National Park Service
Cultural Landscapes Inventory
2004

Mineral Headquarters Historic District

Lassen Volcanic National Park

Level II
Cultural Landscape Inventory
Lassen Volcanic National Park

Lassen Volcanic National Park concurs the findings of the Level II inventory for the Lassen Volcanic National Park Mineral Headquarters Historic District including the following specific components:

MANAGEMENT CATEGORY B: **Should be preserved and maintained**

CONDITION ASSESSMENT: **Good**

The Level II Cultural Landscape Inventory for the Lassen Volcanic National Park Headquarters Historic District is hereby approved and accepted.

Marilyn A. Davis 03/27/02

Superintendent, Lassen Volcanic National Park Date

Please return this form to the attention of:
Shaun Provencher, CLI Coordinator,
National Park Service
Pacific Great Basin Support Office
1111 Jackson St., Suite 700
Oakland, CA 94607-4807

MINERAL HEADQUARTERS HISTORIC DISTRICT
LASSEN VOLCANIC NATIONAL PARK

California SHPO Eligibility Determination

Section 110 Actions Requested:

1) SHPO concurrence with the revision to the boundary established for the Mineral Headquarters Historic District.
2) SHPO concurrence with the addition of structures to the List of Classified Structures (LCS). (See chart below).

____X____ **I concur,** _____ **Additional information is needed to concur,** _____ **I do not concur** with the proposed boundary revision for the Mineral Headquarters Historic District.

____X____ **I concur,** _____ **Additional information is needed to concur,** _____ **I do not concur** that the **Setting** as described in the CLI contributes to the historic district (see the following landscape characteristics: natural systems and features, land use, topography, spatial organization, vegetation, cluster arrangement, and views and vistas).

The following structure, located within the proposed historic district is already listed on the National Register (no SHPO concurrence required):

LCS number	Structure Name
005459	Park Headquarters Building

The following structures, located within the proposed historic district, are already determined eligible for listing on the National Register as contributing elements of the Mineral Headquarters Historic District (no SHPO concurrence required):

LCS number	Structure Name
005460	Service Station
021124	Split Rail Fence
021125	Superintendent's Residence
021126	Superintendent's Garage
021127	Residence 4
021128	Garage for Residence 4
021129	Residence 6
021130	Garage for Residence 6
021131	Residence 8
021132	Garage for Residences 8 and 10
021133	Residence 10

021134	Residence 11
021135	Garage for Residence 11
021136	Residence 13
021137	Dormitory
021138	Residence 16
021139	Residence 17
021140	Wash House
021141	Fire Cache
021142	Warehouse & Maintenance Office
021143	Machine Shop
021144	Equipment and Storage Shed
021145	Garage and Storage Building
021146	Roads and Trails Building
021147	Carpenter Shop
021148	Electrical Shop
021149	Storage Barn
056776	Seismograph Building at Headquarters
056793	Generator Plant
056794	Maintenance Compound East Retaining Wall
056795	Maintenance Area Retaining Wall at Northern Boundary
056796	Old Viola Road
056797	Old Viola Road Drainage Ditches and Culverts
056798	Mineral Residential Road
056799	Residential Road Culverts & Drainage Ditches
056800	Residential Area Spur Road
056801	Residential Area Retaining Walls
056802	Utility Area
056815	Water Fountain at Administration Building
056816	Administration Building Flagpole

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **contributing** to the Mineral Headquarters Historic District:

LCS number	Structure Name	Date	Concur	Do not Concur
247994	1931 Reservoir	1931	X	
248031	1938 Reservoir	1938	X	
248041	Reservoir Road	1931	X	
249557	Residential Footpaths	1928-1942	X	
249819	Kohler Electric Pad	1933	X	

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **not contributing** to the Mineral Headquarters Historic District:

LCS number	Structure Name	Concur	Do not Concur

N/A	Chlorination House	X	
N/A	Storage Shed east of Residence 16	X	
N/A	Mission 66 Residential Development	X	
N/A	Fire Hydrants	X	
N/A	Graveyard	X	
N/A	Propane Gas Tanks	X	
N/A	Road from Administration Building to Maintenance Area	X	

Reasons/comments why 'Additional Information Is Needed To Concur' or 'Do Not Concur' were checked:

M. Wayne Donaldson 15 SEP 2004

California State Historic Preservation Officer Date

Please return forms to the attention of:
Kimball Koch
Cultural Landscape Program Lead-Oakland
National Park Service
Pacific West Regional Office-Oakland
1111 Jackson St. Suite 700
Oakland, CA, 94607
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Executive Summary

General Introduction to the CLI

The Cultural Landscapes Inventory (CLI) is a comprehensive inventory of all historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape's location, physical development, significance, National Register of Historic Places eligibility, condition, as well as other valuable information for park management. Inventoried landscapes are listed on, or eligible for, the National Register of Historic Places, or otherwise treated as cultural resources. To automate the inventory, the Cultural Landscapes Automated Inventory Management System (CLAIMS) database was created in 1996. CLAIMS provides an analytical tool for querying information associated with the CLI.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, NPS Management Policies (2001), and Director's Order #28: Cultural Resource Management (1998). Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report on an annual performance plan that is tied to 6-year strategic plan. The NPS strategic plan has two goals related to cultural landscapes: condition (1a7) and progress on the CLI (1b2b). Because the CLI is the baseline of cultural landscapes in the National Park System, it serves as the vehicle for tracking these goals.

For these reasons, the Park Cultural Landscapes Program considers the completion of the CLI to be a servicewide priority. The information in the CLI is useful at all levels of the park service. At the national and regional levels it is used to inform planning efforts and budget decisions. At the park level, the CLI assists managers to plan, program, and prioritize funds. It is a record of cultural landscape treatment and management decisions and the physical narrative may be used to enhance interpretation programs.

Implementation of the CLI is coordinated on the Region/Support Office level. Each Region/Support Office creates a priority list for CLI work based on park planning needs, proposed development projects, lack of landscape documentation (which adversely affects the preservation or management of the resource), baseline information needs and Region/Support office priorities. This list is updated annually to respond to changing needs and priorities. Completed CLI records are uploaded at the end of the fiscal year to the National Center for Cultural Resources, Park Cultural Landscapes Program in Washington, DC. Only data officially entered into the National Center's CLI database is considered "certified data" for GPRA reporting.

The CLI is completed in a multi-level process with each level corresponding to a specific degree of effort and detail. From Level 0: Park Reconnaissance Survey through Level II: Landscape Analysis and Evaluation, additional information is collected, prior information is refined, and decisions are made regarding if and how to proceed. The relationship between Level 0, I, and II is direct and the CLI for a landscape or component landscape inventory unit is not considered finished until Level II is complete.

A number of steps are involved in completing a Level II inventory record. The process begins when the CLI team meets with park management and staff to clarify the purpose of the CLI and is followed by historical research, documentation, and fieldwork. Information is derived from two efforts: secondary sources that are usually available in the park's or regions' files, libraries, and archives and on-site landscape investigation(s). This information is entered into CLI database as text or graphics. A park report is generated from the database and becomes the vehicle for consultation with the park and the

SHPO/TPO.

Level III: Feature Inventory and Assessment is a distinct inventory level in the CLI and is optional. This level provides an opportunity to inventory and evaluate important landscape features identified at Level II as contributing to the significance of a landscape or component landscape, not listed on the LCS. This level allows for an individual landscape feature to be assessed and the costs associated with treatment recorded.

The ultimate goal of the Park Cultural Landscapes Program is a complete inventory of landscapes, component landscapes, and where appropriate, associated landscape features in the National Park System. The end result, when combined with the LCS, will be an inventory of all physical aspects of any given property.

Relationship between the CLI and a CLR

While there are some similarities, the CLI Level II is not the same as a Cultural Landscape Report (CLR). Using secondary sources, the CLI Level II provides information to establish historic significance by determining whether there are sufficient extant features to convey the property's historic appearance and function. The CLI includes the preliminary identification and analysis to define contributing features, but does not provide the more definitive detail contained within a CLR, which involves more in-depth research, using primary rather than secondary source material.

The CLR is a treatment document and presents recommendations on how to preserve, restore, or rehabilitate the significant landscape and its contributing features based on historical documentation, analysis of existing conditions, and the Secretary of the Interior's standards and guidelines as they apply to the treatment of historic landscapes. The CLI, on the other hand, records impacts to the landscape and condition (good, fair, poor) in consultation with park management. Stabilization costs associated with mitigating impacts may be recorded in the CLI and therefore the CLI may advise on simple and appropriate stabilization measures associated with these costs if that information is not provided elsewhere.

When the park decides to manage and treat an identified cultural landscape, a CLR may be necessary to work through the treatment options and set priorities. A historical landscape architect can assist the park in deciding the appropriate scope of work and an approach for accomplishing the CLR. When minor actions are necessary, a CLI Level II park report may provide sufficient documentation to support the Section 106 compliance process.

Park Information

Park Name: Lassen Volcanic National Park
Administrative Unit: Lassen Volcanic National Park
Park Organization Code: 8400
Park Alpha Code: LAVO

Property Level And CLI Number

Property Level: Landscape
Name: Mineral Headquarters Historic District
CLI Identification Number: 725061
Parent Landscape CLI ID Number: 725061

Inventory Summary

Inventory Level: Level II

Completion Status:

Level 0
Date Data Collected - Level 0: 7/1/1998
Level 0 Recorder: Bright Eastman
Date Level 0 Entered: 7/1/1998
Level 0 Data Entry Recorder: Bright Eastman
Level 0 Site Visit: Yes

Level I
Date Level I Data Collected: 6/28/2001
Level I Data Collection Len Warner, Shaun Provencher
Date Level I Entered: 9/28/2001
Level I Data Entry Recorder: Len Warner, Shaun Provencher
Level I Site Visit: Yes

Level II
Date Level II Data Collected: 6/28/2001
Level II Data Collection Len Warner, Shaun Provencher
Date Level II Entered: 1/3/2002
Level II Data Entry Recorder: Len Warner
Level II Site Visit: Yes
Date of Concurrence 3/27/2002
Explanatory Narrative:

Initial Level 0 inventory revised with concurrence of park after site visit by Koch, Luellen, and Provencher 8/16/99. Further revised by Len Warner and Shaun Provencher in September of 2001.

The following information is in draft form and will be finalized prior to 2002.

Landscape Description

The Mineral headquarters area is located along State Route 36,approximately one-half mile west of the town of Mineral, in Tehama County, California. The headquarters property encompasses eighty (80) acres of forest and meadow. Mature conifers surround the meadow, which occupies the center of the site; the open space of the meadow provides a distinct contrast to the dense forest. Because of its elevation at 4,850 feet, snow regularly covers the site four months out of the year. The site is almost entirely surrounded by the Lassen National Forest, with two exceptions: a residential development abuts the east boundary and a state highway maintenance facility occupies approximately ten acres along the site's western boundary.

The Mineral headquarters area is a historic designed landscape with a period of significance that extends from 1928 to 1943. This timeframe encompasses the period of original development and the presence of the Civilian Conservation Corps. The built environment includes the administration building, residences, garages and associated structures, as well as the residential area road and the maintenance yard. It also includes features associated with the CCC such as such as stone lined drainage ditches and remnants of a fence system.

The headquarters area landscape is a picturesque collection of small-scale, rustic-styled houses and buildings encircling a clearing in the woods. Most of the buildings constructed after 1929 (up to 1942) were situated according to a landscape plan prepared by the Landscape Engineering Division of the National Park Service, San Francisco Office.

The National Park Service Western Region Branch of Plans and Design (the successor to the Landscape Engineering Division) completed a comprehensive plan for the headquarters area in the early 1930s during the period of intensive development at Lassen Volcanic National Park. The headquarters buildings and structures were designed in the rustic style and the landscape was developed along naturalistic principles. Native materials and construction techniques employed in the buildings and structures referred to local vernacular building traditions.

Its setting in a mountainous area amidst the pine forest provided a natural context to apply the principles of rustic architecture and landscape development appropriate to the site. Buildings were designed with steeply pitched gable roofs to shed snow, wood siding stained a dark shade of brown (tobacco) to blend in with the forest, and native rock veneers on foundations. These design elements repeated the materials and forms of the surrounding landscape: the towering conifers, the mountains, and volcanic rock outcrops. Roads, buildings, and other structures were located in the landscape to conform to and enhance natural topographic qualities.

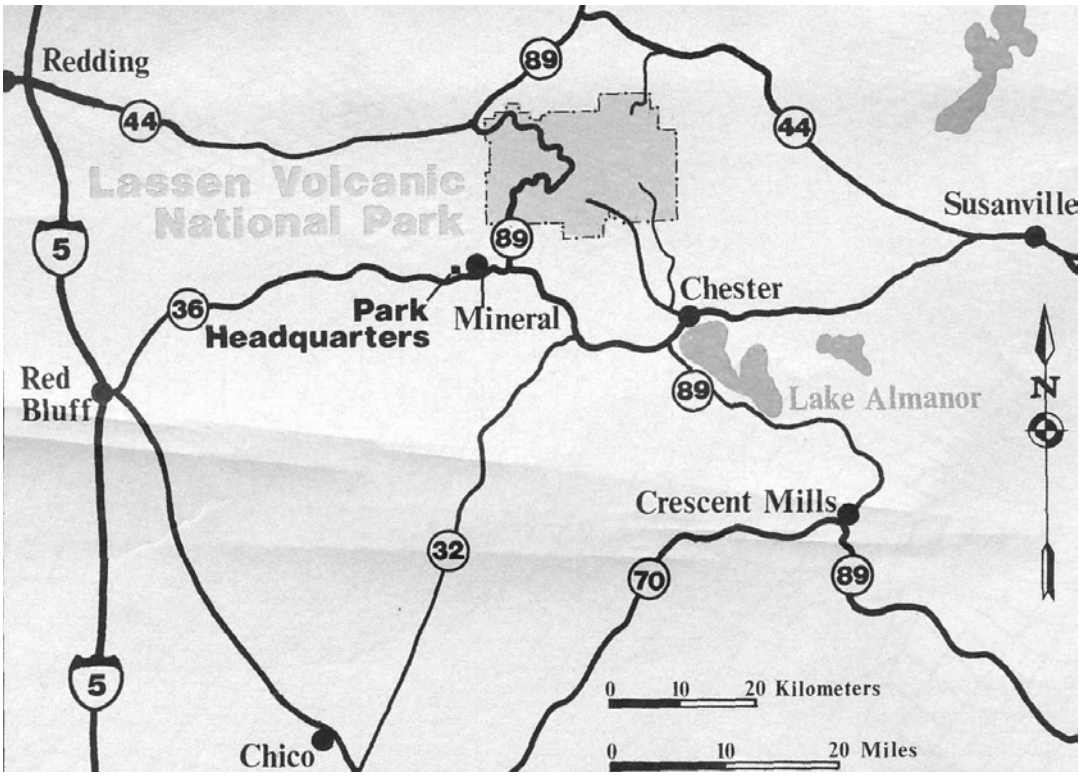
The headquarters area continues to fulfill its historic function as the main administrative and residential area for Lassen Volcanic National Park, and the majority of the landscape characteristics contribute to the district's integrity as a historic designed landscape. These include buildings and structures, circulation, cluster arrangement, land use, natural systems and features, topography, and vegetation. Small-scale features is the sole landscape characteristic that has lost its integrity and does not contribute as a landscape feature.

The Mineral headquarters landscape continues to convey a rustic and naturalistic association through its architecture and landscape architectural design. As a whole, the cultural landscape of the Mineral headquarters area is in good condition, retains integrity, and is an important, intact example of park service rustic architecture and naturalistic landscape design.

Cultural Landscapes Inventory Hierarchy Description

As defined in the Level 0 inventory, the Lassen Volcanic National Park Headquarters Historic District (to be referred to as "Mineral headquarters area" throughout the remainder of the document) is a designed landscape with no component landscapes. The boundary was established in the 1994 Determination of Eligibility but has been modified for the purposes of this landscape inventory to include such landscape features as the reservoir that was constructed in the northeast section of the site during the period of significance.

Location Map



Lassen Volcanic National Park Headquarters, Mineral, CA.

Boundary Description

The boundary of the Mineral headquarters area was originally established in a 1994 Determination of Eligibility (DOE). This boundary has been modified for the purposes of this inventory to include additional cultural landscape features that retain integrity and contribute to the site as they relate to the period of significance from 1928 to 1943. The cultural landscape boundary contains approximately five acres and includes all historic features within the district boundary.

The physical extent of the Mineral headquarters property encompasses eighty acres and extends to the south of Highway 36, but only the core residential and maintenance areas, located north of the highway, and developed during the period of significance are included within the cultural landscape boundaries.

The site of the former CCC Camp south of Highway 36 was excluded from the headquarters area cultural landscape boundary. Although the Mineral CCC camp was built to support development of the park headquarters area, all features from the period were removed and the site no longer reflects its historic association with the CCC and its contribution to the development of the park headquarters. Only potential fragments associated with its historic land use, including a building slab and debris from an incinerator remain on the site. As a result, the area occupied by the former CCC camp has been excluded from the boundaries of the cultural landscape.

The development that occurred as part of the Mission 66 program west of the Viola Road and south of the maintenance area is excluded from the cultural landscape boundaries. See the following site map for a graphic of the Mineral headquarters area cultural landscape boundaries.

The revised cultural landscape boundary is as follows:

The cultural landscape boundary extends from a point 10 feet west of the intersection of Old Viola Road and State Highway 36, and runs east-northeast along the highway for approximately 2,000 feet. It then turns north and extends approximately 1200 feet along the line of the split rail fence, to the northeastern corner of the NPS property line. It then turns west for approximately 2,500 feet, to a point some 50 feet west of Building #30 (Fire Equipment Storage Building), before turning south for 120 feet, then east for 340 feet along the maintenance road, to a point 10 feet west of the Viola Road. It then turns south for approximately 1500 feet, following the western edge of the Viola Road to its junction with State Highway 36.

