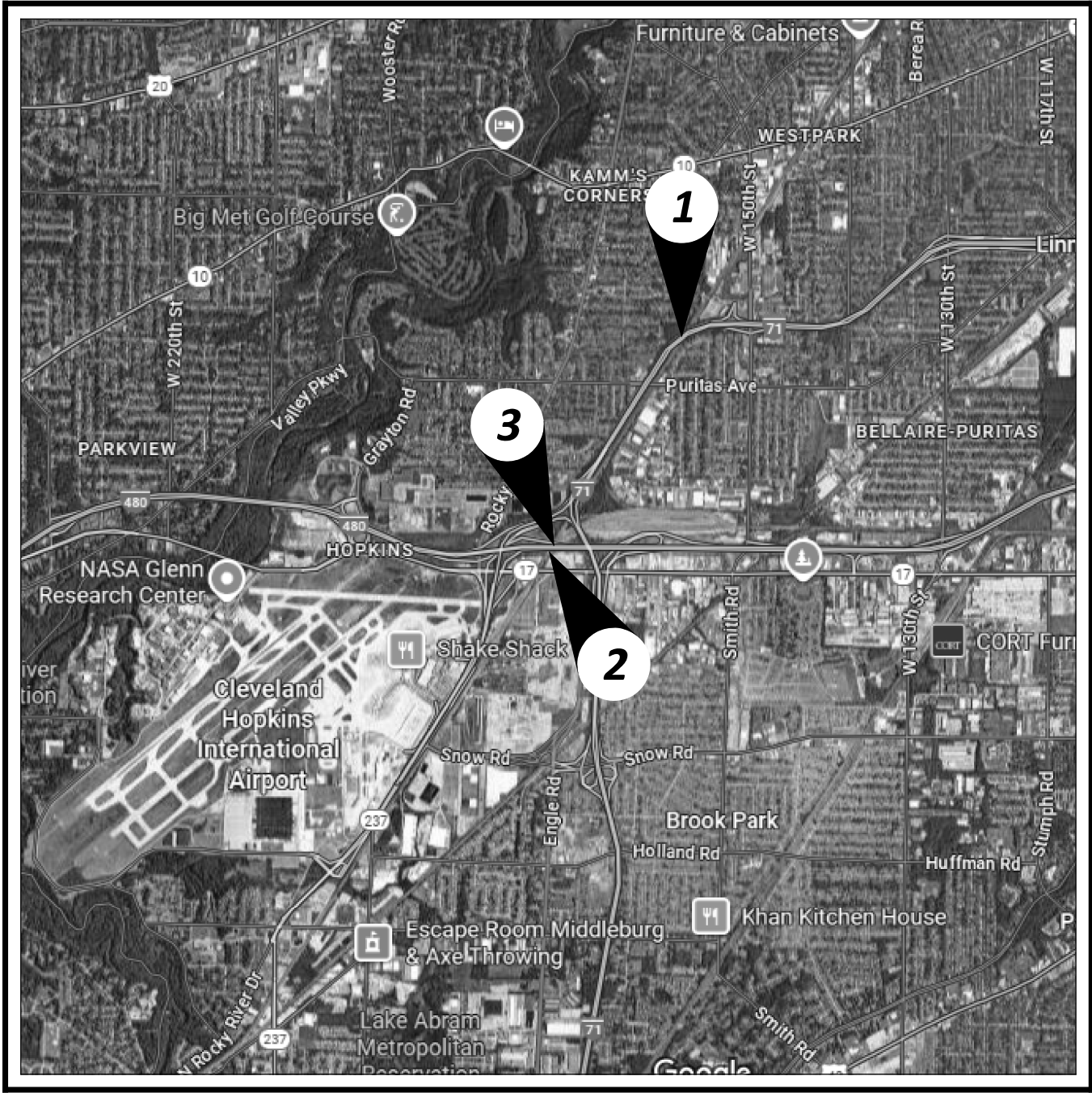




LOCATION MAP

NOTE: SEE SHEETS 2 THRU 3 FOR COORDINATES



DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

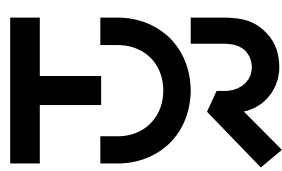
NONE

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:
HDR ENGINEERING, INC.
600 SUPERIOR AVENUE, SUITE 1700
CLEVELAND, OHIO 44114
216-912-4240

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-480-08.35/VAR PAINT

CITY OF CLEVELAND
CUYAHOGA COUNTY

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CUY-480-0832	P.24 - P.27
CUY-480-0832ES	P.28 - P.31

LOCATION	ODOT STRUCTURAL FILE NUMBER	ODOT BRIDGE NUMBER	CITY	NSC RR MILEPOST
1	1804774	CUY-71-1147	CLEVELAND	KEYSTONE DIVISION MP CD-189.02
2	1814206	CUY-480-0832	CLEVELAND	KEYSTONE DIVISION MP CD-190.65
3	1814222	CUY-480-0832ES	CLEVELAND	KEYSTONE DIVISION MP CD-190.66

STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-9.1	1/18/19	MT-101.80	1/17/20				800-2023 1/16/26	
		MT-102.10	7/21/23				807 1/17/25	
MGS-3.1	1/16/26	MT-105.10	1/17/20				832 7/18/25	
							850 7/21/23	
RM-4.2	1/16/26	TC-41.20	10/18/13				885 12/31/12	
		TC-42.20	10/18/13				905 1/17/25	
MT-95.30	7/18/25	TC-52.10	10/18/13					
MT-95.40	7/18/25	TC-52.20	1/15/21					
MT-98.10	1/17/20	TC-65.10	1/17/14					
MT-98.11	1/17/20	TC-65.11	1/17/25					
MT-98.21	7/21/23	TC-72.20	1/16/26					
MT-98.28	1/17/20							
MT-99.20	4/19/19							
MT-99.30	1/17/20							
MT-101.70	7/19/24							
MT-101.75	7/21/23							

FEDERAL PROJECT NUMBER

E(250) 546

RAILROAD INVOLVEMENT

NSC RR
GCRTA

PROJECT DESCRIPTION

PAINT THE STRUCTURAL STEEL AND STEEL REPAIRS OF 3
STRUCTURES OVER RAILROADS ALONG IR-71 AND IR-480 IN
CUYAHOGA COUNTY.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA = 0.0 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA = 0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA = N/A (NOI NOT REQUIRED)

2023 SPECIFICATIONS

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

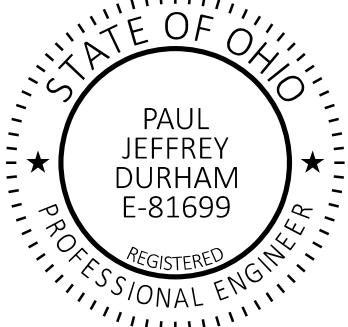
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS
IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE
HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY
OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

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

Pamela Boratyn
Director, Department of Transportation

ENGINEER'S SEAL

MAINTENANCE OF TRAFFIC



ENGINEER'S SEAL

BRIDGE



DESIGN AGENCY



DESIGNER	DGJ
REVIEWER	JMS
PROJECT ID	09/03/25
SHEET	123712
TOTAL	31

DESIGN SPECIFICATIONS

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

DESIGN DATA

STRUCTURAL STEEL - ASTM A709 GRADE 36 (YIELD STRENGTH 36 KSI) OR GRADE 50 (YIELD STRENGTH 50 KSI).

