SUM-82-0.00

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

SUM-82-0000

SUM-82-00.00

SUMMIT COUNTY

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SAGAMORE HILLS TOWNSHIP

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DESIGN EXCEPTIONS

URBAN MINOR ARTERIAL

CUYAHOGA COUNT

LOCATION MAP

DESIGN DESIGNATION (FROM MS2, FOR INFORMATION ONLY)

LATITUDE: 41°19'16" LONGITUDE: 81°35'13"

PORTION TO BE IMPROVED ._____

FEDERAL ROUTES .________

CURRENT ADT (2022)_____ 11,350

LEGAL SPEED _____ 45 MPH

DESIGN FUNCTIONAL CLASSIFICATION:

NHS PROJECT _____ NO

NONE

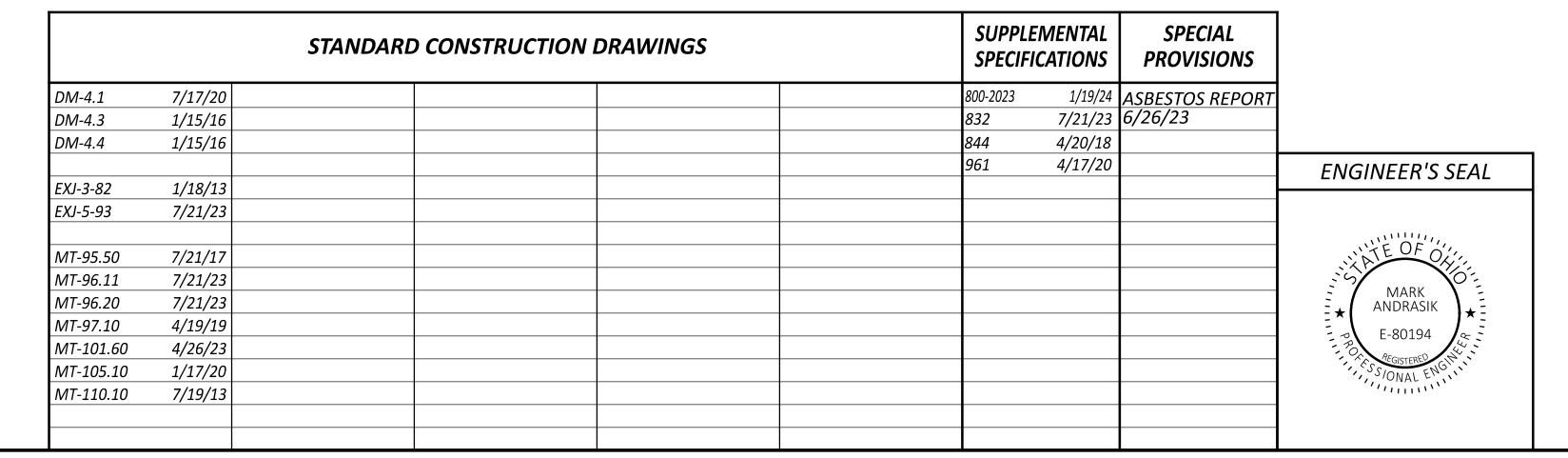
ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES Contact Two Working Days Before You Dig OHIO 811.org Before You Dig OHIO811, 8-1-1, or 1-800-362-2764

(Non members must be called directly)

PLAN PREPARED BY: ODOT DISTRICT 4 - CAPITAL PLANNING 2088 S. ARLINGTON RD. AKRON, OH 44306



FEDERAL PROJECT NUMBER

E230(277)

RAILROAD INVOLVEMENT

CUYAHOGA VALLEY SCENIC RAILROAD

PROJECT DESCRIPTION

REHABILITATION OF BRIDGE SUM-82-0000 IN SUMMIT COUNTY (SR-82 OVER THE CUYAHOGA RIVER AND CUYAHOGA VALLEY NATIONAL PARK AT THE SUM/CUY COUNTY LINE).

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: ESTIMATED CONTRACTOR EARTH DISTURBED AREA:

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

0.0 ACRES

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Arthur G. Noirot Jr., P.E. District 04 Deputy Director

Jack Marchbanks, PhD Director, Department of Transportation

ESIGN AGENCY



TJP 10-03-23 ROJECT ID

107247

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED. IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

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.**

BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

202, REMOVAL MISC.: BARRIER REFLECTOR, 7 EACH 626, BARRIER REFLECTOR, TYPE 1, 22 EACH 626, BARRIER REFLECTOR, TYPE 2, 8 EACH

CUYAHOGA VALLEY NATIONAL PARK & CUYAHOGA RIVER PROTECTION

THE SUM-82-0000 BRIDGE SPANS THE CUYAHOGA RIVER AND CUYAHOGA VALLEY NATIONAL PARK. THE CONTRACTOR SHALL MAINTAIN A SAFE OPEN PARK, TRAIL, RAILROAD, AND RIVER CHANNEL AT ALL TIMES DURING PROJECT CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO ENSURE PUBLIC SAFETY BELOW THE SUM-82-0000 BRIDGE WITHIN THE PROJECT CONSTRUCTION LIMITS. CONES OR SIMILAR BARRIERS AND SIGNS WILL BE USED TO PROTECT CVNP AND THE PUBLIC FROM THE EQUIPMENT AND WORK AREAS. THE STATION ROAD BRIDGE WILL BE USED FOR PEDESTRIANS ONLY. THE CONTRACTOR SHALL CONTACT AND PROVIDE OPERATION AND CONSTRUCTION SCHEDULE INFORMATION TO THE CUYAHOGA VALLEY NATIONAL PARK A MINIMUM OF 14 DAYS IN ADVANCE OF PERFORMING ANY WORK TO THE SUM-82-0000 BRIDGE.

CUYAHOGA VALLEY NATIONAL PARK COMMUNICATION CENTER: 440-546-5945 EMERGENCY PARK DISPATCH: 440-546-5945

OBJECT MARKERS AND STRUCTURE IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL 3 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION PLANS. THE FORMAL AS-BUILT CONSTRUCTION PLANS SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION PLANS SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION PLANS.

THE CONTRACTORS VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL AS-BUILT CONSTRUCTION PLANS. THE CONTRACTORS VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTORS PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION PLANS SHALL SHOW THE **FOLLOWING:**

- 1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL TYPE OR SIZE OF WORK.
- 2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE AS-BUILT CONSTRUCTION PLANS IN TERMS OF STATION, OFFSET AND ELEVATION.
- 3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
- 4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
- 5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION PLANS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION PLANS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

ENDANGERED SPECIES HABITAT - INDIANA BAT/NORTHERN LONG-EARED BAT

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM OF HEIGHT OF 13 FEET.

REMOVAL OF ANY TREES FROM CUYAHOGA VALLEY NATIONAL PARK PROPERTY BEYOND THE EXISTING SR-82 BRIDGE RIGHT-OF-WAY IS PROHIBITED WITHOUT PRIOR PERMISSION/APPROVAL FROM THE CUYAHOGA VALLEY NATIONAL PARK.

ESIGN AGENCY



ESIGNER MJA REVIEWER TJP 10-03-23 ROJECT ID 107247

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

- 1. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
- 2. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
- 3. A QUANTITY OF 5 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
- 4. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
- 5. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES. THE CONTRACTOR IS PERMITTED TO MAINTAIN TRAFFIC VIA FLAGGER CONTROL IN ACCORDANCE WITH MT-97.10 AND/OR VIA SIGNALIZED CLOSURE IN ACCORDANCE WITH MT-96.11. FOR OPERATIONS ONLY REQUIRING THE CLOSURE OF A LANE DURING WORKING HOURS, THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH MT-97.10 OR MT-96.11. FOR OPERATIONS REQUIRING THE CLOSURE OF A LANE OUTSIDE OF NORMAL WORKING HOURS, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-96.11. LANE CLOSURES SHALL NOT BE PERMITTED BETWEEN THE HOURS OF 6:00AM -9:00AM OR BETWEEN THE HOURS OF 2:00PM-6:00PM.
- 6. THE CONTRACTOR SHALL LIMIT THE DISTANCE BETWEEN PORTABLE TRAFFIC SIGNALS TO A MAXIMUM OF 400 FEET. THE CONTRACTOR SHALL NOT ALLOW THE QUEUE TO EXTEND TO THE RIVERVIEW ROAD INTERSECTION. IF THE QUEUE EXTENDS TO THE RIVERVIEW ROAD INTERSECTION, THE CONTRACTOR SHALL MANUALLY OPERATE THE PORTABLE TRAFFIC SIGNALS TO CLEAR THE INTERSECTION.
- ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PROTECTION FROM DEBRIS

PRIOR TO STARTING ANY WORK ON SUM-82-0000, THE CONTRACTOR SHALL INSTALL A NET OR SOME OTHER SYSTEM TO CATCH FALLING DEBRIS, EQUIPMENT, ETC FROM IMPACTING THE PARK TRAILS, PARK LANDS, CANAL, RAILROAD, AND ALL OTHER PROPERTIES LOCATED UNDER THE STRUCTURE. SHOP DRAWINGS SHALL BE SUBMITTED TO THE PROJECT ENGINEER AS PER CMS 501. ALL WORK INVOLVED WITH THIS NOTE SHALL BE INCIDENTAL TO ITEM 614 - MAINTAINING TRAFFIC

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE			
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO	
ROAD & RAMP	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	
CLOSURES	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
CLOSURES	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF			
CONSTRUCTION &	N/A	 14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	
TRAFFIC PATTERNS	IN/A	14 CALLINDAR DATS FRIOR TO THIS ELIMENTATION	
CHANGES			

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

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REP-RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS-ING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

USE OF TOWPATH TRAIL LIMITATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MINIMIZE DAMAGE TO VEGETATION WHEN IT IS NECESSARY TO LEAVE THE TOWPATH TRAIL TO ACCESS THE BRIDGE PIERS FOR PATCHING OPERATIONS. USE OF FILL MATERIAL IS NOT ALLOWED. USE OF TEMPORARY MATTING OR SIMILAR MEASURES IS SUBJECT TO THE APPROVAL BY THE PROJECT ENGINEER.

THE CONTRACTOR WILL ONLY BE PERMITTED TO LEAVE THE TOWPATH TRAIL WITHIN STATE OF OHIO RIGHT -OF-WAY. STATE OF OHIO RIGHT-OF-WAY CONSISTS OF 40' EACH SIDE OF THE BRIDGE CENTERLINE.

TWO TOWPATH TRAILS ARE LOCATED UNDER THE BRIDGE. THE TOWPATH TRAILS ARE NOT TO BE CLOSED CONCURRENTLY. PRIOR TO OPENING TO TRAFFIC THE TOWPATH TRAIL SHALL BE IN A SAFE, PASSABLE CONDITION. CLOSURE OF THE TRAILS SHALL BE SIGNED PER THE DETAIL BELOW. PAYMENT FOR THE TOWPATH TRAIL CLOSURES AND ALL REQUIREMENTS FOR THE CLOSURES WILL BE INCIDENTIAL TO ITEM 614. DETOUR SIGNING.

THE CUYAHOGA VALLEY NATIONAL PARK (CVNP) HAS CONSTRUCTION ALONG THE WESTERN TOWPATH TRAIL THROUGHOUT THE SPRING AND SUMMER OF 2024. DURING THIS TIME, COORDINATION BETWEEN THE CONTRACTOR, PROJECT ENGINEER, AND CVNP CONTRACTOR SHALL BE MADE FOR ACCESS TO THE PIERS, ARCHES, AND ALL OTHER COMPONENTS OF THE SUM-82-0000 STRUCTURE WITHIN AND OVER THE CVNP CONTRACTOR'S STAGING AREA(S) AND WORK ZONE(S). DETOURING THE EASTERN TOWPATH TRAIL SHALL NOT TAKE PLACE UNTIL 8/1/24 AND NOTIFICATION OF THE COMPLETION OF THE CVNP CONTRACTOR'S WORK HAS BEEN RECEIVED BY THE PROJECT ENGINEER.

