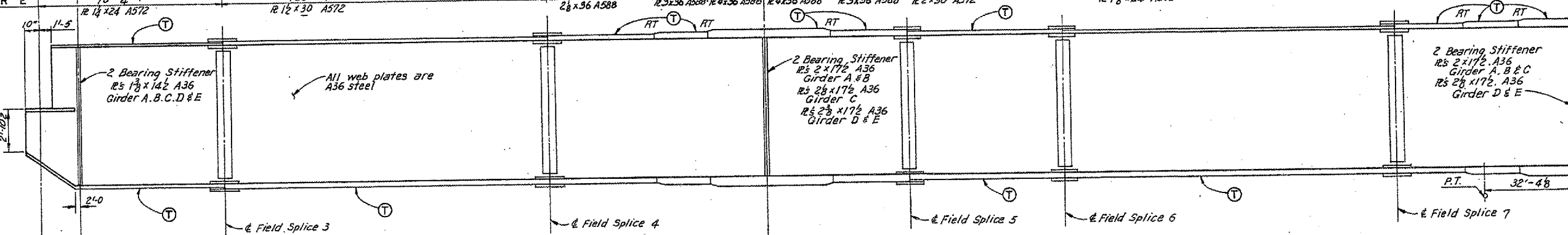
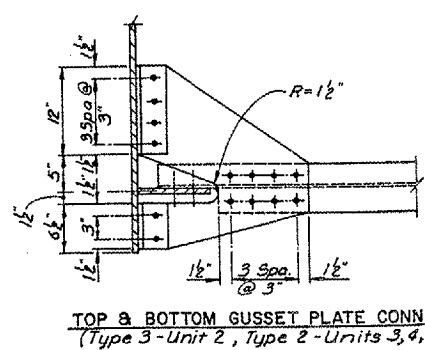


