FUL - US 20A/SR 109-18.23/05.85 Resrf
210088 PID - 101295
Dist 2 2/11/2021

Contract Proposal available @ www.contracts.dot.state.oh.us

MODEL: Sheet PAPERSIZE: ITwillinJ DATE: 8/13/2020 TIME: 12:37:44 PM USER: jz1
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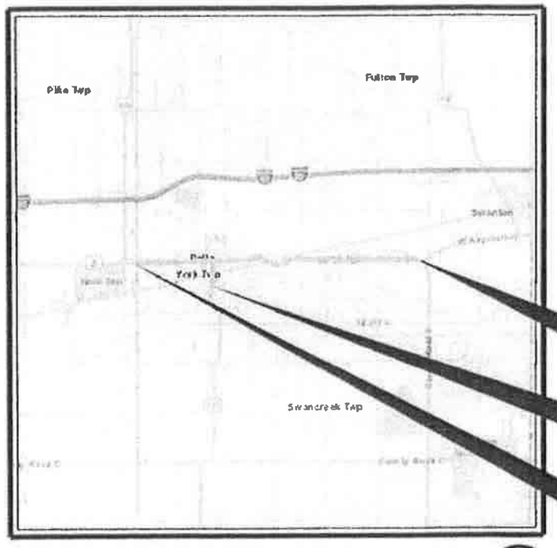
FUL-20A/SR 109-18.23/05.85



LOCATION MAP

LATITUDE: 41°34'12" LONGITUDE: -84°00'19"

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FUL-20A/109-18.23/5.85

YORK TOWNSHIP
SWAN CREEK TOWNSHIP
FULTON COUNTY

INDEX OF SHEETS:

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GENERAL SUMMARY	14,15
SUB SUMMARIES	16-18
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FEDERAL PROJECT NUMBER

E190681

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACE FUL-20A AND SR 109: PERFORM NECESSARY RELATED WORK.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	NA ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	NA ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	NA ACRES

DESIGN DESIGNATION

CURRENT ADT (2021)	8000
DESIGN YEAR ADT (2033)	8900
DESIGN HOURLY VOLUME (2033)	900
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	60 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION: RURAL MINOR ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
ODOT DIST. 2
317 E. POE RD.
BOWLING GREEN, OHIO

ENGINEER'S SEAL:

STATE OF OHIO DAVID J GECKLE E-72729 REGISTERED PROFESSIONAL ENGINEER

SIGNED: David J. Geckle
DATE: 11-16-2020

ENGINEER'S SEAL:

STATE OF OHIO JULIE M FAHY 63302 REGISTERED PROFESSIONAL ENGINEER

SIGNED: Julie M Fahy
DATE: 11-13-2020

STANDARD CONSTRUCTION DRAWINGS

BP-2.6	7/15/16	DBR-2-73	7/19/02					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	01/17/20	DBR-3-11	7/15/11					800-2020 10/16/20	
BP-4.1	7/19/13							832 10/19/18	
		MT-97.10	4/19/19					872 4/17/20	
MGS-1.1	1/19/18	MT-97.12	1/20/17					874 4/17/20	
MGS-2.1	1/19/18	MT-99.20	4/19/19					875 1/18/19	
MGS-3.1	1/19/18	MT-101.60	1/17/20						
MGS-3.2	1/19/13	MT-101.90	7/17/20						
MGS-4.2	7/19/13								
MGS-4.3	1/19/13	TC-64.10	1/17/20						
MGS-5.2	7/15/16	TC-65.10	1/17/14						
MGS-5.3	7/15/16	TC-65.11	7/21/17						
MGS-6.1	1/19/18	TC-71.10	1/19/18						
MGS-6.2	7/18/19								

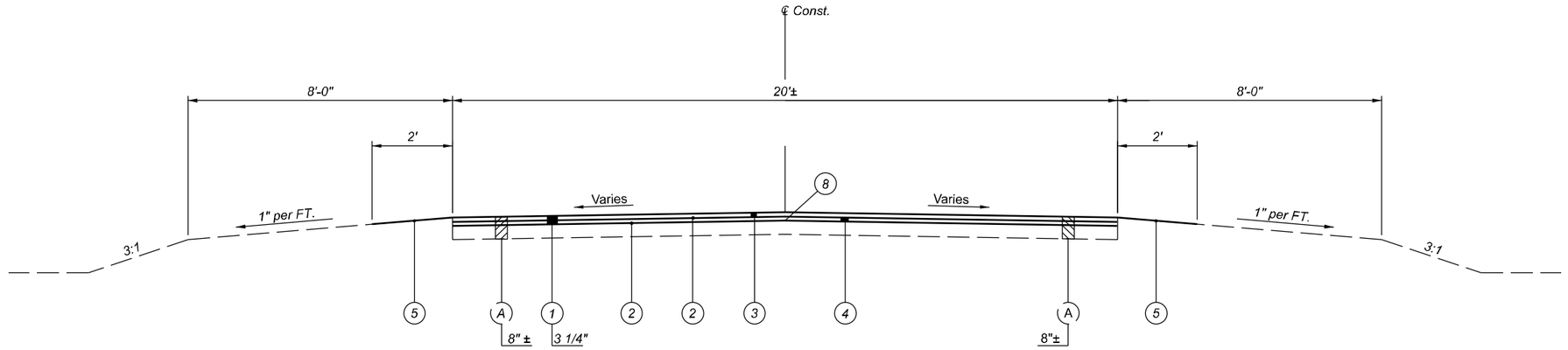
APPROVED Pat Mullay P.E.
DATE 11-13-20 DISTRICT DEPUTY DIRECTOR

APPROVED Digitally signed by Tom Pannett
DATE Date: 2021.01.01 10:52:03-05'00'
DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

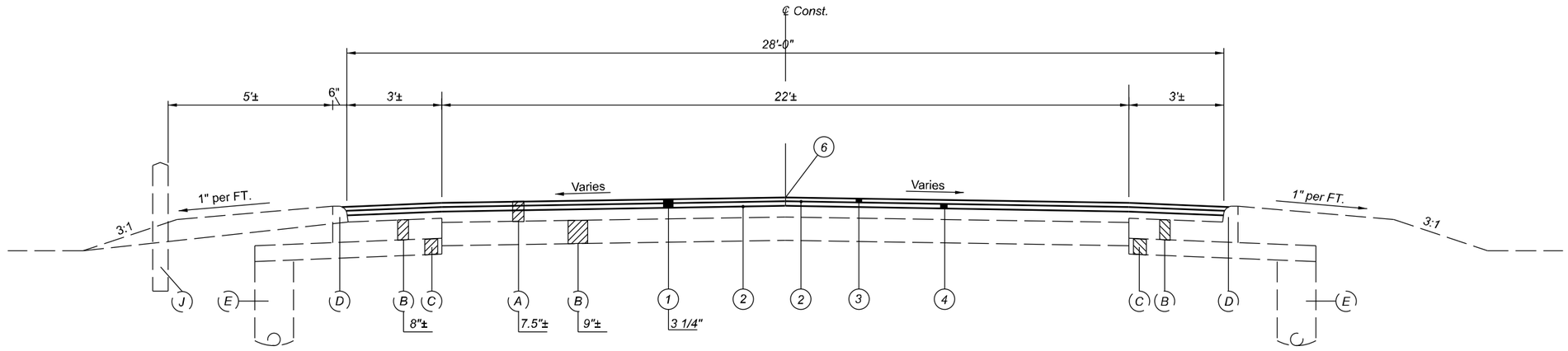
DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-Y
PROJECT ID 101295
SHEET 1 TOTAL 38



Typical Section A

Typical Section Applies from Sta. 962+46.78 to 1008+48 = 4601.22 Lin. FT.



Typical Section B

Typical Section Applies from: Sta. 1008+48 to 1026+10.08 = 1762.08 Lin. Ft.
Typical Section Applies from: Sta. 1027+34.19 to 1028+85.3 = 151.11 Lin. Ft.

Legend

1. Item 254 - Pavement Planing, Asphalt Concrete
2. Item 407 - Non Tracking Tack Coat
3. Item 442 - 1 1/2" Asphalt Concrete Surface Course, 12.5mm, Type A (446), As Per Plan, PG76-22M
4. Item 442 - 1 3/4" Asphalt Concrete Intermediate Course, 19mm, Type A (446)
5. Item 617 - Compacted Aggregate and Item 209 Linear Grading
6. Item 872 - Void Reducing Asphalt Membrane (VRAM)
7. Item 442 - 1 1/2" Asphalt Concrete Surface Course, 12.5mm, Type A (446)
8. Item 874 - Longitudinal Joint Preparation
9. Diamond Grinding As Per Plan

- (A) Existing Asphalt Concrete
- (B) Existing Portland Cement Concrete Base
- (C) Existing Subbase
- (D) Existing Concrete Curb
- (E) Existing Underdrains
- (F) Existing Concrete Sidewalk
- (G) Existing Brick
- (H) Existing Aggregate Shoulder
- (I) Existing Precast White Concrete Traffic Divider
- (J) Existing Guard Rail
- (K) Existing Aggregate Base
- (L) Existing Wood Ties and Rails
- (M) Existing Macadam

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 101295

SHEET 2 TOTAL 36

FUL-20A/109-18.23/5.85

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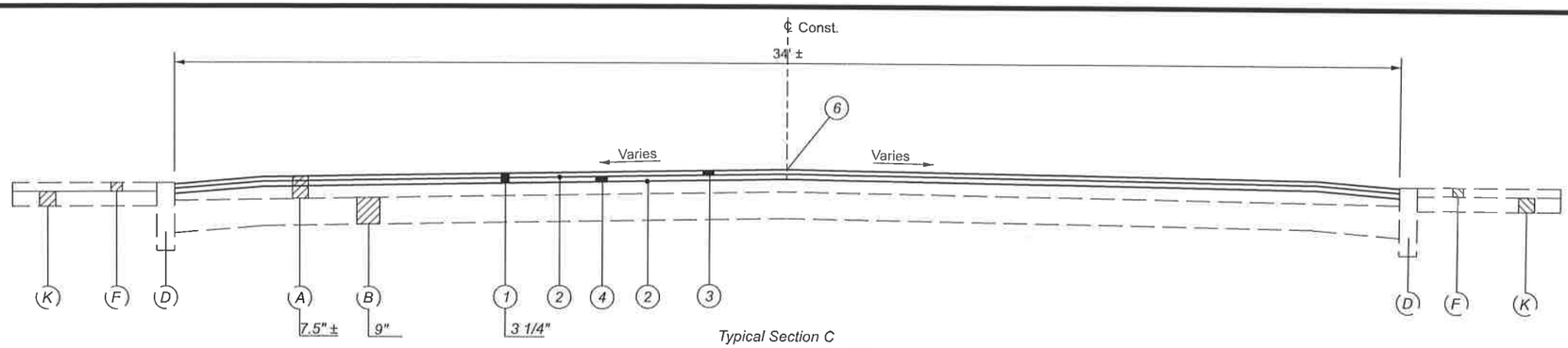
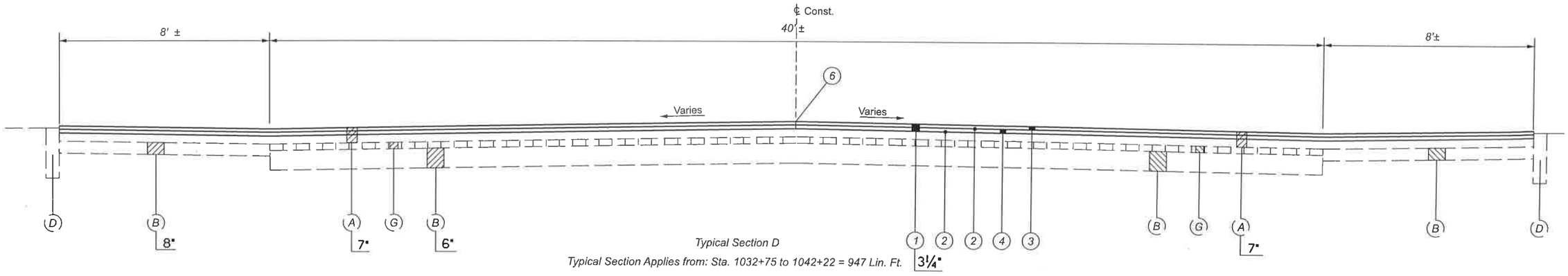


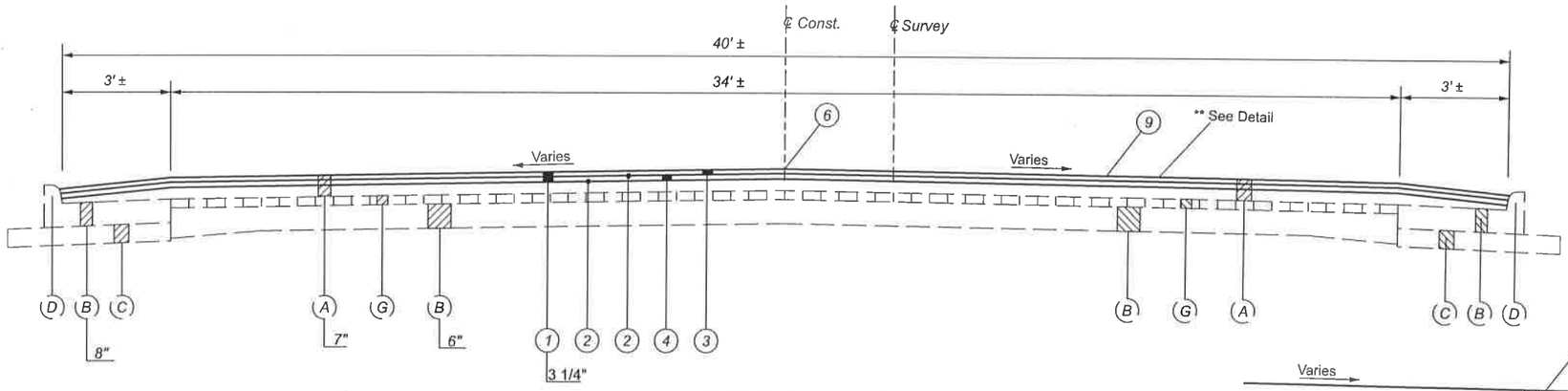
Typical Section C

Typical Section Applies from: Sta. 1028+85.3 to 1032+75 = 389.7 Lin. Ft.



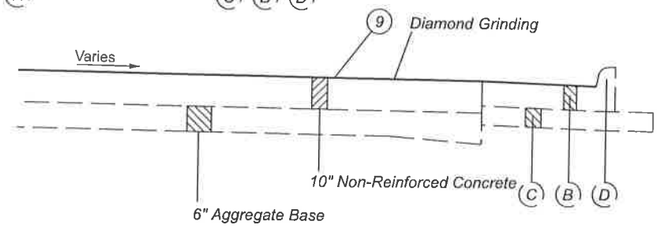
Typical Section D

Typical Section Applies from: Sta. 1032+75 to 1042+22 = 947 Lin. Ft.



Typical Section E

Typical Section Applies from: Sta. 1042+22 to 1048+60 = 638 Lin. Ft.



*** Concrete Section Applies from: Sta. 1043+95.32 to 1047+35.71 East Bound Direction***

Detail for Concrete Section

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER: JWZ

REVIEWER: JMF MM-DD-YY

PROJECT ID: 101295

SHEET: 3 TOTAL: 36

FUL-20A/109-18.23/5.85

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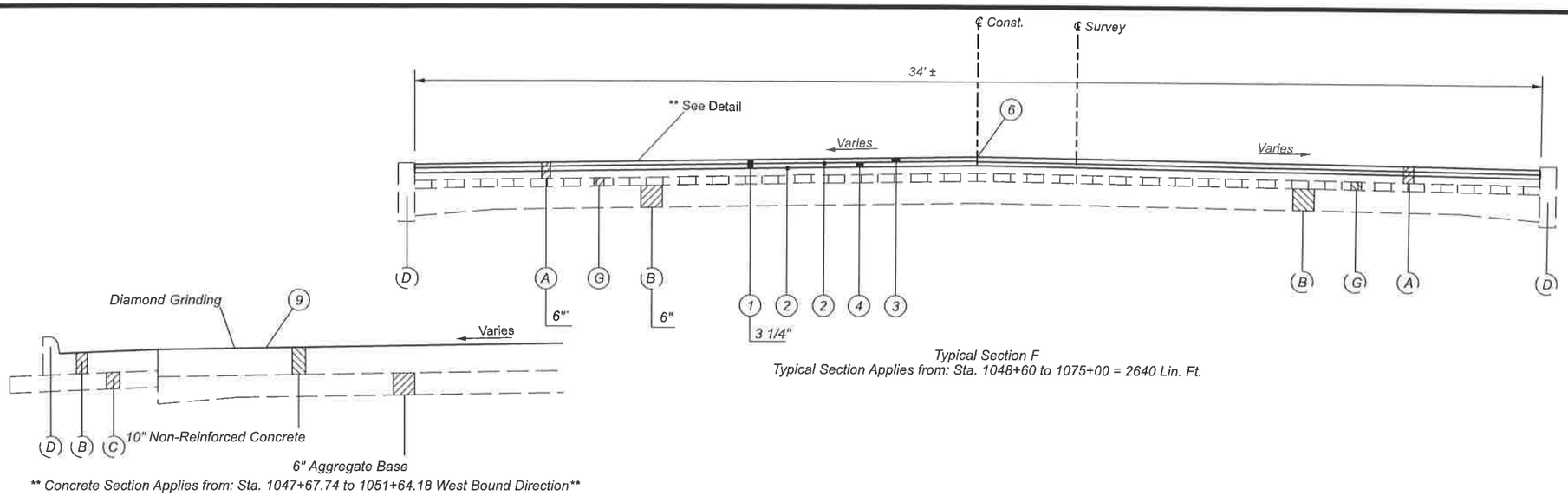
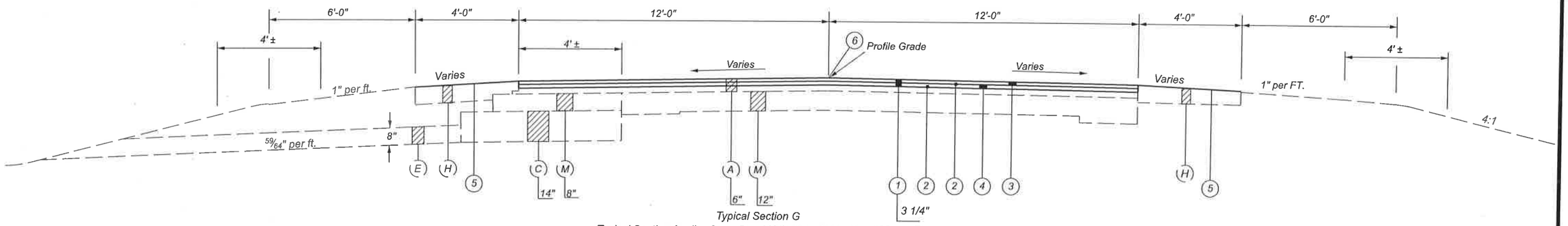


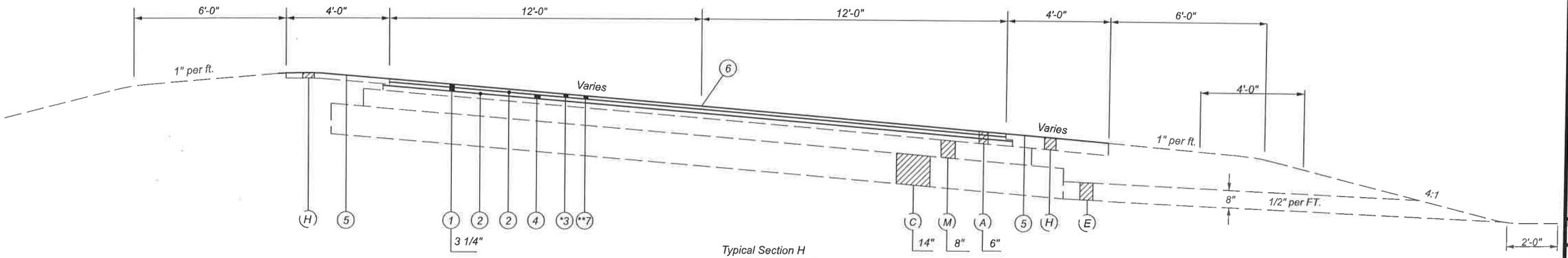
Typical Section F
Typical Section Applies from: Sta. 1048+60 to 1075+00 = 2640 Lin. Ft.

*** Concrete Section Applies from: Sta. 1047+67.74 to 1051+64.18 West Bound Direction****

Detail for Concrete Section



Typical Section G
Typical Section Applies from: Sta. 1075+00 to 1083+00 = 800 Lin. Ft.