Regional Context

Political Context

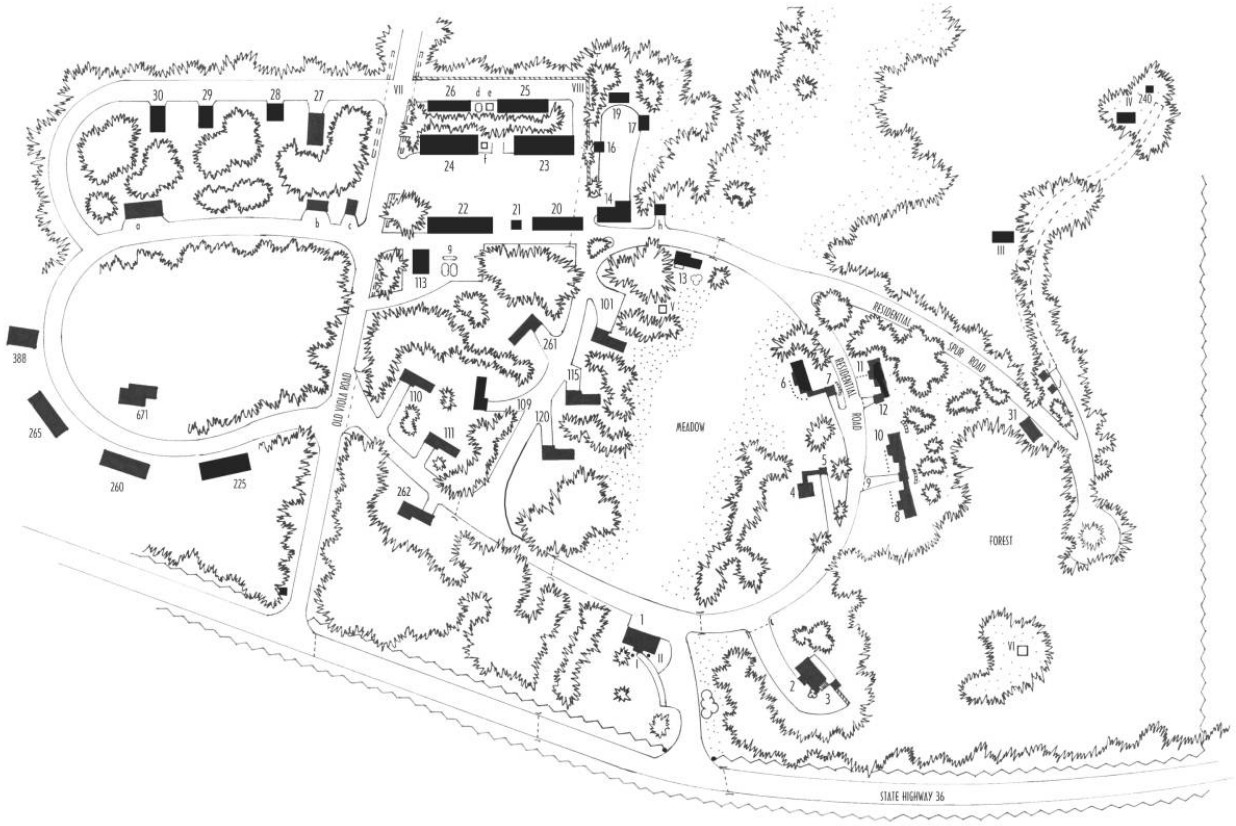
The Lassen Volcanic National Park headquarters area is located in the town of Mineral, Tehama County, California. It lies within California's Third Congressional District, which is currently (2001) represented by Congressman Doug Ose. Federal lands predominate in the region, as the district is surrounded by the Lassen National Forest, which encompasses more than one million acres in northern California.

Physiographic Context

The Mineral headquarters area of Lassen Volcanic National Park lies at the northern end of the Sacramento Valley and the southern extent of the Cascade Range in the Pacific Mountain Region. It is located at a point where the Cascade Range ends and the Sierra Nevada begins. Situated at an elevation of 4850 feet, the district is located in a yellow pine forest plant community. The headquarters area lies along a relatively flat valley where the conifer forest gives way to open meadows. The Mineral valley is surrounded by forested mountains which rise to the northeast, toward Lassen Peak.

Site Plan

Mineral Headquarters area site map. See following page for map legend. See Supplemental Information #5 for a larger format site map.



CONTRIBUTING BUILDINGS
1) Administration Building
2) Science Center
3) Garage
4) Residence
5) Garage
6) Residence
7) Garage
8) Residence
9) Garage
10) Residence
11) Residence
12) Garage
13) Residence
14) Dormitory (apartment)
16) Seasonal Ranger Residence
17) Seasonal Ranger Residence
19) Wash House
20) Protection Division Storage
21) Service Station
22) Warehouse and Maintenance Office
23) Machine Shop
24) Equipment and Storage Shed
25) Garage and Storage Building
26) Roads and Trails Building
27) Carpenter Shop
28) Electric Shop
29) Generator Plant
30) Fire Equipment Storage
31) Seismograph Building

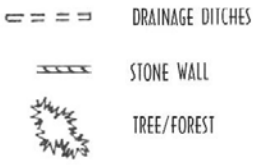
CONTRIBUTING STRUCTURES
I) Water Fountain
II) Flagpole
III) 1928 Reservoir
IV) 1937 Reservoir
V) Kohler Electric Pad
VI) Pioneer Gravesite
VII) Drainage Ditches
VIII) Stone Wall

Site Map
Lassen Volcanic National Park
Headquarters
Mineral, CA
January 2002

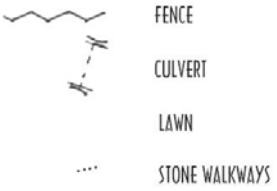
United States Dept.of the Interior
National Park Service
Pacific Great Basin Support Office
Oakland, CA

Map created by Kathleen Fitzgerald and Shaun Provencher

NON-CONTRIBUTING BUILDINGS
101) Mission 66 Era Residence
109) Mission 66 Era Residence
110) Mission 66 Era Residence
111) Mission 66 Era Residence
113) Mission 66 Era Residence
115) Mission 66 Era Residence
225) Mission 66 Era Residence
240) Chlorinator Building
260) Mission 66 Era Residence
261) Mission 66 Era Residence
262) Mission 66 Era Residence
265) Mission 66 Era Residence
388) Mission 66 Era Residence
671) Modular Residence
a) Fire Office
b) Recycling Center
c) Storage Facility
d) Propane Tank
e) Flammable Materials Cache
f) Gas Tank
g) Gas Pumps & Tanks
h) Garage
i) Pump House
j) Utility Shed



NO SCALE



Chronology

Year	Event	Description
1928 AD	Land Transfer	U.S. Forest Service transfers title of eighty-acre tract to NPS for development of Lassen Volcanic National Park Headquarters. Chapter 439, 45 Stat. 466, April 26, 1928.
1928 AD	Built	Administration building (Building 1) is built.
1929 AD	Built	Dormitory (Building 14) is built as a bunkhouse and mess.
1929 AD	Built	Superintendent's residence (no longer standing) is built at the eastern edge of the meadow, behind the administration building.
1929 AD	Built	Machine Shop (Building 23) is constructed.
1930 AD	Built	Residential road is constructed and extends from administration building to utility area.
1930 AD	Built	Residence (Building 4) and garage (Building 5) are built.
1930 AD	Built	Equipment Shed (Building 24) is built.
1931 AD	Built	Post and pole fence built along property line fronting State Highway 36.
1931 AD	Built	14,00-gallon-capacity reinforced concrete water storage tank and reservoir are built to provide potable water and serve the fire distribution system.
1931 AD	Built	Parking lot behind administration building is constructed.
1931 AD	Planted	Area around administration building is planted with grass seed, and shrubs.
1932 AD	Built	Residence (Building 6) and garage (Building 7) are built.

1932 AD	Built	Residences (Buildings 8 and 10) and garage (Building 9) are built.
1932 AD	Expanded	Administration building (Building 1) is expanded with the addition of a west wing.
1932 AD	Built	Building 30, barn (now, Protection Division Storage) is constructed.
1933 AD	Built	Electrical shop (Building 28) is constructed.
1933 AD	Built	Generator plant (Building 29) is constructed, and is initially used as a fire cache.
1934 AD	Built	Washhouse (Building 19) is built.
1934 AD	Expanded	Civilian Conservation Corps builds blacksmith shop addition to machine shop (Building 23).
1935 AD	Moved	Machine shop (Building 23) is moved to its present location, and a 36' x 31' addition is built.
1935 AD	Altered	Back porch is added to the administration building.
1937 AD	Destroyed	Superintendent's residence is destroyed by a gas explosion.
1937 AD	Built	Building 2 (now the Science Center, originally served as superintendent's residence) is constructed, and replaced the earlier residence that was destroyed by a gas explosion. It is located uphill and to the east of the original superintendent's residence.
1938 AD	Built	Garage (Building 3) is built to serve new superintendent's residence (Building 2).
1938 AD	Built	Seismograph building (Building 31) is constructed and outfitted with seismic monitoring equipment.
1938 AD	Built	Carpenter shop (Building 27) is built using materials salvaged from dismantled CCC Camp at Sulphur Springs.

1939 AD	Reconstructed	Utility area is reconfigured and relocated to the east of the Viola Road and is re-named the maintenance area.
1939 AD	Altered	East wing is added to the administration building (Building 1). Both east and west wings of the building are enlarged with the addition of shed dormers.
1939 AD	Built	Garage and storage building (Building 25) is constructed in its present location, according to plans for the redesigned maintenance area.
1939 AD	Built	Roads and Trails building (Building 26) is constructed.
1940 AD	Moved	Roads and Trails building (Building 26) is moved to its present location and placed on a new foundation.
1940 AD	Built	Residence (Building 11) is built.
1940 AD	Moved	Barn (now, Protection Division Storage) is moved from its original location east of the Viola Road to its present site at the western end of the maintenance area.
1940 AD	Built	CCC laborers build stone-lined drainage ditches on east and west sides of Viola Road.
1940 AD	Built	CCC laborers build a split rail fence system along south and east boundaries of the headquarters property.
1941 AD	Built	Garage (Building 12) is built.
1941 AD	Moved	Equipment and Storage shed (Building 24) is moved approximately 150 feet north to its present location in the redesigned maintenance yard.
1941 AD	Moved	Electrical shop (Building 28) is moved to its present location.

1941 AD	Moved	Generator plant (Building 29) is moved to its present location.
1942 AD	Built	Residence (Building 13) is built.
1942 AD	Built	Fire Cache building (Building 20) is constructed.
1956 AD	Removed	Power poles and lines to the headquarters hydroelectric plant are removed following establishment of a connection with the local utility system.
1956 AD	Built	Road is constructed to serve new residential area east of Viola Road.
1957 AD	Built	Three residences are built along the new residential road.
1960 AD	Altered	Garage is added to Building 13, creating an L-shaped footprint.
1965 AD	Reconstructed	Viola Road is relocated to the west of the headquarters property, allowing the Old Viola Road to terminate at northern boundary of headquarters property.
1967 AD	Altered	Machine shop addition is constructed (Building 23).
1967 AD	Built	Residential development consisting of five houses is built west of the Old Viola Road.
1983 AD	Rehabilitated	The split rail fence is repaired.
1990 AD	Built	Approximately twenty-two propane gas tanks are installed at residences, the administration building and several maintenance buildings.
1993 AD	Rehabilitated	Following a heavy snowfall, roofs are repaired on most of the buildings in the headquarters area.
1994 - 1995 AD	Rehabilitated	Garages 5, 7 and 9 are rehabilitated with new foundation, slabs, upgraded structural systems following heavy snow damage in winter of 1993.

1999 - 2000 AD	Rehabilitated	New foundations are installed under the Dormitory and Carpenter shop (Buildings 14 and 27).

Statement Of Significance

The Lassen Volcanic National Park Headquarters Historic District was determined eligible for the National Register of Historic Places in 1994. The following statement of significance draws on the National Register district nomination form prepared in 1993 by Robbyn L. Jackson, Architect, Pacific Great Basin Support Office.

Summary:
The design of the Lassen Volcanic National Park Mineral headquarters area landscape has national significance as an expression of naturalistic design developed and employed by the National Park Service from the mid-1920s to the early 1940s. The style commonly referred to as rustic style, or NPS rustic, influenced the development of state park systems and national forests throughout the country. In western mountain parks, buildings were constructed of native materials and incorporated local colors, shapes, and textures. Building forms were designed to suit local conditions and environments, and were sited to blend into the surrounding landscape. The predominating characteristics of the Mineral headquarters area designed landscape are: structures sited against a forest or meadow backdrop with the appearance of little disturbance to the natural topography, and the use of native plant materials to present a highly naturalistic looking landscape in terms of massing. These built and natural features combine to present an extraordinarily cohesive landscape composition.

The Lassen Volcanic National Park Mineral headquarters area embodies the distinctive characteristics of a type, period, and method of construction, which makes it significant under Criterion C in the areas of landscape architecture, architecture, and community planning and development. It is also significant under Criterion A for its association with the development of the national parks and the work of the Civilian Conservation Corps (CCC). The period of significance extends from 1928 to 1943, reflecting the dates of initial construction and landscape development through the end of the presence of the CCC.

Statement:

By the late 1920s, the National Park Service's landscape and architectural design philosophy had been fully developed and was being implemented throughout the service. A group of designers led by Landscape Engineer Thomas Chalmers Vint were based in the San Francisco Field Office, which was established by Director Stephen T. Mather in 1927. These architects and landscape architects (or "landscape engineers") were centrally located and available to advise the Director and park superintendents on matters related to park development and management.

The Landscape Engineering Division, later called the Branch of Plans and Design, was initially staffed by Vint and Junior Landscape Engineer John Wosky. Both men had worked as assistants to Gilbert Stanley Underwood, designer of many notable rustic style buildings in the western national parks. In 1928, Vint hired Landscape architect Merel Sager who became a lead designer of the landscape of the Mineral headquarters area, as well as the administrative complex at Crater Lake National Park.

The design philosophy of the division drew upon principles and practices borrowed from landscape architects Andrew Jackson Downing, Calvert Vaux, Frederick Law Olmsted, Henry Hubbard and Frank Waugh, and from a variety of architectural styles, notably the Western Bungalow and Craftsman styles. A. Paul Brown, one of two architects on the early staff, designed many of the historic buildings in the Mineral headquarters area. The architectural style selected for Lassen Volcanic National Park featured buildings with lapped wood siding painted dark brown, steeply gabled roofs with wood shingles painted green, and native stone veneers on foundations. Shed dormers, gabled porch roof extensions,

overhanging eaves with heavy brackets, and sash and casement windows in a variety of combinations added to the architectural character of the buildings.

Between 1927 and 1934, Vint developed a comprehensive program of master plans, devised standards for locating and designing park roads, and coordinated the service-wide program of landscape naturalization, i.e., preservation and harmonization. In her report "The Historic Landscape Design of the National Park Service, 1916-1942," Linda McClelland states:

The 'landscape standpoint' became synonymous with upholding the stewardship of the scenic values and protecting the natural features of the park and ensuring that all construction maintained a standard of harmonization derived from the principles and practice of naturalistic landscape design. Through this reorganization the landscape architects of the service, and particularly Vint, as chief landscape architect, assumed preeminently and officially the responsibility over location, character and quality of all park construction. (McClelland, Linda Flint. The Historic Landscape Design of the National Park Service, 1916-1942. U.S. Department of the Interior, National Park Service, National Register of Historic Places, Interagency Resource Division, 1993.)

The naturalistic design principles developed by the San Francisco Field Office were eventually adopted as the standard for naturalistic design in state and local parks which were being developed as part of the Emergency Conservation Work (ECW) Program and the Civilian Conservation Corps (CCC).

Sager and Wosky were key practitioners of the rustic style and influential in shaping the Mineral headquarters area landscape. Their photographs and monthly project completion reports provide important information about the site's development and offer insight into the philosophy of non-intrusive design known as rustic. Development of the Mineral headquarters area for Lassen Volcanic National Park began in 1928, shortly after the property was acquired from the U.S. Forest Service. Site development began under force account labor; starting in 1933 and extending through 1943, the Civilian Conservation Corps provided additional labor on construction and landscape development projects.

In 1929, Vint assigned Wosky to oversee development at Lassen Volcanic, Crater Lake, and Yosemite National Parks. By 1930, park records indicate that Sager was the park's resident landscape architect. It can be assumed that Sager is largely responsible for the park's original development plans, prepared in 1930. The park's "naturalization" program, instituted by Sager, was implemented throughout the park, creating a consistent and cohesive appearance in all the developed areas.

The development plan for Lassen Volcanic National Park was completed in 1930, and addressed the whole of the headquarters area and mapped out future development. The landscape and topography of the site played a major role in the siting of roads and buildings. Building sites were selected to minimize visual intrusions into the natural landscape, and roads were similarly located and designed so as to preserve important landscape features, including natural topography and vegetation. For example, the residential road at the headquarters was constructed with a minimal amount of cut and fills, and repeated the natural topography of the site. The park's first superintendent noted that the alignment of the residential road was chosen to "avoid the removal of more trees than absolutely necessary . . . (while keeping) the road hidden throughout its length." (Superintendent's Monthly Report, December 1930, LVNP) A master plan was prepared in 1936, with alterations through 1941. The site has seen additional development since the historic period, but within the historic district, the original plan has changed little since the early 1940s.

Landscape architects Sager and Wosky directed general construction and landscape work on the Mineral headquarters site using Civilian Conservation Corps and Emergency Conservation work crews. Their

responsibilities were far-reaching, ranging from the design of structures, supervision of trail construction, and finishing portions of the Lassen Park Road.

With the establishment of the Civilian Conservation Corps (CCC) in 1933, Lassen, like other national and state parks throughout the United States, experienced a surge in construction activity, and the number of development projects and facility improvements accelerated until the program was disestablished in 1942. The CCC, which carried out Emergency Conservation Work (ECW), had been created as an interagency effort involving the Departments of Labor, Army, Interior and Agriculture, and was authorized on March 31, 1933 under the authority of the Federal Unemployment Relief Act. While natural resource protection, including various forest-improvement projects such as insect control, and blister rust control were important components of the Emergency Conservation work, construction of recreation structures, residences, road and trail building, campground construction and landscaping projects were also accomplished through the efforts of the CCC (John C. Paige, The Civilian Conservation Corps and the National Park Service. 1933-1942. An Administrative History [U.S. Department of the Interior, National Park Service, 1985], p. 18). CCC projects, including masonry and carpentry work, usually involved a high level of manual labor and skilled craftsmanship. Highly skilled stonemasons and carpenters supervised the less experienced CCC laborers in carrying out their work. The use of hand tools and the general lack of mechanization involved in CCC construction projects allowed the maximum number of young men to be employed on a particular job and also resulted in structures characterized by a rustic style, yet exhibiting high quality craftsmanship. Many projects at the Mineral headquarters, including the construction of buildings, retaining walls, stone walkways, fences, and signs were completed through the use of CCC labor. In addition, the CCC was regularly used on important landscape improvement projects, including planting vegetation to screen buildings and sections of the road, general forest clean up and the removal of dead and downed timber.

The Mineral headquarters area represents an important, largely intact historic designed landscape, which continues to reflect its associations with the CCC and the National Park Service rustic architectural style and naturalistic landscape architectural design through its buildings, structures, circulation system, materials, and spatial organization. It is also an important and early example of park facilities development that, by virtue of its location outside the resource preserved the natural qualities for which the park was established. Therefore, it is nationally significant under Criterion A for the contributions of the CCC. In addition, it embodies the distinctive characteristics of a type, period, and method of construction, which makes it significant under Criterion C in the areas of landscape architecture, architecture, and community planning and development for the period of 1928 to 1943.

Physical History

1916-1928: Headquarters Site Selection

Lassen Volcanic National Park was established in 1916 as the fourteenth national park in the nation, but development of the park's administrative headquarters did not begin until the late 1920s. In the intervening years, local community boosters, railroad officials, and park service planners engaged in discussions to determine the most appropriate location for the park's headquarters facilities. Several areas within and outside of the park merited serious consideration—specifically, within the park at the Warner Valley and Manzanita Lake, southwest of the park in the Tehama County town of Mineral and, to the north of the park, in Shingletown, Shasta County. The debate centered on issues of automobile access and the extent of existing commercial development at each of these locations; however, aesthetic concerns, such as the availability of views of Lassen Peak, also entered into the discussions (Strong: 48).

