

BUBBLE POND BRIDGE  
Acadia National Park Roads & Bridges  
Spanning abandoned motor road on Bubble Pond Carriage Road  
Bar Harbor Vicinity  
Hancock County  
Maine

HAER NO. ME-39

HAER  
ME  
5-BAHA.V  
5-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

MEASURED AND INTERPRETIVE DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Department of the Interior  
P.O. Box 37127  
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

BUBBLE POND BRIDGE

HAER No. ME-39

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LOCATION: Spanning abandoned section of motor road at Bubble Pond parking area on Bubble Pond Carriage Road, between posts 7 and 17 at Bubble Pond, Acadia National Park, Bar Harbor vicinity, Mount Desert Island, Hancock County, Maine

Quad: Seal Harbor, ME  
UTM: 19/560400/4910750

DATE OF CONSTRUCTION: 1928

ARCHITECT: William Welles Bosworth, New York [designs rejected]  
Daniel R. Hull and Thomas C. Vint, National Park Service, Division of Landscape Engineering, general design  
Paul D. Simpson, for John D. Rockefeller, Jr., working drawings

ENGINEER: Paul D. Simpson, for John D. Rockefeller, Jr.  
H. G. McKelvey, Bureau of Public Roads

CONTRACTOR: Pringle Borthwick, Philadelphia, Pennsylvania

STRUCTURE TYPE: Stone masonry arch bridge

FHWA STRUCTURE NO.: 1700-013S

OWNER: Acadia National Park, National Park Service

SIGNIFICANCE: Although John D. Rockefeller, Jr., had sought to have a relatively formal bridge constructed over the park motor road at Bubble Pond, his plans for the structure were rejected by the National Park Service. Despite the rejection, in a show of good will he paid for the alternate bridge designed by the National Park Service Landscape Engineering Division. Bubble Pond Bridge may be of solid masonry construction, making it unique among the carriage road bridges.

PROJECT INFORMATION: Documentation of Bubble Pond Bridge is part of the Acadia National Park Roads and Bridges

Recording Project, conducted in 1994-95 by the Historic American Engineering Record of the National Park Service. This is one in a series of project reports. HAER No. ME-13, ROCKEFELLER CARRIAGE ROADS, contains more specific information on the park carriage road system.

Richard H. Quin, HAER Historian, 1994

## HISTORY

John D. Rockefeller, Jr. funded and oversaw construction of the "Mountain Road", now the Jordan Pond-Eagle Lake Road segment of the Park Loop Road [HAER No. ME-12], between 1924 and 1927. As the road neared completion, he began planning a new carriage road which would connect existing carriage paths on the east side of Eagle Lake with his system on the south side of the island. This new carriage road would leave Eagle Lake at the "Beaver Pools," an attractive wetland, and rise along Bubble Brook to Bubble Pond, then run along the pond's western shore before rising along the side of Pemetic Mountain and the Triad to Triad Pass, where it would drop to meet the "Around the Mountain" carriage road system near the Jordan Pond House.

In December 1926, Rockefeller instructed Paul Simpson, his engineer at Seal Harbor, to prepare blueprints showing the proposed Bubble Pond Road, as well as other roads under consideration. Rockefeller noted that he intended to provide a copy to National Park Service Assistant Director Arno Cammerer, along with a letter indicating he was prepared to fund the road and the necessary bridge at Bubble Pond, subject to approval by the National Park Service.<sup>1</sup>

The new carriage road would cross the "Mountain Road" near the northern end of Bubble Pond. Rockefeller, who was familiar with the circulation system at New York's Central Park, which separated routes for vehicles and pedestrians through the use of bridges,<sup>2</sup> determined a bridge should be employed at the crossing to avoid a grade crossing which might be dangerous for the carriage road users.

Rockefeller asked New York architect William Welles Bosworth, who had designed eight other bridges for his Mount Desert Island carriage road system, to provide a design for the new bridge. In contrast to his earlier work, Bosworth sent a design for a

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<sup>1</sup>John D. Rockefeller, Jr., New York, to Paul D. Simpson, Seal Harbor, ME, 22 December 1926. Rockefeller Archives Center, Simpson Family Papers, Record Group IV3A10, Box 1 Folder 1.

<sup>2</sup>H. Eliot Foulds, Landscape Architect, and Lauren H. Meier, Historical Landscape Architect, Olmsted Center for Landscape Preservation, National Park Service, *Compliance Documentation for the Historic Motor Roads, Acadia National Park, Federal Highways Project #PRA-ACAD-4A10* (Boston, MA: National Park Service, North Atlantic Regional Office, September 1993), 10.

relatively-formal bridge with an open balustrade crossing the road on a multi-centered arch defined by carefully-cut arch ring stones or voussoirs. Rockefeller accepted the design, and expected the National Park Service to grant its approval, as he was entirely funding its construction. However, Cammerer wrote back, objecting to the bridge as too formal for the wild setting of the national park. Rockefeller argued that it was appropriate, but had Bosworth prepare a new design. The new plan eliminated the open balustrade but retained the multi-centered arch and the finely-cut voussoirs.<sup>3</sup> Cammerer sent the plans to Daniel R. Hull, Chief of the Park Service's Landscape Engineering Division, for review, and Hull replied

The design is pleasing in general outline, but I think it falls down at several points in detail and we are sending along a sketch which I think you will agree is more fitting for the site.

The arch ring stones in Mr. Bosworth's design are very snug and sharply cut. The main face wall of cut stone with each course running narrower as it approaches the top is not nearly as pleasing and certainly a great deal more expensive than the random face which we have indicated. At the end of the rail or baluster I would suggest a square post rather than round and for the baluster itself, the stone work indicated is entirely too frail. I wish you would make it clear to those interested in this bridge that our own design while very simple and fitting the landscape picture will at the same time eliminate a great deal of the cost, I should say at least \$2,000.<sup>4</sup>

Cammerer relayed Hull's memorandum to Rockefeller, adding that he himself had been concerned about the "citified" appearance of Bosworth's design. He did not like the use of cut stone in balusters for park bridges, and likewise favored the use of square curtails (or baluster ends) over round ones. He pointed

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<sup>3</sup>William D. Rieley and Roxanne S. Brouse, *Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine* (Boston, MA: National Park Service, North Atlantic Regional Office, May 1989), 172.

