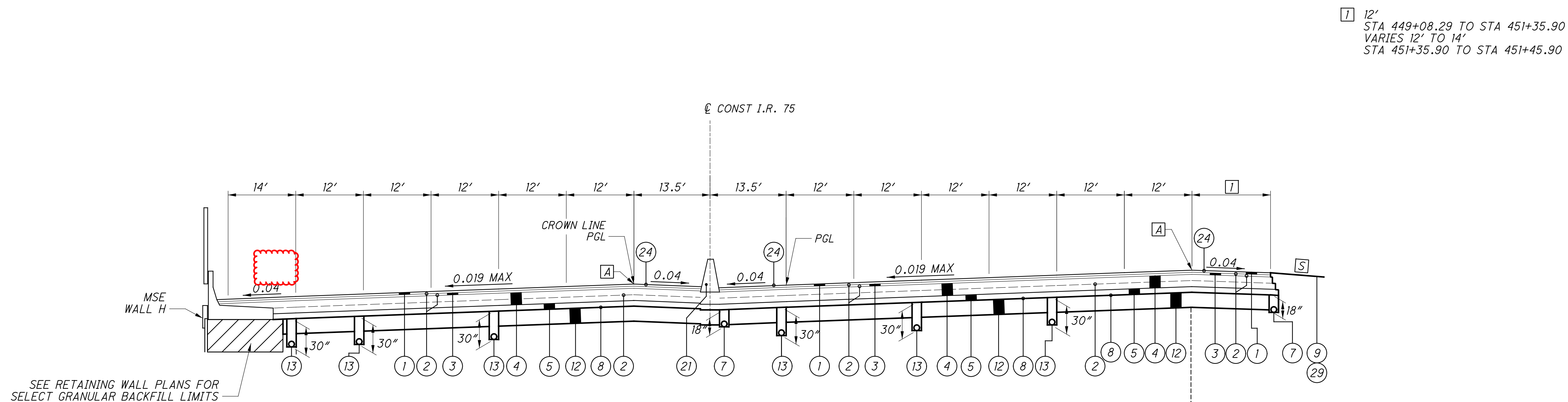
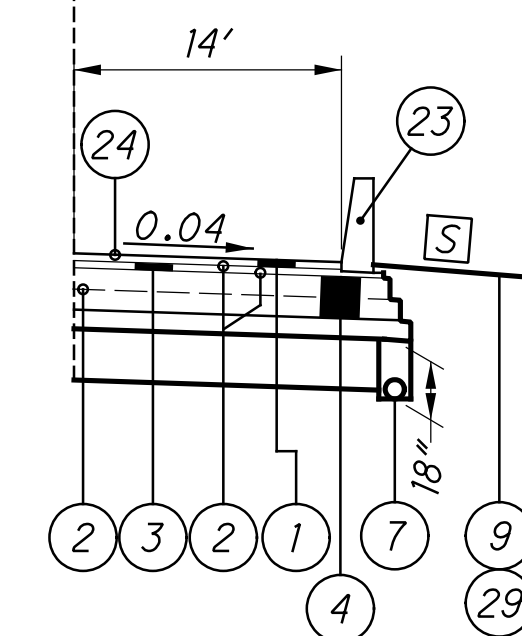


J:\20110903\ODOT\HAM\77889\roadway\sheet\77889GY401.dgn 9/30/2026 1:38:23 PM hbreindinger

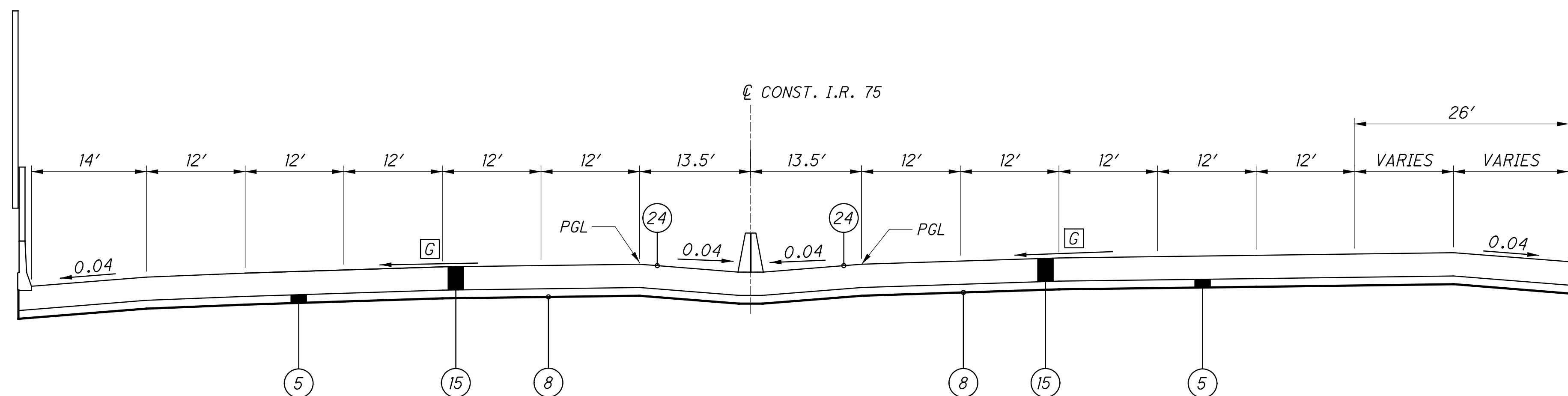


SUPERELEVATED SECTION - I.R. 75

STA 449+08.29 TO STA 451+48.21



SECTION APPLIES
STA 451+45.90 TO STA 451+48.21



**APPROACH SLAB SECTION - I.R. 75
HAM-75-0857 OVER TOWNE STREET**

STA 451+48.21 TO STA 451+78.21
STA 452+47.26 TO STA 452+77.26

- 0.07 MAX BREAK
- PAVEMENT CROSS SLOPE TRANSITIONS.
SEE SUPERELEVATION TABLE
- SEE SHEET 26 FOR GRADING DETAILS.
SEE SHEETS 28 - 30 FOR ROADSIDE
BARRIER DETAILS

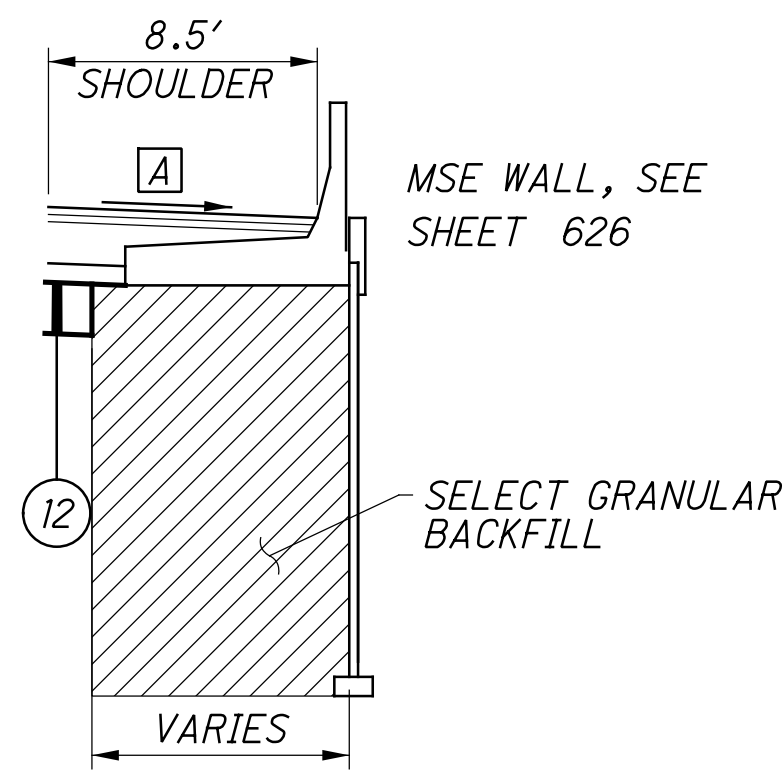
FOR LEGEND, SEE SHEET 14

NOTES:
FOR RUMBLE STRIP DETAILS SEE SHEET 30

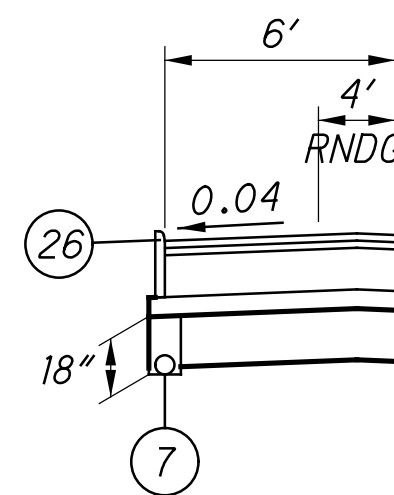
TYPICAL SECTIONS - I.R. 75

HAM-75-7.85

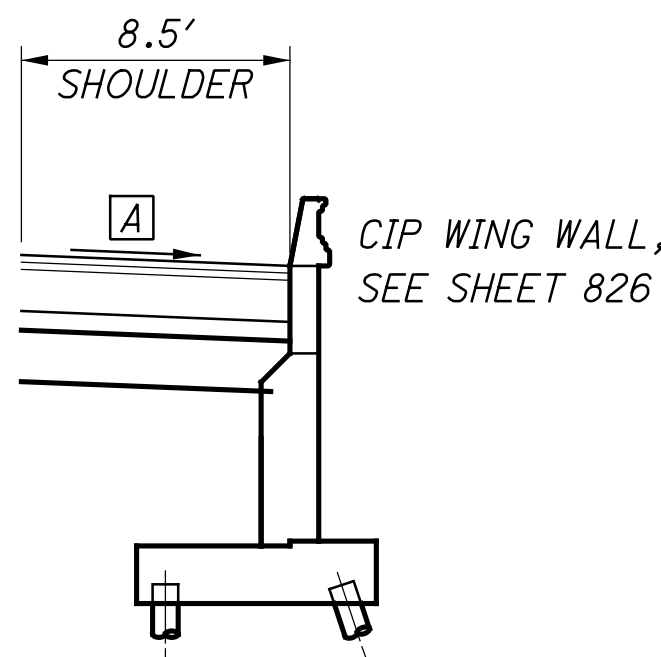
18
1047



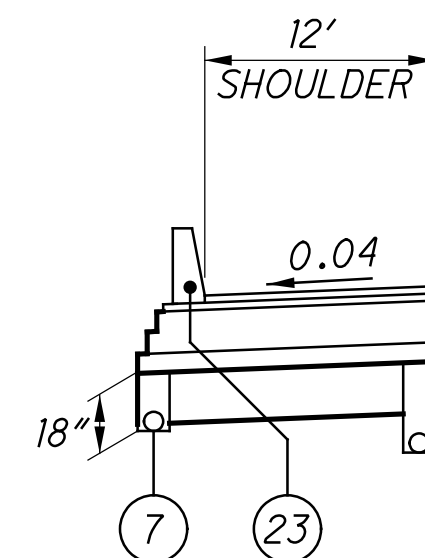
MSE WALL SECTION - RAMP M
STA 415+68.84 TO STA 416+26.45
SEE RETAINING WALL PLANS FOR
SELECT GRANULAR BACKFILL LIMITS



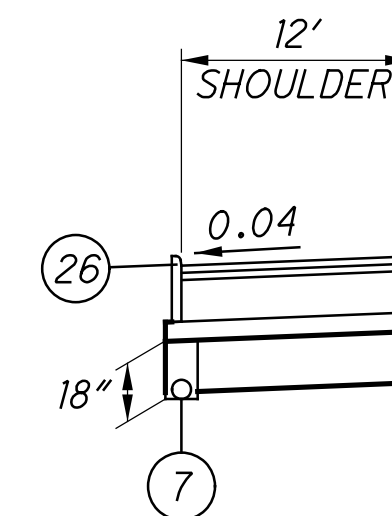
CURB SECTION - RAMP M
STA 416+07.33 TO STA 416+26.45
STA 420+24.75 TO STA 420+42.11



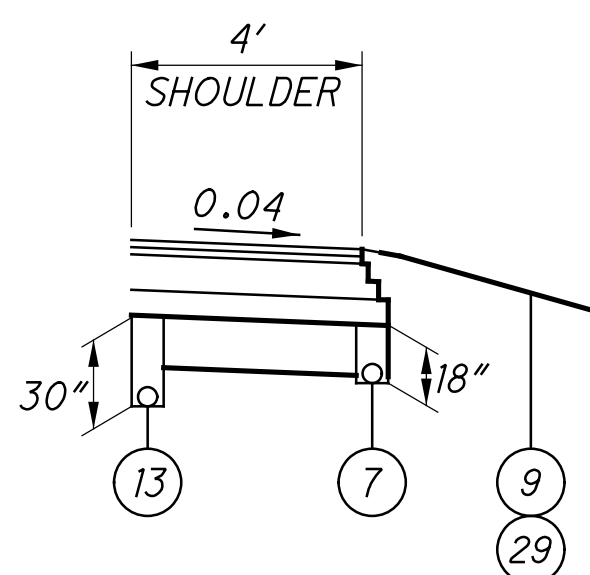
CIP WING WALL SECTION - RAMP M
STA 420+24.75 TO STA 420+60.83



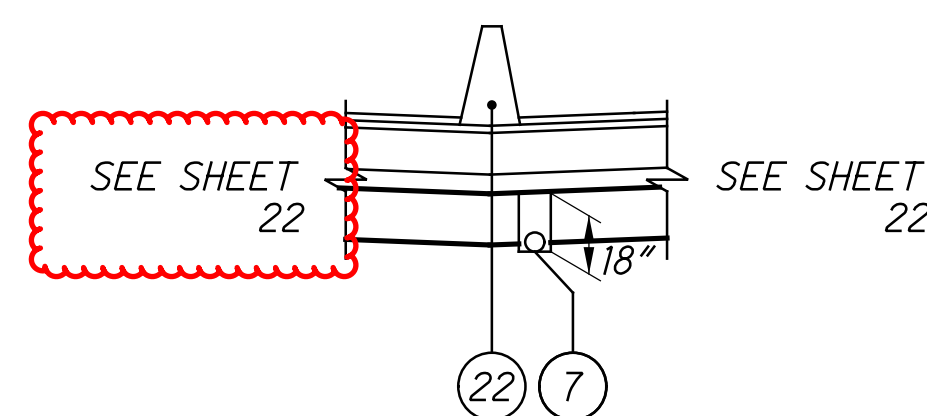
BARRIER SECTION - RAMP M
STA 427+79.14 TO STA 429+61.94



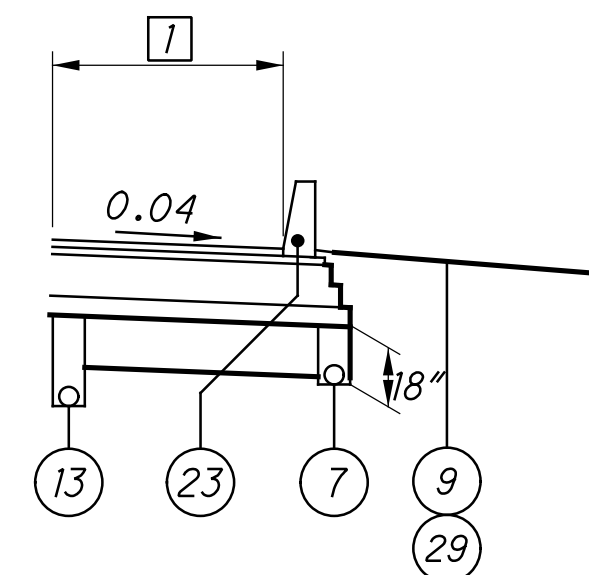
CURB SECTION - RAMP M
STA 429+61.94 TO STA 432+13.01



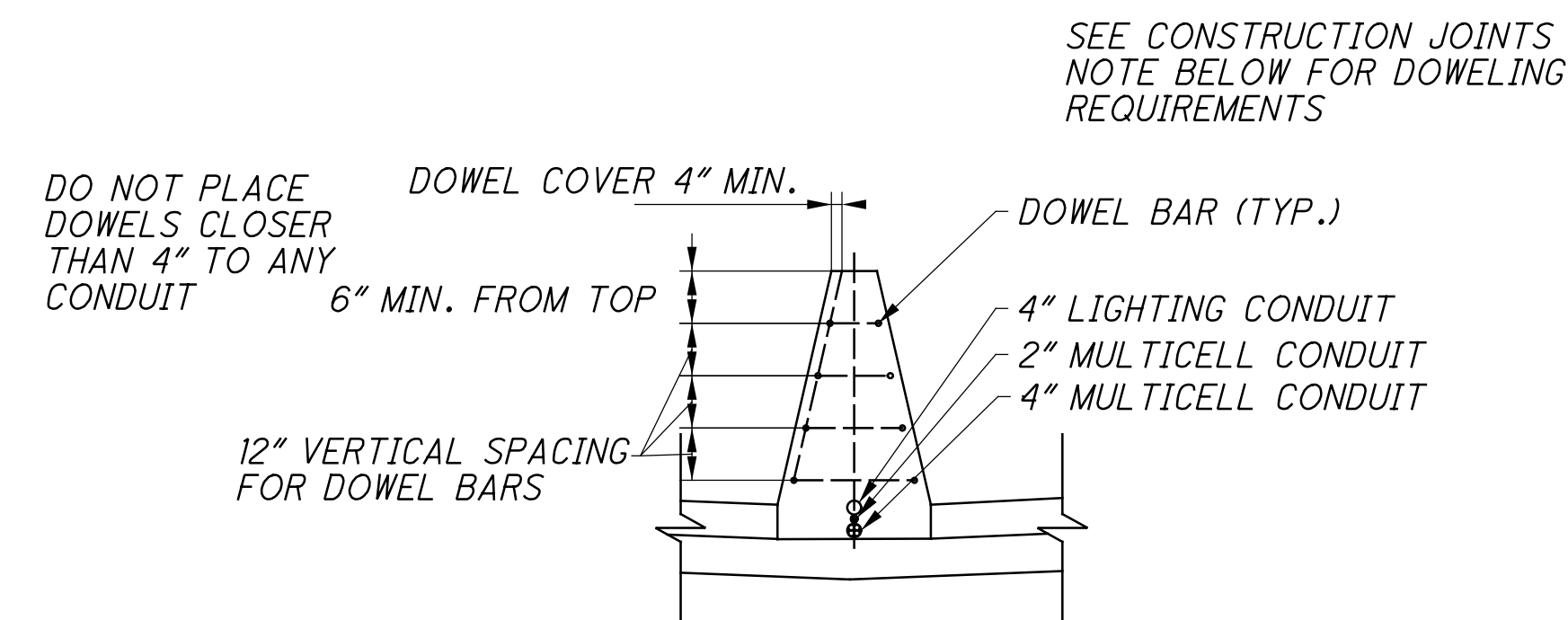
NORMAL SECTION - RAMP J
STA 421+30.00 TO STA 423+65.55



MEDIAN BARRIER DETAIL - RAMP N
STA 425+83.12 TO STA 428+52.11

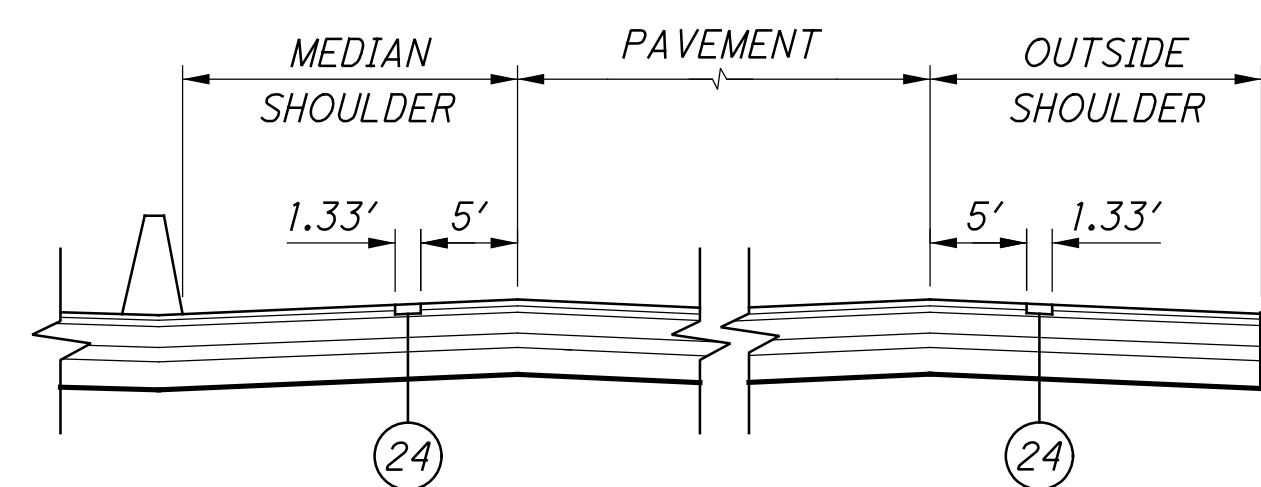


BARRIER SECTION - RAMP N
STA 424+17.89 TO STA 428+52.11

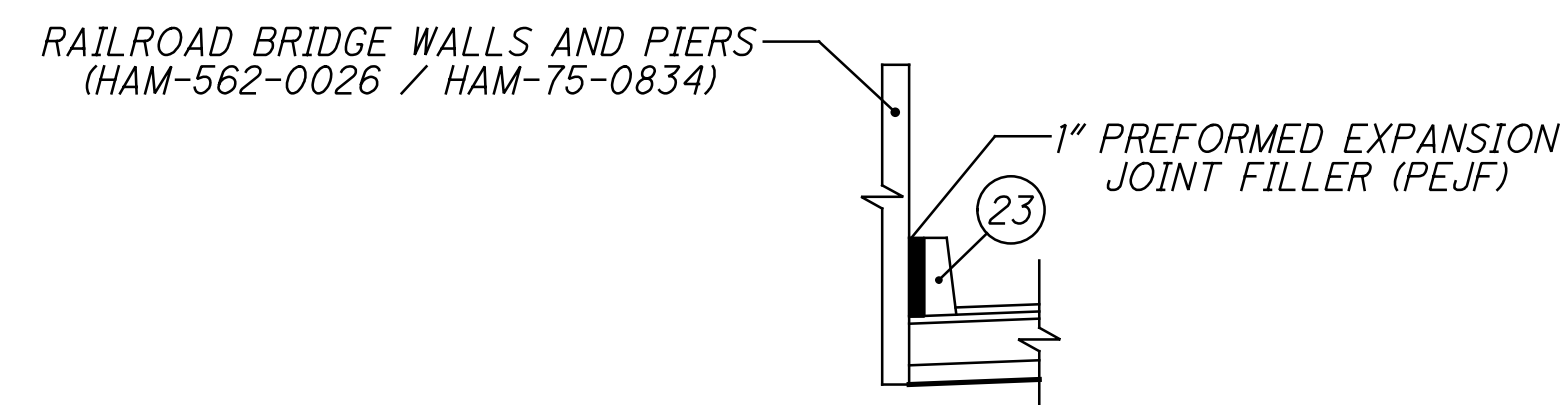


MEDIAN BARRIER CONDUIT DETAIL

CONSTRUCTION JOINTS: BARRIER RUNS WITH ABUTTING VERTICAL SURFACED AT EITHER REQUIRED OR PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE DOWELED TO EACH OTHER BY USE OF 3/4" DIA. BY 18" LONG EPOXY COATED DEFORMED DOWEL BARS AS PER CMS 622.02. BARS ARE TO BE PLACED AS SHOWN. PROVIDE A 4" CLEARNACE TO BARIER SURFACES AND TO ANY RACEWAYS.



RUMBLE STRIP DETAIL



**BARRIER EXPANSION JOINT DETAIL BETWEEN
RAILROAD BRIDGE WALLS AND PIERS**

1 SEE SHEET 22

A 0.04 OR RATE OF SUPER IF GREATER

B ITEM 622 - CONCRETE BARRIER,
SINGLE SLOPE, TYPE C1, AS PER PLAN

FOR LEGEND, SEE SHEET 14

J:\20110903\ODOT\HAM\77889\roadway\sheets\77889GN001.dgn 9/30/2026 1:41:52 PM hbrendinger

UTILITIES

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

GAS

DUKE ENERGY (GAS)
139 EAST 4TH ST., ROOM 460A
CINCINNATI, OH 45202
OH/KYHOUSEBILL@DUKE-ENERGY.COM

OIL

BP PIPELINES (NORTH AMERICA) INC.
BLAKE PATRICK
30 SOUTH WACKER DRIVE
SUITE 900
CHICAGO, IL 60606
312-809-3155
BLAKE.PATRICK@BP.COM
BPPIPELINESROW@BP.COM

BP PIPELINES NORTH AMERICA, INC.
KIM MILLER
930 TENNESSEE AVENUE
CINCINNATI, OH 45229
513-649-6187

ELECTRIC:

DUKE ENERGY - ELECTRIC (DISTRIBUTION)
AARON WRIGHT
2010 DANA AVE
CINCINNATI, OH 45207
513-514-8211
AARON.WRIGHT@DUKE-ENERGY.COM

DUKE ELECTRIC - TRANSMISSION
TIM MEYER
139 EAST 4TH STREET, 552A
CINCINNATI, OH 45202
513-287-1266

CABLE

CHARTER COMMUNICATIONS
KENT RIEGER
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM
513-386-5499
KENT.REIGER@CHARTER.COM

TELEPHONE

CINCINNATI BELL - AERIAL & PLACING
ROB STROCHINSKY
221 E. 4TH STREET
BLDG. 121-900
CINCINNATI, OH 45201
513-565-6014
ROBERT.STROCHINSKY@CINBELL.COM
ROADPROJECTS@CINBELL.COM

CINCINNATI BELL - UNDERGROUND STRUCTURES
BRECK COWAN
221 E. 4TH STREET
BLDG. 121-900
CINCINNATI, OH 45201
513-565-7187 - OFFICE
BRECK.COWAN@CINBELL.COM

VERIZON
ALLEN GUEST
120 RAVINE STREET
AKRON, OH 44303
330-253-8267

UTILITIES (CONT)

TELEPHONE (CONT)

SPRINT NEXTEL
STEVE HUGHES
11370 ENTERPRISE PARK DRIVE
SHARONVILLE, OH 45251
513-459-5796
STEVEN.HUGHES@SPRINT.COM

QWEST/CENTURYLINK/LUMEN
JORDAN LANGSTON
20 N MECHANIC STREET
LEBANON, OH 45036
513-933-3502
RELOCATIONS@LUMEN.COM

SANITARY SEWER

CINCINNATI METROPOLITAN SEWER DISTRICT
ROBERT FRANKLIN
1600 GEST STREET
CINCINNATI, OH 45204
513-577-7188
MSDUTILITYREVIEW@CINCINNATI-OH.GOV
ROB.FRANKLIN@CINCINNATI-OH.GOV

WATER

GREATER CINCINNATI WATER WORKS
KYLE BUCKLEY
3845 EASTERN AVENUE
CINCINNATI, OH 45226
513-591-7874
KYLE.BUCKLEY@GCWW.CINCINNATI-OH.GOV

SOUTHWESTERN OHIO WATER COMPANY
MIKE FLAVIN
600 W. LOVELAND AVENUE, SUITE 3
LOVELAND, OH 45140
513-489-4844

STORM

CINCINNATI STORMWATER MANAGEMENT UTILITY
ROBERT GOODPASTER
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO 45232
513-591-7746
ROBERT.GOODPASTER@CINCINNATI-OH.GOV
SMUPLANREVIEW@CINCINNATI-OH.GOV

MISC

GIVAUDAN FLAVORS CORPORATION
FRED WILSON
1199 EDISON DRIVE
CINCINNATI, OH 45216
PHONE: 513.948.4284
MOBILE: 847.226.3863
FAX: 513.482.8535

ODOT ITS

CENTRAL OFFICE ODOT ITS
1606 WEST BROAD STREET
COLUMBUS, OH 43223
614.387.4113
GEN.ITS.LAB@DOT.OHIO.GOV

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

UTILITY NOTIFICATION

THE OHIO DEPARTMENT OF TRANSPORTATION HAS UTILITY FACILITIES (HIGHWAY LIGHTING, TRAFFIC SIGNALS, ITS) WITHIN THE LIMITS OF THIS PROJECT.

IN ADDITION TO THE INFORMATION OUTLINED IN THE 4A NOTES OF THIS CONTRACT, AND EVEN THOUGH ODOT IS LISTED AS A MEMEBER OF THE OHIO UTILITIES PROTECTION

UTILITY NOTIFICATION (CONT)

SERVICES (OUPS), THE CONTRACTOR ON THIS PROJECT IS REQUIRED TO CONTACT ODOT, DISTRICT 8, TRAFFIC DEPARTMENT, AND ARTIMIS DIRECTLY SO THAT THE ODOT UTILITIES, LOCATED WITHIN THIS PROJECT, ARE MARKED. THE CONTRACTOR SHALL NOTIFY DISTRICT 8, TRAFFIC AT 513-933-6689, ARTIMIS AT 513-564-6118, AND THE PROJECT ENGINEER, FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF ANY WORK, FOR THE NEED TO MARK ODOT’S OWNED UTILITIES.

THE ABOVE REQUIREMENTS ARE IN ADDITION TO SECTION 105.07 & 107.16 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE 4A PROPOSAL NOTE.

THE CONTRACTOR SHALL NOTIFY OTHER UTILITIES THOUGH OUPS OR DIRECTLY A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY WORK.

THE COST FOR THE ABOVE DESCRIBED WORK IS IDENTICAL TO THE OVERALL BID PRICE OF THE PROJECT.

EXISTING OVERHEAD ELECTRIC FACILITIES

WITHIN THE CORRIDOR SEVERAL OVERHEAD ELECTRIC FACILITIES EXIST. CONTRACTOR TO EXERCISE CAUTION WHEN WORKING UNDER OR NEAR ANY ELECTRIC UTILITY.

BRITISH PETROLEUM COORDINATION

CONSTRUCTION NEAR STA. 433+35 UNDER I-75 AND NEAR STA. 413.50 UNDER SR 562 WEST OF THE NORWOOD LATERAL NORFOLK SOUTHERN RAIL ROAD BRIDGE REQUIRE COORDINATION WITH BRITISH PETROLEUM.

ALL CONSTRUCTION AND ANY WORK DONE NEAR THE NEW BP PIPELINE SHALL MAINTAIN A MINIMUM OF THREE (3) FEET OF COVER. AND A MINIMUM OF THREE (3) FEET OF HORIZONTAL CLEARANCES BETWEEN THE PIPELINE AND WORK PROPOSED FOR THE PROJECT. A BP OIL REPRESENTATIVE SHALL BE CONTACTED AND PRESENT DURING WORK NEAR THE PIPELINE. CONTACT INFORMATION FOR THE LOCAL BP DAMAGE PREVENTION SPECIALIST IS INCLUDED IN THE UTILITY INFORMATION WITH THE GENERAL NOTES AND THIS SECTION.

THE PIPELINES BP OPERATES TRANSPORT VARIOUS LIQUIDS AND GASSES AT HIGH PRESSURE. THERE ARE POTENTIAL HAZARDS ASSOCIATED WITH CONSTRUCTION OR EXCAVATION WORK AROUND PIPELINES. AS A RESULT OF THESE POTENTIAL HAZARDS, AND IN COMPLIANCE WITH THE REQUIREMENTS IMPOSED UPON BP AS AN INDUSTRY REGULATED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND OFFICE OF PIPELINE SAFETY, THE FOLLOWING LIST OF GENERAL REQUIREMENTS FOR WORKING ON PIPELINE RIGHTS-OF-WAY HAS BEEN COMPILED.

GENERAL SAFETY REQUIREMENTS:
811 THE NATIONAL ONE-CALL NUMBER, MUST BE CONTACTED AT LEAST 48 HOURS (2 WORKING DAYS) BEFORE ANY CONSTRUCTION AND/OR EXCAVATION ACTIVITIES ARE INITIATED WITHIN THE PIPELINE RIGHT-OF-WAY SO THAT BP MAY HAVE A REPRESENTATIVE PREVENT TO ENSURE THAT THERE ARE NO CONFLICTS WITH THE PIPELINE.

THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING AN ONSITE PRECONSTRUCTION MEETING PRIOR TO THE START OF ANY WORK NEAR THE BP PIPELINE FOR EACH NEW LOCATION AS APPLICABLE. THE PURPOSE OF THE MEETING IS TO IDENTIFY AND DISCUSS THE LOCATION OF THE PIPELINE RELATIVE TO THE

BRITISH PETROLEUM COORDINATION (CONT)

WORK, SAFETY AND CONTRACT REQUIREMENTS, AND OTHER PERTINENT SITE SPECIFIC CONDITIONS. THE REQUIRED ATTENDEES ARE THE BP REPRESENTATIVE, ODOT PROJECT REPRESENTATIVE, CONTRACTOR AND SUB-CONTRACTOR REPRESENTATIVE(S), AND PERSONNEL DIRECTLY INVOLVED IN THE WORK ACTIVITIES NEAR THE PIPELINE.

TO HAVE THE PIPELINE PHYSICALLY LOCATED AND DEPTH VERIFIED, CONTACT BP5#32S LOCAL FIELD REPRESENTATIVE, MR. KIM MILLER AT 513-646-6187, TWO (2) WEEKS PRIOR. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL NECESSARY SAFETY PRECAUTIONS AND WILL BE HELD RESPONSIBLE FOR ANY DAMAGES CAUSED TO THE PIPELINE OR PROPERTY AS A RESULT OF THEIR WORK.