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BLVD.
GARFIELD HEIGHTS, OH 44125

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

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

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING STRUCTURAL STEEL PLATE, ANGLE, CHANNEL, AND OTHER ROLLED SHAPES AS REQUIRED FOR MISCELLANEOUS STRUCTURAL STEEL REPAIRS AS DIRECTED BY THE ENGINEER.

AFTER BLASTING AND SURFACE PREPARATION OPERATIONS TO REMOVE EXISTING PAINT AND LOOSE RUST ARE COMPLETE, THE ENGINEER WILL INSPECT THE STRUCTURAL STEEL FOR DEFICIENCIES SUCH AS SECTION LOSS, HOLES, BROKEN OR DETACHED WELDS, AND LOOSE OR MISSING BOLTS. IF THE ENGINEER IDENTIFIES DEFICIENCIES THAT REQUIRE REPAIR, THE ENGINEER WILL PROVIDE THE PROPOSED METHOD OF REPAIR TO THE CONTRACTOR AND DIRECT THE CONTRACTOR TO ORDER MATERIALS. REPAIRS TO STRUCTURAL STEEL MAY INCLUDE BUT NOT BE LIMITED TO THE WELDING AND/OR BOLTING OF STEEL PLATE TO EXISTING BEAM OR GIRDER FLANGES, WEBS, AND/OR STIFFENERS; THE PARTIAL OR COMPLETE REPLACEMENT OF EXISTING STIFFENER PLATES IN-KIND; THE PARTIAL OR COMPLETE REPLACEMENT OF EXISTING CROSSFRAME MEMBERS AND/OR GUSSET PLATES IN-KIND; AND THE REPLACEMENT OF LOOSE OR MISSING BOLTS. PERFORM STRUCTURAL STEEL REPAIRS IN ACCORDANCE WITH C&MS 513, EXCEPT SHOP DRAWINGS PER C&MS 513.06 WILL NOT BE REQUIRED.

THE CONTRACTOR'S APPROVED SCHEDULE SHALL INCLUDE A TIME ALLOWANCE FOR THE ENGINEER'S INSPECTION AND THE POSSIBILITY OF STRUCTURAL STEEL REPAIRS BEING REQUIRED AFTER COMPLETION OF THE BLASTING AND SURFACE PREPARATION. SUBJECT TO THE APPROVAL OF THE ENGINEER, PRIME COAT APPLICATION MAY PROCEED CONCURRENT WITH STEEL REPAIRS. HOWEVER, ALL STRUCTURAL STEEL REPAIRS DIRECTED BY THE ENGINEER WITHIN A GIVEN PHASE OF THE BRIDGE PAINTING WORK SHALL BE COMPLETED WITH THE PRIME COAT APPLIED PRIOR TO BEGINNING APPLICATION OF THE INTERMEDIATE AND FINISH COATS IN THAT PHASE.

THE DEPARTMENT WILL MEASURE THIS ITEM ON A PER POUND BASIS, BASED ON THE ACTUAL WEIGHT OF STRUCTURAL STEEL PLATE, ANGLE, CHANNEL, OR OTHER ROLLED SHAPES FURNISHED AND INSTALLED. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. THE ESTIMATED QUANTITIES TABLE FOR EACH BRIDGE INCLUDES A CONTINGENCY QUANTITY OF THIS ITEM FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 514 - FIELD PAINTING

THE CONTRACTOR SHALL NOT OVERSPRAY ONTO THE CONCRETE DECK OR CONCRETE SUBSTRUCTURE COMPONENTS (BACK WALLS, ABUTMENTS, AND PIERS). PAINTING SHALL BE CONFINED TO THE STRUCTURAL STEEL COMPONENTS, STEEL UTILITY SUPPORTS, AND THE DRAINAGE SCUPPERS INCLUDING DOWNSPOUTS.

UTILITY CONDUITS SHALL NOT BE PAINTED AND SHALL BE PROTECTED FROM SANDBLASTING. STEEL UTILITY SUPPORTS AND DRAINAGE SCUPPERS SHALL BE PAINTED.

THE COLOR OF THE FINISH COAT FOR ALL 3 BRIDGES SHALL BE FC#595b - 16440 (GREY, GLOSS)

CONSTRUCTION CLEARANCE - NORFOLK SOUTHERN

MAINTAIN A CONSTRUCTION CLEARANCE OF 13'-0" HORIZONTALLY FROM THE CENTER OF TRACKS AND 22'-0" VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHEST RAIL AT ALL TIMES.

CONSTRUCTION CLEARANCE - GCRTA

MAINTAIN A CONSTRUCTION CLEARANCE OF 6.5 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 15.75 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHEST RAIL AT ALL TIMES.

ITEM SPECIAL - STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA

DESCRIPTION:
THIS ITEM INCLUDES ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS TO DESIGN AND INSTALL A PROTECTIVE STRUCTURE TO PROTECT GCRTA TRAFFIC. ONCE THE CONTRACTOR HAS COMPLETED WORK, THE PROTECTIVE STRUCTURE SHALL BE FULLY REMOVED FROM GCRTA RIGHT OF WAY.

MEASUREMENT AND PAYMENT:
PAYMENT SHALL INCLUDE FULL COMPENSATION FOR DESIGN, MATERIALS, TOOLS, EQUIPMENT, LABOR, AND ACCESS TO INSTALL AND REMOVE A PROTECTIVE STRUCTURE MEETING GCRTA STANDARDS AND WILL BE PAID FOR WITH ITEM SPECIAL STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA.

RAILROAD FLAGGING SERVICES GCRTA

FLAGGING SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER REQUIRED BY THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY'S (GCRTA) SPECIAL CLAUSES IN THE PROPOSAL (SPECIAL CLAUSES) FOR THE PROTECTION OF RAILWAY INTEREST FOUND IN THE PROPOSED LETTER AGREEMENT FOR IR 480/71/237 (AGREEMENT).

GCRTA SHALL APPROVE THE FLAGGING SERVICE PROVIDER AND THEIR STAFF.

GCRTA HAS THE SOLE AUTHORITY TO DETERMINE THE NEED FOR PROTECTION SERVICES TO PROTECT ITS OPERATIONS IN GENERAL. THE REQUIREMENTS OF SUCH SERVICES WILL BE WHENEVER THE CONTRACTOR'S PERSONNEL OR EQUIPMENT ARE OR ARE LIKELY TO BE, WORKING ON THE GCRTA'S RIGHT OF WAY, OR ACROSS, OVER, ADJACENT TO, OR UNDER A TRACK, OR WHEN SUCH WORK HAS DISTURBED OR IS LIKELY TO DISTURB A GCRTA STRUCTURE OR THE RAILROAD ROADBED OR SURFACE AND ALIGNMENT OF ANY TRACK TO SUCH EXTENT THAT THE MOVEMENT OF TRAINS MUST BE CONTROLLED BY FLAGGING.