Typical Section H

** Typical Section Applies from: Sta. 1083+00 to 1106+00 = 2300 Lin. Ft.*
*** Typical Section Applies from: Sta. 1111+50 to 1113+00 = 150 Lin. Ft.*

2450 Lin. Ft.

TYPICAL SECTIONS

FUL-20A/109-18.23/5.85

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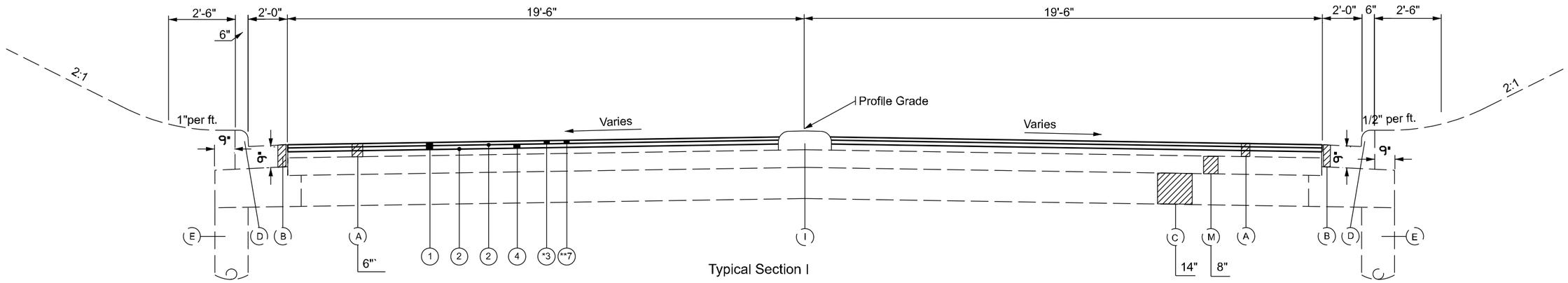
DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 4 TOTAL: 36



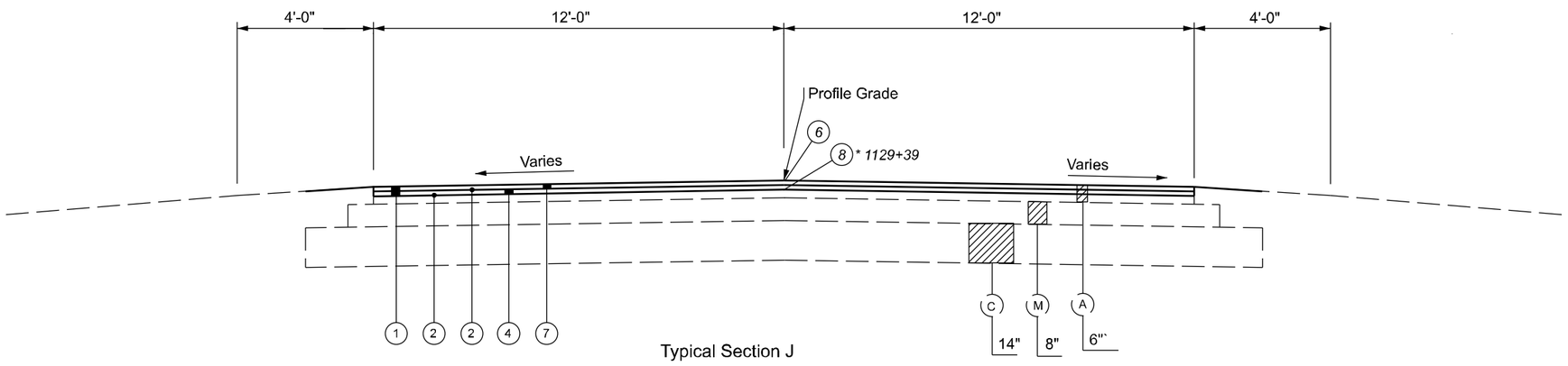
Typical Section I

* Typical Section Applies from: Sta. 1106+00 to 1107+74 = 174 Lin. Ft.

* Typical Section Applies from: Sta. 1107+74 to 1108+88 = 114 Lin. Ft.

** Typical Section Applies from: Sta. 1108+88 to 1111+50 = 262 Lin. Ft.

550 Lin. Ft.



Typical Section J

Typical Section Applies from: Sta. 1113+00 to 1268+68.06 = 15568.06 Lin. Ft.

15568.06 Lin. Ft.

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER
JWZ

REVIEWER
JMF MM-DD-YY

PROJECT ID
101295

SHEET 5 TOTAL 36

FUL-20A/109-18.23/5.85

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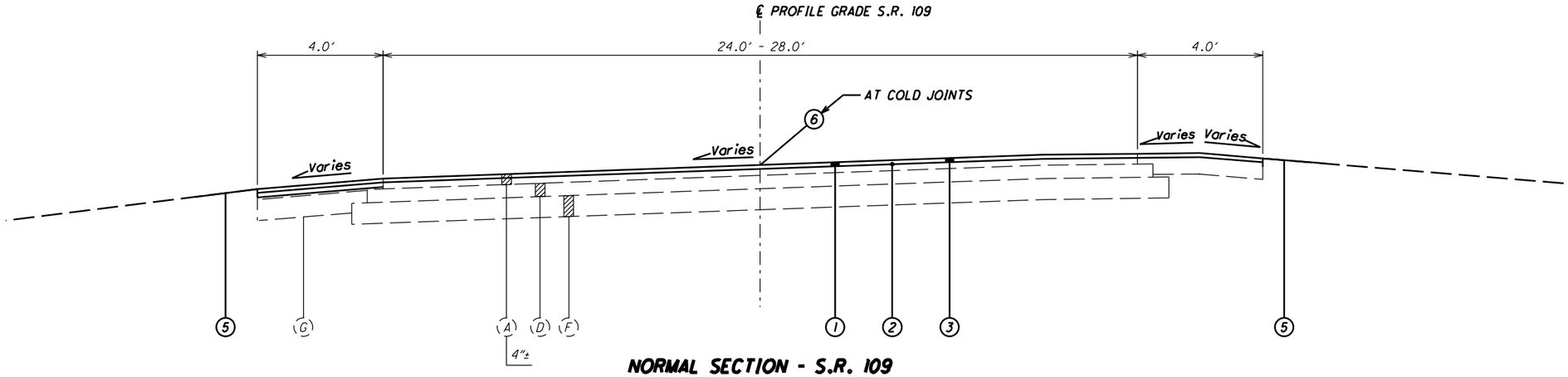
TYPICAL SECTION "K"

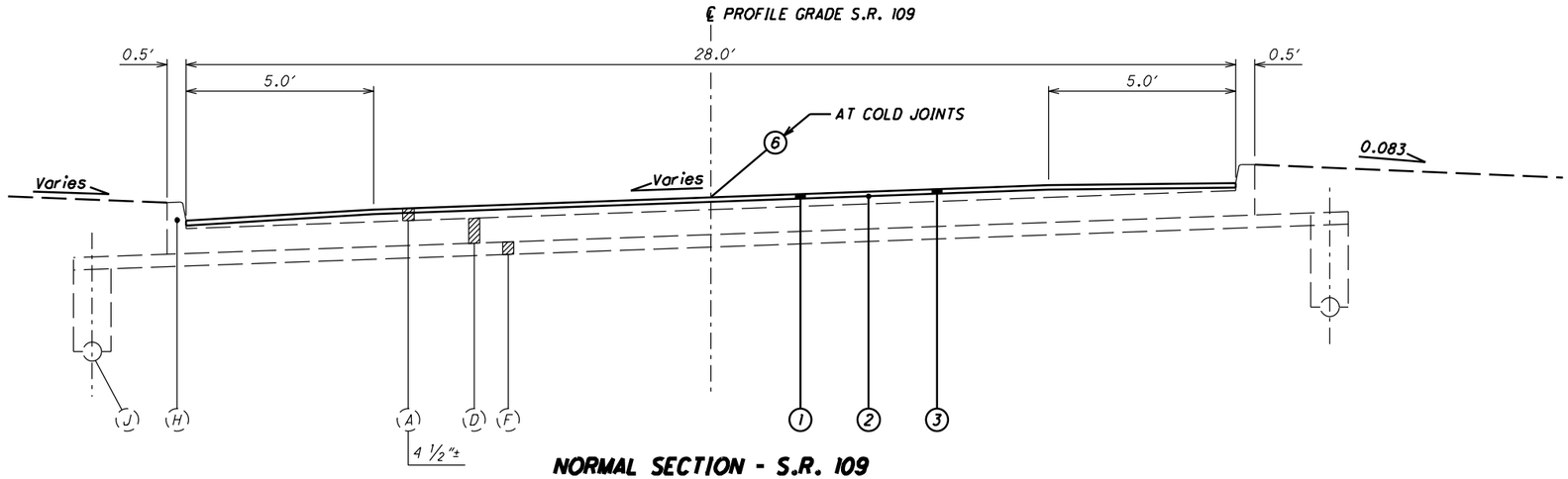


NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 308+88 TO STA. 309+67 = 79 FT.

TYPICAL SECTION "L"



NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 309+67 TO STA. 311+50 = 183.0 FT.

PROPOSED LEGEND

1. Item 254 - 1 1/2" Pavement Planing, Asphalt Concrete
2. Item 407 - Non Tracking Tack Coat
3. Item 442 - 1 1/2" Asphalt Concrete Surface Course, 12.5mm, Type A (446), As Per Plan, PG76-22M
5. Item 617 - Compacted Aggregate and Item 209 Linear Grading
6. Item 872 - Void Reducing Asphalt Membrane (VRAM)

EXISTING LEGEND

- (A) EXISTING ASPHALT (THICKNESS AS SHOWN)
- (B) EXISTING 9-7-7-9 CONCRETE BASE
- (C) 8" CONCRETE BASE (UNLESS OTHERWISE STATED)
- (D) 5" BITUMINOUS AGGREGATE BASE (UNLESS OTHERWISE STATED)
- (E) EXISTING BITUMINOUS AGGREGATE BASE (VARIABLE THICKNESS)
- (F) 4" SUBBASE
- (G) 8" AGGREGATE BASE
- (H) EXISTING CURB, TYPE 2-B
- (I) EXISTING CURB
- (J) EXISTING 6" SHALLOW PIPE UNDERDRAIN

TYPICAL SECTIONS - SR 109

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 0

SHEET 6 TOTAL 36

FUL-20A/109-18.23/5.85

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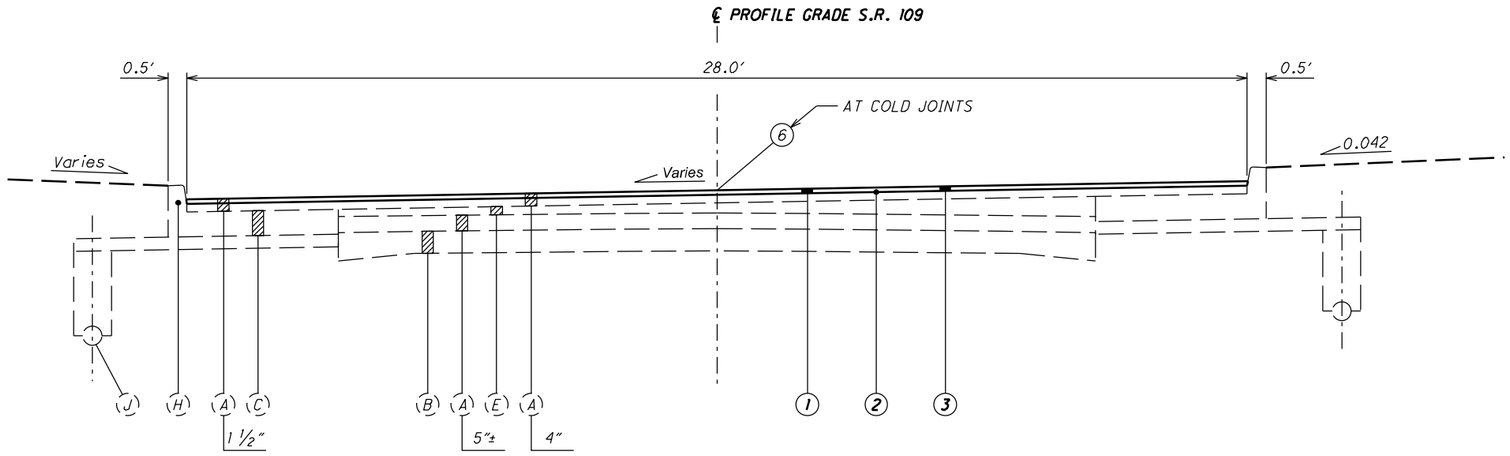
TYPICAL SECTION "M"

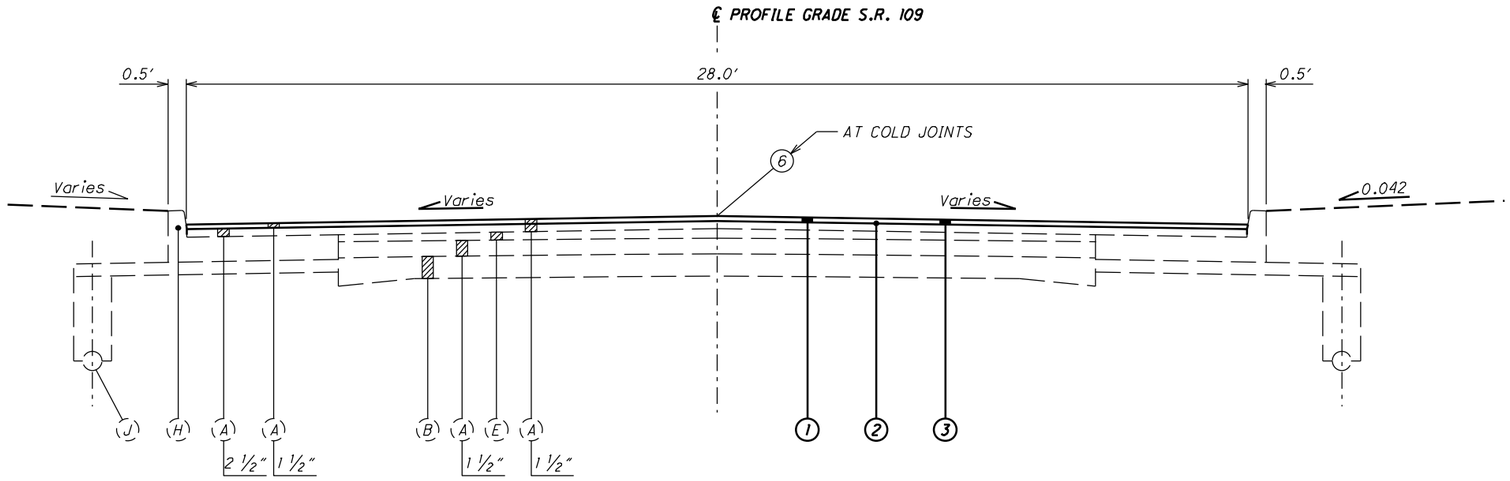


NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 311+50 TO STA. 312+50 = 100.0 FT.

TYPICAL SECTION "N"



NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 312+50 TO STA. 317+22 = 472.0 FT.

TYPICAL SECTIONS - SR 109

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-Y

PROJECT ID 101295

SHEET 7 TOTAL 36

FUL-20A/109-18.23/5.85

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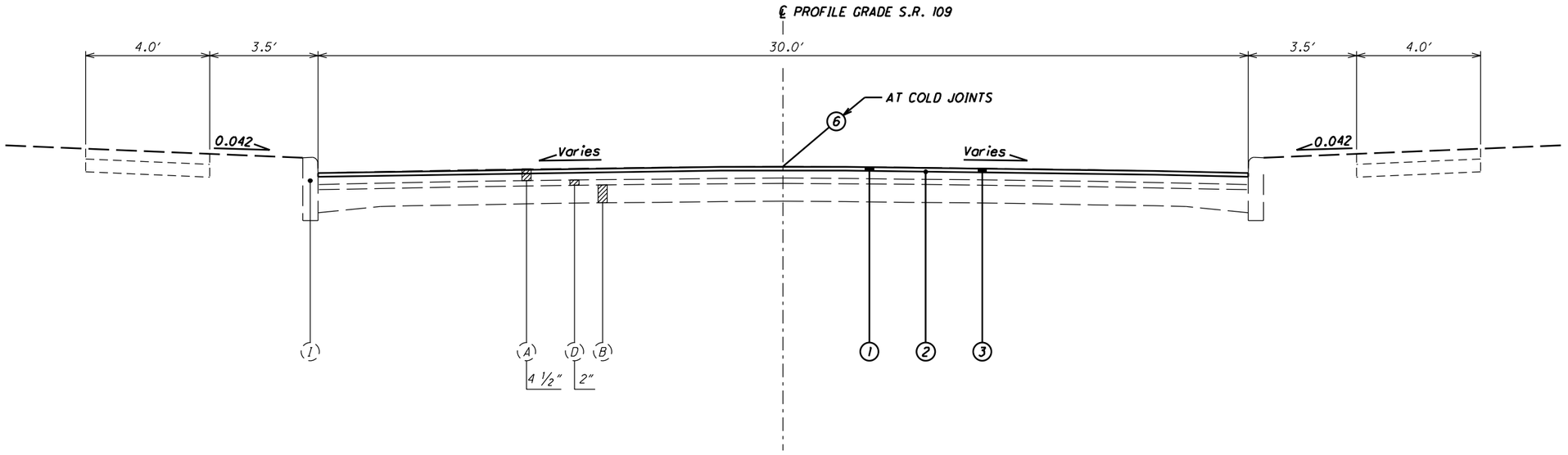
TYPICAL SECTION "O"

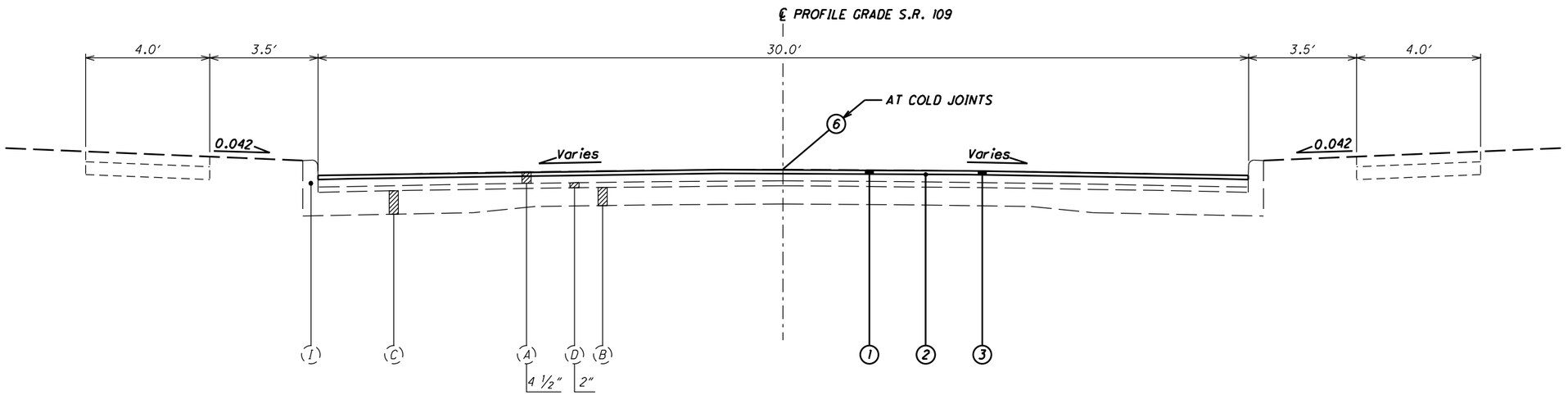


NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 317+22 TO STA. 327+33 = 1011.0 FT.

TYPICAL SECTION "P"



NORMAL SECTION - S.R. 109

TYPICAL SECTION APPLIES TO:

STA. 327+33 TO STA. 335+45 = 812.0 FT.

TYPICAL SECTIONS - SR 109

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 101295

SHEET 8 TOTAL 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 12/1/2020 TIME: 2:47:05 PM USER: jdems
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UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

TOLEDO EDISON
6099 ANGOLA RD
HOLLAND, OH 43528
419-249-5218

FULTON CTY PUBLIC UTILITIES
9306 CO RD 14
WAUSEON,OH 43567
419-337-9263

OHIO GAS COMPANY
P.O. BOX 528
BRYAN, OH 43506
800-331-7396

WINDSTREAM
6777 ENGLE RD, SUITE E
MIDDLEBURG HEIGHTS, OH 44130
440-214-0209

VILLAGE OF DELTA
401 MAIN ST
DESHLER, OH 43516
419-822-3190

WINDSTREAM
6777 ENGLE RD
SUITE E
MIDDLEBURG HEIGHTS, OH 44130
440-214-0209

MCI
120 RAVINE AVE.
AKRON, OH 44303
330-253-8267

LEVEL 3 COMMUNICATIONS, LLC
1025 ELDORADO BLVD.
BROOMFIELD, CO 80021
512-742-1428

RIDGEVILLE TEL. COM.
S732 COUNTY RD. 20B
RIDGEVILLE CORNERS,
OH 43555
419-267-5185

CHARTER TELECOM.
3760 INTERCHANGE DR.
COLUMBUS, OH 43402
614-255-6340

UNDERGROUND UTILITES NEAR GUARDRAIL INSTALLATION

EXTREME CAUTION SHOULD BE EXERCISED IN THE AREAS WITH UNDERGROUND WATERLINES, DRAINS, CABLES, SEWERS OR OTHER UTILITIES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL DAMAGE INFLICTED ON UNDERGROUND UTILITIES IN THE EXECUTION OF THIS CONTRACT. SECTIONS 105.07 AND 107.16 OF THE OHIO DEPARTMENT OF TRANSPORTATION MATERIALS AND SPECIFICATIONS REQUIRE, AMONG OTHER THINGS THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY UTILITIES THAT MAY BE AFFECTED BY THE WORK PERFORMED FOR THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY THE UTILITIES SUFFICIENTLY BEFORE WORK BEGINS SO THAT THE COMPANIES CAN LOCATE AND MARK THE LOCATION OF THEIR FACILITIES BEFORE ANY EXCAVATION OR POST DRIVING BEGINS. THE CONTRACTOR SHALL ALSO LOCATE AND AVOID UNDERGROUND DRAINAGE PIPES NOT ASSOCIATED WITH A PARTICULAR UTILITY COMPANY.