The decision to locate park headquarters near the small town of Mineral was finalized in early 1928 when the U.S. Forest Service transferred title to an eighty-acre tract of land located approximately nine miles southwest of the park's southern entrance. The site featured a perennial stream, a tributary of the South Fork of Battle Creek which was fed by melting snows and ran through a sloping meadow in the center of the property. A heavy pine forest encircled the meadow. Aside from its considerable scenic qualities, the Mineral site had several distinct practical advantages. It was located adjacent to State Highway 36, which was a well-maintained, cross-state thoroughfare that was kept open year-round. In addition, utility development would be more economically accomplished by locating the headquarters in Mineral; the park could tie into the town's existing telephone lines, an advantage the other two sites lacked. Another advantage to the Mineral site was its association with the more populated Sacramento Valley towns to the west—Red Bluff and Redding—where various civic organizations had materially and politically supported establishment of Lassen Volcanic National Park and stood to benefit most from an expanded regional tourist economy.

It is important to note that while the decision to locate the headquarters development outside of the park responded to the practical need of developing an administrative, maintenance and residential district on a site with year-round accessibility in this region of heavy snowfall, it also represented an innovative approach to resource protection. Although resource protection was not an explicitly stated objective in the period correspondence and historic site plans reviewed during research for this report, the decision to locate the headquarters outside the park was a precursor to the current trend of developing, and in some cases removing, park operations facilities outside of parks.

1928-1942: Headquarters Development and the Branch of Plans and Design

With the selection of the Mineral site, and a concurrent increase in the park's budget, a full-scale development plan was launched. Architects and landscape architects from the Landscape Engineering Division in San Francisco began devising a unified site plan that would locate administrative, visitor service, maintenance and residential facilities at the Mineral site.

By the late 1920s, when initial development of park facilities began, the National Park Service's landscape and architectural design philosophy, which was known as "NPS rustic," had been fully developed and was being implemented throughout the service. The San Francisco Field Office, which was established by Director Stephen T. Mather in 1927, housed a group of designers, led by landscape engineer Thomas Chalmers Vint, who were centrally located and available to advise the director and park

superintendents on matters related to park development and management.

The Landscape Engineering Division of the San Francisco Field Office, later called the Branch of Plans and Design, was initially staffed by Vint and junior landscape engineer John Wosky. In 1928, Vint hired landscape architect Merel Sager who became a lead designer of the Mineral headquarters area landscape. Sager was also the principal landscape designer of the administrative complex at Crater Lake National Park. By 1930, park records indicate that Sager was Lassen's resident landscape architect. It can be assumed that Sager is largely responsible for the park's original development plans, prepared in 1930. The park's "naturalization" program, instituted by Sager, was implemented throughout the park, creating a consistent and cohesive appearance in all the developed areas. Sager oversaw landscape projects at Summit Lake and Manzanita Lake campgrounds, as well as the development of landscape elements associated with the Lassen Park Highway, including the design of the north and south entrance portals.

Buildings, Roads and Site Development:
Although by 1928 funding was available for initial construction, the overall development plan was still in the process of being finalized even as buildings began being erected at the site. In addition to the administration building and the superintendent's residence, woodshed, and garage, buildings supporting maintenance activities were erected on the east side of the Viola Road. These included a bunkhouse, mess, and machine shop, all constructed in 1929, and designed by the Landscape Division of the San Francisco Field Office. Sager, Wosky, and Vint made several site visits in 1928 and 1929, "making various investigations and studies in connection with future development of the park" (Superintendent's Report, November 5, 1929, LVNP). On a visit to the headquarters area in the fall of 1929, Vint urged the park superintendent to reconsider his plan to locate an employee's cottage in the meadow behind the superintendent's house. Vint proposed that the modest cottage for which the superintendent had a budget of $1500 should be located near the bunkhouse and mess, which had been built on a site west of the utility area, and where the extremely modest building would be obscured from views from the highway. Since the next year's budget included $3000 for constructing a staff residence in the headquarters development, Vint asserted that the more visually prominent location behind the superintendent's house should be "reserve[d] . . . for a higher standard residence" than could be built with the meager amount allocated for the seasonal employee's cottage (Wosky to Vint. October 16, 1929, LVNP).

Although a comprehensive site development plan had yet to be finalized, Vint's recommendation to reserve the area behind the superintendent's house for more substantial buildings, rather than locate them near the bunkhouse, established a general plan for residential development at the Mineral headquarters. Permanent employee housing would be grouped along the road leading from the administration building to the utility area, along the eastern third of the site and overlooking the meadow. Less significant buildings, such as seasonal ranger cottages would be grouped along the northern section of the site near the utility area.

In addition to the functional hierarchy outlined by Vint, the topography of the site played a major role in locating roads and buildings. The site's natural landscape features, including its sloping topography, heavy conifer forest, and riparian areas adjacent to the meadow creek, provided designers with a range of devices by which to erect buildings and construct roads that appeared to fit into, rather than be imposed upon, the site's natural landscape.

The necessity of separating use areas according to function also directed the overall site design. The residential district road was designed to 1929 Forest Highway standards and was constructed in 1930 as an eighteen-foot-wide oiled gravel surfaced road. It took off from the foot of the driveway to the superintendent's house, and moved in a northwestern arc toward the utility area. It thus served to connect the administration building with the utility area. Park planners located this road through the

headquarters area following classic NPS landscape architectural design principles. Its alignment was designed so that the road was unobtrusively located in the landscape and "hidden throughout its length" (Superintendent's Monthly Reports, December 1930 and January 1931, LVNP). Upon completion of the road, Sager considered it less than a complete success. He found its alignment "particularly pleasant," but noted that "the embankment prism at the far open area is higher than I had anticipated." In order to remedy the situation, Sager "planned to immediately bring this back with vegetation. . . [which] should be easy since the slope is covered with black soil" (Report, Sager to Vint, March 13 to 15, 1931, LVNP). This road was originally surfaced with four inches of crushed rock, and was improved with a more permanent, bituminous oil surface and a seal coat of emulsified asphalt in 1937.

The road was an urgently needed, practical addition to the headquarters area circulation system. Prior to its construction, the sole means of automotive access to the utility area was along the Viola Road, a low standard, county road that cut through the western third of the headquarters area from north to south. Local through traffic, including logging trucks, used this road which created a cumbersome and dangerous situation when park maintenance staff entered and exited the utility area along the narrow, gravel road. Furthermore, the Viola Road was characterized as a "practically unimproved dirt road" under the jurisdiction of the county highway authority. The combination of the poor surface and heavy equipment traffic caused consistent "rutting, mud and erosion." (Report, "Grading, Surfacing and Oiling Viola Road to the Utility Group, n/d, LVNP)

The new road allowed for a more organized means of movement through the site. Shortly after completion of the residential road, Sager noted that "the old road across the meadow to the utility group has been discontinued." (Report, Sager to the Chief Landscape Architect, June & July 1931, LVNP). Further research may be able to document the exact location of the "old road" to which Sager referred. It is likely, however, that this road was little more than a well-worn path that extended from the rear of the administration building and was an alternate means of access to the utility area, separate from the mixed-use Viola Road.

The original development plan for Lassen Volcanic National Park was completed in 1930 and addressed the whole of the headquarters area. Between 1928 and 1930, ten buildings were built at Mineral headquarters. These buildings were designed and grouped in associated use areas to accommodate the three principal functions of the headquarters site—park administration, maintenance, and a staff residential area. Park administration and visitor services occurred at the administration building fronting Highway 36; general maintenance projects were undertaken in the utility area along the northwestern edge of the headquarters area, adjacent to the Viola Road which cut through the site from north to south. The staff residential district was developed along the eastern edge of the meadow. (See Supplemental Information #1, Drawing LV-3012B, "Headquarters Area Development at Mineral", LVNP)

The first building constructed at the headquarters site was the administration building, originally completed in 1928 as a modest L-shaped structure facing Highway 36 and expanded several times over the next twelve years. On a visit to the park in July 1929, landscape architect Wosky noted that the area around the administration building was "sorely in need of planting" (Report, Wosky to Vint, July 28, 1929, LVNP). Landscape development may have been delayed due to the "considerable" work that was carried on in the spring and summer of 1929 which consisted of "leveling and the construction of necessary drainage ditches to drain the runoff from melting snow" (Superintendent's Report, April 1929, LVNP). In 1930, the building's appearance was improved when a veneer of local, rough cut stone was applied on the exposed concrete foundation. By the early spring of 1931, Sager was on the job and noted that "a few cedar trees have already been planted . . . around the administration building" (Report, Sager to Vint, March 13-15, 1931, LVNP).

The visitor parking area was constructed in front of the building, parallel to State Highway 36. It was built during original construction of the administration building and was surfaced with oiled gravel. It provided space for approximately thirty cars ("Development Outline, Park Headquarters," January 1946, DSC-TIC LAVO-3066-I, Supplement IE). In 1931, a parking lot measuring approximately 73 x 100 feet was constructed behind the administration building, providing a place for deliveries and service vehicles to park while conducting business in the building. In addition to its practical convenience for maintenance and administrative purposes, the service parking area complied with the aesthetic requirements of naturalistic landscape design; its utility did not compromise the visual scene as it was located out of sight from the highway and did not interrupt views to the meadow. The lot was surfaced with gravel and given an oil seal coat, and heavy log barriers originally delineated its boundaries until a post fence was built in 1933(see photo, History #1).

The first superintendent's residence was constructed in 1929. This building was sited to the rear and to the east of the administration building, on the east side of the meadow. The residence was designed in the same rustic style as the administration building and featured a steeply gabled roof and wood lap siding stained dark brown. The original superintendent's residence (which was destroyed by a gas explosion in 1937) is visible in the background of a 1932 photo of the administration building (see photo: History #2).

By 1930, several more buildings were completed at the Mineral headquarters, including a new residence (Building 4) and garage (Building 5) located along the residential road that ran east of the superintendent's house, two seasonal ranger residences (Buildings 16 and 17), and an equipment shed (Building 22) near the utility area.

By the time of the park's public dedication ceremonies, which were held over a three-day period in July 1931, Sager reported that "the area in front of the Administration Building has a good cover of green grass . . .. [and] considerable planting of trees and shrubs was done around the administration building." These small landscape improvements were completed in time for the park's dedicatory weekend, however, substantial landscape work remained to be accomplished throughout the headquarters area which was carried out over the next several years.

Landscaping work included preparing lawn areas around the buildings as well as improving the appearance of the forest. The superintendent noted that during November of 1931, "Snags, down timber and debris from [the headquarters site] were removed or burned, the open areas around the administrative building have been scarified and manure spread over the ground in preparation to planting. The earth was also prepared for a lawn around the superintendent's residence and the administration building" (Superintendent's Monthly Report, December 5,1931, LVNP).

Between 1930 and 1941, six residences and five garages were built in the residential area, exhibiting the same architectural style as the administration building. These residences were arranged on opposite sides of the residential district road, and laid out along the eastern section of the headquarters site to connect the administration building, the superintendent's and staff residences, and the maintenance area.

Following the first expansion to the administration building in 1932, foundation plantings, including shrubs and small evergreen trees were planted, as well as a small lawn area in front of the building, which was bisected by a gravel walk from the parking area. A post and pole log fence and turnstile was constructed, which defined the edge of the parking area in front of the building (see photo: History #3).

Subsequent alterations through 1940 further increased the size of the administration building, as wings were added to both ends. During this period of expansion, small-scale features including a wood flagpole

in a stone base and a stone water fountain were installed on the front lawn. A central stone chimney was built of local stone, to match the rock veneer of the foundation. Its frontage on State Highway 36 made it the most visible of the buildings in the headquarters area. The building's details, including the front porch with an overhanging roof, and rockwork on the foundations and chimney conferred a sense of permanence and dignity to the structure (see photo, History #4).

Landscape Preservation and Protection and Naturalization
The scenic qualities that characterize the site—the meadow, the heavy conifer forest and the seasonal stream—convey a natural appearance, although these landscape characteristics were in fact carefully managed and, in a sense, designed. For example, during one of Sager's several visits to the park in the summer of 1931, he noted that "some of the stones have been removed from the upper end of the meadow to give the grass and wildflowers a better chance" (Report, Sager to the Chief Landscape Architect, March 13-15, 1931, LVNP).

The course the seasonal stream followed through the meadow was manipulated to allow for road construction. During construction of the residential road, culverts were built to channel the stream under the road. A ditch on the uphill side of the road was dug to divert the water to the culvert. Where the creek found its outlet south of the road, it fingered out and followed a meandering course down slope, creating seasonal riparian areas along its banks. Thus the landscape designers found a means to construct a road through the site without permanently altering the meadow and wetlands, an important landscape characteristic which supports a profusion of grasses, native sedges, and wildflowers.

Modifying the natural environment so that grasses and wildflowers in the meadow would thrive was one means to manage the scenic natural resource. The construction of a barrier fence was another intervention intended to protect the meadow from the annual cattle and sheep drives which occurred on the ranchlands nearby, as livestock were moved to and from summer ranges. As the headquarters area was developed, a fence was constructed to serve as a barricade to wandering sheep and cattle which tended to encroach on the headquarters grounds. The superintendent anticipated that the fence "[would] keep out the cattle and sheep that are yearly driven past headquarters to and from their summer pasture" (Superintendent's Report, April 3,1931, LVNP). According to Sager, grazing livestock had already wrought a certain amount of damage to the meadow. Sager noted that a post and rail fence adjacent to State Highway 36, which was completed in the spring of 1931 across the southern boundary of the headquarters area, "had the desired effect of keeping cattle off of this meadow and the result is noticeable" (Report, Sager to Vint, July 1931, LVNP). The fence was a successful aesthetic embellishment to the headquarters landscape, as well as a valuable, practical structure. The superintendent proudly noted that "Many have commented on the fine appearance of the new cedar rail fence, completed last month along the Lassen Volcanic Highway [State Highway 36] and on the east and west sides of the headquarters area" (Superintendent's Report, May 3, 1931, LVNP).

Civilian Conservation Corps
In 1933, regional landscape architect P.J. Holloway from the San Francisco-based Office of the Branch of Plans and Design noted that the headquarters area was "badly in need of cleanup for fire protection and beautification" (Report, P.J. Holloway to Vint, 1 Nov. 1933, LVNP). The clean-up projects Holloway advocated soon had a ready supply of labor to carry out proposed landscape improvements and resource protection projects. With the establishment of the Civilian Conservation Corps (CCC) in 1933, Lassen, like other national and state parks throughout the United States, experienced a surge in activity, and the number of development projects and facility improvements accelerated until the program ended in 1942. The CCC, which carried out Emergency Conservation Work (ECW), had been created as an interagency effort involving the Departments of Labor, Army, Agriculture and Interior, and was authorized on March 31, 1933 under the authority of the Federal Unemployment Relief Act. While

natural resource protection, including various forest-improvement projects such as insect control, and blister rust control, were important components of the ECW, construction of recreation structures, residences, road and trail building, campground construction and landscaping projects were also accomplished through the efforts of the CCC (Paige: 18). CCC projects, including masonry and carpentry work, usually involved a high level of manual labor and skilled craftsmanship. Highly skilled stonemasons and carpenters supervised the less experienced CCC laborers in carrying out their work. The use of hand tools and the general lack of mechanization involved in CCC construction projects accomplished two goals: it allowed the maximum number of young men to be employed on a particular job and also resulted in the construction of structures characterized by a rustic style, yet exhibiting high quality craftsmanship. Many projects at the Mineral headquarters, including the construction of buildings, retaining walls, drainage ditches, stone walkways, fences, and signs were accomplished through the use of CCC labor (see photo, History #5).

CCC and ECW crews provided the labor for general construction and landscape work on the Mineral headquarters site, in addition to their contribution to other developed areas in the park. Their responsibilities were far-reaching, ranging from the design of structures (e.g., log bridges, fences and signs), supervision of trail construction crews, and finishing portions of the Lassen Park Road.

The CCC arrived at Lassen at a favorable time, just as the headquarters area was being developed as a complete maintenance, administrative, and residential area. Several camps were established throughout the park: at Old Boundary Springs, at the Sulphur Works and, eventually, near the headquarters area, across State Highway 36 in the far southwest section of the park's eighty-acre headquarters tract. (see photo, History #6)

With the arrival of the CCC, work crews responded to Holloway's call and cleared dead trees and downed timber from the woods in the area throughout the 1930s, simultaneously improving the appearance of the forest while minimizing fire hazards.
Landscape work carried out by the CCC at Mineral consisted of "stump and snag removal and sloping and rounding of banks along roads" (Report, Holloway to Vint, November 1, 1933, LVNP). The labor provided by the CCC was instrumental in creating the kind of finished appearance of the headquarters landscape that Wosky and Sager had previously recommended. In describing the accomplishments of the CCC crews assigned to projects at Mineral, an ECW official reported that "The area, long in need of this type of work, was greatly improved in appearance as a result of the CCC activities. [CCC work included] the removal of stumps, some of which were left behind in the original development of the area, others resulting from insect control work; removal of snag, cleanup of debris; removal of logs, etc." (Narrative Report, Emergency Conservation Work, Lassen Volcanic National Park, May-November, 1933).

A heavy storm in the winter of 1937 resulted in flooded conditions along the Viola Road, throughout the utility area and on State Highway 36. As a result, plans were developed to relocate the utility area to a new site east of the Viola Road. Grading and initial site development began in 1939 and the reconfigured utility area, henceforth called the maintenance area, was essentially completed by 1941.

Utilities

Telephones
Initial utility development began in 1931, when a "direct connection through [the] Mineral switchboard [was made] with the commercial telephone line." Telephone lines were strung on the upper branches of trees, rather than on telephone poles, which was both an economic measure and a design consideration as it served to screen the unsightly wires from view in the upper branches of the trees.

Water

In June of 1931, the first sewer and water system was completed at the park headquarters (Superintendent's Monthly Report, June 3, 1931, LVNP). The late 1930s and early 1940s saw intensive development and improvement of existing facilities. In addition to expanding the administration building to its current size, relocating the maintenance area and the construction of several key structures in the newly reconfigured maintenance yard, as well as two garages and a residence in the residential area, a new water supply system was built.

A 1933 report described the necessity of augmenting the headquarters water supply. Branch of Engineering associate engineer George Reed noted that "Park headquarters has always had an uncertain supply of water . . . [which] is dependent upon the whims of a spring or small collection basin which nearly dries up during the summer when the demand is the greatest." (Justification for Proposed Water System for LVNP Headquarters Area, January 15, 1936, LVNP) In a 1933 report, the superintendent noted that an "additional water supply for the headquarters area [is required] to allow us to do the amount of landscaping and beautification work that is desirable, the present supply being insufficient for this work" (Superintendent's Monthly Report, November 1, 1933, LVNP). The superintendent's report did not communicate the extent of the water shortage, which was reflected in Reed's report to the Chief Engineer: "During the summer of 1933 it was necessary to haul water into park headquarters for domestic use."

In 1938, the park received Public Works Administration funds for an upgraded water system, an improvement that had been anticipated for at least five years. A 14,000-gallon reservoir, constructed in 1931, did not satisfy either the domestic water demand or serve fire protection or landscape development needs.

The new 100,000-gallon reservoir received water via a gravity system composed of pipes and filters leading from Martin Creek which was located north of the site. This system replaced the existing 14,000-gallon spring fed reservoir and storage tank that had been constructed in the far northeastern corner of the headquarters property in 1931.