EXCAVATION SPECIFIC REQUIREMENTS:
NO EXCAVATION OR CONSTRUCTION ACTIVITY WILL BE PERMITTED IN THE VICINITY OF A PIPELINE UNTIL ALL APPROPRIATE COMMUNICATIONS HAVE BEEN MADE WITH BP’S FIELD OPERATIONS AND THE BP RIGHT-OF-WAY DEPARTMENT. IN SOME INSTANCES, EXCAVATION AND OTHER CONSTRUCTION ACTIVITIES AROUND CERTAIN PIPELINES CAN BE CONDUCTED SAFELY ONLY WHEN THE PIPELINE OPERATING PRESSURE HAS BEEN REDUCED. CONTRACTORS ARE THEREFORE CAUTIONED THAT EXCAVATION WHICH EXPOSES OR SIGNIFICANTLY REDUCES THE COVER OVER A PIPELINE MAY HAVE TO BE DELAYED UNTIL THE REDUCED OPERATING PRESSURES ARE ACHIEVED.

GENERAL CONSTRUCTION ACTIVITIES:
THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN AREAS OF THE ABANDONED PIPELINE. THE CONTRACTOR SHALL NOT BE PERMITTED TO TRANSPORT CONSTRUCTION MATERIALS OR EQUIPMENT LONGITUDINALLY OVER THE ABANDONED PIPELINE. WHERE IT IS NECESSARY FOR CONSTRUCTION EQUIPMENT (I.E., TRACTORS, BACKHOES, DUMP TRUCKS, ETC.) OR EQUIPMENT TRANSPORTING CONSTRUCTION MATERIALS TO CROSS THE PIPELINE, THE CROSSING OF THE PIPELINE RIGHT-OF-WAY SHALL BE AT, OR AS NEAR TO, A 90 ANGLE AS IS FEASIBLE.

NO TRACK TYPE CONSTRUCTION EQUIPMENT SHALL BE PERMITTED TO PIVOT OR TURN DIRECTLY OVER THE TOP OF THE ABANDONED PIPELINE.

A SCRAPER OR PAN TYPE TRACTOR SHALL NOT BE USED FOR REMOVAL OF SOIL WITHIN TEN FEET (10’) OF THE CENTERLINE OF THE ABANDONED PIPELINE. RUBBER TIRE OR SMALL TRACK TYPE EQUIPMENT IS AN ACCEPTABLE ALTERNATIVE.

A SHEEPSFOOT ROLLER SHALL NOT BE USED FOR COMPACTION PURPOSES WITHIN FIVE FEET (5’) OR DIRECTLY ABOVE THE CENTERLINE OF THE ABANDONED PIPELINE.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER OF PARCEL 201-T, SOLVAY RARE EARTH SYSTEMS, 48 HOURS PRIOR TO ENTERING UPON OR BEGINNING WORK ON THE TEMPORARY EASEMENT. NOTIFICATION SHALL BE IN WRITING AND INDICATE THE ANTICIPATED START DATE OF THE USE OF THE TEMPORARY EASEMENT FOR ACCESS OR CONSTRUCTION. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A COPY OF THIS WRITTEN NOTIFICATION TO THE PROJECT ENGINEER FOR PROJECT RECORDING PURPOSES AND TRACKING THE DURATION OF USE FOR THE PARCEL.

J:\20110903\ODOT\HAM\77889\roadway\sheets\77889GN001.dgn 9/29/2026 10:24:32 AM hbrendinger

ITEM 204 – PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 – PROOF ROLLING 92 HOUR.

CHEMICALLY STABILIZED SUBGRADE

THE ROADWAY SUBGRADE SHALL BE CEMENT STABILIZED AT THE LOCATIONS DESIGNATED IN THE TYPICAL SECTIONS. ALL CEMENT STABILIZATION SHALL BE 14” DEEP AND SHALL BE CONSTRUCTED PER THE REQUIREMENTS STATED IN CMS SPECIFICATION ITEM 206.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE USE TO COMPLETE THE WORK NOTED ABOVE (FOR ESTIMATING CEMENT, A SPREAD RATE OF 5 PERCENT PER A SOIL DRY UNIT WEIGHT OF 115 POUNDS PER CUBIC FOOT WAS USED):

206, CEMENT	4,902 TONS
206, CEMENT STABILIZED SUBGRADE, 14” DEEP	162,367 SQ YD
206, CURING COAT	162,367 SQ YD
206, MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	LUMP

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	10,306 CU. YD.
659, SEEDING AND MULCHING	92,843 SQ. YD.
659, REPAIR SEEDING AND MULCHING	4,643 SQ. YD
659, INTER-SEEDING	4,643 SQ. YD.
659, COMMERCIAL FERTILIZER	12.90 TON
659, LIME	19.19 ACRES
659, WATER	527 M. GAL.
659, MOWING	209 M. SQ. FT.

ITEM 606 – IMPACT ATTENUATOR. TYPE 2 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING’S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

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

ITEM 606 – ANCHOR ASSEMBLY. MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENTIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER “PRODUCTS ACCEPTED FOR NEW INSTALLATIONS” ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING’S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

REFER TO THE MANUFACTURER’S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4’ OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2’ OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 611 – 8” CONDUIT. TYPE B WITH CLASS II BEDDING
ITEM 611 – 8” CONDUIT. TYPE C WITH CLASS II BEDDING
ITEM 611 – 42” CONDUIT. TYPE B WITH CLASS II BEDDING
ITEM 611 – 42” CONDUIT. TYPE C WITH CLASS II BEDDING
ITEM 611 – 60” CONDUIT. TYPE B WITH CLASS II BEDDING

BACKFILL SHALL BE IN ACCORDANCE WITH MSD STANDARD CONSTRUCTION DRAWING ACC. NO. 49032.

PIPE MATERIAL SHALL BE IN ACCORDANCE WITH MSDGC APPROVED PIPE MATERIALS LIST UPDATED DECEMBER 30, 2025

https://msdgc.org/sites/default/assets/downloads/doing_business/capital_project_resource_library/Design/MSDGC_approved_pipe_materials.pdf

CONNECTION TO MSD ASSETS WITHOUT MANHOLES

THE CONTRACTOR SHALL PROVIDE A PLAN SHOWING THE CONNECTION MEETS THE REQUIREMENTS OF OEPA PIPE JOINT REQUIREMENTS. THIS PLAN SHALL BE SIGNED AND SEALED BY A STRUCTURAL ENGINEER AND SUBMITTED FOR APPROVAL BY ODOT, MSDGC AND OEPA PRIOR TO THE WORK BEING PERFORMED.

MSD SANITARY SEWER FILLED. PLUGED AND ABANDONED

PER CITY SUPPLEMENT SECTION 202.041: SEAL ALL SEWERS TO BE ABANDONED ONE FOOT OR LESS IN DIAMETER. SEAL AND FILL ALL SEWERS LARGER THAN ONE FOOT IN DIAMTERE, AS INDICATED IN THE CONTRACT PLANS AND/OR CONTRACT SPECIFICATIONS. FILLING MAY BE DONE HYDRAULICALLY (USING SAND OR GRAVEL) OR BY MUD JACKING (USING SUITABLE CLAY). FILL MATERIAL MUST BE APPROVED BY THE ENGINEER BEFORE IT IS PLACED. PLACE ENOUGH APPROVED FILL MATERIAL TO OCCUPY AT LEAST 90% OF THE SEWER CROSS SECTIONAL AREA WITH SOLIDS.

MSD SANITARY SEWER NOTES

1. ALL PLANS AND CONSTRUCTION WITHIN HAMILTON COUNTY SHALL COMPLY WITH THE LATEST EDITION OF THE “RULES AND REGULATIONS” MANUAL GOVERNING THE DESIGN, CONSTRUCTION, MAINTENANCE, OPERATION , AND USE OF SANITARY AND COMBINED SEWERS IN THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI, HAMILTON COUNTY, OHIO, EFFECTIVE MARCH 1, 2001. COPIES MAY BE OBTAINED FROM THE DIVISION OF WASTEWATER ENGINEERING MSD, 1600 GEST STREET, CINCINNATI, OHIO 45204.

2. ALL SANITARY SEWERS SHALL BE CONSTRUCTED UNDER THE INSPECTION OF THE CHIEF ENGINEER, MSD. THE CONTRACTOR SHALL CONTACT MSDGC WWE INSPECTIONS PRIOR TO STARTING WORK. MSDGC INSPECTIONS: (513) 244-5537, msdgcinspections@cincinnati-oh.gov

3. THE OWNERS OF ALL PROPERTIES SHOWN ON THIS IMPROVEMENT PLAN SHALL BE SUBJECT TO ALL APPLICABLE SEWER SERVICE CHARGES, ASSESSMENTS, TAP-IN CHARGES OR FEES WHICH HAVE BEEN OR MAY BE ESTABLISHED BY THE BOARD OF COUNTY COMMISSIONERS.

4. APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION THE EXACT LOCATION OF UNDERGROUND UTILITIES.

5. ALL SANITARY SEWER PIPE SHALL BE PVC, SDR35, ASTM D-3034 IN ACCORDANCE WITH MSD RULES AND REGULATIONS, EXCEPT WHERE NOTED.

6. ALL MANHOLES ON SANITARY SEWERS SHALL BE TYPE “T” MSD ACCESSION NO. 49040.

7. SANITARY MANHOLES SHALL BE TEMPORARILY CONSTRUCTED TO AN ELEVATION OF TWO FEET ABOVE THE SURROUNDING GRADE BY MEANS OF AN ADDITIONAL MANHOLE SECTION OR BRICK MASONRY ON TOP OF THE CONE.

8. SANITARY BUILDING SEWERS FOR PUBLIC AND PRIVATE SEWERS SHALL NOT BE EXTENDED MORE THAN TEN (10) FEET BEYOND THE PROPOSED RIGHT-OF-WAY LINE, EASEMENT LINE OR, IN CASES OF PRIVATE SEWERS, NO MORE THAN TEN (10) FEET BEYOND THE MAIN LINE SEWER PRIOR TO ISSUANCE OF TAP PERMITS.

9. TWO-WAY CLEANOUTS SHALL BE INSTALLED AT THE RIGHT-OF-WAY LINE OR SANITARY SEWER EASEMENT, WHERE APPLICABLE, IN ACCORDANCE TO MSD ACCESSION NO. 49060.

10. ALL LOWEST FINISHED FLOOR ELEVATIONS SHALL BE AT LEAST 36 INCHES ABOVE THE CROWN OF THE SEWER AT THE POINT OF TAP CONNECTION TO SAID SEWER, WHETHER PUBLIC OR PRIVATE, AND/OR IN ACCORDANCE WITH CITY OF CINCINNATI SUPPLEMENT CC-51-49. ANY BUILDING TO BE SERVED BY MEANS OTHER THAN GRAVITY MUST BE SO NOTED ON THE PLANS.

MSD SANITARY SEWER NOTES CON’T

11. ALL MANHOLES ON PUBLIC SANITARY SEWERS SHALL HAVE STANDARD LIDS AND FRAMES, MSD ACCESSION. NO 49005, EXCEPT WHERE NOTED. THE FRAME SHALL BE SECURELY FASTENED TO THE TOP MANHOLE SECTION BY FOUR 3/4-INCH STAINLESS STEEL CINCH ANCHORS.

12. CONTRACTOR’S LICENSE – ALL WORK DONE ON SANITARY AND/OR COMBINED SEWERS WITHIN THE JURISDICTION OF THE METROPOLITAN SEWER DISTRICT MUST BE DONE BY A CONTRACTOR WHO IS AN APPROVED SEWER TAPPER PROPERLY LICENSED BY THE DEPARTMENT AND BONDED.

13. SANITARY BUILDING SEWERS SHALL BE CONNECTED TO THE MAIN LINE WITH WYES. TEE FITTINGS ARE TO BE USED ONLY WHERE SHOWN ON THE APPROVED PLAN.

14. A TAP PERMIT IS REQUIRED FOR EACH BUILDING. BOND OR FINAL APPROVAL OF THE MAIN LINE IS REQUIRED PRIOR TO ISSUANCE OF A TAP PERMIT.

15. SANITARY SEWER CONSTRUCTION MUST COMMENCE WITHIN 12 MONTHS AND BE COMPLETED WITHIN 36 MONTHS OF THE DATE OF APPROVAL SHOWN HEREON OR THESE PLANS BECOME VOID.

16. FOR SANITARY SEWER MANHOLES CONSTRUCTED IN PARKING LOTS, THE RIM ELEVATION SHALL BE 1” HIGHER THAN THE SURROUNDING GRADE AND THE PAVEMENT SHALL BE FEATHERED AWAY FROM THE MANHOLE RIM AT A GRADUAL SLOPE.

17. FOR SANITARY MANHOLES CONSTRUCTED IN GRASS AREAS, THE RIM ELEVATION SHALL BE 3” HIGHER THAN THE SURROUNDING GRADE, AND THE FILL SHALL BE FEATHERED AWAY FROM THE MANHOLE RIM AT A GRADUAL SLOPE.

18. ROOF DRAINS, FOUNDATION DRAINS, COOLING WATER, SWIMMING POOL WATER OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

19. TO ASSURE THAT STORMWATER DOES NOT ENTER THE SANITARY SEWER SYSTEM, A SCHEMATIC PLAN OF THE FOOTING AND FOUNDATION DRAINAGE SYSTEM, INCLUDING THE POINT OF DISCHARGE, IS NECESSARY.

20. THE CONTRACTOR SHALL TEST ALL MANHOLES LEAKAGE BY MEANS OF VACUUM TESTING. THE VACUUM TESTING CANNOT BE DONE UNTIL AFTER THE MANHOLES ARE SET TO FINAL GRADE AND THE MANHOLE CASTINGS ARE BOLTED DOWN. ALL LIFT HOLES SHALL BE PLUGGED. ANY OTHER OPENINGS, SUCH AS FOR PRESSURE RELIEF VALVES, SHALL BE TEMPORARILY PLUGGED TO ALLOW THE VACUUM TEST. ALL PIPES ENTERING THE MANHOLE SHALL BE PLUGGED AND CARE SHALL BE TAKEN TO SECURELY BRACE THE PLUGS FROM BEING DRAWN INTO THE MANHOLE. THE VACUUM EQUIPMENT TEST HEAD SHALL BE PLACED IN THE OPENING OF THE CASTING ONLY, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS. VACUUM TESTING SHALL BE IN ACCORDANCE WITH ASTM C1244. A VACUUM OF 10 INCHES MERCURY (10” HG) SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. WITH THE VALVES CLOSED, THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO NINE INCHES MERCURY (9” HG). THE MANHOLE SHALL PASS IF THE TIME MEETS OR EXCEEDS THE ALLOWABLE TIMES AS CALCULATED FROM ASTM C1244, OR AS APPROVED BY THE ENGINEER. ALL MANHOLE REPAIR AND RETESTING REQUIRED BECAUSE OF THE FAILURE TO MEET THE TESTING REQUIREMENTS SHALL BE BORNE BY THE CONTRACTOR AT HIS COST.

21. THE CONTRACTOR SHALL PERFORM DEFLECTION TESTING FOR ALL NON-RIGID PIPE PER GLURB 33.85.

PAGE INTENTIONALLY BLANK



PAGE INTENTIONALLY BLANK

J:\20110903\ODOT\HAM\77889\mot\sheets\77889MN011.dgn 9/30/2026 1:44:20 PM hbrendinger

MAINTAINING INTERSTATE REFERENCE LOCATION SIGNS

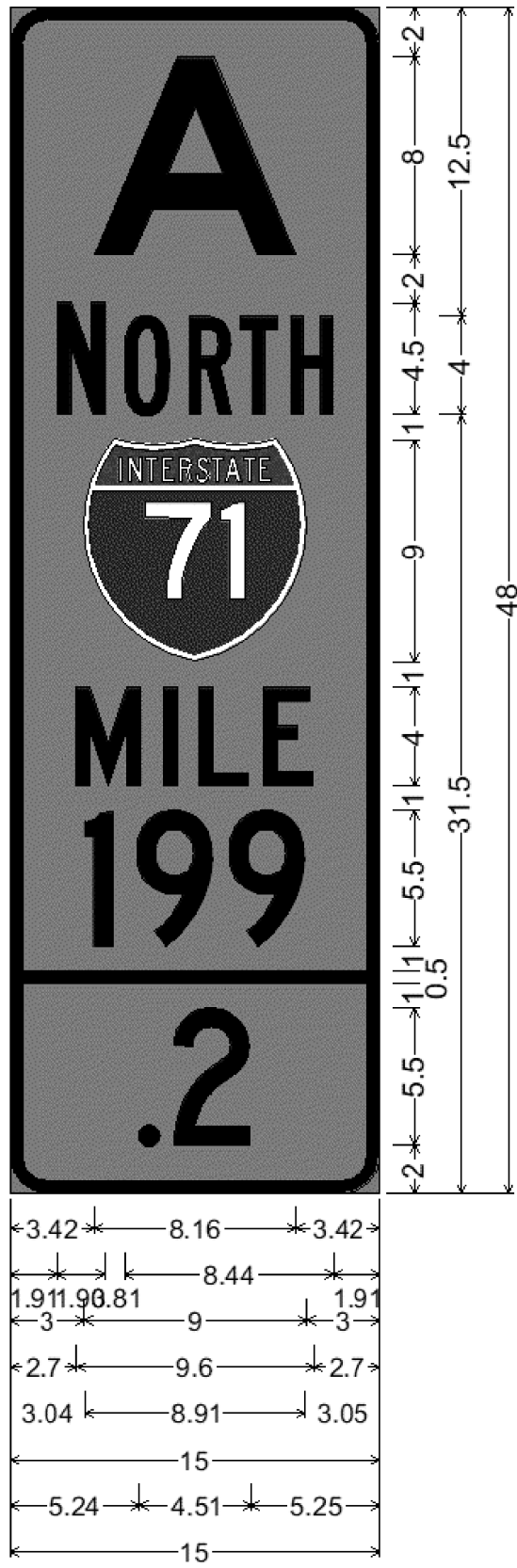
THE CONTRACTOR SHALL MAINTAIN INTERSTATE REFERENCE LOCATION SIGNS (SIGN D10-5) BY USE OF THE EXISTING, TEMPORARY (BLACK ON ORANGE), OR PROPOSED REFERENCE LOCATION SIGNS. THESE SIGNS SHALL BE SPACED EVERY 2/10 OF A MILE MAINTAINED DURING THE FOLLOWING PHASES AS DESCRIBED BELOW OR AS DETAILED WITHIN. ADDITIONAL SIGNS MAY BE USED TO IDENTIFY CONTRACTOR ACCESS POINTS. THE SIGN DIMENSIONS BELOW INCLUDE THE LETTER A TO DESIGNATE AN ACCESS POINT. NON-ACCESS POINT SIGNS CAN BE REDUCED IN HEIGHT.

- PHASE 1:
- EXISTING D10-5 SIGNS MOUNTED ON MEDIAN BARRIER

- PHASE 2:
- TEMPORARY D10-5 SIGNS GROUND MOUNTED ALONG THE SB RIGHT SHOULDER
 - EXISTING D10-5 SIGNS MOUNTED ON MEDIAN BARRIER

- PHASE 3:
- TEMPORARY D10-5 SIGNS GROUND MOUNTED ALONG THE SB RIGHT SHOULDER (FROM PHASE 2)
 - TEMPORARY D10-5 SIGNS GROUND MOUNTED ALONG THE NB RIGHT SHOULDER.
 - TEMPORARY D10-5 SIGNS PB MOUNTED ALONG RIGHT SHOULDER OF NB CONTRA FLOW.

- PHASE 4:
- TEMPORARY D10-5 SIGNS GROUND MOUNTED ALONG THE SB RIGHT SHOULDER (FROM PHASE 2)
 - PROPOSED D10-5 SIGNS MOUNTED ON THE MEDIAN BARRER.



1.50" Radius, 0.50" Border, Black on Orange;
"A", E 2K specified length;
"NORTH", B 2K;
Interstate 71 M1-1;
"MILE", C 2K;
"199", C 2K; ".2", C 2K;

INTERIM COMPLETION REQUIREMENTS

PHASE 1 WORK SHALL NOT BEGIN UNTIL 6/1/2027. THE PROJECT HAS AN INTERIM COMPLETION DATE OF 11/1/2030. ON OR BEFORE THE INTERIM COMPLETION DATE, THE ROADWAY SHALL BE PLACED IN THE PHASE 4 TRAFFIC CONFIGURATION ON INTERMEDIATE COURSE ASPHALT.

THE CONTRACT WILL BE SUBJECT TO DAILY DISINCENTIVES FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK, AND ASSOCIATED INCIDENTALS RELATED TO THE WORK, AS OUTLINED IN THE TABLE INCLUDED IN THIS NOTE. APPLICATION OF THE DISINCENTIVES WILL BE BASED ON THE OVERALL CONTRACT AMOUNT. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACT IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT. THE END CONSTRUCTION DATE SHALL BE 9/30/2031, BY WHICH THE FINAL SURFACE COURSE, PERMANENT PAVEMENT MARKINGS, RPM'S, ETC SHALL BE COMPLETED.

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME PERIOD	DISINCENTIVE \$ PER TIME PERIOD
PHASE 2 ASPHALT BASE INSTALLED	11/15/2029	DAY	\$13,700
ROADWAY PLACED IN PHASE 4 TRAFFIC CONFIGURATION ON INTERMEDIATE COURSE ASPHALT	4/2/2031	DAY	\$13,700

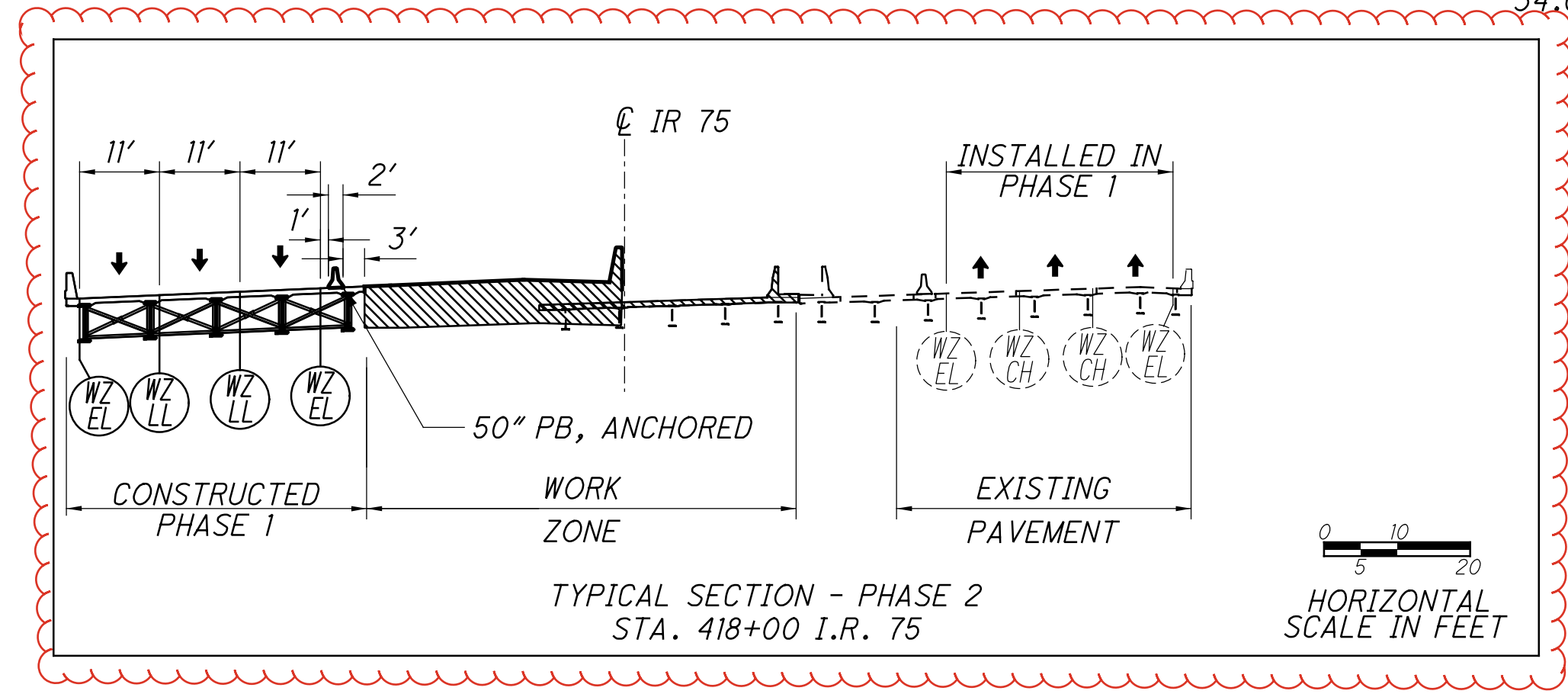
WINDOW CONTRACT TABLE

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY**	WORK WINDOW	
			START	END
CLOSURE OF RAMP M (SR-562 WB TO I-75 SB) - PHASES 1 & 2	1036	\$25,000	6/1/2027	4/1/2030
CLOSURE OF RAMP J (I-75 SB TO SR-562 EB) - PHASES 1, 2 & 3A	1036	\$17,000	6/1/2027	4/1/2030
CLOSURE OF RAMP K (SR-562 WB TO I-75 NB) - PHASE 3	365	\$20,000	FOLLOWING THE REOPENING OF RAMPS M AND J	4/2/2030
CLOSURE OF RAMP P (PADDOCK RD TO SR-562 WB) - PHASE 3	45	\$8,100	FOLLOWING THE REOPENING OF RAMPS M AND J	11/1/2030
CLOSURE OF RAMP Q (SR-562 EB TO PADDOCK RD) - PHASE 1	45	\$8,100	6/1/2027	11/1/2030
*CLOSURE OF LAIDLAW AVE. FOR 60" SANITARY SEWER INSTALLATION AS SHOWN ON SHEET 270	14	\$1,800	CONTRACT EXECUTION DATE	START OF PHASE 3

*LAIDLAW AVE. SHALL REMAIN OPEN DURING THE RAMP Q CLOSURE
**DISINCENTIVES SHALL BE APPLIED FOR EACH RAMP CLOSURE THAT IS NOT OPEN IN THE SPECIFIED NUMBER OF DAYS

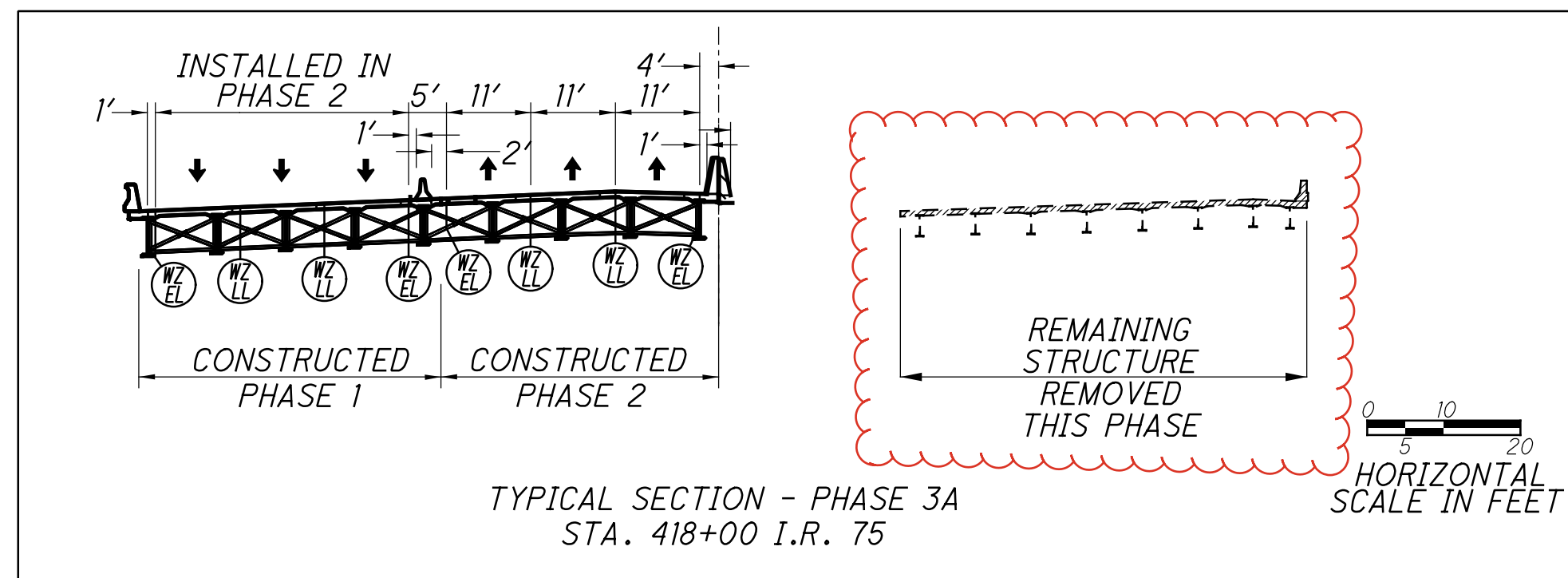
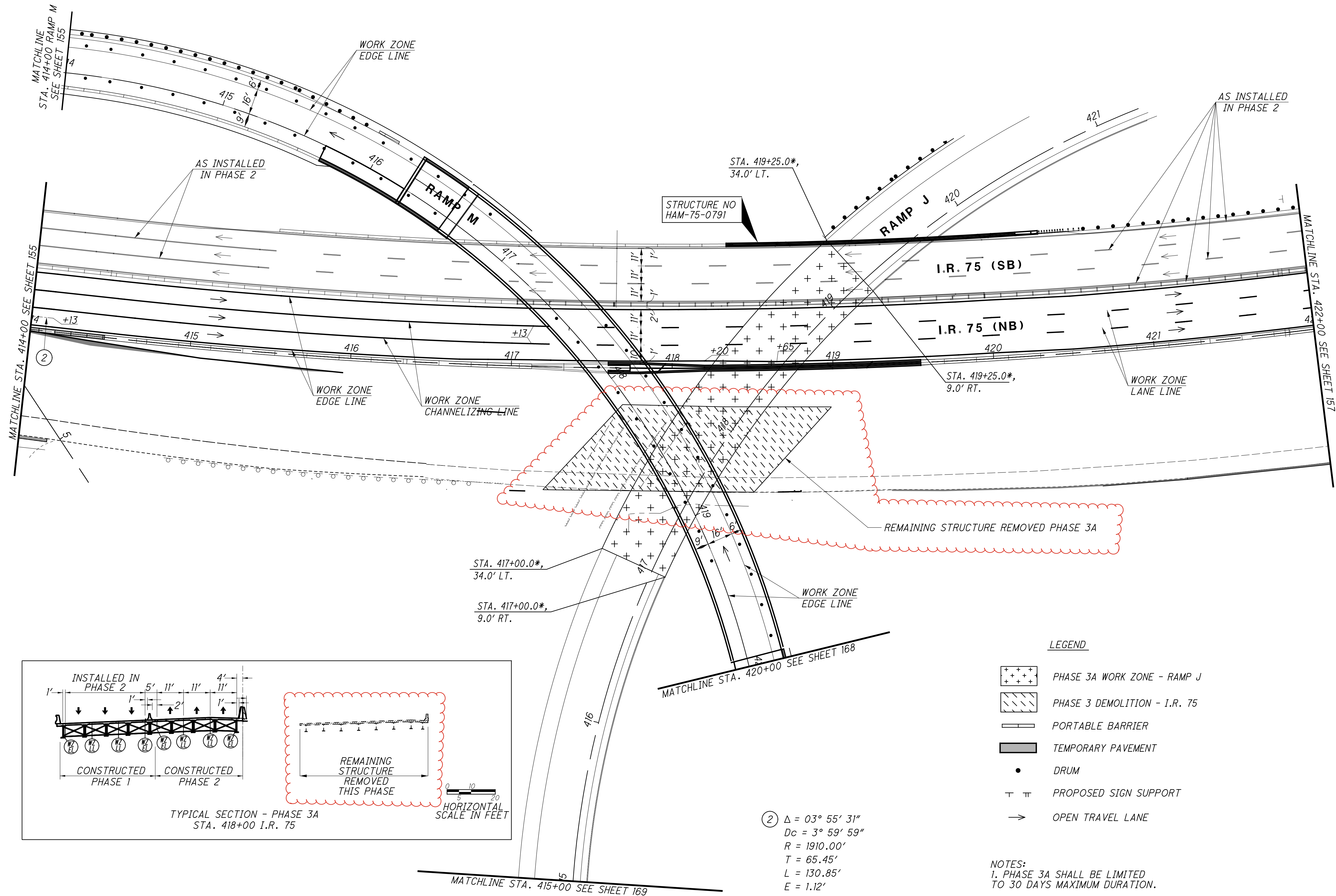
CONSTRUCTION ACCESS POINTS

CONSTRUCTION ACCESS POINTS (CAP) MAY BE INSTALLED AT LOCATIONS IDENTIFIED BY THE CONTRACTOR IN CONFORMANCE WITH MT-103.10 DATED 1/21/2022. THE CAP SHALL PROVIDE SAFE MEANS OF INGRESS AND EGRESS BETWEEN PROJECT RELATED VEHICLES AND THE TRAVELING PUBLIC BY PROVIDING DEDICATED AREAS OUTSIDE THE TRAVELED LANES FOR THE DECELERATION AND ACCELERATION OF PROJECT VEHICLES. IN THE EVENT A CAP IS UNABLE TO MEET THE DIMENSIONS LISTED IN THE SCD DUE TO SITE CONSTRAINTS, PROJECT VEHICLES USING THE CAP SHALL BE LIMITED IN SIZE TO ≤ 1 TON (IE. PERSONAL VEHICLES, 1 TON DUMP TRUCK, ETC.); OTHER VEHICLES (CONCRETE TRUCKS, TRACTOR TRAILERS, ETC.) SHALL UTILIZE THIS CAP BY LANE CLOSURE. IN THE EVENT A CAP IS REDUCED BY MORE THAN HALF DUE TO SITE CONSTRAINTS, ALL PROJECT VEHICLES REGARDLESS OF SIZE SHALL UTILIZE THIS CAP BY LANE CLOSURE.



