

## HISTORIC STRUCTURE REPORT PRATT CABIN GUADALUPE MOUNTAINS NATIONAL PARK

Heritage Conservation Program Drachman Institute College of Architecture & Landscape Architecture The University of Arizona

In conjunction with: Desert Southwest/Cooperative Ecosystem Study Unit (DS/CESU)

May 2012

### TABLE OF CONTENTS

MANAGEMENT SUMMARY	
Executive Summary	v
Administrative Data	viii
DEVELOPMENTAL HISTORY	
Historical Background and Context	2
Chronology of Development and Use	6
Physical Description	12
Summary	13
Site/ Setting	14
Cabin Exterior:	17
Cabin Interior:	39
Building Support Systems	69
Garage Exterior	73
Garage Interior	78
TREATMENT AND USE	
Ultimate Treatment & Use	89
Requirements For Treatment	97
Alternatives For Treatment	99
SOURCES CONSULTED	100
APPENDICES	
A. Architectural Drawings of Historic Conditions	104
B. Architectural Drawings & Photographic Documentation of Existing Conditions	131
C. The Secretary of the Interior's Standards for Preservation	155
D. The Secretary of the Interior's Guidelines for Preservation Historic Buildings	156

This Historic Structure Report was carried out between the National Park Service (NPS) and The University of Arizona (UA) through the Desert Southwest/Cooperative Ecosystem Study Unit (DS/CESU) Joint Ventures Agreement.

R. Brooks Jeffery	
Heritage Conservation   Drachman Institute	
College of Architecture & Landscape Architecture	
The University of Arizona	
Allison Kennedy	
Barry Price Steinbrecher	
Helen Breslich Erikson	
David Chumley	
Alexandra Fuente Navarro	
Kelly Rehm	
Karilyn Roach	
Milini Simms	
Desiree Smith	
Fred Armstrong, Technical Advisor Jonena Hearst, Acting Park Archivist/Curator Karl Pierce, Chief of Interpretation, Education and Visitors Services Public Information Officer	

## MANAGEMENT SUMMARY

The Guadalupe Mountains are a striking landscape, surrounded by the flat plains of western Texas. By the time Wallace Pratt first experienced the Guadalupe Mountains and McKittrick Canyon in 1921, he was well established as a prominent geologist in the natural resources industry. After investing in a parcel of land in the mouth of McKittrick Canyon with three business partners, Pratt used McKittrick Canyon as a refuge from the hot climate and city life in Houston, Texas. Pratt continued to acquire more land in the area, adjacent to McKittrick Canyon, and established a small ranching venture.

In 1931, Wallace Pratt had noted Houston architect John F. Staub design a summer home to be built in McKittrick Canyon. Staub drew inspiration for the design from vernacular stone traditions that emerged in central Texas in the nineteenth century among German immigrant communities. During the winter of 1931-1932, a small crew led by Vance Phenix, an architect from Staub's firm, procured materials and constructed the Cabin. The Cabin is constructed predominantly of local limestone and pine wood timbers. The distinctive sloped roof is finished with limestone slabs set in mortar. The design of the Cabin reflects an appreciation of the unique geological resources of the canyon and the rustic setting in which it is situated.

Between 1932 and 1945, Pratt used the Cabin as a vacation home and to host guests in the canyon. He and his wife briefly used the Cabin as a permanent residence after his retirement in 1945 but elected to have another residence built outside of the canyon. In the early 1960s Wallace Pratt donated his land holdings to the National Park Service in an effort to have them preserved for future generations to enjoy.

#### Alterations

The Pratt Cabin remains generally unaltered from its original appearance. There have been no major additions or alterations to the Cabin, although the electrical system has been reconfigured and some of the fixtures in the bathrooms have been removed. In contrast, the Garage has been modified, primarily to accommodate National Park Service needs. On the exterior, the parking bay doors have been removed. The eastern room of the Garage's east wing, formerly housekeeper's quarters, was converted into a storage area. The former housekeeper's bathroom was converted into public rest room facilities, but the fixtures were removed after the use of the wastewater system was discontinued.

#### Use as Ranger Residence

After the Guadalupe Mountains National Park was established in 1972, the Pratt Cabin was used as a ranger residence. The National Park Service constructed new transmission lines for electrical service to the cabin. Baseboard heaters were installed in every room. The use of the Cabin as a permanent residence for rangers was discontinued in 1984 and the Cabin was converted into a visitor contact station and house museum commemorating the Pratt family's residence in the McKittrick Canyon. The Cabin continued to be used on a limited basis as a ranger station until the late 1990s, when use of the wastewater system was discontinued.

#### National Register of Historic Places Listing

Pratt Cabin was officially listed on the National Register of Historic Places on March 26, 1975. The Pratt Cabin and Garage are significant for their distinctive architectural elements and their association with Wallace Pratt, a renowned

and forward thinking geologist who is, in part, responsible for the inception of the Guadalupe Mountains National Park.

A portion of McKittrick Canyon is also listed on the National Register of Historic Places as a historic district due to the abundance of archaeological sites that bear evidence to the desirability of this canyon to earlier inhabitants.

#### **Current Condition**

The Pratt Cabin and Garage currently function in accordance with park planning goals. The Cabin currently functions as an interpretive house museum and storage for emergency supplies, while the Garage is used to store maintenance materials. There are currently no public water or bathroom facilities at the site, though it is used as a picnic area and rest stop for hikers on the McKittrick Canyon Trail.

The Pratt Cabin is in generally Good condition, while the condition of the Garage is Fair. Water exposure issues account for the most serious threats and deficiencies for both buildings. Both buildings are in need of general repointing of mortar and repair of both structural and non-structural wood elements. The structural integrity of the stone masonry of the Garage needs close monitoring and further investigation.

#### **Recommended Treatment**

The ultimate treatment recommended for the Pratt Cabin and Garage is preservation. Preservation of the buildings will maintain their existing form and materials where possible. Preservation will allow for continued use as an interpretive site in a natural area, as well as maintain the distinctive architectural elements and association with Wallace Pratt.

The foremost treatment recommendation is improving water drainage paths away from both buildings. Measures to ensure the interior structural elements within the Cabin are protected from water exposure are recommended, including repointing mortar and sealing the joint between the stone walls and the roof. Development of a monitoring system for several deficiencies in the garage has been recommended and further measures will need to be investigated with a licensed engineer or preservation architect.



FIG. ES 1: Location map (Source: Guadalupe Mountains National Park Draft General Management Plan/ Environmental Impact Statement, 2008).

#### **PRATT CABIN**

Building Number: LCS B-342 (Cabin); LCS B-241 (Garage)

Proposed Treatment

Preservation - the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.<sup>1</sup>

Cultural Resource Data

National Register of Historic Places, Wallace Pratt Lodge, 1974

Period of Significance (as appears on nomination): 1930s Criterion B: That are associated with the lives of significant persons in the past; Criterion C: Embodies distinctive characteristics of a type, period, or method of construction, or that represents a significant and distinguishable entity whose components may lack individual distinction.

Period of Significance (as defined in this report): 1931 to 1945

This time frame represent the design and construction of the Cabin, as well as its duration of use as a residence by Wallace Pratt.

A separate disk containing photographic documentation of the Pratt Cabin is provided to Guadalupe Mountains National Park with this report. Photographs were taken by The University of Arizona project team from March 14 to March 16, 2011 and show both character-defining features and deficiencies. Additionally, historic photographs of the Pratt Cabin contained in the Park's museum collection and maintenance files were scanned and saved to this disk.

All known historic drawings of the Pratt Cabin were also scanned and saved to a disk. These drawings are contained in both Appendix B and on the disk provided to Guadalupe Mountains National Park with this report.

All records gathered as part of this report were returned to the park. It is recommended that source material as well as a copy of this report and archival copies of the photograph and drawing disks be stored in the Park's museum collection.

<sup>1</sup> National Park Service. The Secretary of the Interior's Standards for Preservation: http://www.cr.nps.gov/hps/tps/standguide/preserve/preserve\_standards.htm (accessed 6 June 2011).

# **D**EVELOPMENTAL **H**ISTORY

#### **Physical and Historic Context**

Pratt Cabin, also referred to as Pratt Lodge or the Stone Cabin, is located in the northeast part of the Guadalupe Mountains National Park which is approximately 110 miles east of El Paso, Texas. The foremost natural feature in the Park is the Capitan Barrier Fossil Reef. This feature began forming about 265 million years ago during the Permian Period when the Delaware Sea covered a portion of West Texas and Southern New Mexico. The development of the reef and later tectonic activity shaped the Guadalupe Mountain Range. McKittrick Canyon bisects the fossil reef, exposing the stratigraphy of the formation in the canyon walls.<sup>2</sup> The canyon supports a unique combination of desert and riparian biotic communities that are supported by a perennial stream. The mountain range and canyons were utilized by many groups over time, including Paleoindian groups, Mescalero Apache, and ranchers.

Anglo-American activity in the area increased in the mid-nineteenth century when the U.S. military began scouting and mapping the area and new routes for the railroads were being explored. The route of the Overland Mail Company's stage line from St. Louis to San Francisco, also known as the Butterfield Stage Route after the company's founder, went through Guadalupe Pass by 1858. The Pinery Station, a stage line stop near Pine Spring was built to service wagons and provided a place to exchange mules along this section of the Butterfield Route. Portions of the limestone walls from the station in the southeastern area of the Park are preserved and listed on the National Register of Historic Places.<sup>3</sup>

Ranching ventures were established in the area by the late nineteenth century. Among the earliest was Frijole Ranch. The site of the Frijole Ranch, located within the eastern part of the Park, may have been established by the Walcott family as early as the 1860s. The Rader brothers of El Paso built the original portion of the ranch house that exists today in 1876 and operated a small cattle ranch. The ranch was expanded under the later ownership of John Thomas Smith and his family, who received a homestead grant for the property. On the west side of the Park, the Williams Ranch was first established by Henry Belcher in the first decade of the twentieth century. He maintained a moderate cattle ranch there for approximately ten years. In 1917, the property and house were transferred to James Adolphous Williams. Williams and his partner, Geronimo Segura, ran cattle, and later sheep and goats, on the land until 1941. Frijole and Williams Ranches were later incorporated into the substantial land holdings of Judge Jesse Hunter, who established the Guadalupe Mountain Ranch. This large ranch was sold by Jesse Hunter, Jr. to the National Park Service in 1966 and the land acquired composes a majority of the established Park as seen today.<sup>4</sup>

#### Wallace Pratt

Wallace Everette Pratt was born on March 15, 1885 in Phillipsburg, Kansas. By 1908, Pratt had earned two Bachelor degrees in geological studies from the University of Kansas. He subsequently earned a Master's degree in 1909, and an Engineer of Mines degree in 1914 from the same university. From 1909 to 1914, Pratt lived and worked in the Philippines, where he became the chief of the Division of Mines. In 1916, Pratt was employed by the Texas Company and moved to Houston, Texas. Pratt was hired in 1918 as the first geologist for the Humble Oil Company, which would later be incorporated into Exxon. He was promoted several times and eventually became the vice president of Humble's

<sup>2</sup> Wallace Pratt, interviewed by William Griggs of Texas Tech University, 29 December 1973, Archive Collection, Guadalupe Mountains National Park.

<sup>3</sup> National Park Service, Draft General Management Plan and Environmental Impact Statement. Guadalupe Mountains National Park, Texas, 2008, 177-184.

<sup>4</sup> Ibid.

#### parent company, Standard Oil Co.5

Pratt was introduced to the Guadalupe Mountains by an associate, Judge Drane, while on a business trip to Pecos, Texas in 1921. After Drane mentioned that there was land for sale, Pratt and three colleagues bought ranch property in the area. By 1930, Pratt had purchased the rest of his original partners' land holdings and continued to expand his ownership, which included the lower portion and mouth of McKittrick Canyon. Pratt grazed approximately 100 head of cattle on his property, which he called Manzanital Ranch.<sup>6</sup> Between 1931 and 1932, the Pratts had a stone cabin built at the confluence of the north and south forks of McKittrick Canyon to serve as their summer home. The site of the Cabin also includes a stone garage, a pump house, and stone walls along the west, south, and east edges. The Cabin was used as a primary residence after Pratt retired in 1945, but the threat of strong floods inspired the family to build another residence, which they named Ship on the Desert, on higher ground outside of the canyon.<sup>7</sup>

After moving from the area, the Pratt family donated their property, including the Cabin, to the National Park Service (NPS) between 1960 and 1963. Additional land that is now encompassed by the Guadalupe Mountains National Park was purchased by the federal government and the park was officially dedicated and opened to the public in 1972.

Wallace Pratt was among the pioneers of scientific exploration in the oil industry. His distinguished career led to great advancements in geologic research and technology related to oil exploration. Pratt published numerous documents, notably *Oil in the Earth* (1941) and *Toward a Philosophy of Oil Finding* (1951), which are still pertinent to the natural resources industry today. He was ahead of his time, calling for advancement in oil and natural gas conservation, and alternative energy technology early in his career.<sup>8</sup> Pratt advocated for responsible and efficient methods of extracting, transporting and refining oil.<sup>9</sup> His deep appreciation of the natural world was a catalyst for the preservation of what is largely considered one of the most beautiful areas in Texas and now makes up the core of the Guadalupe Mountains National Park.<sup>10</sup>

#### **Design of Pratt Cabin**

Pratt Cabin was designed by noted Houston architect John F. Staub, who had recently designed a residence for Pratt in Houston. Born on September 12, 1892 in Knoxville, Tennessee, Staub graduated with a mathematics degree from the University of Tennessee in 1913. He went on to study architecture at the Massachusetts Institute of Technology, earning a Bachelor of Science and a Master's degree by 1916. His design principles were greatly influenced by Edgar I. Williams, a professor at MIT and a well-known Boston architect. Upon graduating, Staub was hired by New York architect, Harrie Lindeberg. Lindeberg, a prominent Eclectic architect, was among the greatest influences on Staub's design style. He imparted the ideology that refined designs were neither complex nor ostentatious, rather they were simple and well thought out, and traditional motifs were to be used in original and applicable ways.<sup>11</sup>

<sup>5</sup> W.L. Copithorne, "The Worlds of Wallace Pratt. The Lamp vol. 53 (Fall 1971): 10-14.

<sup>6</sup> Wallace E. Pratt. "On Historic Structures in Guadalupe Mountains National Park," Memorandum for Donald Dayton,

Superintendant, Carlsbad Caverns and Guadalupe Mountains National Park. 13 June 1974

<sup>7</sup> Interview with Wallace Pratt, 1973.

<sup>8 &</sup>quot;Wallace E. Pratt," AAPG Foundation Grants. http://foundation.aapg.org/gia/pratt.htm (15 June 2001).

<sup>9</sup> Martin Donell Kohout, "Pratt, Wallace Everrett," *Handbook of Texas Online*. Published by the Texas State Historical Association. <a href="http://www.tshaonline.org/handbook/online/articles/fpr21">http://www.tshaonline.org/handbook/online/articles/fpr21</a>, (accessed 20 June 2011).

<sup>10</sup> Interview with Wallace Pratt, 1973.

<sup>11</sup> Howard Barnstone, et al. *The Architecture of John Staub: Houston and the South*. (Houston, TX: University of Texas Press in cooperation with the Museum of Fine Arts, 1979), 3-45.

In 1921, Staub was sent to Houston to work on several commissions by the some of the city's most elite families. He experienced great success in Houston and established his own architectural firm in 1923, where he worked until his retirement in 1963. The firm continued operating after his retirement, finally closing in 1971.

Staub was primarily commissioned to design single-family homes for the upper class in Houston. Staub was known for designs that were elegant but simple, with a focus on polished details and deliberate proportions. His style reflected an attention to the individual circumstances in which his designs would be used, taking into account the patron, the function of the structure, and the landscape in which it was to be situated. As an Eclectic architect, he combined elements of traditional styles in new and appropriate ways.<sup>12</sup>

Beginning in the mid 1920s, Staub developed a greater interest in local architectural traditions which began to inform his designs to a greater extent. His use of vernacular building traditions of Texas and Louisiana developed in the 1930s, partially informed by the Regionalist Movement, including work by Dallas architect, David Williams. Architects in several parts of the country were drawing upon local building traditions for new designs in the mid 1920s. The interest among architects in vernacular styles was in part a reaction to the repeated use of traditional European styles that were beginning to be viewed as unoriginal and nostalgic. While Staub continued to draw upon a variety of styles and traditions, the Regionalist Movement was in accord with his deep interest in creating designs that were appropriate for the distinct circumstances. The design of the Pratt Cabin drew upon the stone vernacular traditions that developed predominantly in the Hill Country of central Texas among European immigrant communities. Staub was inspired by the early farmhouses in the Hill Country, which combined functional design elements and building materials that were specific to the area.<sup>13</sup>

The Pratt Cabin embodies the combination of an understated, refined style for which Staub is known, with a deep appreciation of the landscape in which it was built.

