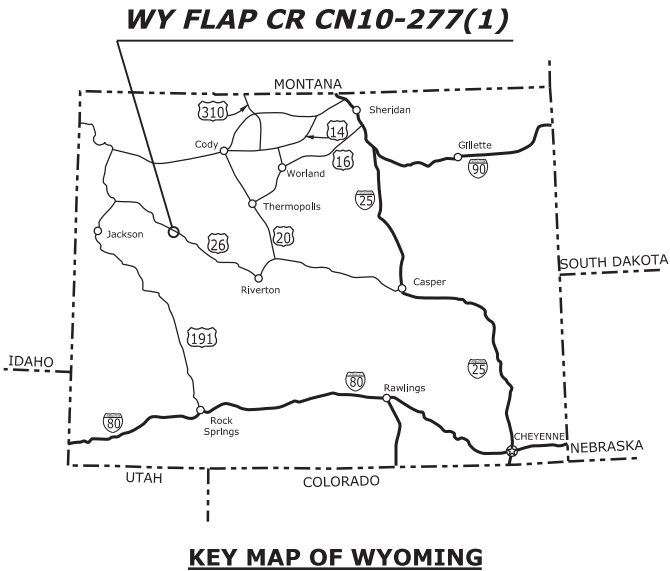


User: Stacy.Diccico

N:\WV\cn10-277(1)\Roadway\CADD_Sheets\A-Gen_sht\1tl_US.dgn2:21:00 PM

3/2/2023



TYPE OF CONSTRUCTION:
 Bridge replacement, gabion wall, grading and aggregate surface course

DESIGN DESIGNATIONS:
 ADT (2023) ----- 324
 ADT (2043) ----- 444
 DHV ----- Not Available
 D ----- Not Available
 T ----- 10%
 V ----- 35 mph
 e(max) ----- 6%

U.S. CUSTOMARY DIMENSIONS:
 Slopes are expressed as RISE:RUN

SPECIFICATIONS:
 "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-14"

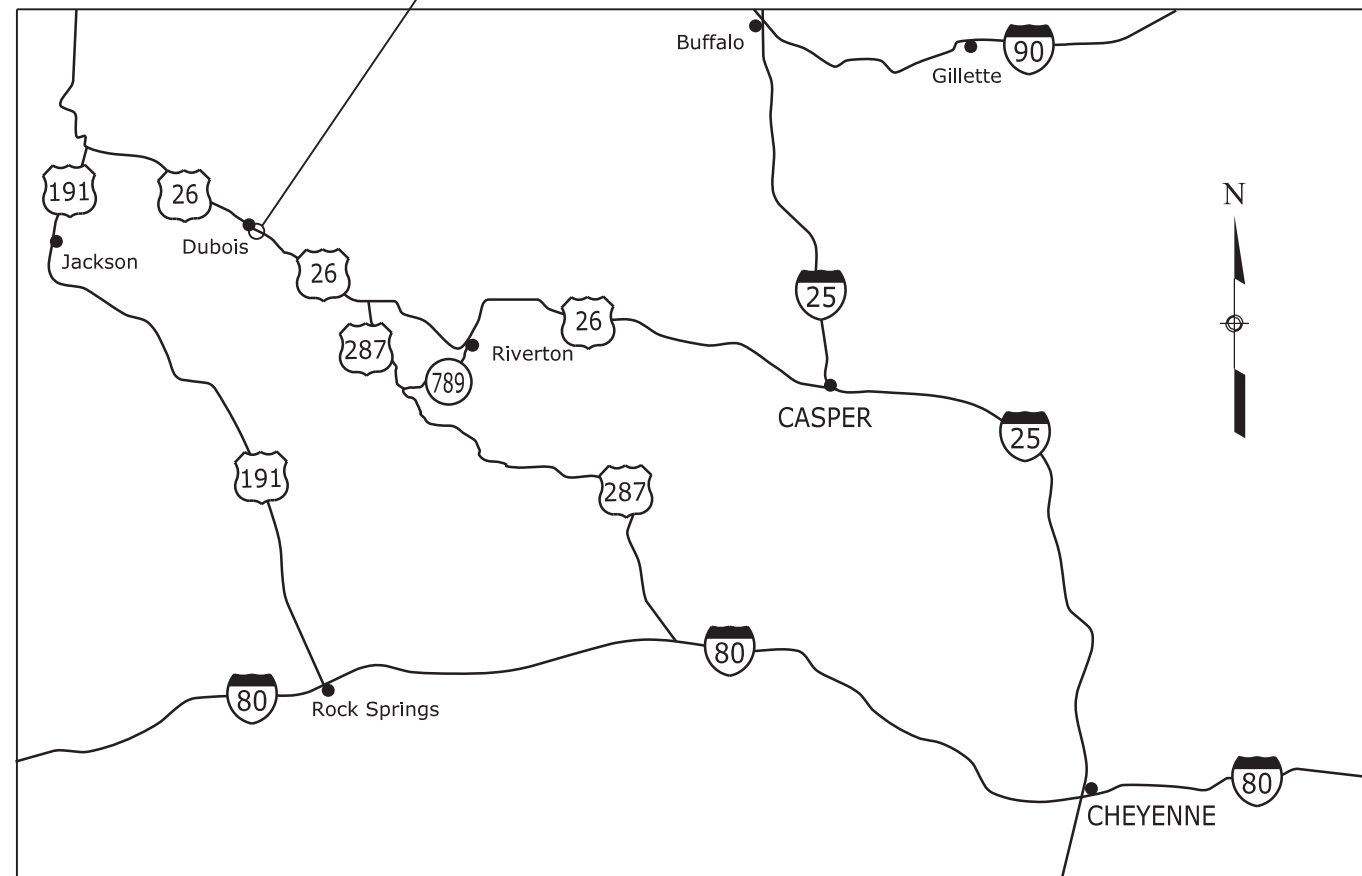


| | |
|-----------------|---------------|
| PROJECT MANAGER | LEAD DESIGNER |
| E. Burgos | S. Diccico |

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

PLANS FOR PROPOSED FLAP CR CN10-277(1) **WIGGINS CREEK BRIDGE** SHOSHONE NATIONAL FOREST FREMONT COUNTY LENGTH 0.10 miles

WIGGINS CREEK BRIDGE
STATION 11+00 - 16+28.83
EAST FORK ROAD



| INDEX TO SHEETS | |
|-----------------|--|
| SHEET | DESCRIPTION |
| A1 | TITLE SHEET |
| A2-A3 | CONVENTIONAL PLAN SYMBOLS & ABBREVIATIONS |
| A4 | SURVEY CONTROL |
| A5 | SITE MAP |
| A6-A7 | TYPICAL SECTIONS MAINLINE AND ROADWAY DIVERSION |
| B1-B2 | SUMMARY OF QUANTITIES |
| B3 | GRADING AND SURFACING SUMMARIES |
| B4-B5 | TABULATION OF QUANTITIES |
| C1 | MAINLINE PLAN |
| C2 | MAINLINE PROFILE |
| D1 | ROADWAY DIVERSION PLAN AND PROFILE |
| F1 | SPECIAL 204-A EMBANKMENT BENCHING |
| G1 | SPECIAL 253-A CONTRACTOR DESIGNED GABION RETAINING WALL |
| S1-S17 | WIGGINS FORK CREEK BRIDGE SHEETS |
| T1 | STD 602-1 METAL PIPE CULVERT |
| T2 | STD 602-2 METAL PIPE CULVERT COUPLING BAND |
| T3 | STD 602-3 METAL AND PLASTIC PIPE CULVERT BEDDING |
| T4 | DETAIL C617-20 MGS AND G4 W-BEAM GUARDRAIL TYPE TANGENT TERMINAL AND GRADING |
| T5 | SPECIAL 617-A MGS W-BEAM GUARDRAIL WOOD POSTS |
| T6 | SPECIAL 619-A BARBED WIRE FENCE |
| T7 | SPECIAL 619-B BUCK AND POLE FENCE |
| T8 | DETAIL C629-50 ROLLED EROSION CONTROL PRODUCT ON SLOPES |
| T9-T10 | TEMPORARY TRAFFIC CONTROL PLAN STAGE 1 AND 2 |
| T11 | STANDARD 635-1 TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING |
| T12 | STANDARD 635-14 TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS |
| X1-X16 | MAINLINE CROSS SECTIONS |
| Y1-Y6 | TEMPORARY ROADWAY DIVERSION CROSS SECTIONS |

PLANS PREPARED BY
 U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION
 DENVER, COLORADO

APPROVED:
WENDY M LONGLEY Digitally signed by WENDY M LONGLEY
 Date: 2023.04.06 13:40:43 -06'00' DATE: _____
 for: CHIEF OF ENGINEERING
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

Approved via letter dated 4/6/2023 DATE: _____
 FREMONT COUNTY COMMISSIONER

ABBREVIATIONS

| | |
|----------------|--------------------------|
| ℄ | centerline |
| Δ | curve delta |
| Ø | diameter |
| A abut. | abutment |
| ADT | average daily traffic |
| aggr. | aggregate |
| AH | ahead |
| alt. | alternate |
| appr. | approach |
| asph. | asphalt |
| B b.f. | both faces |
| beg. | beginning, begin |
| BK | back |
| BM | bench mark |
| BP | balance point |
| br. | bridge |
| brg. | bearing |
| C CBC | concrete box culvert |
| c-c | center to center |
| clr. | clear |
| CMP | corrugated metal pipe |
| Co. | county |
| col. | column |
| conc. | concrete |
| constr. | construction |
| constr. jt. | construction joint |
| cont. | continuous |
| corr. | corrugated |
| cr. | creek |
| CS | point of curve to spiral |
| ctrs. | centers |
| CTSM | contingent sum |
| culv. | culvert |
| D decr. | decrement |
| DHV | design hour volume |
| DI | drop inlet |
| dia. or D | diameter |
| diag. | diagonal |
| diaph. | diaphragm |
| dist. | distance |
| Dist. | district |
| DLC | donation land claim |
| dwg(s). | drawing(s) |
| E E | east |
| e | superelevation rate |
| El. 94.066 | elevation with number |
| elev. | elevation |
| emb. | embankment |
| engr(s). | Engineer(s) |
| EOP | edge of pavement |
| EQ or eq. | equation |
| ER | edge of road |
| et al | and others |
| et ux | and wife |
| EW | edge of water |
| exc. | excavation |
| exp. jt. | expansion joint |
| ext. | exterior |
| F f.f. | fill face |
| Fed. | federal |
| FES | flared end section |
| fin. | finish |
| ftg. | footing |
| G ga. | gage (gauge) |
| galv. | galvanized |
| gdr. | girder |
| H hdwl. | headwall |
| HES | homestead entry survey |
| hex. | hexagon |
| horiz. | horizontal |
| HW | high water |
| hwy. | highway |
| I ID | inside diameter |
| incl. | inclusive, including |
| incr. | increment |
| int. | interior |
| J jt. | joint |

| | |
|----------------------|---------------------------------|
| L L | length of curve |
| lam. | lamination |
| lat. | latitude |
| long. | longitudinal |
| LPSM | lump sum |
| Lt. or LT | left |
| LW | low water |
| M mag. | magnetic |
| maint. | maintenance |
| matl. | material |
| max. | maximum |
| min. | minimum |
| mon. | monument |
| mtn(s). | mountain(s) |
| N N | north |
| NC | normal crown |
| neg. | negative |
| no. or # | number |
| O o.c. | on centers |
| o.f. | other face |
| OD | outside diameter |
| P PC | point of curve |
| PCC | point of compound curve |
| perf. | perforate |
| PI | point of intersection |
| pl. | plate |
| POC | point on curve |
| POS | point on spiral |
| POT | point on tangent |
| proj. | project |
| psi | pounds per square inch |
| PT | point of tangent |
| pvmt. | pavement |
| Q quant., Qty | quantities |
| R R | radius |
| R. | range |
| R/W | right-of-way |
| rd. | road |
| rdwy. | roadway |
| reconst. | reconstruction |
| reinf. | reinforcement |
| reqd. | required |
| res. | reservoir |
| Res. | Reservation |
| ret. wall | retaining wall |
| RH | reference hub |
| Rt. or RT | right |
| rte. | route |
| S S | south |
| SADT | seasonal average daily traffic |
| SC | point of spiral to curve |
| sec. | section |
| shldr. | shoulder |
| spa. | spacing, Spaces or Spaced |
| spec. | specification |
| st. | street |
| ST | point of spiral to tangent |
| sta. | station |
| std. | standard |
| stiff. | stiffener |
| str. | straight |
| struc. | structural |
| sym. | symmetrical |
| T T | tangent length |
| T. | township |
| tan. | tangent |
| TBM | temporary bench mark |
| TCE | temporary construction easement |
| transv. | transverse |
| TS | point of tangent to spiral |
| typ. | typical |
| V V | design speed |
| vert. | vertical |
| vph | vehicles per hour |
| VPI | vertical point of intersection |
| W W | west |

DRAINAGE SYMBOLS

Ditch (Existing, Proposed)

Flow Arrow

Drainage or Small Creek

Lake, Pond or Reservoir

Large Creek

Wetland

River

Spring

Bridge (Existing, Proposed)

Box Culvert (Existing, Proposed)

Pipe Culvert (Existing, Proposed)

With End Sections (Existing, Proposed)

With Headwalls (Existing, Proposed)

With Drop Inlet (Existing, Proposed)

Underdrain (Existing, Proposed)

Riprap Apron (Proposed)

EROSION & SEDIMENT CONTROL SYMBOLS

Bonded Fiber Matrix Mulching

Check Dam

Diversion Berm

Rolled Erosion Control Product

Riprap

Fiber Roll (Ditch and/or Cut Slope)

Silt Fence

Temporary Inlet Protection

Fiber Roll (Slope Protection)

FENCE & CATTLEGUARD SYMBOLS

Fence (Existing, Proposed)

Fence w/ Gate (Existing, Proposed)

Cattleguard (Existing, Proposed)

GEOLOGIC SYMBOLS

Boring Location (Existing, Proposed)

Material Source

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A2 |

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CONVENTIONAL
PLAN SYMBOLS AND
ABBREVIATIONS

LANDSCAPING & VEGETATION SYMBOLS

Tree

Treeline

Building (Existing, Proposed)

Coordinate Grid Tick

North Arrow

Railroad

Single Track

Double Track

Spot Elevation

Trail

Survey Control Point

RIGHT-OF-WAY SYMBOLS

Boundaries

National

State

County

City

Township or Range Line

Section

1/4 Section

1/16 Section

Bureau of Indian Affairs

Bureau of Land Management

National Forest

National Park

National Wildlife Refuge

Easements

Permanent (Existing)

Permanent (Proposed)

Temporary (Proposed)

Monument (As described)

Parcel Number

Property Line

Right-of-Way Line (Existing)

Right-of-Way Line (Proposed)

Section Corner (Found, Projected)

1/4 Section Corner (Found, Projected)

1/16 Section Corner (Found)

GUARDRAIL, BARRIER & WALL SYMBOLS

Guardrail (Existing, Proposed)

Guardwall (Existing, Proposed)

Median & Side Barrier (Existing, Proposed)

Retaining Wall (Existing, Proposed)

Clearing/Construction Limits

Slope Stake Limits

Top of Cut

Transition

Toe of Fill

Edge of Roadway

Existing

Proposed

Roadway Centerline (With Station ticks)

Roadway Obliteration

SIGN SYMBOLS

Signs

Commercial (Existing, Proposed)

Delineator (Existing, Proposed)

Portable (Proposed)

Post Mounted (Existing, Proposed)

UTILITY SYMBOLS

Irrigation Ditch

Underground (Existing, Proposed)

Surface (Existing, Proposed)

Support Pole (Existing, Proposed)

Support Pole Anchor (Existing, Proposed)

Street Light (Existing, Proposed)

Telephone Booth (Existing, Proposed)

Telephone Pedestal (Existing, Proposed)

Underground Utility (Existing, Proposed)

CATV

Fiber Optic

Gas

Oil

Power

Sanitary Sewer

Telephone

Water

Overhead Utility Line (Existing, Proposed)

CATV

Fiber Optic

Power

Telephone

PROJECT SPECIFIC SYMBOLS

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A3 |

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

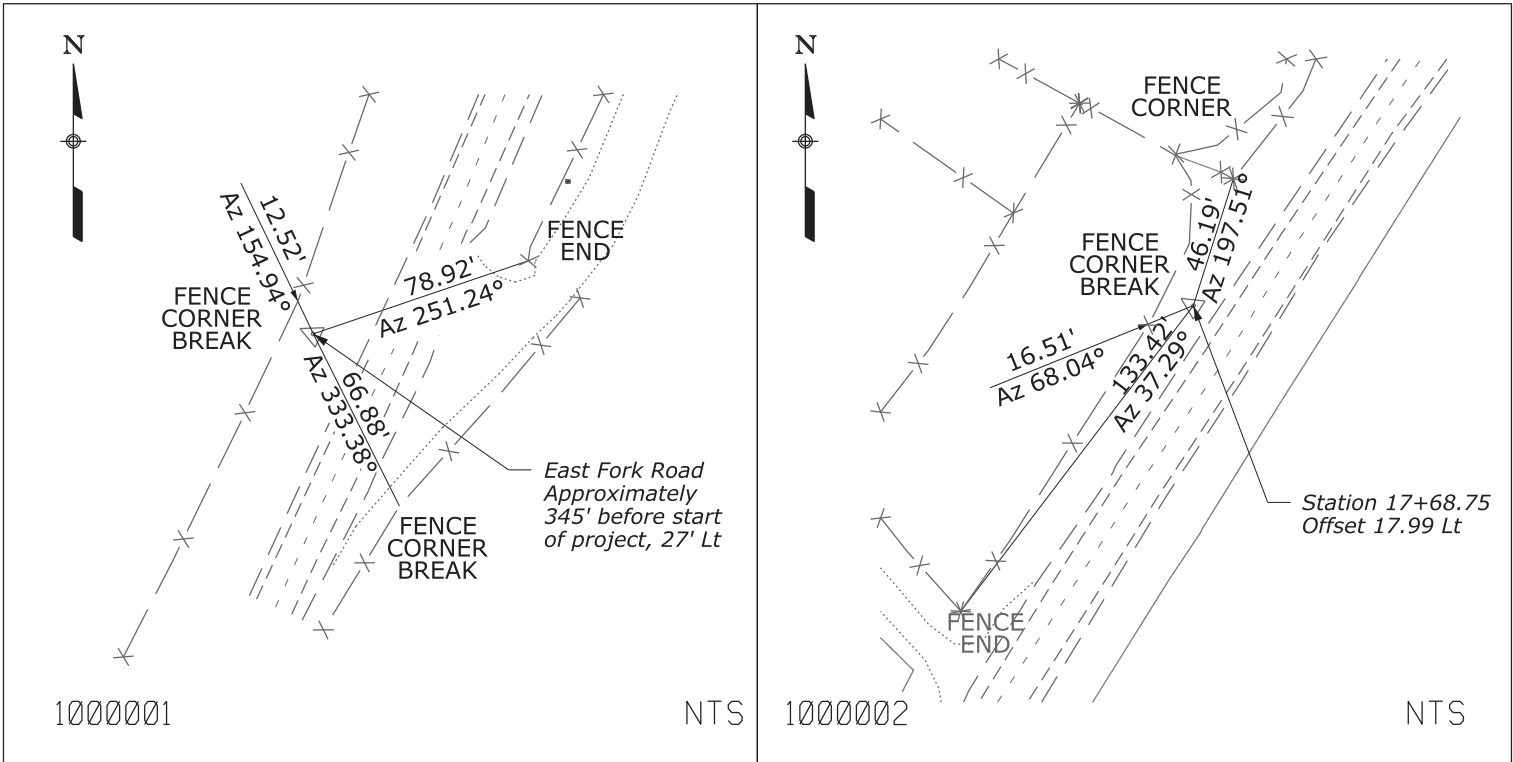
CONVENTIONAL
PLAN SYMBOLS AND
ABBREVIATIONS

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A4 |

Note:

1. Azimuth shown is the angle based on the north axis at clockwise rotation.

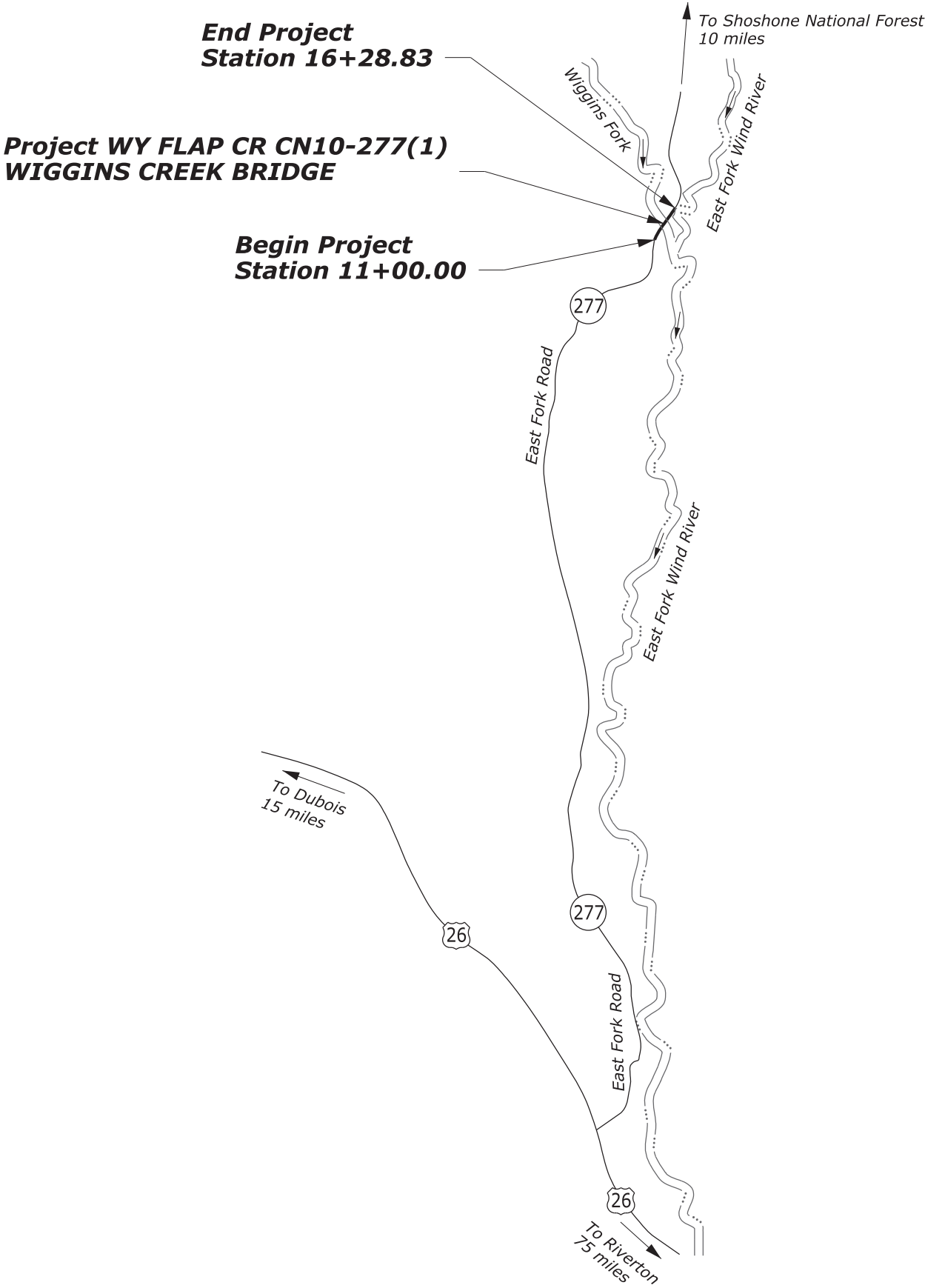
| SURVEY COORDINATE SYSTEM | | | |
|-------------------------------|---------------------------|-------------|-----------|
| NAME: | US/STATE PLANE 1983 | | |
| DATUM: | NAD 1983 (CONUS) | | |
| ZONE: | WYOMING WEST CENTRAL 4903 | | |
| GEOID: | GEOID 12B | | |
| VERT. DATUM: | NAVD83 | | |
| SURVEY CONTROL POINTS LISTING | | | |
| POINT | NORTHING | EASTING | ELEVATION |
| 1000001 | 1107792.276 | 1778401.788 | 6758.026 |
| 1000002 | 1108682.807 | 1778886.994 | 6724.914 |



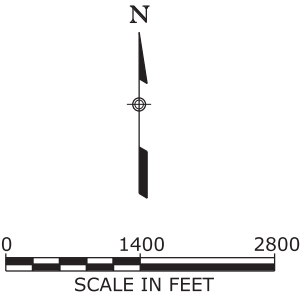
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SURVEY CONTROL

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A5 |



- Notes:
1. See SCR subsection 105.04 for a staging area location and requirements if the area is used.



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SITE MAP

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4/7/2022

LEGEND:



Existing right-of-way

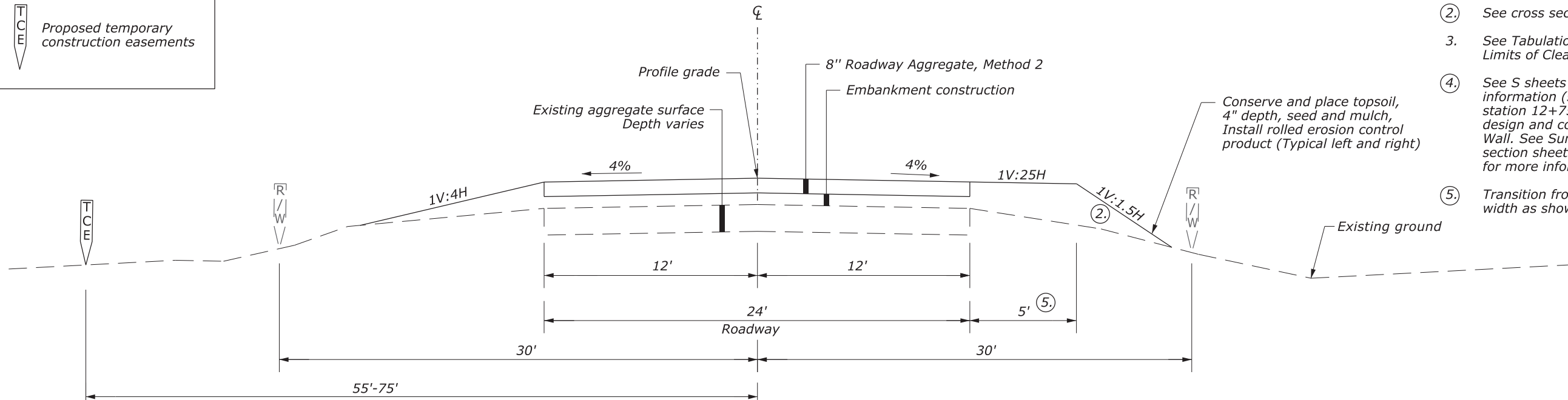


Proposed temporary construction easements

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A6 |

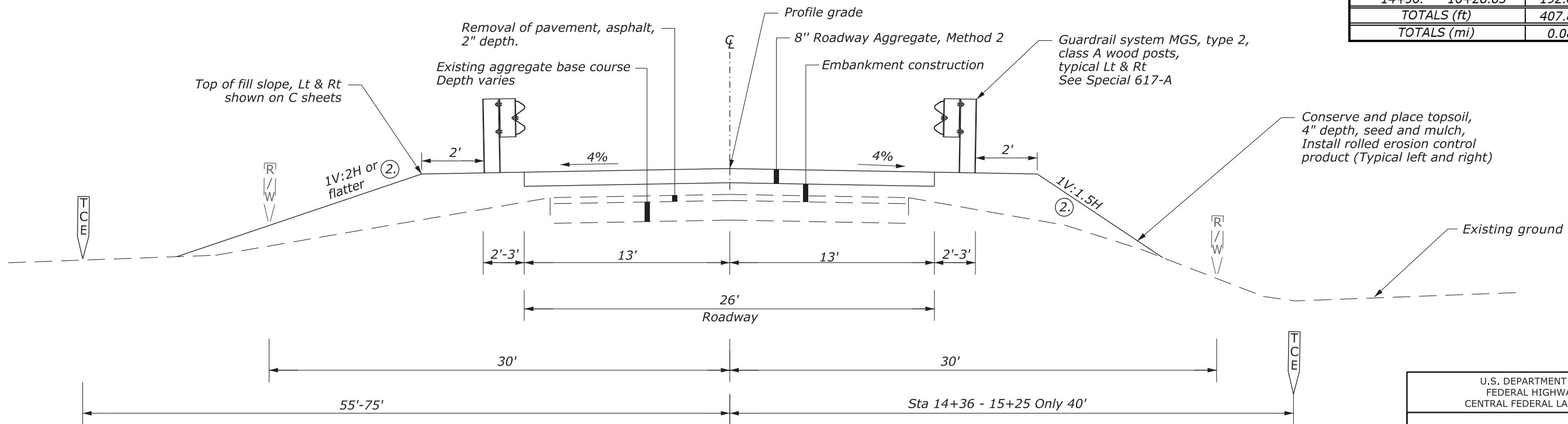
Notes:

- Roadway width includes the travelway width and shoulder width.
- See cross sections for cut and fill slope ratios.
- See Tabulation of quantities and C sheet for Limits of Clearing and Grubbing.
- See S sheets for approach slabs and bridge information (station 12+93 - 14+36). For station 12+75 - 13+14, Rt work includes design and construction of Gabion Retaining Wall. See Summary table, Special 253-A, cross section sheets and SCR Sections 253 and 257 for more information.
- Transition from existing width to typical section width as shown in cross sections.



**TYPICAL SECTION
MAINLINE
STATION 11+00 - 12+00**

| LENGTH OF PROJECT | | |
|--------------------|--------------|-------------|
| Station to Station | Roadway (ft) | Bridge (ft) |
| 11+00. - 13+15. | 215.00 | |
| 13+15. - 14+15. | | 100.00 |
| 14+36. - 16+28.83 | 192.83 | |
| TOTALS (ft) | 407.83 | 100.00 |
| TOTALS (mi) | 0.08 | 0.02 |



**TYPICAL SECTION
MAINLINE
STATION 12+00 - 12+93 & 14+36 - 15+25**

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

**TYPICAL SECTIONS
MAINLINE &
ROADWAY DIVERSION**

NO SCALE

Sheet 1 of 2

LEGEND:

- R

W

W

W

Existing right-of-way
- T

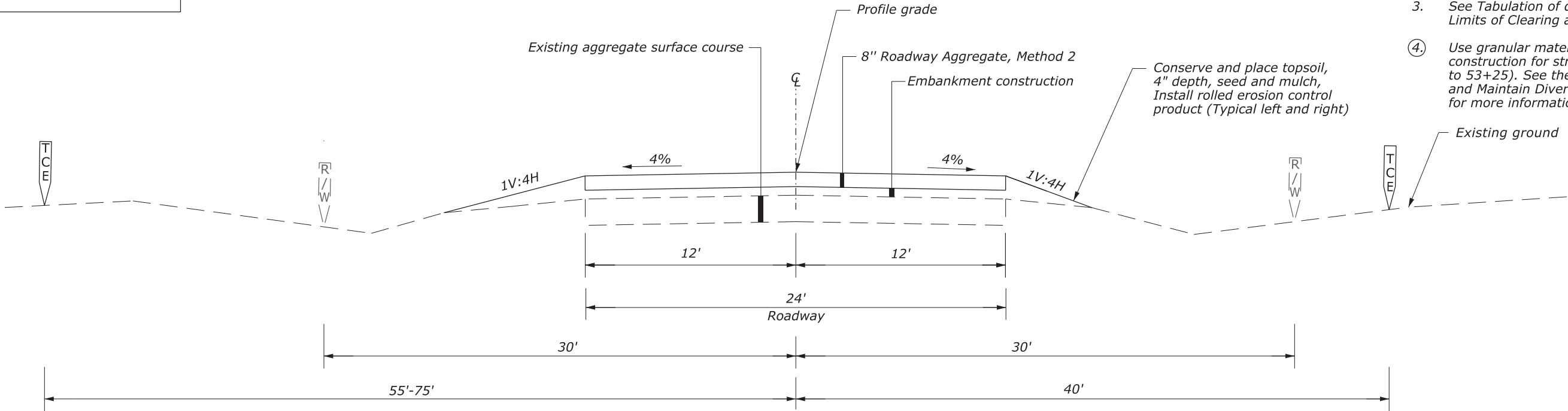
C

E
- Proposed temporary construction easements

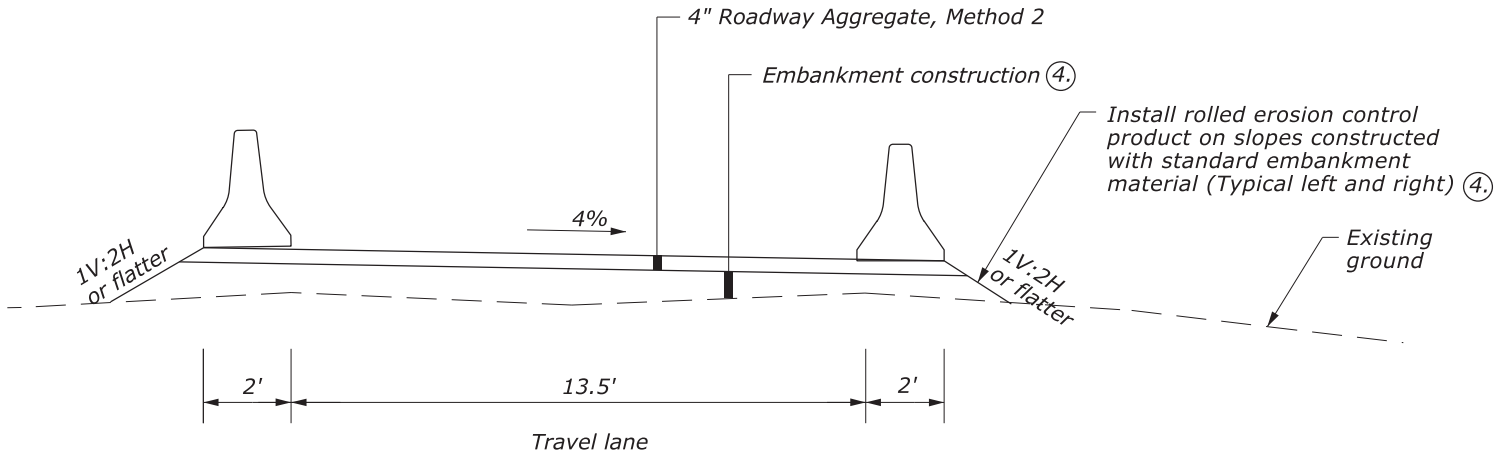
| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | A7 |

Notes:

1. Roadway width includes the travelway width and shoulder width.
2. See cross sections for cut and fill slope ratios.
3. See Tabulation of quantities and C sheet for Limits of Clearing and Grubbing.
- ④. Use granular material for embankment construction for stream crossing (sta 52+25 to 53+25). See the Summary for Construct and Maintain Diversion and SCR 703.03(c) for more information.



**TYPICAL SECTION
MAINLINE
STATION 15+25 - 16+28.83**



**TYPICAL SECTION
ROADWAY DIVERSION
STATION 50+00 - 55+22.77**

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

**TYPICAL SECTIONS
MAINLINE &
ROADWAY DIVERSION**

NO SCALE

| SUMMARY OF QUANTITIES - Schedule A | | | | | | | | | | STATE | PROJECT | SHEET NUMBER |
|---|---------------------|--------------------|--|-------|---------------------------------------|-----------------------------|---------------|-----------|--|-------------------------|---|--------------|
| | | | | | | | | | | WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | B1 |
| A M E N D | Line Item No. | Pay Item Number | Pay Item Description | Unit | Sheet and Description | | | | | Estimated Quantities | Remarks and/or Determination of Estimated Quantity | |
| | | | | | B3 | B4-B5 | S2 | | | | | |
| | | | | | Grading and Surfacing Summaries | Tabulation of Quantities | Bridge Sheets | Allowance | | Bid Schedule | | |
| | A0020 | 15101-0000 | MOBILIZATION | LPSM | | | | | | ALL | | |
| | A0040 | 15214-1000 | SURVEY AND STAKING, BRIDGE | LPSM | | | All | | | ALL | | |
| | A0060 | 15225-0000 | SLOPE, REFERENCE, AND CLEARING AND GRUBBING CONTROL | MILE | | 0.099 | | | | 0.099 | | |
| | A0080 | 15236-2000 | SURVEY CONTROL, GRADE FINISHING | MILE | | 0.198 | | | | 0.198 | | |
| | A0100 | 15301-0000 | CONTRACTOR QUALITY CONTROL | LPSM | | | | | | ALL | | |
| | A0120 | 15401-0000 | CONTRACTOR TESTING | LPSM | | | | | | ALL | | |
| | A0140 | 15501-0000 | CONSTRUCTION SCHEDULE | LPSM | | | | | | ALL | | |
| | A0160 | 15701-0000 | SOIL EROSION CONTROL | LPSM | | | | | | ALL | | |
| | A0180 | 15720-0000 | STORM WATER POLLUTION PREVENTION PLAN | LPSM | | | | | | ALL | | |
| | A0200 | 15802-0000 | WATERING FOR DUST CONTROL | LPSM | | | | | | ALL | | |
| | A0220 | 20101-0000 | CLEARING AND GRUBBING | ACRE | | 0.660 | | 0.033 | | 0.693 | | |
| | A0240 | 20302-0700 | REMOVAL OF FENCE | LNFT | | 577 | | 33 | | 610 | | |
| | A0260 | 20303-1600 | REMOVAL OF PAVEMENT, ASPHALT | SQYD | 630 | | | 35 | | 665 | | |
| | A0280 | 20304-2000 | REMOVAL OF BRIDGE | LPSM | | | All | | | ALL | | |
| | A0300 | 20420-0000 | EMBANKMENT CONSTRUCTION | CUYD | 677 | | | 33 | | 710 | | |
| | A0320 | 20801-0000 | STRUCTURE EXCAVATION | CUYD | | | 260 | | | 260 | Contract Quantity | |
| | A0340 | 20803-0000 | STRUCTURAL BACKFILL | CUYD | | | 63 | | | 63 | Contract Quantity | |
| | A0360 | 20815-0000 | COFFERDAMS | LPSM | | | All | | | ALL | | |
| | A0380 | 25101-2400 | PLACED RIPRAP, METHOD B, CLASS 4 | CUYD | | | 164 | | | 164 | | |
| | A0400 | 25301-2000 | GABIONS, POLYVINYL CHLORIDE COATED | SQFT | 400 | | | 20 | | 420 | | |
| | A0420 | 25701-0100 | CONTRACTOR FURNISHED GABION WALL DESIGN | LPSM | All | | | | | ALL | | |
| | A0440 | 30202-2000 | ROADWAY AGGREGATE, METHOD 2 | TON | 608 | | | 32 | | 640 | | |
| | A0460 | 55201-0200 | STRUCTURAL CONCRETE, CLASS A (AE) | CUYD | | | 149 | | | 149 | Contract Quantity | |
| | A0480 | 55401-1000 | REINFORCING STEEL | LB | | | 21,700 | | | 21,700 | Contract Quantity | |
| | A0500 | 55401-2000 | REINFORCING STEEL, EPOXY COATED | LB | | | 13,000 | | | 13,000 | Contract Quantity | |
| | A0520 | 55504-0000 | PRE-FABRICATED STEEL BRIDGE (100'x29'-4" MODULAR STEEL VEHICULAR BRIDGE) | LPSM | | | All | | | ALL | | |
| | A0540 | 55601-0900 | BRIDGE RAILING, STEEL (WYDOT TL-3) | LNFT | | | 282 | | | 282 | Contract Quantity | |
| | A0560 | 56501-0300 | DRILLED SHAFT, 30-INCH DIAMETER | LNFT | | | 240 | | | 240 | | |
| | A0580 | 61701-4550 | GUARDRAIL SYSTEM MGS, TYPE 2, CLASS A WOOD POSTS | LNFT | | 75 | | | | 75 | | |
| | A0600 | 61702-1500 | TERMINAL SECTION, TYPE MGS TANGENT | EACH | | 4 | | | | 4 | | |
| | A0620 | 61707-0000 | STRUCTURE TRANSITION RAILING | LNFT | | | 100 | | | 100 | Contract Quantity | |
| | A0640 | 61901-0000 | FENCE (BUCK AND POLE) | LNFT | | 210 | | 10 | | 220 | | |
| | A0660 | 61901-0800 | FENCE, BARBED WIRE, 3 STRAND | LNFT | | 367 | | 23 | | 390 | | |
| | A0680 | 62201-0200 | DUMP TRUCK, 8 CUBIC YARD MINIMUM CAPACITY | HOURL | | | | | | 10 | | |
| | A0700 | 62201-0950 | WHEEL LOADER, 3 CUBIC YARD MINIMUM RATED CAPACITY | HOURL | | | | | | 10 | | |
| | A0720 | 62201-2850 | MOTOR GRADER, 12 FOOT MINIMUM BLADE | HOURL | | | | | | 10 | | |
| | A0740 | 62301-0000 | GENERAL LABOR | HOURL | | | | | | 40 | | |
| | A0760 | 62302-1000 | SPECIAL LABOR, HIRED TECHNICAL SERVICES | HOURL | | | | | | 10 | | |
| | A0780 | 62302-1100 | SPECIAL LABOR, HIRED SURVEY SERVICES | HOURL | | | | | | 10 | | |
| | A0800 | 62405-0300 | PLACING CONSERVED TOPSOIL, 4-INCH DEPTH | SQYD | 1,098 | | | 52 | | 1,150 | | |
| MileStone: FINAL Date Completed: 03/01/23 Report Date: 03/01/23 | | | | | | | | | | | | |

N:\WY\cn10-277(L)\Roadway\CADD_Sheets\B-Summ\WY_CN10-277_Final_SumQuantities.xlsm]Sheet

1-Mar-2023 10:49 AM

| | | |
|-------|---|-----------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | B2 |

1-Mar-2023 10:49 AM
N:\WY\cn10-277(1)\Roadway\CADD_Sheets\B-Summ\WY_CN10-277_Final_SumQuantities.xlsm]Sheet (2)

MileStone: FINAL
Date Completed: 03/01/23
Report Date: 03/01/23

User: Stacy.Diccico

10:30:07 AM N:\WV\cn10-277(1)\Roadway\CADD_Sheets\B-Summi\FREM0277(1)_GRADE-SURF_SUM.dgn

4/7/2022

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | B3 |

Notes:

1. See the Roadway Diversion Summary for information about grading and surfacing quantities for the construction of the temporary roadway diversion.

| GRADING SUMMARY | | | | | | | | | | | | | | | |
|--------------------|-------------------------------------|-------------------|-----------------------|--|--|------------------------|---|------------------|-------------------|----------------------------|---|---------------------|----------------------------|---|--|
| | Roadway Excavation For info only | | | Additional Excavation For info only | | For info only | | Embankment | | Pay Item 20420-0000 | For info only | | | For info only | |
| Station to Station | Roadway Prism | Approach Roads | Roadway Excavation | (+) Available Material (see note 1) | (-) Unavailable Material (see note 2) | Shrink/Swell Factor | Total Excavation Available For Fills | Roadway Prism | Approach Roads | Embankment Construction | (+) Additional Backfill Material Needed (see note 3) | Total Embankment | Excavation - Embankment | Estimated Unclassified Borrow Volume (see note 4) | |
| | BCY | BCY | BCY | BCY | BCY | | CCY | CCY | CCY | CUYD | CCY | CCY | CCY | BCY | |
| Mainline | | | | | | | | | | | | | | | |
| 11+00 - 12+00 | 37 | 0 | 37 | 0 | 2 | 1.00 | 35 | 42 | 0 | 42 | 17 | 59 | -23 | 26 | |
| 12+00 - 12+93 | 1 | 0 | 1 | 27 | 2 | 1.00 | 26 | 342 | 0 | 342 | 45 | 387 | -361 | 401 | |
| 12+93 - 13+14 | 0 | 0 | 0 | 23 | 0 | 1.00 | 23 | 66 | 0 | 66 | 13 | 79 | -56 | 62 | |
| 13+14 - 14+16 | 0 | 0 | 0 | 260 | 0 | 1.00 | 260 | 0 | 0 | 0 | 0 | 0 | 260 | -289 | |
| 14+16 - 14+36 | 33 | 0 | 33 | 0 | 5 | 1.00 | 28 | 47 | 0 | 47 | 9 | 56 | -28 | 31 | |
| 14+36 - 15+25 | 14 | 0 | 14 | 0 | 11 | 1.00 | 3 | 140 | 0 | 140 | 40 | 180 | -177 | 197 | |
| 15+25 - 16+28.83 | 41 | 0 | 41 | 0 | 0 | 1.00 | 41 | 40 | 0 | 40 | 13 | 53 | -12 | 13 | |
| TOTALS | 126 | 0 | 126 | 310 | 20 | | 416 | 677 | 0 | 677 | 137 | 814 | -397 | 441 | |

NOTE:

1. Available material includes material from Structure Excavation for Bridge construction, pay item 20801-0000. See S sheets for more information. This quantity also includes estimated material excavated for construction of Contractor Designed Gabion Wall. No payment will be made for excavation for construction of gabion wall; see Gabion Wall Summary on this sheet, Special 253-A and SCRs for more information.

