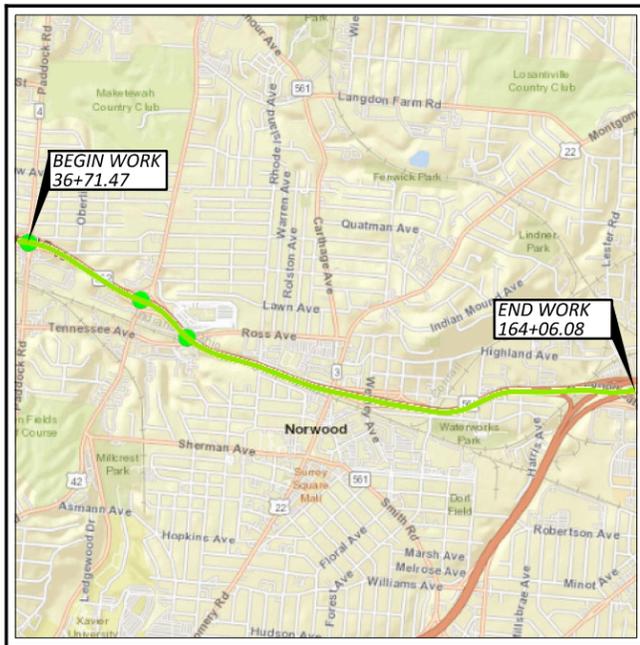


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

HAM-SR 562-0.54

HAMILTON COUNTY

CITY OF CINCINNATI, CITY OF NORWOOD



LOCATION MAP

LATITUDE: 39°16'59" LONGITUDE: -84°46'60"



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

DESIGN DESIGNATION

SEE SHEET 2
 CURRENT ADT () -----
 DESIGN YEAR ADT () -----
 DESIGN HOURLY VOLUME () -----
 DIRECTIONAL DISTRIBUTION -----
 TRUCKS (24 HOUR B&C) -----
 DESIGN SPEED -----
 LEGAL SPEED -----
 DESIGN FUNCTIONAL CLASSIFICATION: -----

NHS PROJECT -----

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

CMT
CRAWFORD, MURPHY & TILLY, INC.

INDEX OF SHEETS:

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ADDENDUM 3
 STRUCTURE OVER 20' SPAN
 HAM-562-0065 1-15

ENGINEER'S SEAL
SHEETS 110-178

SIGNED: *Jonathan Patrick Carroll*
 DATE: 02/20/2023

ENGINEER'S SEAL
SHEET 109, ADD. 3

SIGNED: *David Robert Cunningham, II*
 DATE: 02/20/2023

ENGINEER'S SEAL
SHEETS 1-108

SIGNED: *Joshua W. Lockhart*
 DATE: 02/20/2023

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS			
BP-3.1	1/21/22	MGS-5.3	7/15/16	ITS-14.11	1/20/23	TC-9.11	7/16/21	TC-61.30	7/19/19	800-2019	SEE PROPOSAL	ASBESTOS
BP-5.1	7/15/22	MGS-6.1	1/19/18	ITS-14.50	1/20/23	TC-12.31	4/15/22	TC-65.10	1/17/14	809	7/15/22	INSPECTION
BP-7.1	1/21/22					TC-15.116	7/16/21	TC-65.11	7/15/22	813	10/19/18	REPORT 12/29/22
BP-9.1	1/18/19	RM-4.2	4/17/20	MT-95.30	7/19/19	TC-21.11	7/16/21	TC-71.10	7/15/22	821	4/20/12	
				MT-95.31	7/19/19	TC-21.21	1/20/23	TC-72.20	7/20/18	832	7/15/22	
DM-4.3	1/15/16	EXJ-2-81	7/15/22	MT-95.32	4/19/19	TC-21.50	4/17/20	TC-74.10	1/20/23	847	1/15/21	
DM-4.4	1/15/16	EXJ-4-87	1/20/23	MT-95.45	1/17/20	TC-22.20	1/17/14			848	1/15/21	
		GSD-1-19	1/15/21	MT-98.10	1/17/20	TC-41.10	7/19/13			875	1/18/19	
MC-9.3	10/30/92	SBR-1-20	1/20/23	MT-98.20	4/19/19	TC-41.20	10/18/13			880	1/21/22	
				MT-98.29	1/17/20	TC-41.30	10/18/13			909	7/15/22	
MGS-1.1	7/16/21	HL-10.13	1/20/23	MT-98.30	7/16/21	TC-41.40	10/18/13			913	4/16/21	
MGS-2.1	1/19/18	HL-20.14	4/17/20	MT-99.20	4/19/19	TC-42.10	10/18/13			921	4/20/12	
MGS-3.1	1/19/18	HL-30.11	1/15/21	MT-99.50	1/17/20	TC-42.20	10/18/13					
MGS-3.2	1/18/13	HL-30.32	4/17/20	MT-101.60	1/17/20	TC-51.11	1/15/16					
MGS-4.2	7/19/13	HL-30.33	1/21/22	MT-105.10	1/17/20	TC-51.12	1/15/16					
MGS-4.3	1/18/13	HL-50.21	7/15/22			TC-52.20	1/15/21					

FEDERAL PROJECT NUMBER

E200303

RAILROAD INVOLVEMENT

INDIANA & OHIO

PROJECT DESCRIPTION

RESURFACING THE NORWOOD LATERAL (SR 562) IN HAMILTON COUNTY. REHABILITATE MAINLINE BRIDGES OF SR 562 BY REPLACING JOINTS, PAINTING, SEALING, AND REPLACING BARRIERS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	2.1 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.5 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)* *ROUTINE MAINTENANCE PROJECT

LIMITED ACCESS

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

2023 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE PART-TIME CLOSING OF THE HIGHWAY TO TRAFFIC, AS NOTED ON SHEETS 19, 20 & 28. DURING WHICH TIME DETOURS WILL BE PROVIDED AS SHOWN HEREIN. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES

APPROVED _____
 DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
 DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY

CRAWFORD, MURPHY & TILLY, INC.
84 REMICKS BOULEVARD
BIRMINGHAM, OHIO 45006
PH: (513) 702-2130
WWW.CMTENG.COM

DESIGNER
LDW

REVIEWER
JWL 11/21/22

PROJECT ID
102886

SHEET TOTAL
1 178

HAM-SR 562-0.54
 MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 5/15/2023 TIME: 11:31:49 AM USER: mmetz
 L:\ODOT\21001299-00_HAM5620064102886\400-Engineering\Roadway\Sheets\102886_G1101.dgn

SHEET NUM.								PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
18	141							01/NHS/05	02/NHS/14	03/NHS/14	04/SAF/ 21	05/SAF/ 21/NORW						
	129									129			625	29002	129	FT	TRENCH, 24" DEEP	
	14									14			625	29940	14	EACH	BARRIER JUNCTION BOX	
	2									2			625	30711	2	EACH	PULL BOX, 725.08, 32", AS PER PLAN	140
	11									11			625	35011	11	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	140
	3									3			625	39520	3	EACH	PULL BOX CLEANED	
	LS									LS			625	98200	LS		LIGHTING, MISC.:(RESTORE EXISTING LIGHTING CIRCUIT)	140
	1,409									1,409			809	24500	1,409	FT	CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	
	12,332									12,332			848	10201	12,332	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 3/4" THICK)	140
	12,332									12,332			848	20000	12,332	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
	14									14			848	30200	14	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
	245									245			848	50000	245	SY	HAND CHIPPING	
	LS									LS			848	50100	LS		TEST SLAB	
	2									2			848	50200	2	CY	FULL-DEPTH REPAIR	
	12,228									12,228			848	50320	12,228	SY	EXISTING CONCRETE OVERLAY REMOVED	
																	MAINTENANCE OF TRAFFIC	
320								320					614	11110	320	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
7								7					614	12380	7	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
LS								LS					614	12420	LS		DETOUR SIGNING	
31								31					614	13310	31	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
31								31					614	13350	31	EACH	OBJECT MARKER, ONE WAY	
32								32					614	18600	32	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
0.07								0.07					614	22210	0.07	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
0.69								0.69					614	22326	0.69	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 873	
150								150					614	24402	150	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	
215								215					614	24122	215	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 873	
5.03								5.03					614	20110	5.03	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
13.03								13.03					614	22110	13.03	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
400								400					614	23200	400	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
7,860								7,860					614	23210	7,860	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
7,581								7,581					614	24202	7,581	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
2,060								2,060					614	24208	2,060	FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	
2,110								2,110					614	25200	2,110	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
302								302					614	26200	302	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
479								479					614	27050	479	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	
32								32					614	30200	32	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT, 6'	
4								4					614	30200	4	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT, (WRONG WAY)	
1,080								1,080					622	41100	1,080	FT	PORTABLE BARRIER, UNANCHORED	
400								400					642	00400	400	FT	CHANNELIZING LINE, 8", TYPE 1	
0.04								0.04					644	00204	0.04	MILE	LANE LINE, 6"	
1,734								1,734					644	01510	1,734	FT	DOTTED LINE, 6"	
																	INCIDENTALS	
								LS					614	11000	LS		MAINTAINING TRAFFIC	
								24					619	16020	24	MNTH	FIELD OFFICE, TYPE C	
								LS					623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
								LS					624	10000	LS		MOBILIZATION	
								LS					SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	15
																	ADDENDUM 3 STRUCTURE OVER 20 FOOT SPAN (SFN 3113841) SEE BRIDGE ESTIMATED QUANTITIES SHEET 5 / 15	

GENERAL SUMMARY

DESIGN AGENCY

 CMT
 CONSTRUCTION MANAGEMENT TECHNOLOGIES
 84 REMOND BOULEVARD
 BIRMINGHAM, AL 35202
 WWW.CMTENR.COM

DESIGNER
NCB

REVIEWER
JWL 02/20/23

PROJECT ID
102886

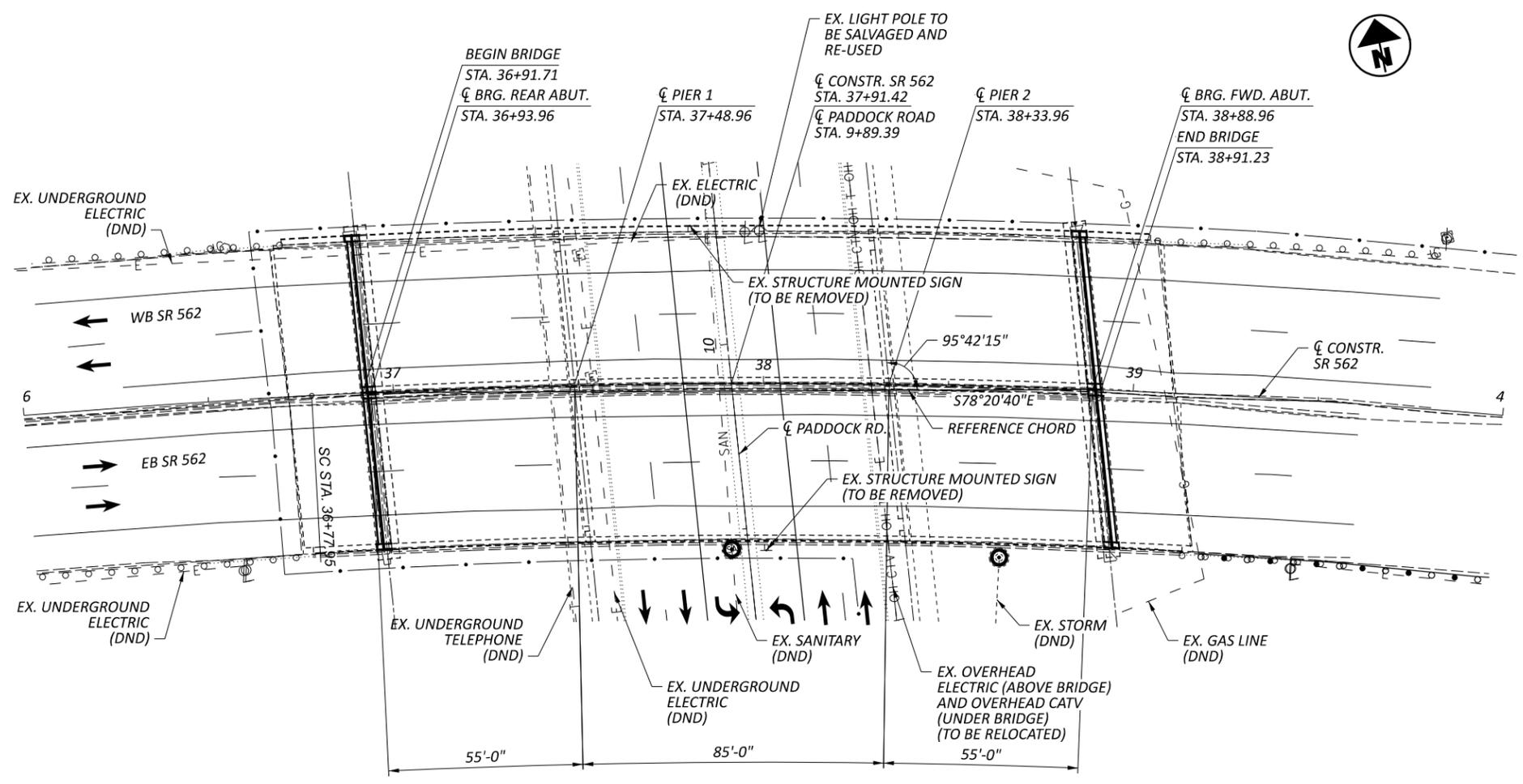
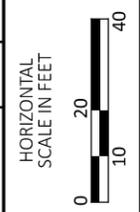
SHEET TOTAL
38 178

