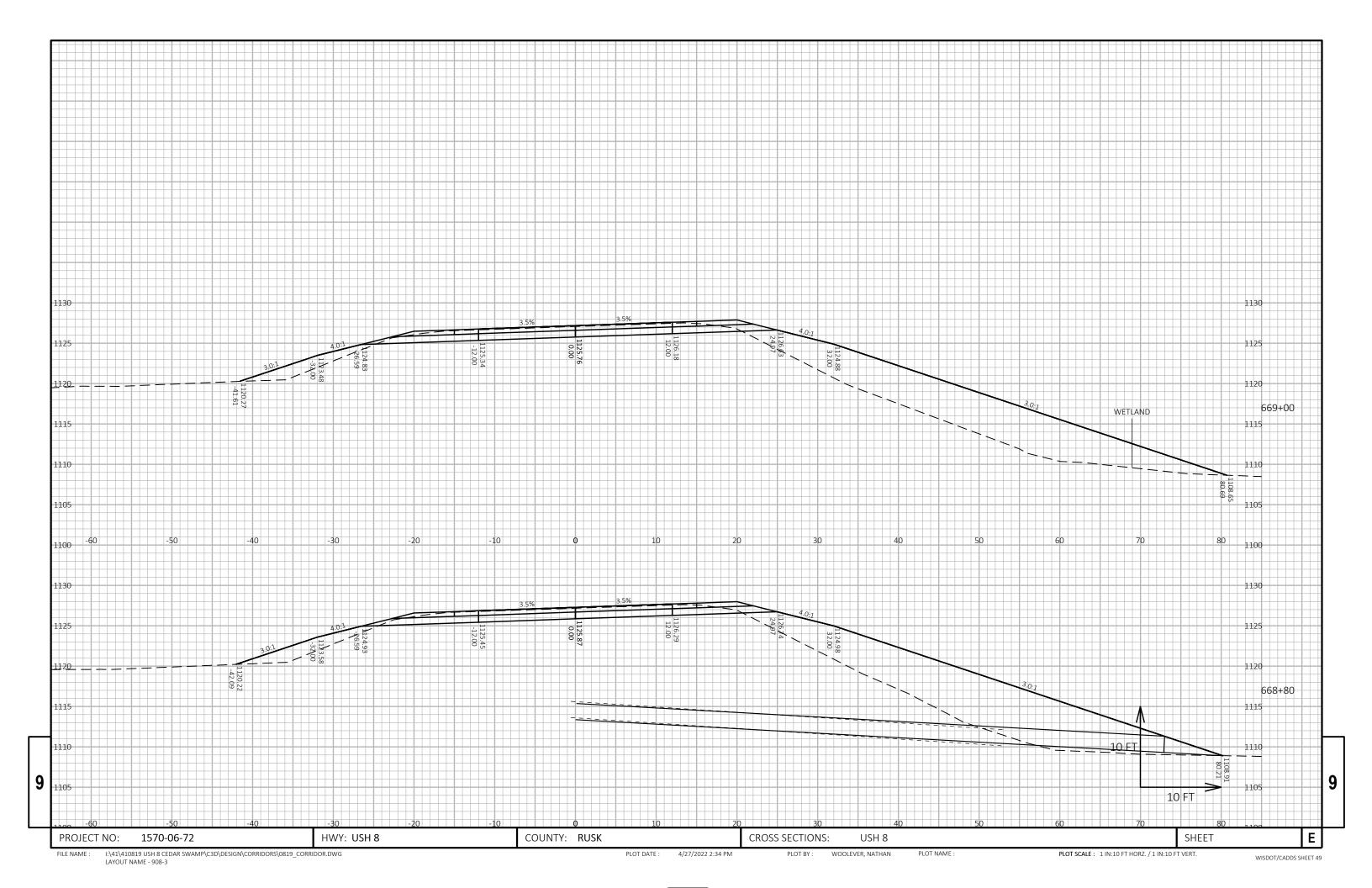


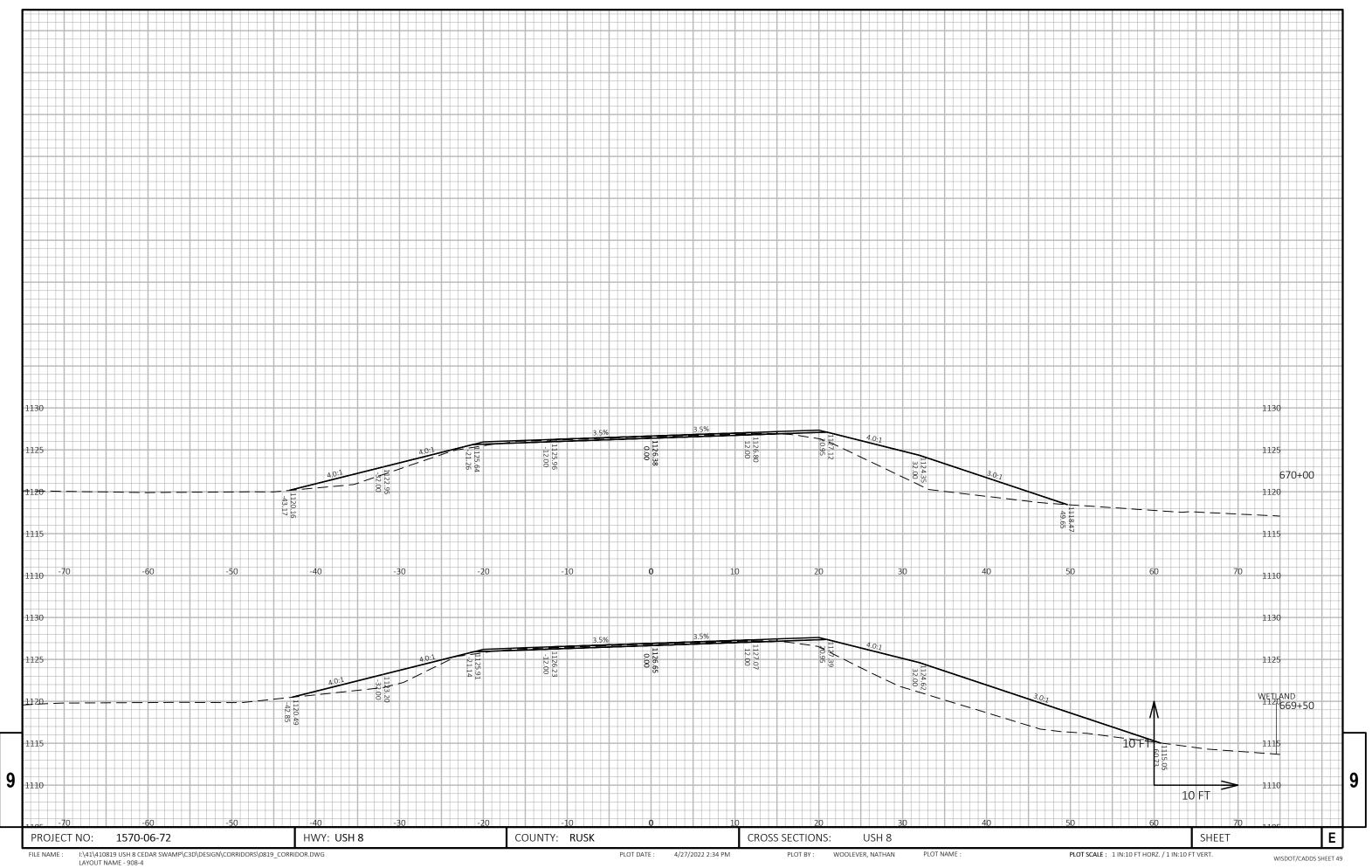