2. Unavailable material includes removal of topsoil and existing pavement in cuts. See Summaries on this sheet.

3. Additional backfill material needed includes material required to backfill removal of topsoil and existing pavement in fill. See Summaries on this sheet.

4. Estimated unclassified borrow quantity calculated using volumes adjusted for estimated material source shrink of 0.90.

5. The quantities shown herein are approximations. Payment will be made for the actual quantities of work performed.

6. BCY = Bank cubic yard - one cubic yard of material as it lies in the natural state.
CCY = Compacted cubic yard - one cubic yard of material after it has been compacted to specification density.

| TOPSOIL SUMMARY | | | |
|--------------------|------------------------------|----------------------------------|---|
| Item Number -> | For info only | For info only | 62405-0300 |
| Station to Station | Topsoil Stripping in Cuts | Topsoil Stripping Under Fills | PLACING CONSERVED TOPSOIL, 4- INCH DEPTH |
| | CUYD | CUYD | SQYD |
| Mainline | | | |
| 11+00 - 12+00 | 2 | 16 | 162 |
| 12+00 - 12+93 | 0 | 33 | 297 |
| 12+93 - 13+14 | 0 | 10 | 90 |
| 13+14 - 14+16 | 0 | 0 | 0 |
| 14+16 - 14+36 | 2 | 9 | 99 |
| 14+36 - 15+25 | 0 | 37 | 333 |
| 15+25 - 16+28.83 | 0 | 13 | 117 |
| TOTALS | 4 | 118 | 1,098 |

Note: A 4" depth was assumed for conserved topsoil quantity

| EXISTING PAVEMENT SUMMARY | | |
|---------------------------|--|--|
| Item Number -> | For info only | For info only |
| Station to Station | Existing Pavement Removed in Cuts | Existing Pavement Removed Under Fills |
| | CUYD | CUYD |
| Mainline | | |
| 11+00 - 12+00 | 0 | 0 |
| 12+00 - 12+93 | 2 | 13 |
| 12+93 - 13+14 | 0 | 3 |
| 13+14 - 14+16 | 0 | 0 |
| 14+16 - 14+36 | 3 | 0 |
| 14+36 - 15+25 | 11 | 3 |
| 15+25 - 16+28.83 | 0 | 0 |
| TOTALS | 16 | 19 |

Note: A 2" depth was assumed for removal of existing pavement

| SURFACING SUMMARY | | |
|---------------------|------------------------------------|-----------------------------------|
| Item Number | 20303-1600 | 30202-2000 |
| Station to Station | REMOVAL OF PAVEMENT, ASPHALT | ROADWAY AGGREGATE, METHOD 2 |
| | SQYD | TON |
| Mainline | | |
| 11+00 - 12+00 | 0 | 113 |
| 12+00 - 12+93 | 270 | 114 |
| 12+93 - 13+14 | 54 | 69 |
| 13+14 - 14+16 | 0 | 0 |
| 14+16 - 14+36 | 54 | 66 |
| 14+36 - 15+25 | 252 | 109 |
| 15+25 - 16+28.83 | 0 | 117 |
| Driveway connection | | |
| 16+30, Lt | 0 | 20 |
| TOTALS | 630 | 608 |

Values used for estimating purposes:

Aggregate Surface Course 139 lb/ft3

| CONTRACTOR DESIGNED GABION WALL SUMMARY | | | | |
|---|------|---|--|--|
| Item Number | | 25301-2000 | 25701-0100 | |
| Approximate Station to Station | Side | GABIONS, POLYVINYL CHLORIDE COATED (CONTRACTOR DESIGNED) SQFT | CONTRACTOR FURNISHED GABION WALL DESIGN LPSM | Remarks |
| | | | | |
| 12+75 - 13+14 | RT | 400 | ALL | Max. wall height is approximately 10' |
| TOTAL | | 400 | ALL | |

Note: See Special 253-A and SCR Sections 253 & 257 for more information.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

GRADING AND
SURFACING SUMMARIES

Sheet 1 of 1

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | B4 |

| SURVEY AND STAKING SUMMARY | | | |
|----------------------------|---|---|---|
| Item Number | 15225-0000 | 15236-2000 | |
| Station to Station | SLOPE REFERENCE AND CLEARING AND GRUBBING CONTROL | SURVEY CONTROL GRADE FINISHING | Remarks |
| | MILE | MILE | |
| Mainline | | | |
| 10+00 - 13+14 | 0.059 | 0.118 | Southerly roadway bridge approach |
| 13+14 - 14+16 | | | Bridge and approach slabs, see S sheets |
| 14+16 - 16+28.83 | 0.040 | 0.080 | Northerly roadway bridge approach |
| TOTALS | 0.099 | 0.198 | |

| CLEARING AND GRUBBING SUMMARY | | | |
|-------------------------------|-------|-----------------------|--|
| Item Number | | 20101-0000 | |
| Station to Station | Side | CLEARING AND GRUBBING | Remarks |
| | | ACRE | |
| Mainline | | | |
| 11+00 - 16+28.83 | LT/RT | 0.660 | Quantity includes roadway width and 5ft beyond slope stake limits or to ROW limits. Quantity does not include area of roadway diversion. Clearing report with station and offset provided. |
| TOTAL | | 0.660 | |

| EROSION CONTROL SUMMARY | | | | | | | |
|-------------------------|---|--|--|---------------------------------------|---|--|--------------------------------------|
| Item Number | 15705-0400 | 15705-1400 | 15705-2000 | 15706-0200 | 15706-1600 | 62901-1000 | |
| Station to Station | SOIL EROSION CONTROL, EARTH BERMS | SOIL EROSION CONTROL, FIBER ROLL | SOIL EROSION CONTROL, FLOATING TURBIDITY CURTAIN | SOIL EROSION CONTROL, CHECK DAM | SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT | ROLLED EROSION CONTROL PRODUCT, TYPE 3.B | Remarks |
| | LNFT | LNFT | LNFT | EACH | EACH | SQYD | |
| 50+00 - 55+22.77 | 180 | 320 | 215 | 5 | 2 | 1500 | Stage 1: Temporary Roadway Diversion |
| 11+00 - 16+28.83 | | 230 | | 2 | 2 | 390 | Stage 2: Mainline |
| TOTALS | 180 | 550 | 215 | 7 | 4 | 1890 | |

Install Rolled Erosion Control Product Type 3.B on fill slopes 1(V):2(H) or steeper, except for station 52+25 to 53+25. Do not install Rolled Erosion Control Product for this station range due to the granular fill material used for the stream crossing.

| FENCE SUMMARY | | | | | |
|--|------------|---------------------|-----------------------------|---------------------------------------|--|
| Item Number | 20302-0700 | 61901-0000 | 61901-0800 | 63503-1000 | |
| Station to Station | Side | REMOVAL OF FENCE | FENCE (BUCK AND POLE) | FENCE, BARBED WIRE, 3 STRAND | TEMPORARY TRAFFIC CONTROL, PLASTIC FENCE |
| | | LNFT | LNFT | LNFT | LNFT |
| 11+90 - 12+85 | LT | 185 | | 185 | 110 |
| 14+05 - 15+50 | RT | 155 | | 155 | 155 |
| 14+23 - 16+00 | LT | 210 | 210 | | 200 |
| 14+30 - 14+50 | LT | 27 | | 27 | 0 |
| See C sheet for location, offset left of centerline (50' to 75'). Plastic fence length included in quantity shown for station 14+23-16+00. | | | | | |
| TOTALS | | 577 | 210 | 367 | 640 |

Note: Once the existing fence is removed, use the plastic fence to close the gap in the fence. Remove plastic fence when the new fence is installed or the existing fence is reset. No payment will be made for removal of plastic fence.

| SEEDING AND MULCHING SUMMARY | | | | |
|------------------------------|-------|---------------------------------|----------------------------------|--|
| Item Number | | 62511-2000 | 62516-2000 | |
| Station to Station | Side | SEEDING, HYDRAULIC METHOD | MULCHING, HYDRAULIC METHOD | Remarks |
| | | SQYD | SQYD | |
| Mainline | | | | |
| 11+00 - 16+28.83 | LT/RT | 1200 | 1200 | Seed and mulch all slopes 1(V):1.5(H) or flatter. See SCRs for seed mix. |
| TOTALS | | 1200 | 1200 | |

| GUARDRAIL SUMMARY | | | | |
|--------------------|------------|--|---------------------------------------|---|
| Item Number | 61701-4550 | 61702-1500 | | |
| Station to Station | Side | GUARDRAIL SYSTEM MGS, TYPE 2, CLASS A WOOD POSTS | TERMINAL SECTION, TYPE MGS TANGENT | Remarks |
| | | LNFT | EACH | |
| 12+45 - 12+70 | LT | | 1 | |
| 12+70 - 14+60 | LT | - | - | See S sheets for bridge and transition rail |
| 14+60 - 14+85 | LT | 25 | | |
| 14+85 - 15+10 | LT | | 1 | |
| 12+20 - 12+45 | RT | | 1 | |
| 12+45 - 12+70 | RT | 25 | | |
| 12+70 - 14+60 | RT | - | - | See S sheets for bridge and transition rail |
| 14+60 - 14+85 | RT | | 1 | |
| Project Wide | | 25 | | See note 1. |
| TOTALS | | 75 | 4 | |

Note:

- 1.) Depending on the guardrail terminal selected for installation, 12.5' of MSG guardrail may be required at stations 12+45 Lt and 14+60 Rt, to achieve connection to the WYDOT transition rail. The WYDOT transition rail requires a post located at 3'-1½" beyond the end of the transition rail section, see S sheets for structure transition railing details.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TABULATION
OF QUANTITIES

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | B5 |

| TEMPORARY TRAFFIC CONTROL SUMMARY | | | | | | |
|-----------------------------------|--|---|---------------------------------|---|---|--|
| Item Number | 63501-2000 | 63502-0600 | 63502-1300 | 63502-1600 | 63503-0400 | |
| Station to Station | TEMPORARY TRAFFIC CONTROL, TRAFFIC SIGNAL SYSTEM | TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 3 | TEMPORARY TRAFFIC CONTROL, DRUM | TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE B | TEMPORARY TRAFFIC CONTROL, CONCRETE BARRIER | Remarks |
| | LPSM | EACH | EACH | EACH | LNFT | |
| Project Wide | ALL | 2 | 20 | 4 | 815 | No payment will be made for moving concrete barrier from stage 1 to stage 2 location. See Temporary Traffic Control Plan for more information. |
| TOTALS | ALL | 2 | 20 | 4 | 815 | |

| CONSTRUCTION SIGN SUMMARY | | | | | |
|---------------------------|---------------------------------|------------|---------------|---|-------------------|
| Item Number | | | | 63502-3900 | Remarks |
| MUTCD Reference | Description | Sign Panel | Area per Sign | TEMPORARY TRAFFIC CONTROL CONSTRUCTION SIGN | |
| | | in x in | sqft | EACH | |
| G20-2 | End Road Work | 36 x 18 | 4.5 | 2 | |
| R10-6 | STOP HERE ON RED | 36 x 36 | 9 | 2 | |
| W1-6L | One Direction Large Arrow Left | 48 x 24 | 8 | 1 | |
| W1-6R | One Direction Large Arrow Right | 48 x 24 | 8 | 1 | |
| W3-3 | Signal Ahead (symbol) | 36 x 36 | 9 | 2 | |
| W13-1P | Advisory Speed (plaque) | 24 x 24 | 4 | 2 | 25 miles per hour |
| W20-1 | Road Work Ahead | 36 x 36 | 9 | 2 | |
| W20-4 | One Lane Road Ahead | 36 x 36 | 9 | 2 | |
| TOTAL | | | | 14 | |

| Pay Item 65001-1000 CONSTRUCT AND MAINTAIN DIVERSION LUMP SUM | | | | |
|---|---|----------|------|---|
| Pay Item Number | Item Description | Quantity | Unit | Remarks |
| For Info Only | Clearing and Grubbing | 0.164 | acre | Includes 2ft beyond diversion slope stakes. Does not include area of overlap with mainline clearing quantity. Clearing report provided for staking purposes only. |
| For Info Only | Removal of Pipe Culvert | 3 | each | Removal of two 60" and one 24" pipe culverts, restore areas to pre-installation contours. |
| For Info Only | Embankment Construction | 570 | cuyd | Station 50+00-52+25 & 53+25-55+22, quantity does not include material measured under Mainline embankment construction where overlapping fill slopes occur. |
| For Info Only | Embankment Construction (granular material) | 900 | cuyd | Station 52+25-53+25 (stream crossing) |
| For Info Only | Roadway Obliteration | 800 | sqyd | Same area as clearing and grubbing for diversion, see note for clearing and grubbing above. |
| For Info Only | Roadway Aggregate, Method 2 | 235 | ton | 4 inch depth, 139 lb/cuft |
| For Info Only | 24-inch Pipe Culvert | 45 | lnft | See D sheet for plan view and cross section for more information |
| For Info Only | Drainage structure (Contractor selected) | 65 | lnft | Install culvert(s) to pass the Q2 (500 cfs) flow. Embed minimum 1 ft below stream bottom, backfill with streambed material. See plan view and SCR Section 650 for more information. |
| For Info Only | Seeding | 655 | sqyd | Conserve topsoil, replace after Diversion is removed, and seed and mulch the area. The area is estimated as the Clearing and grubbing area shown above for the construction of the diversion, minus the area of the stream. |
| For Info Only | Mulching | 655 | sqyd | |

Note: Quantities shown are approximate and for information only. Items shown do not reflect all items necessary to complete work required. Staking reports will be provided. See SCR Section 650 for more information. Temporary Erosion Control and Temporary Traffic Control items will be paid separately.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TABULATION
OF QUANTITIES

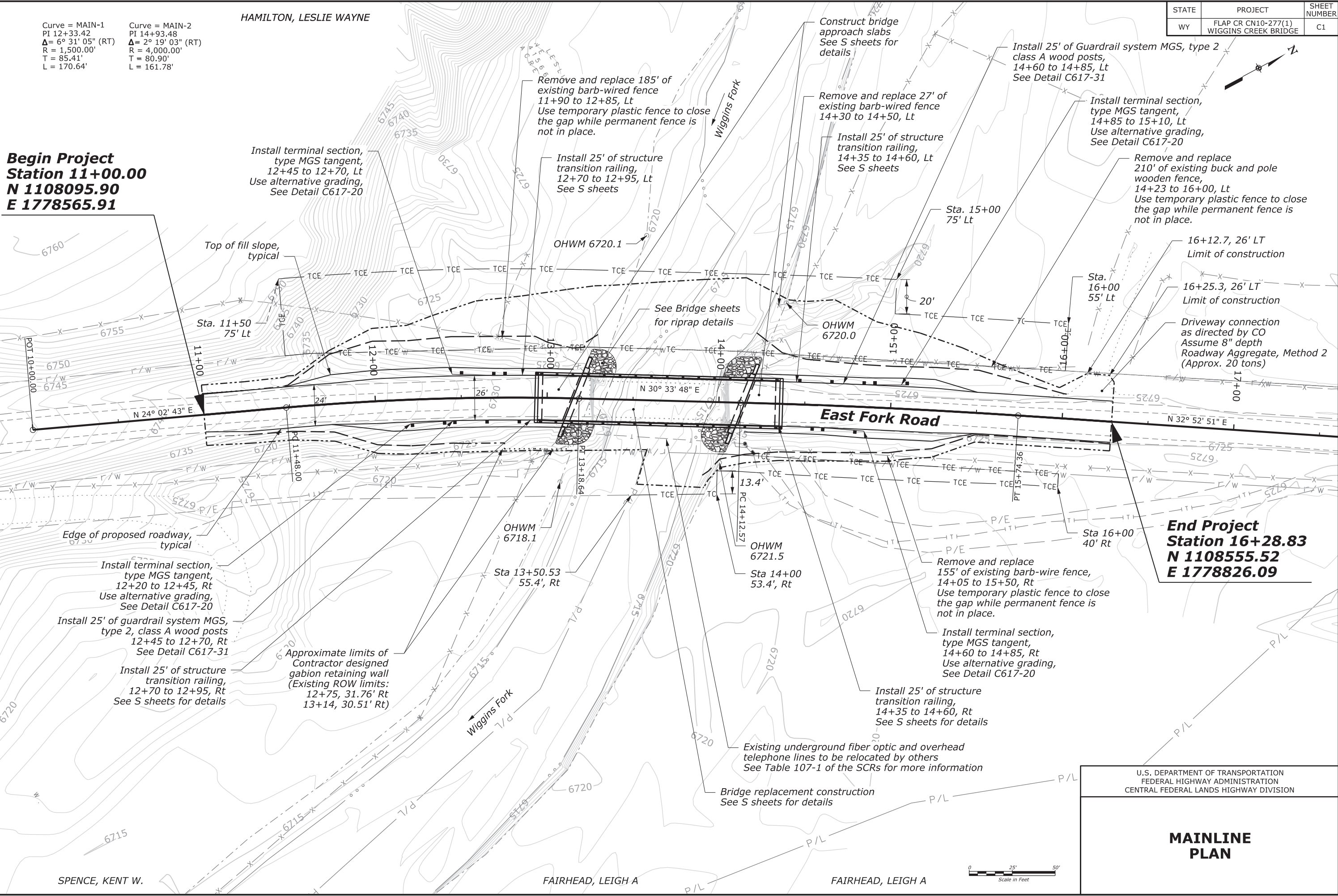
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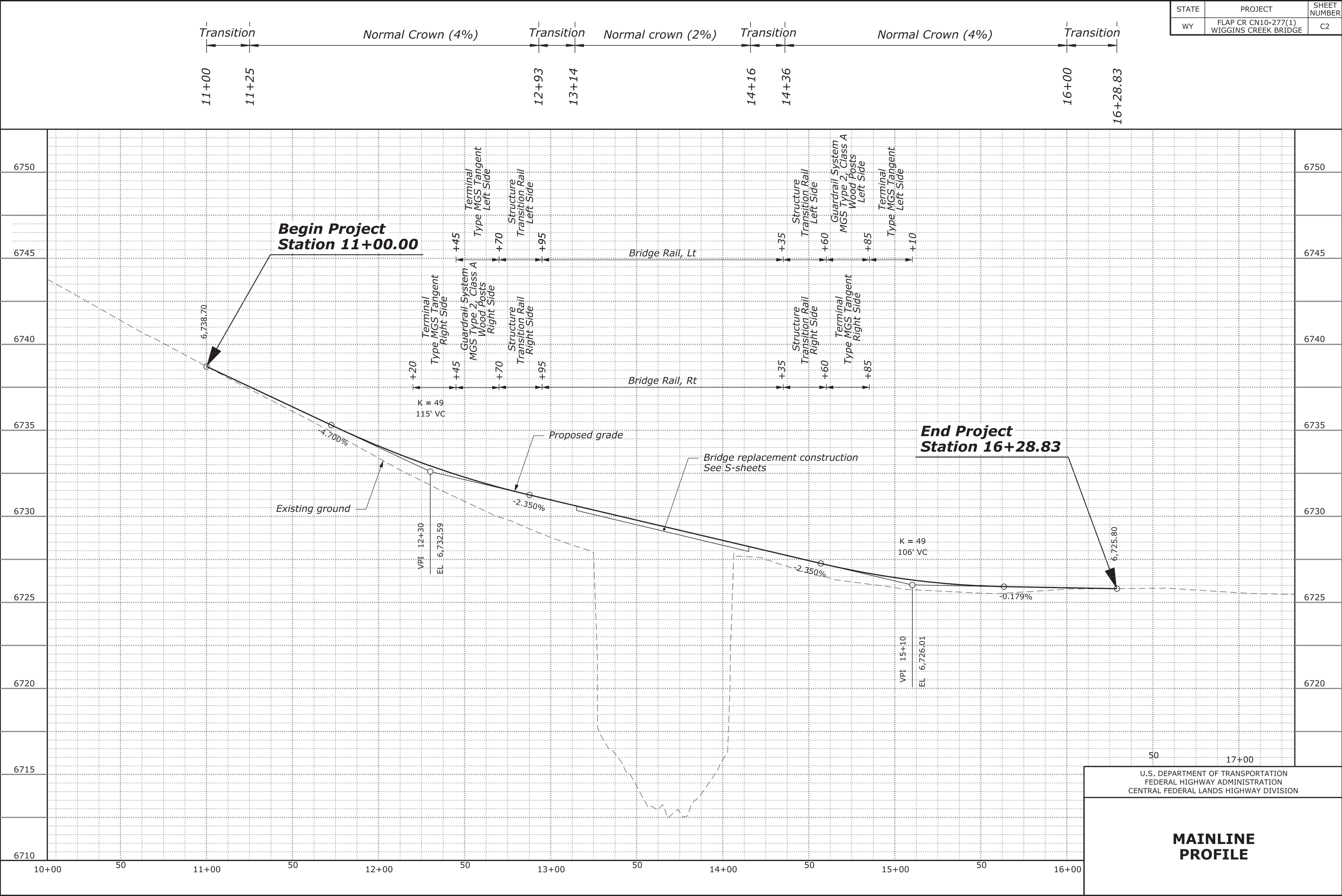
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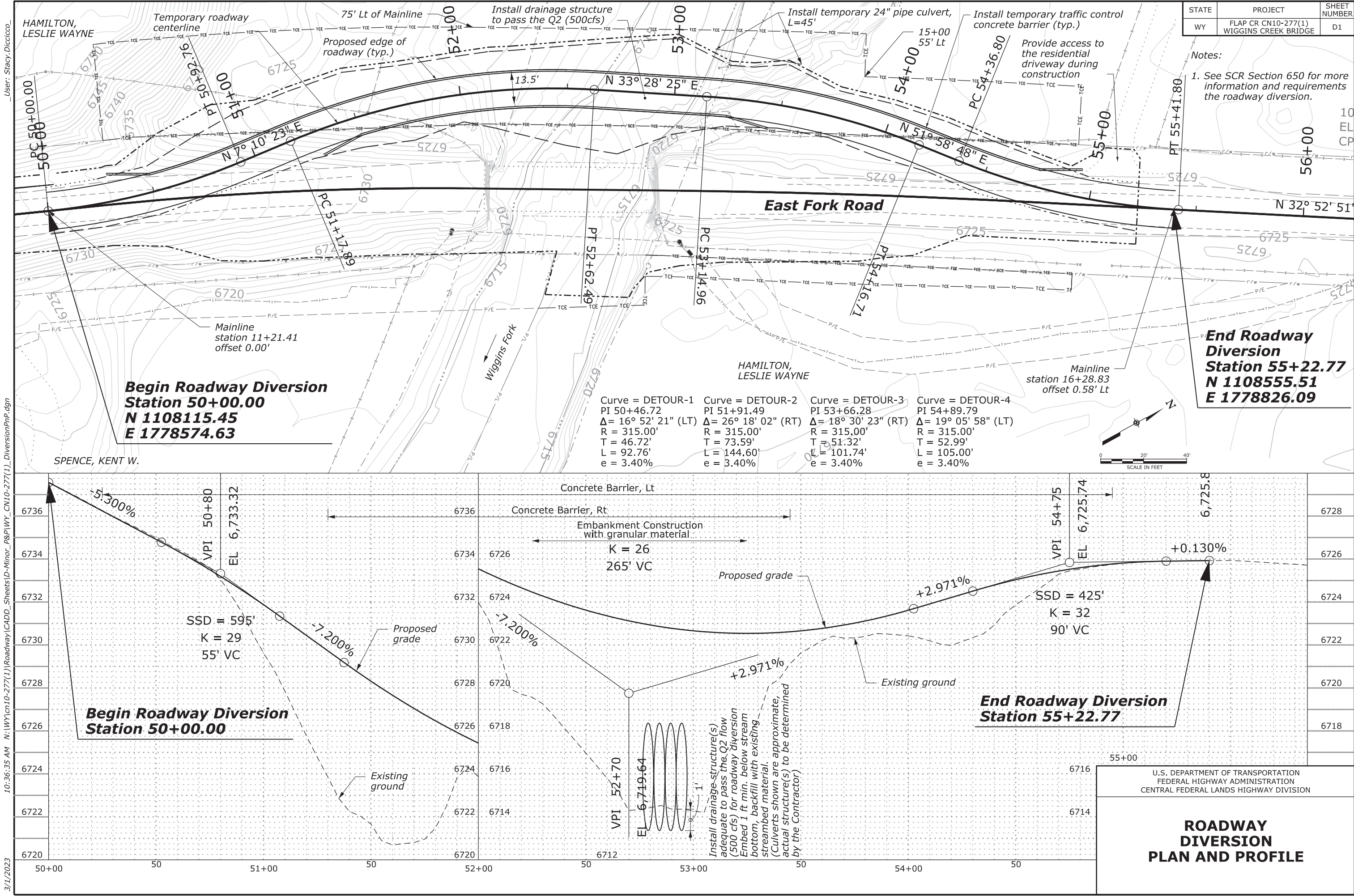
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| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | C1 |



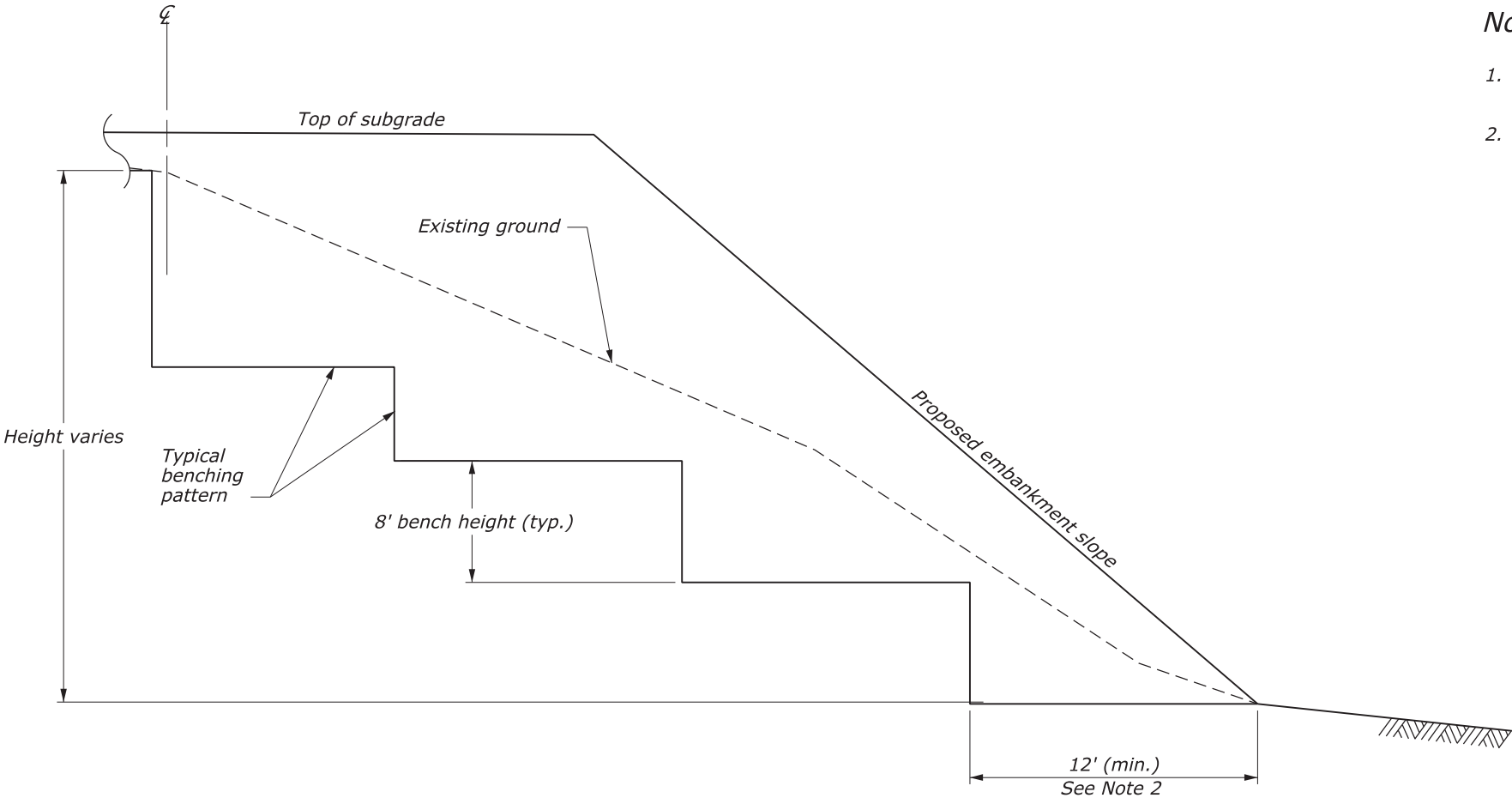
| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | C2 |





| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | F1 |

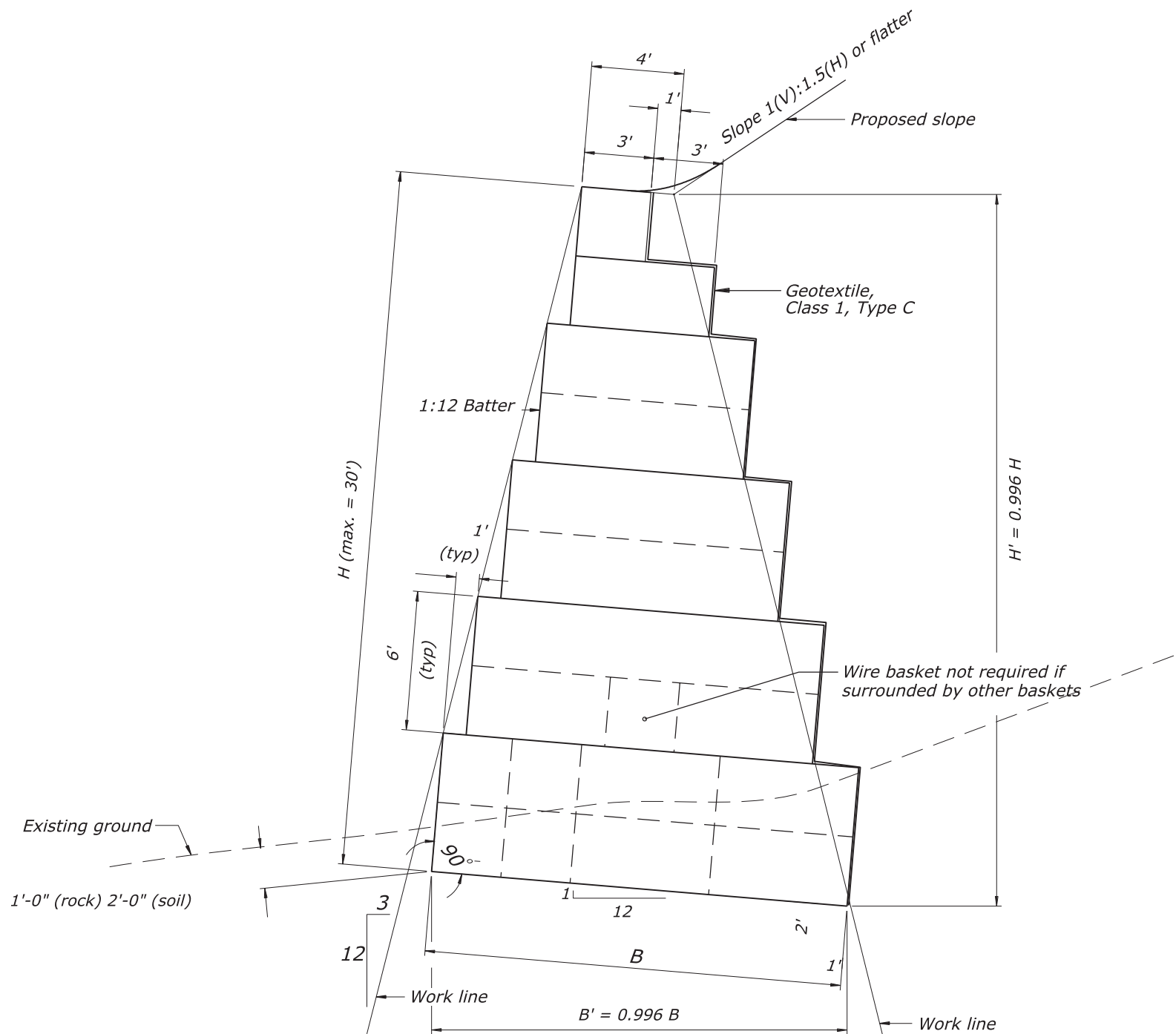
- Note:**
- Benching is not required for ground sloped at 1V:3H or flatter.
 - Bench into existing slope as necessary to meet 12' minimum bench width and 8' typical bench height or as directed by CO.



EMBANKMENT BENCHING

| | |
|---|------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | |
| U.S. CUSTOMARY SPECIAL | |
| EMBANKMENT BENCHING | |
| REVISED: 08/2014 | SPECIAL 204-A |

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | G1 |



TYPICAL CROSS SECTION

NOTES:

DESIGN DATA:

Weight of earth = 120 lbs./cu.ft.
Weight of rock-filled gabions = 110 lbs./cu.ft.
Angle of repose = 34° (1½:1 slope)
Design earth pressure:
Horizontal - 80 lbs./cu.ft. equivalent fluid pressure
Vertical - 40 lbs./cu.ft. equivalent fluid pressure

CONSTRUCTION:

Fractional height courses (1 or 2 feet) will be permitted only in the top course next to the foundation.

Wire baskets may be omitted from any 3-foot square section which is surrounded on all four sides by standard baskets and on ends by baskets not less than 6 feet in length.

Place and compact backfill as the wall is constructed so that the fill is maintained within 6 feet of the top of the wall.

For design and layout, H' and B' may be considered equal to H and B, respectively.

| NUMBER OF COURSES | "H" Ft. | "B" Ft. | GABIONS Cu.yd./Lin.ft. |
|-------------------|---------|---------|------------------------|
| 1 | 3 | 3 | 0.333 |
| 2 | 6 | 6 | 1.000 |
| 3 | 9 | 9 | 2.000 |
| 4 | 12 | 9 | 3.000 |
| 5 | 15 | 12 | 4.333 |
| 6 | 18 | 12 | 5.667 |
| 7 | 21 | 15 | 7.333 |
| 8 | 24 | 15 | 9.000 |
| 9 | 27 | 18 | 11.000 |
| 10 | 30 | 18 | 13.000 |

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

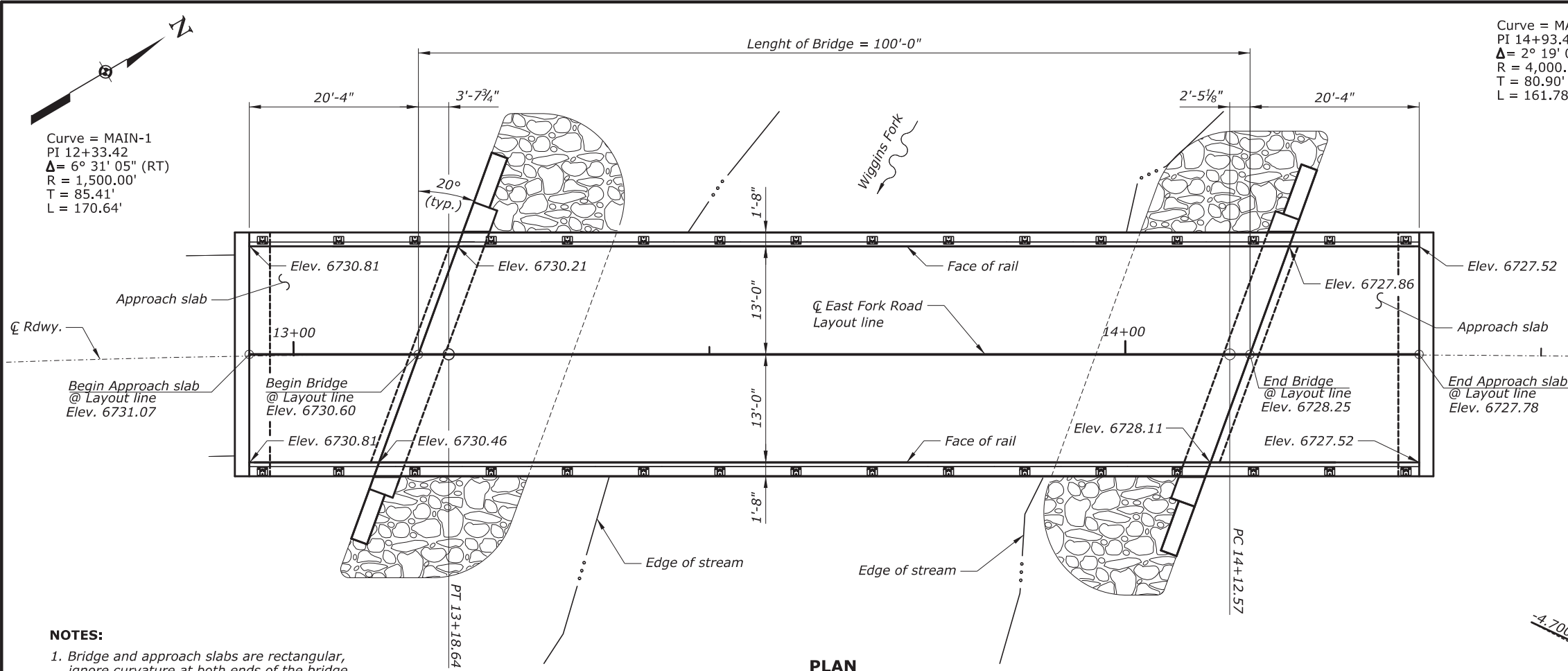
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CONTRACTOR DESIGNED
GABION
RETAINING WALL

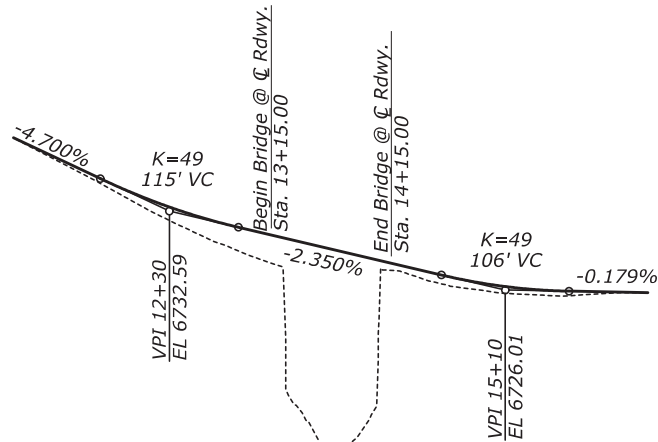
SPECIAL
253-A

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1/19/2023



| BRIDGE DRAWING INDEX | |
|----------------------|---|
| Drawing No. | Description |
| RG3197-A | PLAN AND ELEVATION |
| RG3197-B | GENERAL NOTES AND ESTIMATES |
| RG3197-C | BORING LOG |
| RG3197-D | FOUNDATION PLAN |
| RG3197-E | PROPOSED COFFERDAM PLAN |
| RG3197-F | DRILLED SHAFT DETAILS |
| RG3197-G | ABUTMENT PLAN AND ELEVATION |
| RG3197-H | ABUTMENT REINFORCEMENT |
| RG3197-I | RIPRAP DETAILS |
| RG3197-J | MODULAR BRIDGE LAYOUT & TYPICAL SECTION |
| RG3197-K | BRIDGE RAIL DETAILS (1 OF 2) |
| RG3197-L | BRIDGE RAIL DETAILS (2 OF 2) |
| RG3197-M | STRUCTURE TRANSITION RAILING |
| RG3197-N | APPROACH SLAB DETAILS (1 OF 2) |
| RG3197-O | APPROACH SLAB DETAILS (2 OF 2) |
| RG3197-P | REBAR LIST (1 OF 2) |
| RG3197-Q | REBAR LIST (2 OF 2) |



| HYDRAULIC DATA | | | |
|------------------|------------|------------|----------------|
| Storm Event | Flow (cfs) | W.S. Elev. | Freeboard (ft) |
| Q ₂ | 500 | 6716.37 | 6.91 |
| Q ₁₀ | 1340 | 6717.85 | 5.43 |
| Q ₅₀ | 2120 | 6718.80 | 4.48 |
| Q ₁₀₀ | 2490 | 6719.18 | 4.10 |

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

PLAN AND ELEVATION

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|--------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 1/8" = 1'-0" | PHILIP BOINSKE SAMIR SIDHOM | 1 of 17 | JANUARY 2023 | RG3197-A |

N:\WP\cn10-277\UNBridge\RG3197\CADD Files\DGN Files\vg3197_gndgn 1/19/2023

GENERAL NOTES:

SPECIFICATIONS:

Design:

AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017.

Construction:

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-14 and Special Contract Requirements (SCR's).

DESIGN LOADS:

Dead Load:

Concrete: 150 psf
Future Wearing Surface: 25 psf
Lateral Earth Pressure: Equivalent fluid unit weight of soil, 0.036 kcf.

Live Loads:

HL-93 loading. Maximum Dynamic Load Allowance, IM=33%

Seismic:

Site is located in Seismic Zone 2. No seismic analysis has been performed as per AASHTO minimum analysis requirements for single span bridges. Abutment seats are of adequate width to prevent displacement of superstructure.

MATERIALS:

Concrete:

Furnish Class A(AE) concrete for abutments, approach slabs, sleeper slabs and wingwalls with a minimum compressive strength f'c = 4.5 ksi at 28 days. Concrete for the drilled shaft shall be Class A with a minimum compressive strength f'c = 4.5 ksi at 28 days
Chamfer exposed edges of all concrete 3/4 - inch unless otherwise noted. All concrete shall be made with type II cement. All cement shall be low alkali cement.

