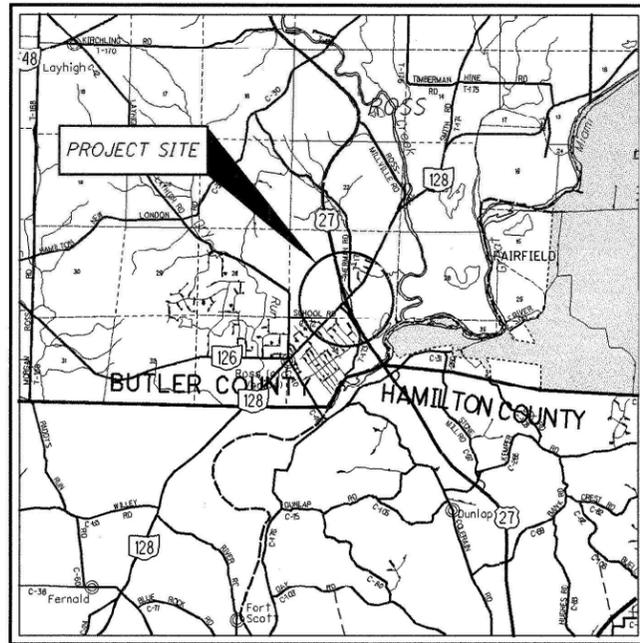


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT - 27 - 0.81R

**ROSS (OLD VENICE), BUTLER COUNTY
BRIDGE REPAIR**



LOCATION MAP

LATITUDE: N 39° 19' 19" LONGITUDE: W 84° 38' 19"



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

DESIGN DESIGNATION

	<u>US-27</u>	<u>SR-128</u>
CURRENT ADT (2016)	27,000	11,000
DESIGN YEAR ADT (2028)	33,000	12,000
DESIGN HOURLY VOLUME (2035)	3,300	1,400
DIRECTIONAL DISTRIBUTION	0.70	0.68
TRUCKS (24 HOUR B&C)	4%	5%
DESIGN SPEED	65 MPH	35 MPH
LEGAL SPEED	70 MPH	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN EXPRESSWAY	URBAN EXPRESSWAY

NHS PROJECT YES

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:
OHIO DEPT. OF TRANSPORTATION
DISTRICT 8 ENGINEERING
BRIDGE OFFICE

ENGINEERS SEAL:

SIGNED: *[Signature]*
DATE: 01/07/16

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
RM-4.2	06/04/14	GSD-1-96	07/19/02	800	01/15/16		
PCB-91	01/18/13			832	01/17/14		
				849	01/18/13		
MT-95.30	07/18/14						
MT-95.31	07/18/14						
MT-95.50	07/19/13						
MT-105.10	07/19/13						
TC-18.26	01/17/14						
TC-22.20	01/17/14						
TC-41.20	10/18/13						
TC-42.10	10/18/13						
TC-42.20	10/18/13						
HL-50.21	01/16/15						

PROJECT DESCRIPTION

REPAIRING DAMAGE TO BRIDGE STRUCTURAL STEEL CAUSED BY VEHICLE IMPACT.

PROJECT EARTH DISTURBED AREA: N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES
BRIDGE MAINTENANCE

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.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS 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 OF THE HIGHWAY TO TRAFFIC AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.

APPROVED *Tammy K. Ceybell*
DATE 1/7/2016 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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FEDERAL PROJECT NO.
E150580

PID NO.
99708

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
N/A

BUT - 27 - 0.81R

1
8

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ITEM 614 - MAINTAINING TRAFFIC

MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES EXCEPT IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE, BY USE OF THE EXISTING PAVEMENT.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPT. OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THESE PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

VERTICAL CLEARANCE SHALL NOT BE DECREASED OVER LIVE TRAFFIC.

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
EASTER	

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

DAY OF HOLIDAY OR 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 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

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.

LANE VALUE CONTRACT TABLE			
DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
SR-128: ALL LANES OPEN TO TRAFFIC	6AM - 9AM AND 3PM - 7PM	15 MIN	\$750
SR-128: ALL LANES OPEN TO TRAFFIC	AT ALL TIMES	15 MIN	\$750

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF:

- 1) FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AND/OR ROAD CLOSURES.
- 2) SEVEN (7) DAYS PRIOR TO LANE CLOSURES AND/OR SHIFTS IN TRAFFIC PATTERNS.

THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

- 1) DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (513) 933-9472 OR EMAIL AT D08.PIO.FORM@DOT.OHIO.GOV
- 2) DISTRICT PERMIT SECTION BY FAX AT (513) 933-9472 OR EMAIL AT TOM.MAKRIS@DOT.OHIO.GOV
- 3) CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

REFERENCES:

REFERENCE SHALL BE MADE TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 1, 2013.