#### Texas Stone Vernacular Architecture

In the mid-nineteenth century, immigrants from central and eastern Europe began settling in the Hill Country of central Texas, an area that had been predominantly unsettled by European immigrants. The Hill Country communities that grew from pioneer farming ventures were largely of German descent. Early on, German settlers adopted architectural elements already established in the region, namely log or wooden picket construction. As communities developed, half timbering, or *fachwerk*, was the prevalent method of construction. This method, where houses were framed with wood and the spaces between beams were filled with nogging, was common in Germany; however, Texas Germans used new local materials for the nogging, such as adobe brick or limestone masonry.<sup>14</sup> In the second half of the nineteenth century, hewn stone masonry largely replaced half-timbering. The stone houses predominantly had gabled roofs finished with wooden shingles or metal sheets. The methods employed were largely uncommon in Germany and the materials used were locally sourced, resulting in a distinctly regional style. Stone masonry was widely used in the region for a variety of building types in addition to houses, including churches, dance halls, schoolhouses and Sunday Houses. Sunday Houses refer to small houses in German farming villages that rural families would reside in over the weekend when

<sup>12</sup> Barnstone, et al., 1979.

<sup>13</sup> Ibid, 29-45.

<sup>14</sup> Terry Jordan, "German Folk Houses in the Texas Hill Country," *German Culture in Texas* (Boston, MA: Twayne Publishers, 1980) 111-116.

they came to town to shop and attend church.15

#### Pratt Cabin in its Modern Context

After the National Park was established in 1972, the Cabin served as a ranger residence and as a research facility for several years.<sup>16</sup> The rest room facilities in the Garage were opened to Park visitors and remained so until the late 1990s. The Cabin currently functions as an interpretive site and is opened for public visitation by Park personnel.

The site was originally accessible by automobile via a narrow dirt road through McKittrick Canyon. The original road has been allowed to revert to natural conditions but the route serves as the currently maintained hiking trail to the Cabin from the parking lot and contact station approximately 2.5 miles away.

In the Preferred Alternative section of the 2008 *Guadalupe Mountains National Park Draft General Management Plan/ Environmental Impact Statement*, McKittrick Canyon from the trail head to the Pratt Cabin site would be located within a Wilderness Threshold Zone. Areas within this zone would be managed for a low level of human intervention and cultural resources would be stabilized and preserved. McKittrick Canyon is one of the Park's most popular destinations with several thousand visitors every year. Currently the canyon is for day-use only and there is no overnight camping permitted.

#### Period of Significance

Pratt Cabin was nominated to the National Register of Historic Places in May 1974 and officially listed on March 26, 1975. The building is significant for its distinctive architecture and as an example of unique construction methods through the use of locally quarried limestone and the stone slab roof (Criterion C). The Cabin is also significant for its association with Wallace Pratt, a geologist with great impact on the oil industry and a conservationist who donated the land that now comprises the core of Guadalupe Mountains National Park (Criterion B).

While the National Register nomination defines the period of significance as "the 1930s", the Cabin was used as a residence of the Pratt family until 1945. For the purposes of this report, the period of significance begins with initial design and construction in 1931 and continues through 1945, the last year the Pratt family resided in the Cabin.

<sup>15</sup> Terry Jordan, "German Vernacular Architecture," Handbook of Texas Online (http://www.tshaonline.org/handbook/online/articles/ cbg01), accessed 21 July, 2011.

<sup>16</sup> National Park Service, "Cultural Resource Issues," *Administrative History*. Guadalupe Mountains National Park , 2001. < www.nps. gov/history/history/online\_books/gumo/adhi/adhi10a.htm> (7 April 2001).

### CHRONOLOGY OF DEVELOPMENT AND USE

Year	Event
1931	Design of Cabin completed
1932	Construction of Cabin completed
1945	Pratt family built Ship on the Desert, reduced use of Cabin
1963	Land, included cabin and auxiliary buildings, donated to National Park Service (NPS)
1971	Aerial power line installed to service Pratt Cabin site
1972	Cabin is used as a residence for NPS rangers and as a facility for researchers in McKittrick Canyon
1975	Cabin listed on National Register of Historic Places
1976	Cabin roof wood timbers repaired
1977	Cabin roof waterproofed
1978	Cabin windows repaired
1979	Cabin interior whitewashed, windows grouted
1981	Cabin roof decking and timbers repaired
1982	Garage roof timbers and joists repaired
1985	Cabin treated to exterminate termites; toilet in Garage replaced
1989	Vegetation maintenance
1993	Water heater replaced in Cabin
1993	Freeze-proof faucet installed in Cabin
1993	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed
1993 1995	Freeze-proof faucet installed in Cabin Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005
1993 1995	Freeze-proof faucet installed in Cabin         Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005         Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage
1993 1995 1995	Freeze-proof faucet installed in Cabin Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005 Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage painted
1993 1995 1995 1996	Freeze-proof faucet installed in Cabin Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005 Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage painted Vegetation Maintenance
1993 1995 1995 1996 2001	Freeze-proof faucet installed in Cabin         Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed         ca. 2005         Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage         painted         Vegetation Maintenance         Roof on Cabin reconstructed
1993 1995 1995 1996 2001 2002	Freeze-proof faucet installed in Cabin Solar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005 Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage painted Vegetation Maintenance Roof on Cabin reconstructed Hazardous tree removed
1993 1995 1995 1996 2001 2002 2002	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage paintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenance
1993 1995 1995 1996 2001 2002 2002 2002	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removedca. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage paintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenanceRoutine window and shutter maintenance on Cabin; two rotten windowsills replaced
1993 1995 1996 2001 2002 2002 2008	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removed ca. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage paintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenanceRoutine window and shutter maintenance on Cabin; two rotten windowsills replacedTwo Garage windows restored; earlier undocumented repairs removed and windows were repainted; broken window glazing replaced
1993 1995 1995 2001 2002 2002 2008 2009	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removedca. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage paintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenanceRoutine window and shutter maintenance on Cabin; two rotten windowsills replacedTwo Garage windows restored; earlier undocumented repairs removed and windows were repainted; broken window glazing replacedCabin windows repaired; two windowsills and three window sashes beyond repair replaced; all windows repainted on exterior
1993 1995 1996 2001 2002 2002 2008 2009 2009	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removedca. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in GaragepaintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenanceRoutine window and shutter maintenance on Cabin; two rotten windowsills replacedTwo Garage windows restored; earlier undocumented repairs removed and windows were repainted; broken window glazing replacedCabin windows repaired; two windowsills and three window sashes beyond repair replaced; all windows repainted on exteriorVegetation maintenance
1993 1995 1995 2001 2002 2002 2008 2009 2009 2009	Freeze-proof faucet installed in CabinSolar retrofit to power the Cabin in preparation for power line removal. No longer extant; removedCa. 2005Window frames, shutters, doors throughout Pratt Cabin complex painted; bathroom in Garage paintedVegetation MaintenanceRoof on Cabin reconstructedHazardous tree removedVegetation maintenanceRoutine window and shutter maintenance on Cabin; two rotten windowsills replacedTwo Garage windows restored; earlier undocumented repairs removed and windows were repainted; broken window glazing replacedCabin windows repaired; two windowsills and three window sashes beyond repair replaced; all windows repainted on exteriorVegetation maintenanceCabin treated to exterminate termites

#### **Original Construction**

Vance Phenix, an engineer and architect from John Staub's Houston office, drafted the plans for and subsequently oversaw the actual construction of the Cabin. Dean Phenix, Vance's brother, was an accomplished carpenter and assisted in the construction. Phenix hired Alfred Lehman, a rancher that lived near McKittrick Canyon as a laborer. Greene McCombs, who lived on property adjacent to Pratt's, helped quarry and transport the stone used to construct the Cabin. The plumbing was installed by a professional from Calsbad, New Mexico. The small crew constructed the Cabin over the winter of 1931-1932. Vance Phenix camped with his wife and two sons at the site of the Cabin during the duration of the construction. The Garage was completed after the Cabin by another crew; the exact date of its construction is unknown.<sup>17</sup>

The limestone blocks were quarried from the former McCombs Ranch site, approximately 4.5 miles from the site of the Cabin. The site of the quarry was chosen as the limestone was weathered smooth and fractured in thin beds that required less work to form ideally shaped blocks and slabs. The stone was transported into the canyon using Greene McCombs' pick-up truck and a horse-pulled sled. The stonework, the foremost character-defining feature of Pratt Cabin, was laid by stonemason Adolph May. The yellow pine timber was shipped from East Texas to Carlsbad, NM.<sup>18</sup>

#### **Pratt Residence**

The Pratt family used the Cabin chiefly as a summer home from 1932 until 1945, when the family's second residence in the area, Ship on the Desert, was completed. However, Pratt and his wife used it briefly as a primary residence after his retirement in 1945. Pratt and his family often entertained friends and colleagues at the Cabin; they also lent the Cabin to friends while they were not staying there. McKittrick Canyon was a destination for geologists from all over the world, many of whom were hosted by the Pratts at the Cabin.<sup>19</sup> The contractor commissioned to build Ship on the Desert lived in the Cabin while the new residence was being built. Construction of Ship on the Desert began in 1941 but was halted during World War II. Construction resumed and was completed in 1945. The use of the Cabin declined, though the Pratt family continued to use it as a retreat. According to Pratt's grandson, electrical service was added to the Cabin in the early 1960s.<sup>20</sup>

In 1963, Pratt donated over 5,000 acres of land to the National Park Service, including Pratt Cabin and Ship on the Desert, which greatly contributed to the creation of Guadalupe Mountains National Park in 1972. Pratt Cabin was listed on the National Register of Historic Places in 1975.

#### National Park Service Use and Maintenance<sup>21</sup>

In 1971, Rio Grande Electric Cooperative, at the request of the NPS, installed an aerial power line through McKittrick Canyon to provide convenient electrical service to the Pratt Cabin site. In 1972, the Cabin began to be used as a residence for National Park Service rangers and as a facility for researchers in McKittrick Canyon. The rest room facilities that

<sup>17</sup> Manuscript of visit by Vance D. Phenix , 28 April 1981; transcribed by Don Zook, 22 October 1993. Archive Collection, Guadalupe Mountain National Park Library.

<sup>18</sup> Ibid.

<sup>19</sup> Interview with Wallace Pratt, 1973

<sup>20</sup> Interview with Ed Reid, October 31, 1995, Archive Collection, Guadalupe Mountains National Park Library.

<sup>21</sup> The information from this section was gathered from available Guadalupe Mountains National Park archives, compliance records, and maintenance files. This summary presents the most accurate chronology based on the available records.

were located in the east wing of the Garage were opened to the public, accommodating hikers on McKittrick Canyon Trail and visitors to the Pratt Cabin site. Tables and benches, aside from Wallace Pratt's stone tables, were added to the site by the National Park Service and the grounds are used as a picnic area for hikers in McKittrick Canyon.

In 1984 the cabin transitioned from a permanent ranger residence into an interpretive site, commemorating the Pratt family's residence in the canyon, though emergency supplies continued to be stored in the east bedroom. The Cabin continued to be used on a limited basis as a ranger station and a residence for long-term interpretive volunteers until the late-1990s, when the sewage system and drinking water source were deemed to be an environmental hazard by the Texas Natural Resource Conservation Commission (now the Texas Commission on Environmental Quality) and the use of rest room facilities and providing potable water was discontinued<sup>22</sup>. The interior of the Cabin is intermittently accessible to the public, spring through fall, as staffing and volunteers are available.

NPS conducted the first repairs on the stone roof in 1976 to address water damage. A portion of the stone roof was removed, the damaged sheathing and rafters were repaired or replaced where necessary, and the stones of the roof reset. The following year the roof received a waterproofing treatment.

The Cabin windows were first repaired in 1978 and grouted in 1979. The interior of the Cabin was also whitewashed in 1979. Additional repairs to the Cabin roof took place in 1981 when wood timbers and roof decking were replaced.

In 1982, the Garage roof received repairs to the wooden sheathing and rafters. The stone roof was removed, the damaged wood timbers were repaired or replaced and asphalt rolled roofing was added over the wooden timbers before the stone roof was reinstalled. The asphalt rolled roofing was added as a protective measure to help prevent future water damage to the wooden roof timbers.

The Cabin received a treatment to exterminate termites in 1985. This treatment involved injecting pesticides under the stone slab flooring. In the same year, a toilet in the Garage was replaced. In 1993, the water heater was replaced and freeze-proof faucets were installed.

In 1994, there was a proposal to convert systems in the Cabin to solar power and remove the transmission lines, through McKittrick Canyon. The solar retrofit was conducted in 1995, but the transmission lines have yet to be removed. Painting was also conducted 1995, including the window frames, shutters and doors on the Cabin and Garage and the rest room in the Garage. Painted surfaces that were not refinished at this time were tested for lead.

The Cabin roof remained a problem, suffering continued water damage. In 2001, the most significant work on the Cabin's stone roof was undertaken. The stone layout of the roof was traced on plastic sheeting. This sheeting was then laid on the ground and each stone was individually removed and placed in the appropriate position on the sheet. The wood sheathing was cleaned of any fastener or residual underlayment. The cleaned wood sheathing was covered with two layers of Vycor Ultra membrane. The 10-12 oz copper flashing was removed and replaced with 14 oz. flashing. A self-furring diamond mesh lath was installed over the Vycor membrane and each roofing stone was set in mortar<sup>23</sup> in its original position.

<sup>22</sup> Personal communication with Fred Armstrong, GUMO Chief of Natural and Cultural Resources, September 26, 2011.

<sup>23</sup> Mortar mix was composed one part gray Portland cement, one-half part Type S lime, four and one-quarter parts local sand to match the mortar on the pump house, and a Rhoplex additive.

In 2008, cracks in the Cabin shutters were filled with wood filler, sanded, primed and painted. The windows were cleaned and two rotted window sills were replaced and painted.

In 2009, two Garage windows with extensive deterioration of wood casements, sashes, and sills were restored. All wood elements that were repaired or replaced were treated with 50% Boracare solution to prevent rot, then were sanded, repainted and marked with "NPS o9" to document restoration. In the same year, repairs were made to additional Garage and Cabin windows. Some earlier undocumented repairs were removed, including a cement or epoxy plug and 3-mill poly sheeting installed on top of the rear garage window. Cabin and Garage window frames, window sills, window sashes and window muntins were repaired, as was damaged window glazing. Two window sills and three window sashes beyond repair were replaced as close to in-kind as possible. The original material was determined to likely be Larch or Lodgepole pine, however similarly-grained Douglas fir was used in replacements. All new and repaired wood was treated with 50% Boracare solution and repainted on the exterior.

Another termite extermination and treatment with Boracare was conducted on the interior rafters and sheathing of the Cabin in 2009.

Periodic vegetation maintenance occurred in 1989, 1996, 2002, and 2010, with the removal of a wind-damaged madrone tree near the north entrance of the Cabin deemed hazardous in 2002.

#### **Contemporary Use**

Pratt Cabin is currently used as an interpretive site, commemorating the Pratt family's residence in the canyon. The east bedroom within the Cabin is used for storage of National Park Service supplies and Cabin materials that are not in use. The grounds around the Cabin and Garage are used as a picnic and rest area for hikers. The Cabin is not open to the public unless a volunteer or ranger is present, nor are there bathroom facilities at the site. The Garage is currently used for storage of maintenance equipment and a gas generator.

The Pratt Cabin site is located within a "historic zone" within the park in which minimal development is to take place. The original road to the site has been allowed to revert to a hiking path.



Figure CD 1: Pratt Cabin under construction, children at bottom left (possibly Phenix boys), ca.1932 (Source: Guadalupe Mountains National Park Archives, catalog # 364).



Figure CD 2: Wallace Pratt and guests on south porch, date unknown (Source: Guadalupe Mountains National Park Archives, catalog # 73)



Figure CD 3: Wallace Pratt on south porch of Cabin, date unknown. (Source: Guadalupe Mountains National Park Archives, catalog # 62).



Figure CD 4: Pratt Cabin and McKittrick Canyon, 1941 (Source: Guadalupe Mountains National Park Archives, catalog # 54).



Figure CD 5: Pratt Cabin, 1966 (Source: Guadalupe Mountains National Park Archives, catalog # 186).

The following contains a systematic inventory of all features, materials and spaces according to significance, condition and impact level.

Significance is defined as the quality of being important, or the feature's association with the historical themes expressed in the *Historical Background & Context* section of this report. It is evaluated as High, Medium or Low.

Significance is exemplified in the primary character-defining features. The primary character-defining features have a high degree of integrity and work in combination to relay significance. The elimination or inappropriate alteration of any one primary character-defining feature would have a negative affect on the significance of the building.

Condition is the feature's state at the time of assessment with respect to performance, stability and integrity. It is evaluated as Good, Fair or Poor, as specified by the List of Classified Structures.

Good	The structure and significant features are intact, structurally sound and performing their
	intended purpose. The structure and significant features need no repair or rehabilitation,
	but only routine or preventative maintenance.
Fair	a.) There are early signs of wear, failure, or deterioration though the structure and its
	features are generally structurally sound and performing their intended purpose, OR
	b.) There is a failure of a significant feature of the structure.
Poor	a.) The significant features are no longer performing their intended purpose, OR
	b.) Significant features are missing, OR
	c.) Deterioration or damage affects more than 25% of the structure, OR
	d.) The structure or significant features show signs of imminent failure or breakdown.