<i>DRUM SPACING CHART</i>	
<i>TANGENT</i>	<i>80' c/c</i>
<i>TAPER</i>	<i>55' c/c</i>
<i>RADII</i>	<i>10' c/c</i>

J:\20110903\ODOT\HAM\77889\mot\sheet\77889MP303.dgn 10/1/2026 4:34:27 PM bmastrerson



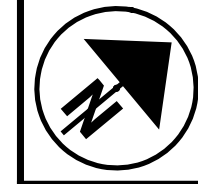
TYPICAL SECTION - PHASE 3A
STA. 418+00 I.R. 75

② $\Delta = 03^\circ 55' 31''$
 $D_c = 3^\circ 59' 59''$
 $R = 1910.00'$
 $T = 65.45'$
 $L = 130.85'$
 $E = 1.12'$
 $C = 130.83'$
 $C.B. = N 43^\circ 59' 47'' E$

- LEGEND**
- PHASE 3A WORK ZONE - RAMP J
 - PHASE 3 DEMOLITION - I.R. 75
 - PORTABLE BARRIER
 - TEMPORARY PAVEMENT
 - DRUM
 - PROPOSED SIGN SUPPORT
 - OPEN TRAVEL LANE

NOTES:
1. PHASE 3A SHALL BE LIMITED
TO 30 DAYS MAXIMUM DURATION.

* RAMP J STATIONING



CALCULATED
RLS
CHECKED
SMM

MAINTENANCE OF TRAFFIC PLAN - PHASE 3A
I.R. 75 - STA. 414+00 TO STA. 422+00

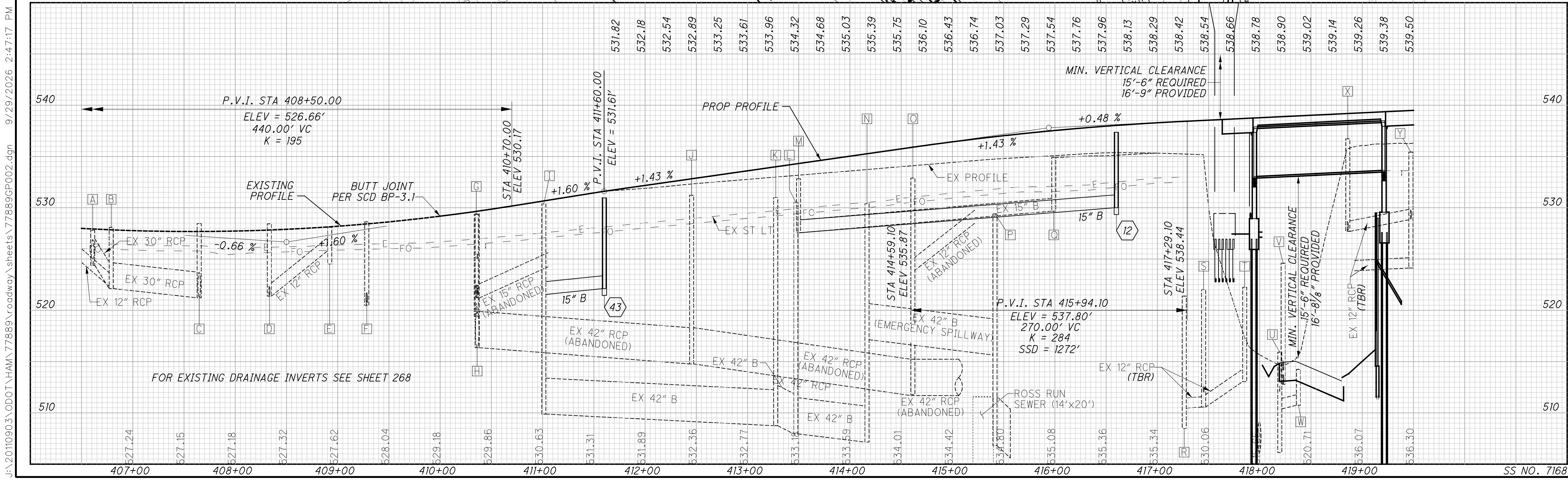
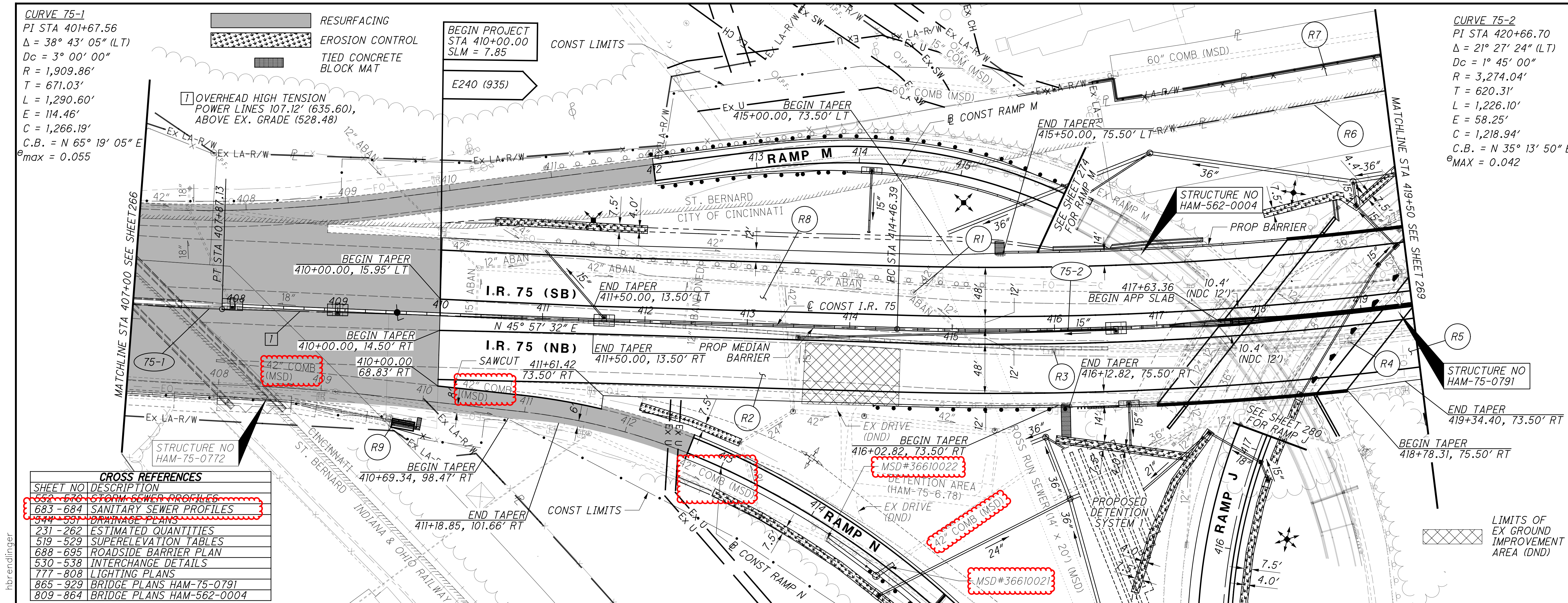
HAM-75-7.85

J:\20110903\ODOT\HAM\77889\roadway\sheets\77889GG001.dgn 10/11/2026 5:37:30 PM hbrendinger

SHEET NUMBER						PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED DLR	CHECKED EDK	
814	815	870				03/IMS/10										
												STRUCTURE OVER 20 FOOT SPAN (HAM-562-0004)				
LUMP						LUMP		202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	811			
109						109		202	22900	109	SY	APPROACH SLAB REMOVED				
LUMP						LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL G)	811			
LUMP						LUMP		503	21300	LS		UNCLASSIFIED EXCAVATION				
LUMP						LUMP		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				
8,890						8,890		507	00700	8,890	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN				
9,485						9,485		507	00751	9,485	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED, AS PER PLAN	811			
94,506						94,506		509	10000	94,506	LB	EPOXY COATED STEEL REINFORCEMENT				
112,426						112,426		509	28001	112,426	LB	STAINLESS STEEL REINFORCEMENT, AS PER PLAN	811			
14,835						14,835		509	30020	14,835	FT	NO. 4 DEFORMED GFRP REINFORCEMENT				
1,772						1,772		509	30030	1,772	FT	NO. 5 DEFORMED GFRP REINFORCEMENT				
136						136		511	34463	136	CY	CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	812			
338						338		511	46512	338	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING				
346						346		511	53014	346	CY	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	812			
170						170		511	53014	170	CY	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN	812			
271						271		511	53014	271	CY	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTINGS, AS PER PLAN	812			
1,530						1,530		512	10100	1,530	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)				
757,074						757,074		513	10300	757,074	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5				
5,436						5,436		513	20000	5,436	EACH	WELDED STUD SHEAR CONNECTORS				
9,152						9,152		514	00061	9,152	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN	813			
9,152						9,152		514	00067	9,152	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	813			
34						34		516	10010	34	FT	ARMORLESS PREFORMED JOINT SEAL				
66						66		516	11210	66	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL				
111						111		516	13600	111	SF	1" PREFORMED EXPANSION JOINT FILLER				
3						3		516	44201	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 15"x11"x3.94" ELAST. PAD, 26"x12"x2.25" BEV.LOAD PL	830			
2						2		516	44201	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 15"x11"x3.67" ELAST. PAD, 26"x12"x2.25" BEV.LOAD PL, 1.5" MAS. PL	830			
3						3		516	44201	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 17"x15"x3.94" ELAST. PAD, 26"x16"x3.19" BEV. LOAD PL	830			
2						2		516	44201	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 17"x15"x3.67" ELAST. PAD, 26"x16"x3.19" BEV. LOAD PL, 1.5" MAS. PL	830			
5						5		516	44201	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 15"x11"x3.67" ELAST. PAD, 26"x12"x1.69" BEV. LOAD PL, 1.5" MAS. PL	831			
5						5		516	44201	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE, AS PER PLAN, 15"x11"x3.94" ELAST. PAD, 32"x12"x2.38" BEV.LOAD PL	831			
	136					136		518	21200	136	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				
	94					94		518	40000	94	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				
	21					21		518	40011	21	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	813			
	8					8		523	20000	8	EACH	DYNAMIC LOAD TESTING	813			
	8					8		523	20500	8	EACH	RESTRIKE				
	224					224		526	30001	224	SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN	813			
	33					33		526	90010	33	FT	TYPE A INSTALLATION				
	34					34		526	90030	34	FT	TYPE C INSTALLATION				
	469					469		601	20000	469	SY	CRUSHED AGGREGATE SLOPE PROTECTION				
												STRUCTURE OVER 20 FOOT SPAN (HAM-75-0791)				
		LUMP				LUMP		202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	867			
		582				582		202	22900	582	SY	APPROACH SLAB REMOVED				
		44				44		203	20001	44	CY	EMBANKMENT, AS PER PLAN	867			
		LUMP				LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL A)	867			
		LUMP				LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL B)	867			
		LUMP				LUMP		503	21300	LS		UNCLASSIFIED EXCAVATION				
		LUMP				LUMP		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				
		9,520				9,520		507	00700	9,520	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN				
		10,140				10,140		507	00751	10,140	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED, AS PER PLAN	867			
		226,397				226,397		509	10000	226,397	LB	EPOXY COATED STEEL REINFORCEMENT				
		6,635				6,635		509	30020	6,635	FT	NO. 4 DEFORMED GFRP REINFORCEMENT				
		800				800		509	30030	800	FT	NO. 5 DEFORMED GFRP REINFORCEMENT				
		6,259				6,259		509	30040	6,259	FT	NO. 6 DEFORMED GFRP REINFORCEMENT				
		4				4		511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	869			
		51				51		511	34463	51	CY	CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	868			
		415				415		511	46512	415	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING				

GENERAL SUMMARY

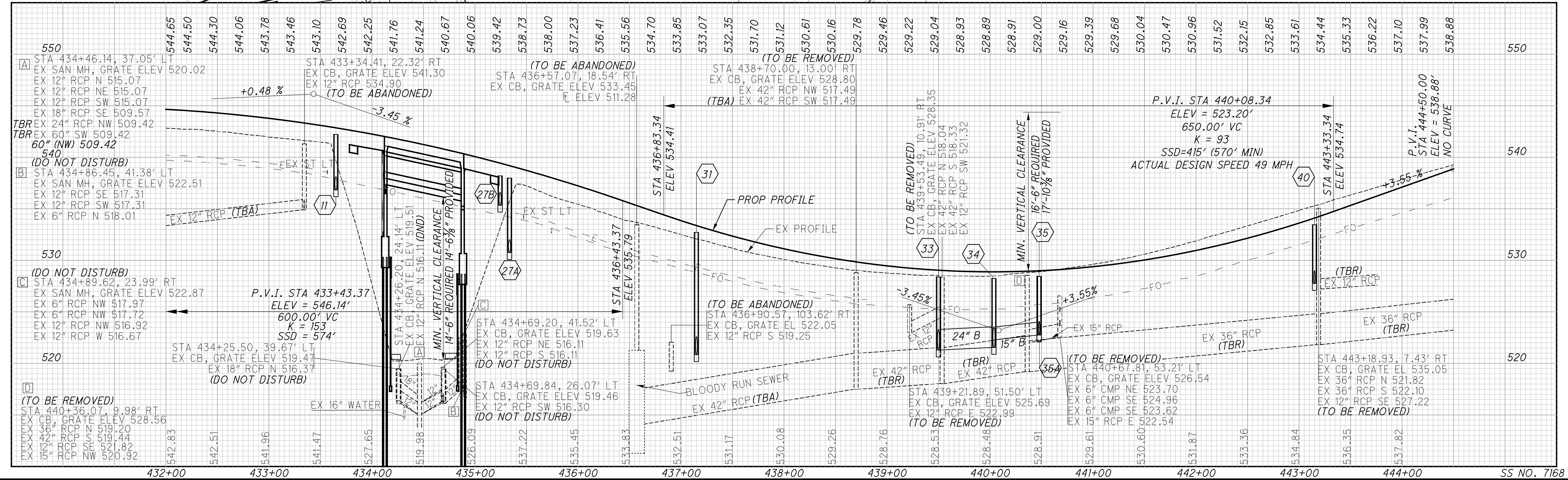
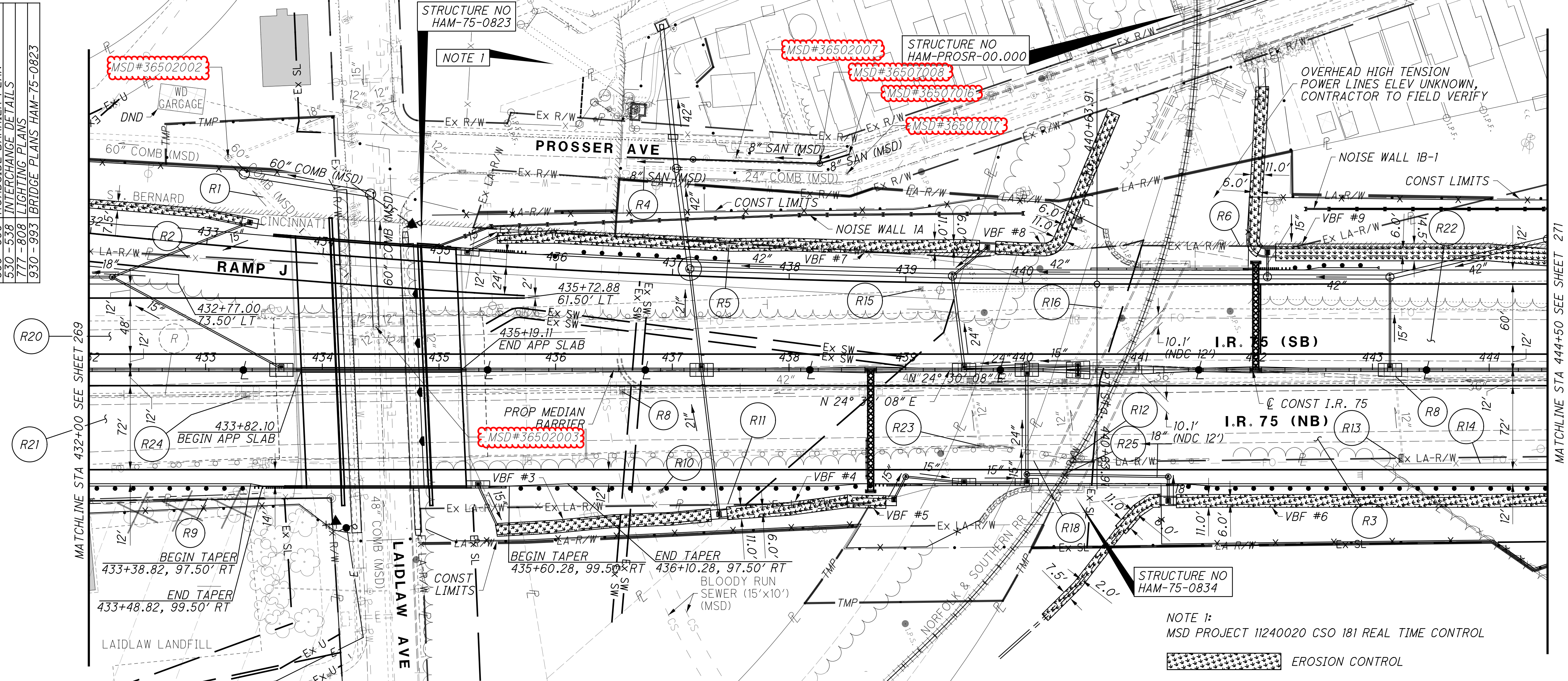
HAM-75-7.85



J:\20110903\ODOT\HAM\77889\roadway\sheet\77889GP002.dgn 9/29/2026 2:47:17 PM hbreindinger

J:\2010903\ODOT\HAM\7889\roadway\sheet\7889GP004.dgn 9/29/2026 2:56:20 PM hbrendinger

CROSS REFERENCES	
SHEET NO	DESCRIPTION
552-570	STORM SEWER PROFILES
544-551	DRAINAGE PLANS
683-684	SANITARY SEWER PROFILES
231-262	ESTIMATED QUANTITIES
519-529	SUPERELEVATION TABLES
688-696	ROADSIDE BARRIER PLAN
530-538	INTERCHANGE DETAILS
777-808	LIGHTING PLANS
930-993	BRIDGE PLANS HAM-75-0823



0

25

50

100

HORIZONTAL
SCALE IN FEET

CALCULATED

SEA

CHECKED

DLR

PLAN AND PROFILE - I.R. 75
STA 432+00 TO STA 444+50

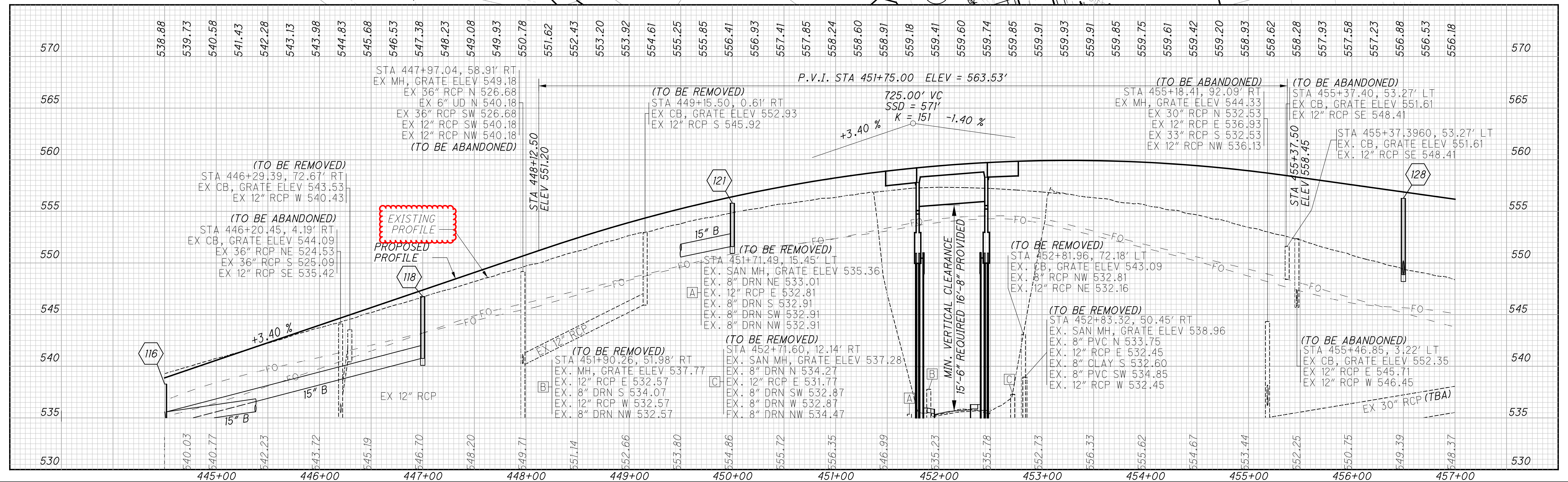
HAM-75-7.85

270

1047

- 1 BEGIN APP SLAB
STA 451+48.21
- 2 END APP SLAB
STA 452+77.26
- 3 @ CONST I.R. 75
452+12.74=
@ CONST TOWNE ST
19+24.88

CROSS REFERENCES	
SHEET NO	DESCRIPTION
552 - 570	STORM SEWER PROFILES
544 - 551	DRAINAGE PLANS
231 - 262	ESTIMATED QUANTITIES
519 - 529	SUPELEVATION TABLES
688 - 695	ROADSIDE BARRIER PLANS
530 - 538	INTERCHANGE DETAILS
777 - 808	LIGHTING PLANS
865 - 929	BRIDGE PLANS HAM-75-0791
809 - 864	BRIDGE PLANS HAM-562-0004



A horizontal scale bar with markings at 25, 50, and 100 feet. The bar is divided into segments: a black segment from 0 to 25, a white segment from 25 to 50, a black segment from 50 to 75, and a white segment from 75 to 100.

CALCULATED	CFR
CHECKED	JLM

PLAN AND PROFILE - I.R. 75
STA 444+50 TO STA 457+00

HAM-75-7.85

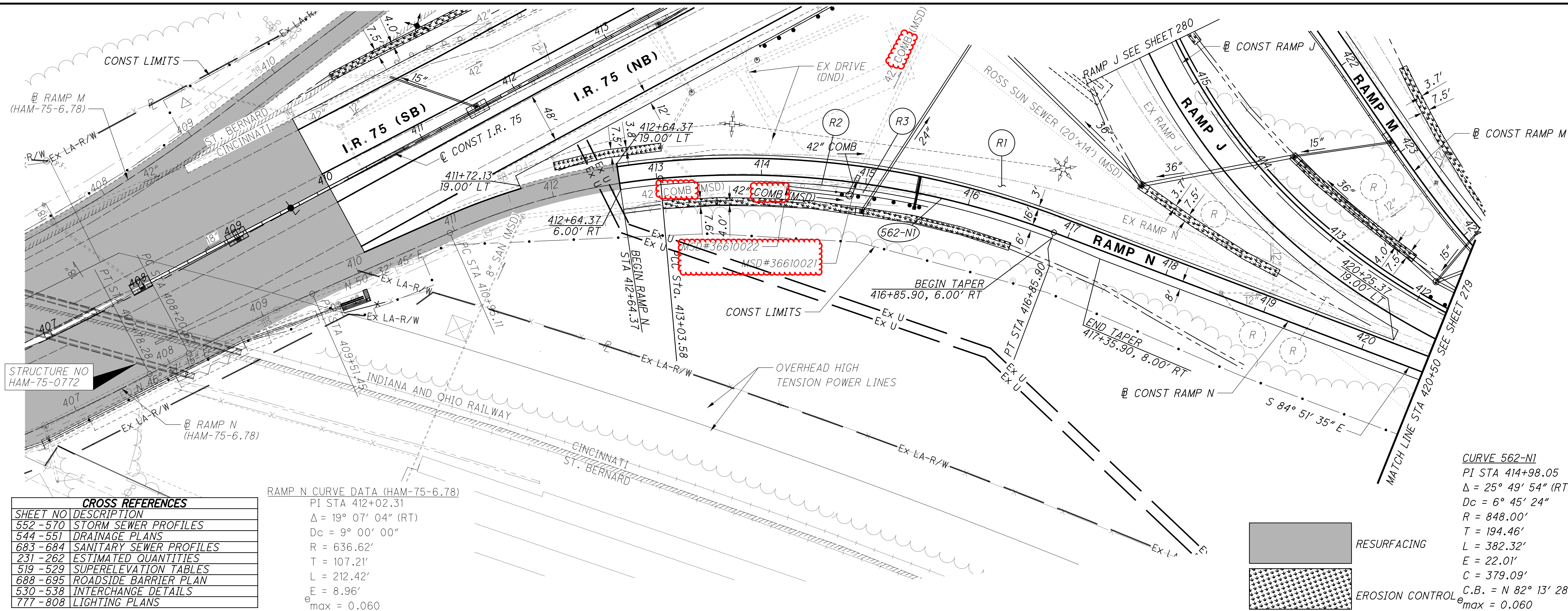
$$\frac{271}{1047}$$

EROSION CONTROL

CEB
CALCULATED

$$\begin{array}{r} 71 \\ 47 \end{array}$$

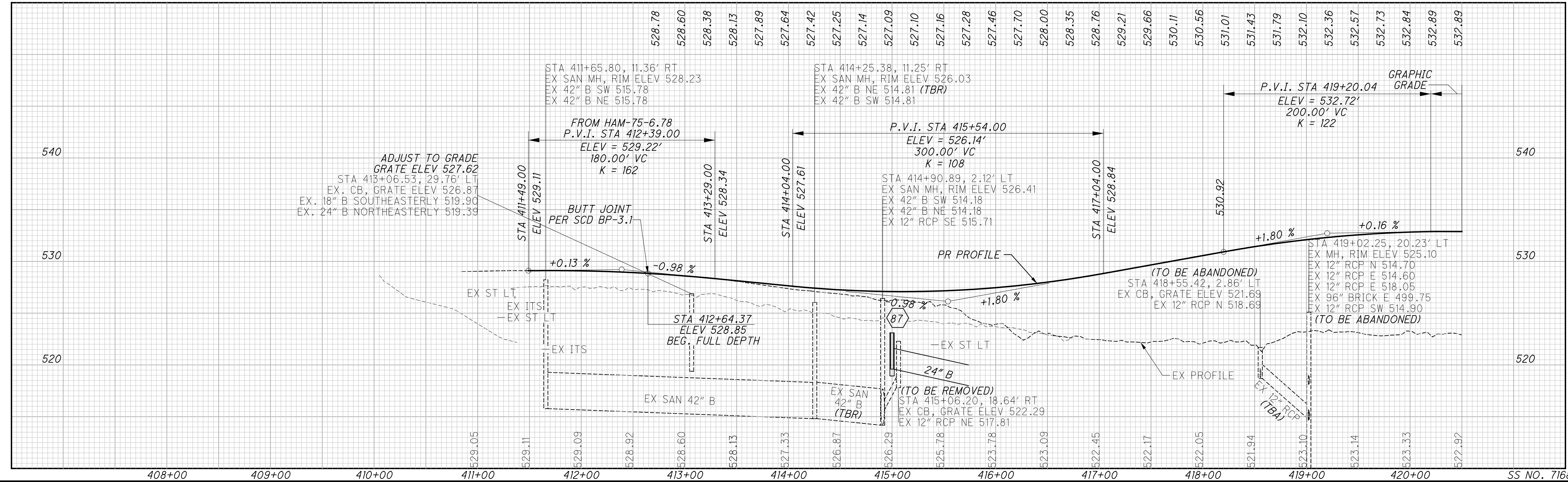
J:\20110903\ODOT\HAM\77889\roadway\sheet\77889GP040.dgn 9/29/2026 3:42:26 PM hbrendinger

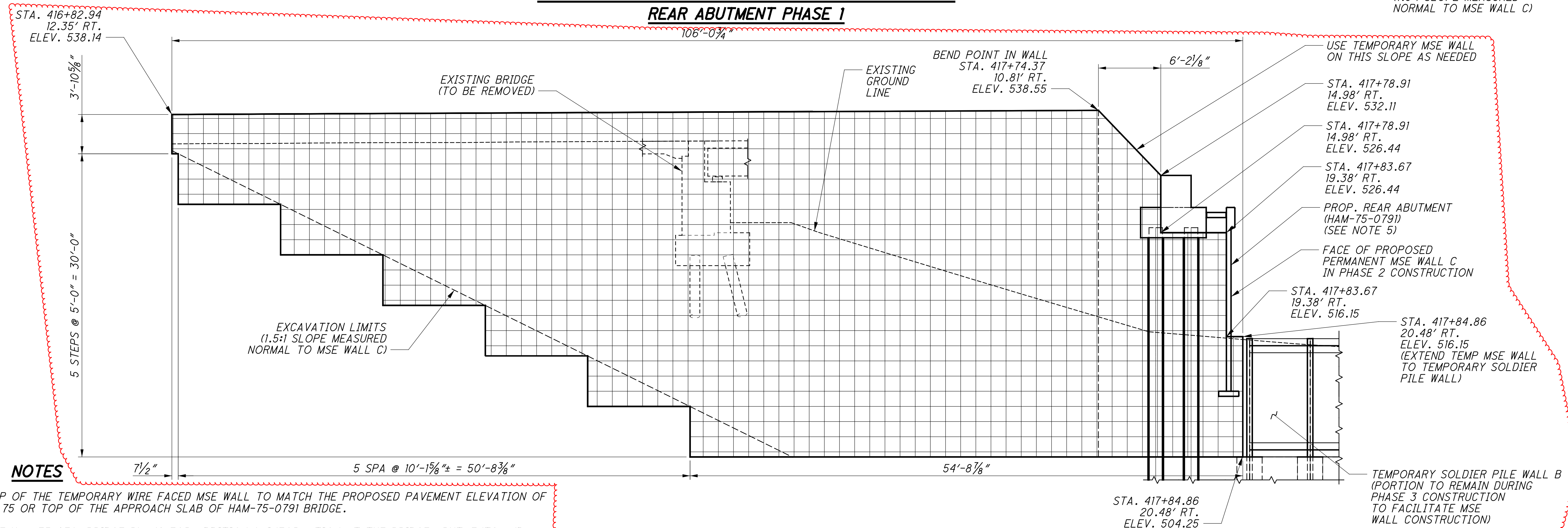
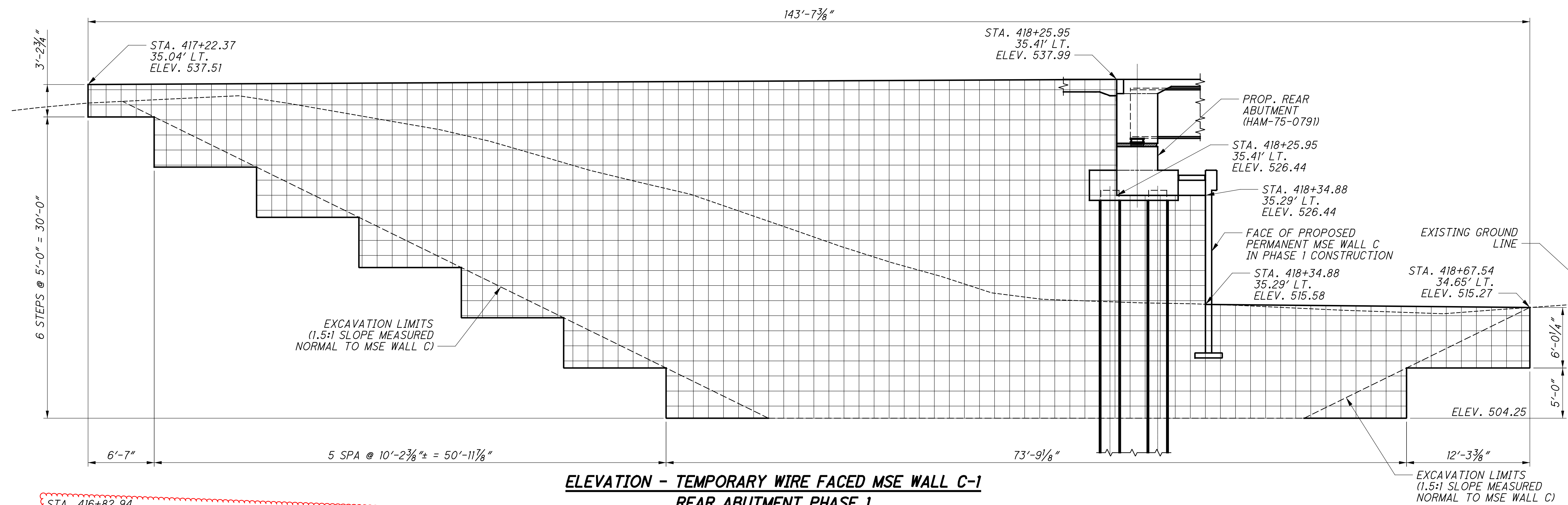


CROSS REFERENCES	
SHEET NO	DESCRIPTION
552-570	STORM SEWER PROFILES
544-551	DRAINAGE PLANS
683-684	SANITARY SEWER PROFILES
231-262	ESTIMATED QUANTITIES
519-529	SUPERELEVATION TABLES
688-695	ROADSIDE BARRIER PLAN
530-538	INTERCHANGE DETAILS
777-808	LIGHTING PLANS

RAMP N CURVE DATA (HAM-75-6.78)
PI STA 412+02.31
 $\Delta = 19^\circ 07' 04''$ (RT)
 $Dc = 9^\circ 00' 00''$
 $R = 636.62'$
 $T = 107.21'$
 $L = 212.42'$
 $E = 8.96'$
 $e_{max} = 0.060$

CURVE 562-NI
PI STA 414+98.05
 $\Delta = 25^\circ 49' 54''$ (RT)
 $Dc = 6^\circ 45' 24''$
 $R = 848.00'$
 $T = 194.46'$
 $L = 382.32'$
 $E = 22.01'$
 $C = 379.09'$
 $C.B. = N 82^\circ 13' 28'' E$
 $e_{max} = 0.060$

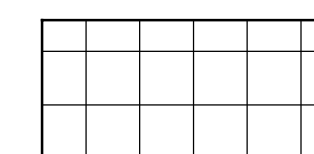




1. TOP OF THE TEMPORARY WIRE FACED MSE WALL TO MATCH THE PROPOSED PAVEMENT ELEVATION OF IR 75 OR TOP OF THE APPROACH SLAB OF HAM-75-0791 BRIDGE.
2. SEE HAM-75-0791 BRIDGE PLANS FOR ADDITIONAL INFORMATION AT THE BRIDGE ABUTMENTS AND TEMPORARY SHORING DETAILS.
3. SEE PROPOSED PERMANENT MSE WALL DETAILS ON SHEET 15 / 43
4. SEE SHEET 2 / 43 FOR ABBREVIATION LEGEND.
5. THE REAR ABUTMENT OF THE HAM-75-0791 BRIDGE IS ONLY BUILT TO THE BEAM SEAT ELEVATION IN THE LOCATION OF THE TEMPORARY WIRE FACE MSE WALL C-2 IN PHASE 2 CONSTRUCTION.

