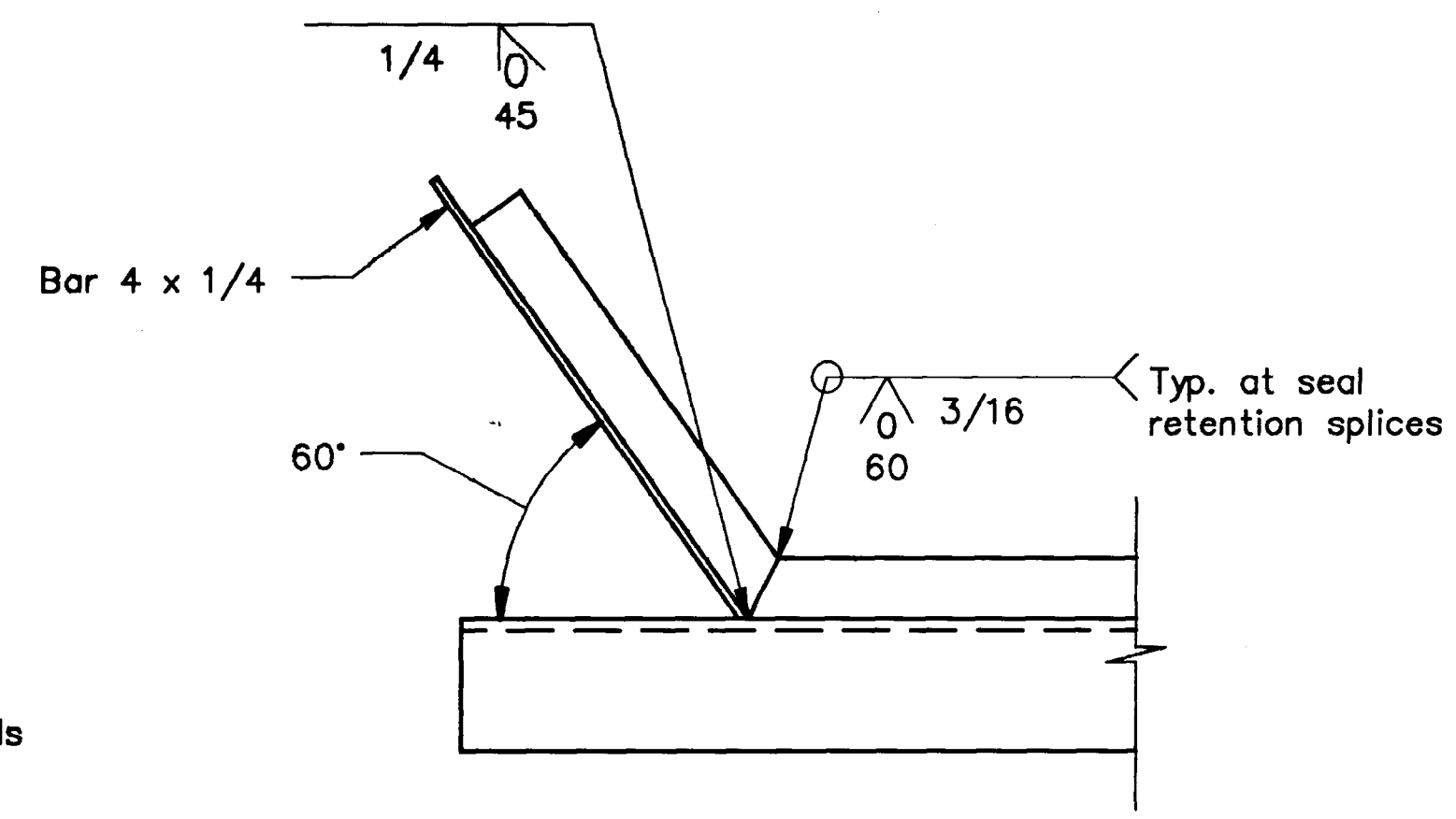
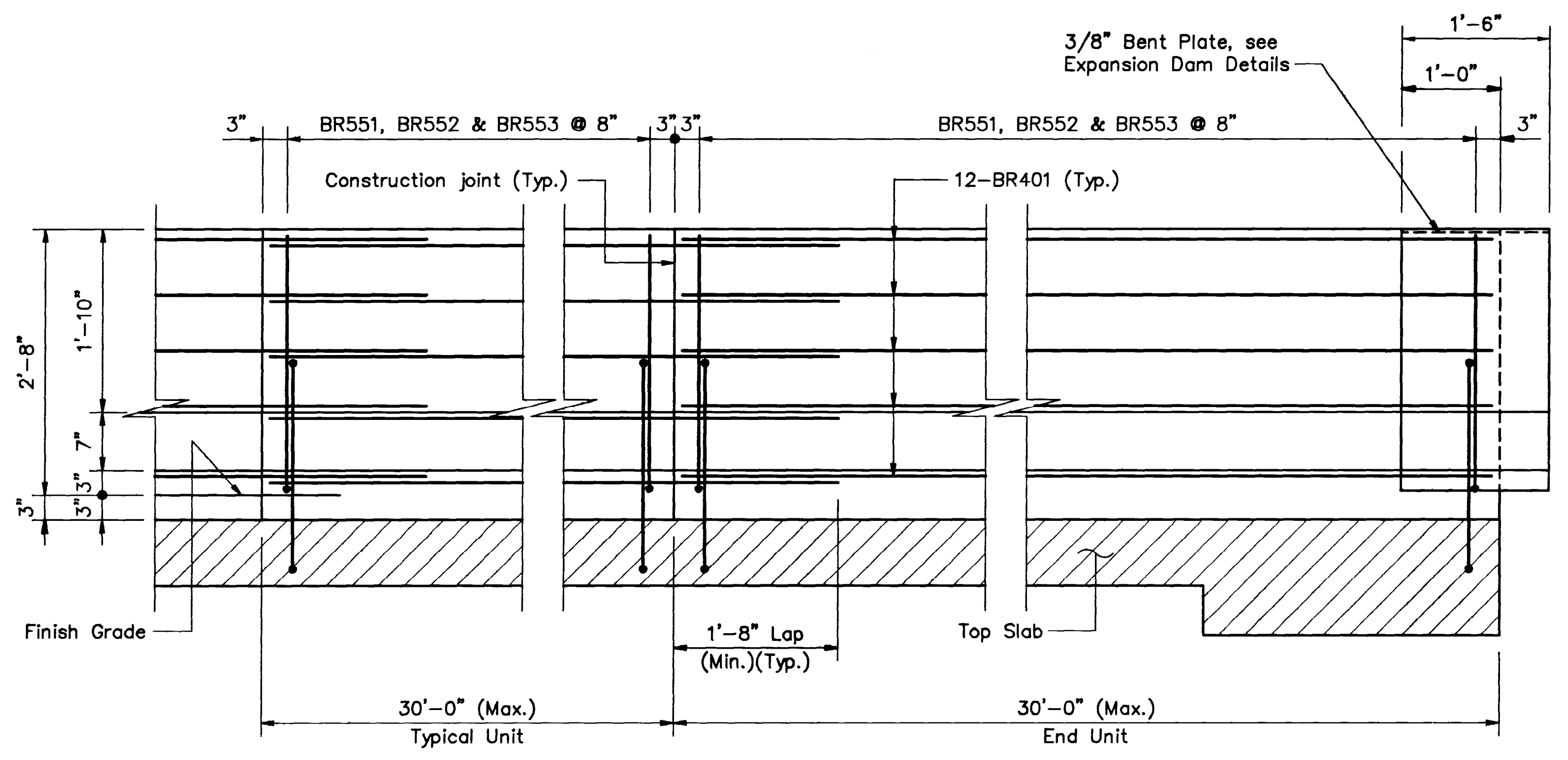


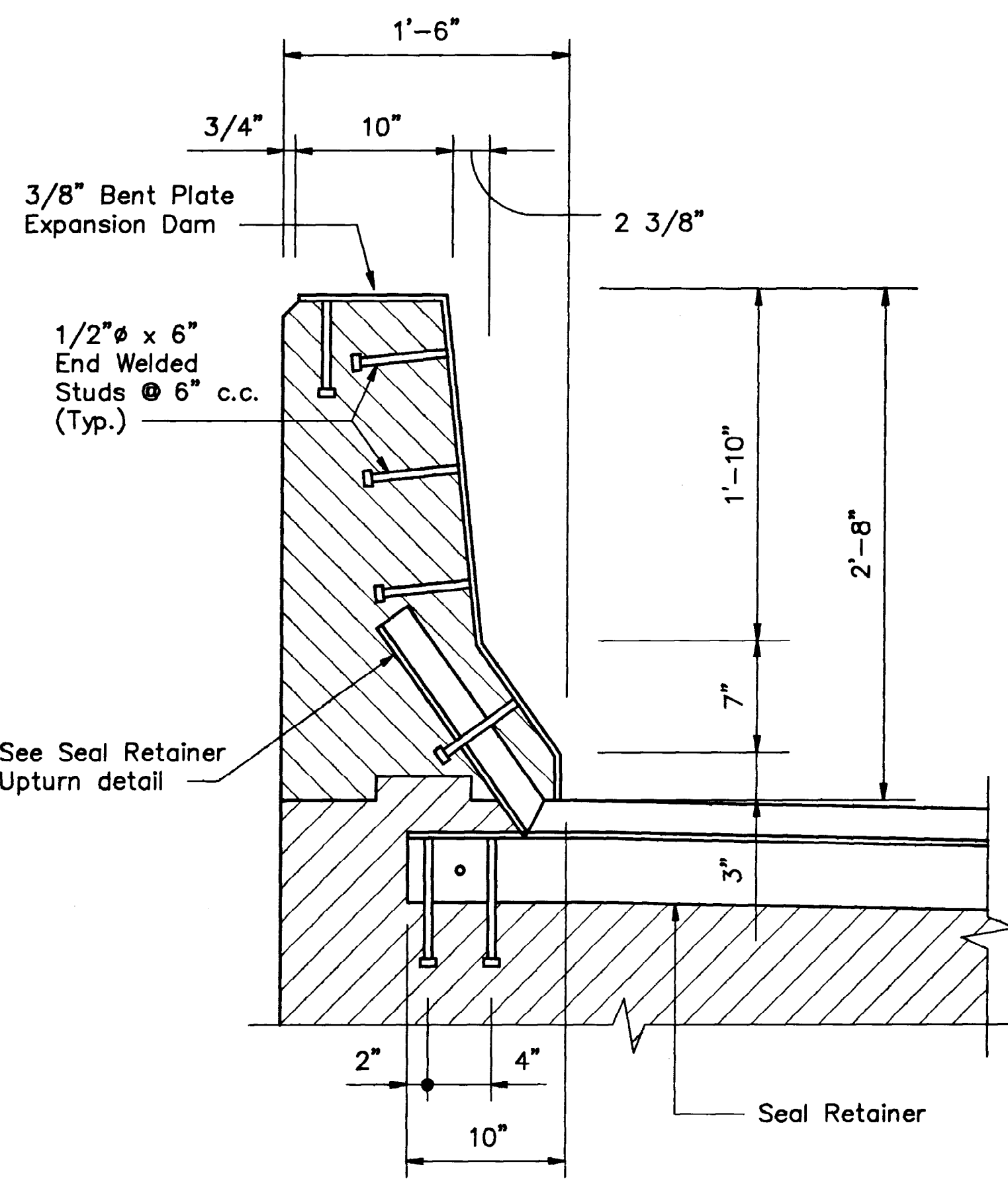
DETAIL D



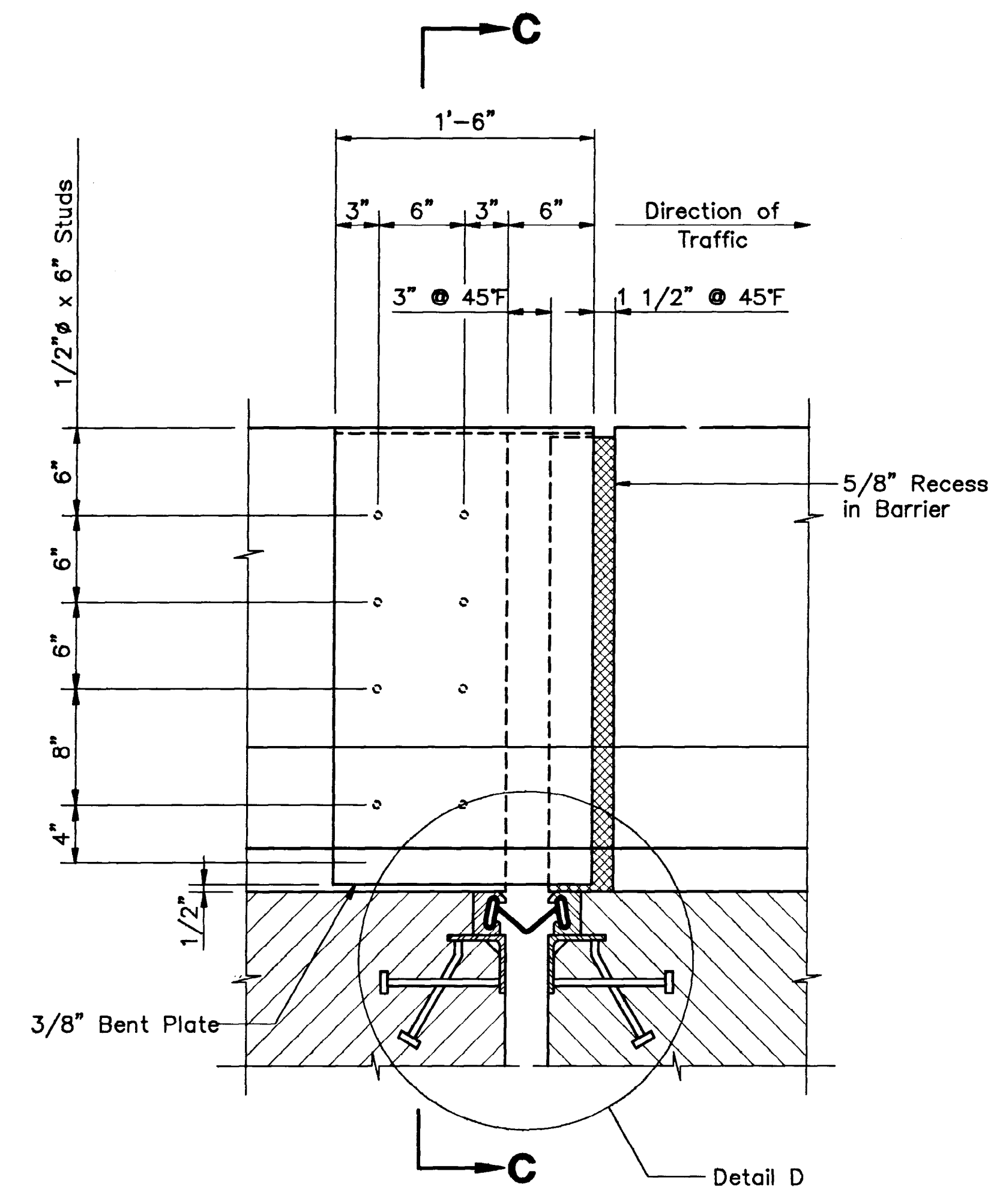
SEAL RETAINER UPTURN DETAIL



TYPICAL BARRIER ELEVATION



SECTION C-C



ELEVATION OF EXPANSION DAM

Typical Unit (30'-0" Long)			
MARK	SLOPE	QTY.	LENGTH
BR401	31'-8" (Max.)	12	31'-8" (Max.)
BR551		45	2'-11"
BR552		45	5'-11 1/2"
BR553		45	2'-10"

- NOTES:**
- Each expansion device consists of one pair of matching slab and backwall elements and expansion dams as required.
 - Expansion devices shall be installed normal to grade.
 - Expansion devices shall be set to an opening of two inches in the fabrication shop. The opening shall be adjusted in the field to reflect the temperature of the structure at the time of installation.

$$\text{Correction per } 10^{\circ}\text{F} = \frac{0.0125 \text{ in.} \times L(\text{exp.})}{15}$$
 where L(exp.) at abutments is the distance in feet to the nearest fixed bearing.
 - Welding to reinforcing steel will be allowed in the top of the abutment backwall above the construction joint.
 - The slab and backwall concrete shall be in place before the expansion device is fixed in position. No allowance for movement due to dead load deflection is necessary.
 - An approved epoxy bonding agent shall be applied to all vertical surfaces of the breakout before making the final concrete placement.

CONCRETE ALTERNATIVE

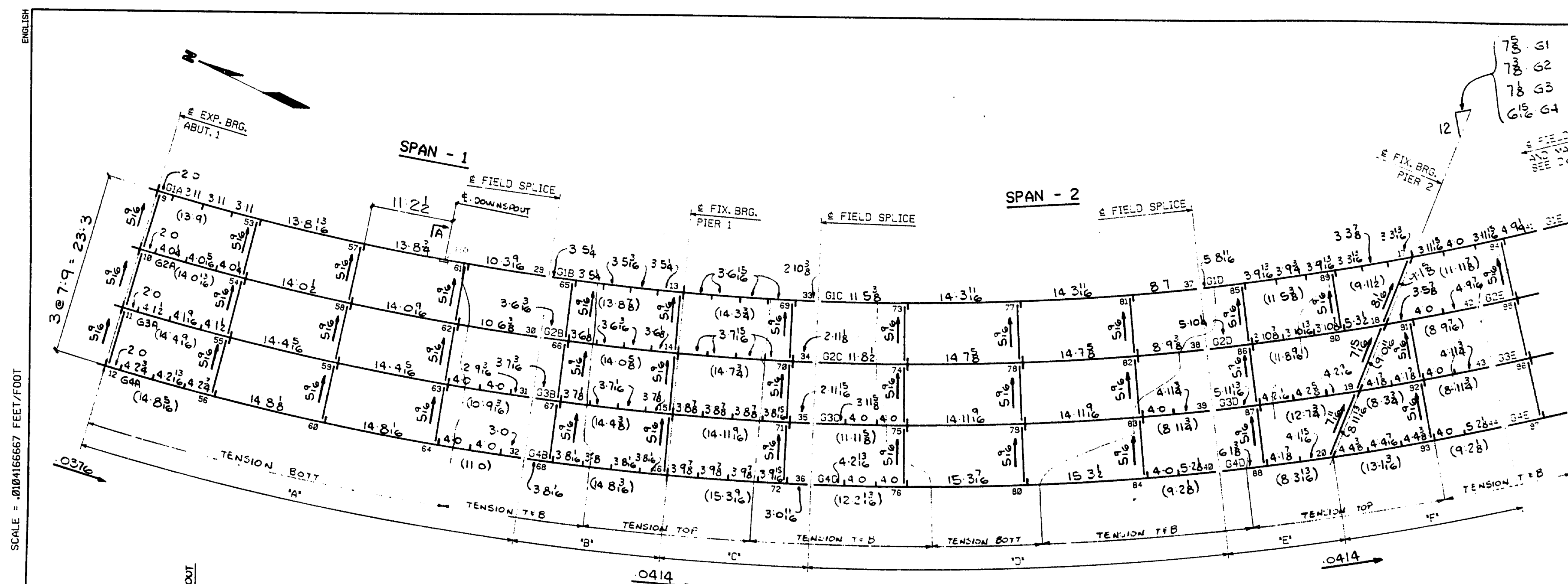
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROUTE 196 RAMP B BRIDGE
over
U. S. ROUTE 1
in the town of
BRUNSWICK

BARRIER DETAILS (2)

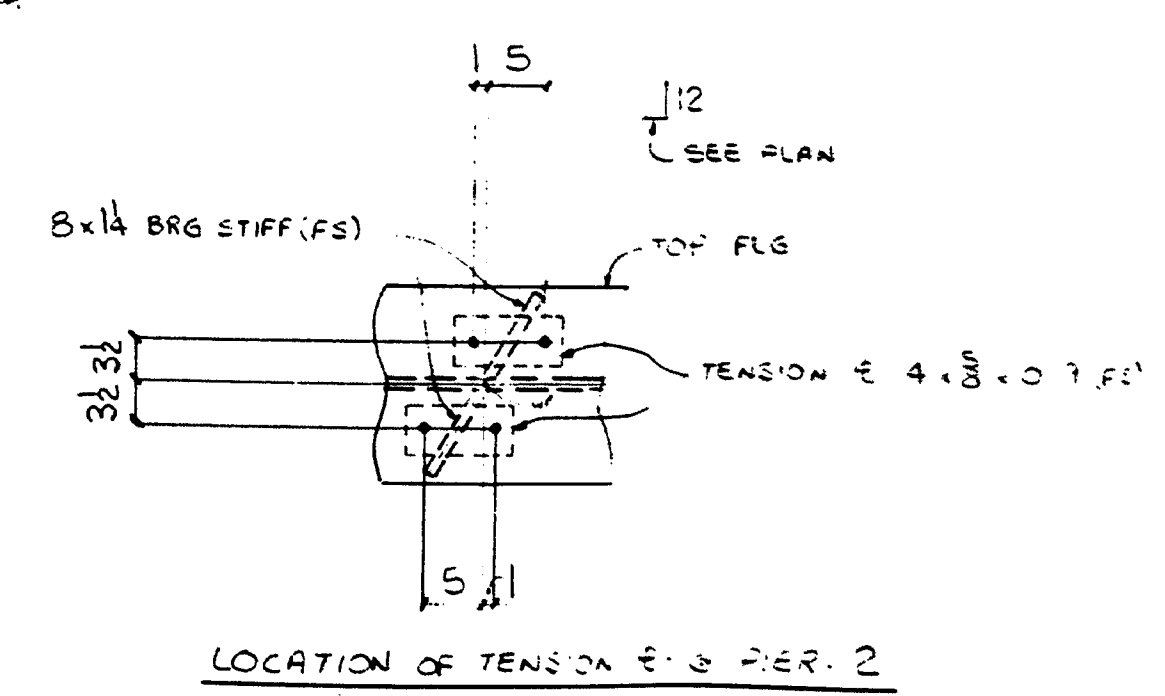
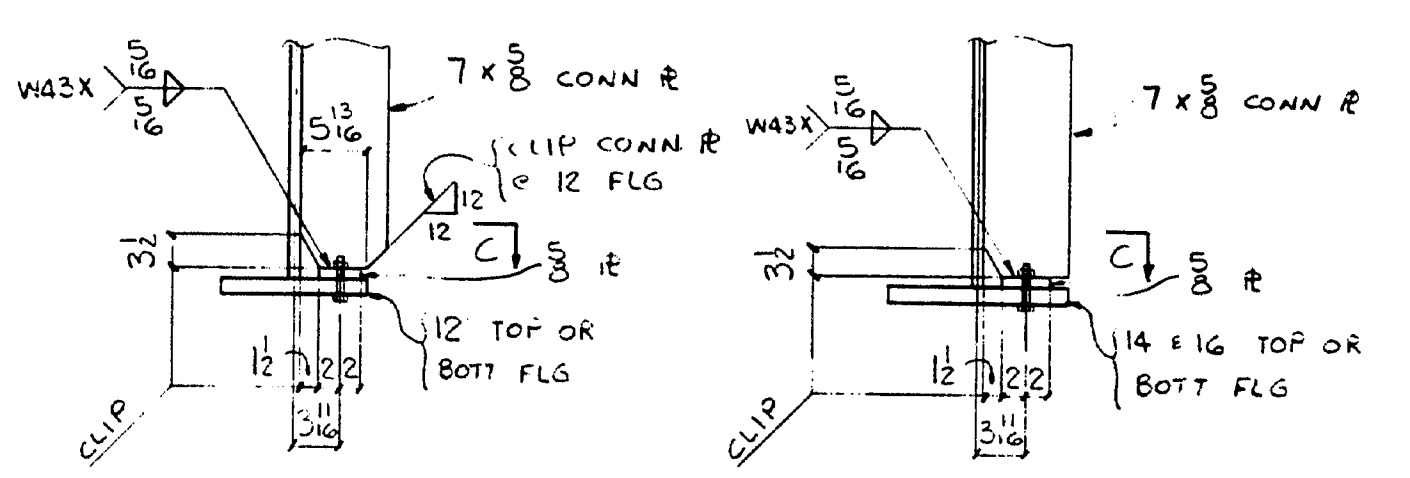
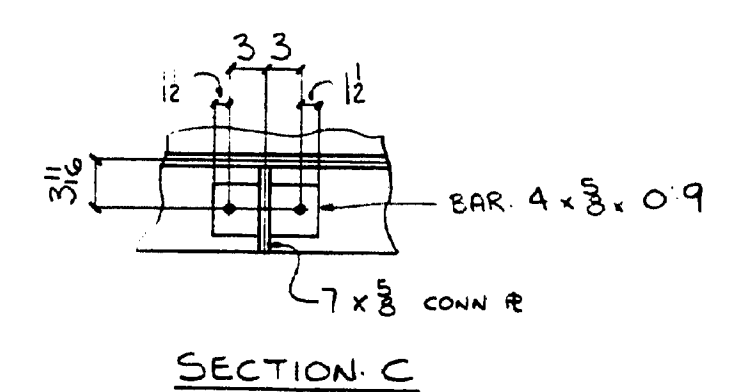
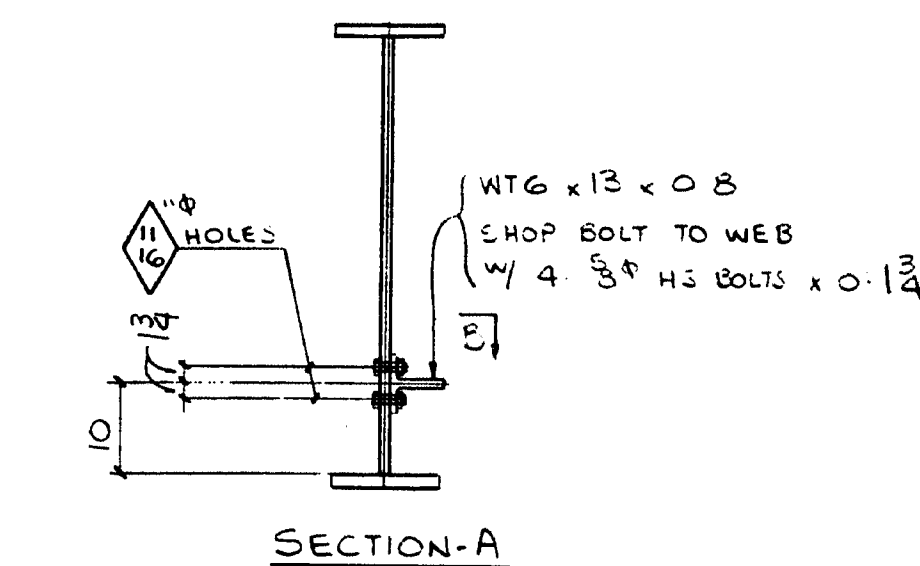
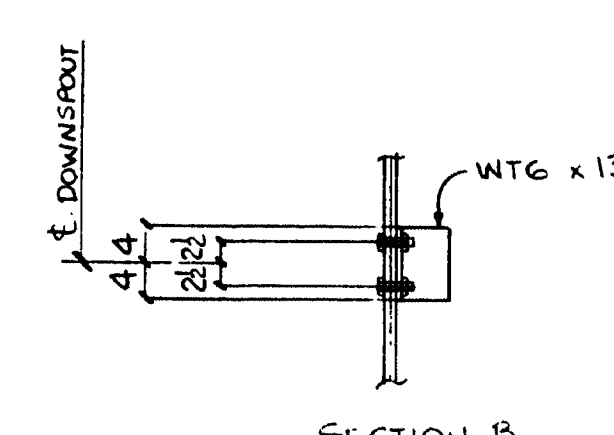
SHEET 90 OF 101 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	YDL	DATE	10/94
CHECKED	MRR	DATE	1/96
DESIGN-DETAILED	NC	REVISIONS	
PLANS	RH	FIELD CHANGES	



7 3/8 - S1
7 3/8 - G2
7 3/8 - S3
6 1/2 - G4

SCALE = 1/4\"/>



NOTES:
 DIMENSIONS ON PLAN ALONG GIRDERS ARE AT THE BOTTOM OF WEB IN FULLY CAMBERED POSITION. ALL OTHER DIMENSIONS ARE GIVEN HORIZONTALLY. FIGURES GIVEN THUS: 1/2\"/>

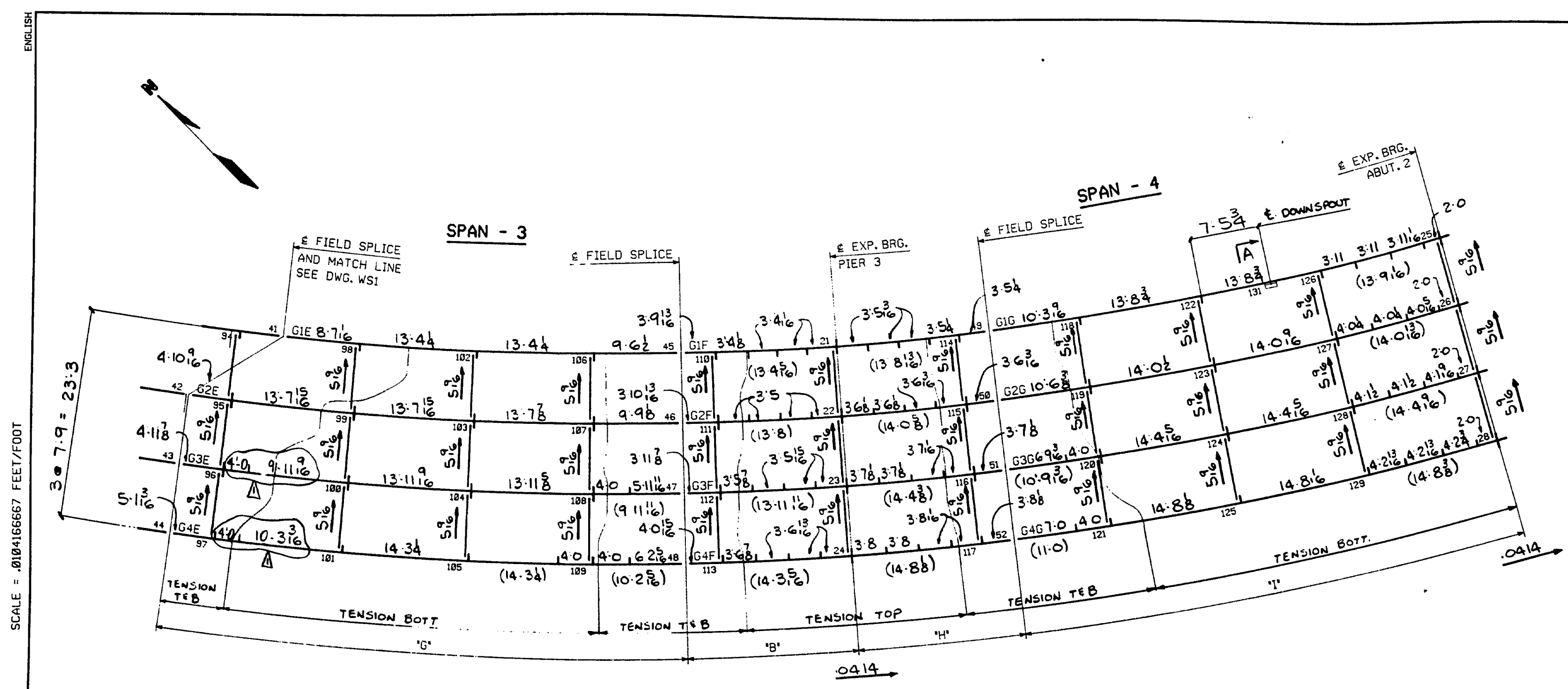
111-141

LINE	'A'	'B'	'C'	'D'	'E'	'F'	RAILING
G1	51'-6 1/2"	17'-2 1/2"	17'-2 1/2"	48'-7 3/4"	27'-1 1/2"	18'-8 1/2"	538 3750
G2	52'-8 1/4"	17'-6 1/2"	17'-6 1/2"	49'-9 3/4"	22'-10 3/8"	12'-3 3/8"	345 1050
G3	53'-10 3/8"	17'-11 1/2"	17'-11 1/2"	50'-10 1/2"	18'-7 3/8"	17'-3 1/2"	253 8750
G4	55'-0 1/2"	18'-4 1/4"	18'-4 1/4"	51'-11 1/2"	14'-5 3/8"	22'-3 3/8"	261 2250

REVISION	DATE
HIGH STEEL STRUCTURES, INC.	
WORK SHEET - RAILROAD BRIDGE	
STEELING RAMP & DEEP WATER	
RTE. 108 STA. 308+00.00	
TOWN OF BRANWICK	
CLUMBERLAND CO. VA.	
STATE OF VIRGINIA, DEPT. OF TRANSPORTATION	
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
PROJECT NO.	DWG. NO.
ME-96500-1	WS1

MAR 1 0 1997

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



SCALE = .010416667 FEET/FOOT

NOTES:
FOR NOTES SEE DWG. WS1

111-142

LINE	'B'	'C'	'H'	'I'
G1	17'-2 1/2"	44'-10 1/2"	17'-2 1/2"	51'-6 1/2"
G2	17'-6 3/4"	55'-7 1/2"	17'-6 3/4"	52'-8 1/4"
G3	17'-11 3/8"	56'-10 3/8"	17'-11 3/8"	53'-10 3/8"
G4	18'-4 1/4"	58'-1 1/4"	18'-4 1/4"	55'-0 3/8"

NO.	REVISION	DATE
	APPL CHANGE	8-5-96
<p>PTC Newport Road Lancaster, PA 17608-0008 Phone 717/299-528</p> <p>HIGH STEEL STRUCTURES, INC.</p> <p>WORKSHEET - FIGURING PLAN RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION</p> <p>STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30</p> <p>CONTRACTOR REED & REED, INC.</p> <p>IN CHARGE: LANC (WC) MADE BY: TDF CHK'D BY: DWG DATE: 4-23-96</p> <p>CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WS2</p>		

MAR 10 1997

ENGLISH

GENERAL SHOP NOTES

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

SPECIFICATIONS:
 MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES (REVISION OF APRIL 1995) AND SUPPLEMENTALS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

MATERIAL:
 UNLESS NOTED OTHERWISE, ALL STEEL TO BE ASTM A709 GRADE 50W.
 (T) INDICATES CHARPY V-NOTCH TESTING REQUIRED.

SHOP BOLTS TO BE HIGH STRENGTH ASTM A325 TYPE 3 (FRICTION) (RCT) WITH HEAVY HEX HEAD AND ASTM A563 GRADE DH3 HEAVY HEX NUT, WITH ONE ASTM F436 WEATHERING WASHER PER BOLT. (RCT) INDICATES ROTATIONAL CAPACITY TESTED BOLTS. DO NOT MIX NUTS, BOLTS AND WASHERS FROM DIFFERENT CONTAINERS UNLESS ALL NUTS, BOLTS AND WASHERS HAVE THE SAME LOT NUMBER.

MAGNETIC PARTICLE INSPECTION FOR FILLET WELDS AND GROOVE WELDS NOT TESTED BY ANOTHER METHOD, IN MAIN MEMBERS AND BEARINGS, TO BE TESTED ON 10% OF WELDS LONGER THAN 10'-0" AND 1'-0" OF WELDS SHORTER THAN 10'-0". ALL TESTING TO BE DONE UNDER THE SUPERVISION OF THE MAINE DEPARTMENT OF TRANSPORTATION INSPECTION PERSONNEL.

[RA] NOTE:
 HOLES MARKED [RA] ON DETAIL DRAWINGS TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED.

CLEANING:
 ALL STEEL TO BE BLAST CLEANED TO SSPC-SP6 (COMMERCIAL). FLANGE TO WEB WELD AREAS AND BEARING STIFFENER TO WEB WELD AREAS TO BE CLEANED PRIOR TO WELDING.

PAINTING:
 NO PAINT
 IN THE FABRICATION SHOP, NO DIE STAMPING SHALL BE USED FOR ANY PURPOSE ON ROLLED SHAPES OR PLATES TO BE USED AS MAIN STRESS CARRYING MEMBERS. IDENTIFICATION MARKS, EITHER REQUIRED BY THESE SPECIFICATIONS OR BY THE SHOP, SHALL BE STENCILED OR PAINTED.

SHOP PROCEDURE:

CAMBER TOLERANCE: -0" TO +3/4"
 ALL RE-ENTRANT CUTS TO HAVE 1" MIN. RADIUS.

NO DIE STAMPING ALLOWED ON ANY PART OF MAIN STRESS CARRYING MEMBERS. BEARING AREA, AS NOTED ON GIRDER DETAILS, INDICATES AREA THAT MUST BE FLAT AND TRUE TO RECEIVE SOLE PLATE.

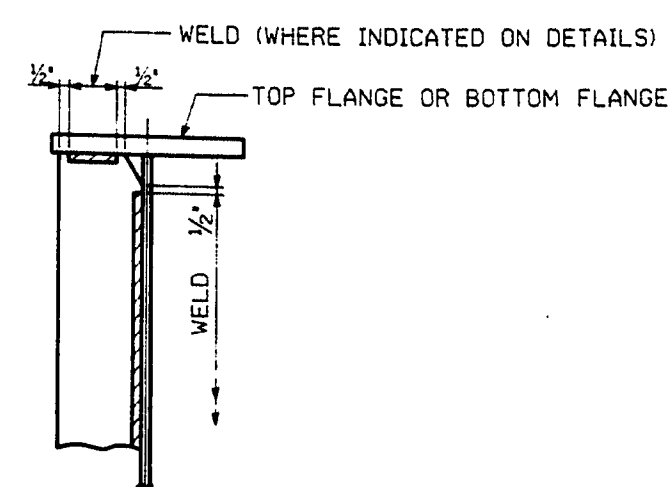
Brg. STIFF. f Conn. Rs to x2d to be welded AFTER x2d is bolted to GIRDER FLG.

INSPECTION:
 SHOP INSPECTION BY TO BE DETERMINED.

WELDING:
 ALL WELDING IS TO CONFORM TO AWS D1.5-95. NOTATIONS W1X, W2X, ETC. FOLLOWING WELDING SYMBOLS ON DETAIL DRAWINGS, REFER TO THE CORRESPONDING WELDING PROCEDURE TO BE USED FOR THAT JOINT. FOR WELDING STIFFENERS AND CONNECTION PLATES TO GIRDERS, SEE TYPICAL WELDING DETAIL.


DRAWING REFERENCE:

FLANGE SPLICES	-PREFIXED 'FS'
WEB CAMBERS	-PREFIXED 'WC'
GIRDER JOB STANDARDS	-PREFIXED 'X'
HORIZONTAL CURVE	-PREFIXED 'HC'
SHOP ASSEMBLY	-PREFIXED 'SA'
WELDING PROCEDURE	-DWG. 'WP1'



TYP. WELDING DETAIL

111-144

△		
△		
△		
NO.	REVISION	DATE
1710 Manchester Road Lancaster, PA 17605-0008 Phone 1717/299-5211 HIGH STEEL STRUCTURES, INC.  A Division of High Industries, Inc.		
GENERAL SHOP NOTES		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: TDF
		CHK'D BY: KF
		DATE: 4-24-96
CONTRACT NUMBER:	ME-96500-1	DRAWING NUMBER: N1

MAR 1 01997

ENGLISH

MINIMUM PREHEAT AND INTERPASS TEMPERATURE

SHIELDED METAL-ARC WELDING WITH LOW HYDROGEN ELECTRODES, OR SUBMERGED ARC WELDING, OR FLUX CORED ARC WELDING

THICKNESS OF THICKEST PART AT POINT OF WELDING - INCHES	ASTM A-36, A-572, AND A-588 M183, M223, AND M222 ASTM A725, GRADE 36 ASTM A725, GRADE 50 ASTM A725, GRADE 50M	W32X W33X W34X
TO 1/4 INCL.	50° F	125° F
OVER 1/4 TO 1/2 INCL.	70° F	150° F
OVER 1/2 TO 2 1/2 INCL.	150° F	150° F
OVER 2 1/2	225° F	225° F

MAXIMUM PREHEAT SHALL NOT EXCEED 450° F
MAXIMUM INTERPASS SHALL NOT EXCEED 550° F

REVISED: 02/08/93
ORIGINAL ISSUE: 01/01/92

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W13X

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SUBMERGED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC OR MACHINE
POSITION OF WELDING: 2F
FILLER METAL SPECIFICATION: AWS A5.17
WELD METAL CLASSIFICATION: F7A2-EM12K
WIRE/FLUX: LINCOLN L61/360
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 1 INCH
SHIELDING GAS: D.N.A.

REVISED: 11/4/92
REVISED: 5/1/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	485-495	205-275	34.5-39.5	15.5-25.0	3/8" FILLET WELDS

PRIMARY USE: WEB TO FLANGE (AND OTHER APPLICATIONS AS NEEDED)
*SEMIAUTOMATIC FOR REPAIRS ONLY

PROCEDURE QUALIFICATION RECORD FCW-96-3 (EXPIRES 2-4-98)
PROCEDURE QUALIFICATION RECORD FCW-96-4 (EXPIRES 2-17-98)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W43X

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SUBMERGED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC
POSITION OF WELDING: 2F
FILLER METAL SPECIFICATION: AWS A5.17
WELD METAL CLASSIFICATION: F7A2-EM12K
WIRE/FLUX: LINCOLN L61/761
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 1 INCH
SHIELDING GAS: D.N.A.

REVISED: 10/26/93
REVISED: 11/4/92
REVISED: 6/1/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	368-448	114-146	38.0-36.0	13.0-18.0	3/8" FILLET WELDS

PRIMARY USE: STIFFENER TO FLANGE, SOLE PLATE TO FLANGE (AND OTHER APPLICATIONS AS NEEDED)

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11-01-01)
PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11-01-01)

FED. ROAD DIV. NO.	STATE	FELD NO.
1	ME	DE-0091(006)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W2

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SHIELDED METAL ARC WELDING
MANUAL OR MACHINE: MANUAL
POSITION OF WELDING: ALL EXCEPT AS NOTED BELOW
FILLER METAL SPECIFICATION: AWS A5.1 AND A5.5
WELD METAL CLASSIFICATION: E7018/ET828 (TACKING ONLY) AND E8018-C3
WIRE/FLUX: D.N.A.
POLARITY: DC+ OR AC
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: D.N.A.
SHIELDING GAS: D.N.A.

REVISED: 11/6/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WIRE SIZE	CURRENT RANGE		TRAVEL SPEED (IPM)	JOINT DETAIL
		DC+	AC		
1	1/8"	90-150	110-170	8-9	TACK WELDS
		120-190	135-225		
PASS NO.	WIRE SIZE	CURRENT RANGE		TRAVEL SPEED (IPM)	JOINT DETAIL
		DC+	AC		
1	1/8"	170-240	180-270	8-13	GROOVE ROOT PASSES AND TACK WELDS

PRIMARY USE: STIFFENER TO WEB (AND OTHER APPLICATIONS AS NEEDED)

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11-01-01)
PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11-01-01)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W32X

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SUBMERGED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC OR MACHINE
POSITION OF WELDING: 2F
FILLER METAL SPECIFICATION: AWS A5.17
WELD METAL CLASSIFICATION: F7A2-EM12K
WIRE/FLUX: LINCOLN L61/761
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 1 INCH
SHIELDING GAS: D.N.A.

REVISED: 10/26/93
REVISED: 11/6/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	368-448	114-146	38.0-36.0	13.0-18.0	3/8" FILLET WELD

PRIMARY USE: STIFFENER TO WEB (AND OTHER APPLICATIONS AS NEEDED)

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11-01-01)
PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11-01-01)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W51X

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SUBMERGED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC
POSITION OF WELDING: 2F
FILLER METAL SPECIFICATION: AWS A5.17
WELD METAL CLASSIFICATION: F7A2-EM12K
WIRE/FLUX: LINCOLN L61/360
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 1 INCH
SHIELDING GAS: D.N.A.

REVISED: 6/15/93
REVISED: 10/1/92
REVISED: 7/23/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	480-550	123-217	32.5-39.5	17.0-23.0	3/8" FILLET WELDS

PRIMARY USE: CROSS FRAMES AND DIAPHRAGMS (AND OTHER APPLICATIONS AS NEEDED)

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11-01-01)
PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11-01-01)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W6

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: FLUX CORED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC
POSITION OF WELDING: ALL POSITION TACK WELDS
FILLER METAL SPECIFICATION: AWS A5.20
WELD METAL CLASSIFICATION: E71T-1
WIRE/FLUX: LINCOLN OUTERSHIELD 71C-4
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 3/4"
SHIELDING GAS: 100% C2

REVISED: 10/1/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	GAS	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS			
1	230-285	485-525	26.0-28.0	30.0-35.0	40.0-45.0	TACK WELDS

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 9-27-97)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W33X

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588
WELDING PROCESS: SUBMERGED ARC WELDING
MANUAL OR MACHINE: SEMIAUTOMATIC OR MACHINE
POSITION OF WELDING: 2F
FILLER METAL SPECIFICATION: AWS A5.17
WELD METAL CLASSIFICATION: F7A2-EM12K
WIRE/FLUX: LINCOLN L61/761
WIRE DIAMETER: 3/16"
SINGLE OR MULTIPLE ARC: SINGLE ARC
POLARITY: DC-
ROOT TREATMENT: MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART
ELECTRICAL STICK-OUT: 1 INCH
SHIELDING GAS: D.N.A.

REVISED: 10/26/93
REVISED: 11/6/92
ORIGINAL ISSUE: 01/01/92

PASS NO.	WELDING CURRENT			TRAVEL SPEED (IPM)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	368-448	114-146	38.0-36.0	13.0-18.0	3/8" FILLET WELD

PRIMARY USE: STIFFENER TO WEB (AND OTHER APPLICATIONS AS NEEDED)

PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11-01-01)
PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11-01-01)

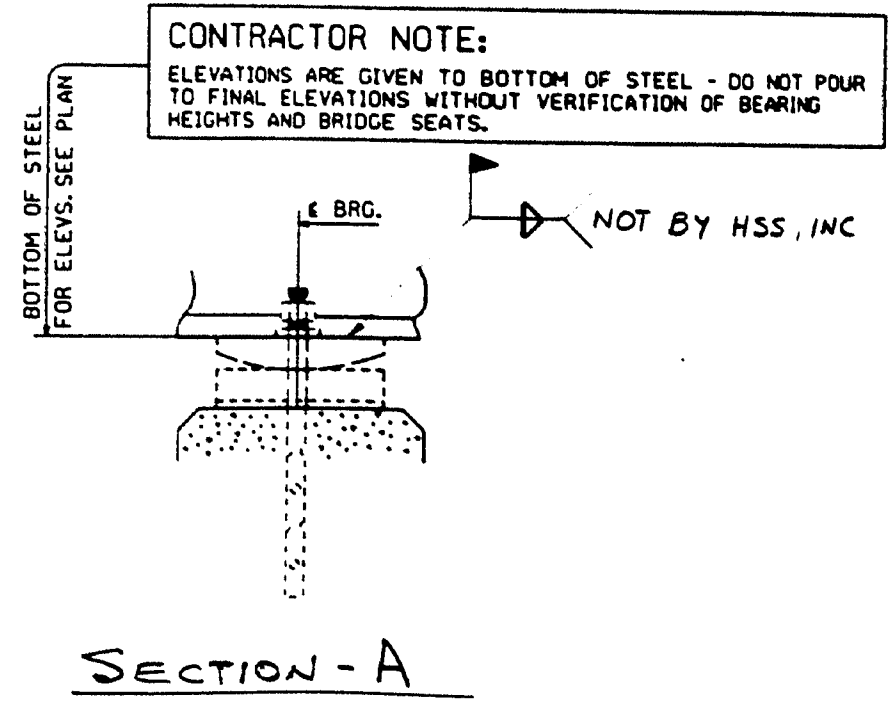
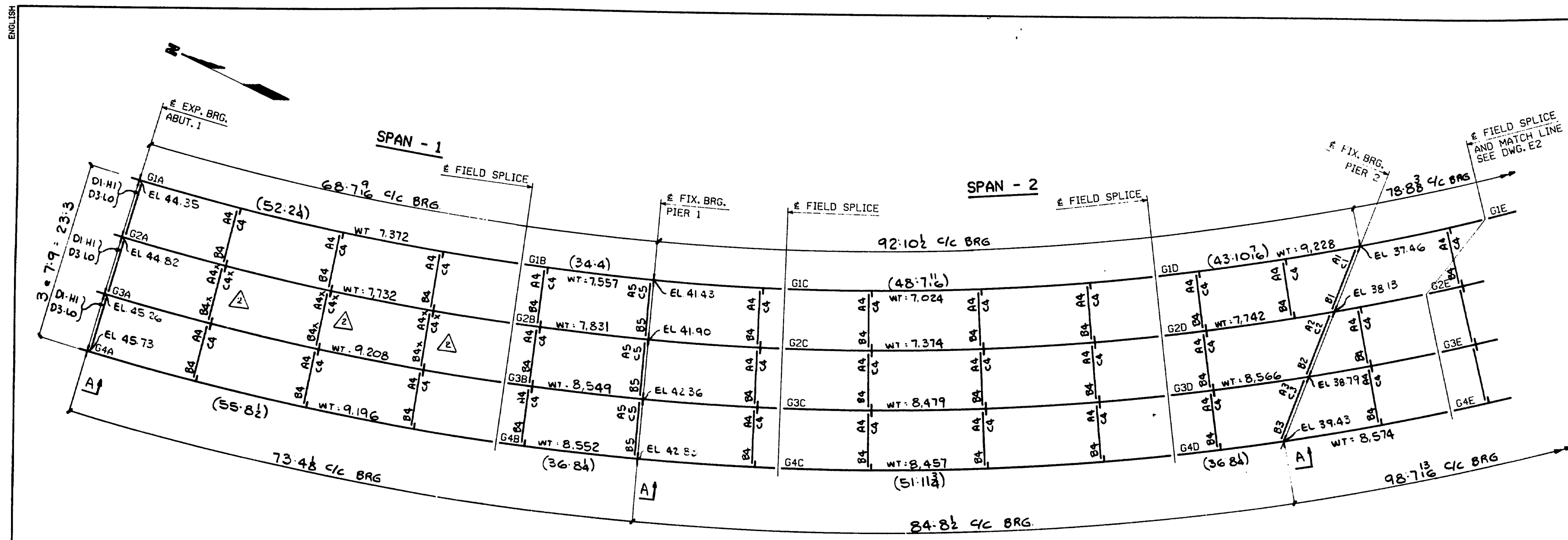
DIRECT ALL QUESTIONS TO
SCOTT W. KOPP, WELDING TECHNICIAN
HIGH STEEL STRUCTURES, INC.
PHONE: (717)350-4332

111-145

REVISED PER APPROVER COMMENTS	8-5-96
REVISION	DATE
<p>110 Hempfield Road Lancaster, PA 17605-0008 Phone 717-299-5218</p> <p>HIGH STEEL STRUCTURES, INC.</p> <p>WELDING PROCEDURES RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p> <p>STATE CONTRACT DE-0091(006) PIN 1665.30 OR REF. NO.</p> <p>CONTRACTOR REED & REED, INC. IN CHARGE: LANCE (WC) MADE BY: LWD DATE: 5-2-96 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WPI</p>	

MAR 1 0 1997

FEDERAL DIVISION	STATE	FEDERAL PROJECT
1	ME	DE-0091(806)



ERECTOR NOTE: ALL BOLTS MUST BE LOCATED IN ACCORDANCE WITH THIS LIST OF FIELD CONNECTIONS. HIGH STEEL STRUCTURES WILL NOT BE RESPONSIBLE FOR FURNISHING ADDITIONAL BOLTS OR FOR ANY OTHER RELATED COSTS OR DAMAGES RESULTING FROM IMPROPER LOCATION OF BOLTS.

ONE TENSION INDICATOR WASHER & ONE STRIP WASHER PER BOLT UNLESS NOTED OTHERWISE

LINE	ACTUAL NO. REQ'D	BOLT DIA.	BOLT LENGTH	BOLTS / CONN.	# OF CONNS.	GRIP	THICKNESS OF PCS. CONNECTED	PIECES CONNECTED AND REMARKS
1	2,016	3/4"	24"	84	24	1 1/2"	1/2"	WEB SPLICES
2	720	3/4"	36"	20	24	1 1/2"	1/2"	TOP FLG SPLICES G1 & G2 SPANS 1, 2 & 4
3	640	3/4"	40"	16	24	1 1/2"	1/2"	BOTT FLG SPLICES G1 & G2 SPAN 2
4	384	4"	48"	8	24	2 1/2"	1/2"	TOP FLG SPLICES G3 & G4
5	224	4"	56"	4	24	2 1/2"	1/2"	BOTT FLG SPLICES G3 & G4 SPANS 1, 2 & 4
6								
7	144	2 1/2"	24"	6	24	1 1/2"	1/2"	END DIAPHRAGMS TO END STIFF
8	72	3"	8"	9	24	1 1/2"	1/2"	CROSS C INTERIOR PIERS TO BRG STIFF (TOP)
9	72	3"	8"	9	24	1 1/2"	1/2"	INTERM CF TO CONN (TOP)
10	456	2 1/2"	18"	8	57	1 1/2"	1/2"	CROSS C INTERIOR PIERS TO BRG STIFF (BOTT)
11	456	2 1/2"	18"	8	57	1 1/2"	1/2"	INTERM CF TO CONN (BOTT)
12	18	3/4"	2 1/2"	2	9	1 1/2"	1/2"	CENTER OF CF = PIERS
13	114	2 1/2"	24"	2	57	1 1/2"	1/2"	CENTER OF CF = INTERM CF
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

FIELD BOLT SUMMARY
(4% ADDITIONAL BOLTS ADDED)

ASTM A325 TYPE 3 BOLTS WITH HYV. HEX HEAD AND ASTM A563 GRADE D13 HYV. HEX NUT

1,414	x 0-3 3/4	(RCT)
75	x 0-3 1/2	
20	x 0-3 3/4	
75	x 0-3	
2,689	x 0-2 3/4	
624	x 0-2 1/2	

(RCT) INDICATES ROTATIONAL CAPACITY TESTED BOLTS. DO NOT MIX NUTS, BOLTS AND WASHERS FROM DIFFERENT CONTAINERS UNLESS ALL NUTS, BOLTS AND WASHERS HAVE THE SAME LOT NUMBER.

5529 HARD FLAT F436 WEATHERING WASHERS FOR 3/4" HS BOLTS (RCT)
5529 - ASTM F959 EPOXY COATED TENSION INDICATOR WASHERS FOR 3/4" BOLTS (RCT)

NOTES:

NO CREDIT WILL BE ALLOWED FOR WORK PERFORMED BY OTHERS IN REPLACING OR CORRECTING MATERIALS OR WORKMANSHIP COVERED BY THIS DRAWING UNLESS EXPRESSLY AUTHORIZED BY HIGH STEEL STRUCTURES, INC. ALL FIELD CONNECTIONS TO BE MADE WITH 7/8" HIGH STRENGTH (A325, TYPE 3) BOLTS (U.N.). ALL DIMENSIONS ARE GIVEN HORIZONTALLY (U.N.). DIMENSIONS GIVEN THUS: (52.24) ARE THE SHIPPING LENGTHS OUT TO OUT OF FASCIA GIRDERS. HIGH STEEL STRUCTURES, INC. DOES NOT SUPPLY SHEAR STUDS, EXPANSION DAM MATERIAL OR BRIDGE DRAINAGE.

FOR SHOP ASSEMBLY DIAGRAM, SEE DRAWING SA1 AND SA2 WORK THIS DRAWING WITH DRAWING E2, E3 & E4. NOTICE: WEIGHTS OF MEMBERS LISTED ON THESE DRAWINGS ARE ESTIMATED WEIGHTS AND ACTUAL WEIGHTS WILL VARY. HIGH STEEL STRUCTURES, INC. WILL NOT BE RESPONSIBLE FOR ANY ERECTION PROCEDURES, SHIPPING PROCEDURES, ETC. DEVELOPED USING ESTIMATED WEIGHTS AS SHOWN. ERECTOR NOTE: ELEVATIONS AND/OR CAMBER CHECKS OF FIELD SPLICES MUST BE COMPLETED PRIOR TO FINAL BOLTING. HIGH STEEL STRUCTURES IS TO BE NOTIFIED AND CONSULTED, PRIOR TO FINAL BOLTING, IF SPLICE ELEVATIONS ARE NOT WITHIN ACCEPTABLE TOLERANCE. THE CORRECTION OF ANY UNACCEPTABLE SPLICES AFTER FINAL BOLTING WILL BE AT NO COST TO HIGH STEEL STRUCTURES.

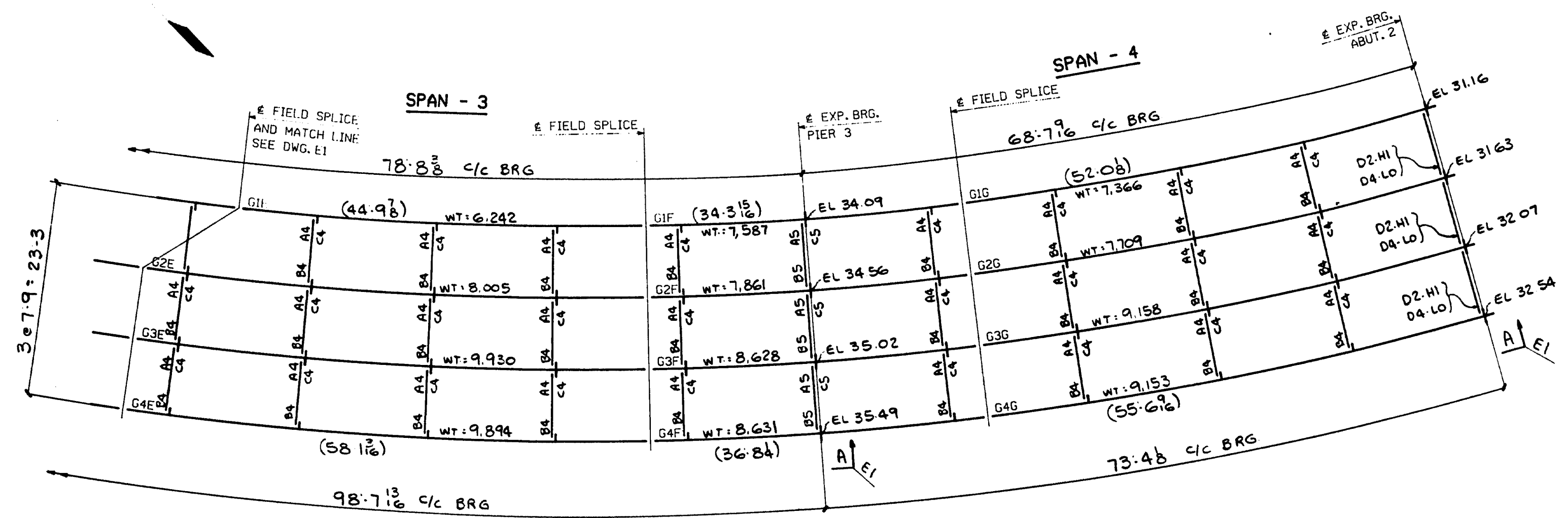
ERECTOR NOTE: ALL BOLTS MUST BE LOCATED IN ACCORDANCE WITH THE FIELD BOLT SUMMARY. HIGH STEEL STRUCTURES WILL NOT BE RESPONSIBLE FOR FURNISHING ADDITIONAL BOLTS OR ANY OTHER RELATED COSTS OR DAMAGES RESULTING FROM IMPROPER LOCATION OF BOLTS. ANCHOR BOLTS MUST BE SET BEFORE CROSSFRAMES AT BEARINGS ARE ERECTED. ALL FIELD BOLTS THRU BOTTOM FLANGES ARE TO HAVE HEADS DOWN. ALL FIELD BOLTS THRU WEB OF FASCIA GIRDERS ARE TO HAVE HEADS ON OUTSIDE OF WEB.

111-146

REVISION	DATE
REVISED CF MARKS DUE TO FAB ERROR	9-23-96
APPL. CHG.	8-5-96
HIGH STEEL STRUCTURES, INC.	
ERECTOR PLAN	
RTE. 196 RAMP B OVER U.S. RTE. 1	
RTE. 196 STA. 305+77.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO., MAINE	
STATE OF MAINE, DEPT OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	TDF
CHKD. BY	DWG
DATE	4-24-96
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	E1

ENGLISH

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



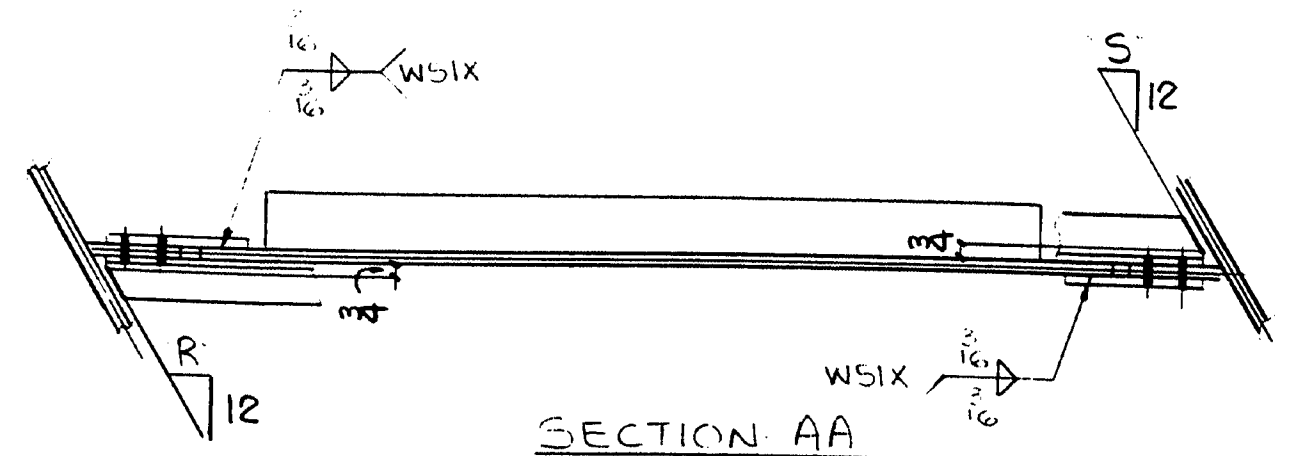
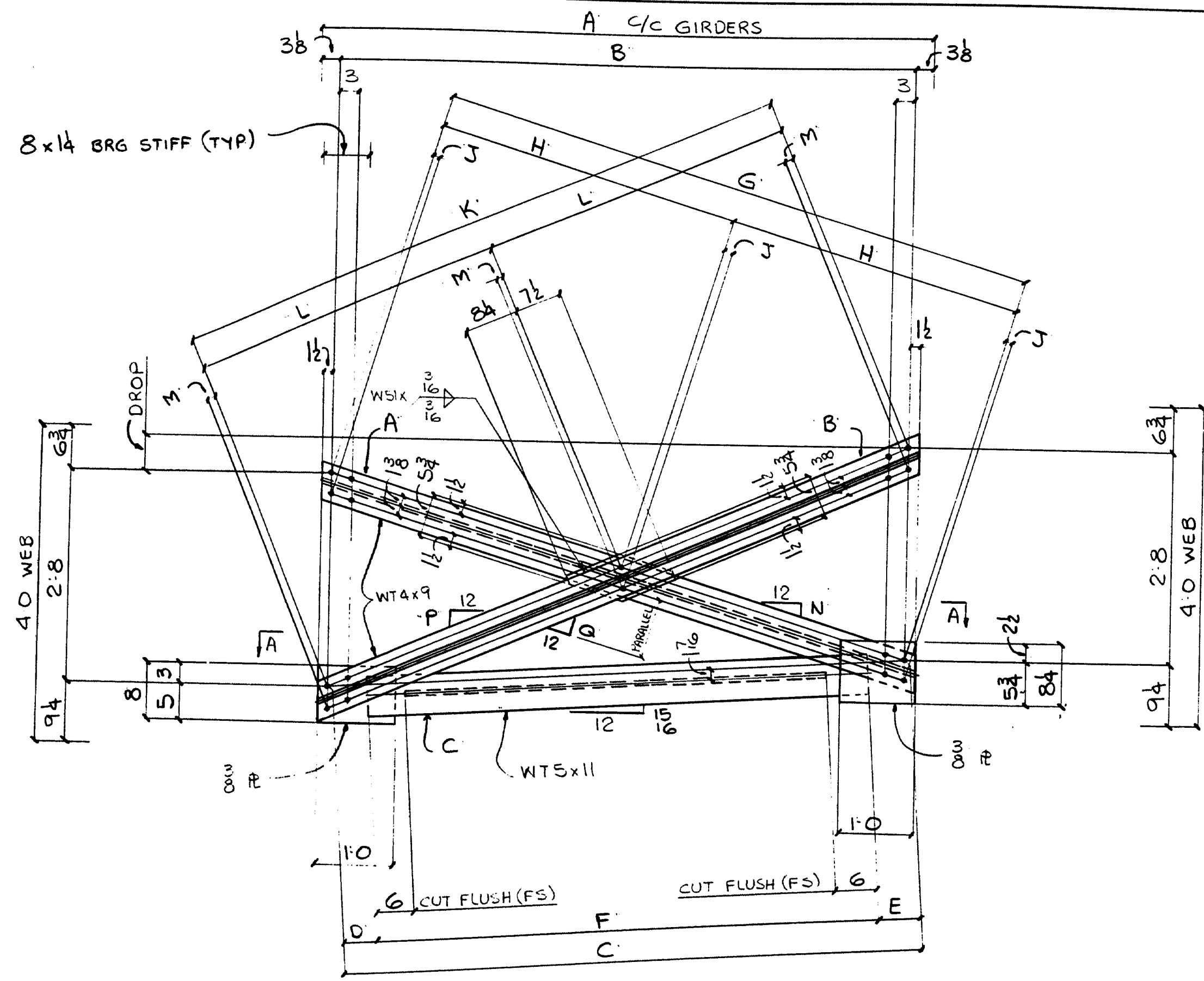
NOTES:
 FOR NOTES SEE DWG. E1.
 WORK THIS DWG W/ DWG E1, E3 & E4.

111-147

△		
△		
△		
ID.	REVISION	DATE
310 Mumfords Road Lancaster, PA 17602-0008 Phone 717/299-5211		
HIGH STEEL STRUCTURES, INC.		
ERECTION PLAN RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANC (WC)	MADE BY: TDF	CHK'D BY: OWG DATE: 4-24-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: E2	

MAR 1 01997

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE 0091(806)



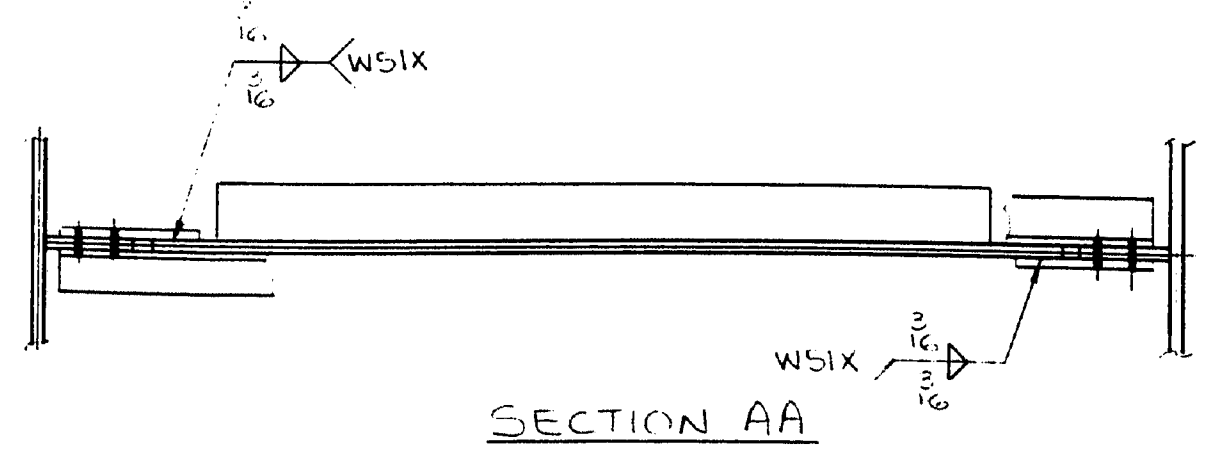
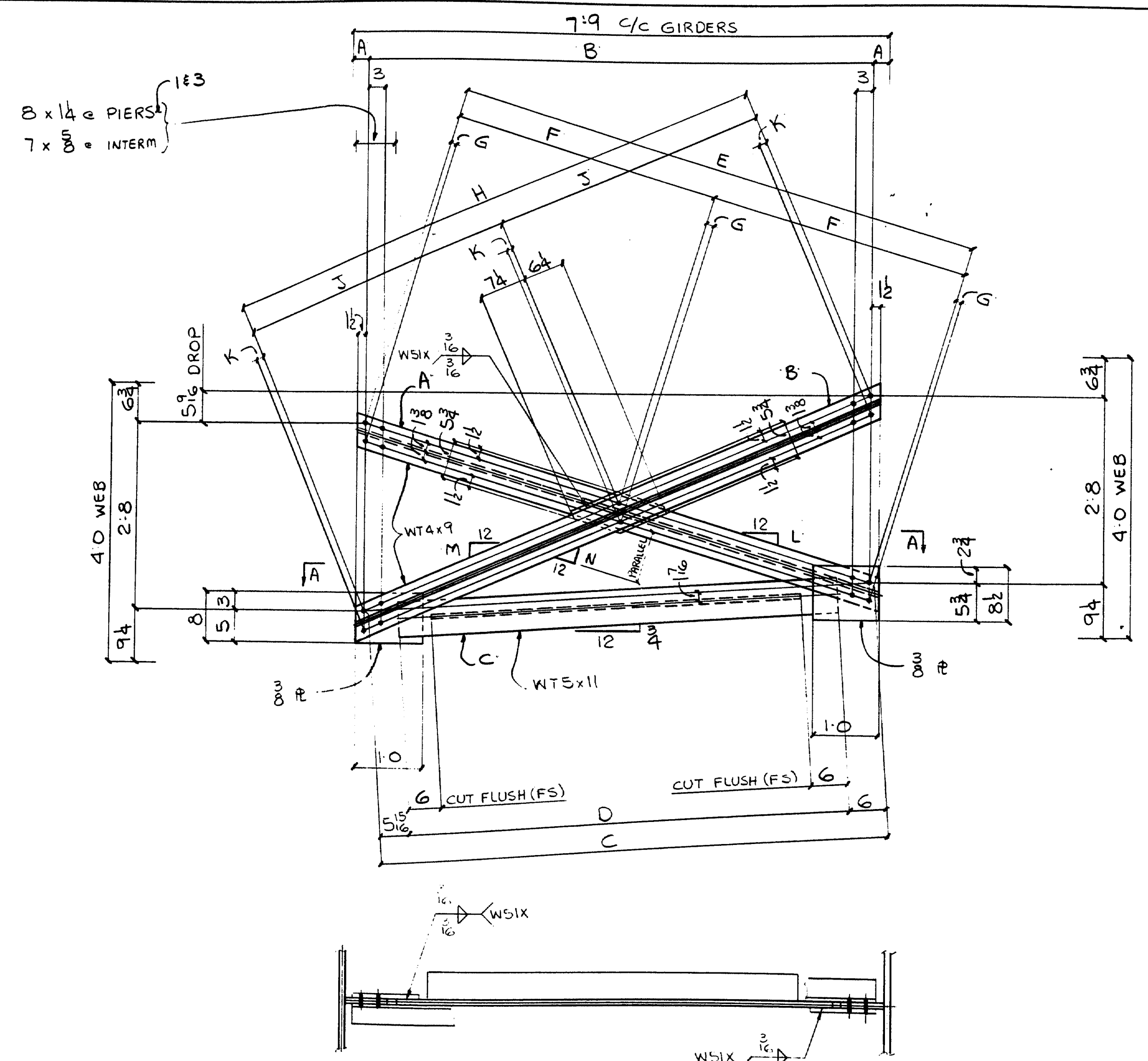
SECTION AA
TYPE K CROSSFRAMES (LOOKING SOUTH)
(PIER-2)

DROP	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
8 1/8	9 1/8	8 7/8	8 7 1/2	5 1/2	6	7 7/8	8 10/8	4 5 1/2	5	9 2/8	4 7 7/8	1 1/2	2 3/4	4 5/8	8 1/2	7 3/8	7 3/8
7 1/2	9 0 1/2	8 6 7/8	8 6 3/4	6	6	7 6 3/4	8 9 1/4	4 4 5/8	5 1/2	9 2	4 7	1 1/2	2 1 3/8	4 1 1/2	8 4	7 3/8	7 8
7 1/2	8 11 1/2	8 5 1/2	8 5 3/8	6 1/2	6 1/2	7 5 3/4	8 8 3/8	4 4 3/8	1 1/2	9 1	4 6 1/2	1 1/2	2 8	4 1 1/2	8 5 1/2	7 8	6 1 1/2

111-148

REVISION	DATE
ERECTOR PLAN (CROSSFRAME LAYOUT)	
RTE 196 RAMP B OVER US RTE 1	
RTE 196 STA 305+77.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO, MAINE	
STATE OF MAINE DEPT OF TRANSPORTATION	
STATE CONTRACT NO. DE-0091(806) PIN 1665.30	
CONTRACTOR: REED & REED, INC.	
IN CHARGE: LANCO (WC) MADE BY: DF DWG. DATE: 4-23-76	
CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: E3	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



SECTION AA
TYPE K CROSSFRAMES (LOOKING SOUTH)
(PIERS 1&3 AND INTERM.)

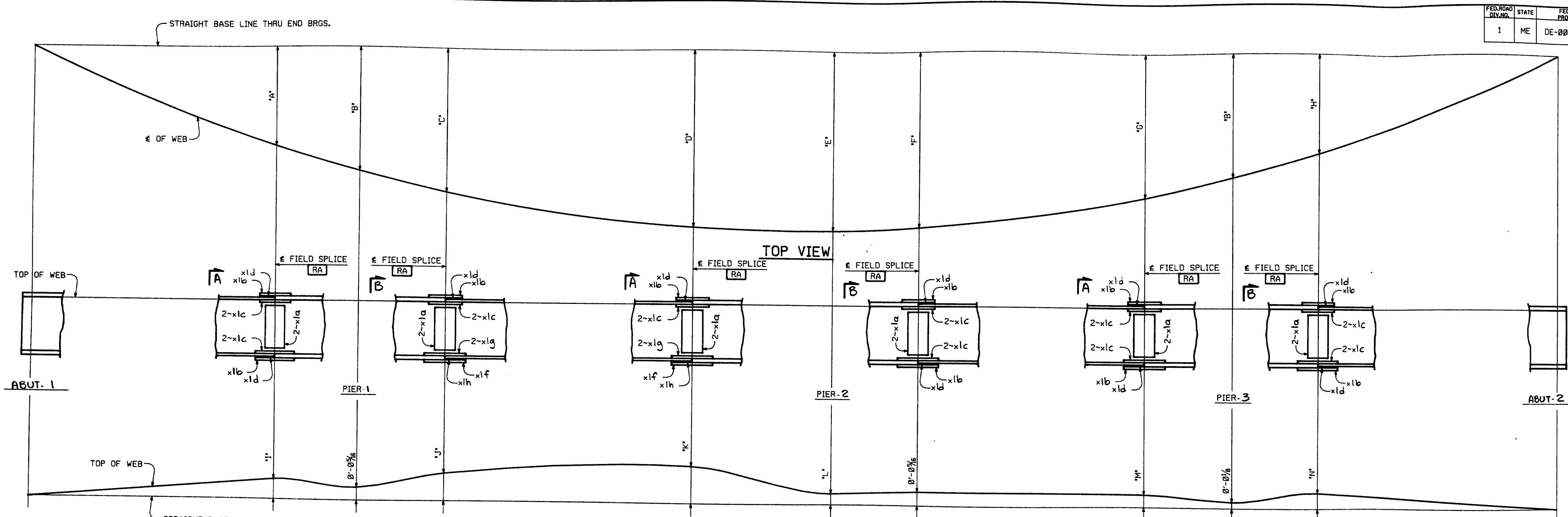
LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N
PIERS 1&3	3 3/8	7 1/4	7 1 1/2	6 2	7 5/4	3 8/8	7 3	7 9/8	3 10 1/2	1 2/6	3 1/6	5 4	10 3/8
INTERM	2 8	7 3/4	7 3 1/2	6 4	7 7/8	3 9 1/2	1 2/6	7 1 1/2	3 11 3/4	1 2/6	3 5/8	5 6	10 1/6

111-149

NO.	REVISION	DATE
 HIGH STEEL STRUCTURES, INC.		
ERECTION PLAN (CROSSFRAME LAYOUT)		
RTE 196 RAMP B OVER US RTE 1		
RTE 196 STA 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO, MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806)	PIN 1665.30
CONTRACTOR	LANCO (WC)	MADE BY: DF
IN CHARGE	REED & REED, INC	DWG. DATE: 4-29-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: E4

MAR 1 01997

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)



LINE REAMING DIAGRAM
FOR GIRDER LINES G1 & G2

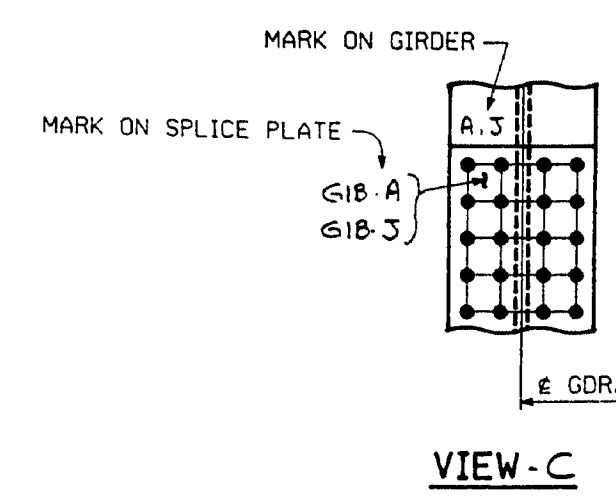
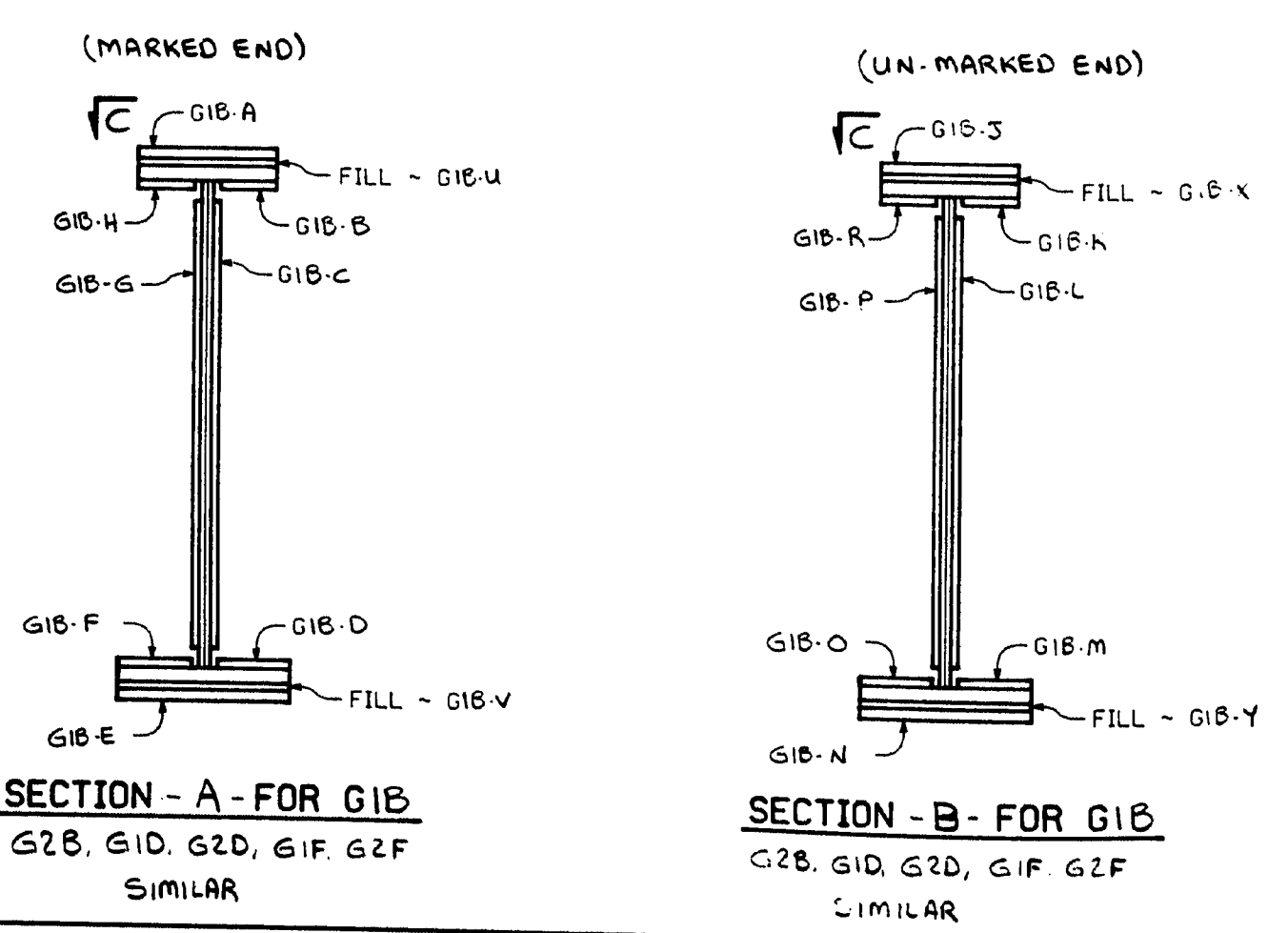
GDR. LINE	A'	B'	C'	D'	E'	F'	G'	H'	I'	J'	K'	L'	M'	N'
G1	19'-11 1/2"	23'-9 3/4"	27'-0 1/2"	34'-0 3/4"	34'-6 1/2"	33'-9 3/4"	27'-7 1/2"	19'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"
G2	19'-6 1/2"	24'-4 1/4"	28'-4 3/4"	34'-9 3/4"	35'-4 1/2"	35'-1 1/4"	28'-3 1/2"	19'-5 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"

NOTES:

ALL SPLICE PLATES ARE MATCH MARKED AFTER REAMING AS SHOWN IN SECTION A & B. THE MATCH MARKS ON THE SPLICE PLATES CONSIST OF THE MARK OF THE GIRDER THEY ARE SHIPPED WITH AND A SUFFIX. THE MARKINGS ARE LOCATED ON THE STEEL AT THE END OF THE SPLICE PLATE WHICH IS ON THE GIRDER IT IS SHIPPED WITH. THE CORRESPONDING SUFFIX (A, B, C, ETC.) IS MARKED NEAR THE SPLICE PLATE ON THE GIRDER (SEE VIEW C).

FOR GIRDER MARKS, SEE THE ERECTION PLAN DRAWINGS.

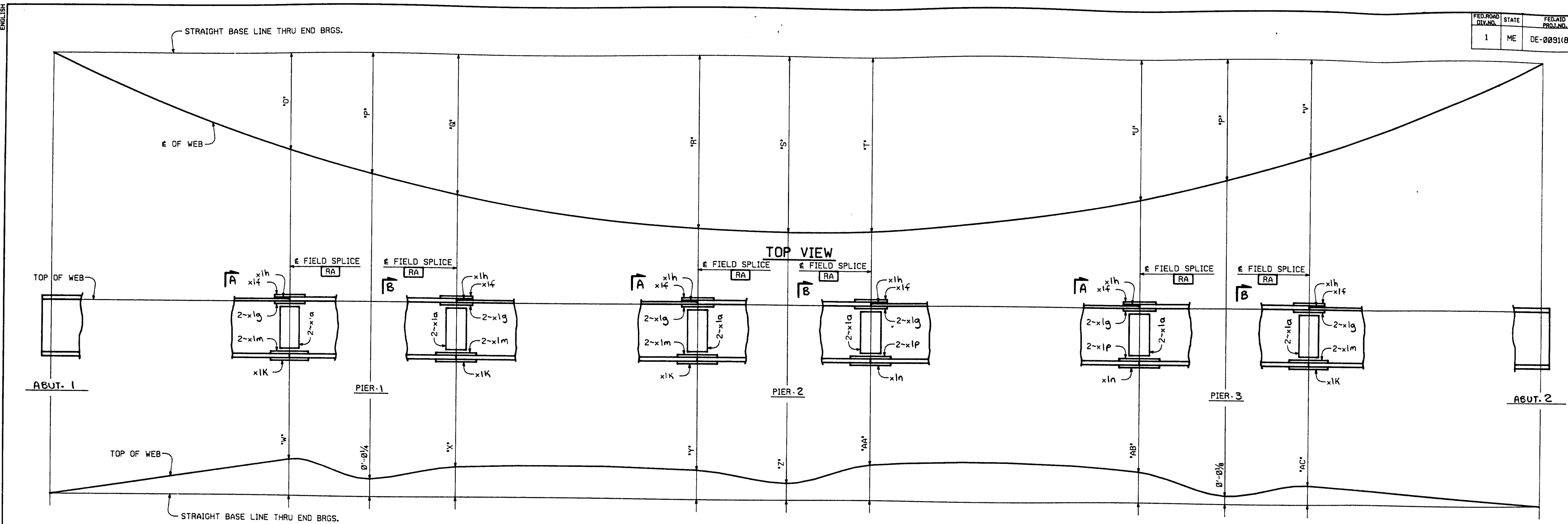
HOLES MARKED [RA] ARE TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED. HOLES TO BE 5/8" #.



111-150

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>170 HANCOCK ROAD LANSING, PA 17602-0008 PHONE 717/299-5201 A Division of HSP Industries, Inc.</small>		
SHOP ASSEMBLY DIAGRAM RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LAMCO (WC)	MADE BY: TDF	CHECKED BY: DWS DATE: 4-24-76
CONTRACT NUMBER: ME-96500-1		DRAWING NUMBER: SA1

FEDERAL DIVISION	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)

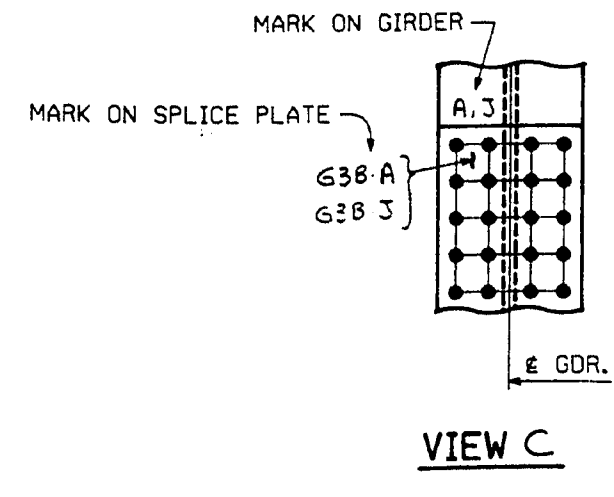
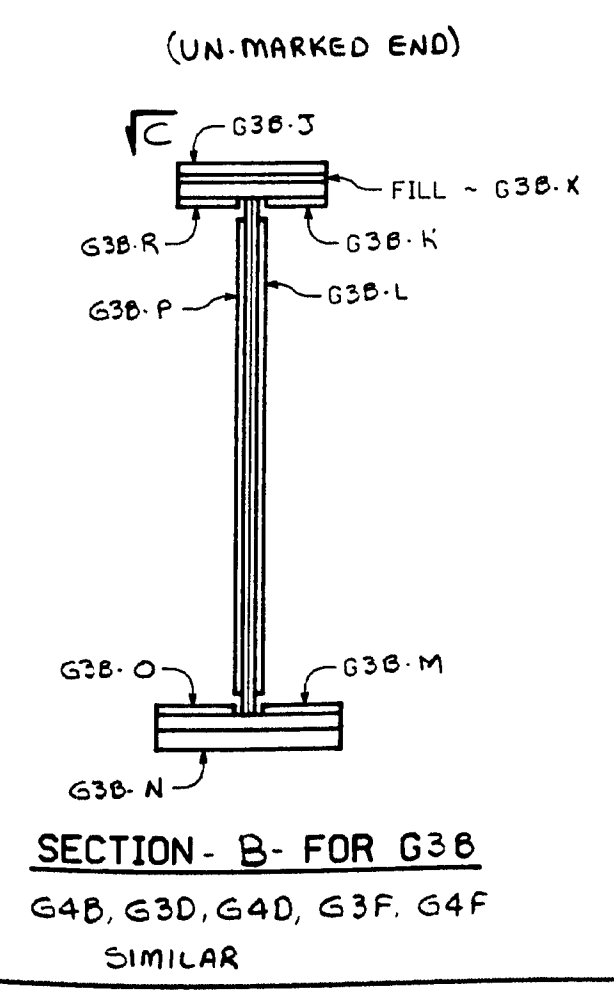
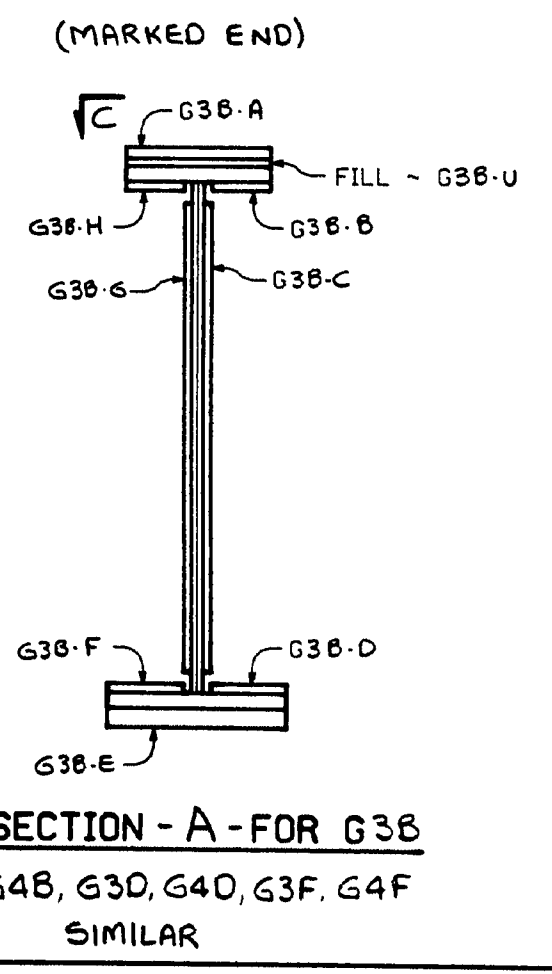


**LINE REAMING DIAGRAM
FOR GIRDER LINES G3 & G4**

GDR. LINE	'0'	'1'	'2'	'3'	'4'	'5'	'6'	'7'	'8'	'9'	'10'	'11'	'12'	'13'	'14'	'15'
G3	20'-0 3/8"	24'-10 3/8"	28'-11 5/8"	35'-7 1/4"	36'-2 1/2"	35'-10 3/8"	28'-11 1/2"	19'-11"	0'-0 3/8"	0'-0 1/2"	0'-0 3/4"	0'-0 5/8"	0'-0 3/4"	0'-0 5/8"	0'-0 3/4"	0'-0 1/2"
G4	20'-5"	25'-5 1/2"	29'-7 1/2"	36'-4 1/2"	36'-11 1/4"	36'-8 1/2"	29'-6 1/4"	20'-4 1/4"	0'-0 3/8"	0'-0 1/2"	0'-0 3/4"	0'-0 5/8"	0'-0 3/4"	0'-0 5/8"	0'-0 3/4"	0'-0 1/2"

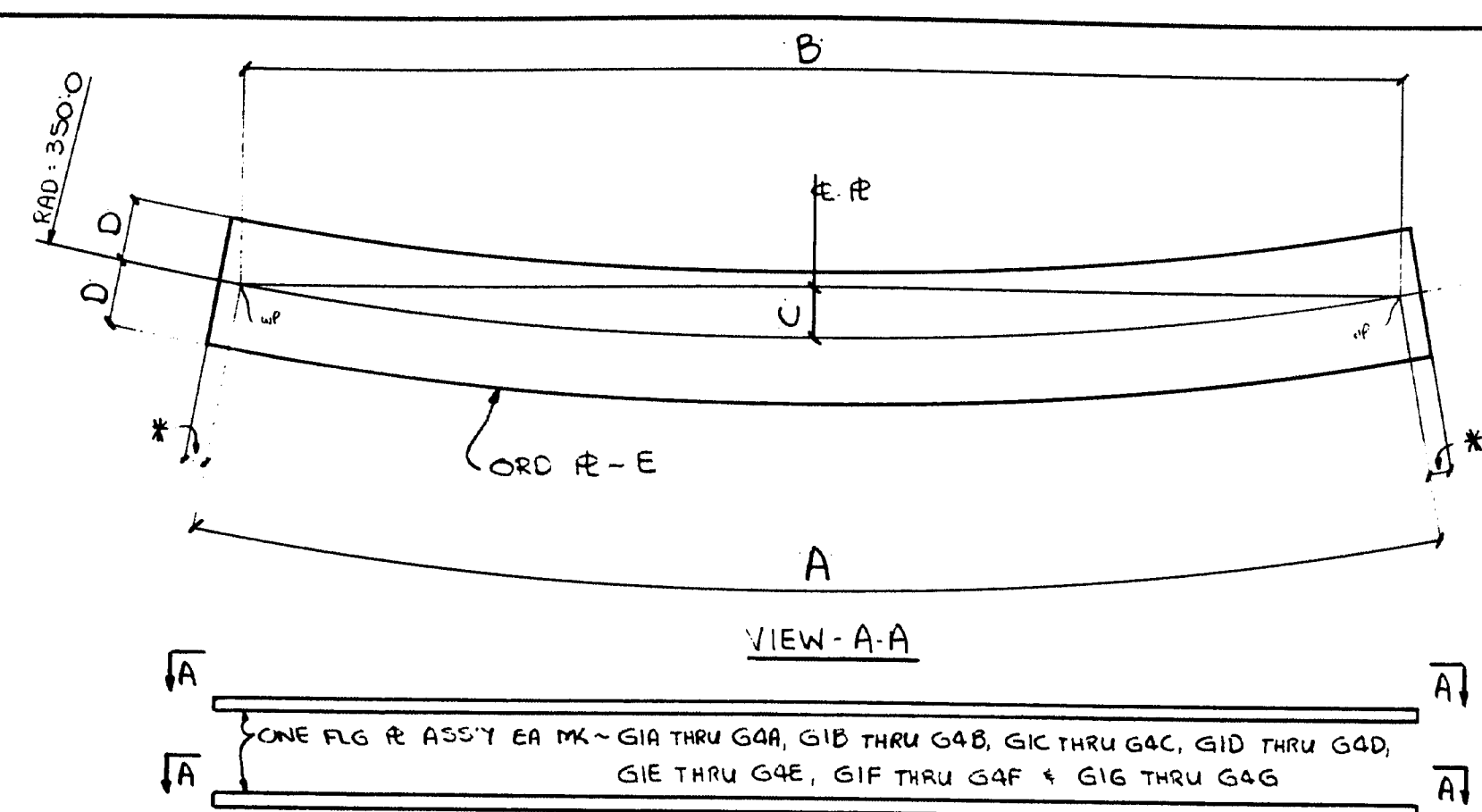
NOTES:

ALL SPLICE PLATES ARE MATCH MARKED AFTER REAMING AS SHOWN IN SECTION A & B. THE MATCH MARKS ON THE SPLICE PLATES CONSIST OF THE MARK OF THE GIRDER THEY ARE SHIPPED WITH AND A SUFFIX. THE MARKINGS ARE LOCATED ON THE STEEL AT THE END OF THE SPLICE PLATE WHICH IS ON THE GIRDER IT IS SHIPPED WITH. THE CORRESPONDING SUFFIX (A, B, C, ETC.) IS MARKED NEAR THE SPLICE PLATE ON THE GIRDER (SEE VIEW C).
 FOR GIRDER MARKS, SEE THE ERECTION PLAN DRAWINGS.
 HOLES MARKED [RA] ARE TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED. HOLES TO BE 3/8" DIA.



