

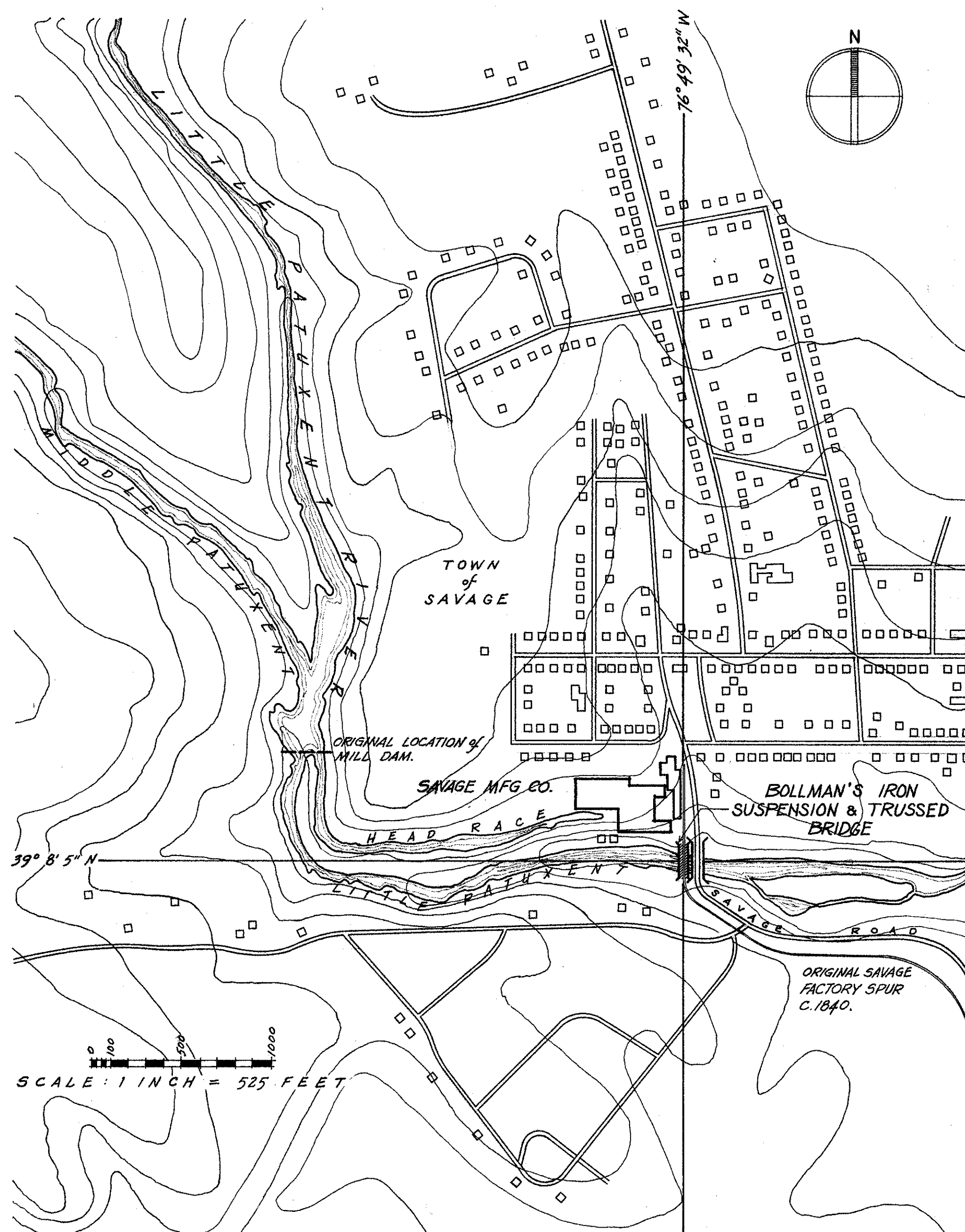
BALTIMORE AND OHIO RAILROAD: BOLLMAN'S IRON SUSPENSION AND TRUSSED BRIDGE C. 1869

THE BOLLMAN TRUSS BRIDGE AT SAVAGE, MD, IS SIGNIFICANT BECAUSE IT IS THE ONLY KNOWN EXTANT EXAMPLE OF THE FIRST BRIDGE TYPE CONSISTENTLY USED BY A RAILROAD IN WHICH ALL PRINCIPAL MEMBERS WERE IRON. THE BRIDGE IS COMPOSITE WITH ALL COMPRESSION MEMBERS OF CAST-IRON AND ALL TENSION MEMBERS OF WROUGHT-IRON. THERE ARE EARLIER IRON RAILROAD BRIDGES SURVIVING, BUT THESE DID NOT ENJOY THE CONSISTENCY OR STANDARDIZATION OF USE AS DID BOLLMAN'S BRIDGE. MOST RAILROAD BRIDGES PRIOR TO THIS ONE WERE MASONRY ARCHES OR WOODEN TRUSSES, RATHER THAN IRON.

THE TWO-SPAN, DOUBLE-TRACKED BRIDGE AT SAVAGE WAS MOVED FROM MAIN-LINE SERVICE TO THIS INDUSTRIAL SPUR AROUND 1887, HENCE THE REASON FOR ITS SURVIVAL. IT WAS INVENTED BY BALTIMORE ENGINEER WENDEL BOLLMAN AND CONSTRUCTED IN C. 1869. THE BRIDGE WAS RESTORED BY THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS IN 1983.

THIS RECORDING PROJECT WAS CONDUCTED BY THE HISTORIC AMERICAN ENGINEERING RECORD (HAER), A LONG-RANGE PROGRAM TO DOCUMENT HISTORICALLY SIGNIFICANT ENGINEERING AND INDUSTRIAL SITES IN THE UNITED STATES. HAER IS ADMINISTERED BY THE NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR. THE B&O RAILROAD SURVEY WAS COSPONSERED DURING THE SUMMER OF 1970 BY THE NATIONAL PARK SERVICE UNDER THE GENERAL DIRECTION OF JAMES C. MASSEY, CHIEF, HISTORIC AMERICAN BUILDINGS SURVEY, THE DIVISION OF MECHANICAL & CIVIL ENGINEERING, NATIONAL MUSEUM OF HISTORY & TECHNOLOGY, SMITHSONIAN INSTITUTION; THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE); AND THE CHESAPEAKE & OHIO / BALTIMORE & OHIO RAILROAD.

