CANYON VILLAGE
LODGE & ADMINISTRATION BUILDING

HISTORIC STRUCTURE REPORT

YELLOWSTONE NATIONAL PARK

IMR IDIQ Contract No. P11PC10372
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Submitted to:

National Park Service
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Canyon Village Lodge & Administration Building
Historic Structure Report
Yellowstone National Park

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EXECUTIVE SUMMARY

Intent of this Historic Structure Report

This Historic Structure Report was commissioned in compliance with a Memorandum of Agreement among the Yellowstone National Park and the Wyoming State Historic Preservation Office out of an effort to ensure that two primary Mission 66 buildings of the Canyon Village development are retained and preserved as examples of the original of the Mission 66 program in the United States. This agreement was generated to mitigate the adverse effect of the removal of the Canyon Loop A and Loop C cabins.

Research Performed

Research for this project was performed at local repositories that hold specific collections pertaining to Yellowstone National Park (YNP) and to the Yellowstone Park Company, a former primary concessioner in YNP. The most pertinent data was found in the archives, library, and photography collection of the Yellowstone National Park Heritage and Research Center and at the Montana State Historical Research Library. Information from the two primary parties, the National Park Service/YNP and the Yellowstone Park Company, that created Canyon Village was reviewed and analyzed.

The two featured buildings of this Historic Structure Report are extant, providing strong evidence of their character, design, construction, and modifications over the years.

Major Findings

The research supports the contention that Canyon Village was the first official Mission 66 project to begin and complete construction. It was promoted as the forerunner for the remainder of the national program and used as an example. Unfortunatley, since the project was quite large and the time period for both design and construction condensed, it wasn't ultimately lauded as the poster child that the National Park Service had hoped for. Yet the village has withstood the test of time and remains an excellent example of the goals of Mission 66; it accomplished the necessary objectives of accommodating the increasing number of visitors to YNP and of moving the development further away from the natural feature of the Grand Canyon of the Yellowstone.

Research and Field Inspection revealed that:

1. NPS did not necessarily mandate the use of modern architecture for the first Mission 66 projects; yet NPS did encourage the architects to disregard precedents and be imaginative.
2. NPS supported use of nationally renowned architects and contractors for these seminal projects, rather than local firms.
3. NPS was an active participant in the design and construction of the project. The local YNP landscape architect and the architect from the

WODC office provided feedback and constructive criticism during and after design.

4. New materials and construction methods increased the speed and ease of construction while providing exciting volumes coincident with large spans.
5. Colors were an essential component of the exterior and interior design. Interior furniture, curtains, and light fixtures provided pattern and color.
6. Natural materials' textures were celebrated: concrete was left unfinished, wood was treated with natural colors or finishes, and wood shakes provided roughness.
7. Most of the original character-defining features remain.
8. The buildings were well documented in terms of construction drawings and photographs.

Identification of Major Issues

In 2012-2013, the structure of Canyon Lodge was upgraded to accommodate seismic and snow loads. The Administration Building however, has structural issues that need to be addressed immediately. The beams and rafters that are exposed at the exterior of the building are heavily rotted and crushed; their support value is questionable. The NPS was alerted to this issue during the preparation of the Facilities Condition Assessment surveys in September 2013. Other than this most pressing issue, there are, as expected with buildings more than fifty years old, maintenance issues that need to be attended to regularly.

The major concern for both buildings is their functional relevancy during a time of continued evolution of park use, similar or parallel to the changes that prompted the tenets of Mission 66 initially. Based on park needs – some that have been perceived since original construction in 1956-57 - the lower level of Canyon Lodge could be adapted for increased office use; the upper level of Canyon Lodge should continue to serve as a dining and lounge area; the Administration Building should continue to serve its current use for cabin registrations, provide much needed office space, or function as an assembly space; and a public-use building could be located where the Recreation Hall was originally intended between Canyon Lodge and the General Store. An interpretive exhibit of Mission 66 could be housed in any of these three buildings.

Treatment Recommendations

The overarching treatment strategy for Canyon Lodge and the Administration Building is rehabilitation, with restoration where feasible – i.e., where sufficient physical and archival evidence supports an accurate representation of the original condition/configuration. The existing character-defining features should be preserved. Modified or missing features should be restored, where feasible. Components that have been removed – such as colors, furnishings, curtains, interior screen walls – should be reconstructed and reintroduced into their original locations. The list of specific items is included in Part 2. Treatment and Use.

ADMINISTRATIVE DATA

Brief Description & Location Maps

Canyon Village is located at the crossroads of the Norris-Canyon Road and the Grand Loop Road in Yellowstone National Park. This first national park is located at the northwest corner of Wyoming, with small areas overflowing into the adjoining states of Montana and Idaho.

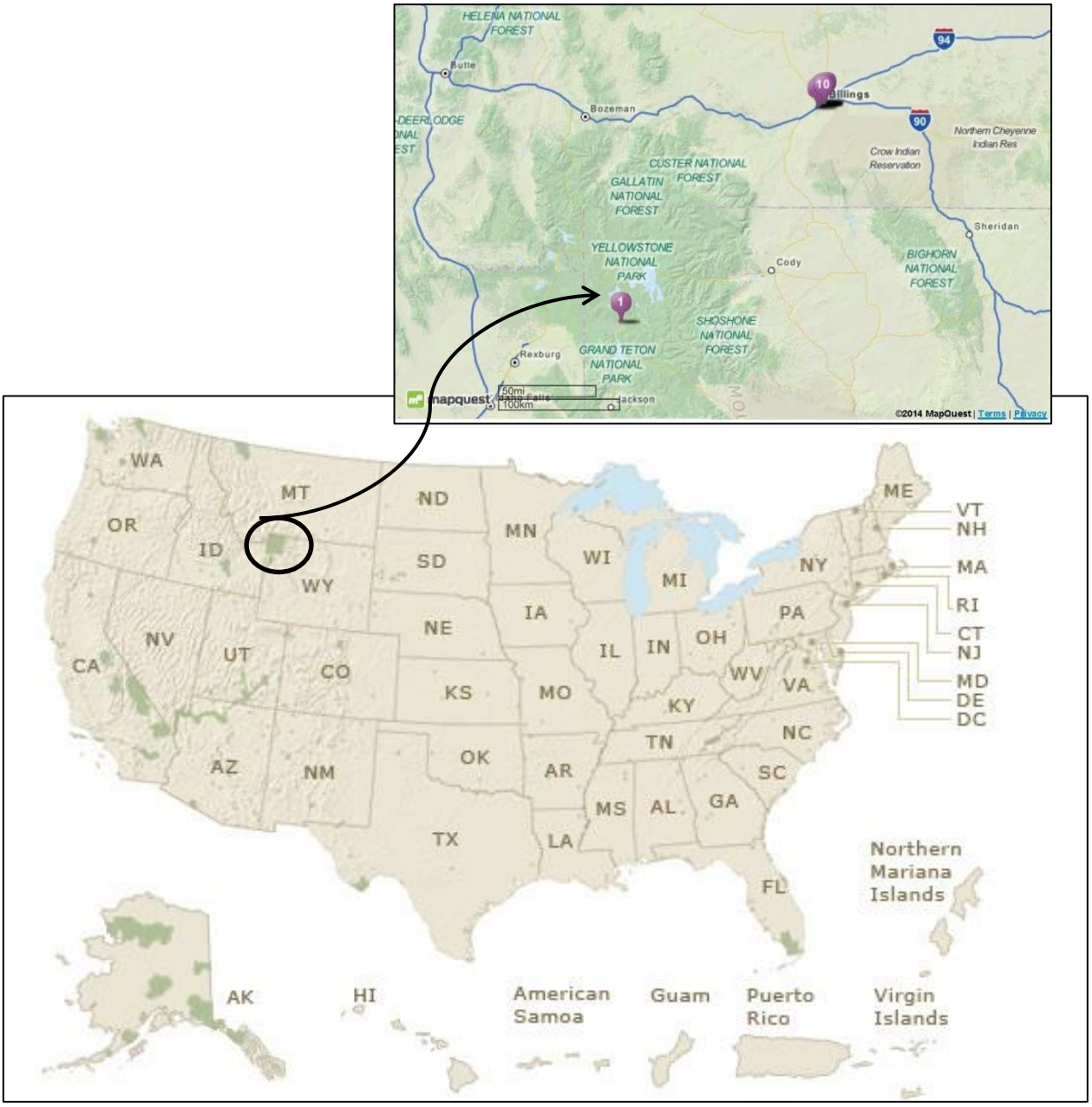


Figure 1: States and Territories with National Parks. Image courtesy of the U.S. National Park Service.

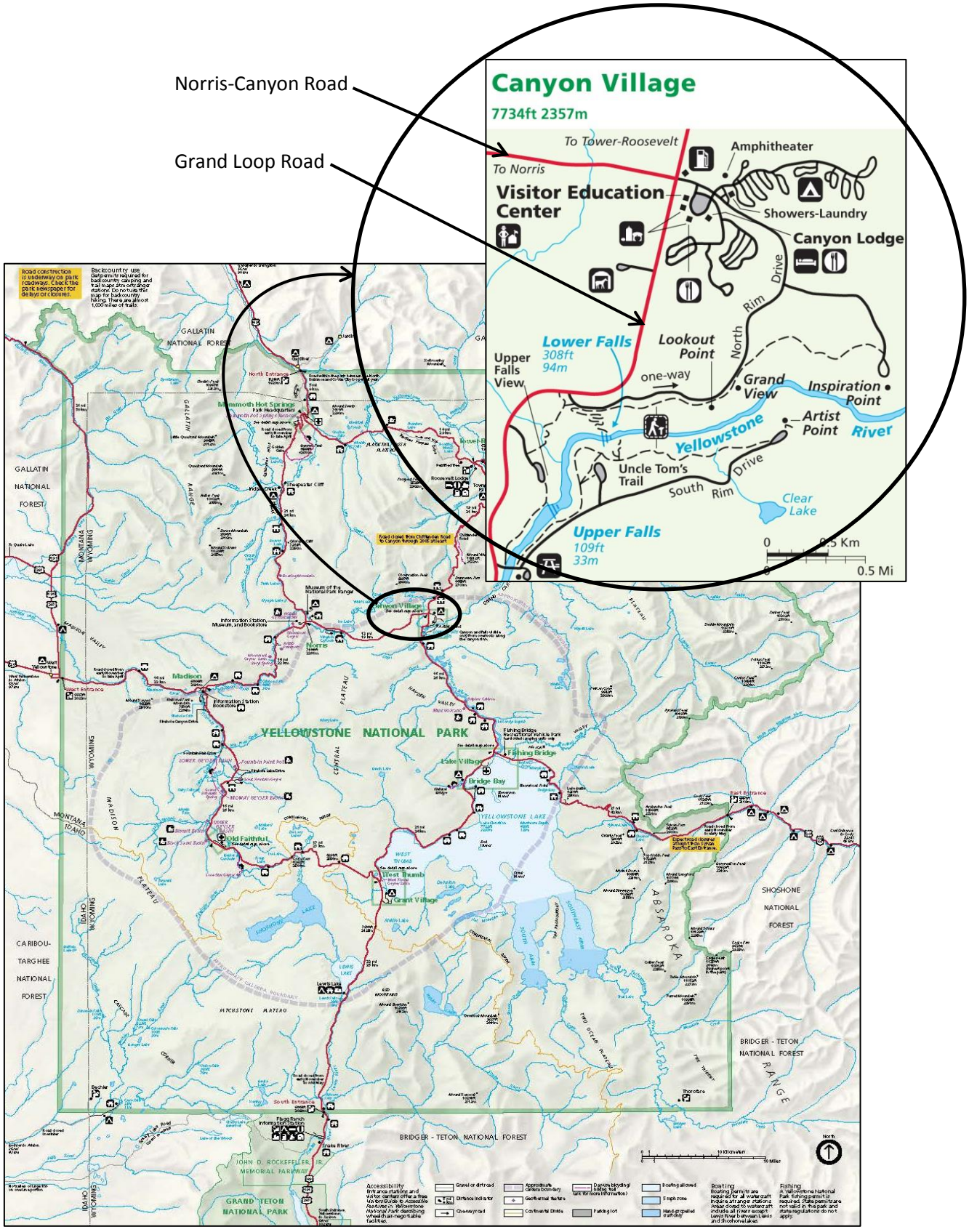


Figure 2: Official Yellowstone National Park map. The Canyon Village area is circled and provided in the inset map. Both maps courtesy of the National Park Service.

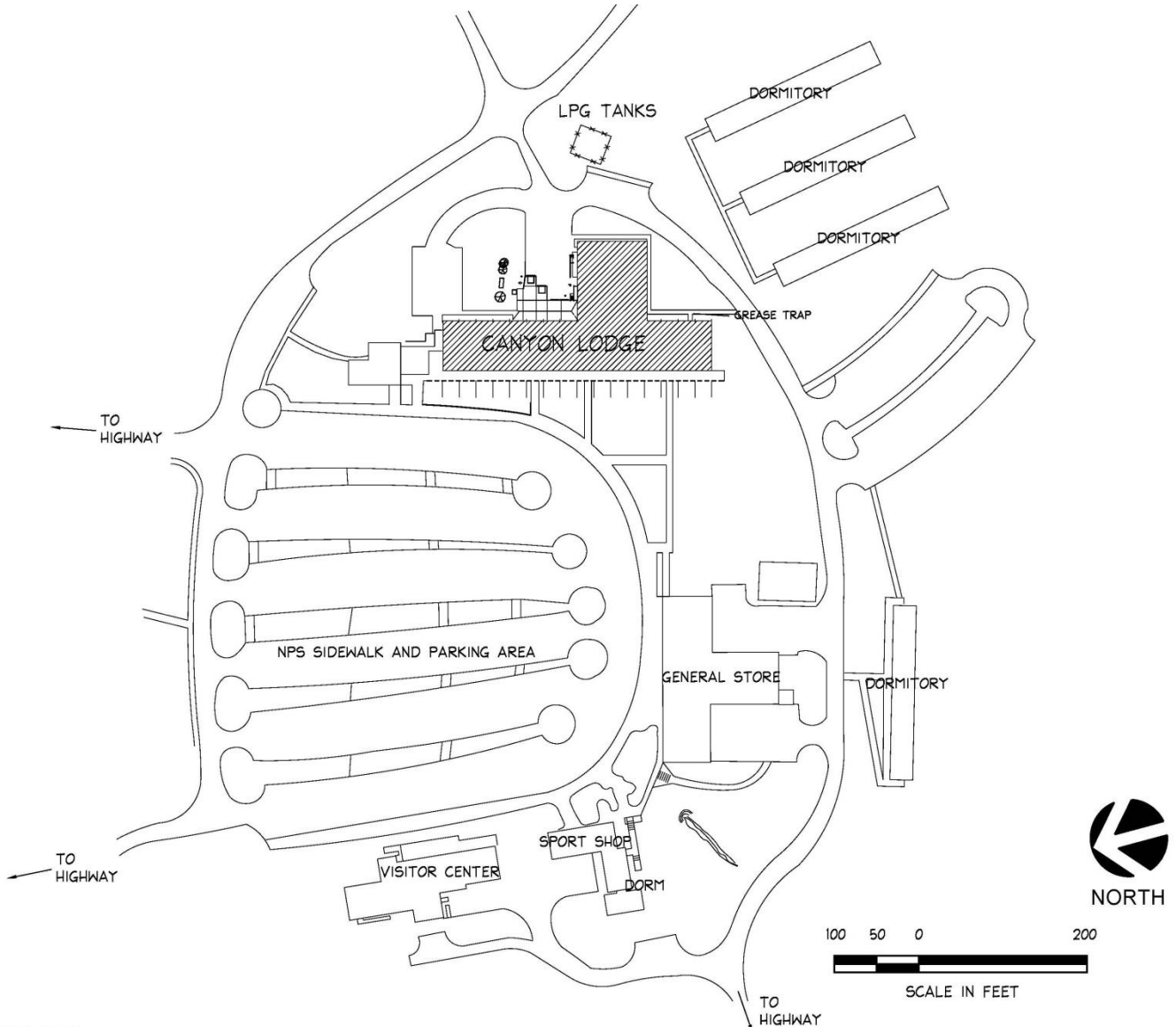


Figure 3: Existing Site Plan, extracted from Canyon Village Lodge Reroof Project drawings #101/71804, February 17, 2012 prepared by JGA.

Current Images

A series of current images of Canyon Lodge, the Canyon Lodge Administration Building, and the site are included in Appendix D. Keyed to floor and site plans, these photographs are intended to help familiarize and orient the reader to the subject area of Canyon Village.

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Summary

Located between the Canyon Junction of the Grand Loop Road and the rim of the Grand Canyon of Yellowstone National Park (hereinafter referred to as YNP), Canyon Village represents the origin, processes, implementation, and legacy of Mission 66, the National Park Service's ten-year plan to improve outmoded facilities within certain parks and "provide enjoyment and inspiration to the American people."[1] This development is distinct in location, style, use, and construction from the prior Canyon development – of Canyon Hotel, Canyon Lodge, Canyon Campers' Cabins, and associated outbuildings – located closer to the rim of the Grand Canyon of the Yellowstone River.

Canyon Village Lodge and its companion Administration/Registration Building (hereinafter referred to as the Administration Building) are the primary subjects of this report, yet the whole village and its planning are important in providing the full context of this historic phase in the history of Yellowstone National Park and, by extension, the National Park system. The Canyon Lodge and Administration Building represent the larger context of what the National

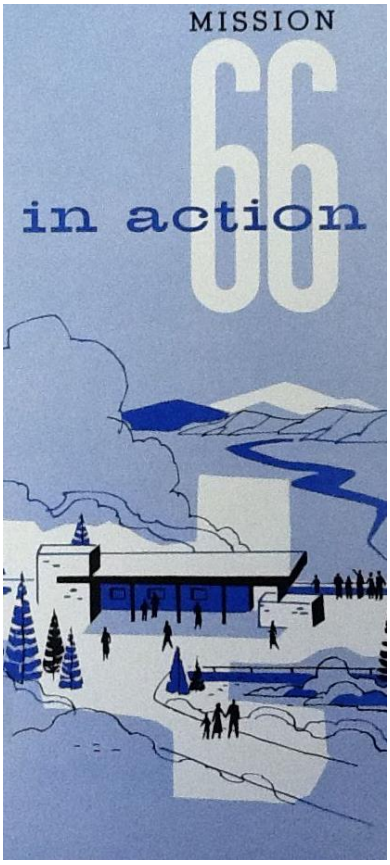


Figure 5: Cover of 1959 report summarizing the successes of the first three years of MISSION 66. YNP-HRC Coll. YELL 182836, Series 01, Box 21, Folder 1.

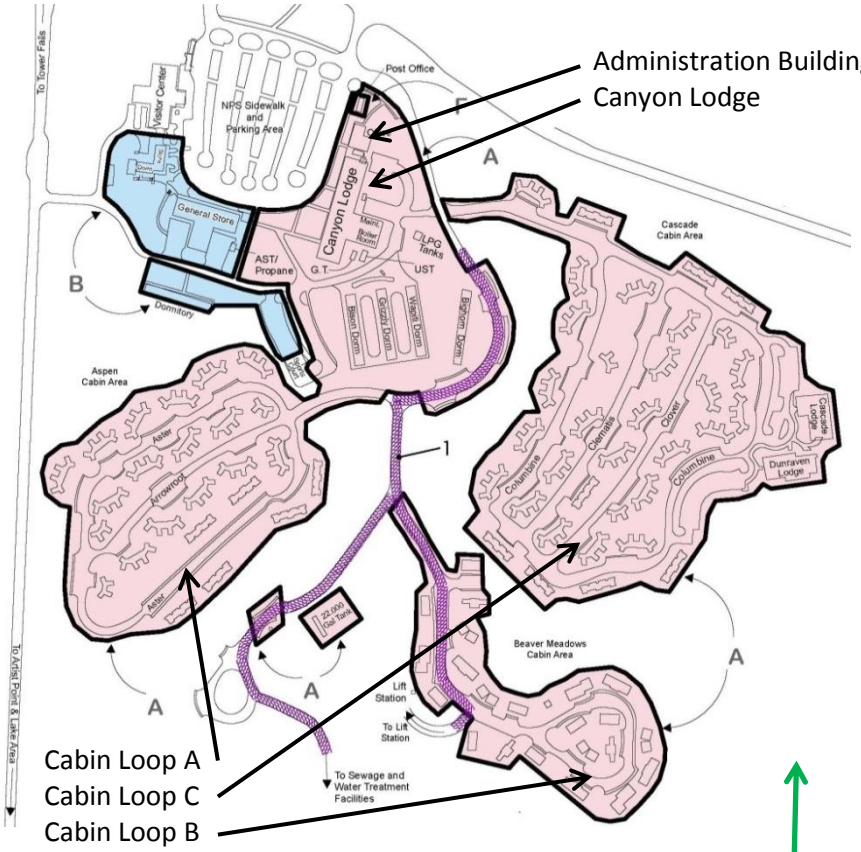


Figure 4: Canyon Village Land Assignment Site Plan, depicting Xanterra's assignment in lilac. Map, dated October 2011, courtesy National Park Service.

[1] NPS, Department of the Interior, "Facts About Mission 66," YNP-HRC, Coll. YELL 182386, Series 1, Box 21, Folder 1.

Park Service and it concessioners sought to provide to the parks and their increasing number of visitors.

Administrative Background

The Canyon Village Historic District was determined eligible for listing in the National Register of Historic Places in 2000. Canyon Lodge and its companion Administration Building were both deemed as contributing resources to the eligible historic district and are the subjects for this report.

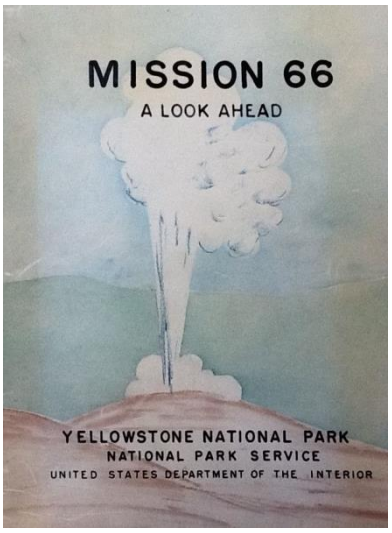


Figure 6: Cover for the Yellowstone National Park report highlighting the planned MISSION 66 activities at Canyon Village, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 21,Folder 1.

This Historic Structure Report was undertaken to fulfill the terms of the "Memorandum of Agreement among Yellowstone National Park and the Wyoming State Historic Preservation Office Regarding Mitigation of Adverse Effect Resulting from the Demolition of 54 Canyon Cabins," signed by YNP's superintendent on May 2, 2013.[2] The subject Memorandum of Agreement (MOA) was developed to ensure compliance with Section 106 of the National Historic Preservation Act (36 CFR Part 800) for the Canyon Village Redevelopment Plan undertaking.

Of the six stipulations stated in the MOA, this Historic Structure Report (HSR) implements fulfillment of the following:

> B. The YNP will complete a Historic Structures Report (HSR) for the Canyon Lodge and Registration Building which meets the standards of NPS-28. Digital and hard copies of the HSR will be provided to all consulting parties.[3]

Three additional stipulations provide direction for interpretation of this Mission 66 heritage and have been incorporated into Part 2. Treatment and Use:

> C. The YNP will work with the concessioner to coordinate, develop and install an interpretive display in either the Registration Building or the Lobby of the Canyon Lodge. This display will interpret the history of Mission 66 development park-wide and at the Canyon Development area. The display may contain QR codes which will take interested visitors to an YNP webpage dedicated to Mission 66 information.

[2] This Memorandum of Agreement is included in Appendix B.
[3] "Memorandum of Agreement," dated May 2, 2013, page 2.

D. The park will develop web-based information including the Mission 66 context being prepared for the YNP, the HSR for the Canyon Lodge and Registration Buidling, and an interactive map which will allow browsers to learn more about Mission 66 resources in the park. These websites will link to other Mission 66 websites.

E. Based on the results of the HSR, the YNP will preserve the Mission 66 interior elements of the main floor of the Canyon Lodge, design future improvements to be compatible with the Mission 66 era and will return, where feasible, any interior elements to the Mission 66 period of significance. This may include furniture, furnishings, finishes, floor and wall coverings and removal of non-historic elements. This work will be completed after a new concession contract is awarded and will be completed by the end of 2018. This work will comply with Secretary of the Interiors Standards for Treatment of Historic Properties and will require consultation and concurrence from/with WYSHPO.[4]

YNP's historic preservation architect, historian, and culture resource specialists provided invaluable review of the 90% draft HSR. Their insights and information have been incorporated into this final version of the document.

[4] "Memorandum of Agreement," page 2.

Building Data

Canyon Lodge and the Administration Building

See the Appendix D. Current Photographs for current photographs of the site and buildings, and the key plans locating the respective views.

Historic Name:	Canyon Village Lodge	Administration Building
Other Names:	Canyon Lodge, Canyon Motor Lodge	Canyon Village Lodge Administration Building, Canyon Lodge Registration Building
Park Structure Number:	HS-5712	HS-5711
Location - UTM: ***GPS-Uncorrected, NAD83***	Zone 12 Easting 540398 - 540373 Northing 4953554 - 4953456	Zone 12 Easting 540415 Northing 4953561
Construction:	1956-1957	1956-1957
Function (Historic & Current):	Primary: Lodge Other: Restaurant, Bar, Shop	Registration
Area:	59,765 square feet	2,610 square feet
Original Architect:	Welton Becket & Associates	
Original Structural Engineer:	L.F. Robinson	
Original MPE Engineer:	Edward Hill, Jr.	
Original Contractor:	McNeil Construction Co.	



Photo P-1: Current view of the Canyon Village Lodge Administration Building (left) and Canyon Lodge (right), looking southeast. September 30, 2013.

Other Canyon Village Buildings

Other concessioner- and NPS-provided buildings were constructed as part of the Mission 66 effort at Canyon Village. While they are not the subject of this report, they are part of this overall seminal Mission 66 development. The buildings, which will be addressed in the body of this report, are as follows:

Building	*Date of Construction*	*Management Responsibility*	*Architect*
512 Cabins	1957-1958	Yellowstone Park Company	Welton Becket & Associates
3 Dormitories	1956-1957	Yellowstone Park Company	Welton Becket & Associates
Hamilton Store	Opened July 15, 1957	Hamilton Stores, Inc.	Welton Becket & Associates
Hamilton Store Dormitory	Opened July 15, 1957	Hamilton Stores, Inc.	Welton Becket & Associates
Haynes Picture Shop & Dormitory[5]	1959-1960	Haynes, Inc.	William E. Grabow[6]
Canyon Village Visitor Center[7]	Dedicated August 17, 1958	National Park Service	Hurt & Trudell Architects of San Francisco
Service Station & YPSS Dormitory[8]	Opened June 1, 1957	Hamilton Stores, Inc.	Graham, Scowcroft, Hansen, and Offern Architects and Engineers, Billings
Campers' Services Building	1968	Yellowstone Park Company	Graham, Scowcroft, Hansen, and Offern Architects and Engineers

See pages 18 & 19 for graphic representation, with locations identified, of these buildings c.1960's.



Photo P-2: Canyon Service Station. Photo courtesy YPSS.

[5] This building has been remodeled, with extensive alterations to the front façade.

[6] William E. Grabow letter to Frank Mattson, January 16, 1959, regarding his meeting with Mr. Haynes on the Haynes Picture shop and dorm at Canyon Village; a tentative bid date had been set for February 20. Grabow was preparing the final drawings and had questions about NPS requirements. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11. This conflicts with information provided in the Determination of Eligibility, which states that Welton Becket designed the Haynes Photo Shop at Canyon Village.

[7] The majority of this building was demolished in 2004 and replaced with a new Visitor Center designed by CTA Architects Engineers of Billings, Montana. The new Visitor Center, completed in August 2007, reused most of the foundation and the auditorium of the original building. (As-Built drawings, dated August 2007, in CTA's archives.)

[8] Robert Goss, *Yellowstone: The Chronology of Wonderland* (Self-Published, 2002; fourth edition June 2004), page 122.

Proposed Treatment

The List of Classified Structures reports for Canyon Lodge and the Administration Building state that each building should be preserved and maintained.[9] This is further clarified in Stipulation E of the MOA, which states that: "Based on the results of the HSR, the YNP will preserve the Mission 66 interior elements of the main floor of the Canyon Lodge, design future improvements to be compatible with the Mission 66 era and will return, where feasible, any interior elements to the Mission 66 period of significance. This may include furniture, furnishings, finishes, floor and wall coverings and removal of non-historic elements."[10]

All of the recommendations included herein conform to the *Secretary of the Interior's Standards for the Rehabilitation of Historic Properties*.

Research & Related Studies

The research for this study was not intended to be exhaustive, particularly in respect to the contextual history of YNP and Mission 66. In-depth studies have resulted in publications that have proved immensely useful to understanding the multi-faceted history of the Canyon developments in YNP and the impact of Mission 66 on all the national parks. Diane Marie Papineau's 2008 thesis "Transforming Place at Canyon: Politics and Settlement Creation in Yellowstone National Park" provides an excellent history and social analysis of the changes in the Canyon area since the park began in 1872. This thesis has helped tremendously with understanding and depicting the chronological history of Canyon Village. Ethan Carr's *Mission 66: Modernism and the National Park Dilemma* and Mark Daniel Barringer's *Selling Yellowstone: Capitalism and the Construction of Nature* both provide well-researched and clear analytical documentation of the changes implemented in the national parks during the 1950's and 1960's. Conrad Wirth's publication *Parks, Politics, and the People* provides a firsthand account of the policies and political strategies involved in the creation and implementation of Mission 66, yet focuses little specific information on any one park.

To supplement the information from the above publications and allow for more specifics regarding the construction of the buildings in this study, drawings were obtained from ETIC (NPS's Technical Information Center; see list of drawings in the Appendix), and primary documents were obtained from the YNP Heritage and Research Center (hereinafter referred to as YNP-HRC), the Montana Historical Society (hereinafter referred to as MHS), Montana State University Special Collections, Billings Library Special Collections, and the Gallatin County

[9] Lance Westfall, *List of Classified Structures Reports: Single Entry Report for Canyon Lodge, and Single Entry Report for Canyon Village Lodge Administration Building*, last updated November 24, 2008.
[10] MOA, page 2.

Historical Society. The YNP-HRC archives search was facilitated by Anne Foster and her staff. Personal communications were conducted with Xanterra staff and one former McNeil Construction Company employee.

For footnoting purposes, the following conventions were followed:

- ~ YNP-HRC, Coll. YELL #: Collection number from Yellowstone National Park Heritage and Research Center
- ~ MHS: Montana Historical Society

Cultural Resource Data

National Register Eligibility

NPS prepared a Determination of Eligibility for Canyon Village (Horseshoe Plaza) Historic District on July 6, 2000.[11] The first two paragraphs summarize the rationale used for the determination:

> The Canyon Village Historic District is eligible for listing in the National Register of Historic Places under Criterion A. Canyon Village is associated with the Mission 66 program, which reflected a major shift in National Park Service (NPS) design and construction philosophy. The program rejected the Service's long tradition of Rustic Style design in favor of contemporary architectural and landscape design. In 1955, NPS Director Conrad L. Wirth proposed the ten-year Mission 66 program to protect the scenic and historic areas of the national parks with major infrastructure improvements. To successfully initiate the program, Wirth appointed Mission 66 Steering Committee chairman, Lon Garrison, as superintendent of Yellowstone National Park. Canyon Village was to be the showcase of the Mission 66 Program. Ground was broken at Canyon in June 1956, and the first phase of the development opened in July 1957—the first Mission 66 project completed by the National Park Service.
>
> The Canyon Village Historic District meets National Register Criteria Consideration G for buildings less than 50 years old. The NPS's Mission 66 program had a far-reaching impact on the architectural and landscape character of the nation's parks. Recent scholarly research by NPS historians Ethan Carr, Linda Flint McClelland, and Sarah Allaback provide a sound context establishing the significance of the Mission 66 program within the NPS. Canyon Village, as the first and "showcase" Mission 66 project, is the best representative property of the program under Criterion A. The importance of Canyon Village is reflected in the NPS's appointment of Lon Garrison as superintendent of Yellowstone to ensure its early completion and success.

[11] "Determination of Eligibility Canyon Village (Horseshoe Plaza) Historic District; Yellowstone National Park, Wyoming," provided by NPS, said to be dated July 6, 2000. See Appendix B for the full document. The name "horseshoe" is descriptive of the ring of buildings surrounding the parking area.

Context of Significance

The Canyon Village Historic District was determined to be significant at a state level under Criteria A and G. Canyon Lodge and the Administration Building are now fifty-seven years old thus Criterion G, for buildings less than fifty years old, has no official consideration.[12] Criterion A refers specifically to the role the buildings played in the Mission 66 program; this criterion applies more strongly than before, given the number of losses of, and modifications to, Mission 66 buildings. Criterion G was solely used an an indicator that Canyon Village had achieved exceptional importance for this critical role in the Mission 66 program, allowing the site to be considered eligible even though at the time of listing it was less than fifty years old.

The inclusion of Criterion C for Design/Construction could be considered for both buildings, as they "embody distinctive characteristics of a type, period, or method of construction."[13] The presentation of Character-Defining Features in this document sets the framework for this consideration.

The Context of Significance is inextricably tied to the national Mission 66 program embarked upon by the National Park Service in 1955. Canyon Village was one of a chosen few seminal experiments for the nascent Mission 66 program. Of these early projects proposed for the Everglades, Grand Teton,[14] and Grand Canyon National Parks, construction of Canyon Village was selected to be the first official Mission 66 project, establishing a fast pace for design and construction. This construction project was to be held out as an "…example of the way we hope to do things in more places, not only in Yellowstone but in other areas of the System."[15]

NPS Director Conrad Wirth's distinction of Canyon Village as the inauguration of Mission 66 tended to overshadow the similar Yosemite Lodge project in Yosemite National Park which opened on June 6, 1956 prior to the June 25, 1956 groundbreaking at Canyon Village. It is assumed that the Yosemite project received less promotional attention since it was begun before Yosemite's Mission 66 prospectus was completed in July 1957 – thus straddling the period between pre-Mission 66 and Mission 66 - and was a redevelopment of an existing lodge. The Yosemite project had been in the works since the early

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[12] Lance Westfall*, List of Classified Structures Reports: Single Entry Report for Canyon Lodge, and Single Entry Report for Canyon Village Lodge Administration Building*, last updated November 24, 2008.

[13] U.S. Department of the Interior, National Park Service, Interagency Resources Division, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (1991), page 17.

[14] This Grand Teton National Park reference is not to the Jackson Lake Lodge which was completed in 1955, prior to and separate from the Mission 66 program. See "A Grand Experiment" by Elizabeth Flint Engle in *Public Nature: Scenery, History, and Park Design*, edited by Ethan Carr, Shaun Eyting, and Richard Guy Wilson (Charlottesville: University of Virginia Press, 2013), pages 216-227.

[15] E.T. Simpson to YNP Superintendent, March 5, 1956, review of YNP's Mission 66 prospectus. Coll. YELL 182386 Series 1, Box 20, Folder 1, YNP-GRC.



Photo P-3: Yosemite Lodge at the Falls, designed in the Modern Movement style by Ted Spencer, was completed by June 6, 1956. Photograph courtesy of Yosemitehikes.com.

1950's and was not listed one of the Mission 66 pilot projects.[16] The Mission 66 work planned in Yellowstone National Park stemmed directly from the YNP pilot study begun in March 1955 at the request of NPS.

Period of Significance

A Period of Significance is not proposed in the Determination of Eligibility. Thus herein, the Period of Significance proposed for these two buildings is 1955 to 1966, reflecting the start and end of planning for and design of both buildings and the completion of Canyon Village, coincident with the completion of Mission 66 and the sale of the Yellowstone Park Company. Both buildings retain their integrity and general function, and have not been relocated or demolished. This date range, explained in greater detail in the body of this report, signifies the genesis and importance of the Mission 66 program.

The broader period of significance associated with the Mission 66 initiative is generally considered to range from 1945 to 1972. The preceeding years represent the introduction of the Modern Movement style of architecture in the parks; in the latter years the program was continued under the auspices of the Parkscape USA program, providing funding to complete construction begun during the Mission 66 program. "The Parkscape USA program was designated to end in 1972, the Yellowstone National Park centennial year."[17]

Recommendations for Documentation

The research for this project included digital copying of numerous letters, memoranda, newspaper articles, specifications, and brochures generated by

[16] Rodd L. Wheaton, *Draft Determination of Eligibility for Yosemite Lodge* (provided to the author by Yosemite National Park), March 20, 2014, page 25; the parks selected for pilot studies in 1955 are listed in Mission 66 by Ethan Carr, page 85.

[17] Rodd L. Wheaton, *Draft Determination of Eligibility for Yosemite Lodge*, page 25.

several National Park Service entities (national, regional, and park), the concessioners operating the motel and retail concerns in YNP, McNeil Construction Company, Welton Becket and Associates, and others. These items were inventoried and summarized on spreadsheets for tracking and ease of incorporating the information into this report. While the real value of these documents lies in their original form, we have included these summaries as searchable files in Appendix C.

Recommendations for Further Study

This report could benefit from researching archival information from the Welton Becket & Associates firm. The successor firm, Ellerbe Becket, located in Minneapolis, joined AECOM in 2009. AECOM's worldwide headquarters is in Los Angeles. Additionally, the Minnesota Historical Society or the Los Angeles Historical Society (Welton Becket & Associates was located in Los Angeles) might be worthwhile avenues for research.