Reinforcing Steel:

Furnish reinforcing steel conforming to AASHTO M 31 or M322, Grade 60 deformed. Provide 2-inch cover for reinforcing steel unless otherwise noted. Minimum splice lengths for all bar sizes shall be shown on the plans. Bar splices other than those shown on the plans will not be paid for. All superstructure and approach slabs reinforcing steel shall be epoxy coated.

Prefabricated Steel Bridge:

Provide modular steel girder bridge with composite precast concrete deck panels including curbs for railing as shown on the plans. See section 555 of the Special Contract Requirements for additional requirements.

The steel fabricating company shall be certified under AI SC Quality Certification Program. All structural steel for girders and diaphragms shall be high -strength low alloy corrosion resistant steel conforming to AASHTO M270, Grade 50W (ASTM A709, Grade 50W) unless otherwise shown on the plans. The contractor is responsible for the stability of the structure during all phases of construction. All field connections shall be designed as slip critical, friction type, and shall be made with fasteners conforming to ASTM F3125, Grade A325, type 3. All exposed surfaces of self -weathering steel shall be cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 6, Commercial Blast Cleaning, SSPC-SP6. All welding shall conform to the ANSI/AASHTO/AWS D1.5, and shall be performed by a certified welder.

Concrete for precast deck panels including rail curbs shall be structural concrete, Class P(AE) with a minimum 28-days compressive strength f'c=4500 psi and shall be made with Type II cement. Precast concrete deck panels shall be made composite with the steel superstructure.

Anchor bolts shall conform to ASTM F1554, Grade 36 or 55. Hex nuts shall conform to ASTM A563, Grade A. All anchor bolt hardware and bearing plates shall be galvanized.

Steel reinforced bearing pads shall conform to AASHTO M251, 60 Durometer hardness, grade 3 or higher.

Structural Excavation:

The contractor shall perform all necessary excavation work to build the foundation to required depths. Refer to Soils and Foundations Report No. 03-18 for description of the anticipated materials to be encountered during excavation/drilling at the bridge site.

Geotechnical Report:

For boring logs and other geotechnical information, see Soils and Foundations Report No. 03-18, dated November 2018, prepared by U.S.Department of Transportation, Federal Highway Administration, Eastern Federal Lands Highway Division.

| ESTIMATE | | | | |
|------------|--|-----------|------|--------|
| Item No. | Item | Quantity | Unit | Notes |
| 15214-1000 | Survey And Staking, Bridge | All Req'd | LPSM | |
| 20304-2000 | Removal Of Bridge | All Req'd | LPSM | |
| 20801-0000 | Structure Excavation | 260 | CUYD | (1) |
| 20803-0000 | Structural Backfill | 63 | CUYD | (1) |
| 20815-0000 | Cofferdams | All Req'd | LPSM | |
| 25101-2400 | Placed Riprap, Method B, Class 4 | 164 | CUYD | |
| 55201-0200 | Structural Concrete, Class A (AE) | 149 | CUYD | (1)(2) |
| 55401-1000 | Reinforcing Steel | 21700 | LB | (1) |
| 55401-2000 | Reinforcing Steel, Epoxy Coated | 13000 | LB | (1) |
| 55504-0000 | Pre-fabricated steel bridge (100'x29'-4" modular steel vehicular Bridge) | All Req'd | LPSM | (4) |
| 55601-0900 | Bridge railing, steel (WYDOT TL-3) | 282 | LNFT | (1) |
| 56501-0300 | Drilled Shaft, 30-Inch Diameter | 240 | LNFT | (3) |
| 61707-0000 | Structure Transition Railing | 100 | LNFT | (1) |

ESTIMATE NOTES

- (1) Contract Quantity.
- (2) Includes cost of furnishing and constructing concrete, expansion joint filler, compression seal, geocomposite sheet drain (est. qty. = 45 square yards), drain grates (10 req'd), weepholes, aggregate base & polyethylene sheeting for approach slabs.
- (3) Includes cost of excavation, concrete, reinforcing steel, access tubes and any other materials required for constructing the drilled shafts. Includes cost of permanent and Temporary casing as required.
- (4) Includes cost of furnishing and erecting modular steel bridge including structural steel girders, diaphragms, composite precast concrete deck panels, concrete curb, grout, elastomeric bearing pads, tapered bearing plates and anchor bolts.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

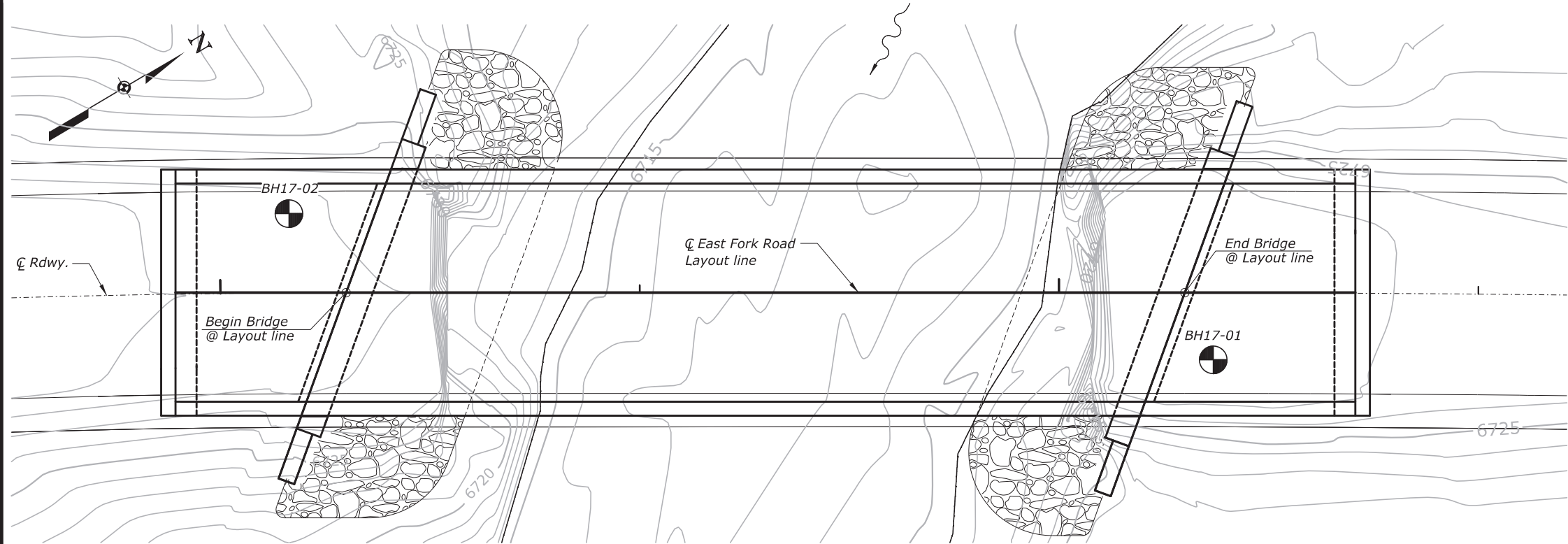
WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

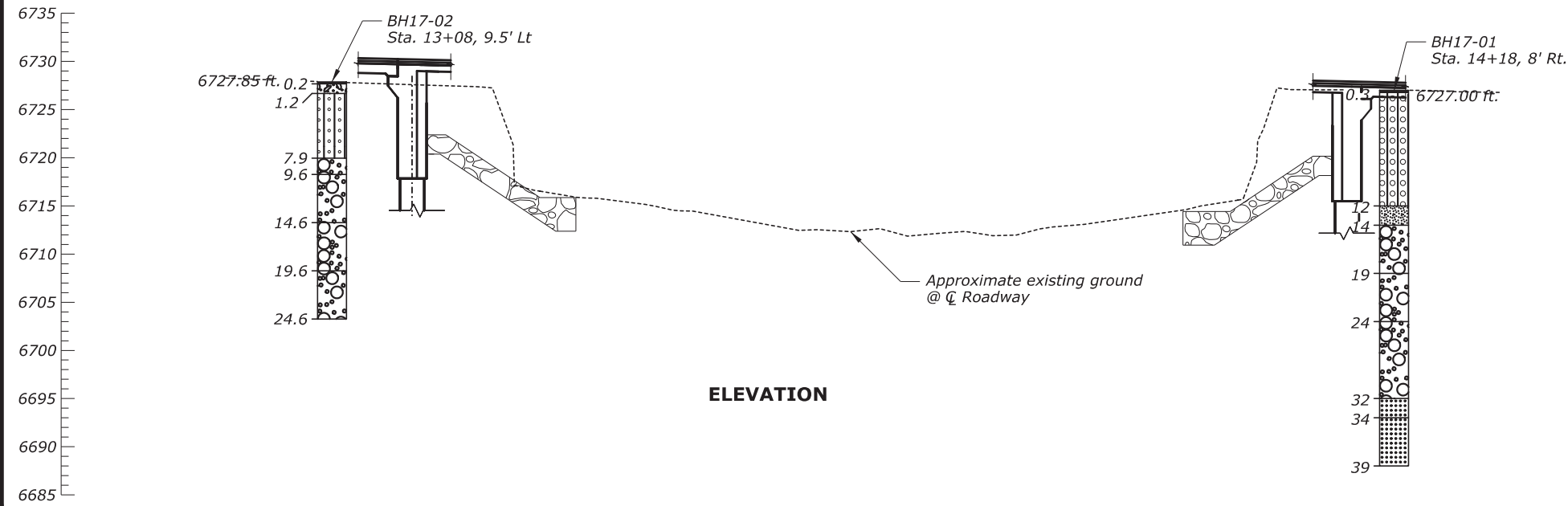
GENERAL NOTES AND ESTIMATES

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|-------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | NONE | PHILIP BOINSKE SAMIR SIDHOM | 2 of 17 | JANUARY 2023 | RG3197-B |

| | | |
|-------|----------------------|-----------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S3 |



PLAN



ELEVATION

- Notes:
- Boring logs on this sheet represent the subsurface conditions encountered at the boring locations shown.
 - For additional geotechnical information, see Soils and Foundations Report No. 03-18, dated November 2018, prepared by U.S. Department of Transportation, Federal Highway Administration, Eastern Federal Lands Highway Division.

MISCELLANEOUS

- SPT-STANDARD PENETRATION TEST -AASHTO T206-74
- R-REFUSAL, SPT 100 BLOWS/300 mm
- CRZ-PERCENT OF RECOVERY
- RQD-ROCK QUALITY DESIGNATION
- BHT-BORE HOLE TERMINATED
- BHR-BORE HOLE REFUSAL
- GEOPHYSICAL TEST SITE: SEISMIC RESISTIVITY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

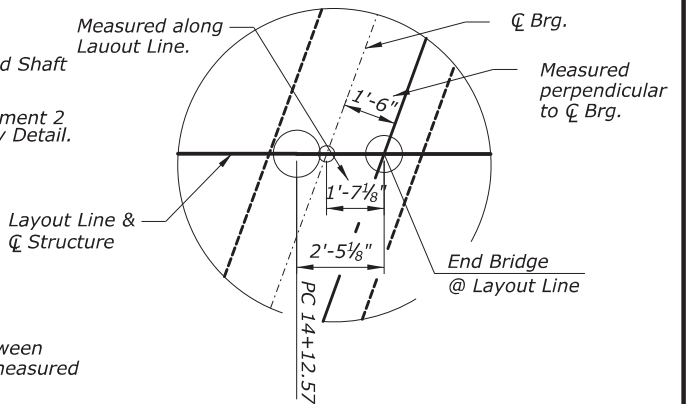
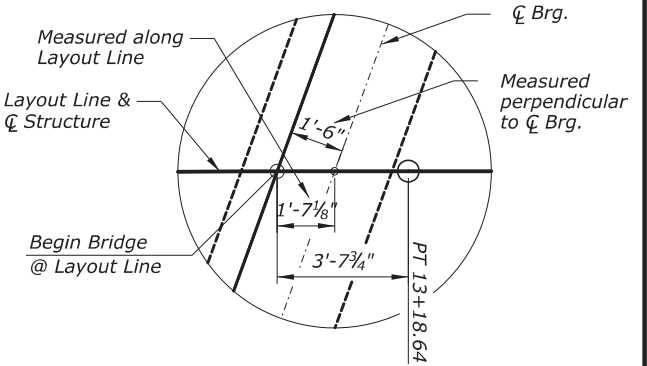
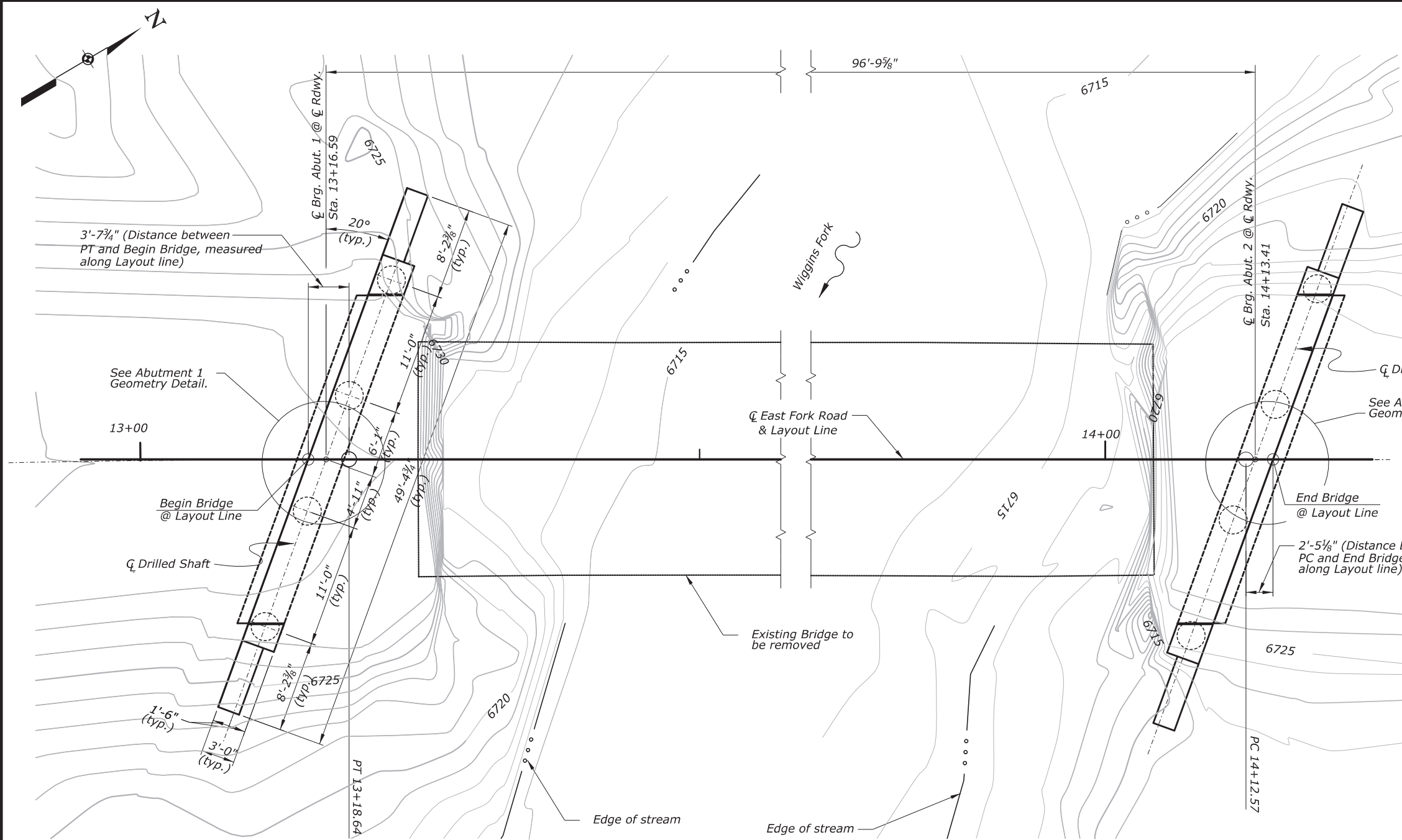
FREMONT COUNTY, WYOMING

BORING LOG

| SYMBOL | TYPE OF MATERIAL | SYMBOL | TYPE OF MATERIAL | TEST BORING |
|--------|---------------------------|--------|------------------|--|
| | ASPHALT PAVEMENT | | | <div>BORING NUMBER B-N</div> <div>WATER LEVEL (WL) (24 HOURS)</div> <div>WATER LEVEL (WL) (TIME OF DRILLING)</div> <div>DEPTH MARKS</div> <div>BHT: OR BHR</div> <div>N BLOWS/300 mm (SPT)</div> <div>J-N JAR SAMPLE NO.</div> <div>CRZ</div> <div>RQD</div> |
| | SAND WITH SILT AND GRAVEL | | | |
| | GRAVEL WITH SILT AND SAND | | | |
| | FINE TO COARSE SAND | | | |
| | COBBLES AND BOULDERS | | | |
| | SANDSTONE | | | |
| | GRAVEL BASE COURSE | | | |

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|--------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 1/8" = 1'-0" | PHILIP BOINSKE SAMIR SIDHOM | 3 of 17 | JANUARY 2023 | RG3197-C |

| | | |
|-------|----------------------|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S4 |



- Notes:
- Construct 30" O drill shafts with permanent casings. See RG3197-F for Drilled Shaft Detail information.
 - Socket the drilled shaft a minimum of 5 ft into competent (not weathered) bedrock as approved by the CO.
 - Ignore curvature at both ends of the bridge. Layout Line is the extended tangent between the PT and PC.
 - Submit removal plan of existing bridge to the CO for approval.

DRILLED SHAFT DATA TABLE

| Substructure Unit | Nominal Axial Resistance (Kips/shaft) | Factored Axial Resistance (Kips/shaft) |
|-------------------|---------------------------------------|--|
| Abutment 1 | 8,500 | 5,000 |
| Abutment 2 | 8,500 | 5,000 |

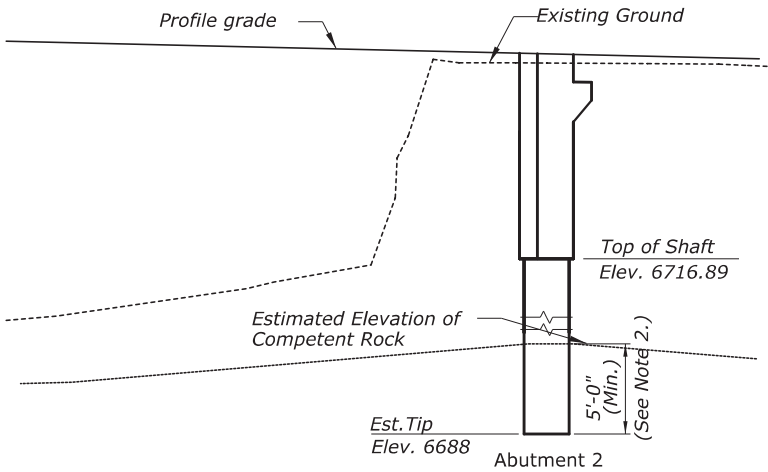
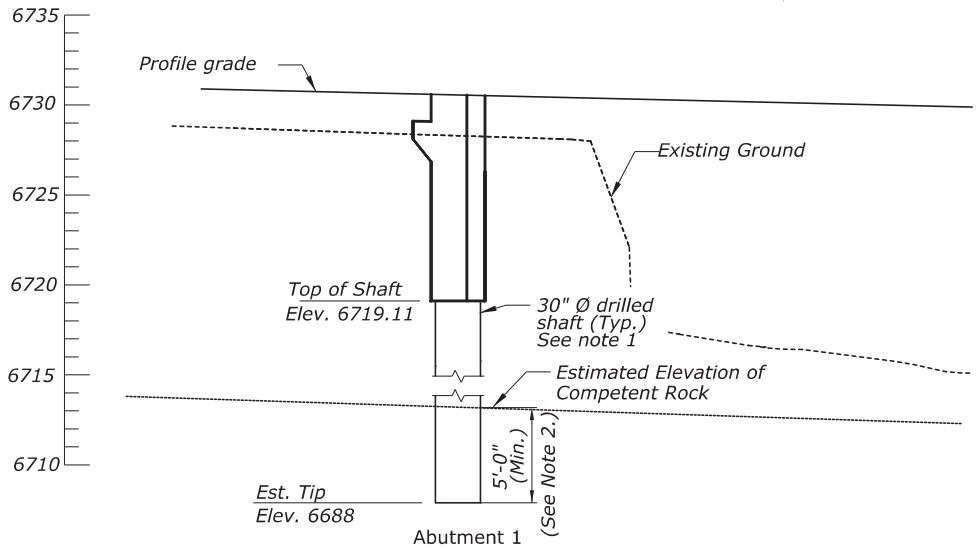
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

FOUNDATION PLAN

FOUNDATION PLAN



ELEVATION

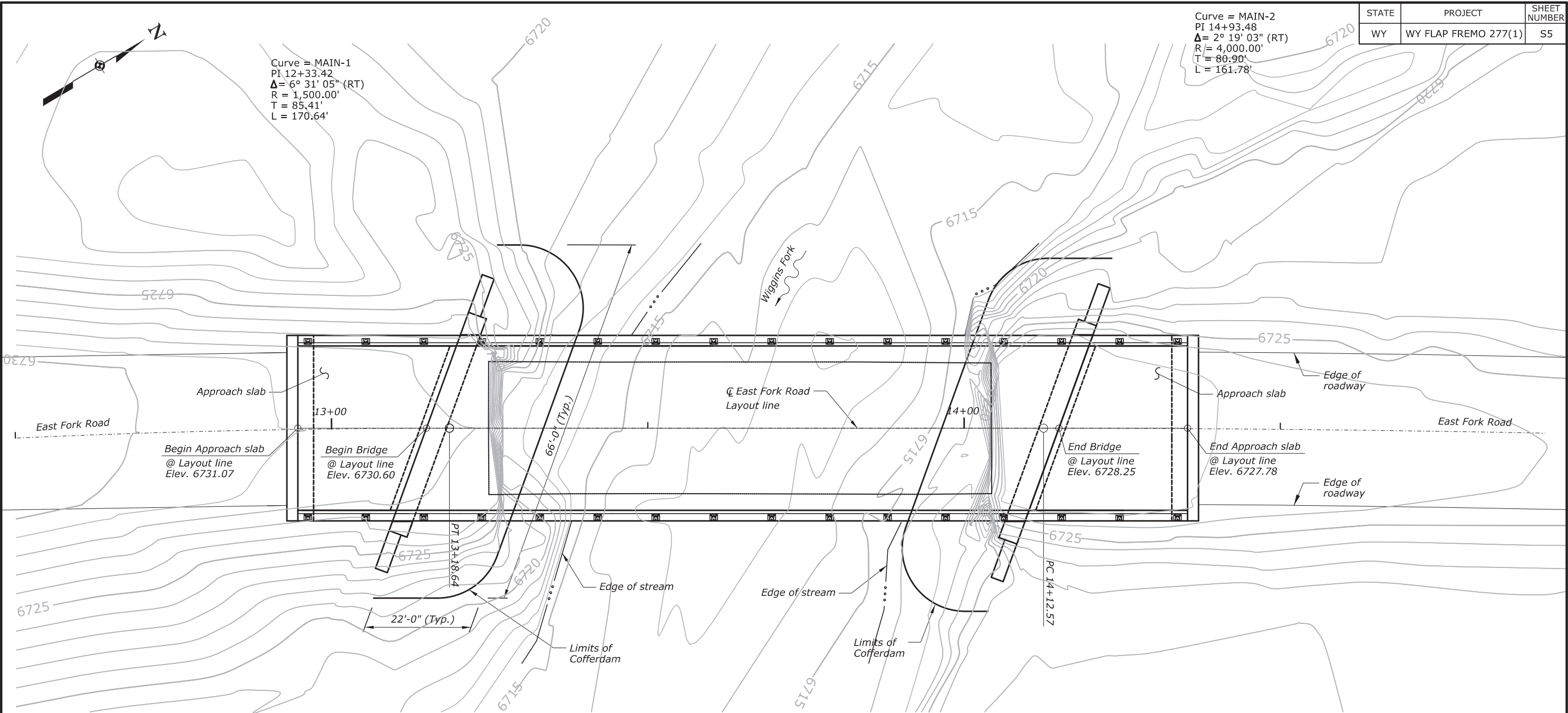
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1/19/2023

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|--------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 1/4" = 1'-0" | PHILIP BOINSKE SAMIR SIDHOM | 4 of 17 | JANUARY 2023 | RG3197- D |

N:\WP\cn10-277\1\NBridge\RG3197\CADD Files\vg3197 cofferdam.dgn

1/19/2023



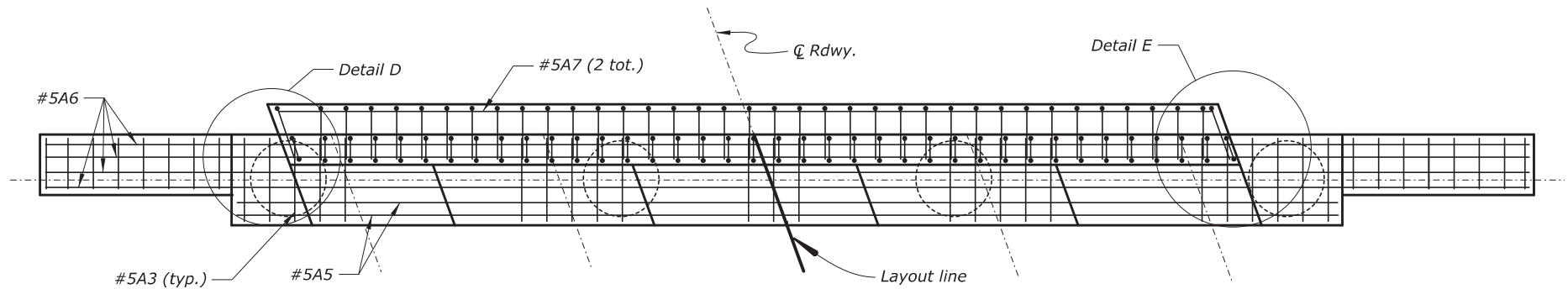
PROPOSED COFFERDAM PLAN

Note: Provide alternate plans for the cofferdam to the CO for approval.

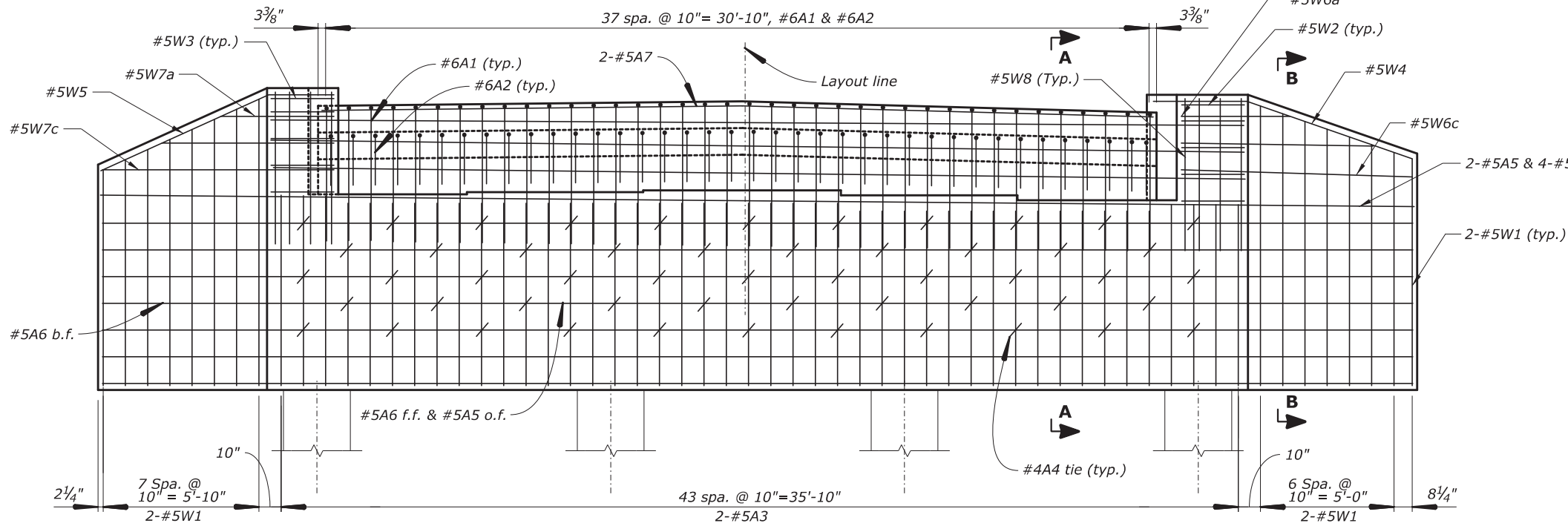
| STATE | PROJECT | SHEET NUMBER |
|-------|----------------------|--------------|
| WY | WY FLAP FREMO 277(1) | S5 |

| | | |
|---|--------------|-------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | | |
| WIGGINS FORK BRIDGE | | |
| FREMONT COUNTY, WYOMING | | |
| PROPOSED COFFERDAM PLAN | | |
| BRIDGE PLAN SHEET | DATE | DRAWING NO. |
| 5 of 17 | JANUARY 2023 | RG3197-E |

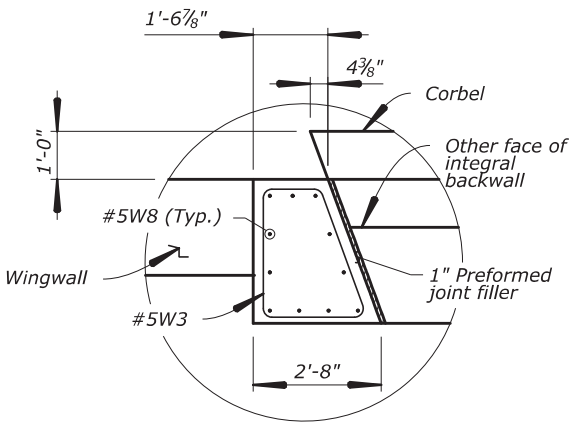
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| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S8 |



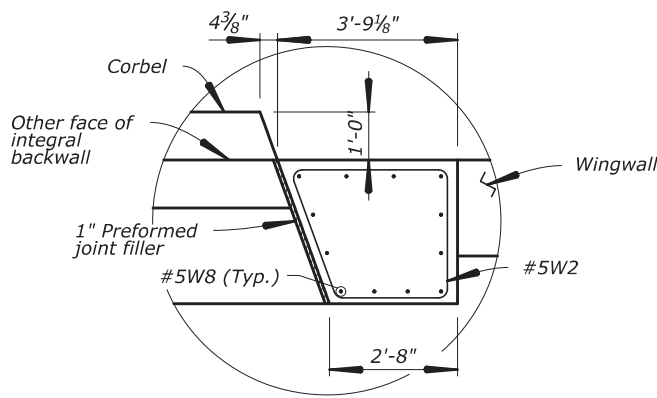
PLAN
Scale: $\frac{3}{8}$ " = 1'-0"



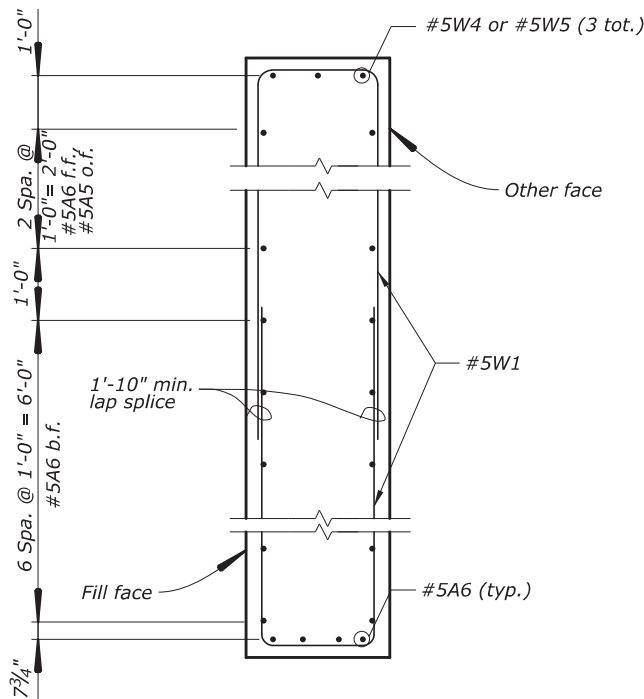
ELEVATION
Scale: $\frac{3}{8}$ " = 1'-0"



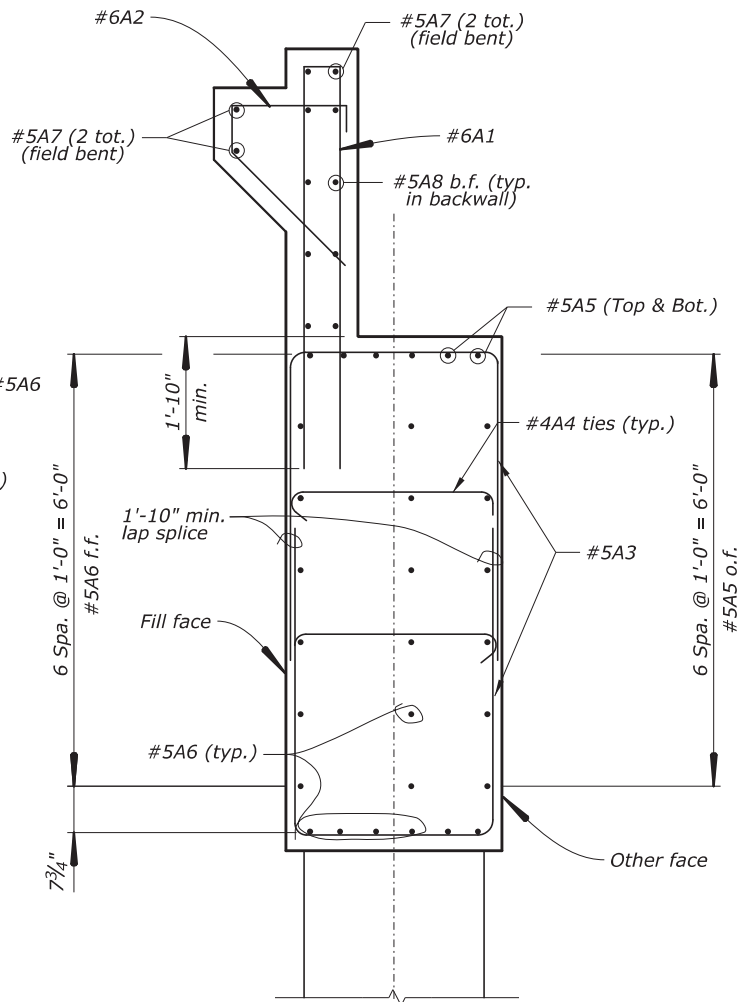
**DETAIL D
WINGWALL HAUNCH**
Scale: $\frac{1}{2}$ " = 1'-0"



**DETAIL E
WINGWALL HAUNCH**
Scale: $\frac{1}{2}$ " = 1'-0"



SECTION B-B
Scale: $\frac{3}{4}$ " = 1'-0"



SECTION A-A
Scale: $\frac{3}{4}$ " = 1'-0"

ABBREVIATIONS:
f.f. = Fill face
o.f. = Other face
b.f. = Both faces

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

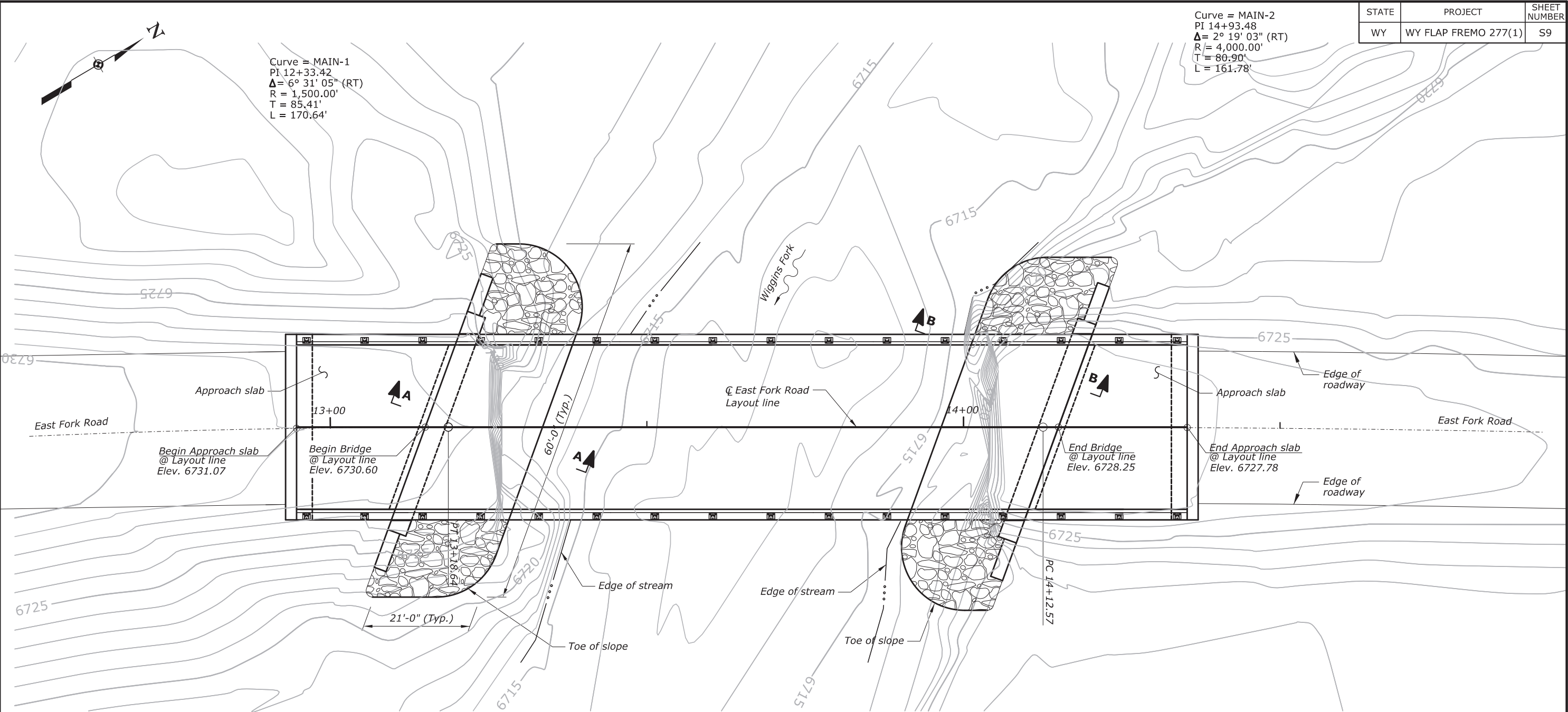
FREMONT COUNTY, WYOMING

ABUTMENT REINFORCEMENT

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|----------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | As shown | PHILIP BOINSKE SAMIR SIDHOM | 8 of 17 | JANUARY 2023 | RG3197-H |

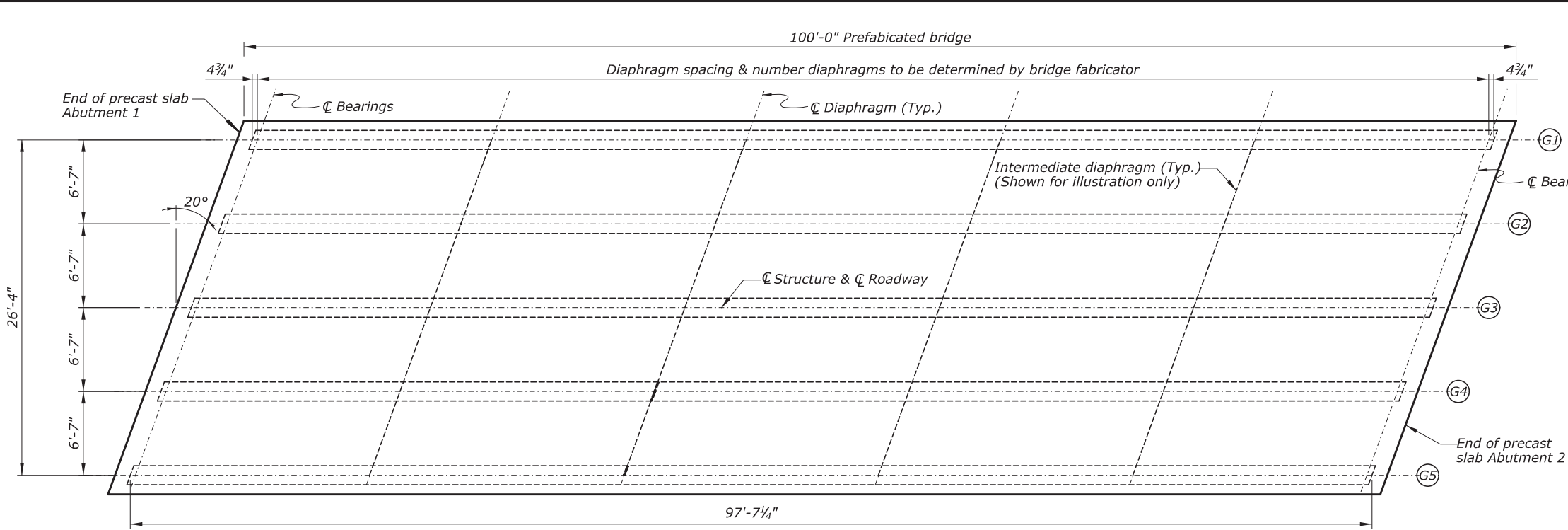
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1/19/2023



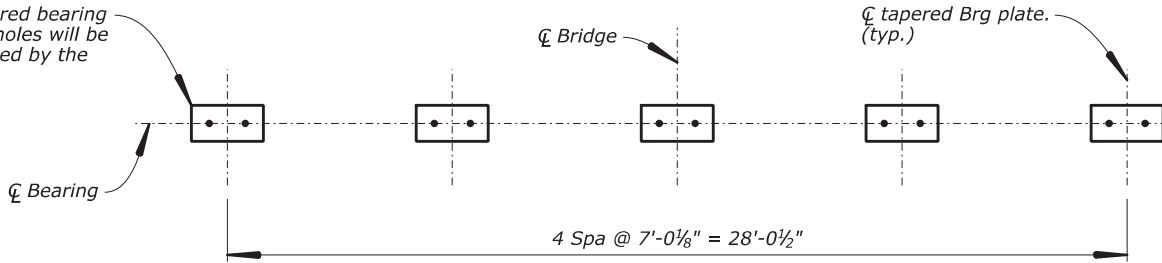
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1/19/2023



