

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Type all entries - complete applicable sections)

STATE: New Jersey
COUNTY: Hunterdon
FOR NPS USE ONLY
ENTRY DATE DEC 24 1974

1. NAME

COMMON:
Bridge FC-64-Hamden

AND/OR HISTORIC:
Fink-Type Truss Bridge

2. LOCATION

STREET AND NUMBER:
County Route 2, over the South Branch of the Raritan River

CITY OR TOWN:
Clinton and Franklin Townships

CONGRESSIONAL DISTRICT:
13th

STATE: New Jersey CODE: 34 COUNTY: Hunterdon CODE: 019

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input type="checkbox"/> Building <input type="checkbox"/> Site <input checked="" type="checkbox"/> Structure <input type="checkbox"/> Object	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	Yes: <input type="checkbox"/> Restricted <input checked="" type="checkbox"/> Unrestricted <input type="checkbox"/> No
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input type="checkbox"/> Park <input type="checkbox"/> Private Residence <input checked="" type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input checked="" type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify)

4. OWNER OF PROPERTY

OWNER'S NAME:
Hunterdon County

STREET AND NUMBER:
Administration Building

CITY OR TOWN:
Flemington

STATE: New Jersey CODE: 34

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.:
Hall of Records

STREET AND NUMBER:
Main Street

CITY OR TOWN:
Flemington

STATE: New Jersey CODE: 34

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY:
New Jersey Historic Sites Inventory (#1345.1)

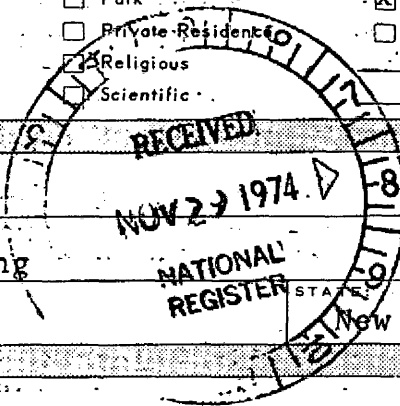
DATE OF SURVEY: 1973 Federal State County Local

DEPOSITORY FOR SURVEY RECORDS:
Historic Sites Section, Dept. of Environmental Protection

STREET AND NUMBER:
Box 1420

CITY OR TOWN:
Trenton

STATE: New Jersey CODE: 34



SEE INSTRUCTIONS

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7. DESCRIPTION

CONDITION

(Check One)

 Excellent Good Fair Deteriorated Ruins Unexposed

(Check One)

 Altered Unaltered

(Check One)

 Moved Original Site

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The Fink type truss bridge, known as Bridge #FC-64, spanning the South Branch of the Raritan River in the Village of Hamden, New Jersey was constructed in 1857 by the Trenton Locomotive and Machine Manufacturing Company. It has a span of 99.9 feet carrying a one lane 15.05 foot wide roadway.

This truss bridge combines different systems of triangular bracings so that the imposed weight on any particular section is distributed evenly throughout the bridge since the foot of the post of each triangle is capable of settling vertically or moving to the side so that the tension rods of each system of triangular bracings will be strained uniformly.

The bridge of Hamden is an excellent, almost perfect, example of the Fink-truss bridge as shown in Plate II of Fink's patent dated May 9, 1854.

The entire bridge frame forms a rectangular box measuring approximately 100 feet long, by 15 feet wide, by 19 feet high. The vertical braces, or tie rods, are spaced at approximately 12 foot intervals and, except for the end tie rods, are hexagonal-shaped cast iron. The end vertical braces are also cast-iron, but of more substantial strength. Suspension rods are attached at the top of the end braces and secured into the bases of each tie rod up to the center of the bridge. In addition, each of the vertical tie rods has intersecting suspension rods visually creating a spider's web impression.

The stretchers on the top of the bridge crossing the river are also hexagonal-shaped cast iron. Those connecting rods from one truss to the other at the top are perforated small narrow I-beams.

There is a wooden railing along the inside of the bridge about two feet above the road bed to prevent structural damage from vehicles to the iron members.

The modern roadbed, laid over corrugated steel plating, is reinforced by twin I-beams which are further strengthened by seven traversing I-beams underneath the entire structure. The abutments are stone, and possibly original.

Although the roadbed and the sub-structure is of modern construction the super-structure conforms favorably to the original configuration.

SEE INSTRUCTIONS

9. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

- Pre-Columbian 16th Century 18th Century 20th Century
 15th Century 17th Century 19th Century

SPECIFIC DATE(S) (If Applicable and Known)

1857

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political | <input type="checkbox"/> Urban Planning |
| <input type="checkbox"/> Prehistoric | <input checked="" type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Historic | <input type="checkbox"/> Industry | <input type="checkbox"/> Science | _____ |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Invention | <input type="checkbox"/> Sculpture | _____ |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian | _____ |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater | _____ |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Military | <input type="checkbox"/> Transportation | _____ |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Music | | |
| <input type="checkbox"/> Conservation | | | |

STATEMENT OF SIGNIFICANCE

Engineering and Transportation

As the United States increased its industrial power in the 19th Century transportation through the nation developed correspondingly. And as the means and methods of travel became more and more sophisticated increased demands for improved highways encouraged engineers to develop improved roadbeds, canals, railways, and bridges.