HAM-SR 562-0.54

MODEL: 102886_SFN313841_SFN1 SP101 PAPER SIZE: 17x11 (in.) DATE: 5/15/2023 TIME: 11:32:11 AM USER: mmnetz
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BENCHMARK DATA

BM #1 STA. 37+36.13, ELEV. 587.529, OFFSET 176.673' LT
 BM #2 STA. 37+56.50, ELEV. 574.164, OFFSET 101.099' RT



GENERAL PLAN

EXISTING STRUCTURE

TYPE: 3 SPAN CONTINUOUS STEEL BEAMS WITH NON-COMPOSITE REINFORCED CONCRETE DECK AND REINFORCED CONCRETE SUBSTRUCTURE

SPANS: 55'-0", 85'-0", 55'-0"

ROADWAY: 2 X 39'-4" TOE/TOE OF PARAPETS

LOADING: HS20-44 CASE II AND ALTERNATE MILITARY LOADING

SKEW: VARIES

WEARING SURFACE: 1 3/4" LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: AS-1-81, 20'-0" LONG

ALIGNMENT: 2°30'00" CURVE RIGHT

SUPERELEVATION: 0.041 FT/FT

STRUCTURE FILE NUMBER: 3113841

DATE BUILT: 1957 **DATE WIDENED:** 1985

DISPOSITION: TO BE REHABILITATED

NOTES

1. DIMENSIONS ARE PER EXISTING PLANS AND SURVEY DATA.
2. FOR ADDITIONAL PROPOSED ROADWAY WORK REFER TO THE ROADWAY PLANS.

DESIGN TRAFFIC:
 2024 ADT = 66,500 2024 ADTT = 6,650
 2036 ADT = 77,000 2036 ADTT = 7,700
 DIRECTIONAL DISTRIBUTION = 51%

UTILITY LINES:
 THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ENGINEER'S SEAL:



SIGNED: *DR*
 DATE: 02/20/2023

FOR ADDITIONAL PROPOSED WORK, SEE ADDENDUM 3 SHEETS 1-15.

PROPOSED WORK

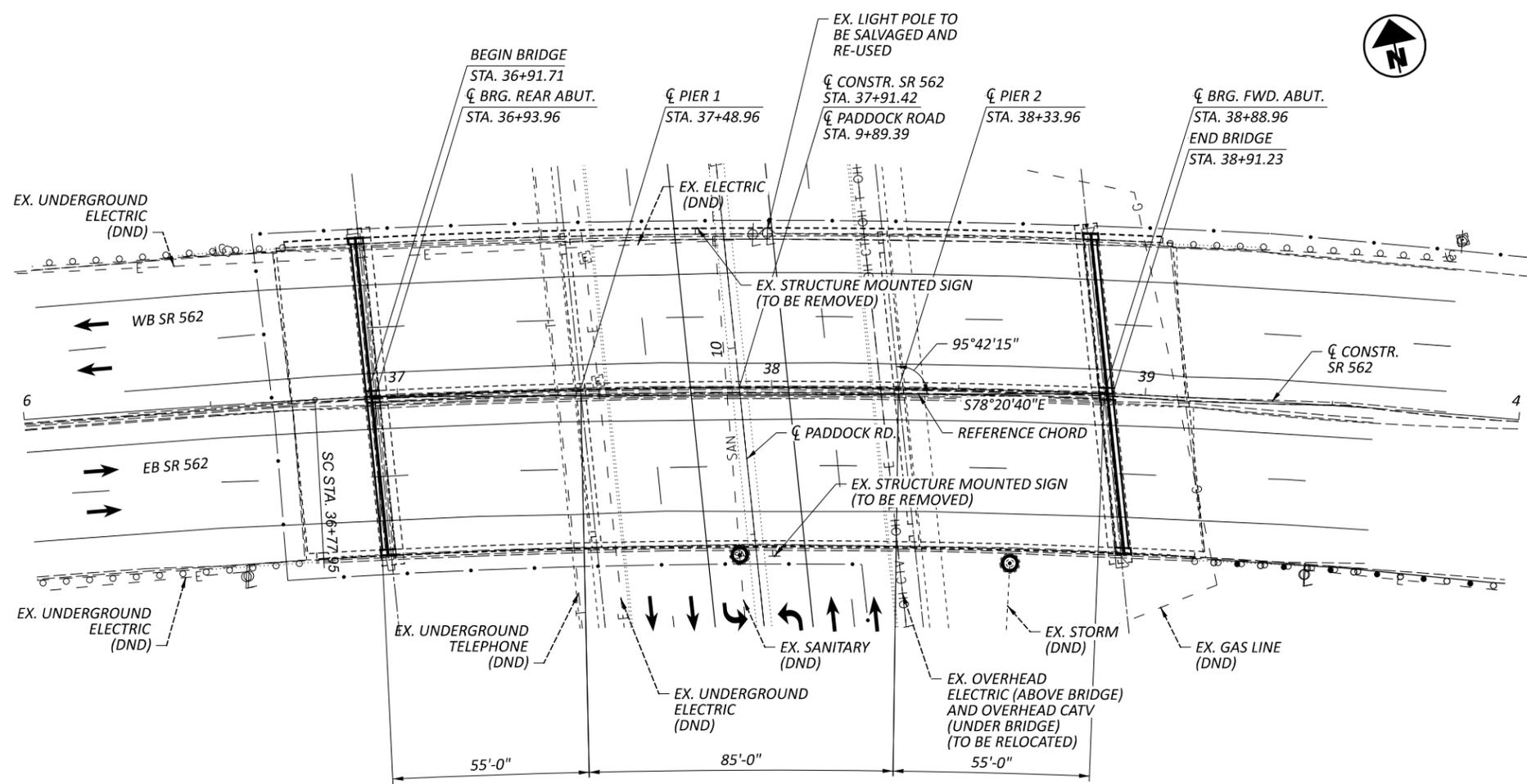
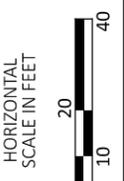
1. CLEAR AND GRUB WITHIN 20' OF THE STRUCTURE.
2. REMOVE AND DISPOSE STRUCTURE MOUNTED TRAFFIC SIGNS.
3. RELOCATE OVERHEAD UTILITIES UNDER THE BRIDGE TO UNDERGROUND.

GENERAL PLAN
 HAM-00562-00.650
 OVER PADDOCK ROAD

SFN 3113841	
DESIGN AGENCY	
 CMT CIVIL INC. 84 FRENCK BOULEVARD RHINECLIFF, OHIO 45866 PH: (734) 701-2181 WWW.CMTINC.COM	
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC 02/20/23	
PROJECT ID	
102886	
SUBSET	TOTAL
1	1
SHEET	TOTAL
109	178

BENCHMARK DATA

BM #1 STA. 37+36.13, ELEV. 587.529, OFFSET 176.673' LT
 BM #2 STA. 37+56.50, ELEV. 574.164, OFFSET 101.099' RT



GENERAL PLAN

EXISTING STRUCTURE

TYPE: 3 SPAN CONTINUOUS STEEL BEAMS WITH NON-COMPOSITE REINFORCED CONCRETE DECK AND REINFORCED CONCRETE SUBSTRUCTURE

SPANS: 55'-0", 85'-0", 55'-0"

ROADWAY: 2 X 39'-4" TOE/TOE OF PARAPETS

LOADING: HS20-44 CASE II AND ALTERNATE MILITARY LOADING

SKEW: VARIES

WEARING SURFACE: 1 1/4" LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: AS-1-81, 20'-0" LONG

ALIGNMENT: 2°30'00" CURVE RIGHT

SUPERELEVATION: 0.041 FT/FT

STRUCTURE FILE NUMBER: 3113841

DATE BUILT: 1957 **DATE WIDENED:** 1985

DISPOSITION: TO BE REHABILITATED

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- DIMENSIONS ARE PER EXISTING PLANS AND SURVEY DATA.
- FOR ADDITIONAL PROPOSED ROADWAY WORK REFER TO THE ROADWAY PLANS.

DESIGN TRAFFIC:
 2024 ADT = 66,500 2024 ADTT = 6,650
 2036 ADT = 77,000 2036 ADTT = 7,700
 DIRECTIONAL DISTRIBUTION = 51%

PROPOSED WORK

- REMOVE AND REPLACE EXISTING END STRIP SEAL EXPANSION JOINTS. REPLACE END CROSS FRAMES AND DIAPHRAGMS.
- REPLACE TOP OF BACKWALL DOWN TO THE APPROACH SLAB SEAT, 2' OF THE EXISTING REINFORCED CONCRETE DECK AT EACH JOINT.
- REPLACE EXISTING ROCKER BEARINGS AT EACH ABUTMENT WITH ELASTOMERIC BEARING ASSEMBLIES.
- PATCH EXISTING CONCRETE SUBSTRUCTURE UNITS.
- REPAIR IDENTIFIED AREAS OF APPROACH SLABS AND DECK, SEAL ENTIRE DECK WITH GRAVITY FED RESIN.
- PAINTING STRUCTURAL STEEL TO BE PERFORMED AFTER SPRING 2026.
- SEAL IDENTIFIED AREAS OF THE SUPERSTRUCTURE AND SUBSTRUCTURE WITH EPOXY URETHANE SEALER.

SFN	3113841
DESIGN AGENCY	CMT CIVIL INC.
DESIGNER	MNM
CHECKER	DRC
REVIEWER	DRC
DATE	11/21/22
PROJECT ID	102886
SUBSET	1
TOTAL	14
SHEET	2
TOTAL	15

GENERAL NOTES:

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

EXJ-4-87	DATED/REVISED	01-19-18
GSD-1-19	DATED/REVISED	01-15-21

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

SS800	REVISED	01-21-22
-------	---------	----------

DESIGN SPECIFICATIONS:

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

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

DESIGN LOADING: HS20-44 (SUPERSTRUCTURE)
FUTURE WEARING SURFACE (FWS) 0.060 KSF

DESIGN STRESSES:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 - GRADE 60, MINIMUM YIELD STRENGTH 60 KSI

EXIST. STRUCTURAL STEEL - ASTM A36 MINIMUM YIELD STRENGTH 36 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2-1/2 INCH CONCRETE COVER

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
SEALING DECK WITH GRAVITY FED RESIN

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

UTILITY LINES:

THE UTILITY(LINES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(LINES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

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

DESCRIPTION:
THIS WORK SHALL INCLUDE 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 PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES.

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

PERFORM WORK CAREFULLY DURING REMOVAL OPERATIONS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. THE METHOD OF REMOVAL AND THE WEIGHT OF THE 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. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

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

DECK CONCRETE REMOVAL:
THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM, STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN.

REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

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

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

LOADING LIMITATIONS:
NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO UNIT STRESSES THAT EXCEED 136.5% OF ALLOWABLE UNIT STRESSES AS DEFINED IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO DEMOLITION, ERECTION, OR CONSTRUCTION METHODS, OR TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. SUBMIT STRUCTURAL ANALYSIS COMPUTATIONS, BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE REMOVAL METHODS OR EQUIPMENT TO THE DIRECTOR AT LEAST 20 DAYS BEFORE CONSTRUCTION BEGINS.

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

THIS STRUCTURE IS SUBJECT TO TESTING FOR ASBESTOS. THE CONTRACTOR SHALL USE A STATE CERTIFIED ASBESTOS INSPECTOR TO INSPECT AND SAMPLE THE BRIDGE FOR THE PRESENCE OF ASBESTOS. THE SAMPLES WILL BE PROVIDED TO THE CONTRACTOR FOR TESTING. THE COST TO INSPECT AND SAMPLE THE BRIDGE FOR THE PRESENCE OF ASBESTOS, TO DELIVER THE SAMPLES TO A TEST LAB, AND TO TEST THE SAMPLES FOR ASBESTOS WILL BE INCLUDED IN THIS PAY ITEM. IF, DURING TESTING, THE PRESENCE OF ASBESTOS IS CONFIRMED, THE CONTRACTOR SHALL REMOVE IT AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL COMPLETE THE "OHIO ENVIRONMENTAL PROTECTION AGENCY NOTIFICATION OF DEMOLITION AND RENOVATION" AFTER THE TESTING IS COMPLETE AND SEND THE FORM TO THE OHIO EPA 10 DAYS PRIOR TO DEMOLITION OR RENOVATION ACTIVITIES.

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

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN:
REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE AND COATING AND MATERIAL AT NO COST TO THE DEPARTMENT.