ACCESS TO THE TOWPATH TRAILS BY THE CONTRACTOR WILL BE FROM THE EAST USING PINE HILL ROAD. NO EQUIPMENT SHALL BE STORED WITHIN 10' OF THE EDGE OF THE TOWPATH TRAILS AND SHALL BE STORED WITHIN STATE OF OHIO RIGHT-OF-WAY.

THE CONTRACTOR WILL ONLY BE PERMITTED TO LEAVE THE TOWPATH TRAIL WITHIN STATE OF OHIO RIGHT -OF-WAY. STATE OF OHIO RIGHT-OF-WAY CONSISTS OF 40' EACH SIDE OF THE BRIDGE CENTERLINE, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. NO MECHANICAL EQUIPMENT SHALL ENTER WETLAND A, THE CUYAHOGA RIVER. OR OHIO CANAL.

DAMAGE TO THE TOWPATH TRAILS, PINE HILL ROAD, AND AREAS OFF THE TRAILS WILL BE RESTORED TO IT'S ORGINAL CONDITION PER CMS 104.04. ITEMS LISTED BELOW SHALL BE USED TO RESTORE THE TRAIL, ROAD, AND AREAS OFF THE TRAILS USED FOR PATCHING OPERATIONS AND ACCESS TO THE PATCHING LOCATIONS.

ITEM 411, STABILIZED CRUSHED AGGREGATE ITEM 659, SEEDING AND MULCHING ITEM 659, TOPSOIL 10 CU YD 250 SQ YD 30 CU YD

DETOUR NOTIFICATION [CUYAHOGA VALLEY NATIONAL PARK]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND NPS CUYAHOGA VALLEY NATIONAL PARK (440-546-5972) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

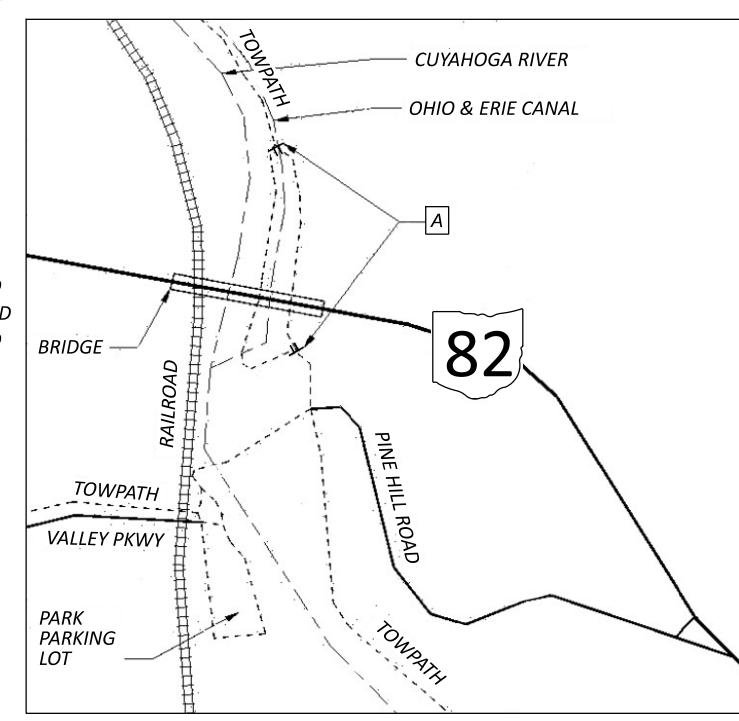




M4-9a-30

ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

NOTE: M4-9aL-30 SHOWN. THE CONTRACTOR SHALL PROVIDE SIGN WITH ARROW FACING THE APPROPRIATE DETOUR DIRECTION.





DESIGNER

AJN

REVIEWER

LB 10-20-23

PROJECT ID

107247

SHEET TOTAL

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ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE
PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR
AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN
SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES.
MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT
BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD
COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING
CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS
WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS
FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH
PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION. MESSAGE CHANGES. MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 6 SIGN MONTH (ASSUMING 2 PCMS SIGNS FOR 3 MONTHS)

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

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

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

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

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

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

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

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 200 HOURS

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

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

MAINTENANCE OF CANOE TRAFFIC

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT:

- 1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM,
 ADVANCED WARNING TYPE SIGNS (W20-1) ON BOTH BANKS;
- 2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS;
- 3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS; AND
- 4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL. UNOB-STRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CON-TRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC. PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

DESIGN AGENCY



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REVIEWER

LB 10-20-23

PROJECT ID

107247

P.4 TOTAL

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPOR-TATION OFFICIALS, AND THE ODOT BRIDGE DESIGN *MANUAL, 2020.*

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUC-TURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASURE-MENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXIST-ING 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 EXAM-INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE-PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

EXJ-3-82 DATED (REVISED) 1/18/13 EXJ-5-93 DATED (REVISED) 7/21/23

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S): 844 DATED 4/20/18

PROPOSED WORK

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE ABUTMENTS, BACKWALLS, PIERS, ARCHES, AND OTHER SUBSTRUCTURE AREAS AND SEAL WITH EPOXY-URETHANE. USE FIBER WRAP IN REPAIRS OVER PEDESTRIAN. RAILROAD, AND WATERWAY TRAFFIC
- REPLACE ALL END AND INTERMEDIATE EXPANSION JOINT GLANDS
- CLEAN OUT EXISTING SCUPPERS
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPT-ABLE METHODS INCLUDE: HIGH-PRESSURE WATER BLAST-ING WITH, OR WITHOUT, ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING.

ALL DECORATIVE CONCRETE FINISHING SHALL BE RESTORED AS APPROVED BY THE PROJECT ENGINEER. ALL LABOR, MATERIALS, AND INCIDENTALS INVOLVED WITH THIS WORK SHALL BE INCLUDED IN ITEM 519 -PATCHING CONCRETE STRUCTURES, AS PER PLAN.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION,

ALL DECORATIVE CONCRETE FINISHING SHALL BE RESTORED AS APPROVED BY THE PROJECT ENGINEER. ALL LABOR, MATERIALS, AND INCIDENTALS

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

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

ITEM 518 - SCUPPER MISC.: CLEANOUT

THIS WORK WILL CONSIST OF REMOVING ALL DEBRIS FROM ON TOP AND INSIDE OF THE SCUPPERS AND INSIDE THE DOWNSPOUTS. SCUPPER CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, SCUPPER MISC.: CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL CONCRETE PATCHES SHALL BE SEALED WITH EPOXY-URETHANE AS PER CMS 512. THE COLOR OF THE EPOXY-URETHANE SHALL MATCH THE COLOR OF THE EXISTING CONCRETE ON SUM-82-0000, AND SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO APPLICATION.

DECK REPAIR AROUND JOINTS

THE CONTRACTOR SHALL USE ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE C AND ITEM 512 - CONCRETE REPAIR BY EPOXY INJECTION, AS DIRECTED BY THE PROJECT ENGINEER, TO REPAIR THE CONCRETE DECK AND PREVENT LEAKING AROUND ALL INTERMEDIATE AND END EXPANSION JOINTS. ITEM 519 - PATCHING CONCRETE BRIDGE DECK -TYPE C SHALL ALSO BE USED TO REPAIR OTHER AREAS OF THE CONCRETE DECK AS DIRECTED BY THE PROJECT ENGINEER.

SPECIAL - COMPOSITE FIBER WRAP SYSTEM

FIBER WRAP SYSTEM SHALL BE USED ON PATCHING OF SPALLED AREAS. USE OF FIBER WRAP SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. FOR DETAILS, SEE PROPOSAL NOTE 519 - COMPOSITE FIBER WRAP SYSTEM.

ITEM 520 - PNEUMATICALLY PLACED CONCRETE SHOTCRETE, AS PER PLAN (OPTION A)

THIS WORK CONSISTS OF REMOVING ALL LOOSE AND DISENTEAGRATED CONCRETE, PREPARING THE SURFACE, FINISHING AND PLACING REINFORCING STEEL, PLACING FORMS, INSTALLING EMBEDDED GALVANIC ANODES, AND PLACING CONCRETE PATCHING, INCLUDING CURING OF SAME. PERFORM WORK ACCORDING TO CMS 520 EXCEPT AS NOTED.

MATERIAL:

FURNISH PRE-MANUFACTURED GALVANIC ANODES DESIGNED FOR CATHODIC PROTECTION WHEN EMBEDDED IN CONCRETE AND TIED TO STEEL REINFORCING. THE CORE OF THE ANODE SHALL CONSIST OF A MINIMUM OF 100 GRAMS OF ELECTROLYTIC HIGH GRADE ZINC IN COMPLIANCE WITH ASTM B 418 TYPE II CAST AROUND A PAIR OF STEEL TIE WIRES AND ENCASED IN A HIGHLY ALKALINE CEMENTITIOUS SHELL WITH A PH OF 14, OR ENCASED IN A MATERIAL THAT USES ACTIVATION METHODS TO ASSURE PERFORMANCE. THE ANODES SHALL HAVE ONE SIDE THAT IS LESS THAN 1.5" IN HEIGHT.

FURNISH GALVANIC ANODES ACCORDING TO THE DEPARTMENT'S APPROVED LIST. SUPPLY A CERTIFICATION OF COMPLIANCE TO THE ENGINEER BEFORE STARTING WORK. DELIVER, STORE, AND HANDLE ALL MATERIALS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A 28-DAY MOIST CURED ELECTRICAL RESISTIVITY LESS THAN 15,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON-CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, FLY ASH, OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT.

CLEANING AND REPAIR OF REINFORCING STEEL:

CLEAN EXPOSED REINFORCING STEEL OF RUST, MORTAR, ETC. TO PROVIDE SUFFICIENT ELECTRICAL CONNECTION AND MECHANICAL BOND. IF SIGNIFICANT REDUCTION IN THE CROSS SECTION OF THE REINFORCING STEEL HAS OCCURRED, REPLACE OR INSTALL SUPPLEMENTAL REINFORCEMENT AS DIRECTED BY THE ENGINEER. SECURE LOOSE REINFORCEMENT STEEL BY TYING TIGHTLY TO OTHER BARS WITH STEEL TIE WIRE.

GALVANIC ANODE INSTALLATION:

INSTALL EMBEDDED GALVANIC ANODES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AS SHOWN ON THE PLANS, AND AS FOLLOWS:

- A. INSTALL GALVANIC ANODES TO EXISTING REINFORCEMENT ALONG THE PERIMETER OF THE REPAIR AT 30" C/C SPACING OR AS DIRECTED BY THE PROJECT ENGINEER. IN NO CASE SHALL THE DISTANCE BETWEN ANODES EXCEED 30" NOR SHALL THE DISTANCE BETWEEN THE ANODE AND EDGE OF THE REPAIR EXCEED 6".
- B. PROVIDE A 1" CLEARANCE BETWEEN ANODES AND SUBSTRATE TO ALLOW REPAIR MATERIAL TO ENCASE ANODE. IF NECESSARY, INCREASE THE SIZE OF THE REPAIR CAVITY TO ACCOMODATE THE ANODES.
- C. SECURE THE GALVANIC ANODES AS CLOSE AS POSSIBLE TO THE PATCH EDGE USING THE ANODE TIE WIRES. WRAP TIE WIRES AROUND THE CLEANED AND UNCOATED REINFORCING STEEL AT LEAST ONE FULL TURN IN OPPOSITE DIRECTIONS AND THEN TIGHTEN THE TIE WIRES TO ALLOW LITTLE OR NO FREE MOVEMENT. IF THE ANODE IS TO BE TIED ONTO A SINGLE BAR, OR IF LESS THAN 1.5" OF CONCRETE COVER IS EXPECTED, PLACE ANODE BENEATH THE UNCOATED BAR AND SECURE TO THE REINFORCING STEEL. IF 1.5" CONCRETE COVER WILL EXIST OVER THE ANODE, THE ANODE MAY BE PLACED AT THE INTERSECTION BETWEEN TWO BARS AND SECURED TO EACH BAR.