111-151

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>375 Hamstead Road Lancaster, PA 17603-0008 Phone 717/299-5211 A Division of HSB Industries, Inc.</small>		
SHOP ASSEMBLY DIAGRAM RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY TDF
CHK'D.	DWS	DATE: 4-28-76
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER SA2



MARK	FLG	A	B	C	D	E
G1A	TOP	52'4 1/4	52'3 1/16	11 1/2	6	R 12 x 8 x 52'6 (2/24)
G1A	BOIT	52'2	52'1 7/16	11 1/16	6	R 12 x 8 x 52'6 (2/24)
G2A	TOP	53'6 3/8	53'5 1/16	10 1/4	6	R 12 x 8 x 53'8 (2/22)
G2A	BOIT	53'4 1/8	53'3 1/2	10 3/16	6	R 12 x 8 x 53'6 (2/23)
G3A	TOP	54'8 7/8	54'7 3/4	10 3/8	7	R 14 x 8 x 54'10 (2/16)
G3A	BOIT	54'6 1/4	54'5 7/16	10 3/4	7	R 14 x 8 x 54'8 (2/7)
G4A	TOP	55'10 1/2	55'9 1/8	11 1/8	7	R 14 x 8 x 56'0 (2/15)
G4A	BOIT	55'8 3/8	55'7 1/16	11 1/16	7	R 14 x 8 x 55'10 (2/6)
G1B	TOP	34'3 1/2	34'3 3/8	5 1/16	7	R 14 x 1 1/2 x 34'6 (2/12)
G1B	BOIT	34'4	34'3 1/2	5 1/16	7	R 14 x 1 1/2 x 34'6 (2/12)
G2B	TOP	35'1 1/8	35'1 1/8	5 5/16	7	R 14 x 1 1/2 x 35'3 (2/11)
G2B	BOIT	35'1 7/8	35'1 1/4	5 5/16	7	R 14 x 1 1/2 x 35'3 (2/11)
G3B	TOP	35'10 1/2	35'10 1/2	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3B	BOIT	35'10 1/2	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4B	TOP	36'8 3/8	36'7 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4B	BOIT	36'8 1/4	36'8 1/16	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1C	TOP	48'7 1/16	48'7 3/16	10 1/8	6	R 12 x 8 x 48'10 (3/4)
G1C	BOIT	48'7 1/2	48'7 1/16	10 1/8	7	R 14 x 8 x 48'9 (2/20)
G2C	TOP	49'9 1/16	49'8 9/16	10 5/8	6	R 12 x 8 x 49'11 (3/3)
G2C	BOIT	49'8 3/8	49'8 3/8	10 5/8	7	R 14 x 8 x 49'11 (2/19)
G3C	TOP	50'10 3/8	50'9 1/2	11 1/16	7	R 14 x 8 x 51'0 (2/18)
G3C	BOIT	50'10 1/4	50'9 1/16	11 1/16	7	R 14 x 8 x 51'0 (2/19)
G4C	TOP	51'11 3/4	51'11 1/8	11 9/16	7	R 14 x 8 x 52'2 (2/17)
G4C	BOIT	51'11 3/8	51'11 1/16	11 9/16	7	R 14 x 1 1/2 x 52'2 (2/8)
G1D	TOP	43'10 1/2	43'9 1/2	8 1/4	7	R 14 x 1 1/2 x 44'0 (2/10)
G1D	BOIT	43'10 1/2	43'10 1/8	8 1/4	7	R 14 x 1 1/2 x 44'0 (2/10)
G2D	TOP	35'1 1/8	35'1	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G2D	BOIT	35'1 3/8	35'1 7/16	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)

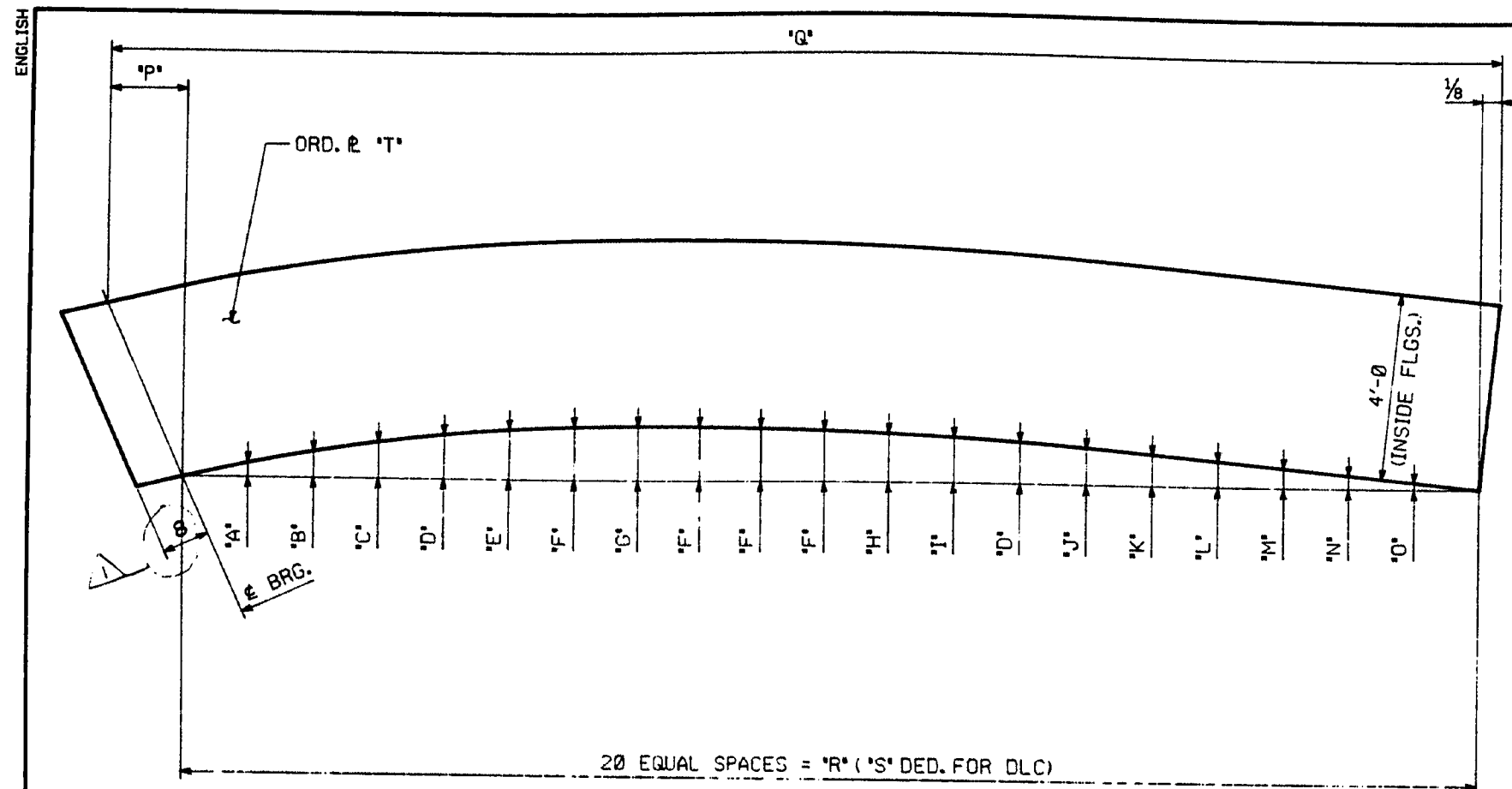
MARK	FLG	A	B	C	D	E
G3D	TOP	35'10 1/2	35'10 1/2	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3D	BOIT	35'10 1/2	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4D	TOP	36'8 1/8	36'7 3/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4D	BOIT	36'8 1/4	36'8 1/16	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1E	TOP	44'9 3/8	44'9 1/2	8 3/8	6	R 12 x 8 x 45'0 (3/5)
G1E	BOIT	44'9 1/8	44'9 1/16	8 3/8	6	R 12 x 8 x 45'0 (3/5)
G2E	TOP	55'7 1/8	55'6 3/8	11 1/4	6	R 12 x 8 x 55'9 (2/21)
G2E	BOIT	55'7 1/8	55'6 1/2	11 1/4	6	R 12 x 8 x 55'9 (2/21)
G3E	TOP	56'10 1/4	56'9 1/2	11 1/8	7	R 14 x 8 x 57'0 (2/14)
G3E	BOIT	56'10 1/16	56'9 5/8	11 1/8	8	R 16 x 1 1/2 x 57'0 (2/13)
G4E	TOP	58'0 1/8	58'0 3/8	12 1/16	7	R 14 x 8 x 58'3 (2/13)
G4E	BOIT	58'0 1/8	58'0 1/8	12 1/16	8	R 16 x 1 1/2 x 58'3 (2/12)
G1F	TOP	34'3 1/2	34'3 3/8	5 1/16	7	R 14 x 1 1/2 x 34'6 (2/12)
G1F	BOIT	34'3 1/2	34'3 3/4	5 1/16	7	R 14 x 1 1/2 x 34'6 (2/12)
G2F	TOP	35'1 1/4	35'1 1/16	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G2F	BOIT	35'1 3/8	35'1 1/8	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G3F	TOP	35'10 1/8	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3F	BOIT	35'10 1/2	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4F	TOP	36'8	36'7 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4F	BOIT	36'8 1/4	36'8 1/16	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1G	TOP	52'0 3/8	51'11 1/16	11 9/16	6	R 12 x 8 x 52'4 (2/12)
G1G	BOIT	52'2	52'1 7/16	11 1/16	6	R 12 x 8 x 52'6 (2/24)
G2G	TOP	53'2 1/4	53'1 5/8	10 3/8	6	R 12 x 8 x 53'6 (2/23)
G2G	BOIT	53'4 1/8	53'3 1/2	10 3/16	6	R 12 x 8 x 53'6 (2/23)
G3G	TOP	54'4 1/2	54'3 3/8	10 1/16	7	R 14 x 8 x 54'10 (2/16)
G3G	BOIT	54'6 1/4	54'5 7/16	10 3/4	7	R 14 x 1 1/2 x 54'8 (2/7)
G4G	TOP	55'6 3/4	55'6 1/16	11 1/4	7	R 14 x 8 x 56'0 (2/15)
G4G	BOIT	55'8 7/8	55'7 3/4	11 1/8	7	R 14 x 1 1/2 x 55'10 (2/16)

NOTES:
 FOR GENERAL NOTES SEE DWG N1.
 ALL FLANGE PLATES REQUIRE CHARPY V-NOTCH TEST.
 ARC DIMENSIONS ARE GIVEN TO ENDS OF PLATES AS DETAILED ON GIRDER DRAWINGS.
 * INDICATES FLANGE OVER-RUN THAT IS TO BE TRIMMED AFTER FLANGE IS WELDED TO WEB.
 ALL FLANGE PLATES ARE CUT TO A 350 O RADIUS AND MUST BE HEAT ADJUSTED TO FINAL RADIUS.
 SEE DRAWING HCl FOR FINAL HEAT CURVING DATA.

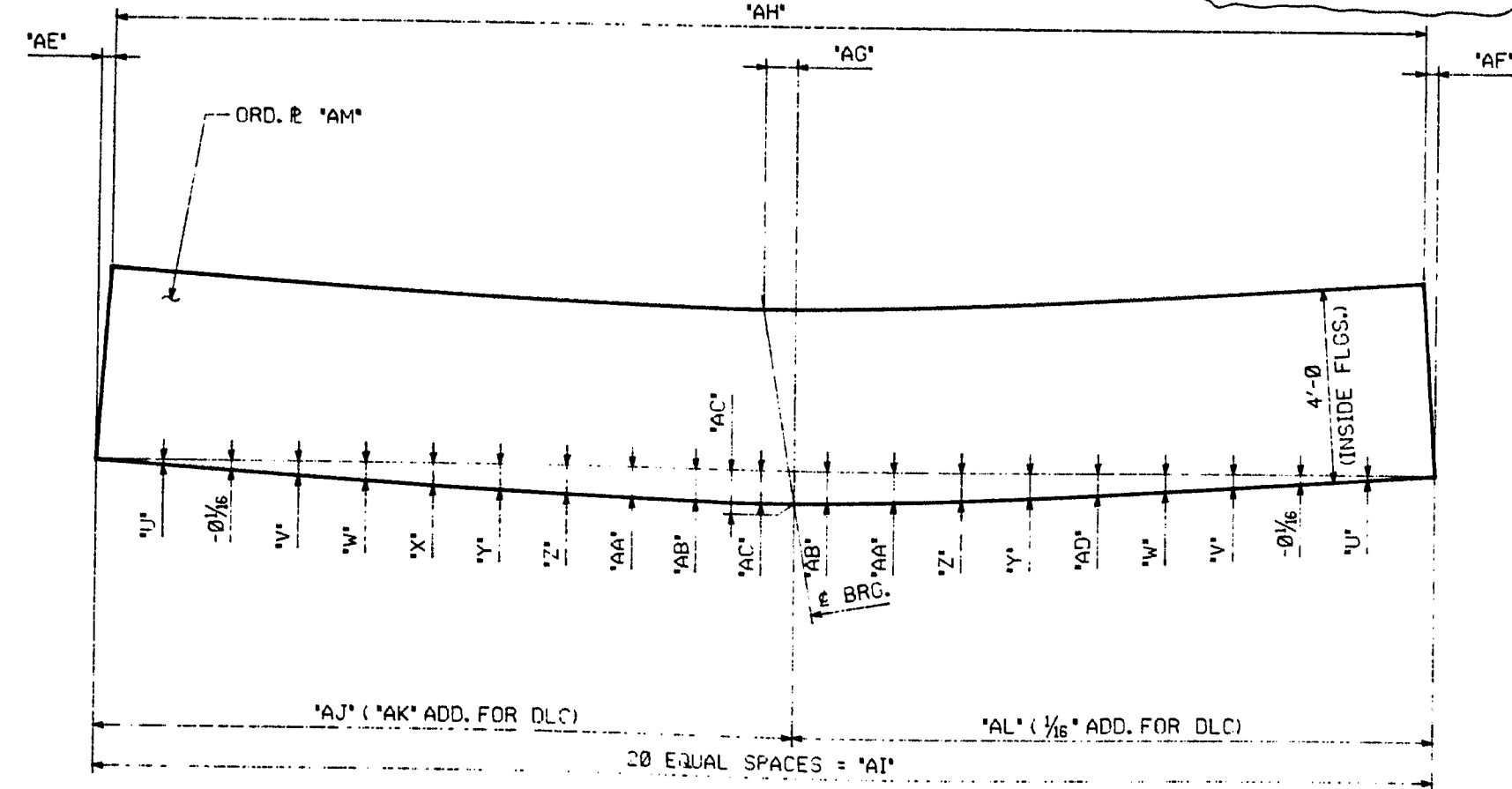
111-152

△		
△	CHG. OVERHANG TO 8' (DESIGN CHG.)	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>1710 Industrial Road Lancaster, PA 17605-0008 Phone 717/299-5281</small> 		
FLANGE SPICE DETAILS RTE 196 RAMP B OVER US RTE 1 RTE 196 STA 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION STATE CONTRACT OR REF. NO. DE-0091 (806) PIN 1665-30 CONTRACTOR REED & REED, INC. IN CHARGE LANC (WC) MADE BY DF CHK'D. BY: DWS, DATE: 4-29-96 DRAWING NUMBER: ME-96500-1 FS1		

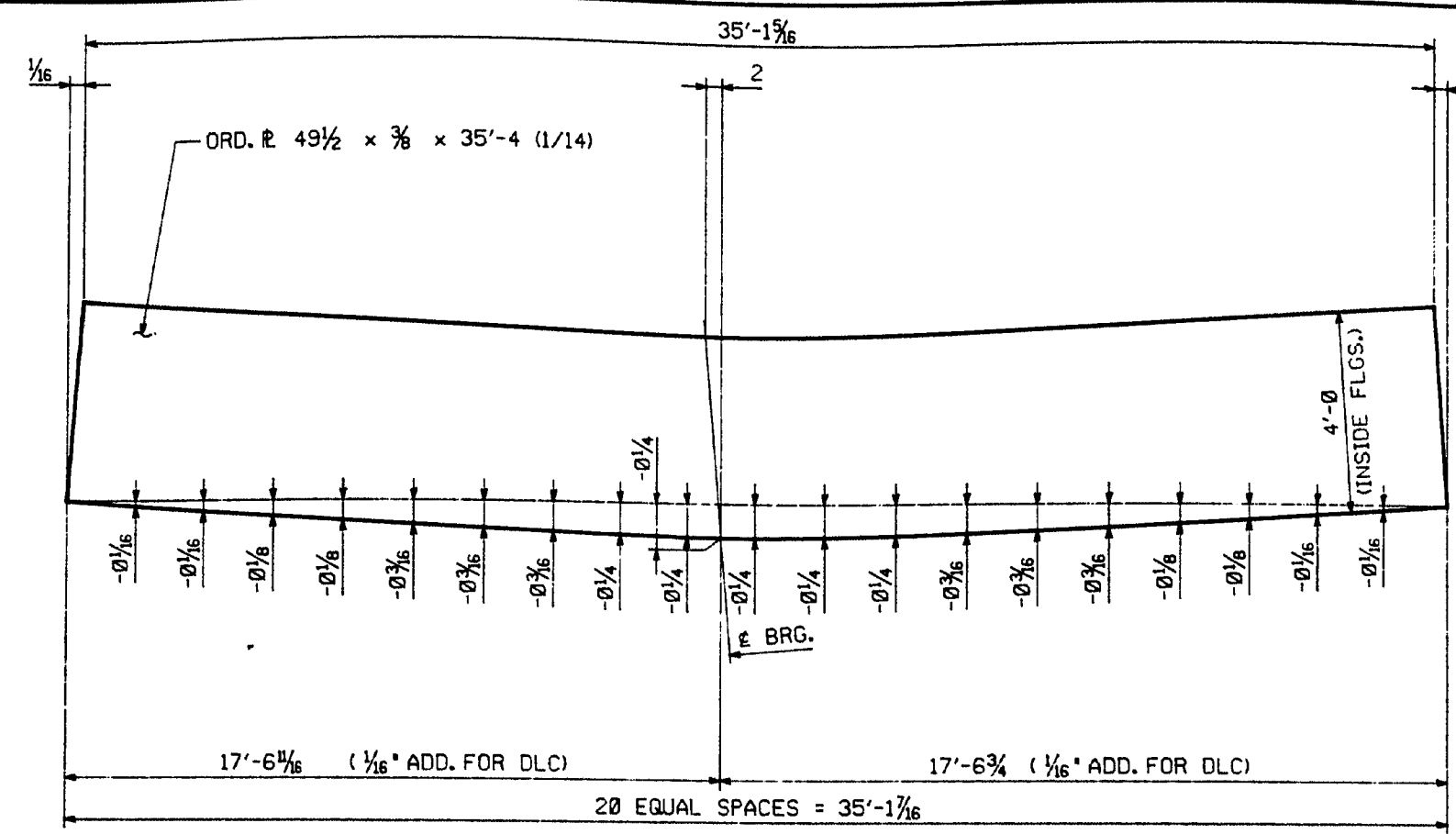
CODE: 30



MARK	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'	'L'	'M'	'N'	'O'	'P'	'Q'	'R'	'S'	'T'
G1A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	51'-8 1/4	51'-6	1/8	49 1/2 x 3/8 x 52'-7 (1/8)
G2A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	52'-10 3/8	52'-8 1/8	1/8	49 1/2 x 3/8 x 53'-9 (1/7)
G3A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	54'-0 7/8	53'-10 1/4	1/8	50 x 3/8 x 56'-1 (1/2)
G4A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	55'-2 1/2	55'-0 3/8	1/8	50 x 3/8 x 56'-1 (1/2)



MARK	'U'	'V'	'W'	'X'	'Y'	'Z'	'AA'	'AB'	'AC'	'AD'	'AE'	'AF'	'AG'	'AH'	'AI'	'AJ'	'AK'	'AL'	'AM'
G1B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G3B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G4B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G3D	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G1F	0	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G2F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G3F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16
G4F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16



CAMBER DIAGRAM - G2B

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(826)

NOTES:
 FOR GENERAL SHOP NOTES, SEE DRAWING N1.
 ALL WEB PLATES REQUIRE CHAMFY V-NOTCH TEST.
 NEGATIVE CAMBER ORDINATES INDICATE CURVE IS BELOW BASELINE.

111-153

NO.	REVISION	DATE
1	CHG OVERHANG DESIGN (HS)	2-21-96

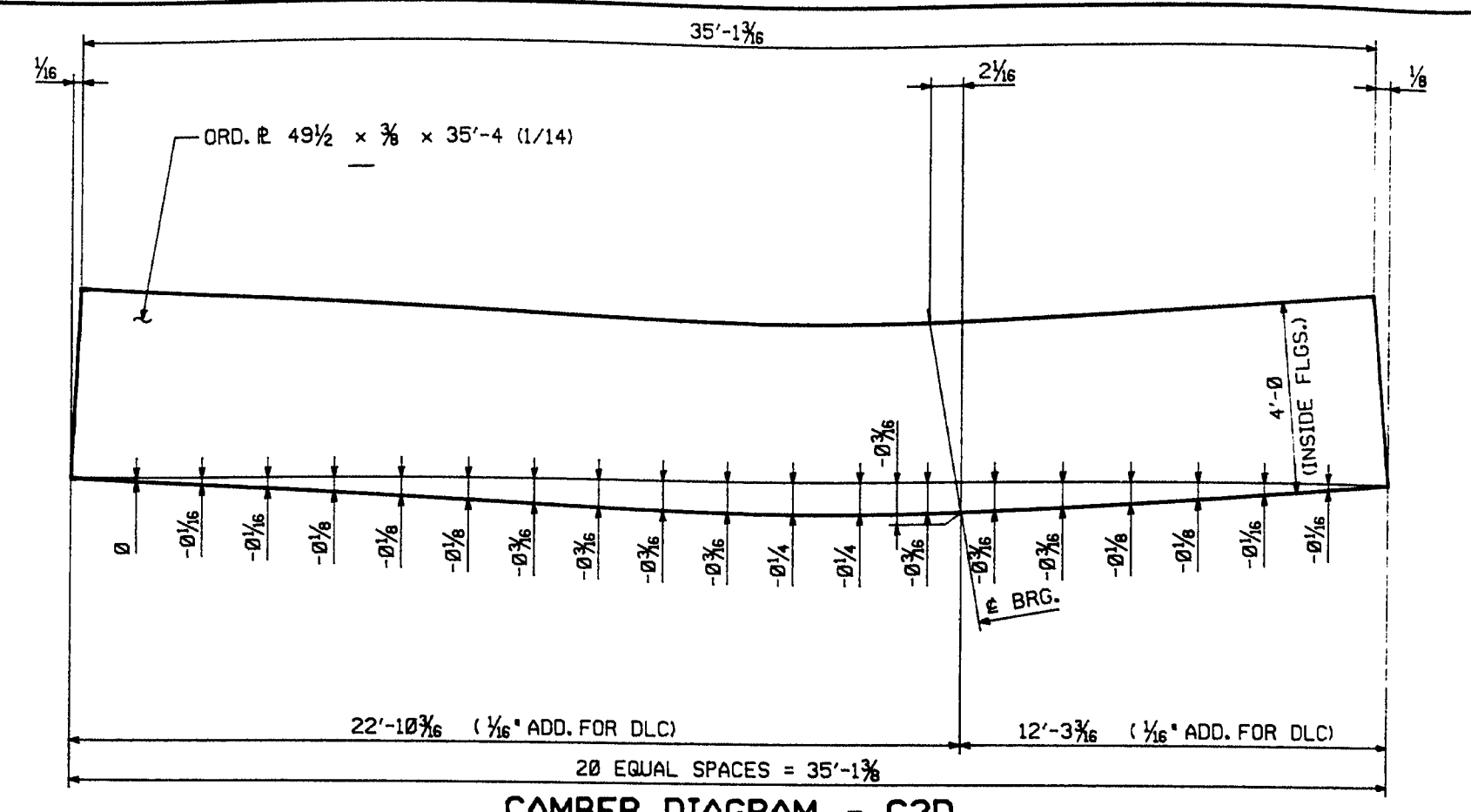
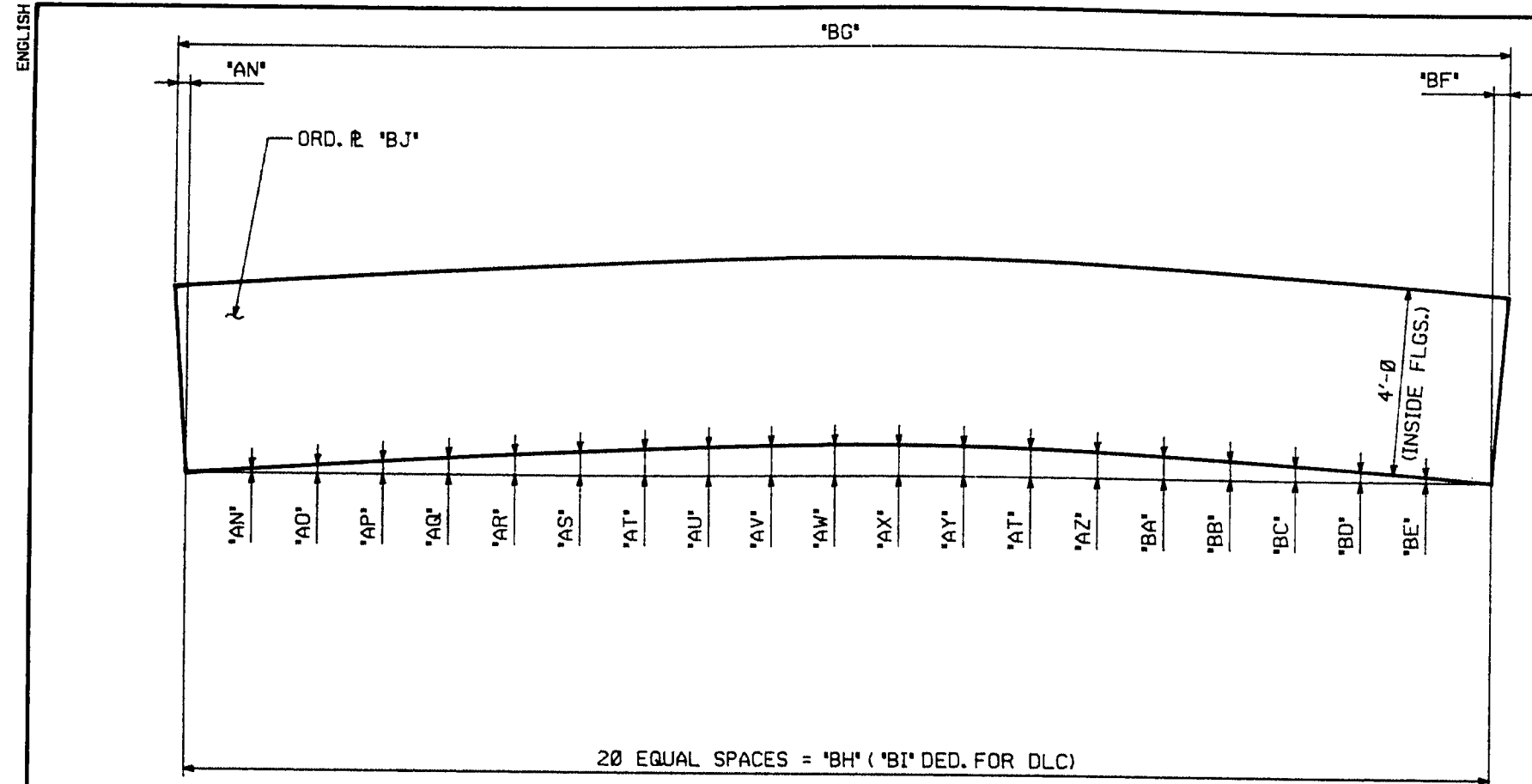
HIGH STEEL STRUCTURES, INC.
 170 Westford Road
 Loudon, N.H. 03303-0008
 Phone 773/299-5211
 A Division of High Industries, Inc.

WEB CAMBER DIAGRAMS
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(826) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE: LANCOS (WC) MADE BY: TDF CHK'D BY: DWG DATE: 2-24-96
 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WC1

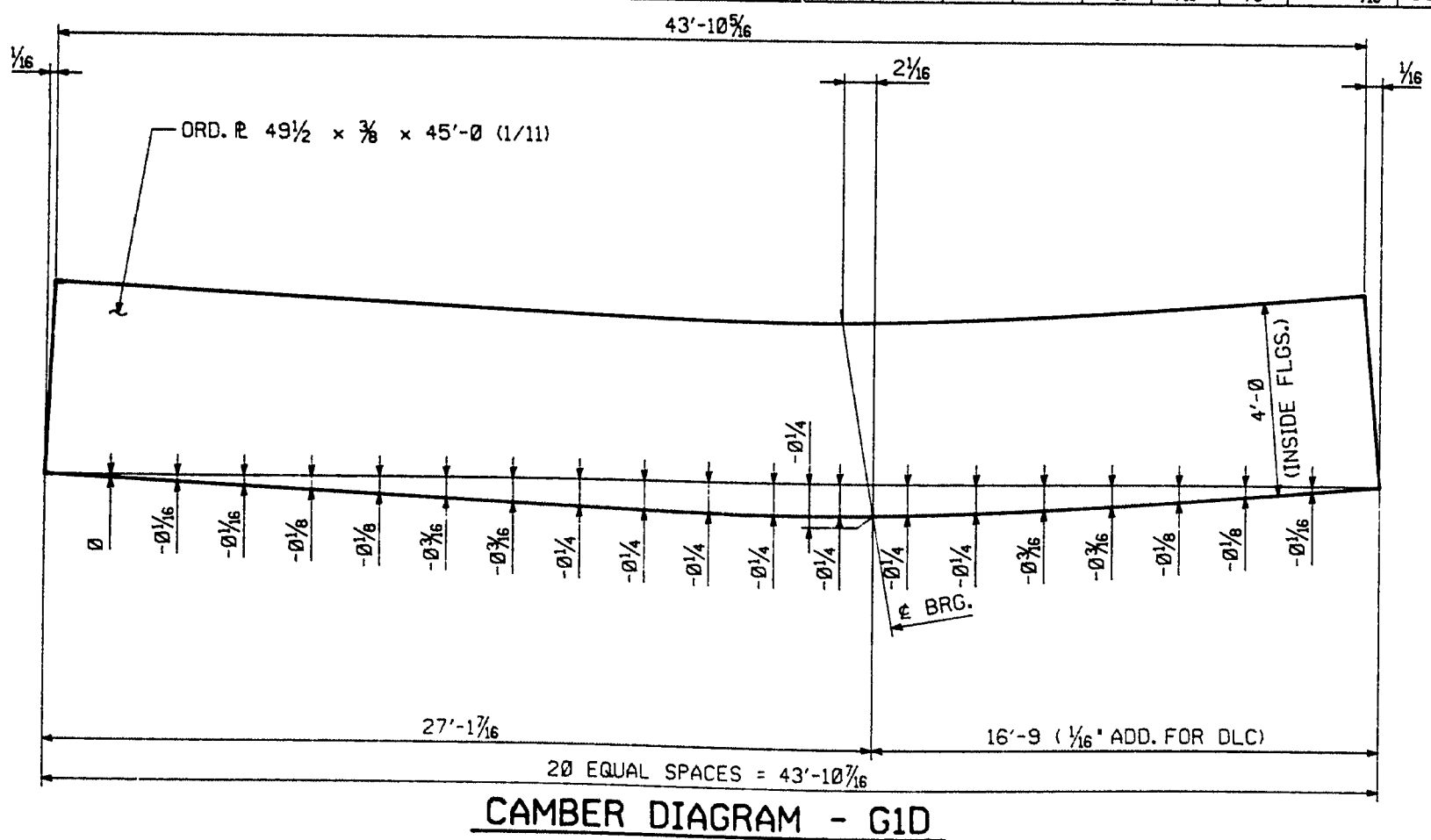
CODE: 30

MAR 1 0 1997



FED. ROAD DIV.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)

MARK	'AN'	'AO'	'AP'	'AQ'	'AR'	'AS'	'AT'	'AU'	'AV'	'AW'	'AX'	'AY'	'AZ'	'BA'	'BB'	'BC'	'BD'	'BE'	'BF'	'BG'	'BH'	'BI'	'BJ'
G1C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	48'-7 1/2	48'-7 1/2	1/8	49 1/2 x 3/8 x 48'-10 (1/10)
G2C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	49'-9 1/8	49'-8 7/8	1/8	49 1/2 x 3/8 x 51'-1 (1/9)
G3C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	50'-10 3/8	50'-10 1/4	1/8	49 1/2 x 3/8 x 51'-1 (1/9)
G4C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	51'-11 3/8	51'-11 3/8	1/8	49 1/2 x 3/8 x (52'-7 (1/8))
G1E	0	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	44'-9 7/8	44'-9 3/8	1/8	49 1/2 x 3/8 x 45'-0 (1/11)
G2E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	55'-7 3/8	55'-7 3/8	1/8	49 1/2 x 3/8 x 55'-11 (1/5)
G3E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	56'-10 1/4	56'-10 1/4	1/8	49 1/2 x 3/8 x 57'-1 (1/4)
G4E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	5/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	58'-1 3/8	58'-0 3/8	1/8	49 1/2 x 3/8 x 58'-4 (1/3)



NOTES:
FOR NOTES, SEE DWG. WC1.

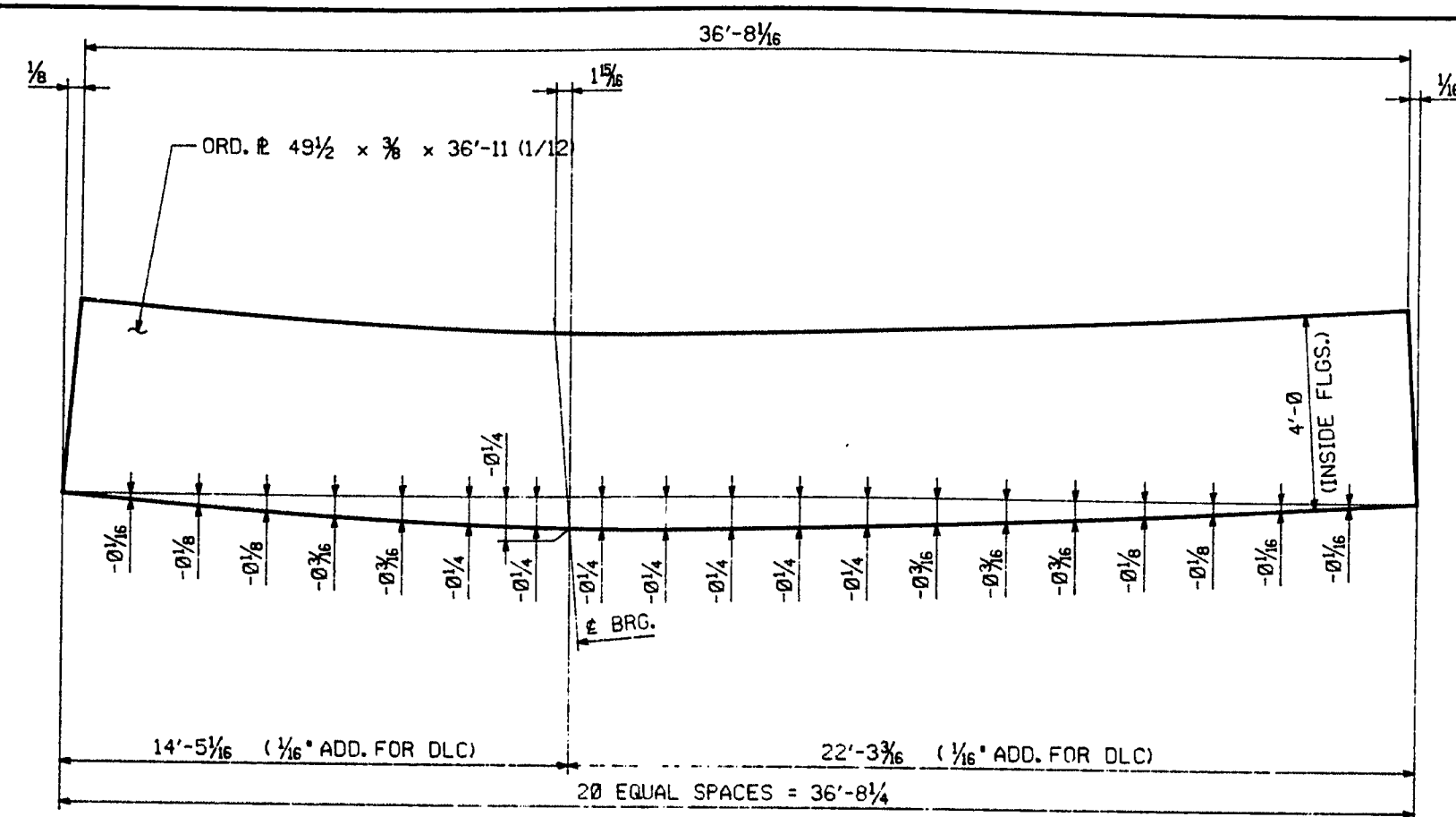
111-154

DESIGN CHG.	6-21-96
NO.	REVISION
DATE	DATE
HIGH STEEL STRUCTURES, INC.	
WEB CAMBER DIAGRAMS RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	TDF
CHECKED BY	DWG
DATE	4-24-96
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	WC2

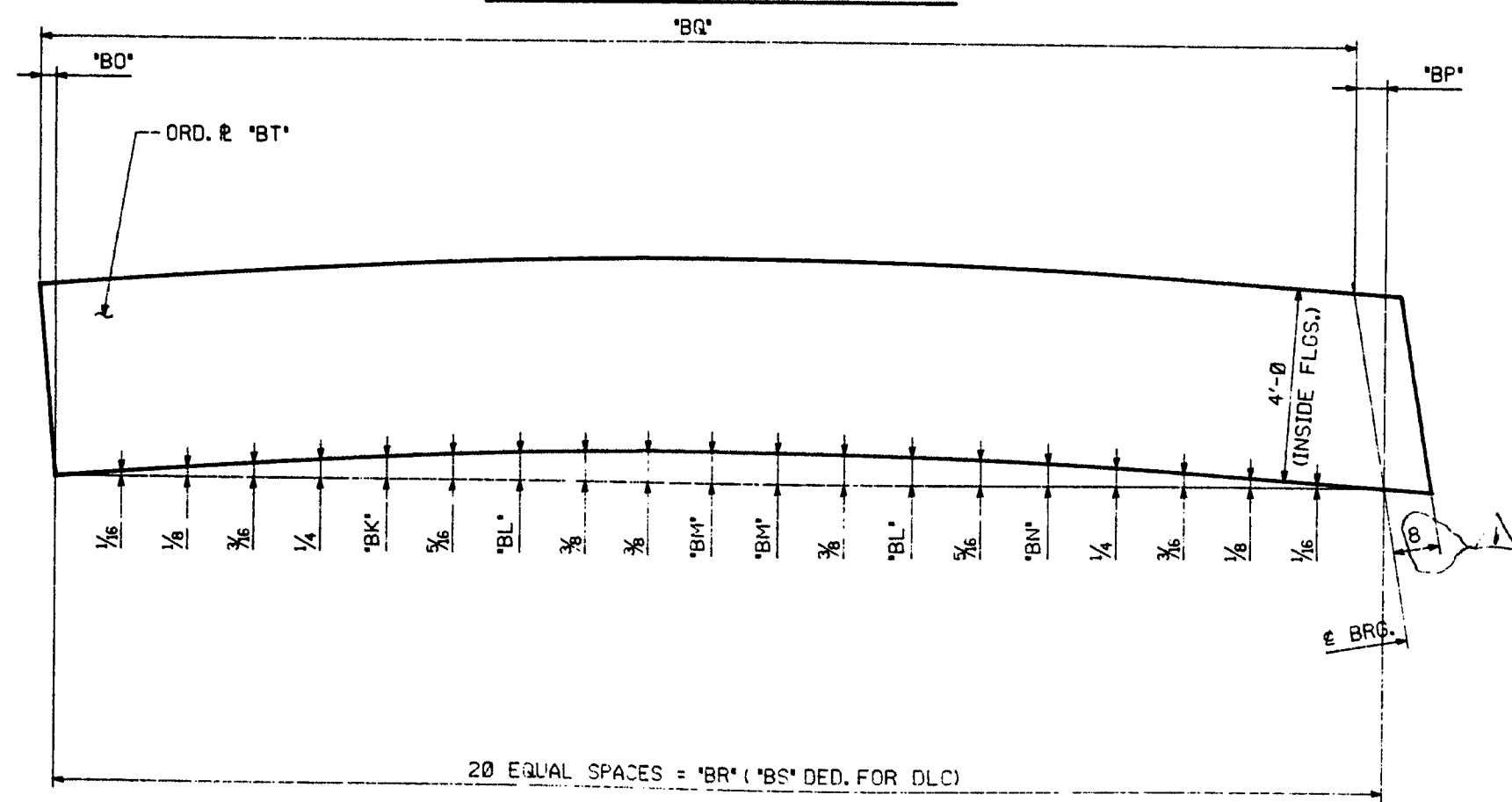
CODE: 30

MAR 1 0 1997

FED. ROAD DIVISION	STATE	FED. AID PROGRAM
1	ME	DE-0091(806)



CAMBER DIAGRAM - G4D



20 EQUAL SPACES = 'BR' ('BS' DED. FOR DLC)

MARK	'BK'	'BL'	'BM'	'BN'	'BO'	'BP'	'BQ'	'BR'	'BS'	'BT'
G1G	1/4	3/8	1/2	5/8	1	1 1/8	1 5/8	2	2 1/8	2 5/8
G2G	1/4	3/8	1/2	5/8	1	1 1/8	1 5/8	2	2 1/8	2 5/8
G3G	1/4	3/8	1/2	5/8	1	1 1/8	1 5/8	2	2 1/8	2 5/8
G4G	1/4	3/8	1/2	5/8	1	1 1/8	1 5/8	2	2 1/8	2 5/8

NOTES:
FOR NOTES, SEE DWG. WC1.

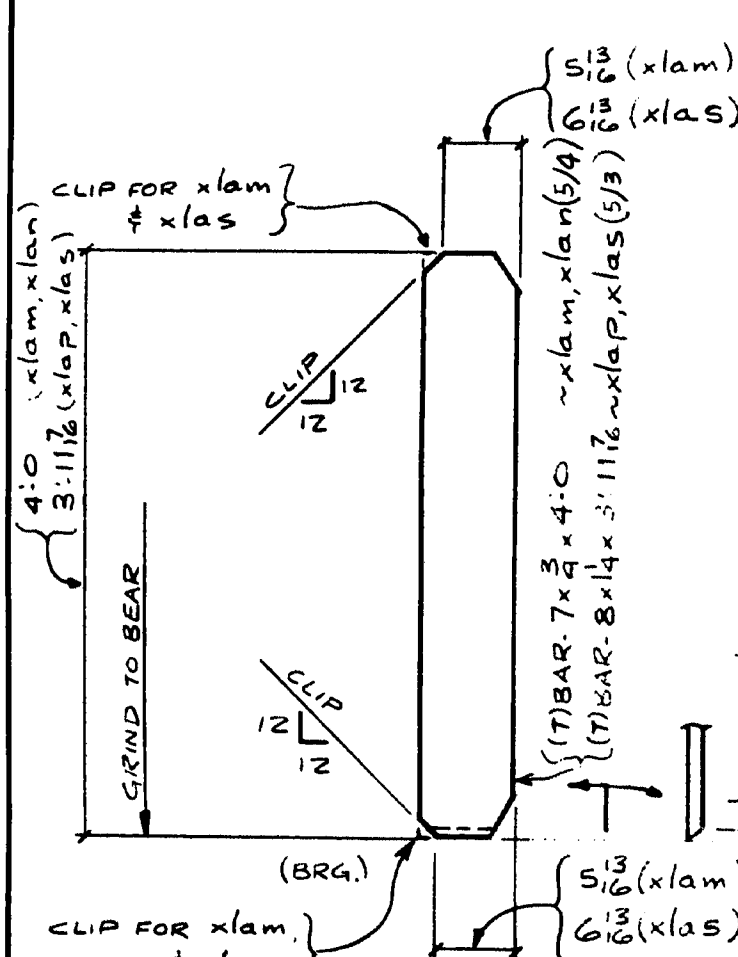
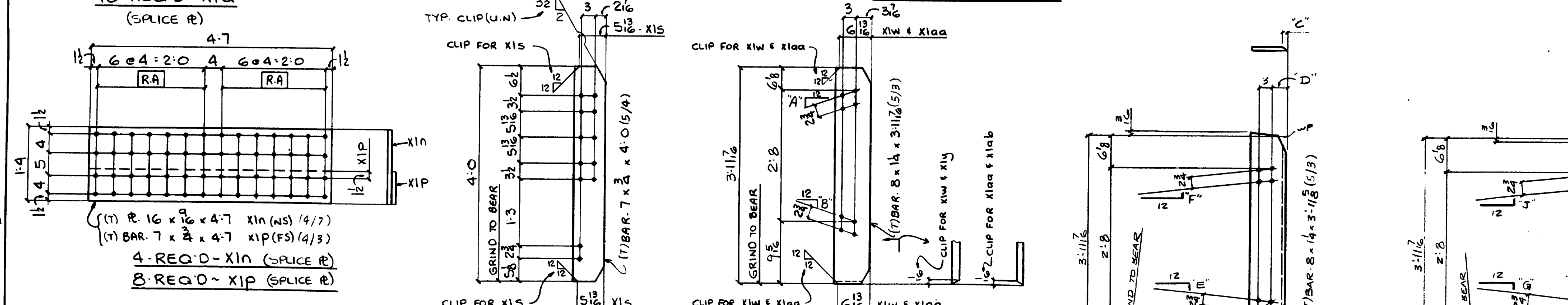
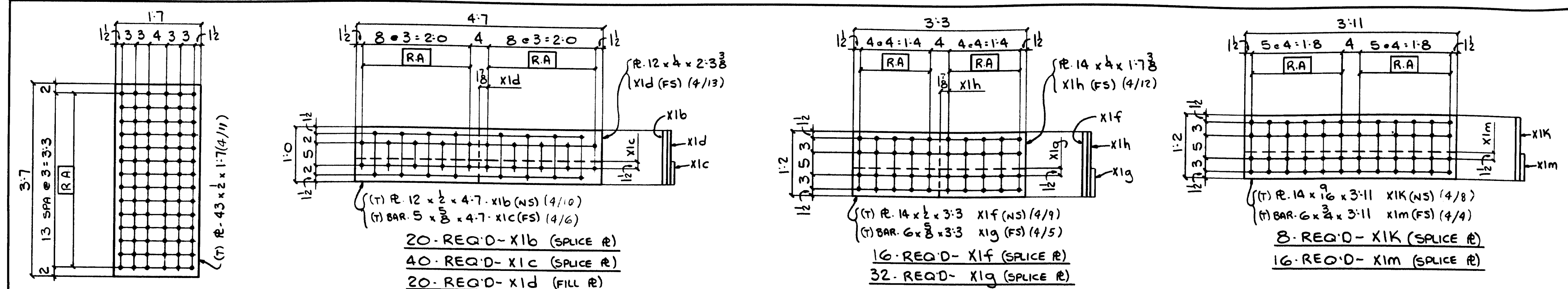
111-155

NO.	REVISION	DATE
<p>STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30</p> <p>CONTRACTOR REED & REED, INC.</p> <p>IN CHARGE: LANCO (WC) MADE BY: TDF CHK'D. BY: DATE:</p> <p>CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WC3</p>		

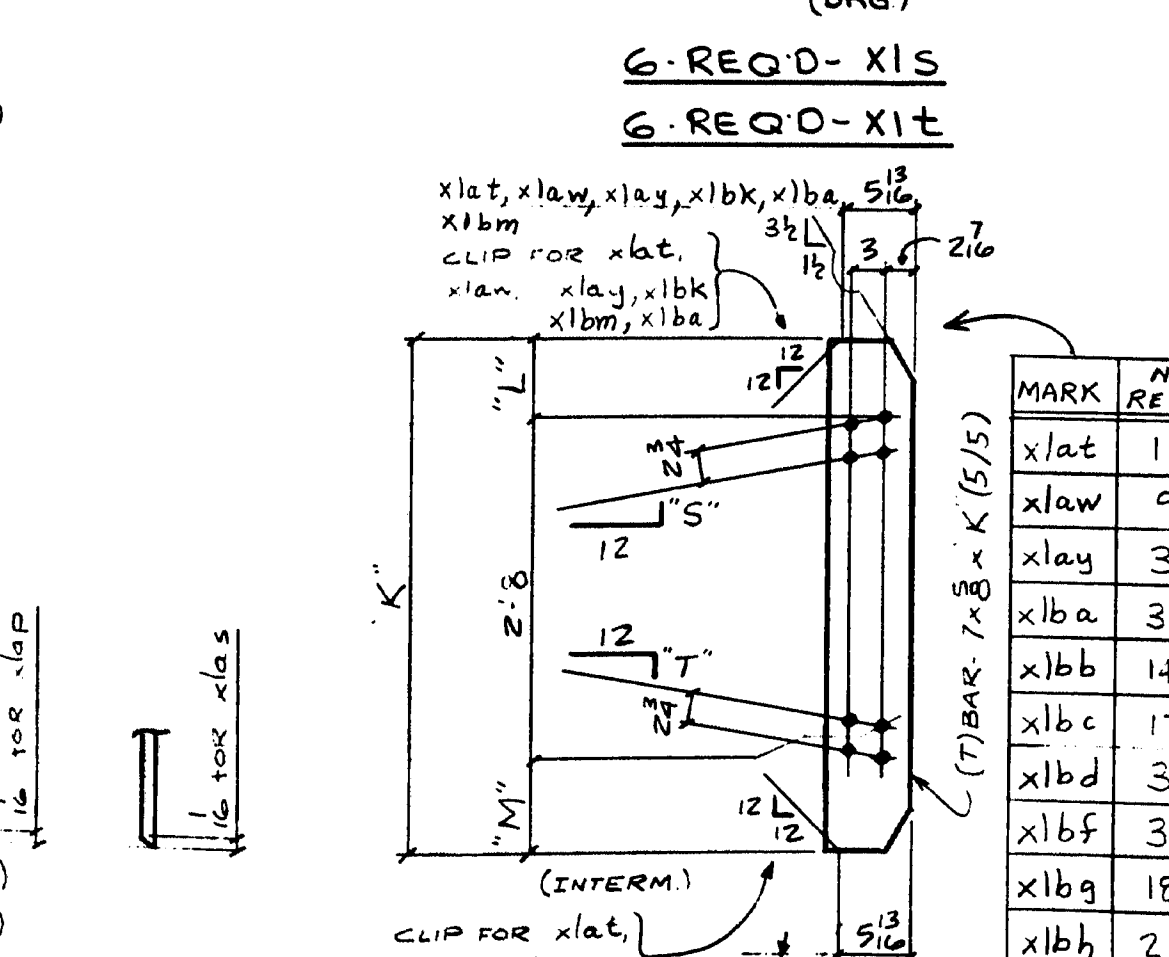
CODE: 30

MAR 1 01997

FED. ROAD DIVISION	STATE	FED. AID PROJ. NO.
1 ME	DE-0091 (806)	



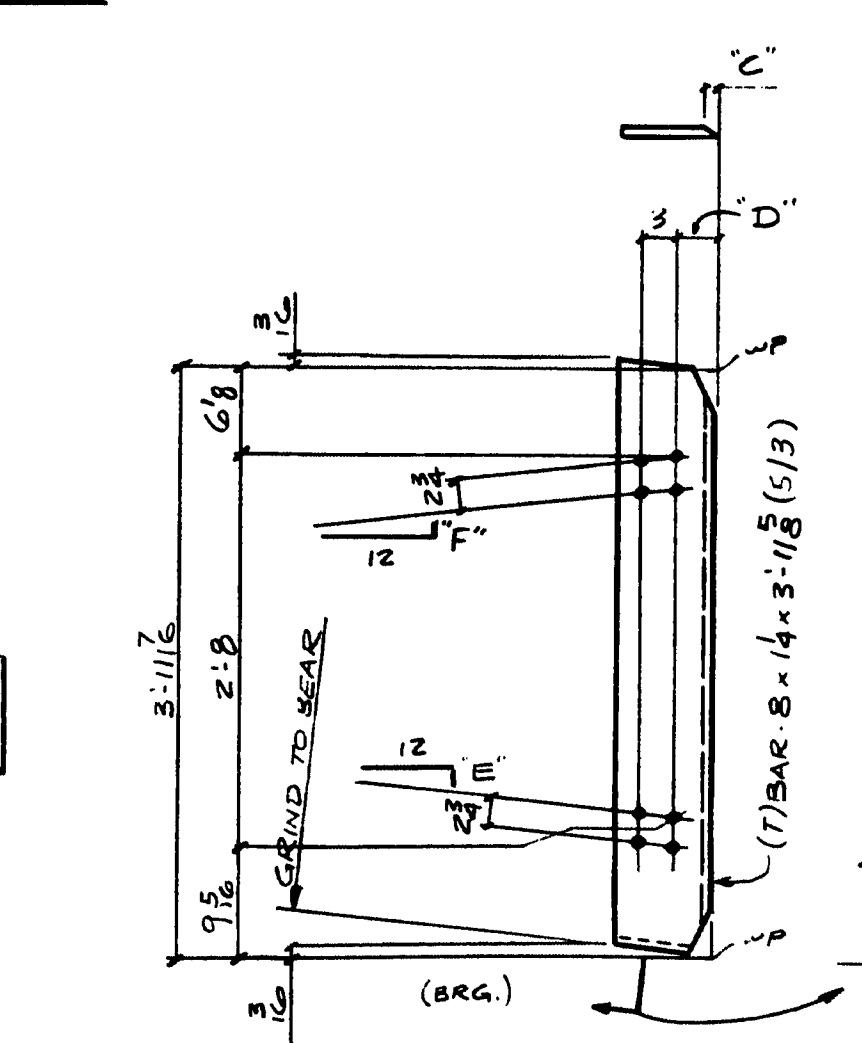
- 2-REQ'D ~ xlam
- 2-REQ'D ~ xlan
- 3-REQ'D ~ xlap
- 3-REQ'D ~ xlas



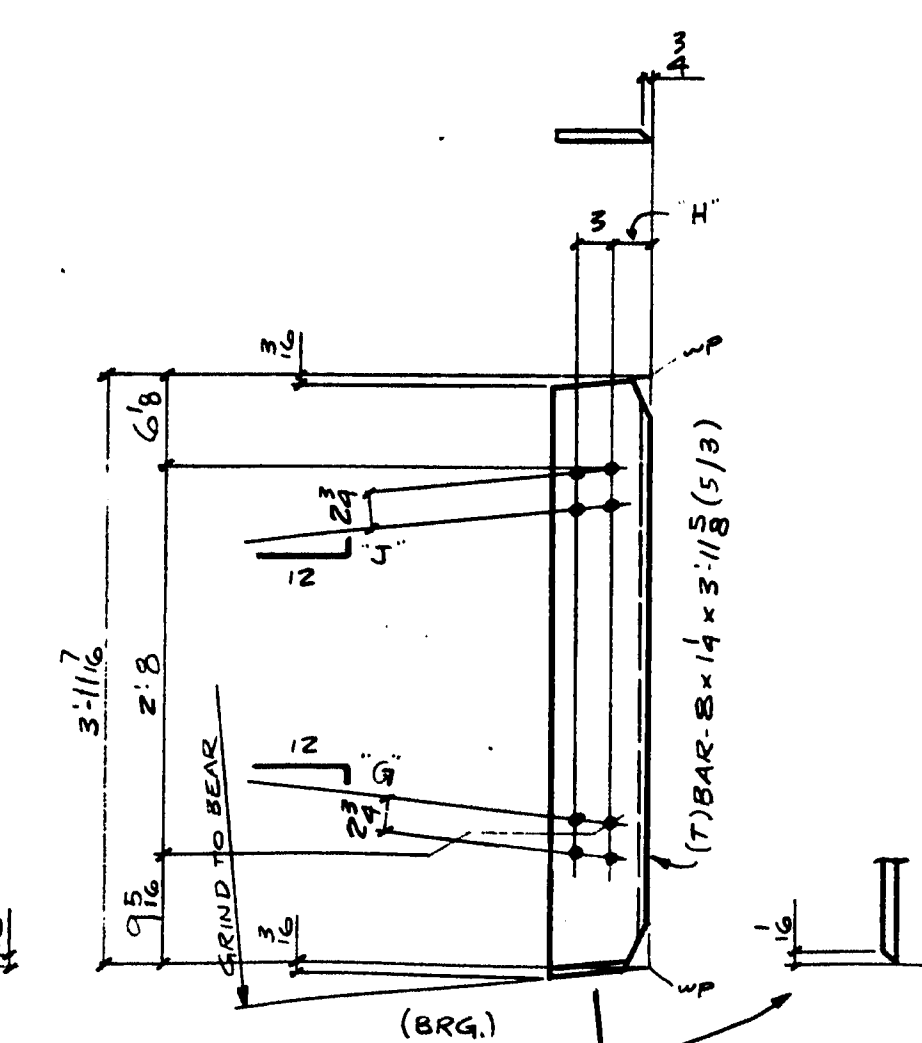
- 6-REQ'D - x1s
- 6-REQ'D - x1t

MARK	REQ'D	A	B
x1w	4	3 1/2	5 1/2
x1y	2	3 1/2	5 1/2
x1aa	2	5 1/4	3 1/2
x1ab	4	5 1/4	3 1/2

MARK	NO. REQ'D	"K"	"L"	"M"	"S"	"T"
x1at	16	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1aw	9	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1ay	3	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/8
x1ba	3	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1bb	14	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1bc	17	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1bd	3	3:11 3/8	6 1/8	9 1/4	3 5/8	5 1/8
x1bf	3	3:11 3/8	6 1/8	9 1/4	3 5/8	5 1/8
x1bg	18	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/8
x1bh	21	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/8
x1bk	6	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/8
x1bm	SNE	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/8



MARK	NO. REQ'D	C	D	E	F"
x1ac	ONE	1 1/2	3 5/8	4 5/8	2 3/8
x1ad	ONE	3 1/2	3 5/8	4 1/2	2 1/2
x1af	ONE	3 1/2	3 1/2	4 1/2	2 3/8



MARK	NO. REQ'D	"G"	"H"	"J"
x1ag	ONE	2 3/4	3 5/8	4 5/8
x1ah	ONE	2 1/2	3 1/2	4 1/2
x1ak	ONE	2 3/8	3 1/2	4 1/2

111-156

SHOP NOTE
HOLES: 15/16"
BOLTS: NONE
PAINT: NONE
FOR GENERAL NOTES SEE DWG. N1

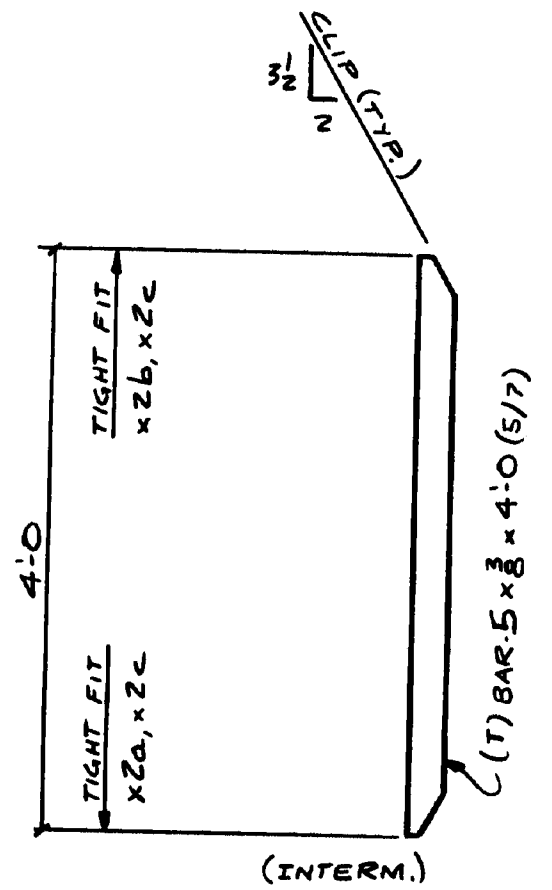
NO. 1 REVISION: INCREASED QUANTITY X1B3 DATE: 9-23-96
X1C3 DUE TO FAB. ERROR.

HIGH STEEL STRUCTURES, INC.

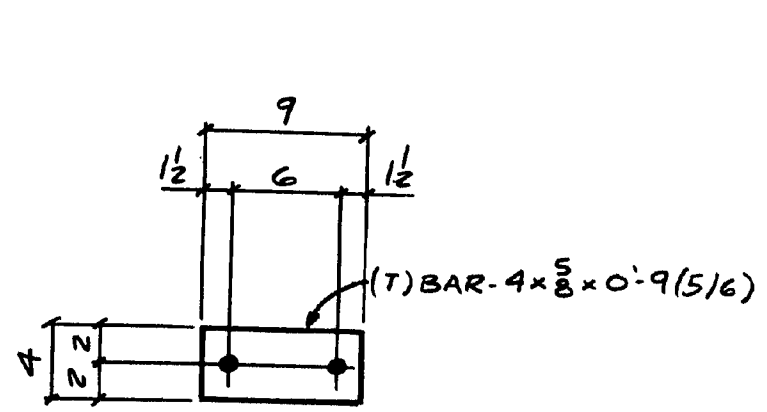
305 Old Philadelphia Pike
Lancaster, Pennsylvania 17602
Phone 717-299-2600

CIRDER JOB STANDARDS
K1E 196 RAMP B OVER U.S. STE. 1
R1E 196 STA. 305+77.12
TOWN OF BRUNSWICK
CUMBERLAND CO., MAINE
STATE OF MAINE DEPT. OF TRANSPORTATION
STATE CONTRACT OR REF. NO. DE-0091 (806) PIN 1465.30
CONTRACTOR: REED & REED, INC. MADE BY: S.J.R. DATE: 5-2-96
IN CHARGE: LANGO (WC) DLD. DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: X1

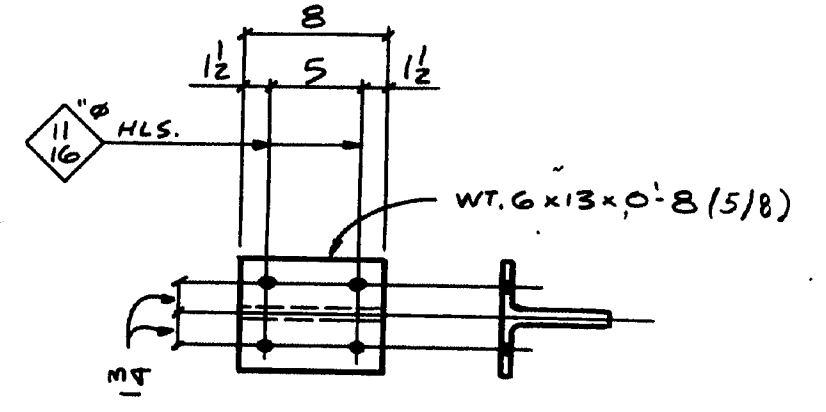
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091 (806)



- 20 - REQ'D ~ X2a
- 55 - REQ'D ~ X2b
- 25 - REQ'D ~ X2c



181 - REQ'D ~ X2d



2 - REQ'D ~ X2f

111-157

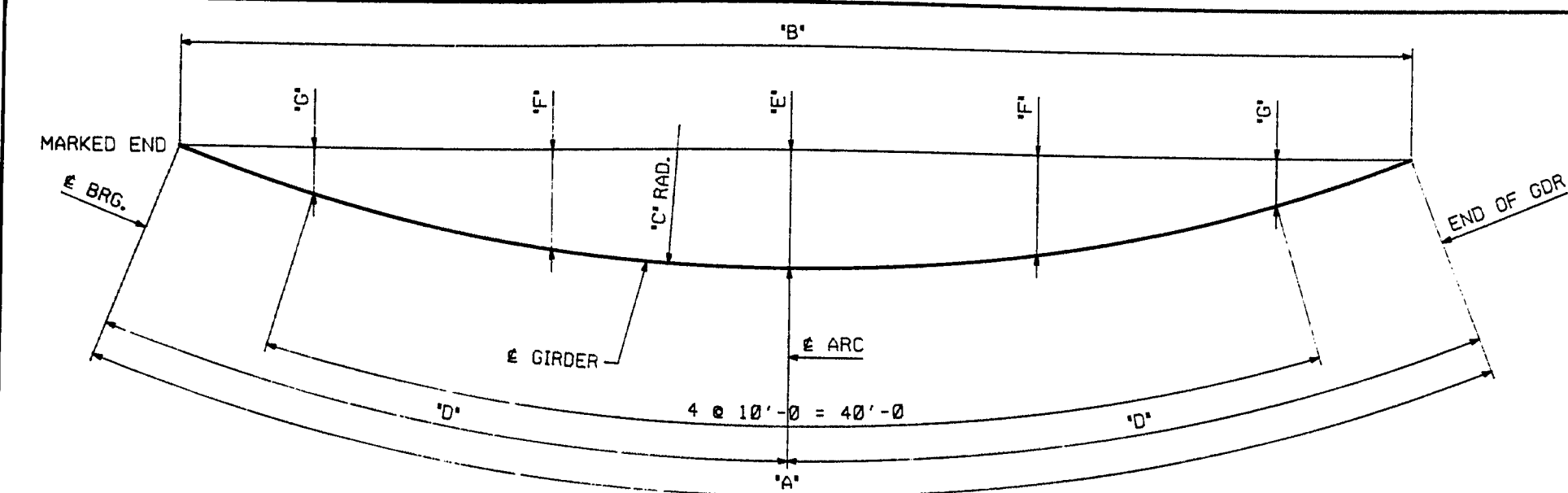
SHOP NOTE
 HOLES: 1/2" (UN)
 BOLTS: NONE
 PAINT: NONE
 FOR GENERAL NOTES SEE DWG. N1

NO. Δ	REVISION: APPL CHANGE	DATE: 8-5-96
<small>205 Old Philadelphia Road Lancaster, Pennsylvania 17603 Phone 717/298-1328</small> HIGH STEEL STRUCTURES, INC. <i>HSI</i> <small>a subsidiary of High Industries, Inc.</small>		
GIRDER JOB STANDARDS		
Rte. 196 RAMP B OVER U.S. Rte. 1		
Rte. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091 (806) FIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANGO (WC)	MADE BY: SJR	CHK'D BY: RF DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: X2	

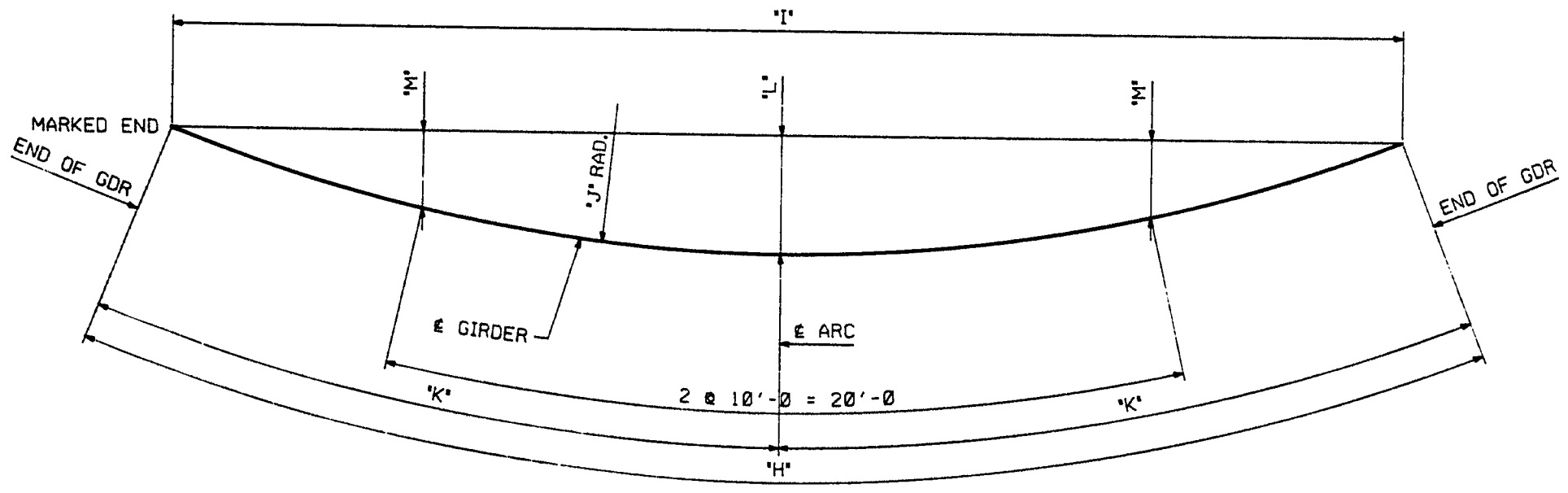
CODE: 30

MAR 1 01997

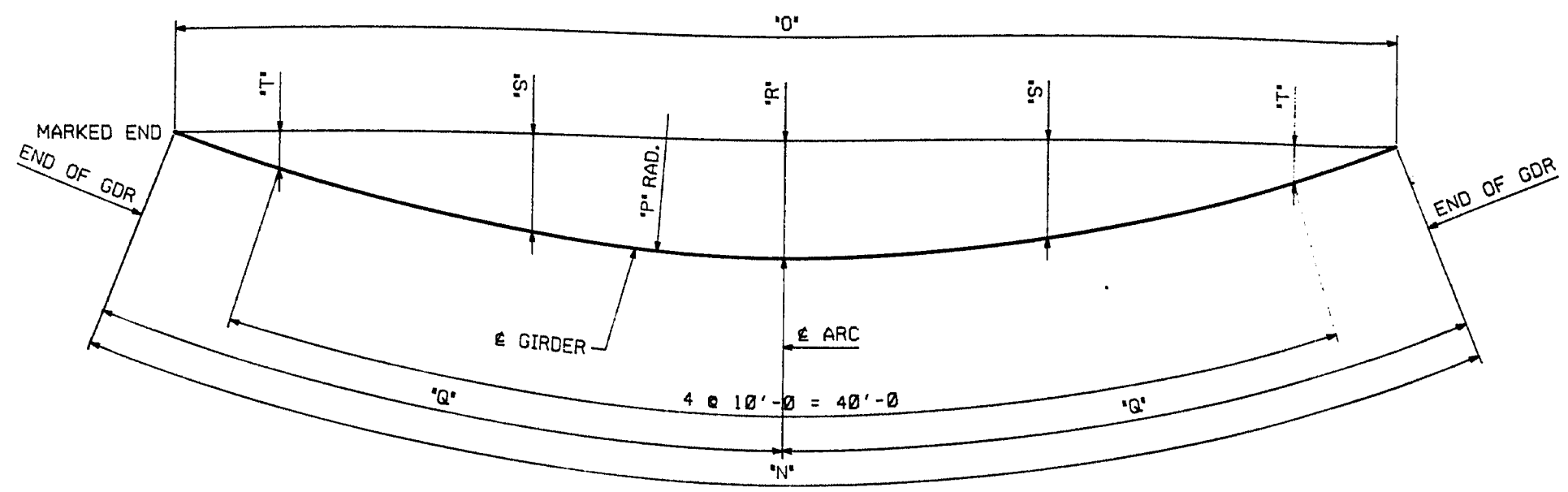
FED. ROAD DIVISION	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



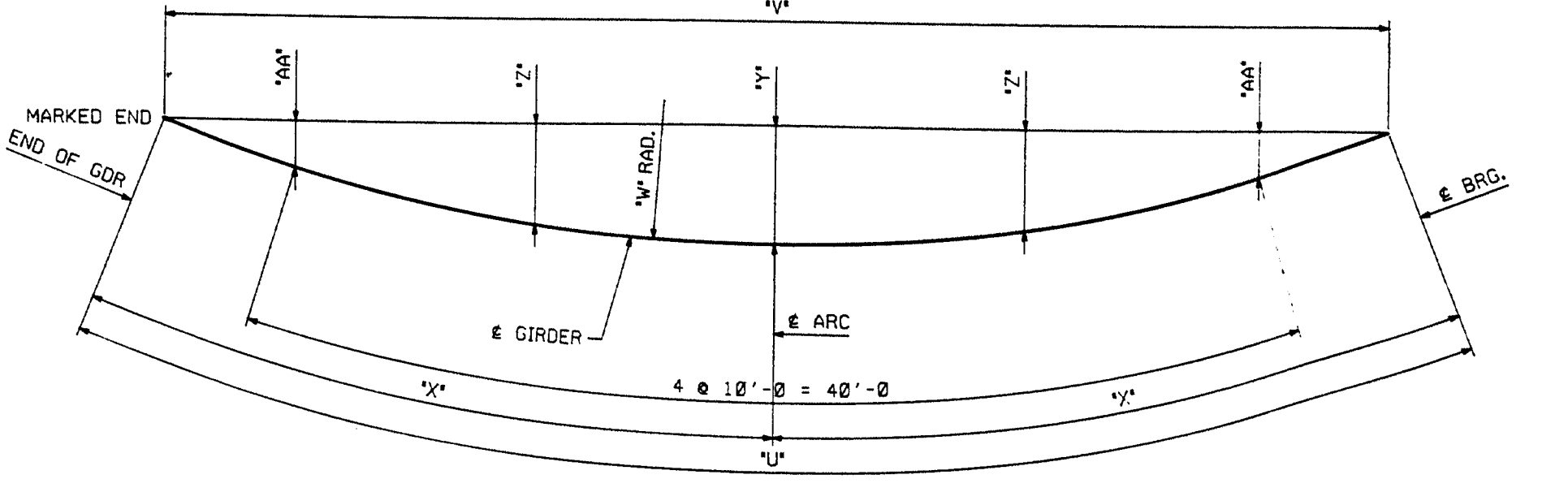
MARK	A*	B*	C*	D*	E*	F*	G*
G1A	51'-0 1/4	51'-7 1/2	338'-4 1/2	25'-10 1/2	11 1/2	10 1/2	4 3/4
G2A	52'-10 3/8	52'-9 1/8	346'-1 1/2	26'-5 1/2	1'-0 1/2	10 3/8	5 3/8
G3A	54'-0 7/8	53'-11 1/8	353'-10 1/2	27'-0 7/8	1'-0 3/4	10 7/8	5 3/8
G4A	55'-2 1/2	55'-1 1/2	361'-7 1/2	27'-7 1/4	1'-0 3/4	11	6



MARK	H*	I*	J*	K*	L*	M*
G1B	34'-3 3/8	34'-3 3/8	338'-4 1/2	17'-1 1/2	5 1/4	3 3/8
G2B	35'-1 1/8	35'-1 1/8	346'-1 1/2	17'-6 1/2	5 3/8	3 3/8
G3B	35'-10 3/8	35'-10 3/8	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4B	36'-8 1/8	36'-7 3/8	361'-7 1/2	18'-4 1/2	5 3/8	3 3/8
G2D	35'-1 3/8	35'-1	346'-1 1/2	17'-6 3/8	5 3/8	3 3/8
G3D	35'-10 3/8	35'-10 1/2	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4D	36'-8 3/8	36'-7 7/8	361'-7 1/2	18'-4 1/2	5 3/8	3 3/8
G1F	34'-3 3/8	34'-3 3/8	338'-4 1/2	17'-1 1/2	5 1/4	3 3/8
G2F	35'-1 1/4	35'-1 1/8	346'-1 1/2	17'-6 1/2	5 3/8	3 3/8
G3F	35'-10 3/8	35'-10 3/8	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4F	36'-8	36'-7 3/8	361'-7 1/2	18'-4	5 3/8	3 3/8



MARK	N*	O*	P*	Q*	R*	S*	T*
G1C	48'-7 1/8	48'-7 1/8	338'-4 1/2	24'-3 3/8	10 1/2	8 1/2	3 3/8
G2C	49'-9 3/8	49'-8 3/8	346'-1 1/2	24'-10 3/8	10 3/8	9	3 3/8
G3C	50'-10 3/8	50'-9 3/8	353'-10 1/2	25'-5 3/8	10 3/8	9 1/4	4 3/8
G4C	51'-11 3/8	51'-11 3/8	361'-7 1/2	25'-11 3/8	11 3/8	9 3/8	4 3/8
G1D	43'-10 3/8	43'-9 3/8	338'-4 1/2	21'-11 3/8	8 1/2	6 3/8	1 7/8
G1E	44'-9 3/8	44'-9 1/2	338'-4 1/2	22'-4 3/8	8 1/2	7 1/8	1 7/8
G2E	55'-7 3/8	55'-6 3/8	346'-1 1/2	27'-9 3/8	1'-1 3/8	11 3/8	6 3/8
G3E	56'-10 3/8	56'-9 3/8	353'-10 1/2	28'-5 3/8	1'-1 3/8	1'-0	6 3/8
G4E	58'-1 3/8	58'-0 3/8	361'-7 1/2	29'-0 3/8	1'-2	1'-0 3/8	7 3/8



MARK	U*	V*	W*	X*	Y*	Z*	AA*
G1D	51'-4 1/8	51'-3 3/8	338'-4 1/2	25'-8 1/8	11 1/8	9 3/8	4 3/8
G2D	52'-6 1/4	52'-5 3/8	346'-1 1/2	26'-3 1/4	11 1/8	10 3/8	5
G3D	53'-8 1/2	53'-7 3/8	353'-10 1/2	26'-10 1/4	1'-0 1/4	10 1/2	5 3/8
G4D	54'-10 3/8	54'-10 3/8	361'-7 1/2	27'-5 3/8	1'-0 1/2	10 3/8	5 3/8

NOTES:
ALL DIMENSIONS APPLY AT THE TOP OF WEB PLATE OF THE GIRDERS.

111-158

NO.	REVISION	DATE

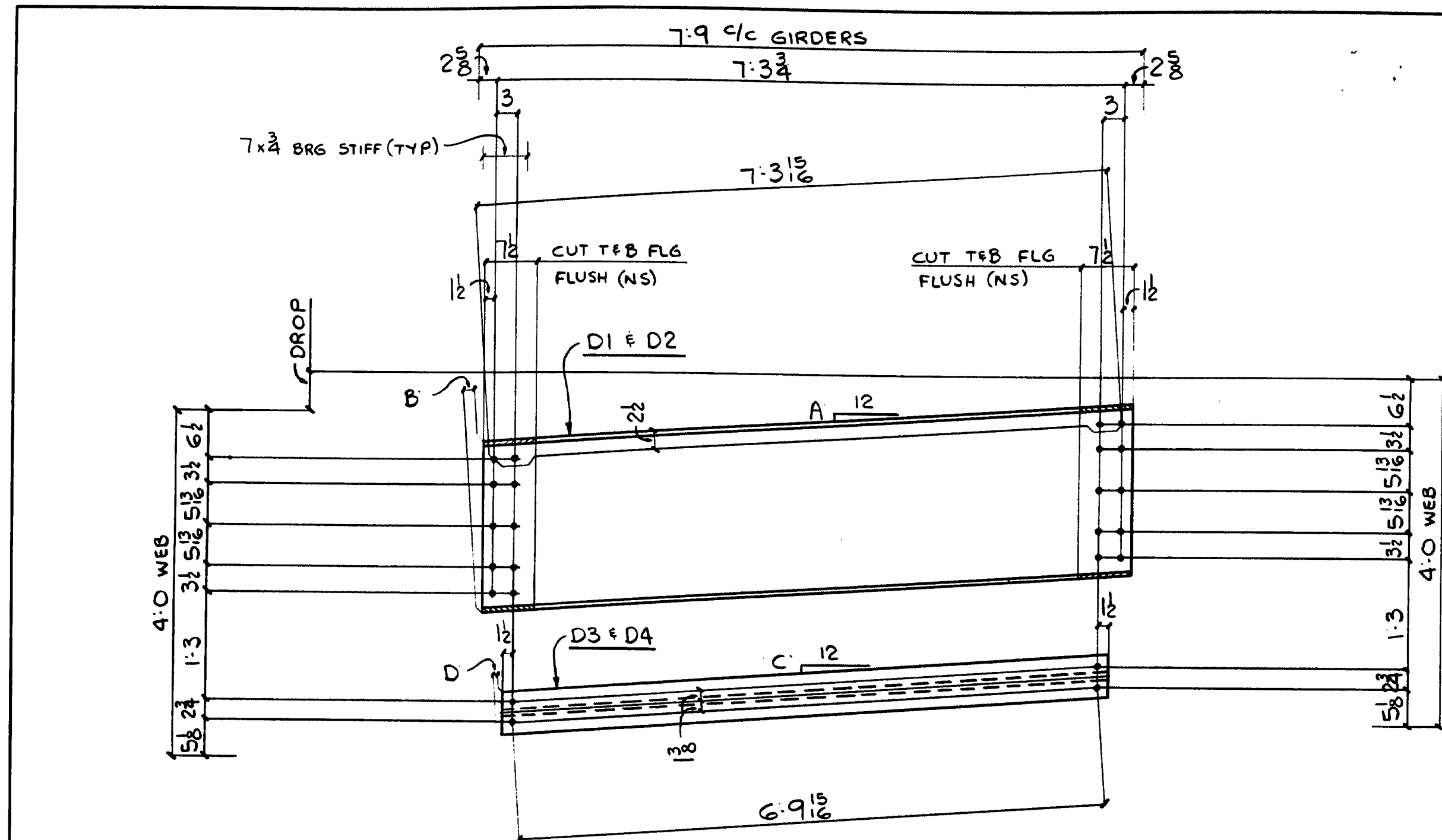
170 Hempstead Road
 Lancaster, PA 17606-0008
 Phone 717/299-5211
HIGH STEEL STRUCTURES, INC.
 A Division of High Industrial, Inc.

HORIZONTAL CURVE DIAGRAMS
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 385+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE LAMCO (WC) MADE BY TDF
 CONTRACT NUMBER ME-96500-1
 DRAWING NUMBER HC1

DATE 4-24-76
 CODE: 30

MAR 1 0 1997



MARK	DROP	A	B
D1	5 9/16	3/4	1 1/2
D2	(-) 5 9/16	(-) 3/4	(-) 1 1/2

MARK	DROP	C	D
D3	5 9/16	1 3/8	3/8
D4	(-) 5 9/16	(-) 1 3/8	(-) 3/8

FEDERAL DIVISION STATE PROJECT
 1 ME DE 009 (506)

BILL OF MATERIAL

NO.	MARK	DESCRIPTION	LENGTH	REMARKS	WT	RESIST
3	D1	W24 x 55	7 8 1/2	(T)	242	424
3	D2	W24 x 55	7 8 1/2	(T)	242	424
3	D3	WT5 x 11	7 1 3/8	(T)	78.5	
3	D4	WT5 x 11	7 1 3/8	(T)	78.5	

111-159

SHOP NOTE
 HOLES: 15/16" φ
 BOLTS: NONE
 PAINT: NONE
 FOR GENERAL NOTES SEE DWG N1

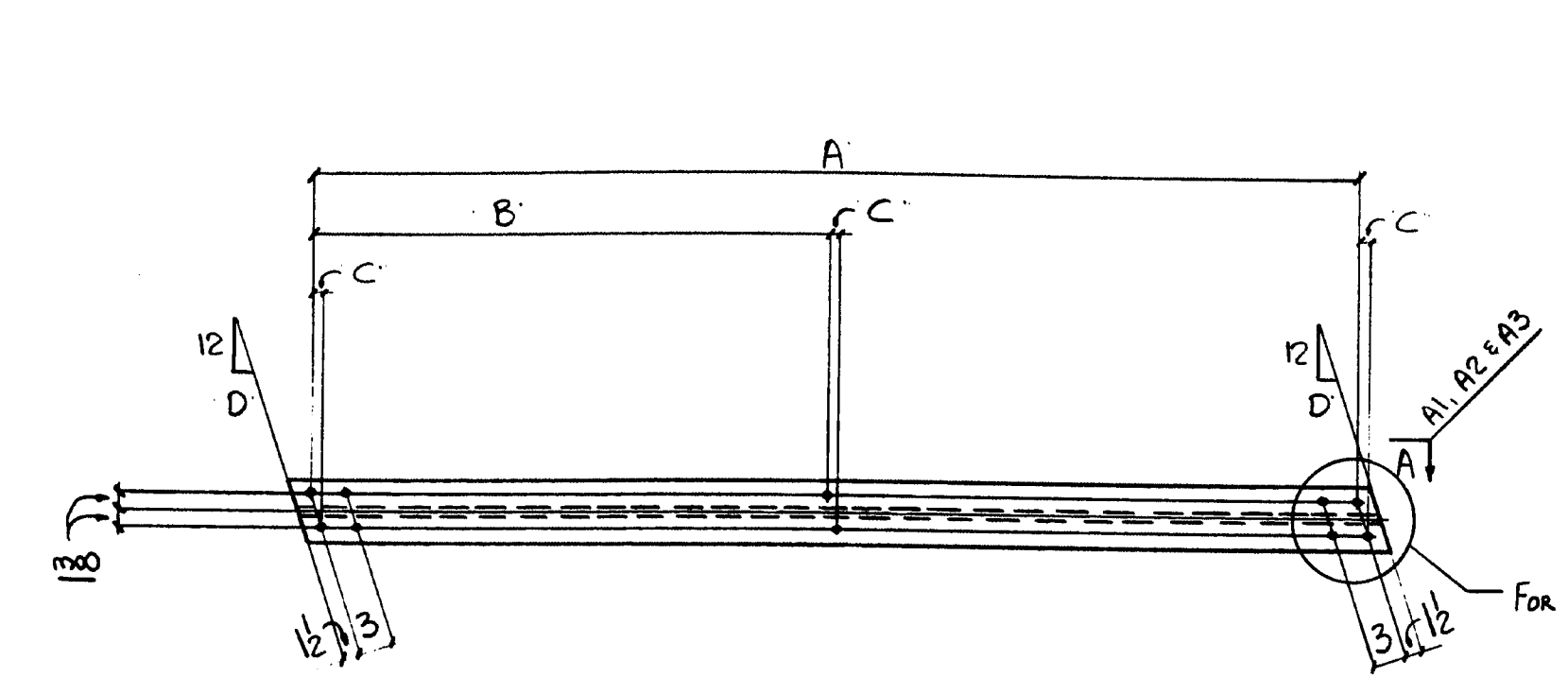
STATE CONTRACT NO. _____ DATE _____
 OR REF. NO. DE-0071 (REV) 1/11/65 32
 CONTRACTOR REED & REED, INC.
 IN CHARGE LAMCO (WL) LIF
 CONTRACT NUMBER ME-9650-1

STATE OF MAINE, DEPT. OF TRANSPORTATION
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 RTE 196 RAMP B OVER I-15 RTE 1
 RTE 196 STA 305+27.12

111-159
 HIGH STEEL STRUCTURES, INC.
 111-159
 111-159

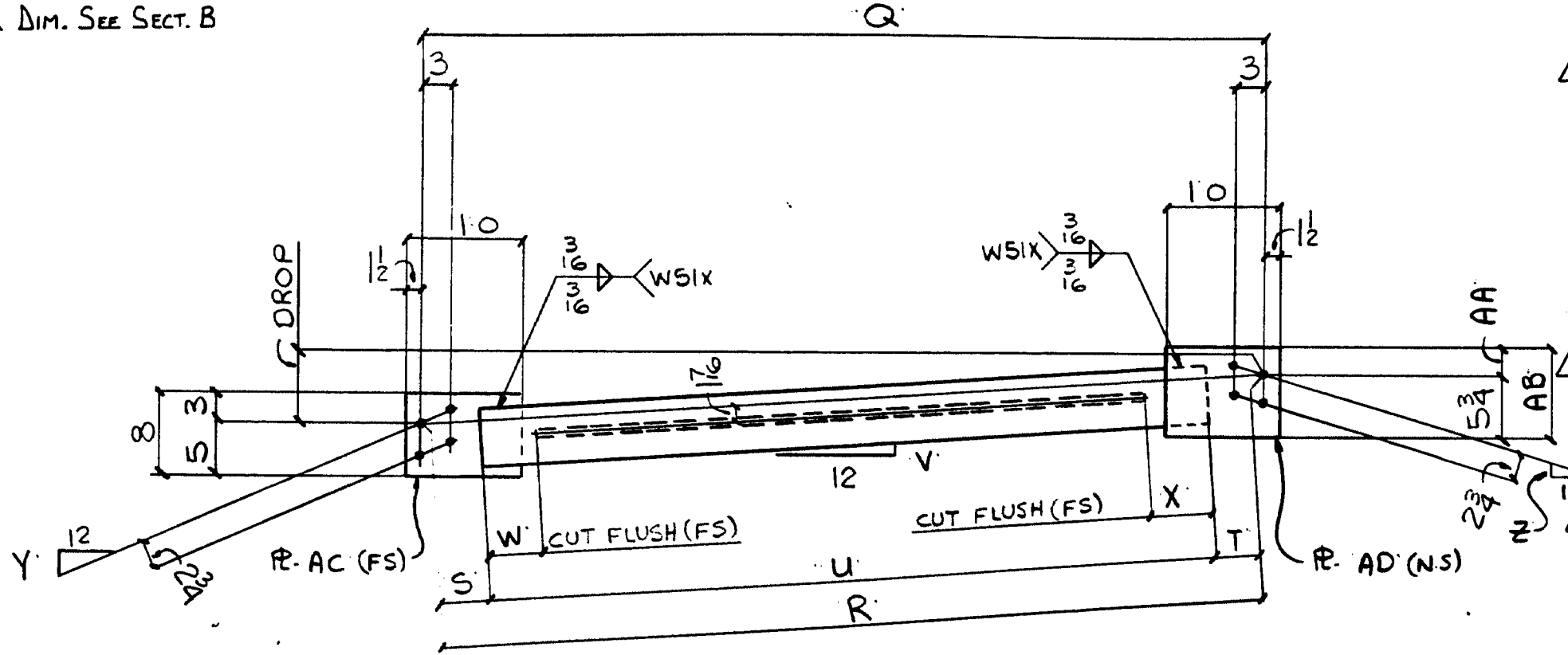
DATE: MAR 1 1965

CODE: 56

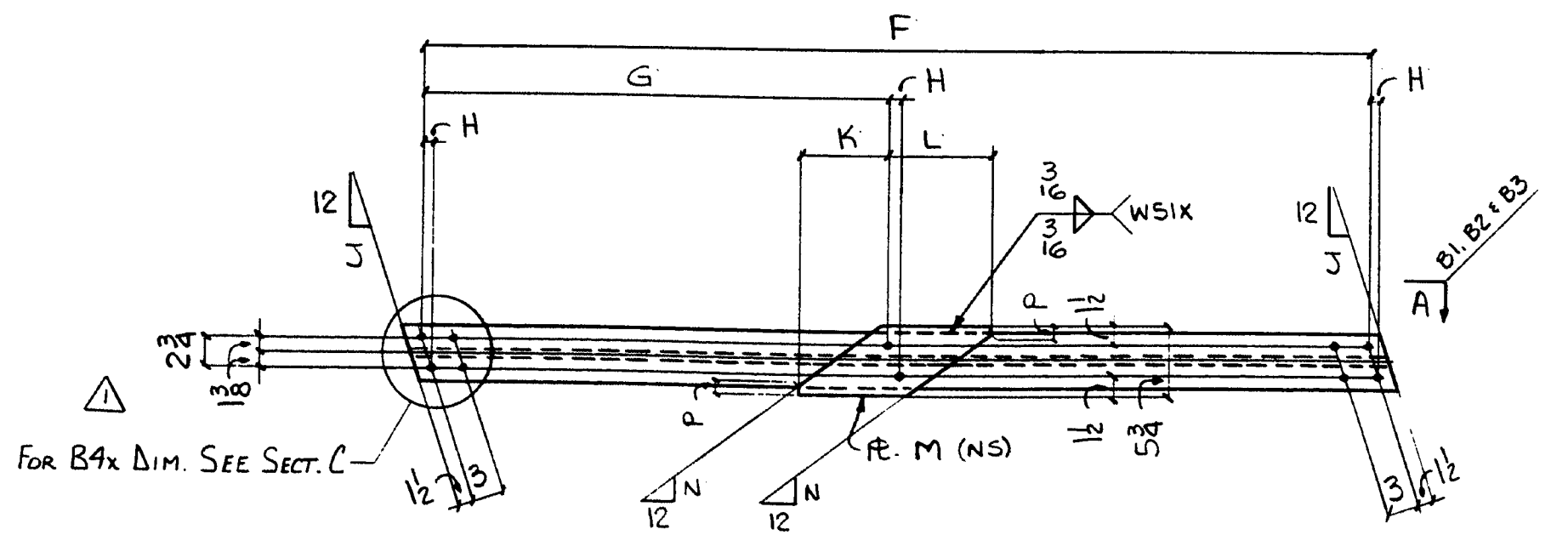


SECTION - A
FOR: A1, A2 & A3, B1, B2 & B3

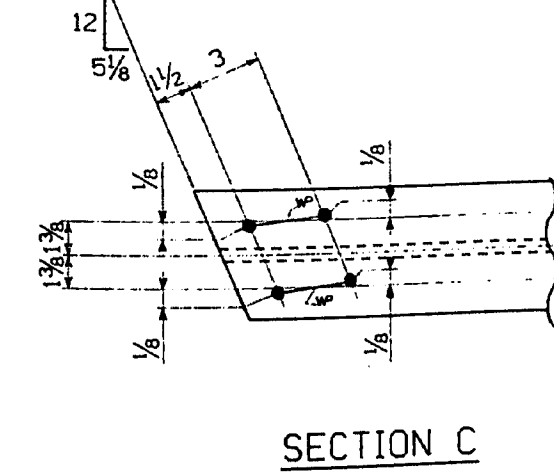
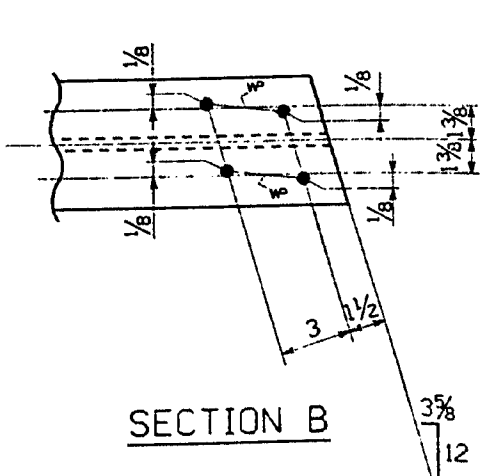
MARK	A	B	C	D	E
A1	8 10/8	4 5 1/16	5 1/8	2 3/4	7 3/8
A2	8 9/4	4 4 3/8	5 1/8	2 1/2	7 0
A3	8 8 3/8	4 4 3/8	1 1/8	2 3/8	6 15/16
A4, A5	7 7 5/8	3 9 13/16	1 3/16	3 3/8	X
A5	7 5 3/4	3 8 3/8	7/8	3 1/16	X



MARK	DROP	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
C1	8 1/16	8 7 3/8	8 7 1/8	5 1/2	6	7 7 3/4	15 1/8	6	6	4 5/8	2 3/4	2 1/2	8 1/4	mg	mh
C2	7 1 5/16	8 6 7/16	8 6 3/4	6	6	7 6 3/4	15 1/8	6	6	4 1 1/16	2 1 1/16	2 1/2	8 1/4	mK	mm
C3	7 1 1/16	8 5 1/16	8 5 3/8	6 1/16	6 1/16	7 5 3/4	15 1/8	6	6	4 1 1/16	2 3/8	2 1/2	8 1/4	mK	mn
C4	5 1/16	7 3 3/4	7 3 1/2	5 1/16	6	6 4	15 1/8	6	6	5 1/8	3 3/8	2 3/4	8 1/2	mp	ms
C5	5 1/16	7 1 3/4	7 1 1/16	5 1/16	6	6 2	15 1/8	6	6	5 1/8	3 1/16	2 3/4	8 1/2	mt	mw
C4x	5 1/16	7 3 3/4	7 3 1/16	5 1/16	6	6 4	15 1/8	6	6	5 1/8	3 1/16	2 3/4	8 1/2	mp	msx



MARK	E	F	G	H	J	K	L	M	N	P
B1	7 3/8	9 2 3/8	4 7 1/16	1 1/16	4 5/8	7 1/2	8 1/4	ma	8 1/16	1
B2	7 3/8	9 2	4 7	1 1/16	4 1 1/16	7 1/2	8 1/4	mb	8 1/4	1
B3	7 8	9 1	4 6 1/2	1 1/16	4 1 1/16	7 1/2	8 1/4	mc	8 5/16	1
B4, B4x	X	7 11 1/2	3 11 3/4	1 3/16	5 1/8	6 1/4	7 1/4	md	10 1/16	1
B5	X	7 9 3/8	3 10 1/2	1 1/16	5 1/4	6 1/4	7 1/4	mf	10 3/8	3/8



SECTION B

SECTION C

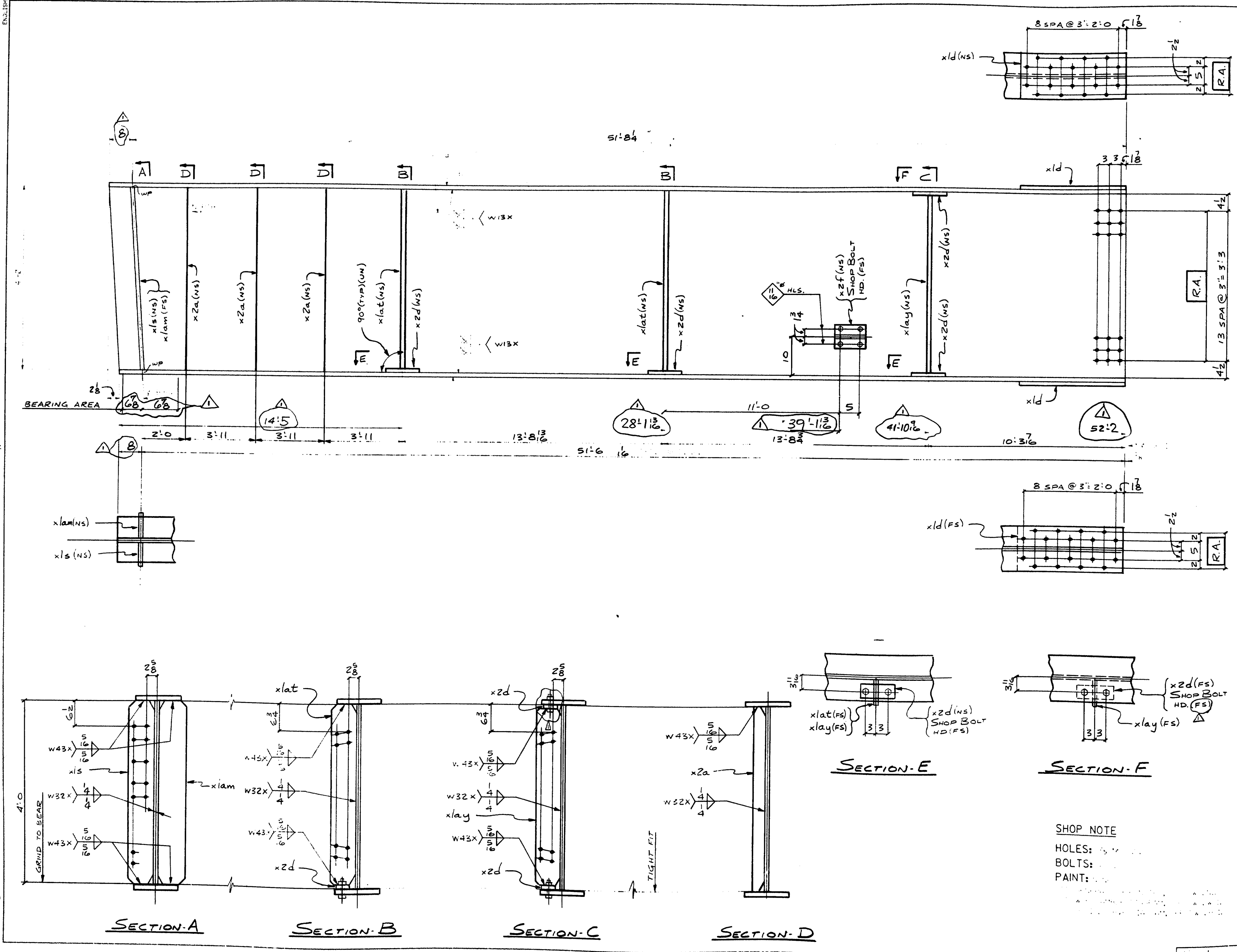
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP WEIGHT LB.
ONE	A1	WT 4 x 9	9 2 3/8 (T)		5 14	82.2
ONE	A2		9 1 5/8 (T)			82.2
ONE	A3		9 0 3/4 (T)			81.5
54	A4		8 0 3/8 (T)			72.2
6	A5	WT 4 x 9	7 10 1/2 (T)		5 14	70.8
9	A4x	WT 4 x 9	8 0 3/8 (T)		5 14	72.2
3	B4x	WT 4 x 9	8 5 (T)		5 14	89.5
ONE	B1	WT 4 x 9	9 8 3/8 (T)		5 14	119.2
ONE	B2		9 7 1/4 (T)			118.5
ONE	B3		9 6 1/4 (T)			117.8
54	B4		8 5 (T)			89.5
6	B5	WT 4 x 9	8 3 1/4 (T)		5 14	101.9
1	ma	BAR 5 3/4 x 1 1/4	1 3 3/4	B1	5 16	
1	mb	BAR 5 3/4 x 1 1/4	1 3 3/4	B2	5 16	
1	mc	BAR 5 3/4 x 1 1/4	1 3 3/4	B3	5 16	
57	md	BAR 5 3/4 x 1 1/4	1 1 1/2	B4, B4x	5 17	
6	mf	BAR 5 3/4 x 1 1/4	1 1 1/2	B5	5 17	
3	C4x	WT 5 x 11	6 4 (T)		5 13	90.7
ONE	C1	WT 5 x 11	7 7 3/4 (T)		5 13	104.8
ONE	C2		7 6 3/4 (T)			103.9
ONE	C3		7 5 3/4 (T)			103
54	C4		6 4 (T)			90.7
6	C5	WT 5 x 11	6 2 (T)		5 13	88.9
1	mg	BAR 8 x 3/8	1 0	C1	5 18	
1	mh	BAR 8 x 3/8	1 0	C1	5 18	
2	mK	BAR 8 x 3/8	1 0	C2 + C3	5 18	
1	mm	BAR 8 x 3/8	1 0	C2	5 18	
1	mn	BAR 8 x 3/8	1 0	C3	5 18	
57	mp	BAR 8 x 3/8	1 0	C4, C4x	5 18	
54	ms	BAR 8 x 3/8	1 0	C4	5 18	
6	mt	BAR 8 x 3/8	1 0	C5	5 18	
6	mw	BAR 8 x 3/8	1 0	C5	5 18	
3	msx	BAR 8 x 3/8	1 0	C4x	5 18	

111-160

NO.	REVISION	DATE
1	ADDED A4x, B4x, C4x PER FAB. ERROR	9-25-96
<p>1710 Hempstead Road Lancaster, PA 17605-0008 Phone 717/291-5211</p> <p>HIGH STEEL STRUCTURES, INC.</p> <p>CROSSFRAMES RTE 196 RAMP B OVER US RTE 1 RTE 196 STA 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p> <p>CONTRACTOR: REED & REED, INC. IN CHARGE: LANCO (WC) MADE BY: DF CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 2 OF 30</p>		

SHOP NOTE
HOLES: 15 1/4
BOLTS: NONE
PAINT: NONE
FOR GENERAL NOTES SEE DWG N1

ENGLISH



FEDERAL ROAD DISTRICT NO. 0001(806)

BILL OF MATERIAL

ITEM	DESCRIPTION	LENGTH	REMARKS	QTY	UNIT	WGT.
1	GIA					7.572
1	48#		52.44	1	B	
2	12#		52.44	2	24	
2	12#		52.2	2	24	
2	xld R-12#	2 3/8"	(T)	4	13	
1	xls BAR-7#	4 0"	(T)	5	4	
1	xlam BAR-7#	4 0"	(T)	5	4	
2	xlat BAR-7#	3 10 3/4"	(T)	5	5	
1	xlay BAR-7#	3 10 3/4"	(T)	5	5	
3	x2a BAR-5#	4 0"	(T)	5	7	
4	x2d BAR-4#	0 9"	(T)	5	6	
1	x2f WT 6x13	0 8"		5	8	
4	5/8" H.S. BOLTS	0 1 3/8"	WT. WEB	82	5	
4	WASHERS FOR 5/8" BOLTS			82	6	
8	3/8" H.S. BOLT	0 2 3/8"	FLG	82	9	
8	WASHERS FOR 3/8" BOLT			82	11	

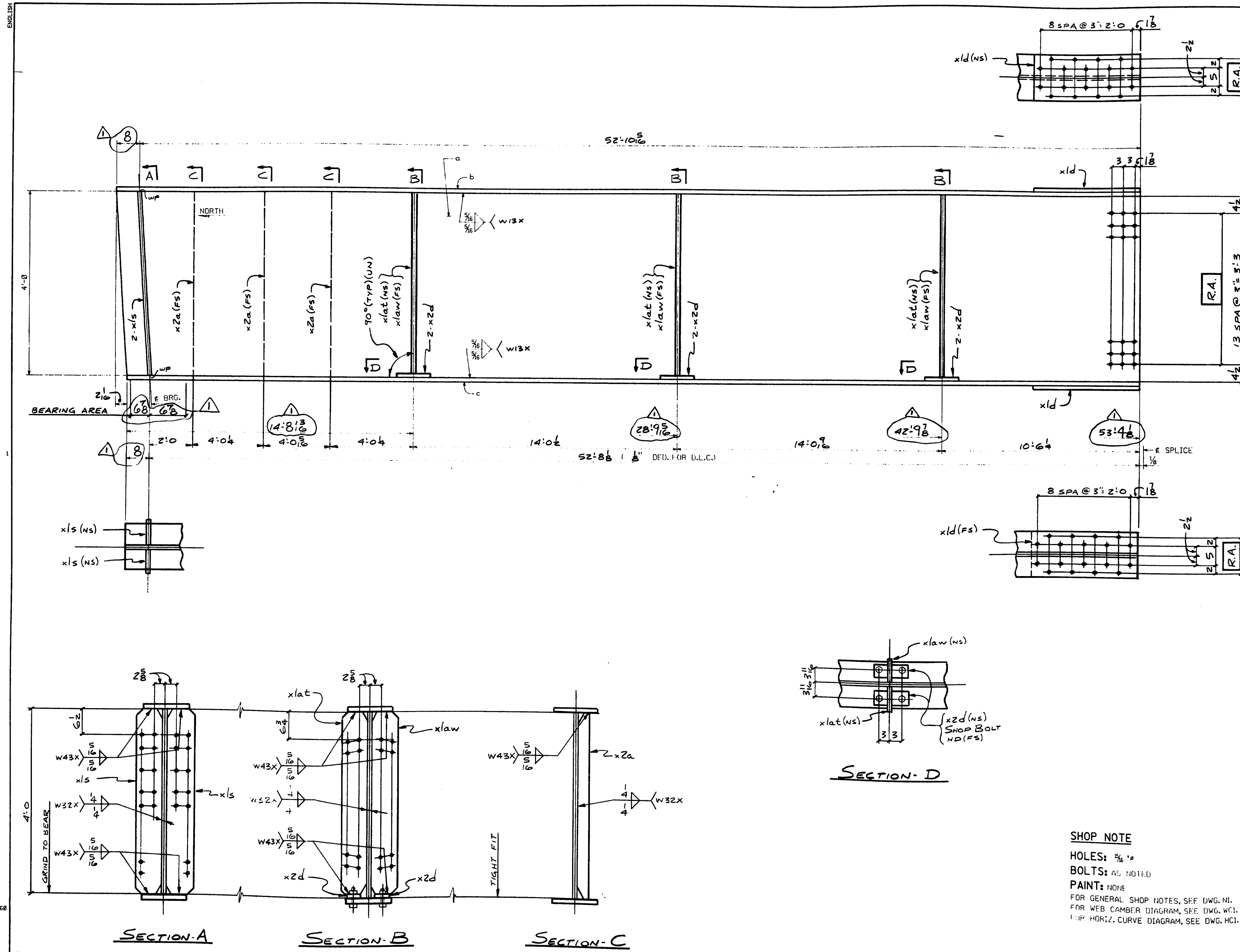
111-161

1	CHG. OVERHANG (DESIGN CHG.)	6-21-96
HIGH STEEL STRUCTURES, INC.		
ME-96500-1		
DATE	RF	DATE
5-2-96	3	OF 30

MAR 1 01997

SHOP NOTE
HOLES: ...
BOLTS: ...
PAINT: ...