Electricity

The improved water supply system provided domestic water and served the fire distribution system. Electrical power was provided by a five-kilowatt Kohler Automatic Electric plant which was purchased by the park in 1929. The Kohler plant was housed in a small wood-frame building located approximately 500 feet north of the administration building in the meadow. In 1935, the park constructed its own electrical plant on Battle Creek, which was located approximately two miles west of the headquarters site. The electric plant consisted of a water wheel, generator, and switchboard. An engineer in the San Francisco Office of the Branch of Engineering noted that, due to the source of electricity provided by the park's own hydroelectric plant, the Kohler plant and its attendant wires could be removed which would "improve [the] appearance of [the] area considerably. Ultimately, underground distribution should be provided for both primary and secondary circuits" (Fay D. Lloyd, Associate Engineer, Branch of Engineering, SF, August 26, 1939, LVNP). Despite the engineer's suggestion, which echoed landscape architect Sager's recommendation of July 1931 that "as soon as there is money available the telephone and light wires [should] be placed underground," this improvement was never fully implemented (Report, Sager to Vint, July 28,1931, LVNP). Overhead telephone and electrical wires currently remain unsightly features in the naturalistic landscape of the Mineral headquarters area.

History #1: Administration building, parking lot, and barrier fence. Looking south, 1933. (LAVO-N-32-4)

History #2: Newly constructed residential road, with meadow in background. Note fill and culvert required to maintain steady grade. Original superintendent's residence is partly visible on the right. Looking north, 1932. (LAVO-N-26-21)

History #3: Administration building showing addition of west wing, post and pole fence, turnstyle and walkway to parking area. Note original superintendent's residence to the rear. Looking north, 1932. (LAVO-N-26-15)

History #4: Administration building, showing foundation plantings and front lawn, looking north, 1941. (LAVO-N-26-14)

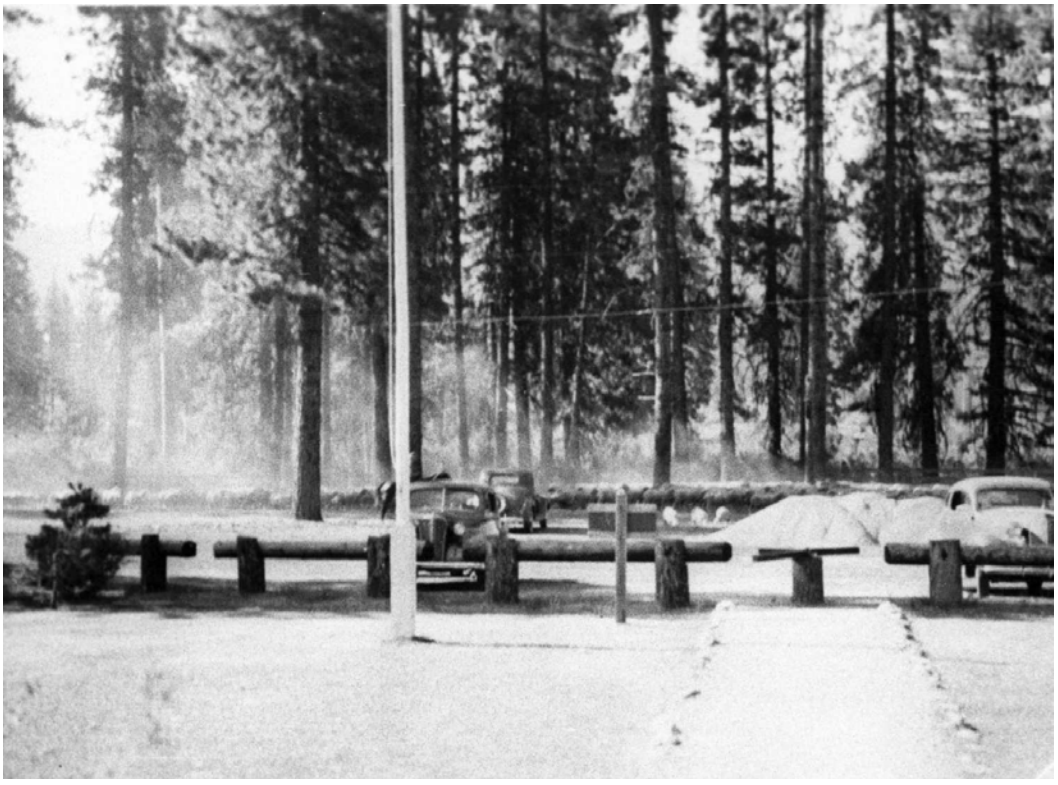
1942-1957: War Years and Post-War Changes to the Landscape

With the outbreak of war and the dissolution of the CCC, development of the headquarters area slowed. Between 1943 and 1954, small maintenance projects were the extent of landscape activities undertaken at the headquarters site. Monthly reports from the Chief of Maintenance record occasional, small improvements and routine maintenance jobs. Usually, the reports noted that the only landscape work carried out in the headquarters area was limited to mowing lawn areas surrounding the administration building, the dormitory, and the superintendent's residence; lawns around park staff residences were tended by the residents. Beyond maintaining the lawns, other landscape maintenance work included clearing downed trees, removing snow shelters between the residences and the garages at the end of the season, and occasional patching of the roads which constituted routine maintenance practices (see photo, History #7).

A significant improvement to the utility system occurred in 1953 when the park began to obtain power from Pacific Gas & Electric Company and ceased relying on the hydroelectric plant as the sole source of the headquarters electricity. By 1956, the power poles that had carried the lines to the hydroelectric plant were removed. The new connection to the local power grid, however, meant that additional utility poles were required (Rex to Superintendent, "Monthly Maintenance Report," May 1, 1956, LVNP).

Basic landscape maintenance continued through the war years, and plans for future development of the headquarters site, which had been delineated in a Master Plan from 1941, were put on hold. The 1941 Master Plan had introduced several new components to the headquarters landscape, including a proposed road connecting the rear administration parking lot with the utility area. Along this new road, several employee residences and a dormitory and mess hall were proposed. A spur from the proposed new road to the utility area would connect with the Viola Road; the 1941 plan proposed locating several houses along this short spur (see Supplemental Information #2, LV-NP-3066S).

A new master plan was developed in 1957 which proposed obliterating the Viola Road in favor of the spur road drawn on the earlier set of plans. In addition, the 1957 Master Plan contemplated the construction of several large duplex residences to the east of the maintenance yard, in the general location of the cluster of seasonal employee houses. A combined dormitory and mess hall building was drawn south of a proposed expansion to the maintenance yard, and located to the west of the Viola Road. These plans clearly indicate that by the mid-1950s the park had outgrown its headquarters facilities and was searching for a means to efficiently accommodate a much-needed expansion of support structures and employee residences within the constraints of a relatively compact site (see Supplemental Information #3, LV-NP-3066L).



History #5: Paving the administration building parking lot, showing barrier fence, walkway, flagpole and State Highway 36 in the background. Looking south, 1937. (LAVO-N-32-19)

History #6: Former Mineral CCC Camp under snow. Original CCC camp buildings have been converted to housing. Looking southwest, 1953. (LAVO-N-32-21)

1966-Present: Mission 66 Development and Contemporary Conditions

By 1966, a new master plan was developed, which recommended sweeping changes to the existing cluster arrangement of buildings and structures as well as a major alteration to the system of circulation through the landscape. The plan proposed relocating all maintenance buildings and structures to the site of the former CCC camp, south of Highway 36. This location across the highway would also accommodate a trailer village where seasonal employees would be housed. Access to the site would be provided at two entry points—the seasonal employees housing area would be reached by a road extending across Highway 36 from the Old Viola Road. The headquarters maintenance area would be located directly opposite the California State Highway maintenance camp on the west edge of the headquarters property. (see Supplemental Information #4, NP-LV-3066M)

Maintenance buildings and seasonal employee housing were proposed for the site south of the highway, and a new residential area was identified along a loop road that would be built to the west of the Viola Road. A combination of duplex houses, apartment buildings and single-family homes comprised the proposed new residential area. The rationale for this development plan was based on several key principles: to accommodate an expansion to administrative, residential and maintenance facilities; to isolate each of these separate functions and use areas from each other; and to preserve the existing naturalistic landscape from the proposed facilities expansion. The importance of preserving the existing landscape, which by the time this 1966 plan was developed was more than thirty years old, was clearly stated in the plan's development narrative. Designers noted that "all that is required here is an attractive and functional administrative unit. The site is wooded . . . and new buildings should be located to disturb the wooded character of the site as little as possible" (Part of the Master Plan, LVNP, NP-LV 3312, page 19, July 1965).

While portions of this plan were implemented, the proposed relocation of the maintenance facilities and construction of the seasonal employee trailer village were never accomplished. The Viola Road was finally relocated outside of the headquarters boundaries in 1965. A Memorandum of Understanding, signed by the park superintendent and the supervisor of the Lassen National Forest agreed that "an orderly, planned development for the headquarters unit of the park [requires] the elimination of conflicting and hazardous traffic through its permanent residence and maintenance area" (Lassen National Forest and Lassen Volcanic National Park, "Memorandum of Understanding," September 1, 1965, LVNP).

In addition to relocating the Viola Road, a new residential area was constructed as indicated on the 1966 plan. At the time the plan was prepared, an expansion of residential facilities was clearly justified. The plan pointed out that housing was at a premium, since there were no rental units available in the surrounding communities, and that "five employees live in substandard housing, and five live in their own homes outside the headquarters area." A loop road to serve additional employee quarters was constructed west of the stretch of the Viola Road that remained within the headquarters area. The new residential units were located on the outside of the new residential area road to facilitate snow removal. The plan indicated that between sixteen and twenty-one housing units would be needed.

Between 1957 and 1970, some dozen residential structures, a combination of single-family dwellings and duplex units, were erected. Driveways, parking areas, carports, walkways and fences were constructed. Despite the scale of the development, which more than doubled the headquarters area employee housing stock, the plan deferred to the natural qualities of the site. Designers noted that the houses would be located in a heavily forested area; "hence it [was] not possible to make the layout more compact without excessive tree removal" (Part of the Master Plan, LVNP, NP-LV 3312, page 19, July 1965, LVNP).

This 1966 Master Plan noted that the off-site headquarters development furthered resource protection goals. The plan sought to locate staff facilities "to the maximum extent possible" at the Mineral site rather than at a location in the park such as Manzanita Lake or Summit Lake "in the interest of conservation of land in the park proper." Viewed in this light, the decision to create an administrative, maintenance and residential development outside the boundaries of the park can be seen as a progressive approach to park development. Future historical studies of Lassen Volcanic National Park could pursue this point, and perhaps provide a context to understand the significance of the Mineral headquarters area in broader terms, in the context of service-wide park development planning.

History #7: Lawn space surrounding the superintendent's residence (Building 2). Looking northeast, 1952. (LAVO-N-32-23)

Analysis And Evaluation

Summary

The landscape characteristics contributing to the district as they relate to the 1928-1943 period of significance include spatial organization, circulation, topography, cluster arrangement, buildings and structures, land use, vegetation, views and vistas, and constructed water features. Only one landscape characteristic, small-scale features, does not retain integrity. The removal of original signs, rock alignments, and barrier rocks and logs surrounding parking areas and the loss of original fencing have negatively impacted the integrity of small-scale features.

Accordingly, the designed landscape of the Lassen Volcanic National Park Headquarters Historic District retains integrity as determined by the seven aspects, or qualities that in various combinations define integrity according to National Register standards: location, design, setting, materials, workmanship, feeling and association.

As a whole, the cultural landscape of the Lassen Volcanic National Park Headquarters Historic District retains integrity and is in good condition.

Landscape Characteristics And Features

Natural Systems And Features

For the purposes of the CLI, natural systems and features are defined as natural aspects that have influenced the development and physical form of a landscape.

Lassen Volcanic National Park headquarters lies some nine miles southwest of the park's southern entrance, in the town of Mineral, Tehama County, California. At an elevation of 4,850 feet, the Mineral headquarters is located at the northern extent of the Sacramento Valley and at a point where the Cascade Range, the Sierra Nevada and the Great Basin Province overlap.

Geology and Soils
Geological deposits and soils in the Mineral vicinity are generally composed of basaltic andesite to rhyolite. (LVNP Sanitary Survey: II-4)

Climate
Average annual rainfall in Mineral is approximately 53 inches. Most precipitation is in the form of snow. Winds are usually mild with the norm being southwest to westerly, and are heavily influenced by orographic features and summer heating of the Sacramento Valley. (LAVO:RMP, 1994: 3)

Water Resources
Headquarters Water Supply and Treatment Facilities:
The source for the headquarters water supply system is Martin Creek, a spring-fed stream that also receives snowmelt during the spring and early summer months. Water is collected upstream of a "diversion" dam, which slows flow velocities and creates a shallow pool allowing more time for water to infiltrate through the riverbed rock. Perforated PVC pipes located under approximately three feet of the riverbed rock collect the infiltrating water and direct it to a small stilling basin. Raw water then passes through two screens in series and flows to the Headquarters Water Treatment Plant for processing. (LVNP Sanitary Survey:II:19-20)

Native Plant Communities
At an elevation of 4,850 feet, the Mineral headquarters area is located in a Mixed conifer zone, further subdivided into the yellow pine forest plant community, which includes ponderosa pine and sugar pine, incense cedar, white fir and Douglas fir, several deciduous tree types, and numerous shrubs, wildflowers, and native grasses.

Meadow
The meadow represents another element of the natural systems and features of the Mineral headquarters landscape, although it was modified during construction of the residential road by diverting a tributary of the south fork of Battle Creek through several culverts. These culverts have altered the hydrology of the meadow. The culverts channel the stream under the road and have created a system of minimally defined seasonal drainages or rivulets that flow through the lower meadow and under the parking lot behind the administration building through another culvert. The meadow space upslope from the residential road retains its natural qualities as a boggy area with thin tree cover.

Land Use

For the purposes of the CLI, land use is defined as the principal activities in the landscape that have formed, shaped, or organized the landscape as a result of human activity.

Patterns of land use found in the vicinity of the Mineral headquarters area reflect the two main industries that have historically formed the basis of the area's economy: logging and cattle ranching. Logging continues to be a mainstay of the regional economy and occurs throughout the region, although not presently on property abutting the headquarters site. In addition to the public lands, private cattle ranches are located nearby. A residential subdivision abuts the property's eastern boundary. Recreation and tourism are another mainstay of the regional economy. Guest ranches and hotels have attracted people to the area since the turn of the twentieth century.

Prior to the transfer of the eighty-acre property to the National Park Service, the site was under the jurisdiction of the Lassen National Forest which encompasses more than one million acres of land in Lassen, Shasta, Tehama, Butte, Plumas, Siskiyou and Modoc counties. While park planners were considering the most advantageous site on which to develop an administrative, residential and maintenance complex, the U.S. Forest Service offered the tract just west of the town of Mineral to the NPS. The swampy area north of the main residential road, and the lack of timber in the area's meadows, limited the property's value as productive timberland.

A small cluster of graves where three pioneer settlers are buried is located in the wooded area northeast of the Science Center building. This gravesite is not considered a contributing element because it predates the development of the Mineral headquarters area and does not contribute to its historic significance.

Since its acquisition by the park service, the headquarters area has served as the main administrative center for Lassen Volcanic National Park, as well as the principal location of the park's maintenance operations and the primary employee residential district. This historic land use has continued throughout the site's history.

Due to the historical continuity of land use associated with the Mineral headquarters area, land use is a contributing landscape characteristic.

Topography

For the purposes of the CLI, topography is defined as the human manipulation of the three dimensional configuration of the landscape surface characterized by features such as slope and articulation, and orientation, such as elevation and solar aspect.

The principal topographic characteristic of the headquarters area is a consistent north-south slope throughout the site; the degree of incline increases along the northern third and levels toward the southern boundary. In addition to the overall north-south slope, a prominent knoll, or ridge, rises east of the residential road.

The topography of the Mineral headquarters area can generally be separated into three distinct areas, or plateaus. From north to south, these include the upper meadow, north of the residential road where the land slopes from the site's northern boundary to the southwest. The maintenance yard near the northern boundary and at the far west edge of the site is generally level, although it slopes slightly to the south. Finally, the lower meadow area, south of the residential road, continues to slope in a southerly direction but achieves a nearly level elevation as it meets the parking lot behind the administration building. This level plateau continues south to the front lawn of the administration building and State Route 36.

The rise in the terrain east of the main residential road introduces a distinct east-west topographic characteristic within the boundaries of the Mineral headquarters area. The Science Center (Building 2), 1937, which originally served as the superintendent's residence, was built at the southwestern edge of this ridge. Its construction required light grading and leveling, and a small retaining wall was built behind and between the residence and the garage (see photos, Topography #1and Topography #2).

The most extensive alterations to the natural topography of the site were undertaken during construction of the main residential road, the maintenance area and the Mission 66-era housing cluster on the east side of the Viola Road.

Road Prisms
Residential Road:
Although the alignment of the residential road generally follows natural topographic contours, where it crosses the upper edge of the meadow, it creates a level plateau and marks a transitional area between the steep northern section and the broad expanse of the lower meadow (see photo, Topography #3). When the road was nearing completion, the park superintendent reported that the landscape division had "locate[d] the road to serve building sites to the best advantage." In addition, NPS landscape architects located the road in such a way to "keep it hidden throughout its length"(Superintendent's Monthly Report, December 1930, LAVO). Mature conifer trees were widely used to screen the road from view, to keep it "hidden;" however, the site's topography played a major role in determining the road's alignment and its unobtrusive presence within the overall landscape (see photo: History #2). Its route generally follows the base of a knoll located in the eastern section of the property, climbs gently in an arc to the northwest following topographic contours, and levels as it reaches the maintenance yard. Along its eastern, uphill side, a ditch was constructed to channel runoff.

Despite the careful location decisions that determined the alignment of the residential road, its construction nevertheless required some areas of cut and fill. The most extensive of these fills were constructed where the road crosses the meadow in two locations: behind the administration building, and along the upper meadow where the road leads from the residential area to the maintenance yard. Where the residential road crosses the meadow, stone-lined drainage ditches were constructed to direct the flow of seasonal run-off and intermittent streams to culvert pipes under the road (see photos, Topography #4).

These fill areas allowed the road to maintain a steady grade, but were carefully located and scaled to create a minimal disturbance to existing topographic characteristics. Thus, fill sections, which comply with rustic landscape architectural principles and date from the period of significance, are contributing features of the cultural landscape.

Residential Spur Road:
The eastern edge of the headquarters developed area rises to the northeast and the spur road that takes off from the main residential road generally traverses the ridge of this rise. The spur road follows a slight but steady incline as it curves to the southeast and terminates in a cul-de-sac slightly northeast of the Science Center (Building 2) (see photo, Circulation #4). Construction of this short spur road required a minimal amount of grading and some filling since it generally follows the relatively level ridge of the hill. To the north and east and south of the spur road, the terrain ascends at a steeper rate through a dense evergreen forest.

Maintenance Yard:
The existing maintenance yard was constructed in 1940 following extensive damage to the original maintenance yard in a major flood in 1937. The new design for the maintenance area took better advantage of the site's topography and located the buildings so that the activity of the maintenance unit could be carried out more efficiently. While the location of the relocated yard was on more level terrain than the original maintenance area, in order to create a flat surface upon which to erect buildings and construct a large central paved yard, manipulation of the site's topography was required. In addition to leveling the area during site development, a large culvert was constructed to channel seasonal runoff under the maintenance yard. The extent of the leveling was limited, however, as plans for the reconfigured maintenance yard located the large Garage and Storage building (25), Equipment Sheds (24 and 26) and Machine Shop building (23) on an east-west axis which minimized the need to cut extensively into the north-south trending slope (see photo: Cluster Arrangement # 1).