ELECTRICAL CONTINUITY:

CONFIRM ELECTRICAL CONNECTION BETWEEN EVERY ANODE TIE WIRE AND UNCOATED REINFORCEING STEEL WITH A MULTI-METER. THE MAXIMUM DC RESISTANCE SHALL BE 1 OHM. CONFIRM ELECTRICAL CONTINUITY OF EVERY EXPOSED UNCOATED REINFORCING STEEL WITH THE REPAIR AREA. STEEL REINFORCEMENT SHALL BE CONSIDERED CONTINUOUS WHEN THE DC RESISTANCE IS 1 OHM OR LESS. IF NECESSARY, ESTABLISH THE ELECTRICAL CONTINUITY WITH UNCOATED STEEL TIE WIRE.

QUALITY CONTROL:

PROVIDE THE ENGINEER A REPORT DOCUMENTING THE RESISTANCE MEASUREMENT FOR EVERY REINFORCING BAR IN EACH REPAIR AREA. THE REPORT SHALL BE SIGNED BY THE CONTRACTOR'S EMPLOYEE RESPONSIBLE FOR SUPERVISION OF THE REPAIR WORK.

DECORATIVE FINISHING:

ALL DECORATIVE CONCRETE FINISHING SHALL BE RESTORED AS APPROVED BY THE PROJECT ENGINEER. ALL LABOR, MATERIALS, AND INCIDENTALS INVOLVED WITH THIS WORK SHALL BE INCLUDED IN ITEM 520 -PNEUMATICALLY PLACED CONCRETE SHOTCRETE, AS PER PLAN.

METHOD OF MEASUREMENT AND PAYMENT:

THE DEPARTMENT WILL MEASURE THE PNEUMATICALLY PLACED CONCRETE SHOTCRETE IN ACCORDANCE WITH CMS 520. PAYMENT FOR THE ACCEPTED QUANTITIES SHALL BE AT THE CONTRACT PRICE UNDER ITEM 520 - PNEUMATICALLY PLACED CONCRETE SHOTCRETE, AS PER PLAN.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION:

THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS I INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT http://www.epa.ohio.gov/asbestos AND IS ENCOURAGED, OR THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM OHIO EPA, DAPC P.O. BOX 1049 COLUMBUS, OH 43216-1049

ASBESTOS PROGRAM OHIO EPA. DAPC 50 W. TOWN ST., SUITE 700 COLUMBUS. OH 43215

THE FORM SHALL INCLUDE:

- 1. THE CONTRACTOR'S NAME AND ADDRESS
- 2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
- 3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND METHODS BE USED
- 4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION

THE CONTRACTOR SHALL FURNISH ALL FEES. LABOR. AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 520 -PNEUMATICALLY PLACED CONCRETE SHOTCRETE, AS PER PLAN.

STRUCTURE REPAIRS

THE STRUCTURE REPAIRS SHOWN ON PLAN PAGES 9 TO 33 SHOW SOME OF THE LOCATIONS REPAIRS ARE NEEDED. THE CONTRACTOR AND PROJECT ENGINEER SHALL COORDINATE THE LOCATING AND QUANTIFYING OF ALL NECESSARY REPAIRS THROUGHOUT THE ENTIRE SUBSTRUCTURE.

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AS PER PLAN (OPTION B)

INVOLVED WITH THIS WORK SHALL BE INCLUDED IN ITEM 844 -CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

MJA

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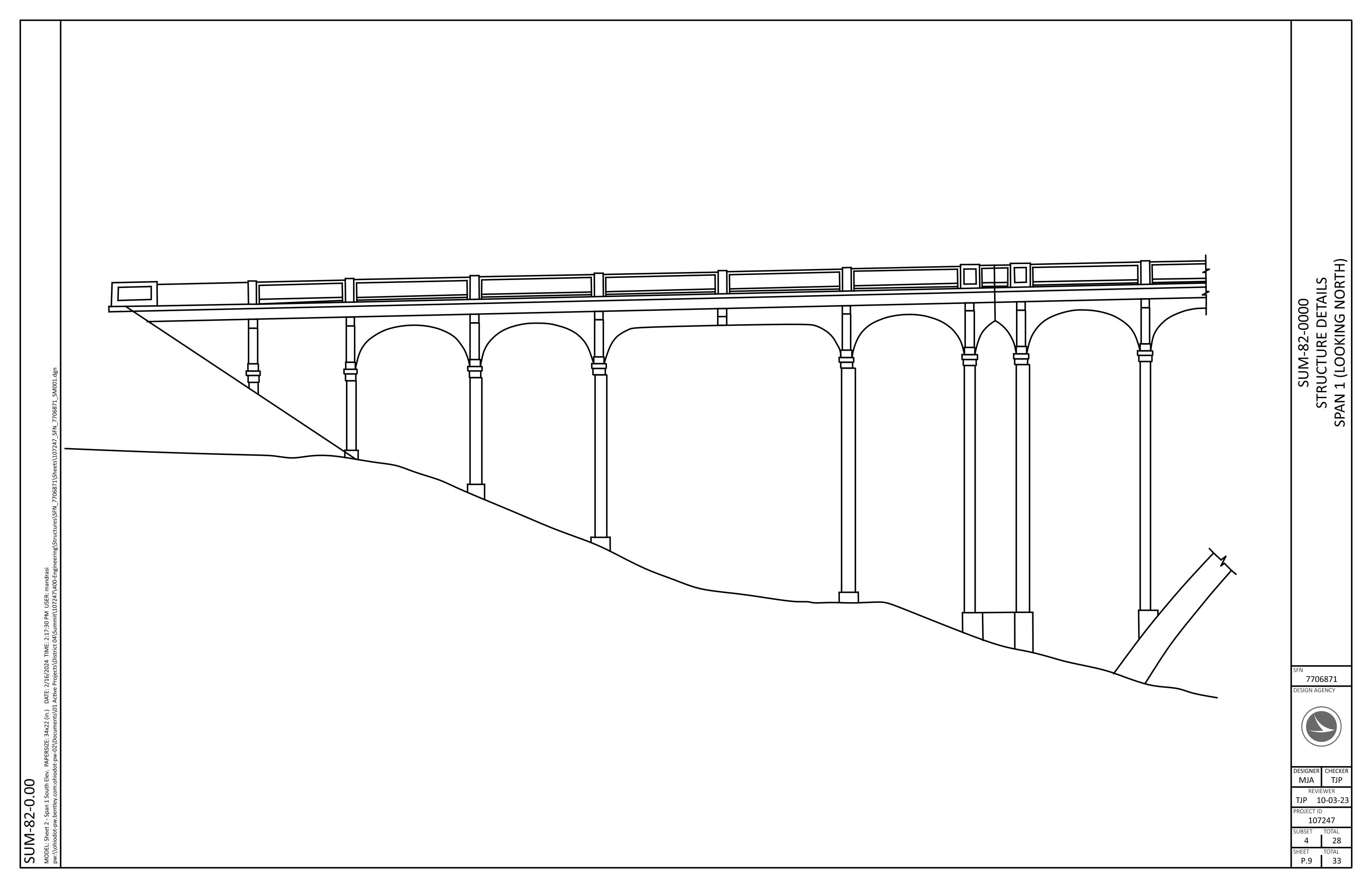


