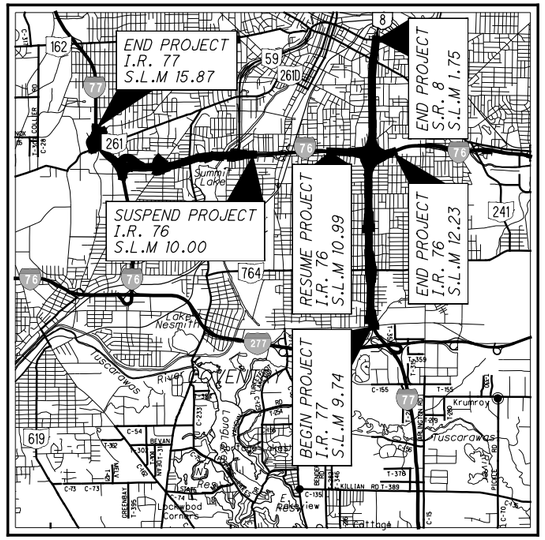
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

SUM-76-8.24
SUM-77-9.74
SUM-8-0.00

SUMMIT COUNTY

CITY OF AKRON



LOCATION MAP

LATITUDE: N 41° 03′ 43″ LONGITUDE: W 81° 30′ 17″

SCALE IN MILES
0 1 2 3 4

N

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

DESIGN DESIGNATION

MAINTENANCE OF TRAFFIC PLANS:
SEE BU-3A, BU-3B & BU-4
ROADWAY PLANS:
SEE BU-31 THRU BU-33 & BU-36

DESIGN EXCEPTIONS

N/A

INDEX OF SHEETS:

PROJECT DESCRIPTION

THE AKRON CENTRAL INTERCHANGE PROJECT (PID 102329) INCLUDES RECONSTRUCTION OF IR-76 EB/WB PAVEMENT FROM SLM 11.05 (IR-76) TO SLM (IR-76) FOR APPROX. 1.16 MILES OF MAINLINE WORK. THIS PROJECT ALSO INCLUDES REPLACEMENT OF TWO FREEWAY STRUCTURES (RAMP N AND RAMP Q) ON NEW ALIGNMENTS, WIDENING OF TWO EXISTING BRIDGES (IR-76 EB OVER BROWN STREET AND IR-76 WB OVER INMAN STREET), CONSTRUCTION OF A NEW PEDESTRIAN/MULTI-USE OVERPASS SPANNING SR-8, AND CONSTRUCTION OF NOISE BARRIERS AT THE PERIMETER OF THE INTERCHANGE. PORTIONS OF SR-9, LANE O AND LANE S ARE TO BE RESURFACED. THE EXISTING IR-76 WB TO INMAN STREET AND IR-77 SB TO LOVERS LANE WILL BE REMOVED PERMANENTLY, AS WELL AS THE EXISTING LAFOLLETTE STREET BRIDGE OVER SR-8 (SUM-77-1184).

BUILDABLE UNIT 16 DESCRIPTION

THIS BUILDABLE UNIT INCLUDES THE REHABILITATION OF SIX STRUCTURES ALONG IR-76 FROM MORSE STREET TO PRINCETON STREET AND TWO STRUCTURES ON IR-77 FROM VERNON ODOM BOULEVARD TO HAWKINS AVENUE.

LIMITED ACCESS

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

2019 SPECIFICATIONS

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

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

ENGINEERS SEAL:
FOR STRUCTURES OVER 20′

STATE OF OHIO
KELLY D. CHRISMAN
68020
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Kelly D. Chrisman
DATE: 6-4-2021

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS
MGS-3.1	1/19/18	
MGS-3.2	1/18/13	
PCB-91	7/17/20	
RM-4.3	7/18/14	
RM-4.5	7/21/17	
TC-41.20	10/18/13	
AS-1-15	7/17/15	
BR-1-13	1/17/14	
EXJ-4-87	1/19/18	
GSD-1-96	7/19/02	
GSD-1-99	1/15/21	
VPF-1-99	7/20/18	
		SPECIAL PROVISIONS

ruhlin S&S SHELLY & SANDS
AKRON BELTWAY JV

BU-16
STRUCTURES

I-76 & I-77
BRIDGE REHABILITATIONS

RELEASED FOR CONSTRUCTION
JUNE 4, 2021

FEDERAL PROJECT NO. E180(428)
PID NO. 102329
CONSTRUCTION PROJECT NO. 21-3000
RAILROAD INVOLVEMENT NONE
SUM-76/77/8-8.24/9.74/0.00
1 / 53

ISSUE RECORD:

NO.	DATE	DESCRIPTION

pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\076_0824L_GT001.dgn Sheet 6/3/2021 2:49:33 PM KChrisman

STRUCTURE GENERAL NOTES

STANDARD DRAWINGS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	7/17/15
BR-1-13	REVISED	1/17/14
EXJ-4-87	REVISED	1/19/18
GSD-1-96	REVISED	7/19/02
GSD-1-99	REVISED	1/15/21
VPF-1-90	REVISED	7/20/18

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.

EXISTING BRIDGE PLANS:

EXISTING AND REHABILITATION BRIDGE PLANS HAVE BEEN PROVIDED BY ODOT DISTRICT 4.

DESIGN DATA:

CONCRETE, CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE, APPROACH SLAB & PARAPET)

CONCRETE, CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60000 PSI, EPOXY COATED

STRUCTURAL STEEL - ALL NEW STEEL, ASTM A709 GRADE 50, MINIMUM YIELD STRENGTH 50000 PSI.

PROPOSED WORK:

SUM-76-0824L (I-76 OVER MORSE ST.)

- REMOVE THE EXISTING ASPHALT FROM THE TOP OF THE REAR APPROACH SLAB.
- MILL AND REMOVE ASPHALT TO A DEPTH OF AT LEAST 1½" BEYOND THE ENDS OF THE APPROACH SLABS FOR A DISTANCE OF 25'.
- PLACE ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M AND ITEM 407 - NON-TRACKING TACK COAT ON THE APPROACH SLABS THE AREA MILLED.
- SEAL BRIDGE DECK WITH GRAVITY FILLED RESIN.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING SEALER (IF PRESENT) FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE ALL DIRT AND DEBRIS FROM THE BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT), AND BRIDGE JOINTS.
- REFURBISH ALL BEARINGS.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING CATHODIC PROTECTION SYSTEM, THIS INCLUDES DISCONNECTING THE POWER SERVICE, REMOVAL OF CABINET, CONDUIT, WIRING ETC.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION.

PROPOSED WORK (CONT'D):

SUM-76-0824UR (RAMP U OVER MORSE ST.)

- REMOVE ASPHALT FROM BRIDGE DECK AND APPROACH SLABS.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- REPAIR THE BOTTOM OF THE DECK AT THE LOCATIONS DETERMINED BY THE PROJECT ENGINEER PER THE BRIDGE DESIGN MANUAL SECTION 403.2.2 WITH COMPOSITE FIBER WRAP SYSTEM OVER SAFETY SENSITIVE AREAS.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING SEALER (IF PRESENT) FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE EXISTING CATHODIC PROTECTION SYSTEM, THIS INCLUDES DISCONNECTING THE POWER SERVICE, REMOVAL OF CABINET, CONDUIT, WIRING ETC.
- REMOVE EXISTING GUARDRAIL (ON BOTH LEFT AND RIGHT OF THE RAMP) AT THE TRAILING END OF THE STRUCTURE AND REPLACE WITH SINGLE SLOPE BARRIER, TYPE D AT THE SAME OFFSET AS THE EXISTING GUARDRAIL.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION.

SUM-76-0831L (I-76 WB OVER 77):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE ALL DIRT AND DEBRIS FROM THE BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT), AND BRIDGE JOINTS.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- PAINT FASCIA BEAMS (EXTERIOR AND BOTTOM FLANGES ONLY) OF THE EXISTING STRUCTURAL STEEL AS PER C&MS 514.
- REFURBISH ALL BEARINGS.
- REPLACE MISSING OR DAMAGED PARAPET EXPANSION PLATES.
- REPLACE FORWARD RIGHT SCUPPER.
- REPAIR THE EROSION AT THE FORWARD RIGHT OF THE STRUCTURE.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION AND AFTER THE COMPLETION OF CONSTRUCTION.

SUM-76-0876 (EAST AVE. OVER I-76):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH NON-EPOXY-URETHANE ON SIDEWALKS AND EPOXY-URETHANE ELSEWHERE AS SHOWN IN THE PLANS.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE SEALER.
- PAINT STRUCTURAL STEEL ACCORDING TO C&MS 514.
- REMOVE ALL DIRT AND DEBRIS FROM THE BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT), AND BRIDGE JOINTS.
- REPAIR PAINT THE EXISTING METAL CURB PLATES AND SIDEWALK JOINT ARMOR AS PER C&MS 514.22.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REFURBISH ALL BEARINGS.
- REMOVE THE EXISTING VANDAL PROTECTION FENCE AND INSTALL NEW VANDAL PROTECTION FENCE AS PER STANDARD DRAWING VPF-1-90 (STRAIGHT FENCE) AND SCOPE ATTACHMENT G.
- INSTALL SCUPPERS IN THE TWO (2) DRILLED HOLES IN THE DECK ON THE LEFT SIDE NEAR THE FORWARD ABUTMENT.
- INSPECT SUBSTRUCTURE, MARK AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION AND AFTER THE COMPLETION OF CONSTRUCTION.

SUM-76-0894 (HILLCREST PEDESTRIAN BRIDGE OVER I-76):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- REMOVE ALL DIRT AND DEBRIS FROM BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT) AND BRIDGE JOINTS.
- PAINT STRUCTURE STEEL ACCORDING TO C&MS 514.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REFURBISH ALL BEARINGS AT THE REAR AND FORWARD ABUTMENTS.
- REMOVE AND REPLACE THE COMPRESSION SEALS AT THE FORWARD AND REAR APPROACHES.
- REMOVE THE EXISTING VANDAL PROTECTION AND INSTALL NEW VANDAL PROTECTION FENCE AS PER STANDARD DRAWING VPF-1-90, FENCE COLOR 27038.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION AND AFTER THE COMPLETION OF CONSTRUCTION.

SUM-76-0994 (PRINCETON ST. OVER I-76):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH NON-EPOXY-URETHANE ON SIDEWALKS AND EPOXY-URETHANE ELSEWHERE AS SHOWN IN THE PLANS.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE ALL DIRT AND DEBRIS FROM BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT) AND BRIDGE JOINTS.
- PAINT STRUCTURE STEEL ACCORDING TO C&MS 514.
- REPAIR PAINT THE EXISTING SIDEWALK JOINT ARMOR AS PER C&MS 514.22.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REMOVE AND REPLACE EXPANSION JOINT STRIP SEALS AT THE FORWARD AND REAR APPROACHES.
- REFURBISH ALL BEARINGS AT THE REAR AND FORWARD ABUTMENTS.
- REMOVE THE EXISTING VANDAL PROTECTION AND INSTALL NEW VANDAL PROTECTION FENCE AS PER STANDARD DRAWING VPF-1-90 AND SCOPE ATTACHMENT H.
- WIDEN THE EXISTING SIDEWALK (TO THE INSIDE) ON BOTH SIDES OF THE STRUCTURE BY 5'-0" AND EXTEND THE WIDENED SIDEWALK TO THE ADJACENT STREET WITH THE SAME CENTERLINE OFFSET (BOTH NORTH AND SOUTH OF THE BRIDGE), INSTALL NEW CURB RAMPS AS PER BP-7.1 MEETING ALL ADA REQUIREMENTS, INCLUDING ALL ITEMS NECESSARY TO COMPLETE THIS WORK.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION AND AFTER THE COMPLETION OF CONSTRUCTION.
- REPLACE THE LUMINAIRE WITH LED LUMINAIRE AND PAINT THE LIGHT POLE USING THE REPAIR PAINTING PROCEDURE ACCORDING C&MS 514.22.

PROPOSED WORK (CONT'D):

SUM-77-1543 (I-77 OVER HAWKINS AVE.):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- REMOVE AND REPLACE THE APPROACH SLABS. THE NEW APPROACH SLABS WILL BE THE FULL WIDTH AND THE SAME LENGTH AS THE EXISTING.
- REMOVE ALL DIRT AND DEBRIS FROM BEAM SEATS, DRAINAGE SYSTEMS (IF PRESENT) AND BRIDGE JOINTS.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REMOVE AND REPLACE THE EXPANSION JOINT STRIP SEAL AT THE FORWARD ABUTMENT, REAR ABUTMENT, AND HINGE POINTS.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION.

SUM-77-1570 (I-77 OVER VERNON ODOM BLVD):

- SEAL BRIDGE DECK WITH GRAVITY FED RESIN.
- REMOVE EXISTING SEALER (IF PRESENT) PER C&MS 512 FROM SUPERSTRUCTURE AND SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE SEALER.
- REMOVE SPALLS AND DELAMINATIONS OVER SAFETY SENSITIVE AREAS (PAVEMENT, SHOULDERS, SIDEWALKS, ETC.) FROM THE FLOOR AND SEAL WITH EPOXY-URETHANE.
- REMOVE AND REPLACE THE APPROACH SLABS. THE NEW APPROACH SLABS WILL BE THE FULL WIDTH AND THE SAME LENGTH AS THE EXISTING.
- INSPECT BRIDGE DECK, MARK THE AREAS TO BE PATCHED AND PERFORM REQUIRED PATCHING.
- REFURBISH ALL BEARINGS AT THE REAR AND FORWARD ABUTMENTS.
- REPLACE THE MISSING CROSS FRAME.
- INSPECT SUBSTRUCTURE AND PERFORM REQUIRED PATCHING.
- REPAIR THE EROSION AT THE FORWARD AND REAR RIGHT OF THE STRUCTURE.
- REMOVE EXISTING STRUCTURE IDENTIFICATION SIGNS (IF PRESENT) AND INSTALL NEW STRUCTURE IDENTIFICATION SIGNS IN THE APPROACH DIRECTION(S).
- PROVIDE VERTICAL CLEARANCE MEASUREMENTS PRIOR TO THE START OF CONSTRUCTION.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\076_0824L_GN001.dgn Sheet 6/3/2021 2:50:17 PM KChrisman

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT			

GENERAL NOTES (1 OF 4)

BRIDGE NO. SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SUM-76-0876, SUM-76-0894, SUM-77-1543, SUM-77-1570

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

ITEM 519-PATCHING CONCRETE STRUCTURES, AS PER PLAN

THIS WORK WILL CONSIST OF INSPECTING AND MARKING OF DETERIORATED CONCRETE AREAS AT THE EXISTING BRIDGE DECK, ABUTMENTS AND PIERS, BY THE CONTRACTOR, TO BE CONFIRMED BY THE ENGINEER IN CHARGE. SPALLS FORMING ARE EVIDENCED BY A VISUAL EDGE. DELAMINATIONS THAT DO NOT HAVE A VISIBLE EDGE WILL BE CONFIRMED AND OUTLINED BY THE ENGINEER IN CHARGE. ALL APPROVED DELINEATED AREAS SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 519 - PATCHING CONCRETE SURFACES & ITEM 519 - PATCHING CONCRETE BRIDGE DECK, TYPE C. REPAIR OF EXISTING CONCRETE WILL BE PAID FOR AT THE UNIT BID PRICE FOR PATCHING CONCRETE STRUCTURES. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

THE FOLLOWING ESTIMATED QUANTITIES WERE PROVIDED BY ODOT AT BID TIME:

ITEM 519, PATCHING CONCRETE STRUCTURES

200 SF - (SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SUM-76-0876, SUM-76-0994, SUM-77-1543, SUM-77-1570)

25 SF - (SUM-76-0894)

ITEM 519, PATCHING CONCRETE BRIDGE DECK, TYPE C

25 SY - (SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SUM-76-0876, SUM-76-0894, SUM-76-0994, SUM-77-1543 & SUM-77-1570)

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AS APPROVED BY THE ENGINEER IN CHARGE.

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE:

BEFORE ANY CONSTRUCTION TAKES PLACE AND AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). FOR THE STRUCTURES WHERE THE PROPOSED WORK WILL NEITHER AFFECT THE POSITION OF THE LOWER CHORD NOR THE ROADWAY SURFACE BELOW, THE VERTICAL CLEARANCE DOES NOT NEED TO BE MEASURED AFTER ALL CONSTRUCTION HAS BEEN COMPLETED. THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT ALL OF THE OVERHEAD STRUCTURES WITHIN THE PROJECT LIMITS.

THE VERTICAL CLEARANCE SHALL BE MEASURED PRIOR TO AND AFTER CONSTRUCTION AT THE FOLLOWING STRUCTURES:

SUM-76-0894	SUM-76-0994
SUM-76-0831L	SUM-76-0876

THE VERTICAL CLEARANCE SHALL BE MEASURED ONLY PRIOR TO CONSTRUCTION AT THE FOLLOWING STRUCTURES:

SUM-76-0824L	SUM-76-0824UR
SUM-77-1543	SUM-77-1570

ITEM SPECIAL: STRUCTURE, MISC.: EROSION REPAIR:

THE CONTRACTOR SHALL REPAIR ERODED AREAS WITHIN THE LIMITS OF THE RIGHT-OF-WAY. THE FOLLOWING ESTIMATED QUANTITIES WERE PROVIDED AT BID TIME:

SUM-76-0831L - 30 CY SUM-77-1570 - 30 CY

THE DEPARTMENT WILL PAY FOR THE EXTENT OF REPAIR AS APPROVED BY THE ENGINEER IN CHARGE.

ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN:

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. THE BEARINGS SHALL BE REFURBISHED AT THE FOLLOWING BRIDGES:

SUM-76-0824L	SUM-76-0984 (ABUTMENTS ONLY)
SUM-76-0831L	SUM-76-0994 (ABUTMENTS ONLY)
SUM-76-0876	SUM-77-1570 (ABUTMENTS ONLY)

STRUCTURE/CULVERT IDENTIFICATION SIGNS:

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

SUM-76-0824L	SUM-76-0894
SUM-76-0824UR	SUM-76-0994
SUM-76-0831L	SUM-77-1543
SUM-76-0876	SUM-77-1570

ITEM 514, FIELD PAINTING, MISC: REPAIR PAINTING:

BRIDGE NO. SUM-76-0876 (EAST AVE.)
BRIDGE NO. SUM-76-0994 (PRINCETON ST.)

PAINTED CURB PLATE AREAS THAT ARE DAMAGED OR RUSTED WILL BE DESIGNATED BY THE PROJECT ENGINEER. THE C&MS 514.22 PROCESS WILL BE USED TO REPAIR THESE AREAS. THE COLOR SHALL MATCH THE EXISTING PAINT SYSTEM.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL NECESSARY EQUIPMENT TO INSPECT THIS WORK.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANITITIES AT THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 514 - FIELD PAINTING, MISC.: REPAIR PAINTING. A CONTINGENCY QUANITY OF 150 SF HAS BEEN ESTIMATED FOR THIS STRUCTURE, TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 514, PAINTING EXISTING STRUCTURAL STEEL, AS PER PLAN:

THIS WORK CONSISTS OF FIELD PAINTING THE EXISTING STRUCTURAL STEEL. THE COATING SHALL BE A THREE-COAT PAINT SYSTEM CONSISTING OF AN ORGANIC ZINC PRIME COAT, AN EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT ACCORDING TO C&MS 514.

ITEM 514, PAINTING EXISTING STRUCTURAL STEEL, AS PER PLAN, (CONTINUED):

THE FOLLOWING BRIDGES REQUIRE FIELD PAINTING:

SUM-76-0831L (EXTERIOR & BOTTOM FLANGE OF FASCIA BEAMS ONLY)
SUM-76-0876
SUM-76-0894
SUM-76-0994

PAINT COLOR WILL BE FEDERAL COLOR NO. 10080.

ITEM 202 - PORTIONS OF STRUCTURED REMOVED, AS PER PLAN:

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

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN:

ALL REQUIREMENTS OF C&MS 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN S1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE IN ACCORDANCE WITH C&MS 501.06, TO THE ENGINEER. PROVIDE THE ENGINEER "ASBUILT" DRAWINGS ACCORDING TO C&MS 513.06, EXCEPT C&MS 501.04 DOES NOT APPLY. UPON RECEIPT OF THE ENGINEER'S ACCEPTANCE, SUPPLY A COPY OF THE DRAWINGS, ACCORDING TO S1002, TO THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM:

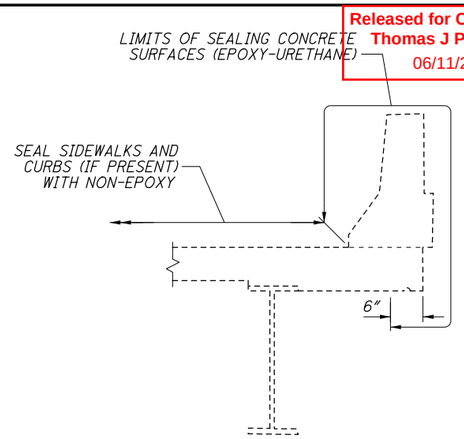
CROSSFRAME (SUM-77-1570)
PARAPET EXPANSION PLATES (SUM-76-0831L)
SIDEWALK JOINT ARMOR (SUM-76-0876, SUM-76-0994)
CURB PLATES (SUM-76-0876)
SCUPPER SUPPORT HARDWARE (SUM-76-0831L)

ITEM SPECIAL - SEALING OF CONCRETE:

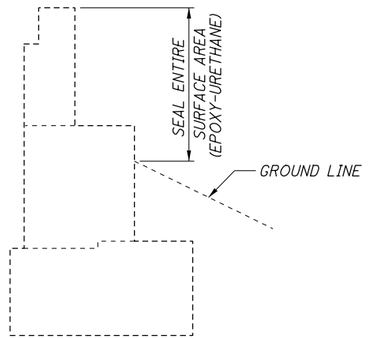
THE CONTRACTOR SHALL REMOVE EXISTING COATINGS AND PREPARE SURFACES TO BE SEALED ACCORDING TO C&MS 512. ALL SUPERSTRUCTURE AND ALL EXPOSED SUBSTRUCTURE (AS SHOWN IN THE DETAILS ON THIS SHEET) EXCEPT TOPS OF PIER CAPS, SHALL BE SEALED WITH AN EPOXY-URETHANE SEALER. APPLY THE EPOXY-URETHANE SEALER TO THE PARAPETS (DETAIL 'A') AND ALL EXPOSED CONCRETE SURFACES AT THE ABUTMENTS (DETAIL 'B') AND PIERS (DETAIL 'C'). THIS WORK WILL BE DONE IN ACCORDANCE WITH ITEM 512 - TREATING CONCRETE OF THE ODOT C&MS.

EPOXY-URETHANE SEALER WILL BE FEDERAL COLOR NO. 13522 AND SHALL BE APPLIED TO THE FOLLOWING BRIDGES:

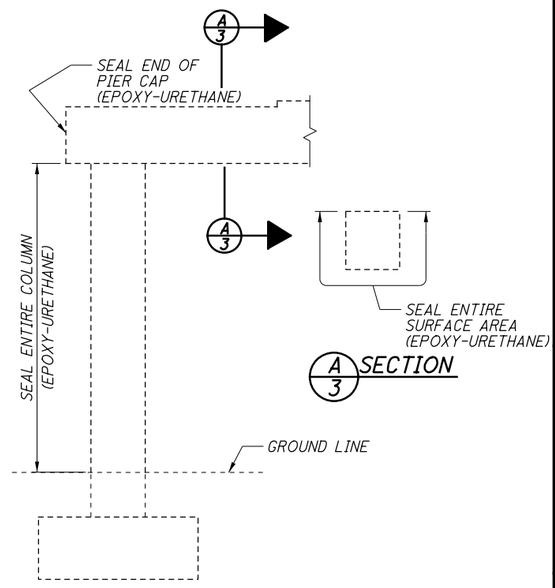
SUM-76-0824L	SUM-76-0894
SUM-76-0824UR	SUM-76-0994
SUM-76-0831L	SUM-77-1543
SUM-76-0876	SUM-77-1570



DETAIL A - SUPERSTRUCTURE SEALING LIMITS



DETAIL B - ABUTMENT SEALING LIMITS



DETAIL C - PIER SEALING LIMITS

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED		STRUCTURE FILE NUMBER
JAT			

GENERAL NOTES (2 OF 4)

BRIDGE NO. SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SUM-76-0876, SUM-76-0894, SUM-76-0994, SUM-77-1543, SUM-77-1570

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

3
53

ISSUE RECORD:

NO.	DATE	DESCRIPTION

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL:

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF VARIOUS STRUCTURES WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL-STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

THE FOLLOWING ESTIMATED QUANTITIES WERE PROVIDED BY ODOT AT BID TIME:

ITEM SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL

SUM-76-0824L	10 SQ YD	SUM-76-0894	10 SQ YD
SUM-76-0824UR	50 SQ YD	SUM-76-0994	10 SQ YD
SUM-76-0831L	10 SQ YD	SUM-77-1543	10 SQ YD
SUM-76-0876	10 SQ YD	SUM-77-1570	10 SQ YD

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), FOR CONCRETE SPALL REMOVAL

SUM-76-0824L	10 SQ YD	SUM-76-0894	10 SQ YD
SUM-76-0824UR	50 SQ YD	SUM-76-0994	10 SQ YD
SUM-76-0831L	10 SQ YD	SUM-77-1543	10 SQ YD
SUM-76-0876	10 SQ YD	SUM-77-1570	10 SQ YD

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITY AS APPROVED BY THE ENGINEER IN CHARGE.

ITEM SPECIAL - REMOVE EXISTING CATHODIC PROTECTION SYSTEM:

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO REMOVE THE EXISTING CATHODIC PROTECTION SYSTEM, INCLUDING DISCONNECTING THE POWER SERVICE, REMOVAL OF CABINET, CONDUIT & WIRING. THE REMOVAL OF OVERHEAD POWER LINES & POLES ARE NOT INCLUDED IN THE SCOPE OF WORK. THE FOLLOWING BRIDGES SHALL HAVE THE CATHODIC PROTECTION REMOVED:

SUM-76-0824L
SUM-76-0824UR

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM:

I. DESCRIPTION:
THIS WORK CONSISTS OF PREPARING EXISTING SOUND CONCRETE SURFACES AND DESIGNING THE SYSTEM TO MEET THE REQUIREMENTS IN THE PLANS, FURNISHING AND INSTALLING FIBER REINFORCED POLYMER (FRP) COMPOSITE WRAP SYSTEMS TO REPAIR OR RETROFIT EXISTING CONCRETE MEMBERS AT THE LOCATIONS SHOWN IN THE PLANS. FIBER MAY BE EITHER CARBON (CFRP) OR E-GLASS (EGFRP).

II. MATERIALS:
FURNISH FRP COMPOSITE WRAP SYSTEMS THAT HAVE BEEN VALUATED BY THE INTERNATIONAL CODE COUNCIL EVALUATION SERVICE (ICC-ES) IN ACCORDANCE WITH AC125 ACCEPTANCE CRITERIA FOR CONCRETE AND REINFORCED AND UNREINFORCED MASONRY STRENGTHENING USING FIBER-REINFORCED,COMPOSITE SYSTEMS. SELECT FROM PRODUCTS LISTED UNDER EVALUATION REPORTS CSI - DIVISION 03 01 00 MAINTENANCE OF CONCRETE, PROVIDED ON THE ICC-ES WEBSITE: WWW.ICC-ES.ORG. ALL SYSTEM COMPONENTS DELIVERED TO THE PROJECT SHALL BE LABELED IN ACCORDANCE WITH THE FRP SYSTEM'S ICC-ES EVALUATION REPORT SECTION 7.0.

III. SUBMITTALS:
PROVIDE THE FOLLOWING INFORMATION TO THE ENGINEER:

A. ENGINEERED DRAWINGS IN ACCORDANCE WITH C&MS 501.05.B. AS A MINIMUM, ACCEPTABLE DRAWINGS SHALL INCLUDE:

1. IDENTIFICATION OF THE FRP SYSTEM USING THE PRODUCT NAMES OF EACH OF THE CONSTITUENT MATERIALS.
2. DESIGN DATA FOR THE FRP SYSTEM INCLUDING: MINIMUM ULTIMATE TENSILE STRENGTH; MINIMUM TENSILE MODULUS AND CORRESPONDING ELONGATION; AND LAYER THICKNESS.
3. GOVERNING SPECIFICATION FOR FRP SYSTEM DESIGN.
4. PLAN, ELEVATION AND CROSS-SECTIONAL VIEWS OF THE CONCRETE MEMBERS AS NECESSARY TO COMPLETELY DESCRIBE THE WORK.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM (CONT.):

5. IDENTIFY ALL OBSTRUCTIONS INCLUDING PIPES, CONDUITS, WIRING, JUNCTION BOXES AND OTHER ITEMS THAT AFFECT THE INSTALLATION OF THE FRP SYSTEM TO ENABLE REMOVAL, RELOCATION AND SUBSEQUENT REINSTALLATION. FOR REINSTALLATION, PROVIDE LOCATIONS OF PENETRATIONS THROUGH THE FINISHED FRP SYSTEM.
6. NUMBER OF LAYERS AND ORIENTATION OF WRAP AT EACH CROSS-SECTION.
7. MINIMUM FABRIC LAP SPLICE DIMENSIONS AND ACCEPTABLE LOCATIONS FOR LAP SPLICES.
8. PROVIDE INSPECTION ACCESS DOCUMENTATION IN ACCORDANCE WITH C&MS 514.10 WHERE APPLICABLE.

B. DOCUMENTATION WITH DELIVERED CONSTITUENT MATERIAL INCLUDING:

1. MATERIAL TECHNICAL DATA SHEETS. INCLUDE PRODUCT STANDARDS, PHYSICAL AND CHEMICAL CHARACTERISTICS, TECHNICAL SPECIFICATIONS, LIMITATIONS, MAINTENANCE INSTRUCTIONS, CLEANING AND SAFETY INFORMATION, AND GENERAL RECOMMENDATIONS REGARDING EACH CONSTITUENT MATERIAL.
2. MATERIAL SAFETY DATA SHEETS. SUBMIT SHEETS FOR ALL COMPONENTS OF THE FRP STRENGTHENING SYSTEM INCLUDING FIBER SHEETS, RESINS AND PROTECTIVE TOP-COATING MATERIALS.
3. CERTIFIED TEST DATA CONFIRMING THE MATERIAL PROPERTIES FOR ALL CONSTITUENT MATERIALS MEET THE SPECIFIED REQUIREMENTS.
4. QUALITY CONTROL PLAN (QCP) ADDRESSING ALL ACTIVITIES AND PROCESSES REQUIRED TO CONTROL THE QUALITY OF THE MATERIALS INCLUDING PROCEDURES FOR TRACKING AND VERIFYING THE QUALITY OF ALL FRP CONSTITUENT MATERIALS.
5. STORAGE AND HANDLING REQUIREMENTS.

C. SURFACE PREPARATION, INSTALLATION AND REPAIR SPECIFICATIONS IN ACCORDANCE WITH THE FRP SYSTEM'S ICC-ES EVALUATION REPORT SECTION 4.2 AND SECTION IV OF THIS SPECIFICATION.

D. DOCUMENTATION FROM THE MANUFACTURER OF THE FRP SYSTEM THAT THE APPLICATORS ARE TRAINED AND CERTIFIED BY THE MANUFACTURER.

IV. INSTALLATION:
VERIFY DIMENSIONS OF CONCRETE MEMBERS TO BE STRENGTHENED WITH EXTERNALLY BONDED FRP REINFORCEMENT. VISUALLY ASSESS THE MEMBER TO BE STRENGTHENED AND ALL SURFACES TO RECEIVE THE FRP SYSTEM FOR CONDITIONS THAT MAY AFFECT THE INSTALLATION. REPORT ALL AREAS EXHIBITING EVIDENCE OF DETERIORATION OR DISTRESS, NOT OTHERWISE IDENTIFIED IN THE PLANS TO BE REPAIRED, TO THE ENGINEER. MAKE ALL SUBSTRATE CONCRETE REPAIRS IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS PRIOR TO INSTALLATION OF THE FRP SYSTEM. PROPERLY CURE ALL CONCRETE REPAIRS PRIOR TO THE INITIATION OF SURFACE PREPARATION OR FRP INSTALLATION.

REMOVE ALL OBSTRUCTIONS INCLUDING PIPES, CONDUITS, WIRING, JUNCTION BOXES AND OTHER ITEMS THAT AFFECT THE INSTALLATION OF THE FRP SYSTEM.

REMOVE PROTRUDING SURFACE IMPERFECTIONS THAT EXCEED 1/32-IN. ROUND ALL OUTSIDE CORNERS AND SHARP EDGES TO BE WRAPPED TO A MINIMUM RADIUS OF 0.5-IN. PREPARE CONCRETE SURFACE TO A SURFACE PROFILE NOT LESS THAN CSP 3, AS DEFINED BY ICRI 310.2R, OR TO THE TOLERANCES RECOMMENDED BY THE FRP SYSTEM MANUFACTURER. CLEAN CONCRETE SURFACES USING METHODS RECOMMENDED BY THE FRP SYSTEM MANUFACTURER TO REMOVE ANY DUST, LAITANCE, GREASE, OIL, CURING COMPOUNDS, WAX, IMPREGNATIONS, STAINS, PAINT COATINGS, SURFACE LUBRICANTS, FOREIGN PARTICLES, WEATHERED LAYERS AND ANY OTHER BOND-INHIBITING MATERIAL.

DO NOT APPLY THE FRP SYSTEM OR ANY OF ITS CONSTITUENT MATERIALS TO FROZEN OR WET SURFACES. DO NOT APPLY FRP MATERIALS IF RAIN, SNOW, OR DEW POINT CONDENSATION IS EXPECTED. ENSURE AMBIENT AND CONCRETE SURFACE TEMPERATURES ARE WITHIN THE RANGE SPECIFIED BY THE MANUFACTURER FOR FRP INSTALLATION.

MIX ALL RESIN CONSTITUENT MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. FOLLOW MANUFACTURER'S INSTRUCTIONS REGARDING MIX RATIO, TEMPERATURE RANGE, PADDLE TYPE, MIX DURATION, ETC.
DO NOT DILUTE ANY RESIN CONSTITUENT MATERIALS WITH ANY ORGANIC SOLVENTS OR THINNERS. DISCARD ANY MIXED RESIN THAT EXCEEDS ITS POT LIFE OR SHOWS SIGNS OF INCREASED VISCOSITY.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM (CONT.):

APPLY PRIMER RESIN ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS SUCH THAT IT PENETRATES THE PORES OF THE SUBSTRATE BUT DOES NOT DRIP OR RUN. FILL ALL BUG HOLES AND SMALL VOIDS AND LEVEL ANY UNEVEN SURFACES WITH THE RESIN PUTTY USING A TROWEL OR PUTTY KNIFE OR OTHER TOOLS RECOMMENDED BY THE MANUFACTURER TO APPLY THE PUTTY. DO NOT APPLY PUTTY TO A PREVIOUSLY APPLIED PRIMER OR PUTTY COAT IF THAT COAT HAS FULLY CURED, UNLESS FIRST PREPARED PER THE MANUFACTURER'S INSTRUCTIONS.

FOLLOW MANUFACTURER'S RECOMMENDED PROCEDURES FOR IMPREGNATING FIBER SHEETS WITH SATURATING RESIN. DO NOT APPLY SATURATING RESIN OR IMPREGNATED FIBER SHEET TO A PREVIOUSLY APPLIED RESIN COAT IF THAT COAT HAS FULLY CURED, UNLESS PREPARED PER THE MANUFACTURER'S INSTRUCTIONS. PLACE FIBER SHEET ONTO SUBSTRATE. ROLL FIBER SHEETS IN THE DIRECTION OF THE FIBERS USING A FIN ROLLER TO REMOVE ANY AIR ENTRAPPED BETWEEN THE FIBER SHEETS AND CONCRETE SURFACE AND TO FULLY IMPREGNATE THE FIBER SHEETS WITH SATURATING RESIN. ACHIEVE FULL CONTACT WITH THE CONCRETE SUBSTRATE DURING ROLLING. DO NOT ROLL UNIDIRECTIONAL FIBER SHEETS IN THE DIRECTION TRANSVERSE TO THE FIBERS TO AVOID DAMAGING THE FIBERS. INSTALL FRP SHEETS WITH THE FIBERS ALIGNED IN THE DIRECTION INDICATED ON THE DRAWINGS ± 5°.

WHEN INSTALLING MULTIPLE FIBER SHEET PLIES, FOLLOW THE MANUFACTURER'S RECOMMENDED PROCEDURES FOR THE ORIENTATION OF THE FIBERS, PLY STACKING SEQUENCE, AND LENGTH. LIMIT THE NUMBER OF PLIES APPLIED IN A SINGLE DAY TO THAT WHICH CAN BE SUPPORTED BY THE PREVIOUSLY APPLIED SYSTEM WITHOUT SLOUGHING OR SLIDING. DO NOT APPLY ADDITIONAL FIBER SHEET PLIES TO PREVIOUSLY CURED PLIES UNLESS FIRST PREPARED PER THE MANUFACTURER'S INSTRUCTIONS.

PROVIDE LAP SPLICES EQUAL TO OR EXCEEDING THE LENGTH RECOMMENDED BY THE MANUFACTURER SUCH THAT THE FULL TENSILE STRENGTH OF THE FIBER SHEET IS ACHIEVED. STAGGER LAP SPLICES FOR MULTIPLE PLIES OR SIDE-BY-SIDE INSTALLATIONS.

DO NOT ALLOW BARE METAL TO COME INTO DIRECT CONTACT WITH THE CARBON FRP SYSTEM. PROTECT METAL HARDWARE FROM GALVANIC CORROSION BY PROVIDING AN INSULATING BARRIER OF ADDITIONAL RESIN OR E-GLASS FRP BETWEEN THE CARBON FRP AND THE METAL.

V. QUALITY CONTROL:
DESIGNATE EXPERIENCED INDIVIDUALS TO ACT AS QUALITY CONTROL SPECIALISTS TO CONTROL THE QUALITY OF WORK IN EACH PHASE. THE DUTIES OF QUALITY CONTROL SPECIALISTS INCLUDE: MATERIAL CONTROL AND DOCUMENTATION, ASSESSMENT OF CONCRETE SUBSTRATE, DAILY CONSTRUCTION DOCUMENTATION, FIELD TESTING, INSPECTING AND REPORTING ALL INFORMATION TO THE ENGINEER.

MATERIAL CONTROL SHALL INCLUDE INSPECTING ALL MANUFACTURER'S CERTIFICATIONS FOR THE DELIVERED AND STORED FRP CONSTITUENT MATERIALS; ENSURING CONSTITUENT MATERIALS ARE DELIVERED IN THE MANUFACTURER'S ORIGINAL, FACTORY-SEALED, UNOPENED CONTAINERS WITH LABEL INTACT IDENTIFYING THE MANUFACTURER, BRAND NAME, SYSTEM COMPONENT NAME AND IDENTIFICATION NUMBER WITH PRODUCTION DATE; ENSURING ALL MATERIALS ARE PROPERLY STORED PRIOR TO USE; ENSURING ALL SAFETY MEASURES ARE FOLLOWED; ENSURING ALL EQUIPMENT FOR FRP WORK IS FUNCTIONING PROPERLY; AND REPORTING ALL DISCREPANCIES TO THE ENGINEER AS SOON AS POSSIBLE.

DAILY CONSTRUCTION DOCUMENTATION SHALL INCLUDE: PHOTO DOCUMENTATION OF PREPARED SURFACES USING ICRI-SURFACE-PROFILE-CHIPS FOR COMPARISON (MINIMUM ONE PHOTO PER 1000 FT); BATCH, LOT NUMBERS AND PLACEMENT LOCATION FOR FABRIC AND EPOXY USED EACH DAY; DATE AND TIME OF INSTALLATION; AMBIENT AND CONCRETE SURFACE TEMPERATURES; RELATIVE HUMIDITY; GENERAL WEATHER CONDITIONS; ADHESION TEST LOCATIONS AND RESULTS; AND LOCATION AND SIZE OF DEFECTS.

PRIOR TO TOP COATING, VISUALLY INSPECT THE INSTALLED FRP SYSTEM FOR FIBER KINKS, WAVINESS AND FIBER ORIENTATION. REPORT UNUSUAL WAVINESS AND ALL KINKS TO THE ENGINEER FOR ACCEPTANCE/REJECTION. REPORT ANY DEVIATION IN THE ALIGNMENT OF THE FIBERS OF MORE THAN 5° (APPROXIMATELY 1 IN/FT.) TO ENGINEER.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM (CONT.):

AFTER WAITING A MINIMUM OF 24 HOURS FOR THE FRP SYSTEM TO INITIALLY CURE AND BEFORE THE APPLICATION OF ANY TOP COATINGS, VISUALLY INSPECT THE INSTALLED FRP SYSTEM FOR DELAMINATION DEFECTS INCLUDING BUBBLES, AIR POCKETS, VOIDS, AND AREAS OF DEBONDING. LIGHTLY TAP THE CURED FRP SYSTEM WITH A HAMMER OR OTHER OBJECT TO VERIFY THE LOCATION AND SIZE OF DEFECTS BY NOTING A 'DEAD' SOUND. DELAMINATIONS LESS THAN 2 IN EACH ARE PERMISSIBLE AS LONG AS THE DELAMINATED AREA IS LESS THAN 5% OF THE TOTAL LAMINATE AREA AND THERE ARE NOT MORE THAN 10 SUCH DELAMINATIONS PER 10 FT . NOTE THE SIZE AND LOCATION OF ALL DELAMINATION DEFECTS AND REPORT TO THE ENGINEER FOR ACCEPTANCE/REJECTION.

THE QUALITY CONTROL SPECIALIST SHALL NOTIFY THE ENGINEER OR INSPECTOR PRIOR TO BEGINNING ALL FIELD TESTING. INSPECT THE BOND BETWEEN THE CURED FRP SYSTEM AND THE CONCRETE SUBSTRATE BY CONDUCTING DIRECT TENSION PULL-OFF TESTS IN ACCORDANCE WITH ASTM D7522. CONDUCT ADHESION TESTING AT A FREQUENCY OF THREE TESTS PER DAY OF INSTALLATION OR ONE TEST PER 1000 FT OF SUBSTRATE CONTACT AREA WHICHEVER RESULTS IN MORE TESTS BEING PERFORMED. THE PULL-OFF STRENGTH SHALL EXCEED 200 PSI AND FAILURE SHALL OCCUR IN THE CONCRETE SUBSTRATE. THE DEPARTMENT WILL CONSIDER THE FRP SYSTEM DEFECTIVE WHERE THE PULL-OFF STRENGTH IS 200 PSI OR LESS OR WHERE FAILURES OCCUR BETWEEN PLIES OR BETWEEN THE CONCRETE SUBSTRATE AND THE FRP SYSTEM, REGARDLESS OF THE STRENGTH. IF ONE OR MORE OF THE PULL-OFF TESTS INDICATES A DEFECT, PERFORM TWO ADDITIONAL TESTS ADJACENT TO THE AREA WHERE PULL-OFF TESTS INDICATED A DEFECT. IF ONE OF THE ADDITIONAL PULL-OFF TESTS INDICATES A DEFECT THE DEPARTMENT WILL CONSIDER THE ENTIRE WRAPPED AREA OF THE MEMBER TO BE DEFECTIVE.