An impact is a detectable result of an agent or series of agents having a negative effect on the significant characteristics or integrity of a structure, and for which some form of mitigation or preventative action is necessary. It is evaluated as Severe, Moderate, or Low as defined by the List of Classified Structures. At least one of the criteria must be met for the declared impact level.

Severe	a.) The structure will be significantly damaged or irretrievably lost if action is not taken within two (2) years.
	b.) There is an immediate severe threat to visitor or staff safety.
Moderate	<ul><li>a.) The structure will be significantly damaged or irretrievably lost if action is not taken within five (5) years.</li><li>b.) The situation caused by the impact is potentially threatening to visitor or staff safety.</li></ul>
	b.) The situation caused by the impact is potentially threatening to visitor of start safety.
Low	<ul><li>a.) The continuing effect of the impact is known, and will not result in significant damage to the structure.</li><li>b.) The impact and its effects are not a direct threat to visitor or staff safety.</li></ul>

The physical description is divided into five sections: Site/Setting, Cabin Exterior, Cabin Interior, Building Support Systems, and Garage. Within each section, both primary character-defining features and deficiencies are outlined. Photographs of such deficiencies and features are provided and are numbered according to their location within the site or the structures. Treatment recommendations, rated according to priority, are outlined for each deficiency; a summary of recommended treatments is presented in the *Treatment & Use* section of this report. Drawings of the Pratt Cabin and Garage as they currently exist can be found in Appendix B.

#### Summary

The Pratt Cabin is located in McKittrick Canyon, 2.5 miles by trail from the Visitor's Center at the end of McKittrick Canyon Road. The site is on the south facing slope of the canyon and also includes the Garage, a pump house, and a bordering stone wall. The Cabin and Garage have been inventoried in the following condition assessment.

The one-story cabin has a rectangular plan, with an extension on the north facade for the kitchen and a covered porch extending off of the southern façade. The Cabin is constructed of local limestone set in mortar and pine timbers; the roof and floors are finished with stone slabs set in mortar. The windows are double-hung with wooden trim that is painted dark green. The interior is divided into a living room, a kitchen, and east and west wings; the east and west wings each have a hallway, a bathroom and a bedroom.

The Park's LCS classifies the Cabin as being in Good condition, indicating that is structurally sound and the deficiencies are primarily Low to Moderate. The major deficiencies consist of water drainage issues from the roof, deteriorating mortar and weathering of the windows. Water drainage deficiencies are of highest priority, as these issues pose a threat to the structural soundness and historic fabric of the Cabin.

The Garage has an orthogonal plan with a rectangular bay for cars and storage and an east wing, originally intended for housekeeper quarters. The Garage is also constructed of local limestone (with cobble inclusions in the north wall) set in mortar, and of hardwood timbers. The roof is finished with stone slabs, as is the floor in the east wing.

In the 2009 Resource Stewardship Strategy Report, the Garage was classified as in Good condition. Upon assessment, the Garage was determined to be in Fair condition, with some notable structural issues. Several of the walls and the foundation show signs of deformation. Tension rods in the Garage bay, added to prevent this deformation, are sagging and are being improperly used as storage shelves. Water drainage issues are also a concern for the Garage.

#### Site/ Setting

Significance- High Condition- Good Impact- Low Primary Character Defining Factures, Remote, rustic setting within conveny native vegetation

Primary Character Defining Features- Remote, rustic setting within canyon; native vegetation.



The Cabin and associated structures are located in McKittrick Canyon at the confluence of North and South McKittrick Creek. The site is approximately 2.5 miles from the McKittrick Canyon Visitor's Center along the McKittrick Canyon Trail. In addition to the two main buildings-the Cabin and the Garage-the site includes a pump house, a dirt driveway and a stone picnic table. The buildings are situated on the south facing slope of the canyon and are bordered by a stone wall to the west, south and east. The bordering stone wall and pump house have not been included in this report.

Several aluminum and wood picnic tables have been added by the National Park Service to accommodate hikers visiting the site (See FIG. ST 1).

The native vegetation throughout the site include bigtooth maple, chinkapin and gray oak, alligator juniper, Ponderosa pine, Texas madrone, sotol and local grasses. Two mature madrone trees and a pine tree line the entryway on the north

side of the Cabin and a number of juniper and pine trees are located just off of the south porch. Two stumps remain from trees that once flanked the east and west sides of the Cabin's south porch.

The north entry of the Cabin is partially lined with stone slabs, some of which have come loose. A partially slab-lined walkway extends from the north side of the east wing, leading to the entry on the east side of the kitchen (not shown on site plan).

The Garage is located approximately 140 feet northwest of the cabin. A dirt driveway runs between the two structures and narrows into a smaller trail that leads to the creek bed.

Site Deficiency/ Alteration	Recommended Treatment*	Impact
Historic stone picnic table cracked and	Repair cracked stone slab with a	Severe
currently held up by wood supports;	compatible epoxy adhesive.	
currently poses a threat to visiotrs if		
supports are tampered with. See FIG. ST 1.		
Tree limbs close to the Cabin create a	Trim tree branches and remove	Moderate
possible fire hazard. See FIG ST 2.	hazardous vegetation that could	
	promote wildfire diffusion toward	
	buildings as part of regular	
	maintenance per Park policies; follow	
	methods used in 2002 and 2009	
	hazardous fuel reduction activities,	
	including measures to conserve the	
	cultural landscape.	
Evidence of water pooling in several areas	Evaluate the site in consultation with	Severe
around the Cabin foundation. See FIG ST	a landscape architect and/or architect	
2.	and re-grade as necessary to direct	
	water away from the building. Institute	
	a maintenance program to regularly	
	remove debris that obstructs the flow	
	of water away from the foundation.	
Stone steps leading to north Cabin	Reset loose stones as part of regular	Moderate
entrance detaching. See FIG. ST 3.	maintenance.	

\*Note: Please see *Requirements for Treatment* for additional information on recommendations



Figure ST 1- Site view from northeast corner of Cabin, looking northwest toward Garage, 2011.



Figure ST 2- Evidence of water pooling, northeast exterior wall, 2011



Figure ST 2- Stone slabs lining walkway to north entry; tree limbs close to building, 2011.

#### **Cabin Exterior:**

Significance- High

Condition- Fair

Impact- Moderate

Primary Character Defining Features- Stone walls, roof and porch floor; wooden porch cover and entry overhang with bull-nosed ends on rafters; large stone lintels over windows and doorways, inclusion of roughcut stone blocks in alternating courses; wood trim around doors and windows painted green (associated with NPS era).



RENDERING INDICATES TYPE OF INVESTIGATION AND ACTUAL LOCATION AND BUT OF INCLUDES. STORES





RENERING NEKATES TITLE OF MIRENTLY NOT ACTUAL LOCATION AND SIZE OF NEWDOLAL ETDIES



The Cabin has a rectilinear plan with east and west wings for the bedrooms, an intersecting extension on the north façade for the kitchen and an extension on the south façade for a portion of the living room and a covered porch. The east and west wings, living room and kitchen have gabled roofs of varied heights. The roof is constructed of stone slabs set in mortar. The bedding mortar under the stone slabs is reinforced with diamond lathe, which is visible on the overhang of the roof on the north and south façades. A non-historic impermeable membrane protects the internal wooden rafters and planks. Copper flashing seals the joints between the roof and the three stone chimneys. An angle iron is attached to the mortar at the perimeter to support the edge of the stone roof. Though the perimeter of the roof needs maintenance, the major structural elements appear to be intact and in good condition.

All exterior walls are constructed of limestone ashlar block masonry set in simple courses. The courses alternate roughcut blocks with smooth finished blocks and are set with mortar. The east and west facades each incorporate an end-wall chimney; both chimneys share the limestone block masonry pattern used to construct the Cabin walls. The original drawings by architect John Staub indicate that the stone wall footings were placed 2"-6' under grade level.<sup>24</sup> While there are signs of minor settling and the mortar needs maintenance, the walls appear to be structurally sound.

The double-hung windows have wood trim and flanking board shutters that are painted dark green.<sup>25</sup> Each sash contains a muntin grid that frames six window lights. All windows are capped by a large, smooth-finished plain stone lintel. Three of the windows have wood-framed screens with matching green paint. The windows on the exterior walls of east and west wings are paired, as are the windows on the south living room wall. The windows on the east and west facing walls of the living room extension each have a shutter hooked to the roof edge on the south façade. The two shutters are fastened so that they are exposed to water draining from the roof, potentially accelerating the deterioration of the wood.

There are three doorways from the exterior of the Cabin: an entryway on the north façade that is sheltered by a small overhang, an entry on the kitchen's east-facing wall and an entry at the south porch. All doorways are composed of a paneled wooden door with an exterior wood-framed screen capped by a large smooth-cut stone lintel. The wood trim on the doorways is painted green to match the windows.

The north façade faces a small dirt driveway and the Garage; the north entry is interpreted as the primary entrance to the Cabin. The path toward the entryway is flanked by three mature trees and is partially lined by stone slabs. The entry overhang is constructed of 4" x 6" wooden rafters that join with an 8" x 8" beam to support exposed wood sheathing. The rafters are detailed with bull-nose ends, an example of the high level of craftsmanship in the Cabin's construction and a character-defining feature. The support beam rests on rounded stone support blocks that extend out from each side of the entry opening (See FIG. NE 42). The overhang is capped by the pitched stone slab roof of the living room. There is an electric light fixture at the front door as well as a two-way electrical outlet (possibly non-historic).

There is a large stone chimney at the joint of the north entry and the kitchen extension. The joints of the chimney with the living room roof and the intersecting roof of the kitchen extension are sealed with copper flashing but create two valleys that drain into the east corner of the entryway, increasing water exposure to the north entry overhang and west

<sup>24</sup> See Appendix B for original drawings by architect John Staub.

<sup>25</sup> The green paint reflects an alteration from the NPS era. See Requirements for Treatment for specific paint color.

kitchen wall. The grade at this corner does not appear to slope away from the cabin, allowing water to pool near the foundation.

The kitchen extends off of the north façade to the east of the main entry. The west wall of the extension is perforated by non-historic copper piping which has been cut and has a sharp edge. The copper piping was installed after the solar retrofit to supply gas to a stove in the kitchen, but the gas supply tanks were removed along with photovoltaic system. There is a single window on the north kitchen wall. The overhang of the stone roof is nearly flush with the north kitchen wall. The current external electrical conduit connects to the Cabin at the top east corner of the north wall. A partially stone slab-lined walkway extends off of the east façade and leads to three stone slab steps on the east side of the kitchen, which lead to the kitchen doorway. The stone wall and steps show evidence of heavy water damage; the damage is thought to be a result of heavy drainage coming from a valley in the stone roof created by the intersection of the pitched kitchen roof with the east wing roof.

The south porch platform is raised approximately one foot above grade, exposing the stone and mortar foundation. There are three stone stairs from ground level to the raised platform on the east side of the porch. The porch floor is finished with irregularly-shaped limestone pavers mortared in place. Four square columns constructed of limestone block masonry support the shed style porch roof The porch roof is constructed of  $4" \ge 6"$  wood rafters that extend from the south living room wall; the joints with the stone wall are reinforced with mortar. The western most rafter has been notched to fit the shape of the stones in the wall. The rafters support sheathing ( $2" \ge 8"$  wooden planks) and are notched to join with an  $8" \ge 8"$  support beam. The ends of the rafters are bull-nosed as a decorative finish. The porch roof is finished with mortar-reinforced stone slabs and an angle iron attached to the perimeter to help support the weight of the stone roof.

Exterior Deficiency/ Alterations	Recommended Treatment*	Impact
Gaps in mortar and missing stones at	Replace stones in kind. Repoint	Moderate
connection of south bearing wall and	mortar.	
wooden porch roof. See FIG. SE 1.		
Water damage resulting in eroded stone	Treat limestone slabs along drip line	Low
floor on porch at the drip line of porch	with a water-repellant treatment	
roof. See FIG. SE 2.	appropriate for limestone. See	
	Alternatives for Treatment.	
Water staining on sheathing of	Improve drainage issues before	Moderate
porch roof. Evidence of efflorescence	repairing or replacing wood.	
and decomposition of wood due to	Perform resistance test on wood	
percolation from mortar on stone roof.	sheathing for structural soundness.	
Water exposure to sheathing may have	Replace in-kind if structurally	
occurred prior to roof repairs and water-	necessary; monitor for further	
proofing in 2001. See FIG. SE 3.	water exposure.	

Extensive water damage on ends of rafters on porch roof. See FIG. SE 4.	Ensure proper functioning of roof drainage systems. Pressure test damaged areas for structural soundness. Repair damaged wood with epoxy or splice where appropriate. Treat damaged rafters with fungicide; monitor for further water damage.	Moderate
Mortar deteriorating above west window and above bond beam on south façade. See FIG. SE 5.	Repoint mortar; monitor for further deterioration.	Moderate
Crack under west window on south façade; possible settling. See FIG. SE 6.	Repoint mortar; monitor for subsequent cracking.	Low
Alteration: West bedroom exterior windows are each missing one shutter; shutters removed to allow visitors to see interior of Cabin. See FIGS. SE 7 and SE 8.	N/A	Low
Bond beam and stone wall on west end of south façade are rust stained from drainage off of angle iron. See FIG. SE 9.	Clean stonework using non- abrasive methods; consult with an appropriate professional about an anti-corrosive treatment for the angle iron. See <i>Alternatives for</i> <i>Treatment</i> .	Moderate
Stone missing at edge of west living room window See FIG. SE 10.	Replace stone in kind.	Low
Mortar cracking around west facing living room window and lintel. See FIG SE 11.	Repoint mortar; monitor for further cracking of mortar.	Low
Alteration: Shutter on west living room window is fastened to roof on south façade. Shutter exposed to water draining off of roof. See FIG. SE 12.	Monitor condition of shutter; make necessary window frame repairs in place wherever possible, using stabilization and splicing techniques.	Low
Mortar missing above and beside porch tie beam on the west side of the living room. See FIG. SE 13.	Repoint mortar as needed.	Low

Water damage on 8" x 8" wood support beam on porch roof. See FIG. SE 14.	Ensure mortar joints on porch roof are intact and watertight. Pressure test beam for structural soundness. Repair decayed areas with wood splice, ensuring splice is supported by stone pillar. Replace in-kind only if structurally necessary. See <i>Alternatives for Treatment</i> .	Moderate
Alteration: Rafter and sheathing replaced on porch roof (replaced in 1981). See FIG SE 14.	N/A	Low
Crack in mortar above and along window lintel on south facing living room wall. See SE 15.	Repoint mortar as needed. Monitor for further cracking.	Low
Skewed frame and tears in the screen door on south entrance. See FIG SE 16.	Repair frame with splicing techniques and reattach or replace screen to squared frame.	Low
Edges of stone floor on porch chipped; stone steps on east side of porch chipped. See FIGS. SE 17, SE 18.	Repair stones with a matching limestone patch using a matching epoxy adhesive.	Moderate
Missing mortar and exposed impermeable roof membrane at southeast corner of living room. See FIG. SE 19.	Consult with manufacturer about the impact of the exposed impermeable membrane before repointing mortar.	Moderate
Mortar around east-facing living room window is cracked. See FIG.SE 20.	Repoint mortar and monitor for further cracking.	Low
Peeling paint on sill of east-facing living room window; shutter is cracking. See FIG. SE 20.	Remove damaged paint and assess condition of wood sill. Repair damaged wood where needed (on sill and shutter) using epoxy or other appropriate methods per 2009 window repair methods. Sand and repaint to match.	Low
Crack in mortar at stone bond beam above window on east side of south façade; gaps between bond beam and wood roof sheathing. See FIG. SE 21	Perform resistance test on wood sheathing to check structural soundness; repoint with mortar to meet original structural standards.	Moderate

Gap between lintel and frame of east window on south façade. See FIG. SE 22.	Assess gap for presence of pests. Fill hole with mortar, caulk, or other appropriate substance to seal window.	Low
Deterioration of mortar above bond beam at angle iron on southeast corner of Cabin. See FIG. SE 23.	Repoint mortar to fill gaps between roof and angle iron. Monitor for further deterioration. See <i>Alternatives for Treatment</i> .	Moderate
Crack around stone lintel above north window on west façade. See FIG. WE 24.	Repoint mortar; monitor for further cracking.	Low
Cobblestone in gap under window lintel on west façade. See FIG. WE 25.	Remove cobble and replace with limestone to match.	Low
Frame of south window on west façade is cracked and paint is peeling. See FIG. WE 26.	Remove damaged paint on frame. Treat any rotted areas with fungicide and fill crack with epoxy or other appropriate substance. Sand and repaint to match	Low
Sash sagging on south window of west façade. See FIG. WE 27.	Remove sash for repairs if necessary. Repair damaged wood with splice or stabilization techniques; refit sash to seal window.	Low
Separated gable between chimney and stone roof connection on west façade. See FIG. WE. 28.	Inspect for water damage at gable; mortar gap to seal roof and protect from further water exposure.	Moderate
Rust stains on east end of north façade. Staining shows evidence of inefficient drainage of water away from foundation. See FIGS. NE 29, NE 30.	Evaluate the site in consultation with a licensed landscape architect, architect or engineer and re-grade as necessary to direct water away from the building. See <i>Alternatives</i> <i>for Treatment</i> .	Severe
Stairs at kitchen entrance are eroded, chipped and rust stained. See FIG. NE 31.	Repair damaged stairs with a matching limestone patch using a matching epoxy adhesive. Treat eroding areas with a water-repellant treatment appropriate for limestone. See <i>Alternatives for Treatment</i> .	Low