Additional archives that were not examined that might provide pertinent information are:

1. American Heritage Center; University of Wyoming, Laramie: Conrad L. Wirth Collection.
2. National Archives in College Park, Maryland: Record Group 79, the official administrative records of the National Park Service.
3. Harpers Ferry National Historic Park Library & Research Room.

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Photo P-4: Aerial view of Canyon Village from the southeast, 1963. YNP-HRC, YELL 27121.



Photo P-5: Canyon Cabins, c.1959, Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo P-5: Canyon Village Dormitory, c.1959, Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo P-7: Canyon Visitor Center, c. 1960. Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo P-7: Canyon Village Haynes Picture Shop, c.1960. Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo P-9: Hamilton Stores Canyon Village General Store, c. 1959. Haynes slide courtesy of the George & Kathryn Yellowstone Bornemann Collection.



Photo P-10: Canyon Village Lodge Administration Building, c. 1957. Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo P-11: Canyon Village Lodge (right) and Lodge Administration Building (left), August 1958. YELL 29672-6 in YNP-HRC Photograph Collection, by Jack Boucher.

Project Data

Client

National Park Service
Yellowstone National Park
P.O. Box 168
Mammoth, WY 82190

Project Team & Scope of Work

CTA Architects Engineers' Historic Preservation Services provided the Historic Structure Report as a consultant to DJ & A, PC, as part of IMR IDIQ Contract No. P11PC10372, Task Order No. P13PD01452. A companion Canyon Village Condition Assessment has been provided as part of this contract, in which recurring maintenance needs, deferred maintenance needs, and life safety codes issues have been identified, located, and quantified. This report presents those findings in a different format.

Research, field work, and subsequent analysis was conducted by:

- Lesley M. Gilmore, AIA, LEED AP BD+C; Director, CTA's Historic Preservation Services
- Anna Claire Davis, LEED AP BD+C, Planner, CTA

Methodology

CTA's Director of Historic Preservation Services, Lesley M. Gilmore, met with NPS representative Sterling Smith and Xanterra representative Steve Fuller at the site on September 25 and 30, 2013. At this time, Ms. Gilmore inspected the buildings and site for general conditions, made exposures to reveal original materials, and compared current configuration with those depicted on original and subsequent construction documents.

CTA makes no representations regarding latent or concealed defects that might exist in these buildings. This report is made only in the best exercise of our ability and judgment. Not all locations of all materials are described herein, yet all areas of concern within the scope of work are addressed.

Acknowledgments

CTA acknowledges that no work is performed in isolation, and is hence indebted to the following individuals for their assistance (in alphabetical order):

- Christopher Anderson, President, DJ&A, P.C.
- George Bornemann, the George & Kathryn Bornemann Yellowstone Collection
- Colleen E. Curry, Supervisory Museum Curator; Yellowstone National Park Heritage and Research Center
- Herb Dawson, Project Manager, National Park Service - YNP
- Anne Foster, Archivist; Yellowstone National Park Heritage and Research Center

- Steve Fuller, Canyon Maintenance Supervisor, Xanterra
- George Mattson, George Mattson Architects
- Mary Murphy, Branch Chief; Concessions Facility Management, YNP
- Zehra Osman, Landscape Architect, Branch of Cultural Resources, YNP
- Tobin Roop, Branch Chief of Cultural Resources, YNP
- Sterling Smith, Concessions Specialist; Concessions Facility Management, YNP
- Zoe Ann Stoltz, Reference Historian; Montana Historical Society Research Library
- Lee Whittlesey, Historian, National Park Service
- Addie Wickham, Director of Facilities and Project Management, Xanterra Parks & Lodges

Images & Citations

Unless noted otherwise, all photographs and drawings included herein have been provided by CTA. The other images are credited accordingly. Where images are part of the collections at the Yellowstone National Park Heritage and Research Center Archives, they have been identified as such in abbreviated form (YNP-HRC), with collection number, in the image's citation.

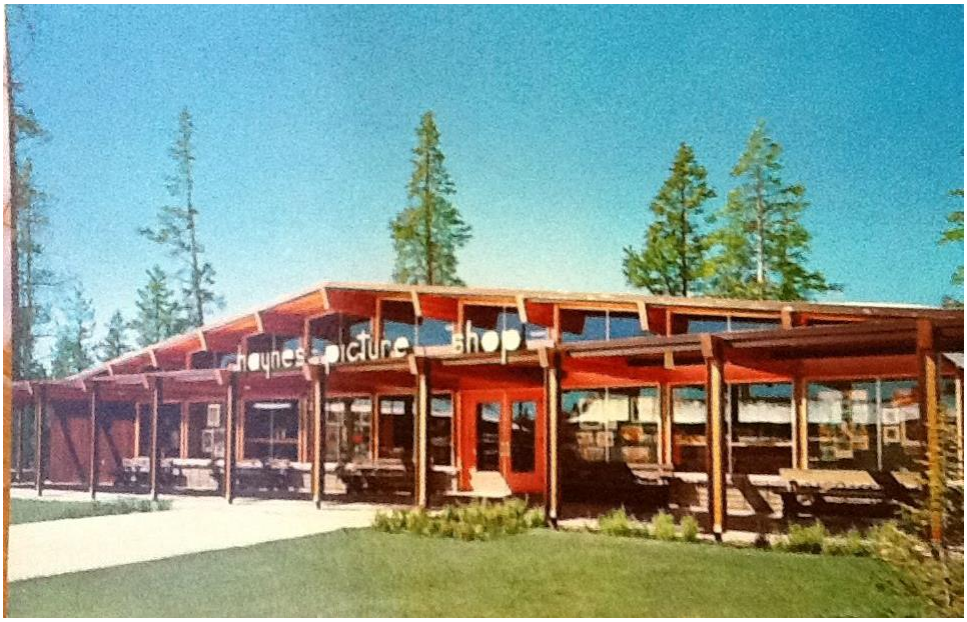


Photo P-12: Hayne Picture Shop, c.1960. Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

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PART 1. DEVELOPMENTAL HISTORY

A. Historical Background and Context

Development of Tourist Accommodations at the Grand Canyon of Yellowstone

The Grand Canyon of Yellowstone National Park has long been one of the four major tourist draws of the park, due primarily to the strikingly exciting appearance of the Upper and Lower Falls, the rims, and the Yellowstone River flowing at the base of the spectacularly colorful canyon. Painter Thomas Moran's watercolors from his journeys to the falls with the 1872 Hayden Expedition helped pave the way for Yellowstone to become the first national park.



Figure A-1: Thomas Moran, Grand Canyon of the Yellowstone, 1872. Image courtesy of NPS ParkNet, Department of the Interior.

In 1883, the Yellowstone Park Improvement Company erected a temporary tent hotel near the west rim of the Upper Falls, which functioned as the first visitor accommodations in the Canyon area.[18] Seventy-five guests could be housed in relative comfort at this tent village, sleeping on spring mattresses, dining in a dining tent serviced by a full kitchen, yet subjected to storms and early fall snows. While no trace remains of the actual location of this hotel, it is known that it was considered too close to the rim.

[18] Diane Marie Papineau, *Transforming Place at Canyon: Politics and Settlement Creation in Yellowstone National Park* (A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science In Earth Sciences; Montana State University, April 2008), page 70.

Papineau summarized the tent hotel's demise within the larger context of future developments in the Canyon area: "At Canyon, the tent hotel was too close to the canyon in violation of the 1883 adjustment to the Organic Act (within one-quarter mile of the falls) and "spoiled the view" (Bartlett 1989, 151). For Canyon, this was just the first instance of questionably placed concessioner facilities; a problem that plagued the Canyon settlement through the first half of the twentieth century."[19]

The rustic tent hotel experience was supplanted by completion of subsequent, sturdier hotels in 1886 and 1891. The first of these was a prefabricated building finished with vertically oriented board and batten walls and a flat-seam sheet metal (gable or shed) roof.[20] This long building - 225 feet by 32 feet – provided the usual necessities of a dining room, kitchen, office, and approximately 45 small sleeping rooms. The location of this plain building is unknown, though it is believed to have been adjacent to the tent hotel, which might have provided overflow housing.

A more permanent hotel was completed by the Yellowstone Park Association (YPA, the hotel concession business in YNP at the time) in 1891, on a site more than one-quarter mile from the falls, thus complying with the 1883 Organic Act adjustment.[21] This hotel was well received and considered a comfortable respite for weary travelers.



Photo A-1: Second Canyon Hotel after the dormers and rear wing were added in 1901. Image extracted from Papineau's thesis, page 123 (Source:Yellowstone Photo Collection).

However, it was determined that the hotel was not large enough and too far from the canyon and falls. It was perceived to be too great for walking and too far for views. These issues - combined with poor soil conditions, shifting of the

[19] Papineau, page 71.
[20] This description is based upon a photograph in Papineau's thesis, page 118.
[21] Papineau, page 122-126.

foundation, and related frost heave issues - caused YPA and YNP Assistant Superintendent Pitcher to consider constructing a third hotel at Canyon.

Harry Child, part owner in the Yellowstone Park Transportation Company, who had become part owner in YPA in 1901, engaged Robert Reamer to design a new Canyon Hotel in 1909. Reamer had designed other prominent buildings in YNP and nearby Gardiner, including the Northern Pacific Railway depot in Gardiner in 1902, the Old Faithful Inn in 1904, and Child's own residence in Mammoth in 1908. Child commissioned Reamer to design the new Canyon Hotel, after the two returned from a European trip visiting the great hotels. "The Grand Canyon Hotel would be built on the same site as the second hotel, despite Superintendent Pitcher's comments and despite known foundation problems from unstable soils. In fact, Reamer planned to incorporate the second hotel into his construction at its western end, modifying its roof to match (Quinn 2004b, 28)."[22] This is the Canyon Hotel that captured the imaginations and hearts of countless visitors to the Canyon area of Yellowstone National Park; the one that suffered foundation disruption due to the poor hygroscopic soils; and the one that would be replaced by the new Canyon Village in 1957.

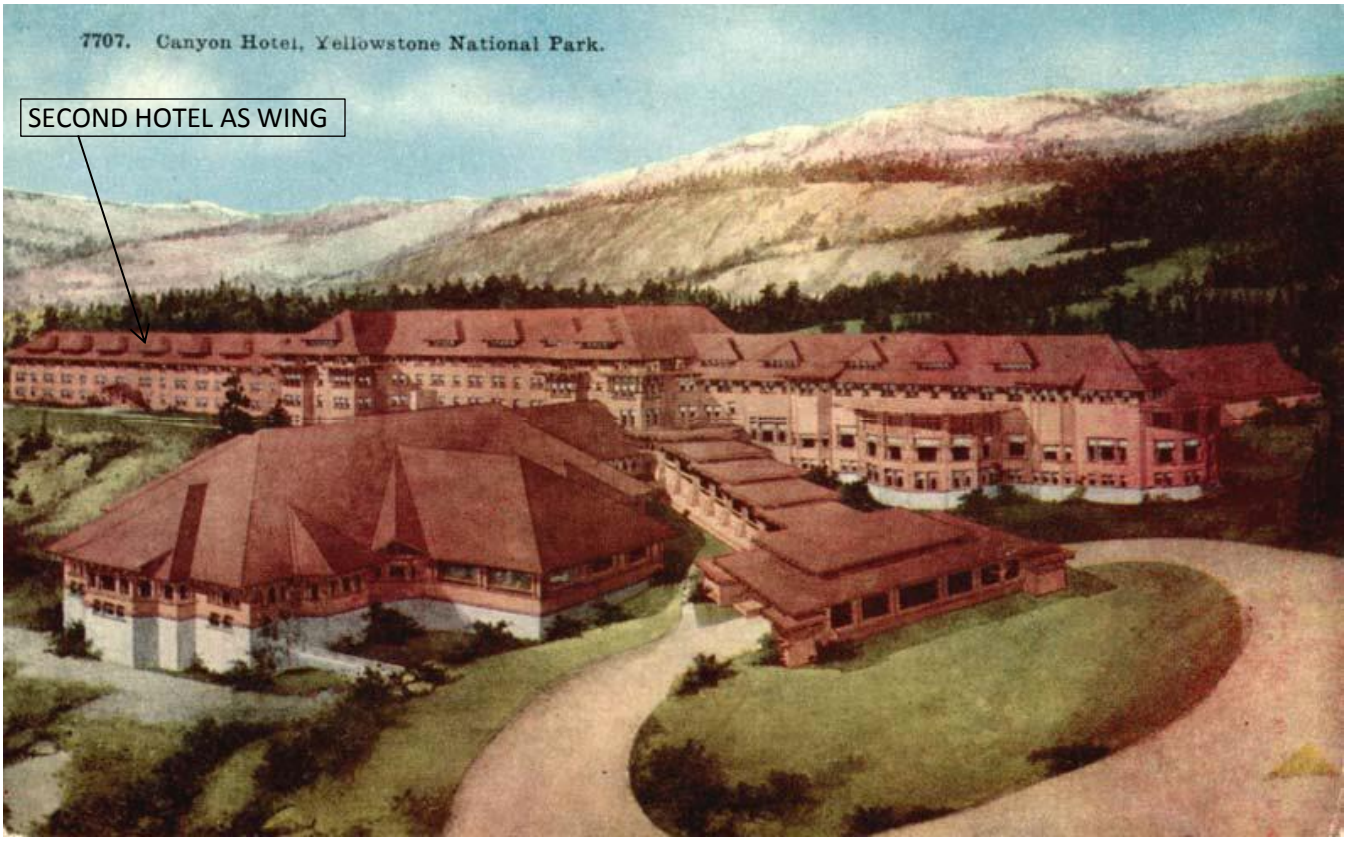


Photo A-2: The third Canyon Hotel, as designed by Robert Reamer and completed in 1911, with indication of the reuse of the second hotel as one wing. Postcard extracted from Papineau's thesis, page 157 (Source: personal collection).

[22] Papineau, page 156.

The new 250-room Canyon Hotel was constructed from June 1910 to August 1911, and was the "largest structure ever built in Yellowstone,"[23] on the same site as the second hotel, despite knowledge of the unstable soils. As planned, the main original wing of the second hotel was incorporated into the new construction. Canyon Hotel's exterior and interior, including furnishings, were designed in the Arts & Crafts style. The building was considered an architectural gem.

As noted in Papineau's thesis, the Canyon Hotel was improved over the years: "While the hotel and many other facilities in Yellowstone were closed in 1918 due to World War I, later prosperity in the Roaring Twenties was reflected in changes to the Canyon Hotel. Between 1924 and 1925, the hotel interior was renovated. New lavatories were installed in hundreds of rooms. The building added new fire escapes, a new lobby, and writing rooms (Hert 2005, 30; Albright 1924, 29; Albright 1925, 32; Lindsley n.d., 282). By the late 1920's, the hotel's lodging capacity also increased. Robert Reamer designed a west wing and added it to the Canyon Hotel (Figure 72, bottom), providing 96 additional rooms, each with bath. Construction began in 1930. By 1931, rooms on the upper floors were ready for tourists; however, the next year railroad tourism dropped significantly due to the Great Depression, slowing completion of the west wing. Canyon Hotel could then accommodate 800 guests, but in 1932 it could only boast between five and ten percent occupancy for the entire season. The slowdown in park visitation left the Canyon Hotel as one of only a few park facilities open in 1933."[24]



Photo A-3: Canyon Hotel, aerial photograph c.1938-1940, looking southwest. Photograph extracted from Papineau's thesis, page 217 (Source: Yellowstone Photo Collection).

[23] Papineau, page 156, quote from Aubrey Haines and Ruth Quinn.
[24] Papineau, page 215.

In the 1930's, the west wing project was completed, a cocktail lounge similar to the Bear Pit lounge Reamer had designed at Old Faithful Inn was finished, and the dining room was enlarged.[25] The hotel was included in several master plans the Park developed in response to increasing visitor counts in the mid-1930's. At this time, a "Canyon Village" was being designed by the Park's landscape architects and local Bozeman architect Fred Willson. Intended to replace the tourist facilities too close to the "sacred area" within one-eighth mile of the rim, these designs included stores, food services, and guest cabins. The 1939 and 1941 Master Plans proposed a Canyon Village location in close proximity to what became the site of the current Canyon Village.[26] The components of the 1941 development plan correlate strongly with the plan implemented in 1956, demonstrating this early and continued need for similar services: cabins, tourist cabin office, cafeteria, coffee shop, lounge, writing room, Hamilton Store, Haynes Picture Shop, dormitories, and a recreation hall. These ambitious plans were halted on the eve of construction by World War II.

The third Canyon Hotel was decommissioned as part of the Mission 66 plan for improvements in Yellowstone National Park. It was ultimately partially demolished and salvaged, before succumbing to fire on August 8, 1960.

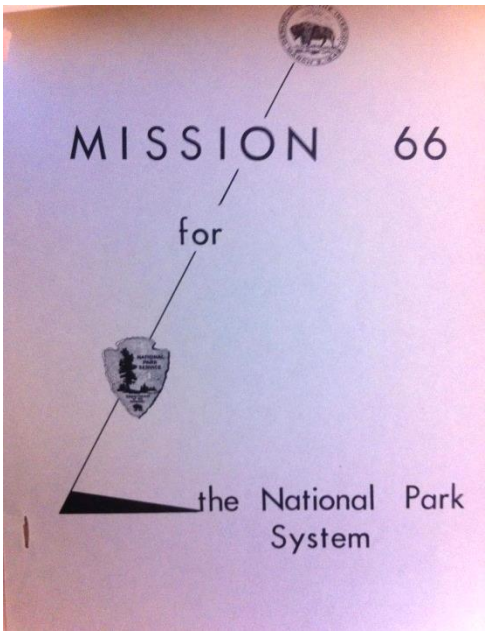


Figure A-2: Cover for funding request by Secretary of the Interior to the President of the United States, February 1, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

As part of the Mission 66 ten-year plan for Yellowstone National Park, Canyon Village was constructed to provide the more modern type of accommodations expected by the increasingly larger numbers of visiting public in the mid-twentieth century. The village included a lodge as a gathering and eating mecca, 512 cabins for overnight stays, a general store, a photo shop, and a visitor center. The project was heavily controlled by NPS officials in Washington D.C. and California, and world renowned Los Angeles firms were responsible for the design and construction. Only four buildings were designed by local firms: William Grabow designed the Haynes Picture Shop; and Graham, Scowcroft, Hansen, and Offern Architects and Engineers designed the Service Station, YPSS dormitory, and the Campers' Services Building outside of the official village complex.

All of the designs reflected the trend toward modern efficient architecture and deviated from the more traditional

[25] Papineau, page 216.

[26] For a more in-depth discussion of these plans and the definition and treatment of "sacred areas," see Papineau's thesis, page 274 – 280.

designs of the prior Canyon Village schemes prepared before World War II, yet were promoted as "contemporary-rustic architecture"[27] intended to appeal to the masses.

MISSION 66

Mission 66 was the Department of the Interior's responsive solution to five primary interrelated problems that were prevalent in the national parks after World War II:

- Poor condition of park facilities (both concessioner and park managed)
- Inadequate funding for the parks
- Rapidly and vastly increased visitation by a public with more leisure time
- Increasingly automobile-oriented public
- Inappropriate development of the parks as playgrounds and resorts

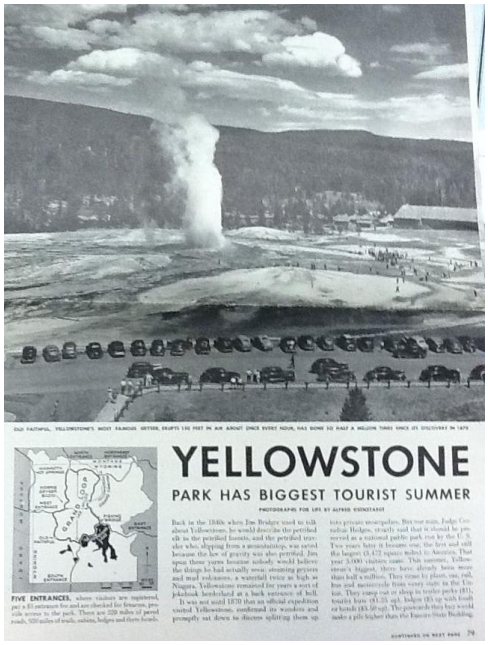

YELLOWSTONE
PARK HAS BIGGEST TOURIST SUMMER

Figure A-3: This article in the April 19, 1949 issue of LIFE Magazine depicts the prevalent mode of transportation after WWII. Photograph taken looking east towards Old Faithful Lodge. Image courtesy Billings Public Library Special Collections.

Wallace Stegner, Bernard DeVoto, and other well-known authors raised these concerns in popular publications in the early 1950's, setting the stage for political and funding support to correct these deficiencies. The deteriorated physical condition of the parks was a backlash of the two world wars and the Korean conflict, during which manpower and funding were diverted and park visitation was low. After World War II, however, rapidly increased visitation descended upon parks ill-prepared to accommodate the traffic.

Conrad Wirth, director of the National Park Service from 1951 through 1963, was the originator of the Mission 66 program.[28] His planning background, long career with NPS, and work on the NPS Civilian Conservation Corps activities in state parks positioned him to have a broad view of the parks' failings and how to fix them. In 1951, he reorganized the Park Service, appointing regional concession supervisors and park-specific concession chiefs, eliminating a layer of bureaucracy.[29] In February 1955, he launched a Mission 66 Steering Committee which evolved into an Advisory Committee, both chaired by Lon Garrison. As he informed the Washington office and all

[27] Don Watkins, *Canyon Village Newsletter* – Second Edition (Yellowstone Park Company Public Relations Office, post July 15, 1957), page 2. YNP-HRC Coll. YELL 185385, Series 02-A, Box 6, Folder 2.

[28] For background information and more context on the Mission 66 program, see generally Conrad Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980).

[29] Mark D. Barringer, *Selling Yellowstone: Capitalism and the Construction of Nature* (Lawrence, Kansas: University Press of Kansas, 2002), page 116.

field offices in an October 28, 1955 memo, the program would now be “largely a field operation.”[30]

"The name of the program (Wirth's inspiration) captured the desired sense of a crisis, but it did so by evoking the wartime urgency of a 'mission,' not a return to New Deal social programs."[31] The name also incorporated the recognition of the fiftieth anniversary of the National Park Service on August 25, 1956, which would occur some ten years hence. It was anticipated that this would cost $154,000,000 above and beyond the normal Park Service budget during the next ten years. Funding was to be for construction of capital improvements and the necessary increase in staff.[32]

Wirth worked closely with the advisory committee and the Secretary of the Interior to request and review ten-year financial plans (prospectuses) submitted by the parks, and to acquire the necessary funding. They approached President Eisenhower who provided support. In February 1956, the legislature increased the NPS budget for the first year of the program.

The Department of the Interior’s director appealed directly to President Eisenhower in February 1956, summarizing the motivation and intended benefits of the Mission 66 program:

> A critical problem faces our National Parks. The desire of many Americans to spend their growing leisure in the great open spaces of the National Parks and in visiting our historic shrines has raised attendance from 21 million in 1946 to 50 million last year, with 80 million expected by 1966. The result has been an increasingly serious overcrowding of the Park facilities: of accommodations, campgrounds, ranger services – everything.
>
> Under this Administration substantial gains have been made toward meeting the needs of the visitors to our Park system. The dramatic increases in attendance, however, now call for accelerated action.
>
> After thorough study, the Director of the National Park Service and I, have prepared an action program which faces this task squarely. It is called MISSION 66 – a proposed ten-year development plan which should begin now and should equip and staff the Park areas to serve the needs of the expected 80,000,000 visitors by 1966, the 50th anniversary year of the National park Service. Carrying forward MISSION 66 will result in improved roads, more campgrounds and facilities for visitor use, and should stimulate investment of private capital in modern accommodations. At the same

[30] Conrad Wirth, memo to Washington office and all field offices, “MISSION 66 Advisory Committee,” YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 11.
[31] Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst, Massachusetts: University of Massachusetts Press, 2007), page 10.
[32] “What is MISSION 66?” undated typewritten copy c.1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

> time, it will preserve the historic, the wilderness, and other features of the areas. It will satisfy the demand for more of such ranger services to the public as lectures, exhibits, and guided tours….In short MISSION 66 covers all the anticipated needs of the Parks, plots a comprehensive and well-balanced schedule of improvement, and starts immediately. It fulfills the pledge you made in the State of the Union Message. I have the honor to transmit the MISSION 66 program for your consideration. I strongly recommend your approval to start putting it into effect immediately as a vital part of this Administrations' resources conservation program.[33]

President Eisenhower acted immediately, sending a letter to the House Speaker and Vice President the day after he received the above request from the Secretary of the Interior. He agreed that it was "…the responsibility of the Federal Government to preserve them and manage them perpetually for the enjoyment of all Americans." He had a budget amendment sent to Congress so that funding would be available for fiscal year 1957, to support this comprehensive ten-year plan without delay.[34] The 1957 fiscal year budget for NPS was increased from $4.4 million to $12.5 million.[35]

Directions provided by Wirth to the parks as they proceeded with Mission 66 planning and design highlight the tenets of modernistic design and the overarching desire to protect the parks while providing higher levels of visitor use and comfort. He instructed them to:

1. "Disregard precedents
2. Be imaginative in considering all problems to the end that ideas may be produced which are worthy of adoption
3. Bring up something effective in achieving the twin objectives of protection and optimum use."[36]

While the congress supported the overall Mission 66 plan, they weren't able to continue funding it at the levels anticipated or needed by the Parks. As early as May 1956, the 1958 cost projections exceeded the 1958 authorizations, forcing the Parks to realize that: "Not all needs can be met during the first few years of the MISSION 66 program… it would take until 1966 to accomplish our goals."[37]

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[33] Douglas Monday, letter to President Eisenhower, February 1, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

[34] Dwight D. Eisenhower, letter to Mr. Speaker and the Vice President, February 2, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 11.

[35] Acting regional director George F. Baggley, memo to Region Two superintendents, February 17, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10.

[36] Conrad Wirth, memo to the Washington DC office and all field offices, "MISSION Policies and Procedures," April 17, 1955. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 11.

[37] Region Two director Howard W. Baker, memo to superintendents, May 10, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10.

In looking back on the progress made with Mission 66, in response to the rapid pace of societal changes, Secretary of the Interior Stewart Udall reported in a 1964 press release that the parks needed to be managed as three areas: natural areas, historical areas, and recreational areas.[38]

MISSION 66 and Yellowstone National Park

The True Pilot Project

The Mission 66 steering committee had collected detailed plans from the parks, which prompted them to request a pilot study of Mount Rainier in February 1955. After reviewing the findings from this study, in March 1955 they requested pilot studies from a broad cross section of NPS parks: Yellowstone National Park, Chaco Canyon National Monument, Shiloh National Military Park, Adams Mansion National Historic Site, Fort Laramie National Historic Site, and Everglades National Park.[39] Of these pilots and the resultant master plans, which were deemed necessary "…to organize a sound program,"[40] the work at Yellowstone National Park was brought to the forefront, partly because the concession contract was up for negotiation. This presented "an opportunity to make sure the plans of the concessionaires and those for the park itself would be in harmony."[41]

The importance of the Canyon Village project at YNP to the entire Mission 66 program cannot be understated; it was important that the project be successful in order start the 10-year program off on a positive note. This was stressed in a March 1956 memo from NPS Associate Director E.T. Simpson to YNP's superintendent: "At Canyon, your high priority projects are nearly complete and we are using the development of your area as an example of the way we hope to do things in more places, not only in Yellowstone but in other areas of the System."[42]

A few months later, at the May 1956 meeting of the Mission 66 Advisory Committee, they recommended:

> …that a progress movie with sound track be produced this year of a typical MISSION 66 development, such as at the Canyon area in Yellowstone, showing 'before' and 'after' conditions, and an 'on the job' story of continuity from the work of site selection, survey, planning, layout, and final building to the use of the new facilities.[43]

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[38] Stewart Udall, press release, August 3, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 2.
[39] Conrad L. Wirth, *Parks, Politics, and the People* (Norman: University of Oklahama Press, 1980), page 243.
[40] Ibid., page 249-250.
[41] Ibid., page 244-249.
[42] March 5, 1956, YNP-HRC Coll. YELL 182386, Series 01, Box 20, Folder 10.
[43] MISSION 66 advisory committee meeting in D.C., memo to NPS Director, May 18, 1956, YNP-HRC, Coll. YELL 192386, Series 01, Box 8, Folder 11.

The movie would be used for in-service training showing errors to be avoided, reasons for location and design, and advantages of close supervision throughout the work.

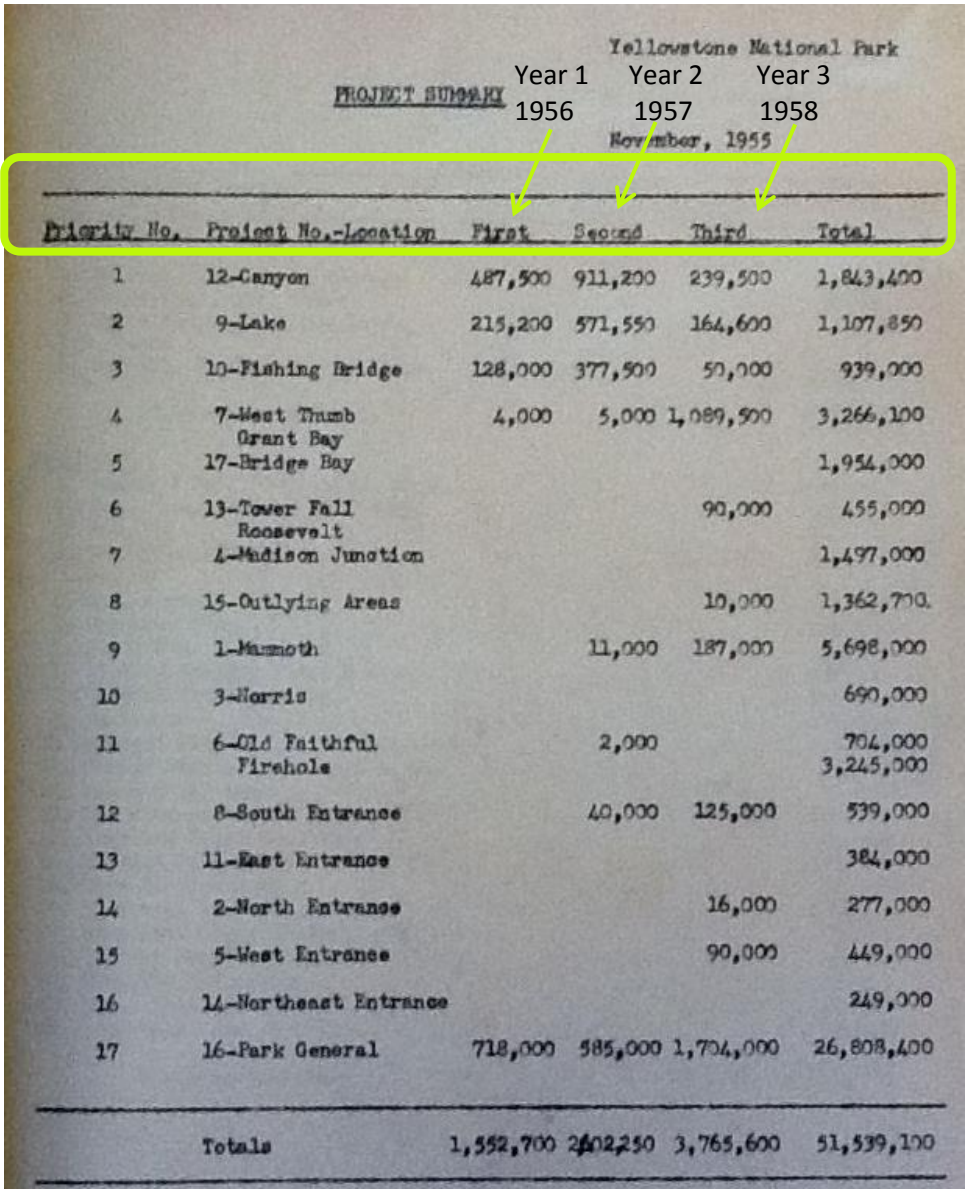
While the other pilot projects were helpful in the master planning of each park and in developing the strategy behind Mission 66, they were not implemented until after the Canyon Village project was under construction. For instance, Mount Rainier's visitor center project was not begun until 1964.

A similar lodge and village project in Yosemite National Park was built at the cusp of Mission 66, hence might be considered to share the inaugural stage with Canyon Village. The Yosemite Village project was conceptually similar to Canyon Village; per Ethan Carr: "Like Canyon Lodge in Yellowstone National Park it featured a central service building with associated groups of motel units."[44] Plans for this development – on the site of the old lodge – were completed before Yosemite's Mission 66 prospectus was completed in July 1957; construction was completed by June 6, 1956. This Yosemite project helped usher in Mission 66 in a quieter, less pronounced fashion than the larger Canyon Village complex did. The Canyon Village development was heavily promoted by the National Park Service and relied upon as the first official celebration of this grand scale nationwide endeavor.

Yellowstone's Prospectus

The Yellowstone National Park prospectus entitled "MISSION 66 A Look Ahead: A Development Program a part of the Project Construction Program for Yellowstone National Park" was proposed in November 1955. Projects and locations were prioritized and associated costs were estimated. Canyon Village was identified as top priority for this government work, which "…represented a new concept in national park development and was the cornerstone of Mission 66 nationwide."[45] YNP proposed to spend $1,843,000 for a public use building with post office; employee residences; a campground; power, water, and sewer utilities; an amphitheater; corrals and fences; and informational signs.[46] The overall anticipated three-year expenditure in the park was $51,539,100. This was exclusive of other YNP projects – utilities, roads, personnel additions, other developments, etc. – located all over the Park that would require time and funding over the ensuing ten-year period. This was also exclusive of concessioner expenditures.

[44] Carr, *Mission 66: Modernism and the National Park Dilemma*, page 247.
[45] Barringer, page 132.
[46] YNP "Mission 66 A Look Ahead," November 1955. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 13.



Yellowstone National Park

PROJECT SUMMARY

November, 1955

Year 1 1956 | Year 2 1957 | Year 3 1958

Priority No.	Project No.-Location	First	Second	Third	Total
1	12-Canyon	487,500	911,200	239,500	1,843,400
2	9-Lake	215,200	571,550	164,600	1,107,850
3	10-Fishing Bridge	128,000	377,500	50,000	939,000
4	7-West Thumb Grant Bay	4,000	5,000	1,089,500	3,266,100
5	17-Bridge Bay				1,954,000
6	13-Tower Fall Roosevelt			90,000	455,000
7	4-Madison Junction				1,497,000
8	15-Outlying Areas			10,000	1,362,700
9	1-Mammoth		11,000	187,000	5,698,000
10	3-Norris				690,000
11	6-Old Faithful Firehole		2,000		704,000 3,245,000
12	8-South Entrance		40,000	125,000	539,000
13	11-East Entrance				384,000
14	2-North Entrance			16,000	277,000
15	5-West Entrance			90,000	449,000
16	14-Northeast Entrance				249,000
17	16-Park General	718,000	585,000	1,704,000	26,808,400
	Totals	1,552,700	2,402,250	3,765,600	51,539,100

Figure A-4: Excerpt from YNP's November 1955 Prospectus for Mission 66 improvements, Project Summary. YNP-HRC, Coll.YELL 182386, Series 01, Box 20, Folder 13.

The government's construction program included projects throughout YNP, intending to accommodate huge increases in visitor attendance. Their 1956 Prospectus included a graph showing the downturn in attendance during the war years and the Great Depression, and the subsequent skyrocketing from 1944 onward. (See Figure A-5.)

The projections affected the YNP concessioners as well, who received strong direction from both park officials and NPS Director Wirth to build new facilities. In preparation of their 1956 Mission 66 prospectus, YNP officials met with the primary YNP concessioners to review the scope of work and negotiate concessioner contract renewals. The Yellowstone Park Company, concessioner for the overnight accommodations and service stations, bore the greatest burdens of scope, schedule, cost, and negotiation. Hamilton Stores and Haynes Picture Shops each constructed a retail store and associated staff dormitory.

Concessioner's Role

Per a renewed contract with NPS, YPC was slated to spend $13.5 million over the course of twenty years, developing concession facilities throughout YNP. YPC ultimately spent $5.6 million on the Canyon Village development alone, yet this project reduced their funding capacity to complete the rest of the ambitious program.

