



LOCATION MAP

LATITUDE: 41°29'30" N LONGITUDE: 81°40'20" W



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

DESIGN DESIGNATION

	IR 77
CURRENT ADT (2025)	59000
DESIGN YEAR ADT (2045)	62000
DESIGN HOURLY VOLUME (2045)	5580
DIRECTIONAL DISTRIBUTION	60%
TRUCKS (24 HOUR B&C)	7%
T _D	9%
DESIGN SPEED	55 MPH
LEGAL SPEED	50 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN ARTERIAL INTERSTATE
NHS PROJECT	YES

DESIGN EXCEPTIONS

DESIGN FEATURE:	APPROVAL DATES	SHEET NUMBERS
SHOULDER WIDTH	02-04-25	10-15
SHOULDER WIDTH	02-04-25	16

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES

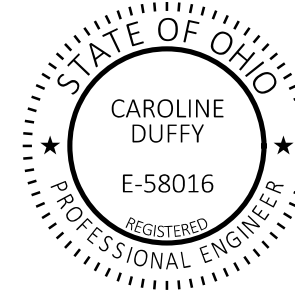
Contact Two Working Days Before You Dig

 **OHIO811.org**
Before You Dig

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


ENGINEER'S SEAL

LIGHTING




ENGINEER'S SEAL

ROADWAY, MOT, DRAINAGE, TRAFFIC CONTROL




ENGINEER'S SEAL

STRUCTURE CUY-77-15.46
STRUCTURE CUY-77-15.75



ENGINEER'S SEAL

STRUCTURE CUY-77-15.62

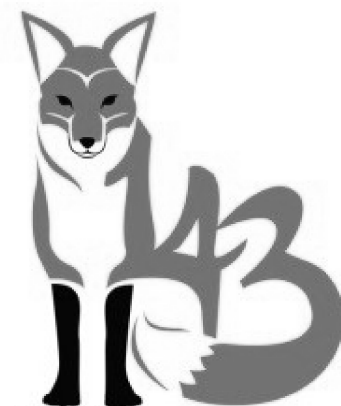


 **RICHLAND ENGINEERING LTD**
A WALLACE PANCHER GROUP COMPANY

29 NORTH PARK STREET
MANSFIELD OHIO 44902
PHONE: (419) 524-0074
www.wallacepancher.com

PLAN PREPARED BY:

 **E.L. ROBINSON**
ENGINEERING

 **143 Engineers**

STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-2.1	1-21-22	MGS-2.1	7-18-25	TC-64.10	7-21-23	MT-101.70	7-19-24	DM-1.1	1-17-25	AS-1-15	1-20-23	800-2023	7-18-25
BP-3.1	1-19-24	MGS-3.1	7-18-25	TC-65.10	1-17-14	MT-101.75	7-21-23	DM-1.2	1-17-25	AS-2-15	7-21-23	807	1-17-25
BP-5.1	7-18-25	MGS-3.2	7-18-25	TC-65.11	1-17-25	MT-101.80	1-17-20	DM-1.3	7-18-14	EXJ-4-87	1-19-24	821	4-20-12
BP-9.1	1-18-19	MGS-4.2	7-18-25	TC-71.10	7-18-25	MT-102.10	7-21-23	DM-4.1	7-17-20	GSD-1-19	7-19-24	825	7-19-24
BP-9.2	1-15-21	MGS-4.3	7-18-25	TC-72.20	7-18-25	MT-102.20	4-19-19	DM-4.3	1-15-16	PCB-91	7-17-20	832	7-18-25
		MGS-6.1	1-19-18	TC-74.10	7-21-23	MT-102.30	10-16-15	DM-4.4	1-15-16	SBR-1-20	7-19-24	836	1-19-24
RM-1.1	1-20-23					MT-103.10	7-18-25			SBR-2-20	7-19-24	850	7-21-23
RM-3.1	7-20-18	TC-15.116	1-19-24	MT-95.30	7-19-19	MT-105.10	1-17-20	HL-40.10	7-19-24			896	7-21-17
RM-4.2	7-18-25	TC-21.11	7-16-21	MT-95.31	7-19-19	MT-110.10	7-19-13	HL-40.20	7-18-25			902	7-19-19
RM-4.3	7-18-25	TC-21.50	1-17-25	MT-95.32	4-19-19			HL-60.11	7-21-17			921	7-19-24
RM-4.4	1-17-25	TC-22.10	1-17-25	MT-95.40	7-21-23	CB-1	7-19-24	HL-60.12	7-21-23				
RM-4.5	7-18-25	TC-22.20	1-17-14	MT-95.41	7-21-23	CB-3	7-19-24	HL-60.21	7-20-18				
RM-4.6	7-18-25	TC-41.20	10-18-13	MT-95.45	7-21-23	CB-3A	7-19-24						
RM-4.7	1-17-25	TC-41.30	4-21-23	MT-95.50	7-21-17	CB-5	7-19-24						
		TC-42.20	10-18-13	MT-98.29	1-17-20								
LA-1.1	10-15-10	TC-52.10	10-18-13	MT-98.30	7-16-21	I-3C1	1-17-25						
		TC-52.20	1-15-21	MT-99.20	4-19-19								
HW-2.1	7-15-22	TC-61.10	4-21-23	MT-99.30	1-17-20	MH-1	7-15-22						
HW-2.2	7-20-18	TC-61.30	7-19-24	MT-99.60	7-19-24	MH-3	7-19-24						
				MT-101.60	1-17-25								

FEDERAL PROJECT NUMBER

E230 (831)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF REPLACEMENT OF DETERIORATED BRIDGE DECKS OVER WOODLAND AVENUE, EAST 22nd STREET, AND EAST 14th STREET IN THE CITY OF CLEVELAND, INCLUDING MINOR APPROACH PAVEMENT, GRADING, LIGHTING, AND TRAFFIC CONTROL.

PROJECT LENGTH = 0.34 MILES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 2.0 ACRES

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.3 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)*

* ROUTINE MAINTENANCE PROJECT

LIMITED ACCESS


THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY, OR FREEWAY, BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

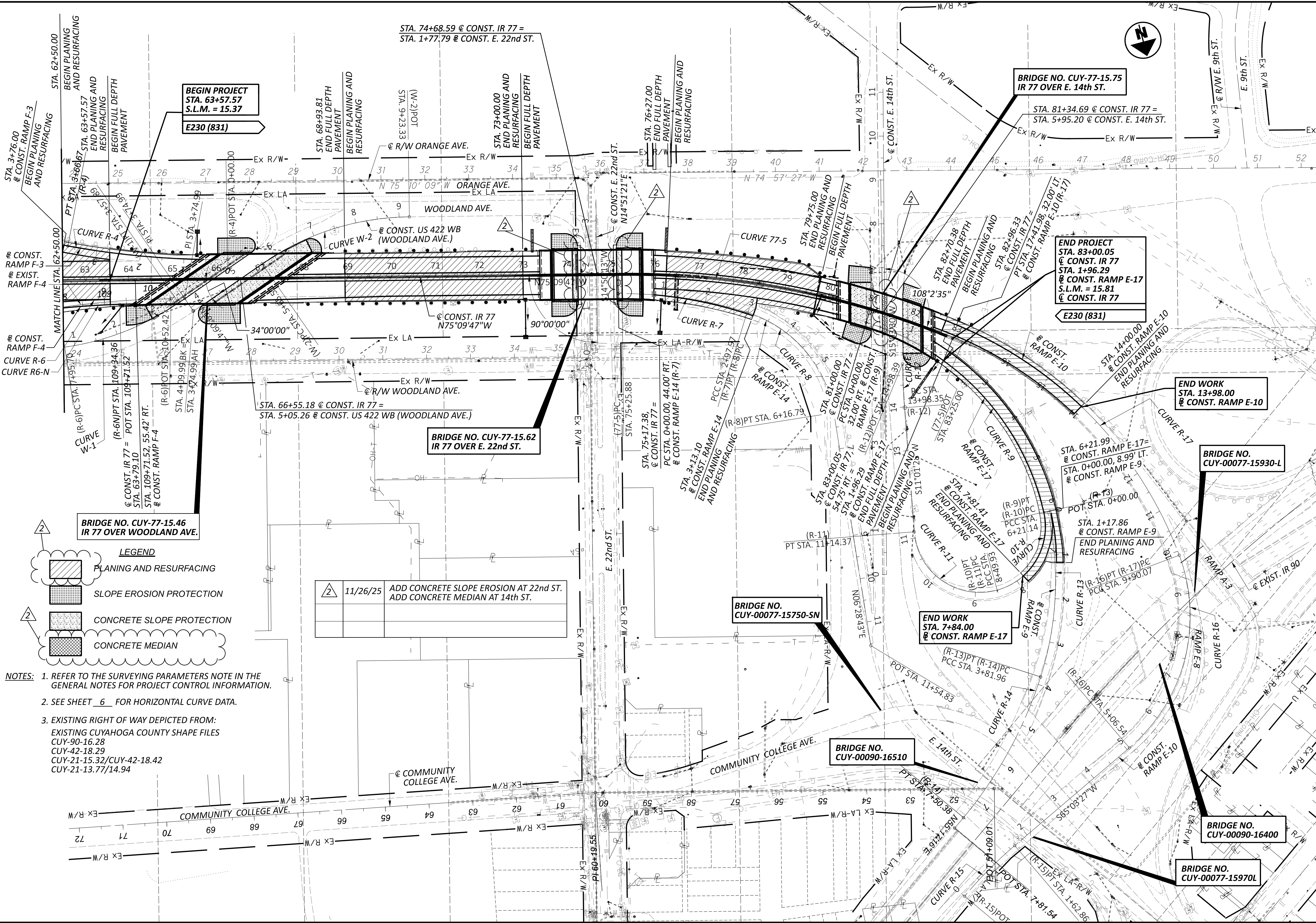
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF IR 77 EXCEPT FOR THE RAMPS AT WOODLAND AVE., E. 22nd ST., AND E. 14th ST. AS DESCRIBED ON SHEETS 94-107 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

2	11/26/25	ADD SCD RM-3.1


John Picuri, P.E., P.S.
District 12 Deputy Director


Pamela Boratyn
Director, Department of Transportation





BRIDGE NO. CUY-77-15.46
IR 77 OVER WOODLAND AVE.

LEGEND

- PLANING AND RESURFACING
- SLOPE EROSION PROTECTION
- CONCRETE SLOPE PROTECTION
- CONCRETE MEDIAN

- NOTES:
1. REFER TO THE SURVEYING PARAMETERS NOTE IN THE GENERAL NOTES FOR PROJECT CONTROL INFORMATION.
 2. SEE SHEET 6 FOR HORIZONTAL CURVE DATA.
 3. EXISTING RIGHT OF WAY DEPICTED FROM:
EXISTING CUYAHOGA COUNTY SHAPE FILES
CUY-90-16.28
CUY-42-18.29
CUY-21-15.32/CUY-42-18.42
CUY-21-13.77/14.94

11/26/25	ADD CONCRETE SLOPE EROSION AT 22nd ST. ADD CONCRETE MEDIAN AT 14th ST.

EXISTING AND PROPOSED DRAINAGE FOR CONSTRUCTION PHASES

DRAINAGE ITEMS MAY EXTEND THROUGH MULTIPLE CONSTRUCTION PHASES. ALL EXISTING AND PROPOSED DRAINAGE ITEMS SHALL BE PROVIDED WITH A POSITIVE OUTLET AT ALL TIMES AS APPROVED BY THE ENGINEER. ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO PROVIDE THESE TEMPORARY OUTLETS UNTIL THE PLAN DELINEATED OUTLET CAN BE CONSTRUCTED SHALL BE INCLUDED WITH ITEM 614, MAINTAINING TRAFFIC, AND NO ADDITIONAL PAYMENTS SHALL BE MADE.

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

- SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF PLAN SUBGRADE ELEVATION.
- EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS SHALL BE AS DIRECTED BY THE ENGINEER. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5 AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).
- COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.
- APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE SHALL BE AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.
- EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.
- FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSTABLE SUBGRADE ARE PAID UNDER ITEM 204 - EXCAVATION OF SUBGRADE.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. INCLUDING PID 82382, PID 107408, PID 105743, AND PID 21788. NO WAIVER OF ANY PROVISIONS OF 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

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.

ITEM 622 - CONCRETE BARRIER SINGLE SLOPE, TYPE D, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TYPE D CONCRETE BARRIER ACCORDING TO THE CMS AND STANDARD CONSTRUCTION DRAWING RM-4.5 WITH THE FOLLOWING MODIFICATIONS:

- PROVIDE A 9" THICK CONCRETE FOUNDATION WITH AN APPROXIMATE WIDTH OF 2.5'.
- ALL COSTS FOR THIS ITEM OF WORK, INCLUDING SAWCUTTING OF EXISTING SHOULDER ASPHALT, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

ITEM 209 - LINEAR GRADING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF GRADING ALONG THE OUTSIDE EDGE OF THE PAVED SHOULDER TO ELIMINATE HIGH SPOTS AND PROVIDE POSITIVE SHEET FLOW OFF THE PAVEMENT AND SHOULDER INTO ROADSIDE DITCHES OR DRAINAGE STRUCTURES. THIS ITEM IS NOT INTENDED TO BE USED TO EXCAVATE A UNIFORM DEPTH TO PLACE ITEM 617 – COMPACTED AGGREGATE, AS PER PLAN. ANY DEBRIS COLLECTED SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 105.16 & 105.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

WHEN THE ABOVE ITEM IS CALLED FOR ON THE PLANS OR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 209, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY EXCEPT AS MODIFIED HEREIN.

THIS WORK SHALL CONSIST OF THE COMPLETE GRADING AND PREPARATION OF AREAS UPON WHICH TOPSOIL AND SEED ARE TO BE PLACED; ALL IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DEPTHS AND LIMITS SHOWN ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER. SEE THE TYPICAL SECTIONS SHOWN ON SHEETS 10-16.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209, LINEAR GRADING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THIS ITEM OF WORK. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 209 - LINEAR GRADING, AS PER PLAN 20 STA

ITEM 209 - RESHAPING UNDER GUARDRAIL, AS PER PLAN

THIS ITEM OF WORK SHALL BE USED TO PREPARE PROPOSED GUARDRAIL RUNS FOR PAVING UNDER GUARDRAIL. FILL ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS AND ANCHOR ASSEMBLIES WITH GRANULAR MATERIAL.

DO NOT USE FILL MATERIAL CONTAINING SOD. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPACTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE IS INCLUDED IN THE APPLICABLE GUARDRAIL ITEM. RESHAPE AND COMPACT SUBGRADE TO ENSURE POSITIVE DRAINAGE. ESTABLISH A CROSS-SLOPE OF 0.042 (HALF INCH PER FOOT). GRADE TO A MAXIMUM WIDTH OF 6' TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE TRAVEL LANES. ALL COLLECTED DEBRIS AND TOPSOIL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 105.17 OF THE CMS. IN AREAS WHERE ASPHALT UNDER GUARDRAIL WILL NOT BE REPLACED, THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO C&MS 703.16 AND PLACED TO GRADE AS APPROVED BY THE ENGINEER. SEED AND MULCH THESE AREAS ACCORDING TO SECTION 659.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE WORK.

TOPSOIL

TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE EXCAVATED OR FILLED. ADDITIONAL MATERIAL REQUIRED TO FILL THE TOPSOIL STRIP AREA IN EMBANKMENT AREAS, TOPSOIL STRIPPING AND ANY STOCKPILING INCLUDING ANY LABOR, EQUIPMENT, AND MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT BID FOR ITEM 203-EXCAVATION OR ITEM 203-EMBANKMENT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (446), AS PER PLAN, PG 76-22M

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM 60% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO ACBFS OR TRAP ROCK FROM ONTARIO. C&MS TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION. WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.2 PERCENT. IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE, APPLY THE BINDER CONTENT REQUIREMENTS OF C&MS 442.

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING ITEM 441 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN. HERBICIDE SHALL BE EPA APPROVED FOR PAVING UNDER GUARDRAIL. IT SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS. EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY. HERBICIDE LABEL, MATERIAL SAFETY DATA SHEET AND COPY OF APPLICATORS LICENSES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION PRIOR TO COMMENCING WORK.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO A DEPTH OF 3" AND A MAXIMUM WIDTH OF 4' USING ONE OF THE FOLLOWING METHODS:

METHOD A:

- SET GUARDRAIL POSTS
- PLACE ITEM 441

METHOD B:

- PLACE ITEM 441
- BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
- SET GUARDRAIL POSTS
- PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1,(449), (UNDER GUARDRAIL), AS PER PLAN.

ITEM 611 - INLET ADJUSTED TO GRADE, AS PER PLAN

THIS ITEM IS INTENDED FOR THE REHABILITATION OF THE DRAINAGE STRUCTURE (AG-6) LOCATED ON EAST 14th STREET AT THE REAR LEFT QUADRANT OF THE BRIDGE.

ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED WITH ITEM 611 - INLET ADJUSTED TO GRADE, AS PER PLAN FOR PAYMENT.

ITEM 611 - MANHOLE, NO. 3, AS PER PLAN A

THIS ITEM SHALL BE AS PER CMS 611 AND STANDARD DRAWING MH-3, EXCEPT THAT A SUMP AND TRAP SHALL BE INSTALLED AS SHOWN IN THE DETAIL ON SHEET 179. THE MANHOLE IS LOCATED AT STA. 63+35, 119.45' RT.

ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED WITH ITEM 611 - MANHOLE, NO. 3, AS PER PLAN A FOR PAYMENT.

ITEM 253 - PAVEMENT REPAIR

WITHIN THE LIMITS OF THE RESURFACING FOR IR 77, PROVIDE THE FOLLOWING QUANTITY OF ITEM 253 - PAVEMENT REPAIR FOR REPAIR OF UNSOUND EXISTING ASPHALT. THE PAVEMENT REPAIR SHALL TAKE PLACE AFTER PLANING OPERATIONS. THIS ITEM SHALL CONFORM TO ALL REQUIREMENTS OF CMS ITEM 253 - PAVEMENT REPAIR. USE REPLACEMENT MATERIALS CONFORMING TO THE REQUIREMENTS OF ITEM 301. DEPTH OF THE REPAIR SHALL BE TO THE TOP OF THE EXISTING CONCRETE PAVEMENT.

ITEM 253 - PAVEMENT REPAIR 100 CY

ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 253 - PAVEMENT REPAIR.

ITEM 622 – BARRIER TRANSITION, AS PER PLAN

THIS ITEM SHALL APPLY TO THE MEDIAN BARRIER LOCATED ALONG THE FORWARD APPROACH OF BRIDGE NO. CUY-77-15.75 (IR 77 OVER E. 14TH STREET). THE MEDIAN BARRIER SHALL TRANSITION FROM THE REINFORCED END ANCHORAGE (STATION 82+67.51) TO THE CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION (STATION 82+85.97 REAR CONSTRUCTION JOINT). THE REINFORCED END ANCHORAGE IS AS SHOWN ON SHEET 187. THE CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION FACE IS AS SHOWN ON THE EXISTING PLAN DETAILS PROVIDED ON SHEET 188 IN THIS PLAN SET. ADDITIONAL DETAILS AND NOTES CAN BE FOUND ON THE PLAN INSERT SHEET DEPICTING THE NEW JERSEY SHAPE TO SINGLE SLOPE BARRIER TRANSITION (SEE SHEET 186).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 622 – BARRIER TRANSITION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO CONSTRUCT THIS BARRIER TRANSITION.

ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN A

THIS ITEM SHALL BE PER CMS 601 AND SHALL INCLUDE MINOR GRADING REQUIRED TO MATCH INTO THE EXISTING SLOPES. THIS WORK SHALL INCLUDE REESTABLISHING THE EXISTING GRADING ON THE EXISTING SLOPES. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF C&MS 203.02R. THE CONTRACTOR SHALL RESTORE, TO THE SATISFACTION OF THE ENGINEER, ANY DISTURBED AREAS CAUSED BY CONSTRUCTION OF THIS ITEM AT NO ADDITIONAL COST TO THE PROJECT.

ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED WITH ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN A FOR PAYMENT.

ITEM 670 - SLOPE EROSION PROTECTION, AS PER PLAN

THIS ITEM SHALL BE PER CMS 670 AND SHALL INCLUDE MINOR GRADING REQUIRED TO MATCH INTO THE EXISTING SLOPES. THIS WORK SHALL INCLUDE REESTABLISHING THE EXISTING GRADING ON THE EXISTING SLOPES. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF C&MS 203.02R. THE CONTRACTOR SHALL RESTORE, TO THE SATISFACTION OF THE ENGINEER, ANY DISTURBED AREAS CAUSED BY CONSTRUCTION OF THIS ITEM AT NO ADDITIONAL COST TO THE PROJECT.

ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED WITH ITEM 670 - SLOPE EROSION PROTECTION, AS PER PLAN FOR PAYMENT.

PROFILE AND ALIGNMENT

THE INTENT OF THE PROPOSED PAVEMENT RESURFACING IS TO UTILIZE THE APPROXIMATE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT UNLESS OTHERWISE DETAILED IN THE PLANS. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL HAVE A MINIMUM THICKNESS OF 1 1/2 INCHES AS SHOWN ON THE TYPICAL SECTIONS.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK CONSISTS OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. DISPOSE OF ALL MATERIAL PER C&MS 105.16 AND 105.17. CLEAN OUT TO THE APPROVAL OF THE ENGINEER.

CLEANOUT OF THE PIPE IS PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE INCLUDES THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL - PIPE CLEANOUT, 24" AND UNDER 200 FT

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

THIS ITEM SHALL BE USED TO EXCAVATE EXISTING BERM MATERIAL AND PLACE COMPACTED AGGREGATE AT A VARIABLE DEPTH TO FILL IN LOW SPOTS AND ELIMINATE DROP OFFS ALONG SHOULDERS. MATERIAL SHALL BE LIMITED TO RECLAIMED ASPHALT PAVEMENT (RAP). THE ACTUAL DEPTH OF EXCAVATED AND COMPACTED AGGREGATE PLACED WILL VARY DEPENDING UPON EXISTING CONDITIONS. FOR ESTIMATING PURPOSES, AN AVERAGE DEPTH OF THREE INCHES (3") AT A FOUR FOOT WIDTH HAS BEEN USED. WATER, IF NEEDED, SHALL BE APPLIED ACCORDING TO C&MS 617.05 AND SHALL BE INCLUDED WITH ITEM 617 – COMPACTED AGGREGATE, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN 100 CY

2	11/26/25	ADD A MODIFICATION TO CONCRETE SLOPE PROTECTION, AS PER PLAN

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

SHEET

P.19

TOTAL

365

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659 - SOIL ANALYSIS TEST	<u>2</u>	EACH
ITEM 659 - TOPSOIL	<u>688</u>	CY
ITEM 659 - SEEDING AND MULCHING	<u>6196</u>	SY
ITEM 659 - REPAIR SEEDING AND MULCHING	<u>310</u>	SY
ITEM 659 - INTER-SEEDING	<u>310</u>	SY
ITEM 659 - COMMERCIAL FERTILIZER	<u>0.84</u>	TON
ITEM 659 - LIME	<u>1.28</u>	ACRES
ITEM 659 - WATER	<u>35</u>	MGAL

APPLY SEEDING AND MULCHING TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 832 - EROSION CONTROL

THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS EROSION CONTROL SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL ITEMS SHALL BE AS PER ODOT SUPPLEMENTAL SPECIFICATION 832.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 14 DAYS SHOULD BE STABILIZED WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITH CONSTRUCTION SEEDING AND MULCHING, EROSION CONTROL MATTING, OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 832 - EROSION CONTROL	<u>100000</u>	EACH
----------------------------	---------------	------

ITEM 209 - DITCH CLEANOUT, AS PER PLAN

THIS WORK SHALL CONSIST OF REESTABLISHING THE CROSS SECTION ON AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF C&MS 203.02R EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED. ALSO INCLUDED IN THIS ITEM SHALL BE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO SEED AND MULCH THE CLEANED OUT DITCH AS PER CMS ITEM 659 - SEEDING AND MULCHING AND ITEM 670 - DITCH EROSION PROTECTION UNLESS OTHER PERMANENT EROSION CONTROL MEASURES HAVE BEEN PROVIDED IN THE PLANS. THE CONTRACTOR SHALL RESTORE, TO THE SATISFACTION OF THE ENGINEER, ANY DISTURBED AREAS CAUSED BY CONSTRUCTION OF THIS ITEM AT NO ADDITIONAL COST TO THE PROJECT.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE FEET MEASURED ALONG THE CENTERLINE OF THE DITCH.


PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 209 - DITCH CLEANOUT, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 209 - DITCH CLEANOUT, AS PER PLAN	<u>300</u>	FT
--	------------	----

ITEM 611 - CONDUIT BORED OR JACKED (6", TYPE B)

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION IS PERMITTED WITHIN 3.5 FEET OF THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06. JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4b WELD THAT IS PERFORMED BY A CERTIFIED WELDER FOR WELDING CODE AMERICAN WELDING SOCIETY (AWS) D1. 1 OR MACHINED INTERLOCKING JOINTS ARE PERMITTED. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

	11/26/25	INCREASE PERMITTED AMOUNT, REARRANGE NOTES, ADD ITEM 611, 202, 609, 601 NOTES

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, AS PER PLAN, NO. 1

THIS ITEM SHALL INCLUDE THE REMOVAL AND REERECTION OF THE EXTRUSHEET SIGN LOCATED ALONG RAMP E-17 AT STATION 2+17 LT. INCLUDED WITH THE REMOVAL AND REERECTION OF THE SIGN IS THE SIGN POST, THE SOLAR PANEL, THE FLASHING LIGHTS, THE TRANSFORMER BASE, THE CONTROL BOX AND ANY OTHER ITEMS ATTACHED TO THE SIGN UNIT. ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED WITH ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, AS PER PLAN, NO. 1 FOR PAYMENT.

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, AS PER PLAN, NO. 2

THIS ITEM SHALL INCLUDE THE REMOVAL AND REERECTION OF THE FLAT SHEET SIGN LOCATED ALONG RAMP E-17 AT STATION 3+20 LT. INCLUDED WITH THE REMOVAL AND REERECTION OF THE SIGN IS THE SIGN POST, THE SOLAR PANEL, THE LED LIGHTS, THE TRANSFORMER BASE, THE CONTROL BOX AND ANY OTHER ITEMS ATTACHED TO THE SIGN UNIT. ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED WITH ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, AS PER PLAN, NO. 2 FOR PAYMENT.

ITEM 607 - FENCE, MISC.: REMOVE AND REERECT

THIS ITEM SHALL BE PER CMS 607. THE FENCE SHALL BE REMOVED DURING CONSTRUCTION AND REERECTED IN THE EXISTING LOCATIONS.

ALL COSTS INCLUDING LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED WITH ITEM 607 - FENCE, MISC.: REMOVE AND REERECT FOR PAYMENT.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

PERMITS

IN THE CITY OF CLEVELAND, ALL STREET PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. PERMITS INCLUDE BUT ARE NOT LIMITED TO STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT AND/OR SIDEWALK PERMIT AND MAY BE OBTAINED THROUGH THE FOLLOWING:

https://clevelandohio.gov/sites/default/files/forms_publications/StreetOpeningSidewalkObstructionApp.pdf

DIVISION OF ASSESSMENTS AND LICENSES
601 LAKESIDE AVENUE, ROOM 122
CLEVELAND, OHIO 44114
PHONE: (216) 664-2174
E-MAIL: DALpermits@city.cleveland.oh.us

ALL STREET OPENING REPAIRS, CURB REPAIRS, AND/OR SIDEWALK REPAIRS EITHER INCIDENTAL TO THE PROJECT OR PART OF THE PROJECT MUST BE PERFORMED IN ACCORDANCE TO CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED FROM THE DIVISION OF ENGINEERING AND CONSTRUCTION BY CALLING 216-664-2381.

ALL PERMITS, FEES, AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR PERTINENT WORK ITEMS. FOR BIDDING PURPOSE, FEES AND CHARGES MAY BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES AT 216-664-2174.

THE CITY OF CLEVELAND HAS STATED THAT AN OBSTRUCTION PERMIT WILL BE REQUIRED FOR THIS PROJECT. THE OBSTRUCTION WILL INCLUDE DETOURING AND CLOSURES ALONG THE SIDEROADS, INSTALLATIONS OVERHEAD, AND WILL BE PERMITTED AT A \$100 PER MONTH BASIS.

ENVIRONMENTAL COMMITMENTS

- ENDANGERED BAT HABITAT REMOVAL
ENSURE IMPACTS TO THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT AND THE STATE LISTED AND PROTECTED LITTLE BROWN BAT AND TRICOLORED BAT ARE AVOIDED AND MINIMIZED. DO NOT REMOVE TREES FROM APRIL 1 THROUGH SEPTEMBER 30. PERFORM ALL NECESSARY TREE REMOVAL FROM OCTOBER 1 THROUGH MARCH 31. DEMARCATÉ CLEARING LIMITS IN THE FIELD TO AVOID ANY UNAUTHORIZED TREE CLEARING. FOR THE PURPOSES OF THIS NOTES, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 INCH DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

THIS ITEM SHALL BE PER CMS 202 AND INCLUDES THE REMOVAL OF THE EXISTING MEDIAN AT THE PIER COLUMNS REQUIRED TO INSTALL THE COMPOSITE FIBER WRAP SYSTEM. THIS ITEM APPLIES TO THE COLUMNS AT PIER 2 OF BRIDGE NO. CUY-77-15.75 (IR 77 OVER E. 14TH STREET).

THE REMOVAL LIMITS SHALL BE AS FOLLOWS: LONGITUDINALLY TO 3 FT OUTSIDE OF THE END COLUMNS (FOR A TOTAL LENGTH OF 95.5 FT) AND TRANSVERSELY TO THE BACK OF CURB (FOR A TOTAL WIDTH OF 11 FT).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN AND SHALL INCLUDE AL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK.

THE EXCAVATION LIMITS SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION. THE LIMITS OF EXCAVATION SHALL BE 3 FT AROUND THE EXISTING COLUMNS (9 FT DIAMETER CENTERED ON THE EXISTING COLUMNS) AND SHALL EXTEND FROM THE BOTTOM OF THE CONCRETE SLOPE PROTECTION/CONCRETE WALK TO THE TOP OF THE PIER FOOTING (APPROXIMATE 3 FT DEPTH).

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN	<u>115</u>	SY
---	------------	----

ITEM 609 - CONCRETE MEDIAN, AS PER PLAN

THIS ITEM SHALL BE PER CMS 609 AND INCLUDES THE INSTALLATION OF THE CONCRETE MEDIAN AT THE PIER COLUMNS REQUIRED TO INSTALL THE COMPOSITE FIBER WRAP SYSTEM; AND THE INSTALLATION OF THE 1" PREFORMED EXPANSION JOINT FILLER THAT SHALL BE PLACED BETWEEN THE CONCRETE SLOPE PROTECTION AND THE PIER COLUMNS PER CMS 516; AND THE 4"AGGREGATE BASE PER CMS 304. THIS ITEM APPLIES TO THE COLUMNS AT PIER 2 OF BRIDGE NO. CUY-77-15.75 (IR 77 OVER E. 14TH STREET). THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE OF THE CONCRETE MEDIAN.

THE LIMITS OF THE PROPOSED CONCRETE MEDIAN SHALL BE AS FOLLOWS: LONGITUDINALLY TO 3 FT OUTSIDE OF THE END COLUMNS (FOR A TOTAL LENGTH OF 95.5 FT) AND TRANSVERSELY TO THE BACK OF CURB (FOR A TOTAL WIDTH OF 11 FT).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 609 - CONCRETE MEDIAN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK.

THE EMBANKMENT REQUIRED TO FILL THE EXCAVATED AREA FROM THE TOP OF PIER FOOTING TO THE BOTTOM OF THE SUBBASE SHALL BE PER CMS 503. THE LIMITS OF EMBANKMENT SHALL BE 3 FT AROUND THE EXISTING COLUMNS (9 FT DIAMETER CENTERED ON THE EXISTING COLUMNS) AND SHALL EXTEND FROM THE BOTTOM OF THE SUBBASE TO THE TOP OF THE PIER FOOTING (APPROXIMATE 2.5 FT DEPTH).

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 203 - EMBANKMENT	<u>35</u>	CY
ITEM 609 - CONCRETE MEDIAN, AS PER PLAN	<u>115</u>	SY

ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED, AS PER PLAN

THIS ITEM SHALL BE PER CMS 202 AND INCLUDES THE REMOVAL OF THE EXISTING CONCRETE SLOPE PROTECTION AT THE PIER COLUMNS REQUIRED TO INSTALL THE COMPOSITE FIBER WRAP SYSTEM. THIS ITEM APPLIES TO THE COLUMNS AT PIERS 1 & 2 OF BRIDGE NO. CUY-77-15.62 (IR 77 OVER E. 22ND STREET).

THE CONCRETE SLOPE PROTECTION REMOVAL LIMITS SHALL BE AS FOLLOWS: LONGITUDINALLY TO 3 FT OUTSIDE OF THE END COLUMNS (FOR A TOTAL LENGTH OF 118.5 FT ALONG EACH PIER) AND TRANSVERSELY TO THE EXISTING JOINTS LOCATED APPROXIMATELY 12 FT FROM THE BACK OF WALKS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK.

THE EXCAVATION LIMITS SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION. THE LIMITS OF EXCAVATION SHALL BE 3 FT AROUND THE EXISTING COLUMNS (9 FT DIAMETER CENTERED ON THE EXISTING COLUMNS) AND SHALL EXTEND FROM THE BOTTOM OF THE CONCRETE SLOPE PROTECTION/CONCRETE WALK TO THE TOP OF THE PIER FOOTING (APPROXIMATE 2 FT DEPTH).

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED, AS PER PLAN	<u>305</u>	SY
---	------------	----

ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN B

THIS ITEM SHALL BE PER CMS 601 AND INCLUDES THE INSTALLATION OF CONCRETE SLOPE PROTECTION AT THE PIER COLUMNS REQUIRED TO INSTALL THE COMPOSITE FIBER WRAP SYSTEM; AND THE INSTALLATION OF THE 1" PREFORMED EXPANSION JOINT FILLER THAT SHALL BE PLACED BETWEEN THE CONCRETE SLOPE PROTECTION AND THE PIER COLUMNS PER CMS 516. THIS ITEM APPLIES TO THE COLUMNS AT PIERS 1 & 2 OF BRIDGE NO. CUY-77-15.62 (IR 77 OVER E. 22ND STREET). THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE OF THE CONCRETE SLOPE PROTECTION.

THE LIMITS OF THE PROPOSED CONCRETE SLOPE PROTECTION SHALL BE AS FOLLOWS: LONGITUDINALLY TO 3 FT OUTSIDE OF THE END COLUMNS (FOR A TOTAL LENGTH OF 118.5 FT ALONG EACH PIER) AND TRANSVERSELY TO THE EXISTING JOINTS LOCATED APPROXIMATELY 12 FT FROM THE BACK OF WALKS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN B AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK.

THE EMBANKMENT REQUIRED TO FILL THE EXCAVATED AREA FROM THE TOP OF PIER FOOTING TO THE BOTTOM OF THE CONCRETE SLOPE PROTECTION SHALL BE PER CMS 503. THE LIMITS OF EMBANKMENT SHALL BE 3 FT AROUND THE EXISTING COLUMNS (9 FT DIAMETER CENTERED ON THE EXISTING COLUMNS) AND SHALL EXTEND FROM THE BOTTOM OF THE CONCRETE SLOPE PROTECTION/CONCRETE WALK TO THE TOP OF THE PIER FOOTING (APPROXIMATE 2 FT DEPTH).

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 203 - EMBANKMENT	<u>70</u>	CY
ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN B	<u>305</u>	SY

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

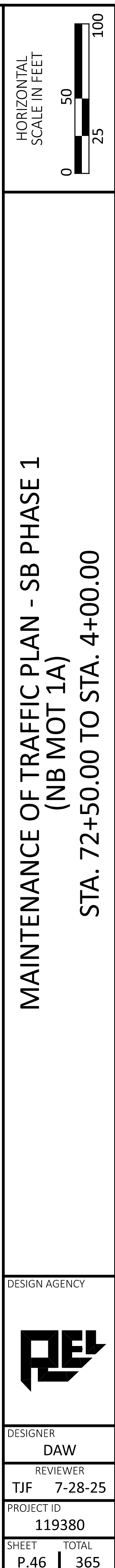
SHEET

P.21


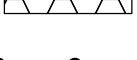







TOTAL


365

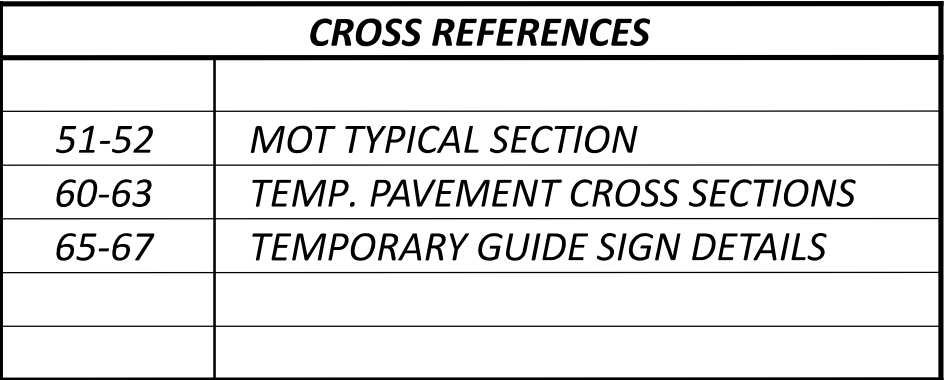
<div style="text-align: center;"> <h1>MAINTENANCE OF TRAFFIC SUBSUMMARY</h1> </div>	
DESIGNER AGENCY	
	
DESIGNER	
TJF	
REVIEWER	
RJM	7-28-25
PROJECT ID	
119380	
SHEET	
P.35	TOTAL
	365



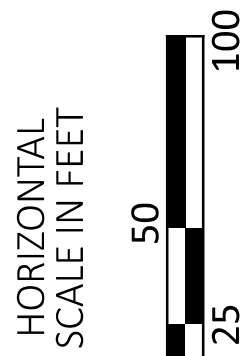
<div> <div></div> <div>CROSS REFERENCES</div> </div>	
39-40	MOT TYPICAL SECTION
49-50	TEMPORARY GUIDE SIGN DETAILS

	PHASE 1 CONSTRUCTION
	TEMPORARY PAVEMENT (FOR NORTHBOUND PHASE 1)
• • •	DRUMS
	TYPE III BARRICADE
	PORTABLE BARRIER
	REMOVE EXISTING MARKINGS
	IMPACT ATTENUATOR
	TRAFFIC DIRECTION
	WORK ZONE RAISED PAVEMENT MARKER
	TEMPORARY MEDIAN BARRIER TRANSITION (TO REMAIN UNTIL NB PHASE 2)

	11/26/25	MOVE TEMPORARY MANHOLE



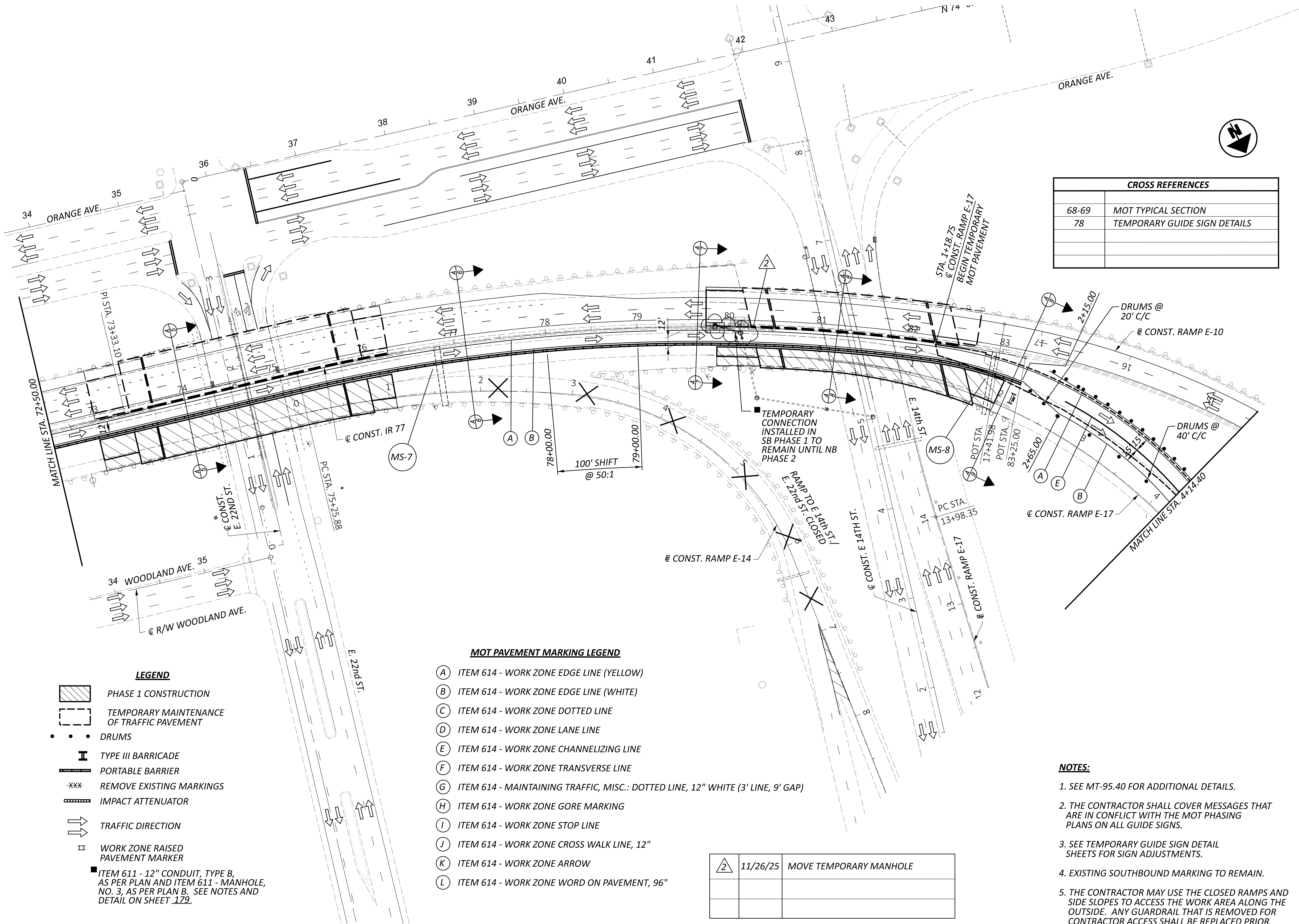
MAINTENANCE OF TRAFFIC PLAN - SB PHASE 2
(NB MOT 1B)
STA. 72+50.00 TO STA. 4+00.00



DESIGN AGENCY



DESIGNER	
DAW	
REVIEWER	
TJF	7-28-25
PROJECT ID	
119380	
SHEET	TOTAL
P.58	365



- LEGEND**
- PHASE 1 CONSTRUCTION
 - TEMPORARY MAINTENANCE OF TRAFFIC PAVEMENT
 - DRUMS
 - TYPE III BARRICADE
 - PORTABLE BARRIER
 - *** REMOVE EXISTING MARKINGS
 - IMPACT ATTENUATOR
 - TRAFFIC DIRECTION
 - WORK ZONE RAISED PAVEMENT MARKER
 - ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN AND ITEM 611 - MANHOLE, NO. 3, AS PER PLAN B. SEE NOTES AND DETAIL ON SHEET 179.

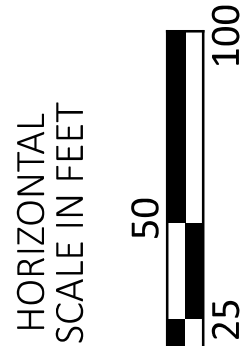
- MOT PAVEMENT MARKING LEGEND**
- (A) ITEM 614 - WORK ZONE EDGE LINE (YELLOW)
 - (B) ITEM 614 - WORK ZONE EDGE LINE (WHITE)
 - (C) ITEM 614 - WORK ZONE DOTTED LINE
 - (D) ITEM 614 - WORK ZONE LANE LINE
 - (E) ITEM 614 - WORK ZONE CHANNELIZING LINE
 - (F) ITEM 614 - WORK ZONE TRANSVERSE LINE
 - (G) ITEM 614 - MAINTAINING TRAFFIC, MISC.: DOTTED LINE, 12" WHITE (3' LINE, 9' GAP)
 - (H) ITEM 614 - WORK ZONE GORE MARKING
 - (I) ITEM 614 - WORK ZONE STOP LINE
 - (J) ITEM 614 - WORK ZONE CROSS WALK LINE, 12"
 - (K) ITEM 614 - WORK ZONE ARROW
 - (L) ITEM 614 - WORK ZONE WORD ON PAVEMENT, 96"

2	11/26/25	MOVE TEMPORARY MANHOLE

- NOTES:**
- SEE MT-95.40 FOR ADDITIONAL DETAILS.
 - THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.
 - SEE TEMPORARY GUIDE SIGN DETAIL SHEETS FOR SIGN ADJUSTMENTS.
 - EXISTING SOUTHBOUND MARKING TO REMAIN.
 - THE CONTRACTOR MAY USE THE CLOSED RAMPS AND SIDE SLOPES TO ACCESS THE WORK AREA ALONG THE OUTSIDE. ANY GUARDRAIL THAT IS REMOVED FOR CONTRACTOR ACCESS SHALL BE REPLACED PRIOR TO THE REMOVAL OF THE WORK ZONE.

CROSS REFERENCES	
68-69	MOT TYPICAL SECTION
78	TEMPORARY GUIDE SIGN DETAILS

MAINTENANCE OF TRAFFIC PLAN - NB PHASE 1
STA. 72+50.00 TO STA. 4+00.00



DESIGN AGENCY



DESIGNER

DAW

REVIEWER

TJF 7-28-25

PROJECT ID

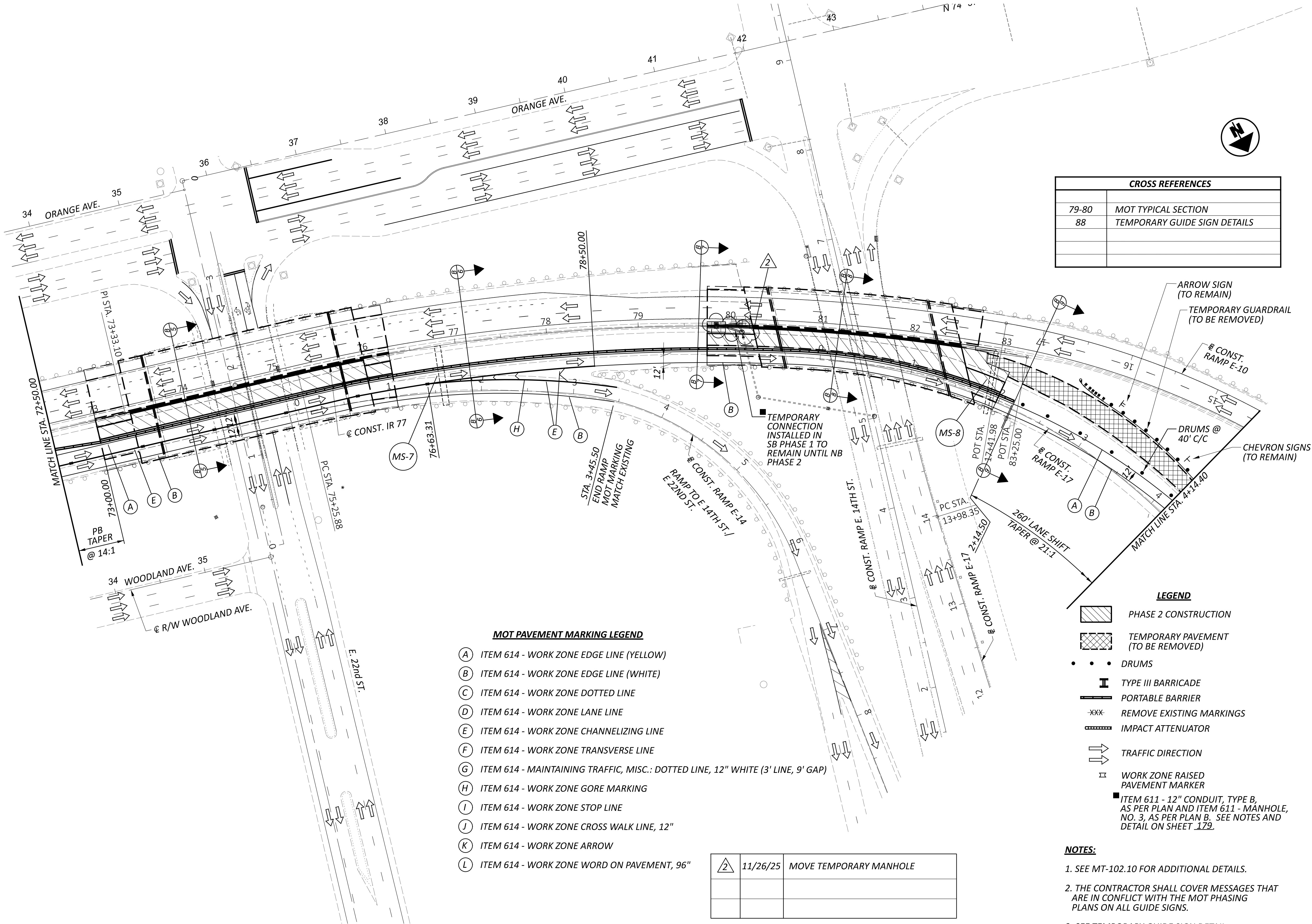
119380

SHEET

P.75

TOTAL

365



- MOT PAVEMENT MARKING LEGEND**
- (A) ITEM 614 - WORK ZONE EDGE LINE (YELLOW)
 - (B) ITEM 614 - WORK ZONE EDGE LINE (WHITE)
 - (C) ITEM 614 - WORK ZONE DOTTED LINE
 - (D) ITEM 614 - WORK ZONE LANE LINE
 - (E) ITEM 614 - WORK ZONE CHANNELIZING LINE
 - (F) ITEM 614 - WORK ZONE TRANSVERSE LINE
 - (G) ITEM 614 - MAINTAINING TRAFFIC, MISC.: DOTTED LINE, 12" WHITE (3' LINE, 9' GAP)
 - (H) ITEM 614 - WORK ZONE GORE MARKING
 - (I) ITEM 614 - WORK ZONE STOP LINE
 - (J) ITEM 614 - WORK ZONE CROSS WALK LINE, 12"
 - (K) ITEM 614 - WORK ZONE ARROW
 - (L) ITEM 614 - WORK ZONE WORD ON PAVEMENT, 96"

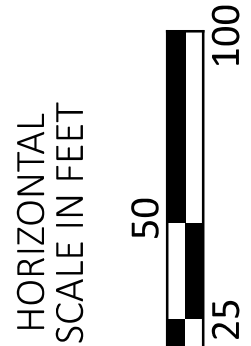
2	11/26/25	MOVE TEMPORARY MANHOLE

CROSS REFERENCES	
79-80	MOT TYPICAL SECTION
88	TEMPORARY GUIDE SIGN DETAILS

- LEGEND**
- PHASE 2 CONSTRUCTION
 - TEMPORARY PAVEMENT (TO BE REMOVED)
 - DRUMS
 - TYPE III BARRICADE
 - PORTABLE BARRIER
 - REMOVE EXISTING MARKINGS
 - IMPACT ATTENUATOR
 - TRAFFIC DIRECTION
 - WORK ZONE RAISED PAVEMENT MARKER
 - ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN AND ITEM 611 - MANHOLE, NO. 3, AS PER PLAN B. SEE NOTES AND DETAIL ON SHEET 179.

