

CEMETERY ROAD BRIDGE • 1888 •

SALEM VICINITY, NEW YORK

THIS FOUR PANEL, SINGLE SPAN, LENTICULAR (PARABOLIC) PONY TRUSS BRIDGE ACROSS BLACK CREEK WAS ONE OF TWO BRIDGES FABRICATED IN 1888 FOR THE TOWN OF SALEM, NEW YORK, BY THE BERLIN IRON BRIDGE COMPANY, EAST BERLIN, CONNECTICUT USING THE LENTICULAR TRUSS PATENTS AWARDED TO WILLIAM O. DOUGLAS OF BINGHAMTON, NEW YORK, APRIL 16, 1878 (NO. 202,526) AND APRIL 7, 1885 (NO. 315,259). THE BERLIN IRON BRIDGE COMPANY ERECTED HUNDREDS OF LENTICULAR TRUSS BRIDGES BEFORE DISCONTINUING THE USE OF THE DESIGN AROUND 1895. BY 1889, THE COMPANY LISTED 578 LENTICULAR TRUSS SPANS IN PLACE, WITH THE MAJORITY LOCATED IN NEW YORK AND THE NEW ENGLAND STATES.

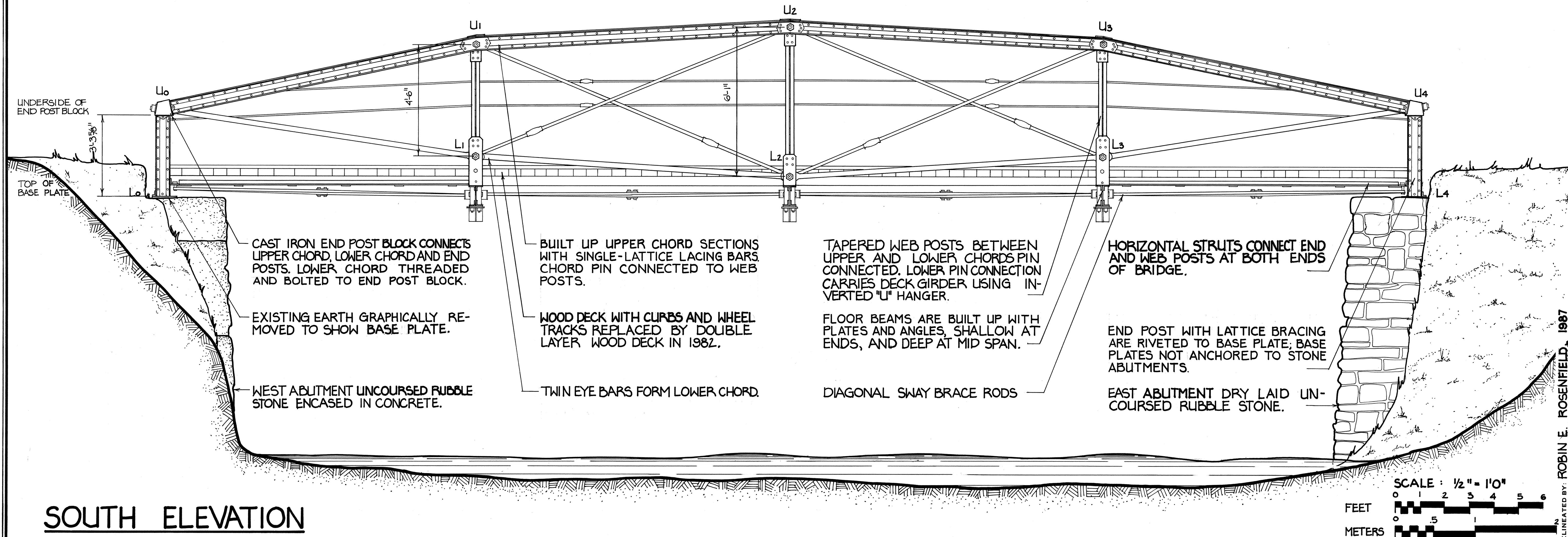
THE CAST IRON END POST BLOCKS, TAPERED WEB POSTS, DIAGONAL WEB TIE RODS, HORIZONTAL STRUTS BETWEEN END AND WEB POSTS, AND PINNED CONNECTIONS OF THE CEMETERY ROAD BRIDGE ARE ALL FEATURES TYPICAL OF LENTICULAR PONY TRUSS BRIDGES UNDER 75 FEET LONG.

THIS BRIDGE IS THE OLDEST KNOWN IRON TRUSS AND THE ONLY SURVIVING LENTICULAR TRUSS BRIDGE IN WASHINGTON COUNTY AS WELL AS ONE OF THE FEW SURVIVING EXAMPLES OF A TYPE OF BRIDGE ONCE FOUND IN LARGE NUMBERS ACROSS THE STATE OF NEW YORK.

THIS RECORDING PROJECT IS PART OF THE HISTORIC AMERICAN ENGINEERING RECORD (HAER), A LONG-RANGE PROGRAM TO DOCUMENT THE ENGINEERING AND INDUSTRIAL HERITAGE OF THE UNITED STATES. THE HAER PROGRAM IS ADMINISTERED BY THE NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR. THE NEW YORK HISTORIC BRIDGES RECORDING PROJECT WAS COSPONSORED DURING THE SUMMER OF 1987 BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION; FRANKLIN E. WHITE, COMMISSIONER; DANIEL J. EGAN, DIRECTOR, PROGRAM PLANNING AND MANAGEMENT GROUP; MARY E. IVEY AND KAREN McCANN, ENVIRONMENTAL ANALYSIS BUREAU; WILLIAM