THE BRIDGE WAS RECORDED BY UNIVERSITY OF MARYLAND CIVIL ENGINEERING STUDENTS IN 1966 UNDER THE DIRECTION OF ROBERT M. VOGEL, CURATOR, DIVISION OF MECHANICAL & CIVIL ENGINEERING, SMITHSONIAN INSTITUTION. MEASURED DRAWINGS, BASED ON THE FIELD NOTES, WERE COMPLETED BY THE B&O RAILROAD SURVEY DURING THE SUMMER OF 1970 UNDER THE DIRECTION OF ERIC D'ELONY (COLUMBIA UNIVERSITY), PROJECT SUPERVISOR. RECORDING TEAM MEMBERS INCLUDED GREGORY S. BREZINSKI (UNIVERSITY OF VIRGINIA), JEFFRY R. JENKINS (UNIVERSITY OF MIAMI), MICHAEL G. MASNY (UNIVERSITY OF ILLINOIS) AND CHARLES A. PARROTT III (UNIVERSITY OF IOWA). FORMAL PHOTOGRAPHY WAS DONE BY WILLIAM EDMUND BARRETT.



DRAWN BY: GREGORY BREZINSKI, 1970

B & O RAILROAD SURVEY
UNDER DIRECTION OF THE NATIONAL PARK SERVICE,
UNITED STATES DEPARTMENT OF THE INTERIOR

SAVAGE

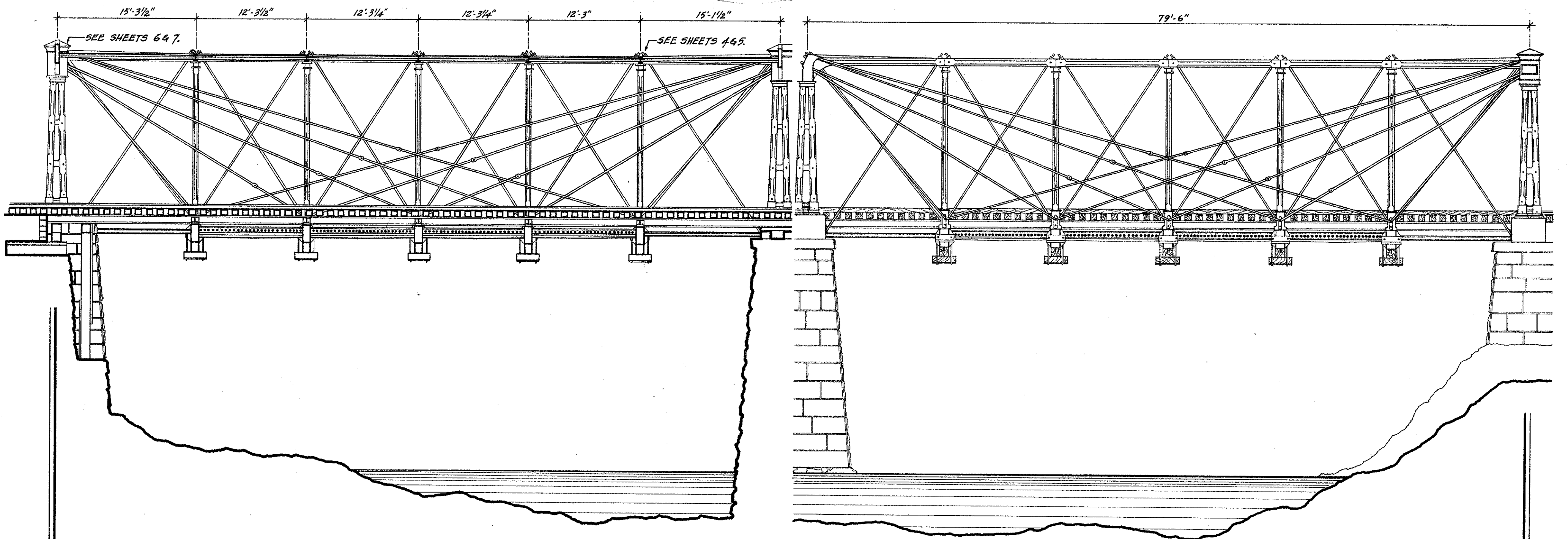
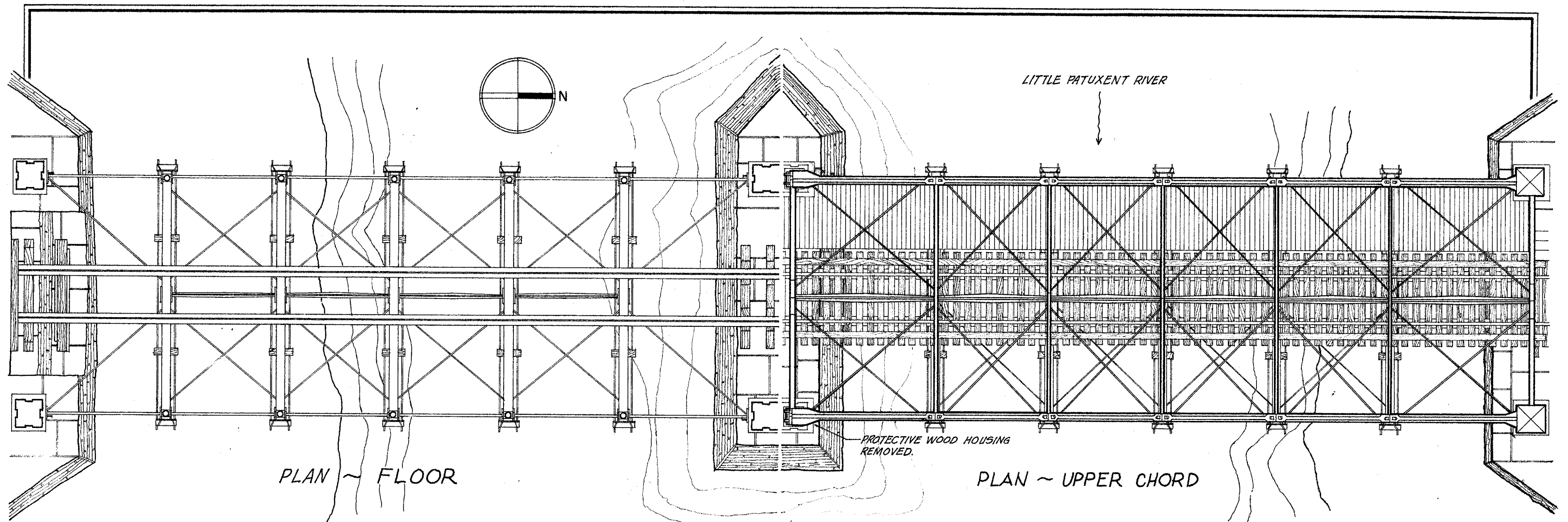
NAME AND LOCATION OF STRUCTURE
B & O RR: BOLLMAN'S IRON SUSPENSION & TRUSSED BRIDGE, c. 1869
LITTLE PATUXENT RIVER
HOWARD COUNTY

