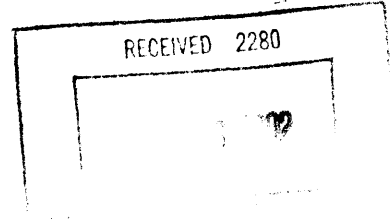


United States Department of the Interior
National Park Service

1159



National Register of Historic Places Registration Form

This form is for use in nominating or requesting determination for individual properties and districts. See instruction 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 an 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 North St. Vrain Creek Bridge

other names/site number CDOT No. D-15-A; 5BL7899

2. Location

street & number Colorado Highway 7 at milepost 32.98 [N/A] not for publication

city or town Lyons [NA] vicinity

state Colorado code CO county Boulder code 013 zip code _____

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] 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 [X] meets [] does not meet the National Register criteria. I recommend that this property be considered significant [] nationally [] statewide [X] locally. ([] See continuation sheet for additional comments.)

Marquiana Corteglia
Signature of certifying official/Title

State Historic Preservation Officer August 21, 2002
Date

State Historic Preservation Office, Colorado Historical Society
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 certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- entered in the National Register
[] 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
[] See continuation sheet.

Edson A. Baell
Signature of the Keeper

10/15/02
Date of Action

North St. Vrain Creek Bridge
Name of Property

Boulder County, Colorado
County/State

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 count previously listed resources.)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

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

Highway Bridges in Colorado

Number of contributing resources previously listed in the National Register.

0

6. Function or Use

Historic Function

(Enter categories from instructions)

Road-related

Current Functions

(Enter categories from instructions)

Road-related

7. Description

Architectural Classification

(Enter categories from instructions)

Other: Concrete rigid frame

Materials

(Enter categories from instructions)

foundation _____
walls _____
roof _____
other Concrete _____
Asphalt _____
Steel _____

Narrative Description

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

North St. Vrain Creek Bridge
Name of Property

Boulder County, Colorado
County/State

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.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or 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.

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

Areas of Significance
(Enter categories from instructions)

Transportation
Engineering

Periods of Significance
1955

Significant Dates
N/A

Significant Person(s)
(Complete if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
US Bureau of Public Roads
Lowdermilk Brothers

9. Major Bibliographical References

Bibliography
(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

Primary location of additional data:

- State Historic Preservation Office
- Other State Agency
- Federal Agency
- Local Government
- University
- Other

Name of repository:
Colorado Historical Society
Colorado Dept. of Transportation

North St. Vrain Creek Bridge
Name of Property

Boulder County, Colorado
County/State

10. Geographical Data

Acreage of Property less than one

UTM References

(Place additional UTM references on a continuation sheet.)

1. 13 476920 445262300
Zone Easting Northing

2. Zone Easting Northing

3. Zone Easting Northing

4. Zone Easting Northing

[] See continuation sheet

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 Office of Archaeology and Historic Preservation and Clay Fraser, principal
organization Colorado Historical Society and Fraser Design date May 21, 2002
street & number 1300 Broadway telephone 303-866-4681
city or town Denver state CO zip code 80203

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

- A **USGS map** (7.5 or 15 minute series) indicating the property's location.
- A **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 SHPO or FPO.)

name Colorado Department of Transportation
street & number 4201 E. Arkansas Avenue telephone _____
city or town Denver state CO zip code 80222

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number 7 Page 1

DESCRIPTION

Location: Colorado Highway 7 at milepost 32.98 in Lyons

Setting: Over North St. Vrain Creek at the southern periphery of Lyons

Structure length: 66 feet
Structure width: 37.30 feet
Roadway width: 30 feet

Main span number: 1
Main span length: 60 feet

Superstructure: Concrete rigid frame
Substructure: Concrete abutments and wingwalls
Floor/decking: Concrete deck with asphalt overlay
Other features: Steel baluster guardrails

Erected: 1955
Designer: US Bureau of Public Roads
Contractor: Lowdermilk Brothers

Alterations: None

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number 9 Page 2

SIGNIFICANCE

Designed by the US Bureau of Public Roads, the 1955 North St. Vrain Creek Bridge on Colorado Highway 7, in Lyons, meets the registration requirements under Criterion A in the area of Transportation and under Criterion C in the area of Engineering as set forth in the *Highway Bridges in Colorado*, Multiple Property Documentation Form. While its 1955 construction date leaves it short of the fifty-years-of-age guidelines of the National Register, this particularly well-preserved concrete rigid frame bridge meets Criteria Consideration G as an important crossing within the system of roads providing access to Roosevelt National Forest.

Between 1914 and 1916 the Colorado Highway Commission established State Primary Road 11S in Boulder and Larimer counties. Beginning at the north edge of the city of Boulder, it ran northward to Lyons and wound its way up to Estes Park. In 1922 the U.S. Bureau of Public Roads (BPR) approved Colorado's first federal aid highway system. Of the 48,000 miles of roads in the state, some 3,360 were declared as state highways. Under the new system, State Primary Road 11S was redesignated as State Highway 7.

Although the state highway system was under the aegis of the Colorado Highway Department, the Bureau of Public Roads took an active role in road construction and maintenance in some specific instances. The most common of these were on federal lands, typically national parks and national forests. The Forest Highway Act of 1921 required the forests to establish a comprehensive forest road system, including roads within the forests themselves and routes that would provide access to the forests. Under the act millions of dollars were appropriated for road construction, improvement and maintenance. USFS District Engineer J.L. Brownlee explained the differences in forest roads in 1929:

Forest roads are divided into two classes by law: forest highways and forest development roads, the latter also includes trails. Forest highways are further divided into three classes: (1) All extensions and proposed roads, or parts of roads, which are necessary sections or extensions of the federal road system wholly within the national forests. (2) Other existing or proposed roads, or parts of roads which are sections or extensions of the federal aid system and partly within or adjacent to and serving the national forests, and which may be designated as forest roads by the Forester and the Chief of Bureau of Public Roads. (3) Other existing or proposed forest roads of primary importance to counties or combines.