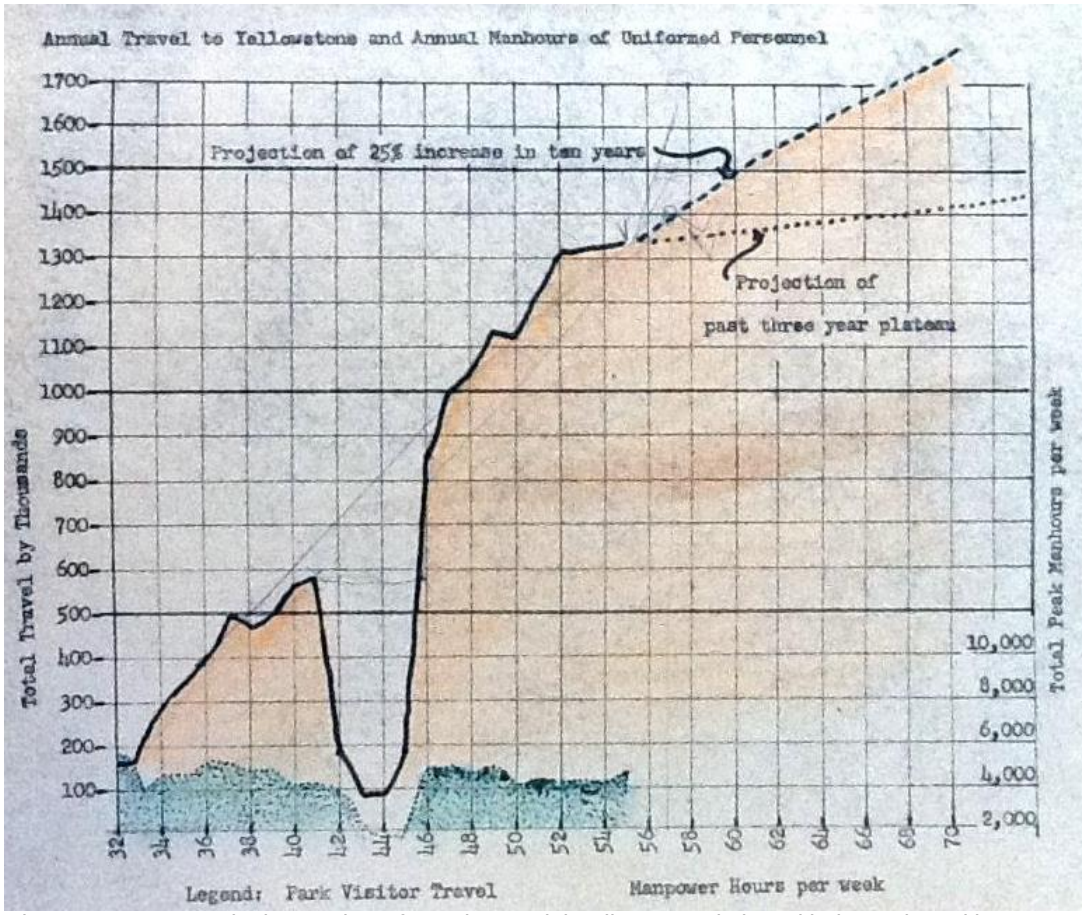


Figure A-5: Increase in the number of travelers and the direct correlation with the projected increase in staff. 1956 YNP Prospectus. YNP-HRC, Coll. YELL 182386, Series 01, Box 21, Folder 1.

NPS Management

The Mission 66 program was a large and important one for Yellowstone staff to manage. As part of Conrad L. Wirth's 1954 reorganization of the Park Service, he had created two new branch offices of design and construction (the Western – WODC, and the Eastern - EODC), centralizing the design and construction staff that had been spread out in regional offices. The staff of the Western Office of Design and Construction (WODC) played a strong role in the design and construction of Canyon Village. They reviewed designs and constructions drawings, established design standards and policies, and clarified responsibilities of all parties involved in the construction; but they were not funded to provide inspection of construction.[47] The Mission 66 Advisory Committee advised the WODC not to compromise on "highly complicated problems in such world renowned places as, for example, Yosemite Valley," and emphasized that Mission 66 was "in fact a conservation program and not a disguised public works program."[48] Specifically, both offices of Design and Construction were directed to "…continue to be alert to developments in industry which involve new construction procedures, possible use of new materials, and new types of equipment."[49]

Yellowstone National Park
Proposed Ultimate Population

	Proposed Guests in Hotel and Cabin Rooms	Proposed Campground Population	Proposed Trailer Court Population	Proposed Employee & Family Population	Proposed TOTAL POPULATION
Mammoth	474	300	0	771	1,545
Norris	0	300	0	10	310
Madison	0	900	0	30	930
Firehole	2,850	1,200	500	850	5,400
Grant Bay Village	2,700	1,200	500	680	5,080
Bridge Bay	1,500	1,200	350	200	3,250
Lake	2,359	0	0	460	2,819
Fishing Bridge	1,090	1,000	500	250	2,840
Canyon	2,990	600	500	625	4,715
Tower Fall	0	150	0	40	190
Roosevelt	633	0	0	80	713
Other Isolated Campgrounds	0	1,800	0	64	1,864
TOTALS	14,596	8,650	2,350	4,060	29,656

Figure A-6: Yellowstone National Park's Mission 66 Prospectus indicating proposed overnight accommodations within the Park. YNP-HRC, Coll YELL 182386 Series 01, Box 21, Folder 1.

[47] YNP superintendent to WODC director, April 17, 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.

[48] Both quotes from Advisory Committee's recommendations, April 2, 1957. YNP-HRC, Coll. YELL 182386, Series 01, Box 8, Folder 11.

[49] Advisory Committee's recommendations, April 2, 1957. YNP-HRC, Coll. YELL 182386, Series 01, Box 8, Folder 11.

Synopsis

A 1964 guest editorial in the Billings Gazette provided a brief update and near-end analysis of Yellowstone's participation in the Mission 66 program. Superintendent John S. McLaughlin stated: "Mission 66 will terminate in two years. On the whole it has come close to achieving its objective, but like many public programs, its full objectives will not be achieved since funds have not been made available to complete all the improvement [sic] that were envisioned. It has been a real 'life saver' and inspiration to all that have been connected with it."[50]

Yellowstone Park Superintendents

Throughout the course of planning and implementing Mission 66 in Yellowstone National Park, the park had three superintendents and one acting superintendent (for a brief tenure). Lemuel (Lon) Garrison was appointed in 1956, after having served as the chairman of the Mission 66 Steering Committee and Mission 66 Advisory Committee, and served through 1964, thus providing strong continuity during the course of YNP's Mission 66 improvement plan.

Each superintendent was heavily involved in the government and concessions construction projects, yet YNP's landscape architect Frank Mattson was the point person for them. Mattson provided the continuity for this huge planning effort and didn't hesitate to provide guidance with his professional opinions.

The superintendents who served YNP during Mission 66 were as follows:[51]

Superintendent	*Time Span*
Edmund B. Rogers	May 25, 1936 to October 31, 1956
Lemuel A. Garrison	November 1, 1956 to February 16, 1964
Luis Gastellum, Acting Superintendent	March 2, 1964 (date of correspondence; YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.)
John S. McLaughlin	March 6, 1964 to October 6, 1967

[50] John S. McLaughlin, "Yellowstone Expects Millions More Visitors in Another 10 Years," *Billings Gazette*, May 16, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.

[51] Aubrey L. Haines, *The Yellowstone Story: A History of our First National Park, Revised Edition - Volume II* (Boulder, Colorado: the University Press of Colorado, 1997), page 477: this source lists only the superintendents listed here; the acting superintendent was identified in correspondence reviewed as part of this documentation.

Yellowstone Park Company – Brief History

The Yellowstone Park Company (referred to henceforth as YPC) represents the long-held variety of concessions that entrepreneur Harry Wilbour Child and his family held in Yellowstone National Park. YPC's fascinating history is indicative of the nature of the concessions and how they changed over the years to accommodate a maturing government (Department of the Interior) steward, new ways of traveling and experiencing the park, and alterations in general business practices. This long and complex history has been well told by several historians, hence is abbreviated here in order to introduce the firm responsible for the Mission 66 improvements at YNP's Canyon Village.[52]



Photo A-4: William "Billie" Nichols photograph courtesy of http://apps.westpointaog.org/Memorials/Article/4137/.

YPC is the direct descendant of the Yellowstone Park Association concession purchased by Harry W. Child, his brother-in-law Silas Huntley, and Edmund Bach in 1901. They purchased this company with collateral from their shares of the Yellowstone Park Transportation Company which they had acquired for $70,000 in 1891, and a loan from the Northern Pacific Railroad.[53] "On September 22, 1909, the assets of the Yellowstone Park Association were sold to the Yellowstone Park Hotel Company with Harry holding 11,094 shares, Adelaide [his wife] 3 shares."[54] Their son, Huntley Child, and son-in-law "Billie" (William M.) Nichols were treasurer and secretary, respectively.

The Yellowstone Park Hotel Company, under the leadership of H.W. Child, constructed the Old Faithful Inn in 1903-04; the Mammoth Hotel additions and remodelings in 1911, 1913, and 1936; and the Canyon Hotel in 1911, among many other buildings in Yellowstone National Park.



Photo A-5: Old Faithful Inn, photograph by Jim Peaco, NPS. Image in the public domain.

Subsequent purchases left Harry Child's heirs with four holdings upon his death in 1931 at age 74: the Yellowstone Park Transportation

[52] For the Child's family and business history, see Harry W. Child II, *Montana Pioneers: The Huntley, Child & Dean Families*; Mark Daniel Barringer, *Selling Yellowstone: Capitalism and the Construction of Nature*; Aubrey L. Haines, *The Yellowstone Story*; Mary Shivers Culpin, *A History of Concession Development in Yellowstone National Park, 1872-1966*, among others.

[53] Harry W. Child II, *Montana Pioneers: The Huntley, Child & Dean Families* (Self-published, 2009), pages 46-50, and Barringer, page 39.

[54] Harry W. Child II, pages 58-59.

Company, the Yellowstone Park Hotel Company, the Yellowstone Park Boat Company, and the Lodge and Camps Company – as well as shared ownership in the Yellowstone Park Service Stations with Charles Hamilton and store owner Anna Pryor. Harry Child had "…remained the majority owner of all the companies, with his wife Adelaide, daughter Ellen, and son-in-law Billie Nichols holding minority interests."[55] These four companies were consolidated into one – the Yellowstone Park Company (YPC) – in 1936, to "simplify financial oversight."[56]



Photo A-6: Mammoth Hot Springs Hotel, as designed by Robert Reamer. Photograph courtesy Xanterra Parks & Resorts.

Within a few years of Harry Child's death, Billie's son John Q. Nichols and Huntley Child, Jr. (a nephew of Billie Nichols) became officers in the family's business. The firm continued a long-standing relationship with Helena accountant Hugh D. Galusha, who became a trusted advisor to the new, young guard. As Mark Daniel Barringer noted in *Selling Yellowstone*:

> Galusha had helped Child construct "…a complex financial structure to limit tax exposure. They established the H.W. Child Trust, a holding company owned by family members, including Adelaide, daughter Ellen and her husband, Billie Nichols, their children (John, Dean, and Adelaide Nichols), and another grandchild, Huntley Child Jr. The trust retained forty thousand shares of the H.W. Child Corporation, which owned the Yellowstone Park Companies. The family trust also owned nearly two-thirds of the Vernon Goodwin Company, still nominal proprietor of the Lodge and Camps Company.[57]

The above complex arrangement was in place during the Mission 66 program improvements in YNP; numerous shareholder and Board of Directors' meeting minutes demonstrate the involved nature of any proceeding embarked upon by the company. Billie and his son John Q. Nichols were capable businessmen, particularly when aided by Hugh D. Galusha and his son. They were able to negotiate financial difficulties successfully while still involved in the company's operations; once they stepped aside in the early 1960's and hired outside managers, the company became more difficult to control financially.[58]

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[55] Barringer, page 79.
[56] Barringer, page 88.
[57] Barringer, pages 84-85.
[58] These difficulties first arise after construction of Canyon Village, with the hiring (in 1961) and subsequent firing (in June 1962) of LaMarr Bittinger as general manager.

The associated costs and bank loans required for construction of YPC's Mission 66 improvements were greater than the financial gains experienced by YPC. After concerted alternating efforts at reorganizing and selling the company, the Yellowstone Park Company realized it was unable to complete the full Mission 66 program assigned to them. "In the spring of 1966, the final year in the Mission 66 program, the Yellowstone Park Company was sold to the Goldfield Corporation. A few months later, Goldfield sold its tourism interests, including the Yellowstone Park Company and the Everglades National Park Company, to General Baking, which became General Host, Inc. in 1967."[59] General Host was also unable to comply with the conditions of their 30-year contract, which prompted NPS to terminate the contract in 1976, forcing the sale of the former YPC to the federal government for $19.9 million. A subsequent concession contract was awarded to TWA Services in November 1979. TWA Services, now known as Xanterra Parks & Resorts, has made substantial improvements to the buildings and operations.[60] In February 2013, Xanterra was awarded a new 20-year contract for lodging, retail sales, and restaurant operations in YNP. This contract includes the operation of Canyon Village Lodge and cabins, Canyon Village Administration Building, and the new lodges (Dunraven and Cascade) with hotel rooms.

According to Xanterra's website: "Canyon Lodge and Cabins is a sprawling facility, featuring the most accommodations in Yellowstone with more than 500 rooms and cabins. Located on the east side of the park near the Grand Canyon of the Yellowstone River, Canyon Lodge is open from the end of May through late September. A major redevelopment of the Canyon Lodge facilities is scheduled to begin in 2014. Frontier cabins will ultimately be removed and replaced with a series of new multi-story lodge buildings."[61]

Yellowstone Park Company's Mission 66 Role

Soon before the official July 1957 opening of Canyon Lodge, Billie and John Q. Nichols summarized YPC's 1956 contract renewal and building program negotiations in four pages, summarized on the following page.[62]

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[59] May Shivers Culpin*, A History of Concession Development in Yellowstone National Park, 1872-1966* (National Park Service – Yellowstone Center for Resources: Yellowstone National Park, 2003), page 114. Culpin provides the complex details associated with holding a concessions' contract with the National Park Service since the beginning of the National Park Service in 1916.

[60] TWA went through numerous other names and owners before becoming Xanterra. According to YNP historian Lee Whittlesey, in late 1979 the firm was TWA Services, Inc., "…then it became TW Services, Inc. (after it sold TW Airlines), followed by T.W. Recreational Services, Inc., then Amfac Parks and Resorts, Ltd., and finally Xanterra." Comments on 90% HSR Draft, February 10, 2014.

[61] http://www.yellowstonenationalparklodges.com/lodging/summer-lodges/, accessed January 22, 2014.

[62] Yellowstone Park Company summary, August 31, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2. Quoted citations are from this document.

Date	Action
March 10, 1955:	YPC sent 1st draft of proposed contract to NPS Director Wirth
May 9, 1955:	NPS acknowledged draft; stated need to include provisions for a building program
Sept. 1, 1955:	Joint meeting in Mammoth "at which the Park Service's 'Mission 66' was discussed. A form of contract was arrived at, negotiations were started, and we agreed to make any reasonable investment, provided it were economically feasible."
Date	**Action**
Oct. 28, 1955:	Meeting in Washington DC to finalize negotiations. YPC dedicating $3.5m for improvements and building program at Canyon Village and Lake, with program to begin on or before April 1, 1956. YPC signed the contract.
12/1/1955 – 2/3/1956:	Congressional committees and senate approval delayed by politics.
Feb. 3, 1956:	Contract signed. Timeline now tight for April 1, 1956 start date.
March 30, 1956:	YPC secured $3m loan with Security-First National Bank of Los Angeles, for approximate cost of the Canyon Village improvements. The original contract contemplated the erection of: • 300 motel units • 3 dorms • Building no. 1 – admin building • Building no. 2 – main lodge building • Building no. 3 – recreation hall
April 1, 1956:	Began prefabricating cabins in Gardiner
May 25, 1956:	Work began on site, delayed by snow.
June 25, 1956:	Working drawings available. Notified that: "…there had been a mistake of some $1,500,000 in the original estimate; construction would cost $4.5m."
June 27, 1956:	YPC met to alter the construction program, retaining and enlarging the money-generating components, to keep the revised cost at about $3m: • 200 more hotel units [makes money] • to eliminate the recreation hall [doesn't make money] • reduce the size of the administration building • build 3 dorms (2 women, 1 men)

The final cost of YPC's improvements at Canyon Village, including furnishings and equipment, was $5.6 million. The two largest expenses were $2.2 million for the cabins and $1.2 million for the Lodge.[63] These expenses required outside financing which required demonstration of sufficient earning capacity in the company "…as a whole to protect the loan agencies in the event the anticipated revenues at Canyon Village did not materialize, or prove to be less than anticipated…" YPC was hopeful that the new Canyon facilities, supplemented by an aggressive advertising campaign, would restore the proper ratio between house counts and gross travel through the park. Constructing facilities that produced immediate income increased their chances of being able to satisfy the loan.[64]

Hamilton Stores

The eponymous Hamilton Stores firm was one of the three long-lived concessioners in the Park, along with YPC and the Haynes Picture Shops. Hamilton Stores operated general stores and soda fountains throughout the Park, and had a share in the service station business with YPC. In historian Robert Goss's discussion of the concessioners in the Park, he notes Charles Hamilton's acumen and skill in taking advantage of his good timing:

> When Charles Hamilton took over the business in 1915, the "modern age" in Yellowstone was at hand. Motorized vehicles were allowed on the roads that year and took over completely in 1917, allowing faster and more comfortable travel, easier transport of materials and supplies, and eliminated the necessity of grazing cattle and horses on park meadows. Visitation doubled in 1915, and with the exception of the war years, dramatically increased on a yearly basis. By the time Hamilton died in 1957, visitation approached close to 1.5 million a year.[65]



Photo A-7: Hamilton's Lake General Store from 1922 was Hamilton's first construction project in Yellowstone National Park. Image courtesy Robert V. Goss.

The introduction of the automobile to the Park effectively democratized the Park; it was now more feasible for the common man to frequent the Park. Hamilton established general merchandise stores to fill the growing need by the greater number of visitors who now camped in the Park. Hamilton was the first to recognize this need. "Hamilton's

[63] YPC memo, March 11, 1958. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 12, Folder 2..

[64] Wm. Nichols, YPC, letter to superintendent Edmund Rogers, June 15, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10. The first two paragraphs of this letter were shared verbatim with a June 22, 1956 letter from Charles Hamilton to Edmund Rogers. Both letters were in reference to Edmund's request for the respective firm's objectives for the next ten years.

[65] Robert V. Goss, *Serving the Faithful in Yellowstone: Henry Klamer and the General Store in the Upper Geyser Basin* (Robert V. Goss, 2003), page 5 & 6.

genius raised storekeeping in Yellowstone to an art."[66] This sentiment is reiterated in Aubrey Haines's *The Yellowstone Story*:

> His is a success story without parallel in the Yellowstone, an astounding rise from a clerkship in the purchasing department of the old Yellowstone Park Association to control of the park's most profitable business, and it is interesting to note that it was done by catering assiduously to the needs of the automobiles.[67]

The Hamilton Stores firm was experiencing its third growth period in the 1950's, when its Canyon Village store was constructed. In 1953, Hamilton Stores had purchased the interests of its competitor, Pryor & Trischman, who had operated in the Park since 1908. Hamilton Stores would later, in 1967, purchase the Haynes Photo Shops from Jack Haynes's widow Isabel.[68]

Firm founder Charles Hamilton died on May 28, 1957, thus he did not see the completion of the new Hamilton store in Canyon Village. At that time, Charles Hamilton's son-in-law Trevor Povah was the firm's president, who played an important role in negotiating contracts with NPS. He enjoyed a close relationship with William ("Billie") Nichols.

Hamilton Stores' concession contract with the National Park Service ended on December 31, 2002, after 87 years of service in the Park. Through a competitive bidding process, Delaware North Companies was awarded a 15-year contract to operate the general store concession.[69]

Haynes Picture Shops

In 1948, Jack Haynes summarized Haynes Inc. with: "The history of this company dates back to 1881, when Frank Jay Haynes (1853-1921), its founder, first came to the park. Jack E. Haynes, his son, who has been in the park summers, ever since 1888, has managed the enterprise since 1916."[70] Jack operated the Haynes Picture Shops (also known as the Haynes Photo Shops) until his death in 1962. His wife Isabel continued the business, until selling the business and all thirteen shops to Hamilton Stores in 1967.

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[66] Gwen Peterson, *Yellowstone Pioneers: The Story of the Hamilton Stores and Yellowstone National Park* (Yellowstone National Park: Hamilton Stores, Inc. 1985), page 30.

[67] Aubrey L. Haines, *The Yellowstone Story: A Historic of Our First National Park* (Boulder, Colorado: The University of Colorado Press, 1976. Revised Edition, Volume 2), page 376.

[68] Much of this compilation has been extracted from the *Hamilton/Lake General Store Historic Structure Report* by CTA Architects Engineers, June 26, 2008.

[69] This terse description is not indicative of the long sequence of events that resulted in the contract's termination. The concessioner conditions in YNP changed over the many years that Hamilton Stores operated in the Park and the laws governing concession contracts changed in 1998, removing the "preferential right of renewal."

[70] Jack Ellis Haynes, *Haynes Guide: Yellowstone National Park* (Haynes Inc., 1948), pages 25-26.

At the time of the Canyon Village development, Jack Ellis Haynes had engaged Bozeman architect Bill Grabow to design the new Haynes Picture Shop for Canyon Village and to remodel the existing shop at Tower Junction. Bill Grabow had worked for Bozeman architect Fred Willson who, in turn, worked with YNP on designing the Canyon redevelopment schemes of the 1930's and 1940's.



Photo A-8: The Old Faithful Haynes Photo Shop and Dormitory in 1956, with cars surrounding a "Rustic" style building constructed in 1927. Photograph courtesy of the Montana Historical Society (#H-56581).

Welton Becket & Associates

Welton Becket & Associates – The Firm

Welton Becket & Associates (referred to henceforth as WBA) and McNeil Construction Company, both of California, were selected prior to YPC's contract renewal with NPS, in hopes of gaining ground on the construction.

The Historic American Building Survey of the Los Angeles Opera House (Dorothy Chandler Music Center/Pavilion), authored by Teresa Grimes, provides the following well-rounded history of the architectural firm Welton Becket & Associates:



Photo A-9: Welton Becket, image courtesy of AECOM.

> After graduating in architecture from the University of Washington in 1927, Welton Becket studied at the École des Beaux Arts, Fontainbleu, for a year, and then worked several years as a junior designer for firms in Los Angeles and his native Seattle. Becket settled in Los Angeles permanently in 1933, forming a partnership with established Los Angeles architect Charles F. Plummer and Washington classmate Walter Wurdeman. The trio gained considerable local publicity with their award winning design for the Pan Pacific Auditorium in 1935, which facilitated their entry into Hollywood film circles. The following years saw a series of residential commissions for movie stars such as James Cagney, Caesar Romero, and Robert Montgomery. These were generally executed in traditional Period Revival styles.
>
> Incorporated as Wurdeman and Becket in 1939 after Plummer's death, the firm prospered and expanded during the World War II era, completing public housing and defense projects and positioning themselves well for the region's post-war construction boom. Now focused on larger commercial projects, Wurdeman and Becket's work of the mid- to late 1940's took on aspects of the Late Moderne and International styles. Their best known commissions included Bullock's Department Store in Pasadena (1944) and buildings for General Petroleum (1946) and Prudential Insurance (1947) in Los Angeles. Following Wurdeman's untimely death in 1949, Becket took over sole leadership of the firm as Welton Becket and Associates. It grew to be one of the



Photo A-10: Schoenbery Hall at the Herb Albert School of Music in L.A., designed by Welton Becket in 1955. Image courtesy of L.A. Places Blogspot: Welton Becket's Los Angeles. Accessed online December 9, 2013.

largest architectural firms in the United States, with headquarters in Los Angeles and offices in San Francisco, New York, Houston, and Chicago. Welton Becket and Associates completed numerous well known and high-profile projects around Los Angeles, including such icons of mid-twentieth century Modernism as the Capitol Records Building (1954-56) and the Cinerama Dome, the world's first concrete geodesic dome (1963-1964). They were also responsible for the Beverly Hilton Hotel (1955), Memorial Sports Arena (1959), Los Angeles International Airport Theme Building (1962, with Pereira & Luckman and Paul R. Williams), and the Federal Office Building in Los Angeles (1966, with Paul R. Williams and A.C. Martin & Associates).

Welton Becket was named master planner for UCLA in 1948 and continued as supervising architect for the campus until 1968. At UCLA, Welton Becket worked closely with Ralph D. Cornell (later Cornell, Bridgers and Troller), supervising landscape architect for the campus, and the companies collaborated on a number of independent projects, such as the Pomona Civic Center and the Ford Motor Co. in Dearborn.

While working with Walter Wurdeman in the 1930s, Becket embraced the philosophy of "total design," which guided his firm's approach thereafter. He encouraged clients to allow the firm to control all aspects of a design, including master/site planning, engineering, all interior work, finishes, fixtures, and landscaping, so that a unified and coherent building would be achieved. As evidenced by the lengthy treatment of the complex in William Hunt's 1972 biography of the firm, Total Design, the Los Angeles Music Center may well reflect the most complete realization of Becket's philosophy. Welton Becket staff either designed, or had custom designed, all of the interior furnishings and fixtures, carpeting, signage, lighting fixtures, restaurant china and flatware, and even the menus and promotional brochures, announcements, and programs for the facility.

Leadership of the firm was assumed by MacDonald Becket, Welton's son, after his death in 1969. In 1987, Ellerbe Associates acquired Welton Becket Inc. to become Ellerbe Becket Inc. The firm continues today as Ellerbe-Becket.[71]

Welton Becket and Associates described the working philosophy of their firm as “total design,” an approach that included all architectural aspects of a project. A 1972 publication dedicated to the architecture of Welton Becket and Associates defines this as:

In its simplest terms, the phrase connotes both architectural philosophy and practice that embrace all of the services required to analyze any architectural problem, perform the necessary studies and research to solve the problem, and translate the solution into a building or group of buildings

[71] Teresa Grimes, HABS CA-2780, The Music Center (Los Angeles).

> complete down to the last detail of furniture, sculpture and other art, landscaping, and furnishings, even to ashtrays, menus, and matchboxes.[72]

This approach – along with hard work and a "liberal sprinkling of breaks, or good luck" helped Welton Becket and Associates grow into a large firm with offices in Los Angeles, San Francisco (opened in 1949), New York (1950), Houston (1960), and Chicago (1970).[73] According to the retrospective, it appears that WBA primarily did lucrative commercial projects and had few government commissions. The National Park Service work is not discussed in the publication, although Canyon Village is included in their "Index of Buildings" and illustrated in the body of the text.



Photo A-11: The south gable end wall of Canyon Village Lodge viewed from the southwest, as depicted in the 1972 publication Total Design: Architecture of Welton Becket and Associates. Photograph taken by Wayne Wright.

WBA's large commercial projects - and by translation, the Canyon Village project – were facilitated by WBA's strong organizational and managerial structure which enabled them to handle and track complex design and construction projects.

[72] William Dudley Hunt, Jr., FAIA, *Total Design: Architecture of Welton Becket and Associates* (New York: McGraw-Hill Book Company, 1972), page 4.
[73] Ibid., page 11 and 16.



Photo A-12: Furnace Creek Visitor Center, as designed by NPS WODC architect Cecil Doty and Welton Becket and Associates in 1959.

Ellerbe-Becket joined AECOM in 2009, fully transitioning as of May 2, 2011. Welton Becket & Associates designed the Furnace Creek Visitor Center in Death Valley National Park with Cecil Doty (renowned NPS architect stationed in the Western Office of Design & Construction) in 1959-1960. The Visitor Center's auditorium building had a much more repressed expression than that of Canyon Village Lodge, with concrete block walls grounding a long gently sloped roof with minimal overhangs.[74]

Welton Becket & Associates – The Project

Representatives of Welton Becket and McNeil Construction Company (referred to henceforth as MCC or McNeil) visited the Canyon Village site in early September 1955, and WBA started the preliminary drawings in December 1955.[75]

The newspapers reported of WBA's prior experience and reputation: "Becket has gained international recognition for such buildings as the Beverly Hilton Hotel, Ballock's Pasadena and Westwood stores, the Stonestown shopping center in San Francisco and the Cairo Hilton Hotels now under construction."[76]

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[74] Architectural Resources Group, HABS CA-2860, "Furnace Creek Visitor Center, Death Valley National Park," 2010. Elaine Jackson-Retondo, Ph.D, NPS, provided the history incorporated into the HABS documentation. This HABS report provides an excellent description of Cecil Doty's significant design contribution to a large number of national park visitor centers during the Mission 66 program.

[75] Huntley Child, Jr., letter to Lon Garrison (YNP superintendent), March 21, 1958. YNP-HRC, Coll. YELL 185385, Series0 2-B, Box 12, Folder 2.

[76] "Canyon Village Construction Is First Park Expansion Job," *Billings Gazette*. YNP-HRC, Collection Coll. YELL 182386, Series 02-A, Box 3, Folder 1.

The relationship between YPC and WBA appeared to be fraught with misunderstandings. Still early in the design process, William Nichols of YPC expressed concern about what he believed to be $47,759.32 in invoices from WBA, when YPC had been assured the preliminary plans wouldn't be more than $3,000. "Frankly, from what I have seen of their plans, I can't see that there is $7,700 worth of work on them yet. If their estimates on building are not better than their estimates on their own work, they are not worth much. What do you suppose the answer is?"[77] As of March 1956, the architect's fee was $209,000.[78] This increase would represent the increase in scope and the preparation of detailed construction documents required to build a project of this size. As the NPS reviewed the construction documents prepared by WBA – primarily noting mechanical code compliance issues – they noted that "the architectural firm doing the work has had to perform a complex task in a minimum of time…"[79]

Mr. Ellis Kaplan, later founder of the prominent architectural firm Kaplan McKaughlan Diaz, of San Francisco, was the young architect in charge of the design of Canyon Village.[80]

WBA also designed the Hamilton Store and Dormitory at Canyon Village, at the prompting of both NPS and YPC. In January 1956, WBA's Jack Beardwood relayed that although "the twenty minutes I spent with him on the telephone were quite delightful," Beardwood's feeling was that Charles Hamilton was "obviously not interested in good planning or good design, and simply wants some draftsman to put his plans into shape."[81] As of February 1956, it appeared that Hamilton was close to signing on WBA, a move which pleased YNP's landscape architect, because it "…should therefore harmonize the design of the store building with the other structures."[82]

John Q. Nichols reported in 1958 that the architect failed to live up to his professional responsibilities by not supervising the construction sufficiently. Nichols noted that the: "Prime example was the improper installation of the underground hot-water distribution for the cabin areas. Late punch lists when it was difficult to see as much work was concealed. Poor inspection at the time."[83]

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[77] William Nichols, letter to Huntley Child, Jr., December 10, 1955. YNP-HRC, Coll. YELL 185385, Series0 2-B, Box 9, Folder 2.

[78] William Nichols, memo to Huntley Child., Jr., March 27, 1956. YPC-HRC, Coll. YELL 185385, Series02-B, Box 9, Folder 2.

[79] WODC supervising architect Lyle Bennett, memo to YNP superintendent, August 21, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.

[80] William Grabow, interview March 11, 2010. Bozeman Historic Preservation Advisory Board. Notes of "The Evening with Bill Grabow" in the author's personal collection. Kaplan died on October 24, 2012.

[81] Jack B. Beardwood, letter to Huntley Child, Jr., January 5, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

[82] Frank Mattson, memo to YNP superintendent, February 21, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 2.

[83] John Q. Nichols, letter to YNP superintendent Garrison, December 4, 1958. MHS, Coll. No. MC 141, Folder 1-8.

(See McNeil Construction Company below for discussion of sloppy workmanship.)

Disagreements about imperfections in the Canyon cabin construction, some of which were sizable and pervasive, prompted YPC to stop making payments to McNeil and WBA, until the matters were resolved. As of October 9, 1958, WBA's claim was approximately $99,000.[84] In December 1958, the YPC Board of Directors deemed it advisable to settle with WBA; several members of the Board were appointed to meet with WBA in person.[85] (The outcome of this claim was not uncovered in the research for this report.)

Stone & Glass, Ltd

As reported in YPC's first Canyon Special newsletter: "The interior decoration of the lodge and living units was the work of Stone & Glass, Ltd., NYC, who did the interiors of the Del Prado in Mexico City, the Gulf Hills Country Club and Dude Ranch in Mississippi and other prominent buildings in the western hemisphere."[86]

McNeil Construction Company

The Yellowstone Park Company selected McNeil Construction Company of Los Angeles at the same time they brought WBA on board. McNeil had built many landmarks including the Lockheed guided missile plant in San Francisco, the Convair guided missile plant in San Diego, Disneyland, and Sun Valley in Idaho.[87]

Bruce McNeil incorporated the firm during the course of the Canyon Lodge project, registering the articles of incorporation in the State of California, on July 19, 1956. He had been involved in the 1954 construction of Disneyland in Los Angeles and remained president for years. The company is no longer active.[88]
Site conditions, a condensed construction schedule, and a seemingly unintended lack of team effort by McNeil, YPC, WBA, and NPS resulted in complaints about poor quality of workmanship at Canyon Village. As early as March 1956, YPC was aware of sloppy workmanship. As reported by John Q. Nichols two years later: "Both the architect and the prime contractor were repeatedly asked to remedy the situation, but, unfortunately, little improvement was made. The supervising personnel of the contractor displayed little interest in the proper and prescribed methods of handling and application of construction materials. Much of this negligence can be accounted for by the

[84] YPC Board of Directors' Annual Meeting, October 9, 1958. MHS, Coll. No. MC 141, Folder 1-7.
[85] Special meeting of the YPC Board of Directors, December 18, 1958. MHS, Coll. No. MC 141, Folder 1-7.
[86] Don Watkins, "Canyon Village Special," Volume 1, August 31, 1957. YNP-HRC, Coll. YELL 185385, Series 02-A, Box 6, Folder 2.
[87] "Canyon Village Construction Is First Park Expansion Job," *Billings Gazette*. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1; and Don Watkins, Canyon Village Special, Volume, August 31, 1957. YNP-HRC, Coll. TELL 185385, Series 02-A, Box 6, Folder 2.
[88] http://www.corporationwiki.com?California/Los-Angeles/mcneil-construction-co/3955012, accessed February 11, 2014.

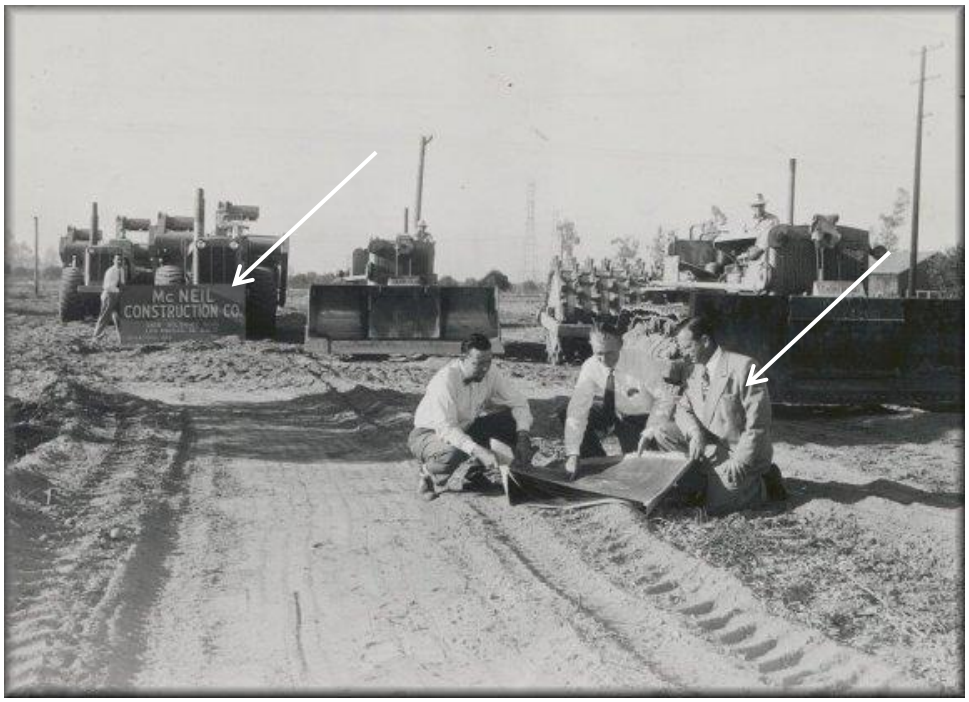


Photo A-13: McNeil was involved in the construction of Disneyland in 1954. Note their construction sign at the left rear of the photograph. The man on the right is purported to be Bruce McNeil. Photo courtesy of Disneyland construction website: www.designingdisney.com/content/construction-disneyland.

'lack of interest' displayed by the representatives of the architect."[89] Nichols avers that the project was undertaken too rapidly and that there were many plan changes after award of the contract.

In 1958, YPC halted payments to WBA and McNeil, citing multiple difficulties and poor performance in construction. As of October 9, 1958, McNeil's claim was approximately $25,000.[90] YPC counter-claimed McNeil Construction in June 1959.[91] At this same time, the YPC board decided that: "…no public statement be made by any of the Yellowstone Park Company personnel regarding the quality of the construction or the fact that the project cost more than it should have, because of the possible reaction this might have in public and Government relations. Rather, it should be emphasized that Canyon Village is a wonderful place to stay, etc."[92]

In March 1960, the YNP Board of Directors resolved the "McNeil controversy" and unanimously, as they: "…agreed to authorize and direct to conclude this

[89] John Q. Nichols, letter to YNP superintendent Garrison, December 4, 1958. MHS, Coll. No. MC 141, Folder 1-8.
[90] YPC Board of Directors' Annual Meeting, October 9, 1958. MHS, Coll. No. MC 141, Folder 1-7.
[91] YPC Board of Directors' Annual Meeting, June 28, 1959. MHS, Coll. No. MC 141, Folder 1-9.
[92] YPC Board of Directors' Annual Meeting, June 28, 1959. MHS, Coll. No. MC 141, Folder 1-9.

matter by payment of the asserted claim of McNeil Construction Company. The lesson learned was an expensive one 'but that there was no further purpose to be served by resisting the claim which is based upon an agreement reached in 1958 with Bruce McNeil.'"[93]

Subcontractors and Suppliers

A Canyon Village Special newsletter printed for the August 1957 dedication provides some information about the other workmen and suppliers involved in the project:

> …many firms in cities near the park received a large share of the business. Some of the supply firms and sub-contractors from the Yellowstone area included Simpkins Hallin, Bozeman; Cohel Sheet Metal, SLC; Sunny Brogan, Corwin Springs; Idaho Sash and Door; Billings Sash and Door; Les Swanson, Livingston; C&L Electric, Pocatello; Reynolds Floors, Idaho Falls; Jerry's Roofing Service and Continental Roofing Co., Rock Springs, WY; Marshall Bros., Idaho Falls; Norris, Idaho Falls, and Harry Johnson, Bozeman. Mont.[94]

Northwest Fixture Company of Billings – "a top supplier to hotels and industry throughout the Northwest" – supplied the kitchen fixtures, as they had for other concessioners in YNP. The Northwest Fixture Company began as the Billings Cabinet Company in 1912; it became known as the Northwest Fixture Company in 1930 and operated until 1998. The firm provided the soda fountain for Hamilton's Lake General Store in c.1938. They expanded further into refrigeration equipment, providing "Commercial refrigerators in stock and built to order."[95]

Canyon Village Development

Canyon Village is a development that replaced the prior Canyon development located closer to the rim of the Grand Canyon of the Yellowstone. The new Canyon Village was announced as a correction to the location of the prior one.[96]

The prior development's overnight lodgings included a large hotel, lodge, and cabins. With the MISSION 66 Advisory Committee's concern about public perception, and the need to differentiate the new lodge-and-cabin accommodations from the plethora of motels doing business outside of the national parks, the committee "…recommended that the term 'motel' be

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[93] YPC Board of Directors Special Meeting, March 4, 1960. MHS, Coll. No. MC 141, Folder 1-12.