IF ANY CONFLICTS OCCUR THE ENGINEER SHALL DETERMINE WHETHER THE POSITION OF THE GUARDRAIL CAN BE ADJUSTED TO AVOID THE UTILITY OR IF RELOCATION OF THE UTILITY WILL BE REQUIRED.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL BE AS SHOWN ON THE TYPICAL SECTIONS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PAVEMENT MARKINGS

THE CONTRACTOR SHALL MAKE NOTE OF ALL EXISTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS BEFORE PERFORMING ANY WORK. ESTIMATED QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER.

PLANED SURFACES

NO PLANED SURFACES SHALL BE OPEN TO THE PUBLIC FOR MORE THAN 7 DAYS. IF THE PLANED SURFACE IS OPEN FOR MORE THAN 7 DAYS, THEN IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE PAVEMENT FAILURES THAT OCCURRED AFTER THE 7 DAYS.

ITEM 253, PAVEMENT REPAIR:

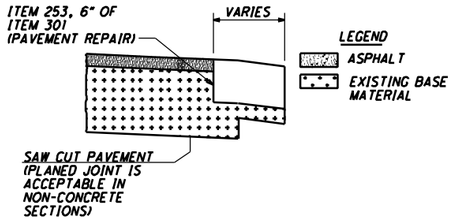
ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE COATED WITH PG GRADE LIQUID ASPHALT (SIDES AND BOTTOM) AT AN APPLICATION RATE OF 0.25 GAL. PER SQ YD.)

THE FOLLOWING ESTIMATED QUANTITY ARE TO BE USED FOR 6" PAVEMENT REPAIRS FOR FUL-20A AS DIRECTED BY THE ENGINEER AND BASED ON VARYING LOCATIONS AND WIDTH WITHIN THE PAVEMENT.

US 20A MAINLINE = 1452 CU YD

TOTAL - 1452 CU YD

DETAIL FOR CALCULATION PURPOSES ONLY.
PLACEMENT IS AT THE CONSTRUCTION ENGINEERS DESCRETION.
QUANTITY CARRIED TO THE GENERAL SUMMARY.



NOTE: THE ENGINEER SHALL FIELD VERIFY ALL LOCATIONS PRIOR TO THE BEGINNING OF WORK. ANY ADJUSTMENTS NECESSARY SHALL BE AS DIRECTED BY THE ENGINEER.

ITEM 253, PAVEMENT REPAIR:

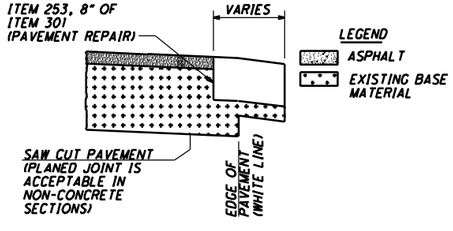
ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE COATED WITH PG GRADE LIQUID ASPHALT (SIDES AND BOTTOM) AT AN APPLICATION RATE OF 0.25 GAL. PER SQ YD.)

THE FOLLOWING ESTIMATED QUANTITY ARE TO BE USED FOR 6" PAVEMENT REPAIRS FOR FUL-109 AS DIRECTED BY THE ENGINEER AND BASED ON VARYING WIDTHS ON BOTH SIDES OF THE ROAD.

SR 109 MAINLINE = 238 CU YD

TOTAL - 238 CU YD

DETAIL FOR CALCULATION PURPOSES ONLY.
PLACEMENT IS AT THE CONSTRUCTION ENGINEERS DESCRETION.
QUANTITY CARRIED TO THE GENERAL SUMMARY.



NOTE: THE ENGINEER SHALL FIELD VERIFY ALL LOCATIONS PRIOR TO THE BEGINNING OF WORK. ANY ADJUSTMENTS NECESSARY SHALL BE AS DIRECTED BY THE ENGINEER.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON SCD BP-3.1.

ITEM 209, PREPARING SUBGRADE FOR SHOULDER PAVING

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
FUL-20A
TOTAL = 8.53 STA

A QUANTITY OF 8.53 MILES HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR PREPARING SUBGRADE FOR SHOULDERS.

MISCELLANEOUS ITEMS FOR GUARDRAIL

THE FOLLOWING ITEMS ARE TO BE USED AS DIRECTED BY THE ENGINEER. THE ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY AND ARE TO BE USED FOR PROPOSED GUARDRAIL RUNS:

ITEM 203 - EMBANKMENT	100 CY
ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION	100 CY

EMBANKMENT SHALL BE USED TO OBTAIN A GRADED SLOPE OF 10:1 OR FLATTER THROUGHOUT THE GUARDRAIL RUN UP TO FACE OF GUARDRAIL.

CRUSHED AGGREGATE SLOPE PROTECTION SHALL BE USED IN AREAS OF OBVIOUS EROSION TO GRADED SHOULDER.

MONUMENT BOX

IF THE CONTRACTOR REMOVES OR DISTURBS ANY MONUMENT BOX ASSEMBLIES DURING CONSTRUCTION, THEN THEY WILL NEED TO HAVE A REGISTERED SURVEYOR CERTIFY THAT THE MONUMENTS HAVE BEEN RESET AT THE PRE-DISTURBED LOCATION AND PER THE OHIO ADMINISTRATIVE CODE CHAPTER 4733-37, "STANDARDS FOR BOUNDARY SURVEYS". THE CONTRACTOR IS TO FORWARD A COPY OF SAID CERTIFICATION TO THE PROJECT ENGINEER, AND THE DISTRICT SURVEY OPERATIONS MANAGER FOR REVIEW. (SEE EXAMPLE)

I, JOHN D. DOE, P.S. HEREBY CERTIFY THAT THE CENTERLINE MONUMENTATION HAS BEEN RESET AT THE PRECONSTRUCTION LOCATIONS DURING PROJECT CTY-RT-SEC, PID 00000. ALL OF MY WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS "A MINIMUM STANDARDS FOR BOUNDARY SURVEYS IN THE STATE OF OHIO" UNLESS OTHERWISE NOTED. THE WORDS I AND MY AS USED HEREIN ARE TO MEAN MYSELF OR SOMEONE UNDER MY DIRECT SUPERVISION.

ALL SURVEY MONUMENTS SET AND/OR RESET BY THE CONSTRUCTION CONTRACTOR'S SURVEYOR SHALL BE CONSTRUCTED ACCORDING TO STANDARD CONSTRUCTION DRAWING RM-1.1.

A QUANTITY OF 1 MONUMENT BOX ADJUSTED TO GRADE HAS BEEN CARRIED TO THE GENERAL SUMMARY AS A CONTINGENCY QUANTITY

ENVIRONMENTAL COMMITMENTS

FOR QUESTIONS, CONTACT ODOT DISTRICT 2 ENVIRONMENTAL COORDINATOR, PHOENIX NEAL (419) 373-4329.

THE CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE EXISTING RIGHT OF WAY.

SAFETY EDGE

ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A,(446)

ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19mm, TYPE A (446)

ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A,(446)

$$\frac{24130 \text{ FT} * 0.031}{27} \times 2 = 55.4 \text{ CU YD}$$

ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19mm, TYPE A, (446)

$$\frac{24130 \text{ FT} * 0.0127}{27} \times 2 = 22.7 \text{ CU YD}$$

ITEM 442, ASPHALT CONCRETE SURFACE COURSE, AS PER PLAN

ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN SHALL FOLLOW THE SPECIFICATIONS FOR THE 446 ITEM EXCEPT FOR SECTION 442.04 ASPHALT BINDER. THE BINDER SHALL BE PG76-22M FOR THE SURFACE COURSE AND A MAXIMUM OF 15% OF RAP BY DRY WEIGHT OF MIX CAN BE USED

DIAMOND GRINDING AS PER PLAN

DIAMOND GRIND THE CONCRETE PAVEMENT IN THE EASTBOUND LANE FROM STA. 1043+95.32 TO STA. 1047+35.71 @ THE INTERSECTION OF US 20A AND SR 109 AND IN THE WESTBOUND LANE FROM STA. 1047+67.74 TO STA. 1051+64.18 @ THE INTERSECTION OF US 20A AND SR 109 AFTER COMPLETING THE WORK.

WORK WITH THE DISTRICT TO CREATE A GRINDING PLAN PRIOR TO PERFORMING ANY DIAMOND GRINDING. BLANKET GRIND THE AREA SO THE LOCALIZED ROUGHNESS DOES NOT EXCEED AN IRI OF OVER 200 IN 25 FEET FOR MORE THAN 10% OF THE LENGTH OF THE CONCRETE SECTION AND HAS NO LOCALIZED ROUGHNESS OVER 250 IN 25 FEET. AFTER COMPLETING DIAMOND GRINDING OF THE CONCRETE PAVEMENT, GROOVE THE PAVEMENT ACCORDING TO 511.17. THIS GROOVING WILL BE INCLUDED IN THE COST OF THE DIAMOND GRINDING, AS PER PLAN.

US 20A AND SR 109 CONCRETE INTERSECTION

FOR TRANSVERSE CRACKS USE	
ITEM 258 RETROFIT DOWEL BAR	122 EACH
ITEM 202 PAVEMENT REMOVED	252.6 SY
ITEM 255 JOINT REPAIR	67 SY
ITEM 255 FULL DEPTH PAVEMENT SAWING	320 FT
FOR PAVEMENT REPLACEMENT USE	
ITEM 452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	252.6 SY

CONTINGENCY QUANTITIES

THE FOLLOWING ITEMS HAVE BEEN INCLUDED AS A CONTINGENCY QUANTITY TO BE APPROVED BY THE PROJECT ENGINEER AND CARRIED TO THE GENERAL SUMMARY.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE	7 EACH
ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE	4 EACH
ITEM 611 - MANHOLE ADJUSTED TO GRADE	4 EACH
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE	3 EACH
ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE	1 EACH
ITEM 638 - VALVE BOX ADJUSTED TO GRADE	2 EACH

AIR SPEED ZONE MARKINGS

AIR SPEED ZONE MARKINGS SHALL BE WHITE AND 24 INCHES WIDE MEASURED IN THE DIRECTION OF TRAVEL AND 4 FEET IN LENGTH. ON TWO-LANE ROADWAYS WITH PAVED SHOULDERS LESS THAN 4 FEET IN WIDTH, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED WITH 2 FEET ON EACH SIDE OF THE CENTER LINE OR EDGE LINE MARKINGS. WHEN PAVED SHOULDERS OF SUFFICIENT WIDTH ARE AVAILABLE, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED ON THE SHOULDERS.
AN AIR SPEED ZONE CONSISTS OF MARKINGS AT 0.25-MILE INTERVALS FOR A MINIMUM OF 1 MILE IN LENGTH ALONG THE ROADWAY.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A REGISTERED SURVEYOR. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT TRAFFIC ENGINEER AND ONE COPY IS TO BE SENT TO THE DISTRICT CONSTRUCTION ENGINEER.
MATERIALS, EQUIPMENT AND APPLICATION SHALL BE ACCORDING TO THE TYPE OF PAVEMENT MARKING MATERIAL USED.
PAYMENT WILL BE FOR EACH 24-INCH-WIDE BY 4 FEET LONG MARKING AND SHALL INCLUDE THE PAVEMENT MARKING MATERIAL USED AND THE SURVEYING WORK.

ASPHALT CONCRETE FOR DRIVEWAYS

THE FOLLOWING ESTIMATED QUANTITY FOR ASPHALT CONCRETE IS TO BE USED FOR DRIVEWAYS AS DIRECTED BY THE ENGINEER:

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A(446)	241 CU YD
ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A(446)	281 CU YD
PAVEMENT PLANING, ASPHALT CONCRETE	5772 SQ YD
NON-TRACKING TACK COAT - 0.085	490 GAL
NON-TRACKING TACK COAT - 0.055	317 GAL

TOTAL CARRIED TO THE GENERAL SUMMARY

GENERAL NOTES

JWZ

JMF MM-DD-YY

101295

FUL-20A/109-18.23/5.85
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ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERINGS WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 [(SPEED (50 MPH), HAZARD WIDTH (36 INCHES)), (BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL USE A NCHRP 350, TL-3 APPROVED SYSTEM AND ENSURE THAT THE LENGTH OF THE SELECTED UNIT SHALL FIT WITHIN THE FOOTPRINT OF LOCATION SHOWN IN THE PLAN. THIS ITEM 606 SHALL INCLUDE A NEW 6 INCH REINFORCED CONCRETE PAD FOR THE PROPOSED IMPACT ATTENUATOR. SEE REFERENCE TABLE IN GUARDRAIL SUBSUMMARY.

GENERAL NOTES

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 101295

SHEET 10 TOTAL 36

FUL-20A/109-18.23/5.85

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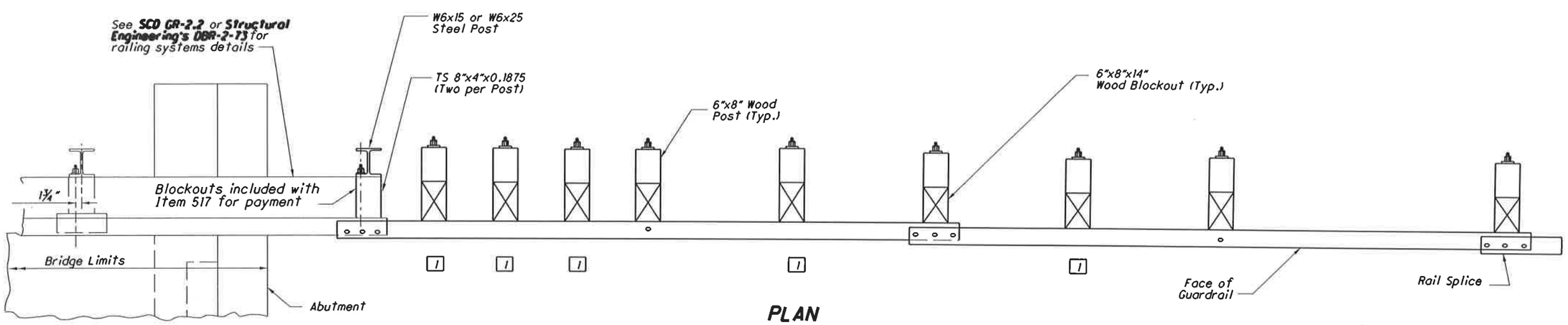
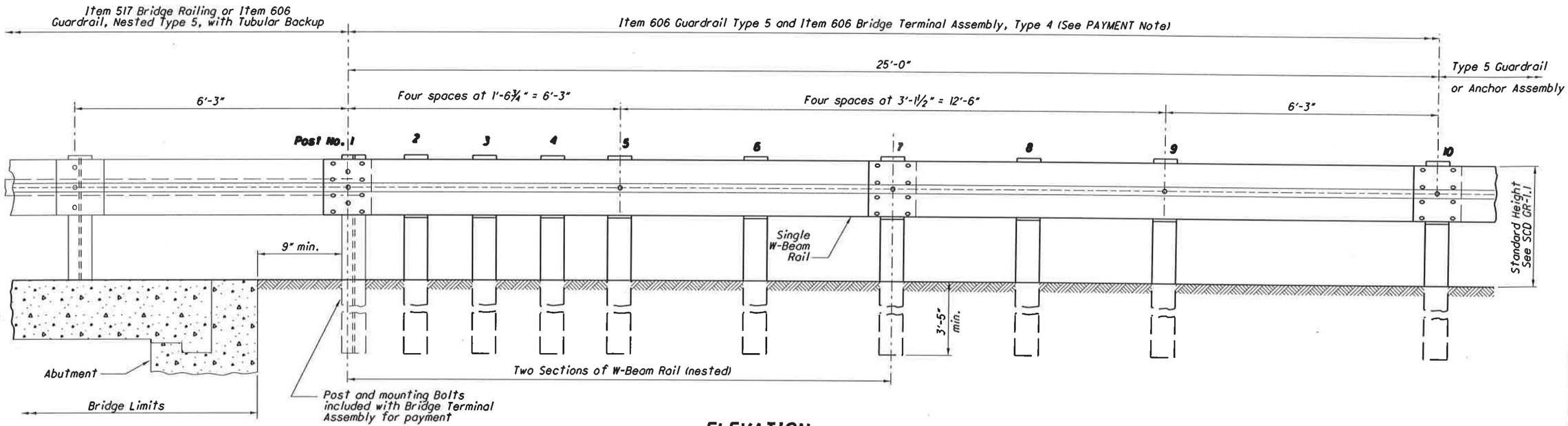


PLAN



ELEVATION

NOTES

GENERAL: For additional details, see **SCD GR-1.1.**

APPLICATION: The Type 4 Bridge Terminal Assembly shall connect Type 5 Guardrail runs to Type 5 Guardrail with Tubular Backup or to Deep Beam Bridge Guardrail (as shown on **Structural Engineering SCD DBR-2-73**).

DETAIL INFORMATION: The first post off the bridge shall be steel (W6x15 or W6x25). All holes in the off-structure end of the approach panel rail section spanning the abutment are slotted ¾"x2½". Tighten the bolts as specified for expansion joints in Item 606.05.

POSTS: Posts may be set in drilled holes or driven to grade. See **SCD GR-1.1** for additional Post embedment details. Guardrail is not attached to certion posts (see LEGEND).

WOOD POSTS - Use square sawed pressure treated wood as specified in CMS 710.14 and fabricated with square ends. Bore bolt holes and trim the tops of posts, if required after the posts are set.

STEEL POSTS - are allowed as an alternate. Use W6x9 or W6x8.5 in lieu of the 6"x8" wood post. Use same post material through-out assembly.

BLOCKOUTS: Approved alternate blockouts can be found on the Office of Roadway Engineering website. Steel blockouts are not permitted.

FLARED GUARDRAIL: Start Standard Guardrail Flares as shown on **SCD GR-5.1** at or beyond Post No. 10; however, the flare may begin at Post No. 7.

PAYMENT: Item 606 - Bridge Terminal Assembly, Type 4, Each, includes the cost of extra components in excess of normal guardrail, such as additional posts and other hardware. The TS 8"x4" spacers and tubular backup rail extending to the first post off the bridge is included with **Item 517 - Railing,** or **Item 606 - Guardrail, Nested Type 5 with Tubular Backup,** for payment.

LEGEND

[1] Guardrail is not attached to posts at Posts 2, 3, 4, 6, and 8. Blockout is fastened to post with standard Post Bolt.

PLAN INSERT SHEET - BRIDGE TERMINAL ASSEMBLY TYPE 4

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 11 TOTAL 36

FUL-20A/109-18.23/5.85

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ITEM 614, MAINTAINING TRAFFIC LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

ANNUAL DELTA CHICKEN FESTIVAL JULY OF 2021

CHRISTMAS FOURTH OF JULY
NEW YEAR'S LABOR DAY
MEMORIAL DAY THANKSGIVING
(OTHER HOLIDAY OR EVENT)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00AM WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

ITEM 614, MAINTAINING TRAFFIC

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

TEMPORARY WEDGING

ALL TEMPORARY ASPHALT WEDGING/REMOVAL OF WEDGE REQUIRED TO PROVIDE A SMOOTH TRANSITION FROM MILLED SURFACES TO EXISTING SURFACES THROUGHOUT THE PROJECT (INCLUDING DRIVE APPROACHES AND CONCRETE PAVEMENT AREAS IN DELTA) ARE TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF CMS 614.04 AND 614.11.

ITEM 614 - WORK ZONE MARKING SIGN	20 EACH
ITEM 614 - WORK ZONE EDGE LINE, CLASS I	30 MILE
ITEM 614 - WORK ZONE CENTERLINE, CLASS I	18.9 MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I	375 FT
ITEM 614 - WORK ZONE STOP LINE, CLASS III	288 FT

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 5 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 5 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ODOT NOTIFICATION CONTACT INFORMATION

THE ODOT PROJECT ENGINEER SHALL FORWARD THE CONSTRUCTION NOTIFICATION INFORMATION THE FOLLOWING DEPARTMENTS WITHIN THE TIMELINE OUTLINED IN TEM PART 642-58 TO ENSURE COMPLIANCE WITH FEDERAL NOTIFICATION REQUIREMENTS:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY PHONE AT: (419) 373-4428 OR EMAIL AT: D02.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY PHONE AT: (419) 373-4301 OR EMAIL AT: D02.PERMITS@DOT.OHIO.GOV

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. (AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

Notice of Closure Sign TIme Table

Item	Duration of Closure	Sign Displayed to Public
Ramp & Road Closures	>= 2 weeks	14 calendar days prior to closure
	> 12 hours & < 2 weeks	7 calendar days prior to closure
	< 12 hours	2 business days prior to closure

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS PHONE NUMBER SHALL BE 419-373-4428.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.
INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 25 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 12 TOTAL 36

FUL-20A/109-18.23/5.85
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 11/13/2020 TIME: 1:14:19 PM USER: jpierns
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SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET ___ OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: OHIO STATE PLANE, SOUTH ZONE
MONUMENT TYPE: NAD83 (2011)

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOD 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION:
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00002576
ORIGIN OF COORDINATE
SYSTEM: (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH

UNITS ARE IN U.S. SURVEY FEET.