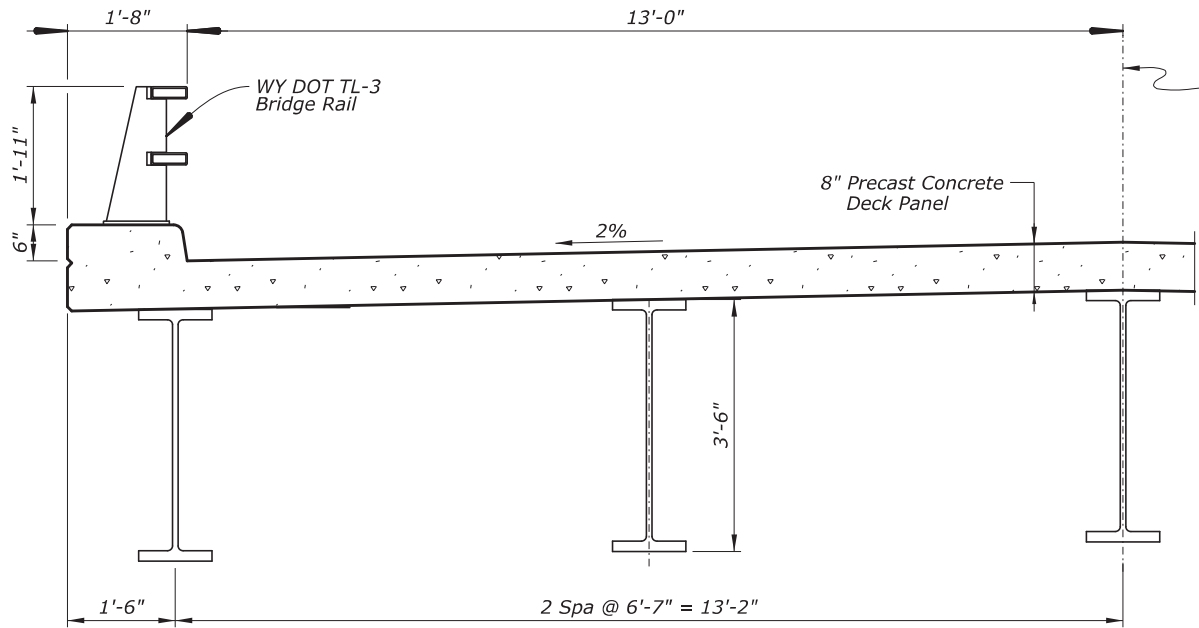
PLAN
Scale: 3/16" = 1'-0"

Dimension of tapered bearing plate and slotted holes will be determined/supplied by the bridge fabricator

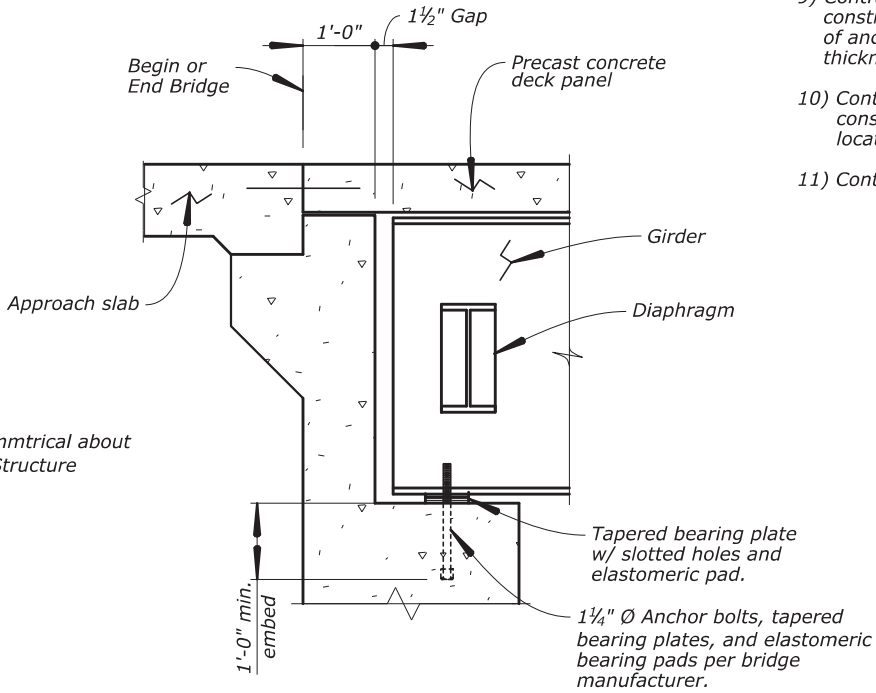


ANCHOR BOLT LAYOUT

No Scale
(See Note 9)



TYPICAL HALF SECTION



TYPICAL SECTION @ ABUTMENT

GENERAL NOTES

- 1) Design of the bridge will be in accordance with the AASHTO LRFD Design Specifications, 8th Edition.
- 2) Materials:
Structural Steel: ASTM A709 Grade 50W Fy= 50 ksi
Anchor Bolts: ASTM F1554 Grade 36 FY= 36 ksi
Bearing Plates: ASTM A709 Grade 36
Elastomeric Pads: Reinforced Elastomeric Pads, Grade 4, 60 Durometer
- 3) All shop welding shall conform to the ANSI/AASHTO/AWS D1.5, and shall be performed by a certified welder.
- 4) All bolts, nuts, and washers shall be furnished by the fabricator in the amount of 5% in excess of the number required for each size and length.
- 5) Design Loads:
Bridge dead load plus 25 psf future wearing surface.
Live Load: HL 93 with maximum dynamic load allowance, IM= 33%.
Wind Load: According to current AASHTO LRFD Design Specifications.
Bridge Rail shall be WY DOT rail meeting TL-3 crash test level rating.
- 6) Finish:
All exposed surfaces of structural steel shall be cleaned in accordance with SSPC Surface Preparation Specifications No. 6, Commercial blast Cleaning SP6.
- 7) Anchor bolts shall be galvanized and will be embedded a minimum 12" into the abutment.
- 8) Tapered bearing plates w/ slotted holes shall be provided and will be galvanized after fabrication.
- 9) Contractor shall coordinate with bridge fabricator before start of construction to determine number of girders, girder spacing, locations of anchor bolts, tapered bearing plate thickness, elastomeric bearing thickness and girder seat elevations.
- 10) Contractor shall coordinate with bridge fabricator before start of construction to determine number of precast concrete deck panels, location and spacing of rail posts.
- 11) Contractor shall submit all information to the CO for approval.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

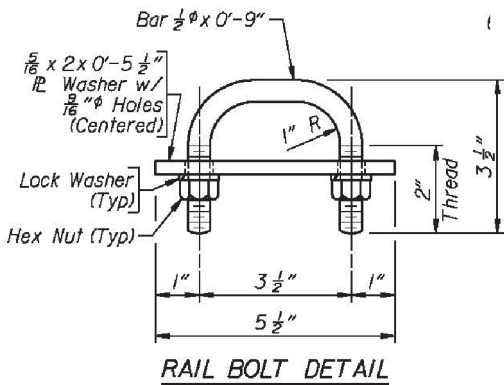
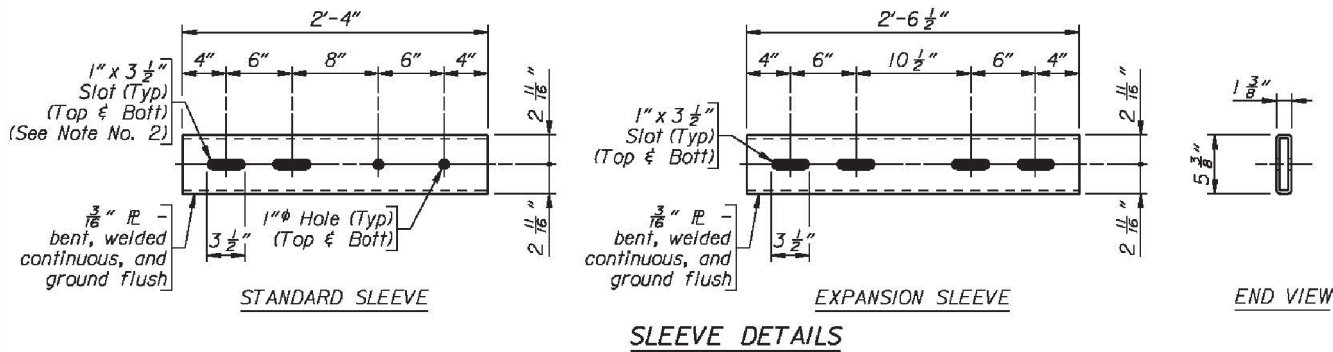
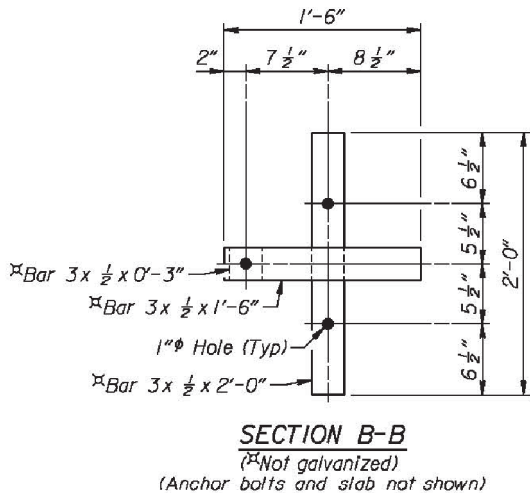
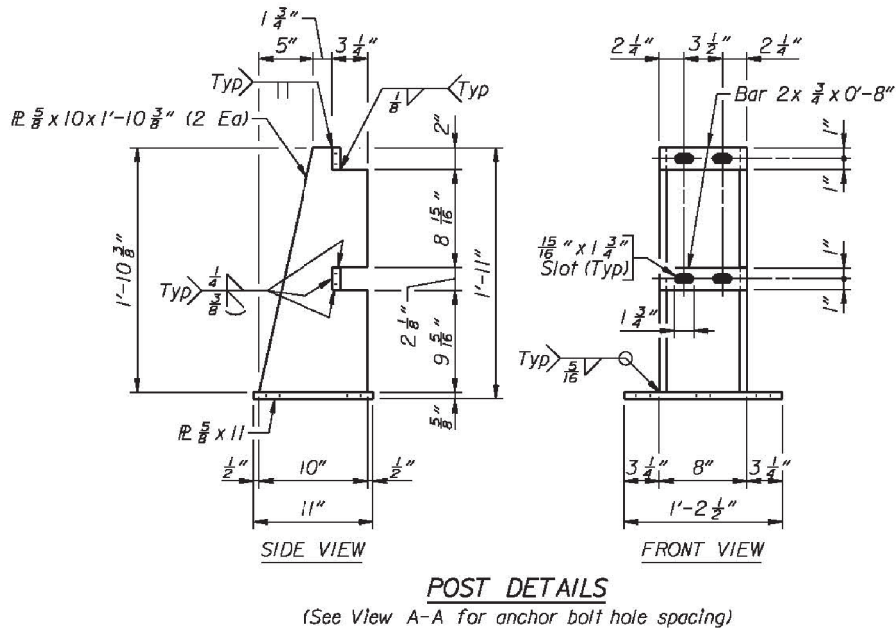
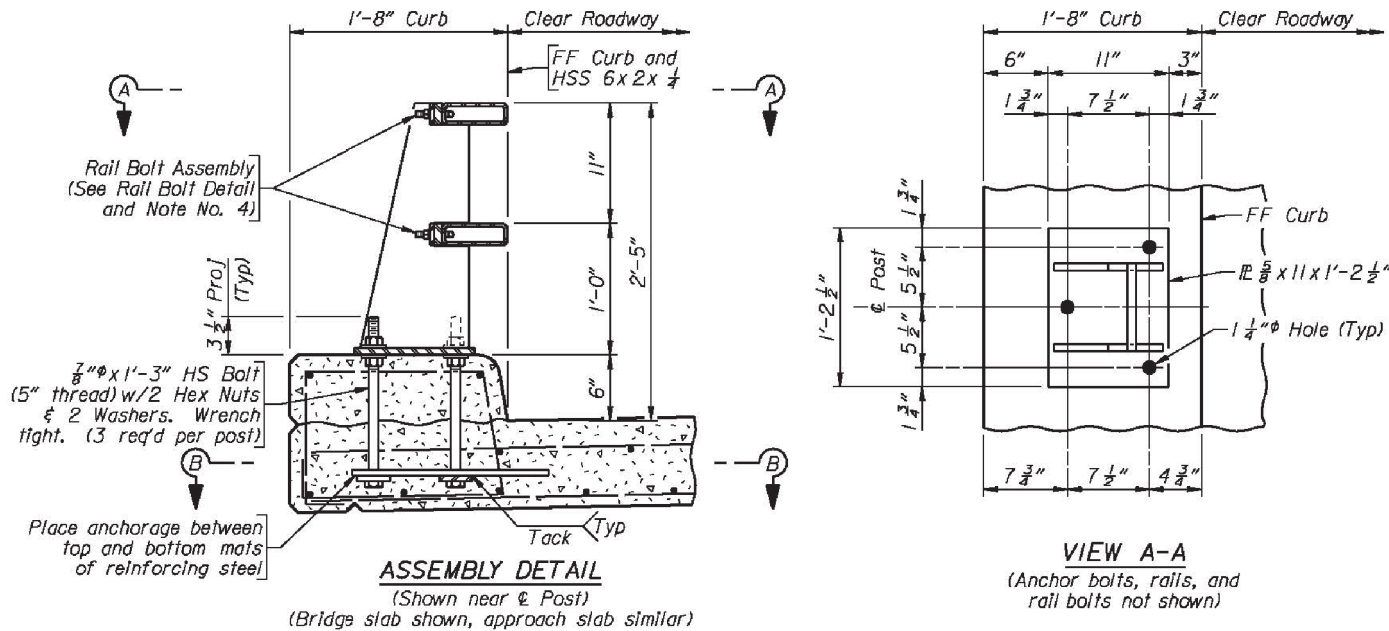
WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING
MODULAR BRIDGE LAYOUT &
TYPICAL SECTION

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|------------------------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 3/8" = 1'-0" UNLESS NOTED | PHILIP BOINSKE SAMIR SIDHOM | 10 of 17 | JANUARY 2023 | RG3197-J |

| STATE | PROJECT | SHEET NUMBER |
|-------|----------------------|--------------|
| WY | WY FLAP FREMO 277(1) | S11 |

- Notes:**
1. This sheet is a Wyoming DOT standard drawing for TL-3 bridge railing.
 2. Ensure the expansion splice is located in the railing panel which passes over the bridge expansion joint.
 3. Slots may be omitted in standard sleeves where bolts are required on one side of splice only.
 4. Anchor bolts may be tack welded to anchorage (Shop or field).
 5. Rail and rail component shall be galvanized, all rough edges on posts and rails shall be ground smooth prior to galvanizing.
 6. At post locations, drill two $1\frac{1}{16}$ " \varnothing holes in the rails to receive rail bolts (shop or field). See post details for hole spacing.
 7. Before installing rails, paint cut, drilled, or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780
 8. After installing the rails, paint exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
 9. Precast concrete bridge deck panels shall include bridge curbs, contractor shall coordinate with the bridge fabricator the installation of the bridge rail.



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

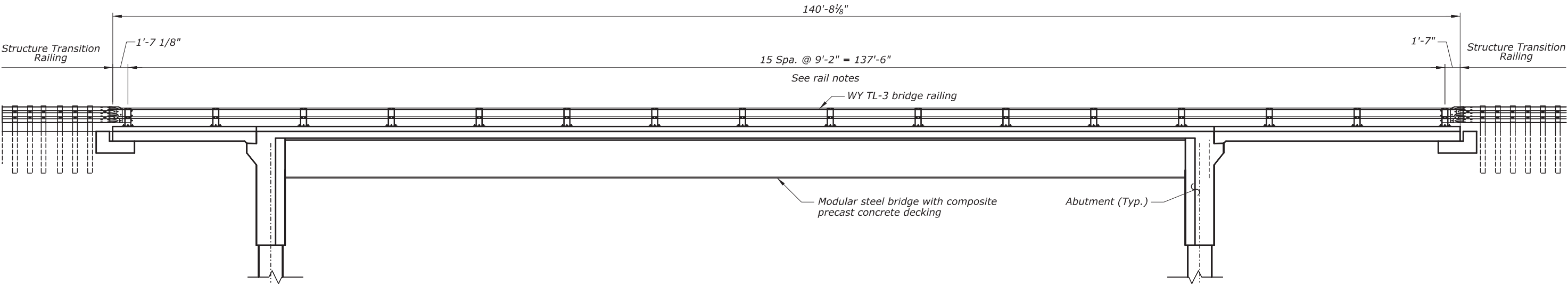
BRIDGE RAIL DETAILS (1 OF 2)

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|----------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | No scale | PHILIP BOINSKE SAMIR SIDHOM | 11 of 17 | JANUARY 2023 | RG3197-K |

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| | | |
|-------|----------------------|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S12 |

- RAIL NOTES:**
- 1- Spacing shown is based on maximum post spacing for WY DOT TL-3 rail.
 - 2- Actual spacing shall depend on the number and width of precast concrete deck panels.
 - 3- Contractor shall coordinate with bridge fabricator and submit rail shop drawings for approval.



RAIL ELEVATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

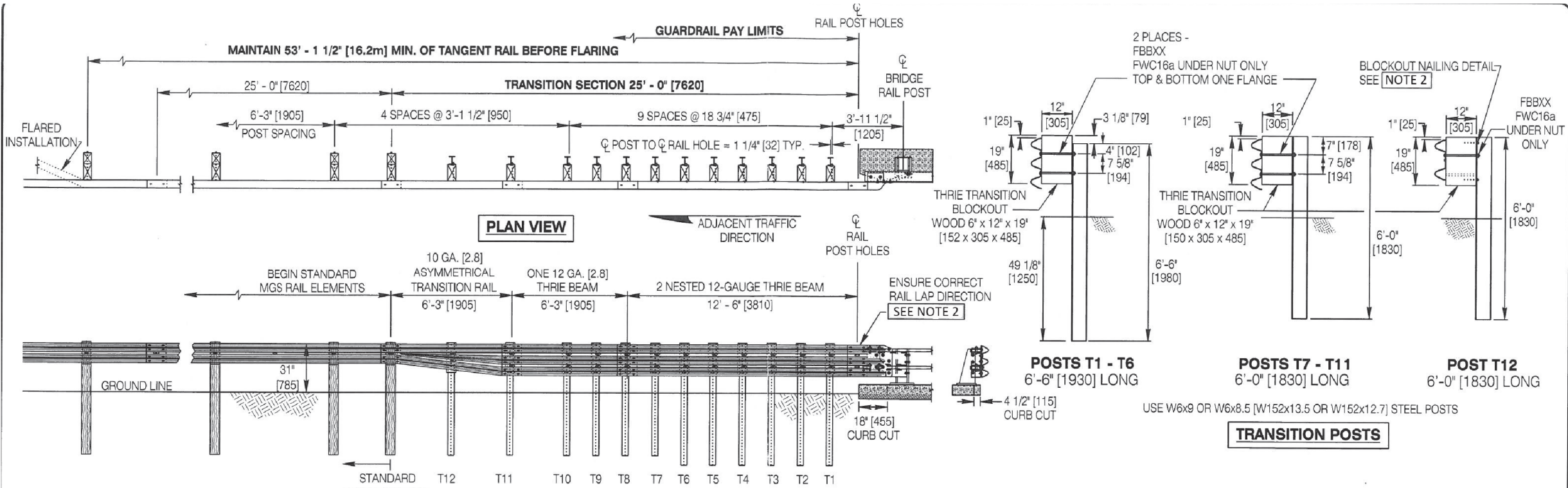
FREMONT COUNTY, WYOMING

BRIDGE RAIL DETAILS (2 OF 2)

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|---------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 3/16" = 1'-0" | PHILIP BOINSKE SAMIR SIDHOM | 12 of 17 | JANUARY 2023 | RG3197-L |

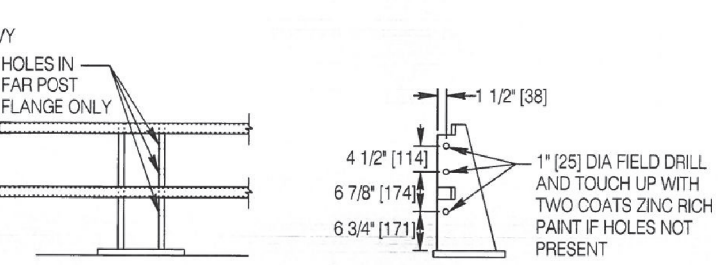
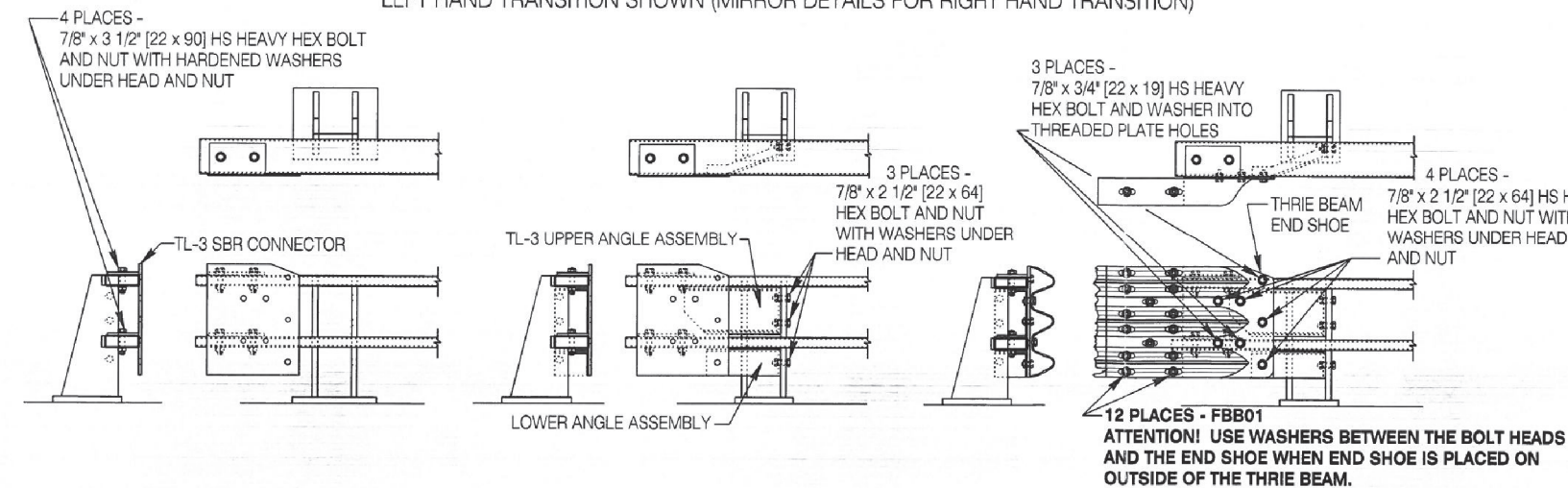
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|-------|----------------------|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S13 |

Notes:
1. This sheet is a Wyoming DOT standard drawing for transition railing for WY TL-3 bridge rail.
2. See roadway special 617-A



| STANDARD GUARDRAIL BOLTS | |
|--------------------------|--|
| *DESIGNATOR | |
| FBF01 | 5/8" x 1 1/4" [16 x 32] BUTTON HEAD GUARDRAIL BOLT W/NUT |
| FBFXX | 5/8" x 14" [16 x 355] BUTTON HEAD GUARDRAIL BOLT W/NUT |
| FWC16a | ROUND WASHER FOR 5/8" [16] BOLT |

* TASK FORCE13 STANDARD BARRIER GUIDE



INSTALLATION OF TL-3 SBR CONNECTOR INSTALLATION OF ANGLE ASSEMBLIES INSTALLATION OF THRIE-BEAM END SHOE

ANGLE PLATE MOUNTING HOLES

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

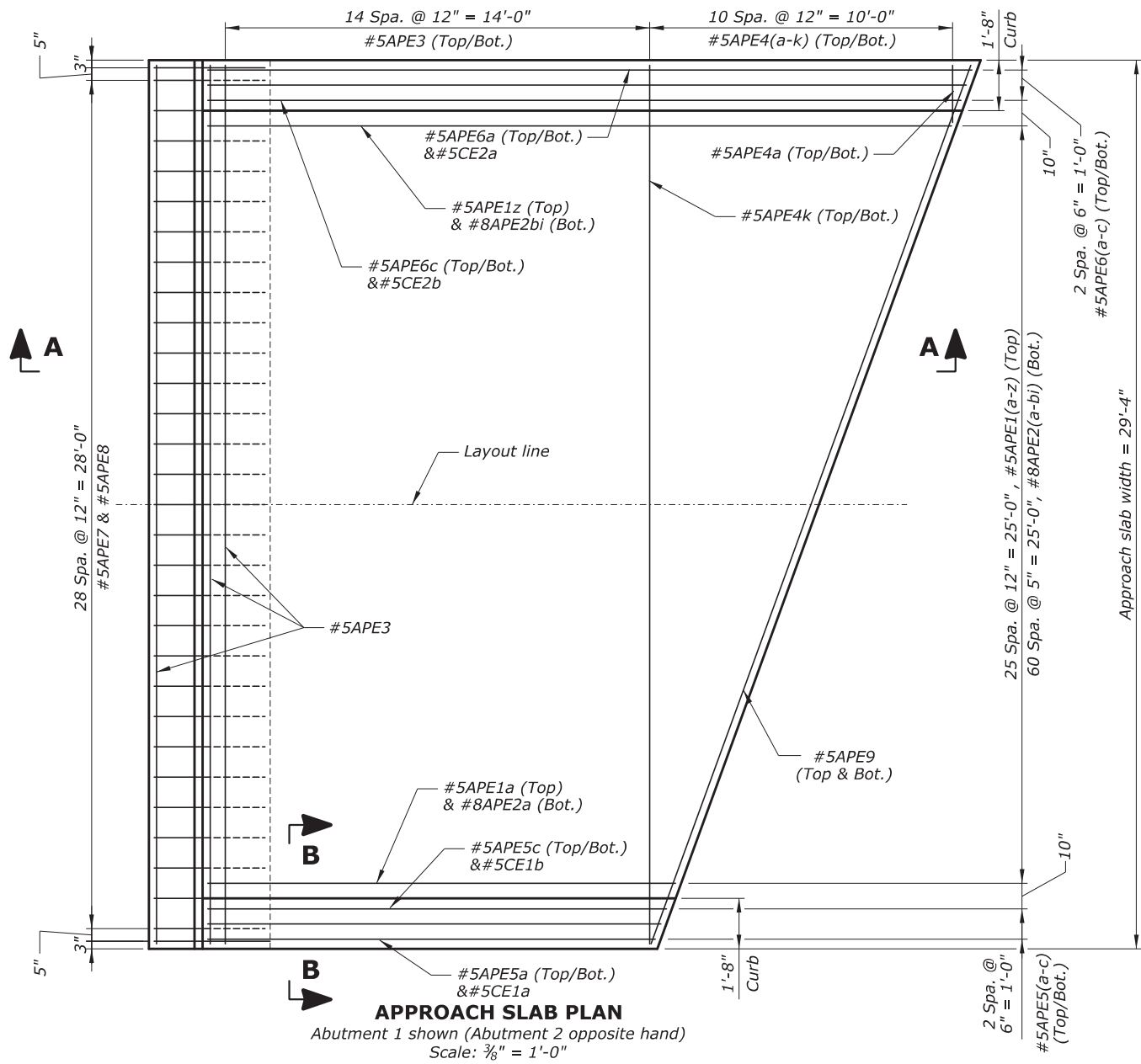
STRUCTURE TRANSITION RAILING

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|----------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | No scale | PHILIP BOINSKE SAMIR SIDHOM | 13 of 17 | JANUARY 2023 | RG3197-M |

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1/19/2023

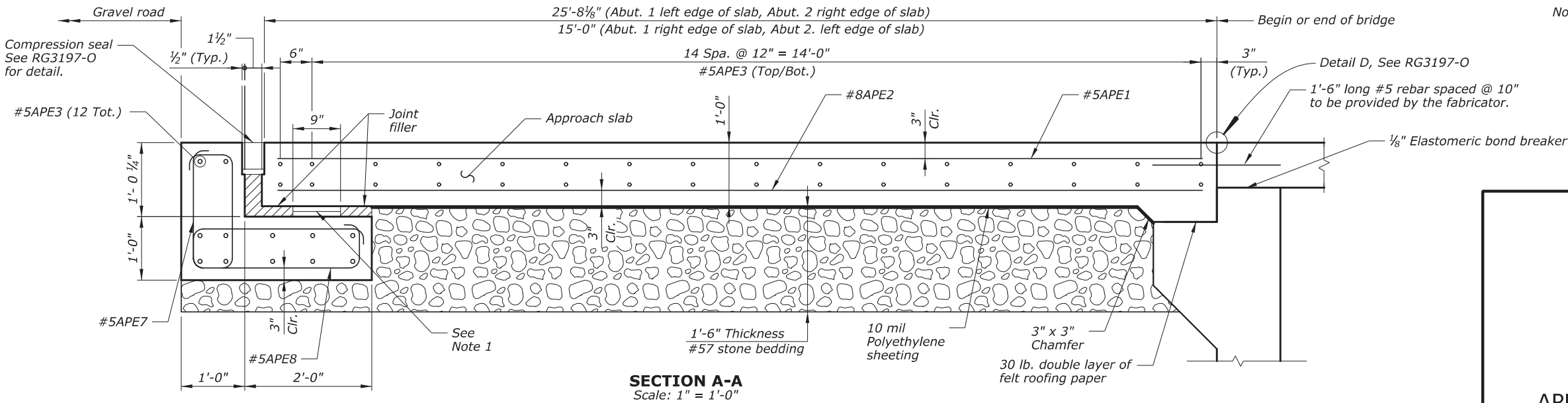
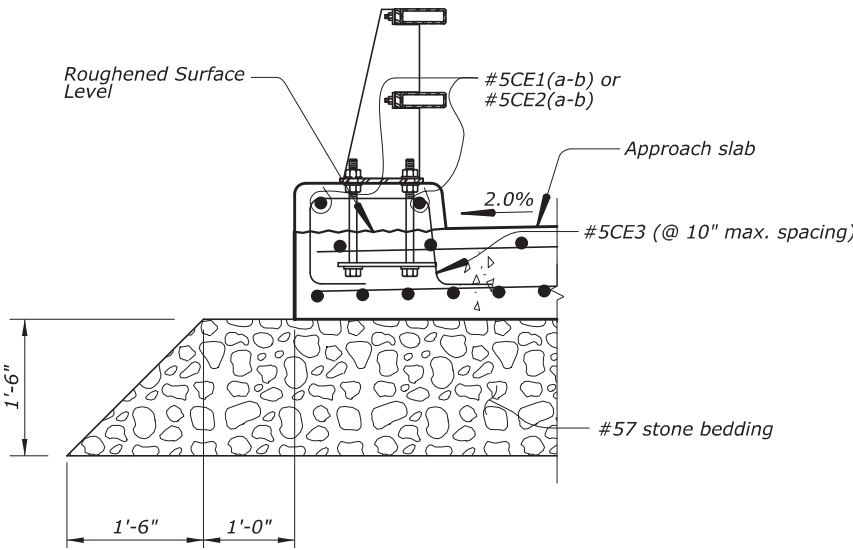
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| | | |
|-------|----------------------|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S14 |



Notes:

1. Install two - 1/8" preformed bedding material pads for full length of approach slab seat. Use a powdered graphite lubricant between the pads.
2. No direct payment will be made for the #57 stone, 1/8" preformed bedding material pads, preformed expansion joint filler and 10 mil polyethylene sheeting. These are incidental to the structural concrete pay item.
3. The curvature at both ends of the bridge was neglected and the bridge and approach slabs are rectangular.



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CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

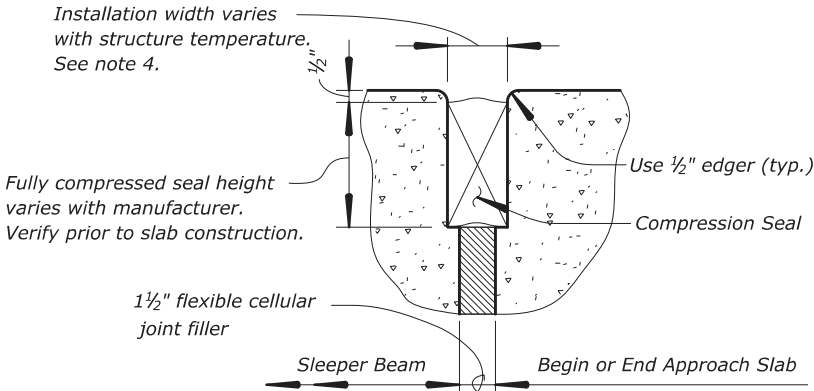
APPROACH SLAB DETAILS (1 OF 2)

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|----------------------------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | 1" = 1'-0" UNLESS NOTED | PHILIP BOINSKE SAMIR SIDHOM | 14 of 17 | JANUARY 2023 | RG3197-N |

| | | |
|-------|----------------------|-----------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S15 |

JOINT DESIGN MOVEMENTS
(For design temperture range of -30° F to 120° F)

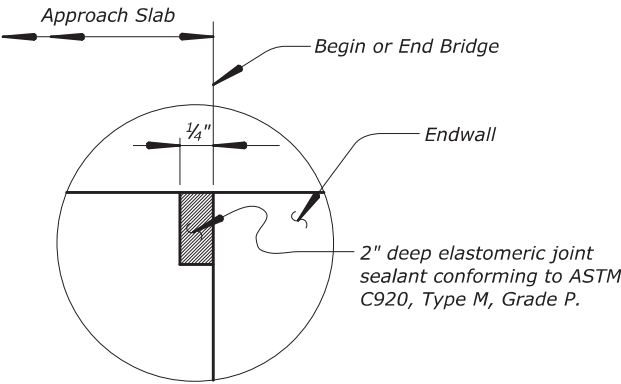
| | |
|---------------------------|----------------|
| 3/4" closing (temp. rise) | } from median |
| 1" opening (temp. fall) | |
| 1 1/4" total opening | temp. of 65° F |



COMPRESSION SEAL DETAIL
No Scale

COMPRESSION SEAL NOTES:

1. Submit compression seal type, details and technical data to CO for review and approval prior to ordering material.
2. Compression seals submitted for approval must demonstrate by test the specified joint design movements.
3. Seals shall conform to the requirements of ASTM D3542
4. Installation joint widths will vary with the temperature of the structure. Verify with the seal manufacturer the installation width for the actual temperature of the structure at time of installation.
5. Submit seal certification of conformance, installation width & height information, detailed set of manufacturer's instructions for seal installation, and method of assuring proper joint width at time of installation to CO prior to approach slab and sleeper beam construction.



DETAIL "D"
No Scale

For location of detail D, See RG3197-N

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

APPROACH SLAB DETAILS (2 OF 2)

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|----------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | NO SCALE | PHILIP BOINSKE SAMIR SIDHOM | 15 of 17 | JANUARY 2023 | RG3197- O |

1/19/2023 N:\WP\cn10-277(1)\Bridge\RG3197\CADD Files\DGN Files\rg3197 approach slab.dgn

N:\WP\cm10-277(1)\Bridge\RG3197\CADD Files\DGN Files\rg3197_rbar.dgn 1/19/2023

| REINFORCING STEEL SCHEDULE | | | | | | | | DIMENSION TABLE | | | | | | | | | | | | |
|----------------------------|------|------|-----------|------------------------|--------------|--|-----------|-----------------|--|------------|-----------|-----|---|-------------|-------|------------------|-----------|-----------------|---|--------|
| ABUTMENT 1 & 2 | | | | | | | | | | | | | | | | | | | | |
| BAR MK | SIZE | TYPE | PIN SZ | LOCATION | QTY | LENGTH | WEIGHT | A | B | C | D | E | F | G | H | J | K | O | R | V or N |
| *6A1 | 6 | 17 | 4 1/2" | Stirrups | 76 | 11'-6" | 1313 | | 5'-5" | 8" | 5'-5" | | | | | | | | | |
| *6A2 | 6 | 16 | 4 1/2" | Stirrups | 76 | 5'-9" | 656 | 1'-0" | 1'-8" | 9 1/2" | 2'-4" | | | | 1'-8" | | 1'-7 3/4" | 2'-5 1/4" | | |
| *5A3 | 5 | 17 | 3 3/4" | Stirrups | 176 | 11'-8" | 2142 | | 4'-6" | 2'-8" | 4'-6" | | | | | | | | | |
| *4A4 | 4 | T9 | 2" | Ties | 106 | 3'-5" | 242 | 4 1/2" | 2'-8" | | | | | 4 1/2" | | | | | | |
| *5A5 | 5 | STR | | Horiz. | 24 | 36'-4 1/2" | 911 | | 36'-4 1/2" | | | | | | | | | | | |
| *5A6 | 5 | STR | | Horiz. | 36 | 49'-1/2" | 1841 | | 49'-1/2" | | | | | | | | | | | |
| *5A7 | 5 | STR | | Horiz. | 8 | 31'-1/2" | 259 | | 31'-1/2" | | | | | | | | | | | |
| *5A8 | 5 | STR | | Horiz.b.f. | 16 | 34'-8 1/2" | 579 | | 34'-8 1/2" | | | | | | | | | | | |
| *8A9 * | 8 | STR | | Vert.@ drilled shaft | 80 | 33'-3 1/2" | 7111 | | 33'-3 1/2" | | | | | | | | | | | |
| *4A10 * | 4 | 77 | | Spiral @ drilled shaft | 8 | 57'-10" | 309 | 2'-3" | 3" | 1'-4 1/2" | 3 | 9 | | | | | | | | |
| *4A11 * | 4 | 77 | | Spiral @ drilled shaft | 8 | 870'-3" | 4651 | 2'-3" | 3" | 30'-7 1/2" | 3 | 126 | | | | | | | | |
| SUBTOTAL | | | | | | | 20014 LBS | | | | | | | | | | | | | |
| WINGWALLS | | | | | | | | | | | | | | | | | | | | |
| BAR MK | SIZE | TYPE | PIN SZ | LOCATION | QTY | LENGTH | WEIGHT | A | B | C | D | E | F | G | H | J | K | O | R | V or N |
| *5W1 | 5 | 17 | 3 3/4" | Stirrups | 64 | 14'-2 1/2" | 948 | | 6'-3 1/4" | 1'-8" | 6'-3 1/4" | | | | | | | | | |
| *5W2 | 5 | 36 | 2 1/2" | Stirrups @ haunch | 10 | 12'-1/2" | 126 | 2'-4 1/2" | 2'-8" | 3'-3 1/4" | | | | | | | | | | |
| *5W3 | 5 | 36 | 2 1/2" | Stirrups @ haunch | 10 | 9'-10" | 103 | 1'-3 1/4" | 2'-8" | 2'-2 1/4" | | | | | | | | | | |
| *5W4 | 5 | 52 | 3 3/4" | Diagonal | 6 | 9'-1/2" | 57 | 6'-6 3/4" | 2'-5 3/4" | 2'-4" | 10 1/4" | | | | | | | | | |
| *5W5 | 5 | 52 | 3 3/4" | Diagonal | 6 | 8'-2" | 51 | 6'-9 3/4" | 1'-4" | 1'-2 3/4" | 7 1/4" | | | | | | | | | |
| *5W6 | 5 | STR | | Horiz.b.f. | 4 sets of 3 | 2'-1" to 7'-10" at 2'-10 1/2" Incr. | 62 | | 2'-1" to 7'-10" at 2'-10 1/2" Incr. | | | | | | | | | | | |
| *5W7 | 5 | STR | | Horiz.b.f. | 4 sets of 3 | 1'-7" to 6'-0" at 2'-2 1/2" Incr. | 47 | | 1'-7" to 6'-0" at 2'-2 1/2" Incr. | | | | | | | | | | | |
| *5W8 | 5 | STR | | Vert.@ haunch | 46 | 5'-9 1/2" | 278 | | 5'-9 1/2" | | | | | | | | | | | |
| SUBTOTAL | | | | | | | 1672 LBS | | | | | | | | | | | | | |
| APPROACH SLABS | | | | | | | | | | | | | | | | | | | | |
| BAR MK | SIZE | TYPE | PIN SZ | LOCATION | QTY | LENGTH | WEIGHT | A | B | C | D | E | F | G | H | J | K | O | R | V or N |
| *5APE1 | 5 | STR | | Long.top | 2 sets of 26 | 15'-5" to 24'-6 1/2" at 4 1/2" Incr. | 1084 | | 15'-5" to 24'-6 1/2" at 4 1/2" Incr. | | | | | | | | | | | |
| *8APE2 | 8 | STR | | Long.bot. | 2 sets of 61 | 15'-5" to 24'-6 1/2" at 1 3/4" Incr. | 6508 | | 15'-5" to 24'-6 1/2" at 1 3/4" Incr. | | | | | | | | | | | |
| *5APE3 | 5 | STR | | Trans.top & bot. | 84 | 29'-0" | 2541 | | 29'-0" | | | | | | | | | | | |
| *5APE4 | 5 | STR | | Trans.top & bot. | 4 sets of 11 | 2'-9 1/2" to 29'-0" at 2'-7 1/2" Incr. | 729 | | 2'-9 1/2" to 29'-0" at 2'-7 1/2" Incr. | | | | | | | | | | | |
| *5APE5 | 5 | STR | | Trans.top & bot. | 4 sets of 3 | 14'-9" to 15'-1 1/2" at 2 1/4" Incr. | 187 | | 14'-9" to 15'-1 1/2" at 2 1/4" Incr. | | | | | | | | | | | |
| *5APE6 | 5 | STR | | Trans.top & bot. | 4 sets of 3 | 24'-10" to 25'-2 1/2" at 2 1/4" Incr. | 313 | | 24'-10" to 25'-2 1/2" at 2 1/4" Incr. | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| NO. | DATE | BY | REVISIONS | | | | NO. | DATE | BY | REVISIONS | | | | DESIGNED BY | | DRAWN BY | | CHECKED BY | | |
| | | | | | | | | | | | | | | RE S. FEUZE | | CJPM B. ROBINSON | | CV D. MICNHIMER | | |
| | | | | | | | | | | | | | | | | | | | | |

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| STATE | PROJECT | SHEET NUMBER |
| WY | WY FLAP FREMO 277(1) | S16 |

STR

TYPE 16

TYPE 17

TYPE 36

TYPE T9

TYPE 52

TYPE 77

D = Extra Turns (half t&b)

E = Total Turns

NOTES:

* 1. Reinforcing steel quantities for drilled shafts/rock sockets are not included in the contract pay item 55401-1000 "Reinforcing steel".

2. Reinforcing steel quantities for drilled shafts/rock sockets are subsidiary to the pay item 56501-0300 "Drilled shaft, 30-inch Diameter"

3. Reinforcing steel lengths for drilled shafts/rock sockets are estimates only and are provided for information only and will depend on the actual elevations of sound bed rock at each shaft location.