ITEM 509 - UNCOATED STEEL REINFORCEMENT, AS PER PLAN
IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLAN, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN
THE FOLLOWING SURFACES SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE COLOR SHALL BE FEDERAL COLOR NUMBER 17778 (LIGHT NEUTRAL). THE SURFACE TO BE SEALED SHALL HAVE SURFACE PREPARATION PER CMS 512.03 (F) INCLUDING THE REMOVAL OF ANY EXISTING COATINGS. REMOVAL OF EXISTING COATING SHALL BE PAID FOR UNDER ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES.

1. ALL EXPOSED SURFACES OF THE DECK OVERHANG, BRIDGE RAILING ON ABUTMENT WINGWALLS AND MEDIAN PARAPET AS SHOWN IN THE PLANS.
2. THE ABUTMENT BACKWALLS, BEAM SEATS AND FACE OF THE BRESTWALL TO THE GROUND LINE.
3. THE PIER CAP SIDES, BOTTOM, ENDS AND THE TOTAL SURFACE OF THE COLUMNS TO THE GROUND LINE.

DUE TO THE RECENT SUPPLY SHORTAGES, THE DEPARTMENT HAS BEEN MADE AWARE OF DIFFICULTIES THAT SUPPLIERS ARE HAVING IN OBTAINING THE NECESSARY MATERIALS FOR EPOXY. ON THIS PROJECT THE CONTRACTOR CAN USE TRADITIONAL EPOXY-URETHANE SEALERS APPROVED ON THE QPL OR ELECT TO SUBSTITUTE BRIDGE COTE XL-70 W/SILANE THAT IS LISTED ON THE APPROVED NOISE SUPPLIER LIST UNDER APPROVED SEALERS FOR NOISE BARRIERS. APPROVEDNOISESUPPLIERSLIST.PDF (OHIO.GOV) .

IF BRIDGE COTE XL-70 W/SILANE IS CHOSEN, MEET THE REQUIREMENTS OF THE BRIDGE COTE XL-70 W/SILANE TECHNICAL DATA SHEET WITH THE EXCEPTION OF THE SURFACE PREPARATION THAT WILL STILL FOLLOW THE REQUIREMENTS LISTED UNDER C&MS 512 FOR EPOXY URETHANE SEALERS.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UP, 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 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 "AS-BUILT" 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:
END CROSS FRAME: L4x4x3/8" AND 1/2" GUSSET PLATE

THIS STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED WITH A PRIME, INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING SYSTEM OZEU. MATCH THE EXISTING PAINT COLORS AS CLOSE AS POSSIBLE TO THE EXISTING PAINT SYSTEM. ALL WORK, MATERIALS AND COST TO PAINT THE NEW STRUCTURAL STEEL SHALL BE INCLUDED IN THIS PAY ITEM.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

THE CONTRACTOR SHALL FIELD VERIFY THE TOE OF THE EXISTING BARRIERS AT THE EXISTING JOINT AND PROVIDE ELEVATIONS TO THE JOINT FABRICATOR TO CONFIRM THE EXISTING DECK CROSS SLOPE AT EACH JOINT. THE CONTRACTOR SHALL ALSO FIELD VERIFY THE PLAN VIEW DIMENSIONS PRIOR TO JOINT FABRICATION. IF UPON FIELD VERIFICATION, THE DIMENSIONS VARY FROM WHAT IS SHOWN, THE JOINT SHALL MATCH THE INFORMATION FOUND IN THE FIELD. ALL LABOR, MATERIAL, AND INCIDENTALS TO FIELD VERIFY SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM 516, STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN.

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL
PAINT ALL STRUCTURAL STEEL WITH SYSTEM OZEU PER CMS 708.02. THE FINISH COAT SHALL BE FEDERAL COLOR F5595C 14223 (GREEN).

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN:

THE QUANTITY GIVEN IN THE ESTIMATED QUANTITY TABLE HAS BEEN ESTIMATED FROM FIELD INSPECTION AND ORIGINAL PLANS. THE ACTUAL AREA OF PATCHING SHALL BE DETERMINED BY THE FIELD ENGINEER. PAYMENT SHALL BE MADE PER SQ. FT. AT THE PRICE BID FOR THE ACTUAL AREA PATCHED AND SHALL INCLUDE ALL COST FOR LABOR, MATERIALS AND EQUIPMENT.

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

REMOVE THE FORMS WITHIN 24 HOURS AFTER PLACING CONCRETE AND FINISH ALL EXPOSED SURFACES BY RUBBING TO MATCH THE SURROUNDING SURFACE. APPLY MEMBERANE CURING ACCORDING TO 511.17, METHOD B, IMMEDIATELY AFTER RUBBING THE SURFACES.

AFTER CURING AND BEFORE FINAL ACCEPTANCE, SOUND ALL PATCHED AREAS. REMOVE AND REPLACE ALL UNSOUND OR VISIBLY CRACKED AREAS.

GENERAL NOTES (1 OF 2)
HAM-00562-00.650
OVER PADDOCK ROAD

SFN	3113841
DESIGN AGENCY	CMT COLUMBIAN ENGINEERING, MURPHY & SULLIVAN, INC. 1415 HENCKES BOULEVARD BIRMINGHAM, OHIO 45006 www.cmtinc.com
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC	11/21/22
PROJECT ID	102886
SUBSET	TOTAL
2	14
SHEET	TOTAL
3	15

GENERAL NOTES (CONT.):

ITEM 625 - REMOVE AND RE-ERECT EXISTING LIGHT POLE, AS PER PLAN

THIS ITEM WILL INCLUDE DISCONNECTING EXISTING POWER SERVICE FROM LIGHTS, REMOVAL AND STORAGE OF EXISTING POLES AND LUMINAIRES, RE-ERECTING POLES AND LUMINAIRES, CONNECTION TO EXISTING STRUCTURE GROUNDING SYSTEM AND RECONNECTION OF POWER SERVICE.

POWER LINE WORK SHALL BE COORDINATED WITH DUKE ENERGY.

ANCHORS INSTALLED IN PILASTERS SHALL BE DONE IN ACCORDANCE WITH SCD HL-20.14 WITH BOLT SIZE AND PATTERN TO MATCH EXISTING POLE BASE.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE AND RE-ERECT POLES SHALL BE INCLUDED IN THE PER UNIT PRICE FOR ITEM 625 - REMOVE AND RE-ERECT EXISTING LIGHT POLES, AS PER PLAN.

ITEM 519 - SPECIAL - CONCRETE REPAIR BY EPOXY INJECTION INCLUDING SURFACE PREPARATION

THE QUANTITY GIVEN IN THE ESTIMATED QUANTITY TABLE HAS BEEN ESTIMATED FROM FIELD INSPECTIONS. THE ACTUAL QUANTITY OF CRACK REPAIRS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ANTICIPATED CRACK REPAIR LOCATIONS INCLUDE REAR ABUTMENT STEM AND BACKWALL IN BAYS 2, 3, 4 AND 7, AND FORWARD ABUTMENT STEM AT THE WIDENING JOINT.

PAYMENT SHALL BE MADE PER LINEAR FOOT AT THE PRICE BID FOR THE ACTUAL QUANTITY REPAIRED AND SHALL INCLUDE ALL COST FOR LABOR, MATERIALS AND EQUIPMENT.

ABBREVIATIONS

- ABUT. - ABUTMENT
- APPROX. - APPROXIMATELY
- BOTT. - BOTTOM
- BRG. - BEARING
- BTW. - BETWEEN
- C.I.P. - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- C/C - CENTER TO CENTER
- CLR. - CLEARANCE
- CONSTR. - CONSTRUCTION
- DIA. - DIAMETER
- DWG. - DRAWING
- E.B. - EASTBOUND
- E.F. - EACH FACE
- EA. - EACH
- EL. OR ELEV. - ELEVATION
- EMB. - EMBEDMENT
- EQ. - EQUAL
- EX. - EXISTING
- EXIST. - EXISTING
- EXP. - EXPANSION
- F.A. - FORWARD ABUTMENT
- F.F. - FAR FACE
- JT. - JOINT
- M.S.C. - MICROSILICA MODIFIED CONCRETE
- MAX. - MAXIMUM
- MID. - MIDDLE
- MIN. - MINIMUM
- N.F. - NEAR FACE
- N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- NO. - NUMBER
- P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
- PCB - PORTABLE CONCRETE BARRIER
- R.A. - REAR ABUTMENT
- REQ'D. - REQUIRED
- SPA. - SPACE(D) OR SPACING
- SQ. - SQUARE
- STA. - STATION
- STD. DWG. OR SCD - STANDARD CONSTRUCTION DRAWING
- STR. - STRAIGHT
- T - TOP
- T&B - TOP AND BOTTOM
- T.B.D. - TO BE DETERMINED
- TEMP - TEMPORARY
- TYP.L - TYPICAL
- U.N.O. - UNLESS NOTED OTHERWISE
- W.B. - WESTBOUND

SFN	
3113841	
DESIGN AGENCY	
 CMT CONSULTING & ENGINEERING 84 FLEMING BOULEVARD BIRMINGHAM, AL 35202-2508 www.cmteng.com	
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC 11/21/22	
PROJECT ID	
102886	
SUBSET	TOTAL
3	14
SHEET	TOTAL
4	15

HAM-SR 562-0.54 ADDENDUM 3

MODEL SHEET PAPER SIZE: 17x11 (in.) DATE: 5/15/2023 TIME: 11:32:39 AM USER: mmetz
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MADE BY: DMJ		DATE: 11/21/2022		ESTIMATED QUANTITIES		STRUCTURE FILE NUMBER: 3113841					
CHECKED BY: DRC		DATE: 11/21/2022				ABUTMENTS		PIERS	SUPER.	GENERAL	REF. SHEET
ITEM	EXT.	TOTAL 02/NHS/BR	UNIT	DESCRIPTION		REAR	FWD.				
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN						LUMP	2 / 13
509	25001	2,593	LB	UNCOATED STEEL REINFORCEMENT, AS PER PLAN		96	97		2400		2 / 13
509	20001	400	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN		100	100		200		2 / 13
511	34410	10	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE					10		
511	34448	4	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)					4		
511	45710	12	CY	CLASS QC1 CONCRETE, ABUTMENT		6	6				
512	10101	897	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN		58	58		781		2 / 13
512	73500	1,883	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN					1883		
512	74000	897	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		58	58		781		
513	10201	6,980	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN					6980		2 / 13
514	00050	25,574	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL					25574		
514	00056	26,803	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT					26803		
514	00060	26,803	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT					26803		
514	00066	26,803	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT					26803		
514	00504	40	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL					40		
514	10000	23	EACH	FINAL INSPECTION REPAIR					23		
516	11211	170	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN					170		3 / 13
516	44201	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING 13"x12"x3.128", LOAD PLATE 14"x13"x1.5)		12	12				11 / 13
516	47001	LUMP	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN						LUMP	2 / 13
519	11101	6	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN				6			3 / 13
519	12300	9	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B						9	
519	12610	20	FT	SPECIAL - CONCRETE REPAIR BY EPOXY INJECTION INCLUDING SURFACE PREPARATION		10	10				3 / 13
625	35011	1	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN						1	3 / 13

