

HISTORIC BRIDGE INVENTORY & EVALUATION A-MHC 2-20-81

Date: December 9, 1980

Municipality KINGSTON S.H. \_\_\_\_\_ N.S.H. X

Street Name & Route # Elm Street

Over Jones River

Street Name & Route # NA

Bridge No. K-1-2 Bridge Key # MUN-722-024-100 Dist. 7

CRITERIA FOR DETERMINATION OF HISTORIC SIGNIFICANCE

I. Builders Contribution

AASHTO rating: 20 (7-25-86)  
334 (6-21-84)  
20 (1-19-88)

Quantity

Unknown x Several \_\_\_\_\_ Many \_\_\_\_\_  
(1-10) (10 or more)

Name of Builder: Unk Grotton Bridge Co (?) (Kingston 1889 Annual Reports)

Designer: UNK

Plaque: Yes \_\_\_\_\_ No. X

II. AGE: Pre 1850 \_\_\_\_\_ 1850-1900 X 1900-1930 \_\_\_\_\_  
(1889)

III. TECHNICAL

Bridge Type Pratt Pony Truss pin-connected, wrought-iron (?), 4-panel Pratt half-hip pony truss  
Bridge Width 22.1' crossed diagonals in 2 central panels. Floorbeams hung from  
Total Length of Bridge 50' lower pins by U-hangers.  
Number of Spans: (4)\* Span Lengths (12', 13', 13', 12')\*  
Patented: Yes \_\_\_\_\_ No \_\_\_\_\_ Unknown \_\_\_\_\_  
Load Carrying Capacity: Adequate \_\_\_\_\_ Inadequate X  
Configuration: Unique \_\_\_\_\_ Unusual \_\_\_\_\_ Common X  
Types of Materials: Steel on mortared stone abuts and piers with asphalt wearing surface.

List Special Features and Modifications: None of note, however, the aesthetic features of the bridge and its setting should be noted. (See Photographs)

\* Short, concrete column piers were built under the ends of the 3 floor beams, reportedly around 1930. Structurally, this converted the bridge from a single-span truss structure, to a 4-span stringer bridge, with the trusses doing very little actual work.

Bridge closed August 1987 after foundation problems discovered. Arrow panel trusses installed and opened October 1988.

S end post of western truss replaced in its entirety since 1980. Eastern truss upper chord and northern end post cover plates have extensive perforations. Present steel stringer/concrete slab floor probably dates from 1930s

BH. No  
Plan No

IV. ENVIRONMENTAL

Aesthetics: Unusual \_\_\_\_\_ Good \_\_\_\_\_ Common X  
Site Integrity: Retained X Violated \_\_\_\_\_

History of Bridge and Area: See attached sheet  
The Kingston Annual Reports for 1889 (p.41) indicate that the Town paid the Groton Bridge Co. \$ 800.00 for a new bridge in that year. This is believed to be the Elm St. Bridge.

IVa. LOCAL HISTORIC COMMISSION

Date Written: June 4, 1980  
No Response: X

V. ECONOMICS

Owner: Municipal X County \_\_\_\_\_ State \_\_\_\_\_ Federal \_\_\_\_\_

R.R. \_\_\_\_\_

What is your recommendation?

Maintenance X Replacement \_\_\_\_\_ Rehabilitation \_\_\_\_\_  
Are materials available for Rehabilitation: Yes X No \_\_\_\_\_  
Is structure scheduled for replacement? Yes \_\_\_\_\_ No X

VI. PHOTOS - INDICATE SHOTS TAKEN

HBI 116:21-25

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 1. Setting (2)                    | 6. Elevation Looking West (3)        |
| 2. Builders Plaque                | 7. Joint & Connections SW Corner (1) |
| 3. 3/4 View Looking NW (2) NE (1) | 8. Machinery                         |
| 4. Thru View Looking S, SE, N (3) | 9. Decorative Features (1)           |
| 5. Under View                     |                                      |

II. COMMENTS & CONCLUSIONS

- In your judgement, does this bridge have historic value? Yes \_\_\_\_\_ No X
- Please explain your answer to #1

The history of this bridge is secondary to its aesthetic features, which are of considerable worth. (See extensive photographs)  
Incorporated in the structure is a dam and a herring run which draws sightseers during the biennial migrations. In fall the canadian geese rest here on their way south, another attraction bringing visitors to this picturesque location.  
I recommend the bridge be preserved or carefully replaced in kind.