THE GCRTA FLAGGING SERVICE SHALL BE SEPARATE FROM ANY OTHER RAILROAD FLAGGING SERVICE ON THE PROJECT.

PAYMENT FOR CERTIFIED FLAGGING PROVIDERS WILL BE INCIDENTAL TO THE WORK ITEMS REQUIRING THE SERVICE.

GCRTA TRANSPORTATION COORDINATION NOTES

THE APPROPRIATE GCRTA REPRESENTATIVE SHOULD BE INVITED TO THE PROJECT'S PRE-CONSTRUCTION CONFERENCE.

THE CONTRACTOR SHALL NOTIFY IN WRITING THE GCRTA AT LEAST FOURTEEN (14) CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST SEVEN (7) CALENDAR DAYS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET OR PORTION THEREOF TO TRAFFIC.

THE FOLLOWING IS A LIST OF CONTACT INFORMATION FOR GCRTA NOTIFICATIONS:
CENTRAL COMMUNICATIONS: 216-566-5135, MONITORED 24/7
TONY RICHARDSON, SERVICE QUALITY, ARICHARDSON@GCRTA.ORG
HOWARD WESLEY, SERVICE QUALITY, HWESLEY@GCRTA.ORG
AVERY ROGERS, SERVICE QUALITY, AROGERS@GCRTA.ORG
ROBERT FLEIG, PUBLIC INFORMATION OFFICER,
ROBERT.FLEIG@GCRTA.ORG
MARK RODRIGUEZ, SERVICE QUALITY OFFICE MANAGER,
MARK.RODRIGUEZ@GCRTA.ORG
JOEL FREILICH, SERVICE MANAGEMENT, JFREILICH@GCRTA.ORG
JEFFREY MACKO, SERVICE MANAGEMENT, JMACKO@GCRTA.ORG

GCRTA RAILROAD OPERATIONS AND/OR GCRTA REQUIREMENTS

THE CONTRACTOR'S WORK SHALL NOT INTERRUPT GCRTA OPERATIONS (BUS & RAIL) WITHOUT PRIOR APPROVAL OF THE GCRTA.

ALL WORK, ADJACENT TO AND WITHIN THE GCRTA BROOKPARK RAPID STATION PLATFORM AREA SHALL BE COORDINATED WITH GCRTA AUTHORITY PERSONNEL.

ALL WORK OVER, ADJACENT AND WITHIN THE GCRTA RAIL ROW SHALL BE COORDINATED WITH GCRTA AUTHORITY PERSONNEL AND MUST COMPLY WITH THE FOLLOWING GCRTA SPECIFICATIONS: SECTION 014500 SAFETY; SECTION 015010 MAINTENANCE OF RAIL TRAFFIC AND RESUMPTION OF RAIL SERVICE; SECTION 015020 STANDARD RAIL FLAGGING PROCEDURES; SECTION 015020 WORK ZONE APPENDIX.

PRIOR TO THE START OF ANY WORK, THE CONTRACTOR MUST ENTER INTO AND EXECUTE A TEMPORARY RIGHT-OF-ENTRY AGREEMENT WITH THE GCRTA. INCLUDED IN THE TEMPORARY RIGHT-OF-ENTRY AGREEMENT ARE THE REQUIREMENTS FOR INSURANCE COVERAGE. IN ADDITIONAL TO STANDARD INSURANCE COVERAGES, THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY. ALL WORK OVER AND ON THE GCRTA ROW SHALL BE COORDINATED WITH GCRTA PERSONNEL. THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY FOR THE GCRTA AND OTHER RR'S.

AFTER THE TEMPORARY RIGHT-OF-ENTRY HAS BEEN FULLY EXECUTED, AND PRIOR TO THE START OF ANY WORK, ODOT AND CONTRACTOR PROJECT PERSONNEL MUST COMPLETE GCRTA CONTRACTOR RULEBOOK C TRAINING, OBTAIN GCRTA CONTRACTOR ID BADGES, AND BE ASSIGNED A GCRTA RADIO.

THE CONTRACTOR MUST SUBMIT WEEKLY RAIL OUTAGE REQUESTS TO GCRTA FOR APPROVAL TO ENTER AND WORK WITHIN THE GCRTA ROW. REQUESTS ARE APPROVED ON WEEKLY BASIS AND ARE WHOLLY DEPENDENT ON THE GCRTA OPERATIONAL REQUIREMENTS. REQUESTS TO GCRTA FOR TOTAL SHUTDOWNS MUST BE SUBMITTED FOUR (4) WEEKS IN ADVANCE AND EVER WEEK THEREAFTER UNTIL APPROVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DISRUPTIONS TO REGULAR, CONTINUOUS RAPID TRANSIT SERVICE CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES.

EXTREME CARE WILL BE EXERCISED AT ALL TIMES TO SAFELY WORK AROUND AND PROTECT THE GCRTA OVERHEAD CATENARY LINES. THE GCRTA OVERHEAD CATENARY AND TRACK SYSTEM IS CONTINUOUSLY ENERGIZED AT 600-VOLTS, DIRECT CURRENT.

THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 15.75-FEET VERTICAL CLEARANCE AND A MINIMUM OF 6.5-FEET HORIZONTAL CLEARANCE FROM THE CENTERLINE OF TRACK AT ALL TIMES WHEN TRAINS ARE OPERATING. A GCRTA APPROVED FLAGGER WILL BE REQUIRED WHEN WORKING WITHIN 10-FEET OF THE CENTERLINE OF AN ACTIVE TRACK. NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN GCRTA CLEARANCE LIMITS WHILE TRACK IS ACTIVE UNLESS A TEMPORARY PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) IS ERECTED TO PROTECT GCRTA TRAFFIC. DETAILS OF THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) SHALL BE PREPARED BY A PROFESSIONAL ENGINEER AND SUBMITTED TO THE GCRTA FOR APPROVAL AT LEAST THIRTY (30) DAYS PRIOR TO STARTING ANY WORK.

GCRTA RAILROAD OPERATIONS AND/OR GCRTA REQUIREMENTS (CONTINUED)

PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) SHALL BE DESIGNED FOR A MINIMUM LOADING OF 125 POUNDS PER SQUARE FOOT. THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) MUST BE DESIGNED TO BE FULLY-INSULATED, BONDED AND GROUNDED ELECTRICALLY FOR ISOLATION FROM THE GCRTA OVERHEAD CATENARY SYSTEMS. ITEM SPECIAL 53000200 STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA. WHEN CONDITIONS WARRANT, THE CONTRACTOR SHALL PLACE A FILTER FABRIC WRAP OVER THE GCRTA BALLAST WITHIN THE CONSTRUCTION LIMITS. THE FABRIC SHALL BE ATTACHED TO THE EXISTING TIES. DURING WORK, THE GCRTA TRACKS SHALL ALSO BE PROTECTED FROM FALLING DEBRIS WITH PLYWOOD AND/OR OTHER SUITABLE MATERIAL. SUBMIT DETAILED DRAWINGS FOR THE PROTECTION PLAN TO THE GCRTA FOR APPROVAL.