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
ONE	G2A	GIRDER				7.132
1	a	8-48x8	53' 6 3/8"	(T)		17
1	b	8-12x8	53' 6 3/8"	(T)		22
1	c	8-12x8	53' 4 1/8"	(T)		23
2	x1d	2-12x4	2' 3 3/8"	(T)		4
2	x1s	BAR-7x1/2	4' 0"	(T)		5
3	x1at	BAR-7x1/2	3' 11 1/8"	(T)		5
3	x1aw	BAR-7x1/2	3' 11 1/8"	(T)		5
3	x2a	BAR-5x1/2	4' 0"	(T)		5
6	x2d	BAR-4x1/2	0' 9"	(T)		5
12	1/2"	H.S. BOLT	0' 2 1/2"			829
12	1/2"	WASHERS FOR 1/2" BOLT				831

111-162

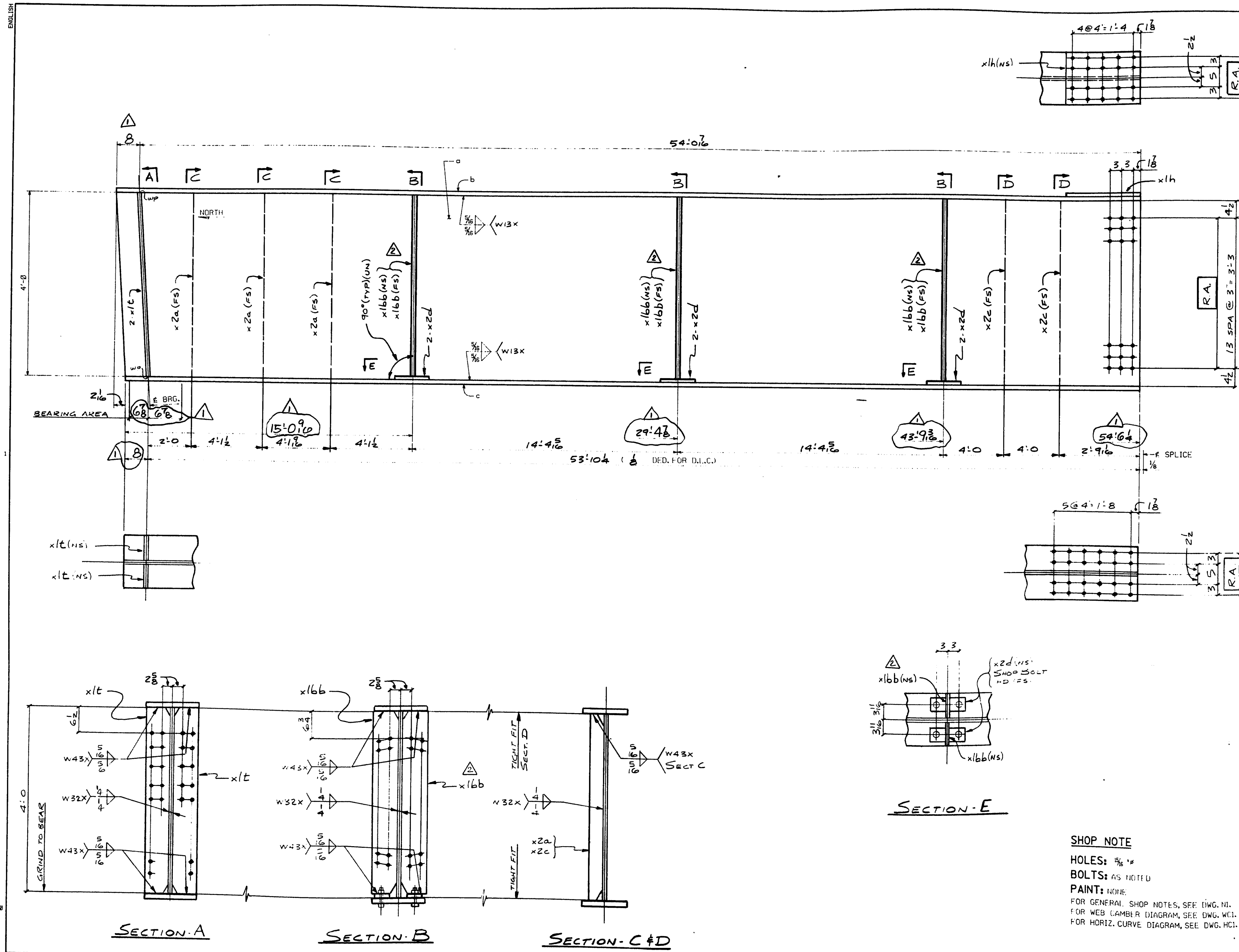
CHG. OVERHANG (DESIGN CHG.)	6-21-90	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
1710 Hempstead Road Lancaster, PA 17601-0008 Phone 717/299-5201		
GIRDER ~ G2A		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY SJR
DATE	5-2-96	RF
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		4 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

CODE:30

MAR 1 01997

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-009(1006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
ONE	G3A	GIRDER				9208
1	o	48 x 8	54' 8 1/2	(T)		1
1	o	14 x 8	54' 8 1/2	(T)		2
1	c	14 x 18	54' 6 1/4	(T)		2
1	x1h	14 x 4	17' 8	(T)		2
2	x1c	BAR-7 x 3/4	40	(T)		5
6	x16b	BAR-7 x 3/8	311' 8	(T)		5
6	x2d	BAR-4 x 1/2	09	(T)		5
3	x2a	BAR-5 x 3/8	40	(T)		5
2	x2c	BAR-5 x 3/8	40	(T)		5
12		3/4" HS BOLT	03	B.R. FLG.		B2 10
12		WASHERS FOR 3/4" BOLT				B2 11

111-163

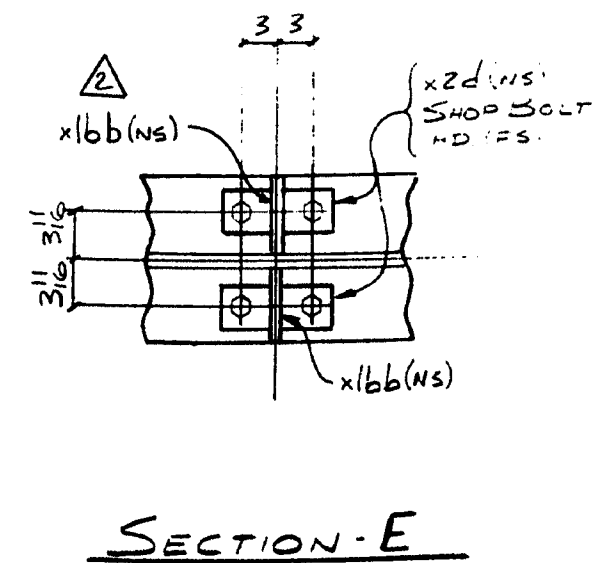
NO.	REVISION	DATE
2	CHANGED x1bc TO x1bb: FAB ERROR	9-23-96
1	CHG. OVERHANG (DESIGN CHG.)	6-21-96

HIGH STEEL STRUCTURES, INC.
 1716 Industrial Road
 Lancaster, PA 17603-0008
 Phone 717/299-9225
 A Division of High Industries, Inc.

GIRDER - G3A
 RTE. 196 RAMP B OVER I.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

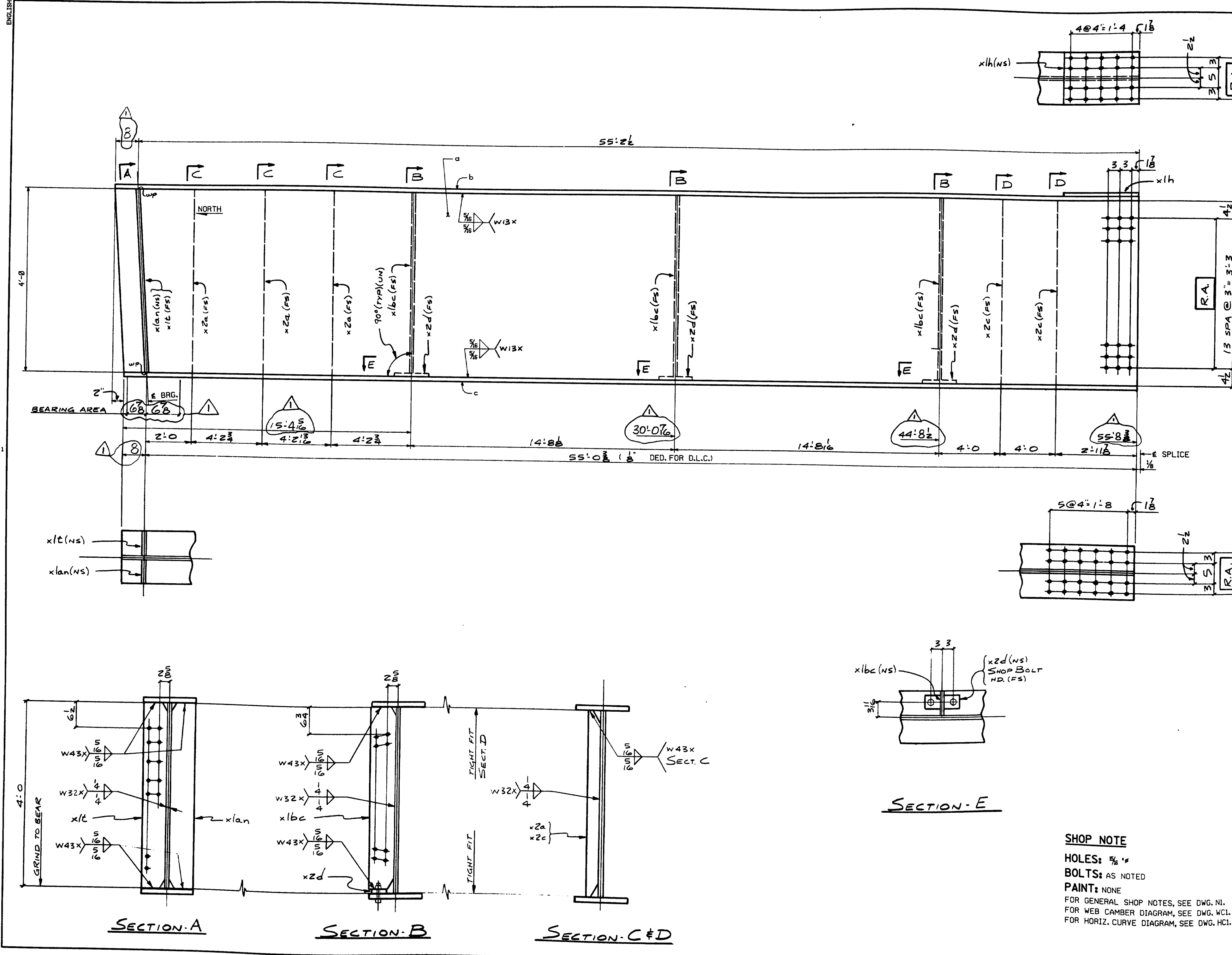
STATE CONTRACT OR REF. NO. - DE-009(1006) PIN 1665.38
 CONTRACTOR REED & REED, INC.
 IN CHARGE LANCOS (WC) MADE BY SJR BY RF DATES 5-2-96
 CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 5 OF 30

SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO.
 FOR WEB LAMBER DIAGRAM, SEE DWG. W.C1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H.C1.



68

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL					
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM WEIGHT
ONE	G4A	GIRDER			9,196
1	a	E-48x8	55'10 1/2	(T)	1 1/2
1	b	E-14x8	55'10 1/2	(T)	2 1/2
1	c	E-14x16	55'8 3/8	(T)	2 1/2
1	x1h	E-14x4	1 7/8	(T)	1 1/2
1	x1c	BAR-7x3/8	4 0	(T)	5 1/4
1	x1an	BAR-7x3/8	4 0	(T)	5 1/4
3	x1bc	BAR-7x3/8	3 11 3/8	(T)	5 5
3	x2d	BAR-4x5/8	0 9	(T)	5 6
3	x2a	BAR-5x3/8	4 0	(T)	5 7
2	x2c	BAR-5x3/8	4 0	(T)	5 7
6	7/8"	H.S. BOLT	0 3	3" FLG.	BZ 10
6		WASHERS FOR 7/8" BOLTS			BZ 11

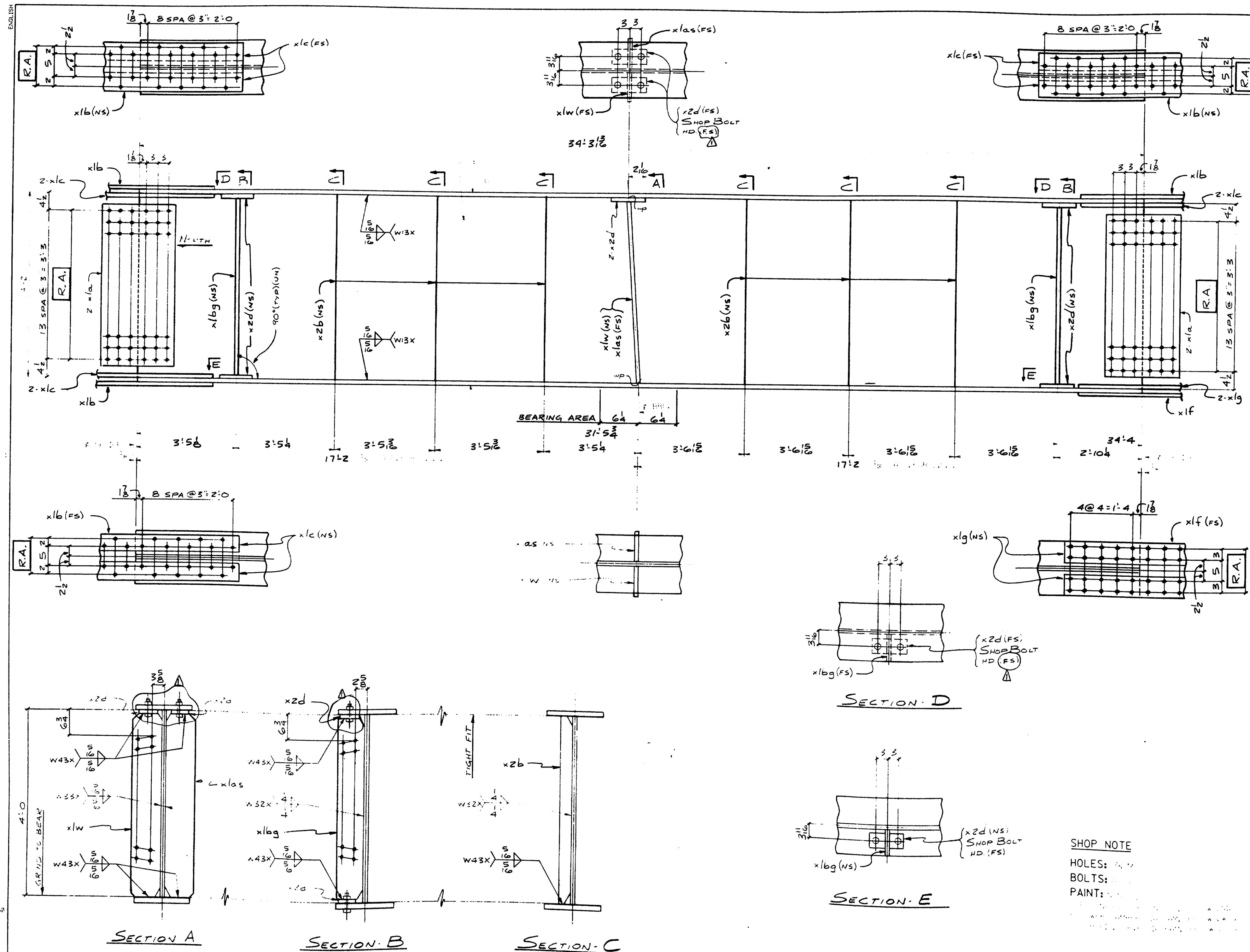
111-164

△		
△		
△	CHG. OVERHANG (DESIGN CHG.)	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 1710 Hempstead Road Lancaster, PA 17603-0008 Phone 717/299-3221 A Division of High Industries, Inc.		
GIRDER - G4A		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT DE-0091(806) PIN 1665.38		
CONTRACTOR REED & REED, INC.		
IN CHARGE	MADE BY	CHECKED BY
LANCO (WC)	SJR	RF
DATE	5-2-96	
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		6 OF 30

SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. W1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

CODE:30

MAR 1 0 1997



FED. ROAD DISTRICT NO. 1 STATE ME. PROJ. NO. ME-96500-1 SHEET NO. 1557

FED. AID PROJ. NO. 0091(B06)

ENGLISH

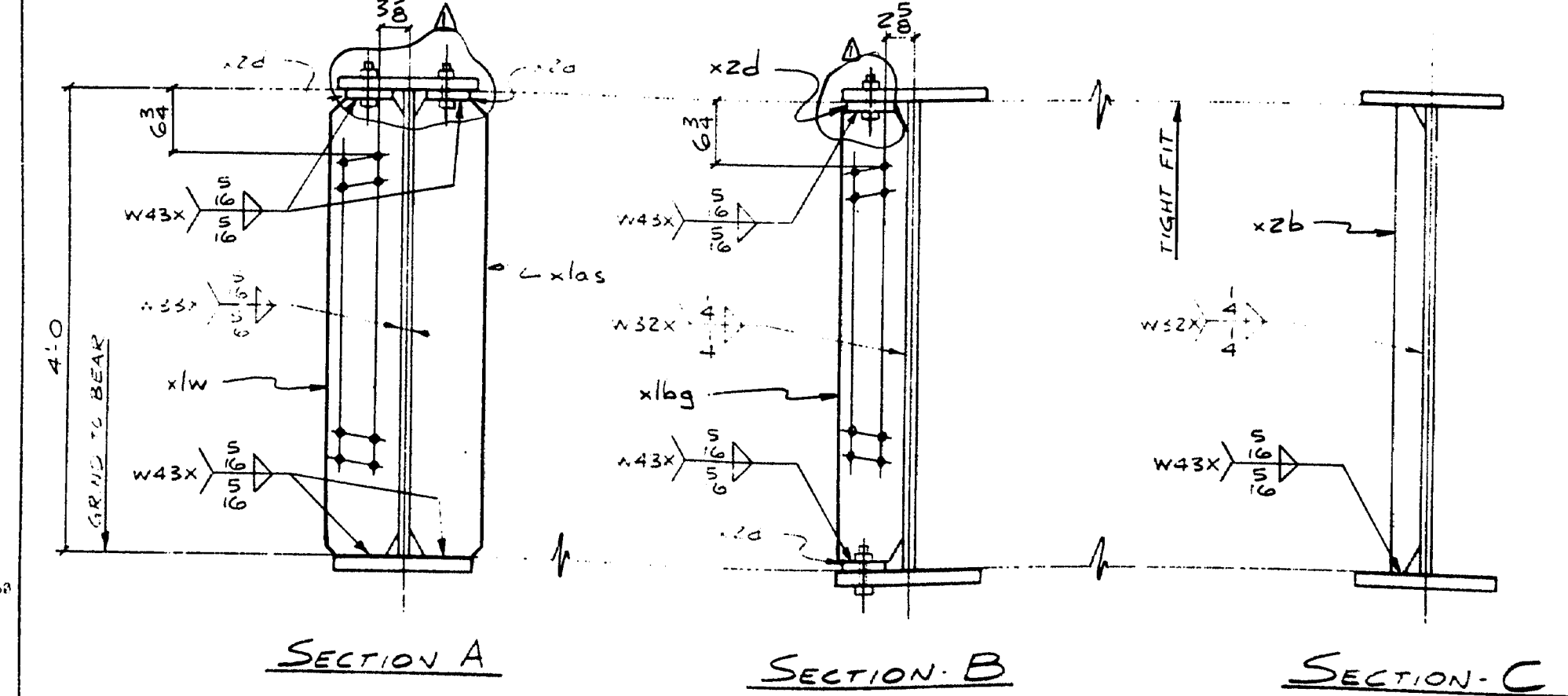
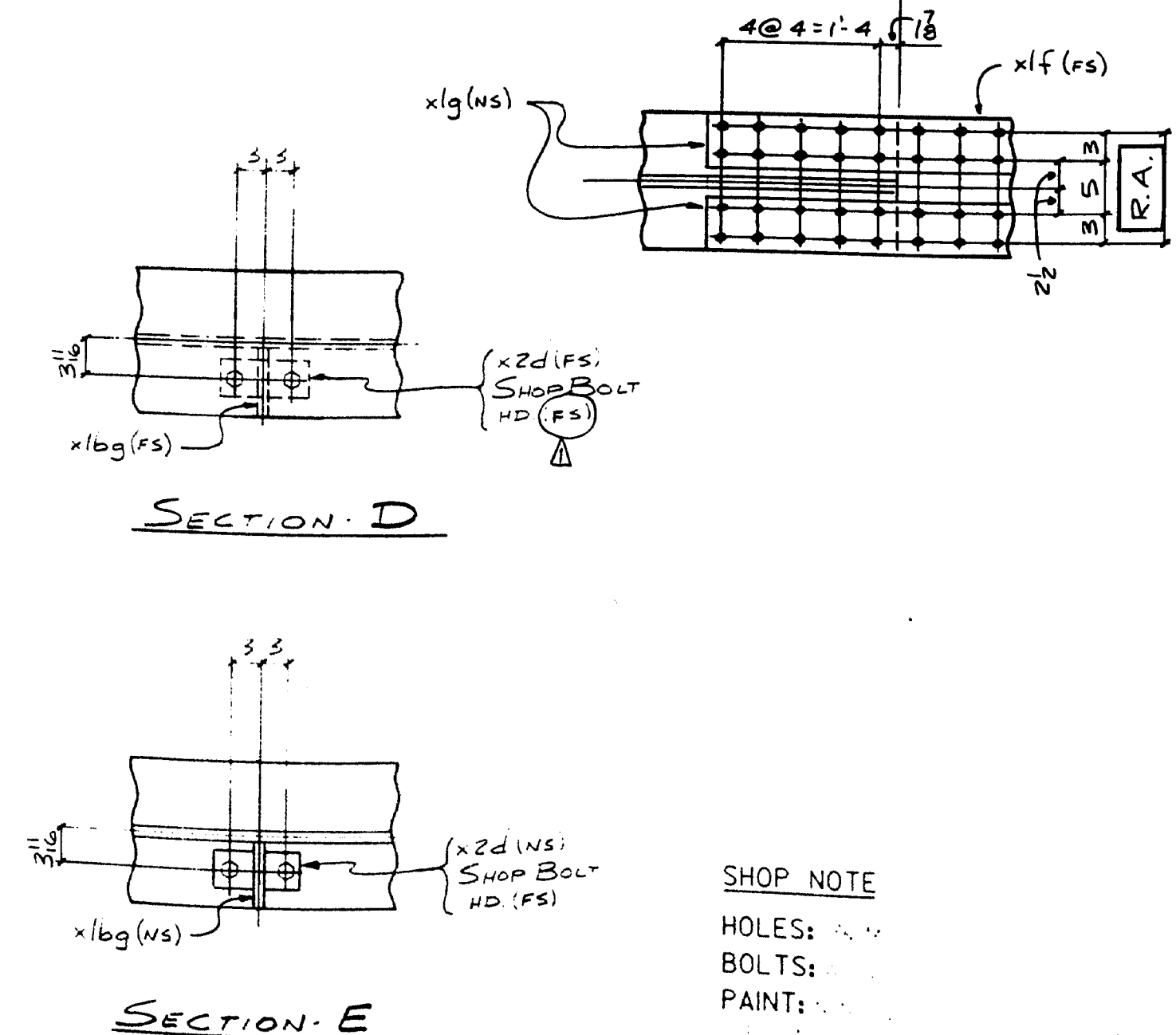
BILL OF MATERIAL

QTY.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHEET NO.
1	G1B	BEAM	34'-3 1/2"		1	1557
2		4R x 3/8"	34'-4"		14	
2		14x1 1/2"	34'-3 1/2"		12	
2		14x1 1/2"	34'-4"		12	
4		1x1a R-43x 1/2"	1'-7"	(T)	4	
3		1x1b R-12x 1/2"	4'-7"	(T)	4	
6		1x1c BAR-5x 5/8"	4'-7"	(T)	10	
1		1x1f R-14x 1/2"	3'-3"	(T)	4	
2		1x1g BAR-6x 5/8"	3'-3"	(T)	9	
1		1x1w BAR-8x1 1/4"	3'-11 1/2"	(T)	5	
1		1x1as BAR-8x1 1/4"	3'-11 1/2"	(T)	5	
2		1x1bg BAR-7x 5/8"	3'-10 3/4"	(T)	5	
6		6x2d BAR-4x 5/8"	0'-9"	(T)	6	
6		6x2b BAR-5x 5/8"	4'-0"	(T)	7	
12		12 3/8" H.S. BOLT	0'-3"	3/8" R, FLG	10	
12		12 WASHERS FOR 3/8" BOLT			11	

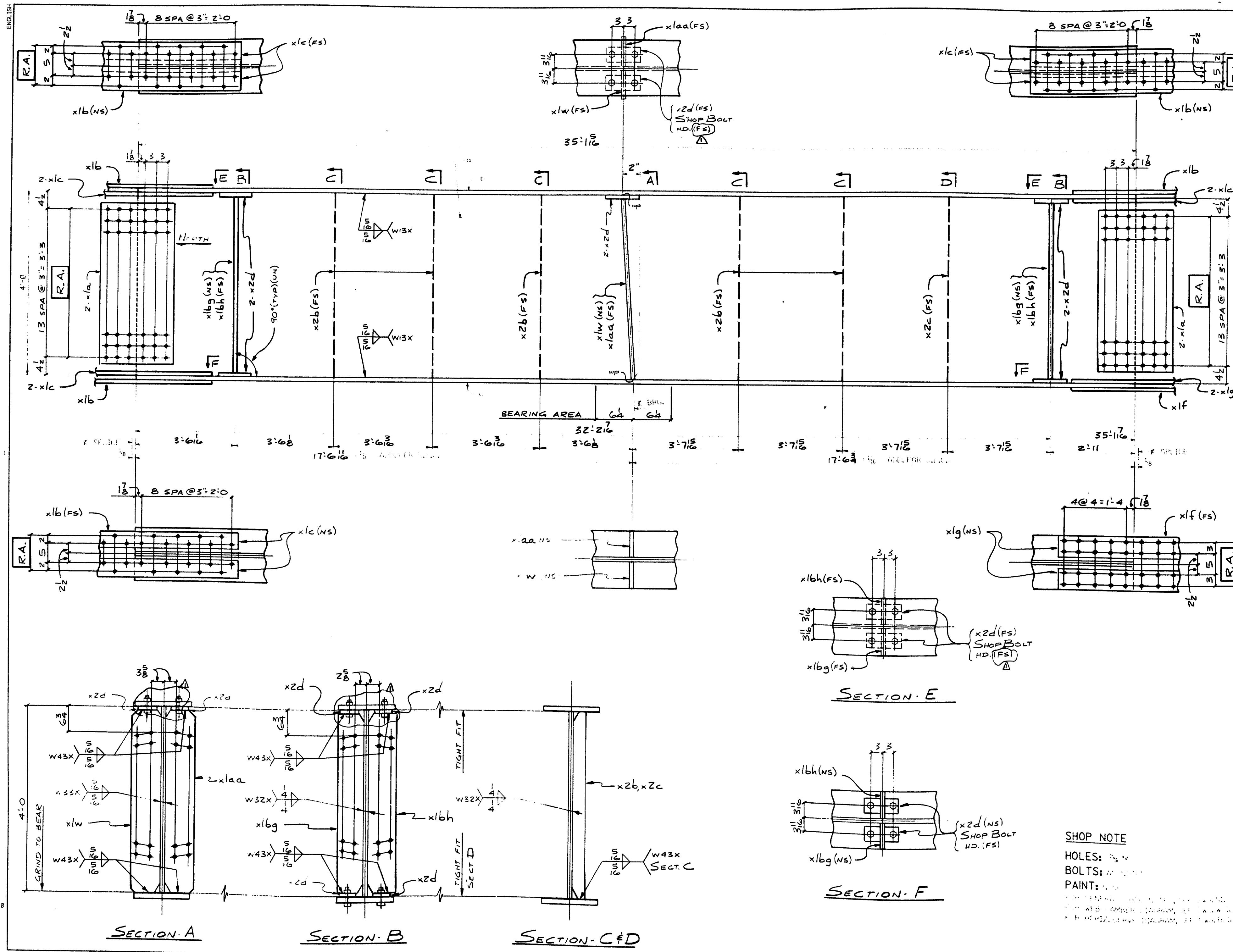
111-165

1	APPL. CHG.	8-5-96	(DATE)
HIGH STEEL STRUCTURES, INC.			
PROJECT - G1B			
DRAWN BY: [Signature]			
CHECKED BY: [Signature]			
DATE: 5-2-96			
SHEET NO. 7 OF 30			
ME-96500-1			
MAR 1 01997			

SHOP NOTE
 HOLES:
 BOLTS:
 PAINT:



ENGLISH



FED. ROAD DIV. NO. 1 STATE ME. FED. AID PROJ. NO. DE-0091(806)

BILL OF MATERIAL

NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	WGT. (LBS.)
ONE	G2B	GIRDER				1831
	a	2 48 x 3/8	35' 1 1/2"	(T)		14
	b	2 14 x 1 1/2	35' 1 1/2"	(T)		11
	c	2 14 x 1 1/2	35' 1 1/2"	(T)		11
4	x1a	2-48 x 3/8	1' 7"	(T)		4
3	x1b	2-12 x 1/2	4' 7"	(T)		10
6	x1c	2-5 x 3/8	4' 7"	(T)		10
1	x1f	2-14 x 1/2	3' 3"	(T)		6
2	x1g	2-BAR-6 x 3/8	3' 3"	(T)		6
1	x1w	2-BAR-8 x 1/4	3' 11 1/2"	(T)		7
1	x1aa	2-BAR-8 x 1/4	3' 11 1/2"	(T)		7
2	x1bg	2-BAR-7 x 3/8	3' 10 3/4"	(T)		7
2	x1bh	2-BAR-7 x 3/8	3' 10 3/4"	(T)		7
10	x2d	2-BAR-4 x 3/8	0' 9"	(T)		6
5	x2b	2-BAR-5 x 3/8	4' 0"	(T)		7
1	x2c	2-BAR-5 x 3/8	4' 0"	(T)		7
20		20 3/8" H.S. BOLT	0' 3' 3/8" R, FLG			82
20		20 WASHERS FOR 3/8" BOLT				82

111-166

APPL. CHG. 8-5-90 DATE

DATE CONTRACT 08/09/89

CONTRACTOR NEEDS & REED, INC.

MADE BY SJR

INTRACT NUMBER ME-96500-1

DATE 5-29-90

8 OF 30

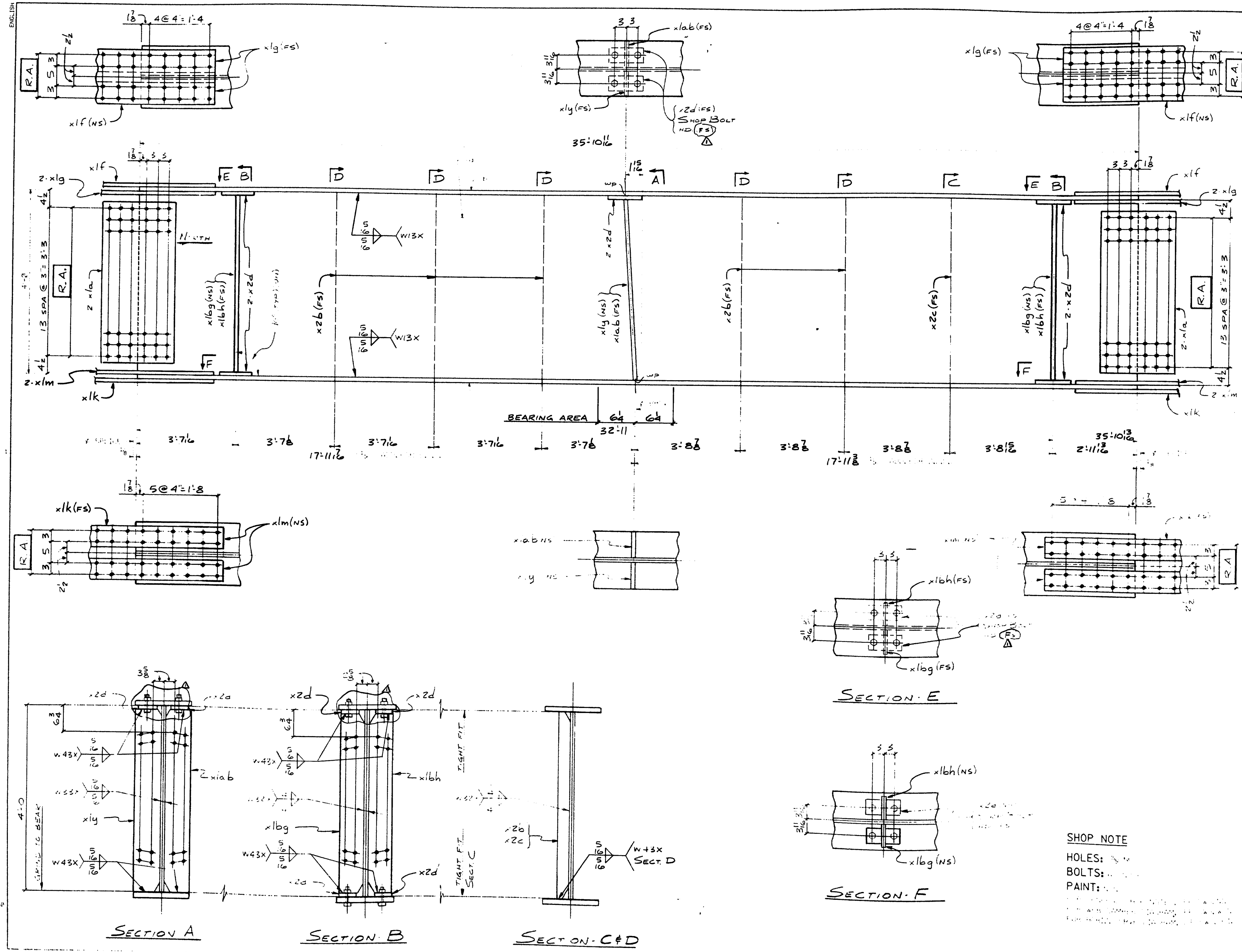
SHOP NOTE

HOLES: 1/4"

BOLTS: 3/8"

PAINT: 100

MAR 1 0 1997

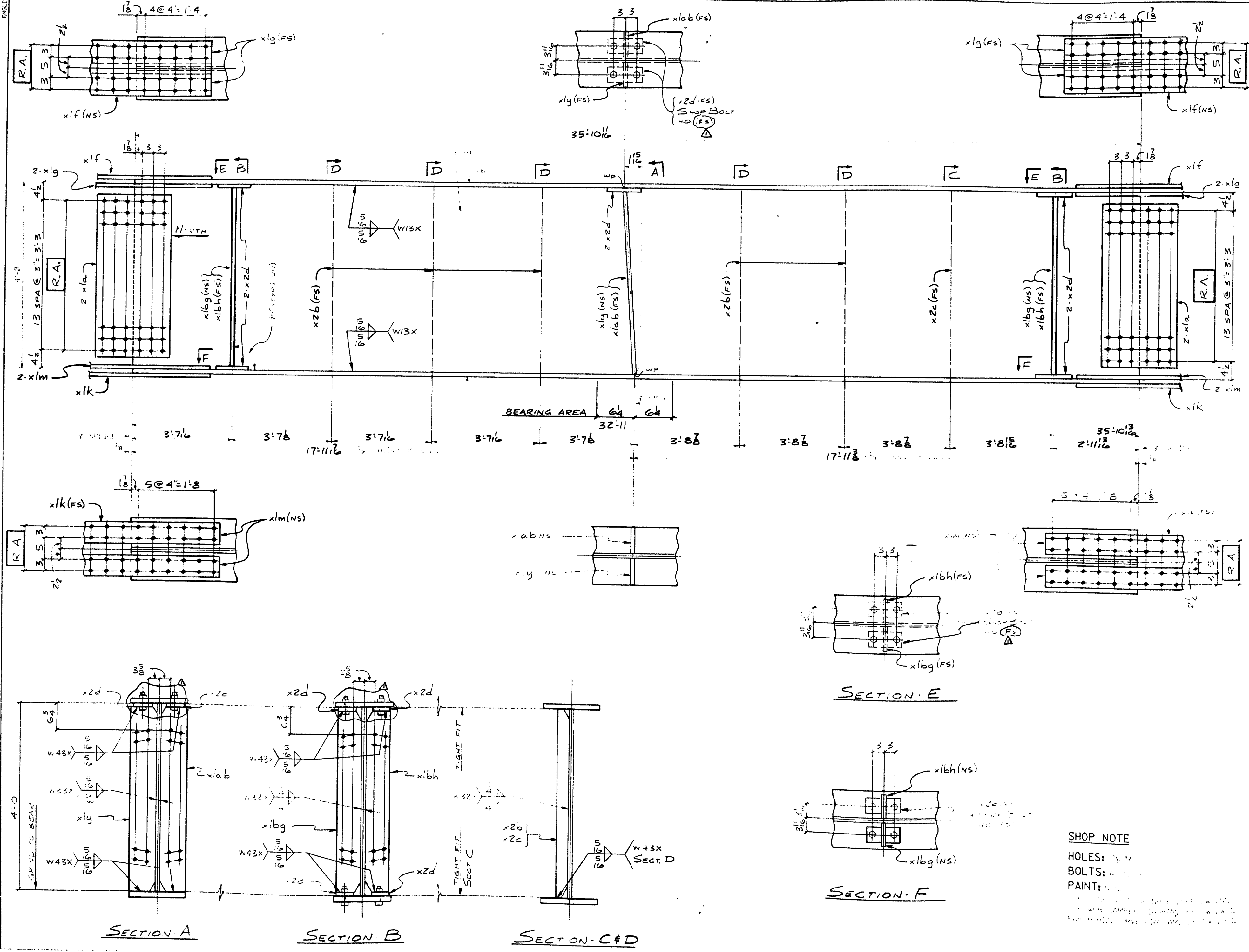


BILL OF MATERIAL		NO.	MARK	DESCRIPTION	LENGTH	REMARKS	REQ.	WEIGHT
1	48 x 3/8	35	10 3/8				1	13
2	16 x 1/2	35	10 1/8				2	5
3	16 x 1/2	35	10 3/8				2	5
4	xla #43 x 2	1	7	(T)			4	11
5	xlf #4 1/2	3	3	(T)			4	7
6	xlg BAR 6 x 8	3	3	(T)			4	7
7	xlf #4 x 8	3	11	(T)			4	8
8	xlg BAR 6 x 8	3	11	(T)			4	8
9	xlf #4 x 8	3	11	(T)			4	8
10	xlg BAR 8 x 16	3	11 1/2	(T)			5	11
11	xlab BAR 8 x 14	3	11 1/2	(T)			5	11
12	xlbg BAR 7 x 8	3	10 3/8	(T)			5	11
13	xlbh BAR 7 x 8	3	10 3/8	(T)			5	11
14	x2d BAR 4 x 8	10	9	(T)			5	11
15	x2b BAR 5 x 8	4	0	(T)			5	7
16	x2c BAR 5 x 8	4	0	(T)			5	7
17	20 #4 S BOLT	20	3				10	
18	20 WASHERS FOR #4 BOLTS	20					11	

111-167

APPL. CHG.	8-5-96
HIGH STEEL STRUCTURES, INC.	
SHOP NOTE	
HOLES: ...	
BOLTS: ...	
PAINT: ...	
ME-96500-1	RF DATE: 5-2-96
	9 OF 30

MAR 10 1997



FED. PROJ. STATE PROJ. NO. MF 1091(806)

BILL OF MATERIAL

NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
1	G3B	GIRDER				8.549
		2 48 x 3/8	35 10 3/8			13
		2 16 x 1/8	35 10 3/8			5
		2 16 x 1/8	35 10 3/8			5
4	x1a	2-43 x 2	1 7	(T)		4
2	x1f	2-4 x 1/2	3 3	(T)		11
4	x1g	BAR 6 x 1/2	3 3	(-)		4
2	x1k	2-4 x 3/8	3 11	(-)		8
4	x1m	BAR 6 x 1/2	3 11	(-)		4
1	x1g	BAR 8 x 1/2	3 11 7/8	(-)		5
1	x1ab	BAR 8 x 1/4	3 11 7/8	(T)		5
2	x1ag	BAR 7 x 3/8	3 10 3/8	(T)		5
2	x1bh	BAR 7 x 3/8	3 10 3/8	(T)		5
10	x2d	BAR 4 x 3/8	0 9	(-)		6
5	x2b	BAR 5 x 3/8	4 0	(-)		5
1	x2c	BAR 5 x 3/8	4 0	(-)		5
20	3/8"	45 BOLT	0 3	8 4 1/2		10
20		WASHERS FOR 3/8" BOLTS				11

111-167

APP L CNO. 8-5-96

HIGH STEEL STRUCTURES, INC.

ME-96500-1

DATE: 5-2-96

9 OF 30

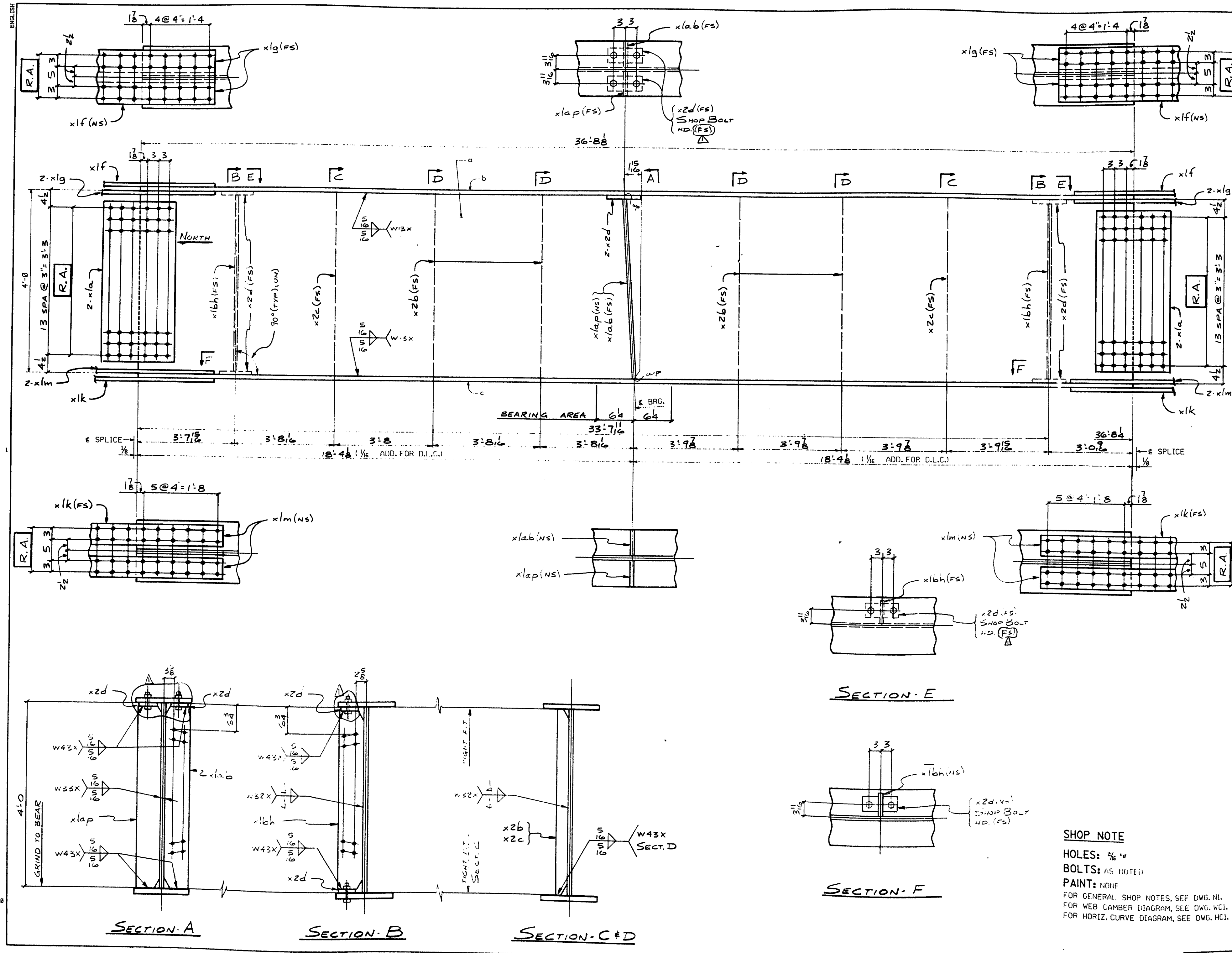
MAR 1 01997

SHOP NOTE

HOLES: ...

BOLTS: ...

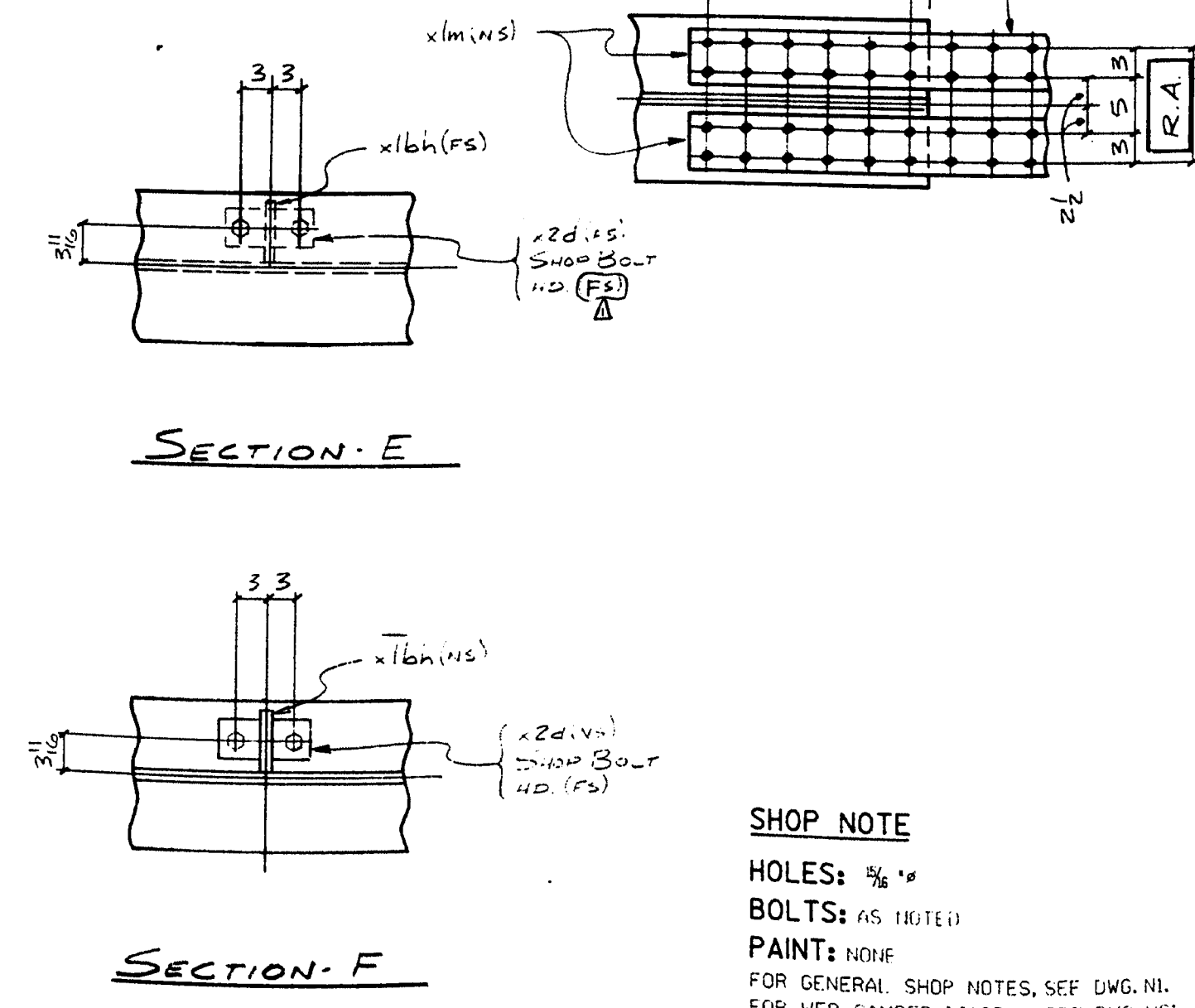
PAINT: ...



FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT
ONE	G4B	GIRDER				8,552
1	a	R 48 x 3/8	36 8/4	(T)		1 1/2
1	b	R 16 x 1/8	36 8/4	(T)		2 4
1	c	R 16 x 1/8	36 8/4	(T)		2 4
4	xla	R 43 x 1/2	1 7	(T)		4 11
2	xlk	R 14 x 1/2	3 3	(T)		4 9
4	xlg	BAR 6 x 5/8	3 3	(T)		4 5
2	xlk	R 14 x 1/2	3 11	(T)		4 8
4	xlm	BAR 6 x 3/4	3 11	(T)		4 4
1	xlab	BAR 8 x 1/4	3 11 7/16	(T)		5 3
1	xlap	BAR 8 x 1/4	3 11 7/16	(T)		5 3
2	xlbh	BAR 7 x 5/8	3 10 3/8	(T)		5 5
6	xzd	BAR 4 x 5/8	0 9	(T)		5 6
4	xz6	BAR 5 x 5/8	4 0	(T)		5 7
2	xzc	BAR 5 x 5/8	4 0	(T)		5 7
12	3/8"	H.S. BOLT	0 13	WTR. F.L.G.		82 10
12		WASHERS FOR 3/8" BOLTS				83 11

111-168



SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. W1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

NO.	REVISION	DATE
1	App'l. Eng.	8-5-90

1710 Haverford Road
 Conshohocken, PA 19380-0008
 Phone 717/239-9221

HIGH STEEL STRUCTURES, INC.

GIRDER - G4B
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

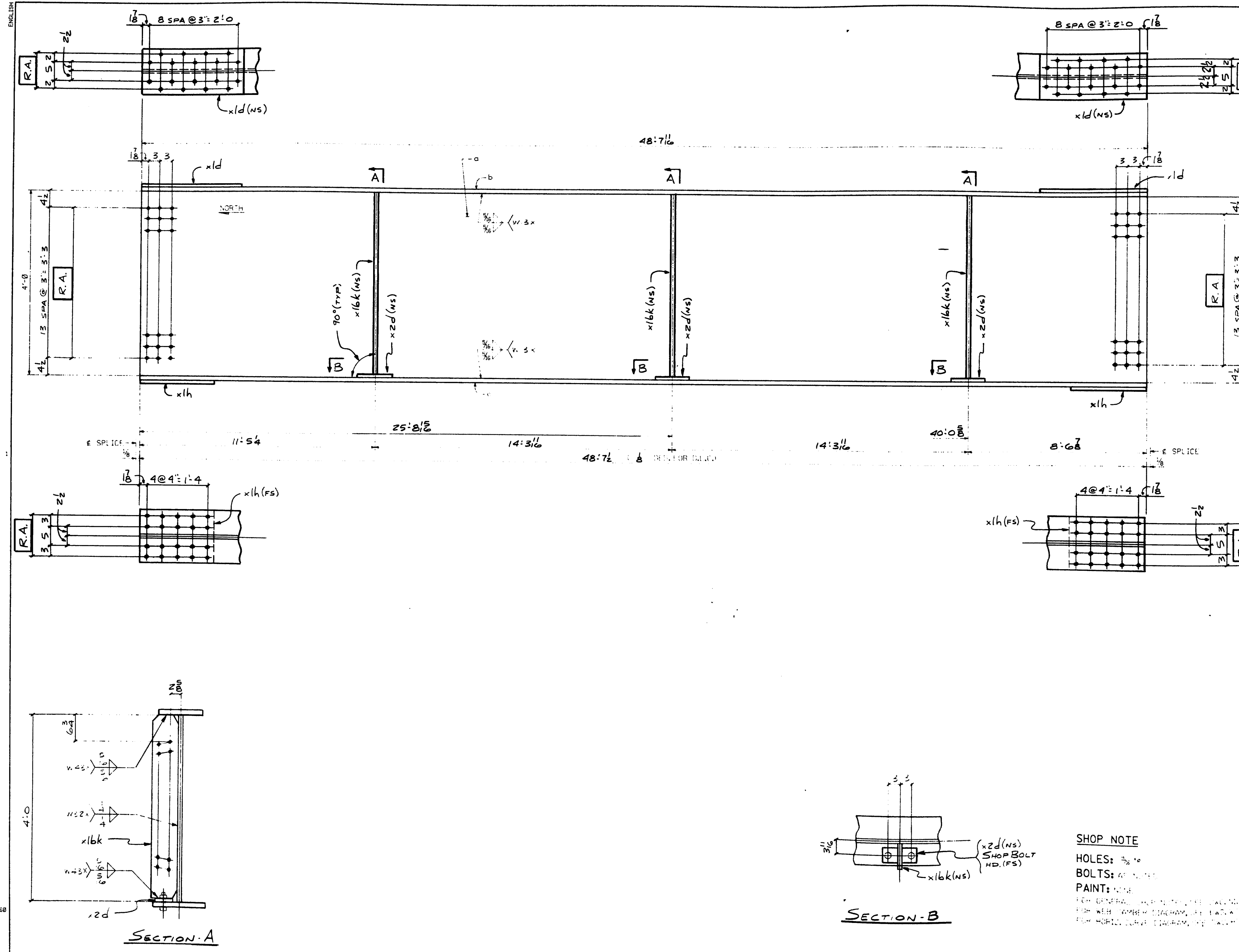
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30

CONTRACTOR REED & REED, INC. MADE BY SJR CKD. BY RF DATE: 5-2-96

IN CHARGE LANCOS (WC) DRAWING NUMBER 10 OF 30

CONTRACT NUMBER: ME-96500-1

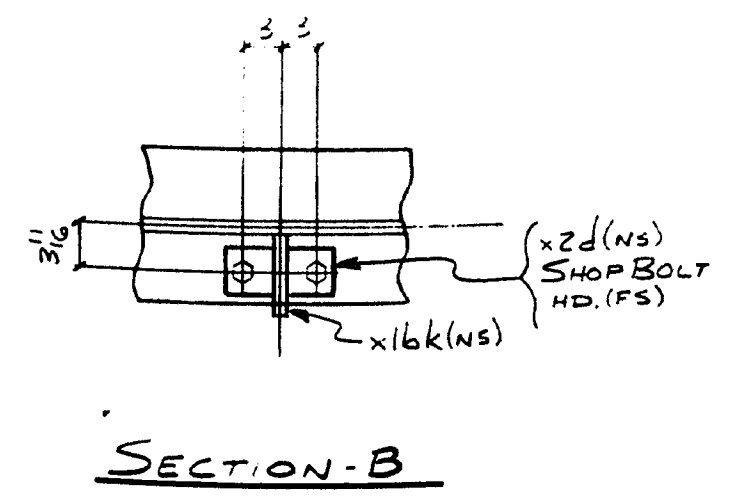
MAR 1 01997



STATE OF MAINE DEPARTMENT OF TRANSPORTATION
 PROJECT NO. ME-96500-1
 DRAWING NO. 11 OF 30

BILL OF MATERIAL					
NO.	QTY	DESCRIPTION	LENGTH	REMARKS	WEIGHT (LBS)
ONE GIRDER					
1	1	2 48 x 3/8	48.716		10
2	1	2 12 x 8	48.716		3.4
3	2	2 14 x 8	48.716		2.0
4	2	1d R-12 x 4	2.38		4.13
5	2	1h R-14 x 4	1.78		4.12
6	3	16k BAR 7 x 8	3.118		5.5
7	3	2d BAR 4 x 8	0.19		5.6
8	6	3/8" x 3" x 3" PL			52.9
9	6	WASHERS FOR 3/8" BOLTS			82.1
TOTAL					

111-169



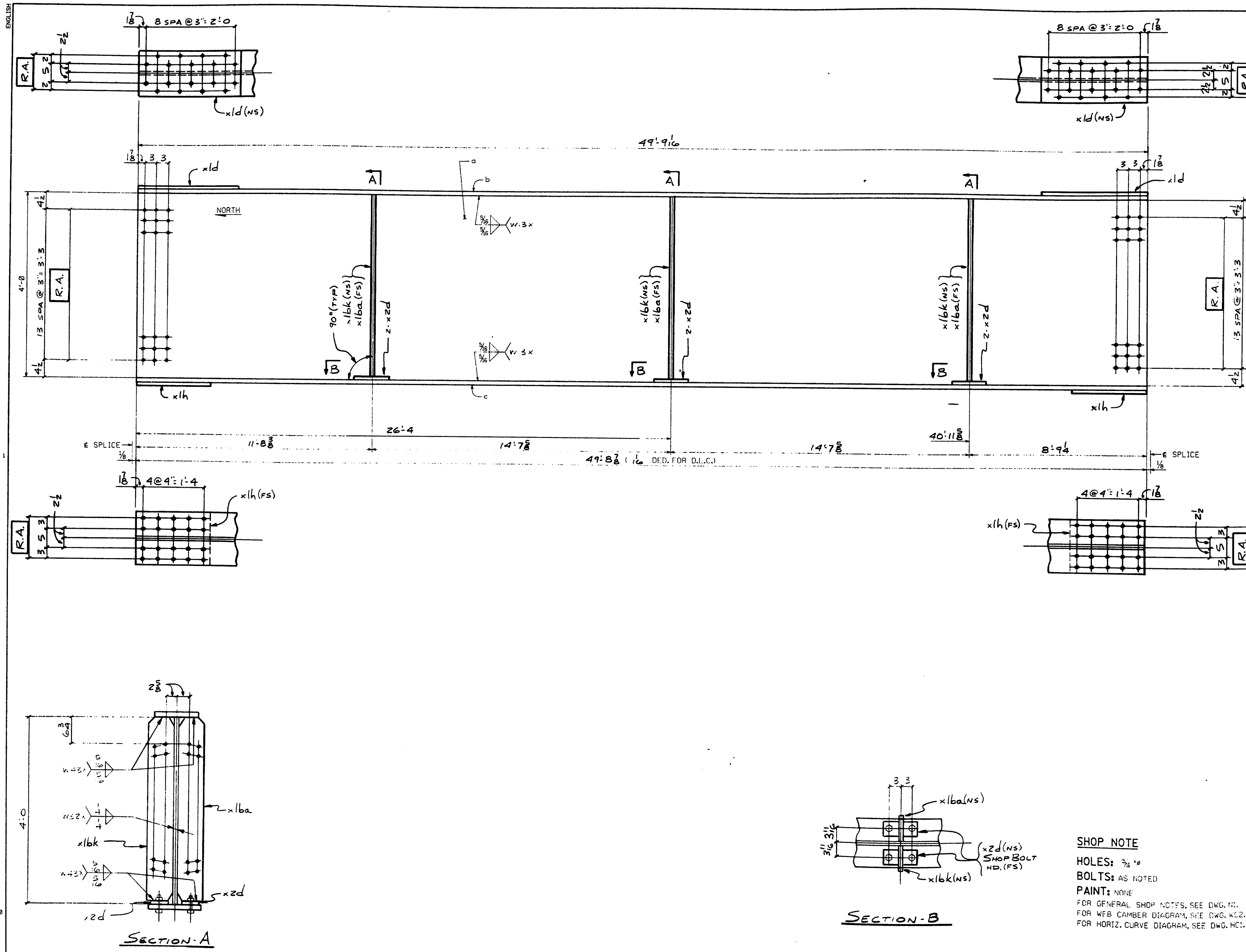
SHOP NOTE
 HOLES: 3/16"
 BOLTS: 3/8"
 PAINT: NONE
 FOR GENERAL INFORMATION, SEE DRAWING
 FOR WEB MEMBER CONNECTION, SEE DRAWING
 FOR HORIZONTAL CONNECTION, SEE DRAWING

REVISIONS: _____ DATE: _____

HIGH STEEL STRUCTURES, INC. **H**
 1100 North 3rd Street
 Lancaster, PA 17605-0008
 Phone: 717-299-5225
 A Division of High Industries, Inc.

PROJECT: GIRDER - G1C
 DATE: 5-2-96
 STATE OF MAINE, DEPT. OF TRANSPORTATION
 CONTRACT NO. ME-96500-1
 CONTRACTOR: REED & REED, INC.
 IN CHARGE: LANCO (WC) MADE BY: SJR DATE: 5-2-96
 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 11 OF 30

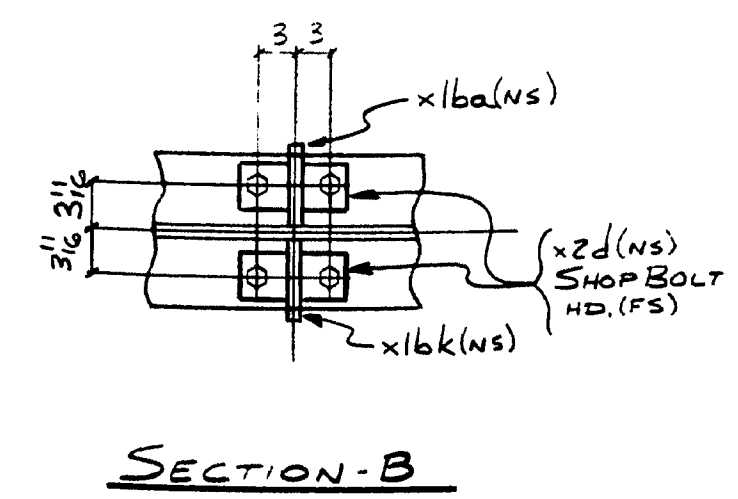
MAR 1 0 1997



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHED. WEIGHT E.A.
ONE	G2C	GIRDER				1.374
1	a	E 48 x 7/8	49' 9 1/8	(T)		1.9
1	b	E 12 x 8	49' 9 1/8	(T)		3.3
1	c	E 14 x 8	49' 9 1/8	(T)		2.19
2	x1d	R-12 x 4	2' 3 3/8			4.13
2	x1h	R-14 x 4	1' 7 3/8			4.12
3	x1bk	BAR 7 x 5/8	3' 11 3/8	(T)		5.5
3	x1ba	BAR 7 x 5/8	3' 11 3/8	(T)		5.5
6	x2d	BAR 4 x 5/8	0' 9	(T)		5.6
12	3/8"	1.5 BOLT	0' 2 3/8	8 P. FLG		52.9
12		WASHERS FOR BOLT				82.11

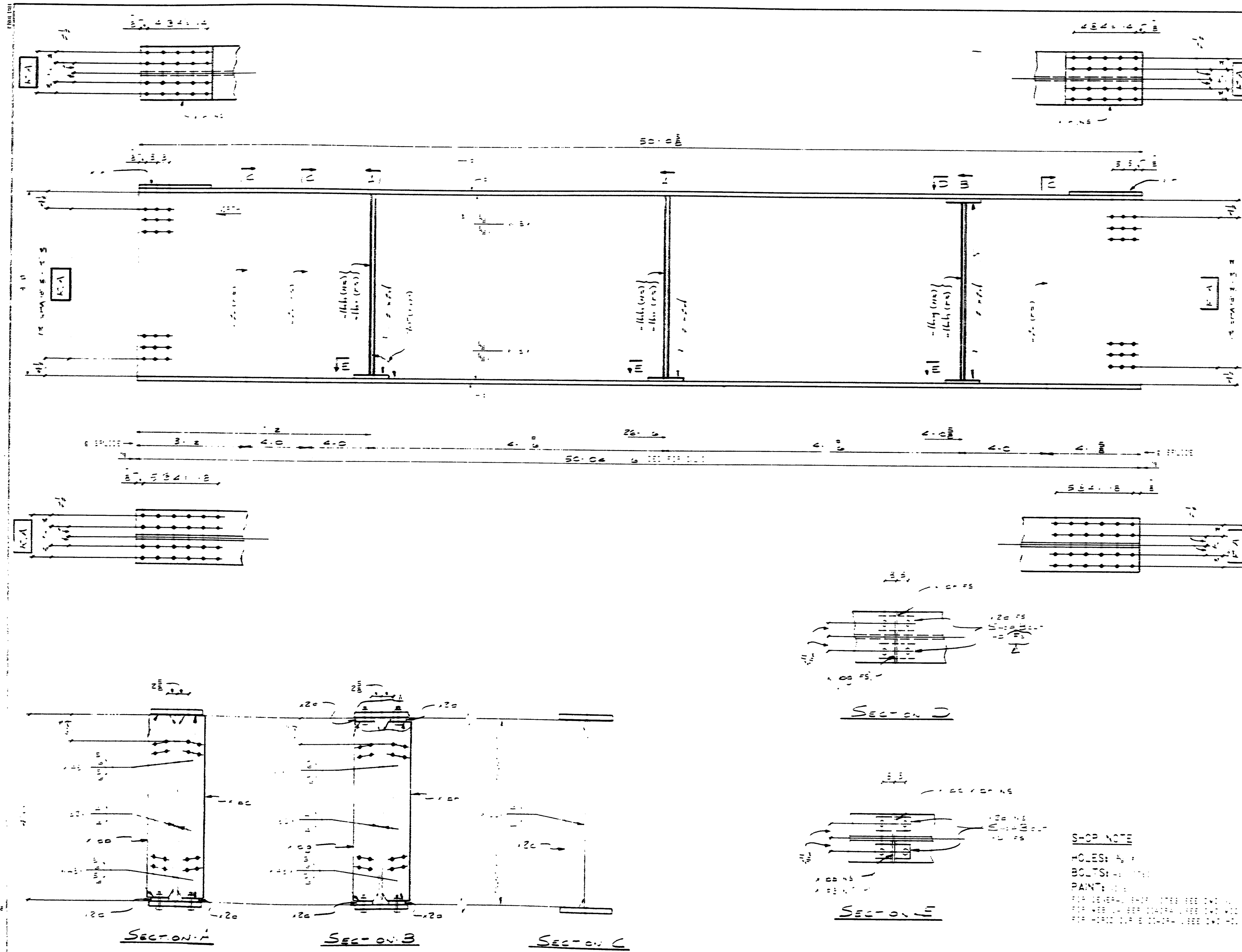
111-170



SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>1710 Harford Road Canton, PA 17025-0008 Phone 717/299-0201</small> A Division of High Industries		
GIRDER - G2C RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCO (WC)	MADE BY: SJR	CHKD. BY: RF
		DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: 12 OF 30	

MAR 1 0 1997



FED. AID PROJ. NO. CE-009(806)

BILL OF MATERIAL

NO.	QTY	DESCRIPTION	UNIT	REMARKS	ITEM	QTY
1	1	STEEL JOINT				8479
2	4	SC 10				9
3	2	SC 10				18
4	2	SC 10				9
5	4	SC 10				12
6	2	SC 10				5
7	2	SC 10				5
8	2	SC 10				5
9	2	SC 10				5
10	2	SC 10				5
11	3	SC 10				5
12	4	SC 10				9
13	2	SC 10				10
14	6	SC 10				11

111-171

SHOP NOTE
 HOLES: AS SHOWN
 BOLTS: AS SHOWN
 PAINT: AS SHOWN
 FOR DETAILS, SEE SPECIFICATIONS AND DRAWINGS
 FOR WELDING, SEE WELDING SPECIFICATIONS AND DRAWINGS

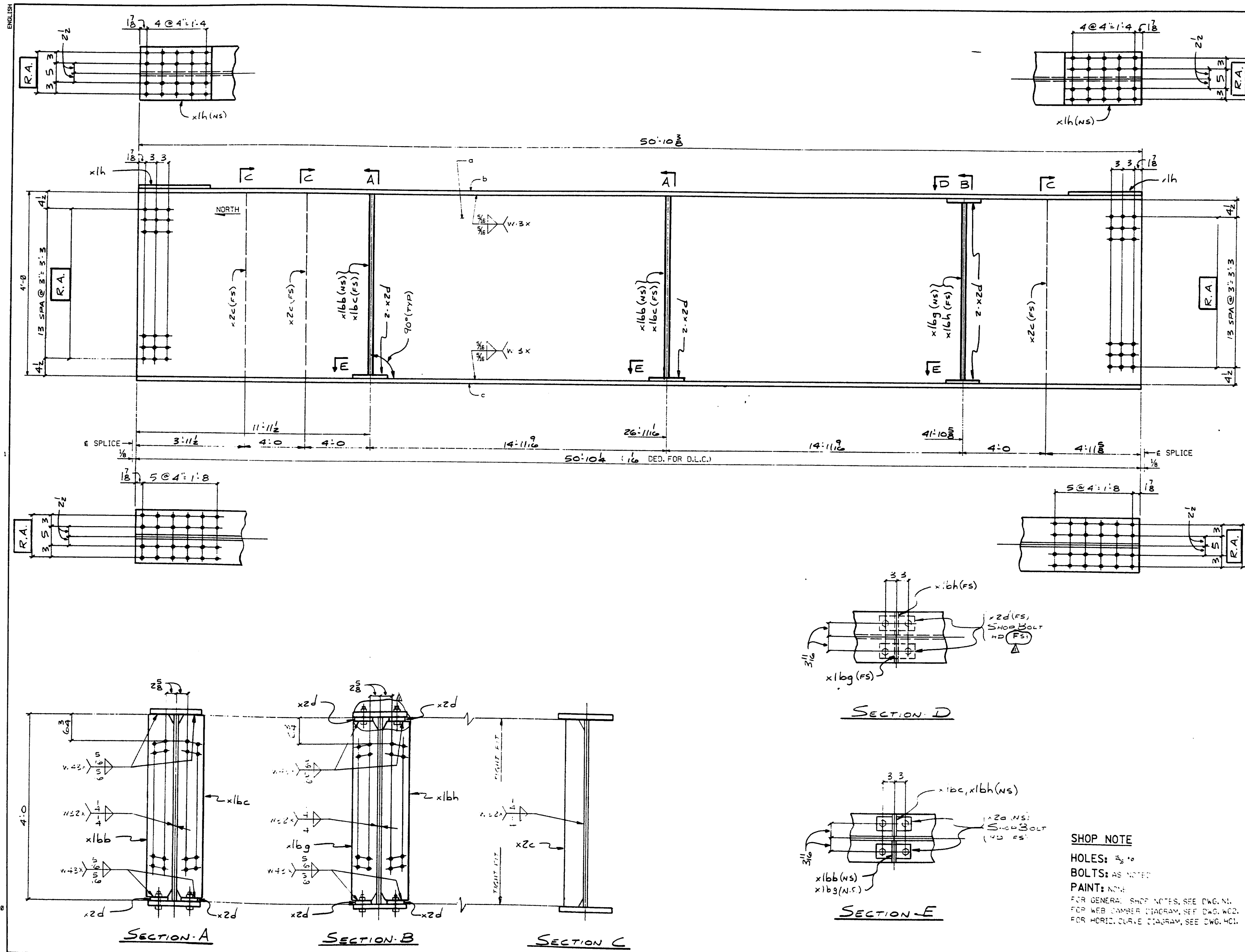
DATE: 8-5-90

CONTRACT NO. 85-0000

RF DATE: 5-2-96

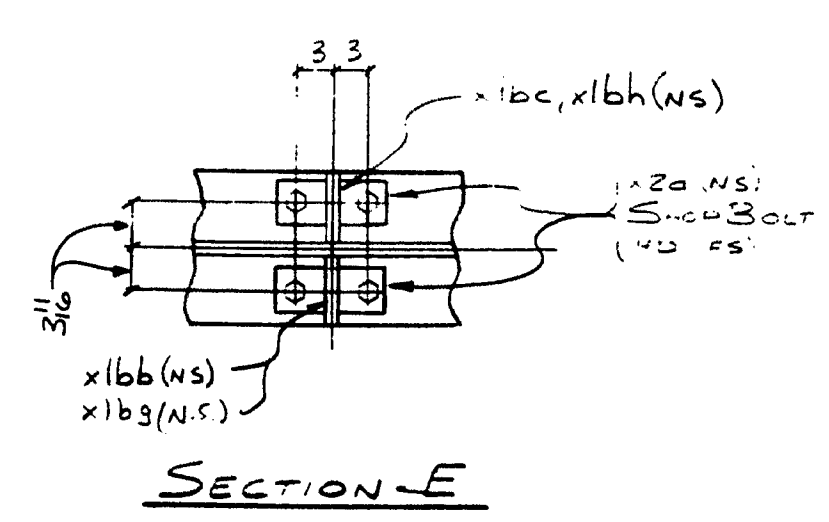
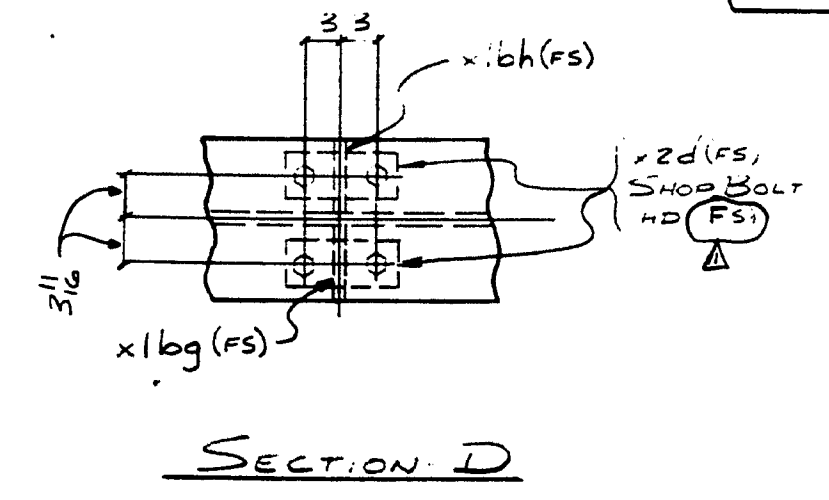
13 OF 30

MAR 1 01997



FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP WEIGHT LB.
ONE	G3C	GIRDER				8,479
1	a	48 x 3/8	50' 10 3/8"	(T)		19
1	b	14 x 3/8	50' 10 3/8"	(T)		28
1	c	14 x 1/2	50' 10 3/8"	(T)		29
2	x1h	14 x 4	17 3/8"			42
2	x1bb	BAR-7 x 3/8	3' 11 3/8"	(T)		55
2	x1bc	BAR-7 x 3/8	3' 11 3/8"	(T)		55
1	x1bg	BAR-7 x 3/8	3' 10 3/4"	(T)		55
1	x1bh	BAR-7 x 3/8	3' 10 3/4"	(T)		55
8	x2d	BAR-4 x 3/8	0' 9"	(T)		56
3	x2c	BAR-5 x 3/8	4' 0"	(T)		37
4	3/8"	H.S. BOLT	0' 2 3/4"	5" x 3/8" FLG.		839
12	3/8"	H.S. BOLT	0' 3"	3/8" x 1 1/2" FLG.		9210
16		WASHERS FOR 3/8"		BOLTS		8311

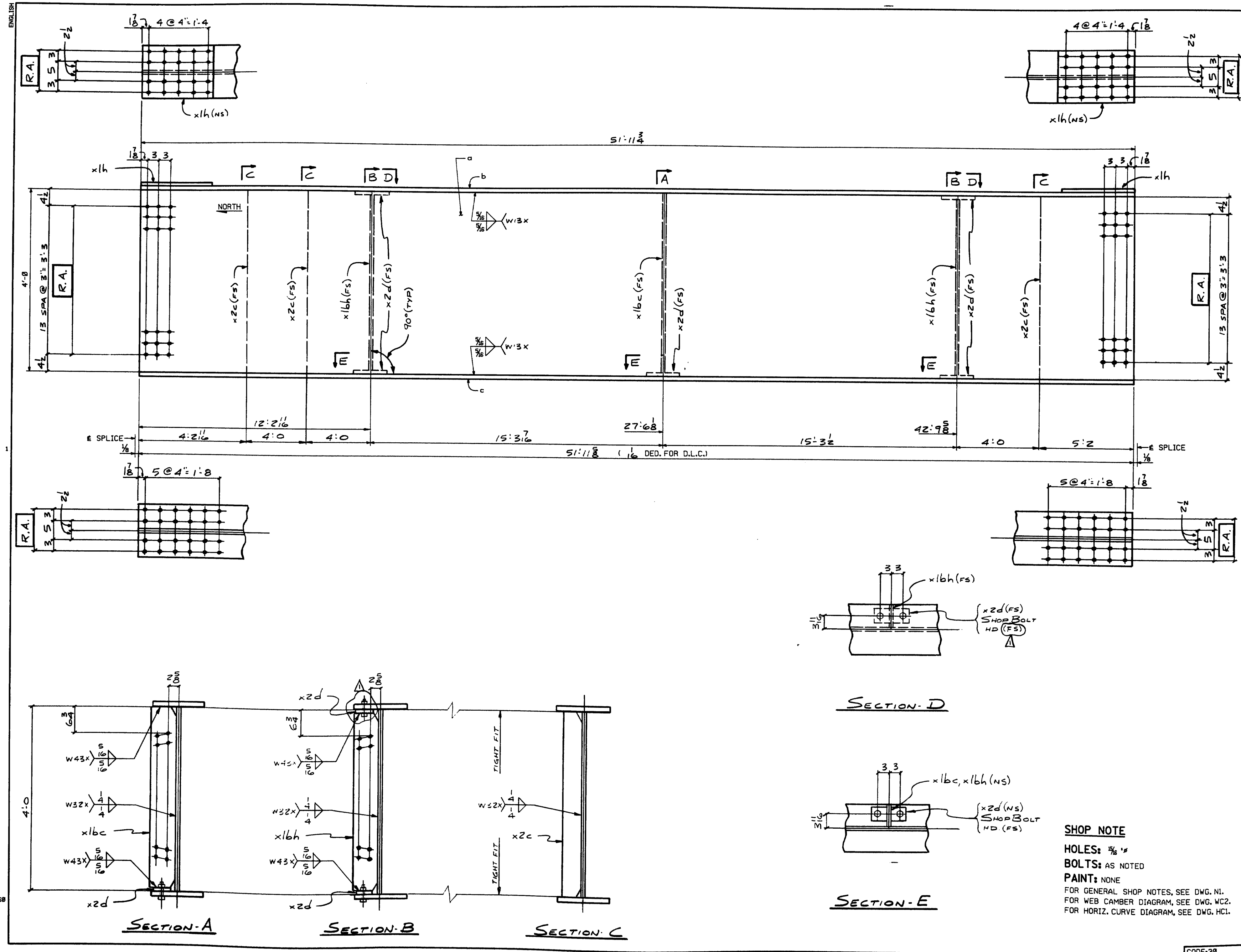
111-171



SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB MEMBER DIAGRAM, SEE DWG. W2.
 FOR HORIZONTAL ELEVATION, SEE DWG. H1.

APPL. CHG.	REVISION	DATE
		8-5-90
HIGH STEEL STRUCTURES, INC.		
170 HANDBOOK ROAD LIMORIC, PA. 17035-0008 PHONE 717/299-5211		
GIRDER - G3C		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: SJR
DATE	5-2-96	RF
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		13 OF 30

MAR 1 0 1997



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHP. WEIGHT
ONE	G4C	GIRDER				8.457
1	a	R 48 x 3/8	51' 11 3/4" (T)		1	8
1	b	R 14 x 3/8	51' 11 3/4" (T)		2	17
1	c	R 14 x 1 1/2	51' 11 3/4" (T)		2	8
2	x1h	R 14 x 4	1' 7 3/8"		4	12
1	x16c	BAR 7 x 5/8	3' 11 3/8" (T)		5	5
2	x16h	BAR 7 x 5/8	3' 10 3/4" (T)		5	5
5	x2d	BAR 4 x 5/8	0' 9" (T)		5	6
3	x2c	BAR 5 x 5/8	4' 0" (T)		5	7
4	1/2"	H.S. BOLT	0' 2 3/4"	8" R. 8" FLG.	82	7
6	3/8"	H.S. BOLT	0' 3"	8" R. 1 1/2" FLG.	82	10
10		WASHERS FOR 1/2" BOLTS			82	11

111-172

NO.	REVISION	DATE
	APPL. CHG.	8-5-90

HIGH STEEL STRUCTURES, INC.
 1710 Westport Road
 Lebanon, PA 17042-0008
 Phone 717/299-5211
 A Division of High Industries, Inc.

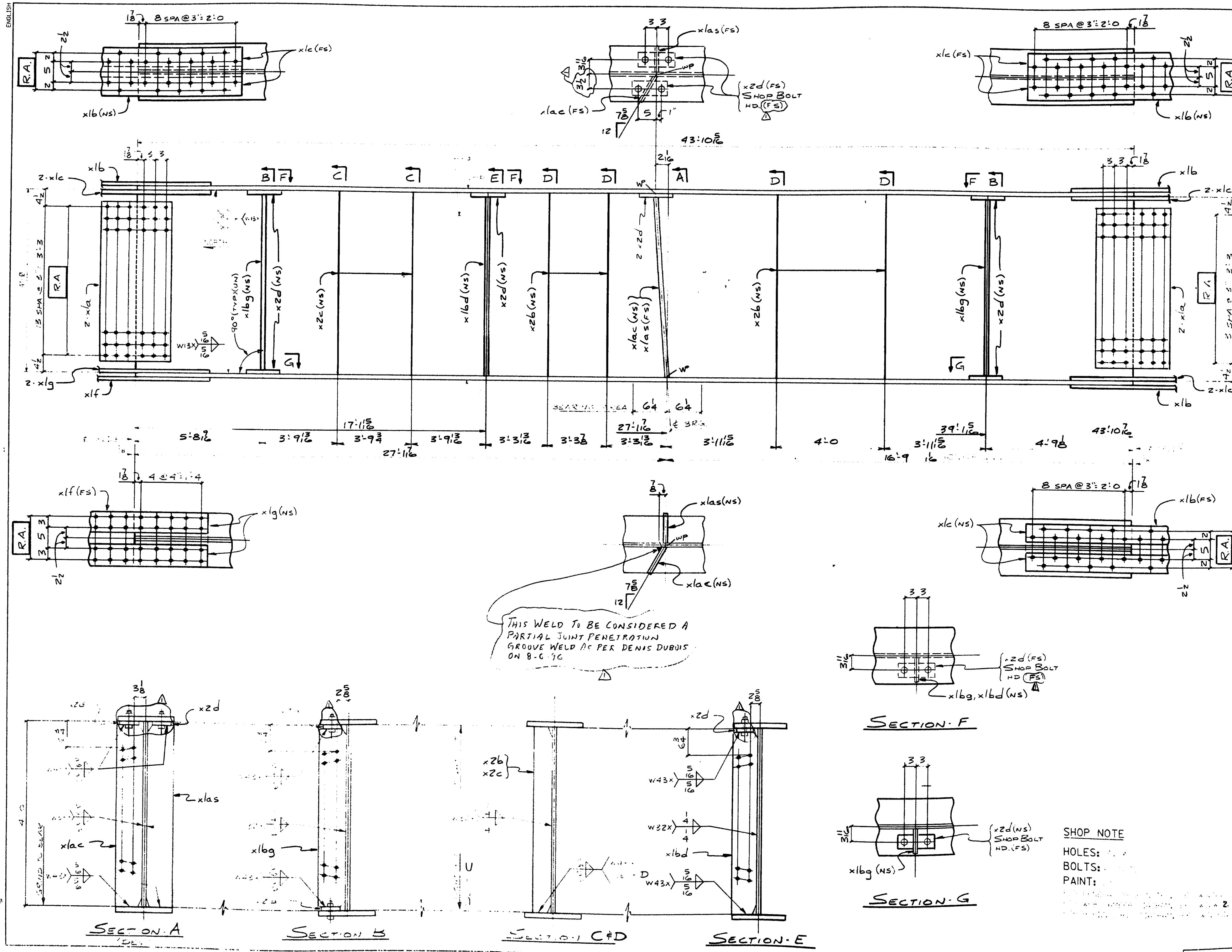
GIRDER - G4C
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.38
 CONTRACTOR REED & REED, INC.
 IN CHARGE LANCO (WC) MADE BY SJR CHK'D. BY RF DATE: 5-2-90
 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 14 OF 30

SHOP NOTE
 HOLES: 5/8" ϕ
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCL.

CODE:30

MAR 1 0 1997



THIS WELD TO BE CONSIDERED A
 PARTIAL JOINT PENETRATION
 GROOVE WELD AC PER DENIS DUBOIS
 ON 8-G 3/8

REC. ROAD STATE REC. ID
 11 ME DE-009(1006)

BILL OF MATERIAL

NO.	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
GIRD GIRDER 4228					
1	1	48 x 3/8	43' 10 1/2"	11	
2	2	14 x 1/8	43' 10 1/2"	10	
3	2	14 x 1/8	43' 10 1/2"	10	
4	4	x1a R-43 x 1/2	7	1	
5	3	x1b R-12 x 1/2	4 7/8 (T)	4	
6	6	x1c BAR-5 x 3/8	4 7/8 (T)	4	
7	1	x1f R-14 x 1/2	3 3/8 (T)	4	
8	2	x1g BAR-6 x 3/8	3 3/8 (T)	4	
9	1	x1ac BAR-8 x 1/4	3 11/8 (T)	5	
10	1	x1as BAR-8 x 1/4	3 11/8 (T)	5	
11	1	x1bd BAR-7 x 3/8	3 11/8 (T)	5	
12	2	x1bg BAR-7 x 3/8	3 10 3/4 (T)	5	
13	4	x2b BAR-5 x 3/8	4 0 (T)	5	
14	2	x2c BAR-5 x 3/8	4 0 (T)	5	
15	7	x2d BAR-4 x 3/8	0 9 (T)	5	
16	14	3/8" x 5" BOLT	3	8	FLG
17	14	3/8" x 5" BOLT	3	8	FLG

111-173

APPL. CNG 8.5.96 DATE

HIGH STEEL STRUCTURES, INC.

STATE OF MASSACHUSETTS REGISTRATION

CONTRACT NO. ME-96500-1

DATE: 5-2-96

15 OF 30

MAR 1 0 1997

SHOP NOTE
 HOLES:
 BOLTS:
 PAINT:

SECTION F

SECTION G

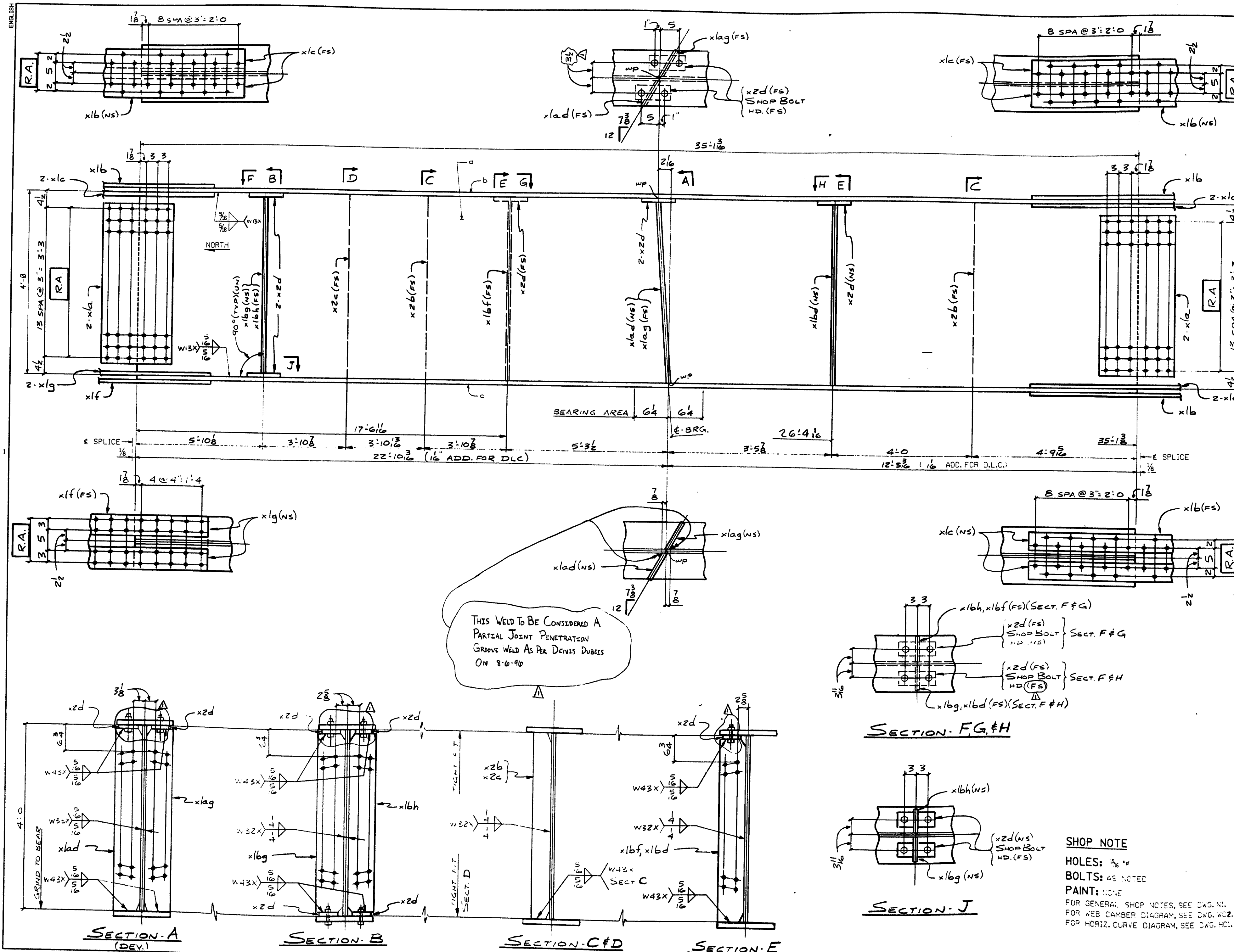
SECTION A

SECTION B

SECTION C & D

SECTION E

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

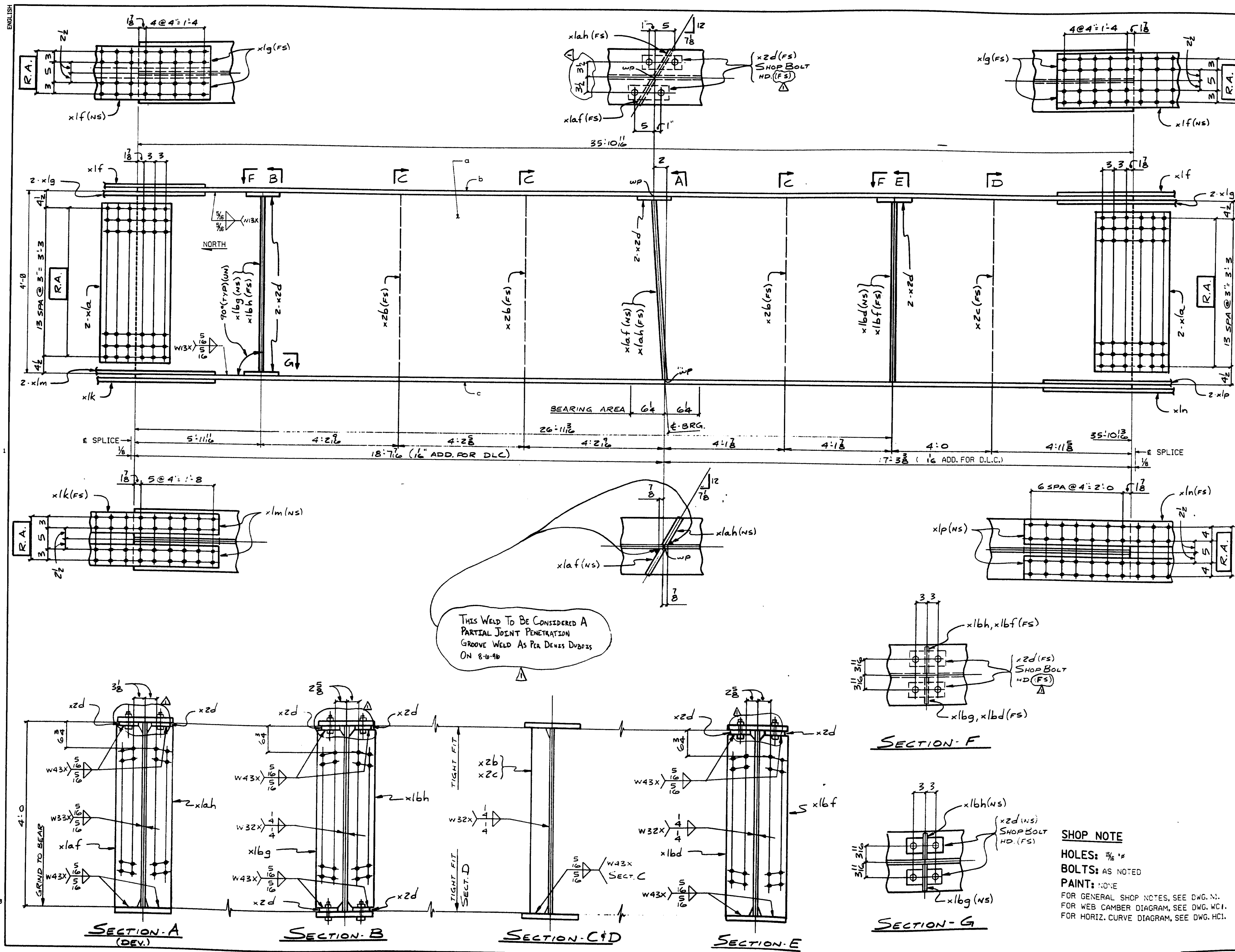
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT
ONE	G2D	GIRDER				1,742
1	a	2 48 x 3/8	35 11/16	(T)	1	14
1	b	2 14 x 1 1/2	35 11/16	(T)	2	11
1	c	2 14 x 1 1/2	35 11/16	(T)	2	11
4	x1a	2 43 x 1/2	17	(T)	4	11
3	x1b	2 12 x 1/2	47	(T)	4	10
6	x1c	2 5 x 3/8	47	(T)	4	6
1	x1f	2 14 x 1/2	33	(T)	4	9
2	x1g	2 6 x 3/8	33	(T)	4	5
1	x1d	2 8 x 1/4	3 11/8	(T)	5	3
1	x1e	2 8 x 1/4	3 11/8	(T)	5	3
1	x1h	2 7 x 3/8	3 11/8	(T)	5	5
1	x1i	2 7 x 3/8	3 11/8	(T)	5	5
1	x1j	2 7 x 3/8	3 10 3/8	(T)	5	5
1	x1k	2 7 x 3/8	3 10 3/8	(T)	5	5
2	x1l	2 5 x 3/8	40	(T)	5	7
1	x1m	2 5 x 3/8	40	(T)	5	7
8	x1n	2 4 x 5/8	09	(T)	5	6
16	3/8"	H.S. BOLT	03	8" FLG	82	10
16		WASHERS FOR 3/8" BOLT			82	11

111-174

APPL. Ctg.	REVISION	DATE
		8-5-96
<p>170 Hampstead Road Lancaster, PA 17605-0008 Phone 717/299-5211</p> <p>HIGH STEEL STRUCTURES, INC.</p>		
<p>GIRDER - G2D RTE. 196 RAMP 3 OVER U.S. RTE. 1 RTE. 196 STA. 305+77.2 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p>		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 16 OF 30

SHOP NOTE
 FOR GENERAL SHOP NOTES, SEE DWG. NO. 1
 FOR WEB CAMBER DIAGRAM, SEE DWG. NO. 2
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. NO. 1

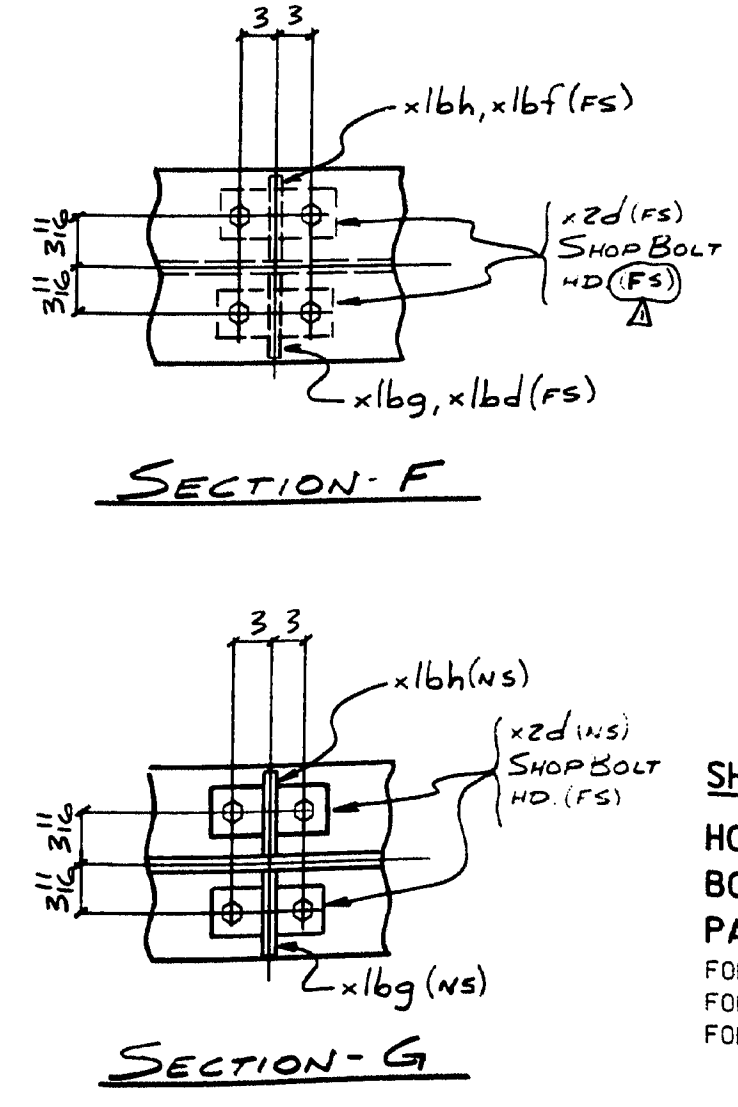
MAR 1 0 1997



FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP. WEIGHT LB.
ONE	G3D	GIRDER				8,566
1	a	R 48 x 3/8	35 10 3/8	(T)	1	13
1	b	R 16 x 1 1/2	35 10 3/8	(T)	2	5
1	c	R 16 x 1 1/2	35 10 3/8	(T)	2	5
4	xla	R 43 x 1/2	1 7	(T)	4	11
2	xlf	R 14 x 1/2	3 3	(T)	4	4
4	xlg	BAR 6 x 3/8	3 3	(T)	4	5
1	xlk	R 14 x 1/2	3 11	(T)	4	8
2	xlm	BAR 6 x 3/8	3 11	(T)	4	4
1	xln	R 16 x 1/2	4 7	(T)	4	7
2	xlp	BAR 7 x 3/8	4 7	(T)	4	3
1	xlaf	BAR 8 x 1/4	3 11 3/8	(T)	5	3
1	xlah	BAR 8 x 1/4	3 11 3/8	(T)	5	3
1	xlbd	BAR 7 x 3/8	3 11 3/8	(T)	5	3
1	xlbf		3 11 3/8	(T)	5	3
1	xlbg		3 10 3/8	(T)	5	3
1	xlbh	BAR 7 x 3/8	3 10 3/8	(T)	5	3
3	x2b	BAR 5 x 3/8	4 0	(T)	5	7
1	x2c	BAR 5 x 3/8	4 0	(T)	5	7
8	x2d	BAR 4 x 3/8	0 9	(T)	5	6
16	7/8"	H.S. BOLT	0 3	8" R. FLG.	82	10
16		WASHERS FOR 7/8" BOLT			82	11

111-175

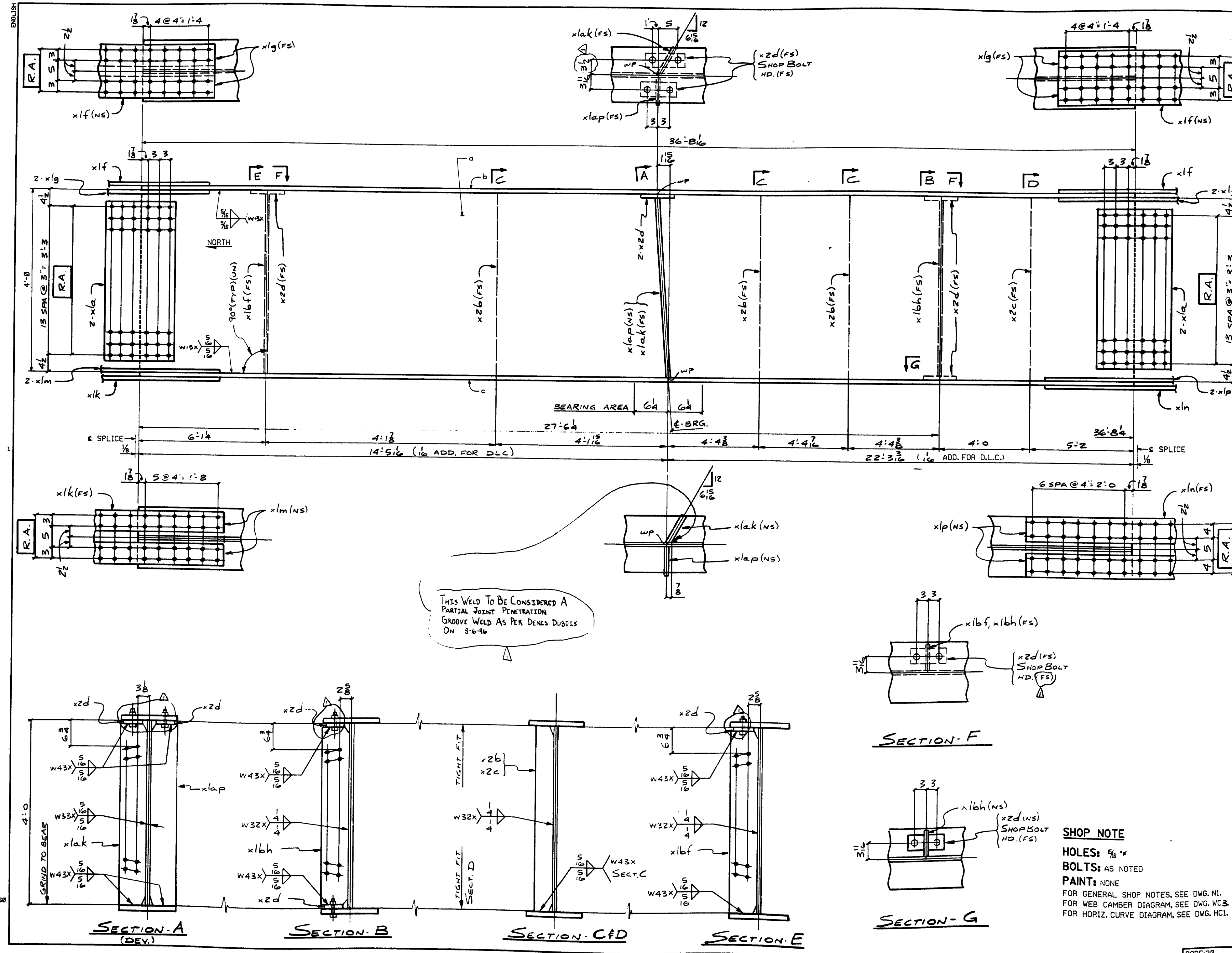


SHOP NOTE
 HOLES: 3/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

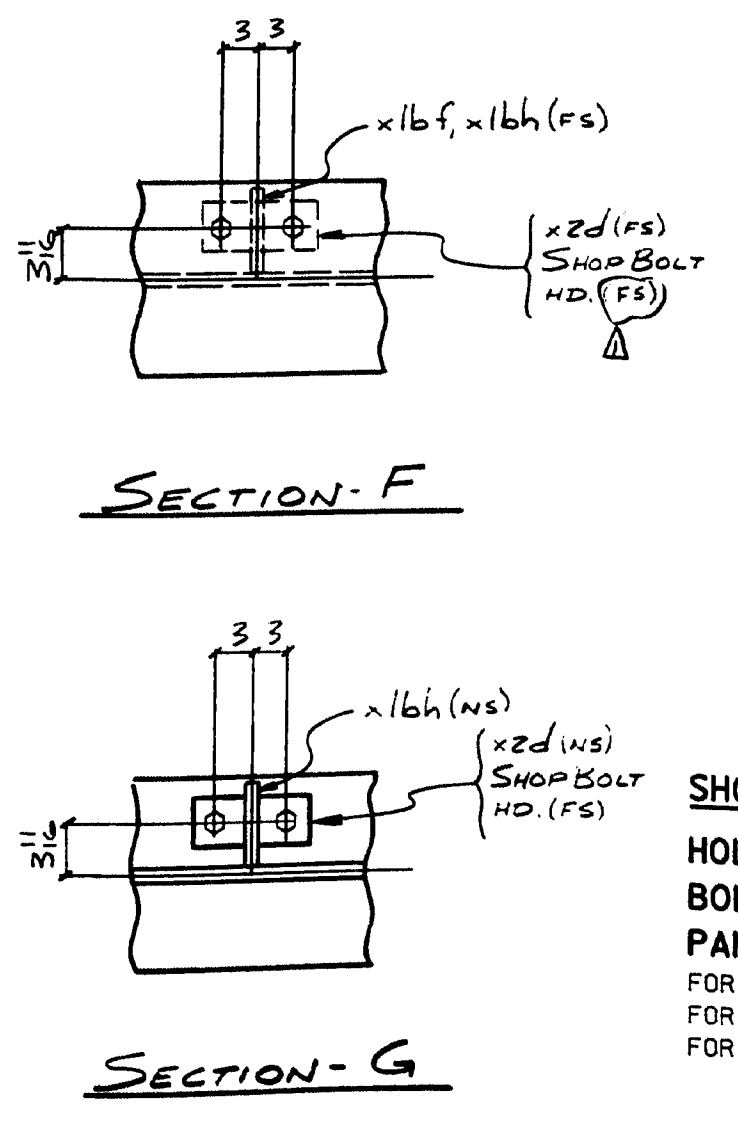
NO.	REVISION	DATE
	APPL. CHG	8.5.90

HIGH STEEL STRUCTURES, INC.		170 Hempstead Road Lansdale, PA 17605-0008 Phone 717/299-5221
GIRDER - G3D		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.38	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	BY: SJR
DATE	5.2.96	
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		17 OF 30

MAR 1 01997



THIS WELD TO BE CONSIDERED A PARTIAL JOINT PENETRATION GROOVE WELD AS PER DENES DUBOIS ON 3-6-96



SHOP NOTE
 HOLES: 1/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO. 1
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC-3
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCl.

FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.			
1		ME	DE-0091(806)			
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT
ONE	G4D	GIRDER				8,574
1	a	2 48 x 3/8	36 B4	(T)		1 1/2
1	b	2 16 x 1 1/2	36 B1/2	(T)		2 1/4
1	c	2 16 x 1 1/2	36 B4	(T)		2 1/4
4	xla	R-43 x 1/2	1 7	(T)		4 1/2
2	xlf	R-14 x 1/2	5 3	(T)		4 1/2
4	xlg	BAR-6 x 3/8	3 3	(T)		4 1/2
1	xlk	R-14 x 1/2	3 11	(T)		4 1/2
2	xlm	BAR-6 x 3/8	3 11	(T)		4 1/2
1	xln	R-16 x 1/2	4 7	(T)		4 1/2
2	xlp	BAR-7 x 3/8	4 7	(T)		4 1/2
1	xlak	BAR-8 x 1/4	3 11 1/2	(T)		5 1/2
1	xlap	BAR-8 x 1/4	3 11 1/2	(T)		5 1/2
1	xlbf	BAR-7 x 3/8	3 10 1/2	(T)		5 1/2
1	xlbh	BAR-7 x 3/8	3 10 1/2	(T)		5 1/2
3	x2b	BAR-5 x 3/8	4 0	(T)		5 1/2
1	x2c	BAR-5 x 3/8	4 0	(T)		5 1/2
5	x2d	BAR-4 x 3/8	0 9	(T)		5 1/2
10	7/8"	H.S. BOLT	0 3	5/8" R. FLG.		8 1/2
10		WASHERS FOR 7/8" BOLT				8 1/2

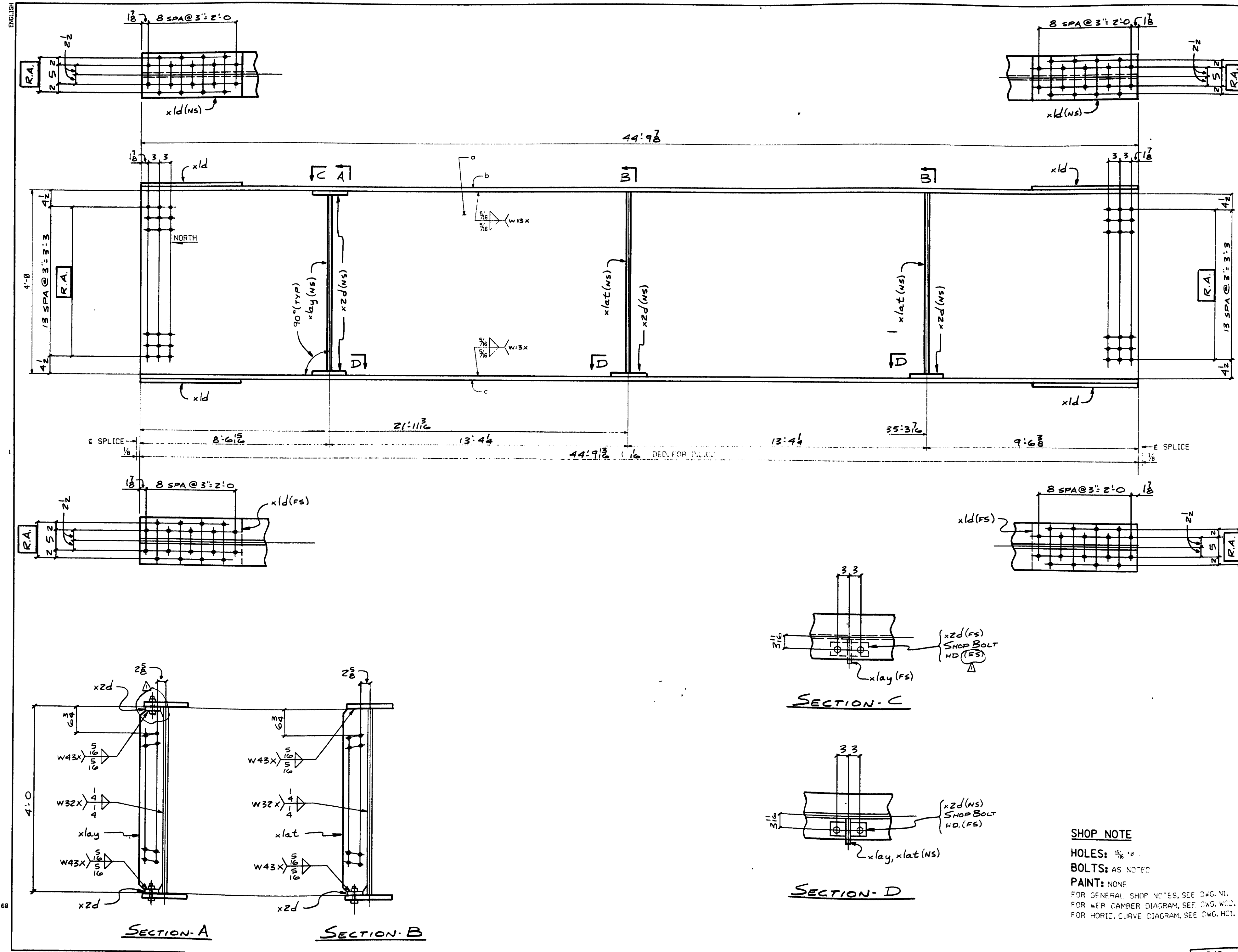
111-176

NO.	REVISION	DATE
APP'.	5-96	9 5-96

HIGH STEEL STRUCTURES, INC.
 1710 Hempstead Road
 Lancaster, PA 17602-0008
 Phone 717/299-5221
 A Division of High Industries, Inc.

GIRDER - G4D
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

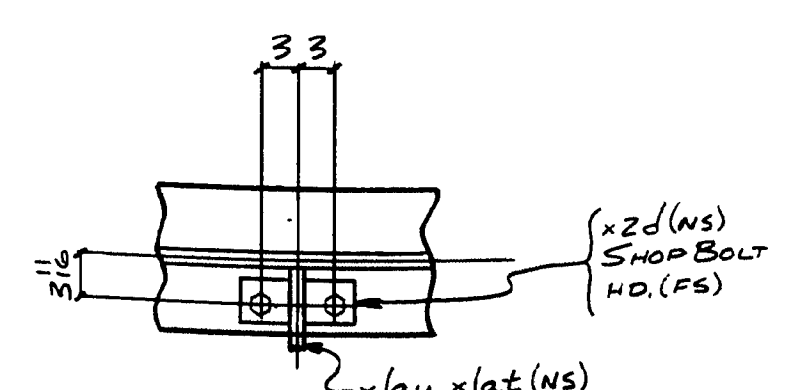
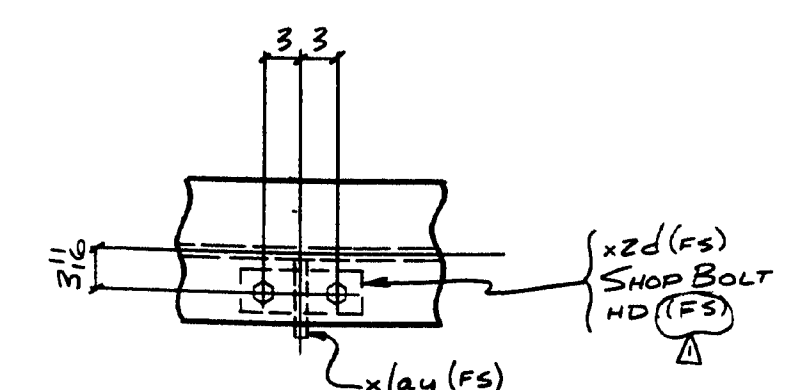
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE LANCO (WC) MADE BY SJR CRD. BY RF DATE 5-2-96
 CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 19 OF 30
 MAR 1 01997



FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.	
1		ME	DE-009(1006)	

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT
ONE	G I E	GIRDER				6242
1	a	R 48 x 3/8	44' 9 3/8 (T)			111
1	b	R 12 x 3/8	44' 9 3/8 (T)			35
1	c	R 12 x 3/8	44' 9 3/8 (T)			35
4	xld	R-12 x 4	2' 3 3/8			415
1	xlay	BAR-7 x 3/8	3' 10 3/4 (r)			55
2	xlat	BAR-7 x 3/8	3' 11 3/8 (r)			55
4	x2d	BAR-4 x 3/8	0' 9 (T)			56
8	3/8"	H.S. BOLT	0' 2 3/4	R, FLG		829
8		WASHERS FOR 3/8" BOLTS				8211

111-177



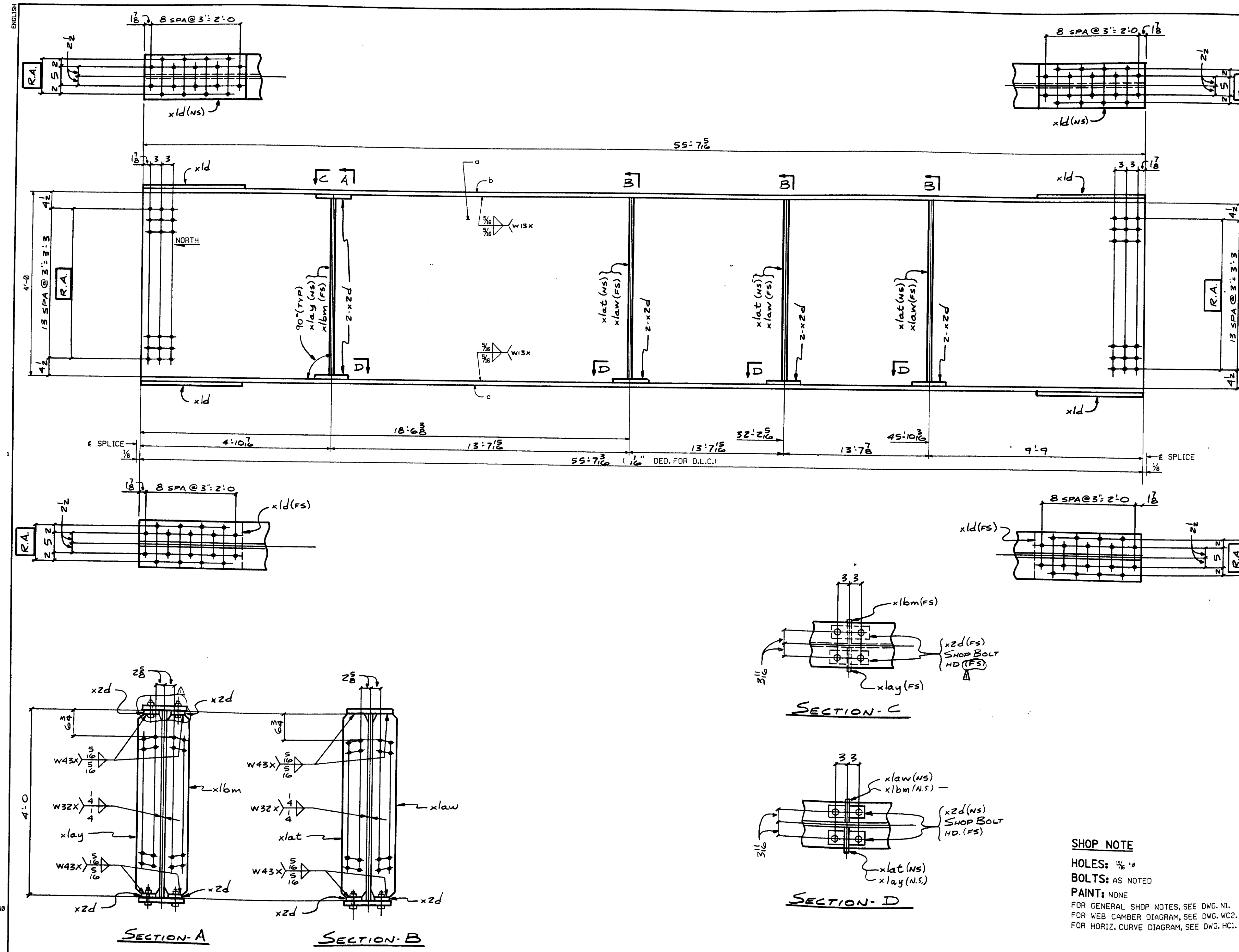
SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO. 1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. NO. 2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. NO. 3.

NO.	REVISION	DATE
1	APP'L CHG.	8-5-90

1710 Hampstead Road Lancaster, PA 17605-0008 Phone 717/299-5211	
HIGH STEEL STRUCTURES, INC.	
A Division of High Industries, Inc.	
GIRDER - G I E	
RTE. 196 RAMP B OVER U.S. RTE. 1	
RTE. 196 STA. 305+77.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO., MAINE	
STATE OF MAINE, DEPT. OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-009(1006) PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	SJR
CHK'D BY	RF
DATE	5-2-90
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	19 OF 30

CCOE-30

MAR 1 01997



FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SP. WEIGHT (LB.)
ONE	GZE	GIRDER				8,005
1	a	E 48 x 3/8	55 7 1/2	(T)	1	5
1	b	E 12 x 3/8	55 7 1/2	(T)	2	21
1	c	E 12 x 3/8	55 7 1/2	(T)	2	21
4	xld	A-12 x 4	2 3 3/8		4	13
3	xlat	BAR-7 x 3/8	3 11 3/8	(T)	3	5
3	xlaw		3 11 3/8		3	5
1	xlay		3 10 3/8		1	5
1	xlbm	BAR-7 x 3/8	3 10 3/8	(T)	1	5
10	xzd	BAR-4 x 3/8	0 9	(T)	10	56
20	3/8"	H.S. BOLT	0 2 3/8	R. FLG.	20	839
20		WASHERS FOR 3/8" BOLT			20	831

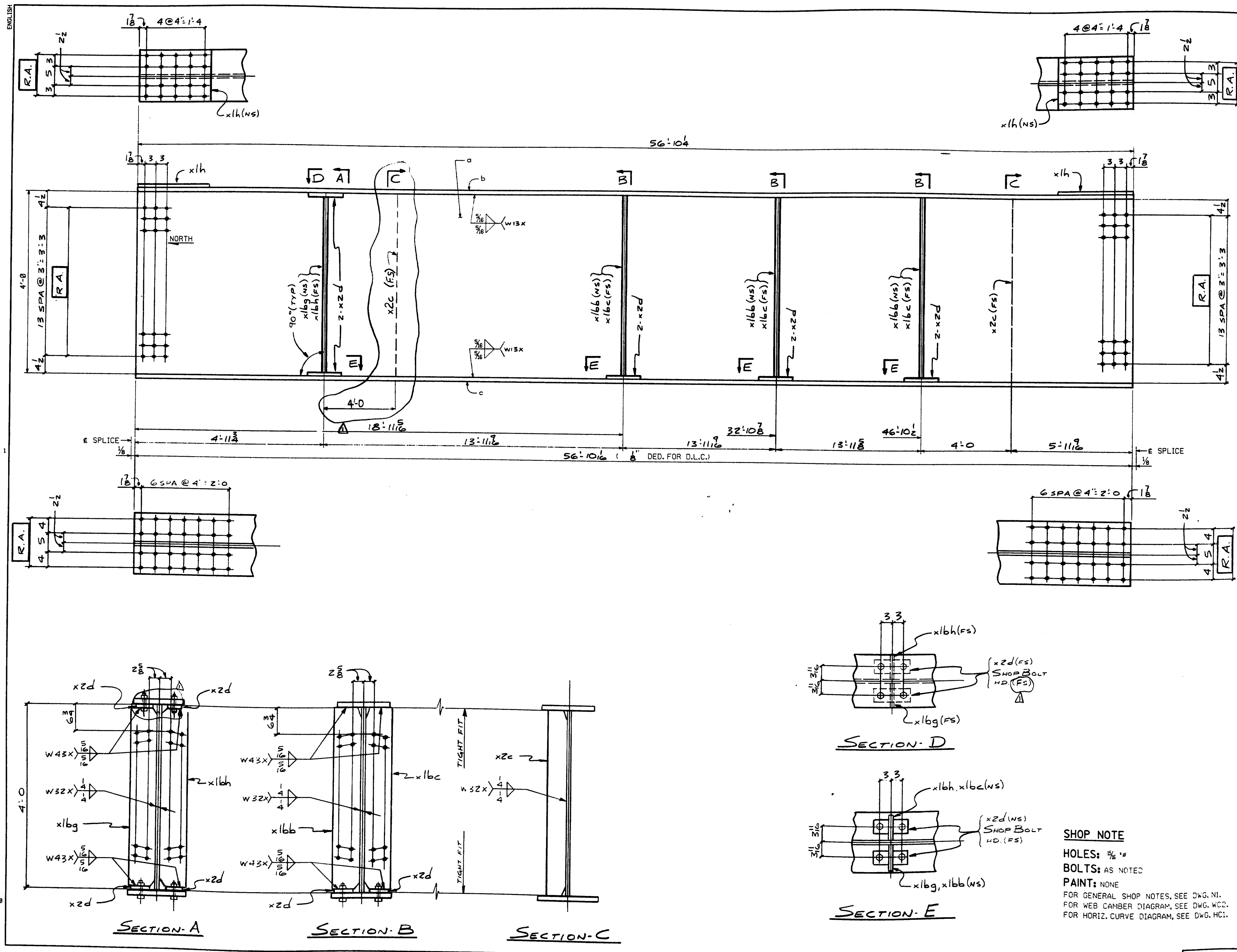
111-178

APPL. CHG.	8-5-96	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 1770 Hempstead Road Lancaster, PA 17605-0008 Phone 717/299-5281 A Division of High Industries, Inc.		
GIRDER - GZE		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY SJR
CHKD. BY	RF	DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 20 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

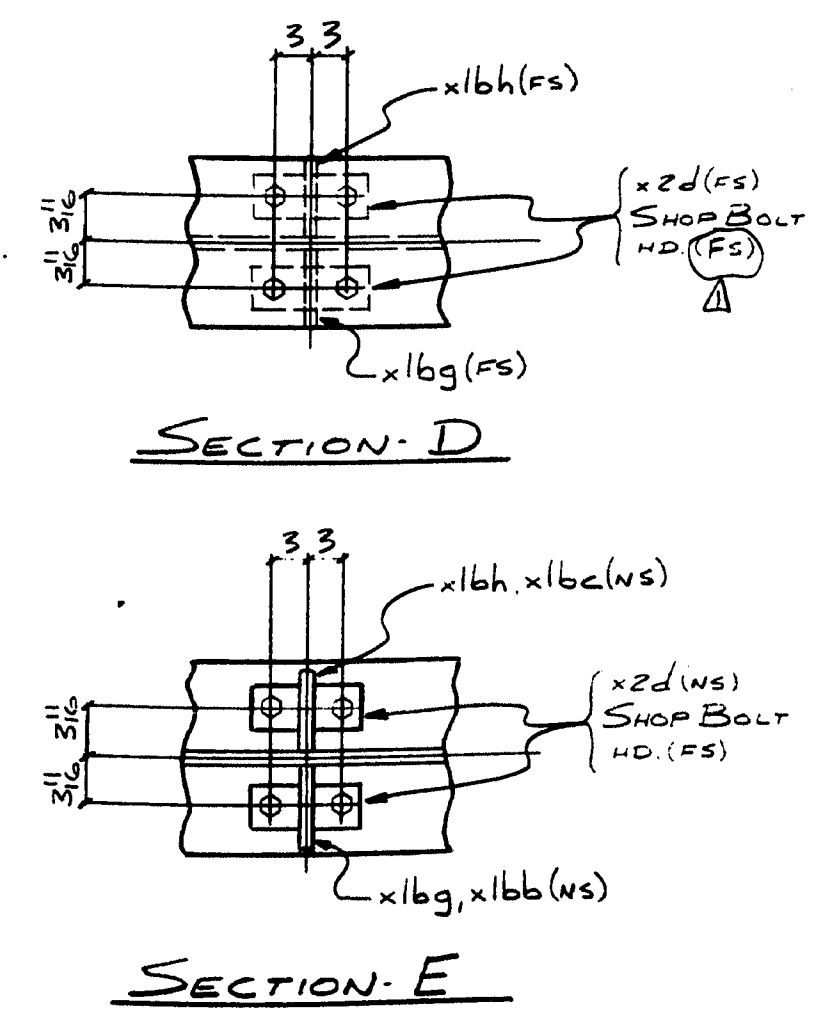
CODE:30

MAR 1 0 1997



FEDERAL DIVISION		STATE		FEDERAL PROJECT NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT
ONE	G3E	GIRDER				1990
1	a	2 48 x 3/8	56' 10 1/2 (T)			1 4
1	b	2 14 x 3/8	56' 10 1/2 (T)			2 14
1	c	2 16 x 1 1/2	56' 10 1/2 (T)			2 3
2	x1h	2-14x4	1 7 3/8			4 12
3	x1bb	BAR-7x8	3 11 3/8 (T)			5 5
3	x1bc		3 11 3/8 (T)			
1	x1bg		3 10 3/8 (T)			
1	x1bh	BAR-7x8	3 10 3/8 (T)			5 5
2	x2c	BAR-5x8	4 0 (T)			5 7
10	x2d	BAR-4x8	0 9 (T)			5 6
4	3/8"	H.S. BOLT	0 2 3/4	5" R. 3" FLG		8 2 9
16	3/8"	H.S. BOLT	0 3	8" R. 1 1/2" FLG.		8 2 10
20		WASHERS FOR 3/8" BOLT				8 2 11

111-179



SHOP NOTE
 HOLES: 3/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WCD.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCD.

NO.	REVISION	DATE
1	APPL CHANGE	8-5-96

1770 Hempstead Road
 Lancaster, PA 17603-0008
 Phone 717/299-5221

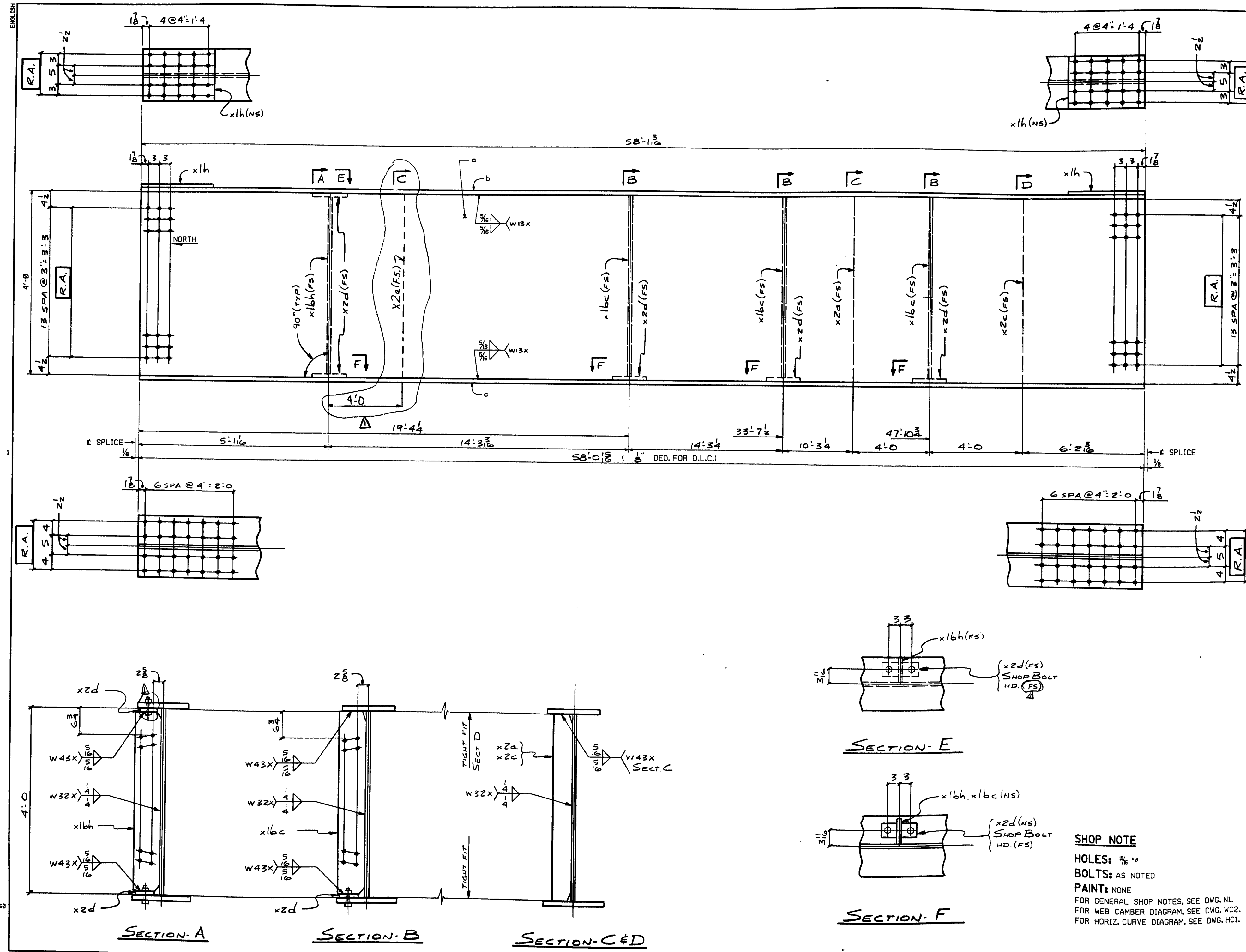
HIGH STEEL STRUCTURES, INC.
 A Division of High Industries, Inc.

GIRDER - G3E
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30

CONTRACTOR REED & REED, INC.
 IN CHARGE: LANCO (WC) MADE BY: SJR CHK'D: RF DATE: 5-2-98

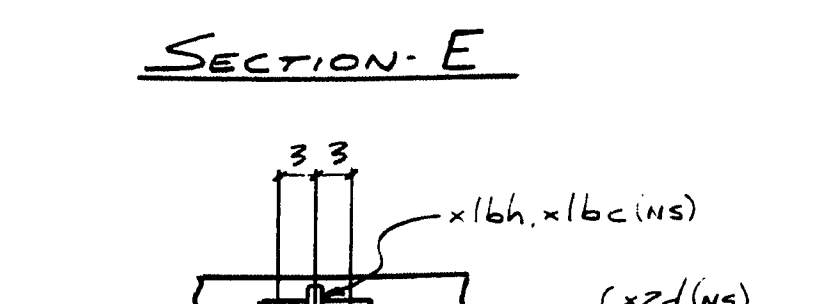
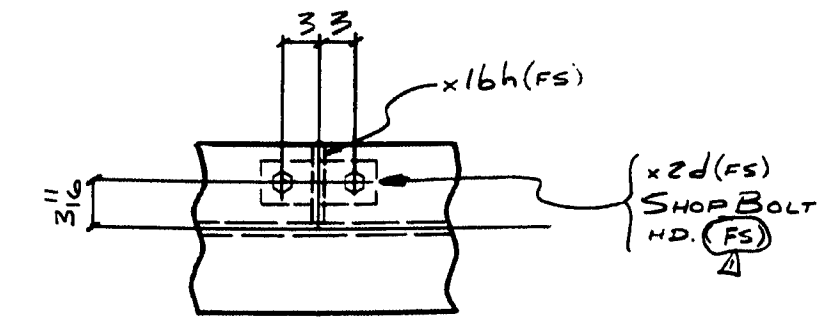
CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 21 OF 30



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)

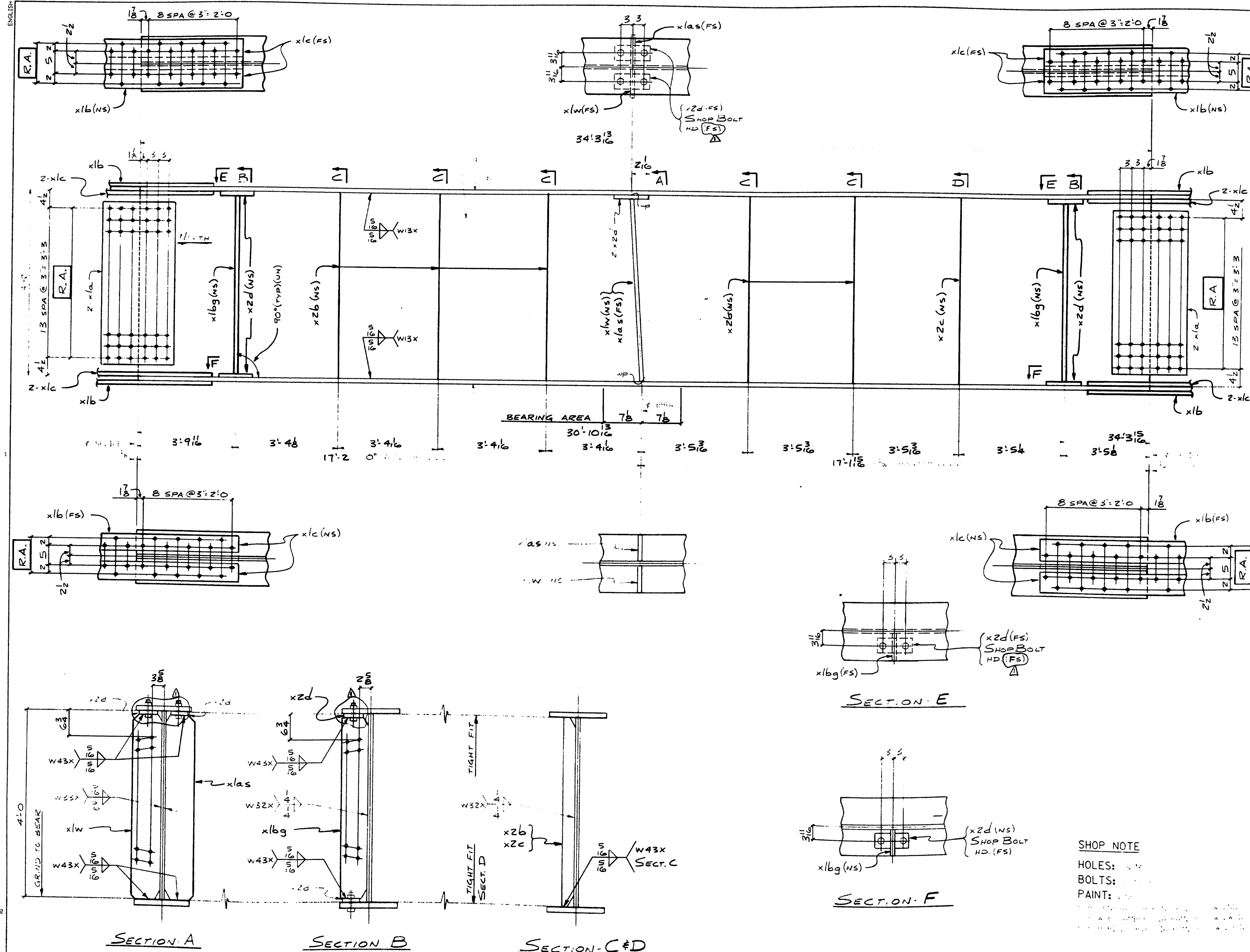
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY.
ONE	G4E	GIRDER				9894
1	a	E 48 x 7/8	58 1/2	(T)		13
1	b	E 14 x 8	58 1/2	(T)		313
1	c	E 16 x 18	58 0 1/2	(T)		32
2	x1h	A-14 x 4	1 7/8			412
3	x1bc	BAR-7 x 8	3 11 3/4	(r)		56
1	x1bh	BAR-7 x 8	3 10 3/4	(r)		55
2	x2c	BAR-5 x 8	4 0	(r)		57
1	x2c	BAR-5 x 8	4 0	(r)		57
5	x2d	BAR-4 x 8	0 9	(r)		56
2	3/4"	H.S. BOLT	0 23	3/4" R. 1/2" FLG.		821
8	3/4"	H.S. BOLT	0 3	3/4" R. 1/2" FLG.		8210
10		WASHERS FOR 3/4" BOLT				8211

111-180



SHOP NOTE
 HOLES: 1/8" ±
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

APPL CHANGE	8-5-96	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 1710 Hempfield Road Lancaster, PA 17605-0008 Phone 717/299-5200 A Division of High Industrial, Inc.		
GIRDER - G4E		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE	MADE BY	CHK'D BY
LANCO (WC)	SJR	RF
DATE	5-2-96	
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		22 OF 30



FED. AID PROJ. NO. NY-11(806)

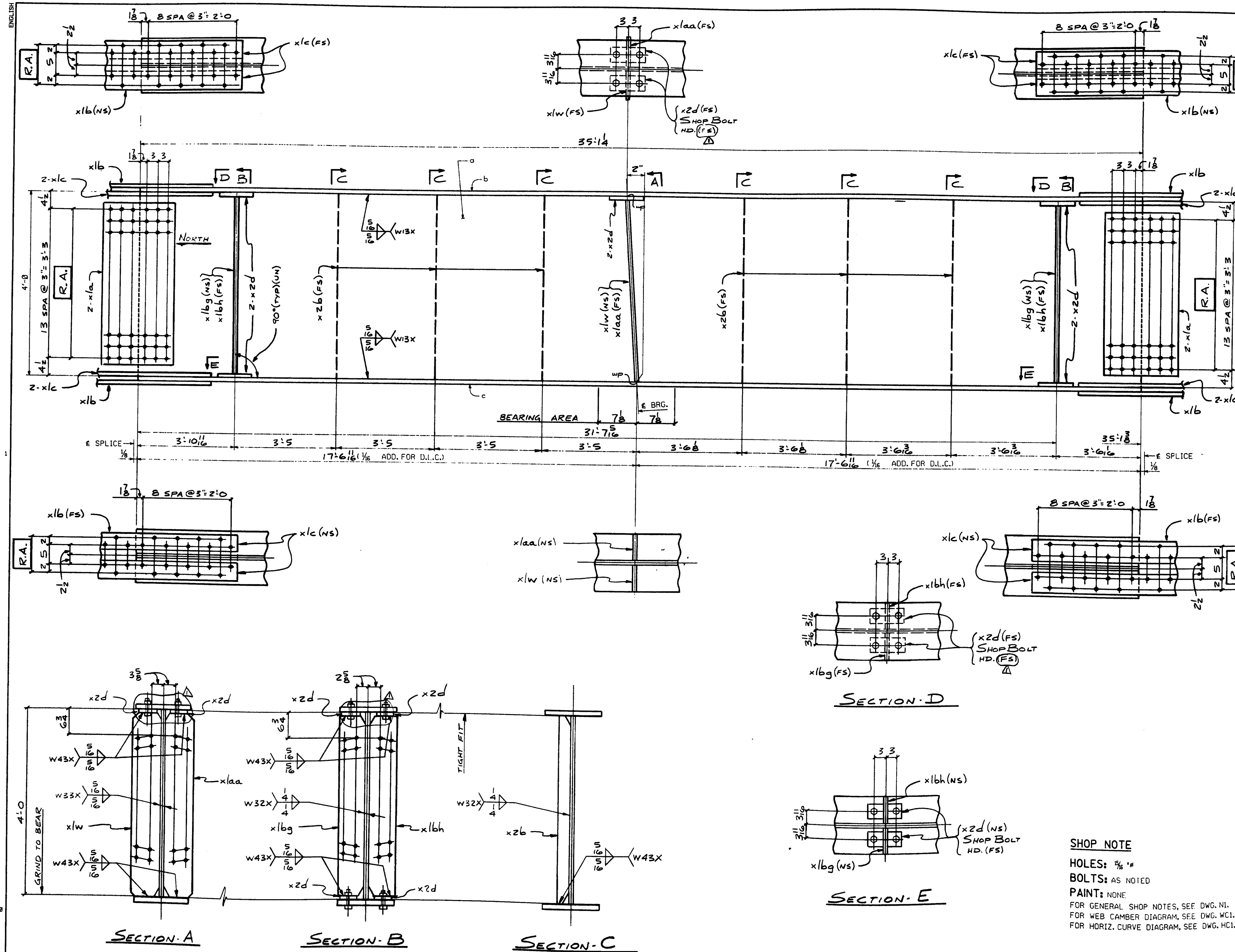
BILL OF MATERIAL

MARK	DESCRIPTION	LENGTH	ITEM	QTY
GIF	GIRDER			7,587
	48 x 3/8	34' 3 15/16	1	14
	14 x 1 1/2	34' 3 15/16	2	12
	14 x 1 1/2	34' 3 15/16	2	12
4	x/a R-48 x 1/2	1' 7"	(T)	4
4	x/b R-12 x 1/2	4' 7"	(T)	4
8	x/c BAR-5 x 8	4' 7"	(T)	4
1	x/w BAR-8 x 1 1/4	3' 11 1/2"	(T)	5
1	x/a.s BAR-8 x 1 1/4	3' 11 1/2"	(T)	5
2	x/b.g BAR-7 x 8	3' 10 3/4"	(T)	5
6	x/z.d BAR-4 x 8	0' 9"	(T)	5
5	x/z.b BAR-5 x 8	4' 0"	(T)	5
1	x/z.c BAR-5 x 8	4' 0"	(T)	5
	12 3/8" H.S. BOLT 0 3 5/8" FLG.			82
	12 WASHERS FOR 3/8" BOLT			82

111-181

1	APPL. CHG.	8-5-90
HIGH STEEL STRUCTURES, INC.		
GIF		
ME-96500-1		
RF	DATE: 5-2-96	23 OF 30
MAR 1 0 1997		

SHOP NOTE
 HOLES:
 BOLTS:
 PAINT:



FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT (LBS.)
ONE	GZF	GIRDER				7,864
1	a	E 48 x 3/8	35 1/8	(T)	1	14
1	b	E 14 x 1 1/2	35 1/4	(T)	2	11
1	c	E 14 x 1 1/2	35 1/8	(T)	2	11
4	x/a	R-43 x 1/2	1 7	(T)	4	11
4	x/b	R-12 x 1/2	4 7	(T)	4	10
8	x/c	BAR-5 x 3/8	4 7	(T)	4	6
1	x/w	BAR-8 x 1/4	3 11 1/2	(T)	5	3
1	x/a	BAR-8 x 1/4	3 11 1/2	(T)	5	3
2	x/b	BAR-7 x 3/8	3 10 3/4	(T)	5	5
2	x/h	BAR-7 x 3/8	3 10 3/4	(T)	5	5
10	x/z	BAR-4 x 3/8	0 9	(T)	5	6
6	x/z	BAR-5 x 3/8	4 0	(T)	5	7
20	3/8"	H.S. BOLT	0 3	5/8" FLG.	82	10
20		WASHERS FOR 3/8" BOLT			82	11

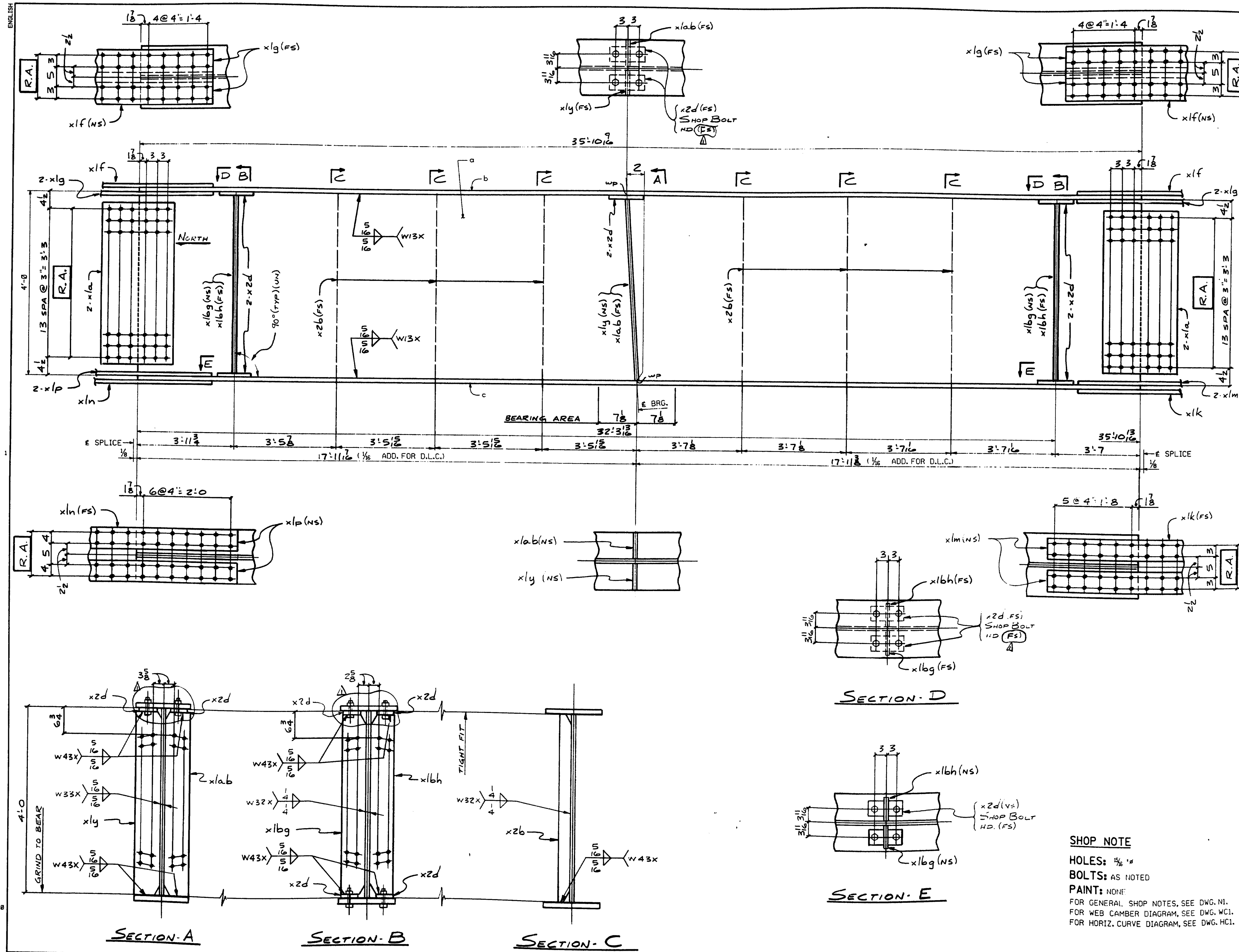
111-182

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. W1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

NO.	REVISION	DATE
1	App'l Cng.	8-5-90

HIGH STEEL STRUCTURES, INC.		1770 Hempstead Road Lancaster, PA 17606-0008 Phone 717/291-5211
GIRDER - GZF		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1655.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE:	LANCO (WC)	MADE BY: SJR
CHK'D. BY:	RF	DATE: 5-2-96
CONTRACT NUMBER:	ME-96500-1	DRAWING NUMBER: 24 OF 30

ENGLISH



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(886)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT (LBS.)
ONE	G3F	GIRDER				8628
1	a	R-48 x 3/8	35 10 3/8	(T)		13
1	b	R-16 x 1 1/2	35 10 3/8	(T)		25
1	c	R-16 x 1 1/2	35 10 3/8	(T)		25
4	x1a	R-43 x 1/2	17	(T)		11
2	x1f	R-14 x 1/2	33	(T)		9
4	x1g	BAR-6 x 3/8	33	(T)		5
1	x1k	R-14 x 9/16	31	(T)		8
2	x1m	BAR-6 x 3/8	31	(T)		4
1	x1n	R-16 x 9/16	47	(T)		7
2	x1p	BAR-7 x 3/8	47	(T)		3
1	x1y	BAR-8 x 1/4	3 11/16	(T)		3
1	x1ab	BAR-8 x 1/4	3 11/16	(T)		3
2	x1bg	BAR-7 x 3/8	3 10 3/8	(T)		5
2	x1bh	BAR-7 x 3/8	3 10 3/8	(T)		5
10	x2d	BAR-4 x 3/8	09	(T)		6
6	x2b	BAR-5 x 3/8	40	(T)		7
20	7/8"	H.S. BOLT	03	8.8 R.F.L.G.		10
20		WASHERS FOR 7/8" BOLTS				11

111-183

NO.	REVISION	DATE
	App'l CHG.	8-5-90

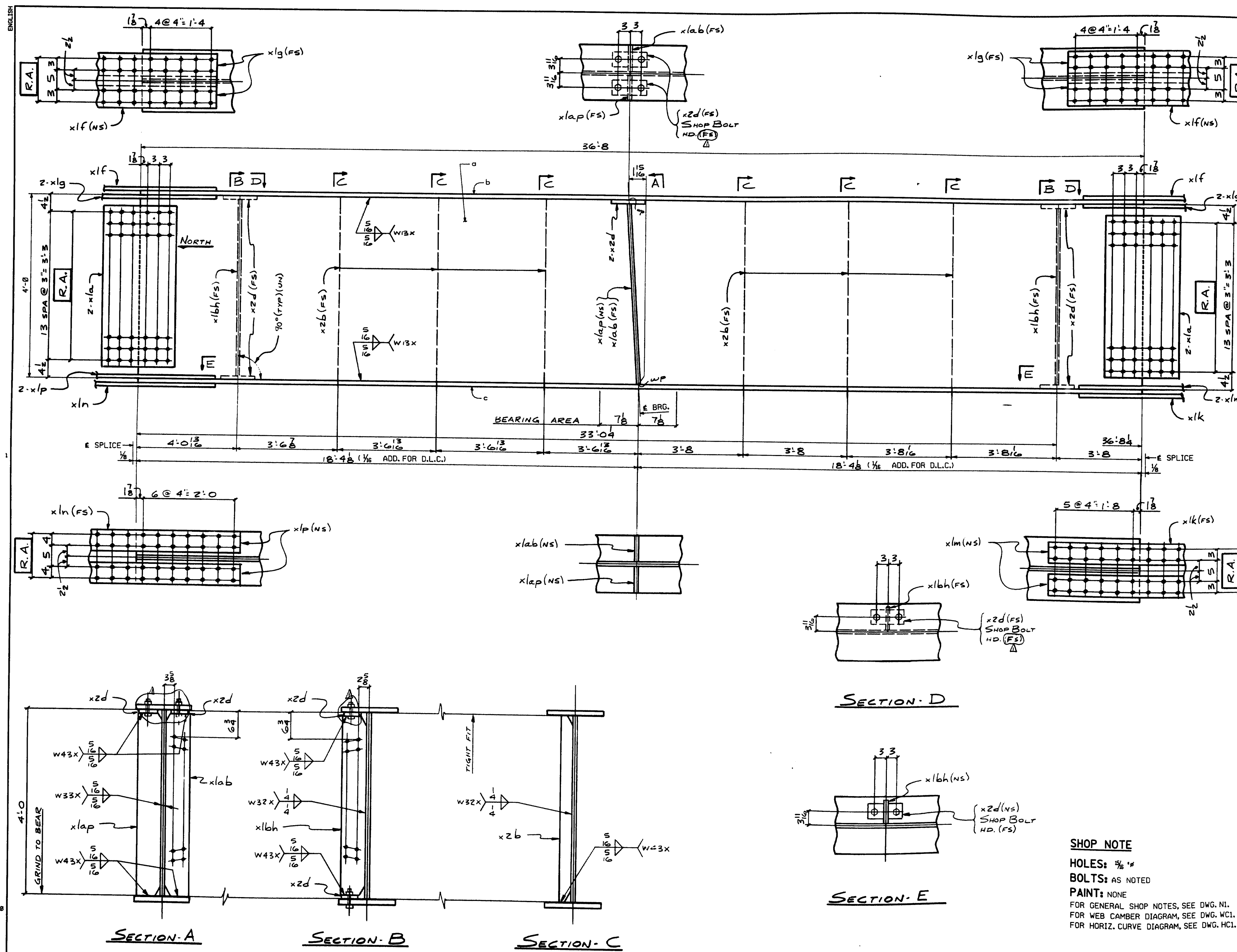
HIGH STEEL STRUCTURES, INC.
 1770 Hempstead Road
 Lancaster, PA 17605-0008
 Phone 717-299-5211
 A Division of High Industries, Inc.

GIRDER - G3F
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(886) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE: LANCO (WC) MADE BY: SJR CK'D. BY: RF DATE: 5-2-96
 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 25 OF 30

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

MAR 1 01997

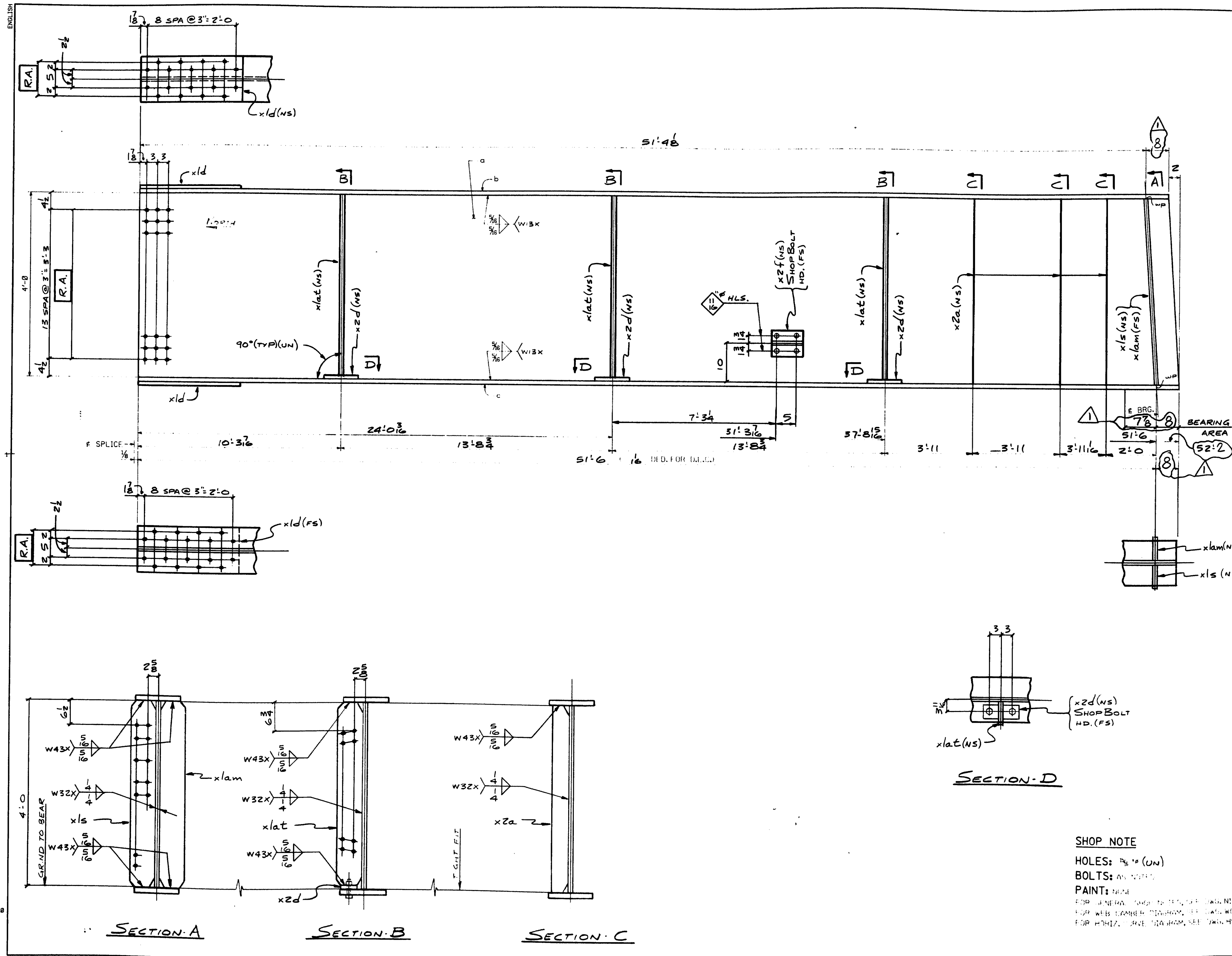


FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY.
ONE	G4F	GIRDER				8,631
1	a	R 48 x 3/8	36 8 1/4	(T)		1 1/2
1	b	R 16 x 1 1/2	36 8	(T)		2 1/4
1	c	R 16 x 1 1/2	36 8 1/4	(T)		2 1/4
4	x1a	R-43 x 1/2	1 7	(T)		4 1/2
2	x1f	R-14 x 1/2	3 3	(T)		4 1/2
4	x1g	BAR-6 x 5/8	3 3	(T)		4 1/2
1	x1k	R-14 x 1 1/2	3 11	(T)		4 1/2
2	x1m	BAR-6 x 3/4	3 11	(T)		4 1/2
1	x1n	R-16 x 1 1/2	4 7	(T)		4 1/2
2	x1p	BAR-7 x 3/4	4 7	(T)		4 1/2
1	x1ab	BAR-8 x 1 1/2	3 11 1/2	(T)		5 1/2
1	x1ap	BAR-8 x 1 1/2	3 11 1/2	(T)		5 1/2
2	x1bh	BAR-7 x 3/8	3 10 3/4	(T)		5 1/2
6	x2d	BAR-4 x 5/8	0 9	(T)		5 1/2
6	x2b	BAR-5 x 3/8	4 0	(T)		5 1/2
12	7/8"	H.S. BOLT	0 3	5" R. FLG.		9 1/2
12		WASHERS FOR 7/8" BOLTS				9 1/2

111-184

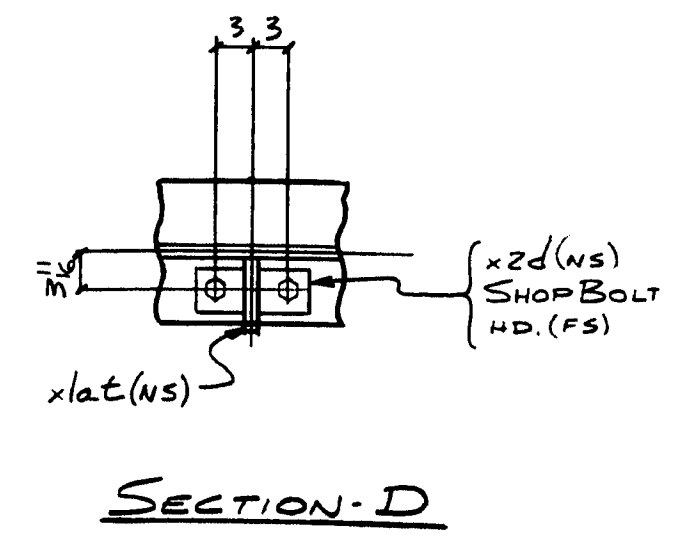
SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WCI.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCI.

App'l Cng.	9-5-90	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>1770 Hempfield Road Lebanon, PA 17040-0008 Phone 717/299-9221</small> <small>A Division of High Industries, Inc.</small>		
GIRDER - G4F RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	MADE BY: <u>SJR</u> CHK'D. BY: <u>RF</u> DATE: <u>5-2-90</u>
IN CHARGE	LANCO (WC)	DRAWING NUMBER: <u>ME-96500-1</u> 26 OF 30



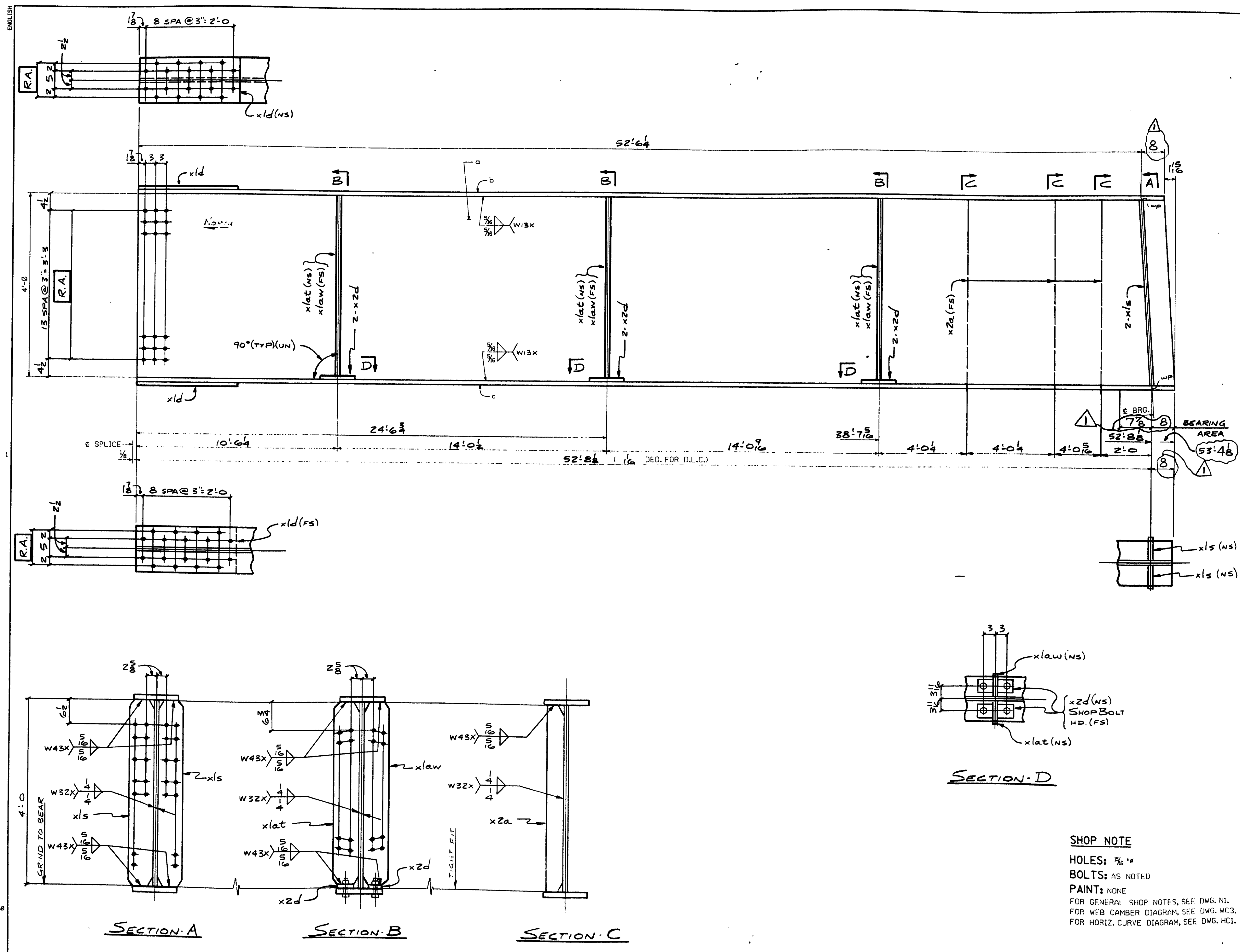
FEDERAL DISTRICT		STATE	FELAND PROJECT			
1		ME	DE-0091(886)			
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT (LBS)
ONE	G1G	GIRDER				7,366
1	a	R 48 x 3/8	52 2 1/2	(T)	1	8
1	b	R 12 x 7/8	52 0 8	(T)	3	2
1	c	R 12 x 7/8	52 2	(T)	2	2
2	x1d	R 12 x 4	2 3 3/8		4	13
1	x1s	BAR 7 x 3/4	4 0	(T)	5	4
1	xlam	BAR 7 x 3/4	4 0	(T)	5	4
3	x1a	BAR 7 x 3/8	3 11 3/8	(T)	5	5
3	x2a	BAR 5 x 3/8	4 0	(T)	5	7
3	x2d	BAR 4 x 3/8	0 9	(T)	5	6
1	x2f	WT 6 x 13	0 8		5	8
4	5/8"	H.S. BOLT	0 1 3/4	WT. WEB	B2	5
4		WASHERS FOR 5/8" BOLT			B2	6
6	5/8"	H.S. BOLT	0 2 3/4	R. FLG	B2	9
6		WASHERS FOR 5/8" BOLT			B2	11

111-185



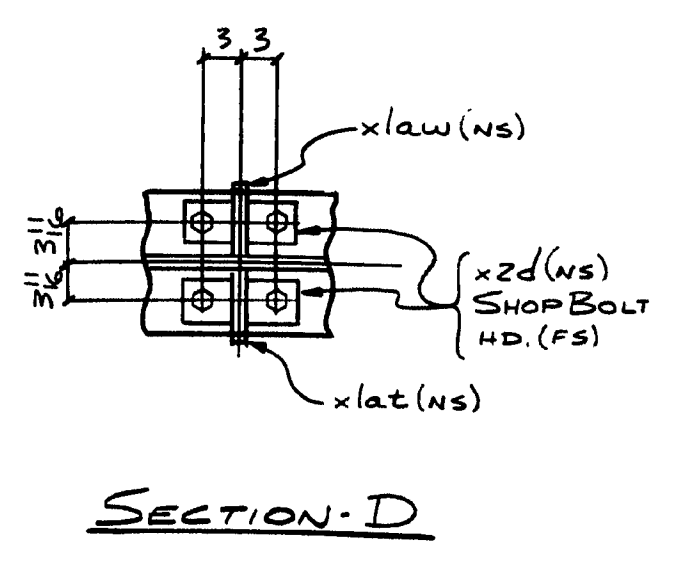
SHOP NOTE
 HOLES: 3/8" (UN)
 BOLTS: AS NOTED
 PAINT: PRIMER
 FOR ANCHORS, WELDS TO BE PAINTED WITH NO. 100
 FOR WEBS, CHANNELS, PLATES, AND WELDS
 FOR HORIZ. SURF. TO BE PAINTED WITH NO. 100

CHG. OVERHANG (DESIGN CHG)	6-21-96
NO.	DATE
110 Hallowood Road Lancaster, PA 17603-0008 Phone 717/299-5221 HIGH STEEL STRUCTURES, INC. A Division of High Industrial, Inc.	
GIRDER - G1G RTE. 196 RAMP B OVER I-95, RTE. 1 RTE. 196 STA. 385+72.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-0091(886) PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	SJR
CHECKED BY	RF
DATE	5-2-96
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	27 OF 30



FED. ROAD DIV. NO.		STATE		FED. ROAD PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT
ONE	G2G	GIRDER				7,709
1	a	R 48 x 3/8	53'4 1/2	(T)		1.7
1	b	R 12 x 7/8	53'2 1/2	(T)		2.23
1	c	R 12 x 6	53'4 1/2	(T)		2.23
2	x1d	R 12 x 4	2'3 1/2			4.13
2	x1s	BAR. 7 x 3/4	4'0	(T)		5.4
3	xlat	BAR. 7 x 5/8	3'11 1/2	(T)		5.5
3	xlaw	BAR. 7 x 5/8	3'11 1/2	(T)		5.5
3	x2a	BAR. 5 x 5/8	4'0	(T)		5.7
6	x2d	BAR. 4 x 5/8	0'9	(T)		5.6
12	3/8"	H.S. BOLT	0'2 1/2	R. FLG	B29	
12		WASHERS FOR 3/8" BOLT			B21	

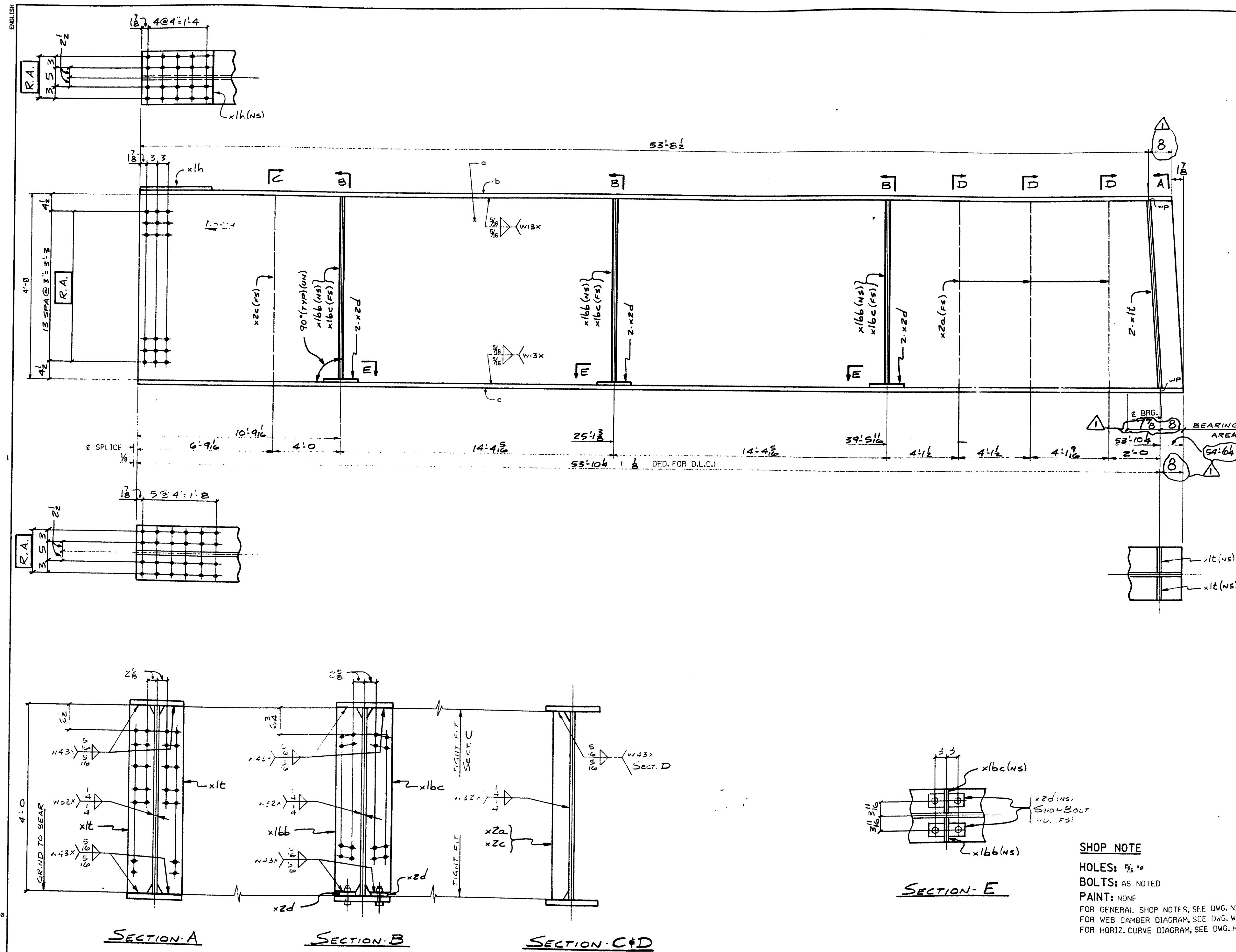
111-186



SECTION D

SHOP NOTE
 HOLES: 1/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

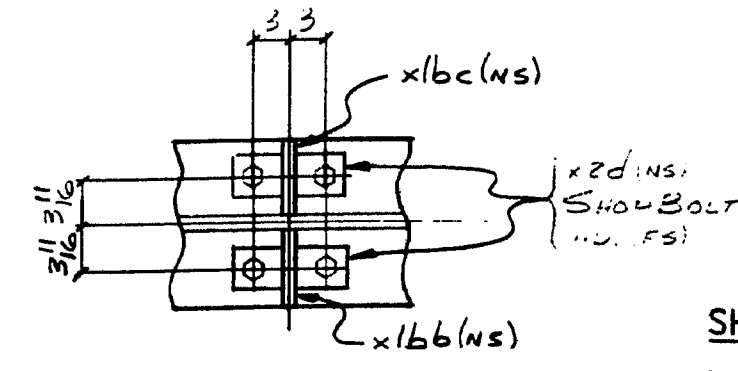
△		
△		
△	CHG. OVERHANG (DESIGN CHG.)	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>1710 Hempstead Road Lansdowne, PA 19050-0008 Phone 717/299-5211 A Division of High Industries, Inc.</small>		
GIRDER ~ G2G		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806)	PIN 1665-30
CONTRACTOR	REED & REED, INC.	MADE BY: SJS
IN CHARGE	LANCO (WC)	BY: RF DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 28 OF 30



FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. HEIGHT EAF.
ONE	G3G	GIRDER				9,158
1	a	R 48 x 3/8	54 0 3/8	(TT)	1	6
1	b	R 14 x 3/8	54 4 1/2	(TT)	2	16
1	c	R 14 x 1/2	54 6 1/4	(TT)	2	7
1	x1h	R 14 x 1/4	1 7 3/8		1	12
2	x1t	BAR 7 x 3/4	4 0	(r)	5	4
3	x1bc	BAR 7 x 5/8	3 11 3/8	(r)	5	5
3	x1bb	BAR 7 x 3/8	3 11 3/8	(r)	5	5
3	x2a	BAR 5 x 3/8	4 0	(r)	5	7
1	x2c	BAR 5 x 3/8	4 0	(r)	5	7
6	x2d	BAR 4 x 3/8	0 9	(r)	5	6
12	3/8"	H.S. BOLT	0 3	5/8" R. 16' FLG.	82	10
12		WASHERS FOR 3/8" BOLT			82	11

111-187

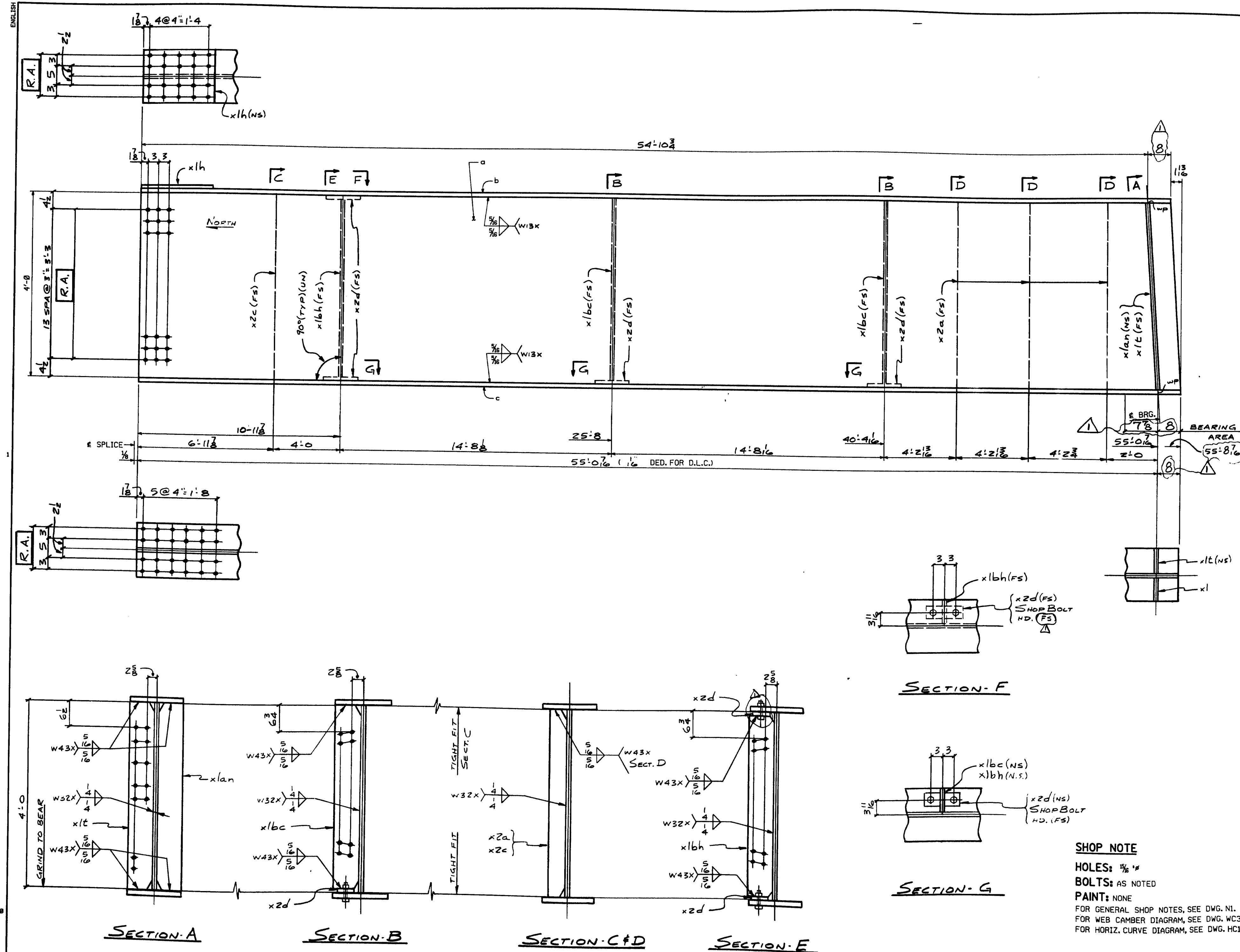


SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
1	CHG. OVERHANG (DESIGN CHG.)	6-21-96

HIGH STEEL STRUCTURES, INC.		1770 Hampden Road Lynchburg, VA 23804-0008 Phone 771/299-522
GIRDER ~ G3G		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	CHK'D. BY: RF DATE: 5-2-96
CONTRACTOR	REED & REED, INC.	MADE BY: SJR
IN CHARGE	LANCO (WC)	DRAWING NUMBER: 29 OF 30
CONTRACT NUMBER	ME-96500-1	

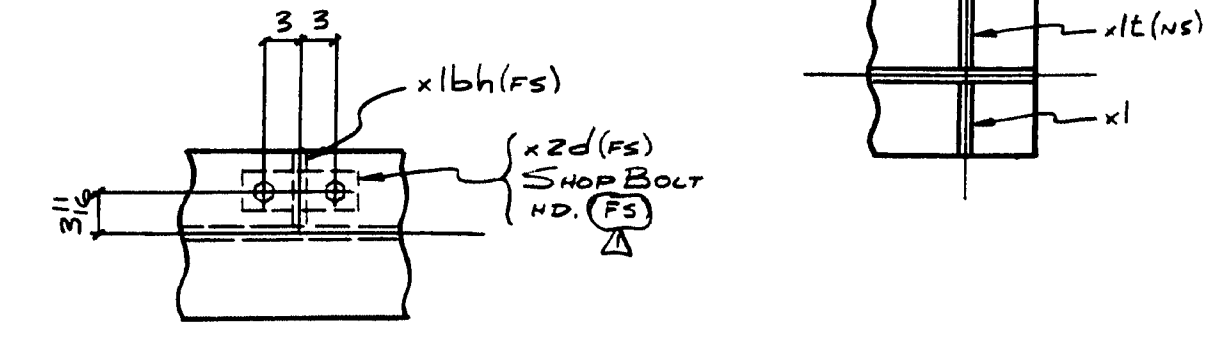
MAR 1 0 1997



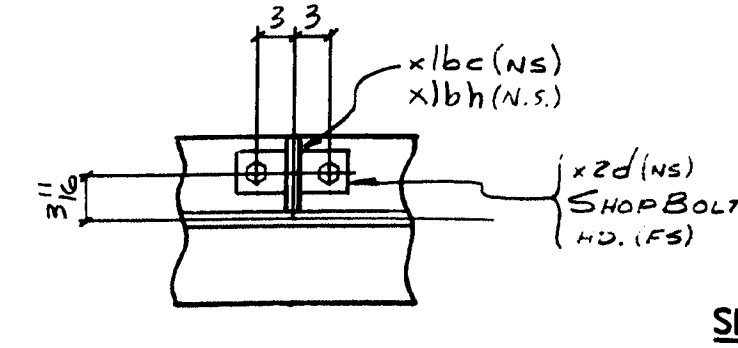
FED. PROJ. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT
ONE	G4G	GIRDER				9,153
1	a	R 48 x 3/8	55' 8 1/2"	(T)		15
1	b	R 14 x 3/8	55' 6 3/4"	(T) Δ		25
1	c	R 14 x 1 1/2	55' 8 1/2"	(T)		26
1	x1h	R 14 x 1/2	1' 7 3/8"			12
1	x1c	BAR. 7 x 3/8	4' 0"	(r)		54
1	x1an	BAR. 7 x 3/8	4' 0"	(r)		54
2	x1bc	BAR. 7 x 3/8	3' 11 3/8"	(r)		55
1	x1bh	BAR. 7 x 3/8	3' 10 3/4"	(r)		55
3	x2a	BAR. 5 x 3/8	4' 0"	(r)		57
1	x2c	BAR. 5 x 3/8	4' 0"	(r)		57
4	x2d	BAR. 4 x 3/8	0' 9"	(r)		56
2	3/8"	H.S. BOLT	0' 2 3/4"	3/8" R, 7/8" FLG.		829
6	3/8"	H.S. BOLT	0' 3' 3/8"	1/2" R, 1 1/8" FLG.		8210
8		WASHERS FOR 3/8" BOLT				8211

111-188



SECTION-F



SECTION-G

SHOP NOTE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
1	APPLY CHG. CHG. OVERHANG (DESIGN CHG.)	6-21-96

HIGH STEEL STRUCTURES, INC.		1770 Hempstead Road Lima, PA 17050-0008 Phone 717/299-9211
GIRDER - G4G		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	MADE BY: SJR
IN CHARGE	LANCO (WC)	RF DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 30 OF 30

Curb Line "1" Curbed approach or return wing
Curb Line "2" Concrete End Post flare

NOTES

- Each "Expansion Device" consists of one pair of matching Slab and Backwall Elements and Expansion Dams as required. At expansion joints over piers, two Slab Elements shall be used.
- Refer to Design Drawings for all dimensions, slopes, skew, and other information necessary to fabricate and install each individual "Expansion Device".
- "Expansion Devices" shall be installed normal to grade.
- "Expansion Device" shall be set to an opening of two inches in the fabrication shop. The opening shall be adjusted in the field to reflect the temperature of the structure at the time of installation.