This is the 10<sup>th</sup> - oldest of the 22 known Pratt pony trusses in the MDPW data base and the newer of the 2 Pratt half-hip pony trusses among those 22. Heavily altered and heavily deteriorated but still an integral element in a possible historic mill site.

Additional comments by:

S. J. Roper  
MDPW Historic Bridge Specialist  
17 May 1989

Preparer: Richard A Corsano  
Title: Asst. Env. Eng., Dist 7, MDPW  
Date of Survey: December 9, 1980

BRIDGES PREVIOUSLY REVIEWED BY M.H.C. -- CONCURRENCE REAFFIRMED

	<u>Municipality</u>	<u>On/Over</u>	<u>Br. Dept. No.</u>
Bridge:	<u>Kingston</u>	<u>Elm St. / Jones River</u>	<u>K-1-2</u>

has previously been reviewed by the Massachusetts Historical Commission and was determined to be: Not eligible individually, but an integral part of a possible historic district.  
on 2-20-81.

After a review of all known bridges of comparable structural type identified in the M.D.P.W. statewide computerized database, the M.D.P.W. now reaffirms its concurrence with that initial determination.

Summary statement of significance:

An altered and deteriorated example of an uncommon (in Massachusetts, if not nationally) variant of a relatively common metal truss bridge type. Still adds to the visual appeal of a picturesque rural area surrounding a mill site with a later (1886) brick pumping station.

Statement prepared by: S. J. Roper, MDPW Historic Bridge Specialist

Date: 17 May 1989

HISTORIC BRIDGE INVENTORY & EVALUATION

Date: December 9, 1980

Municipality KINGSTON S.H. \_\_\_\_\_ N.S.H. X

Street Name & Route # Elm Street

Over Jones River

Street Name & Route # NA

Bridge No. K-1-2 Bridge Key # MUN-722-024 Dist. 7

CRITERIA FOR DETERMINATION OF HISTORIC SIGNIFICANCE

I. Builders Contribution

Quantity

Unknown x Several \_\_\_\_\_ Many \_\_\_\_\_  
(1-10) (10 or more)

Name of Builder: Unk

Designer: UNK

Plaque: Yes \_\_\_\_\_ No. X

II. AGE: Pre 1850 \_\_\_\_\_ 1850-1900 X 1900-1930 \_\_\_\_\_  
(1889)

III. TECHNICAL

Bridge Type Pratt Pony Truss

Bridge Width 22.1'

Total Length of Bridge 50'

Number of Spans: 4 Span Lengths 12', 13', 13', 12'

Patented: Yes \_\_\_\_\_ No \_\_\_\_\_ Unknown \_\_\_\_\_

Load Carrying Capacity: Adequate \_\_\_\_\_ Inadequate X

Configuration: Unique \_\_\_\_\_ Unusual \_\_\_\_\_ Common X

Types of Materials: Steel on mortared stone abuts and piers with asphalt wearing surface.

List Special Features and Modifications: None of note, however, the aesthetic features of the bridge and its setting should be noted. (See Photographs)

IV. ENVIRONMENTAL

Aesthetics: Unusual \_\_\_\_\_ Good \_\_\_\_\_ Common X  
Site Integrity: Retained X Violated \_\_\_\_\_  
History of Bridge and Area: See attached sheet

IVa. LOCAL HISTORIC COMMISSION

Date Written: June 4, 1980

Response: \_\_\_\_\_

No Response: X

V. ECONOMICS

Owner: Municipal X County \_\_\_\_\_ State \_\_\_\_\_ Federal \_\_\_\_\_

R.R. \_\_\_\_\_

What is your recommendation?