Stone Retaining Walls
Maintenance Area:
In order to improve access to the new maintenance area, a road was extended west from the Viola Road to front the buildings along the northern boundary of the site. This road was cut into the slope to be at the same level as the buildings, and a stone retaining wall was built along the boundary (see photo, Buildings and Structures #7). This is the largest retaining wall in the headquarters area. It is about five feet high, and runs along the northern boundary of the upper maintenance road, from the vicinity of the culvert on the east to the old Viola Road on the west. A second, lower stone retaining wall lines the eastern side of the north-south maintenance road and demarcates the boundary between the maintenance yard and the seasonal employee housing cluster. The junction of these two walls defines the northwestern extent of the maintenance area (see photo, Topography # 5).

Residential Area:
As mentioned above, the alignment of the residential road was determined by the location of building sites. In the residential area, where it was necessary to cut into the slope to construct the residences, stone retaining walls, both dry laid and mortared, were constructed in numerous locations. These include a low wall along the northern border of the parking area to Building 2, another low wall was built to the south of Garage 3, a low, dry laid stone wall east of Garage 9, a dry laid stone wall behind Residence 10, and a small dry laid wall east of the driveway to Garage 7. These structures appear to date from the period of significance, are generally in good condition, and are contributing landscape characteristics (see photo, Topography #2 [Building 2]; and Topography # 6: [Building 10]).

The cuts and fills associated with the section of the residential road, the driveways and building sites serving the cluster of Mission 66-era housing east of the Viola Road are considered non-contributing.

Summary

Despite later building programs, particularly the Mission 66-era residential development on either side of the Viola Road, the topography of the site continues to reflect the original landscape design developed during the historic period and is a contributing landscape characteristic.

Topography #1: Driveway to Building 2 under construction. Note alignment of main residential road. Building 8 is visible to the left. Looking northeast, 1937. (LAVO-N-27-22)

Topography #2: Stone retaining wall holding up cut along northern border of parking area, Building 2. Looking east, 2001. (LAVO-S-33-8)

Topography #3: Upper end of residential road where it crosses the meadow, looking west, 2001. (LAVO-N-27-7)

Topography #4: Drainage ditch and culvert at upper end of residential road. View looking south, 2001. (LAVO-S-33-31)

Topography #5: View toward junction of maintenance area east retaining walls, looking north, 2001. (LAVO-S-35-4)

Topography #6: Dry laid stone retaining wall was constructed to shore up cut behind Building 10. View looking east, 2001. (LAVO-N-28-6)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Cut and Fill Sections on Residential Road	Contributing			
Cuts behind Building two, and residences six, eight, ten and eleven.	Contributing			

Spatial Organization

Spatial organization is defined as the three dimensional organization of physical forms and visual associations in the landscape, including the articulation of ground, vertical, and overhead planes that define and create spaces. Spatial organization includes the elements that shape circulation systems, views and vistas, areas of land use, natural features, cluster of structures, and division of property.

The Mineral headquarters is located at an elevation of 4850 feet and is surrounded by the Lassen National Forest. State Highway 36 traverses the southern section of the headquarters property, with the majority of the eighty-acre tract located to the north of the highway. A consistently gentle southwestern slope characterizes the site, and a dense conifer forest covers most of its eighty acres as well as adjacent lands. A perennial stream courses through the meadow that lies at the center of the site. Development surrounds the meadow, which is a picturesque expanse of native sedge, mixed grasses and wildflowers in the midst of a coniferous forest.

The greater extent of the headquarters property is made visible to motorists on State Highway 36 by a rustic, split-rail fence that generally delineates the southern, eastern and western boundaries of the headquarters property boundaries. Views into the landscape from the highway present passersby with a perspective on the administration building and the meadow behind. Heavy understory tree cover obscures views of the remainder of the built environment.

There are two roadways entering the headquarters area from the highway; the main driveway to the administration building, parking lot and residential enclave, and the old Viola Road, located to the west of the main entrance, and which leads directly to the maintenance area as well as the Mission 66-era housing development. Both roads follow a continuous, though gentle incline toward the north. Where the residential road crosses the upper meadow, it achieves a generally level elevation. The residential road arcs around to the northwest to its junction with the western edge of the maintenance yard. The Viola Road joins State Route 36 at a ninety-degree angle. It starts out at a more level elevation and then climbs on a straightaway toward the maintenance yard.

The site's gently sloping topography, vegetative cover and its adjacency to State Highway 36 were the main controlling factors in the Mineral headquarters area landscape design. These factors influenced the system of circulation within the landscape, as well as the location of clusters of buildings and structures. Natural features such as the coniferous forest, mountain meadow, stream, and overall southwestern slope to the topography combined to define spaces and helped establish the spatial organization of the historic designed landscape.

The meadow is the central organizing feature of the Mineral headquarters landscape in terms of spatial organization. It is the natural feature around which all development occurred. Its open character in the midst of the conifer forest provides views, shaped the headquarters circulation system and effected the location of building clusters.

The spatial organization of the Lassen Volcanic National Park Headquarters Historic District continues to reflect the site's original landscape design and is a contributing characteristic of the cultural landscape.

Vegetation

The following section analyzes vegetation, including deciduous and evergreen trees, shrubs, vines, ground covers and herbaceous plants and plant communities, whether indigenous or introduced in the landscape.

The Mineral headquarters area is located at an elevation of approximately 4850 feet and is surrounded by the Lassen National Forest. A mixture of sugar pine, Jeffrey pine, white fir and Douglas fir as well as ponderosa pine and incense cedar trees comprise the yellow pine forest plant community in which the headquarters is located. Although evergreens predominate, deciduous trees, including canyon live oak and black oak, contribute to the diversity of the forest. In addition, numerous shrubs and wildflowers occur in the mixed conifer zone of the headquarters area. Soils are almost exclusively volcanic in origin. (NPS: LAVO: RMP:1994:9)

For the purposes of this discussion, the headquarters vegetation can be divided into three distinct areas and types: the conifer forest; the meadow; and areas that were planted as lawns. Generally speaking, lawns surround the administration area and the historic residences; the meadow occupies the center of the headquarters developed area, extending uphill and to the northeast of the administration building; and the forest encircles the meadow and extends to the site boundaries. Historic photographs reveal little change to the general pattern and massing of headquarters vegetation with the exception of the increased density of the conifer forest.

Park master plans and landscape architects' reports dating from the period of significance indicate the site's natural vegetation influenced the scale, location and character of specific construction projects and general site development. For instance, the alignment of the residential road was laid out to serve future building sites but the location of existing vegetation also affected the road's alignment. Designers located the road so as to "avoid taking out any more trees than [was] absolutely necessary" (Superintendent's Monthly Report, December 1930, LVNP). Photographs taken shortly after its construction show the extent of mature trees preserved adjacent to the road. (see photo, Vegetation #1).

The principal landscape qualities that characterize the site—the meadow, the heavy conifer forest and the seasonal stream through the meadow—convey a "natural" appearance, although these landscape characteristics were in fact carefully managed and, in a sense, designed. The "natural," vegetative qualities of the site were carefully controlled to create a picturesque landscape that alternated between a conifer forest and open meadow, and extra measures were taken to preserve the meadow and to improve the appearance of the surrounding forest. The meadow, which was identified in original site development plans as an important scenic characteristic of the headquarters landscape, was modified during initial site development. The creek that ran through the site was culverted during construction of the residential road, effecting the meadow's hydrology. This diversion of the creek through several culverts most likely had an influence on the spread of the forest that has encroached on the meadow over the years. The park's 1966 Master Plan notes a distinction between the meadow area where it is bisected by the residential road, and suggests how, over time, the hydrology of the whole meadow has changed since original plans showed no distinction between the qualities of the upper and lower meadow areas. The meadow space south of the road on the 1966 Master Plan is drawn as an open area, while the meadow area north of the residential road is indicated as a "swamp" (see Supplemental Information #4). Efforts were also taken to heighten the visual appeal of the meadow. One of the landscape's principal designers, Merel Sager, noted during the period of initial site development that "some of the stones have been removed from the upper end of the meadow to give the grass and wildflowers a better chance" (Report to the Chief Architect, August 1931, LVNP).

In addition to attempts to improve the appearance of the meadow, forest clean up projects were regularly conducted. CCC laborers were routinely assigned to forest maintenance jobs, removing dead trees, snags, and downed branches from the forest floor, creating a neat, though still natural-looking, forest scene. Emergency Conservation funds supported this program of forest beautification, which had an important safety component to it as well: fire hazard reduction. Between May and November 1933, CCC crews concentrated on clean up of the entire eighty-acre site. The final report of this work noted that "The area, long in need of this type of work, was greatly improved in appearance as a result of the CCC activities. Included in the project was the removal of stumps . . . resulting from insect control work; removal of snags, cleanup of debris; removal of logs, etc. With the removal of all debris, logs, snags, etc., the area was naturally much safer from the fire hazard point of view" (Emergency Conservation Work, LVNP, Narrative Report, May-November 1933). This work continued the following year when, in the summer of 1934 crews from the Sulphur Works CCC Camp spent 172 man-days on headquarters landscaping work, "remov(ing) stumps which (had) a tendency to improve the general landscape of the area." The forest understory cleanup work also created a ready supply of firewood to heat the residences, as "logs suitable for firewood were saved and cut up." (Quarterly Narrative Report, Southwest Camp NP-2, LVNP,1934).

No formal landscape plans were discovered during the research for this report, however, it is unlikely that any detailed planting plans were ever developed for the site. Formal landscape features such as ornamental trees or garden areas would have been incompatible with the "naturalized" landscape park service designers were creating. With the exception of lawn areas, which are irrigated and mowed, natural processes control the remainder of the landscape's vegetation.

Forest

An aerial photograph taken in the 1980s indicates the scale of the mature conifers and the density of the forest, which is in stark contrast to adjacent property where logging has occurred through the years and tree cover is much thinner (see photo, Vegetation #2). Some of the mature trees in the headquarters landscape exceed diameter widths of several feet, and reach heights of over one hundred feet. These trees are tangible, visible links to the original designed landscape and are contributing features of the Mineral headquarters area cultural landscape.

A few Black oak and Canyon Live oak trees are found in the transition zone between the forest and the meadow; however, no mature oak trees were located during the site visit. Oak trees that were identified are relatively young trees that have stump-sprouted. According to park staff, oak trees in the headquarters area were routinely cut down for use as firewood during the historic period. Today, few oaks reach diameters of more than two inches. These existing oaks, though young, appear to descend from material that dates to the period of significance and therefore should be considered contributing.

Several trees have been identified either through consultation with park staff or through evidence in historic photographs as potentially historic vegetation dating from the period of significance. These include a cedar tree on the front lawn of the administration building, a poplar tree adjacent to the Science Building and a plum tree to the southeast of Building 13. The cedar tree on the administration building lawn is consistent with landscaping projects dating from the period of significance (see photo: Vegetation #6).

Further research is required in order to establish whether the plum and poplar do indeed date from the historic period. The specimen blue spruce in front of the administration building is not consistent with historic tree species found on the site, has not been identified in period photographs and is not a significant component of the historic vegetation and does not contribute.

Meadow

The meadow behind the administration building, which provides a picturesque backdrop to the rustic administration building, has been a key component of the landscape dating from the historic period and was influential in developing an overall site plan for the headquarters area.

Due to the rapidly draining and acidic nature of the soils on the site, the location of water defines the patterns of vegetative growth in the meadow area. Since underground springs adjacent to the headquarters area, located uphill and to the north, (See Photo, Vegetation #3) provide a seasonal source of surface water at its outflow, varied vegetation is found where the water courses downhill through a series of culverts to drain south of Highway 36. Along this stream and at the edges of the drainage ditches, shrubs and a variety of grasses and wildflowers are found in profusion. Willow, wild ginger, cow parsnip, and horsetail, among other native species, thrive in these locations (see photo, Vegetation # 4).

In addition to the grasses, sedge and wildflowers growing in the meadow, and the shrubs along the stream, vegetation in the meadow includes a group of ponderosa pine trees. These young trees are located at the southern edge of the meadow, just north of the drainage ditch abutting the parking area to the rear of the administration building.

The vegetation in the meadow includes native sedge and wild rose, as well as deciduous shrubs, such as gooseberry currant, bunchberry elder and serviceberry. Willows occur on the banks of the meadow stream, along drainage ditches adjacent to the Old Viola Road, and near culverts on the residential road as well as adjacent to the administration building driveway. Flowering native species in the meadow include shooting stars, California buttercups, bleeding hearts, chocolate lillies and columbine.

The meadow, which retains the natural qualities that were carefully protected during site development, is a key contributing landscape characteristic.

Lawn Areas
Lawn areas surround the administration building and several of the historic residences. These lawn areas have been regularly watered and mowed from the time they were planted during the period of significance. They are integral components of the historic designed landscape and should be considered contributing.

Historic photos record shrubs planted around the foundation of the administration building, however, it is not clear whether native or non-native plants were used (see photo, History #3). No photographic documentation was located during research for this report that showed what material was originally planted in residential foundation planting beds, however, it is likely that shrubs and vegetation similar to what was used at the administration building were planted around the foundations of the residential buildings. This would have provided continuity in landscape treatments to complement the district's architectural unity. Despite the lack of specific information with respect to location, massing, and materials used in planting programs, a 1935 report by landscape architect Noble Hoggson suggests the overall coherence designers strove to achieve in terms of landscape treatments. He noted that because of the priority given to construction and maintenance projects "any small planting jobs which might have been squeezed in were definitely postponed until a comprehensive program could be organized and a planting crew could do the entire program systematically" (Report, Hoggson to Vint, June-October 1935, LVNP).

Presently, non-native species including ornamental shrubs such as azalea and lilac are planted around several of the historic residences. Native wildflowers, including columbine and bleeding heart are also found in residential foundation planting beds, and are probably planted. Planting beds occur at Building 2, Building 4, Building 6, Building 8 and Building 11. Due to the lack of specific information, and the

fact that the foundation bed structures do not appear to date from the historic period, these landscape features, unless proven otherwise, should not be considered contributing.

In addition to the three distinct vegetation areas discussed above, a transition zone exists between the forest and the meadow. Historic photographs provide important information about changes in the character of the forest and reveal that, over time, the surrounding forest has filled in and is considerably more dense than was the case in the early 1930s (see photo, Vegetation #1). A comparison of two photographs, one dating from 1956 and the other from 1963 clearly reveals the gradual process of forest encroachment on the open space of the meadow (see photos: Vegetation #4 and Vegetation #5). Park staff report that no active forest management or maintenance practices are pursued, as the forest is given over to natural processes. Accordingly, the forest cover has increased in density and will continue to invade the meadow if no measures are taken to control its spread.

SUMMARY
The Mineral headquarters area still retains the character and feel of the landscape reflected in photographs and plans from the period. The primary landscaped areas include the administration building lawn, residential area lawns and foundation planting beds.

Although the plantings around the buildings have matured and changed over time, (such as the shrubs and trees planted in front of the administration building) the location and scale of the materials retain their general appearances and, therefore, the vegetation of the headquarters area retains integrity as a contributing landscape characteristic.

Vegetation #1. Newly constructed residential road in 1930. Note extent of mature trees preserved in the landscape. Looking north, 1930. (LAVO-N-0026-22)

Vegetation #2: Aerial view of headquarters developed area, 1981. North is to the top of the picture. (LAVO-N-0026-32)

Vegetation #3: Spring located along the norther perimeter of the headquarters property, looking southwest, 2001. (LAVO-DSCN-3672)

Vegetation #4: Drainage ditch along parking lot behind Administration Building, looking west, 2001. (LAVO-DSCN-3677)

Vegetation #5: View of meadow and forest, with Building 4 and 10 visible in the background. Looking northeast, 1956. (LAVO-N-26-10)

Vegetation #6: View of edge of meadow, with Building 4 and 10 visible in the background. Looking northwest, 1963. (LAVO-N-26-26)

Vegetation #7: Front lawn with plantings, 1936. (LAVO-N-26-25)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Cedar tree on front lawn of Administration Building	Contributing			
Forest	Contributing			
Lawn Areas	Contributing			
Meadow	Contributing			
Plum tree southeast of Building 13	Contributing			
Poplar tree adjacent to Science Building	Contributing			
Blue Spruce in front of administration building	Non-Contributing			

Circulation

For the purposes of the CLI, circulation is defined as the spaces, features, and applied material finishes that constitute systems of movement in a landscape.

The circulation system within the Mineral headquarters area consists of several components dating from the period of significance. These include the main residential road and spur road, the dirt road leading from the residential spur road to the reservoir, maintenance area roads, and the Old Viola Road. In addition to these roads, driveways, parking lots and walkways complete the circulation system of the Mineral headquarters area.

The circulation system was designed to accommodate a variety of land use activities, and was organized to provide a system in which these activities could take place efficiently, without interference, and within a relatively compact space. For example, the residential road offers drivers direct access to the residences without being forced to share the road with maintenance vehicles. Alternatively, trucks and heavy equipment may access the maintenance area without traversing the road through the residential area.

Following is a discussion of each of the elements of the headquarters area circulation system.

Roads:
Headquarters Entrance
Originally, a turnout with parking spaces and a landscaped island was located along State Route 36 to provide parking spaces for park visitors (see Plan, Supplemental Information #1). A sidewalk ran from the turnout straight to the front porch of the administration building. This walkway was realigned when the east wing and front porch of the administration building was added in 1940. In the mid-1950s, the vehicular entry to the headquarters area was redesigned as State Route 36 was widened, and the turnout was removed. Access to the headquarters area is now accomplished via a right angle turn from State Route 36 (see photo, Circulation # 1).

Residential Road
In 1930, a road was built extending from the foot of the superintendent's house to the maintenance area, and arced to the northwest along the east edge of the meadow. It was surfaced with gravel and oil in 1930 and 1931. It was built to 1929 Forest Highway standards, extended approximately 1,450 feet, and was eighteen feet wide. In 1937, it was paved with asphalt (Development Outline, Park Headquarters, January 1946 DSC-TIC LAVO-3066-I, Supplement IE). Along the length of the residential road, driveways connect with residential garages at Building 4, Building 6, Building 8, Building 10 and Building 11 (see photo, Circulation #2).

The original superintendent's house, which was destroyed by a gas explosion in the winter of 1937, was located to the northeast of the parking lot behind the administration building, at the edge of the meadow. A driveway and turn-around led from the administration building parking lot to the superintendent's garage. This road was removed when the superintendent's residence was rebuilt further to the east in 1937.

A driveway was constructed to connect the new superintendent's residence (now, the Science Center, Building 2) in 1937. To the rear of the building the road widens to form parking and turn-around space (see photo, Circulation #3).

Road from Administration Building to Maintenance Area

A road between the administration building and the maintenance area was planned in 1940; however, the residential development along it dates from Mission 66 and later. Its alignment completes a loop with the residential road, and allows traffic to circulate between the administration building, the residences and the maintenance area. Driveways were constructed to provide access to the houses that were built along this new addition to the residential area on the west side of the meadow.

Although the exact date of the road's construction was not discovered during research for this report, it probably dates to the mid-1950s when the entry driveway was realigned and the visitor parking area was redesigned. Further research would most likely reveal the precise date of this road's construction and the influencing factors in its design. Since this road post-dates the period of significance, it is considered noncontributing.

Residential Area Spur Road
Just north of Building 11 in the historic residential area, another road branches off to the southeast, ending in a loop near Building 31, the seismograph station. The construction and grading of this road was completed in 1930, concurrent with the main residential road, and was surfaced with oiled gravel. The spur road leads from the main residential road to the southeast, for a distance of 830 feet, and terminates in a cul-de-sac. Today, it is paved with asphalt (see photo, Circulation #4).