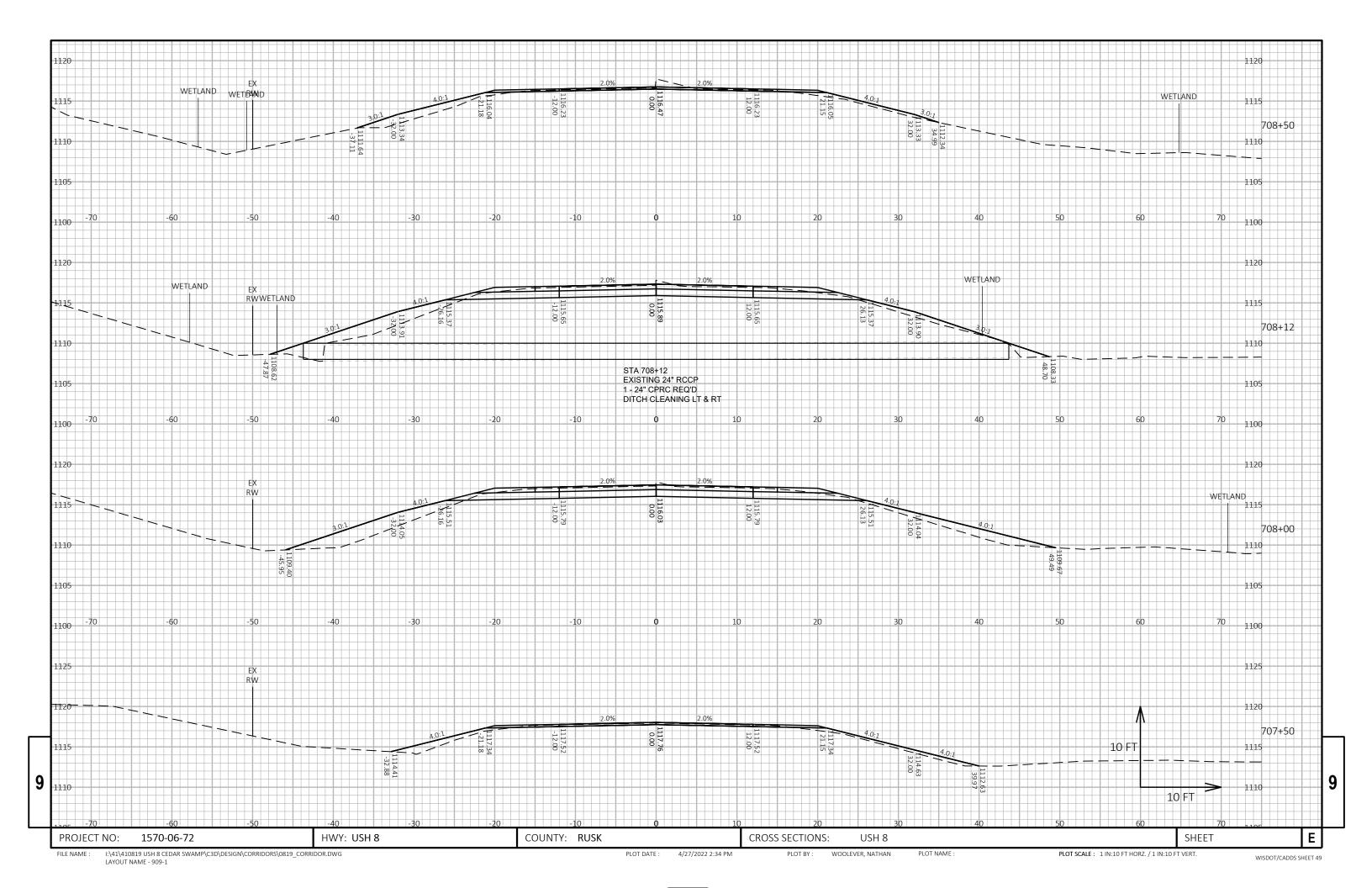


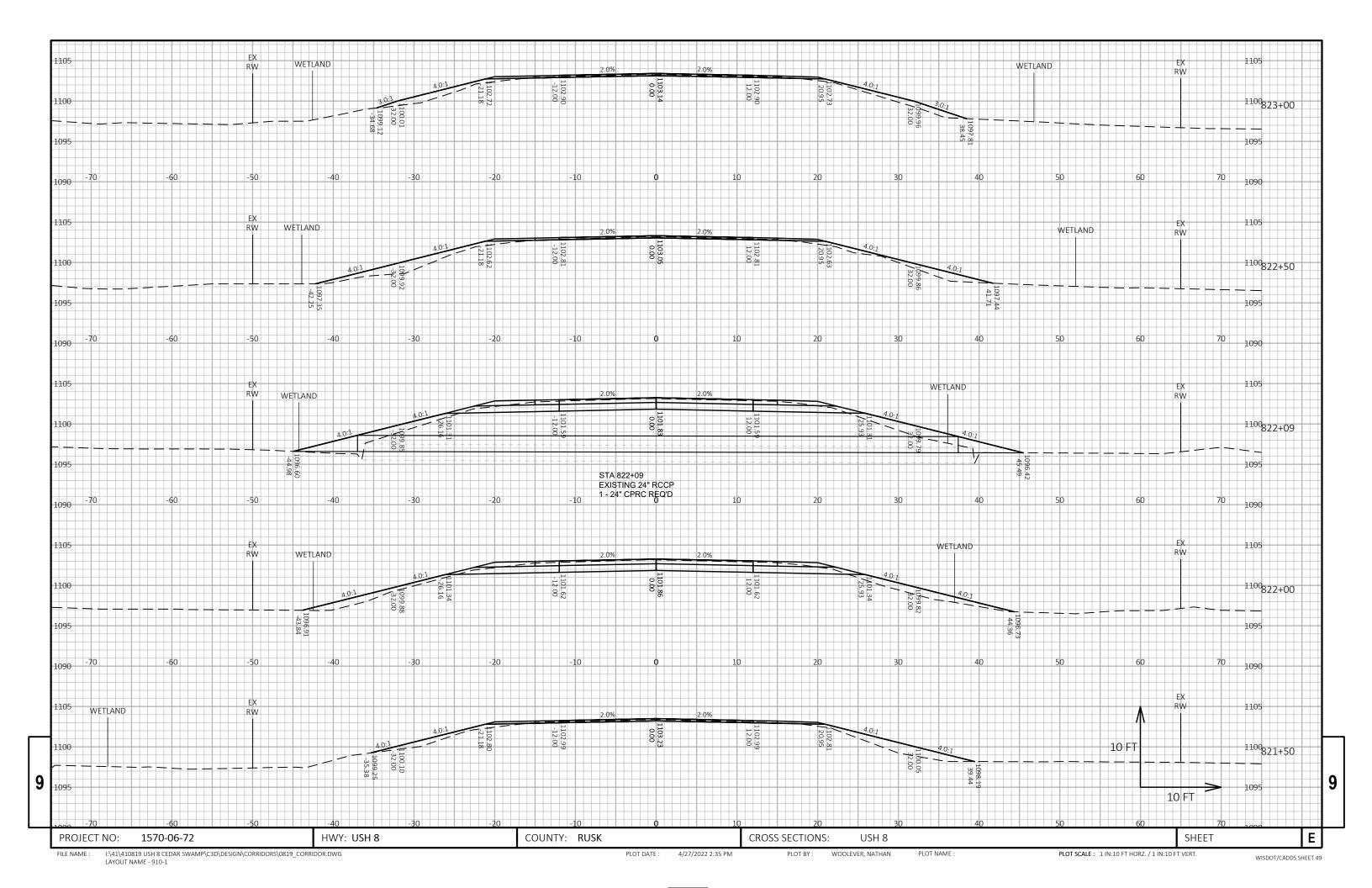