Maintenance X Replacement \_\_\_\_\_ Rehabilitation \_\_\_\_\_

Are materials available for Rehabilitation: Yes X No \_\_\_\_\_

Is structure scheduled for replacement? Yes \_\_\_\_\_ No X

VI. PHOTOS - INDICATE SHOTS TAKEN

- 1. Setting (2)
- 2. Builders Plaque
- 3. 3/4 View Looking NW (2) NE (1)
- 4. Thru View Looking S, SE, N (3)
- 5. Under View
- 6. Elevation Looking West (3)
- 7. Joint & Connections SW Corner (1)
- 8. Machinery
- 9. Decorative Features (1)

VII. COMMENTS & CONCLUSIONS

1. In your judgement, does this bridge have historic value? Yes \_\_\_\_\_ No X

2. Please explain your answer to #1

The history of this bridge is secondary to its aesthetic features, which are of considerable worth. (See extensive photographs) Incorporated in the structure is a dam and a herring run which draws sightseers during the biennial migrations. In fall the canadian geese rest here on their way south, another attraction bringing visitors to this picturesque location. I recommend the bridge be preserved or carefully replaced in kind.

Preparer: Richard A. Corsano

Title: Asst. Env. Eng., Dist 7, MDPW

Date of Survey: December 9, 1980

STRUCTURE INVENTORY AND APPRAISAL

BRIDGE NO. K-1-2 BRIDGE MNT. NO. MUN-722-024-100 PAGE 1

IDENTIFICATION		CODE	ITEM NO.	CARD CONTROL NUMBER		CARD COL.
1	State <u>Mass</u>					
2	Highway District <u>7</u>					
3	County <u>Plymouth</u>	4 City/Town <u>Kingston</u>				
5	Inventory Route <u>ELM ST</u>	Principal <input checked="" type="checkbox"/> Other <input type="checkbox"/>				
6	Features Intersected <u>Jones River</u>					
7	Facility Carried by Structure <u>ELM ST</u>					
8	Structure No. <u>1</u> of					
9	Location					
10	Invent. Rte Min Vert Clear - <u>unlimited</u>					
11	Milepoint <u>2.42</u>					
12	Road Section No. <u>NA</u>					
13	Defense Bridge Letter <u>NA</u>					
14	Defense Milepoint <u>NA</u>					
15	Defense Section Length <u>NA</u>					
16	Latitude <u>41-59.4</u>					
17	Longitude <u>70-44.1</u>					
18	Physical Vulnerability <u>NA</u>					
19	Bypass Detour Length <u>2 Miles</u>					
20	Toll Bridge	On Toll Road <input type="checkbox"/> On Free Road <input checked="" type="checkbox"/>				
21	Custodian <u>Town of Kingston</u>					
22	Owner <u>Town of Kingston</u>					
23	F.A.P. No. <u>NA</u>					
CLASSIFICATION		BY	DATE			
24	Fed. Aid System <u>4</u>	Transfer of Data				
		Maintenance Inspection				
25	Administrative <u>14</u>	Condition Analysis				
		Appraisal				
26	Functional <u>14</u>	Cost Estimate				
		General Review				
<u>43 Steel Truss - Thru</u>						
STRUCTURAL DATA		CODE				
27	Year Built <u>1889</u>	43 Structure Type - Main	<u>3</u>	<u>10</u>		
28	Lanes on Str. <u>2</u> Under <u>0</u>	44 Approach <u>NA</u>				
29	ADT on Str. <u>1000</u> 30 Year <u>1970</u>	45 No. of Spans - Main <u>4 or 1 ?</u>				
31	Design Load <u>UNK</u>	46 Approach <u>0</u>				
32	Appr. Rdwy Width w/Sh'd <u>24</u>	47 Total Horiz Clear <u>19.4</u>				
33	Br. Median <input checked="" type="checkbox"/> None <input type="checkbox"/> Open <input type="checkbox"/> Closed	48 Max. Span Length <u>50 or 13 ?</u> ft.				
34	Skew <u>//</u> °	49 Structure Length <u>50</u> ft.				
35	Structure Flared <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	50 Sidewalk Rt. <u>0</u> ft. Lt. <u>0</u> ft.				
36	<u>0000</u>	51 Br. Roadway (curb-curb) <u>19.4</u> ft.				
37		52 Deck Width (out-out) <u>22.1</u> ft.				
38	Navigation Control <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	53 Vert. Clearance over Deck <u>unlimited</u> ft.				
39	Vertical <u>NA</u> ft.	54 Under Clearance - Vertical <u>NA</u> ft.				
40	Horizontal <u>NA</u> ft.	55 Lateral - Right <u>NA</u> ft.				
41	<u>P</u>	56 Left <u>NA</u> ft.				
42	Type Service <u>H/W</u>	57 Wearing Surface <u>Asph</u>				

