

HISTORIC AMERICAN ENGINEERING RECORD

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Benton Street Bridge
Carrying Benton Street across the Iowa River
Iowa City
Johnson City
Iowa

HAER No. IA-30

NOTE: Photographs were taken by Robert A. Ryan, Bruce A. Harms and Alan L. Wieskamp of Dennett, Muessig, Ryan & Associates, Ltd., Iowa City Iowa, April 1989

- IA-30-1 VIEW SHOWING NORTH ELEVATION OF BRIDGE, LOOKING SOUTH [Ryan]
- IA-30-2 VIEW SHOWING SOUTH ELEVATION OF BRIDGE, LOOKING NORTH. THE ROCK ISLAND LINE RAILROAD BRIDGE CAN BE SEEN IN THE BACKGROUND TO THE NORTH, WITH THE BURLINGTON STREET BRIDGE IN THE DISTANCE [Ryan]
- IA-30-3 3/4 VIEW OF BRIDGE FROM THE EAST BANK OF THE IOWA RIVER, LOOKING NORTHWEST [Ryan]
- IA-30-4 3/4 VIEW OF BRIDGE FROM THE WEST BANK OF THE IOWA RIVER, LOOKING NORTHEAST [Harms]
- IA-30-5 3/4 VIEW OF BRIDGE FROM THE WEST BANK OF THE IOWA RIVER, LOOKING SOUTHWEST. PIERS FROM THE OLD BENTON STREET BRIDGE CAN BE SEEN IN THE WATER TO THE LEFT OF THE BRIDGE [Harms]
- IA-30-6 VIEW SHOWING EAST APPROACH, LOOKING WEST [Ryan & Harms]
- IA-30-7 VIEW SHOWING WEST APPROACH, LOOKING EAST [Ryan]
- IA-30-8 VIEW OF DECK, SHOWING SIDEWALK & ORIGINAL LIGHT POLES, LOOKING WEST [Ryan]
- IA-30-9 VIEW OF SIDEWALK & SIDEWALK RAILING, SHOWING WELD BETWEEN RAILING SECTIONS, LOOKING NORTHWEST. THE PIERS FROM THE OLD BENTON STREET BRIDGE CAN BE SEEN IN THE WATER BELOW [Ryan]
- IA-30-10 DETAIL VIEW OF SIDEWALK RAILING, SHOWING WELDED SEAM, "ILLINOIS-S-USA" ROLLER MARK, AND WELDER'S INITIALS ("C.K."), LOOKING NORTH-NORTHWEST [Harms]
- IA-30-11 VIEW OF PIER 3, SHOWING THE JUNCTION OF PANELS 4 & 3 OF THE SOUTH GIRDER, LOOKING NORTHEAST [Harms]
- IA-30-12 OVERALL VIEW OF PANEL 4 FROM BENEATH THE BRIDGE, SHOWING MAIN GIRDERS, FLOOR BEAMS & STRINGERS, LATERAL BRACING, AND PIERS 3 & 2, LOOKING EAST [Ryan & Harms]
- IA-30-13 VIEW OF PIER 2, SHOWING FIXED SHOES, THE SOUTH GIRDER (PANELS 3 & 2), AND CANTILEVER BRACKETS & HANDRAIL, LOOKING NORTHWEST [Harms]

- IA-30-14 DETAIL VIEW OF THE CANTILEVER & 'S' BRACKETS AND THE SOUTH HANDRAIL, PANEL 1, NEAR THE SOUTHEAST ABUTMENT, LOOKING NORTHWEST [Harms]
- IA-30-15 DETAIL VIEW FROM BELOW THE NORTH MAIN GIRDER & CANTILEVER BRACKETS, SHOWING THE DETERIORATING ORIGINAL CONCRETE SIDEWALK AND ITS STEEL REINFORCEMENT, PANEL 1, LOOKING WEST-SOUTHWEST [Harms]
- IA-30-16 VIEW OF TYPICAL MAIN GIRDER WELDED "BUTT SPLICE," SHOWING THE 'EYE PLATES' AND THE ATTACHMENT OF THE SIDEWALK CANTILEVER BRACKETS, NORTH GIRDER, PANEL 5, LOOKING SOUTHEAST [Ryan & Harms]
- IA-30-17 DETAIL VIEW OF A TYPICAL MAIN GIRDER WELDED 'BUTT SPLICE,' SHOWING THE 'EYE PLATES,' SOUTH GIRDER, PANEL 1, LOOKING NORTH-NORTHWEST [Harms]
- IA-30-18 DETAIL VIEW OF A TYPICAL WELDED JOINT BETWEEN THE MAIN GIRDER AND THE FLOOR BEAM, SHOWING THE ATTACHMENT OF A LATERAL BRACING MEMBER AT THIS POINT, SOUTH GIRDER, PANEL 5, LOOKING SOUTH-SOUTHWEST [Ryan & Wieskamp]
- IA-30-19 DETAIL VIEW OF A TYPICAL 'T-STIFFENER' WELDED TO THE INSIDE OF THE MAIN GIRDER, SHOWING THE WELDED ATTACHMENT WITH A SWAY BRACE, PANEL 1, SOUTH GIRDER, LOOKING SOUTHEAST [Harms & Ryan]
- IA-30-20 DETAIL VIEW OF A MOVABLE SHOE AT PIER 1, SHOWING THE SOUTH MAIN GIRDER AND THE CONCRETE DETERIORATION AT THE TOP OF THE PIER, LOOKING NORTHWEST [Harms]
- IA-30-21 DETAIL VIEW OF THE MOVABLE SHOE AT THE SOUTHEAST ABUTMENT, SHOWING THE INTERSECTION OF THE FLOOR BEAM WITH A LATERAL BRACE AND THE SOUTH MAIN GIRDER, PANEL 1, LOOKING SOUTH-SOUTHEAST [Ryan & Harms]
- IA-30-22 DETAIL VIEW OF THE CONCRETE NORTHWEST ABUTMENT, LOOKING WEST-SOUTHWEST FROM BELOW [Ryan]
- IA-30-23 DETAIL VIEW OF THE NORTHWEST ABUTMENT, SHOWING AN ORIGINAL LIGHT FIXTURE AND THE "HISTORICAL TABLET," LOOKING NORTH-NORTHEAST FROM BELOW [Ryan]
- IA-30-24 DETAIL VIEW OF HISTORICAL TABLET LOCATED ON THE NORTHWEST ABUTMENT, LOOKING NORTH-NORTHEAST [Ryan]
- IA-30-25 DETAIL VIEW OF THE DEDICATION PLAQUE LOCATED ON THE NORTHEAST ABUTMENT, LOOKING NORTH-NORTHWEST [Ryan]