- NOTES:**
- SEE MT-102.10 FOR ADDITIONAL DETAILS.
 - THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.
 - SEE TEMPORARY GUIDE SIGN DETAIL SHEETS FOR SIGN ADJUSTMENTS.

MAINTENANCE OF TRAFFIC PLAN - NB PHASE 2
STA. 72+50.00 TO STA. 4+00.00



DESIGN AGENCY



DESIGNER

DAW

REVIEWER

TJF 7-28-25

PROJECT ID


119380


SHEET


P.86


TOTAL

365

GENERAL SUMMARY	
DESIGNER AGENCY	
	
DESIGNER	ALP
REVIEWER	PRS 7-28-25
PROJECT ID	119380
SHEET	TOTAL
P.114	365


GENERAL SUMMARY	
DESIGNER AGENCY	
	
DESIGNER ALP	
REVIEWER PRS	7-28-25
PROJECT ID 119380	
SHEET P.115	TOTAL 365


GENERAL SUMMARY	
DESIGNER AGENCY	
	
DESIGNER ALP	
REVIEWER PRS 7-28-25	
PROJECT ID 119380	
SHEET P.116	TOTAL 365

DRAINAGE SUBSUMMARY	
DESIGN AGENCY	
	
DESIGNER	ALP
REVIEWER	PRS
PROJECT ID	7-28-25
119380	
SHEET	TOTAL
P.123	365

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/26/2025 TIME: 11:29:35 AM PLTDRV: OHDOT_PDF.plt USER: SMorr@manknsmithgroup.com WORKSPACE: OHDOTCEv02 WORKSET: 19380 PRODUCT: OpenRoadsDesigner 10.12.02.4
F:\2023\22111 CUY-77-15.46\19380\400-Engineering\Drainage\Sheets\19380_DS100.dgn

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/26/2025 TIME: 11:29:35 AM PLTDRV: OHDOT_PDF.plt USER: SMorr@manknsmithgroup.com WORKSPACE: OHDOTCEv02 WORKSET: 19380 PRODUCT: OpenRoadsDesigner 10.12.02.4
F:\2023\22111 CUY-77-15.46\19380\400-Engineering\Drainage\Sheets\19380_DS100.dgn

UNDERDRAIN SUBSUMMARY	
DESIGN AGENCY	
	
DESIGNER	ALP
REVIEWER	PRS
PROJECT ID	7-28-25
119380	
SHEET	TOTAL
P.124	365

UNDERDRAIN SUBSUMMARY	
DESIGN AGENCY	
	
DESIGNER	ALP
REVIEWER	PRS
PROJECT ID	7-28-25
119380	
SHEET	TOTAL
P.125	365

LINE	DESCRIPTION				CALCULATION												QUANTITY		
	<u>EROSION CONTROL</u>																		
	<u>ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN A</u>																		
	<u>WOODLAND AVENUE</u>																		
160	STA	64+38.61	TO STA	64+67.94	RT =	15.18	FT X (	31.11	FT +	32.49	FT) /	2	X	1.04	=	502.03	SF		
161	STA	65+29.12	TO STA	65+93.20	RT =	22.38	FT X (	32.2	FT +	34.3	FT) /	2	X	1.04	=	773.9	SF		
162	STA	65+29.12	TO STA	65+93.20	LT / RT =	180.90	FT X (	34.98	FT +	36.3	FT) /	2	X	1.04	=	6705.17	SF		
163	STA	66+57.14	TO STA	67+29.65	LT =	52.50	FT X (	35.72	FT +	0	FT) /	2	X	1.04	=	975.16	SF		
164	STA	65+68.62	TO STA	66+40.45	RT =	59.46	FT X (	40.42	FT +	0	FT) /	2	X	1.04	=	1249.75	SF		
165	STA	66+17.77	TO STA	67+61.27	LT / RT =	147.43	FT X (	40.72	FT +	39.68	FT) /	2	X	1.04	=	6163.75	SF		
166	STA	67+40.35	TO STA	67+81.62	LT =	22.96	FT X (	39.92	FT +	37.39	FT) /	2	X	1.04	=	923.02	SF		
167	STA	67+66.27	TO STA	68+18.55	LT =	47.43	FT X (	36.4	FT +	29.84	FT) /	2	X	1.04	=	1633.72	SF		
	<u>22ND STREET</u>																		
168	STA	73+67.46	TO STA	73+71.03	LT / RT =	3.57	FT X (	120.28	FT +	120.28	FT) /	2	X	1.08	=	463.75	SF		
169	STA	75+66.15	TO STA	75+69.72	LT / RT =	3.57	FT X (	121.13	FT +	121.25	FT) /	2	X	1.08	=	467.26	SF		
	<u>14TH STREET</u>																		
170	STA	80+67.04	TO STA	81+16.91	RT =	46.54	FT X (	0	FT +	13.85	FT) /	2	X	1.08	=	348.07	SF		
171	STA	80+41.21	TO STA	81+16.91	LT / RT =	46.56	FT X (	95.88	FT +	95.86	FT) /	2	X	1.08	=	4820.8	SF		
172	STA	82+05.04	TO STA	82+44.42	LT / RT =	40.74	FT X (	111.79	FT +	111.6	FT) /	2	X	1.08	=	4914.49	SF		
173	STA	81+67.63	TO STA	82+44.42	LT =	40.68	FT X (	14.41	FT +	0	FT) /	2	X	1.08	=	316.55	SF		
174	SUM LINES	160	TO	173	=	30257.42	SF /	9								=	3361.94	SY	
	TOTAL CARRIED TO GENERAL SUMMARY																=	3362	SY
	<u>ITEM 670 - SLOPE EROSION PROTECTION, AS PER PLAN</u>																		
	<u>IR 77 SOUTHBOUND</u>																		
	<u>WOODLAND AVENUE REAR</u>																		
175	STA	66+04.48	TO STA	66+13.86	LT =	9.45	FT X (	35.7	FT +	35.71	FT) /	2					=	337.41	SF
176	STA	66+13.86	TO STA	66+18.31	LT =	4.45	FT X (	35.71	FT +	32.71	FT) /	2					=	152.23	SF
177	STA	66+18.31	TO STA	66+81.79	LT =	32.72	FT X (	53.89	FT +	63.45	FT) /	2					=	1919.68	SF
	<u>ADD ARC SEGMENT</u>																		
178	STA	66+72.20	TO STA	66+81.79	LT = ((	45.70	FT X	17.76	FT) -	34.1	FT X (	17.76	FT -	12.78	FT)) /	2	=	320.91	SF
179	SUM LINES	175	TO	178	=	2730.23	SF /	9	X	1.03						=	312.46	SY	
	<u>WOODLAND AVENUE FORWARD</u>																		
180	STA	68+06.42	TO STA	68+40.77	LT =	13.07	FT X (	0	FT +	40.79	FT) /	2					=	266.56	SF
181	STA	68+16.55	TO STA	68+40.77	LT =	23.07	FT X (	5	FT +	5	FT) /	2					=	115.35	SF
182	STA	68+14.40	TO STA	68+40.77	LT =	24.15	FT X (	3	FT +	3	FT) /	2					=	72.45	SF
	<u>ADD ARC SEGMENT</u>																		
183	STA	68+06.42	TO STA	68+40.77	LT = ((	48.49	FT X	24.22	FT) -	40.79	FT X (	24.22	FT -	11.15	FT)) /	2	=	320.65	SF
184	SUM LINES	180	TO	183	=	775.01	SF /	9	X	1.12						=	96.45	SY	
	<u>22ND STREET REAR</u>																		
185	STA	73+65.64	TO STA	73+67.59	LT =	1.95	FT X (	37	FT +	37	FT) /	2					=	72.15	SF
186	STA	73+67.59	TO STA	73+71.16	LT =	3.57	FT X (	33.69	FT +	33.68	FT) /	2					=	120.26	SF
187	STA	73+67.59	TO STA	74+24.63	LT =	26.95	FT X (	25.75	FT +	53.57	FT) /	2					=	1068.84	SF
188	STA	73+71.16	TO STA	73+94.26	LT =	23.23	FT X (	7.98	FT +	7.76	FT) /	2					=	182.82	SF
189	STA	73+94.26	TO STA	74+04.54	LT =	10.27	FT X (	7.79	FT +	7.06	FT) /	2					=	76.25	SF
190	STA	73+94.26	TO STA	74+24.63	LT =	20.07	FT X (	7.07	FT +	6.81	FT) /	2					=	139.29	SF
	<u>ADD ARC SEGMENT</u>																		
191	STA	73+67.59	TO STA	74+24.55	LT = ((	42.84	FT X	27.84	FT) -	38.74	FT X (	27.84	FT -	7.84	FT)) /	2	=	208.93	SF
192	SUM LINES	185	TO	191	=	1868.54	SF /	9	X	1.05						=	218.00	SY	
	<u>22ND STREET FORWARD</u>																		
193	STA	75+14.44	TO STA	75+25.28	LT =	11.08	FT X (	7.19	FT +	17.24	FT) /	2					=	135.34	SF
194	STA	75+25.28	TO STA	75+38.83	LT =	13.95	FT X (	17.24	FT +	29.02	FT) /	2					=	322.66	SF
195	STA	75+38.83	TO STA	75+42.97	LT =	4.37	FT X (	29.02	FT +	33.33	FT) /	2					=	136.23	SF
196	STA	75+42.97	TO STA	75+64.45	LT =	22.54	FT X (	33.33	FT +	35.13	FT) /	2					=	771.54	SF
197	STA	75+64.45	TO STA	75+67.86	LT =	3.57	FT X (	33.33	FT +	33.39	FT) /	2					=	119.10	SF
198	STA	75+67.86	TO STA	75+71.61	LT =	3.96	FT X (	36.81	FT +	36.88	FT) /	2					=	145.91	SF
	<u>ADD ARC SEGMENT</u>																		
199	STA	75+14.44	TO STA	75+42.97	LT = ((	43.31	FT X	29.41	FT) -	39.5	FT X (	29.41	FT -	7.62	FT)) /	2	=	206.52	SF
200	SUM LINES	193	TO	199	=	1837.30	SF /	9	X	1.05						=	214.35	SY	
	<u>ITEM 670 - SLOPE EROSION PROTECTION, AS PER PLAN CONTINUED ON SHEET 131</u>																		

B.M. #9: STA. 79+77.12, 50.43' RT. CHISELED X IN BOLT ON SIGN BASE ELEV. = 693.35
B.M. #10: STA. 80+07.91, 62.20' LT. ¾"x30" REBAR WITH REL TRAV. CAP SET ELEV. = 697.27
B.M. #11: STA. 81+72.96, 119.76' RT. CHISELED X IN BOLT ON SIGN BASE ELEV. = 674.65

PAVEMENT DIMENSION TABLE	
A	11'-6" (OUTSIDE SHOULDER)
B	39'-9" (PAVEMENT)
C	8'-0" (INSIDE SHOULDER)
D	8'-0" (INSIDE SHOULDER)
E	36'-0" (PAVEMENT)
F	10'-0" (OUTSIDE SHOULDER)
G	10'-0" (OUTSIDE SHOULDER)
H	24'-0" (PAVEMENT)
I	8'-0" (INSIDE SHOULDER)
J	8'-0" (INSIDE SHOULDER)
K	36'-0" (PAVEMENT)
L	20'-9" (OUTSIDE SHOULDER)
M	24'-0" (PAVEMENT)
N	24'-0" (PAVEMENT)

B.M. #5: STA. 73+34.16, 58.83' LT. ¾"x30" REBAR WITH REL TRAV. CAP SET ELEV. = 696.46
B.M. #6: STA. 74+37.16, 121.59' LT. CHISELED X IN BOLT ON POWER POLE BASE ELEV. = 678.34
B.M. #7: STA. 76+03.95, 59.33' LT. ¾"x30" REBAR WITH REL TRAV. CAP SET ELEV. = 698.12
B.M. #8: STA. 76+83.72, 64.78' RT. CHISELED X IN BOLT ON SIGN BASE ELEV. = 695.07

CROSS REFERENCES	
7-16	TYPICAL SECTIONS
143	PROFILE
145-160	CROSS SECTIONS
162	PLAN - E. 22nd ST.
163	PLAN - E. 14th ST.
172	DRAINAGE PLAN - E. 22nd ST.
173	DRAINAGE PLAN - E. 14th ST.
179	E. 14th STREET - TEMPORARY CONNECTION
186-188	BARRIER DETAILS

DRAINAGE LEGEND

- DD1 PROP. 15" TYPE F, 707.05 TYPE C,
707.21 OR 707.33
- DD2 PROP. 15" TYPE C

GUARDRAIL LEGEND

- T ANCHOR ASSEMBLY,
MGS, TYPE T (12.5')
- BA CONCRETE BARRIER END
ANCHORAGE, REINFORCED,
TYPE C1 (15')
- BA1 CONCRETE BARRIER END
ANCHORAGE, REINFORCED,
TYPE C1, AS PER PLAN (15')
- BT 20' BARRIER TRANSITION
(NJ SHAPE TO SINGLE SLOPE)
- BT1 BARRIER TRANSITION,
AS PER PLAN
- B1 MGS BRIDGE TERMINAL
ASSEMBLY, TYPE 1 (26.90')
- B2 MGS BRIDGE TERMINAL
ASSEMBLY, TYPE 2
- GT GUARDRAIL OFFSET
TRANSITION AS PER MGS-6.1
(75' TYP.)

M+XX.XX PROP. MEDIAN BARRIER
WIDTH TRANSITION
STATIONS

CURVE R-17
@ CONST. RAMP E-10
CURVE DATA

P.I. Sta = 13+88.62
Δ = 46° 59' 39" (LT)
Dc = 06° 15' 00"
R = 916.73'
T = 398.55'
L = 751.90'
E = 82.89'
eMAX = 0.060

END PROJECT
STA. 83+00.05
@ CONST. IR 77
STA. 1+96.29
@ CONST. RAMP E-17
S.L.M. = 15.81
@ CONST. IR 77

CURVE R-9
@ CONST. RAMP E-17
CURVE DATA

P.I. Sta = 3+43.13
Δ = 60° 33' 40" (RT)
Dc = 09° 45' 00"
R = 587.65'
T = 343.13'
L = 621.14'
E = 92.84'
eMAX = 0.060

LEGEND

- CONSTRUCTED WITH
CCG3A
- PLANING AND RESURFACING
- CONCRETE SLOPE
PROTECTION
- CONCRETE MEDIAN
- SLOPE EROSION PROTECTION
- ROCK CHANNEL PROTECTION,
TYPE C (1'-6" THK.)
- ITEM 601 - TIED CONCRETE
BLOCK MAT WITH TYPE 2
UNDERLAYMENT (55' x 5'-6")
- ITEM 836 - SEEDING AND
EROSION CONTROL WITH TURF
REINFORCING MAT,
TYPE 1 (4'-0" WIDE)

NOTE:

- FOR EXISTING UTILITY
DISPOSITION SEE DRAINAGE PLANS.
- TRANSITION MEDIAN BARRIER WIDTH
FROM 42" AT APPROACH SLAB TO 28"
IN 15'.
- FOR PROPOSED CURB LIMITS,
SEE SHEETS 162-163.

IR 77 PLAN
STA. 72+50.00 TO STA. 81+00.00/STA. 0+00.00 TO STA. 4+00.00

DESIGN AGENCY



DESIGNER

PRS

REVIEWER

ALP 7-28-25

PROJECT ID

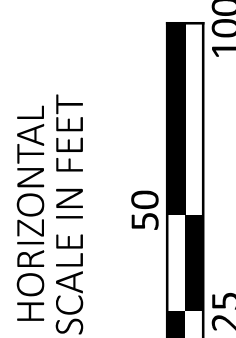
119380

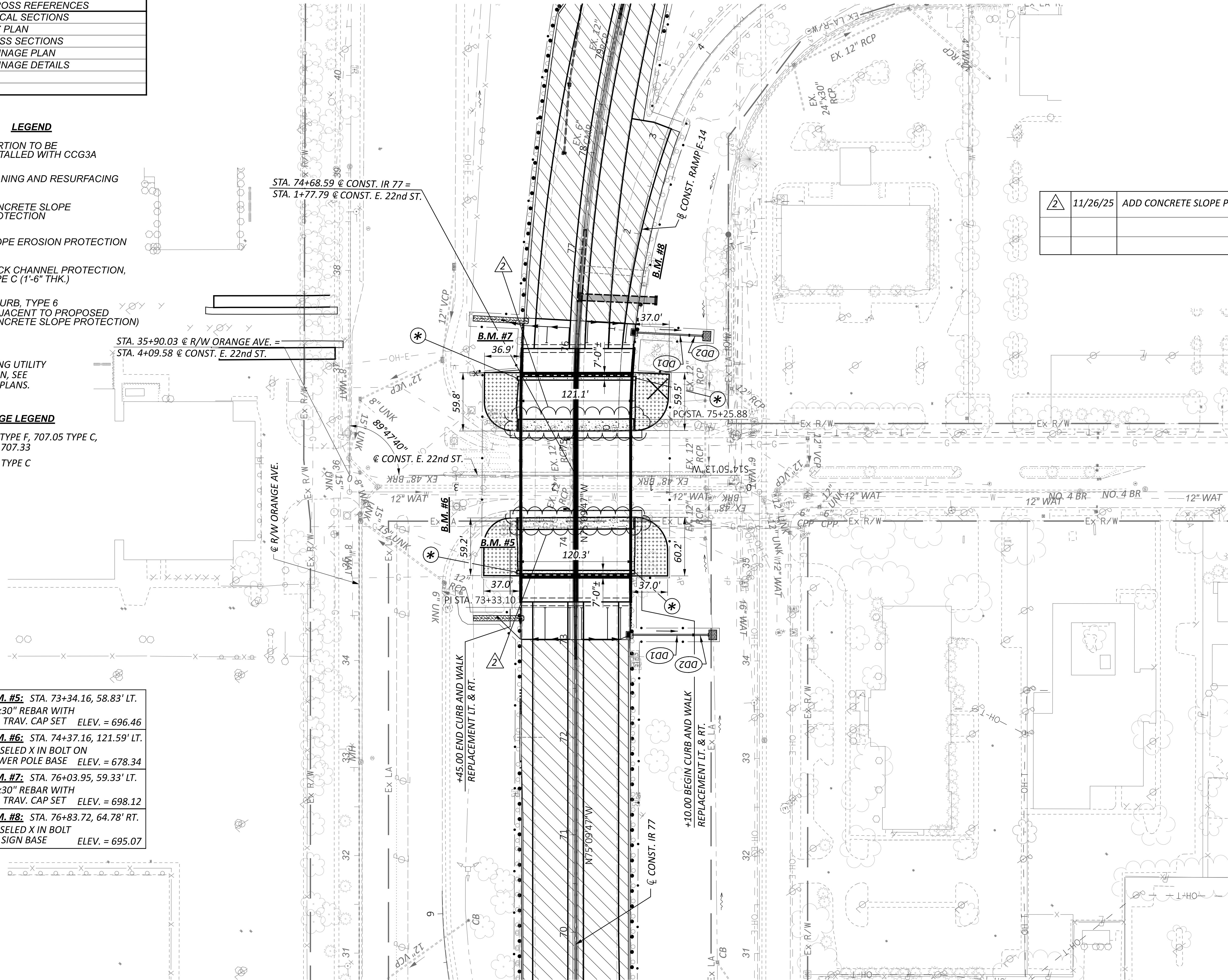
SHEET

P.142

TOTAL

365



TOTAL

CROSS REFERENCES	
7-16	TYPICAL SECTIONS
142	IR 77 PLAN
145-160	CROSS SECTIONS
173	DRAINAGE PLAN
174-185	DRAINAGE DETAILS

LEGEND

- PORTION TO BE INSTALLED WITH CCG3A
- PLANING AND RESURFACING
- CONCRETE SLOPE PROTECTION
- SLOPE EROSION PROTECTION
- ROCK CHANNEL PROTECTION, TYPE C (1'-6" THK.)
- CONCRETE MEDIAN

NOTES:

1. FOR EXISTING UTILITY DISPOSITION, SEE DRAINAGE PLANS.

B.M. #8: STA. 76+83.72, 64.78' RT.
CHISELED X IN BOLT
ON SIGN BASE ELEV. = 695.07

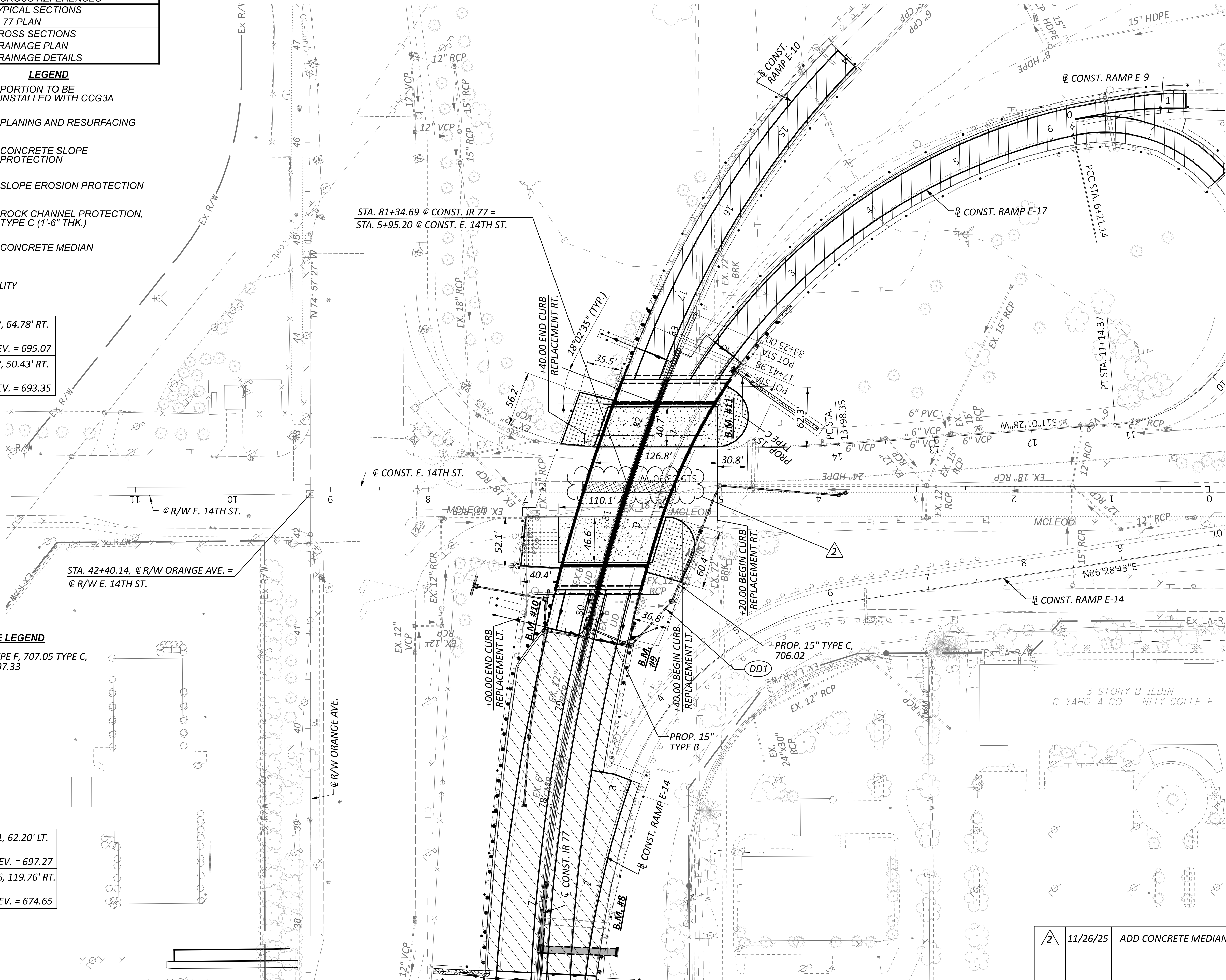
B.M. #9: STA. 79+77.12, 50.43' RT.
CHISELED X IN BOLT
ON SIGN BASE ELEV. = 693.35

DRAINAGE LEGEND

DD1 PROP. 15" TYPE F, 707.05 TYPE C,
707.21 OR 707.33

B.M. #10: STA. 80+07.91, 62.20' LT.
¾"x30" REBAR WITH
REL TRAV. CAP SET ELEV. = 697.27

B.M. #11: STA. 81+72.96, 119.76' RT.
CHISELED X IN BOLT
ON SIGN BASE ELEV. = 674.65



HORIZONTAL
SCALE IN FEET
0 50 100

PLAN - E. 14th ST.
STA. 0+00.00 TO STA. 11+00.00

DESIGN AGENCY



DESIGNER

PRS

REVIEWER

ALP 7-28-25

PROJECT ID

119380

SHEET

P.163

TOTAL

365

2	11/26/25	ADD CONCRETE MEDIAN AT 14th ST.