<sup>4</sup>Daniel R. Hull, Chief, Landscape Engineering Division, National Park Service, to Cammerer, in *Ibid.*.

out that the Park Service design retained the "main lines" of Bosworth's design and should be less expensive to construct.<sup>5</sup>

Rockefeller then asked Bosworth to prepare a new plan that would offer a compromise between his own design and that which had been sent by the Park Service. Forwarding this design to Cammerer, he added

Mr. Bosworth's revised drawing is about as rustic as can be. . . . Your architect's design, would, I fear, make an unhappy contrast with these other bridges already built and the existence of which and his [Hull's] earlier approval thereof, he has probably forgotten. You will perhaps want to send him the blueprints of these former bridges together with the new sketch so that he can consider the bridge now under discussion in the light of existing bridges.<sup>6</sup>

Rockefeller also defended the use of the round curtails, stating that the "curving lines of the bridge" made their use "rather more appropriate."<sup>7</sup>

Not wanting to anger Rockefeller by forcing him to pay for a bridge he did not approve, while on the other hand feeling Bosworth's new plan was unacceptable, Cammerer referred the matter back to the national Commission of Fine Arts, which occasionally advised the Park Service on design matters. The Commission rejected the two Bosworth designs as too formal for the park, being "more fitted for a city park or private estate."<sup>8</sup> Cammerer reported that he had gone over the matter with the Commission's architect, Milton B. Medary, and stated that while Medary "recognized the merits of your architect's plans in themselves," he thought the design "too sophisticated" for a national park. Cammerer said Medary "unreservedly" supported the Park Service design, including the use of the square curtails. As far as whether the more informal design proposed by the Park Service might not be consistent with the earlier bridges built by Rockefeller, he asked whether this might be desirable.

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<sup>5</sup>Cammerer to Rockefeller, 22 September 1926, cited in Ibid., 172-73.

<sup>6</sup>Rockefeller to Cammerer, 6 October 1926, in Ibid.

<sup>7</sup>Ibid.

<sup>8</sup>Commission of Fine Arts, minutes of 14-15-16 October 1926 meeting. Washington, D.C., Commission of Fine Arts.

Don't you think there is a sense of satisfaction to the mind when one passes over bridges dissimilar in character thereby avoiding a monotony which it appears would inevitably arise where certain designs are carried through with but slight modifications? In all our parks we strive to avoid similarity of design for this reason. . . . It gives the architect an opportunity to play with each individual problem and do something quite unique and distinguished from that which has been done elsewhere. . . . In other words, departing from what has been done before in the character of bridges, as you point out, might be considered an advantage rather than a drawback.<sup>9</sup>

Cammerer urged Rockefeller to approve the Park Service design, which had been drawn up by Hull and his assistant, Thomas C. Vint, adding that "You and the Service are striving to do the right thing in this matter." He thought the design would result in "one of the finest structures in the Park Service and one in which we would be able in every way to withstand criticism."<sup>10</sup>

Although Rockefeller had Hull and Vint make an inspection of the bridge site and met with them in New York, he was given no indication that the Park Service was willing to change its decision. He insisted that if Hull's plan was to be adopted, that Hull prepare a full set of drawings, as he "would not want to assume any responsibility for the proper interpretation of Mr. Hull's ideas or sketches." Cammerer replied that Hull would be detailed to complete the plans for the bridge.<sup>11</sup> Conceding defeat, Rockefeller wrote back in the fall of 1927, dumping the whole matter in Cammerer's lap.

Since the government has preferred to develop its own design for this bridge, and since I have found it so difficult to get rustic work done here, I desire, as I said to you, to have the entire matter of drawings, specifications, selecting a builder, deciding on the terms on which the bridge shall be built, as well as the interpreting of the

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<sup>9</sup>Cammerer to Rockefeller, 16 October 1926, in Rieley and Brouse, *op cit.*

<sup>10</sup>Ibid.

<sup>11</sup>Ibid., 178-79.

plans and the architectural oversight of the construction, all in the hands of the government representative.<sup>12</sup>

The National Park Service engaged a Philadelphia stonemason with the euphonious name of Pringle Borthwick to construct the bridge. Although he had been frustrated over the design of the bridge, Rockefeller had his engineer, Paul Simpson, meet with Borthwick concerning the construction and offer his assistance. As Daniel Hull had been dismissed from the Park Service, his replacement, Thomas Vint, sent general plans and specifications for the bridge, but the construction drawings were prepared by Simpson.<sup>13</sup>

The main concern was the masonry used in the bridge. Both Borthwick and the Park Service favored weathered stone instead of quarried rock, but Rockefeller felt that quarried stone could be obtained more cheaply. The decision was to use quarried stone for the arch ring stones, weathered stone for the abutments, and a mix of the two for the facing. In contrast to the earlier bridge construction, Borthwick objected to the use of a concrete core with stone facing, preferring a bridge entirely of stone. Though Simpson argued that concrete would make the work less expensive, Borthwick thought it would not cost more. Rockefeller wrote Simpson that, "since we are hoping to learn much from Mr. Borthwick," he would approve the solid stone construction, though he reiterated that the government was responsible for the result.<sup>14</sup>

The bridge may have been constructed entirely of stone, concrete being used only for a thin roadway wearing surface. If so, the bridge is unique among the carriage road bridges. Most other structures are reinforced concrete faced in stone, the exception being the Otter Creek Bridge and Causeway [HAER No. ME-39], which was constructed entirely of stone because salt water causes concrete to deteriorate. However, there is no conclusive evidence that the Bubble Pond Bridge is solid masonry. A 1993 report by a Boston engineering firm states that severe amounts of calcium carbonate efflorescence leaching from the bridge suggests a reinforced concrete core. However, the 1927 construction drawings prepared by the NPS Landscape Engineering Division show

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<sup>12</sup>Rockefeller to Cammerer, 20 September 1927, in Ibid.

<sup>13</sup>Rieley and Brouse, 180.

<sup>14</sup>Ibid., 180; Rockefeller to Simpson, 15 December 1927, in Ibid.



the structure as being of stone construction, with only a concrete roadway wearing surface.<sup>15</sup> Only core samples can resolve this question.

In April 1928, Lafayette National Park Superintendent George B. Dorr wrote National Park Service Director Stephen T. Mather that Rockefeller had "thrown the entire responsibility for the work" on the park but would pay for everything himself. Dorr told Mather he had accepted Rockefeller's offer, and the work on the bridge was proceeding.<sup>16</sup>

Two weeks later, Dorr sent Cammerer a photograph of the site with a mock-up of the bridge superimposed so that officials could consult with Borthwick as to the desired height and effect of the bridge. He indicated that the Bureau of Public Roads had sent H. G. McKelvey as engineer for the bridge project. Work at the site was continuing under Borthwick's direction.<sup>17</sup> The bridge was completed before the end of the year, as the keystone bears the date 1928.

Rockefeller asked Beatrix Farrand, the landscape gardener advising him on landscape issues relating to the carriage roads, to direct the planting around the new bridge.<sup>18</sup> Mrs. Farrand

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<sup>15</sup>Vanasse Hangen Brustlin, Inc. and McGinley Hart & Associates. *Historic Bridge Reconnaissance Survey, Carriage Road System, Acadia National Park* (Boston, MA: National Park Service, North Atlantic Regional Office, September 1993), 85; U.S. Department of the Interior, National Park Service, Division of Landscape Engineering, "Lafayette National Park, Bubble Pond Bridge," construction drawing ACA-2 (San Francisco, CA: National Park Service, Division of Landscape Engineering, 15 December 1927). Mike Williams, Park Service engineer for the ongoing carriage road rehabilitation project, believes the structure to be of stone masonry construction.