ESTIMATED QUANTITIES
HAM-00562-00.650
OVER PADDOCK ROAD

SFN
3113841

DESIGN AGENCY

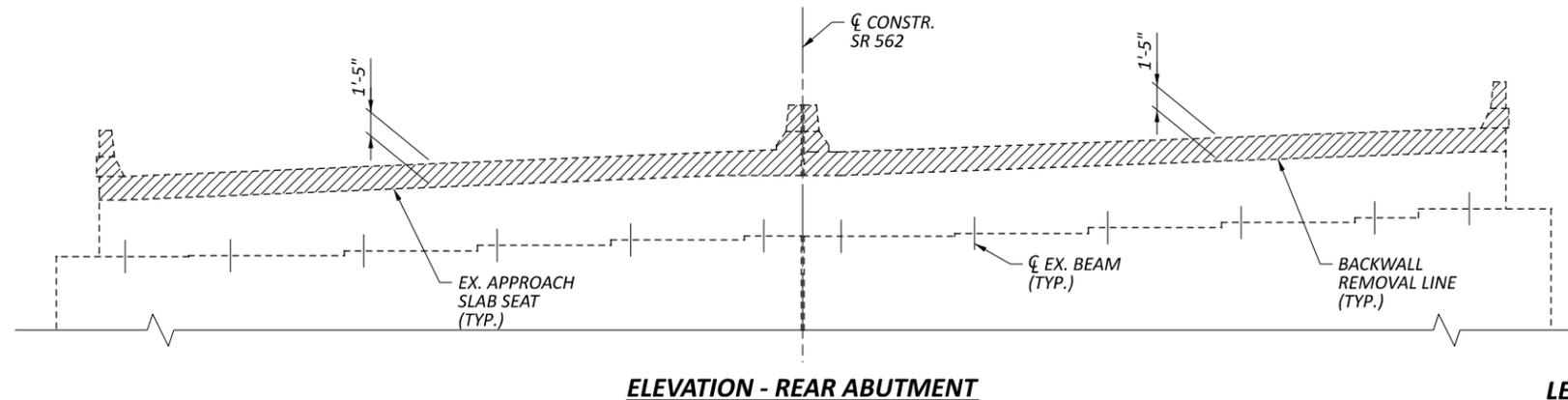
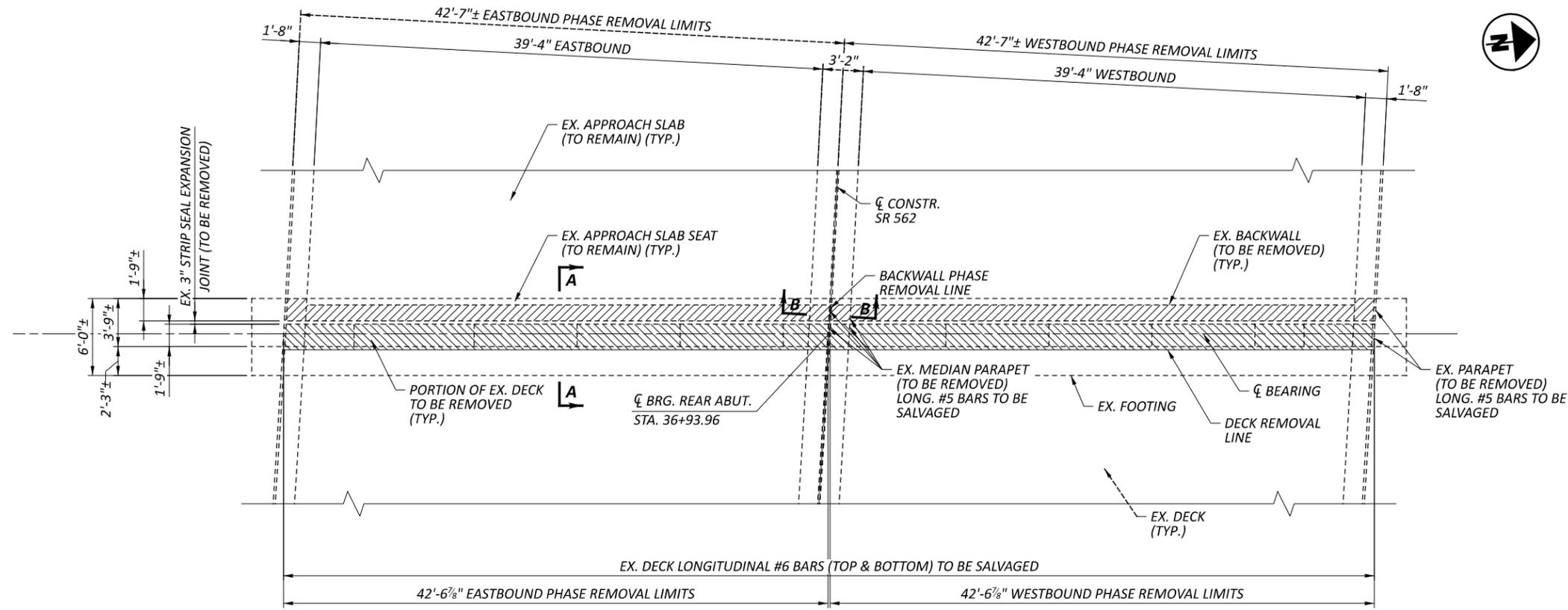
CMT
 CONSULTING ENGINEERS
 84 FLEMING BOULEVARD
 RICHMOND, VA 23133-2108
 WWW.CMTENR.COM

DESIGNER: MNM
 CHECKER: DRC

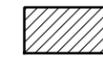
REVIEWER
DRC 11/21/22

PROJECT ID
102886

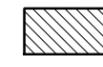
SUBSET	TOTAL
4	14
SHEET	TOTAL
5	15



LEGEND:



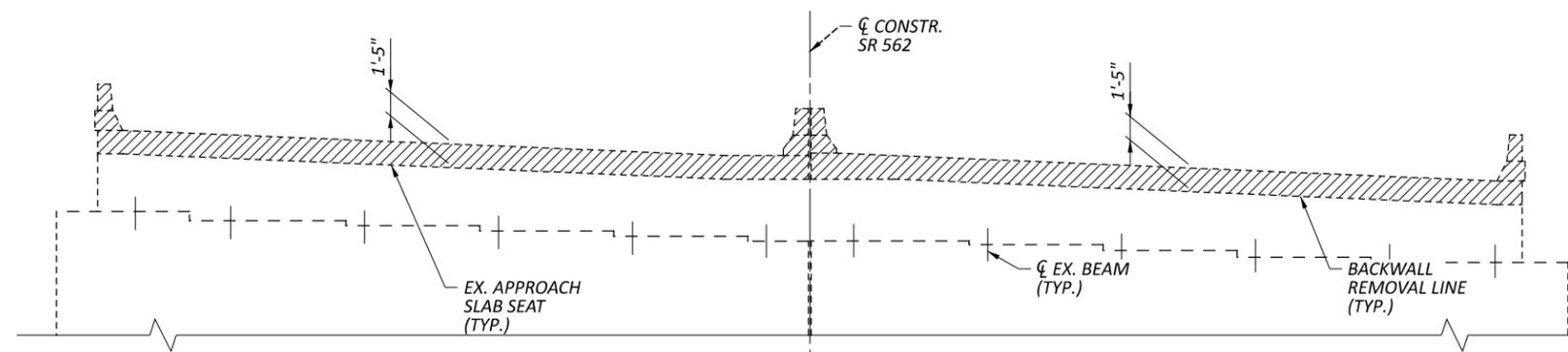
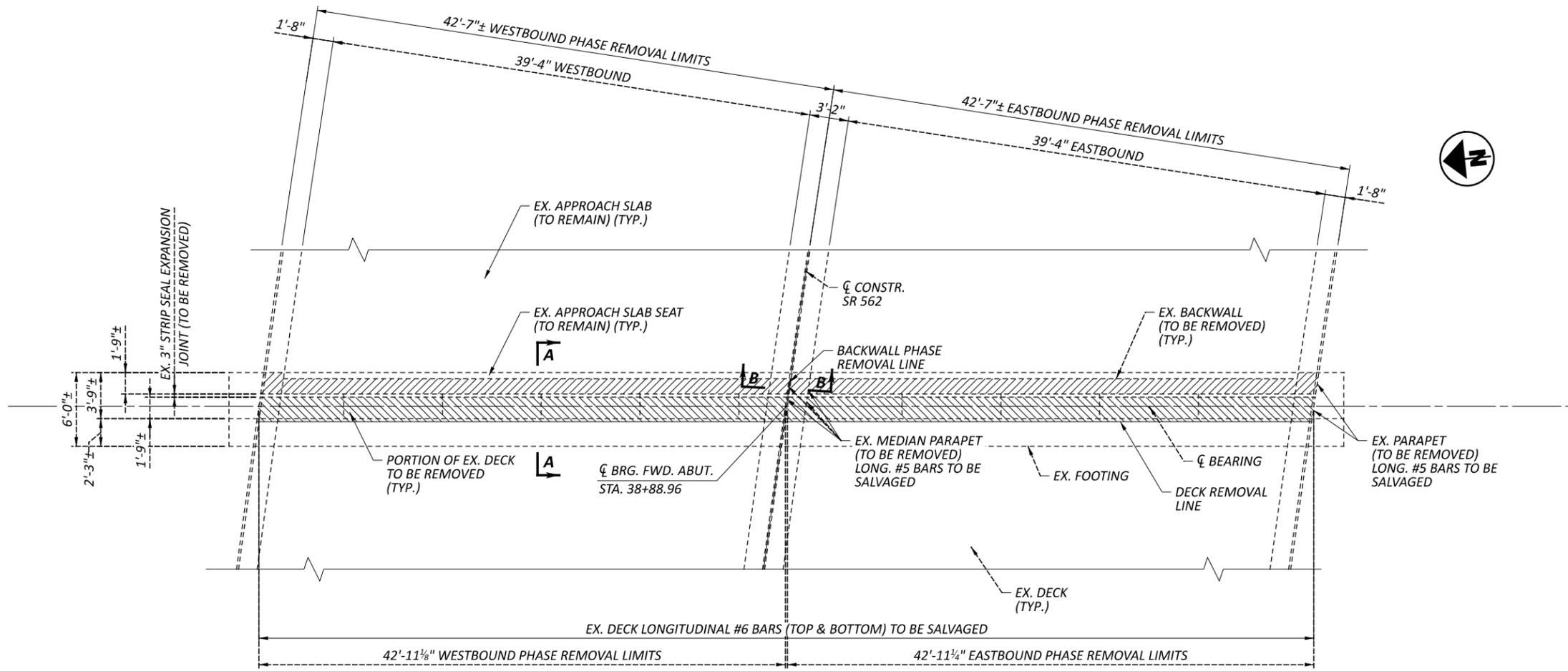
- INDICATES ABUTMENT AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN



- INDICATES SUPERSTRUCTURE AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

NOTES:

- ALL SURFACES WHERE FRESH CONCRETE IS TO BE PLACED ON EXISTING CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE. THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN FOR PAYMENT.
- DO NOT REMOVE, CUT, BEND OR OTHERWISE DAMAGE NOTED EXISTING LONGITUDINAL DECK OR PARAPET REINFORCING STEEL. CONCRETE REMOVAL NEAR REINFORCING STEEL TO BE SALVAGED SHALL BE DONE THROUGH HAND-CHIPPING TO BE PAID FOR UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
- FOR SECTION A-A AND B-B, SEE SHEET 7 / 13.



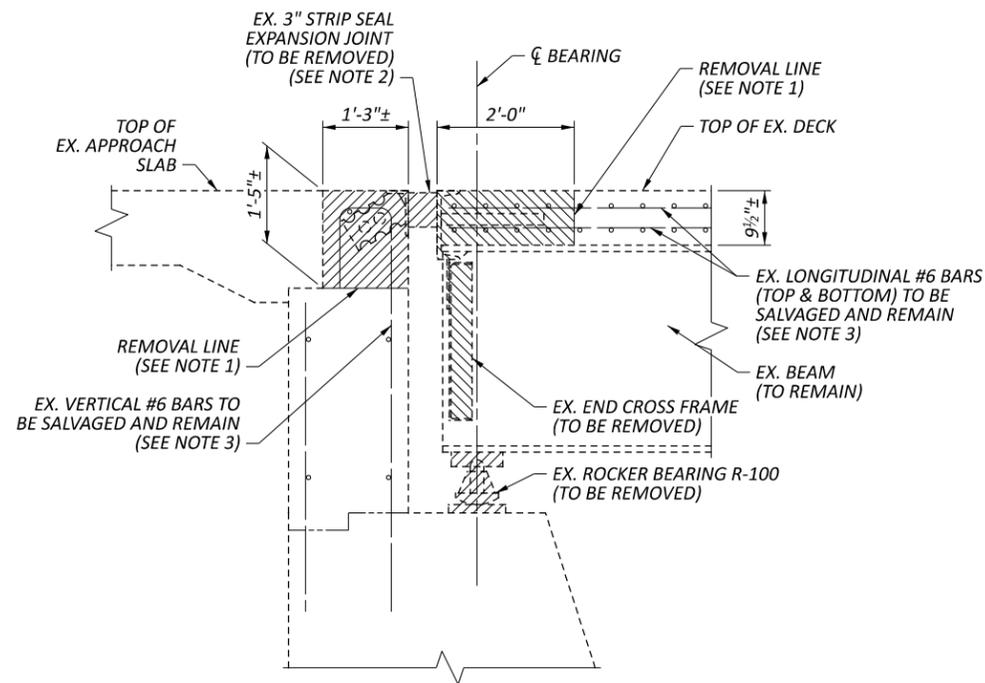
LEGEND:

- INDICATES ABUTMENT AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
- INDICATES SUPERSTRUCTURE AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

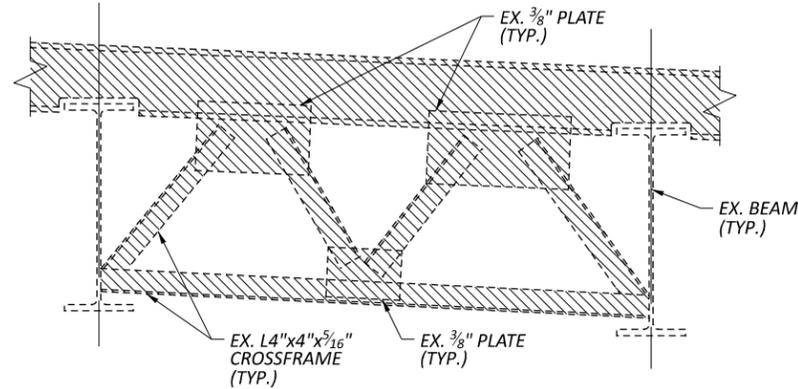
NOTES:

1. ALL SURFACES WHERE FRESH CONCRETE IS TO BE PLACED ON EXISTING CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE. THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN FOR PAYMENT.
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3. FOR SECTION A-A AND B-B, SEE SHEET 7 / 13.