VI. REPAIR OF DEFECTS AND QC TEST SITES:
REPAIR ALL DEFECTS IN A MANNER THAT WILL RESTORE THE FRP COMPOSITE WRAP SYSTEM TO THE ENGINEER'S SATISFACTION IN ACCORDANCE WITH SECTION III.C. OF THIS SPECIFICATION. REPAIR LARGE DELAMINATIONS GREATER THAN 25 IN BY CUTTING AWAY THE AFFECTED FRP SHEET AND APPLYING AN OVERLAPPING FRP SHEET PATCH OF EQUIVALENT PLIES. DELAMINATIONS OF 25 IN OR LESS MAY BE REPAIRED BY INJECTING WITH SATURATING RESIN. IF ANY DELAMINATION GROWTH IS SUSPECTED BETWEEN THE FRP PLIES DUE TO INJECTION, THE PROCEDURE SHALL BE HALTED AND REPORTED TO THE ENGINEER. REPAIR LOCATIONS IN THE FRP SYSTEM WHERE THE BOND TESTS WERE PERFORMED BY LAPPING ADDITIONAL PLIES IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT APPLY ADDITIONAL FIBER SHEET PLIES TO PREVIOUSLY CURED PLIES UNLESS FIRST PREPARED PER THE MANUFACTURER'S INSTRUCTIONS. ALL REPAIRS SHALL BE SUBJECT TO THE SAME APPLICATION, CURING, AND QUALITY CONTROL SPECIFICATIONS AS THE ORIGINAL WORK.

METHOD OF MEASUREMENT:
VII. THE DEPARTMENT WILL MEASURE THE FRP COMPOSITE WRAP SYSTEM BY THE NUMBER OF SQUARE FEET OF CONCRETE SURFACE WRAPPED.

BASIS OF PAYMENT:
VIII. THE DEPARTMENT WILL CONSIDER THE REPAIR OF UNSOUND, CRACKED OR SPALLED CONCRETE SUBSTRATE AS INCIDENTAL TO THIS WORK. THE DEPARTMENT WILL CONSIDER THE COST FOR FILLING SURFACE IRREGULARITIES IN SOUND CONCRETE SUBSTRATE IN ORDER TO PROVIDE A SMOOTH AND CONTINUOUS SURFACE AS INCIDENTAL TO THIS WORK. THE DEPARTMENT WILL CONSIDER THE REMOVAL OF OBSTRUCTIONS AS INCIDENTAL TO THIS WORK. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES OF THE COMPLETED FRP COMPOSITE WRAP SYSTEM INCLUDING PREPARATION OF THE CONCRETE SUBSTRATE SURFACES AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
530E00800	SQUARE YARD	COMPOSITE FIBER WRAP SYSTEM

THE BOTTOM OF THE SUM-76-0824UR BRIDGE DECKS SHALL HAVE A COMPOSITE FIBER WRAP SYSTEM INSTALLED OVER SAFETY SENSITIVE AREAS. THE FOLLOWING ESTIMATED QUANTITIES WERE PROVIDED BY ODOT AT BID TIME:

SUM-76-0824UR 10 SY

VANDAL PROTECTION FENCE INSTALLATION:

VANDAL PROTECTION FENCE WILL BE GALVANIZED AND POWDER COATED FEDERAL COLOR NO. 27038.

THIS WORK WILL BE PERFORMED AT THE FOLLOWING BRIDGE LOCATION:

SUM-76-0876
SUM-76-0894
SUM-76-0994

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT			

GENERAL NOTES (3 OF 4)

BRIDGE NO. SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SUM-76-0876, SUM-76-0894, SUM-76-0994, SUM-77-1543, SUM-77-1570

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

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BRIDGE CLEANING NOTES:

WATER QUALITY PROTECTION:

THIS PROJECT IS SUBJECT TO THE CONDITIONS OF NPDES PERMIT OHZ000001. THE CONTRACTOR MUST SUBMIT A NOTICE OF INTENT AS A CO- PERMITTEE UNDER THIS PROJECT AND RECEIVE OEPA APPROVAL TO OPERATE UNDER THE PERMIT PRIOR TO UNDERTAKING ITEM 530 SPECIAL STRUCTURES MISC.: CLEANING BRIDGES . CONTRACTOR MUST COMPLETE THE " WORK PLAN FOR BRIDGE CLEANING " FOR EACH BRIDGE IN ACCORDANCE WITH THE NPDES PERMIT.

ENVIRONMENTAL COMMITMENTS:

ALL EQUIPMENT AND MATERIALS MUST BE STAGED ABOVE THE ORDINARY HIGH WATER MARK.

NO IN STREAM WORK IS PERMITTED.

NO TEMPORARY FILL IS PERMITTED BELOW THE ORDINARY HIGH WATER MARK.

DEBRIS REMOVAL AND DISPOSAL:

CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF DEBRIS IN ACCORDANCE WITH ALL ENVIRONMENTAL RESTRICTIONS AND PERMITS. DISPOSE ALL THE DEBRIS AS A RESULT OF THE BRIDGE CLEANING OPERATIONS IN ACCORDANCE WITH CMS 105.16. AND OAC 3745-27-05. UNDER NO CIRCUMSTANCES MAY SWEEPINGS BE SWEPT INTO OPEN DECK DRAINS, OVER THE EDGE OF THE BRIDGE. OR THROWN ALONG THE BANKS, OR INTO THE WATER.

ITEM 530 SPECIAL STRUCTURES MISC.: CLEANING BRIDGES

THE WORK SHALL CONSIST OF THE REMOVAL OF DIRT, SAND, SOIL, PAPER, GLASS, CANS, AND OTHER DEBRIS FROM DRAINAGE SYSTEMS, EXPANSION JOINTS, AND ABUTMENT SEATS. EQUIPMENT MAY CONSIST OF HAND TOOLS, MANUAL BROOMS, POWER BROOMS, AIR COMPRESSORS, WATER TANKS, WATER PUMPS WITH ASSOCIATED DELIVERY HARDWARE TO CLEAN, FLUSH, AND REMOVE DIRT AND DEBRIS.

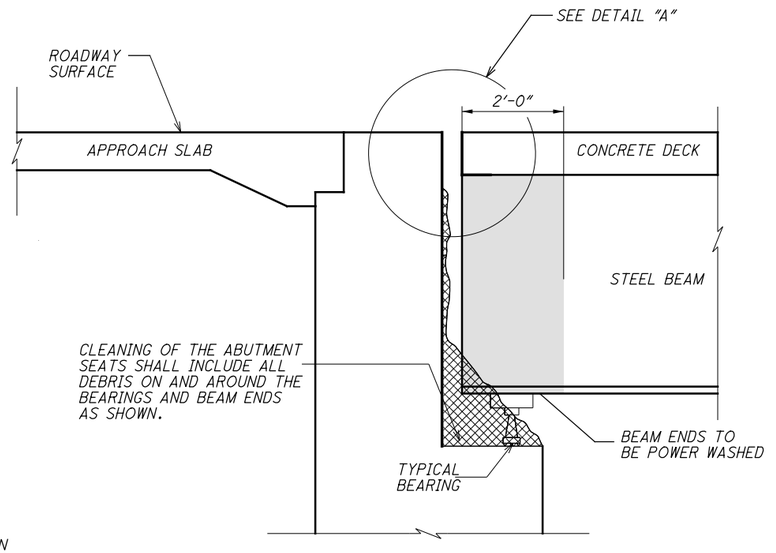
THE CLEANING OF SCUPPERS AND JOINTS SHALL NOT BE PERFORMED PRIOR TO PERFORMING ITEM 530 SPECIAL STRUCTURES MISC.: SWEEPING BRIDGES.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A BRIDGE CLEANING WORK PLAN INDICATING LOCATIONS OF ALL TEMPORARY BMP INSTALLED TO CAPTURE ANY WASH WATER USED IN THE CLEANING PROCESS. THE PLAN SHALL INCLUDE INSPECTION AND DOCUMENTATION OF BMP PERFORMANCE PRIOR TO WORK AND IMMEDIATELY FOLLOWING THE WORK. INTERMEDIATE INSPECTION SHALL BE CONDUCTED EVERY 4 HOUR UNTIL WORK IS COMPLETED.

CONTRACTOR SHALL FURNISH ALL MATERIAL, EQUIPMENT, LABOR AND INCIDENTAL ITEMS NECESSARY TO PROPERLY REMOVE AND DISPOSE OF ALL DEBRIS AND OTHER FOREIGN MATERIAL BY POWER SWEEPING, SHOVELING, SCRAPING, ETC. FOLLOWED BY INSTALLING BMPs AS IDENTIFIED IN THE WORK PLAN FOR BRIDGE CLEANING, AND PRESSURE WASHING THE CURB LINES, SHOULDERS, JOINTS, SCUPPERS, DOWNSPOUTS, AND THE BRIDGE SEAT ALONG WITH THE END OF THE BEAMS.

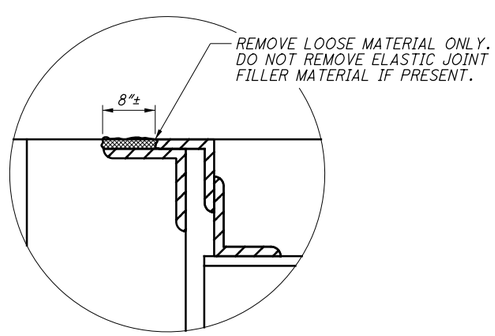
THE FOLLOWING AREAS OF THE BRIDGE ARE TO BE CLEANED:

1. CLEANING JOINTS FOR THE FULL WIDTH OF THE BRIDGE:
   - A) PREVENT ALL DIRT, DEBRIS, AND WASHWATER FROM ENTERING ANY DRAINAGE SYSTEM DURING THE CLEANING OPERATIONS.
   - B) REMOVE AND COLLECT LOOSE DEBRIS FROM THE JOINTS PRIOR TO INTRODUCING WATER. CARE SHOULD BE TAKEN WHEN BREAKING UP DEBRIS IN THE JOINTS IN ORDER NOT TO DAMAGE THE ELASTOMERIC SEAL.
   - C) SWEEP AND COLLECT SAND, DEBRIS AND SEDIMENT BY USE PRESSURE WASHING THE JOINTS OR COMPRESSED AIR.
2. CLEANING SCUPPERS AND DOWNSPOUTS:
   - A) USE SHOVEL, HAND SCRAPERS, AND OTHER HAND TOOLS TO BREAK UP DEBRIS IN SCUPPERS TO THE MAXIMUM EXTENT PRACTICABLE. COLLECT LOOSE AND LARGE DEBRIS FROM THE SCUPPERS PRIOR TO INTRODUCING WATER.
   - B) PRESSURE WASH THE SCUPPERS AND DOWNSPOUTS FOR FINAL CLEANING.
   - C) ALL DIRT OR DEBRIS FROM THE CLEANING OPERATION SHALL BE REMOVED.
3. BRIDGE SEATS:
   - A) REMOVE WITH A SHOVEL, BROOM, HAND SCRAPER OR OTHER MECHANICAL MEANS, ALL GROSS SOLIDS FROM THE ENTIRE BEAM SEATS AND AROUND ALL AREAS SURROUNDING THE BEAM BEARINGS, TO THE MAXIMUM EXTENT PRACTICABLE PRIOR TO INTRODUCING WATERS.
   - B) AFTER REMOVING ALL GROSS SOLIDS PRESSURE WASH THE ABUTMENTS, BACKWALLS, BEAM SEATS AND THE END OF THE BEAMS AS SHOWN ON THE PLANS.



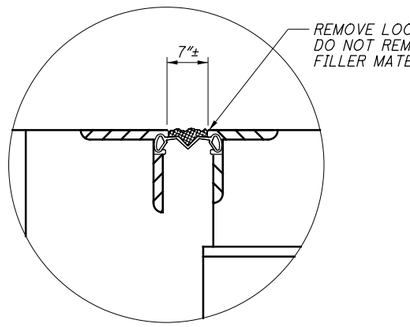
TYPICAL ABUTMENT DETAIL

BACKWALL, ABUTMENT SEAT, BEAM ENDS AND EXPANSION JOINT



DETAIL "A"

(SLIDING PLATE)



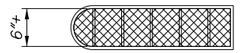
DETAIL "A"

(STRIP SEAL)

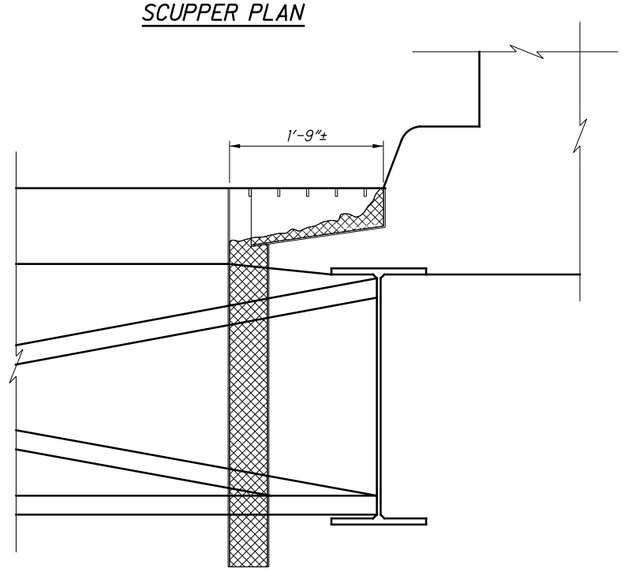
AVOID PUNCTURE OR DAMAGE TO SEAL WHILE CLEANING

LEGEND:

REMOVE DEBRIS AND OTHER FOREIGN MATERIALS, THEN PRESSURE WASH WITH POTABLE WATER AS DESCRIBED IN THE GENERAL NOTES.



SCUPPER PLAN



SCUPPER AND DOWNSPOUTS SIDE VIEW

NOTES:

1. BRIDGE CLEANING TO BE PERFORMED AT THE FOLLOWING BRIDGES:

SUM-76-0824L
SUM-76-0831L
SUM-76-0876
SUM-76-0894
SUM-76-0994
SUM-77-1543

ISSUE RECORD:

NO.	DATE	DESCRIPTION

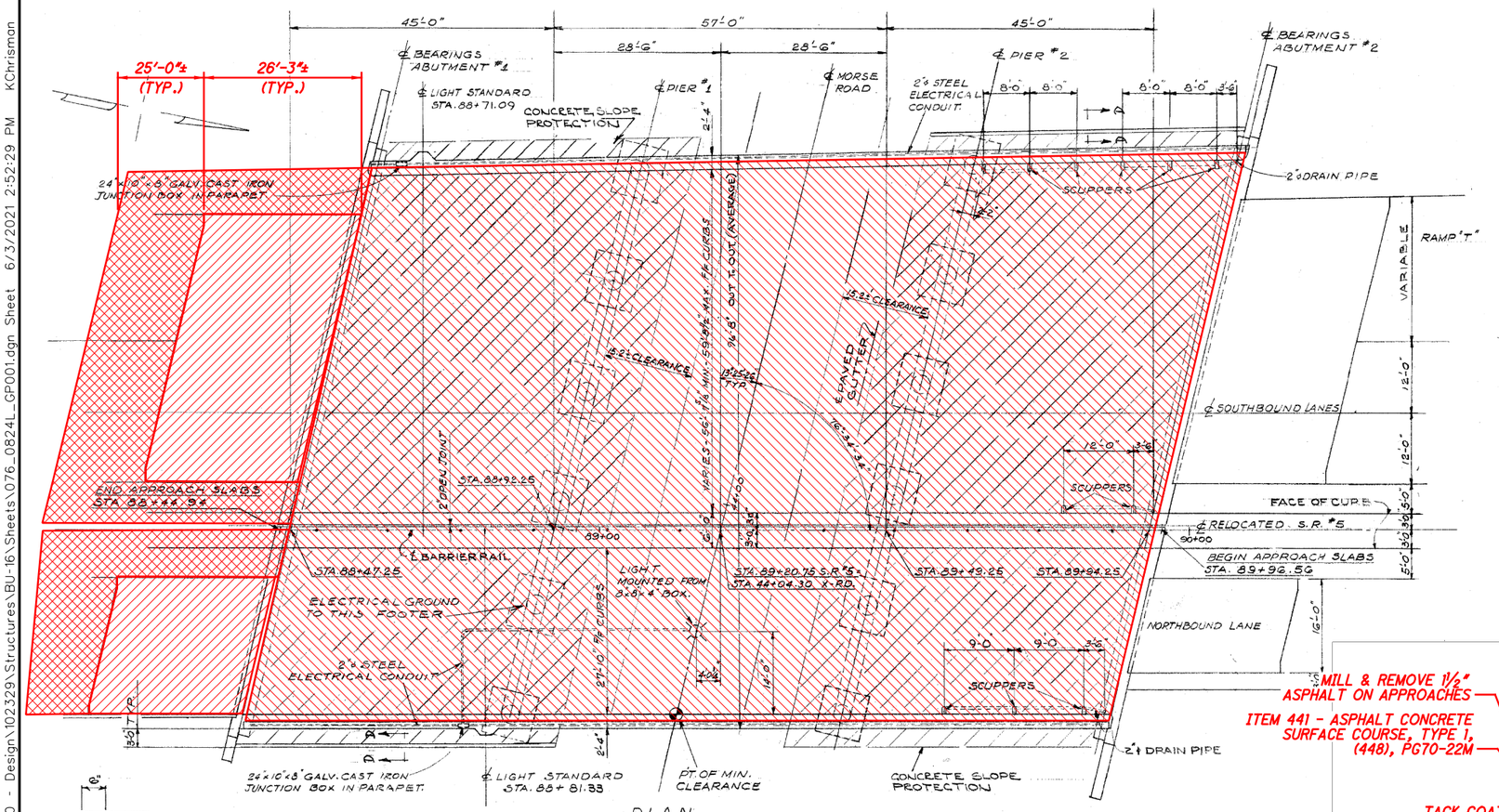
DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT			

GENERAL NOTES (4 OF 4)

BRIDGE NO. SUM-76-0824L, SUM-76-0824UR, SUM-76-0831L, SU
SUM-76-0894, SUM-76-0994, SUM-77-1543, SUM-77-15

SUM-76/77/8-
8.24/11.54/0.00
PID No. 102329



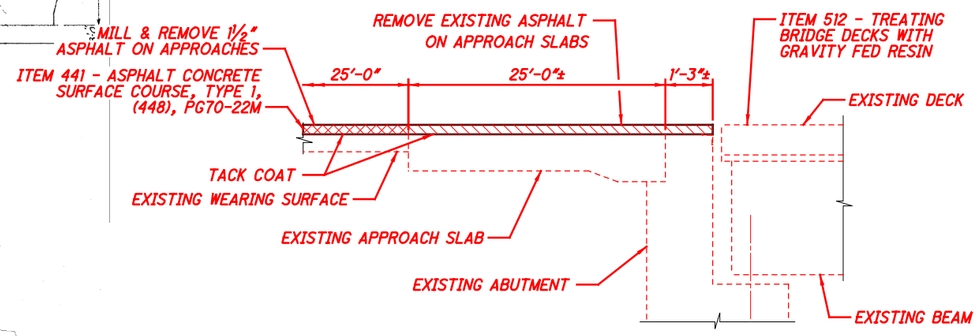
SHOP PAINTING STEEL THE SURFACE PREPARATION OF ALL STEEL REQUIRING SHOP PAINTING AS PER THE PLANS AND SPECIFICATIONS, SHALL BE ACCOMPLISHED BY BLAST CLEANING OR POWER TOOL CLEANING, EXCEPT AS NOTED IN THE SPECIFICATIONS REGARDING THE USE OF CHROMATE PRIMERS

SHEET LEAD SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION B 29 WITHOUT RESTRICTION TO THE COMMON DESILVERIZED TYPE.

MACHINE FINISH THE CONCRETE BRIDGE DECK SHALL BE FINISHED BY THE USE OF A FINISHING MACHINE AT THE OPTION OF THE CONTRACTOR.

LEGEND:

- LIMITS OF WEARING COURSE REMOVAL ON APPROACH SLAB
- LIMITS OF MILLING AND OVERLAY ON APPROACHES
- LIMITS OF GRAVITY FED RESIN



LIMITS OF ASPHALT REMOVAL & REPLACEMENT

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 2/2.
3. FOR RESURFACING DETAILS NORTH OF THE BRIDGE LIMITS, SEE BU-31.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 45'-0"±, 57'-0"±, 45'-0"± C/C BEARINGS

ROADWAY: VARIES (RAMP T TAPERS)

LOADING: CF 2000(57) ADEQUATE FOR AASHTO ALT. LOADING

WEARING SURFACE: 1"± MONOLITHIC

SKEW: 13°25'26"± LEFT FORWARD

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

ALIGNMENT: STRAIGHT

SUPERELEVATION: NONE

COORDINATES: LATITUDE 41°03'31"± N
LONGITUDE 81°34'4"± W

DESCRIPTION

ISSUE RECORD:

NO.	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7705859	

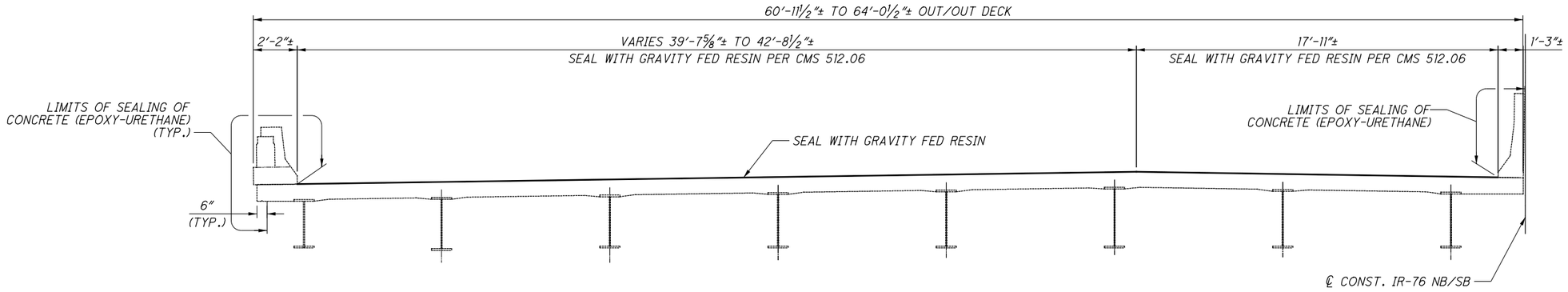
SUMMIT COUNTY
STA. 88+44.94±
STA. 89+96.56±

GENERAL PLAN
BRIDGE NO. SUM-76-0824L
I-76 OVER MORSE STREET

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

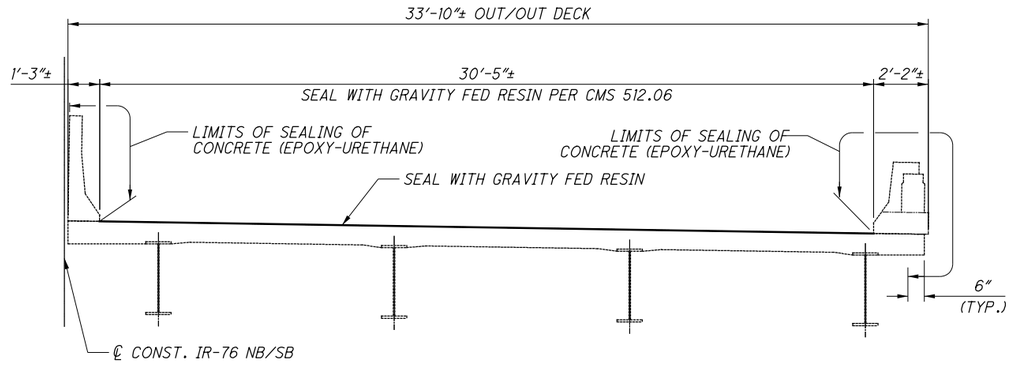
1 / 2

6
53



TRANSVERSE SECTION (SOUTHBOUND)

LIMITS OF GRAVITY FED RESIN FROM 88+43.49± TO 89+95.31±



TRANSVERSE SECTION (NORTHBOUND)

LIMITS OF GRAVITY FED RESIN FROM 88+43.49± TO 89+95.31±

NOTE:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

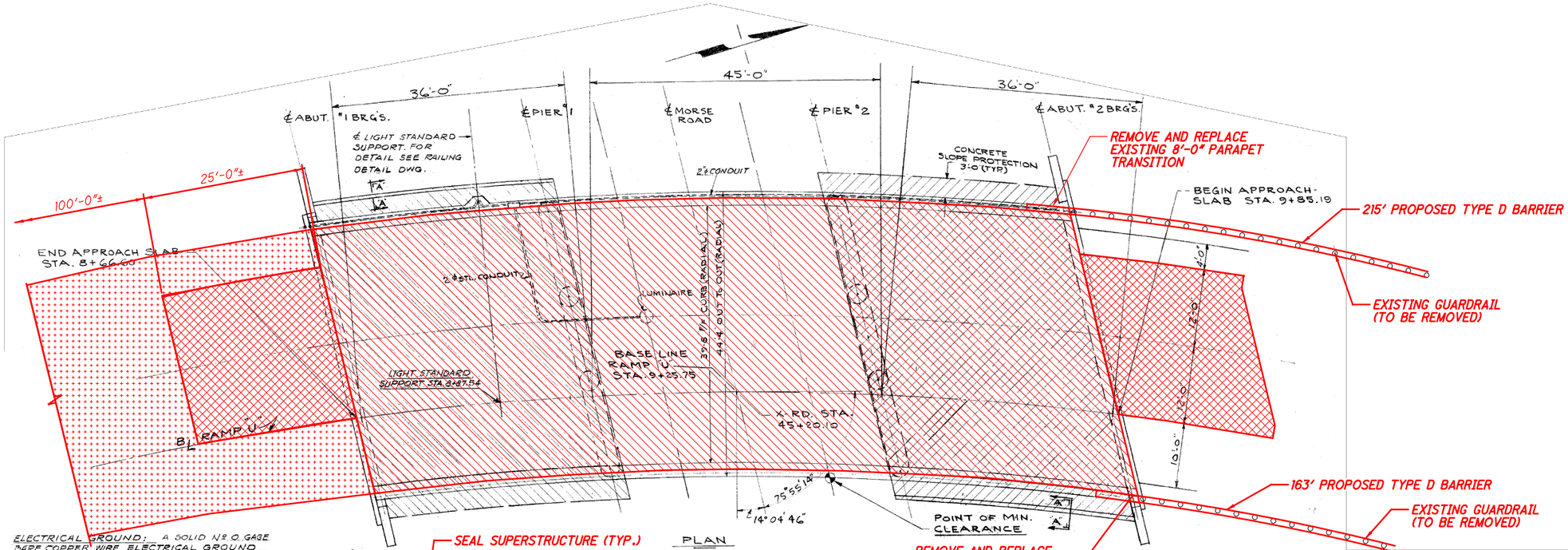
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7705859	

BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0824L
I-76 OVER MORSE ST.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

2 / 2

7 / 53



ELECTRICAL GROUND: A SOLID No 0 GAGE BARE COPPER WIRE ELECTRICAL GROUND SHALL BE EMBEDDED AT THE WEST END OF ABUTMENT No 1. THE LOWER END OF THE WIRE SHALL BE BRAZED TO THE STEEL BEARING PILE, THE UPPER END SHALL EXTEND SUFFICIENTLY ABOVE THE TOP OF THE ABUTMENT TO PROVIDE FOR A SUITABLE SPLICE AND EXTENSION FOR CONNECTION TO THE CONDUIT. THE CONNECTION TO THE CONDUIT, AND BETWEEN THE CONDUIT AND A LIGHT-STANDARD ANCHOR BOLT SHALL BE A No 6 GAGE, BARE STRANDED, TINNED COPPER WIRE BRAZED AT BOTH ENDS.

LIGHTING DETAILS: ARE SHOWN ON SHEET "219

MACHINE FINISH: THE CONCRETE BRIDGE DECK SHALL BE FINISHED BY THE USE OF A FINISHING MACHINE

LEGEND:

- LIMITS OF WEARING COURSE REMOVAL ON BRIDGE DECK
- LIMITS OF WEARING COURSE REMOVAL ON APPROACH SLAB
- REMOVE & REPLACE PARAPET TRANSITIONS
- LIMITS OF MILLING AND OVERLAY ON APPROACHES

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR PARAPET TRANSITION DETAILS, SEE SHEET 4/4.
3. FOR PARAPET REMOVAL DETAILS, SEE SHEET 2/4.
4. FOR PARAPET & RESURFACING DETAILS NORTH OF THE BRIDGE LIMITS, SEE BU-31.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 36'-0"±, 45'-0"±, 36'-0"± C/C BEARINGS

ROADWAY: 42'-0"± F/F PARAPETS

LOADING: CF 2000(57) ADEQUATE FOR AASHTO ALT. LOADING

WEARING SURFACE: 1"± MONOLITHIC

SKEW: 14°04'46"± RIGHT FORWARD

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

ALIGNMENT: 11°00'± CURVE RIGHT

SUPERELEVATION: VARIES

COORDINATES: LATITUDE 41°03'31"± N
LONGITUDE 81°34'3"± W

ISSUE RECORD:

NO.	DESCRIPTION	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7705883	

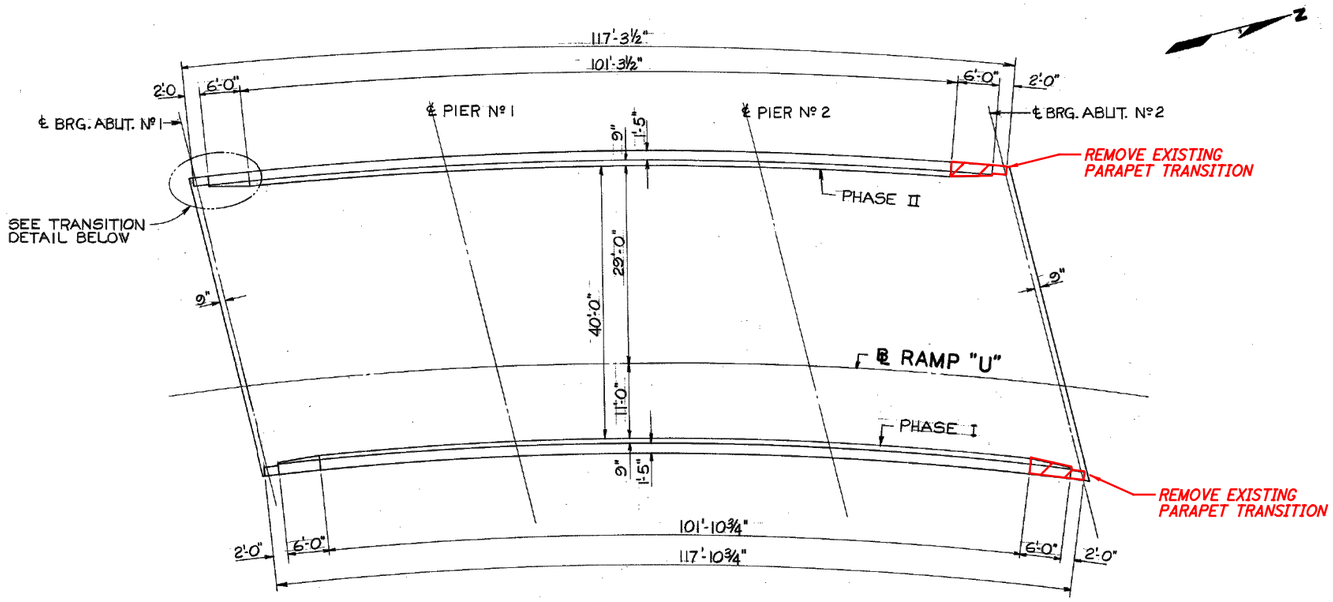
SUMMIT COUNTY
STA. 8+66.60±
STA. 9+85.19±

GENERAL PLAN
BRIDGE NO. SUM-76-0824UR
RAMP U OVER MORSE STREET

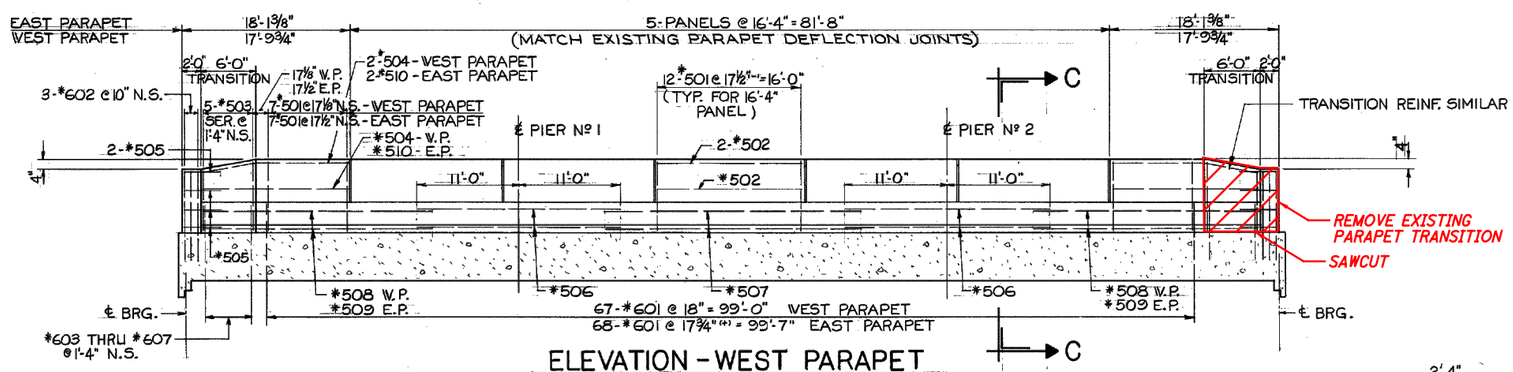
SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

1 / 4

8 / 53

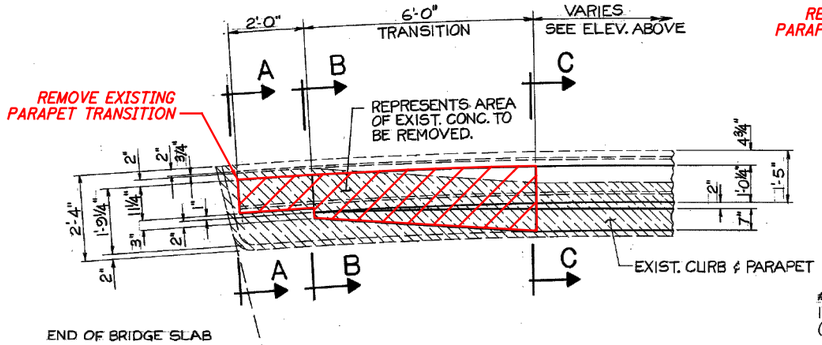


PLAN - RAMP "U" OVER MORSE ROAD

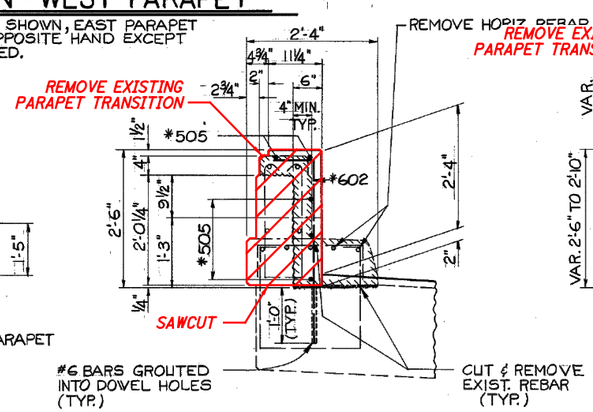


ELEVATION - WEST PARAPET

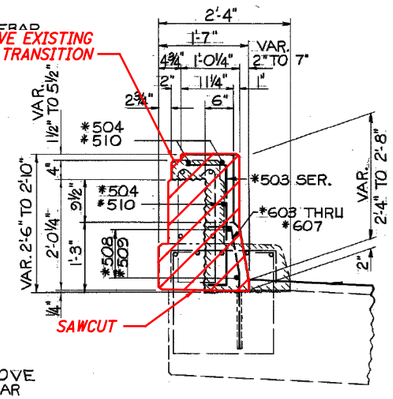
NOTE: WEST PARAPET SHOWN, EAST PARAPET SIMILAR BUT OPPOSITE HAND EXCEPT WHERE AS NOTED.



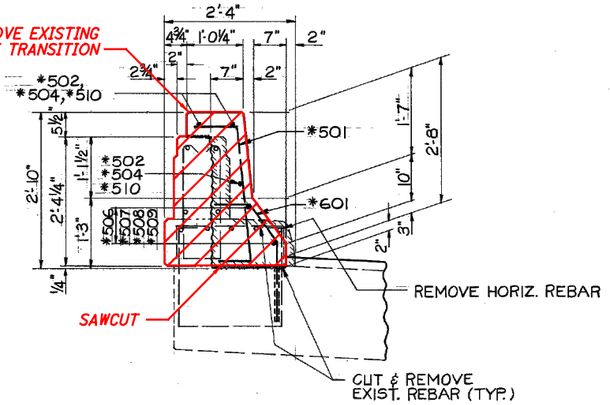
PLAN - PARAPET TRANSITION DETAIL



SECTION A-A



SECTION B-B



SECTION C-C

1. THE PREFIX "1S" SHALL BE ADDED TO ALL PHASE I PARAPET REINFORCING MARKS AND THE PREFIX "2S" SHALL BE ADDED TO ALL PHASE 2 PARAPET REINFORCING MARKS. FOR REINFORCING SCHEDULE, SEE SHEET 47/50. FOR REINFORCING NOTES, SEE SHEET 13/50.
2. REINFORCING STEEL SHOWN THUS (*) TO BE EPOXY COATED.
3. FOR ADDITIONAL DETAILS AND NOTES, SEE STD. DRAWING BR-1.
4. HOLES FOR SPLICE BOLTS ATTACHING GUARDRAIL TO THE TERMINAL CONNECTOR AT ENDS OF PARAPETS SHALL BE SLOTTED 29/32"X3" AND ALL BOLTS SHALL BE TIGHTENED AS SPECIFIED FOR EXPANSION JOINTS AS PER CMS 606.05 TO ALLOW FOR BRIDGE MOVEMENT.

LEGEND:

▨ - LIMITS OF REMOVAL

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTE:

1. FOR PARAPET DETAILS, SEE SHEET 4/4.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED		STRUCTURE FILE NUMBER
JAT			

REMOVAL DETAILS
BRIDGE NO. SUM-76-0824UR
RAMP U OVER MORSE ROAD

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

2 / 4

9 / 53

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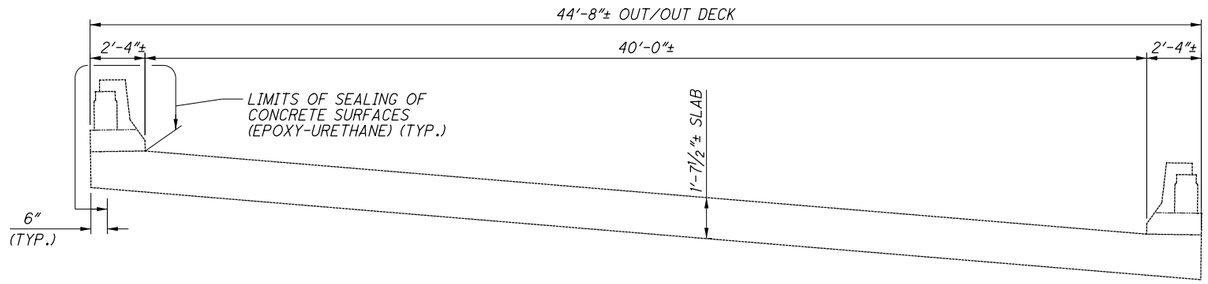


TRANSVERSE SECTION

NOTE:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

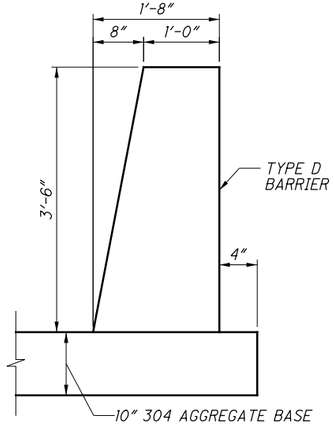
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7705883	

BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0824UR
RAMP U OVER MORSE RD.