This road was designed and located to serve proposed employee housing, however, no residences were constructed along its length. Plans for additional houses here were abandoned by 1946, when the park's development outline indicated that "no permanent quarters [are] contemplated off [the] spur road." The seismograph building, built in 1938, is located below the level of the residential spur road, its northeast end recessed into the slope.

Reservoir Road
A road takes off to the north from the residential spur road, past the chlorinator house, and leads to the reservoir in the northeast corner of the headquarters area, where it terminates (see photo, Circulation #5). The road is paved for the first approximately fifty feet of its length, and then becomes a dirt road. This road dates from the period of significance, is in good condition, and is a contributing feature in the circulation system of the headquarters area cultural landscape.

Old Viola Road
When the National Park Service acquired the eighty-acre headquarters parcel from the U.S. Forest Service in 1928, State Route 36, a major east-west regional transportation corridor, and Viola Road, a low-standard local road, cut through the site from east to west and north to south, respectively. The headquarters' location fronting State Route 36 allowed for convenient, year-round access via a high-standard highway, regardless of weather conditions. Viola Road, which cut through the western third of the site, was less efficient and encumbered the circulation system; maintenance crews shared access to both the state highway and the maintenance yard itself with through traffic, including logging trucks and other commercial and private passenger vehicles. Moreover, its low-standard construction as a graveled county road was insufficiently designed to remain passable following periods of heavy rain or snowmelt.

Old Viola Road runs north-south through the headquarters site for a distance of approximately 800 feet. In 1965, Tehama County realigned Viola Road, re-routing it to the west of the headquarters boundary. The park continues to maintain the historic portion of this road, now called Old Viola Road, which lies within its boundaries. The relocation of Viola Road was a major alteration to the headquarters circulation system, and a significant safety improvement. It serves as the principal access route to the maintenance area, as well as the most direct means to reach the Mission 66 residential development. The Old Viola Road is now paved with asphalt, and is in generally good condition. It is a contributing

element in the circulation system of the headquarters area cultural landscape (see photo, Circulation #6).

Maintenance Area and Associated Roads
Paved surfaces bound the maintenance area on four sides, creating a generally rectangular area within which maintenance activities are carried out. The asphalt-paved roads that enclose the maintenance area were constructed between 1938 and 1940. It was during this time that the space known as the utility area on the west side of Viola Road was reconfigured on the east side of Viola Road and was renamed the maintenance area.

In 1940, the existing maintenance buildings were moved to the new site, which was defined by a surfaced area bounded by Buildings 24 and 23 on the north and Buildings 22, 21, and 20 on the south. A lower road ran east-west from Viola Road to meet with the residential road. The upper road ran east-west along the northern boundary and joined the existing road (built in 1938) on the west side of Viola Road just west of Building 27. A north-south road connected the upper and lower roads just east of the new maintenance yard. The three new roads, and Viola Road, created a rectangle that enclosed the principal maintenance buildings. These roads are contributing elements of the headquarters area circulation system.

Administration Building Parking Lots
An asphalt-paved parking area with space for twelve cars is located immediately inside the entry to the headquarters area, perpendicular to State Route 36. Its precise construction date is unknown; however, it most likely dates to circa 1957 when the entry driveway was realigned. This parking lot replaced the original visitor parking area, which provided space for approximately twenty-five to thirty cars in front of the administration building and was outlined by log and rock barriers and a split rail fence.

A parking area, measuring approximately 73 x 100 feet, was built in 1931 behind the administration building. In 1946, NPS planners noted that this parking lot "is very convenient and . . . out of site of [the] highway" (Development Outline: Park Headquarters, January, 1946, LAVO). A log barrier originally surrounded the parking lot, but these barriers no longer exist. The parking area was slightly reconfigured in the 1950s to accommodate the new road leading from this parking lot to the maintenance area.

Parking Lot at Maintenance Area
The quadrangle formed by the buildings in the maintenance area is used for circulation and parking. This entire area was resurfaced in 1937 with asphalt when maintenance buildings were relocated to this site from the west side of Viola Road.

Footpaths
A ninety-foot-long stone walkway was built to connect the visitor's parking area to the front steps of the administration building. Though its exact construction date is unknown, it appears in photographs dating from the period of significance (see photo: Vegetation #6). Around 1957, the entry drive and visitor's parking area at the administration building were reconfigured; the existing turnout was removed, and a new visitor parking area was located along the west side of the headquarters road. At that time the sidewalk was realigned and now curves southeast from the front porch to the visitor parking area (see photo: Circulation #7).

Stone walkways, or footpaths, also lead from the historic residences to their associated driveways or garages. The CCC constructed many of these walkways in 1938. The stone walkways appear in a variety of configurations, although their materials are consistent. Walkways lead from the front porches of Buildings 8 and 10, and make abrupt right-angle-turns leading toward the driveway shared by these

two residences. A walkway extends from the front porch of Building 6, curves to the east, and leads to the building's snow corridor adjacent to its garage. A walkway at Building 11 leads straight from the front porch to the residential road. The walkways are in good condition and are contributing features in the circulation system of the headquarters area cultural landscape (see photo, Circulation #8).

During the period of initial site development, a dirt footpath from the rear of the administration building provided alternative access to the maintenance area. A development plan dated 1947, proposed removal of this path, replacing it with a paved road. At an unknown date, but most likely sometime in the mid- to late-1950s when the entry drive was realigned, a roadway was built between the rear parking lot of the administration building to the Viola Road, replacing the dirt footpath with an asphalt-paved road.

SUMMARY

The system of circulation established during the historic period to link the administrative, maintenance and park housing areas continues to function according to its original design. Changes to the circulation system which occurred following the period of significance, including the relocation of Viola Road and a redesigned entry drive, were modifications that essentially complied with the original design intent to create an orderly, efficient system of movement in the landscape. The circulation system retains integrity, and is a contributing landscape characteristic of the Mineral headquarters historic district.

Circulation #1: Entry driveway to administration building parking area, viewed from State Highway 36, looking north, 2001. (LAVO-N-29-12)

Circulation #2: Residential road, showing Buildings 12 (garage) and 11, looking northwest, 2001. (LAVO-S-33-13)

Circulation #3: Building 2 driveway and parking area, looking northwest, 2001. (LAVO-N-29-19)

Circulation #4: Residential spur road cul-de-sac, looking northeast, 2001. (LAVO-S-43-14)

Circulation #5: Junction of residential spur road and road to reservoir, looking north, 2001. (LAVO-S-34-17)

Circulation #6: Junction of Old Viola Road and State Highway 36, looking north, 2001. (LAVO-N-27-17)

Circulation #7: Walkway from administration building parking lot, looking north, 2001. (LAVO-S-34-26)

Circulation #8: Stone walkway leading to residential road from Building 11, looking northeast, 2001. (LAVO-S-33-15)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Administration Building parking lots	Contributing			
Maintenance Area and Associated Roads	Contributing			
Old Viola Road	Contributing	Old Viola Road	56796	LF15
Reservoir Road	Contributing	Reservoir Road	248041	
Residential driveways	Contributing			
Residential Road	Contributing	Mineral Residential Road	56798	LF17
Residential Spur Road	Contributing	Residential Area Spur Road	56800	LF19
Walkways	Contributing	Residential Footpaths	249557	
Road from administration building to maintenance area.	Non-Contributing			

Buildings And Structures

BUILDINGS
The buildings in the Mineral headquarters area are outstanding examples of National Park Service rustic architecture, a building style developed for the national parks in the early decades of the twentieth century. The buildings communicate a rustic aesthetic in their scale, massing, materials and finishes. They were carefully sited to blend into natural topographic contours, and structures such as retaining walls, drainage ditches, culvert headwalls, walkways and fences adopted material finishes to complement the surrounding mountains and forest lands and referred to regional building traditions.

The residences built during the period of significance share common design features, although certain details, such as specific floor plans, vary, thus endowing each structure with its own individuality and charm. Gabled front porch extensions, stone-veneered foundations and chimneys are common characteristics, and most houses have casement windows, which appear in a variety of configurations. Maintenance buildings were similarly designed to comply with a rustic aesthetic, and feature steeply pitched gable roofs, shed dormers, and wood siding painted dark brown. The following is a summary architectural description of the headquarters area contributing buildings and structures. This information is based on the Lassen Volcanic National Park Headquarters Historic District Consensus Determination written by PGSO Historical Architect Robbyn L. Jackson.

CONTRIBUTING BUILDINGS
Administration Building – Building 1:
The administration building was built in 1928 and was expanded three times between 1928 and 1940. Originally an L-shaped structure, the west wing was expanded in 1932 with an addition that included men's and women's bathrooms and an enlargement of the superintendent's office. A back porch was added in 1935. In 1940, an east wing was added and the basement was also expanded. The new east wing had a wood shingled dormer on the south side, and a similar dormer was added to the west wing and the eave was extended. The front entrance porch in the north wing was enclosed to expand the lobby and a new stone porch was added to its east side. Stone veneer was applied below the windows on the front and on the exposed concrete foundations. Today, casement windows in a variety of sizes ranging from single, double, triple and quadruple units are trimmed in mushroom-colored paint. The shingled roof, with shed dormer windows, is painted green. A central stone chimney was built of material similar to the rock veneer along the building foundation (see photo, History #4). The roof received damage resulting from a heavy snowload during the winter of 1993, and was replaced the following summer.

Science Building– Building 2:
The science building is located to the northeast of the administration building, on the top of a small hill, which is reached by a separate driveway from the main residential road. A garage is located at the southeast side of the building. The CCC built both structures. The science building was originally built in 1937 to be the superintendent's residence. In 1938, the garage (Building 3) was built. The house is a two-story gable roofed structure, with concrete foundation and stone veneer up to five feet high. Exterior walls are covered in a horizontal lap siding painted dark brown, and board and batten was used on the gable ends and on the entry porch. It has two stone chimneys, and the trim on the double hung windows is painted a mushroom color. The building also has a staircase leading to the porch and a rear patio; both constructed of native stone.

Garage – Building 3:
The garage for the superintendent's residence is a gable roofed concrete structure with stone veneer with decorative vertical siding in gable ends. It was built in 1938, and is 572 square feet, with a wood garage door on the west side and windows on the north and south sides.

Residence - Building 4:
Built in 1930, this residence is a two-story structure with lap siding painted dark brown, a steep gable roof with overhanging eaves, and a concrete foundation with stone veneer. Trim around double and triple six light casement windows is painted a mushroom color. The residence is 1350 square feet and has a brick chimney. The cedar shakes, which replaced the original sugar pine roof shakes, are painted green.

Garage – Building 5:
Built in 1930 as a garage for Building 4, this building is a two-room, single story building with a steep gable roof. It is connected to Building 4 via a snow corridor structure which is of wood construction painted dark brown. There is a sliding front door for vehicle access. The wood shake roof is painted green, and five-light casement windows are trimmed in a mushroom color. It received a new foundation and an upgraded structural system in 1995.

Residence – Building 6:
This building was constructed in 1932 and, at 1240 square feet, is slightly smaller than its neighbor, Building 4. In all other respects the residence is similarly designed, featuring a steep gabled roof, stone veneer on a concrete foundation, and dark brown painted lap siding with patterned wood shingles in the gable ends. It has a gable roofed front porch and two stone chimneys. Windows are six-light casement windows. It is connected to its garage (Building 7) via a snow corridor structure, which is of wood construction, also painted a dark brown color.

Garage – Building 7:
Originally built in 1932, this 700-square-foot garage was moved closer to the road in 1938. It is a single story, 2-room structure with a steep pitched gable roof. Exterior lap siding is painted a dark shade of brown. It has a sliding garage door. In 1994, it received a new concrete foundation and floor, and an upgraded structural system.

Residences – Buildings 8, 10, and 11:
These three residences are nearly identical in design and are situated in a row, along the north side of the residential road. They are oriented to the southwest, facing the meadow (see photo, Buildings and Structures #1).

Residence -- Building 8 – This house was constructed in 1932, has a steeply pitched gable roof, and lap siding with board and batten in its gable ends. It is painted a dark brown color and the trim is a shade of mushroom. It has a gable roof over the front porch and a stone veneer extends three feet high on its concrete foundation. It is connected to its garage, building 9, via a snow corridor.

Garage -- Building 9 – This garage, shared by Buildings 8 and 10, was built in 1932. It is a three-room structure with a steep gable roof, covered in roof shakes painted green. Its exterior lap and board and batten siding is painted dark brown. It has side doors to reach the vehicle stalls, and two four-light windows on the rear, north and south sides. It received considerable snow damage to its roof in 1993, and was rehabilitated in 1994, with a new concrete floor and foundation and an upgraded structural system.

Residence -- Building 10 – This house, like Building 8 is a one and one-half story residence. Brackets support overhanging eaves extending from a steeply gabled roof. The exterior walls are painted a dark brown color and are finished in lap siding to the sills and board and batten above. A stone veneer covers the concrete foundation. Casement windows are painted a mushroom color. Building 10 shares its

garage (Building 9) with Building 8 and is connected to the garage by a snow barrier.

Residence -- Building 11 – This residence is uphill and opposite the road from Residence 6. It was built in 1940, and, like Building 10 features lap siding up to the sills and board and batten above. It has six-light casement windows, symmetrically arranged and paired. It is connected to its garage (Building 12) by a removable snow corridor, which, as with the snow corridors connecting Buildings 8 and 10 with their shared garage, features a small window. Window trim is a mushroom color, while exterior walls are painted dark brown. Also, like the other residential structures, its steeply gabled shingled roof is painted green.

Garage -- Building 12 – This garage for Building 11 was built in 1941, is 640 square feet, and has a stone veneer over its concrete foundation and a concrete floor. The gable roof is finished in shakes painted green, and its exterior lap sided walls are painted dark brown.

Residence -- Building 13 – Built in 1942, this residence was the final residence built during the period of significance. Its color scheme—dark brown paint with mushroom trim—is similar to the earlier residences built in the headquarters area; however, its massing is quite different. A garage addition in 1960 created an L-shaped footprint, and the roof slope is less acute than the roofs of the earlier buildings. It has two stone chimneys and a concrete patio (added following the period of significance) at the rear. It is located almost directly opposite the administration building, at the far north end of the residential road. Like the other residences, it is oriented to take advantage of southern views to the meadow, although its main entry faces north. The garage and kitchen received structural upgrades in 1994 after suffering snow damage.

Dormitory (Apartment) -- Building 14 – This building, now known as the Dormitory (or apartment house), is one of the earliest buildings erected at the park headquarters area. It was originally constructed as a bunkhouse and mess in 1929, but was converted to a dormitory in 1938-39. CCC labor was used for the conversion project, and alterations included a shed dormer added to the north side, and an exterior stair at the rear (south side). A new chimney was also built. It is 2,300 square feet, has a stone pier foundation, a shake-covered gable roof, and dark brown lap siding with mitered corners on the exterior, gable ends, and dormers. The building has two brick chimneys. It is painted a dark brown color, and the trim is painted mushroom. In 1999 it received a new concrete foundation which replaced the stone pier foundation.

Seasonal Ranger Residence -- Building 16 – This small, 540-square-foot building was built in 1930 as temporary quarters and is used as a seasonal residence. A bathroom was added in 1937, and in 1942 it was expanded again, with the addition of a new bedroom, service porch and closet. The original section of the building has a stone pier foundation and the addition has a concrete foundation. It has a steeply pitched gable roof, and exterior walls are covered in shingle siding in an alternating pattern. A shed roof shelters the porch. The roof structure was strengthened in 1994.

Seasonal Ranger Residence – Building 17 -- This building was also built in 1930, and, like Building 16, it served as temporary quarters. In 1943, the attic was converted into a bedroom, and exterior stairs and service porch on the rear were also added. In 1955, an addition created an L-shaped footprint, when a bedroom was added to the residence. The building lies on a stone pier foundation, and is clad in wood shingle siding and has a steep gable roof.

Wash House – Building 19. This 304-square-foot structure was built in 1934 as a comfort station to accommodate residents of the nearby seasonal ranger cabins: five cabins were originally planned but only two were built. The exterior walls are finished in a combination of lap and board and batten siding,

painted dark brown (see photo, Buildings and Structures #2).

MAINTENANCE AREA BUILDINGS
The maintenance area was originally located to the west of the Viola Road, and was moved to its present location and reconfigured in 1940. The cluster organization of the maintenance area buildings and its designed circulation system was based on an east-west, axial arrangement of buildings. The buildings in this group, although altered, retain integrity dating to the period of significance and are contributing features in the Mineral headquarters area cultural landscape. Following is a brief architectural description and construction outline of each of the maintenance area buildings.

Protection Division Storage – Building 20 – The CCC built this 2,832-square-foot building in 1942, based on a design created by NPS architect Cecil Doty. It is a two-story, gable-roofed structure of frame construction, finished in lap siding with mitered corners, painted dark brown. The window trim is mushroom colored. Its shake roof is painted green.

Service Station – Building 21 – This building was constructed in 1932 as a service station, and is now used for storage. The building has been moved two times, and was relocated to its present location in 1941 when the maintenance yard was reconfigured. Its steeply sloping gable roof extends approximately twelve feet from the front of the building to form a porte cochere, which once sheltered the gas pump that has since been removed. Its exterior finishes match the other historic buildings in the headquarters area—lap siding with board and batten in the gable ends, painted dark brown, and window trim painted mushroom. Its shake roof is painted green. The building is rectangular in plan, and measures approximately twelve by eighteen feet.

Warehouse and Maintenance Office – Building 22 – Originally constructed in 1930 as an equipment shed, this two-story building, with 2,250 square feet on each floor, was converted to a warehouse by the CCC in 1935. It is of frame construction on a concrete foundation and has lap siding with mitered corners on the exterior walls and gable ends. Shake shingles cover its gable roof. A loading platform constructed of concrete and wood was built along its south side and is sheltered by a low-pitched shed roof. It was converted in 1942 into the Plumbing, Electrical and Carpenter Shop, but was subsequently returned to use as a warehouse and maintenance office (see photo, Buildings and Structures #3).

Machine Shop -- Building 23 – This building was originally constructed in 1929 on the east side of the original maintenance area, and was relocated to its present location in 1940, when a thirty-six by thirty-one-foot blacksmith shop was constructed as an addition to the building. In 1967, an addition was added to the west end of the building. It is a two-story, five-bay gable roofed structure with a two-story cross gable addition on the west end. The building has 3,034 square feet on the ground floor and 2,944 on the second floor. It is sided in horizontal lap siding painted brown, and features two-over-four light windows in groups of three. The trim is painted mushroom. One garage door is original, which is located on the east end, and the others are replacements, made of metal.

Equipment and Storage Shed – Building 24 – This building was built in 1930 in the original location for the utility area, and was moved in 1941 to its present location. It is a two-story structure with six equipment stalls, two of which retain their original doors. It has a steeply pitched gable roof, and horizontal lap siding, except for the shed roofed addition on the north side, which is board and batten. It is painted a dark brown, and trim is painted the same mushroom color as the other buildings in the headquarters area.

Garage and Storage Building – Building 25 -- Built in 1939 in its present location as part of the newly reconfigured utility area, this wood frame building has five rooms, with 2,575 feet on each of its two

floors. The storage building and garage has seven equipment stalls with sliding doors. A shed dormer extends from the south side of the gable roof, and has shake shingles. Exterior walls are finished in lap siding painted dark brown with mitered corners on both the exterior walls and the gable ends. Trim is painted mushroom.