Increasingly heavy modes of travel, especially in the railways, forced engineers to consider increased weight capacity of bridges which the locomotives eventually had to cross.

One of these engineers, Albert Fink, had several patents for truss bridges which had added strength.

Fink's earliest patent, dated May 9, 1854 (#10,887), shows an iron truss bridge nearly identical to the bridge crossing the South Branch of the Raritan River in the Village of Hamden.

This bridge is perhaps the only surviving Fink-type truss bridge and one of the earliest iron truss bridges in the United States. It was constructed by the Trenton Locomotive and Machine Manufacturing Company of Trenton, New Jersey in 1857.

Trenton Locomotive was one of New Jersey's foremost iron manufacturers of the 19th Century.

Albert Fink - Short Biography

Albert Fink (1827-1897), railroad engineer and operator, is generally regarded as the father of 19th century railway economics and statistics in the United States.

Employed by several railroad companies in the south Fink was, at various times; in charge of design of bridges

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Historic American Engineering Record. Inventory form completed by Eric DeLony, HAER, 1973.
American Railroad Bridges. Theodore Cooper. New York: 1889 (?), (p. 20 and plates XIV & XIX).
American Building Art: 19th Century. Carl Condit. New York: 1960, (pp. 118-124).
Atlas of Hunterdon County, New Jersey. F.W. Beers. New York: 1873.
Dictionary of American Biography. Allen Johnson and Dumas

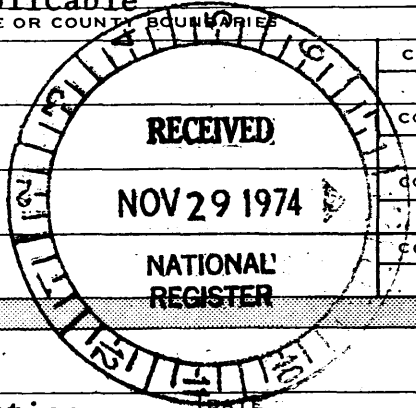
10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees Minutes Seconds	Degrees Minutes Seconds	
NW	° ' "	° ' "		° ' "	° ' "	
NE	° ' "	° ' "		40 36 14	74 54 10	
SE	° ' "	° ' "				
SW	° ' "	° ' "				

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: **Not Applicable**

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE



NO
 CO 21
 60

SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE:
Terry Karschner, Historian-Curator

ORGANIZATION: **Historic Sites Section, Dept. of Environmental Protection** DATE: **08/01/1974**

STREET AND NUMBER:
Box 1420

CITY OR TOWN: **Trenton** STATE: **New Jersey** CODE: **34**

12. STATE LIAISON OFFICER CERTIFICATION **NATIONAL REGISTER VERIFICATION**

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National State Local

Name: David J. Bardin
 Title: Commissioner
Dept of Environmental Protection
 Date: November 20, 1974

I hereby certify that this property is included in the National Register.

AR Winters
 Director, Office of Archeology and Historic Preservation

Date: 12/24/74

ATTEST:

Wm. H. ...
 Keeper of the National Register
 Date: DEC 24 1974

**NATIONAL REGISTER OF HISTORIC PLACES
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(Continuation Sheet)

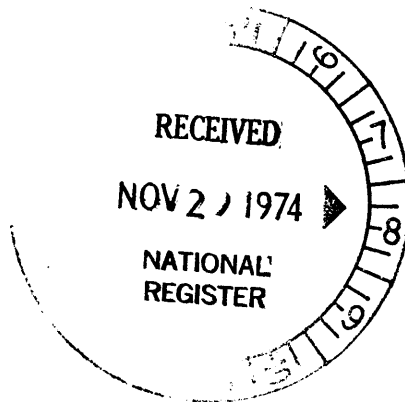
STATE New Jersey	
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(Number all entries)

8. Significance (Cont'd)

and stations for the section of railroad from Grafton to Moundsville, Virginia (now West Virginia), Section Engineer and Division Engineer of the Baltimore and Ohio Railroad, and Chief Engineer, General Superintendent, and, finally, Vice-President of the Louisville and Nashville Railroad.

Fink also had numerous innovative designs for railroad/bridges which he subsequently patented.



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(Continuation Sheet)

STATE New Jersey	
COUNTY Hunterdon	
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	DEC 24 1974

(Number all entries)

9. Major Bibliographical References (Cont'd)

Malone, editors. New York: 1931 (Volume 6, pp. 387-88).