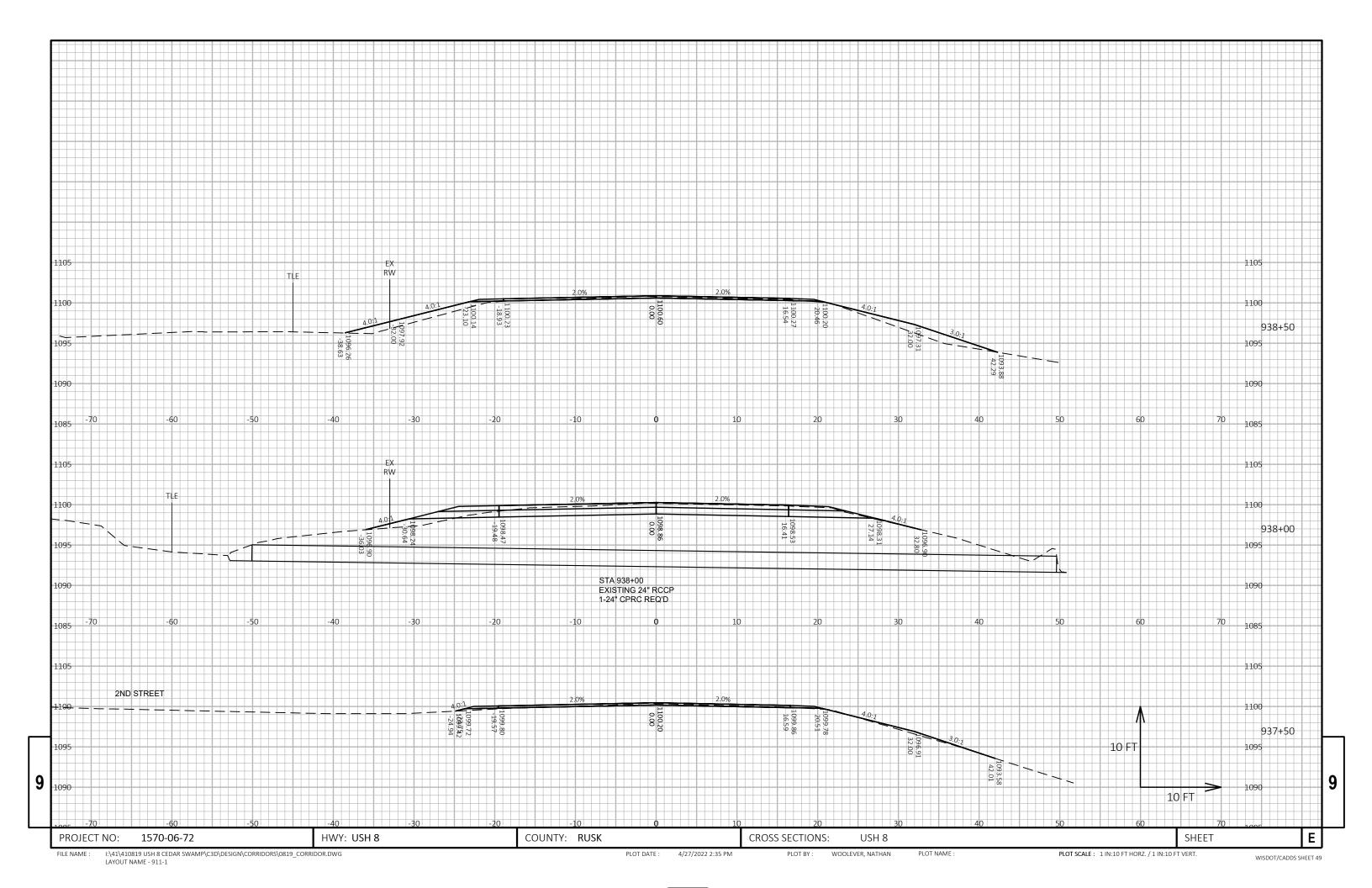


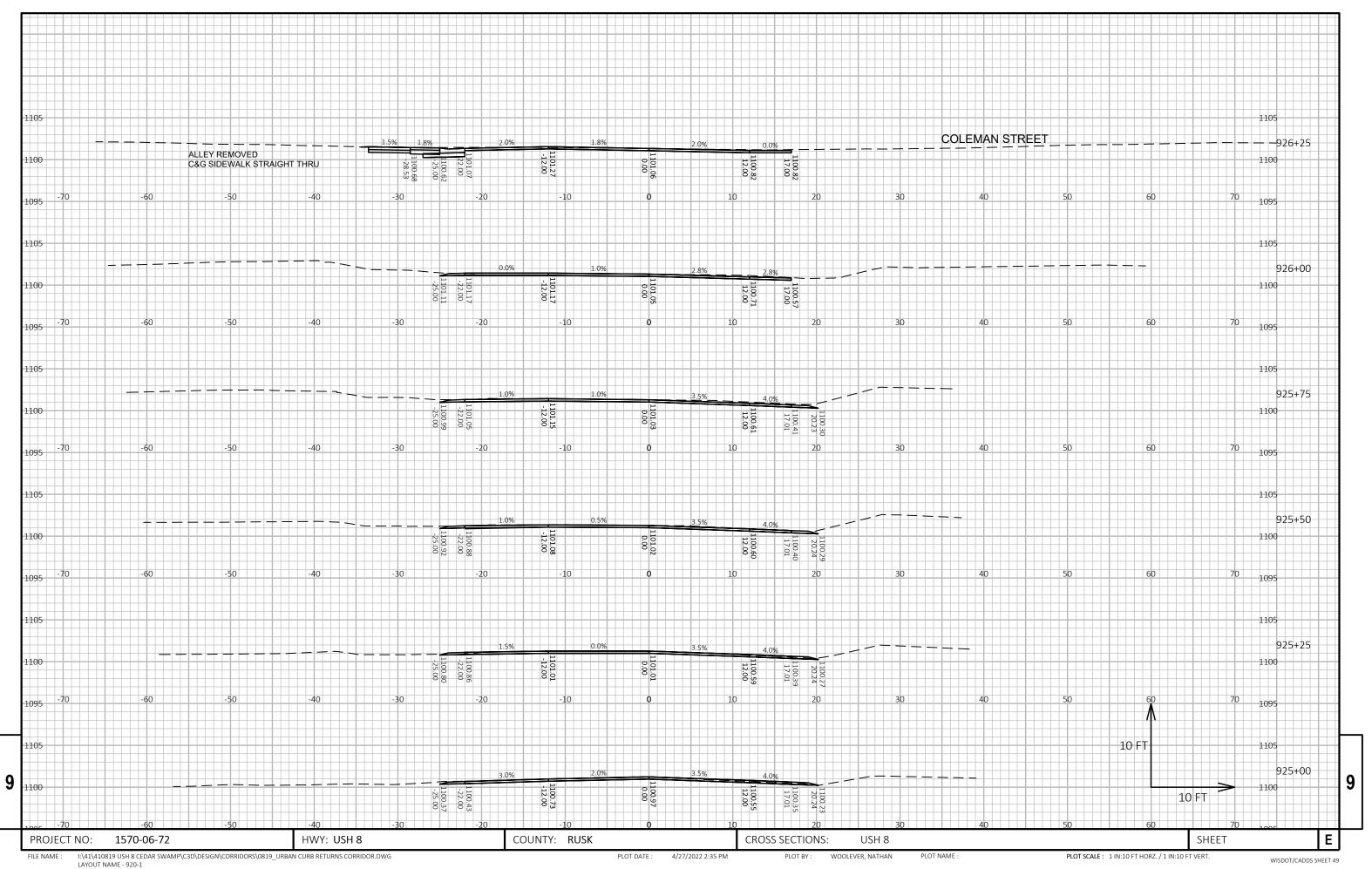