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DESIGN AGENCY	CMT
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC	11/21/22
PROJECT ID	102886
SUBSET	TOTAL
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SHEET	TOTAL
7	15

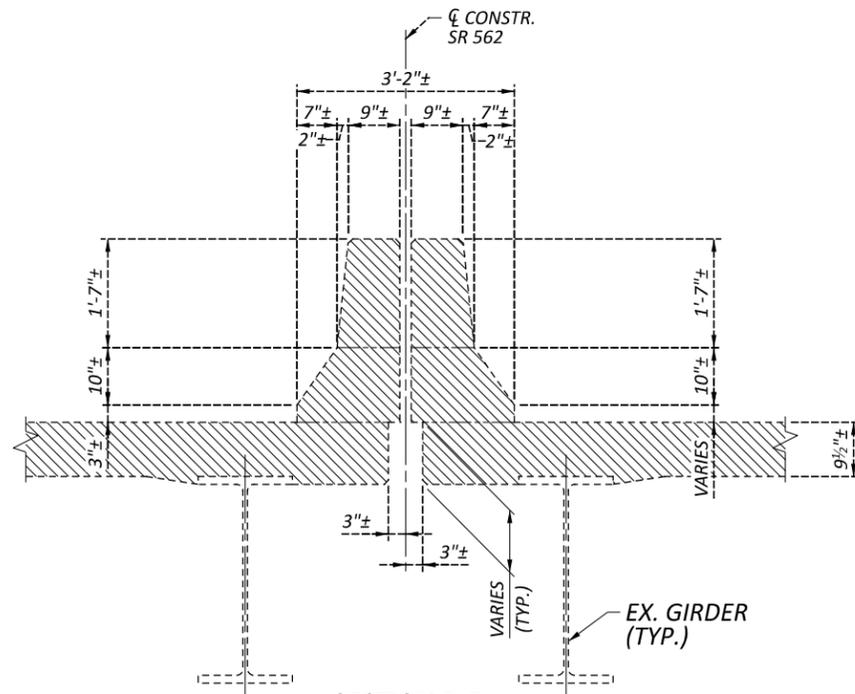


SECTION A-A



TYPICAL END CROSS FRAME REMOVAL DETAIL

(SEE NOTE 4)



SECTION B-B

(EX. MEDIAN LONGITUDINAL #5 BARS TO BE SALVAGED)

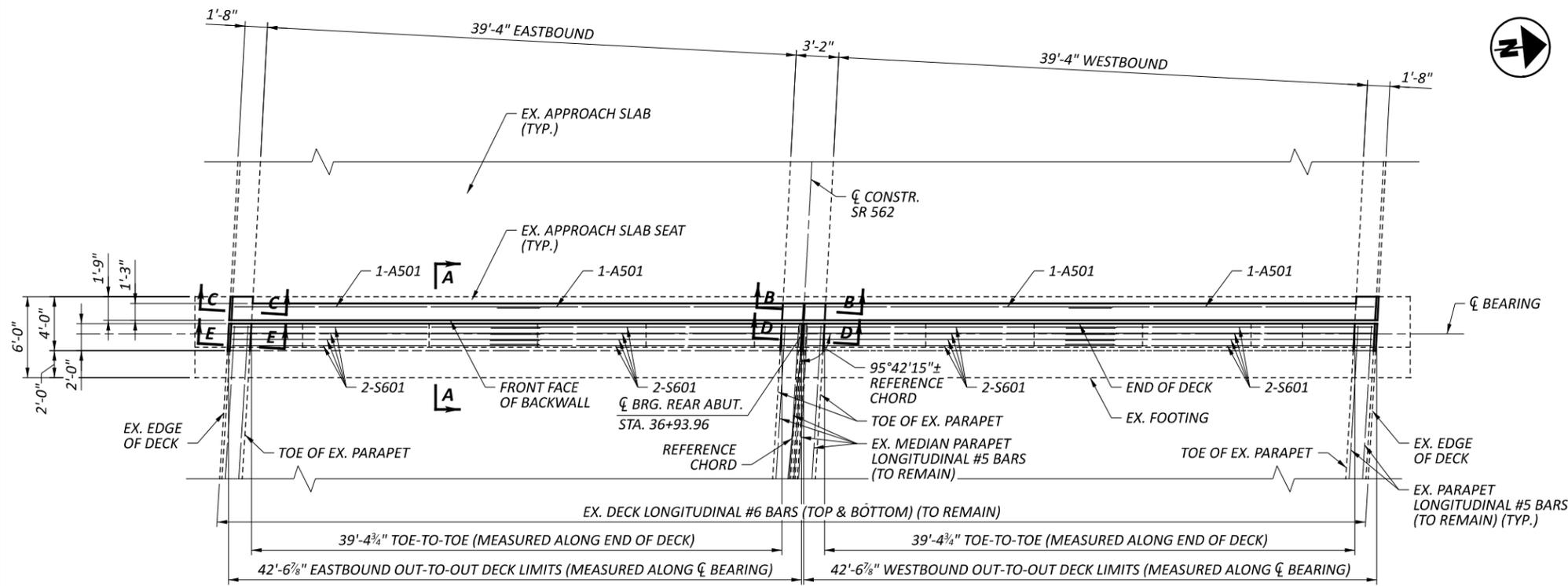
LEGEND:

-  - INDICATES ABUTMENT AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
-  - INDICATES SUPERSTRUCTURE AREA TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

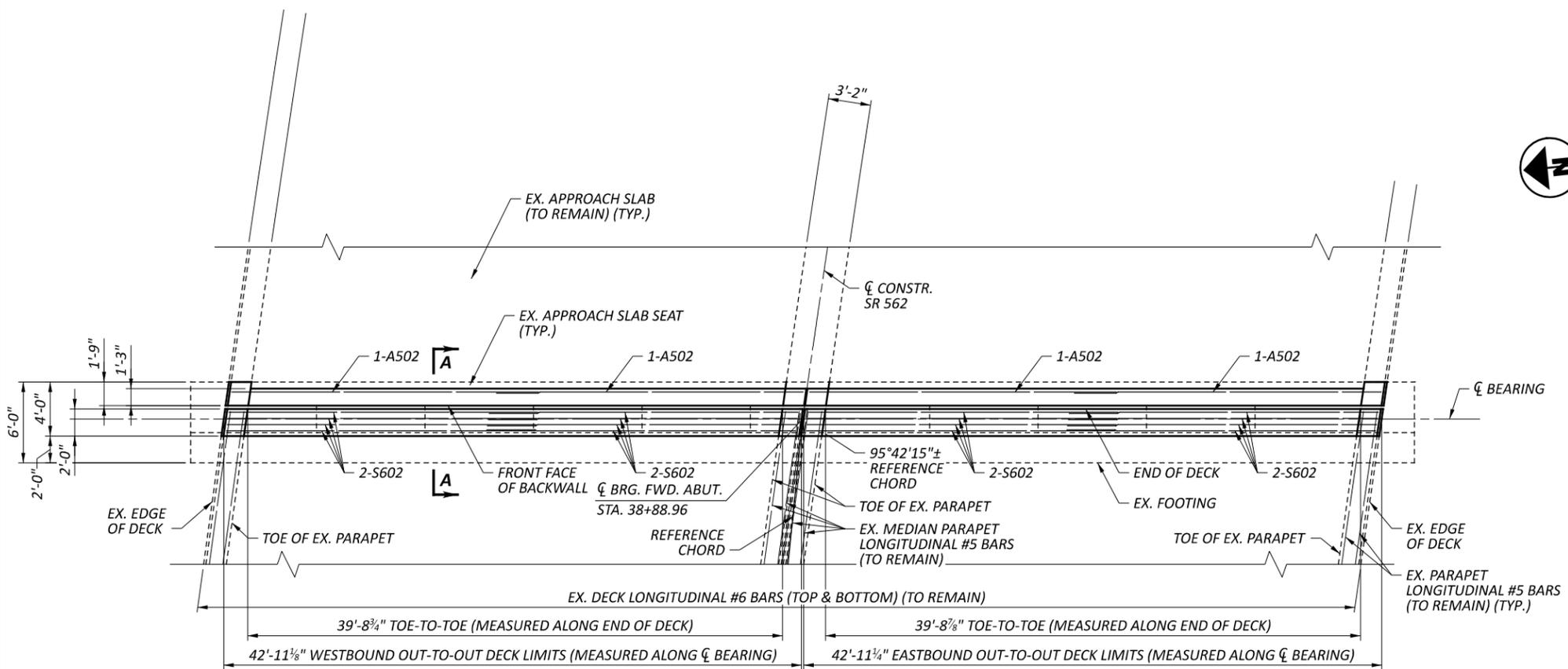
NOTES:

1. ALL SURFACES WHERE FRESH CONCRETE IS TO BE PLACED ON EXISTING CONCRETE SHALL BE ROUGH AND IRREGULAR WITH AN AMPLITUDE OF 1/4" OR MORE. THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN FOR PAYMENT.
2. REMOVALS AND REPLACEMENT OF THE EXPANSION JOINT AND ALL ASSOCIATED HARDWARE SHALL OCCUR AFTER THE JACKING AND BEARING PLACEMENT OPERATION IS COMPLETE.
3. DO NOT REMOVE, CUT, BEND OR OTHERWISE DAMAGE NOTED EXISTING LONGITUDINAL DECK REINFORCING STEEL OR VERTICAL BACKWALL REINFORCING STEEL. CONCRETE REMOVAL NEAR REINFORCING STEEL TO BE SALVAGED SHALL BE DONE THROUGH HAND-CHIPPING TO BE PAID FOR UNDER ITEM - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
4. THE END CROSS FRAME MEMBERS AND PLATES WILL BE REMOVED WITH THE SUPERSTRUCTURE. ANY DAMAGE TO THE EXISTING BEAMS DURING THE REMOVALS AND REINSTALL, INCLUDING PAINT TOUCH UP, SHALL BE REPAIRED PER ITEM 514. ALL WORK ASSOCIATED WITH THE EXISTING CROSS FRAME REMOVAL SHALL BE INCLUDED IN ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN.

SFN	3113841		
DESIGN AGENCY	CMT		
DESIGNER	MNM		
CHECKER	DRC		
REVIEWER	DRC		
PROJECT ID	102886		
SUBSET	7	TOTAL	14
SHEET	8	TOTAL	15



PLAN - REAR ABUTMENT

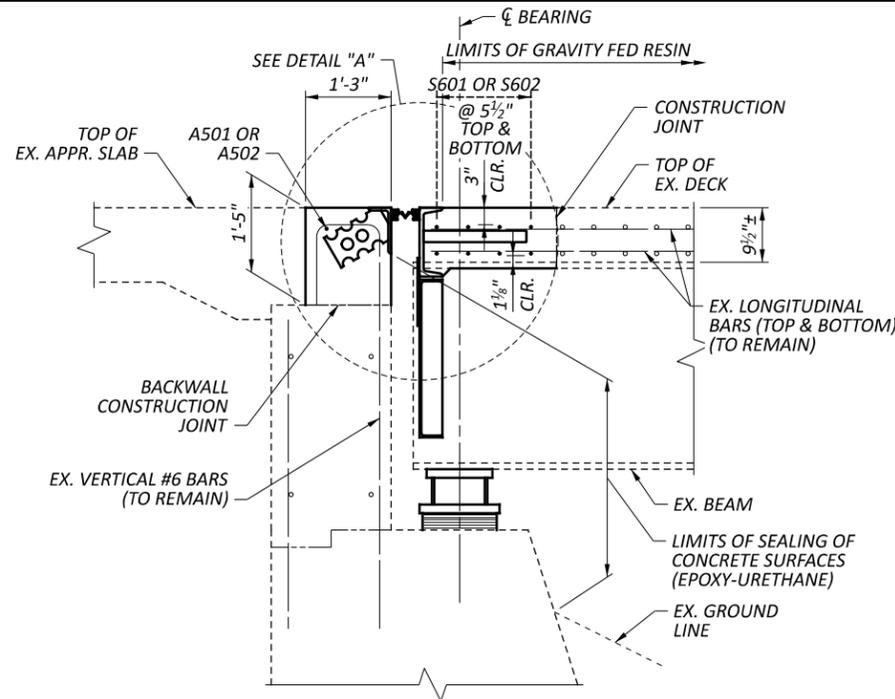


PLAN - FORWARD ABUTMENT

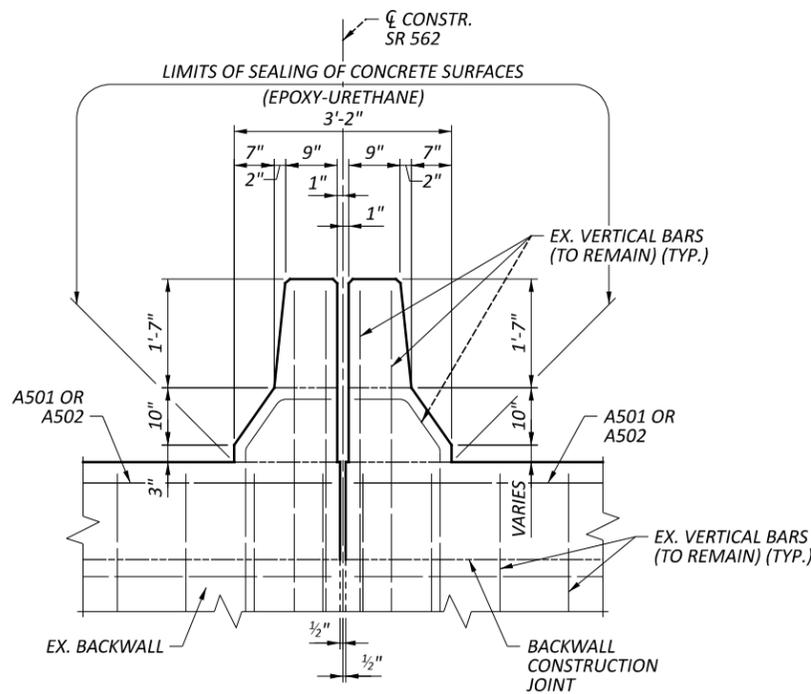
LAP SPLICE LENGTHS	
NO. 5 BARS	3'-1" MIN.
NO. 6 BARS	3'-7" MIN.