US 20A AND SR 109 INTERSECTION MAINTENANCE OF TRAFFIC

THE ROAD SHALL BE CLOSED TO TRAFFIC AND DETOURED AS PER THE ROAD CLOSURE DETOUR. ROAD CLOSURE SHOULD NOT EXCEED 7 DAYS. DAMAGES IN THE AMOUNT OF $5000 SHALL BE ASSESSED FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

U.S. 20A	US 20A SHALL BE CLOSED TO TRAFFIC. FROM STA. 1043+95.32 TO STA. 1051+64.18. US 20A CLOSURE DETOUR: EASTBOUND US 20A EAST TO SR 109 NORTH SR 109 NORTH TO US 20 EAST US 20 EAST TO SR 64 SOUTH SR 64 SOUTH TO US 20A EAST WESTBOUND US 20A WEST TO SR 64 NORTH SR 64 NORTH TO US 20 WEST US 20 WEST TO SR 109 SOUTH SR 109 SOUTH TO US 20 WEST
SR 109	SR 109 SHALL BE CLOSED TO TRAFFIC. FROM STA. 335+00 TO STA. 335+36.69. SR 109 CLOSURE DETOUR: NORTHBOUND SR 109 NORTH TO US 6/24 WEST US 6 /24 WEST TO SR 108 NORTH SR 108 NORTH TO US 20A EAST US 20A EAST TO SR 109 NORTH SOUTHBOUND SR 109 SOUTH TO US 20A WEST US 20A WEST TO SR 108 SOUTH SR 108 SOUTH TO US 6 /24 EAST US 6 /24 EAST TO SR 109 SOUTH

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER
JWZ

REVIEWER
JMF MM-DD-YY

PROJECT ID
101295

SHEET 13 TOTAL 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 12/1/2020 TIME: 2:58:38 PM USER: jzkms
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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	12	16	17	18							01/STR/PV	02/SAF/OT	03/BRO/BR						
																		ROADWAY	
				920							920			202	30000	920	SF	WALK REMOVED	
				135							135			202	32000	135	FT	CURB REMOVED	
			3,213								3,213			202	38000	3,213	FT	GUARDRAIL REMOVED	
			11								11			202	42010	11	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
			7								7			202	42040	7	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
			4								4			202	42050	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B	
			16								16			202	47000	16	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
100											100			203	20000	100	CY	EMBANKMENT	
			46								46			209	15000	46	STA	RESHAPING UNDER GUARDRAIL	
100											100			601	20010	100	CY	CRUSHED AGGREGATE SLOPE PROTECTION	
			2,275								2,275			606	15050	2,275	FT	GUARDRAIL, TYPE MGS	
			938								938			606	15100	938	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			4								4			606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
			11								11			606	26150	11	EACH	ANCHOR ASSEMBLY, MGS TYPE EMASH 2016	
			7								7			606	26550	7	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			12								12			606	35002	12	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			4								4			606	35140	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
			1								1			606	60029	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), AS PER PLAN 55 MPH/36" WIDE	
				150							150			608	10000	150	SF	4" CONCRETE WALK	
				920							920			608	52000	920	SF	CURB RAMP	
			67								67			614	13310	67	EACH	BARRIER REFLECTOR, TYPE 1BIDEIRECTIONAL	
																		EROSION CONTROL	
											5,000			832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
7											7			611	98630	7	EACH	CATCH BASIN ADJUSTED TO GRADE	
4											4			611	98634	4	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
4											4			611	99654	4	EACH	MANHOLE ADJUSTED TO GRADE	
3											3			611	99660	3	EACH	MANHOLE RECONSTRUCTED TO GRADE	
1											1			623	39500	1	EACH	MONUMENT BOX ADJUSTED TO GRADE	
2											2			638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE	
																		PAVEMENT	
252.6											252.6			202	23000	252.6	SY	PAVEMENT REMOVED	
		10									10			209	60500	10	MILE	LINEAR GRADING	
8.53											8.53			209	72000	8.53	STA	PREPARING SUBGRADE FOR SHOULDER PAVING	
1,690											1,690			253	02000	1,690	CY	PAVEMENT REPAIR	
5,772		117,777									123,549			254	01000	123,549	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3 1/4"	
67											67			255	10010	67	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1	
320											320			255	20000	320	FT	FULL DEPTH PAVEMENT SAWING	
		1,638									1,638			257	10000	1,638	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT	
122											122			258	10000	122	EACH	RETROFIT DOWEL BAR	
807		15,732									16,539			407	20000	16,539	GAL	NON-TRACKING TACK COAT	
241		2,051									2,292			442	10000	2,292	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	
55.4		2,857									2,912.4			442	10001	2,912.4	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	
303.7		5,293									5,596.7			442	10100	5,596.7	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
252.6											252.6			452	14010	252.6	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
		968									968			617	10100	968	CY	COMPACTED AGGREGATE	
		8										8		618	41000	8	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
		8										8		618	43000	8	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
		13,988									13,988			872	10000	13,988	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)	
		19,122									19,122			874	20000	19,122	FT	LONGITUDINAL JOINT PREPARATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 101295

SHEET 14 TOTAL 36

FUL-20A/109-21.66/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 12/1/2020 TIME: 3:03:22 PM USER: jitems
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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	12	16	17	18							01/STR/PV	02/SAF/OT	03/BRO/BR						
																		TRAFFIC CONTROL	
			395								395			621	00100	395	EACH	RPM	
			395								395			621	54000	395	EACH	RAISED PAVEMENT MARKER REMOVED	
			10								10			642	00104	10	MILE	EDGE LINE, 6", TYPE 1	
			6.3								6.3			642	00300	6.3	MILE	CENTER LINE, TYPE 1	
			1,848								1,848			644	01200	1,848	FT	PARKING LOT STALL MARKING	
			125								125			644	00404	125	FT	CHANNELIZING LINE, 12"	
			96								96			644	00500	96	FT	STOP LINE	
			1,115								1,115			644	00600	1,115	FT	CROSSWALK LINE	
			167								167			644	00700	167	FT	TRANSVERSE/DIAGONAL LINE	
			1								1			644	01300	1	EACH	LANE ARROW	
			6								6			644	40000	6	EACH	SPEED MEASUREMENT MARKING	
																		MAINTENANCE OF TRAFFIC	
	25										25			614	11110	25	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	20										20			614	12460	20	EACH	WORK ZONE MARKING SIGN	
	5										5			614	12500	5	EACH	REPLACEMENT SIGN	
	5										5			614	12600	5	EACH	REPLACEMENT DRUM	
	18.9										18.9			614	21000	18.9	MILE	WORK ZONE CENTER LINE, CLASS I	
	30										30			614	22010	30	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
	375										375			614	23690	375	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
	288										288			614	26610	288	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
																		INCIDENTALS	
											LS			108	30000	LS		CPM PROGRESS SCHEDULE SHORT DURATION PROJECTS	
											LS			614	11000	LS		MAINTAINING TRAFFIC	
											LS			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS			624	10000	LS		MOBILIZATION	
																		FOR STRUCTURE SEE SHT. 34-36	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER
JWZ

REVIEWER
JMF MM-DD-YY

PROJECT ID
101295

SHEET 15 TOTAL 36

FUL-20A/109-18.23/5.85

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STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	209 LINEAR GRADING	254 PAVEMENT PLANING, ASPHALT CONCRETE	257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT	407 NON-TRACKING TACK COAT-0.085	407 NON-TRACKING TACK COAT-0.055	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	617 COMPACTED AGGREGATE	618 RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	618 RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	872 VOID REDUCING ASPHALT MEMBRANE (VRAM)	874 LONGITUDINAL JOINT PREPARATION
					FT	FT	SY	MILE	SY	SY	GAL	GAL	CY	CY	CY	CY	MILE	MILE	FT	FT
962+46.78	TO	967+00.00	A	LT/RT	453.22	30.5	1535.91	0.17	1535.91		130.55	84.48	64.00	74.66		18.18	0.17	0.09		453.22
967+00.00	TO	972+00.00	A	LT/RT	500.00	30.8	1711.11	0.19	1711.11		145.44	94.11	71.30	83.18		20.06	0.19	0.09		500.00
972+00.00	TO	977+00.00	A	LT/RT	500.00	31.1	1727.78	0.19	1727.78		146.86	95.03	71.99	83.99		20.06	0.19	0.09		500.00
977+00.00	TO	982+00.00	A	LT/RT	500.00	30.2	1677.78	0.19	1677.78		142.61	92.28	69.91	81.56		20.06	0.19	0.09		500.00
982+00.00	TO	987+00.00	A	LT/RT	500.00	30.0	1666.67	0.19	1666.67		141.67	91.67	69.44	81.02		20.06	0.19	0.09		500.00
987+00.00	TO	992+00.00	A	LT/RT	500.00	30.6	1700.00	0.19	1700.00		144.50	93.50	70.83	82.64		20.06	0.19	0.09		500.00
992+00.00	TO	997+00.00	A	LT/RT	500.00	30.2	1677.78	0.19	1677.78		142.61	92.28	69.91	81.56		20.06	0.19	0.09		500.00
997+00.00	TO	1002+00.00	A	LT/RT	500.00	30.7	1705.56	0.19	1705.56		144.97	93.81	71.06	82.91		20.06	0.19	0.09		500.00
1002+00.00	TO	1007+00.00	A	LT/RT	500.00	31.1	1727.78	0.19	1727.78		146.86	95.03	71.99	83.99		20.06	0.19	0.09		500.00
1007+00.00	TO	1012+00.00	A,B	LT/RT	500.00	29.7	1650.00		1650.00		140.25	90.75	68.75	80.21					500.00	
1012+00.00	TO	1017+00.00	B	LT/RT	500.00	28.3	1572.22		1572.22		133.64	86.47	65.51	76.43					500.00	
1017+00.00	TO	1022+00.00	B	LT/RT	500.00	28.4	1577.78		1577.78		134.11	86.78	65.74	76.70					500.00	
1022+00.00	TO	1026+10.08	B	LT/RT	410.08	31.6	1439.84		1439.84		122.39	79.19	59.99	69.99					410.08	
1027+34.19	TO	1032+00.00	B,C	LT/RT	465.81	41.5	2147.90		2147.90		182.57	118.13	89.50	104.41					465.81	
1032+00.00	TO	1037+00.00	C,D	LT/RT	500.00	55.6	3088.89		3088.89		262.56	169.89	128.70	150.15					500.00	
1037+00.00	TO	1042+00.00	D	LT/RT	500.00	50.6	2811.11		2811.11		238.94	154.61	117.13	136.65					500.00	
1042+00.00	TO	1047+00.00	D,E	LT/RT	500.00	39.9	2216.67		2216.67	756.42	188.42	121.92	92.36	107.75					500.00	
1047+00.00	TO	1052+00.00	E,F	LT/RT	500.00	37.9	2105.56		2105.56	880.98	178.97	115.81	87.73	102.35					500.00	
1052+00.00	TO	1057+00.00	F	LT/RT	500.00	34.1	1894.44		1894.44		161.03	104.19	78.94	92.09					500.00	
1057+00.00	TO	1062+00.00	F	LT/RT	500.00	34.8	1933.33		1933.33		164.33	106.33	80.56	93.98					500.00	
1062+00.00	TO	1067+00.00	F	LT/RT	500.00	34.9	1938.89		1938.89		164.81	106.64	80.79	94.25					500.00	
1067+00.00	TO	1072+00.00	F	LT/RT	500.00	34.9	1938.89		1938.89		164.81	106.64	80.79	94.25					500.00	
1072+00.00	TO	1077+00.00	F,G	LT/RT	500.00	32.5	1805.56	0.19	1805.56		153.47	99.31	75.23	87.77		20.06			500.00	
1077+00.00	TO	1082+00.00	G	LT/RT	500.00	31.0	1722.22	0.19	1722.22		146.39	94.72	71.76	83.72		20.06			500.00	
1082+00.00	TO	1087+00.00	G,H	LT/RT	500.00	31.4	1744.44	0.19	1744.44		148.28	95.94	72.69	84.80		20.06			500.00	
1087+00.00	TO	1092+00.00	H	LT/RT	500.00	30.7	1705.56	0.19	1705.56		144.97	93.81	71.06	82.91		20.06			500.00	
1092+00.00	TO	1097+00.00	H	LT/RT	500.00	30.4	1688.89	0.19	1688.89		143.56	92.89	70.37	82.10		20.06			500.00	
1097+00.00	TO	1102+00.00	H	LT/RT	500.00	33.1	1838.89	0.19	1838.89		156.31	101.14	76.62	89.39		20.06			500.00	
1102+00.00	TO	1107+00.00	H,I	LT/RT	500.00	36.5	2027.78	0.19	2027.78		172.36	111.53	84.49	98.57		20.06			500.00	
1107+00.00	TO	1112+00.00	H,I	LT/RT	500.00	37.8	2100.00	0.19	2100.00		178.50	115.50	87.50	102.08		20.06			500.00	
1112+00.00	TO	1117+00.00	H,J	LT/RT	500.00	34.4	1911.11	0.19	1911.11		162.44	105.11	79.63	92.90		20.06			500.00	
1117+00.00	TO	1122+00.00	J	LT/RT	500.00	29.9	1661.11	0.19	1661.11		141.19	91.36	69.21	80.75		20.06			500.00	
1122+00.00	TO	1135+00.00	J	LT/RT	1300.00	30.6	4420.00	0.49	4420.00		375.70	243.10		214.86	184.17	52.16	0.49	0.25		1300.00
1135+00.00	TO	1140+00.00	J	LT/RT	500.00	31.2	1733.33	0.19	1733.33		147.33	95.33		84.26	72.22	20.06	0.19	0.09		500.00
1140+00.00	TO	1145+00.00	J	LT/RT	500.00	30.3	1683.33	0.19	1683.33		143.08	92.58		81.83	70.14	20.06	0.19	0.09		500.00
1145+00.00	TO	1150+00.00	J	LT/RT	500.00	29.7	1650.00	0.19	1650.00		140.25	90.75		80.21	68.75	20.06	0.19	0.09		500.00
1150+00.00	TO	1173+00.00	J	LT/RT	2300.00	30.0	7666.67	0.87	7666.67		651.67	421.67		372.69	319.44	92.28	0.87	0.44		2300.00
1173+00.00	TO	1225+00.00	J	LT/RT	5200.00	30.3	17506.67	1.97	17506.67		1488.07	962.87		851.02	729.44	208.64	1.97	0.98		5200.00
1225+00.00	TO	1268+68.06	J	LT/RT	4368.06	30.0	14560.20	1.65	14560.20		1237.62	800.81		707.79	606.68	175.26	1.65	0.83		4368.06
308+88.00	TO	314+00.00	K-N	LT/RT	512.00	28.5	1621.33		1621.33		89.17		67.56						512.00	
314+00.00	TO	319+00.00	N,O	LT/RT	500.00	28.9	1605.56		1605.56		88.31		66.90						500.00	
319+00.00	TO	324+00.00	O	LT/RT	500.00	29.8	1655.56		1655.56		91.06		68.98						500.00	
324+00.00	TO	329+00.00	O,P	LT/RT	500.00	31.6	1755.56		1755.56		96.56		73.15						500.00	
329+00.00 TO	TO	335+00.00	P	LT/RT	600	34.0	2266.67		2266.67		124.67		94.44						600.00	
SUBTOTALS								9.14	117776.29	1637.40	9743.86	5987.96	2856.51	5292.37	2050.84	967.78	7.24	7.16	13987.89	19121.28
TOTALS CARRIED TO GENERAL SUMMARY								10	117777	1638	9744	5988	2857	5293	2051	968	8	8	13988	19122

SUB SUMMARY

SEE SHEET 34-36 FOR BRIDGE PLAN
ONLY REMOVING 1.5" OF SURFACE AND REPLACING
STA. 1147+13.00 TO STA. 1148+01.50

DESIGN AGENCY

DESIGNER
JWZ

REVIEWER
JMF MM-DD-YY

PROJECT ID
101295

SHEET 16 TOTAL 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 11X11 (in.) DATE: 11/25/2020 TIME: 12:57:13 PM USER: jziems
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REF NO.	SHEET NO.	STATION TO STATION			621 RPM WHITE EACH	621 RPM YELLOW/YELLOW EACH	621 RAISED PAVEMENT MARKER REMOVED EACH	642 EDGE LINE, 6", TYPE 1 MILE	642 CENTER LINE, TYPE 1 DASHED MILE	642 CENTER LINE, TYPE 1 DASHED/SOLID MILE	642 CENTER LINE, TYPE 1 DOUBLE SOLID MILE	644 PARKING LOT STALL MARKING FT	644 CROSSWALK LINE FT	644 STOP LINE FT	644 CHANNELIZING LINE, 12" FT	644 TRANSVERSE/DIAGONAL LINE FT	644 LANE ARROW EACH	644 SPEED MEASUREMENT MARKING EACH							
		US 20A																							
	15	962+46.78	TO	977+00.00		18	18	0.55	0.28																
	16	977+00.00	TO	992+00.00		19	19	0.57	0.28																
	17	992+00.00	TO	1007+00.00		19	19	0.57	0.28																
	18	1007+00.00	TO	1022+00.00		19	19	0.06	0.28																
	19	1022+00.00	TO	1037+00.00		19	19		0.11	0.07	0.09	800	99		27	23									
	20	1037+00.00	TO	1052+00.00		19	19			0.09	0.19	1048	656	80	98	62	1								
	21	1052+00.00	TO	1067+00.00		19	19		0.28				252												
	22	1067+00.00	TO	1082+00.00		19	19	0.3	0.21	0.07															
	23	1082+00.00	TO	1097+00.00		19	19	0.57		0.08	0.2														
	24	1097+00.00	TO	1112+00.00	10	19	29	0.57			0.43					82									
	25	1112+00.00	TO	1135+00.00		29	29	0.87		0.27	0.17														
	26	1135+00.00	TO	1150+00.00		19	19	0.57	0.08	0.2															
	27	1150+00.00	TO	1268+68.06		148	148	4.5	1.99	0.25								6							
		SR 109																							
	28	308+88.00	TO	324+00.00					0.05	0.11															
	29	324+00.00	TO	335+00.00					0.03	0.13			108	16											
TOTALS CARRIED TO GENERAL SUMMARY					10	385	395	10	3.9	1.3	1.1	1848	1115	96	125	167	1	6							

REF NO.	SHEET NO.	STATION TO STATION			202 GUARDRAIL REMOVED FT	202 ANCHOR ASSEMBLY REMOVED, TYPE E EACH	202 ANCHOR ASSEMBLY REMOVED, TYPE T EACH	202 ANCHOR ASSEMBLY REMOVED, TYPE B EACH	202 BRIDGE TERMINAL ASSEMBLY REMOVED EACH	209 RESHAPING UNDER GUARDRAIL STA	606 GUARDRAIL, TYPE MGS FT	606 GUARDRAIL, TYPE MGS WITH LONG POSTS FT	606 ANCHOR ASSEMBLY, MGS TYPE B EACH	606 ANCHOR ASSEMBLY, MGS TYPE E EACH	606 ANCHOR ASSEMBLY, MGS TYPE T EACH	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 4 EACH	606 IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), AS PER PLAN EACH	614 BARRIER REFLECTOR, TYPE 1 EACH	
GR-1	15	964+98.24	TO	968+97.87	200			2	2	3	200		2			2			5	
GR-2	15	966+74.08	TO	970+73.62	200			2	2	3	200		2			2			5	
GR-3	15,16	976+52.86	TO	981+75.59	425	2				6	425			2					5	
GR-4	15,16	976+78.86	TO	980+94.38	350	1	1			4	350			1	1				4	
GR-5	18	1013+57.46	TO	1021+80.44	725	2				8		725		2					9	
GR-6	19	1025+30.20	TO	1029+62.34	187.5	1	1		2	3		187.5		1	1	2			7	
GR-7	19	1025+97.42	TO	1027+79.21	25		2		2	2		25			2	2			6	
GR-8	24	1103+31.00	TO	1105+78.20	412.5	1	1		2	5	412.5			1	1	2			7	
GR-9	24	1104+41.72	TO	1106+46.54	337.5	1	1		2	4	337.5			1	1	2		1	7	
GR-10	26	1145+24.38	TO	1149+03.56	187.5	2			2	4	187.5			2			2		6	
GR-11	26	1146+24.74	TO	1149+53.06	162.5	1	1		2	4	162.5			1	1		2		6	
TOTALS CARRIED TO GENERAL SUMMARY					3213	11	7	4	16	46	2275	938	4	11	7	12	4	1	67	