Providing access to the Roosevelt National Forest, State Highway 7 fell under the purview of the BPR as a forest access highway. In the mid-1950s the agency reconstructed the existing bridge over North St. Vrain Creek at the southern periphery of Lyons.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number 9 Page 3

Engineering

For the North St. Vrain Creek Bridge, BPR engineers delineated a single-span, reinforced concrete structure. It had a 60-foot span and a 30-foot-wide roadway, flanked on both sides by steel baluster guardrails. BPR contracted with the Lowdemilk Brothers Construction Company to build the bridge. Completed in 1955, the North St. Vrain Creek Bridge has since functioned in place in unaltered condition.

The City of Denver was the first government entity known to construct rigid frame bridges in Colorado, with a few two-span structures over Cherry Creek built in the 1920s. In the late 1930s, the Colorado Highway Department and the Bureau of Public Roads experimented with rigid frame design, building relatively small-scale structures at rural locations around the state. But rigid frame bridges were never commonly built in Colorado outside of Denver. Only ten such structures outside of Denver were identified by the statewide historic bridge inventory. Of these, the North St. Vrain Creek Bridge is distinguished by its handsome proportions and excellent state of preservation.

The first concrete rigid frame bridge in America was designed in 1922 by engineer Arthur G. Hayden for the park commission of Westchester County, New York. Comprised of a concrete beam superstructure tied rigidly to the abutments with steel reinforcing bars, rigid frame bridges differed materially from conventional simply supported spans. "A clear conception of a typical rigid frame concrete bridge may be obtained by first visualizing an ordinary simple span bridge supported by bearing on two abutments," a 1935 concrete manual stated. "If the bearing is replaced with concrete that continues monolithically from the abutments to the deck, the altered structure becomes a frame with rigid corners – a structure generally called a rigid frame concrete bridge." Because its construction was relatively labor-intensive, this bridge configuration became popular for federal relief projects during the 1930s. Both picturesque and practical, the flat-arch design appealed to proponents of urban beautification, and rigid frames found widespread use in city parks and landscaped boulevards. By 1935, more than 300 rigid frames had been built in America, most in urban areas. Early rigid frame bridges were limited in span length, but by 1937 the Schmitz Park Bridge in Seattle featured a single 175-foot span.

Concrete rigid frame bridges were well suited to urban applications with large traffic volumes and moderate span lengths, where rigidity under load was of prime importance. Their design could be easily modified. Using a standard profile and reinforcing configuration, a series of bridges could be built over a fairly wide range of span lengths. They could be readily skewed to accommodate angled intersections. Their flat or slightly arched undersides provided adequate under-bridge clearance, and they could be subsequently widened to accommodate increased traffic. Further, the bridges could be cast plainly or adorned with a variety of applied concrete or metal ornamentation.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number 9 Page 4

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Analysis of Rigid Frame Concrete Bridges. Chicago: Portland Cement Association, 1935.

Brownlee, James L. "Forest Highway Program." *Colorado Highways* 8:1, January 1929.

Brownlee, James L. "Forest Roads." *University of Colorado Highway Conference*. May 1929.

Cervený, A.L. "Rigid Frame Bridges." *University of Colorado Highway Conference*. March 1939.

Colorado Department of Transportation, Structure Inventory and Appraisal: Structure No. D-15-AK. Located at CDOT, Denver, CO.

Colorado Highway Department. Bridge Kardex File. Located at CDOT Bridge Division, Denver, CO.

Fraser, Clayton, B. Field inspection February 2000.

Fraser, Clayton B. "North St. Vrain Creek Bridge, 5BL7899," Historic Bridge Inventory, 31 March 2000.

Maloney, J.E. "Standard Bridge Plans," *Colorado Highways Bulletin* 2:11, November 1919.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number 10 Page 5

GEOGRAPHICAL DATA

VERBAL BOUNDARY DESCRIPTION

The bridge is located on Colorado Highway 7 at milepost 32.98. The boundaries of this nomination consist of a rectangle of land 10 feet out in each direction from the footprint of the bridge.

BOUNDARY JUSTIFICATION

The nomination includes all the land directly and historically associated with the bridge.

PHOTOGRAPH LOG

The following information pertains to photograph numbers 1-2:

Name of Property: North St. Vrain Creek Bridge
Location: Boulder County, Colorado
Photographer: Clayton Fraser
Date of Photographs: February 2000
Negatives: Colorado Department of Transportation

Photo No. Photographic Information

- 1 View to north of roadway
- 2 View to northwest through bridge

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

02001159

North St. Vrain Creek Bridge
Boulder County/ Colorado
Highway Bridges in Colorado MPS

Section number 10 Page 1

This additional documentation corrects an erroneous UTM reference contained in the original nomination. The boundary justification remains unchanged.

UTM References

1.	13	476920	4452300
	Zone	Easting	Northing

As the designated authority under the National Historic Preservation Act, 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.)

Guillermo Cortez Deputy State Historic Preservation Officer April 29, 2003
Signature of certifying official/Title Date

Office of Archaeology and Historic Preservation, Colorado Historical Society
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 certifying official/Title Date

State or Federal agency and bureau

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

North St. Vrain Creek Bridge
Boulder County, Colorado
Highway Bridges in Colorado, MPS

Section number ___ Page 6

USGS TOPOGRAPHIC MAP
Lyons Quadrangle, Colorado
7.5 Minute Series,

