

1. SITE I.D. NO

HAER INVENTORY

Historic American Engineering Record
Department of the Interior, Washington, D.C.

2. INDUSTRIAL CLASSIFICATION
Bridges, Trestles, and Aqueducts 7 6 0 3
TRUSS: Steel
County Designation Number: 223

3. PRIORITY
1
5. DATE
1909/59

4. DANGER OF DEMOLITION?
(SPECIFY THREAT) YES NO UNKNOWN
to be replaced
6. GOVT SOURCE OF THREAT
OWNER ADMIN
7. OWNER/ADMIN
Stevens County

8. NAME(S) OF STRUCTURE
Orient Bridge
Route 818 milepost 3.46 CRP-418

9. OWNER'S ADDRESS
Public Works Director
Stevens County Courthouse, Box 191
Colville, Washington 99114

10. STATE COUNTY WA 065 COUNTY NAME Stevens CITY/VICINITY Orient CONG. DIST. 05

STATE COUNTY CITY/VICINITY CONG. DIST.

11. SITE ADDRESS (STREET & NO)
Richardson Road Crossing: Kettle River
S.T.R. 23 39N 36E

12. EXISTING SURVEYS NR NHL HABS HAER-I HAER NPS CL6
 CONF STATE COUNTY LOCAL OTHER
13. SPECIAL FEATURES (DESCRIBE BELOW)
 INTERIOR INTACT EXTERIOR INTACT ENVIRONS INTACT

14. UTM ZONE EASTING NORTHING SIGN
11 41 21 60 54 13 08 0
UTM ZONE EASTING NORTHING SIGN

SCALE 1:24 1:62.5
 OTHER QUAD NAME
SCALE 1:24 1:62.5
 OTHER QUAD NAME

15. CONDITION 70 EXCELLENT 71 GOOD 72 FAIR 73 DETERIORATED 74 RUINS 75 UNEXPOSED 76 ALTERED 82 DESTROYED 85 DEMOLISHED

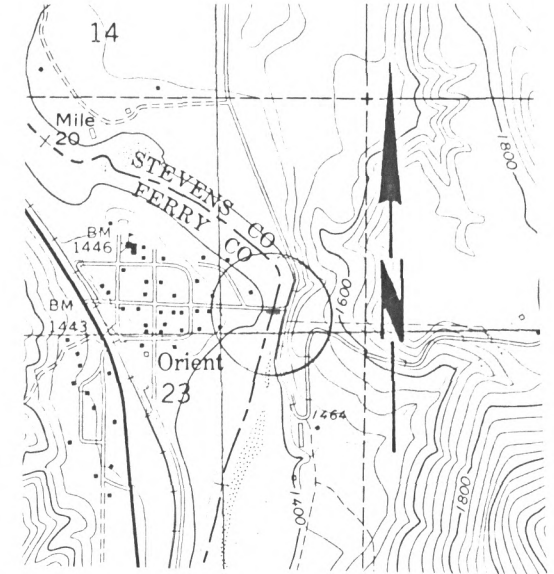
16. INVENTORIED BY Lisa Soderberg AFFILIATION HAER/Washington State Bridge Inventory DATE September 1979

17. DESCRIPTION AND BACKGROUND HISTORY, INCLUDING CONSTRUCTION DATE(S), HISTORICAL DATE(S), PHYSICAL DIMENSIONS, MATERIALS, EXANT EQUIPMENT, AND IMPORTANT BUILDERS, ENGINEERS, ETC.
In July 1909, the C.G. Sheely Contracting Company of Denver, Colorado under the direction of the engineer, W.M. Manning, erected a 180 foot pinconnected Parker steel truss across the Kettle River at Orient. This through truss replaced three deteriorated timber Howe and King trusses which were built across the river in 1908. The Orient Bridge was one of three bridges that the Sheely Contracting Company constructed over the Kettle River in 1909 at a cost of \$11,500.
The 240 foot bridge also includes two wood pile approach spans, and has a planked timber roadway, 15.7 feet wide, curb to curb. It rests on 48 inch riveted steel tubular piers which are filled with concrete, and are laterally braced. Of the three bridges built in 1909, the Orient Bridge is the longest span, and the only one with its original piers completely intact.
In contrast to the uniform depth of the parallel chords of the basic Pratt truss, the polygonal top chord of this Parker truss which reaches its greatest height at the center panel, reflects the increase in bending moment (CONT OVER)

18. ORIGINAL USE Bridge/vehicular PRESENT USE Bridge/vehicular ADAPTIVE USE

19. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER
Stevens County Bridge Files.
Bridge Plate.

20. URBAN AREA 50,000 POP. OR MORE? YES NO
21. HCRS REGION N W
22. PUBLIC ACCESSIBILITY YES, LIMITED YES, UNLIMITED NO UNKNOWN
23. EDITOR INDEXER
24. LOCATED IN AN HISTORIC DISTRICT? YES NO NAME DISTRICT I.D. NO



DESCRIPTION (CONTINUED) that occurs as one moves from the ends of the truss to the center. The use of the arched top chord increased the rigidity of the bridge, and consequently enabled the construction of longer spans. For example, the Orient Bridge is 30 feet longer than the maximum length customarily used for the basic Pratt truss.

It consists of ten 18 foot panels. The diagonals which are a pair of rectilinear eyebars, are counterbalanced in the four center panels with cylindrical rods.

Of the five existing pinconnected Parker trusses built before 1910, the Orient Bridge and the Curlew Bridge in Ferry County are the least altered examples of this truss type within the State. Crossing the Kettle River in an environment very similar to the one in which it was built, the Orient Bridge remains virtually unaltered. It is significant as a representative of a truss type that was commonly used by engineers as an economical means of subduing nature's course.

ABSTRACT											
HAER NO	LC	TECH REPORT	HIST REPORT	CONTEMP PHOTO	HIST PHOTO	CONTEMP DRWG	HIST DRWG	COLOR PLATE	PHOTOGRAM	SW	FILM