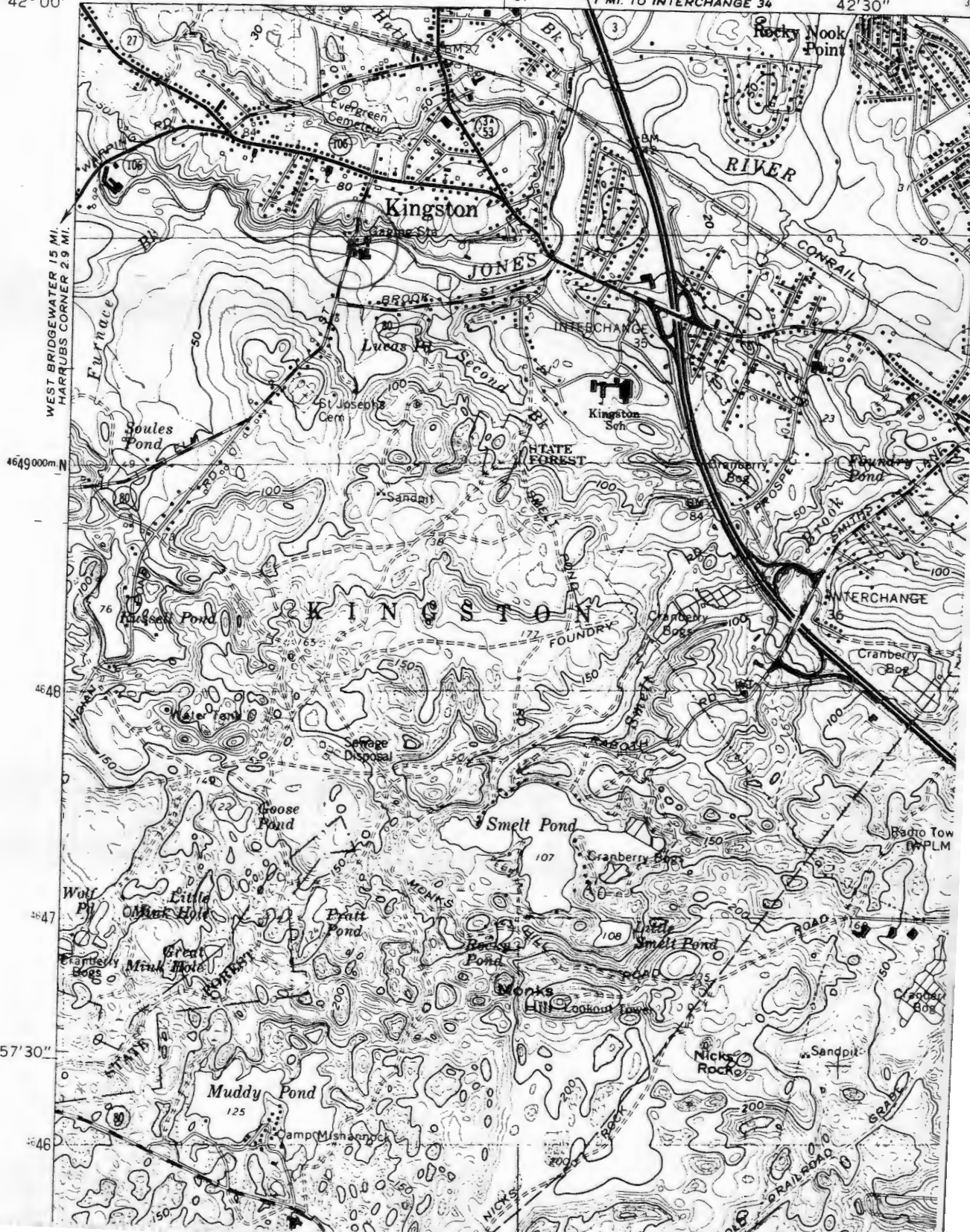


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

6868 11 SE  
(HANDY)

70° 45' 356000m E 357 BOSTON 33 MI. 1 MI. TO INTERCHANGE 34 42' 30" 35

K-1-2  
PLYMOUTH  
QUAD.



WEST BRIDGEWATER 15 MI.  
HARRIS CORNER 29 MI.

4649000m N

4648

4647

57' 30"

46





3/4 VIEW, N.W.