<sup>16</sup>George B. Dorr, Superintendent, Lafayette National Park, to Stephen T. Mather, Director, National Park Service, 17 April 1928. National Archives and Records Administration, Record Group 79, Arno B. Cammerer files.

<sup>17</sup>Dorr to Cammerer, 1 May 1928. National Archives and Records Administration, Record Group 79, Arno B. Cammerer files.

<sup>18</sup>Rockefeller to Beatrix Farrand, 11 May 1928. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

visited the site and developed a planting scheme that summer. On 17 September, Rockefeller wrote A. H. Lynam, his attorney and chairman of an ad hoc "road committee", indicating he had assigned Ralston to oversee improvements at the bridge site. The work would included plantings specified by Mrs. Farrand. Ralston's directions included:

- Reshaping the parking turn at Bubble Pond to allow for more planting space between the parking area and the carriage road
- Cutting back the banks on both sides of the bridge and around the parking area
- Constructing a footpath from the parking area to the pond along a line staked out by Mrs. Farrand.
- Constructing a footpath between the carriage road and the brook at the outlet of the pond, winding back to the north to the carriage road
- Planting at the Bubble Pond Bridge, as directed by Mrs. Farrand.<sup>19</sup>

Lynam was to decide how the project was to be paid for, except for Mrs. Farrand's work, which would not be billed through him. (She was paid directly by Rockefeller.)<sup>20</sup>

Mrs. Farrand made more recommendations for the site in October 1929. She thought planting pockets should be established on the north and south sides of the bridge. The banks near the bridge could benefit from plantings of bush honeysuckle and wild roses. Charles Miller, Rockefeller's gardener who would do the work, thought there might not be enough soil, but was urged to find a few pockets, as even a few roses, etc., would "break the somewhat bleak appearance" of the shoulders around the bridge.<sup>21</sup>

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<sup>19</sup>Rockefeller to A. H. Lynam, Bar Harbor, ME, 17 September 1928. Rockefeller Archives Center, Offices of the Messrs Rockefeller, Record Group 2, Homes (Seal Harbor), Box 74 File 763.

<sup>20</sup>Ibid.

<sup>21</sup>Farrand, "Rockefeller Road Notes, October 2, 1929." Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

In August 1931, the bridge site was inspected by Beatrix Farrand, Charles Miller and Rockefeller. All agreed the plantings around the bridge needed thickening. The vistas of the bridge should be kept open, and if the new plantations grew too thick, they could be thinned, "leaving glimpses of the bridge rather than too open views." During a second visit to the site in November, Miller told Mrs. Farrand that he intended to plant around the structure "as thickly as possible," and would even include large trees in pockets around the edges. Mrs. Farrand said she wanted maples and oaks planted along the road west of the pond.<sup>22</sup>

In 1955, National Park Service Director Conrad L. Wirth announced a project to resurface and improve the Jordan Pond-Eagle Lake segment of the Park Loop Road. Wirth said the agency intended to bring the road up to the same standard as the new Paradise Hill Road, completed in 1953. He sent Rockefeller, who had built the road between 1924 and 1927, information on the project for his review. The work would include relocation of the highway in the vicinity of the Bubble Pond Bridge. While Rockefeller had routed the old road so that motorists could enjoy close views of the pond, this required a sharp "S" curve under the bridge. The new line would carry the road away from the pond and out from under the bridge. It would still be a sharp curve of 200' radius, the most drastic on the loop road, but it would be a great improvement over the existing reverse curve. Wirth added that the shoreline occupied by the present road would be returned to a naturalistic condition. The project was undertaken under the "Mission 66" program. Work began in July 1962 and was completed two years later.<sup>23</sup> With the completion of the project, the old road beneath the Bubble Pond Bridge continued to serve as access to the parking area beside the pond; however, the carriage road now had to cross the motor road on a level grade crossing north of the bridge.

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<sup>22</sup>Idem, "John D. Rockefeller, Jr., Esquire - Road Notes, August 23, 1931," 1; "John D. Rockefeller, Jr., Esquire - Road Notes, November 11, 1931." Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor) File 72 Folder 738.

<sup>23</sup>"Much Improvement Seen on Bubble Pond Road Which Opened Monday," *Bar Harbor [ME] Times*, 16 July 1964; Conrad L. Wirth, Director, National Park Service, to Rockefeller, 12 May 1955. Rockefeller Archives Center, Offices of the Messrs Rockefeller, Record Group 2, Homes (Seal Harbor), Box 117 Folder 1.

In 1983, the Federal Highway Administration issued plans to relocate the Bubble Pond parking area away from the pond's edge. Park officials had noted that oil and other contaminants leaking from cars were draining off the parking area into the pond, and were also concerned about the visual impact of the parked cars. The FHWA redesigned the parking area north of the bridge to accommodate eighteen vehicles and provided a new exit lane to the access road. The old parking area and the access road beneath the Bubble Pond Bridge were to be eliminated.<sup>24</sup> The work was carried out under a subsequent contract as Project ANP 1A9. The old road under the bridge was obliterated and blocked off from the new parking area entrance road by a series of border stones. South and southeast of the bridge, white pines were planted in an attempt to disguise the old road corridor. The existing roadside border stones were left intact along the pond margin, but were removed from most other sections of the old road.

A 1990 bridge safety inspection by the Federal Highway Administration listed the structure as "deficient or structurally obsolete" but did not recommend posting the bridge. It noted that much of the gravel surfacing had worn away, exposing the concrete deck. The waterproofing membrane visible at this point was severely damaged. Severe efflorescence was noted on the underside of the arch. Some minor mortar joint deterioration was noted, as well as debris and vegetation on the bridge deck. The report recommended a rehabilitation program including repairs with epoxy injection of cracks in the slab, resealing the exposed membrane waterproofing, removal of all debris and vegetation, and replacement of the gravel wearing surface.<sup>25</sup>

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<sup>24</sup>U.S. Department of Transportation, Federal Highway Administration, "U.S. Department of the Interior, National Park Service, Acadia National Park, Plans for Proposed Project 1A9 8 4A9, Drainage Rehabilitation, Parking Area Construction and Rehabilitation, Roadway Reconstruction, Slope Repairs, Bridge Repairs, Landscaping and Other Work, Hancock County, Maine," construction drawing ANP 1A9, sheet 28 (Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, March 1983).

<sup>25</sup>U.S. Department of Transportation, Federal Highway Administration, "Bridge Safety Inspection Report, Carriage Road over Abandoned Bubble Pond Access Road, Acadia National Park, Str. No. 1700-013S" (Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, 21 June 1990), 2-7.