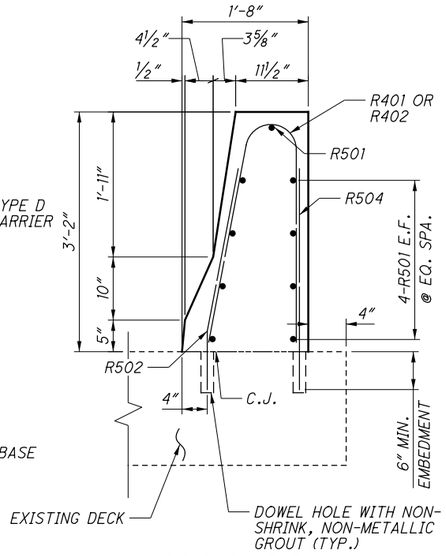
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

3 / 4

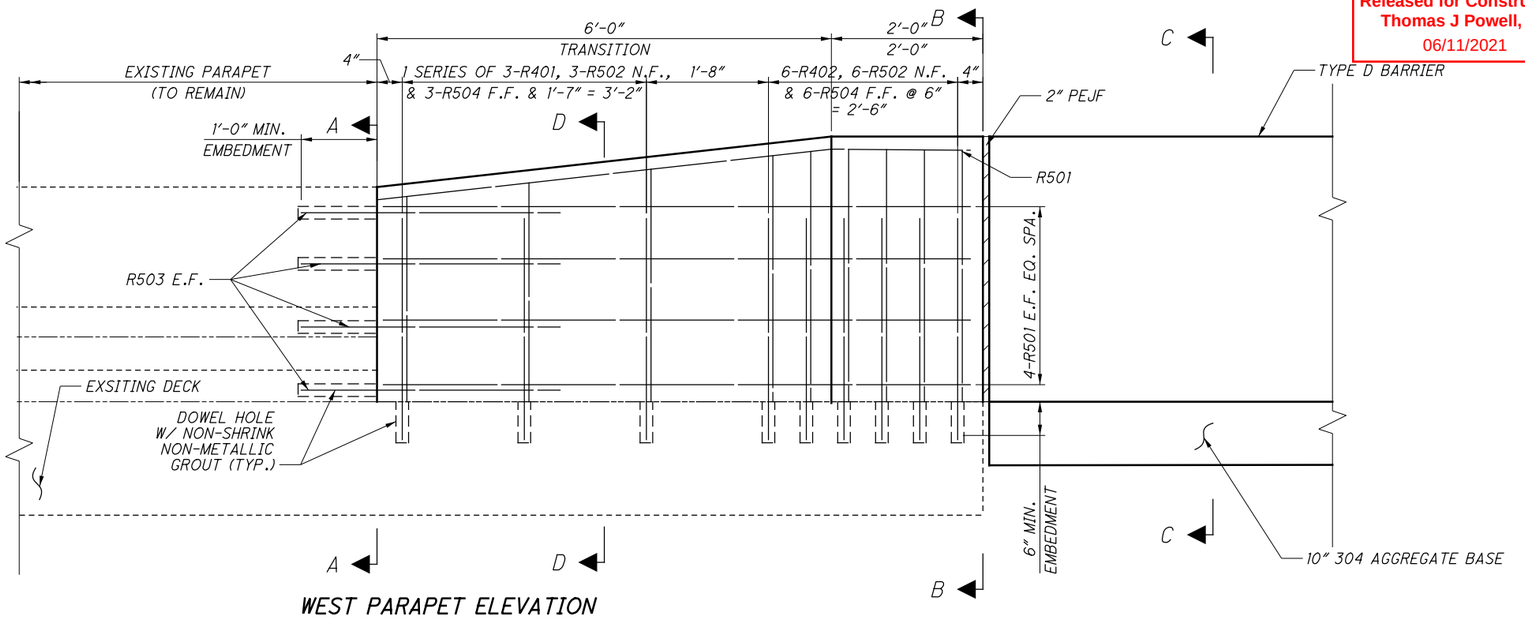
10
53



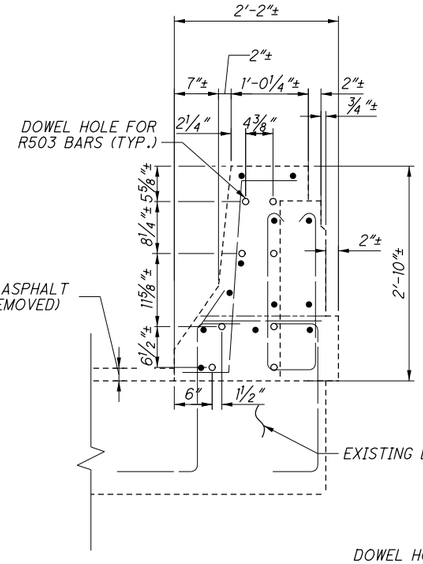
SECTION C-C



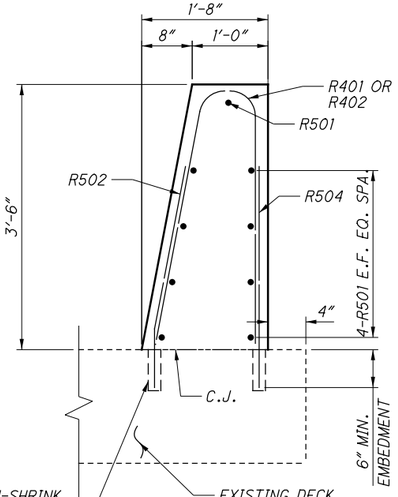
SECTION D-D
THROUGH MIDDLE OF TRANSITION



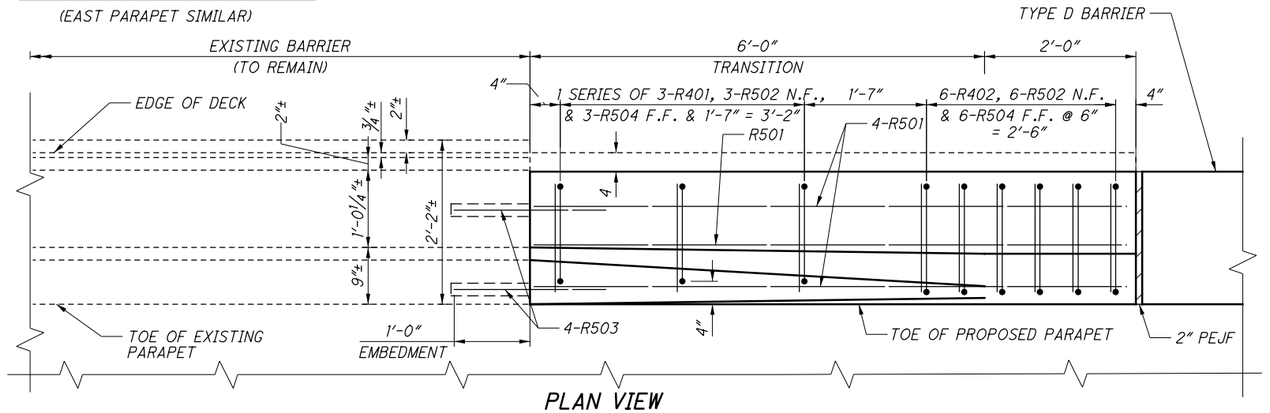
WEST PARAPET ELEVATION
(EAST PARAPET SIMILAR)



SECTION A-A

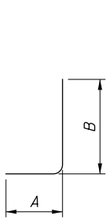


SECTION B-B

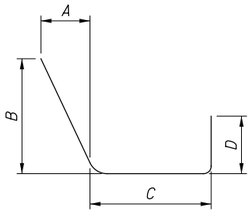


PLAN VIEW

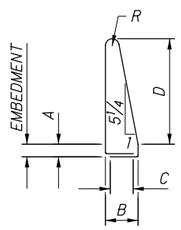
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	R	INC
PARAPET TRANSITIONS										
	2 SER.	5'-9"						2'-8"		
R401	OF	TO	24	35	-	-	-	TO	4"	1½"
	3	6'-3"						2'-11"		
R402	12	6'-7"	53	35	-	-	-	3'-1"	4"	
R501	18	7'-8"	144	STR						
R502	18	2'-9"	52	10	2'-1"	5"	9"	-		
R503	16	3'-5"	57	STR						
R504	16	2'-11"	49	STR						
SUB-TOTAL			379							



TYPE-1



TYPE-10



TYPE-35

NOTES:

1. FOR ADDITIONAL DETAILS, SEE ODOT STD. DRAWING RM-4.5.
2. FOR REMOVAL LIMITS, SEE SHEET 2/4.
3. FIELD BEND BARS AS NECESSARY TO FIT WITHIN PARAPET TRANSITION.

DESCRIPTION
ISSUE RECORD:
NO. DATE

pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\076_0824UR_MD001.dgn Sheet 6/3/2021 2:56:07 PM KChrisman

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

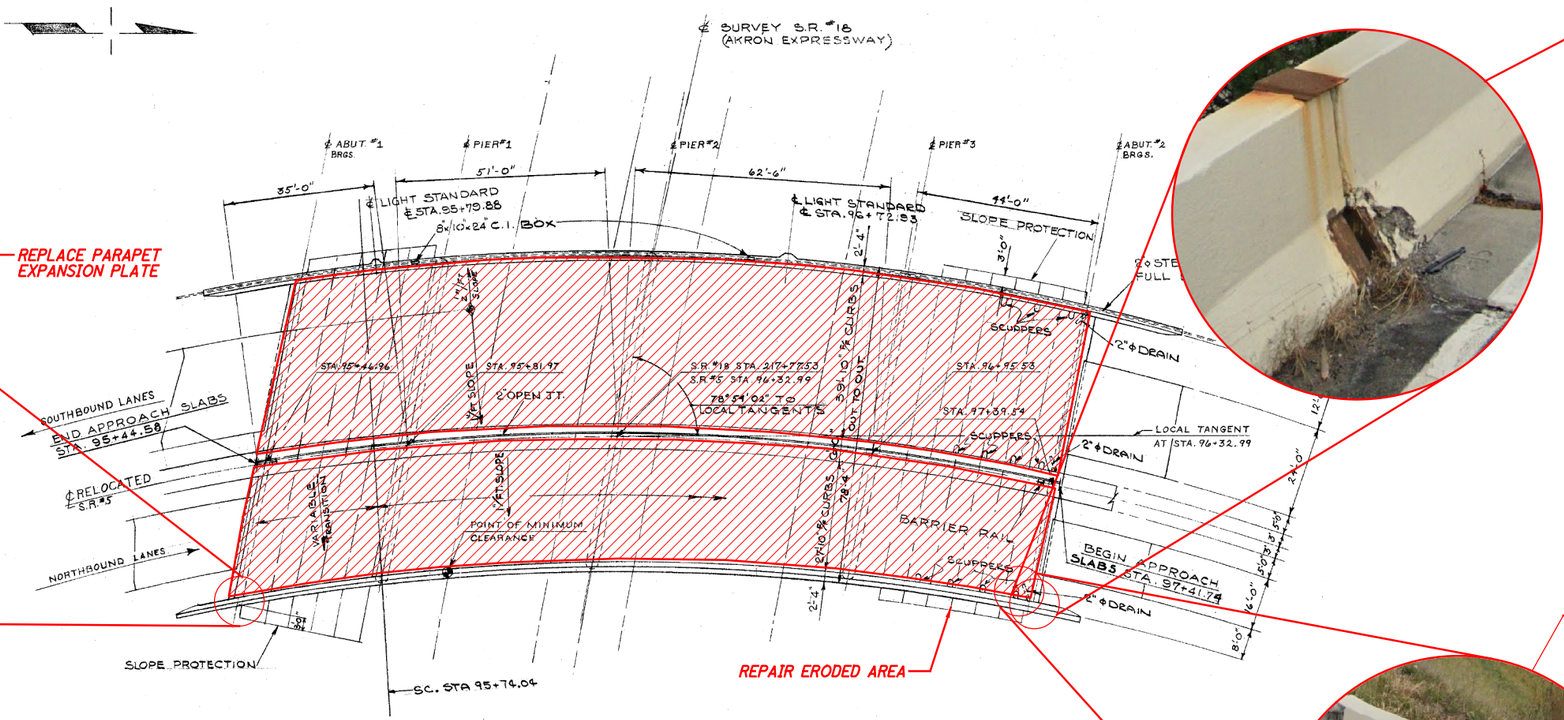
REVIEWED CCJ DATE 4/23/202
STRUCTURE FILE NUMBER 7705883
DRAWN HM REVISED
DESIGNED HM CHECKED KDC

PARAPET TRANSITION DETAILS
BRIDGE NO. SUM-76-0824UR
RAMP U OVER MORSE STREET

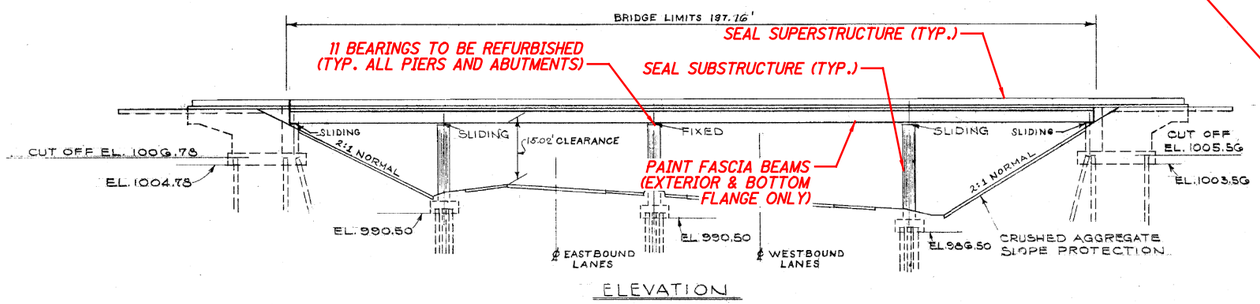
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

4 / 4
11 / 53

2021-06-03_BU 16-RFC PLANS



—PLAN—



ELEVATION

LEGEND:

▨ - LIMITS OF GRAVITY FED RESIN

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 2/4.
3. FOR SCUPPER DETAILS, SEE SHEET 3/4.
4. FOR PARAPET DETAILS, SEE SHEET 4/4.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 35'-0"±, 51'-0"±, 62'-6"±, 44'-0"± C/C BEARINGS

ROADWAY: 76'-0"± F/F PARAPETS (WITH 6 MEDIAN CURB)

LOADING: CF 2000(57) ADEQUATE FOR AASHTO ALT. LOADING

WEARING SURFACE: 1"± MONOLITHIC

SKEW: 11°05'58"± LEFT FORWARD

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

ALIGNMENT: 11° CURVE RIGHT WITH TRANSITION

SUPERELEVATION: VARIES SAME AS ROADWAY

COORDINATES: LATITUDE 41°03'38"± N
LONGITUDE 81°34'6"± W

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

REVIEWED CCJ 4/23/2021
STRUCTURE FILE NUMBER 77035570
DRAWN KDC
REVISED
DESIGNED KDC
CHECKED JAT

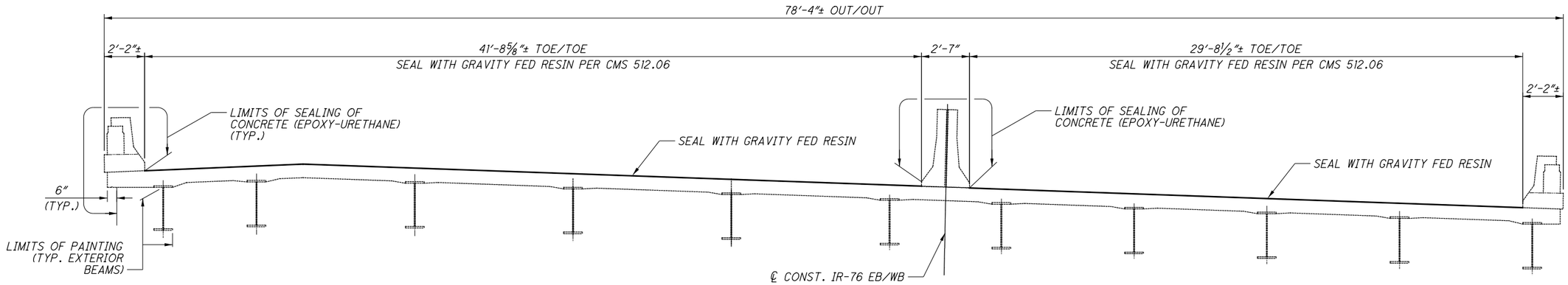
SUMMIT COUNTY
STA.95+44.58±
STA.97+41.74±

GENERAL PLAN
BRIDGE NO. SUM-76-0831L
I-76 WB OVER I-77

SUM-76/77/8-8.24/9.74/0.00
PID No.102329

1 / 4

12 / 53



TRANSVERSE SECTION

LIMITS OF GRAVITY FED RESIN FROM 95+45.96± TO 97+96.53±

NOTE:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

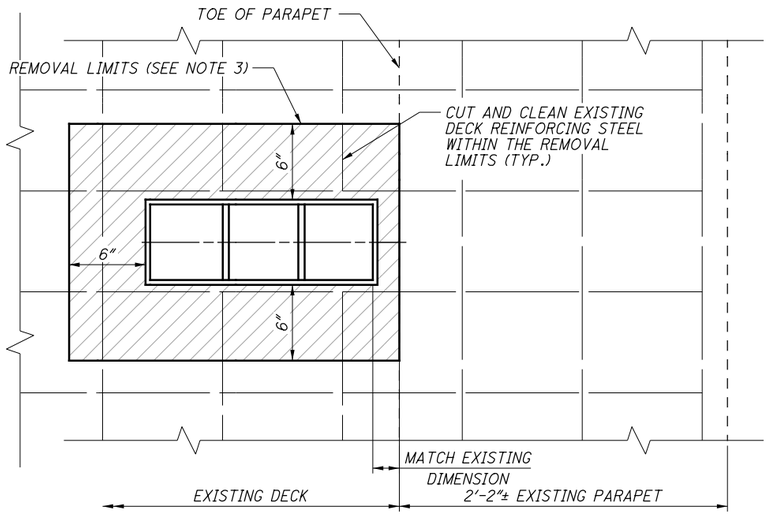
pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\076_0831L_TS001.dgn Sheet 6/3/2021 2:58:03 PM KChrisman

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

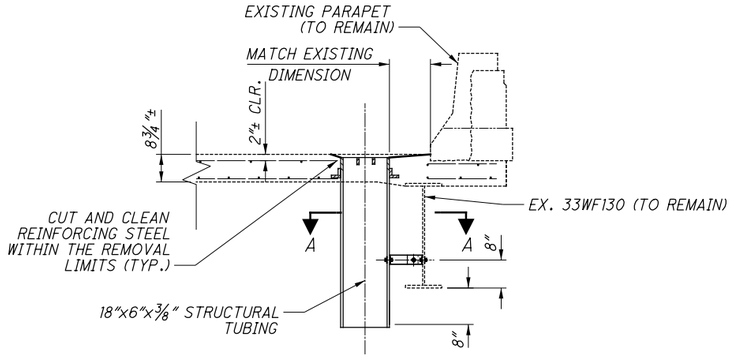
REVIEWED	DATE
CCJ	4/23/2021
DRAWN	STRUCTURE FILE NUMBER
HM	7703570
DESIGNED	REVISED
HM	
CHECKED	
KDC	

BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0831L
I-76 WB OVER I-77

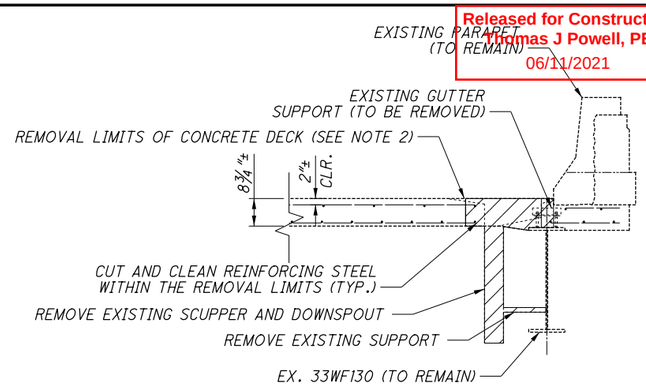
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329



PLAN



PROPOSED SCUPPER



EXISTING SCUPPER REMOVAL

SECTION A-A

NOTES:

1. FOR ADDITIONAL DETAILS, SEE STD. DWG. GSD-1-19.
2. REMOVE EXISTING CONCRETE BY SAW-CUTTING 1½" DEEP AROUND THE SPECIFIED PERIMETER. THE REMAINDER IS TO BE HAND CHIPPED TO PRESERVE EXISTING REINFORCING STEEL.
3. CUT AND CLEAN EXISTING REINFORCING STEEL WITHIN THE REMOVAL LIMITS TO PROVIDE 2" CLEAR OF THE SCUPPER PER ODOT C&MS 509.09.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

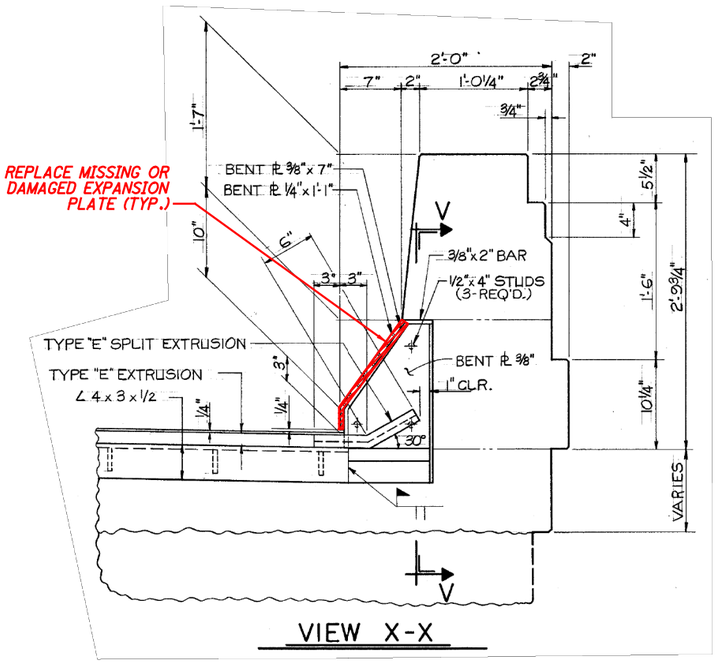
DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/2021
CHECKED	REVISED		STRUCTURE FILE NUMBER
KDC			7703570

SCUPPER DETAILS
BRIDGE NO. SUM-76-0831L
I-76 WB OVER I-77

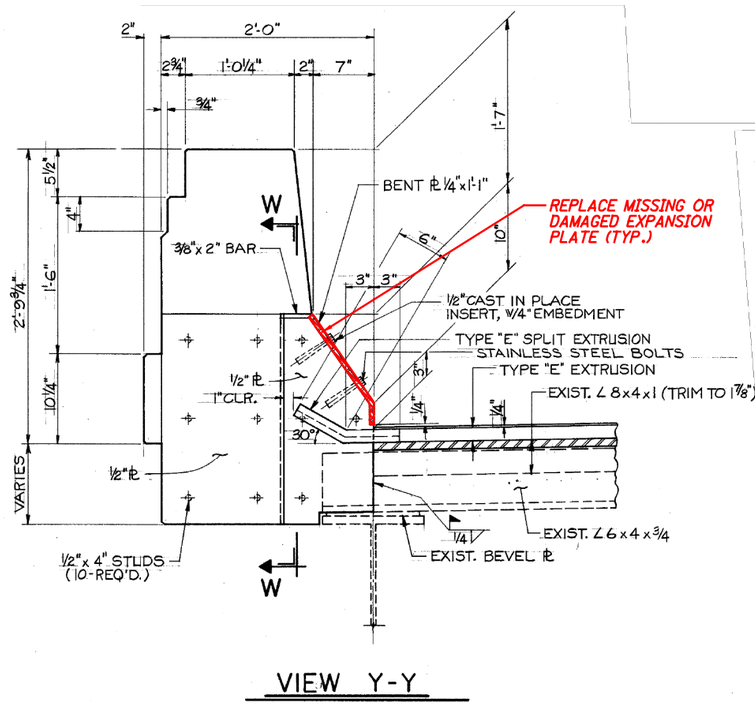
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

3 / 4

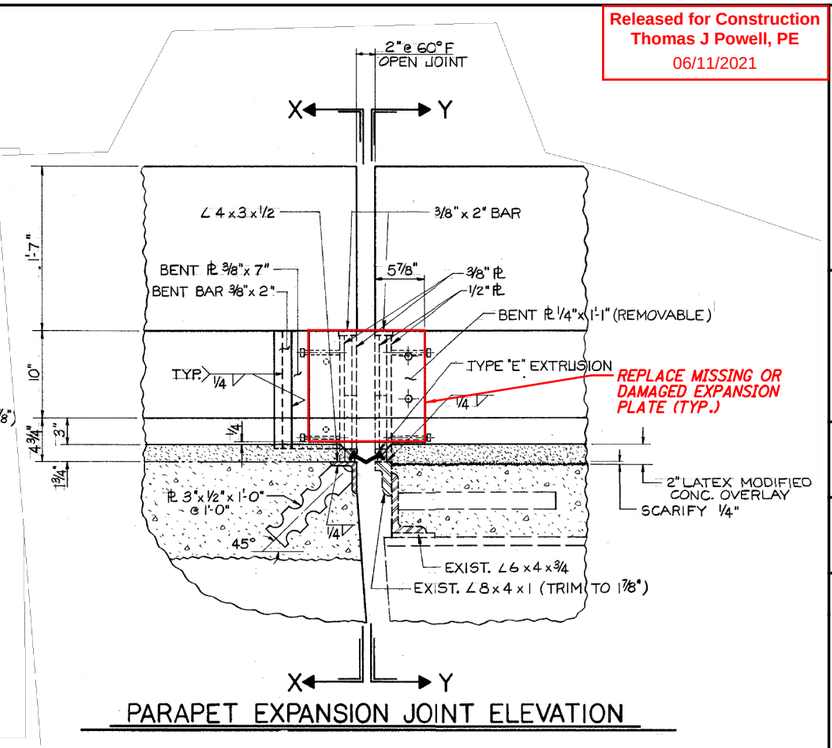
14
53



VIEW X-X



VIEW Y-Y



PARAPET EXPANSION JOINT ELEVATION

PARAPET EXPANSION PLATE REPAIR DETAILS

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTE:

1. REPLACE MISSING OR DAMAGED PARAPET EXPANSION PLATES IN THE NORTHBOUND PARAPETS AT BOTH ABUTMENTS. THE CONTRACTOR SHALL INSPECT ALL PARAPET EXPANSION PLATES FOR DAMAGE. REPLACEMENT OF THE PARAPET EXPANSION PLATES AND NECESSARY ATTACHMENT HARDWARE SHALL BE INCLUDED IN THE LUMP SUM PRICE PAY ITEM FOR BRIDGE NO. SUM-76-0831L. ANY ADDITIONAL REPAIRS AS A RESULT OF THE INSPECTION SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER IN CHARGE AND THE COST OF MATERIALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus, Ohio 43240

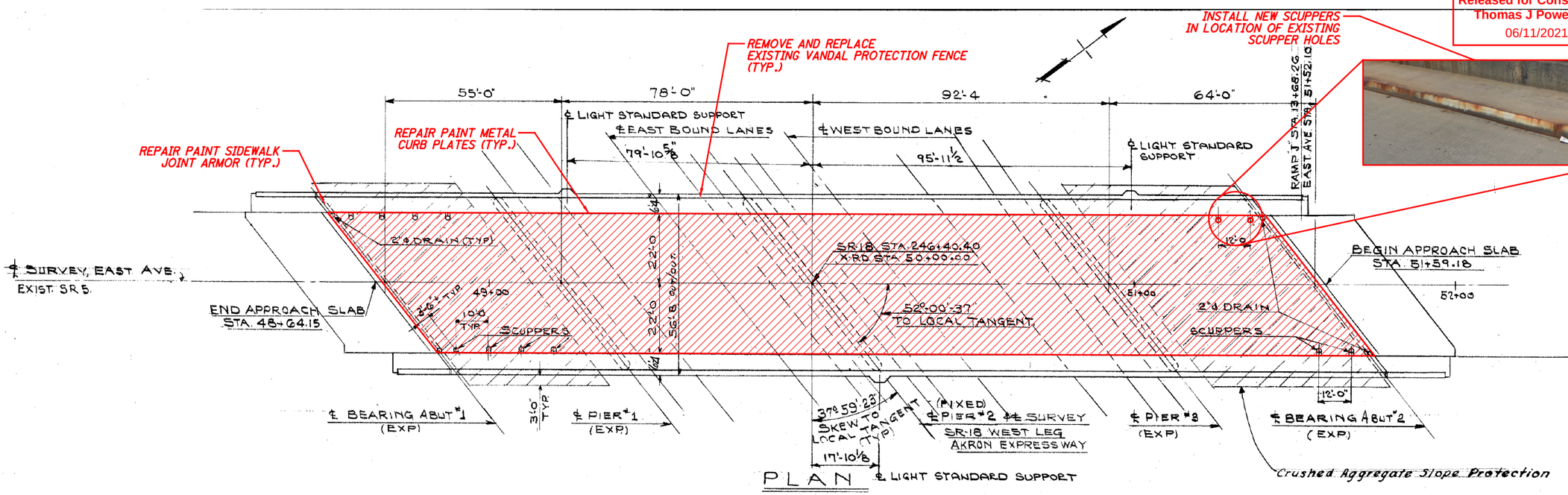
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703570	

EXPANSION JOINT DETAILS
BRIDGE NO. SUM-76-0831L
I-76 WB OVER I-77

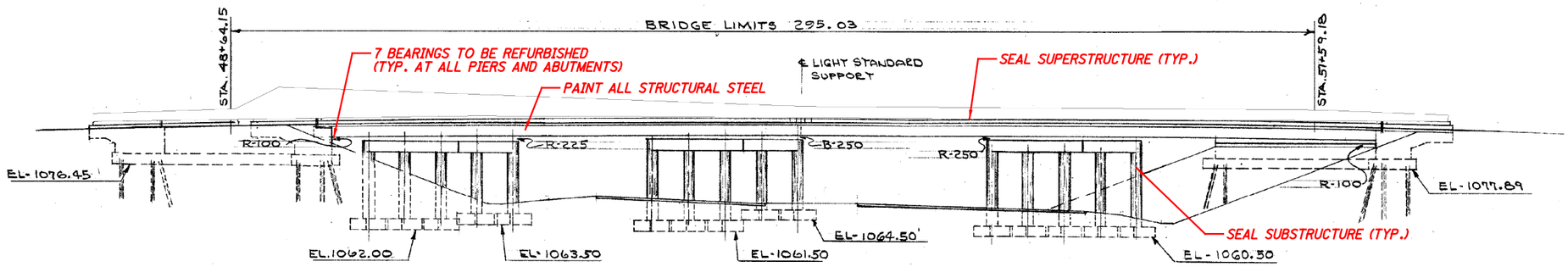
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

4 / 4

15
53



PLAN



ELEVATION

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 55'-0"±, 78'-0"±, 92'-0"±, 64'-0"± C/C BEARINGS

ROADWAY: 44'-0"± F/F OF 5'-2"± SIDEWALKS

LOADING: CF 400(57)

WEARING SURFACE: 1"± MONOLITHIC

SKEW: 37°59'23"± RIGHT FORWARD

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

ALIGNMENT: TANGENT

SUPERELEVATION: NONE

COORDINATES: LATITUDE 41°03'35"± N
LONGITUDE 81°33'29"± W

LEGEND:

▨ - LIMITS OF GRAVITY FED RESIN

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 2/7.
3. FOR SCUPPER DETAILS, SEE SHEET 5/7.
4. FOR SIDEWALK CURB DETAILS, SEE SHEET 7/7.
5. FOR VPF DETAILS SEE SHEET 3/7

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED KDC | CHECKED JAT
DRAWN KDC | REVISED
REVIEWED CCJ | DATE 4/23/2021
STRUCTURE FILE NUMBER 7703546

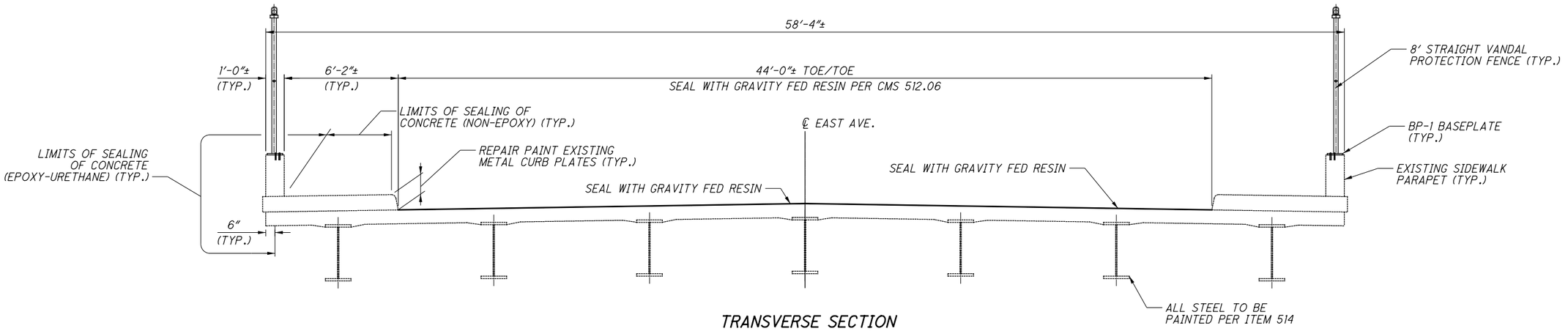
SUMMIT COUNTY
STA. 48+64.15±
STA. 51+59.18±

GENERAL PLAN
BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

1 / 7

16
53



TRANSVERSE SECTION

LIMITS OF GRAVITY FED RESIN FROM 48+65.40± TO 51+57.93±

NOTES:

1. FOR ADDITIONAL VANDAL FENCE DETAILS, SEE SHEETS 3/7 THRU 7/7.
2. FOR SIDEWALK DETAILS, SEE SHEET 6/7 & 7/7.
3. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

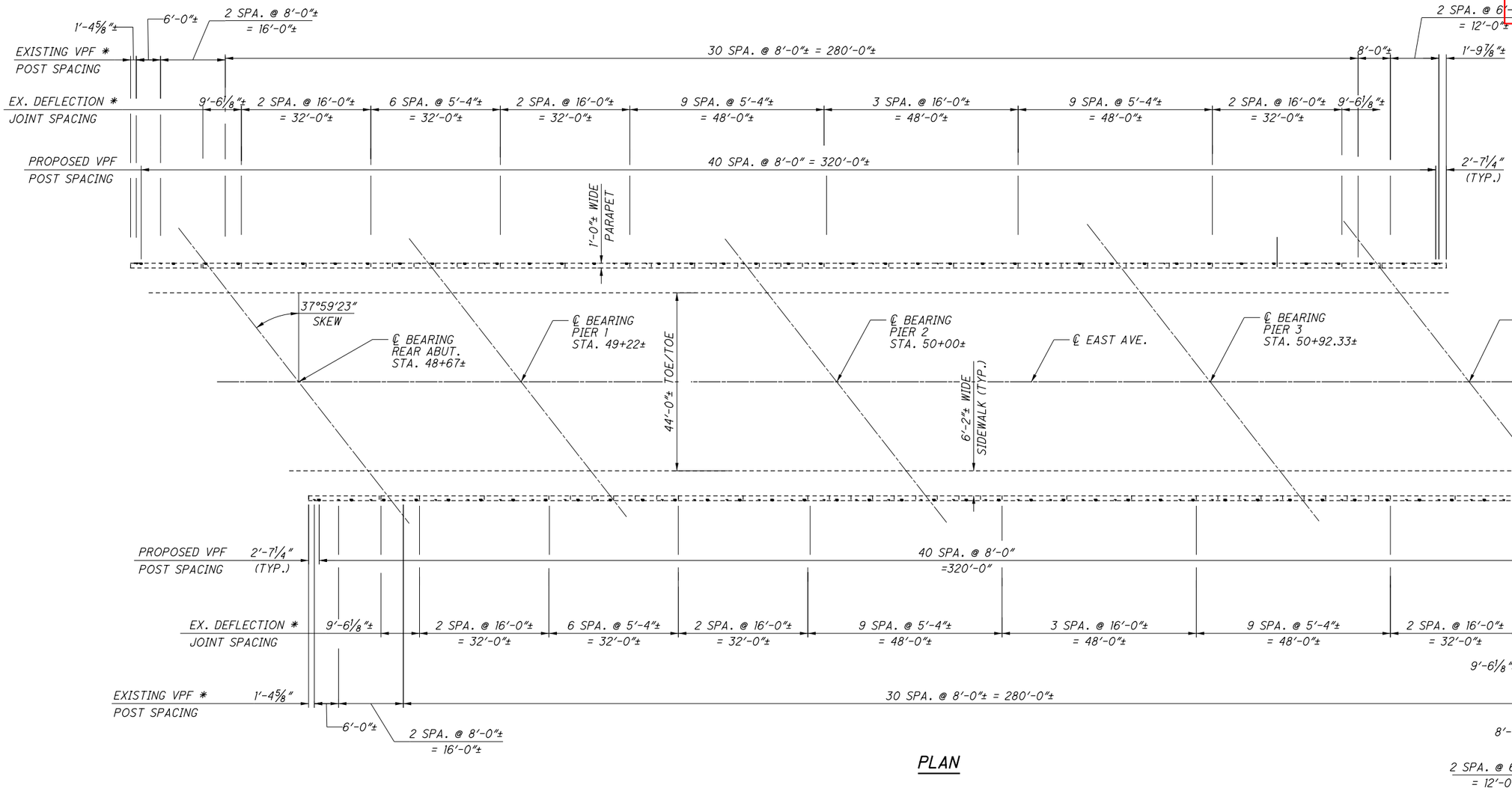
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703546	

BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

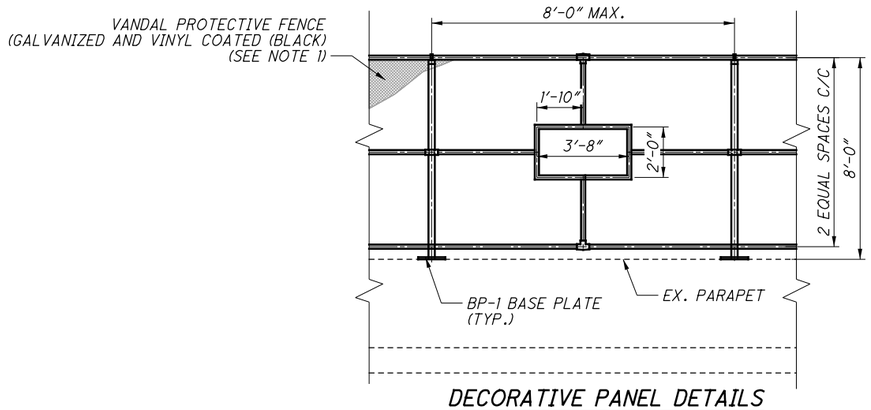
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

2 / 7

17
53



PLAN



DECORATIVE PANEL DETAILS

LEGEND:

* - EXISTING DEFLECTION JOINT AND POST LOCATIONS TAKEN FROM ORIGINAL PLANS.

NOTES:

1. ALL POSTS, FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, NUTS, BOLTS, CAULK AND OTHER VISIBLE HARDWARE SHALL BE COATED BLACK (FEDERAL COLOR NO. 27038).
2. EIGHT (8) FEET HIGH ODOT STANDARD PROTECTIVE FENCING (1" MESH) PER ODOT SCD VPF-1-90 IS REQUIRED. 1" VANDAL PROTECTIVE MESH SHALL BE ATTACHED TO THE PROPOSED ORNAMENTAL METAL FENCE.
3. FOR INFORMATION NOT SHOWN REFER TO SCD VPF-1-90.
4. DECORATIVE PANEL TO BE SPACED EVERY THIRD PANEL.
5. FOR ADDITIONAL VANDAL PROTECTION FENCE DETAILS, SEE SHEET 4/7.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
4449 Easton Way, Suite 300
Columbus Ohio 43231

DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703546	

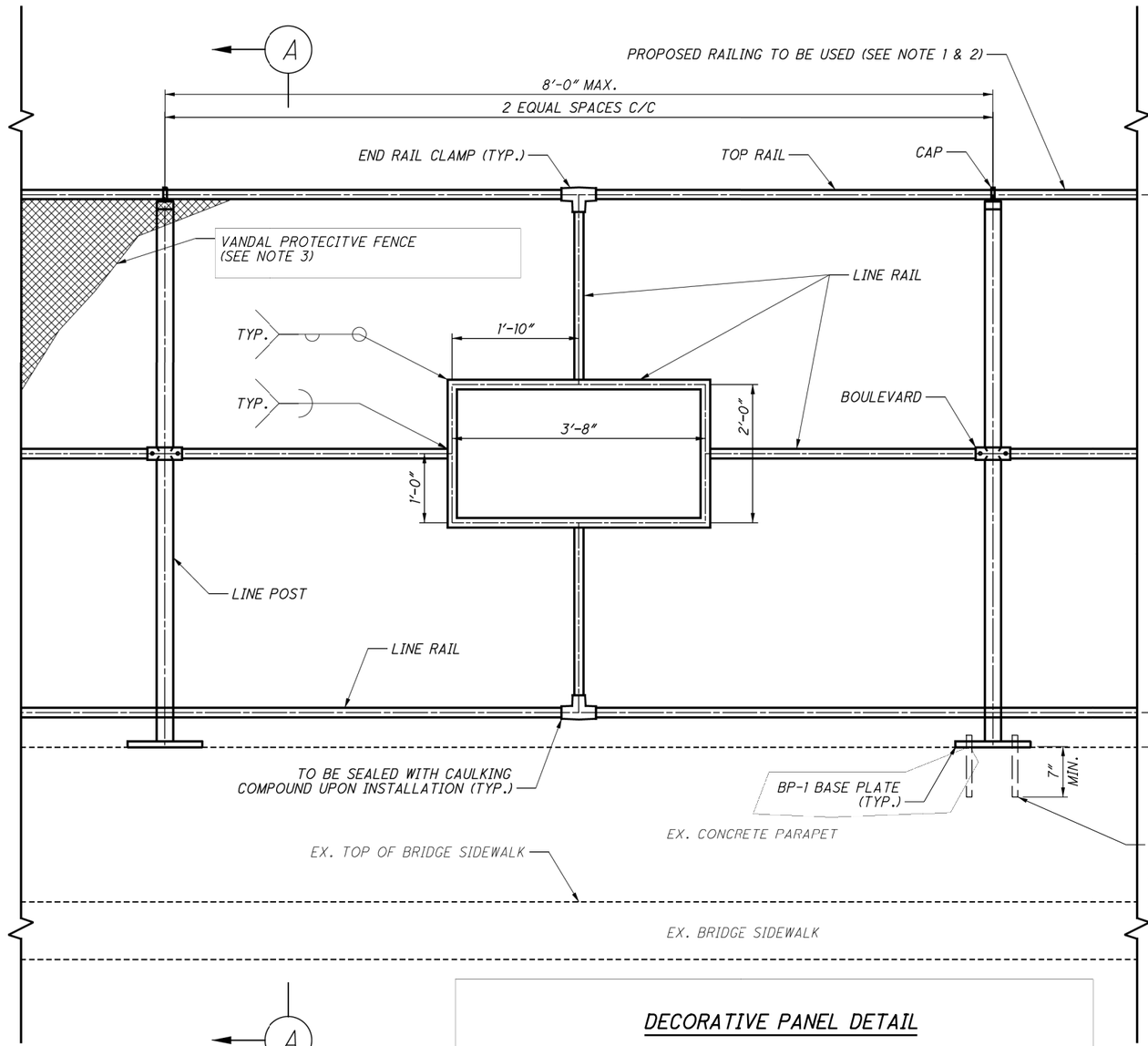
VANDAL PROTECTION FENCE DETAILS (1 OF 2)
BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

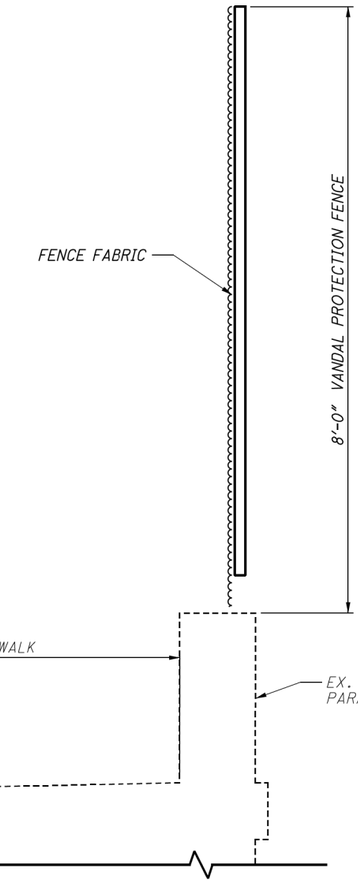
3 / 7

18
53

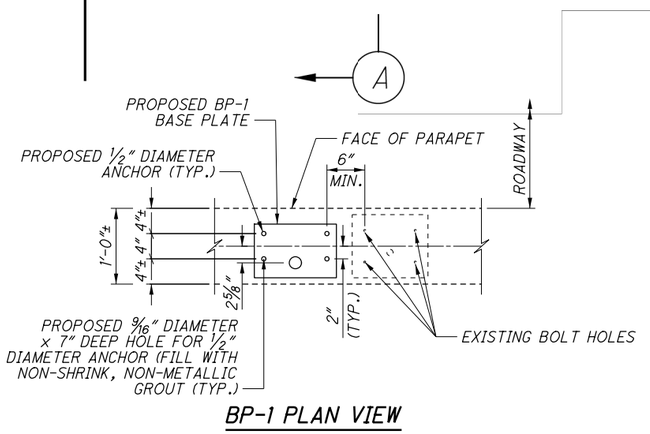
pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\076_0876_SA001.dgn Sheet 6/3/2021 3:03:20 PM KChrisman



DECORATIVE PANEL DETAIL



SECTION A-A



BP-1 PLAN VIEW

NOTES:

1. ALL POSTS, FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, NUTS, BOLTS, CAULK AND OTHER VISIBLE HARDWARE SHALL BE COATED BLACK (FEDERAL COLOR NO. 27038).
2. NEW ORNAMENTAL RAILING TO HAVE GEOMETRIC PATTERN DETAILED ABOVE.
3. EIGHT (8) FEET HIGH ODOT STANDARD PROTECTIVE FENCING (1" MESH) PER ODOT SCD VPF-1-90 IS REQUIRED. 1" VANDAL PROTECTIVE MESH SHALL BE ATTACHED TO THE PROPOSED ORNAMENTAL METAL FENCE.
4. FOR INFORMATION NOT SHOWN REFER TO SCD VPF-1-90.
5. DECORATIVE PANEL TO BE SPACED EVERY THIRD PANEL.