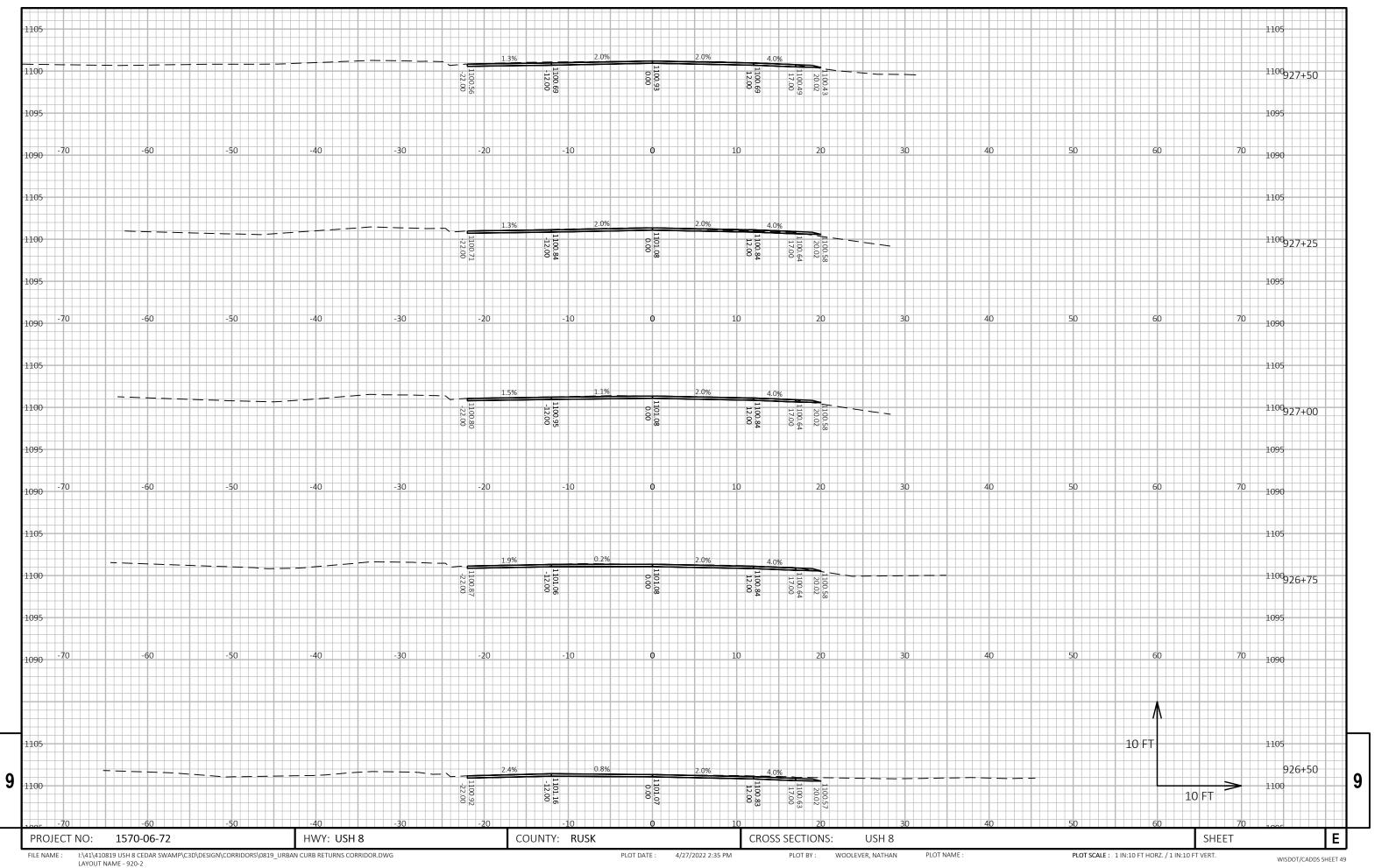


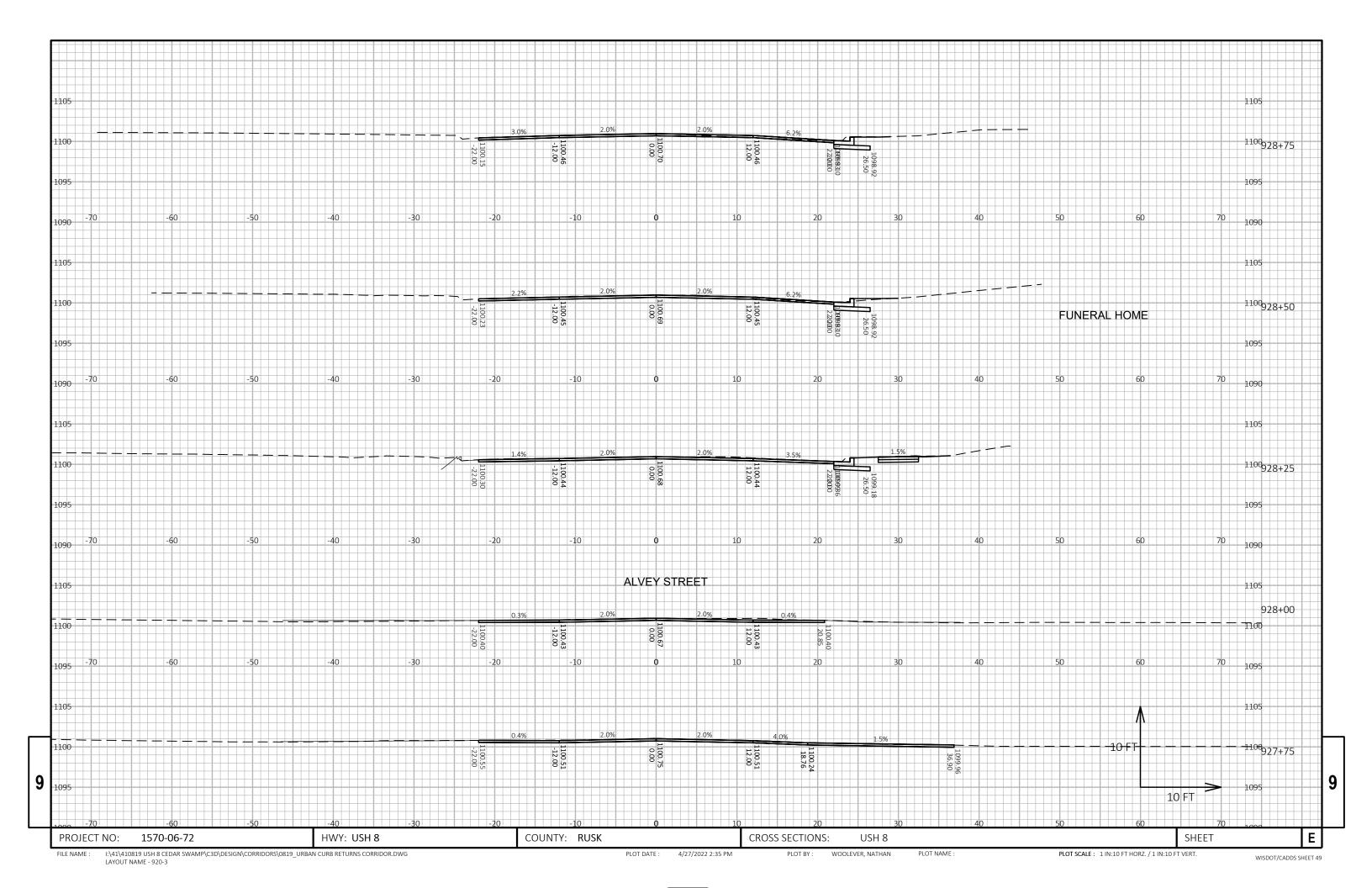