SUB SUMMARY

FUL-20A/109-18.23/5.85

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DESIGN AGENCY

DESIGNER JWZ

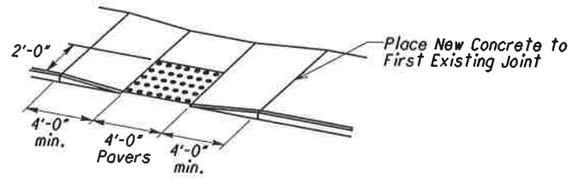
REVIEWER JWZ MM-DD-YY

PROJECT ID 101295

SHEET 17 TOTAL 36

REFERENCE NO.	LOCATION	ROUTE	STATION	SIDE	NEAREST CROSS STREET NAME	202 WALK REMOVED	202 CURB REMOVED	608 4" CONCRETE WALK	608 CURB RAMP
						SQ FT	FT	SQ FT	SQ FT
CR-1	1	US 20A	1037+20	LT.	MONROE ST.	40	10		40
CR-2	1	US 20A	1037+60	LT.	MONROE ST.	40	10		40
CR-3	1	US 20A	1041+69	LT.	WOOD ST.	80	10		80
CR-4	1	US 20A	1043+54	RT.	PELTON DR.	40	5		40
CR-5	1	US 20A	1043+87	RT.	PELTON DR.	40	5		40
CR-6	1	US 20A	1047+18	RT.	S MADISON ST.	80	20	50	80
CR-7	1	US 20A	1047+60	RT.	S MADISON ST.	40	5	50	40
CR-8	1	US 20A	1047+75	RT.	S MADISON ST.	40	5	50	40
CR-9	1	US 20A	1052+20	RT.	MCKINLEY ST.	40	5		40
CR-10	1	US 20A	1052+50	RT.	MCKINLEY ST.	40	5		40
CR-11	1	US 20A	1058+48	RT.	WASHINGTON ST.	40	5		40
CR-12	1	US 20A	1058+61	RT.	WASHINGTON ST.	40	5		40
CR-13	1	US 20A	1058+95	RT.	WASHINGTON ST.	40	5		40
CR-14	1	US 20A	1060+61	LT.	TAYLOR ST.	40	5		40
CR-15	1	US 20A	106+99	LT.	TAYLOR ST.	40	5		40
CR-16	1	US 20A	1062+67	RT.	ADAMS ST.	40	5		40
CR-17	1	US 20A	1063+15	RT.	ADAMS ST.	40	5		40
CR-18	1	US 20A	1064+31	LT.	VAN BUREN ST.	40	5		40
CR-19	1	US 20A	1064+64	LT.	VAN BUREN ST.	40	5		40
CR-20	1	SR 109	330+80	RT.	HELVETIA ST.	40	5		40
CR-21	1	SR 109	331+06	RT.	HELVETIA ST.	40	5		40
CONTINGENCY									
TOTALS CARRIED TO GENERAL SUMMARY						920	135	150	920

DETAIL NO. 1



SUB SUMMARY

DESIGN AGENCY

DESIGNER JWZ

REVIEWER JMF MM-DD-YY

PROJECT ID 101295

SHEET 18 TOTAL 36

FUL-20A/109-18.23/5.85

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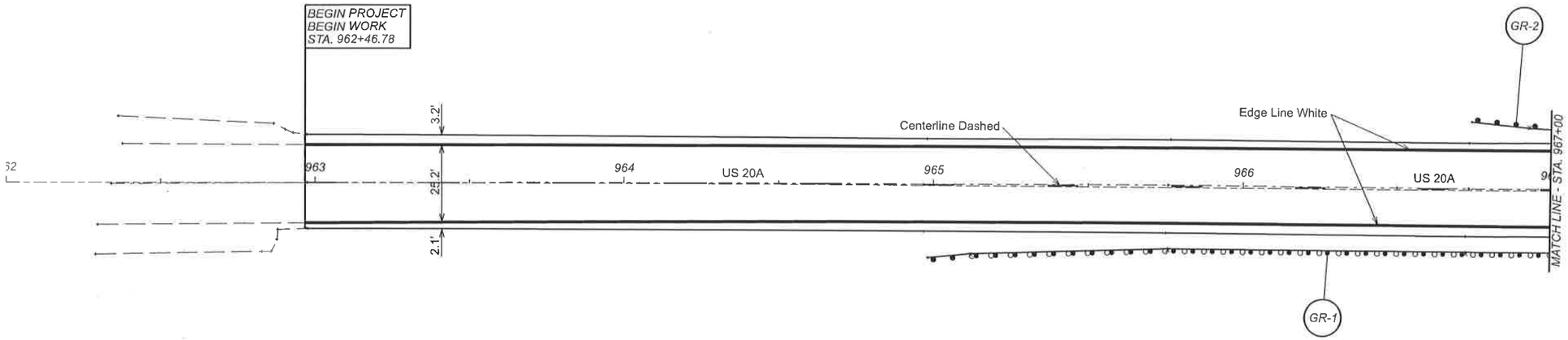

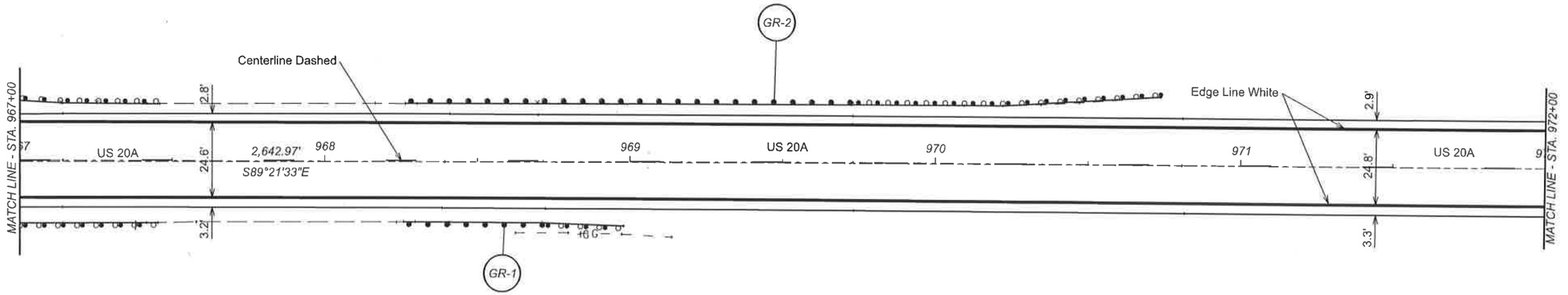

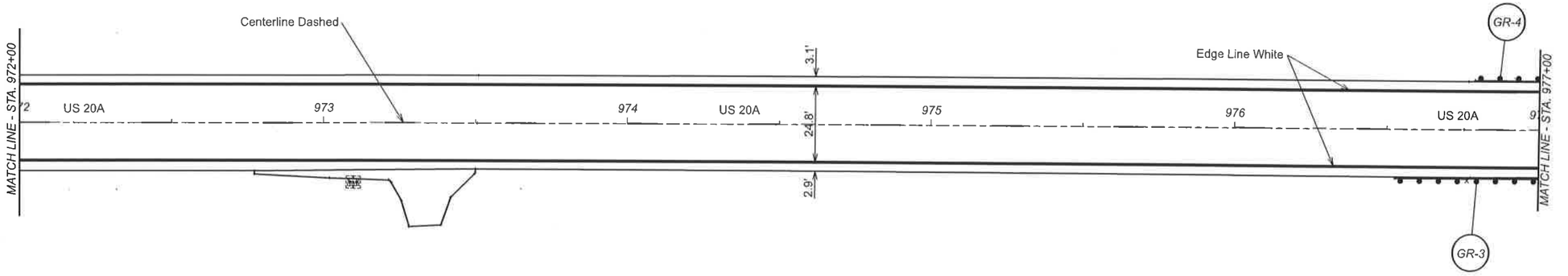

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 962+96.78 to STA. 977+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 19 TOTAL: 36

FUL-20A/109-18.23/5.85

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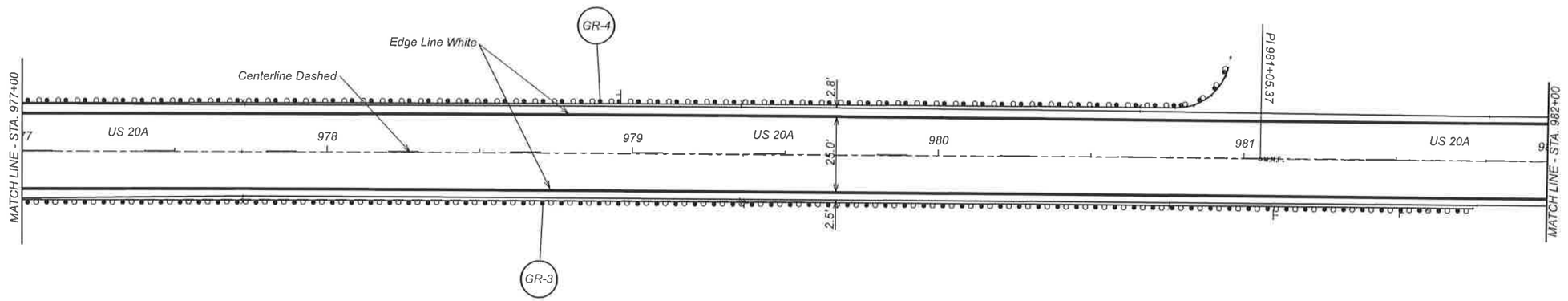

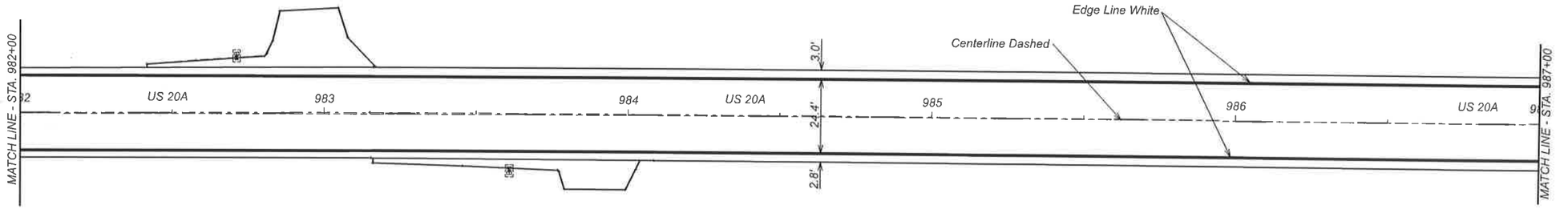

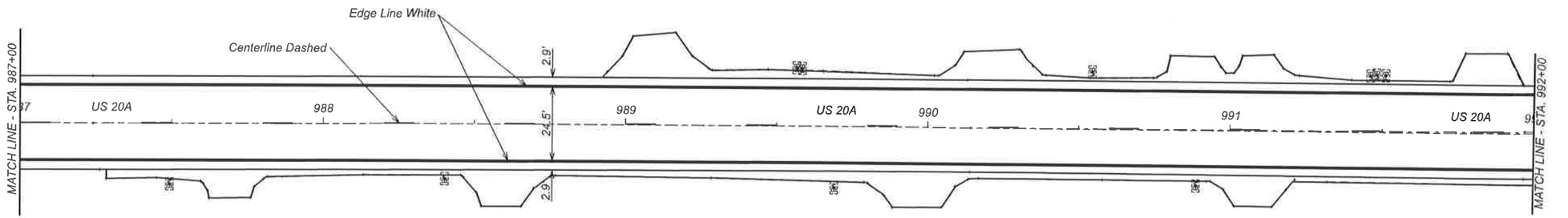

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 977+00 to STA. 992+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 20 TOTAL: 36

FUL-20A/109-18.23/5.85

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HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 992+00 to STA. 1007+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SUBSET: 0 TOTAL: 0
SHEET: 21 TOTAL: 36

FUL-20A/109-18.23/5.85

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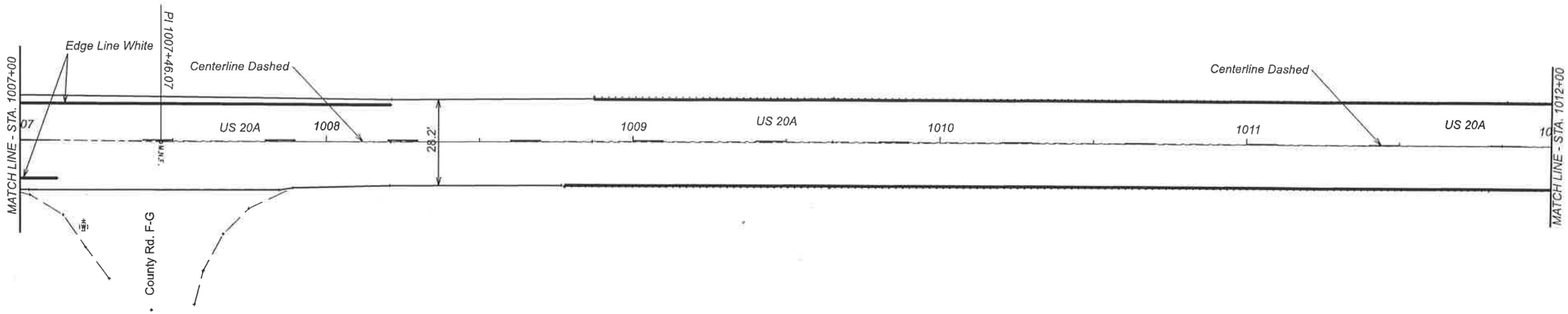

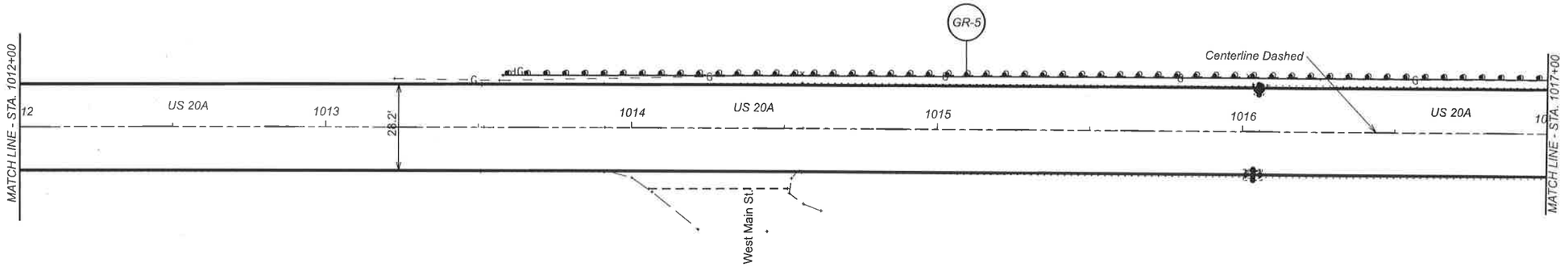

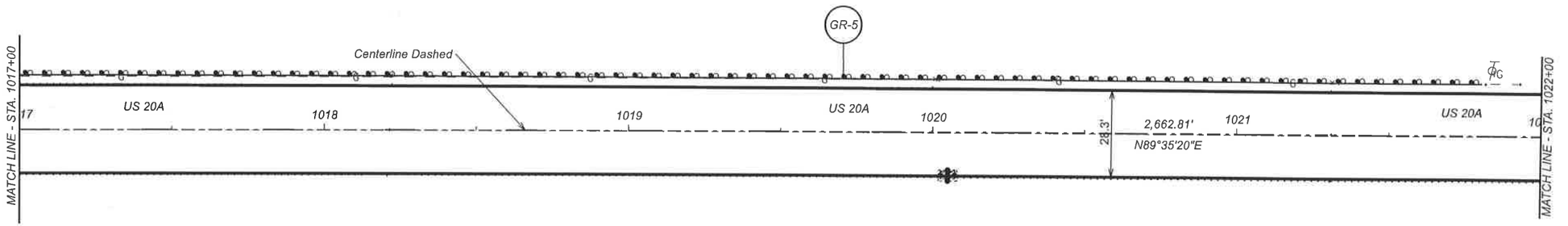

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1007+00 to STA. 1022+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 22 TOTAL: 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 11/3/2020 TIME: 12:22:28 PM USER: JzIems
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HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1022+00 to STA. 1037+00

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 23 TOTAL 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 11/13/2020 TIME: 12:32:12 PM USER: jzlems
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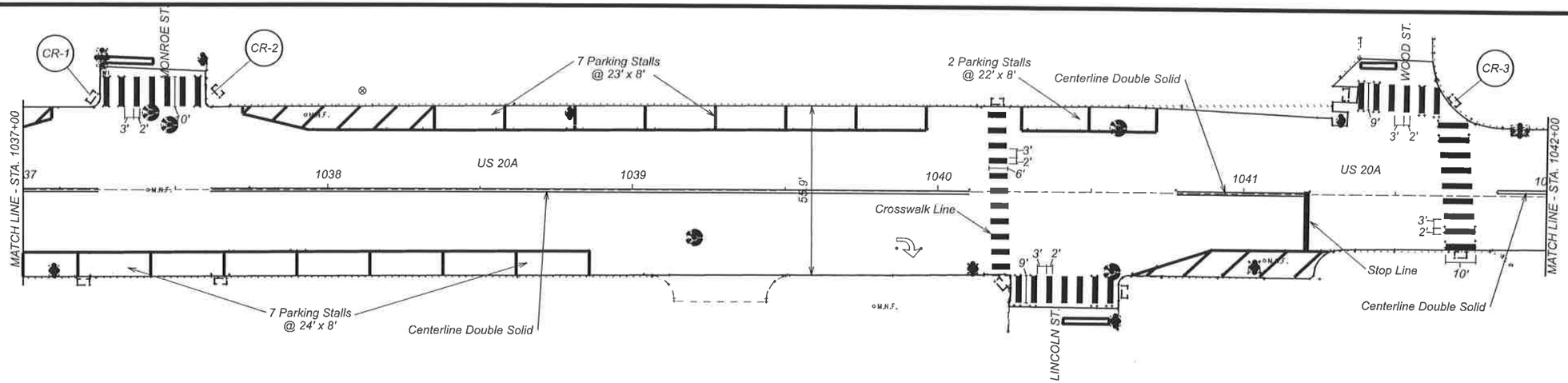

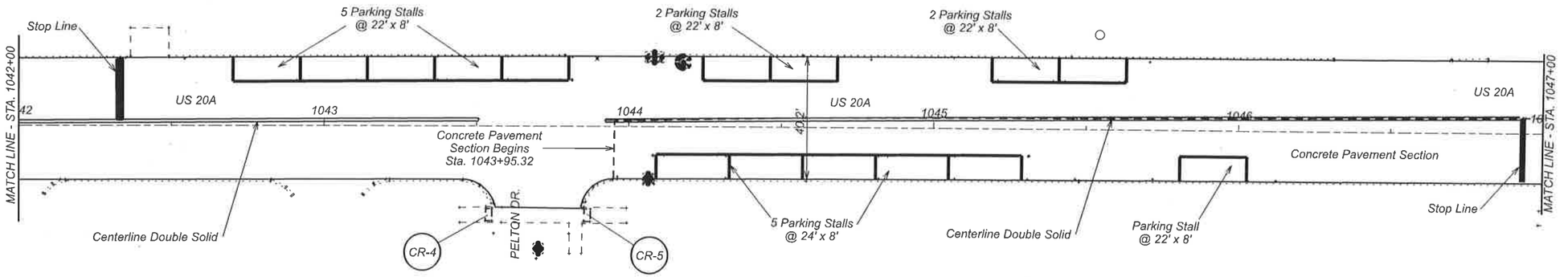

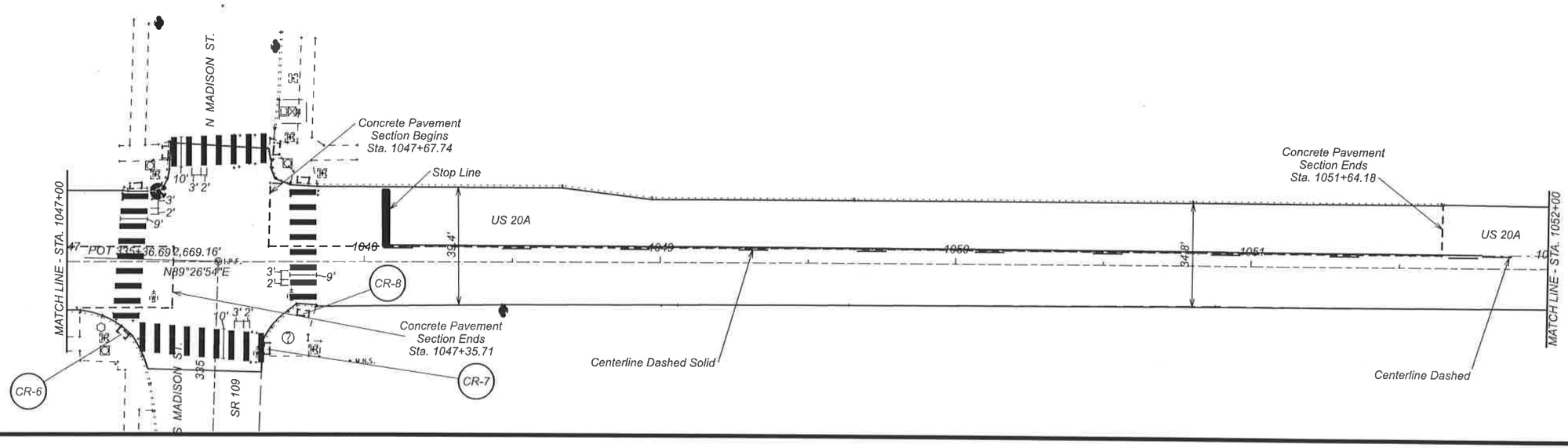

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1037+00 to STA. 1052+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 24 TOTAL: 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11in.) DATE: 11/3/2020 TIME: 12:35:56 PM USER: jziems
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FUL-20A/109-18.23/5.85