P. CHAMBERLIN, ENGINEERING RESEARCH AND DEVELOPMENT BUREAU.

FIELD WORK, MEASURED DRAWINGS, HISTORICAL REPORTS, AND PHOTOGRAPHS WERE PREPARED UNDER THE GENERAL DIRECTION OF DR. ROBERT J. KAPSCH, CHIEF, HISTORIC AMERICAN BUILDINGS SURVEY/HISTORIC AMERICAN ENGINEERING RECORD (HABS/HAER), AND ERIC DELONY, PRINCIPAL ARCHITECT, HAER. THE RECORDING TEAM CONSISTED OF CHARLES SCOTT, PROJECT HISTORIAN; HUGH S. O'BRIEN, ARCHITECTURAL SUPERVISOR; ANDREW Q. COLE (MARY WASHINGTON COLLEGE) ASSISTANT HISTORIAN; AND KIM KUYKENDALL (UNIVERSITY OF ARIZONA), ROBIN E. ROSENFELD (TEXAS TECH UNIVERSITY), AND CHARISSA WANG (UNIVERSITY OF MARYLAND), ARCHITECTURAL DELINEATORS. RECORD PHOTOGRAPHS WERE TAKEN BY MARTIN STUPICH. CONSULTING SERVICES WERE PROVIDED BY JOHN R. BOWIE, AIA.



DELINEATED BY: ROBIN E. ROSENFELD, 1987

NEW YORK BRIDGES RECORDING PROJECT

HISTORIC AMERICAN ENGINEERING RECORD
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