Another inspection was made in June 1993 by Vanasse Hangen Brustlin, Inc., a Boston engineering firm. The firm noted again the exposed concrete deck and deteriorated membrane waterproofing. Soundings of the concrete with a hammer indicated the deck was either a mere thin roadway wearing surface, or it was delaminating from the possible concrete interior core. The scuppers were failing to adequately drain accumulated water from the fill, causing moisture to seek other ways out of the structure. This resulted in seepage through mortar joints, cracking in arch joints caused by freeze-thaw action, and calcium carbonate deposition through precipitative action. The inspectors noted severe efflorescence on the arch intrados, and attributed this to the moisture problems. The firm recommended re-waterproofing the bridge roadway, repointing deteriorated mortar joints, and removing the efflorescence.<sup>26</sup>

The National Park Service's October 1992 General Management Plan for Acadia National Park includes the construction of a bridge or underpass to eliminate the hazardous grade crossing of the carriage road and the Park Loop Road near the bridge. The new structure would be designed with a granite facing to harmonize with the other park carriage and motor road bridges.<sup>27</sup>

#### DESCRIPTION

Bubble Pond Bridge is a single span masonry arch bridge crossing an abandoned section of the Park Loop Road. The rustic granite bridge measures 75' long and carries a roadway 16' wide at the center, flaring to 18' wide at the ends. The roadway crosses on a high camber above the crown of the arch, which stands 17' 6" above the old road below. The semi-elliptical arch is defined by roughly cut arch ring stones or voussoirs. At the center is a large keystone bearing the date of construction, 1928. The spandrel walls, wing walls and parapets are constructed of roughly dressed random rubble granite masonry, giving the bridge a rustic appearance. The stone parapet walls follow the rise of the roadway and increase in height from about 2' at the curtailments to about 3' 6" at the center of the bridge. Stone scuppers extend from the base of each spandrel wall near the arch

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<sup>26</sup>Vanasse Hangen Brustlin and McGinley Hart, 85.

<sup>27</sup>National Park Service, North Atlantic Regional Office, *General Management Plan, Acadia National Park, Maine* (Boston, MA: National Park Service, North Atlantic Regional Office, October 1992), 51.

haunches.<sup>28</sup> The bridge appears to spring from natural rock ledges; a close inspection suggests that parts of these ledges were skillfully laid up to resemble the native stone. The carriage roadway features a new (1994) compacted broken stone surface.

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<sup>28</sup>The description is taken in part from Vanasse Hangen Brustlin and McGinley Hart, 83, and from notes made in a June 1994 site visit.

BIBLIOGRAPHY

PRIMARY SOURCE DOCUMENTS

National Park Service reports

National Park Service, North Atlantic Regional Office, *General Management Plan, Acadia National Park, Maine*. Boston, MA: National Park Service, North Atlantic Regional Office, October 1992.

Federal Highway Administration reports

U.S. Department of Transportation, Federal Highway Administration. "Bridge Safety Inspection Report, Carriage Road over Abandoned Bubble Pond Access Road, Acadia National Park, Str. No. 1700-013S." Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, 21 June 1990.

Commission of Fine Arts minutes

Commission of Fine Arts. Minutes of 14-15-16 October 1926 meeting. Washington, D.C., Commission of Fine Arts.

Construction drawings

U.S. Department of the Interior, National Park Service, Division of Landscape Engineering. "Lafayette National Park, Bubble Pond Bridge." Construction drawing ACA-2. San Francisco, CA: National Park Service, Division of Landscape Engineering, 15 December 1927.

U.S. Department of Transportation, Federal Highway Administration. "U.S. Department of the Interior, National Park Service, Acadia National Park, Plans for Proposed Project 1A9 8 4A9, Drainage Rehabilitation, Parking Area Construction and Rehabilitation, Roadway Reconstruction, Slope Repairs, Bridge Repairs, Landscaping and Other Work, Hancock County, Maine." Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, March 1983.

Correspondence

Dorr, George B., Superintendent, Lafayette National Park, to Arno B. Cammerer, Assistant Director, National Park Service, 1 May 1928. National Archives and Records Administration, Record Group 79, Arno B. Cammerer files.

--to Stephen T. Mather, Director, National Park Service, 17 April 1928. National Archives and Records Administration, Record Group 79, Arno B. Cammerer files.

Rockefeller, John D., Jr., to Beatrix Farrand, 11 May 1928.  
Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72  
Folder 738

--to A. H. Lynam, Bar Harbor, ME, 17 September 1928.  
Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 74  
File 763.

--to Paul D. Simpson, Seal Harbor, ME, 22 December 1926.  
Rockefeller Archives Center, Simpson Family Papers, Record  
Group IV3A10, Homes (Seal Harbor), Box 1 Folder 1.

Wilkins, G. A., Regional Engineer, Bureau of Public Roads,  
Arlington, VA, to George T. O'Neil, Resident Engineer,  
Bureau of Public Roads, Acadia National Park, 17 July 1964.

Wirth, Conrad L., Director, National Park Service, to John D.  
Rockefeller, Jr., 12 May 1955. Rockefeller Archives Center,  
Office of the Messrs. Rockefeller, Record Group 2, Homes  
(Seal Harbor), Box 117 Folder 1.

#### Manuscripts

Farrand, Beatrix. "John D. Rockefeller, Jr., Esquire - Road  
Notes, August 23, 1931," 1. Rockefeller Archives Center,  
Office of the Messrs. Rockefeller, Record Group 2, Homes  
(Seal Harbor), Box 72 File 738.

--"John D. Rockefeller, Jr., Esquire - Road Notes, November  
11, 1931." Rockefeller Archives Center, Office of the  
Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor)  
File 72 Folder 738.

--"Rockefeller Road Notes, October 2, 1929." Rockefeller  
Archives Center, Office of the Messrs. Rockefeller, Record  
Group 2, Homes (Seal Harbor), Box 72 Folder 738.

#### Newspaper articles

"Much Improvement Seen on Bubble Pond Road Which Opened Monday."  
*Bar Harbor [ME] Times*, 16 July 1964.

#### SECONDARY SOURCE DOCUMENTS

##### National Park Service reports

Foulds, H. Eliot, Landscape Architect, and Lauren H. Meier,  
Historical Landscape Architect, Olmsted Center for Landscape



Preservation, National Park Service. *Compliance Documentation for the Historic Motor Roads, Acadia National Park, Federal Highways Project #PRA-ACAD-4A10*. Boston, MA: National Park Service, North Atlantic Regional Office, September 1993.

Rieley, William D., and Roxanne S. Brouse. *Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine*. Boston, MA: National Park Service, North Atlantic Regional Office, May 1989.

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

Books

Roberts, Ann Rockefeller. *Mr. Rockefeller's Roads: The Untold Story of Acadia's Carriage Roads and Their Creator*. Camden, ME: Downeast Books, 1990.