ELEVATION LOOKING WEST



ELEVATION LOOKING WEST



ELEVATION LOOKING WEST

11-13-1980



3/4 VIEW NW



THRU VIEW NORTH



3/4 LOOKING NE



THRU VIEW LOOKING SE

11-13-1980



THRU VIEW LOOKING S SHOWING PUMPHOUSE



JOINT & CONNECTIONS S.W. CORNER



JOINT & CONNECTIONS  
S.W. CORNER

11-13-1900



DECORATIVE FEATURE



SETTING



SETTING EAST

11-13-1980



E TRUSS FROM NE



E TRUSS, NORTHERN END OF UPPER CHORD, FROM SW



W TRUSS, N HIP, FROM SE

7-13-88



W TRUSS, NORTHERN INTERMEDIATE  
VERTICAL, FROM SE



EAST TRUSS, CENTRAL VERTICAL.  
AND LOWER CHORD, FROM N

7-13-88

TO: BETSY FRIEDBERG

RETURN TO REVIEWER BY \_\_\_\_\_  
(DATE)

FROM: WM. SMITH

DATE: 7/6/90

TOWN: Kingston

PROPERTY: K-1-2 Elm St. over James River  
(NAME AND ADDRESS)

1. Does this property meet the criteria for NR eligibility?

YES

NO

\*

A. Criteria

- a. events
- b. lives
- c. characteristics
- d. information

B. Local \_\_\_\_\_ State \_\_\_\_\_ National \_\_\_\_\_

2. Statement of Significance: OR Why not eligible?

1889 pin-connected 4 panel Pratt half-hip pony truss

Altered and deteriorated. Rare ~~type~~ variation of a Pratt pony truss (half-hip). 1 of 2 known examples in M.H.C.

Determined not eligible individually, but a contributing element in poss. site Historic district

\*

DOE LETTER WRITTEN

FILED IN ER FILE \_\_\_\_\_

\_\_\_\_\_  
(DATE)

DETERMINATION OF ELIGIBILITY (MHC OPINION)

DPW letter  
2/20/81  
KIN. 908

TO: VAZ

RETURN TO REVIEWER BY \_\_\_\_\_  
(DATE)

FROM: phs

DATE: 2/13/81

TOWN: KINGSTON

PROPERTY: K-1-2 Elm St. over Jones River  
(NAME AND ADDRESS)

1. Does this property meet the criteria for NR eligibility?

YES

NO



THIS STRUCTURE, WHILE NOT REQUIRING PRESERVATION, NEVERTHELESS HAS NOTEWORTHY FEATURES WHICH SHOULD BE DOCUMENTED BEFORE IT IS DEMOLISHED.

A. Criteria

- a. events
- b. lives
- c. characteristics
- d. information

B. Local \_\_\_\_\_ State \_\_\_\_\_ National \_\_\_\_\_

2. Statement of Significance: OR Why not eligible?

1889 Pin-connected pony truss at mill site. ~~Form~~

~~chain to truss is unknown and there is no plaque.~~

Photos include detail of plaque. Mill site may be NR eligible and bridge, as noted by DPW, is integral to site.

→ Groton Bridge & Mfg Co - on plaque.

Site has not been inventoried.

DOE LETTER WRITTEN

FILED IN ER FILE \_\_\_\_\_

\_\_\_\_\_  
(DATE)



Granville G-10-5 Ripley Rd. over Trumble Brook.

1883 pin-connected wrought iron Pratt pony truss. An early example of this bridge type with very unusual details, which is a record of early experimental bridge technology.

North Attleborough N-16-3 Cushman Rd. over Abbott Run River.

1886 pinned connected wrought iron Pratt pony truss. Oldest and best preserved example of an unusual variant of the pratt pony truss. Possible national significant.

Wareham W-6-8 Pierceville Rd. over Conrail.

1887 pinned connected wrought iron Pratt pony truss. One of the oldest metal truss bridges in Massachusetts, and the oldest to use J.H. Linville's wide, die-forged eyebars. A feature which would become standard in late 19th century pinned connected trusses.

The Massachusetts Historical Commission agrees with MDPW's preliminary finding that the following bridge does not meet the criteria for individual listing in the National Register, MHC finds that the bridge is a contributing element in a possible National Register historic district. Project plans for any of these bridges should take this factor into consideration.

Kingston K-1-2 Elm St. over James River.

