

BURLINGTON NORTHERN SANTA FE RAILROAD,
CAJON SUBDIVISION , STRUCTURE NO. 65.6
between Cajon Summit and Keenbrook
Devore vicinity
San Bernardino County
California

HAER CA-2259-O
CA-2259-O

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
PACIFIC WEST REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
1111 Jackson Street, Suite 700
Oakland, CA 94607

HISTORIC AMERICAN ENGINEERING RECORD

Burlington Northern Santa Fe Railroad, Cajon Subdivision,
Structure No. 65.6

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Location: BNSF Railway Company (BSNF) Railroad Structure No. 65.6, a reinforced-concrete box culvert, is located at Milepost 65.6 on Main Tracks 1 and 2, Devore vicinity, San Bernardino County, California. The culvert is bounded by the Union Pacific Railroad to the west and Cajon Boulevard (historic U.S. Highway 66) to the east.

The culvert lies within the NE ¼ of the SE ¼ of the NW ¼ of Section 13, Township 2 North, Range 6 West, on the 1956 Cajon, California (photorevised 1988), 7.5-minute U.S. Geological Survey quadrangle. Universal Transverse Mercator Coordinates: Zone 11, NAD83, Geodetic Reference System 1980, mN 3791244, mE 456705 (inlet); mN 3791237, mE 456727 (outlet).

Date of Construction: 1938

Architect/Engineer: unknown

Builder: Atchison, Topeka and Santa Fe Railway (AT&SF)

Present Owner: BNSF

Present Use: Culvert on Main Tracks 1 and 2.

Significance: The section of railroad through Cajon Pass provided a vital link between the greater Los Angeles area and distant markets. In 1998, the California State Historic Preservation Office determined the historic route of the AT&SF (now BNSF) railroad alignment through Cajon Pass to be eligible for listing in the National Register of Historic Places under Criteria a and c. By connecting Los Angeles and San Bernardino to markets throughout the United States, the railroad dramatically affected demographic, commercial and cultural trends in Southern California. Furthermore, construction of the long, winding alignment through rugged and often steep terrain represents a significant engineering feat for its time. Structure No. 65.6 contributes to the function and significance of the railroad line by mitigating the effects of erosion on the integrity of the system.

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Statistical Research, Inc.
Tucson, Arizona

Date: March 2008

I. ARCHITECTURAL AND ENGINEERING INFORMATION

Structure No. 65.6 is a reinforced-concrete box culvert that borders the west bank of Cajon Creek but does not appear to be located on a primary drainage (Figure 1). Although most culverts are designed to protect the roadbed from the erosive effects of storm runoff—by carrying water safely under the track—others are constructed as underpasses for livestock, pedestrians, and wheeled vehicles (Hay 1953:282, 284; Webb 1932:249). This culvert, which dates to 1938, was constructed as a vehicle underpass, as its location corresponds to an unimproved road depicted on the 1956 Cajon, California, 7.5-minute U.S. Geological Survey quadrangle. Furthermore, the distance from the floor to the top of the culvert—14'-0"—is stenciled on the east and west headwalls, indicating the overhead clearance for vehicles passing under the tracks. Historical accounts indicate that, in the early 1920s, motorists traveling between San Bernardino and Victorville north on Legislative Route No. 31, Section B (later U.S. Highway 66), could take a road that crossed Cajon Creek and the railroad tracks and intersected with Lone Pine Canyon Road (Hockaday and Hockaday 2007:228). Following the construction of the box culvert in 1938, motorists using this thoroughfare drove under the tracks. Years of seasonal flooding has scoured the area around the east culvert opening, obliterating any traces of the former road.

This 44'-0"-long culvert was constructed in 1938 following severe flooding that washed out or damaged large sections of track. It is rectangular in cross section, with a width of 12'-0" and a height of 14'-0". Both the east and west ends of this cast-in-place concrete structure have headwalls, wing walls, and aprons. The headwalls and wings hold back the roadbed fill from the culvert openings, and the aprons serve as extensions of the culvert floor. The structure has a center height of 19'-6" from the concrete apron to the top of the headwall (Bridge List, First District, Los Angeles Division, p. 49, Structures Department, BNSF Railway Company, Kansas City, Kansas). The headwall on the west side of the structure is stamped with the date 1938. Two flared wing walls extend from the headwall. Each wing has a length of 23'-0", a width of 10", and a maximum height of 15'-6". The apron extends as far as the wings and is almost completely obscured by sediments and gravel. Directly above the headwall are three horizontally placed timber beams that serve as a retaining wall. The beams measure 7" x 16" x 14'-0" and are anchored to the headwall by four metal braces and partially supported by several additional metal posts on either side of the headwall. The east side of the culvert is similar in construction to the head end and also has the date 1938 stamped into the headwall. However, unlike the head end, the apron is not obscured by sediments and gravel, and it was possible to determine that the apron has a thickness of 3'-0". The width of the apron on the east side is 22'-6". Riprap consisting of large and moderate-size boulders cover the east side of the roadbed embankment. Two crude post-and-rail fences, constructed from running rails, line either side of the culvert opening to prevent the riprap from obstructing it. At the edge of Cajon Creek, the fences abruptly change direction and travel along the bank of the creek bed.