UTILITIES

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

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, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID 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: EXISTING PLANS CAN BE INSPECTED AT THE LOCAL ODOT DISTRICT 8 OFFICE IN LEBANON, OHIO.

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 1/8 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 SECONDARY MEMBERS REMOVED, AS PER PLAN: POUND.

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 MAIN MEMBERS REMOVED, AS PER PLAN: POUND.

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

1.0 DESCRIPTION THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH A NEWER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSIST OF PERFORMING SURFACE

PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU OR IZEU PAINT SYSTEMS OR UNPAINTED WEATHERING STEEL.

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

3.0 WASHING EXISTING OZEU OR IZEU PAINTED SURFACES OR UNPAINTED WEATHERING STEEL 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-SPI2 (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 C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS.

4.0 SURFACE PREPARATION AFTER THE PRESSURE WASHED 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 SPI2 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 COMMERCIALY 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 EXPOSE A MINIMUM OF 1/2 INCH OF EACH COAT. 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 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

5.0 FIELD PAINTING APPLY THE PRIME, INTERMEDIATE AND FINISH COATS 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 CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE FINISH COAT TO APPROXIMATELY THE SAME COLOR AS THE EXISTING FINISH COLOR, UNPAINTED WEATHERING STEEL OR AS DESIGNATED IN THE CONTRACT. MATCH THE COLOR TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. THE PRIME, INTERMEDIATE, AND FINISH 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 PRIME COAT EXPOSED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COAT.

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.

6.0 MEASUREMENT THE DEPARTMENT WILL MEASURE FIELD 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 THE DEPARTMENT WILL PAY FOR 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 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 TABLE 2 AND 3. 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.

PROPOSED WORK FOR BRIDGE NO. BUT-27-0081R

- HEAT STRAIGHTEN AREA DAMAGED OF BEAM 5 (EAST FASCIA BEAM) OVER SOUTHBOUND SR 128, BEGINNING AT THE APPROXIMATE NORTH END OF THE BOTTOM FLANGE PIER 2 MOMENT PLATES.
- HEAT STRAIGHTEN AREA DAMAGED OF BEAM 4 OVER SOUTHBOUND SR 128 LEFT TURN LANE TO SB US27.
- GRIND BOTTOM FLANGE FOR A LENGTH OF 25 FEET ON BEAM 5 AND A LENGTH OF 1 FOOT ON BEAM 4 UPON COMPLETION OF THE HEAT STRAIGHTENING. GRINDING SHALL BE AT A 1:10 TAPER RATE (SEE FC2-1, FC2-2 OF CRHS).
- REMOVE AND REPLACE THE SECOND CROSSFRAME NORTH OF PIER 2 BETWEEN BEAM 4 AND BEAM 5. RELOCATE THE NEW CROSS-FRAME 6" FROM THE PREVIOUS CROSSFRAME TO AVOID WELDING IN THE PREVIOUSLY GROUND LOCATION.
- DO NOT ALLOW HEATING OF BEAM 4 AND BEAM 5 SIMULTANEOUSLY.
- REMOVE APPROXIMATELY 7 FEET OF DELAMINATED CONCRETE ALONG BEAM FLANGE AND FILL WITH EPOXY INJECTION BETWEEN FASCIA BEAM 5 AND BOTTOM OF DECK. PERFORM THE WORK UPON COMPLETION OF HEAT STRAIGHTENING AS DIRECTED BY THE ENGINEER, IF NECESSARY.
- PAINT THE AREAS DAMAGED BY THE IMPACT AND REPAIR PROCESSES USING SYSTEM OZEU USING A LUMP SUM PAY ITEM. COLOR TO MATCH EXISTING.
- MAINTAIN ONE LANE OF TRAFFIC ON SR 128 IN EACH DIRECTION. THE SOUTHBOUND LEFT TURN LANE FROM SR 128 ONTO US27 MAY BE REDUCED TO 200 FT IN LENGTH WHEN NECESSARY.
- REPLACE DAMAGED BRIDGE MOUNTED SIGN ON BRIDGE NO. BUT-27-0.81R OVER SR-128 WITH NEW BRIDGE MOUNTED SIGN.
- REMOVE REMNANTS OF THE ELECTRIC CONDUITS FOR THE SIGN DOWN TO THE ELECTRIC BOX ON THE PIER.