SALEM

ON CEMETERY ROAD, OVER BLACK CREEK, 2 MILES SOUTHWEST OF SALEM
WASHINGTON COUNTY

NEW YORK

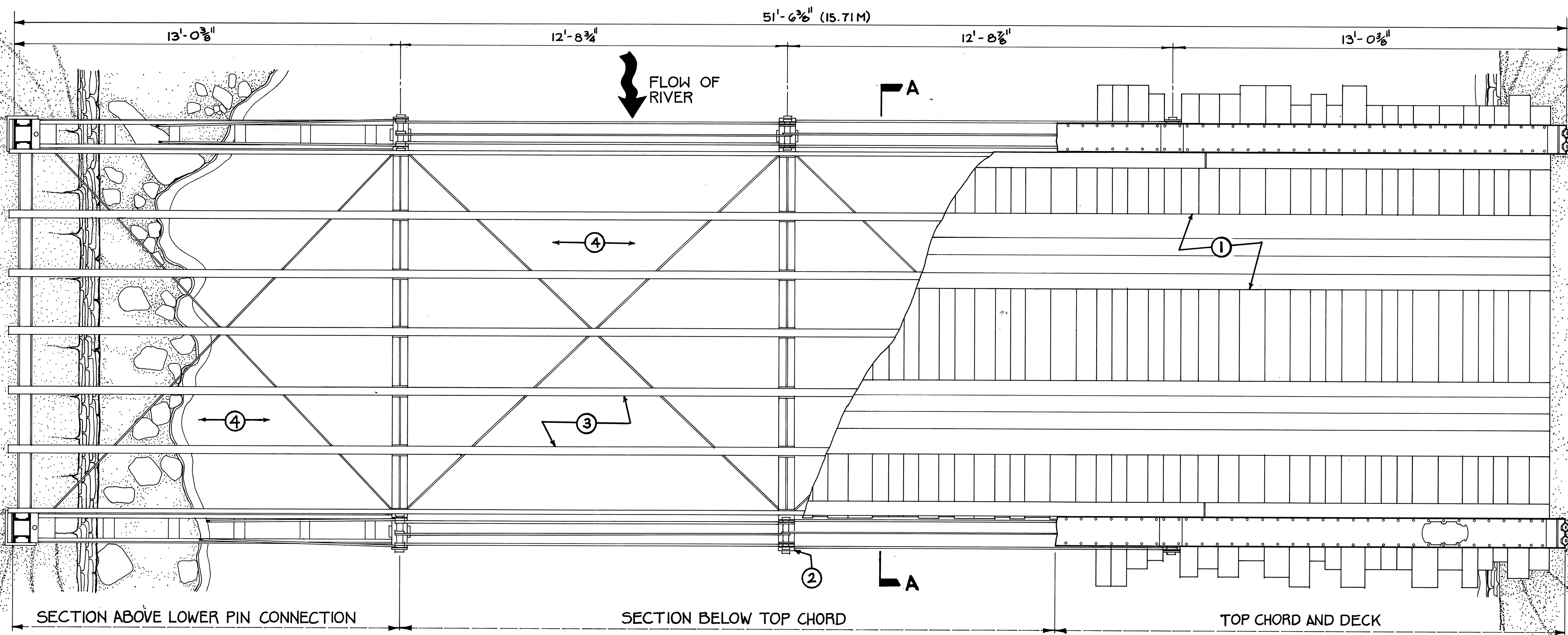
SHEET
1 of 3

HISTORIC AMERICAN
ENGINEERING RECORD
NY-186

