UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQURED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER, OR ADJACENT TO, THE WORK AREA

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PERSONAL PROTECTION EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS XXIV AND XXXIV OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY & HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: NOVEMBER 1, 2018 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE: XXIV.

HEAD PROTECTION (HARD HATS):

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2009 TYPE 1, CLASS E-G REQUIREMENTS. XXXIV.

SAFETY APPAREL AND VEST (HIGH VISIBILITY):

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH VISIBILITY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS II OR CLASS III REQUIREMENTS OF THE ANSI/ISEA 107-2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES."WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III AP-PROVED RAIN SUIT, JACKET OR OTHER APPAREL WITHOUT A SAFETY VEST OVER IT.

EROSION CONTROL

THE ESTIMATED QUANTITY BELOW HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR EROSION CONTROL.

ITEM 832 EROSION CONTROL = 2,000 EACH

CONTACT INFORMATION

THE CONTRACTOR SHALL NOT BEGIN WORK ON THE FIELD PAVING IN A COUNTY UNTIL CONTACTING THE COUNTY MANAGER AND PROJECT ENGINEER. BELOW IS A CONTACT LIST FOR COUNTY MANAGERS:

VANWERT COUNTY

CONTACT	TITLE	OFFICE NUMBER	CELL NUMBER
KYLE FIELDS	DEPARTMENT MANAGER	(419) 999-6930	-
PATRICK MCCONN	TRANSPORT MGR2	(419) 999-6772	(419)-605-8508
BRYAN HOERSTEN	TRANSPORT MGR2	(419)-999-6778	(419)-549-2635

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
2-LANES OF VAN-US 30 IN EACH DIRECTION FROM MM13 TO MM 15 & MM 21 TO MM 23	SEE HOLIDAY SCHEDULE & TIMES FOR ALL LANES OPEN TO TRAFFIC IN PLAN NOTE FOR ITEM 614, MAINTAINING TRAFFIC, SHEET 2	EACH HOUR	$7,500

WINDOW CONTRACT TABLE

USE THE FOLLOWING TABLE AS REFERRED TO IN THE PLANS AND PROPOSAL:

WINDOW CONTRACT TABLE

DESCRIPTION OF CRITICAL WORK	CALENDER DAYS TO COMPLETE	DISINCENTIVE $ PER DAY	WORK WINDOW START	WORK WINDOW END
COMPLETE HEAT STRAIGHTENING AND COLLISION REPAIR WORK AT VAN-30-14.02	30	$1,000	9/15/2024	11/15/2024
COMPLETE HEAT STRAIGHTENING AND COLLISION REPAIR WORK AT VAN-30-22.08	30	$1,000	9/15/2024	11/15/2024
ALL WORK ON PROJECT (INCLUDING WORK LISTED ABOVE)	60	PER C&MS 108.07	9/15/2024	11/30/2024

REFER TO SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
849 DATED 1/18/13

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 C&MS SECTIONS 102.05, AND 105.02. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING PLANS

VARIOUS EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT ONE OFFICE IN LIMA, OHIO OR IN THE REFERENCE FILES.

ITEM 614, MAINTAINING TRAFFIC

ON US 30, A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 502 STRUCTURE FOR MAINTAINING TRAFFIC, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

ON CR 101 (STRIPE RD.) & TR 197 (CONVERSE-ROSELM RD.), THE ROADWAYS ARE CLOSED. THE FIRST ITEMS OF REPAIR SHALL BE COMPLETED TO GET THESE ROADWAYS OPEN TO TRAFFIC. THE PERIODS FOR THIS WORK IS NOTED IN THE WINDOW CONTRACT TABLE ON SHEET 2. DISINCENTIVES SHALL BE ASSESSED IN THE AMOUNT NOTED IN THE WINDOW CONTRACT TABLE FOR EACH CONSECUTIVE CALENDAR DAY THE ROADWAYS REMAIN CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. SEE THE WINDOW CONTRACT TABLE ON THIS SHEET FOR ADDITIONAL INFORMATION.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES OF US 30 SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)
THANKSGIVING
CHRISTMAS (OBSERVED)
LABOR DAY
GENERAL/REGULAR ELECTION DAY (NOV)
MEMORIAL DAY
FOURTH OF JULY (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5 AM TUESDAY THROUGH 12 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6 AM WEDNESDAY THROUGH 6 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127). SEE THE LANE VALUE CONTRACT TABLE ON SHEET 2 FOR DETAILS AND DISINCENTIVES.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 622 PORTABLE BARRIER, UNANCHORED

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT COLLISION REPAIR LOCATIONS NOTED IN THE PLANS AND AS DIRECTED BY THE ENGINEER AND THE STANDARD CONSTRUCTION DRAWINGS.

ITEM 622, PORTABLE BARRIER, UNANCHORED = 2,545 FT
(VAN-30-14.02 = 920 FT & VAN-30-22.08 = 1,625 FT)

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6'', 740.06, TYPE I = 1.20 MILE

ITEM 614, WORK ZONE DOTTED LINE, CLASS I, 6'', 740.06, TYPE I = 4,200 FT

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

THE FOLLOWING ARE AREAS OF PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A:

VAN-30-22.08 EB INSIDE SHOULDER
(2,900 FT./SHOULDER)

THE FOLLOWING ESTIMATED QUANTITIES ARE BASED ON AN AVERAGE WIDTH OF 3 FEET AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A = 980 SY

REMOVAL OF PAVEMENT MARKINGS

AS PER C&MS SECTION 614.11.G., THE CONTRACTOR SHALL REMOVE AND COVER CONFLICTING PAVEMENT MARKINGS WITHIN THE WORK ZONES. THE CONTRACTOR SHALL COVER CONFLICTING MARKINGS PER C&MS 614.11.G.1.b. USING REMOVALABLE BLACKOUT TAPE TO THE SATISFACTION OF THE PROJECT ENGINEER. PAYMENT TO REMOVE/COVER CONFLICTING MARKINGS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

GENERAL & MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER KRH

REVIEWER EJS 6/26/24

PROJECT ID 121872

SHEET 2 TOTAL 15

VAN-30-14.02/22.07

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								2	3	4	8		01/NHS/13						
																		EROSION CONTROL	
								2,000					2,000	832	30000	2,000	EACH	EROSION CONTROL	
																		PAVEMENT	
										2,100			2,100	254	01000	2,100	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1 ½"	
										179			179	407	20000	179	GAL	NON-TRACKING TACK COAT	
										88			88	441	50000	88	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1 1/2")	
										6,300			6,300	618	40100	6,300	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																		STRUCTURE REPAIR (VAN-30-14.02; SFN: 8100667)	
											12		12	202	11401	12	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN(MAIN MEMBERS)	6
											453		453	202	11401	453	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN(SECONDARY MEMBERS)	6
											32		32	512	10601	32	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN	7
											465		465	513	10201	465	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	6
											7		7	513	95000	7	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING	6
											2		2	513	95000	2	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING	6
											4		4	513	95030	4	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING	6
											4		4	513	95030	4	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES	6
											369		369	514	20001	369	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)	6 & 7
											LS		LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	7
											LS		LS	849	10000	LS		DAMAGE ASSESSMENT	
											LS		LS	849	10500	LS		SURFACE PREPARATION	
											3		3	849	10600	3	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	
											LS		LS	849	10700	LS		STRAIGHTENING DAMAGED MEMBERS	
																		STRUCTURE REPAIR (VAN-30-22.08; SFN: 8104379)	
											30		30	202	11401	30	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN(MAIN MEMBERS)	6
											1,647		1,647	202	11401	1,647	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN(SECONDARY MEMBERS)	6
											78		78	512	10601	78	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN	7
											1,664		1,664	513	10201	1,664	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	6
											18		18	513	95000	18	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING	6
											22		22	513	95000	22	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING	6
											50		50	513	95030	50	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING	6
											50		50	513	95030	50	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES	6
											1,422		1,422	514	20001	1,422	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN(THREE COAT)	6 & 7
											LS		LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	7
											LS		LS	849	10000	LS		DAMAGE ASSESSMENT	
											LS		LS	849	10500	LS		SURFACE PREPARATION	
											3		3	849	10600	3	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	
											LS		LS	849	10700	LS		STRAIGHTENING DAMAGED MEMBERS	
																		MAINTENANCE OF TRAFFIC	
										64			64	614	11110	64	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
										1,000			1,000	614	11630	1,000	FT	INCREASED BARRIER DELINEATION	
									4				4	614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
										16			16	614	13310	16	EACH	BARRIER REFLECTOR, TYPE 1(ONE WAY)	
										16			16	614	13350	16	EACH	OBJECT MARKER, ONE WAY	
									2				2	614	18601	2	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	3
								1.2					1.2	614	22210	1.2	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
								4,200					4,200	614	24400	4,200	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 740.06, TYPE I	
								980					980	615	20000	980	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
								2,545					2,545	622	41100	2,545	FT	PORTABLE BARRIER, UNANCHORED	
									8				8	808	18700	8	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																		INCIDENTALS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER
KRH