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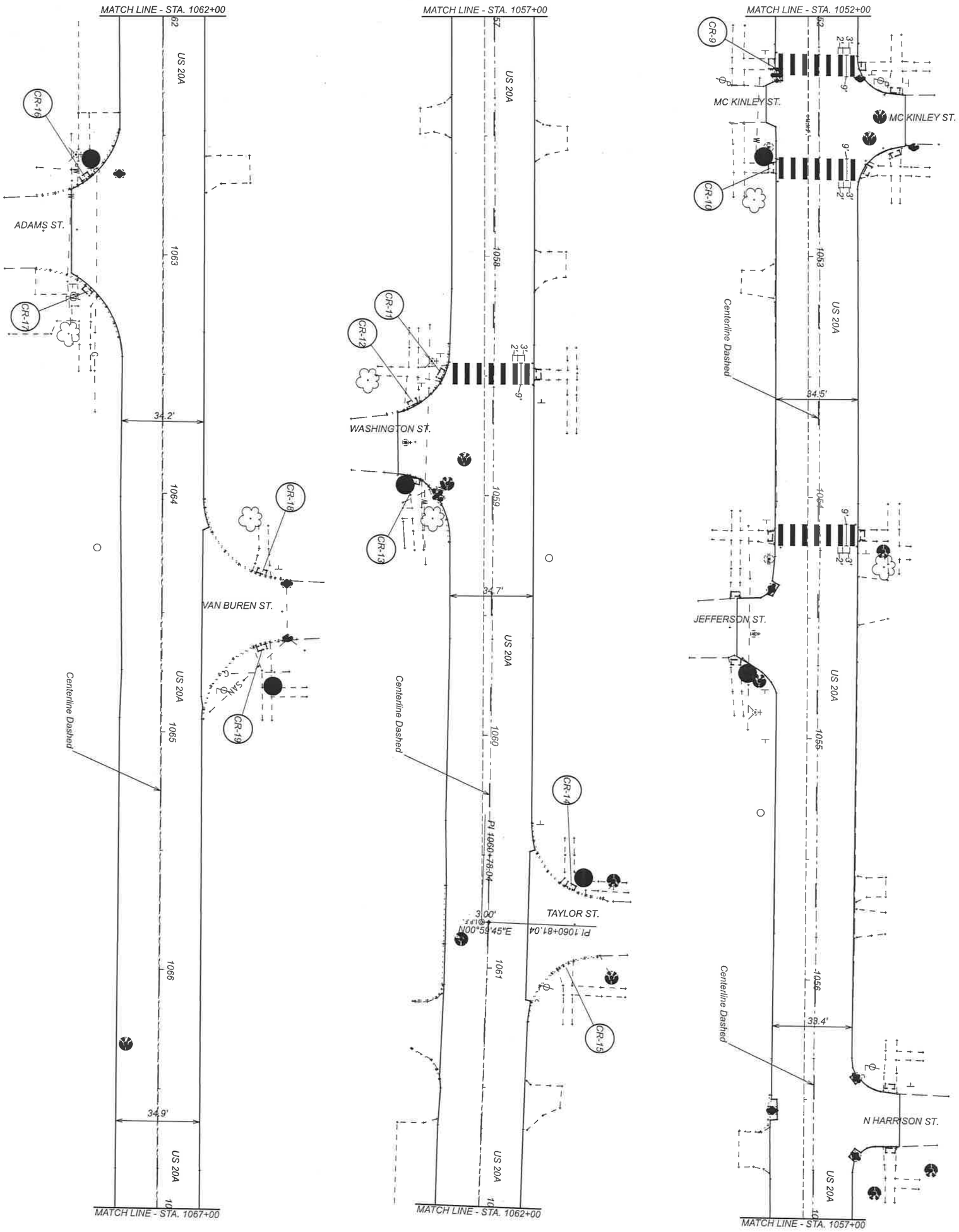
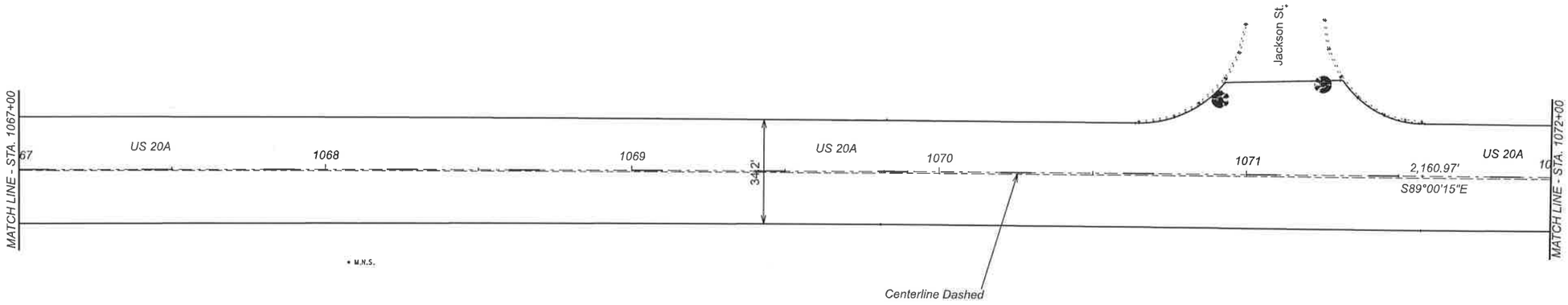


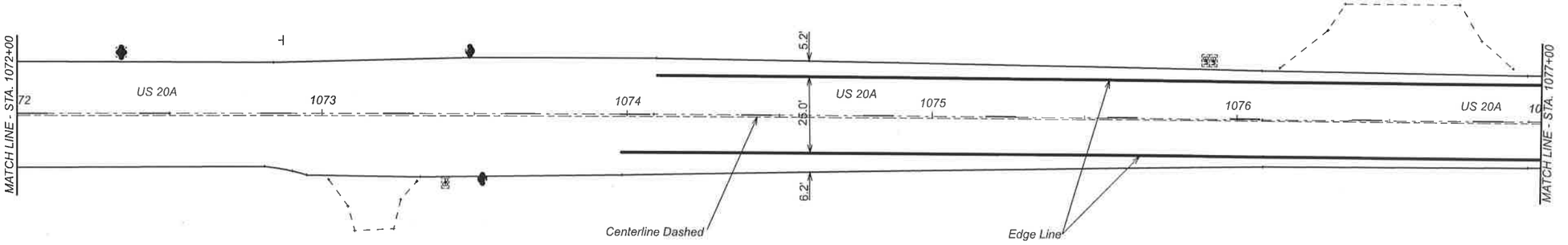
PLAN SHEET
STA. 1052+00 to STA. 1067+00

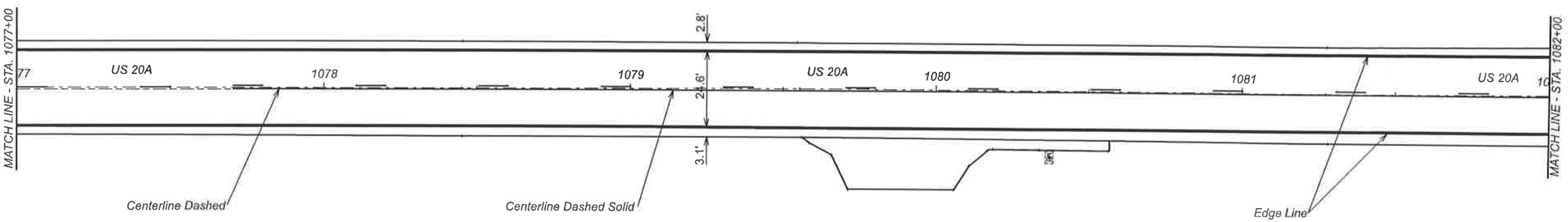
HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
25	36

PROJECT ID: 101295
REVIEWER: JMF MM-DD-YY
DESIGNER: JWZ
DESIGN AGENCY







HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1067+00 to STA. 1082+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 26 TOTAL: 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11(in.) DATE: 11/13/2020 TIME: 12:25:31 PM USER: jzlems
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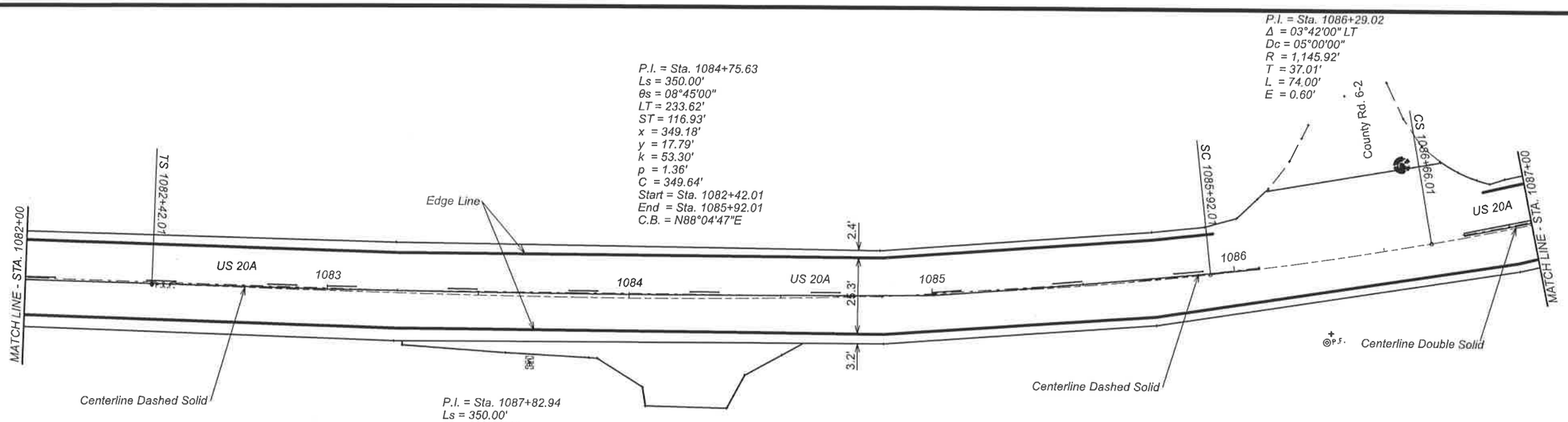

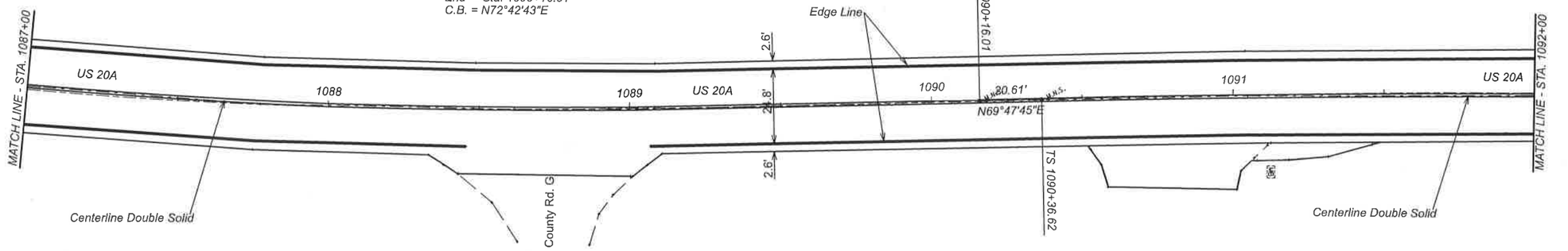

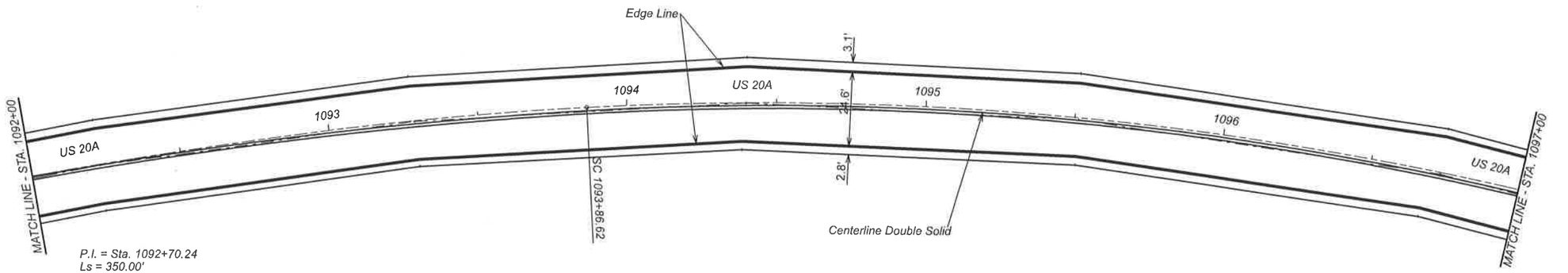

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1082+00 to STA. 1097+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 27 TOTAL: 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11(in) DATE: 11/13/2020 TIME: 12:26:04 PM USER: jziems
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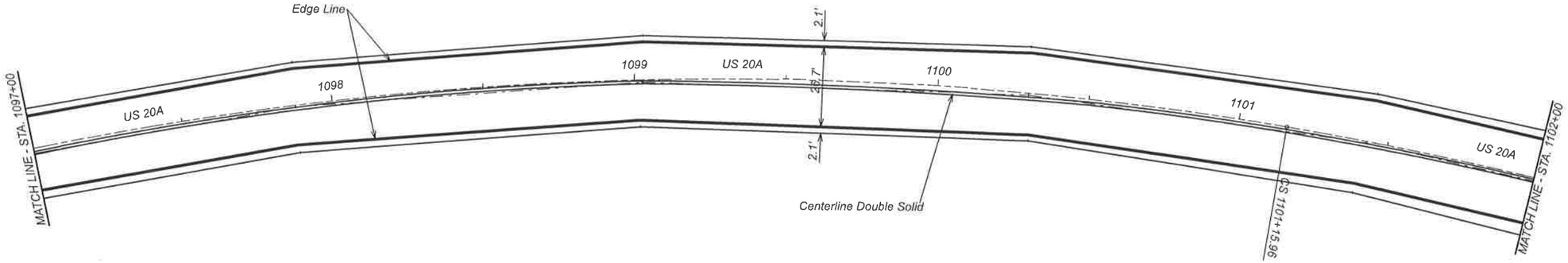
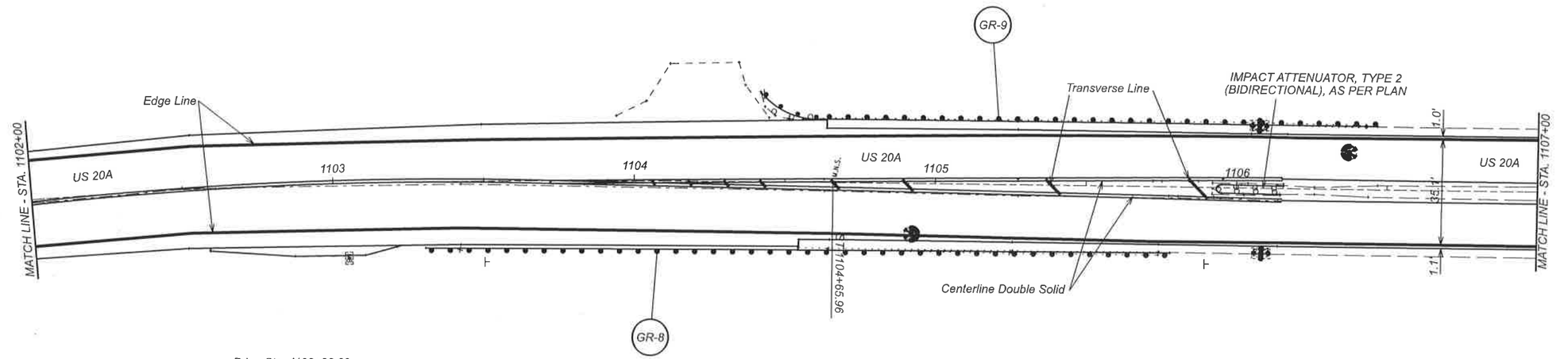
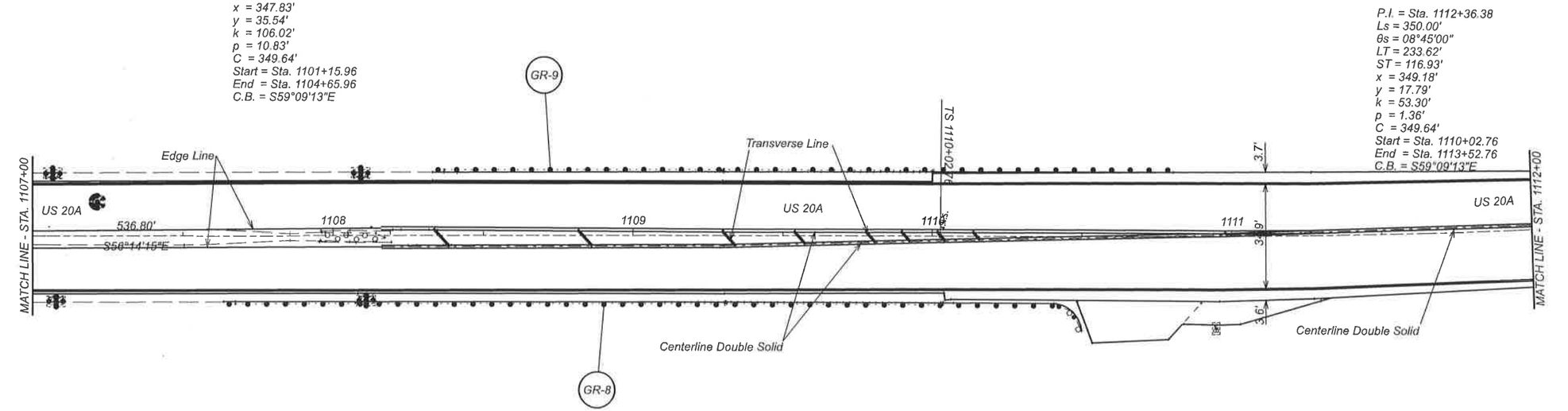


P.I. = Sta. 1097+64.12
Δ = 36°28'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 377.5'
L = 729.34'
E = 60.58'



P.I. = Sta. 1102+32.89
Ls = 350.00'
θs = 08°45'00"
LT = 233.62'
ST = 116.93'
x = 347.83'
y = 35.54'
k = 106.02'
p = 10.83'
C = 349.64'
Start = Sta. 1101+15.96
End = Sta. 1104+65.96
C.B. = S59°09'13"E

P.I. = Sta. 1112+36.38
Ls = 350.00'
θs = 08°45'00"
LT = 233.62'
ST = 116.93'
x = 349.18'
y = 17.79'
k = 53.30'
p = 1.36'
C = 349.64'
Start = Sta. 1110+02.76
End = Sta. 1113+52.76
C.B. = S59°09'13"E



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1097+00 to STA. 1112+00

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 28 TOTAL 36

FUL-20A/109-18.23/5.85

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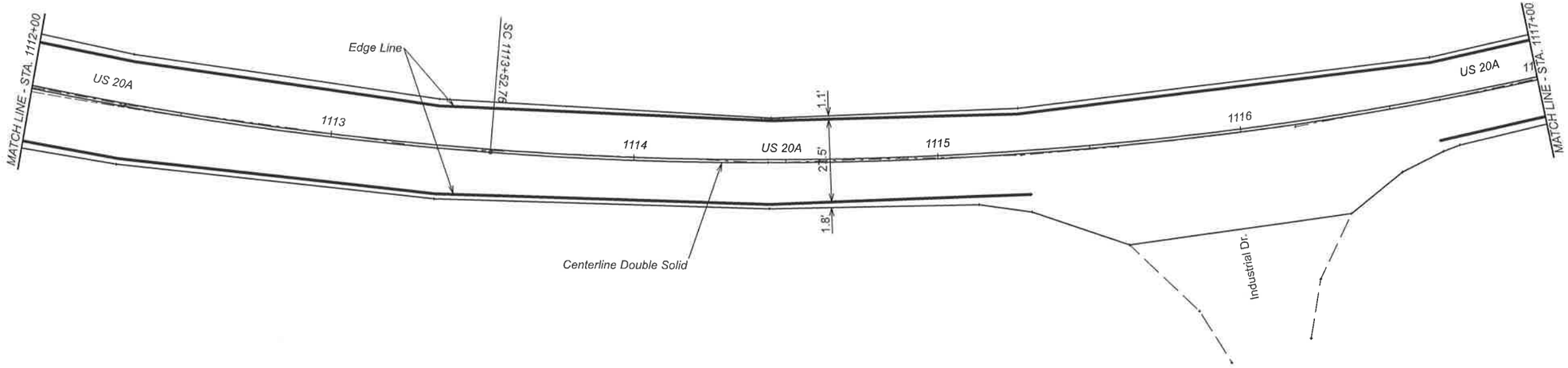