ISSUE RECORD:

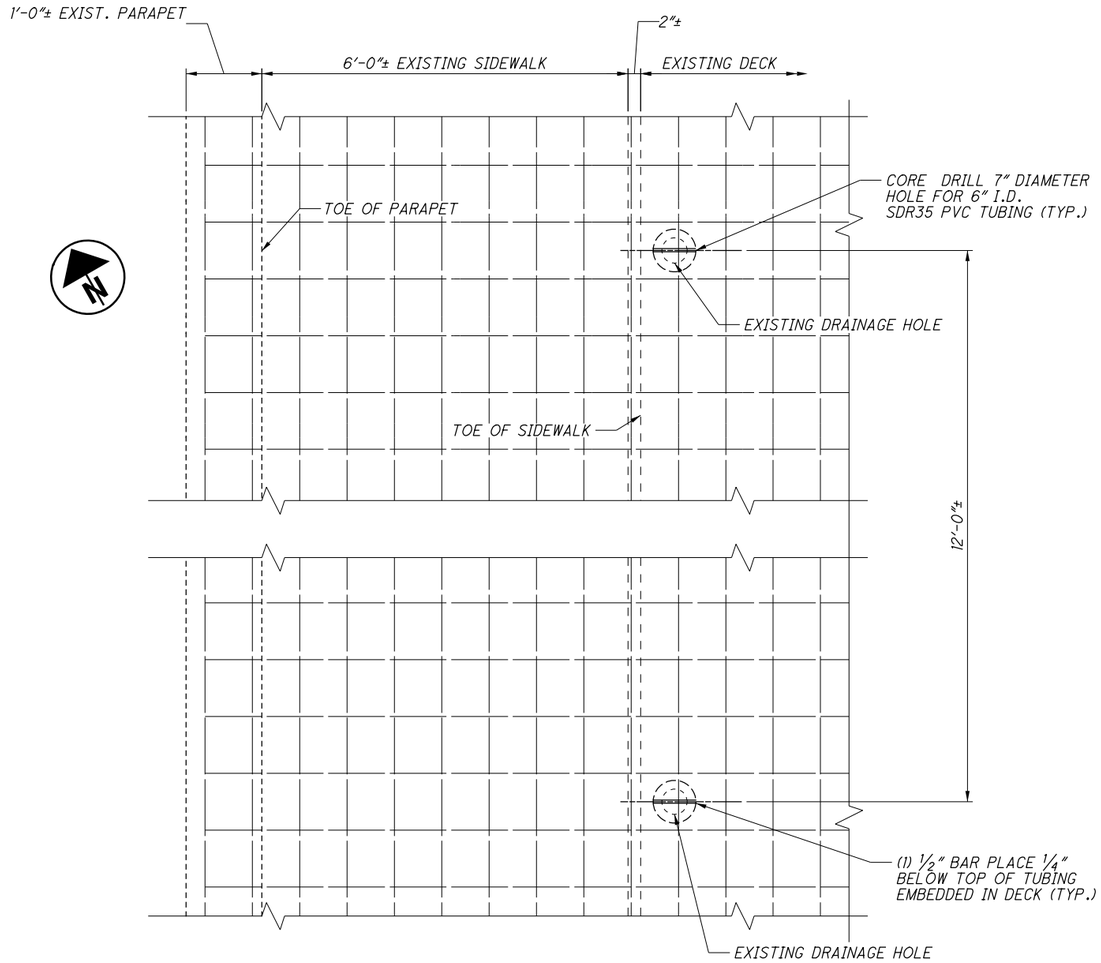
NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus, Ohio 43240

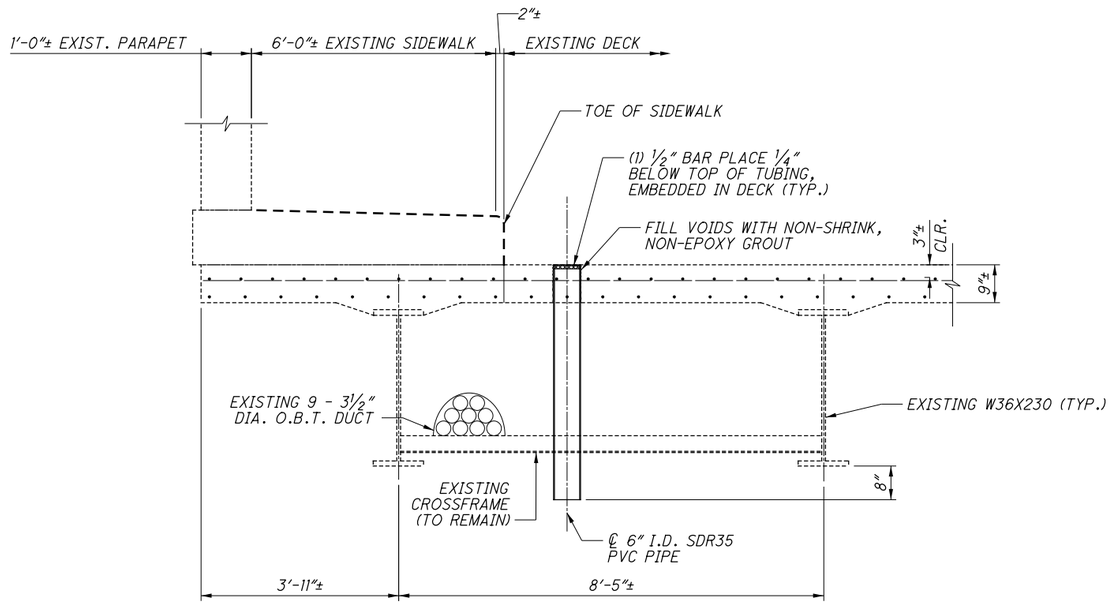
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703546	

VANDAL PROTECTION FENCE DETAILS (2 OF 2)
BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329



PLAN



ELEVATION

NOTES:

1. FILL ANY VOIDS BETWEEN CORE DRILLED HOLES AND STRUCTURAL TUBING WITH A NON-SHRINK, NON-EPOXY GROUT.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

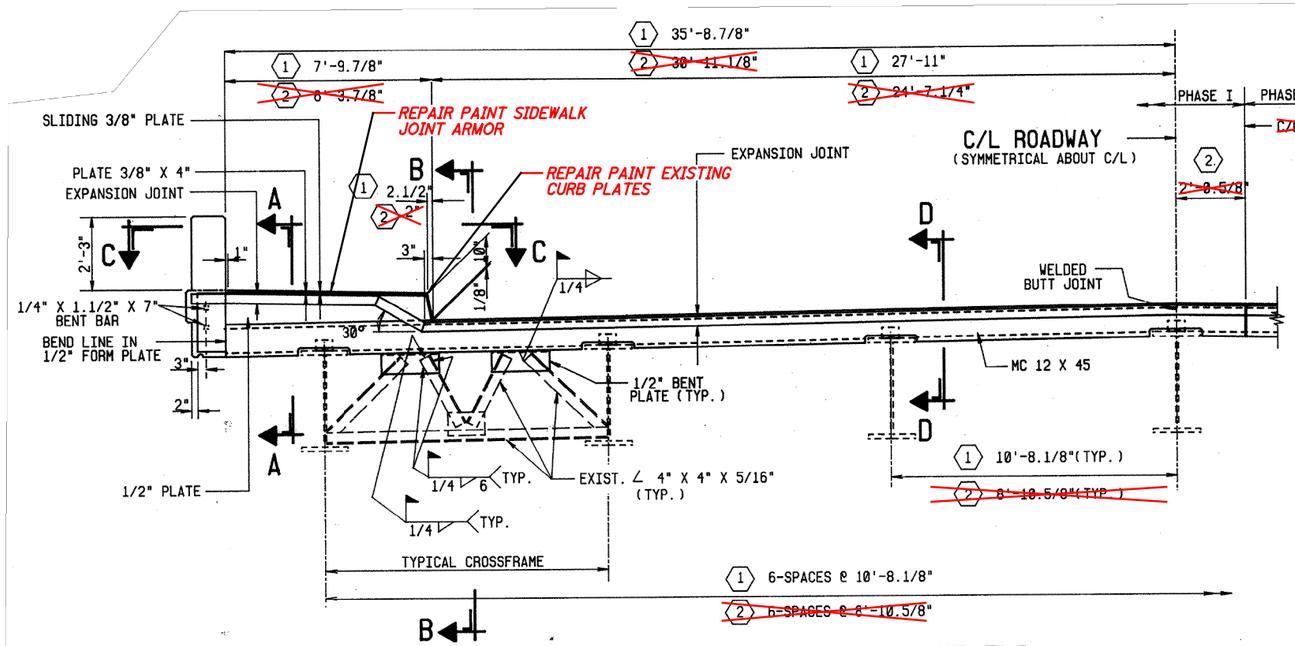
DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703546	

SCUPPER DETAILS
BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

5 / 7

20
53



ABUTMENT NO.1 & 2 END CROSSFRAME DETAILS

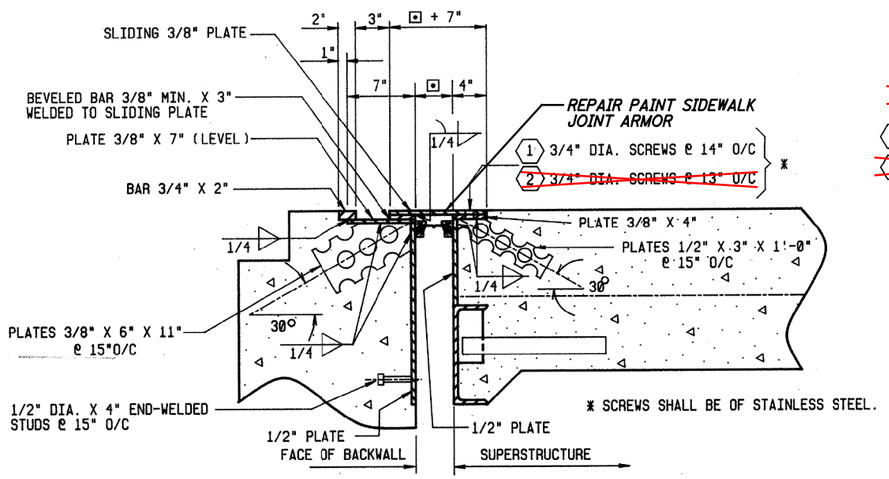
ABUTMENT NO.1 DETAILS SHOWN, ABUTMENT NO.2 DETAILS SIMILAR BUT OPPOSITE HAND

1 EAST AVE. TEMPERATURE ADJUSTMENT TABLE		
TEMPERATURE @ INSTALLATION (°F)	DIM. "A" (IN.) ABUT. NO.1	ABUT. NO.2
90	1.9/16	1.9/16
80	1.11/16	1.5/8
70	1.3/4	1.3/4
60	1.13/16	1.7/8
50	1.15/16	1.15/16
40	2	2.1/16
30	2.1/16	2.1/8

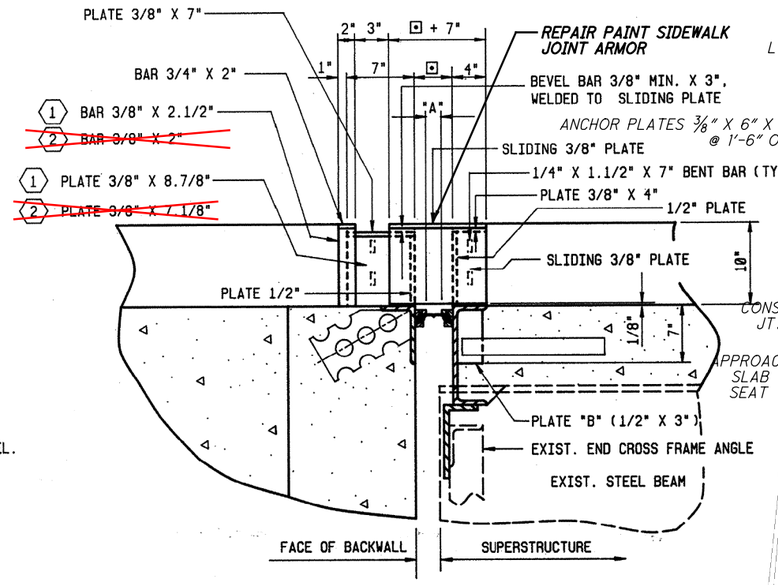
~~2 PRINCETON ST. TEMPERATURE ADJUSTMENT TABLE~~		
TEMPERATURE @ INSTALLATION (°F)	DIM. "A" (IN.) ABUT. NO.1 & ABUT. NO.2	
90	1.5/8	
80	1.11/16	
70	1.3/4	
60	1.13/16	
50	1.7/8	
40	1.15/16	
30	2	

NOTES

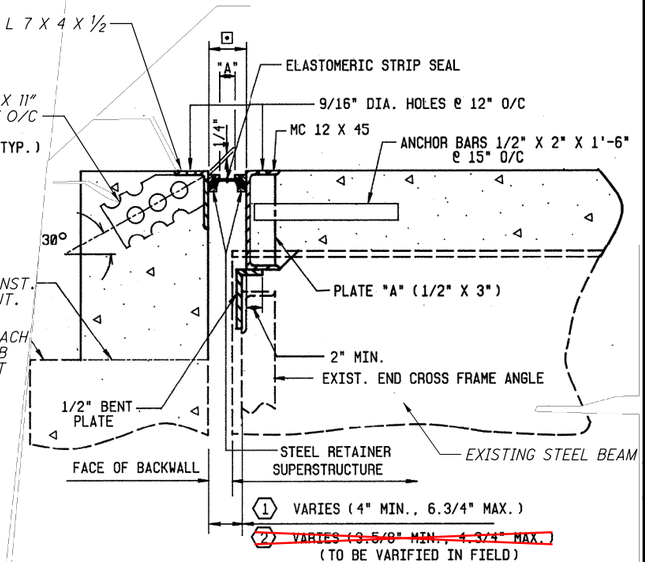
1. LEGEND
   - 1 *APPLIES TO BRIDGE NO. SUM-76-0876 (EAST AVE. OVER I-76)*
   - 2 *~~APPLIES TO BRIDGE NO. SUM-76-0994 (PRINCETON AVE. OVER I-76)~~*
2. FOR VIEW C-C AND SEC. D-D, SEE SHT. NO. 25 / 26
3. ELASTOMERIC STRIP SEAL GLAND FOR THE EXPANSION JOINTS SHALL BE WATSON BOWMAN & ACME MODEL NO. S-300, D.S. BROWN MODEL NO. SS300, OR APPROVED EQUAL.
4. BRIDGE NO. SUM - 76 - 1000: THE JOINT INSTALLATION SHALL BE PART-LENGTH IN ACCORDANCE WITH THE LIMITS SHOWN FOR PHASE I & II CONSTRUCTION. HOWEVER, IN PHASE II INSTALLATION, THE ELASTOMERIC SEAL ELEMENT INSTALLED IN PHASE I SHALL BE REMOVED AND REPLACED WITH A FULL LENGTH ONE-PIECE SEAL ELEMENT (WITHOUT ANY JOINT) COVERING THE FULL WIDTH OF THE BRIDGE.



SECTION A-A



VIEW B-B



SECTION D-D

NOTE:

1. *REPAIR PAINT SIDEWALK JOINT ARMOR*

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY: PRIME AE, 8415 Pulsar Place Suite 300, Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703546	

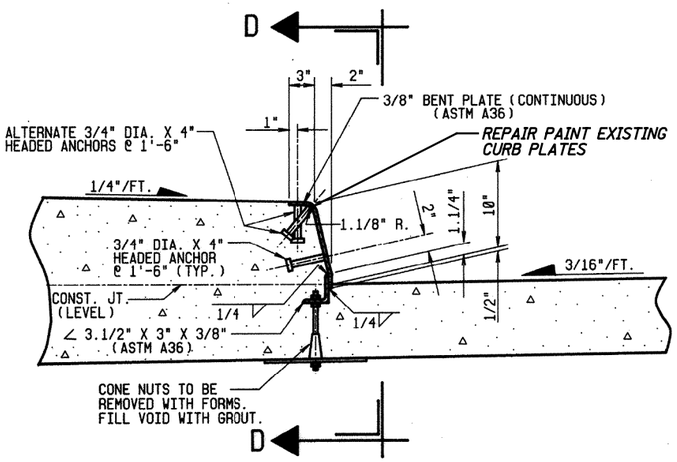
SIDEWALK & EXPANSION JOINT DETAILS (1 OF 2)

BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

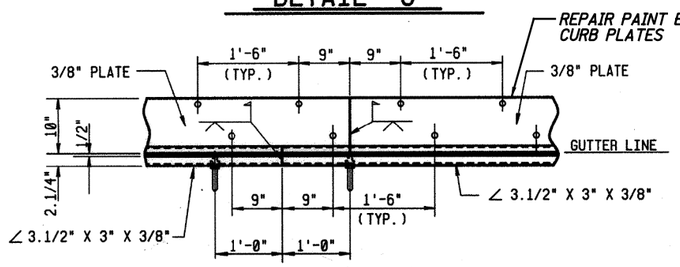
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

6 / 7

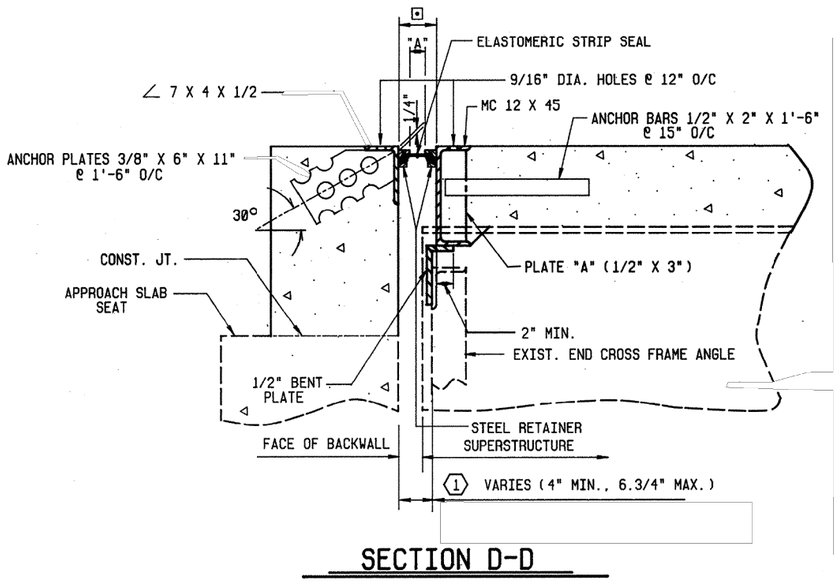
21 / 53



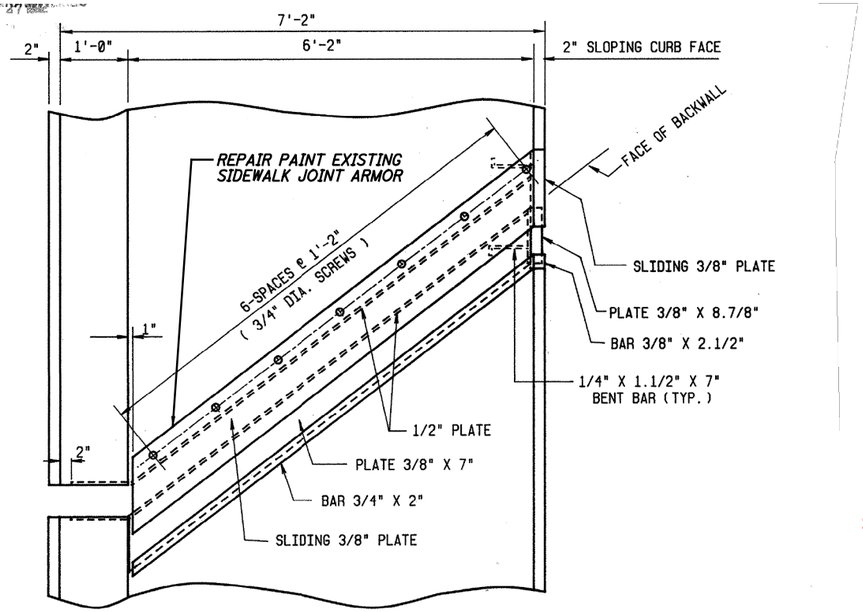
DETAIL "C"



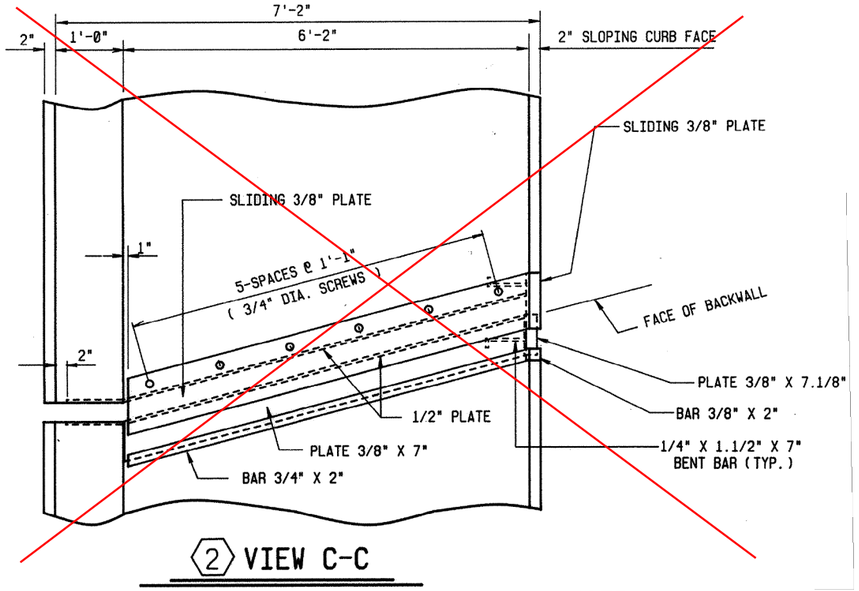
VIEW D-D



SECTION D-D



1 VIEW C-C



2 VIEW C-C

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

1 APPLIES TO SUM-76-0876 (EAST AVE. OVER I-76)

NOTE:

1. REPAIR PAINT EXISTING CURB PLATES & SIDEWALK JOINT ARMOR PER C&MS 514.22.

DESCRIPTION

ISSUE RECORD:

NO.	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703546	

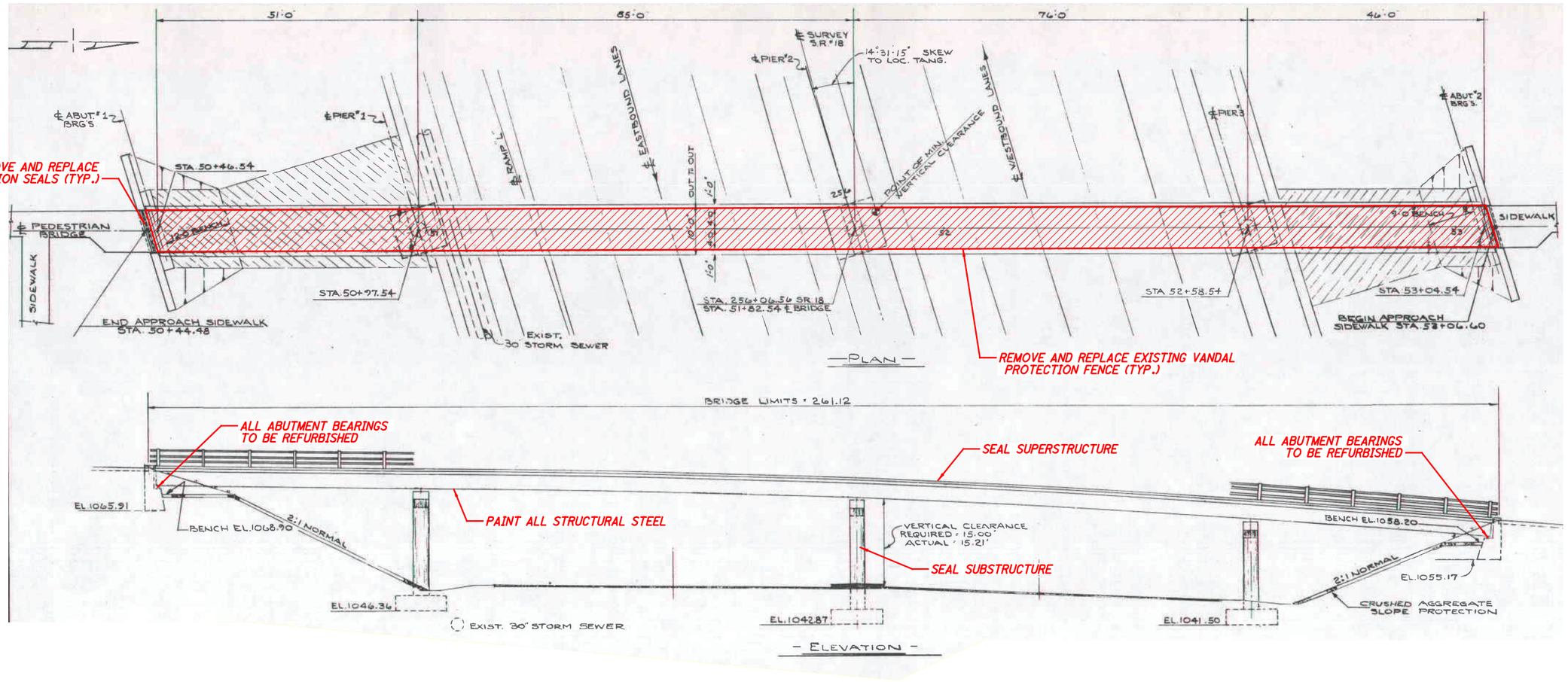
SIDEWALK & EXPANSION JOINT DETAILS (2 OF 2)

BRIDGE NO. SUM-76-0876
EAST AVE. OVER I-76

SUM-76/77/8-
8.24/ 09.74/ 0.00
PID No. 102329

7 / 7

22
53



ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

▨ - LIMITS OF GRAVITY FED RESIN

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 2/4.
3. FOR EXPANSION JOINT DETAILS, SEE SHEET 4/4.
4. FOR VANDAL PROTECTION FENCE DETAILS, SEE SHEET 3/4.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 51'-0"±, 85'-0"±, 76'-0"±, 46'-0"± C/C BEARINGS

ROADWAY: 8'-0"± TOE/TOE CURB

LOADING: 85 PSF LIVE LOAD

SKEW: 14°31'15"± RIGHT FORWARD TO LOCAL TANGENT

APPROACH SLABS: NONE

ALIGNMENT: STRAIGHT

SUPERELEVATION: NONE

COORDINATES: LATITUDE 41°03'36"± N
LONGITUDE 81°33'16"± W

DESCRIPTION

ISSUE RECORD:

NO.	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703511	

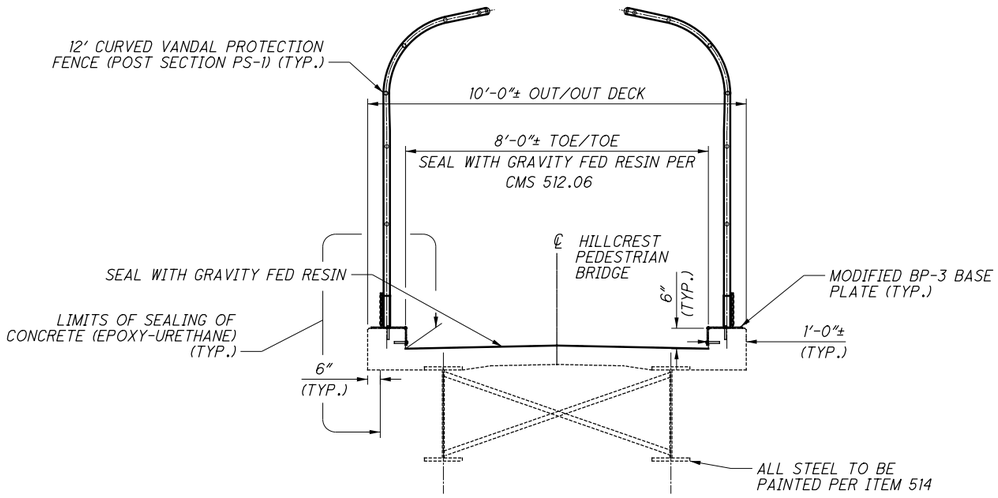
SUMMIT COUNTY
STA. 50+44.48±
STA. 53+06.60±

GENERAL PLAN
BRIDGE NO. SUM-76-0894
HILLCREST PEDESTRAIN BRIDGE OVER I-76

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

1 / 4

23
53



TRANSVERSE SECTION

LIMITS OF GRAVITY FED RESIN FROM 50+45.81± TO 53+5.56±

NOTES:

1. FOR ADDITIONAL VANDAL FENCE DETAILS, SEE SHEET 3/4.
2. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

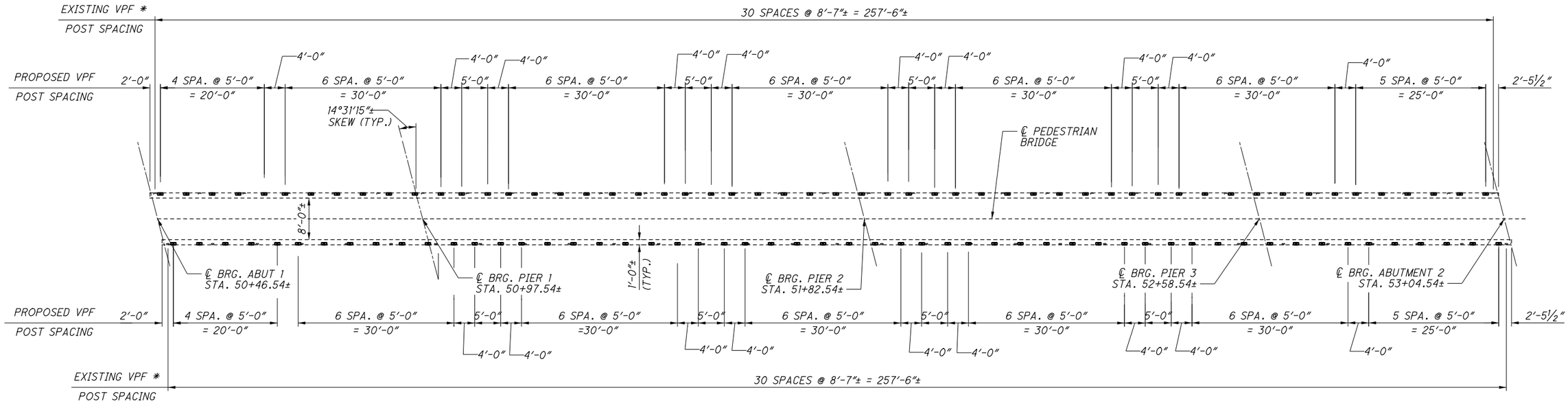
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703511	

BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0894
HILLCREST PEDESTRIAN BRIDGE OVER I-76

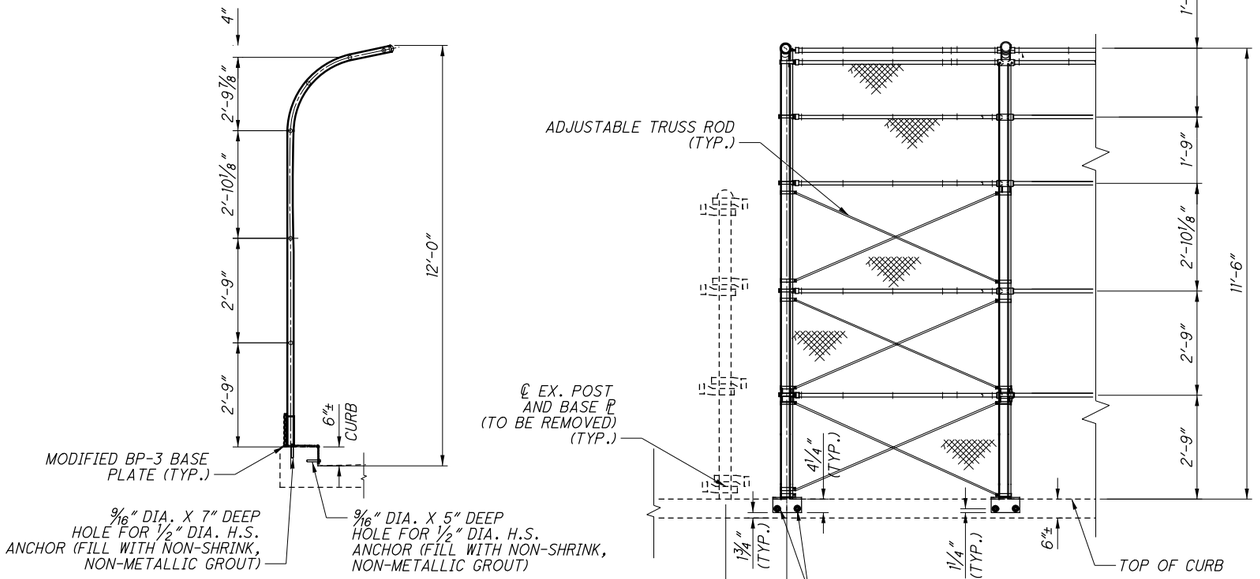
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

2 / 4

24
53

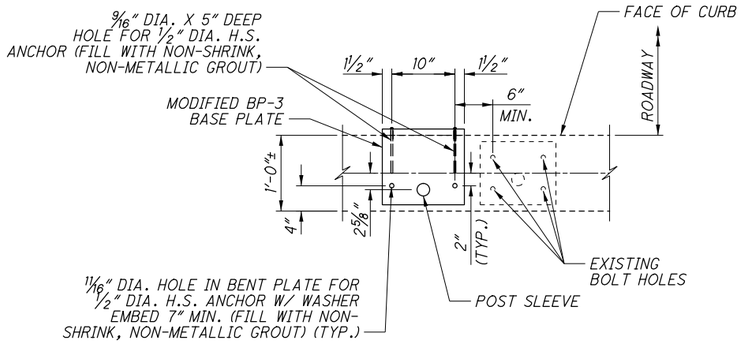


PLAN



POST SECTION

PARTIAL ELEVATION



MODIFIED BP-3 PLAN VIEW

LEGEND:

* - EXISTING POST LOCATIONS TAKEN FROM ORIGINAL PLANS.

NOTES:

1. ALL POSTS, FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, NUTS, BOLTS, CAULK AND OTHER VISIBLE HARDWARE SHALL BE COATED BLACK (FEDERAL COLOR NO. 27038).
2. FOR ADDITIONAL DETAILS, SEE ODOT STD. DRAWING VPF-1-90.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703511	

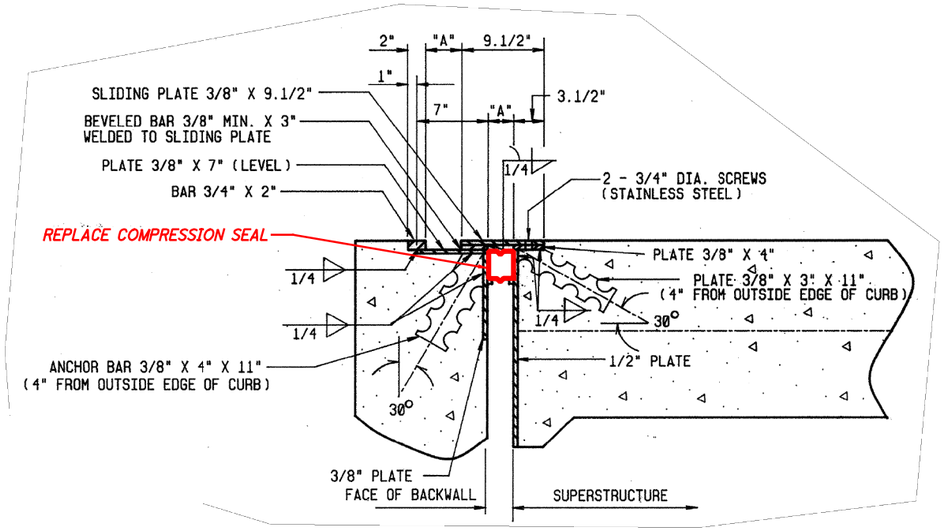
VANDAL PROTECTION FENCE DETAILS

BRIDGE NO. SUM-76-0894
HILLCREST PEDESTRIAN BRIDGE OVER I-76

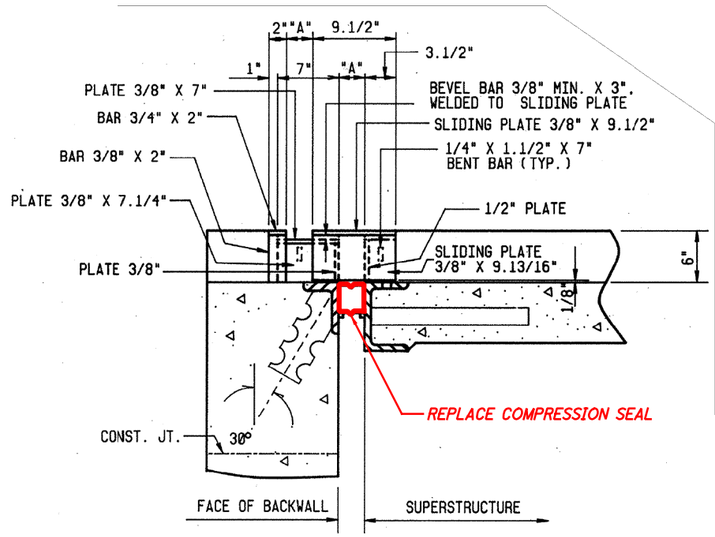
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

3 / 4

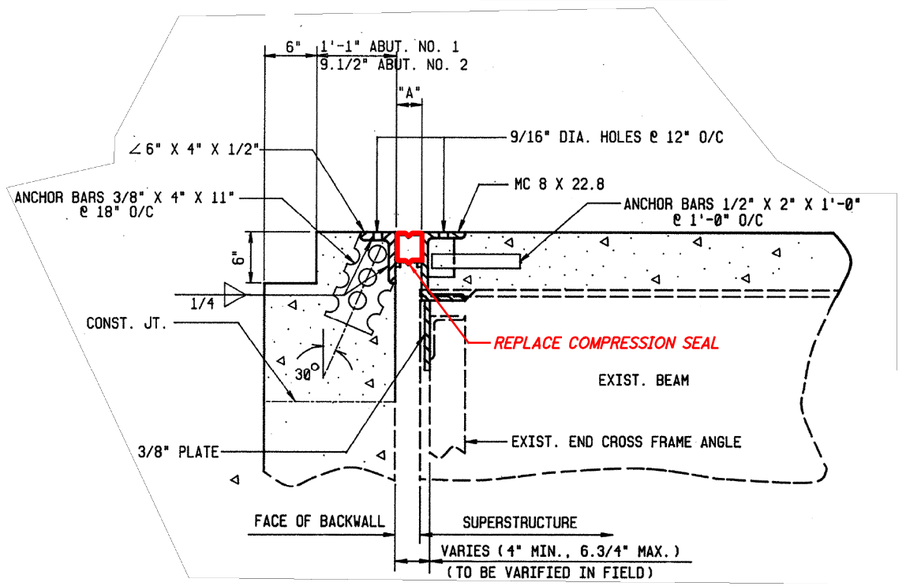
25
53



SECTION AT SIDEWALK



SECTION AT CURB



SECTION AT ROADWAY

TEMPERATURE ADJUSTMENT TABLE	
TEMPERATURE @ INSTALLATION (°F)	DIM. "A" (IN.)
90	2.13/16
80	2.7/8
70	3
60	3.1/8
50	3.3/16
40	3.5/16
30	3.7/16

COMPRESSION SEAL REPLACEMENT

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTES:

1. REPLACE THE COMPRESSION SEALS AT THE REAR AND FORWARD APPROACH JOINTS.
2. THE COMPRESSION SEAL MATERIAL SHALL CONFORM TO CMS 705.11. ELASTOMERIC COMPRESSION SEAL FOR THE EXPANSION JOINTS SHALL BE WATSON BOWMAN & ACME MODEL NO. J500, D.S. BROWN MODEL NO. CV5000, OR APPROVED EQUAL.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

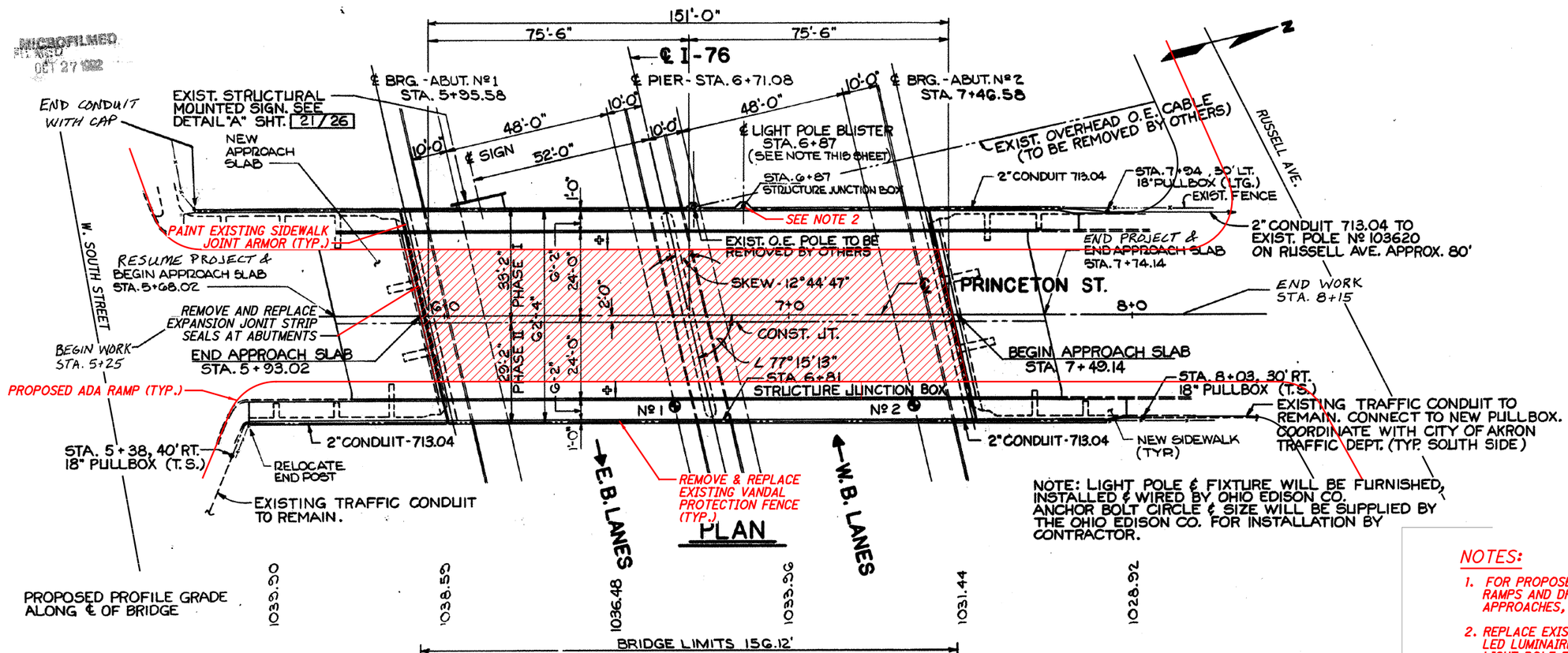
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703511	

EXPANSION JOINT DETAILS
BRIDGE NO. SUM-76-0894
HILLCREST PEDESTRIAN BRIDGE OVER I-76

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

4 / 4

26
53



NOTES:

1. FOR PROPOSED SIDEWALK DETAILS, CURB RAMPS AND DRAINAGE DETAILS BEYOND APPROACHES, SEE BU-33 PLANS.
2. REPLACE EXISTING LUMINAIRE WITH AN LED LUMINAIRE AND PAINT EXISTING LIGHT POLE FEDERAL COLOR NO. 27038 PER C&MS 514.22. SEE BU-36 PLANS
3. FOR SIDEWALK DETAILS, SEE SHEET 3/7.
4. FOR EXPANSION JOINT DETAILS, SEE SHEET 6/7 & 7/7.
5. FOR TRANSVERSE SECTION, SEE SHEET 2/7.
6. FOR VANDAL PROTECTION FENCE DETAILS, SEE SHEET 4/7

LEGEND:

▨ - LIMITS OF GRAVITY FED RESIN
✣ - PROPOSED SIDEWALK WIDENING

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

EXISTING STRUCTURE

TYPE: 2 SPAN CONTINUOUS ROLLED BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 75'-6"±, 75'-6"± C/C BEARINGS

ROADWAY: 48'-0"± F/F OF 5'-2"± SIDEWALKS

LOADING: CF400(57)

WEARING SURFACE: 1"± MONOLITHIC CONCRETE

SKEW: 12°44'47"±

ALIGNMENT: TANGENT

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

COORDINATES: LATITUDE 41°03'43"± N
LONGITUDE 81°32'05"± W

DESCRIPTION

ISSUE RECORD:

NO.	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703368	

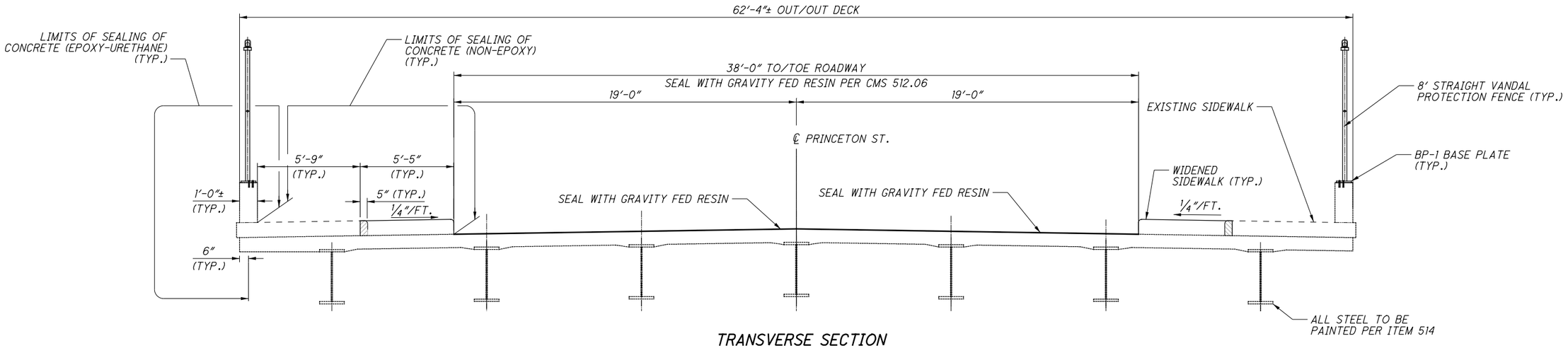
SUMMIT COUNTY
STA. 5+93.02±
STA. 7+74.14±

GENERAL PLAN
BRIDGE NO. SUM-76-0994
PRINCETON ST. OVER I-76

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

1/7

27/53



TRANSVERSE SECTION

LIMITS OF GRAVITY FED RESIN FROM 5+94.33± TO 7+47.83±

LEGEND:

- LIMITS OF CURB REMOVAL

NOTES:

1. FOR ADDITIONAL VANDAL FENCE DETAILS, SEE SHEETS 4/7 THRU 5/7.
2. FOR SIDEWALK DETAILS, SEE SHEET 3/7.
3. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

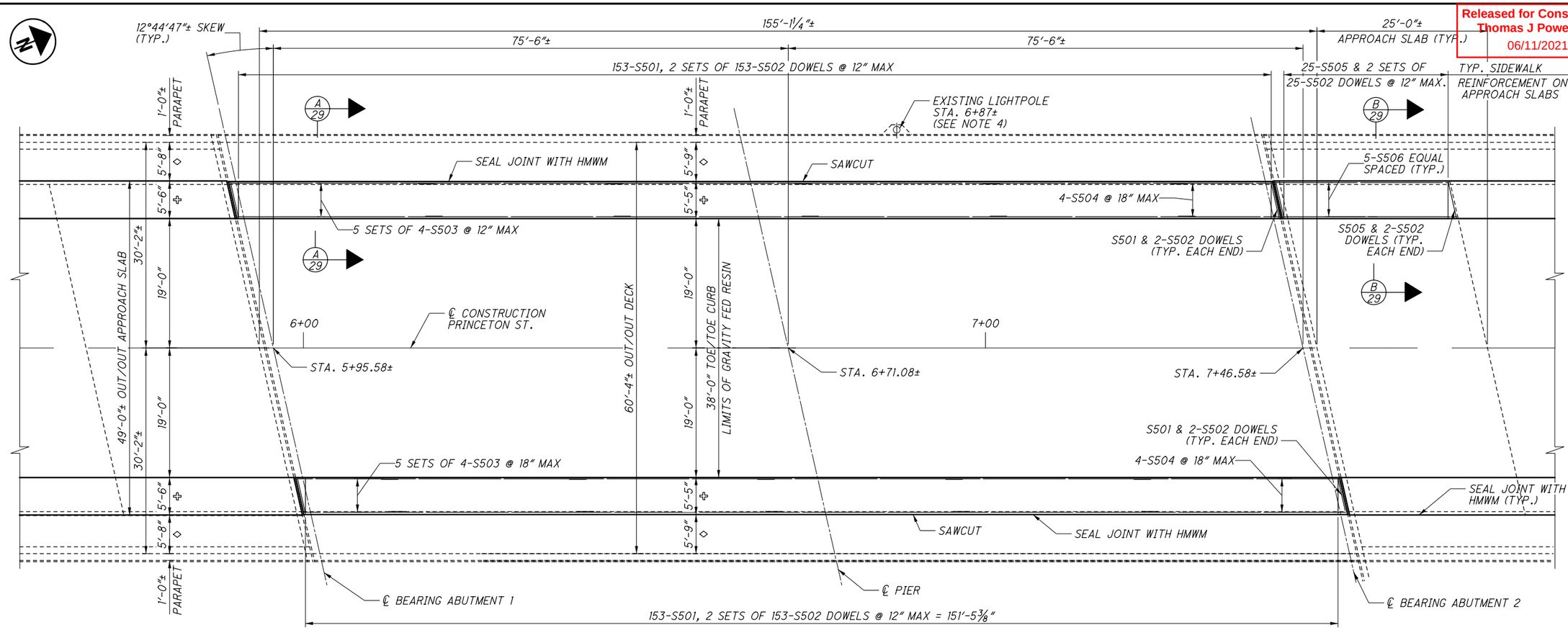
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703368	

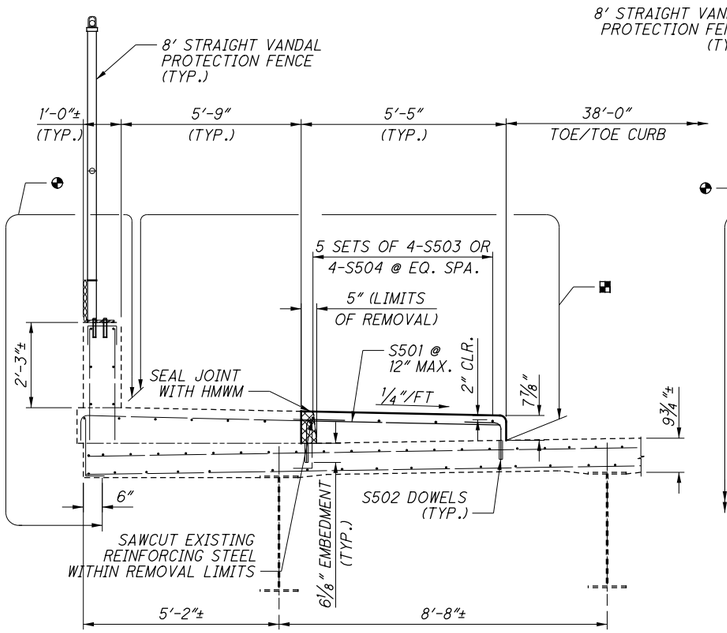
BRIDGE REHABILITATION
BRIDGE NO. SUM-76-0994
PRINCESTON ST. OVER I-76

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

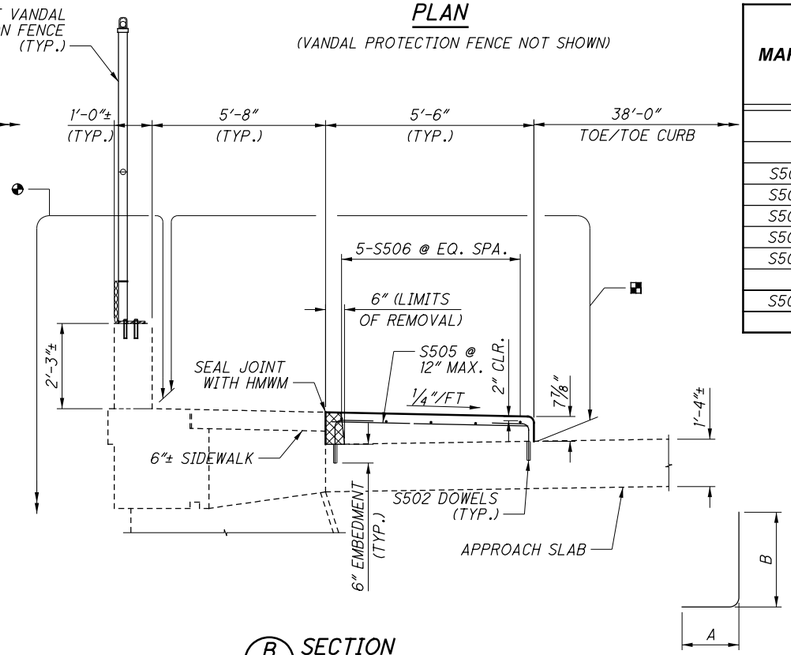
2 / 7

28
53





A 29 **SECTION**
LEFT SIDEWALK SHOWN, RIGHT SIDEWALK SIMILAR



B 29 **SECTION**
LEFT FORWARD SIDEWALK SHOWN, OTHERS SIMILAR

TYPE-1

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	R	INC
SIDEWALK										
S501	310	5'-1"	1644	STR						
S502	820	1'-9"	1497	1	1'-0"	11"				
S503	40	30'-0"	1252	STR						
S504	8	15'-2"	127	STR						
S505	108	5'-3"	591	STR						
S506	20	25'-5"	530							
SUB-TOTAL			5541							

LEGEND:

- ◇ - EXISTING SIDEWALK
- ✣ - PROPOSED SIDEWALK
- ◪ - LIMITS OF SEALING CONCRETE SURFACES (NON-EPOXY)
- ◔ - LIMITS OF SEALING CONCRETE SURFACES (EPOXY-URETHANE)
- ▨ - LIMITS OF REMOVAL

MINIMUM LAP LENGTHS:

#5 BAR = 2'-6"

NOTES:

1. FILL DOWEL HOLES WITH NON-SHRINK, NON-METALLIC GROUT.
2. FOR VANDAL PROTECTION FENCE DETAILS, SEE SHEET 4/7 .
3. FOR EXPANSION JOINT AND SIDEWALK JOINT DETAILS, SEE SHEET 5/7 THRU 6/7 .
4. REPLACE LUMINAIRE WITH LED LUMINAIRE. PAINT LIGHT POLE FEDERAL COLOR NO. 27038 PER C&MS 514.22. SEE BU-36 PLANS.
5. REPAIR PAINT EXISTING SIDEWALK JOINT ARMOR PER C&MS 514.22.
6. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53 .

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

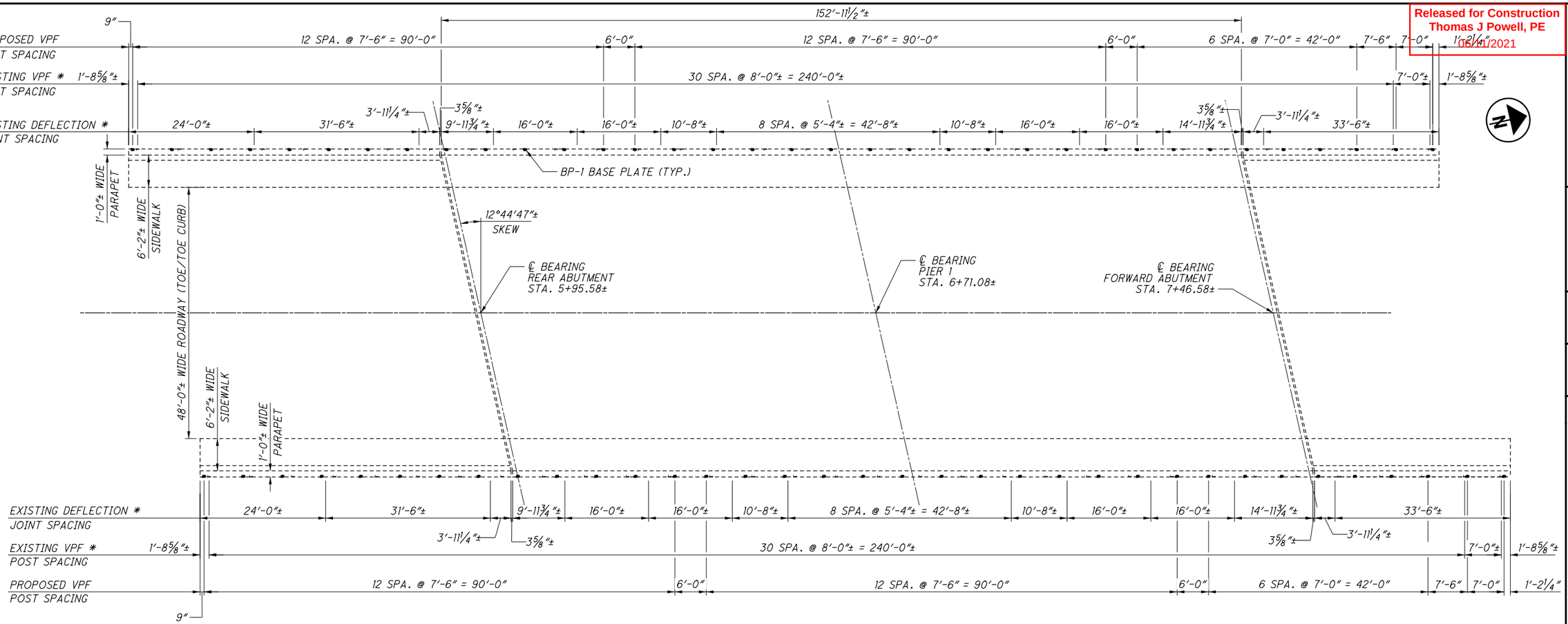
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703368	

SIDEWALK DETAILS
BRIDGE NO. SUM-76-0994
PRINCETON STREET OVER I-76

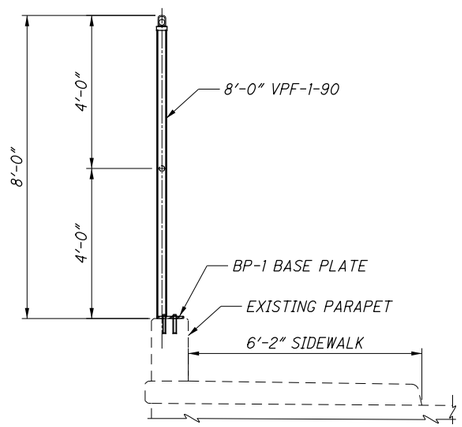
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

3 / 7

29
53



PLAN



TYPICAL SECTION

LEGEND:

* - EXISTING DEFLECTION JOINT AND POST LOCATIONS TAKEN FROM ORIGINAL PLANS.

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE SHEET 5/7 .
2. FOR INFORMATION NOT SHOWN REFER TO SCD VPF-1-90.
3. THE EXISTING DEFLECTION JOINT AND POST LOCATIONS ARE TAKEN FROM THE EXISTING PLANS AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE PLACEMENT OF THE PROPOSED POST LOCATIONS.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703368	

VANDAL PROTECTION FENCE DETAILS (1 OF 2)
BRIDGE NO. SUM-76-0994
PRINCETON ST. OVER I-76

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

4 / 7

30
53

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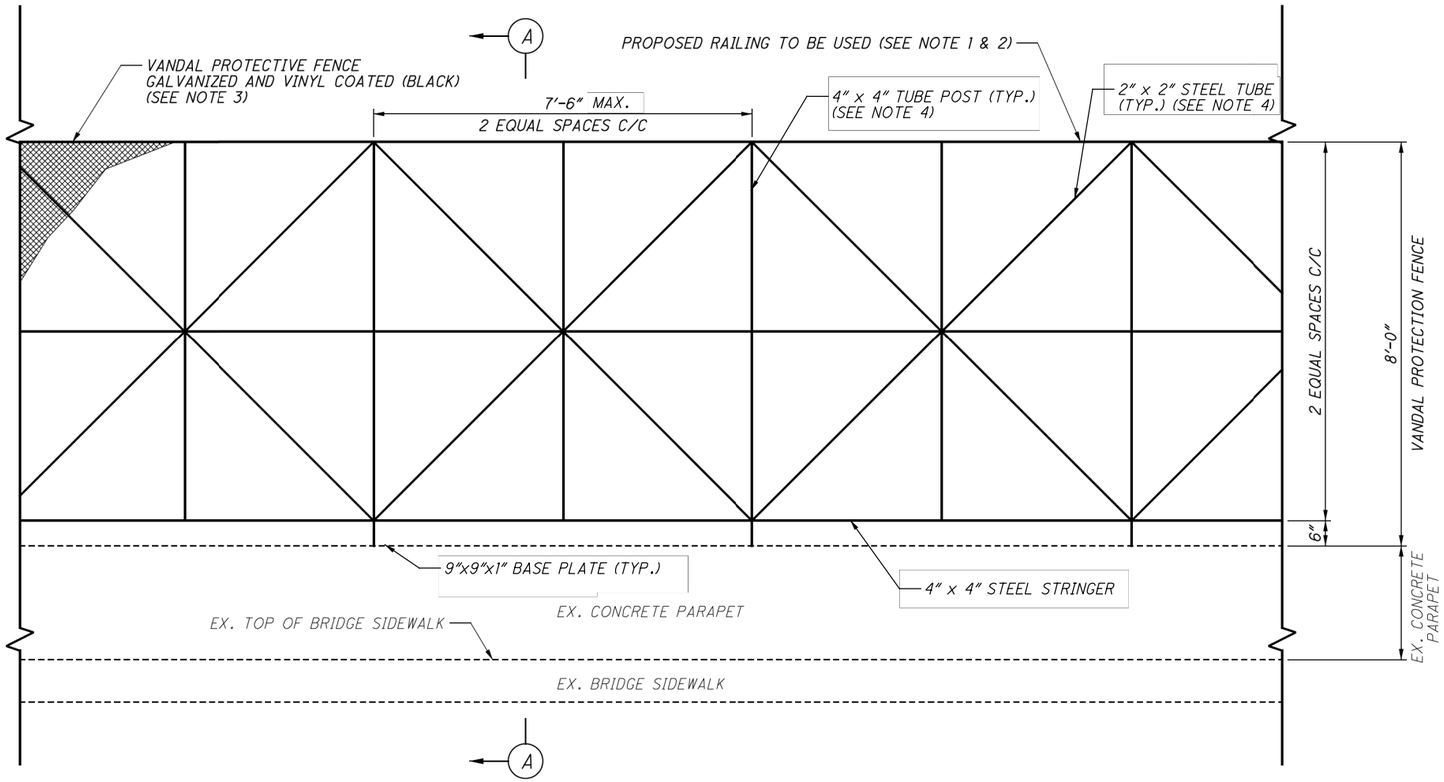
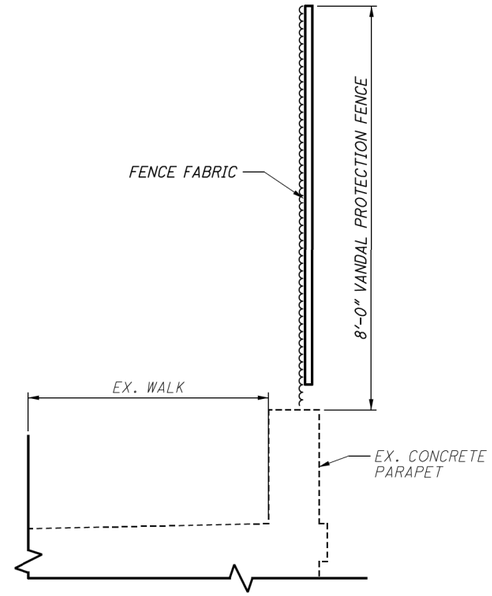
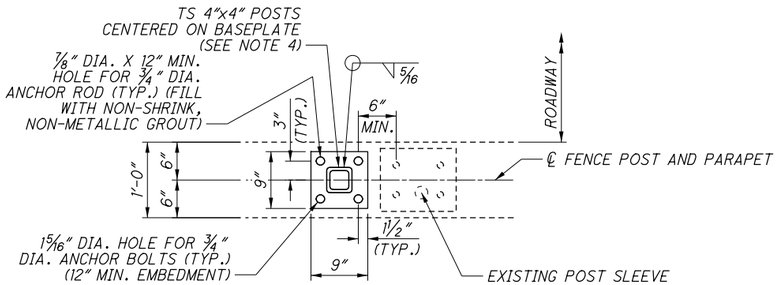


DECORATIVE PANEL DETAIL



SECTION A-A



STEEL BASE PLATE DETAILS

NOTES:

1. ALL POSTS, FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, NUTS, BOLTS, CAULK AND OTHER VISIBLE HARDWARE SHALL BE COATED BLACK (FEDERAL COLOR NO. 27038).
2. NEW ORNAMENTAL RAILING TO HAVE GEOMETRIC PATTERN DETAILED ABOVE.
3. EIGHT (8) FEET HIGH ODOT STANDARD PROTECTIVE FENCING (1" MESH) PER ODOT SCD VPF-1-90 IS REQUIRED. 1" VANDAL PROTECTIVE MESH SHALL BE ATTACHED TO THE PROPOSED ORNAMENTAL METAL FENCE.
4. ALL HOLLOW STRUCTURAL STEEL SECTIONS (HSS) SHALL MEET ASTM A500 GRADE B SPECIFICATIONS. FENCE TOP RAILS, BOTTOM RAILS, AND SUPPORT POSTS SHALL BE 4" SQUARE HSS WITH MINIMUM THICKNESS OF 1/4". DIAGONAL AND VERTICAL INTERMEDIATE POSTS SHALL BE 2" SQUARE HSS WITH MINIMUM THICKNESS OF 1/4".
5. BASE PLATES SHALL BE ASTM A709 GRADE 50 STEEL. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55 STEEL. FOR CAULKING COMPOUND AND ADDITIONALL DETAILS SEE ODOT SCD VPF-1-90.

ORNAMENTAL RAILING EXAMPLE
(ABBEY AVE. OVER GCRTA)

ISSUE RECORD:

NO.	DATE	DESCRIPTION

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PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

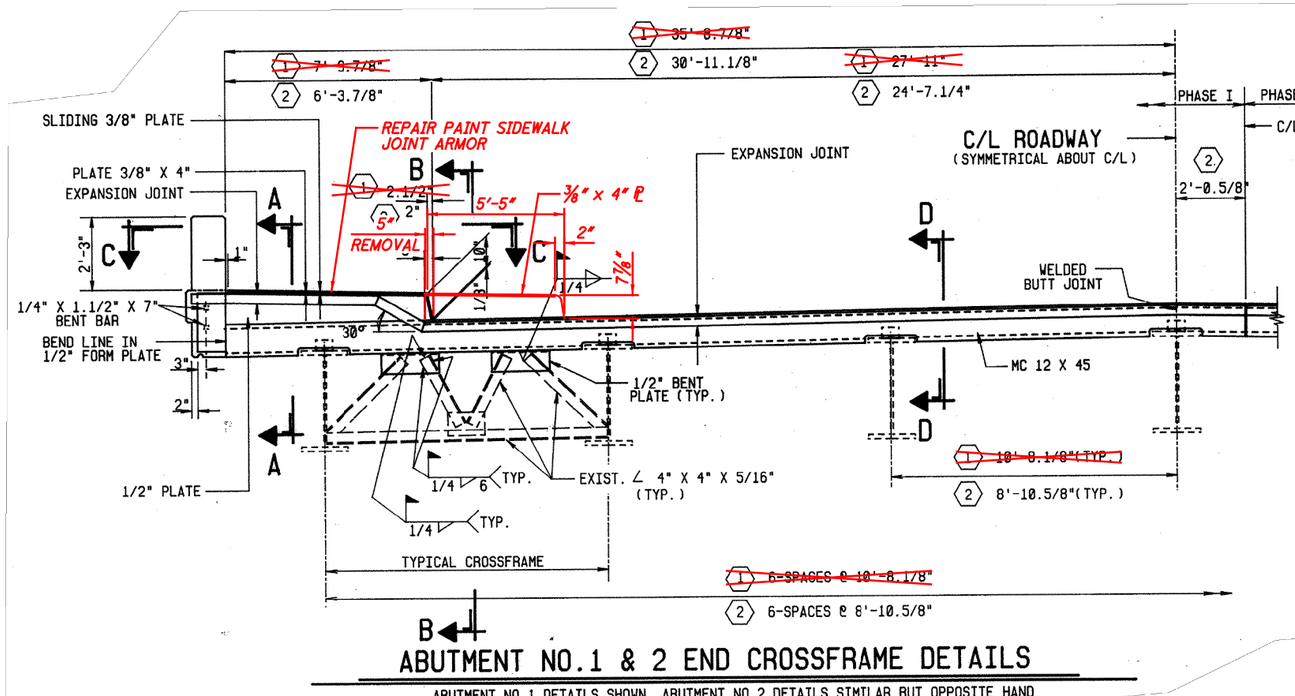
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703368	

VANDAL PROTECTION FENCE DETAILS (2 OF 2)
BRIDGE NO. SUM-76-0994
PRINCETON ST. OVER I-76

SUM-76/77/8-
8.24/9.74/0.00
PID No.102329

5 / 7

31
53



ABUTMENT NO.1 & 2 END CROSSFRAME DETAILS

ABUTMENT NO.1 DETAILS SHOWN, ABUTMENT NO.2 DETAILS SIMILAR BUT OPPOSITE HAND

~~1 EAST AVE.~~

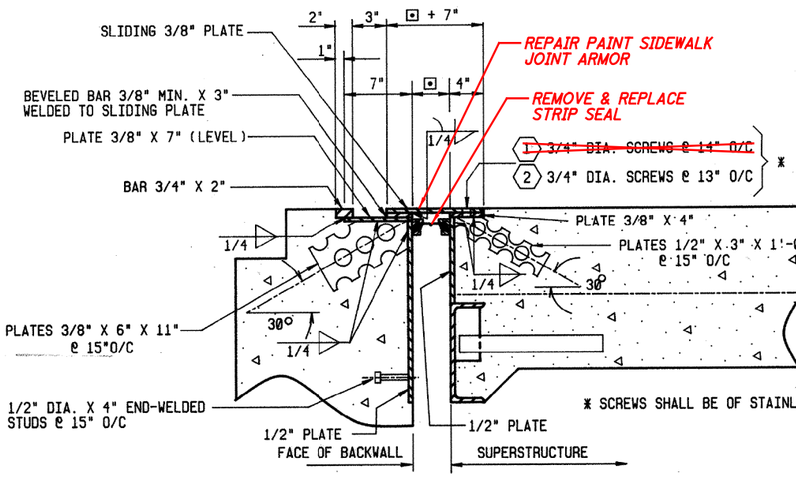
TEMPERATURE ADJUSTMENT TABLE		
TEMPERATURE @ INSTALLATION (°F)	DIM. "A" (IN.) ABUT. NO.1	ABUT. NO.2
90	1.9/16	1.9/16
80	1.11/16	1.5/8
70	1.3/4	1.3/4
60	1.13/16	1.7/8
50	1.15/16	1.15/16
40	2	2.1/16
30	2.1/16	2.1/8

2 PRINCETON ST.

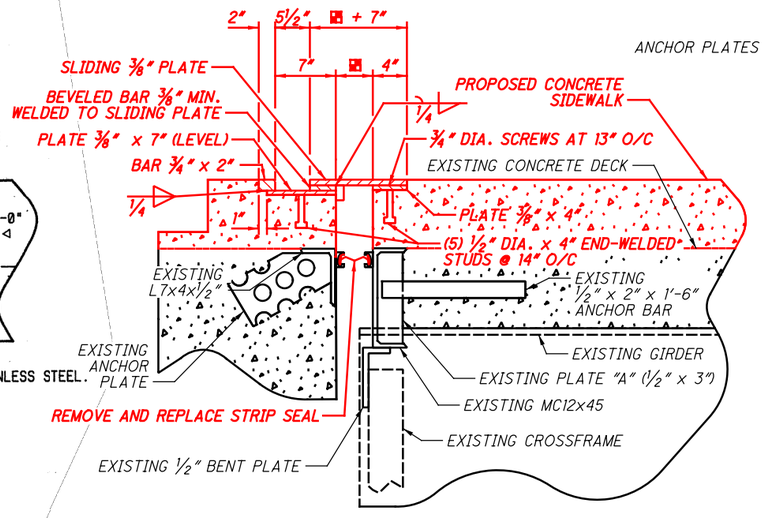
TEMPERATURE ADJUSTMENT TABLE		
TEMPERATURE @ INSTALLATION (°F)	DIM. "A" (IN.) ABUT. NO.1 & ABUT. NO.2	
90	1.5/8	
80	1.11/16	
70	1.3/4	
60	1.13/16	
50	1.7/8	
40	1.15/16	
30	2	

NOTES

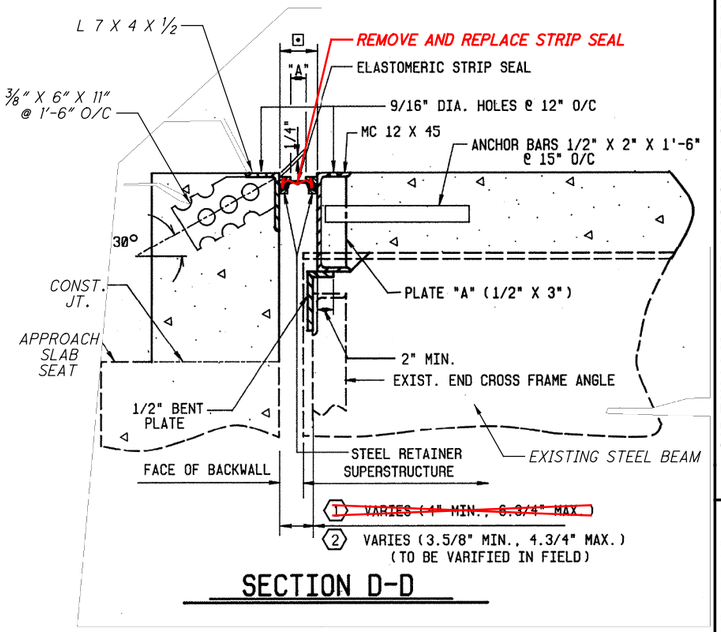
1. LEGEND
   - 1 ~~APPLIES TO BRIDGE NO. SUM-76-0876 (EAST AVE. OVER I-76)~~
   - 2 APPLIES TO BRIDGE NO. SUM-76-0994 (PRINCETON AVE. OVER I-76)
2. FOR VIEW C-C AND SEC. D-D, SEE SHT. NO. 25 / 26
3. ELASTOMERIC STRIP SEAL GLAND FOR THE EXPANSION JOINTS SHALL BE WATSON BOWMAN & ACME MODEL NO. S-300, D.S. BROWN MODEL NO. SS300, OR APPROVED EQUAL.



SECTION A-A



SECTION B-B



SECTION D-D

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

- ℄ - EXISTING DIMENSION AT TIME OF CONSTRUCTION

NOTES:

1. REPAIR PAINT EXISTING SIDEWALK JOINT ARMOR PER C&MS 514.22.
2. REMOVE AND REPLACE THE EXPANSION JOINT STRIP SEALS AT THE REAR AND FORWARD APPROACH JOINTS.
3. FOR ADDITIONAL JOINT DETAILS, SEE SHEET 7/7.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

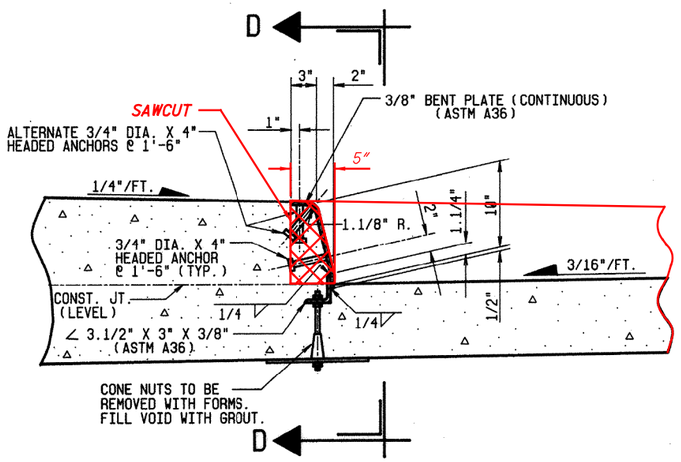
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED		REVISED	STRUCTURE FILE NUMBER
JAT			7703368

SIDEWALK & EXPANSION JOINT DETAILS (1 OF 2)
BRIDGE NO. SUM-76-0994
PRINCETON ST. OVER I-76

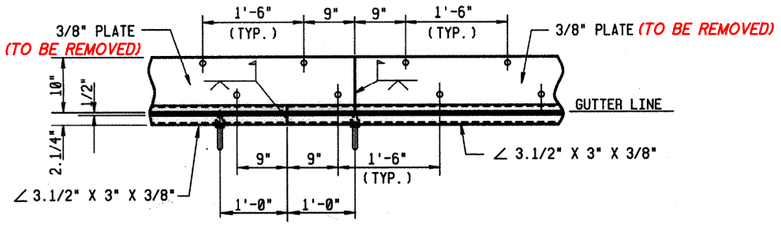
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

6 / 7

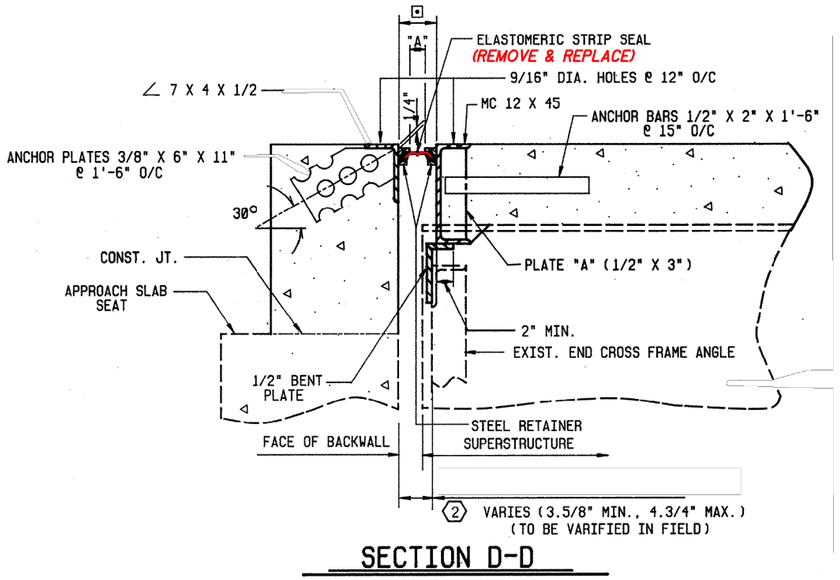
32
53



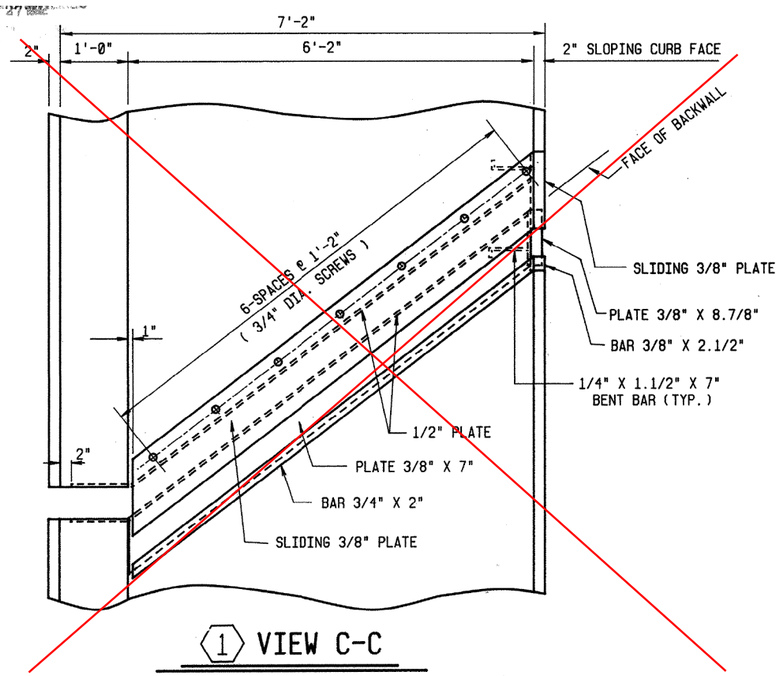
DETAIL "C"



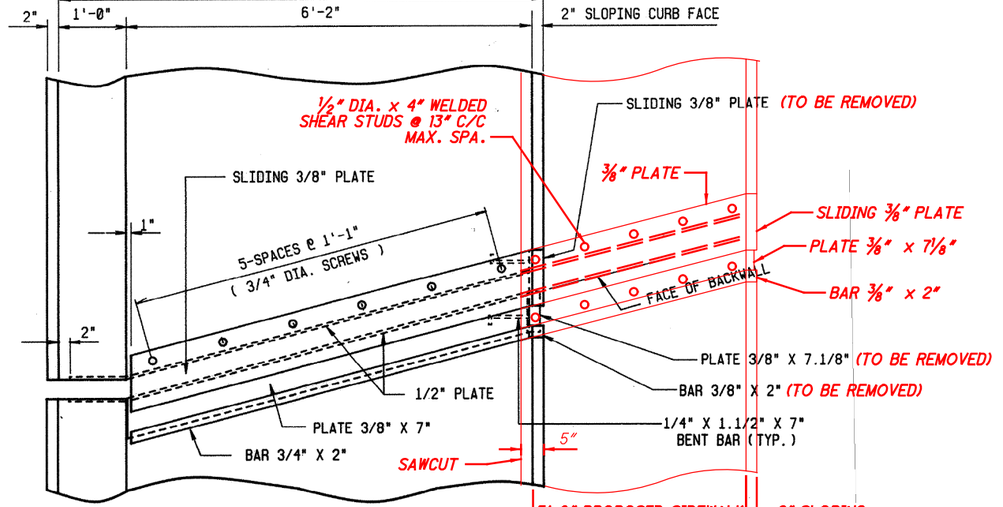
VIEW D-D



SECTION D-D



1 VIEW C-C



2 VIEW C-C

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

2 APPLIES TO SUM-76-0994 (PRINCETON ST. OVER I-76)

PORTIONS OF SIDEWALK TO BE REMOVED

NOTES:

1. REPAIR PAINT EXISTING CURB PLATES & SIDEWALK JOINT ARMOR PER C&MS 514.22.
2. REMOVE AND REPLACE THE EXPANSION JOINT STRIP SEALS AT THE REAR AND FORWARD APPROACH JOINTS.
3. FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING EXJ-4-87.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703368	

SIDEWALK & EXPANSION JOINT DETAILS (2 OF 2)
BRIDGE NO. SUM-76-0994
PRINCETON ST. OVER I-76

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

7 / 7

33
53

DESCRIPTION

ISSUE RECORD:

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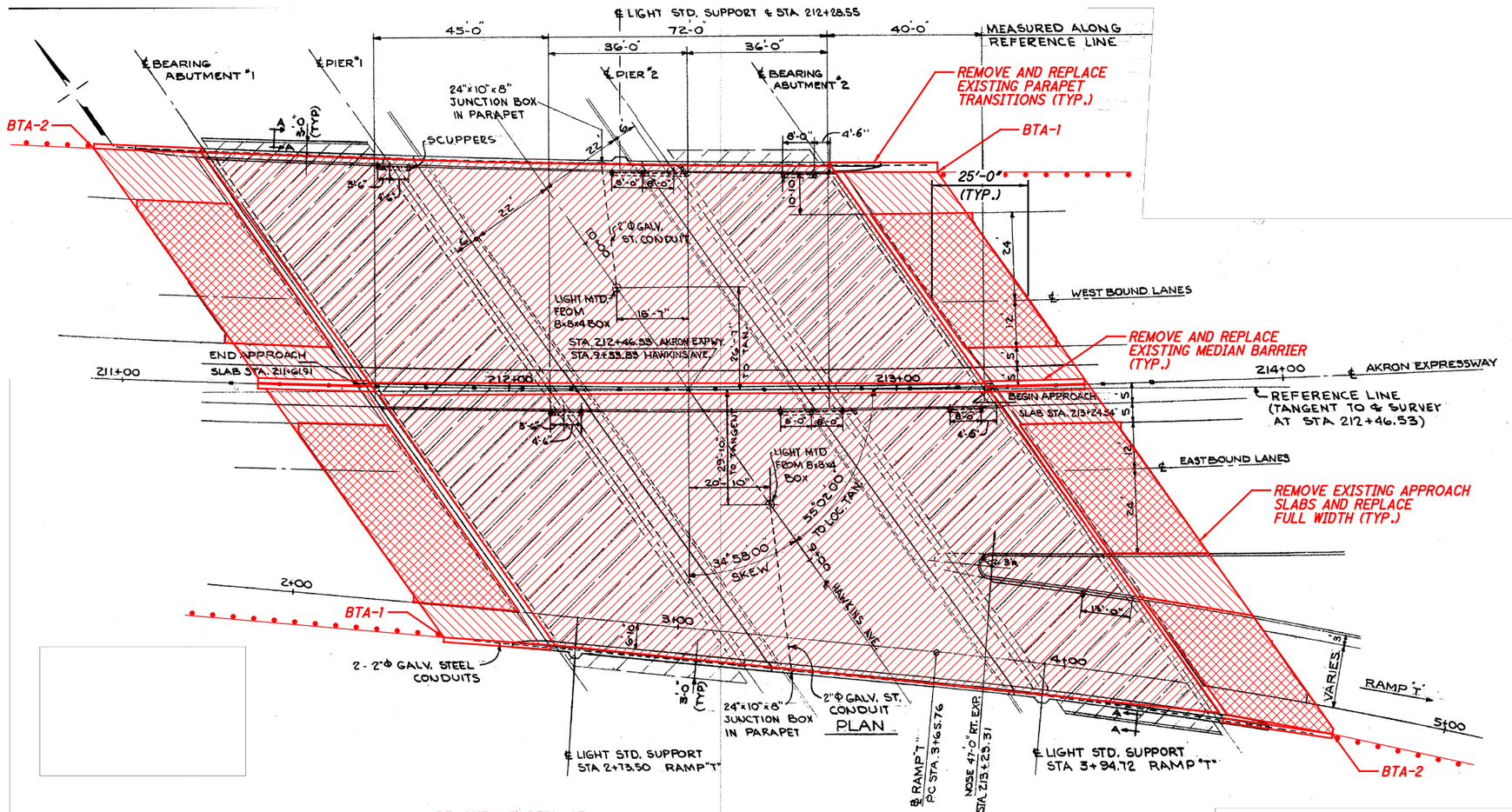
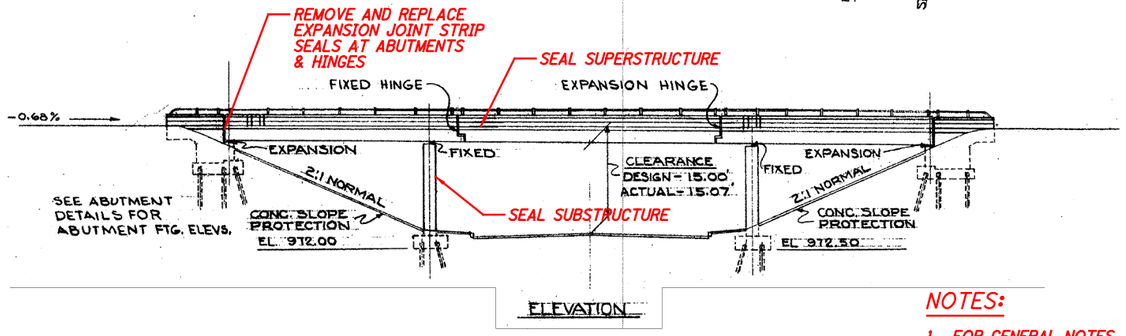
2021-06-03_BU 16-RFC PLANS





ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

- LIMITS OF GRAVITY FED RESIN
- LIMITS OF APPROACH SLAB REMOVAL
- LIMITS OF CONCRETE PAVEMENT SLAB REMOVAL

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 4/10.
3. FOR REMOVAL DETAILS, SEE SHEET 2/10 THRU 3/10.
4. FOR EXPANSION JOINT DETAILS, SEE SHEET 5/10.
5. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.
6. FOR PARAPET DETAILS, SEEE SHEET 8/10 THRU 9/10.