NOTES:

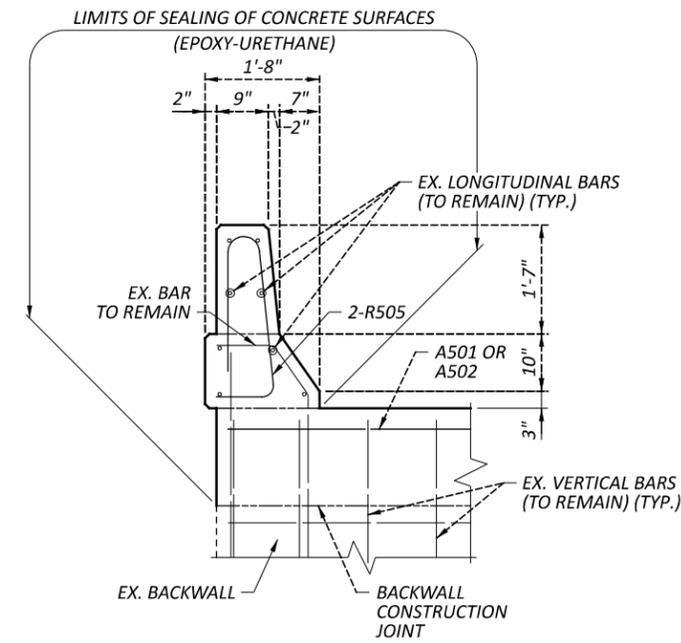
1. FOR SECTIONS A-A THRU E-E, SEE SHEET 9 / 13.



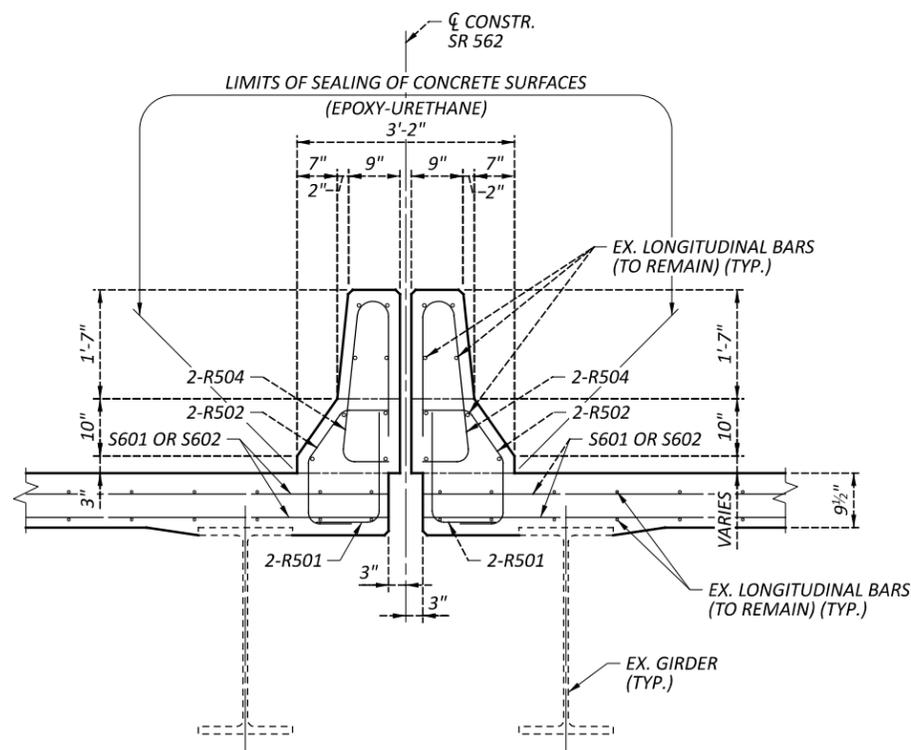
SECTION A-A



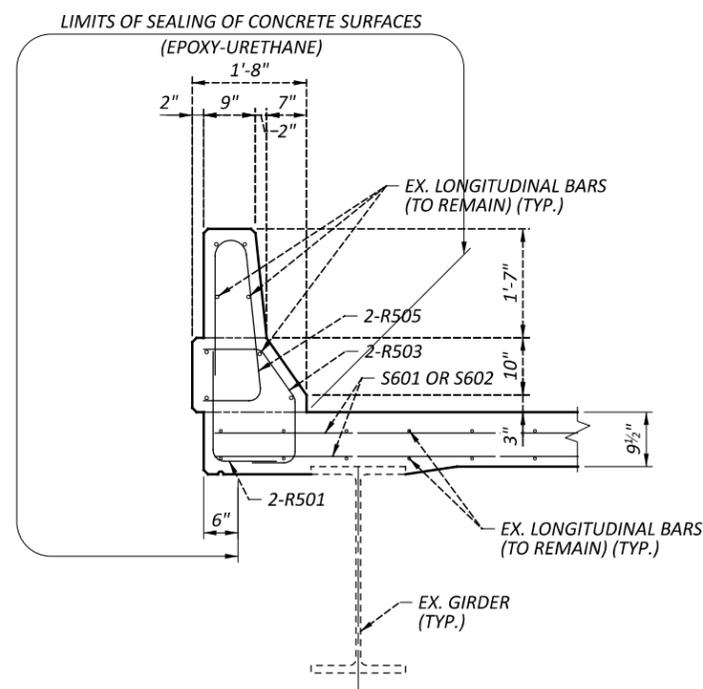
SECTION B-B



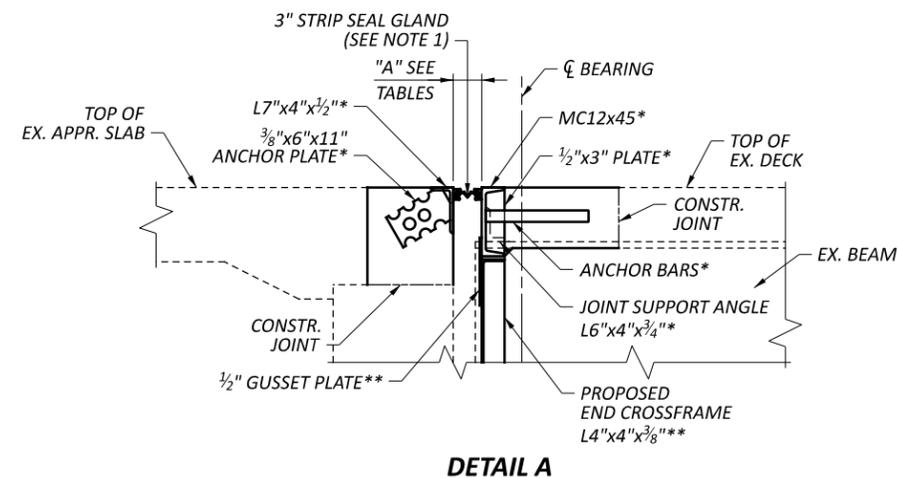
SECTION C-C



SECTION D-D



SECTION E-E



DETAIL A

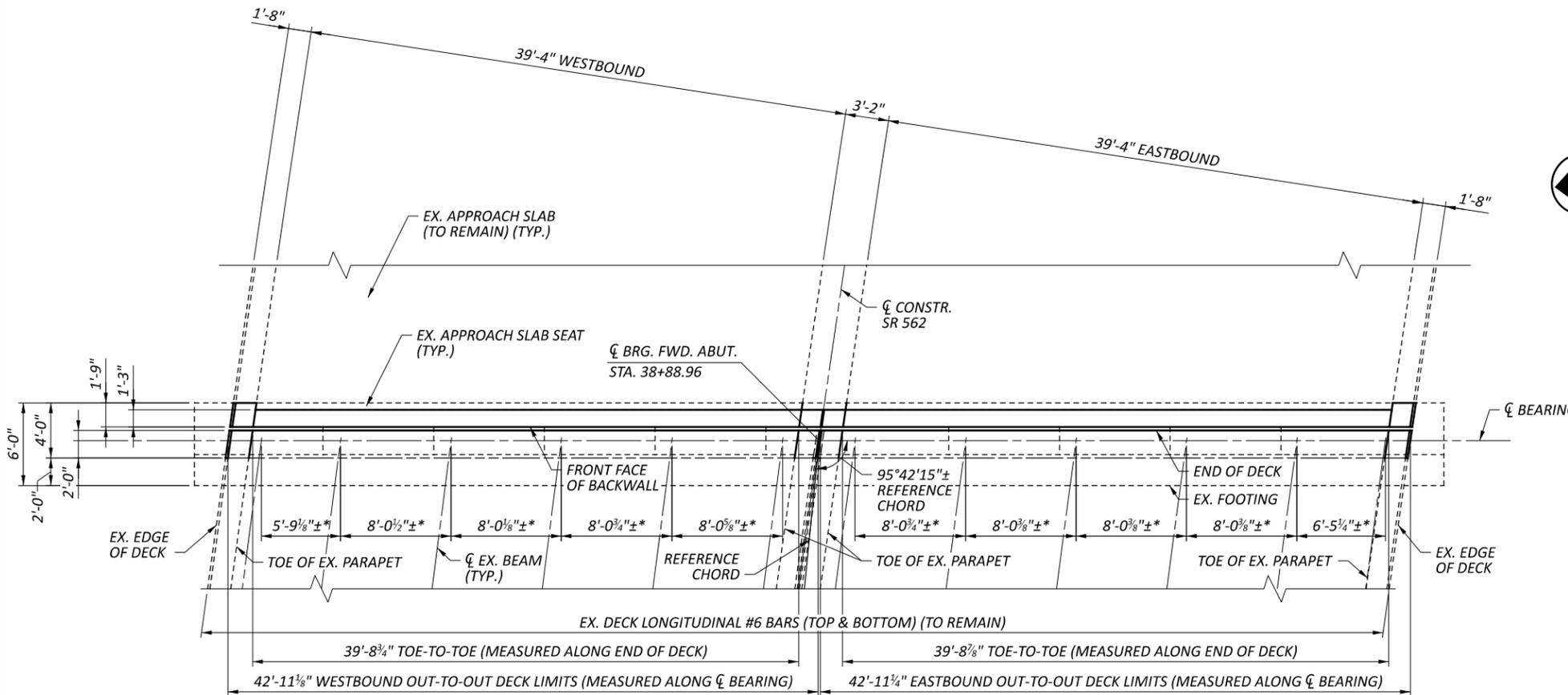
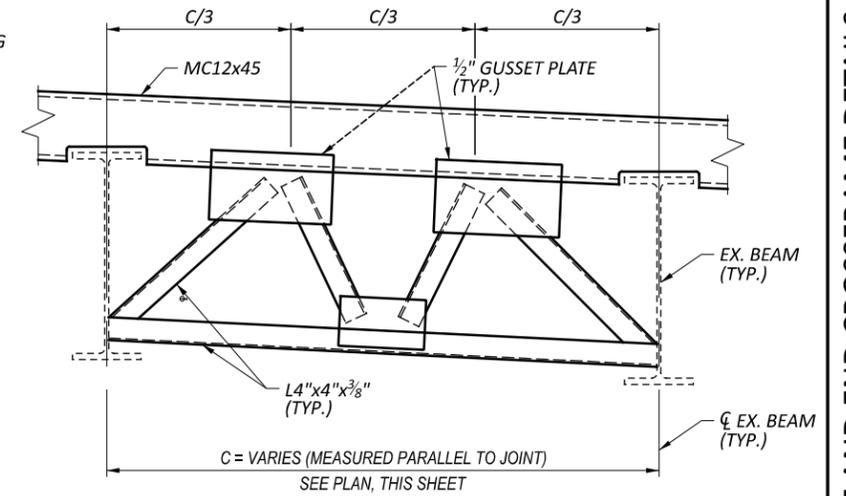
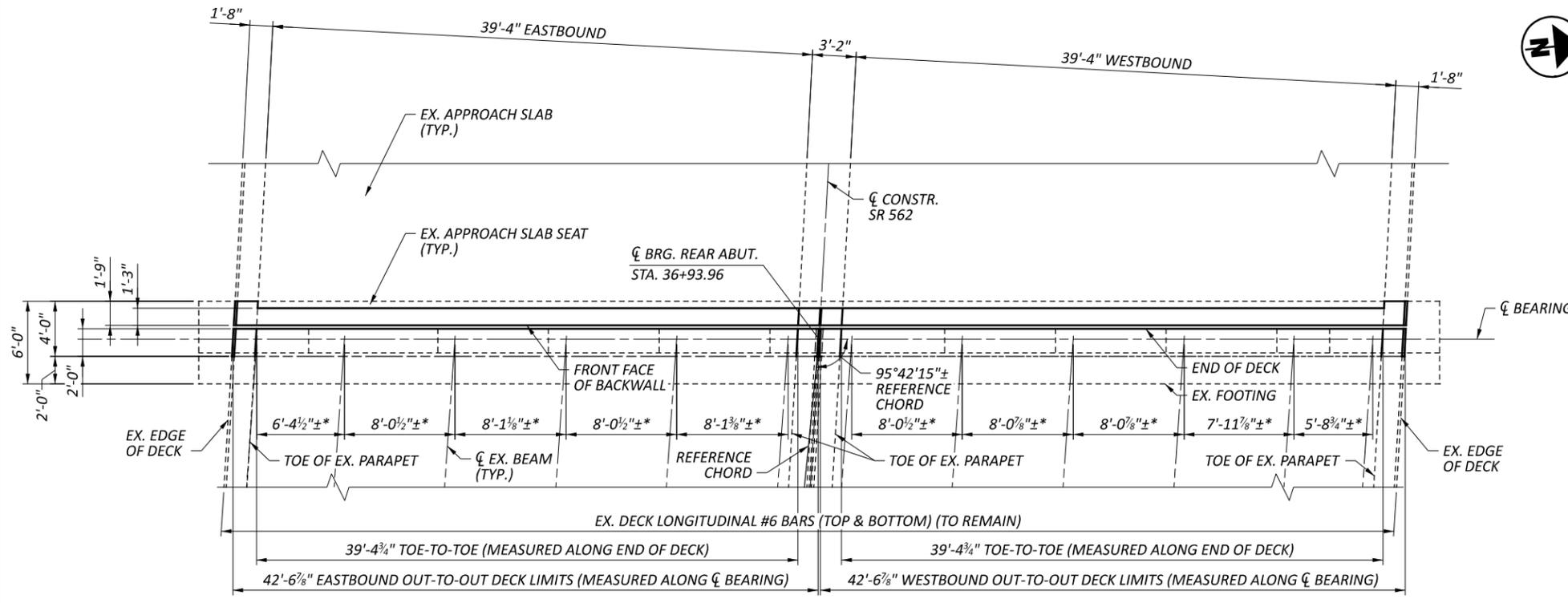
* INDICATES STRUCTURAL STEEL INCLUDED IN ITEM 516 FOR PAYMENT
 **INDICATES STRUCTURAL STEEL INCLUDED IN ITEM 513 FOR PAYMENT