SPAN LENGTHS	← Pier 2		← Pier 3										← Pier 4 & Matchline		
	GIRDER A	GIRDER B	GIRDER C	GIRDER D	GIRDER E	GIRDER A	GIRDER B	GIRDER C	GIRDER D	GIRDER E	GIRDER A	GIRDER B	GIRDER C	GIRDER D	GIRDER E
GIRDER A	14'-6 1/2"	14'-9 3/8"	15'-0 1/8"	15'-3 3/8"	15'-6 1/8"	244'-8 1/2"	248'-8"	252'-7 1/2"	256'-7 1/2"	260'-7 1/2"	287'-4 1/2"	291'-6 3/8"	295'-8 1/2"	299'-10 1/2"	304'-0 1/8"
GIRDER B	14'-6 1/2"	14'-9 3/8"	15'-0 1/8"	15'-3 3/8"	15'-6 1/8"	115'-6 1/2"	117'-5 3/8"	119'-3 3/4"	121'-2 3/8"	123'-1"	77'-8 1/2"	78'-11 1/2"	80'-2 1/2"	81'-5 1/2"	82'-8 1/2"
GIRDER C	14'-6 1/2"	14'-9 3/8"	15'-0 1/8"	15'-3 3/8"	15'-6 1/8"	49'-6 1/2"	50'-3 3/8"	51'-1 1/2"	51'-11 1/2"	52'-9"	49'-6 1/2"	50'-3 3/8"	51'-1 1/2"	51'-11 1/2"	52'-9"
GIRDER D	14'-6 1/2"	14'-9 3/8"	15'-0 1/8"	15'-3 3/8"	15'-6 1/8"	54'-4 1/2"	55'-3 3/8"	56'-1 1/2"	57'-0 1/8"	57'-11 1/2"	54'-4 1/2"	55'-3 3/8"	56'-1 1/2"	57'-0 1/8"	57'-11 1/2"
GIRDER E	14'-6 1/2"	14'-9 3/8"	15'-0 1/8"	15'-3 3/8"	15'-6 1/8"	118'-5 1/2"	120'-4 3/8"	122'-3 1/2"	124'-3"	126'-2 1/2"	118'-5 1/2"	120'-4 3/8"	122'-3 1/2"	124'-3"	126'-2 1/2"
<p>FIELD SPLICES: GIRDER A (115'-6 1/2", 77'-8 1/2", 49'-6 1/2", 54'-4 1/2", 118'-5 1/2"), GIRDER B (117'-5 3/8", 78'-11 1/2", 50'-3 3/8", 55'-3 3/8", 120'-4 3/8"), GIRDER C (119'-3 3/4", 80'-2 1/2", 51'-1 1/2", 56'-1 1/2", 122'-3 1/2"), GIRDER D (121'-2 3/8", 81'-5 1/2", 51'-11 1/2", 57'-0 1/8", 124'-3"), GIRDER E (123'-1", 82'-8 1/2", 52'-9", 57'-11 1/2", 126'-2 1/2").</p>															
<p>TOP FLANGE SHEAR CONNECTOR SPACING: GIRDER A (31 spa @ 16"=41'-4", 29 spa @ 24"=58'-0", 30 spa @ 18"=45'-0", 7 spa @ 15"=8'-9", 2'-9", 24 spa @ 14"=28'-0", 20 spa @ 24"=40'-0", 8'-5 1/2", 9'-7 1/2", 19 spa @ 24"=38'-0", 3'-8", 51 spa @ 12"=51'-0", 3'-2", 48 spa @ 16"=64'-0", 44 spa @ 14"=51'-4", 3'-2", 26 spa @ 24"=52'-0", 11'-4 1/2"), GIRDER B (31 spa @ 16"=41'-4", 29 spa @ 24"=58'-0", 31 spa @ 18"=46'-6", 7 spa @ 16"=9'-4", 2'-9", 25 spa @ 14"=29'-2", 20 spa @ 24"=40'-0", 8'-5 1/2", 10'-5 1/2", 19 spa @ 24"=38'-0", 3'-8", 52 spa @ 12"=52'-0", 3'-4", 49 spa @ 16"=65'-4", 46 spa @ 14"=53'-8", 3'-2", 27 spa @ 24"=54'-0", 10'-5 1/2"), GIRDER C (32 spa @ 16"=42'-8", 4'-2", 30 spa @ 24"=60'-0", 31 spa @ 18"=46'-6", 7 spa @ 16"=9'-4", 2'-9", 26 spa @ 14"=30'-4", 20 spa @ 24"=40'-0", 8'-5 1/2", 9'-3 3/8", 20 spa @ 24"=40'-0", 4'-0", 52 spa @ 12"=52'-0", 3'-9", 49 spa @ 16"=65'-4", 46 spa @ 14"=53'-8", 3'-2", 27 spa @ 24"=54'-0", 11'-0 1/2"), GIRDER D (32 spa @ 16"=42'-8", 4'-10", 30 spa @ 24"=60'-0", 33 spa @ 18"=49'-6", 7 spa @ 14"=8'-2", 2'-9", 25 spa @ 14"=29'-2", 21 spa @ 24"=42'-0", 8'-9 1/2", 9'-9 1/2", 20 spa @ 24"=40'-0", 4'-2", 53 spa @ 12"=53'-0", 4'-2", 50 spa @ 16"=66'-8", 46 spa @ 14"=53'-8", 3'-4", 27 spa @ 24"=54'-0", 11'-4 1/2"), GIRDER E (33 spa @ 16"=44'-0", 4'-10", 30 spa @ 24"=60'-0", 34 spa @ 18"=51'-0", 7 spa @ 14"=8'-2", 2'-9", 26 spa @ 14"=30'-4", 21 spa @ 24"=42'-0", 9'-0 1/2", 10'-6 1/2", 20 spa @ 24"=40'-0", 4'-2", 54 spa @ 12"=54'-0", 4'-0", 50 spa @ 16"=66'-8", 48 spa @ 14"=56'-0", 3'-4", 27 spa @ 24"=54'-0", 11'-4 1/2").</p>															
<p>TOP FLANGE PLATE: GIRDER A (R 1 1/2 x 24 A572, 66'-0 1/4", 115'-6 1/2", 40'-9 3/8", 16'-6 1/2", 20'-4 1/2", 20'-4 1/2", 29'-1 1/2", 54'-4 1/2", 118'-5 1/2", 27'-2 1/2", 16'-10 1/2", 21'-0"), GIRDER B (R 1 1/2 x 24 A572, 67'-1 1/2", 117'-5 3/8", 41'-5 1/2", 16'-9 3/8", 20'-8 1/2", 20'-8 1/2", 29'-7 1/2", 55'-3 3/8", 120'-4 3/8", 27'-7 1/2", 16'-11 1/2", 21'-0"), GIRDER C (R 1 1/2 x 24 A572, 68'-2 3/8", 119'-3 3/4", 42'-1 1/2", 17'-0 1/2", 21'-0 1/2", 21'-0 1/2", 30'-0 1/2", 56'-1 1/2", 122'-3 1/2", 28'-0 1/2", 17'-0 1/2", 21'-0"), GIRDER D (R 1 1/2 x 24 A572, 69'-3 1/2", 121'-2 3/8", 42'-5 1/2", 17'-3 1/2", 21'-4 3/8", 21'-4 3/8", 30'-6 1/2", 57'-0 1/8", 124'-3", 28'-6 1/2", 17'-1 1/2", 21'-0"), GIRDER E (R 1 1/2 x 24 A572, 70'-4", 123'-1", 43'-5 1/2", 17'-7", 21'-8 3/8", 21'-8 3/8", 31'-0 3/8", 57'-11 1/2", 126'-2 1/2", 28'-11 1/2", 17'-2 3/8", 21'-0").</p>															
<p>FIELD SPLICES: GIRDER A (3, 4, 5, 6, 7), GIRDER B (3, 4, 5, 6, 7), GIRDER C (3, 4, 5, 6, 7), GIRDER D (3, 4, 5, 6, 7), GIRDER E (3, 4, 5, 6, 7).</p>															