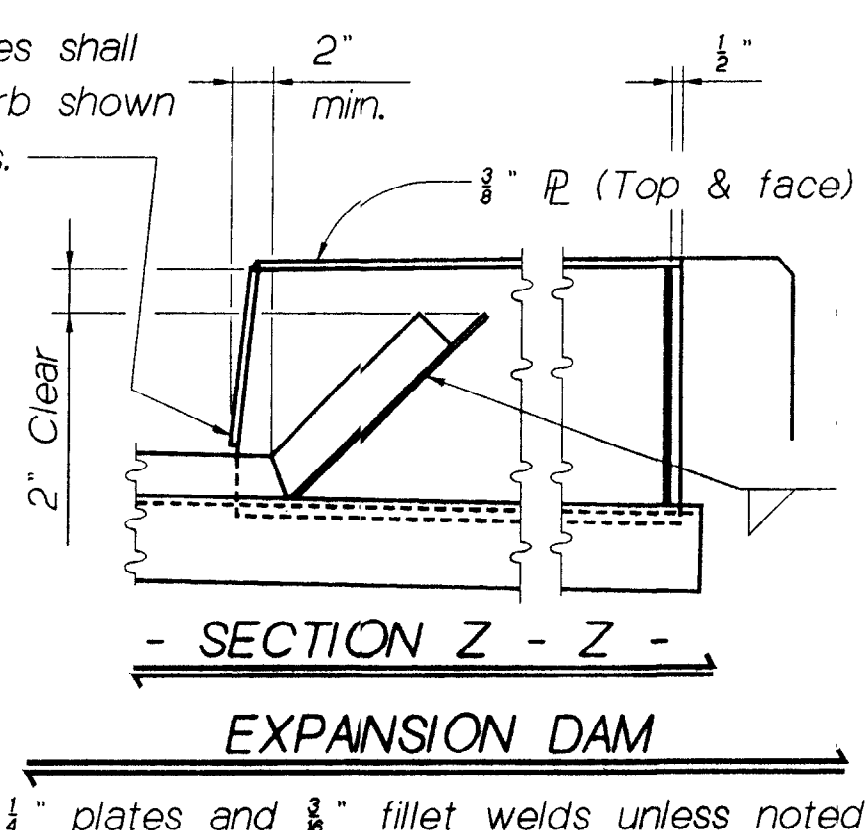
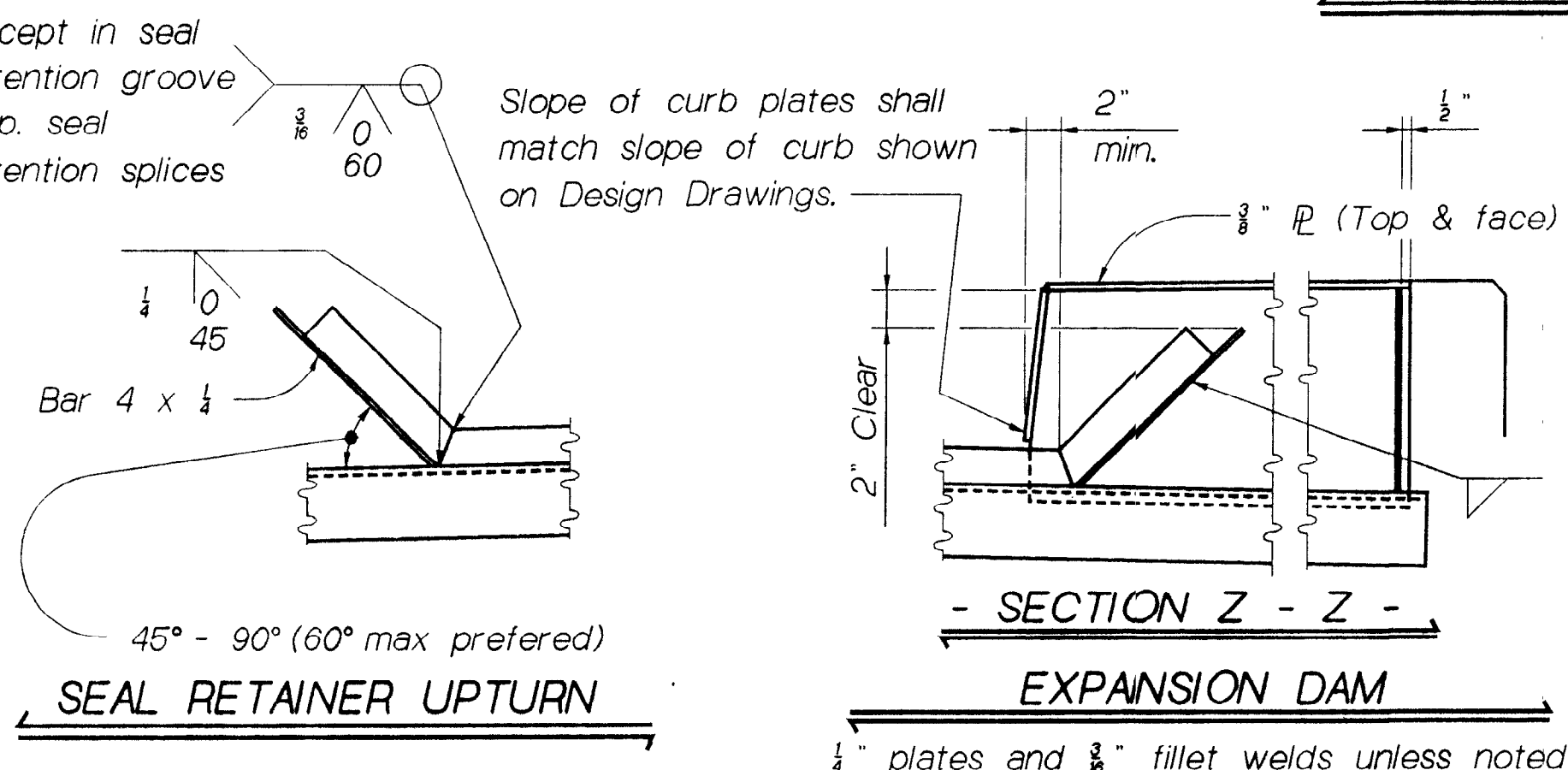
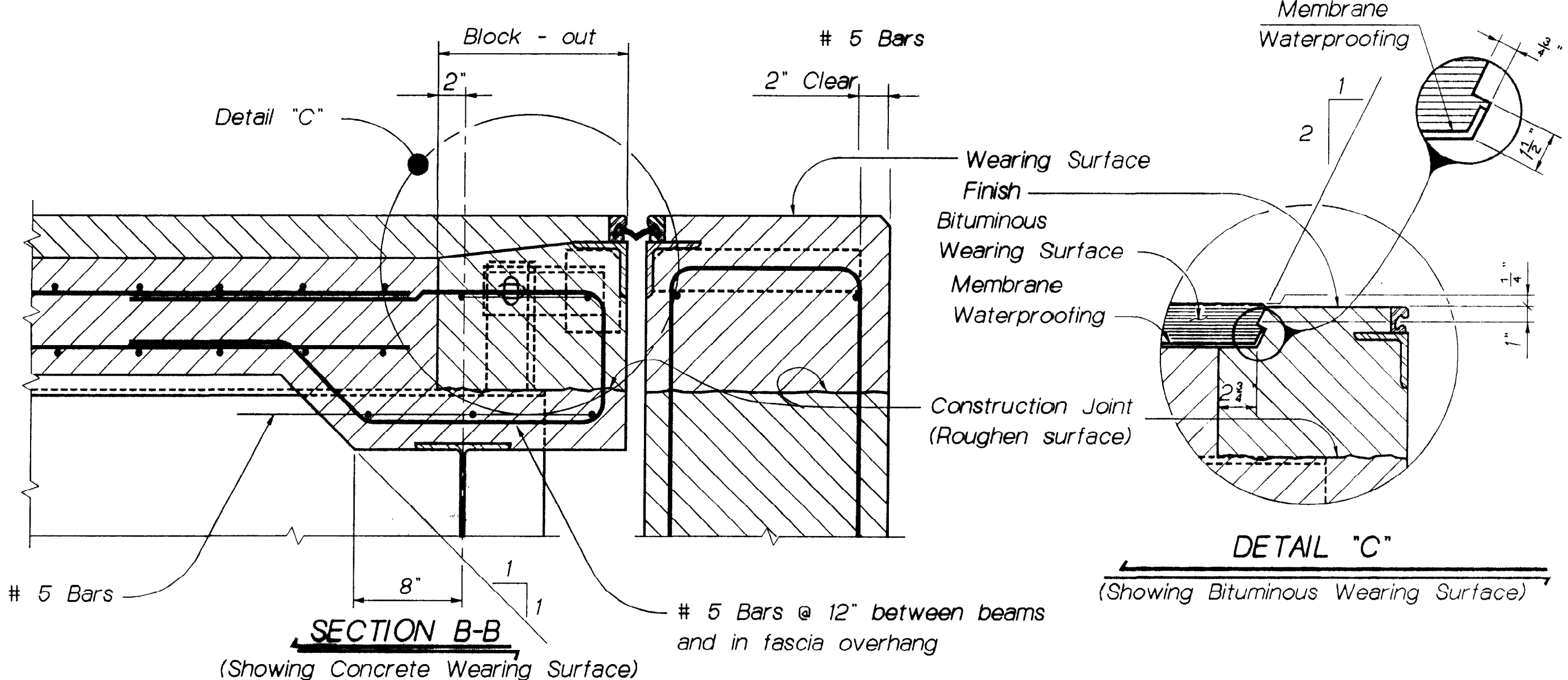
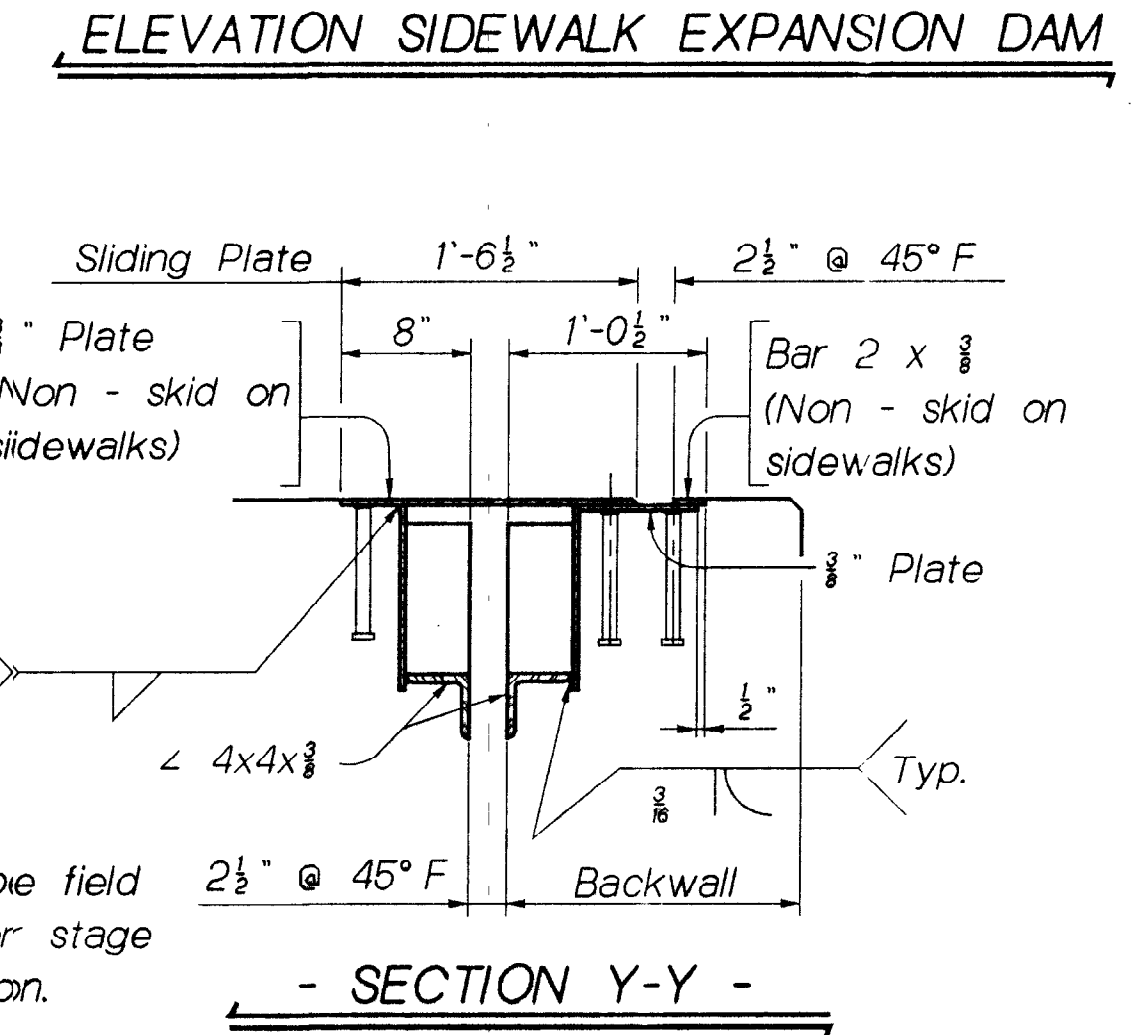
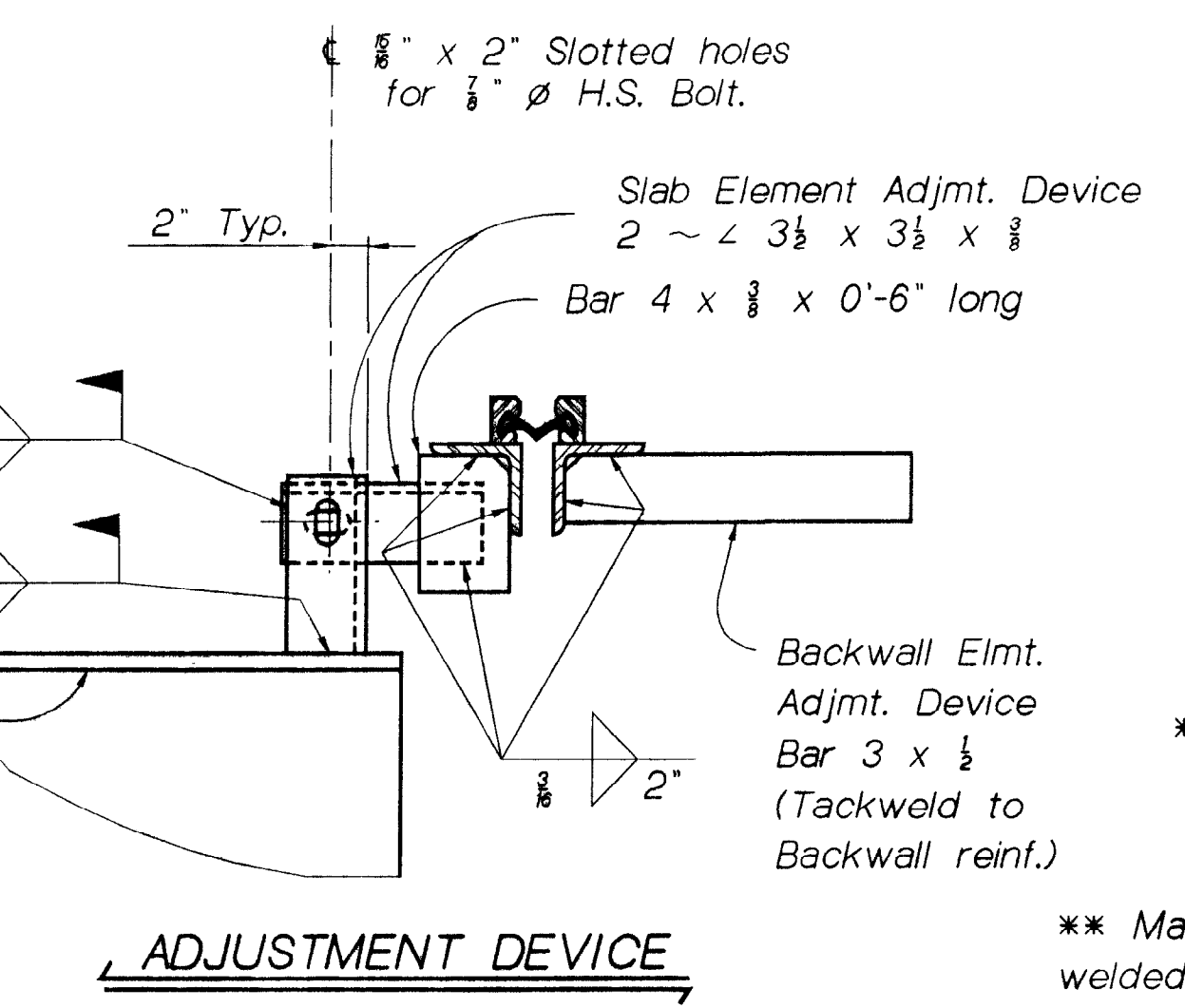
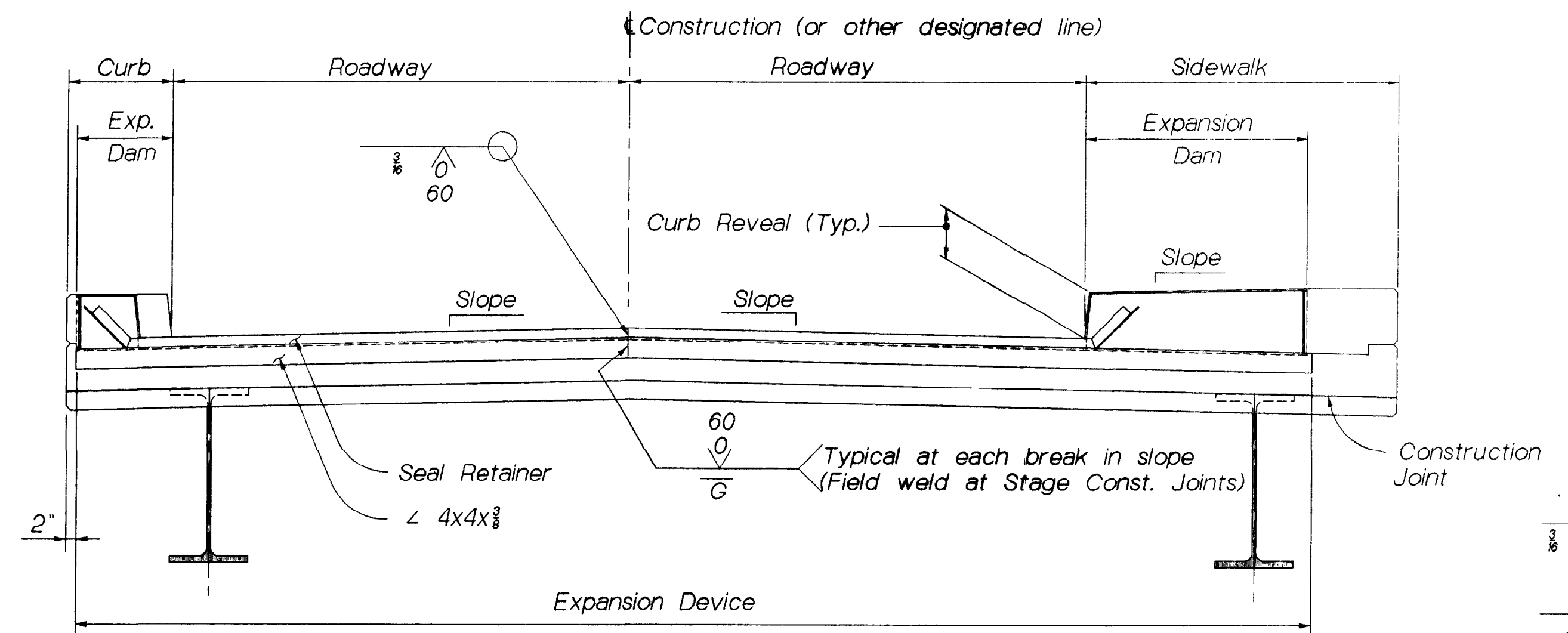
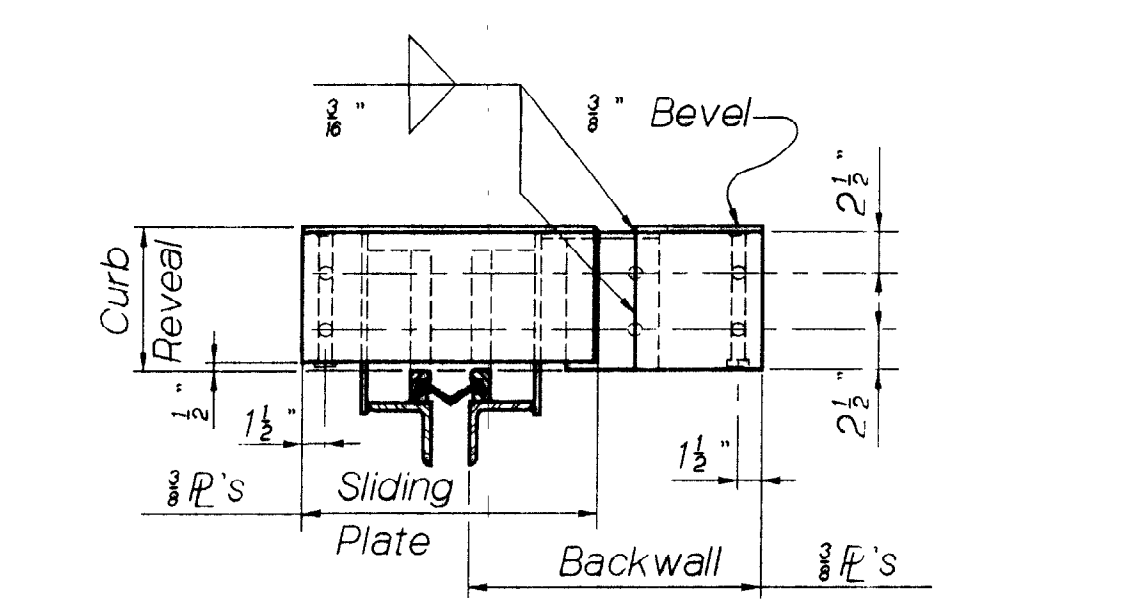
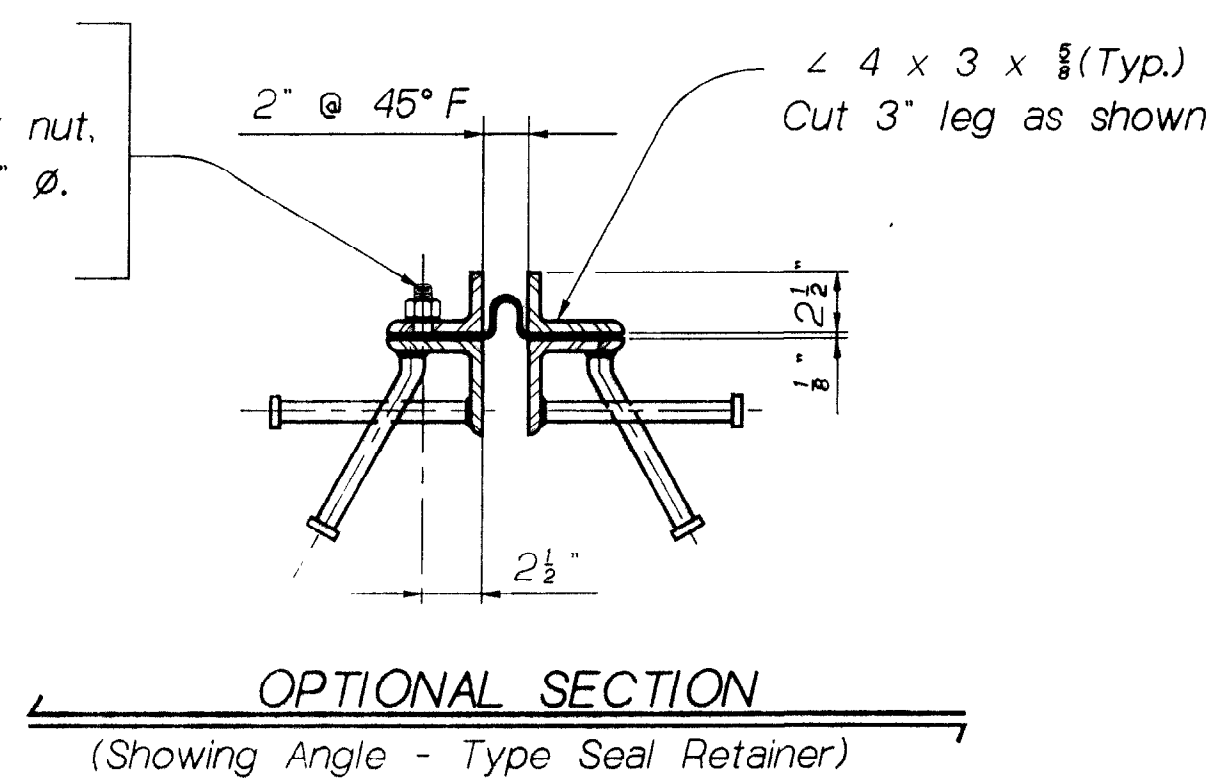
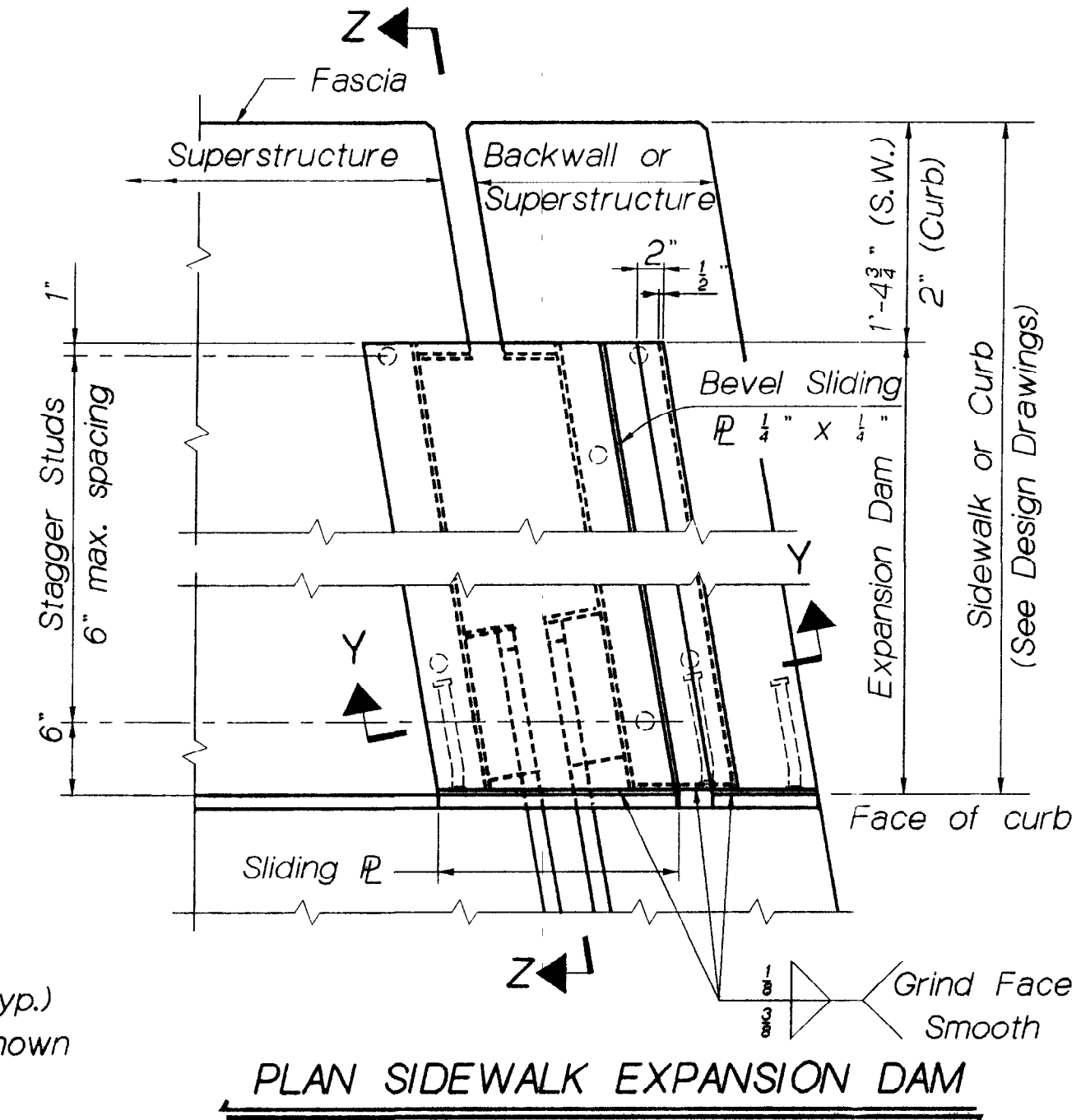
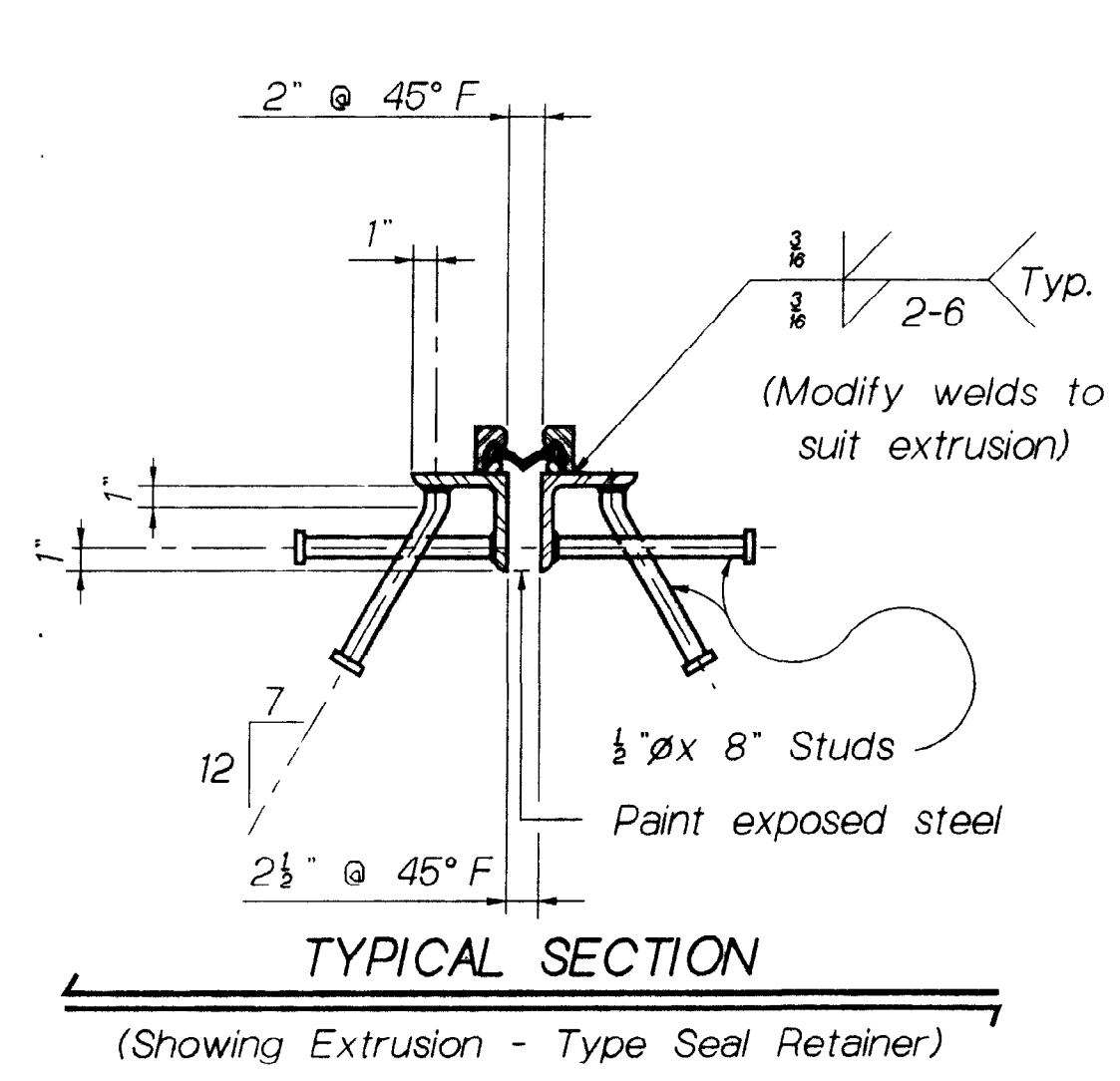
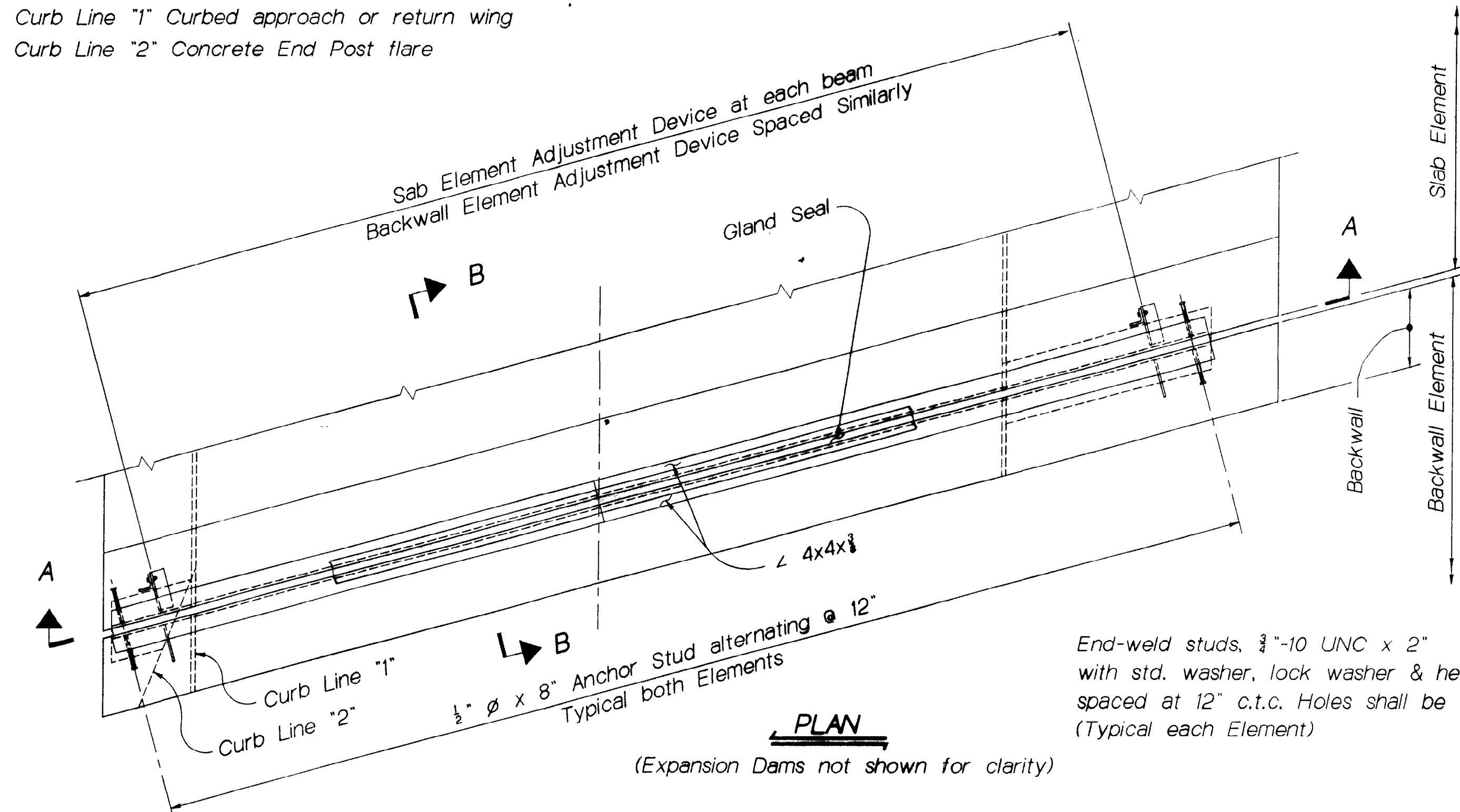
Correction per 10° F = $\frac{0.0125 \times L \text{ (exp.)}}{15}$

where L(exp.) at abutments is the distance in feet to the nearest fixed bearing and where L(exp.) at piers is the distance in feet between the fixed bearings at either side of the expansion joint.

Welding to reinforcing steel will be allowed in the top of the abutment backwall above the construction joint.

The slab and backwall concrete shall be in place before the "Expansion Device" is fixed in position. No allowance for movement due to dead load deflection is necessary.

The concrete in the slab block-out may be placed with the curb / sidewalk concrete. An approved epoxy bonding agent shall be applied to all vertical surfaces of the block-out before making the final concrete placement.



GENERAL NOTE: In case of conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

REVISIONS	APPROVED	
	Description	DATE
Original Plan	Me.DOT	JULY, 1993
	FHWA	

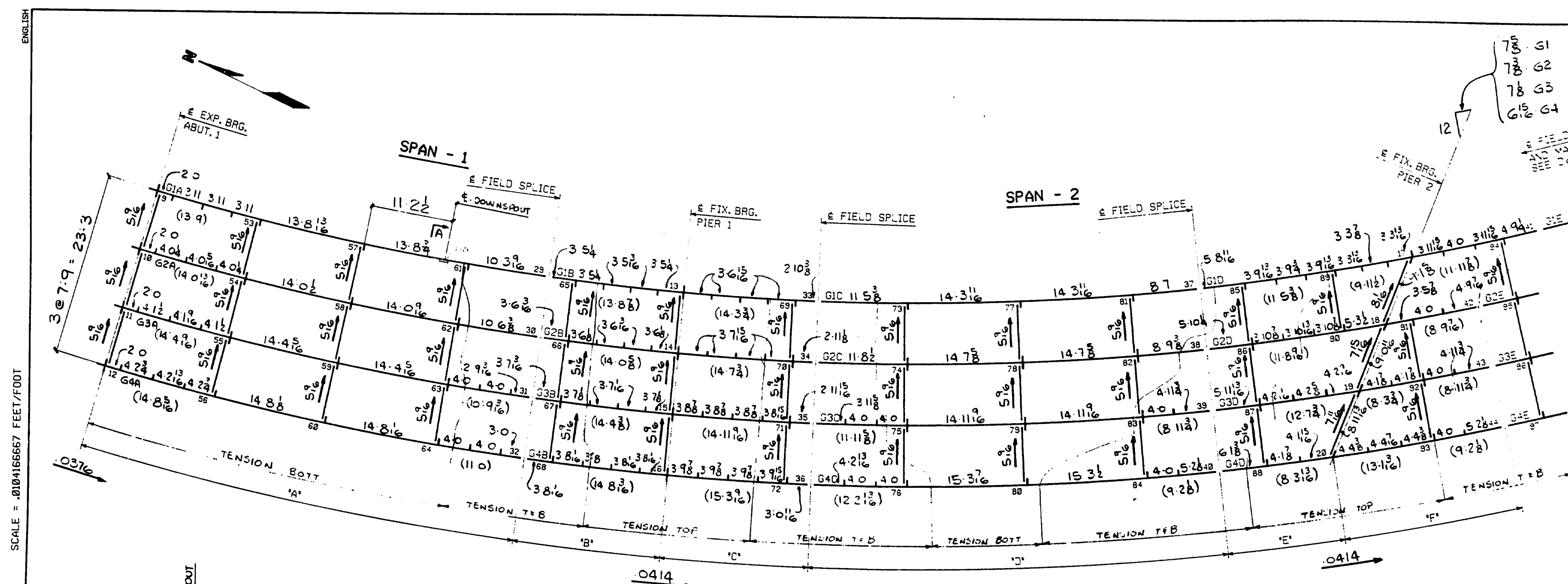
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
BD 302 - 93

EXPANSION DEVICE
GLAND SEAL

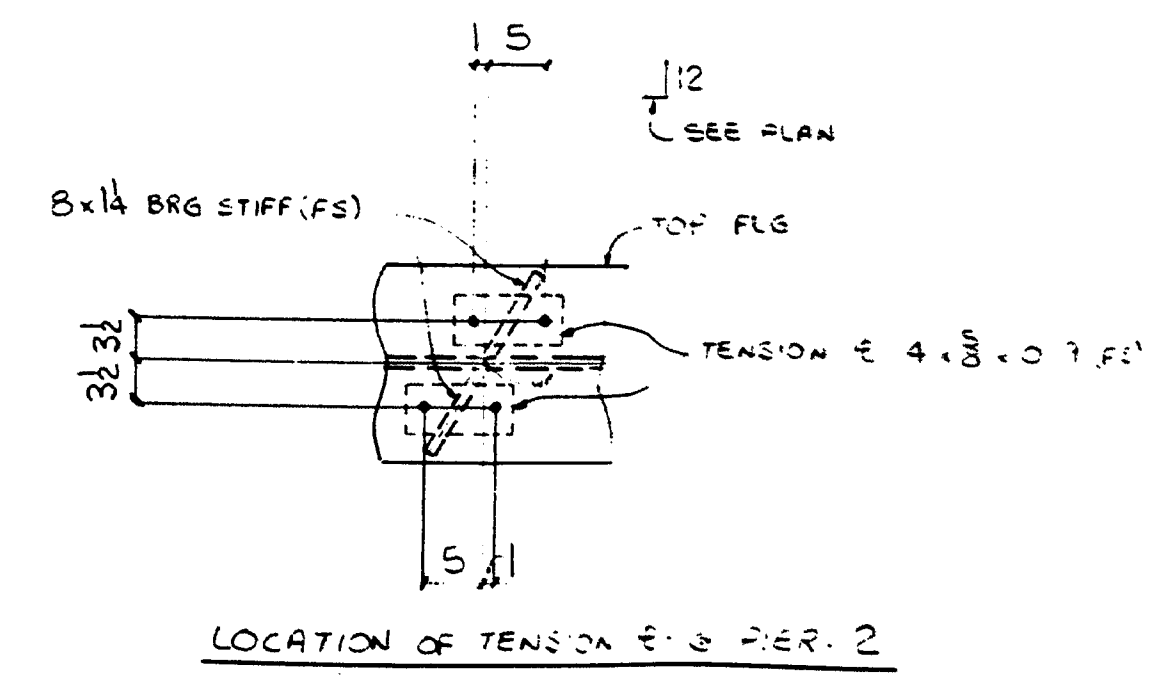
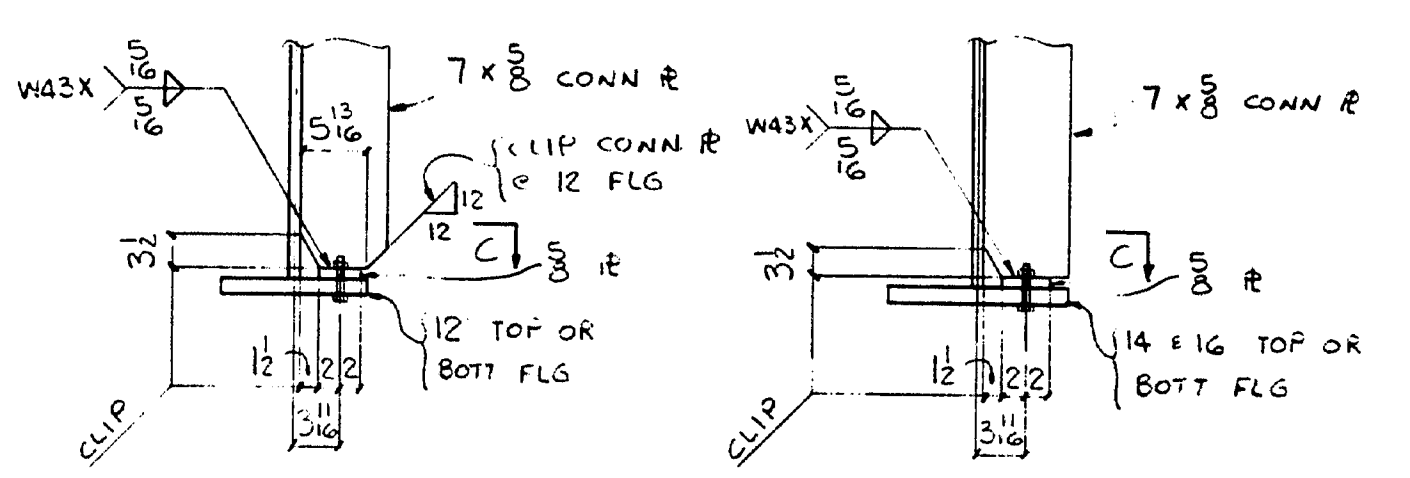
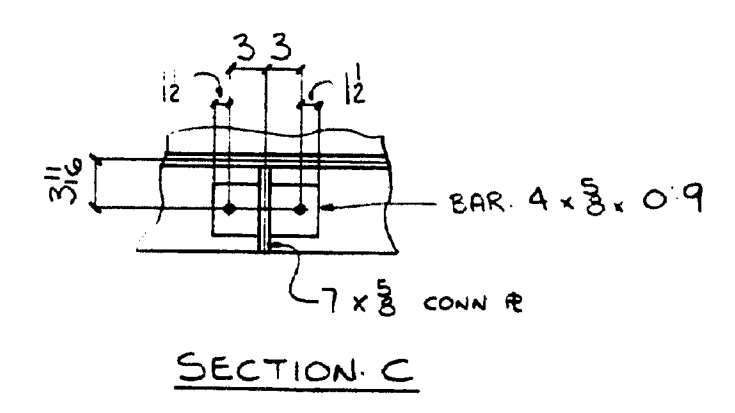
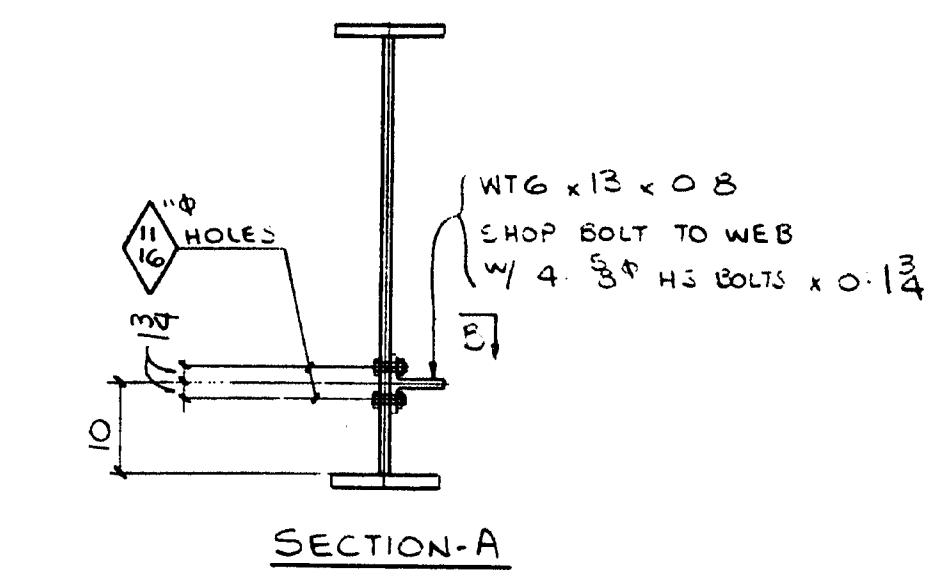
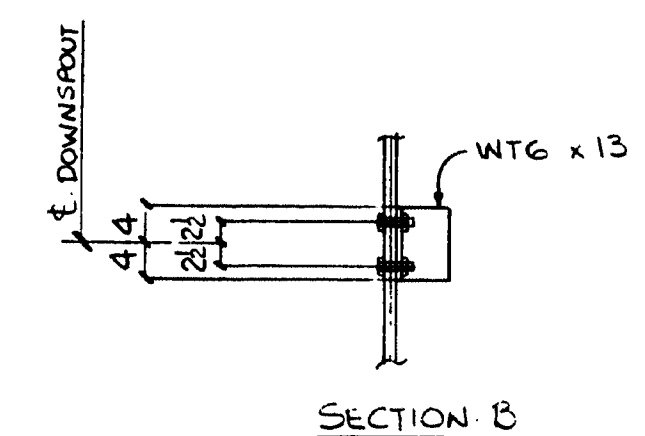
PROJECT DESIGN ENGINEER: KJ
DATE: 7/93
DESIGN-DETAILED: KJ
CHECKED: BOS
REVISIONS: [blank]
FIELD CHANGES: [blank]

05NOV95-010030
BD302



7 1/2 G1
7 1/2 G2
7 1/2 G3
6 1/2 G4

SCALE = 1/4\"/>



NOTES:
 DIMENSIONS ON PLAN ALONG GIRDERS ARE AT THE BOTTOM OF WEB IN FULLY CAMBERED POSITION. ALL OTHER DIMENSIONS ARE GIVEN HORIZONTALLY. FIGURES GIVEN THUS: 1/2\"/>

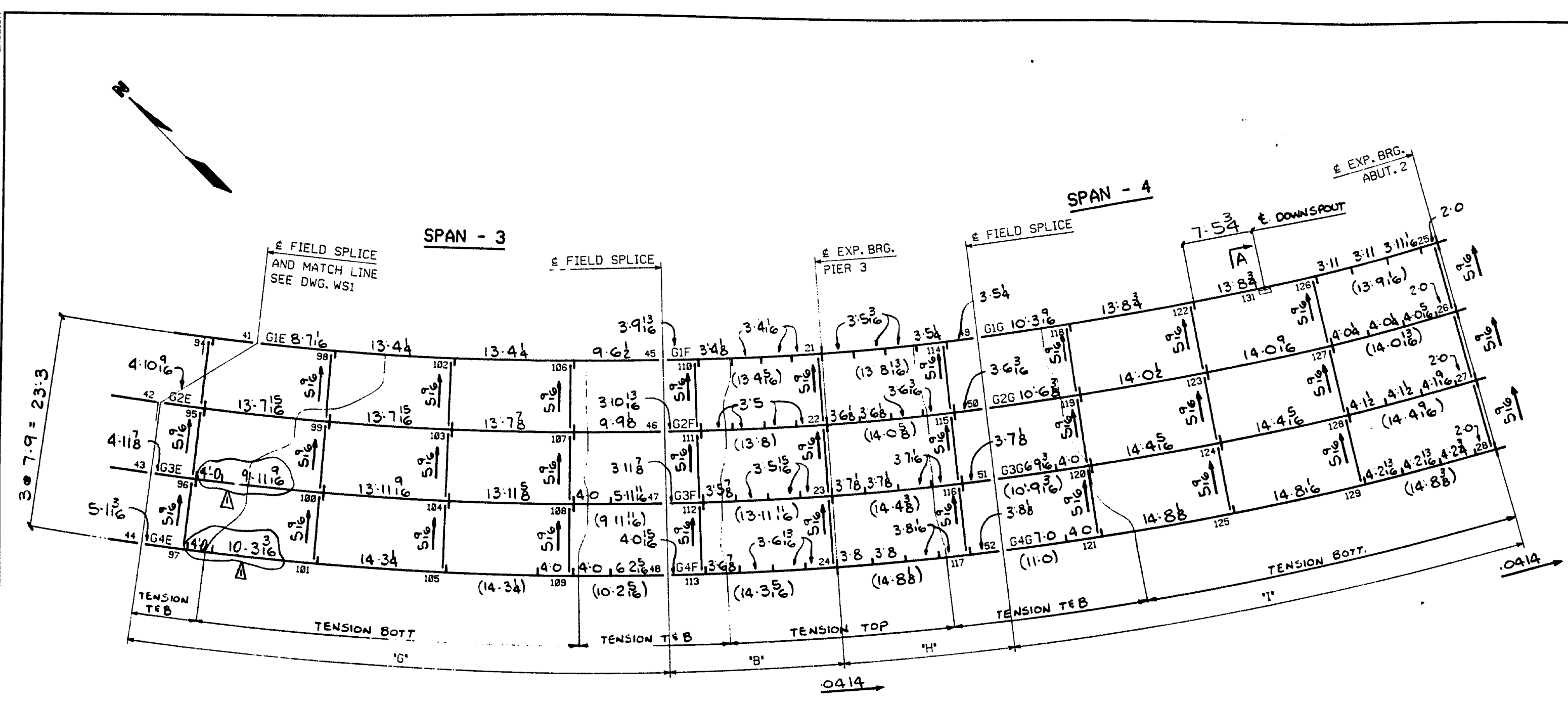
111-141

LINE	'A'	'B'	'C'	'D'	'E'	'F'	RADIUS
G1	51'-6 1/2"	17'-2 1/2"	17'-2 1/2"	48'-7 3/4"	27'-1 1/2"	18'-8 1/2"	538.3750
G2	52'-8 1/4"	17'-6 1/2"	17'-6 1/2"	49'-9 3/4"	22'-10 3/8"	12'-3 3/8"	345.1050
G3	53'-10 3/8"	17'-11 1/2"	17'-11 1/2"	50'-10 1/2"	18'-7 3/8"	17'-3 1/2"	253.8750
G4	55'-0 1/2"	18'-4 1/4"	18'-4 1/4"	51'-11 1/2"	14'-5 3/8"	22'-3 3/8"	261.0250

REVISION	DATE
HIGH STEEL STRUCTURES, INC.	
WORK SHEET - FIELD PLAN	
STEELING RAMP & DEEP WATER	
RTE. 106 STA. 308+00.00	
TOWN OF BRANWICK	
CLUMBERLAND CO. VA	
STATE OF VIRGINIA, DEPT. OF TRANSPORTATION	
DESIGNED BY: [Signature]	
CHECKED BY: [Signature]	
DATE: 4-23-76	DWG. NO. ME-96500-1
DR. NO. WSI	DATE: MAR 1 0 1976

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)


SCALE = .010416667 FEET/FOOT



NOTES:
FOR NOTES SEE DWG. WS1

111-142

LINE	'B'	'C'	'H'	'I'
G1	17'-2 1/2"	44'-10 1/2"	17'-2 1/2"	51'-6 1/2"
G2	17'-6 3/4"	55'-7 1/2"	17'-6 3/4"	52'-8 1/4"
G3	17'-11 3/8"	56'-10 3/8"	17'-11 3/8"	53'-10 3/8"
G4	18'-4 1/4"	58'-1 1/4"	18'-4 1/4"	55'-0 3/8"

NO.	REVISION	DATE
1	APPL CHANGE	8-5-96
HIGH STEEL STRUCTURES, INC. <small>170 Westford Road, Lancaster, PA 17608-0008 Phone 717/299-5281</small>  <small>A Division of High Industries, Inc.</small>		
WORKSHEET - FIGURING PLAN RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCO (WC)	MADE BY: TDF	CHKD. BY: DWG DATE: 4-23-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: WS2	

MAR 10 1997

ENGLISH

GENERAL SHOP NOTES

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

SPECIFICATIONS:
 MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES (REVISION OF APRIL 1995) AND SUPPLEMENTALS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

MATERIAL:
 UNLESS NOTED OTHERWISE, ALL STEEL TO BE ASTM A709 GRADE 50W.
 (T) INDICATES CHARPY V-NOTCH TESTING REQUIRED.

SHOP BOLTS TO BE HIGH STRENGTH ASTM A325 TYPE 3 (FRICTION) (RCT) WITH HEAVY HEX HEAD AND ASTM A563 GRADE DH3 HEAVY HEX NUT, WITH ONE ASTM F436 WEATHERING WASHER PER BOLT. (RCT) INDICATES ROTATIONAL CAPACITY TESTED BOLTS. DO NOT MIX NUTS, BOLTS AND WASHERS FROM DIFFERENT CONTAINERS UNLESS ALL NUTS, BOLTS AND WASHERS HAVE THE SAME LOT NUMBER.

MAGNETIC PARTICLE INSPECTION FOR FILLET WELDS AND GROOVE WELDS NOT TESTED BY ANOTHER METHOD, IN MAIN MEMBERS AND BEARINGS, TO BE TESTED ON 10% OF WELDS LONGER THAN 10'-0" AND 1'-0" OF WELDS SHORTER THAN 10'-0". ALL TESTING TO BE DONE UNDER THE SUPERVISION OF THE MAINE DEPARTMENT OF TRANSPORTATION INSPECTION PERSONNEL.

[RA] NOTE:
 HOLES MARKED [RA] ON DETAIL DRAWINGS TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED.

CLEANING:
 ALL STEEL TO BE BLAST CLEANED TO SSPC-SP6 (COMMERCIAL). FLANGE TO WEB WELD AREAS AND BEARING STIFFENER TO WEB WELD AREAS TO BE CLEANED PRIOR TO WELDING.

PAINTING:
 NO PAINT
 IN THE FABRICATION SHOP, NO DIE STAMPING SHALL BE USED FOR ANY PURPOSE ON ROLLED SHAPES OR PLATES TO BE USED AS MAIN STRESS CARRYING MEMBERS. IDENTIFICATION MARKS, EITHER REQUIRED BY THESE SPECIFICATIONS OR BY THE SHOP, SHALL BE STENCILED OR PAINTED.

SHOP PROCEDURE:

CAMBER TOLERANCE: -0" TO +3/4"
 ALL RE-ENTRANT CUTS TO HAVE 1" MIN. RADIUS.

NO DIE STAMPING ALLOWED ON ANY PART OF MAIN STRESS CARRYING MEMBERS. BEARING AREA, AS NOTED ON GIRDER DETAILS, INDICATES AREA THAT MUST BE FLAT AND TRUE TO RECEIVE SOLE PLATE.

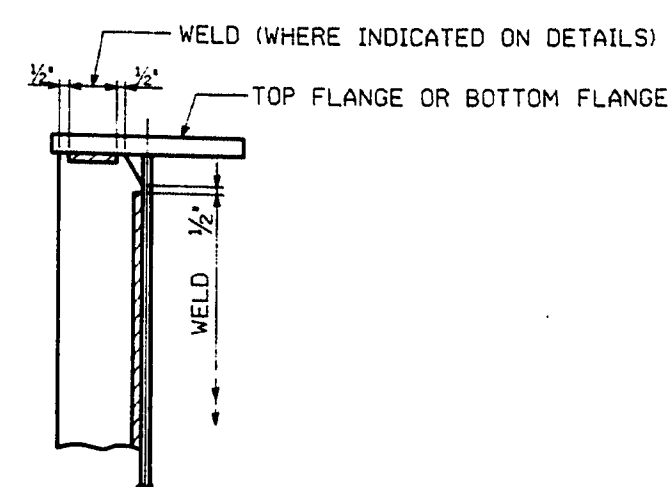
Brg. STIFF. f Conn. Rs to x2d to be welded after x2d is bolted to girder flg.

INSPECTION:
 SHOP INSPECTION BY TO BE DETERMINED.

WELDING:
 ALL WELDING IS TO CONFORM TO AWS D1.5-95. NOTATIONS W1X, W2X, ETC. FOLLOWING WELDING SYMBOLS ON DETAIL DRAWINGS, REFER TO THE CORRESPONDING WELDING PROCEDURE TO BE USED FOR THAT JOINT. FOR WELDING STIFFENERS AND CONNECTION PLATES TO GIRDERS, SEE TYPICAL WELDING DETAIL.


DRAWING REFERENCE:

FLANGE SPLICES	-PREFIXED 'FS'
WEB CAMBERS	-PREFIXED 'WC'
GIRDER JOB STANDARDS	-PREFIXED 'X'
HORIZONTAL CURVE	-PREFIXED 'HC'
SHOP ASSEMBLY	-PREFIXED 'SA'
WELDING PROCEDURE	-DWG. 'WP1'



TYP. WELDING DETAIL

111-144

△		
△		
△		
NO.	REVISION	DATE
<small>1710 Manchester Road Lancaster, PA 17603-0008 Phone 1717/299-5211</small> HIGH STEEL STRUCTURES, INC.  <small>A Division of High Industries, Inc.</small>		
GENERAL SHOP NOTES		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: TDF
		CHKD. BY: KF
		DATE: 4-24-96
CONTRACT NUMBER:	ME-96500-1	DRAWING NUMBER: N1

MAR 1 01997

ENGLISH

MINIMUM PREHEAT AND INTERPASS TEMPERATURE		WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS W13X		WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS W43X																																													
<p>SHIELDED METAL-ARC WELDING WITH LOW HYDROGEN ELECTRODES, OR SUBMERGED ARC WELDING, OR FLUX CORED ARC WELDING</p> <table border="1"> <tr> <th>THICKNESS OF THICKEST PART AT POINT OF WELDING - INCHES</th> <th>ASTM A-36, A-572, AND A-588</th> <th>W32X</th> </tr> <tr> <td>TO 1/4 INCL.</td> <td>MBS, M23, AND M22</td> <td>W33X</td> </tr> <tr> <td>OVER 1/4 TO 1/2 INCL.</td> <td>ASTM A725, GRADE 36</td> <td>W34X</td> </tr> <tr> <td>OVER 1/2 TO 2 1/2 INCL.</td> <td>ASTM A725, GRADE 50</td> <td></td> </tr> <tr> <td>OVER 2 1/2</td> <td>ASTM A725, GRADE 50W</td> <td></td> </tr> </table> <p>TO 1/4 INCL. 50°F OVER 1/4 TO 1/2 INCL. 70°F OVER 1/2 TO 2 1/2 INCL. 150°F OVER 2 1/2 225°F</p> <p>MAXIMUM PREHEAT SHALL NOT EXCEED 450°F MAXIMUM INTERPASS SHALL NOT EXCEED 550°F</p>		THICKNESS OF THICKEST PART AT POINT OF WELDING - INCHES	ASTM A-36, A-572, AND A-588	W32X	TO 1/4 INCL.	MBS, M23, AND M22	W33X	OVER 1/4 TO 1/2 INCL.	ASTM A725, GRADE 36	W34X	OVER 1/2 TO 2 1/2 INCL.	ASTM A725, GRADE 50		OVER 2 1/2	ASTM A725, GRADE 50W		<p>PROCEDURE SPECIFICATIONS</p> <p>MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588 WELDING PROCESS: SUBMERGED ARC WELDING MANUAL OR MACHINE: SEMIAUTOMATIC OR MACHINE POSITION OF WELDING: 2F FILLER METAL SPECIFICATION: AWS A5.17 WELD METAL CLASSIFICATION: F7A2-EM12K WIRE/FLUX: LINCOLN L61/360 WIRE DIAMETER: 3/16" SINGLE OR MULTIPLE ARC: SINGLE ARC POLARITY: DC- ROOT TREATMENT: MANUAL CLEANING PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART ELECTRICAL STICK-OUT: 1 INCH SHIELDING GAS: D.N.A.</p> <p>REVISOR: 11/4/92 REVISOR: 5/1/92 ORIGINAL ISSUE: 01/01/92</p> <table border="1"> <tr> <th>PASS NO.</th> <th>WELDING CURRENT</th> <th>TRAVEL SPEED</th> <th>JOINT DETAIL</th> </tr> <tr> <td></td> <td>AMPS</td> <td>IPM</td> <td></td> </tr> <tr> <td>1</td> <td>485-495</td> <td>205-275</td> <td>3/4" FILLET WELDS</td> </tr> </table> <p>PRIMARY USE: WEB TO FLANGE (AND OTHER APPLICATIONS AS NEEDED) *SEMIAUTOMATIC FOR REPAIRS ONLY</p> <p>PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11/01/01) PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11/01/01)</p>		PASS NO.	WELDING CURRENT	TRAVEL SPEED	JOINT DETAIL		AMPS	IPM		1	485-495	205-275	3/4" FILLET WELDS	<p>PROCEDURE SPECIFICATIONS</p> <p>MATERIAL SPECIFICATION: ASTM A-36, A-572, A-588 WELDING PROCESS: SUBMERGED ARC WELDING MANUAL OR MACHINE: SEMIAUTOMATIC POSITION OF WELDING: 2F FILLER METAL SPECIFICATION: AWS A5.17 WELD METAL CLASSIFICATION: F7A2-EM12K WIRE/FLUX: LINCOLN L61/360 WIRE DIAMETER: 3/16" SINGLE OR MULTIPLE ARC: SINGLE ARC POLARITY: DC- ROOT TREATMENT: MANUAL CLEANING PREHEAT AND INTERPASS TEMPERATURE: SEE PREHEAT CHART ELECTRICAL STICK-OUT: 1 INCH SHIELDING GAS: D.N.A.</p> <p>REVISOR: 10/26/93 REVISOR: 11/4/92 REVISOR: 6/1/92 ORIGINAL ISSUE: 01/01/92</p> <table border="1"> <tr> <th>PASS NO.</th> <th>WELDING CURRENT</th> <th>TRAVEL SPEED</th> <th>JOINT DETAIL</th> </tr> <tr> <td></td> <td>AMPS</td> <td>IPM</td> <td></td> </tr> <tr> <td>1</td> <td>360-440</td> <td>114-146</td> <td>3/4" FILLET WELDS</td> </tr> </table> <p>PRIMARY USE: STIFFENER TO FLANGE, SOLE PLATE TO FLANGE (AND OTHER APPLICATIONS AS NEEDED)</p> <p>PROCEDURE QUALIFICATION RECORD FCW-96-1 (EXPIRES 11/01/01) PROCEDURE QUALIFICATION RECORD FCW-96-2 (EXPIRES 11/01/01)</p>		PASS NO.	WELDING CURRENT	TRAVEL SPEED	JOINT DETAIL		AMPS	IPM		1	360-440	114-146	3/4" FILLET WELDS					
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FED. ROAD DIV. NO.	STATE	FELD NO.
1	ME	DE-0091(006)

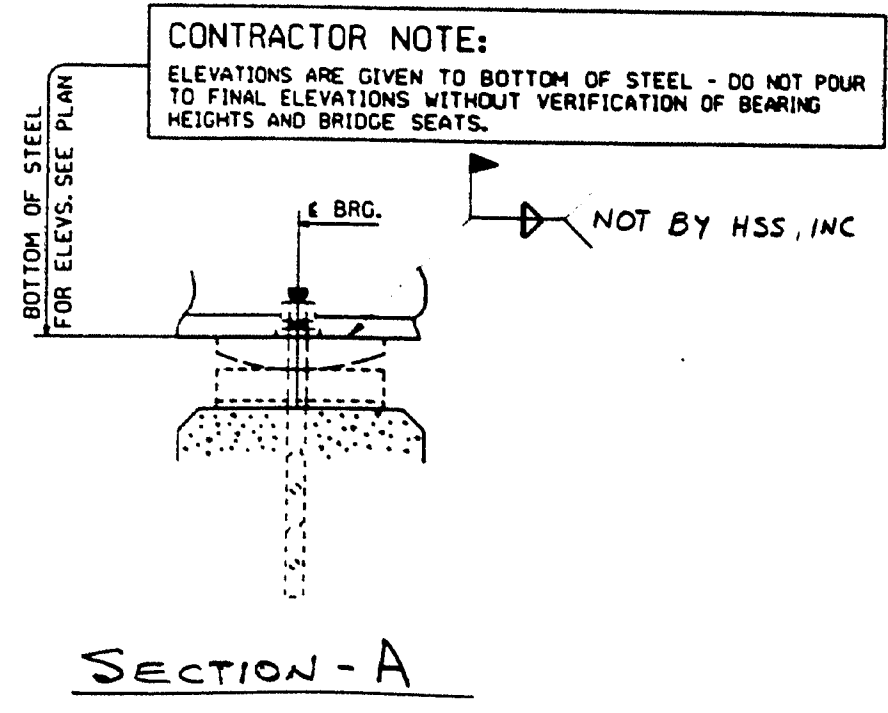
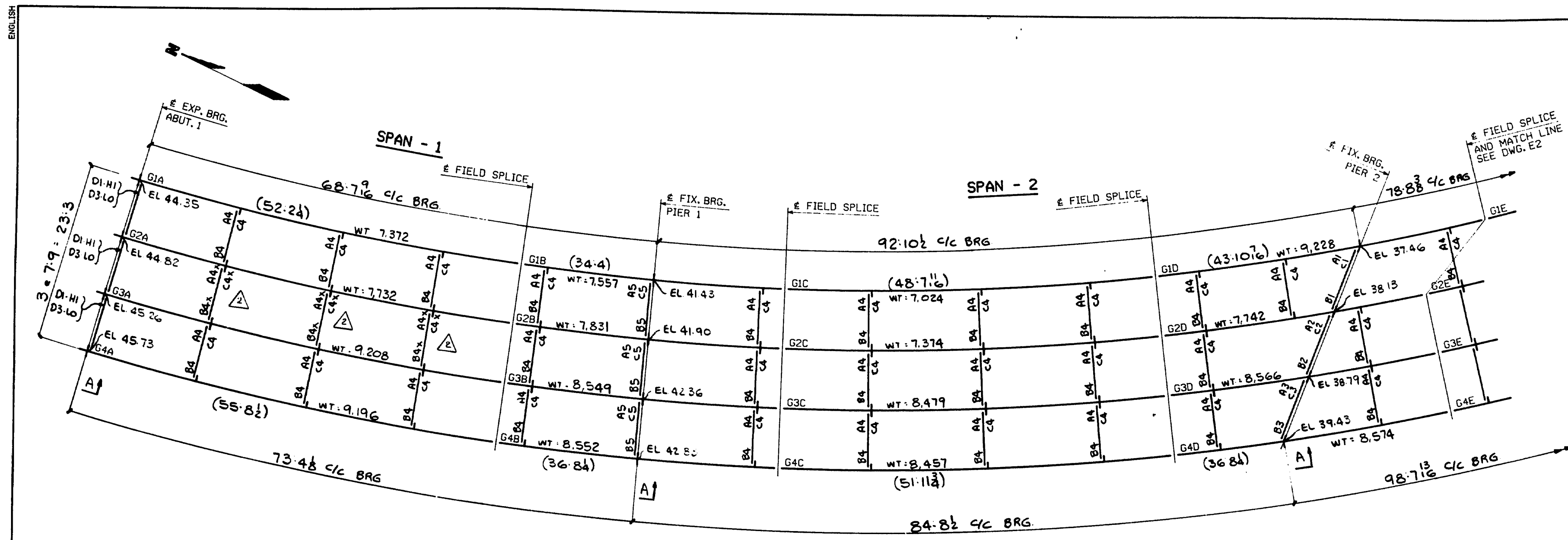
DIRECT ALL QUESTIONS TO
SCOTT W. KOPP, WELDING TECHNICIAN
HIGH STEEL STRUCTURES, INC.
PHONE: (717)350-4332

111-145

REVISED PER APPROVER COMMENTS	8-5-96
REVISION	DATE
<p>110 WINDYBROOK ROAD LITCHFIELD, PA 17655-0008 Phone 717-299-5218</p> <p>HIGH STEEL STRUCTURES, INC.</p> <p>WELDING PROCEDURES RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p> <p>STATE CONTRACT DE-0091(006) PIN 1665.30 OR REF. NO.</p> <p>CONTRACTOR REED & REED, INC. IN CHARGE: LANCE (WC) MADE BY: LWD DATE: 5-2-96 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WPI</p>	

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FEDERAL DIVISION	STATE	FEDERAL PROJECT
1	ME	DE-0091(806)

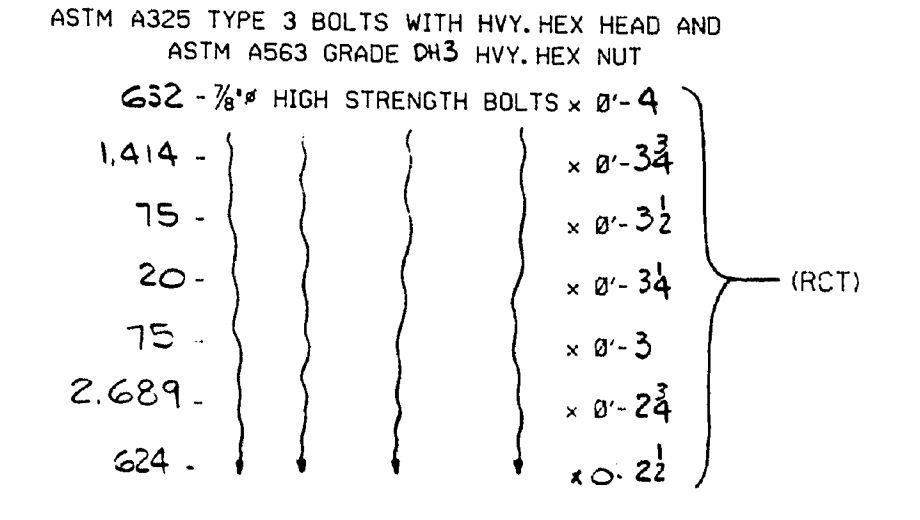


ERECTOR NOTE: ALL BOLTS MUST BE LOCATED IN ACCORDANCE WITH THIS LIST OF FIELD CONNECTIONS. HIGH STEEL STRUCTURES WILL NOT BE RESPONSIBLE FOR FURNISHING ADDITIONAL BOLTS OR FOR ANY OTHER RELATED COSTS OR DAMAGES RESULTING FROM IMPROPER LOCATION OF BOLTS.

ONE TENSION INDICATOR WASHER & ONE STRUCK WASHER PER BOLT UNLESS NOTED OTHERWISE

LINE	ACTUAL NO. REQ'D	BOLT DIA.	BOLT LENGTH	BOLTS / CONN.	# OF CONNS.	GRIP	THICKNESS OF PCS. CONNECTED	PIECES CONNECTED AND REMARKS
1	2,016	3/4"	24	84	24	1 1/2"	2 1/2"	WEB SPLICES
2	720	3/4"	36	20	24	1 1/2"	2 1/2"	TOP FLG SPLICES G1 & G2 SPANS 1, 2 & 4
3	640	3/4"	40	16	24	1 1/2"	2 1/2"	BOTT FLG SPLICES G1 & G2 SPAN 2
4	384	4"	48	8	24	2 1/2"	1 1/2"	TOP FLG SPLICES G3 & G4
5	224	4"	56	4	24	2 1/2"	1 1/2"	BOTT FLG SPLICES G3 & G4 SPANS 1, 2 & 4
6								
7	144	2 1/2"	24	6	16	1 1/2"	1 1/2"	END DIAPHRAGMS TO END STIFF
8	72	3"	8	9	16	1 1/2"	1 1/2"	CROSS C INTERIOR PIERS TO BRG STIFF (TOP)
9	72	3"	8	9	16	1 1/2"	1 1/2"	CROSS C INTERIOR PIERS TO BRG STIFF (BOTT)
10	456	2 1/2"	8	57	16	1 1/2"	1 1/2"	INTERM CF TO CONN (TOP)
11	456	2 1/2"	8	57	16	1 1/2"	1 1/2"	INTERM CF TO CONN (BOTT)
12	18	3"	2	9	16	1 1/2"	1 1/2"	CENTER OF CF = PIERS
13	114	2 1/2"	2	57	16	1 1/2"	1 1/2"	CENTER OF CF = INTERM CF
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

FIELD BOLT SUMMARY
(42 ADDITIONAL BOLTS ADDED)



(RCT) INDICATES ROTATIONAL CAPACITY TESTED BOLTS. DO NOT MIX NUTS, BOLTS AND WASHERS FROM DIFFERENT CONTAINERS UNLESS ALL NUTS, BOLTS AND WASHERS HAVE THE SAME LOT NUMBER.

5529 HARD FLAT F436 WEATHERING WASHERS FOR 3/4" HS BOLTS (RCT)
5529 - ASTM F959 EPOXY COATED TENSION INDICATOR WASHERS FOR 3/4" BOLTS (RCT)

NOTES:

NO CREDIT WILL BE ALLOWED FOR WORK PERFORMED BY OTHERS IN REPLACING OR CORRECTING MATERIALS OR WORKMANSHIP COVERED BY THIS DRAWING UNLESS EXPRESSLY AUTHORIZED BY HIGH STEEL STRUCTURES, INC. ALL FIELD CONNECTIONS TO BE MADE WITH 7/8" HIGH STRENGTH (A325, TYPE 3) BOLTS (U.N.). ALL DIMENSIONS ARE GIVEN HORIZONTALLY (U.N.). DIMENSIONS GIVEN THUS: (52.24) ARE THE SHIPPING LENGTHS OUT TO OUT OF FASCIA GIRDERS. HIGH STEEL STRUCTURES, INC. DOES NOT SUPPLY SHEAR STUDS, EXPANSION DAM MATERIAL OR BRIDGE DRAINAGE.

FOR SHOP ASSEMBLY DIAGRAM, SEE DRAWING SA1 AND SA2
WORK THIS DRAWING WITH DRAWING E2, E3 & E4
NOTICE: WEIGHTS OF MEMBERS LISTED ON THESE DRAWINGS ARE ESTIMATED WEIGHTS AND ACTUAL WEIGHTS WILL VARY. HIGH STEEL STRUCTURES, INC. WILL NOT BE RESPONSIBLE FOR ANY ERECTION PROCEDURES, SHIPPING PROCEDURES, ETC. DEVELOPED USING ESTIMATED WEIGHTS AS SHOWN.
ERECTOR NOTE: ELEVATIONS AND/OR CAMBER CHECKS OF FIELD SPLICES MUST BE COMPLETED PRIOR TO FINAL BOLTING. HIGH STEEL STRUCTURES IS TO BE NOTIFIED AND CONSULTED, PRIOR TO FINAL BOLTING, IF SPLICE ELEVATIONS ARE NOT WITHIN ACCEPTABLE TOLERANCE. THE CORRECTION OF ANY UNACCEPTABLE SPLICES AFTER FINAL BOLTING WILL BE AT NO COST TO HIGH STEEL STRUCTURES.

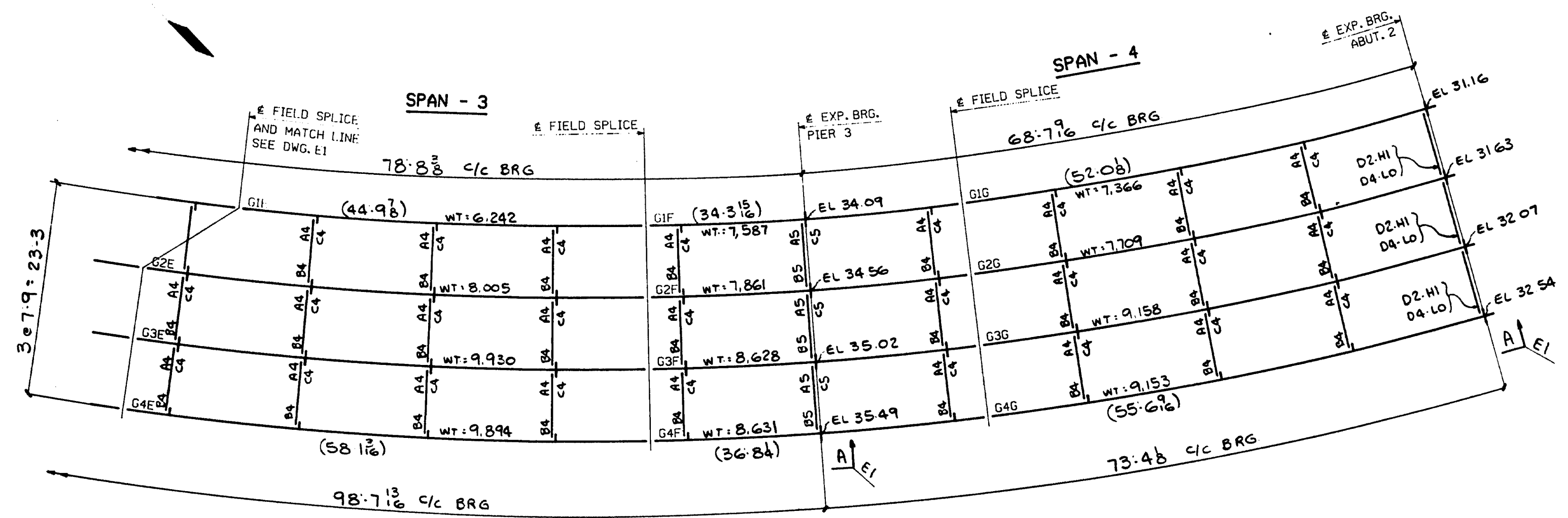
ERECTOR NOTE: ALL BOLTS MUST BE LOCATED IN ACCORDANCE WITH THE FIELD BOLT SUMMARY. HIGH STEEL STRUCTURES WILL NOT BE RESPONSIBLE FOR FURNISHING ADDITIONAL BOLTS OR ANY OTHER RELATED COSTS OR DAMAGES RESULTING FROM IMPROPER LOCATION OF BOLTS.
ANCHOR BOLTS MUST BE SET BEFORE CROSSFRAMES AT BEARINGS ARE ERECTED. ALL FIELD BOLTS THRU BOTTOM FLANGES ARE TO HAVE HEADS DOWN. ALL FIELD BOLTS THRU WEB OF FASCIA GIRDERS ARE TO HAVE HEADS ON OUTSIDE OF WEB.

111-146

REVISION	DATE
REVISED CF MARKS DUE TO FAB ERROR	9-23-96
APPL. CHG.	8-5-96
HIGH STEEL STRUCTURES, INC.	
ERECTOR PLAN	
RTE. 196 RAMP B OVER U.S. RTE. 1	
RTE. 196 STA. 305+77.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO., MAINE	
STATE OF MAINE, DEPT OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	TDF
CHKD. BY	DWG
DATE	4-24-96
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	E1

ENGLISH

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



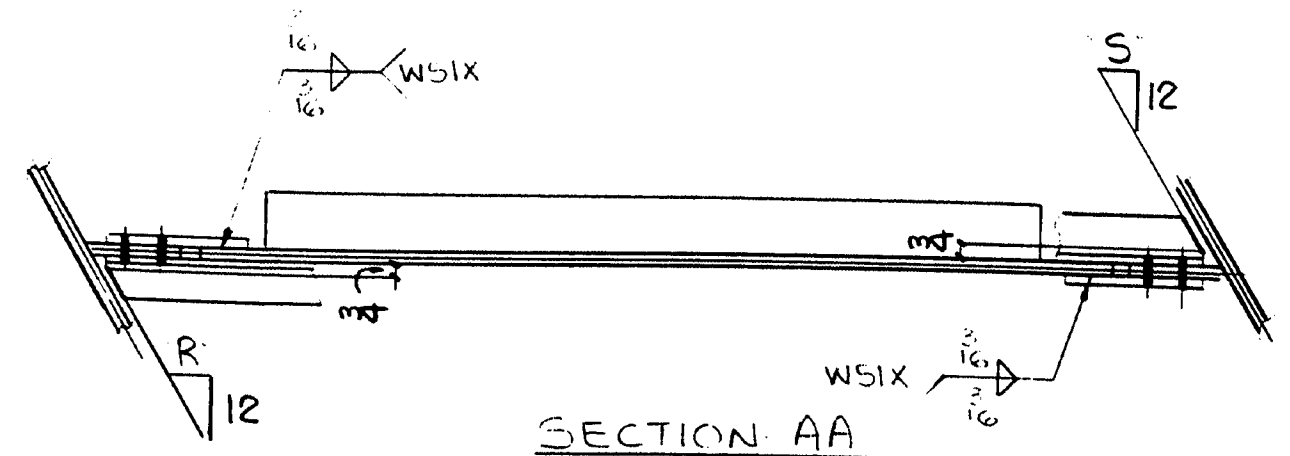
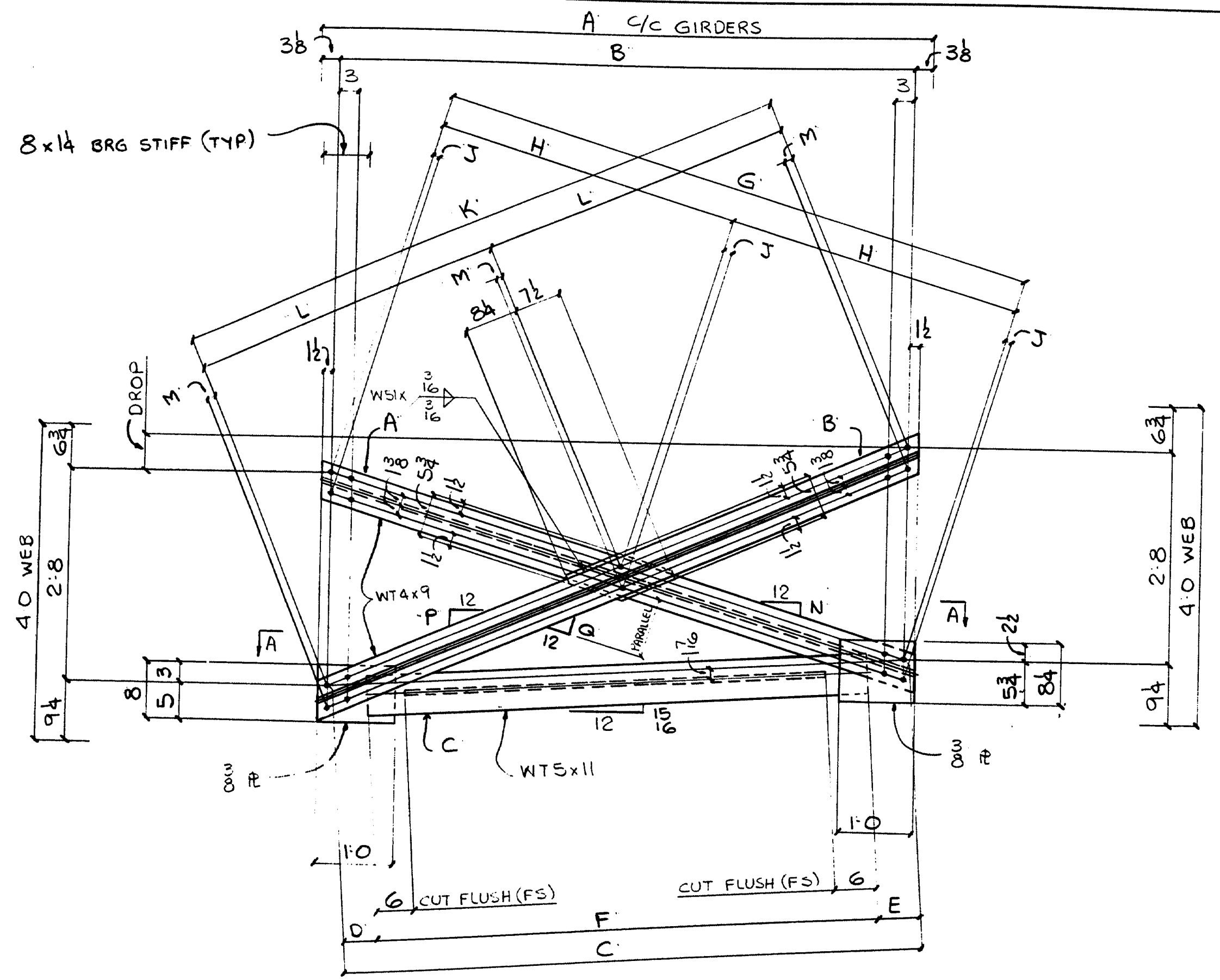
NOTES:
 FOR NOTES SEE DWG. E1.
 WORK THIS DWG W/ DWG E1, E3 & E4.

111-147

△		
△		
△		
NO.	REVISION	DATE
310 Mumford Road Lancaster, PA 17602-0008 Phone 717/299-5211		
HIGH STEEL STRUCTURES, INC.		
ERECTION PLAN RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE	MADE	CHK'D.
LANCO (WC)	TDF	OWG
DATE	DATE	DATE
4-24-76		
CONTRACT NUMBER	DRAWING NUMBER	
ME-96500-1	E2	

MAR 1 0 1997


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE 0091(806)



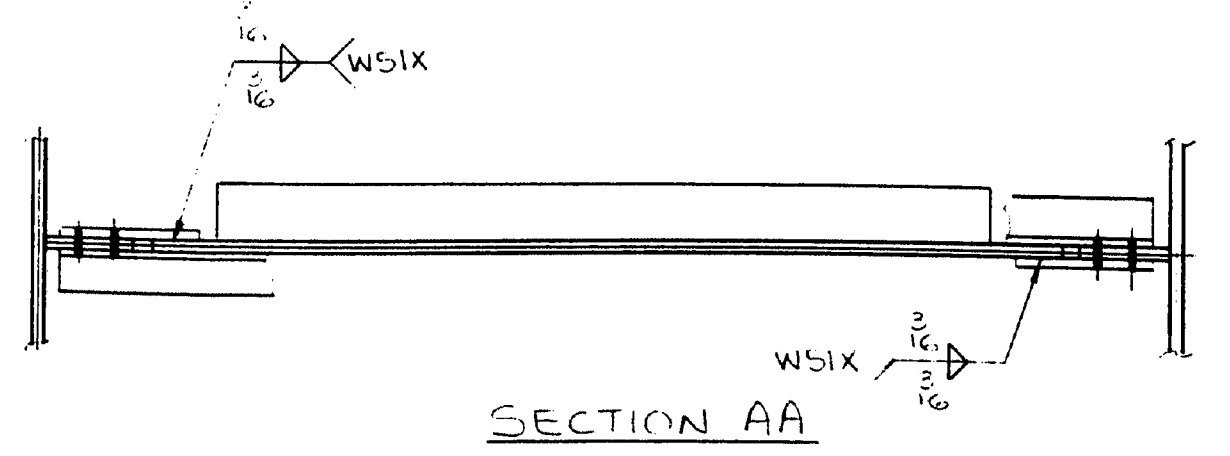
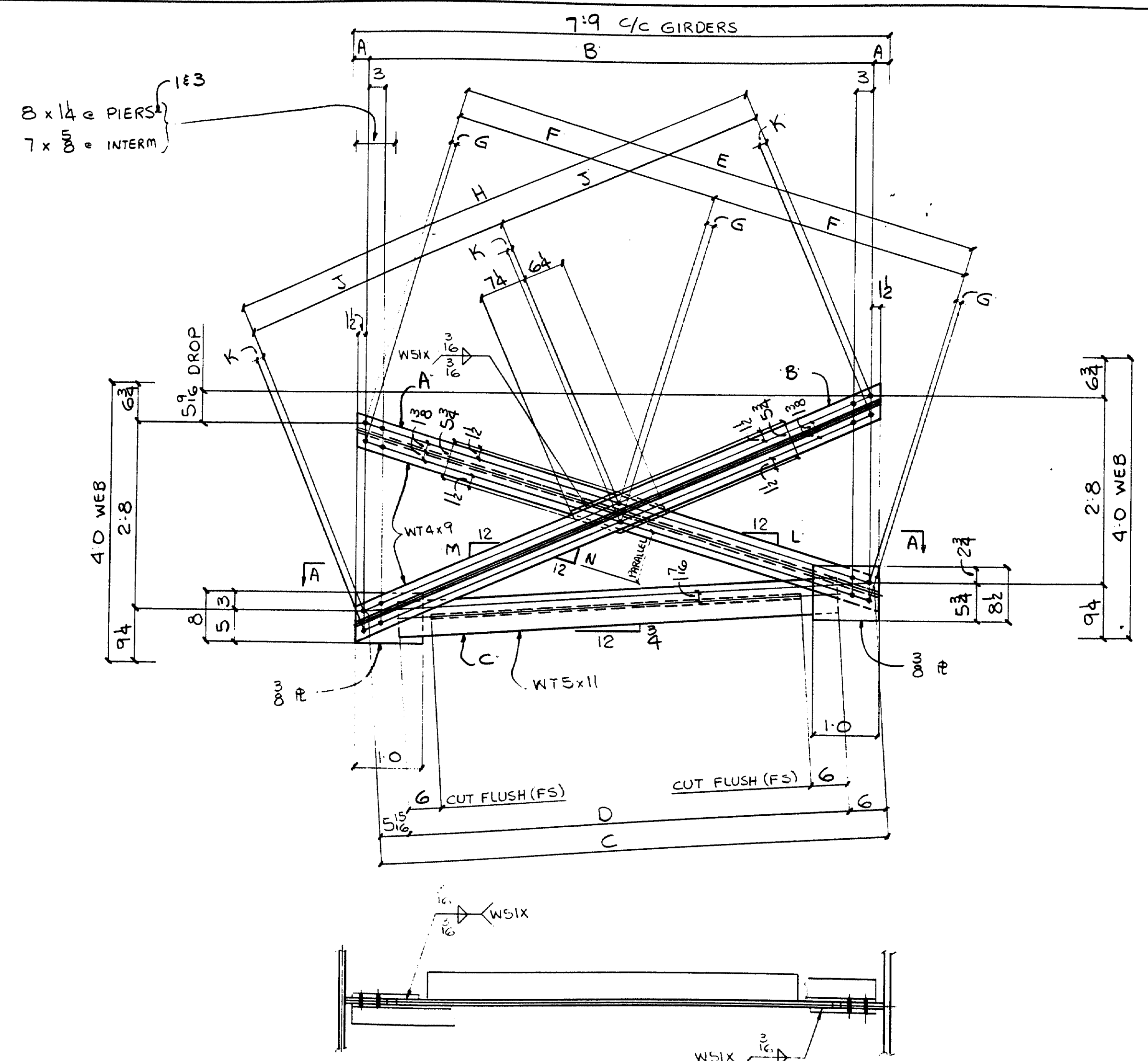
SECTION AA
TYPE K CROSSFRAMES (LOOKING SOUTH)
(PIER-2)

DROP	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
8 1/8	9 1/8	8 7/8	8 7 1/16	5 1/8	6	7 7/8	8 10/8	4 5 1/16	5 8	9 2/8	4 7 7/16	1 1/16	2 3/4	4 5/8	8 3/16	7 3/8	7 3/8
7 1/16	9 0 1/16	8 6 7/16	8 6 3/16	6	6	7 6 3/4	8 9/4	4 4 5/8	5 8	9 2	4 7	1 1/16	2 1 3/16	4 1 1/16	8 4	7 3/8	7 8
7 1/16	8 11 1/16	8 5 7/16	8 5 3/16	6 1/16	6 1/16	7 5 3/4	8 8 3/8	4 4 3/16	1 1/16	9 1	4 6 1/2	1 1/16	2 8	4 1 1/16	8 5/16	7 8	6 15/16

111-148

REVISION	DATE
HIGH STEEL STRUCTURES, INC. 	
ERECTION PLAN (CROSSFRAME LAYOUT)	
RTE 196 RAMP B OVER US RTE 1	
RTE 196 STA 305+77.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO, MAINE	
STATE OF MAINE DEPT OF TRANSPORTATION	
STATE CONTRACT NO.	DE-0091(806)
OR REF. NO.	PIN 1665.30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	DF
DWG. DATE	4-23-76
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	E3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)



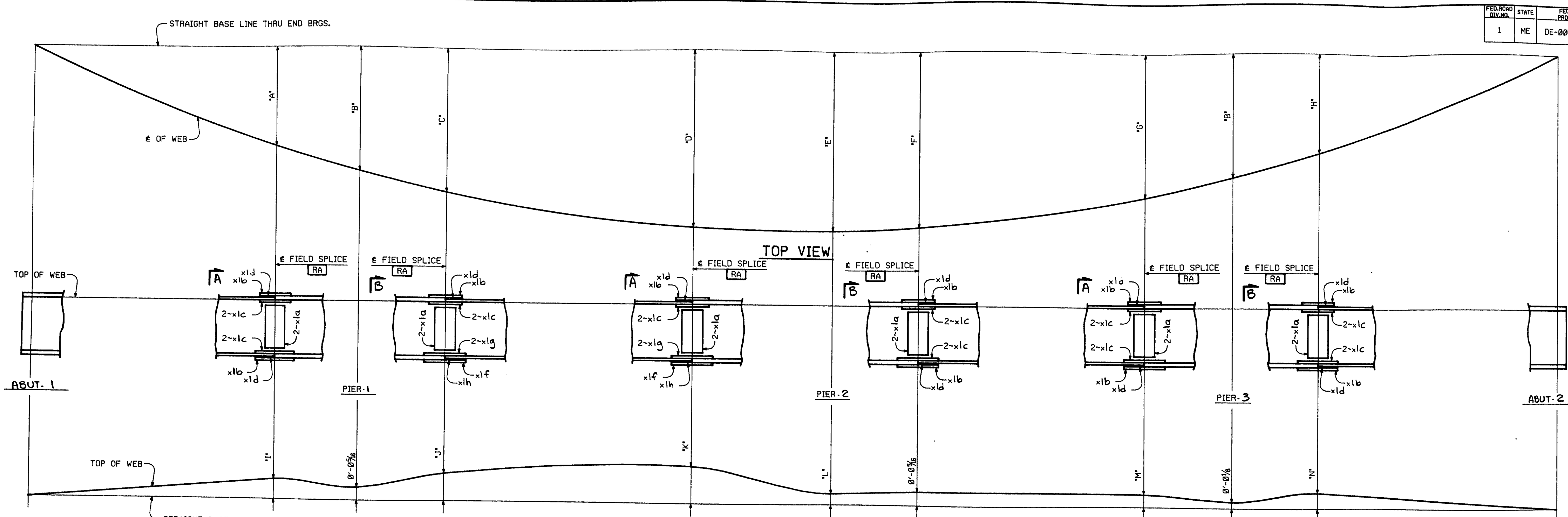
LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N
PIERS 1 & 3	3 3/8	7 1/4	7 11/16	6 1/2	7 5/8	3 8/8	7 3/8	7 9/8	3 10 1/16	1 1/16	3 1/16	5 1/4	10 3/8
INTERM	2 8/8	7 3/4	7 3 15/16	6 4	7 7/8	3 9 13/16	7 1/16	7 11/16	3 11 3/8	1 1/16	3 5/8	5 1/8	10 1/16

111-149

NO.	REVISION	DATE
 HIGH STEEL STRUCTURES, INC.		
ERECTION PLAN (CROSSFRAME LAYOUT)		
RTE 196 RAMP B OVER US RTE 1		
RTE 196 STA 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO, MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806)	PIN 1665.30
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: DF
CONTRACT NUMBER	ME-96500-1	DWG. DATE: 4-29-96
		DRAWING NUMBER: E4

MAR 1 01997

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)



LINE REAMING DIAGRAM FOR GIRDER LINES G1 & G2

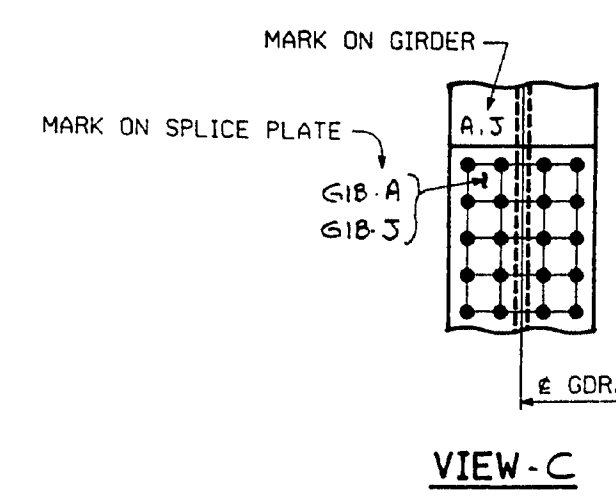
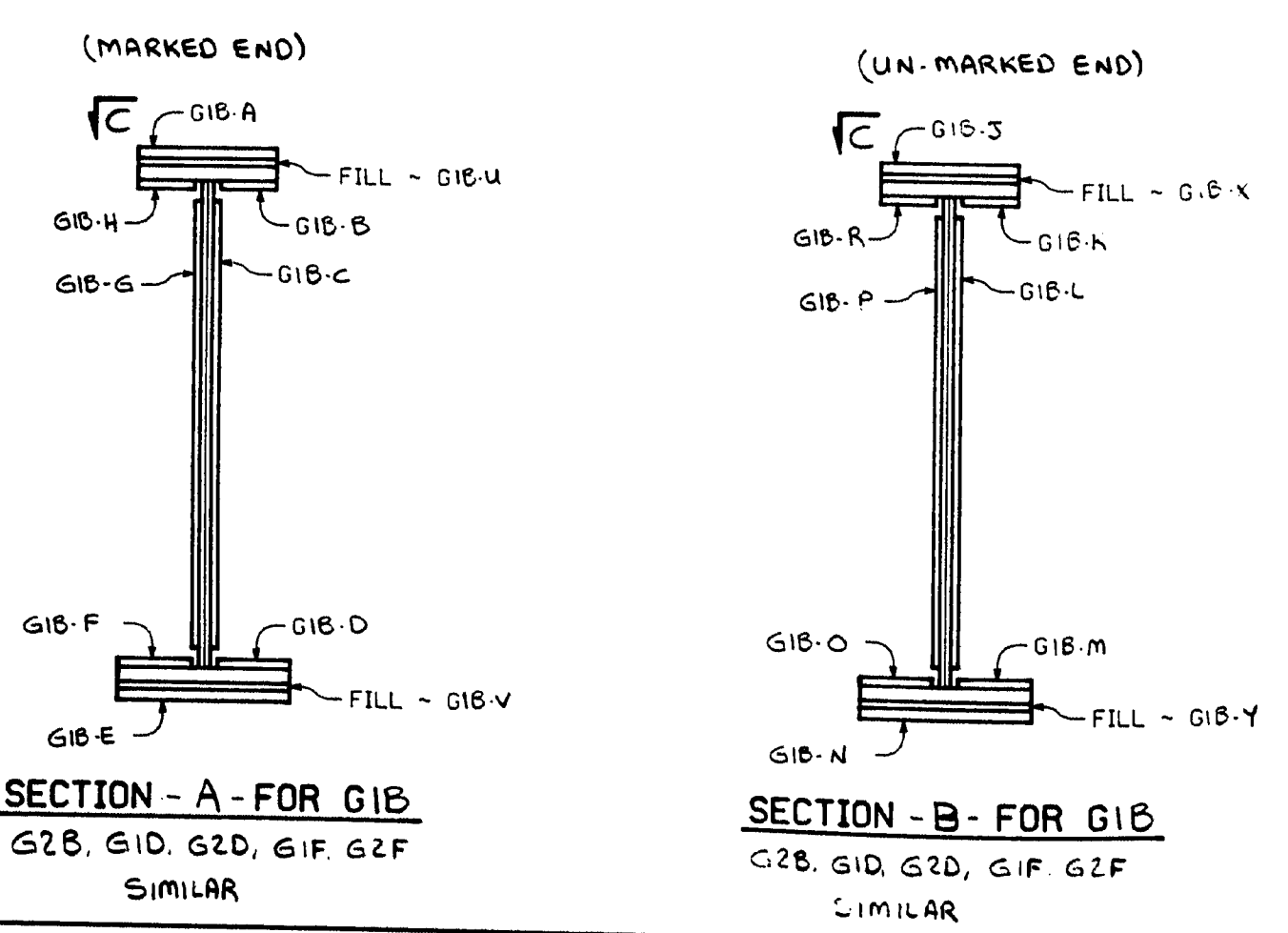
GDR. LINE	A'	B'	C'	D'	E'	F'	G'	H'	I'	J'	K'	L'	M'	N'
G1	19'-11 1/2"	23'-9 3/4"	27'-0 1/2"	34'-0 1/2"	34'-6 1/2"	33'-9 3/4"	27'-7 1/2"	19'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"
G2	19'-6 1/2"	24'-4 1/4"	28'-4 1/4"	34'-9 3/4"	35'-4 1/4"	35'-1 1/4"	28'-3 1/2"	19'-5 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"	0'-0 1/2"

NOTES:

ALL SPLICE PLATES ARE MATCH MARKED AFTER REAMING AS SHOWN IN SECTION A & B. THE MATCH MARKS ON THE SPLICE PLATES CONSIST OF THE MARK OF THE GIRDER THEY ARE SHIPPED WITH AND A SUFFIX. THE MARKINGS ARE LOCATED ON THE STEEL AT THE END OF THE SPLICE PLATE WHICH IS ON THE GIRDER IT IS SHIPPED WITH. THE CORRESPONDING SUFFIX (A, B, C, ETC.) IS MARKED NEAR THE SPLICE PLATE ON THE GIRDER (SEE VIEW C).

FOR GIRDER MARKS, SEE THE ERECTION PLAN DRAWINGS.

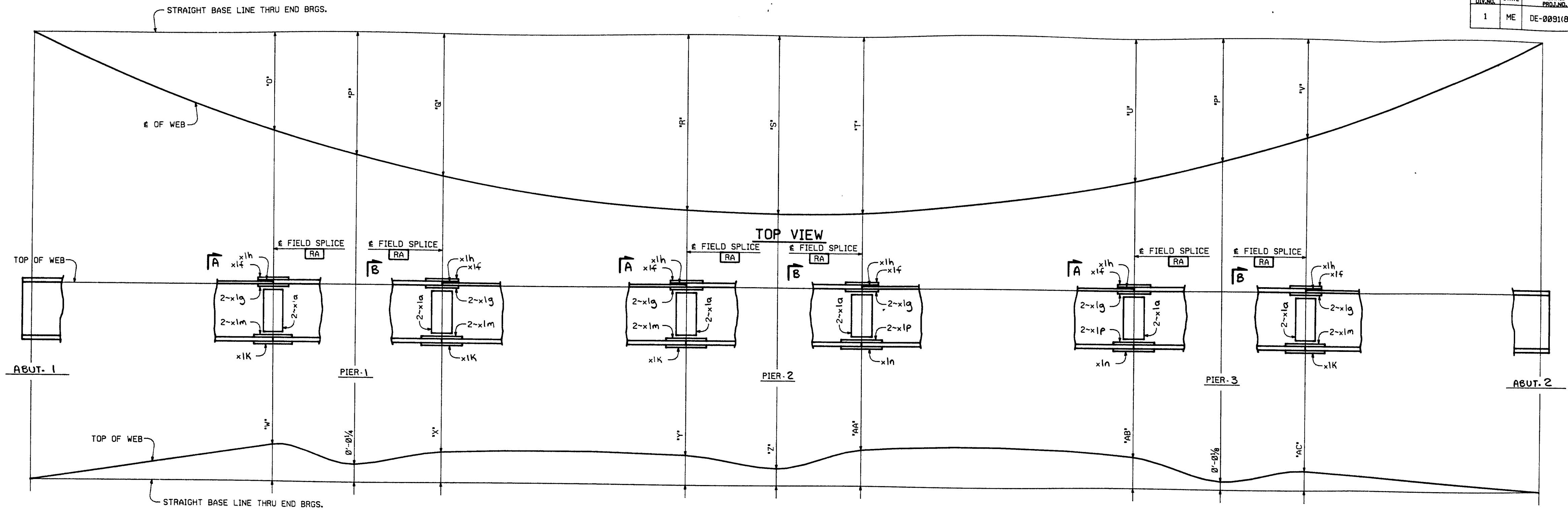
HOLES MARKED [RA] ARE TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED. HOLES TO BE 5/8" #.



111-150

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>170 Haverford Road, Lancaster, PA 17603-0008 Phone 717/299-5201</small> <small>A Division of HSP Industries, Inc.</small>		
SHOP ASSEMBLY DIAGRAM RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LAMCO (WC)	MADE BY: TDF	CHECKED BY: DWS DATE: 4-24-76
CONTRACT NUMBER: ME-96500-1		DRAWING NUMBER: SA1

FEDERAL DIVISION	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)



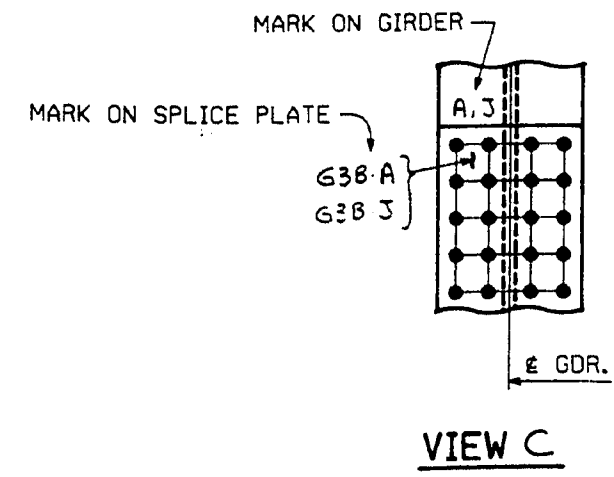
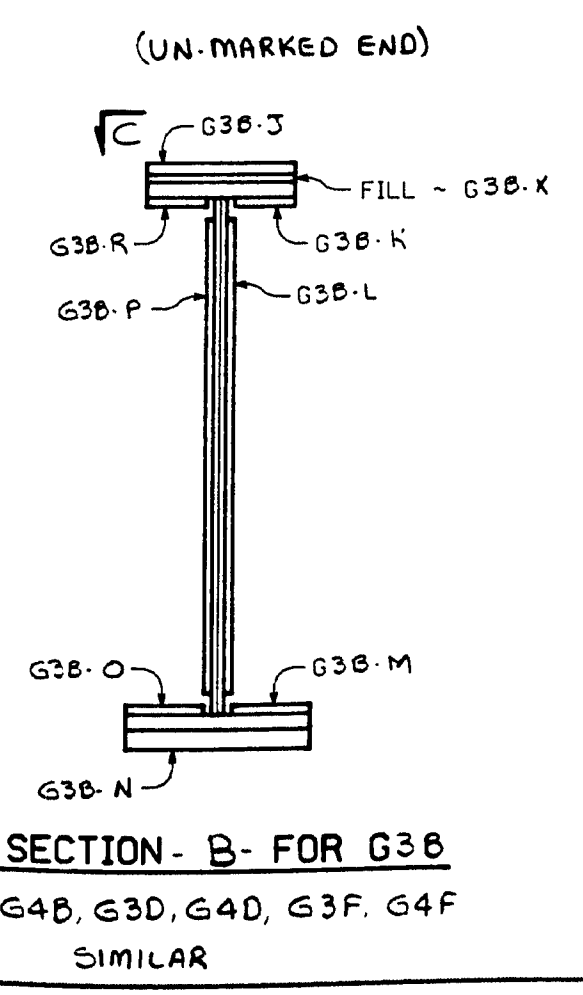
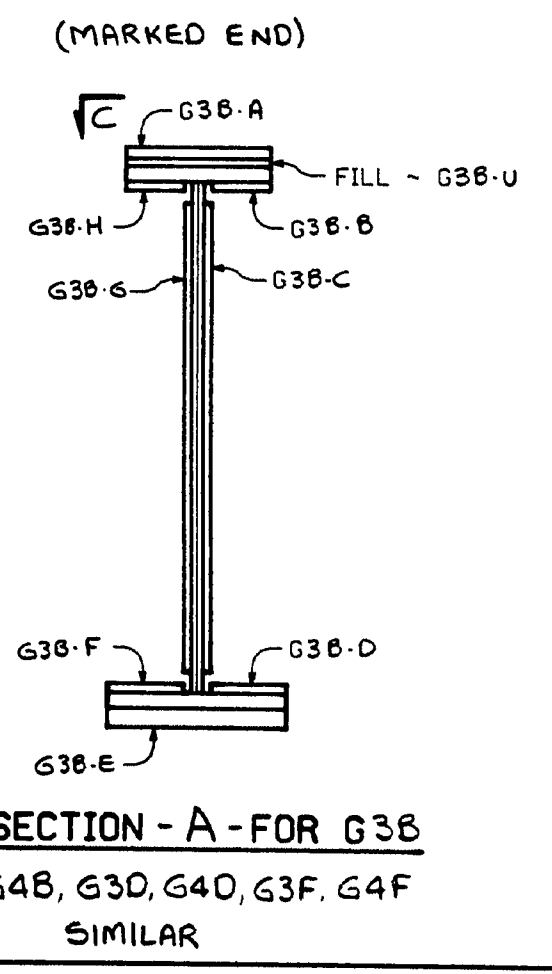
LINE REAMING DIAGRAM
FOR GIRDER LINES G3 & G4

GDR. LINE	'0'	'1'	'2'	'3'	'4'	'5'	'6'	'7'	'8'	'9'	'10'	'11'	'12'	'13'	'14'	'15'
G3	20'-0 3/8	24'-10 3/8	28'-11 5/8	35'-7 1/4	36'-2 1/2	35'-10 3/8	28'-11 1/2	19'-11	0'-0 3/8	0'-0 1/2	0'-0 3/8	0'-0 1/4	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8
G4	20'-5 1/2	25'-5 1/2	29'-7 1/2	36'-4 1/2	36'-11 1/4	36'-8 1/2	29'-6 1/4	20'-4 1/4	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8	0'-0 3/8

NOTES:

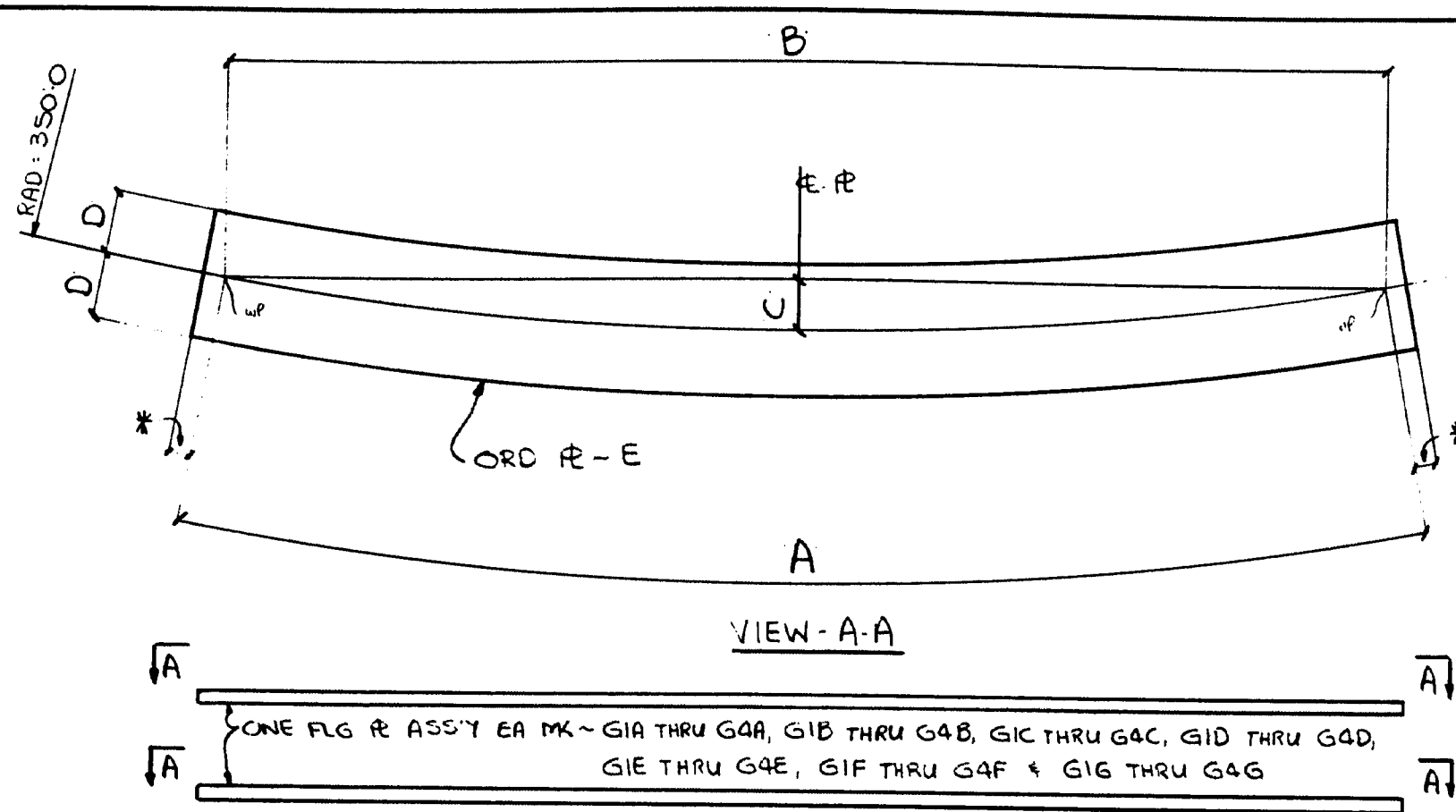
ALL SPLICE PLATES ARE MATCH MARKED AFTER REAMING AS SHOWN IN SECTION A & B. THE MATCH MARKS ON THE SPLICE PLATES CONSIST OF THE MARK OF THE GIRDER THEY ARE SHIPPED WITH AND A SUFFIX. THE MARKINGS ARE LOCATED ON THE STEEL AT THE END OF THE SPLICE PLATE WHICH IS ON THE GIRDER IT IS SHIPPED WITH. THE CORRESPONDING SUFFIX (A, B, C, ETC.) IS MARKED NEAR THE SPLICE PLATE ON THE GIRDER (SEE VIEW C).
FOR GIRDER MARKS, SEE THE ERECTION PLAN DRAWINGS.
HOLES MARKED [RA] ARE TO BE SUB-PUNCHED/SUB-DRILLED 1/4" UNDER SIZE AND REAMED TO FULL SIZE OR DRILLED FROM SOLID WITH CONNECTING PARTS ASSEMBLED AND MATCH MARKED. HOLES TO BE 3/8".