ONLY SUITABLE, RUBBER-TIRED EQUIPMENT WILL BE ALLOWED TO ACCESS THE GCRTA RIGHT-OF-WAY AND TRACKS. THE CONTRACTOR WILL BE REQUIRED TO EMPLOY THE USE OF SUITABLE CROSSING/ CRIBBING MATERIALS FOR THE MOVEMENT OF SAID EQUIPMENT ONTO, OVER AND AROUND THE TRACKS. THE CONTRACTOR SHALL PROVIDE THEIR PLAN FOR PROTECTION OF THE TRACKS FOR APPROVAL BY GCRTA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF THE GCRTA RIGHT-OF-WAY TO ORIGINAL CONDITIONS AS APPROVED BY THE ENGINEER AND GCRTA.

TWO (2) WEEKEND OUTAGES HAVE BEEN ESTIMATED FOR USE BY THE PROJECT FOR THE CONTRACTOR TO PERFORM PROJECT WORK WITHIN THE GCRTA ROW. THE WEEKEND OUTAGES TYPICALLY RUN FROM APPROXIMATELY 3:00 AM SATURDAY TO 1:00 AM MONDAY.

THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) MUST ALSO BE USED TO PROTECT THE GCRTA BROOKPARK RAPID STATION PLATFORM AND GCRTA TRACKS.

NORFOLK SOUTHERN RAILWAY COORDINATION NOTES

ALL WORK TO BE PERFORMED ON, OVER, UNDER, OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY SHALL COMPLY WITH THE NORFOLK SOUTHERN RAILWAY COMPANY ("RAILROAD", "NSR" OR "NS") PUBLIC PROJECTS MANUAL (APPENDIX E, SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS, AND APPENDIX H1, OVERHEAD GRADE SEPARATION DESIGN CRITERIA). WHEN IN CONFLICT WITH OTHER PROJECT SPECIFICATIONS, THE MOST STRINGENT ONE SHALL APPLY.

"ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE 2 DAYS IN ADVANCE OF WORK AT THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE THE RAILROAD'S UNDERGROUND FACILITIES. UPON REQUEST FROM THE CONTRACTOR OR SPONSOR, RAILROAD FORCES WILL LOCATE AND PAINT MARK OR FLAG THE RAILROAD'S UNDERGROUND FACILITIES. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE FACILITIES. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD FACILITY, THE CONTRACTOR SHALL COORDINATE WITH THE RAILROAD TO HAVE THE FACILITY POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION. THE FACILITY SHALL BE PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF THE RAILROAD'S REPRESENTATIVE. (SEE NS PUBLIC PROJECTS MANUAL, APPENDIX E, SECTION 3.D).

THE CONTRACTOR SHALL NOT COMMENCE ANY WORK ON RAILROAD RIGHTS-OF-WAY UNTIL HE HAS COMPLIED WITH THE CONDITIONS PRESENTED ON NS PUBLIC PROJECTS MANUAL (SEE APPENDIX E, NORFOLK SOUTHERN - SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS).

THE CONTRACTOR SHALL SO ARRANGE AND CONDUCT HIS WORK THAT THERE WILL BE NO INTERFERENCE WITH RAILROAD'S OPERATIONS. WHENEVER WORK IS LIABLE TO AFFECT THE OPERATIONS OR SAFETY OF TRAINS, THE METHODS OF DOING SUCH WORK SHALL FIRST BE SUBMITTED TO THE RAILROAD ENGINEER FOR APPROVAL, BUT SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM ANY LIABILITY. RIGHT-OF-WAY AND/OR SECURITY FENCE SHALL BE PROVIDED AS DIRECTED BY THE NS PUBLIC PROJECT ENGINEER.

PRIOR TO START OF ANY CONSTRUCTION ON RAILROAD'S RIGHT-OF-WAY, WRITTEN APPROVAL FROM THE RAILROAD FOR THE CONSTRUCTION PROCEDURE MUST BE SECURED.

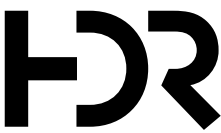
CONTACT INFORMATION FOR THE RAILROAD IS:

E.W. CHAMBERS
ENGINEER - PUBLIC IMPROVEMENTS
NORFOLK SOUTHERN CORPORATION
650 PEACHTREE STREET, NW, BOX 45
ATLANTA, GA 30308
(470) 463-6307 (O)
ELDRIDGE.CHAMBERS@NSCORP.COM

SFN

ALL

DESIGN AGENCY



DESIGNER

DGJ

CHECKER

DWW

REVIEWER

JMS 09/03/25

PROJECT ID

123712

SUBSET

1

TOTAL

12

SHEET

P.20

TOTAL

31

ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN

AT LOCATION 3 (CUY-480-0832ES) 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 THE 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 THE 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. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN.

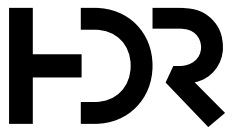
ITEM 516 - RESET BEARING, AS PER PLAN

AT LOCATION 3 (CUY-480-0832ES) THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS. INCLUDED SHALL BE THE INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT AND REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES. ASSURE THAT BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - RESET BEARING, AS PER PLAN.

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

AT LOCATION 3 (CUY-480-0832ES) THIS WORK CONSISTS OF TEMPORARILY SUPPORTING OF THE SUPERSTRUCTURE FOR THE DURATION OF THE BEARING REPAIRS. 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.

STRUCTURE GENERAL NOTES (2 of 2)