II. REFERENCES CITED

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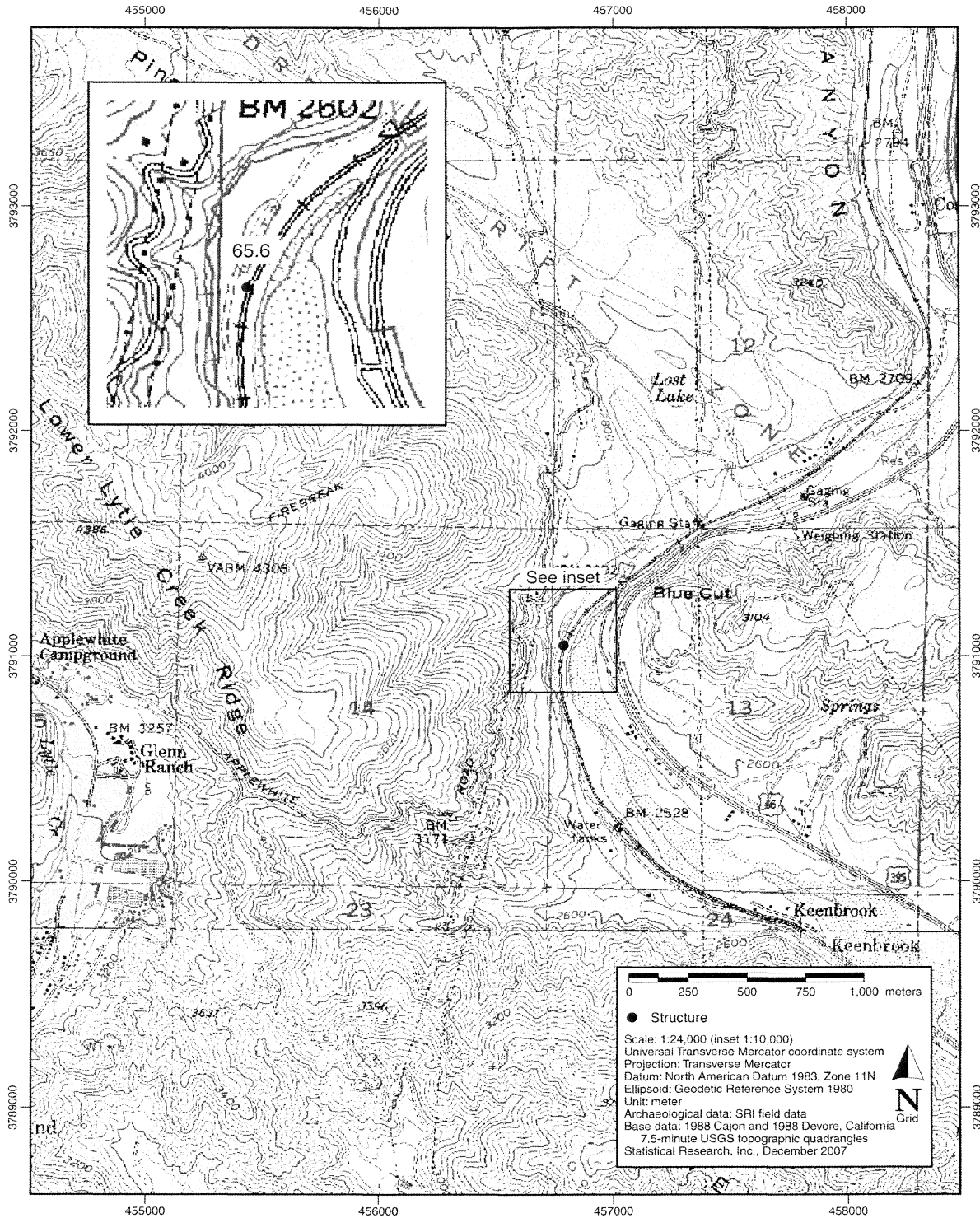
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**Figure 1. Project location (1956 Cajon, California,
 7.5-minute U.S. Geological Survey quadrangle [photorevised 1988]).**

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David G. De Vries, photographer

June 2007

CA-2259-O-1 CONTEXT VIEW, TO THE EAST. [60]

CA-2259-O-2 WEST ELEVATION. [57]

CA-2259-O-3 EAST ELEVATION, SHOWING EDGE OF APRON IN FOREGROUND. [59]

CA-2259-O-4 DETAIL OF NORTH WING WALL ON WEST SIDE OF CULVERT. NOTE THE
VERTICAL WOODEN FORM PROTRUDING FROM THE WALL AND THE FORM
BOARD IMPRINTS IN THE CONCRETE. [58]



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