ELEVATION - TEMPORARY WIRE FACED MSE WALL C-2
REAR ABUTMENT PHASE 2

LEGEND



G:\projects\2010\B-10-020 HAM-75-7.85\77889\structures\WALL_001\sheets\77889_001WN401.dgn 9/28/2026 10:59:01 AM meets

NOISE WALL NOTES

1. SEE ODOT STANDARD CONSTRUCTION DRAWING NBS-1-09 FOR FURTHER DETAILS.
2. SHOP DRAWING SUBMITTALS SHALL INCLUDE:
SCALED DRAWINGS ON 11 X 17 SHEETS IN PDF FORMAT
SHOW THE ACOUSTIC PROFILE LINE SHOWN ON THESE PLANS
ON SHOP DRAWINGS ALL CALCULATIONS IN PDF FORMAT
3. ALL NOISE BARRIER PANELS AND POSTS SHALL HAVE A 12" INTEGRAL CAP WITH A 1.5" RUSTIFICATION GROOVE OR RELIEF.
4. THE ARCHITECTURAL TREATMENT ON THE NOISE PANELS SHALL BE CREATED USING CONCRETE CAST IN FORMLINERS ON BOTH SIDES OF THE PANELS.
STAMPING OF THE ARCHITECTURAL PATTERNS IS NOT ACCEPTABLE.
5. THE ARCHITECTURAL FINISH SHALL BE BEIGE ARCHITECTURAL POLYMERS NO. 905 SMALLER AGED PER SHEET 669 ON THE FREEWAY SIDE AND ARCHITECTURAL POLYMERS NO. 9110 LARGE STONE DRY STACK ON THE PARK AND RESIDENTIAL SIDE. FEDERAL COLOR NUMBER FOR BEIGE IS NO. 17778. THE ARCHITECTURAL POLYMERS PATTERN 905 SHALL MEET THE CUT SHEET ILLUSTRATED ON SHEET 669 .
6. SEE ODOT STANDARD CONSTRUCTION DRAWING NBS-1-09 FOR FURTHER DETAILS.
7. THESE NOTES APPLY TO EACH NOISE BARRIER ITEM:
NOISE BARRIER (REFLECTIVE)
NOISE BARRIER (REFLECTIVE), PARAPET MOUNTED
8. SEAL NOISE BARRIER PANEL WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

COMBINATION NOISE AND TRAFFIC BARRIER

DESIGN SPECIFICATIONS:
THE STRUCTURE CONFORMS TO "THE LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 5TH EDITION, 2012, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA:
CONCRETE - MINIMUM COMPRESSIVE STRENGTH = 4000 PSI
REINFORCING STEEL - MINIMUM YIELD STRENGTH = 60,000 PSI
STRUCTURAL STEEL - MINIMUM YIELD STRENGTH = 50,000 PSI

MATERIAL:
STRUCTURAL STEEL - ASTM A709, GRADE 50
(FURNISH ACCORDING TO 711.01)
HIGH STRENGTH BOLTS - 1" DIAMETER, ASTM A325
(FURNISH ACCORDING TO 711.09)

FABRICATION:
FABRICATE STRUCTURAL STEEL MEMBERS ACCORDING TO 513.

GALVANIZING:
GALVANIZE ALL STRUCTURAL STEEL SHAPES, PLATES, HARDWARE AND ACCESSORIES IN ACCORDANCE WITH 711.02.

PAINT OVER ALL GALVANIZE STRUCTURAL STEEL SHAPES, PLATES, HARDWARE AND ACCESSORIES. PAINT SHALL MATCH SURFACE COLOR OF NOISE WALLS.

EXPANSION & CONTRACTION JOINTS:
PLACE EXPANSION JOINTS AT A MAXIMUM SPACING OF 90'-0" AND CONTRACTION JOINTS AT A MAXIMUM SPACING OF 15'-0", UNLESS NOTED OTHERWISE.

CONSTRUCT THE EXPANSION JOINT FROM THE BOTTOM OF THE SLEEPER SLAB TO THE TOP OF THE 8'-0" CAST-IN-PLACE WALL. DO NOT EXTEND REINFORCING STEEL THROUGH EXPANSION JOINTS.

FOOTINGS:
FOR BARRIERS WITH SLEEPER SLABS ON MSE WALLS, PLACE THE BOTTOM OF THE SLEEPER SLAB PARALLEL THE THE ROADWAY GRADE.

FORMLINERS:
REFER TO THE PROJECT PLANS FOR SPECIFIC INFORMATION REGARDING FORMLINERS. THE TRAFFIC FACE OF THE BARRIER MAY BE TEXTURED TO A MAXIMUM DEPTH OF 1/2" ABOVE THE 42" SINGLE SLOPE BARRIER. THE OPPOSITE FACE OF THE BARRIER MAY BE TEXTURED TO A MAXIMUM DEPTH OF 1" ABOVE THE 42" BARRIER. MAINTAIN A MINIMUM CLEAR COVER OF 2" OVER REINFORCING STEEL.

REINFORCING STEEL:
FURNISH AND INSTALL EPOXY COATED REINFORCING STEEL ACCORDING TO CMS 509. THE MINIMUM LAP LENGTHS ARE 3'-7" FOR #5 BARS AND 4'-4" FOR #6 BARS.

METHOD OF MEASUREMENT:
THE DEPARTMENT WILL MEASURE THE COMBINATION NOISE AND TRAFFIC BARRIER BY THE NUMBER OF FEET MEASURED ALONG ITS LENGTH.

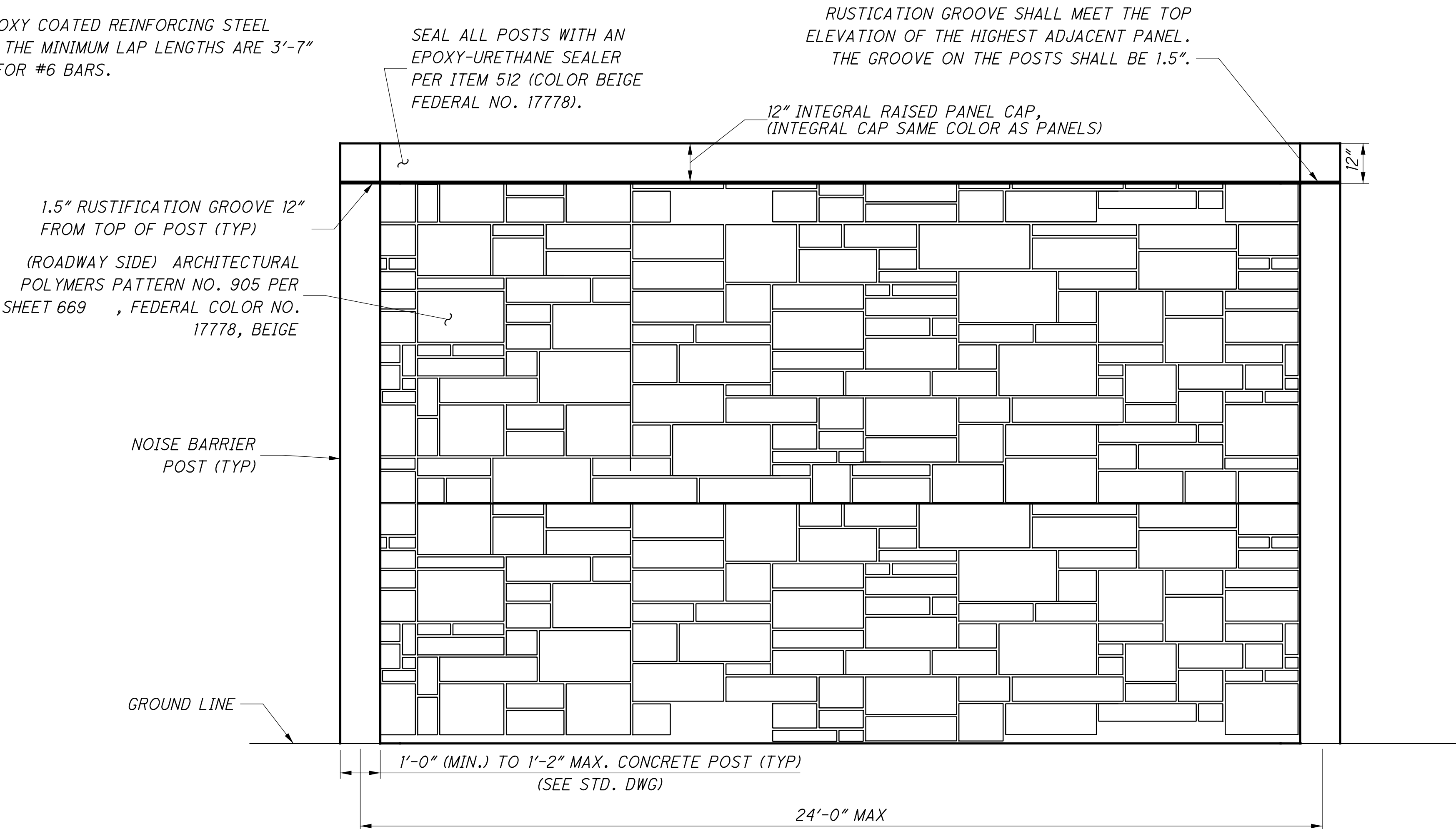
THE DEPARTMENT WILL MEASURE THE NOISE BARRIER BY THE NUMBER OF SQUARE FEET. THE DEPARTMENT WILL MEASURE THE TOTAL AREA AS THE SUM OF THE AREA OF THE INDIVIDUAL PANEL SECTIONS. THE DEPARTMENT WILL MEASURE THE HEIGHT OF AN INDIVIDUAL PANEL SECTION FROM THE BOTTOM OF THE LOWEST PANEL TO THE TOP OF THE CAP. THE DEPARTMENT WILL MEASURE THE WIDTH OF AN INDIVIDUAL PANEL SECTION AS THE CENTER TO CENTER SPACING OF ADJACENT STEEL POSTS.

BASIS OF PAYMENT:
THE DEPARTMENT WILL INCLUDE THE COSTS ASSOCIATED WITH FURNISHING AND INSTALLING THE CONCRETE AND REINFORCING STEEL WITH THE BARRIER FOR PAYMENT. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES OF THE COMBINATION NOISE AND TRAFFIC BARRIER AS FOLLOWS:

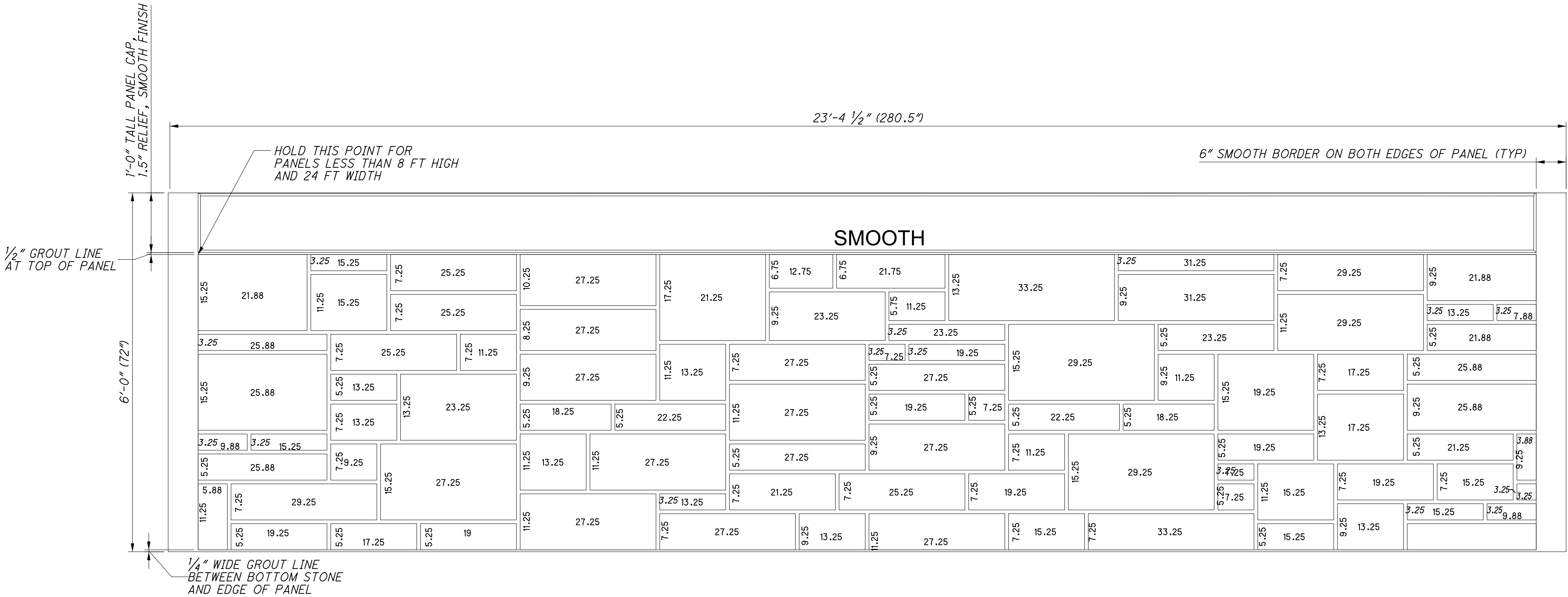
ITEM 517 - RAILING (COMBINATION NOISE AND TRAFFIC BARRIER ON MSE WALL WITH FLEXIBLE PAVEMENT)

THE DEPARTMENT WILL INCLUDE THE COSTS ASSOCIATED WITH FURNISHING AND INSTALLING ALL ANCHOR BOLTS, STEEL POSTS AND PANELS WITH THE NOISE BARRIERS FOR PAYMENT. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES OF THE NOISE BARRIERS AS FOLLOWS:

ITEM SPECIAL - NOISE BARRIER (REFLECTIVE)

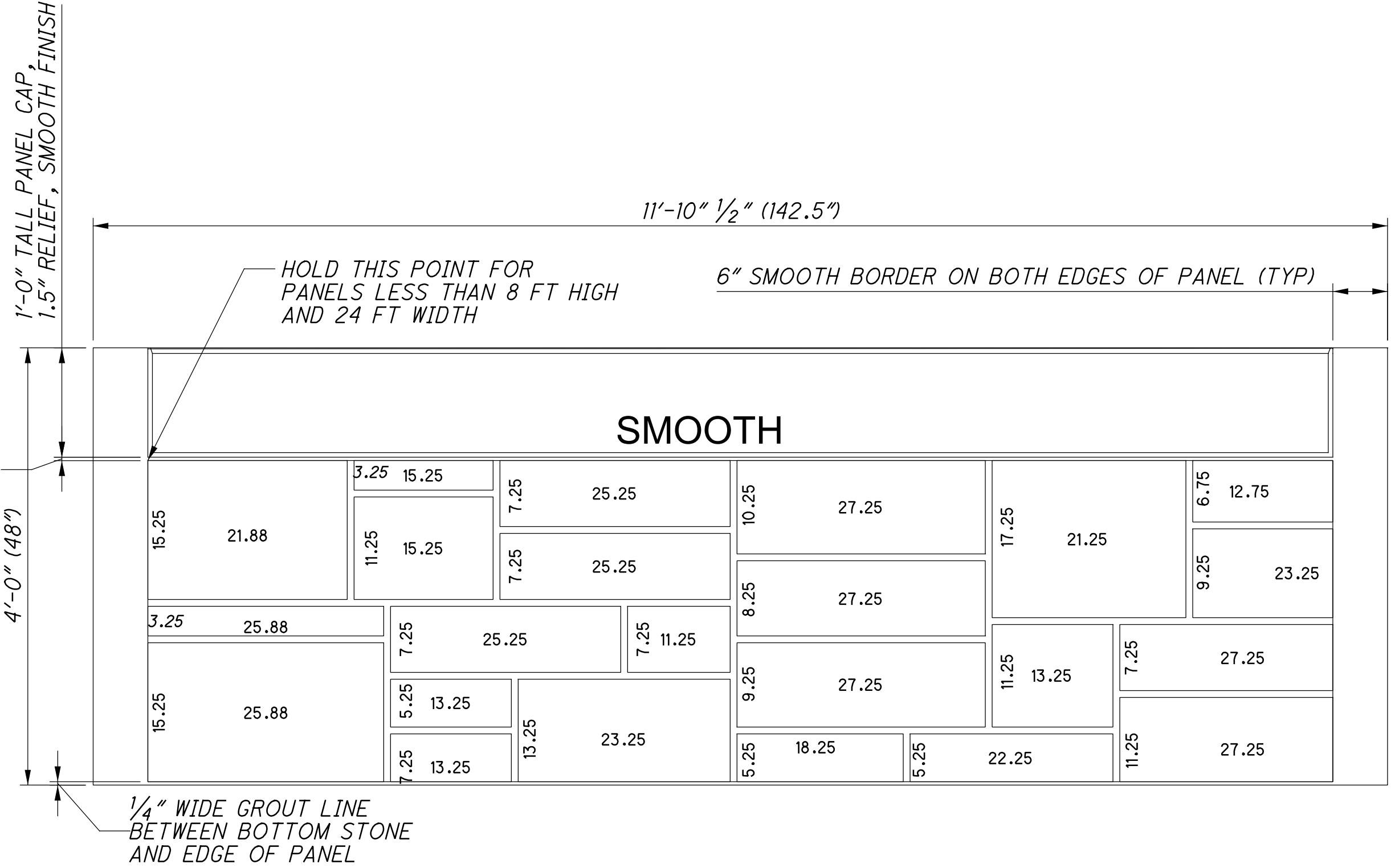


NOISE BARRIER ELEVATION



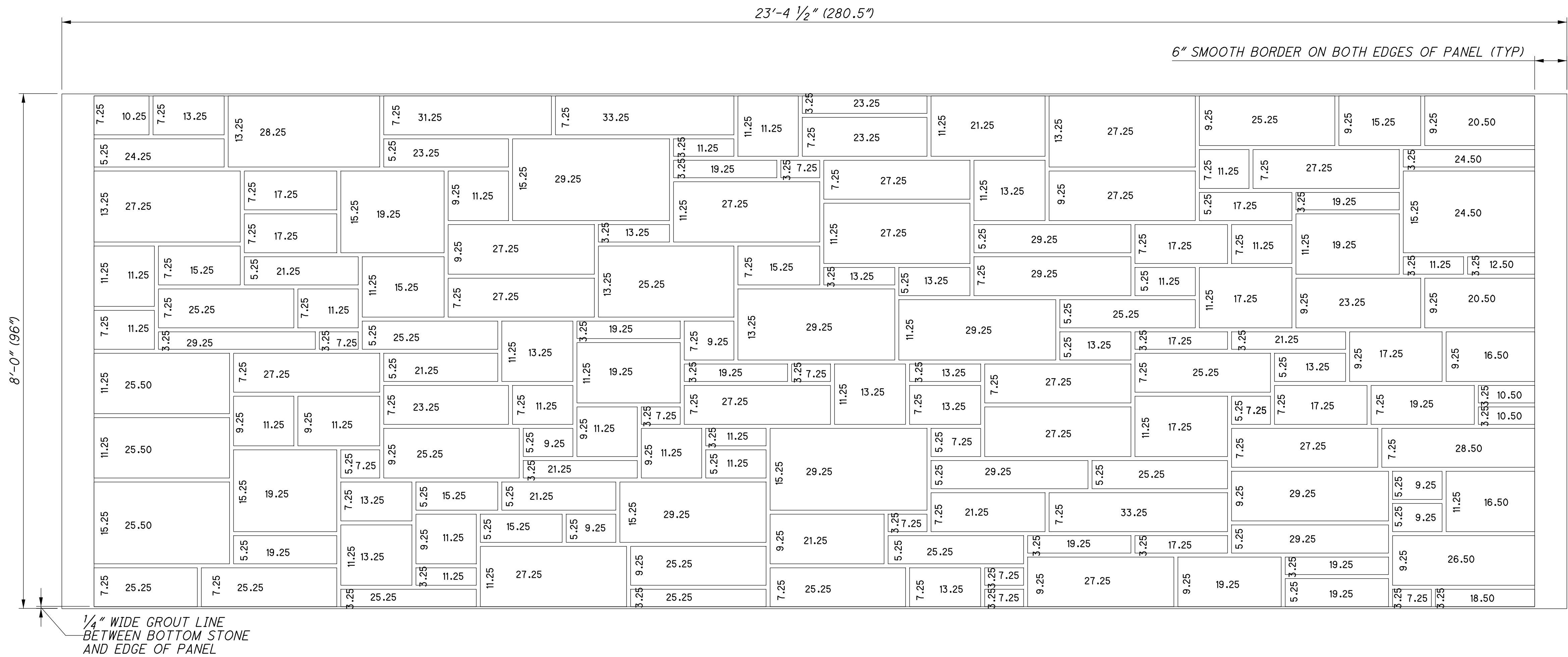
NOTES:

1. GROUT LINE BETWEEN INDIVIDUAL STONES COMPRISING THE 905 PATTERN ARE TO BE 0.75" IN WIDTH UNLESS OTHERWISE NOTED.
2. INDIVIDUAL BLOCKS COMPRISING THE 905 PATTERN ARE TO PROVIDE A PATTERN RELIEF OF 1 TO 2 INCHES ABOVE THE ADJACENT SMOOTH GROUT LINE OR PANEL EDGE.
3. CREATE A 12" SMOOTH INTEGRAL PANEL CAP WITH A 1.5" RELIEF.



ARCHITECTURAL POLYMERS NO. 905 PATTERN ELEVATION (4'-0" AND 6'-0" HEIGHT TOP DETAIL)
(DIMENSIONS FOR INDIVIDUAL BLOCKS ARE IN INCHES)

SAMPLE NOISE BARRIER PANEL



ARCHITECTURAL POLYMERS NO. 905 PATTERN ELEVATION (8'-0" HEIGHT MIDDLE DETAIL)
(DIMENSIONS FOR INDIVIDUAL BLOCKS ARE IN INCHES)

NOTES:

1. GROUT LINE BETWEEN INDIVIDUAL STONES COMPRISING THE 905 PATTERN ARE TO BE 0.75" IN WIDTH UNLESS OTHERWISE NOTED.
2. INDIVIDUAL BLOCKS COMPRISING THE 905 PATTERN ARE TO PROVIDE A PATTERN RELIEF OF 1 TO 2 INCHES ABOVE THE ADJACENT SMOOTH GROUT LINE OR PANEL EDGE.
3. CREATE A 12" SMOOTH INTEGRAL PANEL CAP WITH A 1.5" RELIEF.

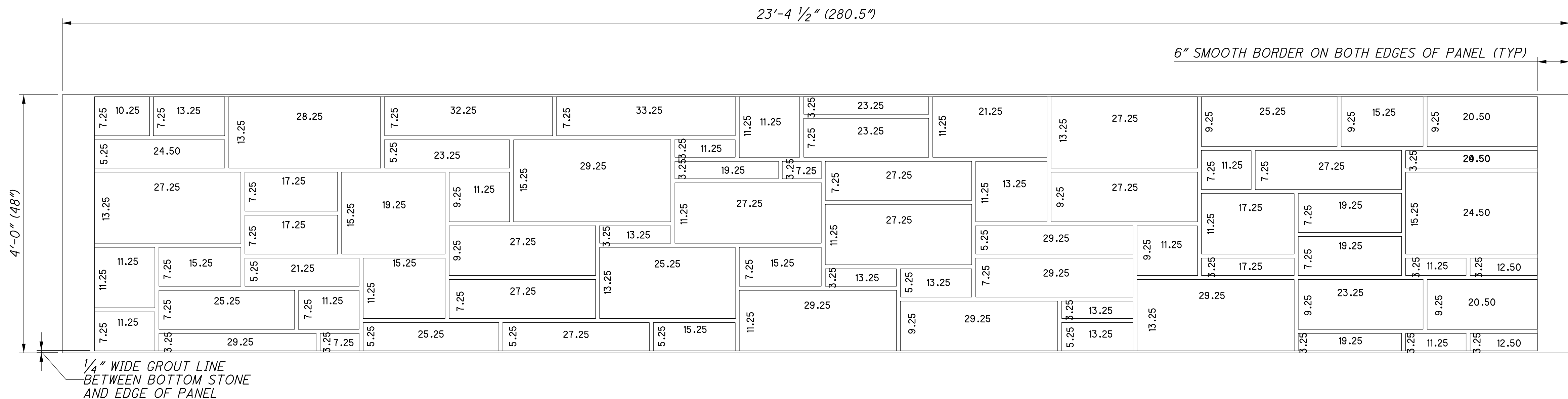
SAMPLE NOISE BARRIER PANEL

ARCHITECTURAL POLYMERS NO. 905

HAM-75-7.85

669B
1047

CALCULATED
CFR
CHECKED
NCK



ARCHITECTURAL POLYMERS NO. 905 PATTERN ELEVATION (4'-0" HEIGHT MIDDLE DETAIL)
(DIMENSIONS FOR INDIVIDUAL BLOCKS ARE IN INCHES)

NOTES:

1. GROUT LINE BETWEEN INDIVIDUAL STONES COMPRISING THE 905 PATTERN ARE TO BE 0.75" IN WIDTH UNLESS OTHERWISE NOTED.
2. INDIVIDUAL BLOCKS COMPRISING THE 905 PATTERN ARE TO PROVIDE A PATTERN RELIEF OF 1 TO 2 INCHES ABOVE THE ADJACENT SMOOTH GROUT LINE OR PANEL EDGE.
3. CREATE A 12" SMOOTH INTEGRAL PANEL CAP WITH A 1.5" RELIEF.

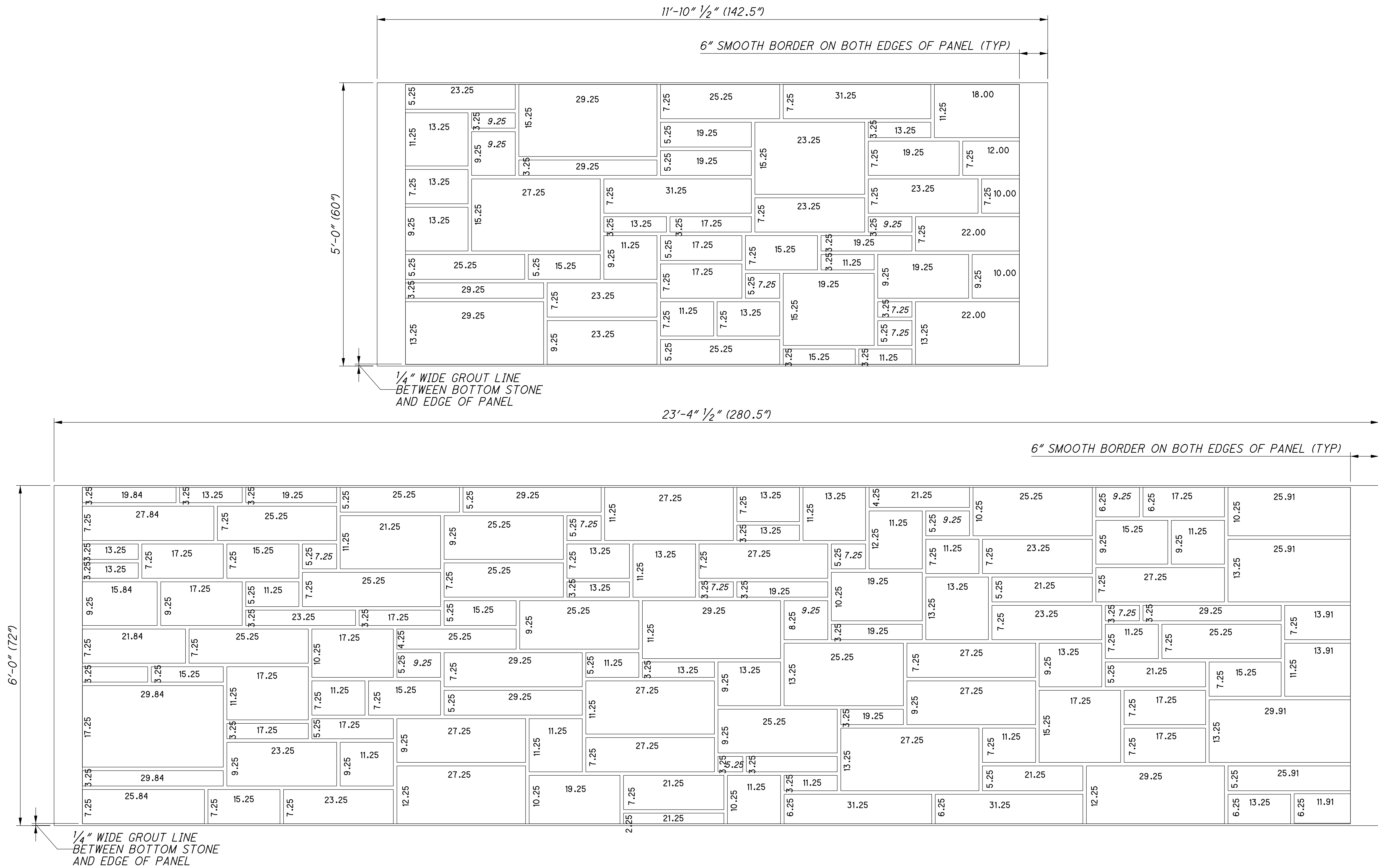
SAMPLE NOISE BARRIER PANEL

ARCHITECTURAL POLYMERS NO. 905

HAM-75-7.85

6690
1047

CALCULATED
CFR
CHECKED
NCK

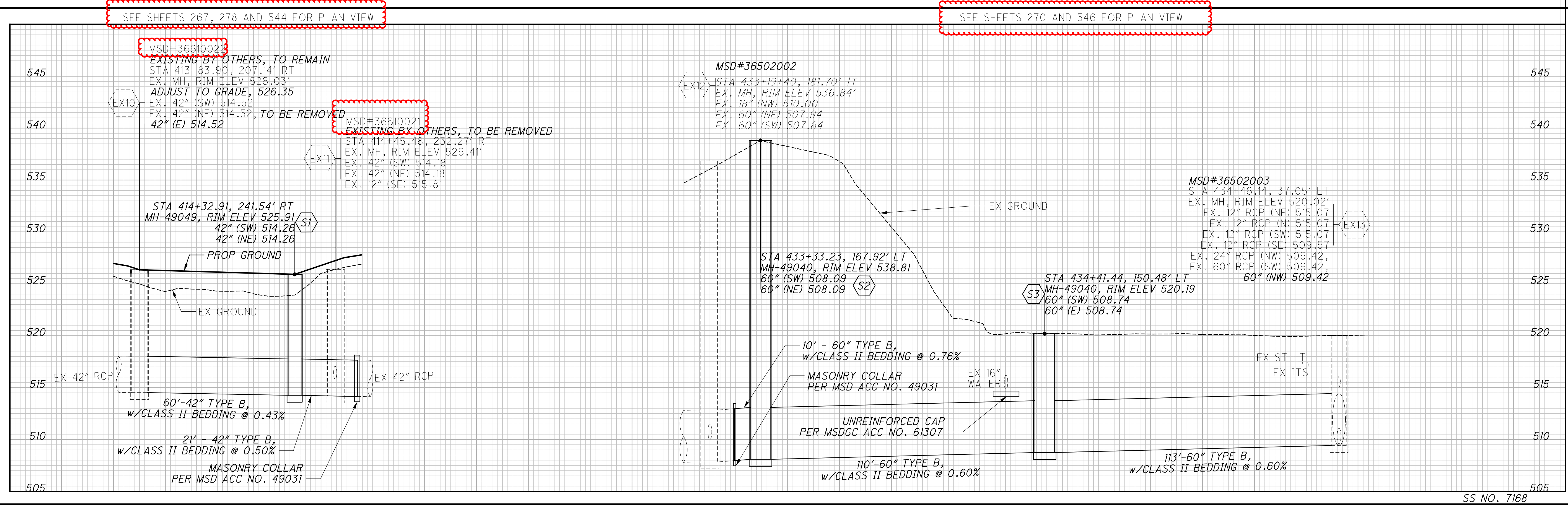
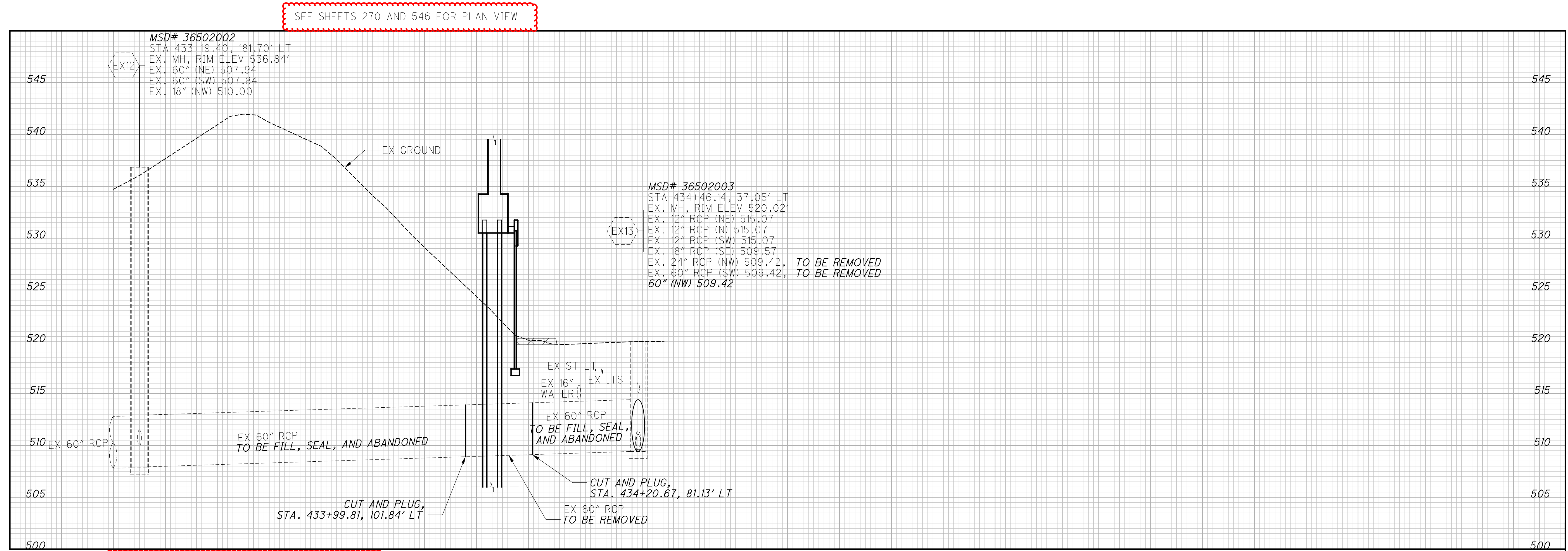


ARCHITECTURAL POLYMERS NO. 905 PATTERN ELEVATION (4'-0" AND 6'-0" HEIGHT MIDDLE DETAIL)
(DIMENSIONS FOR INDIVIDUAL BLOCKS ARE IN INCHES)

- NOTES:
1. GROUT LINE BETWEEN INDIVIDUAL STONES COMPRISING THE 905 PATTERN ARE TO BE 0.75" IN WIDTH UNLESS OTHERWISE NOTED.
 2. INDIVIDUAL BLOCKS COMPRISING THE 905 PATTERN ARE TO PROVIDE A PATTERN RELIEF OF 1 TO 2 INCHES ABOVE THE ADJACENT SMOOTH GROUT LINE OR PANEL EDGE.
 3. CREATE A 12" SMOOTH INTEGRAL PANEL CAP WITH A 1.5" RELIEF.