United States Patents:

May 9, 1854 (#10,887), April 9, 1867 (#63,714), March
3, 1857 (#16,728), July 4, 1871 (#116,787).

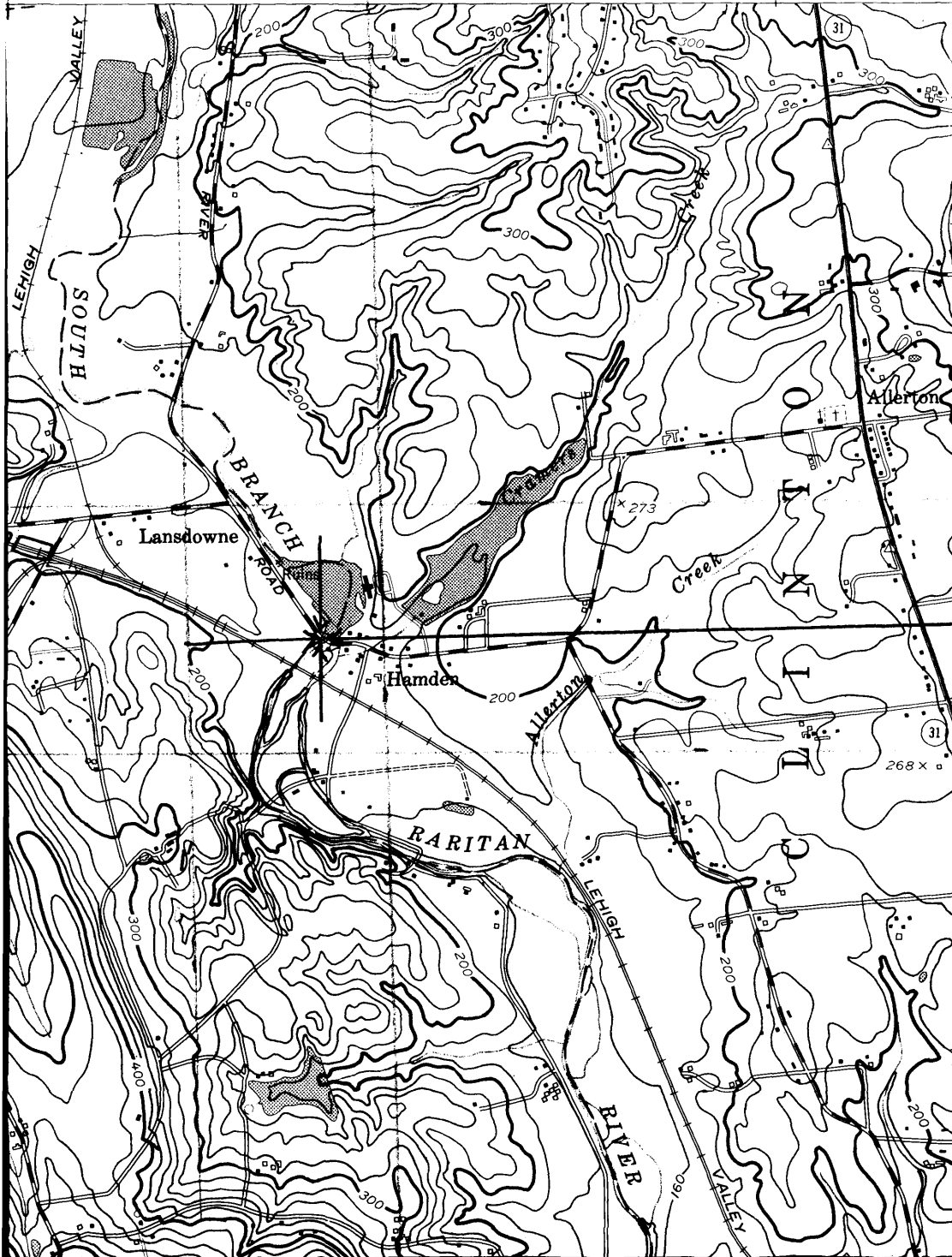


19 MI. TO U.S. 46
ANNANDALE (JUNC. INTERSTATE 78) 1 MI.

PITTSTOWN QUADRANGLE
NEW JERSEY—HUNTERDON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

6065 III NE
(CALIFORN)

5' 508 509 1 940 000 FEET 74°52'30" 40°37'30"



650 400
FEET
4496
650 400
4496
FLEMINGTON (JUNC. U.S. 202) 7.3 MI.
TRENTON (CIVIC CENTER) 31 MI.



Bridge FC-64-Hamden
Fink-Type Truss Bridge
Clinton and Franklin To
-ships
Hunterdon County, 019
New Jersey, 34
Latitude:
40-36-14
Longitude:
74-54-10

1955, photorevised
1970

35'