

SHEET NUM.

PART.

ITEM

ITEM

EXT

GRAND

TOTAL

UNIT

DESCRIPTION

SEE SHEET NO.

16 18 19 23 01/NHS/14

841 841 202 11401 841

841 841 513 10201 841

831 831 514 20001 831

LS LS SPECIAL 53000200 LS

LS LS 849 10000 LS

LS LS 849 10500 LS

4 4 849 10600 4 HOUR

LS LS 849 10700 LS

**STRUCTURE OVER 20 FOOT SPAN (FRA-104-1248)**

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS) 12

STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN 12

FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT) 12

STRUCTURES, TEMPORARY UTILITY SUPPORT 13

DAMAGE ASSESSMENT

SURFACE PREPARATION

REPAIRING DAMAGED MEMBERS BY GRINDING

STRAIGHTENING DAMAGED MEMBERS

**STRUCTURE OVER 20 FOOT SPAN (UNI-33-0271)**

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS) 12

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS) 12

STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN 12

STRUCTURAL STEEL, MISC.: COMPLETE PENETRATION WELDING 19

STRUCTURAL STEEL, MISC.: COPE HOLES 19

JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN 12

DAMAGE ASSESSMENT

SURFACE PREPARATION

REPAIRING DAMAGED MEMBERS BY GRINDING

STRAIGHTENING DAMAGED MEMBERS

**STRUCTURE OVER 20 FOOT SPAN (FRA-3-2383)**

COFFERDAMS AND EXCAVATION BRACING

UNCLASSIFIED EXCAVATION, AS PER PLAN 20

PILE ENCASEMENT 20

EPOXY COATED STEEL REINFORCEMENT 23

WELDED STUD SHEAR CONNECTORS

**STRUCTURE OVER 20 FOOT SPAN (FRA-70-1495)**

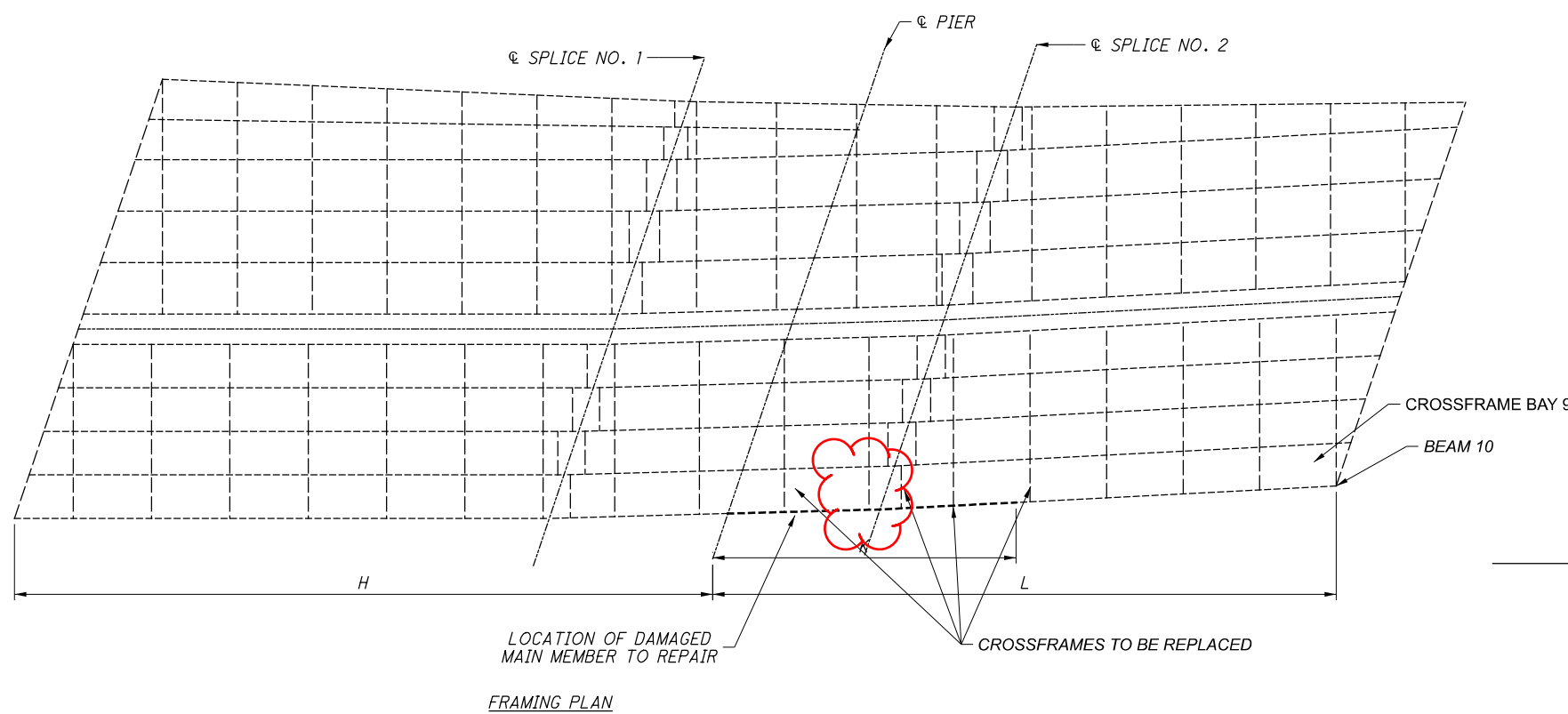
STRUCTURES, DEBRIS CONTAINMENT NETTING 24

ESTIMATED STRUCTURE QUANTITIES

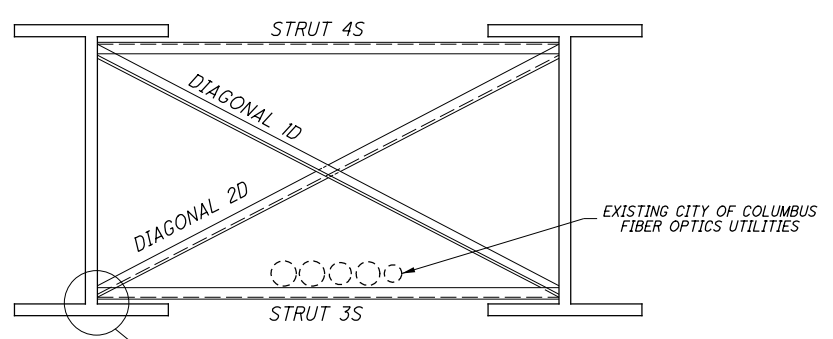
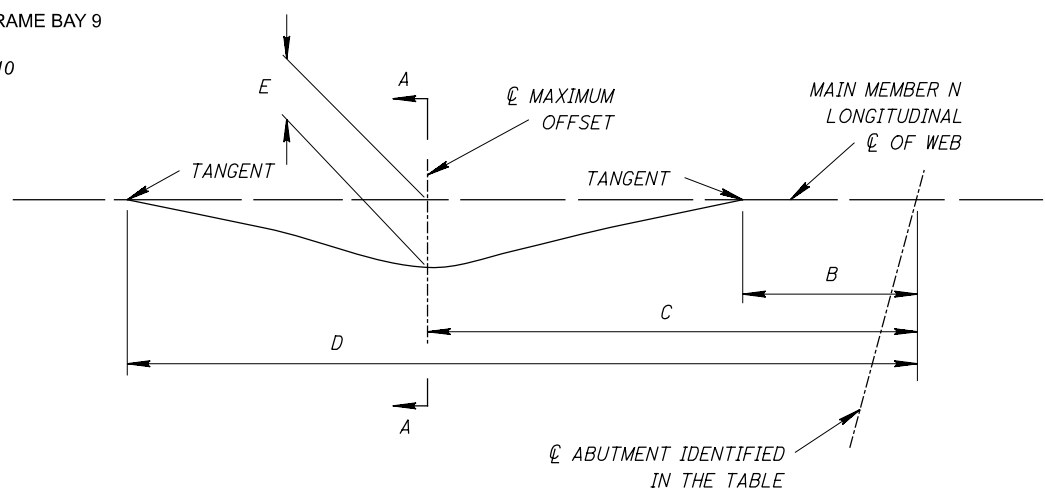
SFN	2508923
SFN	8000743
SFN	2500191
SFN	2506696



