NPS Form 10-900
(10-90)

OMB No. 1024-0018

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NAT. REG. OF HISTORIC PLACES

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Umpqua River Bridge No. 01822

other names/site number Umpqua River (Reedsport) Bridge

2. Location

street & number Oregon Coast Highway No. 9 (US 101), MP 211.21 not for publication ___

city or town Reedsport vicinity ___

state Oregon code OR county Douglas code 019

zip code 97439

3. State/Federal/Tribal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register Criteria. I recommend that this property be considered significant ☒ nationally ☐ statewide ☐ locally. (☐ See continuation sheet for additional comments.)

James Hamrick 14 June 05
Signature of certifying official / Deputy SHPO Date

Oregon State Historic Preservation Office
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

☑ entered in the National Register Edson Beall 8/5/05
☐ See continuation sheet.
☐ determined eligible for the National Register
☐ See continuation sheet.
☐ determined not eligible for the National Register
☐ removed from the National Register
☐ other (explain):

Signature of Keeper Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

- ☐ private
- ☐ public-local
- ☒ public-State
- ☐ public-Federal

Category of Property
(Check only one box)

- ☐ building(s)
- ☐ district
- ☐ site
- ☒ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
1	_____	structures
_____	_____	objects
_____	_____	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

C. B. McCullough Major Oregon Coast Highway Bridges, 1927-36.

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation

Historic Subfunctions
(Enter subcategories from instructions)

Road-related

Current Functions
Enter categories from instructions)

Transportation

Current Subfunctions
(Enter subcategories from instructions)

Road-related

7. Description

Architectural Classification
(Enter categories from instructions)

Late 19th and 20th Century Revivals
Classic Revival
Late Gothic Revival
Modern Movement
Art Deco
Moderne

Materials
(Enter categories from instructions)

Foundation Concrete
Other Steel
Concrete

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets)

See continuation sheets.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

☒ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

☐ B Property is associated with the lives of persons significant in our past.

☒ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

☐ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations
(Mark "X" in all the boxes that apply.)

☐ A owned by a religious institution or used for religious purposes.

☐ B removed from its original location.

☐ C a birthplace or a grave.

☐ D a cemetery.

☐ E a reconstructed building, object, or structure.

☐ F a commemorative property.

☐ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Engineering
Transportation

Period of Significance

1933-36

Significant Dates

Completed in 1936.

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Conde B. McCullough, designer
Teufel and Carlson, Seattle, Washington, contractor

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

See continuation sheets.

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)
☐ preliminary determination of individual listing (36 CFR 67) has been requested.
☐ previously listed in the National Register

☒ previously determined eligible by the National Register
☐ designated a National Historic Landmark
☐ recorded by Historic American Buildings Survey # _____
☒ recorded by Historic American Engineering Record # OR-45

Primary Location of Additional Data
☐ State Historic Preservation Office
☐ Other State agency
☒ Federal agency
☐ Local government
☐ University
☐ Other
Name of repository: Prints and Photographs Division, US Library of Congress

10. Geographical Data

Acreage of Property 3.04 acres

UTM References
(Place additional UTM references on a continuation sheet)

1	10	411400	4840004	3			
	Zone	Easting	Northing		Zone	Easting	Northing
2				4			

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Robert W. Hadlow, Ph.D., Senior Historian

organization Oregon Department of Transportation date June 30, 2004

street & number 123 NW Flanders Street telephone (503) 731-8239

city or town Portland state OR zip code 97209-4037

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

USGS map (7.5 or 15 minute series) indicating the property's location.
sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name Oregon Department of Transportation

street & number 355 Capitol Street NE telephone

city or town Salem state OR zip code 97301

Narrative Description

The Umpqua River Bridge No. 01822 is a reinforced-concrete bridge with a central steel swing span. Its completion in 1936 eliminated an antiquated ferry service across the Umpqua River estuary. The bridge is located at milepost 211.21 on the Oregon Coast Highway No. 9 (US 101) at the north end of Reedsport, Douglas County, Oregon.

The Umpqua River Bridge's main span is a 430-foot steel through Parker truss swing span with a concrete deck. The span is electrically moved with a 60-horsepower motor by twin controllers—one located in the operator's house above the roadway in the center of the span, and the other along the sidewalk at the roadway level. The original permit for the bridge specifies that the span swing to a 90-degree angle to provide two channel throughways with a horizontal clearance of 195 feet each. However, at the request of the U.S. Army Corps of Engineers, the builders of the bridge placed fenders at the piers and set the draw rest at an 80-degree skew. The result is that the actual horizontal clearance of the two channels when the bridge is open is 182 feet. When the span is closed vertical clearance above mean low water is 354 feet.[1]

The swing span is flanked by two reinforced-concrete through tied arches each 154 feet long. The sway braces are reinforced curved concrete members. They maintain superstructure rigidity. A temporary "Considère" hinge was used near the crown of each arch rib to aid in construction.

The approaches are reinforced-concrete deck girder spans. The two on the north end are each 42 feet long. A total of twenty-three spans make up the south approach. These range from 42' to 70' in length, totaling 1,072 feet. From end-to-end, the bridge is 2,206 feet long. The roadway consists of two travel lanes measuring 27 feet curb-to-curb. Sidewalks are 3 feet wide.

On the Umpqua River Bridge, McCullough combined the vocabularies of classical and Gothic-style elements with the popular Art Deco and Moderne influences of the late 1920s and the 1930s. The bridge's concrete bents are tiered and ornamented in the Art Deco style with vertical detailing. Likewise, pier and column surfaces are broken by scoring strips. However, the web walls between main pier legs were cut away in the form of Gothic arches with sunburst rays. In addition, ornamental elbow brackets mounted at the top of the spandrel columns supporting and protruding beyond the sidewalks. The sidewalk balustrades include panels comprising small, stylized Gothic arches, which repeat the form seen in the piers and bents. They are stepped back in the Art Deco/Moderne philosophy to create shadow lines and increase visual interest.

Decorative Art Deco and classical elements are found throughout this structure. The reinforced-concrete tied arches have fluted Art Deco-style entry pylons, concrete portal braces with scored decorative cartouches, and scored slender deck hangers. Curved elbow brackets support the sidewalks. Piers consist of slender, fluted legs joined by Gothic arch-shaped webs that in series are reminiscent of the roof trusses of European cathedrals. The central steel swing span is devoid of ornamentation.[2]

The contract was awarded to Teufel and Carlson, of Seattle, Washington. It ran from 30 July 1934 to 7 April 1936. Resident engineers for the state were Dexter R. Smith and L. L. Jensen. The project consumed 215,000 human hours of labor. An average of 125 workers was employed each week, with a weekly payroll of $2,500. The project consumed 10,000 cubic yards of concrete, 740 tons of structural steel and 650 tons of reinforcing steel. In addition, 3,500 cubic

[1] Oregon Department of Transportation, Bridge Section Maintenance File #1822, L. A. DeFrance, Assistant Maintenance Engineer, to G. S. Paxson, Bridge Engineer, 7 November 1952; O. C. Chase, "Design of Coast Highway Bridges," *Civil Engineering* 6 (October 1936): 648-51; ODOT, Environmental Section, Bridge File #1822, "Engineering Antiquities Survey," November 1982.

[2] "Bridge Log," Dwight A. Smith, James B. Norman, and Pieter T. Dykman, *Historic Highway Bridges of Oregon* (Portland: Oregon Historical Society Press, 1989), 120; Chase, "Design of Coast Highway Bridges," *Civil Engineering* 6 (October 1936): 648-51.

yards of excavation was moved and 41,000 feet of piling was driven. Final cost for the bridge was $581,000.[3]

The Umpqua River Bridge opened on 2 July 1936 without ceremony. Since then, most of the maintenance on the structure has been routine. In 1937, manholes were installed in the traffic barriers to facilitate maintenance. That same year inspectors noted settling of the south approach, which was reinforced in 1940. In 1941, the bronze expansion plates were removed and repaired, and the transverse beams were reinforced with concrete brackets. On 15 October 1951, a ship struck the catwalk when the captain tried to take it through the open swing backwards without the aid of a rudder. The state repaired the bridge and contemplated bringing suit against the owners, but dropped the suit for fear that the case would bring to light the fact that the horizontal clearance of the open span did not meet the specification on the bridge permit. In 1953 the traffic barriers were re-decked with steel plates.[4]

[3]"Job Record," File No. 1822 (Umpqua River Bridge), ODOT Bridge Section files, Salem; Oregon State Highway Commission, *Twelfth Biennial Report, for 1935-36*, 58.

[4]G. S. Paxson, "Umpqua Bridge is Third Costliest of Five Coast Structures, Opened July 2, 1936, Without Ceremony," *Reedsport Courier*, 25 September 1936; ODOT, Bridge Section Maintenance File #1822, "Bridge History Record of Maintenance," (1934 to 1953); J. A. Weber, Mechanical Engineer, to G. S. Paxson, Bridge Engineer, 15 July 1952.