[94] Don Watkins, Canyon Village Special – Volume 1, August 31, 1957. YNP-HRC, Coll. YELL 185385, Series 02-A, Box 6, Folder 2.

[95] Information on the Northwest Fixture Company borrowed from the *Lake General Store Historic Structure Report* by CTA Architects Engineers, June 26, 2008.

[96] Note that the old Canyon Hotel was not within the sacred zone of the Grand Canyon, but that it was built upon unstable soil which resulted in costly repairs over time. At the beginning of the Canyon Village project, it was intended to retain the hotel.

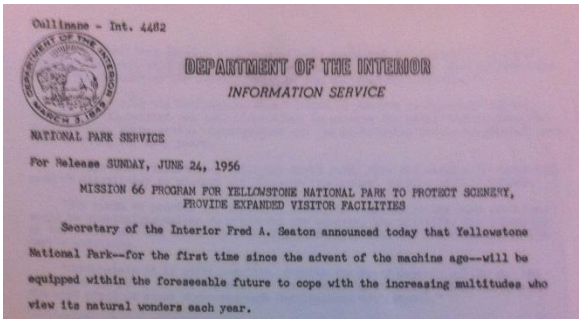
discouraged as inappropriate for park use, and that the name 'lodge' be used, as more descriptive of the facilities and more appealing to the visiting public."[97]

The Groundbreaking for Canyon Village

Canyon Village's groundbreaking was used, from a national perspective, to promote Mission 66 to the public (and the politicians who had more funding to allocate). The Outline of the Groundbreaking ceremony emphasized:

1. "The major slant of this publicity will be toward MISSION 66 as applied to YNP."
2. Use of a major international architectural firm and large national construction company.
3. "As for concessioners – emphasize their positive approach to expansion problems in YNP. They are expressing confidence in the growth of travel as the population of this country continues to increase, plus the impetus to travel that will be given by shorter work weeks, more leisure time, etc. It should be slanted away from "modernization", or such expressions as 'replacements of obsolete facilities', etc."[98]

The Department of the Interior's press release announcing the groundbreaking on June 24, 1956 stated that: "This is one of the largest individual park development programs in the entire MISSION 66 program because Yellowstone is the largest, the oldest and one of the most heavily visited of all our parks."[99] The press release provided the public explanation for the development at Canyon Village, as "…the first step toward the removal of the lodge, cabins, stores, horse corrals and other facilities which over the years have encroached on the rim of the Grand Canyon of the Yellowstone River between the spectacular Upper and Lower Falls. All of these structures will be removed following completion of Canyon Village, scheduled for the summer season of 1957. The new village will be located in an area some distance back from the canyon rim, screened by woods from the spectacular gorge where the Lower Falls are twice the height of Niagara."[100]



Cullinane - Int. 4482

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

NATIONAL PARK SERVICE

For Release SUNDAY, JUNE 24, 1956

MISSION 66 PROGRAM FOR YELLOWSTONE NATIONAL PARK TO PROTECT SCENERY, PROVIDE EXPANDED VISITOR FACILITIES

Secretary of the Interior Fred A. Seaton announced today that Yellowstone National Park--for the first time since the advent of the machine age--will be equipped within the foreseeable future to cope with the increasing multitudes who view its natural wonders each year.

Figure A-7: June 24, 1956 DOI press release for the groundbreaking at Canyon Village. YNP-HRC Coll. YELL 185385, Series 01-C, Box 2, Folder 2.

The groundbreaking of Canyon Village was a two-day event, beginning with Friday evening cocktails at Canyon Hotel. The (June 24, 1956) Saturday morning

[97] Mission 66 Advisory Committee memo to NPS Director, May 18, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 8, Folder 11.

[98] Both quotes from "Outline of Ground Breaking," May 24, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1.

[99] Secretary Seaton, DOI press release, June 24, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

[100] DOI press release, June 24, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

shovel ceremony was held at 10:00 a.m. at the site of Canyon Lodge. YNP Superintendent Edmund B. Rogers presided, while NPS Director Conrad L. Wirth and Assistant Secretary of the Interior Wesley A. D'Ewart spoke, and representatives from each concessioner (YPC, Hamilton Stores, and Haynes, Inc.) were introduced.[101]

"MISSION 66 for Yellowstone is on its way to reality."
(From May 24, 1956 Outline for Groundbreaking.)

NPS Director Conrad L. Wirth spoke of what this event meant to him and to the nation as a whole:

> This occasion will remain forever as one of the truly great and memorable moments of my lifetime. For here today, as we break ground for the new Canyon Village, I can actually feel and see that MISSION 66 is at last under way. The National Park Service has entered a new era which promises to be the most rewarding in its history.[102]

He also stated that it was fitting that Mission 66 begin in the nation's first national park where the National Park idea was born.

> It is altogether fitting that the inaugural ceremony for this great forward-looking program – which provides the tools needed to conserve, protect, and develop the priceless heritage that is our National Park System – should be held here in Yellowstone National Park. For this park is, and always will be, symbolic of the inspiration and the unselfish vision that has gone into the creation and preservation of that System. It was here, around a campfire in September 1970, that the National Park idea was born.[103]

Canyon Village was reflective of the greatest contribution that Mission 66 would make to Yellowstone – "…the restoration, insofar as it is possible, of the natural setting of these areas."[104] In addition, Canyon Village's development was representative of the "one package" approach to the park development problems.

The list of invitees was lengthy and reflective of the changing modes of travel – Continental Oil Company, bus lines, airlines, railroad companies – the financial institutions that supported the concessioners, and the radio and news organizations that helped promote the businesses of the Park.

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[101] "Outline of Ground Breaking," May 24, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1. By the time of the actual Canyon Lodge opening in August 1957, both William Nichols and Charles Hamilton had passed away.
[102] Conrad L. Wirth, Ground-Breaking Ceremony Address at Canyon Village, June 25, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10.
[103] Director Wirth, memo to Washington D.C. office and all field offices, May 24, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10.
[104] Ibid.

The Groundbreaker for Mission 66



Photo A-14: Canyon Village Groundbreaking Ceremony on June 25, 1956 with (left to right) W.M. Nichols, Conrad Wirth, Charles Hamilton, and Jack Ellis Haynes yielding ceremonial shovels. YNP-HRC Photo Collection YELL 133563.

Canyon Village's seminal role as the poster child for the national Mission 66 project was a resounding theme throughout all the planning, negotiating, constructing, and promulgating of the new site. This attention became a concern during the 1958 season when visitor complaints streamed in about the lack of heat and soundproofing (among other issues) in the cabins, prompting Superintendent Lemuel Garrison to include this more global comment when he forwarded the complaints to John Q. Nichols of YPC:

> As you know, a great amount of attention has been focused on the Canyon Village development and all of us are vitally concerned with making it the bright spot in concessioner accommodations and the improvement of facilities under our MISSION 66 program. This has not been the case to date.[105]

The project at Canyon Village was planned and constructed quickly, resulting in some of the above concerns expressed about quality of construction, communication difficulties among all the parties, and cost overruns. The stress

[105] Lemuel A. Garrison (YNP superintendent), letter to John Q. Nichols, November 6, 1958. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 12, Folder 2.

of being the first project in this vast national program only became evident as construction was being completed.

Recommended Period of Significance

Both buildings retain most or all of the physical characteristics of their original designs; they fully represent the style Park Service Modern. All significant components have retained their physical integrity to the period of significance, which is recommended as 1955-1966. These dates reflect the start and end of planning for and design of both buildings and the completion of Canyon Village. The end date coincides with two other historic milestones: the 1966 sale of the Yellowstone Park Company to the Goldfield Corporation and the accomplishment of Mission 66.

The broader spectrum of the Mission 66 influence is generally accepted to span from 1945 to 1972.

B. Chronology of Development and Use

Canyon Village Design Chronology

Canyon Lodge

WBA started preliminary design work in the fall of 1955 and provided construction drawings in June 1956. At the June 1956 groundbreaking, Canyon Village was slated to have a 320-foot long large lodge building. "In addition to a spacious lounge, and a gift shop it will contain a café seating 250, a cafeteria accommodating another 250 and a lunch counter to accommodate an additional 65 persons. All the dining areas will be serviced from a central kitchen."[106] The building was designed to serve 5,000 guest meals per day.[107] This description remained true for the lodge, as the construction drawings had been completed June 8, 1956 and ground was being broken for its foundation.

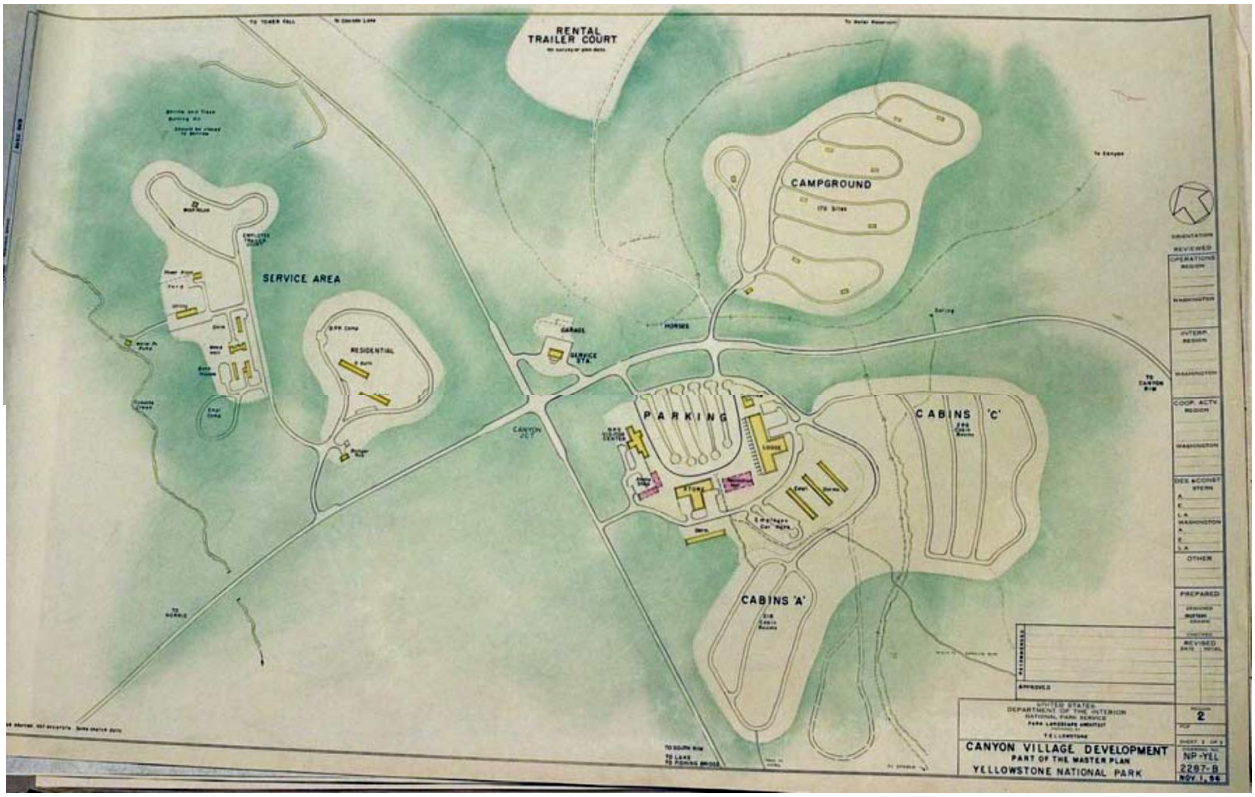


Figure B-1: Master Plan for Canyon Village, November 1956. Image extracted from Papineau's thesis, page 374 (Source: Yellowstone National Park Archives).

According to correspondence from McNeil Construction Company in June 1956, the early designs included components that were removed to reduce costs. Specific reference was made to "omission of the Mezzanine in the Main Lodge

[106] DOI press release, June 24, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

[107] Huntley Child, Jr., letter to Frank Mattson, August 24, 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.

Building."[108] In addition, an interior rendering published in May 1956 depicted a more expansive lounge area, without walls defining the photo and gift shops at the west side of the lounge (see Figure B-2). The image depicts an expansive space with comfortable furnishings. The final design included 8'-3½" tall partitions with translucent plastic panels, accented with clear glass panels at eye level and glazed doors.



Figure B-2: An early (May 1956) architectural rendering of the Canyon Lodge lounge, looking south towards the fireplace. The area to the right was ultimately contained by the walls of the Photo and Gift Shops. Billings Gazette, May 11, 1956. Image courtesy of Billings Public Library Special Collections.

The project benefited from the insights of the local YNP staff. In particular, YNP landscape architect Frank Mattson provided valuable insights that must have aided the design process for a firm that had never designed for the conditions – cold, snow loads, winds, etc. - in Yellowstone National Park before. These factors impacted basic design decisions, such as roofs. Mattson weighed in on the schematic design in October 1955, couching his review comments in the overall light of the larger scope:

> "Considering the popularity of the park and its place in the national picture, these new installations will be the beginning of a new and tremendously

[108] Bruce W. McNeil, letter to YPC, August 1, 1956. YNP-HRC, Coll. YELL 185385, Series 01-C, Box 2, Folder 2.

important place in park buildings. The designs contain elements of efforts to not repeat what, to many, have been mistakes in recent installations of this nature. Discussions of the plans amplify this objective. Is it possible this objective overshadowed the more noble?"



Photo B-1: Canyon Village Lodge lounge, looking south towards the fireplace. The translucent wall at right provided secure store spaces. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

He further stated that the way into the building should be obvious, that snow conditions are not always understood, and that "a trip to this area by the designer about the first of March might be very sensible." He found the predominant continuous plane of the "Meals and Lounge Building's" roof to be shocking and took exception to the proposal to clad the roof in copper sheet. He queried: "Will the copper, if it is used, turn a dull neutral color which apparently would be the objective or a turquoise green which in such cases might be objectionable?" A standing seam metal roof was depicted on the October 1955 conceptual design rendering illustrated in Figure B-3.

Frank Mattson's concerns were expressed directly to the YNP superintendent, who indicated in his October 1955 monthly report that he (the superintendent) did not believe the design "solutions fit into the park scheme very well and the proposed plans could stand a lot of changes."[109]

[109] Superintendent, October 1955 monthly report. YNP-HRC, Coll. YELL 182386, Series 01, Box 21, Folder 1.

The final exterior design concept of Canyon Lodge appears to have differed little from the concept presented in October 1955, except that the roofing material was changed to wood shakes. Frank Mattson relayed after construction was completed, that he was relieved when, after two other roofing materials were proposed (colored aluminum roofing and a built-up roof), the architects proposed a shake roof, because it would "have a character that blends well with the site and helps tie the buildings to the ground."[110] Mattson also noted that the interior of Canyon Lodge had been well received by the public; that "the interior decorations were excellent."[111]

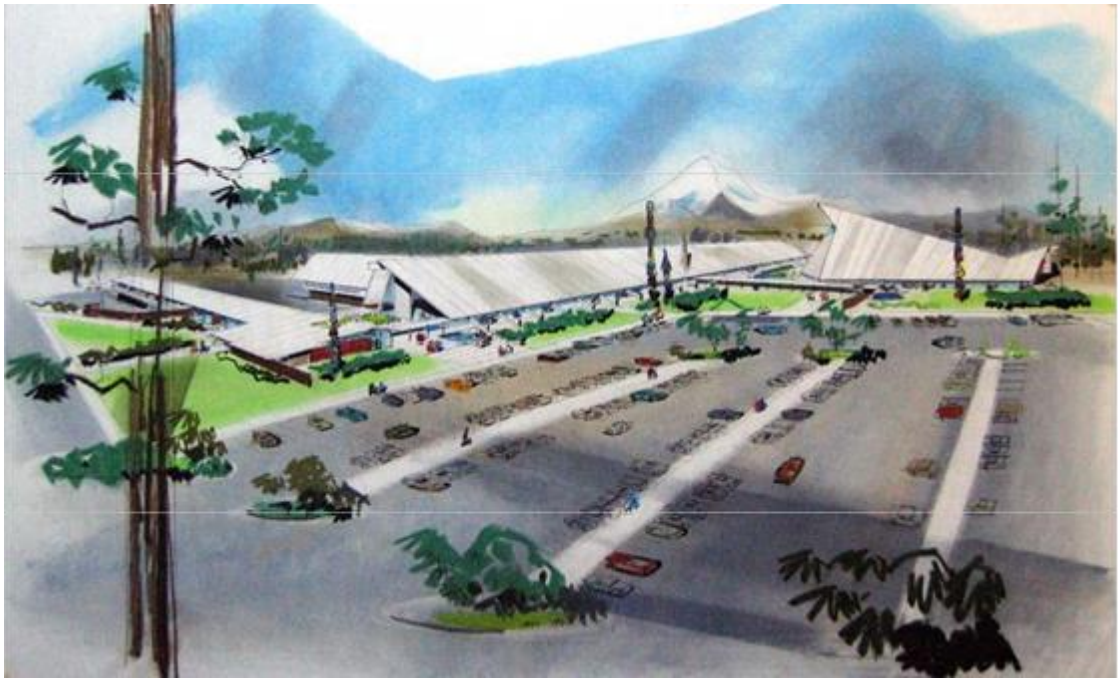


Figure B-3: October 1955 conceptual design for Canyon and Administration Building (left) and Recreation Hall (right), Welton Becket & Associates. Image extracted from Papineau's thesis, page 349 (Source: Xanterra Archives). The Administration Building image shows the dormitory extension that was removed from the plans and the standing seam metal roof on Canyon Lodge.

As of October 1, 1956, the foundations were poured, the glulam beams were up, and the roof joists were being installed. YPC expected the building to be closed in by November 1, 1956.[112]

McNeil Construction Company returned to work on site in April 1957, bringing some 75 men to work on the main buildings. The crew, which increased to 300 in mid-May, stayed at the Canyon Tourist Cabins and was fed at the Canyon

[110] Frank Mattson, presentation at a park superintendent's conference, September 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.
[111] Frank Mattson, presentation at a park superintendent's conference, September 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.
[112] YPC Board of Directors meeting minutes, October 1, 1956. MHS, Coll. No. MC 141, Folder 1-5.

Lodge cafeteria.[113] Construction continued apace, readying for the July 1, 1957 opening. As with construction projects subject to abbreviated schedules, it was down to the wire. On June 13, 1957, Canyon Lodge was considered 93% complete and while the furnishings were on site, they were not in place.[114]

CANYON VILLAGE: THE LARGEST MOTEL IN THE WORLD

The final opening on July 1, 1957 was marked with an informal ceremony, with YPC determined to hold opening ceremonies later in the season. Unfortunately, William M. Nichols died on August 6, 1957, before the ceremonies. A special YPC Board of Directors' meeting was held on August 8, 1957, to elect a new Chairman of the Board in his stead.[115]

In anticipation of an August 31, 1957 dedication, YPC's public relations firm, Don Watkins, got feature stories about the Park published in LIFE magazine and McCall, New York and Chicago newspapers, and on radio stations.[116] The official press release from YPC boasted a main lodge building longer than a football field, a 210-seat dining room, a 66-seat coffee shop, a 300 capacity cafeteria, and a separate cafeteria for the 450 employees (this cafeteria was located at the east end of the kitchen wing). The central kitchen could serve 5,500 guests per day. "The dining room, cafeteria and coffee shop offer the Yellowstone guest three price ranges – intended to cater to any pocketbook."[117] The cocktail lounge, barber shop, beauty shop, gift shop, dispensary, and photo shop were additional amenities. The latter was the Haynes Picture Shop which in 1960 would relocate to its own building south of the Visitor Center.

NPS Director Conrad Wirth was the main speaker for the formal dedication on August 31, 1957, signifying the importance of the occasion.

Canyon Lodge and the cabins did not bring in the earnings projected by YPC. With a low occupancy rate of 48.7%, the projected profit for 1958 of $795,901 did not materialize; profit was substantially lower at $230,783.52. In addition, the original Canyon Hotel closer to the canyon rim was costing $242,000. At the beginning of 1959, YPC was $600,000 in debt.[118] It was agreed to either inject $1 million into the Reamer-designed Canyon Hotel or to abandon it; the latter

[113] Special meeting of YPC Board of Directors, minutes, March 16, 1957. MHS, Coll. No. MC 141, Folder 1-6.
[114] Special meeting of YPC Board of Directors, minutes, June 13, 1957. MHS, Coll. No. MC 141, Folder 1-6.
[115] William's mother, E.D. Child Nichols, was elected and served as Chairman of the Board until she stepped down on October 29, 1962. Special meeting of YPC Board of Directors, minutes, August 8, 1957. MHS, Coll. No. MC 141, Folders 1-6 and 1-14.
[116] Special meeting of YPC Board of Directors, minutes, August 15, 1959. MHS, Coll. No. MC 141, Folder 1-7.
[117] Don Watkins, Canyon Village Newsletter: First Volume, August 31, 1957. YNP-HRC, Coll. YELL 185385, Series0 2-A, Box 6, Folder 2.
[118] YPC Board of Directors meeting minutes, December 18, 1958. MHS Coll. No. MC 141, Folder 1-8. YPC Finance Committee Meeting, August 8, 1958. MHS Coll. No. MC 141, Folder 1-7.

was chosen.[119] In addition, the Dining Room was deemed too small the second year of operation.[120]

Canyon Lodge Administration Building

The administration building was originally planned as a two-story building with a manager's office and apartment, accounting, accommodations desk, information counter, and fourteen rooms for staff members on the upper level. A lower level was to contain a self-service laundry, public rest rooms, nurses' facilities, and additional living quarters for employees. This original building was to have a total area of 10,384 square feet.[121] The dormitory extension is visible in Figure B-3.

As of October 1, 1956, the walls of the Administration Building were up and 90% of the roof was on; the gravel still needed to be laid.[122] Cabin registrations were accepted upon opening on July 1, 1957.



Photo B-2: Cabin registrations in the new Canyon Lodge Administration Building on August 23, 1957. Image courtesy YNP-HRC Photo Collection YELL 29669-2.

[119] YPC Board of Directors meeting minutes, August 8, 1958. MHS, Coll. No. MC 141, Folder 1-7.
[120] Special meeting of YPC Board of Directors, minutes, August 15, 1958. MHS, Coll. No. MC 141, Folder 1-7.
[121] "Canyon Village Construction Is First Park Expansion Job," Billings Gazette. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1.
[122] YPC Board of Directors meeting minutes, October 1, 1956. MHS, Coll. No. MC 141, Folder 1-5.

The Recreation Hall

A Recreation Hall was included in the original plans for Canyon Village, to be located between Canyon Lodge and the Hamilton Stores' building. YNP landscape architect Frank Mattson reviewed the October 1955 schematic design by WBA, commenting:

> Those of us who have worked in parks for some period may become obsessed with the idea we wish to see structures subordinated to the terrain. Therefore, a building which does appear more or less completely stable has greater appeal than one which does not. Do others also see the broken back and the poise for flight which has already been expressed?[123]

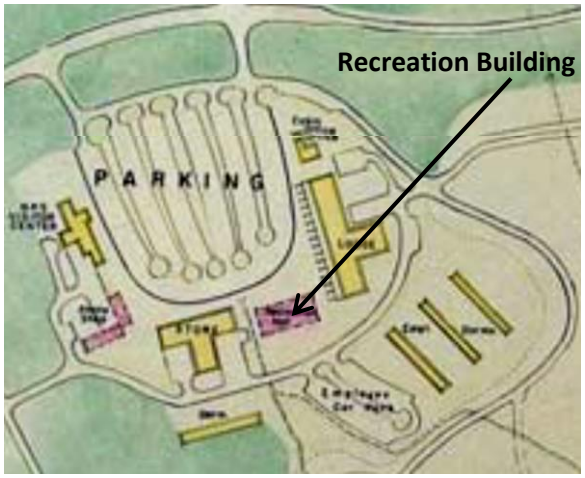


Figure B-4: Excerpt from November 1956 Canyon Village Master Development Plan, extracted from Papineau's thesis, page 374 (Source: Yellowstone National Park Archives).

The sweeping and soaring roof of the proposed Recreation Hall was not unlike those of subsequent Mission 66 buildings, such as the Saint Mary Visitor Center constructed in Glacier National Park between 1964 and 1966. The intent was to pay homage, by replication, to the steep and ragged mountains that formed an impressive backdrop for these modern structures. It appears that the Recreation Hall might have been ahead of its time, but perhaps helped set the stage for greater acceptance of more dynamic and expressive designs.



Figure B-5: Enlargement of the October 1955 design rendering of the proposed Recreation Hall for Canyon Village, by Welton Becket & Associates. Image extracted from Papineau's thesis, page 349 (Source: Xanterra Archives).



Photo B-3: St. Mary Visitor Center, Glacier National Park, constructed 1964-1966. Image courtesy NPS.

[123] Frank Mattson, letter to YNP superintendent, October 25, 1955. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 6, Folder 7.

In February 1956, it was hoped that the recreation building could be used for an interpretive program, since the plans did not include amphitheaters.[124]



Photo B-4: The site (circled) between Canyon Lodge on the left and Hamilton Store was originally set aside for the Recreation Building, as located in Figure B-4. September 30, 2013.

At the groundbreaking, a 16,500 square foot recreational hall with a 1000-seat capacity was still planned. "All seats will be movable so that the hall can be put to varied uses."[125] The Recreation Hall was intended for visitor entertainment - dances, movies, and stage productions provided by staff members. However, an error in the construction cost estimate was revealed just two days later. On June 27, 1956 – two days after receiving a revised construction cost estimate of $4.5m - YPC decided to delay construction of the Recreation Hall.

The YPC Board of Directors gave consideration to laying the foundation for the Recreation Hall in 1957, while McNeil Construction Company had the necessary equipment on site, for an estimated cost of $40,000. Until the Recreation Hall was built, it was intended that the Canyon Hotel Lounge would be used for entertainments.[126]

The new Recreation Hall was still up for discussion as of December 17, 1963 as noted in a letter from YPC's general manager George Beall to Superintendent

[124] Regional director Howard W. Baker, letter to WODC, February 3, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 8, Folder 10.
[125] DOI press release, June 24, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.
[126] Special meeting YPC Board of Directors, March 16, 1957. MHS, Coll. No. MC 141, Folder 1-6.

Garrison and appears to have remained a desirable feature in early 1965, when a narrative of Canyon Village indicated that the basement on Canyon Lodge was used for recreation rooms, "where movies, dancing, ping pong and other activities take place – including church services on Sunday…The proposed Public Recreation Building is intended to house the recreational functions eventually. The building also will provide meeting space for large groups."[127]

The Recreation Hall ultimately was not built, although consideration was given to relocating the U.S. Post Office there. When the modifications to the Canyon Visitor Center were being deliberated in 2000-2001, the U.S. Post Office was in the south end of the building, and "would be relocated into a new building (approximately 25 x 40 feet in size) that would be centrally placed between the Hamilton General Store and the Canyon Lodge."[128] It was stipulated that the plan would require Section 106 compliance prior to construction, "…with the Wyoming SHPO to ensure that the architectural characteristics of the new building are compatible with the eligible historic district." A grass lawn between Canyon Lodge and the Hamilton General Store marks the intended location.

Dormitories

YPC provided three dormitories for the Canyon Village staff. It was estimated that 500 people would be on staff upon completion of the complex. The three dormitories were identical in design; two dormitories were dedicated to house only women. The dormitories cost $573,934.35 and were available for use in 1957.[129]

"Construction of the commercial buildings will start about July 15 and the dorms are programmed for first completion in anticipation of housing working men. Might be up to 500 people, plus the families. Will need policing."[130]

As of October 1, 1956, the three dormitories were completely closed in, with just the finishing work needed.[131] They were considered 99% complete as of June 13, 1957; employees were beginning to move in.[132]

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[127] YNP-HRC Coll. YELL 185385, Series 2-B, Box 13, Folder 1; John S. Adams, landscape architect, YNP Developed Area Narrative, October 1968. YNP-HRC, Coll. YELL 182386, Series 01, Box 18, Folder 4.

[128] Beth Kaeding, Diane Chalfant, Linda Young, Lon Johnson, and Doug Madsen. *Environmental Assessment Canyon Visitor Center Rehabilitation*, February 2001, page 6.

[129] YPC memo, March 11, 1958. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 12, Folder 2.

[130] Frank Mattson, letter to YNP superintendent, February 21, 1956. YNP-HRC, Coll. YELL 182386, 02-A, Box 3, Folder 2.

[131] YPC Board of Directors meeting minutes, October 1, 1956. MHS, Coll. No. MC 141, Folder 1-5.

[132] Special meeting of YPC Board of Directors, minutes, June 13, 1957. MHS, Coll. No. MC 141, Folder 1-6.

Canyon Cabins

The Canyon cabins were the financial linchpin to a successful development and response to the perceived public needs that were the basis for Mission 66. The Canyon cabins were intended to provide YPC with the income necessary to finance the Canyon Village development. Thus, when the construction estimate was greatly increased in June 1956, YPC reacted by increasing the total number of cabin units from 300 to 512, for a total cost of $2.2 million. Cabin loops "A" and "C" were completed first, following the rough site preparation prepared by NPS.

Prefabrication

The cabins were prefabricated in shops in Gardiner, Montana, near the north entrance to the Park. McNeil made jigs (tools to aid in consistent and repeatable manufacturing) for the prefabricated wall panels, floors and roofs. The pilot cabin was ready – with both inside and outside skins of the building assembled – for a March 8, 1956 inspection by WBA architect Ellis Kaplan. If approved, prefabrication would proceed in earnest, making four per day.[133] The cabins, classified as motel rooms, were twelve feet wide and varied in length from fourteen to twenty feet. According to Yellowstone Park Service Stations manager Hal Broadhead: "The cabins originally arrived in parts and were preassembled in the open area of the Gardiner Flats across Kingman's Old Gardner Canyon Road from the Yellowstone Park Transportation Company Historic District, and then put on flatbed trucks and hauled to Canyon at night."[134]



Photo B-5: Construction of cabin in Gardiner. Image extracted from Papineau's thesis, page 358 (Source: Yellowstone Museum Collection).

[133] Frank Mattson, memo to YNP superintendent, February 21, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 2.

[134] Interview by Zehra Osman, Landscape Architect, Branch of Cultural Resources - Yellowstone Center for Resources, as relayed to the author in an email dated February 20, 2014. See "A Prefabricated Unit Still In Use" for current cabin use by YPSS.



Photo B-6: Simple prefabricated cabins ready for occupancy, August 8, 1958. YNP-HRC Photo Collection YELL 29673-3.



Photo B-7: Some cabins were ganged together as 8-plexes, August 8, 1958. YNP-HRC Photo Collection YELL 29673-2.



Photo B-8: The cabins were set up on stilts; the gaps were later filled with screening. August 8, 1958. YNP-HRC Photo Collection YELL 29673-7.

Cabin Design & Construction

"The cabins are to have rough sawn or re-sawn 1" and 10" vertical board with 1x3 battens outside which will be stained brown. Inside walls are to be hard pressed Masonite and painted floors will be wood and covered with asphalt tile. Concrete floors are not being used because of the cost of local aggregates."[135] YNP landscape architect Frank Mattson provided direction on the colors, noting that light brown was a preferable exterior color because it would darken as it weathered. One continuous interior color was preferred in lieu of distinctly darker battens which accentuated the panel construction. Use of thinner battens (1" x 3", instead of 2" x 3") further de-accentuated the panel system.[136]

As of October 1, 1956, 300 motel units were complete except for heating and hot water. The additional 200 units were 50% complete, in varying stages of construction, "…from having foundations laid up to completed enclosed units."[137]

In November 1956, after the first season of cabin use, YNP superintendent Garrison shared his opinion on the cabins with his counterpart at Glacier National Park, to whom he provided copies of the plans:

> Although you have not requested an opinion regarding these cabins, we believe it is only fair to say something about the reactions which people are expressing about their design and appearances, as well as what some of the other problems are in relation to the locations and building sites. The general reaction of most people or laymen has not been favorable. These cabins are entirely new installation in Yellowstone and, although they may have shortcomings from several points of view, they are a tremendous improvement over most of the overnight accommodations in the park. Each room will have a bath arrangement and heat and hot water will be provided. Economics have been a major factor in design and construction. The furnishings will go a long way toward improving their attractiveness.[138]

Garrison added that: "It is this completely flat roof which gives them the box car appearance. It is believed the stain is too dark with additional trim accents on vertical boards and joists black. Window trim and doors are painted strong hues of red, yellows, and blue-greens."[139]

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[135] Frank Mattson, memo to YNP superintendent, February 21, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3 Folder 2.

[136] Frank Mattson, memo to YNP superintendent, March 12, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 2.

[137] YPC Board of Directors meeting minutes, October 1, 1956. MHS, Coll. No. MC 141, Folder 1-5.

[138] Lemuel Garrison (YNP superintendent), letter to Glacier National Park superintendent, November 30, 1956. YNP-HRC, Coll. YELL 182386, Series 02-S, Box 3, Folder 9.

[139] Lemuel Garrison (YNP superintendent), letter to Glacier National Park superintendent, November 30, 1956. YNP-HRC, Coll. YELL 182386, Series 02-S, Box 3, Folder 9.

Frank Mattson also weighed in on the cabin rooms, during a presentation he made for park superintendents in September 1957. He lauded the incorporation of cross ventilation, "…as a determined departure from the present tourist cabins…" However, he added that more space should have been allocated for suitcases and clothing and that a configuration that could accommodate two double beds would have been preferable over the room for two single beds provided. The cost for each furnished cabin was $4,500.[140]

According to Frank Mattson, the Cabin Area site configurations were expensive for the Park Service, having to regrade for cabins that were not suited to hillsides.[141]

One hundred units remained to be completed in March 1957.[142] As the July 1, 1957 opening day approached, it was expected that 150 cabins would be ready in Area "C" and 220 in Area "A." The furnishings were arriving daily.[143]

Design and construction quality issues resulted in numerous complaints after construction, which required corrections in 1958 and 1959. Frost damage had occurred to two of the cabin units as early as June 1957.[144] Among other items (detailed in a ten-page YPC response to the complaints), the heating system and the water closets were replaced and the inadequate soundproofing was enhanced by the addition of carpeting. The cost to make all the rectifications was $116,735.[145]

With these corrections and improvements completed, in 1959, YPC was able to boast a 1550-person capacity in the cabins, with a daily rate of $10/person, comparable to the charge for the hotel rooms at Lake and Mammoth. The cabins at Old Faithful offered the next highest capacity at 1,120 persons, at the lesser cost of $2.25-$5.00/day.[146]

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[140] Frank Mattson, presentation to park superintendent conference, September 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.

[141] Frank Mattson, presentation to park superintendent conference, September 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.

[142] Special YPC Board of Directors meeting minutes, March 16, 1957. MHS, Coll. No. MC 141, Folder 1-6.

[143] Special meeting of YPC Board of Directors, minutes, June 13, 1957. MHS, Coll. No. MC 141, Folder 1-6.

[144] YPC Board of Directors meeting, Repair and Maintenance Report, June 28, 1957. MHS, Coll. No. MC 141, Folder 1-10.

[145] For a full accounting of the cabin construction problems, see memo from Thomas J. Hallin (YPC Director of Construction Engineering) to John Q. Nichols, dated November 6, 1958. Subsequent Board of Directors' meetings focused on the costs associated with these improvements. YNP-HRC, Coll. YELL 185385, Series 2-B, Box 12, Folder 2.

[146] Visitor accommodation brochure, May 1959. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 10, Folder 4. Lemuel Garrison (YNP superintendent), letter to Glacier National Park superintendent, November 30, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.