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BUBBLE POND BRIDGE

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Bar Harbor VICINITY  
Hancock County  
Maine

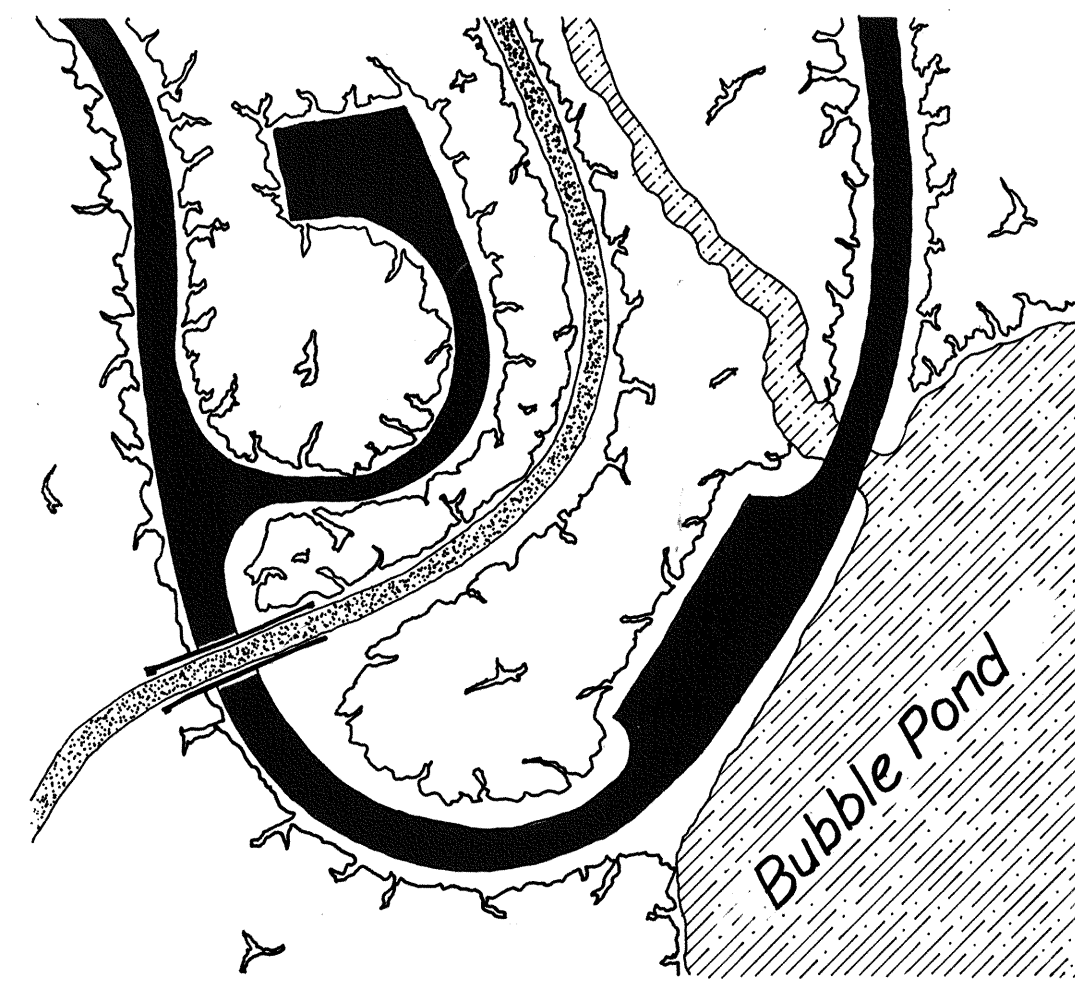