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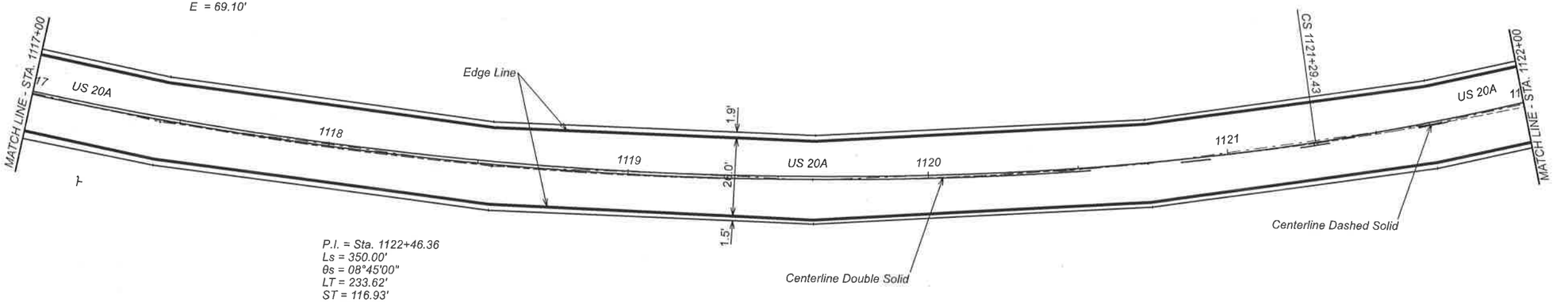
Dc = 05°00'00"
R = 1,145.92'
T = 403.92'
L = 776.67'
E = 69.10'



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θs = 08°45'00"
LT = 233.62'
ST = 116.93'
x = 347.83'
y = 35.54'
k = 106.02'
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C = 349.64'
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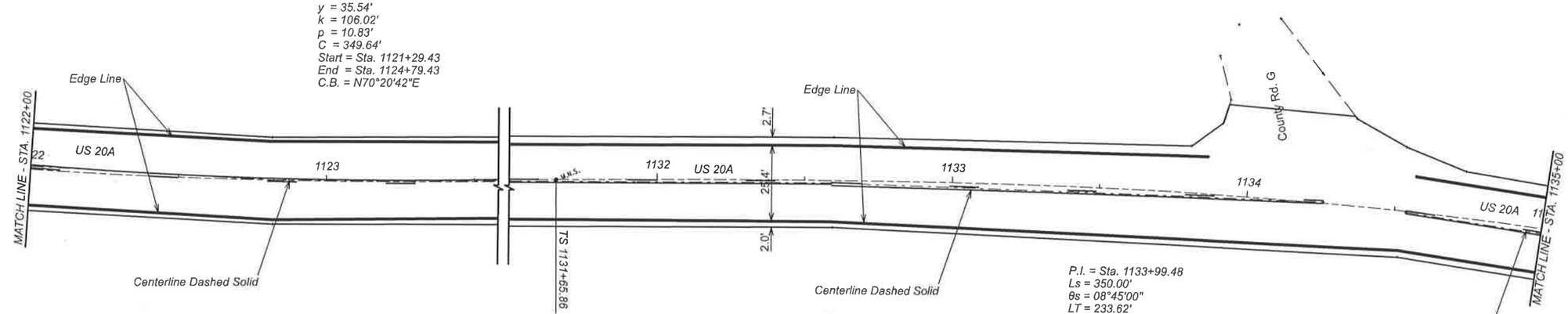
C.B. = N70°20'42"E



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θs = 08°45'00"
LT = 233.62'
ST = 116.93'
x = 349.18'
y = 17.79'
k = 53.30'
p = 1.36'
C = 349.64'
Start = Sta. 1131+65.86
End = Sta. 1135+15.86
C.B. = N70°20'42"E

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1112+00 TO STA. 1135+00

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 29 TOTAL 36

FUL-20A/109-18.23/5.85

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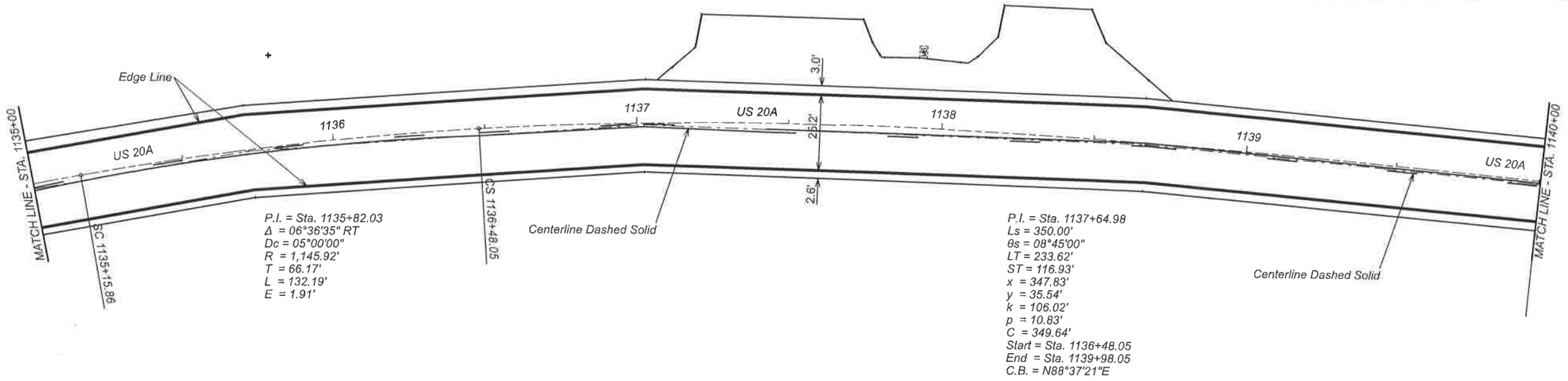

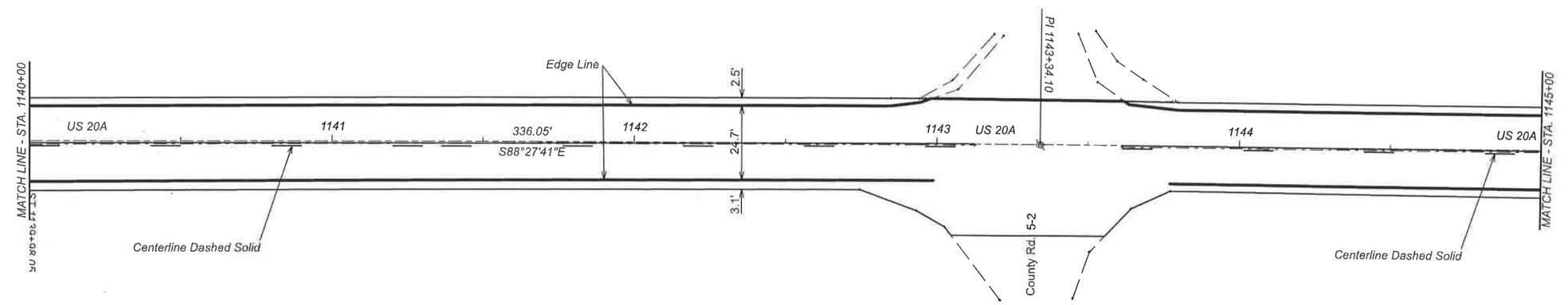

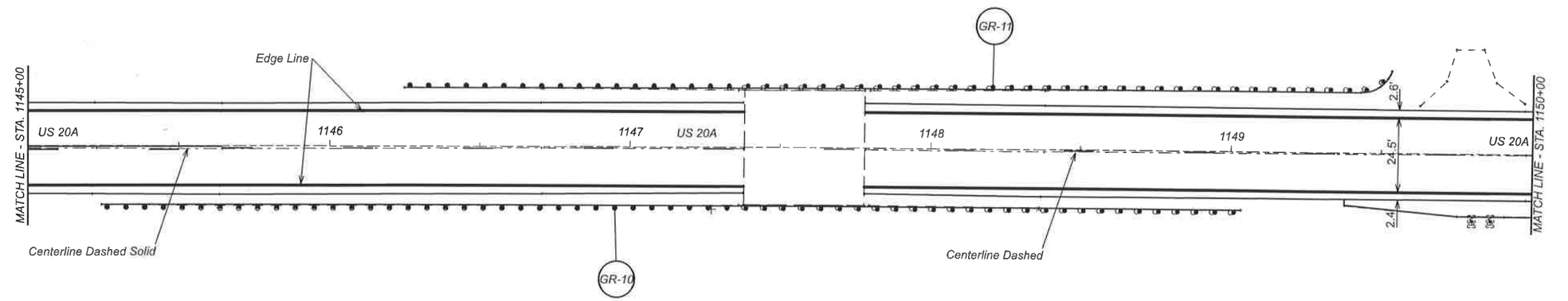

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1135+00 to STA. 1150+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 30 TOTAL: 36

FUL-20A/109-18.23/5.85

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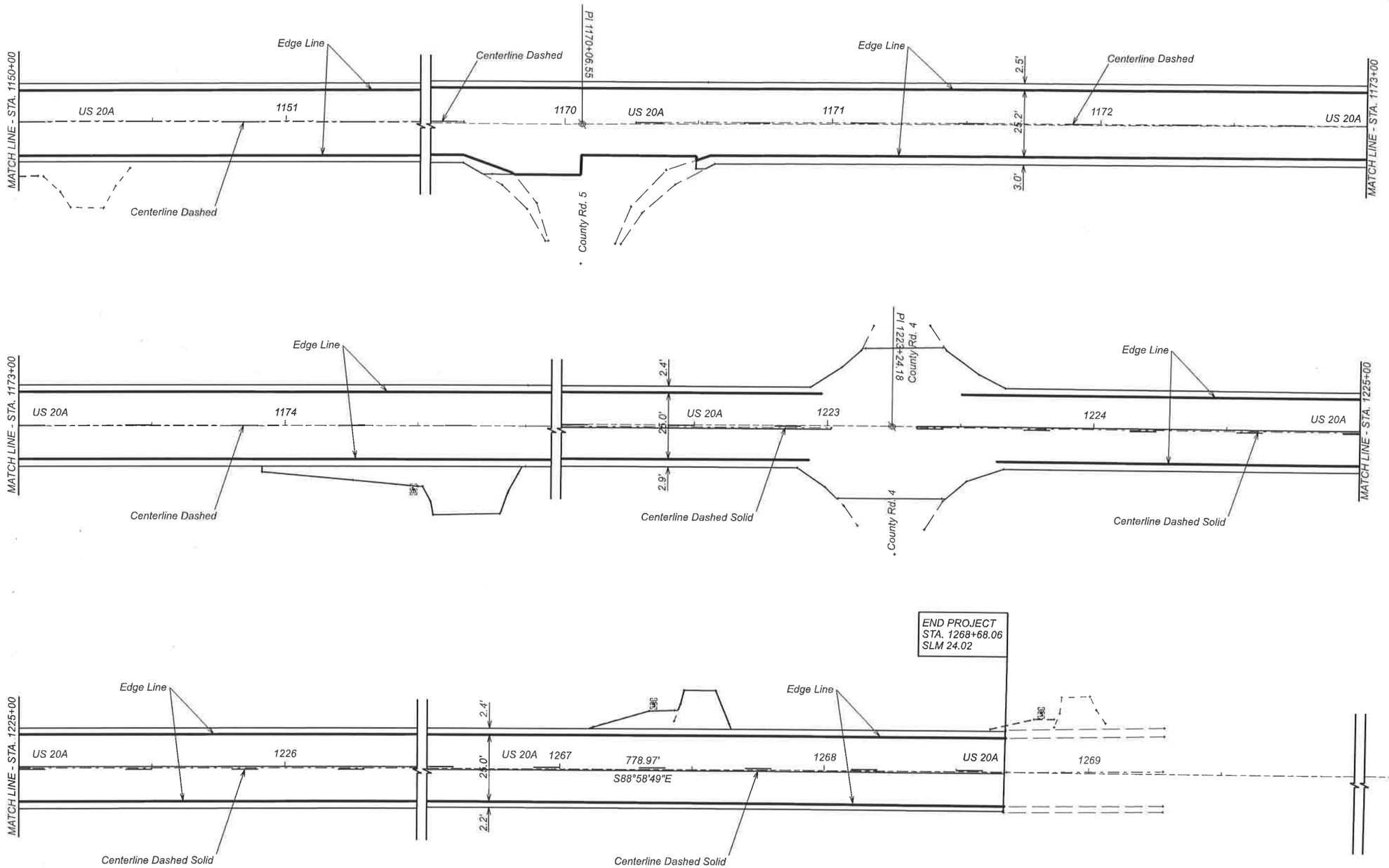

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 1150+00 to STA. 1268+68.06

DESIGN AGENCY

DESIGNER JWZ
REVIEWER JMF MM-DD-YY
PROJECT ID 101295
SHEET 31 TOTAL 36

FUL-20A/109-18.23/5.85

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 11/13/2020 TIME: 1:29:28 PM USER: jziems
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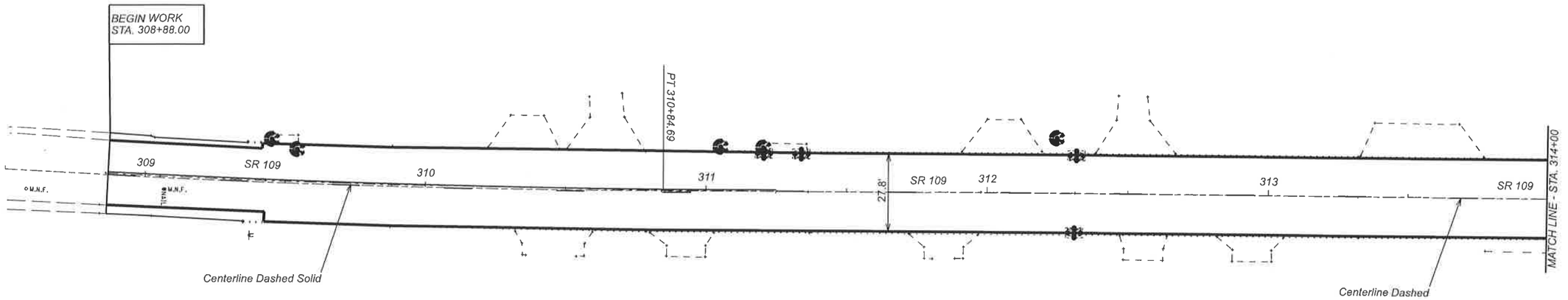

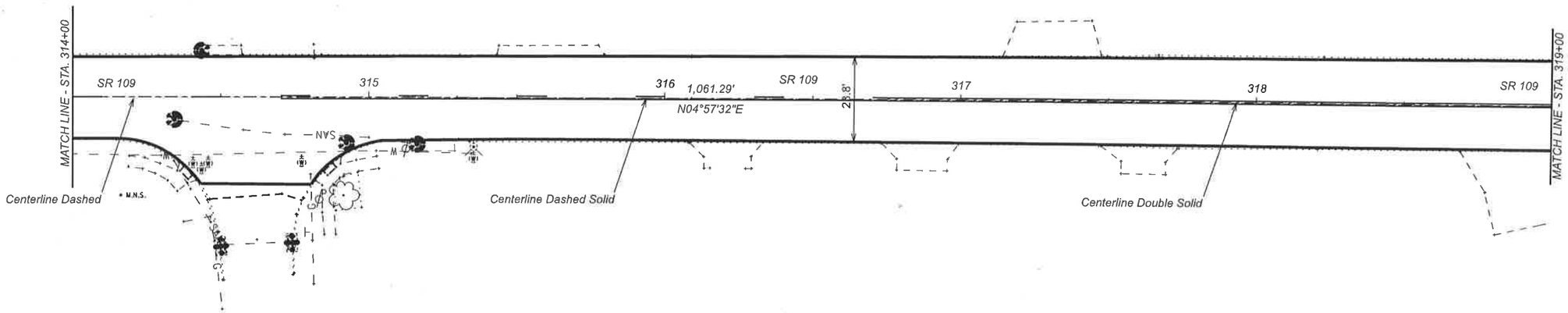

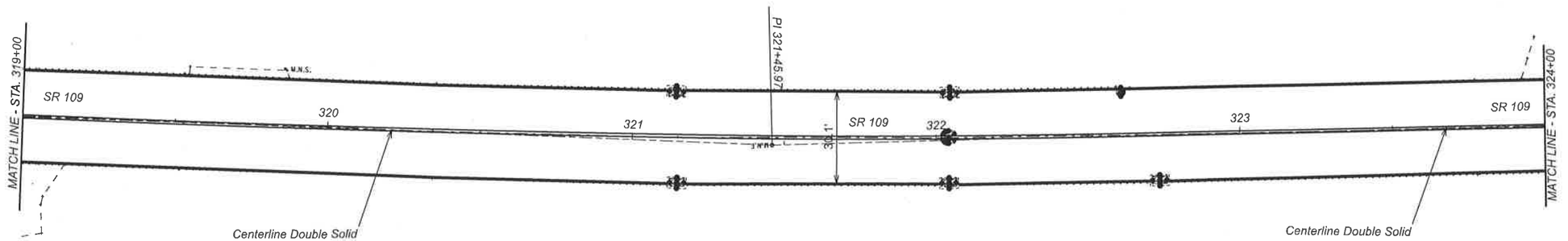

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 308+88.00 TO STA. 324+00

DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 32 TOTAL: 36

FUL-20A/109-18.23/5.85

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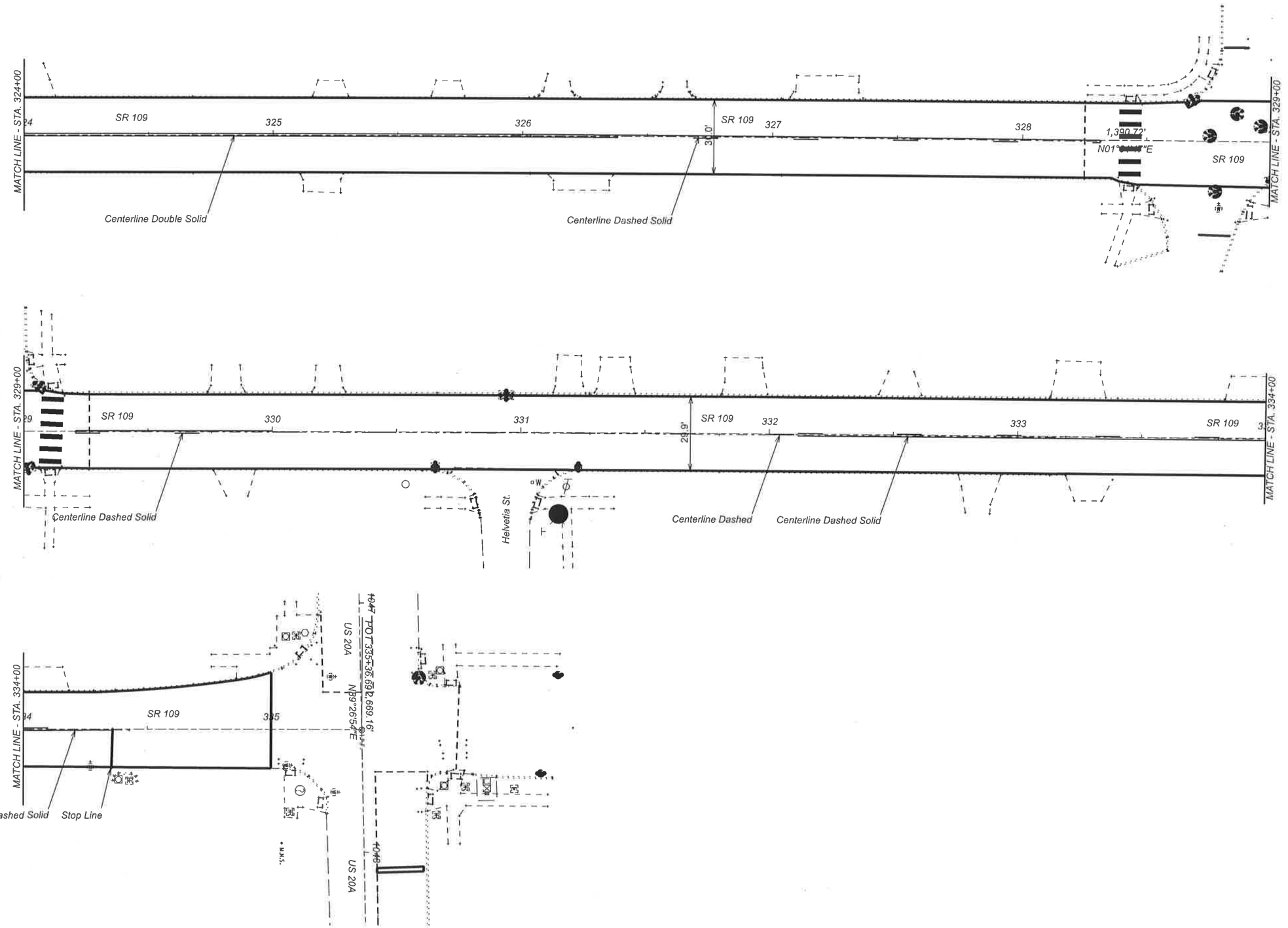