Narrative Statement of Significance

The Umpqua River Bridge No. 01822 is being nominated under the Oregon Coast Highway Bridges Multiple Property Submission. It is significant under National Register criterion C because it embodies the distinctive characteristics of a type, period, and method of construction of mid-twentieth-century reinforced-concrete arch bridge technology. Just as important, it is significant under criterion C as the work of a master, Conde B. McCullough, Oregon state bridge engineer from 1919 to 1936. The bridge is also significant under criterion A for its association with construction of the Oregon Coast Highway, which eventually ran the length of Oregon and connected with adjacent segments in California and Washington. The road would not have been complete without eleven major bridges, including the Umpqua River Bridge, and many other spans.

Europeans have lived in the present Reedsport area since the 1880s. Warren P. Reed owned 4,000 acres along the south shore of the Umpqua River, just north of Winchester Bay. By 1911, the Pacific Great Western Railway Company (later the Southern Pacific) began constructing a branch line from Eugene east to the mouth of the Siuslaw River at Florence and then south to the mouth of the Umpqua and then to Coos Bay to connect this coastal region with the interior of western Oregon. Reedsport, named for Reed's father Alfred, was incorporated the next year and became a shipping point for diary products and lumber. By the 1920s, the community had two sawmills, several canneries, and a creamery. Construction of the Oregon Coast Highway in the 1920s and completion of the Umpqua River Bridge in 1936 connected Reedsport by road with Florence to the north and Coos Bay to the south and made tourism an important component of the local economy.[5]

The Umpqua River Bridge possesses national significance under criterion C as one of the six major bridges that McCullough constructed on the Oregon Coast Highway between 1931 and 1936 and spanned the remaining barriers to efficient travel along the route—three bays and three river estuaries that relied on an outmoded ferry service. (The others were the Alsea Bay Bridge at Waldport, the Yaquina Bay Bridge at Newport, the Siuslaw River Bridge at Florence, the Coos Bay (McCullough) Bridge at Coos Bay, and the Rogue River Bridge at Gold Beach.) Completion of these bridges (one in 1932 and five in 1936) is considered the dividing line between the period of relative isolation and dependence on sea transportation for many of Oregon's coastal communities and their newfound association with each other along this ribbon of asphalt, known as US 101. The Umpqua River Bridge is the only one of the five PWA coastal bridges to be constructed with a swing span. It is also the longest swing span constructed in Oregon, and is the only one still in use on the state's highways.

The Umpqua River Bridge is also significant under criterion C as the work of a master, Oregon State Bridge Engineer, Conde B. McCullough, and due to its thematic association with several other major steel and reinforced-concrete bridges designed by McCullough and erected along the Oregon Coast Highway in the 1920s and 1930s. During his years as State Bridge Engineer, and later as Assistant State Highway Engineer, McCullough authored several books and many technical articles on bridge design and construction. He is significant for his use of innovative bridge technology, and for his visually appealing designs. He attained international recognition for the large-scale structures he designed to span the major rivers and estuaries, and several other thematically-similar concrete beam and girder structures, along the Oregon coast for the completion of the Oregon Coast Highway in the 1930s.

McCullough's bridges used many common design themes and elements, including stylized sidewalk railing balustrades; curved bracketing; arched curtain walls, often with bush-hammered inset panels; and Art Deco ornamentation, including entrance pylons, columns, stringers, piers and other vertical structural members. Eric N. DeLony, chief of the Historic American Engineering Record, remarked in his book, *Landmark American Bridges*, that this family of spans on the Oregon Coast Highway "represents some of the best and most innovative concrete and steel bridges in the world." The Gothic arch

[5]Stephen Dow Beckham, *Land of the Umpqua: A History of Douglas County, Oregon* (Roseburg: Douglas County Commissioners, 1986), 135-36.

forms seen in the handrails and piers complement the Art Deco/Moderne verticalness seen in the pier legs and entry pylons to create a streamlined elegance.[6]

The Umpqua River Bridge is significant under criterion A because of its association with the construction of the Oregon Coast Highway in the 1930s. Completion of the Oregon Coast Highway was a major public works effort in the early and mid-1930s to establish an uninterrupted transportation route from California to Washington. This undertaking was aided by the Oregon Coast Bridges Project in which the federal Public Works Administration provided funds for the construction of five modern bridges to replace the existing slow, cumbersome ferries which serviced the crossings of the larger bays, rivers and estuaries. An immediate accomplishment of the route's completion was the construction jobs that it provided to many unemployed workers. In more long lasting terms, its completion was a major factor in the development of commerce and tourism in Oregon's coastal regions, and has since become one of the most notable scenic routes in the United States, and has been designated a National Scenic Byway.

The Umpqua River Bridge meets the property type and registration requirements for the C. B. McCullough Major Oregon Coast Highway Bridges Multiple Property Submission. It was completed during the period of significance (1927-36) on the then current alignment of the Oregon Coast Highway. It was designed by Oregon State Highway Department bridge engineers under the direction of Conde B. McCullough. Its primary or secondary main spans are reinforced-concrete arches. It possesses a high degree of original integrity of design and materials.

[6]Eric DeLony, *Landmark American Bridges*, (New York: American Society of Civil Engineers and Bulfinch Press, 1993), 125-35 (quote, 125).

Major Bibliographical References

Baldock, R. H. "Bridge Builders' Secrets," *Oregon Motorist* 16, no. 4 (May 1936): 5-12.

Beckham, Stephen Dow. *Land of the Umpqua: A History of Douglas County, Oregon.* Roseburg: Douglas County Commissioners, 1986.

Castle, Arlene, et al. *Yaquina Bay: 1778-1978.* Newport, OR: Lincoln County Historical Society, 1979.

Chase, O. C. "Design of Coast Highway Bridges," *Civil Engineering* 6 (October 1936): 648-51.

Corning, Howard M., ed. *Dictionary of Oregon History.* Portland: Binsford & Mort Publishing, 1989.

DeLony, Eric. *Landmark American Bridges.* New York: American Society of Civil Engineers and Bulfinch Press, 1993.

Hadlow, Robert W. *Elegant Arches, Soaring Spans: C. B. McCullough, Oregon's Master Bridge Builder.* Corvallis: Oregon State University Press, 2001.

"History of Coast Bridge Program is Interesting," *North Bend Harbor*, 28 May 1936.

Link, Gary M. "Umpqua River Bridge, HAER No. OR-45, Report." Historic American Engineering Record, National Park Service, 1990.

"Lovely Settings to Be Provided for New Bridges," *Marshfield Coos Bay Times*, 1 June 1936.

"Lumbermen to Meet to Protest Concrete for 5 Coast Bridges," *Cottage Grove Sentinel*, 7 July 1933.

McCullough, C. B. "Five New Spans for Coast Highway." *Astoria Astorian Budget*, 26 February 1934.

Miller, Ed W. "Spanning the Depression," *Oregon Motorist* 8 (May 1936): 12.

"North Bend Backs Bridge Engineers," *North Bend Harbor*, 6 July 1933.

"Oregon Bridges Subject of Address Before AAUW," *Salem Oregon Statesman*, 21 January 1934.

Oregon Department of Transportation. Bridge Section Maintenance File #1822.

Oregon State Highway Commission. *Eleventh Biennial Report, for 1933-34.*

--------. *Twelfth Biennial Report, for 1935-36.*

Paxson, G. S. "Construction of Coast Highway Bridges." *Civil Engineering* 6, no. 10 (October 1936): 651-55.

---------. "Umpqua Bridge is Third Costliest of Five Coast Structures, Opened July 2, 1936, Without Ceremony." *Reedsport Courier*, 25 September 1936.

Peterson, Ernest W. "Conquest of Oregon Coast Nears End." *Portland Oregon Journal*, 6 September 1936, s. 4, p. 1.

Say, Harold B. "Progress Takes Its Toll," *Oregon Motorist* 8 (May 1936): 13.

"Siuslaw Span Part of $25,000,000 Road Investment," *Eugene Register-Guard*, 17 May 1936.

"Squabble Over Lumber Ties Up Five Bridges," *Portland Oregon Journal*, 9 July 1933.

"Want Bridges Built of Wood," *North Bend Harbor*, 6 July 1933.

"Years of Planning for Coast Bridges Bear Fruit in Series of Dedications," *Marshfield Coos Bay Times*, 1 June 1936.

Verbal Boundary Description

The property is described as beginning at the north end of the Umpqua River Bridge, at mile post 211.21 on the Oregon Coast Highway No. 9, and running 2,206 feet to the south end of the bridge. It is 60 feet wide (30 feet either side of center line on the bridge).

Boundary Justification

The boundary includes property associated historically with the Umpqua River Bridge.