Photo B-9: A Frontier Cabin with colorful doors and window trim. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

The third and middle loop "B" was the last one to be developed. Plans for 100 units, with public bath and laundry – to be constructed for $400,000 and $60,000 respectively – were included in YPC's 5-year Capital Improvement and Construction Program to begin in 1962.[147] As of June 1962, Area "B" was being used as a campground. By August 1964, there was still no definite plan to construct them. Instead, YPC Asked YNP superintendent John McLaughlin for permission to continue use of the campers' cabins of the prior Canyon development:

> We should like to suggest that, due to the fact no definite plans have been set up these past two years for Area "B" at Canyon Village, the Canyon Campers Cabins be used for another year. We have, I think, pointed out that these cabins are sold 100% for most of the season, mostly unfurnished, and occupied for the most part by fishermen. These cabins, as you know, are sold very cheaply. With the increased traffic in the Park and the need for overnight accommodations, it is most definitely our feeling that these campers cabins are needed for visitors who like to "rough it" and are not looking for so-called deluxe accommodations.[148]

Thus, for less financial output, YPC was able to rent out cabins in the hope of providing sufficient income to keep the company in the black. The loop "B" cabins were finally built in 1969, by YPC's replacement concessioner General Host.

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[147] YPC memo, undated, regarding 5-year Capital Improvement and Construction Program beginning in 1962. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 12, Folder 2.

[148] George Beall to YNP superintendent McLaughlin, August 27, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 2.



Photo B-10: Cabin #13521 in Loop "B." September 26, 2013.

The cabins in Loops "A" and "C" are slated for removal as part of the 2014 redevelopment of Canyon Village in which more residential lodges similar to Dunraven and Cascade are being constructed (see Memorandum of Agreement in Appendix B).

A Prefabricated Unit Still in Use

One of the prefabricated cabins remains in use by the Yellowstone Park Service Stations (YPSS), at a site in Gardiner. An interview with YPSS manager Hal Broadhead, by Zehra Osman, Landscape Architect in the Branch of Cultural Resources of the Yellowstone Center for Resources, provided the following account of the construction methods:

> The building was moved to its current location circa 1957–1958 from its original position across the road on the Gardiner Flats. It is one of the prefabricated guest cabins used to expand guest lodging at Canyon Village during Mission 66…. One of the cabins was used as the job superintendent's office until the project was completed. After the other cabins were completed, the existing structure remained in the field across the road from where it sits now. The project manager did not want to move the cabin to Canyon or disassemble and return it by rail, so the concessioner acquired it and moved it across the road where it was set on top of cinder blocks. It was later used as a residence for Yellowstone Park Service Stations (YPSS) General Manager Charlie Gallagher, who lived there until 1989. Initially, the cabin was used only in the summer, since the YPSS moved its offices to Butte during the winter months. In the late 1960s or early 1970s, the cabin was converted to a year-round residence. In the early 1970s, the porch was enclosed and converted into a kitchen.[149]

[149] Interview by Zehra Osman, Landscape Architect, Branch of Cultural Resources - Yellowstone Center for Resources, as relayed to the author in an email dated February 20, 2014.

Cost of Construction

As of March 1956, the construction cost, including the architect's fee, was estimated at $2,833,580. This included 300 motel units and a reduced Recreation Hall. YPC desired to reduce this total cost to between $2.5 – 2.75 million.[150]

In August 1957, when the majority of the primary work had been completed, YPC compiled their costs for Canyon Village.[151] The comparison between the estimate and the actual cost of construction is as follows:

Construction Component	*Estimate - March 1956*	*Actual – Aug. 1957*
300 motel units	$1,070,100	--
512 motel units	--	$2,523,230
3 dorms	$450,000 (each $150,000)	$1,908,582 (each $636,184)
Building #1 – Canyon Administration Building	$158,760	$123,025
Building #2 – Canyon Lodge	$751,200	$1,523,469
Building #3 – Recreation Hall	$125,000 (You told me you that had cut $100,000 off the original estimate of $225,000)*	Deleted from scope
Misc.	$69,520	$1,193,554
Total	$2,624,580	$4,884,752
To this, you add the architect's fee*	$209,000	$296,341
TOTAL Construction Cost	***$2,833,580***	***$5,181,093***

*These are William Nichols' notes to Huntley Child, Jr., included in his March 27, 1956 letter.

As of March 1958, the final cost was tallied at $5.6 million.[152]

Hamilton Stores General Store

The development also included a new store and dormitory building built by Hamilton Stores. Welton Becket & Associates designed these buildings, thus their appearance – although simpler in massing – was similar to that of Canyon Lodge, particularly in terms of materials. The 12,000 square foot store cost $512,000 to build; the dormitory cost $225,000. The store contained two two-room apartments and two single rooms; the dormitory's fifty rooms housed one hundred employees.

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[150] William Nichols, memo to Huntley Child, Jr., March 27, 1956. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9, Folder 2.

[151] Huntley Child, Jr., letter to Frank Mattson (YNP landscape architect), August 24, 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.

[152] Huntley Child, Jr., letter to Lon Garrison, March 21, 1958. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 12, Folder 2.

Construction bids were received in spring 1956, for a project estimated to cost $500,000.[153]

The store and dormitory opened on July 15, 1957. The most notable feature of the store was the soda fountain, which was reported to be: "…conspicuous in its modernistic design, luminiferous overall ceiling and a seating capacity of 100."[154] YPC's Canyon Village newsletter provided a detailed description of the new Hamilton Store:

> Included in the structure is a soda fountain seating 100, a modern grocery department with 60 feet of refrigerated cases, 30 feet of green vegetable and fruit sections, 5000 lineal feet of grocery department, a drug department, a dry goods section and souvenir counters. Also in the building are general offices, storage areas and a full basement with apartments for managers and auditors.
>
> Interior walls are decorated with scenic western murals, picturing deer and bear in a forest setting. The building itself – like the Yellowstone Park Co. lodge and motel units – is designed in contemporary-rustic architecture.[155]

It is purported that a second architectural firm designed the interior improvements. According to NPS Project Manager Herb Dawson: "The murals were painted in the late 1950's-early 1960 period by a German artist, after the building was built."[156] These murals seem to have been installed by August 1957, as they were remarked upon in the August 1957 issue of the Canyon Village Special. Dawson noted that the artist's name and date were found on the mural during a 2006 rehabilitation of the store.[157]

Haynes Picture Shop and Dormitory

Architect William Grabow submitted the working drawings for the Haynes Picture Shop for review in June 1958.[158] The final drawings were ready for bid in January 1959, with a tentative due date of February 20, 1959.

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[153] "Service Awards Park Contracts: Work Is Scheduled For Two Summers," *Billings Gazette*, April 3, 1956. Billings Public Library Special Collections.

[154] Anonymous, undated (believed to be 1957), summary in YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 9.

[155] *Canyon Village Special*, August 31, 1957, page 2. YNP-HRC, Coll. YELL 185385, Series 02-A, Box 6, Folder 12. It is unfortunate that the interior murals and line art in Canyon Lodge were not described in such detail.

[156] Herb Dawson, Comments on 90% Canyon Village Historic Structure Report, February 14, 2014.

[157] Ibid.

[158] YNP Superintendent submitted these to the region director on June 20, 1958, referencing drawing No. NP-YEL-8585-A. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.

Grabow had worked closely with Ozzie Berg and Fred Willson in Bozeman, Montana, representing a legacy of modernism and comfort in that style. Grabow later designed the Tower Haynes Picture Shop remodeling in June 1959.

Camper Services

By 1968, the Camper Services building was constructed and available for use. The building incorporated laundry and shower components essential to the campers. It was designed by Graham, Scowcroft, Hansen, and Offern Architects and Engineers of Billings, Montana. A dedicated dormitory was constructed nearby sometime after 1966.[159]

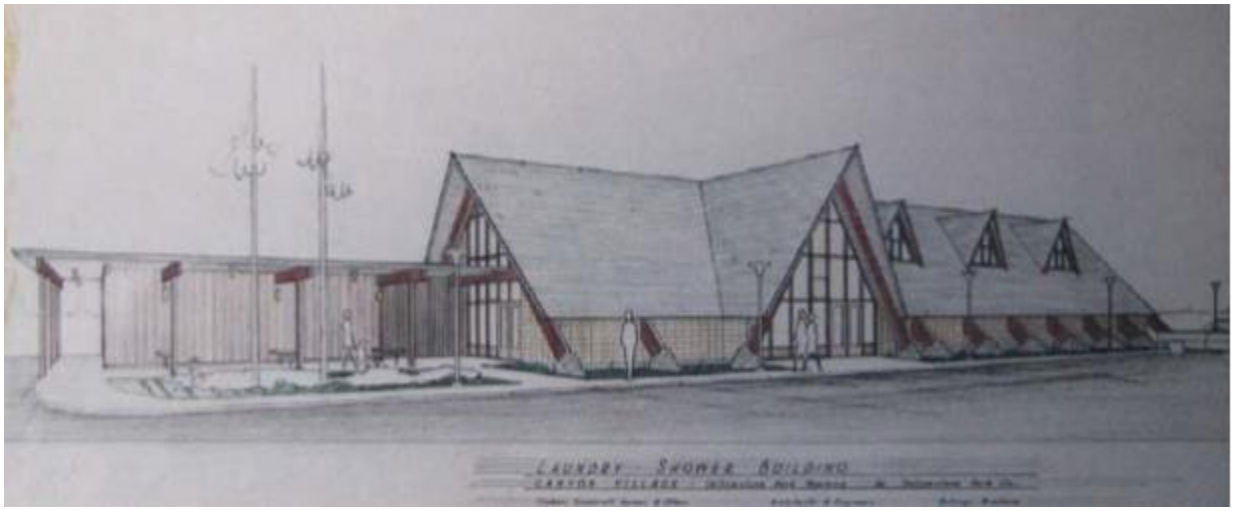


Figure B-6: Camper Services Building, constructed in 1968. Designed by Graham, Scowcroft, Hansen, and Offern Architects and Engineers in Billings, MT. (Image extracted from Papineau's thesis; source Xanterra Archives.)



Photo B-11: Camper Services Building, as constructed. The building features components similar to those used on Canyon Lodge, such as the roof slope, glulam beams anchored with concrete thrustblocks, and glazed gable end walls. September 24, 2013.

[159] Papineau, page 380.

Canyon Visitor Center

In April 1956, the Billings Gazette reported that: "The public use building at Canyon, measuring 110,000 cubic feet, will contain a huge information and orientation station with YP constructed in miniature as a guide for tourists, Rest rooms for the public are to be provided in the basement."[160]

Visitor centers were a new typology adopted by the Park Service during the Mission 66 program. NPS Director Wirth issued a memo to all field offices in February 1956, stating: "… generally speaking, we will use the term Visitor Center in place of the terms museum-administration building, public use building, and in some cases, in place of Park Headquarters when it is a point of visitor concentration. However, there will be many cases where it will be necessary to designate both a park headquarters building and a visitor center." This statement was intended to promote proper usage of the terms in printed matter – text and maps.[161]

In October 1956, Cop Construction Company of Billings, MT was awarded the contract to build the Visitor Center, a utility building, and six other buildings "for maintenance, interpretation and protection requirements," some of which were employee residences. The Visitor Center was to be 10,000 square feet, have a 200-seat auditorium, and an administrative office – for a construction cost of $295,060.[162]

The design of the Visitor Center prompted some discussion between YNP's superintendent Garrison and the architects in the WODC. Superintendent Garrison expressed concern about the colors being applied to the exterior and interior of the new government building at Canyon Village, inquiring as to whether WODC had instituted a new color policy that YNP was not aware of. Apparently the new colors were pastel in tone, whereas Garrison wanted to know "if it is still practical to use exterior colors which are softer and more harmonious with the surroundings."[163] Superintendent Garrison indicated his decision to only prime coat the exterior of the Visitor Center that fall, allowing time to select the appropriate colors. He requested that YNP be allowed to view the final colors and that perhaps a color expert should visit the site and provide guidance.

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[160] "Service Plans Park Projects: Agency Preparing for Construction," *Billings Gazette*, April 30, 1956. YNP-HRC, Coll. YELL 182386, Series 01, Box 20, Folder 10.

[161] Director Wirth, memo to all field offices, February 10, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 8, Folder 5.

[162] Department of Interior press release, October 6, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 8, Folder 7.

[163] YNP superintendent Garrison, memo to WODC chief, October 11, 1957. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 8, Folder 4.



Photo B-12: Visitor Center, from the southeast. c.1960 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

The August 17, 1959 earthquake (at nearby Hebgen Lake) caused damage to buildings in the Park, but appears to have spared most of the building in Canyon Village. Of the minor cracks noted in this area by region architect F.H. Roberson, "The new Visitor Center has several hairline cracks on its west wall extending from the grade up through the reinforced concrete foundation and into the concrete block wall. While these cracks appear to be shrinkage cracks, it is entirely possible that they may have been caused by the earthquake."[164] Roberson recommended that no corrective measures would be necessary, as none of the cracks would cause structural instability.

After careful consideration, most of the Visitor Center was demolished in 2004 and a new Visitor Center constructed in 2007 on part of its foundation, incorporating the original auditorium space. The historic value of the building was not in question, yet its roofs were deemed not steep enough; other design issues were deemed too numerous to overcome. An Environmental Assessment Report, prepared in February 2001, supported and guided the decision and the subsequent new design.[165]

[164] Region architect F.H. Roberson, letter to YNP superintendent, August 26, 1959. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 8, Folder 11.

[165] Beth Kaeding, Diane Chalfant, Linda Young, Long Johnson, and Doug Madsen. *Environmental Assessment: Canyon Visitor Center Rehabilitation*, February 2001.

Construction Chronology – Canyon Lodge and Administration Building

General

The following sections focus on Canyon Lodge and the Canyon Lodge Administration Building only. Drawings illustrating the key modifications are included at the end of this section.

Original Construction

McNeil's construction crews arrived in YNP with their first load of construction camp facilities in mid-May 1956.[166] The Canyon Lodge and Administration buildings were completed for the July 1, 1957 opening. The three dormitories and some 370 cabins were available for use at this time as well. The construction appears to have conformed with the construction documents dated June 8, 1956. Minor revisions occurred during construction, primarily in the Kitchen area; all are annotated and dated as revisions on the original drawings.



Photo B-13: Construction of Canyon Lodge, looking from the northeast toward the north (at right) and west (at left) facades. Image extracted from Papineau's thesis, page 358 (Source: Yellowstone Museum Collection).

Major Alterations in Chronological Order – Canyon Lodge

Note about the Documentation

The chronological order of alterations for Canyon Lodge and the Canyon Lodge Administration Building were derived from YPC and NPS meeting minutes,

[166] R.H. Westlund, general superintendent for McNeil, letter to YNP superintendent Rogers, May 11, 1956. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 2.

drawings provided by NPS, and from visual observations. The alterations described below occurred during the proposed Period of Significance (1955-1966) and are included in the Summary of Documented Work chart on page 76.

1959 Meeting Rooms

1959 - Lower Level Meeting Rooms

In the fall of 1959, YPC moved the full Laundry facility out of the lower level, relocating the equipment to the Old Faithful Inn and the Lake Lodge Laundries. This project continued into 1960, with the remodeling of this large (3,881 square foot) area into group meeting rooms which could also provide banquet space for large gatherings. As part of this project, five employee bedrooms were transformed into an Employee's Recreation Hall and one storage room (now an office); the public restrooms were enlarged; the barber shop and beauty parlor were re-arranged in the northwest portion of the lower level; and an interior stairway was inserted in the northeast corner where it intersected the lounge above.

YPC hoped that the vacated laundry room could be used for meetings and conventions, as well as an employee recreation area when conventions weren't in session. It was anticipated that this work would cost $85,000-$90,000.[167]

Orr Pickering & Associates prepared the final drawings for these modifications, dated February 22, 1960, which were performed by the Yellowstone Park Company.[168] The meeting room remodeling project was essentially completed by June 1960, except for some minor ventilation system adjustments. At this time, $66,270 had been spent of the budgeted $65,860 and not all of the bills were in yet.[169]

1964 Cafeteria & Kitchen

1964 – Upper Level Cafeteria & Kitchen

Various cafeteria, dining room, and kitchen improvements were made soon after completion, in response to heavy use. The dining rooms were enlarged, as they were deemed too small the second year of operation.[170] Additional cafeteria lines were installed for an approximate cost of $15,000.[171] YPC's December 1963 correspondence with Superintendent Garrison spoke of these modifications, for which they appropriated $625,000 for the 1963-64 fiscal year; this work was to include a cafeteria line at Canyon Village, enlargement of the

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[167] Fred T. Burke, YPC VP/Controller, log of conference call with John Q. Nichols, Huntley Child, Jr., Hugh Galusha, and Robert Sevitz, September 25, 1959. MHS, Coll. No. MC 141, Folder 1-11.

[168] Thomas J. Hallin (YNP VP of Construction), letter to Lemuel Garrison (YNP superintendent), September 26, 1959. This work is clearly depicted in the 1960 Orr Pickering drawings, YELL 8485-B.

[169] YPC Board of Directors, meeting minutes, June 20, 1960. MHS, Coll. No. MC 141, Folder 1-12.

[170] Special meeting of YPC Board of Directors, minutes, August 15, 1958. MHS, Coll. No. MC 141, Folder 1-7.

[171] Re-arrangement of present kitchen $15,000 (per "1963-1964 YPC Project List" at YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 2).

dining room, and kitchen revisions.[172] The exact nature of these improvements is not known, as drawings were not located and the dining rooms and cafeteria have since been extensively revised.

1964 – Bar Relocation

1964 Bar Relocation

The location – and relocation - of the bar generated a disagreement between NPS and YPC. In YPC's efforts to expand the dining room, they wished to move the bar into its current location at the southeast corner of the Lounge. Both parties agreed that the lounge was a compensation for "poor caliber of the Village units" and that a portion of the fireplace should be retained for the lounge users.[173] However, on April 27, 1964, NPS suggested that the bar, with a food specialty service, be located in the lower level. YPC noted that this location would be hard to service from the kitchen on the upper level, and interpreted on-site verbal communication with NPS on April 25 as approval to relocate the bar (to its current location in the southwest corner of Lounge #200) and did so. On April 28, YPC submitted NPS with eight copies of the constructed plans, noting that: "The length of the bar has been reduced five feet and two inches."[174] YPC's general manager George Beall's twenty-five years in the hotel business guided his relocation decision, driven by his primary interest "to give better service to our guests and, more specifically, to increase the dining space."[175]

On May 8, 1964, Superintendent McLaughlin wrote of the NPS decision to not halt the bar relocation and dining room expansion, although they anticipated customer dissatisfaction with the arrangement. It was agreed to "mutually review" the use of the building at the close of the season to "ascertain what if any, action may be required in the light of visitor use and responses to this renovation."[176]

It is assumed that the following coincident modifications were made when the bar was relocated:

1. The light cove above the back bar (as shown on Sheet L-7-3 of 1956 construction documents) was removed.

[172] 1/6/1964 YPC memo, YNP-HRC, Coll. YELL 185385, Series 2-B, Box 13, Folder 1, and 12/17/1963 letter from George Beall to YNP Superintendent Garrison, YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.

[173] Luis Gastellum, acting superintendent, letter to George Beal of YPC, March 2, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.

[174] George Beall, letter to Mr. John McLaughlin (YNP superintendent), April 28, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.

[175] George Beall, letter to Mr. John McLaughlin (YNP superintendent), April 30, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1. George Beall, who joined YPC in November 1962, had been the general manager of the Dell E. Webb Hotel Company in Phoenix and had thirty years of hotel experience (Culpin, page 112).

[176] McLaughlin, letter to George Beall, May 8, 1964. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 13, Folder 1.

2. The wall opening at the west end of the bar – between Dining Rooms #205 and #206 – was created.
3. The folding door at the opening east of the bar – between Dining Rooms #205 and #206 – was removed.
4. The concrete frame of the fireplace was painted brown.

Miscellaneous Changes
Several minor changes have occurred, for which documentation has not been uncovered, as follows:

1. Canyon Lodge, first floor Lounge: Height extension to wood wall at south side of stair opening. Painted wood frame, 1'-6½" tall, fastened to existing cap of c.1960 wall; phones are mounted to the south side of the wall, facing the Lounge.
2. Canyon Lodge, first floor Gift Shop #202:
    a. Increase in height of east and south walls, from 8'-3½" (four translucent panels high) to 10'-4½" (five panels high). The wall framing originally aligned with the door frames; the additional height was provided by plywood panels set in a similar mullion system as the original wall below. This was purportedly done to prevent entry into the shop after hours.[177]
    b. Removal of translucent panels from original wall and replacement with painted plywood panels. The original glass panes at eye level were retained.
    c. Note: The shop's south wall of vertical V-groove boards is as shown on the 1956 construction drawings.



Photo B-14: Looking northwest towards the Gift Shop next to the Lounge. September 24, 2013. The wall height has been increased with plywood veneer panels set in framing similar to the original wall below. Date of modification not discovered.

[177] Steve Fuller, onsite interview September 20, 2013.

3. Canyon Lodge, first floor Dining Room #217: The colored Dot-Clock has been removed from the diagonally wood-clad end wall. This clock appeared in 1957 Haynes slides and photographs taken during the Dedication Ceremony, yet it does not appear on the 1956 construction documents.
4. Canyon Lodge, lower level Office #102: Removal of translucent plastic panels from public-facing walls. Replaced with acoustic tile infill, except for three glass panels at eye-height on the east wall.



Photo B-15: Canyon Lodge, lower level, looking southwest towards Office #102, which was originally the Beauty Shop with translucent wall panels, set within the extant framing system. September 24, 2013.

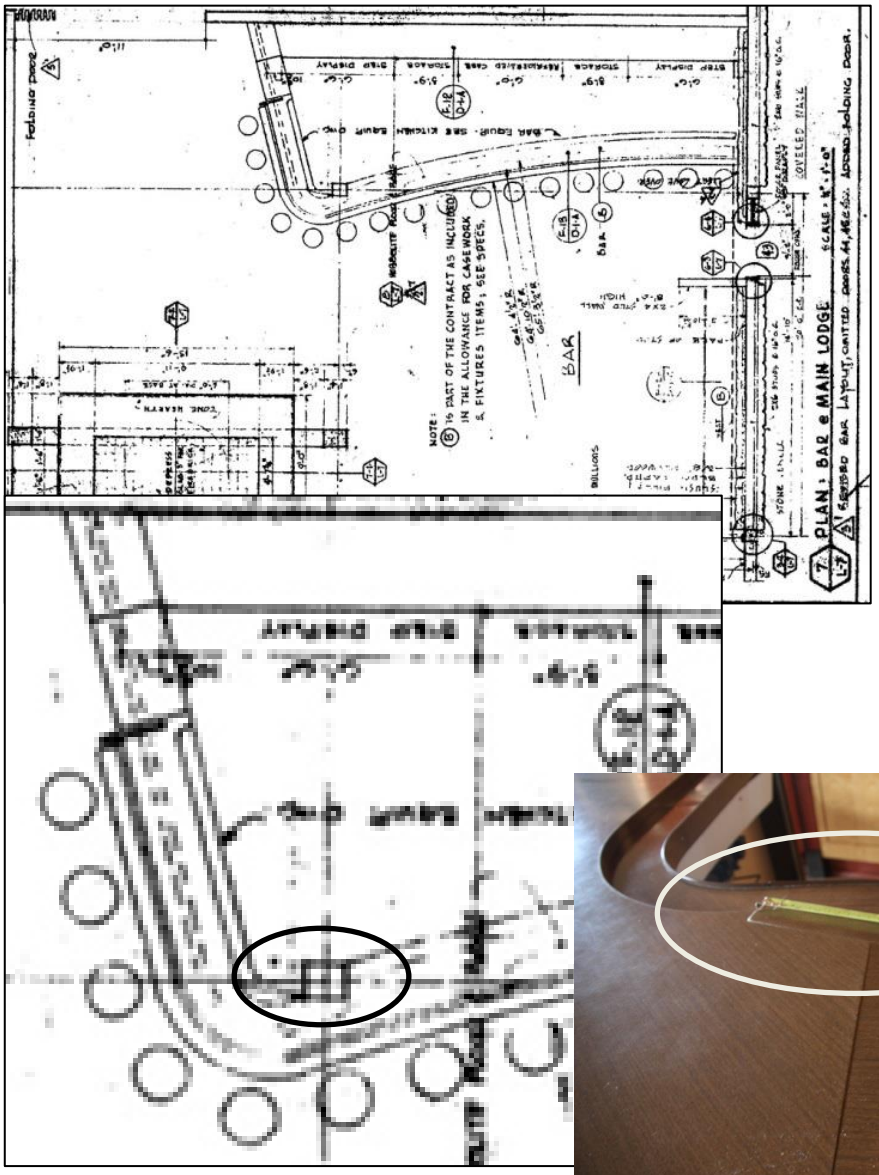
Summary of Documented Work on Canyon Lodge

*Where room numbers are provided, they coincide with the current numbering system, as depicted on floor plans A-1 and A-2.

Date	*Work Described**	*Information Source*
7/1/1957	Canyon Village Lodge and Administration Building completed and open for use.	
1959-1960	Canyon Lodge – Lower Level: 1. West half of lower level remodeled: laundry and bedrooms removed, meeting rooms constructed, restrooms enlarged, beauty and barber shops combined, and interior stair to first floor added.	Orr Pickering drawings YEL 8485-b; NPS and YPC correspondence.
1964	First floor – Dining Room: 1. Dining Room enlarged; bar truncated by 5'-2" and relocated to east wall of the Lounge (current location). 2. An abstract flat wooden mural had been on the wall behind the original bar. Steve Fuller salvaged this, then it was discarded by others c.2000. There are ghost markings of geometric forms having been on this wall, which might coincide with the mural.	Drawing 101/61053 and correspondence Steve Fuller interview[178] These murals are well documented in historic photographs and colored slides.
1967	First floor - Kitchen Alterations and Toilet Addition 1. Eastward extension of south Main Cooking Section by removing restrooms. 2. Locating restrooms at south end of Employees Cafeteria (at east end of Kitchen wing).	Drawings NP-YEL 8776 approved 3/9/1967
1971	First floor - Renovation of Cafeteria: 1. Installation of public restrooms (in location of current #218/219, with different configuration). 2. Installation of service bar with wine rack. 3. Installation of salad bar at north end of Room #217.	Drawing No. 101/70034 Final approval 4/30/1971 Corroborated by 1983 demolition plans
Pre-1973	First floor - Interior finish modifications: 1. Application of brown paint over transparent finish on glulam beams and columns. This should be confirmed with physical paint analysis, as it conflicts with the dark color of the PL G01 stain specified for the beams and columns and with evidence noted during the beam replacement during the 2012 reroofing project.[179]	Onsite interview with Steve Fuller of Xanterra, 9/30/2013

[178] Steve Fuller, September 30, 2013, onsite interview with Xanterra's Canyon Maintenance Supervisor since October 1973.

[179] Herb Dawson, Comments on 90% Historic Structures Report, February 14, 2014. Dawson stated that the same color appeared to extend through the exterior wall into the building.



North

Figure B-7: 1959 floor plan for original bar. 1956 drawing Sheet L-7-3.

Figure B-8: Enlargement of 1959 floor plan for original bar. Column location circled.

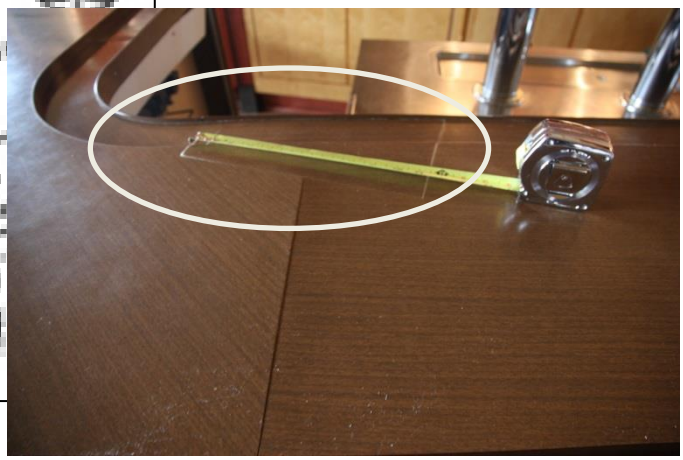


Photo B-16: Patch (circled) where column originally penetrated the original bar. Bar and counter were moved in 1964.



Photo B-17: Bar, where relocated in 1964.



Photo B-18: 1964 photograph of the original bar, looking southeast, before 1964 relocation. Image courtesy of the YNP-HRC Photo Collection, YELL 133489.



Photo B-19: 1957 Haynes slide of original bar, looking southwest. Bar was relocated in 1964. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.

Date	Work Described*	Information Source
1973	1973 Alterations: 1. Install steak grill in fireplace room (Room #205) [at south wall of original bar, where bar had been located]. Renamed as "Steak Room." 2. Convert original Coffee Shop to "Scramble System Cafeteria" (Room #216).	Drawings #101-70041 2/15/1973 Corroborated by July 1976 photographs in YNP-HRC collection (YELL-29680 & 29681 series)

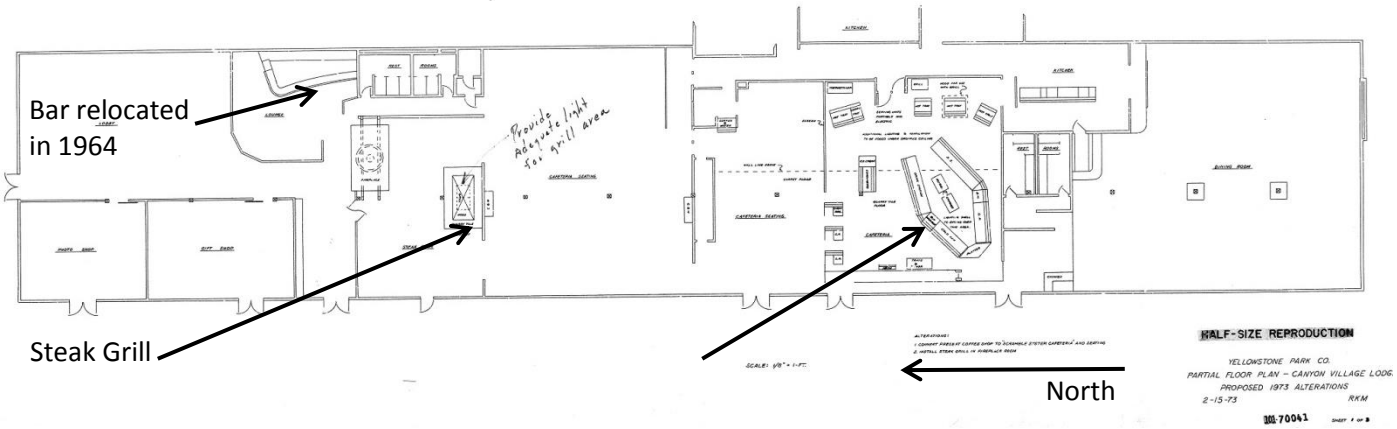


Figure B-9: 2/15/1973 floor plan showing installation of "steak grill in fireplace room" and "Scramble System Cafeteria." NP-YELL 101-77041.



Photo B-20: "Scramble System Cafeteria," installed in 1973. Image courtesy of the YNP-HRC Photo Collection, YELL 29680-2.



Photo B-21: "Scramble System Cafeteria," installed in 1973. Image courtesy of the YNP-HRC Photo Collection, YELL 29681-3.

*Where room numbers are provided, they coincide with the current numbering system, as depicted on floor plans A-1 and A-2.

Date	Work Described*	Information Source
Post-1973	First Floor: 1. Removal of dividing wall between the Photo Shop and Gift Shop. 2. Removal of the translucent plastic glazed wall and sliding door, extending from the fireplace to the west wall, between the Lounge #200 and Dining Room #205. Wall was similar to those at the east side of the Photo Shop and Gift Shop. 3. Conjectural (doesn't appear on 1973 plan): Removal of bench at west wall of Dining Room #205, adjacent to the wall in item #2 above (probably removed concurrently). Note: the existing 16'-long bench against the south wall of the Gift Shop #202 does not appear to be crafted from the original 14'-long bench.	Drawings #101-70041 2/15/1973 These items are depicted as extant on the 1973 plans for the Steak Room and Scramble System Cafeteria. 1957 Haynes slides.
1983	Canyon Lodge Kitchen and Employee Dining Room Remodeling: All new Equipment, Lighting, Mechanical (except boilers), and Plumbing: 1. Removal of Employee's Cafeteria and restrooms from east wing of Kitchen. 2. Construction of lower level EDR (Room #113-117) configuration consistent with 2013 configuration. 3. Restrooms #218/219 remain back-to-back E/W as installed in 1971. 4. Complete remodeling of Kitchen wing and serving area (configuration matches 2013 configuration): a. New quarry tile floor. b. New employee restrooms in southeast corner of kitchen wing. 5. Construction of Cashier's Room #211. 6. Kitchen Roof reinforced with glulam beams. 7. Construction of rooms within east wing (old Boiler Room) of lower level – assumed. 8. A few features were retained: a. The two service elevators near loading dock (in Hall #237). b. The interior stairs (#236) from the basement to the attic. c. Cafeteria #216.	101/41213A drawings 6/8/1983 As-Constructed drawings 8/1986

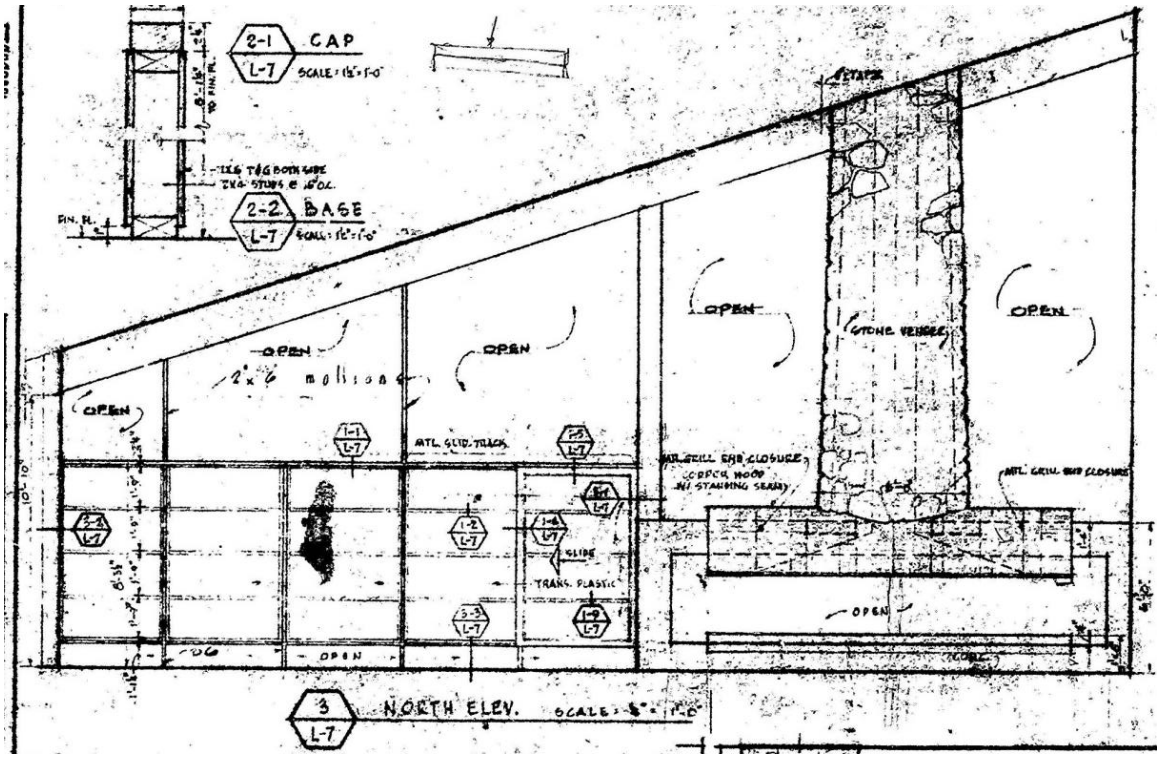


Figure B-10: Original translucent wall extending from fireplace to west wall, as if looking north from original bar (now Dining Room #205), from north elevation drawing on Sheet L-7-3, 1956.



Photo B-22: Original translucent wall - from fireplace to west wall - before post-1973 removal. 1957 Haynes slide, taken from northeast in the Lounge, courtesy of the George & Kathryn Bornemann Yellowstone Collection.

*Where room numbers are provided, they coincide with the current numbering system, as depicted on floor plans A-1 and A-2.

Date	Work Described*	Information Source
Post-1983	Removal of abstract line murals from north and south walls of original Dining Room (Room #206). 1. The murals appear in September 12, 1983 photographs (NP-YELL 29858-4). 2. Steve Fuller salvaged these, but they were subsequently discarded by others c.2000.[180] 3. Painting over the original peach, turquoise, and yellow colors of the star light fixtures.	9/12/1983 photograph NP-YELL 29858-4 Onsite interview with Steve Fuller of Xanterra, 9/30/2013
Post-1983	Removal of abstract line murals from east upper wall of (current) Cafeteria #216. 1. The murals appear in September 12, 1983 photographs (NP-YELL 29858-5). 2. Removal of windows from east wall of Kitchen wing; not needed, as Employee Dining Room was relocated to lower level and this area was now part of the expanded Kitchen.	9/12/1983 photograph NP-YELL 29858-5 6/1983 Kitchen Remodeling drawings
Between 1988+1993	Removal of the copper hood at the steak grill in Room #205. Hood salvaged by Steve Fuller.	Onsite interview with Steve Fuller of Xanterra, 9/30/2013
c.1989	1. Rotation and conversion of restrooms (#218 & #219) to provide handicapped accessibility. 2. Conversion of liquor storage room to handicapped accessible restroom (#210).	Plan comparisons Phone conversation with Addie Wickham, Director of Facilities & Project Management, Xanterra 2/20/2014



Photo B-23: Dining Room #206, looking north. 1957 Haynes slide image courtesy of the George & Kathryn Bornemann Yellowstone Collection.

[180] Steve Fuller, September 30, 2014, onsite interview with Xanterra's Canyon Maintenance Supervisor.