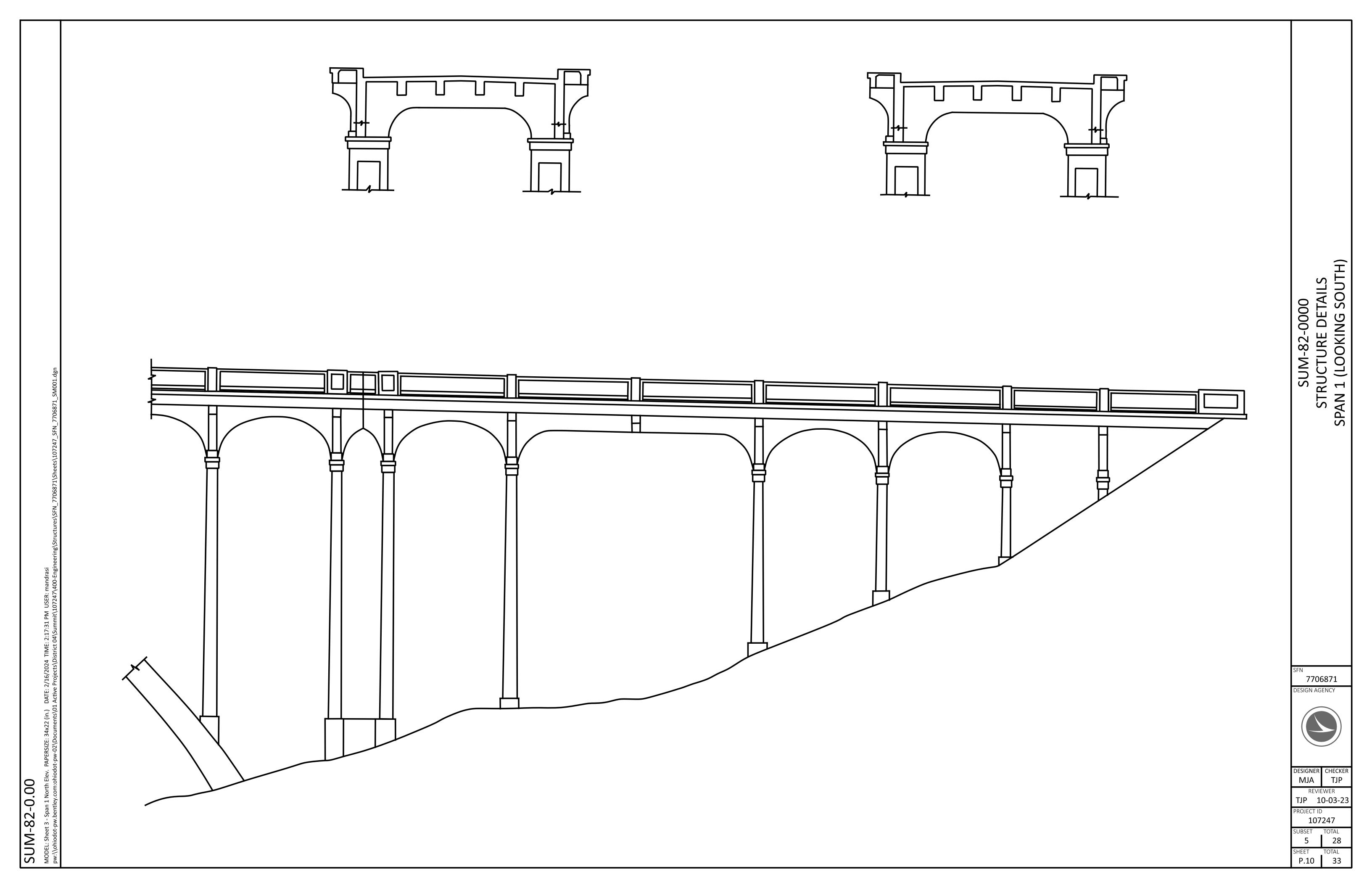
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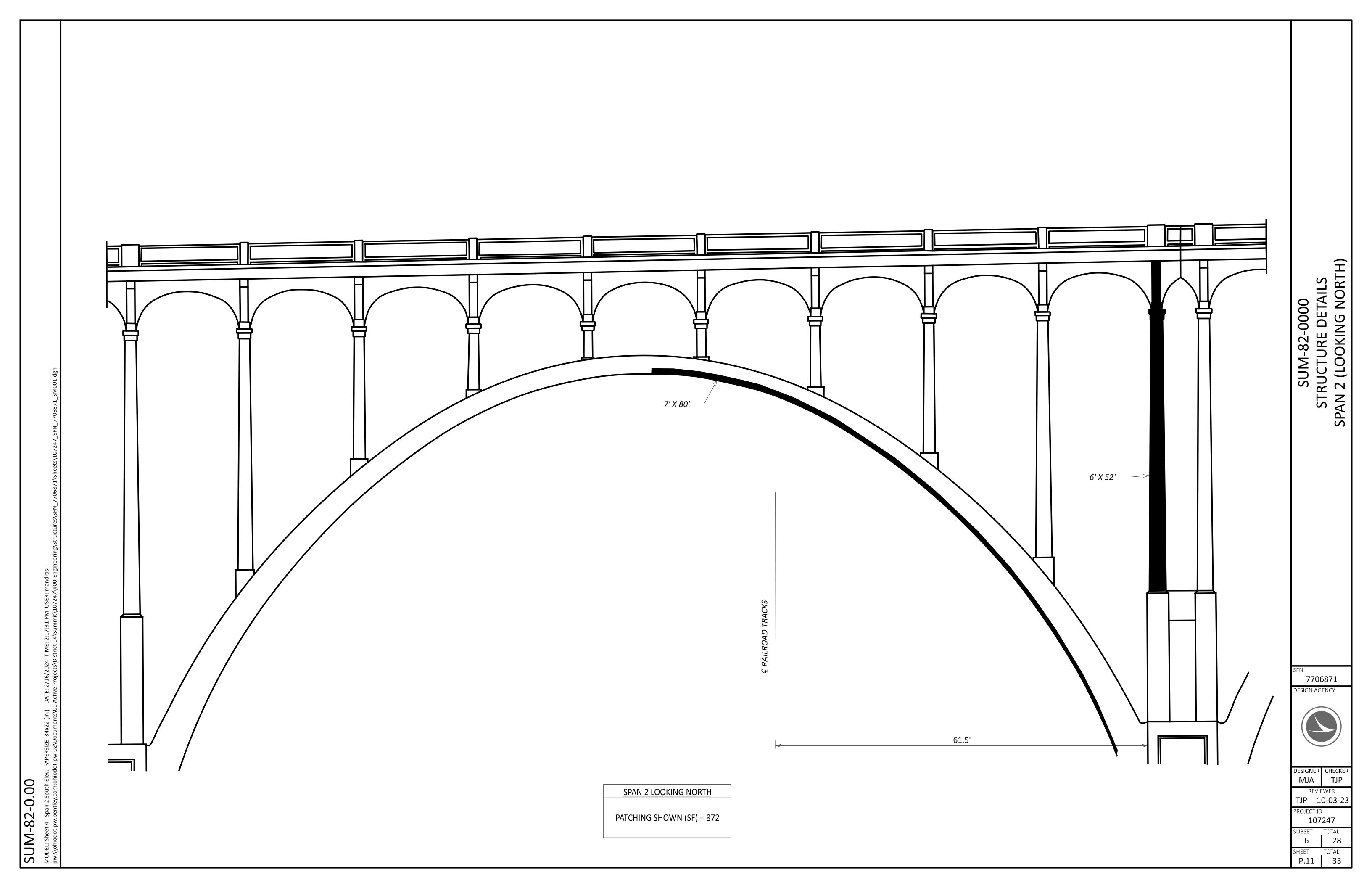
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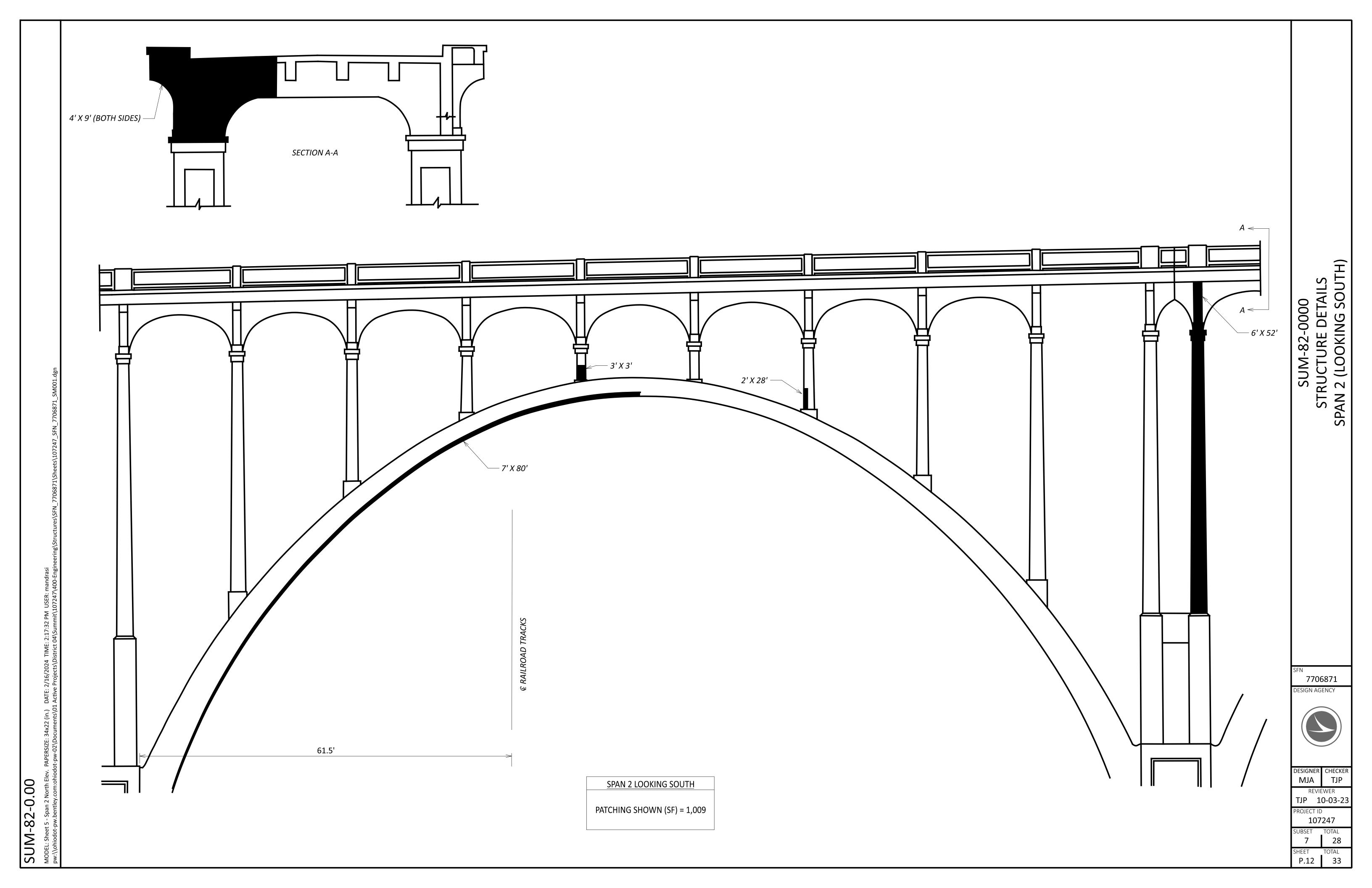
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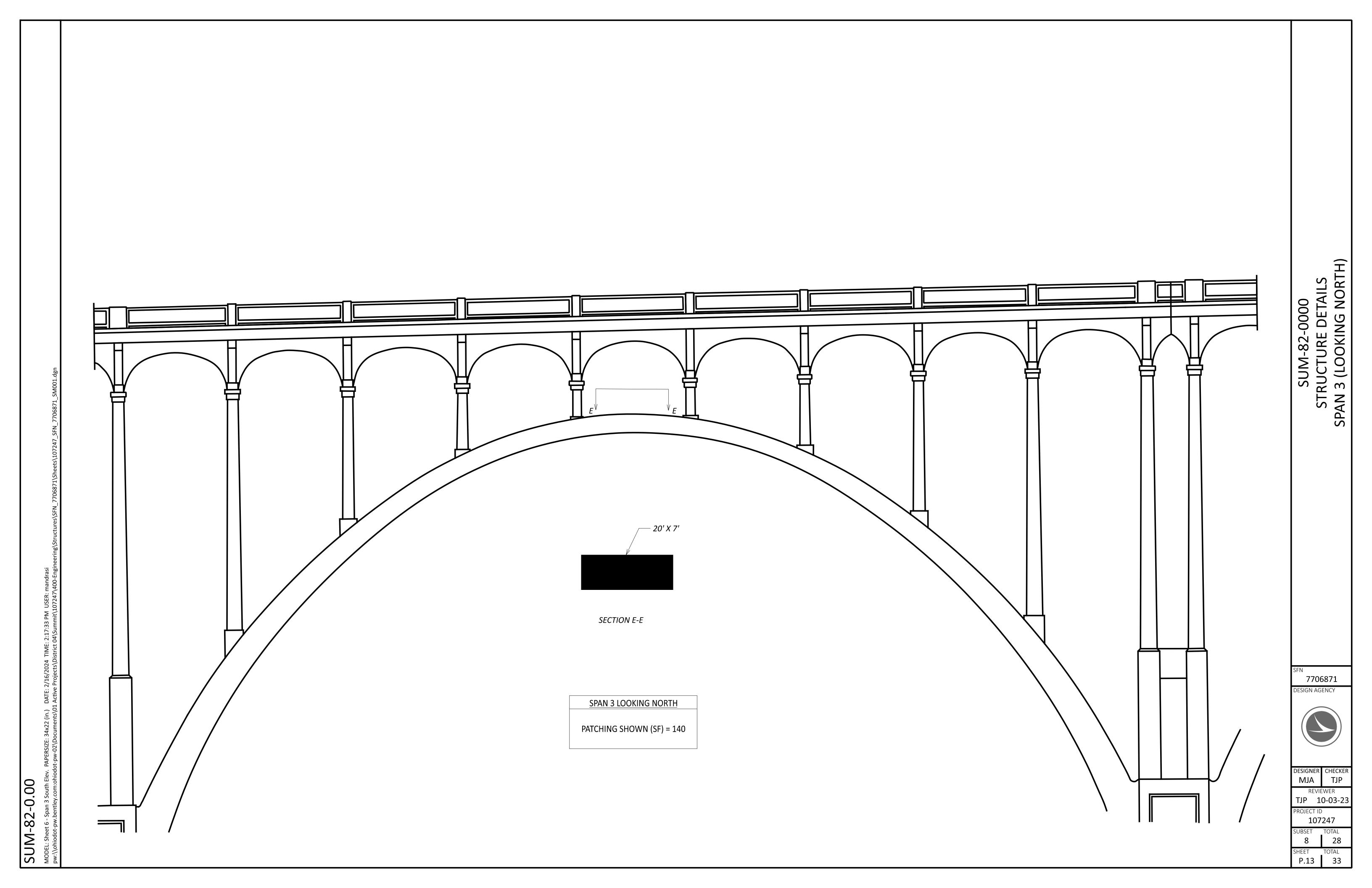
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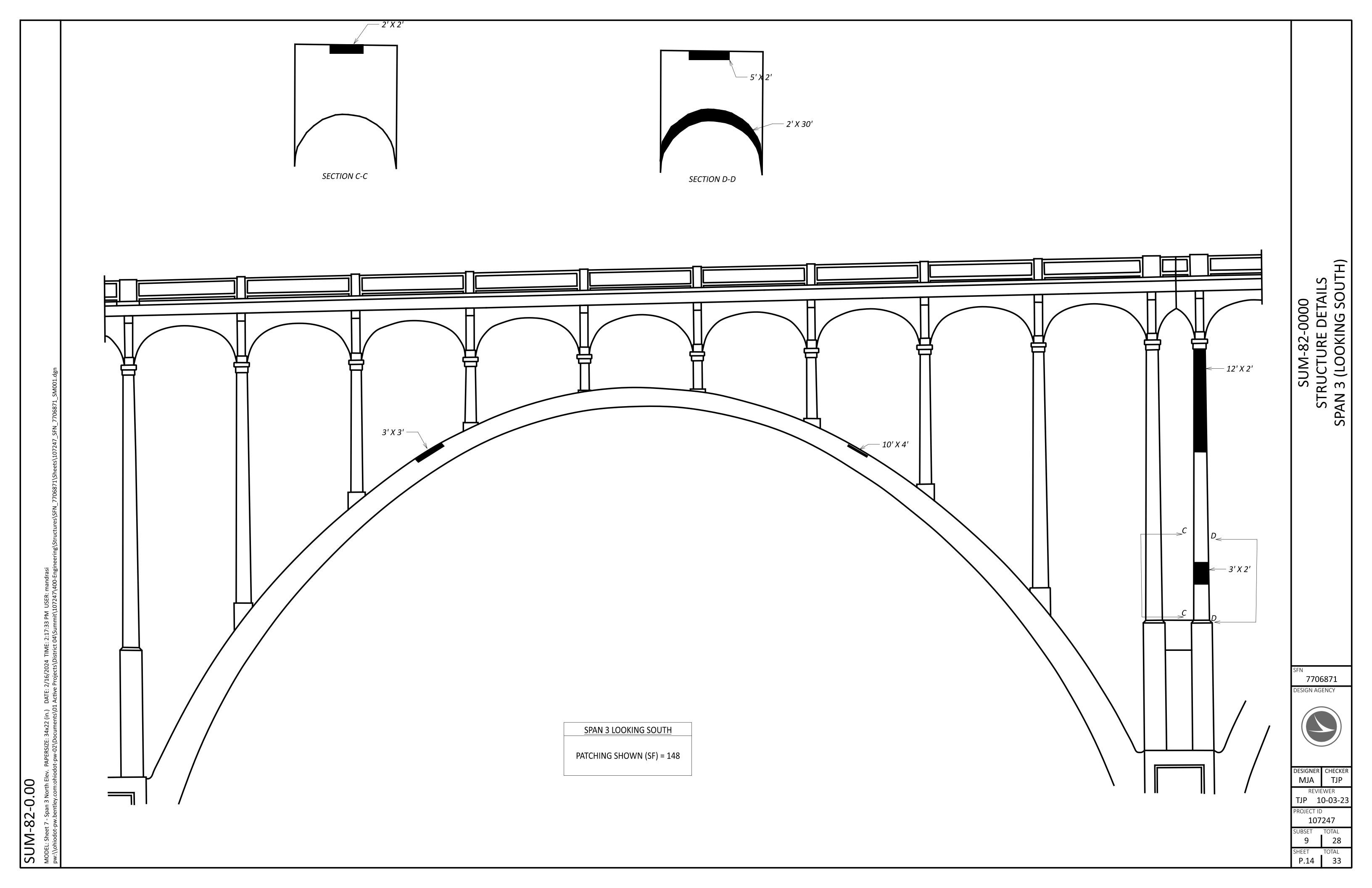


