NEW YORK STATE BARGE CANAL, EAGLE HARBOR ROAD LIFT BRIDGE (Erie Canal, Eagle Harbor Road Lift Bridge) Eagle Harbor Road Gaines Orleans County New York HAER NY-492 HAER NY-492

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD National Park Service U.S. Department of the Interior 1849 C Street NW Washington, DC 20240-0001

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NEW YORK STATE BARGE CANAL, EAGLE HARBOR ROAD LIFT BRIDGE (Erie Canal, Eagle Harbor Road Lift Bridge)

HAER No. NY-492

Location: Eagle Harbor Road, Gaines, Orleans County, New York

Eagle Harbor Road Lift Bridge is located at latitude: 43.2516429, longitude: -78.2531974. The point represents the control tower and was obtained in 2009. There is no restriction on its release to the public.

Significance: Eagle Harbor Road Lift Bridge, located on the Erie Canal, is a component of the New York State Barge Canal. It is one of sixteen such bridges constructed between Fairport and Lockport.

Description: The sixteen vertical-lift bridges on the Erie Canal are Warren pony trusses raised by an electrically-driven system of cables, counterweights, and sheaves. As described in the New York State Barge Canal National Register nomination, "the moveable truss is supported by vertical lifting frames at either end. When the bridge is 'down' the lifting frames retract into the pits" located behind the bridge abutments. "The bridge is raised by cables that run from fixed anchor points at the top of the pits, down around sheaves at the bottom of the lifting frame, back up to sheaves at the top of the pits...the cables pull the lifting frames upward by the sheaves at their lower corners." Each bridge has a control tower, with the motors and gearing generally located in the pit nearest to the tower.¹

The vertical-lift bridge carries Eagle Harbor Road over the Erie Canal.² The steel Warren pony truss with decorative end posts sits on concrete abutments. It measures 145' long and 18.7' between curbs. The bridge deck is open grate, and the pedestrian walkways flanking the roadway are lined with steel lattice. Steel stairways at either end of the west side of the bridge have cross-hatch treads. The machinery pits behind the abutments are covered with cross-hatch plate covers. The bridge is in good condition.

The control tower is located next to the south bridge stairs. The tower is a two-story frame building on a concrete foundation. The irregular five-sided pyramidal roof is covered with asphalt shingles, and there are modern casement windows and a pane-and-panel door. The historic warning bell is extant. The tower is in good condition.

The nearby Eagle Harbor dock wall, on the north bank of the canal, is concrete with concretefilled cast-iron bollards. The concrete is heavily spalling and vegetation is growing in it. The dock wall is consequently in poor condition.

¹ Duncan Hay, "New York State Barge Canal," National Register of Historic Places Registration Form, 2014, Section 7, Pages 21-22.

² Description of current conditions is based on a site visit made by the HAER recording team in summer 2009.

History: Contract 9 extended 5.68 miles east of the Eagle Harbor Bridge and included the construction of bridges and culverts plus the widening of the Erie Canal. The contract was awarded in 1908 to Thomas Crimmins Contracting Company of New York City. The dock wall was built under Alteration 6, approved January 6, 1910. Alteration 7, dating to December 23, 1909, specified the construction of a lift bridge to meet local demand. The operating machinery at the bridge was installed in 1910.³

Sources:

Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1911, Vol. 1. Albany: J.B. Lyon Company, 1912.

- Hay, Duncan. "New York State Barge Canal." National Register of Historic Places Registration Form, 2014.
- Series B1762, New York State Archives, Albany, New York. "Western Division, Erie Canal, Section 10," Sta. 4603 to Sta. 4633." Approved December 3, 1924, 156.

Historians: Laura S. Black and Jami Babb, summer 2009

Project Information: The Historic American Engineering Record (HAER) is a longrange program that documents and interprets historically significant engineering sites and structures throughout the United States. HAER is part of Heritage Documentation Programs (Richard O'Connor, Manager), a division of the National Park Service, United States Department of the Interior. The New York State Barge Canal Survey was undertaken in summer 2009 in cooperation with the Erie Canalway National Heritage Corridor (ERIE), Beth Sciumeca, Executive Director. Justine Christianson, HAER Historian, and Duncan Hay, ERIE, served as project leaders. The staff of the New York State Canal Corporation provided access to the sites. Craig Williams of the New York State Museum provided research materials and assistance. The HAER field team consisted of Jami Babb and Laura Black.

³ Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1911, Vol. 1 (Albany: J.B. Lyon Company, 1912), 197-98.



Appendix: Images of Current Conditions

Image 1: Elevation of Eagle Harbor Road Lift Bridge with control tower at right. Field photograph taken by HAER recording team, summer 2009.



Image 2: Control tower with historic bell. Field photograph taken by HAER recording team, summer 2009.