Kitchen door frame rotting; heavy water damage apparent. See FIGS. NE 30, NE 32.	Improve drainage issues before repairing or replacing wood. Repair damage with wood splice or epoxy where appropriate. Replace in-kind if necessary. Treat all exposed wood (existing and replacement, if any) with borates before repointing.	Moderate
Screen detaching from wood frame. See FIG. NE 30.	Repairframe(seerecommendationsabove)beforereattaching or replacing screen.	Low
Mortar and stone missing, exposing flashing at joint of north façade and kitchen extension. See FIG. NE 33.	Inspect flashing for cracks or damage and replace, if necessary. Replace stone in-kind and repoint mortar; monitor roof valley for further damage.	Moderate
Addition: Non-historic electrical conduit connection at north wall of kitchen extension. See FIG. NE 34.	Current electrical service requires this feature; may be reconfigured or removed as necessary.	Low
Small circular hole present on north kitchen wall; possibly intentional for ventilation. See FIG. NE 35.	Cover hole with wire mesh screen to prevent entrance of pests.	Low
Extensive rust staining on west kitchen wall. See FIG. NE 36.	Clean stonework using non- abrasive methods; consult with an appopriate professional about an anti-corrosive treatment for the angle iron. See <i>Alternatives for</i> <i>Treatment</i> .	Moderate
Cracked and crumbling mortar at east corner of kitchen and below window on north kitchen wall. See FIG. NE 37.	Repoint mortar as needed.	Low
Water damage at bottom of north facing kitchen window creating some sagging in the window sash. See FIG. NE 38.	Remove sash for repairs if necessary; repair and stabilize wood to restore sash to proper dimensions, sealing window.	Low
Stone sill below window on the north wall of the kitchen is bowed. Mortar added under window frame to compensate for bow. See FIG NE 38.	Regularly maintain mortar to ensure gap between window frame and sill is properly sealed. Monitor sill and mortar joint below it.	Moderate
Mortar missing at angle iron on northwest corner of kitchen. See FIG. NE 36.	Replace mortar to fill in gaps so that angle iron is properly fastened to edge of roof.	Moderate

Non-historic copper tubing extending off west kitchen wall; sharp edges are a hazard. FIG. NE 39.	Remove the copper tubing and repoint affected mortar joint to seal.	Moderate
Water staining and deterioration of wood on north entry overhang. See FIGS. NE 40, NE 41.	Ensure mortar joints on entry cover are intact and watertight. Perform resistance on rafters and cross beam. Repair or replace in-kind, if structurally necessary. Monitor for further deterioration. See <i>Alternatives for Treatment</i> .	Severe
Door frame at north entrance is warped and damaged. See NE 43.	Make necessary repairs using stabilization and splicing techniques. If door frame removal is necessary for repairs, thoroughly investigate the structural detailing and seek appropriate professional consultation. If necessary, replace wood in-kind.	Moderate
Deterioration of mortar at interface of roof and stone wall has possibly exposed interior roof planks on the north side of the west wing. See NE 44.	Assess water damage of exposed roof planks and treat with fungicide and anti-rot agent. Replace gaps in mortar to reseal interior roof elements; monitor mortar joints for further deterioration. See Alternatives for Treatment.	Severe
Cracks noted in the shutters on north facing windows of west wing. See FIGS. NE 45, NE 46.	Repair wood damage with splice or epoxy where appropriate; refinish repairs to match existing.	Low
Cracked mortar in the upper southern corner of east façade. See FIG. EE 47.	Repoint mortar and monitor for further cracking or weathering.	Moderate
Deep gap in mortar at base of chimney near the foundation on the east façade. See FIG. EE 48.	Inspect for water exposure and for presence of rodents and insects. Replace mortar as needed to seal gap.	Low
Paint peeling on north window of east façade. See FIG. EE 49.	Remove damaged paint and assess condition of wood; treat or repair wood if necessary. Sand and repaint to match.	Low

Shutter cracking on south window of	Repair wood damage with wood	Low
east façade. See FIG. EE 50.	splice or epoxy where appropriate.	
*Note: Please see Requirements for Treatment for additional information on recommendations		



Figure SE 1- Gaps in mortar and missing stones at connection of south bearing wall and wooden porch cover, 2011.



Figure SE 2- Erosion of stone slabs on porch floor at drip-line, 2011.



Figure SE 3- Water staining on wood planks of porch cover, 2011.



Figure SE 4- Bull-nosed ends of rafters on porch cover are a character defining feature. Note extensive water damage to ends of rafters and support beam, 2011.


Figure SE 5- Mortar deteriorating on southwest façade above stone bond beam and above west window frame, 2011.



Figure SE 6- Crack under window lintel on west side of south façade, 2011.



Figure SE 7- Shutter missing from western window on south façade, 2011.



Figure SE 8- Shutter missing from window on west wing, south façade, 2011.



Figure SE 9- Rust staining on stone wall and bond beam on west end of south façade indicate exposure to water draining off roof angle iron, 2011.



Figure SE 10- Stone missing from edge of west living room window, 2011.



Figure SE 11- Crack around west living room window lintel, 2011.



Figure SE 12- West living room window shutter fastened to roof plank, 2011.



Figure SE 13- Mortar missing around south porch tie beam at joint west living room wall, 2011.



Figure SE 14- Replaced wood rafter on south porch roof, 2011.



Figure SE 15- Crack from roof along lintel on south living room wall, 2011.



Figure SE 16- Separation of screen from wood frame; south entrance, 2011.



Figure SE 17- Cracked edge of stone floor at east edge of porch, 2011.



Figure SE 18- Cracked edges of stone steps on east side of south porch, 2011.



Figure SE 19- Gap in mortar at bond beam at joint of living room and west wing walls (indicated with arrow); note exposed impermeable membrane (outlined in red), 2011.



Figure SE 20- Peeling paint on sill and gap in mortar around east living room window, 2011.



Figure SE 21-Crack at bond beam on south wall of east wing; note gaps between bond beam and wood roof sheathing, 2011.



Figure SE 22- Hole between lintel and frame on southeast bedroom window, 2011.



Figure SE 23- Deteriorating mortar at southeast corner of east bedroom at angle iron (outlined in red); crack at bond beam (indicated with arrow), 2011.



Figure WE 24- Crack around lintel above north window on west façade, 2011.



Figure WE 25- Cobble in gap between window base and west façade wall, 2011.



Figure WE 26- Frame of south window on west façade cracked, 2011.



Figure WE 27- Sash sagging on south window of west façade, 2011.



Figure WE 28- Gap under stone roof at joint with chimney on west façade, 2011.



Figure NE 29- Rust stains on north stone wall of east bedroom, 2011.



Figure NE 31- Stairs at kitchen entry are eroding and chipped due to water exposure, 2011.



Figure NE 30- Rust stains on northeast exterior and east kitchen wall; water damage on lower door frame (outlined in red); screen separating from frame (indicated with arrow), 2011.



Figure NE 32- Wood rotting at lower corner of kitchen door frame, 2011.



Figure NE 33- Missing stone and mortar at joint of east bedroom with kitchen extension resulting in exposed metal flashing (indicated by arrow). Site of heavy drainage off stone roof; note rust stains on stone roof slabs, 2011.



Figure NE 34- Modern electrical conduit connection (not original), note shallow overhang of roof, 2011.



Figure NE 35- Circular hole on north kitchen wall; likely intentional ventilation opening, 2011.



Figure NE 36- Extensive rust staining on west wall of kitchen; mortar missing at angle iron at roof edge (indicated by arrow), 2011.



Figure NE 37- Crumbling mortar at northeast corner of kitchen extension, 2011.



Figure NE 38- North kitchen window sash sagging in bottm right corner; note bow of stone sill, 2011.



Figure NE 39- West kitchen wall punctured by copper pipe; cut pipe has jagged edges. Note rust stains on wall, 2011.



Figure NE 40- Water damage on north entry overhang, wood deteriorating, 2011.



Figure NE 41- Water staining on north entry overhang support beam; note detail of bull-nosed end on rafter, 2011.



Figure NE 42- North entry overhang details: bull-nose ends of rafters and rounded stone support block, 2011.



Figure NE 43- Wooden door frame damaged at north entry, 2011.



Figure NE 44- Missing mortar at interface of roof with north wall of west bedroom; interior roof timbers may be exposed, 2011.



Figure NE 45- Crack in shutter on west wing of north façade (left window), 2011.



Figure NE 46- Crack in shutter on west wing of north façade (right window), 2011.



Figure EE 47- Crack at upper southern corner of east façade, 2011.



Figure EE 48- Deep hole in mortar at base of chimney on east façade (view partially obscured by debris on ground), 2011.



Figure EE 49- Paint peeling on sill of north window on east façade, 2011.



Figure EE 50- Split wood on shutter on south window of east façade, 2011.

## **Cabin Interior:**

Significance: High

Condition: Fair

Impact: Moderate

Primary Character Defining Features: Stone lintels over windows and doorways; stone wall masonry and floor finishes; built-in cabinets and shelves; stone slab mantles; exposed roof timbers; rafters and collar beams joined with wood pegs.



The interior of the Cabin has an orthogonal plan composed of a central living room, a kitchen, and east and west wings; the east and west wings both include a hallway, bathroom, and bedroom. The interior currently functions as a housemuseum educating visitors about the Pratt family's residence in the canyon, and as storage for various equipment used by Park personnel. According to the original drawings by Staub, the interior of the cabin has a 6" concrete foundation reinforced with hog wire. An account by Vance Phenix, who supervised the construction of the Cabin, indicates that concrete was poured but did not specify dimensions.<sup>26</sup>The floor throughout the structure is finished with mortared limestone slabs. All load bearing walls are limestone ashlar masonry; partition walls are constructed of wood frame sheathed with wood paneling. The windows are double-hung with muntin grids and all wood trim is finished with dark green paint.

## Living Room

The central living room, the largest room with the highest ceiling, is the major communal space within the structure. <u>The gabled roof is</u> constructed of 4" x 6" rafters extending off a 4" x 6" central support beam. The rafters support 1" x 6" 26 Vance D. Phenix. *History of Wallace Pratt Lodge*, transcribed by Don Zook October 21, 1993, Guadalupe Mountains National Park Library sheathing and are reinforced with 4" x 6" collar beams. The rafters and collar beams are connected with a mortise and tenon joints reinforced with 5/8" wooden dowel pins, a character-defining architectural detail. Some planks appear to have been replaced, possibly during the 1976 and 1980 roof repairs, though there is no documentation to corroborate the date.

The limestone block walls have been whitewashed. A fireplace with a single large stone slab mantle is located on the north wall of the living room. The east and west walls of the living room have built-in wooden bookshelves that are recessed into the stone walls; the bookshelves are finished with a dark green paint. There are two entries from the exterior of the Cabin into the living room: one on the south wall from the porch and the other from the main north entry. There is a doorway on the north wall leading to the kitchen, as well as two doors on the east and west walls leading to the lateral wings of the building. A pair of windows is located on the south wall, while there are individual windows on the east and west walls. The doorways and windows are capped by large stone lintels.

Living Room Deficiency/ Alteration	Recommended Treatment*	Impact
Gap in sill of window on east wall. See FIG LR 1.	Repair caulking to ensure window is properly sealed.	Low
Non-historic heaters on south wall. See FIG LR 2.	Ultimate use will determine the necessity of heating; remove if ultimate use will not include heating.	Low
Non-historic conduit on south wall. See FIG. LR 3.	Ultimate use will determine level of electrical service needed. No action recommended at this time.	Low
Cracked stones in south wall at ceiling. See FIG. LR 4.	Ensure the joint of roof and stone wall is sealed. Fill in cracks with epoxy to seal and restore structural integrity.	Moderate
Door frame on south wall is sagging; screen detaching from frame. See FIG. LR 5.	Remove door frame if necessary for repair; repair and stabilize frame and refit to seal doorway. Ensure frame is in good condition before reattaching or replacing screen.	Low
Stone lintel over door cracked. See FIG. LR 6.	Crack appears superficial but should be monitored for fracturing.	Low
Cracked mortar above door. See FIG. LR 6.	Repoint mortar above door.	Low
Cracks in mortar joints on south wall. See FIG LR 7.	Repoint mortar; monitor replaced mortar for subsequent cracking.	Low
Water damage to wooden rafter at south wall. See FIG. LR 8.	Treat wood with fungicide or an appropriate anti-rot agent. Seal joint of roof and wall with a clear silicone caulk.	Moderate
Stone missing at window sill on south wall. See FIG. LR 9.	Replace stone in kind.	Low

Crack by window lintel on south wall. See FIG. LR 10.	Repoint mortar.	Low
West wall has substantial gaps in the southwest corner under the window. See FIG. LR 11.	Repoint gaps in mortar and finish with whitewash to match existing; visually monitor for subsequent cracking.	Moderate
Gaps in mortar around window on the west wall (both left and right sides and around top of sill). See FIGS. LR 12, LR 13, LR 14.	Repoint mortar; monitor for subsequent cracking.	Low
Gap between bookshelf and west wall. See FIG. LR 15.	Ensure shelf is properly fastened to wall. Seal gaps with mortar if necessary.	Low
Deterioration of whitewash at joint with ceiling in southwest corner of living room; may indicate water exposure. See LR 16.	Ensure joint of roof and wall is sealed to prevent water exposure; remove damaged whitewash and assess condition of masonry underneath. Replace whitewash to match existing wall treatment and monitor for further subsequent deterioration.	Moderate
Gap in caulking above door in north wall. See FIG. LR 17.	Repoint caulking to ensure joint of door frame and wall is sealed.	Low
Peeling whitewash and water damage at joint of ceiling and wall in northwest corner. See FIG. LR 18.	Remove damaged whitewash and inspect for damage to stone masonry and wood planks at joint. Ensure joint is sealed to prevent water exposure to interior structural elements. Patch wall treatment to match existing whitewash.	Moderate
Water stains under rafters on north wall. See FIG LR 19.	Ensure joint of roof and wall are sealed to prevent water exposure. Reapply whitewash to match existing and monitor for further water staining.	Moderate
Water stains and chips in whitewash on north wall. See FIG LR 20.	Remove damaged white wash and inspect for damage to stone wall masonry. Replace wall treatment to match existing whitewash.	Low
Water damage to exposed roof planks at joint with north wall. See FIG LR 21.	Ensure joint of roof and wall is sealed to prevent water exposure. Treat wood with fungicide and appropriate anti-rot agent. Monitor for further staining or deterioration of planks.	Moderate

Peeling whitewash and deteriorating mortar	Remove damaged whitewash; inspect Moderate
in corner of north wall. See FIG. LR 22.	area of deterioration for water
	permeation. Repoint mortar before
	replacing whitewash to match existing.



Figure LR 1- Gap in sill of window on east wall, 2011.



Figure LR 2- Non-historic baseboard heaters on south living room wall, 2011.



Figure LR 3- Non-historic conduit on south bearing wall, 2011.



Figure LR 4- Crack in south stone wall at joint with ceiling, 2011.



Figure LR 5- Screen separating from wood frame, south entrance, 2011.



Figure LR 6- Crack in lintel above doorway on south wall, 2011.



Figure LR 7- Cracked mortar on south wall near ceiling, 2011.



Figure LR 8- Water damage to roof beam at south living room wall, 2011.



Figure LR 9- Gap in stone under window sill on south wall of living room, 2011.



Figure LR 10- Crack at lintel over window on south living room wall, 2011.



Figure LR 11- Substantial gaps in southwest corner of west wall, 2011.



Figure LR 12- Gap in mortar at joint of frame and wall at bottom corner of the west window, 2011.



Figure LR 13- Gap in mortar at top right corner of west living room window, 2011.



Figure LR 14- Gap in mortar at edge of west living room window, 2011.





Figure LR 16- Deterioration of wall infill material between rafters and ceiling joint on west wall, 2011.

Figure LR 15- Gaps around built-in bookshelf on west wall, 2011.



Figure LR 17- Gaps above door frame on north wall of living room, 2011.



Figure LR 18- Water damage and peeling whitewash on north wall of living room, 2011.



Figure LR 19- Water stains at rafter on north wall, 2011.



Figure LR 20- Staining and chipping of white wash on north wall indicate water damage, 2011.



Figure LR 21- Water staining on exposed roof planks; note staining on the whitewash and the crack extending from rafter near joint of ceiling and north wall, 2011.