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OFFICE OF STRUCTURAL ENGINEERING

DRAWN PULL CHECKED REVIEWED

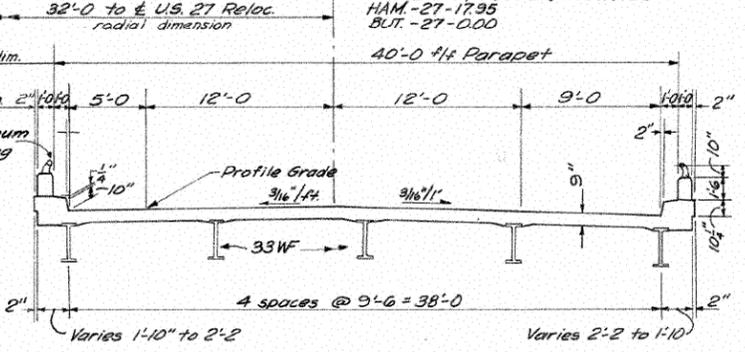
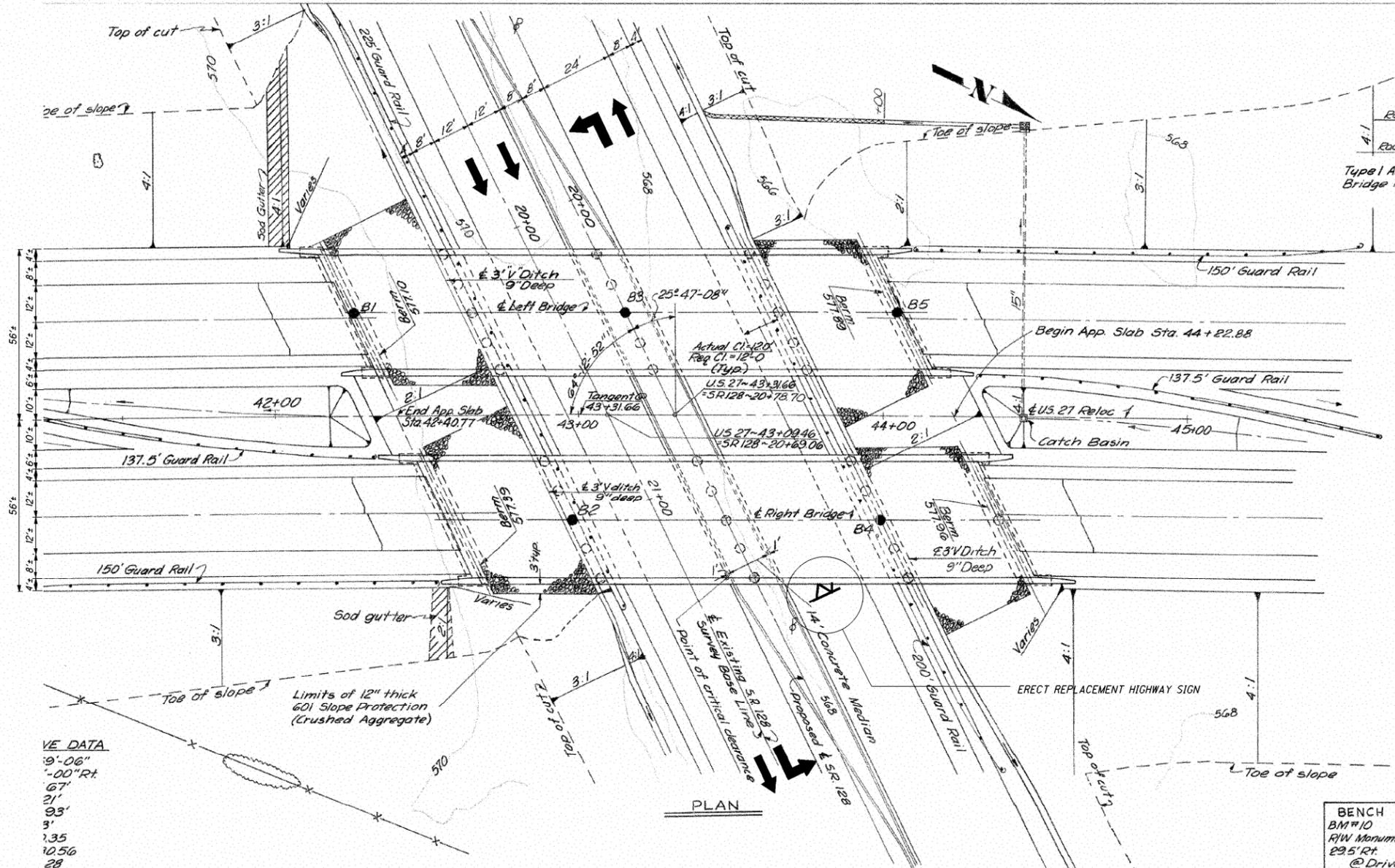
COLLISION REPAIR AND HEAT STRAIGHTENING NOTES