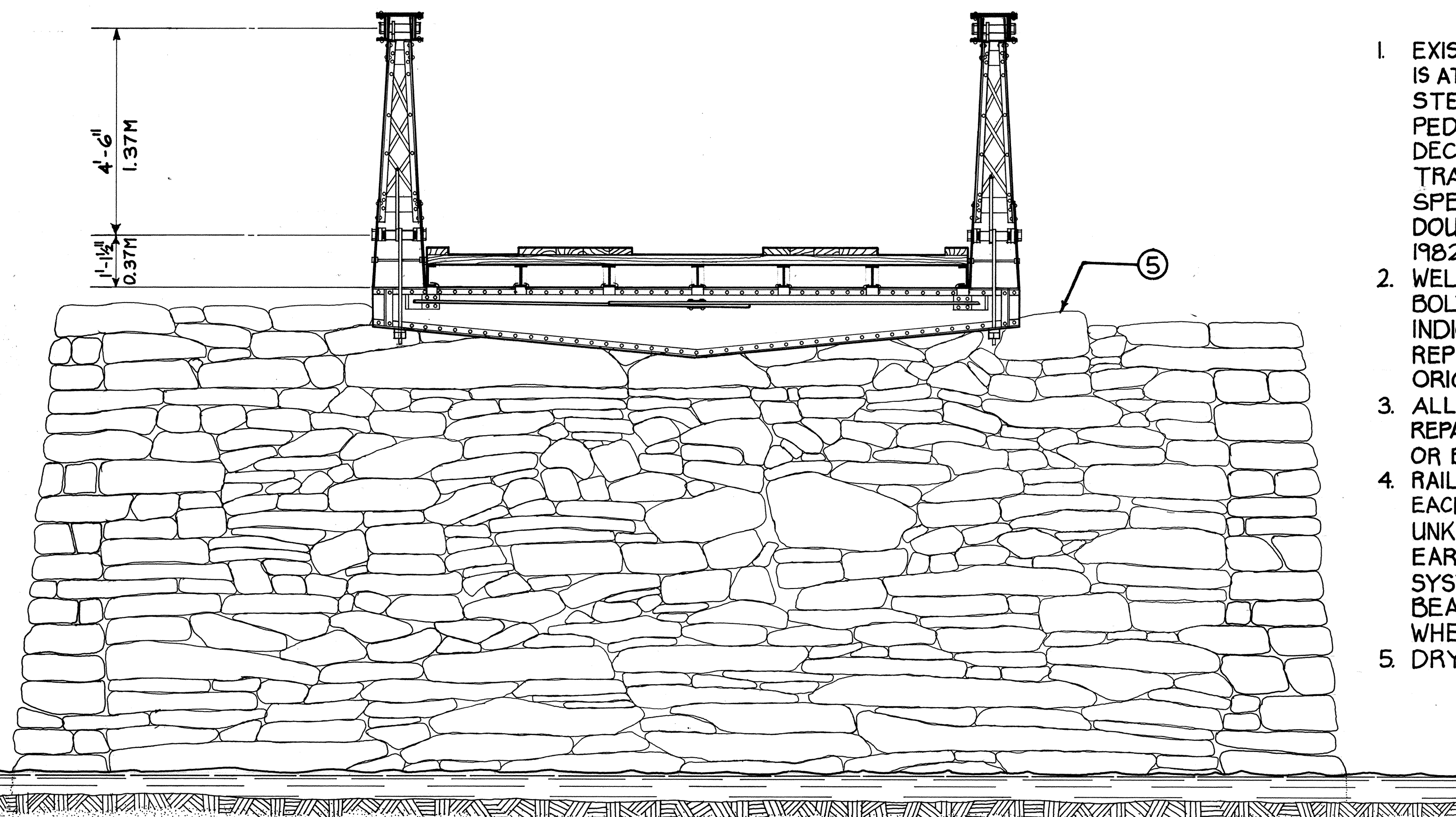
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TRIM LINE

TRIM LINE

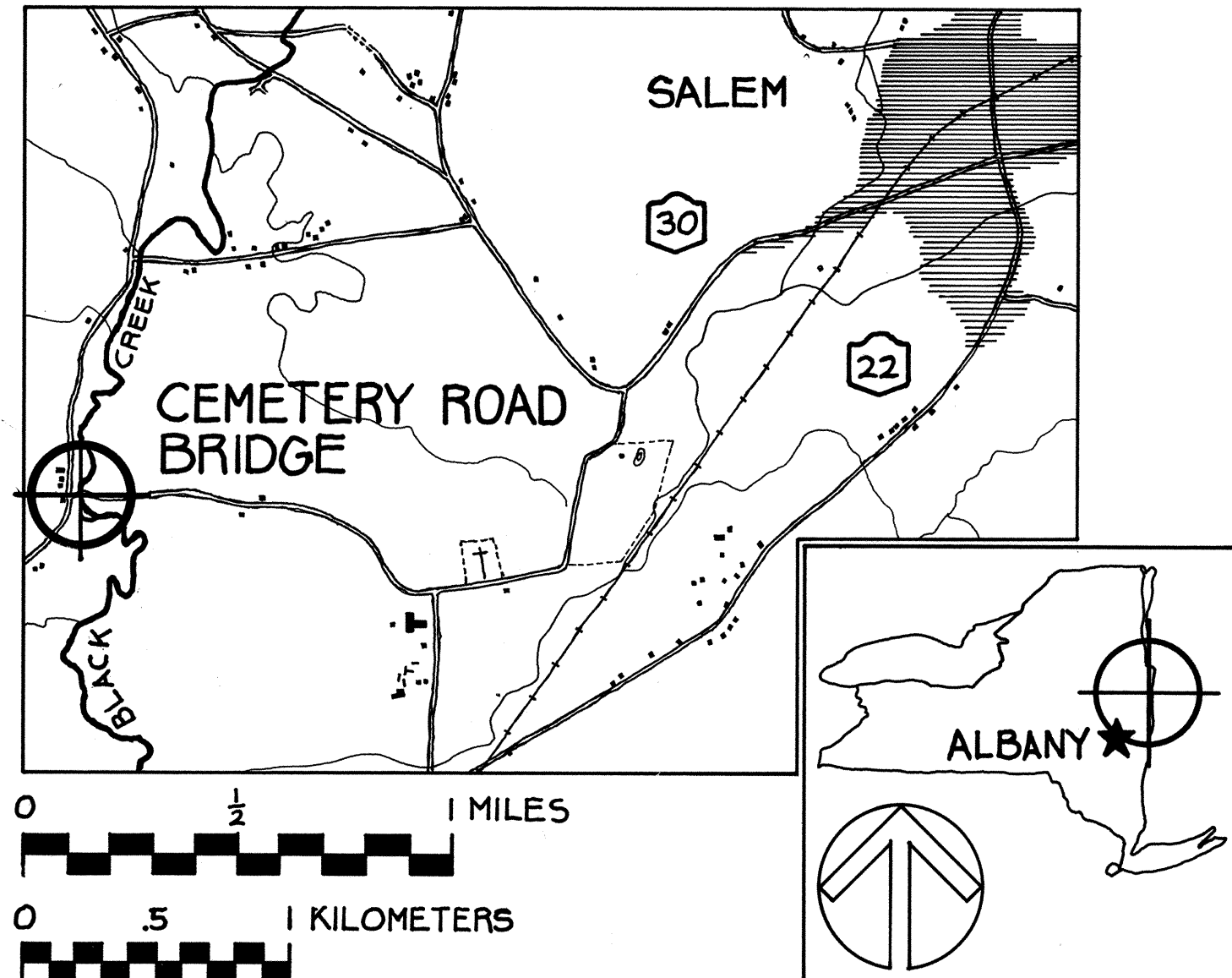
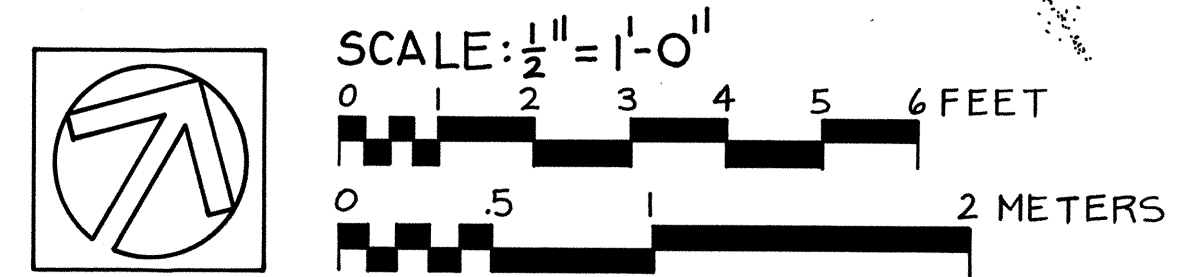