Figure LR 22- Peeling whitewash and deteriorating mortar in north corner of living room, 2011.

# <u>Kitchen</u>

The kitchen is the secondary communal space in the structure. Many built-in features such as cupboards and cabinets appear to be original. The gabled roof components include 4" x 6" rafters extending from a 4" x 6" central beam to support 1" x 6" exposed planks. The rafters are reinforced with 4" x 6" collar beams which are held in place with 5/8" wooden dowel pins. A compact florescent light bulb hangs from a central collar beam.

Unlike the living room, the walls of the kitchen are exposed limestone masonry. A single window on the north wall is flanked by two hardwood hanging wall cabinets with metal hardware. The window is screened with a pull-down shade, as well as non-historic green and white gingham print curtains. Under the window there is a farmhouse style sink that rests on wood base cabinets. The base cabinets support a thin hardwood counter top and are flanked by full-height cupboards.

The east wall has a doorway to the exterior of the Cabin and built-in double door wood cabinet that is recessed into the stone wall. The west wall has non-historic copper piping penetrating through the mortar to the exterior of the cabin, which supplied gas to the stove after the solar retrofit. The stove has been removed from the Cabin.

A wood-framed doorway on the south kitchen wall leads to the living room. The south wall has two modern electrical boxes and two two-way electrical outlets, which are not historic. A ventilation pipe extends out from the south kitchen wall, where the wall protrudes to accommodate the living room fireplace. Black staining around the ventilation pipe indicates exposure to soot or smoke, suggesting an oven once was attached to the pipe to vent smoke out of the central chimney.

Kitchen Deficiency/Alteration	Recommended Treatment*	Impact
Non-historic electrical fuse box on the west	Current electrical service requires	Low
wall. See FIG. KI 1.	this feature; may be reconfigured or	
	removed as needed.	
Non-historic conduit on south wall. See FIG.	Current electrical service requires	Low
KI 2.	this feature; may be reconfigured or	
	removed as needed.	
Non-historic copper piping in southwest corner	Remove non-historic, non-functioning	Low
of kitchen. See FIG.KI 3.	copper tubing; repoint mortar in-kind	
	to seal wall.	
Non-historic electrical system with metal	Current electrical service requires	Low
conduit on ceiling and south wall. See FIG. KI	this feature; may be reconfigured or	
4.	removed as needed.	
Mortar deteriorating above corner of door on	Repoint mortar to match existing.	Low
east wall. See FIG. KI 5.		



Figure KI 1- Non-historic electrical box on south kitchen wall; addition, 2011.



Figure KI 2- Non-historic conduit on south kitchen wall, 2011.



Figure KI 3- Copper piping; possible water heater connection, 2011.



Figure KI 4- Non-hostoric electical system with metal conduit on ceiling and south wall, 2011.



Figure KI 5- Mortar deteriorating about corner of door on east wall, 2011.

#### East Hallway

Two stone stairs lead from the living room down to the east wing which has a slightly lower finish floor elevation than the rest of the Cabin. The wooden door that separates the hall and the living room has an ornate metal lever, an example of the refined details that add character to the building. The south and west walls of the hallway are mortared limestone masonry, while the east and north walls are wood paneled partitions. A radiator has been fixed to the south wall under a single wood framed window. A tall wooden bookshelf rests against the south wall at the western corner. A 3'-wide wooden closet has been built into the west wall in which the original electrical box is located (see Figure EH 1). The east wood paneled partition wall is painted dark green, as is the wood-paneled suspended ceiling. A scuttle in the ceiling leads to crawl space above the east hallway (Figure EH 2).

East Hallway Deficiency	Recommended Treatment *	Impact
Missing cover attic scuttle opening. See FIG	Replace in kind; see cover to opening in	Low
EH 2.	west hallway as a model for replacement.	



Figure EH 2- Missing cover for attic scuttle opening in east hallway ceiling,

2011.

Figure EH 1- Original electrical box located in closet in the east hallway, 2011.

## East Bathroom

The east bathroom extends from the northern part of the east hallway, separated by a wood door with a detailed metal pull. The south and east walls are wood paneled and painted green. The north and west walls are finished with white plaster. A window treated with a white pull-down shade and green and white gingham print curtains is located on the north wall. The architectural drawings indicate that a bath tub was intended to run along the west wall. The toilet tank is connected to the west wall but the bowl has been removed. A sink and two metal fixtures for soap and towels are fastened to the east wall which has a built-in wooden cabinet.

East Bathroom Deficiency/ Alteration	Recommended Treatment*	Impact
Chipped wood noted at door frame on south wall. See FIG EB 1.	Make necessary repairs using splicing techniques; replace damaged portion of frame in kind if needed	Low
Extensive water damage in southwest corner of bathroom; wood-paneled suspended ceiling and partition wall damaged and plaster on south wall is stained and eroding. See FIG EB 2 and EB 3.	Ensure proper functioning of roof drainage and storm water disposal systems. Repair wood on ceiling and west wall using splicing techniques where possible; replace wood beyond repair in-kind. Treat exposed or replaced wood with anti-rot agent. Remove damaged plaster from south wall and assess underlying materials; refinish wall plaster to match existing.	Severe
Crack in stone floor at near south wall. See FIG. EB 3.	Remove debris from crack. Assess damage due to water exposure in and around crack as staining is apparent directly above crack on wall. Seal crack with mortar or other appropriate substance if necessary.	Low (assuming water exposure has been limited)
Alteration: Toilet bowl removed- tank remains. See FIG EB 5.	The ultimate use will determine the need for plumbing. Replace bowl and restore operability if sewage system is brought to code.	Low
Holes and cracking noted in plaster on west wall. See FIGS. EB 6, EB 7.	Remove damaged plaster and assess for water damage to underlying structural elements. Patch with matching white plaster.	Low

Extensive cracking and detachment of plaster in northwest corner at floor. See FIG EB 8.	Remove damaged plaster; assess water damage and treat interior structural elements (repairing wood if needed) before replacing plaster to match existing.	Moderate
Cracks and staining in plaster on north wall. See FIG. EB 9.	Remove damaged plaster; inspect for water permeation in underlying masonry before replacing plaster to match existing.	Moderate
Joint of suspended ceiling and north plaster wall damaged; tin foil has been added to fill gaps. See FIG EB 10.	Ensure proper functioning of roof drainage and storm water disposal systems. Repair damaged wood with splice and treat with anti-rot agent. Repair plaster wall so it is flush with suspended ceiling.	Moderate
Water damage at top of window on the north wall. Plaster above window appears to have had prolonged exposure to water. See FIG. EB 11.	Seal exterior joint of roof and wall with clear silicone caulk. Remove damaged plaster and assess underlying structural material. Replace plaster to match.	Severe
Missing mortar under window sill and damaged plaster under window on north wall. See FIG. EB 12.	Remove damaged plaster and assess surrounding structural materials; replace mortar under window to seal. Replace plaster and monitor for further deterioration.	Moderate
Holes in wood panels on east wall. See FIG EB 13.	Fill holes with epoxy, sand and refinish to match existing green paint.	Low
Wood panel detaching on east wall. See FIG EB 14.	Stabilize using epoxy or repair with splice. Finish with matching green paint.	Low
Alteration: Non-historic heater on east wall. See FIG EB 15.	The ultimate use will determine heating needs. If heaters are not to be used, remove heater.	Low



Figure EB 1- Chipped wood at door frame on south bathroom wall, 2011.



Figure EB 2- Extensive water damage in upper southwest corner of bathroom (ceiling, and walls) ; note tin foil in gaps at corner, 2011.



Figure EB 3- Water damage in upper southwest corner of bathroom (ceiling and walls), 2011.



Figure EB3- Crack between south wall and stone floor; note water staining on wood wall, 2011.



Figure EB 5- Remaining tank of toilet fixture (bowl removed); note debris on tank and water damage to wall behind tank, 2011.



Figure EB 6- Holes in west bathroom wall; note water staining, 2011.



Figure EB 7- Cracks in plaster on west wall, 2011.



Figure EB 8- Extensive cracking and detachment of plaster in northwest corner, 2011.



Figure EB 9- Cracks and staining in plaster on north wall, 2011.



Figure EB 10- Water damage to north plaster wall and suspended ceiling.; gaps filled with tin foil. Note exposed rafter, 2011.



Figure EB 11- Extensive water staining and damage to plaster above window on the north wall, 2011.



Figure EB 12- Deteriorated mortar under window sill and cracked/ detached plaster under window on the north wall, 2011.



Figure EB 13- Holes in wood panels on east wall, 2011.



Figure EB 14- Wood panel detaching on east wall, 2011.



Figure EB 15- Non-historic heater at base of east wall, 2011.

## East Bedroom

The east bedroom is currently being used for storage; the room does not function as an interpretive display. The north, south and east walls are mortared limestone masonry with a thin whitewash finish. The west partition wall is composed of green-painted wood panels and features a built-in shelf with a bar for hanging clothes and hook fixtures installed on the wall below the shelf (See FIG EBR 1). The gabled roof is constructed of 4" x 6" rafters extending off of a 4" x 6" central beam. The rafters are reinforced with 4" x 6" collar beams that are attached using 5/8" wooden dowel pins. The rafters support exposed 1" x 6" wood roof planks. A metal lighting fixture with a compact florescent bulb hangs from a central collar beam (See FIG EBR 2). A fireplace with a stone slab mantle is incorporated into the center of the east wall; the fireplace is covered with a removable board.

East Bedroom Deficiency	Recommended Treatment*	Impact
Water damage under rafters at south wall. See FIG EBR 3.	Ensure proper functioning of roof drainage and storm water disposal systems. Remove whitewash to inspect condition of limestone block underneath. Replace whitewash to match existing and monitor for subsequent water exposure.	Moderate
Aluminum foil in gaps between west wall and south wall. See FIG. EBR 4.	Remove aluminum foil; seal gap between walls with caulking.	Low
Crack between stone blocks under window sill on south wall. See FIG EBR 5.	Repoint mortar between blocks.	Low
Discoloration of south stone wall; possible water damage. See FIG EBR 6.	Ensure mortar joints are intact and that water is properly drained off of roof. Ensure exterior grading is sufficient to evacuate water away from foundation to prevent capillary action.	Moderate
Chip in door. See FIG EBR 7.	Make necessary repairs using splicing techniques.	Low
Door hinge damaged and protruding. See FIG EBR 7.	Replace door hinge with matching or similar hardware.	Moderate
Hook fixture falling off east wall. See FIG. EBR 8.	Repair fixture using matching or similar hardware.	Low
Crack in mortar in north wall; possible sedimentation. See FIG. EBR 9.	Repoint mortar; monitor for further cracking.	Low

Water damage noted on north wall under rafters. See FIG EBR 10.	Ensure proper functioning of roof drainage and storm water disposal systems. Improve ventilation and drainage issues before repairing wood. Treat damaged wood with fungicide and appropriate anti-rot agent.	Moderate
Discoloration of stone and possible water damage on east wall. See FIG EBR 11.	Ensure proper drainage of water off of roof to limit water exposure to wall masonry. Ensure exterior grade is sufficient to direct roof run off away from foundation to prevent capillary action.	Moderate



Figure EBR 1- Built-in shelf and rod fixture and hook fixtures on west wall, 2011.



Figure EBR 2- Metal light fixture on central collar beam; note replaced sheathing (indicated with arrow), 2011.



Figure EBR 3- Water staining on south wall under rafter, 2011.



Figure EBR 4- Foil in gaps between south stone wall and west partition wall, 2011.



Figure EBR 5- Crack between stone blocks under window sill on south wall, 2011.



Figure EBR 6- Discoloration of south stone wall; possible water damage, 2011.



Figure EBR 7- Chip in wood of door frame; note hinge is damaged and protruding, 2011.



Figure EBR 8- Hook fixture missing a screw and falling off west wall, 2011.



Figure EBR 9- Crack in north stone wall under rafter, 2011.



Figure EBR 10- Water staining on north stone wall at joint with roof; note white stains on exposed planks, 2011.



Figure EBR 11- Discoloration of east stone wall; possible water damage, 2011.

# West Hallway

The east and south walls are mortared limestone, while the west and north walls are wood-paneled partition walls; the south wall has a wood-framed window. A cabinet has been integrated into the north wall flanking the door to the west bathroom. The wood-paneled suspended ceiling, which is finished with green paint, has been carved to fit flush with the contours of the stone walls (See FIG. WH 1). A scuttle in the ceiling leads to crawl space above the west hallway. The crawl space contains electric cables and a metal utility pipe (See FIGS. WH 2 and 3).

West Bedroom Deficiency/ Alteration	Recommended Treatment*	Impact
Stone lintel over door on east wall water	Monitor area for further damage.	Low
stained. See Figure WH 4.		
Wood trim on suspended ceiling detaching.	Repair any damage on trim using epoxy or	Low
See Figure WH 4.	a wood splice, if necessary. Reattach trim to	
	its original location to fit flush with ceiling	
	and wall.	


Figure WH 1- Wood planks of drop-down ceiling carved to fit curves of stone wall, 2011.



Figure WH 2- Electric cables within the crawl space above the west hallway, 2011.



Figure WH 3- Metal utility pipe within the crawl space above the west hallway, 2011.



Figure WH 4- Water stains on the lintel above door on east wall; wood trim detaching, 2011.

# West Bathroom

This room historically functioned as the bathroom for the west wing of the Cabin and is located adjacent to the west bedroom. The west and south walls of this bathroom are wood panel construction finished with green paint, as is the suspended ceiling. The north and east walls are finished with white plaster. A cabinet has been integrated into the west wall of the bathroom alongside the sink. A non-historic heater has been added to the base of the west partition wall. A claw-foot bathtub is located against the east wall, adjacent to the fixed toilet tank. The toilet bowl has been removed and plumbing for the toilet is at the southeast corner of the stone slab floor.

West Bathroom Deficiency/ Alteration	Recommended Treatment*	Impact
Water damage on plastered east wall.	Ensure proper functioning of roof	Moderate
See FIGS. WB 1, WB 2.	drainage and storm water removal	
	systems. Remove damaged plaster and	
	inspect for damage to surrounding	
	structural material before replacing	
	with fresh plaster. Monitor for further	
	water damage.	
Cracking and detached plaster above	Ensure window is sealed properly.	Moderate
and below window on north wall. See	Remove damaged plaster and inspect	
FIG WB 3.	condition of surrounding structural	
	elements before replacing with fresh	
	plaster. Monitor for further water	
	damage.	
Toilet bowl removed; tank remains	The ultimate use will determine the	Low
(plumbing not in service). No Photo	need for plumbing. Replace bowl and	
	restore operability if sewage system is	
	brought to code.	
Non-historic heater at base of west wall.	The ultimate use will determine	Low
See FIG WB 4	heating needs; remove heater if it is not	
	intended to be used.	



Figure WB 1- Water damage on east plastered wall (plaster eroded), 2011.



Figure WB 2- Cracked and peeling plaster on east wall, 2011.



Figure WB 3- Cracked and detached plaster at window sill on north wall, 2011.



Figure WB 4- Non-historic heater at base of west partition wall, 2011.

# West Bedroom

The west bedroom currently functions as an interpretive display, decorated as it may have been when the Pratt family occupied the Cabin. The bed frame and dresser are cataloged as museum collection objects and came from the Grisham-Hunter Lodge, 1 mile up-canyon, when it was dismantled. The gabled roof is constructed of 4" x 6" wood rafters that support 1" x 6" wood sheathing. The rafters are reinforced with 4" x 6" collar beams. Collar beams and rafters are connected with a mortise and tenon joint reinforced with 5/8" wooden pegs. A portion of the sheathing appears to have been replaced, which may have occurred during the 1976 and 1980 roof repairs but there is no corroborating documentation to confirm this date. An electric lantern-like lighting feature hangs from a central collar beam (See FIG WBR 2). The north, south and west walls are mortared limestone masonry finished with a thin whitewash. The north and south walls each have one wood-framed window. A fireplace and a stone slab mantle are built in to the center of the west wall and are flanked by two windows; the fireplace is currently covered with a removable board and a queen-size bed.

West Bedroom Deficiency/Alteration	Recommended Treatment*	Impact
Water filtration on south wall. See FIG. WBR 1.	Ensure proper drainage of water from roof and soundness of mortar joints. Ensure exterior landscape grading is sufficient to evacuate water away from structure to prevent capillary action. Clean surface of limestone and mortar using the gentlest method possible to remove salts. Monitor for further evidence of water filtration.	Moderate
Water staining on wood sheathing. See FIG WBR 2.	Perform resistance test on wood to determine soundness. Replace rotted sheathing if structurally necessary. Monitor for any further water damage indicating a leak in the roof.	Low to moderate pending further investigation of wood condition.
Gable rafter at joint with west wall has severe water damage and appears to be exposed to exterior conditions. See FIG WBR 3.	Seal exterior joint of roof and wall with mortar or clear silicone caulk. Perform resistance test on wood rafter to determine structural soundness. Replace rafter in-kind if structurally necessary.	Severe
Discoloration of west stone wall due to water filtration. See FIG WBR 3.	Seal joint of roof and wall as noted above. Remove damaged wall finish and assess stone underneath. Refinish wall to match existing whitewash.	Moderate

Newspaper used as insulation is exposed between north and east walls. See FIG WBR 4.	Seal joint of partition and stone wall to contain insulation.	Low
Alteration: roof planks have been replaced. See FIG WBR 2.	N/A	Low
Queen-size bed inaccurately interprets the use of space within the west bedroom, as it obstructs fireplace. See FIG WBR 5.	Rearrange furnishings in west bedroom so that bed is not blocking fireplace. Current configuration of chimney was not assessed; may require cap, screen or other preventative measure against weather and pests.	Low



Figure WBR 1- Extensive discoloration on south wall due to water filtration, 2011.