111-151



NO.	REVISION	DATE
<p>715 Hamstead Road Lancaster, PA 17628-0008 Phone 717/299-9211</p> <p>HIGH STEEL STRUCTURES, INC.</p> <p>A Division of HSB Industries, Inc.</p>		
<p>SHOP ASSEMBLY DIAGRAM RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p>		
<p>STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30</p>		
<p>CONTRACTOR REED & REED, INC.</p>		
<p>IN CHARGE: LANCO (WC) MADE BY: TDF CHK'D BY: DWS DATE: 4-28-76</p>		
<p>CONTRACT NUMBER ME-96500-1 DRAWING NUMBER SA2</p>		

MAR 1 01997



MARK	FLG	A	B	C	D	E
G1A	TOP	52'4 1/4	52'3 1/16	11 1/2	6	R 12 x 8 x 52'6 (2/24)
G1A	BOIT	52'2	52'1 7/16	11 1/16	6	R 12 x 8 x 52'6 (2/24)
G2A	TOP	53'6 3/8	53'5 1/16	10 4	6	R 12 x 8 x 53'8 (2/22)
G2A	BOIT	53'4 8	53'3 3/8	10 3/16	6	R 12 x 8 x 53'6 (2/23)
G3A	TOP	54'8 7/8	54'7 3/4	10 3/8	7	R 14 x 8 x 54'10 (2/16)
G3A	BOIT	54'6 1/4	54'5 7/16	10 3/4	7	R 14 x 8 x 54'8 (2/7)
G4A	TOP	55'10 1/2	55'9 1/8	11 1/8	7	R 14 x 8 x 56'0 (2/15)
G4A	BOIT	55'8 3/8	55'7 1/16	11 1/16	7	R 14 x 8 x 55'10 (2/6)
G1B	TOP	34'3 1/8	34'3 3/8	5 1/8	7	R 14 x 1 1/2 x 34'6 (2/12)
G1B	BOIT	34'4	34'3 1/8	5 1/8	7	R 14 x 1 1/2 x 34'6 (2/12)
G2B	TOP	35'1 1/8	35'1 1/8	5 5/8	7	R 14 x 1 1/2 x 35'3 (2/11)
G2B	BOIT	35'1 7/8	35'1 1/4	5 5/8	7	R 14 x 1 1/2 x 35'3 (2/11)
G3B	TOP	35'10 1/8	35'10 1/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3B	BOIT	35'10 1/8	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4B	TOP	36'8 3/8	36'7 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4B	BOIT	36'8 4	36'8 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1C	TOP	48'7 1/8	48'7 3/8	10 3/8	6	R 12 x 8 x 48'10 (3/4)
G1C	BOIT	48'7 1/2	48'7 1/8	10 3/8	7	R 14 x 8 x 48'9 (2/20)
G2C	TOP	49'9 1/8	49'8 9/8	10 5/8	6	R 12 x 8 x 49'11 (3/3)
G2C	BOIT	49'8 3/8	49'8 3/8	10 3/8	7	R 14 x 8 x 49'11 (2/19)
G3C	TOP	50'10 3/8	50'9 1/8	11 1/8	7	R 14 x 8 x 51'0 (2/18)
G3C	BOIT	50'10 1/4	50'9 1/8	11 1/8	7	R 14 x 8 x 51'0 (2/18)
G4C	TOP	51'11 3/8	51'11 3/8	11 3/8	7	R 14 x 8 x 52'2 (2/17)
G4C	BOIT	51'11 3/8	51'11 3/8	11 3/8	7	R 14 x 8 x 52'2 (2/17)
G1D	TOP	43'10 1/8	43'9 1/8	8 1/4	7	R 14 x 1 1/2 x 44'0 (2/10)
G1D	BOIT	43'10 1/8	43'10 1/8	8 1/4	7	R 14 x 1 1/2 x 44'0 (2/10)
G2D	TOP	35'1 3/8	35'1	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G2D	BOIT	35'1 3/8	35'1 3/8	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)

MARK	FLG	A	B	C	D	E
G3D	TOP	35'10 1/8	35'10 1/2	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3D	BOIT	35'10 1/8	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4D	TOP	36'8 1/8	36'7 3/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4D	BOIT	36'8 1/4	36'8 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1E	TOP	44'9 3/8	44'9 1/2	8 3/8	6	R 12 x 8 x 45'0 (3/5)
G1E	BOIT	44'9 1/8	44'9 1/8	8 3/8	6	R 12 x 8 x 45'0 (3/5)
G2E	TOP	55'7 3/8	55'6 3/8	11 1/4	6	R 12 x 8 x 55'9 (2/21)
G2E	BOIT	55'7 3/8	55'6 1/2	11 1/4	6	R 12 x 8 x 55'9 (2/21)
G3E	TOP	56'10 1/4	56'9 1/2	11 1/8	7	R 14 x 8 x 57'0 (2/14)
G3E	BOIT	56'10 1/8	56'9 3/8	11 1/8	8	R 16 x 1 1/2 x 57'0 (2/13)
G4E	TOP	58'1 3/8	58'0 3/8	12 1/8	7	R 14 x 8 x 58'3 (2/13)
G4E	BOIT	58'0 1/8	58'0 3/8	12 1/8	8	R 16 x 1 1/2 x 58'3 (2/12)
G1F	TOP	34'3 1/8	34'3 3/8	5 1/8	7	R 14 x 1 1/2 x 34'6 (2/12)
G1F	BOIT	34'3 1/8	34'3 3/8	5 1/8	7	R 14 x 1 1/2 x 34'6 (2/12)
G2F	TOP	35'1 1/4	35'1 1/8	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G2F	BOIT	35'1 3/8	35'1 1/8	5 1/4	7	R 14 x 1 1/2 x 35'3 (2/11)
G3F	TOP	35'10 1/8	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G3F	BOIT	35'10 1/8	35'10 3/8	5 1/2	8	R 16 x 1 1/2 x 36'1 (2/5)
G4F	TOP	36'8	36'7 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G4F	BOIT	36'8 1/4	36'8 1/8	5 3/4	8	R 16 x 1 1/2 x 36'10 (2/4)
G1G	TOP	52'0 3/8	51'11 1/8	11 1/8	6	R 12 x 8 x 52'4 (2/2)
G1G	BOIT	52'2	52'1 7/16	11 1/16	6	R 12 x 8 x 52'6 (2/24)
G2G	TOP	53'2 1/4	53'1 5/8	10 3/8	6	R 12 x 8 x 53'6 (2/23)
G2G	BOIT	53'4 1/8	53'3 1/2	10 3/16	6	R 12 x 8 x 53'6 (2/23)
G3G	TOP	54'4 1/2	54'3 3/8	10 1/8	7	R 14 x 8 x 54'10 (2/16)
G3G	BOIT	54'6 1/4	54'5 7/16	10 3/4	7	R 14 x 8 x 54'8 (2/7)
G4G	TOP	55'6 3/8	55'6 1/8	11 1/4	7	R 14 x 8 x 56'0 (2/15)
G4G	BOIT	55'8 7/8	55'7 3/4	11 1/8	7	R 14 x 8 x 55'10 (2/16)

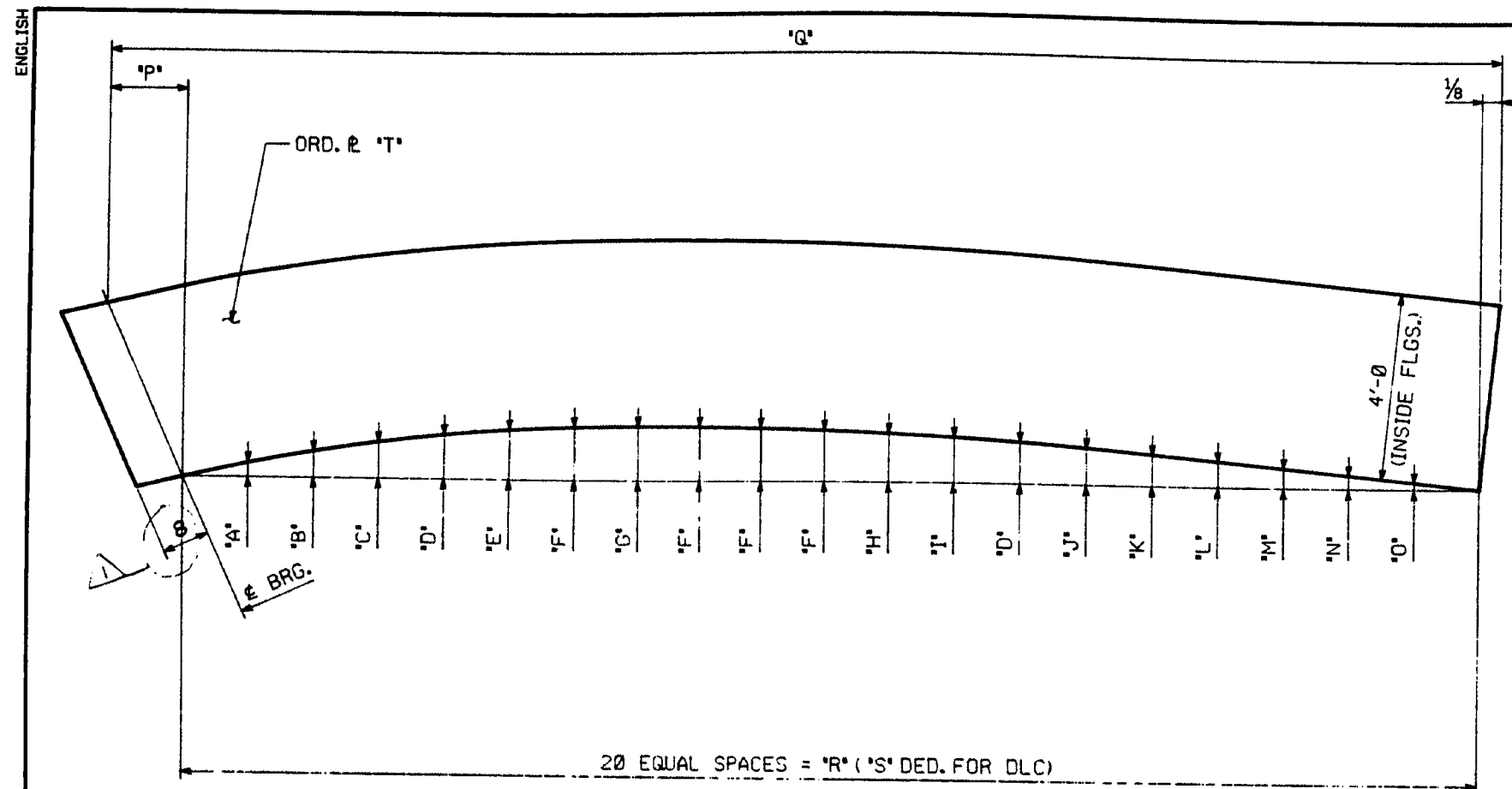
NOTES:
 FOR GENERAL NOTES SEE DWG N1.
 ALL FLANGE PLATES REQUIRE CHARPY V-NOTCH TEST.
 ARC DIMENSIONS ARE GIVEN TO ENDS OF PLATES AS DETAILED ON GIRDER DRAWINGS.
 * INDICATES FLANGE OVER-RUN THAT IS TO BE TRIMMED AFTER FLANGE IS WELDED TO WEB.
 ALL FLANGE PLATES ARE CUT TO A 350 O RADIUS AND MUST BE HEAT ADJUSTED TO FINAL RADIUS.
 SEE DRAWING HCl FOR FINAL HEAT CURVING DATA

111-152

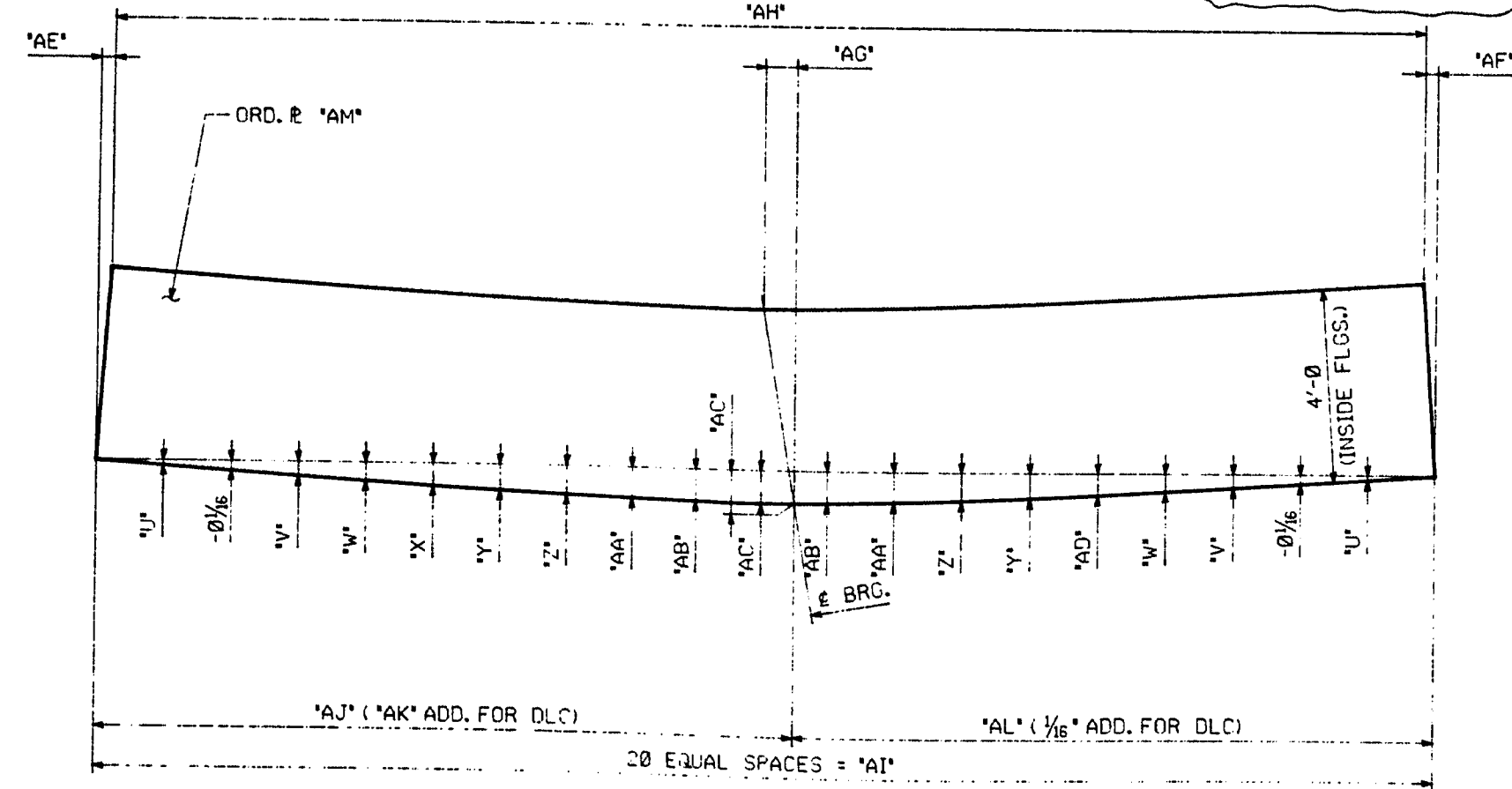
△		
△	CHG. OVERHANG TO 8' (DESIGN CHG.)	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
1710 Industrial Road Lancaster, PA 17605-0008 Phone 717/299-5281		
FLANGE SPICE DETAILS RTE 196 RAMP B OVER US RTE 1 RTE 196 STA 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091 (806) PIN 1665-30		
CONTRACTOR REED & REED, INC		
IN CHARGE LANGE (WC) MADE BY DF DWS DATE 4-29-96		
CONTRACT NUMBER ME-96500-1 DRAWING NUMBER F51		

CODE: 30

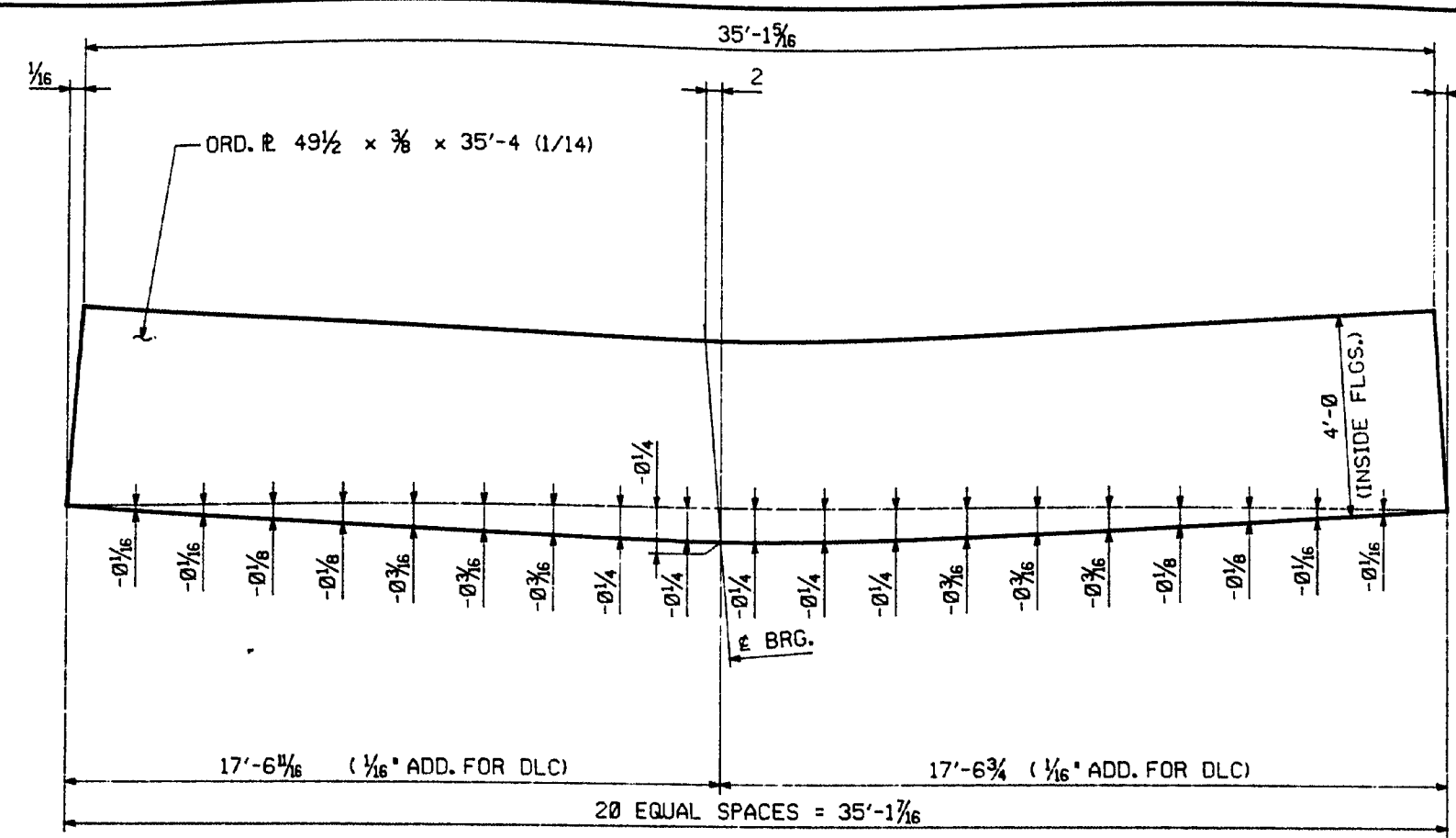
MAR 1 01997



MARK	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'	'L'	'M'	'N'	'O'	'P'	'Q'	'R'	'S'	'T'
G1A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	51'-0 1/4	51'-6	1/8	49 1/2 x 3/8 x 52'-7 (1/8)
G2A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	52'-10 3/8	52'-8 1/8	1/8	49 1/2 x 3/8 x 53'-9 (1/7)
G3A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	54'-0 7/8	53'-10 1/4	1/8	50 x 3/8 x 56'-1 (1/2)
G4A	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	55'-2 1/2	55'-0 3/8	1/8	50 x 3/8 x 56'-1 (1/2)



MARK	'U'	'V'	'W'	'X'	'Y'	'Z'	'AA'	'AB'	'AC'	'AD'	'AE'	'AF'	'AG'	'AH'	'AI'	'AJ'	'AK'	'AL'	'AM'	
G1B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 35'-4 (1/14)
G3B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 36'-1 (1/13)
G4B	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 36'-1 (1/13)
G1F	0	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 35'-4 (1/14)
G2F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 36'-1 (1/13)
G3F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 36'-1 (1/13)
G4F	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	-0 1/16	49 1/2 x 3/8 x 36'-1 (1/13)



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

NOTES:
 FOR GENERAL SHOP NOTES, SEE DRAWING N1.
 ALL WEB PLATES REQUIRE CHAMFY V-NOTCH TEST.
 NEGATIVE CAMBER ORDINATES INDICATE CURVE IS BELOW BASELINE.

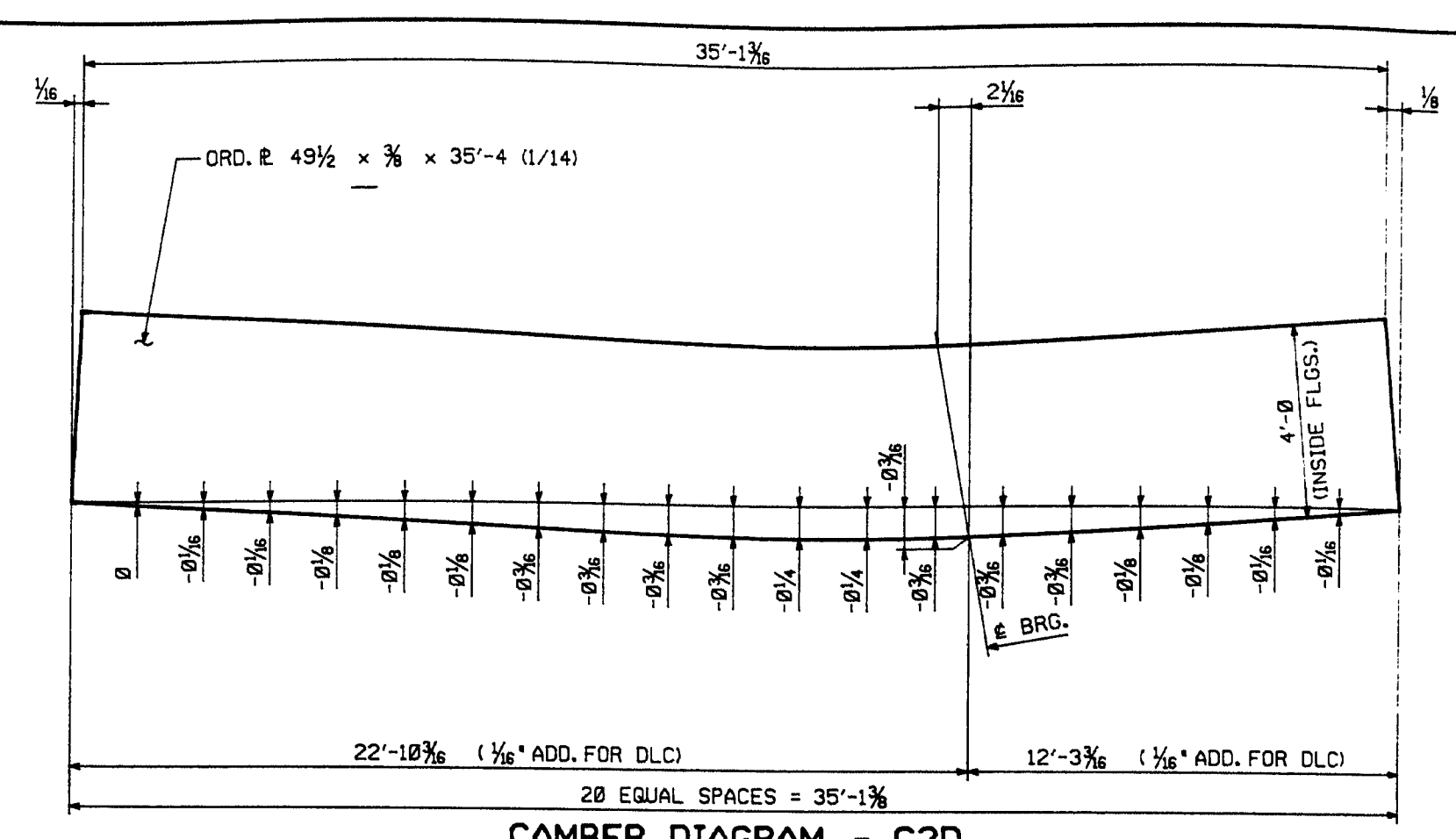
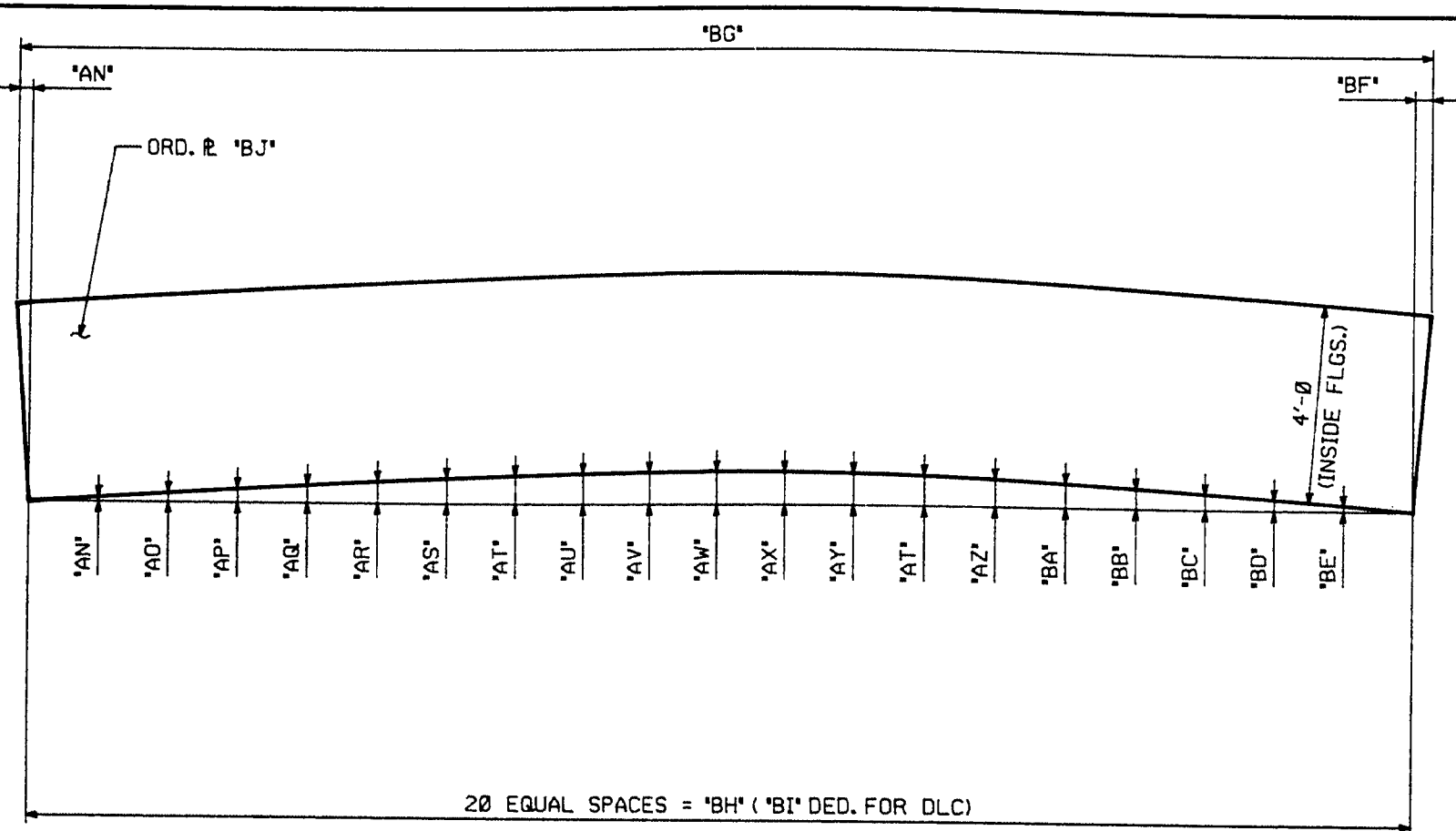
111-153

NO.	REVISION	DATE
	CHG OVERHANG DESIGN (HS)	2-21-96
HIGH STEEL STRUCTURES, INC. 170 Westford Road Loudon, PA 17003-0008 Phone 717/299-5211 A Division of High Industries, Inc.		
WEB CAMBER DIAGRAMS RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCOS (WC) MADE BY: TDF CHK'D BY: DWG DATE: 2-24-96		
CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: WC1		

CODE: 30

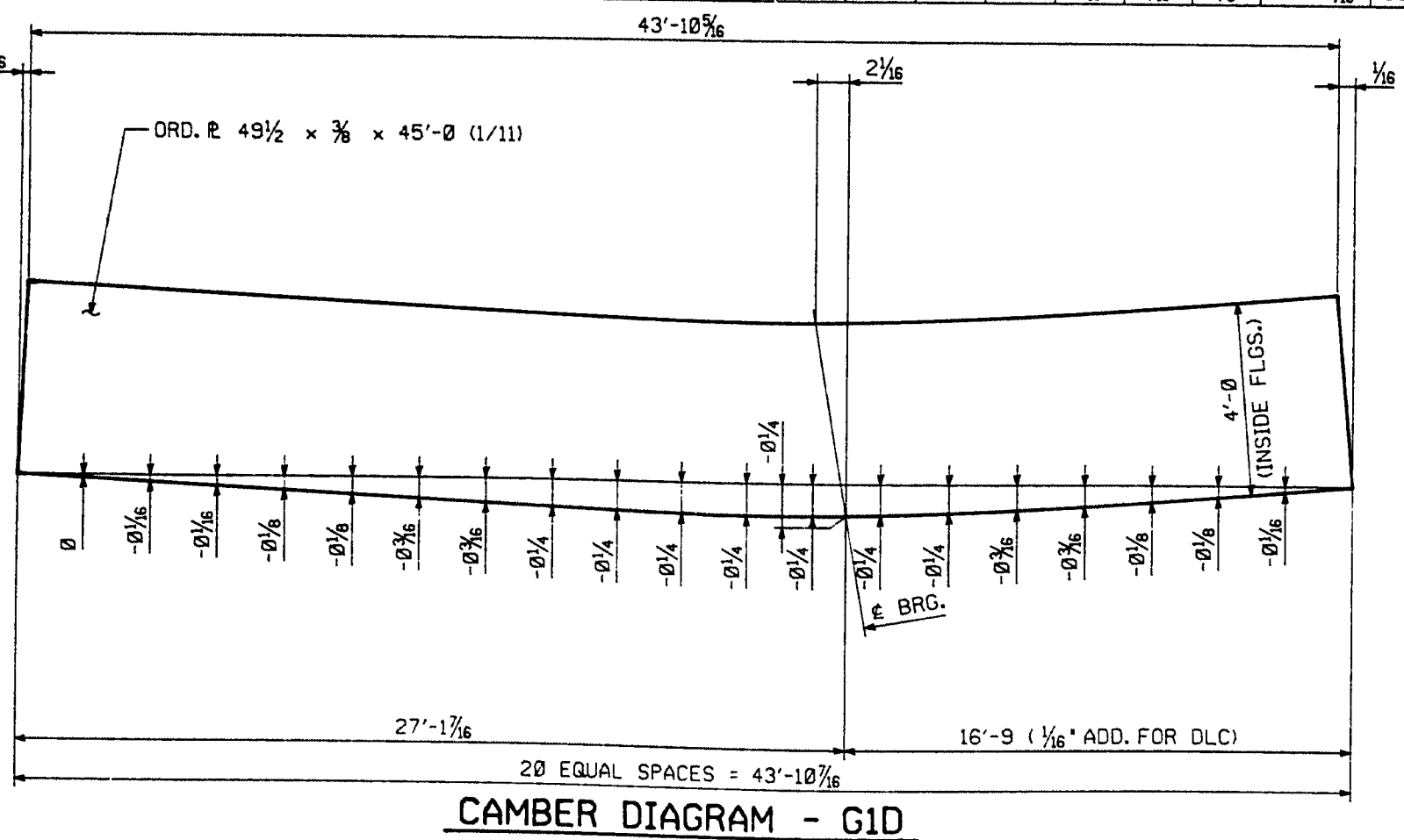
MAR 1 0 1997

ENGLISH



FED. ROAD DIV.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)

MARK	'AN'	'AO'	'AP'	'AQ'	'AR'	'AS'	'AT'	'AU'	'AV'	'AW'	'AX'	'AY'	'AZ'	'BA'	'BB'	'BC'	'BD'	'BE'	'BF'	'BG'	'BH'	'BI'	'BJ'
G1C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	48'-7 1/2	48'-7 1/2	1/8	49 1/2 x 3/8 x 48'-10 (1/10)
G2C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	49'-9 1/8	49'-8 7/8	1/8	49 1/2 x 3/8 x 51'-1 (1/9)
G3C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	50'-10 3/8	50'-10 1/4	1/8	49 1/2 x 3/8 x 51'-1 (1/9)
G4C	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	51'-11 3/8	51'-11 3/8	1/8	49 1/2 x 3/8 x (52'-7 (1/8))
G1E	0	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	44'-9 3/8	44'-9 3/8	1/8	49 1/2 x 3/8 x 45'-0 (1/11)
G2E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	55'-7 3/8	55'-7 3/8	1/8	49 1/2 x 3/8 x 55'-11 (1/5)
G3E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	56'-10 1/4	56'-10 1/4	1/8	49 1/2 x 3/8 x 57'-1 (1/4)
G4E	1/8	1/8	1/8	3/8	1/4	1/4	5/8	3/8	3/8	3/8	3/8	3/8	3/8	1/4	3/8	3/8	1/8	1/8	1/8	58'-1 3/8	58'-0 3/8	1/8	49 1/2 x 3/8 x 58'-4 (1/3)



NOTES:
FOR NOTES, SEE DWG. WC1.

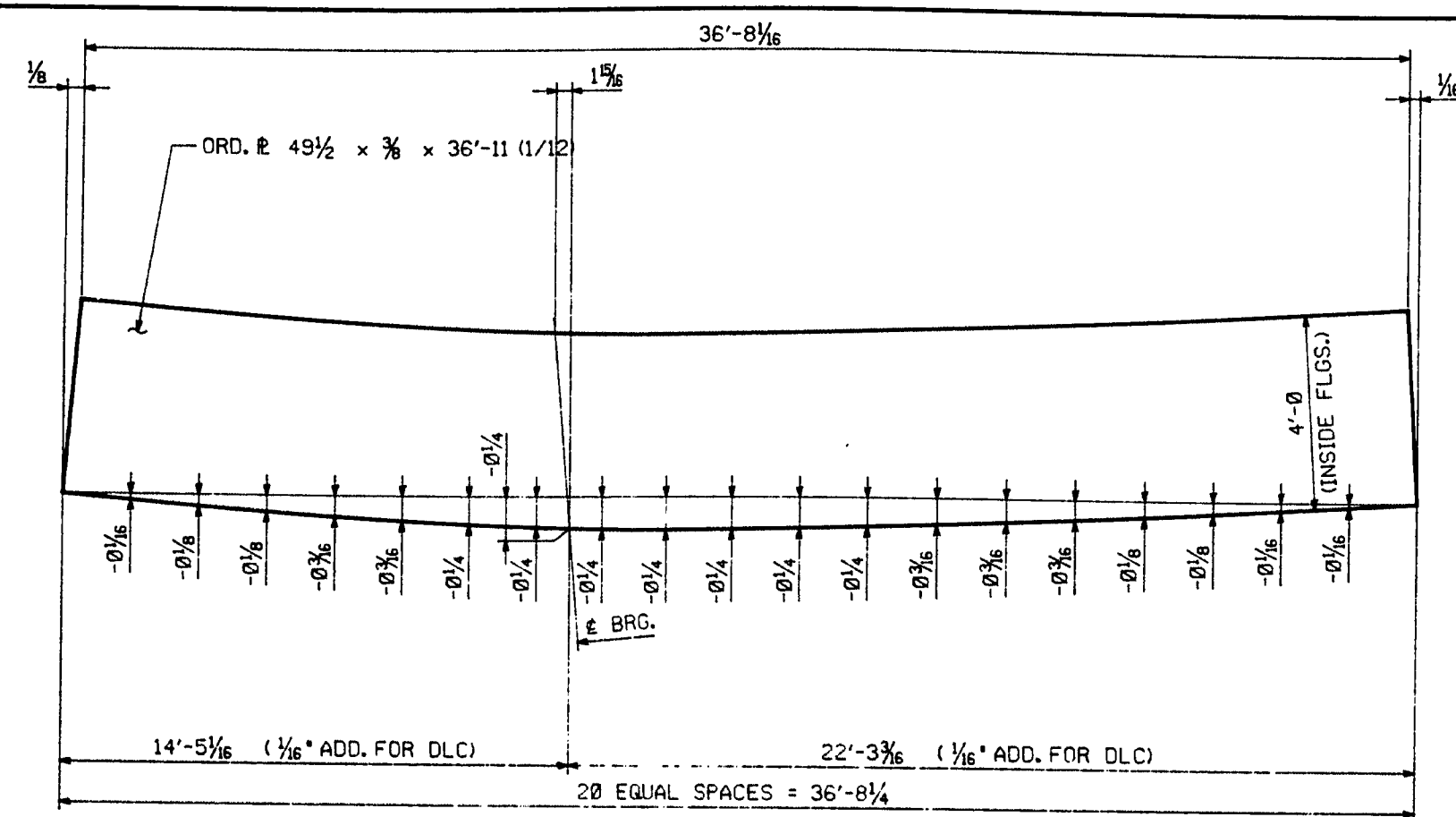
111-154

△		
△		
△	DESIGN CHG.	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
175 Mansfield Road Lancaster, PA 17605-0008 Phone 717/299-5211		
WEB CAMBER DIAGRAMS RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE LANCO (WC) MADE BY TDF CHK'D BY TDF DWS DATE 4-24-96		
CONTRACT NUMBER ME-96500-1 DRAWING NUMBER WC2		

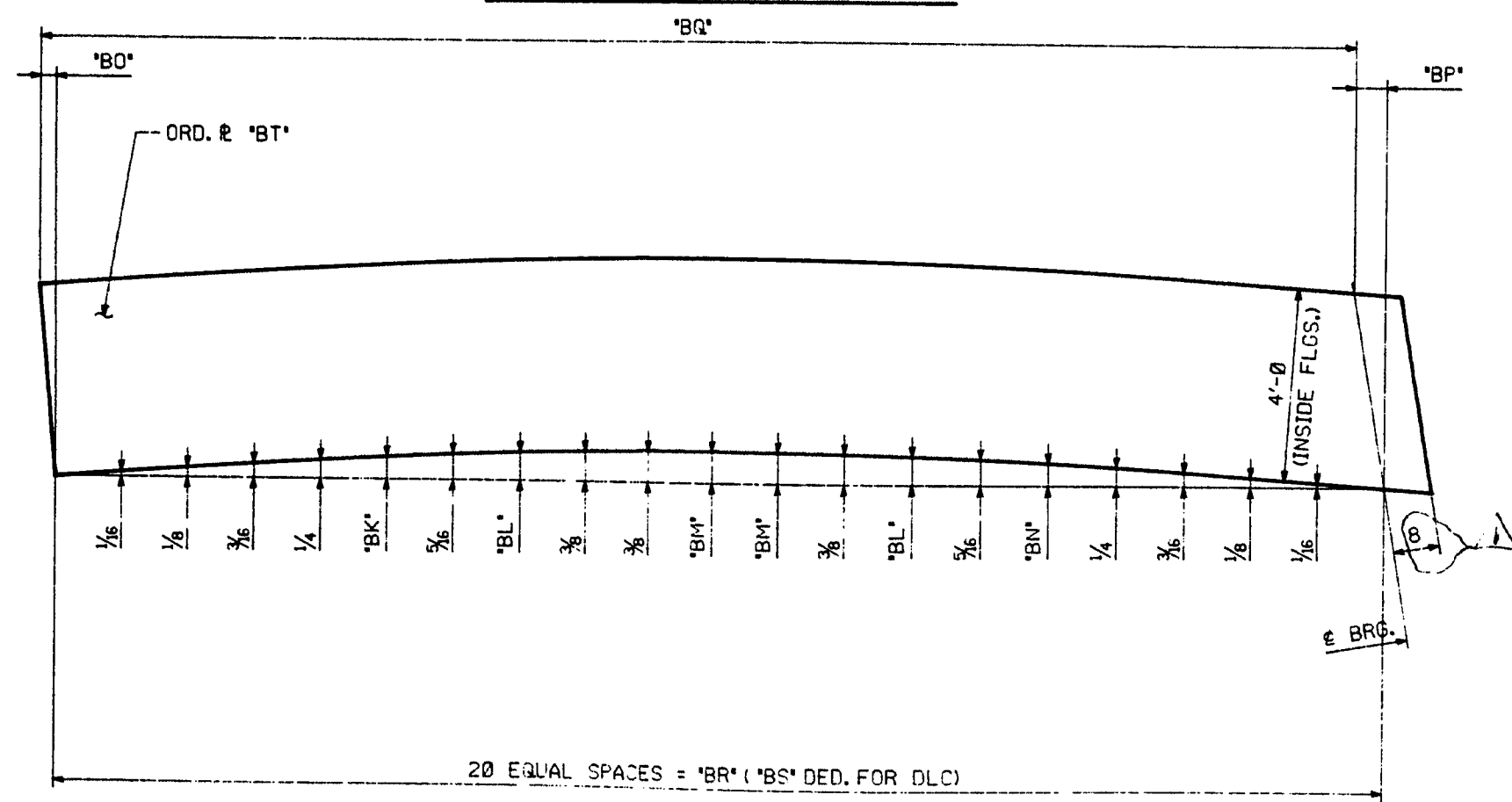
CODE: 30

MAR 1 0 1997

FED. ROAD DIVISION	STATE	FED. AID PROGRAM
1	ME	DE-0091(806)



CAMBER DIAGRAM - G4D



MARK	'BK'	'BL'	'BM'	'BN'	'BO'	'BP'	'BQ'	'BR'	'BS'	'BT'
G1G	1/4	3/8	3/8	1/4	1/8	2	51'-4 1/8	51'-6	1/8	49 1/2 x 3/8 x 52'-7 (1/8)
G2G	3/8	3/8	3/8	1/8	1/8	1 3/8	52'-6 1/4	52'-8 1/8	1/8	49 1/2 x 3/8 x 53'-9 (1/7)
G3G	1/4	3/8	3/8	1/4	1/8	1 1/8	53'-8 1/2	53'-10 1/4	1/8	49 1/2 x 3/8 x 54'-9 (1/6)
G4G	1/4	3/8	3/8	3/8	1/8	1 1/8	54'-10 3/4	55'-0 1/8	1/8	49 1/2 x 3/8 x 55'-11 (1/5)

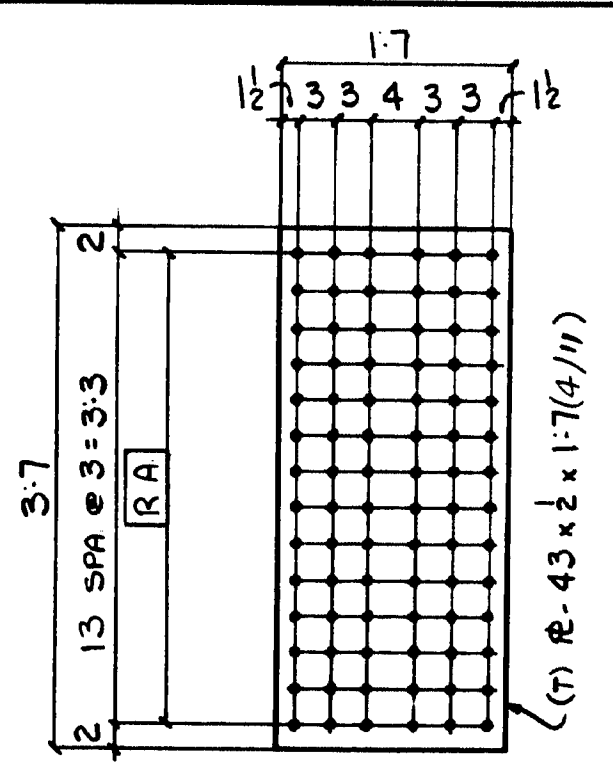
NOTES:
FOR NOTES, SEE DWG. WC1.

111-155

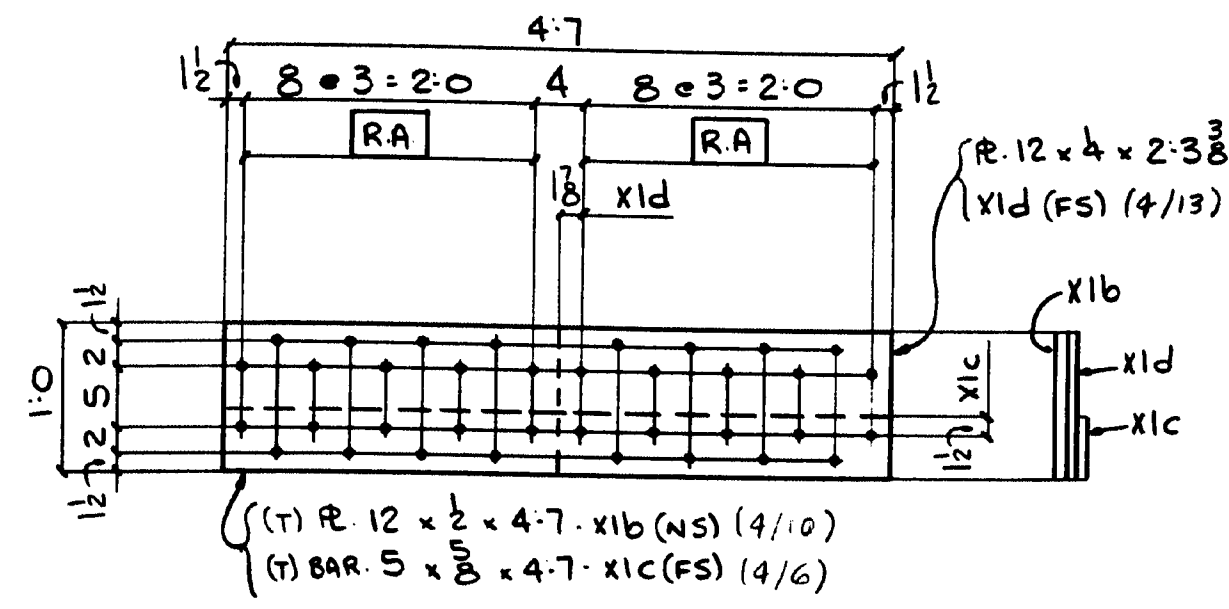
NO.	REVISION	DATE
	-5 OVER HANG (DESIGN CHG.)	6-21-96
HIGH STEEL STRUCTURES, INC.		
WEB CAMBER DIAGRAMS RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: TDF
CONTRACT NUMBER	ME-96500-1	CHKD. BY: TDF DATE: MAR 1 01997
DRAWING NUMBER	WC3	

CODE: 30

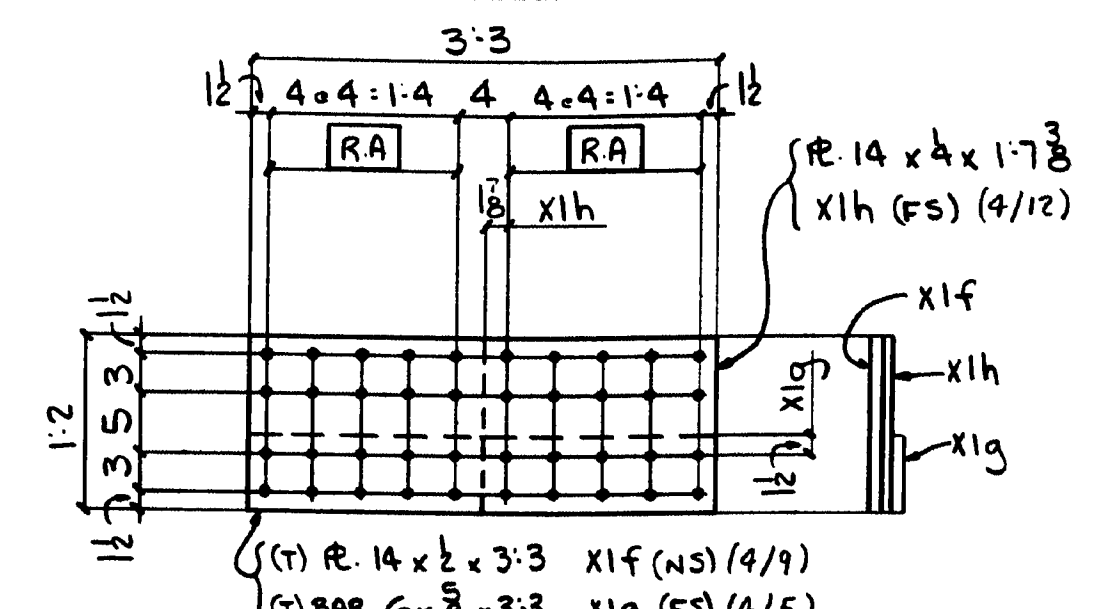
MAR 1 01997



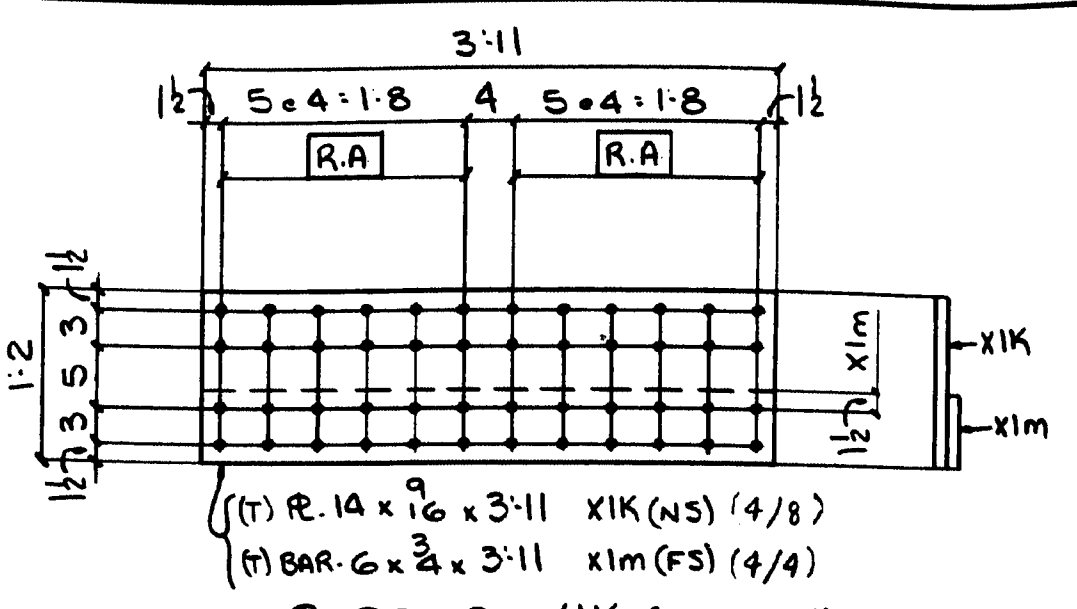
48-REQ'D ~ X1a
(SPlice R)



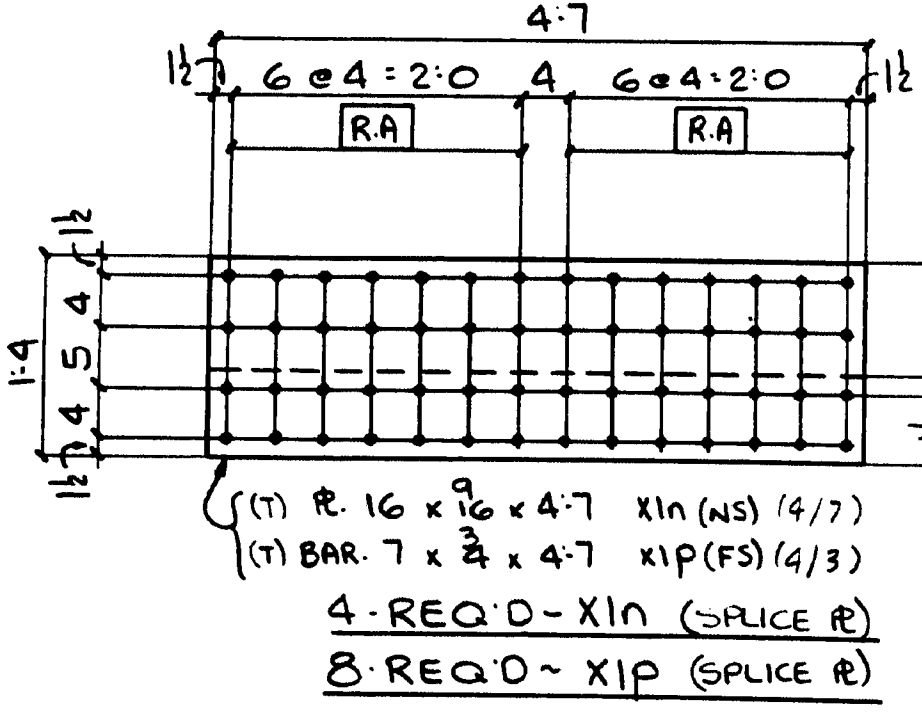
20-REQ'D ~ X1b (SPlice R)
40-REQ'D ~ X1c (SPlice R)
20-REQ'D ~ X1d (FILL R)



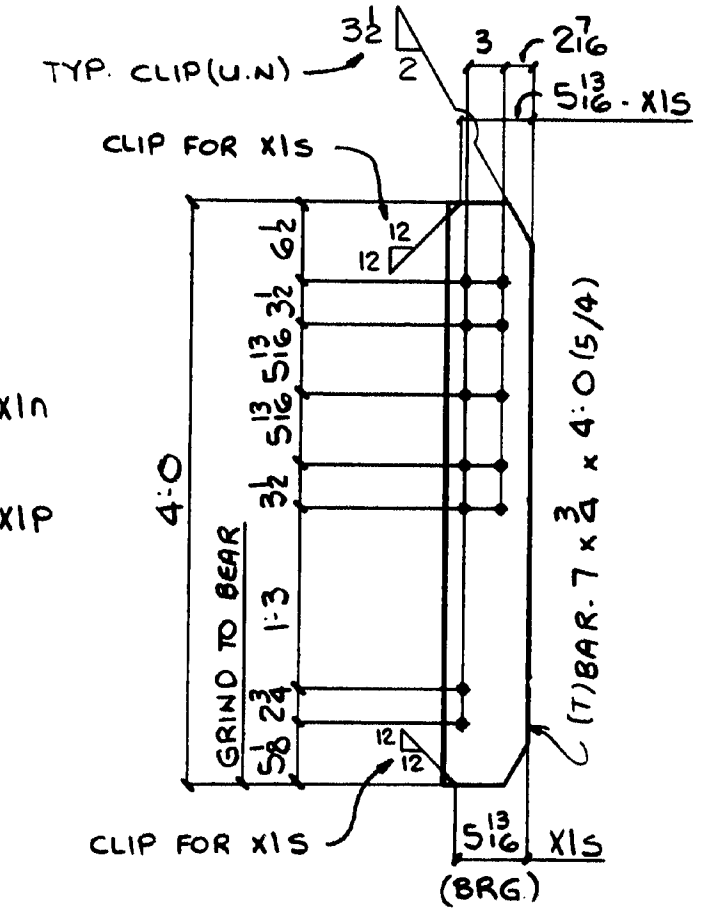
16-REQ'D ~ X1f (SPlice R)
32-REQ'D ~ X1g (SPlice R)
16-REQ'D ~ X1h (FILL R)



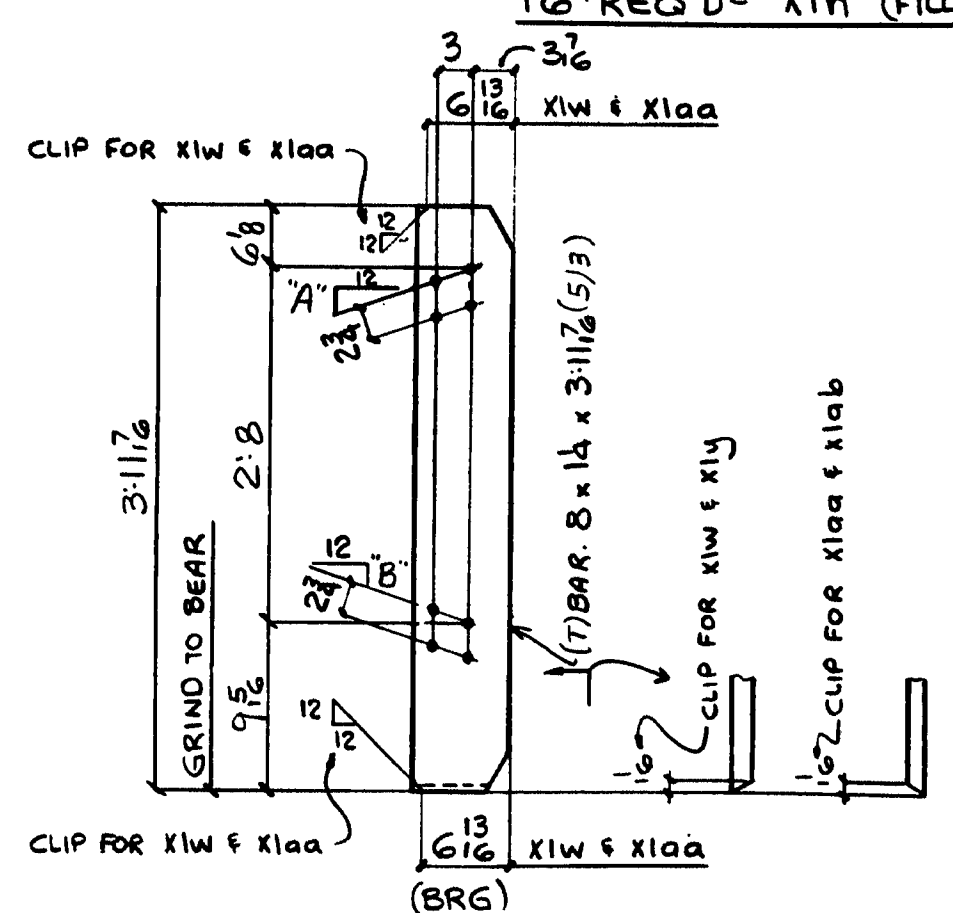
8-REQ'D ~ X1k (SPlice R)
16-REQ'D ~ X1m (SPlice R)



4-REQ'D ~ X1n (SPlice R)
8-REQ'D ~ X1p (SPlice R)



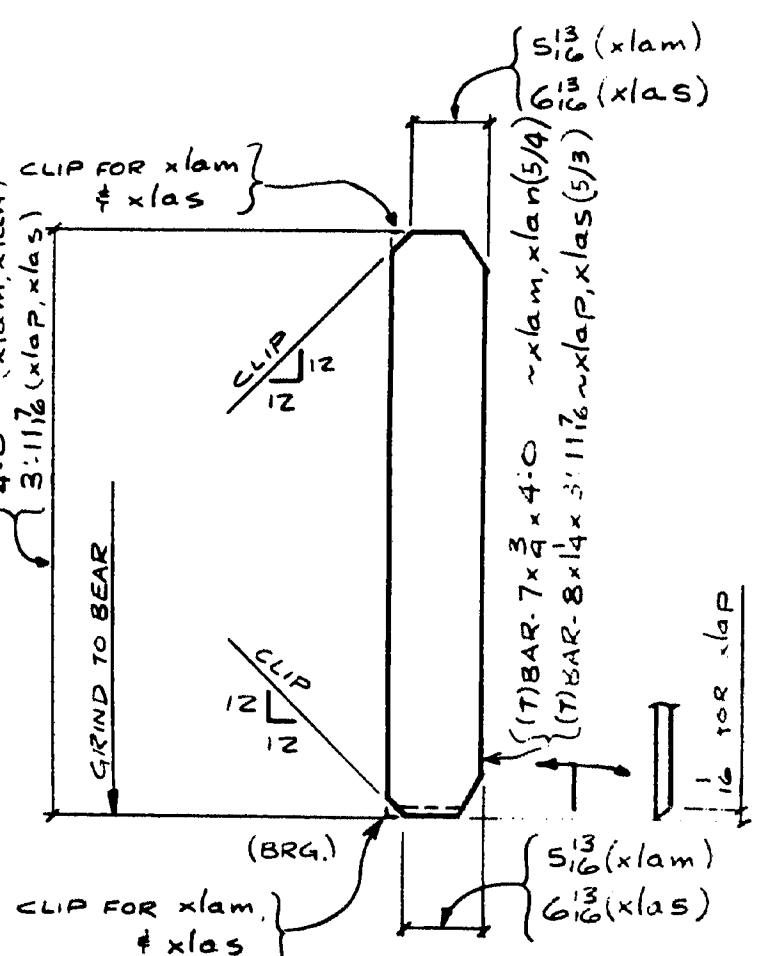
6-REQ'D ~ X1s
6-REQ'D ~ X1t



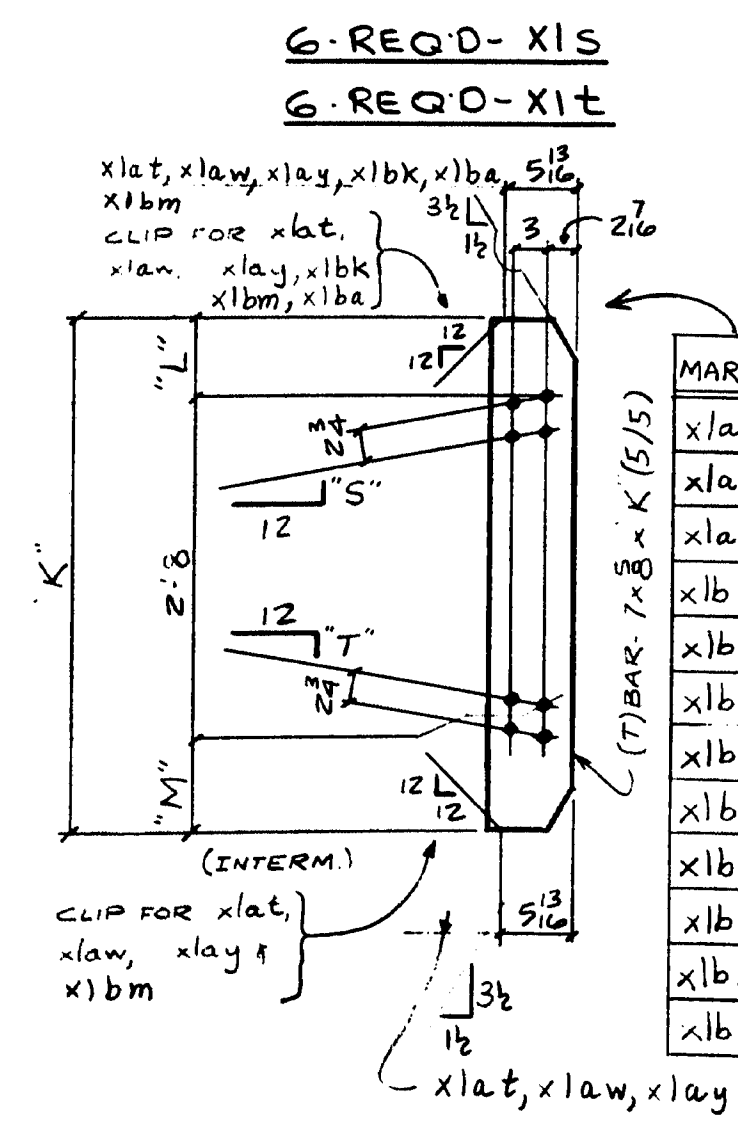
MARK	REQ'D	A	B
X1w	4	3 1/16	5 1/4
X1y	2	3 1/16	5 1/4
X1aa	2	5 1/4	3 1/16
X1ab	4	5 1/4	3 1/16

MARK	NO	REQ'D	C	D	E	F
X1ac	ONE		1 3/8	3 3/8	4 5/8	2 3/8
X1ad	ONE		3/4	3 5/8	4 1 1/8	2 1/8
X1af	ONE		3/4	3 1/2	4 1/2	2 3/8

MARK	NO	REQ'D	G	H	J
X1ag	ONE		2 3/4	3 5/8	4 5/8
X1ah	ONE		2 1/8	3 1/4	4 1/2
X1ak	ONE		2 3/8	3 1/4	4 1/2



2-REQ'D ~ X1am
2-REQ'D ~ X1an
3-REQ'D ~ X1ap
3-REQ'D ~ X1as



MARK	NO	REQ'D	"K"	"L"	"M"	"S"	"T"
X1at	16	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/2	
X1aw	9	3:11 3/8	6 3/4	8 5/8	5 1/2	3 5/8	
X1ay	3	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/2	
X1ba	3	3:11 3/8	6 3/4	8 5/8	5 1/2	3 5/8	
X1bb	14	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/2	
X1bc	17	3:11 3/8	6 3/4	8 5/8	5 1/2	3 5/8	
X1bd	3	3:11 3/8	6 1/8	9 1/4	3 5/8	5 1/2	
X1bf	3	3:11 3/8	6 1/8	9 1/4	5 1/2	3 5/8	
X1bg	18	3:10 3/4	6 1/8	8 5/8	3 5/8	5 1/2	
X1bh	21	3:10 3/4	6 1/8	8 5/8	5 1/2	3 5/8	
X1bk	6	3:11 3/8	6 3/4	8 5/8	3 5/8	5 1/2	
X1bm	SNE	3:10 3/4	6 1/8	8 5/8	5 1/2	3 5/8	

111-156

SHOP NOTE
HOLES: 15/16"
BOLTS: NONE
PAINT: NONE
FOR GENERAL NOTES SEE DWG. N1

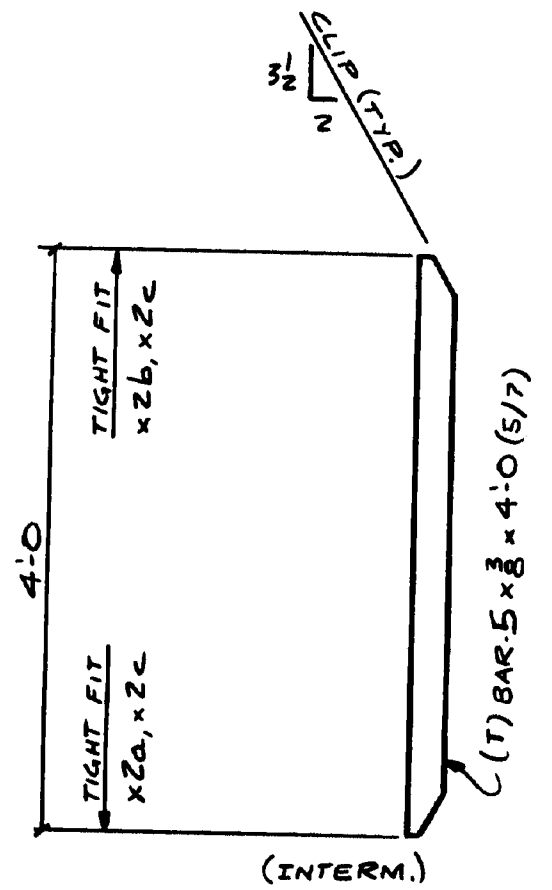
NO. 1 REVISION: INCREASED QUANTITY X1b6 DATE: 9-23-96
X1b6 DUE TO FAB. ERROR

205 Old Philadelphia Pike
Lansdale, Pennsylvania 17033
Phone 717/299-528

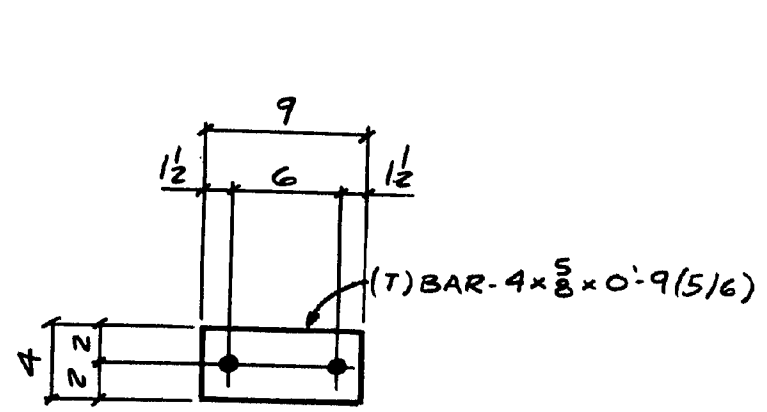
HIGH STEEL STRUCTURES, INC.

CIRDER JOB STANDARDS
KYE 196 RAMP B OVER U.S. STE. 1
R/E. 196 STA. 305+77.12
TOWN OF BRUNSWICK
CUMBERLAND CO., MAINE
STATE OF MAINE DEPT. OF TRANSPORTATION
STATE CONTRACT OR REF. NO. DE-0091 (806) PIN 1465.30
CONTRACTOR REED & REED, INC. MADE IN CHARGE: LANGO (WC) BY: S.J.R. DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: X1

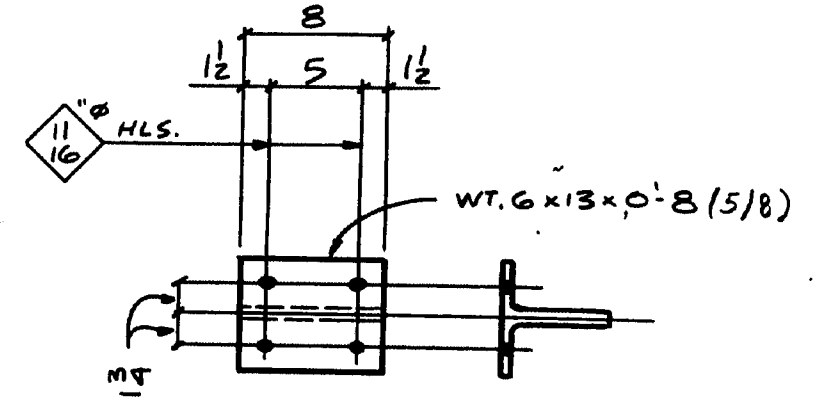
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091 (806)



- 20 - REQ'D ~ X2a
- 55 - REQ'D ~ X2b
- 25 - REQ'D ~ X2c



181 - REQ'D ~ X2d



2 - REQ'D ~ X2f

111-157

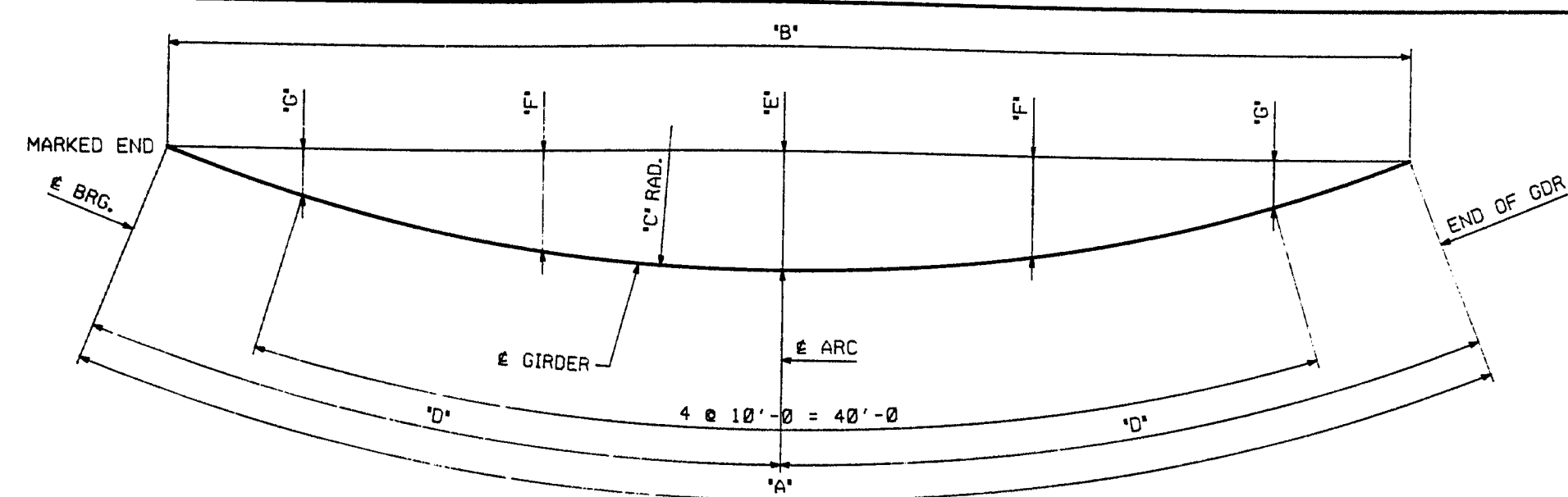
SHOP NOTE
 HOLES: 1/2" (UN)
 BOLTS: NONE
 PAINT: NONE
 FOR GENERAL NOTES SEE DWG. N1

NO. Δ	REVISION: APPL CHANGE	DATE: 8-5-96
205 Old Philadelphia Road Lancaster, Pennsylvania 17603 Phone 717/298-1328 HIGH STEEL STRUCTURES, INC. <i>HSI</i> <small>a subsidiary of High Industries, Inc.</small>		
GIRDER JOB STANDARDS		
Rte. 196 RAMP B OVER U.S. Rte. 1		
Rte. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091 (806) FIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANGO (WC)	MADE BY: SJR	CHK'D BY: RF DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: X2	

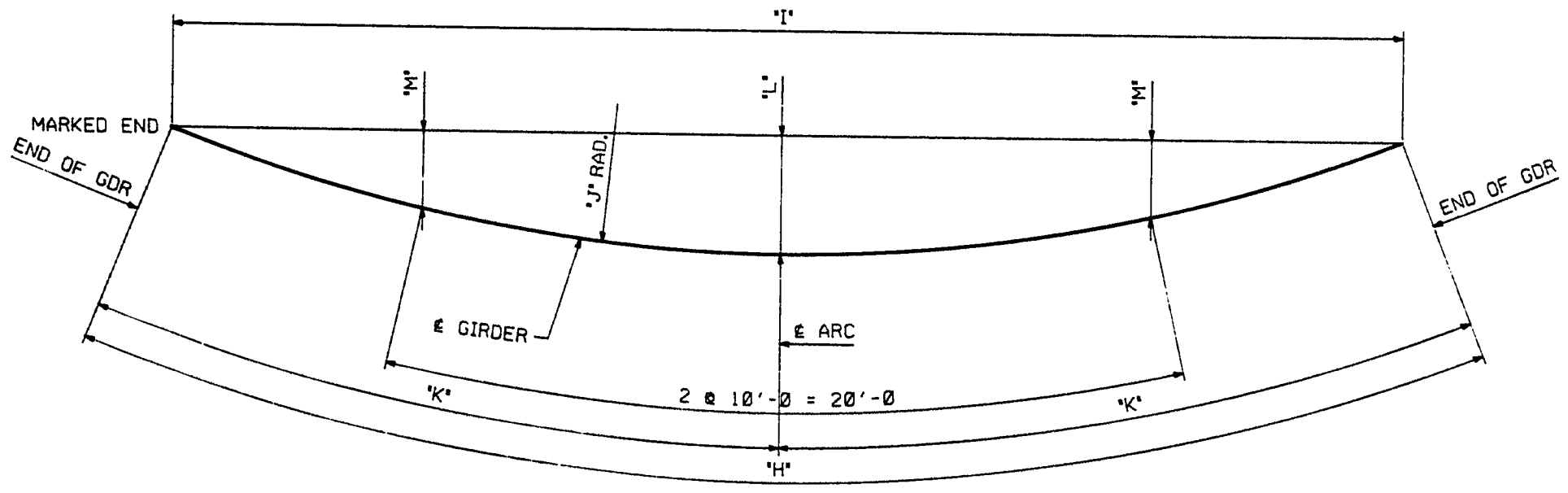
CODE: 30

MAR 1 01997

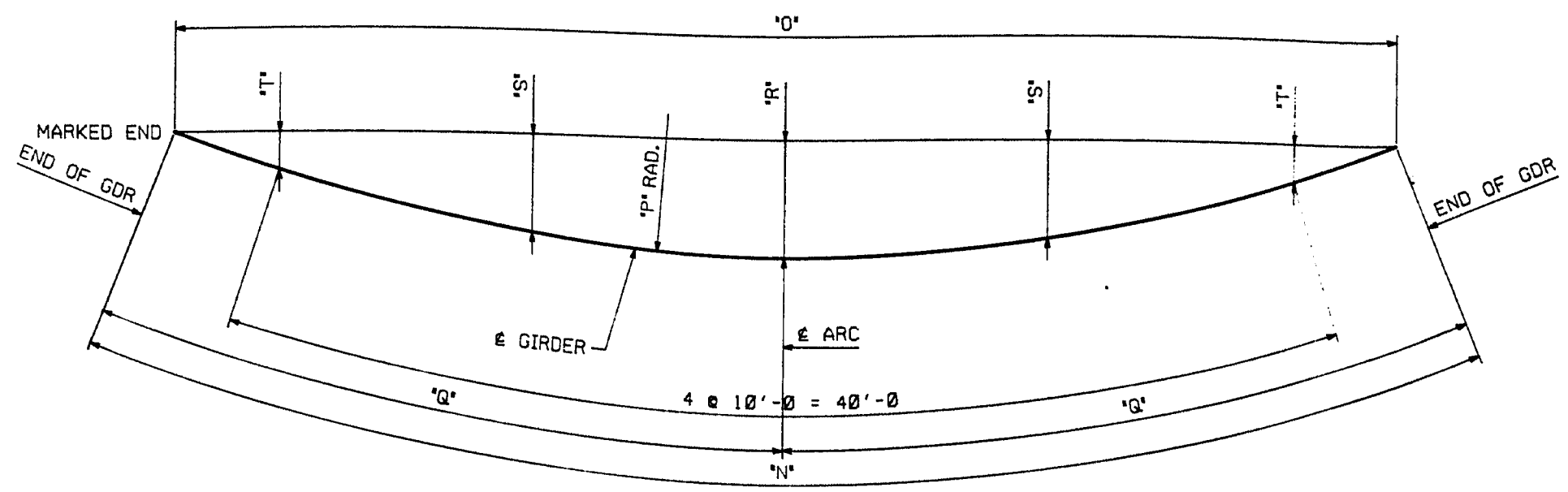
ENGLISH



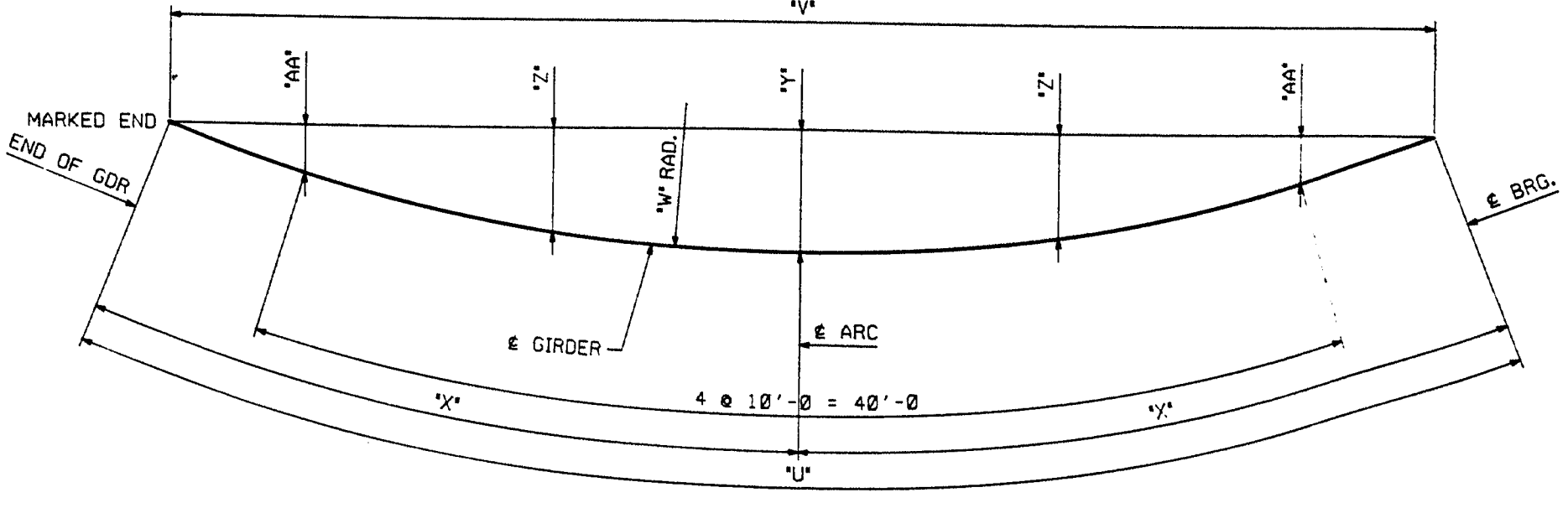
MARK	'A'	'B'	'C'	'D'	'E'	'F'	'G'
G1A	51'-0 1/4	51'-7 1/8	338'-4 1/2	25'-10 1/2	11 1/2	10 1/2	4 3/4
G2A	52'-10 3/8	52'-9 1/8	346'-1 1/2	26'-5 1/2	1'-0 1/2	10 3/8	5 3/8
G3A	54'-0 7/8	53'-11 1/8	353'-10 1/2	27'-0 7/8	1'-0 3/4	10 7/8	5 3/8
G4A	55'-2 1/2	55'-1 1/2	361'-7 1/2	27'-7 1/4	1'-0 3/4	11	6



MARK	'H'	'I'	'J'	'K'	'L'	'M'
G1B	34'-3 3/8	34'-3 3/8	338'-4 1/2	17'-1 1/2	5 1/4	3 3/8
G2B	35'-1 1/8	35'-1 1/8	346'-1 1/2	17'-6 1/2	5 3/8	3 3/8
G3B	35'-10 3/8	35'-10 3/8	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4B	36'-8 1/8	36'-7 3/8	361'-7 1/2	18'-4 1/2	5 3/8	3 3/8
G2D	35'-1 3/8	35'-1	346'-1 1/2	17'-6 3/8	5 3/8	3 3/8
G3D	35'-10 3/8	35'-10 1/2	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4D	36'-8 3/8	36'-7 7/8	361'-7 1/2	18'-4 1/2	5 3/8	3 3/8
G1F	34'-3 3/8	34'-3 3/8	338'-4 1/2	17'-1 1/2	5 1/4	3 3/8
G2F	35'-1 1/4	35'-1 1/8	346'-1 1/2	17'-6 1/2	5 3/8	3 3/8
G3F	35'-10 3/8	35'-10 3/8	353'-10 1/2	17'-11 1/2	5 3/8	3 3/4
G4F	36'-8	36'-7 3/8	361'-7 1/2	18'-4	5 3/8	3 3/8



MARK	'N'	'O'	'P'	'Q'	'R'	'S'	'T'
G1C	48'-7 1/8	48'-7 1/8	338'-4 1/2	24'-3 3/4	10 1/2	8 1/2	3 3/8
G2C	49'-9 3/8	49'-8 3/8	346'-1 1/2	24'-10 3/8	10 3/8	9	3 3/8
G3C	50'-10 3/8	50'-9 3/8	353'-10 1/2	25'-5 3/8	10 3/8	9 1/4	4 3/8
G4C	51'-11 3/8	51'-11 3/8	361'-7 1/2	25'-11 3/8	11 3/8	9 3/8	4 3/8
G1D	43'-10 3/8	43'-9 3/8	338'-4 1/2	21'-11 3/8	8 1/2	6 3/4	1 7/8
G1E	44'-9 3/8	44'-9 1/2	338'-4 1/2	22'-4 3/8	8 1/2	7 1/2	1 3/8
G2E	55'-7 3/8	55'-6 3/8	346'-1 1/2	27'-9 3/8	1'-1 3/8	11 3/8	6 3/8
G3E	56'-10 3/4	56'-9 3/4	353'-10 1/2	28'-5 3/8	1'-1 3/8	1'-0	6 3/8
G4E	58'-1 3/8	58'-0 3/8	361'-7 1/2	29'-0 3/8	1'-2	1'-0 3/8	7 3/8




MARK	'U'	'V'	'W'	'X'	'Y'	'Z'	'AA'
G1G	51'-4 1/8	51'-3 3/8	338'-4 1/2	25'-8 1/8	11 1/8	9 3/8	4 3/8
G2G	52'-6 1/4	52'-5 3/8	346'-1 1/2	26'-3 1/4	11 1/8	10 3/8	5
G3G	53'-8 1/2	53'-7 3/8	353'-10 1/2	26'-10 1/4	1'-0 1/4	10 1/2	5 3/8
G4G	54'-10 3/4	54'-10 3/8	361'-7 1/2	27'-5 3/8	1'-0 1/2	10 3/8	5 3/8

NOTES:
ALL DIMENSIONS APPLY AT THE TOP OF WEB PLATE OF THE GIRDERS.