BUT - 27 - 0.81R

3 / 8

FED. RD. DISTRICT	STATE	PROJECT	179
	OHIO		

HAMILTON & BUTLER COUNTIES
HAM - 27 - 17.95
BUT - 27 - 0.00



AVERAGE DAILY TRAFFIC - 1987

A.D.T.	10,660 *
Type "B" Vehicles (estimated)	1,066

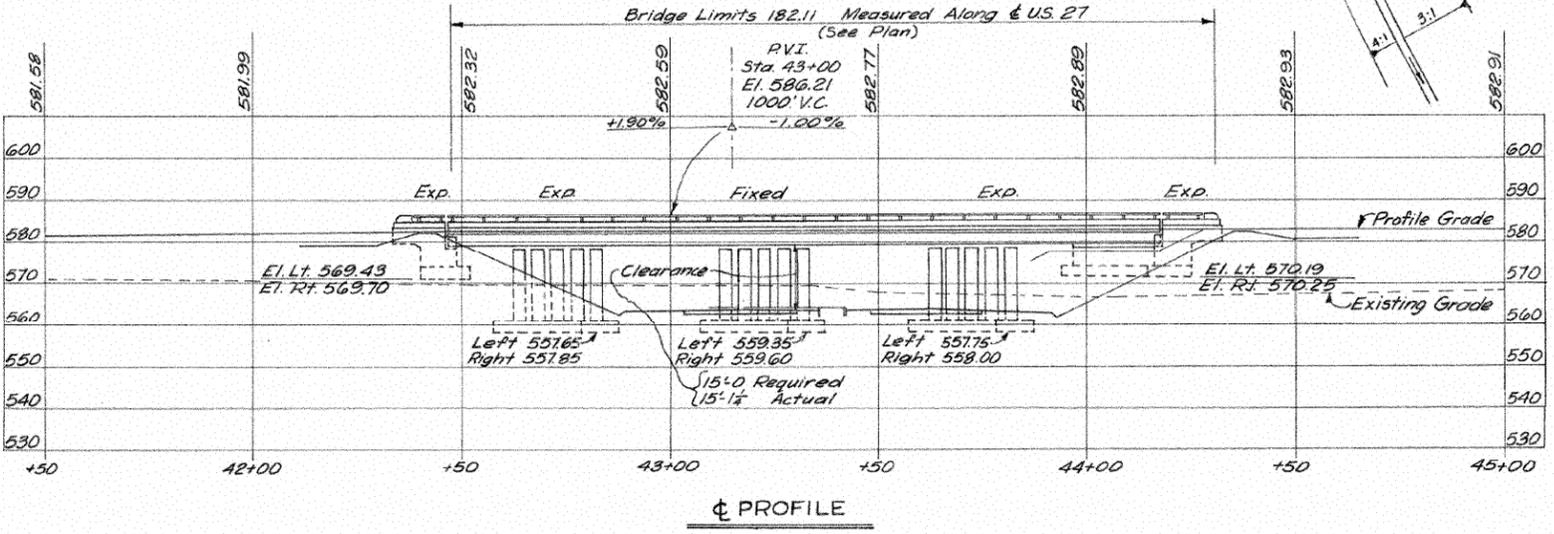
* From Ohio Department of Highways Bureau of Location and Design (1965)

EXISTING	PROPOSED	STRUCTURE
		TYPE: Continuous steel beam with reinforced concrete deck and substructure
		SPANS: Left Bridge 38'-0" - 50'-6" - 50'-6" - 38'-0"
		Right Bridge 38'-0" - 50'-6" - 50'-6" - 38'-0"
		ROADWAY: Two @ 40'-0" 4-ft parapets incl two 1'-0" curbs
		LOAD FREQUENCY: CF 2000 (57)
		SKEW: 25°-47'-08" Rt. Forward
		WEARING SURFACE: 1" Monolithic concrete
		APPROACH SLAB: A5-1-54 (25' long)
		ALIGNMENT: 0°28' Curve to right

BENCH MARK	Elev 570.29
BM #10	RW Monument on SR 128
	29.5' Rt. Sta. 17+55 @ Driveway