REVIEWER
EJS 06/26/24

PROJECT ID
121872

SHEET 5 TOTAL 15

VAN-30-14.02/22.08

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS):

AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR REMOVAL OF PORTIONS OF MAIN MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. SUPPORT THE EXISTING MAIN MEMBERS ACCORDING TO ITEM 849, STRAIGHTENING WORK PLAN. FLAME OR SAW CUT PORTIONS OF THE EXISTING MEMBERS USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12. PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE REMAINING CUT SURFACES OF THE EXISTING MEMBER SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIAL). DETERMINE FINAL QUANTITIES BY FIELD MEASUREMENTS.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED (MAIN MEMBERS), AS PER PLAN: POUND.

STEEL RESTRAINT OR PRELOAD LIMITS:

VAN-30-14.02 (STRIPE RD)
EXISTING ASTM A36 - DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 10,000 PSI (68.9 MPA)*

VAN-30-22.08 (CR 197)
EXISTING ASTM A588 - DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 13,500 PSI (93.1 MPA)*

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS):

AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 2, FOR REMOVAL OF SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. SUPPORT THE EXISTING SECONDARY MEMBERS ACCORDING TO ITEM 849, STRAIGHTENING WORK PLAN. FLAME OR SAW CUT THE EXISTING MEMBERS TO WITHIN ⅛ INCH OF THE EXISTING MAIN MATERIAL USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12 PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE EXISTING MAIN OR SECONDARY MEMBER SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIALS). DETERMINE FINAL QUANTITIES BY FIELD MEASUREMENTS.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 202 - PORTIONS OF STRUCTURE MEMBERS REMOVED (SEDONDARY MEMBERS), AS PER PLAN: POUND.

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

ALL REQUIREMENTS OF 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 SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS. SUPPLY A COPY OF THE DRAWINGS, STAMPED, SEALED AND DATED, ACCORDING S1002, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE PROVIDED IN TABLES 2 AND 3. REPLACEMENT OF DAMAGED SECTIONS OF STEEL MEMBERS, MAIN AND SECONDARY, SHALL BE COMPLETED USING STEEL TYPES MATCHING THE EXISTING STEEL BEING REPAIR/REPLACED.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: POUND.

ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, DRILLING:

AN ESTIMATED QUANITITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR DRILLING MAIN OR SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER.
DRILL 2 INCH DIAMETER HOLES AT BOTH ENDS OF EACH IDENTIFIED CRACK AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, DRILLING, EACH.

ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, COPE HOLES:

AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR COPING MAIN MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. PROVIDE A, 2 INCH DIAMETER X 4 INCH LONG COPE ACCORDING TO PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 -STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, COPE HOLES: EACH.

ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN MEMBER, COMPLETE PENETRATION WELDING:

AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO ITEM 849 DAMAGE ASSESSMENT. PREPARE THE DAMAGED MATERIAL FOR WELDING, PROVIDE RUNOFF TABS FOR ALL COMPLETE PENETRATION WELDS. PERFORMING COMPLETE PENETRATION WELDS ACCORDING TO C&MS 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. REMOVE RUNOFF TABS AND GRIND THE COMPLETED EDGES SMOOTH. GRIND THE COMPLETED WELDS SMOOTH AND FLUSH WITH THE ADJACENT SURFACES TO PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL. DO NOT OVER GRIND AS TO REDUCE THE MATERIAL THICKNESS OR WIDTH OF THE NEW OR EXISTING MATERIALS. PREPARE ALL REENTRANT CORNERS WITH A ONE INCH RADIUS. REMOVE WELDING, START AND STOP DISCONTINUITIES. RADIOGRAPHIC TEST THE FINISHED WELDS ACCORDING TO C&MS 513.25A AND SUBMIT COPIES OF THE REPORTS TO THE ENGINEER. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS; TOOLS; LABOR; EQUIPMENT; AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING: FOOT.

ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING:

AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO ITEM 849 DAMAGE ASSESSMENT. PREPARE THE DAMAGED MATERIAL FOR WELDING, PERFORMING $\frac{3}{16}$ OR $\frac{5}{16}$ INCH FILLET WELDS ACCORDING TO ITEM 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. WELD EACH SECONDARY MEMBER ACCORDING TO PLAN DETAILS. MAGNETIC PARTICLE INSPECT ALL FILLET WELDS ACCORDING TO C&MS 513.25B. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT.

THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT; AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING: FOOT.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT):

1.0 DESCRIPTION
THIS ITEM CONSIST OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN (UNKNOWN) EXISTING PAINT TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A PRIMER TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF (UNKNOWN) EXISTING PAINT SYSTEMS.

2.0 GENERAL
C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING PAINTED SURFACES
CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SALT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SP12 (LP WC), LOW PRESSURE WATER CLEANING. THE PRESSURE WASHER SHALL BE CAPABLE OF ACHIEVING AT LEAST 2000 POUNDS PER SQUARE INCH AT THE NOZZLE. WHEN USING THE POWER WASHING EQUIPMENT, THE NOZZLE SHALL BE MAINTAINED NO MORE THAN 10 INCHES FROM THE SURFACE. SUPPLY AND USE POTABLE WATER. PROVIDE TO THE ENGINEER A LETTER OF WRITTEN ACCEPTANCE FOR ANY BIODEGRADABLE DETERGENTS OR CLEANERS USED IN CONJUNCTION WITH THIS METHOD.

COLLECT AND CONTAIN WATER AND DEBRIS REMOVED DURING WASHING OPERATIONS ABOVE WATER FEATURES IN CONFORMANCE WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTION BASINS AND STRAIN ALL WASH WATER ABOVE LAND FEATURES AS NECESSARY TO PRODUCE VISIBLY CLEAR WATER AND COMPLY WITH CMS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS.

4.0 SURFACE PREPARATION
SURFACE HAS DRIED, REMOVE EXISTING PAINT COATING TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER ACCORDING TO: SSPC-SP 11, POWER TOOL CLEANING TO BARE METAL, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 3; SSPC SP6, COMMERCIAL BLAST CLEANING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 1; OR SSPC SP12 UHP WJ-4, ULTRAHIGH-PRESSURE WATER JETTING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 4. SUPPLY BLAST WATER CONTAINING A COMMERCIALLY AVAILABLE RUST INHIBITOR AT A DOSAGE THAT PREVENTS FLASH RUSTING FOR 12 HOURS AND DOCUMENTED AS ACCEPTABLE TO THE COATING'S MANUFACTURER. THE ENGINEER WILL USE THE SSPC-VIS 1, SSPC-VIS 3 OR SSPC-VIS 4 TO DETERMINE THE ACCEPTANCE OF THE SURFACE PREPARATION. FEATHER THE EXISTING PAINT TO ROUGHEN A MINIMUM OF ½ INCH OF THE EXISTING PAINT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.
ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A ⍰ INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

5.0 FIELD PAINTING
APPLY THE PRIME COAT OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO THE CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL DETERMINE THE PRIME COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. DO NOT APPLY THE INTERMEDIATE OR FINISH COAT. THE PRIME COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 514.20. APPLY PAINT AS FOLLOWS:

A. APPLY THE PRIME COAT ONLY TO THE PREPARED SURFACE OF THE BARE STEEL AND THE EXISTING UNKNOWN PAINT SYSTEM ROUGHENED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COURSE.