United States Department of the Interior
National Park Service

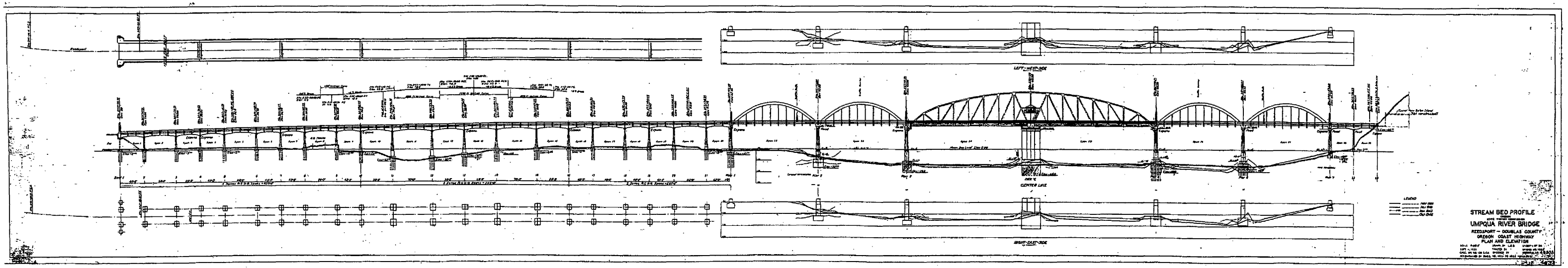
NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Photographs

James B. Norman, Photographer, June 2003
(Original negatives housed at Oregon Department of Transportation, Salem, Oregon)

Photographic Description

View No.	Description
1	General view of the Umpqua River Bridge, view looking northeast.
2	General view of the bridge, view looking east.
3	General perspective view of the bridge, view looking northeast.
4	General perspective view of the bridge, view looking northeast.
5	General view of the bridge, view looking northwest.
6	General view of the bridge, view looking northwest.
7	Detail view of the truss portal, view looking north.
8	Detail view of the main swing span, view looking northwest.
9	Detail view of the reinforced concrete through truss span, illustrating "X" bracing and concrete hangers. Also visible in view: railing and entrance obelisk, view looking northeast.


CENTER LINE
STREAM BED PROFILE
UMPQUA RIVER BRIDGE
REEDSPORT — DOUGLAS COUNTY
OREGON COAST HIGHWAY
PLAN AND ELEVATION

15'-9" 14'-10" 14'-2½" 14'-0⅝"

3'-6"

3'0" R.

4" Rad. 6" Rad. 6" Rad. 6" Rad. 10" Rad. 8" Rad. 8" Rad.

See hinge detail for this portion of rib

2-1¼"ø bars top & bottom ⅜"ø hoops @12" ctrs

2-1¼"ø bars top & bottom. ⅜"ø hoops @12"

16'-0"

Radius 34'-0"

5'-7"

3" Rad. 4" Rad. 4" Rad.

4'-0" Rad. 4'-0" Rad. 4'-0" Rad. 4'-0" Rad.

Radius 12'-6"

12"

9"

2'-6"

SECTION THRU SWAY BRACING
Scale ½"=1'-0"

PART PLAN - SWAY BRACING
Scale ¼"=1'-0"

Recess 3"x12" 1½" deep 6'-0"

Raised panels shall be terminated into portal fillet

6'-6"

2'-6"

45°

Raise 1⅜" Raise 2¼" Raise 2⅜" from face of portal

Horizontals raised 1½" from face of portal

Arch Rib

DEVELOPED ELEVATION OF PORTAL
Scale ⅜"=1'-0"

13'-6"

1'-2" 3'-6"

Raised panels as shown on developed Elev.

16'-0"

2'-6"

5'-3"

1'-2"

Arch Rib Steel
9-1"ø bars top and bottom
½"ø hoops @ 18" ctrs
Spec ½"ø ties on all hoops.

5'-2" 2'-7"

2'-1½"

8"

¾"x¾" Scoring @ 5'-2" ctrs. thruout rib.

12"x30" Sway bracing in each panel as shown.

Do not pour bracing in this panel until arch ribs are supporting full dead load.

15'-9"

1'-10"

9"

14'-0" = 0.0 Radius 85'-4"

29'-1"

58'-0"

"b"

Rise = 36'-0"

Approach Spans 2'-9" 2'-9"

PART PLAN AT PIER
Scale ¼"=1'-0"

℄ E Shoe

Curved haunch

℄ Radius 112'-10" 0 = 9'-4¾" b = 111'-2¾"

9"x14" All hangers 4-1⅛"ø bars 2-1"ø bars

Symm. abt ℄

2'-10" 8" 7'-0" 8" 2'-10"

9"

1'-9"

3'-0" to top of deck or ℄ roadway

2'-1½" 2'-1½"

¼" mastic around hangers thru sidewalk slab.

Slab 10½" Clr 1"

3'-6" 3'-6"

Tie bars
Deck drains and copper pipes @ 42'-0" ctrs. on tied arches. Bm. E 18"x35"

1'-6"

4'-7"

Slab Steel ⅞"ø bars @ 7½" ctrs. alternate bars bent as shown.

¾"ø Spacer bars @ 2'-0" ctrs. top & bottom.

℄ Tie

Bm. K 18"x48"

℄ Radius 315'-0" 0 = 1°30'-4½" b = 27'-9½"

11 Panels @ 14'-0" = 154'-0" ℄ - ℄ bearing

LONGITUDINAL SECTION THRU ARCH
Scale ¼"=1'-0"

Revised Jan. 9, 1934

3'-6" 28'-6" 3'-6"

This face of Portal bracing shall be as shown on developed elevation above.

32'-0"

1'-9" 9" 27'-0" 9" 1'-9"

END ELEVATION
Scale ¼"=1'-0"