VE DATA

9'-06"
-00" Rt.
67'
21'
93'
3'
1.35
10.56
28

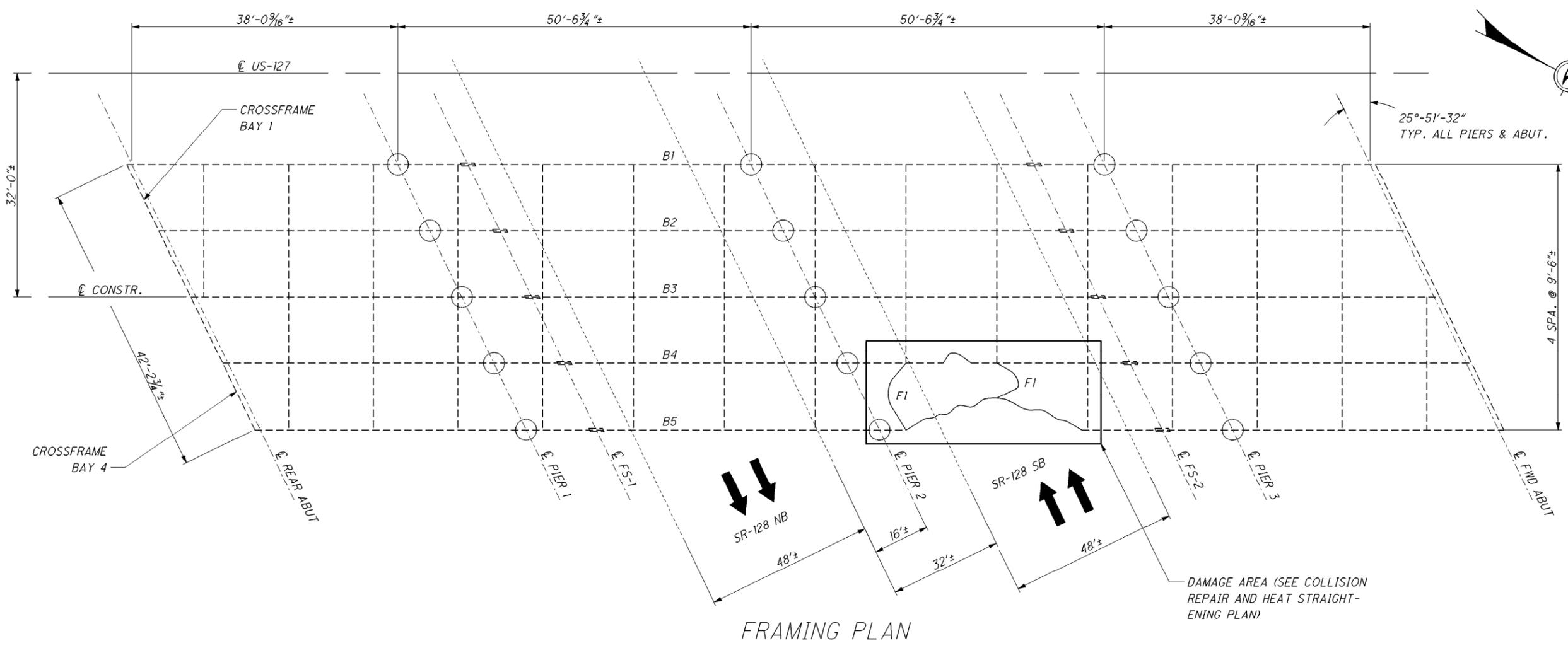


- NOTES:**
- Traffic is to be maintained by use of a temporary road and the proposed SR 128 during construction.
 - Steel layout will be straight and parallel to the chord between abutment bearings. The deck shall be curved and be concentric with the highway alignment.

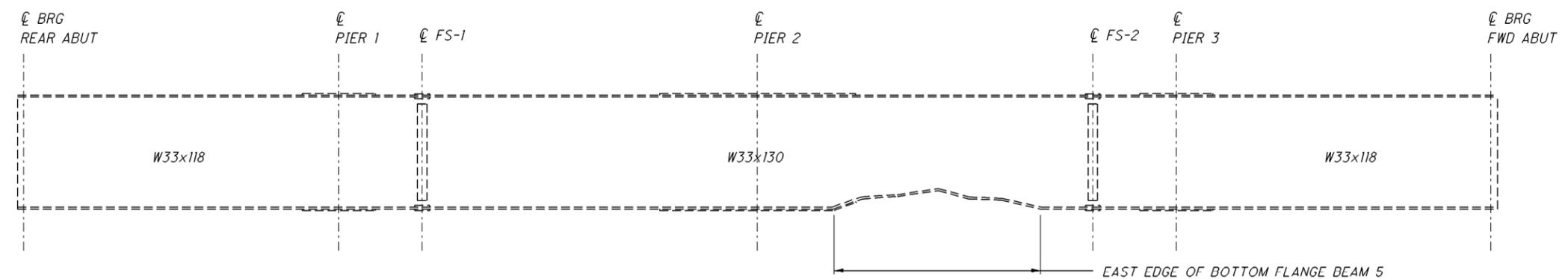
SHAW, LENZ & ASSOCIATES ENGINEERS					
CINCINNATI			OHIO		
SITE PLAN					
BRIDGE NO. BUT-27-0081 L&R OVER STATE ROUTE 128 BUTLER CO. US 27 (RELOC.) STATION 42+40.77 TO 44+22.88					
PRESENT TOPO	PROPOSED WORK				
SURVEYOR	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
State of Ohio	W.B.S.	W.B.S.	W.B.S.	RUL T-23-69	

NOTE: SITE PLAN COPIED FROM ORIGINAL DOCUMENTS AND IS PROVIDED FOR INFORMATION PURPOSES ONLY.