JET LOWE, PHOTOGRAPHER, SEPTEMBER 1994

ME-39-1 EASTERN PORTAL FACING WEST

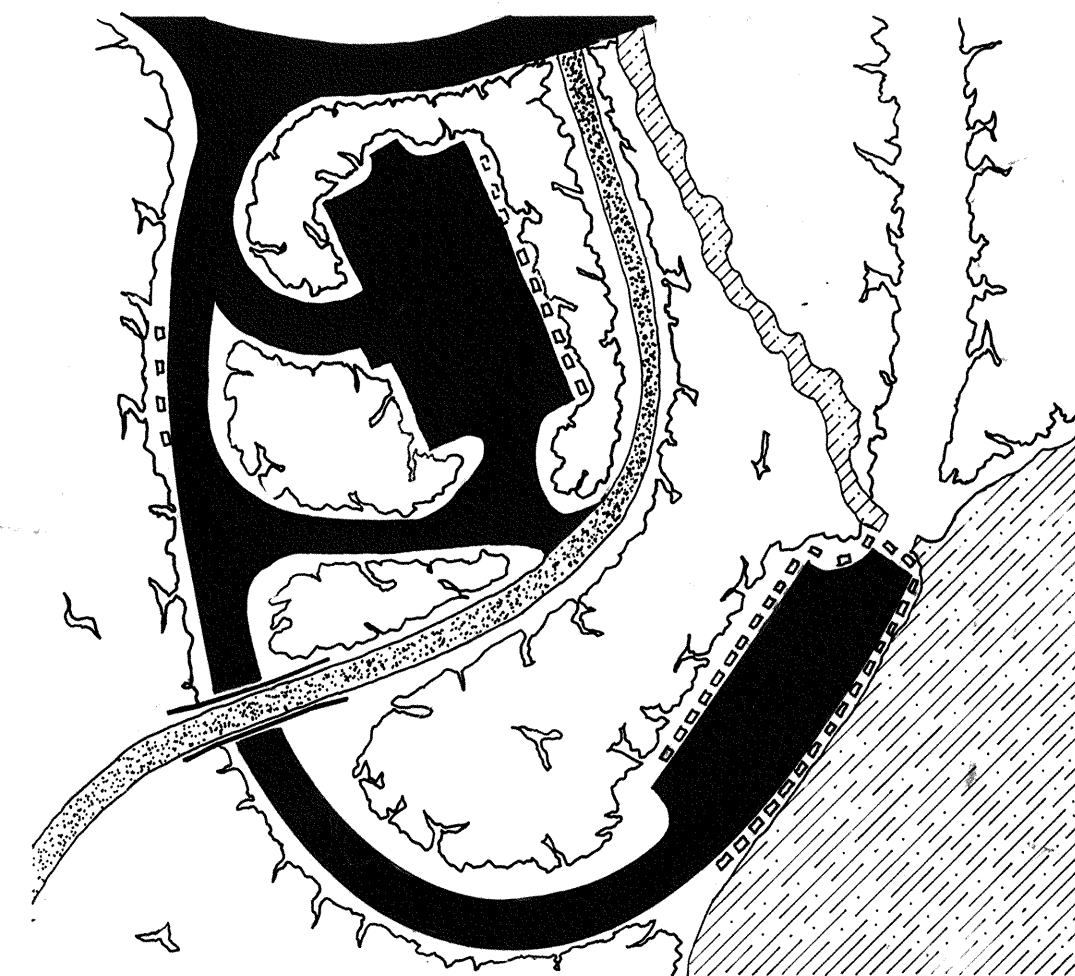
ME-39-2 NORTH ELEVATION, FACING SOUTH



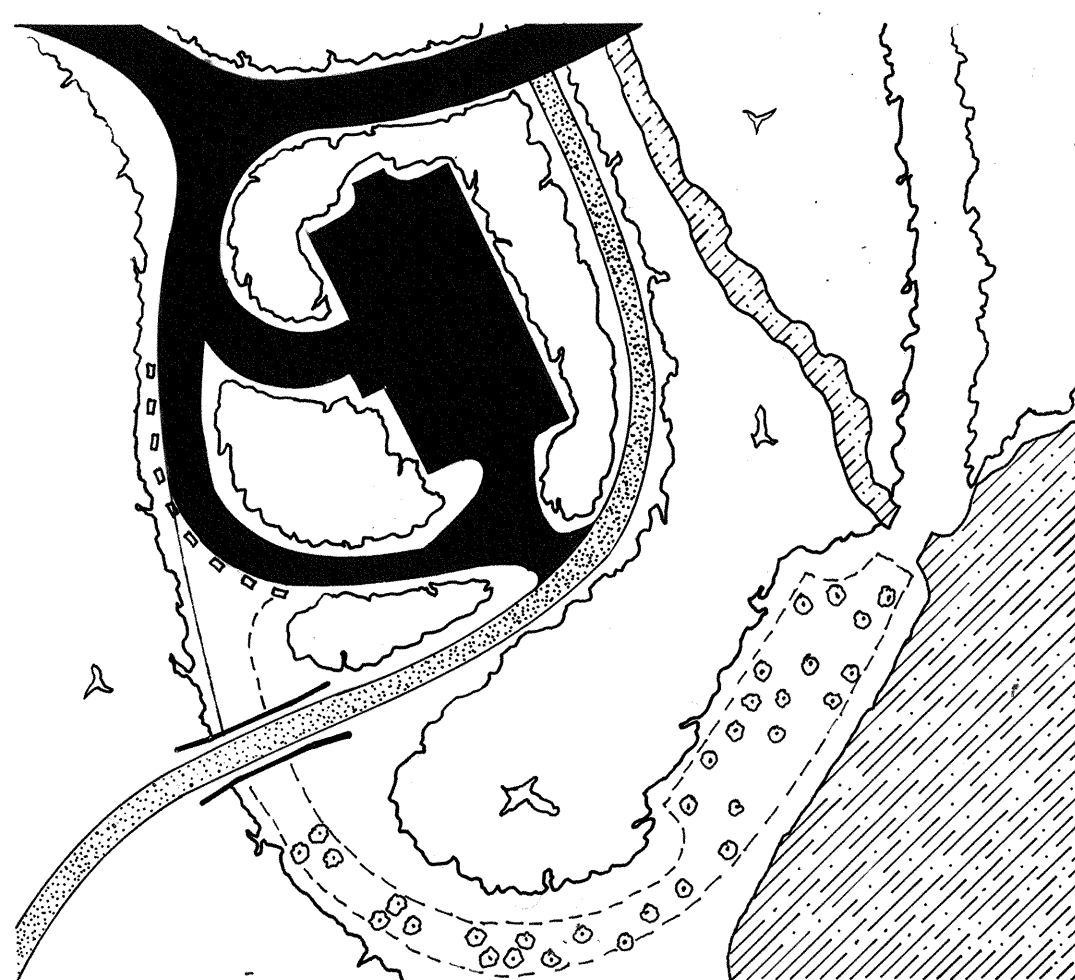