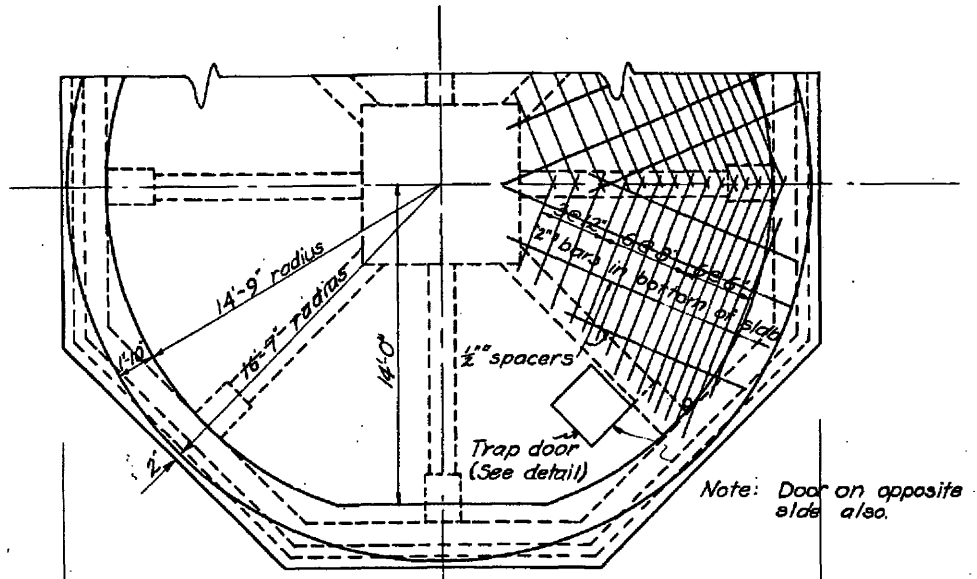
Approved

Bridge Engineer

OREGON
STATE HIGHWAY COMMISSION

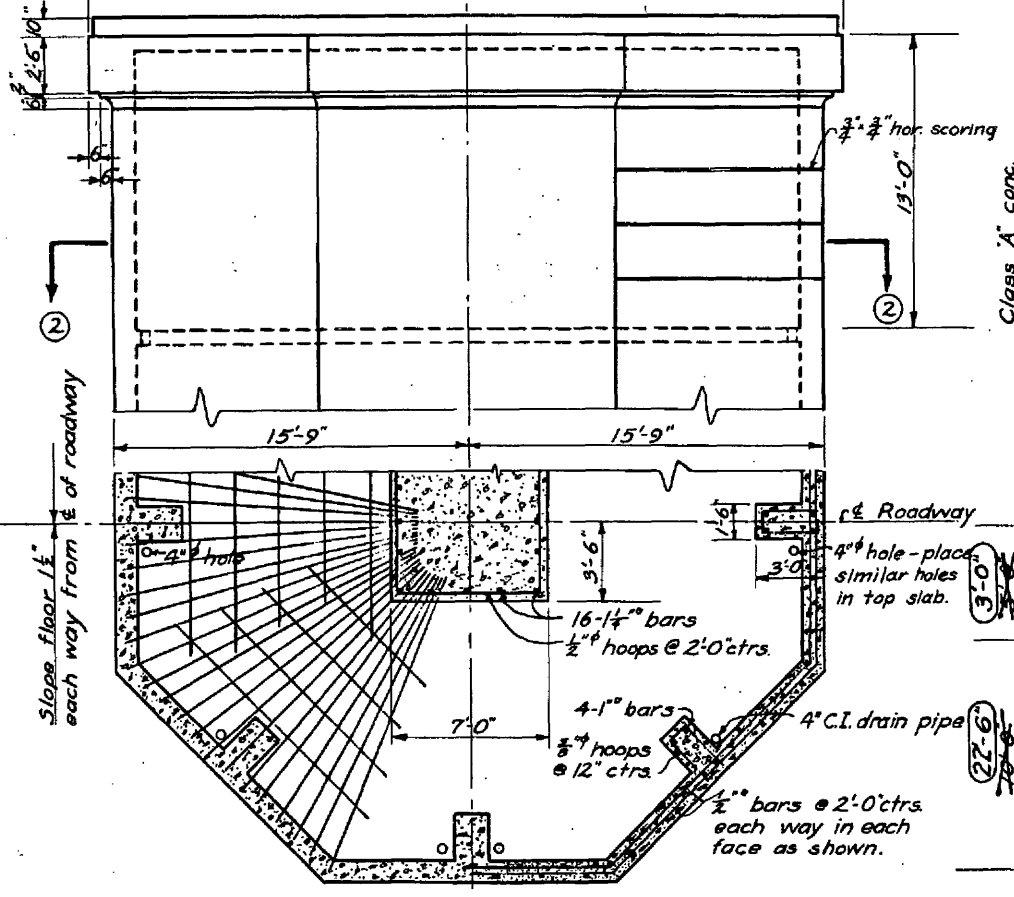
UMPQUA RIVER BRIDGE
154'-0" TIED ARCH SPAN

SCALE AS NOTED DRAWN BY L.S.S. SEPT. 10 1933
CALC. BK. NO. CHECKED BY DRAWING NO. 4957
BRIDGE NO. 1822

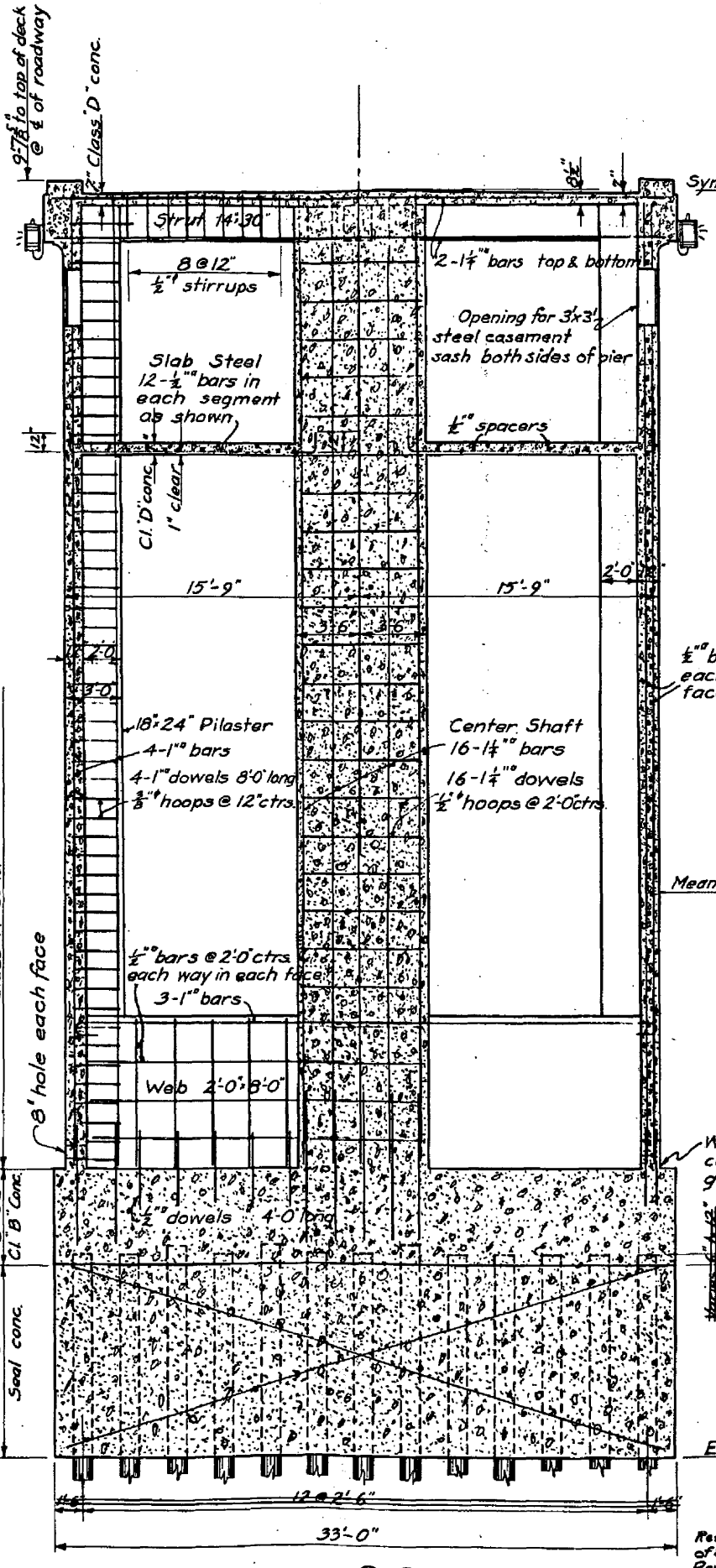


Note: Door on opposite side also.

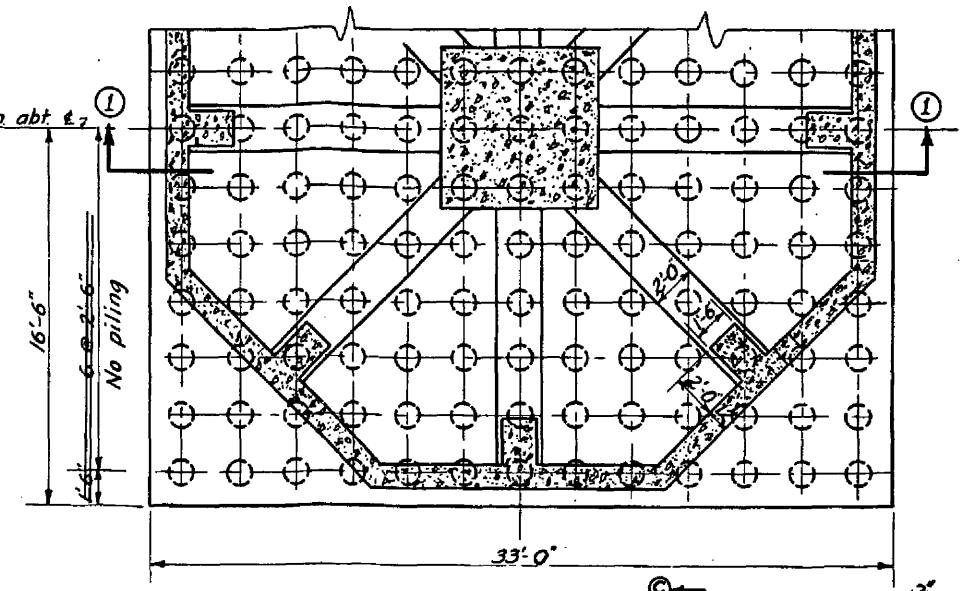
TOP PLAN OF PIER
Scale ½"=1'-0"