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FRAMING PLAN



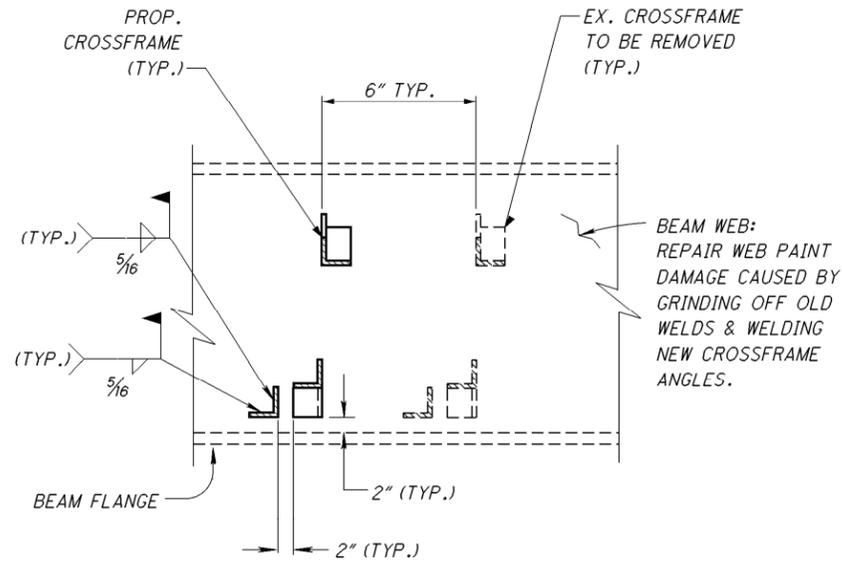
BEAM B1 ELEVATION

EAST EDGE OF BOTTOM FLANGE BEAM 5 BENT UP 0'-4" MAX. OVER 25'-0"± AND PAINT DAMAGED AT BOTTOM FLANGE AND WEB; EAST EDGE OF BOTTOM FLANGE BEAM 4 BENT UP 0'-1" MAX. OVER 1'-0"± AND PAINT DAMAGED AT BOTTOM FLANGE AND WEB.

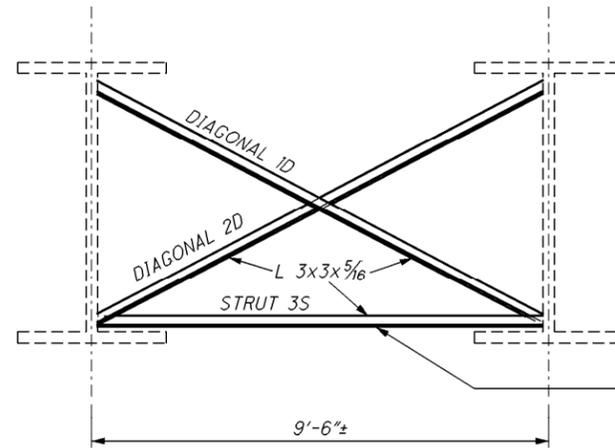
NOTES:

- HEAT STRAIGHTEN THE BENT GIRDERS SECTIONS AS NECESSARY TO A STRAIGHT AND PLUMB CONDITION IN ACCORDANCE WITH SS 849.
- REMOVE AND REPLACE THE FIRST AND SECOND CROSSFRAMES BETWEEN BEAM 4 AND BEAM 5, NORTH OF PIER 2. GRIND SMOOTH THE LOCATIONS OF THE REMOVED CROSSFRAME ANGLES; GRIND OFF EXISTING DAMAGED CROSSFRAME WELDS WHERE ATTACHED TO BEAMS.
- INSTALL THE NEW CROSSFRAMES 6" FROM THE PREVIOUS LOCATION TO AVOID WELDING IN THE PREVIOUSLY GROUND LOCATION.
- CROSSFRAME MEMBERS REMOVED SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS) FOR PAYMENT.
- UNLESS ITEMIZED SEPARATELY, WELDING AND GRINDING WORK SHALL BE INCLUDED WITH ITEM 513 - STRUCTURAL STEEL, LEVEL UP FOR PAYMENT.
- REMOVE APPROXIMATELY 7 FEET OF DELAMINATED CONCRETE ALONG BEAM FASCIA BEAM 5 FLANGE AND FILL WITH EPOXY INJECTION BETWEEN BEAM AND BOTTOM OF DECK. PERFORM THE WORK UPON COMPLETION OF HEAT STRAIGHTENING AS DIRECTED BY THE ENGINEER, IF NECESSARY.