B. APPLY CAULK AFTER PRIMING

C. APPLY THE INTERMEDIATE COAT TO THE NEW PRIME COAT AND TO THE EXISTING INTERMEDIATE COATS THAT ARE EXPOSED BY FEATHERING.

D. APPLY THE FINISH COAT TO THE NEW INTERMEDIATE COAT AND TO THE EXISTING FINISH COATS THAT ARE EXPOSED BY FEATHERING.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME, INTERMEDIATE, AND FINISH COATS WITH A BRUSH. IN LIEU OF BRUSHING THE CONTRACTOR MAY DOUBLE MASK AREAS NOT TO BE COATED AND SPRAY TO FEATHERED REMOVAL LINES.

BLEND REPAIR AREAS WITH THE ADJACENT COATING TO PROVIDE A FINISHED SURFACE IN THE PATCHED AREAS THAT IS SMOOTH AND HAS AN EVEN PROFILE WITH THE ADJACENT SURFACE.

(CONTINUED ON SHT. Z)

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURES VAN-30-14.02 & VAN-30-22.07
COLLISION REPAIR AND HEAT
GENERAL NOTES

DESIGN AGENCY

DESIGNER
KRH

REVIEWER
EJS 06/26/24

PROJECT ID
121872

SUBSET 1 | TOTAL 2

SHEET 6 | TOTAL 15

VAN-30-14.02/22.07

CONTINUED...

6.0 MEASUREMENT

PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN BY THE NUMBER OF SQUARE FEET OF STRUCTURAL STEEL PAINTED. THE DEPARTMENT WILL DETERMINE THE SURFACE AREA BY TAKING EXACT FIELD MEASUREMENTS OF ALL PAINTED SURFACES AND CALCULATIONS.

7.0 BASIS OF PAYMENT

ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS: THE DEPARTMENT MAY CONSIDER PAINT AS ELIGIBLE FOR PAYMENT FOR MATERIAL ON-HAND AS SPECIFIED IN 109.10, HOWEVER, ONLY PAINT THAT THE CONTRACTOR CAN PROVE TO THE ENGINEER WILL BE USED DURING THE CONSTRUCTION SEASON IS ELIGIBLE FOR PAYMENT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER CALCULATIONS INDICATING THE TOTAL SQUARE FEET OF STEEL TO BE PAINTED DURING THE CONSTRUCTION SEASON. THE CONTRACTOR SHALL ALSO PROVIDE CALCULATIONS SHOWING THE TOTAL NUMBER OF GALLONS REQUIRED.

IF THE CONTRACTOR CAUSES DAMAGE OR INJURY TO PUBLIC OR PRIVATE PROPERTY, THE DEPARTMENT WILL NOT PAY FOR RESTORING THE PROPERTY TO ITS ORIGINAL CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIRING ADJACENT COATINGS DAMAGED DURING THE WASHING, POWER TOOL CLEANING OR BLAST CLEANING OPERATION.

THE DEPARTMENT WILL NOT PAY FOR REMOVING AND REPLACING AN AREA OF COATING BECAUSE A SPOT OR MAXIMUM AVERAGE THICKNESS EXCEEDS THE MAXIMUM SPOT THICKNESS.

THE DEPARTMENT WILL NOT PAY FOR ADDITIONAL TESTING REQUIRED BY ANY HAULER, TREATMENT FACILITY, DISPOSAL FACILITY OR LANDFILL.

THE DEPARTMENT WILL NOT PAY FOR ACCESSING, INSPECTING, AND REPAIRING AREAS THAT ARE NOT FOUND TO BE IN CONFORMANCE WITH THE SPECIFICATIONS AND PERTINENT CONTRACT DOCUMENTS.

ALL OTHER REQUIREMENTS OF THIS FIELD PAINTING SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK.

ITEM	UNIT	DESCRIPTION
514	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL - THREE COAT, AS PER PLAN

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

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE PERFORM REPAIRS DEFINED IN TABLE 3, TABLE 5 OR THE HEAT STRAIGHTENING PLAN.

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 NECESSITATED BY THE JACKING OPERATION. 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 512 - CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN:

PERFORM CONCRETE REPAIR BY EPOXY INJECTION ON ALL CRACKS ALONG THE HAUNCH SURFACES ADJACENT AND ABOVE THE TOP FLANGE OF THE DAMAGED BEAMS INDICATED IN THE PLANS. THE PRIMARY PURPOSE OF THS WORK IS TO REPAIR THE AREAS OF SEPARATION BETWEEN THE TOP FLANGES OF THE DAMAGED BEAMS AND HAUNCHES AS SHOWN ON SHEETS 9, 11-12, & 15..

IN ADDITION, AND PRIOR TO THE PERFORMING THE CONCRETE REPAIR BY EPOXY INJECTION, REMOVE DELAMINATED, LOOSE, OR DISINIGRATED CONCRETE IN THE HAUNCH AREAS INDICATED IN THE PLANS BY METHODS THAT WILL NOT CAUSE ADDITIONAL DAMAGE TO THE HAUNCH PER THE APPROVAL AND TO THE SATISFACTION OF THE PROJECT ENGINEER.

PAYMENT FOR THIS WORK WILL BE AT THE UNIT PRICE PER FOOT FOR ITEM 512 – CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN. THE DEPARTMENT WILL MEASURE THIS WORK AS LINEAR FEET ALONG THE BEAM ADJACENT TO WHERE CRACK REPAIRS ARE ACTUALLY COMPLETED.

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURES VAN-30-14.02 & VAN-30-22.07
COLLISION REPAIR AND HEAT
GENERAL NOTES

DESIGN AGENCY

DESIGNER
KRH

REVIEWER
EJS 06/26/24

PROJECT ID
121872

SUBSET 2 | TOTAL 2

SHEET 7 | TOTAL 15

VAN-30-14.02/22.07

ESTIMATED QUANTITIES (VAN-30-14.02) - SFN: 8100667									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN	SEE SHEET
202	11501	*12*	LB	PORTIONS OF STUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS)			*12*		*6*
202	11501	*453*	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)			*453*		*6*
512	10601	*32*	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN			*32*		7
513	10201	*465*	LB	STRUCTURAL STEEL MEMBERS LEVEL UF, AS PER PLAN			*465*		6
513	95030	*4*	EACH	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, DRILLING			*4*		6
513	95030	*4*	EACH	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, COPE HOLES			*4*		6
513	95000	*7*	FT	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING			*7*		6
513	95000	*2*	FT	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING			*2*		6
514	20001	*369*	SQ FT	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)			*369*		6-7
516	47001	*LS*	LUMP	JACKING & TEMPORARY SUPPORT OF STRUCTURE, AS PER PLAN				*LS*	7
849	10000	*LS*	LUMP	DAMAGE ASSESMENT			*LS*		
849	10500	*LS*	LUMP	SURFACE PREPARATION			*LS*		
849	10600	*3*	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING			*3*		
849	10700	*LS*	LUMP	STRAIGHTENING DAMAGED MEMBERS			*LS*		

ABOVE TOTALS CARRIED TO GENERAL SUMMARY

ESTIMATED QUANTITIES (VAN-30-22.08) - SFN: 8104379									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN	SEE SHEET
202	11501	*30*	LB	PORTIONS OF STUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS)			*30*		*6*
202	11501	*1647*	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)			*1647*		*6*
512	10601	*78*	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN			*78*		*7*
513	10201	*1677*	LB	STRUCTURAL STEEL MEMBERS LEVEL UF, AS PER PLAN			*1664*		*6*
513	95030	*50*	EACH	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, DRILLING			*50*		*6*
513	95030	*50*	EACH	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MEMBERS, COPE HOLES			*50*		*6*
513	95000	*18*	FT	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING			*18*		*6*
513	95000	*22*	FT	STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING			*22*		*6*
514	20001	*1422*	SQ FT	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT)			*1422*		*6-7*
516	47001	*LS*	LUMP	JACKING & TEMPORARY SUPPORT OF STRUCTURE, AS PER PLAN				*LS*	*7*
849	10000	*LS*	LUMP	DAMAGE ASSESMENT			*LS*		
849	10500	*LS*	LUMP	SURFACE PREPARATION			*LS*		
849	10600	*3*	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING			*3*		
849	10700	*LS*	LUMP	STRAIGHTENING DAMAGED MEMBERS			*LS*		