4. Dimensions in bending diagrams are out - to - out of bars.

5. All "E" bars are epoxy coated.

Abbreviations:
f.f. = fill face
o.f. = other face
b.f. = both faces

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

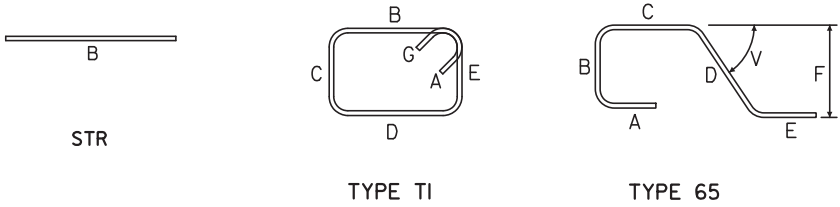
WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

REBAR LIST (1 of 2)

| REINFORCING STEEL SCHEDULE | | | | | | DIMENSION TABLE | | | | | | | | | | | | | | |
|----------------------------|------|------|-----------|-------------------------|-------------|--------------------------------|--------|------|--------------------------------|-----------|--------|-----|-------|-------------|---|------------------|---|-----------------|---|---------|
| APPROACH SLABS | | | | | | (CONTINUED) | | | | | | | | | | | | | | |
| BAR MK | SIZE | TYPE | PIN SZ | LOCATION | QTY | LENGTH | WEIGHT | A | B | C | D | E | F | G | H | J | K | O | R | V or N |
| *5APE7 | 5 | TI | 2½" | Stirrups @ sleeper beam | 62 | 5'-4½" | 348 | 5½" | 1'-7¼" | 7½" | 1'-7¼" | 7½" | | 5½" | | | | | | |
| *5APE8 | 5 | TI | 2½" | Stirrups @ sleeper beam | 62 | 7'-5" | 480 | 5½" | 2'-8" | 7" | 2'-8" | 7" | | 5½" | | | | | | |
| *5APE9 | 5 | STR | | Trans.top & bot. | 4 | 30'-10" | 129 | | 30'-10" | | | | | | | | | | | |
| SUBTOTAL | | | | | | 12318 LBS | | | | | | | | | | | | | | |
| APPROACH SLAB CURBS | | | | | | | | | | | | | | | | | | | | |
| BAR MK | SIZE | TYPE | PIN SZ | LOCATION | QTY | LENGTH | WEIGHT | A | B | C | D | E | F | G | H | J | K | O | R | V or N |
| *5CE1 | 5 | STR | | Long.top | 2 sets of 2 | 14'-8½" to 15'-2" at 5½" Incr. | 62 | | 14'-8½" to 15'-2" at 5½" Incr. | | | | | | | | | | | |
| *5CE2 | 5 | STR | | Long.top | 2 sets of 2 | 24'-9½" to 25'-3" at 5½" Incr. | 104 | | 24'-9½" to 25'-3" at 5½" Incr. | | | | | | | | | | | |
| *5CE3 | 5 | 65 | 3¾" | Curb | 98 | 4'-11½" | 507 | 10" | 1'-2" | 1'-3½" | 1'-2" | 6" | 1'-2" | | | | | | | 84¾/164 |
| SUBTOTAL | | | | | | 674 LBS | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| NO. | DATE | BY | REVISIONS | | | | NO. | DATE | BY | REVISIONS | | | | DESIGNED BY | | DRAWN BY | | CHECKED BY | | |
| | | | | | | | | | | | | | | RE S. FEUZE | | CJPM B. ROBINSON | | CV D. MICNHIMER | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| STATE | PROJECT | SHEET NUMBER |
|-------|----------------------|-----------------|
| WY | WY FLAP FREMO 277(1) | S17 |



NOTES:

1. Dimensions in bending diagrams are out - to - out of bars.
2. All "E" bars are epoxy coated.

Abbreviations:
f.f. = fill face
o.f. = other face
b.f. = both faces

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

WIGGINS FORK BRIDGE

FREMONT COUNTY, WYOMING

REBAR LIST (2 of 2)

| NO. | DATE | BY | REVISIONS | NO. | DATE | BY | REVISIONS | DESIGNED BY | DRAWN BY | CHECKED BY | SCALE | PROJECT TEAM LEADER | BRIDGE PLAN SHEET | DATE | DRAWING NO. |
|-----|------|----|-----------|-----|------|----|-----------|----------------|---------------------|--------------------|-------|--------------------------------|-------------------|--------------|-------------|
| | | | | | | | | RE S. FEUZE | CJPM B. ROBINSON | CV D. MICNHIMER | NONE | PHILIP BOINSKE SAMIR SIDHOM | 17 of 17 | JANUARY 2023 | RG3197-Q |

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|-------|---|-----------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T1 |

| METAL ROUND PIPE CULVERT | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------------|--|----------|----------|----------|---------|----------------------|----------|----------|----------|---------|----------------------|----------|----------|----------|---------|--|----------|----------|----------|---------|----------------------|-----|--|--|--|
| FILL HEIGHT AND METAL THICKNESS TABLE FOR HELICAL LOCKSEAM AND WELDED SEAM PIPE CULVERT | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STEEL | | | | | | | | | | | | | | ALUMINUM | | | | | | | | | | | | |
| PIPE SIZE DIAMETER INCHES | MINIMUM COVER INCHES | 2½" x ½" CORRUGATIONS | | | | | 3" x 1" CORRUGATIONS | | | | | 5" x 1" CORRUGATIONS | | | | | 2⅔" x ½" CORRUGATIONS | | | | | 3" x 1" CORRUGATIONS | | | | |
| | | METAL THICKNESS (INCH/GAGE) | | | | | | | | | | | | | | | METAL THICKNESS (INCH/GAGE) | | | | | | | | | |
| | | 0.064/16 | 0.079/14 | 0.109/12 | 0.138/10 | 0.168/8 | 0.064/16 | 0.079/14 | 0.109/12 | 0.138/10 | 0.168/8 | 0.064/16 | 0.079/14 | 0.109/12 | 0.138/10 | 0.168/8 | 0.060/16 | 0.075/14 | 0.105/12 | 0.135/10 | 0.164/8 | | | | | |
| | | MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET) | | | | | | | | | | | | | | | MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET) | | | | | | | | | |
| 12 | 12 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | 12 | 12 | 100 | 100 | 100 | 100 | 100 | | | |
| 15 | 12 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | 15 | 12 | 100 | 100 | 100 | 100 | 100 | | | |
| 18 | 12 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | 18 | 12 | 100 | 100 | 100 | 100 | 100 | | | |
| 21 | 12 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | 21 | 12 | 88 | 100 | 100 | 100 | 100 | | | |
| 24 | 12 | 100 | 100 | 100 | 100 | 100 | | | | | | | | | | | 24 | 12 | 77 | 97 | 100 | 100 | 100 | | | |
| 30 | 12 | 85 | 100 | 100 | 100 | 100 | | | | | | | | | | | 30 | 12 | 62 | 77 | 100 | 100 | 100 | | | |
| 36 | 12 | 71 | 89 | 100 | 100 | 100 | 81 | 100 | 100 | 100 | 100 | | | | | | 36 | 12 | 52 | 64 | 90 | 100 | 100 | | | |
| 42 | 12 | 61 | 76 | 100 | 100 | 100 | 70 | 87 | 100 | 100 | 100 | | | | | | 42 | 12 | 44 | 55 | 77 | 99 | 100 | | | |
| 48 | 12 | 53 | 66 | 93 | 100 | 100 | 61 | 76 | 100 | 100 | 100 | 54 | 68 | 95 | 100 | 100 | 48 | 12 | | | 67 | 87 | 100 | | | |
| 54 | 12 | | 59 | 83 | 100 | 100 | 54 | 68 | 95 | 100 | 100 | 48 | 60 | 85 | 100 | 100 | 54 | 18 | | | 54 | 71 | 88 | | | |
| 60 | 12 | | | 74 | 97 | 100 | 49 | 61 | 86 | 100 | 100 | 43 | 54 | 76 | 98 | 100 | 60 | 18 | | | | 57 | 72 | | | |
| 66 | 12 | | | | 87 | 100 | 44 | 55 | 78 | 100 | 100 | 39 | 49 | 69 | 89 | 100 | 66 | 18 | | | | | 58 | | | |
| 72 | 12 | | | | 80 | 97 | 40 | 51 | 71 | 92 | 100 | 36 | 45 | 63 | 82 | 100 | 72 | 18 | | | | | 45 | | | |
| 78 | 12 | | | | | 87 | 37 | 47 | 66 | 85 | 100 | 33 | 42 | 58 | 75 | 92 | 78 | 24 | | | | | 30 | | | |
| 84 | 12 | | | | | 75 | 35 | 43 | 61 | 78 | 96 | 31 | 39 | 54 | 70 | 86 | 84 | 24 | | | | | 37 | | | |
| 90 | 12 | | | | | | 32 | 40 | 57 | 73 | 90 | 29 | 36 | 51 | 65 | 80 | 90 | 24 | | | | | 44 | | | |
| 96 | 12 | | | | | | | 38 | 53 | 69 | 84 | | 34 | 48 | 61 | 75 | 96 | 24 | | | | | 41 | | | |
| 102 | 18 | | | | | | | 36 | 50 | 65 | 79 | | 32 | 45 | 57 | 71 | 102 | 24 | | | | | 38 | | | |
| 108 | 18 | | | | | | | | 47 | 61 | 75 | | | 42 | 54 | 67 | 108 | 24 | | | | | | | | |
| 114 | 18 | | | | | | | | 45 | 58 | 71 | | | 40 | 52 | 63 | 114 | 24 | | | | | | | | |
| 120 | 18 | | | | | | | 43 | 55 | 67 | | | 38 | 49 | 60 | | 120 | 24 | | | | | | | | |
| 126 | 18 | | | | | | | | 52 | 64 | | | | | 47 | 57 | | | | | | | | | | |
| 132 | 18 | | | | | | | | 50 | 61 | | | | | 44 | 54 | | | | | | | | | | |
| 138 | 18 | | | | | | | | 48 | 58 | | | | | 42 | 52 | | | | | | | | | | |
| 144 | 18 | | | | | | | | 56 | | | | | | | 50 | | | | | | | | | | |

NOTE:

1. When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
2. Fill heights exceeding 100 feet require special analysis by the CO.
3. The fill heights in the table are for helical lockseam and welded seam pipe only. Fill heights for culvert pipe with annular corrugations are more restrictive than those of helical lockseam and welded seam pipe. Obtain approval before furnishing annular corrugation pipe.
4. Measure minimum cover from the top of the pipe culvert to the subgrade for flexible pavements, and to the top of the pavement for rigid pavements. Measure maximum fill height from the top of the pipe to the top of the pavement for both flexible and rigid pavement.

| METAL PIPE ARCH CULVERT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|---------------------------------------|----------------------------|--|----------|----------|----------|----------------------|----------|----------|----------|----------------------|----------|----------|----------|--|---------------------------------------|---------------------------------------|----------------------------|--|----------|----------|----------|----------------------|----------|----------|----------|----------|----|
| FILL HEIGHT AND METAL THICKNESS TABLE FOR HELICAL LOCKSEAM AND WELDED SEAM PIPE CULVERT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STEEL | | | | | | | | | | | | | | | ALUMINUM | | | | | | | | | | | | | | |
| PIPE ARCH SIZE SPAN x RISE INCHES | EQUI- VALENT DIAMETER INCHES | MINIMUM CORNER RADIUS INCHES | MINIMUM COVER INCHES | 2 ² / ₃ " x 1 ¹ / ₂ " CORRUGATIONS | | | | 3" x 1" CORRUGATIONS | | | | 5" x 1" CORRUGATIONS | | | | PIPE ARCH SIZE SPAN x RISE INCHES | EQUI- VALENT DIAMETER INCHES | MINIMUM CORNER RADIUS INCHES | MINIMUM COVER INCHES | 2 ² / ₃ " x 1 ¹ / ₂ " CORRUGATIONS | | | | 3" x 1" CORRUGATIONS | | | | | |
| | | | | METAL THICKNESS (INCH/GAGE) | | | | | | | | | | | | | | | | METAL THICKNESS (INCH/GAGE) | | | | | | | | | |
| | | | | 0.064/16 | 0.079/14 | 0.109/12 | 0.138/10 | 0.168/8 | 0.079/14 | 0.109/12 | 0.138/10 | 0.168/8 | 0.079/14 | 0.109/12 | 0.138/10 | | | | | 0.168/8 | 0.060/16 | 0.075/14 | 0.105/12 | 0.135/10 | 0.060/16 | 0.075/14 | 0.105/12 | 0.135/10 | |
| MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 x 13 | 15 | 3 | 12 | 13 | | | | | | | | | | | | | 17 x 13 | 15 | 3 | 12 | 13 | | | | | | | | |
| 21 x 15 | 18 | 3 | 12 | 12 | | | | | | | | | | | | | 21 x 15 | 18 | 3 | 12 | 12 | | | | | | | | |
| 24 x 18 | 21 | 3 | 12 | 13 | | | | | | | | | | | | | 24 x 18 | 21 | 3 | 12 | 13 | | | | | | | | |
| 28 x 20 | 24 | 3 | 12 | 13 | | | | | | | | | | | | | 28 x 20 | 24 | 3 | 12 | | 13 | | | | | | | |
| 35 x 24 | 30 | 3 | 12 | 12 | | | | | | | | | | | | | 35 x 24 | 30 | 3 | 12 | | 12 | | | | | | | |
| 42 x 29 | 36 | 3.5 | 12 | 12 | | | | | | | | | | | | | 42 x 29 | 36 | 3.5 | 15 | | | 12 | | | | | | |
| 49 x 33 | 42 | 4 | 12 | | 12 | | | | | | | | | | | | 49 x 33 | 42 | 4 | 15 | | | 12 | | | | | | |
| 57 x 38 | 48 | 5 | 12 | | | 12 | | | | | | | | | | | 57 x 38 | 48 | 5 | 15 | | | | 12 | | | | | |
| 60 x 46 | 54 | 8 | 15 | | | | | | | 21 | | | | | 21 | | 60 x 46 | 54 | 8 | 15 | | | | | 21 | | | | |
| 64 x 43 | 54 | 6 | 12 | | | 12 | | | | | | | | | | | 64 x 43 | 54 | 6 | 18 | | | 12 | | | | | | |
| 66 x 51 | 60 | 9 | 15 | | | | | | | 21 | | | | | 21 | | 66 x 51 | 60 | 9 | 18 | | | | | 21 | | | | |
| 71 x 47 | 60 | 7 | 12 | | | | 12 | | | | | | | | | | 71 x 47 | 60 | 7 | 18 | | | | | | | | | |
| 73 x 55 | 66 | 12 | 18 | | | | | | | 20 | | | | | 20 | | 73 x 55 | 66 | 12 | 18 | | | | | 20 | | | | |
| 77 x 52 | 66 | 8 | 12 | | | | | 12 | | | | | | | | | 77 x 52 | 66 | 8 | 21 | | | | | | | | | |
| 81 x 59 | 72 | 14 | 18 | | | | | | 17 | | | | 17 | | | | 81 x 59 | 72 | 14 | 21 | | | | | | | 17 | | |
| 83 x 57 | 72 | 9 | 12 | | | | | 12 | | | | | | | | | 83 x 57 | 72 | 9 | 24 | | | | | | | 17 | | |
| 87 x 63 | 78 | 14 | 18 | | | | | | 17 | | | | 17 | | | | 87 x 63 | 78 | 14 | 24 | | | | | | | | | |
| 95 x 67 | 84 | 16 | 18 | | | | | | 17 | | | | 17 | | | | 95 x 67 | 84 | 16 | 24 | | | | | | | | | |
| 103 x 71 | 90 | 16 | 18 | | | | | | | 17 | | | 17 | | | | 103 x 71 | 90 | 16 | 24 | | | | | | | | | 17 |
| 112 x 75 | 96 | 18 | 21 | | | | | | | 16 | | | | 16 | | | | | | | | | | | | | | | |
| 117 x 79 | 102 | 18 | 21 | | | | | | | 16 | | | | 16 | | | | | | | | | | | | | | | |
| 128 x 83 | 108 | 18 | 24 | | | | | | | | 16 | | | | 16 | | | | | | | | | | | | | | |
| 137 x 87 | 114 | 18 | 24 | | | | | | | | 16 | | | | | | | | | | | | | | | | | | |
| 142 x 91 | 120 | 18 | 24 | | | | | | | | 16 | | | | | 16 | | | | | | | | | | | | | |

U.S.
FED.

U.S.

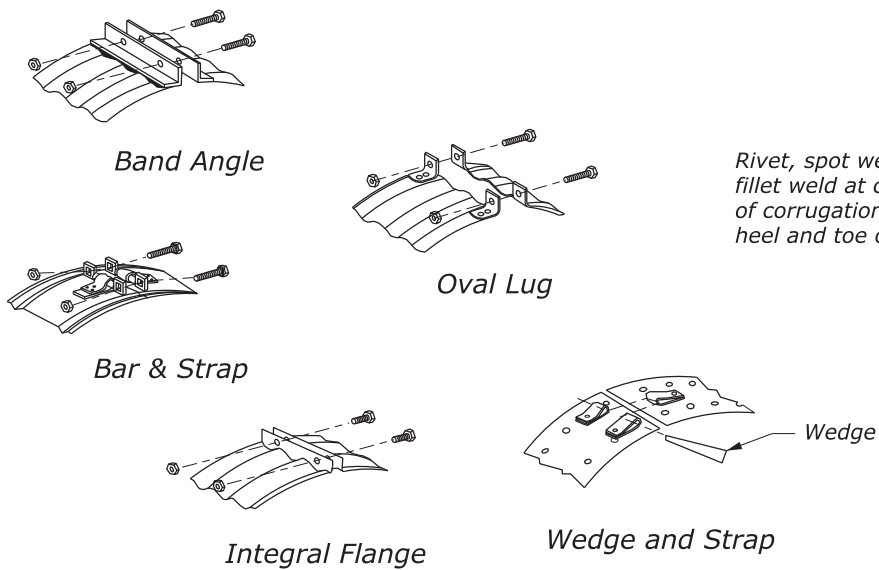
MET

| | |
|--|-------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY | |
| U.S. CUSTOMARY STANDARD | |
| METAL PIPE CULVERT | |
| STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 | STANDARD 602-1 |

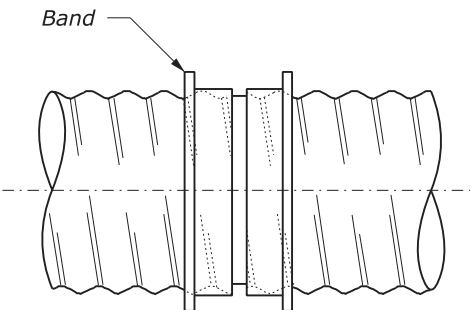
NO SCALE

| COUPLING BANDS FOR METAL PIPE CULVERT ^[1] | | | | | |
|--|-------------------------------|------------------------------------|---|---|--------------------------------------|
| CORRUGATION SIZE ^[2] INCHES | ROUND PIPE DIAMETER INCHES | PIPE ARCH SPAN × RISE INCHES | MINIMUM BAND WIDTH (INCHES) | | |
| | | | ANNULAR CORRUGATED BANDS ^[3] | HELICALLY CORRUGATED BANDS ^[4] | SEMI-CORRUGATED BANDS ^[5] |
| 1½ × ¼ | underdrain ^[6] | - | 10.5 | 7 | 10.5 |
| 2⅔ × ½ | 12 to 36 | 17 × 13 to 42 × 29 | 7 | 12 | |
| | 42 to 72 | 49 × 33 to 83 × 57 | 10.5 | 12 | |
| | 78 to 84 | - | 10.5 | 12 | 10.5 |
| 3 × 1 | 36 to 72 | 60 × 46 to 81 × 59 | 12 | 14 | 10.5 |
| | 78 to 144 | 87 × 64 to 142 × 91 | 12 | 14 | 10.5 |
| 5 × 1 | 36 to 72 | 60 × 46 to 81 × 59 | 20 | 22 | |
| | 78 to 144 | 87 × 64 to 142 × 91 | 20 | 22 | |

- ^[1] Fabricate annular, helical and semi-corrugated type coupling bands from the same metal as the connecting pipe. Provide coupling bands not more than 3 nominal sheet thicknesses thinner than the thickness of the pipe to be connected, and no thinner than 0.052 inch for steel or 0.048 inch for aluminum. Fasten coupling bands with the following diameter of bolt: ⅜" for 18" round culvert (21" × 15" pipe arch) or less ½" for 21" round culvert (24" × 18" pipe arch) or more
- ^[2] For helically corrugated pipe with rerolled ends, the nominal corrugations size refers to the dimension of the end corrugation in the pipe.
- ^[3] Use annular corrugated bands with pipes having annular corrugations or with helical pipe having rerolled end to form annular corrugations. A 10.5 inch band is acceptable on pipe ends rerolled with 2⅔" × ½" corrugations. A 12 inch band is acceptable on pipe ends rerolled with 3" × 1" pipe corrugations.
- ^[4] Use helical corrugated bands with pipes having helically corrugated ends.
- ^[5] The minimum band widths shown for 3" × 1" and 5" × 1" corrugated sizes apply to 2⅔" × ½" corrugations on rerolled pipe ends.
- ^[6] Smooth sleeve-type couplers and flat bands may be used for pipe diameters of 12" or less. Use a matching metal having a nominal thickness of not less than 0.040 inch for steel, or 0.036 inch for aluminum, or a plastic with an equivalent strength to metal.

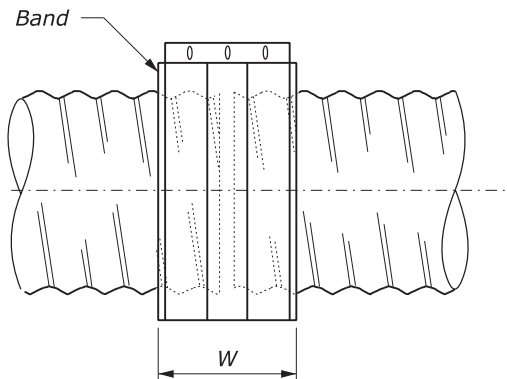


STANDARD BAND CONNECTIONS

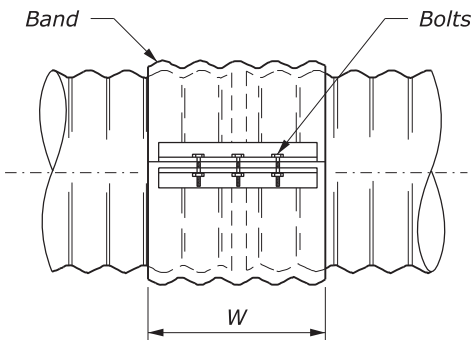


SLEEVE JOINT
Smoother sleeve with center stop.
Stab type joint

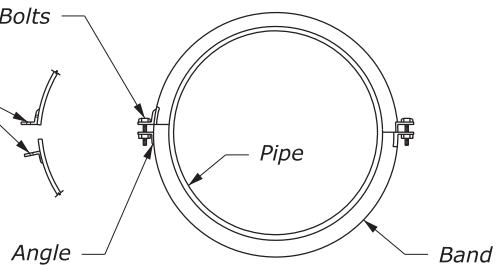
SMOOTH SLEEVE BAND



FLAT BAND

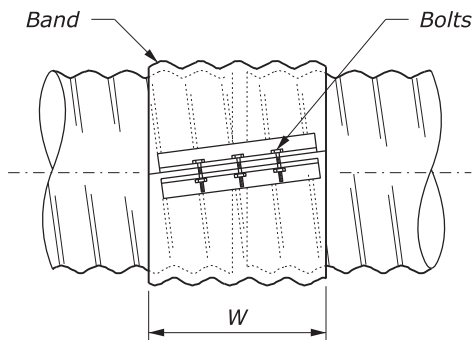


SIDE VIEW

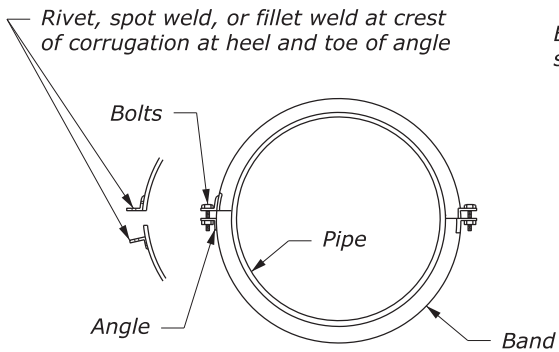


Second angle connection optional to 42" diameter, required above 42" diameter

ANNULAR BAND

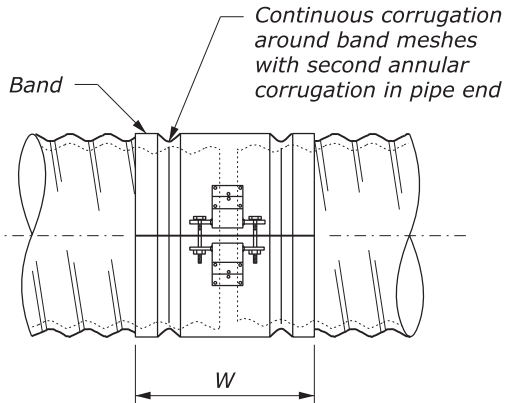


SIDE VIEW

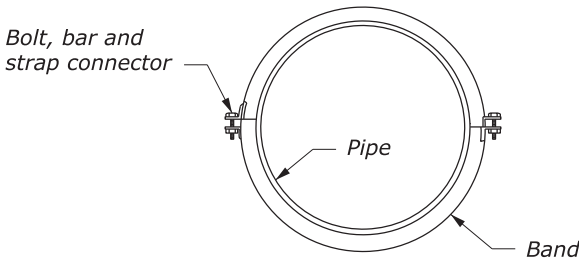


Second angle connection optional to 42" diameter, required above 42" diameter

HELICAL BAND



SIDE VIEW



END VIEW

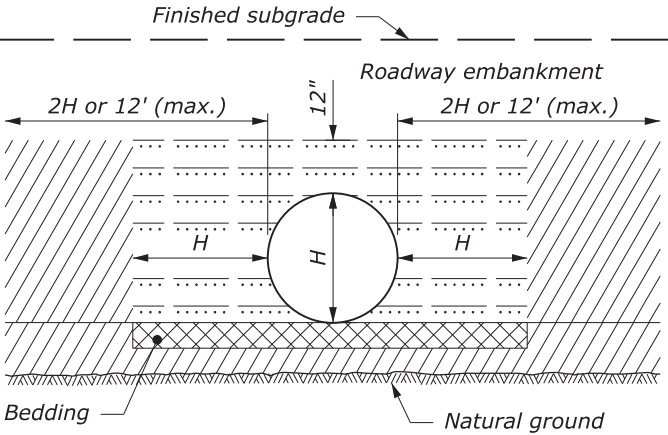
SEMI-CORRUGATED BAND

| | |
|--|-------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY | |
| U.S. CUSTOMARY STANDARD | |
| METAL PIPE CULVERT COUPLING BAND | |
| STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 | STANDARD 602-2 |

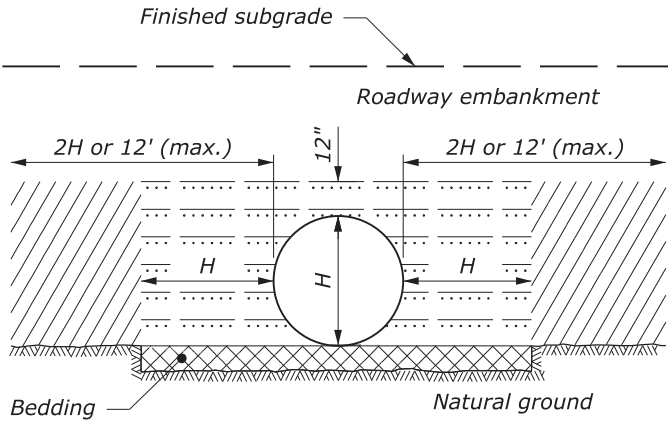
NOTE:

- Watertight pipe joints are not required unless specified in the Special Contract Requirements.
- Other types of coupling bands or fastening devices that comply with the joint performance criteria of AASHTO Standard specifications for Highway Bridges, Division II Section 26 may be used.

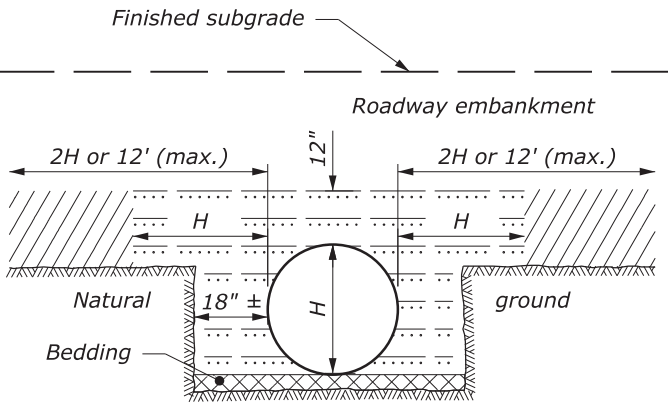
NO SCALE



ABOVE NATURAL GROUND



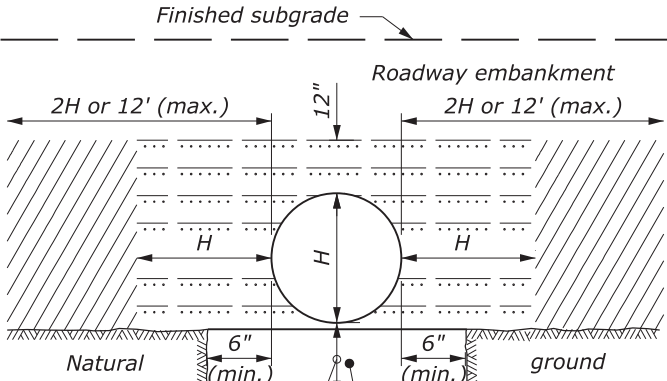
ON NATURAL GROUND



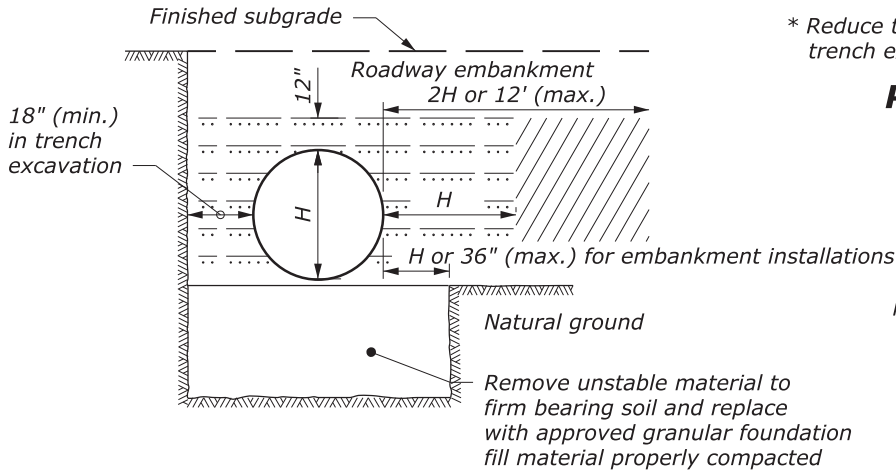
ABOVE AND BELOW NATURAL GROUND

LEGEND:

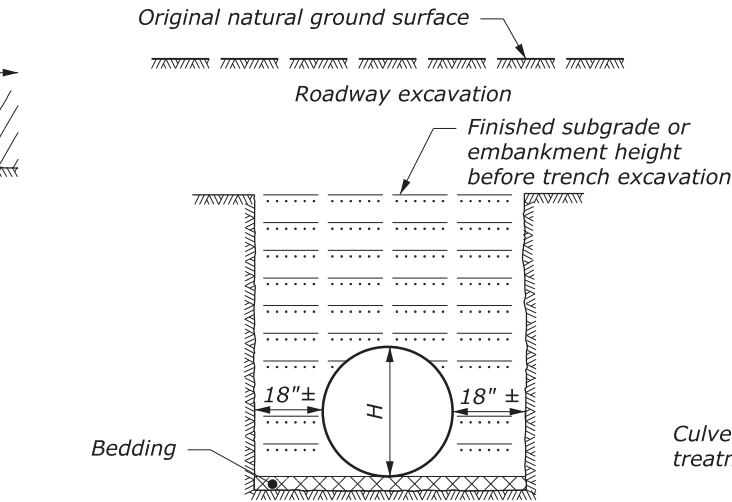
- Bedding material (uncompacted)
- Embankment material placed in layers not exceeding 6" compacted depth.
- Compacted backfill material placed in layers not exceeding 6" compacted depth; or lean concrete backfill in accordance with Section 614.
- Impermeable backfill material.



ON UNYIELDING MATERIAL

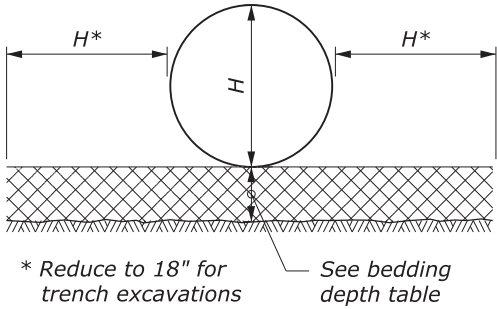


ON UNSTABLE MATERIAL



BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

| BEDDING DEPTH | |
|---------------|-------|
| PIPE SIZE (H) | DEPTH |
| 12" to 54" | 4" |
| > 54" | 6" |

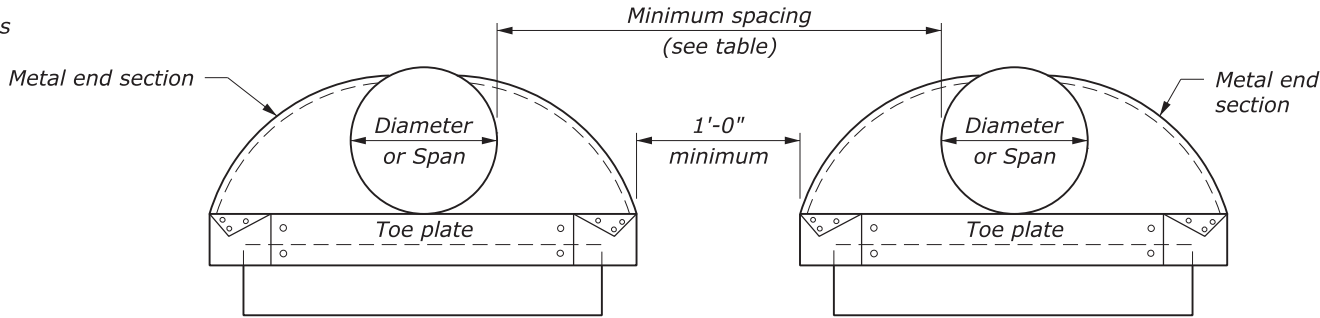


PIPE BEDDING

NOTE:

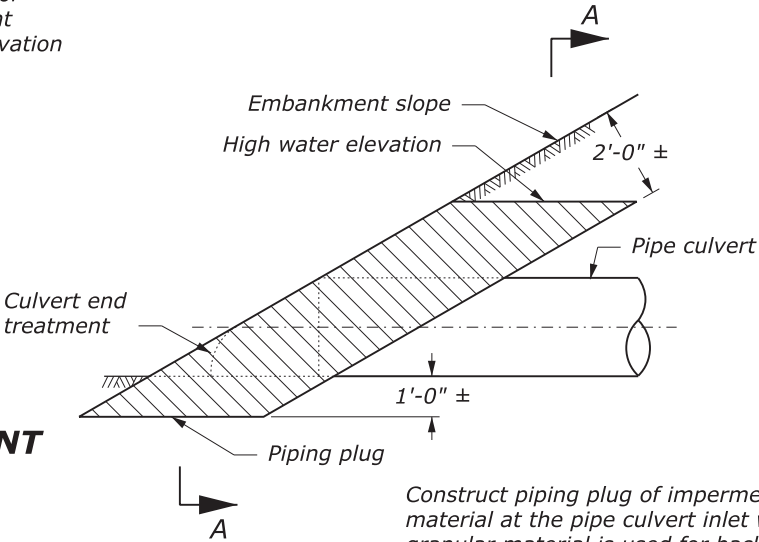
- When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
- H equals the diameter of all round pipe culverts or the rise dimension of all pipe arch culverts.
- See Section 704 for bedding and backfill requirements.

| MINIMUM SPACING | |
|------------------|---|
| DIAMETER or SPAN | SPACING |
| UP to 48" | 24" |
| 48" and UP | Half diameter or span or 36", whichever is less |



ELEVATION

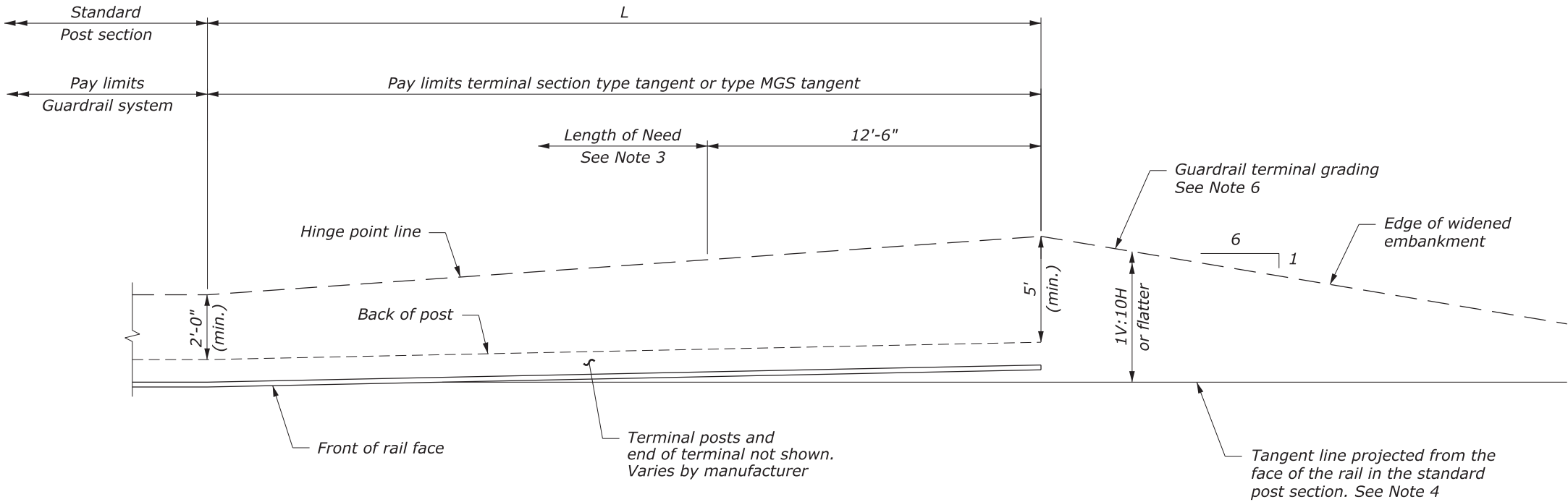
MULTIPLE PIPE INSTALLATION



PIPING PLUG

NO SCALE

| | | |
|-------|---|-----------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T4 |

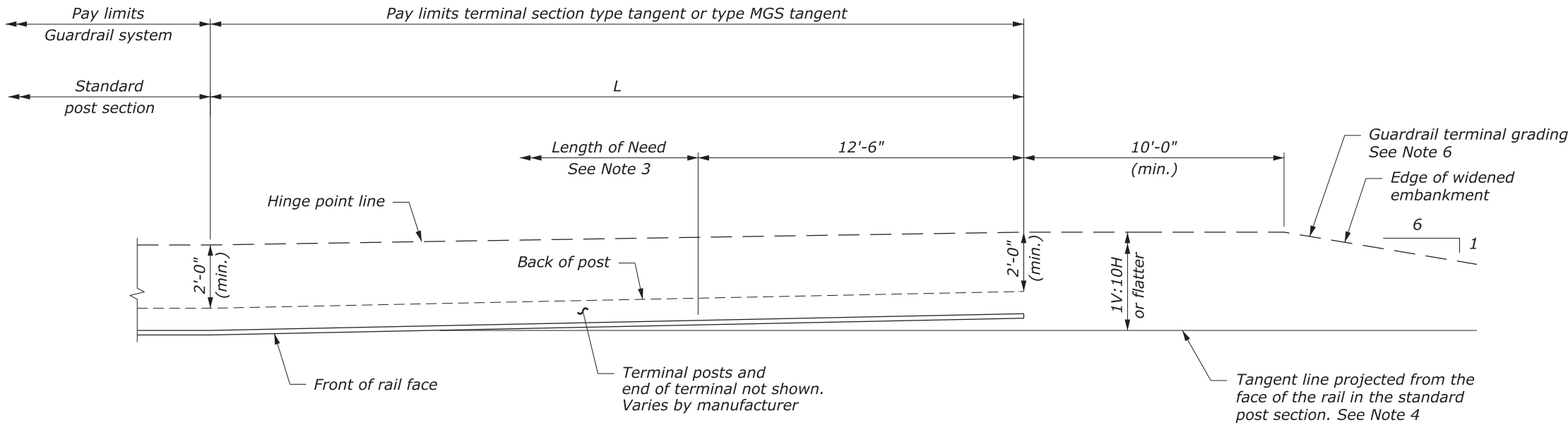


PLAN
PREFERRED GRADING

NOTE:

1. Install tangent terminal according to the manufacturer's recommendations. See manufacturer's drawings for other details.
2. Construct the terminal grading layout as shown in the staking notes or model. If no staking notes or model are provided, use the preferred grading layout as much as practical within site constraints. If necessary because of site limitations, use the alternative grading layout.
3. For design purposes, the length of need is assumed to begin at post 3. Verify the length of need with the manufacturer for a specific product. Adjust grading as necessary to install the tangent terminal according to the manufacturer's recommendations.
4. Install terminal at a 1:25 taper or flatter, to position the end farther away from the edge of the shoulder, or use a taper according to manufacturer's recommendations.
5. Install a reflectorized object marker on the end of the terminal.
6. Construct a 1V:4H slope outside of the guardrail terminal grading extents where practical.

| TEST LEVEL | L (FT) |
|--------------|---------------------|
| 2 (≤ 45 mph) | 25 |
| 3 (> 45 mph) | 37.5 or 50 (for G4) |
| | 50 (for MGS) |

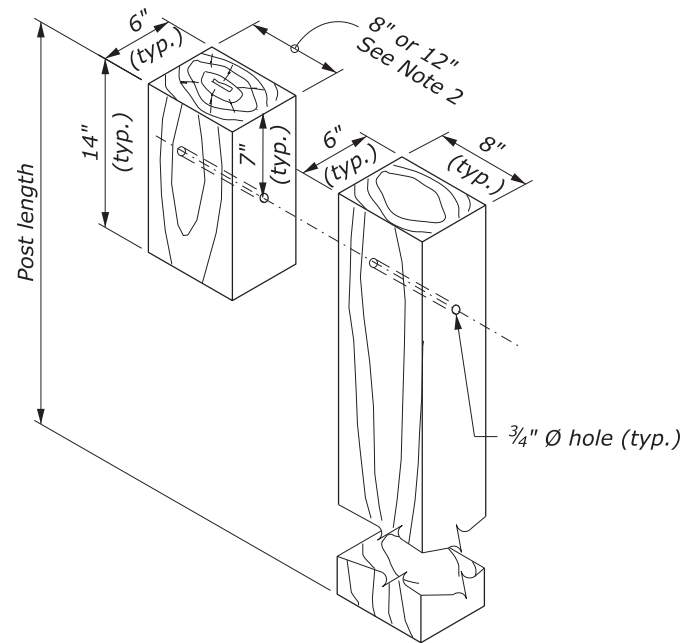


PLAN
ALTERNATIVE GRADING

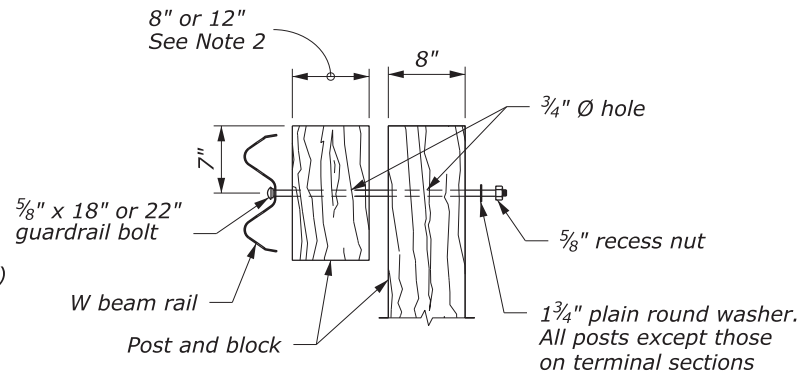
NO SCALE

| | |
|---|---------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | |
| U.S. CUSTOMARY DETAIL MGS AND G4 W-BEAM GUARDRAIL TYPE TANGENT TERMINAL AND GRADING | |
| DETAIL APPROVED FOR USE 04/2020 | DETAIL |
| REVISED: | C617-20 |