SFN	
ALL	
DESIGN AGENCY	
	
DESIGNER	CHECKER
DGJ	DWW
REVIEWER	
JMS 09/03/25	
PROJECT ID	
123712	
SUBSET	TOTAL
1A	12
SHEET	TOTAL
P.20A	31

SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							4	7	9	21	24	28	01/IMS						
																		ROADWAY	
							LS						LS	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	4
								1					1	606	60061	1	EACH	IMPACT ATTENUATOR REBUILT, TYPE 1 (UNIDIRECTIONAL), AS PER PLAN	7
																		PAVEMENT	
								1,620					1,620	256	10000	1,620	SF	BONDED PATCHING OF PORTLAND CEMENT CONCRETE PAVEMENT, TYPE A	
								1,080					1,080	618	40200	1,080	FT	RUMBLE STRIPS, SHOULDER (CONCRETE)	
																		TRAFFIC CONTROL	
									0.48				0.48	646	10010	0.48	MILE	EDGE LINE, 6"	
									430				430	646	10310	430	FT	CHANNELIZING LINE, 12"	
									15				15	646	10600	15	FT	TRANSVERSE/DIAGONAL LINE	
									0.19				0.19	807	12010	0.19	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
									0.18				0.18	807	12110	0.18	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
									368				368	807	12310	368	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
									1.53				1.53	807	14010	1.53	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
									1.59				1.59	807	14110	1.59	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
									1,581				1,581	807	14310	1,581	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
									529				529	807	14410	529	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
																		STRUCTURE OVER 20 FOOT SPAN (CUY-71-1147, SFN 1804774)	
										500			500	513	10201	500	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	20
										80,000			80,000	514	00050	80,000	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
										80,000			80,000	514	00056	80,000	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
										80,000			80,000	514	00060	80,000	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
										80,000			80,000	514	00066	80,000	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
										66			66	514	00504	66	MNHR	GRINDING FINs, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
										20			20	514	10000	20	EACH	FINAL INSPECTION REPAIR	
										LS			LS	SPECIAL	53000200	LS		STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA	20
																		STRUCTURE OVER 20 FOOT SPAN (CUY-480-0832, SFN 1814206)	
											500		500	513	10201	500	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	20
											5,600		5,600	513	21500	5,600	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES	
											91,500		91,500	514	00050	91,500	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											91,500		91,500	514	00056	91,500	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
											91,500		91,500	514	00060	91,500	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												91,500	91,500	514	00066	91,500	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												91	91	514	00504	91	MNHR	GRINDING FINs, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												28	28	514	10000	28	EACH	FINAL INSPECTION REPAIR	
												LS	LS	SPECIAL	53000200	LS		STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA	20
																		STRUCTURE OVER 20 FOOT SPAN (CUY-480-0832ES, SFN 1814222)	
												1,000	1,000	513	10201	1,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	20
												2,900	2,900	513	21500	2,900	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES	
												180	180	513	21550	180	LB	STRUCTURAL STEEL FOR REHABILITATION	
												34,700	34,700	514	00050	34,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												34,700	34,700	514	00056	34,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												34,700	34,700	514	00060	34,700	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												34,700	34,700	514	00066	34,700	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												33	33	514	00504	33	MNHR	GRINDING FINs, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												10	10	514	10000	10	EACH	FINAL INSPECTION REPAIR	
												10	10	516	45305	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	20A
												10	10	516	46701	10	EACH	RESET BEARING, AS PER PLAN	20A
												LS	LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	20A
												LS	LS	SPECIAL	53000200	LS		STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA	20

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

MTH

REVIEWER

PJD 09/03/25

PROJECT ID

123712

SHEET

P.18

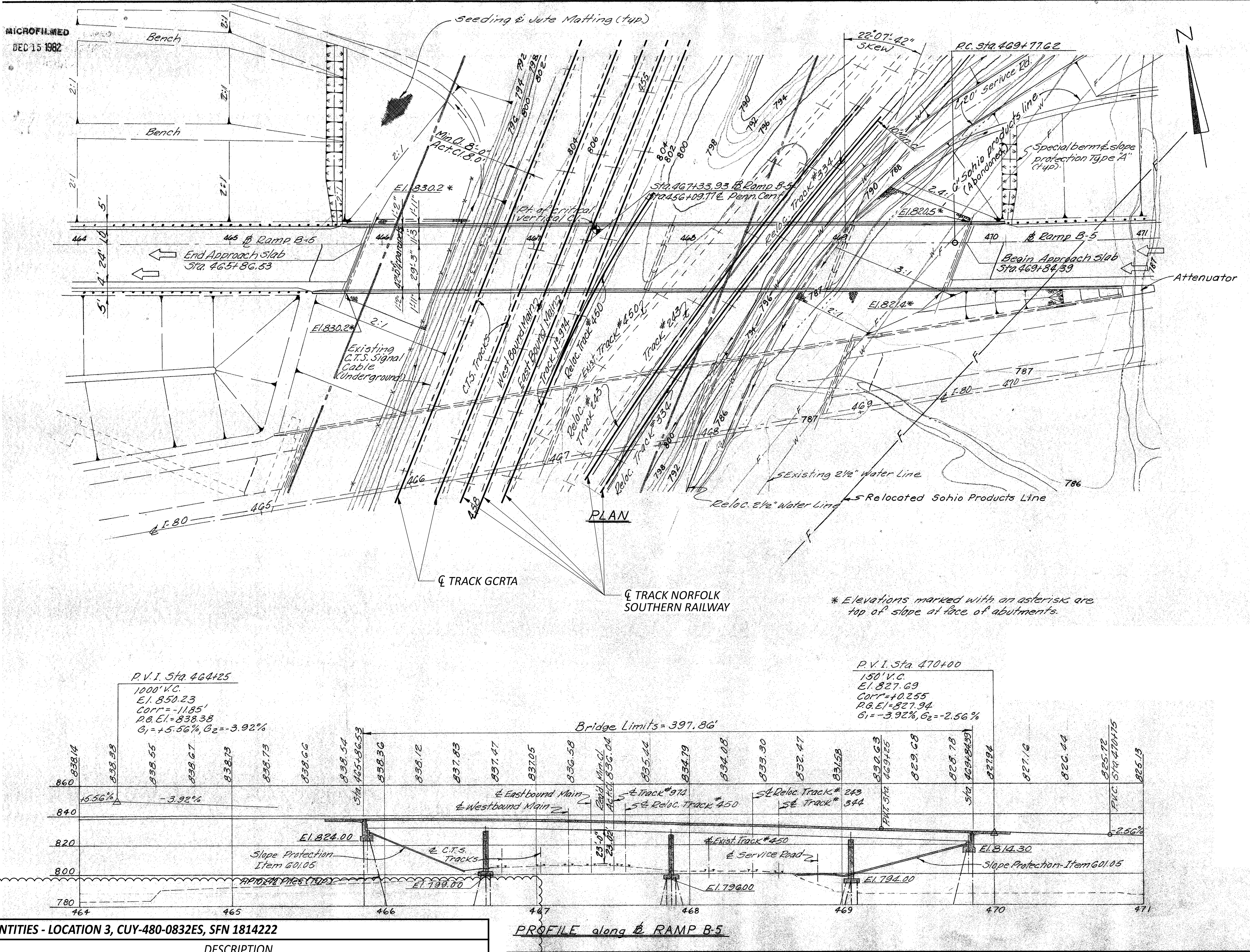
TOTAL

31

NOTE: ALL QUANTITIES CARRIED TO GENERAL SUMMARY

ESTIMATED QUANTITIES - LOCATION 3, CUY-480-0832ES, SFN 1814222				
ITEM	ITEM EXT.	QTY.	UNIT	DESCRIPTION
513	10201	1000	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN
513	21500	2900	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES
513	21550	180	LB	STRUCTURAL STEEL FOR REHABILITATION
514	00050	34,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
514	00056	34,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
514	00060	34,700	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
514	00066	34,700	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT
514	00504	33	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL
514	10000	10	EACH	FINAL INSPECTION REPAIR
516	45305	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	46701	10	EACH	RESET BEARING, AS PER PLAN
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
SPECIAL	53000200	LS		STRUCTURES: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE FOR GCRTA

CALCULATED BY: DWW 8/13/2025
CHECKED BY: DGJ 8/29/2025



LOCATION NUMBER	ODOT STRUCTURAL FILE NUMBER	ODOT BRIDGE NUMBER	NSC RR MILEPOST	MINIMUM VERTICAL CLEARANCE FROM ORIGINAL PLANS (YEAR)	MINIMUM VERTICAL CLEARANCE FROM 2023 INSPECTION REPORT
				FT.	FT.
3	1814222	CUY-480-0832ES	KEYSTONE DIVISION MP CD-190.66	23.02 (1977)	23.25

NOTES

- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
- PERFORM ONLY THE WORK AS INDICATED IN THE FRAMED TEXT, ESTIMATED QUANTITIES AND/OR DESCRIBED IN THE GENERAL NOTES.