MARYLAND

RECORD NO.
MD
1

HISTORIC AMERICAN
ENGINEERING RECORD
SHEET 1 OF 7 SHEETS

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SCALE: 1/8 INCH = 1 FOOT

LONGITUDINAL SECTION

ELEVATION

DRAWN BY: GREGORY BREZINSKI and JEFFREY JENKINS · 1970

B & O RAILROAD SURVEY
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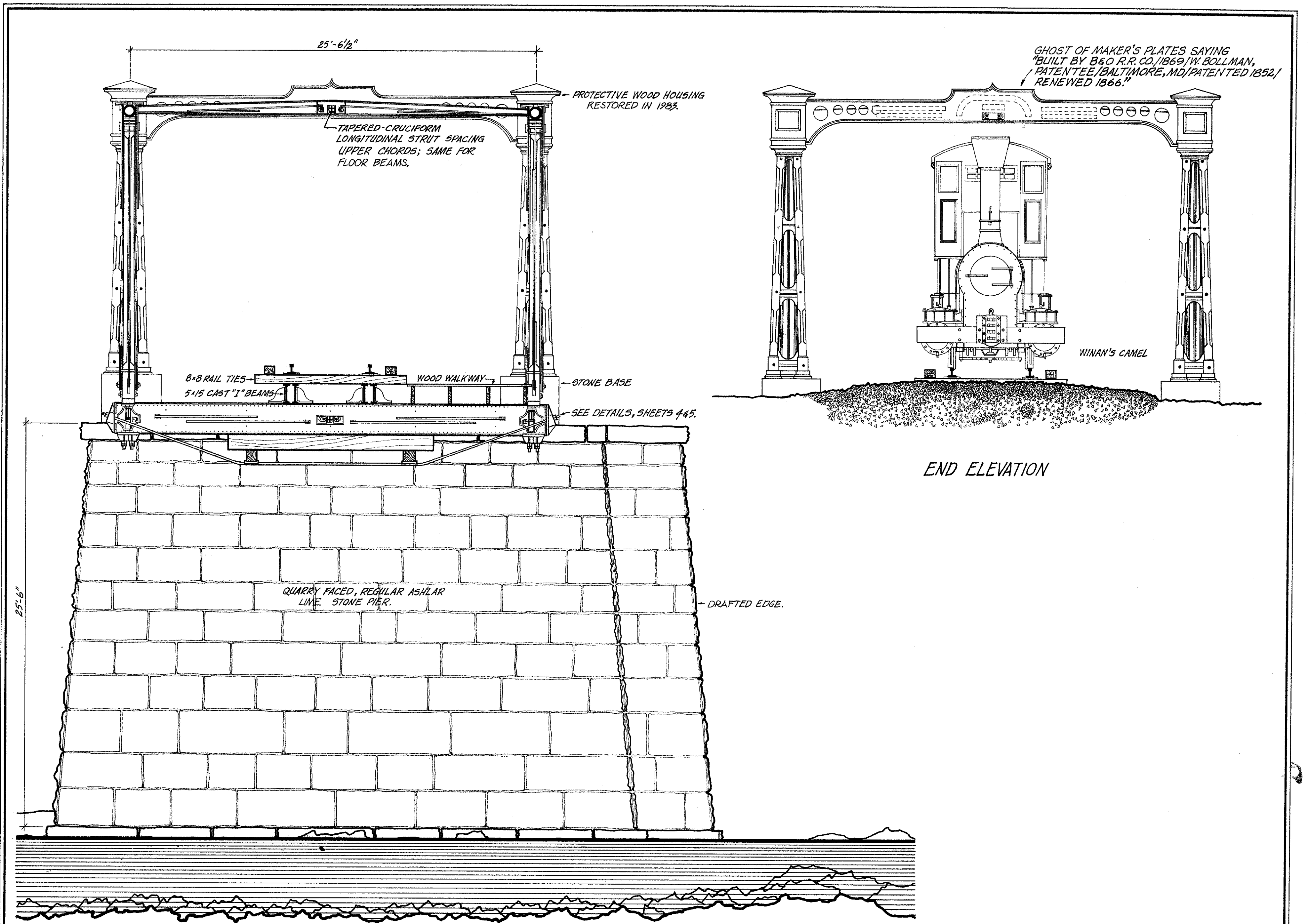
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GHOST OF MAKER'S PLATES SAYING
 "BUILT BY B&O R.R. CO./1869/W. BOLLMAN,
 PATENTEE/BALTIMORE, MD/PATENTED 1852/
 RENEWED 1866."