ABOVE TOTALS CARRIED TO GENERAL SUMMARY

VAN-30-14.02/22.07

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURES VAN-30-14.02 & VAN-30-22.07
COLLISION REPAIR AND HEAT STRAIGHTENING
ESTIMATED QUANTITIES

DESIGN AGENCY

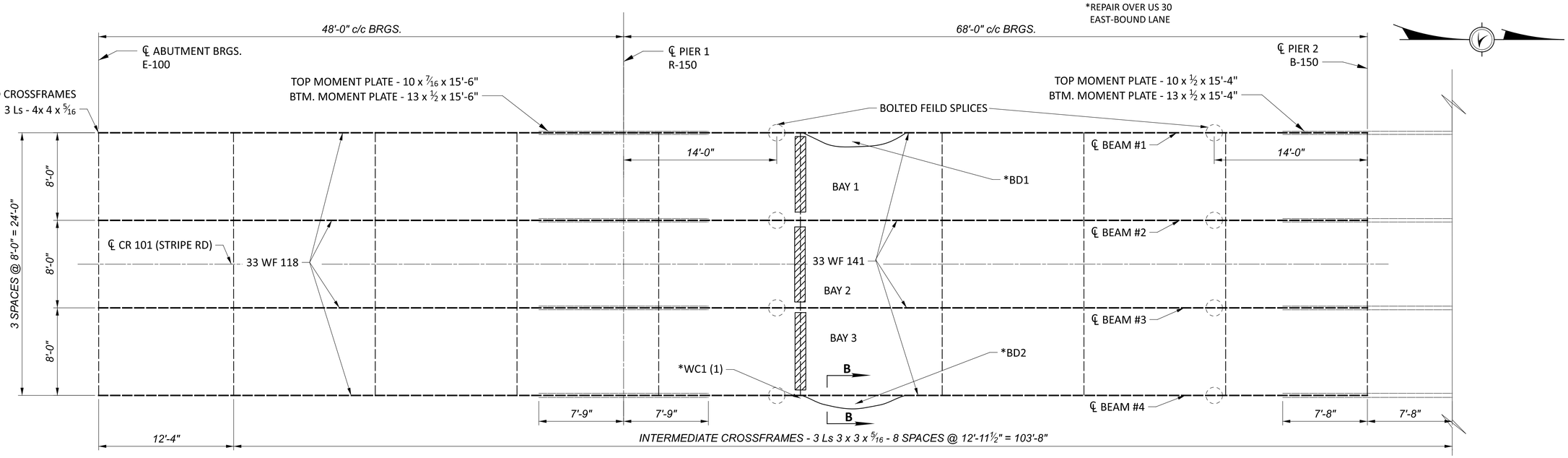
DESIGNER
KRH

REVIEWER
EJS 06/26/24

PROJECT ID
121872

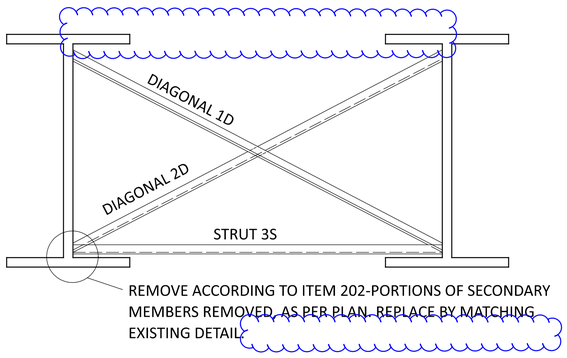
SUBSET 1 | TOTAL 1

SHEET 8 | TOTAL 15



▨ - CROSSFRAMES REPLACED

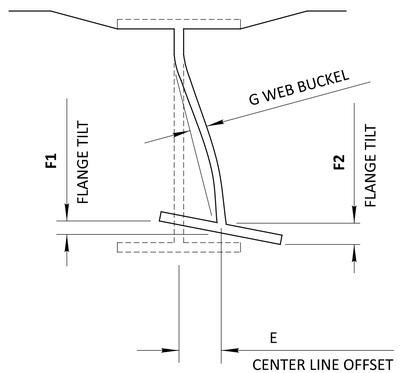
SUPERSTRUCTURE STEEL FRAMING PLAN



CROSS FRAME SECTION

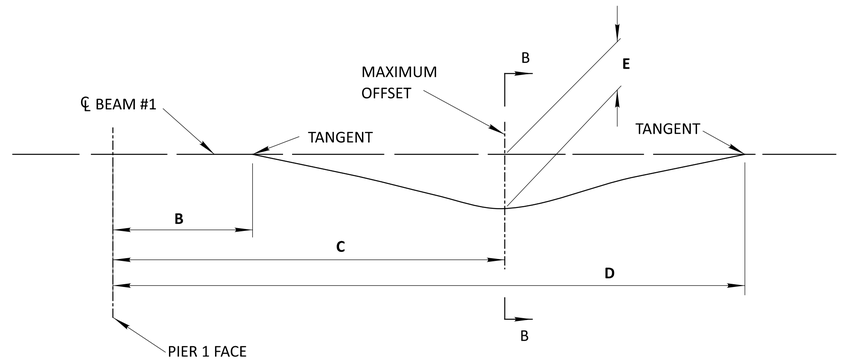
SECONDARY MEMBER BAY No. 3

N- NUMBER OF CROSSFRAME BRACES COUNTED FROM THE PIER OR ABUTMENT IDENTIFIED IN TABLE



SECTION B-B

NEGATIVE E VALUES ARE BENT LEFT
NEGATIVE F VALUES ARE BENT DOWN
NEGATIVE G VALUES ARE BENT LEFT



ORIENTATION NOTE
ABUTMENTS AND PIERS ARE NUMBERED IN THE CARDINAL DIRECTION (FROM SOUTH TO NORTH OR WEST TO EAST). BEAMS ARE NUMBERED FROM LEFT TO RIGHT WHEN FACING IN THE CARDINAL DIRECTION.
BAYS ARE NUMBERED TO MATCH THE MAIN MEMBERLINE NUMBER TO THE LEFT OF THE CROSSFRAME BAY WHEN FACING IN THE CARDINAL DIRECTION.

EXISTING STRUCTURE: VAN-30-12.02
ROUTE ON STRUCTURE: CR 101 (STRIPE RD)
ROUTE BELOW STRUCTURE: US 30
TYPE: CONTINUOUS STEEL BEAMS W/ REINF. CONC. DECK AND SUBSTRUCTURE
SPANS: 48'-68'-68'-48' c/c brgs
ROADWAY WIDTH: 24'-0 f/f 2'-0" SAFETY CURBS
SKEW: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
YEAR BUILT: 1965
NUMBER OF BEAMS: 4
STEEL TYPE: ASTM A36, UNIT STRESS 20 KSI
PAINT TYPE: OZEU
PAINT DATE: 9/1991

TABLE #2 DAMAGED SECONDARY MEMBER TO BE REPLACED

CROSSFRAME BAY #	PIER	N	1D	2D	3S
BAY 1	PIER 1	2	1	1	1
BAY 2	PIER 1	2	1	1	1
BAY 3	PIER 1	2	1	1	1

TABLE #1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED

DAMAGE AREA No.	MEMBERLINE No.	PIER	B	C	D	E	F1	F2	G
			FT	FT	FT	IN	IN	IN	IN
BD1	1	SOUTH PIER FACE	14	21	28	1 13/16	11/16	- 9/16	1 5/8
BD2	4	SOUTH PIER FACE	10	21	28	3	1 9/16	-1 15/16	1 3/16