PLAN



SECTION AA

1. EXISTING DOUBLE LAYER WOODEN DECK IS ATTACHED TO STEEL STRINGERS WITH STEEL CLIPS. STRINGERS ARE ALSO CLIPPED TO GIRDERS. SINGLE LAYER WOOD DECK WITH WOOD CURBS AND WHEEL TRACKS BASED ON 1978 BRIDGE INSPECTION PHOTOGRAPHS. EXISTING DOUBLE LAYER WOOD DECK INSTALLED 1982.
2. WELDED WEB AND ANGLE MEMBERS AND BOLTED TOP AND BOTTOM CONNECTIONS INDICATE THAT THIS WEB POST IS A REPLACEMENT BUT STILL CONFORMS TO ORIGINAL CONFIGURATION.
3. ALL STRINGERS AT WEST END HAVE BEEN REPAIRED AND WELDED TO FLOOR BEAMS OR BOLTED TO ABUTTING STRINGERS.
4. RAILWAY RAILS USED AS STRINGERS BELOW EACH WHEEL TRACK. INSTALLATION DATE UNKNOWN, BUT RAILS APPEAR TO BE EARLY ADDITION TO FLOOR STRINGER SYSTEM USED TO INCREASE LOAD BEARING CAPACITY OF DECK BENEATH WHEEL TRACKS.
5. DRY LAID RUBBLE STONE.



BASED ON NEW YORK STATE DEPARTMENT OF TRANSPORTATION MAP OF SALEM QUAD.
 UTM COORDINATES N 4779740 E 632570
 ZONE 18

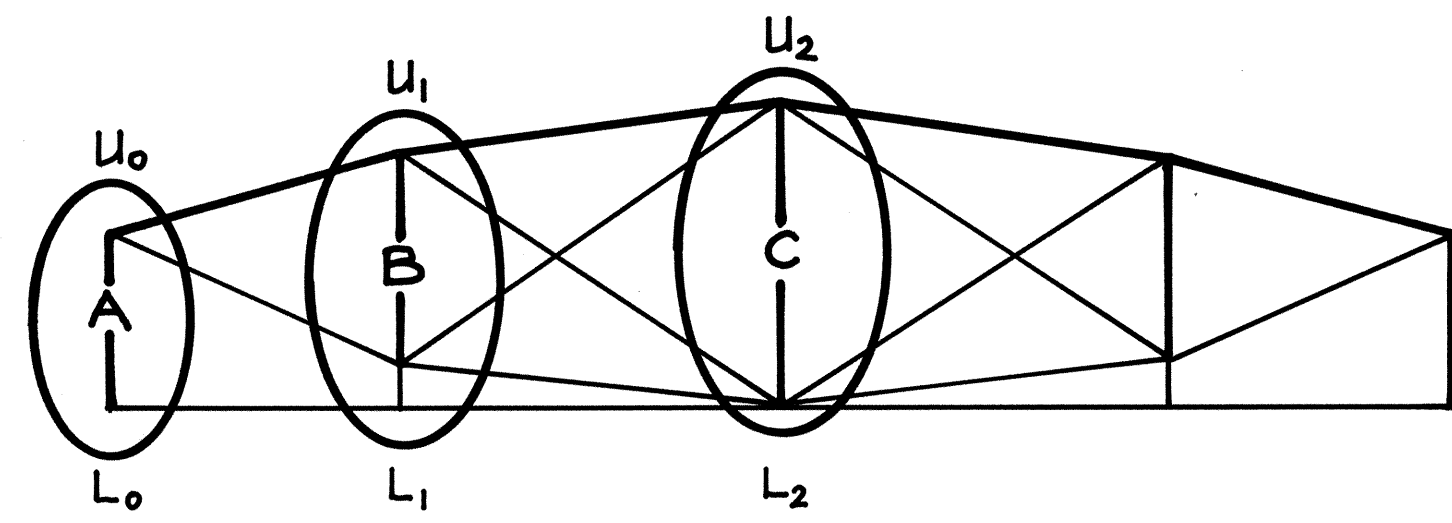
DELINEATED BY: KIM KUYKENDALL/DONALD M. PURST, 1987
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CEMETERY ROAD BRIDGE, 1888
 ON CEMETERY ROAD, OVER BLACK CREEK, 2 MILES SOUTHWEST OF SALEM
 WASHINGTON COUNTY
 NEW YORK