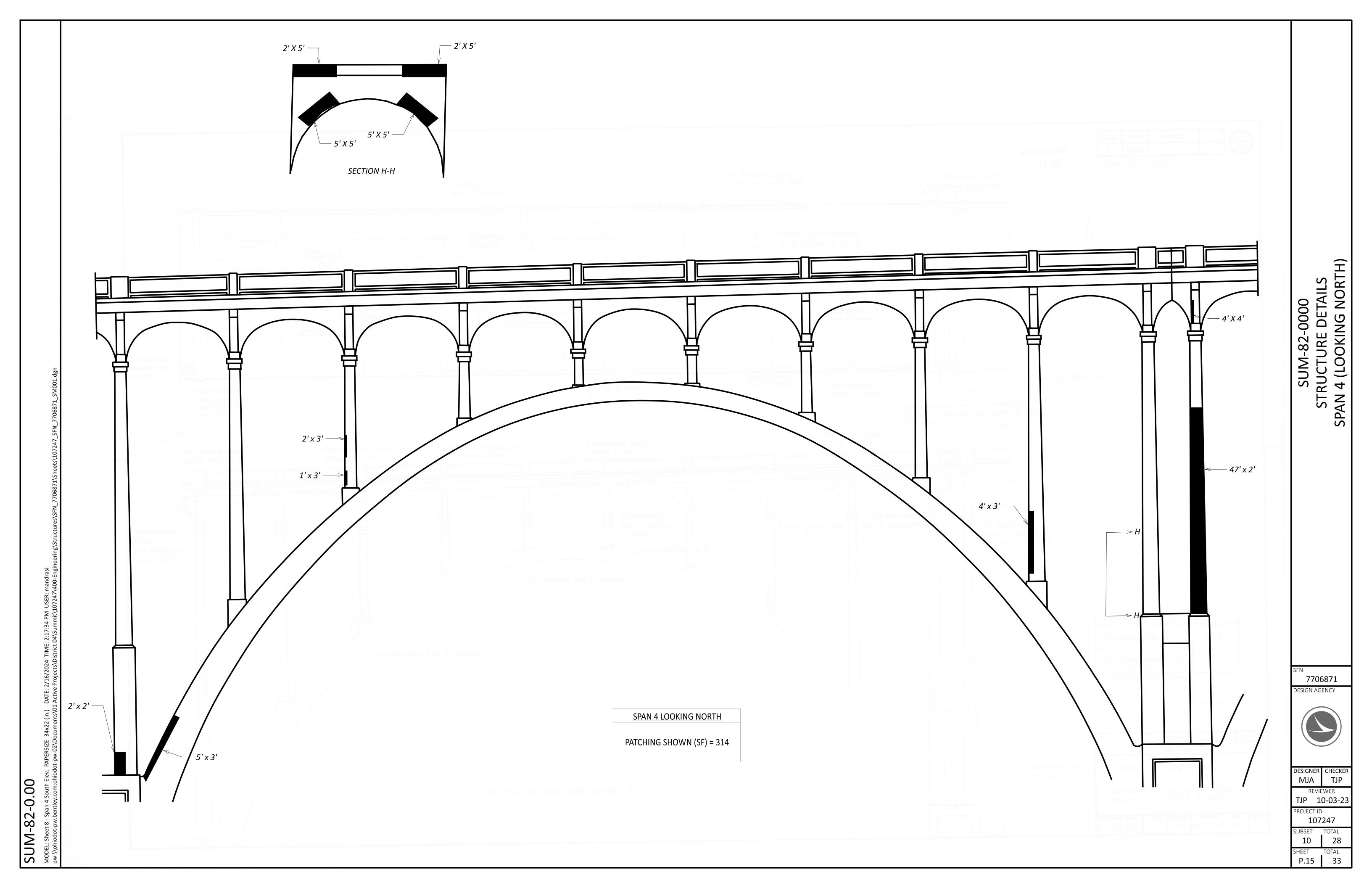


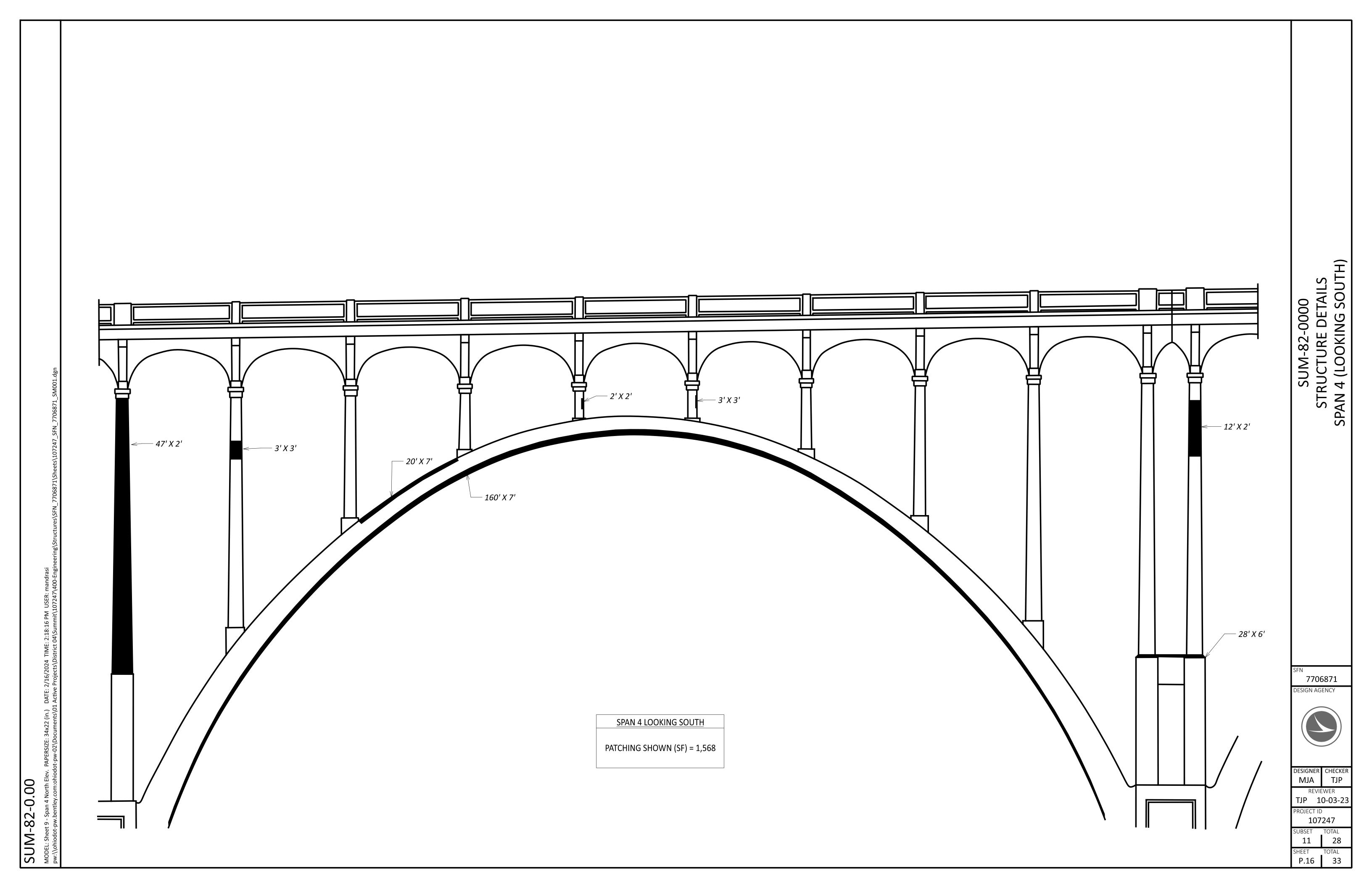


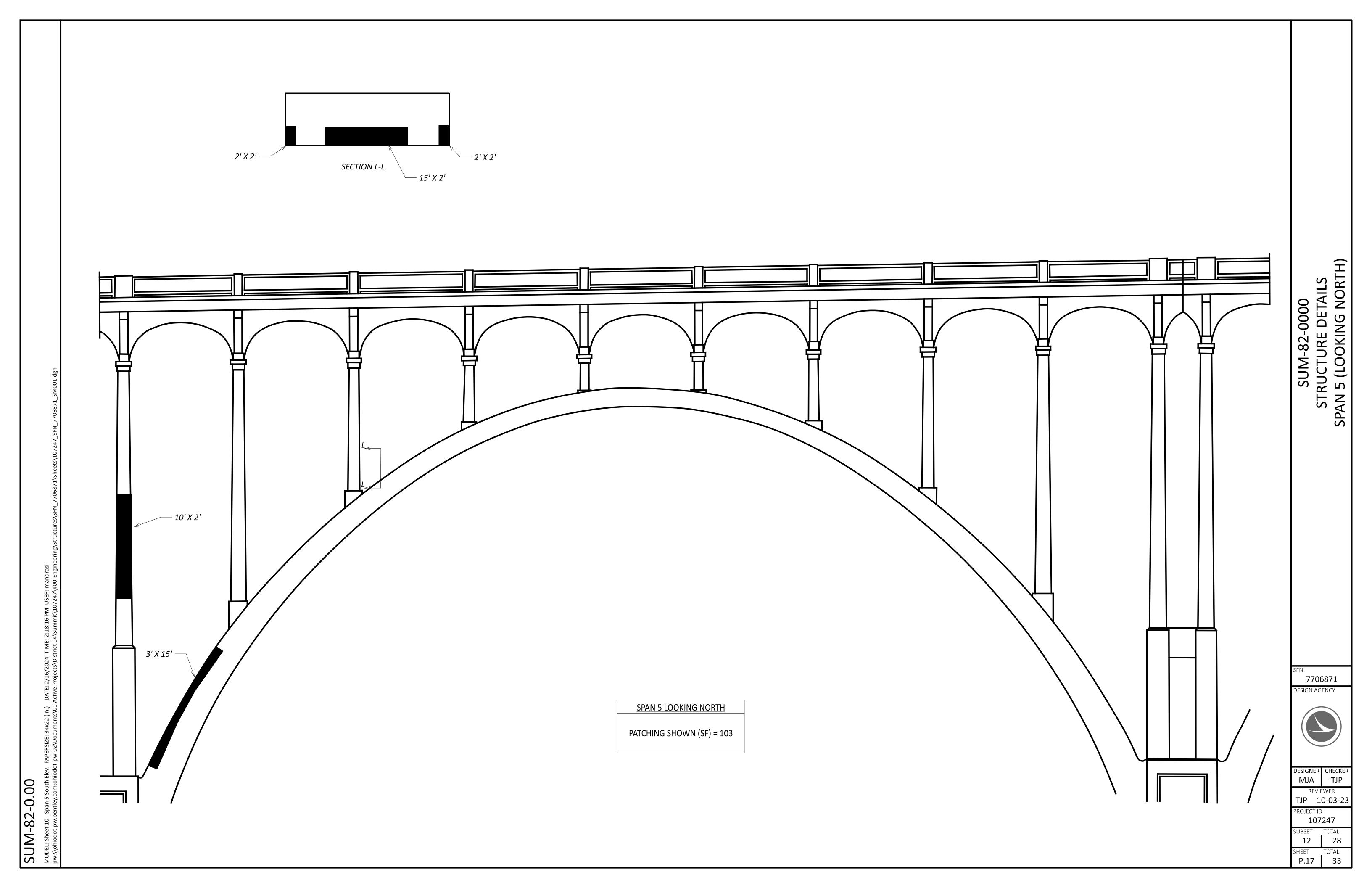


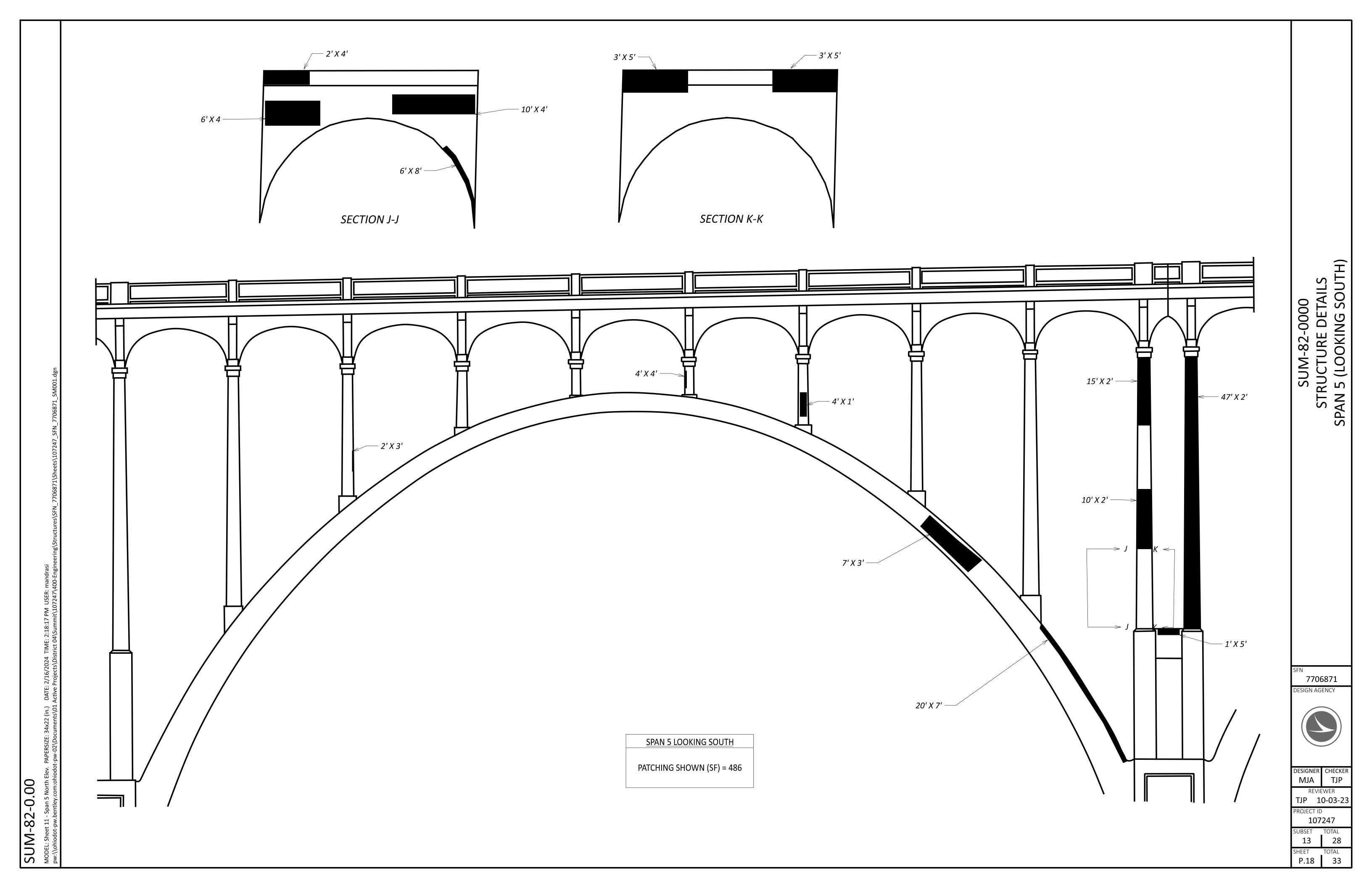


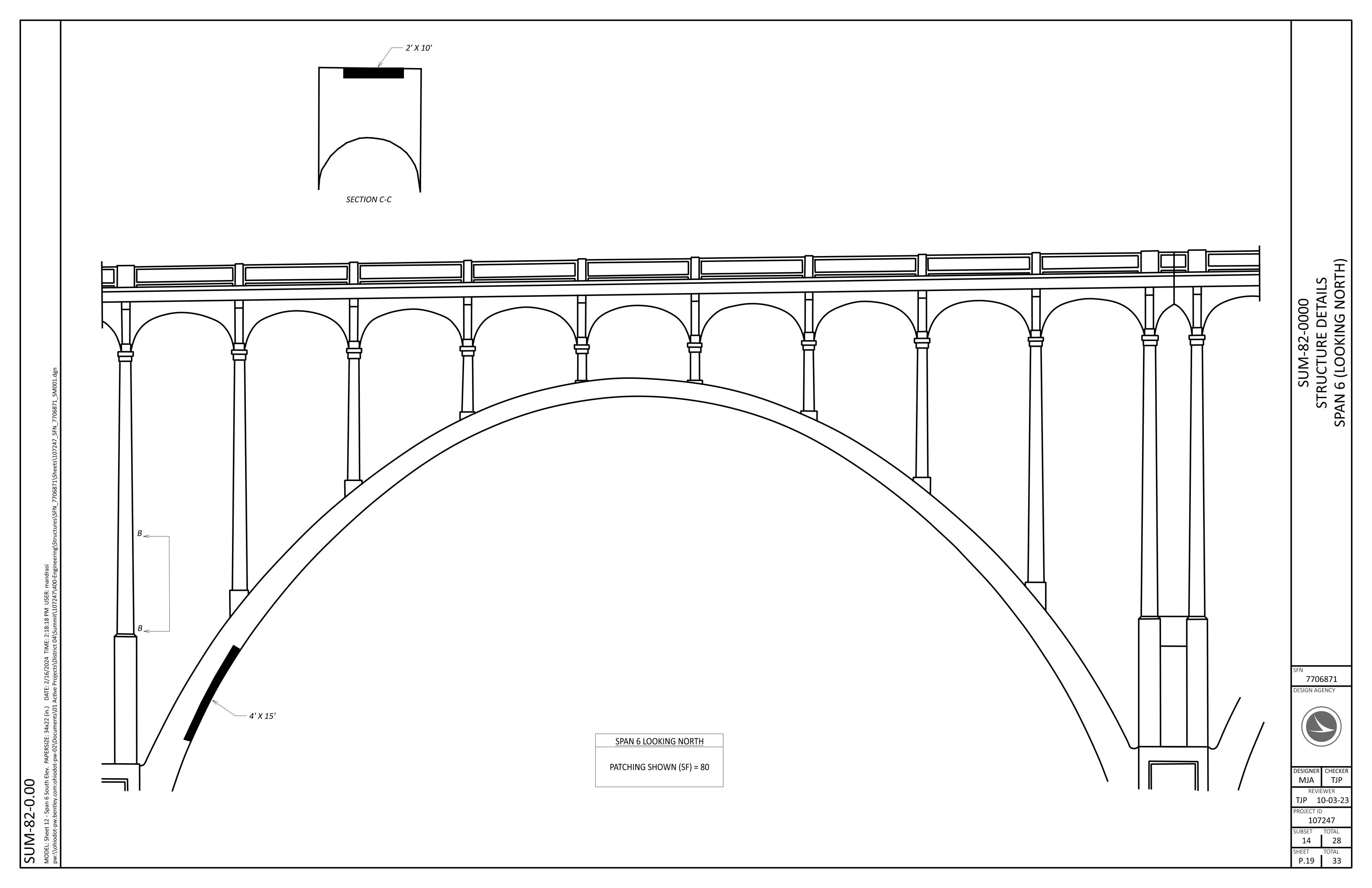


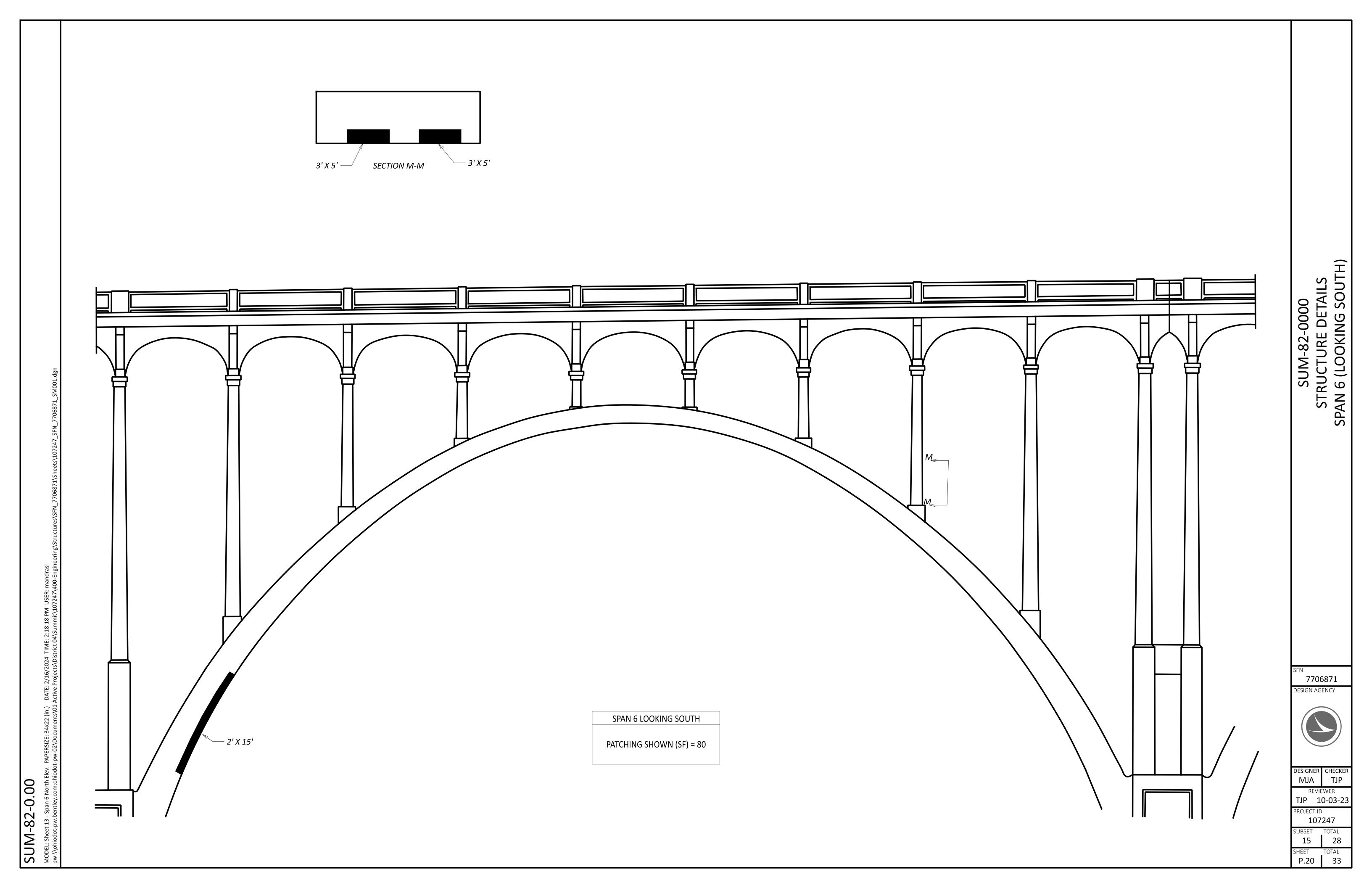












SUM-82-0000 STRUCTURE DETAILS SPAN 7 (LOOKING NORTH)

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SUM-82-0000 STRUCTURE DETAILS SPAN 7 (LOOKING SOUTH)

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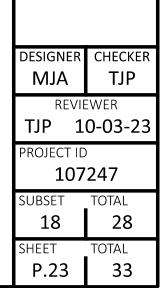
