Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED APR 2 8 1987
DATE ENTERED JUN 12 1987

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: SAUGATUCK RIVER RAILROAD BRIDGE

AND/OR COMMON: Saugatuck River Bridge

2 LOCATION

STREET & NUMBER: AMTRAK Right-of-way at Saugatuck River — N/A NOT FOR PUBLICATION

CITY, TOWN: Westport — X VICINITY OF Saugatuck — CONGRESSIONAL DISTRICT: 4

STATE: Connecticut — CODE: 09 — COUNTY: Fairfield — CODE: 001

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	X TRANSPORTATION
	N/A	__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME: State of Connecticut
Department of Transportation, J. William Burns, Commissioner

STREET & NUMBER: 24 Wolcott Hill Road

CITY, TOWN: Wethersfield — N/A VICINITY OF — STATE: Connecticut

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Rail Operations
Connecticut Department of Transportation

STREET & NUMBER: 24 Wolcott Hill Road

CITY, TOWN: Wethersfield, — STATE: Connecticut

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: Northeast Corridor Aerial Reconnaissance of Historic Structures

DATE: 13-15 April 1977 — X FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS: Federal Railroad Administration
2100 2nd St., SW Rm. 4613

CITY, TOWN: Washington, D. C. 20590 — STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X DETERIORATED	_UNALTERED	X ORIGINAL SITE
_GOOD	_RUINS	X ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Saugatuck River Bridge is a single leaf Scherzer rolling lift bascule bridge. The superstructure of the bridge is steel and the piers are stone masonry. The substructure's height above mean high water is 12 feet, 11 inches. The six span bridge consists of two deck girder spans 91 feet long, a deck girder span 48 feet long, a deck girder span 98 feet long, a deck girder span 91 feet long, and a deck span 35 feet long. The total length is 458 feet.

There are two leaves, side by side, each of which carry two tracks. Each track is carried on two deck girders with top and bottom laterals. The interior girders of each leaf are connected by lateral bracing for approximately three quarters of the span over the channel. The interior girders frame into a cross girder that frames between the segmental girders, which are at the exterior girders of each leaf.

The segmental girders roll on the track girders that are supported by a masonry pier at the east end and by a cross girder at the west end. This cross girder is carried by girders parallel to the track girders that are supported on masonry piers. This arrangement of track girders and cross girders allows the cantilever portion of the deck girders to swing down behind the track girder when the bridge is opened. The counterweights are attached below track level to the cantilever position of the deck girders at the heel of the bridge.

The bridge is powered by two diesel engines with hydraulic torque converters. The engines are located in the operator's house which is located at track level on the east side of the bridge near the segmental girder. To operate, vertical and horizontal level gear sets and shafting transmit power down from the operator's house, then horizontally by shafts near the top of the piers to another horizontal shafts. The drive pinions are attached to these horizontal shafts and pass through trunnions mounted on the moving leaf. The pinions engage the fixed racks to the outside of the segmental girders. As the bridge moves, and with it the pinion, the final vertical shaft telescopes to maintain the alignment of the rack and pinion.

Saugatuck River Bridge is presently in poor condition. The segmental girders, the cross girders and longitudinal girders have all experienced deterioration and the mechanical equipment is worn.

Current evaluation: The bridge appears in at least fair condition.

-HRC, 5/86

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	_ARCHITECTURE	_EDUCATION	_MILITARY	_SOCIAL/HUMANITARIAN	
_1700-1799	_ART	X ENGINEERING	_MUSIC	_THEATER	
_1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	X TRANSPORTATION	
X 1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	_OTHER (SPECIFY)	
		_INVENTION			

SPECIFIC DATES 1905 BUILDER/ARCHITECT Not known

STATEMENT OF SIGNIFICANCE

The Saugatuck River Bridge is one of two deck girder Scherzer rolling lift bascule bridges on the Northeast Corridor rail line. It was built in 1905 as a replacement to an earlier bridge at the same site. Daly and Holbrook were the contractors for the substructure and the steel work was done by the Passaic Steel Company.

The movable bridge is an ancient type that can be changed in position so as to open a clear passage, or to afford an increased headway for ships and boats in navigable channels. Engineers choose this type of bridge when no other way of giving vertical clearance for the passage of vessels on a waterway exists. The introduction of railroads to the U.S. in the early 1800's greatly spurred the development and construction of the movable bridge. Along the eastern seaboard the large number of navigable rivers and inlets to be crossed resulted in the construction of fiteen movable bridges on what is today the Northeast Corridor rail line. There are three basic types of movable bridges--the bascule, the swing, and the vertical lift. On the Northeast Corridor there are nine bascule bridges, five swing bridges, and one vertical lift bridge. These bridges were prefabricated at the construction company's plant and then built by unskilled labor at the site. The machinery to operate the bridges was not standardized and each one has unique mechanical components.