HISTORIC AMERICAN ENGINEERING RECORD
 SHEET 2 of 3
 NY-186

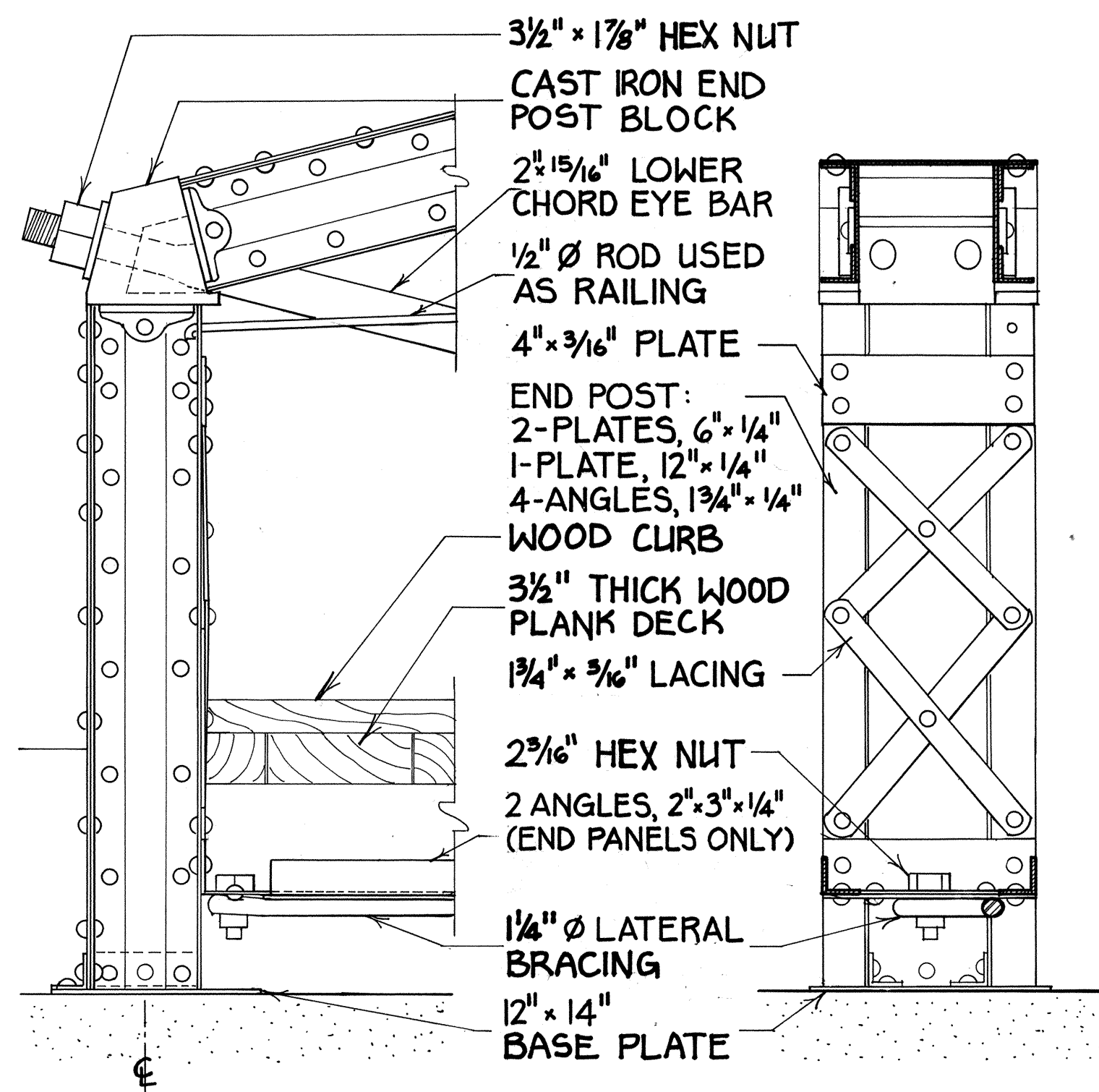
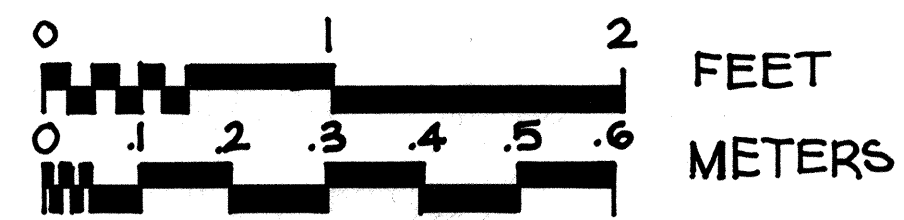
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POST DETAILS



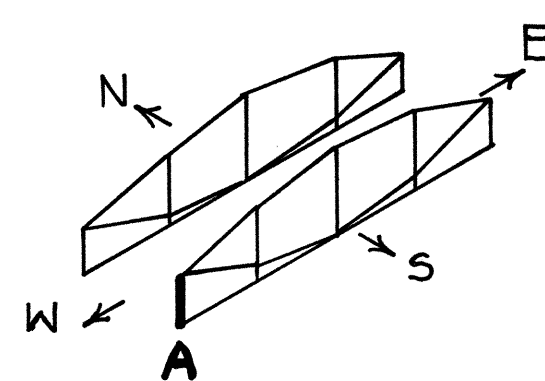
KEY TO SOUTH ELEVATION NO SCALE

SCALE (DETAILS A,B,C): 1/2" = 1'-0"