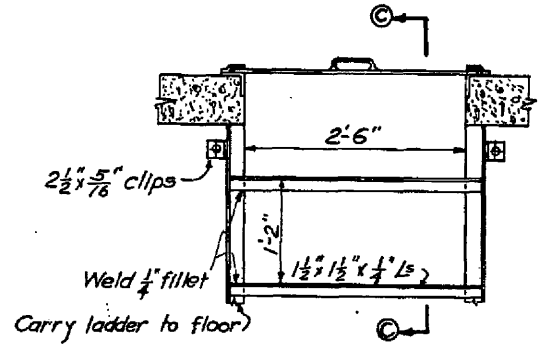


SECTION ②-②

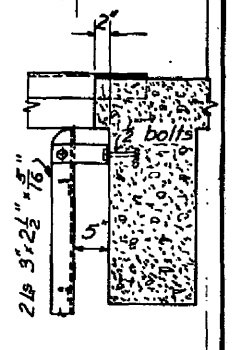


SECTION ①-①

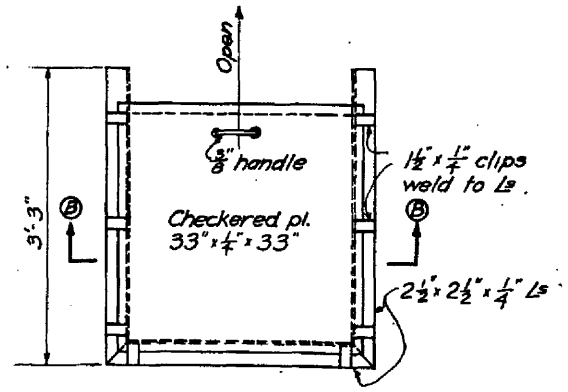




SECTION Ⓑ-Ⓑ



SECTION Ⓒ-Ⓒ



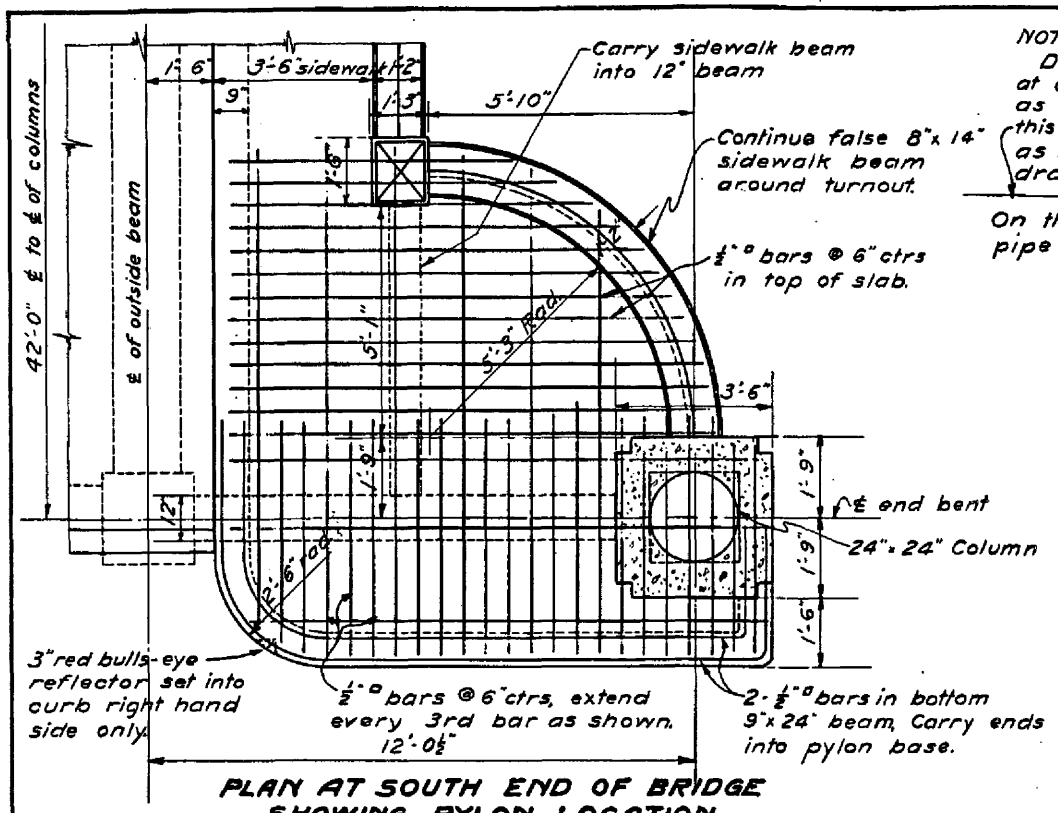
DETAIL OF TRAPDOOR & LADDER
Scale 1½"=1'-0"
2 required.

Approved:
Bridge Engineer

Revised Nov. 20, 1933
Revised Jan. 19, 1934
Revised 11-10-34. -To increase thickness of Seal Concrete.
Revised 1-28-35 - To found. @ El-42.0
" 2-9-35 " " @ El-45.0

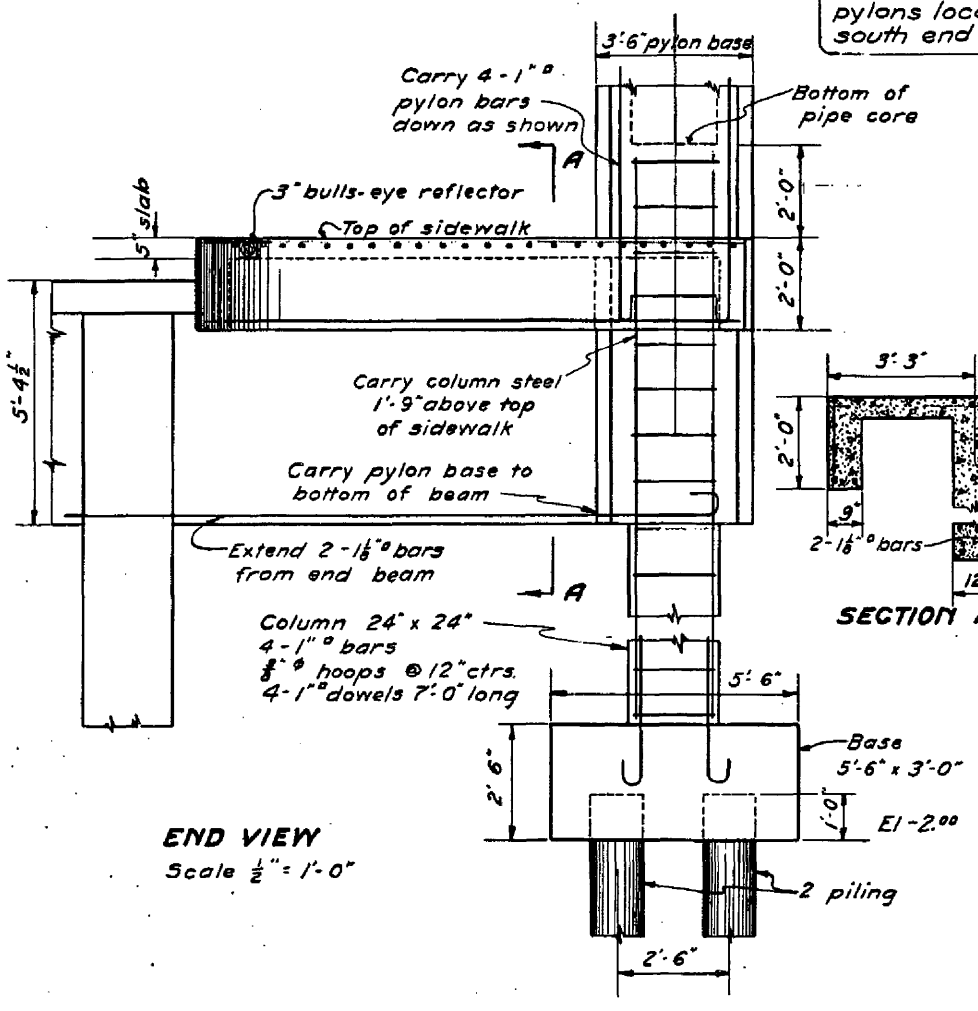
OREGON
STATE HIGHWAY COMMISSION
UMPQUA RIVER BRIDGE
SWING SPAN PIER

SCALE AS NOTED | DRAWN BY C.H.D. | SEPT 10 1933
CALC. BK. NO. | CHECKED BY | DRAWING NO. 4955
BRIDGE NO. 1822



PLAN AT SOUTH END OF BRIDGE SHOWING PYLON LOCATION
Scale ½"=1'-0"

Note: Dimensions in brackets are for revised pylons located at extreme south end of bridge only.