DRAINAGE LEGEND

- AG-X ADJUSTED TO GRADE
- D-X PROPOSED DRAINAGE
- RCP-X ROCK CHANNEL PROTECTION, TYPE C (1'-6" THICK)
- ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT (55' x 5'-6")
- ROCK CHANNEL PROTECTION, TYPE C (1'-6" THICK)

LEGEND

- PLANING AND RESURFACING
- * TRANSITION CURB HEIGHT FROM 0" TO 6" IN 2.5' (CURB, TYPE 6)
- ¥ TRANSITION CURB HEIGHT FROM 4" TO 6" IN 2' (CURB, TYPE 6)
- PORTION TO BE INSTALLED WITH CCG3A
- DO NOT DISTURB. ELECTRIC SHALL REMAIN IN SERVICE. CONTRACTOR TO VERIFY LOCATION. CONDUIT MAY BE MOVED SLIGHTLY TO AVOID ELECTRIC LINE
- CONCRETE SLOPE PROTECTION

EX. DRAINAGE STRUCTURE INFORMATION - E. 22nd ST.							
REFERENCE NO.	STATION	OFFSET	TOP OF GRATE	TOP OF COVER	EX. PIPE DIAMETER	EX. PIPE DIRECTION	FLOWLINE EL.
AG-3	74+32.78±	9.55± LT.	675.10±		12"±	NW	671.10±
AG-4	75+06.59±	9.13± LT.	675.00±		12"±	E	670.60±

2	11/26/25	ADD CONCRETE SLOPE PROTECTION AT 22nd ST./ADD CONCRETE PATTERN

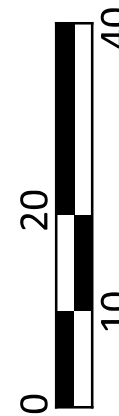
UNDERDRAIN LEGEND

- LS-X = LEFT SHOULDER
- LIE-X = LEFT INSIDE EDGE LINE
- LD-X = LEFT DOTTED LINE
- RS-X = RIGHT SHOULDER
- ROE-X = RIGHT OUTSIDE EDGE LINE
- ROL-X = RIGHT OUTSIDE LANE LINE
- RIE-X = RIGHT INSIDE EDGE LINE

CROSS REFERENCES	
7-16	TYPICAL SECTIONS
142	PLAN
143	PROFILE
145-160	CROSS SECTIONS
162	PLAN - E. 22ND ST.
174-185	DRAINAGE DETAILS
272	STRUCTURE SITE PLAN

NOTE: EXISTING UTILITIES TO REMAIN UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET



DRAINAGE PLAN
E. 22nd ST.

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

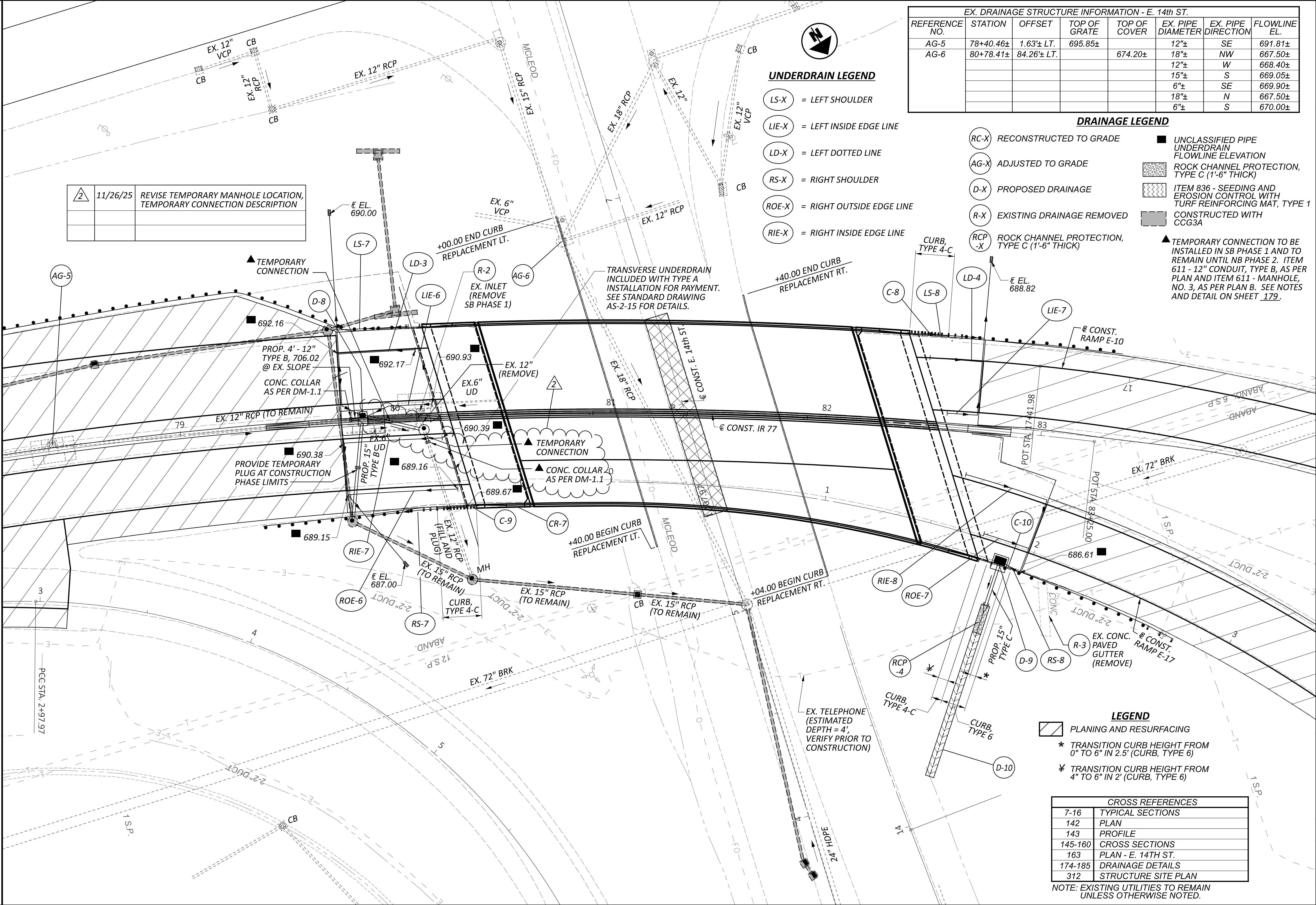
119380

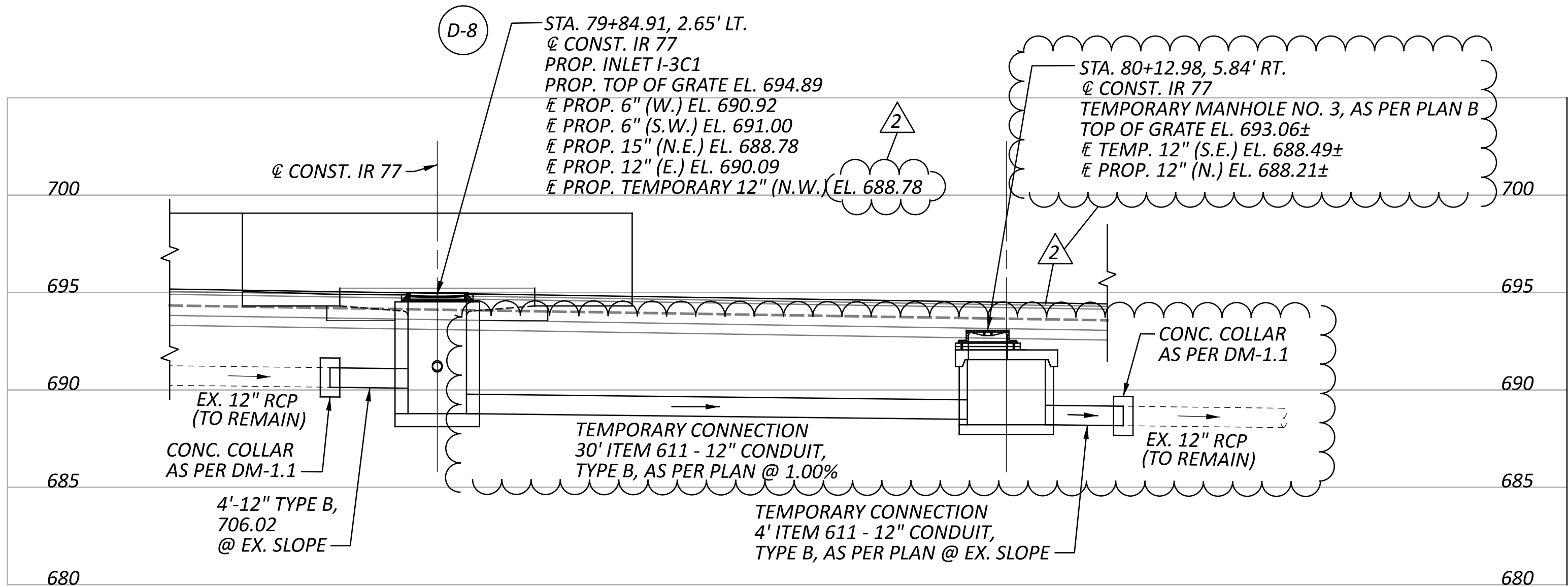
SHEET

P.172

TOTAL

365





STORM SEWER PROFILE (E. 14th ST. BRIDGE - TEMPORARY CONNECTION)

ITEM 611 – 12” CONDUIT, TYPE B, AS PER PLAN

THIS ITEM SHALL BE PER CMS 611. THE 12” CONDUIT WILL PROVIDE A TEMPORARY CONNECTION FROM THE PROPOSED INLET AT STATION 79+84.91, 2.65’ LT TO THE TEMPORARY MANHOLE AT STATION 80+12.98, 5.84’ RT AND SHALL BE INSTALLED DURING SOUTHBOUND PHASE 1; THE TEMPORARY CONDUIT SHALL REMAIN IN SERVICE UNTIL NORTHBOUND PHASE 2 WHEN THE PROPOSED 15” CONDUIT IS COMPLETED. ONCE THE PROPOSED STORM SYSTEM IS FULLY INSTALLED AND ACTIVE, THE TEMPORARY CONDUIT SHALL BE PARTIALLY REMOVED AND FILLED AND PLUGGED IN ACCORDANCE WITH CMS 202 INCLUDING PLUGGING THE OUTLET LOCATION ON THE NEW INLET. APPROXIMATELY 12’ OF THE TEMPORARY CONDUIT SHALL BE FILLED AND PLUGGED (FROM THE INLET TO THE CONSTRUCTION JOINT) AND THE REMAINING LENGTH OF THE TEMPORARY CONDUIT SHALL BE REMOVED (FROM THE CONSTRUCTION JOINT TO THE TEMPORARY MANHOLE). SEE GENERAL NOTE ‘FILL AND PLUG EXISTING CONDUIT’ ON SHEET 21 . SEE TEMPORARY CONNECTION DETAIL THIS SHEET.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 611 – 12” CONDUIT, TYPE B, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK AS APPROVED BY THE ENGINEER.

ITEM 611 – MANHOLE, NO. 3, AS PER PLAN B

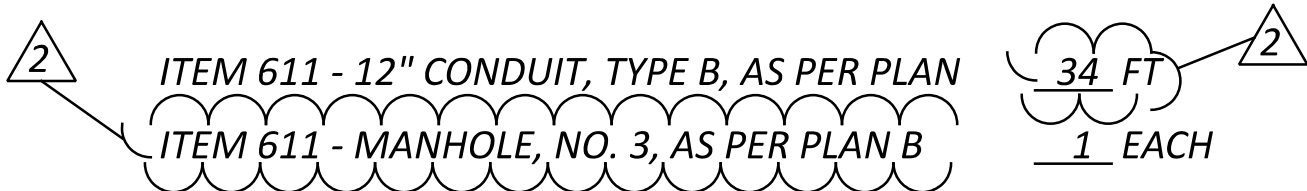
A TEMPORARY MANHOLE SHALL BE INSTALLED ALONG THE EXISTING 12” CONDUIT AT STATION 80+12.98, 5.84’ RT TO PROVIDE A TEMPORARY CONNECTION FROM THE PROPOSED INLET AT STATION 79+84.91, 2.65’ LT. THE TEMPORARY MANHOLE SHALL BE INSTALLED DURING SOUTHBOUND PHASE 1; THE TEMPORARY MANHOLE SHALL REMAIN IN SERVICE UNTIL NORTHBOUND PHASE 2. ONCE THE PROPOSED STORM SYSTEM IS FULLY INSTALLED AND ACTIVE, THE TEMPORARY MANHOLE SHALL BE REMOVED IN ACCORDANCE WITH CMS 202. SEE TEMPORARY CONNECTION DETAIL THIS SHEET.

THE TOP OF CASTING ELEVATION SHALL BE SET AT THE TOP OF THE COMPACTED ITEM 304 - AGGREGATE BASE. THE LID SHALL BE SOLID WITHOUT HOLES. ONCE THE MANHOLE IS SET IN PLACE, AND PRIOR TO PAVING, THE CONTRACTOR SHALL SURVEY THE CENTER OF THE LID OF THE BURIED MANHOLE AND FURNISH THE GPS COORDINATES (EASTING, NORTHING) TO THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE AND WILL BE MADE AT THE UNIT PRICE BID FOR ITEM 611 - MANHOLE, NO. 3, AS PER PLAN B.

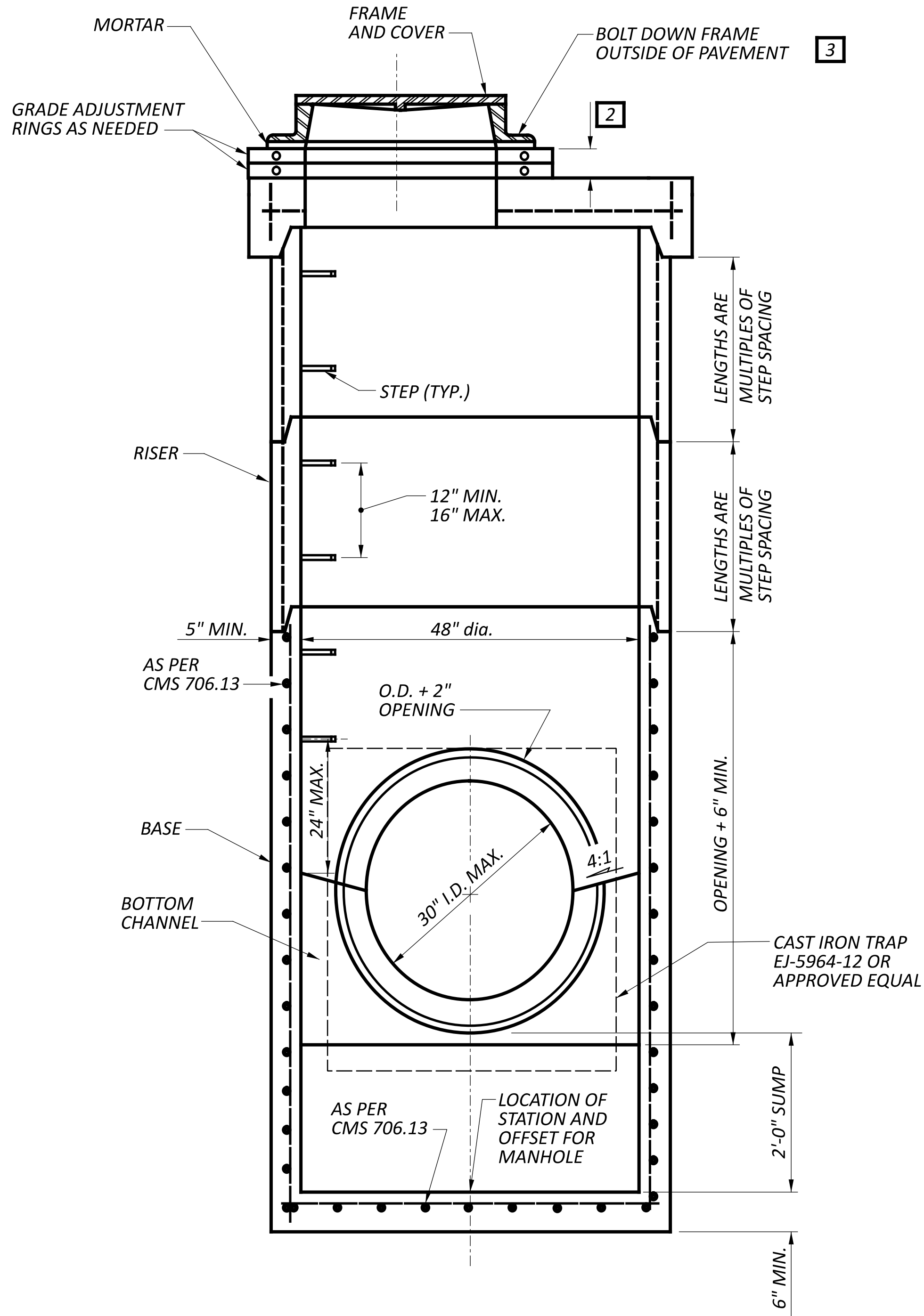
TEMPORARY DRAINAGE ITEMS

THE REQUIREMENTS OF ITEM 611.04BCD SHALL BE WAIVED FOR THE FOLLOWING TEMPORARY DRAINAGE ITEMS. IN ADDITION, ITEM 611 - 12” CONDUIT, TYPE B, AS PER PLAN SHALL BE BEDDED AND BACKFILLED SIMILAR TO SLOTTED DRAIN, TYPE 1 IN DM-1.3. TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLANS ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE GENERAL SUMMARY.



TEMPORARY DRAINAGE REMOVAL SHALL INCLUDE REMOVING THE TEMPORARY CONDUIT AND THE TEMPORARY MANHOLE, FILLING AND PLUGGING THE TEMPORARY CONDUIT, ALL ASSOCIATED PAVEMENT REPAIR AND ANY RESTORATION OF THE SURROUNDING AREA TO THE ORIGINAL OR FINAL CONDITION. FOR ADDITIONAL REQUIREMENTS, SEE NOTES FOR ITEM 611 - 12” CONDUIT, TYPE B, AS PER PLAN AND ITEM 611 - MANHOLE, NO. 3, AS PER PLAN B.

ANY ADDITIONAL ITEMS OF WORK NOT SPECIFICALLY LISTED WHICH ARE REQUIRED TO CONSTRUCT OR REMOVE ANY TEMPORARY PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.



ITEM 611 - MANHOLE, NO. 3, AS PER PLAN A

STA. 63+35, 119.45' RT.

2	11/26/25	MOVE TEMPORARY MANHOLE,, REVISE ELEVATIONS, REVISE ITEM, REVISE QUANTITY

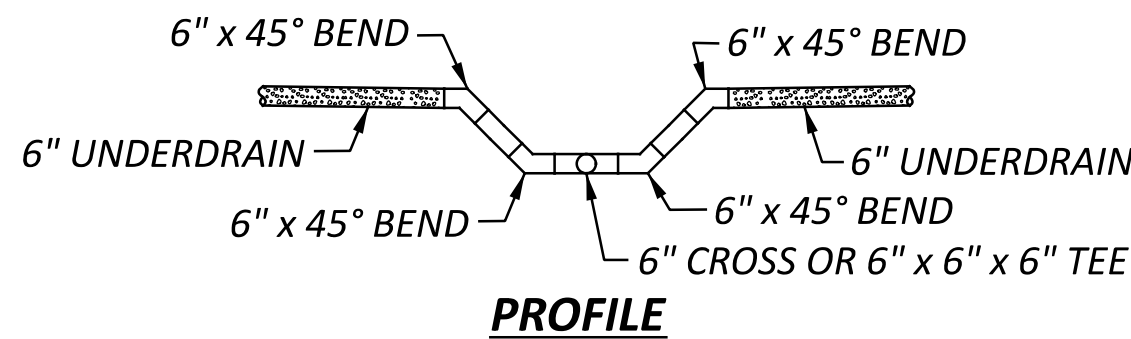
LEGEND

6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (18" NORMAL DEPTH)
OR
6" SHALLOW PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (30" NORMAL DEPTH)
OR
6" UNCLASSIFIED PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41, (VARIABLE DEPTH)
OR
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.33 OR 707.41

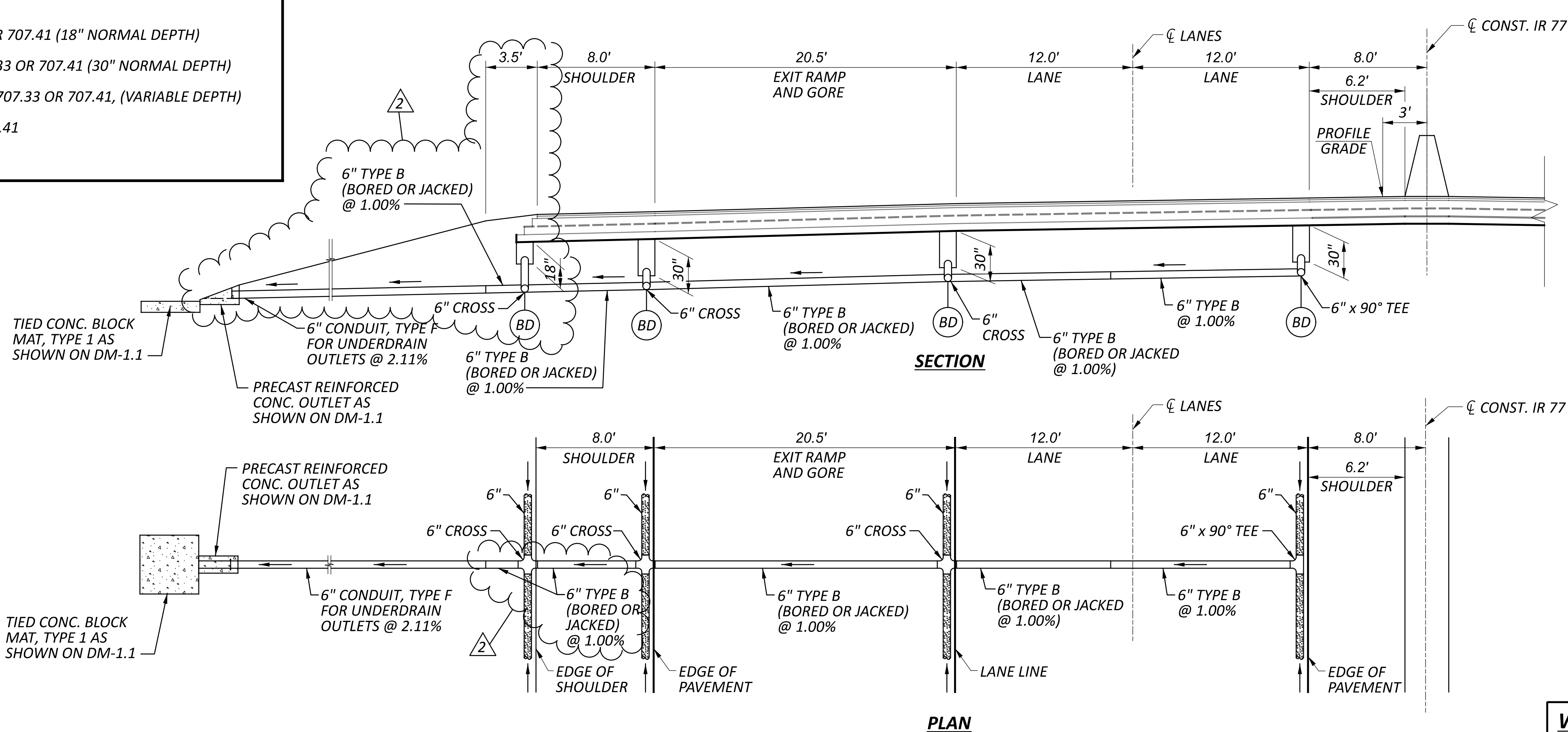
OUTLET PIPES, AS NOTED

LEGEND

BD 6" x 45° BEND
(SEE PROFILE)