# BUBBLE POND BRIDGE 1928



1928 Appearance

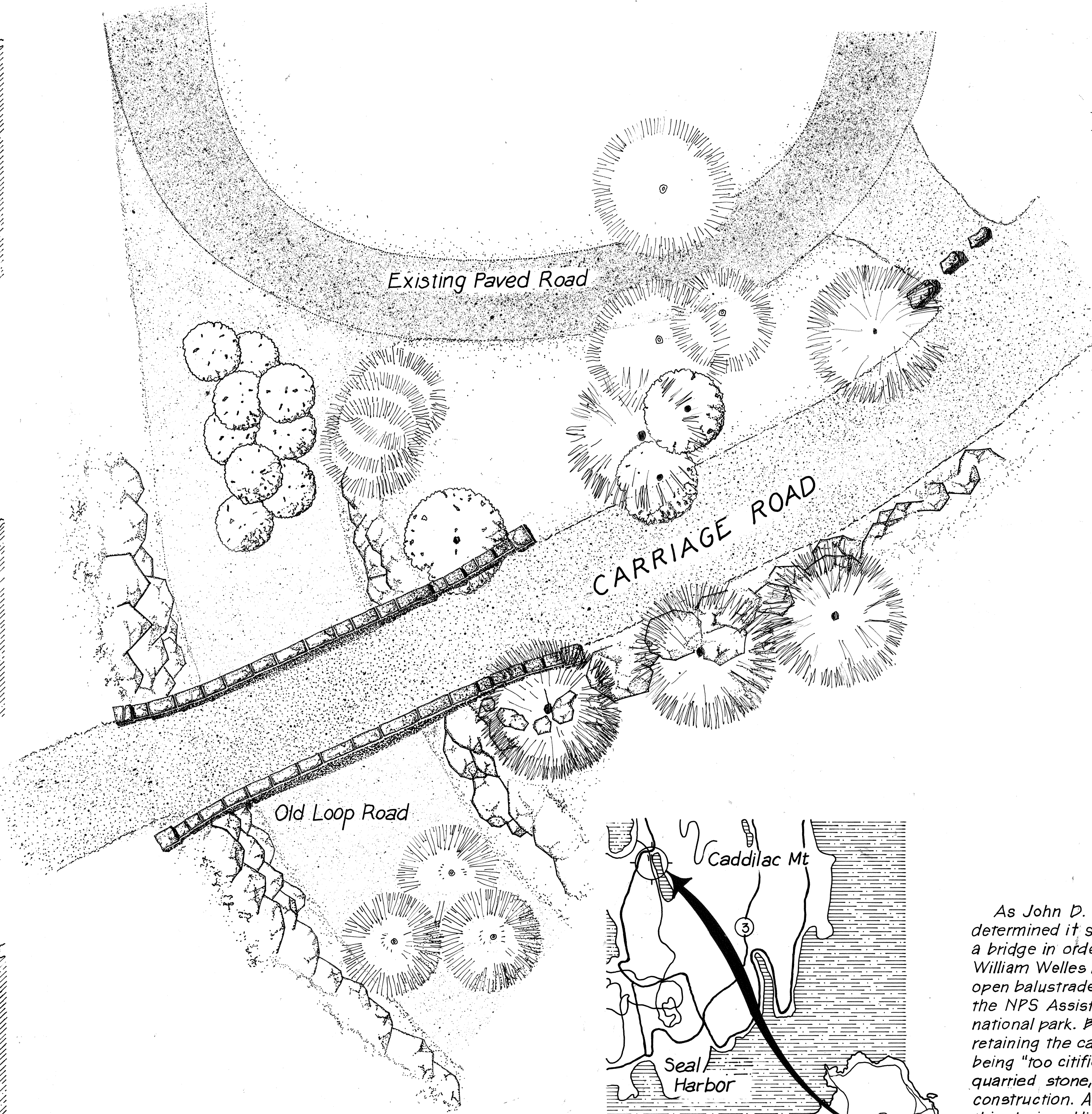


1960 Appearance

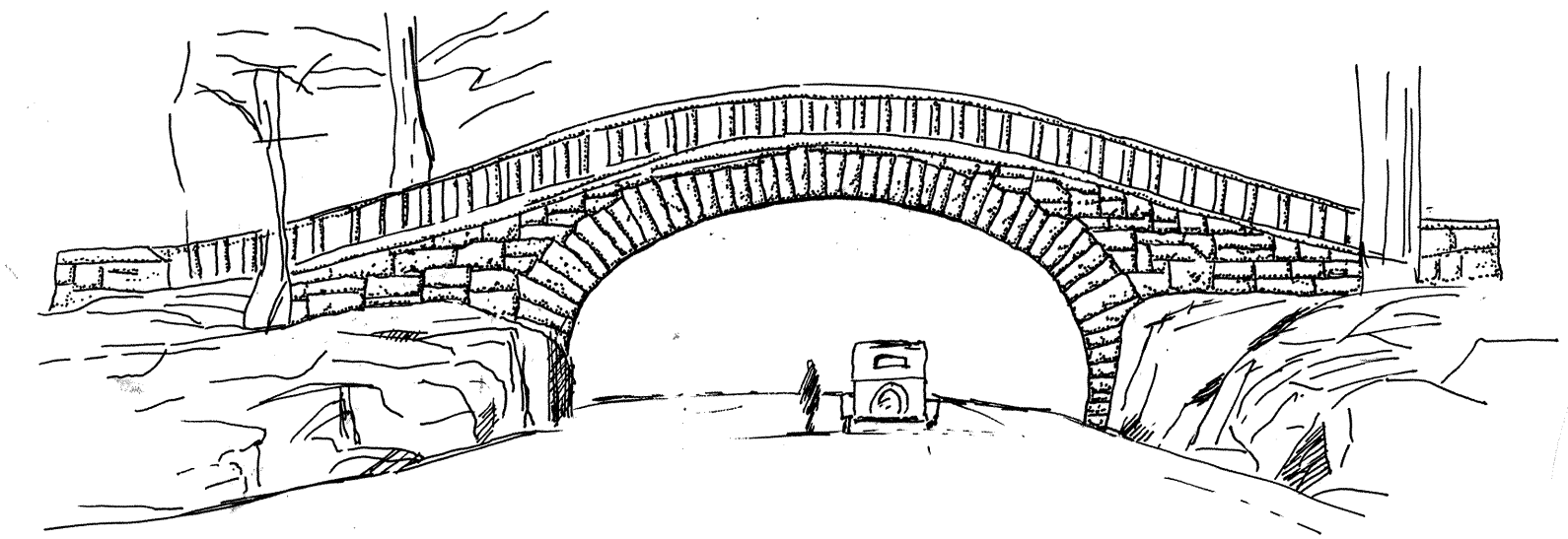
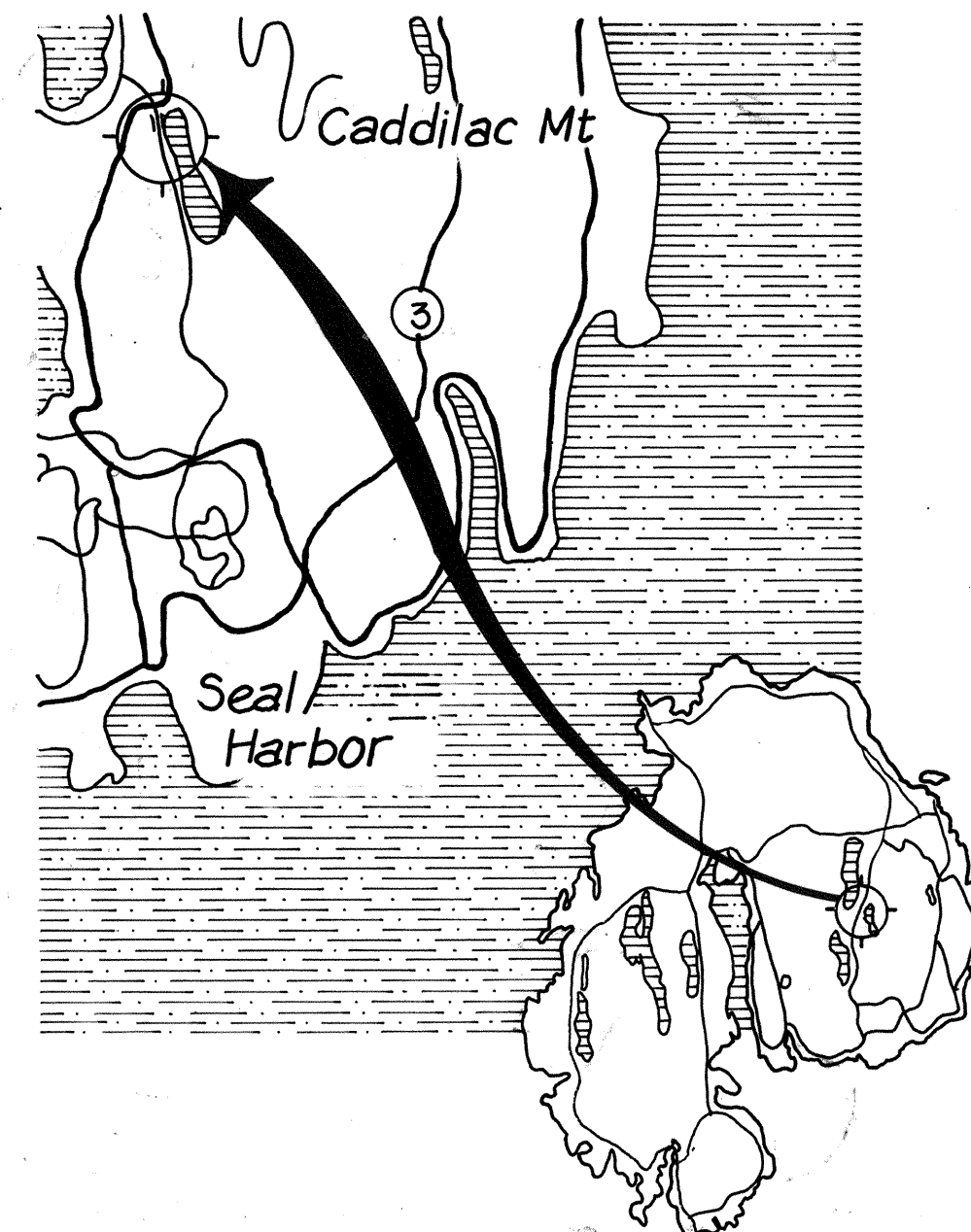