Roads and Trails Building – Building 26 – Built in 1935, this building was originally erected slightly southeast of its present location on a north-south axis. In 1936, a CCC project added three shed dormers on its south side, resulting in cot space for eighteen to twenty men, modern toilets, lavatories and showers. The building is of frame construction on a concrete foundation, and its exterior has lap siding with mitered corners on both walls and gable ends as well as on the dormers. An exterior stairway to the second floor is located on the east end; its northern end houses five equipment stalls. It was moved to its present location and placed on a new foundation in September 1940.

Carpenter Shop (Winter Workshop) – Building 27 – CCC laborers constructed this building in 1938 using materials salvaged from the dismantled Sulphur Works CCC camp. It is a single story building on a concrete foundation. It has a steeply pitched corrugated metal gable roof, and two-over-three-light casement windows. In 1970, some foundation work was done, but it needs a new foundation in order to withstand heavy snows. The roof structure was upgraded in 1994 after snow damage.

Electric Shop – Building 28 – Park building maintenance files indicate that this building was built in 1933 to house a five-kilowatt Kohler Automatic Electric plant. It was originally located in the meadow, about 480 feet north of the administration building; the building was moved to its new location in 1941 and set on a new foundation. It is a one-room structure, measuring fifteen feet by fifteen feet, and has a corrugated metal gable roof. The building has horizontal lap siding painted dark brown and two-by-two light windows. The trim is painted mushroom. In 1994, a new roof structure was added.

Generator Plant – Building 29 – This one room, 570-square-foot building was built in 1933 as a fire cache. It was built in the original location of the utility area, and moved to its present site in 1941 during redesign of the maintenance yard. At this time it was given a new concrete foundation and floor. The building has concrete walls and a tin gable roof.

Barn (Fire Equipment Storage) – Building 30 – This two-story, three-room structure contains 760 square feet on each floor and was built in 1932. The barn was moved to its present location in 1941; it was originally built in the present location of Building 26.
It is of wood frame construction with horizontal lap siding. The four-light casement windows are original to the building, although the floor was replaced with concrete and aluminum sash windows were installed on either side of a sliding door. The building is painted dark brown with mushroom colored trim.

Seismograph Building – Building 31 – This 470-square-foot building was built in 1938. It is a concrete building that houses seismic monitoring equipment, and features a gable roof with wood shakes and the gable ends are finished with lap siding, painted brown. The reinforced concrete walls are currently painted dark brown, but originally they were not painted. It was built below the level of the residential spur road, effectively concealing this utilitarian structure from plain view (see photo, Buildings and Structures #4).

Pump House
A cinder block pump house was constructed at the 100,000-gallon reservoir constructed in 1938 in the northeast corner of the headquarters property. It has a simple shed roof and is currently painted green. This utilitarian building was built in conjunction with the improvements being made to the headquarters

water system in 1938 and is a contributing building.

CONTRIBUTING STRUCTURES
Split Rail Fence:
In 1940, the CCC constructed a stacked split rail, or "worm" fence around the headquarters area. This fence extends along the southern boundary of the headquarters, where the property abuts the roadway. It also extends along approximately two-thirds of the headquarters area eastern boundary.

The split rail fence refers to the style of pioneer-constructed fences that are typical of the region, however, its construction was notably "more durable" than fences characteristic of area ranches and pioneer homesteads. Regional landscape architect Ernest A. Davidson wrote that the fence was "rather too good to be a replica of old time rail fences since the rails are exceptionally heavy . . . the good impression is there, and the fence is more durable than fences the pioneers built." (Notes on Branch of Plans and Design Items," LVNP, Regional Landscape Architect's Visit, September 1940," File 207, Part I, Box 46, RG 79, NARA, San Bruno, p. 3) The split rail fence design is appropriate for the area as it stands up well under heavy snow loads.

This split rail fence replaced an earlier CCC-constructed wood fence, a post-and-pole style fence that was built in the early and mid-1930s along the headquarters property where it abutted the highway, and along either side of the old Viola Road. Peeled log posts at the entrance drive to the administration building are likely remnant posts from this early fence system built by the CCC in the 1930s (see photo: Buildings and Structures #5).

Although research for this report did not produce sufficient information that would clearly establish the construction date of the existing split rail fence, further study could disclose its date of origin, although it is unlikely that it retains integrity from the period of significance. A maintenance report from 1983 noted that funds were allocated for its repair and replacement, but it is unknown to what extent original material was lost at this time. Because of its replacement in-kind, however, it should be considered a contributing structure in the headquarters area cultural landscape.

Drainage Ditches
Following a severe storm in December of 1937, the Viola Road and utility yard was badly damaged and required extensive repairs and improvements to their drainage systems. Mortared and masonry stone drainage ditches were constructed on either side of the Viola Road in 1940 to assist in protecting the road during winter storms and periods of heavy snowmelt in the spring. These drainage ditches extend from the northern terminus of the Viola Road to a point generally parallel with the southern boundary of the maintenance area. Constructed by the CCC, these stone ditches remain in good condition and are contributing (see photo, Buildings and Structures #6).

Retaining Walls
Numerous retaining walls were constructed during the period of significance. The largest of these is approximately five feet tall, and extends along the northern boundary at the upper maintenance road, from the vicinity of the culvert on the east to the Old Viola Road on the west. The wall was built at some point between 1937-40 during the reconfiguration of the utility area. A stone-lined drainage ditch was constructed along the base of the retaining wall, and a stone fire hydrant cache was built into the wall (see photo, Buildings and Structures #7). A lower-rising stone retaining wall meets this wall at a ninety-degree angle and extends south toward the east border of the utility area. These retaining walls are contributing structures in the headquarters area cultural landscape.

Retaining walls were also constructed in the residential area: a wall along the northern border of the

parking area east of Building 2, a low wall to the south of Garage 3, a low, dry laid stone wall east of Garage 9, a dry laid wall east of the driveway to Garage 7; and a dry laid stone wall behind Residence 10. These small retaining walls were likely constructed during initial site development and are contributing.

Culverts
Metal pipe culverts with stone headwalls are located under the driveways to Garages 3, 9 and 12 (although there is a drain on the north side of the driveway to Garage 12 rather than a culvert) where they meet the residential road. Although no record of their construction was located during research for this report, these driveways and their associated culverts were most likely constructed at the time the garages were built. Three culverts run under the residential road itself: one just east of the parking area to the rear of the administration building, and the other where the driveway to Garage 3 meets the road. Another culvert passes under the road just east of Residence 13. The culvert pipes were dressed with stone headwalls constructed to blend into their surroundings.

To protect the maintenance area from flooding during the spring runoff, a large concrete box culvert was constructed under the yard and drainage ditches channeled water to it. The culvert begins above the north retaining wall and extends southerly across the length of the maintenance area to its outlet west of the road between the administration building and the maintenance area.

Since they date from the period of significance and retain integrity of materials, the culverts should be considered contributing structures in the Mineral headquarters cultural landscape. The one exception to this is the culvert under the spur road between the west branch of the residential road and the Viola Road; this culvert post-dates the period of significance is not contributing.

NON-CONTRIBUTING BUILDINGS
Several buildings within the boundaries of the Mineral headquarters cultural landscape were constructed following the historic period and do not contribute to the significance of the historic designed landscape. These include:

Chlorination House
The chlorination house, located north of the road to the Seismograph building, was constructed in the 1980s and does not contribute.

Storage Shed
A storage shed located east of Apartment Building 14 was constructed after the historic period and does not contribute.

A grouping of three buildings located on the lower loop road west of the Viola Road do not date from the period of significance are not contributing.

Mission 66 Residential Development
The houses built as part of the Mission 66-era, including buildings 101, 109, 110, 111, 115, 120, 225, 260, 261, 265, 388 and 671, were introduced in the landscape as part of the Mission 66 development program at Lassen Volcanic National Park and do not contribute.

NON-CONTRIBUTING STRUCTURES

Fire hydrants

Fire hydrants are located throughout the headquarters area. They were installed in the 1970s and do not contribute.

Fire hydrant sheds
Fire hydrants are located periodically along the roads throughout the headquarters area. The fire hydrants are located in small wood sheds that can be closed up during the winter to protect them from the snow. These sheds are modern structures and do not contribute.

The maintenance area fire station and large gas tanks are also non-contributing structures.

Graveyard
A graveyard with three graves is located in the wooded area east of Building 2. These pioneer-era graves predate the development of the Lassen Volcanic National Park Headquarters Area and do not contribute to its historic significance. The graveyard is listed as a non-contributing element of the cultural landscape for two reasons: first, graveyards are generally not listed on the National Register of Historic Places; and second, although of historic interest, it predates the development of the headquarters area and does not contribute to its historic significance.

Propane Gas Tanks
Propane gas tanks were installed adjacent to approximately twenty-two buildings in 1990 and do not contribute.

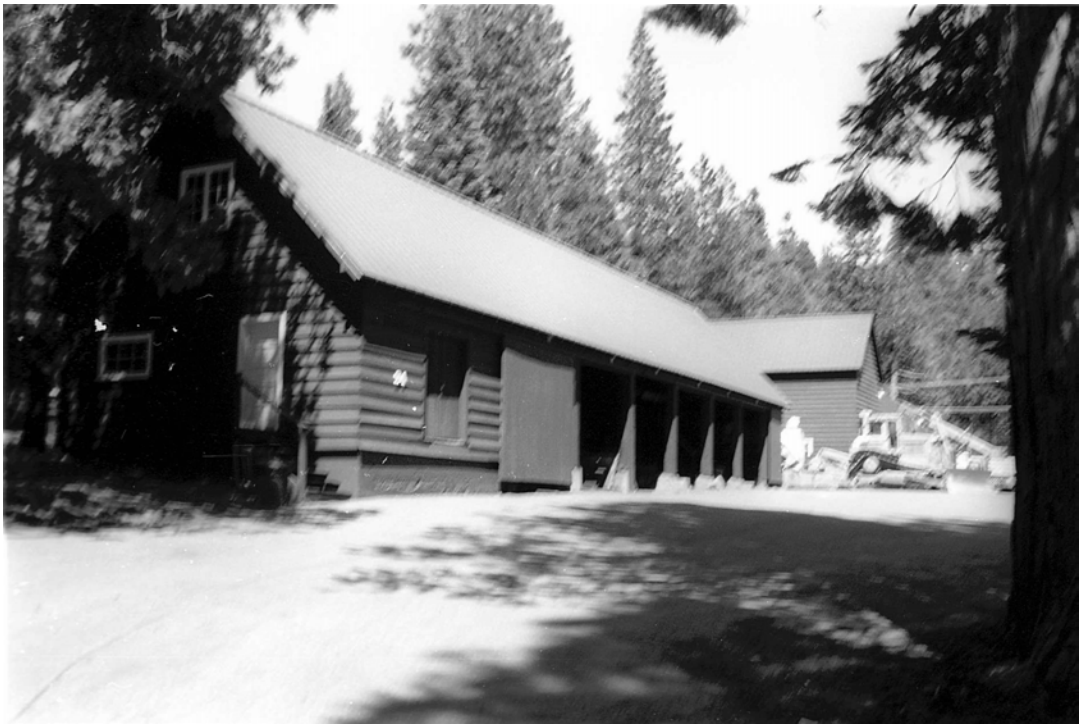
Summary

This collection of rustic-style buildings was recognized as a significant aesthetic achievement and the buildings and their setting were held up as models of successful design when Mission 66 development plans were first introduced in the late-1950s. The park's 1966 Master Plan, noted that the buildings erected from the late 1920s to the early 1940s created a "pleasing architectural theme that blends and harmonizes with the environment." (From: 1966 Master Plan, Western Office, Design and Construction, NP-LV 3008-M, sheet 2 of 3, page 10).

The buildings and structures, which are a primary contributing landscape characteristic to the Mineral headquarters cultural landscape, were thoroughly researched and described in the 1994 Consensus Determination written by PGSO Historical Architect Robbyn L. Jackson. The buildings in the maintenance yard and residential district display a remarkable degree of stylistic unity and continue to reflect historic associations to the period of significance.

Buildings and Structures #1: Building 10, looking north, 1946. (LAVO-N-27-29)

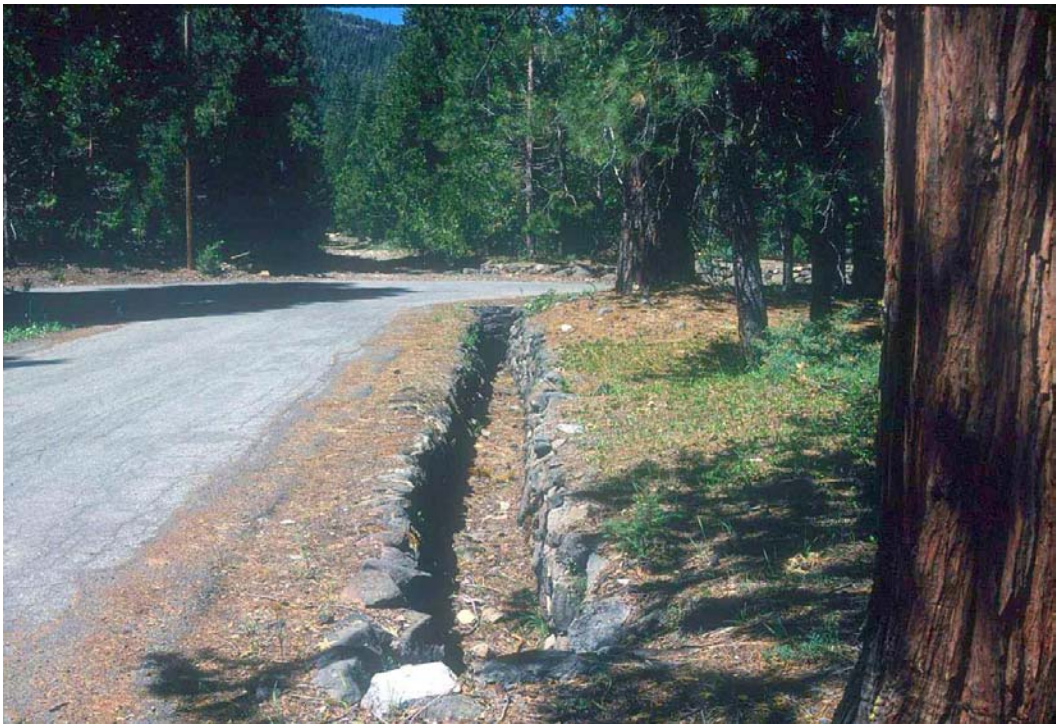
Buildings and Structures #2: The wash house is in the center of this cluster of small residential buildings, looking north, 2001 (LAVO-N-30-35)



Buildings and Structures #3: Warehouse and maintenance office, looking east, 2001. (LAVO-N-30-22)

Buildings and Structures #4: Seismograph building (#31) in 1946. Note its position below the residential spur road. (LAVO-N-26-5)

Buildings and Structures #5: Heavy log posts remain from original post-and-pole fence constructed by the CCC, later replaced by split rail in 1934. Looking west, 2001. (LAVO-N-27-8)



Buildings and Structures #6: Stone-lined drainage ditch along Old Viola Road, looking north, 2001. (LAVO-N-30-16)

Buildings and Structures #7: Stone retaining wall and built-in fire cache, looking north, 2001. (LAVO-N-27-14)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Administration Building	Contributing	Park Headquarters Building	005459	B1
Garage #7	Contributing	Garage For Residence 6	21130	B7
Residence #8	Contributing	Residence 8	21131	B8
Administration building flagpole	Contributing	Administration Building Flagpole	056816	LF23
Building 14	Contributing	Dormitory	21137	R14
Building 16	Contributing	Residence 16	21138	16
Building 17	Contributing	Residence 17	21139	R17
Building 19	Contributing	Wash House	21140	B19
Building 20	Contributing	Fire Cache	021141	B20
Building 21	Contributing	Service Station	05460	B21

Building 22	Contributing	Warehouse And Maintenance Office	21142	B22
Building 23	Contributing	Machine Shop	21143	B23
Building 24	Contributing	Equipment And Storage Shed	21144	B24
Building 25	Contributing	Garage And Storage Building	21145	B25
Building 26	Contributing	Roads And Trails Building	21146	B26
Building 27	Contributing	Carpenter Shop	21147	B27
Building 28	Contributing	Electrical Shop	21148	B28
Building 29	Contributing	Generator Plant	56793	B29
Building 30	Contributing	Fire Equipment Storage	21149	B30
Building 31	Contributing	Seismograph Building At Headquarters	56776	B31
Culverts and Headwalls	Contributing	Residential Road Culverts And Drainage Ditches	56799	LF18
Garage	Contributing	Superintendent's Garage	21126	3
Garage #12	Contributing	Garage For Residence 11	21135	B12
Garage #5	Contributing	Garage For Residence 4	21128	B5
Garage #9	Contributing	Garage For Residences 8 And 10	21132	B9
Old Viola Road Drainage Ditches and Culverts	Contributing	Old Viola Road Drainage Ditches And Culverts	56797	LF16
Residence #10	Contributing	Residence 10	21133	R10
Residence #11	Contributing	Residence 11	21134	R11
Residence #13	Contributing	Residence 13	21136	R13
Residence #4	Contributing	Residence 4	21127	R4
Residence #6	Contributing	Residence 6	21129	R6

Retaining Walls	Contributing	Residential Area Retaining Walls	56801	LF20
Science Center, Building 2	Contributing	Superintendent's Residence	21125	B2
Split Rail Fence	Contributing	Split Rail Fence	21124	HS4
Water fountain at administration building	Contributing	Water Fountain At Administration Building	056815	LF22
gravesite	Non-Contributing	Sarah Cunningham Grave Marker	056804	MKR2
Pioneer Gravesite	Non-Contributing	Mary Westrope Grave Marker	056803	MKR1

Cluster Arrangement

The Mineral headquarters area was laid out within an eighty-acre, rectangular site adjacent to State Route 36. Three separate use areas, or clusters of buildings, serving administrative, residential and maintenance functions were established, and groupings of buildings and structures were arranged according to their intended function. The site's topography and vegetation guided the location of buildings and structures in the landscape which were laid out in accordance with naturalistic landscape architectural principles. The groupings of buildings forming clusters were arranged along a loop road system, which encircled a large sloping meadow lying in the approximate center of the site. These clusters, which are described below, include an administration and visitor services cluster, a residential cluster, and a cluster of maintenance buildings and structures.

Administration and Visitor Services Cluster
The administration building fronts State Highway 36 and is accessed via the main entry to the headquarters area. Its front lawn extends to the edge of the highway, where a rail fence provides a visual barrier and boundary demarcation between the road and the park headquarters. It is surrounded by lawn on two sides and has a parking area in front and a larger parking area in the rear.

The administration building is the first building one encounters when entering the headquarters area. The building was expanded several times over the years, with the last major addition in 1940. Visitor services are managed here, where parking lots in front as well as a larger lot behind the building provide parking space for visitors and others having business with the park. The parking lot behind the building was slightly reconfigured in the mid-1950s to accommodate the new, asphalt-surfaced road leading from the rear of the administration building to the maintenance area.

The original visitor parking lot that had been built in front of the administration building and parallel to State Route 36 was obliterated during widening of State Route 36 in the mid-1950s. At this time, the parking lot in front of the building was constructed. It provides space for twelve vehicles, and was constructed perpendicular to State Route 36. The dual function of the administration building and its parking lots, which serve visitors as well as park administration, creates a functional cluster in this location.