Date	Work Described*	Information Source
c.1997	First floor Canyon Lodge & Administration Building - Interior Finishes: 1. Repainting throughout the interior. 2. Repainted brown paint on glulam beams and columns. 3. Installation of new carpeting; it had been brown on brown. 4. Installation of 3¼" glossy varnished beadboard veneer (1/4" thick) at face of bar and diagonally oriented 3¼" drop-lap siding at east upper wall behind bar. Original laminate bar countertop remains, with scar of original column penetration (at 1956 location in Dining Room #205).	Onsite interview with Steve Fuller of Xanterra, 9/30/2013 Physical Evidence in Administration Building
2003	Canyon Loading Dock Improvements: 1. Replacement of loading dock slab and guardrails. 2. Provision of dock levelers.	As-Built drawings Xanterra Project 101/70668A 12/11/2003 (And Visual Observation)
c.2003-2006	Canyon Lodge first floor windows: 1. Removal of all but one original out-swinging wood awning window at east wall of Lounge (Room #200); replacement with aluminum sliding window units. At the north 2½ bays. 2. Removal of all original out-swinging wood awning windows at east wall of Dining Room #206; replacement with aluminum sliding units. At the south two bays. 3. Removal of all original out-swinging wood awning windows at east wall of Dining Room #217; replacement with aluminum sliding units. At the south two bays. 4. The original out-swinging wood awning units at the wall of the Kitchen Wing remain.	Onsite interview with Steve Fuller of Xanterra, 9/30/2013; Visual observation



Photo B-24: East wall of Lounge between Bays A and B, with representative example of out-swinging wood awnings within circle. The remaining awnings in the Lounge have been replaced with aluminum sliding windows. September 24, 2013.



Photo B-25: Administration Building column, with exposed original finish at separation. September 30, 2013.

Date	Work Described*	Information Source
2012	Plaza, Reroof, Structural Modifications to Canyon Lodge: 1. Removal of original stone veneer retaining wall. 2. Replacement and widening of north exterior stairs extending west from original Dining Room area. See Photo B-31. 3. Replacement of exterior open riser stairs with closed risers, and code-compliant guards and handrails. 4. Incorporation of steel beams above the glulam beams at the west part of the roof. 3-1/8" x 6" ledgers are all that are visible of this installation. See Figures B-13 & B-14 and Photos B-28 & B-29. 5. Installation of laminated lumber to sister existing roof joists at east and west slopes of main portion of building. See Figures B-12 & B-13. 6. Installation of roof sheathing, exterior nailable insulation, and new cedar shakes on roof. 7. West glulam beams: Replacement of concrete thrustblocks and bottom portions (from under the roof overhang to grade) of glulam beams. See Photo B-26. 8. East glulam beams: Reinforcement of each side of lower 5' with steel plates. 9. Provision of sheet metal coping over exposed portions of glulam beams. See Figure B-11 and Photo B-26. 10. Installation of shear walls at first floor: a. West curtain wall: At Bays F-G, P-Q, and R-S. b. East curtain wall: At Bays D-E, F-G, and N-Q. 11. Installation of shear walls at lower level: a. East wall: At Bays A-B, D-E, and R-S. b. Interior: At south wall of public restroom #105, in the Shops #121, 122, 123; Food Storage #128, and Employee Housing at the far south end of building. 12. Replacement of fire sprinkler system and fire alarm system. 13. Installation of lightning protection system.	Drawing No. 101/71804 by JGA
Summer 2013	Canyon Lodge first floor windows: 1. Removal of windows at east wall of Dining Room #205 north of Cashier Room #211. Installation of painted sheets of plywood at exterior and interior. YNP Fire Chief mandated this, in coordination with modifications to the exhaust from the EDR below. 2. Removal of the vertical kitchen grease stack from the rear of the building and installation of a horizontal grease vent with non-combustible construction around it.[181]	Onsite interview with Steve Fuller of Xanterra, 9/30/2013

*Where room numbers are provided, they coincide with the current numbering system, as depicted on floor plans A-1 and A-2.

[181] Herb Dawson, via email February 14, 2014.



Photo B-26: In 2012, the lower sections of the west glulam beams were replaced, set in new concrete thrustblocks, and capped with sheet metal. September 24, 2013.

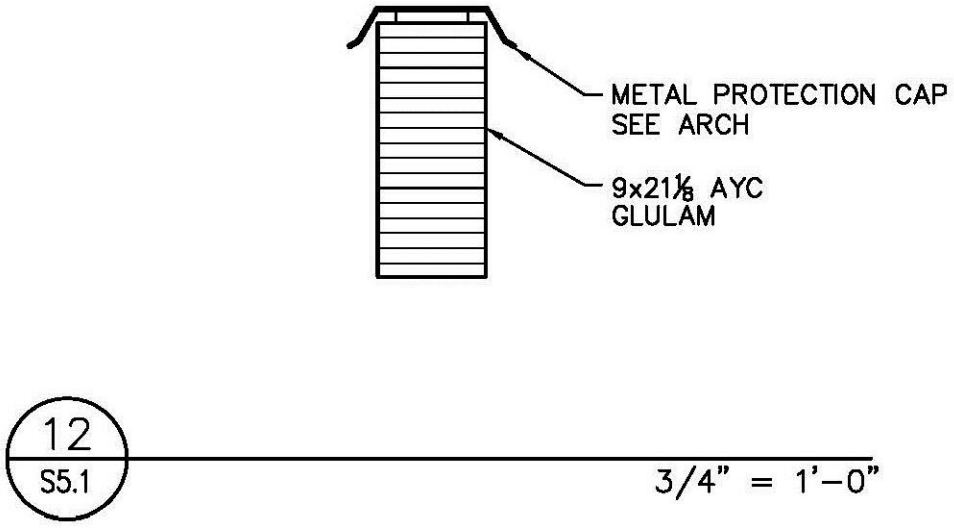


Figure B-11: Canyon Lodge 2012 Reroofing drawing by JGA, showing the protective metal cap applied to the existing glulam beams, where exposed.

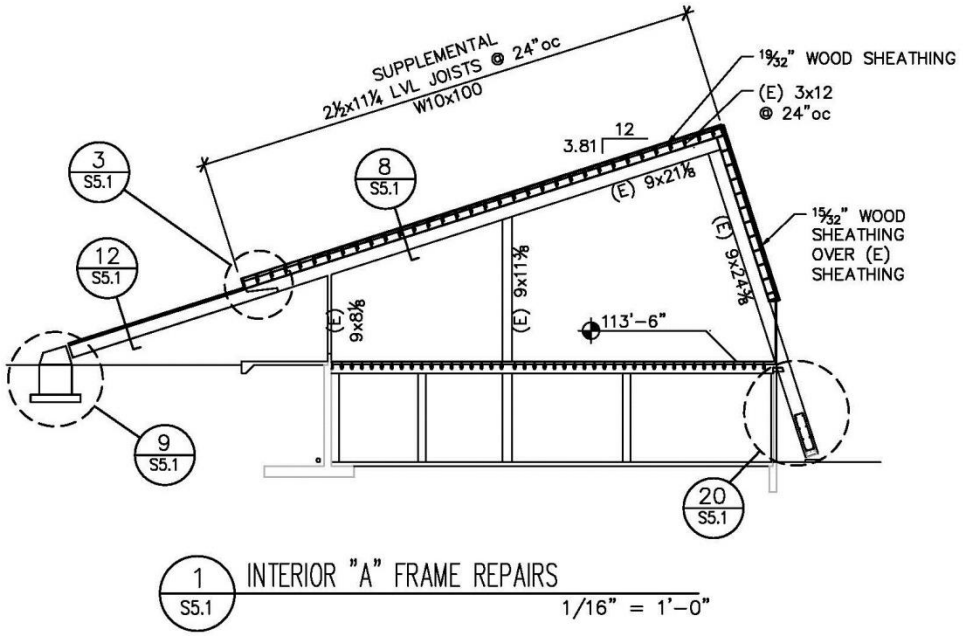


Figure B-12: Canyon Lodge 2012 Reroofing drawing by JGA, showing the sistering of joists.

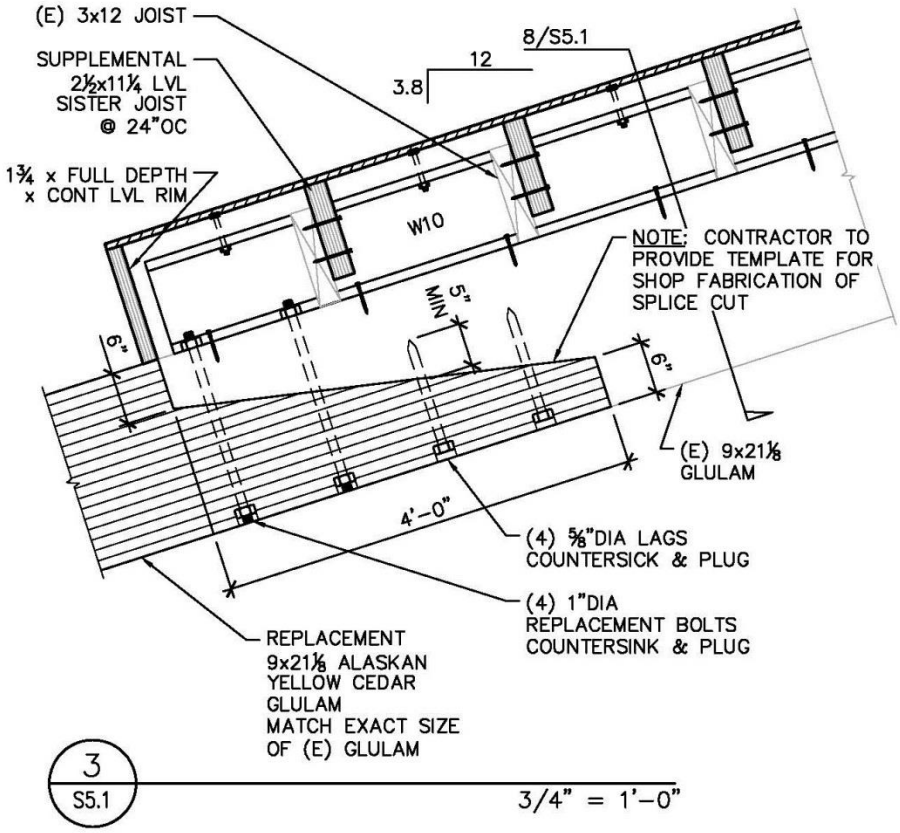


Figure B-13: Canyon Lodge 2012 Reroofing drawing by JGA, showing the splice joint of the glulam beam just below the edge of the roof overhang, the sistered joists, and the W10 beam added above the original glulam beam.



Photo B-27: The west ends of the glulam beams were replaced in 2012. September 24, 2013. The detail of this work is shown in Figure B-13.

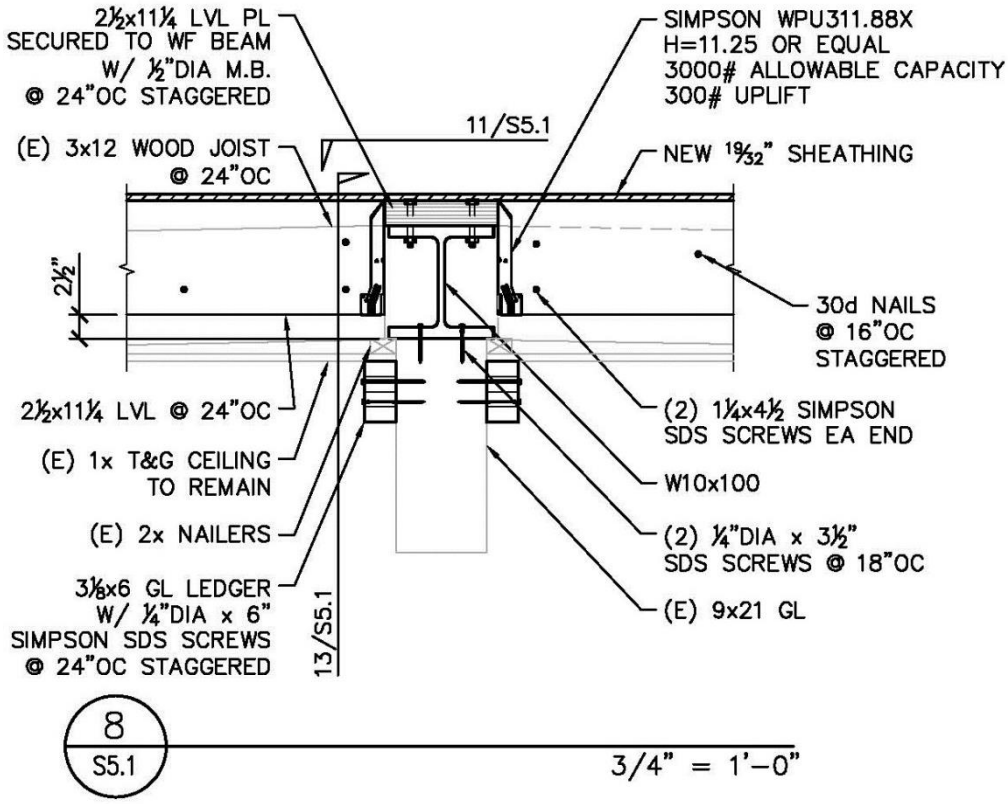


Figure B-14: Canyon Lodge 2012 Reroofing drawing by JGA, showing the typical revisions to the glulam beams at the west slope of the main roof, with the addition of W10 x 100 beams and Simpson ties to prevent uplift.



Photo B-28: Original beam treatment in Canyon Lodge. Image courtesy of the YNP-HRC Photo Collection, YELL 29858-5.



Photo B-29: Current beam treatment in Canyon Lodge. 3-1/8" x 6" wood ledgers at each side of the beam (at arrow end) are the only evidence of the revised treatment with steel beam located above the glulam beam. September 24, 2013.

Date	Work Described*	Information Source
2013	Plaza Modifications at west side – Appear to be additional scope to 2012 structural project: 1. Installation of stone veneer walls around each of the beam thrust blocks, defining circular paved areas between each beam. New concrete west entry steps flanked with stone walls. 2. Installation of concrete paving stones in the new plaza area. 3. Replacement of the colored exposed aggregate concrete walk along the west wall, with smooth concrete. 4. Installation of stone veneer wall in front of Administration Building, wrapping around new recycling bins at southwest, near building entry.	Visual Observations



Photo B-30: In 2013, rubble stone walls with smooth stone coping units, were installed all around the ends of the beams at the west side of Canyon Lodge. September 30, 2013.



Photo B-31: New stairway provided to the west entry, 2012. September 30, 2013.



Photo B-32: 2013 insertion of fieldstone walls and paved patios between the glulam beam ends; photograph looking south at the west side of Canyon Lodge. September 30, 2013.

Colors

In addition, colors have been changed, as follows:

1. Interior:
    a. Columns and beams have been painted dark brown. Anecdotal evidence indicates an original transparent stain.
    b. Cafeteria #216: All shiplap wall boards have been painted white, where they were originally painted a white background for the colored line art.
    c. Dining Room #206: Shiplap wall boards have been painted terra cotta, where they were originally painted a dark background color for the colored line art.
    d. The star light chandelier arms have been painted white, where they were originally a variety of colors: peach, turquoise, and yellow.
2. Exterior:
    a. The fascias have been painted brown; they were originally reddish-orange.
    b. The wood siding – both horizontal and diagonal – has been painted a cream color; it was originally a natural wood color.



Photo B-33: Evidence of original paint remains beneath the white paint of the arm of a star light fixture in the Gift Shop. September 30, 2013.



Photo B-34: The fascias were originally painted orange. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo B-35: The fascias (depicted at arrow end) are currently painted a dark brown. September 30, 2013.



Photo B-36: East end of Kitchen wing with a continuous ribbon of windows at first floor, natural color wood siding, and light-colored plywood panels. Image courtesy of the YNP-HRC Photo Collection YELL 29672-10, August 1958.



Photo B-37: East end of kitchen wing with fewer windows, white-colored wood siding, and light-colored plywood panels. September 24, 2013.

Major Alterations in Chronological Order – Administration Building

Note about the Documentation

In general, the chronological study of the Administration Building is based upon study of the original 1956 constructions drawings, early photographs, and physical observations. Little information appears to have been documented about this building, as an accessory of the far larger and more prominent building which was subjected to greater changes.

Service Counters

The primary modifications made after the original 1956 construction appear to be cosmetic. The most noticeable alteration is the replacement of the service counters and the reconfiguration of the support spaces behind the cabin rental area. The current counter system appears to date from the 1980's; this theory is supported by a 1976 photograph which depicts the original counter system. The original 2'-0" wide counters had sharply defined edges and hung 9¾" over the plywood base. This sleek design was installed in straight runs that butted into the support columns. The counter was at 40" above the floor. The counters were modified c.1989, to provide lower writing surfaces in compliance with accessibility guidelines.[182]



Photo B-38: Looking northeast at the Reception Desk, July 1976. YNP-HRC Photo Collection, Photo YELL 29681-5.

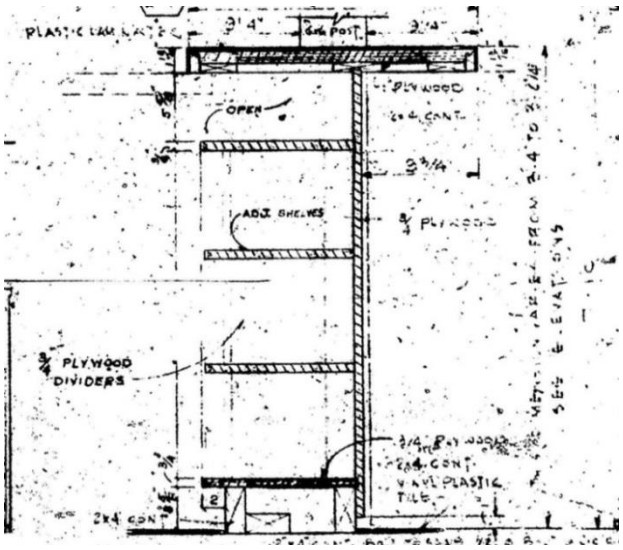


Figure B-15: Cross-section of overhanging counter from original 1956 construction drawings, Sheet FA-4.



Photo B-39: The current counters have a V-groove board face and wooden containers to store papers.

[182] Author's phone conversation with Addie Wickham, Director of Facilities & Project Management at Xanterra, February 20, 2014.

The foremost replacement service counter configuration is comprised of four facets that angle around to define a larger work space. Cabinets are fit below the counter, the prior 9¾" deep overhang has been reduced to ¾" typically. The exposed face of the cabinets is of vertical V-groove boards (3 1/8"-wide) with a clear finish. The edges of the base and counter are eased. With the exception of the lower writing surfaces, the counter is at 40" above the floor.

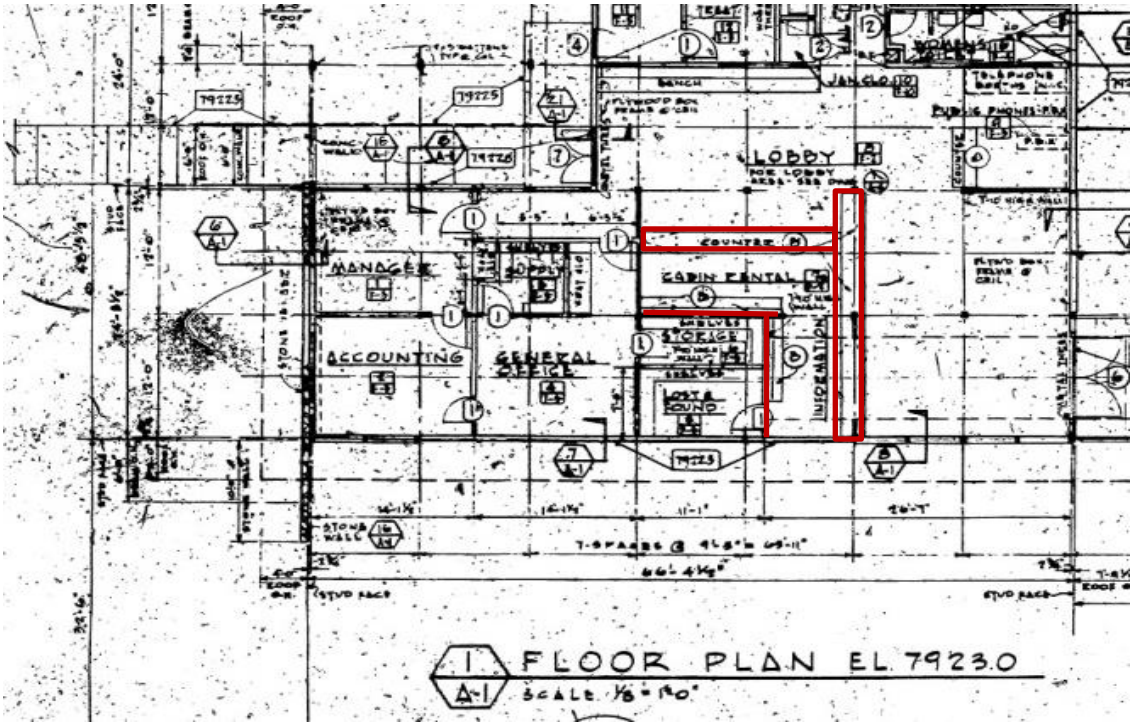


Figure B-16: 1956 floor plan drawing from Sheet FA-4. The red lines are used for emphasis.

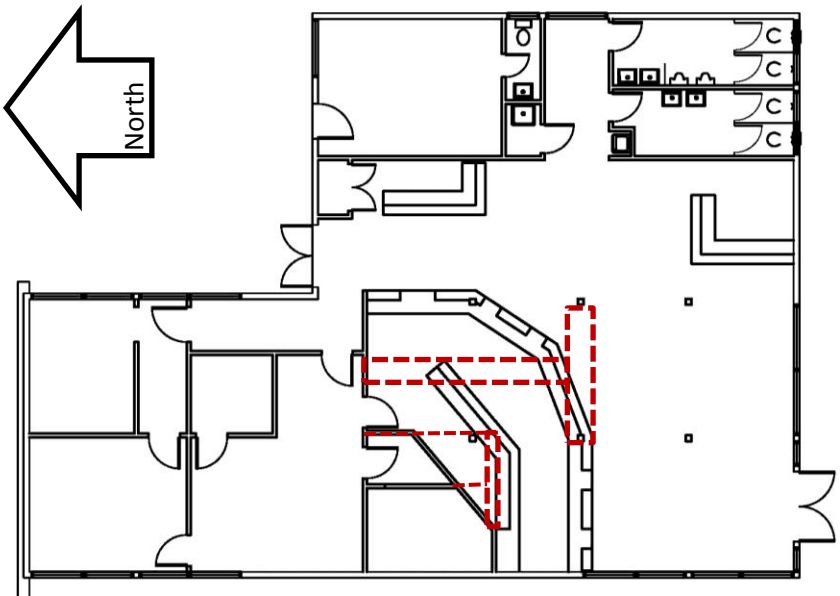


Figure B-17: 2013 floor plan. The red dashed lines depict locations of the original counters and walls.



Photo B-40: Administration Lobby, looking west at deeply overhanging counter and plywood face. Image courtesy of the YNP-HRC Photo Collection YELL 29669-2. August 23, 1957.

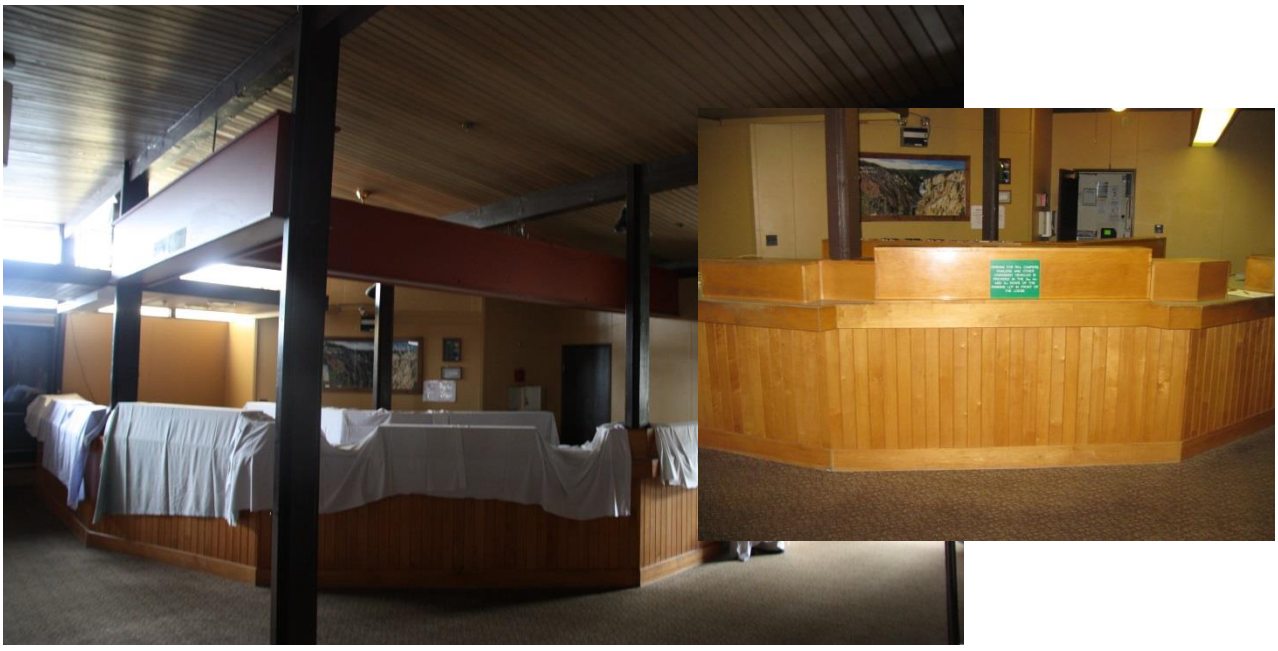


Photo B-41: Administration Lobby, looking northwest at service counters. Inset image at right more clearly shows the c.1980 counter system. September 24 & 30, 2013.

Colors

In addition, colors have been changed, as follows:

1. Interior:
   a. Columns and beams have been painted dark brown. Evidence reveals an original clear finish. See Photo B-25.
   b. Ceiling and wall V-groove boards have been stained a light translucent grey. The original finish was probably similar to that of the soffits, which were originally meant to read as an exterior extension of the ceiling.
   c. The light coves have been painted red; they were originally yellow.
2. Exterior:
   a. The fascias have been painted brown; they were originally reddish-orange. See Photo B-46.
   b. The siding – both the vertical at west face and the horizontal elsewhere – has been painted a cream color; it was originally a natural wood color.



Photo B-42: 1957 Haynes slide showing yellow light cove. Courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo B-43: Current registration with red light cove. September 24, 2013.



Photo B-44: Looking southwest at registration, with key rack at right. Image courtesy of the YNP-HRC Photo Collection, YELL 29669-1. August 23, 1957.



Photo B-45: Looking southwest at registration, with angled walls. September 24, 2013.



Photo B-46: This 1957 Haynes slide shows the distinctive color of the fascia at the Administration Building and the covered walkway connecting to Canyon Lodge. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.



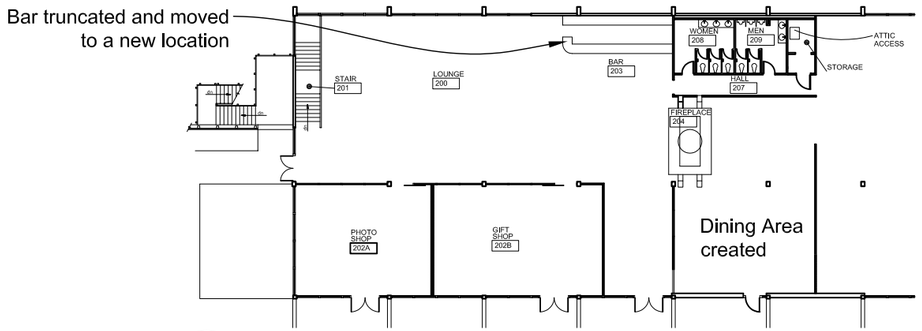
Photo B-47: Current beam, trim, and fascia colors are dark brown, with a cream-colored accent at the wood siding. The dark wall surfaces are winter shutters. September 30, 2013.



Photo B-48: This 1957 Haynes slide depicts the strong planar stone wall component. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.



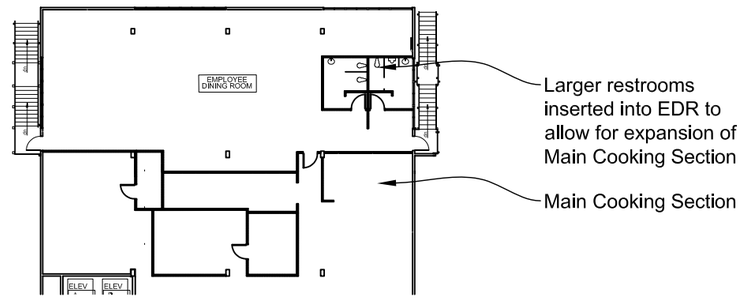
Photo B-49: The stone wall is still a strong planar component. The wood siding is now painted a cream color. September 30, 2013.



3 CH-1

1964 LOUNGE AND BAR AREA

1/32" = 1' - 0" (ON 11X17 SHEET)

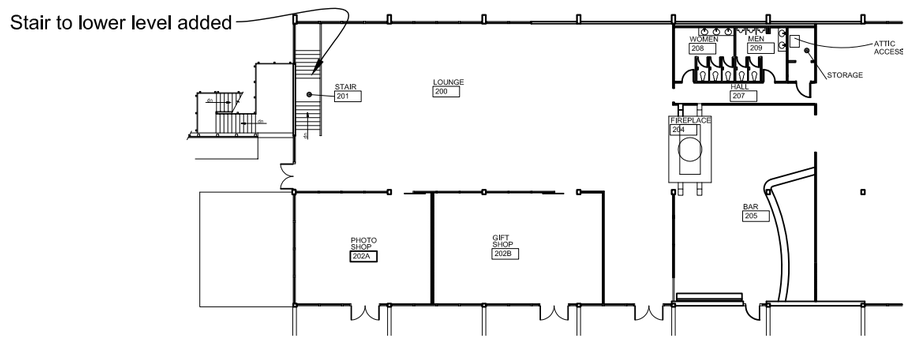


4 CH-1

1967 EDR RESTROOMS ADDED

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.

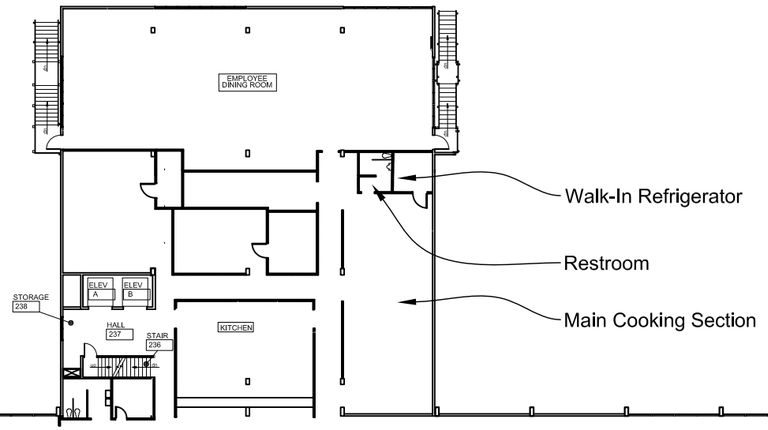


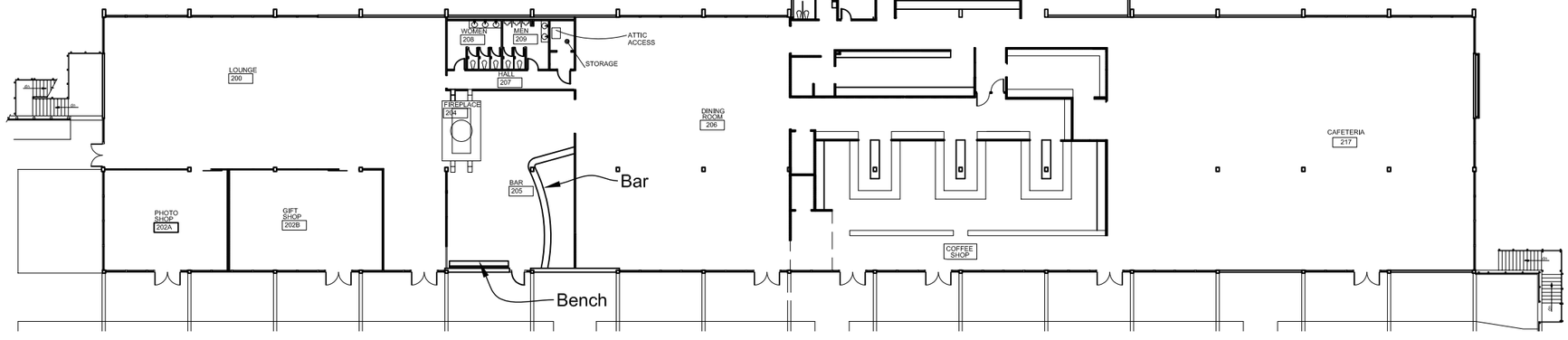
2 CH-1

1960 LOUNGE AND BAR AREA

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.





1 CH-1

CANYON LODGE- FIRST FLOOR PLAN - ORIGINAL CONFIGURATION

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.

Drawn By LMG
Checked By LMG
Date 2/28/2014
CTA # NPFCA13
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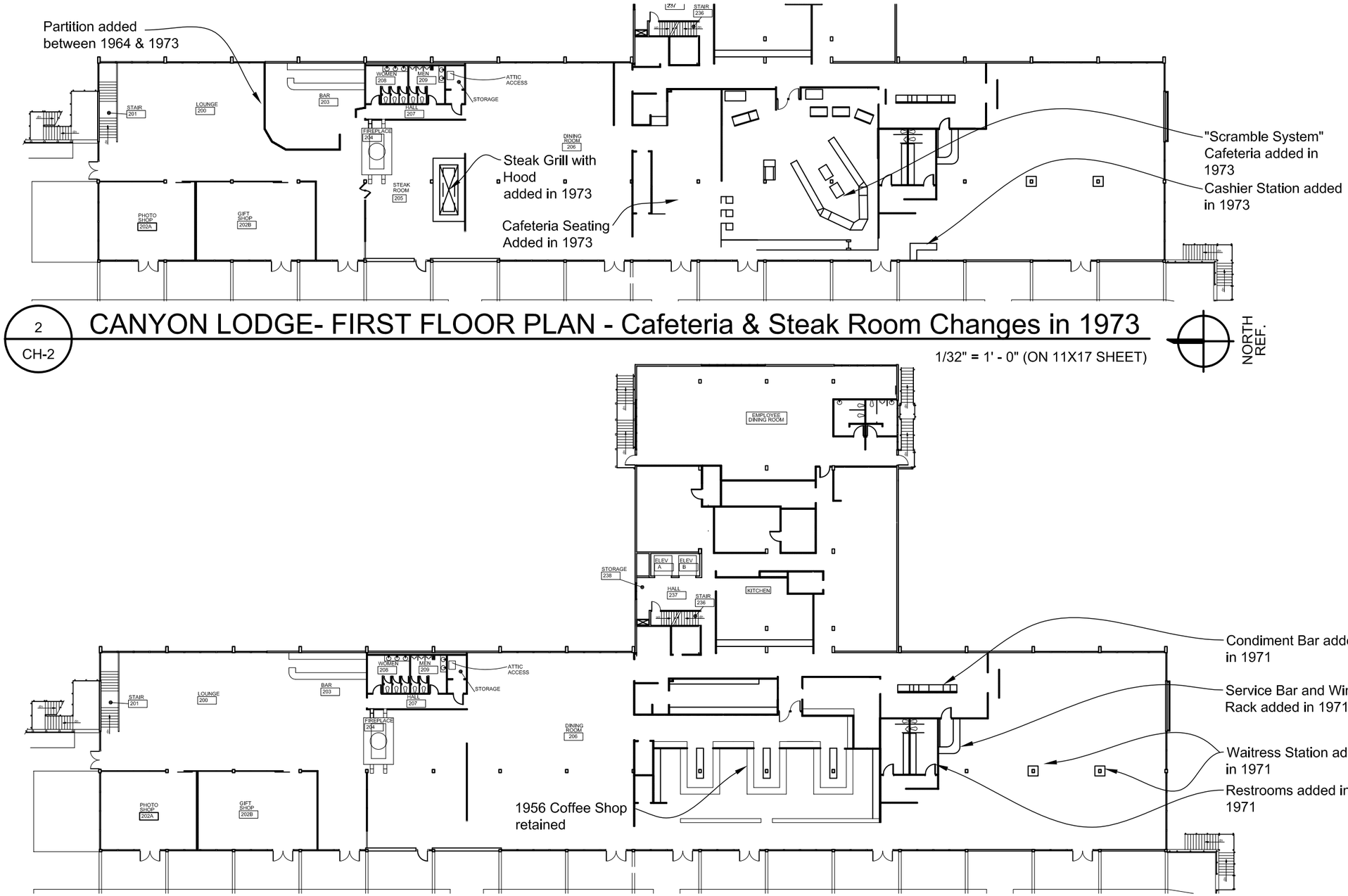
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First Floor Lodge Plan

1956-1967

SHEET# CH-1



2
CH-2

CANYON LODGE- FIRST FLOOR PLAN - Cafeteria & Steak Room Changes in 1973

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH
REF.