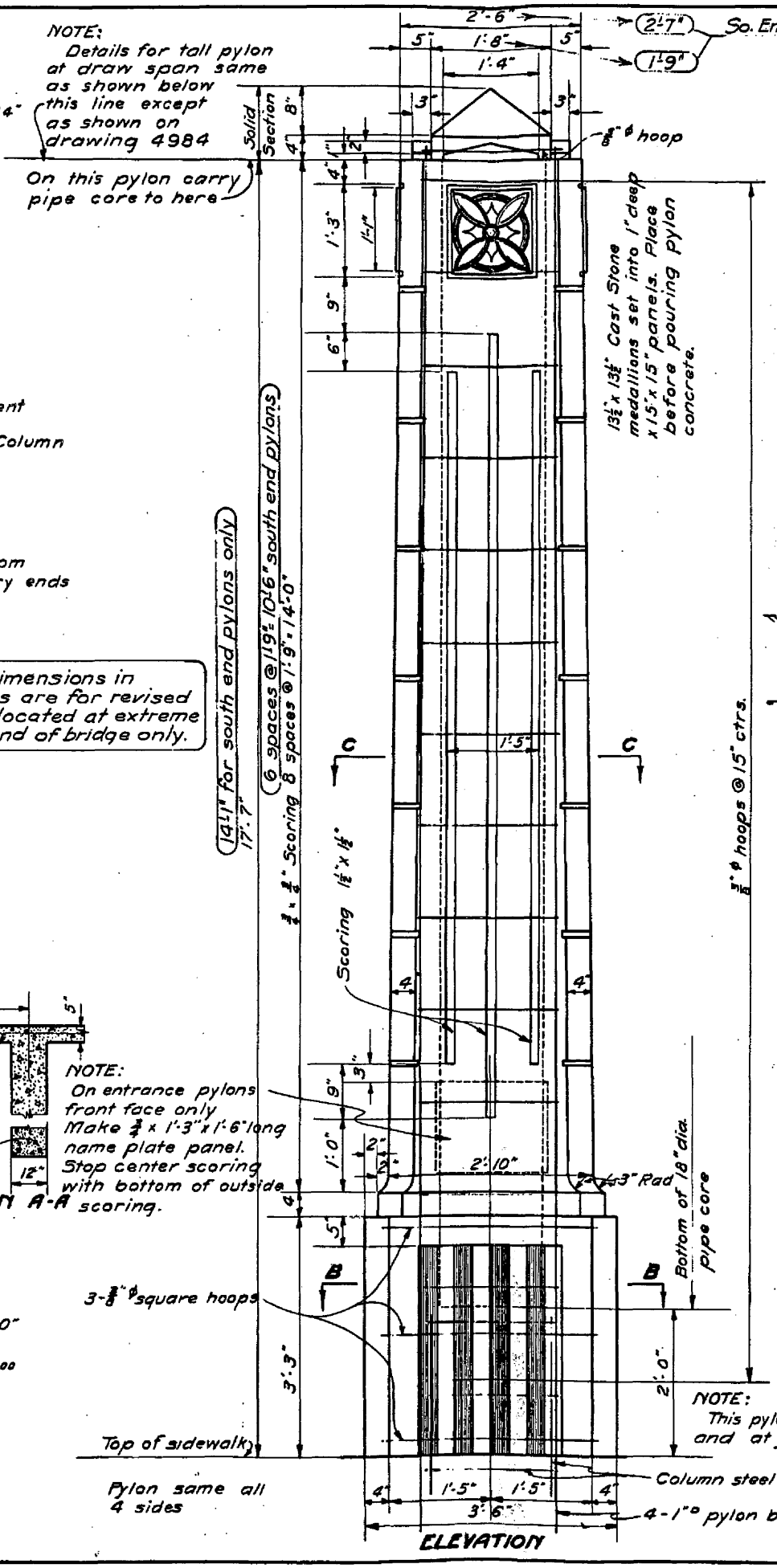
END VIEW
Scale ½"=1'-0"

NOTE:
On entrance pylons front face only Make ¾ x 1'-3" x 1'-6" long name plate panel. Stop center scoring with bottom of outside scoring.

SECTION A-A

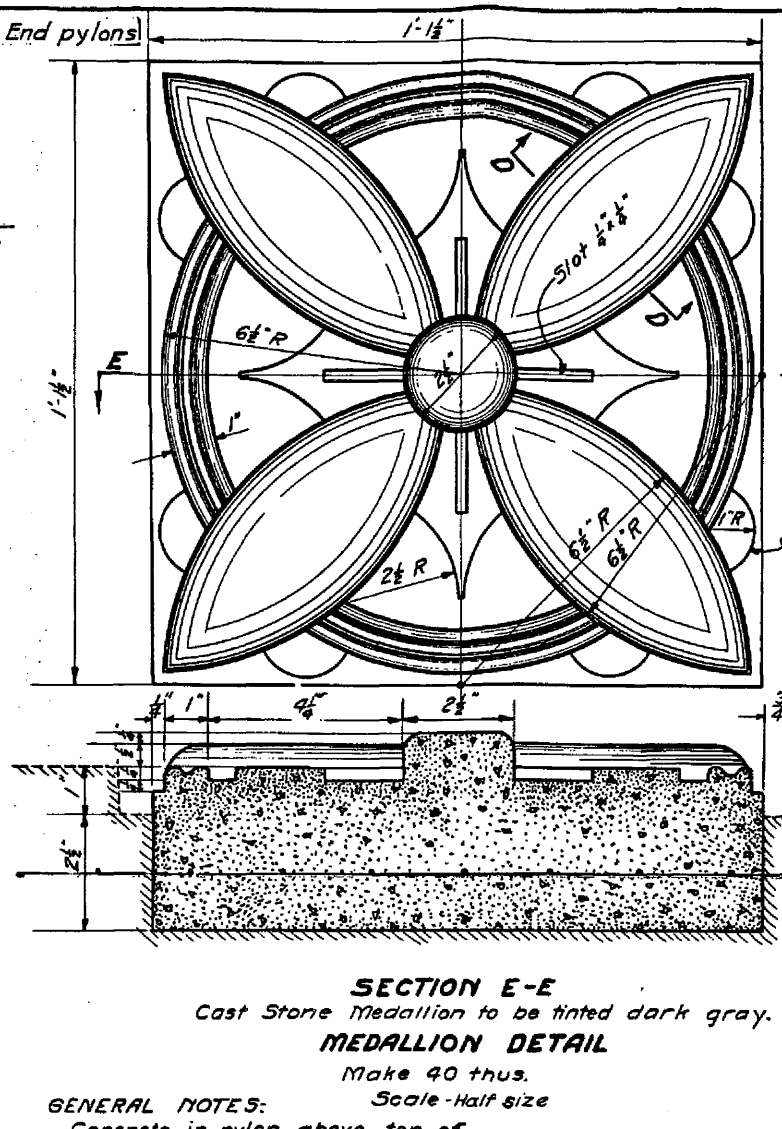
NOTE:
Details for tall pylon at draw span same as shown below this line except as shown on drawing 4984

On this pylon carry pipe core to here



ELEVATION

NOTE:
This pylon at south entrance to bridge and at junction of approach and tied arches.

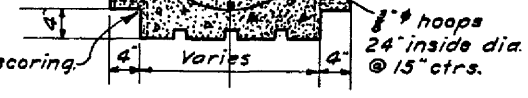


SECTION D-D

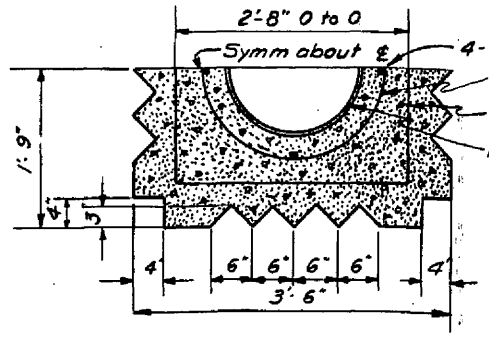
SECTION E-E
Cast Stone Medallion to be tinted dark gray.

MEDALLION DETAIL
Make 40 thus.
Scale-Half size

GENERAL NOTES:
Concrete in pylon above top of sidewalk shall be class "A" mix.
All exposed parts of pylon shall be rubbed with carborundum.
Mix for cast stone medallions shall be 1 part of cement to 2 parts mortar sand.



SECTION C-C



SECTION B-B

Approved:
Bridge Engineer

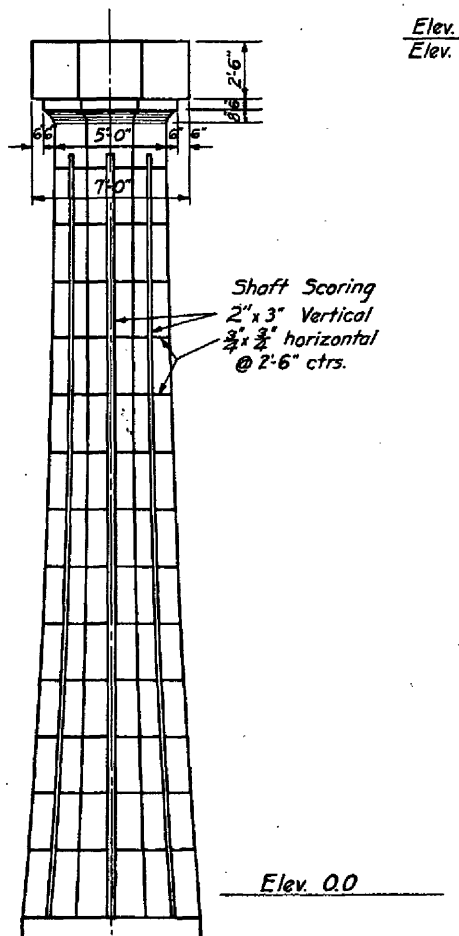
Revised Jan. 9, 1934
Revised: May 28, 1935