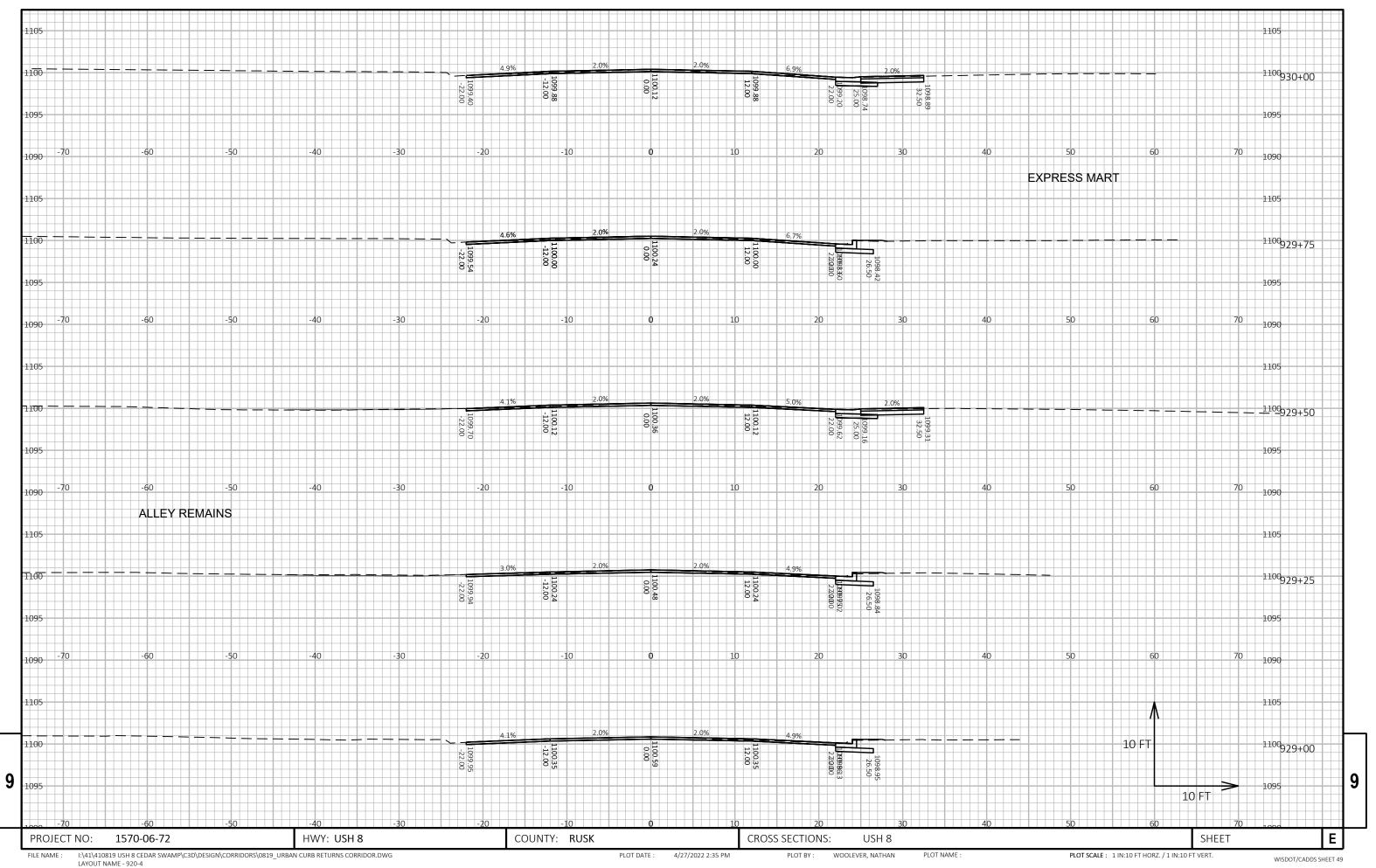


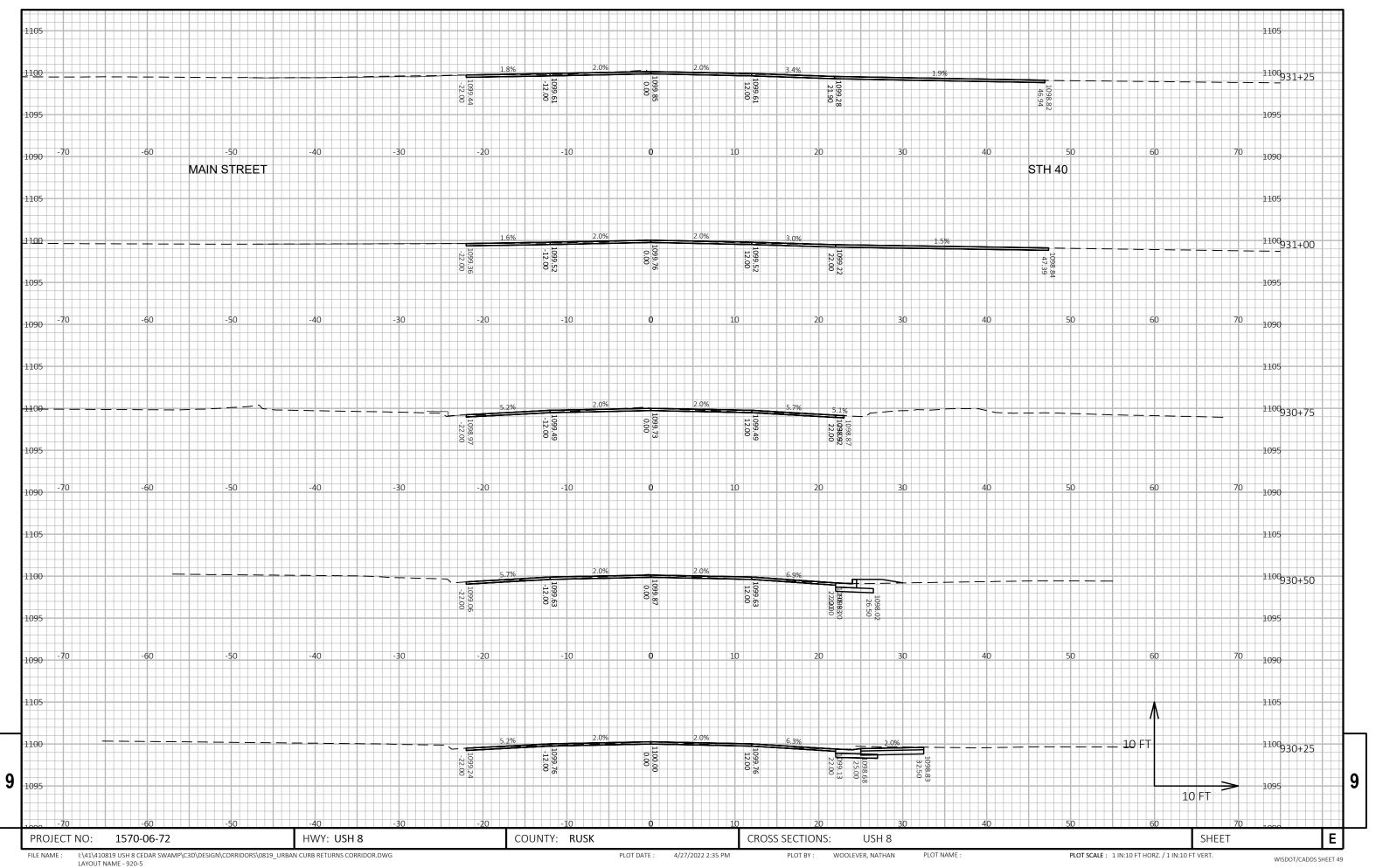