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURE VAN-30-14.02 (SFN 8100667)
COLLISION REPAIR, HEAT STRAIGHTENING
PLAN AND BEAM DETAILS

DESIGN AGENCY

DESIGNER
KRH

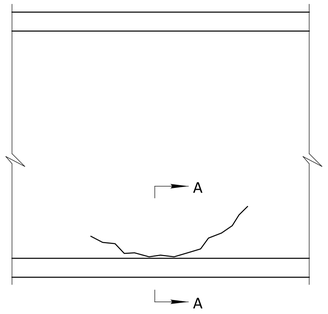
REVIEWER
EJS 06/26/24

PROJECT ID
121872

SUBSET 1 | TOTAL 3

SHEET 9 | TOTAL 15

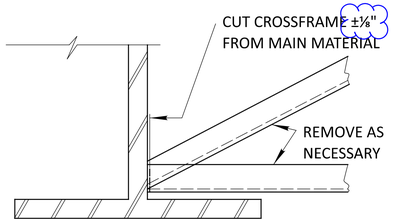
VAN-30-14.02/22.07



CONDITION-WEB CRACK

COLLISION REPAIR WC1-1

SEE NOTE 1



SECTION A-A

SEE NOTE 1

1. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE. CAREFULLY GRIND EXISTING WELDS FLUSH. DO NOT DAMAGE WEB OR FLANGE. PROVIDE SHIELDING AS NECESSARY
2. MARK REMOVAL AREA
3. DRILL 2 OR 4 CORNER HOLES 1" DIAMETER
4. SAW OR FLAME CUT TO REMOVE DAMAGED WEB PLATE USING A MECHANICAL GUIDE
5. PREP EXISTING MEMBER, BEVEL EDGES FOR COMPLETE PENETRATION AND FILLET WELDS
6. CUT AND BEVEL NEW PLATES, FOR COMPLETE PENETRATION AND FILLET WELDS
7. CHECK FIT OF NEW PLATES, NO GAPS EXCEEDING [2]"
8. PERFORM WELDING
9. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
10. GRIND THE INSIDE SURFACE OF ALL DRILLED CORNER HOLES OR BOTTOM COPES TO A 1" RADIUS AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
11. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A
12. REPAIR SECONDARY MEMBERS IF APPLICABLE. MAKE CONNECTIONS TO MATCH EXISTING DETAILS UNLESS MODIFIDED HEREIN

CAUTION: PROVIDE ADDITIONAL TEMORARY OR PERMANENT STIFFENERS

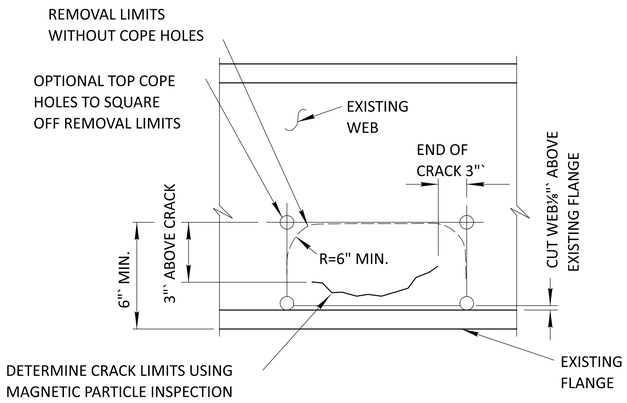
TABLE #3 513 REPAIRS

DAMAGED AREA No.	MEMBER LINE No. A	PIER	DIM C	REPAIR DETAIL TYPE	DRILLING HOLES	COPE HOLES	STEEL MEMBER LEVEL UF	CP WELD (FT)	FILLET WELD
			FT		EACH	EACH	LB	FT	FT
WC1 (1)	*4*	*SOUTH PIER FACE*	*12*	*WC1*	*4*	*4*	*12.4*	*2*	*1.7*

SEE PARTIAL FRAMING PLAN FOR DIMENSION C

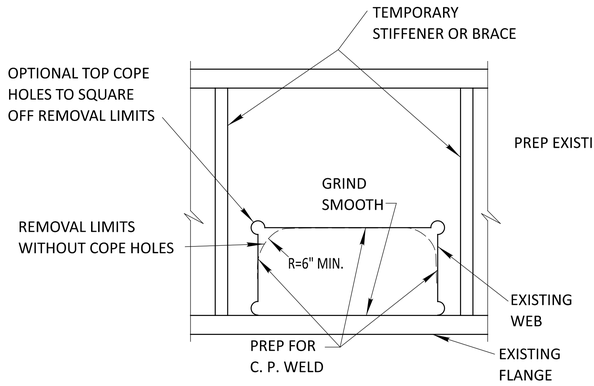
*NOTE:

WC1 PLATE DIMENSIONS
LENGTH = 10"
HEIGHT = 7"
THICKNESS = 5/8"



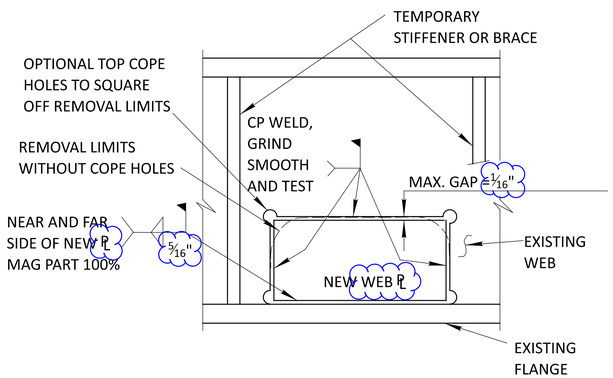
COLLISION REPAIR WC1-2

SEE NOTES 2 & 3



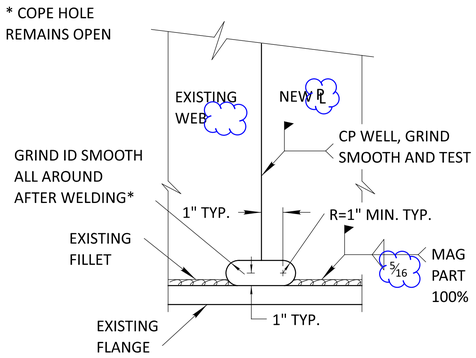
COLLISION REPAIR WC1-3

SEE NOTE 4 & 5



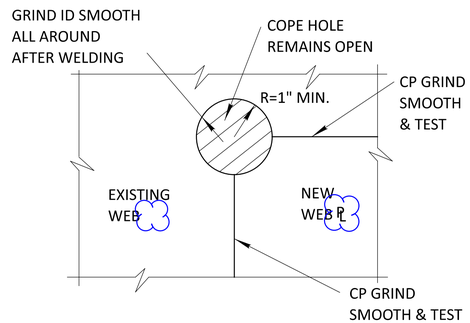
COLLISION REPAIR WC1-4

SEE NOTES 6 THROUGH 11



FIELD REPAIR BOTTOM COPE WC1-5

SEE NOTES 9 & 10



FIELD REPAIR TOP COPE WC1-6

SEE NOTES 9 & 10

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURE VAN-30-14.02 (SFN 8100667)
COLLISION REPAIR OF WEB CRACKS WC1
CRACKING DETAILS