OREGON
STATE HIGHWAY COMMISSION

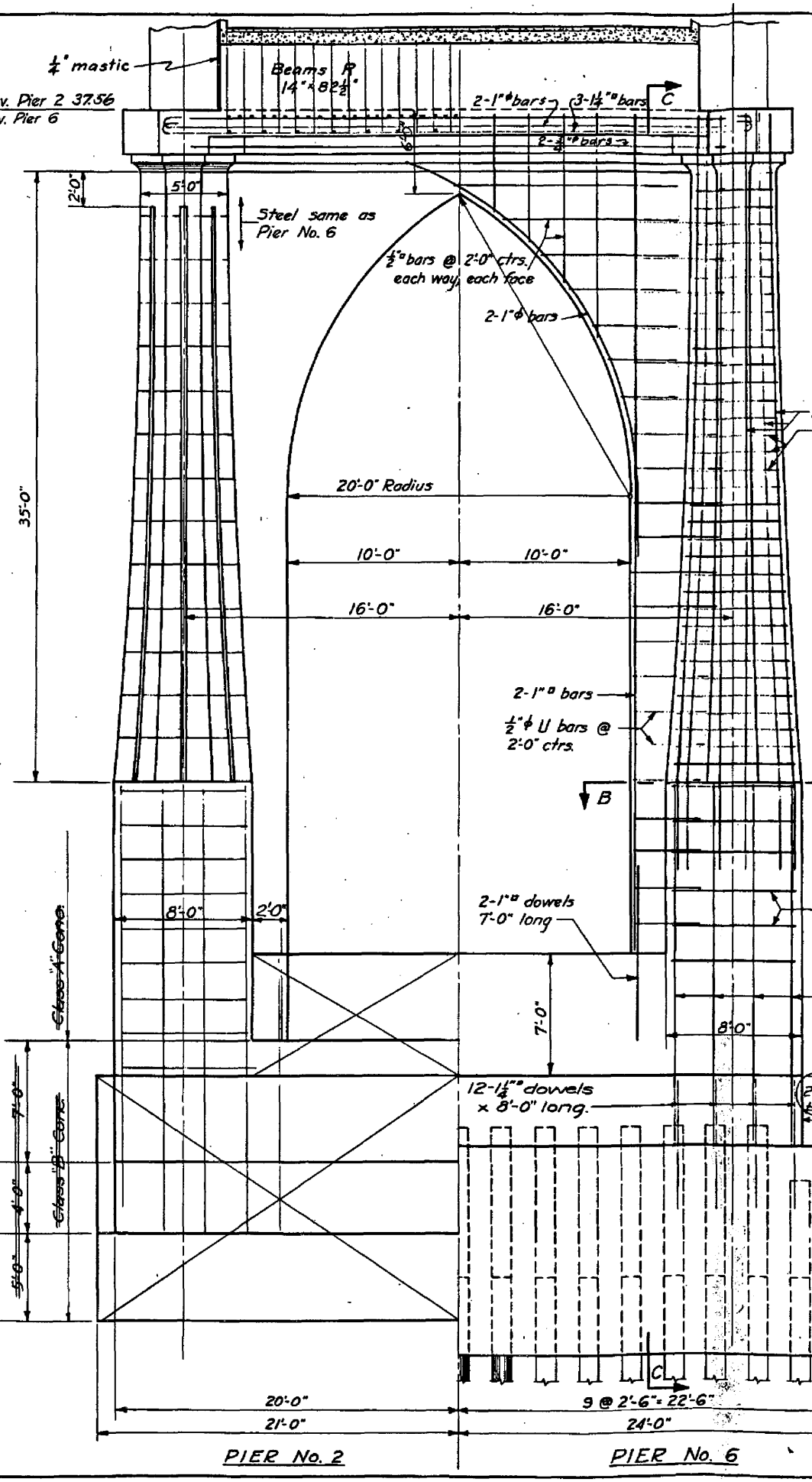
UMPQUA RIVER BRIDGE
PYLON DETAILS

SCALE AS NOTED DRAWN BY C.C.S. TRACED BY C.H.R.
NOV. 9. 1933. CHECKED BY DRAWING NO. 4983

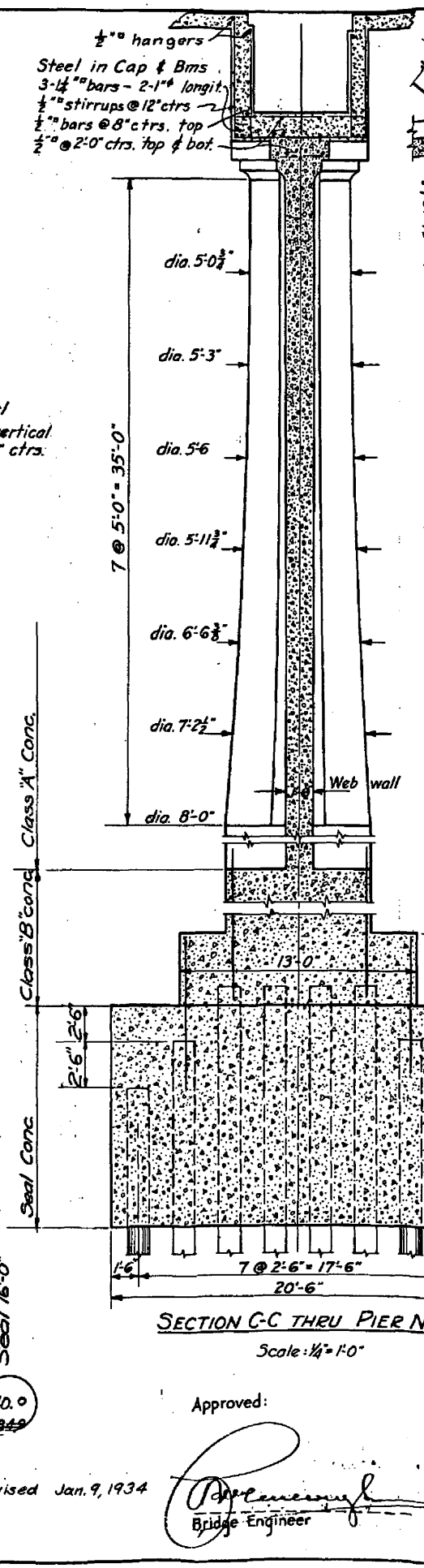
BRIDGE NO. 1822.



END VIEW PIER No. 2



PIER No. 2

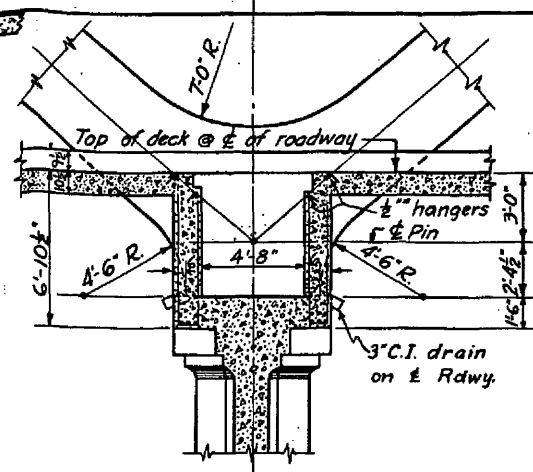


PIER No. 6

Revised Jan. 9, 1934

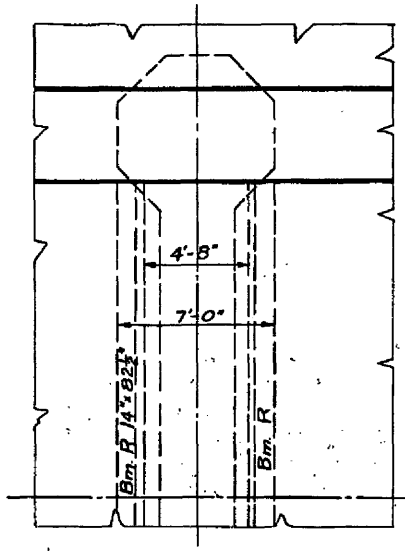
SECTION C-C THRU PIER No. 6

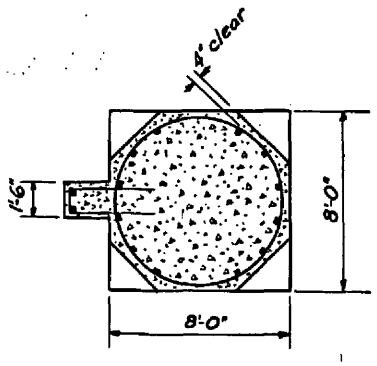
Scale: ¼" = 1'-0"



SECTION SHOWING DETAILS AT ARCH RIBS
Piers 2 & 6

Notes:
Separate slab & rib as shown on dwg. No. 4959.
For details not shown see dwg. No. 4986.