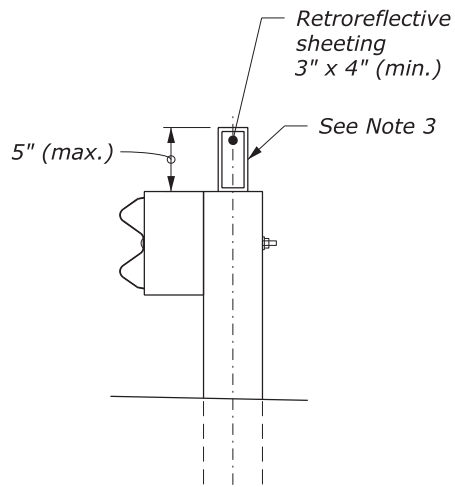
| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T5 |



POST AND BLOCK



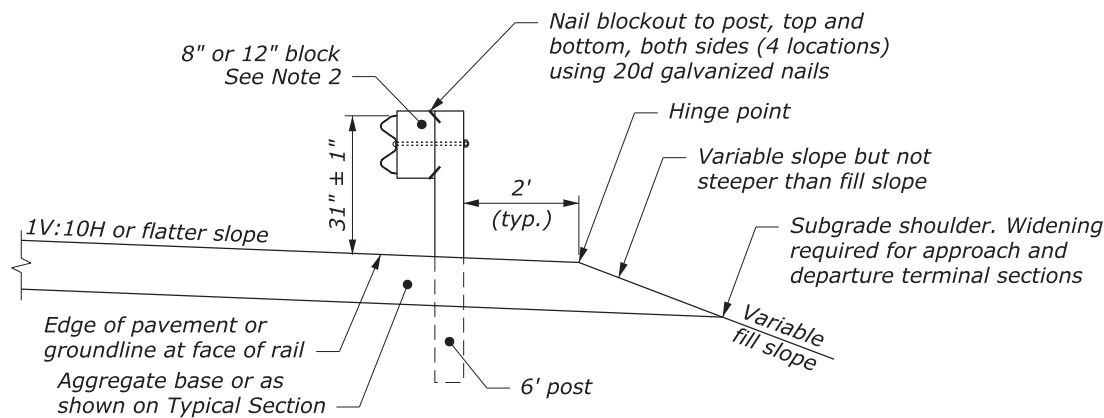
POST BOLT ASSEMBLY



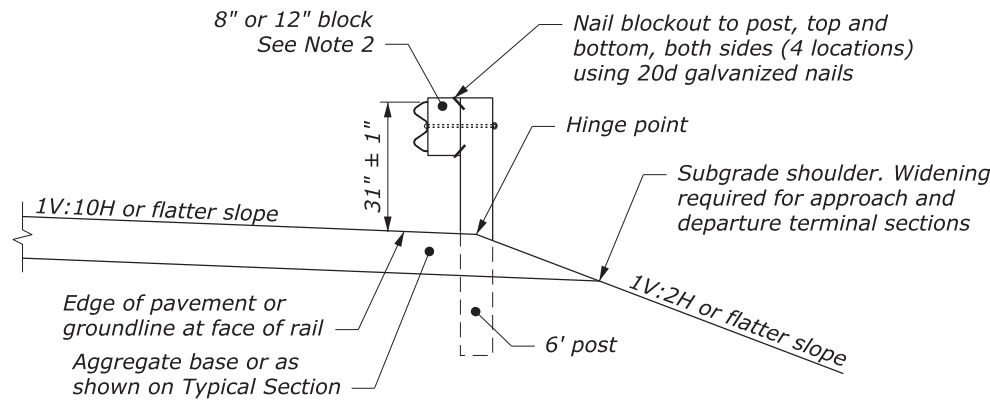
**FLEXIBLE DELINEATOR
GUARDRAIL MOUNT**

NOTE:

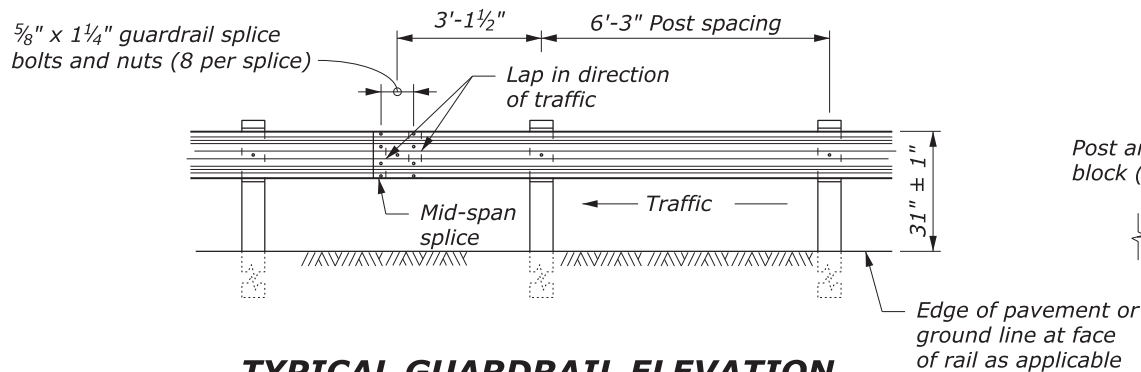
1. When encountering impenetrable material, one post may be omitted in locations where the typical guardrail cross section includes 2-feet (min.) between the back of the guardrail post and the hinge point. For all other locations, see Section 617 and Details C617-13 or C617-37.
2. Size of block shown elsewhere on the plans. Use a single block or combination of blocks (no more than two) to achieve the actual 8-inch or 12-inch offset. Secure wood blocks to the posts with anti-rotation nails. If combination blocks are used, toenail the adjacent blocks with two 16d galvanized nails to prevent block rotation.
3. Install a flexible hinged delineator every fourth post. Fasten delineator to the top of the wood post using either an adhesive or mechanical means according to the manufacturer's recommendations. Match the color of the reflective element with the edge line. Other types of delineators may be used as approved by the CO.
4. In erodible or uncompacted soils, increase post length to 7'-6".
5. Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance, and accepted manufacturing practices.



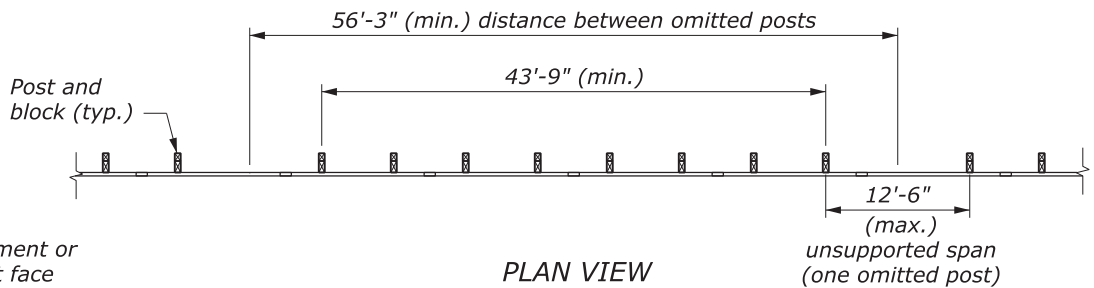
**TYPICAL GUARDRAIL CROSS SECTION
6' POST, 8" OR 12" BLOCK**



**TYPICAL GUARDRAIL CROSS SECTION
6' POST CENTERED ON HINGE, 8" OR 12" BLOCK**
See Note 4



TYPICAL GUARDRAIL ELEVATION

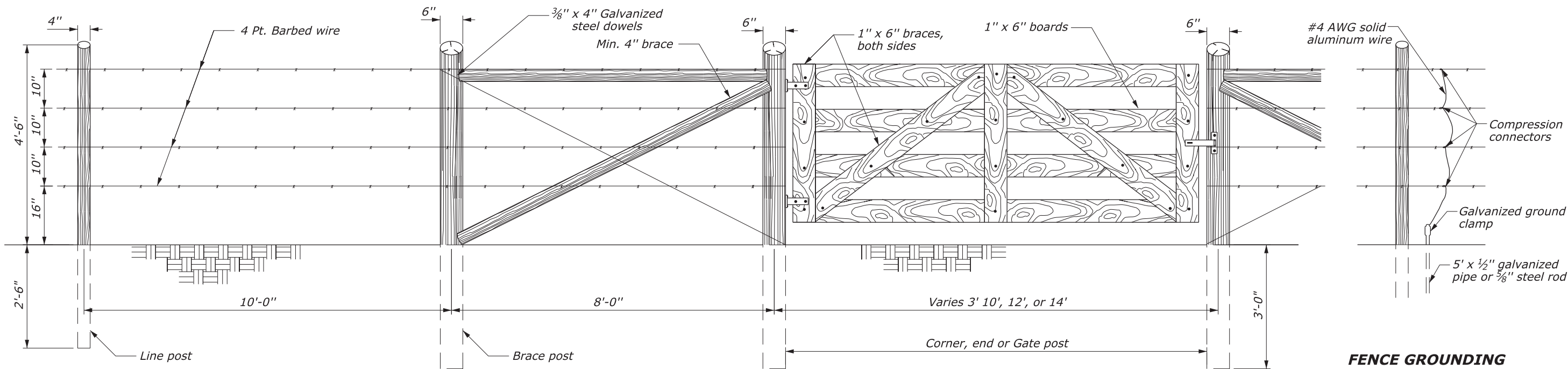


**PLAN VIEW
OMITTED POST DETAIL**
See Note 1

NO SCALE

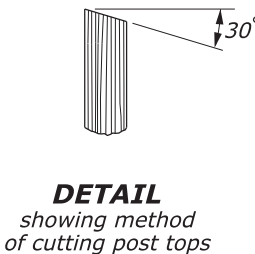
| | |
|---|------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | |
| U.S. CUSTOMARY SPECIAL MGS W-BEAM GUARDRAIL WOOD POSTS | |
| REVISED: | SPECIAL 617-A |

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T6 |

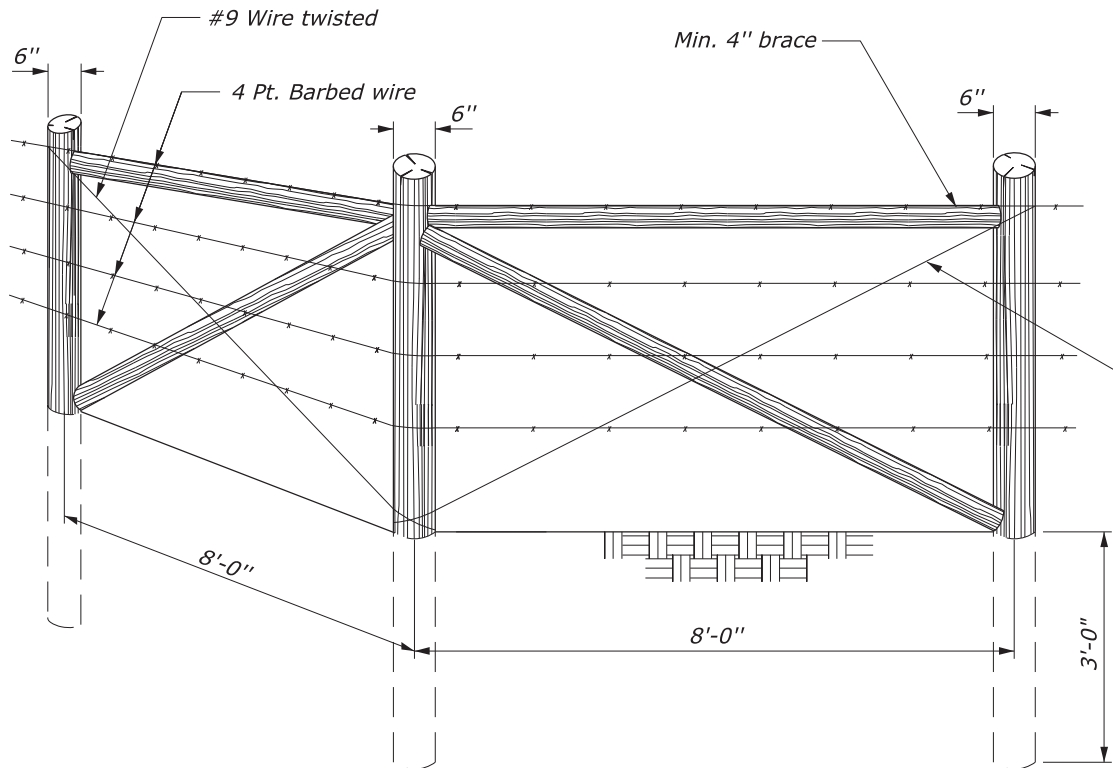


BARBED WIRE FENCE WITH WOOD GATE

**FENCE GROUNDING
DETAIL**

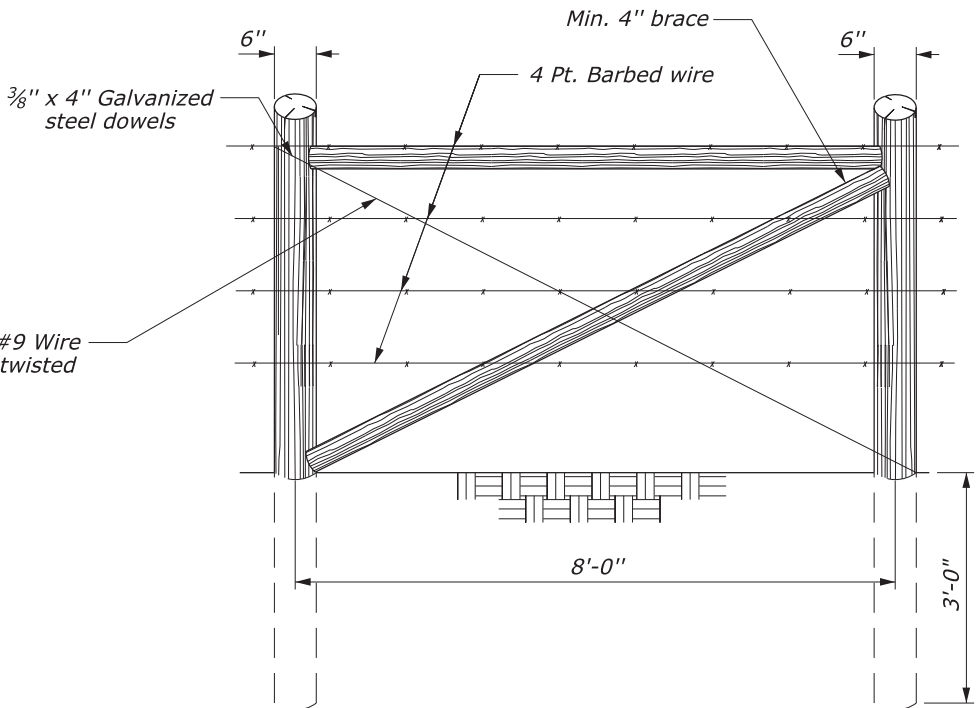


- NOTES:**
1. Install fence and gates at locations shown on the plans or as directed by the CO.



CORNER BRACE
(To be used when corner is 15° or more)

Place diagonal 4" brace in direction of pull.
Notch posts for the 4" diagonal braces. All diagonal 4" braces to have 2 galvanized 12d nails at each end.



LINE BRACE
(Maximum spacing 500')
Line braces also to be used when
vertical alignment changes 15° or more

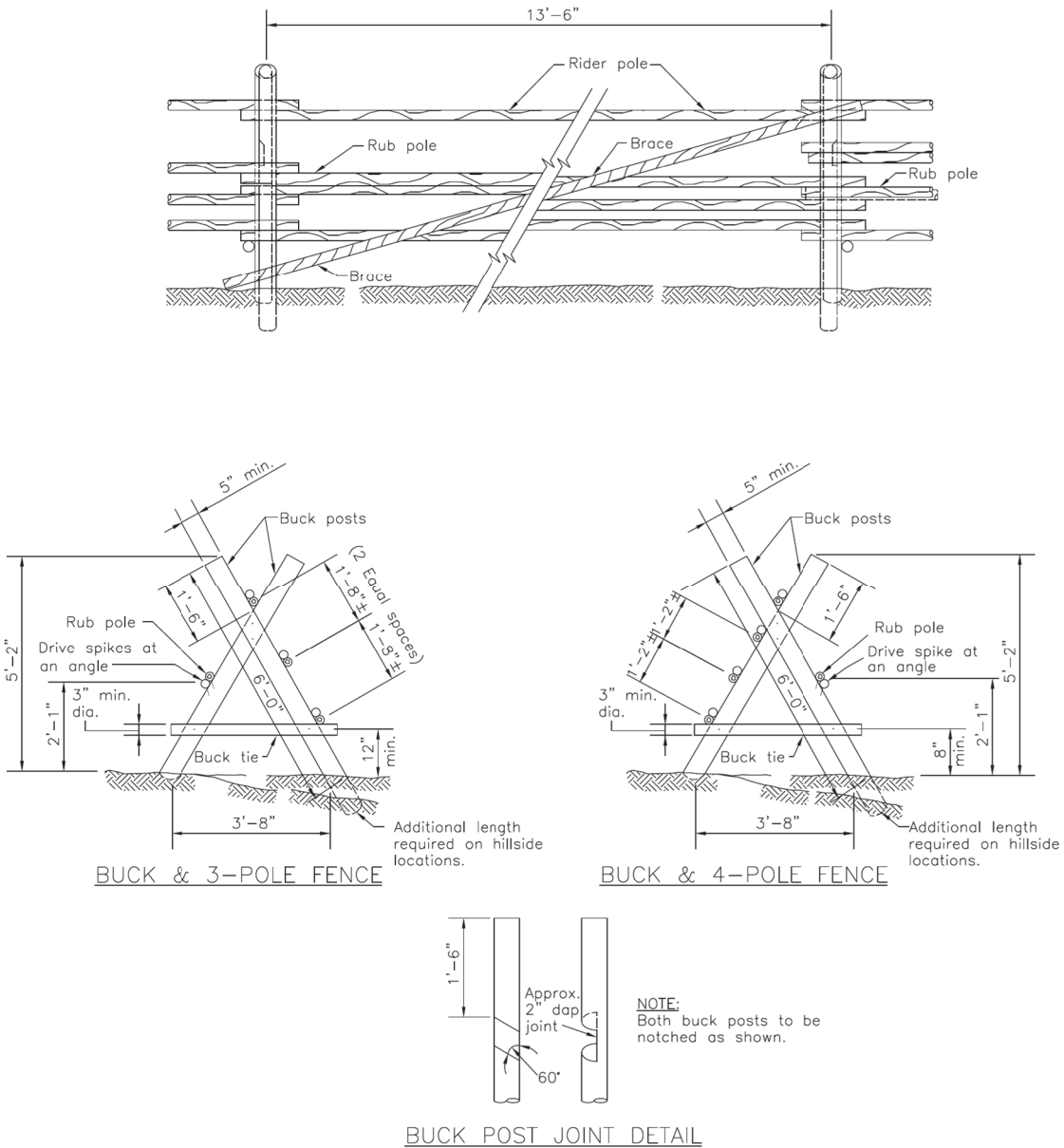
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY SPECIAL

BARBED WIRE FENCE

SPECIAL
619-A

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T7 |



NOTES:

1. Spikes shall be used as fasteners. Two spikes shall be used to fasten buck posts together. One spike shall be used to fasten poles, braces & buck ties to buck posts.
2. Poles, braces, ties, & buck posts shall be of material as shown in the specifications.

ALWAYS THINK SAFETY

| | |
|---|------------|
| UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT DIVISION OF TECHNICAL SERVICES SERVICE CENTER | |
| BUCK & POLE FENCE | |
| DESIGNED _____ by others | |
| REVIEWED _____ | |
| APPROVED _____ | |
| DRAWN _____ | SCALE NONE |
| DATE SEPTEMBER 27, 1990 | SHEET OF |
| DRAWING NO. 02835-2 | |

BLM28352.DWG

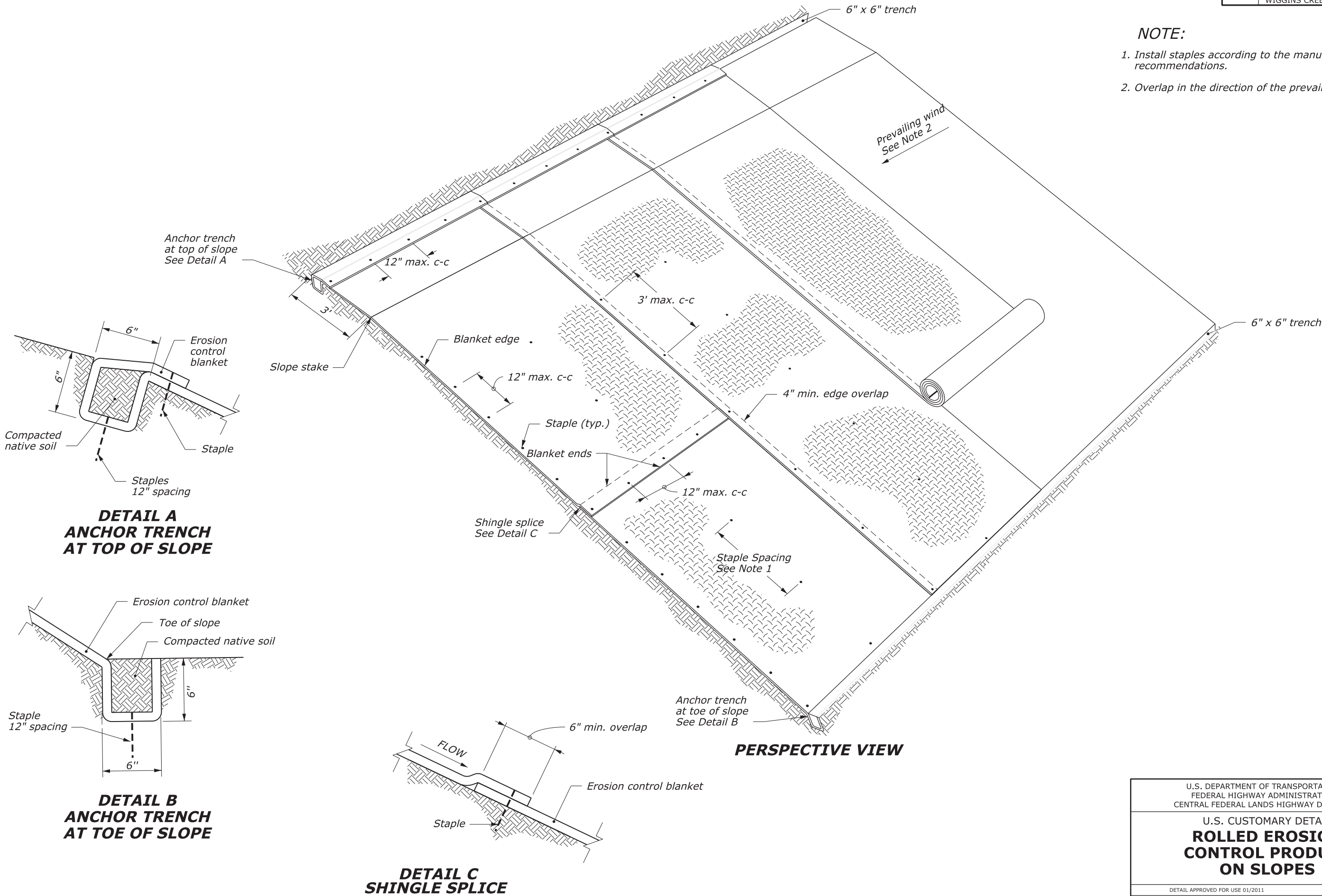
Adopted from BLM drawing No. 02835-2

| | |
|---|------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | |
| U.S. CUSTOMARY SPECIAL | |
| BUCK AND POLE FENCE | |
| | SPECIAL 619-B |

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T8 |

NOTE:

1. Install staples according to the manufacturer's recommendations.
2. Overlap in the direction of the prevailing wind.



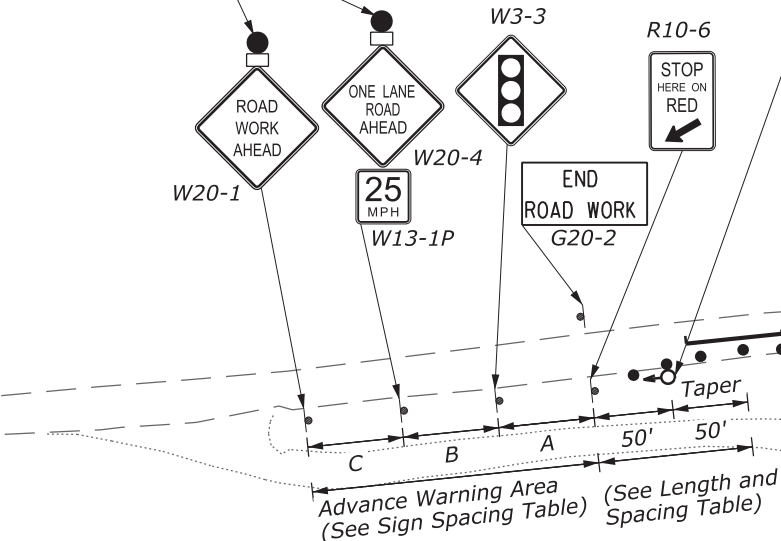
NO SCALE

| | |
|---|-------------------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION | |
| U.S. CUSTOMARY DETAIL ROLLED EROSION CONTROL PRODUCT ON SLOPES | |
| DETAIL APPROVED FOR USE 01/2011 REVISED: 08/2014 | DETAIL C629-50 |

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T9 |

| SIGN SPACING TABLE | | | |
|----------------------------------|--------------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

Type B warning lights



Temporary traffic signal system (typ.)
See Note 2

**Begin Roadway
Diversion
Station 50+00 =
Mainline
Station 11+21.41**

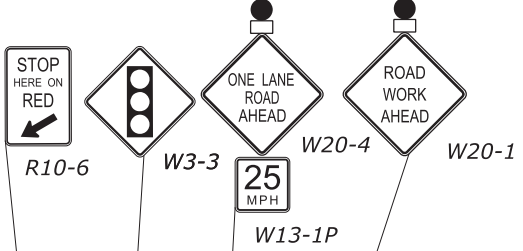
Drum (typ.)

W1-6 LT.
Mounted on
a Type 3
Barricade

W1-6 RT.
Mounted on
a Type 3
Barricade

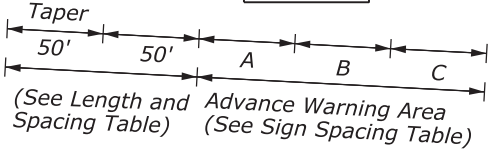
Provide access to the
residential driveway
during construction

Temporary traffic signal system
See Note 2



East Fork Road

END
ROAD WORK
G20-2



Proposed edge of
roadway (typ.)

See S sheets
for bridge work

See Plan and Profile sheets for
roadway work

**End Roadway
Diversion
Station 55+22.77 =
Mainline
Station 16+28.83**

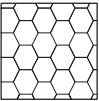
| LENGTH AND SPACING TABLE | | | | |
|--------------------------|------------------------|---------------------|-----------------|---------------|
| APPROACH SPEED* | BUFFER SPACE LENGTH | CHANNELIZING DEVICE | | |
| | | TAPER AREA | BUFFER SPACE | WORK SPACE |
| MPH | FEET | SPACING IN FEET | | |
| 20 | 115 | 20 | 40 | 40 |
| 25 | 155 | 20 | 50 | 50 |
| 30 | 200 | 20 | 60 | 60 |
| 35 | 250 | 20 | 70 | 70 |
| 40 | 305 | 20 | 80 | 80 |
| 45 | 360 | 20 | 90 | 90 |
| 50 | 425 | 20 | 100 | 100 |
| 55 | 495 | 20 | 110 | 110 |
| 60 | 570 | 20 | 120 | 120 |
| 65 | 645 | 20 | 130 | 130 |
| 70 | 730 | 20 | 140 | 140 |

* Approach speed based on the regulatory posted speed,
not the advisory speed.

Notes:

- The design speed and posted speed for the roadway diversion is 25 mph.
- Final location and spacing of the traffic control devices may be changed to fit field conditions as approved by the CO. If signals are moved, revised signal timing must be determined.
- A single signal installation is acceptable, on the right-hand side of the road, if it has two signal faces that are at least 8 feet apart and meets the other requirements of Part 4 of the MUTCD
- Install and operate temporary traffic control signals in accordance with the provisions of the MUTCD, Part 4. Ensure signal timing is established by a qualified engineer. When the signal is changed to the flashing mode either manually or automatically, ensure red signal indications are flashed to both approaches.

LEGEND



Work area limits

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

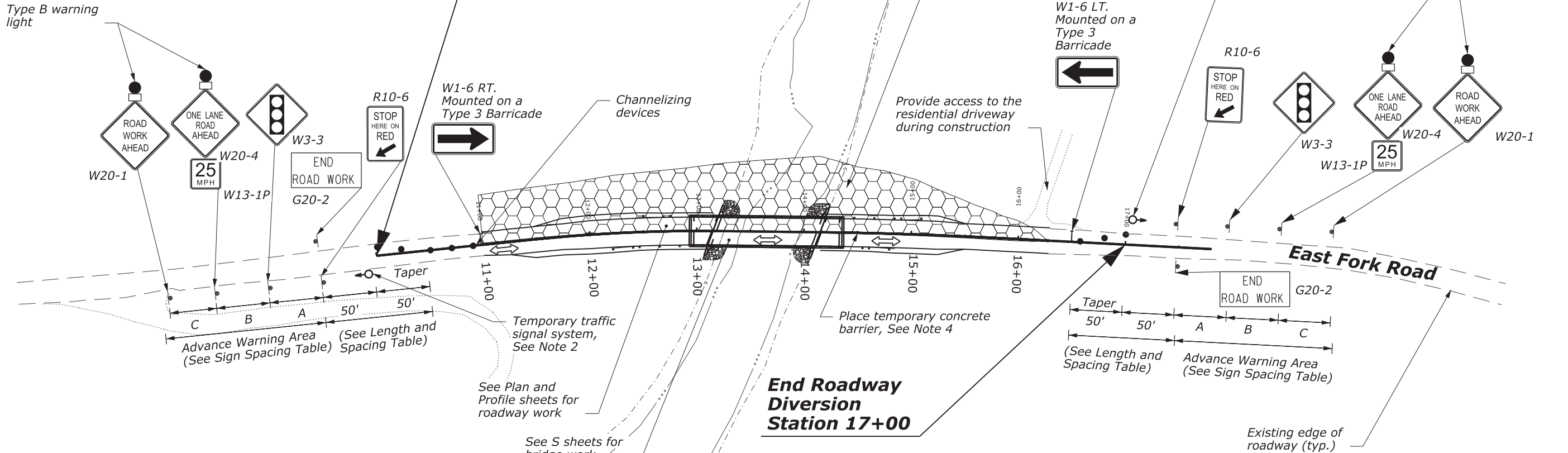
**TEMPORARY TRAFFIC
CONTROL PLAN
STAGE 1**



NO SCALE

| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | T10 |

| SIGN SPACING TABLE | | | |
|----------------------------------|--------------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |



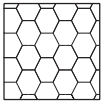
| LENGTH AND SPACING TABLE | | | | |
|--------------------------|---------------------|---------------------|--------------|------------|
| APPROACH SPEED* | BUFFER SPACE LENGTH | CHANNELIZING DEVICE | | |
| | | TAPER AREA | BUFFER SPACE | WORK SPACE |
| MPH | FEET | SPACING IN FEET | | |
| 20 | 115 | 20 | 40 | 40 |
| 25 | 155 | 20 | 50 | 50 |
| 30 | 200 | 20 | 60 | 60 |
| 35 | 250 | 20 | 70 | 70 |
| 40 | 305 | 20 | 80 | 80 |
| 45 | 360 | 20 | 90 | 90 |
| 50 | 425 | 20 | 100 | 100 |
| 55 | 495 | 20 | 110 | 110 |
| 60 | 570 | 20 | 120 | 120 |
| 65 | 645 | 20 | 130 | 130 |
| 70 | 730 | 20 | 140 | 140 |

* Approach speed based on the regulatory posted speed, not the advisory speed.

Notes:

1. Use a posted speed of 25mph for one-way operations on mainline.
2. Final location and spacing of signs and devices may be changed to fit field conditions as approved by the CO. If signals are moved, revised signal timing must be determined.
3. A single signal installation is acceptable, on the right-hand side of the road, if it has two signal faces that are at least 8 feet apart and meets the other requirements of Part 4 of the MUTCD
3. Install and operate temporary traffic control signals in accordance with the provisions of the MUTCD, Part 4. Ensure signal timing is established by a qualified engineer. When the signal is changed to the flashing mode either manually or automatically, ensure red signal indications are flashed to both approaches.
4. Remove the temporary concrete barrier from the stage 1 temporary roadway diversion and place on the centerline within the work area limits prior to performing work within the work area.

LEGEND



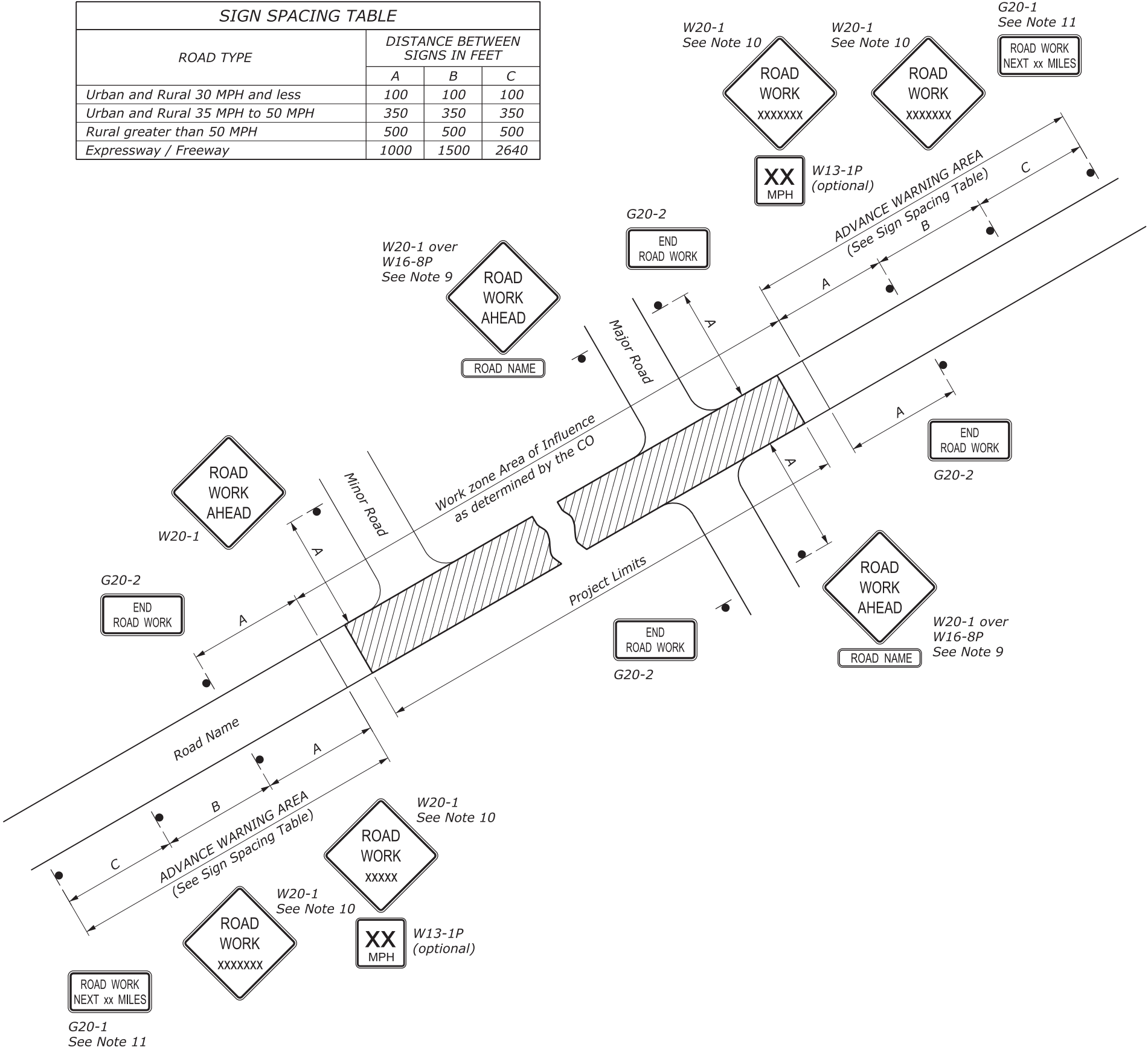
Work area limits

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TEMPORARY TRAFFIC CONTROL PLAN
STAGE 2

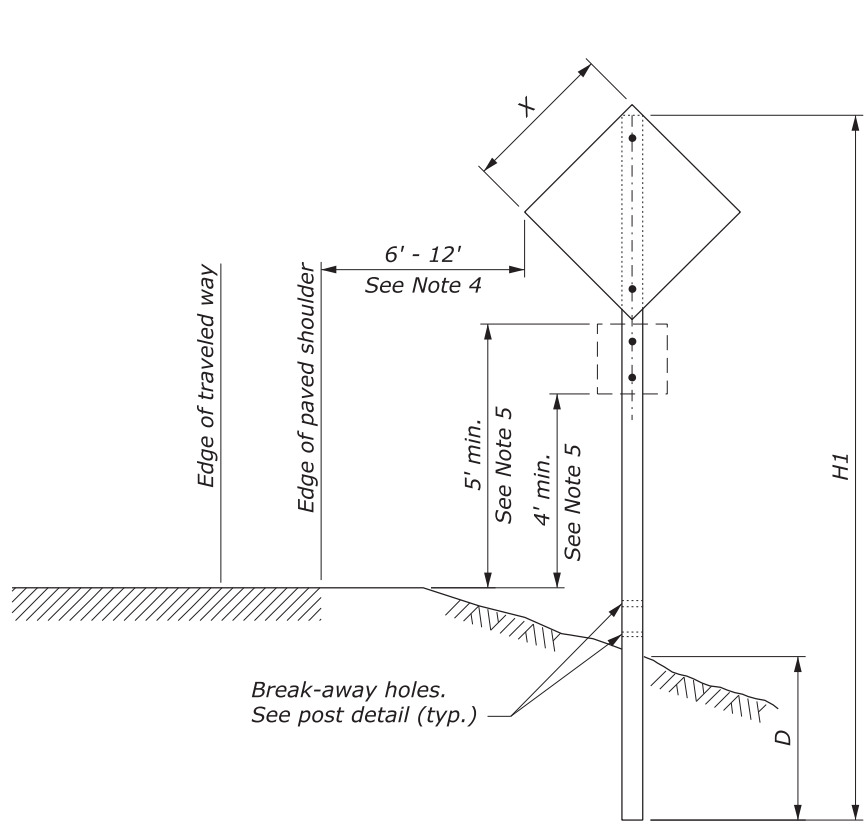
NO SCALE

| SIGN SPACING TABLE | | | |
|----------------------------------|--------------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

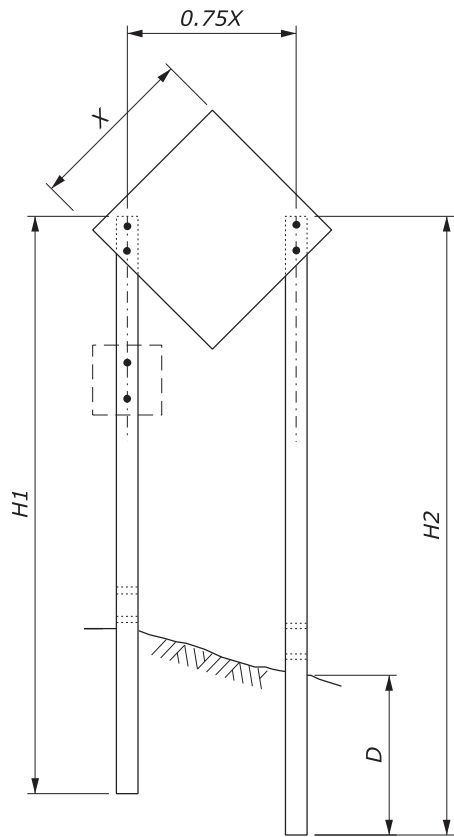


NOTE:

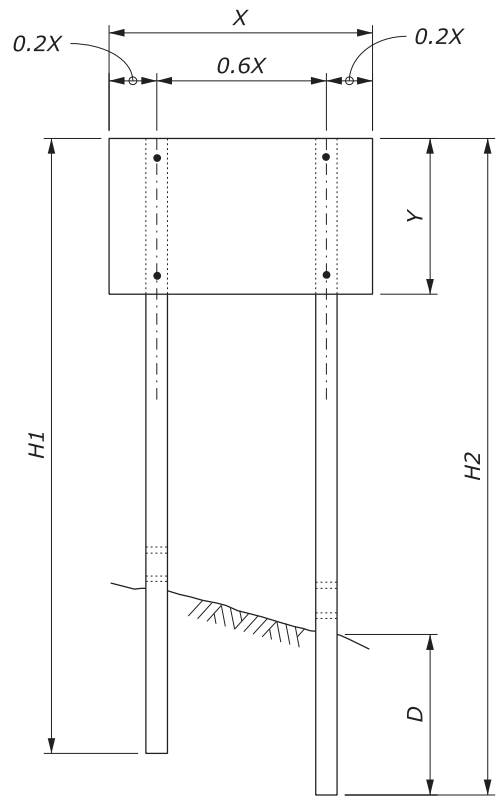
- Erect all project advance warning signs before starting construction work.
- Not all details shown on the temporary traffic control sheets may be applicable to this project. The Contractor may add or delete information and details in this traffic control plan as necessary to accommodate actual operations.
- Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs as determined by the CO for best results. Vary messages as required.
- Additional or different message signs may be required to fit the actual construction conditions.
- Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
- Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.
- Maintain two-way traffic during all non-work hours except as approved by the CO.
- Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
- If W20-1 is placed on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road on which the construction does occur (applies to major roads only).
- The message on the W20-1 signs may be "ROAD WORK AHEAD" or may specify the distance to the work area in feet or in miles. Install an additional W20-1 sign when approach speeds exceed 50 MPH. When used place the two W20-1 signs "B" feet apart according to the Sign Spacing Table.
- For work zones that are 2 miles or more in length, install G20-1 signs at each end of the project. Show the distance on the G20-1 sign to the nearest whole mile.
- If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
- State standards may be used as an alternative if approved by the CO.
- Refer to the Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.