1
CH-2

CANYON LODGE- FIRST FLOOR PLAN - 1971

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH
REF.

Drawn By LMG
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First Floor
Lodge Plan

1971-1973

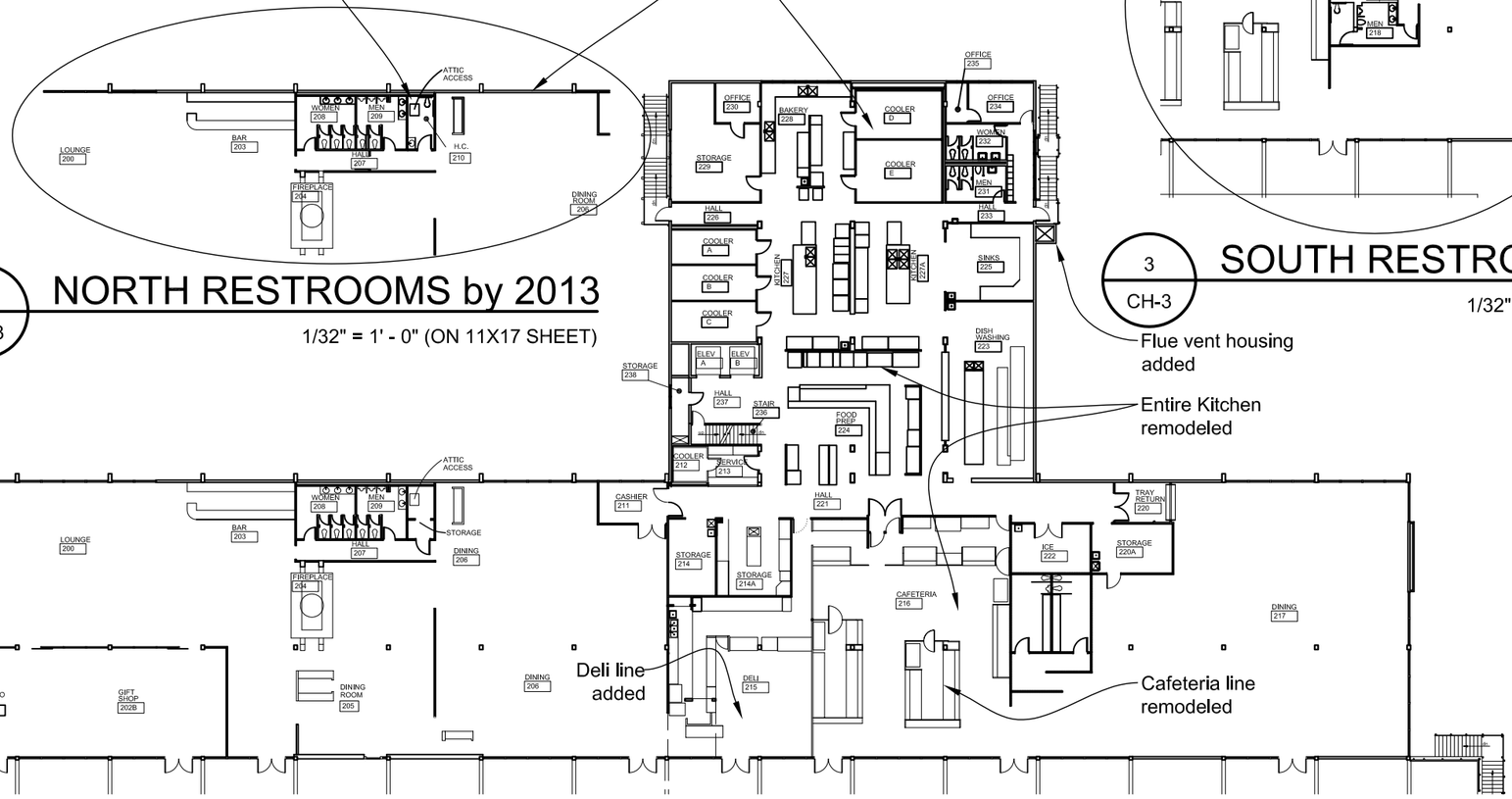
SHEET#
CH-2

Storage Room converted to single user handicapped accessible restroom.

Window wall replaced with solid wall.

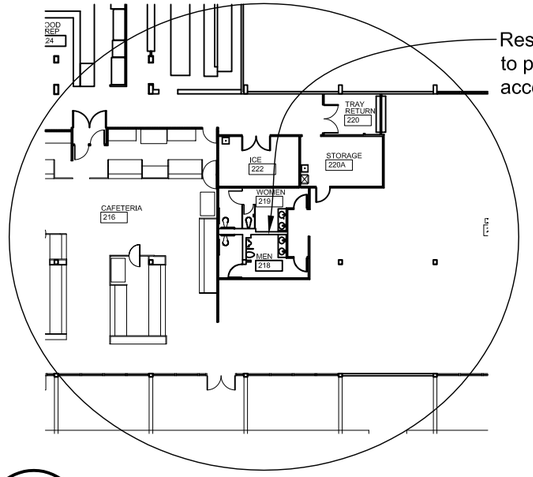
Kitchen was expanded into the area that had been the Employee Dining Room. The Employee Dining Room was relocated to the lower level.

Restrooms remodeled to provide handicapped accessibility



2 / CH-3 — NORTH RESTROOMS by 2013

1/32" = 1' - 0" (ON 11X17 SHEET)



3 / CH-3 — SOUTH RESTROOMS by 2013

1/32" = 1' - 0" (ON 11X17 SHEET)

1 / CH-3 — CANYON LODGE- FIRST FLOOR PLAN - 1983

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.

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Date 2/28/2014
CTA # NPFCA13
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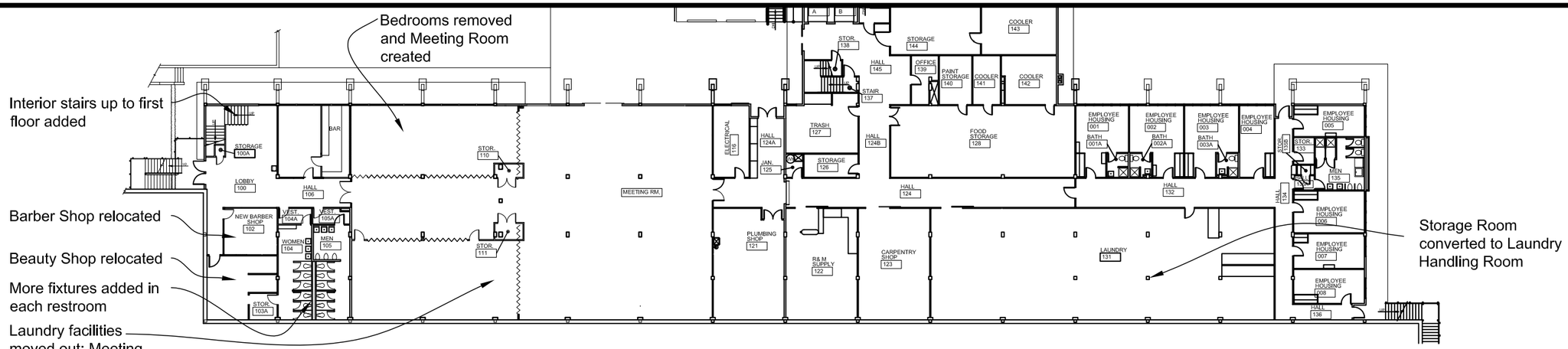
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First Floor Lodge Plan

1983-2013

SHEET# CH-3

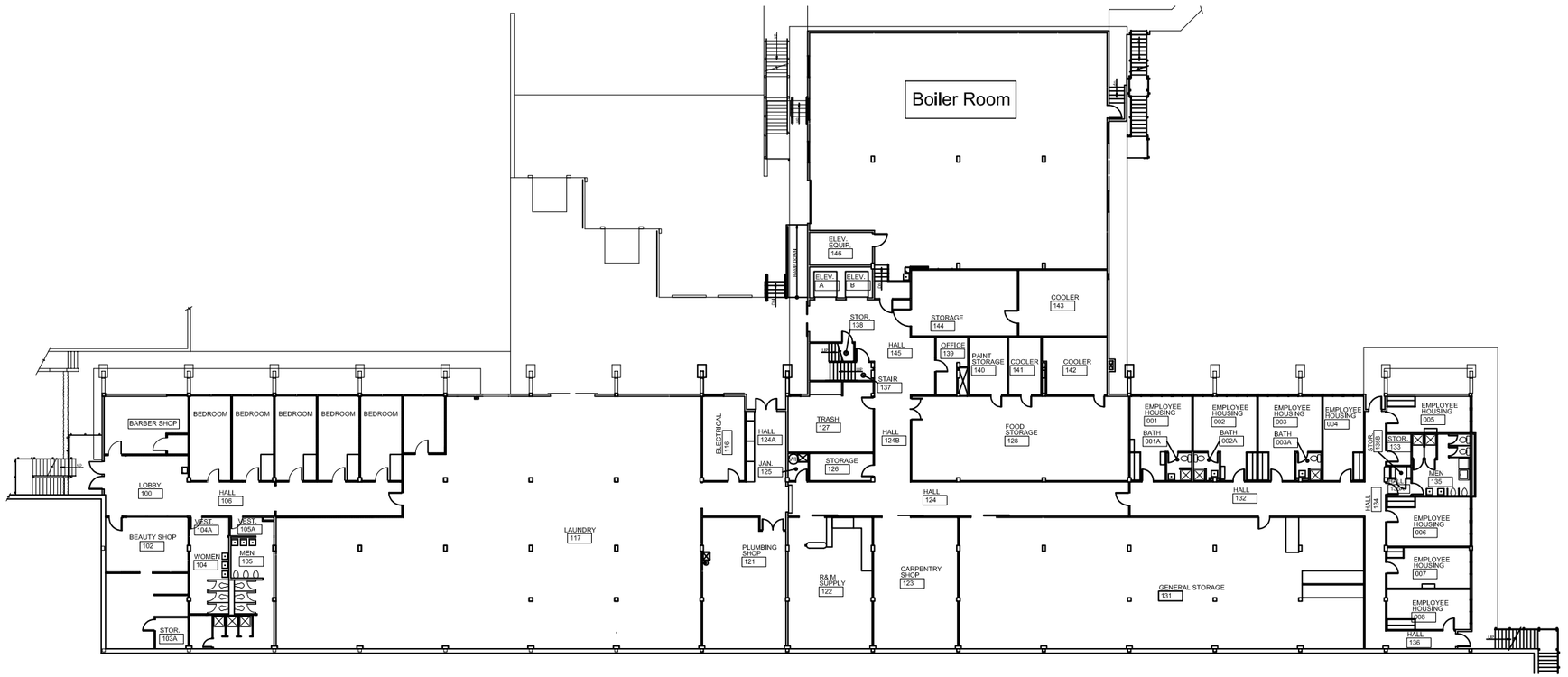


2 / CH-4

CANYON LODGE- LOWER LEVEL PLAN -1960 CONFIGURATION

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.



1 / CH-4

CANYON LODGE- LOWER LEVEL PLAN - ORIGINAL CONFIGURATION

1/32" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.

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Date 2/28/2014
CTA # NPFCA13
Cad File: NPSC1A102

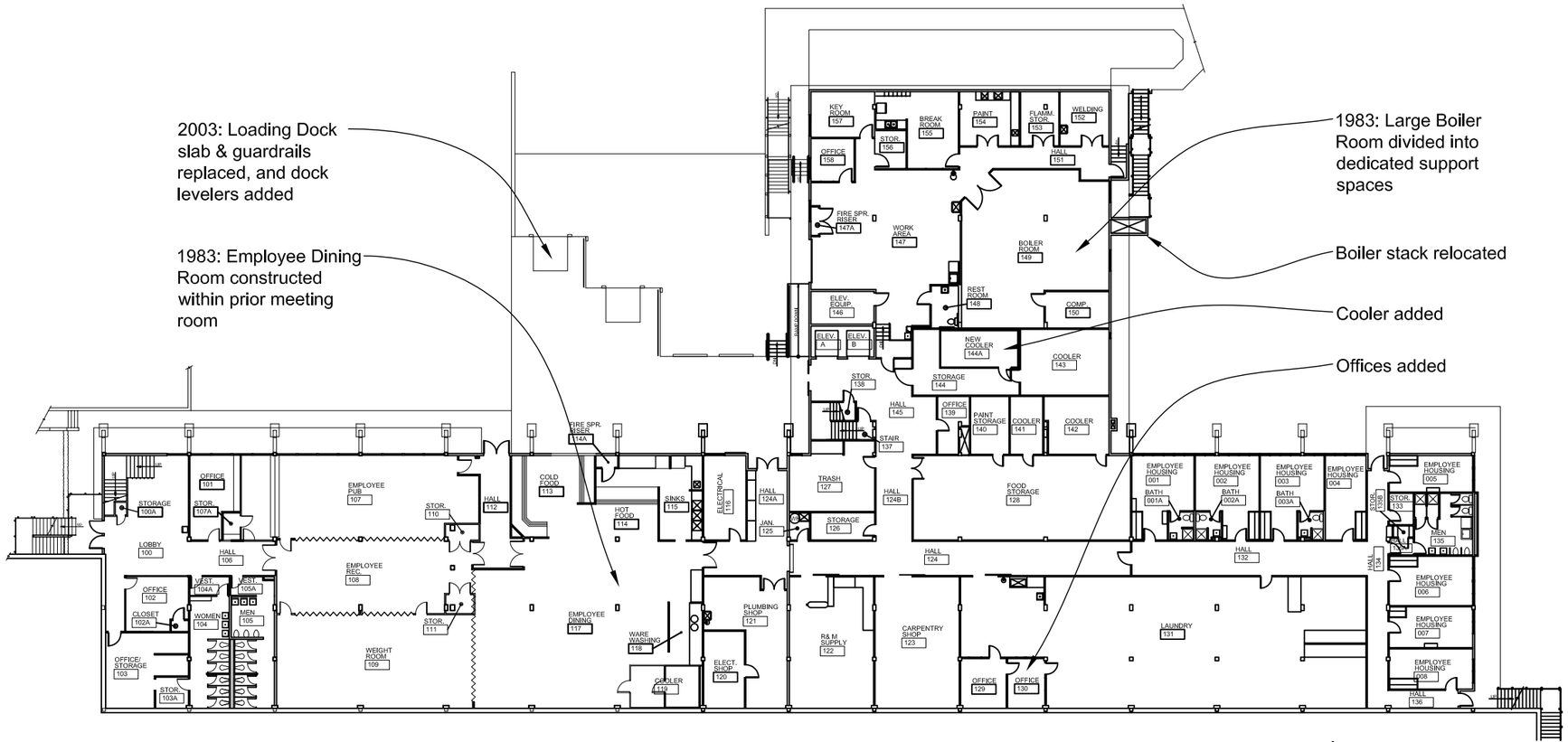
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First Floor Lodge Plan

1956-1960

SHEET# CH-4



1
CH-5

CANYON LODGE- LOWER LEVEL PLAN - 1983-2013

1/32" = 1' - 0" (ON 11X17 SHEET)

Drawn By LMG
Checked By LMG
Date 2/28/2014
CTA # NPFCA13
Cad File: NPSC1A102

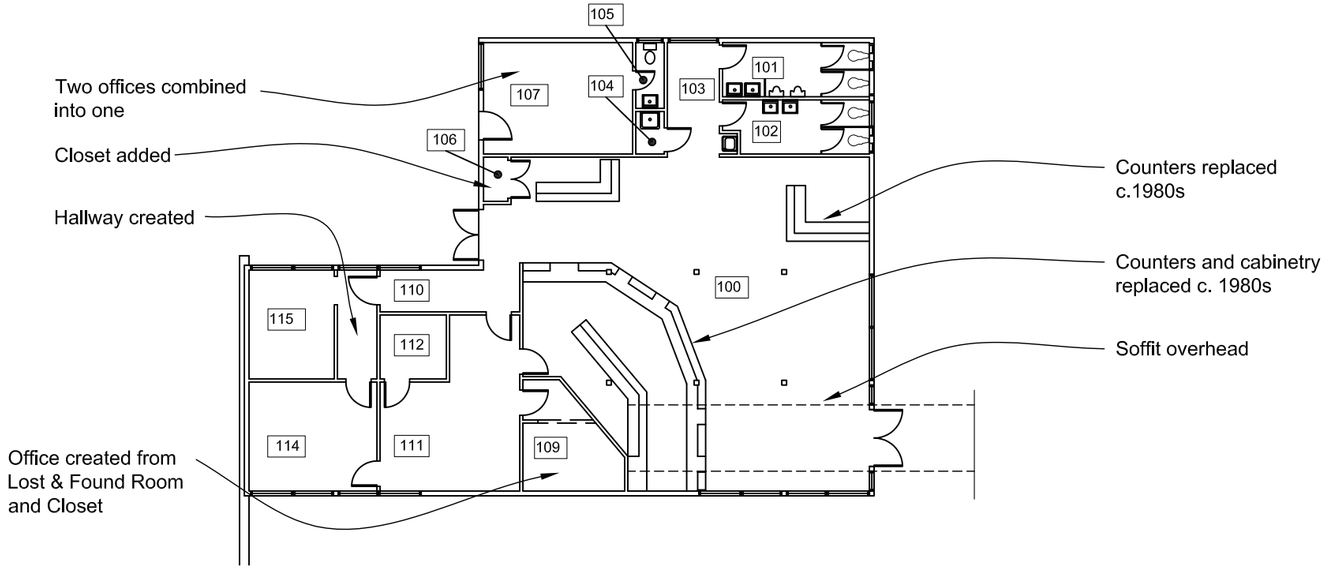
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Lower Level Lodge Plan

1983-2013

SHEET# CH-5

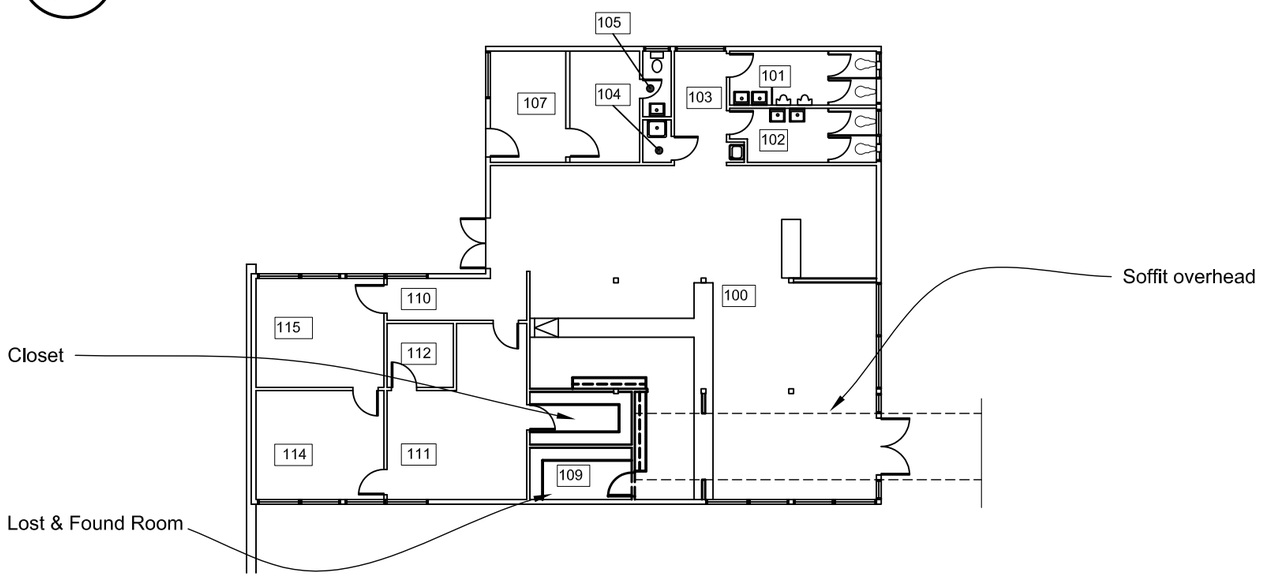


2
CH-6

CANYON LODGE ADMINISTRATION BUILDING - 2013 CONFIGURATION

1/16" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.



1
CH-6

CANYON LODGE ADMINISTRATION BUILDING - ORIGINAL CONFIGURATION

1/16" = 1' - 0" (ON 11X17 SHEET)

NORTH REF.

Drawn By LMG
Checked By LMG
Date 2/28/2014
CTA # NPFCA13
Cad File: NPSCLCH-4

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First Floor
Admin. Bldg.

1956-2013

SHEET#
CH-6

C. Existing Conditions

General

This section is organized as follows:

- ~ Summary of Building Use
- ~ Physical Description: Identification of Character-Defining Features
- ~ Condition Assessment – The existing physical conditions are summarized in the Condition Assessment beginning on page 143.

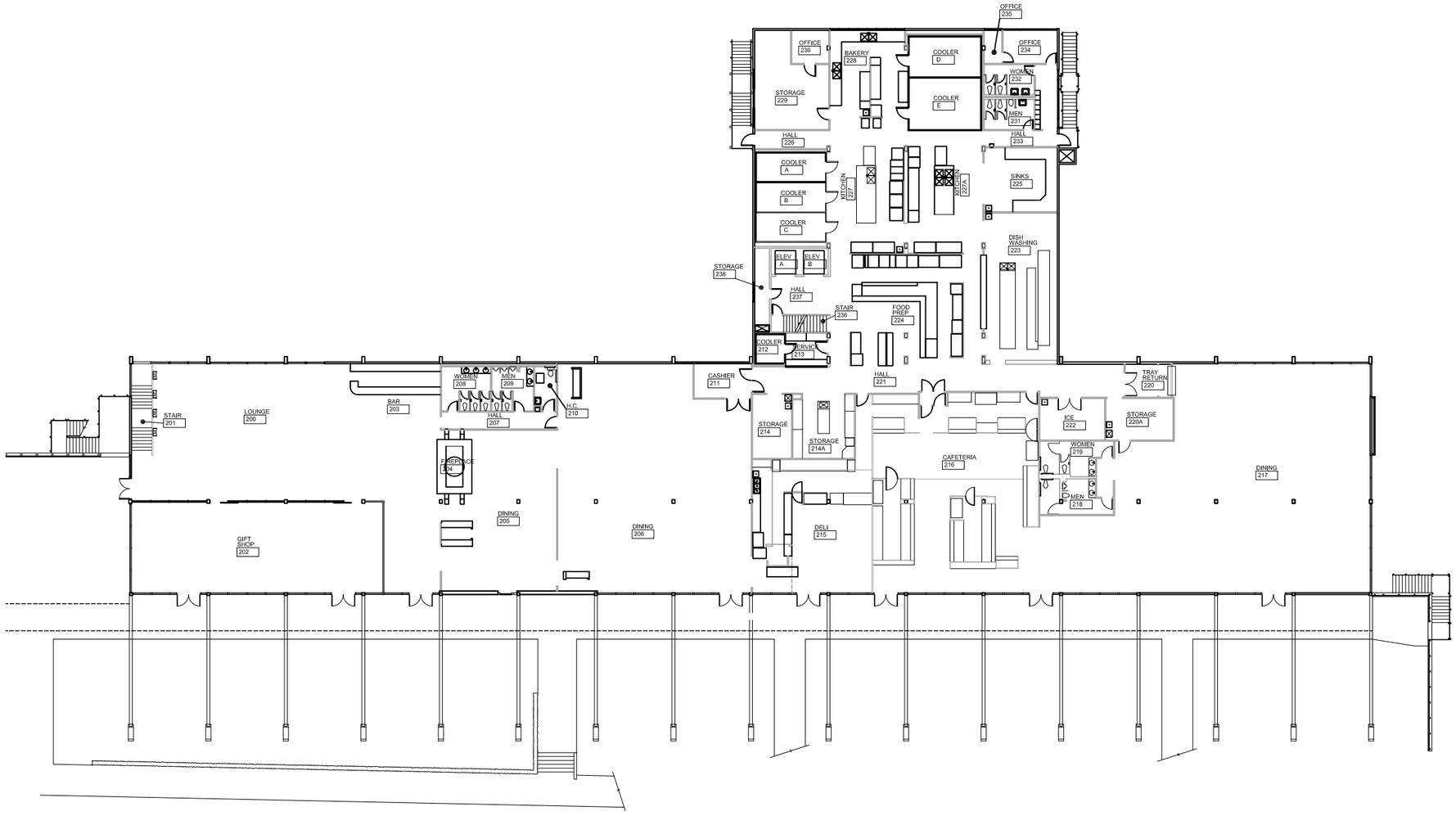
Recommendations are included in Part 2. E. Ultimate Treatment and Use.

Summary of Building Use

A summary of the buildings' uses over time is summarized in the charts below. Definition and allocation of space has been modified over time to best meet the perceived needs of the visitors and support staff. See floor plans on facing pages for room numbering systems.

Canyon Lodge – First Floor (A-2)

Space	*Area (square feet)*	*Original Use*	*Current Use*
Lounge #200	2,778	Lounge	Lounge & Bar
Gift Shop #202	1,503	Gift Shop & Photo Shop	Gift Shop
Dining #205	1,235	Bar	Dining Room
Restrooms #207-209	457	Restrooms & Hall	Restrooms & Hall
Dining #206	2,916	Dining Room	Dining Room & Cashier
Deli #215	1,056	Coffee Shop	Delicatessen – Can't access Cafeteria
Cafeteria #216	2,203	Coffee Shop	Cafeteria – Can access Dining #217
Dining #217	3,953	Public Cafeteria	Dining for Cafeteria
Kitchen Wing	6,267	Kitchen & Employee Dining Room	Kitchen
Circulation in Kitchen Wing	400	Freight Elevators, Stairs, & Hallway	Freight Elevators, Stairs, & Hallway



1
A-2

Canyon Lodge First Floor Plan - Room Locations

1/32"=1'-0" on 11" x 17" sheet

NORTH REF.

Drawn By LMG
Checked By LMG
Date 02/28/2014
CTA # NPFCA13_HSR
Cad File: 04-001-A1

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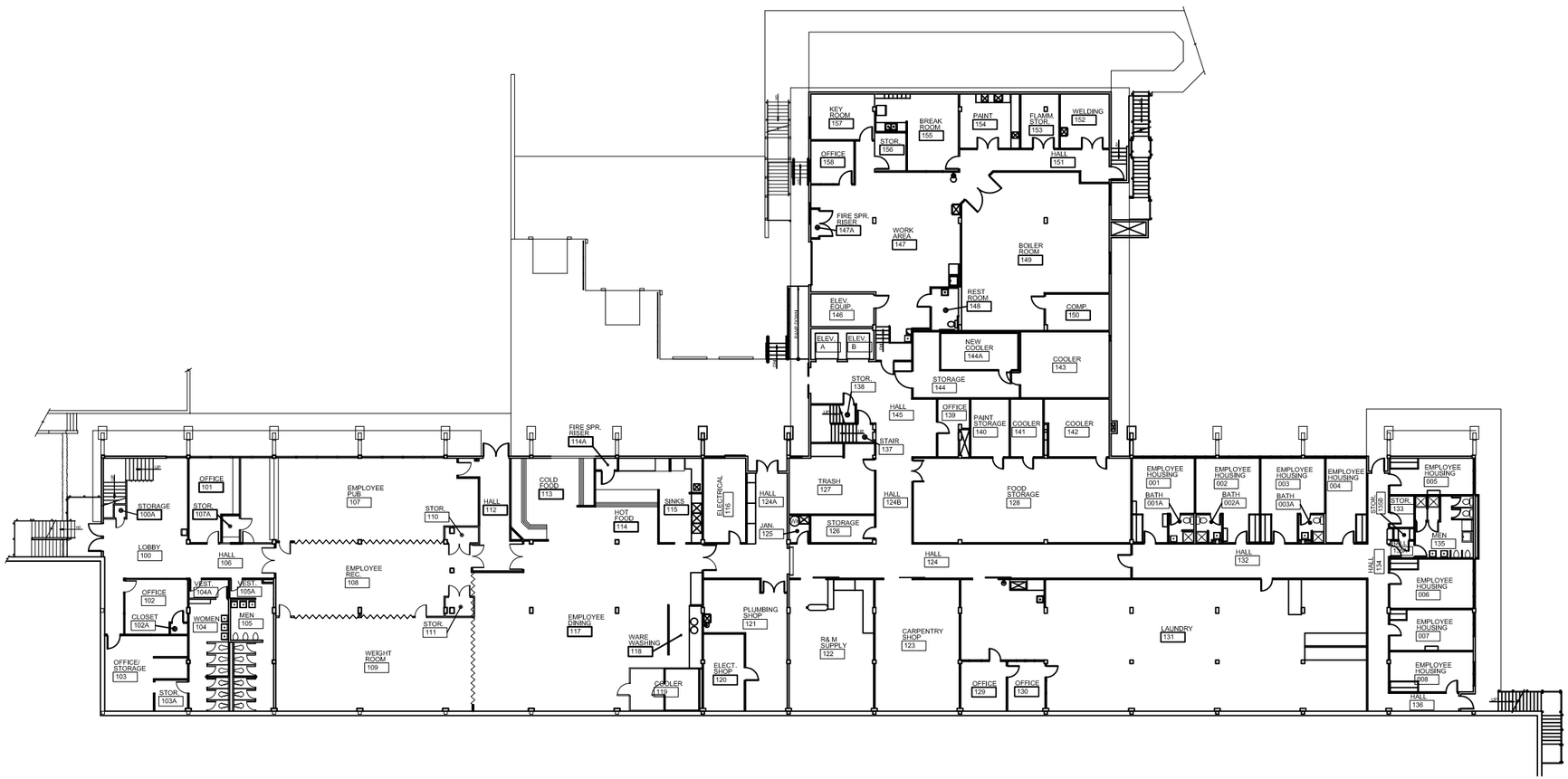
First Floor Lodge Plan

REF SHEET# Spaces

SHEET# A-2

Canyon Lodge – Lower Level (A-1)

Space	*Area (square feet)*	*Original Use*	*Current Use*
Lobby #100	538	Barber Shop	Stairs & Lobby
Office #102-103	589	Beauty Shop & Office	Offices
Office #202	202	Employee Bedroom	Office
Restrooms #104-105	600	Restrooms & Showers	Restrooms
Employee Pub #107	1,120	Laundry	Employee Pub
Employee Rec #108	659	Laundry	Employee Recreation Room
Weight Room #109	1,012	Laundry	Employee Weight Room
EDR #112-119	2,869	Laundry	Employee Dining
Rm #116-131	7,564	Electrical, Plumbing, Carpentry, & Storage	Electrical, Plumbing, Carpentry, & Laundry
Rm #132-136	2,955	Employee Housing	Employee Housing
Rm #139-144	1,250	Food Storage	Food Storage
Circulation in Kitchen Wing	816	Freight Elevators, Stairs, & Hallway	Freight Elevators, Stairs, & Hallway
Rm #147-158	3,729	Boiler Room	Boiler Room, Storage, & Offices



1
A-1

Canyon Lodge Lower Level Plan - Room Locations

1/32"=1'-0" on 11" x 17" sheet

NORTH REF.

Drawn By LMG
Checked By LMG
Date 02/28/2014
CTA # NPFCA13_HSR
Cad File: 04-001-P1

Canyon Village Lodge

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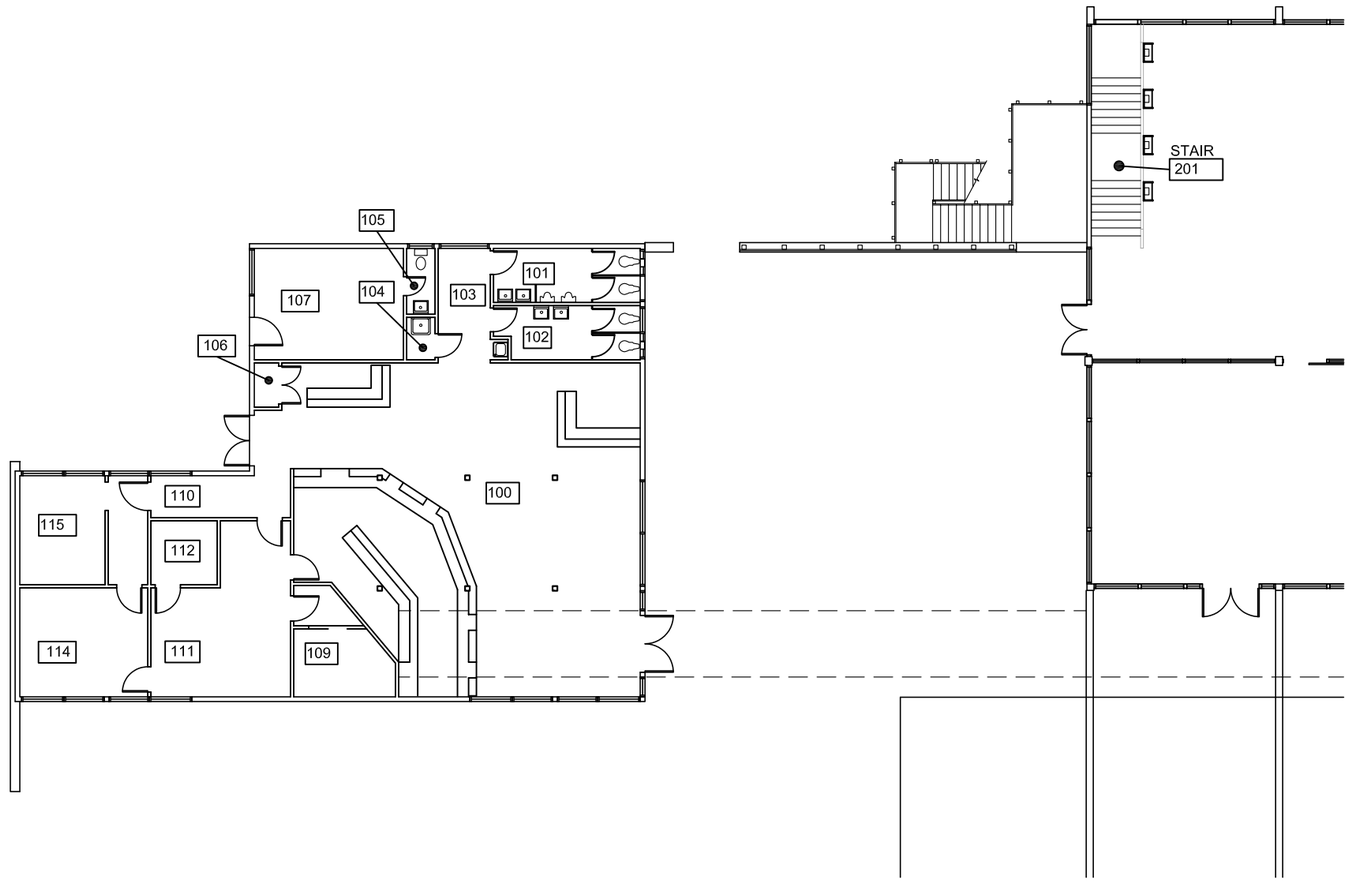
Lower Level Lodge Plan

REF SHEET# Spaces

SHEET# A-1

Canyon Lodge Administration Building (A-3)

Space	*Area (square feet)*	*Original Use*	*Current Use*
Lobby #100	1,230	Registration	Registration
Restrooms #102 & 102	186	Restrooms (2 stalls per sex)	Restrooms (2 stalls per sex)
Jan. #104 & Toilet #105	40	Janitor & Single Use Toilet for Exam Room	Janitor & Single Use Toilet for Office
Office #107	185	Exam & Waiting Room	Office
Office #109-115	762	Offices	Offices



1
A-3

Canyon Lodge Administration Building First Floor Plan - Room Locations

1/16"=1'-0" on 11" x 17" sheet

NORTH REF.

Drawn By LMG
Checked By LMG
Date 02/28/2014
CTA # NPFCA13_HSR
Cad File: 04-001-A1

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First Floor Admin. Bldg.

REF SHEET# Spaces

SHEET# A-3

Physical Description

General

The following physical descriptions examine the most prominent features of each building and are not intended to be a fully comprehensive account of all materials in the buildings.

Character-Defining Features

The primary aim of this section is to identify the character-defining features of the Canyon Lodge and Canyon Lodge Administration Building and related aspects of the site, with the intent of guiding the recommendations for their treatment. Character-defining features are those which represent intentional design decisions intended to convey a particular style and ambience, thus they contribute to the historic significance of the buildings and should be retained or reconstructed, if missing.

Modernist Design

The original design parameters associated with "contemporary" design[183] was publicly stated in May 1956: "All the public buildings are of heavy timber construction with high gable roofs, sheer glass walls and some native stone to be used for exterior facings. The large lodge building and recreation hall will feature heavy laminated beam high gable roofs. Transite varied colored panels will be used to accent the buildings."[184] (Note that Transite panels appear to have been originally supplanted with plywood.)

The materials used in the 1950's typically tended to be of good quality and well thought-out. The material quality stemming from the 1930's and 1940's extended into this mid-century period. Some materials were traditional, such as lath and plaster, ceramic tile, and wood shingles, whereas others were indicative of the experiments at the time. Some of these advances were in scale; for instance, the laminated beams were 92 feet long and moved onto the site in 46-foot long sections.[185] The improvements in glulam, plywood, and adhesive technologies allowed for greater use of these materials for exterior applications.