The following are photocopies of historical photographs from the Ned Ashton Collection, MS 167 at the State Historical Society of Iowa, Iowa City, IA:

- IA-30-26 VIEW SHOWING EXCAVATION FOR THE BASE OF PIER #1, LOOKING NORTH THE SUPPORT FOR THE PREVIOUS BRIDGE. October 26, 1948
- IA-30-27 VIEW SHOWING THE PLACEMENT OF GIRDER G7 OVER PIER #3. April 11, 1949
- IA-30-28 LOW LEVEL AERIAL VIEW, LOOKING WEST ALONG THE NEW BRIDGE, WITH THE OLD BRIDGE TO THE RIGHT. April 23, 1949
(Field welding began at the far end of span #5 on April 19, 1949.)
- IA-30-29 VIEW SHOWING WEST APPROACH OF BRIDGE, LOOKING WEST. No date.
(The field welding was by the Teleweld Corporation of Chicago, with four Lincoln welders from Tuesday, April 19 to Monday, May 16, 1949. 528 man hours of welders' time)
- IA-30-30 VIEW SHOWING WELDERS AT WORK ON BOTH THE NORTH AND SOUTH GIRDERS, WITH THE OLD BRIDGE IN THE BACKGROUND, LOOKING NORTHWEST. No date.
(Welding of top flanges of cantilever brackets to girder occurred on May 10, 1949)
- IA-30-31 GENERAL AIREAL [sic] VIEW OF BENTON STREET BRIDGE ON MAY 11, 1949, LOOKING EAST. No date.
- IA-30-32 VIEW SHOWING THE PUMPING OF CONCRETE ON SPAN 4, FIRST POUR, MAY 12, 1949.
- IA-30-33 3/4 VIEW OF COMPLETED BRIDGE, LOOKING SOUTHEAST
(Erection and field welding was completed on Monday, May 16, 1949)

The following are photocopies of original construction drawings, dated 1948, from blueprints in the Ned Ashton Collection, MS 167, at the State Historical Society of Iowa, Iowa City, IA:

- IA-30-34 TITLE SHEET
- IA-30-35 GENERAL PLAN AND ELEVATION, Sheet No. 1
- IA-30-36 ABUTMENTS, Sheet No. 2
- IA-30-37 MAIN PIERS, Sheet No. 3
- IA-30-38 CROSS SECTION & FLOOR DETAILS, Sheet No. 4
- IA-30-39 MAIN GIRDERS, Sheet No. 5
- IA-30-40 APPROACH PLAN, EXPANSION JOINTS & SHOE DETAILS, Sheet No. 6

- IA-30-41 HANDRAILS AND CURBS, Sheet No. 7
- IA-30-42 EAST APPROACH (ELEVATION, PLAN & TYPICAL CROSS SECTION), Sheet No. 8
- IA-30-43 WEST APPROACH (ELEVATION, PLAN & TYPICAL CROSS SECTION), Sheet No. 9
- IA-30-44 MISCELLANEOUS [DETAIL DRAWINGS], Sheet No. 10
- IA-30-45 ERECTION DIAGRAM (ONE QUARTER PLAN; ELEVATION SHOWING SHOES &
WORKING DIMENSIONS), Sheet No. E-2
- IA-30-46 ERECTION DIAGRAM (ONE QUARTER PLAN; TYPICAL SECTION AT FL. BM'S),
Sheet No. E-3.

Views IA-30-1 through IA-30-33 are contact prints from 4" x 5" negatives.

Views IA-30-34 through IA-30-46 are contact prints from 4" x 5" negatives.