SITE PLAN AND ESTIMATED QUANTITIES
LOCATION 3: BRIDGE NO. CUY-480-0832ES
RAMP WS FROM IR-480 OVER NSC RR & RTA 92

SFN

1814222

DESIGN AGENCY



DESIGNER

DGJ

CHECKER

DWW

REVIEWER

JMS 09/03/25

PROJECT ID

123712

SUBSET

9

TOTAL

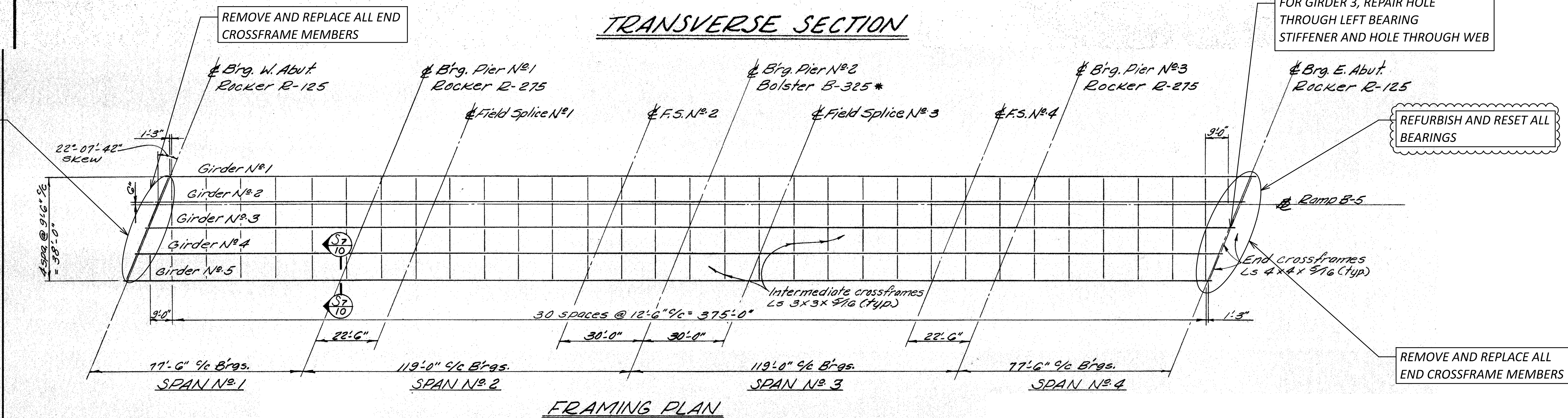
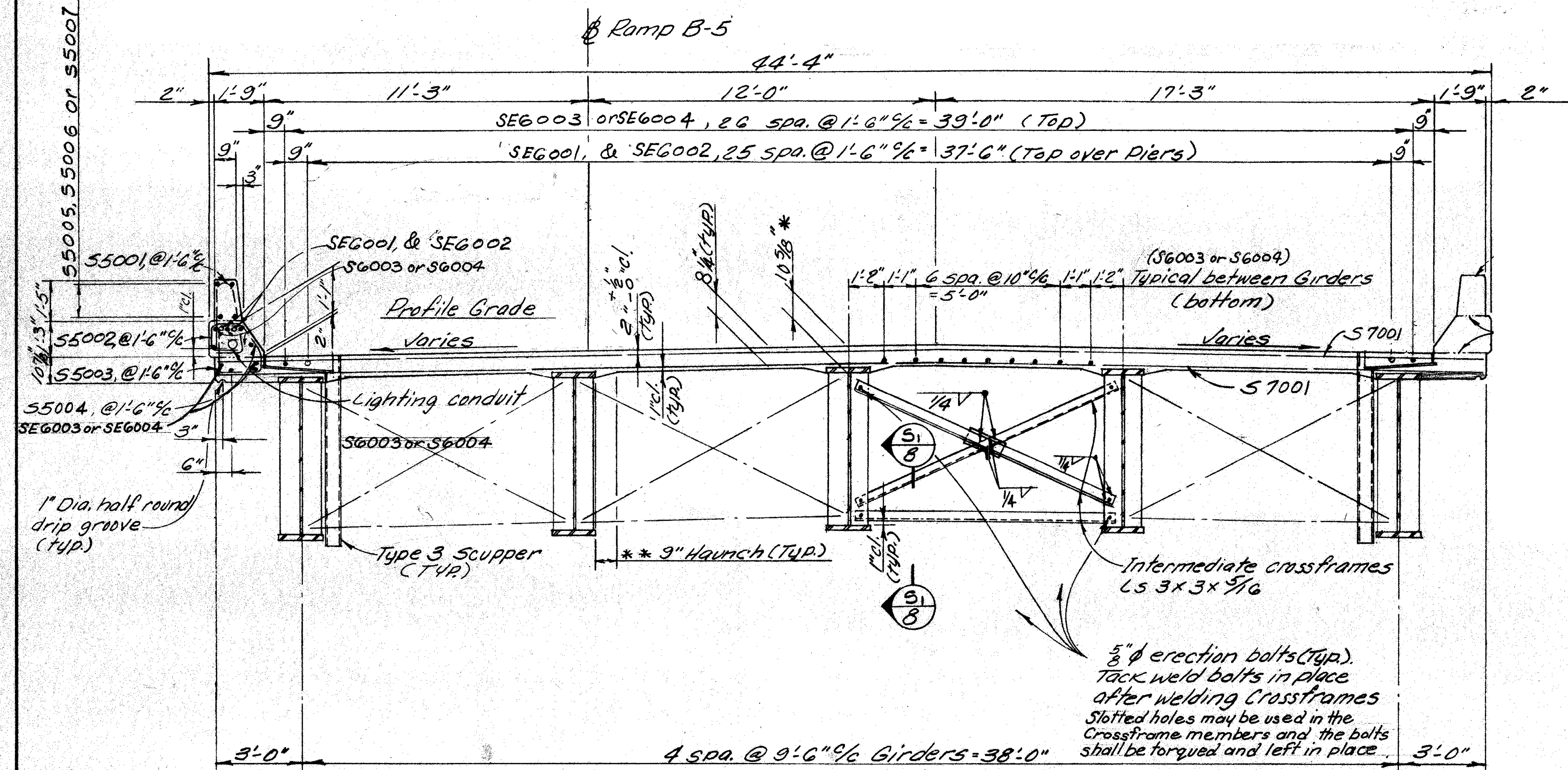
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SHEET