ELEVATION
LOOKING NORTH

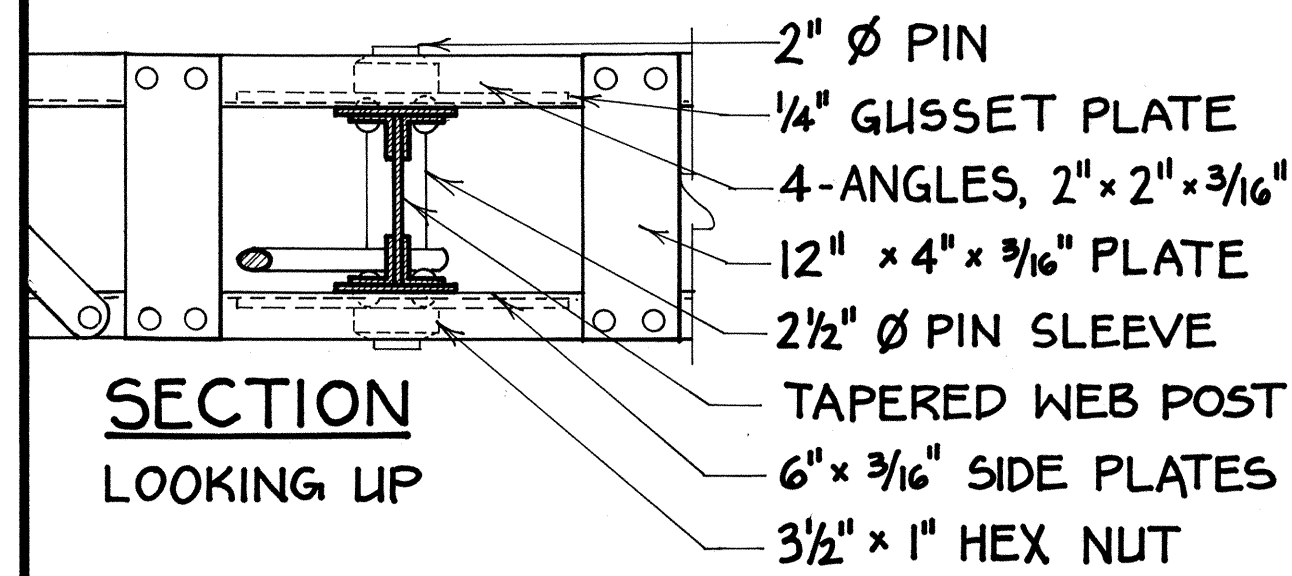
ELEVATION
LOOKING WEST



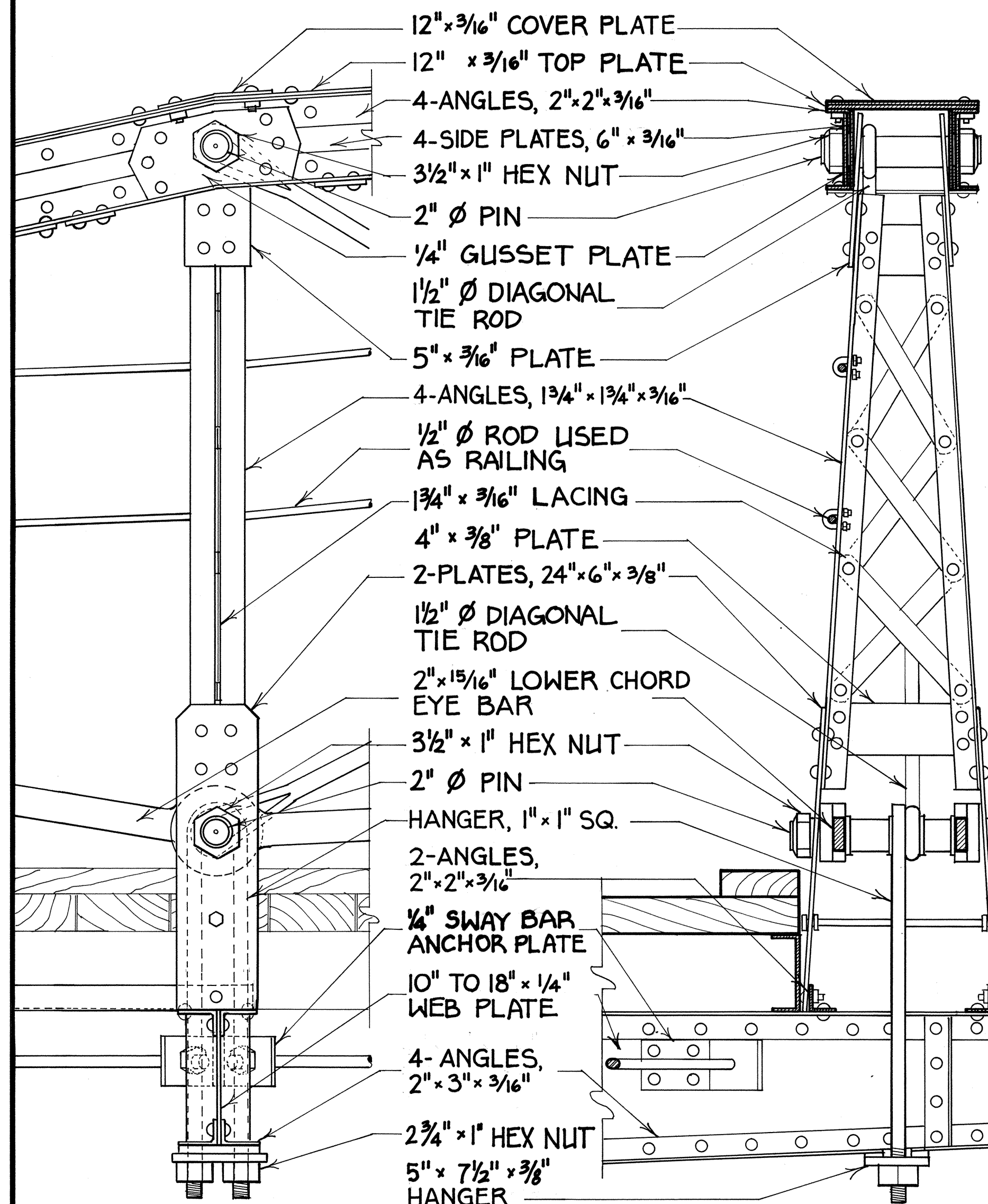
SECTION
LOOKING DOWN

A) END POST: U₀ L₀

- 2" x 2" x 3/8" ANGLE
- 12" x 14" BASE PLATE
- 2 3/16" x 1" HEX NUT
- 12" x 14" x 1/4" ANCHOR PLATE
- 2" x 2" x 3/16" ANGLE