EXISTING STRUCTURE

TYPE: CANTILEVER STEEL BEAMS WITH SUSPENDED SPAN, REINFORCED CONCRETE DECK & SUBSTRUCURE

SPANS: 45'-0"±, 72'-0"±, 40'-0"± C/C BEARINGS

ROADWAY: WEST BOUND LANES 51'-10"± F/F CURBS
EAST BOUND LANES 68'-6"± AVG, F/F CURBS
1'-2"± CURBS AND 10'-0"± MEDIAN CURB

WEARING SURFACE: 1"± MONOLITHIC

LOADING: CF 2000(57) ADEQUATE FOR AASHTO ALT. LOADING

SKEW: 34°58'00"± RIGHT FORWARD

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

ALIGNMENT: CURVED 2°± LEFT

SUPERELEVATION: VARIES

COORDINATES: LATITUDE 41°03'41"± N
LONGITUDE 81°34'11"± W

DESCRIPTION

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DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

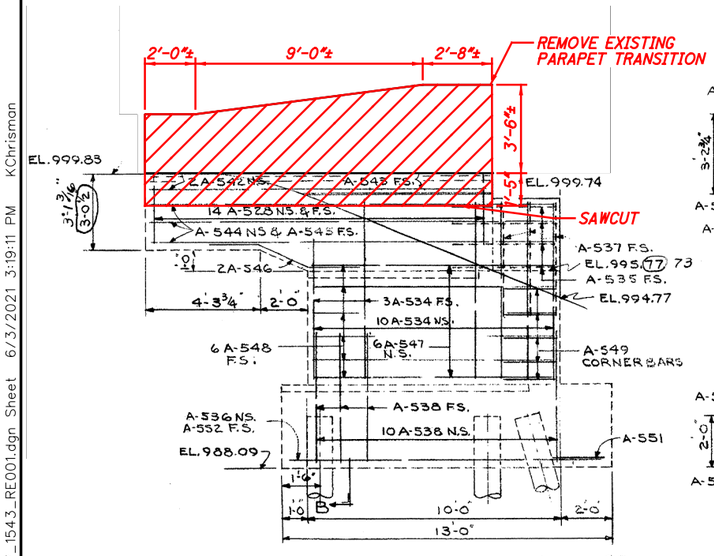
REVIEWED CCJ DATE 4/23/2021
STRUCTURE FILE NUMBER 7703600
DRAWN KDC REVISED
DESIGNED KDC CHECKED JAT

SUMMIT COUNTY
STA. 211+61.91±
STA. 213+24.54±

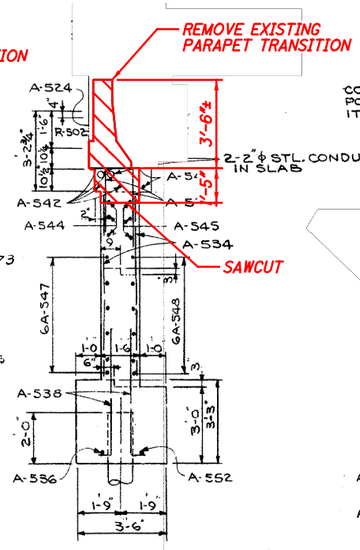
GENERAL PLAN
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE

SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

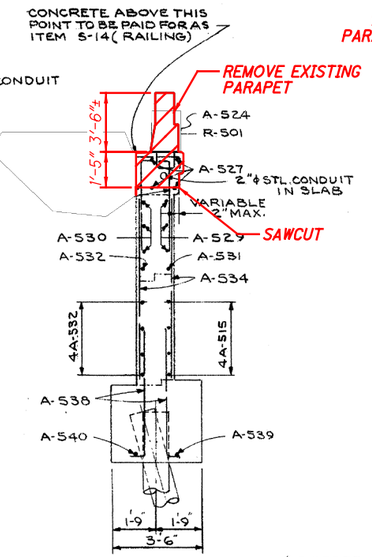
Released for Construction
Thomas J Powell, PE
06/11/2021



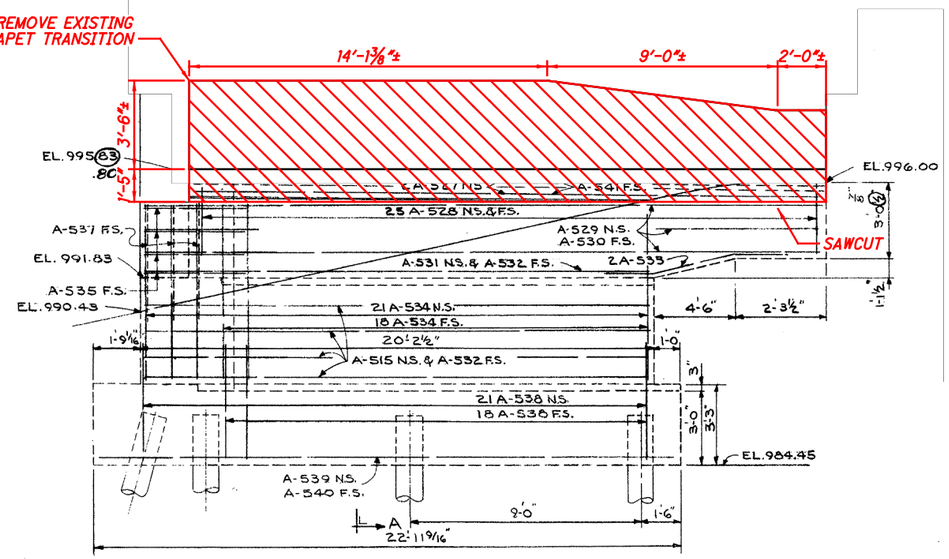
ELEVATION RIGHT WINGWALL (ABUT."1")



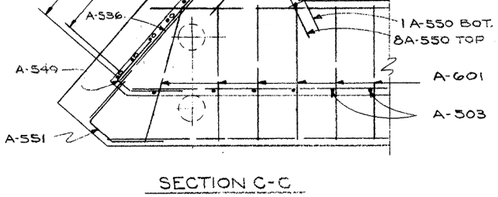
SECTION B-B



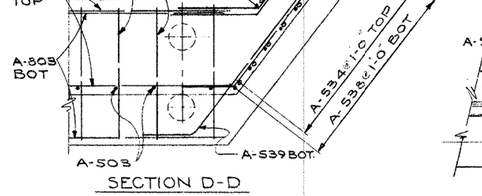
SECTION A-A



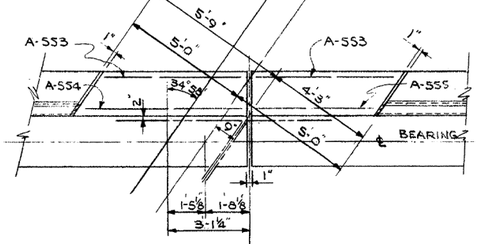
ELEVATION LEFT WINGWALL (ABUT."1")

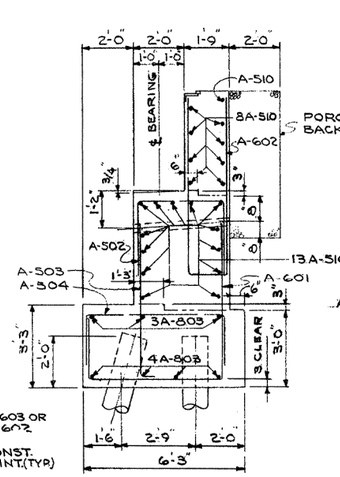


SECTION C-C



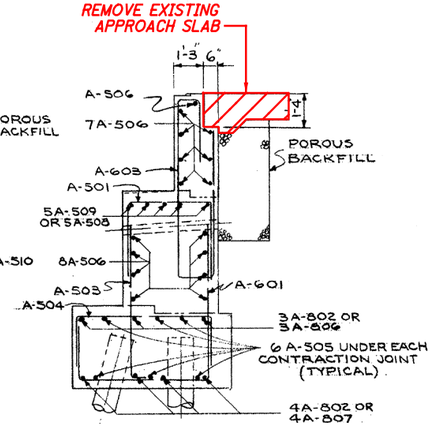
SECTION D-D



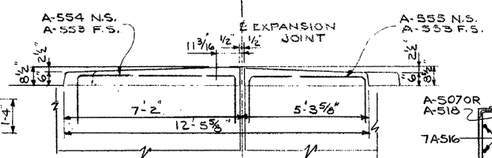


SECTION F-F

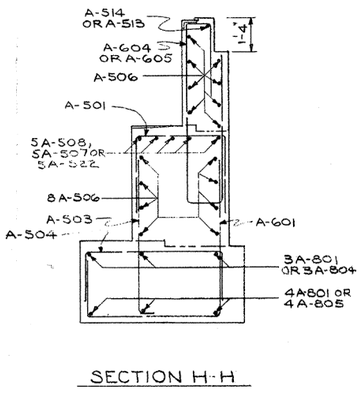
REMOVE EXISTING APPROACH SLAB



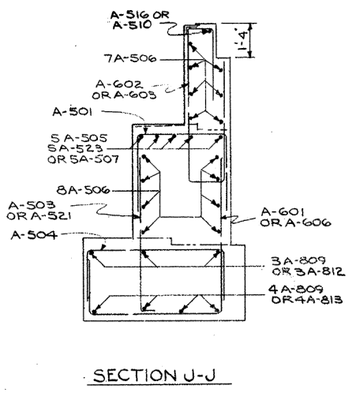
SECTION G-G



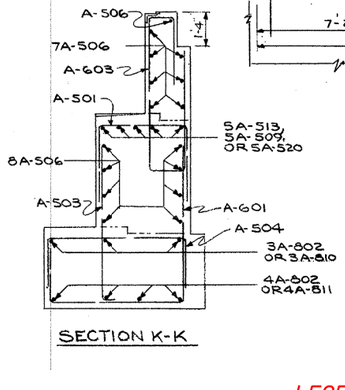
DETAIL "E"



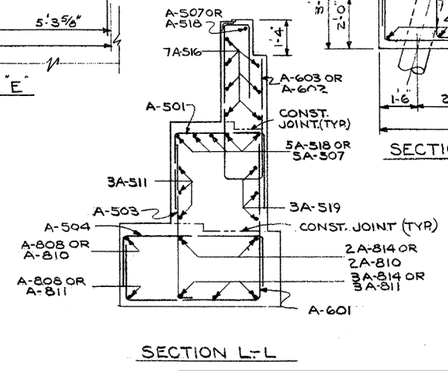
SECTION H-H



SECTION J-J



SECTION K-K



SECTION L-L

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

▨ - LIMITS OF REMOVAL

NOTE:

1. FOR PARAPET DETAILS, SEE SHEET 8/10.
2. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703600	

REMOVAL DETAILS (1 OF 2)
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/78-8.24/09.74/0.00
PID No. 102329

2 / 10

35
53

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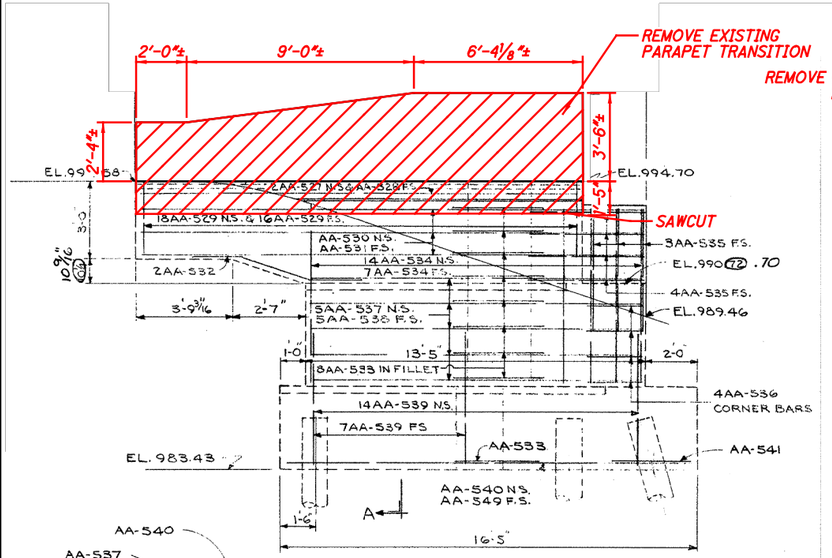
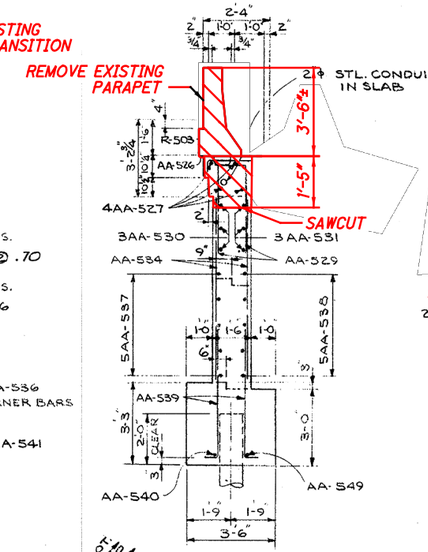
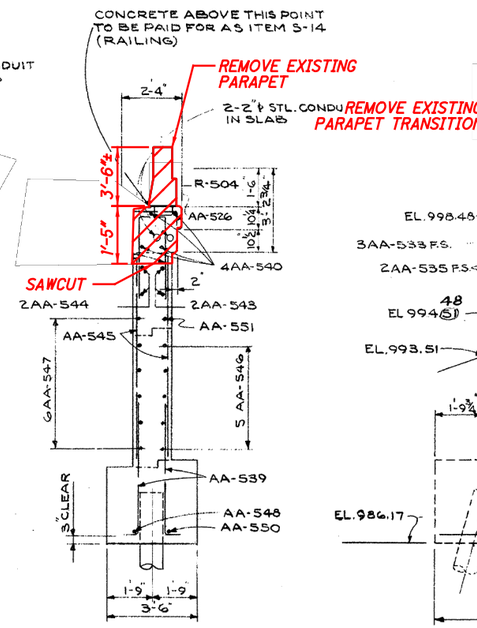
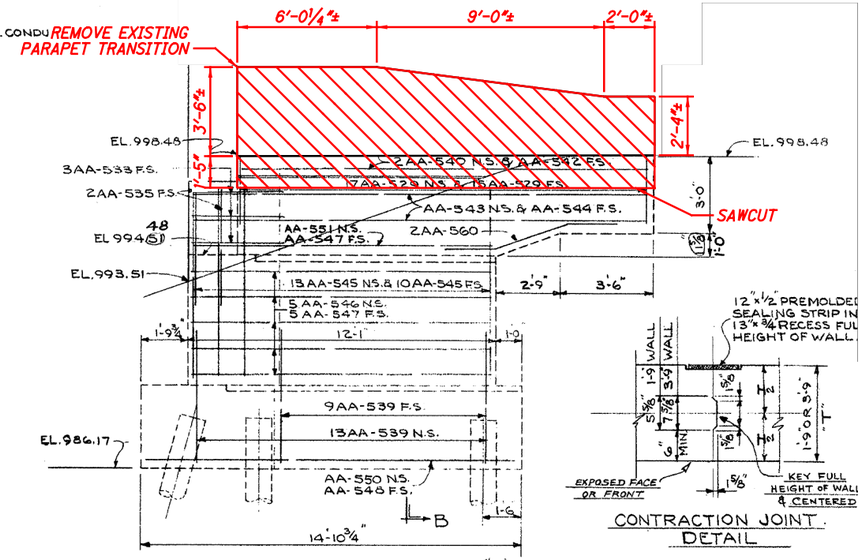
2021-06-03_BU 16-RFC PLANS

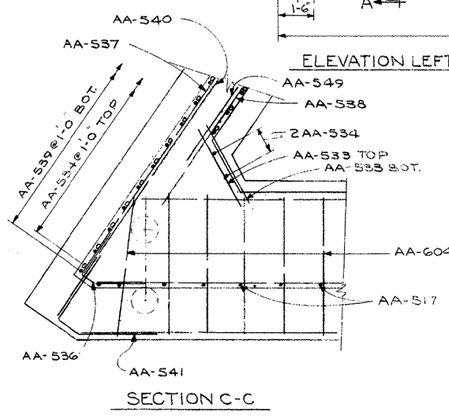
Released for Construction
Thomas J Powell, PE
06/11/2021

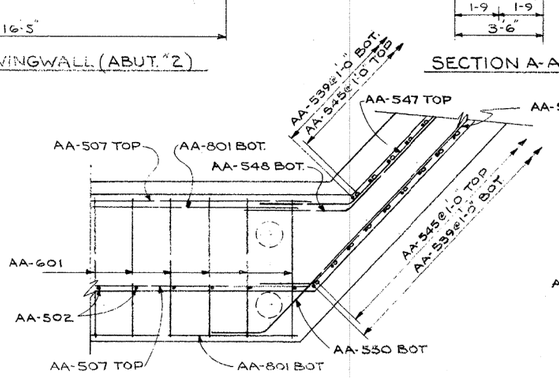


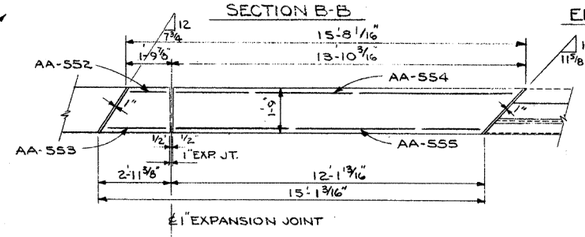


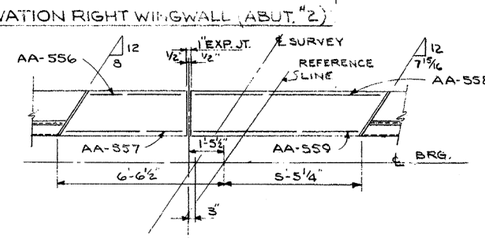


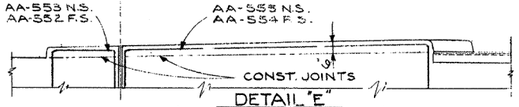


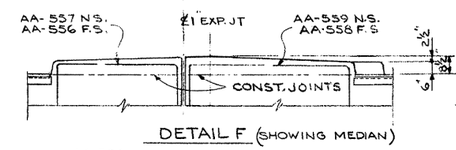


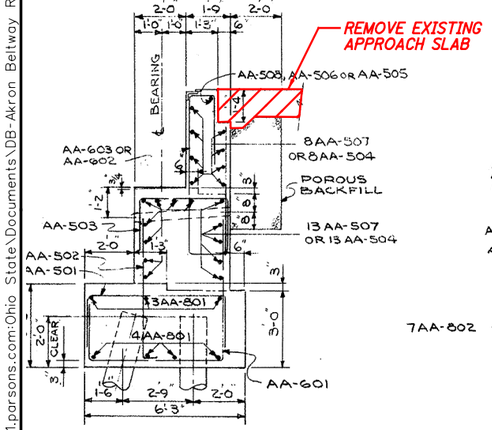


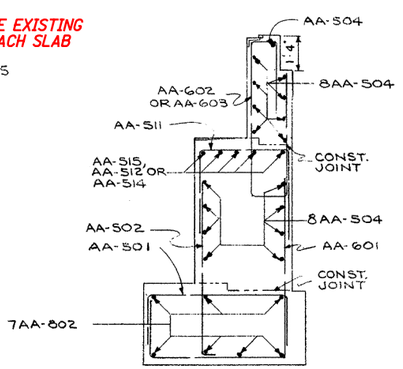


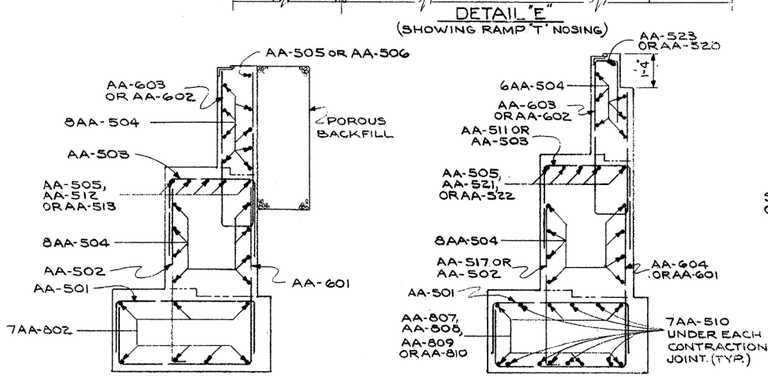


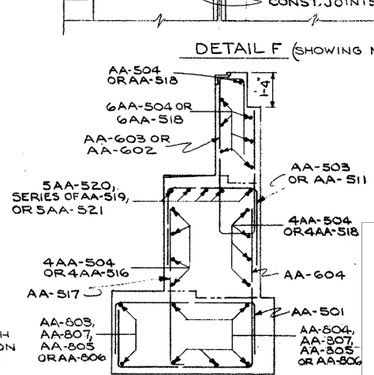












ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

▨ - LIMITS OF REMOVAL

NOTE:

1. FOR PARAPET DETAILS, SEE SHEET 8/10.
2. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
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DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703600	

REMOVAL DETAILS (2 OF 2)
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

3 / 10

36
53

DESCRIPTION

ISSUE RECORD:

NO.	DATE

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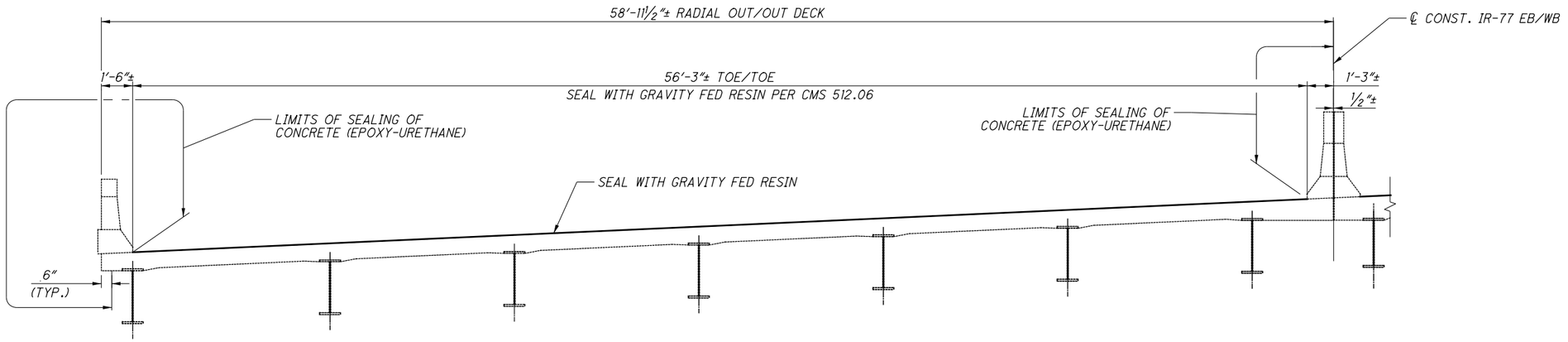
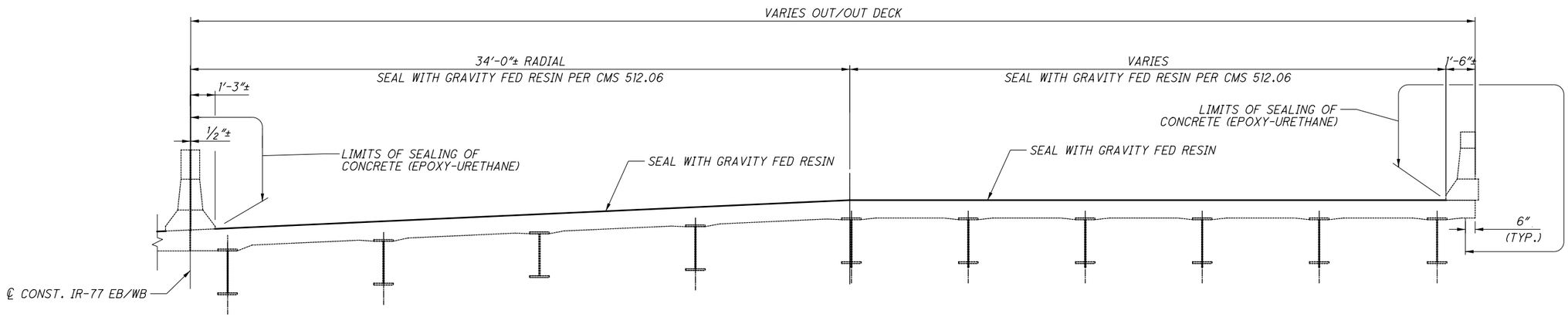
2021-06-03_BU 16-RFC PLANS



TRANSVERSE SECTION (WESTBOUND)

LIMITS OF GRAVITY FED RESIN FROM 211+63.16± TO 213+23.29±



TRANSVERSE SECTION (EASTBOUND)

LIMITS OF GRAVITY FED RESIN FROM 211+63.16± TO 213+23.29±

NOTE:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.

ISSUE RECORD:

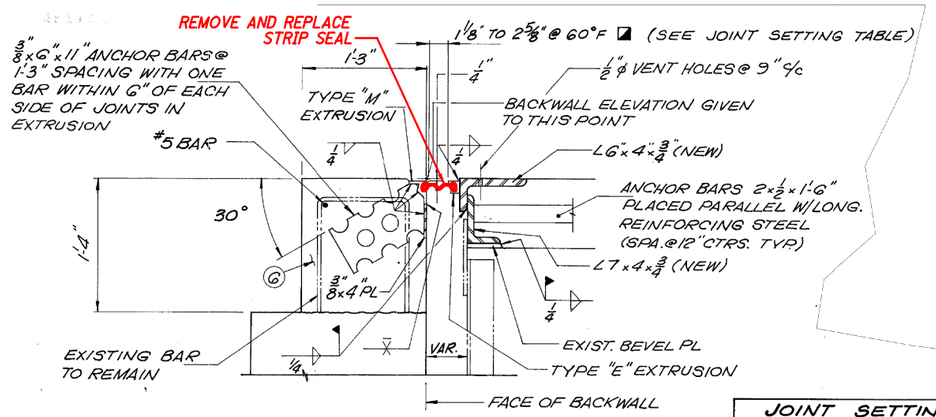
NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703600	

BRIDGE REHABILITATION
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329



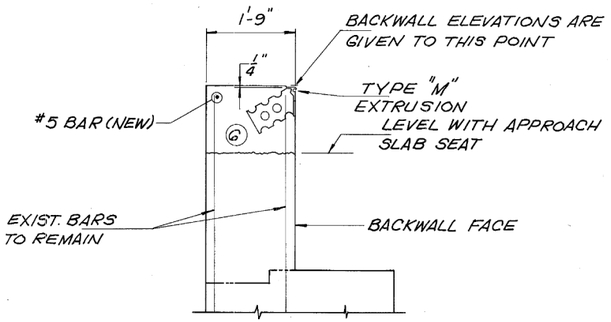
SECTION X-X

EXPANSION JOINT AT ABUTMENT

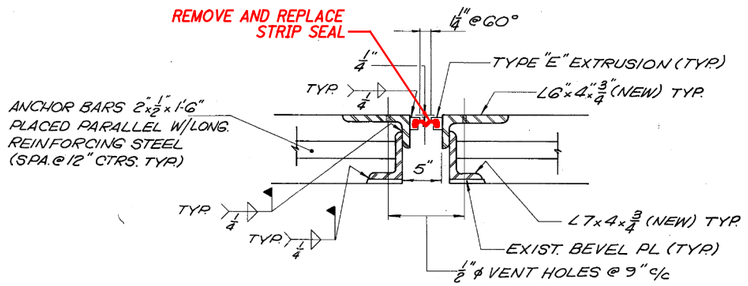
FOR DETAILS NOT SHOWN SEE STD. DWG. SD-1-09

JOINT SETTING TABLE						
30°	40°	50°	60°	70°	80°	90°
+1/4	+3/16	+1/16	◪	-1/16	-3/16	-1/4

VALUES GIVEN ARE ADJUSTMENTS TO THE JOINT OPENING AT TEMPERATURES OTHER THAN 60°F.



SECTION Y-Y

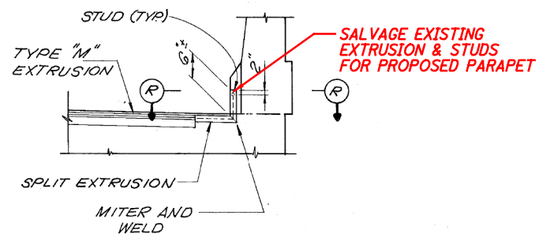


EXPANSION JOINT AT HINGE

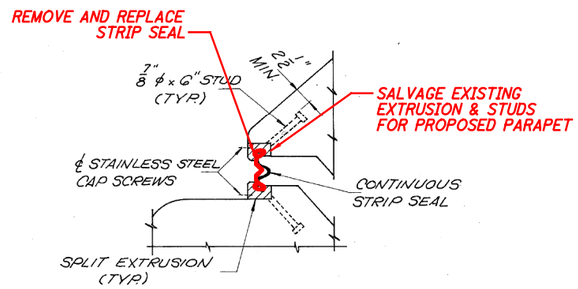
AT HAWKINS AVE.

EXPANSION JOINT STRIP SEAL REPLACEMENT

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY



DETAIL D



SECTION R-R

EXPANSION JOINT AT PARAPETS

NOTE:

1. REMOVE AND REPLACE THE EXPANSION JOINT STRIP SEALS AT THE REAR AND FORWARD ABUTMENTS & THE HINGE POINTS.
2. THE STRIP SEAL SHALL BE AN EXTRUDED POLYCHLOROPRENE MATERIAL CONFORMING TO ASTM D2628. STRIP SEAL SHALL BE AN S-300E STRIP SEAL MANUFACTURED BY WATSON BOWMAN AND ACME CORPORATIONS OR APPROVED EQUAL.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703600	

EXPANSION JOINT DETAILS
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

5 / 10

38
53

ISSUE RECORD:

NO.	DATE	DESCRIPTION

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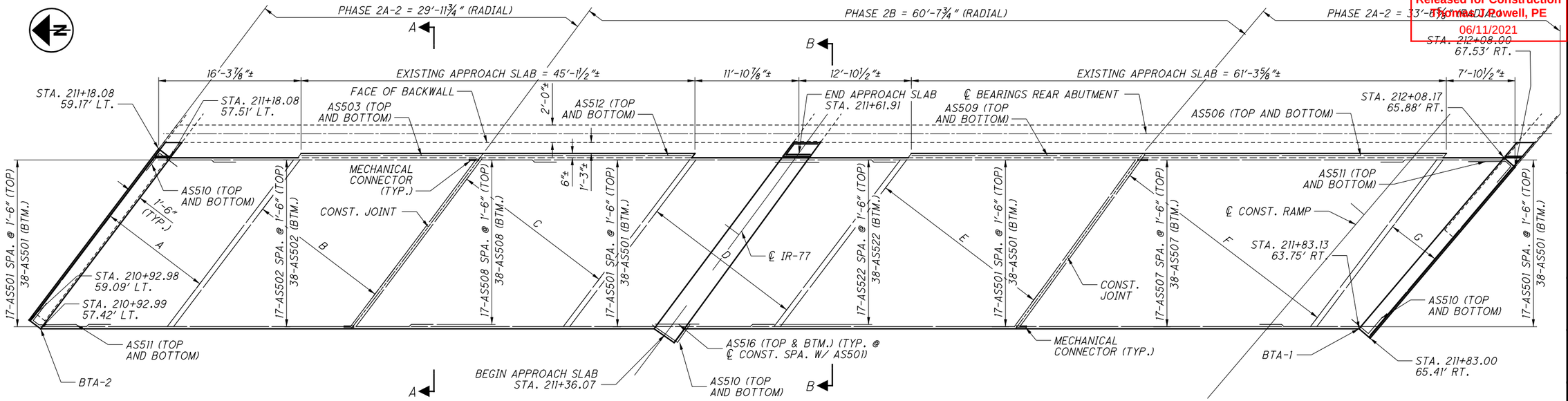
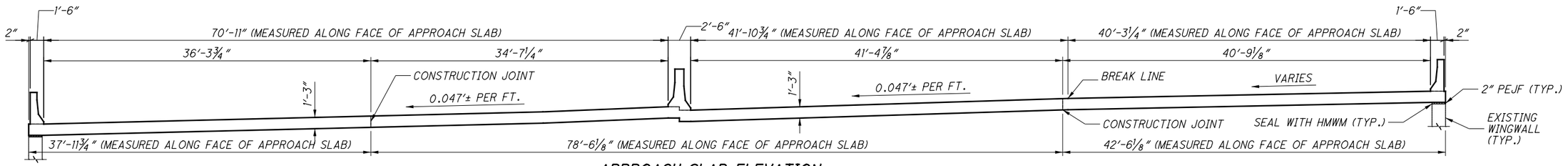
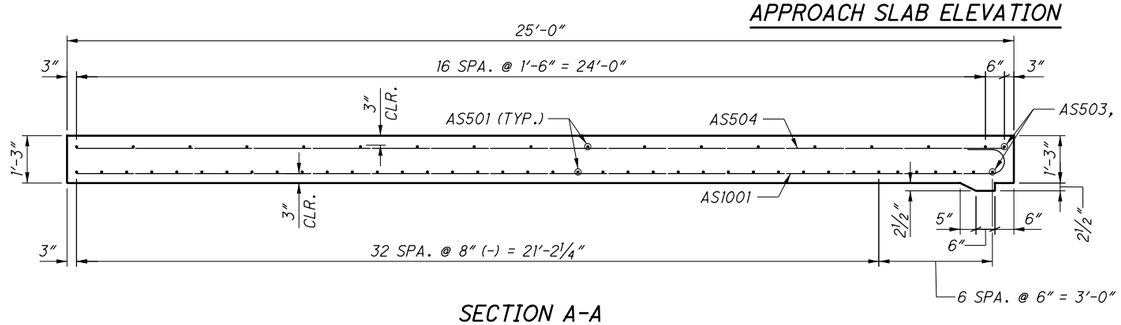


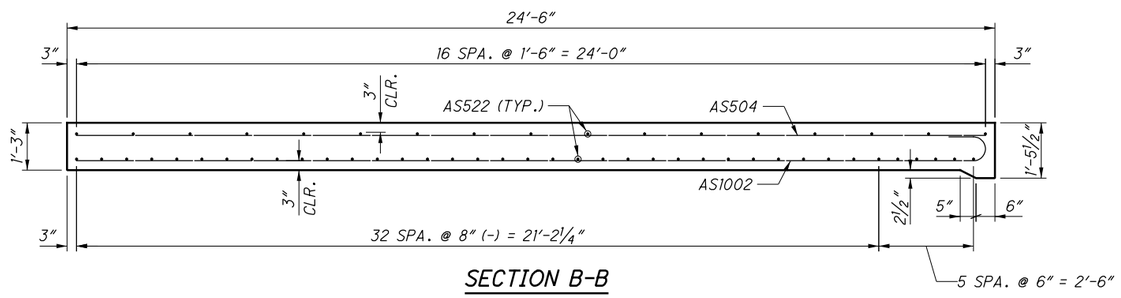
REAR APPROACH SLAB PLAN



APPROACH SLAB ELEVATION



SECTION A-A



SECTION B-B

MINIMUM LAP LENGTHS:

#5 BAR = 2'-6"

LEGEND:

A - 9-AS505 SPA. @ 1'-6" MAX. (TOP) & 23-AS1002 SPA. @ 7" MAX. (BTM.)

B - 12-AS504 SPA. @ 1'-6" MAX. (TOP) & 29-AS1001 SPA. @ 7" MAX. (BTM.)

C - 13-AS504 SPA. @ 1'-6" MAX. (TOP) & 34-AS1001 SPA. @ 7" MAX. (BTM.)

D - 13-AS505 SPA. @ 1'-6" MAX. (TOP) & 33-AS1002 SPA. @ 7" MAX. (BTM.)

E - 15-AS504 SPA. @ 1'-6" MAX. (TOP) & 37-AS1001 SPA. @ 7" MAX. (BTM.)

F - 19-AS504 SPA. @ 1'-6" MAX. (TOP) & 48-AS1001 SPA. @ 7" MAX. (BTM.)

G - 5-AS505 SPA. @ 1'-6" MAX. (TOP) & 13-AS1002 SPA. @ 7" MAX. (BTM.)

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.
2. FOR PARAPET TRANSITIONS AND MEDIAN BARRIER, SEE SHEET 8/10 THRU 9/10.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\077_1543_MD001.dgn Sheet 6/3/2021 3:22:42 PM KChrisman

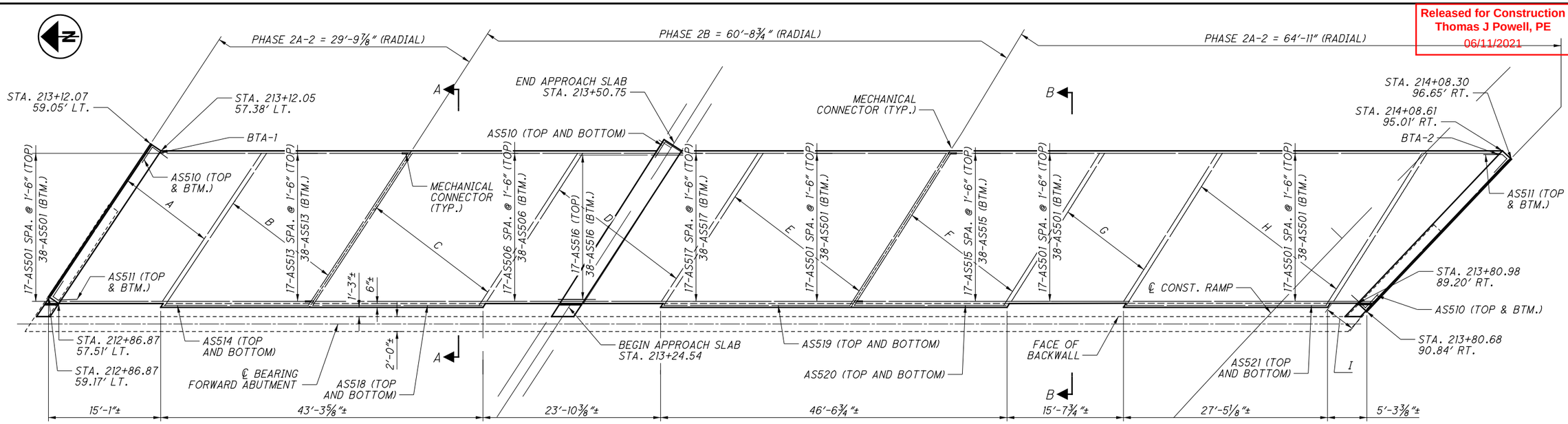
DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DRAWN JAT | REVIEWED CCJ | DATE 4/23/202
DESIGNED JAT | CHECKED KDC | REVISED | STRUCTURE FILE NUMBER 7703600

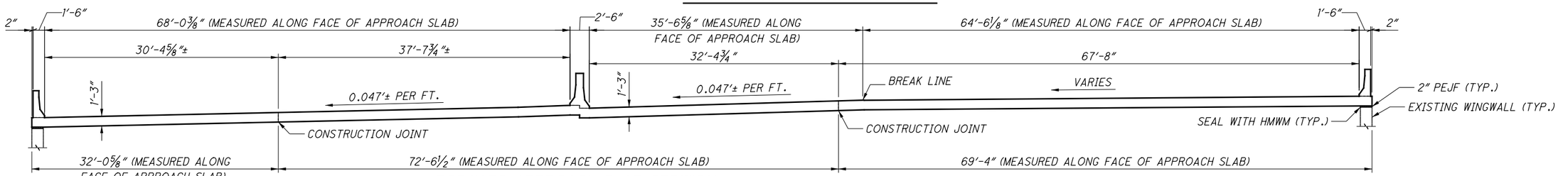
REAR ABUTMENT APPROACH SLAB DETAILS

BRIDGE NO. SUM-76-1543
I-77 OVER HAWKINS AVE.

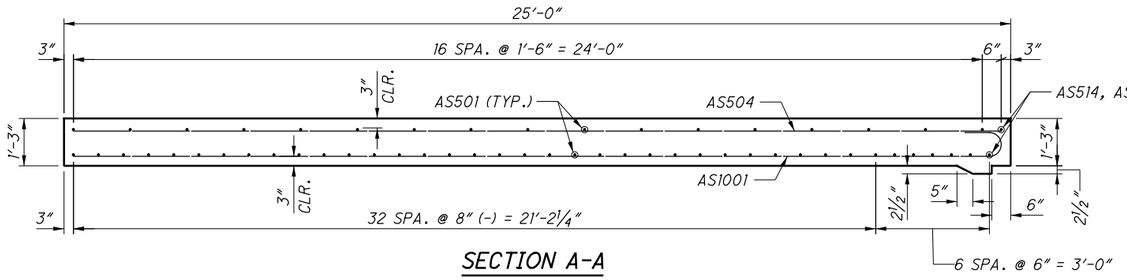
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329



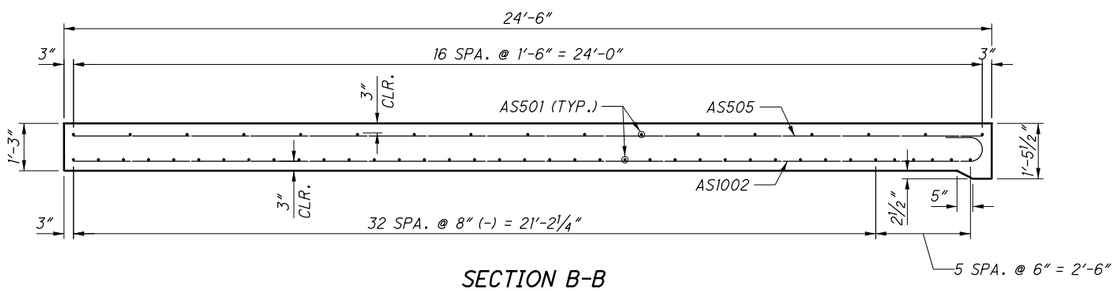
FORWARD APPROACH SLAB PLAN



FORWARD APPROACH SLAB SECTION



SECTION A-A



SECTION B-B

MINIMUM LAP LENGTHS:

#5 BAR = 2'-6"

LEGEND:

A - 9-AS505 SPA. @ 1'-6" MAX. (TOP) & 23-AS1002 SPA. @ 7" MAX. (BTM.)