Figure WBR 2- Water staining on sheathing; note light fixture on central collar beam and replaced section of sheathing (far left), 2011.



Figure WBR 3- Extensive water damage at gable rafter at joint with west wall; note water discoloration of north stone wall, 2011.



Figure WBR 4- Exposed newspaper insulation at joint of east partition wall, north stone wall and rafter, 2011.



Figure WBR 5- Fireplace in West Bedroom; queen-size bed and plywood board that block fireplace moved at time of assessment for photograph and subsequently replaced.

# **Building Support Systems**

#### Cabin

The Cabin is equipped with the necessary installations for several services such as running water, indoor plumbing, heating and electricity. Currently, some of these services have been interrupted. The following is an inventory of the state in which the building support systems functioned at the time of assessment.

# Electrical:

The configuration of the electric system is undetermined; however, there is functioning electrical service at the Cabin. While the was Cabin was retrofitted to be powered by solar energy and propane, the National Park Service power lines continue to run to the Cabin and are likely the source of electrical service. The modern fuse box is located in the kitchen, where the wires enter the building at the northeast corner of the kitchen through a length of metal conduit. An older, unused fuse box has not been removed and remains in the east hallway closet (see FIG. EH 1). In addition to several outlets on the interior of the Cabin, there are also two outside: one located at the southern porch and the other at the main north entrance.

#### Plumbing:

The Cabin has plumbing to support two bathrooms and a kitchen. Water is pumped from a well and wastewater was disposed of in an underground cesspit until the late 1990s. Currently there is no wastewater disposal system on the site. Well water is available on a limited basis for periodic cleaning, though at the time of assessment running water systems were not in service. Pipes are still in place throughout the Cabin, though the toilet bowls have been removed from both bathrooms to prevent unauthorized use (the toilet tanks remain in place). There is a major water line at the southeast side of the Cabin, which has been cut and closed. There is an additional pipe extension on the west side of the south porch. Plumbing connections in the Garage rest room have been capped.

#### Fire/Health /Life Safety/ADA/Communications:

There is currently no fire suppression system inside the Cabin. No telephone services are available at the site and communications are limited to radio (and possibly limited cell-phone service). There is currently no ADA-compliant accessibility to the interior of the Cabin; however, the trail to the Cabin site is not ADA compliant either.

#### HVAC:

The renovation of the electrical system included the installation of several interior baseboard heaters. Pratt Cabin does not have an air conditioning system, and interior ventilation relies on passive strategies. It is unknown if the windows are currently operable.

Cabin Support Systems Deficiency/	Recommended Treatment*	Impact
Alteration		
Plumbing service has been	The Ultimate Use will determine the need for	Low
disconnected; toilet bowls have been	plumbing. Replace toilet bowls and reinstate	
removed. See FIG CS 1.	operability if sewage system is brought to	
	code.	
Alteration: Cabin was retrofitted to	N/A	Low
run off of solar electricity. (No photo)		
Non-historic baseboard heaters have	The Ultimate Use will determine the need	Low
been installed in the Cabin interior.	for heating; heaters may be reconfigured or	
See FIG CS 2.	removed as necessary.	



Figure CS 1- Toilet bowls have been removed in both bathrooms; tanks remain in place, 2011.



Figure CS 2- Non-historic baseboard heaters have been installed throughout the interior of the Cabin, 2011.

#### Garage

The Garage has the infrastructure for indoor plumbing and running water in the east wing, as well as electrical connections throughout the building. These utilities all appeared to be inactive at the time of assessment.

# Electrical:

Light switches and outlets were observed at the time of assessment, indicating the Garage is wired for electricity; however, the current state of electrical service in the Garage is unknown. An underground power line supplied electricity to the Garage as late as January 1995, before the plans for a solar retrofit proposed reconfiguring the existing line to connect to solar batteries were approved.<sup>27</sup> The photovoltaic system was removed from the site circa 2005.

# Plumbing:

The central storage room has plumbing connections for a sink and a toilet. Both fixtures have been removed and some of the plumbing pipes have been capped. Currently there are two faucets in place in the east storage room, though running water systems were not in service at the time of assessment.

# Fire/Health /Life Safety/ADA/Communications:

No fire suppression system was noted in the garage. There is currently no ADA compliant accessibility, but nor is the trail to the site compliant. As the Garage is no longer used by the public, no alterations are recommended at this time.

An antenna (see FIG GS 1) was noted on the south side of the roof, at the valley created by the connection of the Garage bay wall and the east wing roof line. The function of this antenna is undetermined, but it is possibly related to former radio broadcast reception.

Garage Support Systems Deficiency/	Recommended Treatment	Impact
Alteration		
Bathroom fixtures have been removed and	Current environmental standards restrict use of	Low
plumbing pipes capped. See FIG GS 2.	wastewater system; replace fixtures and restore	
	operability if wastewater system is brought to	
	code.	

<sup>27</sup> National Park Service, XXX Assessment form for proposed solar retrofit of Pratt Lodge Complex, 1994-1995, Guadalupe Mountains National Park Compliance Records.



Figure GS 1- Antenna on south side of Garage roof, 2011.



Figure GS 2- Capped plumbing in Garage central storage room (former public bathroom), 2011.

# **Garage Exterior**

Significance:	High (Contributes to the Cabin and site)
Condition:	Fair
Impact:	Low
Primary Characte	er Defining Features: Gabled stone and wood roof, lim

Primary Character Defining Features: Gabled stone and wood roof, limestone masonry walls, and double-hung wood windows with wood frames and shutters painted green.

The Garage was an addition made after the completion of the Cabin. The orthogonal floor plan includes two parking bays and attached living quarters for hired help, which was later adapted to be a public rest room and storage room. The primary building material is ashlar limestone masonry, which is used on the east, south and west facades. However, the northern (back) wall assembly is a combination of limestone and cobble. The variation in building materials for this less-visible section of the site highlights economy in the use of limestone and emphasizes the utilitarian nature of the Garage. The gabled roof is constructed of mortar reinforced limestone slabs. A stone chimney protrudes from the top of the gable on the east edge of the roof.

The southern façade of the Garage includes the parking bay entrance, with a rough opening of 17'-o" in width and 8'-o" in height, supported in the center by an 8" x 8" wood column. The original Garage doors have been removed exposing the interior of the parking bays. The eastern portion of the south façade is enclosed, forming the maid's quarters. This space is accessible by two entries with wood plank doors that are capped with a stone lintel and finished with dark green paint. Both door sills are raised as the floor final elevation is higher than ground elevation and the floor elevation of the parking bays. The door on the west leads to the former public rest room (now the central storage room) and the door on the east leads to what was proposed a maids quarters (the eastern storage room). The doors appear to have been constructed at different times as the elevation of their sills and the construction of their frames vary (see FIG. EG 1). The western door has a longer vertical length than the eastern door, resulting in a lower sill elevation. The head of the frame of the western door is flush with the doorjambs. One of the doors may have been cut after the construction was completed. Since the eastern door leads to the main living quarters (now storage room), it is likely this was the original door. Both entrances show signs of weather damage, notably at the bottom of the door frames and thresholds.

The eastern storage room include two windows approximately 3'-2" in rough opening, which are located on east and northeast facades. Both windows are similar in design to those at the Cabin; they are wood framed, double-hung windows with muntin grids. Although both windows underwent recent restoration work<sup>28</sup>, both currently show deterioration on the wood sills and peeling of the paint.

The walls appear to be in fair condition, although the west wall displays some structural deterioration in need of monitoring. There is a general need to repoint the mortar joints gaps and both wooden doors are in need of maintenance.

<sup>28</sup> See Chronology of Development and Use for details on window restoration work.



<b>Exterior Deficiency/ Alteration</b>	<b>Recommended Treatment*</b>	Impact
Mortar deteriorating on east wall. No	Repoint mortar, monitor for further	Low
photo available.	deterioration.	
Non-historic vent hole on east façade.	Determine function of ventilation hole;	Low
See FIG. EG 2.	if not in use, cover ventilation hole with	
	limestone blocking to prevent exposure	
	to water and pests.	
Holes in joints at center of the west	Repoint mortar.	Low
façade. See FIG. EG 3, EG 4.		
Bulge in west wall. See FIG. EG 5.	Ensure proper drainage of water	Severe
	away from the structure. Develop a	
	monitoring system to track further	
	structural deformation of the load	
	bearing walls. Consult with a licensed	
	architect or engineer for further	
	information on underlying causes and	
	treatments.	

Bottom of north facing doors and	Repair wood with splicing techniques.	Moderate
frames present splintering of the wood	Refinish with matching green paint.	
and peeling of paint; deterioration at	Replace doors with similar lumber and	
the bottom of the door has allowed	construction, if necessary.	
debris to accumulate inside the Garage		
storage rooms. See FIG. EG6, EG7.		
Lintel over west exterior door (to	Develop a monitoring system to track	Severe
central storage room) is cracked; note	further deformation within stone	
gap between door frame and stone	masonry elements.	
masonry. See FIG. EG 8.		



Figure EG 1-Doors on south facade of east wing of garage; note elevations of sills and frame construction, 2011.



Figure EG 2 - Ventilation hole on east façade, 2011.



Figure EG 3– Eroded mortar joints on west facade, 2011.



Figure EG 4- West wall, holes in mortar joints, 2011.



Figure EG 5- West wall bulging slightly, 2011.



Figure EG 6 – Water damage at bottom wooden door frame and door, 2011.



Figure EG 7- Wood planks weathering at bottom of wood door, 2011



Figure EG 8- Crack in lintel over west exterior door; note gap between door frame and stone masonry, 2011.

# **Garage Interior**

 Significance:
 Medium

 Condition:
 Fair

 Impact:
 Low

 Primary Character Defining Features: Stone slab lintels over windows and doors, exposed wooden rafters and sheathing, limestone paver flooring.

# Parking Bays

The Garage loading area encompasses a rectangular area of approximately 19' by 18'. As previously mentioned, the original doors have been removed leaving exposed bolts, which are subject to weathering as well as being sharp and therefore hazardous for users. The floor of the double-bay parking area is covered with loose sand, lacking a concrete foundation slab.

The roof structural system is formed by  $2^{n} \ge 8^{n}$  rafters that run longitudinally in average 19" o.c. separation and are reinforced with two  $2^{n} \ge 4^{n}$  beams that "sandwich" the rafter and function as a collar beam. The rafters brace 1"  $\ge 8^{n}$  wood sheathing that supports the exterior stone roof slabs. Evidence of water percolation, including water and mineral staining, is visible on the rafters and sheathing. A portion of the sheathing appears to have been replaced, possibly during the 1982 repairs to the roof. Three non-historic steel tension rods run north-south across the bay, from the  $8^{n} \ge 8^{n}$  support beam at the bay openings to the north wall. The steel tension rods augment the  $2^{n} \ge 8^{n}$  wood rafters to the wall shows signs of rusting and deterioration of the mortar; the rods present a high degree of weathering and deformation. Currently, the tension rods do not serve their structural purpose, but rather serve as shelving space for ladders, lumber and other tools, which may contribute to their sagging and negatively impact their important structural function. Evidence of water penetration, including water and mineral staining, is visible on the rafters and sheathing.

A doorway in the eastern wall links the Garage bay area with the central storage room of the attached east wing. The doorway is capped with a limestone lintel and the wooden paneled door is finished with green paint. A light switch is cut into the east stone wall, south of the door to the central storage room. It is unclear as to whether the light switch was part of the original construction or a later addition.



Garage Interior Bay Deficiency/	Recommended Treatment*	Impact
Alteration		
Garage doors have been removed;	As fastenings are evidence of the	Low
exposed bolts are a possible hazard. See	historic garage doors, they should be	
FIG. IG 1.	capped rather than removed.	
Non-historic tension rods deforming. See	Discontinue use of tension rods for	Severe
FIG. IG 2.	shelving purposes. Consult with	
	a licensed structural engineer to	
	determine continued need for tension	
	rods for structural purposes and	
	perform treatment accordingly.	
Significant water stains on west and south	Seal joint of roof and wall with mortar	Moderate
walls. See FIG. IG 3.	or clear silicone caulk to prevent	
	water exposure to interior structural	
	elements.	
Plaster crumbling in east corner of north	Repair cause of exterior water	Low
wall. See FIG IG 4.	penetration, then remove and replace	
	damaged plaster in-kind.	

Extensive rust marks at 8" x 8" wood	Inspect beam for corroded hardware.	Moderate
beam and stone wall connection. See FIG.	Replace with non-corrosive hardware	
IG 5	if necessary.	
Water damage on roof sheathing at edge	Perform resistance test on wood	Moderate
of parking bay opening. See FIG. IG 5	for structural soundness; Replace	
	sheathing if structurally necessary.	
Exposed presumed water supply-line pipe	The Ultimate Use will determine the	Low
protruding from floor. See FIG. IG 6	need for plumbing in the Garage.	
protruding from floor. See FIG. IG 6	need for plumbing in the Garage. Remove or reconfigure depending on	
protruding from floor. See FIG. IG 6	need for plumbing in the Garage. Remove or reconfigure depending on necessity of plumbing in the Garage.	
protruding from floor. See FIG. IG 6	need for plumbing in the Garage. Remove or reconfigure depending on necessity of plumbing in the Garage. Enclose pipe in a protective cage if it is	



Figure IG 1- Garage doors have been removed; metal bolts are exposed, 2011.



Figure IG 2 – Non-historic steel tension rods, which currently are used as shelving; note replaced sheathing (indicated with arrow), 2011.



Figure IG 3 - Extensive staining on west wall at connection with wood gable rafter, 2011.



Figure IG 4 – Coarse mortar coat cracking at southern-east corner, 2011.



Figure IG 5 – Rust stains at 8" x 8" wood beam connection points with stone wall; note water damage on sheathing at edge of roof overhang, 2011.



Figure IG 6 - Protruding pipe line (outlined in red) can be enclosed with a protective cage; note lightswitch south of doorway (indicated with arrow), 2011.

# East Wing

The eastern wing of the Garage previously served as the housekeeper quarters; this section of the Garage is divided by a non-load bearing divider wall constructed with 2" x 4" studs and plaster which appears to have been constructed after the roof was completed, as it intersects a 2" x 4" collar beam supporting a common rafter. The partition wall divides the space into a supply storage room on the east and a former public rest room (now the central storage room) on the west. A visual assessment of the partition's condition suggests the lumber studs are covered with a lath mesh that supports an approximate 1-inch concrete plaster sheathing.

#### Central Storage Room:

The central storage room stone walls, namely the west wall, show a degree of deformation and bulging; this is possibly caused by settling of the foundation and the stone roof dead load. The deformation of the Garage walls is apparent at the joint of the east and south walls of the central storage room where it has caused extensive cracks from the roof to the foundation. There are exposed plumbing pipes on the east wall, as well as a capped cesspit connection and a capped water pipe on the floor in the northwest corner. The north wall has been covered with a cement plaster and both the north wall and the east partition wall are painted green. The central storage room currently stores a gas generator and various maintenance supplies.

#### Eastern Storage Room:

The south and east walls of the eastern storage room are exposed limestone masonry, while the north limestone and cobble wall has been coated with a cement plaster. The western partition wall has an exposed white plaster finish. Non-historic wooden shelves against the west wall hold various maintenance supplies. The eastern storage room has two wooden windows, on the east and north walls respectively, that are similar in design to those in the cabin: they have a wood frame and are double-hung-style with a muntin grid.

The door on the southern wall has been boarded shut. A light switch is located on the south wall just west of the door.

The floor is finished with limestone pavers of irregular sizes. It appears as though settling of the foundation has compromised the stone floor stability, causing some areas the floor to slightly slope downward towards the south side of the building. The original stone slab flooring presents extensive deterioration, as the mortar around the stone slabs has cracked and stone slabs detached.

The eastern storage room contains a cabinet sink located in the northeast corner with all of the plumbing installations intact. The deformation of the foundation or exterior stone walls has damaged the sink's framework, causing it to deform and detach from the stone wall.

The deficiencies identified have contributed to an accelerated deterioration of the structure. These deficiencies may require substantial stabilization and maintenance, such as the repair of connection points at the stone headers, removal of protruding pipe lines (at the former public rest room) and the refurbishment of the door frames and door bases.