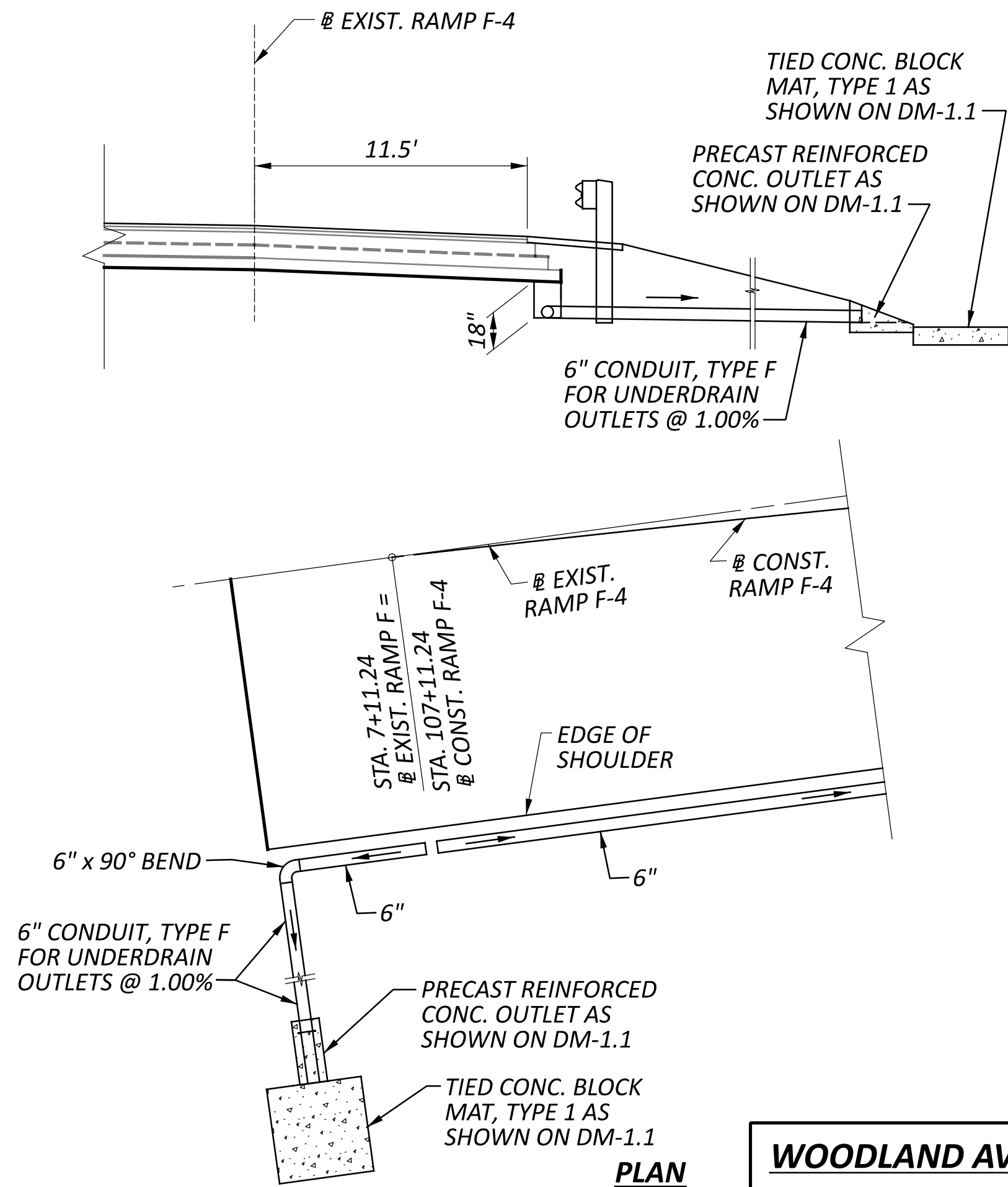


2	11/26/25	REVISE UD OUTLET SLOPE, 6" TYPE B LENGTH

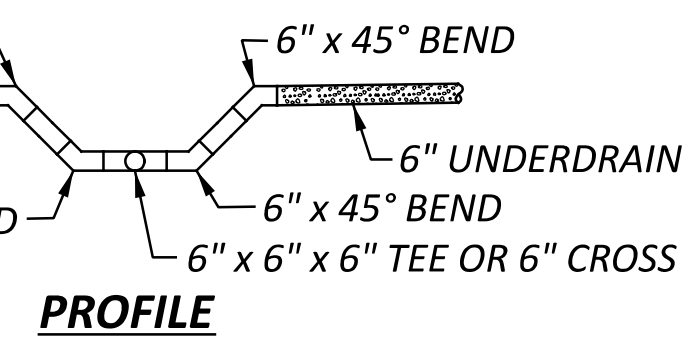
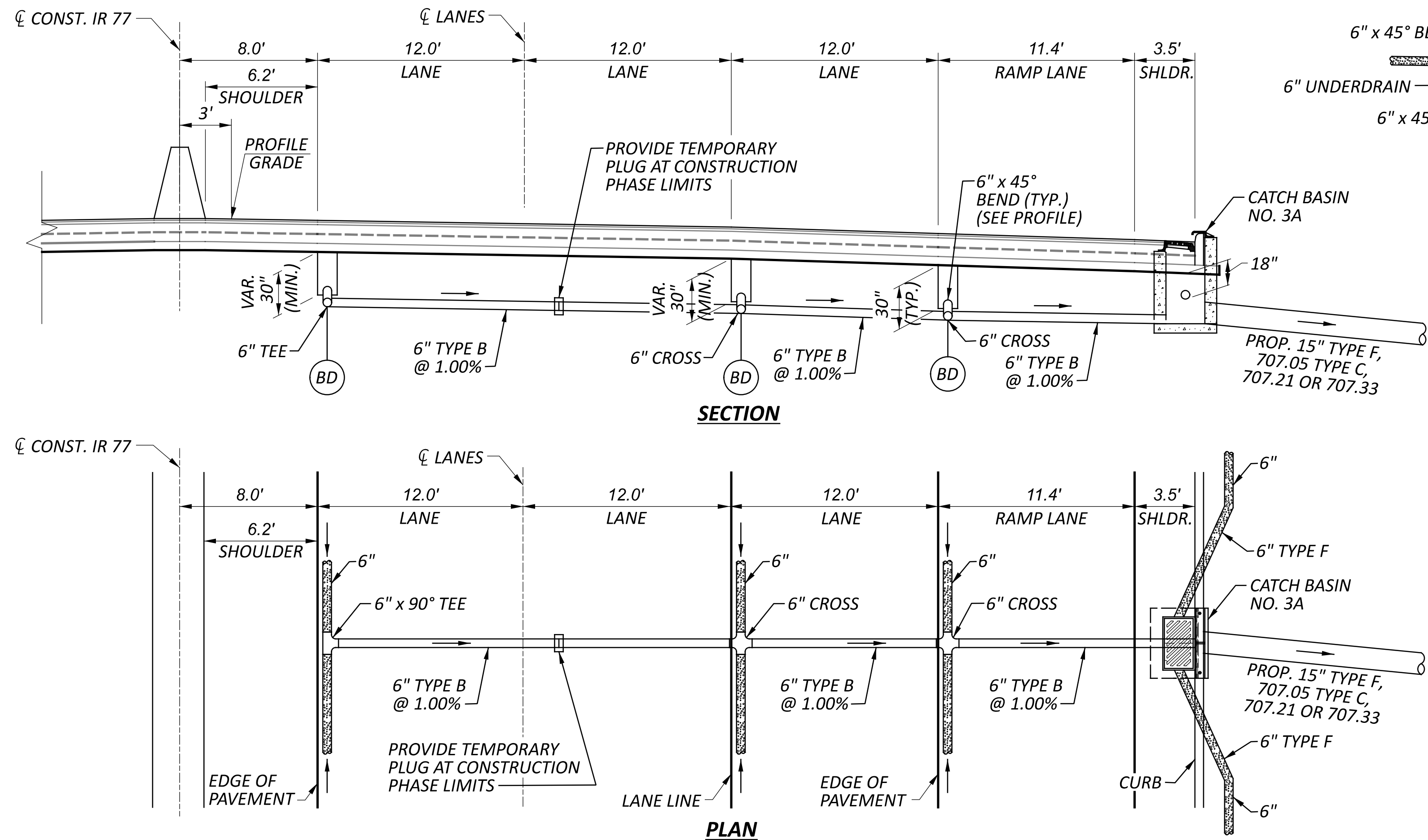


WOODLAND AVE.
REAR LEFT

UNDERDRAIN DETAILS



WOODLAND AVE.
RAMP F-4



LEGEND

BD 6" x 45° BEND
(SEE PROFILE)

WOODLAND AVE.
REAR RIGHT

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

SHEET

P.180

TOTAL

365

LEGEND

6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (18" NORMAL DEPTH)
OR
6" SHALLOW PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (30" NORMAL DEPTH)
OR
6" UNCLASSIFIED PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41, (VARIABLE DEPTH)
OR
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.33 OR 707.41

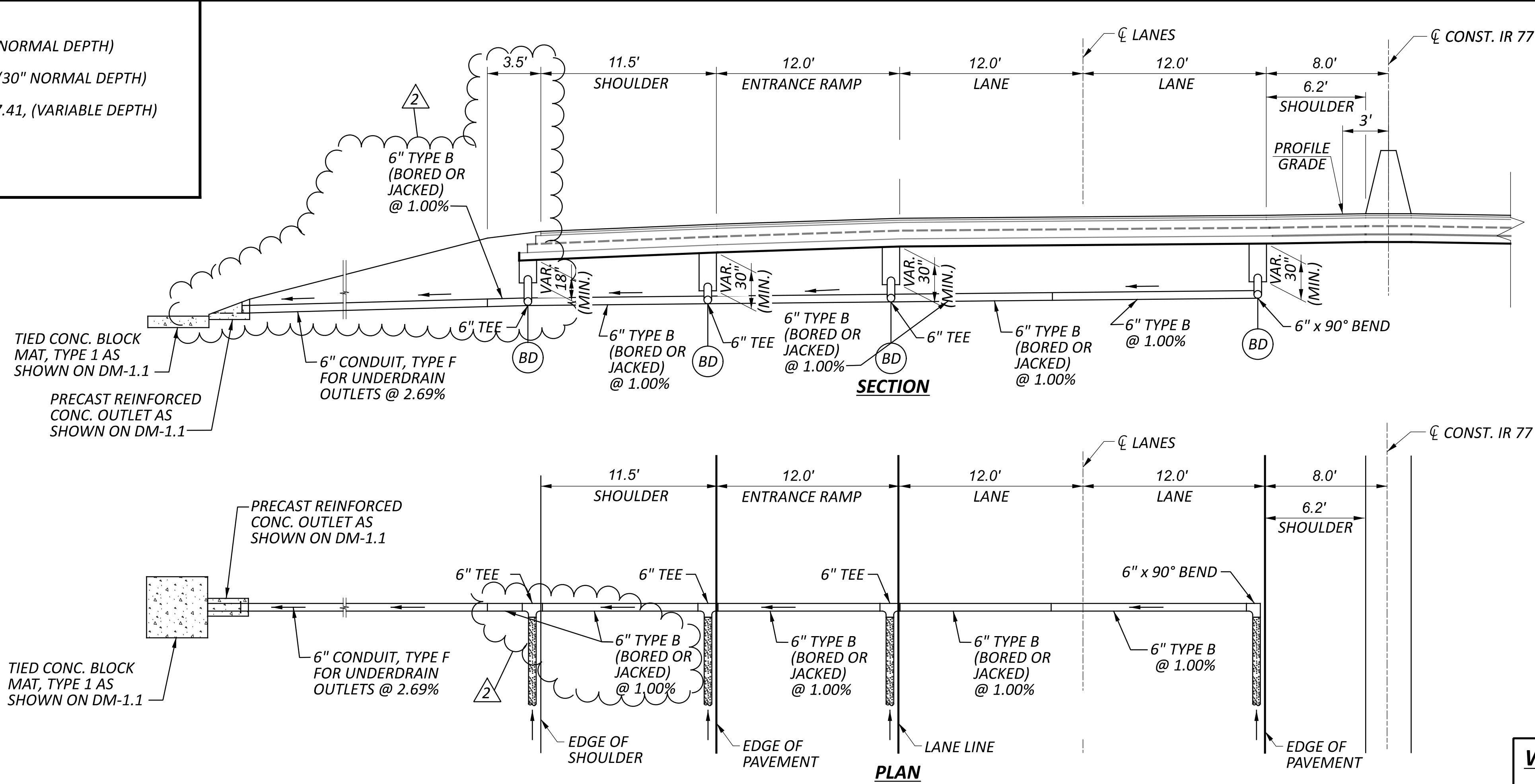
OUTLET PIPES, AS NOTED

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE



WOODLAND AVE.
FORWARD LEFT

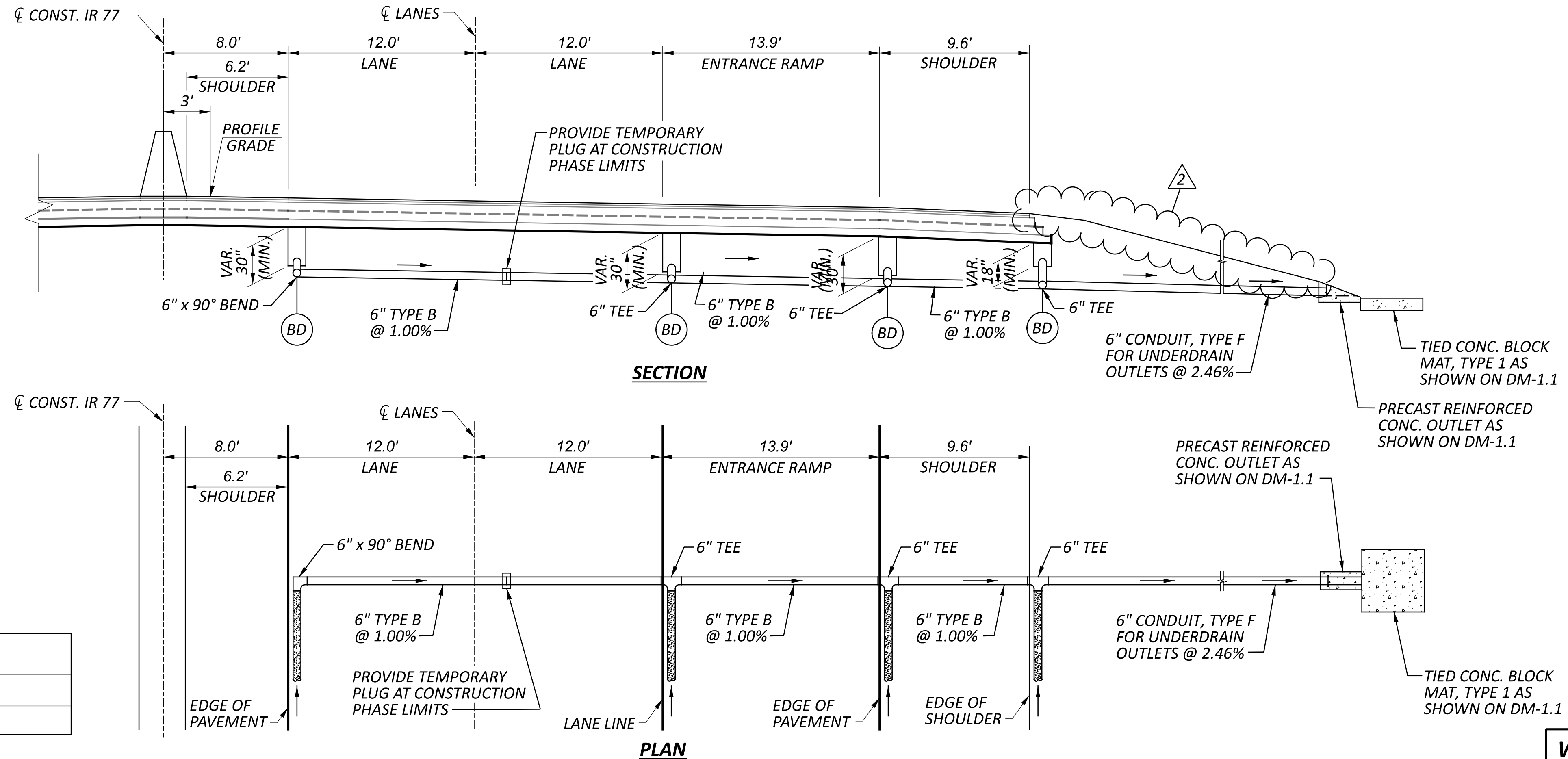
UNDERDRAIN DETAILS

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE



WOODLAND AVE.
FORWARD RIGHT

2	11/26/25	REVISE UD OUTLET SLOPE, 6" TYPE B LENGTH

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

SHEET

P.181

TOTAL

365

LEGEND

6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (18" NORMAL DEPTH)
OR
6" SHALLOW PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (30" NORMAL DEPTH)
OR
6" UNCLASSIFIED PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41, (VARIABLE DEPTH)
OR
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.33 OR 707.41

OUTLET PIPES, AS NOTED

LEGEND

BD

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE

SECTION

PLAN

E. 22nd ST.
REAR LEFT

Diagram showing the rear left view of the underdrain system. The plan view shows a 12.0' RAMP LANE, 12.0' LANE, 12.0' LANE, and 8.0' SHOULDER. The section view shows the 6" underdrain with 6" TYPE B (BORED OR JACKED) @ 1.00% slope, 6" TEE, 6" x 90° BEND, and 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS @ 4.35%. The catch basin is labeled CATCH BASIN NO. 3A. The profile view shows the 6" x 45° BEND and 6" UNDERDRAIN.

LEGEND

BD

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE

SECTION

PLAN

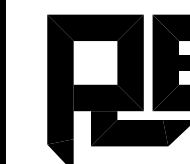
E. 22nd ST.
REAR RIGHT

Diagram showing the rear right view of the underdrain system. The plan view shows a 12.0' RAMP LANE, 12.0' LANE, 12.0' LANE, and 11.5' SHOULDER. The section view shows the 6" underdrain with 6" TYPE B (BORED OR JACKED) @ 1.00% slope, 6" TEE, 6" x 90° BEND, and 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS @ 4.35%. The catch basin is labeled CATCH BASIN NO. 3A. The profile view shows the 6" x 45° BEND and 6" UNDERDRAIN.

2	11/26/25	REVISE UD OUTLET SLOPE, 6" TYPE B LENGTH

UNDERDRAIN DETAILS

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

SHEET

P.182

TOTAL

365

OUTLET PIPES, AS NOTED

BD 6" x 45° BEND
(SEE PROFILE)



E. 22nd ST.
FORWARD LEFT

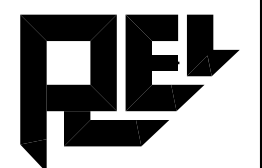
UNDERDRAIN DETAILS

BD 6" x 45° BEND
(SEE PROFILE)



E. 22nd ST.
FORWARD RIGHT

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

REVIEWER
DPC 7 28 25

PKS 7-28-23

PROJECT ID
110000

119380

SHEET	TOTAL
-------	-------

P.183	365
-------	-----

LEGEND

6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (18" NORMAL DEPTH)
OR
6" SHALLOW PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (30" NORMAL DEPTH)
OR
6" UNCLASSIFIED PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41, (VARIABLE DEPTH)
OR
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.33 OR 707.41

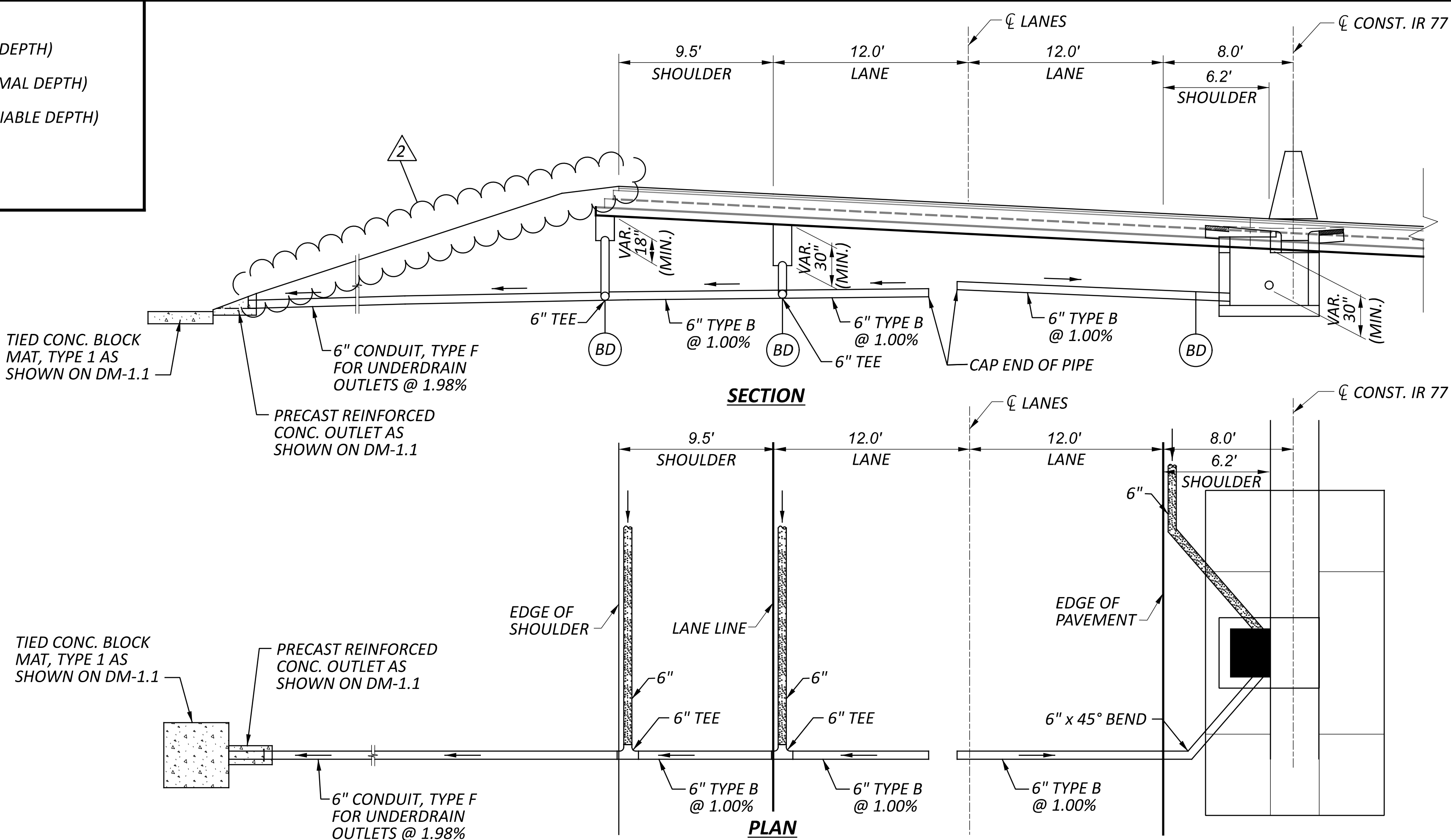
OUTLET PIPES, AS NOTED

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE

PROFILE



E. 14th ST.
REAR LEFT

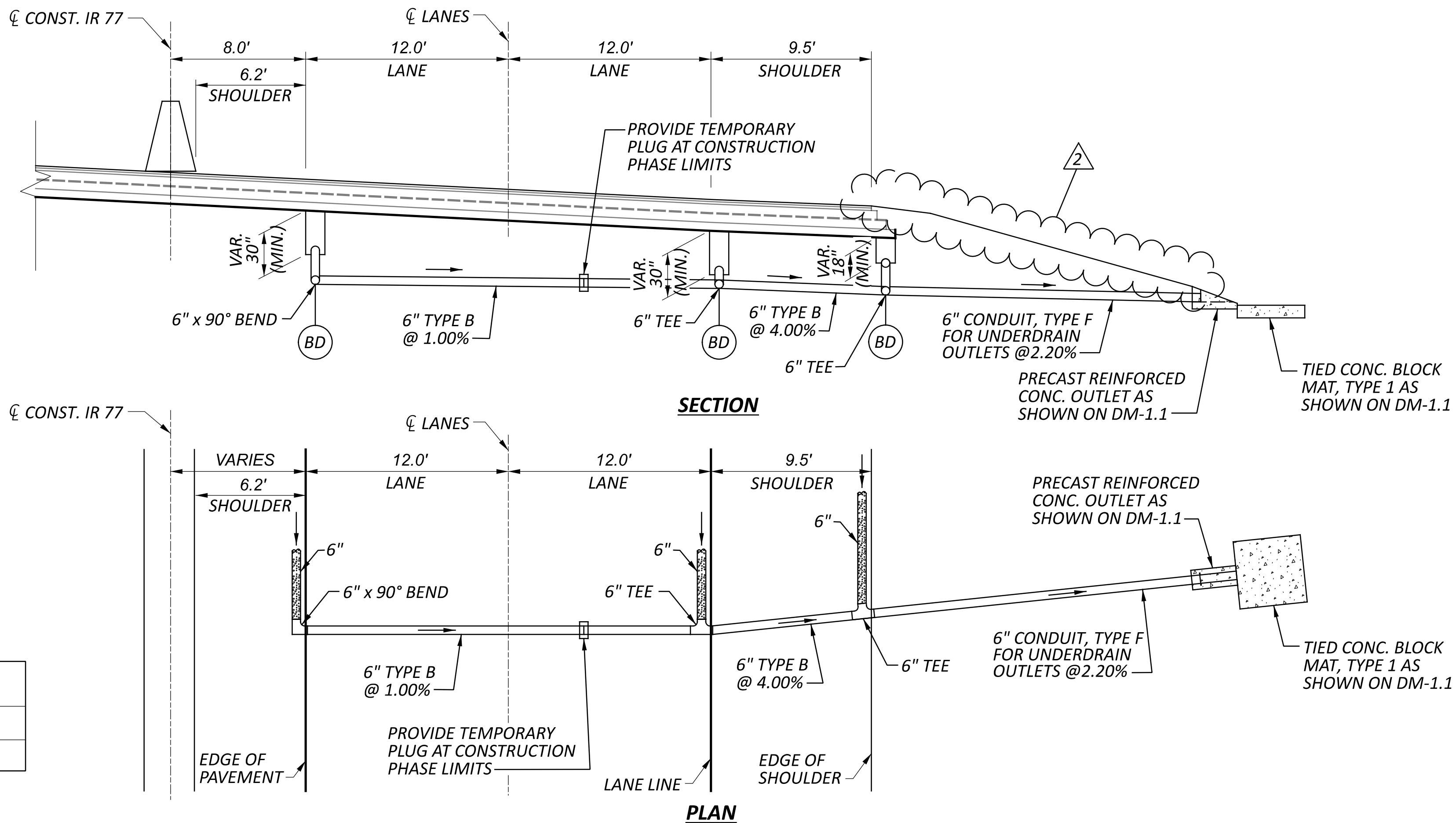
UNDERDRAIN DETAILS

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE



E. 14th ST.
REAR RIGHT

	11/26/25	REVISE SLOPE

DESIGN AGENCY



DESIGNER

ALP

REVIEWER

PRS 7-28-25

PROJECT ID

119380

SHEET

P.184

TOTAL

365

LEGEND

6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (18" NORMAL DEPTH)
OR
6" SHALLOW PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41 (30" NORMAL DEPTH)
OR
6" UNCLASSIFIED PIPE UNDERDRAIN WITH GEOTEXTILE FABRIC, 707.33 OR 707.41, (VARIABLE DEPTH)
OR
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, 707.33 OR 707.41