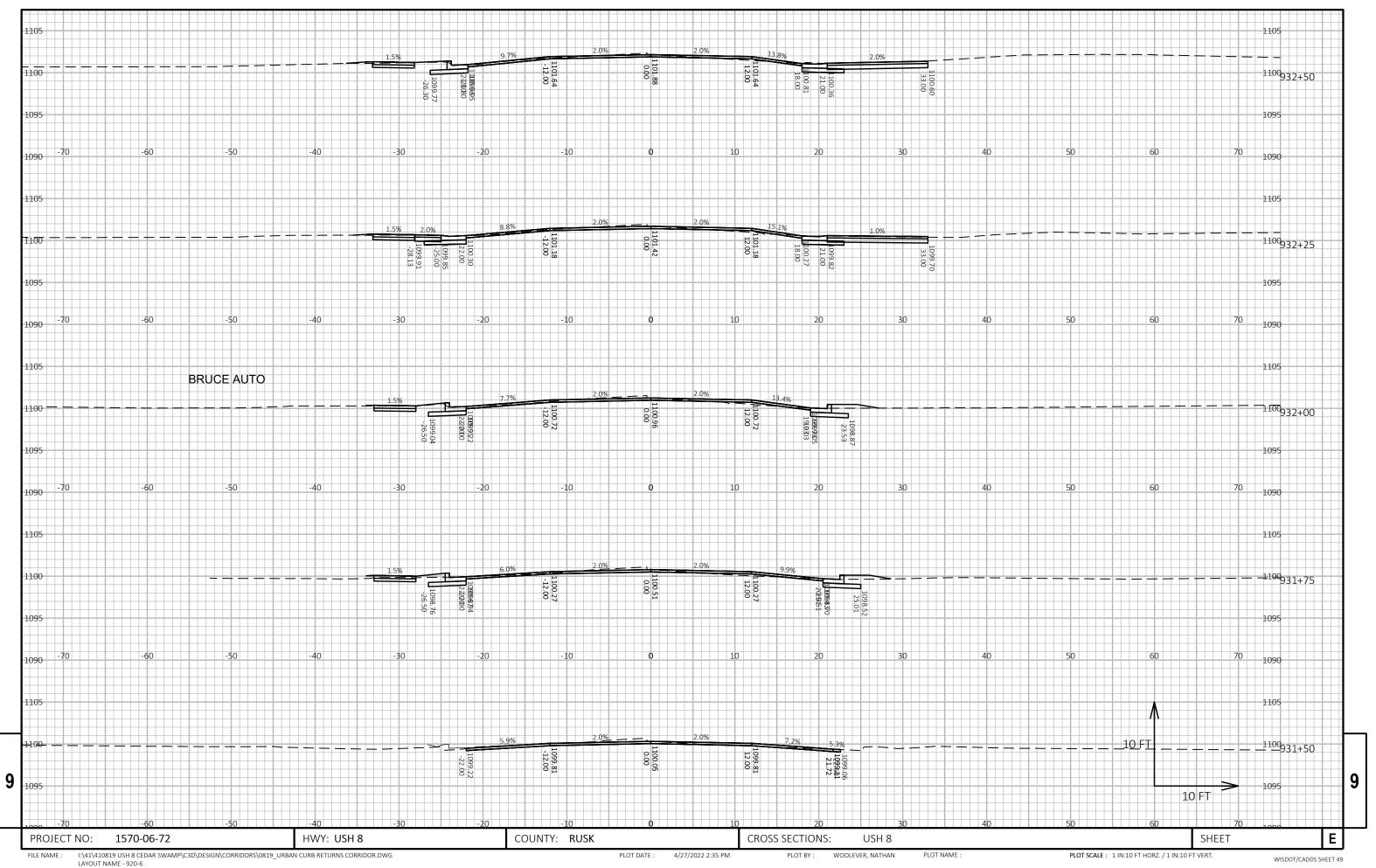


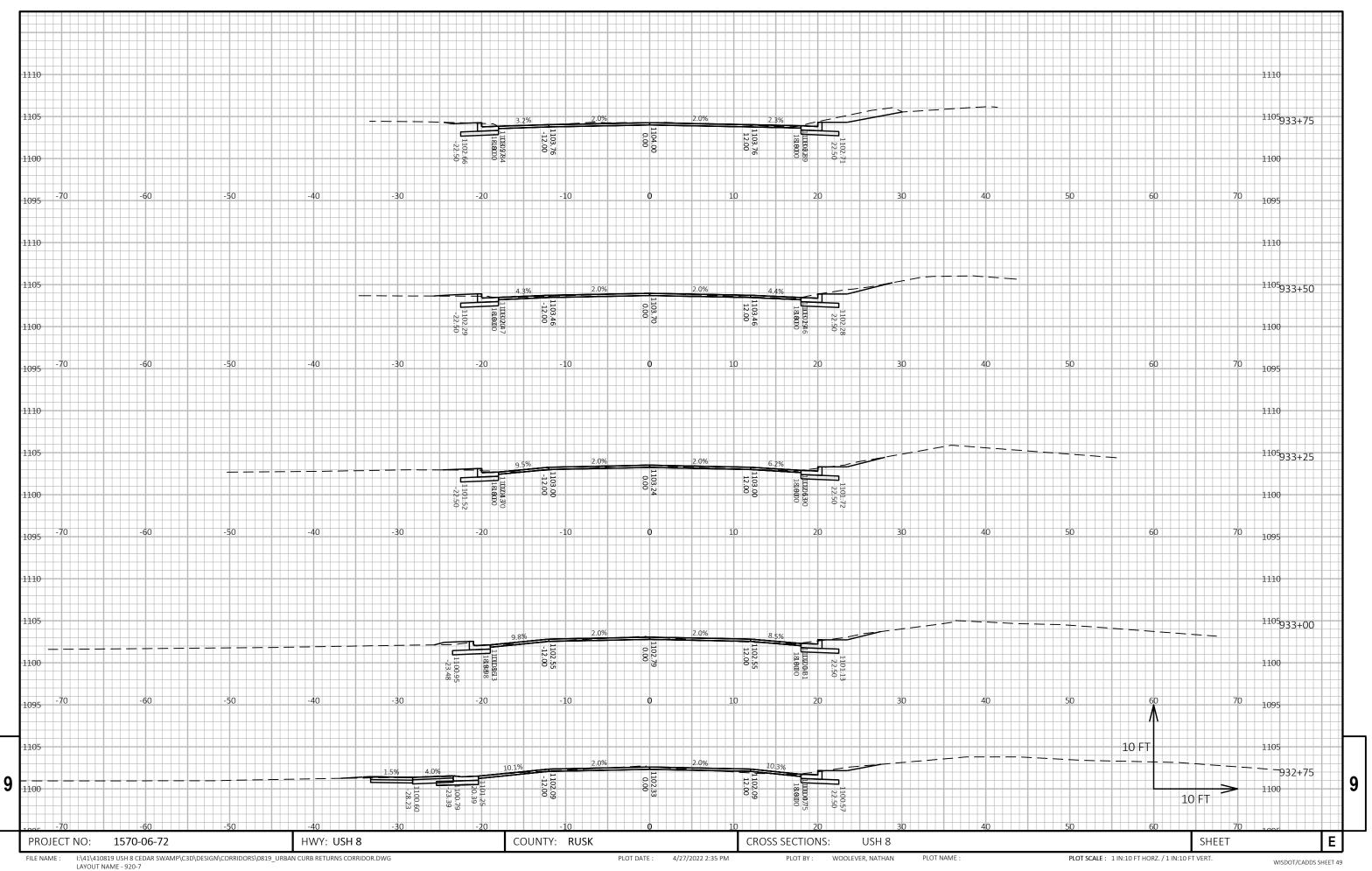