Central and East Storage Rooms Deficiency/Alteration	Recommended Treatment*	Impact
Stud and plaster divider wall separating the east Garage wing into two spaces cracking and cement plaster peeling. See Fig. IG 7	Inspect framework of partition wall; remove plaster and lath if necessary to inspect structural stability of wall. Wall may need to be removed or reconfigured depending on the ultimate use of the Garage.	Moderate
West wall bulging eastward above door to Garage bay in central storage room. See Fig. IG 8	Install a monitoring system to track further movement in the walls. Consult with a licensed structural engineer to determine causes and treatment options.	Severe
Exposed plumbing pipes near center of east wall in central storage room; capped sewer pipe in central storage room (plumbing not in service). See Fig. IG 9, IG 10	Ensure exposed plumbing pipes are capped. The ultimate use will determine the level of plumbing service required; return to operability if water procurement and disposal systems are restored.	Low
Addition of plaster on north and east walls of central storage room. FIGS IG 11, IG 12	Finish plaster with green paint to match existing wall finish.	Low
Floor surface uneven, possibly due to deficiencies in the underlying foundation, and limestone floor pavers are detaching. FIG. IG 13	Remove limestone floor pavers to inspect foundation. Consult a licensed structural engineer to determine whether foundation needs to be reinforced. Reset limestone pavers in original design.	Severe
Ventilation hole may be allowing pests into the east storage room; hornets noted in this part of the Garage. FIG IG 14	Install a screen to prevent pests from entering the interior of the Garage.	Low
Detachment of sink in east storage room. See Fig. IG 15	Remove damaged plaster and make needed repairs to sink frame. Secure repaired sink to wall using compatible materials and repaint to match existing; monitor for further damage.	Low
Separation of plaster partition wall and stone wall in southwest and northwest corners of east storage room. FIGS. IG 16, IG 17	Inspect partition wall for stability; movement of stone load-bearing walls may be causing the partition wall to detach. Partition wall may need to be removed or reconfigured depending on the Ultimate Use of Garage.	Moderate

Cement plaster on north wall of east	Repair damaged area with matching	Moderate
storage room is spalling. FIG. IG 18	plaster; monitor for further cracking or	
	spalling as a sign of wall sedimentation or	
	deformation.	
Cracks and gaps at connection of east	Inspect partition wall for stability;	Moderate
and south walls of central storage room;	monitor corner for further deterioration.	
movement within the structure may be	Partition wall may need to be removed or	
causing the partition wall to detach from	reconfigured, depending on the Ultimate	
load bearing stone walls. FIG. IG 19	Use of the Garage.	



Figure IG 7 – Stud and plaster partition wall intersecting with wood collar beam presents multiple cracks and peeling of cement plaster sheathing, 2011.



Figure IG 8- West wall of the garage central storage room is bulging eastward above door to Garage bay, 2011.



Figure IG 9- Exposed plumbing pipes of former rest room sink near the center of the east wall in the Garage central storage room (plumbing not in service), 2011.



Figure IG 10- Capped septic connection and plumbing pipe in the northwest corner of the Garage central storage room (plumbing not in service), 2011.



Figure IG 11- Addition of plaster at top of north and east walls in central storage room of Garage (facing north), 2011.



Figure IG 12- Replaster of east wall in central storage room of Garage (facing northeast), 2011.



Figure IG 13- Uneven floor surface, possibly due to deficiencies in foundation, and detachment of the stone flooring, 2011.



Figure IG 14- Ventilation hole on east wall of east storage room may be allowing pests into the interior of the Garage, 2011.



Figure IG 15 - The sink exhibits extensive damage and detachment from the stone wall, 2011.



Figure IG 16- Separation of partition wall and stone wall in southwest corner of east storage room, 2011.



Figure IG 17- Separation of partition wall and stone wall in northwest corner of east storage room in Garage, note light switch on wall in foreground, 2011.



Figure IG 18- Example of spalling cement plaster on north wall of east Garage storage room, 2011.



Figure IG 19- Gap between east partition wall and south stone wall in central storage room, 2011.

# TREATMENT & USE

# ULTIMATE TREATMENT & USE

The following section recommends preservation of the Pratt Cabin. The Secretary of the Interior defines preservation as:

the act or process of applying measures necessary to sustain the existing form, integrity and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.<sup>29</sup>

The Pratt Cabin continues to function as required by the Guadalupe Mountains National Park. The Cabin and the Garage in large part retain their original materials and character defining features in fair condition; however, stabilization and continued maintenance is needed to ultimately preserve the buildings. Several water drainage issues in association with the Cabin are of primary concern as they impact the structure's stability and character defining features. Several structural issues in the Garage are of concern: the tension rods in the bays are sagging and rusting, some of the stone load bearing walls are slightly bulging under the outward thrust of the stone roof, and the uneven floor of the central storage room indicates a possible deficiency in the foundation. In both buildings, the mortar joints are in general need of repointing and many wooden elements are in need of repair.

Preservation of the Pratt Cabin will maintain its existing form and materials where possible. Its preservation will allow both its continued use and ability to function as an example of distinctive regional architecture in association with renowned geologist and conservationist, Wallace Pratt.

Preservation treatment of the Pratt Cabin is generally supported by Park management actions and plans. The 2009 *Resource Stewardship Strategy* states that the desired condition for McKittrick Canyon is "Wilderness Threshold," and significant cultural resources within this zone are to be "stabilized and preserved as necessary."<sup>30</sup>

In the 2008 *Draft General Management Plan*, the Preferred Alternative section states that "Pratt Cabin would continue to be preserved and used as an interpretive center..."<sup>31</sup> The completion of stabilization work and continued maintenance would elevate the condition status of the Pratt Cabin to 'good,' and support its continued functionality.

# **Recommended Improvements**

This section presents the components of preservation treatment, and details the order in which they should occur. Recommendations respect the primary character-defining features of the Pratt Cabin and Garage and are intended to retain and preserve those features. For a comprehensive list of deficiencies, and the exact location of their occurrences, please see the *Physical Description* section and the related drawings in Appendix B.

<sup>29</sup> National Park Service, The Secretary of the Interior's Standards for Preservation: http://www.cr.nps.gov/hps/tps/standguide/preserve/preserve\_standards.htm (accessed 16 June 2011).

<sup>30</sup> National Park Service, Resource Stewardship Strategy, Guadalupe Mountains National Park, June 2009, 24.

<sup>31</sup> National Park Service, Draft Management Plan/ Environmental Impact Statement, Guadalupe Mountains National Park, 2008, 85.

Treatment recommendations, intended to stabilize the Pratt Cabin and extend its utility, will undoubtedly impact historic building materials. Although the overall emphasis is to retain original materials, it is recommended that some damaged original materials, specified below, be replaced to ensure structural stability.

When original/historic materials are to be moved for repair, they should be properly marked so that they may return to their original location. All work, whether it be for repair or replacement, should be documented according to NPS standards by written summary, location mapping, and photography.

The ultimate treatment of preservation is here divided into six categories: Site/Setting Treatments, Cabin Exterior Treatments, Cabin Interior Treatments, Building Support Systems, Garage Exterior Treatments and Garage Interior Treatments. Within each category deficiencies are organized by impact. Deficiencies listed as 'Severe' across the three categories should be addressed before those deficiencies listed as 'Moderate', and those listed as 'Moderate' before those listed as 'Low.'

In general, damaged wood on the interior and exterior should be stabilized with epoxy or other appropriate wood filler, such as putty or Abatron Liquid Wood, or repaired with a wood splice. Wood that cannot be repaired should be replaced in-kind, if structurally necessary. See National Park Service Preservation Brief 9 at http://nps.gov/hps/tps/briefs/briefo9.htm and 2009 Pratt Cabin-Garage Window Restoration Report for more information.

# Site / Setting Treatments

# Severe

Evaluate water drainage patterns within the site in consultation with a landscape architect or appropriate professional. Regrade landscape around Cabin and Garage as needed to ensure water drains away from the buildings' foundations, respecting the mature vegetation as much as possible. Regularly remove debris that obstructs the flow of water away from the structures.

Repair the broken stone slab table top with a compatible epoxy adhesive to restore original appearance. Remove temporary wood bracing before the bracing fails or is tampered with by visitors. Failure of the stone table top could cause serious injury and possible irreparable damage to the large slab top.

#### Moderate

Reset loose stone slabs in walkway leading to the north entrance as part of regular maintenance.

Regularly remove vegetative growth that would pose a threat to the structure, with respect for the vegetative elements that are part of the historic landscape. Follow guidelines in Director's Order #58: Structural Fire Management (2010) for management of cultural resources in consultation with Park fire personnel.

#### Low

Replace stones in-kind as needed in stone wall around the site.

# **Cabin Exterior Treatments**

# Severe

Ensure mortar joints on entry cover are intact and watertight. Perform resistance test on rafters and cross beam on north entry overhang. Repair or replace wood in-kind, if structurally necessary.

Assess extent of water damage on exposed roof sheathing on north side of west wing and treat with fungicide and antirot agent. Replace gaps in mortar to reseal wood roof elements. Monitor mortar joints for further damage (see also *Alternatives for Treatment*).

# Moderate

Ensure mortar joints on south porch shed roof are intact and watertight.

Perform resistance test on wood rafters on south porch roof. Repair damaged areas with epoxy or wood splice where appropriate. Treat damaged rafters with fungicide; monitor for further water damage. Ensure any repaired rafters retain their bull-nosed end, as this is a character-defining feature.

Perform resistance test on 8" x 8" support beam on south porch. Repair damaged portions with wood splice, ensuring splice is supported by stone pillar or replace in-kind if structurally necessary.

Replace missing stones in-kind where gaps expose and compromise surrounding structural materials (see *Physical Description* for exact locations).

Inspect exposed flashing at joint of north façade and kitchen extension for cracks or damage.

Repoint mortar where gaps have exposed and compromised surrounding structural materials (see *Physical Description* for exact locations).

Repair chipped and cracked limestone pavers on south porch and stairs leading to porch and kitchen entrances with a limestone patch using a matching epoxy adhesive. Replace damaged pavers with matching limestone if adequate repair is not possible.

Repoint mortar to fill gaps between angle iron and roof edge to ensure angle iron drip edge can function properly. Monitor joint for subsequent deterioration.

Monitor mortar joints below bowed stone sill under window on north kitchen wall.

Inspect for water exposure and damage due to a gap at the gable between the stone roof and the flashing near the chimney on the west façade. Seal gap with mortar to limit further water exposure.

Remove non-historic, non-functional copper tubing from the west wall of the kitchen extension and repoint mortar in-kind.

Consult manufacturer about the impact of exposed impermeable membrane on southeast corner of living room.

Repair kitchen and north entry door frames using stabilizing and splicing techniques. Replace any irreparable elements in-kind.

Clean rust-stained stonework using non-abrasive methods. Any treatment on the stonework should be tested on an inconspicuous area prior to treating the whole area. Consult a conservation professional about an appropriate anticorrosive treatment for the angle iron to prevent further rust staining (see also *Alternatives for Treatment*).

Low

Repoint cracked, crumbling or missing mortar; monitor for further cracking or damage.

Replace missing stones in-kind on sides of windows and rafters. Remove cobble from under the window on the west façade and replace with stone to match the rest of the exterior.

Repair screen door frames and reattach torn screens. Finish door frames with matching green paint.<sup>32</sup>

Repair cracked or chipped window frames and shutters; repair sagging window sashes; finish with matching green paint.

Inspect deep hole in mortar at the base of the chimney on the east façade for water exposure and pests; remove pests, if necessary. Seal hole with mortar.

Treat eroding limestone slabs on south porch drip line and on stairs to kitchen door with a water-repellent agent appropriate for limestone to prevent further erosion due to water exposure. Chemical agents should be used with caution and tested on an inconspicuous area first to ensure that no color or texture change will result from treatment, as the stonework is a character-defining feature (see also *Alternatives for Treatment*).

#### **Cabin Interior Treatments**

#### Severe

Ensure proper functioning of roof drainage and storm water disposal systems. Seal joint of stone walls and roof with mortar or clear silicone caulk as evidence of water exposure was found in several locations at the roof/wall joint. Deficiencies for which this treatment is recommended range from Severe to Moderate; deficiencies with a Severe impact should be treated first- see specific locations in *Physical Description*.

<u>Perform a resistance test on gable rafter at west wall in west bedroom for structural soundness.</u> Replace rafter and/or 32 All window and door trim should be finished with green paint to match existing. The paint lot is documented in the 2009 Pratt

Cabin-Garage Window Restoration Report as follows: Maker: Benjamin Moore Base no. 9643 5x16 YW 10 RX 8 BK 3 x 16 BB 1 x TG 20 WH adjacent sheathing in-kind if structurally necessary.

# Moderate

Currently, it is unclear if water staining on whitewash throughout Cabin is due to an active problem or if problem has already been addressed through treatment. In order to determine if water penetration is old or ongoing, remove damaged or discolored whitewash from interior stone walls and assess underlying materials for damage; patch or replace whitewash to match existing. Monitor for further damage or discoloration, which would indicate an ongoing leak.

Resistance test water-stained rafters and sheathing throughout Cabin and treat with fungicide or appropriate anti-rot agent. Monitor for further damage or discoloration.

Repoint cracked, crumbling or missing mortar in stone walls, between slabs of stone floor and around windows and doors; replace damaged caulking around windows.

Replace damaged hinge of east bathroom door with matching or similar hardware.

Remove plaster that has been exposed to water or damaged in both east and west bathrooms and assess underlying structural material. Replace plaster to match existing and monitor for further water damage.

Remove aluminum foil from gaps between plaster wall and suspended ceiling in east bathroom. Repair or replace damaged wood on suspended ceiling. Replace plaster so that wall is flush with repaired suspended ceiling.

#### Low

Monitor mild cracks in limestone blocks for further cracking.

Repair damaged frame of door in east bathroom.

Ensure all built-in cabinets, shelves and wall fixtures are properly affixed to the walls.

Patch holes and repair detaching portion of wood panel wall in east bathroom.

Remove non-historic baseboard heaters if the Ultimate Use will not require heating.

Remove newspaper and aluminum foil from gaps between wood panel wall and stone wall in both east and west bedrooms. Seal wall joint with clear silicone caulk.

Ensure ability to exclude wildlife and pests from entering through chimney and rearrange interpretive display in west bedroom to include fireplace.

#### **Building Support Systems**

#### Low

Current environmental standards restrict use of running water and wastewater system; replace fixtures and restore operability if wastewater system is brought to code.

The Ultimate Use will determine the need for heating; heaters may be reconfigured or removed as necessary.

# **Garage Exterior Treatments**

# Severe

Ensure site is graded to direct water away from the structure. Develop a monitoring system to track further structural deformation of the load bearing walls. Consult with an licensed structural engineer about the causes of movement in the stone walls and other treatment options.

# Moderate

Repair wooden doors and door frames on east wing, finish with matching green paint.

# Low

Repoint cracked, crumbling or missing mortar; monitor for further damage.

Assess function of ventilation hole on the east facade. If vent is unnecessary, seal with matching limestone or mortar to prevent water exposure and pests.

#### **Garage Interior Treatments**

# Severe

Discontinue use of tension rods for shelving purposes. Consult with a licensed structural engineer to determine continued need for tension rods for structural purposes and perform treatment accordingly.

Develop a monitoring system to track further movement of stone walls. Consult with a licensed structural engineer to determine causes and treatment options.

Remove limestone floor pavers, tracking their placement, to inspect foundation. Consult a licensed structural engineer to determine whether foundation needs to be reinforced. Relay stone slabs in their original placement.

# Moderate

Seal joint of roof and wall with mortar or clear silicone caulk; monitor for further water damage.

Perform resistance test on water-stained rafters and sheathing. Replace rafters and/or sheathing where structurally necessary; treat repaired or replaced wood with fungicide or other appropriate anti-rot agents.

Inspect stud and plaster partition wall between central and eastern storage rooms for structural stability. Remove or reconfigure wall, depending on Ultimate Use of the Garage.

Replace damaged cement plaster on north wall of both the garage parking bay and the eastern storage room.

# Low

Repoint cracked, crumbling or missing mortar.

Cap exposed bolts that no longer function from Garage bay opening. Remove bolts only if deterioration is causing structural damage.

Sand patched areas on north and east walls of central storage room and repaint to match existing.

Remove water supply-line pipe in Garage bay if no longer necessary or enclose within a protective cage.

Ensure exposed plumbing pipes in central storage room are capped; return to operability if water procurement and disposal systems are restored.

Install a screen in the vent on the east wall of the east storage room to prevent pests from entering the Garage storage rooms.

Remove damaged plaster from sink and wall in eastern storage room; make needed repairs to sink frame. Secure sink frame to wall using compatible materials and paint to match existing. Monitor for further damage.

# **REQUIREMENTS FOR TREATMENT**

Preservation of the Pratt Cabin must conform to National Park Service cultural policies and guidelines. It will be reviewed for compliance with the General Management Plan (2008), National Environment Protection Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA) and all applicable codes and standards required by law and National Park Service policy.