SAMPLE NOISE BARRIER PANEL

J:\20110903\ODOT\HAM\77889\utilities\sheet\77889\U001.dgn 9/29/2026 3:21:19 PM hbrendinger



SS NO. 7168

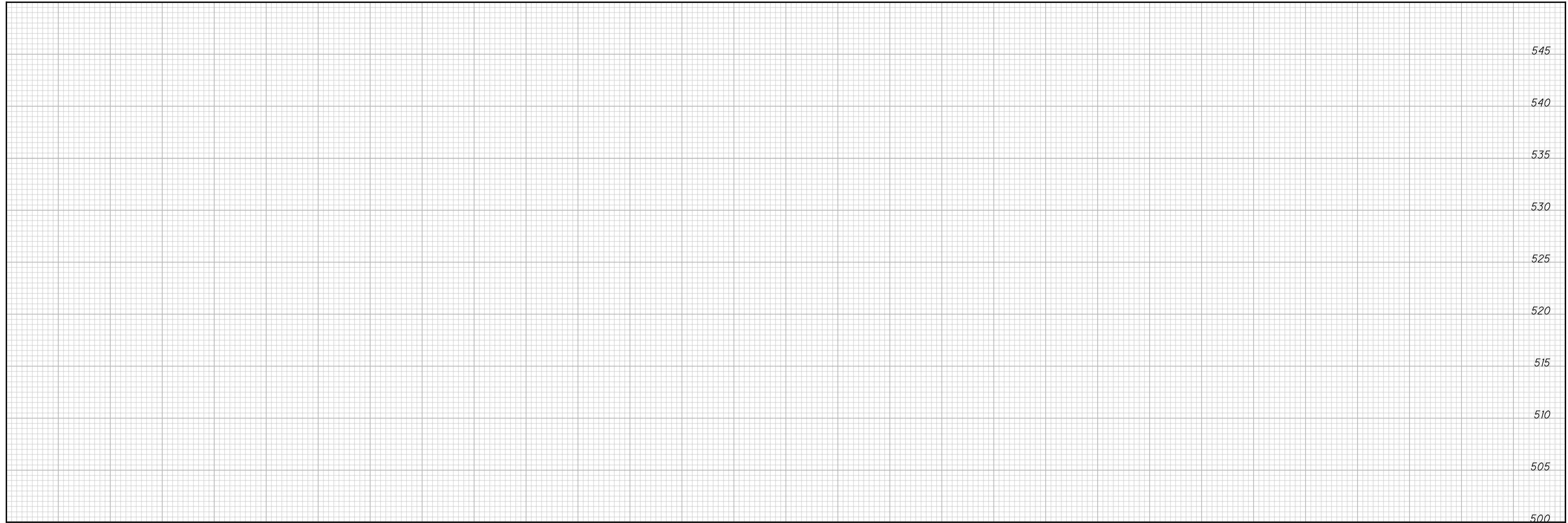
CALCULATED
RSH
CHECKED
EDK

SANITARY SEWER PROFILES

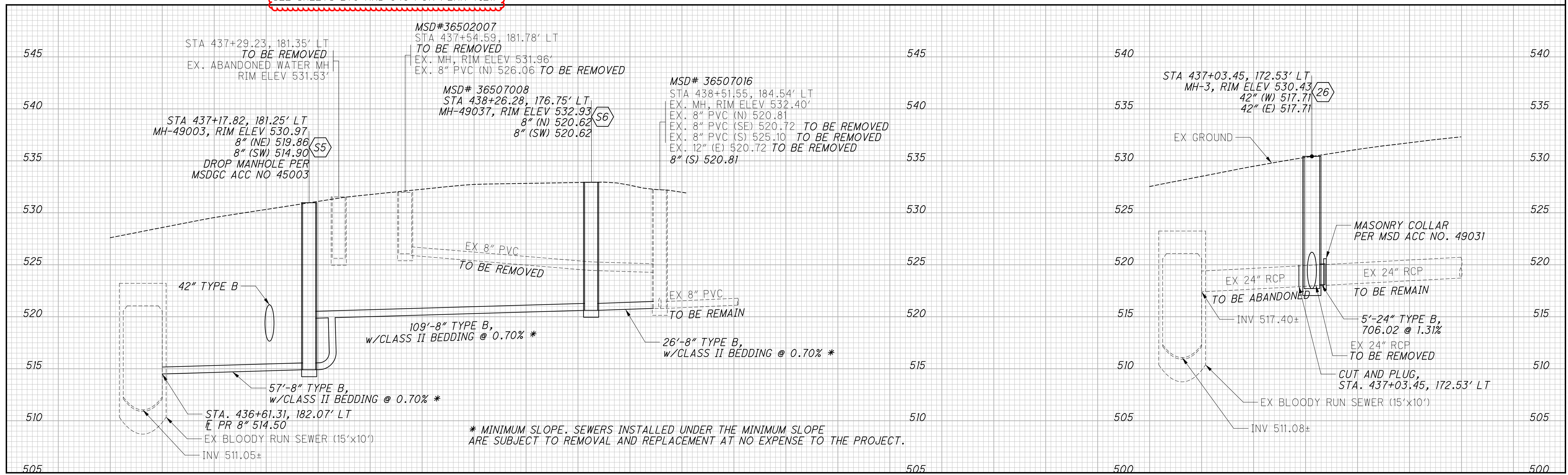
HAM-75-7.85

683
1047

J:\20110903\ODOT\HAM\77889\utilities\sheet\77889\UF002.dgn 9/29/2026 3:13:51 PM hbreindinger



SEE SHEETS 270 AND 546 FOR PLAN VIEW



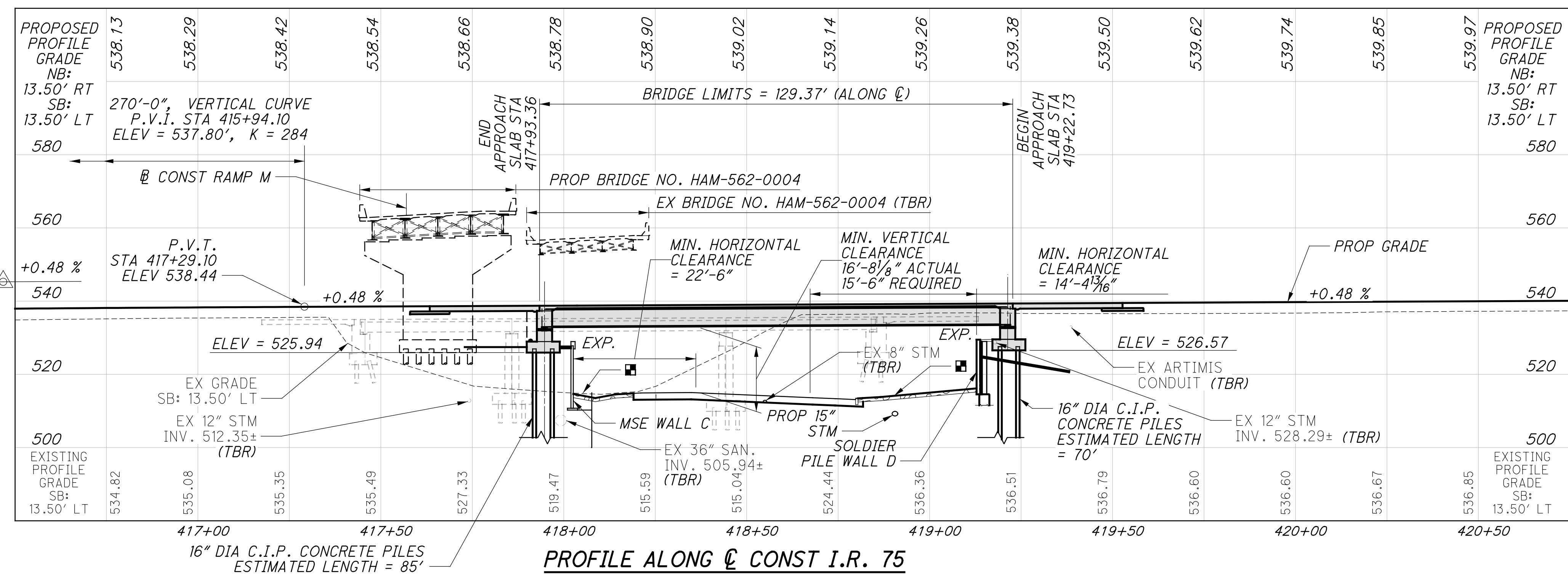
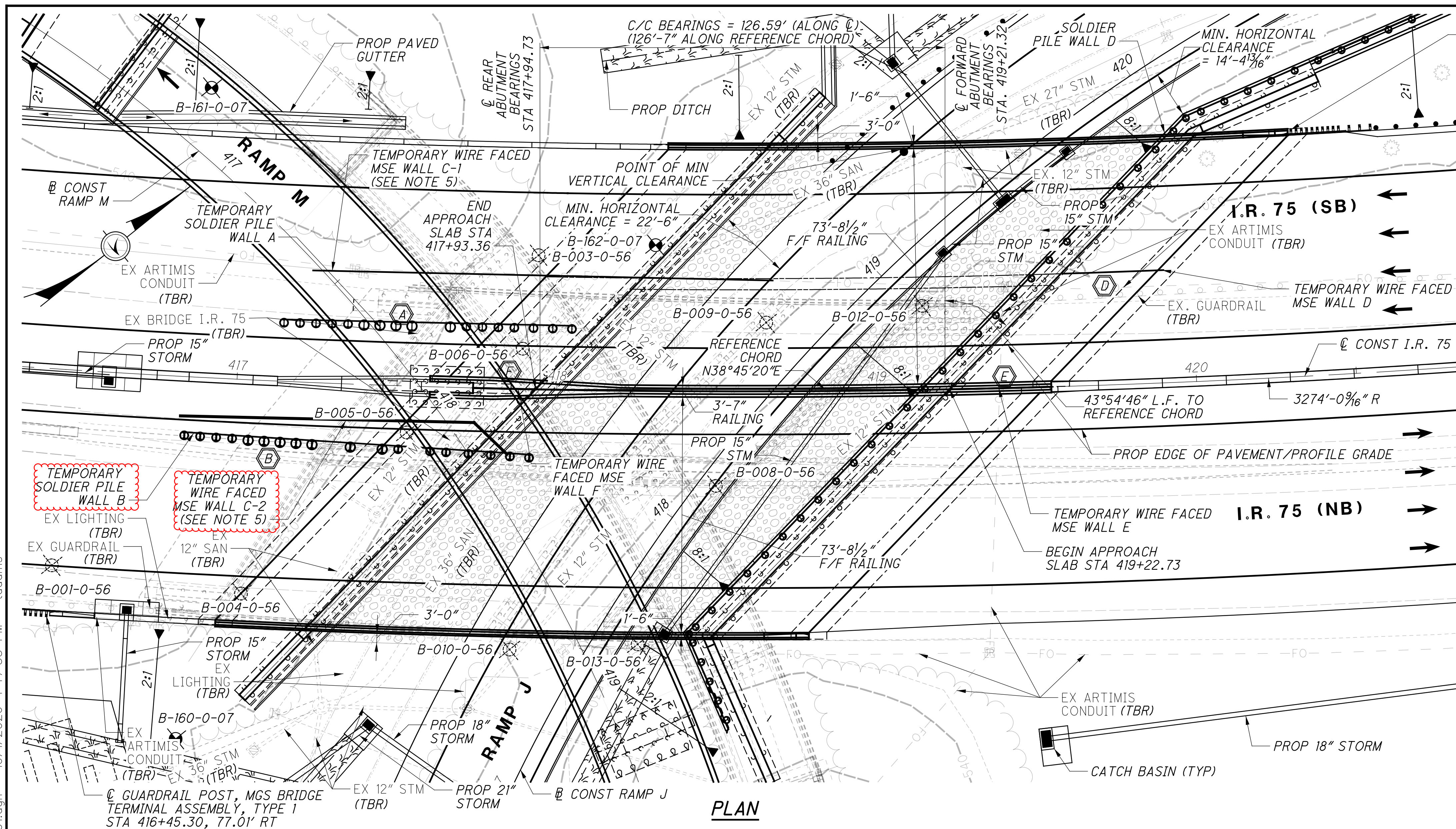
SS NO. 7168

CALCULATED
RSH
CHECKED
EDK

SANITARY SEWER PROFILES

HAM-75-7.85

684
1047



TRAFFIC DATA

CURRENT YEAR ADT (2010) = 173,800
DESIGN YEAR ADT (2030) = 203,000
DESIGN YEAR ADTT (2030) = 107,590

BENCHMARK DATA

BM #404, STA 434+88.14, ELEV 523.26, OFFSET 312.54' RIGHT
BM #405, STA 434+03.68, ELEV 521.92, OFFSET 388.27' LEFT

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLAN SHEET 10

NOTES

1. EARTH WORK LIMITS SHOWN ARE APPROXIMATE.
ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. SEE ROADWAY PLANS FOR GUARDRAIL DETAILS AND PAYMENT.
3. SEE SHEET 2/65 FOR REFERENCE CHORD DIAGRAM.
4. SEE GENERAL NOTES FOR ABBREVIATION LEGEND.
5. SEE MSE WALL SHEETS FOR DETAILS AND PAYMENT.

LEGEND

Q CONST I.R. 75
HORIZONTAL
CURVE DATA

$PI STA = 420+66.71$
 $\Delta = 21^{\circ} 27' 24''$ (L T)
 $D_C = 1^{\circ} 45' 00''$
 $R = 3,274.04'$
 $T = 620.31'$
 $L = 1,226.09'$
 $E = 58.25'$
 $C = 1,218.94'$
 $C.B. = N 35^{\circ} 13' 50''$

 - PROJECT SOIL BORING LOCATION

 - HISTORIC SOIL BORING LOCATION

■ - CRUSHED AGGREGATE
SLOPE PROTECTION,
1'-0" THICK

 - LIMITS OF ITEM 601 -
CRUSHED AGGREGATE
SLOPE PROTECTION

 - TEMPORARY WALL (FOR TABLE
SEE SHEET 2 / 65)

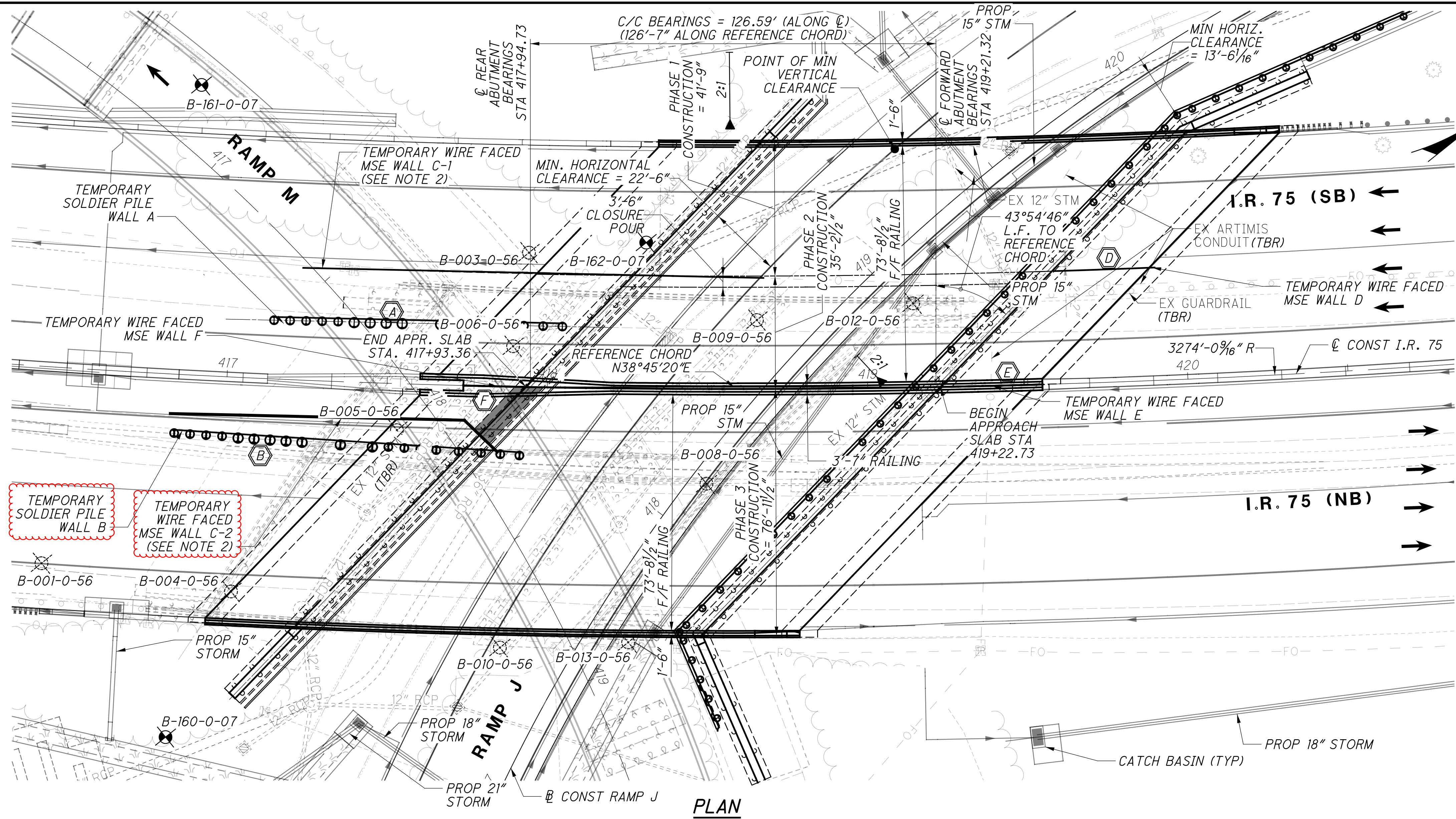
EXISTING STRUCTURE

TYPE: 3 SPAN CONTINUOUS STEEL BEAM SUPERSTRUCTURE
WITH REINFORCED CONCRETE DECK ON REINFORCED
CONCRETE ABUTMENTS AND COLUMN PIERS
SPANS: 37'-2 $\frac{7}{8}$ ", 54'-0", 37'-3 $\frac{1}{2}$ " C/C BEARINGS
ROADWAY: SB: 52'-8", NB: 51'-8" F/F RAILING
SKEW: VARIES
DESIGN LOADING: CF 2000-51 ADEQUATE FOR AASHTO
ALTERNATE LOADING
DECK: REINFORCED CONCRETE
SUBSTRUCTURE: DEEP FOUNDATION ABUTMENTS AND
DEEP FOUNDATION PIERS
DATE BUILT: 1958
STRUCTURE FILE NUMBER: 3110036
APPROACH SLABS: 25' LONG
WEARING SURFACE: SB: 1 $\frac{1}{4}$ " LATEX MODIFIED CONCRETE
OR 1 $\frac{3}{4}$ " DENSE CONCRETE OVERLAY
NB: MONOLITHIC CONCRETE DECK WITH
EPOXY COATED RE-BAR

PROPOSED STRUCTURE

TYPE: SINGLE SPAN STEEL GIRDER SUPERSTRUCTURE
WITH COMPOSITE REINFORCED CONCRETE DECK
ON REINFORCED CONCRETE STUB ABUTMENTS
SPAN: 126'-7" C/C BEARINGS ALONG
REFERENCE CHORD
ROADWAY: 73'-11½" T/T RAILING (N.B. AND S.B.)
DESIGN LOADING: HL-93
FUTURE WEARING SURFACE LOADING: 60 PSF
SKEW: 43°54'46" L.F. TO REFERENCE CHORD PER NOTE 3
WEARING SURFACE: MONOLITHIC CONCRETE (MACRO-FIBERS)
APPROACH SLABS: AS-1-15 (30' LONG) T=17" (MODIFIED)
TYPE A INSTALLATION (AS-2-15)
ALIGNMENT: 1°45'00" CURVE LEFT
CROWN: 4.20% AND 4.00%
LATITUDE: N 39°10'30.84"
LONGITUDE: W 84°29'20.12"

J:\20110903\ODOT\HAM\77889\structures\HAM075_0791C\sheets\075_0791CGP001.dgn 10/1/2026 4:47:58 PM tadams



J:\20110903\ODOT\HAM\77889_structures\HAM075_sheets\075_0791CGN001.dgn 10/1/2026 9:58:02 AM Rely

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1-20-23
AS-2-15	REVISED	1-20-23
PCB-91	REVISED	7-17-20
SBR-1-20	REVISED	1-20-23
SBR-2-20	REVISED	1-15-21
SICD-1-96	REVISED	7-18-14
SICD-2-14	REVISED	1-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

867 DATED 4-15-22

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

SPECIAL DESIGN SPECIFICATIONS:

THIS BRIDGE REQUIRED THE USE OF A THREE DIMENSIONAL MODEL USING THE FINITE ELEMENT DESIGN METHOD TO ANALYZE THE STRUCTURE. THE COMPUTER PROGRAM USED FOR STRUCTURAL ANALYSIS WAS MIDAS CIVIL 2022 (v1.2). THE BRIDGE COMPONENTS DESIGNED BY THIS METHOD AND THE LIVE LOAD DISTRIBUTION FACTORS USED WERE:

DEAD LOAD DISTRIBUTION: SLAB LOADS ARE DISTRIBUTED BASED UPON GIRDER SPACING AND TRIBUTARY WIDTHS. FUTURE WEARING SURFACE, AND RAILING LOADS ARE DISTRIBUTED EQUALLY TO ALL GIRDERS.

LIVE LOADS WERE GENERATED AUTOMATICALLY BY THE DESIGN PROGRAM AND WERE APPLIED WITHIN USER DETERMINED LANES. THE DESIGN PROGRAM DISTRIBUTED THE LIVE LOADS BASED ON THE LONGITUDINAL AND TRANSVERSE STIFFNESS.

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:

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

DESIGN DATA:

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS SCC - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1/QC3 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK, RAILING, AND ABUTMENTS)
GFRP REINFORCEMENT (RAILING)
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI (APPROACH SLAB AND RAILING)

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

STEEL CIP PILES - ASTM A252 GRADE 2 - YIELD STRENGTH 35 PSI

MONOLITHIC WEARING SURFACE:

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

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THE EXISTING REAR ABUTMENT SHALL BE REMOVED A MINIMUM OF 5'-0" BELOW EXISTING GROUND OR AS NEEDED TO FACILITATE THE PROPOSED REAR ABUTMENT MSE WALL CONSTRUCTION.

THE EXISTING PIER 1 PILES SHALL BE REMOVED TO THE ELEVATION OF THE BOTTOM OF MSE WALL C UNDERCUT & ITEM 203 - GRANULAR MATERIAL TYPE C.

THE EXISTING PIER 2 AND EXISTING FORWARD ABUTMENT SHALL BE REMOVED AT LEAST TO THE BOTTOM OF RAMP J SUBGRADE ELEVATION.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN-UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN-UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

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 CMS 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.

EXISTING STRUCTURE PLANS:

CONSTRUCTION PLANS FOR THE EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

PILE DRIVING CONSTRAINTS:

PILE DRIVING MAY NOT BEGIN UNTIL SUFFICIENT EMBANKMENT AND MSE WALL SETTLEMENT HAS OCCURRED AS DOCUMENTED BY THE SETTLEMENT PLATFORMS. THE ANTICIPATED WAITING PERIOD TO PERMIT SUFFICIENT EMBANKMENT SETTLEMENT IS 90 DAYS. THE DISTRICT GEOTECHNICAL ENGINEER MAY REDUCE OR EXTEND THE WAITING PERIOD BASED ON THE MAGNITUDE AND RATE OF THE EMBANKMENT SETTLEMENT AS DETERMINED BY THE SETTLEMENT PLATFORMS. THE SETTLEMENT WAITING PERIOD BEGINS ONCE THE APPROACH EMBANKMENT REACHES THE DESIGN SUBGRADE LEVEL FOR A MINIMUM DISTANCE OF 100 FT. BEHIND EACH ABUTMENT. THE PLANS HAVE PROVISIONS FOR A TEMPORARY WALL AT THE ABUTMENT LOCATION TO PERMIT PLACEMENT OF EMBANKMENT TO THE DESIGN SUBGRADE LEVEL. BEGIN PILE DRIVING ONLY FOLLOWING TERMINATION OF THE SETTLEMENT MONITORING WAITING PERIOD BY THE DISTRICT GEOTECHNICAL ENGINEER.

PRIOR TO DRIVING THE FORWARD ABUTMENT PILES, IN AREA AT THE END OF THE NORTHEAST WINGWALL, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

DRIVING OF PILES TO THE DESIGN ULTIMATE BEARING VALUE PRIOR TO MSE WALL CONSTRUCTION, SURCHARGE PLACEMENT AND SETTLEMENT WAITING PERIOD TERMINATION IS AN ALTERNATIVE TO DRIVING THE PILES FOLLOWING THE SETTLEMENT WAITING PERIOD. PILES DRIVEN PRIOR TO THE WAITING PERIOD ARE TO BE INSTALLED AS PER THE PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP REQUIREMENTS. ALL PILES DRIVEN TO THE UBV PRIOR TO THE WAITING PERIOD TERMINATION REQUIRE RESTRIKING FOLLOWING THE END OF THE SETTLEMENT WAITING PERIOD. RESTRIKE AND MOBILIZED EACH PILE A MINIMUM OF 0.5 INCHES. SELECT THE APPROPRIATE PILE DRIVING EQUIPMENT TO ENSURE EACH PILE MOVES 0.5 INCHES UPON RESTRIKE. ADDITIONAL COMPENSATION WILL NOT BE CONSIDERED FOR PILE RESTRIKING WHEN PILES ARE DRIVEN PRIOR TO THE SETTLEMENT WAITING PERIOD. THE CONTRACTOR IS TO SURVEY EACH PILE DRIVEN PRIOR TO CONSTRUCTION OF THE MSE WALL AND PROVIDE THE ENGINEER A RECORD OF THE PILE PLUMBNESS AND TOP OF LOCATION RELATIVE TO THE PLAN LOCATION. CORRECT ANY PILE ALIGNMENT ISSUES THAT ARE IDENTIFIED IN THE PILE SURVEY PRIOR TO MSE WALL CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT. ANY PILE CORRECTIONS ARE TO BE ACCEPTED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

ITEM 203 - EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF BOTH THE APPROACH EMBANKMENT AS WELL AS EMBANKMENT REQUIRED AT THE NORTHEAST WINGWALL UP TO THE PROPOSED BOTTOM OF FOOTING ELEVATION.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL A):
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL B):

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT 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 COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP:

THE ULTIMATE BEARING VALUE (UBV) IS 330 KIPS PER PILE FOR THE REAR ABUTMENT AND FORWARD ABUTMENT. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICER OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING.

DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION SPECIFIED FOR EACH SUBSTRUCTURE. DRIVE THE THIRD AND FOURTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 10 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). PERFORM A CAPWAP ANALYSIS ON EACH PILE TESTED FOR EVERY DYNAMIC LOAD TEST AND EVERY RESTRIKE TEST.

SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUBSTRUCTURE WITH THE ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING. THE DRIVING CRITERIA WITH PILE SETUP SHALL BE PERFORMED FOR THE FIRST PHASE OF BRIDGE CONSTRUCTION. THE CONTRACTOR SHALL NOT ORDER PILES FOR SUBSEQUENT PHASES UNTIL AFTER THE DRIVING CRITERIA HAS BEEN ESTABLISHED WITH SETUP. THE DEPARTMENT WILL ADJUST THE FURNISHED PILE QUANTITIES BASED ON THE RESTRIKE TEST RESULTS.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REQUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA. THE DEPARTMENT WILL PAY FOR SPLICING OF THE PILES BEYOND THE ESTIMATED LENGTH PROVIDED IN THE PLANS UNDER C&MS 109.05 WITH A NEGOTIATED PRICE PER SPLICE.

LEFT BRIDGE:
REAR ABUTMENT
16" DIAMETER CIP PILES, 90 FEET LONG, ORDER LENGTH TIP ELEVATION 441.94
2 DYNAMIC LOAD TESTING ITEM
2 RESTRIKE

FORWARD ABUTMENT
16" DIAMETER CIP PILES, 75 FEET LONG, ORDER LENGTH TIP ELEVATION 457.57
2 DYNAMIC LOAD TESTING ITEM
2 RESTRIKE

RIGHT BRIDGE:
REAR ABUTMENT
16" DIAMETER CIP PILES, 90 FEET LONG, ORDER LENGTH TIP ELEVATION 441.94
2 DYNAMIC LOAD TESTING ITEM
2 RESTRIKE

FORWARD ABUTMENT
16" DIAMETER CIP PILES, 75 FEET LONG, ORDER LENGTH TIP ELEVATION 457.57
2 DYNAMIC LOAD TESTING ITEM
2 RESTRIKE

ITEM 507 - 16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 507 AND CMS 711.03, FURNISH ASTM A252, GRADE 2, STEEL PIPES FOR ALL PILES. FURNISH PIPES WITH THE FOLLOWING MINIMUM THICKNESSES:

REAR ABUTMENT: 3/8"
FORWARD ABUTMENT: 3/8"

GENERAL NOTES
BRIDGE NO. HAM-75-0791
I.R. 75 OVER RAMP J

HAM-75-7.85
PID No. 121447

3 / 65

867
1047

DESIGN AGENCY
EMH
Engineering & Management
Hill, Inc.
10000
Cincinnati, OH 45240
Tel: 513.752.1000
Fax: 513.752.1001
www.emhinc.com

DESIGNED
RUE
CHECKED
RWW
DRAWN
GB
REVISED
-
REVIEWED
CAS
DATE
10-2-26
STRUCTURE FILE NUMBER
3110044

J:\20110903\ODOT\HAM\77889\structures\HAM075_0791c\sheets\075_0791CGN002.dgn 10/11/2026 9:58:54 AM REly

ITEM 523 – DYNAMIC LOAD TESTS

PERFORM DYNAMIC LOAD TESTS PER ITEM 523 AT LOCATIONS AND FREQUENCY OUTLINED IN THE PLANS. EACH UNIT OF PAYMENT FOR THE DYNAMIC LOAD TEST INCLUDES TESTING OF TWO PILES WITH SIGNAL MATCHING ON ONE OF THE TWO PILES TESTED.