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SUM-82-0000 STRUCTURE DETAILS PIER 1 RIGHT (INSIDE)

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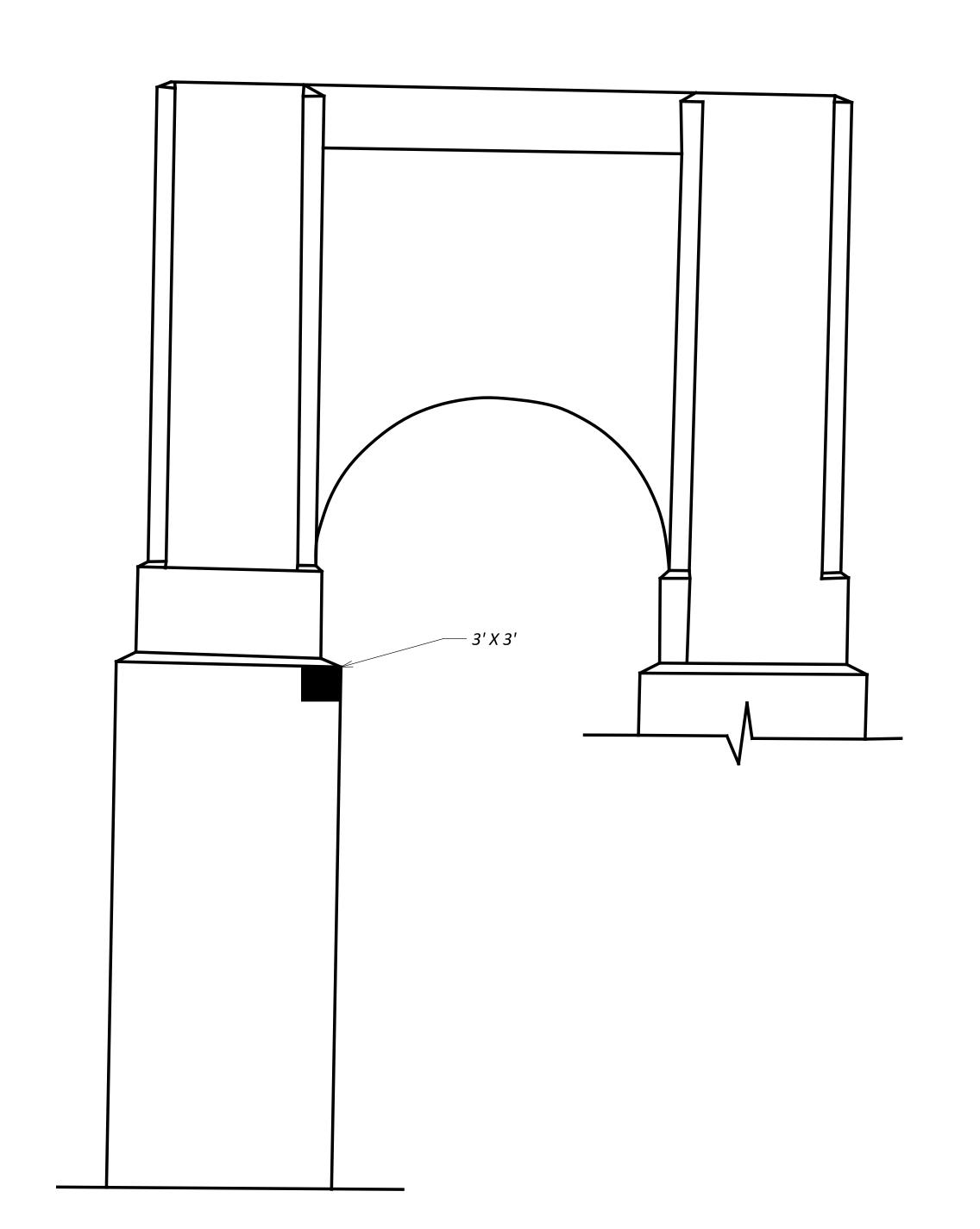


PIER 1 RIGHT (INSIDE)

PATCHING SHOWN (SF) = 24

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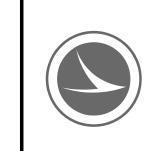


PIER 1 RIGHT (OUTSIDE)

PATCHING SHOWN (SF) = 49

SUM-82-0000 STRUCTURE DETAILS PIER 1 RIGHT (OUTSIDE)