DESIGN AGENCY

DESIGNER
KRH

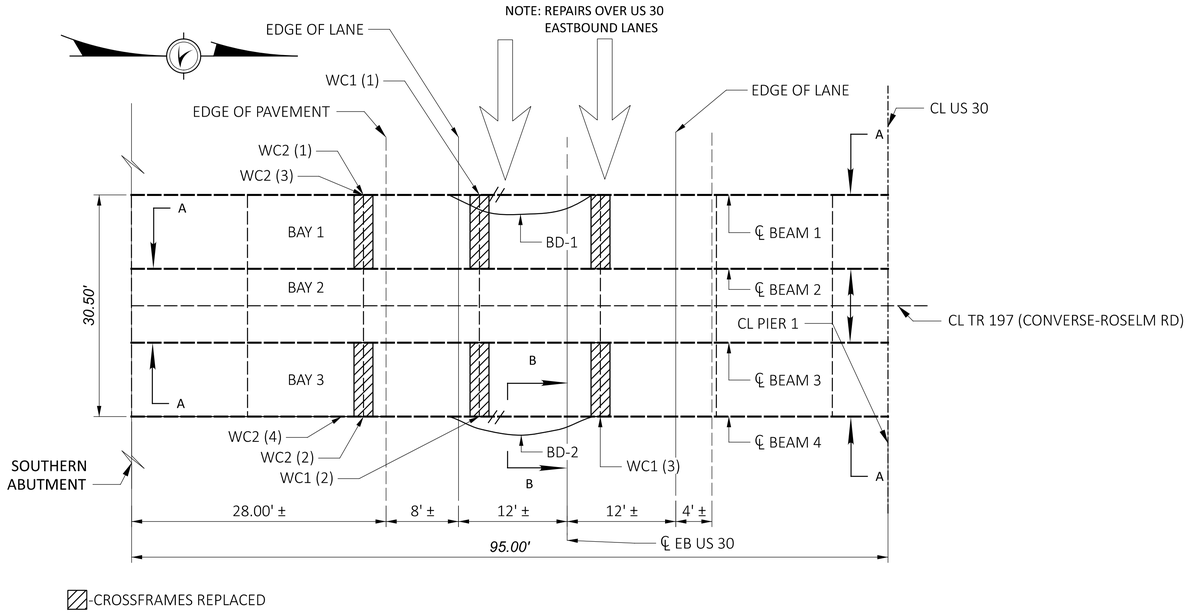
REVIEWER
EJS 06/26/24

PROJECT ID
121872

SUBSET 2 | TOTAL 3

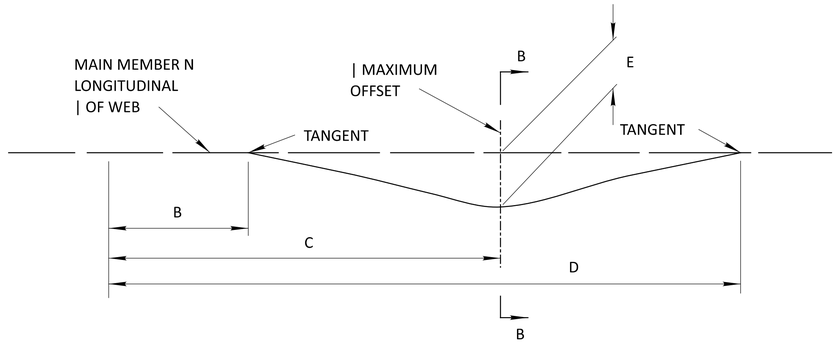
SHEET 10 | TOTAL 15

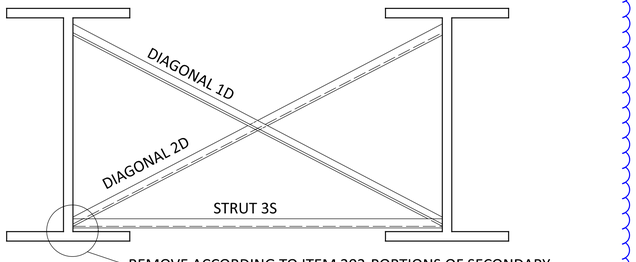
VAN-30-14.02/22.07



PARTIAL SUPERSTRUCTURE STEEL FRAMING PLAN

ORIENTATION NOTE
ABUTMENTS AND PIERS ARE NUMBERED IN THE CARDINAL DIRECTION (FROM SOUTH TO NORTH OR WEST TO EAST).
BEAMS ARE NUMBERED FROM LEFT TO RIGHT WHEN FACING IN THE CARDINAL DIRECTION.
BAYS ARE NUMBERED TO MATCH THE MAIN MEMBERLINE NUMBER TO THE LEFT OF THE CROSSFRAME BAY WHEN FACING IN THE CARDINAL DIRECTION.

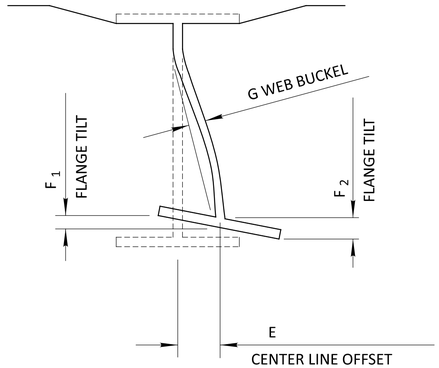




REMOVE ACCORDING TO ITEM 202-PORTIONS OF SECONDARY MEMBERS REMOVED, AS PER PLAN. REPLACE BY MATCHING EXISTING DETAIL.

CROSS FRAME SECTION

SECONDARY MEMBER BAY No. 3



SECTION B-B

NEGATIVE E VALUES ARE BENT LEFT
NEGATIVE F VALUES ARE BENT DOWN
NEGATIVE G VALUES ARE BENT LEFT

EXISTING STRUCTURE: VAN-30-22.08
ROUTE ON STRUCTURE: TR 197 (CONVERSE-ROSELM RD)
ROUTE BELOW STRUCTURE: US 30
TYPE: CONTINUOUS STEEL GIRDER W/ REINF. CONC. DECK AND SUBSTRUCTURE
SPANS: 194'-6"
ROADWAY WIDTH: 32'-0" c/c
SKEW: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
YEAR BUILT: 1978
NUMBER OF BEAMS: 4
STEEL TYPE: ASTM A588 "WEATHERING" STEEL - UNIT STRESS = 27 KSI
PAINT TYPE: OZEU
PAINT DATE: 8-96

N- NUMBER OF CROSSFRAME BRACES COUNTED FROM THE PIER OR ABUTMENT IDENTIFIED IN TABLE

TABLE #2 DAMAGED SECONDARY MEMBER TO BE REPLACED

CROSSFRAME BAY #	PIER/ABUT.	N	1D	2D	3S
BAY 1	S ABUT. FACE	3	1	1	1
BAY 1	S ABUT. FACE	4	1	1	1
BAY 1	S ABUT. FACE	2	1	1	1
BAY 3	S ABUT. FACE	2	1	1	1
BAY 3	S ABUT. FACE	3	1	1	1
BAY 3	S ABUT. FACE	4	1	1	1

TABLE #1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED

DAMAGE AREA No.	MEMBERLINE No.	PIER	B	C	D	E	F1	F2	G
			FT	FT	FT	IN	IN	IN	IN
BD1	1	SOUTH ABUT. FACE	22	47	58	2	13/16	-1 1/4	13/16
BD2	4	SOUTH ABUT. FACE	26	47	68	3	1 11/16	-2 1/16	4

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURE VAN-30-22.08 (SFN 8104379)
COLLISION REPAIR, HEAT STRAIGHTENING
PLAN AND BEAM DETAILS