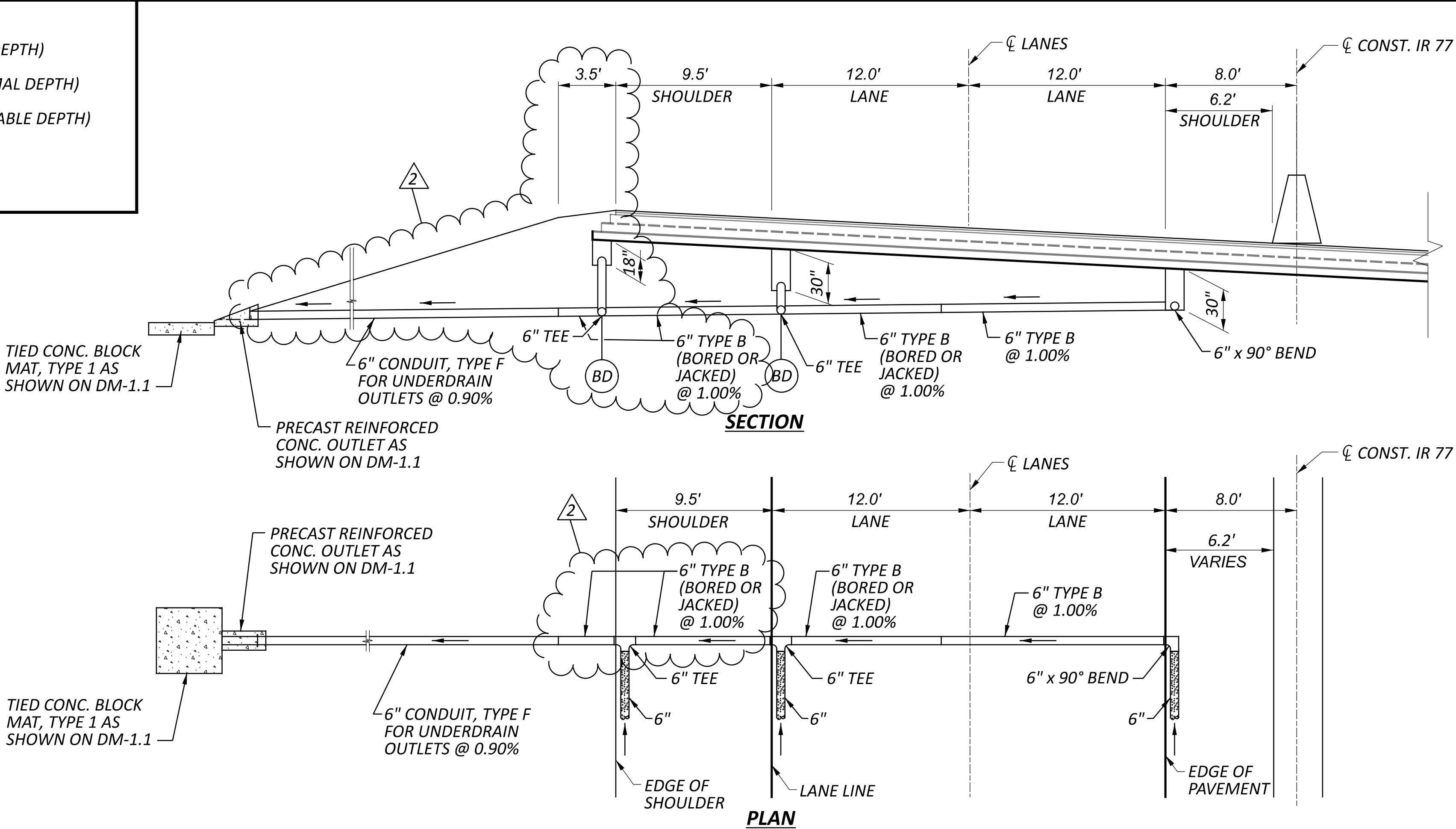
OUTLET PIPES, AS NOTED

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE

PROFILE



E. 14th ST.
FORWARD LEFT

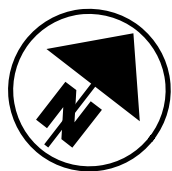
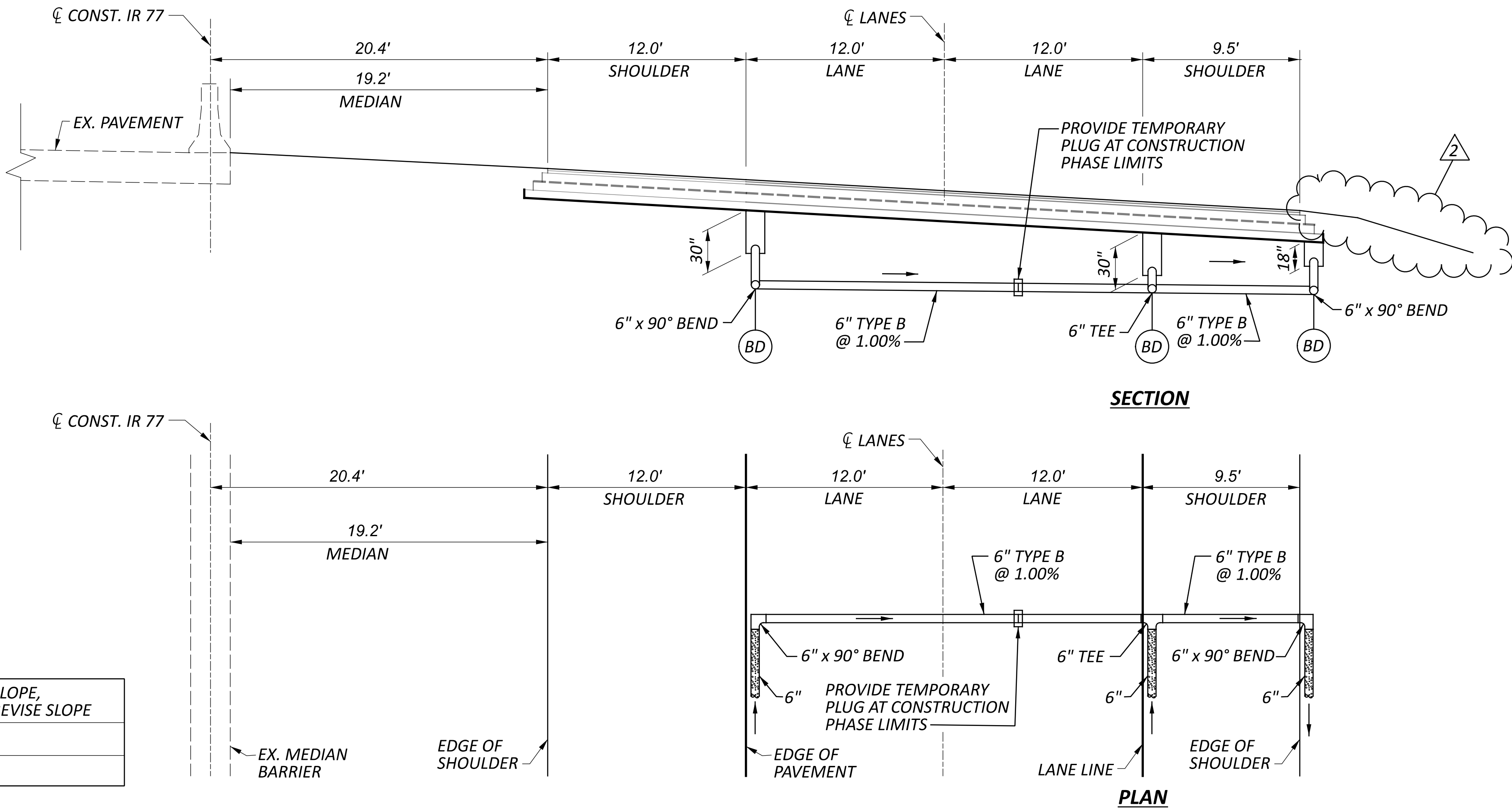
UNDERDRAIN DETAILS

LEGEND

6" x 45° BEND
(SEE PROFILE)

6" x 45° BEND
6" UNDERDRAIN
6" x 6" x 6" TEE OR 6" x 90° BEND

PROFILE



E. 14th ST.
FORWARD RIGHT

2	11/26/25	REVISE UD OUTLET SLOPE, 6" TYPE B LENGTH, REVISE SLOPE

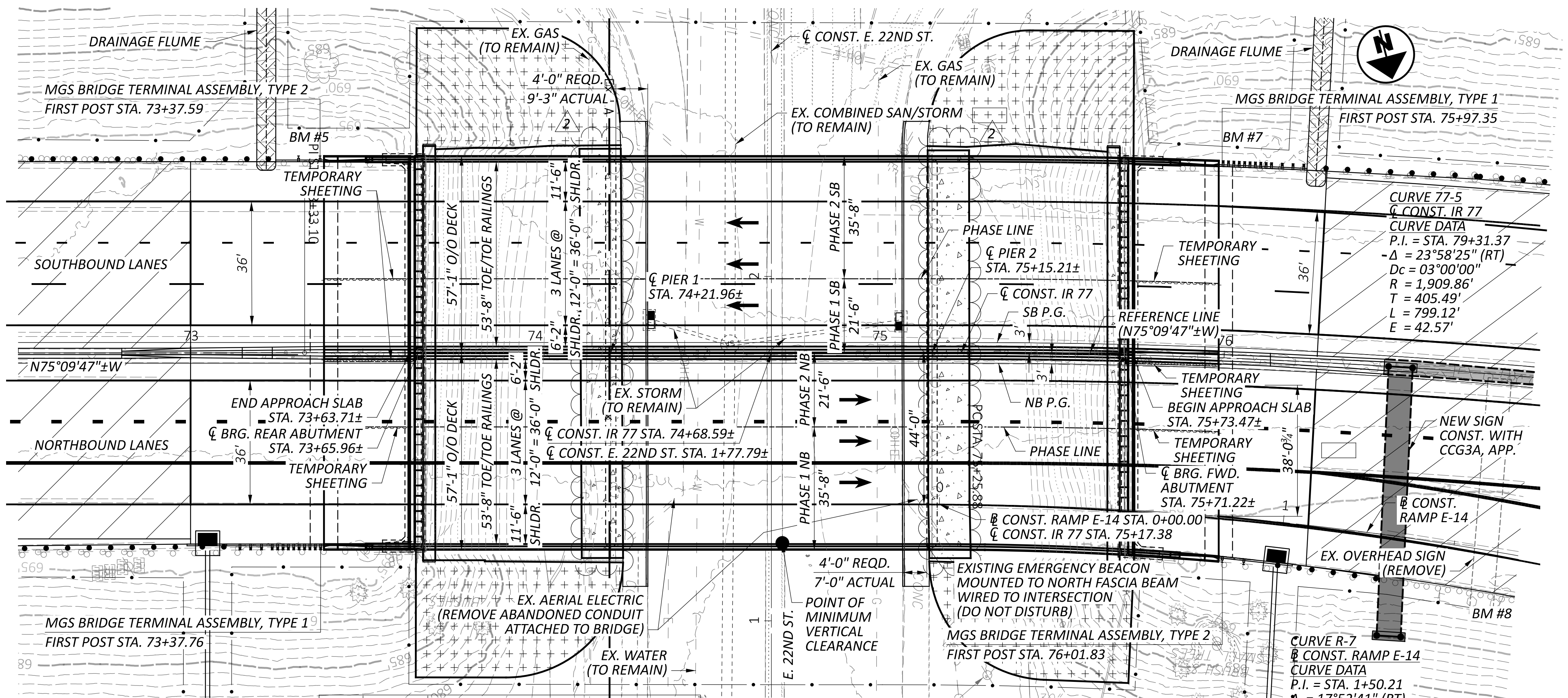
DESIGN AGENCY	ALP
DESIGNER	ALP
REVIEWER	PR
PROJECT ID	119380
SHEET	P.185
TOTAL	365

ESTIMATED QUANTITIES											CALCULATED	RWC	DATED	6/25
											CHECKED	DHT	DATED	6/25
FUNDING PARTICIPATION	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPERSTR.	ABUTS.	PIER	GEN'L	SEE SHEET				
01/IMS										<div></div> <div>/</div>				
LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					<div>3</div> <div>/</div> <div>57</div>				
400	202	22900	400	SY	APPROACH SLAB REMOVED				400					
400	202	23500	400	SY	WEARING COURSE REMOVED				400					
LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					<div>3</div> <div>/</div> <div>57</div>				
485	503	21100	485	CY	UNCLASSIFIED EXCAVATION				485					
264,343	509	10000	264,343	LB	EPOXY COATED STEEL REINFORCEMENT	229,965	34,378							
100	509	20001	100	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN				100	<div>3</div> <div>/</div> <div>57</div>				
13,512	509	30020	13,512	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	13,512								
1,721	510	10001	1,721	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN		1,721			<div>3</div> <div>/</div> <div>57</div>				
671	511	34446	<div>673</div>	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	<div>673</div>	<div>2</div>							
199	511	34450	<div>199</div>	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	<div>199</div>	<div>2</div>							
229	511	45712	<div>181</div>	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT		<div>181</div>	<div>2</div>						
1,349	512	10100	<div>1,348</div>	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	<div>763</div>	407		<div>178</div>	<div>2</div>				
2,554	512	10400	<div>2,554</div>	SY	TREATING OF CONCRETE BRIDGE DECK WITH SRS	<div>2,554</div>								
145	512	33000	145	SY	TYPE 2 WATERPROOFING		145							
2,554	512	73500	<div>2,554</div>	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	<div>2,554</div>								
13,250	513	10221	13,250	LB	STRUCTURAL STEEL MEMBERS, LEVEL 1, AS PER PLAN (BOLTED COVER PLATE RETROFITS)	13,250				<div>3</div> <div>/</div> <div>57</div>				
10,592	513	20000	10,592	EACH	WELDED STUD SHEAR CONNECTORS	10,592								
17,467	513	21500	17,467	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES	17,467								
843	513	90000	843	LB	STRUCTURAL STEEL, MISC.: CROSS FRAMES (SEISMIC RETROFIT)	843				<div>27</div> <div>/</div> <div>57</div>				
2,496	514	00051	2,496	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN	2,496				<div>4</div> <div>/</div> <div>57</div>				
2,496	514	00057	2,496	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN	2,496				<div>4</div> <div>/</div> <div>57</div>				
3,463	514	00061	3,463	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN	3,463				<div>4</div> <div>/</div> <div>57</div>				
3,463	514	00067	3,463	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	3,463				<div>4</div> <div>/</div> <div>57</div>				
406	516	11210	406	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	406								
18	516	13200	18	SF	1/2" PREFORMED EXPANSION JOINT FILLER		18							
81	516	13600	81	SF	1" PREFORMED EXPANSION JOINT FILLER		81							
22	516	13900	22	SF	2" PREFORMED EXPANSION JOINT FILLER		22							
16	516	44001	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1.875"x8½"x11" PAD AND 1.5"x9½"x13" PLATE), AS PER PLAN	16				<div>26</div> <div>/</div> <div>57</div>				
16	516	44101	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.933"x1'-1"x1'-1" PAD AND 1.5"x14"x18" TOP PLATE, 1.5"x17"x18" BOTTOM PLATE), AS PER PLAN	16				<div>26</div> <div>/</div> <div>57</div>				
LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					<div>4</div> <div>/</div> <div>57</div>				
222	518	21200	222	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		222							
395	518	40000	395	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		395							
40	518	40010	40	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		40							
256	SPECIAL	51900100	256	SF	COMPOSITE FIBER WRAP SYSTEM			256		<div>25</div> <div>/</div> <div>57</div>				
638	526	25011	638	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				638	<div>4</div> <div>/</div> <div>57</div>				
230	526	90010	230	FT	TYPE A INSTALLATION				230					
8	625	33000	8	EACH	STRUCTURE GROUNDING SYSTEM				8					

<div>2</div>	11/21/25	REVISE QUANTITIES

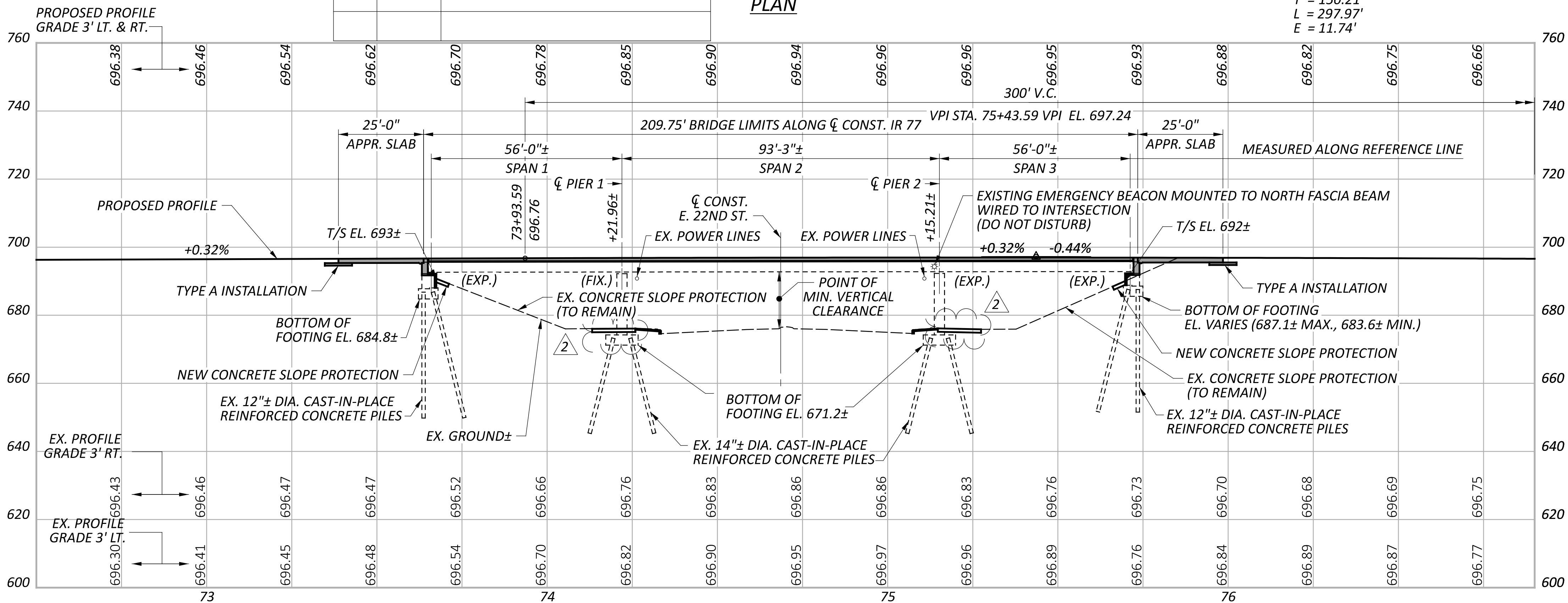
ESTIMATED QUANTITIES
BRIDGE NO. CUY-77-15.46
IR 77 OVER WOODLAND AVE.

SFN		1806815
DESIGN AGENCY		
<div>RE</div>		
DESIGNER	CHECKER	
BLN	DHT	
REVIEWER		
DLR		08/04/25
PROJECT ID		119380
SUBSET	TOTAL	
5	57	
SHEET	TOTAL	
P.221	365	



2	11/21/25	ADD CONCRETE SLOPE PROTECTION
---	----------	-------------------------------

PLAN



PROFILE ALONG PROFILE GRADE

BENCHMARK DATA

BM #5 STA.	73+34.16,	ELEV.	696.46,	OFFSET	58.83',	LT.
BM #6 STA.	74+37.16,	ELEV.	678.34,	OFFSET	121.59',	LT.
BM #7 STA.	76+03.95,	ELEV.	698.12,	OFFSET	59.33',	LT.
BM #8 STA.	76+83.72,	ELEV.	695.07,	OFFSET	64.78',	RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEETS.

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- ELECTRIC LINES ARE LOCATED FROM POLE TO POLE AND WILL REMAIN DURING CONSTRUCTION.
- EXISTING UNDERPASS LIGHTING TO BE REPLACED. EXISTING LIGHTING CIRCUIT TO BE UPDATED WITH PROJECT.

DESIGN TRAFFIC:

2025 ADT = 59,000	2025 ADTT = 4,130
2045 ADT = 62,000	2045 ADTT = 4,340

DIRECTIONAL DISTRIBUTION = 60%

LEGEND

- 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- 15'-4" ACTUAL MINIMUM VERTICAL CLEARANCE

	CONCRETE SLOPE PROTECTION
	EROSION CONTROL
	PLANING AND RESURFACING
	CONSTRUCTED WITH CCG3A

EXISTING STRUCTURE

TYPE: THREE-SPAN CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE UNITS ON CIP PIPE PILES

SPANS: 56'-0"±, 93'-3"±, 56'-0"± C/C BEARINGS

ROADWAY: SB BRIDGE - 53'-8"± TOE OF SAFETY CURB TO TOE OF MEDIAN BARRIER
NB BRIDGE - VARIES (53'-4"± MINIMUM TOE OF SAFETY CURB TO TOE OF MEDIAN BARRIER)

LOADING: CF-2000

SKEW: NONE

WEARING SURFACE: 2¾"± SUPERPLASTICIZED DENSE CONCRETE

APPROACH SLABS: AS-1-54 (25'-0"± LONG, 15"± THICK)

ALIGNMENT: TANGENT TO 3°00'00" RT.

CROWN: SUPERELEVATED (VARIES 0.05± MAX.)

STRUCTURE FILE NUMBER: 1806874

DATE BUILT: 1962

DISPOSITION: REHABILITATION AND NEW CONCRETE DECK

PROPOSED STRUCTURE

PROPOSED WORK: REPLACE EXISTING DECK WITH COMPOSITE CONCRETE DECK; RETROFIT WELDED COVER PLATES OVER PIERS; REPLACE BACKWALLS, BEAM SEATS, AND EXPANSION JOINTS; REPLACE ABUTMENT BEARINGS; REPLACE APPROACH SLABS; PATCH/FIBER WRAP/SEAL PIERS; CONSTRUCT SLOPE PROTECTION

SPANS: 56'-0"±, 93'-3"±, 56'-0"± C/C BEARINGS (MEASURED ALONG REFERENCE LINE)

ROADWAY: SB BRIDGE - 53'-8" TOE/TOE PARAPET
NB BRIDGE - VARIES (53'-8"± MINIMUM TOE/TOE PARAPET)

LOADING: HL93 AND 0.060 KSF FUTURE WEARING SURFACE (DECK) CF-2000 (SUPER AND SUB)

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 25'-0" LONG (15" THICK)(AS-1-15, AS-2-15 TYPE A INSTALLATION)

ALIGNMENT: TANGENT TO 3°00' RT.