ITEM 511 – CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN

ITEM 511 – CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (MEDIAN RAILING), AS PER PLAN

THIS ITEM APPLIES TO THE CONCRETE IN THE BRIDGE DECK AND MEDIAN RAILING. THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC. AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW!

PORTLAND CEMENT CONCRETE: 499.03. CLASS OC 3 MEETING A DESIGN STRENGTH OF 4.500 PSI. WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02

FIBERS FOR CONCRETE: ASTM C 1116, TYPE III
CORROSION INHIBITOR: 515.15

THE CLASS OC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:
WATER/CEMENT RATIO = 0.40 MAXIMUM, MINIMUM 4 LBS/CY
MACRO-SYNTHETIC FIBERS 11.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT’S QUALIFIED APPROVED SUPPLIERS. ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO ‘BALLING’ OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT. IF ANY ‘BALLING’ OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT. AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC -FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI. A MINIMUM MODULUS OF ELASTICITY OF 800 KSI. A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES. AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH, STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE’S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

ITEM 511 – CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN (CONT.)

ITEM 511 – CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (MEDIAN RAILING), AS PER PLAN (CONT.)

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY ICCRLI OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. OR OTHER APPROVED REFERENCE LABORATORY. TO PERFORM THE TESTING. BEFORE USE. SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX. MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER’S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND MEDIAN RAILING CONCRETE ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

ITEM 511 – CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN

THIS WORK SHALL INCLUDE THE CONSTRUCTION OF THE EXTERIOR BRIDGE RAILINGS WITH A FORM LINER PATTERN APPLIED TO THE EXTERIOR FACE THAT MATCHES THE ARCHITECTURAL “TEXAS RAIL” DETAILS SHOWN IN THE PLANS USING CLASS SCC CONCRETE. THIS ITEM SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO CONSTRUCT THE “TEXAS” TYPE BRIDGE RAILING. QUANTITY SHALL INCLUDE SAW CUTTING, JOINT SEALER, FORM LINERS AND ANY OTHER MISCELLANEOUS ITEMS REQUIRED TO FULLY CONSTRUCT THE RAILING. THIS ITEM SHALL ONLY INCLUDE THE EXTERIOR RAILING ON THE BRIDGE. EXTERIOR RAILING ON APPROACH SLABS SHALL BE PAID FOR UNDER ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T=17’), AS PER PLAN.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT TO COMPLETE THIS TASK. PAYMENT SHALL BE MADE UNDER ITEM 511 – CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN

DESIGN AGENCY
EMH+T
Engineering, Materials, and Construction
10000 Highway 100, Suite 100
Dallas, Texas 75243
Phone: 214.635.1100
Fax: 214.635.1101
www.emht.com

DATE
10-2-26

REVIEWED
CAS

DRAWN
GB

DESIGNED
RJE

STRUCTURE FILE NUMBER
310044

REVISOR
-

CHECKED
RMW

GENERAL NOTES
BRIDGE NO. HAM-75-0791
I.R. 75 OVER RAMP J

HAM-75-7.85
PID No. 121447

4 / 65

868
1047

DESIGN AGENCY

EMHT

Evans, McElwain, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43034
Phone: 614.775.4300
Fax: 614.775.4900

M C M X R V I

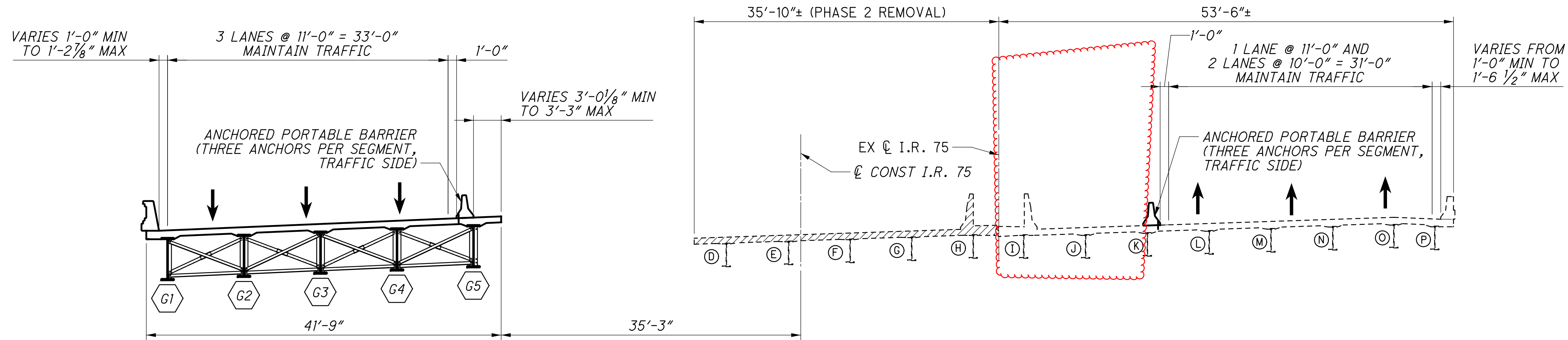
DESIGNED	RJE	DRAWN	GB	REVIEWED	CAS	DATE	10-2-26
CHECKED	RMW	REVISED	-	STRUCTURE FILE NUMBER		3110044	

ESTIMATED QUANTITIES
BRIDGE NO. HAM-75-0791
I.R. 75 OVER RAMP J

HAM-75-7.85
PID No. 121447

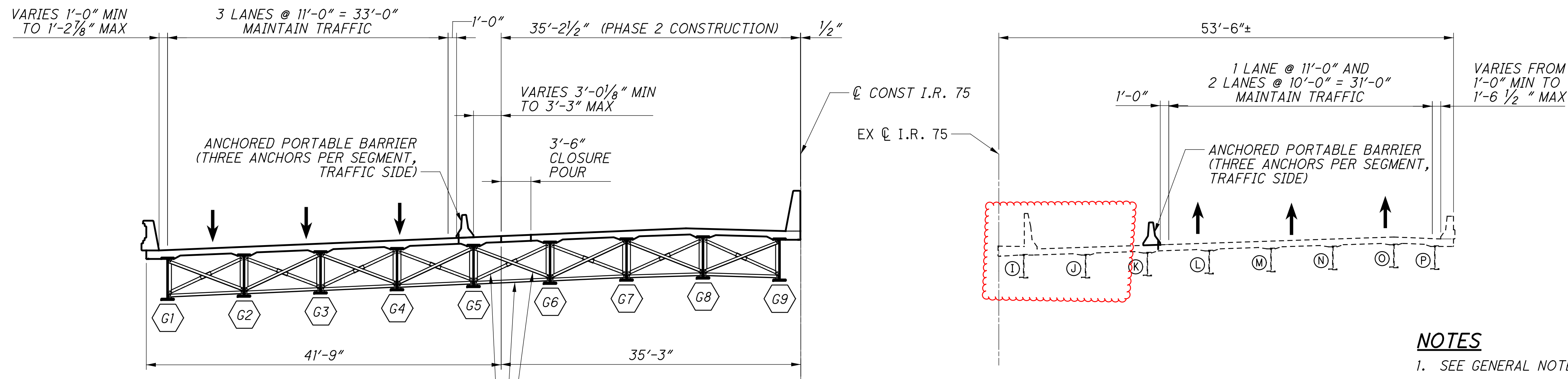


J:\20110903\ODOT\HAM\77889\structures\HAM075_0791C\sheets\075_0791CPC003.dgn 10/1/2026 4:30:45 PM todams



PHASE 2 REMOVAL

(SEE NOTE 2)



PHASE 2 CONSTRUCTION

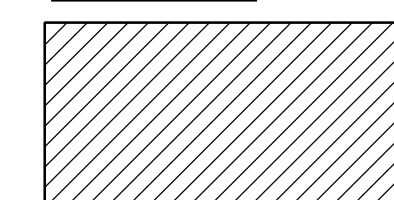
(SEE NOTE 2)

CROSSFRAMES IN THIS BAY SHALL BE INSTALLED AFTER THE PHASE 2 DECK POUR AND PRIOR TO THE PHASE 2 CLOSURE POUR

NOTES

- SEE GENERAL NOTES FOR ABBREVIATION LEGEND.
- OPTIONAL MAINTENANCE OF TRAFFIC PHASE 1, PART 2 SET-UP AS DETAILED ON SHEET 105 MAY BE UTILIZED PRIOR TO PHASE 2 ONCE ALL IR-75 SB PHASE 1 WORK IS COMPLETED SOUTH OF 430+25. THIS SET-UP ALLOWS FOR AN EARLY START ON PHASE 2 BRIDGE WORK OVER RAMP J.

LEGEND



- (X) - EXISTING BEAMLINE DESIGNATION
- (GX) - PROPOSED GIRDER DESIGNATION

PHASED CONSTRUCTION DETAILS

BRIDGE NO. HAM-75-0791
I.R. 75 OVER RAMP J

HAM-75-7.85
PID No. 121447

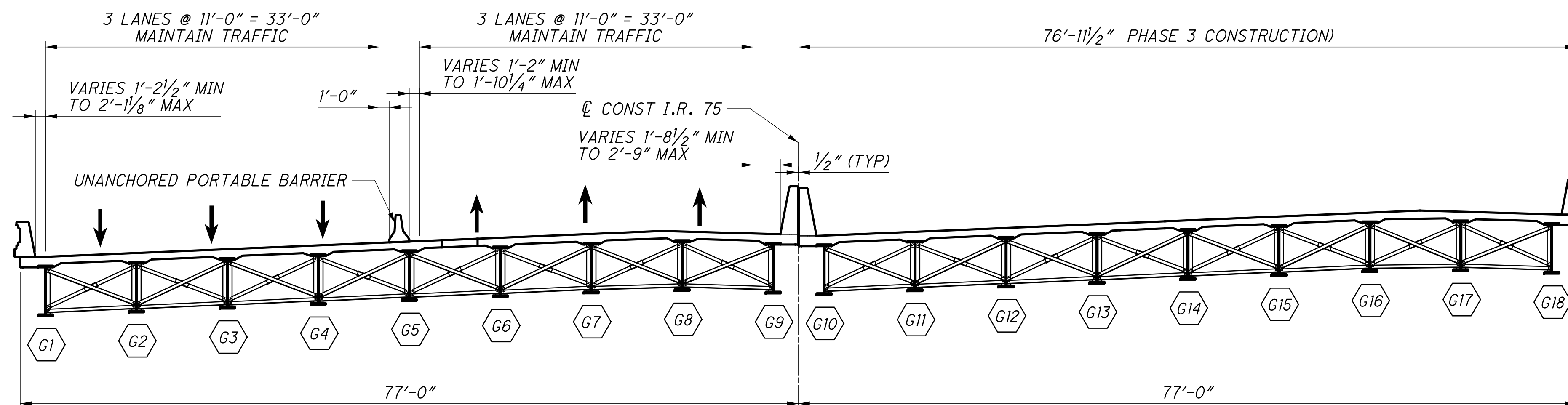
9 / 65

873
1047

DESIGN AGENCY
EMH
Engineering & Maintenance
10000 Highway 100
Suite 100
Dallas, TX 75243
Phone: 214-343-7000
Fax: 214-343-7001
Email: info@emh.com

REVIEWED
CAS
DATE
10-2-26
STRUCTURE FILE NUMBER
310044

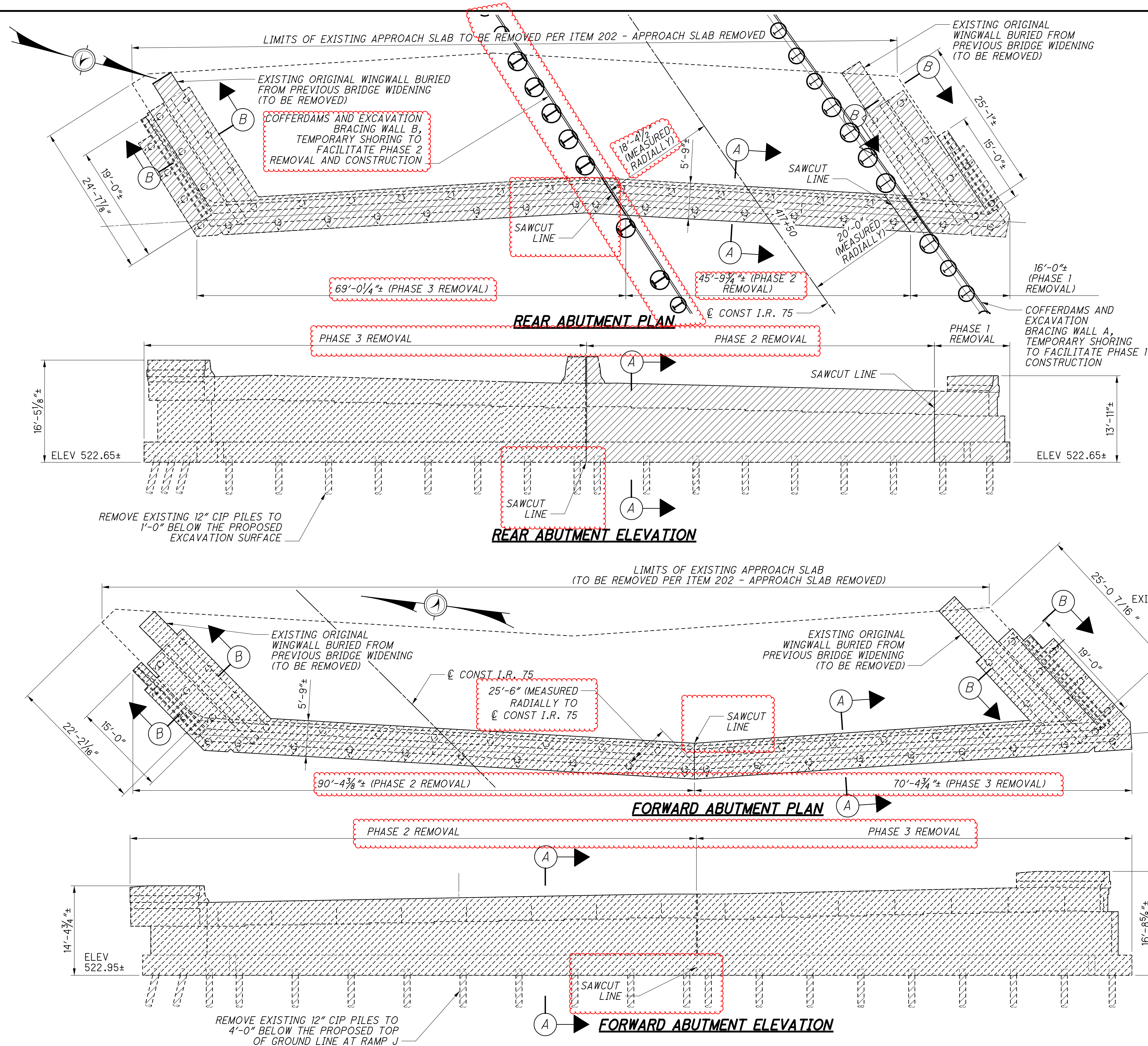
DRAWN
RJE
CHECKED
TDA
REVISED
-



GX

- PROPOSED GIRDER DESIGNATION

J:\20110903\ODOT\HAM\77889_structures\HAM075_0791C_sheets\075_0791CRE001.dgn 10/11/2026 4:48:05 PM tadams



NOTES:

- FOR TEMPORARY SHORING DETAILS, SEE SHEETS 13 / 65 THRU 15 / 65 .
- SEE GENERAL NOTES FOR ABBREVIATION LEGEND.

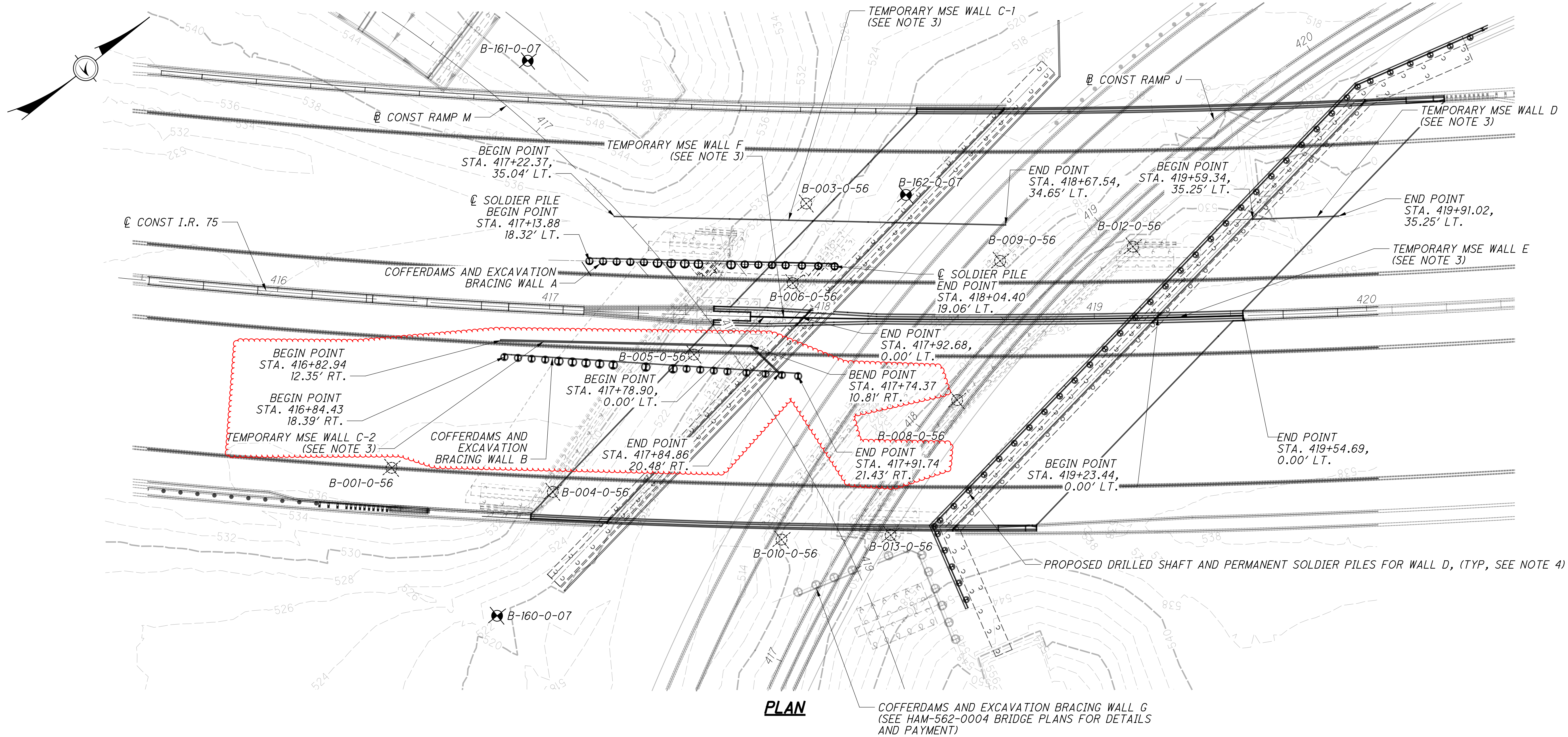
SECTION A-A

SECTION B-B

LEGEND

- DENOTES AREAS TO BE REMOVED PER ITEM 202 - STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN
- DENOTES AREAS TO BE REMOVED PER ITEM 202 - APPROACH SLAB REMOVED

J:\20110903\ODOT\HAM\77889_structures\HAM075_0791C\sheets\075_0791CSH001.dgn 10/1/2026 8:38:03 PM tadams



NOTES:

1. ALL STATIONS AND OFFSETS SHOWN ARE AT THE CENTERLINE OF SOLDIER PILES AND ALL STATIONS AND OFFSETS ARE BASED ON THE $\varnothing$ CONST I.R. 75 UNLESS NOTED OTHERWISE.
2. FOR TEMPORARY SOLDIER PILE WALL ELEVATION VIEW AND DETAILS, SEE SHEETS 14/65 & 15/65.
3. FOR TEMPORARY MSE WALL C-1 AND C-2 DETAILS, SEE SHEET 637 AND FOR TEMPORARY MSE WALL DETAILS D, E, & F DETAILS, SEE SHEET 16/65.
4. SEE PERMANENT SOLDIER PILE DETAILS ON WALL D PLAN SHEETS 590 THROUGH 595.
5. SEE GENERAL NOTES FOR ABBREVIATION LEGEND.

TEMPORARY SHORING PLAN

BRIDGE NO. HAM-75-0791
I.R. 75 OVER RAMP J

HAM-75-7.85

PID No. 121447

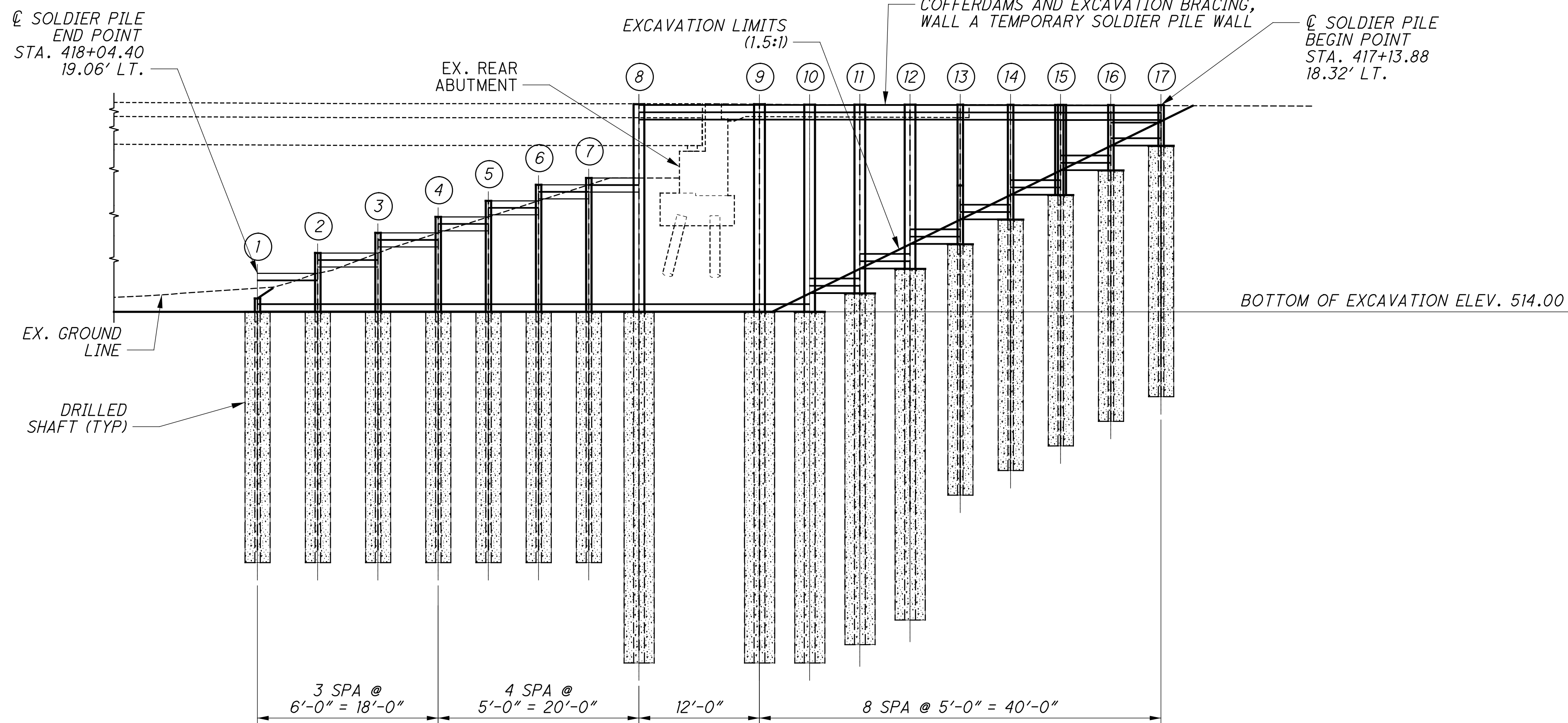
13/65

877
1047

DESIGNED	DRAWN	REVIEWED	DATE
RUE	RUE	CAS	10-2-26
CHECKED	DESIGNED	FILE NUMBER	STRUCTURE
TDA	RUE	310044	

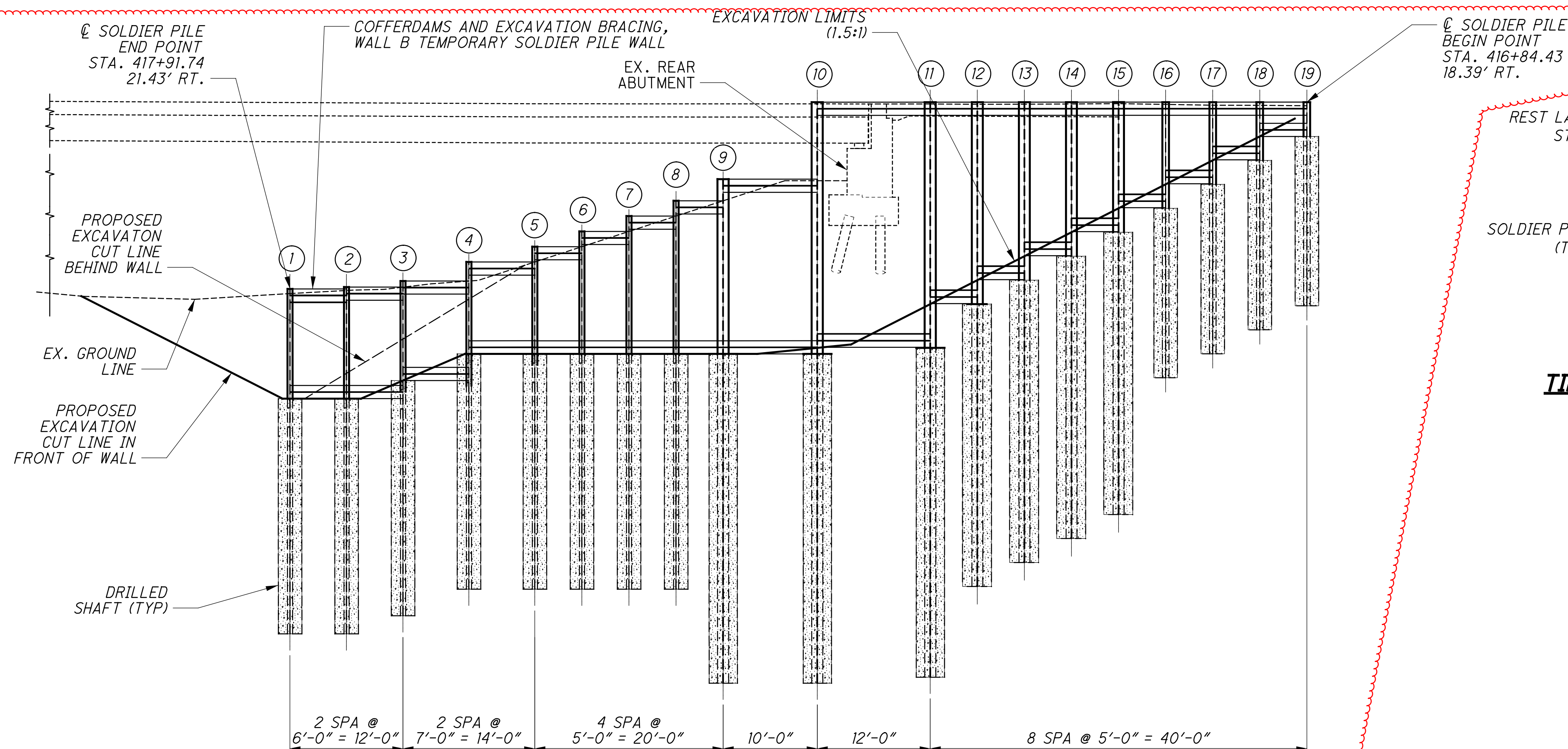
DESIGN AGENCY
EMH-T
ENGINEERING, MECHANICAL & THERMAL
CORPORATION
10000 W. 10TH AVE., SUITE 100
DENVER, CO 80202
TEL: 303.733.8800
WWW.EMH-T.COM

J:\20110903\ODOT\HAM\77889\structures\HAM075_0791C\sheets\075_0791CSH002.dgn 10/2/2026 7:46:11 AM RELY



TEMPORARY SOLDIER PILE WALL A ELEVATION

(LOW STRENGTH MORTAR BACKFILL IN EXPOSED WALL SURFACE NOT SHOWN FOR CLARITY)

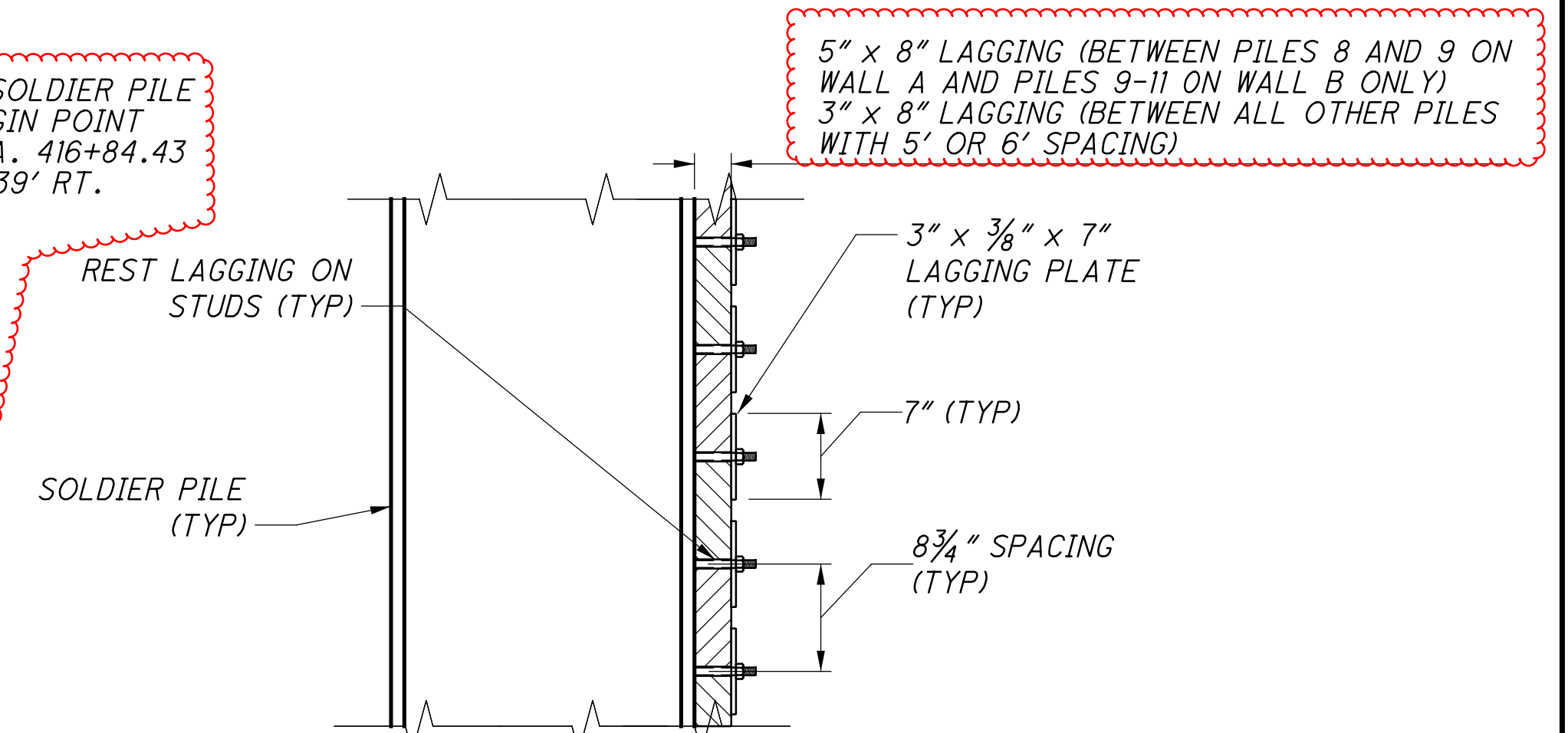


TEMPORARY SOLDIER PILE WALL B ELEVATION

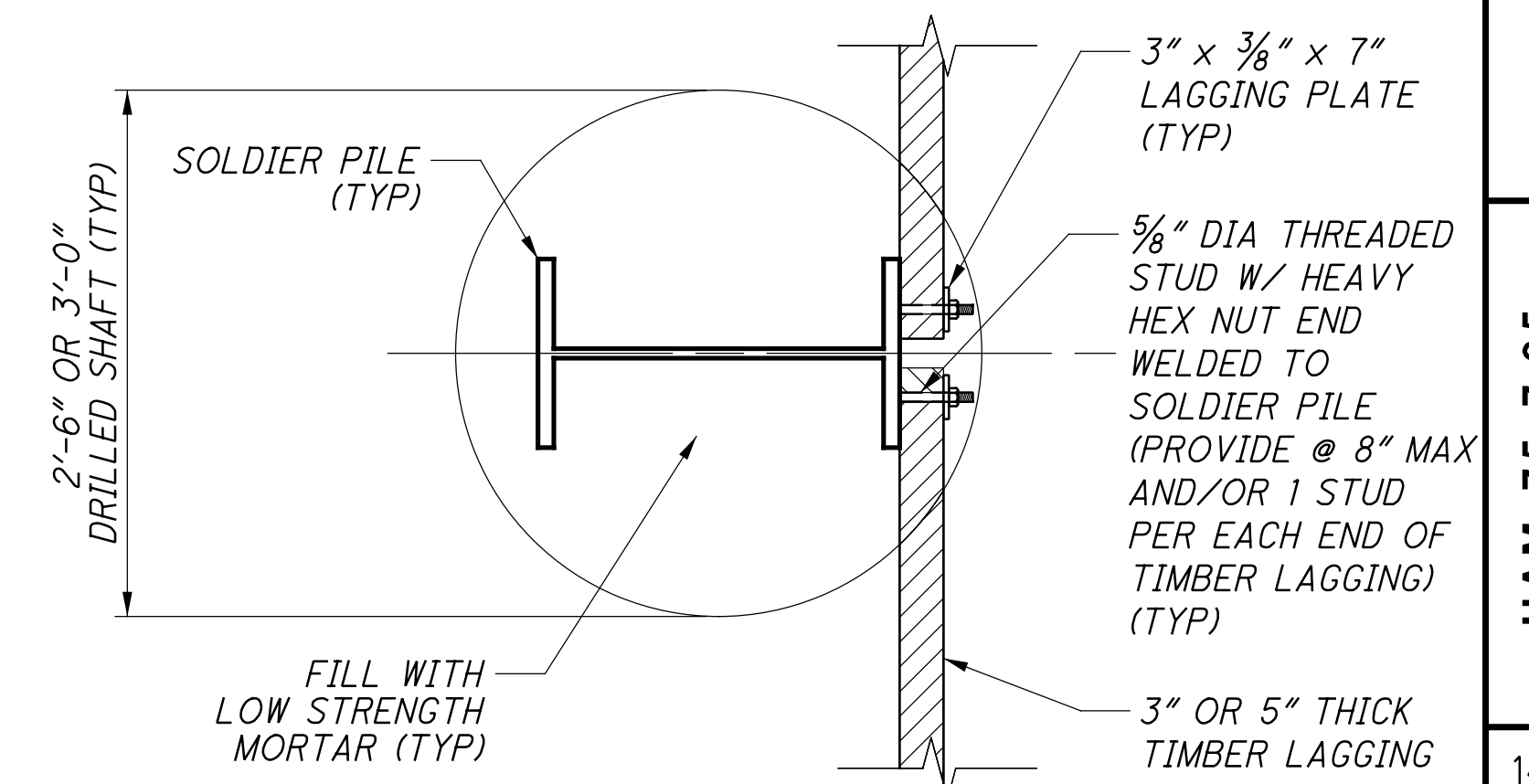
(LOW STRENGTH MORTAR BACKFILL IN EXPOSED WALL SURFACE NOT SHOWN FOR CLARITY)