P.28

TOTAL

31

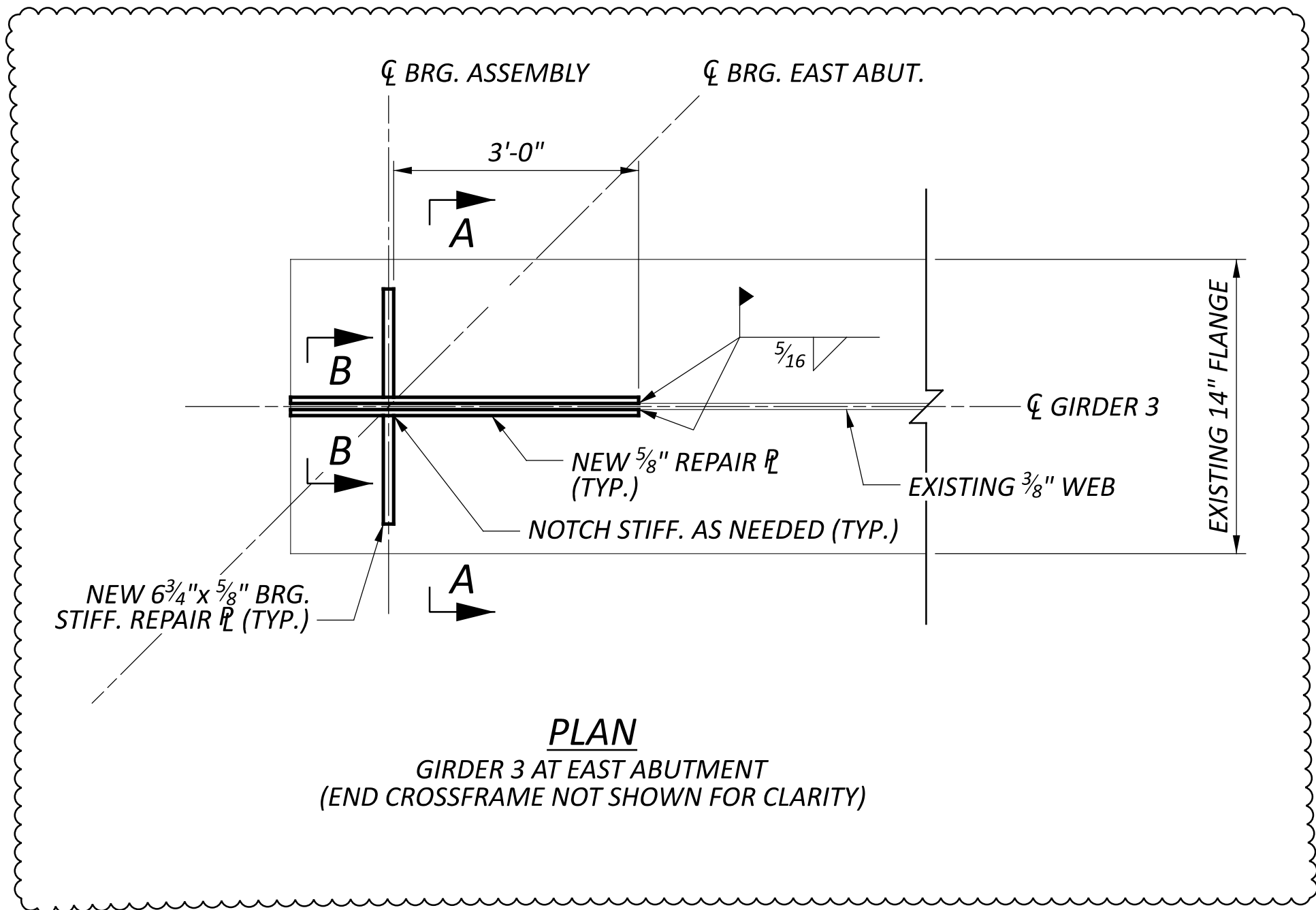


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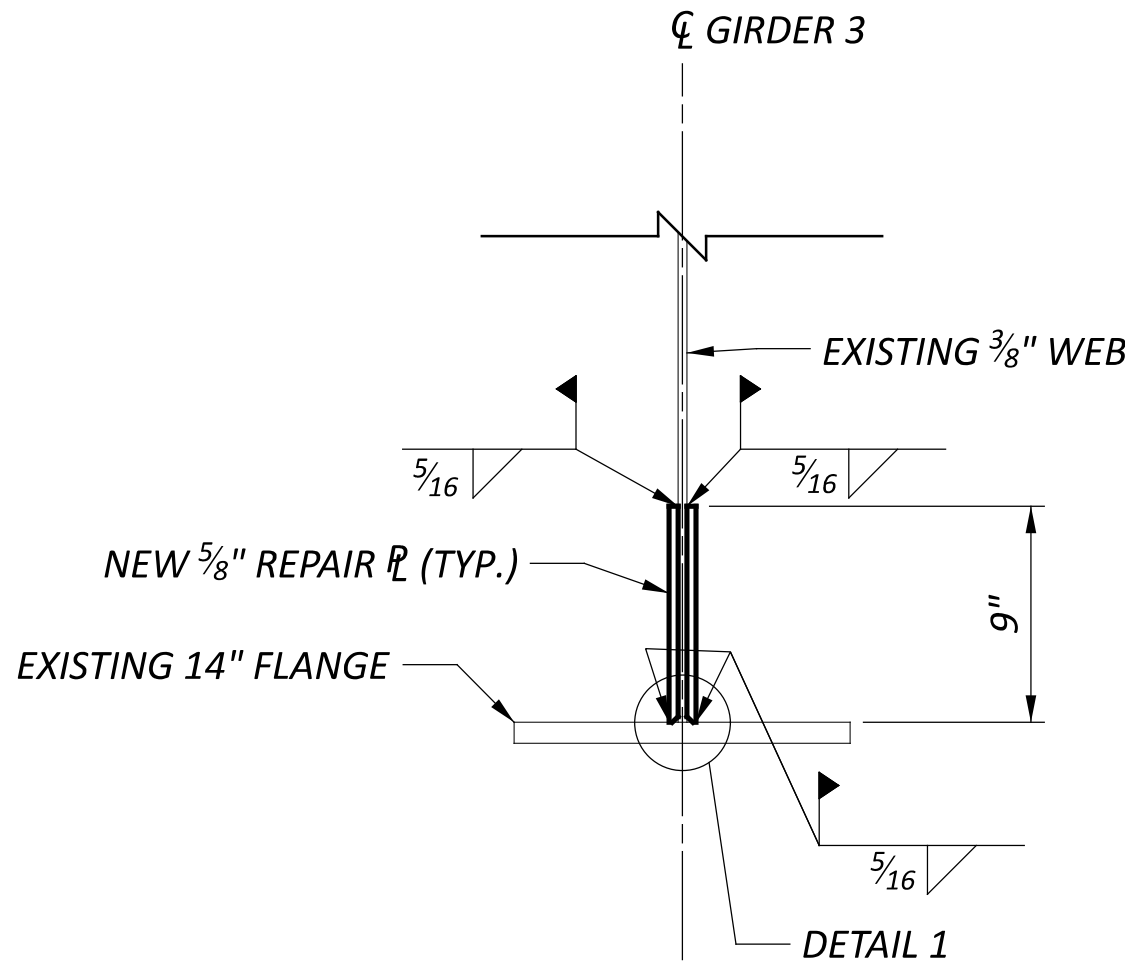
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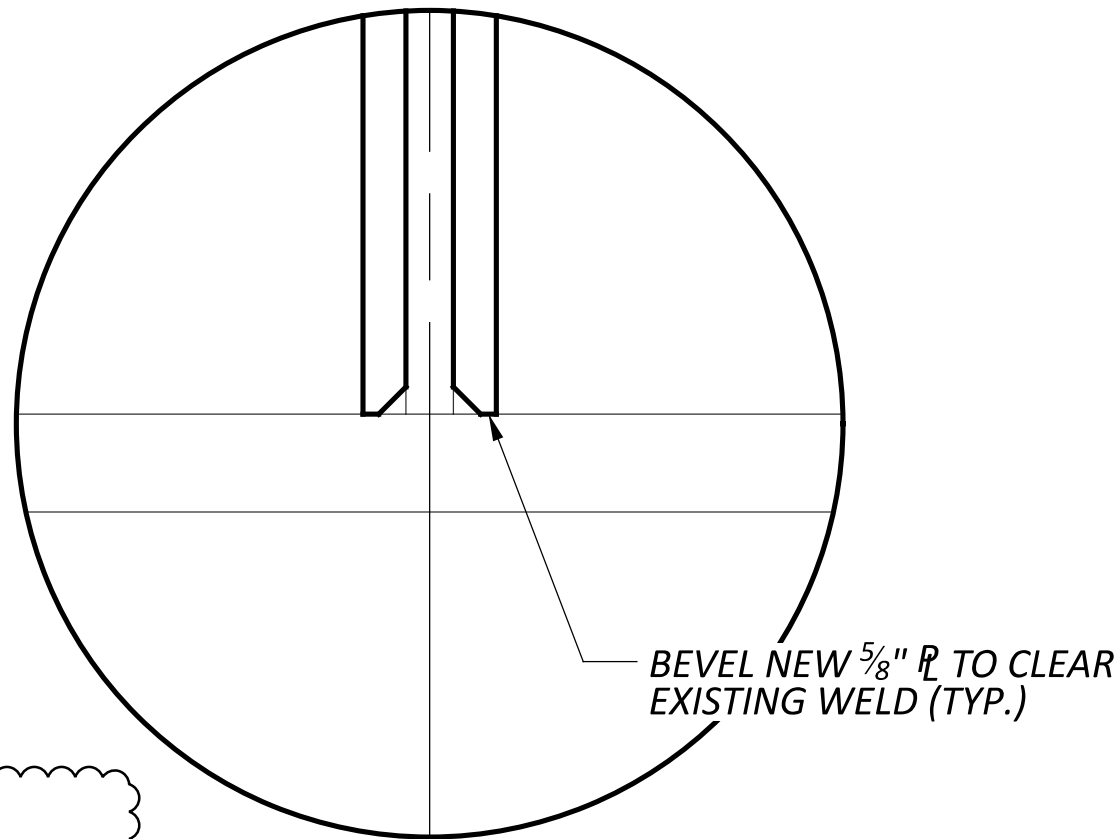
REPAIR LOCATION INSPECTION PHOTO
GIRDER 3 AT EAST ABUTMENT