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____ 3' X 8' 3' X 6' -> SUM-82-0.00MODEL: Sheet 17 - Pier 1 Left PAPERSIZE: 34x22 (in.) DATE: 2/16/2024 TIME: 2:18:21 PM USER: mandrasi pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\107247\4C PIER 1 LEFT (INSIDE)

SUM-82-0000 STRUCTURE DETAILS PIER 1 LEFT (INSIDE)

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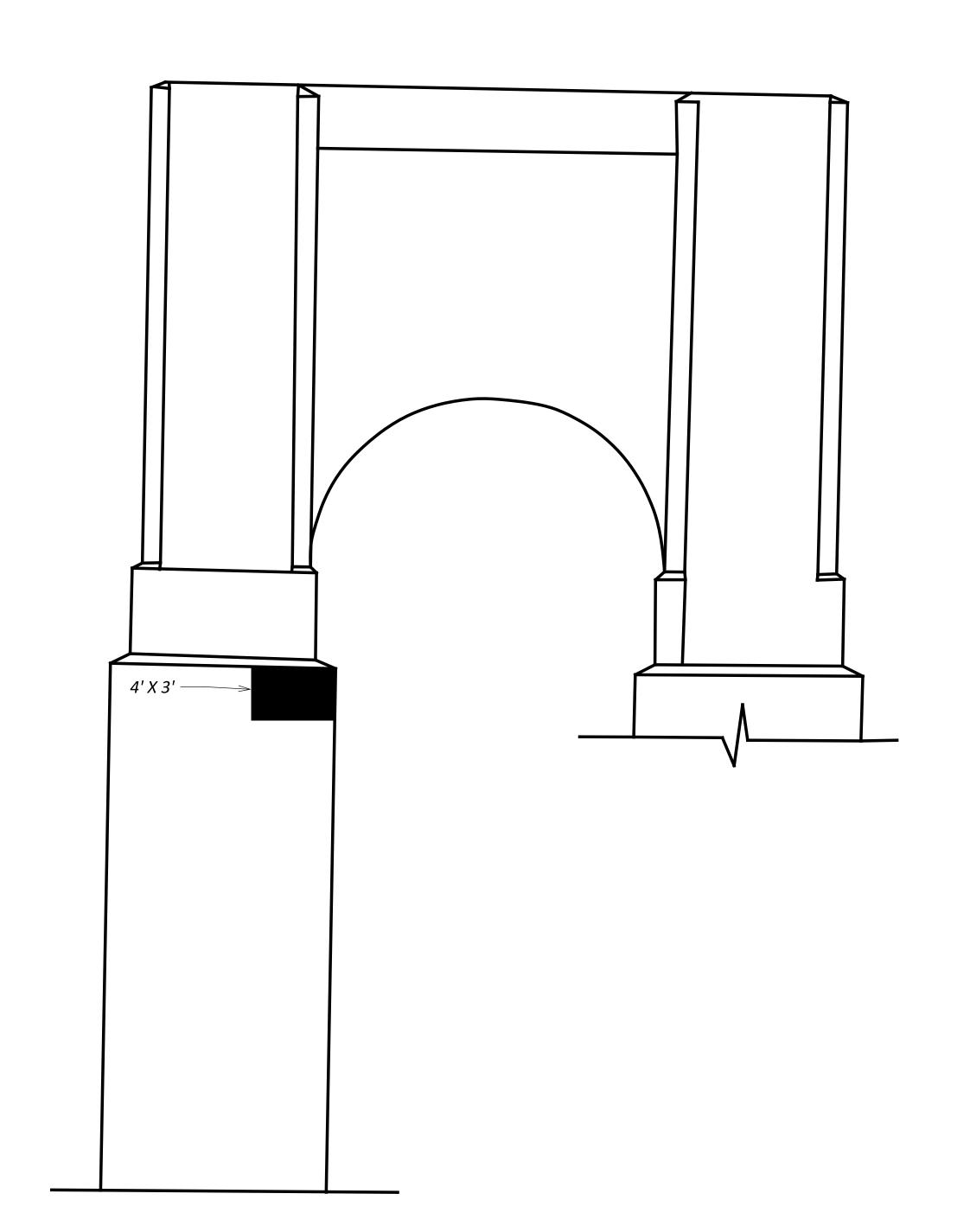
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PATCHING SHOWN (SF) = 72

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PIER 1 LEFT (OUTSIDE)