SINGLE POST SIGN



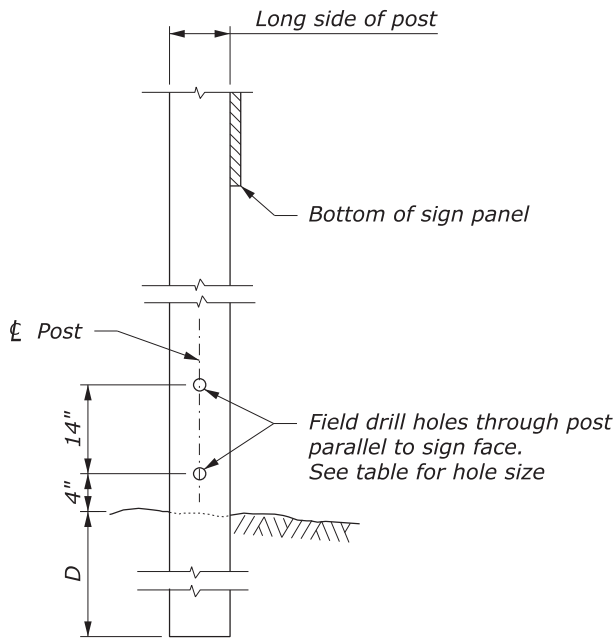
TWO POST SIGN



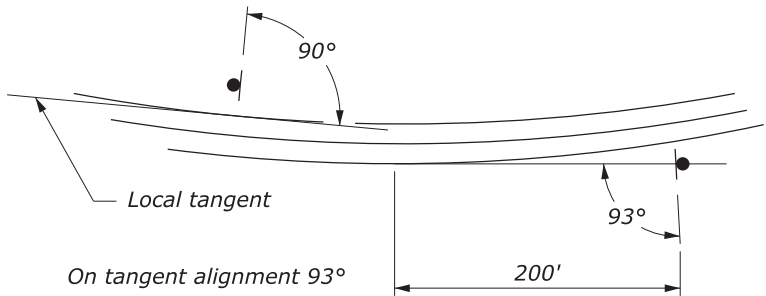
NOTE:

1. Attach sign panels with a minimum of 2 - 1/4" dia. bolts per post.
2. H1 and H2 = Overall post length.
Select post lengths to fit field conditions.
3. D = Post embedment depth for average soil conditions.
4. In areas where lateral distance is limited, a minimum lateral offset of 2' may be used. In areas with curbs, a minimum lateral distance of 1' behind the face of the curb may be used.
5. In pedestrian locations, or in areas with obstructed views, use 7' minimum mounting height for main sign and 6' minimum mounting height for secondary sign.
6. Use 7' minimum spacing between posts for sign posts 6" x 6" or larger.
7. State standards may be used as an alternative if approved by the CO.

| WOOD POST SELECTION TABLE | | | | | |
|-------------------------------------|-------------|-----------------|------------------|----------|------------------|
| WIDTH "X" | AREA (SQFT) | NUMBER OF POSTS | POST SIZE (INCH) | D (INCH) | HOLE SIZE (INCH) |
| Diamond ≤ 36" Other Shapes ≤ 48" | < 10 | 1 | 4 x 4 | 36 | 0 |
| | | 1 | 4 x 6 | 48 | 1.5 |
| Diamond ≤ 48" | 10 - 20 | 1 | 6 x 6 | 48 | 2 |
| Diamond ≤ 48" Other Shapes ≤ 12' | 10 - 20 | 2 | 4 x 4 | 36 | 0 |
| | 20 - 50 | 2 | 4 x 6 | 48 | 1.5 |
| > 13' | 50 - 65 | 2 | 6 x 6 | 48 | 2 |
| 12' - 16' | 50 - 65 | 3 | 4 x 6 | 48 | 1.5 |
| > 17' | 65 - 95 | 4 | 4 x 6 | 48 | 1.5 |
| > 30' | 65 - 95 | 3 | 6 x 6 | 48 | 2 |



POST DETAIL



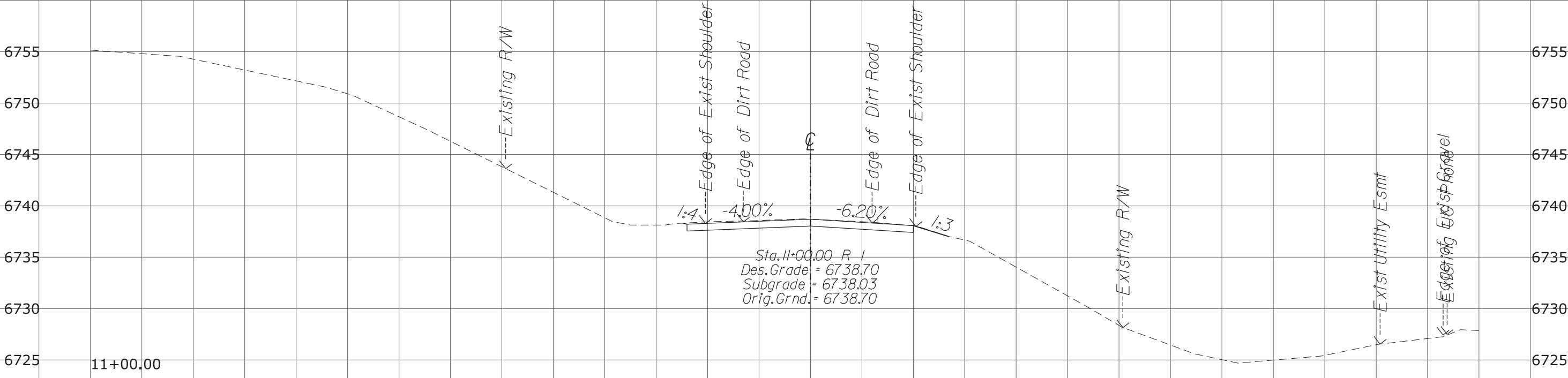
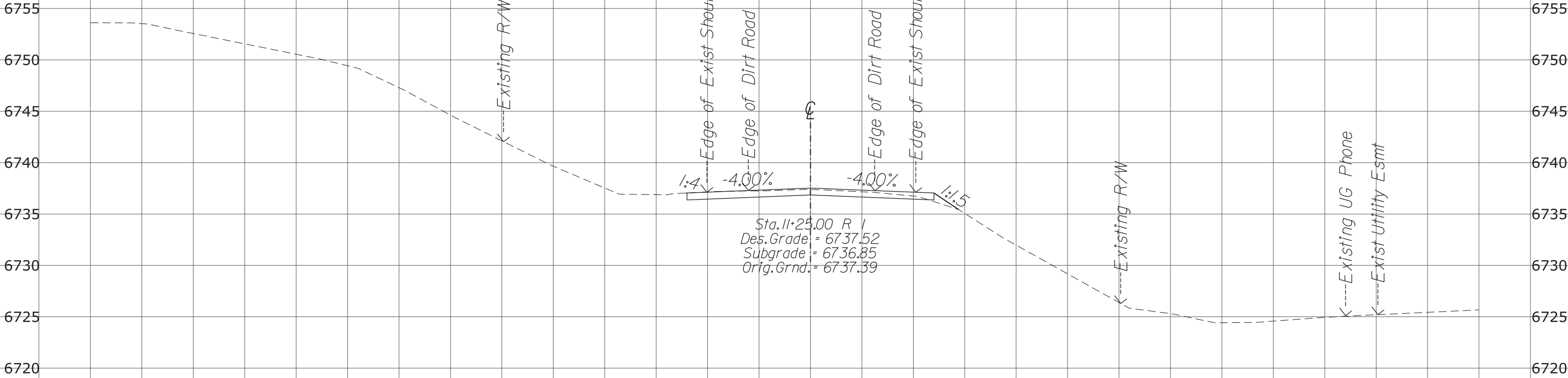
SIGN INSTALLATION ANGLE

NO SCALE

| | |
|--|----------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY | |
| U.S. CUSTOMARY STANDARD | |
| TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 10/2017 | 635-14 |

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | X1 |

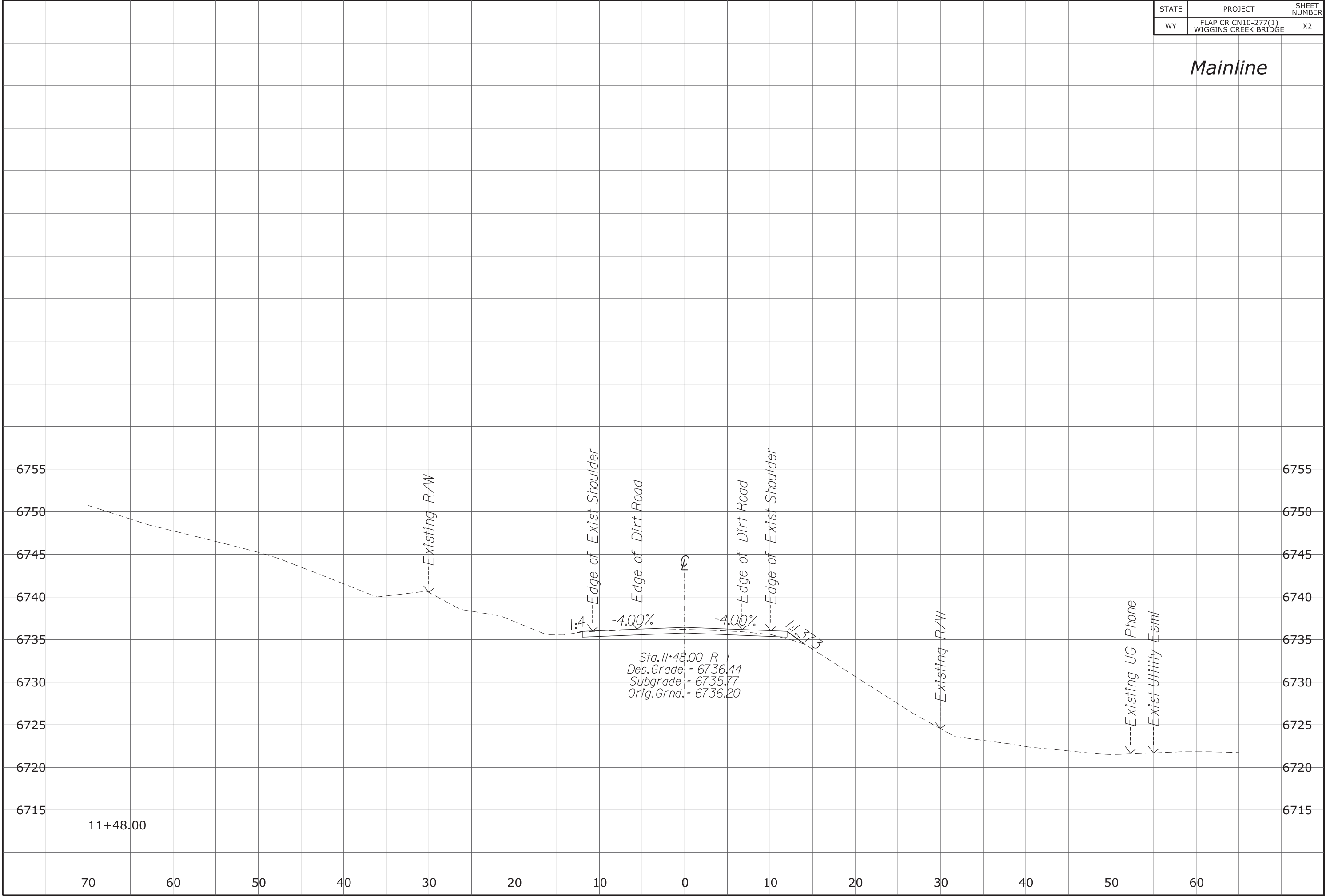
Mainline



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| | | |
|-------|---|-----------------|
| STATE | PROJECT | SHEET NUMBER |
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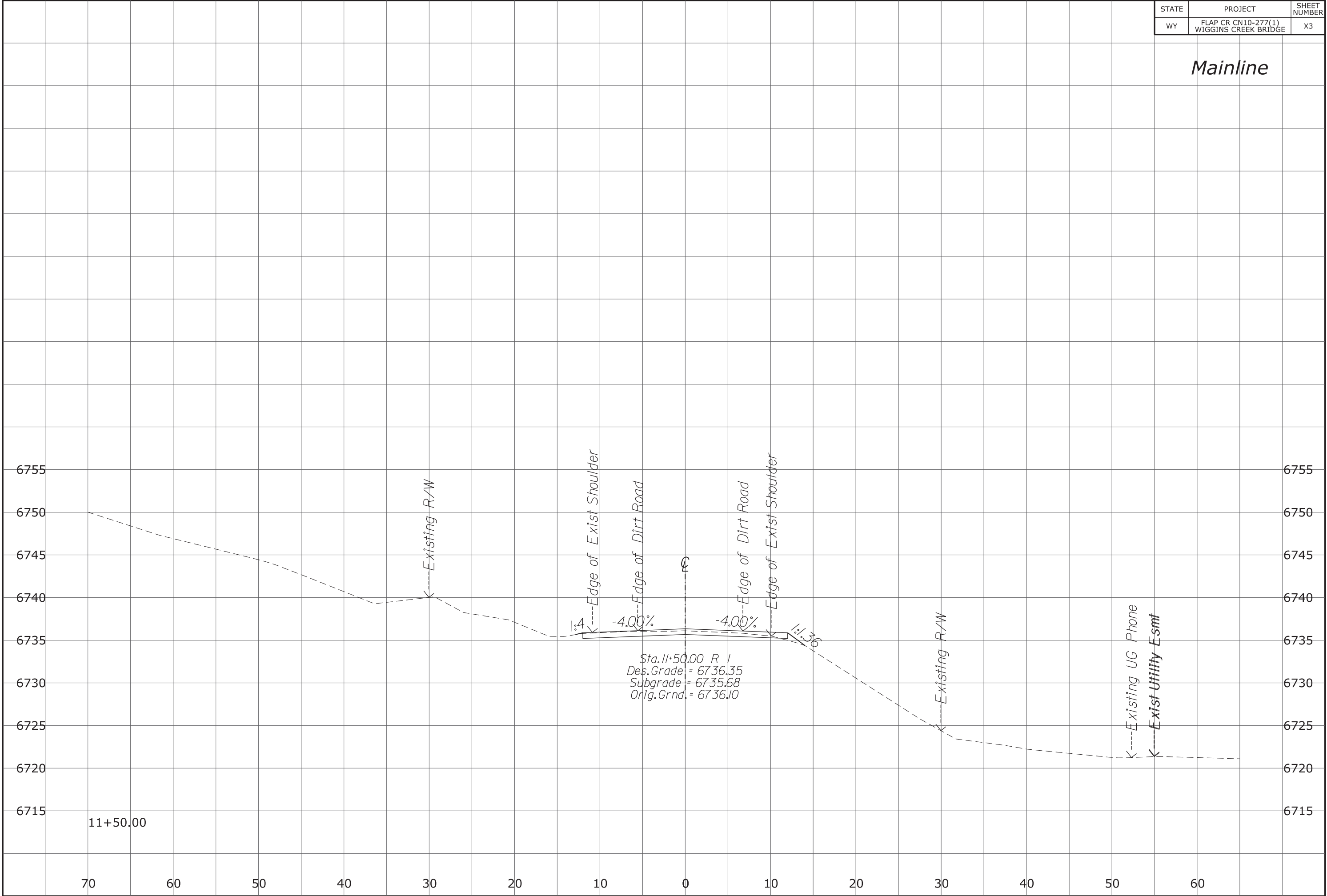
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| STATE | PROJECT | SHEET NUMBER |
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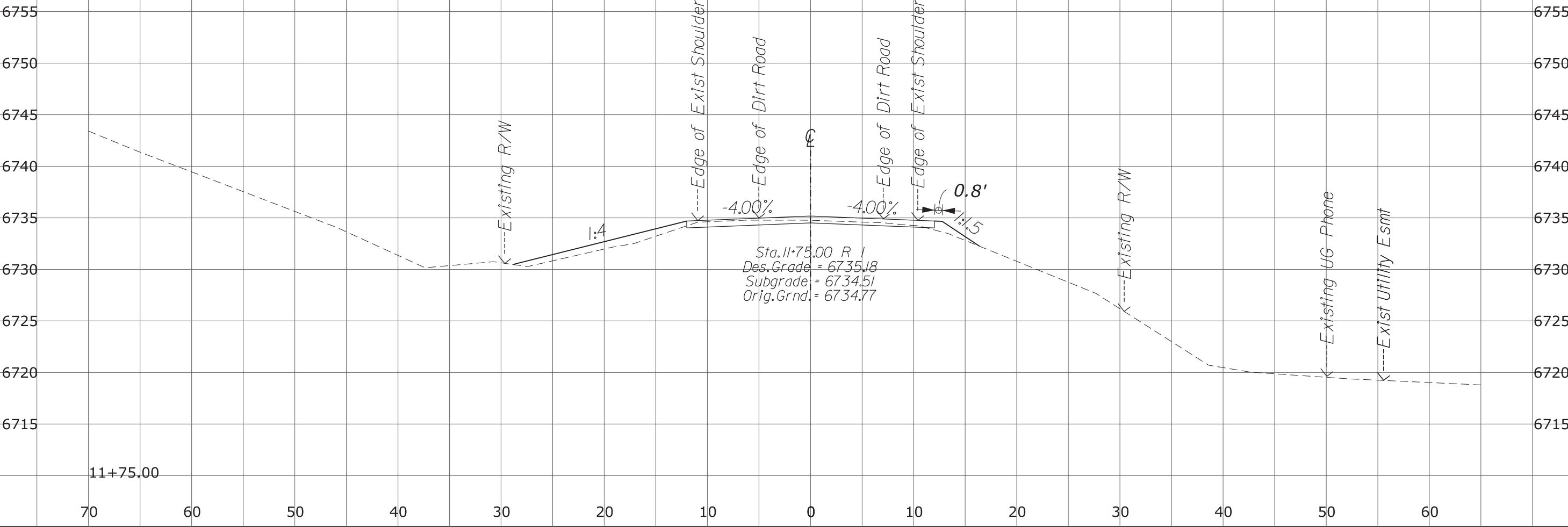
Mainline



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| STATE | PROJECT | SHEET NUMBER |
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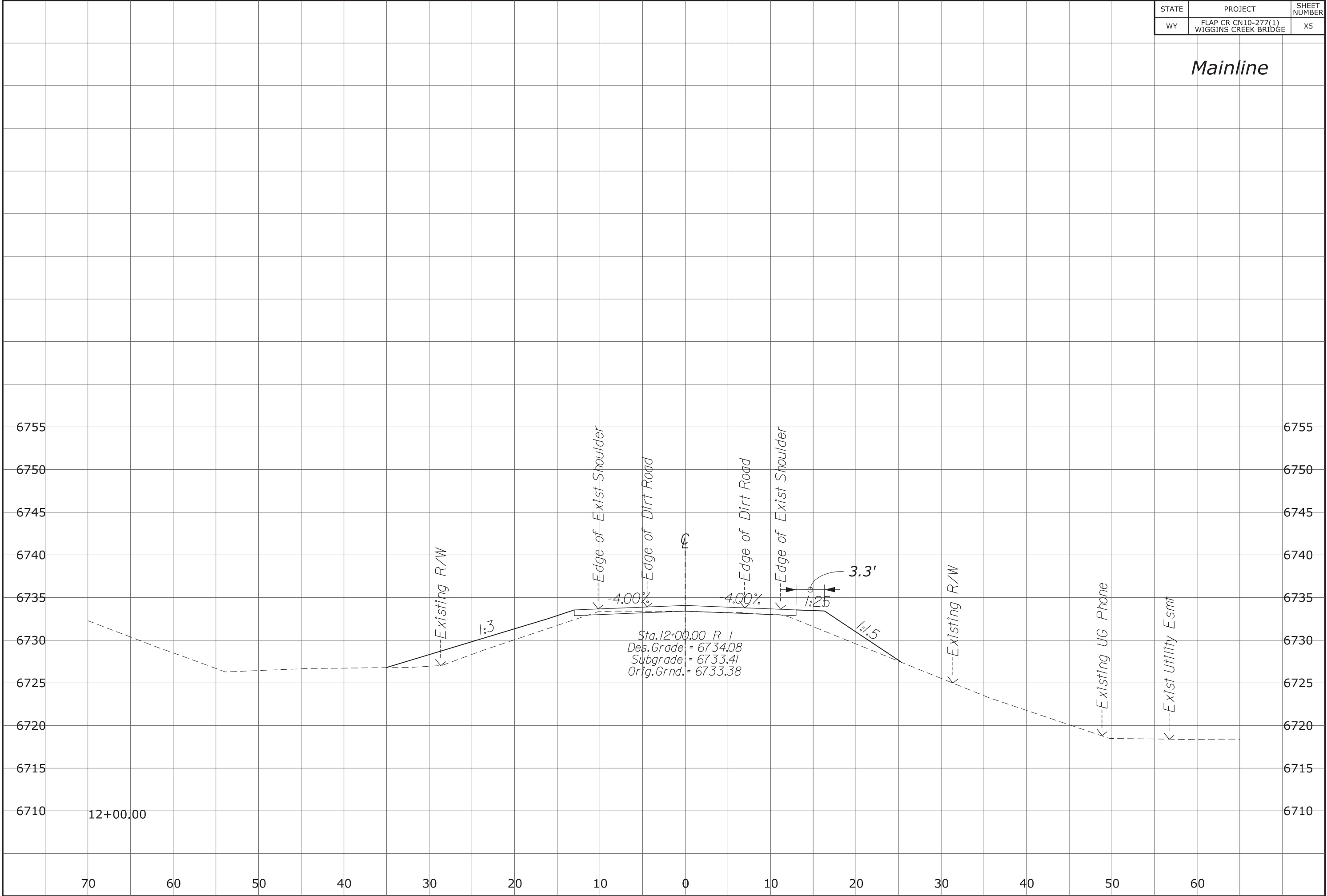
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| STATE | PROJECT | SHEET NUMBER |
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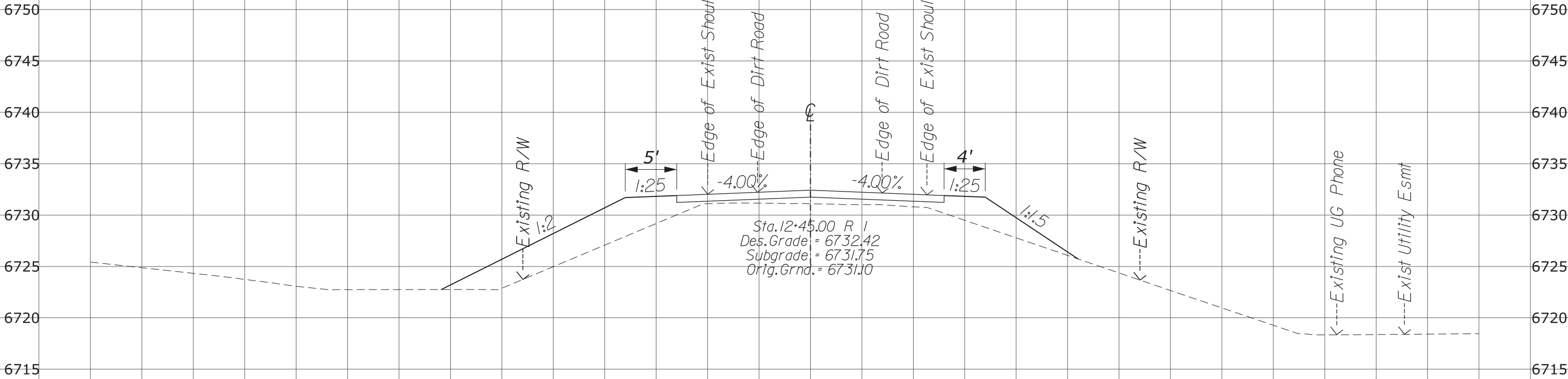
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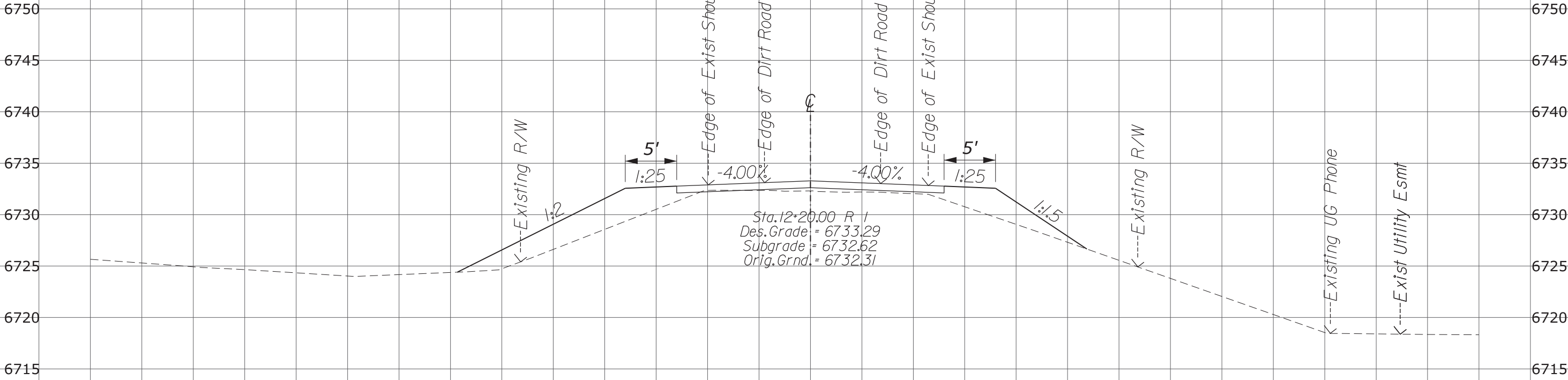
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| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | X6 |

Mainline



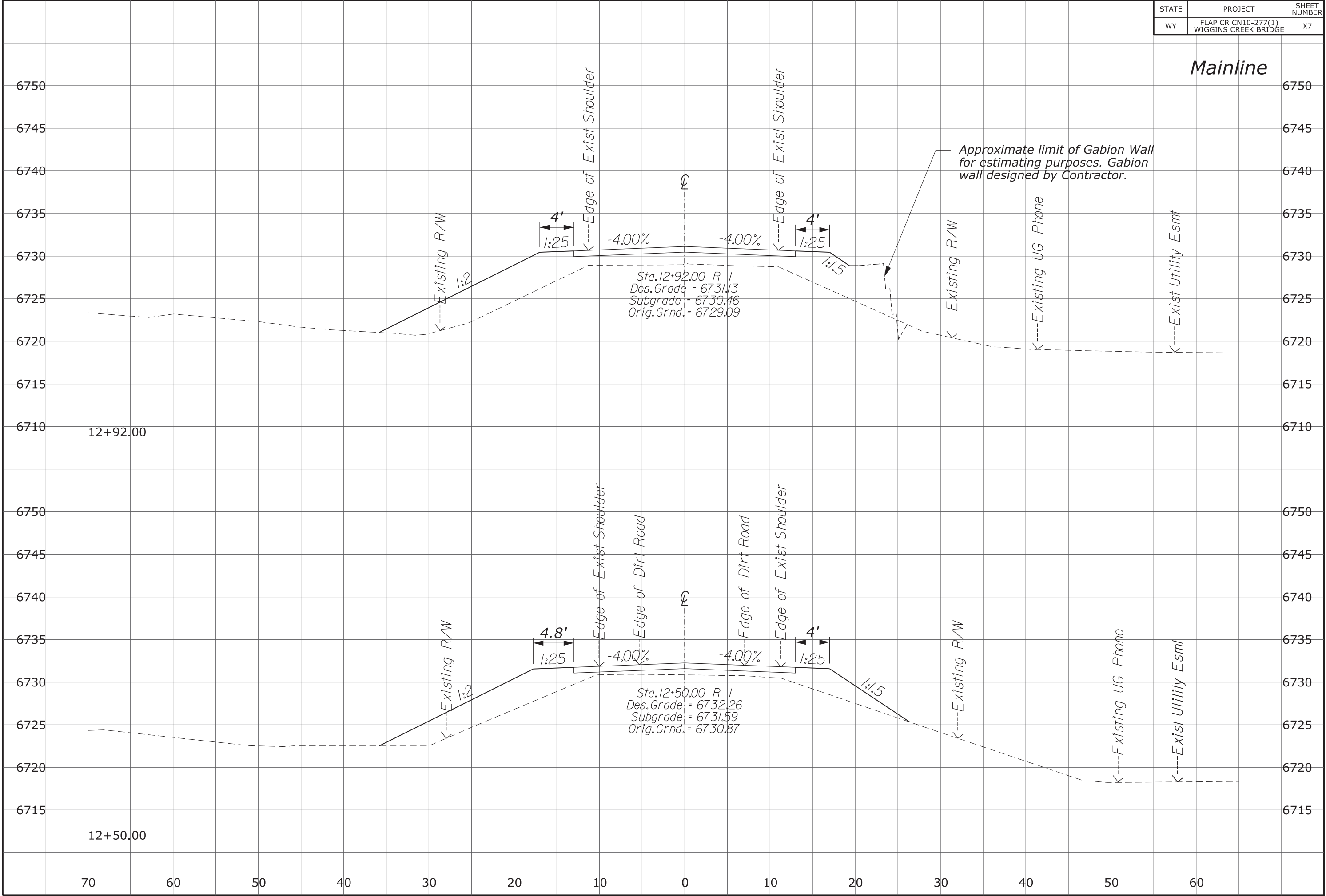
12+45.00



12+20.00

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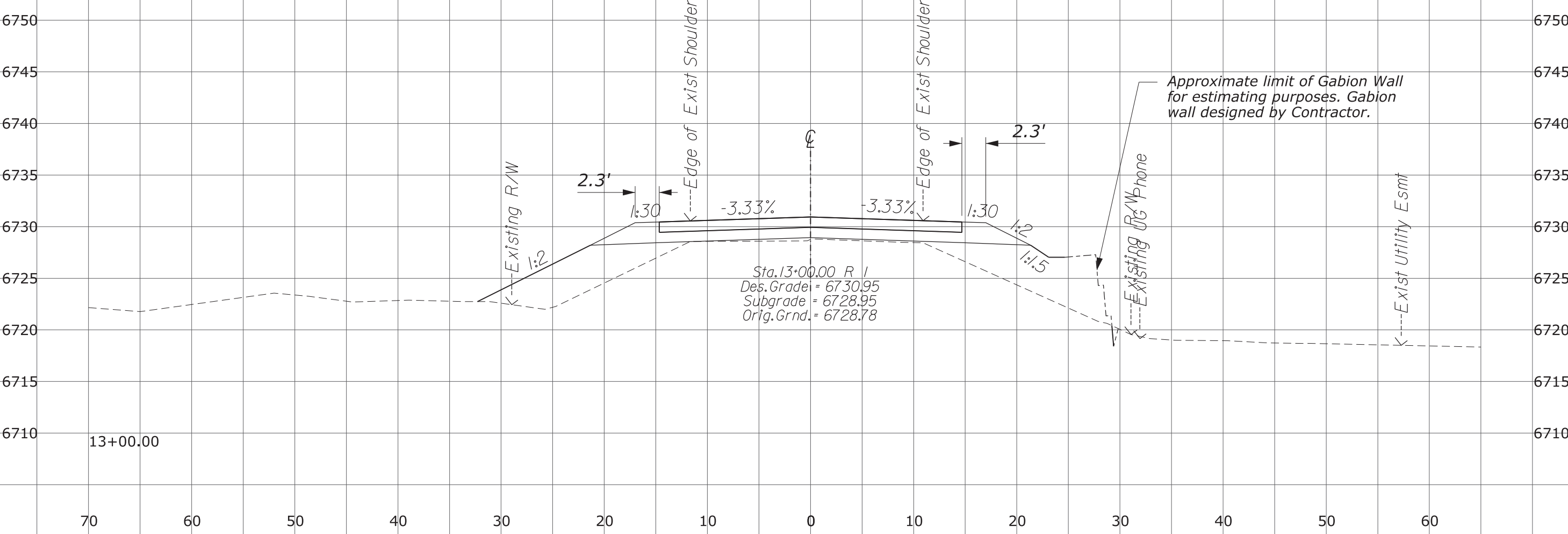
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|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
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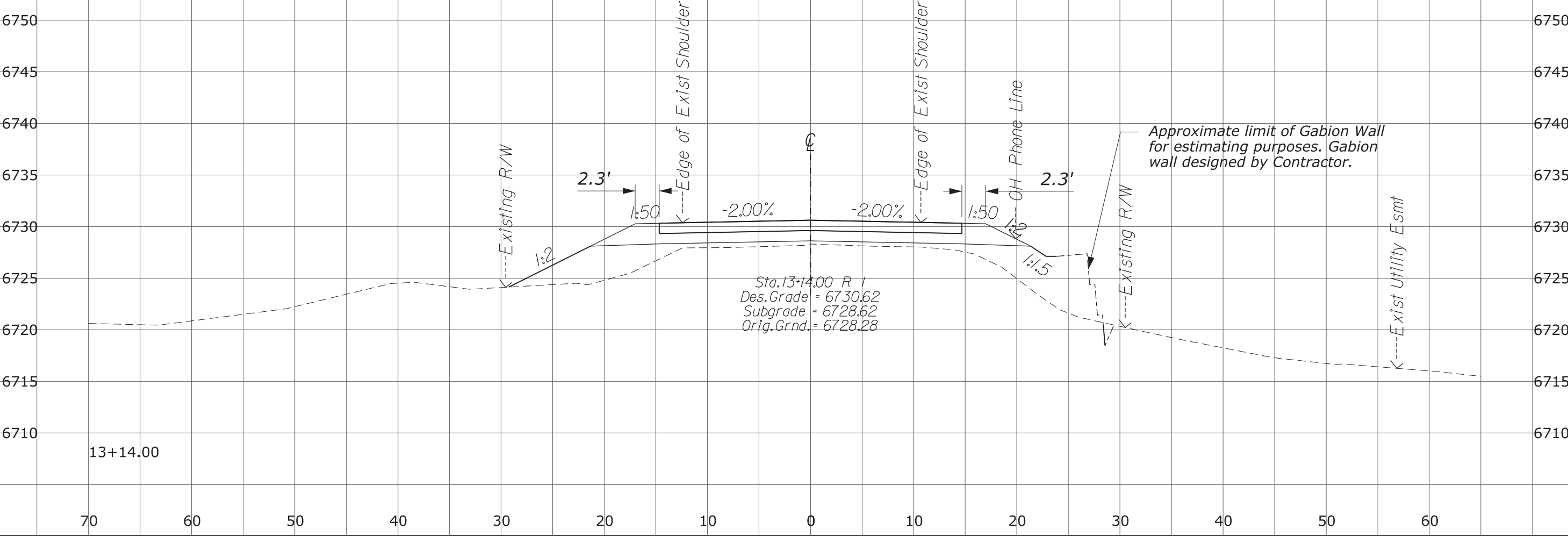
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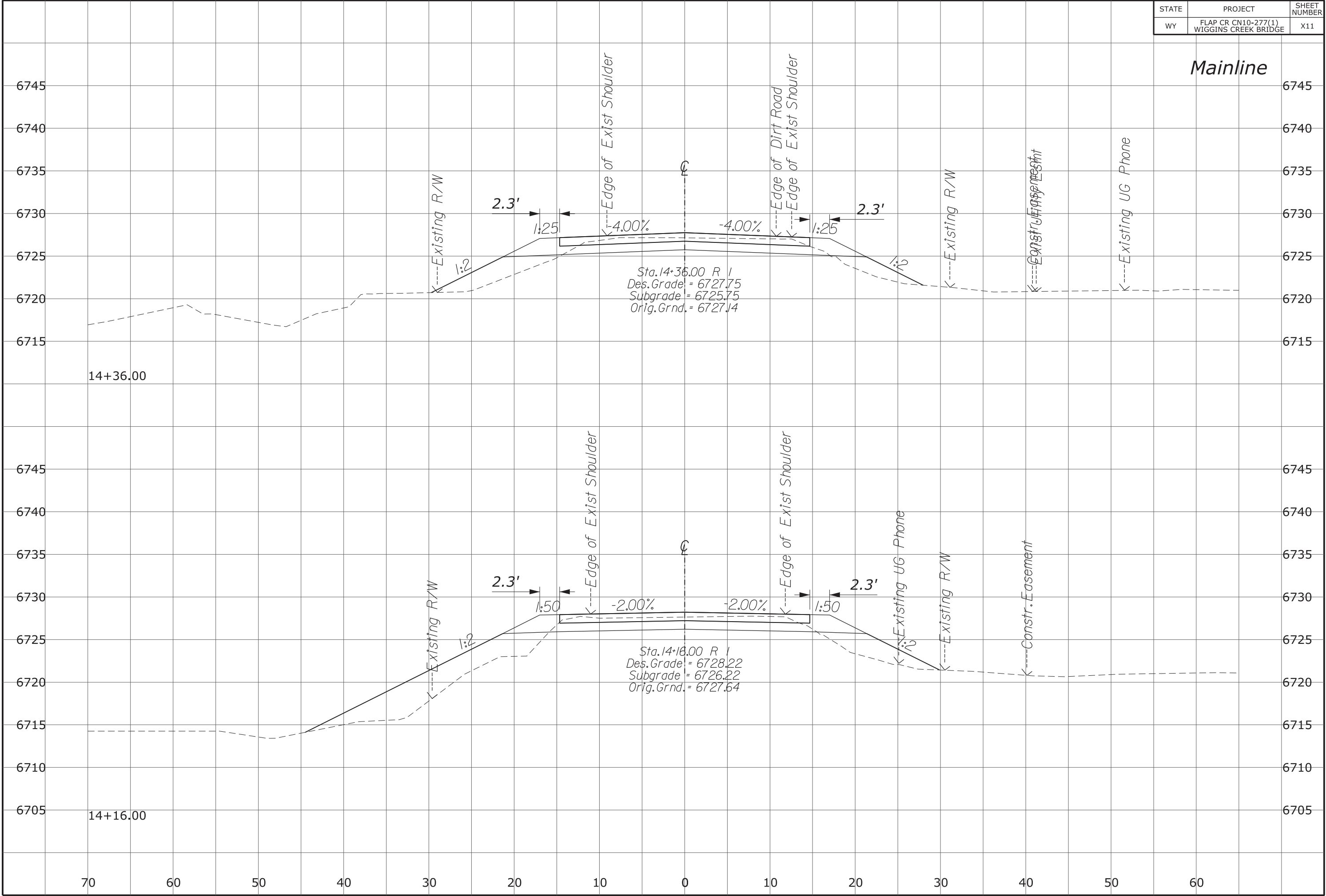
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|-------|---|-----------------|
| STATE | PROJECT | SHEET NUMBER |
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Mainline



4/12/2022 9:47:50 AM N:\WY\cn10-277(1)\Roadway\CADD_Sheets\X-ML_Xsec\XSS_Mainline.dgn User: Stacy.Dicicco

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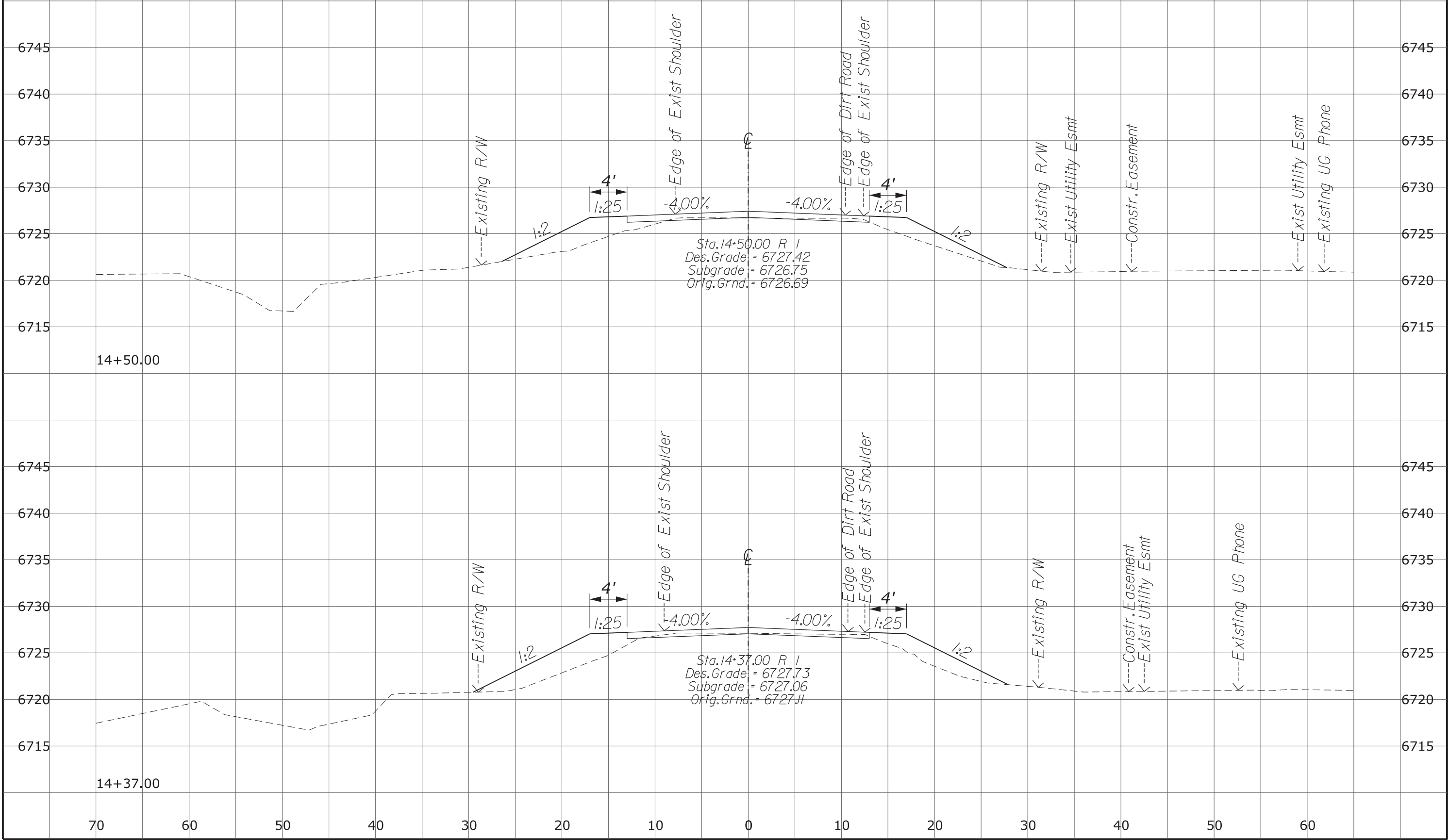


_User: Stacy.Dicicco

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| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | X12 |