WINAN'S CAMEL

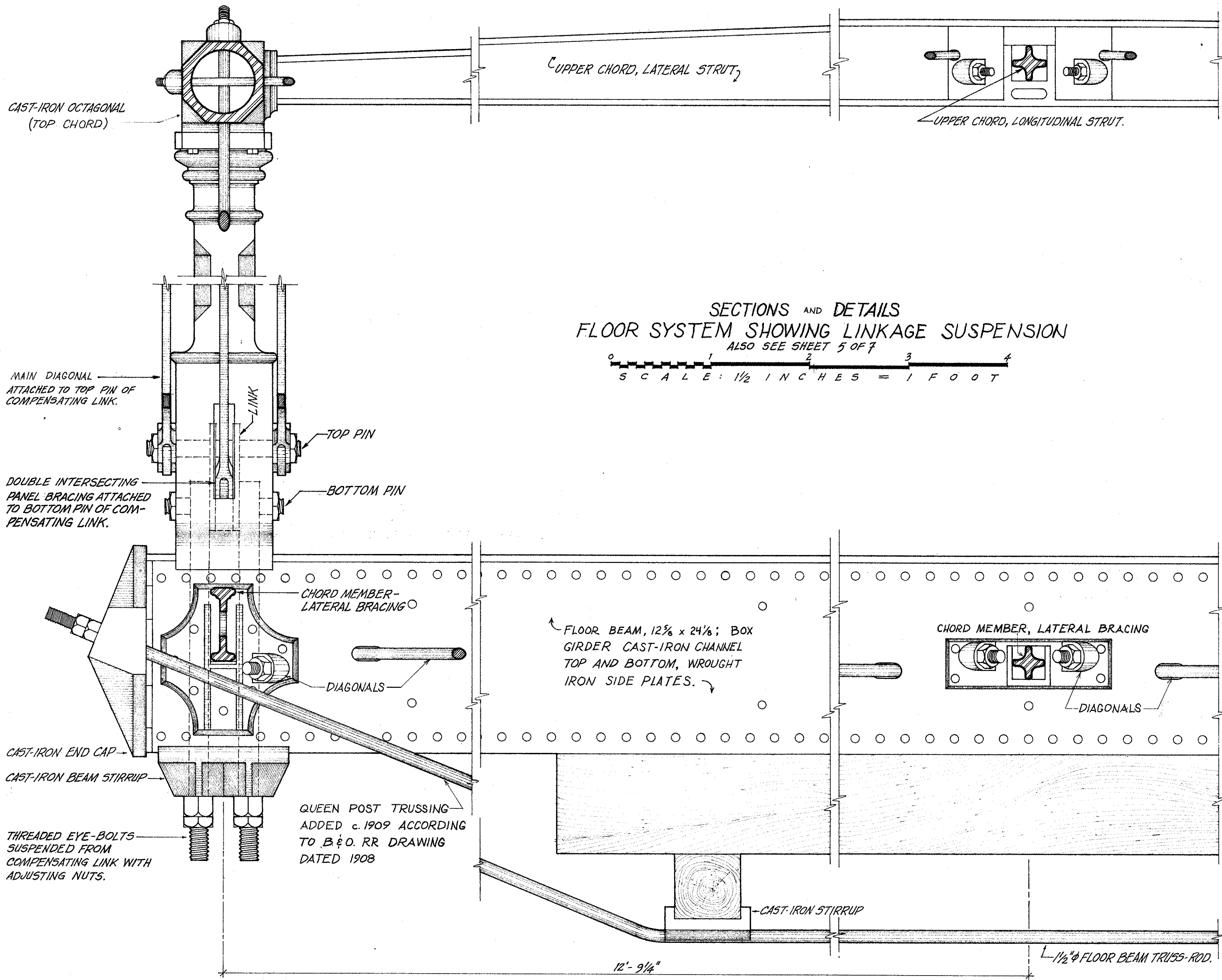
END ELEVATION

TRANSVERSE SECTION

0 5 10
 SCALE: 1/4 INCH = 1 FOOT

DRAWN BY: GREGORY BREZINSKI - 1970

<p>B & O RAILROAD SURVEY UNDER DIRECTION OF THE NATIONAL PARK SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR</p>	<p>SAVAGE</p>	<p>NAME AND LOCATION OF STRUCTURE B & O RR: BOLLMAN'S IRON SUSPENSION & TRUSSED BRIDGE, c. 1869 LITTLE PATUXENT RIVER HOWARD COUNTY MARYLAND</p>	<p>RECORD NO. MD 1</p>	<p>HISTORIC AMERICAN ENGINEERING RECORD SHEET 3 OF 7 SHEETS</p>	<p>LIBRARY OF CONGRESS INDEX NUMBER</p>
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DRAWN BY: CHARLES PARROTT III - 1970