DESIGNER	CHECKER
CAB	BF
REVIEWER	JPH 11-2-22
PROJECT ID	112664
SUBSET	TOTAL
3	14
SHEET	TOTAL
14	25



**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.



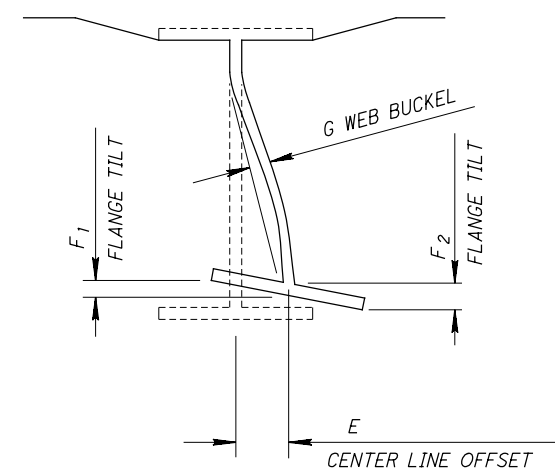
REMOVE ACCORDING TO ITEM 202-PORTIONS OF SECONDARY MEMBERS REMOVED, AS PER PLAN. REPLACE BY MATCHING EXISTING DETAIL. SEE GSD-1-96 FOR ADDITIONAL CLARIFICATION.

MAIN AND SECONDARY MEMBER DAMAGE IS NOT SHOWN. FOR CLARITY SEE SECTION A-A

**SECTION B-B**

SECONDARY MEMBER BAY No. M

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



**SECTION A-A**

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

**TABLE # 1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED**

DAMAGE AREA NO.	MEMBER LINE NO. A	ABUT.	B	C	D	E	F <sub>1</sub>	F <sub>2</sub>	H	K	L
1	10	N. ABUT.	± 49' 6 1/2"	± 81' 5 1/4"	± 113' 4"	8"	3/4"	2"	127'	54'	108.5'

**TABLE # 2 DAMAGED SECONDARY MEMBER TO BE REPLACED**

CROSSFRAME BAY M	ABUT.	N	1D	2D	3S	4S
9	N. ABUT	5	L3X3X5/16	L3X3X5/16	L3X3X5/16	
9	N. ABUT	6	L3X3X5/16	L3X3X5/16	L3X3X5/16	
9	N. ABUT	7	L3X3X5/16	L3X3X5/16	L3X3X5/16	L3X3X5/16
9	N. ABUT	8	L3X3X5/16	L3X3X5/16	L3X3X5/16	L3X3X5/16
9	N. ABUT	9	L3X3X5/16	L3X3X5/16	L3X3X5/16	L3X3X5/16

EXISTING STRUCTURE:  
 ROUTE ON STRUCTURE: ALUM CREEK DR.  
 ROUTE BELOW STRUCTURE: SR 104  
 TYPE: CONTINUOUS STEEL GIRDER BRIDGE WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE  
 SPANS: 127'-0", 108'-6", c/c BEARINGS, MEASURED ALONG C SURVEY  
 ROADWAY WIDTH: 69'-2" TO 81'-2" f/f PARAPETS INCLUDES 14' RAISED MEDIAN  
 SKEW: 20°-01'-24"  
 ALIGNMENT: 2°-00" CURVE  
 SUPERELEVATION: 0.021 ft/ft  
 YEAR BUILT: 1986  
 NUMBER OF BEAMS: 10  
 STEEL TYPE: A588 (WEATHERING STEEL)  
 PAINT TYPE: UNPAINTED, WEATHERED STEEL