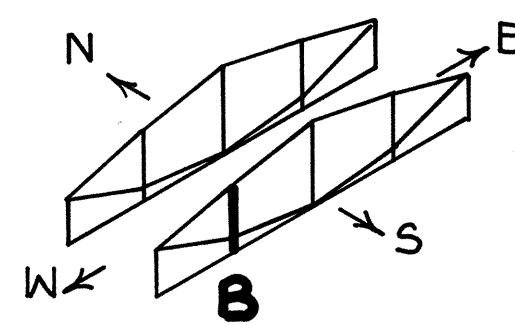


SECTION
LOOKING UP



ELEVATION
LOOKING NORTH

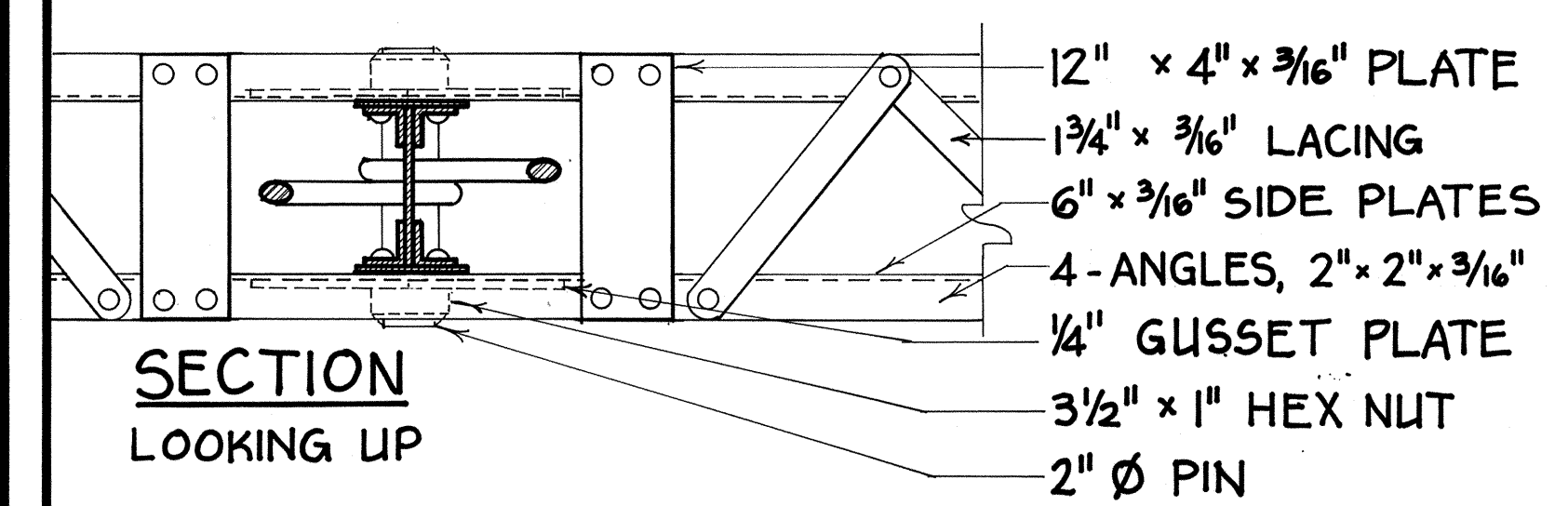
ELEVATION
LOOKING EAST



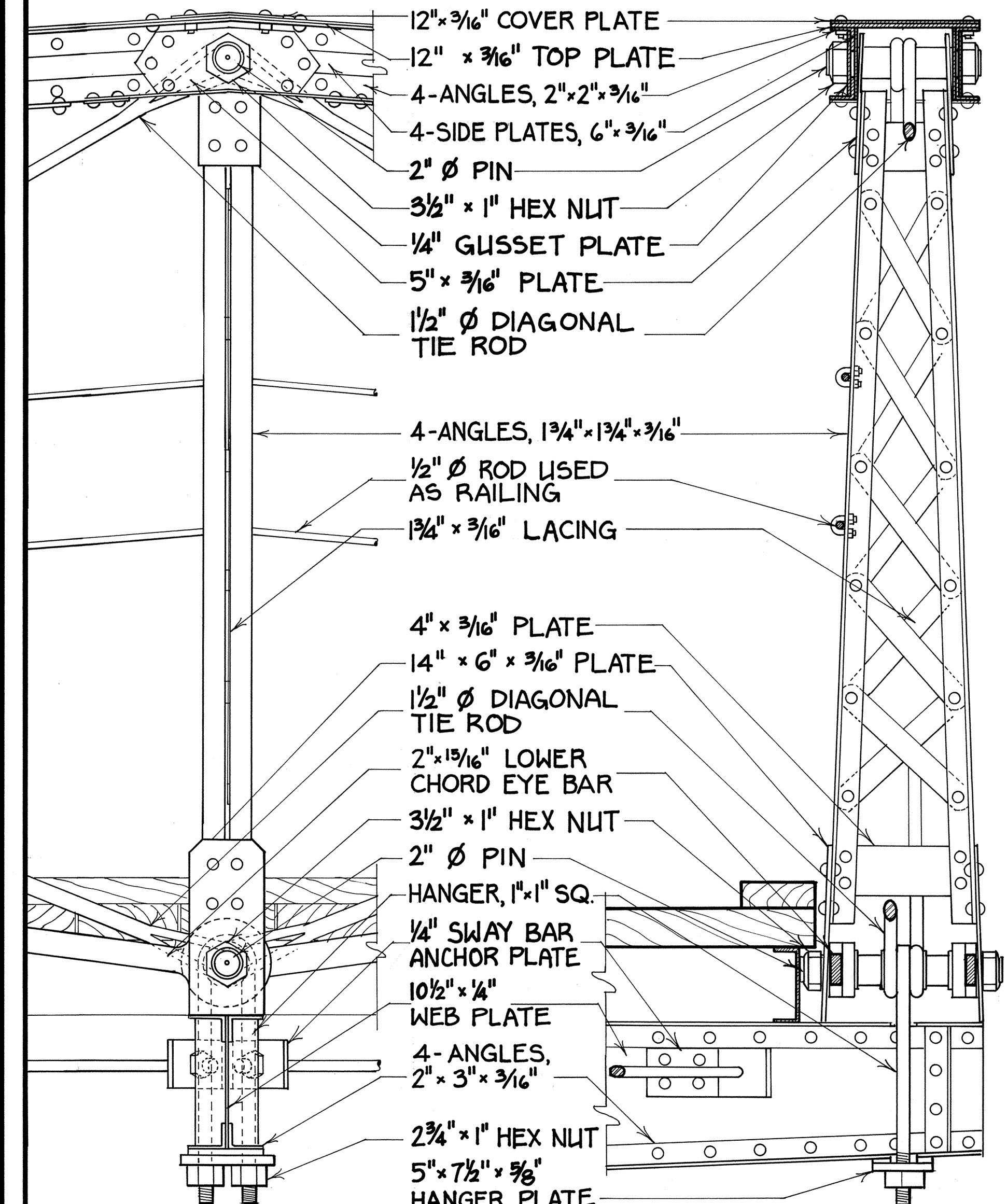
SECTION
LOOKING DOWN

B) TAPERED WEB POST: U₁ L₁

- 2" ϕ PIN
- 1/4" GUSSET PLATE
- 4-ANGLES, 2" x 2" x 3/16"
- 12" x 4" x 3/16" PLATE
- 2 1/2" ϕ PIN SLEEVE
- TAPERED WEB POST
- 6" x 3/16" SIDE PLATES
- 3 1/2" x 1" HEX NUT
- 12" x 3/16" COVER PLATE
- 12" x 3/16" TOP PLATE
- 4-ANGLES, 2" x 2" x 3/16"
- 4-SIDE PLATES, 6" x 3/16"
- 3 1/2" x 1" HEX NUT
- 2" ϕ PIN
- 1/4" GUSSET PLATE
- 1 1/2" ϕ DIAGONAL TIE ROD
- 5" x 3/16" PLATE
- 4-ANGLES, 1 3/4" x 1 3/4" x 3/16"
- 1/2" ϕ ROD USED AS RAILING
- 1 3/4" x 3/16" LACING
- 4" x 3/8" PLATE
- 2-PLATES, 24" x 6" x 3/8"
- 1 1/2" ϕ DIAGONAL TIE ROD
- 2" x 1 5/16" LOWER CHORD EYE BAR
- 3 1/2" x 1" HEX NUT
- 2" ϕ PIN
- HANGER, 1" x 1" SQ.
- 2-ANGLES, 2" x 2" x 3/16"
- 1/4" SWAY BAR ANCHOR PLATE
- 10" TO 18" x 1/4" WEB PLATE
- 4-ANGLES, 2" x 3" x 3/16"
- 2 3/4" x 1" HEX NUT
- 5" x 7 1/2" x 3/8" HANGER PLATE
- SPACER SLEEVES
- 3/4" ϕ LATERAL BRACING
- 10 1/2" x 1/4" WEB PLATE
- 2-ANGLES, 2" x 3" x 3/16"
- 2" x 1 5/16" LOWER CHORD EYE BAR
- HANGER, 1" x 1" SQ.
- 12" x 4" x 3/16" PLATE
- 1 3/4" x 3/16" LACING
- 6" x 3/16" SIDE PLATES
- 4-ANGLES, 2" x 2" x 3/16"
- 1/4" GUSSET PLATE
- 3 1/2" x 1" HEX NUT
- 2" ϕ PIN
- 12" x 3/16" COVER PLATE
- 12" x 3/16" TOP PLATE
- 4-ANGLES, 2" x 2" x 3/16"
- 4-SIDE PLATES, 6" x 3/16"
- 2" ϕ PIN
- 3 1/2" x 1" HEX NUT
- 1/4" GUSSET PLATE
- 5" x 3/16" PLATE
- 1 1/2" ϕ DIAGONAL TIE ROD
- 4-ANGLES, 1 3/4" x 1 3/4" x 3/16"
- 1/2" ϕ ROD USED AS RAILING
- 1 3/4" x 3/16" LACING
- 4" x 3/16" PLATE
- 14" x 6" x 3/16" PLATE
- 1 1/2" ϕ DIAGONAL TIE ROD
- 2" x 1 5/16" LOWER CHORD EYE BAR
- 3 1/2" x 1" HEX NUT
- 2" ϕ PIN
- HANGER, 1" x 1" SQ.
- 1/4" SWAY BAR ANCHOR PLATE
- 10 1/2" x 1/4" WEB PLATE
- 4-ANGLES, 2" x 3" x 3/16"
- 2 3/4" x 1" HEX NUT
- 5" x 7 1/2" x 3/8" HANGER PLATE
- 1 1/2" ϕ DIAGONAL TIE ROD
- SPACER SLEEVES
- 3/4" ϕ LATERAL BRACING
- 10 1/2" x 1/4" WEB PLATE
- 2-ANGLES, 2" x 3" x 3/16"
- 2" x 1 5/16" LOWER CHORD EYE BAR
- HANGER, 1" x 1" SQ.

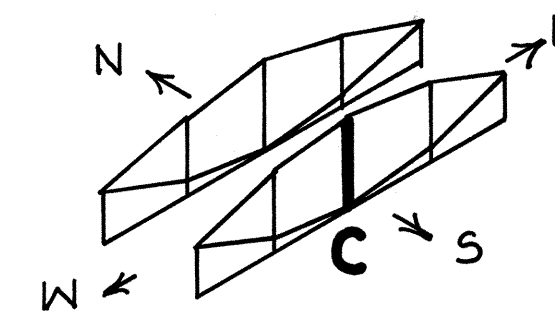


SECTION
LOOKING UP



ELEVATION
LOOKING NORTH

ELEVATION
LOOKING EAST



SECTION
LOOKING DOWN

C) TAPERED WEB POST: U₂ L₂