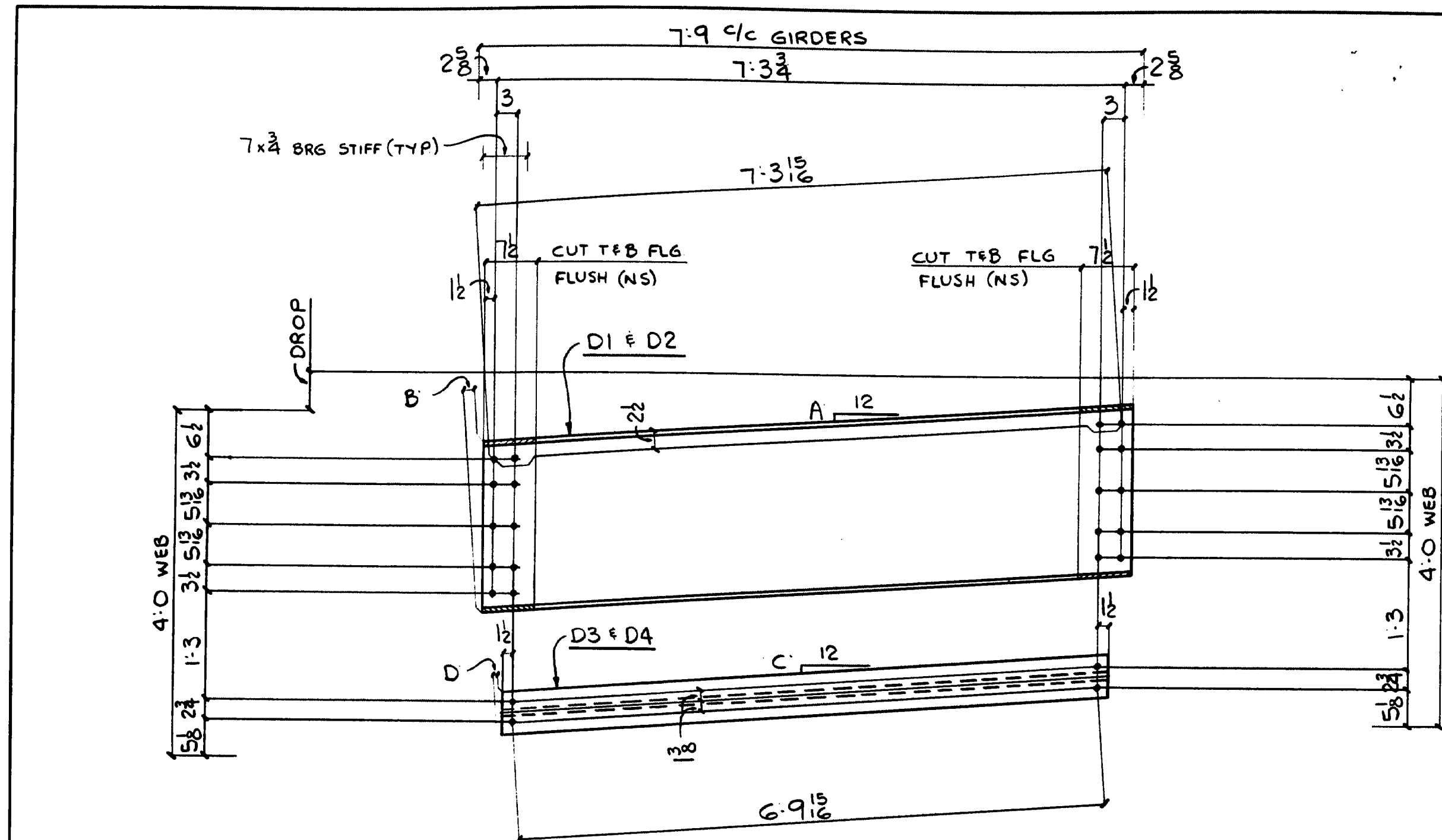
FED. ROAD DIVISION	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(006)

111-158

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 		
HORIZONTAL CURVE DIAGRAMS RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 385+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(006) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE	MADE BY	DATE
LANCO (WC)	TDF	4-24-76
CONTRACT NUMBER ME-96500-1		DRAWING NUMBER HC1

CODE: 30

MAR 1 0 1997



MARK	DROP	A	B
D1	5/16	3/4	1/2
D2	(-)5/16	(-)3/4	(-)1/2

MARK	DROP	C	D
D3	5/16	13/16	3/8
D4	(-)5/16	(-)13/16	(-)3/8

FEDERAL DIVISION STATE PROJECT
 1 ME DE 009 (506)

BILL OF MATERIAL					
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	WGT. PER FT.
3	D1	W24 x 55	7 8 1/2	(T)	114.4
3	D2	W24 x 55	7 8 1/2	(T)	114.4
3	D3	WT5 x 11	7 1 3/8	(T)	78.5
3	D4	WT5 x 11	7 1 3/8	(T)	78.5

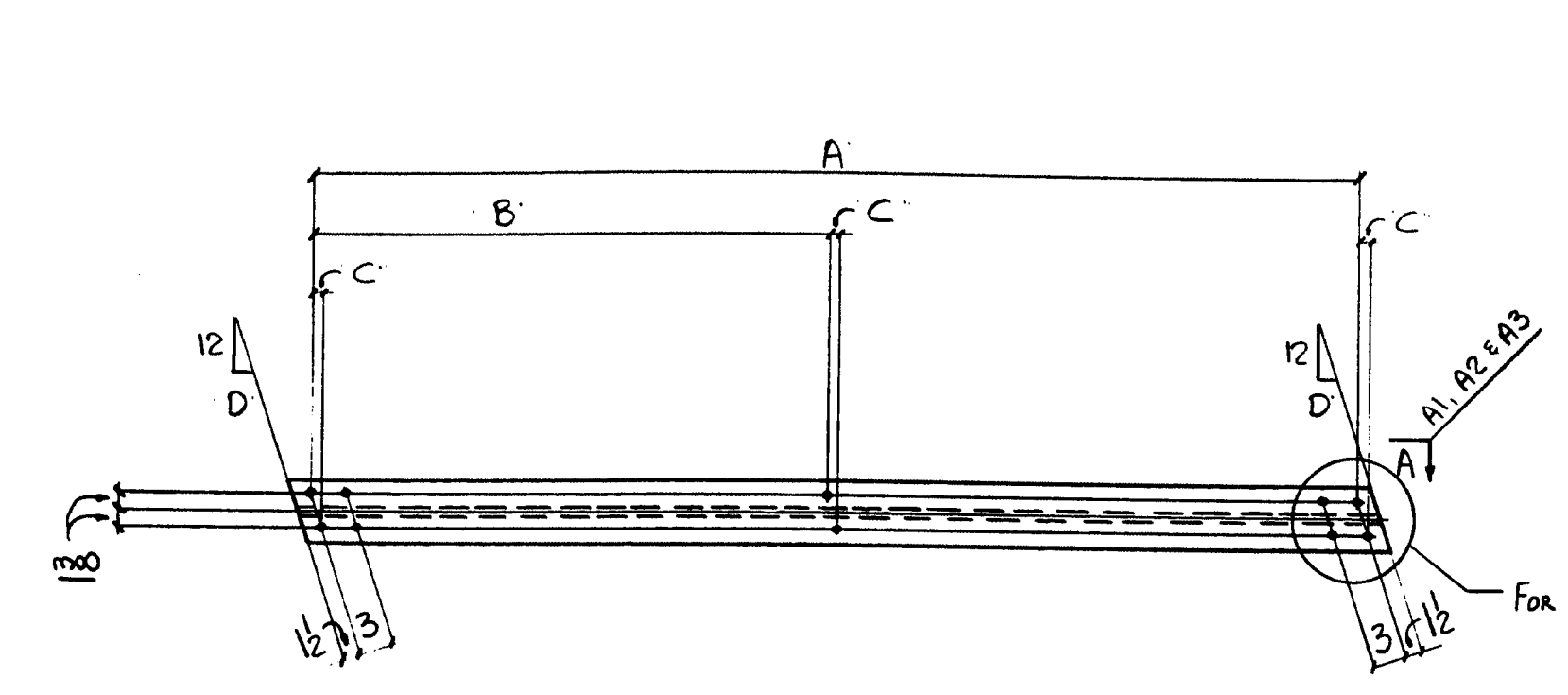
111-159

SHOP NOTE
 HOLES: 15/16
 BOLTS: NONE
 PAINT: NONE
 FOR GENERAL NOTES SEE DWG N1

STATE CONTRACT OR REF. NO. DE-0091 (R&E) JAN 1965 32
 CONTRACTOR REED & REED, INC.
 IN CHARGE LAMCO (WL) WLN
 CONTRACT NUMBER ME-96501-1

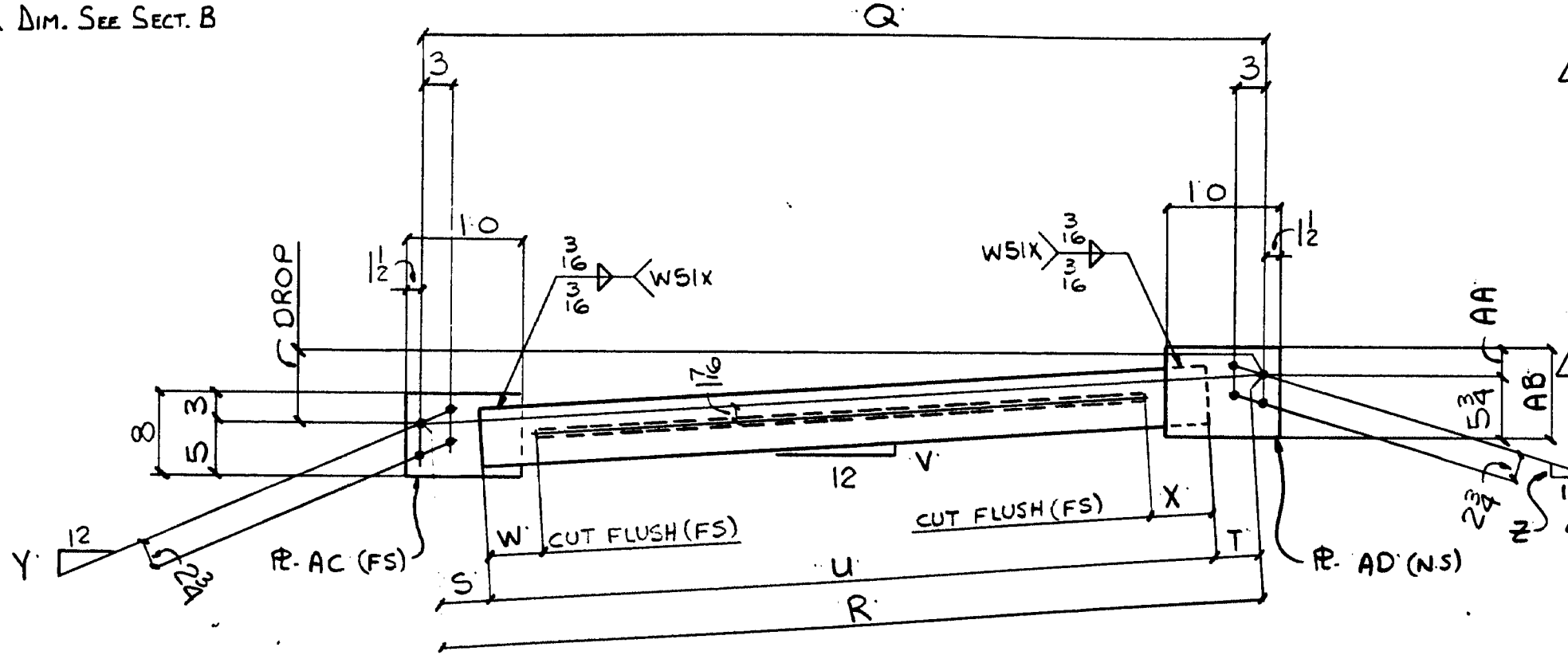
DATE: MAR 1 1965

CODE: 56

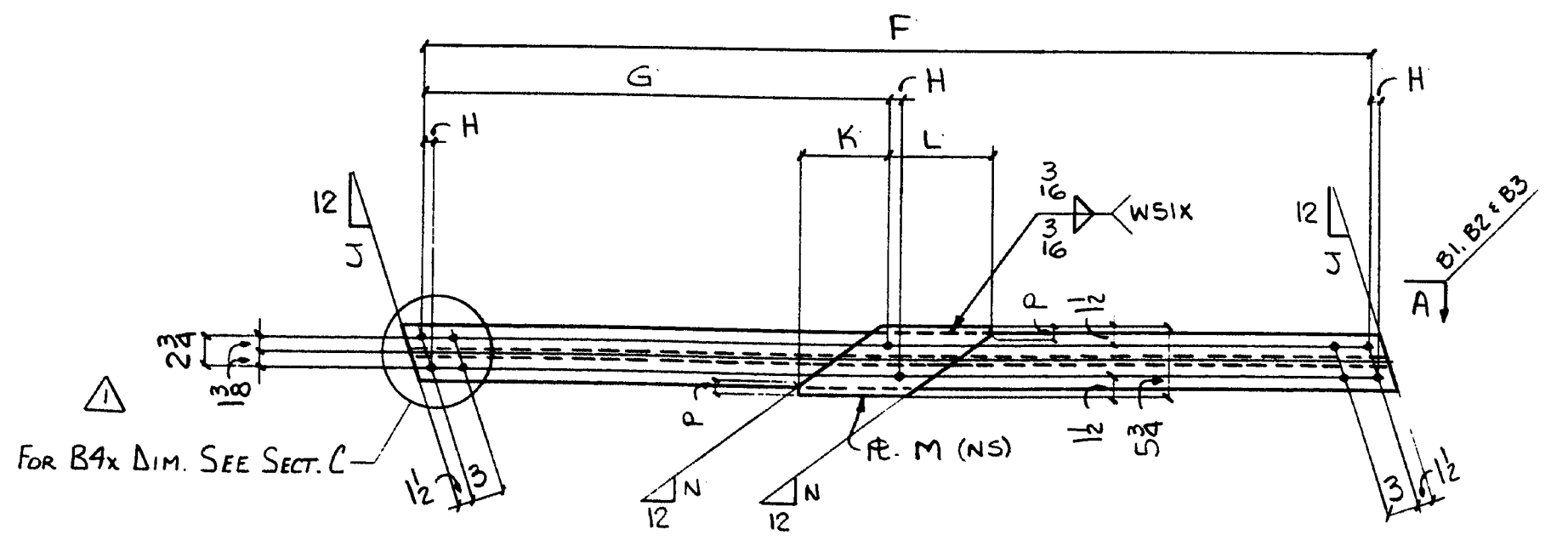


SECTION - A
FOR: A1, A2 & A3, B1, B2 & B3

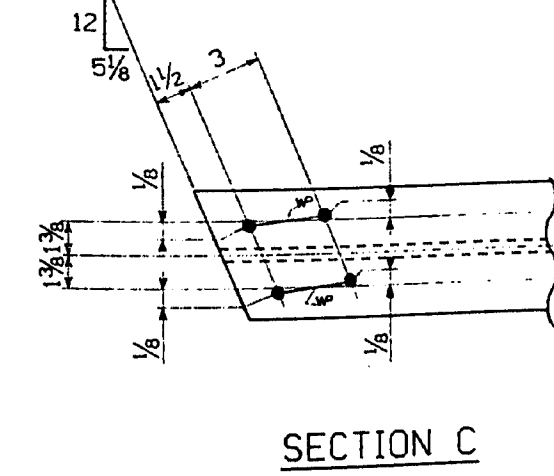
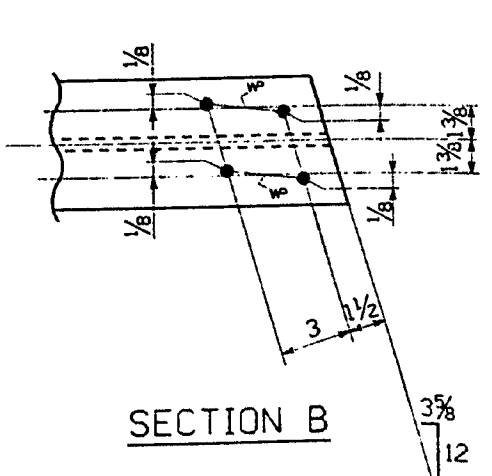
MARK	A	B	C	D	E
A1	8'10 1/8	4'5 1/16	5'0	2'3 3/8	7'3 3/8
A2	8'9 1/4	4'4 3/8	5'0	2'1 1/2	7'0
A3	8'8 3/8	4'4 3/8	5'0	2'3 3/8	6'15 1/16
A4, A5	7'7 5/8	3'9 13/16	5'0	3'3 3/8	X
A5	7'5 3/4	3'8 3/8	5'0	3'1 1/2	X



MARK	DROP	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
C1	8'1 1/2	8'7 3/8	8'7 1/8	5'1 1/2	6	7'7 3/4	15'0	6	6	4'5 1/2	2'3 3/8	2'1	8'4	mg	mh
C2	7'1 1/2	8'6 1/8	8'6 3/4	6	6	7'6 1/2	15'0	6	6	4'1 1/2	2'1 1/2	2'1	8'4	mk	mm
C3	7'1 1/2	8'5 1/8	8'5 3/4	6'1 1/2	6	7'5 1/4	15'0	6	6	4'1 1/2	2'3 3/8	2'1	8'4	mk	mn
C4	5'1 1/2	7'3 3/4	7'3 1/2	5'1 1/2	6	6'4	15'0	6	6	5'0	3'3 3/8	2'3 3/8	8'2	mp	ms
C5	5'1 1/2	7'1 3/4	7'1 1/2	5'1 1/2	6	6'2	15'0	6	6	5'4	3'1 1/2	2'3 3/8	8'2	mt	mw
C4x	5'1 1/2	7'3 3/4	7'3 1/2	5'1 1/2	6	6'4	15'0	6	6	5'0	3'3 3/8	2'3 3/8	8'2	mp	msx



MARK	E	F	G	H	J	K	L	M	N	P
B1	7'3 3/8	9'2 3/8	4'7 1/16	1'1 1/2	4'5 1/2	7'2	8'4	ma	8'2 1/2	1
B2	7'3 3/8	9'2	4'7	1'1 1/2	4'1 1/2	7'2	8'4	mb	8'4	1
B3	7'8	9'1	4'6 1/2	1'1 1/2	4'1 1/2	7'2	8'4	mc	8'5 1/2	1
B4, B4x	X	7'11 1/2	3'11 3/4	1'3 1/8	5'3 1/2	6'4	7'4	md	10'1 1/2	1
B5	X	7'9 3/8	3'10 1/2	1'3 1/8	5'4	6'4	7'4	mf	10'3 3/8	3



SECTION B

SECTION C

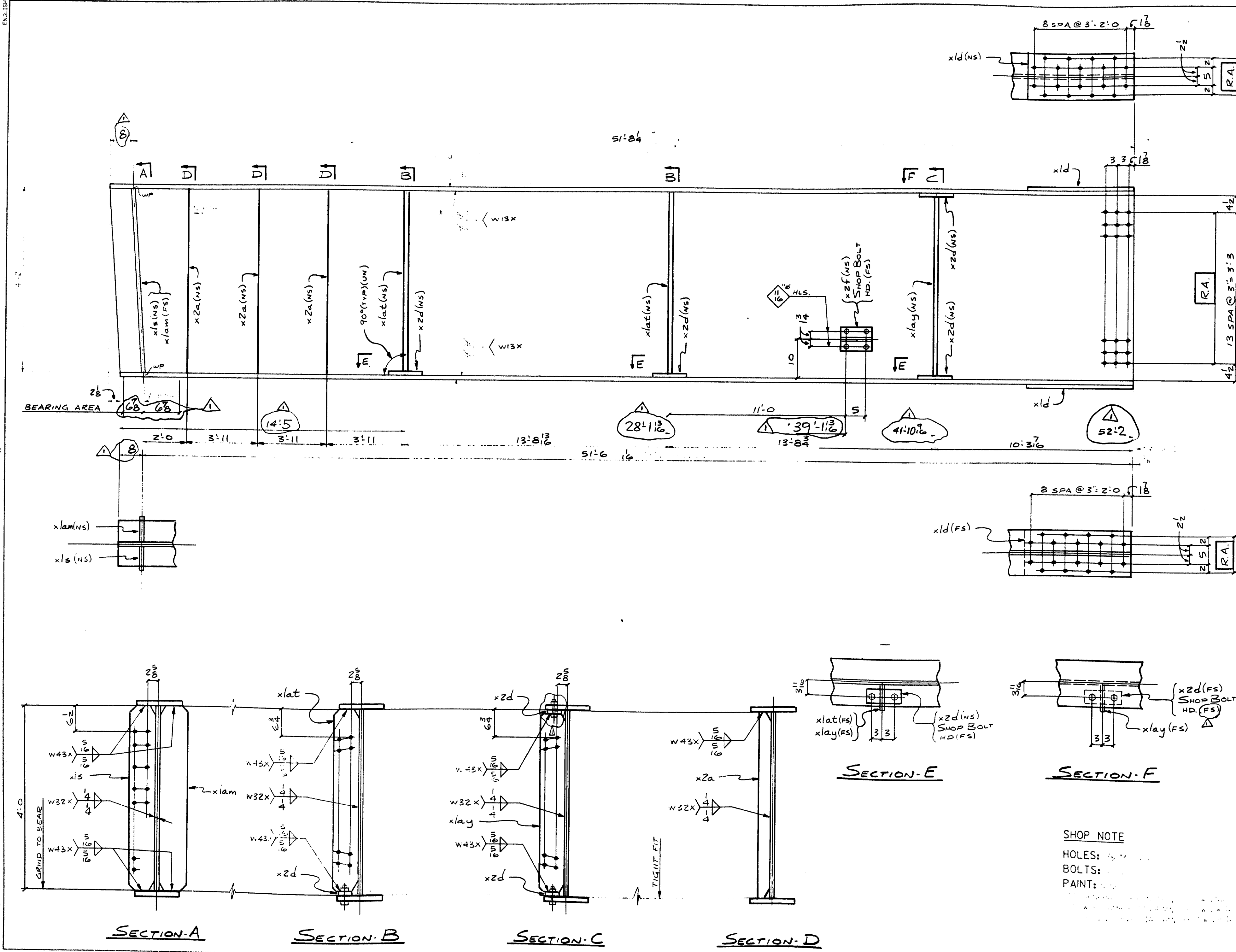
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP WEIGHT LB.
ONE	A1	WT 4 x 9	9'2 3/8	(T)	5	82.2
ONE	A2	"	9'1 1/2	(T)	5	82.2
ONE	A3	"	9'0 3/4	(T)	5	81.5
54	A4	"	8'0 3/8	(T)	5	72.2
6	A5	WT 4 x 9	7'10 1/2	(T)	5	70.8
9	A4x	WT 4 x 9	8'0 3/8	(T)	5	72.2
3	B4x	WT 4 x 9	8'5	(T)	5	89.5
ONE	B1	WT 4 x 9	9'8 3/8	(T)	5	119.2
ONE	B2	"	9'7 1/4	(T)	5	118.5
ONE	B3	"	9'6 1/4	(T)	5	117.8
54	B4	"	8'5	(T)	5	89.5
6	B5	WT 4 x 9	8'3 1/4	(T)	5	101.9
1	ma	BAR 5/8 x 1 1/2	1'3 3/8	B1	5	16
1	mb	BAR 5/8 x 1 1/2	1'3 3/8	B2	5	16
1	mc	BAR 5/8 x 1 1/2	1'3 3/8	B3	5	16
57	md	BAR 5/8 x 1 1/2	1'1 1/2	B4, B4x	5	17
6	mf	BAR 5/8 x 1 1/2	1'1 1/2	B5	5	17
3	C4x	WT 5 x 11	6'4	(T)	5	90.7
ONE	C1	WT 5 x 11	7'7 3/8	(T)	5	104.8
ONE	C2	"	7'6 3/8	(T)	5	103.9
ONE	C3	"	7'5 3/8	(T)	5	103
54	C4	"	6'4	(T)	5	90.7
6	C5	WT 5 x 11	6'2	(T)	5	88.9
1	mg	BAR 8 x 3	1'0	C1	5	18
1	mh	BAR 8 x 3	1'0	C1	5	18
2	mk	BAR 8 x 3	1'0	C2 + C3	5	36
1	mm	BAR 8 x 3	1'0	C2	5	18
1	mn	BAR 8 x 3	1'0	C3	5	18
57	mp	BAR 8 x 3	1'0	C4, C4x	5	18
54	ms	BAR 8 x 3	1'0	C4	5	18
6	mt	BAR 8 x 3	1'0	C5	5	18
6	mw	BAR 8 x 3	1'0	C5	5	18
3	msx	BAR 8 x 3	1'0	C4x	5	18

111-160

NO.	REVISION	DATE
1	ADDED A4x, B4x, C4x PER FAB. ERROR	9-23-96
<p>170 Hempstead Road Lancaster, PA 17605-0008 Phone 717-291-5211</p> <p>HIGH STEEL STRUCTURES, INC. A Division of High Industries, Inc.</p>		
<p>CROSSFRAMES RTE 196 RAMP B OVER US RTE 1 RTE 196 STA 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION</p>		
<p>STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665-30</p>		
<p>CONTRACTOR REED & REED, INC. IN CHARGE Lanco (WC) MADE BY DF</p>		
<p>CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 2 OF 30</p>		

SHOP NOTE
HOLES: 15" Ø
BOLTS: NONE
PAINT: NONE
FOR GENERAL NOTES SEE DWG N1

ENGLISH



STATE OF MISSOURI
 PROJECT NO. 0001(806)

BILL OF MATERIAL

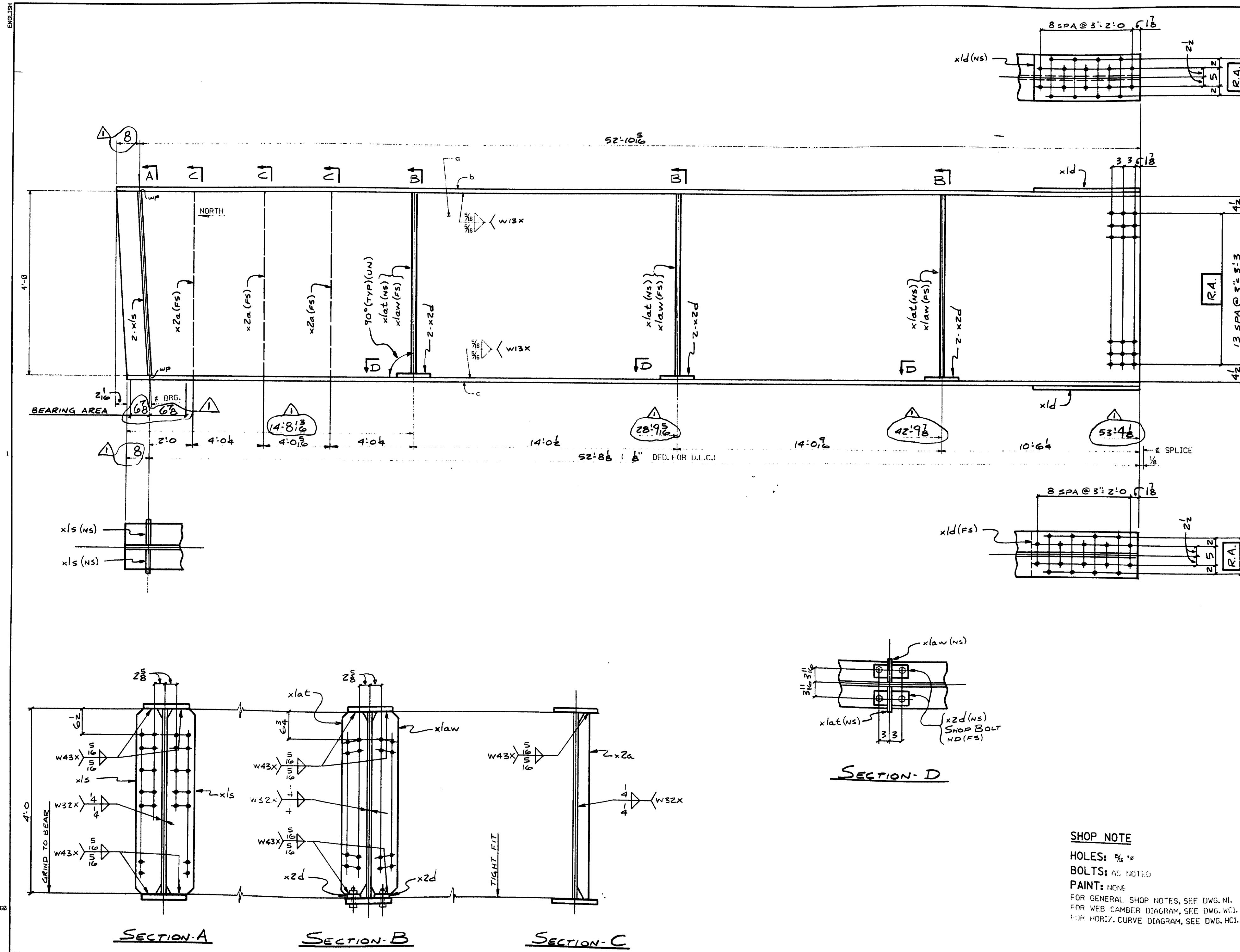
NO.	DESCRIPTION	LENGTH	UNIT	WEIGHT
1	GIA			7.572
1	48#	52.44	1	8
2	12#	52.44	2	24
2	12#	52.2	2	24
2	xld R-12#	2 3/8	4	13
1	xls BAR-7#	4 0	(T)	5.4
1	xlam BAR-7#	4 0	(T)	5.4
2	xlat BAR-7#	3 10 3/4	(T)	5.5
1	xlay BAR-7#	3 10 3/4	(T)	5.5
3	x2a BAR-5#	4 0	(T)	5.7
4	x2d BAR-4#	0 9	(T)	5.6
1	x2f WT 6x13	0 8		5.8
4	5/8" H.S. BOLTS	0 12 3/4	WT. WEB	82.5
4	WASHERS FOR 5/8" BOLTS			82.6
8	5/8" H.S. BOLT	0 2 3/4	FLG	82.9
8	WASHERS FOR 5/8" BOLT			82.11

111-161

1	CHG. OVERHANG (DESIGN CHG.)	6-21-96
		DATE
HIGH STEEL STRUCTURES, INC.		
SHOP NOTE HOLES: 1/4" BOLTS: PAINT:		
ME-96500-1	RF	DATE: 5-2-96
	3	OF 30

MAR 1 01997

ENGLISH




FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
ONE	G2A	GIRDER				7.132
1	a	8-48x8	53' 6 3/8"	(T)		17
1	b	8-12x8	53' 6 3/8"	(T)		22
1	c	8-12x8	53' 4 1/8"	(T)		23
2	x1d	2-12x4	2' 3 3/8"	(T)		13
2	x1s	BAR-7x8	4' 0"	(T)		4
3	x1at	BAR-7x8	3' 11 3/8"	(T)		5
3	x1aw	BAR-7x8	3' 11 3/8"	(T)		5
3	x2a	BAR-5x8	4' 0"	(T)		7
6	x2d	BAR-4x8	0' 9"	(T)		6
12	1/2"	H.S. BOLT	0' 2 1/2"			829
12		WASHERS FOR 1/2" BOLT				831

111-162

NO.	REVISION	DATE
1	CHG. OVERHANG (DESIGN CHG.)	6-21-90

HIGH STEEL STRUCTURES, INC. 
 1710 Hempstead Road
 Lancaster, PA 17602-0008
 Phone 717/299-5201
 A Division of High Industries, Inc.

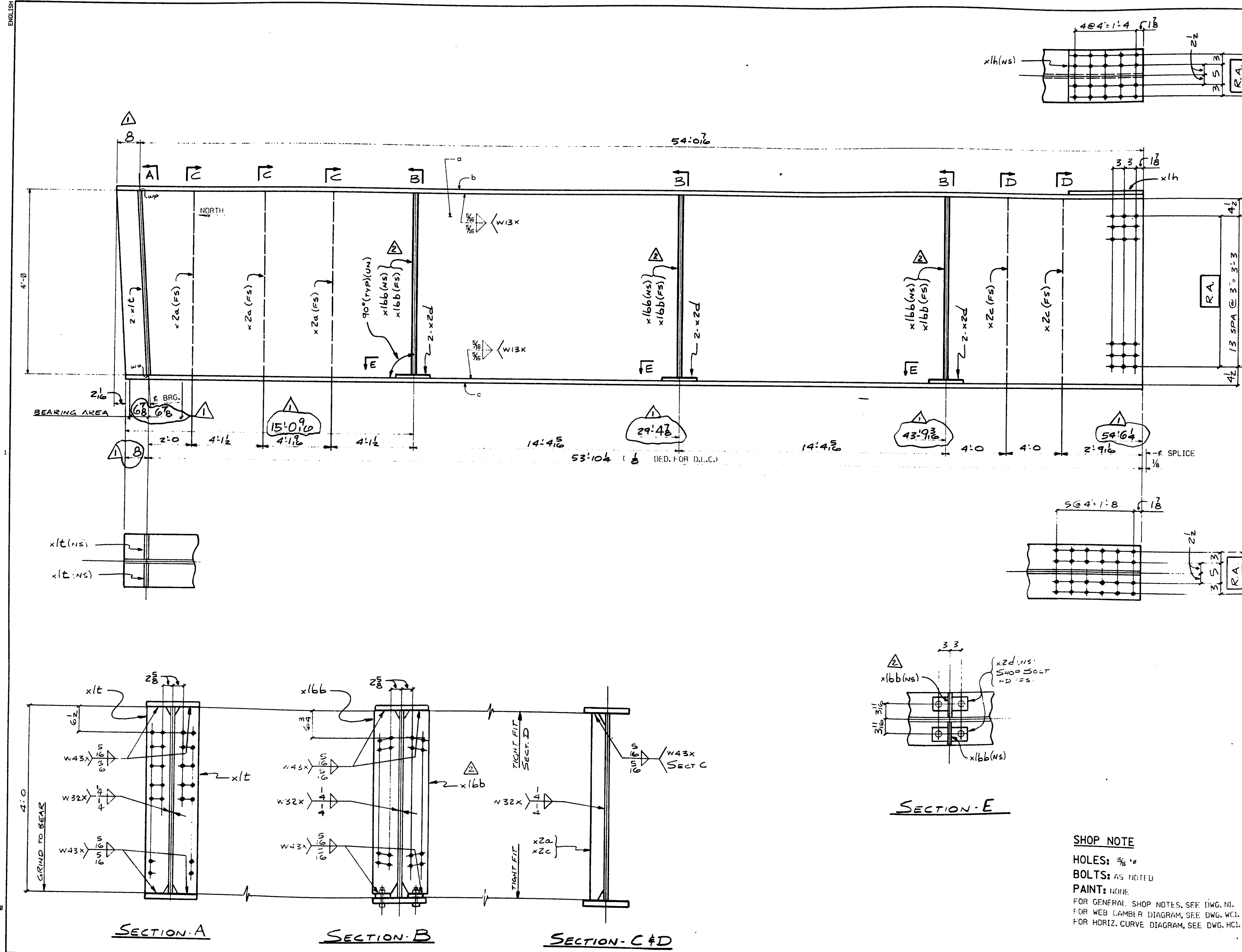
GIRDER ~ G2A
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT NO. DE-0091(806) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE LANC (WC) MADE BY SJR CHK'D BY RF DATE: 5-2-96
 CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 4 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

MAR 1 01997

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
ONE	G3A	GIRDER				9208
1		48 x 8	54 8/16	(T)		1
1		14 x 8	54 8/16	(T)		2
1		14 x 18	54 6/16	(T)		2
1	x1h	14 x 4	7 3/8	(T)		2
2	x1c	BAR-7 x 3/4	40	(T)		5
6	x1bb	BAR-7 x 8	3 11/8	(T)		5
6	x2d	BAR-4 x 1/2	0 9	(T)		5
3	x2a	BAR-5 x 3/4	40	(T)		5
2	x2c	BAR-5 x 3/4	40	(T)		5
12		3/4" HS BOLT	0 3	B.R. FLG.	B2	10
		12 WASHERS FOR 3/4" P.C.T.S.			B2	11

111-163

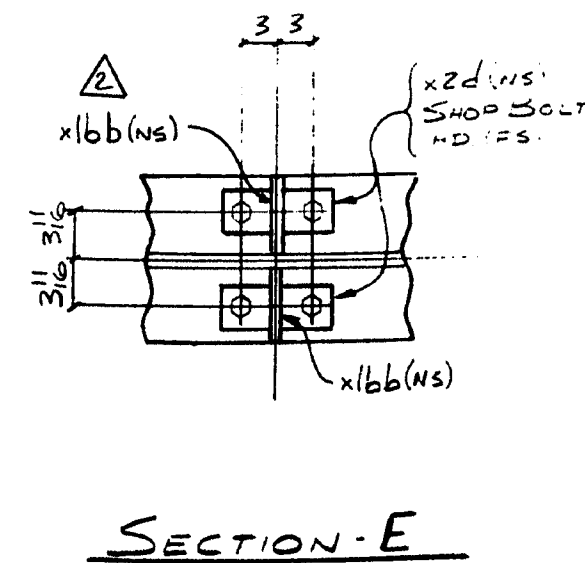
NO.	REVISION	DATE
2	CHANGED x1bc TO x1bb: FAB ERROR	9-23-96
1	CHG. OVERHANG (DESIGN CHG.)	6-21-96

HIGH STEEL STRUCTURES, INC.
 1716 Industrial Road
 Lancaster, PA 17605-0008
 Phone 717/299-9225
 A Division of High Industries, Inc.

GIRDER - G3A
 RTE. 196 RAMP B OVER I.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

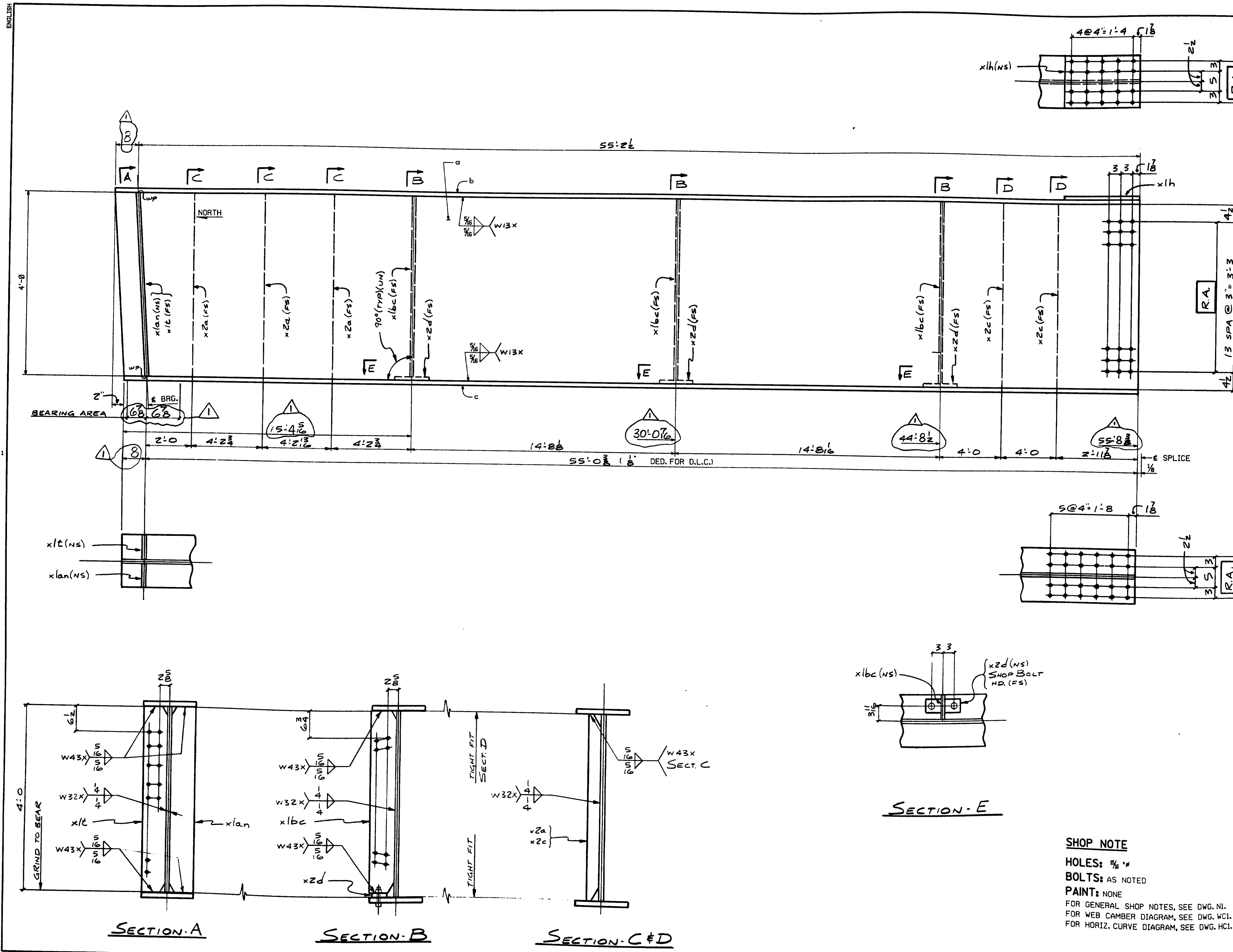
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.38
 CONTRACTOR REED & REED, INC.
 IN CHARGE L. LANCOS (W.C.) MADE BY S.J.R. DATE 5-2-96
 DRAWING NUMBER ME-96500-1 DRAWING NUMBER 5 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO.
 FOR WEB LAMBER DIAGRAM, SEE DWG. W.C.1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H.C.1.



SECTION-E

ENGLISH



FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	WGT. LB.
ONE	G4A	GIRDER				9,196
1	a	2-48x8	55'10 1/2	(T)	1	2
1	b	2-14x8	55'10 1/2	(T)	2	15
1	c	2-14x16	55'8 3/8	(T)	2	6
1	x1h	2-14x4	1'7 3/8	(T)	4	12
1	x1c	BAR-7x8	4'0	(T)	5	4
1	x1an	BAR-7x8	4'0	(T)	5	4
3	x1bc	BAR-7x8	3'11 3/8	(T)	5	5
3	x2d	BAR-4x8	0'9	(T)	5	6
3	x2a	BAR-5x8	4'0	(T)	5	7
2	x2c	BAR-5x8	4'0	(T)	5	7
6	7/8"	H.S. BOLT	0'3	3/8" FLG.	BZ	10
6		WASHERS FOR 7/8" BOLTS			BZ	11

111-164

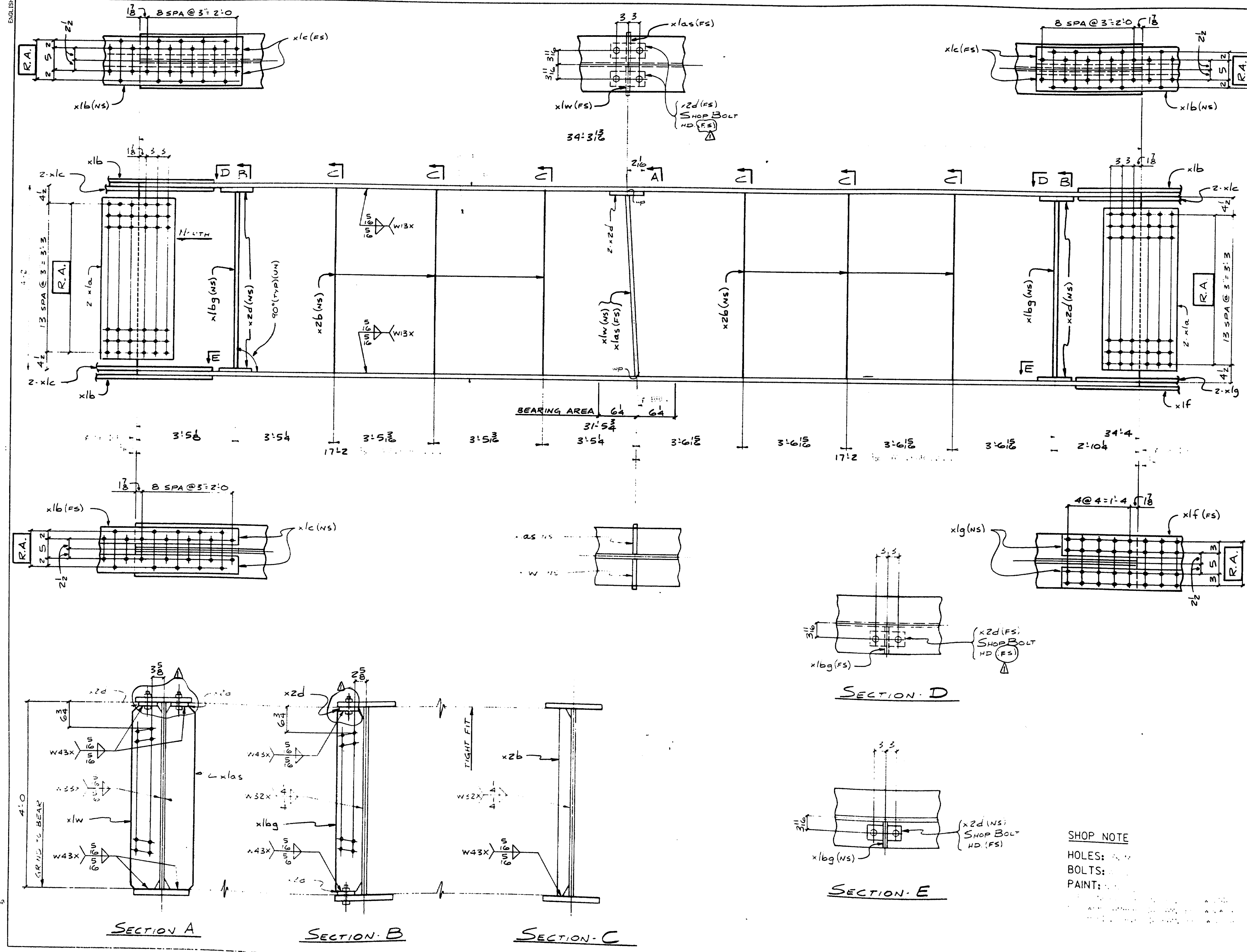
68

△		
△		
△	CHG. OVERHANG (DESIGN CHG.)	6-21-96
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G4A RTE. 196 OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT DE-0091(806) PIN 1665.38		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCO (WC)	MADE BY: SJR	CHK'D BY: RF
DATE: 5-2-96		
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: 6	OF 30

SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. W1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

CODE:30

MAR 1 0 1997



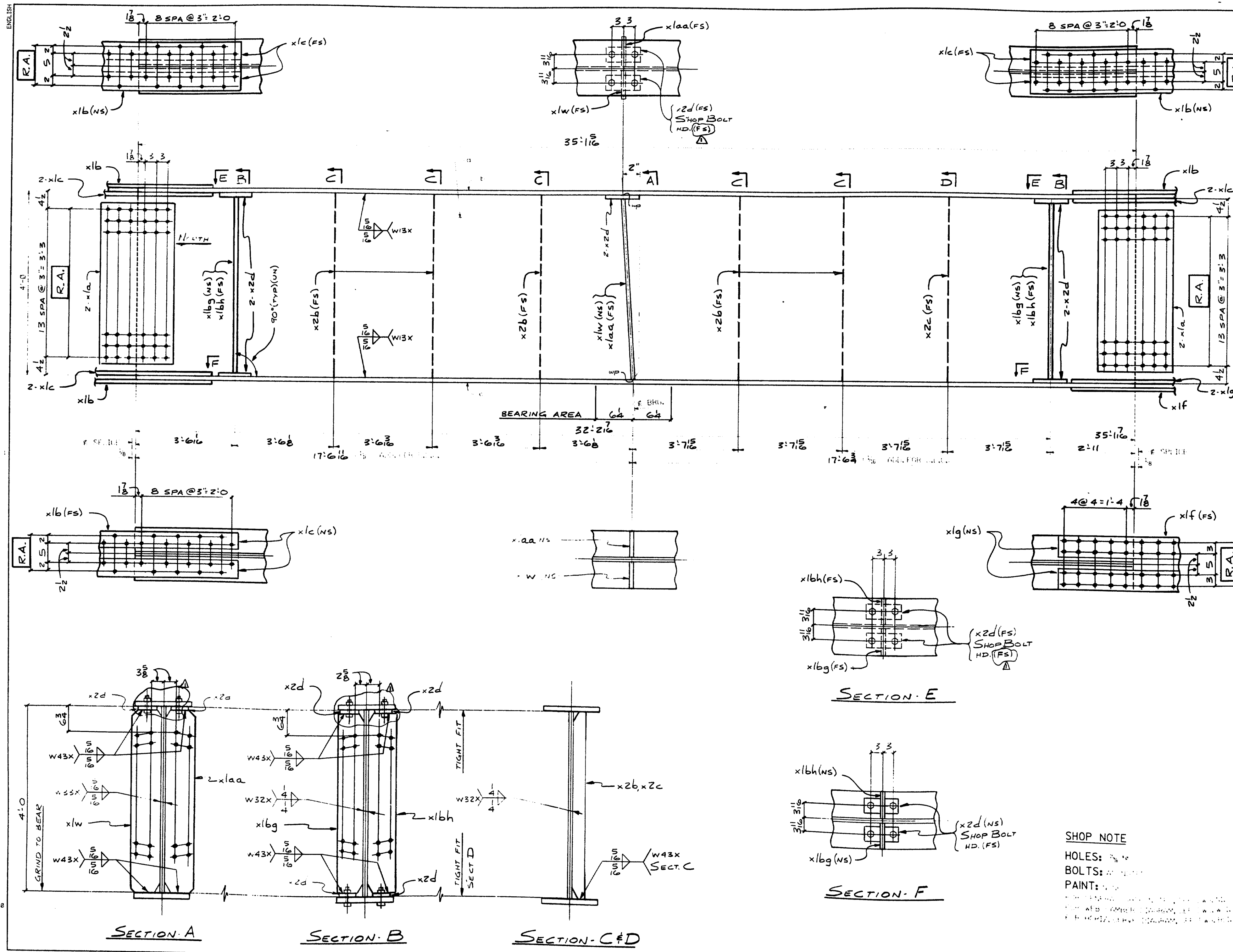
BILL OF MATERIAL			REMARKS	ITEM	SHEET NO.	TOTAL SHEETS
NO.	MARK	DESCRIPTION	LENGTH		EA.	
1	GIB	GRID IR				1,557
1		1/4" x 1/2"	34.4		1	
2		1/4" x 1/2"	34.3 1/2		2	
3		1/4" x 1/2"	34.4		2	
4		x1a R-13 x 1/2	4.7	(T)	4	
5		x1b R-12 x 1/2	4.7	(T)	4	
6		x1c BAR-5 x 1/8	4.7	(T)	4	
7		x1f R-14 x 1/2	3.3	(T)	4	
8		x1g BAR-6 x 1/8	3.3	(T)	4	
9		x1w BAR-8 x 1/4	3.11 1/2	(T)	1	
10		x1as BAR-8 x 1/4	3.11 1/2	(T)	1	
11		x1bg BAR-7 x 3/8	3.10 3/4	(T)	2	
12		x2d BAR-4 x 1/8	0.9	(T)	6	
13		x2b BAR-5 x 1/8	4.0	(T)	6	

12 3/8" H.S. BOLT	0	3	1/8" R, FLG	82	10	
12 WASHERS FOR 3/8" BOLT				82	11	

NO.	DESCRIPTION	DATE
1	APPL. CHG.	8-5-96

HIGH STEEL STRUCTURES, INC.
 A DIVISION OF HIGH INDUSTRIES, INC.
 111-165
 CONTRACT NO. ME-96500-1
 DATE: 8-5-96
 SHEET NO. 7 OF 30
 DATE: MAR 1 01997

SHOP NOTE
 HOLES:
 BOLTS:
 PAINT:



FED. ROAD DIV. NO. 1 STATE ME. FED. AID PROJ. NO. DE-0091(806)

BILL OF MATERIAL

NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT (LBS.)
ONE	G2B	GIRDER				1831
a		2 48 x 3/8	35'-1 1/2"	(T)		14
b		2 14 x 1 1/2	35'-1 1/2"	(T)		11
c		2 14 x 1 1/2	35'-1 1/2"	(T)		11
4	x1a	2-48 x 3/8	1'-7"	(T)		4
3	x1b	2-12 x 1/2	4'-7"	(T)		10
6	x1c	2-BAR 5 x 3/8	4'-7"	(T)		10
1	x1f	2-14 x 1/2	3'-3"	(T)		6
2	x1g	2-BAR 6 x 3/8	3'-3"	(T)		6
1	x1w	2-BAR 8 x 1/4	3'-11 1/2"	(T)		10
1	x1aa	2-BAR 8 x 1/4	3'-11 1/2"	(T)		10
2	x1bg	2-BAR 7 x 3/8	3'-0 3/4"	(T)		10
2	x1bh	2-BAR 7 x 3/8	3'-0 3/4"	(T)		10
10	x2d	2-BAR 4 x 3/8	0'-9"	(T)		6
5	x2b	2-BAR 5 x 3/8	4'-0"	(T)		7
1	x2c	2-BAR 5 x 3/8	4'-0"	(T)		7
20		20 3/8" H.S. BOLT	0'-3'-8"	R, FLG		82
20		20 WASHERS FOR 3/8" BOLT				82

111-166

APPL. CHG. 8-5-90 DATE

DATE CONTRACT 08/09/89

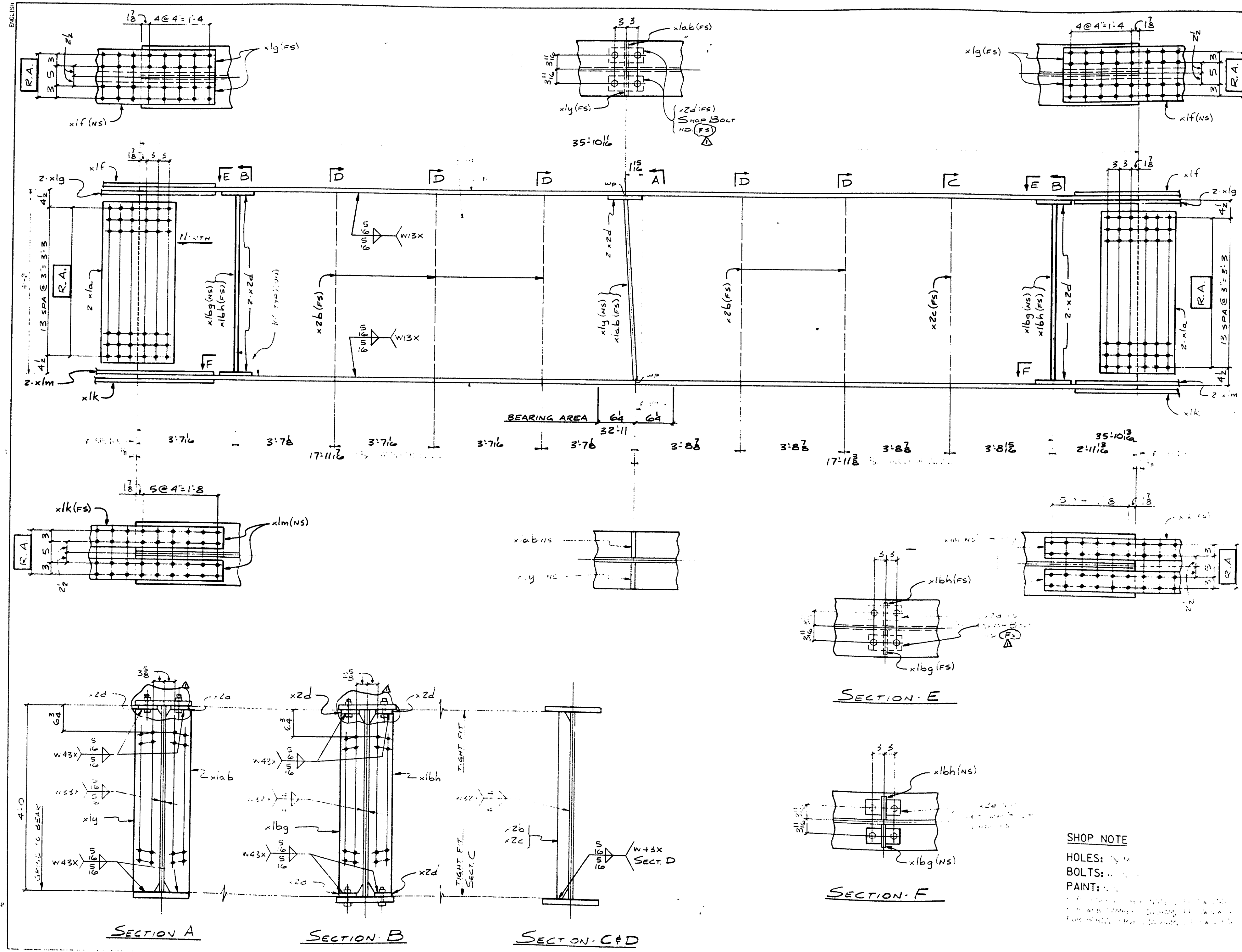
CONTRACTOR NEEDS & REED, INC.

MADE BY SJR DATE 5-29-90

INTRACT NUMBER ME-96500-1

8 OF 30

MAR 1 0 1997



FED. PROJ. STATE PROJ. NO. ME 96500-1 (806)

8591

BILL OF MATERIAL

NO.	MARK	DESCRIPTION	LENGTH	REMARKS	REQ.	WEIGHT
1		48 x 3/8	35 10 3/8		1	13
2		16 x 1/8	35 10 1/8		2	5
3		16 x 1/8	35 10 3/8		2	5
4	xla	2# 43 x 2	17	(T)	4	11
5	xlf	2# 4 1/2	3	(T)	4	7
6	xlb	BAR 6 x 6	3	(T)	4	7
7	xlc	2# 4 x 6	3	(T)	4	7
8	xld	BAR 6 x 6	3	(T)	4	7
9	xlg	BAR 8 x 16	3	(T)	5	10
10	xlab	BAR 8 x 14	3	(T)	5	10
11	xlb	BAR 7 x 8	3	(T)	5	10
12	xlbh	BAR 7 x 8	3	(T)	5	10
13	xld	BAR 4 x 8	0	(T)	6	6
14	x2b	BAR 5 x 8	4	(T)	7	15
15	x2c	BAR 5 x 8	4	(T)	7	15
16		20 #5 4.5 BOLT	0.3	8 1/2 FT	10	10
17		20 WASHERS FOR #5 BOLTS			11	11

111-167

APPL. CHG. 8-5-96

HIGH STEEL STRUCTURES, INC.

SHOP NOTE

HOLES: ...

BOLTS: ...

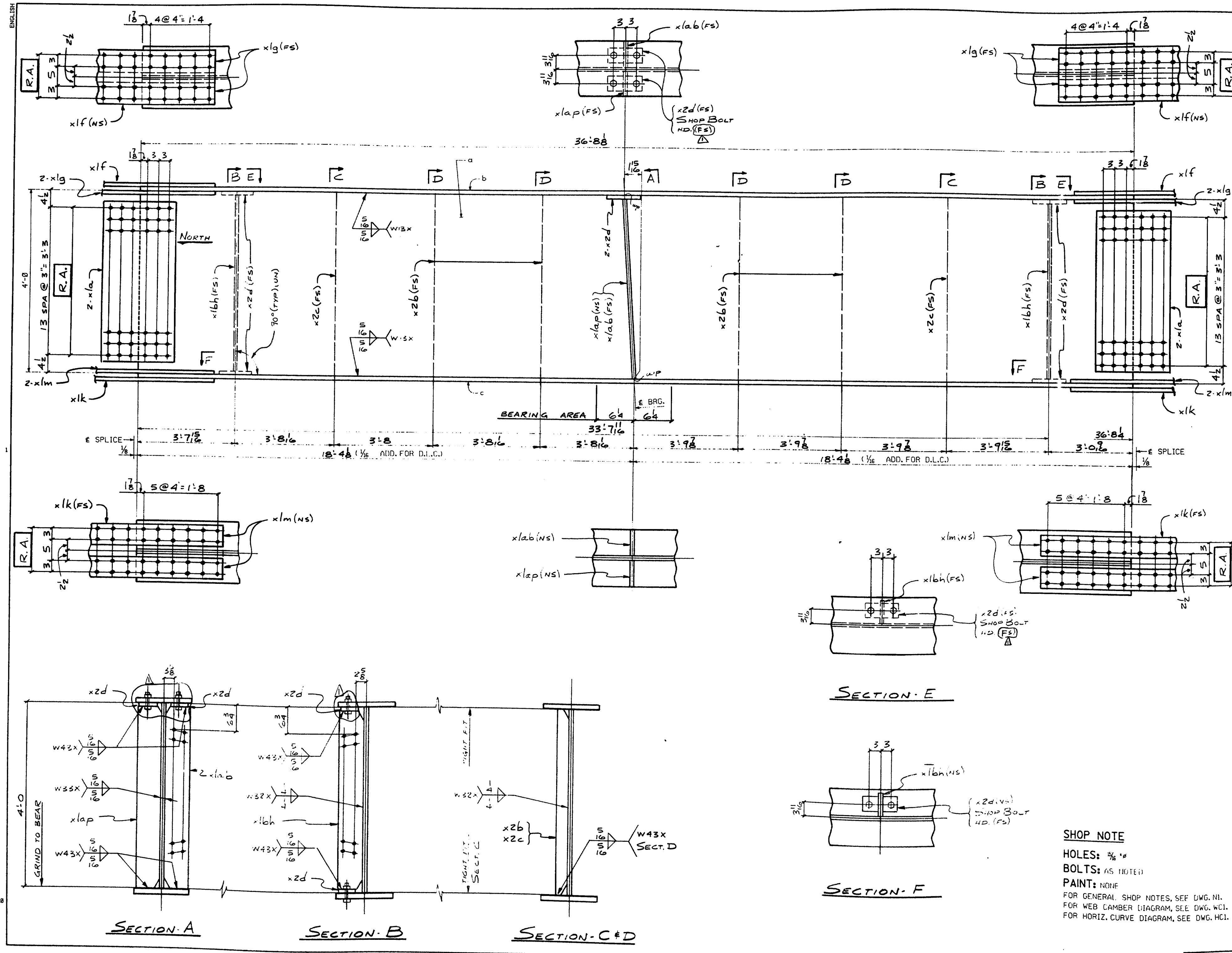
PAINT: ...

DATE: 5-2-96

ME-96500-1

RF 9 OF 30

MAR 10 1997



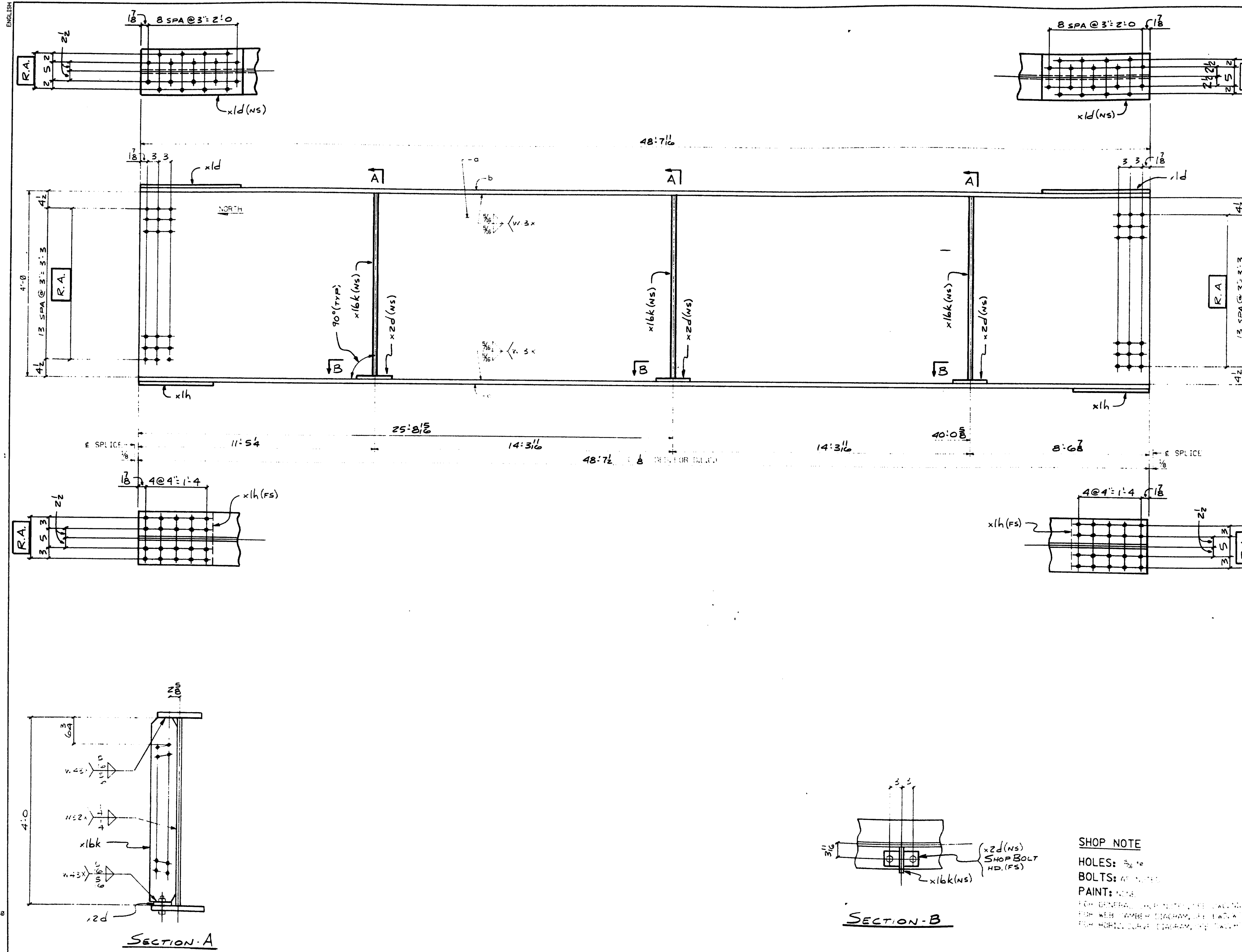
FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(006)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHP. WEIGHT
ONE	44B	GIRDER				8,552
1	a	R 48 x 3/8	36 8 1/2	(T)		1 1/2
1	b	R 16 x 1 1/8	36 8 1/2	(T)		2 4
1	c	R 16 x 1 1/8	36 8 1/2	(T)		2 4
4	xla	R 48 x 3/8	1 7	(T)		4 11
2	xlk	R 14 x 1/2	3 3	(T)		4 9
4	xlg	BAR 6 x 5/8	3 3	(T)		4 5
2	xlk	R 14 x 1/2	3 11	(T)		4 8
4	xlm	BAR 6 x 3/4	3 11	(T)		4 4
1	xlab	BAR 8 x 1 1/4	3 11 1/2	(T)		5 3
1	xlap	BAR 8 x 1 1/4	3 11 1/2	(T)		5 3
2	xlbh	BAR 7 x 1 1/8	3 10 3/4	(T)		5 5
6	xzd	BAR 4 x 1 1/8	0 9	(T)		5 6
4	xz6	BAR 5 x 1 1/8	4 0	(T)		5 7
2	xzc	BAR 5 x 1 1/8	4 0	(T)		5 7
12	3/8"	H.S. BOLT	0 13	WTR. F.L.G.		82 10
12		WASHERS FOR 3/8" BOLTS				83 11

111-168

NO.	REVISION	DATE
1	App'l. Eng.	8-5-90
HIGH STEEL STRUCTURES, INC.		
GIRDER - 44B		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	MADE BY
IN CHARGE	LANCO (WC)	DATE
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		10 OF 30

SHOP NOTE
 HOLES: 5/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

MAR 1 01997



FEDERAL STATE ROAD DEPT. ME DE-003(806)

BILL OF MATERIAL

NO.	QTY	DESCRIPTION	LENGTH	REMARKS	ITEM	WEIGHT
		ONE GIRDER				7,024
1	0	2 48 x 3/8	48.716		10	
		2 12 x 8	48.716		3	4
		2 14 x 8	48.716		2	20
2	1d	R-12 x 4	2 3/8		4	13
2	x1h	R-14 x 4	1 7/8		4	12
3	x16k	BAR 7 x 8	3 11/8		5	5
3	x2d	BAR 4 x 8	0 19		5	6
6	8"	5 BOLTS	0 2 1/2"	FOR FLG	52	9
6	WASHERS	FOR 5" BOLTS			52	11

111-169

SHOP NOTE
 HOLES: 3/16"
 BOLTS: 5/8"
 PAINT: NONE
 FOR GENERAL INFORMATION, SEE DRAWING FOR WEBS MEMBER CONNECTIONS AND FOR HORIZONTAL CONNECTIONS.

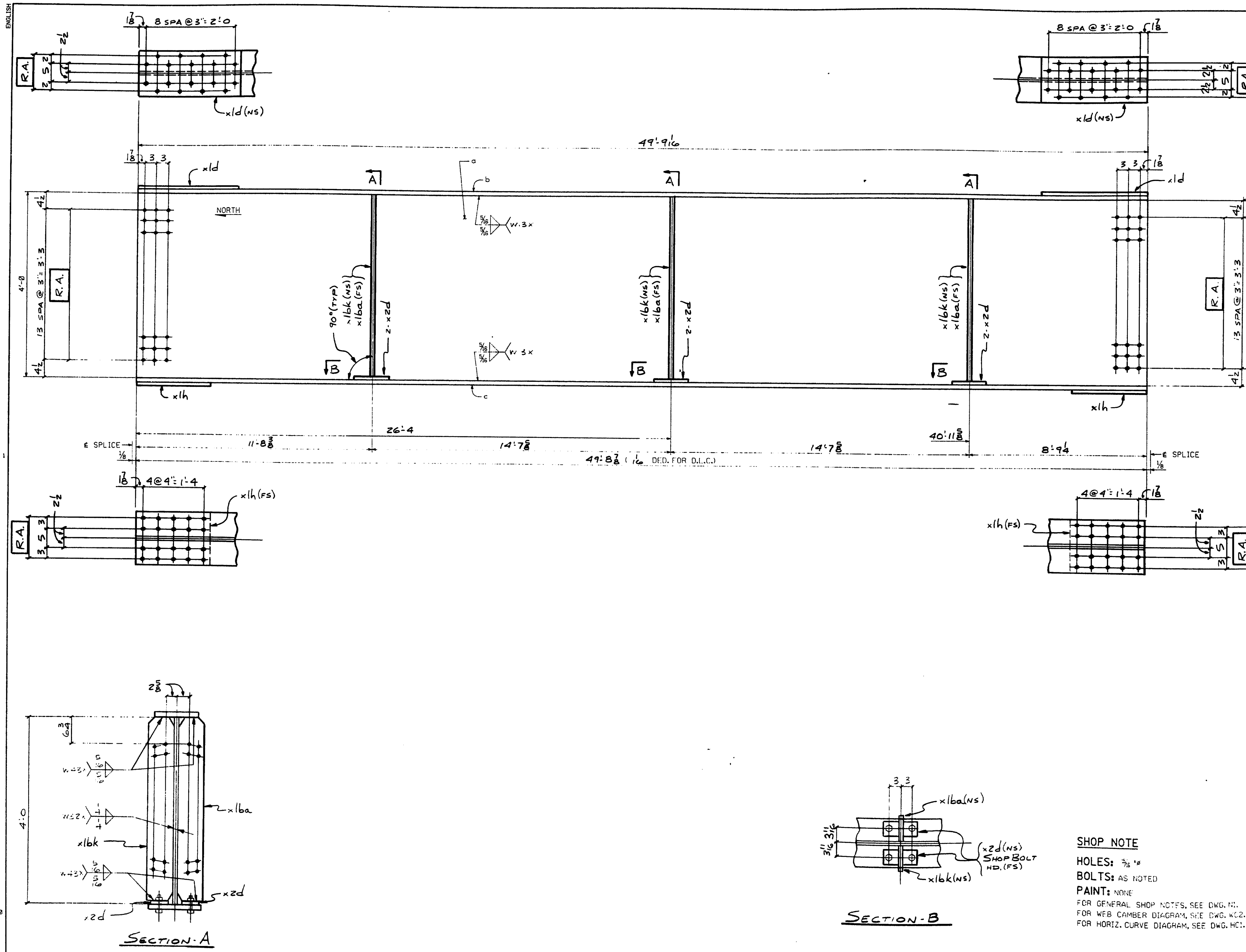
REVISIONS: _____ DATE: _____

HIGH STEEL STRUCTURES, INC.
 1400 North 15th Street
 Lancaster, PA 17603-0008
 Phone: 717-299-5200

PROJECT: GIRDER - G1C
 SITE: ME 003 (806) (P. 1)
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT NO. DE-003(806) PIN 1665.02
 CONTRACTOR: REED & REED, INC.
 IN CHARGE: LANCEO (WC) MADE BY: SJR DATE: 5-2-96
 CONTRACT NUMBER: ME-96500-1 DRAWING NUMBER: 11 OF 30

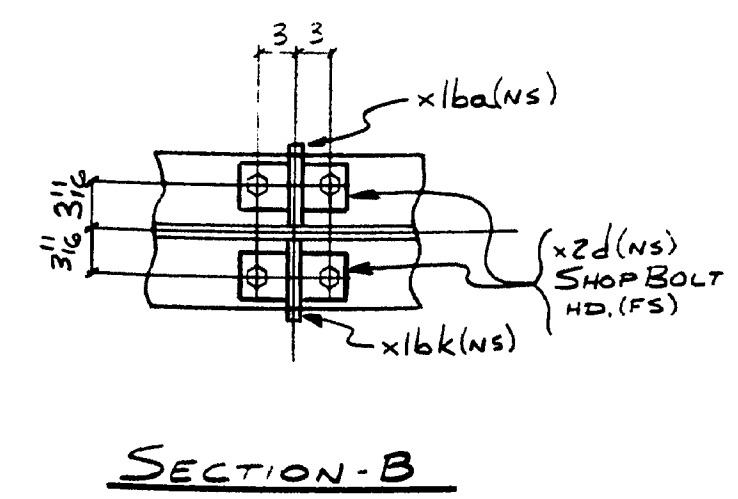
MAR 1 0 1997



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHED. WEIGHT E.A.
ONE	G2C	GIRDER				1.374
1	a	E 48 x 3/8	49' 9 1/8	(T)		1.9
1	b	E 12 x 8	49' 9 1/8	(T)		3.3
1	c	E 14 x 8	49' 9 1/8	(T)		2.19
2	x1d	R-12 x 4	2' 3 3/8			4.13
2	x1h	R-14 x 4	1' 7 3/8			4.12
3	x1bk	BAR 7 x 5/8	3' 11 3/8	(T)		5.5
3	x1ba	BAR 7 x 5/8	3' 11 3/8	(T)		5.5
6	x2d	BAR 4 x 5/8	0' 9	(T)		5.6
12	3/8"	1.5 BOLT	0' 2 3/8	8 P. FLG		52.9
12		WASHERS FOR BOLT				82.11

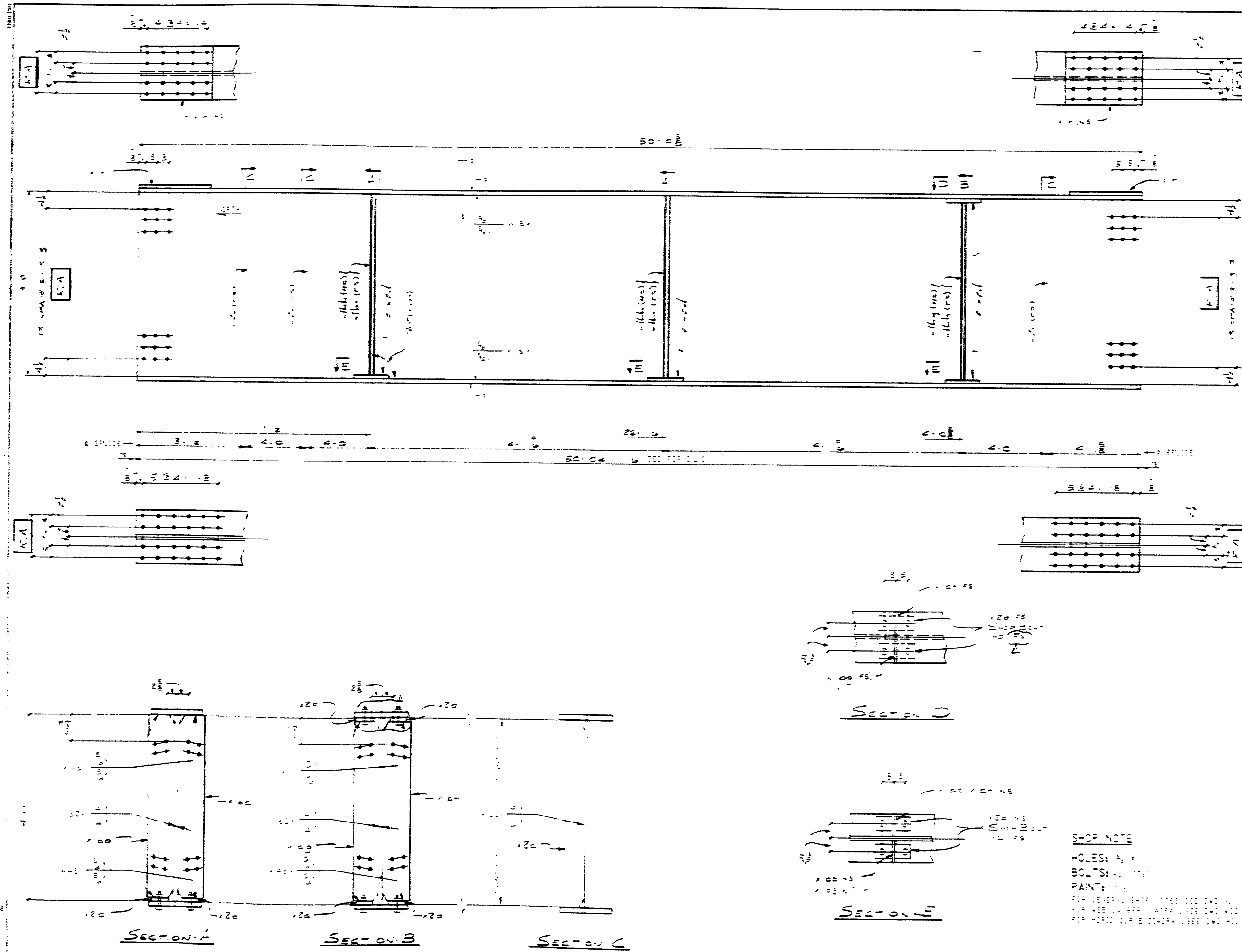
111-170



SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. <small>1710 Harbord Road Lancaster, PA 17602-0008 Phone 717/299-0201</small> A Division of High Industries		
GIRDER - G2C RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30		
CONTRACTOR REED & REED, INC.		
IN CHARGE: LANCO (WC)	MADE BY: SJR	CHKD. BY: RF
		DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: 12 OF 30	

MAR 1 0 1997

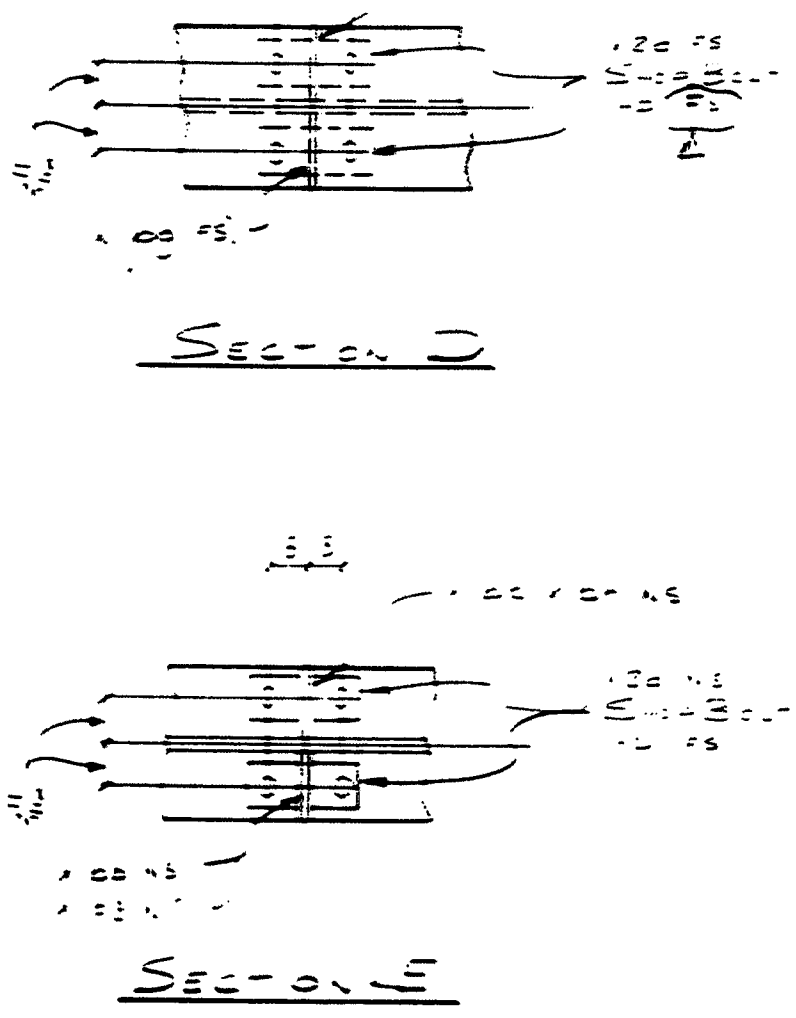


FED. AID PROJ. NO. CE-0091(806)

BILL OF MATERIALS

NO.	QTY	DESCRIPTION	UNIT	REMARKS	ITEM	EST. WEIGHT
1	1	STEEL BEAM	SC 10			8479
2	2	COL	SC 10			4
3	2	COL	SC 10			218
4	2	COL	SC 10			29
5	2	COL	SC 10			4
6	2	COL	SC 10			12
7	2	COL	SC 10			5
8	2	COL	SC 10			5
9	2	COL	SC 10			5
10	2	COL	SC 10			5
11	2	COL	SC 10			5
12	2	COL	SC 10			5
13	2	COL	SC 10			5
14	2	COL	SC 10			5
15	2	COL	SC 10			5
16	2	COL	SC 10			5
17	2	COL	SC 10			5
18	2	COL	SC 10			5
19	2	COL	SC 10			5
20	2	COL	SC 10			5
21	2	COL	SC 10			5
22	2	COL	SC 10			5
23	2	COL	SC 10			5
24	2	COL	SC 10			5
25	2	COL	SC 10			5
26	2	COL	SC 10			5
27	2	COL	SC 10			5
28	2	COL	SC 10			5
29	2	COL	SC 10			5
30	2	COL	SC 10			5
31	2	COL	SC 10			5
32	2	COL	SC 10			5
33	2	COL	SC 10			5
34	2	COL	SC 10			5
35	2	COL	SC 10			5
36	2	COL	SC 10			5
37	2	COL	SC 10			5
38	2	COL	SC 10			5
39	2	COL	SC 10			5
40	2	COL	SC 10			5
41	2	COL	SC 10			5
42	2	COL	SC 10			5
43	2	COL	SC 10			5
44	2	COL	SC 10			5
45	2	COL	SC 10			5
46	2	COL	SC 10			5
47	2	COL	SC 10			5
48	2	COL	SC 10			5
49	2	COL	SC 10			5
50	2	COL	SC 10			5
51	2	COL	SC 10			5
52	2	COL	SC 10			5
53	2	COL	SC 10			5
54	2	COL	SC 10			5
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71	2	COL	SC 10			5
72	2	COL	SC 10			5
73	2	COL	SC 10			5
74	2	COL	SC 10			5
75	2	COL	SC 10			5
76	2	COL	SC 10			5
77	2	COL	SC 10			5
78	2	COL	SC 10			5
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91	2	COL	SC 10			5
92	2	COL	SC 10			5
93	2	COL	SC 10			5
94	2	COL	SC 10			5
95	2	COL	SC 10			5
96	2	COL	SC 10			5
97	2	COL	SC 10			5
98	2	COL	SC 10			5
99	2	COL	SC 10			5
100	2	COL	SC 10			5

111-171



SHOP NOTE
 HOLES: 1/4"
 BOLTS: 1/2"
 PAINT: 1/2"
 FOR DETAILS, SEE SPEC AND DRAWINGS.
 FOR WELDING, SEE WELDING SPEC AND DRAWINGS.

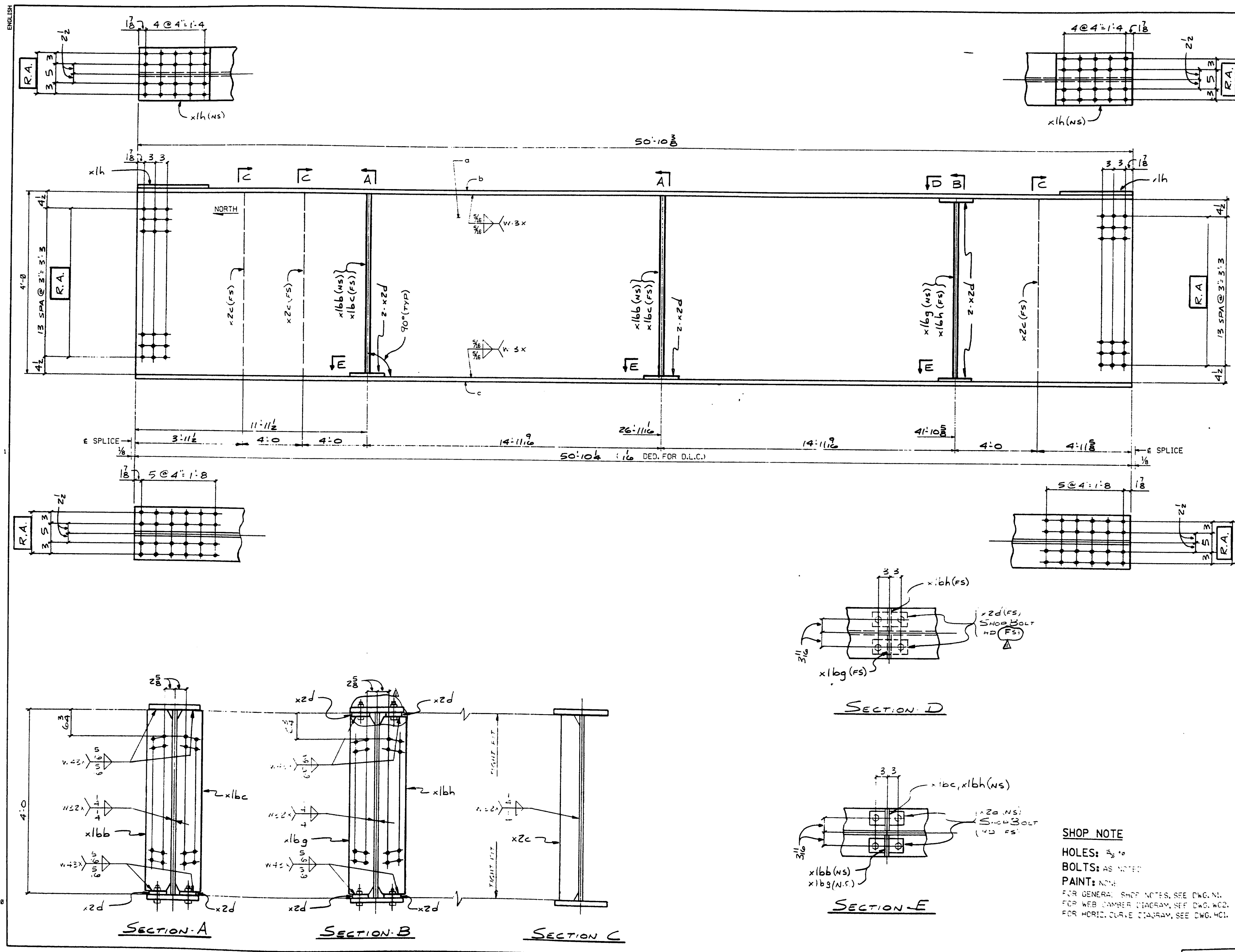
DATE: 8-5-90

CONTRACT NO. 111-171

RF DATE: 5-2-96

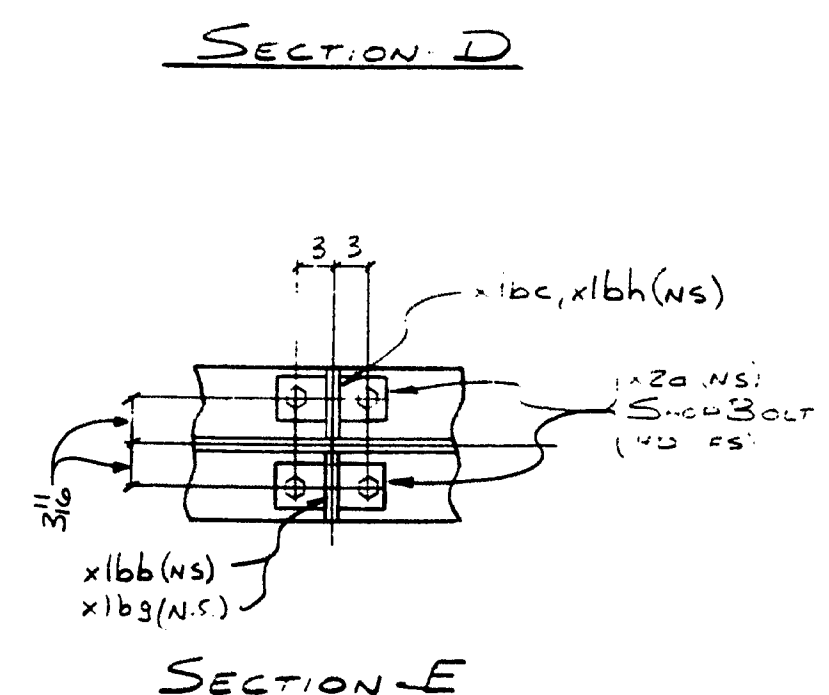
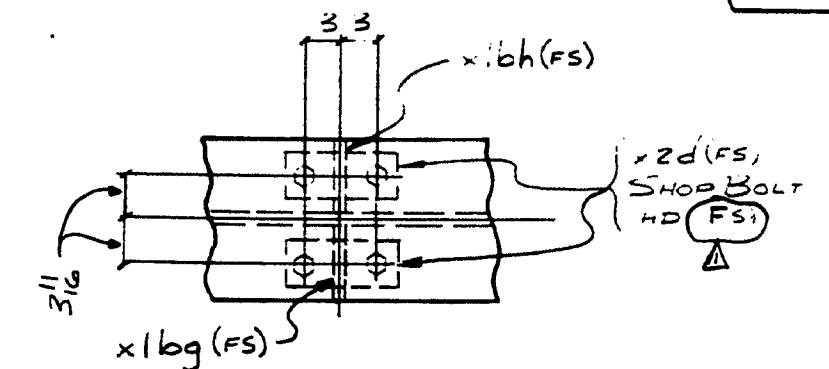
13 OF 30

MAR 1 0197



FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHP. WEIGHT LB.
ONE	G3C	GIRDER				8,479
1	a	48 x 3/8	50 10 3/8	(T)		1 9
1	b	14 x 3/8	50 10 3/8	(T)		2 18
1	c	14 x 1/2	50 10 3/8	(T)		2 9
2	x1h	14 x 4	1 7 3/8			4 12
2	x1bb	BAR-7 x 3/8	3 11 3/8	(T)		5 5
2	x1bc	BAR-7 x 3/8	3 11 3/8	(T)		5 5
1	x1bg	BAR-7 x 3/8	3 10 3/8	(T)		5 5
1	x1bh	BAR-7 x 3/8	3 10 3/8	(T)		5 5
8	x2d	BAR-4 x 3/8	0 9	(T)		5 6
3	x2c	BAR-5 x 3/8	4 0	(T)		3 7
4	3/8"	H.S. BOLT	0 2 3/4	5" x 3/8" FLG.		8 9
12	3/8"	H.S. BOLT	0 3	3/8" x 1/2" FLG.		8 10
16		WASHERS FOR 3/8" BOLTS				8 11

111-171



SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB DIMER DIAGRAM, SEE DWG. W2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

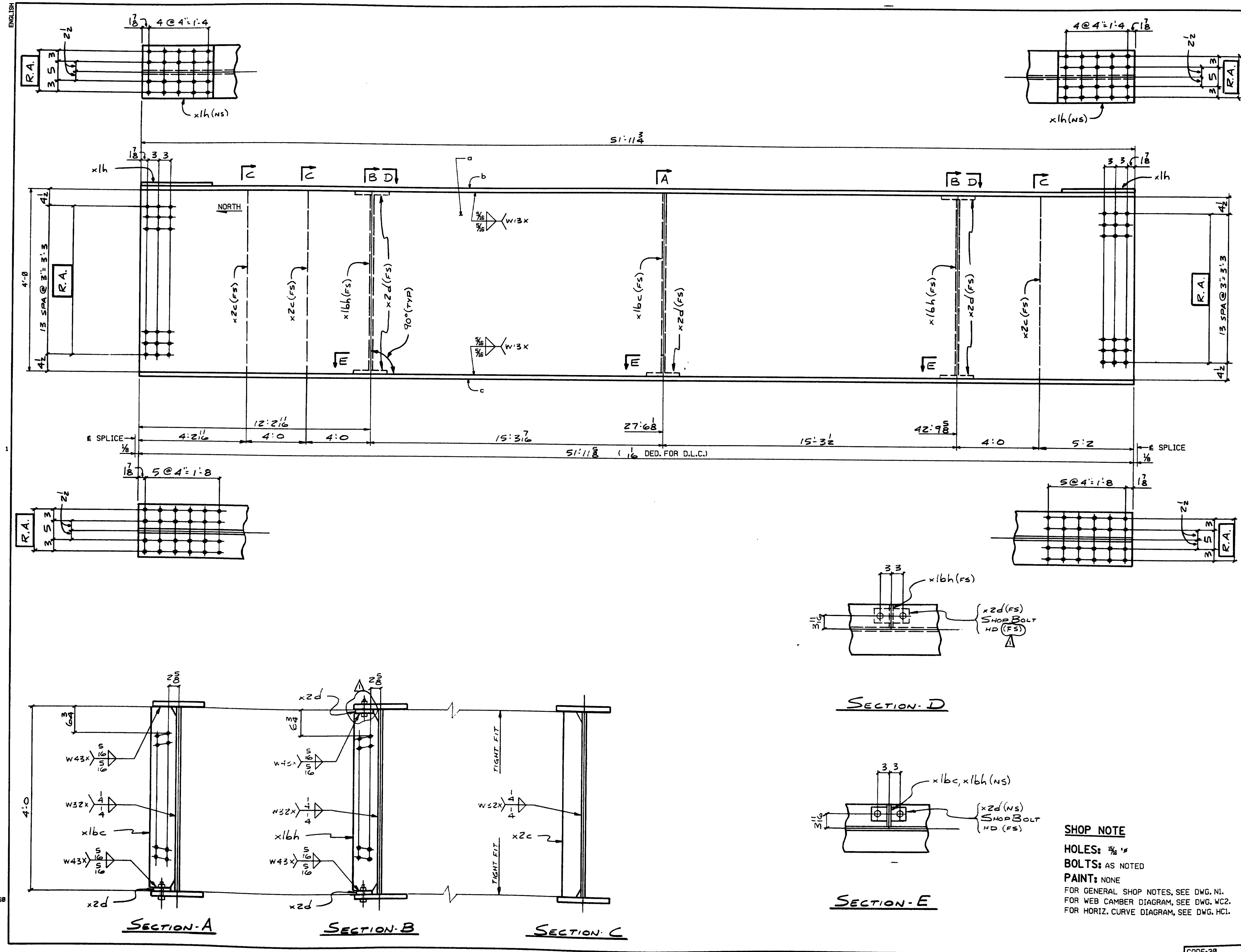
NO.	REVISION	DATE
1	APPL. CHG.	8-5-90

HIGH STEEL STRUCTURES, INC.
 170 HANPATKOS ROAD
 LEBANON, PA. 17033-0008
 PHONE 717/299-5200
 A Division of High Industries, Inc.

GIRDER - G3C
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT NO. DE-0091(806) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE LANCOS (WC) MADE BY SJR CHK'D. BY RF DATE 5-2-96
 CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 13 OF 30

MAR 1 0 1997



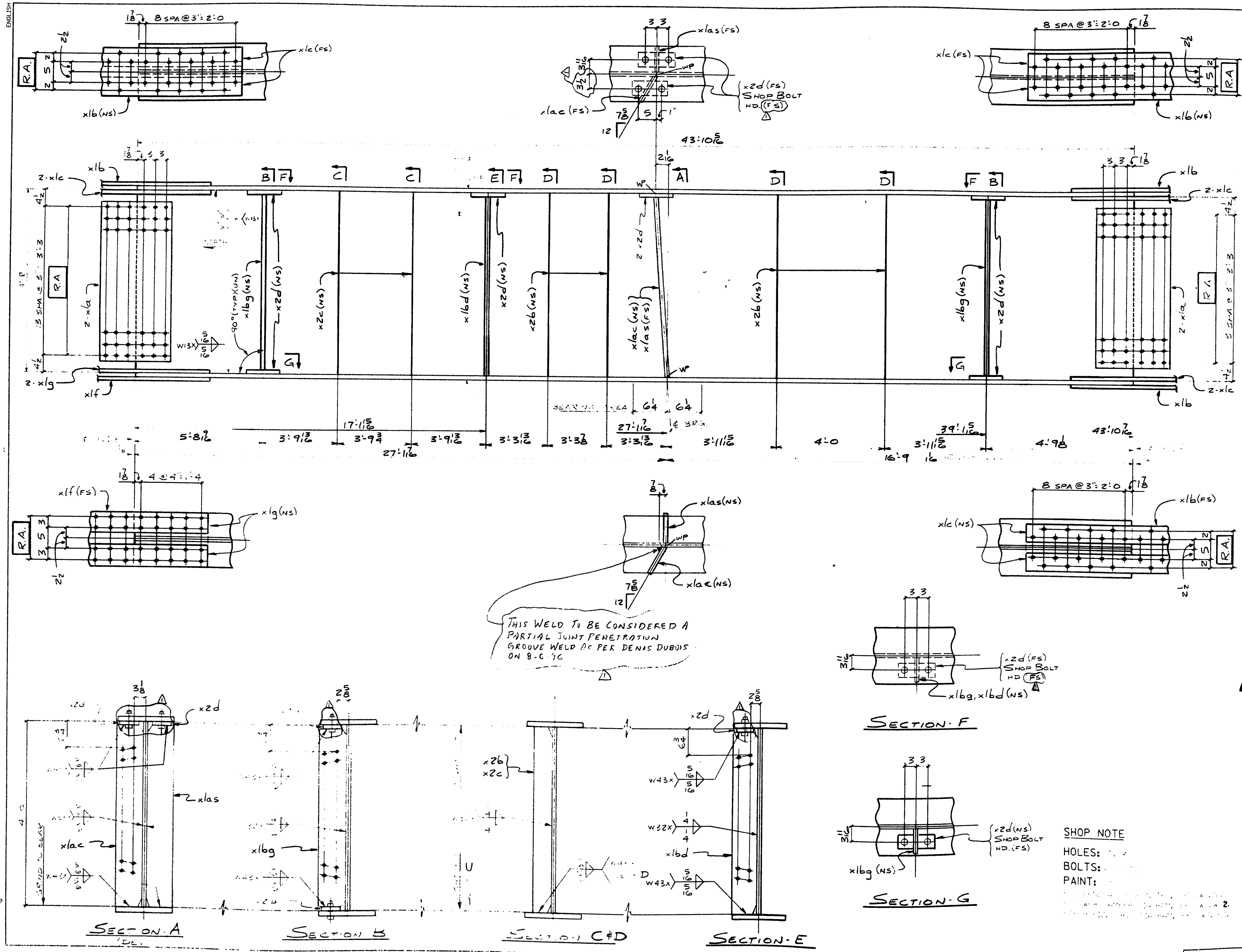
FED. ROAD DIV. NO.		STATE		FED. AID PROJ. NO.		
1		ME		DE-0091(806)		
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHP. WEIGHT
ONE	G4C	GIRDER				8.457
1	a	R 48 x 3/8	51' 11 3/4" (T)		1	8
1	b	R 14 x 3/8	51' 11 3/4" (T)		2	17
1	c	R 14 x 1 1/2	51' 11 3/4" (T)		2	8
2	x1h	R. 14 x 4	1' 7 3/8"		4	12
1	x16c	BAR 7 x 3/8	3' 11 3/8" (T)		5	5
2	x16h	BAR 7 x 3/8	3' 10 3/8" (T)		5	5
5	x2d	BAR 4 x 3/8	0' 9" (T)		5	6
3	x2c	BAR 5 x 3/8	4' 0" (T)		5	7
4	7/8"	H.S. BOLT	0' 2 3/4"	8" R. 8" FLG.	82	7
6	7/8"	H.S. BOLT	0' 3"	8" R. 1 1/2" FLG.	82	10
10		WASHERS FOR 7/8" BOLTS			82	11

111-172

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCL.

APPL. CHG.	8-5-90	
NO.	REVISION	DATE
1710 Massachusetts Road Lebanon, PA 17036-0008 Phone 717/299-5211 HIGH STEEL STRUCTURES, INC. A Division of High Industries, Inc.		
GIRDER - G4C RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.38		
CONTRACTOR REED & REED, INC.		
IN CHARGE LANCO (WC)	MADE BY SJR	CHK'D BY RF DATE: 5-2-90
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: 14 OF 30	

ENGLISH



THIS WELD TO BE CONSIDERED A PARTIAL JOINT PENETRATION GROOVE WELD AC PER DENIS DUBOIS ON 8-G 3C

111-173

REC. ROAD NO. STATE REC. DATE PROJECT NO. DE-009(1806)

NO.	QTY.	DESCRIPTION	LENGTH	REMARKS	UNIT	WEIGHT
GIRDER						
1	43'-10 1/2"					11.1
2	43'-10 1/2"					10.2
3	43'-10 1/2"					10.2
4	7	x1a R-43x1/2			(r)	4.1
5	7	x1b R-12x1/2			(r)	4.0
6	7	x1c BAR-5x8			(r)	4.6
7	3	x1d R-14x1/2			(r)	4.9
8	3	x1e BAR-6x8			(r)	4.5
9	3	x1f BAR-8x14			(r)	5.3
10	3	x1g BAR-8x14			(r)	5.3
11	3	x1h BAR-7x8			(r)	5.5
12	3	x1i BAR-7x8			(r)	5.5
13	4	x1j BAR-5x8			(r)	5.7
14	4	x1k BAR-5x8			(r)	5.7
15	0.9	x1l BAR-4x8			(r)	5.6

14 #5 BOLT 3 8" R. FLG
14 #5 WASHERS FOR #5 BOLT

APPL. CNG DATE 8.5.96

HIGH STEEL STRUCTURES, INC.