The earliest forerunners of the bascule type of movable bridge date from medieval times when they were used to cross moats to bridges and forts. Some bascules were developed in Europe during the first half of the nineteenth century, but the first modern bascule bridge in this country was the Van Buren Street Bridge built in Chicago in 1893. It was designed by William Scherzer and was the first of the structures known as the Scherzer rolling lift bascule bridge. This type of bascule bridge, of which Saugatuck is a variety, is characterized by rounded segmental girders at the rear of the bascule span which roll back on stationary track girders when opened.

In the construction of the Saugatuck River Bridge in 1905, portions of the old bridge were retained. The original bridge consisted of three 90 foot fixed deck truss, double-track spans and one deck truss draw span. The foundations of the old piers were used but the masonry was taken down and replaced with piers wide enough for four tracks. A temporary trestle built around the bridge site carried the traffic during construction.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Condit, Carl. American Building. Chicago: University of Chicago Press, 1968.

Hool, George, ed. Movable and Long-Span Bridges. New York: McGraw-Hill Book Co., Inc., 1923.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1

Sherwood Point Quadrangle
Scale 1:24000

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	18	636940	4553080
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

This bridge is on the Northeast Corridor rail line, across the Saugatuck River at Westport, Connecticut.

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

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Anne Baggerman, Cultural Resources Planner — August 10, 1977

ORGANIZATION — DATE
DeLeuw, Cather, Parsons and Assoc. — Northeast Corridor Project

STREET & NUMBER — TELEPHONE
1201 Connecticut Avenue — (202) 452-5242

CITY OR TOWN — STATE
Washington, D. C. 20036

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation 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.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE — DATE

FOR NPS USE ONLY
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

GPO 892-453

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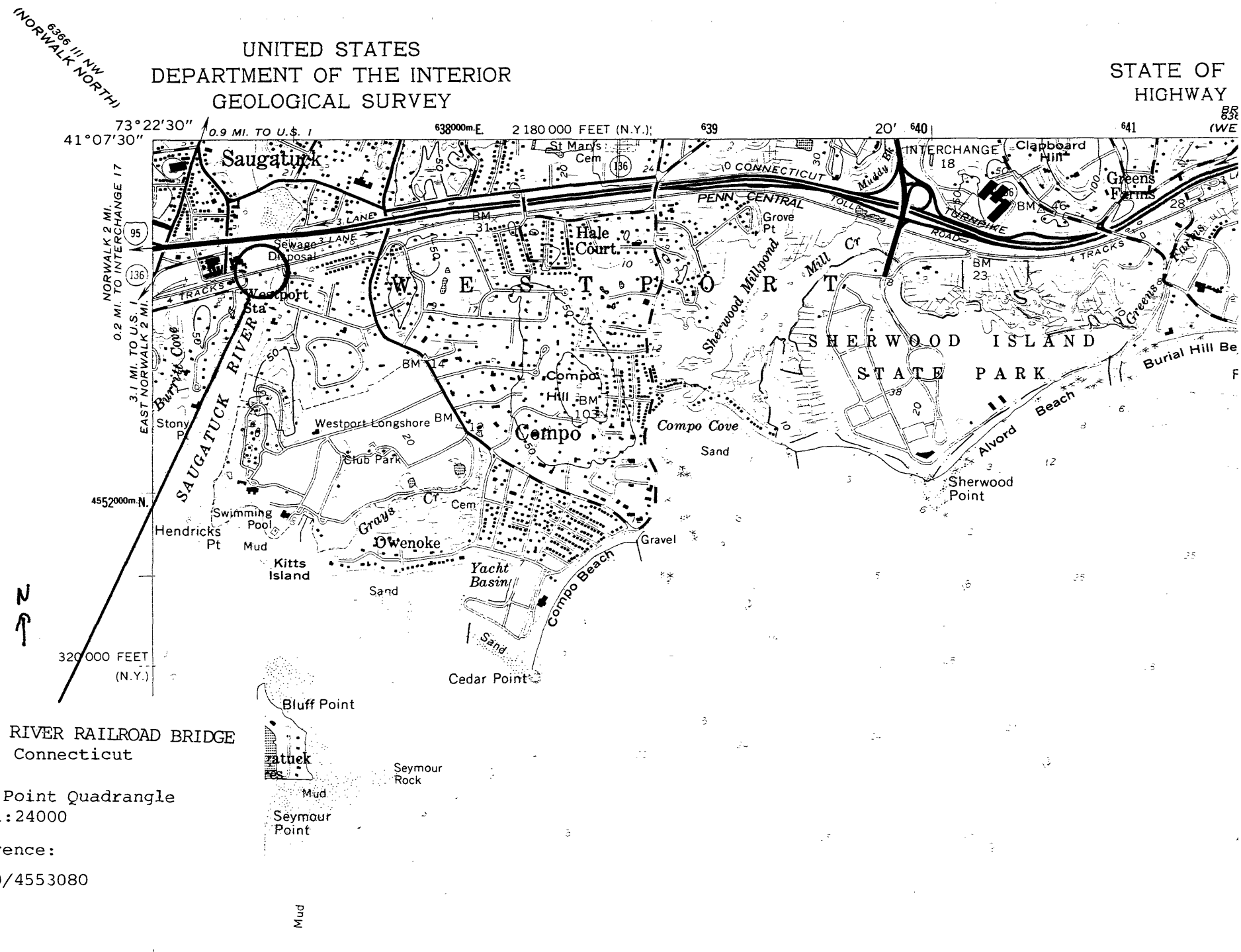
Major Bibliographical References (continued):

Hovey, Otis Ellis. Movable Bridges, Vol. I and II. New York John Wiley and Sons, Inc., 1926.