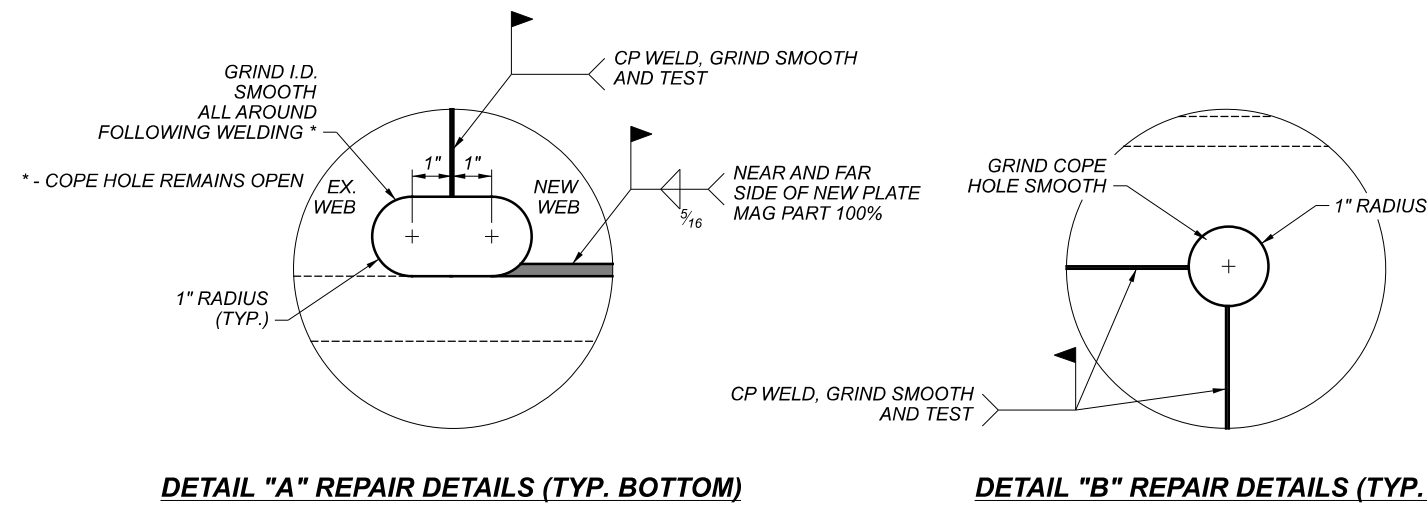
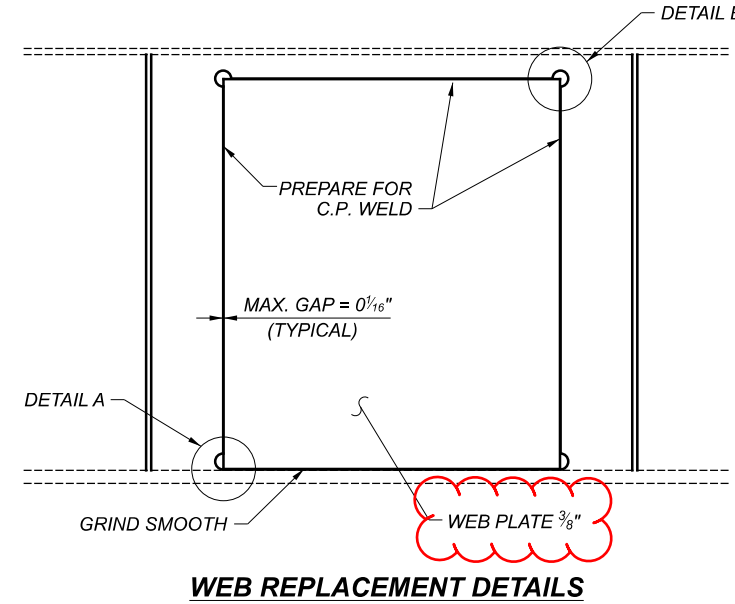
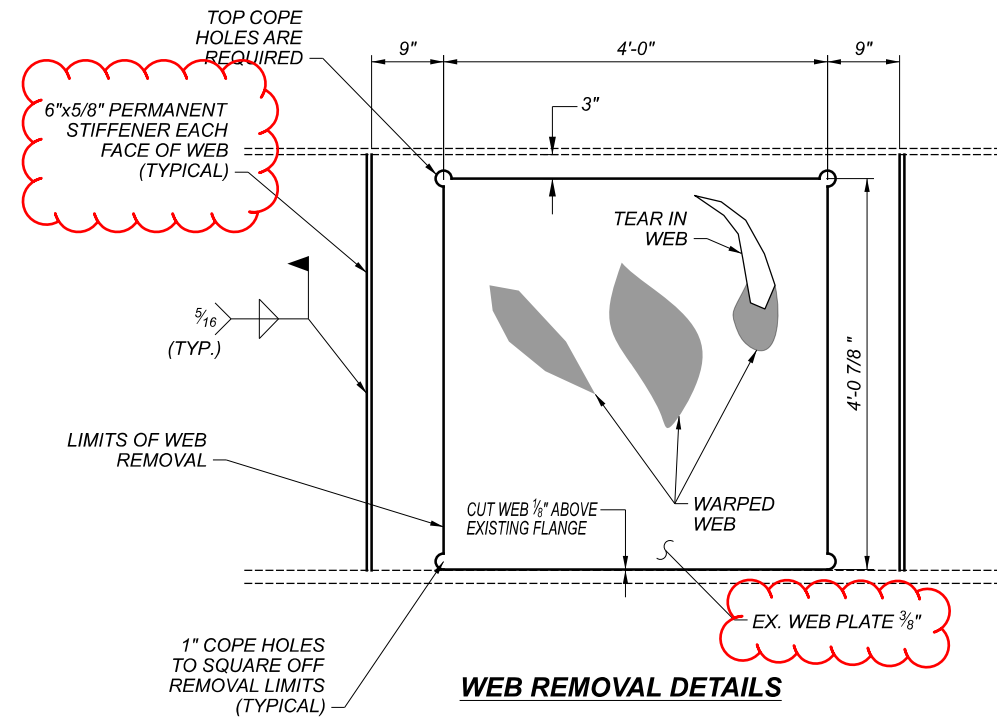
NOT TO SCALE