NOTES:

- SEE SHEET 13/65 FOR TEMPORARY SOLDIER PILE WALL A & B PLAN VIEW.
- SOLDIER PILES, ATTACHED PLATES SHALL BE ASTM A709 GRADE 50 (MINIMUM YIELD STRENGTH = 50 KSI) STEEL. THREADED STUDS SHALL BE ASTM F1554, GRADE 55.
- PAYMENT FOR SOLDIER PILES, DRILLED SHAFT, LAGGING, STRUCTURAL CONCRETE FILL AND REMOVAL OF ALL COMPONENTS AFTER NO LONGER NECESSARY FOR SPECIFIC CONSTRUCTION PHASE, AND ALL OTHER ITEMS ASSOCIATED WITH TEMPORARY SHORING WILL BE INCLUDING IN THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL A) & B).
- SEE GENERAL NOTES FOR ABBREVIATION LEGEND.
- DRILL ALL SOLDIER PILES PER ITEM 524 FROM THE EXISTING GROUND SURFACE TO THE DESIGN TIP ELEVATION. PLACE THE SOLDIER PILE IN THE EXCAVATED HOLE AND FILL THE DRILLED HOLE TO THE GROUND SURFACE WITH ITEM 613 LOW STRENGTH MORTAR.
- EXCAVATE THE LOW STRENGTH MORTAR IN A TOP-DOWN MANNER TO PERMIT LAGGING INSTALLATION. PERFORM EXCAVATION WITH A SMOOTH PLATE BUCKET TO MINIMIZE OVER EXCAVATION.
- INSTALL WOOD LAGGING IN TOP-DOWN MANNER, ATTACHING THE LAGGING TO THE FRONT FLANGE OF THE SOLDIER PILE. NO MORE THAN 5 FT. OF UNSUPPORTED EXCAVATION SHALL BE EXPOSED AT ANY GIVEN TIME. REDUCE EXPOSED EXCAVATION AS NECESSARY DUE TO WATER OR WEAK SOIL CONDITIONS.
- LAGGING SHALL BE HARDWOOD WITH A MINIMUM THICKNESS DIMENSION AS SPECIFIED IN THE TIMBER LAGGING ATTACHMENT DETAIL.
- WELDED STUDS SHALL BE INSTALLED IN ACCORDANCE WITH C&MS 513.22 AND AS SHOWN ON THESE PLANS.

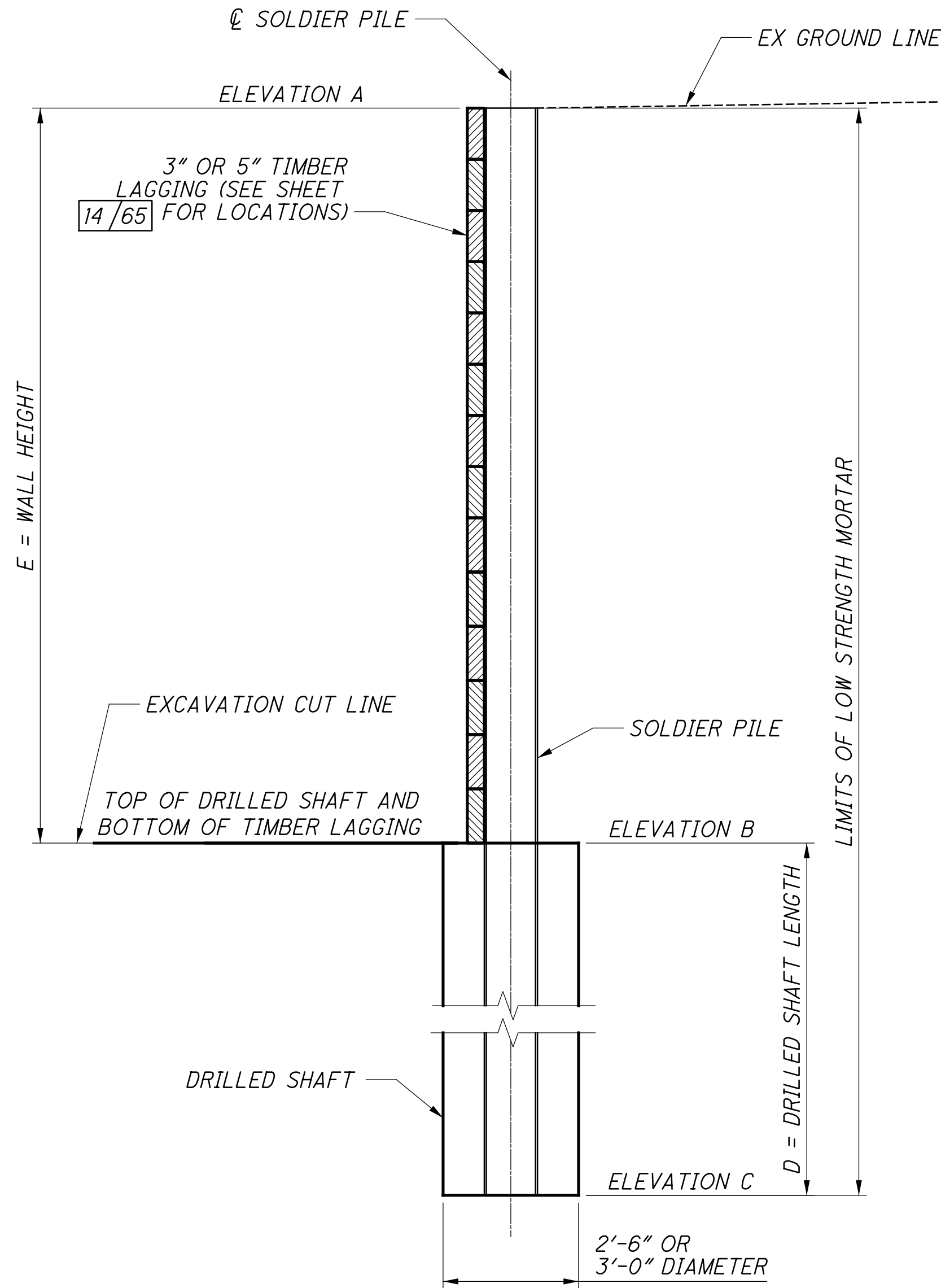


TIMBER LAGGING ATTACHMENT DETAIL



TYPICAL SECTION TEMPORARY SOLDIER PILE WALL

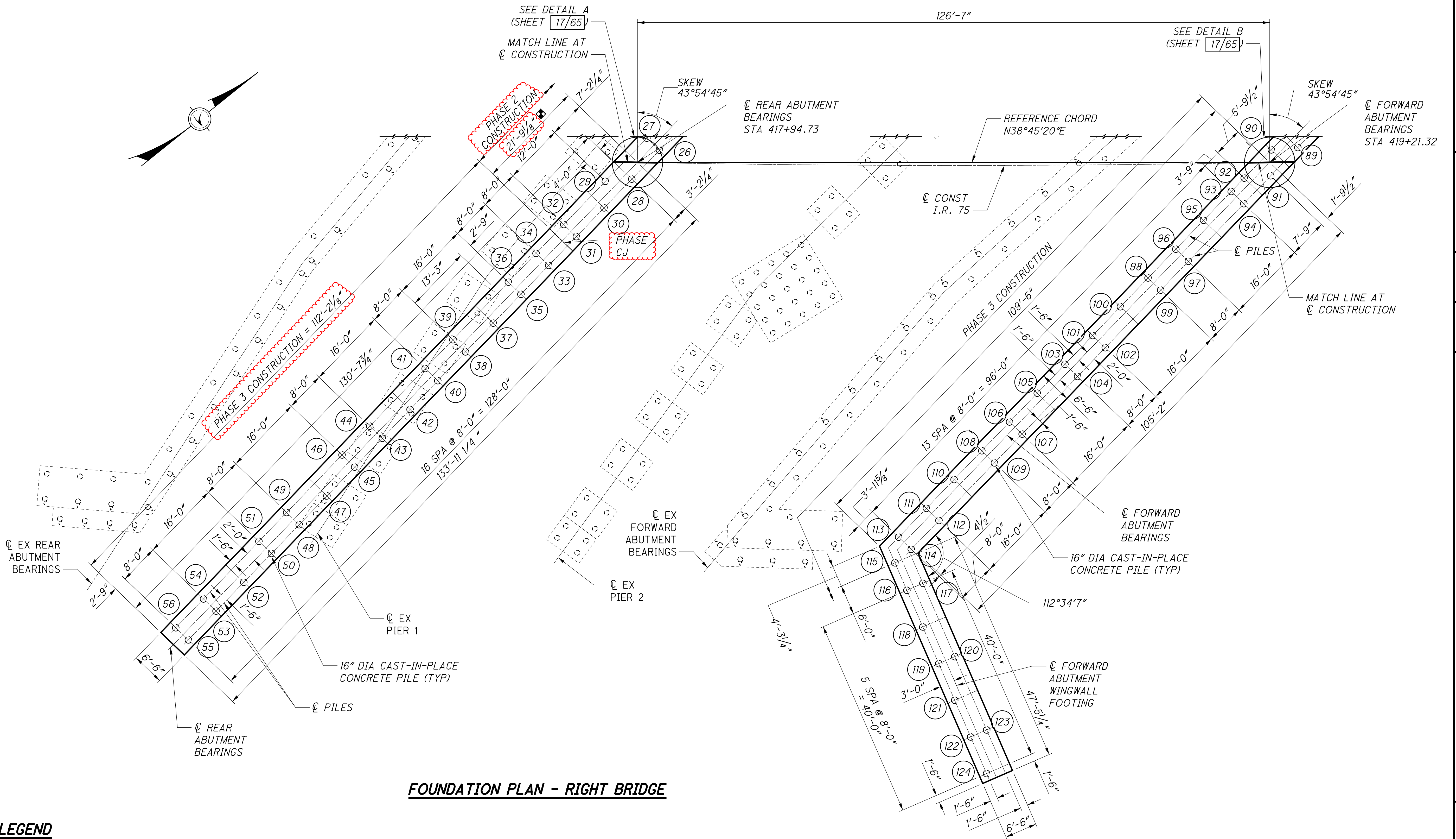
J:\20110903\ODOT\HAM\77889_structures\HAM075_0791C\sheets\075_0791CSH004.dgn 10/2/2026 7:41:49 AM REI.y



TEMPORARY SOLDIER PILE WALL A LOCATION AND ELEVATION DATA TABLE									
SOLDIER PILE NUMBER	SOLDIER PILE STATION (ALONG $\varnothing$ CONST I.R. 75	SOLDIER PILE OFFSET (ALONG $\varnothing$ CONST I.R. 75	TOP OF SOLDIER PILE ELEVATION A	TOP OF DRILLED SHAFT ELEVATION B	PILE TIP ELEVATION C	LENGTH OF DRILLED SHAFT D	WALL HEIGHT E	SOLDIER PILE SIZE	DRILLED SHAFT DIAMETER
1	418+04.40	19.06' LT	515.33	514.00	489.00	25'	1.33'	W21X68	2'-6"
2	417+98.37	19.09' LT	519.86	514.00	489.00	25'	5.86'	W21X68	2'-6"
3	417+92.33	19.11' LT	521.87	514.00	489.00	25'	7.87'	W21X68	2'-6"
4	417+86.29	19.12' LT	523.46	514.00	489.00	25'	9.46'	W21X68	2'-6"
5	417+81.27	19.11' LT	525.06	514.00	489.00	25'	11.06'	W21X68	2'-6"
6	417+76.24	19.10' LT	526.66	514.00	489.00	25'	12.66'	W21X68	2'-6"
7	417+71.21	19.08' LT	527.33	514.00	489.00	25'	13.33'	W21X68	2'-6"
8	417+66.18	18.85' LT	534.27	514.00	479.00	35'	20.27'	W24X176	3'-0"
9	417+54.11	18.75' LT	534.65	514.00	479.00	35'	20.65'	W24X176	3'-0"
10	417+49.08	18.70' LT	534.61	514.00	479.00	35'	20.61'	W24X176	3'-0"
11	417+44.05	18.64' LT	534.58	515.83	480.83	35'	18.75'	W24X176	3'-0"
12	417+39.03	18.57' LT	534.58	518.28	483.28	35'	16.30'	W24X176	3'-0"
13	417+33.99	18.70' LT	534.58	520.73	495.73	25'	13.85'	W21X68	2'-6"
14	417+28.97	18.62' LT	534.58	523.19	498.19	25'	11.39'	W21X68	2'-6"
15	417+23.94	18.53' LT	534.57	525.64	500.64	25'	8.73'	W21X68	2'-6"
16	417+18.91	18.43' LT	534.56	528.09	503.09	25'	6.47'	W21X68	2'-6"
17	417+13.88	18.32' LT	534.50	530.54	505.54	25'	3.96'	W21X68	2'-6"

TEMPORARY SOLDIER PILE WALL B LOCATION AND ELEVATION DATA TABLE									
SOLDIER PILE NUMBER	SOLDIER PILE STATION (ALONG $\varnothing$ CONST I.R. 75	SOLDIER PILE OFFSET (ALONG $\varnothing$ CONST I.R. 75	TOP OF SOLDIER PILE ELEVATION A	TOP OF DRILLED SHAFT ELEVATION B	PILE TIP ELEVATION C	LENGTH OF DRILLED SHAFT D	WALL HEIGHT E	SOLDIER PILE SIZE	DRILLED SHAFT DIAMETER
1	417+91.74	21.43' RT	515.91	504.25	479.25	25'	11.66'	W21X83	2'-6"
2	417+85.78	21.17' RT	516.10	504.25	479.25	25'	11.85'	W21X83	2'-6"
3	417+79.82	20.92' RT	516.75	506.17	481.17	25'	10.58'	W21X83	2'-6"
4	417+72.87	20.64' RT	518.77	509.00	484.00	25'	9.77'	W21X83	2'-6"
5	417+65.92	20.38' RT	520.39	509.00	484.00	25'	11.39'	W21X83	2'-6"
6	417+60.96	20.20' RT	522.02	509.00	484.00	25'	13.02'	W21X83	2'-6"
7	417+55.99	20.02' RT	523.64	509.00	484.00	25'	14.64'	W21X83	2'-6"
8	417+51.02	19.86' RT	525.27	509.00	484.00	25'	16.27'	W21X83	2'-6"
9	417+46.07	20.00' RT	527.27	509.00	474.00	35'	16.27'	W27X235	3'-0"
10	417+36.13	19.71' RT	535.75	509.00	474.00	35'	26.75'	W27X235	3'-0"
11	417+24.21	19.40' RT	535.75	509.64	474.64	35'	26.11'	W27X235	3'-0"
12	417+19.24	19.24' RT	535.75	514.29	484.29	30'	21.46'	W27X146	3'-0"
13	417+14.27	19.13' RT	535.75	516.83	486.83	30'	18.92'	W27X146	3'-0"
14	417+09.30	19.03' RT	535.75	519.38	489.38	30'	16.37'	W27X146	3'-0"
15	417+04.33	18.93' RT	535.75	521.93	491.93	30'	13.82'	W27X146	3'-0"
16	416+99.34	18.60' RT	535.75	524.47	506.47	18'	11.28'	W21X83	2'-6"
17	416+94.37	18.52' RT	535.75	527.02	509.02	18'	8.73'	W21X83	2'-6"
18	416+89.38	18.45' RT	535.75	529.56	511.56	18'	6.19'	W21X83	2'-6"
19	416+84.43	18.39' RT	535.75	532.11	514.11	18'	3.64'	W21X83	2'-6"

J:\20110903\ODOT\HAM\77889\structures\HAM075_0791C\sheets\075_0791CFFP002.dgn 10/11/2026 10:28:22 AM RELY



FOUNDATION PLAN - RIGHT BRIDGE

LEGEND

- - PROPOSED 16" DIA CIP VERTICAL PILE
- ◇ - PROPOSED 16" DIA CIP PILE BATTERED AT 1:4
- - EXISTING 12" DIA CIP VERTICAL PILE
- ◇ - EXISTING 12" DIA CIP BATTERED PILE
- XX - PILE NUMBER
- - MEASURED TO $\angle$ CONST I.R. 75

NOTES

1. REMOVE EXISTING FOUNDATIONS AND PORTIONS OF EXISTING FOUNDATIONS THAT INTERFERE WITH PROPOSED FOUNDATIONS PER 202.03.
2. SEE GENERAL NOTES FOR ABBREVIATION LEGEND.

J:\20110903\ODOT\HAM\77889\structures\HAM075_0791C_sheets\075_0791CRL004.dgn 10/1/2026 10:03:14 AM REly

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT	FORWARD ABUT	TOTAL				A	B	C	D	E	R	INC
ABUTMENTS REINFORCING STEEL LIST (LEFT BRIDGE)													
A501	6	2	8	30'-0"	250	STR							
A502	10	10	20	32'-6"	678	STR							
A503	10	10	20	29'-0"	605	STR							
A504		6	6	23'-0"	144	STR							
A505	4	14	18	25'-0"	469	STR							
A506	NOT USED												
A507	88	109	197	18'-2"	3733	3	6'-2"	2'-7"					
A508	3	2	5	18'-7"	97	3	6'-4½"	2'-7"					
A509	3	3	6	20'-1"	126	3	7'-1½"	2'-7"					
A510	3	3	6	23'-0"	144	3	8'-7"	2'-7"					
A511	34	40	74	8'-9"	675	2	3'-2"	2'-8"	3'-2"				
A512	54	54	108	9'-9"	1098	2	3'-8"	2'-8"	3'-8"				
A513	64	60	124	10'-5"	1347	2	4'-0"	2'-8"	4'-0"				
A514	1 SR OF 4		1 SR OF 4	4'-3" TO 16'-0"	42	STR							3'-11"
A515	1 SR OF 4		1 SR OF 4	6'-2" TO 17'-11"	50	STR							3'-11"
A516	1		1	21'-5"	22	19	1'-11 ½"	18'-2"	6'-11"				
A517	1		1	23'-4"	24	19	3'-11"	18'-2"	6'-11"				
A518	6	18	24	13'-3"	332	2	5'-8"	2'-2"	5'-8"				
A519	6	12	18	10'-3"	192	2	4'-2"	2'-2"	4'-2"				
A520	1 SR OF 6		1 SR OF 6	10'-5" TO 15'-5"	81	2	4'-3" TO 6'-9"	2'-2"	4'-3" TO 6'-9"				0'-6"
A521	1 SR OF 6		1 SR OF 6	7'-3" TO 12'-3"	61	2	2'-8" TO 5'-2"	2'-2"	2'-8" TO 5'-2"				0'-6"
A522	2	2	4	14'-5"	60	2	6'-3"	2'-2"	6'-3"				
A523	4		4	8'-1"	34	2	3'-1"	2'-2"	3'-1"				
A524		2 SR OF 4	2 SR OF 4	7'-2" TO 36'-5"	182	STR							9'-9"
A525		2	2	14'-4"	30	19	2'-2"	12'-0"	1'-10"				
A526		5	5	6'-0"	31	19	4'-1"	1'-9"	0'-8 ½"				
A527		1 SR OF 12	1 SR OF 12	7'-3" TO 11'-10"	119	2	2'-8" TO 4'-11 ½"	2'-2"	2'-8" TO 4'-11 ½"				0'-2 ½"
A528		1 SR OF 18	1 SR OF 18	9'-1" TO 16'-2"	236	2	3'-7" TO 7'-1 ½"	2'-2"	3'-7" TO 7'-1 ½"				0'-2 ½"
A529		2	2	8'-7"	18	2	3'-4"	2'-2"	3'-4"				
A530	2	2	4	15'-3"	64	2	6'-3"	3'-0"	6'-3"				
A531		2	2	16'-3"	34	2	6'-3"	4'-0"	6'-3"				
FROM A532 THRU A543 NOT USED													
A544		4	4	6'-0"	25	19	3'-0"	2'-9"	1'-2"				
A545	8		8	31'-6"	263	STR							
A546	10		10	21'-9"	227	STR							
A547		10	10	23'-8"	247	STR							
A548		16	16	20'-9"	346	STR							
A549	4	4	8	10'-1"	84	2	3'-8"	3'-0"	3'-8"				
A550	4	4	8	10'-8"	89	2	3'-8"	3'-7"	3'-8"				
A551	2	2	4	10'-9"	45	2	4'-0"	3'-0"	4'-0"				
A552	2	2	4	11'-4"	47	2	4'-0"	3'-7"	4'-0"				
A801	4		4	30'-0"	320	STR							
A802	8	8	16	36'-10"	1574	STR							
A803	8	8	16	29'-0"	1239	STR							
A804	NOT USED												
A805		16	16	27'-6"	1175	STR							
A806	16		16	21'-6"	918	STR							
A807	8		8	26'-6"	566	STR							
A808		8	8	22'-3"	475	STR							
A809		8	8	28'-8"	612	STR							
TOTAL					19,230								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT	FORWARD ABUT	TOTAL				A	B	C	D	E	R	INC
ABUTMENTS REINFORCING STEEL LIST (RIGHT BRIDGE)													
A501	36	66	102	30'-0"	3192	STR							
A502	NOT USED												
A503	NOT USED												
A504		10	10	23'-0"	240	STR							
A505		10	10	25'-0"	261	STR							
A506	6		6	20'-0"	125	STR							
A507	98	117	215	18'-2"	4074	3	6'-2"	2'-7"					
A508	1	1	2	18'-7"	39	3	6'-4 1/2"	2'-7"					
A509	1	1	2	20'-1"	42	3	7'-1 1/2"	2'-7"					
A510	1	1	2	23'-0"	48	3	8'-7"	2'-7"					
A511	NOT USED												
A512	NOT USED												
A513	18	18	36	10'-5"	391	2	4'-0"	2'-8"	4'-0"				
A514	1 SR OF 4		1 SR OF 4	4'-3" TO 16'-0"	42	STR							3'-11"
A515	1 SR OF 4		1 SR OF 4	6'-2" TO 17'-11"	50	STR							3'-11"
A516	NOT USED												
A517	NOT USED												
A518	13	37	50	13'-3"	691	2	5'-8"	2'-2"	5'-8"				
A519	NOT USED												
A520	NOT USED												
A521	1 SR OF 6		1 SR OF 6	7'-3" TO 12'-3"	61	2	2'-8" TO 5'-2"	2'-2"	2'-8" TO 5'-2"				0'-6"
FROM A522 THRU A528 NOT USED													
A529	4		4	8'-7"	36	2	3'-4"	2'-2"	3'-4"				
A530	NOT USED												
A531	NOT USED												
A532	10		10	26'-8"	278	STR							
A533	6		6	17'-0"	106	STR							
A534	2 SR OF 4		2 SR OF 4	24'-0" TO 34'-6"	244	STR							3'-6"
A535	1		1	31'-11"	33	19	3'-9"	26'-4"	10'-0"				
A536	1		1	30'-2"	31	19	2'-0"	26'-4"	10'-0"				
A537	48	60	108	11'-3"	1267	2	4'-5"	2'-8"	4'-5"				
A538	92	88	180	12'-1"	2269	2	4'-10"	2'-8"	4'-10"				
A539	1	37	38	22'-11"	908	2	10'-6"	2'-2"	10'-6"				
A540	2		2	18'-10"	39	2	8'-1"	2'-11"	8'-1"				
A541	6		6	11'-5"	71	2	4'-9"	2'-2"	4'-9"				
A542	1 SR OF 6		1 SR OF 6	11'-5" TO 16'-5"	87	2	4'-9" TO 7'-3"	2'-2"	4'-9" TO 7'-3"				0'-6"
A543		8	8	5'-11"	49	19	3'-0"	1'-2"	2'-9"				
A544	1 SR OF 6		1 SR OF 6	17'-7" TO 22'-7"	126	2	7'-10" TO 10'-4"	2'-2"	7'-10" TO 10'-4"				0'-6"
A801	24	40	64	30'-0"	5126	STR							
A802	NOT USED												
A803	NOT USED												
A804	8	8	16	20'-9"	886	STR							
FROM A805 THRU A809 NOT USED													
A810	8		8	31'-1"	664	STR							
A811	8		8	14'-7"	312	STR							
TOTAL					21,788								

ESTIMATED QUANTITIES						CALC BY: CBY		DATE: 6/14/2023	
						CHECKED BY: PPA		DATE: 6/18/2023	
ITEM	EXT.	PARTICIPATION 03/IMS/10	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	SUPER	GENERAL	SHEET REF
202	11003	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				3 / 64
202	22900	407	407	SY	APPROACH SLAB REMOVED			407	
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL F1)				3 / 64
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL F2)				3 / 64
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL G1)				3 / 64
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL G2)				3 / 64
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION				
505	11100	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				
507	00700	11,625	11,625	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	11,625			
507	00750	12,400	12,400	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	12,400			
509	10000	207,660	207,660	LB	EPOXY COATED REINFORCING STEEL	42,493	165,167		
509	30020	4,288	4,288	FT	NO. 4 GFRP DEFORMED BARS		2757	1531	
509	30030	627	627	FT	NO. 5 GFRP DEFORMED BARS		357	270	
509	30040	4,168	4,168	FT	NO. 6 GFRP DEFORMED BARS		2388	1780	
511	33501	4	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN		4		4 / 64
511	34463	30	30	CY	CLASS OC SCC CONCRETE WITH OC/QA, BRIDGE DECK (PARAPET), AS PER PLAN		30		4 / 64
511	46512	372	372	CY	CLASS OC1 CONCRETE WITH OC/QA, FOOTING	372			
511	53014	689	689	CY	CLASS OC3 CONCRETE, MISC.: CONCRETE WITH OC/QA, BRIDGE DECK, AS PER PLAN		689		4 / 64
511	53014	36	36	CY	CLASS OC3 CONCRETE, MISC.: CONCRETE WITH OC/QA, BRIDGE DECK (MEDIAN PARAPET), AS PER PLAN		36		4 / 64
511	53014	148	148	CY	CLASS OC3 CONCRETE, MISC.: CONCRETE WITH OC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	148			4 / 64
512	10100	1,434	1,434	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	442	992		
512	33000	9	9	SY	TYPE 2 WATERPROOFING	9			
515	15010	24	24	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 3 (LENGTH = 76'-8")		24		
515	15010	1	1	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 3 (LENGTH = 77'-1 1/4")		1		
515	20000	23	23	EACH	INTERMEDIATE DIAPHRAGMS		23		
516	13600	41	41	SF	1" PREFORMED EXPANSION JOINT FILLER			41	
516	13900	91	91	SF	2" PREFORMED EXPANSION JOINT FILLER	91			
516	14020	454	454	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	454			
516	44200	50	50	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (1'-1" x 1'-8" x 3 13/16")		50		
523	20000	8	8	EACH	DYNAMIC LOAD TESTING	8			4 / 64
523	20500	8	8	EACH	RESTRIKE	8			
526	30001	1,404	1,404	SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN			1,404	4 / 64
526	90010	422	422	FT	TYPE A INSTALLATION			422	
622	25001	2	2	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN			2	4 / 64
846	00110	176	176	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM			176	

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	01-20-23
AS-2-15	REVISED	01-20-23
GSD-1-19	REVISED	01-15-21
NBS-1-09	REVISED	07-15-22
PCB-91	REVISED	07-17-20
SBR-1-20	REVISED	01-20-23
SBR-2-20	REVISED	01-15-21
SICD-1-96	REVISED	07-18-14
SICD-2-14	DATED	01-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFATIONS:

840	DATED	04-15-22
-----	-------	----------

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, 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, 2020.

DESIGN LOADING:

HL-93 AND FUTURE WEARING SURFACE (FWS) 0.060 KSF

DESIGN DATA:

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS SCC - COMPRESSIVE STRENGTH 4.5 KSI

CONCRETE CLASS QC1/QC3 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

GALVENIZED STEEL - MINIMUM YIELD STRENGTH 60 KSI (APPROACH SLAB AND RAILING)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

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

EXISTING STRUCTURE PLANS:

CONSTRUCTION PLANS FOR THE EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

EXISTING STRUCTURE VERIFICATION:

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATINVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 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 WHICH HAVE BEEN VERIFIED IN THE FIELD.

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF THE EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT 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 COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP:

THE ULTIMATE BEARING VALUE IS 215 KIPS PER PILE FOR THE ABUTMENT PILES. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICER OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION GIVEN BELOW FOR THE SUBSTRUCTURE. DRIVE THE THIRD AND FOURTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUBSTRUCTURE WITH THE ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING. THE DRIVING CRITERIA WITH PILE SETUP SHALL BE PERFORMED FOR THE FIRST STAGE OF BRIDGE CONSTRUCTION. THE CONTRACTOR SHALL NOT ORDER PILES FOR SUBSEQUENT PHASES UNTIL AFTER THE DRIVING CRITERIA HAS BEEN ESTABLISHED WITH SETUP. THE DEPARTMENT WILL ADJUST THE FURNISHED PILE QUANTITES BASED ON THE RESTRIKE TEST RESULTS.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REQUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA. SPLICING OF THE PILES BEYOND THE ESTIMATED LENGTH PROVIDED IN THE PLANS WILL BE PAID BY THE DEPARTMENT UNDER CMS 109.05 WITH A NEGOTIATED PRICE PER SPlice.

REAR ABUTMENT
26 PILES (LEFT BRIDGE) & 34 PILES (RIGHT BRIDGE)
65 FEET LONG, ORDER LENGTH
TIP ELEVATION, 493.00 FEET
4 DYNAMIC LOAD TESTING ITEM (2 PER BRIDGE)
4 RESTRIKE (2 PER BRIDGE)

FORWARD ABUTMENT
26 PILES (LEFT BRIDGE) & 36 PILES (LEFT BRIDGE)
75 FEET LONG, ORDER LENGTH
TIP ELEVATION, 484.60 FEET
4 DYNAMIC LOAD TESTING ITEM (2 PER BRIDGE)
4 RESTRIKE (2 PER BRIDGE)

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 LOAD OF 1.75 KIPS FOR A TOTAL MACHINE LOAD OF 14 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 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN-UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN-UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN:

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET NOISE BARRIER), AS PER PLAN:

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (MEDIAN PARAPET), AS PER PLAN:

THIS ITEM APPLIED TO THE CONCRETE IN THE BRIDGE DECK AND MEDIAN PARAPET. THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC, AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE
499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02

FIBERS FOR CONCRETE	ASTM C 1116, TYPE III
CORROSION INHIBITOR	515.15

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC - FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTUR'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT. THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED.