B & O RAILROAD SURVEY

UNDER DIRECTION OF THE NATIONAL PARK SERVICE,
UNITED STATES DEPARTMENT OF THE INTERIOR

SAVAGE

NAME AND LOCATION OF STRUCTURE
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HOWARD COUNTY

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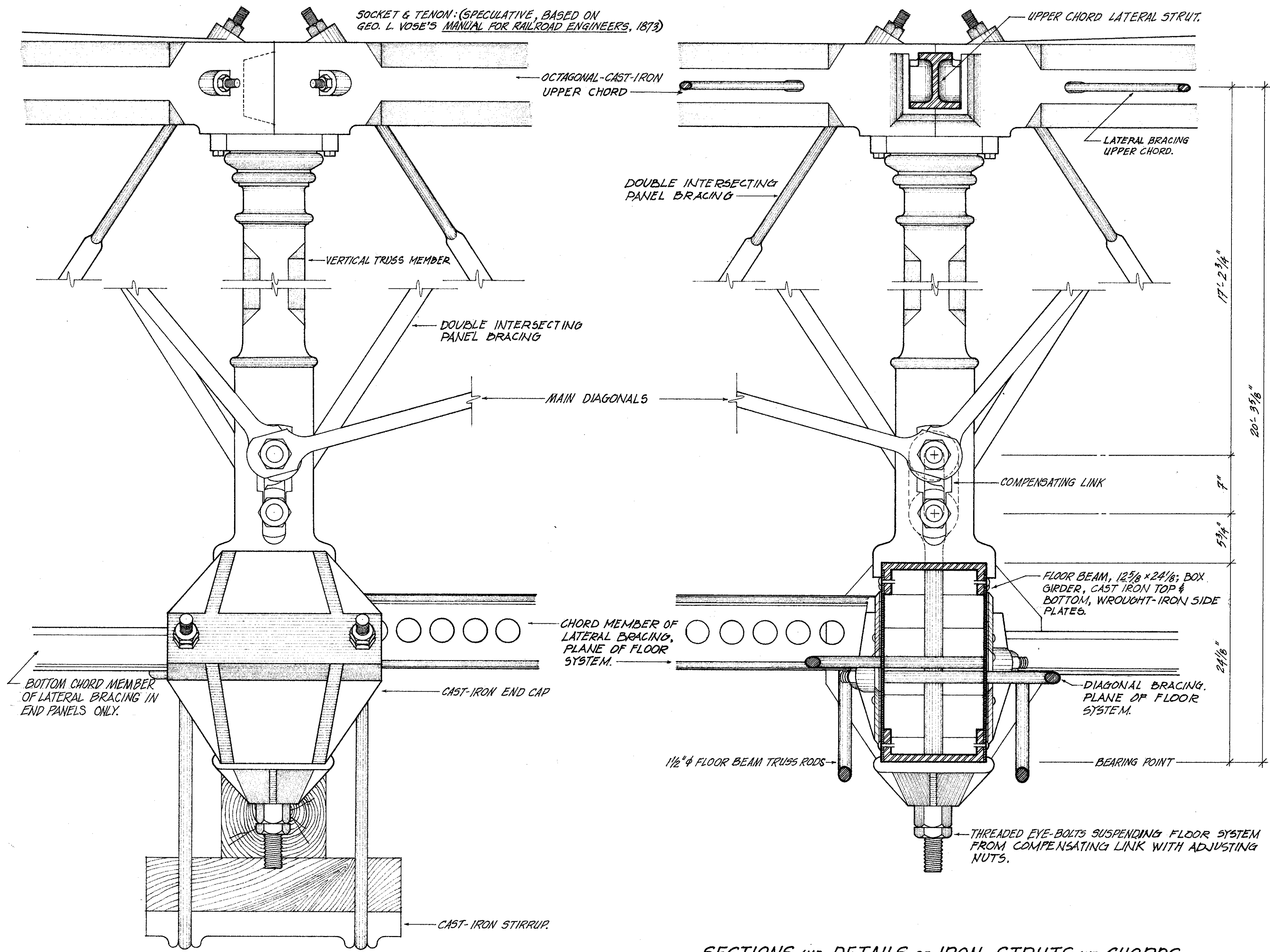
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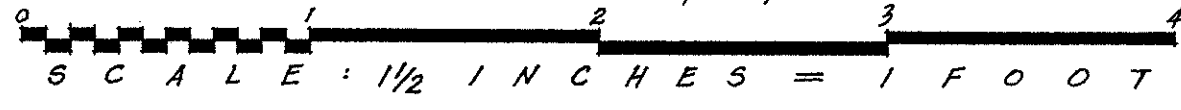
HISTORIC AMERICAN
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SHEET 4 OF 7 SHEETS