PATCHING SHOWN (SF) = 18

SUM-82-0000 STRUCTURE DETAILS PIER 1 LEFT (OUTSIDE)

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SHEET	TOTAL
P.26	33

SUM-82-0.00 MODEL: Sheet 18 - Pier 2 Right PAPERSIZE: 34x22 (in.) DATE: 2/16/2024 TIME: 2:18:22 PM USER: mandrasi pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\107247\400

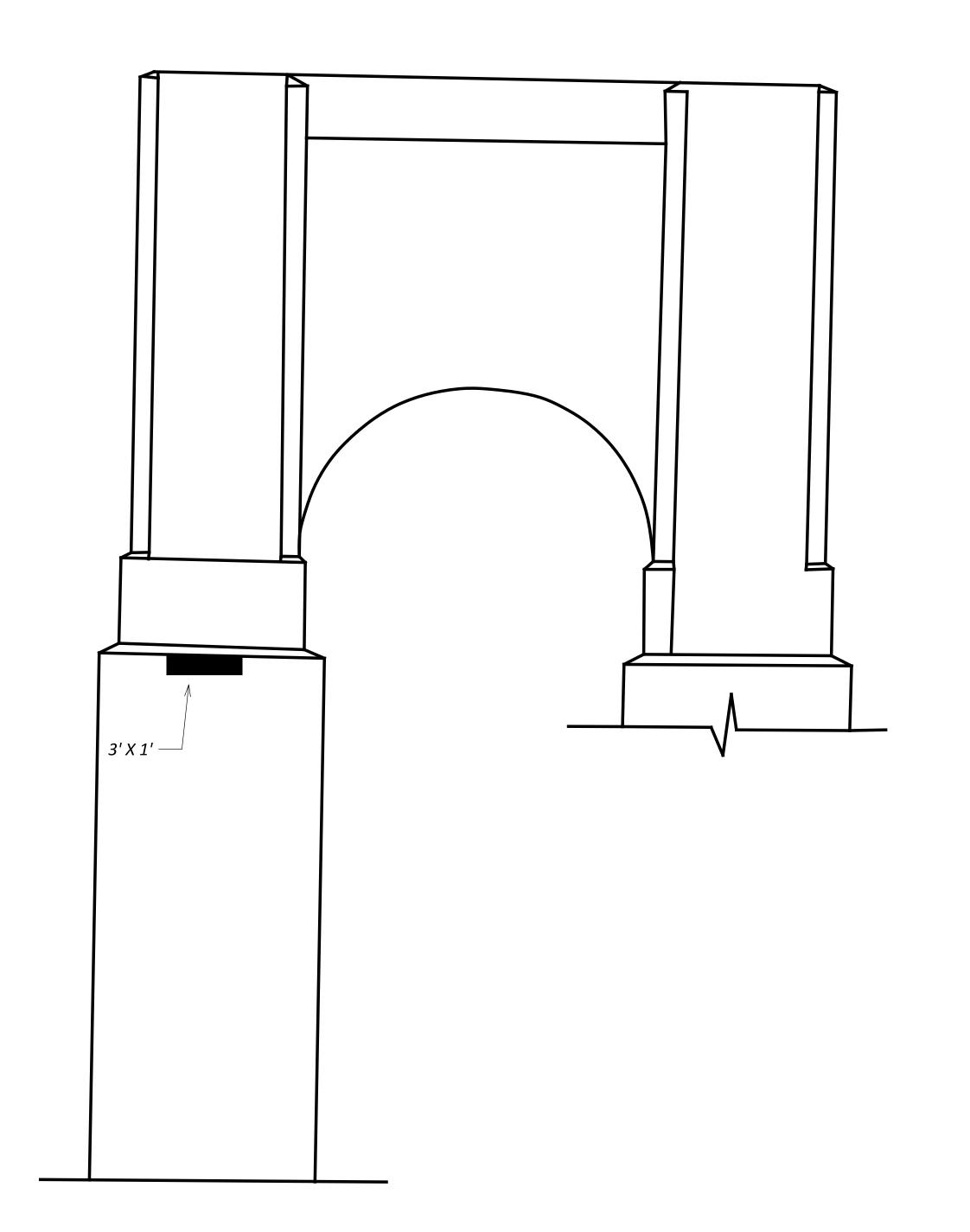
PIER 2 RIGHT (INSIDE)

PATCHING SHOWN (SF) = 21

7706871
DESIGN AGENCY

SUM-82-0000 STRUCTURE DETAILS PIER 2 RIGHT (INSIDE)

DESIGNER	CHECKER
MJA	TJP
REVIE	WER
TJP 1	0-03-23
PROJECT ID)
107	247
SUBSET	TOTAL
22	28
SHEET	TOTAL
P.27	33



PIER 2 RIGHT (OUTSIDE)

PATCHING SHOWN (SF) = 30

SFN 7706871

SUM-82-0000 STRUCTURE DETAILS PIER 2 RIGHT (OUTSIDE)

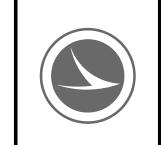


DESIGNER	CHECKER	
MJA	TJP	
REVIĒWER		
TJP 1	0-03-23	
PROJECT ID		
107247		
SUBSET	TOTAL	
23	28	
SHEET	TOTAL	
P.28	33	

3' X 4' ----- 6' X 5' SUM-82-0.00 MODEL: Sheet 19 - Pier 2 Left PAPERSIZE: 34x22 (in.) DATE: 2/16/2024 TIME: 2:18:23 PM USER: mandrasi pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\107247\4C PIER 2 LEFT (INSIDE) PATCHING SHOWN (SF) = 42

SUM-82-0000 STRUCTURE DETAILS PIER 2 LEFT (INSIDE)

7706871



DESIGNER CHECKER
MJA TJP

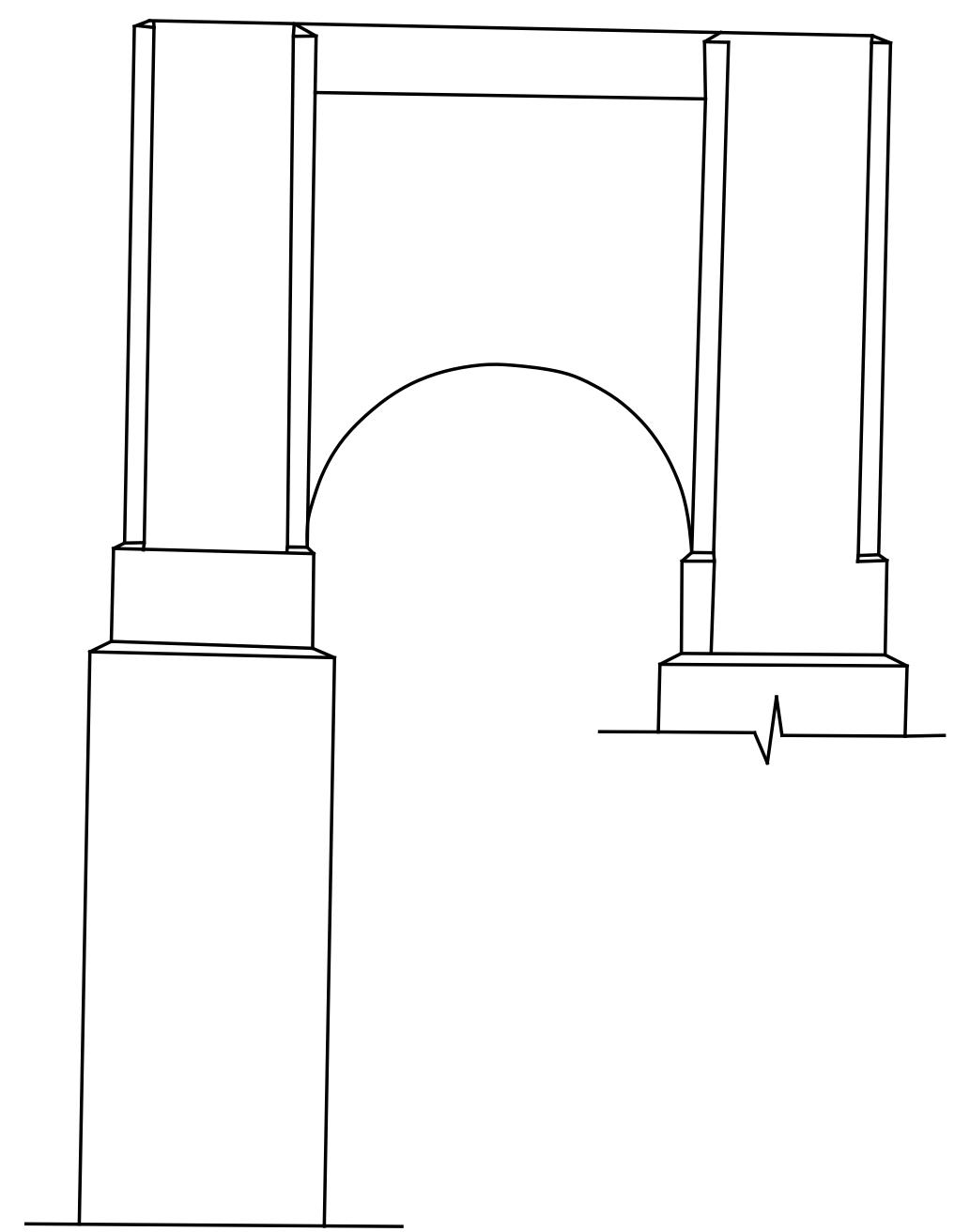
REVIEWER
TJP 10-03-23

PROJECT ID
107247

SUBSET TOTAL
24 28

SHEET TOTAL
P.29 33

— 12' X 4' SUM-82-0.00MODEL: Sheet 19B - Pier 2 Left PAPERSIZE: 34x22 (in.) DATE: 2/16/2024 TIME: 2:18:24 PM USER: mandrasi pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\107247\400 PIER 2 LEFT (OUTSIDE) PATCHING SHOWN (SF) = 48



SUM-82-0000 STRUCTURE DETAILS PIER 2 LEFT (OUTSIDE)

7706871



DESIGNER CHECKER
MJA TJP

REVIEWER
TJP 10-03-23 PROJECT ID **107247** SHEET TOTAL P.30 33

2' X 6' — 15' X 4' — ____ 3' X 6' SUM-82-0.00 MODEL: Sheet 20 - Pier 3 Right PAPERSIZE: 34x22 (in.) DATE: 2/16/2024 TIME: 2:18:24 PM USER: mandrasi pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\107247\400 PIER 3 RIGHT (INSIDE) PATCHING SHOWN (SF) = 60

SUM-82-0000 STRUCTURE DETAILS PIER 3 RIGHT (INSIDE)

7706871



DESIGNER CHECKER
MJA TJP

REVIEWER
TJP 10-03-23

PROJECT ID
107247

SUBSET TOTAL
26 28

SHEET TOTAL
P.31 33

PIER 3 RIGHT (OUTSIDE)

PATCHING SHOWN (SF) = 134

SUM-82-0000 STRUCTURE DETAILS PIER 3 RIGHT (OUTSIDE)

7706871



DESIGNER CHECKER
MJA TJP

REVIEWER
TJP 10-03-23 PROJECT ID 107247 SUBSET TOTAL
27 28

SHEET TOTAL
P.32 33

SUM-82-0.00

MODEL: Sheet 21 - Pier 3 Left PAPE pw:\\ohiodot-pw.bentley.com:ohio

PIER 3 LEFT (INSIDE)

PATCHING SHOWN (SF) = 34

SUM-82-0000 STRUCTURE DETAILS PIER 3 LEFT (INSIDE)

SFN **7706871**



DESIGNER	CHECKER
MJA	TJP
REVIE	WER
TJP 1	0-03-23
PROJECT ID)
107	247
SUBSET	TOTAL
28	28
SHEET	TOTAL
P.33	33