REPAIR AND HEAT STRAIGHTENING PLAN  
 ALUM CREEK DR  
 OVER SR 104

SFN  
 2508923  
 DESIGN AGENCY



DESIGNER	CHECKER
CAB	BF
REVIEWER	
JPH	11-2-22
PROJECT ID	112664
SUBSET	TOTAL
5	14
SHEET	TOTAL
16	25



**NOTES:**

1. REMOVE CROSS FRAMES IDENTIFIED FOR REMOVAL AND CAREFULLY GRIND EXISTING WELDS FLUSH. DO NOT DAMAGE THE EXISTING WEB OR FLANGES. PROVIDE SHIELDING AS NECESSARY.
2. MARK REMOVAL AREA AND PERFORM HEAT STRAIGHTENING TO ENSURE WEB IS PLUMB AT THE OUTER LIMITS MARKED FOR REMOVAL.
3. INSTALL PERMANENT WEB STIFFENERS.
4. DRILL ALL 4 CORNER 1" DIAMETER COPE HOLES.
5. SAW OR FLAME CUT TO REMOVE DAMAGED WEB PLATE USING A MECHANICAL GUIDE.
6. PREPARE EXISTING MEMBER, BEVEL EDGES FOR COMPLETE PENETRATION AND FILLET WELDS.
7. CUT AND BEVEL NEW PLATES FOR COMPLETE PENETRATION AND FILLET WELDS.
8. CHECK FIT OF NEW PLATES AND ENSURE NO GAPS EXCEED 1/16".
9. PERFORM WELDING.
10. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL.
11. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A.
12. RE-INSTALL CROSS FRAMES MATCHING EXISTING DETAILS.