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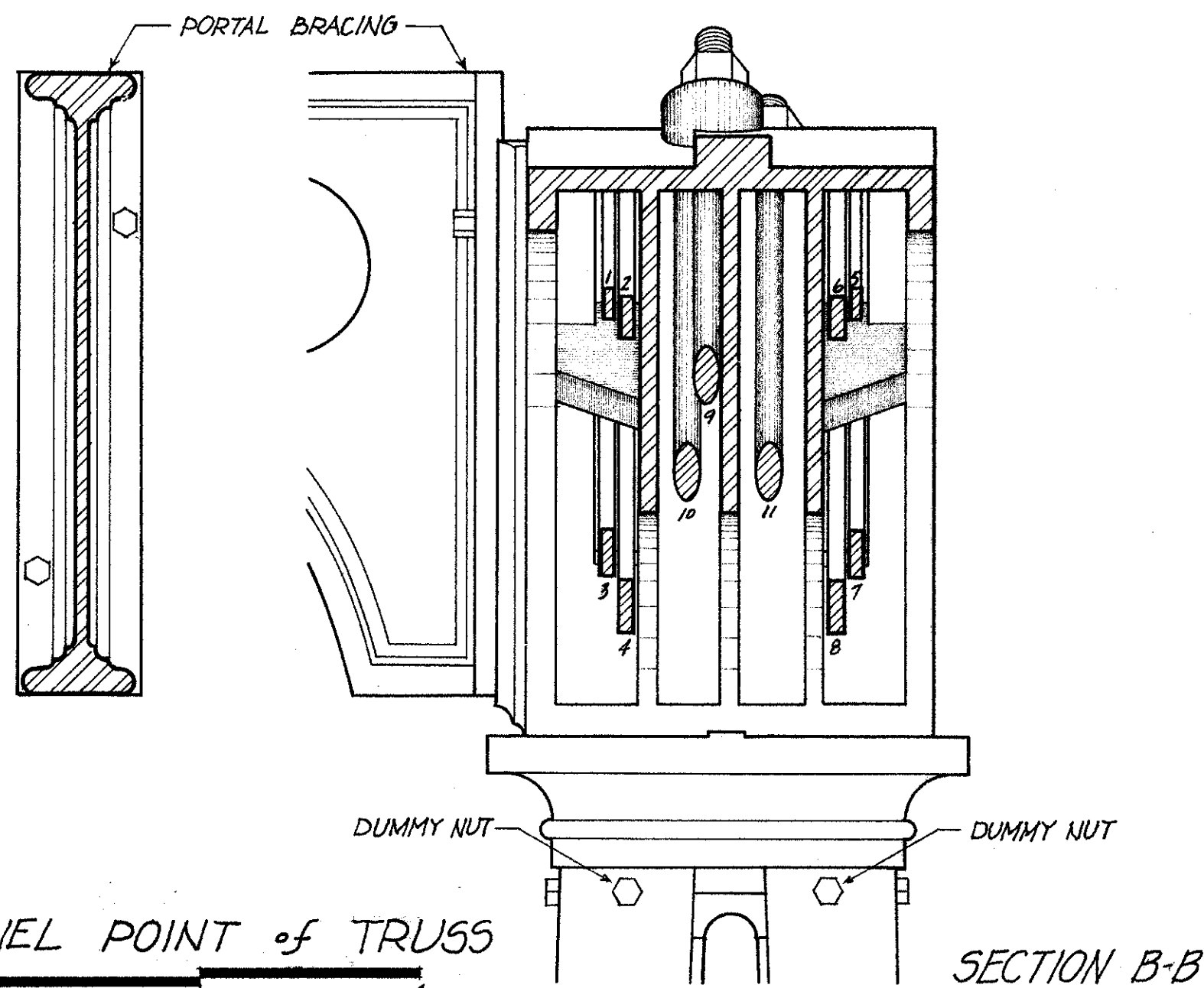
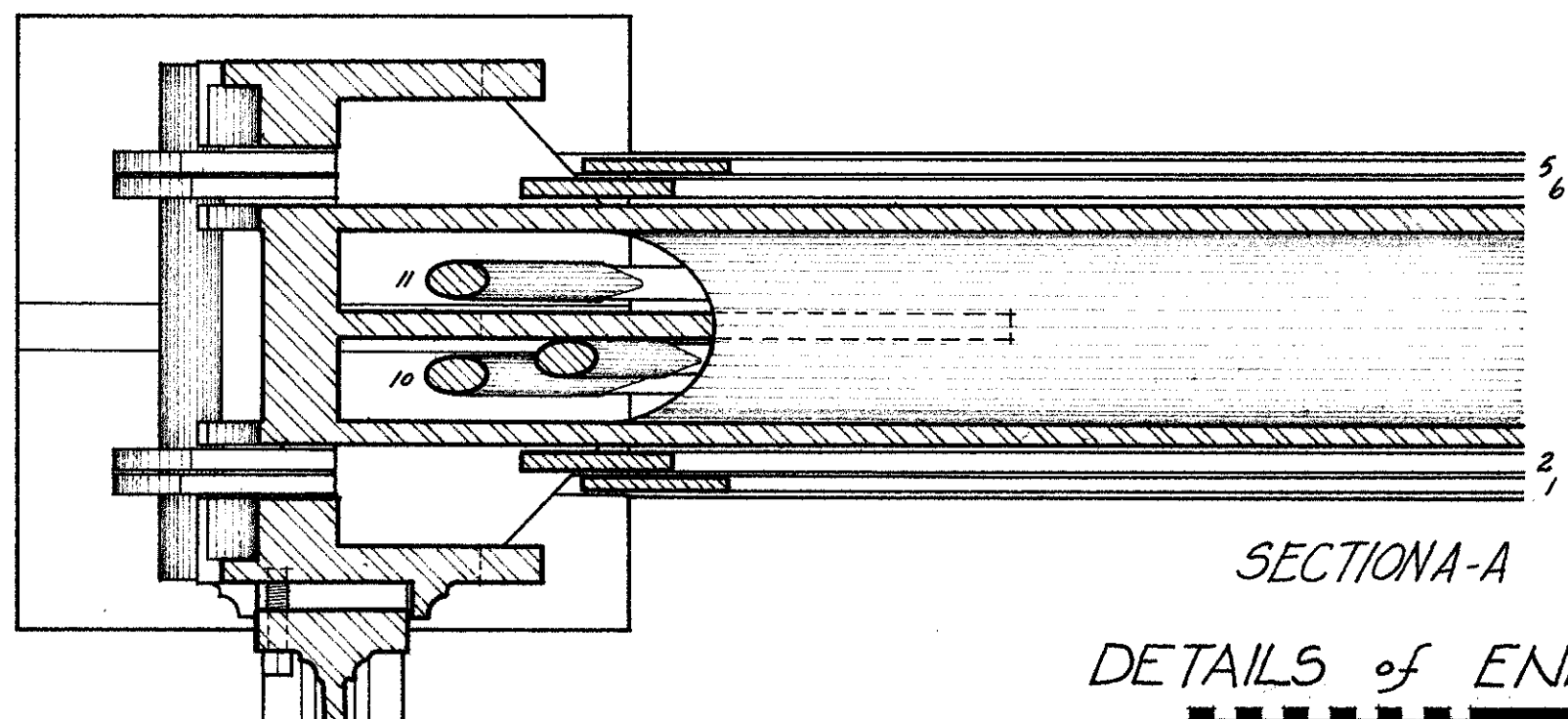
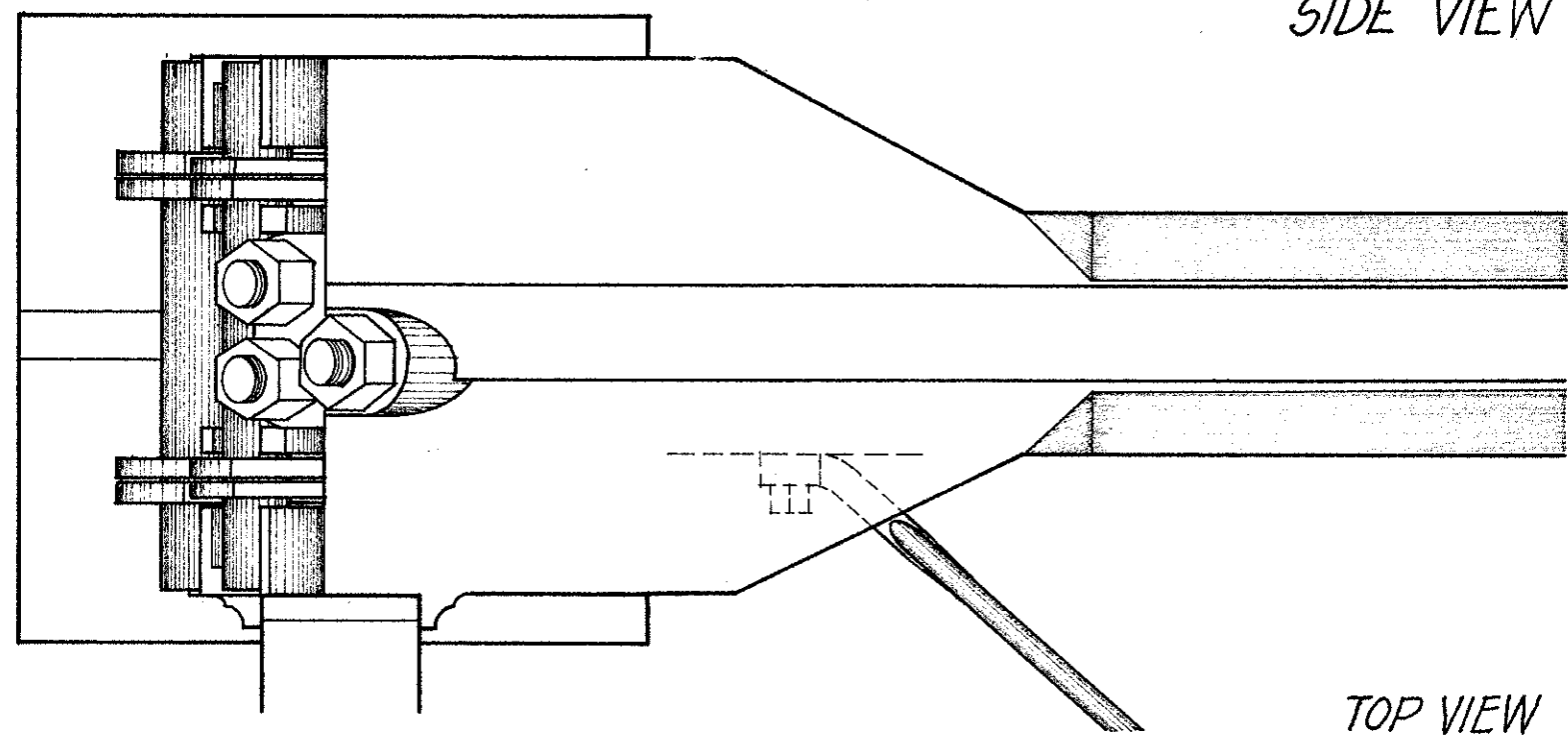
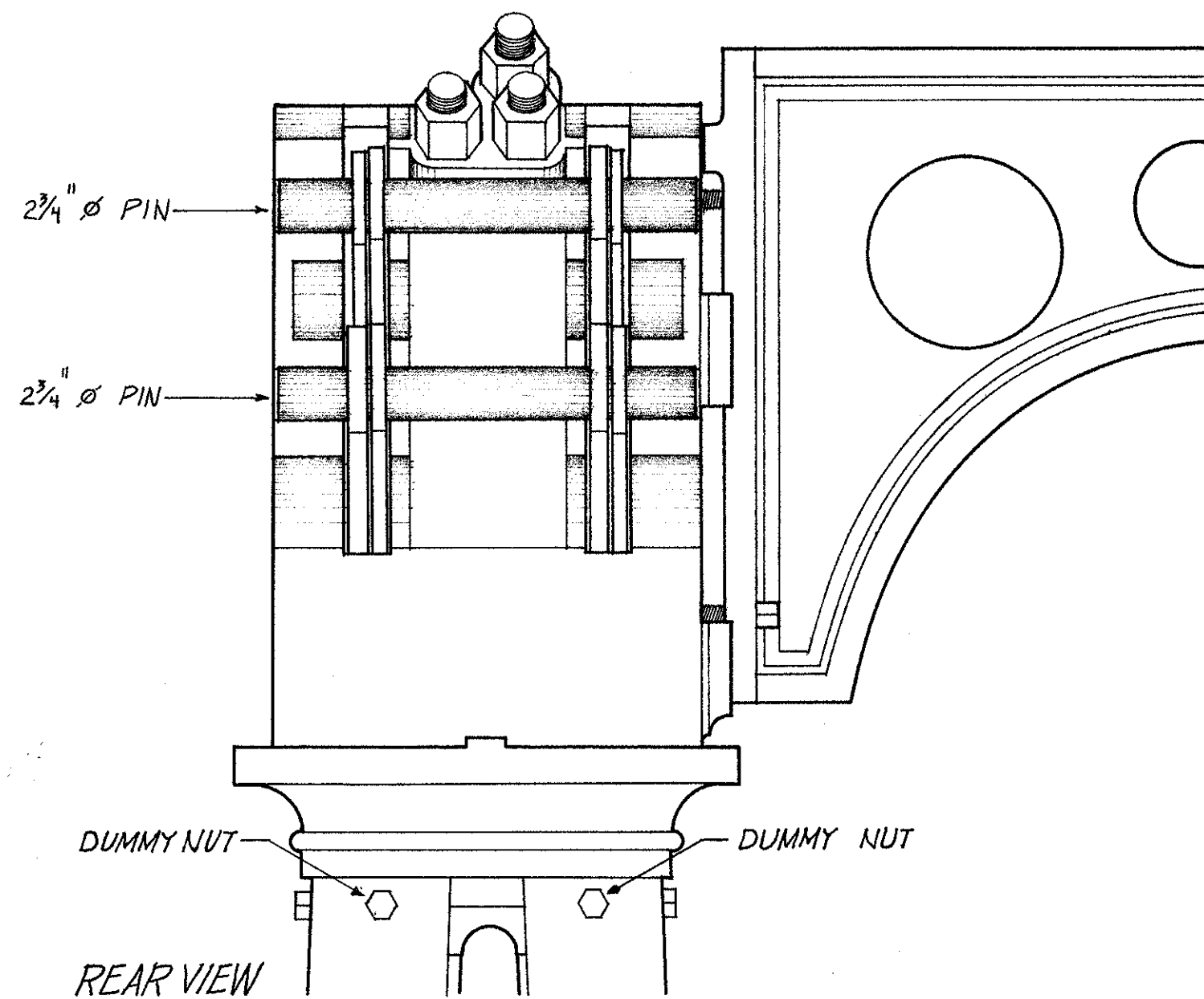
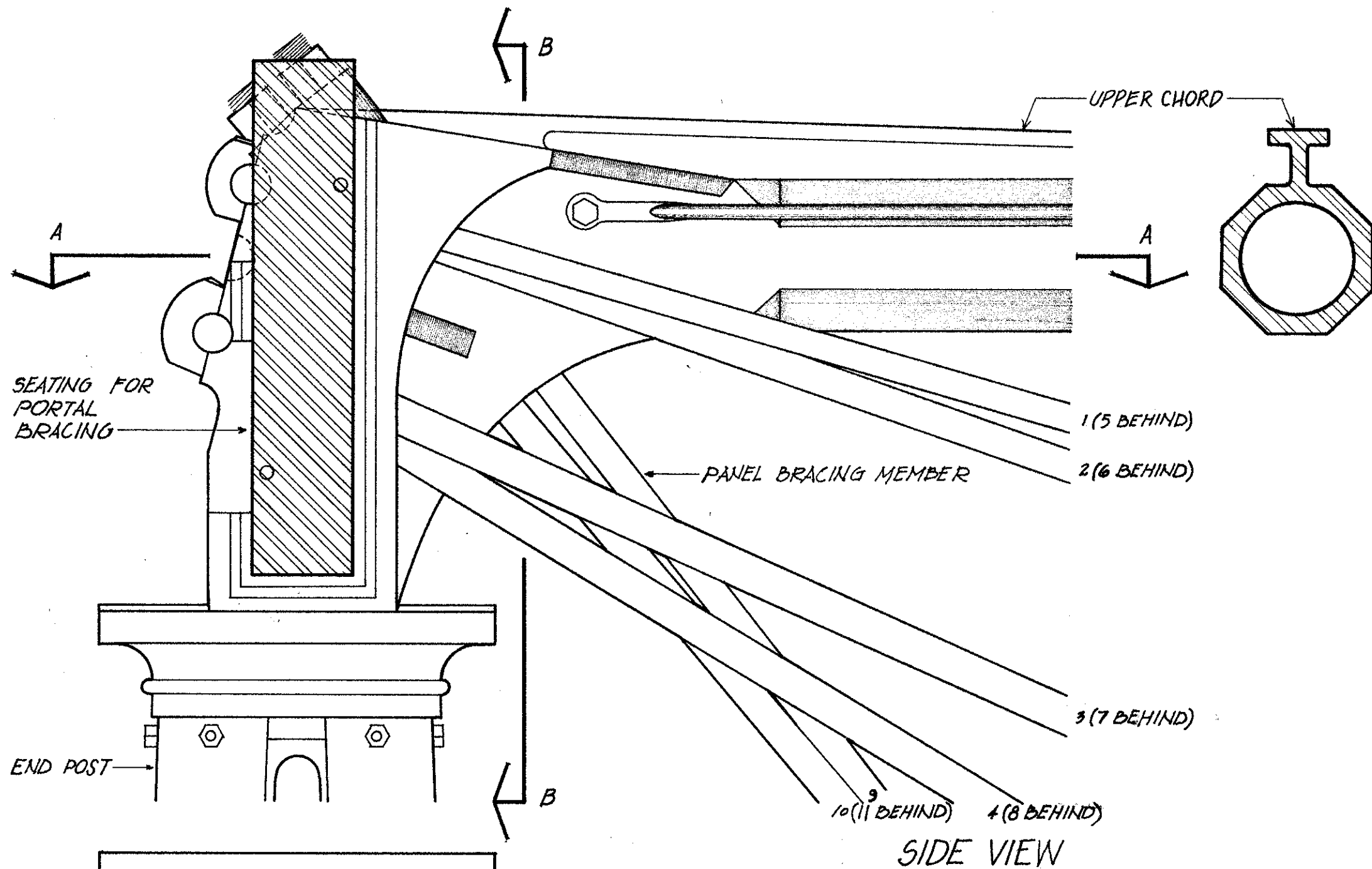
SECTIONS AND DETAILS OF IRON STRUTS AND CHORDS

ALSO SEE SHEET 4 OF 7.



DRAWN BY: CHARLES PARROTT III, 1970

<p>B & O RAILROAD SURVEY UNDER DIRECTION OF THE NATIONAL PARK SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR</p>	<p>SAVAGE</p>	<p>NAME AND LOCATION OF STRUCTURE B & O RR: BOLLMAN'S IRON SUSPENSION & TRUSSED BRIDGE, c. 1869 LITTLE PATUXENT RIVER HOWARD COUNTY MARYLAND</p>	<p>RECORD NO. MD 1</p>	<p>HISTORIC AMERICAN ENGINEERING RECORD SHEET 5 OF 7 SHEETS</p>	<p>LIBRARY OF CONGRESS INDEX NUMBER</p>
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DETAILS of END PANEL POINT of TRUSS

SCALE: 1/2 INCHES = 1 FOOT

DRAWN BY: MICHAEL MASNY 1970

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