1889 pin-connected wrought iron Pratt pony truss bridge previously reviewed by MHC on February 20, 1981 and the MHC reaffirmed the determination that bridge K-1-2 is a contributing element in a possible National Register historic district.

The Massachusetts Historical Commission agrees with MDPW's preliminary finding that the following bridges do not meet criteria for individual listing in the National Register. However, each of these bridges is within, or adjacent to, a known or possible historic district or property. Project plans for any of these bridges should take this factor into consideration.

Grafton G-8-13 Asylum Rd. over Conrail.

1906 Steel Pratt pony truss is located within a potential National Register district. Grafton State Hospital.

Hinsdale H-16-2 Main St. over East Brook, Housatonic River.

1882 pin-connected wrought iron Pratt pony truss. Bridge adjacent to potential National Register district, nineteenth century rural village of Hinsdale.

Templeton T-2-9 Bridge St. over B & M Railroad.

1989 riveted steel 4-panel Pratt pony truss is adjacent to the Baldwinville Historic district, which is on the National Register of Historic Places.

August 29, 1990



Mr. Anthony J. Fusco  
 Division Administrator  
 Federal Highway Administration  
 Transportation Systems Center  
 55 Broadway - 10th Floor  
 Cambridge, MA 02142

ATTN: Mr. H. Pearlman

RE: Massachusetts Bridges, National Register Eligibility

Dear Mr. Fusco:

The Massachusetts Historical Commission has reviewed the historic bridge inventory forms prepared by the Massachusetts Department of Public Works. The Massachusetts Historical Commission concurs with the preliminary findings of Massachusetts Department of Public Works that the following bridges meet criteria for listing in the National Register of Historic Places.

Belchertown/Palmer                      B-5-2/P-1-1                      River St., State St. over Swift River.

1880 Pin-connected wrought iron Pratt pony truss. Second oldest pratt pony truss is an early and relatively intact bridge. Built by an important and innovative bridge company, and incorporates the Wrought Iron Bridge Company patented ribbed t-post design. Located within a possible National register historic district. (Bondsville)

Chester                                      C-11-23                              Smith Rd. over Middle Branch, Westfield River.

1887 pinned and riveted wrought iron Pratt pony truss. Bridge previously reviewed by MHC on October 6, 1981 and MHC reaffirmed the determination that Bridge C-11-23 meets the criteria for eligibility. Located within a possible National Register historic district (North Chester).

Framingham                              F-7-11                              Danforth St. over Sudbury River.

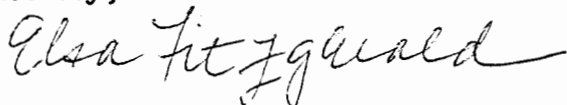
1890 pinned cast & wrought iron Pratt pony truss with phoenix compression columns. Bridge previously reviewed by MHC on February 9, 1978 and MHC reaffirmed the determination that Bridge F-7-11 meets the criteria for eligibility.

The MHC concurs with the preliminary finding of the MDPW that the following bridges do not appear to meet for individual listing in the National Register of Historic Places.

<u>Attleboro</u>	A-16-26	Thacher St. over Conrail.
<u>Boston</u>	B-16-109	River St. over Conrail.
<u>Brockton</u>	B-25-21	State 37, Howard St. over Conrail.
<u>Canton</u>	C-2-6	Spaulding St. over MBTA.
<u>Hadley</u>	H-1-3	North Maple St. over Mill River.
<u>Hull</u>	H-26-2	Logan Ave. over Dump Assess Rd.
<u>Lee/Lenox</u>	L-5-20/L-7-3	Valley St over Housatonic River.
<u>Lowell</u>	L-15-11	Walker St. over B & M Railroad.
<u>Montague</u>	M-28-24	Bridge St. over Sawmill River.
<u>Peru/Worthington</u>	P-7-4/W-45-8	Parish Rd. over Trout Brook.
<u>Revere</u>	R-5-1	Revere Beach, Parkway (Rt. 145) over B & M Railroad.
<u>Wilmington</u>	W-38-4	State 62, Burlington Ave. over B & M Railroad.

If you have any questions, please feel free to contact William Smith of this office.

Sincerely,



Elsa Fitzgerald  
Acting Executive Director  
Massachusetts Historical Commission

EF/BS/cd

cc: Frank Bracaglia, MDPW