B - 12-AS504 SPA. @ 1'-6" MAX. (TOP) & 29-AS1001 SPA. @ 7" MAX. (BTM.)

C - 13-AS504 SPA. @ 1'-6" MAX. (TOP) & 34-AS1001 SPA. @ 7" MAX. (BTM.)

D - 14-AS505 SPA. @ 1'-6" MAX. (TOP) & 33-AS1002 SPA. @ 7" MAX. (BTM.)

E - 15-AS504 SPA. @ 1'-6" MAX. (TOP) & 37-AS1001 SPA. @ 7" MAX. (BTM.)

F - 12-AS504 SPA. @ 1'-6" MAX. (TOP) & 48-AS1001 SPA. @ 7" MAX. (BTM.)

G - 9-AS505 SPA. @ 1'-6" MAX. (TOP) & 13-AS1002 SPA. @ 7" MAX. (BTM.)

H - 15-AS504 SPA. @ 1'-6" MAX. (TOP) & 40-AS1001 SPA. @ 7" MAX. (BTM.)

I - 1 SER. OF 8-AS523 SPA. @ 1'-6" MAX. (TOP) (FAN TO FIT)
& 1 SER. OF 18-AS1003 SPA. @ 7" MAX. (BTM.) (FAN TO FIT)

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.
2. FOR PARAPET TRANSITIONS AND MEDIAN BARRIER, SEE SHEET 8/10 THRU 9/10.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703600	

FORWARD ABUTMENT APPROACH SLAB DETAILS

BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

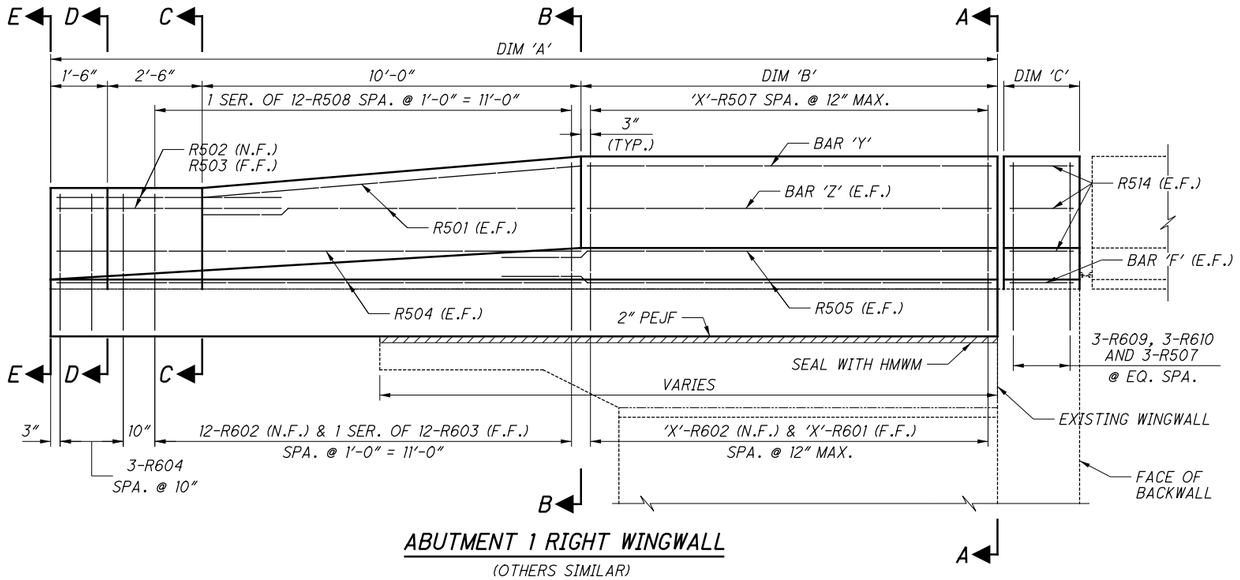
7 / 10

40 / 53

DESCRIPTION

ISSUE RECORD:

NO.	DATE

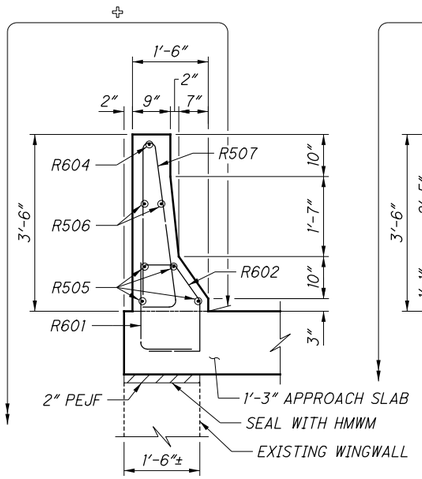


ABUTMENT 1 RIGHT WINGWALL

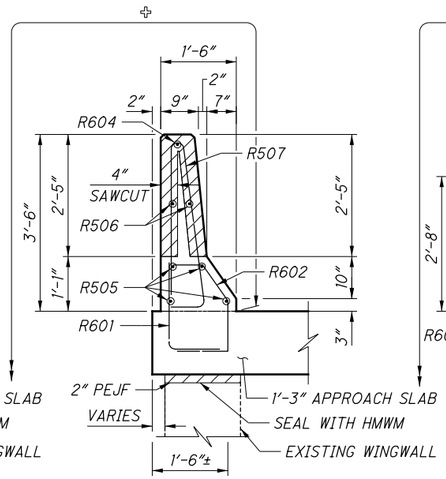
(OTHERS SIMILAR)

LOCATION	DIM 'A'	DIM 'B'	'X' SETS	BAR 'Y'	BAR 'Z'	DIM 'C'	BAR 'F'
LEFT REAR	24'-7"	10'-7"	12	R605	R506	1'-11⅛"	R512
RIGHT REAR	25'-8"	11'-8"	13	R606	R509	2'-0⅛"	R513
LEFT FWD.	24'-8⅛"	10'-8⅛"	12	R607	R510	1'-10⅞"	R512
RIGHT FWD.	28'-2¾"	14'-2¾"	15	R608	R511	2'-2¾"	R513

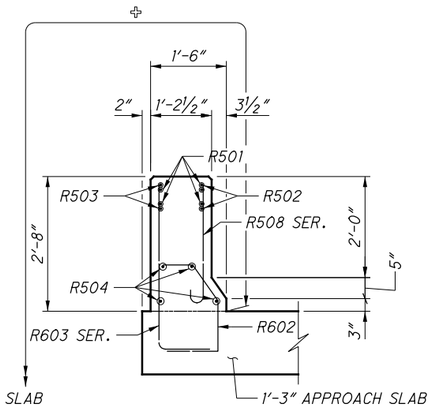
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
APPROACH SLAB PARAPET											
R501	16	10'-0"	167	STR							
R502	8	5'-8"	47	25	1'-10"	2'-5"	1'-4"	1½"	5"		
R503	8	5'-8"	47	STR							
R504	16	13'-10"	231	STR							
R505	16	12'-10"	214	STR							
R506	2	10'-1"	21	STR							
R507	64	6'-11"	462	22	8"	3'-0"	3'-3"			2"	
	4 SR	3'-0"			2'-4 ½"						
R508	OF	TO	171	16	TO						¾"
	12	3'-10"			3'-3"						
R509	2	11'-2"	23	STR							
R510	2	10'-2"	21	STR							
R511	2	13'-8"	29	STR							
R512	4	4'-3"	18	37	11½"	1'-2"	1'-6"				
R513	4	4'-5"	18	2	11½"	1'-2"	1'-8"				
R514	24	3'-2"	79	2	1'-6"	0'-5"	1'-6"				
R601	52	2'-7"	202	1	1'-0"	1'-9"					
R602	100	3'-1"	463	14	7"	6"	8 ½"	1'-0"	1'-0"		
	4 SR	4'-1"				3'-3"					
R603	OF	TO	327	1	1'-0"	TO					¾"
	12	5'-0"				4'-1 ½"					
R604	12	4'-1"	74	1	1'-0"	3'-3"					
R605	1	10'-1"	15	STR							
R606	1	11'-2"	17	STR							
R607	1	10'-2"	15	STR							
R608	1	13'-8"	21	STR							
R609	12	2'-0"	36	STR							
R610	12	2'-8"	48	14	-	8"	8 ½"	1'-0"	1'-0"		
SUB-TOTAL		2,766									



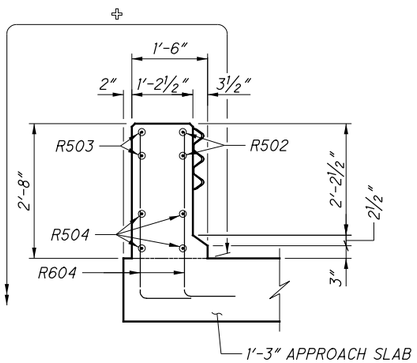
SECTION A-A



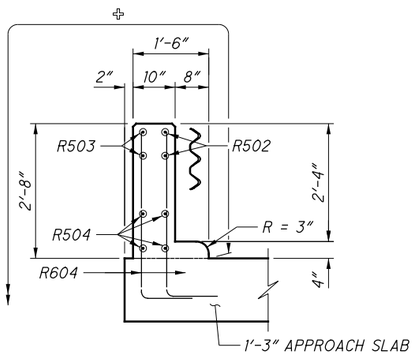
SECTION B-B



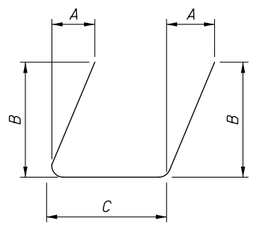
SECTION C-C



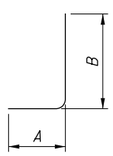
SECTION D-D



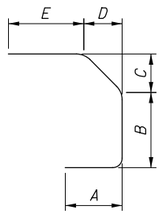
SECTION E-E



TYPE-37



TYPE-1



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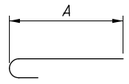
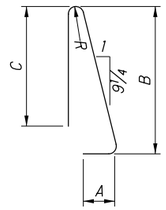
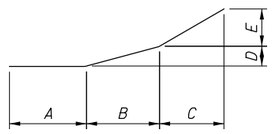


TYPE-16



TYPE-22



TYPE-25

LEGEND:

⌖ - LIMITS OF SEALING (EPOXY-URETHANE). SEAL ENTIRE SURFACE DOWN TO THE PROPOSED GROUND LINE

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. BR-1-13.
2. CLEAR DISTANCE FROM THE EDGE OF CONCRETE TO THE FACE OF REINFORCING STEEL SHALL BE 2" UNLESS NOTED OTHERWISE.

ISSUE RECORD:

NO.	DESCRIPTION	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703600	

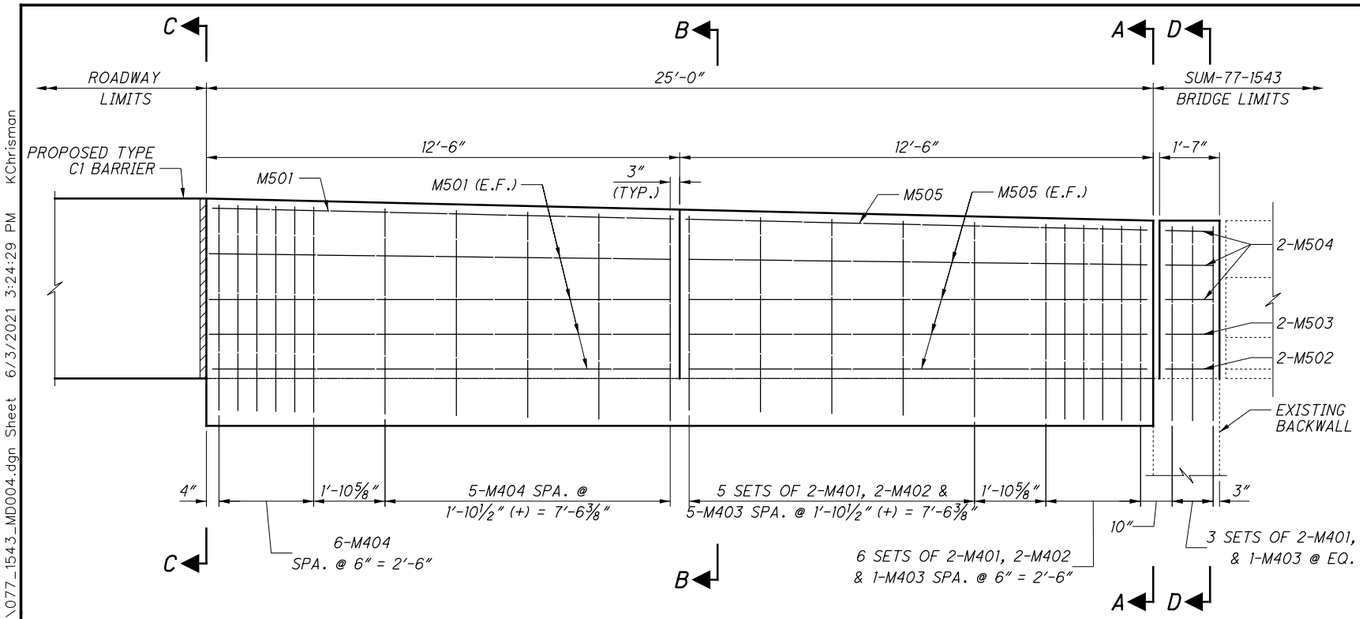
APPROACH SLAB PARAPET DETAILS

BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

8 / 10

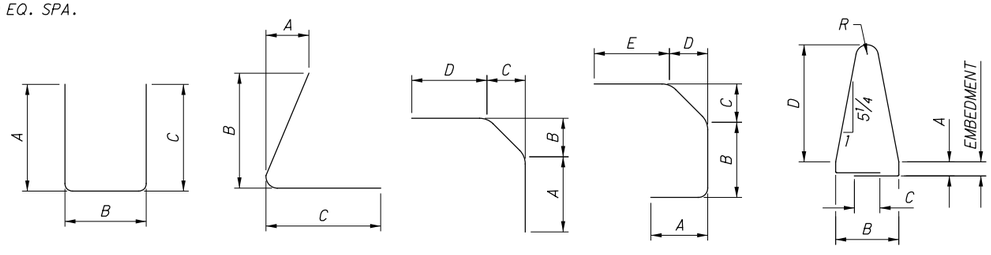
41 / 53

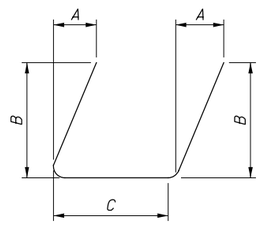


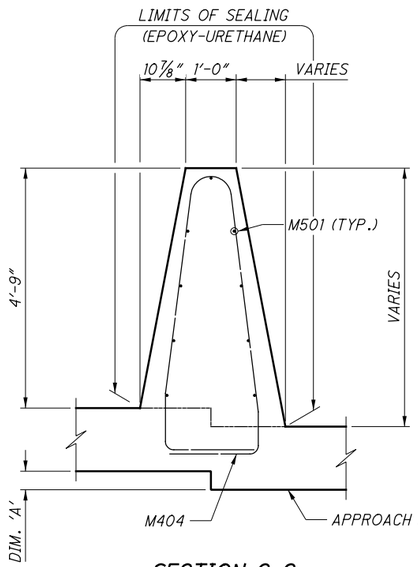
ABUTMENT 1 RIGHT WINGWALL

(OTHERS SIMILAR)

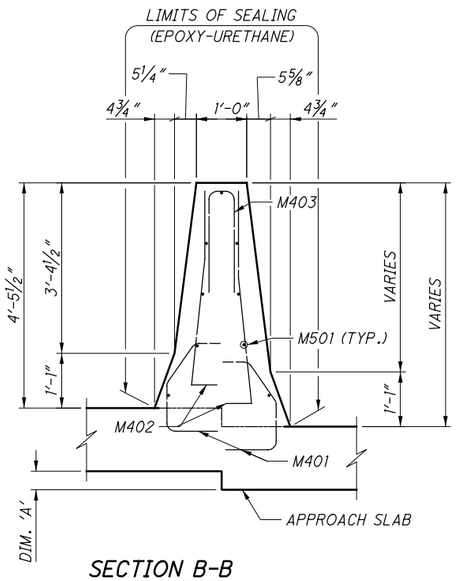
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
APPROACH SLAB MEDIAN											
M401	44	3'-2"	93	14	7"	6"	8 ¾"	1'-0"	1'-0"		
M402	56	3'-9"	140	11	5 ¼"	3'-4 ½"	6"				
M403	28	6'-6"	122	2	3'-0"	8"	3'-0"				
M404	11	14'-6"	107	34	9"	2'-5"	1'-0"	4'-7"		5"	
M405	12	3'-5"	27	13	1'-3"	0'-8 ¾"	1'-0"	1'-0"			
M501	11	12'-2"	140	STR							
M502	4	4'-10"	20	37	11"	1'-3"	2'-0"				
M503	4	3'-8"	15	37	11"	1'-3"	10"				
M504	12	3'-3"	42	37	11"	1'-3"	6"				
M505	11	13'-11"	160	STR							
SUB-TOTAL			866								



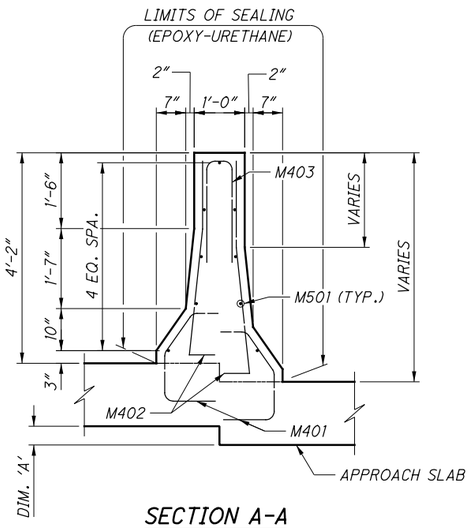




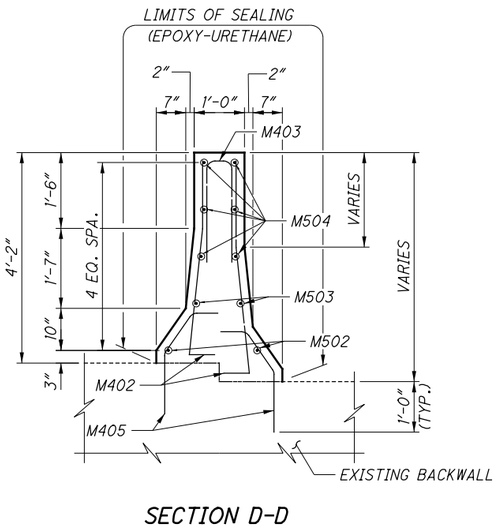
SECTION C-C



SECTION B-B



SECTION A-A



SECTION D-D

LOCATION	DIM. 'A'
REAR APPROACH SLAB	7½"
FORWARD APPROACH SLAB	4½"

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. RM-4.3.
2. CLEAR DISTANCE FROM THE EDGE OF CONCRETE TO THE FACE OF REINFORCING STEEL SHALL BE 2" UNLESS NOTED OTHERWISE.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703600	

APPROACH SLAB MEDIAN PARAPET DETAILS
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

9 / 10

42 / 53

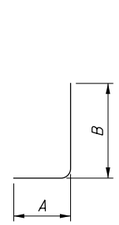
ISSUE RECORD:

NO.	DATE	DESCRIPTION

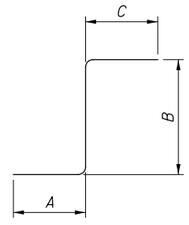
pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\077_1543_MD004.dgn Sheet 6/3/2021 3:24:29 PM KChrisman

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	PHASE 2A-2	PHASE 2B	TOTAL				A	B	C	D	E	R	INC
APPROACH SLAB													
AS501	275	165	440	30'-0"	13768	STR							
*AS502	55		55	10'-0"	574	STR							
AS503	2		2	20'-3"	42	STR							
AS504	70	56	126	24'-6"	3220	STR							
AS505	32	27	59	24'-0"	1477	STR							
AS506	2	55	57	34'-7"	2056	STR							
*AS507	55		55	13'-9"	789	STR							
AS508		55	55	8'-6"	488	STR							
AS509		2	2	26'-0"	55	STR							
AS510	8	4	12	4'-10"	60	1	2'-6"	2'-6"					
AS511	8		8	6'-0"	50	10	1'-9"	1'-9"	1'-2"	2'-6"			
AS512		2	2	24'-1"	50	STR							
*AS513	55		55	7'-11"	454	STR							
AS514	2		2	19'-10"	41	STR							
*AS515	55		55	14'-10"	851	STR							
AS516		110	110	5'-3"	602	8	2'-6"	6"	2'-6"				
AS517		55	55	10'-6"	602	STR							
AS518	2		2	23'-1"	48	STR							
AS519		2	2	25'-4"	53	STR							
AS520	2		2	20'-10"	44	STR							
AS521			2	27'-1"	56	STR							
AS522			55	12'-0"	688	STR							
			1 SR	24'-0"									
AS523			OF	TO	215	STR							6¼"
			8	27'-7"									
AS1001	194	142	336	25'-11"	37471	16	24'-6"						
AS1002	72	66	138	25'-5"	15093	16	24'-0"						
	1 SR		1 SR	25'-5"			24'-0"						
AS1003	OF		OF	TO	2104	16	TO						2½"
	18		18	29'-0"			27'-7"						
				SUB-TOTAL	80,951								

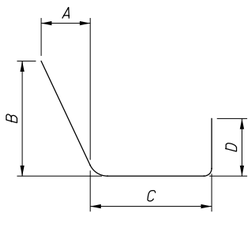
* - INDICATES MECHANICAL CONNECTOR IS REQUIRED



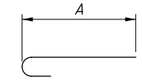
TYPE-1



TYPE-8



TYPE-10



TYPE-16

NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH TWO OR THREE LETTERS OR NUMBERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

   EXAMPLE: SA1001
   SA = SUPERSTRUCTURE BAR
   10 = #10 BAR
   01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT-TO-OUT UNLESS OTHERWISE INDICATED.
4. STR. IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
5. RAD INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
6. INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.
7. STD. WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF A BAR.
8. FIELD BEND BARS AS NECESSARY TO MATCH CURVATURE OF ROADWAY.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

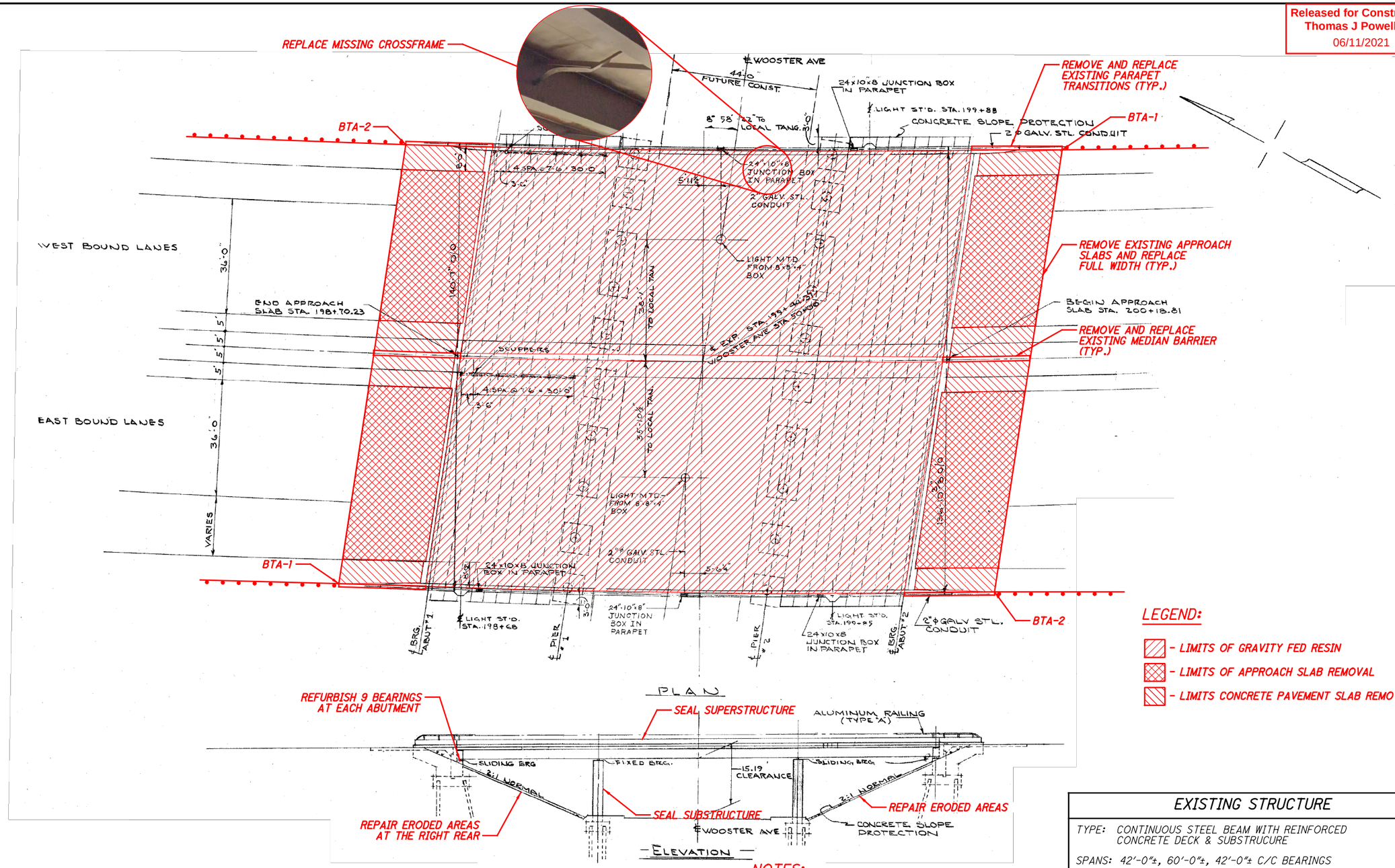
DESIGNED JAT | DRAWN JAT | REVIEWED CCJ | DATE 4/23/2021
CHECKED KDC | REVISED | STRUCTURE FILE NUMBER 7703600

REINFORCING STEEL LIST
BRIDGE NO. SUM-77-1543
I-77 OVER HAWKINS AVE.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

10 / 10

43
53



LEGEND:

- LIMITS OF GRAVITY FED RESIN
- LIMITS OF APPROACH SLAB REMOVAL
- LIMITS CONCRETE PAVEMENT SLAB REMOVAL

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. FOR TRANSVERSE SECTION, SEE SHEET 4/10.
3. FOR REMOVAL DETAILS, SEE SHEET 2/10 THRU 3/10.
4. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.
5. FOR PARAPET DETAILS, SEEE SHEET 8/10 THRU 9/10.
6. FOR CROSSFRAME DETAILS, SEE SHEET 4/10.

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCURE

SPANS: 42'-0"±, 60'-0"±, 42'-0"± C/C BEARINGS

ROADWAY: VARIES (SEE FRAMING PLAN)

WEARING SURFACE: 1"± MONOLITHIC

LOADING: CF 2000(57) ADEQUATE FOR AASHTO ALT. LOADING

SKEW: 08°58'22"± (TO LOCAL TANGENT) L.F.

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

ALIGNMENT: 2°00'-00"± CURVE LT

SUPERELEVATION: 0.047± FT/FT

COORDINATES: LATITUDE 41°03'50"± N
LONGITUDE 81°34'22"± W

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703635	

SUMMIT COUNTY
STA. 198+70.23±
STA. 200+18.81±

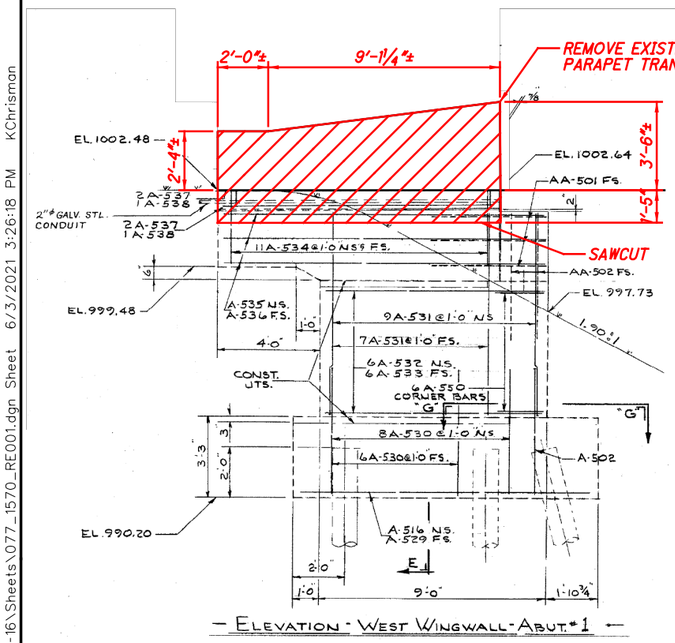
GENERAL PLAN
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

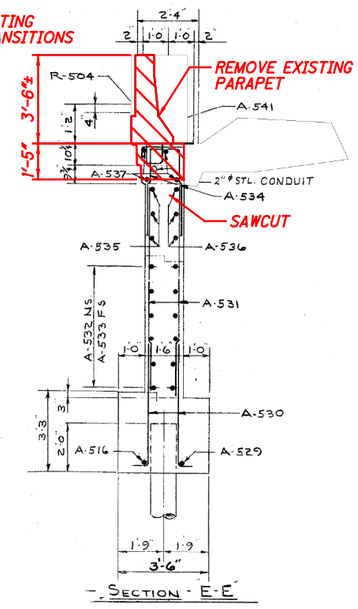
SUM-76/77/8-8.24/9.74/0.00
PID No. 102329

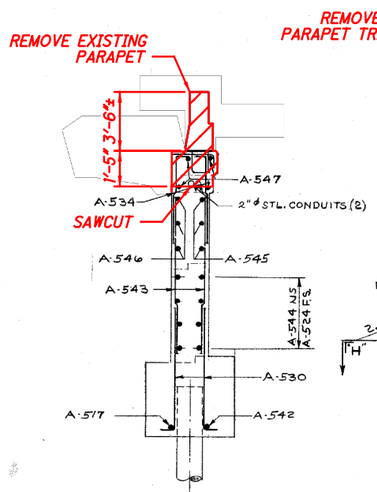
1 / 10

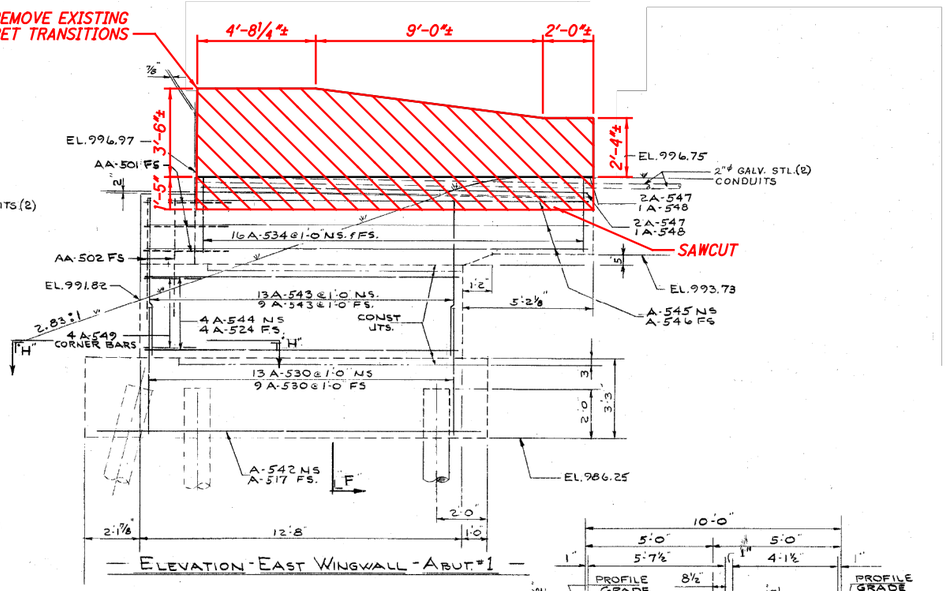
44 / 53

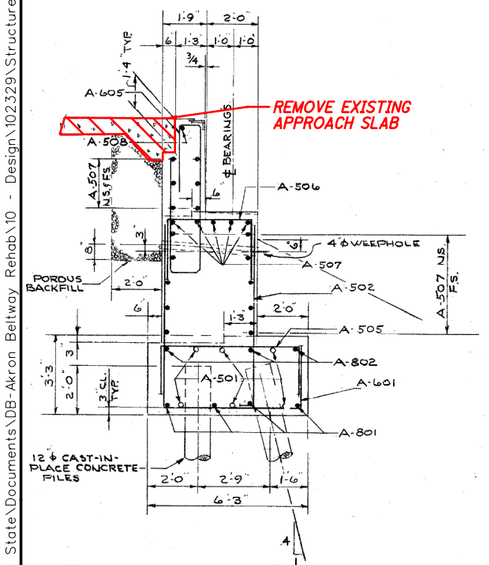
Released for Construction
Thomas J Powell, PE
06/11/2021

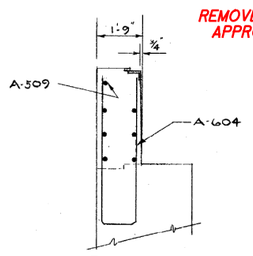


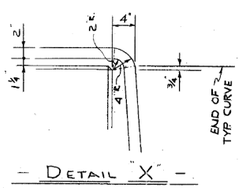


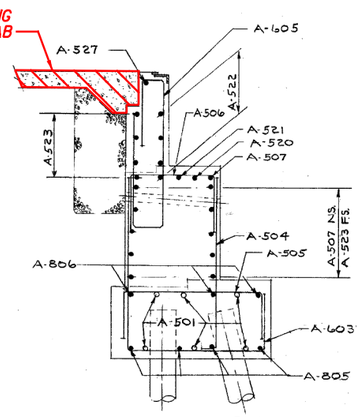


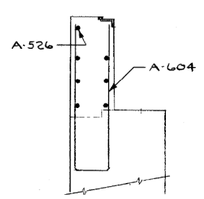


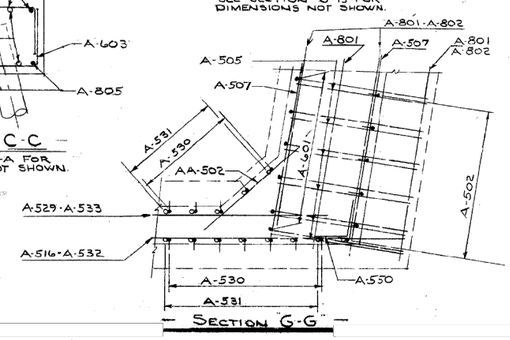


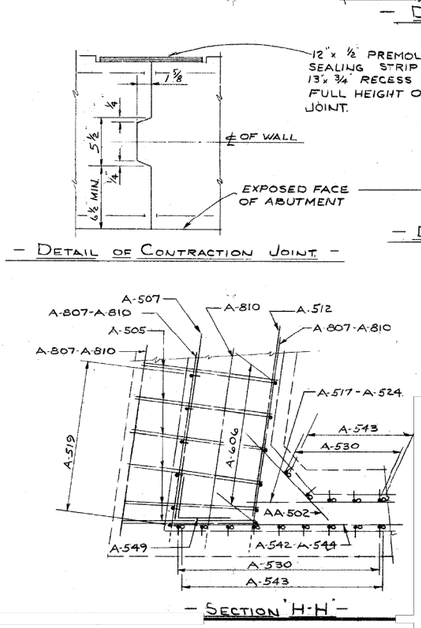












ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

▨ - LIMITS OF REMOVAL

NOTE:
1. FOR PARAPET DETAILS, SEE SHEET 8/10.
2. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.

DESCRIPTION

ISSUE RECORD:	
NO.	DATE

pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\077_1570_RE001.dgn Sheet 6/3/2021 3:26:18 PM KChrisman

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703635	

REMOVAL DETAILS (1 OF 2)
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

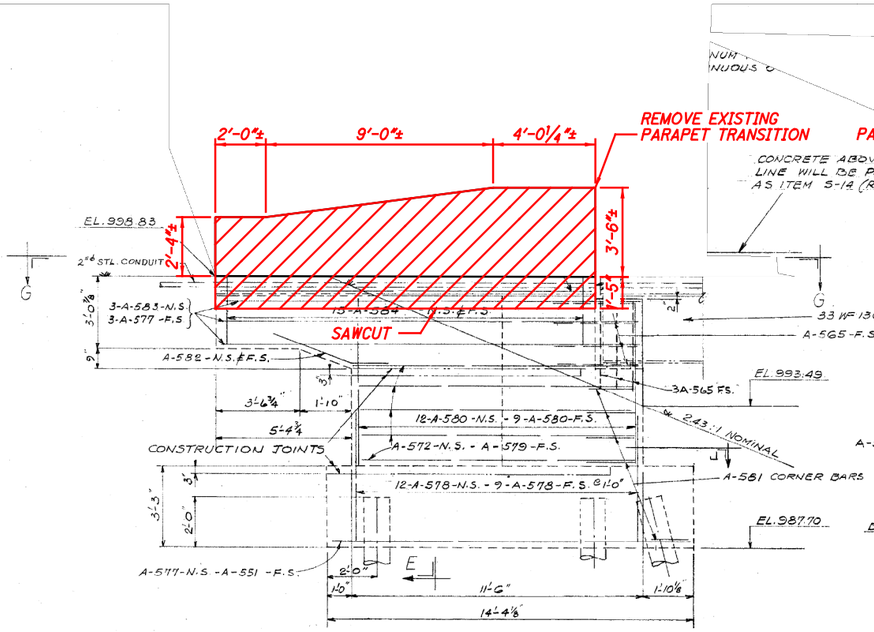
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

2 / 10

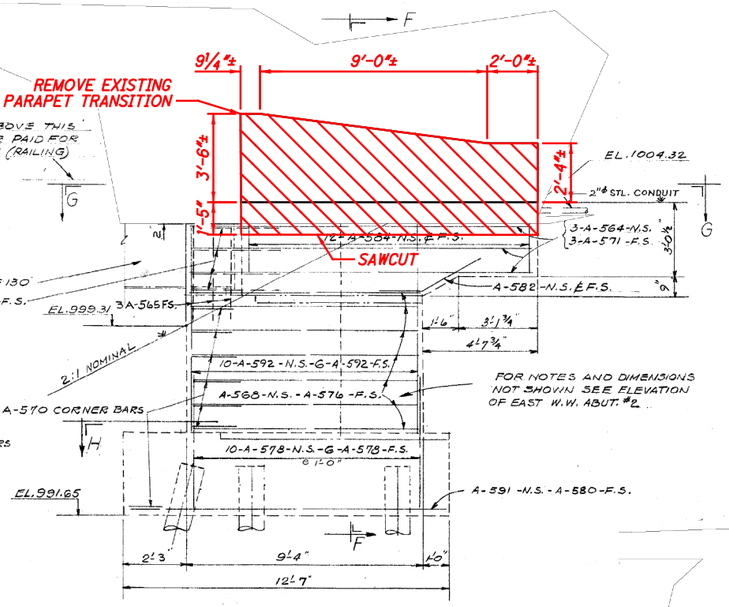
45
53

2021-06-03_BU 16-RFC PLANS

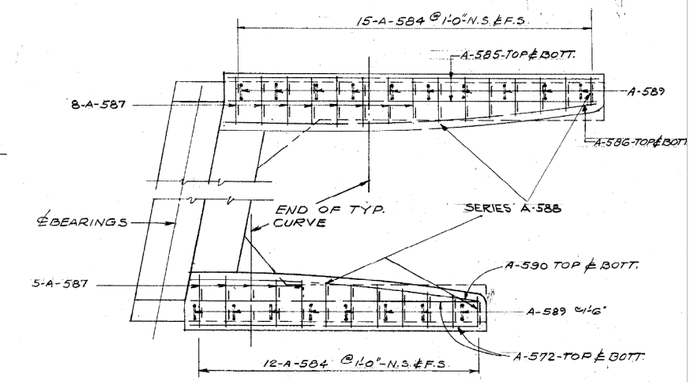
Released for Construction
Thomas J Powell, PE
06/11/2021



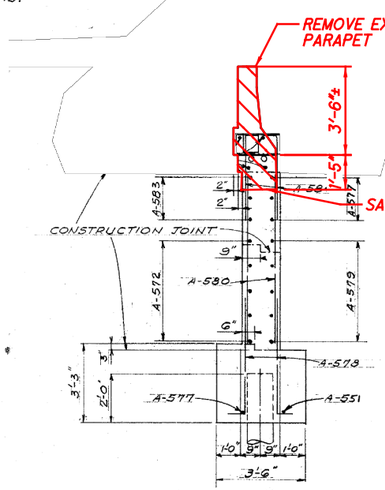
ELEVATION OF EAST WINGWALL ABUTMENT #2



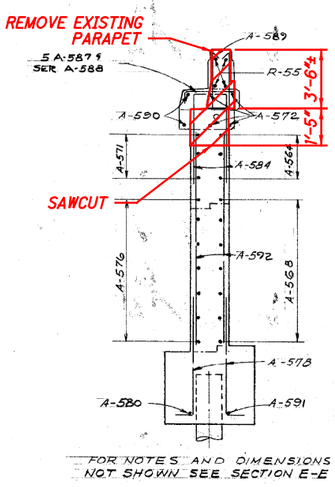
ELEVATION OF WEST WINGWALL ABUTMENT #2



SECTION G-G

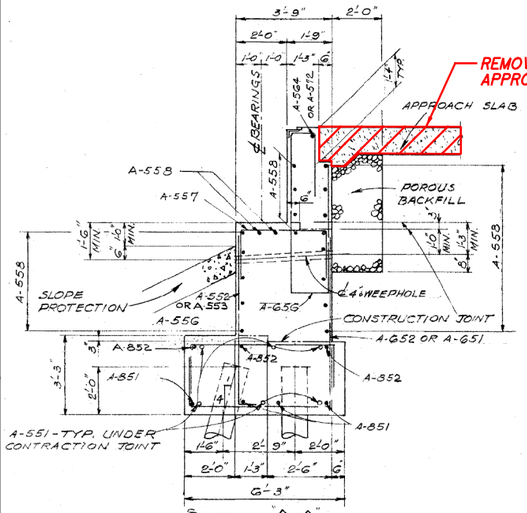


SECTION E-E



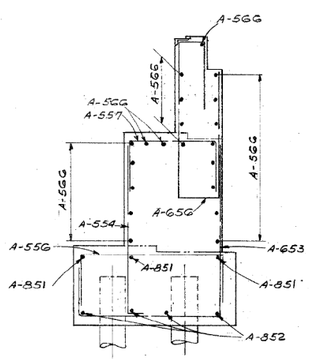
FOR NOTES AND DIMENSIONS NOT SHOWN SEE SECTION E-E

SECTION F-F

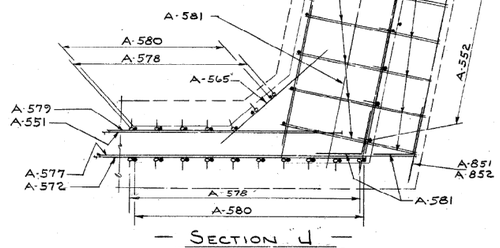


SECTION "A-A"