As stated in "Management of Historic and Prehistoric Structures" in the National Park Service Director's Order on Cultural Resource Management (DO-28) and according to federal law and National Park Service policy, "all historic structures in which the Service has a legal interest are to be managed as cultural resources. Regardless of type, level of significance, or current function, every structure is to receive full consideration for its historical values whenever a decision is made that might affect its integrity."<sup>33</sup>

Section 106 of the National Historic Preservation Act (NHPA) mandates that all federal agencies, including the National Park Service, take into account the effects of their actions on properties listed, or eligible for listing, in the National Register of Historic Places.

Preservation treatment should follow the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the guidelines for applying those standards. See Appendices C and D for preservation standards and guidelines.

Additionally, all treatments must comply with the requirements of the following codes and standards:

International Building Code 2006 International Existing Building Code 2006 Minimum Design Loads for Buildings and Other Structures (ASCE 7-98) National Design Specifications for Wood Construction (NDS-2005) National Fire Protection Agency 101 Life Safety 2006 National Fire Protection Agency 914 Code for Fire Protection of Historic Structures 2007 National Park Service, Director's Order 58: Structural Fire Management Seismic Evaluation of Existing Buildings 2003 (ASCE 03-031) UFAS/ADA Accessibility Guidelines 2002

Compliance with appropriate codes must be addressed at the time of the work related to those materials.

### Accessibility

Treatments that address handicapped accessibility must comply with the Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines (2004) and the Uniform Federal Accessibility Standards (1998) unless compliance with the requirements would threaten or destroy the historic significance of the building as determined in consultation with the State Historic Preservation Office.

<sup>33</sup> National Park Service, Director's Order #28: Cultural Resource Management: http://www.cr.nps.gov/history/online\_books/ nps28/28chap8.htm (accessed 13 September 2006).

Currently, the entrances on the south porch and kitchen extension of the cabin are not accessible. The north entrance could be accessible if the stone walkway was consolidated and graded to be in compliance with ADA standards. The interior of the Cabin is generally accessible, with the exception of the east wing which requires descending three stone stairs to enter the east hallway.

No alterations to the structures are recommended as the site of the Cabin and Garage is located in a remote, rustic setting and only accessible by trail, 2.5 miles from the nearest paved road. This trail is currently not, nor is it intended to be, universally accessible. In addition, the Cabin is not open to the public unless a ranger or volunteer is present and currently there are no operable rest room facilities at the site.

# Egress

The Pratt Cabin appears to have generally adequate paths of egress. As the public may only access the interior of the building with the presence of a ranger or volunteer, and users are generally limited to small groups, no actions are recommended at this time. If the function or accessibility of the Cabin should change, egress requirements should be reevaluated.

# **Hazardous** Materials

No hazardous building materials were documented during the field assessment of the Cabin or Garage. The existing paint finishes were tested for lead content in 1995 and should not require further testing or action. Extensive rehabilitation of the roof occurred in 2001 and any related hazardous materials should have been identified and removed. Proper testing should be conducted before any unassessed historic materials are removed or rehabilitated.

# **Fire Safety**

The Pratt Cabin site currently does not include a fire suppression system. As the instillation of a fire suppression system would compromise the historic fabric and integrity of the structures, no additions are recommended at this time. If no fire protection plan is in place for the site, one should be developed in accordance with Director's Order #58: Structural Fire Management. Regular clearing of branches and hazardous undergrowth within the structures' defensible space has been recommended as part of regular maintenance.

# **Recommendation for Further Action**

Evaluate the deformation of the load bearing walls and foundation of the Garage with a licensed architect or a structural engineer to further develop a comprehensive treatment plan.
Treatments listed in the *Ultimate Treatment and Use* section are generally limited to necessary stabilization measures and maintenance. Treatment recommendations were developed to comply with Park plans as stated in the most current planning documents available. One alternative treatment, namely installation of gutters on the Cabin, would reduce the need for several treatments listing in the *Physical Description* and *Ultimate Treatment and Use* sections.

## Installation of Gutters on the Cabin

Water exposure issues present the most serious deficiencies that threaten the historic materials of the Pratt Cabin. Gutters are a reversible treatment that could be installed at a relatively low cost to the park. They would limit the amount of water exposure to the rafters and cross beams on the south porch and north entry overhang, as well as the stone masonry on the walls and south porch floor, and the angle iron on the perimeter of the roof.

Gutters would aid in prevention of corrosion on the angle iron, which would extend its use life and prevent further rust staining on the stonework. This would minimize the need for anti-corrosive agents, which could impact surrounding materials. The addition of gutters would also limit water exposure to the mortar joint between the angle iron and the roof, as well as the joint of the roof and the stone wall, reducing subsequent deterioration.

Gutters would prevent further erosion of the limestone slabs on the porch floor along the drip line, as well as further damage caused by water exposure at the east end of the north façade, near the kitchen entrance. This would eliminate the need to treat eroding limestone with a chemical water-repellent, which could impact the color and texture of the stone.

Finally, gutters could be an efficient way to direct water away from the building foundation, reducing pooling water near the building foundation and capillary action.

The installation of gutters would have a visual impact on the historic aesthetics of the Cabin. If gutters are selected as an option, they should be constructed of materials that are in keeping with the building period and reflect the taste and style of Wallace Pratt, such as copper. However, recommendation of any materials for review through an NPS regional historical architect and the SHPO should be of materials that would not be confused with original, historic fabric. Any gutter design should not detract from the character-defining features of the stone slab roof and the bull nose rafter ends. The stone slabs on the south porch floor along the drip line of the porch cover are eroding. Make sure that any treatment is tested on small, inconspicuous patch of the limestone masonry for effects such as color change. Chemical treatments are only recommended for this particular element and are not recommended elsewhere in the cabin.

## GUADALUPE MOUNTAINS NATIONAL PARK HISTORY

- National Park Service. *Draft General Management Plan and Environmental Impact Statement*. Guadalupe Mountains National Park, Texas, 2008.
- Pratt, Wallace. Interviewed by William Griggs of Texas Tech University, 29 December 1973, Archive Collection, Guadalupe Mountains National Park.

## WALLACE E. PRATT

AAPG Foundation "Wallace E. Pratt." http://foundation.aapg.org/gia/pratt.htm (15 June 20011).

- Kohout, Martin Donell, "Pratt, Wallace Everett," *Handbook of Texas Online*. Published by the Texas State Historical Association. <a href="http://www.tshaonline.org/handbook/online/articles/fpr21">http://www.tshaonline.org/handbook/online/articles/fpr21</a>, (accessed 20 June 2011).
- National Park Service, "Wallace E. Pratt," *History and Culture*, Guadalupe Mountains National Park Website, 2007, www.nps.gov/gumo/historyculture/pratt.htm (accessed 10 May 2011).
- Pratt, Wallace E., "On Historic Structures in Guadalupe Mountains National Park," Memorandum for Donald Dayton, Superintendent, Carlsbad Caverns and Guadalupe Mountains National Park. 13 June 1974

## JOHN F. STAUB

- Barnstone, Howard, David T. Cartwright, Jerome Iowa and Stephen Fox. *The Architecture of John Staub: Houston and the South*, 3-45. Houston, TX: University of Texas Press in cooperation with the Museum of Fine Arts, 1979.
- Fox, Stephen and Richard Cheek. *The Country Houses of John F. Staub.* College Station: Texas A & M University Press, 2007.

#### TEXAS STONE VERNACULAR ARCHITECTURE

- Jordan, Terry G. "German Folk Houses in the Texas Hill Country," in *German Culture in Texas*, edited by Francesco Cordasco, 111-116. Boston, MA: Twayne Publishers, 1980.
- . "German Vernacular Architecture," *Handbook of Texas Online*. Accessed 21 July, 2011. http://www. tshaonline.org/handbook/online/articles/cbg01.
- \_\_\_\_\_. *German Seed in Texas Soil: Immigrant Farmers in Nineteenth-Century Texas*. Austin, TX: University of Texas Press, 1966.

## DEVELOPMENT OF PRATT CABIN

National Park Service, "Cultural Resource Issues," *Administrative History*. Guadalupe Mountains National Park, 2001. www.nps.gov/history/online\_books/gumo/adhi/adhi10a.htm. (accessed 7 April 2001).

Phenix, Vance D. *History of Wallace Pratt Lodge*. Interview transcribed by Don Zook October 21, 1993. Archive Collection Guadalupe Mountains National Park Library, UF Box 15 #193.

## PRESERVATION

- Bigelow, Maureen. *Pratt Cabin and Garage Window Restoration Report*. Project completion report, Guadalupe Mountains National Park, 2009.
- National Park Service. NPS Office Policy 28: "Cultural Resource Management Guideline" http://www.cr.nps.gov/ history/online\_books/nps28/28chap8.htm (accessed 14 July 2011).
  - \_\_\_\_\_. NPS Director's Order 58: "Structural Fire Management." http://www.nps.gov/policy/DOrders/ DOrder58.pdf (accessed 19 July 2011).
- \_\_\_\_\_. Preservation Brief 09: "The Repair of Historic Wooden Windows." http://nps.gov/hps/tps/briefs/brief09.htm (accessed 29 April 2001).
- \_\_\_\_\_. "The Secretary of the Interior's Standards for Preservation." http://www.cr.nps.gov/hps/tps/standguide/ preserve/preserve\_standards.htm (accessed 6 June 2011).

## STONE CONSERVATION

- National Research Council Committee on Conservation of Historic Stone Buildings and Monuments, *Conservation of Historic Stone Buildings and Monuments*. Washington D.C.: National Academy Press, 1982.
- National Park Service. Preservation Brief 01: "Assessing Cleaning and Water-Repellant Treatments for Historic Masonry Buildings." http://www.nps.gov/hps/tps/briefs/briefs/briefs01.htm. (accessed July 28 2011).

## PARK PLANNING ISSUES

National Park Service. Resource Stewardship Strategy. Guadalupe Mountains National Park, June 2009.

\_\_\_\_\_. Draft Management Plan/Environmental Impact Statement, Guadalupe Mountains National Park, 2008.

**A**ppendices

# APPENDIX A ARCHITECTURAL DRAWINGS OF HISTORIC CONDITIONS

All existing drawings of the Pratt Cabin are collected here in chronological order. The following are contained in this section:

Lodge for Wallace E. Pratt, 1/1932 (10 sheets) First Floor Plan, GUMO 153: 12, 345 Roof Plan, GUMO archive number illegible North Elevation, GUMO 153: 12, 333 South Elevation, GUMO 153: 12, 300 East Elevation, GUMO 153: 12, 306 West Elevation, GUMO 153:12, 307 Section Thru Living Room, looking west, GUMO 153: 12, 308 Section Thru Living Room, looking west GUMO 153: 12, 311 Sections, East and West Wings, GUMO 153: 12, 309 Section, Kitchen Wing, GUMO 153: 12, 310 North Elevation, date unknown (GUMO 153: 12, 331) South Elevation, date unknown (GUMO 153: 12, 332) Details of Overhead Garage Doors, date unknown (GUMO 153: 12, 422)



HISTORIC STRUCTURE REPORT - PRATT CABIN - GUADALUPE MOUNTAINS NATIONAL PARK



LODGE FOR LODGE FOR WALLACE E. PRATT MTE VAI/SZ DUMUN BY STLD VEY JFS THE NO. TENN F. STANG SASET NO. MENNET JZP HONORET JQ

107







113



115





# Gumo 153: 12,311





Gumo 153: 12,310 LODGE FOR WALLACE E. PRATT DATE 1/21/32 FIN FLOOR NATH \$1, WEST BD. RM. JOHN F. STAUB - SHEET NO. ARCHITECT 9 766 NO-128







HISTORIC STRUCTURE REPORT - PRATT CABIN - GUADALUPE MOUNTAINS NATIONAL PARK

# APPENDIX B ARCHITECTURAL DRAWINGS & PHOTOGRAPHIC DOCUMENTATION OF EXISTING CONDITIONS

Drawings of the Pratt Cabin as it currently exists were created by the project team based on field measurements. The following are contained in this section:

Site Plan Roof Plan Floor Plan North Elevation South Elevation East Elevation West Elevation

Additionally, the following condition assessment drawings are marked with deficiencies:

North Elevation South Elevation East Elevation West Elevation

A disk containing photographic documentation of the Pratt Cabin was provided to Guadalupe Mountains National Park with this report. Photographs were taken by The University of Arizona project team from March 14 to March 16, 2011. They show both character-defining features and deficiencies.

Additionally, historic photographs of the Pratt Cabin contained in the Park's museum collection and maintenance files were scanned and saved to disk. This disk was provided to Guadalupe Mountains National Park with this report.













15 t

FINISH FLOOR HEIGHT, LIVING ROOM, KITCHEN & WEST WING



_OOR HEIGHT, NG	



	FINISH FLOOR HEIGHT, LIVING ROOM, KITCHEN & WEST WING
ΓΙΟΝ	
15 ft	



RENDERING INDICATES TYPE OF MASONRY NOT ACTUAL LOCATION AND SIZE OF INDIVIDUAL STONES

PRESERVATION STUDIES PROGRAM COLLEGE OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE THE UNIVERSITY OF ARIZONA

# PRATT CABIN IN MCKITTRICK CANYON GUADALUPE MOUNTAIN NATIONAL PARK

 WEST ELEVATION

 SCALE: 1/8" = 1'-0"

 1ft
 5 ft

 10 ft
 15 ft



FINISH FLOOR HEIGHT, IVING ROOM, KITCHEN & WEST WING	
ON ESSMENT 5 ft 10 ft 15 ft	





PRESERVATION STUDIES PROGRAM COLLEGE OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE THE UNIVERSITY OF ARIZONA

# PRATT CABIN IN MCKITTRICK CANYON GUADALUPE MOUNTAIN NATIONAL PARK

EAST ELEVATION CONDITION ASSES

FINISH FLOOR HEIGHT, LIVING ROOM, KITCHEN & WEST WING
SH FLOOR HEIGHT CHEN, LIVING ROOM & ST WING
SSMENT



) BEAM	
5 ft 10 ft	15 <sub>1</sub> ft

# APPENDIX C THE SECRETARY OF THE INTERIOR'S STANDARDS FOR PRESERVATION

(copied from the National Park Service website:

http://www.cr.nps.gov/hps/tps/standguide/preserve/preserve\_standards.htm)

**Rehabilitation** is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

# APPENDIX D GUIDELINES FOR PRESERVATION HISTORIC BUILDINGS

(copied from the National Park Service website: http://www.cr.nps.gov/hps/tps/standguide/preserve/preserve\_approach.htm)

## **Choosing Rehabilitation as a Treatment**

In **Rehabilitation**, historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation; however, an assumption is made prior to work that existing historic fabric has become damaged or deteriorated over time and, as a result, more repair and replacement will be required. Thus, latitude is given in the **Standards for Rehabilitation and Guidelines for Rehabilitation** to replace extensively deteriorated, damaged, or missing features using either traditional or substitute materials. Of the four treatments, only Rehabilitation includes an opportunity to make possible an efficient contemporary use through alterations and additions.

## Identify, Retain, and Preserve Historic Materials and Features

Like Preservation, guidance for the treatment **Rehabilitation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Therefore, guidance on *identifying, retaining, and preserving* character-defining features is always given first. The character of a historic building may be defined by the form and detailing of exterior materials, such as masonry, wood, and metal; exterior features, such as roofs, porches, and windows; interior materials, such as plaster and paint; and interior features, such as moldings and stairways, room configuration and spatial relationships, as well as structural and mechanical systems.

## **Protect and Maintain Historic Materials and Features**

After identifying those materials and features that are important and must be retained in the process of **Rehabilitation** work, then **protecting and maintaining** them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

# **Repair Historic Materials and Features**

Next, when the physical condition of character-defining materials and features warrants additional work *repairing* is recommended. **Rehabilitation** guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind--or with compatible substitute material--of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.

## **Replace Deteriorated Historic Materials and Features**

Following repair in the hierarchy, **Rehabilitation** guidance is provided for *replacing* an entire characterdefining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, they never recommend removal and replacement with new material of a feature that--although damaged or deteriorated--could reasonably be repaired and thus preserved.

## **Design for the Replacement of Missing Historic Features**

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade; or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Although accepting the loss is one possibility, where an important architectural feature is missing, its replacement is always recommended in the **Rehabilitation** guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

## Alterations/Additions for the New Use

Some exterior and interior alterations to a historic building are generally needed to assure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy characterdefining spaces, materials, features, or finishes. Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include the selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character. The construction of an exterior addition to a historic building may seem to be essential for the new use, but it is emphasized in the **Rehabilitation** guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alterative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed. Additions and alterations to historic buildings are referenced within specific sections of the Rehabilitation guidelines such as Site, Roofs, Structural Systems, etc., but are addressed in detail in New Additions to Historic Buildings

# Energy Efficiency/Accessibility Considerations/Health and Safety Code Considerations

These sections of the guidance address work done to meet accessibility requirements and health and safety code requirements; or retrofitting measures to improve energy efficiency. Although this work is quite often an important aspect of **Rehabilitation** projects, it is usually not a part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of meeting code and energy requirements.