REAR ABUTMENT	
TEMPERATURE (°F)	JOINT OPENING (DIMENSION "A")
30	1 13/16"
40	1 3/4"
50	1 3/4"
60	1 11/16"
70	1 5/8"
80	1 5/8"
90	1 9/16"

FORWARD ABUTMENT	
TEMPERATURE (°F)	JOINT OPENING (DIMENSION "A")
30	1 15/16"
40	1 13/16"
50	1 11/16"
60	1 9/16"
70	1 1/2"
80	1 3/8"
90	1 1/4"

NOTES:

1. SEE ODOT STD. DWG. EXJ-4-87 FOR ADDITIONAL EXPANSION JOINT DETAILS.
2. STRIP SEAL GLAND SHALL BE ONE PIECE ACROSS THE ENTIRE WIDTH OF THE SUPERSTRUCTURE, NO SPLICES ARE ACCEPTABLE.
3. FOR LOCATIONS OF SECTION A-A THRU E-E, SEE SHEET 8 / 13.



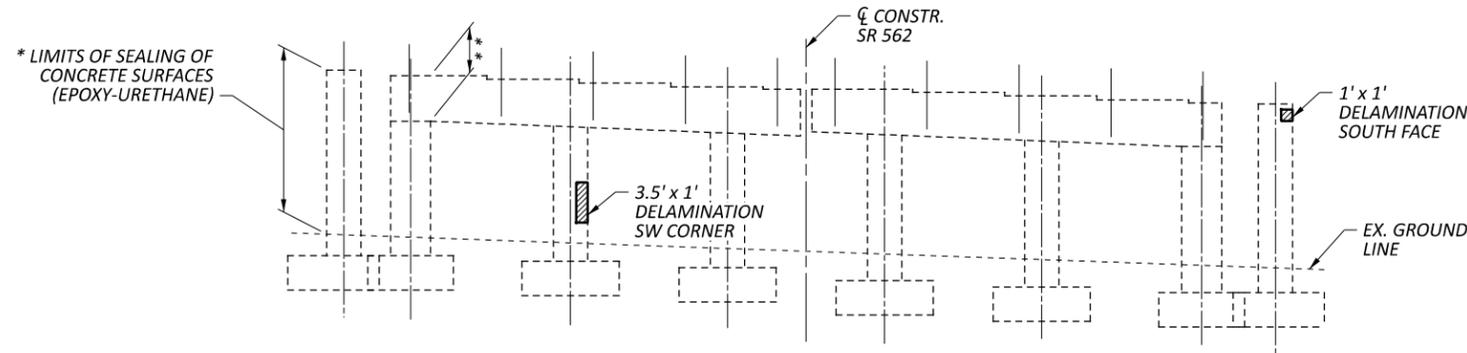
LEGEND

* - BEAM SPACING DIMENSIONS DETERMINED FROM FIELD SURVEY ON BOTTOM OF BEAMS. CONTRACTOR TO VERIFY PRIOR TO EXPANSION JOINT AND CROSSFRAME FABRICATION.

NOTES:

1. SEE ODOT STD. DWG. GSD-1-19 FOR ADDITIONAL END CROSS FRAME DETAILS.

SFN	3113841
DESIGN AGENCY	CMT
DESIGNER	MNM
CHECKER	DRC
REVIEWER	DRC
PROJECT ID	102886
SUBSET	10
TOTAL	14
SHEET	11
TOTAL	15



PIER 2
(LOOKING UP STATION)

LEGEND:

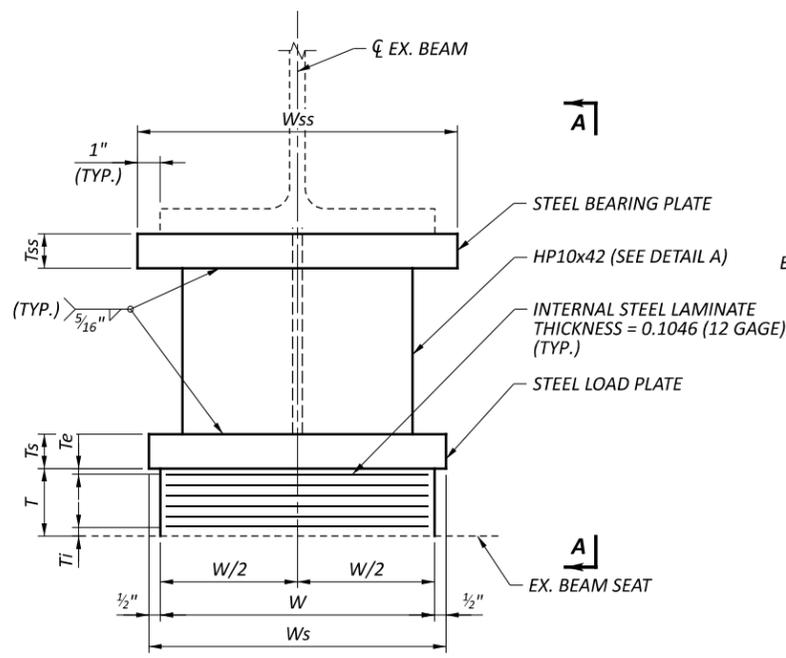
* SEAL ENTIRE SURFACE AREA OF COLUMNS. PRIOR TO SEALING, REMOVE EXISTING COATINGS PER ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES.

** SEAL FULL PERIMETER OF PIER CAP AND ENDS (EXCLUDING TOP) WITH EPOXY URETHANE SEALER. PRIOR TO SEALING, REMOVE EXISTING COATINGS PER ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES.

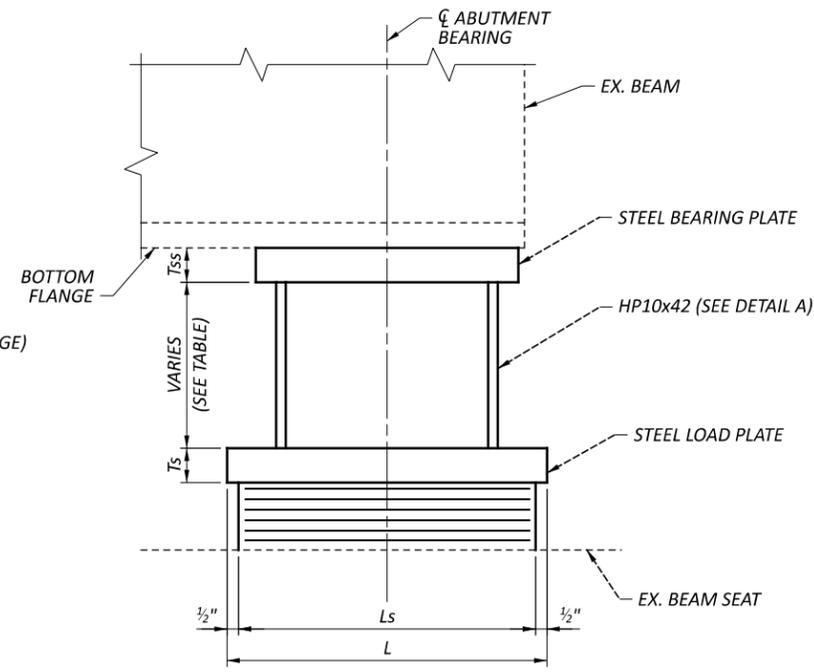
NOTES:

1. LOCATIONS INDICATED WITH DELAMINATION OR SPALLING SHALL BE REPAIRED PER ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN.
2. AN ADDITIONAL 20% HAS BEEN ADDED TO THE FIELD MEASURED PATCHING AREAS TO ALLOW FOR ADDITIONAL AREAS OF DETERIORATION. THE FINAL DIMENSIONS AND LOCATION OF THE DETERIORATED AREAS TO BE PATCHED SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER IN THE FIELD FOR FINAL PAYMENT.

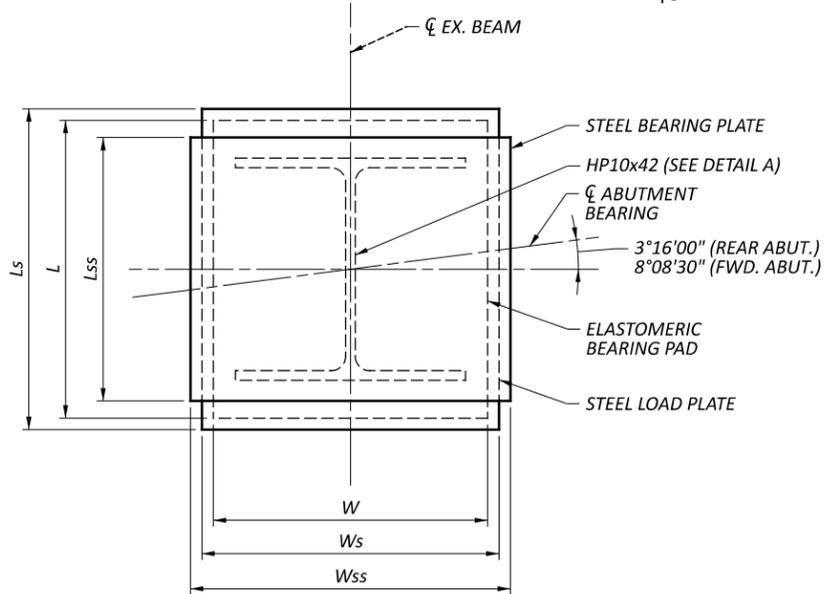
SFN	
3113841	
DESIGN AGENCY	
 CMT CONSULTING & ENGINEERING 84 FLEMING BOULEVARD RICHMOND, VA 23133 PH: (804) 271-2100 WWW.CMTENR.COM	
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC 11/21/22	
PROJECT ID	
102886	
SUBSET	TOTAL
11	14
SHEET	TOTAL
12	15



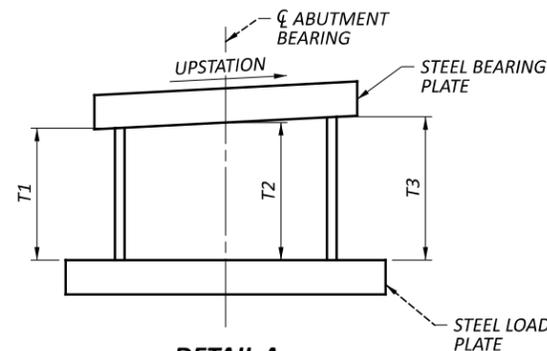
ABUTMENT BEARING ELEVATION



VIEW A-A



ABUTMENT BEARING PLAN



DETAIL A
(REAR ABUTMENT SHOWN)