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN:

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET NOISE BARRIER), AS PER PLAN:

ITEM 511 - CLASS QC3 CONCRETE MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (MEDIAN PARAPET), AS PER PLAN: (CONTINUED)

THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND MEDIAN PARAPET CONCRETE (WHEN APPLICABLE) ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

PILE DRIVING CONSTRAINTS:

PILE DRIVING MAY NOT BEGIN UNTIL SUFFICIENT EMBANKMENT AND MSE WALL SETTLEMENT HAS OCCURRED AS DOCUMENTED BY THE SETTLEMENT PLATFORMS. THE ANTICIPATED WAITING PERIOD TO PERMIT SUFFICIENT EMBANKMENT SETTLEMENT IS 30 DAYS. THE DISTRICT GEOTECHNICAL ENGINEER MAY REDUCE OR EXTEND THE WAITING PERIOD BASED ON THE MAGNITUDE AND RATE OF THE EMBANKMENT SETTLEMENT AS DETERMINED BY THE SETTLEMENT PLATFORMS. THE SETTLEMENT WAITING PERIOD BEGINS ONCE THE APPROACH EMBANKMENT REACHES THE DESIGN SUBGRADE LEVEL FOR A MINIMUM DISTANCE OF 100 FT. BEHIND EACH ABUTMENT. THE PLANS HAVE PROVISIONS FOR A TEMPORARY WALL AT THE ABUTMENT LOCATION TO PERMIT PLACEMENT OF EMBANKMENT TO THE DESIGN SUBGRADE LEVEL. BEGIN PILE DRIVING ONLY FOLLOWING TERMINATION OF THE SETTLEMENT MONITORING WAITING PERIOD BY THE DISTRICT GEOTECHNICAL ENGINEER.

DRIVING OF PILES TO THE DESIGN ULTIMATE BEARING VALUE PRIOR TO MSE WALL CONSTRUCTION, SURCHARGE PLACEMENT AND SETTLEMENT WAITING PERIOD TERMINATION IS AN ALTERNATIVE TO DRIVING THE PILES FOLLOWING THE SETTLEMENT WAITING PERIOD. PILES DRIVEN PRIOR TO THE WAITING PERIOD ARE TO BE INSTALLED AS PER THE PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP REQUIREMENTS. ALL PILES DRIVEN TO THE UBV PRIOR TO THE WAITING PERIOD TERMINATION REQUIRE RESTRIKING FOLLOWING THE END OF THE SETTLEMENT WAITING PERIOD. RESTRIKE AND MOBILIZED EACH PILE A MINIMUM OF 0.5 INCHES. SELECT THE APPROPRIATE PILE DRIVING EQUIPMENT TO ENSURE EACH PILE MOVES 0.5 INCHES UPON RESTRIKE. ADDITIONAL COMPENSATION WILL NOT BE CONSIDERED FOR PILE RESTRIKING WHEN PILES ARE DRIVEN PRIOR TO THE SETTLEMENT WAITING PERIOD. THE CONTRACTOR IS TO SURVEY EACH PILE DRIVEN PRIOR TO CONSTRUCTION OF THE MSE WALL AND PROVIDE THE ENGINEER A RECORD OF THE PILE PLUMBNESS AND TOP OF LOCATION RELATIVE TO THE PLAN LOCATION. CORRECT ANY PILE ALIGNMENT ISSUES THAT ARE IDENTIFIED IN THE PILE SURVEY PRIOR TO MSE WALL CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT. ANY PILE CORRECTIONS ARE TO BE ACCEPTED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

**ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK
(PARAPET), AS PER PLAN**

THIS WORK SHALL INCLUDE THE CONSTRUCTION OF THE EXTERIOR BRIDGE PARAPETS WITH A FORM LINER PATTERN APPLIED TO THE EXTERIOR FACE THAT MATCHES THE ARCHITECTURAL "TEXAS RAIL" DETAILS SHOWN IN THE PLANS USING CLASS SCC CONCRETE. THIS ITEM SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO CONSTRUCT THE "TEXAS" TYPE BRIDGE RAILING. QUANTITY SHALL INCLUDE SAW CUTTING, JOINT SEALER, FORM LINERS AND ANY OTHER MISCELLANEOUS ITEMS REQUIRED TO FULLY CONSTRUCT THE RAILING. THIS ITEM SHALL ONLY INCLUDE THE EXTERIOR PARAPET ON THE BRIDGE. EXTERIOR PARAPET ON APPROACH SLABS SHALL BE PAID FOR UNDER ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17%), AS PER PLAN.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT TO COMPLETE THIS TASK. PAYMENT SHALL BE MADE UNDER ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN:

THE FASCIA GIRDER OUTSIDE SURFACES AND LOWER FLANGE SHALL HAVE A THREE COAT IEZU PAINT SYSTEM APPLIED. THE PRIME COAT SHALL BE SHOP APPLIED. THE APPLICATION OF THE PRIME COAT SHALL BE PAID FOR UNDER ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL 1. THE INTERMEDIATE AND FINISH COATS SHALL BE FIELD APPLIED PER ITEM 514. SEE TRANSVERSE DECK SECTION ON SHEET 25/46 FOR EXACT LIMITS OF PAINTING OF THE FASCIA GIRDERS. THE COLOR OF THE FINISH COAT SHALL BE FEDERAL COLOR NUMBER 14277 (GREEN).

**ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17"),
AS PER PLAN:**

THIS ITEM SHALL INCLUDE ALL THE COST OF ALL CONCRETE AND GALVANIZED REINFORCING STEEL FOR THE APPROACH SLABS AND PARAPETS ON APPROACH SLABS. SEALING OF THE PARAPETS SHALL BE PAID FOR UNDER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

ITEM 523 - DYNAMIC LOAD TESTS:

PERFORM DYNAMIC LOAD TESTS PER ITEM 523 AT LOCATIONS AND FREQUENCY OUTLINED IN THE PLANS. EACH UNIT OF PAYMENT FOR THE DYNAMIC LOAD TEST INCLUDES TESTING OF TWO PILES WITH SIGNAL MATCHING ON ONE OF THE TWO PILES TESTED.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CONCRETE WITH
QC/QA, ABUTMENT, AS PER PLAN & SEMI-INTEGRAL DIAPHRAGM
GUIDE, AS PER PLAN:

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC, AND CORROSION INHIBITORS INTO THE SUBSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED
BELOW:

PORTLAND CEMENT CONCRETE
499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,000 PSI,
WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02

FIBERS FOR CONCRETE
CORROSION INHIBITOR

THE CLASS QC3 CONCRETE FOR THE SUBSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.0 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC - FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

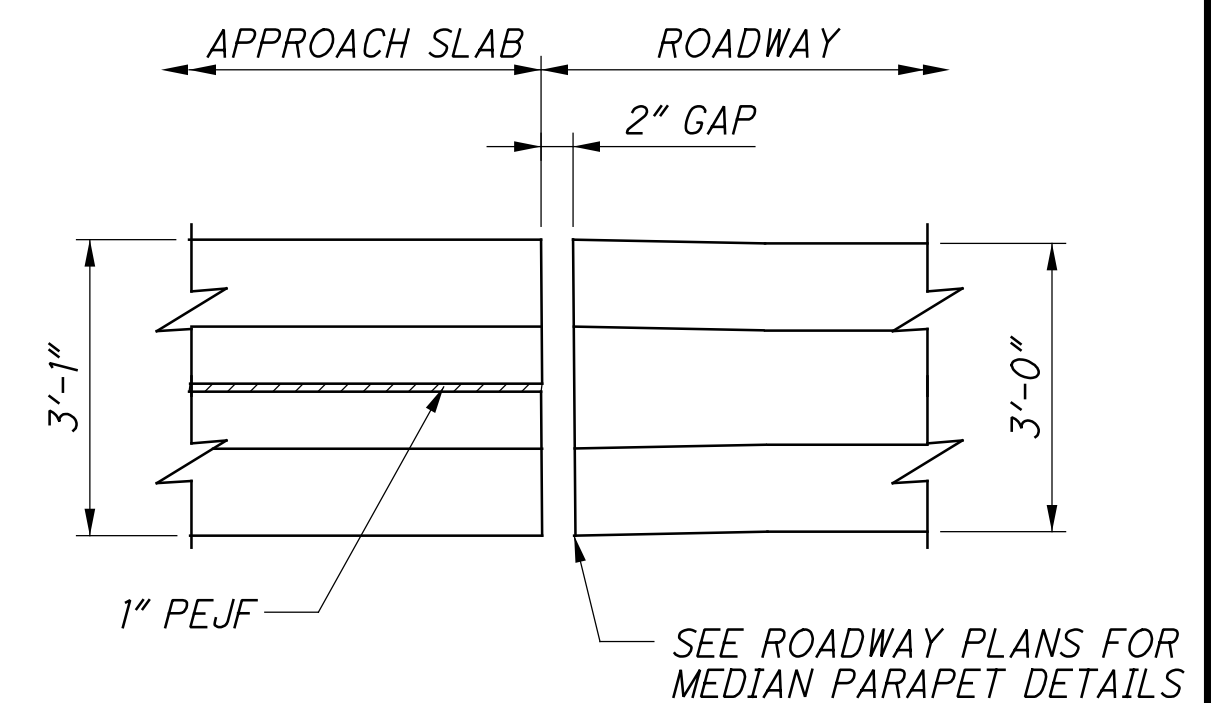
USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED.

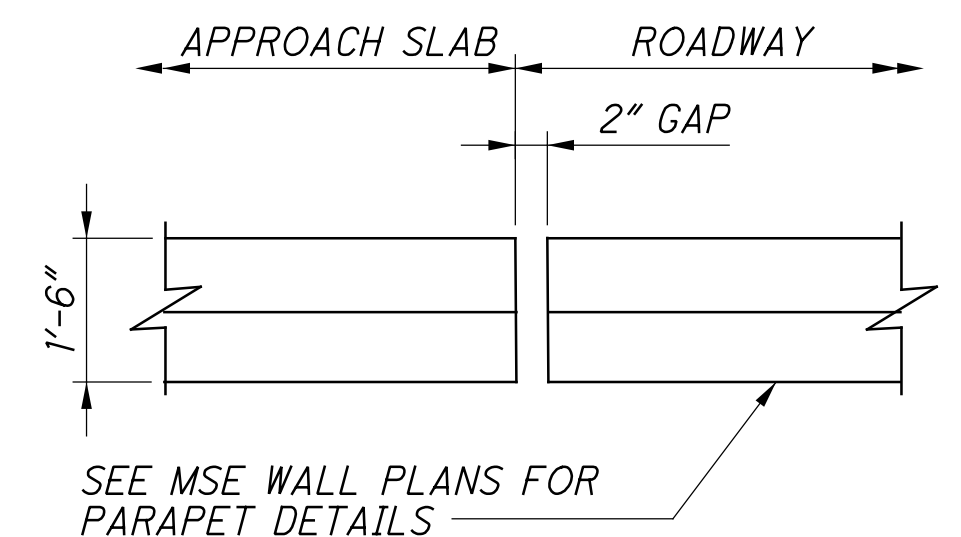
ITEM 511 - CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN & SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN: (CONTINUED)

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIERS CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.



MEDIAN PARAPET PLAN
TYPICAL BOTH ENDS



EXTERIOR PARAPET PLAN
FORWARD APPROACH SLAB
LEFT BRIDGE ONLY

ESTIMATED QUANTITIES

ITEM	EXTENSION	PARTICIPATION	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GEN.	SHEET #
		03/IMS/10							
202	11003	LUMP	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	3 / 46
202	22900	473	473	SQ YD	APPROACH SLAB REMOVED			473	
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL A)			LUMP	3 / 46, 12 / 46, 13 / 46
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL B)			LUMP	3 / 46, 12 / 46, 13 / 46
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL C)			LUMP	3 / 46, 12 / 46, 13 / 46
503	11101	LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (WALL D)			LUMP	3 / 46, 12 / 46, 13 / 46
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION			LUMP	
505	11100	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			LUMP	
507	00500	7940	7940	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	7940			
507	00500	8550	8550	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	8550			
509	10000	146,644	146,644	POUND	EPOXY COATED REINFORCING STEEL	47,509	99,135		
509	30020	5498	5498	FT	NO. 4 GFRP DEFORMED BARS		3318	2180	
509	30030	2352	2352	FT	NO. 5 GFRP DEFORMED BARS		1251	1101	
509	30040	3295	3295	FT	NO. 6 GFRP DEFORMED BARS		2170	1125	
511	33501	8	8	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	8			4 / 46
511	34463	26	26	CU YD	CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN		26		4 / 46
511	46513	316	316	CU YD	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN	316			4 / 46
511	53014	531	531	CU YD	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN		531		3 / 46
511	53014	32	32	CU YD	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (MEDIAN PARAPET), AS PER PLAN		32		3 / 46
511	53014	10	10	CU YD	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET NOISE BARRIER), AS PER PLAN		10		3 / 46
511	53014	152	152	CU YD	CLASS QC3 CONCRETE, MISC.: CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN	152			4 / 46
512	10100	1010	1010	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	275	735		
512	33000	7	7	SQ YD	TYPE 2 WATERPROOFING	7			
513	10220	328,782	328,782	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 1		328,782		
513	20000	7383	7383	EACH	WELDED STUD SHEAR CONNECTORS		7383		
514	00061	636	636	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN		636		3 / 46
514	00067	636	636	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN		636		3 / 46
514	10000	10	10	EACH	FINAL INSPECTION REPAIR		10		
516	10010	396	396	FT	ARMORLESS PREFORMED JOINT SEAL	396			
516	13600	353	353	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	54	299		
516	13900	44	44	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	44			
516	14020	414	414	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	414			
516	44101	46	46	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 12"X12"X3.12" WITH 13"X13"X1 1/2" LOAD PLATE			46	
523	20000	8	8	EACH	DYNAMIC LOAD TESTING			8	
523	20500	8	8	EACH	RESTRIKE			8	
526	30001	1267	1267	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN		1267		3 / 46
526	90030	396	396	FT	TYPE C INSTALLATION		396		

RESOURCE INTERNATIONAL, INC.
6850 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949



DATE
3-18-26

REVIEWED
SSK

DRAWN
MMS

DESIGNED
MMS

STRUCTURE FILE NUMBER
310184

REVISED

CHECKED
JWE

ESTIMATED QUANTITIES
BRIDGE NO. HAM-75-0857
I.R. 75 OVER TOWNE STREET (CR603)

HAM-75-7.85
PID No. 121447

5 / 46

998
1047

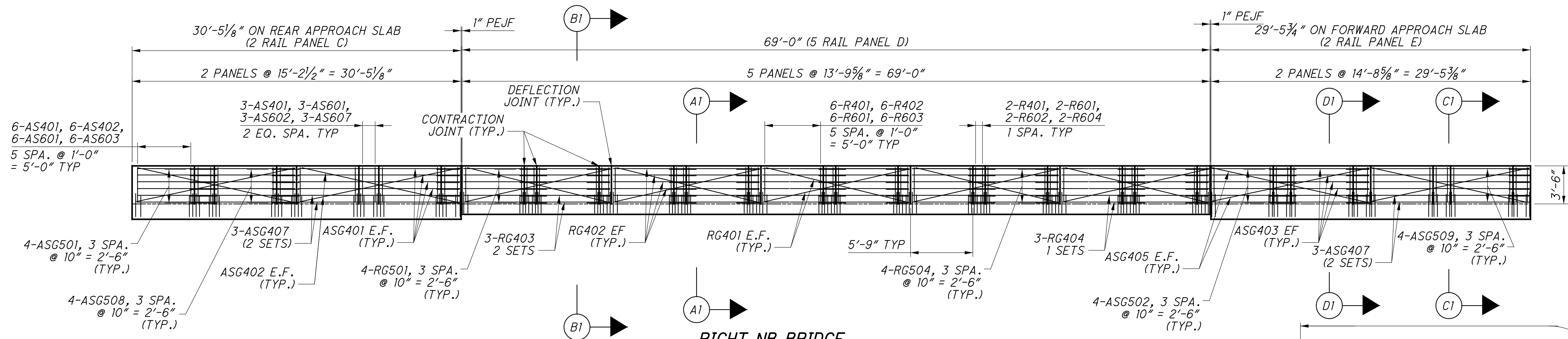


* TYPICAL DIMENSION
 ** CONCRETE ABOVE CJ IS INCLUDED WITH ITEM 511 CLASS QC3 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET NOISE BARRIER), AS PER PLAN. CONCRETE BELOW CJ IS INCLUDED WITH ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN.

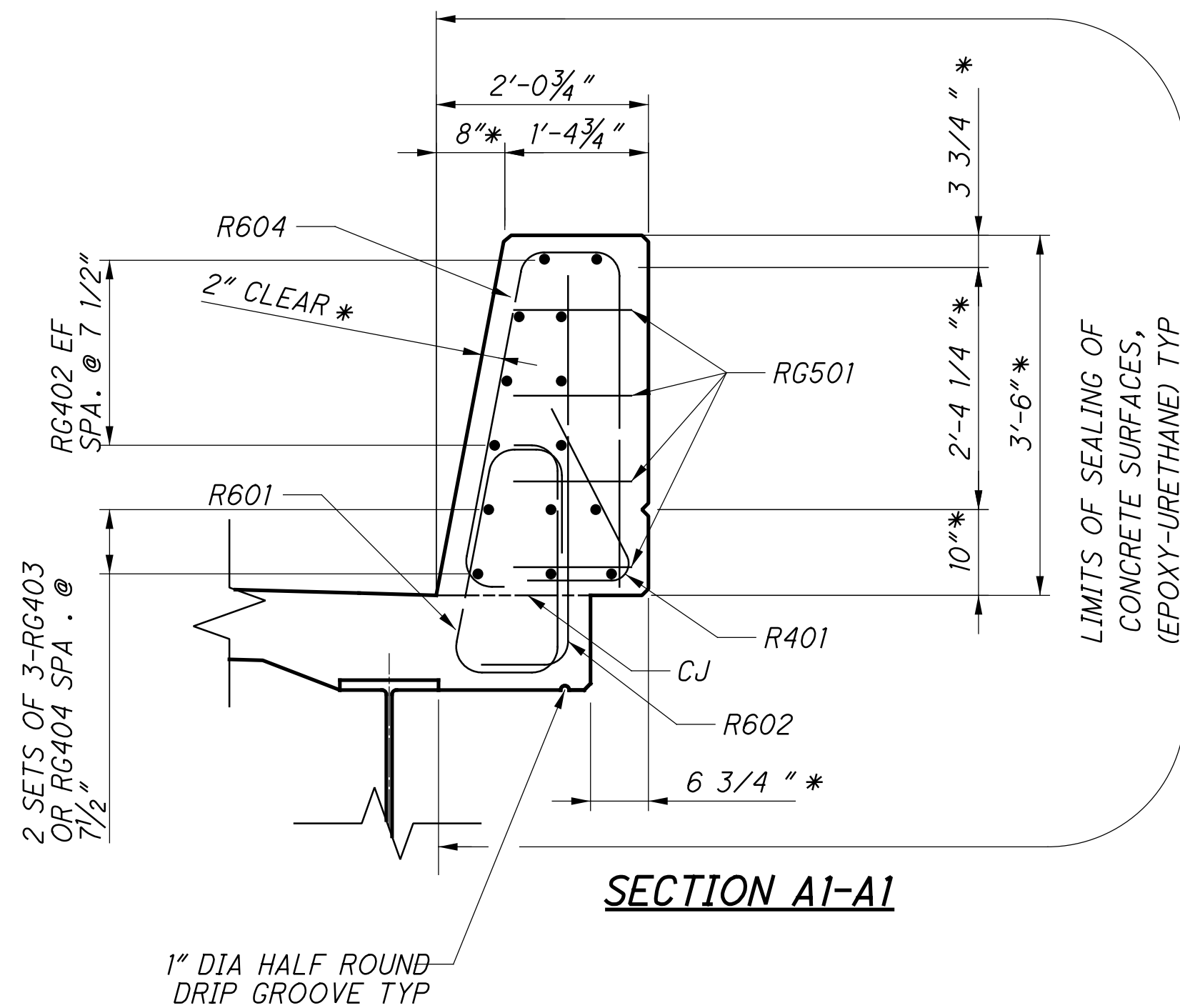
NOTES:

1. DIMENSION GIVEN ARE ALONG ARC OUTSIDE FACE OF BARRIER.
2. ELEVATION VIEW LOOKING AT EXTERIOR FACE OF PARAPET.
3. FOR ADDITIONAL APPROACH SLAB DETAILS SEE SHEET 41/46
 & 42/46
4. PAYMENT FOR APPROACH SLAB PARAPETS SHALL BE INCLUDED WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS.

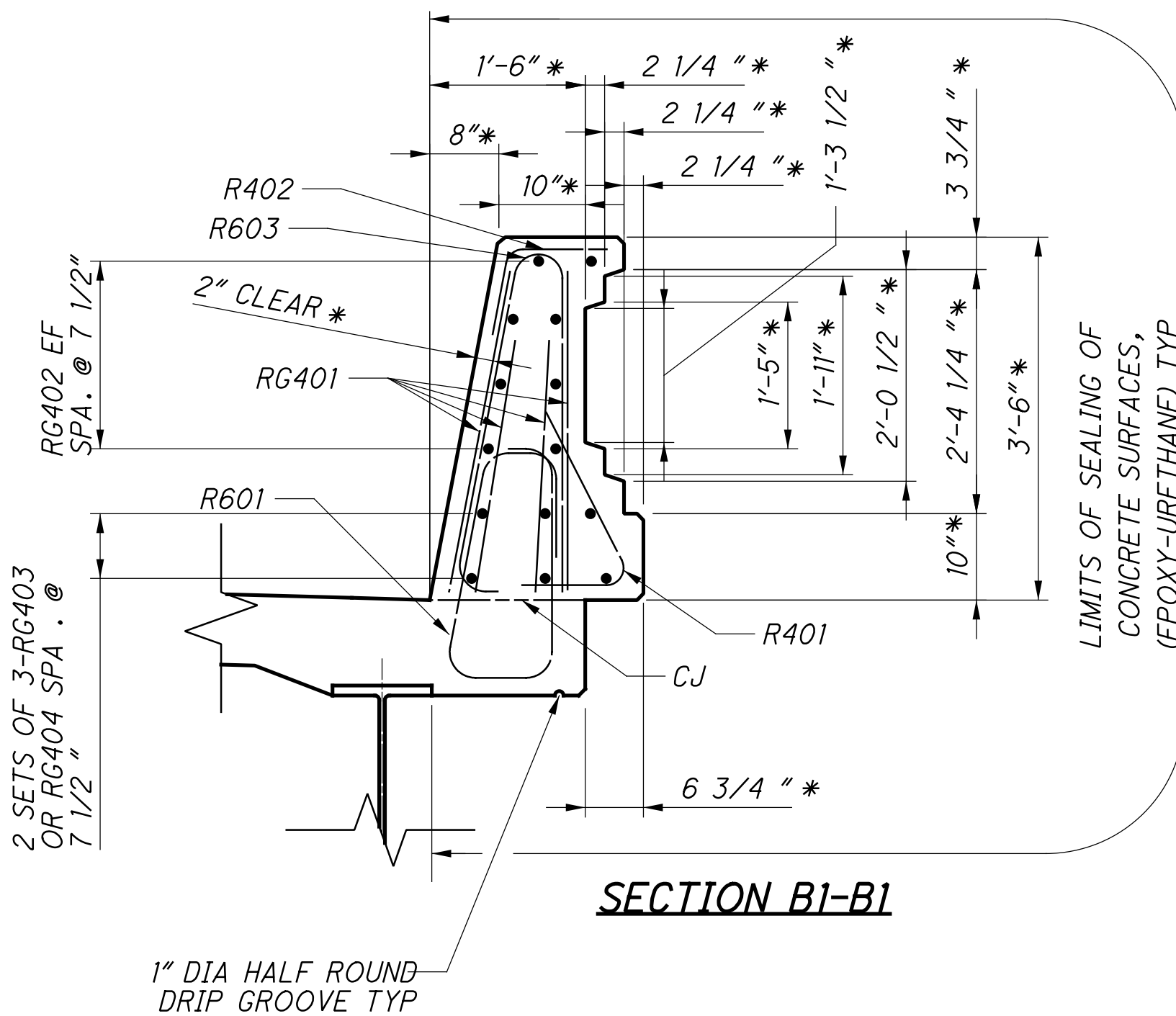
\\san1.resourceinternational.com\two_projects\2010\B-10-020_HAM-75-7.85\77889\structures\HAM075_0857C\sheets\075_0857CMD007.dgn 9/28/2026 11:01:32 AM meets



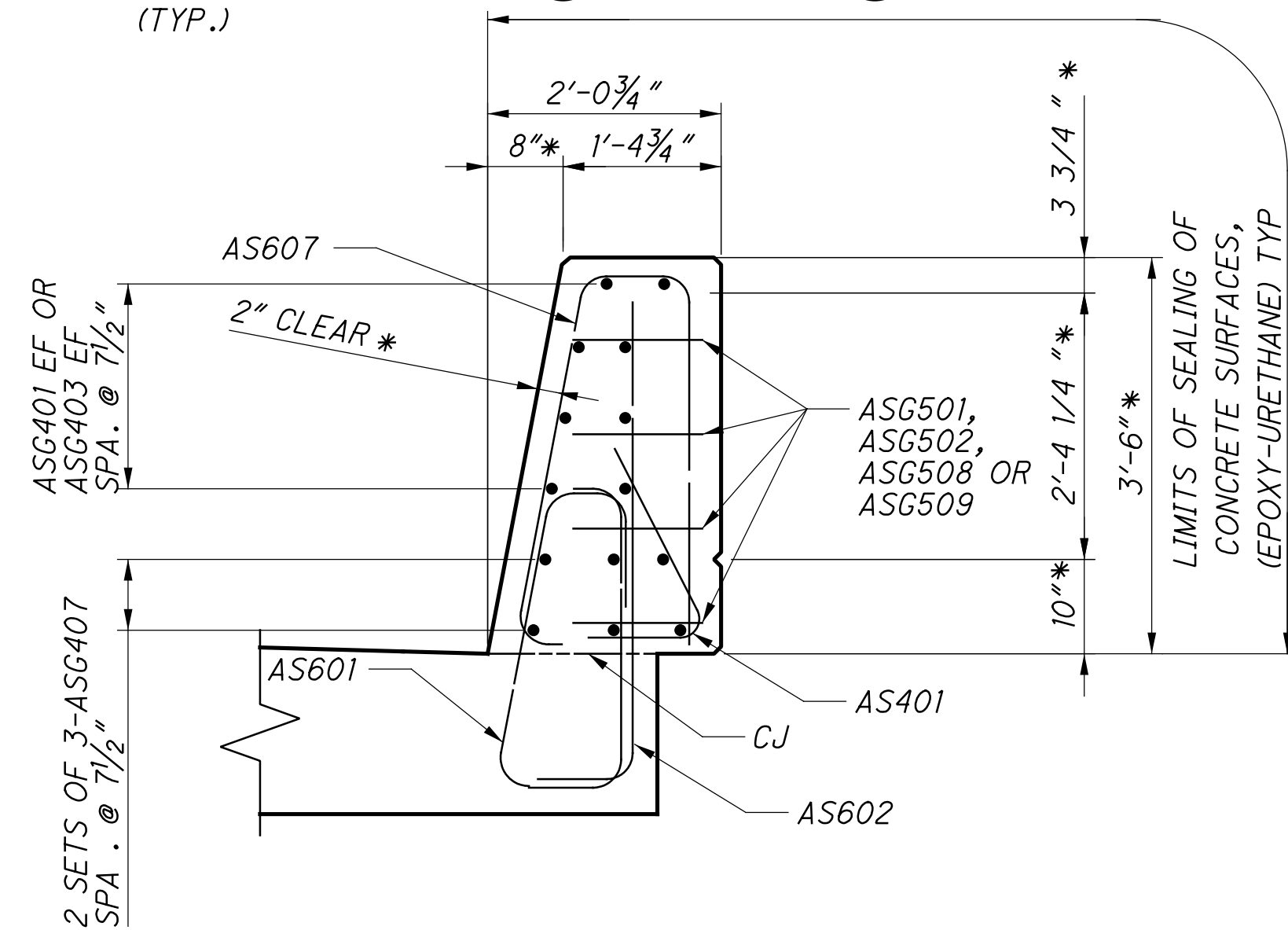
RIGHT NB BRIDGE
EXTERIOR PARAPET DETAIL



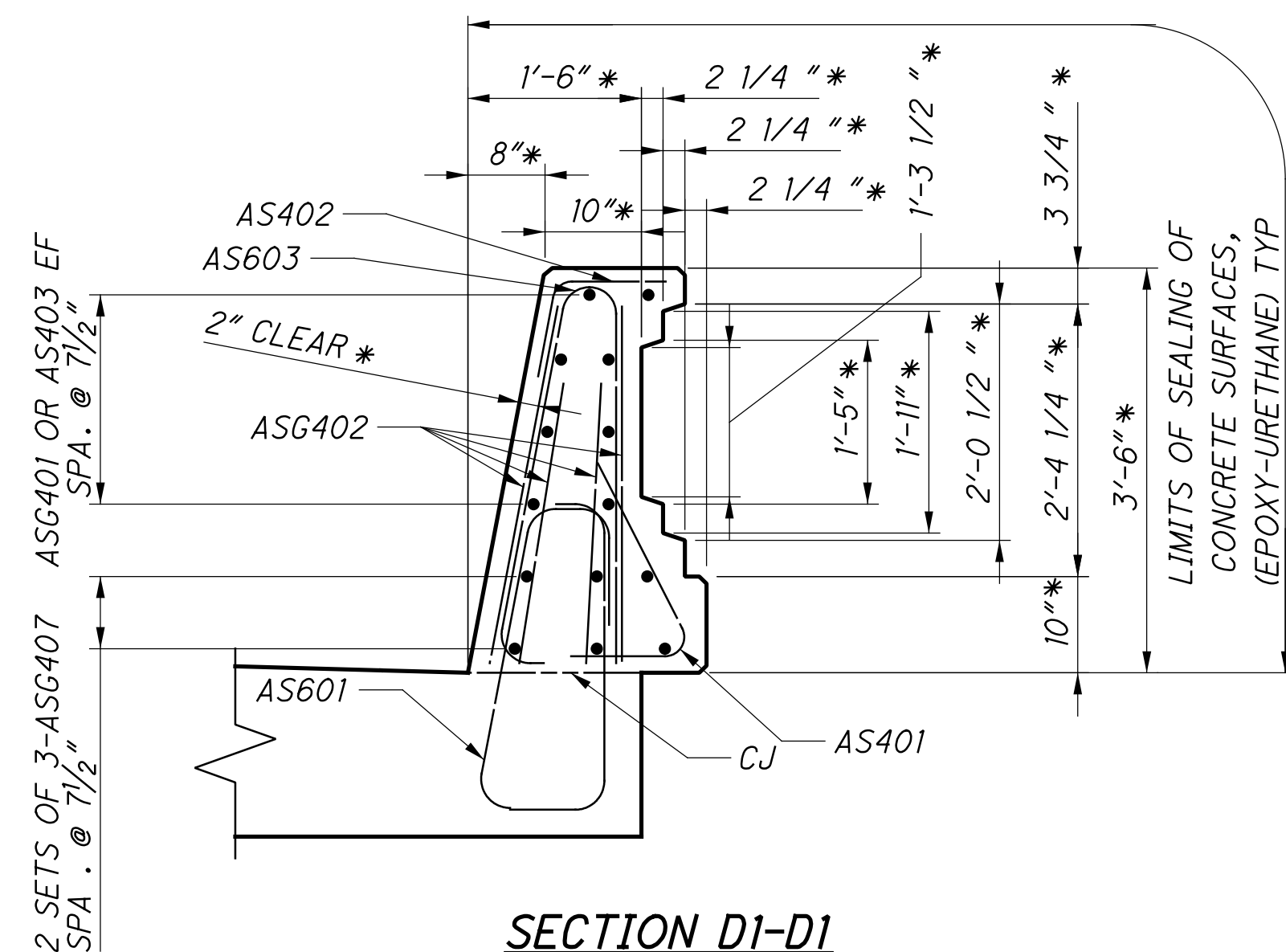
SECTION A1-A1



SECTION B1-B1



SECTION C1-C1



SECTION D1-D1

LEGEND:

* TYPICAL DIMENSION

NOTES:

1. DIMENSION GIVEN ARE ALONG ARC OUTSIDE FACE OF BARRIER.
2. ELEVATION VIEW LOOKING AT EXTERIOR FACE OF PARAPET.
3. FOR ADDITIONAL APPROACH SLAB DETAILS SEE SHEET
41/46 & 42/46
4. PAYMENT FOR APPROACH SLAB PARAPETS SHALL BE INCLUDED WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS.

MINIMUM LAP LENGTH
#4 BAR = 1'-11"
#5 BAR = 2'-5"
#6 BAR = 2'-11"