CROWN: SUPERELEVATION: VARIES 0.05 FT/FT MAX.

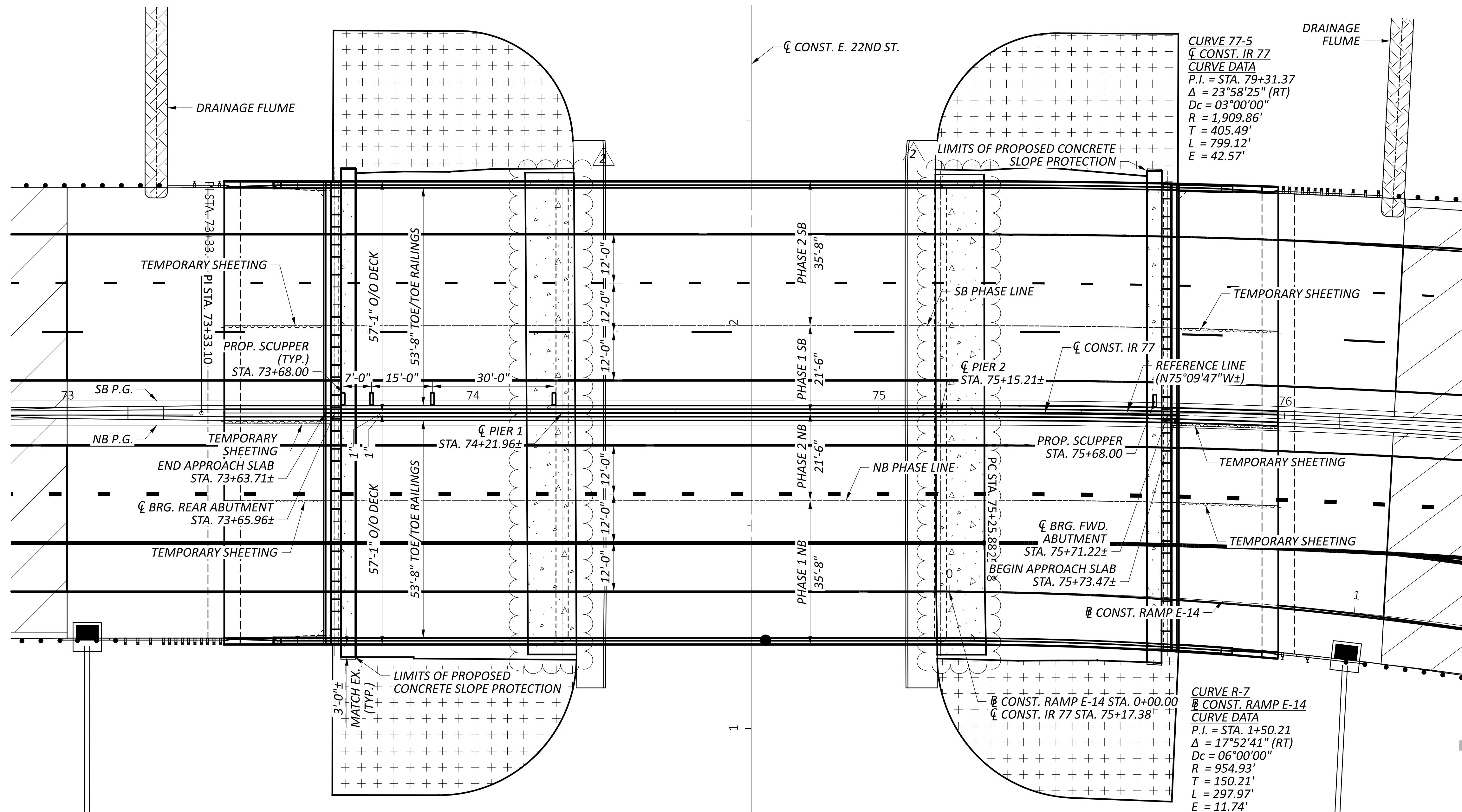
DECK AREA: 11869 SF (SOUTHBOUND)

11890 SF (NORTHBOUND)

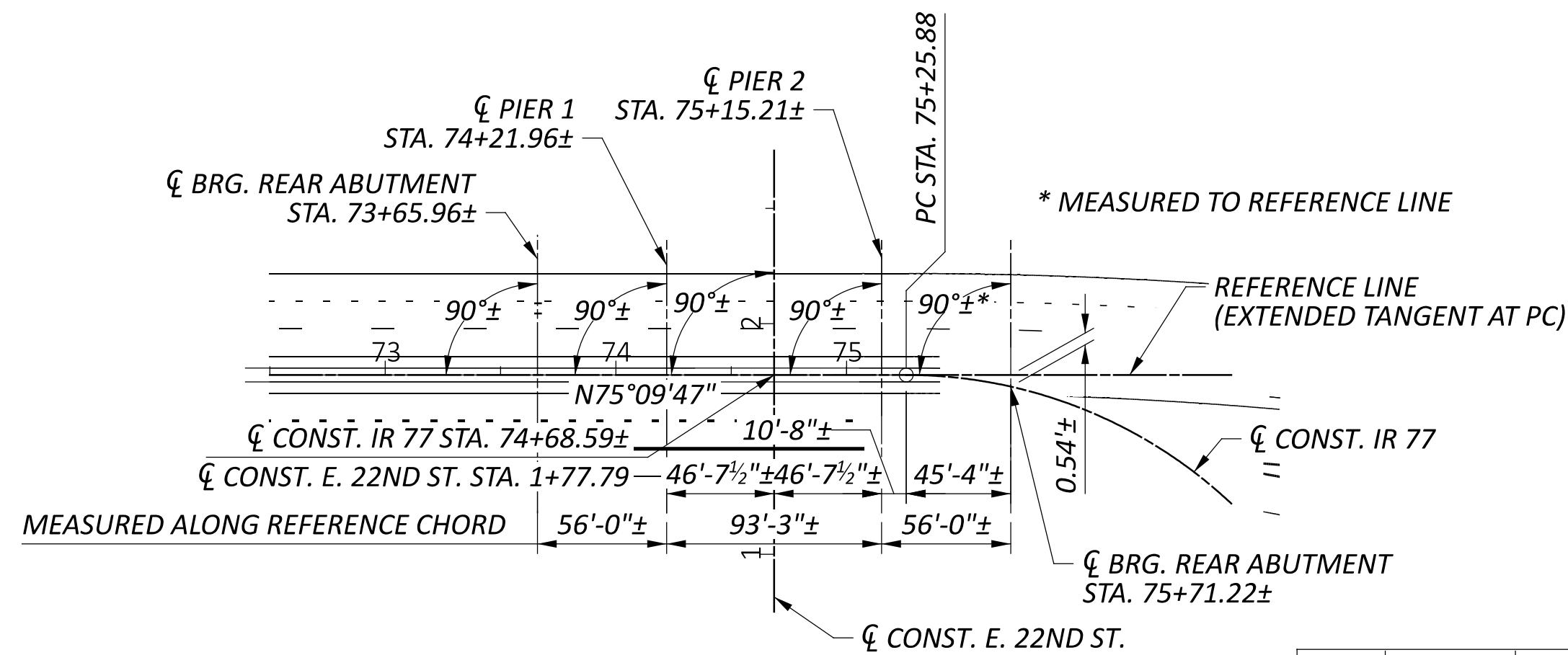
COORDINATES: LATITUDE 41° 29' 32.29" N
LONGITUDE 81° 40' 30.74" W

SITE PLAN
BRIDGE NO. CUY-77-15.62
IR 77 OVER E. 22ND ST.

SFN	1806874
DESIGN AGENCY	
DESIGNER	RAP
CHECKER	JOL
REVIEWER	
RER	07/25/25
PROJECT ID	119380
SUBSET	TOTAL
1	40
SHEET	TOTAL
P.274	365

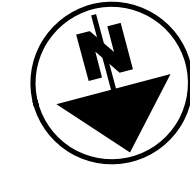


GENERAL PLAN



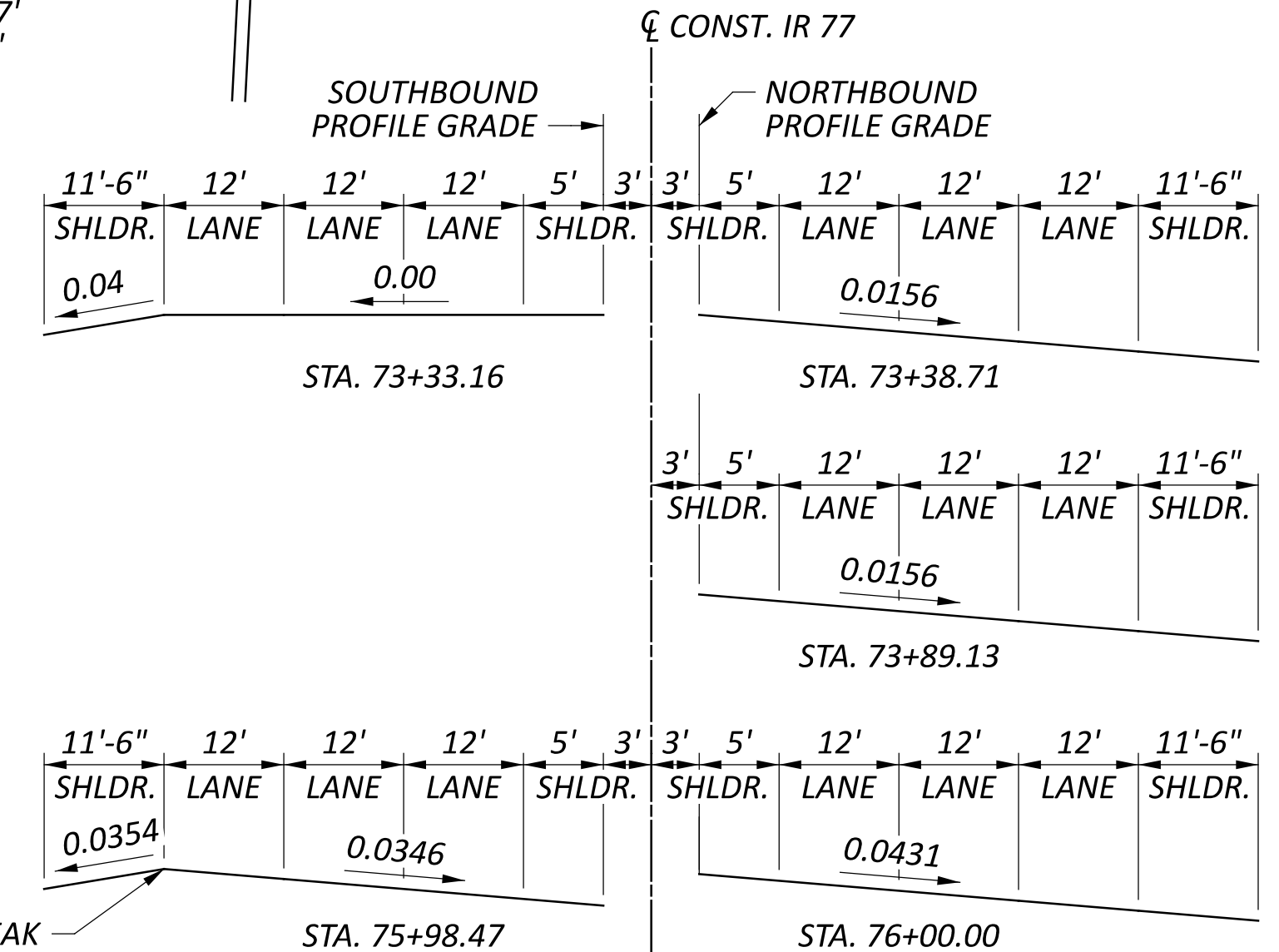
LAYOUT AND GEOMETRIC TIE

2	11/21/25	ADD CONCRETE SLOPE PROTECTION



LEGEND

- CONCRETE SLOPE PROTECTION
- EROSION CONTROL
- PLANING AND RESURFACING



SUPERELEVATION TRANSITION

(SEE ROADWAY TYPICAL SECTIONS AND SUPERELEVATION TABLE FOR ADDITIONAL DETAILS)

GENERAL PLAN
BRIDGE NO. CUY-77-15.62
IR 77 OVER E. 22ND ST.

SFN	1806874
DESIGN AGENCY	E.L. ROBINSON ENGINEERING
DESIGNER	RAP
CHECKER	JOL
REVIEWER	RER
PROJECT ID	119380
SUBSET	2
TOTAL	40
SHEET	P.275
TOTAL	365

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	1/20/2023
AS-2-15	REVISED	7/21/2023
EXJ-4-87	REVISED	1/19/2024
GSD-1-19	REVISED	7/19/2024
PCB-91	REVISED	7/17/2020
SBR-1-20	REVISED	7/19/2024
SBR-2-20	REVISED	7/19/2024

AND THE FOLLOWING STANDARD TRAFFIC DRAWINGS:

HL-50.21	REVISED	7/15/2022
----------	---------	-----------

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS 800	DATED	1/17/2025
--------	-------	-----------

AND TO THE FOLLOWING PROPOSAL NOTE(S):

PN 519	DATED	7/21/2017
--------	-------	-----------

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 10TH EDITION OF THE “LRFD BRIDGE DESIGN SPECIFICATIONS” ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2024 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.05 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

PROPOSED BRIDGE ELEMENTS

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT²

DESIGN STRESSES

CONCRETE CLASS QC2 - (SUPERSTRUCTURE)
COMPRESSIVE STRENGTH 4.5 KSI
CONCRETE CLASS QC1 - (SUBSTRUCTURE)
COMPRESSIVE STRENGTH 4.0 KSI

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI

GFRP REINFORCEMENT - BRIDGE RAILING AND MEDIAN

STRUCTURAL STEEL - ASTM A7 - YIELD STRENGTH 33 KSI
(EXISTING STEEL)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI
(PROPOSED STEEL)

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK:

1. MAINTAIN TRAFFIC LANES PER MOT PLANS AND PHASE CONSTRUCTION DETAILS INCLUDING INSTALLING ANCHORED PORTABLE CONCRETE BARRIERS.
2. REMOVE SB PHASE 1 DECK, PARAPETS/MEDIAN (AS APPLICABLE) PER PLAN DETAILS. SHORING SUPPORTED FROM THE BOTTOM BEAM FLANGES WILL BE REQUIRED WHEN THE CANTILEVER IS GREATER THAN 2.5 FEET FROM THE CENTERLINE OF BEAM TO FACE OF BARRIER.
3. SUPPORT EXISTING SB PHASE 1 BEAM ENDS AT THE ABUTMENT SO THAT THE EXISTING ROCKER BEARINGS CAN BE REMOVED.
4. REMOVE SB PHASE 1 ABUTMENT ROCKER BEARINGS AND END CROSSFRAMES.
5. REMOVE SB PHASE 1 APPROACH SLABS PER PLAN DETAILS.
6. INSTALL SB PHASE 1 CONSTRUCTION SHORING BEHIND THE ABUTMENTS.

7. REMOVE SB PHASE 1 ABUTMENT SEAT, BACKWALL AND WINGWALL CONCRETE PER PLAN DETAILS.
 8. INSPECT THE TOP BEAM FLANGES AND PIER MOMENT/SPLICE PLATES FOR DAMAGE OR CRACKING IN PREPARATION OF INSTALLING FATIGUE RETROFIT PLATING WHERE REQUIRED PER PLAN DETAILS.
 9. INSTALL THE BOLTED FATIGUE RETROFIT PLATES.
 10. INSTALL NEW SHEAR STUDS ADDED TO THE TOP BEAM FLANGES.
 11. INSTALL ABUTMENT REINFORCING DOWELS.
 12. CONSTRUCT NEW BACKWALL AND SEAT CONCRETE (PLUG WEEPHOLES).
 13. REPLACE EXISTING STEEL ROCKER ABUTMENT BEARINGS WITH ELASTOMERIC BEARINGS WITH LOAD PLATE.
 14. INSTALL NEW ABUTMENT CROSSFRAMES AT THE EXPANSION JOINT.
 15. CONSTRUCT NEW ABUTMENT STRIP SEAL EXPANSION JOINTS.
 16. CONSTRUCT A NEW COMPOSITE CONCRETE DECK FOR THIS PHASE. MECHANICAL SPLICES WILL BE REQUIRED BETWEEN PHASES. SHORING SUPPORTED FROM THE BOTTOM BEAM FLANGES WILL BE REQUIRED WHEN THE CANTILEVER IS GREATER THAN 2.5 FEET FROM THE CENTERLINE OF BEAM TO FACE OF BARRIER. SEE #2
 17. 10 FEET OF THE BEAM ENDS BEYOND THE ABUTMENT WILL BE PAINTED INCLUDING THE NEW CROSSFRAMES SUPPORTING THE EXPANSION JOINT.
 18. A NEW DRAINAGE SYSTEM WILL BE INSTALLED BEHIND THE ABUTMENTS WITH POROUS BACKFILL, GEOTEXTILE FABRIC AND DRAINPIPES. THE PIPES SHOULD BE ABLE TO OUTLET AROUND OR UNDER THE WINGWALLS AND THROUGH THE EMBANKMENT SIDE SLOPES. THE WEEPHOLES WILL BE ELIMINATED FROM THE FRONT OF THE ABUTMENTS.
 19. CONSTRUCT THE APPROACH AND SLEEPER SLABS IN THIS PHASE.
 20. DEPENDING ON THE CONSTRUCTION PHASE, SBR-1-20 42” SINGLE SLOPE RAILING WILL BE CONSTRUCTED ON THE SUPERSTRUCTURE DECK AND ON THE APPROACH SLABS WHICH WILL BE OVER THE RECONSTRUCTED WINGWALLS.
 21. DEPENDING ON THE CONSTRUCTION PHASE, THE SBR-2-20 57” SPLIT SINGLE SLOPE MEDIAN BRIDGE RAILING WILL BE CONSTRUCTED IN THE MEDIAN TO ACCOUNT FOR THE CENTER JOINT. IT WILL BE SOLID ON THE APPROACH SLABS.
 22. REMOVE THE EXISTING CONCRETE SLOPE PROTECTION AT PIERS 1 & 2 PER ROADWAY GENERAL NOTE ‘ITEM 202 CONCRETE SLOPE PROTECTION REMOVED, AS PER PLAN’ AND EXCAVATE TO THE TOP OF THE PIER FOOTING PER CMS 503. PATCH AND WRAP THE PIERS AT DESIGNATED LOCATIONS AS PER PLAN DETAILS. ONCE THE COMPOSITE FIBER WRAP SYSTEM IS COMPLETE AND IN PLACE, THE EXCAVATED AREA SHALL BE FILLED WITH EMBANKMENT PER ITEM 503 TO THE BOTTOM OF THE PROPOSED CONCRETE SLOPE PROTECTION. THE CONCRETE SLOPE PROTECTION SHALL BE INSTALLED PER ROADWAY GENERAL NOTE ‘ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN B’.
 23. CONSTRUCT NEW CONCRETE SLOPE PROTECTION ON THE ABUTMENT SLOPES 4 TO THE LIMITS SHOWN IN THE PLANS. (FROM THE FACE OF THE ABUTMENT TO FOUR FEET FROM THE FACE OF THE ABUTMENT)
 24. NEW UNDERPASS LIGHTING WILL BE INSTALLED PER LIGHTING PLAN DETAILS.
 25. SEAL SUPERSTRUCTURE AND ABUTMENT CONCRETE SURFACES WITH EPOXY-URETHANE PER PLAN DETAILS.
- REPEAT WORK FOR THE OTHER PHASES AND TRAFFIC DIRECTIONS.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF

REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING BEGINS, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF CONCRETE REINFORCEMENT IN THE DECK SLAB. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER’S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRET REINFORCEMENT, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18-IN LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE DESIGN REQUIRMENTS SHOWN BELOW FOR TEMPORARY SUPPORT OF EXCAVATION AT THE ABUTMENT IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. IN ORDER IN MINIMIZE SHEET PILE DEPTH THIS DESIGN ANCHORS THE SHEET PILE TO THE APPROACH SLAB AT THE TOP. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN BELOW OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAM AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

SHEET PILE EMBEDMENT BELOW ABUTMENT FOOTING: 4 FEET

MINIMUM SHEET PILE SECTION MODULUS: 4 IN³/FT

MINIMUM SHEET PILE YIELD STRENGTH: 39 KSI

MINIMUM ALLOWABLE APPROACH SLAB ANCHOR BOLT CAPACITY AT THE TOP OF THE SHEET PILE: 1000 LB/FT

2	11/21/25	REVISE NOTE

ITEM 509 – CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT.

AN ESTIMATED QUANTITY OF 165 LBS HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES FOR REPLACEMENT OF CORRODED REINFORCING STEEL.

ITEM 510 – DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL WITH AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. ALL WORK AND EQUIPMENT REQUIRED FOR LOCATING EXISTING BARS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT AS PER PLAN.

ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK

INSPECTION:

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS OR GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER’S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO C&MS 511.07, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511 - SUPERSTRUCTURE CONCRETE. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103”.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65”.

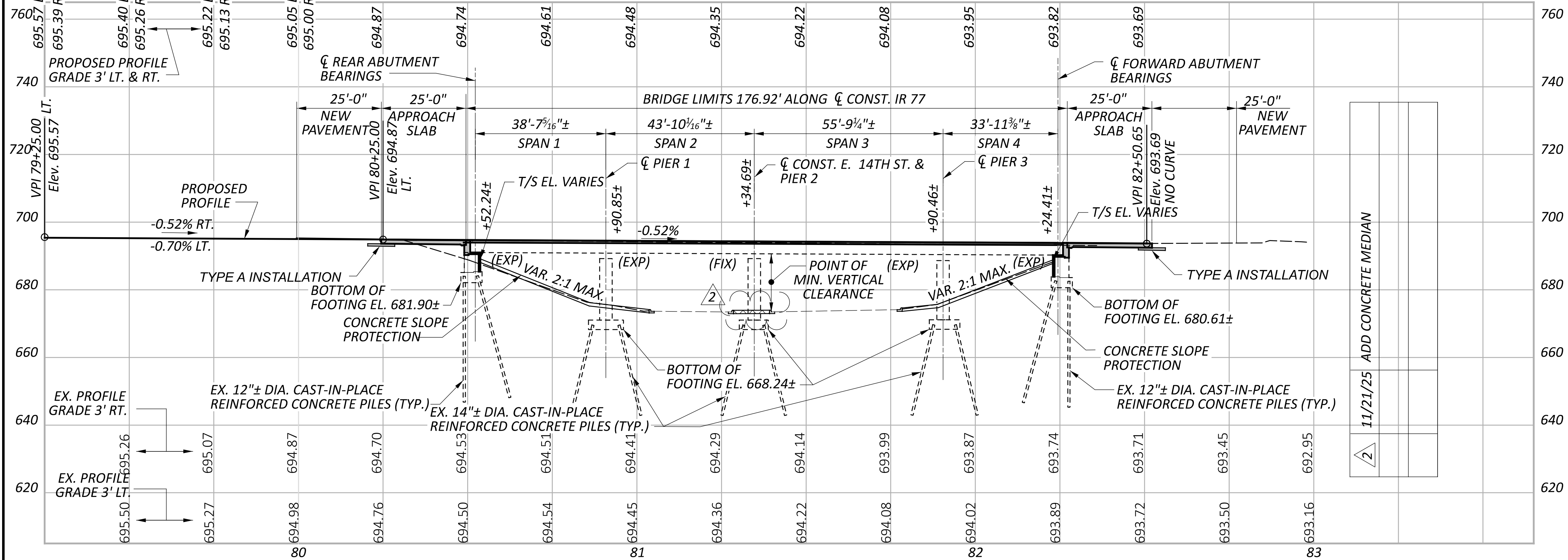
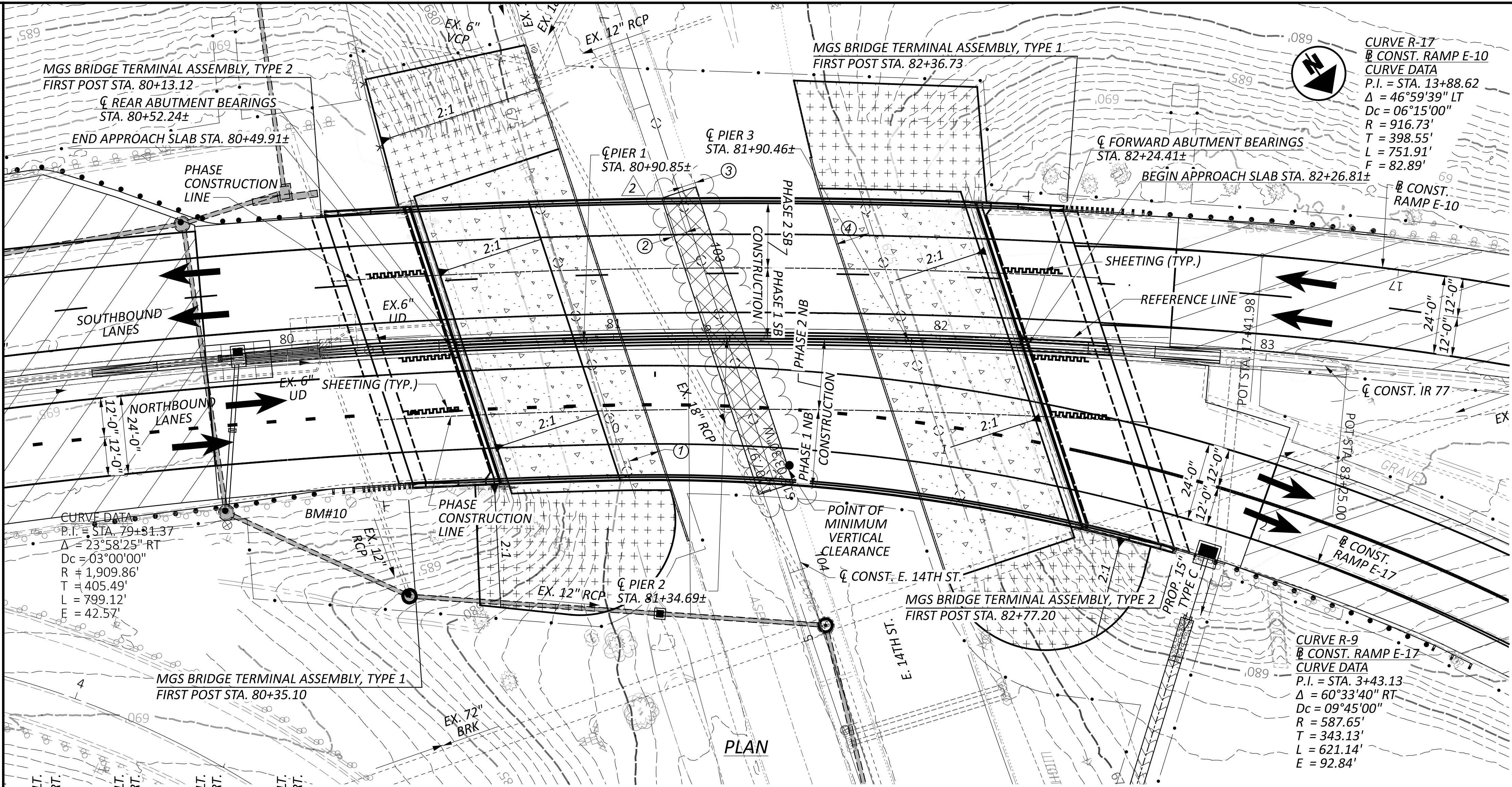
ITEM 512 – TREATING OF CONCRETE BRIDGE DECKS WITH SRS
ITEM 512 – TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