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET
STA. 324+00 to STA. 335+06.44

FUL-20A/109-18.23/5.85

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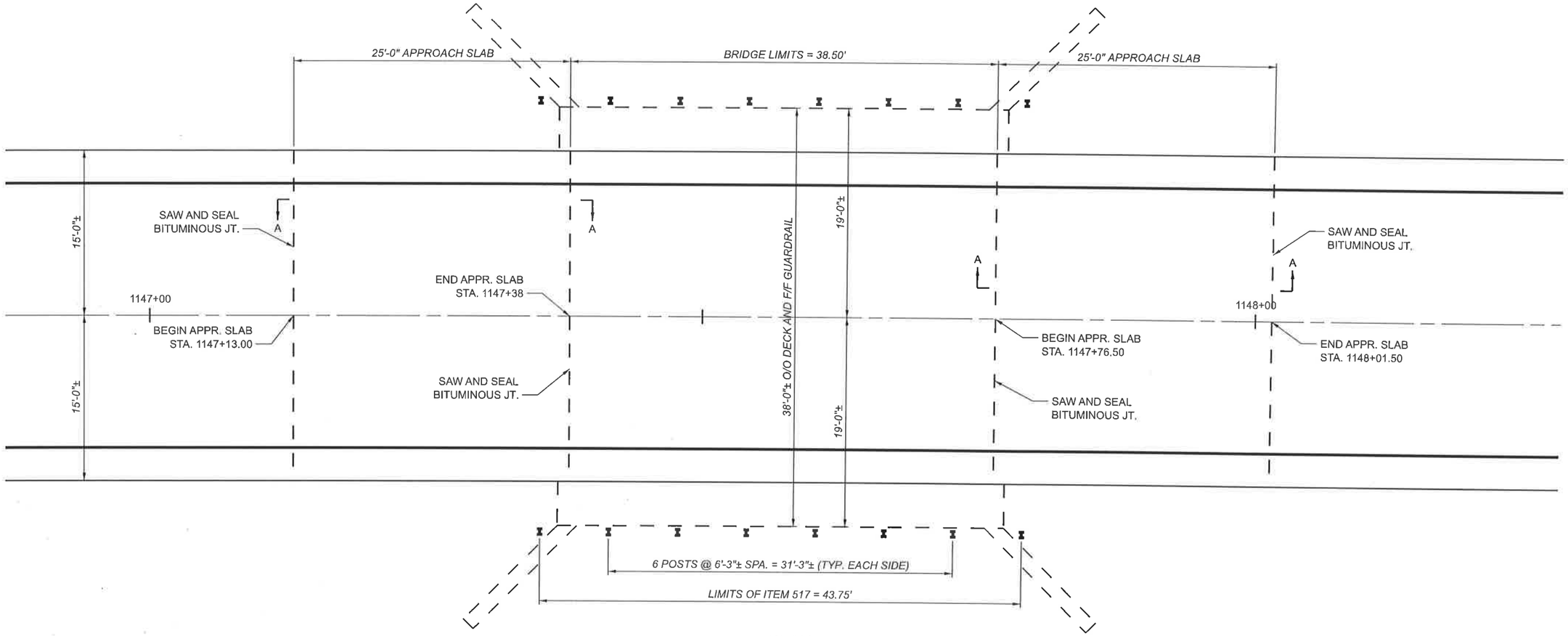
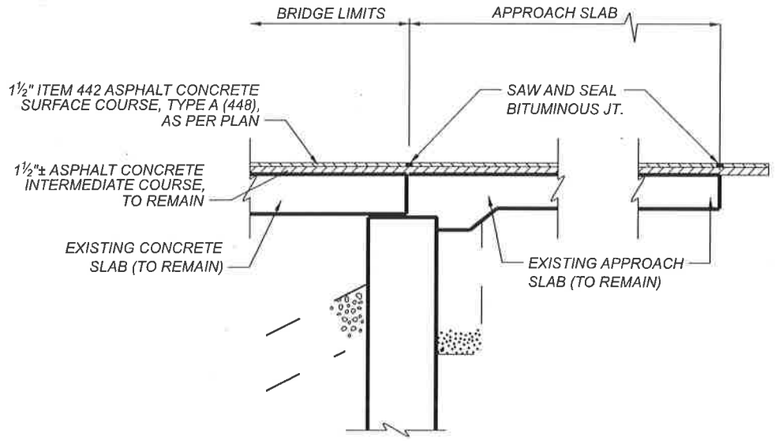
DESIGN AGENCY

DESIGNER: JWZ
REVIEWER: JMF MM-DD-YY
PROJECT ID: 101295
SHEET: 33 TOTAL: 36



PLAN



PROPOSED WORK

1. REMOVE AND REPLACE EXISTING ASPHALT WEARING SURFACE
2. RETROFIT BRIDGE RAILING AS PER SCD DBR-3-11
3. SAW AND SEAL JOINTS

EXISTING STRUCTURE

TYPE: SINGLE SPAN REINFORCED CONCRETE SLAB BRIDGE ON REINFORCED CONCRETE WALL TYPE ABUTMENTS
SPAN: 36'-0" F/F ABUTMENTS
ROADWAY: 38'-0" F/F GUARDRAIL
LOADING: HS20-44
SKEW: NONE
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: 25'-0" LONG (AS-1-72)
ALIGNMENT: TANGENT
CROWN: 0.015625 FT/FT
DECK AREA: 1,463 SF
COORDINATES: LATITUDE N 41°34'26.79"
LONGITUDE W 83°58'06.52"
YEAR BUILT: 1932
YEAR REHABILITATED: 1978

HORIZONTAL SCALE IN FEET
0 0 0 0

SITE PLAN
BRIDGE NO. FUL-20A-2176
US 20A OVER SWAN CREEK

SFN 2600722
DESIGN AGENCY
DESIGNER DJG | CHECKER DJG
REVIEWER XXX MM-DD-YY
PROJECT ID 101295
SUBSET 1 | TOTAL 3
SHEET 34 | TOTAL 36

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ESTIMATED QUANTITIES (03/BRO/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GEN.	SEE SHEET
202	38602	87.5	FT	BRIDGE RAILING REMOVED FOR REUSE		87.5		
254	01000	330	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"		163	167	
SPECIAL	51631200	120	FT	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS			120	3
517	75501	87.5	FT	BRIDGE RAILING REBUILT, AS PER PLAN		87.5		2
517	75601	87.5	FT	DEEP BEAM BRIDGE RETROFIT RAILING, AS PER PLAN		87.5		2

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

DBR-2-73	DATED/REVISED	7-19-02
DBR-3-11	DATED/REVISED	7-15-11

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 513.04.

CONTRACT BID PRICES SHALL BE BASED UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

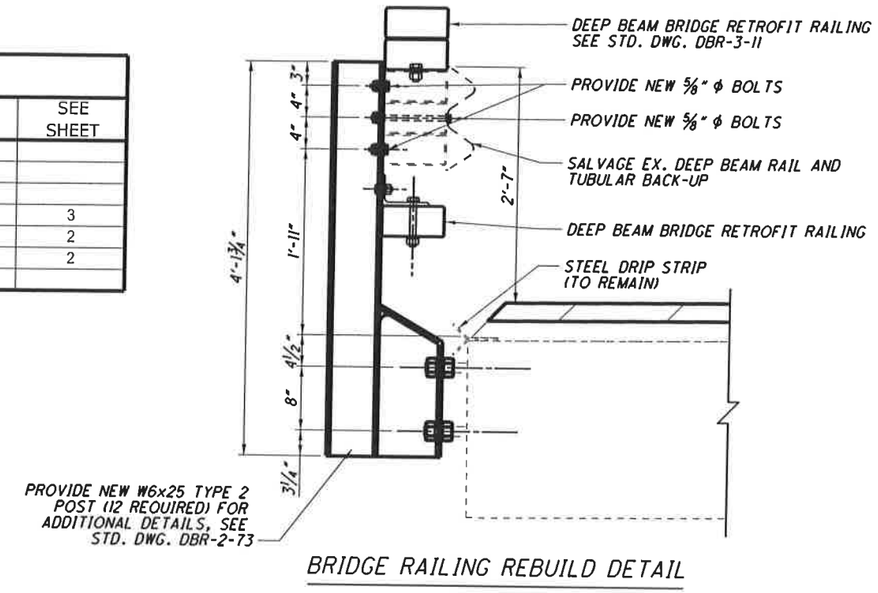
EXISTING BRIDGE PLANS

EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 2 OFFICE AT 317 EAST POE RD., BOWLING GREEN, OHIO.

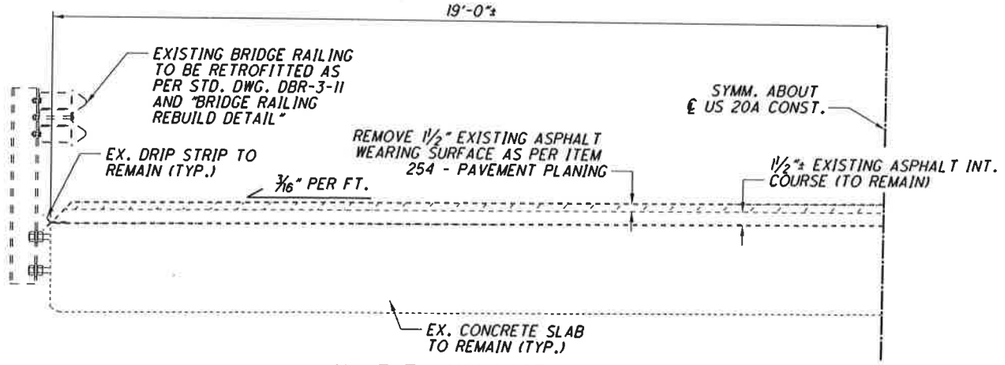
ITEM 517, BRIDGE RAILING REBUILT, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL 12 NEW RAILING POSTS AS SHOWN IN THE PLAN UTILIZING EXISTING BRIDGE BEAM ANCHOR BOLTS, DEEP BEAM RAIL AND STEEL TUBULAR BACKUP. ALL MOUNTING HARDWARE TO INSTALL THE NEW POSTS SHALL BE REPLACED WITH NEW. REBUILT BRIDGE RAILING SHALL CONFORM TO STANDARD DRAWING DBR-2-73. PAYMENT FOR REMOVAL OF OLD POSTS SHALL BE INCLUDED WITH ITEM 202, BRIDGE RAILING REMOVED FOR REUSE.

PAYMENT FOR BRIDGE RAILING REBUILD SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

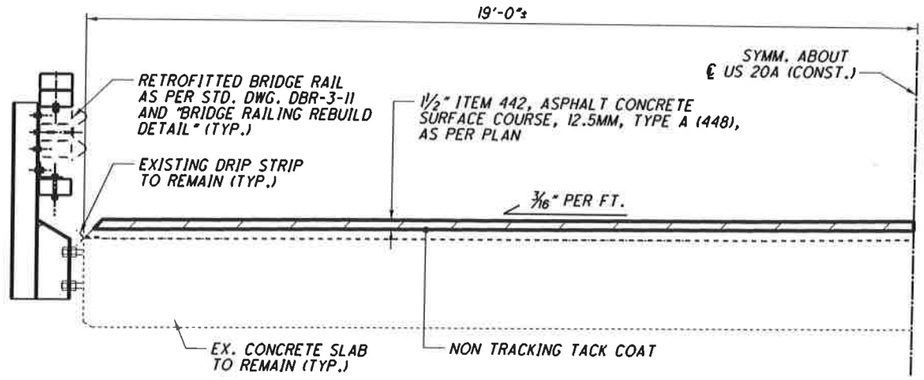


BRIDGE RAILING REBUILD DETAIL



HALF-TRANSVERSE SECTION

(EXISTING)



HALF-TRANSVERSE SECTION

(PROPOSED)

ESTIMATED QUANTITIES AND RAILING DETAILS
BRIDGE NO. FUL-20A-2176
US 20A OVER SWAN CREEK

SFN 2600722
DESIGN AGENCY
DESIGNER DJG | CHECKER DJG
REVIEWER XXX MM-DD-YY
PROJECT ID 101295
SUBSET 2 | TOTAL 3
SHEET 35 | TOTAL 36

FUL-20A/109-18.23/5.85

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ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

1) DESCRIPTION

THIS WORK SHALL CONSIST OF CUTTING AND SEALING TRANSVERSE JOINTS IN THE NEW BITUMINOUS CONCRETE OVERLAY. BITUMINOUS CONCRETE JOINTS SHALL BE CONSTRUCTED DIRECTLY OVER, AND IN LINE WITH, THE EXISTING UNDERLYING TRANSVERSE JOINT OF THE APPROACH SLAB & APPROACH PAVEMENT.

2) MATERIALS:

THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ITEM 705.04, JOINT SEALANTS, HOT-POURED, FOR CONCRETE AND ASPHALT PAVEMENTS. ACCEPTABLE ALTERNATE MATERIALS ARE:

A SILICONE SEALANT MEETING FEDERAL SPECIFICATIONS TT-S-001543A CLASS A (ONE-PART SILICONE SEALANTS) AND TT-S-00230C CLASS A (ONE-COMPONENT SEALANTS), SUCH AS THOSE MANUFACTURED BY GENERAL ELECTRIC, SILICONE PRODUCTS DIVISION, 4015 EXECUTIVE PARK DRIVE, CINCINNATI, OHIO 45242 (513-243-1953) OR DOW CORNING, 400 TECHNE CENTER, SUITE 103, MILFORD, OHIO 45150 (513-831-3586); OR SOF-SEAL, A COLD-APPLIED, LOW-MODULUS, TWO-COMPONENT POLYMERIC COMPOUND HORIZONTAL SEALANT AS MANUFACTURED BY W.R.MEADOWS, INC., P.O. BOX 543, ELGIN, ILLINOIS 60121 (800-342-5976).

3) CONSTRUCTION DETAILS:

A) GENERAL: THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO THAT THE CUTTING, CLEANING AND SEALING OF TRANSVERSE JOINTS IS A CONTINUOUS OPERATION THAT WILL BE PERFORMED AS SOON AS PRACTICAL AFTER THE PAVING, BUT NO LATER THAN FOUR (4) DAYS AFTER PLACEMENT OF THE ASPHALT CONCRETE SURFACE COURSE. TRAFFIC SHALL NOT BE ALLOWED TO KNEAD TOGETHER OR DAMAGE JOINT CUT PRIOR TO SEALING.

B) CUTTING OF TRANSVERSE JOINTS: THE CONTRACTOR SHALL SAW OR ROUT TRANSVERSE JOINTS TO THE DIMENSIONS SHOWN IN THE DETAILS ON THIS SHEET. THE CUT JOINTS SHALL LIE DIRECTLY ABOVE EACH APPROACH SLAB END. THE BLADE OR BLADES SHALL BE OF SUCH SIZE THAT THE FULL WIDTH AND DEPTH OF THE CUT CAN BE MADE WITH ONE PASS. DRY OR WET CUTTING WILL BE ALLOWED. JOINTS SHALL EXTEND THE FULL WIDTH OF BRIDGE.

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS (CONTINUED)

C) CLEANING JOINTS: DRY SAWED JOINTS SHALL BE THOROUGHLY CLEANED WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT, DUST, OR DELETERIOUS MATTER. WET SAWED JOINTS SHALL BE WASHED CLEAN OF ALL CUTTINGS BY FLUSHING WITH A JET OF WATER AND WITH OTHER TOOLS AS NECESSARY. AFTER FLUSHING, THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR . WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 PSI SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST. IN THE EVENT FRESHLY CUT JOINTS BECOME CONTAMINATED BEFORE THEY ARE SEALED, THEY SHALL BE RECLEANED OF ALL FOREIGN MATERIAL BY HIGH PRESSURE WATER JET.

D) SEALING JOINTS: THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE GROOVE.

HOT-POURED JOINT SEALANT MATERIAL SHALL BE HEATED IN A KETTLE OR MELTER CONSTRUCTED AS A DOUBLE BOILER, WITH THE SPACE BETWEEN THE INNER AND OUTER SHELLS FILLED WITH OIL OR OTHER HEAT TRANSFER MEDIUM. POSITIVE TEMPERATURE CONTROL AND MECHANICAL AGITATION SHALL BE PROVIDED. HEATING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. JOINT SEALER MATERIAL SHALL NEVER BE KEPT HEATED AT THE POURING TEMPERATURE FOR MORE THAN FOUR (4) HOURS AND SHALL NEVER BE REHEATED. SEALER LEFT IN THE APPLICATION AT THE END OF A DAY'S WORK SHALL NOT BE USED.

HOT-POURED SEALANT SHALL BE APPLIED IMMEDIATELY THROUGH A NOZZLE, WHICH MUST PROJECT INTO THE SAWED JOINT, FILLING FROM THE BOTTOM UP. THE SEALANT SHALL COMPLETELY FILL THE JOINT IN SUCH A MANNER THAT, AFTER COOLING, THE LEVEL OF THE SEALANT WILL NOT BE HIGHER THAN 1/8" BELOW THE PAVEMENT SURFACE. ANY DEPRESSION IN THE COOLED SEAL GREATER THAN 3/16" SHALL BE BROUGHT UP TO THE SPECIFIED LIMIT BY FURTHER ADDITION OF HOT-POURED SEALANT. CARE SHALL BE TAKEN IN THE SEALING OF THE JOINTS SO THAT THE FINAL APPEARANCE WILL PRESENT A NEAT FINE LINE.

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS (CONTINUED)

THE COLD APPLIED SEALANT MATERIALS (POLYURETHANE, SILICONE, AND POLYMERIC COMPOUNDS) SHALL BE INSTALLED AS PER MANUFACTURERS' RECOMMENDATIONS, EXCEPT AS MODIFIED BY THIS DRAWING. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER THE APPLICATION OF THE SEALANT.

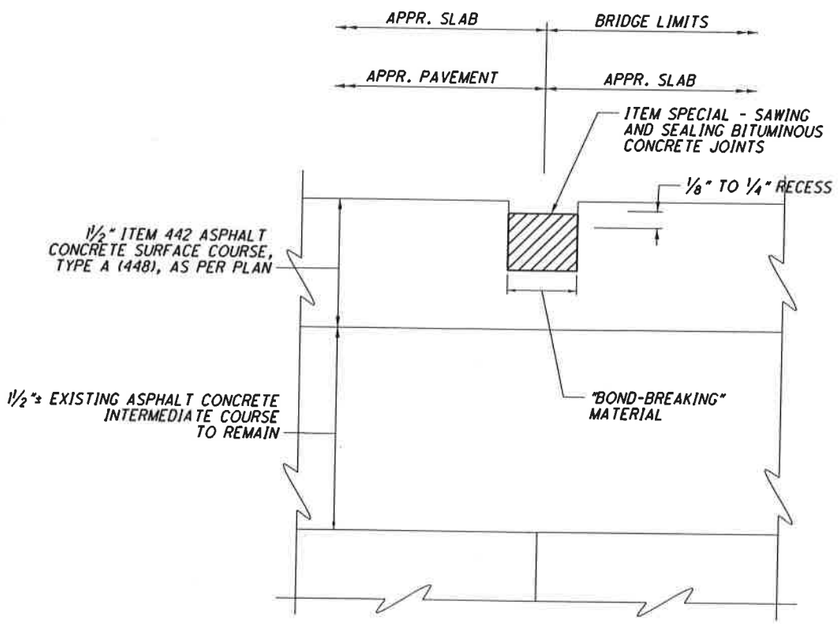
4) METHOD OF MEASUREMENT:

THE QUANTITY TO BE PAID FOR UNDER THIS ITEM WILL BE THE NUMBER OF LINEAR FEET OF JOINTS SAWED AND SEALED AS PER THE ABOVE REQUIREMENTS.

5) BASIS OF PAYMENT:

THE UNIT PRICE PER LINEAR FOOT FOR ITEM SPECIAL - "SAWING AND SEALING BITUMINOUS CONCRETE JOINTS" SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK, INCLUDING THE FURNISHING AND PLACING OF THE JOINT SEALER MATERIAL.

THIS ITEM SHALL MEET THE MATERIAL (SECTION 2) AND SEALING (SECTION 3D) SPECIFICATIONS OF ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS.



SEALING OF JOINTS AT ABUTMENTS AND ENDS OF APPROACH SLABS (APPLIES TO FUL-20A-2176 STRUCTURE)

MISCELLANEOUS DETAILS
BRIDGE NO. FUL-20A-2176
US 20A OVER SWAN CREEK

SFN 2600722
DESIGN AGENCY
DESIGNER DJG | CHECKER DJG
REVIEWER XXX MM-DD-YY
PROJECT ID 101295
SUBSET 3 | TOTAL 3
SHEET 36 | TOTAL 36

FUL-20A/109-18.23/5.85

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