Residential Cluster
Rustic-style houses, garages, driveways, walkways, and retaining walls constructed during the historic period were located in response to the general topography and solar aspect of the site. Three residences on the east side of the road back up to the forest and the knoll which rises behind them. The two residences on the west side of the road face the meadow and have the benefit of a more direct southwestern exposure than the residences on the east side of the road, due to their location at the edge of the open meadow. These residences are situated to provide views of the meadow.

The residential district is characterized by an asymmetrical arrangement of houses and associated driveways and garages along a roadway that curves to the northwest from the rear parking lot of the administration building. Nestled within a conifer forest, these buildings are oriented to take in views of the meadow. Residences 8, 10 and 11 are located on the east side of the road and back up to the forest; residences 4 and 6 face the meadow from the west side of the road.

The superintendent's house is located within the core residential area, although at somewhat of a distance from the other residences. It is sited on a hill along the eastern edge of the meadow. Its siting in this location took advantage of the natural promontory to confer importance on the residence while simultaneously blending in with the surrounding forest and thus screened from view. Further, like the

other historic residential structures in the headquarters development, its orientation to the southwest allowed for maximum solar exposure in an otherwise heavily tree-shaded site.

Maintenance Cluster
The maintenance yard lies at the far northern and western edge of the headquarters development. Roads encircle the core buildings of the maintenance area and form a large rectangular asphalt yard, which allows for movement of heavy equipment. A retaining wall was constructed to accommodate the road, which forms the northern edge of the maintenance yard. Since construction of the maintenance area in 1940, little change has occurred to its arrangement of buildings.

Buildings and structures in the maintenance yard are organized in response to the functional needs of the space. The principal buildings in the complex of maintenance structures—the warehouse and maintenance office (Building 22), the machine shop (Building 23), and the equipment and storage shed (Building 24)—are arranged around a large paved central space. The overall impression is of an orderly, functional composition of buildings and structures serving a variety of uses that support park maintenance activities (see photo, Cluster Arrangement # 1, Vegetation #2).

While the principal maintenance facilities are organized around the paved maintenance yard, subsidiary buildings which support maintenance activities, namely the Electric Shop, Generator Plant and Fire Equipment Storage (Buildings 28, 29 and 30) are located west of the Viola Road along the road that bounds the northern extent of the maintenance area.

Seasonal Employee Residence Cluster
In addition to the above use areas and clusters of buildings, accommodations for seasonal employees were constructed to the east of the maintenance yard, north of the main residential road. A low-rising retaining wall demarcates the boundary between the road along the east edge of the maintenance yard and this group of buildings. The largest of these buildings, the dormitory (Building 14), was originally constructed to serve as a bunkhouse and mess, but was converted in 1938-1939 to three apartments. It is located opposite the road from the Protection Division Storage (Building 20). Two seasonal ranger residences (Buildings 16 and 17) are very modestly scaled structures built in 1930 in a rustic architectural style consistent with the other buildings of the period. Finally, a washhouse completes this small cluster of buildings adjacent to the maintenance yard (see photo, Buildings and Structures #2).

Summary
Initial site development within the boundaries of the Mineral headquarters area occurred during one period of sustained construction, which extended from 1928 to 1943. Uses were functionally and physically separated into three clusters: administration, maintenance and housing. Later additions, including buildings erected on the site as part of the park's Mission 66 development program, as well as additions in the 1980s, had little impact on the cluster arrangement that was established during the period of significance and which remains remarkably intact.

Little modification to the cluster arrangement of buildings has occurred within the boundaries of the cultural landscape since the period of significance, accordingly, the cluster arrangement of buildings and structures retains integrity and is a contributing landscape element in the Mineral headquarters cultural landscape.

Cluster Arrangement #1: View of maintenance area. Note axial arrangement of buildings and large paved areas to facilitate maintenance activities. Looking west, 2001.

Views And Vistas

For the purposes of the CLI, views and vistas are defined as the prospect afforded by a range of vision in the landscape, conferred by the composition of other landscape characteristics and associated features.

The most important planned view is the prospect afforded to motorists on State Highway 36. Motorists are presented with a formal perspective of the headquarters landscape, which includes the split rail fence and trimmed lawn surrounding the substantial rustic-style administration building. A picturesque meadow ringed by a heavy conifer forest provides a scenic, natural backdrop to the administration building. This vista extends from the front lawn of the administration building to the tree-covered hillside behind the meadow.

Views within the landscape are generally intimate and discrete. The layout of the buildings along the residential road, the sloping topography and groupings of trees restricts distant views.

Residences 4 and 6, which are located on the west side of the residential road and at the edge of the meadow were built providing views toward the meadow, although screened by groupings of trees. Building 13 was also built with a direct meadow view by virtue of its location along the upper end of the residential road (see photo, Views and Vistas #1). Views toward the meadow from the residences on the east side of the residential road are available but less direct. The site selected for Building 2 may once have afforded views toward the administration building and entry drive, however, in the intervening years the forest cover has thickened and trees have obscured views.

The residential road offers perspectives on the landscape that capture the site's scenic, rustic architectural charm, particularly as the road arcs to the northwest before it crosses the upper meadow and from the parking area to the rear of the administration building (see photo, Views and Vistas #2). Where the road crosses the upper meadow, an expansive view toward the rear of the administration building is available to the south. This distant view extends across the meadow to the administration building, its front lawn and split rail fence, and continues to the highway and forest beyond. To the north, a long view of the upper meadow is obtained from the residential road (see photo, Views and Vistas #3).

The photographic record indicates that the forest has encroached on the meadow over the years which has altered some specific views within the landscape (see photos, Vegetation #5 and Vegetation #6). Despite these minor changes, the general character of the views and vistas retains integrity as a contributing landscape characteristic

Views and Vistas #1: View across eastern edge of meadow toward residences, looking northeast, 2001. (LAVO-N-0025-2)

View toward administration building from residential road. Culvert headwall visible in foreground. Looking south, 2001. (LAVO-S-33-30)

Views and Vistas #3: View toward upper meadow from residential road, looking northwest, 2001. (LAVO-N-27-6)

Constructed Water Features

For the purposes of the CLI, constructed water features are the built features and elements, which utilize water for aesthetic or utilitarian functions in the landscape.

Reservoir
Located in the far northeastern section of the Mineral headquarters site, two reservoirs, or water storage tanks, were constructed during the historic period. The first storage tank was constructed in 1931 of reinforced concrete with a capacity of 14,000 gallons. This storage tank was fed by springs, which were located nearby. Due to the inability of the springs to provide enough water to serve domestic water and fire suppression needs, the park began to look for other sources. An attempt to obtain water through digging a well produced unsatisfactory results and the well was abandoned.

In 1938, construction began on a larger-capacity water supply system, which augmented the existing 14,000-gallon tank (see photo, Constructed Water Feature #1). The source of the water was Martin Creek, a spring-fed stream that also receives snowmelt during the spring and early summer months. Having obtained water rights to Martin Creek from the Woodson-Beresford estate, which owned property adjacent to the headquarters site, a diversion dam was constructed on the creek. This dam slowed flow on the creek and allowed the water to be collected, pass through silting screens, and flow via gravity through underground steel pipes to the reservoir. A concrete block pump house was constructed near the reservoir (see photos, Constructed Water Feature #2).

The reservoir is composed of two 50,000-gallon reinforced concrete storage tanks. A distribution system, using separate lines for fire suppression and domestic drinking water, was constructed and laid in trenches throughout the headquarters area. This system continues to provide a year-round supply of water and contains approximately fifty connections, twenty-one of which service the residential area.

Since these structures remain intact, retain integrity, and date from the period of significance, constructed water features are a contributing landscape characteristic of the historic district.

Constructed Water Features #1: Concrete structures associated with 100,000-gallon reservoir, constructed in 1938 in northeast corner of property, looking east, 2001. (LAVO-DSCN-3657)

Constructed Water Features #2: Concrete block pump house at 1938 reservoir, 2001. (LAVO-DSCN-3661)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
100,000-gallon reservoir	Contributing	1938 Reservoir	248031	
14,000-gallon reservoir	Contributing	1931 Reservoir	247994	

Archeological Sites

Archeological sites inventoried by the CLI include the location of ruins, traces, or deposited artifacts in the landscape and are evidenced by the presence of either surface or subsurface features.

Archeological features dating from the period of significance include a concrete building pad for the Kohler electric plant. The building housing the Kohler electrical plant was removed circa 1939, but the foundation pad remains in the meadow area as evidence of the earliest source of electrical power at the Mineral headquarters site.

Fragments of structures associated with the CCC Camp located south of Highway 36 are scattered south of the baseball field and picnic area, although these remains are outside the boundaries of the Mineral headquarters area cultural landscape.

A.E. Treganza (1962) recorded at least a half-dozen archeological sites on the periphery of Battle Meadows, however, none of these sites were within the boundaries of the developed area. A prehistoric archeological site, CA-TEH-609, is a sparse lithic scatter located in the vicinity of structures 16, 17 and 19 and was first recorded by Treganza in 1962 and re-recorded by A.K. Smith and J.P. Eidsness in 1987.

Additional archeological surveys that have been conducted in the vicinity by NPS archeologist A. K. Smith through the Western Archeological and Conservation Center (WACC) include 066-83-LAVO; 064-86-LAVO; 168-89-LAVO; 169-89-LAVO. None of these surveys resulted in the discovery of archeological resources within the Mineral headquarters site.

A burial ground containing several pioneer graves is located in the forest northeast of Building 2, but these graves pre-date the development of the headquarters area and therefore do not contribute to the site's historic significance.

Summary
The Kohler electric plant concrete pad is the sole archeological feature that relates to the primary period of significance established for Lassen Volcanic National Park headquarters cultural landscape (1928-1943). Therefore archeological sites are not considered a contributing landscape characteristic of the Mineral Headquarters Historic District.

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Kohler electric plant foundation	Contributing	Kohler Electric Pad	249819	

Management Information

Descriptive And Geographic Information

Historic Name(s): Lassen Volcanic National Park Headquarters

Current Name(s): Lassen Volcanic National Park Headquarters

Management Unit:

Tract Numbers:

State and County: Tehama County, CA

Size (acres): 40.00

Boundary UTM

Boundary UTM(s):

Source	Type	Datum	Zone	Easting	Northing
USGS Map 1:24,000	Point	NAD 27	10	617949	4467126
USGS Map 1:24,000	Point	NAD 27	10	617948	4467051
USGS Map 1:24,000	Point	NAD 27	10	618509	4467151
USGS Map 1:24,000	Point	NAD 27	10	618522	4466777
USGS Map 1:24,000	Point	NAD 27	10	618035	4466852
USGS Map 1:24,000	Point	NAD 27	10	618073	4467038

GIS File Name:

GIS File Description:

National Register Information

National Register Documentation: Documented -- SHPO

Explanatory Narrative:
A March 1994 letter from the California State Historic Preservation Office determined the Mineral headquarters was eligible for listing on the National Register of Historic Places. This consensus determination was dated March 21, 1994.

In addition, the California SHPO agreed with the findings of this CLI on September 15, 2004.

National Register Eligibility: Eligible -- SHPO Consensus Determination

Explanatory Narrative:
A draft National Register nomination form, dated January 25, 1994, was prepared for the Lassen Volcanic National Park Headquarters Historic District by PGSO Historical Architect Robbyn L.

Jackson. The historic district was determined eligible by the California State Historic Preservatior Officer on March 21, 1994. The district was determined eligible for inclusion on the National Register of Historic Places under Criterion A and C due to its association with early NPS Rustic design, the Civilian Conservation Corps, and its integrity.

The administration building was listed as a single structure on October 3, 1978, with an identifying number of 18000364.

Date of Eligibility Determination:

National Register Classification: District

Significance Level: National

Contributing/Individual: Individual

Significance Criteria: C -- Inventory Unit embodies distinctive characteristics of type/period/method of construction; or represents work of master; or possesses high artistic values; or represents significant/distinguishable entity whose components lack individual distinction

A -- Inventory Unit is associated with events that have made a significant contribution to the broad patterns of our history

Period Of Significance

Time Period: 1928 - 1943 AD

Historic Context Theme:	Transforming the Environment
Historic Context Subtheme:	Conservation of Natural Resources
Historic Context Facet:	The Great Depression And Conservation
Historic Context Theme:	Expressing Cultural Values
Historic Context Subtheme:	Landscape Architecture
Historic Context Facet:	Parks Produce A New Profession
Historic Context Theme:	Creating Social Institutions and Movements
Historic Context Subtheme:	Recreation
Historic Context Facet:	General Recreation

Area Of Significance:

Category:	Landscape Architecture
Priority:	1
Category:	Community Planning And Development
Priority:	2

National Historic Landmark Information

National Historic Landmark Status: No

World Heritage Site Information

World Heritage Site Status: No

Cultural Landscape Type and Use

Cultural Landscape Type: Historic Designed Landscape

Current and Historic Use/Function:

Use/Function Category:	Government
Use/Function:	Government-Other
Detailed Use/Function:	Government-Other
Type Of Use/Function:	Both Current And Historic

Ethnographic Information

Ethnographic Survey Conducted: No Survey Conducted

Adjacent Lands Information

Do Adjacent Lands Contribute? No

Adjacent Lands Description:

General Management Information

Management Category: Should Be Preserved And Maintained

Management Category Date: 3/21/1994

Explanatory Narrative:
The Superintendent concurred with this management category on 3/27/2002.

Condition Assessment And Impacts

The criteria for determining the condition of landscapes is consistent with the Resource Management Plan Guideline definitions (1994) and is decided with the concurrence of park management. Cultural landscape conditions are defined as follows:

Good: indicates the landscape shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The landscape's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the landscape shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character-defining elements will cause the landscape to degrade to a poor condition.

Poor: indicates the landscape shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

Undetermined: Not enough information available to make an evaluation.

Condition Assessment: Good

Assessment Date: 06/24/2001

Date Recorded: 01/02/2002

Park Management Concurrence: Yes **Concurrence Date:** 3/27/2002

Level Of Impact Severity: Moderate

Stabilization Measures:

Impact:

Type of Impact:	Release To Succession
Internal/External:	Both Internal and External

Description:

The conifer forest surrounding the meadow space has filled in and is encroaching on the boundaries of the meadow.

Agreements, Legal Interest, and Access

Management Agreement: None

Explanatory Narrative:

NPS Legal Interest: Fee Simple

Explanatory Narrative:

Public Access: Unrestricted

Treatment

Approved Treatment: Preservation

Approved Treatment Document: General Management Plan

Document Date: August 1, 2001

Explanatory Narrative:

The current approved treatment of "preservation" was determined in the October, 1990 "Statement for Management" in which management objective #5-C is "Preserve and maintain the historic structures." The August 2001 General Management Plan and Final Environmental Impact Statement identifies treatments of "stabilization" and "rehabilitation" in Alernative C--Preferred Alternative. This alternative states, "The ongoing loss of historic fabric will be halted and resources stabilized." (GMP, 2001:83)

Approved Treatment Completed: No

Approved Treatment Cost

LCS Structure Approved Treatment Cost: $104,000

Landscape Approved Treatment Cost: $0

Cost Date: October 9, 1996

Level of Estimate: C - Similar Facilities

Cost Estimator: Support Office

Explanatory Description: The above figure was determined from the total "Ultimate Treatment Costs" associated with historic buildings in the headquarters area. Not all buildings have an associated cost and no costs have been identified for the landscape.

Stabilization Costs

LCS Structure Stabilization Cost: $9,000

Landscape Stabilization Costs: $0

Cost Date: October 9, 1996

Level Of Estimate: C - Similar Facilities

Cost Estimator: Support Office

Explanatory Description: The above figure was determined from the total

"Interim Treatment Costs" associated with historic structures in the headquarters area. Not all structures have an associated cost. No landscape stabilization costs are associated as the landscape is in good condition.

Documentation Assessment and Checklist

Documentation Assessment: Good

Documentation:

Document: Historic Resource Study
Year Of Document: 2001
Amplifying Details: This document is in draft form and is currently on park review.
Adequate Documentation: Yes

Document: Resource Management Plan
Year Of Document: 1994
Adequate Documentation: Yes

Document: Other
Year Of Document: 1994
Amplifying Details: National Register Nomination
Adequate Documentation: Yes
Explanatory Narrative:
SHPO Consensus determination, March 21, 1994.

Document: General Management Plan
Year Of Document: 2000
Amplifying Details: Draft GMP dated 2000, ROD signed 2/25/02
Adequate Documentation: Yes
Explanatory Narrative:
The purpose of a GMP is to provide broad-based management strategies for a National Park Service Unit. Within the draft GMP, the headquarters area cultural landscape is identified as a cultural resource and is therefore adequately documented in the GMP.

Appendix

Bibliography

Citations:

Citation Author:	Robbyn L. Jackson
Citation Title:	Lassen Volcanic National Park Headquarters Historic District
Source Name:	National Register Nomination Form
Citation Type:	Both Graphic And Narrative
Citation Location:	PGSO

Citation Author:	Rhea L. Williamson, et al.
Citation Title:	Lassen Volcanic National Park Sanitary Survey
Year of Publication:	1997
Source Name:	Lassen Park Collection
Citation Type:	Both Graphic And Narrative
Citation Location:	LVNP Collection

Citation Author:	Linda Flint McClelland
Citation Title:	The Historic Landscape Design of the National Park Service, 1916-1942.
Year of Publication:	1993
Publisher:	U.S. Department of the Interior, National Park Service
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	LVNP Collection

Citation Author:	Linda Flint McClelland
Citation Title:	Building the National Parks
Year of Publication:	1998
Publisher:	Johns Hopkins University Press
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	LVNP Collection

Citation Author:	John C. Paige
Citation Title:	The Civilian Conservation Corps and the National Park Service. 1933-1942: An Administrative History.
Year of Publication:	1985
Publisher:	U.S. Dept. of the Interior, National Park Service
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	LVNP Collection

Citation Author:	Douglas H. Strong
Citation Title:	Pioneers and Preservationists: A History of Lassen Volcanic National Park
Year of Publication:	1995
Publisher:	Lassen Volcanic National Park Association
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	PGSO Cultural Resources Library

Citation Author:	various
Citation Title:	Correspondence
Source Name:	Lassen Volcanic National Park
Citation Type:	Both Graphic And Narrative
Citation Location:	Lassen Volcanic National Park Central Administrative Files

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Citation Author:	various
Citation Title:	Superintendent's Reports
Source Name:	Lassen Volcanic National Park
Citation Type:	Narrative
Citation Location:	Lassen Volcanic National Park Central Administrative Files

Supplemental Information

Title: Supplemental Infomration #2

Description: Plot Plan of Park Headquarters at Mineral, Part of the Master Plan for Lassen Volcanic National Park, Drawing #33066-G, 1941.

Title: Supplemental Information #1

Description: Headquarters Area Development at Mineral, Part of the Master Plan for Lassen Volcanic National Park, Drawing #LV-3012B, 1935

Title: Supplemental Information #3

Description: Headquarters Area, Part of the Master Plan of Lassen Volcanic National Park, Drawing #3066-L, 1959

Title: Supplemental Information #4

Description: Headquarters, Part of the Master Plan, Lassen Volcanic National Park, Drawing #3066-M, 1966

Title: Supplemental Information #5

Description: Site Plan, Mineral Headquarters, Lassen Volcanic National Park, 2002.