DESIGN AGENCY

DESIGNER
MJK

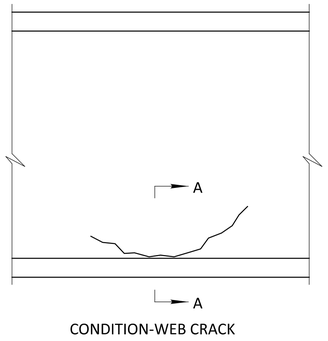
REVIEWER
EJS 06-17-24

PROJECT ID
121872

SUBSET 1 | TOTAL 4

SHEET 12 | TOTAL 15

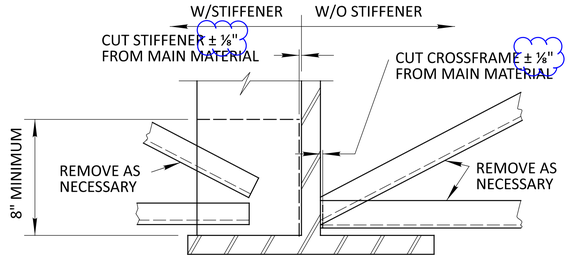
VAN-30-14.02/22.07



CONDITION-WEB CRACK

COLLISION REPAIR WC1-1

SEE NOTE 1



SECTION A-A

SEE NOTE 1

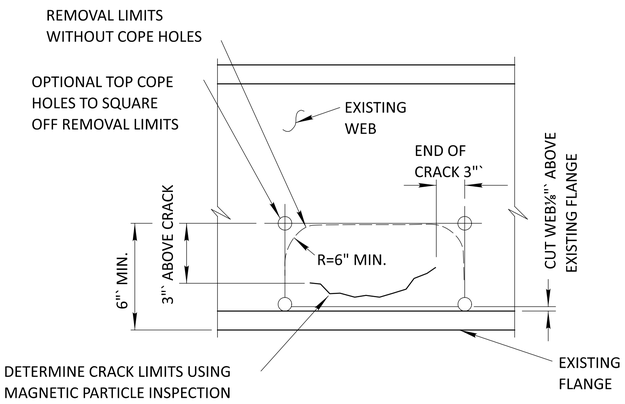
1. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE. CAREFULLY GRIND EXISTING WELDS FLUSH. DO NOT DAMAGE WEB OR FLANGE. PROVIDE SHIELDING AS NECESSARY
2. MARK REMOVAL AREA
3. DRILL 2 OR 4 CORNER HOLES 1" DIAMETER
4. SAW OR FLAME CUT TO REMOVE DAMAGED WEB PLATE USING A MECHANICAL GUIDE
5. PREP EXISTING MEMBER, BEVEL EDGES FOR COMPLETE PENETRATION AND FILLET WELDS
6. CUT AND BEVEL NEW PLATES, FOR COMPLETE PENETRATION AND FILLET WELDS
7. CHECK FIT OF NEW PLATES, NO GAPS EXCEEDING [illegible]"
8. PERFORM WELDING
9. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
10. GRIND THE INSIDE SURFACE OF ALL DRILLED CORNER HOLES OR BOTTOM COPES TO A 1" RADIUS AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
11. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A
12. REPAIR SECONDARY MEMBERS IF APPLICABLE. MAKE CONNECTIONS TO MATCH EXISTING DETAILS UNLESS MODIFIDED HEREIN

CAUTION: PROVIDE ADDITIONAL TEMPORARY OR PERMANENT STIFFENERS

TABLE #3 513 REPAIRS

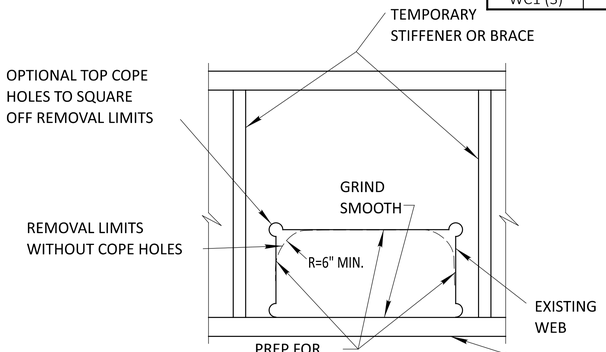
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. Y	REPAIR DETAIL TYPE	DRILLING HOLES	COPE HOLES	MAIN MEMBER LEVEL UF	SECONDARY MEMBER LEVEL UF	CP WELD	FILLET WELD	STIFFENERS REPLACED (PL 5"x$\frac{5}{16}$")
			FT		EACH	EACH	LB	LB	FT	FT	EACH
WC1 (1)	1	S ABUT. FACE	22	WC1	4	4	9.25	42.6	2.2	2.4	2
WC1 (2)	4	S ABUT. FACE	26	WC1	4	4	4.47	42.6	1.5	1.8	2
WC1 (3)	4	S ABUT. FACE	26	WC1	4	4	3.83	42.6	1.4	1.5	2

DIMENSION Y EQUALS DISTANCE FROM SOUTH ABUT. TO START OF REPAIR



COLLISION REPAIR WC1-2

SEE NOTES 2 & 3



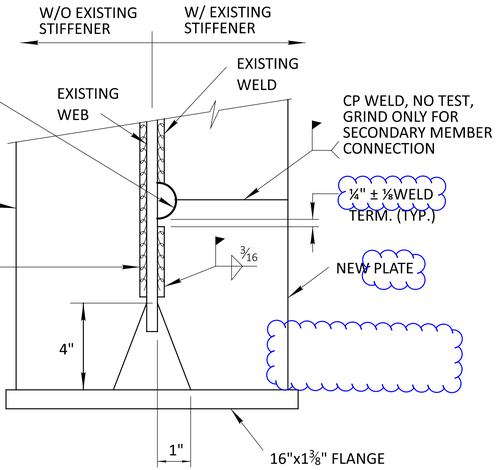
COLLISION REPAIR WC1-3

SEE NOTE 4 & 5

WC1 (1) PLATE DIM: L = 14.5"
W = 6"
T = 3/8"

WC1 (2) PLATE DIM: L = 10.5"
W = 4"
T = 3/8"

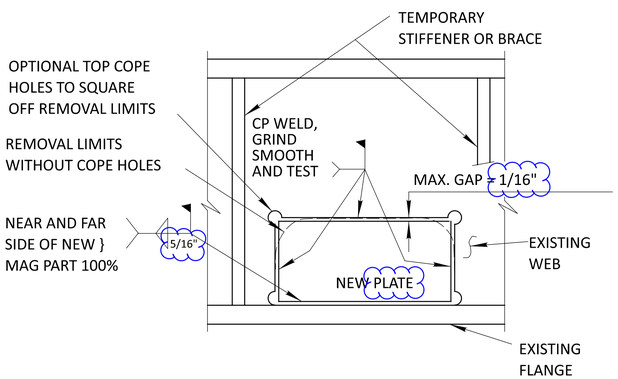
WC1 (3) PLATE DIM: L = 9"
W = 4"
T = 3/8"



PROVIDE A NEW STIFFENER AT WC1 REPAIR LOCATIONS WHERE EXISTING CROSSFRAMES OR LATERAL BRACING WERE PREVIOUSLY WELDED DIRECTLY TO THE EXISTING WEB

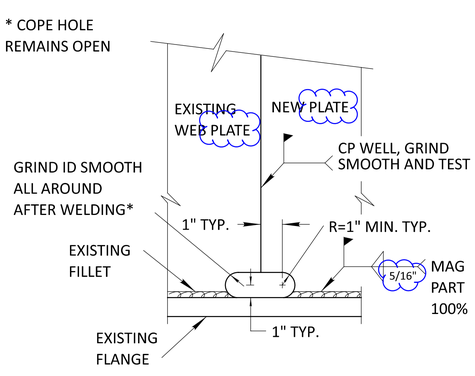
FIELD REPAIR STIFFENER WC1-7

SEE NOTE 5 THROUGH 12



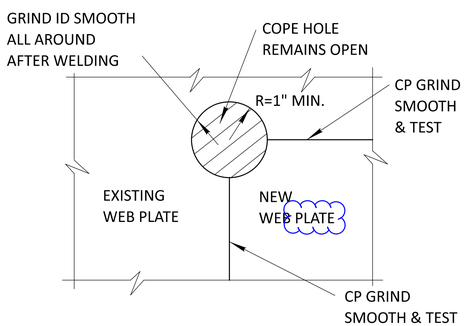
COLLISION REPAIR WC1-4

SEE NOTES 6 THROUGH 11



FIELD REPAIR BOTTOM COPE WC1-5

SEE NOTES 9 & 10



FIELD REPAIR TOP COPE WC1-6

SEE NOTES 9 & 10

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURE VAN-30-22.08 (SFN 8104379)
COLLISION REPAIR OF WEB CRACKS WC1
CRACKING DETAILS