SECTION B-B

Revised - 10-20-34. To show change in footing of Pier #2 to provide for seal concrete.
" 3-27-35 Footing Elev. of Pier 6 changed
" 8-3-35 Seal increased at Pier 6.

Approved:

Bridge Engineer

OREGON
STATE HIGHWAY COMMISSION
UMPQUA RIVER BRIDGE
DETAILS PIERS 2 & 6

SCALE AS NOTED | DRAWN BY L.S.S. | OCT. 6, 1933
CALC. BK. NO. | CHECKED BY | DRAWING NO. 4954
BRIDGE NO. 1822

Detail Notes:

Rivet joints not shown for full strength or 125% of maximum stress

Structural steel specification A7-33T specifies rivet steel specification A141-33 for which use the following stresses:

Case	Shop Rivets		Field Rivets	
	Shear	Bearing	Shear	Bearing
A	15000 #/□"	30000 #/□"	12500 #/□"	25000 #/□"
B	15000 #/□"	30000 #/□"	12500 #/□"	25000 #/□"
C	20250 #/□"	40500 #/□"	16875 #/□"	33750 #/□"
D	20250 #/□"	40500 #/□"	16875 #/□"	33750 #/□"

Mill joints U_1, U_2 and L_3 to L_8 inclusive.

DETAIL OF PORTAL STRUT

LONGITUDINAL SECTION

PART PLAN

CROSS SECTION @ U_2 L_2 (Typical)

Revised 9-20-34 To eliminate obsolete shapes and utilize sections adopted as standard on April 1, 1934.

Approved:

Bridge Engineer

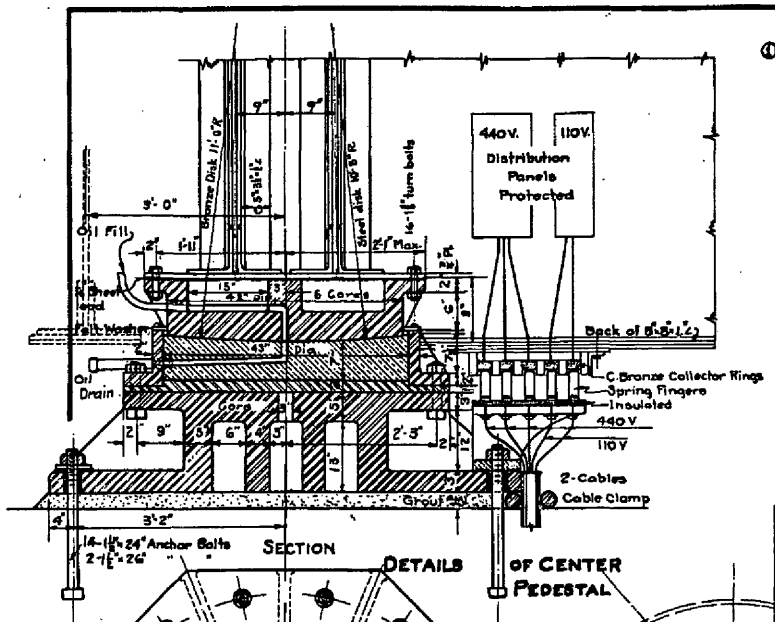
OREGON
STATE HIGHWAY COMMISSION

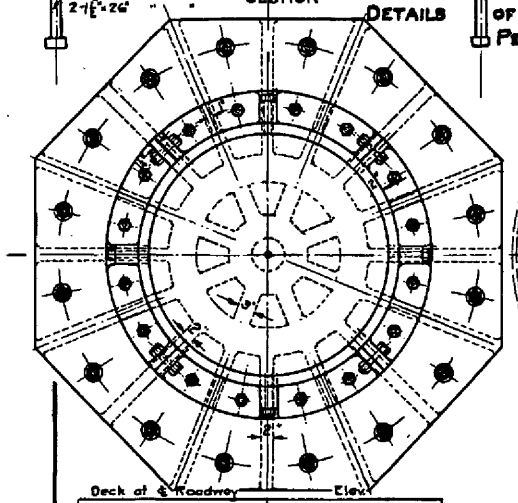
UMPQUA RIVER BRIDGE
SWING SPAN DETAILS

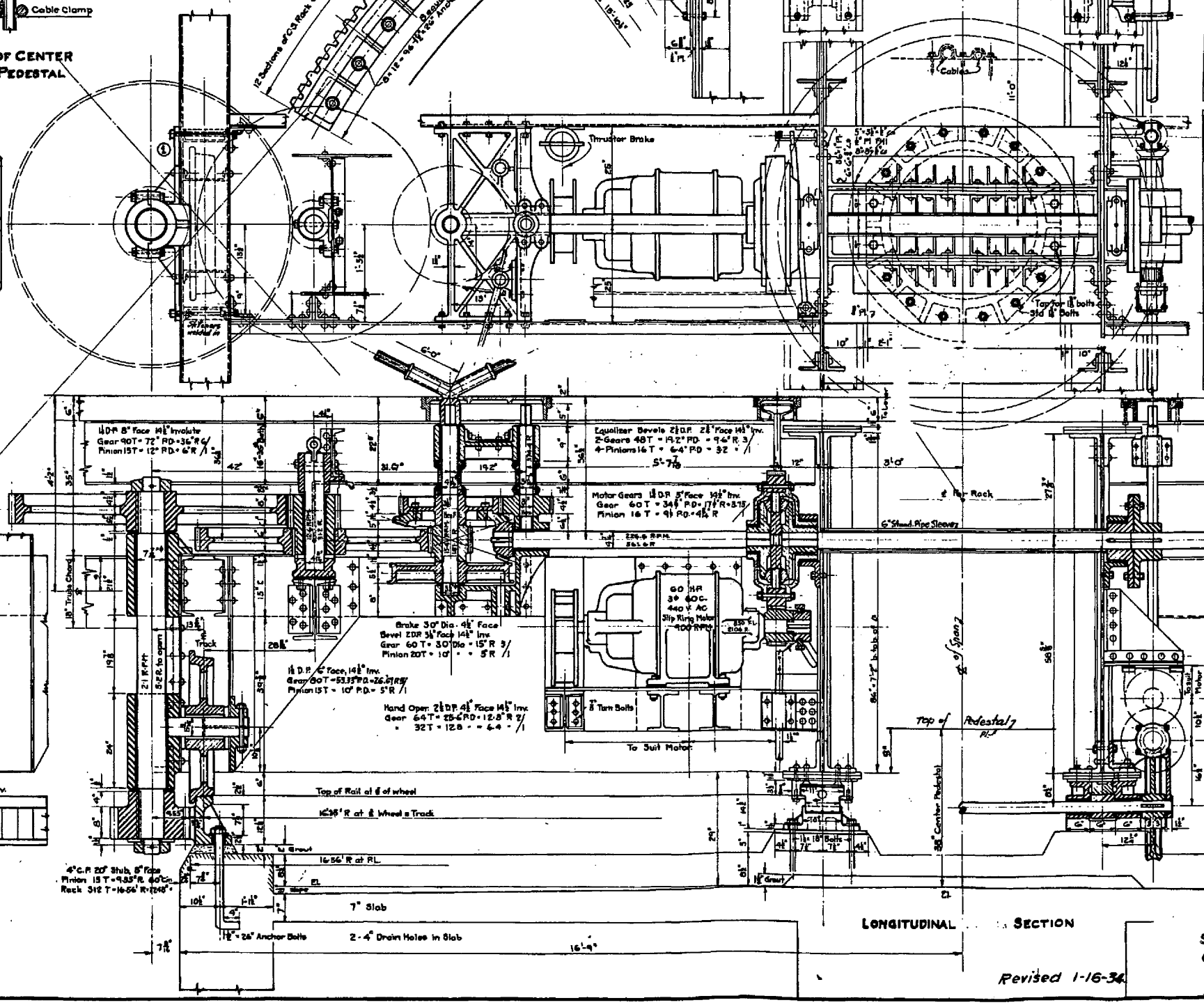
SCALE AS NOTED DRAWN BY C.H.D. TRACED BY C.H.R.
SEPT 26.1934. CHECKED BY DRAWING NO. 4962A
BRIDGE NO. 1822.

LIST OF CHANGES

① April-1934- T.A.W. - Main Pinion Support strengthened at both Pinions







Approved:

Bridge Engineer

OREGON
STATE HIGHWAY COMMISSION

UMPQUA RIVER BRIDGE
GENERAL MACHINERY LAYOUT

SCALE ¾" = 1'-0" DRAWN BY J.A.W. SEPT 19, 1933.
CALC. BK. NO. TRACED BY T.C.R. DRAWING NO. 4970
BRIDGE NO. 1822

Revised 1-16-34