Notes:

- For field splice details see Sheet 73
- For "Shear Connector Details" see Sheet 69.
- The weight of the shear connectors are included in the Structural Steel Quantities.
- There shall be no shear connector groups located at the center of pier or at field splices.
- RT denotes location of splices that require radiographic inspection.
- For girder end details see Sheet 88.
- ⊕ denotes tension flange plate



The Contractor shall furnish Iowa D.O.T. with one test coupon taken from each of two 36" x 4" top flange plates at Pier #3. The test coupons shall be 6" x 8" with 8" in the longitudinal rolling direction. Both coupons shall be properly marked with rolling direction and heat number. The Contractor shall deliver the coupons to Iowa D.O.T. Material Laboratory in Ames. The cost of furnishing these two test coupons shall be included in the price bid for Structural Steel.

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Structural Concrete (Class D)	Cu. Yds.	2382.6
Reinforcing Steel - Non Epoxy Coated	Lbs.	266,493
Reinforcing Steel - Epoxy Coated*	Lbs.	449,226
Structural Steel - A36	Lbs.	3,634,044
Structural Steel - A572	Lbs.	1,122,329
Structural Steel - A588	Lbs.	1,167,434
N. and S. Barrier Rail	Lin. Ft.	2242.0
Median Barrier Rail	Lin. Ft.	1121.0

*Includes 720 lbs. of reinforcing steel in light blisters, and 600 lbs. of reinforcing steel at drainage inlets.

MISSISSIPPI RIVER BRIDGE
KEOKUK, IOWA - HAMILTON, ILLINOIS

STEEL ALTERNATE
DESIGN FOR 0° SKEW
3340' x 64' CONTINUOUS WELDED
PLATE GIRDER BRIDGE

GIRDER ELEVATION - UNIT 2

STA. 50+40.0
RIVER MILE 36.9
LEE COUNTY, IOWA

PROJECT NO. BRP-19-1(3)-28-56
HANCOCK COUNTY, ILLINOIS

DESIGN SHEET 68 OF

6787-25-00

FOR INFORMATION ONLY