1994 Appearance

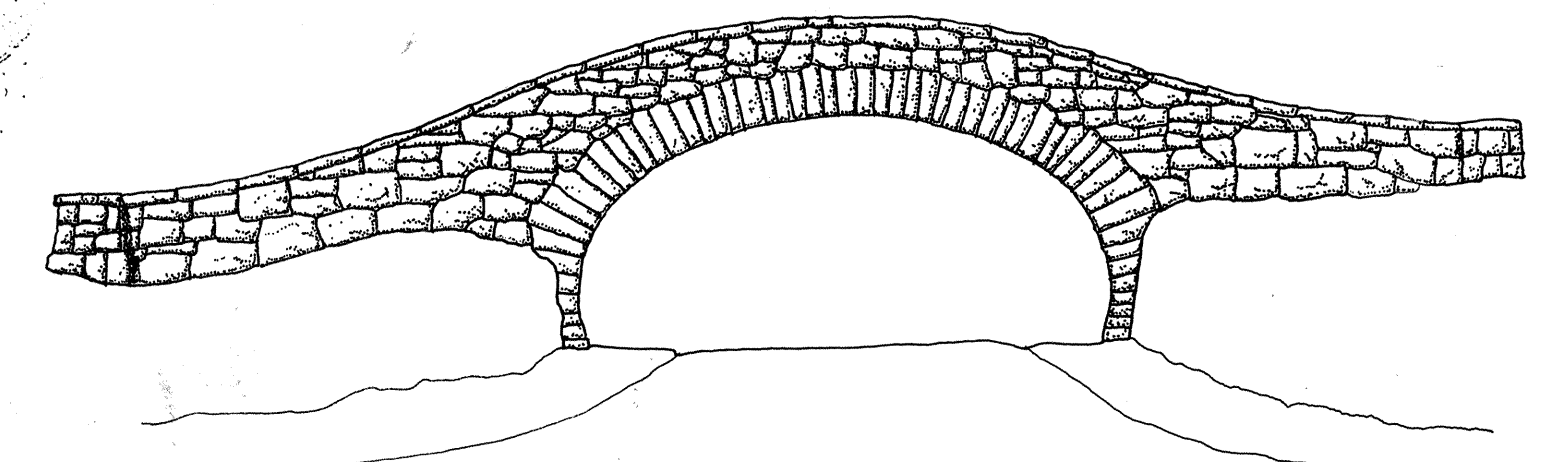
## SITE DEVELOPMENT



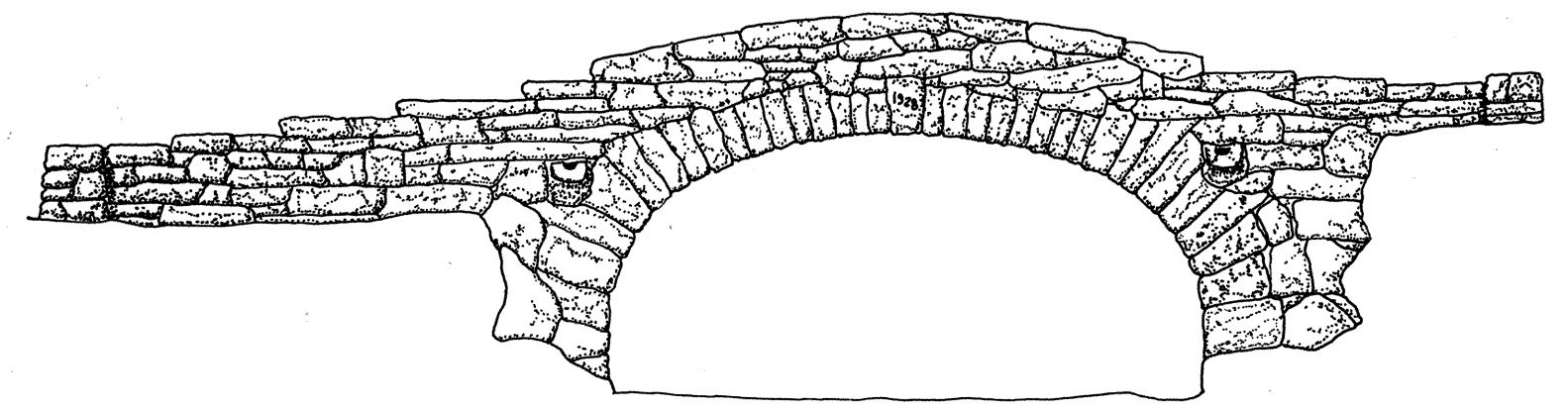
NOTE: This drawing is a conjectural interpretation based on construction drawings and field measurements.



BOSWORTH'S ORIGINAL PROPOSAL



BOSWORTH'S REVISED PROPOSAL



NATIONAL PARK SERVICE DESIGN

As John D. Rockefeller, Jr. planned his new Bubble Pond-Triad carriage road, he determined it should cross the new "Mountain Road" motor road (which he funded) on a bridge in order to avoid an unsafe grade crossing. He turned to New York architect William Welles Bosworth, who responded with a formal multi-centered arch bridge with open balustrade and finely-cut voussoirs. Although Mr. Rockefeller accepted the design, the NPS Assistant Director Arno Cammerer objected to it as being too formal for a national park. Bosworth prepared a second design, eliminating the open balustrade, but retaining the carefully cut stone and the formal voussoirs. This design was rejected as being "too citted". The Park Service then designed a more "rustic" structure of roughly-quarried stone, making it possibly the only carriage road bridge of solid masonry construction. Although disappointed, Mr. Rockefeller agreed to fund the construction of this design. His engineer, Paul D. Simpson, prepared the working drawings, and the bridge was constructed in 1928 by Philadelphia mason Pringle Borthwick. The bridge site was landscaped under the direction of landscape gardener Beatrix Farrand, who had worked with Mr. Rockefeller in other areas with the carriage roads.

Mr. Rockefeller's site plan was changed in the 1960s, when a segment of the "Mountain Road" (now a segment of the Park Loop Road) was relocated away from the bridge to eliminate a sharp curve. In the 1980s the parking area was relocated and the road under the bridge was abandoned, leaving the bridge as it stands today.



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