DESIGN AGENCY

DESIGNER
MJK

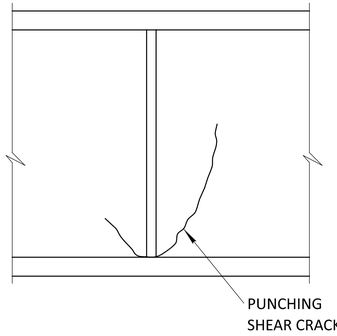
REVIEWER
EJS 06-18-24

PROJECT ID
121872

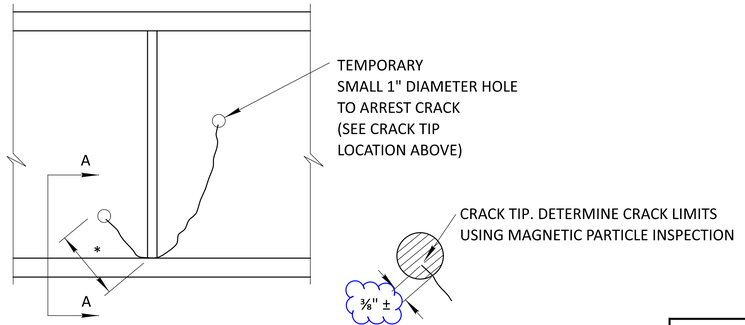
SUBSET 2 | TOTAL 4

SHEET 13 | TOTAL 15

VAN-30-14.02/22.07



COLLISION REPAIR WC2-1



* IF CRACK IS LESS THAN OR EQUAL TO 6" SEE COLLISION REPAIR WC2-5

COLLISION REPAIR WC2-2

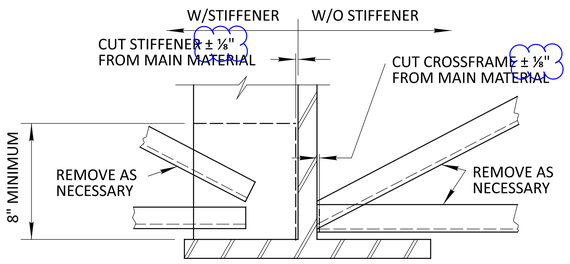
SEE NOTE 1 AND 2

1. ARREST CRACK TEMPORARY
   A. MAGNETIC PARTICLE INSPECTION CRACK TO LOCATE TIP.
   B. TEMPORARY 1" DIAMETER HOLE DRILLED TO STOP CRACK GROWTH.
2. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE
3. REMOVE STIFFENER MATERIAL AS NECESSARY
4. PREP EXISTING MATERIALS FOR COMPLETE PENETRATION WELDS
5. PERFORM COMPLETE PENETRATION WELDS ACCORDING TO CMS 513.21
6. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
7. GRIND THE INSIDE SURFACE OF ALL DRILLED TOP, SIDE OR BOTTOM COPES TO A 1" RADIUS AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
8. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A
9. REPAIR SECONDARY MEMBERS IF APPLICABLE

TABLE #3 513 REPAIRS

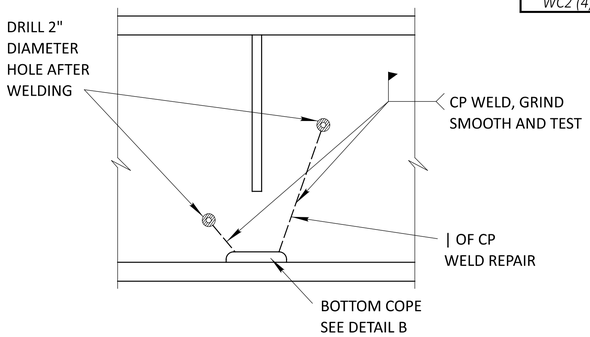
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM Y	REPAIR DETAIL TYPE	DRILLING HOLES	COPE HOLES	SECONDARY STEEL MEMBER LEVEL UF	CP WELD (FT)	FILLET WELD	STIFFNERS REPLACED (PL 5" x 5/16")
			FT		EACH	EACH	LB	FT	FT	EACH
WC2 (1)	*1*	*SOUTH ABUT. FACE*	*22*	*WC2*	*2*	*1*	*42.6*	*1*	*0.67*	2
WC2 (2)	*4*	*SOUTH ABUT. FACE*	*26*	*WC2*	*2*	*1*	*42.6*	*1*	*0.67*	2
WC2 (3)	*1*	*SOUTH ABUT. FACE*	*27*	*WC2**	*VARIES*	*VARIES*	*99.4*	*VARIES*	*VARIES*	14
WC2 (4)	*4*	*SOUTH ABUT. FACE*	*23.33*	*WC2**	*VARIES*	*VARIES*	*99.4*	*VARIES*	*VARIES*	14

DIMENSION Y EQUALS DISTANCE FROM SOUTH ABUT. TO START OF REPAIR
* - REPAIRS TO DAMAGED STIFFNERS



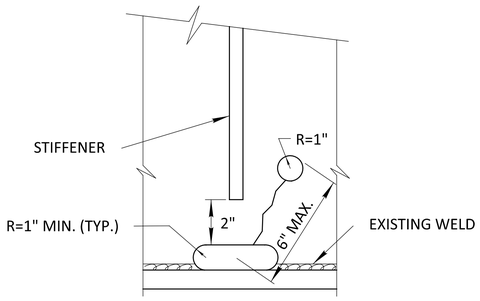
SECTION A-A

SEE NOTE 2 AND 3



COLLISION REPAIR WC2-3

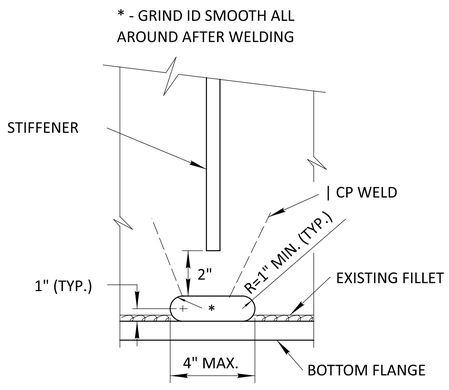
SEE NOTE 4 THROUGH 8



COLLISION REPAIR WC2-5

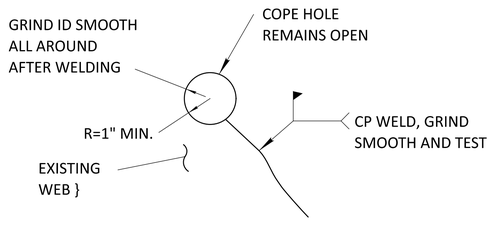
MAXIMUM NO WELD REPAIR

SEE NOTE 7



DETAIL B

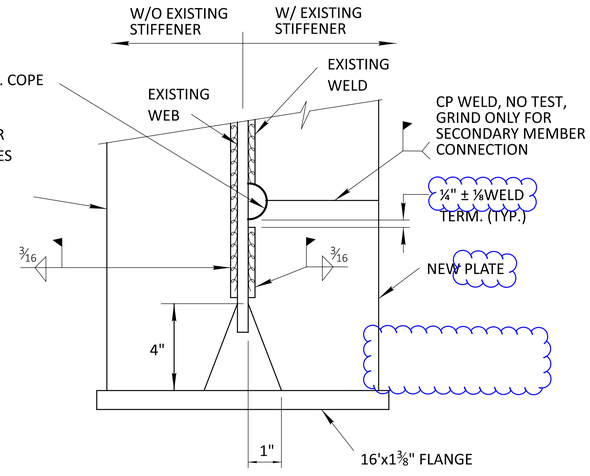
SEE NOTE 7



FIELD REPAIR TOP COPES

SEE NOTE 7

PROVIDE A NEW STIFFENER AT WC1 REPAIR LOCATIONS WHERE EXISTING CROSSFRAMES OR LATERAL BRACING WERE PREVIOUSLY WELDED DIRECTLY TO THE EXISTING WEB



FIELD REPAIR STIFFENER WC2-6

SEE NOTE 4 THROUGH 9

OFFICE OF STRUCTURAL ENGINEERING

REVISION DATE
01-21-2021

STRUCTURE VAN-30-22.08 (SFN 8104379)
COLLISION REPAIR OF WEB CRACKS WC2
CRACKING DETAILS

DESIGN AGENCY

DESIGNER
MJK

REVIEWER
EJS 06-18-24

PROJECT ID
121872

SUBSET 3 | TOTAL 4

SHEET 14 | TOTAL 15

VAN-30-14.02/22.07