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CROSSFRAME RELOCATION DETAIL



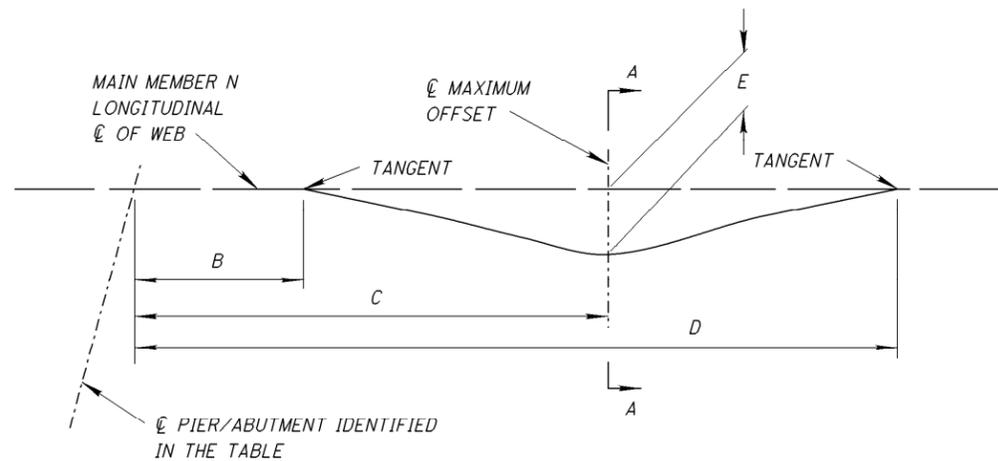
INTERMEDIATE CROSSFRAME F1

TABLE #2 DAMAGED SECONDARY MEMBER TO BE REPLACED

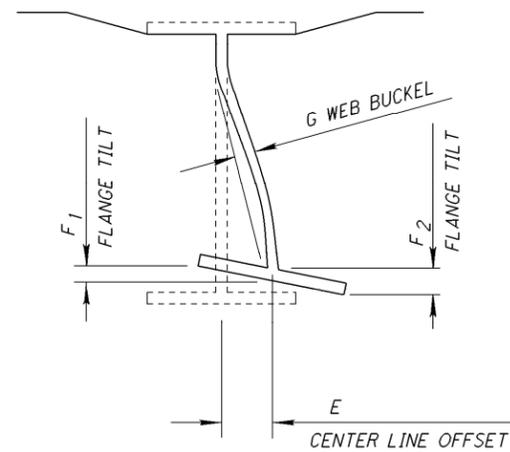
CROSSFRAME BAY M	PIER/ABUT.	N	ID	2D	3S	4S
B4 - B5	PIER #2	1	1	1	1	
B4 - B5	PIER #2	2	1	1	1	

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

REMOVE DIAGONALS AND STRUTS ACCORDING TO ITEM 202-PORIONS OF STRUCTURES REMOVED, AS PER PLAN (SECONDARY MEMBERS). REPLACE BY MATCHING EXISTING DETAIL. SEE STD. DWG. GSD-1-96. FOR ADDITIONAL CLARIFICATION. SEE SECTION A-A FOR MAIN MEMBER DAMAGE.



MAIN MEMBER DAMAGE LOCATION DETAIL



SECTION A-A

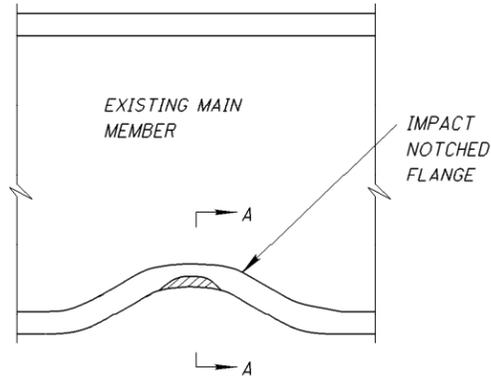
NEGATIVE E VALUES ARE BENT LEFT
 NEGATIVE F VALUES ARE BENT DOWN
 NEGATIVE G VALUES ARE BENT LEFT