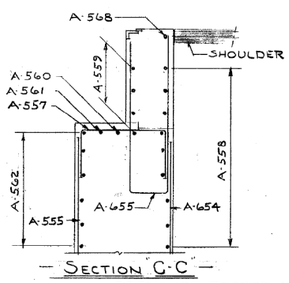
- SECTION A'A' SAME EXCEPT FOR BAR MARKS -



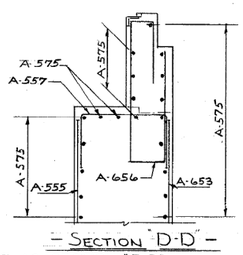
SECTION B-B



SECTION "J"



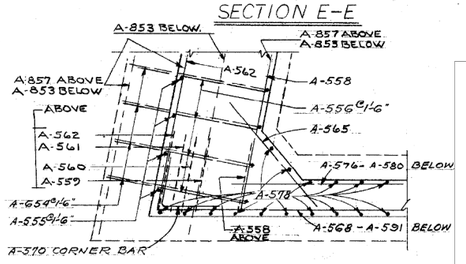
SECTION "C-C"



SECTION "D-D"

DETAIL OF FOOTER SAME AS SECTION "B-B"

FOR DIMENSIONS AND DETAILS NOT SHOWN SEE SECTION "A-A"



SECTION "H"

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

LEGEND:

- LIMITS OF REMOVAL

NOTE:

1. FOR PARAPET DETAILS, SEE SHEET 8/10.
2. FOR APPROACH SLAB DETAILS, SEE SHEET 6/10 THRU 7/10.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703635	

REMOVAL DETAILS (2 OF 2)
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

3 / 10

46 / 53

ISSUE RECORD:

NO.	DATE	DESCRIPTION

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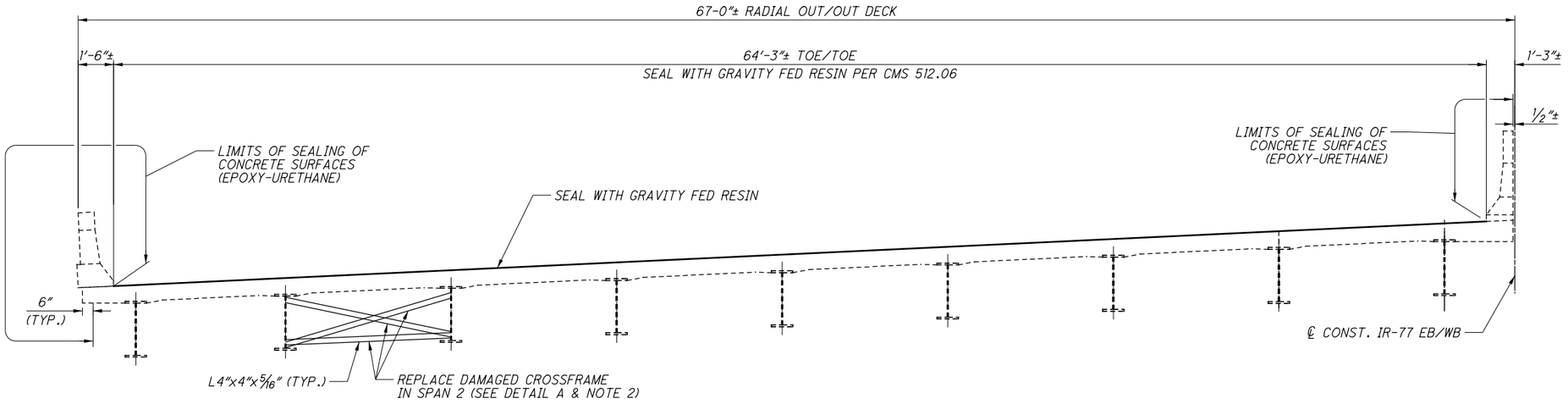
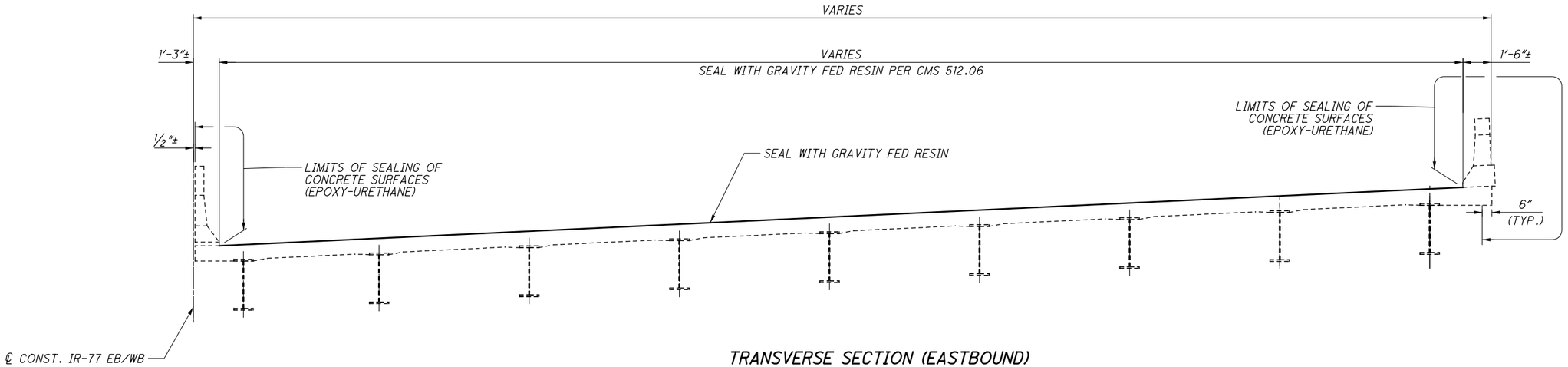
2021-06-03_BU 16-RFC PLANS



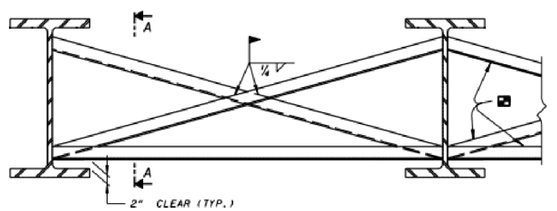
TRANSVERSE SECTION (WESTBOUND)

LIMITS OF GRAVITY FED RESIN FROM 198+71.48± TO 200+17.56±



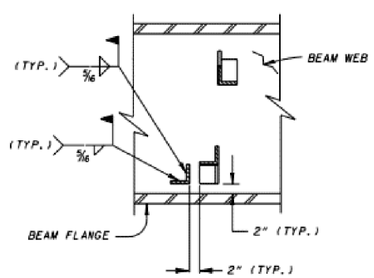
TRANSVERSE SECTION (EASTBOUND)

LIMITS OF GRAVITY FED RESIN FROM 198+71.48± TO 200+17.56±



TYPE 1: INTERMEDIATE WELDED CROSSFRAME DETAILS

DETAIL A



SECTION A-A

NOTE:

1. FOR GENERAL NOTES, SEE SHEET 2/53 THRU 5/53.
2. REPLACE DAMAGED CROSSFRAME PER ARCHIVED STANDARD DRAWING GSD-1-96, DATE 7/19/2002.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

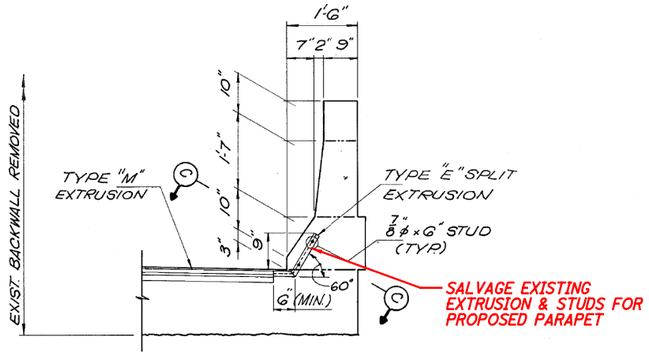
DESIGNED	DRAWN	REVIEWED	DATE
HM	HM	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

BRIDGE REHABILITATION
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

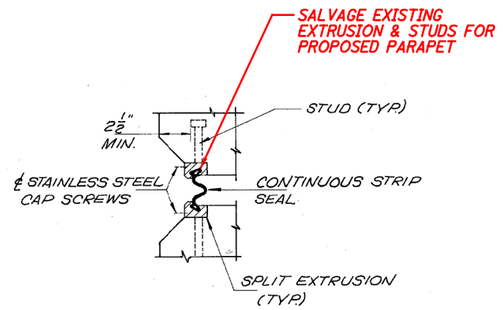
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

4 / 10

47 / 53



DETAIL B



SECTION C-C

EXPANSION JOINT AT PARAPETS

ORIGINAL CONSTRUCTION PLANS SHOWN FOR INFORMATION ONLY

NOTE:

1. FOR ADDITIONAL PARAPET DETAILS, SEE SHEET 8/10.

ISSUE RECORD:

NO.	DATE

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAT		7703600	

EXPANSION JOINT DETAILS
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

5 / 10

48 / 53

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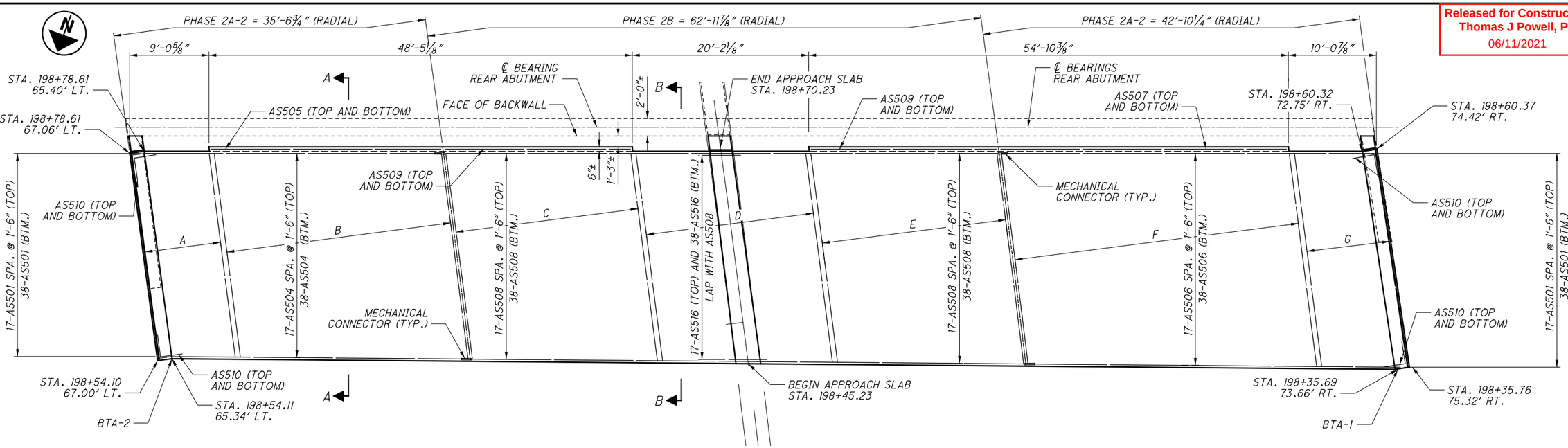
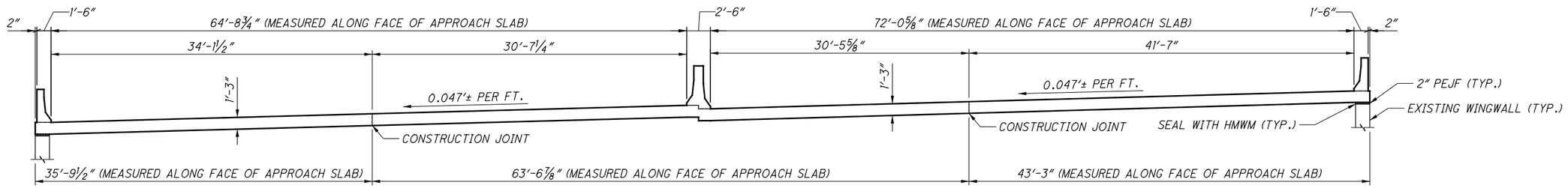
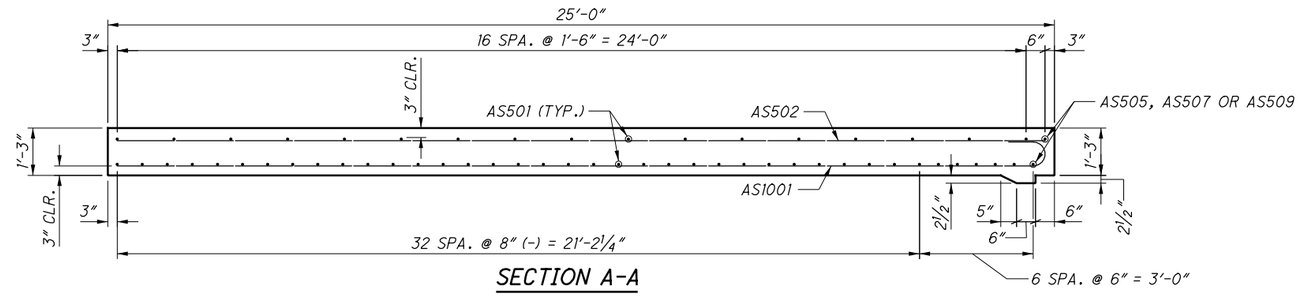


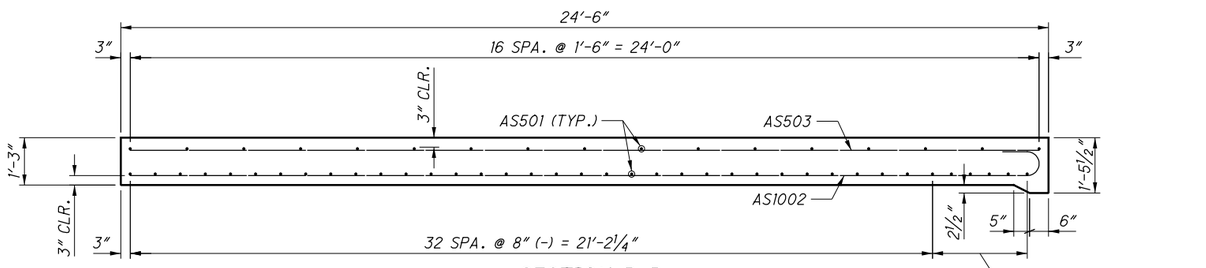
REAR APPROACH SLAB PLAN



REAR APPROACH SLAB ELEVATION



SECTION A-A



SECTION B-B

MINIMUM LAP LENGTHS:

#5 BAR = 2'-6"

LEGEND:

A - 6-AS503 SPA. @ 1'-6" MAX. (TOP) 7 16-AS1002 SPA. @ 7" MAX. (BTM.)

B - 19-AS502 SPA. @ 1'-6" MAX. (TOP) & 46-AS1001 SPA. @ 7" MAX. (BTM.)

C - 15-AS502 SPA. @ 1'-6" MAX. (TOP) & 37-AS1001 SPA. @ 7" MAX. (BTM.)

D - 13-AS503 SPA. @ 1'-6" MAX. (TOP) & 34-AS1002 SPA. @ 7" MAX. (BTM.)

E - 15-AS502 SPA. @ 1'-6" MAX. (TOP) & 38-AS1001 SPA. @ 7" MAX. (BTM.)

F - 22-AS502 SPA. @ 1'-6" MAX. (TOP) & 56-AS1001 SPA. @ 7" MAX. (BTM.)

G - 8-AS503 SPA. @ 1'-6" MAX. (TOP) & 18-AS1002 SPA. @ 7" MAX. (BTM.)

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.
2. FOR PARAPET TRANSITIONS AND MEDIAN BARRIER, SEE SHEET 8/10 THRU 9/10.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

DETAILS

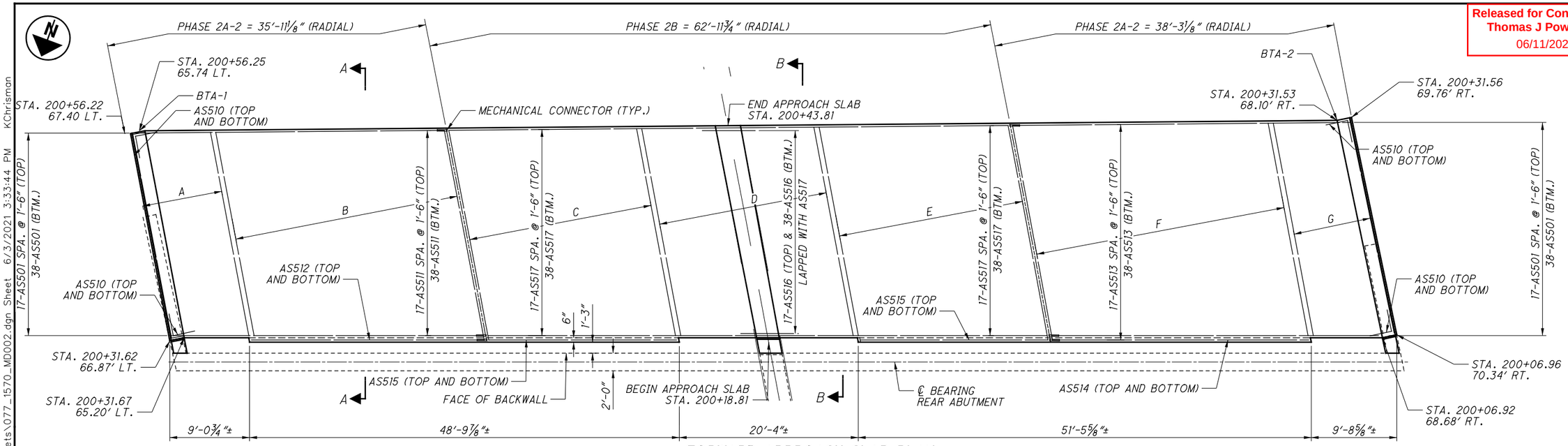
REAR ABUTMENT APPROACH SLAB DET.

BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

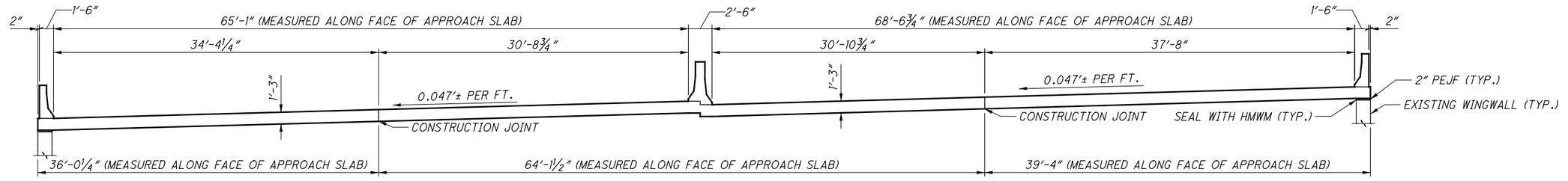
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

6 / 10

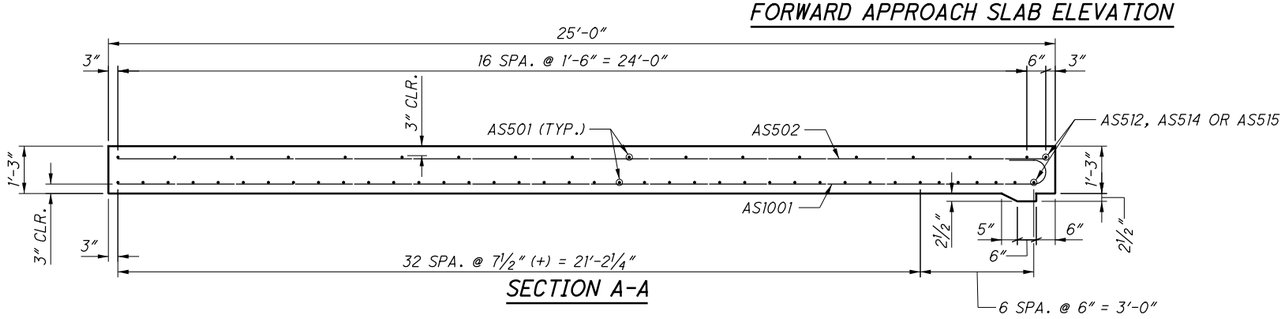
49
53



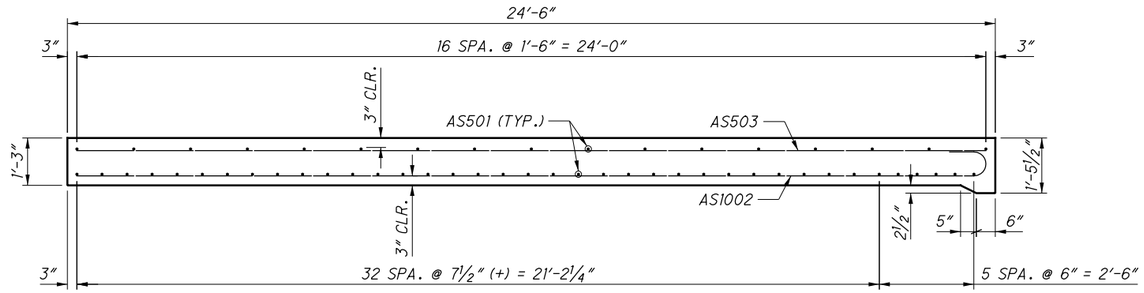
FORWARD APPROACH SLAB PLAN



FORWARD APPROACH SLAB ELEVATION



SECTION A-A



SECTION B-B

MINIMUM LAP LENGTHS:

#5 BAR = 2'-6"

LEGEND:

A - 7-AS503 SPA. @ 1'-6" MAX. (TOP) & 17-AS1002 SPA. @ 7" MAX. (BTM.)

B - 18-AS502 SPA. @ 1'-6" MAX. (TOP) & 45-AS1001 SPA. @ 7" MAX. (BTM.)

C - 15-AS502 SPA. @ 1'-6" MAX. (TOP) & 37-AS1001 SPA. @ 7" MAX. (BTM.)

D - 13-AS503 SPA. @ 1'-6" MAX. (TOP) & 34-AS1002 SPA. @ 7" MAX. (BTM.)

E - 15-AS502 SPA. @ 1'-6" MAX. (TOP) & 38-AS1001 SPA. @ 7" MAX. (BTM.)

F - 20-AS502 SPA. @ 1'-6" MAX. (TOP) & 50-AS1001 SPA. @ 7" MAX. (BTM.)

G - 7-AS503 SPA. @ 1'-6" MAX. (TOP) & 17-AS1002 SPA. @ 7" = MAX. (BTM.)

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.
2. FOR PARAPET TRANSITIONS AND MEDIAN BARRIER, SEE SHEET 8/10 THRU 9/10.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

FORWARD ABUTMENT APPROACH SLAB DETAILS

BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

7 / 10

50 / 53

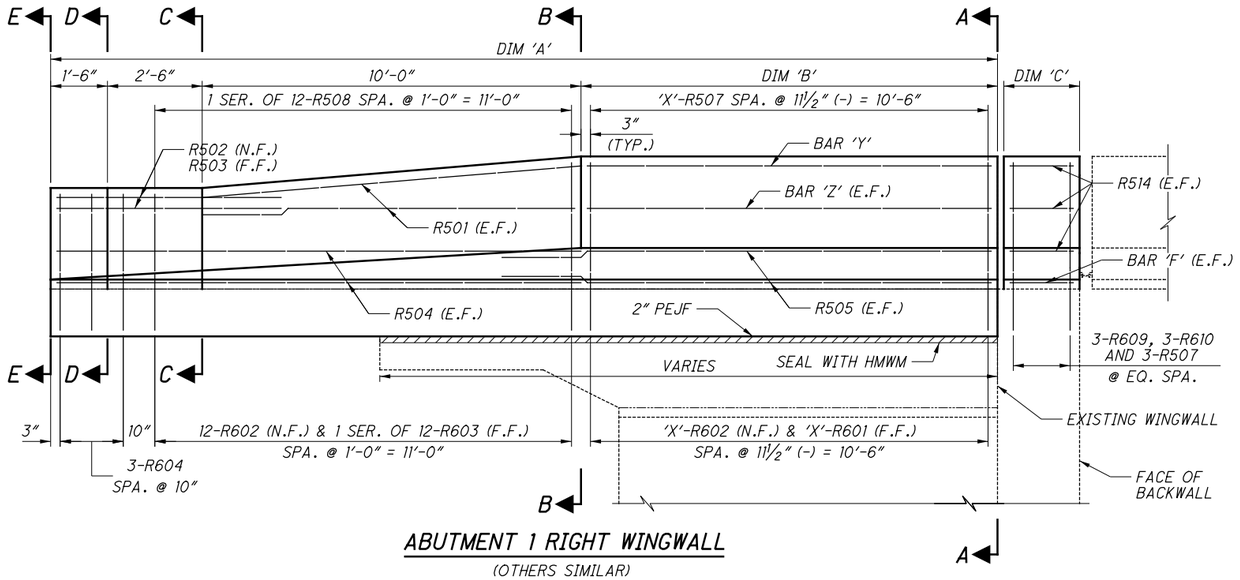
DESCRIPTION

ISSUE RECORD:

NO.	DATE

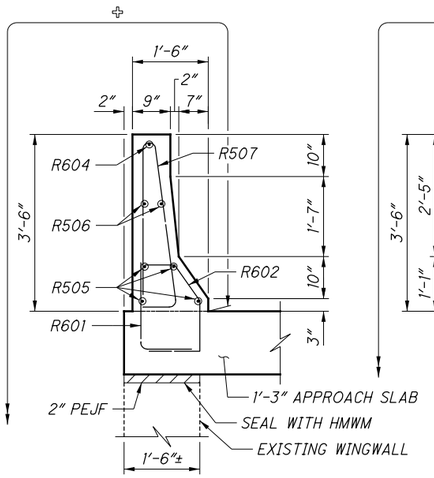
pw:\\VANVA01PWINT01.parsons.com:Ohio State\Documents\DB-Akron Beltway Rehab\10 - Design\102329\Structures\BU-16\Sheets\077_1570_MD002.dgn Sheet 6/3/2021 3:33:44 PM KChrisman

LOCATION	DIM 'A'	DIM 'B'	'X' SETS	BAR 'Y'	BAR 'Z'	DIM 'C'	BAR 'F'
LEFT REAR	23'- 11¼"	9'-11¼"	11	R605	R506	1'-7⅞"	~~R512~~
RIGHT REAR	25'-1⅜"	11'-1⅜"	12	R606	R509	1'-4½"	R513
LEFT FWD.	24'-0⅜"	10'-0⅜"	11	R607	R510	1'-4"	R512
RIGHT FWD.	25'-2½"	11'-2½"	12	R608	R511	1'-7½"	R513

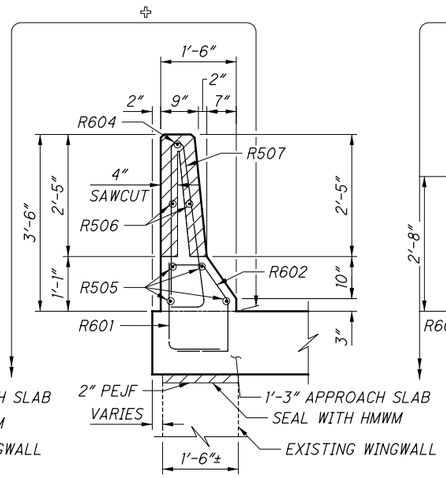


ABUTMENT 1 RIGHT WINGWALL

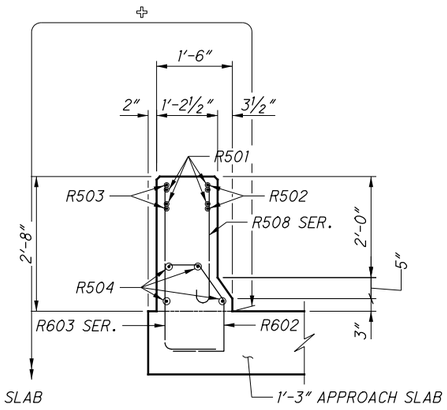
(OTHERS SIMILAR)

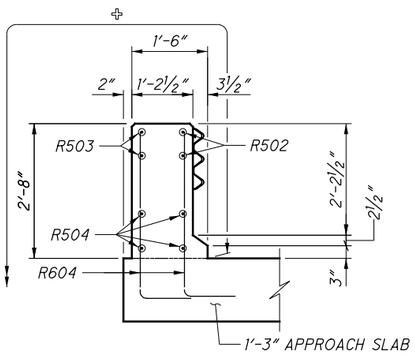


SECTION A-A

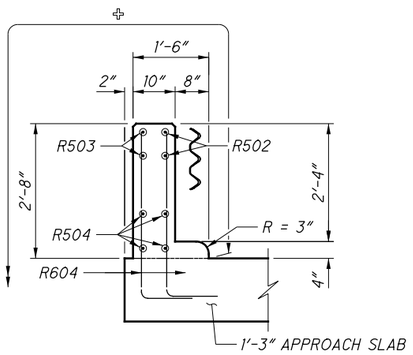


SECTION B-B



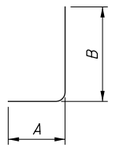


SECTION D-D

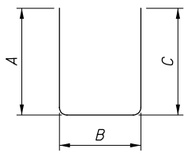


SECTION E-E

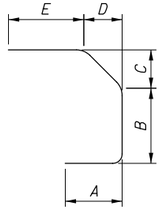
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
APPROACH SLAB PARAPET											
R501	16	10'-0"	167	STR							
R502	8	5'-8"	47	25	1'-10"	2'-5"	1'-4"	1½"	5"		
R503	8	5'-8"	47	STR							
R504	16	13'-10"	231	STR							
R505	16	12'-10"	214	STR							
R506	2	9'-5"	20	STR							
R507	58	6'-11"	418	22	8"	3'-0"	3'-3"			2"	
	4 SR	3'-0"			2'-4 ½"						
R508	OF	TO	171	16	TO						¾"
	12	3'-10"			3'-3"						
R509	2	10'-7"	22	STR							
R510	2	9'-6"	20	STR							
R511	2	10'-8"	22	STR							
R512	4	2'-11"	12	2	1'-0"	1'-2"	1'-0"				
R513	4	3'-5"	14	2	1'-3"	1'-2"	1'-3"				
R514	24	2'-2"	54	2	1'-0"	5"	1'-0"				
R601	46	2'-7"	178	1	1'-0"	1'-9"					
R602	94	3'-1"	435	14	7"	6"	8 ½"	1'-0"	1'-0"		
	4 SR	4'-1"				3'-3"					
R603	OF	TO	327	1	1'-0"	TO					¾"
	12	5'-0"				4'-1 ½"					
R604	12	4'-1"	74	1	1'-0"	3'-3"					
R605	1	9'-5"	14	STR							
R606	1	10'-7"	16	STR							
R607	1	9'-6"	14	STR							
R608	1	10'-8"	16	STR							
R609	12	2'-0"	36	STR							
R610	12	2'-8"	48	14	-	8"	8 ½"	1'-0"	1'-0"		
	SUB-TOTAL	2,617									



TYPE-1



TYPE-2



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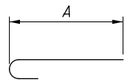
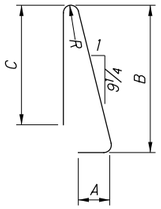


TYPE-16



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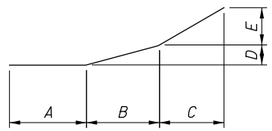


TYPE-25

LEGEND:

✣ - LIMITS OF SEALING (EPOXY-URETHANE). SEAL ENTIRE SURFACE DOWN TO THE PROPOSED GROUND LINE

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. BR-1-13.
2. CLEAR DISTANCE FROM THE EDGE OF CONCRETE TO THE FACE OF REINFORCING STEEL SHALL BE 2" UNLESS NOTED OTHERWISE.
3. FOR EXISTING DETAILS, SEE SHEET 5/10 .

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

APPROACH SLAB PARAPET DETAILS
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

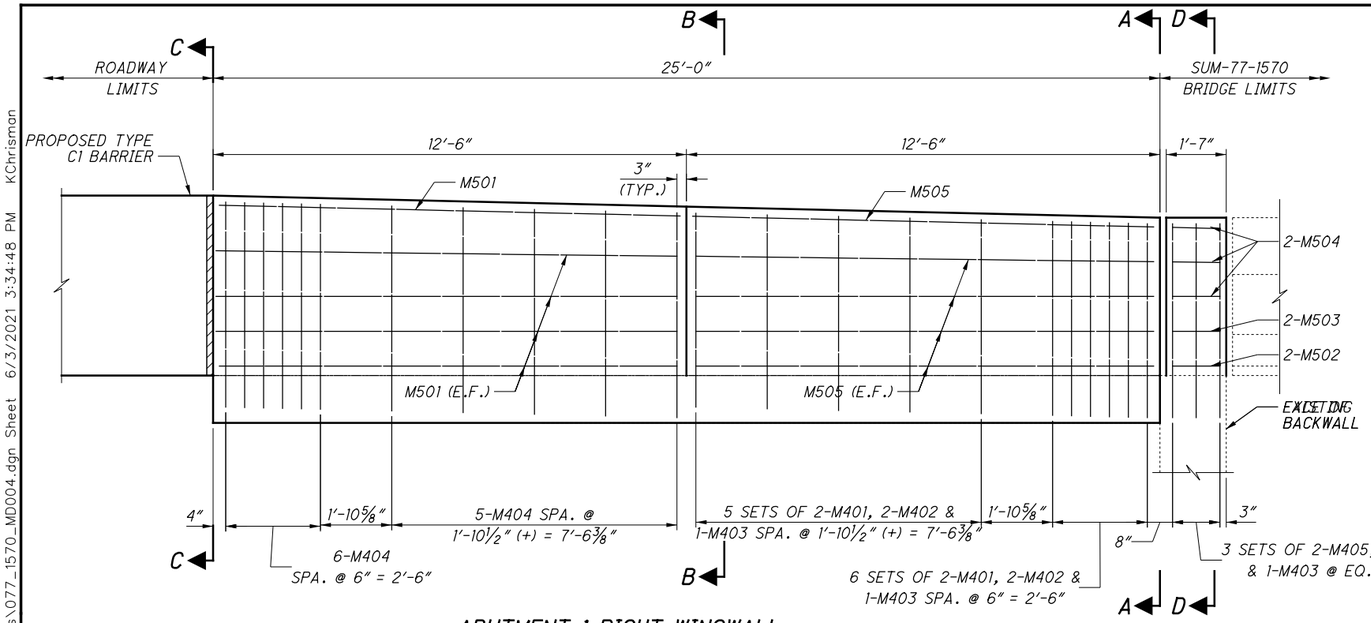
SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

8 / 10

51 / 53

DESCRIPTION

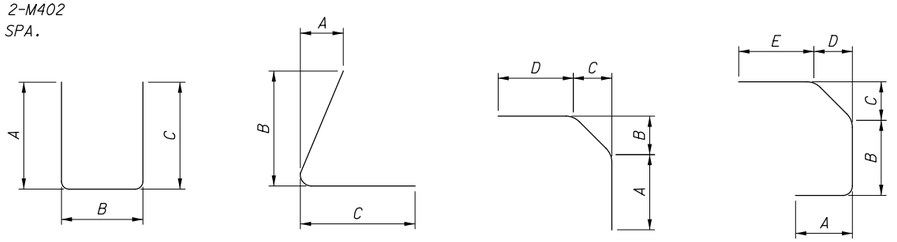
ISSUE RECORD: NO.	DATE

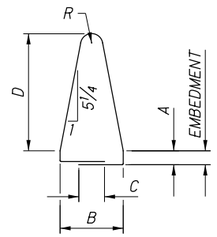


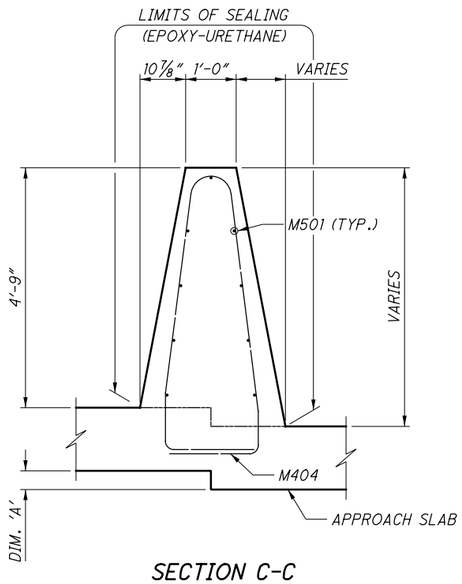
ABUTMENT 1 RIGHT WINGWALL

(OTHERS SIMILAR)

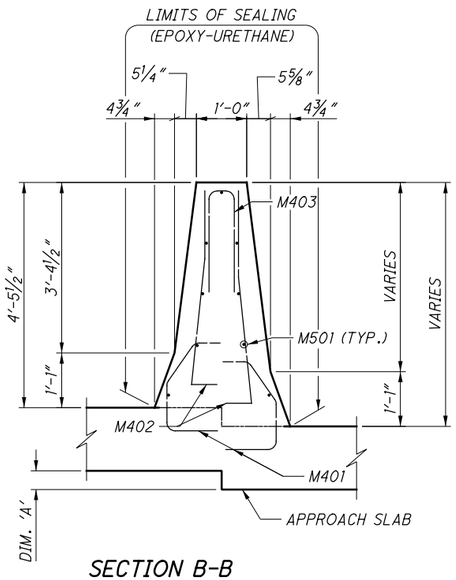
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
APPROACH SLAB MEDIAN											
M401	44	3'-2"	93	14	7"	6"	8 ¾"	1'-0"	1'-0"		
M402	56	3'-9"	140	11	5 ¼"	3'-4 ½"	6"				
M403	28	6'-6"	122	2	3'-0"	8"	3'-0"				
M404	11	14'-6"	107	34	9"	2'-5"	1'-0"	4'-7"		5"	
M405	12	3'-5"	27	13	1'-3"	0'-8 ¾"	1'-0"	1'-0"			
M501	11	12'-2"	140	STR							
M502	4	4'-3"	18	2	1'-3"	2'-0"	1'-3"				
M503	4	3'-1"	13	2	1'-3"	10"	1'-3"				
M504	12	2'-9"	34	2	1'-3"	6"	1'-3"				
M505	11	13'-11"	160	STR							
SUB-TOTAL			854								



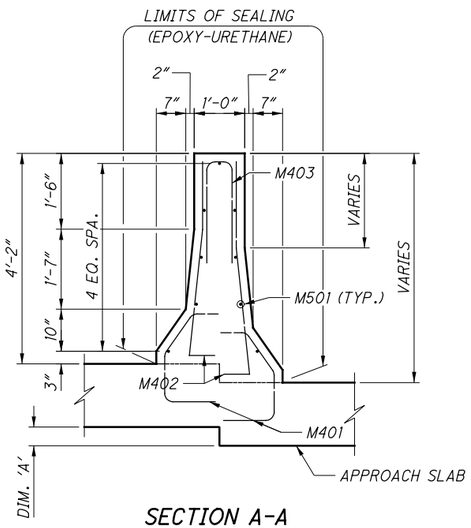




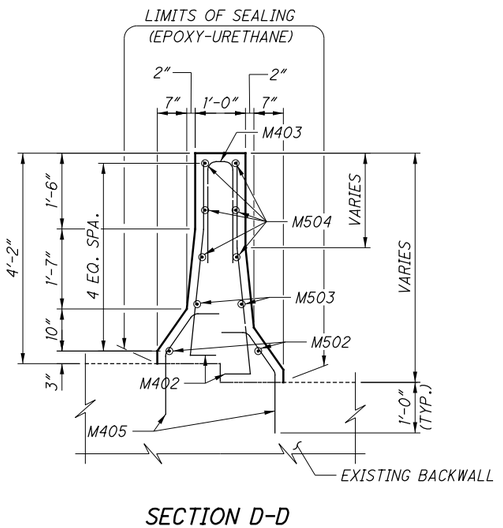
SECTION C-C



SECTION B-B



SECTION A-A



SECTION D-D

LOCATION	DIM. 'A'
REAR APPROACH SLAB	7¾"
FORWARD APPROACH SLAB	4¼"

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. RM-4.3.
2. CLEAR DISTANCE FROM THE EDGE OF CONCRETE TO THE FACE OF REINFORCING STEEL SHALL BE 2" UNLESS NOTED OTHERWISE.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/202
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

APPROACH SLAB MEDIAN PARAPET
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

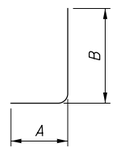
SUM-76/77/8-
8.24/09.74/0.00
PID No. 102329

9 / 10

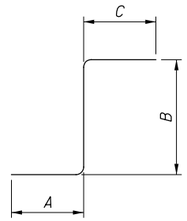
52
53

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	PHASE 2A-2	PHASE 2B	TOTAL				A	B	C	D	E	R	INC
APPROACH SLABS													
AS501	220		220	30'-0"	6884	STR							
AS502	79	60	139	24'-6"	3552	STR							
AS503	28	26	54	24'-0"	1352	STR							
*AS504	55		55	8'-2"	468	STR							
AS505	2		2	26'-7"	55	STR							
*AS506	55		55	15'-7"	894	STR							
AS507	2		2	32'-11"	69	STR							
AS508		110	110	31'-9"	3643	STR							
AS509		4	4	21'-6"	90	STR							
AS510	16		16	4'-10"	81	1	2'-6"	2'-6"					
*AS511	55		55	8'-10"	507	STR							
AS512	2		2	25'-10"	54	STR							
*AS513	55		55	11'-3"	645	STR							
AS514	2		2	29'-5"	61	STR							
AS515		4	4	21'-8"	90	STR							
AS516		110	110	5'-3"	602	8	2'-6"	6"	2'-6"				
AS517		110	110	32'-0"	3671	STR							
AS1001	197	150	347	25'-11"	38697	16	24'-6"						
AS1002	68	68	136	25'-5"	14874	16	24'-0"						
				SUB-TOTAL	76,289								

* - INDICATES MECHANICAL CONNECTOR IS REQUIRED



TYPE-1



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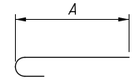

TYPE-16

NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH TWO OR THREE LETTERS OR NUMBERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

   EXAMPLE: SA1001
   SA = SUPERSTRUCTURE BAR
   10 = #10 BAR
   01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT-TO-OUT UNLESS OTHERWISE INDICATED.
4. STR. IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
5. RAD INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
6. INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.
7. STD. WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF A BAR.
8. FIELD BEND BARS AS NECESSARY TO MATCH CURVATURE OF ROADWAY.

FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. AS-1-15.

Released for Construction
Thomas J Powell, PE
06/11/2021

DESIGN AGENCY
PRIME AE
8415 Pulsar Place Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	CCJ	4/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		7703635	

REINFORCING STEEL LIST
BRIDGE NO. SUM-77-1570
I-77 OVER VERNON ODOM BLVD.

SUM-76/77/8-8.24/09.74/0.00
PID No. 102329

10 / 10

53 / 53

ISSUE RECORD:

NO.	DATE	DESCRIPTION