THE FOLLOWING ITEMS ARE INCLUDED IN THE ESTIMATED QUANTITIES FOR SEALING THE BRIDGE DECK(S) AND APPROACH SLABS CONSTRUCTED IN THIS PROJECT:

ITEM 512 – TREATING OF CONCRETE BRIDGE DECKS WITH SRS
ITEM 512 – TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

PERFORM SEALING AFTER THE BRIDGE DECK(S) AND APPROACH SLABS HAVE BEEN GROOVED AND BEFORE INSTALLING PAVEMENT MARKINGS AND/OR OPENING THE DECK(S) TO TRAFFIC. THE SEALING PRODUCT (SRS OR GRAVITY FED RESIN) WILL BE DIRECTED BY THE ENGINEER, AND THE OTHER LINE ITEM WILL BE NON-PERFORMED. THE C&MS 104.02 ADJUSTMENT WILL NOT APPLY TO THESE LINE ITEMS. THE INCLUSION OF THESE LINE ITEMS DOES NOT WAIVE THE REQUIREMENTS OF C&MS 511.19 TO SEAL CONSTRUCTION JOINTS WITH HMWM.

SFN	1806874
DESIGN AGENCY	
DESIGNER	CHECKER
MJM	JOL
REVIEWER	
RE	07/25/25
PROJECT ID	119380
SUBSET	TOTAL
3	40
SHEET	TOTAL
P.276	365



PROFILE ALONG \bar{C} CONSTRUCTION/PROFILE GRADE

BENCHMARK DATA

BM #10 STA.	80+07.91,	ELEV.	697.27,	OFFSET	62.20',	LT.
BM #11 STA.	81+72.96,	ELEV.	674.65,	OFFSET	119.76',	RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 142 OF 365.

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- EXISTING UNDERPASS LIGHTING TO BE REPLACED. EXISTING LIGHTING CIRCUIT TO BE UPDATED WITH PROJECT.

DESIGN TRAFFIC:

2025 ADT = 59,000 2025 ADTT = 4,130

2045 ADT = 62,000 2045 ADTT = 4,340

DIRECTIONAL DISTRIBUTION = 60%

LEGEND

- 14'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- 15'-0 1/2" ACTUAL MINIMUM VERTICAL CLEARANCE

CONCRETE SLOPE PROTECTION

EROSION CONTROL

PLANING AND RESURFACING

LEGEND
CONSTRUCTED WITH CCG3A

	REQUIRED MINIMUM HORIZONTAL CLEARANCE	ACTUAL MINIMUM HORIZONTAL CLEARANCE
①	4'	9.89'
②	4'	6.21'
③	4'	5.68'
④	4'	11.86'

EXISTING STRUCTURE

TYPE: FOUR CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE UNITS ON CAST-IN-PLACE PILES

SPANS: 38'-7 5/16"±; 43'-10 1/16"±; 55'-9 3/4"±; 33'-11 3/8"± C/C BEARING

ROADWAY: S.B. BRIDGE - 37'-10"± TOE OF SAFETY CURB TO TOE OF MEDIAN
N.B. BRIDGE - VARIES

LOADING: CF 2000

SKEW: 18°02'35"± R.F. (WITH RESPECT TO REFERENCE CHORD)

WEARING SURFACE: 2 3/4"± SUPERPLASTICIZED DENSE CONCRETE OVERLAY

APPROACH SLABS: AS-1-54 15' THICK (25' LONG)

ALIGNMENT: 2°38'40" RT. ALONG \bar{C} CONST. RAMP E-10
3°45'00" RT. AND 10°00'00" RT. ALONG \bar{C} CONST. RAMP E-17

SUPERELEVATION: VARIES (0.05± MAX.)

STRUCTURE FILE NUMBER: 1806904

DATE BUILT: 1962

DISPOSITION: REHABILITATION + NEW CONCRETE DECK

PROPOSED STRUCTURE

PROPOSED WORK: REPLACE EXISTING DECK WITH COMPOSITE CONCRETE DECK; CONSTRUCT ABUTMENT SEATS AND SEISMIC BLOCK; REPLACE BACKWALLS, BEAM SEATS, END CROSS FRAME AND EXPANSION JOINTS; REPLACE ABUTMENT BEARINGS; REPLACE APPROACH SLABS; FIBER WRAP PIERS; CONSTRUCT CONCRETE SLOPE PROTECTION

SPANS: 38'-7 5/16"±; 43'-10 1/16"±; 55'-9 3/4"±; 33'-11 3/8"± C/C BEARING (ALONG REFERENCE LINE)

ROADWAY: S.B. BRIDGE - 39'-8" TOE/TOE PARAPET
N.B. BRIDGE - VARIES 39'-8" MINIMUM TOE/TOE PARAPET

LOADING: HL93 AND 0.060 KSF FUTURE WEARING SURFACE

SKEW: 18°02'35"± R.F. (WITH RESPECT TO REFERENCE CHORD)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: MODIFIED 25'-0" LONG (15" THICK) (AS-1-15, AS-2-15 TYPE A INSTALLATION)

ALIGNMENT: 2°38'40" RT. ALONG \bar{C} CONST. RAMP E-10
3°45'00" RT. AND 10°00'00" RT. ALONG \bar{C} CONST. RAMP E-17

SUPERELEVATION: VARIES 0.05 FT/FT MAX.

DECK AREA: 15,399 SF

COORDINATES: LATITUDE 41° 29' 35.09" N
LONGITUDE 81° 40' 39.79" W

SITE PLAN
BRIDGE NO. CUY-77-15.75
IR 77 OVER E. 14TH ST.

SFN

1806904

DESIGN AGENCY



DESIGNER

BLN

CHECKER

DHT

REVIEWER

DLR 08/04/25

PROJECT ID

119380

SUBSET

1

TOTAL

52

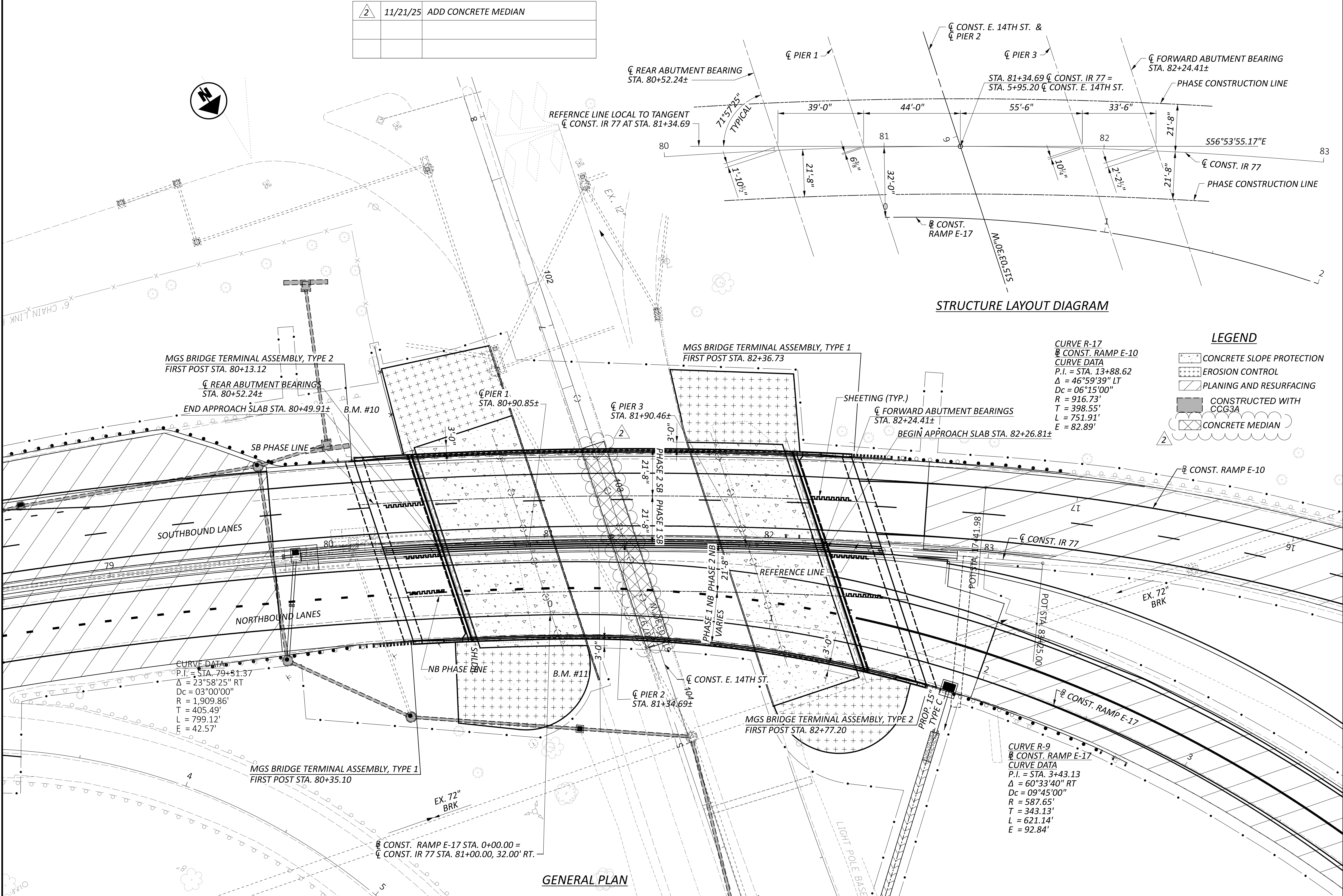
SHEET

P.314

TOTAL

365

2	11/21/25	ADD CONCRETE MEDIAN



GENERAL PLAN

STRUCTURE LAYOUT DIAGRAM

LEGEND

- CONCRETE SLOPE PROTECTION
- EROSION CONTROL
- PLANING AND RESURFACING
- CONSTRUCTED WITH CCG3A
- CONCRETE MEDIAN

CURVE R-17
CONST. RAMP E-10
CURVE DATA
P.I. = STA. 13+88.62
 $\Delta = 46^\circ 59' 39''$ LT
Dc = $06^\circ 15' 00''$
R = 916.73'
T = 398.55'
L = 751.91'
E = 82.89'

CURVE R-9
CONST. RAMP E-17
CURVE DATA
P.I. = STA. 3+43.13
 $\Delta = 60^\circ 33' 40''$ RT
Dc = $09^\circ 45' 00''$
R = 587.65'
T = 343.13'
L = 621.14'
E = 92.84'

GENERAL PLAN
BRIDGE NO. CUY-77-15.75
IR 77 OVER E. 14TH ST.

SFN
1806904

DESIGN AGENCY



DESIGNER
BLN

CHECKER
DHT

REVIEWER
DLR 08/04/25

PROJECT ID
119380

SUBSET
2 TOTAL
52

SHEET
P.315 TOTAL
365

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 REVISED 1/20/2023
AS-2-15 REVISED 7/21/2023
EXJ-4-87 REVISED 1/19/2024
GSD-1-19 REVISED 7/19/2024
PCB-91 REVISED 7/17/2020
SBR-1-20 REVISED 7/19/2024
SBR-2-20 REVISED 7/19/2024

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS800 DATED 7/18/2025

AND TO THE FOLLOWING PROPOSED NOTE(S):

PN 519 DATED 7/21/2017

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 10TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2024 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.05 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

PROPOSED BRIDGE ELEMENTS

DESIGN LOADING INCLUDES:

VEHICULAR LIVE LOAD: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT

DESIGN STRESSES

CONCRETE CLASS QC2 - (SUPERSTRUCTURE)

COMPRESSIVE STRENGTH 4.5 KSI

CONCRETE CLASS QC1 - (SUBSTRUCTURE)

COMPRESSIVE STRENGTH 4.0 KSI

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI

GFRP REINFORCEMENT - BRIDGE RAILING AND MEDIAN

STRUCTURAL STEEL - ASSUMED MINIMUM- YIELD STRENGTH 33 KSI (EXISTING STEEL)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI (PROPOSED STEEL)

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK:

1. MAINTAIN TRAFFIC LANES PER MOT PLANS AND PHASE CONSTRUCTION DETAILS INCLUDING INSTALLING ANCHORED PORTABLE CONCRETE BARRIERS.
2. REMOVE PHASE 1 DECK, PARAPETS/MEDIAN (AS APPLICABLE) PER PLAN DETAILS. AS THE DECK PHASE LINE CUT MOVES AWAY FROM ONE BEAM AND CROSSES ANOTHER BEAM, SHORING SUPPORTED FROM THE BOTTOM BEAM FLANGES WILL BE REQUIRED WHEN THE CANTILEVER IS GREATER THAN 2.5 FEET FROM THE CENTERLINE OF BEAM TO FACE OF BARRIER.
3. SUPPORT EXISTING PHASE 1 BEAM ENDS AT THE ABUTMENT SO THAT THE EXISTING ROCKER BEARINGS CAN BE REMOVED.
4. REMOVE PHASE 1 ABUTMENT ROCKER BEARINGS AND END CROSSFRAMES.
5. REMOVE PHASE 1 APPROACH SLABS PER PLAN DETAILS.
6. INSTALL PHASE 1 CONSTRUCTION SHORING BEHIND THE ABUTMENTS.
7. REMOVE PHASE 1 ABUTMENT SEAT, BACKWALL AND WINGWALL CONCRETE PER PLAN DETAILS.

8. INSTALL NEW SHEAR STUDS ADDED TO THE TOP BEAM FLANGES.

9. INSTALL ABUTMENT REINFORCING DOWELS.

10. CONSTRUCT NEW BACKWALL AND SEAT CONCRETE (PLUG WEEP HOLES).

11. THE TOP OF THE ABUTMENT WINGWALLS WILL BE RECONSTRUCTED TO A LEVEL BELOW THE BOTTOM OF THE NEW FULL WIDTH APPROACH SLABS.

12. INSTALL ELASTOMERIC ABUTMENT BEARINGS WITH LOAD PLATE.

13. INSTALL NEW ABUTMENT CROSSFRAMES AT THE EXPANSION JOINTS.

14. CONSTRUCT NEW ABUTMENT STRIP SEAL EXPANSION JOINTS.

15. CONSTRUCT A NEW COMPOSITE CONCRETE DECK FOR THIS PHASE. MECHANICAL SPLICES WILL BE REQUIRED BETWEEN PHASES. AS THE DECK PHASE LINE CUT MOVES AWAY FROM ONE BEAM AND CROSSES ANOTHER BEAM, SHORING SUPPORTED FROM THE BOTTOM BEAM FLANGES WILL BE REQUIRED WHEN THE CANTILEVER IS GREATER THAN 2.5 FEET FROM THE CENTERLINE OF BEAM TO FACE OF BARRIER.

16. 10 FEET OF THE BEAM ENDS BEYOND THE ABUTMENT WILL BE PAINTED INCLUDING THE NEW CROSSFRAMES SUPPORTING THE EXPANSION JOINT.

17. A NEW DRAINAGE SYSTEM WILL BE INSTALLED BEHIND THE ABUTMENTS WITH POROUS BACKFILL, GEOTEXTILE FABRIC AND DRAINPIPES. THE PIPES SHOULD BE ABLE TO OUTLET AROUND OR UNDER THE WINGWALLS AND THROUGH THE EMBANKMENT SIDE SLOPES. THE WEEPHOLES WILL BE ELIMINATED FROM THE FRONT OF THE ABUTMENTS.

18. CONSTRUCT THE APPROACH AND SLEEPER SLABS IN THIS PHASE.

19. DEPENDING ON THE CONSTRUCTION PHASE, SBR-1-20 42" SINGLE SLOPE RAILING WILL BE CONSTRUCTED ON THE SUPERSTRUCTURE DECK AND ON THE APPROACH SLABS WHICH WILL BE OVER THE RECONSTRUCTED WINGWALLS.

20. DEPENDING ON THE CONSTRUCTION PHASE, THE SBR-2-20 57" SPLIT SINGLE SLOPE MEDIAN BRIDGE RAILING WILL BE CONSTRUCTED IN THE MEDIAN TO ACCOUNT FOR THE CENTER JOINT. IT WILL BE SPLIT ON THE BACKWALL AND SOLID ON THE APPROACH SLAB.

21. REMOVE THE EXISTING CONCRETE MEDIAN AT PIER 2 PER ROADWAY GENERAL NOTE 'ITEM 202 CONCRETE MEDIAN REMOVED, AS PER PLAN' AND EXCAVATE TO THE TOP OF THE PIER FOOTING PER CMS 503. PATCH AND WRAP THE PIERS AT DESIGNATED LOCATIONS AS PER PLAN DETAILS. ONCE THE COMPOSITE FIBER WRAP SYSTEM IS COMPLETE AND IN PLACE, THE EXCAVATED AREA SHALL BE FILLED WITH EMBANKMENT PER ITEM 503 TO THE BOTTOM OF THE PROPOSED SUBBASE. 4" OF AGGREGATE BASE AND THE CONCRETE MEDIAN SHALL BE INSTALLED PER ROADWAY GENERAL NOTE 'ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN B'.

22. CONSTRUCT NEW CONCRETE SLOPE PROTECTION ON THE ABUTMENT SLOPES PAST THE PIER COLUMNS TO THE BACK OF THE NEW CURBS.

23. NEW UNDERPASS LIGHTING WILL BE INSTALLED PER LIGHTING PLAN DETAILS.

24. SEAL SUPERSTRUCTURE AND ABUTMENT CONCRETE SURFACES WITH EPOXY-URETHANE PER PLAN DETAILS.

REPEAT WORK FOR THE OTHER PHASES AND TRAFFIC DIRECTIONS.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING BEGINS, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF CONCRETE REINFORCEMENT IN THE DECK SLAB. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCEMENT, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18-IN LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 503 – COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE DESIGN SHOWN BELOW FOR TEMPORARY SUPPORT OF EXCAVATION AT THE ABUTMENT IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. IN ORDER IN MINIMIZE SHEET PILE DEPTH THIS DESIGN ANCHORS THE SHEET PILE TO THE APPROACH SLAB AT THE TOP. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN BELOW OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAM AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

SHEET PILE EMBEDMENT BELOW ABUTMENT FOOTING: 4 FEET

MINIMUM SHEET PILE SECTION MODULUS: 4 IN³/FT

MINIMUM SHEET PILE YIELD STRENGTH: 39 KSI

MINIMUM ALLOWABLE APPROACH SLAB ANCHOR BOLT CAPACITY AT THE TOP OF THE SHEET PILE: 1000 LB/FT

ITEM 509 – CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT

AN ESTIMATE QUANTITY OF 100 LBS HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES FOR REPLACEMENT OF CORRODED REINFORCING STEEL.

ITEM 510 – DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL WITH AID OF A REINFORCING STEEL LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BARS. ALL WORK AND EQUIPMENT REQUIRED FOR LOCATING EXISTING BARS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 510. DOWEL HOLES WITH NONSHRINK, NON-METALLIC GROUT AS PER PLAN

ITEM 511 – CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK INSPECTION:

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS OR GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO C&MS 511.07, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511 - SUPERSTRUCTURE CONCRETE. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

ITEM 512 – TREATING OF CONCRETE BRIDGE DECKS WITH SRS

ITEM 512 – TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

THE FOLLOWING ITEMS ARE INCLUDED IN THE ESTIMATED QUANTITIES FOR SEALING THE BRIDGE DECK(S) AND APPROACH SLABS CONSTRUCTED IN THIS PROJECT.

ITEM 512 - TREATING OF CONCRETE BRIDGE DECKS WITH SRS

ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

PERFORM SEALING AFTER THE BRIDGE DECK(S) AND APPROACH SLABS HAVE BEEN GROOVED AND BEFORE INSTALLING PAVEMENT MARKINGS AND/OR OPENING THE DECK(S) TO TRAFFIC. THE SEALING PRODUCT (SRS OR GRAVITY FED RESIN) WILL BE DIRECTED BY THE ENGINEER, AND THE OTHER LINE ITEM WILL BE NON-PERFORMED. THE C&MS 104.02 ADJUSTMENT WILL NOT APPLY TO THESE LINE ITEMS. THE INCLUSION OF THESE LINE ITEMS DOES NOT WAIVE THE REQUIREMENTS OF C&MS 511.19 TO SEAL CONSTRUCTION JOINTS WITH HMWM.

2 11/21/25 REVISE NOTE

GENERAL NOTES - 1
BRIDGE NO. CUY-77-15.75
IR 77 OVER E. 14TH ST.

SFN

1806904

DESIGN AGENCY



DESIGNER

BLN

CHECKER

DHT

REVIEWER

DLR 08/04/25

PROJECT ID

119380

SUBSET

3

TOTAL

52

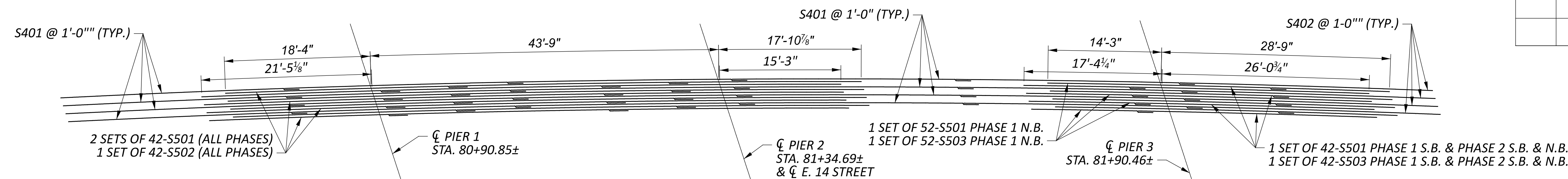
SHEET

P.316

TOTAL

365


2	11/21/25	REVISE QUANTITIES



DECK PLAN

<u>2</u>	11/21/25	REVISE DIMENSION

1. REINFORCING STEEL SPLICE LENGTHS: SHALL BE 1'-10" FOR #4 BARS, 2'-3" FOR #5 BARS
2. DETAIL X: SEE SHEET 28 OF 52
3. FOR SPACING OF LONGITUDINAL REINFORCING STEEL: SEE TRANSVERSE SECTION, SHEET 26 OF 52.

SFN		1806904	
DESIGN AGENCY			
			
DESIGNER		CHECKER	
BLN		DHT	
REVIEWER			
DLR		08/04/25	
PROJECT ID			
119380			
SUBSET		TOTAL	
27		52	
SHEET		TOTAL	
P.340		365	

DECK PLAN - TOP REINFORCING
BRIDGE NO. CUY-77-15.75
IR 77 OVER E. 14TH ST.