EXISTING STRUCTURE: BUT-027-0081R
 ROUTE ON STRUCTURE: US-27
 ROUTE BELOW STRUCTURE: SR-128
 TYPE: COMPOSITE REINFORCED CONCRETE DECK ON STEEL BEAM SUPERSTRUCTURE, WITH REINFORCED CONCRETE PIERS & ABUTMENTS.
 SPANS: 38'-0¹/₁₆"±, 50'-6³/₄"±, 50'-6³/₄"±, 38'-0¹/₁₆"± C/C BEARINGS.
 ROADWAY WIDTH: 40'-0"± F/F PARAPETS INCLUDING TWO 1'-0" CURBS.
 DESIGN LOAD: CF 2000 (57)
 SKEW: 25°47'08" (RIGHT FORWARD)
 ALIGNMENT: 0° 28' CURVE RIGHT
 CROWN: 3¹/₁₆"/FT.
 YEAR BUILT: 1967
 NUMBER OF BEAMS: FIVE
 STEEL TYPE: ASTM A36
 PAINT TYPE: OZEU
 PAINT DATE: 2001
 STRUCTURE FILE NUMBER: 0900605
 WEARING SURFACE: MONLITHIC CONCRETE
 LOCATION: LATITUDE = N39°19'19" LONGITUDE = W84°38'19"

TABLE # 1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED

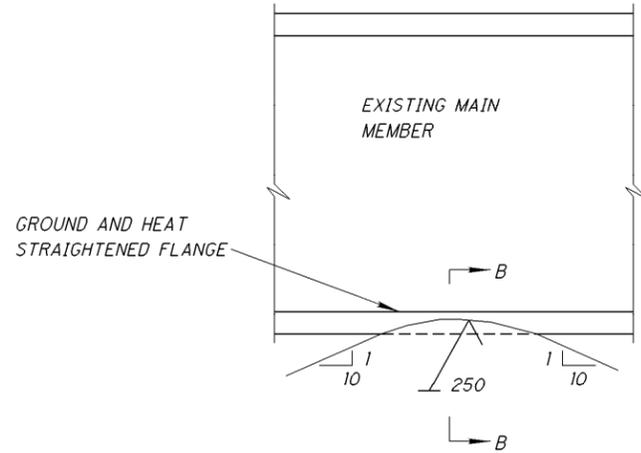
DAMAGE AREA No.	MEMBER LINE No. A	PIER OR ABUT.	B	C	D	E	F ₁	F ₂	G	H	J	K	L
1	BEAM 5	PIER #2	4'±	16.5'±	29'±	0'-4"±	-0'-4"±	+0'-4"±	-1" MAX				
2	BEAM 4	PIER #2	27.5'±	28.0'±	28.5'±	0'-0 ¹ / ₈ "±	+0'-1"±	0"±	-1" MAX				

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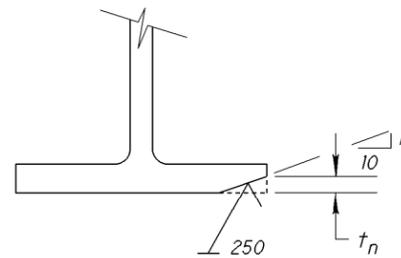
COLLISION REPAIR FC2-1

SEE NOTE 1



COLLISION REPAIR FC2-2

IF AREA (t_n, b_n) AFTER GRINDING \leq 98% OF AREA (t_f, b_f) NOTE #3 APPLIES



SECTION B-B

SEE NOTE 3

1. DETERMINE IF IMPACT NOTCH IS CRACKED USING MAGNETIC PARTICLE INSPECTION.
2. IF CRACK DOES NOT EXTEND THROUGH THE FLANGE. DETERMINE DEPTH OF CRACK BY GRINDING.
3. IF NOTCH OR PARTIAL DEPTH CRACK CAN BE REMOVED BY GRINDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849, REPAIR DAMAGED MEMBERS. PERFORM GRINDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849 AND AS ILLUSTRATED IN DETAIL FC2-2.
4. IF NOTCH OR PARTIAL DEPTH CRACK MUST BE REPAIRED BY WELDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849 REPAIRING DAMAGED MEMBERS, AS ILLUSTRATED IN DETAIL FC2-3. PERFORM COMPLETE PENETRATION WELDING ACCORDING TO C&MS 513.21 BY ATTACHING RUN OFF TABS AND GRIND ALL WELDED SURFACES SMOOTH ACCORDING TO ANSI B46.1 OF 250 mil.
5. PERFORM NDT TESTING ACCORDING TO C&MS 513.25A.

TABLE #3 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UP (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
1	BEAM 5	PIER #2	16.5'±	FC2					
2	BEAM 4	PIER #2	28.0'±	FC2					

SEE FRAMING PLAN & HEAT STRAIGHTENING PLAN FOR DIMENSION C

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