

BRIDALVEIL FALL BRIDGE NO.1
Yosemite National Park Roads and Bridges
Spanning Bridalveil Creek on Carriage Road
Yosemite National Park
Mariposa County

HAER NO. CA-91

HAER
CAL
22-YOSEM,
7

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
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I. INTRODUCTION

Location: This small bridge carries a carriage lane across Bridalveil Creek at the base of Bridalveil Fall in Yosemite National Park, California.

QUAD: El Capitan, CA
UTM: 11/286510/4177580

Date of Construction: 1913

Designer and Builder: Builder: Oscar Parlier.

Original and Present Owner: Yosemite National Park, National Park Service.

Present Use: Park foot bridge.

Significance: The three Bridalveil Fall bridges are the only surviving road bridges in the park dating to the administration by the U.S. Cavalry from 1890-1914. They also represent the first use of reinforced concrete in bridge construction in the park.

Project Information: This document was prepared as part of the Yosemite National Park Roads and Bridges Recording Project, conducted in summer 1991 by the Historic American Engineering Record.

Richard H. Quin, Historian

II. HISTORY

This is one in a series of reports prepared for the Yosemite National Park Roads and Bridges Recording Project. HAER No. CA-117, YOSEMITE NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park roads.

History of Bridalveil Fall Bridge No. 1

A small carriage road or path evidently crossed Bridalveil Creek near the base of Bridalveil Fall as early as 1883, as it appears on a topographic map prepared that year by Capt. George M. Wheeler of the U.S. Army Corps of Engineers. It was not featured on a map prepared by Wheeler in 1878-79, and may not yet have been constructed. However, Wheeler's earlier map is not as detailed as the 1883 sheet, and may have omitted such a small track. It does not appear on a number of later maps, such as the topographic map prepared by the Edinburgh Geological Survey in 1892 or the map which appeared in the frontispiece of James M. Hutchings' *Yosemite and the Big Trees*, published in 1894. It can barely be discerned in a map of the Yosemite National Park prepared by Lt. N. F. McClure of the 1st Cavalry in 1896. From its appearance on the 1883 map, it can be surmised that the road or trail did exist by this time, probably to provide access to a vista of Bridalveil Fall, always one of the most popular attractions in the Yosemite Valley.¹

The road was apparently never the main road on the south side of the Yosemite Valley, as a larger and more direct route was established a little further north when the Washburn-controlled Wawona Road was constructed in 1875. The routes of the two roads are shown on the 1883 Wheeler map. The south side road connected Pohono and El Capitan bridges, and was apparently a part of the main circuit road of the Valley established by the Board of Commissioners. The Washburns requested that the Board of Commissioners build a bridge or bridges over Bridalveil Creek on the new road in 1881.² The old road at the base of Bridalveil Fall remained in use as a scenic diversion.

Bridalveil Fall Bridge No. 1 is one of three small bridges constructed on the carriage road at the base of Bridalveil Fall 1913 under contract by Oscar Parlier of Tulare, California at a cost of \$4,046. The Government hauled the materials from El Portal at a cost of \$564, and also built the stone spandrel walls and roadway.³

The three stone-faced concrete arch bridges are among the last structures built during the administration of Yosemite National Park by the U.S. Cavalry (1890-1914). They were the first concrete bridges to have been constructed in the park.

Built to handle carriage traffic, the bridges now carry a foot trail over three small divisions of Bridalveil Creek at the base of Bridalveil Fall (or Pohono, meaning "Puffing Wind"). Another smaller rivulet from the braided stream passes through a culvert between the east and central bridges.

The bridges share more similarities than differences. Except for the larger central bridge, which features two spans, each is of basically identical construction. Each is a simple concrete bridge with exposed barrel vault, filled with earth and faced with native granite. The granite is set in mortar with rough smear joints. Larger stones are used near the tops of the abutments and on the 2' wet masonry construction guard walls running along the sides of the bridges. These guard walls terminate in stone end posts or pylons with half round posts. Each of the spans is 20' wide, and the three bridges are each about 18' feet wide. The two end bridges are 20' long, and the central bridge is twice the length. Wing walls of dry masonry construction with cement caps extend along the approaches to all three bridges. The bridges are in generally good condition, although some of the pavement has washed out on and around the bridges. Since the bridges only carry a foot path, this has presented no severe problem. The three bridges were the smallest structures documented in the HAER recording project.

Bridalveil Fall Bridge No. 1 is a single-span structure, 20' long by 18' wide. Like the other bridges, it has 2' high stone guard walls along the sides, ending in stone pylons with half-round tops; however, the southwest pylon has toppled and is lying on the riverbank below. The bridge is the westernmost of the three structures.

III. ENDNOTES

1. Copies of all of the historic maps mentioned may be found in the Yosemite Research Library, and are reproduced in Vol. I of Linda Wedel Greene, *Yosemite, The Park and Its Resources: A History of the Discovery, Management, and Physical Development of Yosemite National Park, California*. 3 vols. (Denver, CO: National Park Service, 1987).
2. "Yosemite Valley--Interesting Proceedings of the Commission," *Mariposa Gazette*, 18 June 1881, 2.
3. Park Engineer's Report, 15 October 1913, in *Report of the Acting Superintendent of the Yosemite National Park to the Secretary of the Interior*, 1913. (Washington: Government Printing Office, 1913), 29. Copy in Yosemite Research Library.

IV. BIBLIOGRAPHY

PRIMARY SOURCES

PUBLISHED PUBLIC DOCUMENTS

Park Engineer's Report, 15 October 1913, in *Report of the Acting Superintendent of the Yosemite National Park to the Secretary of the Interior, 1913*. (Washington: Government Printing Office, 1913).

UNPUBLISHED PUBLIC DOCUMENTS

Wheeler, George M. "Topographical Map of the Yosemite Valley and Vicinity," U.S. Army Corps of Engineers, 10 November 1883.

SECONDARY SOURCES

OTHER DOCUMENTS

"Yosemite Valley--Interesting Proceedings of the Commission." *Mariposa Gazette*, 18 June 1881, 2.