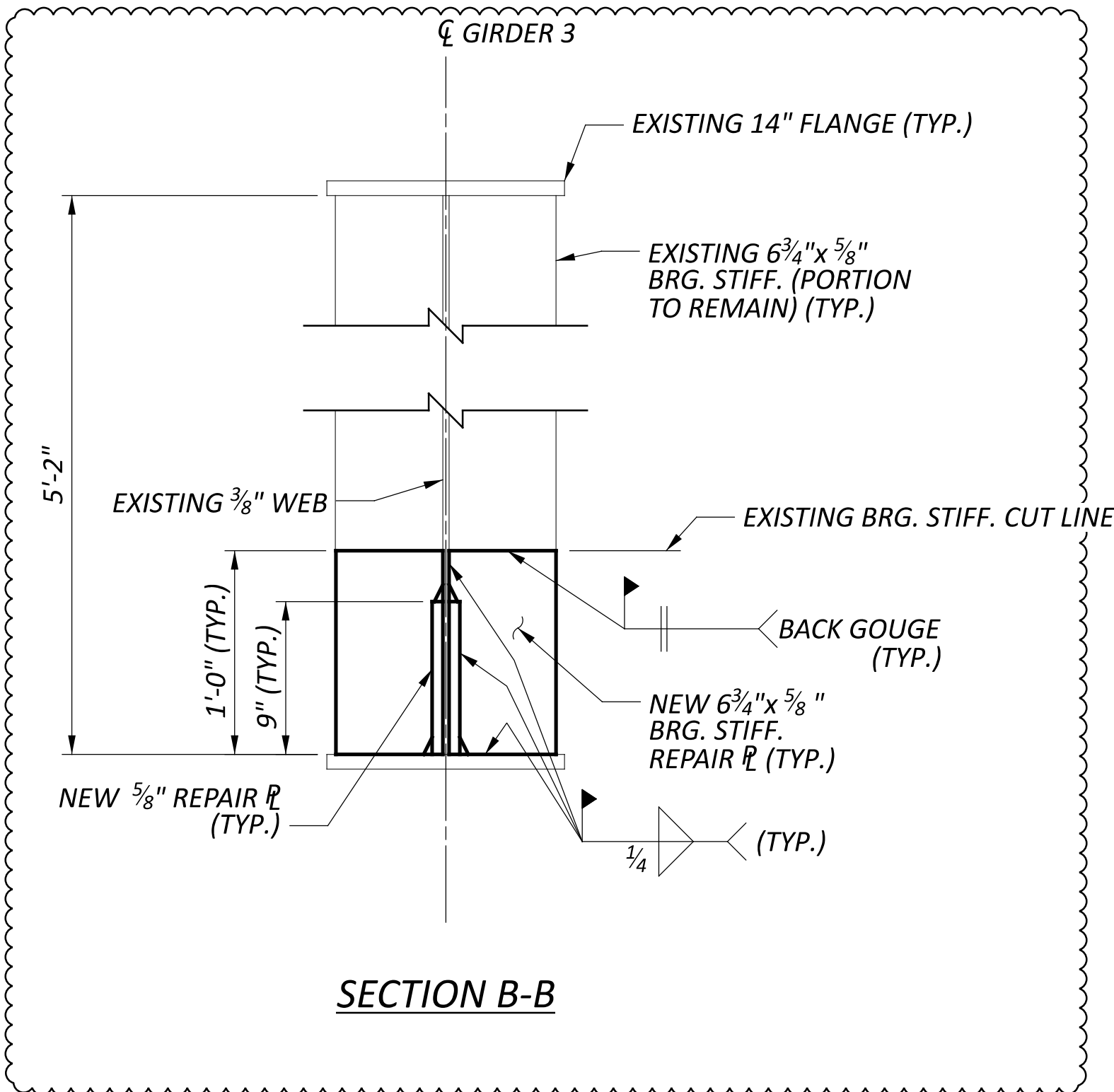
PLAN
GIRDER 3 AT EAST ABUTMENT
(END CROSSFRAME NOT SHOWN FOR CLARITY)



SECTION A-A



DETAIL 1



SECTION B-B

NOTES:

1. ALL NEW GIRDER REPAIR STEEL SHALL BE ASTM A709 GRADE 36 OR GRADE 50 STEEL.