Railroad Gazette, Vol. XXXVIII, No. 11, March 17, 1905.

U.S. DOT, Northeast Corridor High Speed Rail Passenger Service Improvement Project, Tasks 15.1 and 15.2, Vol. VI, Jan. 1977.



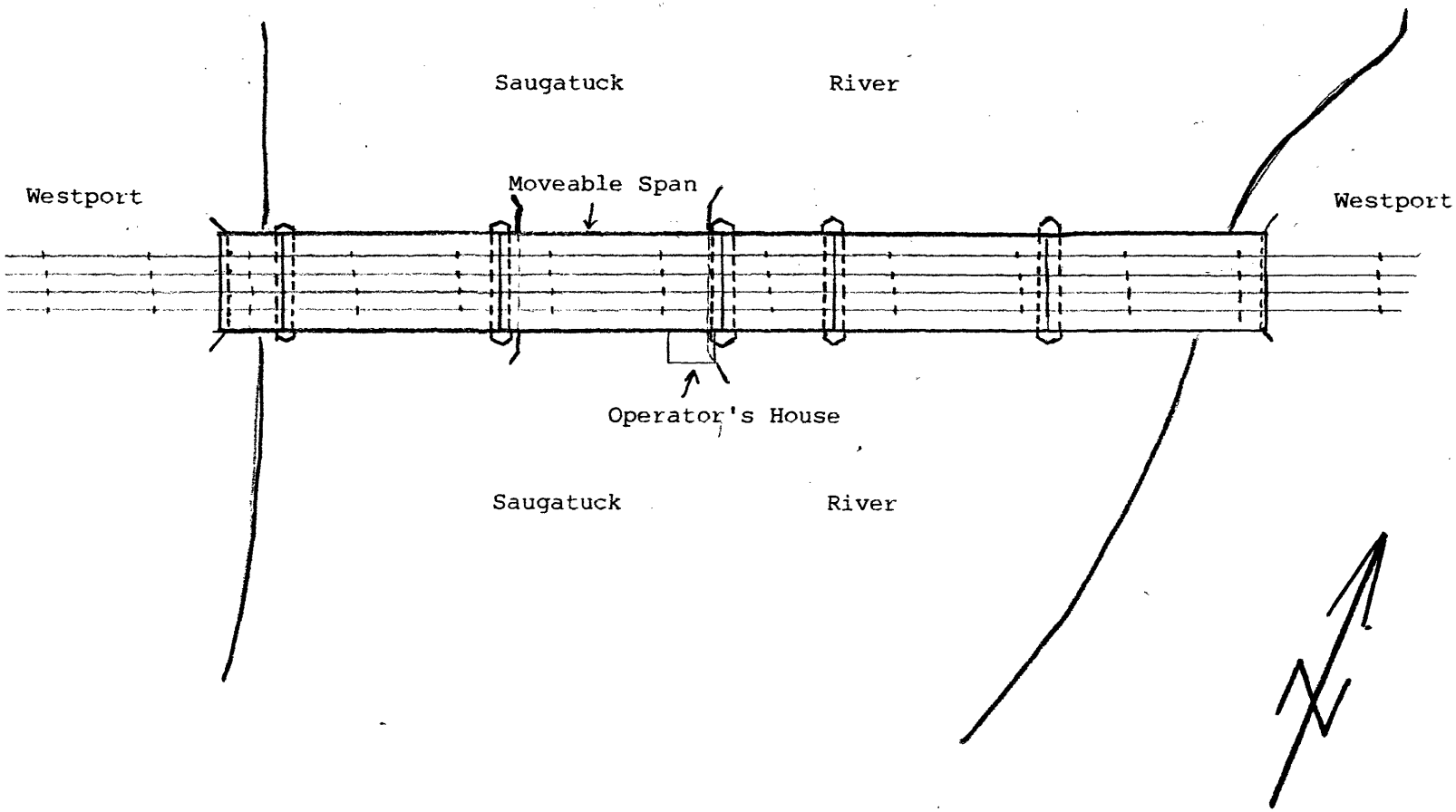
SAUGATUCK RIVER RAILROAD BRIDGE
Westport, Connecticut

Sherwood Point Quadrangle
Scale 1:24000

UTM Reference:

18/636940/4553080

SAUGATUCK RIVER RAILROAD BRIDGE



APPROXIMATE SCALE IN FEET

100 0 100