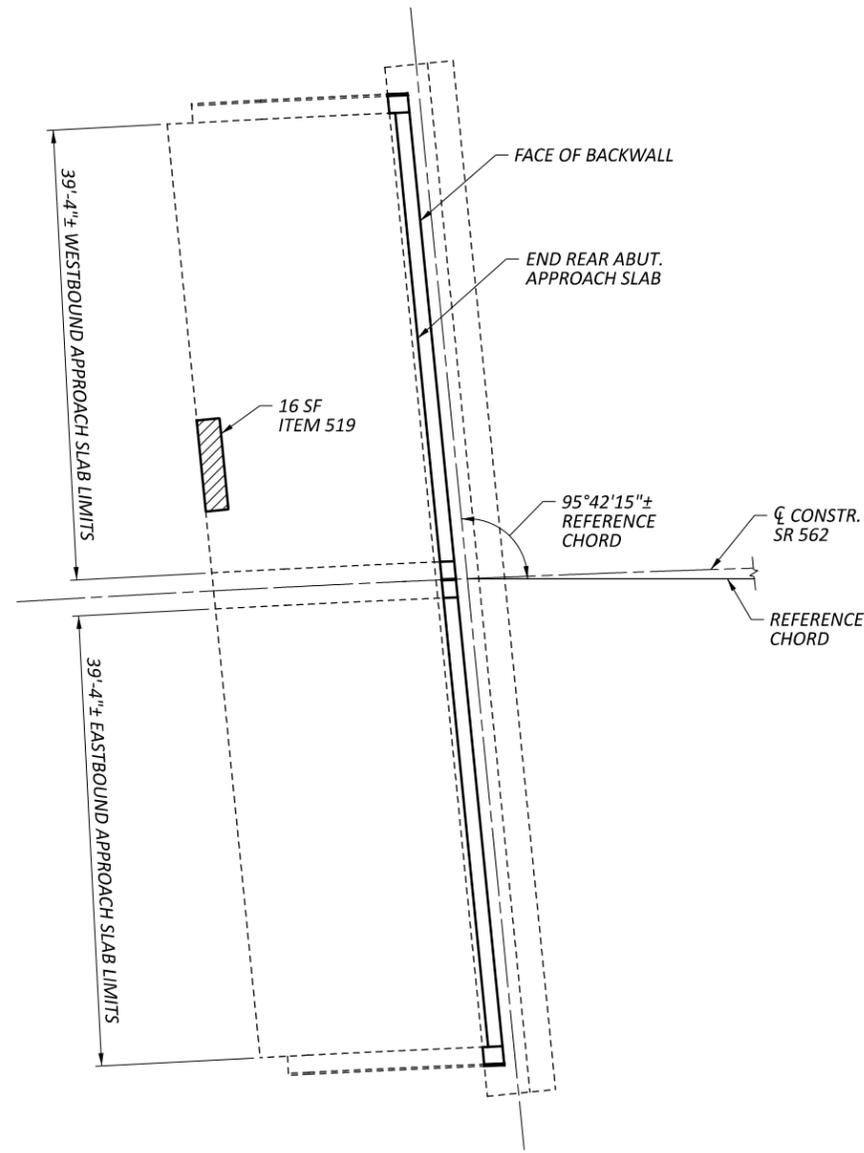
APPROXIMATE HP SECTION DIMENSIONS (INCH) - SEE NOTE 6						
	REAR ABUTMENT			FORWARD ABUTMENT		
	MIN. HEIGHT T2	MAX. HEIGHT T2	AVG. HEIGHT T2	MIN. HEIGHT T2	MAX. HEIGHT T2	AVG. HEIGHT T2
EXT. BEAMS (1 & 12)	5 5/8"	5 11/16"	5 11/16"	5 5/8"	5 5/8"	5 5/8"
INT. BEAMS (2 - 11)	8 5/8"	9 5/16"	9"	8 1/4"	9 5/16"	8 13/16"
	T1 = T2 - 1/4"			T1 = T2 + 1/8"		
	T3 = T2 + 1/4"			T3 = T2 - 1/8"		

NOTES:

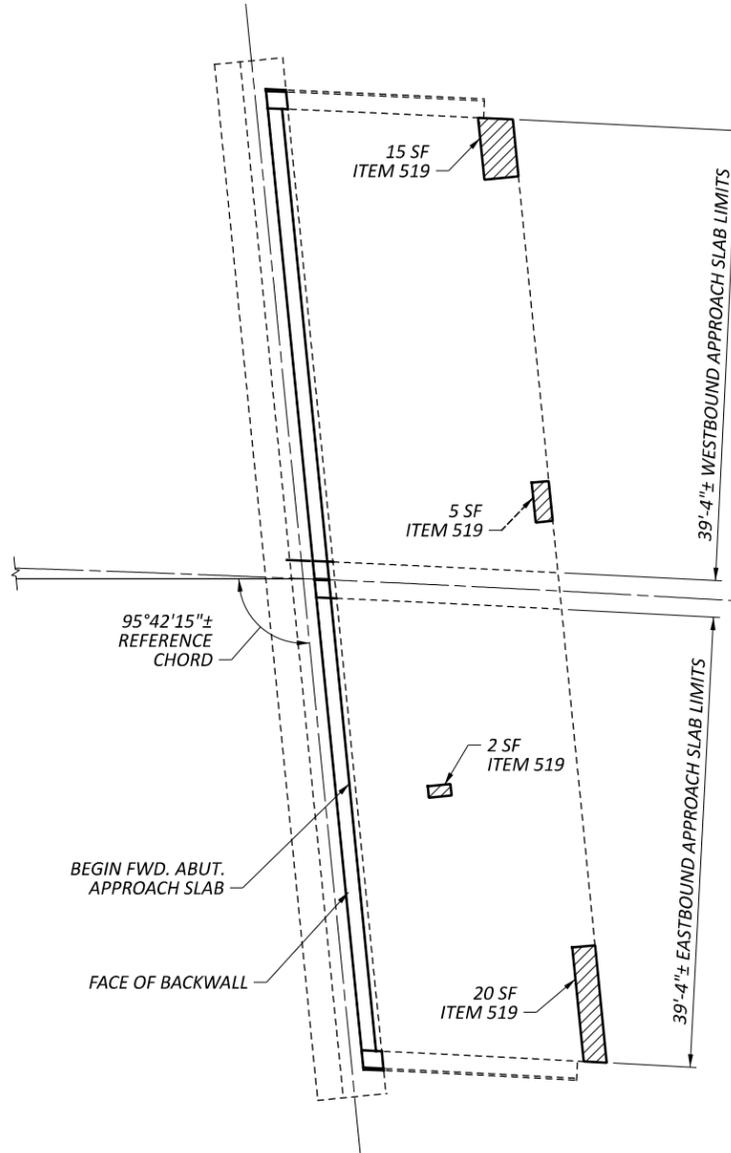
- ELASTOMERIC BEARINGS: THE ABUTMENT BEARINGS SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE ASSHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- STEEL LOAD PLATES AND HP SHAPES SHALL BE ASTM A709 GRADE 50 STEEL AND PRIME PAINTED IN ACCORDANCE WITH ITEM 513. THE LOAD PLATE SHALL BE VULCANIZED TO THE LAMINATED ELASTOMERIC BEARING PAD DURING THE MOLDING PROCESS. CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 DEGREES AT DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER BEARING IS INSTALLED.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
- LOADS SHOWN ARE SERVICE LOADS WITH NO LOAD FACTORS OR IMPACT FACTORS.
- THE CONTRACTOR IS REQUIRED TO FIELD MEASURE THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS AT CENTERLINE OF BEARING. THE CONTRACTOR IS TO SUBMIT THE FIELD MEASURED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE ENGINEER, PRIOR TO THE JACKING OPERATIONS AND THE ORDER OF MATERIALS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL HP SECTION HEIGHT AT ABUTMENTS BY SUBTRACTING THE EXISTING BOTTOM OF BEAM ELEVATION FROM THE EXISTING BEAM SEAT ELEVATION AND PROPOSED BEARING ASSEMBLY HEIGHT AT EACH BEARING LOCATION. THIS HP SECTION HEIGHT IS A CONTRACTOR CALCULATED DIMENSION AND ANY SHIMS NEEDED AS A RESULT OF THE CONTRACTOR'S ERROR WILL BE AT THE CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE ENGINEER. FOR BIDDING PURPOSES, USE AN HP SECTION HEIGHT OF 9 INCHES (REAR ABUTMENT) AND 8 3/16 INCHES (FORWARD ABUTMENT).

FINAL HP SECTION HEIGHT =
 (CONTRACTOR'S BOTTOM OF STEEL ELEVATION)
 - (PROPOSED BEAM SEAT ELEVATION)
 - (BEARING HEIGHT INCLUDING ELASTOMER, LOAD PL. AND TOP PL.)

BEARING DETAIL TABLE																		
LOCATION	TYPE	SERVICE REACTIONS			BEARING								LOAD PLATE			BEARING PLATE		
		RDL (KIPS)	RLL (KIPS)	RTOTAL (KIPS)	No.	L (IN)	W (IN)	Te (IN)	Ti (IN)	N	T (IN)	H (IN)	Ts (IN)	Ls (IN)	Ws (IN)	Tss (IN)	Lss (IN)	Wss (IN)
REAR ABUTMENT (BMS. 1 & 12)	EXP.	33.6	119.8	153.3	2	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	18.5
REAR ABUTMENT (BMS. 2-11)	EXP.	33.6	119.8	153.3	10	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	14
FORWARD ABUTMENT (BMS. 1 & 12)	EXP.	33.6	119.8	153.3	2	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	18.5
FORWARD ABUTMENT (BMS. 2-11)	EXP.	33.6	119.8	153.3	10	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	14



PLAN - REAR APPROACH SLAB



PLAN - FORWARD APPROACH SLAB

SUMMARY OF PATCHING AREAS ITEM 519	
LOCATION	QUANTITY (SY)
WESTBOUND APPROACH SLABS	4
EASTBOUND APPROACH SLABS	3
AS DIRECTED BY THE ENGINEER (20%)	2
TOTAL	9

LEGEND:

 - INDICATES AREAS TO BE PATCHED PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B

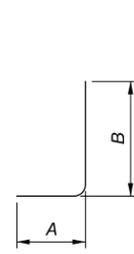
NOTES:

- REFER TO PROPOSAL NOTE 512 FOR ADDITIONAL REQUIREMENTS RELATED TO TYPE B PATCHING.
- AN ADDITIONAL 20% CONTINGENCY HAS BEEN ADDED TO THE FIELD MEASURED PATCHING AREAS TO ALLOW FOR ADDITIONAL AREAS OF DETERIORATION. THE FINAL DIMENSIONS AND LOCATION OF THE DETERIORATED AREAS TO BE PATCHED SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER IN THE FIELD FOR FINAL PAYMENT.

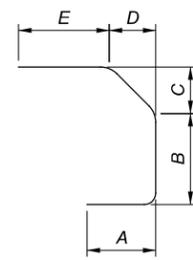
HAM-SR 562-0.54 ADDENDUM 3

MODEL SHEET PAPER SIZE: 17x11 (in.) DATE: 5/15/2023 TIME: 11:32:45 AM USER: mmetz
 L:\ODD\21001299-00_HAM5620054\102886\000-Engineering\Structures\SFN_3113841\Sheets\77889_SFN_3113841_S1001.dgn

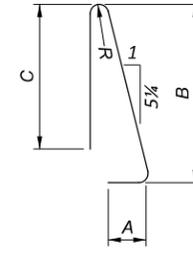
MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
ABUTMENTS											
A501	4		22'-8"	95	STR.						
A502	4		22'-9"	95	STR.						
SUB-TOTAL			190								
SLAB											
S601	32		22'-9"	1094	STR.						
S602	32		22'-11"	1102	STR.						
SUB-TOTAL			2196								
RAILING											
R501	16		2'-6"	42	1	11"	1'-8"				
R502	8		3'-0"	25	14	7"	11½"	8½"	6"	8"	
R503	8		3'-2"	26	14	7"	11½"	8½"	6"	10"	
R504	8		4'-7"	38	23	8"	2'-4"	2'-0"		2½"	
R505	8		4'-9"	40	23	10"	2'-4"	2'-0"		2½"	
SUB-TOTAL			171								



TYPE-1



TYPE-14



TYPE-23

REINFORCING STEEL LIST
 HAM-00562-00.650
 OVER PADDOCK ROAD

SFN	3113841
DESIGN AGENCY	CMT CONSTRUCTION MANAGEMENT, INC. 84 FLEMING BOULEVARD RICHMOND, VA 23220-2108 www.cmteng.com
DESIGNER	CHECKER
MNM	DRC
REVIEWER	
DRC	11/21/22
PROJECT ID	102886
SUBSET	TOTAL
14	14
SHEET	TOTAL
15	15