Mainline

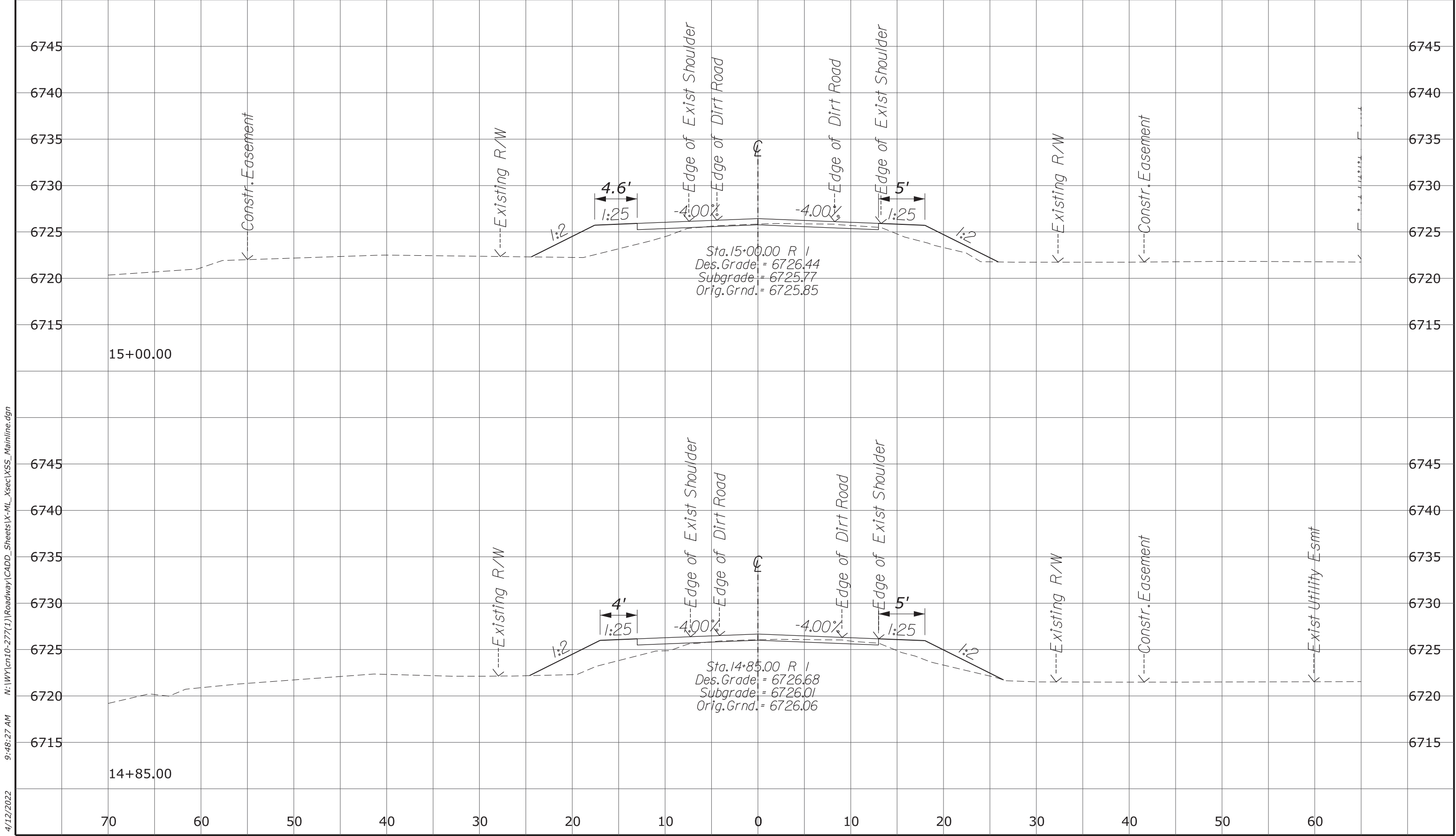


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4/12/2022 9:48:27 AM N:\WY\cn10-277(1)\Roadway\CADD_Sheets\X-ML_Xsec\XSS_Mainline.dgn

| STATE | PROJECT | SHEET NUMBER |
|-------|---|--------------|
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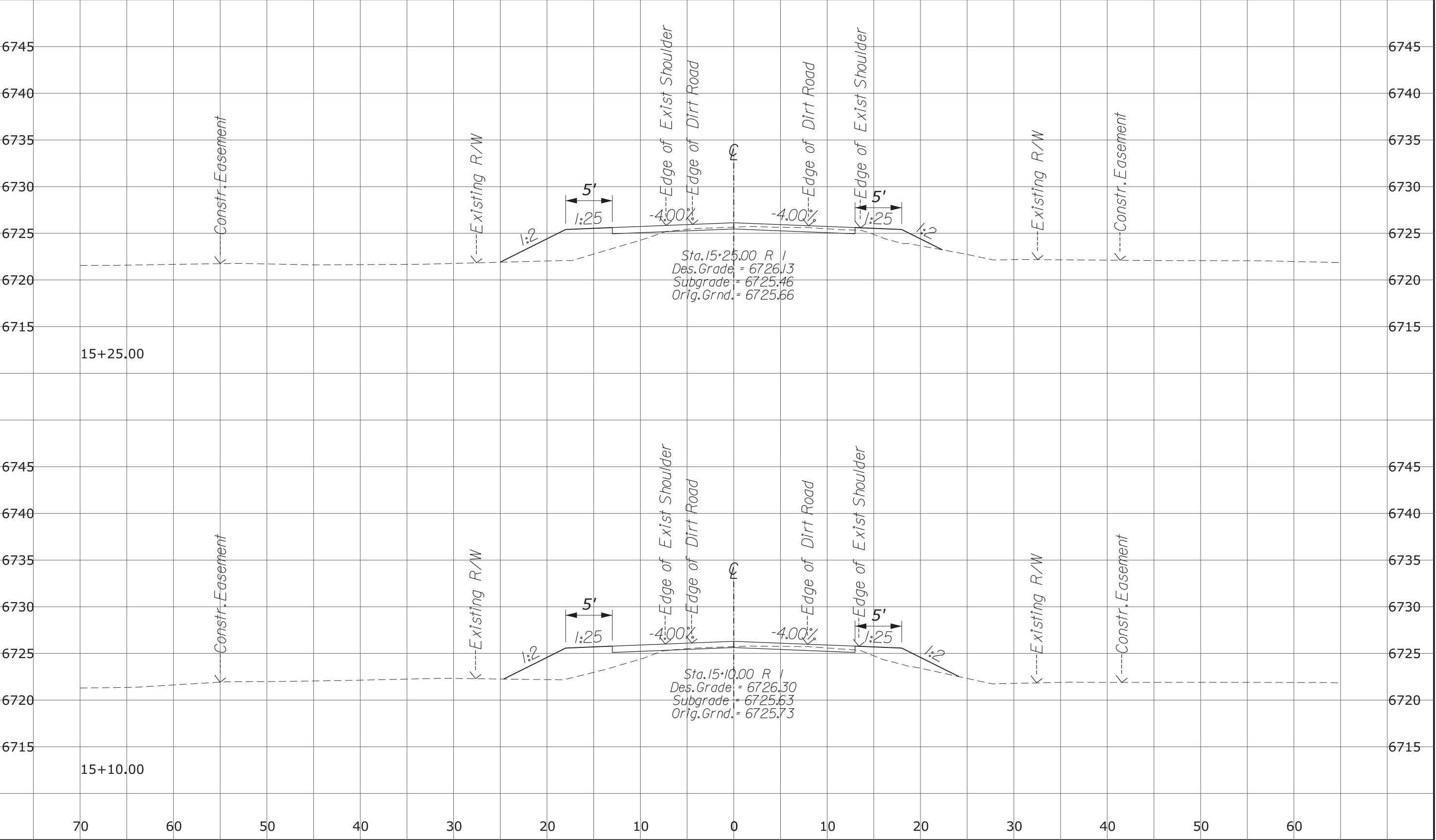
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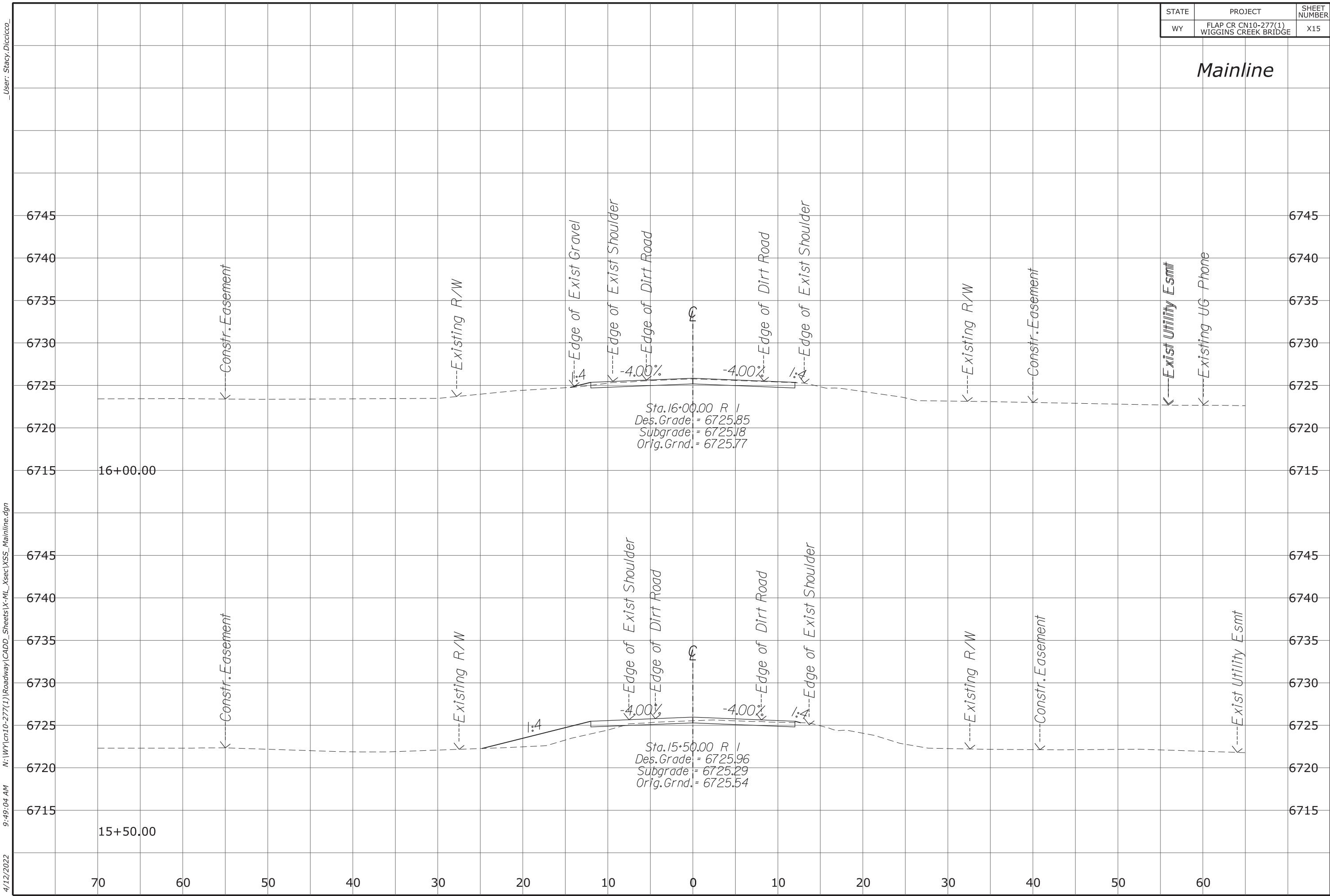


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| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | X14 |

Mainline





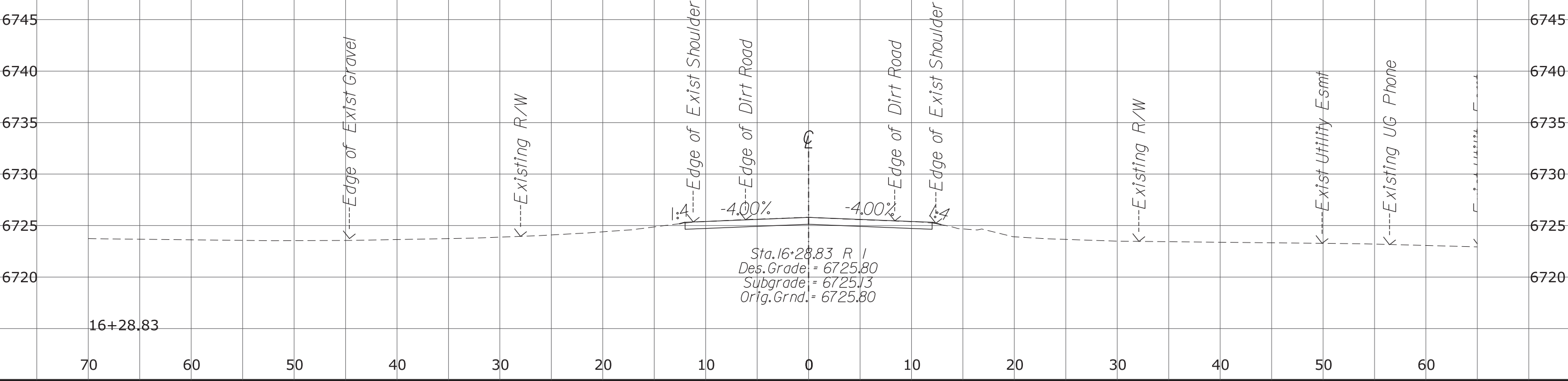
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User: Stacy.Dicicco

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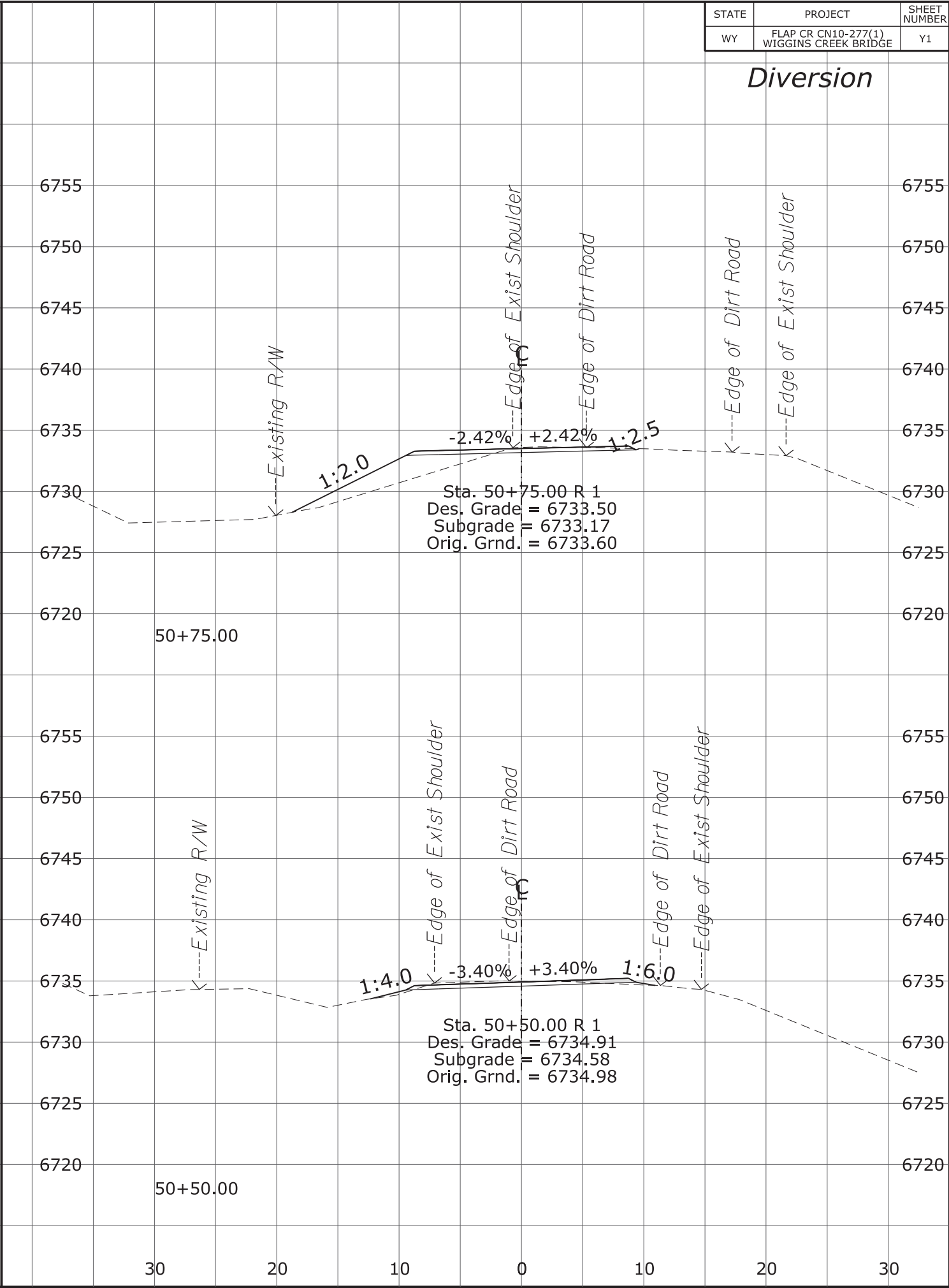
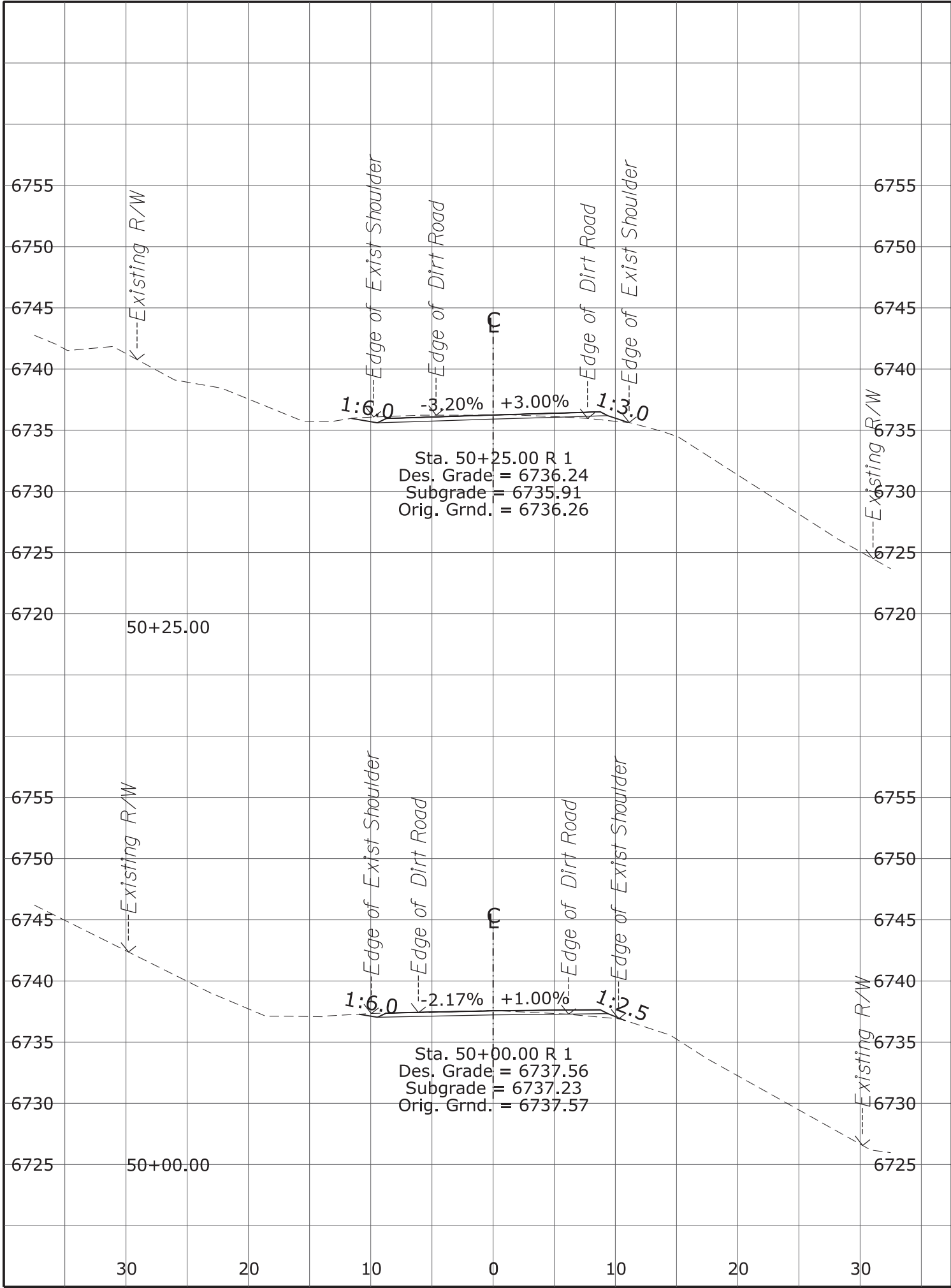
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Mainline



| STATE | PROJECT | SHEET NUMBER |
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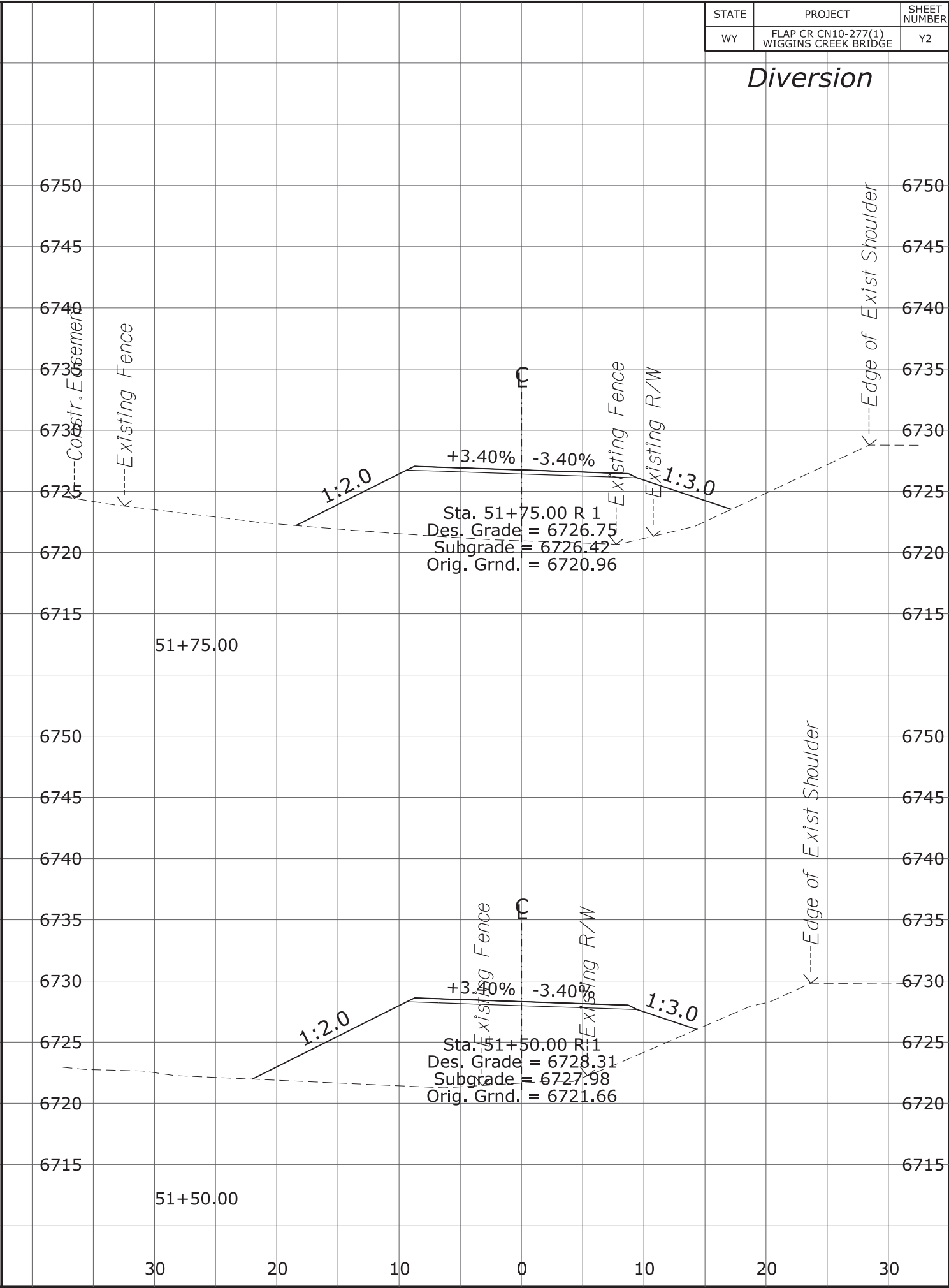
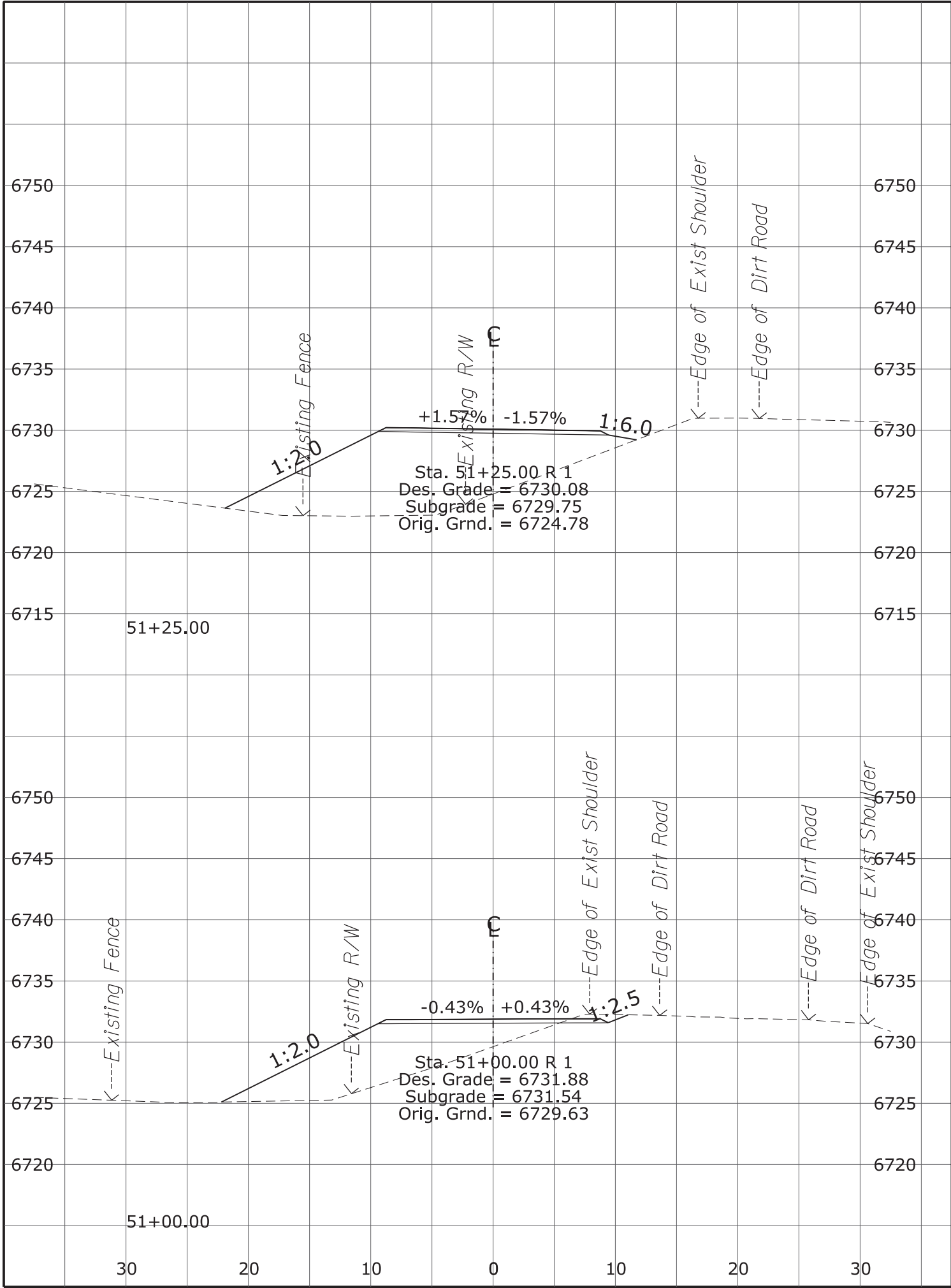
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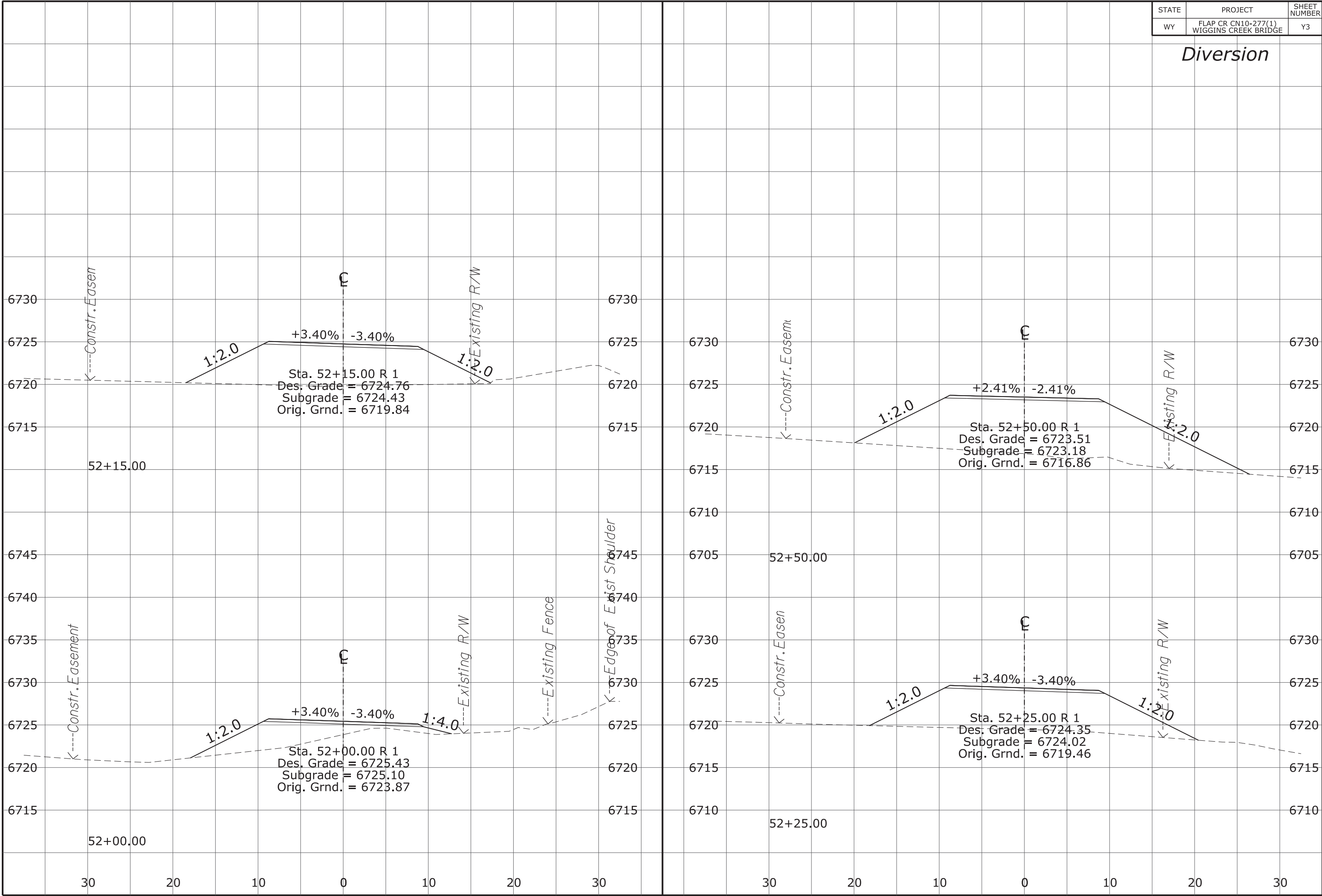
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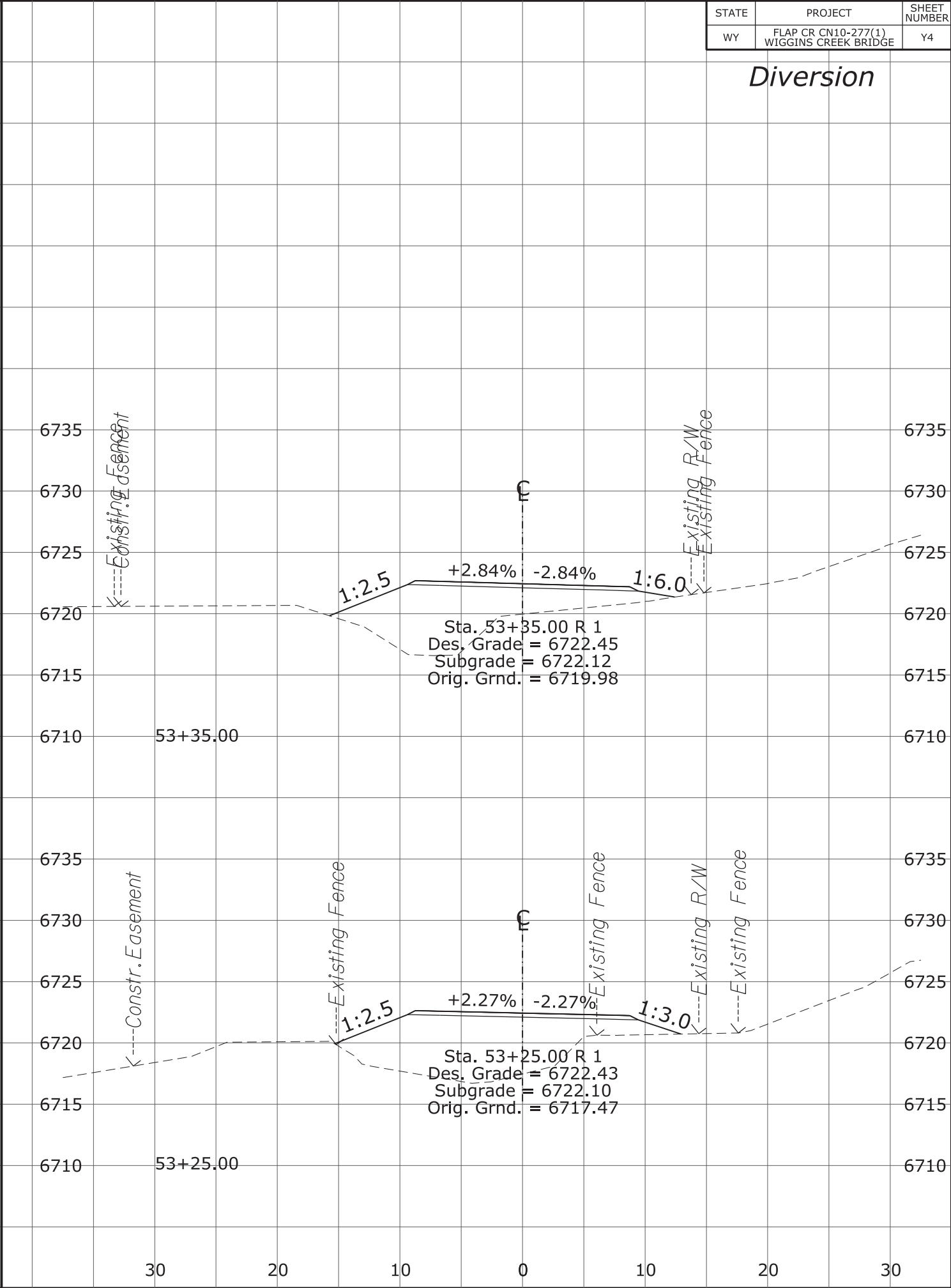
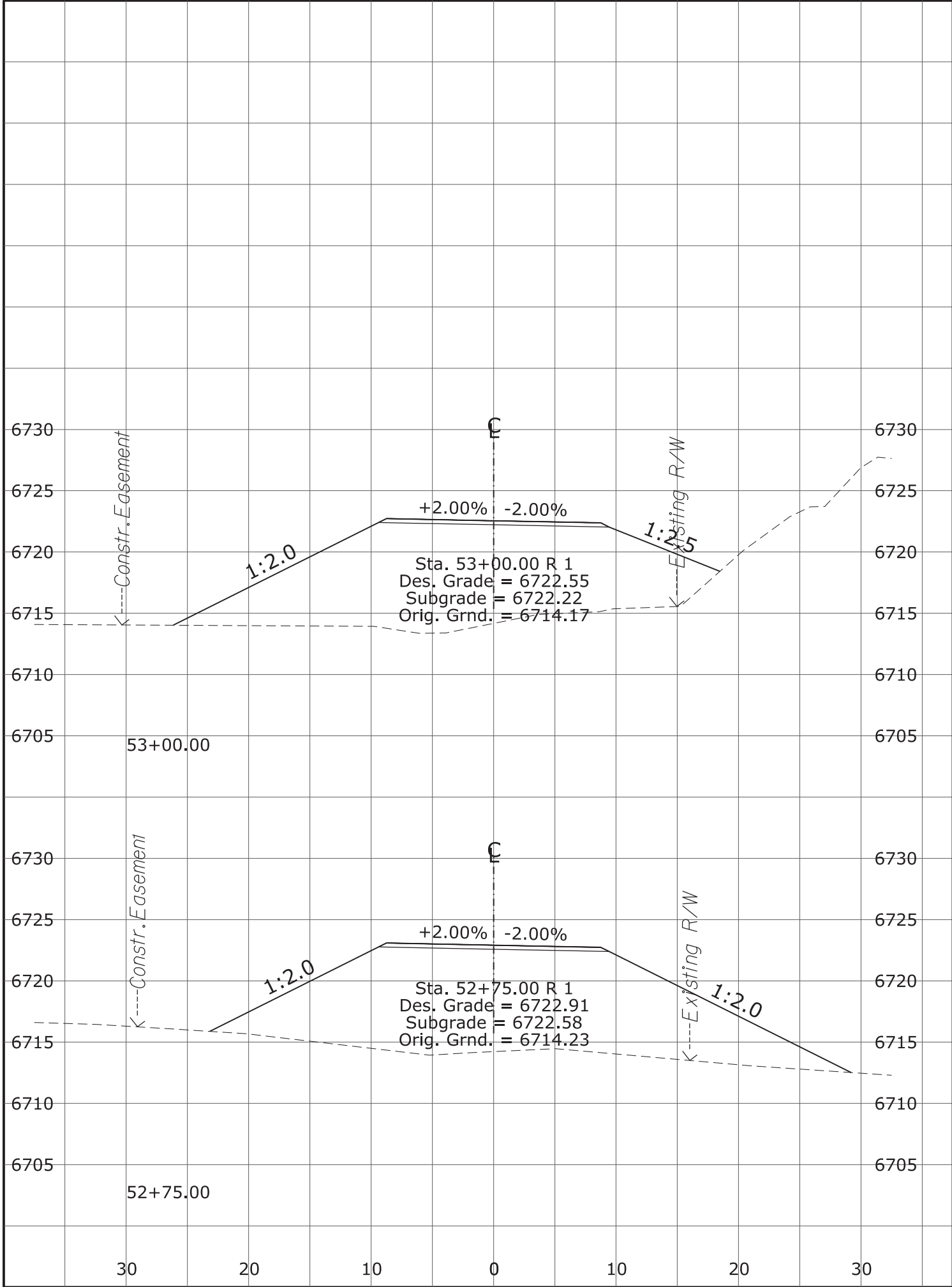
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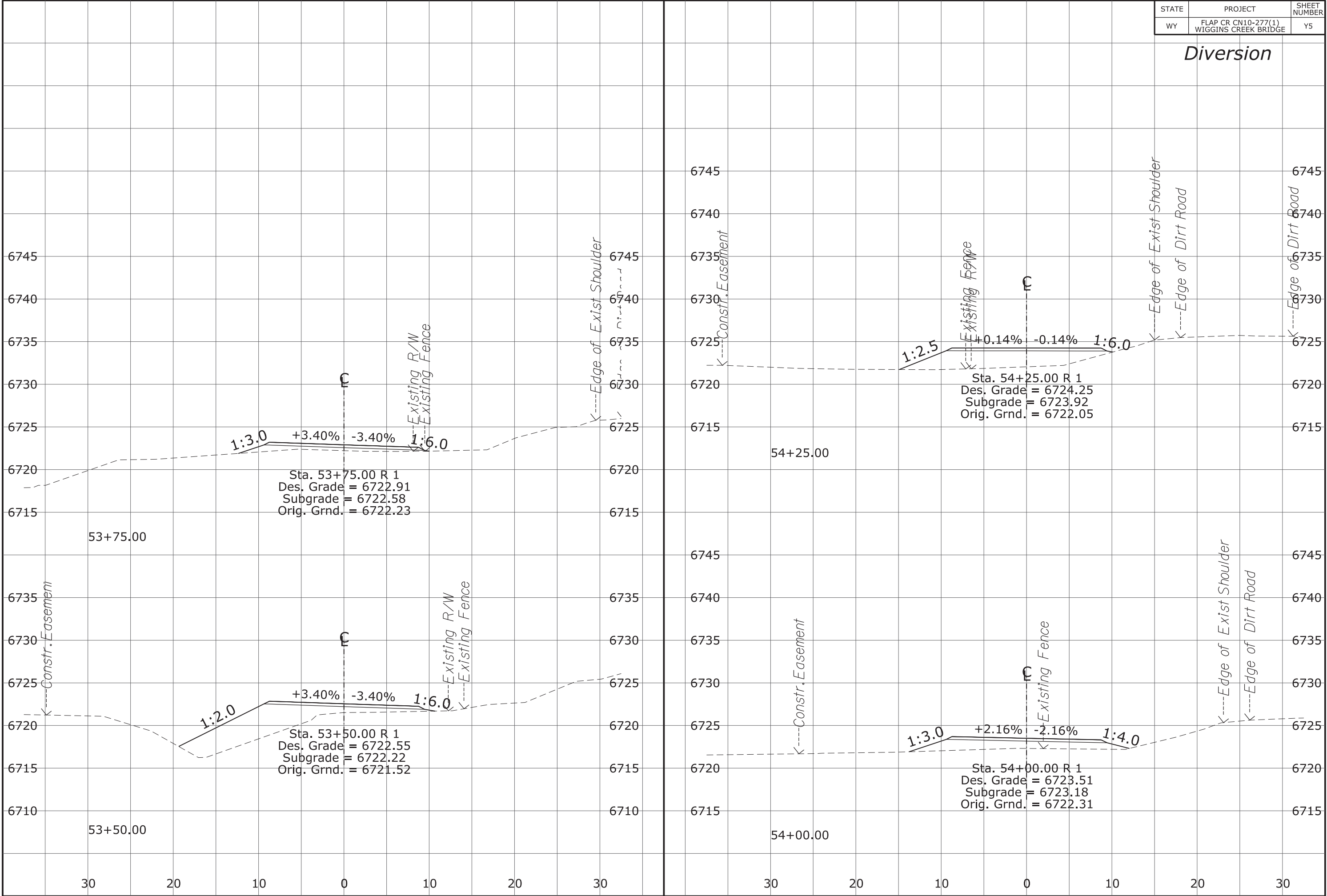
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| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
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Diversion



| | | |
|-------|---|--------------|
| STATE | PROJECT | SHEET NUMBER |
| WY | FLAP CR CN10-277(1) WIGGINS CREEK BRIDGE | Y6 |

Diversion

