

EAGLE LAKE LITTLE BRIDGES

HAER NO. ME-49

Acadia National Roads and Bridges

Spanning Duck Brook (Bridges 1 & 2), and Breakneck Brook (Bridge 3) on Eagle Lake

Carriage Road

Bar Harbor Vicinity

Hancock County

Maine

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

HISTORIC AMERICAN ENGINEERING RECORD

National Park Service

Department of the Interior

P.O. Box 37127

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HISTORIC AMERICAN ENGINEERING RECORD

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EAGLE LAKE LITTLE BRIDGES

HAER No. ME-49

LOCATION: Eagle Lake Loop Carriage Road, Acadia National Park, Bar Harbor vicinity, Mount Desert Island, Hancock County, Maine

Quadrangles: Bar Harbor, ME
Seal Harbor, ME

UTMs: #1: 19/560025/4913670
#2: 19/560020/4913670
#3: 19/560200/4913300
#4: 19/560110/4911200

DATE OF CONSTRUCTION: 1929-30

ENGINEER: Paul D. Simpson, Seal Harbor, Maine

CONTRACTOR: B. W. Candage & Sons, Seal Harbor, Maine

STRUCTURE TYPE: Bridges #s 1-3: Concrete deck bridges on steel girders;
Bridge #4: Three-span stone box culvert

FHwA STRUCTURE Nos. 1700-045S, 1700-046S, 1700-047S

OWNER: Acadia National Park, National Park Service

SIGNIFICANCE: These four small bridges carry the Eagle Lake Loop Carriage Road over Duck Brook and Bubble Brook. Three of the structures are small concrete (originally plank) deck bridges supported on steel girder stringers; the fourth bridge, across Bubble Brook, is a three-span stone box culvert.

PROJECT INFORMATION: Documentation of the Eagle Lake Little Bridges is part of the Acadia National Park Roads and Bridges Recording Project, undertaken by the Historic American Engineering Record in 1994-95. The related report in this series, HAER No. ME-12, ROCKEFELLER CARRIAGE ROADS, contains more information on the island's carriage road system.

Richard Quin, HAER Historian, 1997

As part of his nearly 60-mile carriage road network on Maine's Mount Desert Island, John D. Rockefeller, Jr. had a loop carriage road constructed around Eagle Lake, the largest body of water on the eastern half of the island. The road was constructed in two segments, the eastern section in 1929 and 1930.¹ To carry the road over several small watercourses, Rockefeller ordered the construction of four small bridges. Three were simple wooden deck bridges with rustic wooden railings; the fourth was a three-arched stone box culvert. The bridges all remain in use, though the wooden decks on the first three bridges have been replaced with concrete slabs.

The first two bridges bear the road across Duck Brook. Rockefeller's architect, Charles Stoughton, had designed a stone bridge for the location, but Rockefeller determined it would be inappropriate for the relatively flat location, and decided to employ the simple wooden spans instead.² The third bridge, a single span structure, crosses an unnamed stream flowing down from the "White Cap," a spur of Cadillac Mountain, down to Eagle Lake. Rockefeller called this structure the "railway bridge" as it reached the lake near the abandoned terminus of the old Green Mountain Railway.

These three bridges were originally wooden plank structures. According to accounts, Mrs. Rockefeller enjoyed the sound of horses' hooves as they crossed wooden decks, and this may have influenced the design. Wooden decks were certainly economical to construct, and these minor crossings would hardly have merited the construction of impressive stone-faced bridges as found elsewhere on the carriage road system. The replacement concrete decks are supported on steel stringers resting on granite abutments. According to a recent study, the decks were replaced about 1948.³

Rockefeller had originally intended for the railings to be constructed of rough cedar logs and poles. However, landscape gardener Beatrix Farrand, who advised Rockefeller on design aesthetics for his carriage roads, suggested the rails be made of adze-hewn timbers, as cedar poles would lose their bark and take on a "shabby" appearance after a few years of use. She insisted hewn timbers would be entirely appropriate, as they had been employed in bridge construction for hundreds of years.⁴ The simple railings are square wooden timbers, consisting of three wooden uprights joined by horizontal members, and braced by diagonal posts at either side. The posts are joined with lag bolts, but the bolt heads are covered with projecting wooden

¹Vanasse Hangen Brustlin, Inc. and McGinley Hart & Associates, *Historic Bridge Reconnaissance Survey, Carriage Road System, Acadia National Park*, draft edition (Boston, MA: National Park Service, North Atlantic Regional Office, September 1993), 136.

²Ibid.

³Ibid.

⁴John D. Rockefeller, Jr. to Beatrix Farrand, 16 May 1929; Farrand to Rockefeller, 22 May 1929. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72, Folder 738.

dowels which give the appearance of a wooden pin assembly. The ends of the diagonals rest on stone boulders; wooden dowels suggest the members are spiked or pinned to the stones, but they actually merely rest on the boulders.

The third "bridge", crossing Bubble Brook near the southeast edge of the lake, is a simple three-span stone box culvert. The structure was designed to be fitted with wooden stop boards or removable gates in order to impound water for a small pool. This water feature, called the "Beaver Meadow Pool," was established at the direction of landscape gardener Beatrix Farrand as a "water garden." It was planted with water lilies and other exotic aquatic plants, and managed as a spawning area for trout.⁵ There are no stop boards in use today, but the area is an attractive small wetland providing a change of scenery from the rest of the carriage road loop.

⁵William D. Rieley and Roxanne S. Brouse, "Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine" (unpublished report, May 1989), 186. Acadia National Park Library.

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Primary Source Documents

Farrand, Beatrix to John D. Rockefeller, Jr., 22 May 1929. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72, Folder 738.

Rockefeller, John D., Jr. to Beatrix Farrand, 16 May. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72, Folder 738.

Secondary Source Documents

Rieley, William D. and Roxanne S. Brouse, "Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine" (unpublished report, May 1989), 186. Acadia National Park Library.

Vanasse Hangen Brustlin, Inc. and McGinley Hart & Associates, *Historic Bridge Reconnaissance Survey, Carriage Road System, Acadia National Park*. Draft edition, Boston, MA: National Park Service, North Atlantic Regional Office, September 1993.

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HAER No. ME-49

Eagle Lake Carriage Road, spanning Duck Brook and Breakneck Brook

Acadia National Park Roads and Bridges

Bar Harbor Vicinity

Hancock County

Maine

JET LOWE, PHOTOGRAPHER, SEPTEMBER 1994

ME-49-1

VIEW OF TWO WESTERNMOST BRIDGES FACING NE

ME-49-2

RAILING DETAIL FACING N



HAER No. ME-19.1

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HAER No. N.E. 49.2