STATE OF MASSACHUSETTS REGISTRATION

CONTRACT NO. ME-96500-1

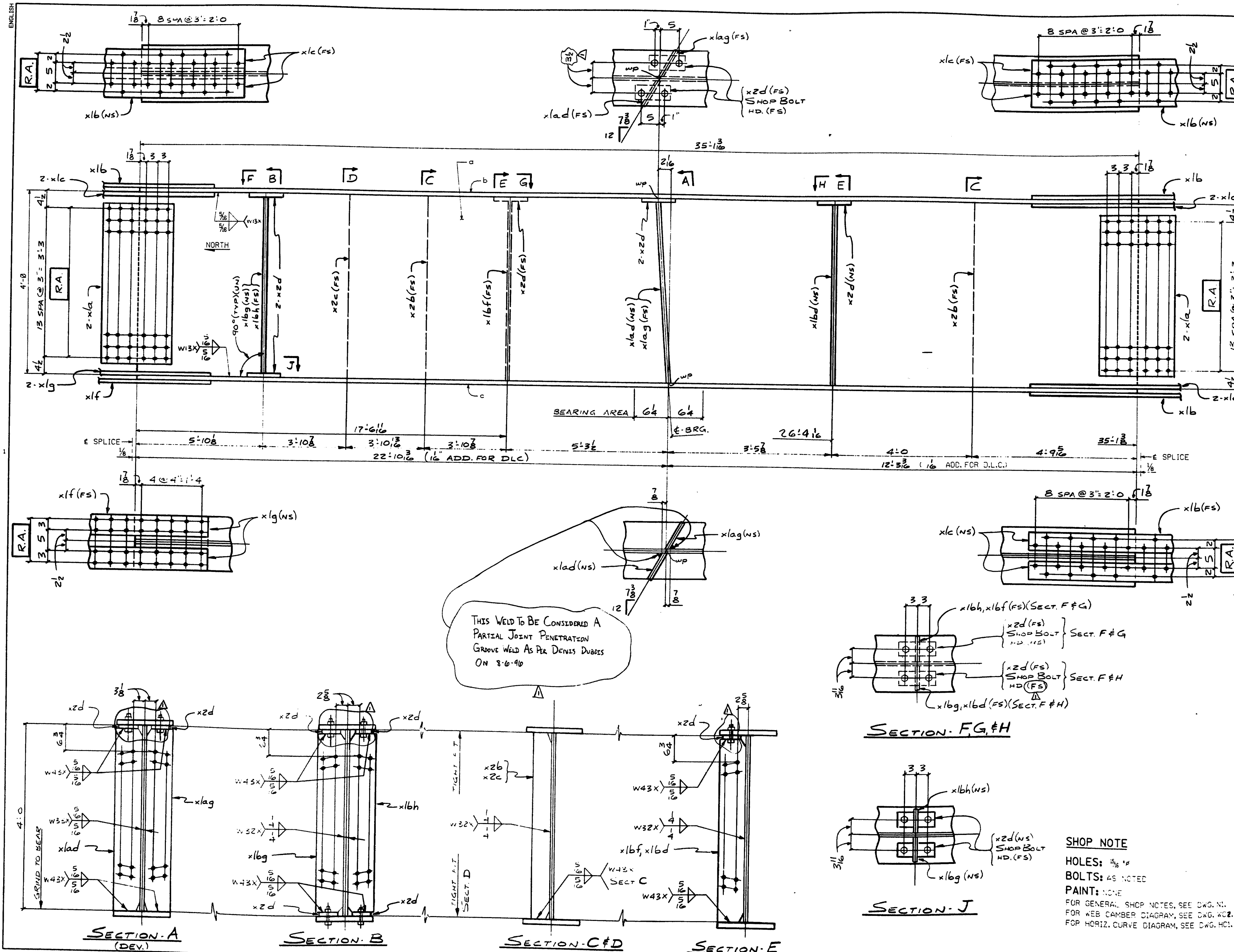
DATE: 5.2.96

15 OF 30

MAR 1 0 1997

SHOP NOTE
HOLES: 1 1/2" DIA
BOLTS: 3/4" DIA
PAINT: AS SUPPLIED

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

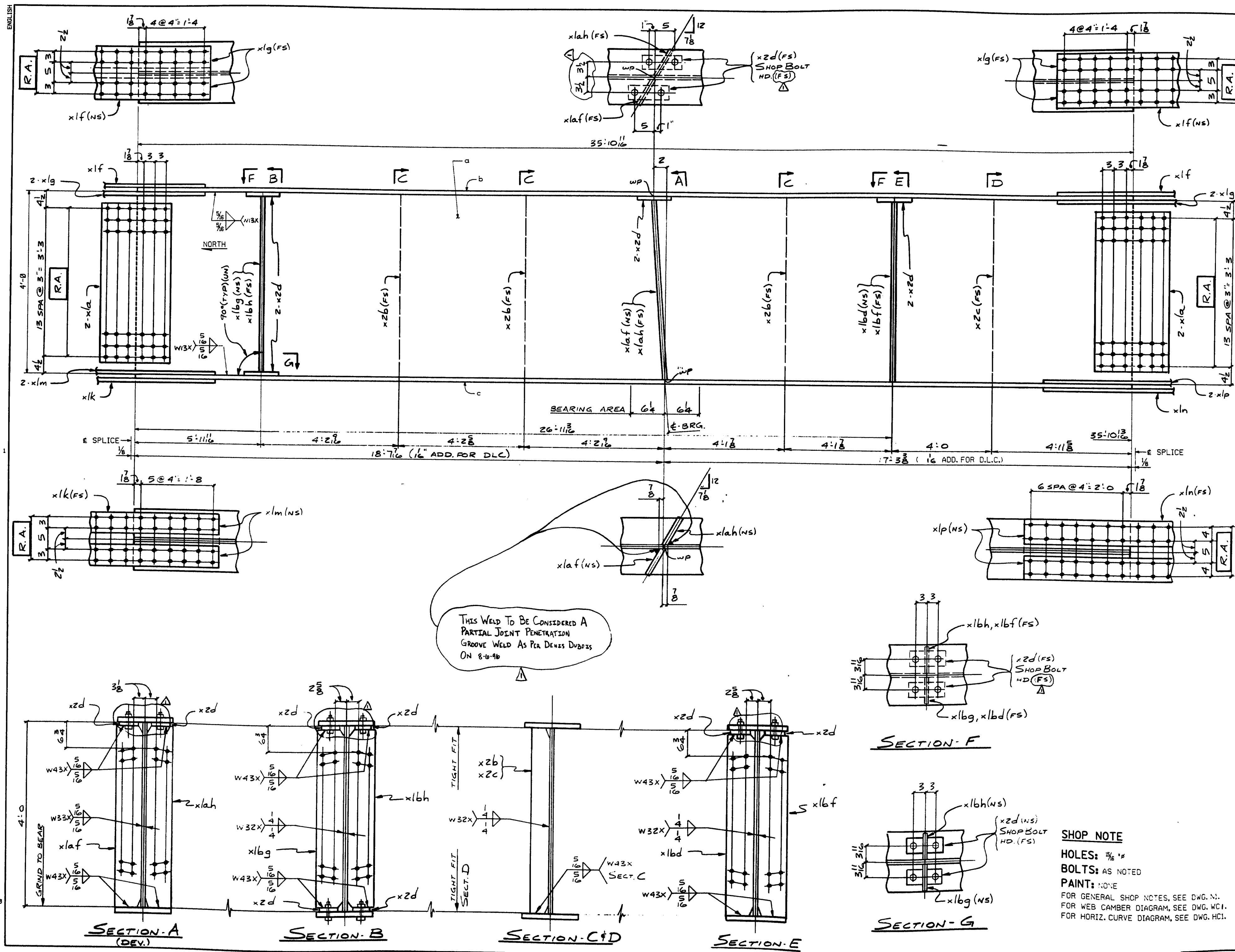
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT
ONE	G2D	GIRDER				1,742
1	a	2 48 x 3/8	35 11/16	(T)	1	14
1	b	2 14 x 1 1/2	35 11/16	(T)	2	11
1	c	2 14 x 1 1/2	35 11/16	(T)	2	11
4	x1a	R. 43 x 1/2	17	(T)	4	11
3	x1b	R. 12 x 1/2	47	(T)	4	10
6	x1c	BAR. 5 x 3/8	47	(T)	4	6
1	x1f	R. 14 x 1/2	33	(T)	4	9
2	x1g	BAR. 6 x 3/8	33	(T)	4	5
1	x1d	BAR. 8 x 1/4	3 11/8	(T)	5	3
1	x1e	BAR. 8 x 1/4	3 11/8	(T)	5	3
1	x1b	BAR. 7 x 3/8	3 11/8	(T)	5	5
1	x1b	↑	3 11/8	(T)	5	5
1	x1b	BAR. 7 x 3/8	3 10 3/8	(T)	5	5
2	x2b	BAR. 5 x 3/8	40	(T)	5	7
1	x2c	BAR. 5 x 3/8	40	(T)	5	7
8	x2d	BAR. 4 x 5/8	09	(T)	5	6
16	3/8"	H.S. BOLT	03	8" FLG	82	10
16		WASHERS FOR 3/8" BOLT			82	11

111-174

CONTRACTOR	REED & REED, INC.	DATE	5-2-96
IN CHARGE	LANCO (WC)	BY	SJR
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER	16 OF 30

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

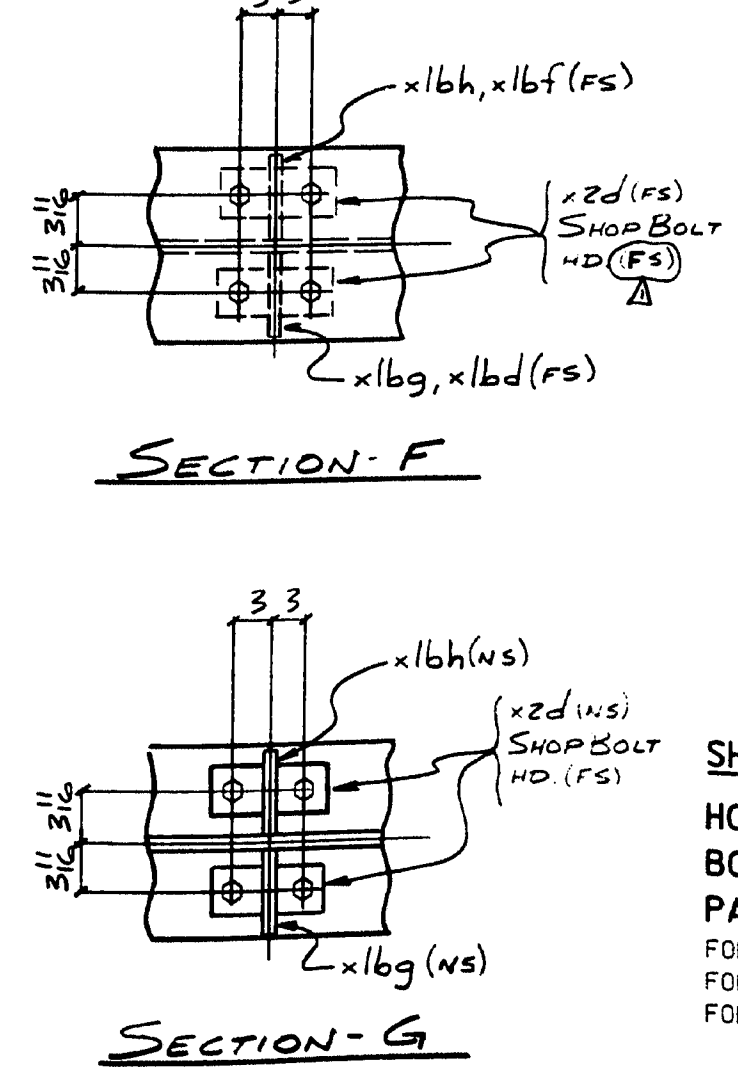
MAR 1 0 1997



FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP. WEIGHT LB.
ONE	G3D	GIRDER				8,566
1	a	R 48 x 3/8	35 10 3/8	(T)	1	13
1	b	R 16 x 1 1/2	35 10 3/8	(T)	2	5
1	c	R 16 x 1 1/2	35 10 3/8	(T)	2	5
4	xla	R 43 x 1/2	1 7	(T)	4	11
2	xlf	R 14 x 1/2	3 3	(T)	4	4
4	xlg	BAR 6 x 3/8	3 3	(T)	4	5
1	xlk	R 14 x 1/2	3 11	(T)	4	8
2	xlm	BAR 6 x 3/8	3 11	(T)	4	4
1	xln	R 16 x 1/2	4 7	(T)	4	7
2	xlp	BAR 7 x 3/8	4 7	(T)	4	3
1	xlaf	BAR 8 x 1/4	3 11 3/8	(T)	5	3
1	xlah	BAR 8 x 1/4	3 11 3/8	(T)	5	3
1	xlbd	BAR 7 x 3/8	3 11 3/8	(T)	5	3
1	xlbf		3 11 3/8	(T)	5	3
1	xlbg		3 10 3/8	(T)	5	3
1	xlbh	BAR 7 x 3/8	3 10 3/8	(T)	5	3
3	x2b	BAR 5 x 3/8	4 0	(T)	5	7
1	x2c	BAR 5 x 3/8	4 0	(T)	5	7
8	x2d	BAR 4 x 3/8	0 9	(T)	5	6
16	7/8"	H.S. BOLT	0 3	8" R. FLG.	82	10
16		WASHERS FOR 7/8" BOLT			82	11

111-175



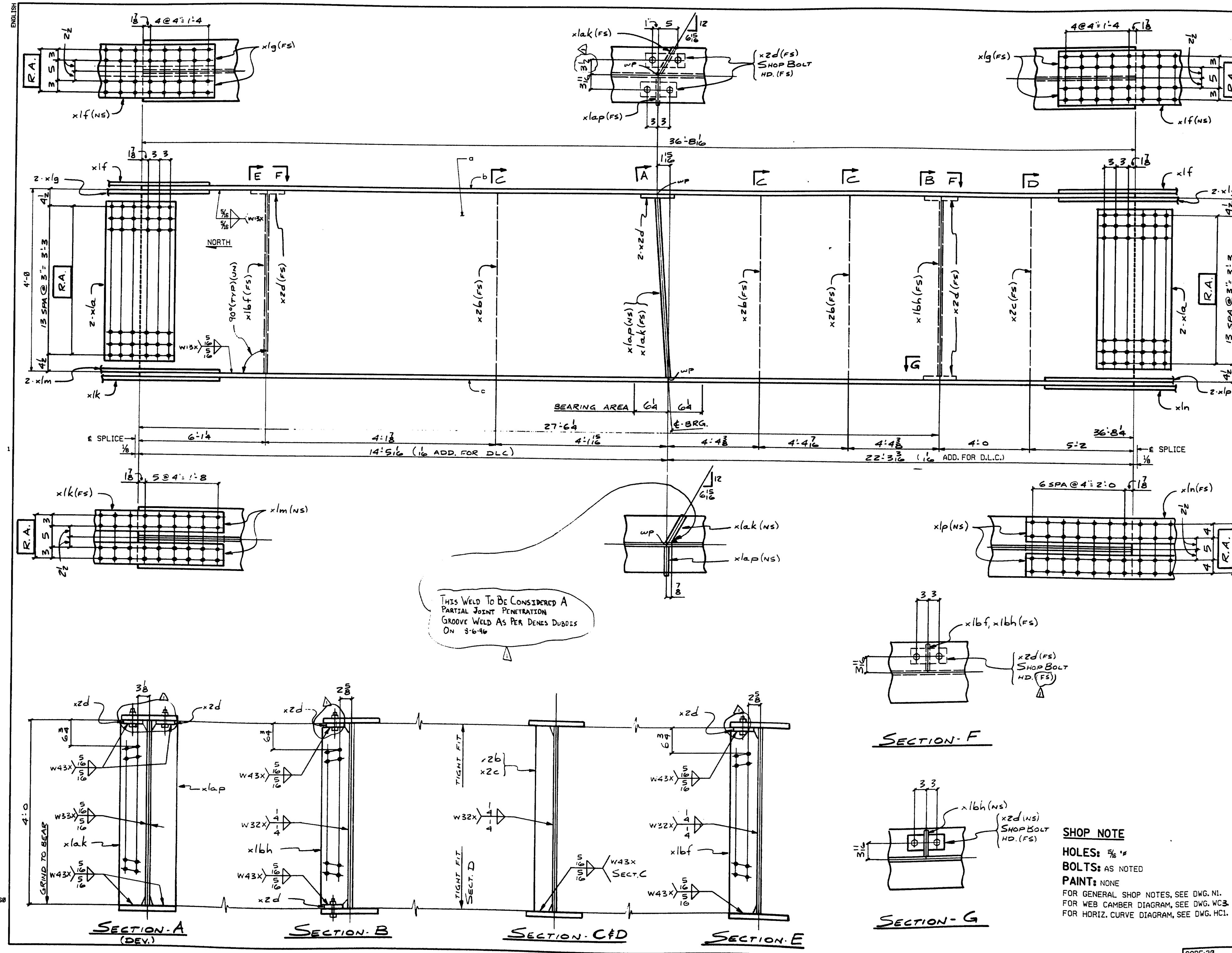
SHOP NOTE
 HOLES: 3/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
	APPL. CHG	8.5.90

HIGH STEEL STRUCTURES, INC.		170 Hempstead Road Lansdale, PA 17605-0008 Phone 717/299-5221
GIRDER - G3D		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.38	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	BY: SJR
DATE	5.2.96	RF
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		17 OF 30

MAR 1 01997

ENGLISH



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

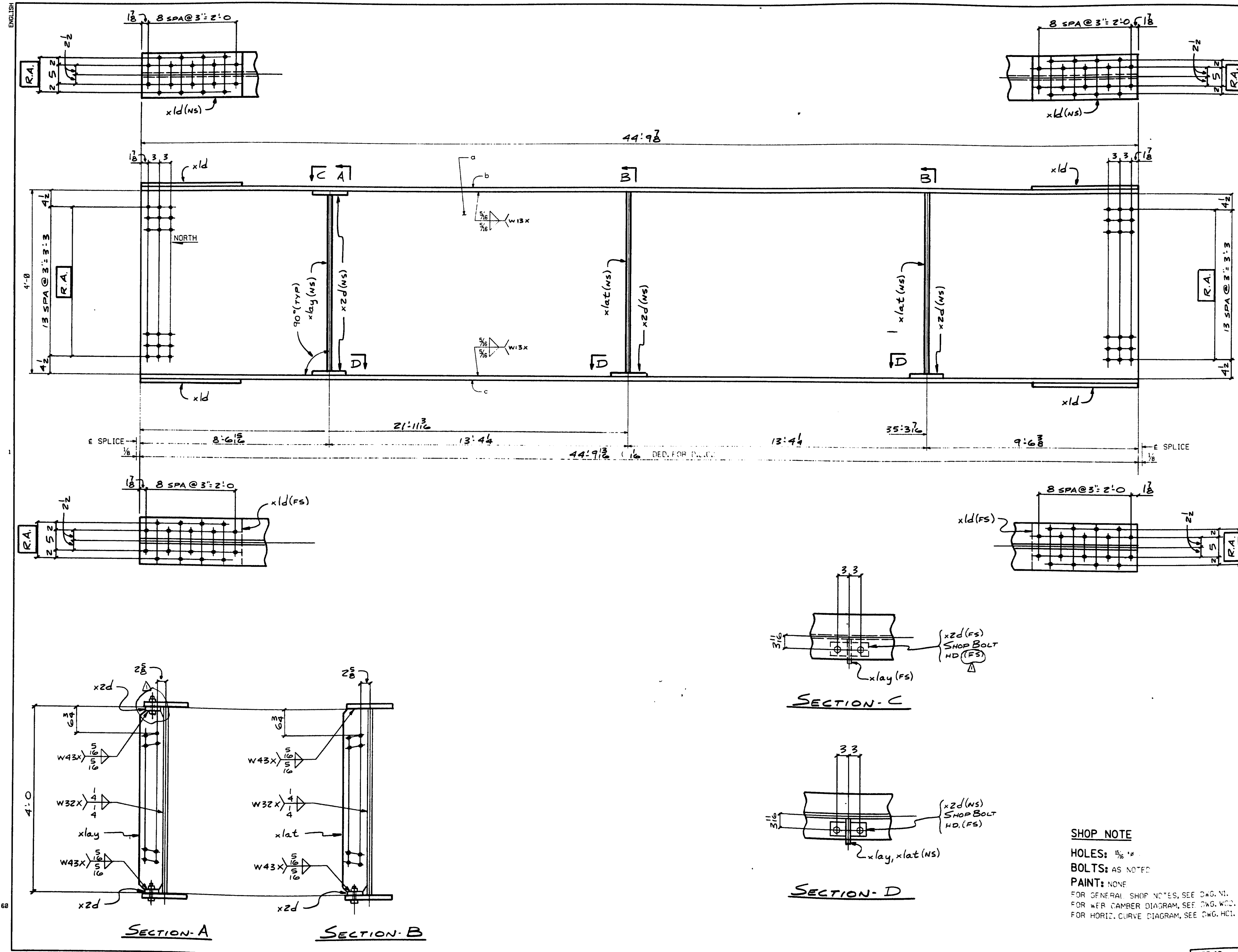
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SH. WEIGHT
ONE	G4D	GIRDER				8,574
1	a	2 48 x 3/8	36 8/16	(T)		1 1/2
1	b	2 16 x 1 1/2	36 8/16	(T)		2 4
1	c	2 16 x 1 1/2	36 8/16	(T)		2 4
4	xla	R-43 x 1/2	1 7	(T)		4 11
2	xif	R-14 x 1/2	5 3	(T)		4 9
4	xig	BAR-6 x 3/8	3 3	(T)		4 5
1	xik	R-14 x 1/2	3 11	(T)		4 8
2	xim	BAR-6 x 3/8	3 11	(T)		4 4
1	xin	R-16 x 1/2	4 7	(T)		4 7
2	xip	BAR-7 x 3/8	4 7	(T)		4 3
1	xlak	BAR-8 x 1/4	3 11 3/8	(T)		5 3
1	xlap	BAR-8 x 1/4	3 11 3/8	(T)		5 3
1	xlbf	BAR-7 x 3/8	3 11 3/8	(T)		5 5
1	xlbh	BAR-7 x 3/8	3 10 3/8	(T)		5 5
3	xzb	BAR-5 x 3/8	4 0	(T)		5 7
1	xzc	BAR-5 x 3/8	4 0	(T)		5 7
5	xzd	BAR-4 x 3/8	0 9	(T)		5 6
10	7/8"	H.S. BOLT	0 3	5/8" R. FLG.		82 10
10		WASHERS FOR 7/8" BOLT				82 11

111-176

APP'c. 5-1	9 5-96	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G4D		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: SJR
		CHKD. BY: RF
		DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		19 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. NO. 1
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCl.

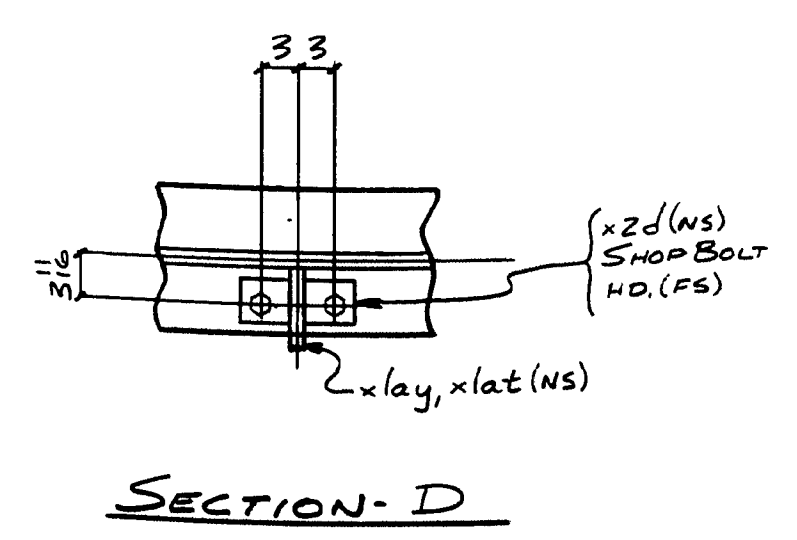
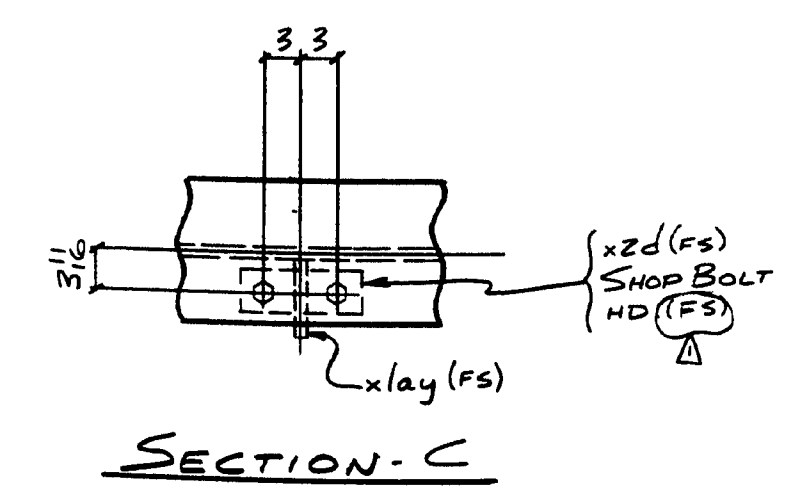
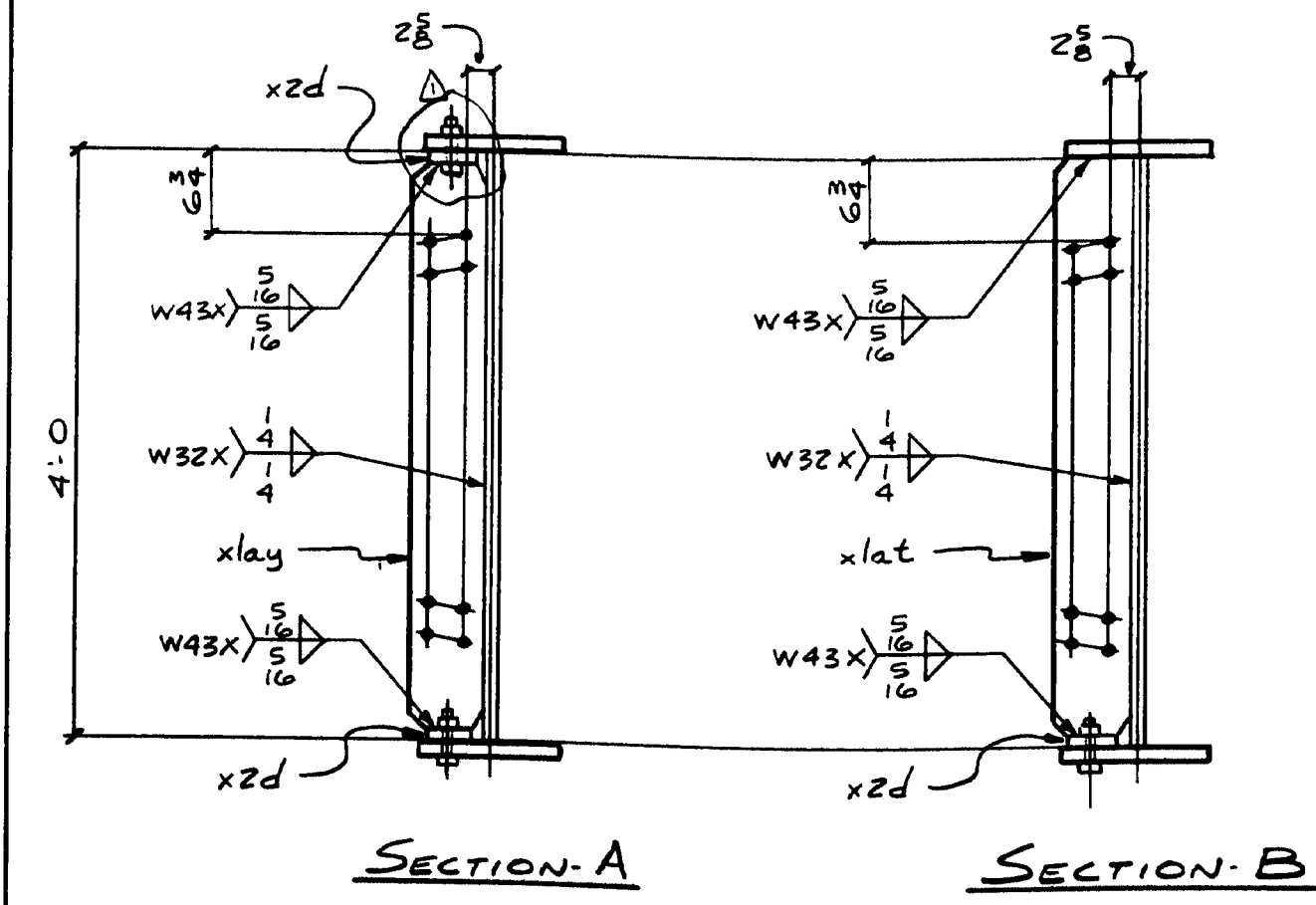
MAR 1 01997



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-009(1006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT
ONE	G I E	GIRDER				6242
1	a	R 48 x 3/8	44' 9 3/8 (T)			111
1	b	R 12 x 3/8	44' 9 3/8 (T)			35
1	c	R 12 x 3/8	44' 9 3/8 (T)			35
4	xld	R-12 x 4	2' 3 3/8			415
1	xlay	BAR-7 x 3/8	3' 10 3/4 (r)			55
2	xlat	BAR-7 x 3/8	3' 11 3/8 (r)			55
4	x2d	BAR-4 x 3/8	0' 9 (T)			56
8	3/8"	H.S. BOLT	0' 2 3/4	R, FLG		829
8		WASHERS FOR 3/8" BOLTS				82

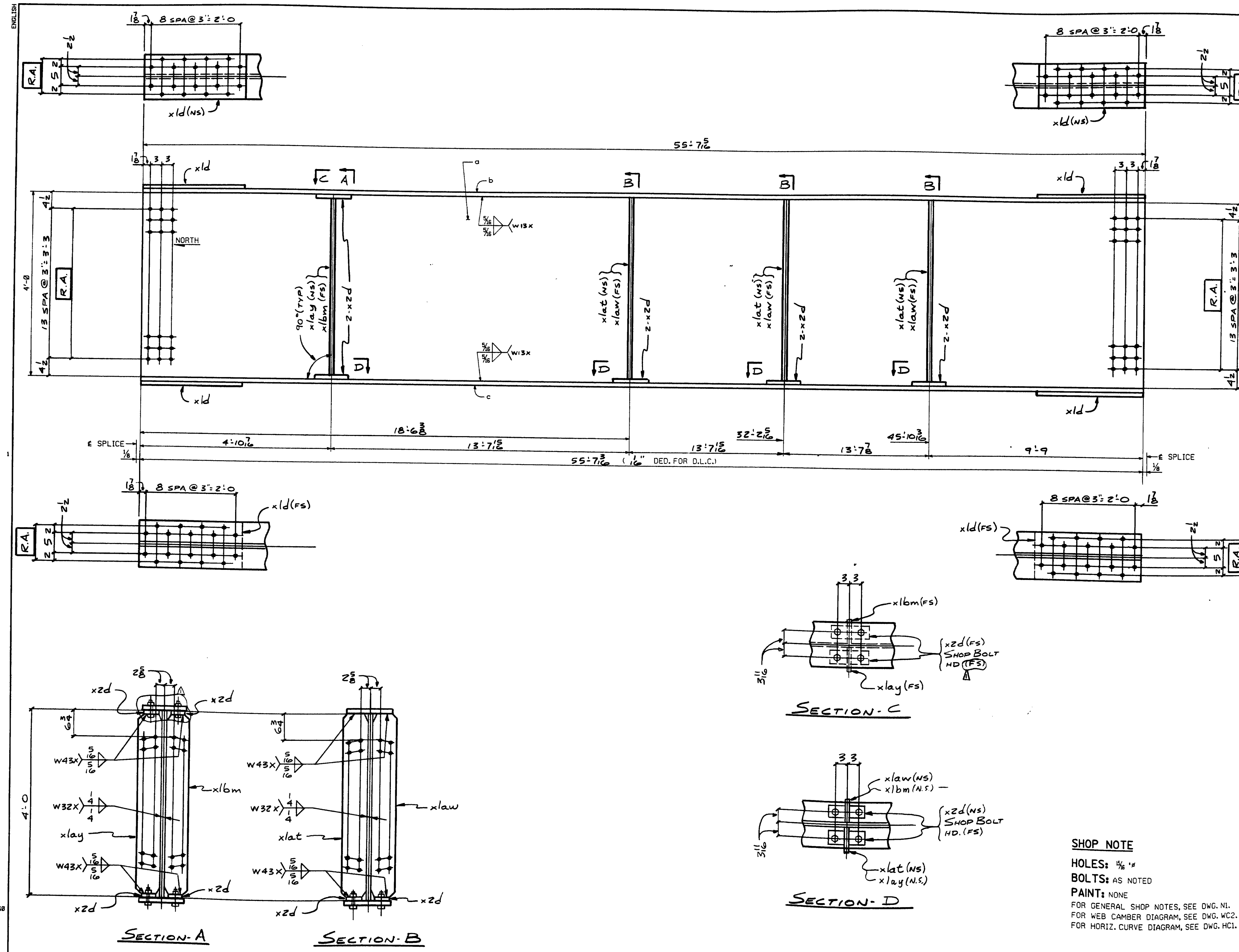
111-177



SHOP NOTE
 HOLES: 5/8\"/>

NO.	REVISION	DATE
	APPL. CHG.	8-5-90
HIGH STEEL STRUCTURES, INC. 1710 Hempstead Road Lancaster, PA 17605-0008 Phone 717/299-5211 A Division of High Industries, Inc.		
GIRDER - G I E		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-009(1006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: SJR
CONTRACT NUMBER	ME-96500-1	DATE: 5-2-90
		DRAWING NUMBER: 19 OF 30

MAR 1 01997



FED. ROAD DIV. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(006)

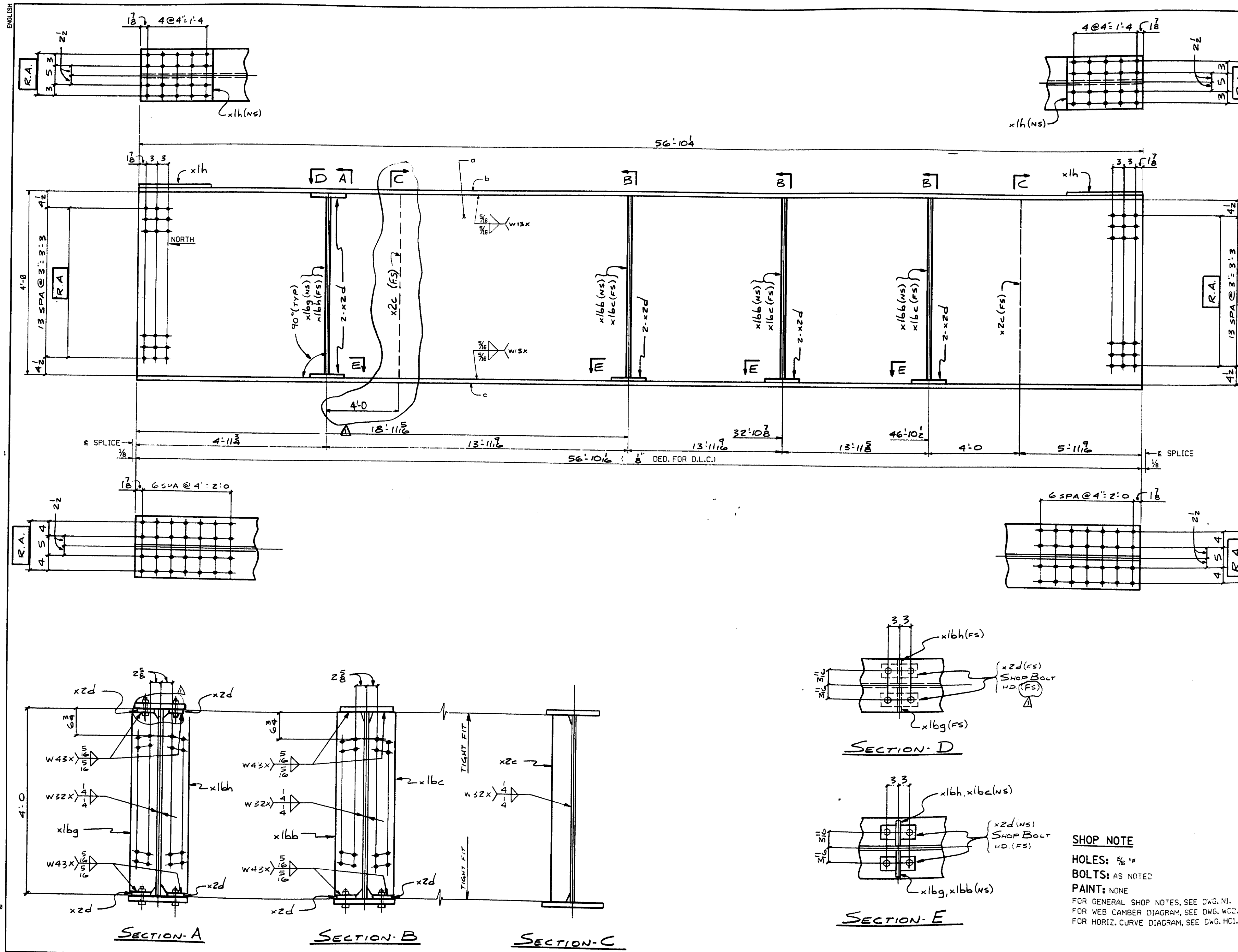
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY.
ONE	GZE	GIRDER				8,005
1	a	E 48 x 3/8	55 7 1/2	(T)		1 5
1	b	E 12 x 3/8	55 7 1/2	(T)		2 21
1	c	E 12 x 3/8	55 7 1/2	(T)		2 21
4	xld	12-12 x 4	2 3 3/8			4 13
3	xlat	BAR-7 x 3/8	3 11 3/8	(T)		5 3
3	xlaw		3 11 3/8			1 1
1	xlay		3 10 3/8			1 1
1	xlbm	BAR-7 x 3/8	3 10 3/8	(T)		5 5
10	xzd	BAR-4 x 3/8	0 9	(T)		5 6
20	3/8"	H.S. BOLT	0 23 3/8	R. FLG.		8 3 9
20		WASHERS FOR 3/8" BOLT				8 3 11

111-178

APPL. CHG.	8-5-96	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC. 1770 Hempstead Road Lancaster, PA 17605-0008 Phone 717/299-5281 A Division of High Industries, Inc.		
GIRDER - GZE		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY SJR
CHKD. BY	RF	DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 20 OF 30

SHOP NOTE
 HOLES: 5/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

MAR 1 0 1997



FEDERAL DIVISION		STATE	FEDERAL PROJECT NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT
ONE	G3E	GIRDER				1990
1	a	2 48 x 3/8	56' 10 1/2"	(T)		1 4
1	b	2 14 x 3/8	56' 10 1/2"	(T)		2 14
1	c	2 16 x 1 1/2	56' 10 1/2"	(T)		2 3
2	x1h	2 14 x 4	1 7 3/8"			4 12
3	x1bb	BAR-7 x 8	3 11 3/8"	(T)		5 5
3	x1bc		3 11 3/8"	(T)		5 5
1	x1bg		3 10 3/8"	(T)		5 5
1	x1bh	BAR-7 x 8	3 10 3/8"	(T)		5 5
2	x2c	BAR-5 x 8	4 0"	(T)		5 7
10	x2d	BAR-4 x 8	0 9"	(T)		5 6
4	3/8"	H.S. BOLT	0 2 3/4"	5/8" R. 3/8" FLG.		8 2 9
16	3/8"	H.S. BOLT	0 3"	5/8" R. 1/2" FLG.		8 2 10
20		WASHERS FOR 3/8" BOLT				8 2 11

111-179

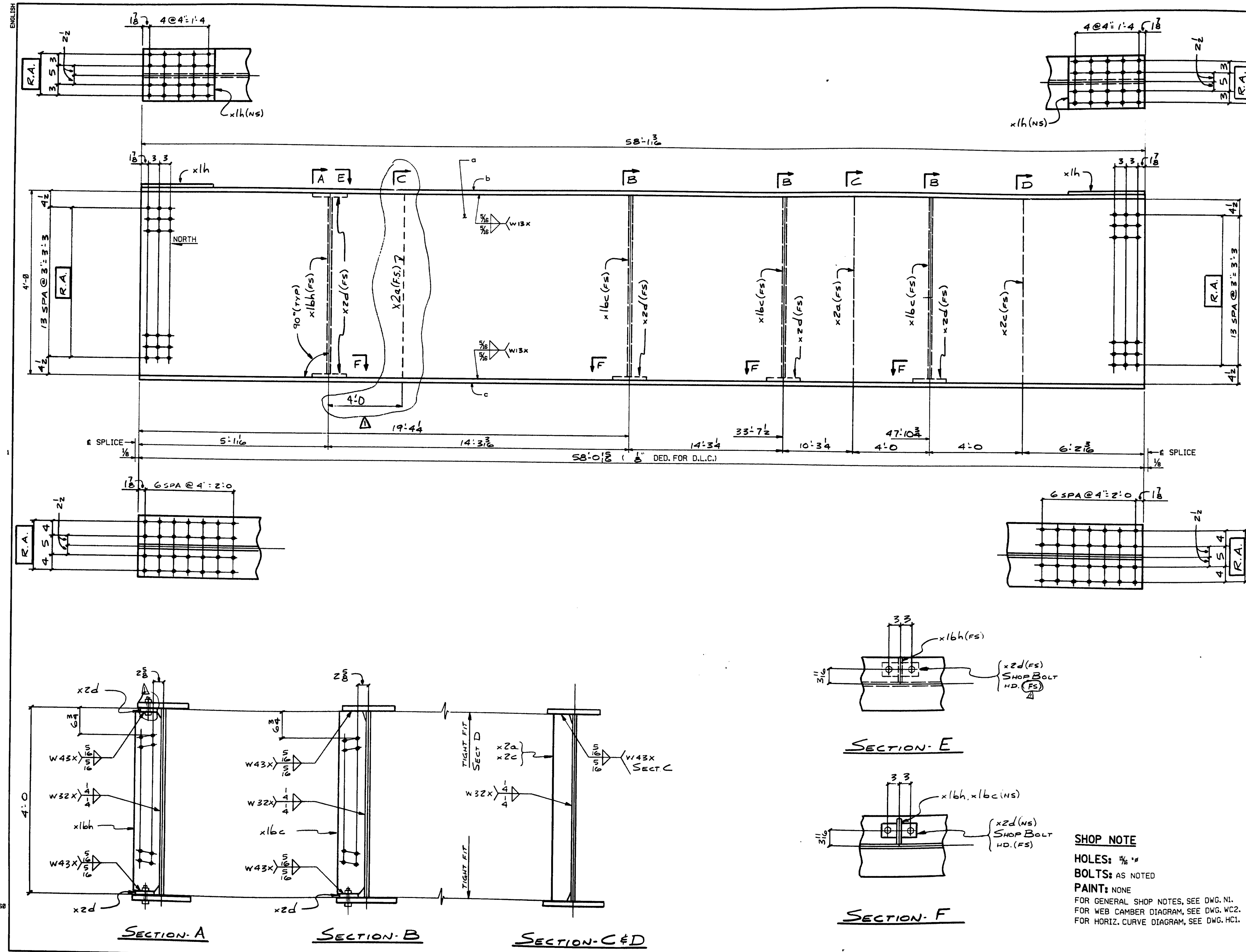
NO.	REVISION	DATE
1	APPL CHANGE	8-5-96

HIGH STEEL STRUCTURES, INC.
 1770 Hempstead Road
 Lancaster, PA 17603-0008
 Phone 717/299-5221
 A Division of High Industries, Inc.

GIRDER - G3E
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE: LANCO (WC) MADE BY: SJR CHK'D BY: RF DATE: 5-2-98
 DRAWING NUMBER ME-96500-1 21 OF 30

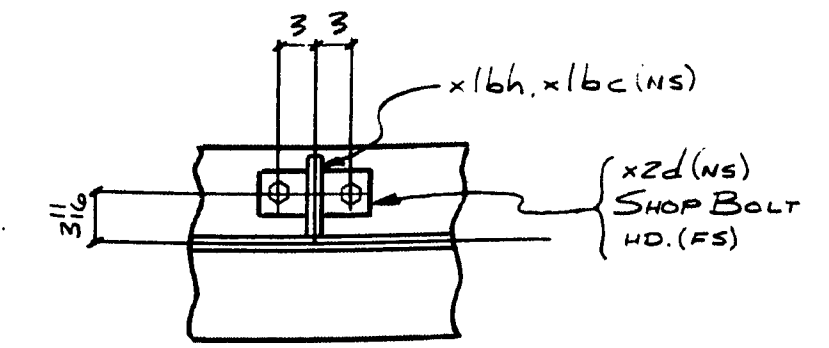
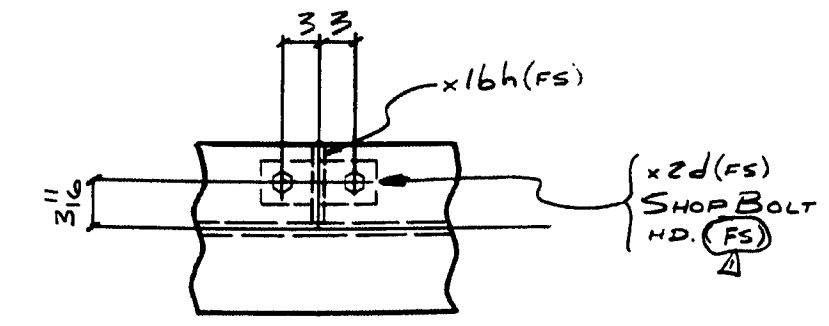
SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WCD.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCL.



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-009(006)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	QTY
ONE	G4E	GIRDER				9894
1	a	E 48 x 7/8	58 1/2	(T)		1
1	b	E 14 x 3/8	58 1/2	(T)		3
1	c	E 16 x 1/8	58 0 1/2	(T)		2
2	x1h	A-14 x 4	1 7/8			4
3	x1bc	BAR-7 x 3/8	3 11 3/4	(r)		5
1	x1bh	BAR-7 x 3/8	3 10 3/4	(r)		5
2	x2a	BAR-5 x 3/8	4 0	(r)		5
1	x2c	BAR-5 x 3/8	4 0	(r)		5
5	x2d	BAR-4 x 3/8	0 9	(r)		5
2	3/4"	H.S. BOLT	0 2 3/4	20" R. 1/2" FLG.	B2	1
3	3/4"	H.S. BOLT	0 3	5" R. 1/2" FLG.	B2	10
10		WASHERS FOR 3/4" BOLT			B2	11

111-180



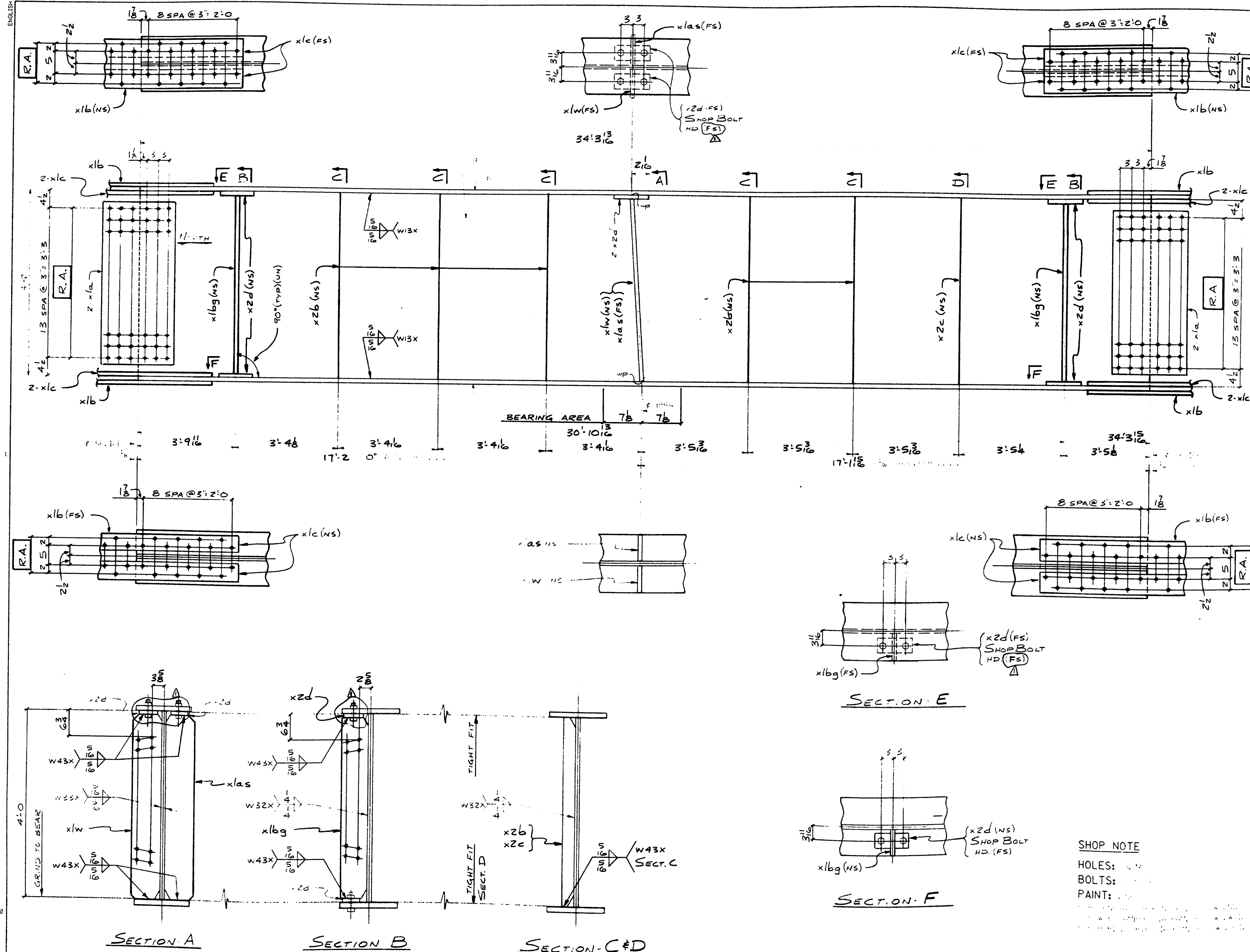
SHOP NOTE
 HOLES: 3/16"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC2.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
1	APPL CHANGE	8-5-96

1710 Hamden Road
 Lancaster, PA 17605-0008
 Phone 717/299-5200
HIGH STEEL STRUCTURES, INC.
 A Division of High Industrial, Inc.

GIRDER - G4E
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT. OF TRANSPORTATION

STATE CONTRACT NO. DE-009(006) PIN 1665.30
 CONTRACTOR REED & REED, INC.
 IN CHARGE LAMCO (WC) MADE BY SJR CHK'D BY RE DATE 5-2-96
 CONTRACT NUMBER ME-96500-1 DRAWING NUMBER 22 OF 30



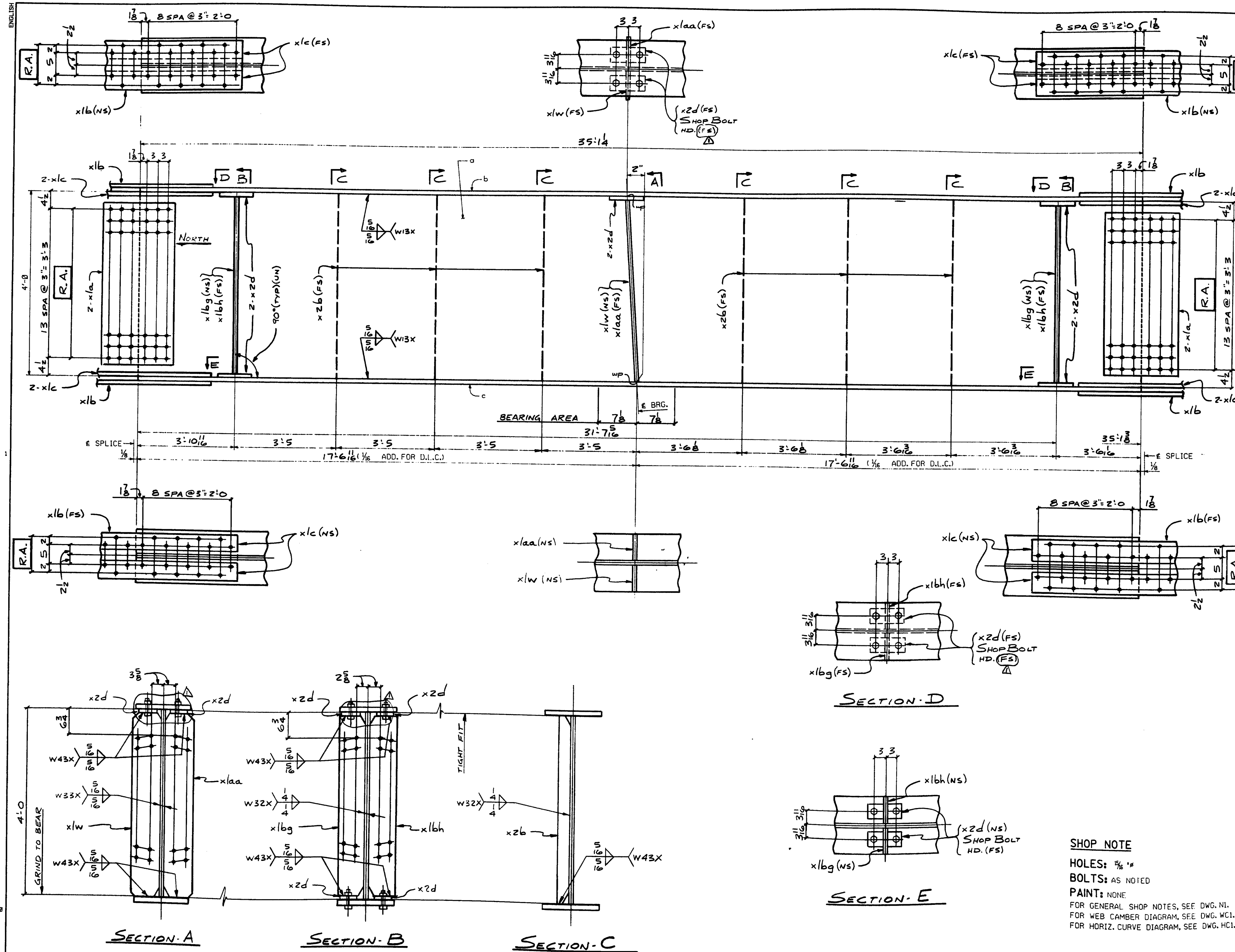
FEEDBACK STATE PROJ. NO. 107-11(806)

BILL OF MATERIAL

MARK	DESCRIPTION	LENGTH	ITEM	QTY
GIF	GIRDER			1
	48 x 3/8	34 3/8	1	14
	14 x 1/2	34 3/8	2	12
	14 x 1/2	34 3/8	2	12
4	xla R-42 x 1/2	17	4	11
4	xlb R-12 x 1/2	47	4	10
8	xlc BAR-5 x 5/8	47	4	6
1	xlw BAR-8 x 1/4	3 11/16	5	3
1	xlas BAR-8 x 1/4	3 11/16	5	3
2	xlg BAR-7 x 5/8	3 10 3/4	5	5
6	xld BAR-4 x 5/8	09	5	6
5	xzb BAR-5 x 5/8	40	5	7
1	xzc BAR-5 x 5/8	40	5	7
	12 3/8 H.S. BOLT 0 3 5/8 FLG.		82	10
	12 WASHERS FOR 3/8 BOLT		82	11

111-181

1	APPL. CHG.	8-5-90
HIGH STEEL STRUCTURES, INC.		
GIF		
SHOP NOTE		
HOLES: 1/8"		
BOLTS: 1/2"		
PAINT: 1/2"		
ME-96500-1		
RF DATE: 5-2-96		
23 OF 30		
MAR 1 01997		



FED. ROAD DISTRICT		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT
ONE	GZF	GIRDER				7,864
1	a	E 48 x 3/8	35 1/8	(T)	1	14
1	b	E 14 x 1/2	35 1/4	(T)	2	11
1	c	E 14 x 1/2	35 1/8	(T)	2	11
4	xla	R-43 x 1/2	1 7/8	(T)	4	11
4	xlb	R-12 x 1/2	4 7/8	(T)	4	10
8	xc	BAR-5 x 3/8	4 7/8	(T)	4	6
1	xlw	BAR-8 x 1/4	3 11/16	(T)	5	3
1	xlaa	BAR-8 x 1/4	3 11/16	(T)	5	3
2	xlg	BAR-7 x 3/8	3 10 3/4	(T)	5	5
2	xlh	BAR-7 x 3/8	3 10 3/4	(T)	5	5
10	xzd	BAR-4 x 3/8	0 9	(T)	5	6
6	xzb	BAR-5 x 3/8	4 0	(T)	5	7
20	3/8"	H.S. BOLT	0 3	5/8" FLG.	82	10
20		WASHERS FOR 3/8" BOLT			82	11

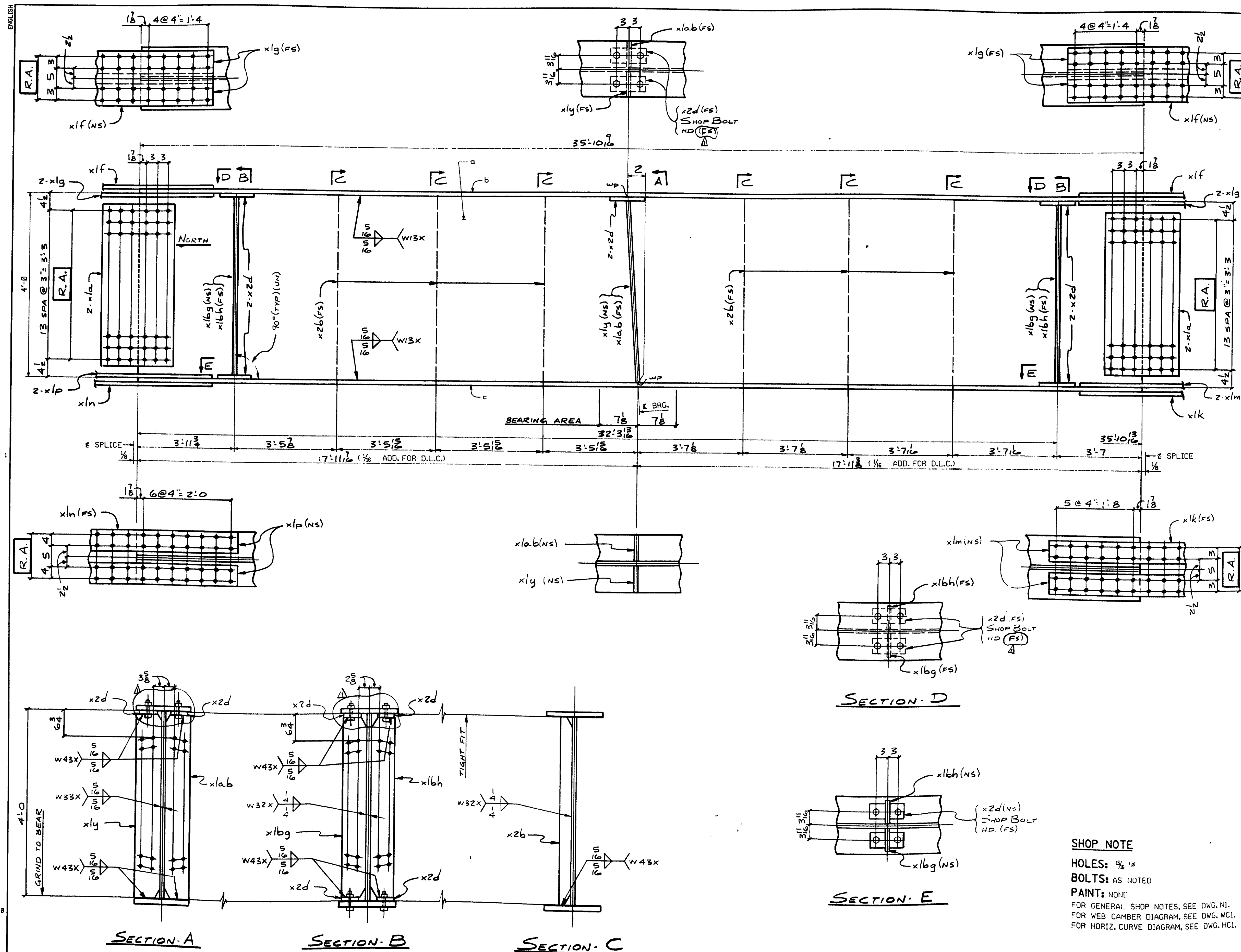
111-182

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. W1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. H1.

NO.	REVISION	DATE
1	App'l Cng.	8-5-90

HIGH STEEL STRUCTURES, INC.		1770 Hempstead Road Lancaster, PA 17606-0008 Phone 717/291-5211
GIRDER - GZF		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1655.30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	MADE BY: SJR CHK'D BY: RF DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 24 OF 30

ENGLISH



NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	WEIGHT LB
BILL OF MATERIAL						
ONE	G3F	GIRDER				8628
1	a	R-48 x 3/8	35' 10 3/8	(T)	1	13
1	b	R-16 x 1 1/2	35' 10 3/8	(T)	2	5
1	c	R-16 x 1 1/2	35' 10 3/8	(T)	2	5
4	x1a	R-43 x 1/2	1' 7"	(T)	4	11
2	x1f	R-14 x 1/2	3' 3"	(T)	4	9
4	x1g	BAR-6 x 3/8	3' 3"	(T)	4	5
1	x1k	R-14 x 9/16	3' 11"	(T)	4	8
2	x1m	BAR-6 x 3/8	3' 11"	(T)	4	4
1	x1n	R-16 x 9/16	4' 7"	(T)	4	7
2	x1p	BAR-7 x 3/8	4' 7"	(T)	4	3
1	x1y	BAR-8 x 1/4	3' 11 7/8"	(T)	3	3
1	x1ab	BAR-8 x 1/4	3' 11 7/8"	(T)	3	3
2	x1bg	BAR-7 x 3/8	3' 10 3/8"	(T)	5	5
2	x1bh	BAR-7 x 3/8	3' 10 3/8"	(T)	5	5
10	x2d	BAR-4 x 3/8	0' 9"	(T)	3	6
6	x2b	BAR-5 x 3/8	4' 0"	(T)	5	7
20	7/8"	H.S. BOLT	0' 3"	8/8 R. FLG.	88	10
20		WASHERS FOR 7/8" BOLTS			88	11

SECTION: D

SECTION: E

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC1.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

111-183

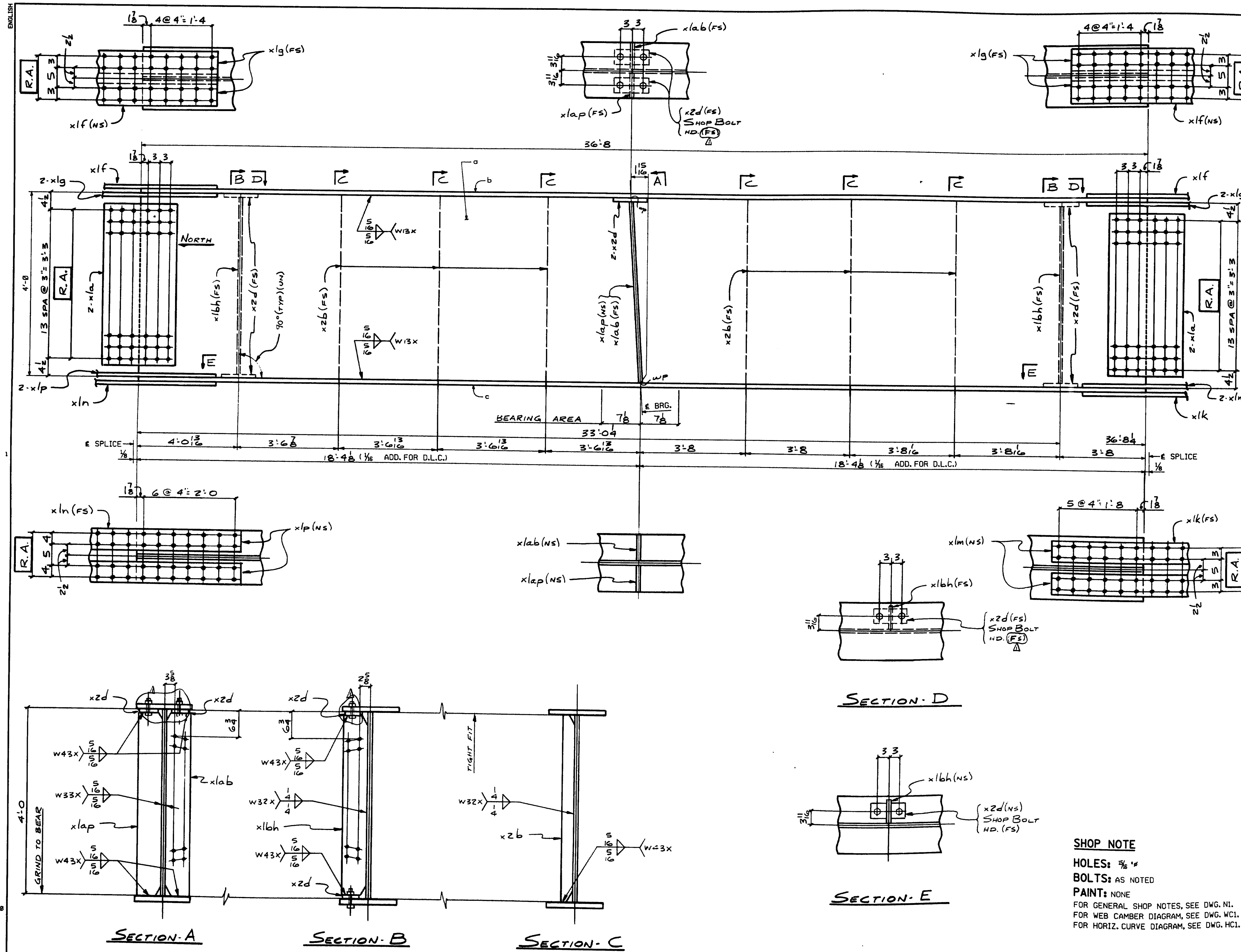
NO.	REVISION	DATE
1	App'l. CHG.	8-5-90

HIGH STEEL STRUCTURES, INC.

GIRDER - G3F
 RTE. 196 RAMP B OVER U.S. RTE. 1
 RTE. 196 STA. 305+77.12
 TOWN OF BRUNSWICK
 CUMBERLAND CO., MAINE
 STATE OF MAINE, DEPT OF TRANSPORTATION

CONTRACTOR REED & REED, INC.
 IN CHARGE: LANCO (WC) MADE BY: SJR CHK'D. BY: RF DATE: 5-2-96
 DRAWING NUMBER: ME-96500-1

MAR 1 01997



FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
1	ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHIP. WEIGHT
ONE	G4F	GIRDER				8,631
1	a	R 48 x 3/8	36 8 1/4	(T)		1 1/2
1	b	R 16 x 1 1/2	36 8	(T)		2 4
1	c	R 16 x 1 1/2	36 8 1/4	(T)		2 4
4	x1a	R-43 x 1/2	1 7	(T)		4 11
2	x1f	R-14 x 1/2	3 3	(T)		4 9
4	x1g	BAR-6 x 5/8	3 3	(T)		4 5
1	x1k	R-14 x 1 1/2	3 11	(T)		4 8
2	x1m	BAR-6 x 3/4	3 11	(T)		4 4
1	x1n	R-16 x 1 1/2	4 7	(T)		4 7
2	x1p	BAR-7 x 3/4	4 7	(T)		4 3
1	x1ab	BAR-8 x 1 1/2	3 11 1/2	(T)		5 3
1	x1ap	BAR-8 x 1 1/2	3 11 1/2	(T)		5 3
2	x1bh	BAR-7 x 3/8	3 10 3/4	(T)		5 5
6	x2d	BAR-4 x 5/8	0 9	(T)		5 6
6	x2b	BAR-5 x 3/8	4 0	(T)		5 7
12	7/8"	H.S. BOLT	0 3	5" R. FLG.		9 10
12		WASHERS FOR 7/8" BOLTS				9 11

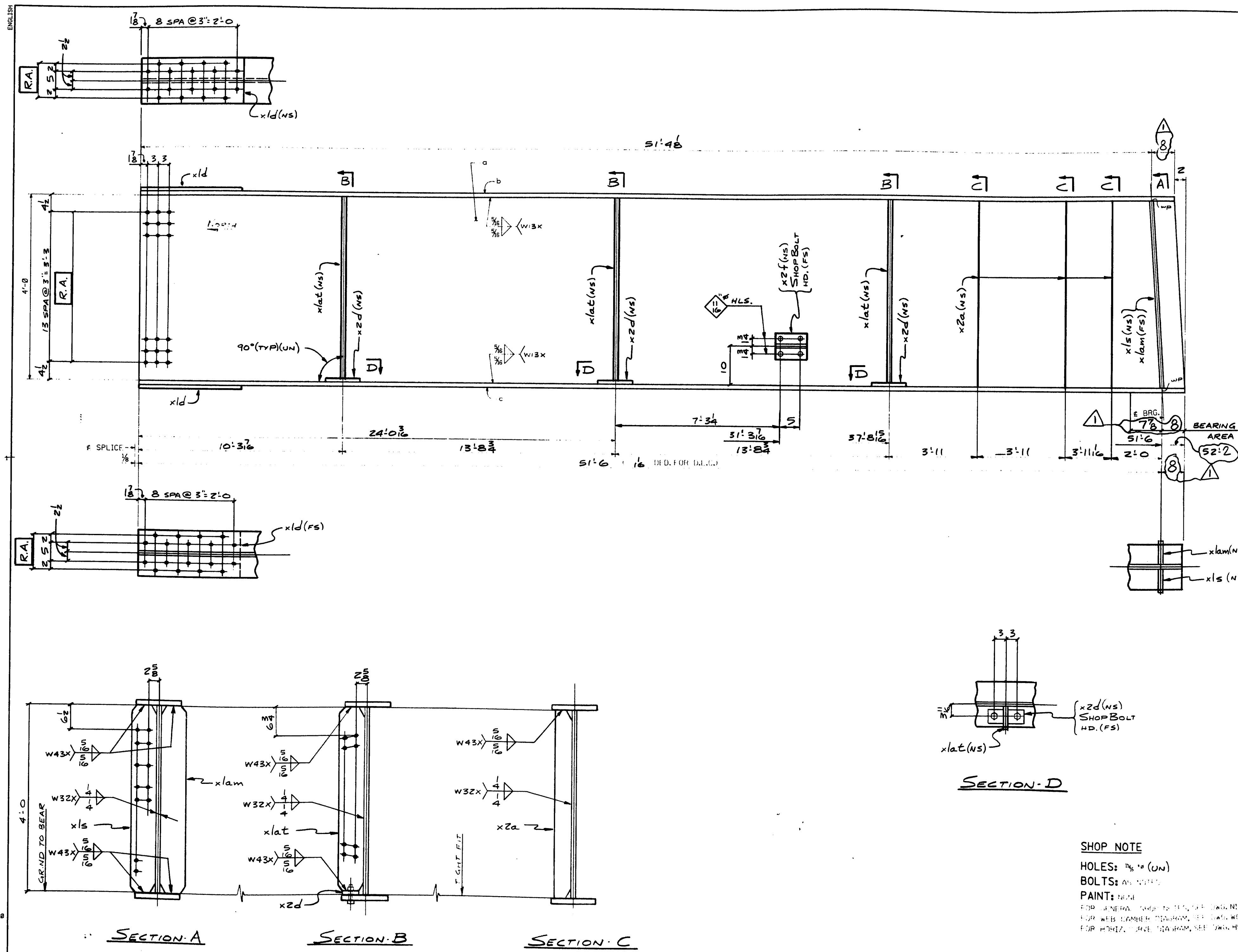
111-184

SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WCI.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HCI.

App'l. Chg.	9-5-90	
NO.	REVISION	DATE
HIGH STEEL STRUCTURES, INC.		
GIRDER - G4F		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(806) PIN 1665-30	
CONTRACTOR	REED & REED, INC.	
IN CHARGE	LANCO (WC)	
MADE BY	SJR	CHK'D. BY RF
DATE	5-2-90	
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER
		26 OF 30

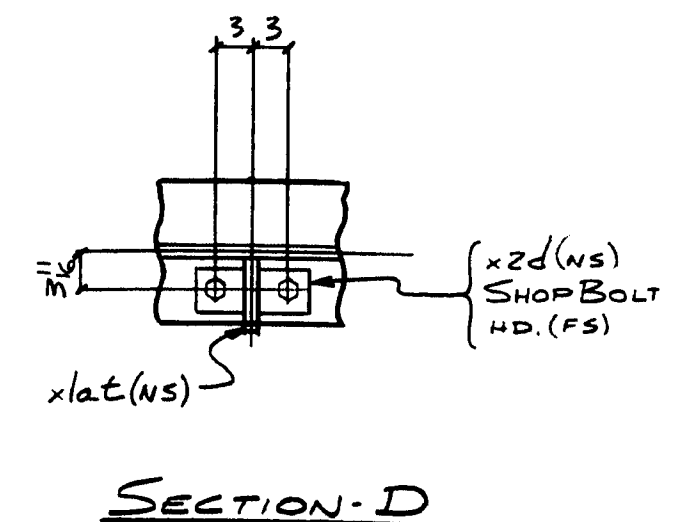
CODE:30

MAR 1 0 1997



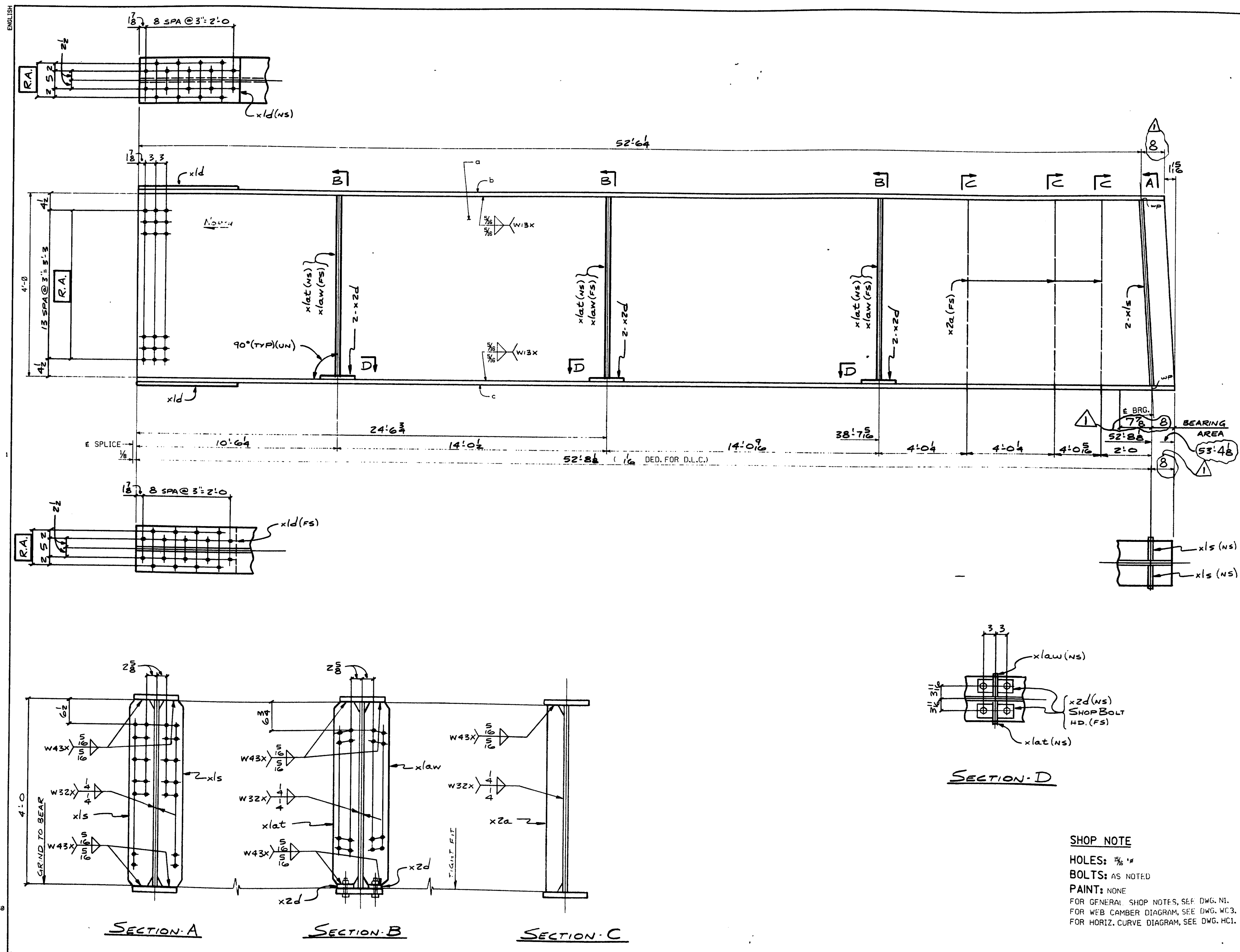
BILL OF MATERIAL									
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT (LB)			
ONE GIG. GIRDER						7,366			
1	a	PL 48 x 7/8	52'2 1/2	(T)	1	8			
1	b	PL 12 x 7/8	52'0 1/2	(T)	3	2			
1	c	PL 12 x 7/8	52'2	(T)	2	2			
2	x1d	PL 12 x 4	2'3 3/8		4	13			
1	x1s	BAR 7 x 3/4	4'0	(T)	5	4			
1	x1am	BAR 7 x 3/4	4'0	(T)	5	4			
3	x1at	BAR 7 x 3/8	3'11 3/8	(T)	5	5			
3	x2a	BAR 5 x 3/8	4'0	(T)	5	7			
3	x2d	BAR 4 x 3/8	0'9	(T)	5	6			
1	x2f	WT 6 x 13	0'8		5	8			
4	5/8"	H.S. BOLT	0'1 1/2	WT. WEB	B2	5			
4		WASHERS FOR 5/8" BOLT			B2	6			
6	3/8"	H.S. BOLT	0'2 3/4	R. FLG	B2	9			
6		WASHERS FOR 3/8" BOLT			B2	11			

111-185



SHOP NOTE
 HOLES: 1/8" (UN)
 BOLTS: AS NOTED
 PAINT: PRIMER FOR ANNEAL, PRIMER TO BE APPLIED TO ALL SURFACES FOR WEBS, CHANNELS, END PLATES, AND WELDS FOR HORIZ. SURF. TO BE PAINTED FROM BOTH SIDES.

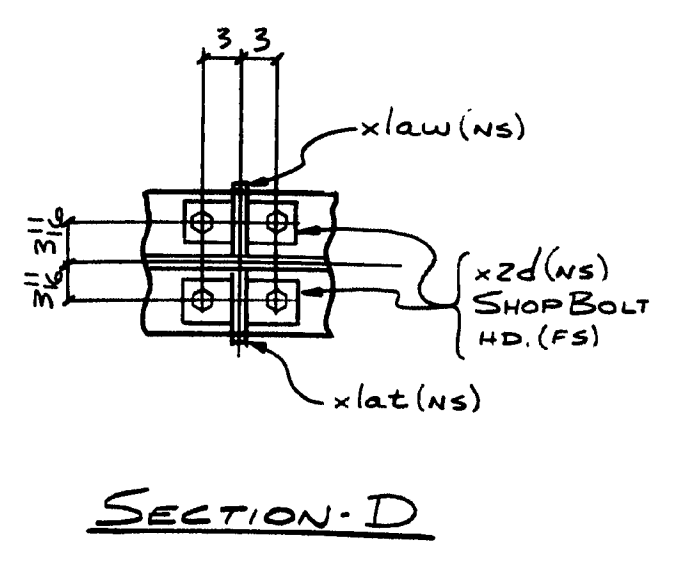
CHG. OVERHANG (DESIGN CHG)	6-21-96
NO.	DATE
HIGH STEEL STRUCTURES, INC.	
GIRDER - GIG	
RTE. 196 RAMP B OVER I-95, RTE. 1	
RTE. 196 STA. 385+71.12	
TOWN OF BRUNSWICK	
CUMBERLAND CO., MAINE	
STATE OF MAINE, DEPT. OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.	DE-00910005 PIN 1665-30
CONTRACTOR	REED & REED, INC.
IN CHARGE	LANCO (WC)
MADE BY	SJR
CHECKED BY	RF
DATE	5-2-96
CONTRACT NUMBER	ME-96500-1
DRAWING NUMBER	27 OF 30



FED. ROAD DIV. NO.		STATE	FED. ROAD PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. WEIGHT
ONE	G2G	GIRDER				7,709
1	a	R 48 x 3/8	53'4 1/2	(T)		1.7
1	b	R 12 x 3/8	53'2 1/2	(T)		2.23
1	c	R 12 x 3/8	53'4 1/2	(T)		2.23
2	x1d	R 12 x 4	2'3 1/2			4.13
2	x1s	BAR. 7 x 3/4	4'0	(T)		5.4
3	xlat	BAR. 7 x 3/8	3'11 1/2	(T)		5.5
3	xlaw	BAR. 7 x 3/8	3'11 1/2	(T)		5.5
3	x2a	BAR. 5 x 3/8	4'0	(T)		5.7
6	x2d	BAR. 4 x 3/8	0'9	(T)		5.6
12	3/8"	H.S. BOLT	0'2 1/2	R. FLG	B29	
12		WASHERS FOR 3/8" BOLT			B211	

111-186

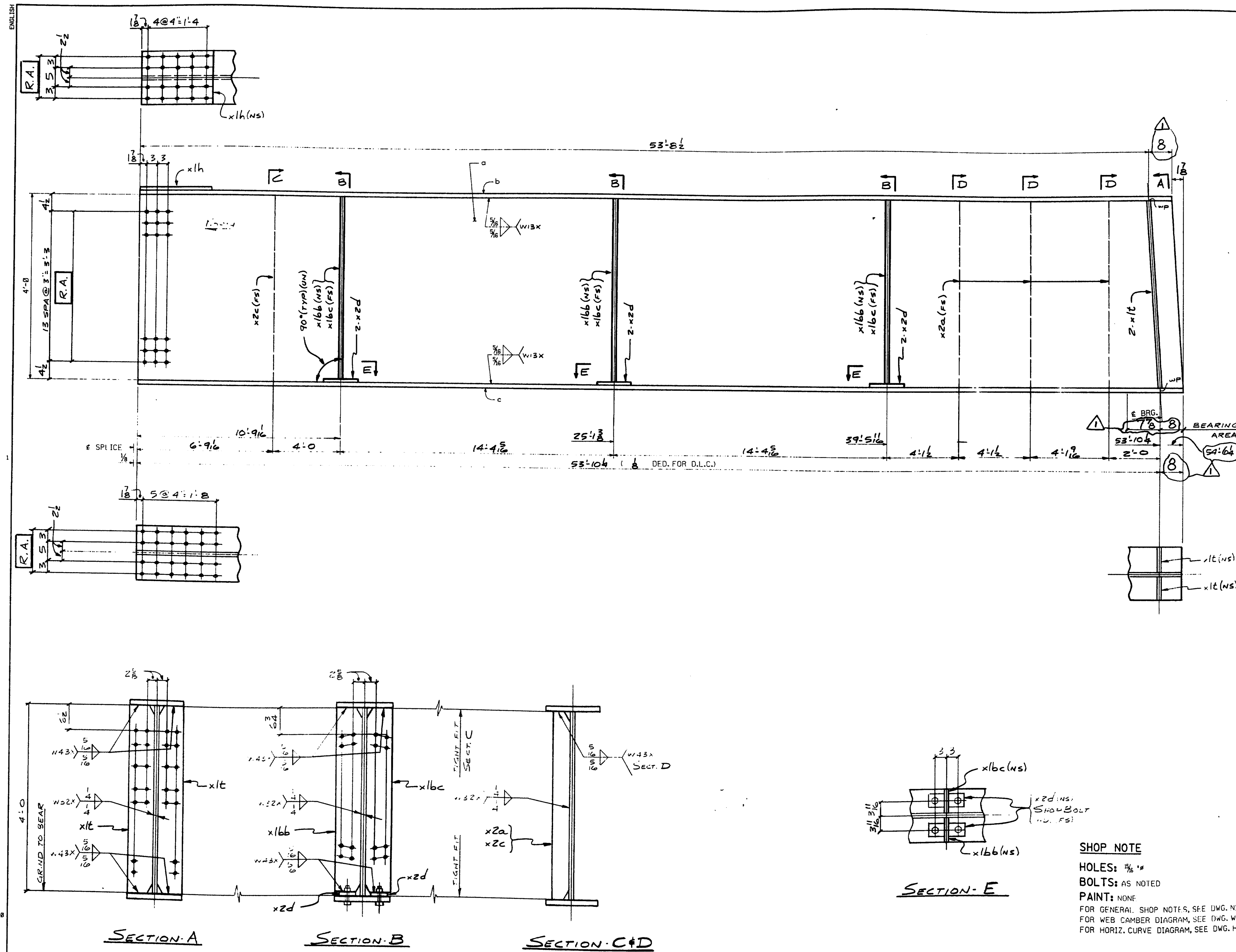


SECTION D

SHOP NOTE
 HOLES: 1/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

NO.	REVISION	DATE
1	CHG. OVERHANG (DESIGN CHG.)	6-21-96

HIGH STEEL STRUCTURES, INC. <small>1710 Hempstead Road Lancaster, PA 17602-0008 Phone 717/299-5211</small>	
GIRDER ~ G2G RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT OF TRANSPORTATION	
STATE CONTRACT OR REF. NO. DE-0091(806) PIN 1665-30	CONTRACTOR REED & REED, INC. IN CHARGE: LANCO (WC)
MADE BY: SJS CHECKED BY: RF DATE: 5-2-96	DRAWING NUMBER: 28 OF 30



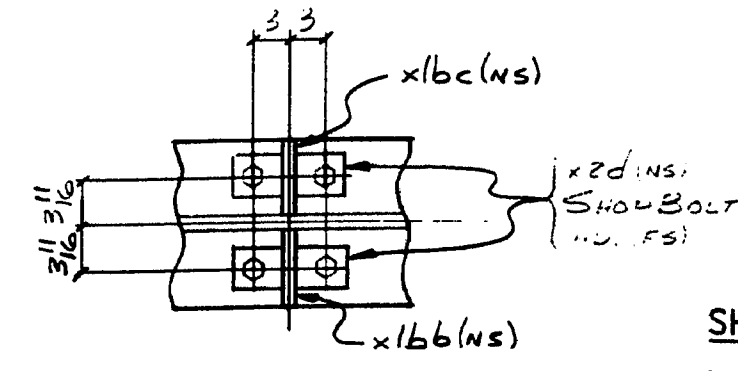
FED. ROAD DIST. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(806)

BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SHR. HEIGHT FACT.
ONE	G3G	GIRDER				9,158
1	a	R 48 x 3/8	54 6 3/8	(TT)	1	6
1	b	R 14 x 3/8	54 4 1/2	(TT)	2	16
1	c	R 14 x 1 1/8	54 6 4	(TT)	2	7
1	x1h	R 14 x 4	1 7 3/8		1	12
2	x1t	BAR 7 x 3/4	4 0	(r)	5	4
3	x1bc	BAR 7 x 5/8	3 11 3/8	(r)	5	5
3	x1bb	BAR 7 x 3/8	3 11 3/8	(r)	5	5
3	x2a	BAR 5 x 3/8	4 0	(r)	5	7
1	x2c	BAR 5 x 3/8	4 0	(r)	5	7
6	x2d	BAR 4 x 3/8	0 9	(r)	5	6
12	3/8"	H.S. BOLT	0 3	5 R. 16 FLG.	82	10
12		WASHERS FOR 3/8" BOLT			82	11

111-187

NO.	REVISION	DATE
1	CHG. OVERHANG (DESIGN CHG.)	6-21-96

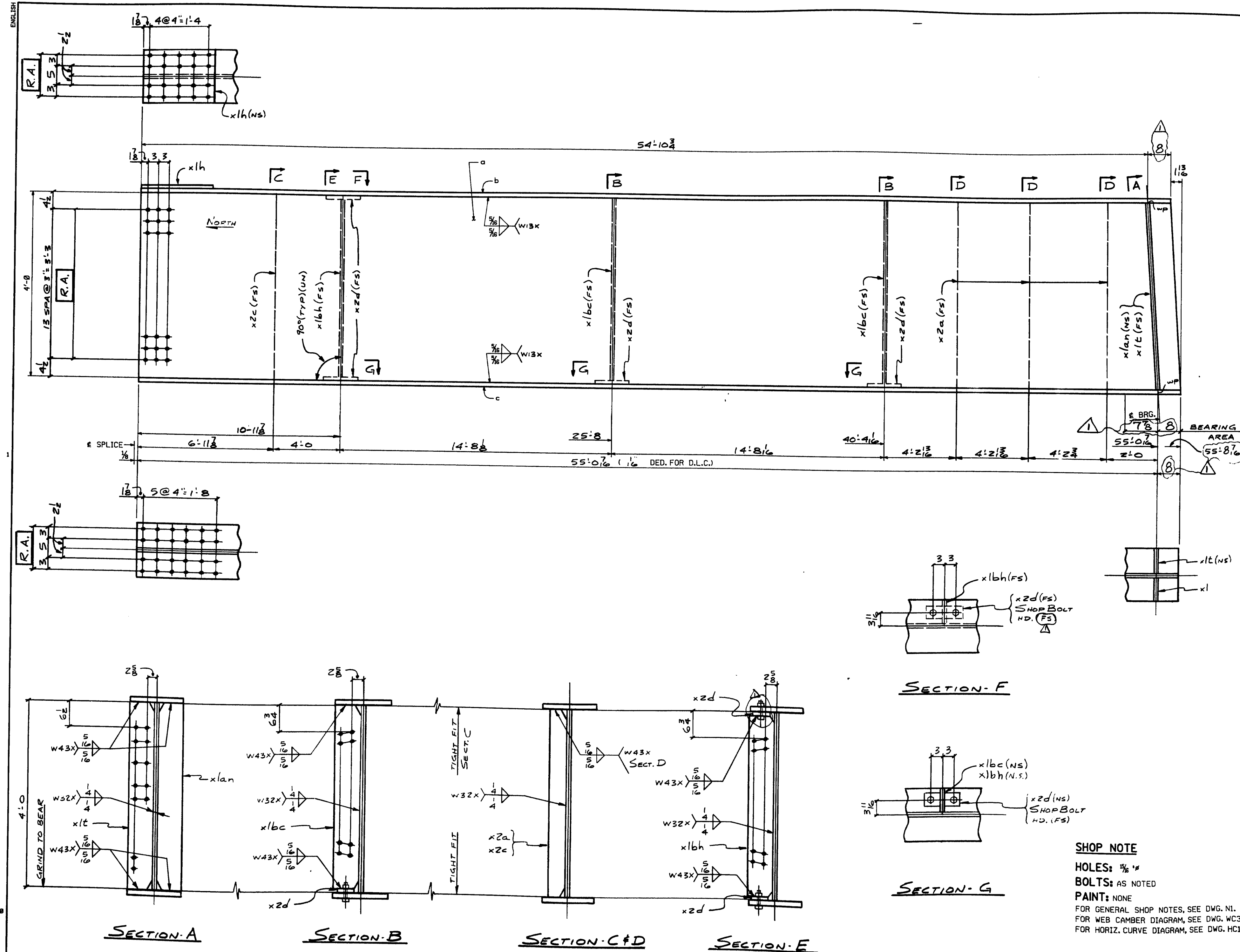
HIGH STEEL STRUCTURES, INC. <small>1770 Hampden Road, Lenoir, PA 17033-0008, Phone 717/299-5221</small> <small>A Division of High Industries, Inc.</small>	
GIRDER ~ G3G RTE. 196 RAMP B OVER U.S. RTE. 1 RTE. 196 STA. 305+77.12 TOWN OF BRUNSWICK CUMBERLAND CO., MAINE STATE OF MAINE, DEPT. OF TRANSPORTATION	
STATE CONTRACT OR REF. NO.: DE-0091(806) PIN 1665.30	CONTRACTOR: REED & REED, INC. IN CHARGE: LANCO (WC)
MADE BY: SJR	CHK'D. BY: RF DATE: 5-2-96
CONTRACT NUMBER: ME-96500-1	DRAWING NUMBER: 29 OF 30



SHOP NOTE
 HOLES: 3/8"
 BOLTS: AS NOTED
 PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.

CODE:30

MAR 1 0 1997



FED. PROJ. NO.		STATE	FED. AID PROJ. NO.
1		ME	DE-0091(006)

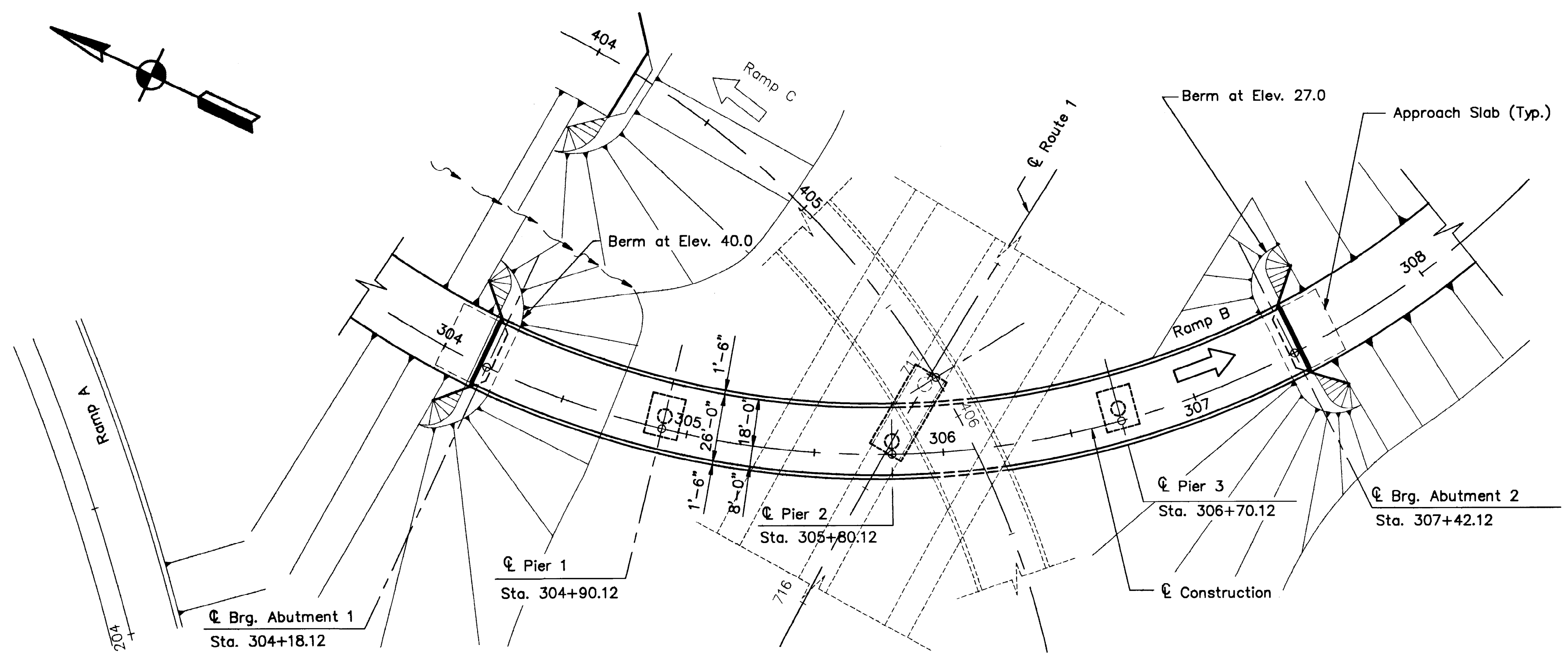
BILL OF MATERIAL						
NO.	MARK	DESCRIPTION	LENGTH	REMARKS	ITEM	SUP. WEIGHT
ONE	G4G	GIRDER				9,153
1	a	R 48 x 3/8	55' 8 1/2"	(T)		1 5/8
1	b	R 14 x 3/8	55' 6 3/4"	(T) Δ		2 1/8
1	c	R 14 x 1 1/2	55' 8 1/2"	(T)		2 1/2
1	x1h	R 14 x 1/2	1' 7 3/8"			4 1/2
1	x1c	BAR-7 x 3/8	4' 0"	(r)		5 1/4
1	x1an	BAR-7 x 3/8	4' 0"	(r)		5 1/4
2	x1bc	BAR-7 x 3/8	3' 11 3/8"	(r)		5 5/8
1	x1bh	BAR-7 x 3/8	3' 10 3/4"	(r)		5 5/8
3	x2a	BAR-5 x 3/8	4' 0"	(r)		5 7/8
1	x2c	BAR-5 x 3/8	4' 0"	(r)		5 7/8
4	x2d	BAR-4 x 3/8	0' 9"	(r)		5 6/8
2	3/8"	H.S. BOLT	0' 2 3/4"	3/8" R, 7/8" FLG.		8 2/8
6	3/8"	H.S. BOLT	0' 3' 3/8"	1/2" R, 1 1/8" FLG.		8 10/8
8		WASHERS FOR 3/8" BOLT				8 11/8

111-188

NO.	REVISION	DATE
1	APPLY CHG. CHG. OVERHANG (DESIGN CHG.)	6-21-96

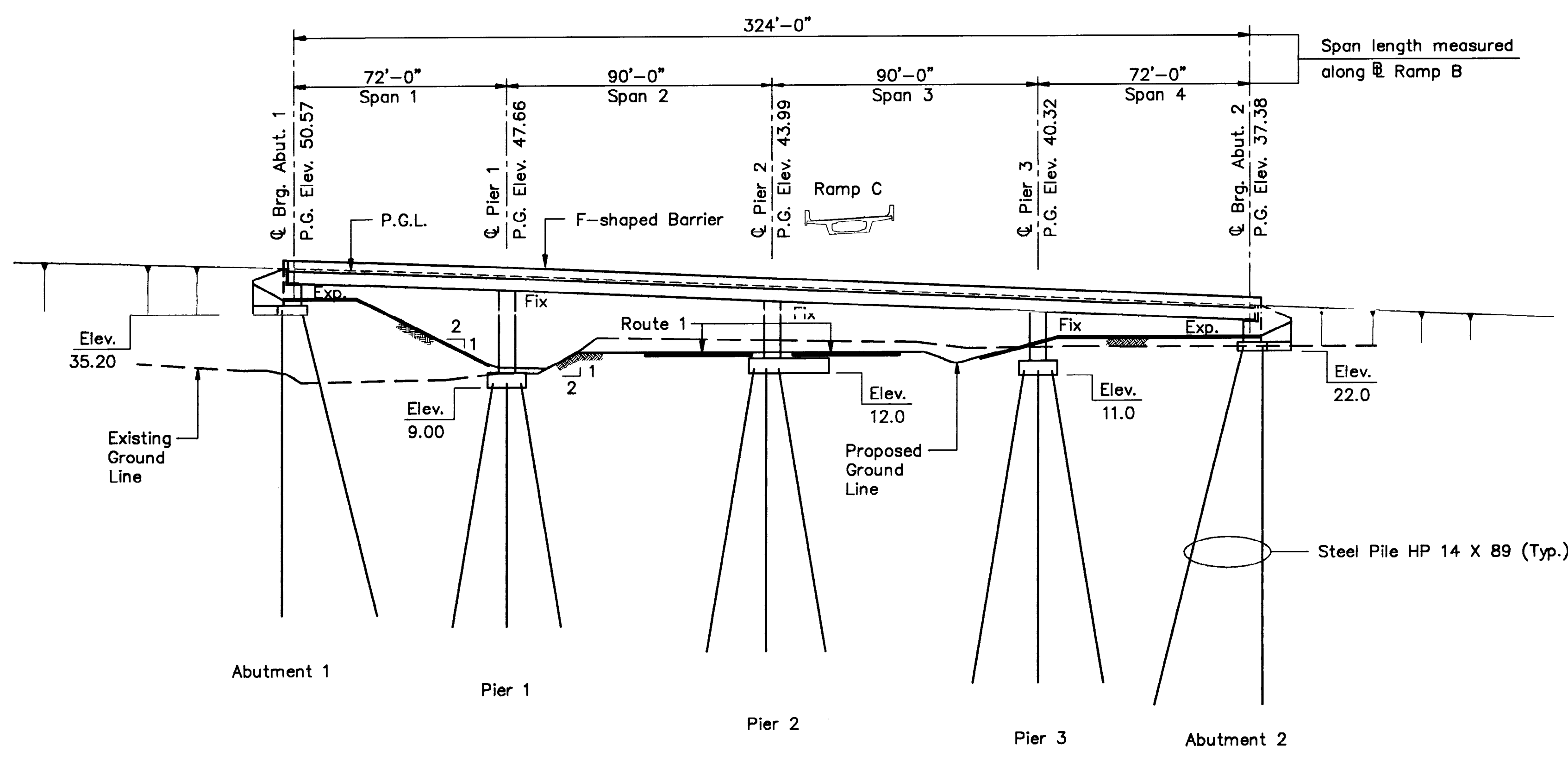
HIGH STEEL STRUCTURES, INC.		1770 Hempfield Road Lima, PA 17035-0008 Phone 717/299-3211
GIRDER - G4G		
RTE. 196 RAMP B OVER U.S. RTE. 1		
RTE. 196 STA. 305+77.12		
TOWN OF BRUNSWICK		
CUMBERLAND CO., MAINE		
STATE OF MAINE, DEPT. OF TRANSPORTATION		
STATE CONTRACT OR REF. NO.	DE-0091(006) PIN 1665.30	
CONTRACTOR	REED & REED, INC.	MADE BY: SJR
IN CHARGE	LANCO (WC)	RF DATE: 5-2-96
CONTRACT NUMBER	ME-96500-1	DRAWING NUMBER: 30 OF 30

SHOP NOTE
 FOR GENERAL SHOP NOTES, SEE DWG. N1.
 FOR WEB CAMBER DIAGRAM, SEE DWG. WC3.
 FOR HORIZ. CURVE DIAGRAM, SEE DWG. HC1.



RAMP B CURVE DATA
 PI = STA. 307+12.38
 $\Delta = 89^{\circ}34'30''$
 R = 355.00'
 L = 555.00
 T = 352.38
 E = 145.20

PLAN
 15' 0 15' 30'



ELEVATION
 15' 0 15' 30'

PROJECT DESIGN ENGINEER	YDL	DATE	2/95
DESIGN-DETAILED	JAD	BY	JAD
CHECKED	YD LI	NC	1/96
REVISIONS		YO LI	
FIELD CHANGES			

PLANS

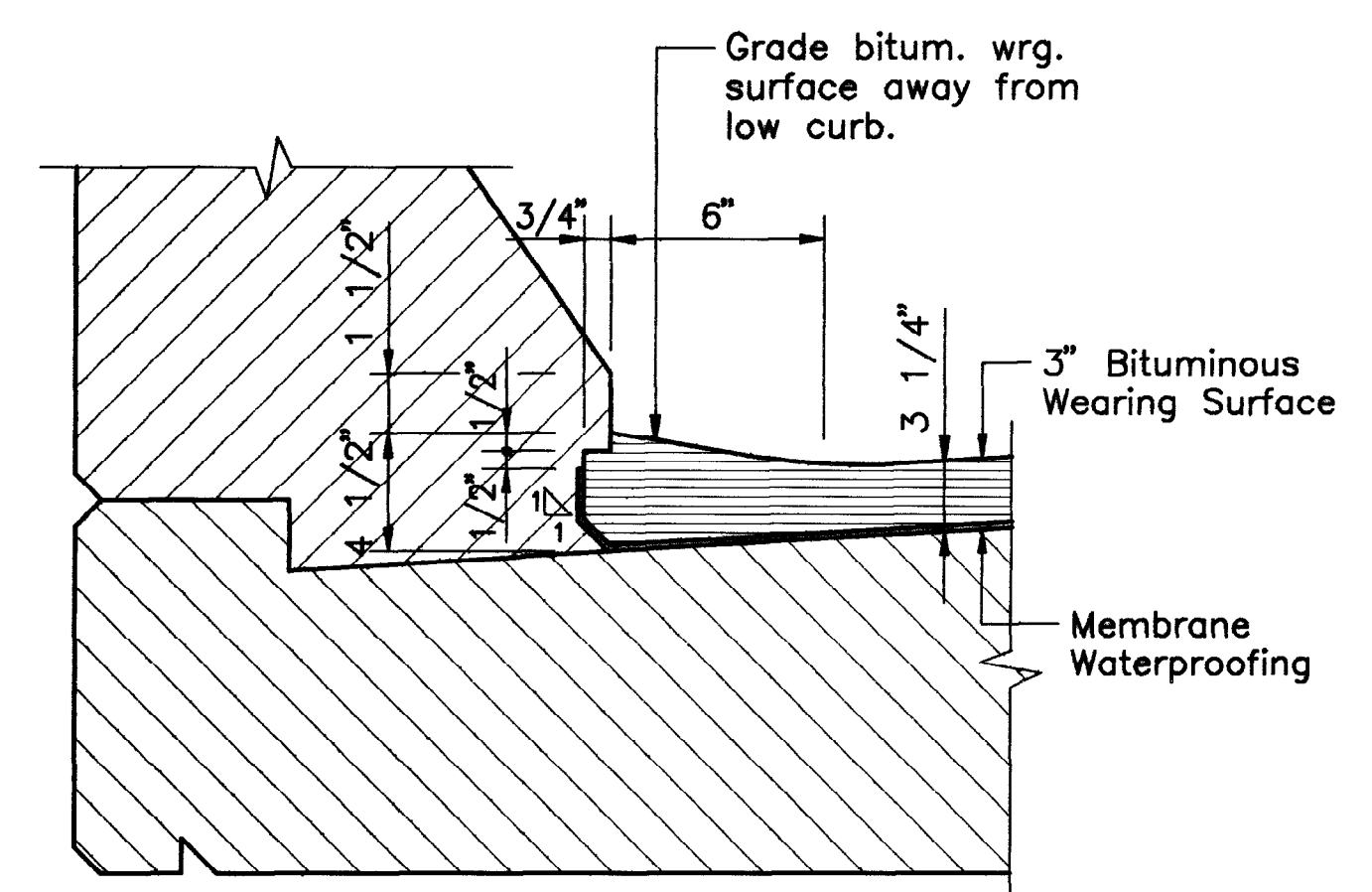
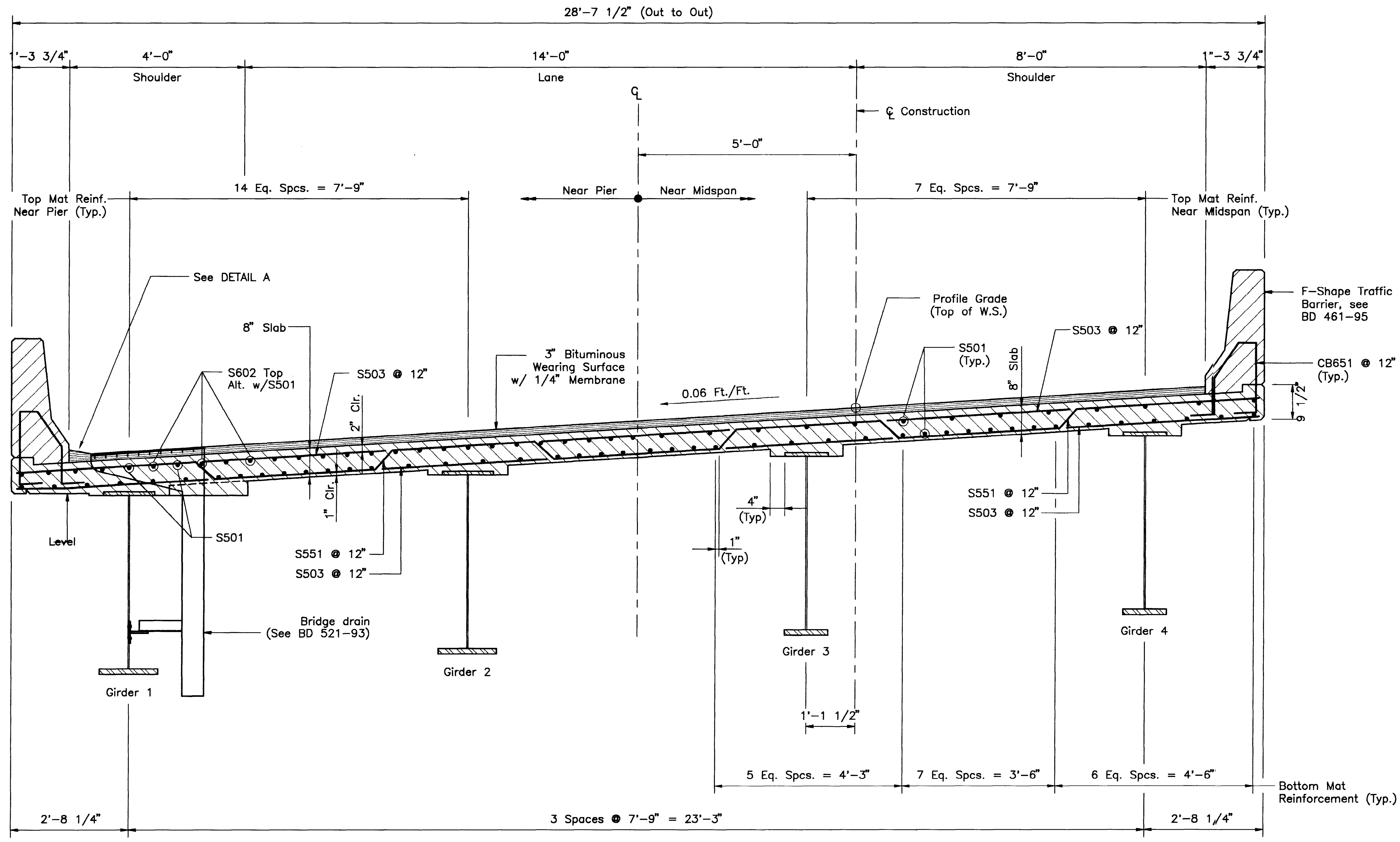
CONCRETE ALTERNATIVE

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

ROUTE 196 RAMP B BRIDGE
 over
 U. S. ROUTE 1
 in the town of
 BRUNSWICK

PLAN AND ELEVATION

SHEET 54 OF 101 AUGUSTA, MAINE



TYPICAL SECTION
(LOOKING IN DIRECTION OF STATIONING)

DETAIL A

PROJECT DESIGN ENGINEER	YDL	DATE	9/85
DESIGN--DETAILED	KSS	MRR	1/86
CHECKED	RRH		
REVISIONS			
FIELD CHANGES			

STEEL ALTERNATIVE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
ROUTE 196 RAMP B BRIDGE over U. S. ROUTE 1 in the town of BRUNSWICK
TYPICAL SECTION
SHEET 37 OF 94 AUGUSTA, MAINE