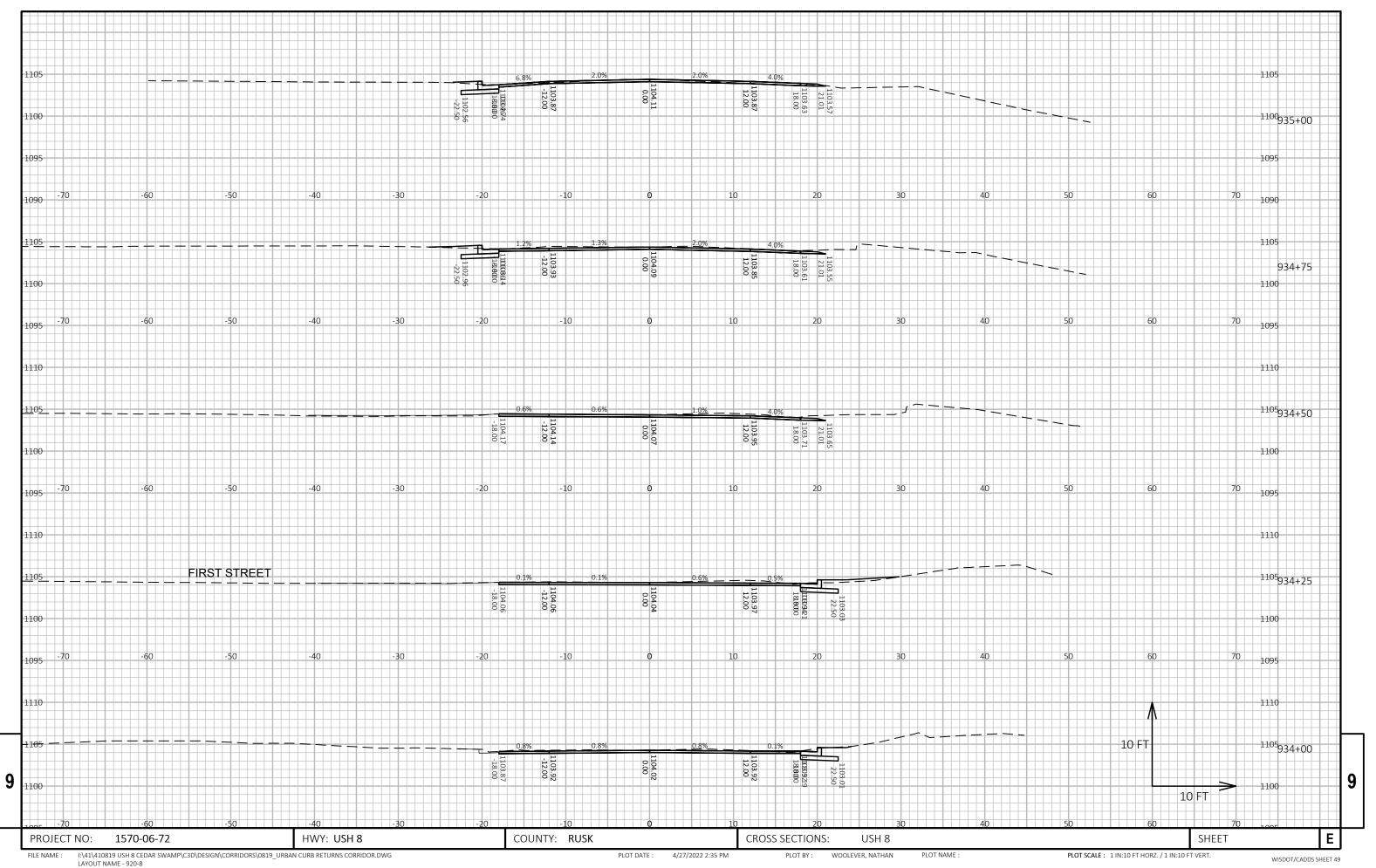


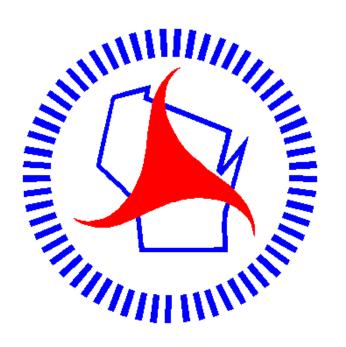












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