As typical with much contemporary design in the 1950's, the use of wood was prevalent as a way to provide warmth and texture, both hallmark features of the rustic design aspects of the Park Service Modern style. V-groove wood siding, wood trim, wood windows, and V-groove soffit boards were treated with a natural or clear finish to allow the wood grain to show. The vibrancy of the roof slopes is accentuated with diagonally-oriented wood siding at the gable end walls below the ridge lines. The plywood panels were painted – probably as an accent, and as a protectant for the wood plies. Rubble stone was used

[183] Canyon Village Construction Is First Park Expansion Job," Billings Gazette. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1.
[184] "Canyon Village Construction Is First Park Expansion Job," Billings Gazette. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 1.
[185] Huntley Child, Jr., letter to Frank Mattson, August 24, 1957. YNP-HRC, Coll. YELL 182386, Series 02A, Box 3, Folder 9.

minimally, at short wall sections and site retaining walls, to add textural variety and a visual reminder of the site's location.

The materials noted above are primarily what are considered natural (such as wood) or were treated minimally to celebrate their raw character. For instance, the wood was finished with transparent stains that showed the grain and character of the wood; the concrete plaza was of exposed aggregate that illustrated a principal natural component of the manmade material; and the concrete frame of the interior fireplace was unpainted, providing a true expression of this favorite material in the 1950's and 1960's.

The 1956 Specifications

The original 1956 specifications prepared by WBA, identifying products and construction requirements, are located at the Yellowstone Heritage & Research Center. Where current materials or construction techniques deviate noticeably from the specifications, it is noted below. For instance, the specifications called for wood shakes on the Canyon Lodge roof; since wood shakes appear in historic photographs and are currently on the building, the specifications are not distinctly referenced. Had wood shingles been on the roof instead – originally or currently – this would be discussed in the relevant section below.

The Plaza and Parking Lot

Canyon Village's configuration represented a substantial departure from prior developments in YNP. The general site arrangement has been likened to a shopping center of the 1950's. There are obvious similarities related to similar functions:

1. A large quantity of parking spaces required to accommodate the increased numbers of visitors' automobiles.
2. Buildings are located at the perimeter of the parking lot to make the manmade destinations visible and the access to them convenient.
3. Swaths of lawns to provide visual contrast to the vast amount of paving.

Subsequent analysis of modern-day (i.e., 21st century) criticism to the suburban parking lot appearance was addressed by NPS in their Canyon Visitor Center Environmental Analysis of 2001:

> There is no doubt that the Canyon Village development reflects the Mission 66 period in the National Park Service and achieved Yellowstone's Mission 66 goal of removing facilities from natural features. One knows upon entering the village plaza that this development is unlike any other in Yellowstone. While many would argue that a "strip mall" style is inappropriate in a national park setting, the development reflects the architectural thinking of the National Park Service and the American way of life during that time period. There was a sense at the time that anything "old" had no value or relevance in "modern" times. Everything modern was designed for convenience; it was important to obtain necessities quickly in order to get on with the business at hand. This thinking led to the concentration of facilities in one convenient drive-up location; the large,

boxy interiors of stores that were constantly rearranged to reflect changing trends; and the lack of detailing in construction (busy people had no time to stop and contemplate workmanship).[186]



Photo C-1: The parking area and roadways consume a lot of the acreage of Canyon Village. August 1958. Aerial photo courtesy of YNP-HRC Photo Collection #27102-1 (Jack Boucher, photographer.)

The NPS team involved with the original design referred to the area in front of Canyon Lodge as a "plaza," implying that it was meant to accommodate strollers and lounging. This treatment was akin to the landscape design in other national parks at the time. For the Furnace Creek Visitor Center in Death Valley National Park, "the effect was an open, level ground plane around the building complex that generally complimented [sic] the clean, horizontal lines of the architecture and created a contrast to the desert landscape."[187] Canyon Village's central development provided a similar contrast to the natural features of Yellowstone. Note that the site was extensively cleared during construction. Many of the early photographs clearly depict the building, whereas current images are obstructed by coniferous trees.

Exterior Massing

The exterior massing of the two buildings vary greatly, expressing the subordinate function of the Canyon Lodge Administration Building to the nearly ski-lodge presence of Canyon Lodge. Canyon Lodge is a massive building, with the main north-south mass 320 feet long by 61.5' wide, intersected by a cross-gabled kitchen wing that's 70' wide by 86' long. The building is similar to a bank barn built into the western hillside. The public enters at the raised grade on the west side, facing the parking lot. The employees and vendors enter at the lower

[186] Beth Kaeding, Diane Chalfant, Linda Young, Lon Johnson, and Doug Madsen. *Canyon Visitor Center Environmental Assessment*, February 2001, page 14.
[187] Furnace Creek Visitor Center, HABS CA-2860, page 28.

east side, where grade is some 13.5' lower. The soaring west slope rises to a height of approximately 30 feet above the west grade, containing large interior volumes at the first floor level (i.e. at grade). These 27'-high volumes are expressed at the north and south ends of the building; they are suppressed in the center of the building where intersected by the Kitchen Wing.

Roof Shapes & Materials

The primary roof is striking in its length and simplicity, as well as its structural connection to concrete thrust blocks that anchor the beams. The roof's west slope visually extends, via the glulam beams, 38'-6" out from the west face of the building. With a 4:12 pitch, this long slope is the gentler of the two, in stark contrast to the 12:3 steepness of the rear, east slope. This slope differential is dynamic.

The Kitchen Wing's symmetrical, 6:12, sloped gable roofs tie into the main roof slope several feet below the ridge, indicative of a subsidiary structure.

The roofing material on Canyon Lodge is of 24" long wood shakes, with seven-eighth inch thick butts, and an uneven surface. Such shakes – as opposed to thin, sawn shingles – provide rusticity to the simple structure.[188] The rough shingles – recently applied – were as originally specified, and help to hold snow against the roof.

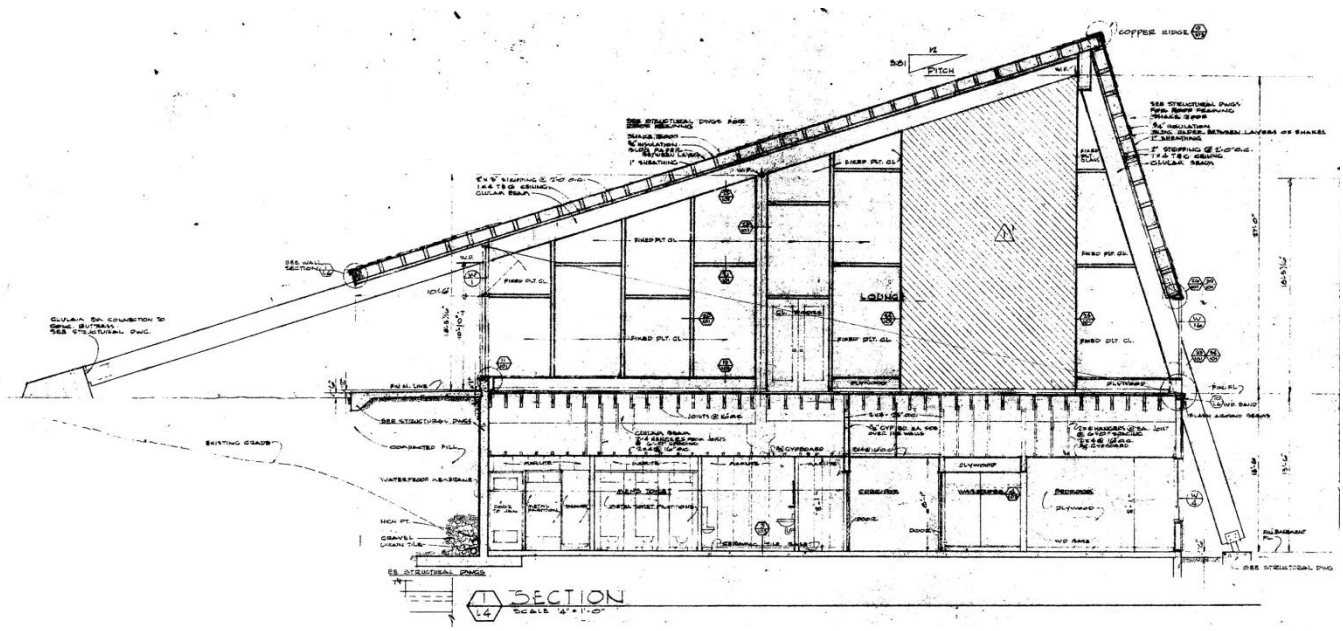


Figure C-1: The cross-section from Sheet L-4 of the 1956 drawings depicts the expressive strength of the glulam beams as they extend from interior to exterior and their impact on the vast interior volume of the Lounge. Section is looking north.

[188] WBA's early design proposal of a standing seam copper roof would have rafters appeared strikingly colorful and glossy, and would have caused snow slides.



Photo C-2: The different roof shapes are clear in this August 1958 photograph taken from a spot northeast of Canyon Lodge. Image courtesy of the YNP-HRC Photo Collection, YELL 29672-4.

The Canyon Lodge Administration Building has a nearly flat roof in contrast to Canyon Lodge. The ridge is perpendicular to that of Canyon Lodge, causing the north slope to rise up to the ridge and appear to salute the larger building to the south. The slight slope is visible at the gable end of the main west façade, where it is supported by deep wood rafters that extend beyond the fascia. The exposed ends of several of these rafters have been protected with sheet metal caps. The roof of the covered walkway between the Administration Building and Canyon Lodge is flat. Both of these roofs are protected with single-ply membranes; the Administration Building roof has gravel ballast.



Photo C-3: Wood shakes provide texture to the long slope of roof on Canyon Lodge. September 24, 2013.

The Glulam Beams

Along with, and as part of the roof, the glulam beams of Canyon Lodge are one of its primary distinctive features. The original design called for a natural finish for this wood, as relayed by NPS landscape architect Frank Mattson: "The finish proposed on the exposed portions of the large glulam rafters of the main building and recreation hall was discussed. These are to be the same inside and outside and a natural finish proposed. It was explained that in time the transparent finishes would not stand up unless maintained at least once a year."[189] The "PL G01" stain color (in the specified Plochere system; see page 138) is a taupe-brown that would replicate a natural wood color, while still providing some UV protection, and celebrating the grain and character of the wood.



Photo C-4: The expressive reach of the glulam beams at the west facade of Canyon Lodge, as seen in 1963. Image courtesy of the YNP-HRC Photo Collection YELL 29841-2.

The extension of the glulam beams into the vast interior volumes of Canyon Lodge are a hallmark of the modernist age, symbolizing a natural connectedness between the indoors and the outdoors. The large expanses of glass help support this visual experience.

Glulam beams had been invented in the late 1800s, with arrival of the technology in the United States in 1934, when Max C. Hanisch, Sr. of Germany founded Unit Structures in Peshtigo, Wisconsin. "Unit Structures" first contract was in 1934 for the Peshtigo High School gymnasium, the first building in the

[189] Frank Mattson, YNP landscape architect, office memo to YNP superintendent summarizing a meeting with the architect and contractor. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 3, Folder 2.

United States to use glued laminated timber."[190] The introduction of full water-resistant glue in 1942 allowed for exposed exterior use without concern for delamination.[191] U.S. Forest Products Laboratory in Madison, Wisconsin researched glued laminated timber extensively and published a systematic study in 1954; the study included recommended specifications for design.[192] This study and industry experience and enthusiasm for the product pre-empted the 1963 publishing of the first manufacturing standards. The product was well-received by the construction industry, for it allowed long spans with smaller cross sections of material, dimensional stability, and fire-resistance. Wood



Photo C-5: The covered walkway extending south from the Administration Building slides up to the protection of the Canyon Lodge roof. September 24, 2013.

provided an impression of warmth that steel could not. Sports facilities, churches, schools, homes, grocery stores, among many other building types, used glulam beams and bow-string arches to great advantage. "Between 1954 and 1963 the number of board feet of glued laminated timber produced in the United States more than doubled, increasing from 31,420,000 to 85,937,000 feet."[193] Canyon Lodge's 92-foot long glulam beams represented the ideal and intended use of this material during the product's period of increased popularity.

[190] Andrew McNall and David C. Fischetti, "Glued Laminated Timber," in *Twentieth-Century Building Materials* (Washington, D.C.: Archetype Press, Inc., 1995, edited by Thomas C. Jester), page 137-138.
[191] Wikipedia, "Glue Laminated Timber," accessed February 8, 2014.
[192] McNall, page 138.
[193] McNall, page 139.

An additional benefit for the Canyon Lodge project was stated clearly by Rilco Laminated Products in their 1961 catalogue:

> Because they arrive on the jobsite completely cut and drilled, assembly and erection of Rilco's structural members are remarkably simple and economical. Costly on-the-job cutting and fitting are eliminated by precision factory techniques. Rilco arches combine lightness in weight for easy erection with remarkable strength and rigidity.[194]

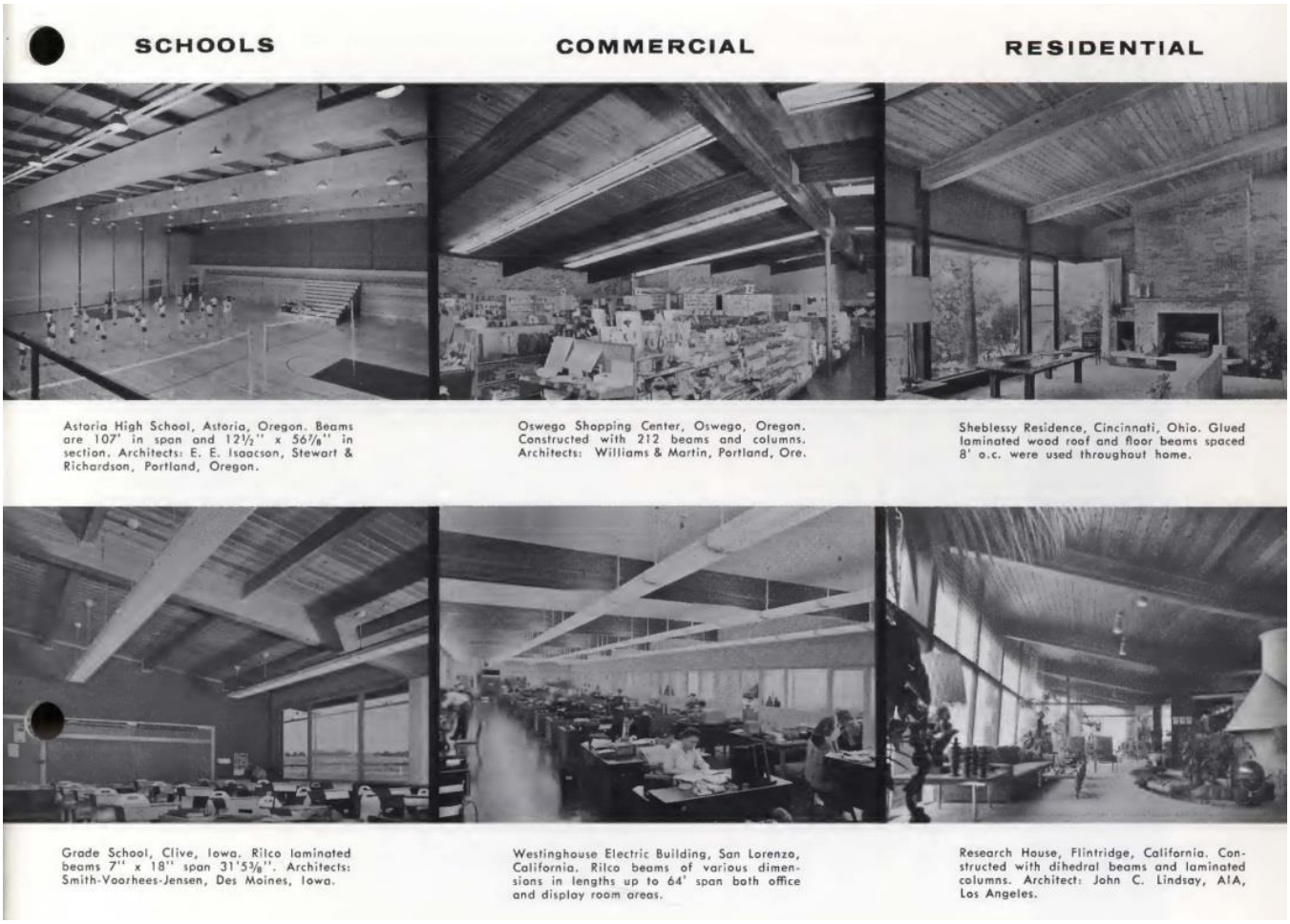


Figure C-2: Glulam beams were used throughout the country for a variety of building types, creating large open spaces that were often vaulted. Image courtesy of Rilco Laminated Products catalogue, 1961, page 11.

[194] Rilco Laminated Products catalogue, 1961, page 4.

Exterior Wall Materials – Stone

The exterior walls of Canyon Lodge are supported by the glulam beams, hence the wall infill varies from stone veneer to glazing to wood siding.

Rubble stone veneer is used as a strong planar component at the west walls of Canyon Lodge, and strikingly so as the north wall of the Administration Building. This north wall acts as both an anchor and a source of movement for this small building. The 1956 specifications call for "native travertine stone of random size and uniform thickness" yet it does not appear to be travertine; it appears to be a mix of granite and rhyolite, both stones commonly used in YNP.



Photo C-6: Administration Building, looking east along the north stone wall. The stone appears to be granite and rhyolite, stones commonly used in Yellowstone National Park. September 30, 2013.

The stone walls of Canyon Lodge are expressed on both the exterior and interior, relating strongly to the round stone chimney of the fireplace in the Lounge.



Photo C-7: The stone chimney extends through the Canyon Lodge roof, expressing the extension of the stone fireplace in the Lounge below. September 24, 2013.



Photo C-8: The stone fireplace provides warmth in the Lounge of Canyon Lodge. September 24, 2013.



Photo C-9: This August 1958 photograph was taken looking southeast at the Administration Building with Canyon Lodge's gable end rising up in the background. Image courtesy of the YNP-HRC Photo Collection, YELL 29672-8. Note also the irrigation system and grass lawn in the foreground.

Exterior Wall Materials – Plywood

The original specifications call for A-C exterior grade plywood to be installed above and below banks of windows. Joints are covered with vertical wood battens, similar to the battens used with the wood siding. However, the battens were painted dark, in contrast to the light color of the plywood. This treatment remains today. The vertical battens are 2-5/8" wide and 1½" thick; they align with the mullions of the windows above. The horizontal battens are 2" wide by ¾" thick.



Photo C-10: The north bay of the east elevation illustrates the use of plywood. This wall was recently modified to act as a shear wall. September 24, 2013.

Similar to the technical advancements made in the glulam timber industry, the plywood industry experienced the greatest growth after World War II and benefited from improvements in several manufacturing improvements. Upgraded glues and resins, along with electronic heating devices which "…enabled plywood adhesives to be cured at lower temperatures without changing the moisture content of the panels" made it a popular and durable material for exterior use.[195]

Exterior Wall Materials – Wood Siding

Wood siding with a natural finish was originally used to provide texture – through a variety of installation types - to the walls. At the two tall gable ends, diagonally placed 5½" wide V-groove boards clad both the interior and exterior faces of a 15'-wide wall section that extends from the floor level to the ceiling. Naturally finished, these components acted like fireplace hearths. The east gable end of the Kitchen Wing has diagonally placed boards (at the exterior) that mirror each other at the center line below the ridge.



Photo C-11: This August 1958 photograph of the south end of the east facade illustrates two of the different wood siding treatments on Canyon Lodge. Image courtesy of the YNP-HRC Photo Collection, YELL 29672-11.

Horizontally placed V-groove boards were fastened between battens at the east walls and on the Kitchen Wing. The spacing mimicked those of the windows, dividing the structural bays into four equal parts. These boards, and 2-5/8" wide x 1½" thick battens, were originally finished with a natural wood finish.

[195] Thomas C. Jester, "Plywood," in *Twentieth-Century Building Materials* (Washington, D.C.: Archetype Press, Inc., 1995, edited by Thomas C. Jester), page 134.

The boards are now painted a light color, in contrast to the brown paint of the battens.

Vertically placed V-groove wood boards are located at several of the infill bays of the west elevation. Their original natural wood finish treatment (it is assumed they've been refinished or touched up) remains, as they are in a protected area under the roof overhang. These two wall sections were replaced in 2012 to convert them to shear walls. Detail 16/A6.2 of the 2012 drawing set #101/71804 indicates that the interior and exterior wall boards ("1x4 vertical tongue-and-groove siding") were to be reinstalled and painted to match the existing. The soffit boards are clear finished tongue-and-groove 3¼"-wide boards; some of the finish has worn and some of the boards are slightly warped.



Photo C-12: This board finished exterior wall was rebuilt in 2012 to provide resistance to shear loads. September 24, 2013.



Photo C-13: The soffit boards of the east overhang are tightly fit tongue-and-groove boards with a clear finish that has worn. The light appears like those in historic photographs, with original sheet bronze housing.

Exterior Wall Materials – Glazing

Glass is used in three primary ways at the exterior: filling large gable-end areas with large panes set in wood mullions; in ribbons of glazed areas set within the four-part wall areas of the structural bays; and as a wood-framed curtain wall at the west elevation.

The curtain wall is set on a concrete curb a few inches above the concrete paving. Operable transoms above help ventilate the building, when combined with opening of the first floor awning windows located at the base of the east wall. As with the east wall windows, the mullions divide the wall into four equal units within the structural bay.

All the glass is single-pane, set with wood stops. All the wood – interior and exterior – is painted dark brown. In the public areas, the windows on the east side have a large fixed unit over an out-swinging awning. Many of these original awning windows have been replaced with aluminum sliding sash units. Some of the east side windows – such as those at the Kitchen Wing – have fixed transoms above a series of divided lites.

The building's location – purposely removed from the Grand Canyon of the Yellowstone – provides no spectacular views. The glazing instead provides views of the parking lot to the west and pine trees to the east, while bringing in vast amounts of natural light. This effect is compounded by the expansiveness of the interior volumes of the public spaces.

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Photo C-14: The gable ends are glazed with large single-paned plate glass set into wood mullions. Cross mullions, set at approximate thirds, create a gently playful wall pattern. September 30, 2013.



Photo C-15: The wood-framed storefront at the west facade features large fixed panes of glass with operable transoms above. September 30, 2013.

The windows of the Administration Building are established on a similar rhythm, yet feature one single fixed-pane over one operable out-swinging hopper. The window details are consistently applied to both buildings, with identical profiles.



Photo C-16: The Kitchen Wing's height allows for a window configuration with a transom over two fixed units over two awnings (not sliders). September 24, 2013.



Photo C-17: The horizontal V-groove wood siding and large windows at the Administration Building. September 24, 2013.

Covered Walkway

The flat-roofed canopy that provides cover from the Administration Building to Canyon Lodge is a simple structure, with simple wooden beams supported by wood posts. The furthest north beam originally extended further west, to provide support for the hanging sign announcing the Administration Building.



Photo C-18: 1957 Haynes slide looking north toward the Administration Building, depicting the strength of the colors in the composition. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo C-19: Current image looking north toward the Administration Building, under the protection for the walkway. September 30, 2013.

Outdoors-to-Indoors Connection

A strong, hallmark, feature of mid-century buildings is the expressive connection made between the exterior and interior of a building. This type of feature was promoted by Frank Lloyd Wright in his Usonian style residences as early as the 1930's. Yet both Canyon Lodge and the Administration Building present this concept on a broad public scale which ties in neatly with the glulam beams and large areas of glazing used.



Photo C-20: Canyon Administration Building. The cover of the walkway slides right into the building at the entry, where it remains expressed. September 24, 2013.



Photo C-21: Canyon Lodge. The extension of the large glulam beams from interior to exterior is visible through the glazing. September 30, 2013.

Wood Doors

The exterior wood doors for both buildings are fully glazed leaves – mostly paired – with birch veneer. Many have been replaced, but appear to replicate the original in appearance, with maximum glazing provided and simple cross bars.

Interior Structural Expression and Volume

The interior volumes of the finished public spaces on the first floor of Canyon Lodge are defined by the structure. The structural glulam beams are supported on the interior by just one row of wood columns (9" x 11¼") at the center of the long western beams. The full span of nearly 59 feet is expansive at the twenty-seven-foot height.

Interior Finish Materials – V-Groove and Ship-Lap Boards

The interior of the finished public spaces on the first floor of both buildings is primarily of natural wood members; the variety of treatment is similar to that of the exterior. The ceiling finish, of 1x4 tongue-and-groove boards mounted to the bottom of the rafters, appears as if roof decking. In Canyon Lodge, similar ship-lap boards are typically oriented vertically when on cross walls and horizontally, when on walls between beams and lower wall partitions. Most of the wood had a clear natural finish originally, except for the white background boards of the walls above the cafeteria line. Some wood currently has a clear finish, with a slight green tint and some with a cloudy translucent finish, whereas other wood is now painted.



Photo C-22: The ceiling of the Administration Building is finished with 3 1/2" wide tongue-and-groove V-groove boards with a cloudy clear finish. September 24 2013.

At the two tall gable ends of Canyon Lodge, diagonally placed 5½" wide V-groove boards clad both the interior and exterior faces of a 15'-wide wall section that extends from the floor level to the ceiling. These are currently of a clear finish.

Interior Finish Materials – Plywood

Plywood is a material firmly attached to the 1950's and 1960's for its prevalent use for structural panels, interior finishes, and furniture. It appealed to the 1950's sensibilities and the desire for a quickly made, inexpensive, and durable material of wood. Painted plywood was used extensively on the exterior of Canyon Lodge; clear-finished plywood was used on the interior of the both buildings. Its use at the face of the service counters of the Administration Building represented a typical 1950's use of this ubiquitous material. While it isn't known what type of veneer cut was used for the face, it did have the type of glossy finish typical of fine furniture.

Factory-finished panels were responsible for an increase in the residential and commercial markets for plywood. The U.S. Plywood Corporation first introduced Plankweld in the mid-1940s; these prefinished hardwood panels were used extensively in the 1950s. "Other prefinished products included striated panels, such as U.S. Plywood's Weldtex, with V-grooves.[196] The use of plywood as a fine finish material was continued when the northeast stairway was added to the Canyon Lodge Lounge in 1960.

[196] Jester, page 135.

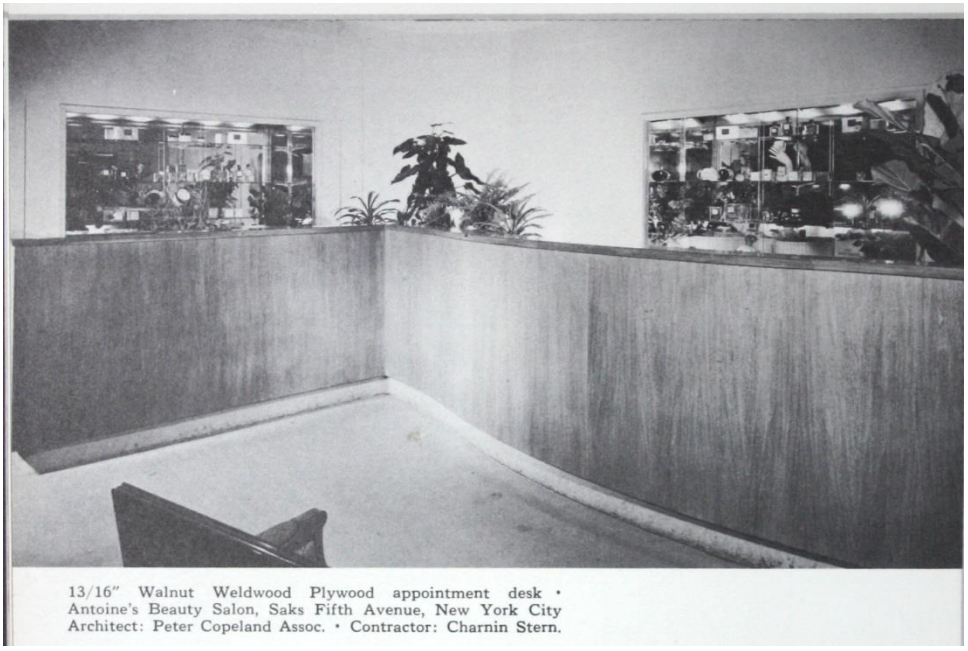


Photo C-23: Weldwood plywood panels, such as advertised in their 1957 catalogue, were used to face the reception counter in the Administration Building. Image courtesy of United Stated Plywood Corporation, 1957.



Photo C-24: Plywood panels provide the natural finish for the 1960 stair inserted into the northeast corner of the Canyon Lodge Lounge. September 24, 2013.

Interior Finish Materials – Translucent Wall Panels

A translucent wall "screen" system was used at the north end of Canyon Lodge on both floors. At the first level, the screening carved out a space for the Photo Shop and Gift Shop and another wall section was used to cordon off the bar from the Lounge. In the lower level, the wall system provided transparent walls for the Barber Shop at the northeast corner where the stairs are now and for the Beauty Shop directly west. The wall sections were detailed on the drawings, providing mullions similar to those at the windows. Each structural bay contained four sections. The vertical height of 8'-3½" was divided evenly into four narrow sections as well, creating a strong horizontal emphasis to these low height walls. This horizontal emphasis was accentuated by the use of sliding glass doors, each with four horizontal glass panes. Some of the wall panels were translucent plastic which transmitted light.[197] The panels at eye level and in the doors were clear glass.

At the Gift Shop (which now includes the original Photo Shop), the translucent plastic panels have been replaced with opaque panels and additional panels have been added to the top of the walls, increasing the height to 10'-4½". The panels in the Beauty Shop (now Office #102) have been filled in with acoustical panels. The wall – with sliding door – that accessed the original Bar (now Dining Room #205) has been removed.



Photo C-25: The low paneled wall intersecting the Lounge was originally translucent and clear, to lessen the visual impact of the wall defining the Photo Shop & Gift Shop (right at left slide; left at right slide). The view to the north, at right, is barely obstructed by the low translucent wall. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

[197] The screen walls were specified as Mist Clear translucent plastic set in wood stops, fastened with chrome plated oval head screws set in chrome plated finishing washers. Specification Section XVIII – Finish Carpentry & Millwork, page 15.

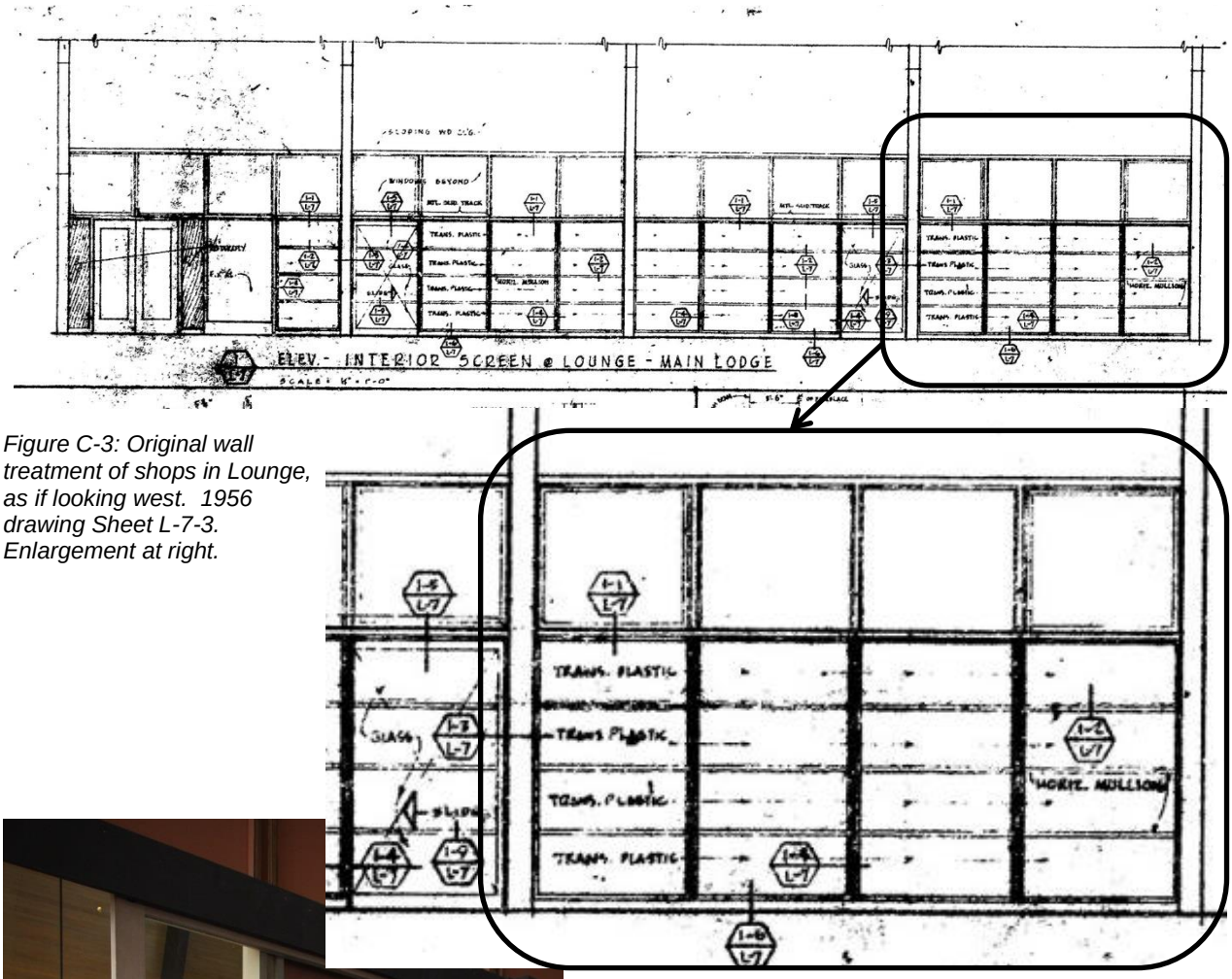


Figure C-3: Original wall treatment of shops in Lounge, as if looking west. 1956 drawing Sheet L-7-3. Enlargement at right.



Photo C-26: Sliding glass door at the Gift Shop. September 30, 2013.

Fireplace

A circular stone fireplace provides a hinge at the intersection of the Lounge and the original Bar of Canyon Lodge. A large, impressive structure, it appears to be built as detailed in the original construction drawings, with a strong horizontal emphasis of the hearth contrasted with the strong verticality of the tapered round stone chimney. The thin stone-clad hearth is raised approximately 1'-6" above the finished floor, seemingly "spanning" across the heavy concrete frame. The firebox itself is contained by the standing seam copper hood that's curved, reflecting the circular stone-clad flue above. Originally, seating was oriented toward the hearth, whereas now circulation space is provided here for access to the bar. The concrete frame was originally unpainted, adding a robust structural strength to the assembly, a common treatment in the1950's; it has since been painted dark brown.



Photo C-27: 1957 Haynes slide of the original appearance of the hearth at the south end of the Lounge. Slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo C-28: Current appearance of the hearth. The most noticeable modification is the painting of the concrete frame. September 30, 2013.



Photo C-29: Sunburst clock at the north wall of the Canyon Lodge Lounge. September 24, 2013.

Interior Finish Materials – Line Art & Sunburst Clock

The line art, as described in the chronology of Canyon Lodge, is no longer extant. However, ghosting might be evident below paint layers and could greatly aid in reconstruction, when supplemented by historic images.

The golden-colored sunburst clock located at the north wooden wall at the gable end of the Lounge is depicted in the earliest images of the completed Canyon Lodge. It was originally matched with a sunburst, in line art, on the north and south upper walls of Dining Room #206 originally. In addition, a clock comprised of colored wood dots adorned the south wooden wall of Dining Room #217. It has since been removed; a single wooden disc remains centered high on the wall, most likely covering the mechanics for the arm or an electrical junction box.

Interior Finish Materials – Wood Block Flooring

Most of the flooring has been upgraded, covered, or replaced throughout both buildings. Original wood block flooring remains, covered with wall-to-wall carpeting, in the Canyon Lodge Lounge and Dining #205 (original Bar). This flooring was specified as "End Grain 'Worthwood' Flooring in strips 2" thick and 4½" wide, of blocks 1-3/8" to 1-7/8" x 4½" face." Two exposures[198] were made to uncover this flooring, revealing: end grain strips 1¾" thick and 4½" wide, of blocks 1-3/8" x 4½" face. The strips are laid in parallel 4½" rows, with staggered joints. The wood appears to be fir or pine, with a rich clear finish obscured slightly by the glue from the carpet pad.



Photo C-30: Original End Grain flooring remains in the Canyon Lodge Lounge. September 24, 2013.

[198] Northeast corner of the Lounge, where the stairs butt into the exterior wall; and the northwest corner of Dining Room #205, adjacent to the exterior wall.

Wood block flooring had been used for centuries, as street paving and for warehouse and factory buildings which sustained heavy impact loads. An architectural construction book published in 1958 provided the following design guidance: "The end gain of wood blocks makes an excellent wearing surface but collects dirt. The blocks are used in industrial buildings, residences, clubs, gymnasiums, and hotels with the exposed surface sanded, waxed, and polished to gain a desired effect."[199]

The construction specifications called for setting the flooring on the subfloor, in asphalt mastic and not nailed, which was one of the two common installation methods. Two-inch expansion joints were provided at the edges and adjacent to vertical components such as columns. The flooring was to "…be sanded at the factory and smoothly sanded after installation. Brush and clean off all dirt, refuse or stain and immediately finish with two coats of penetrating filler and seal of maximum moisture resistance which will make a non-slip surface."[200] The finish schedule on Sheet 100 of the original construction drawings identifies the finish as "J" which is two coats of stain, color unknown.

Bar

The original bar was shortened in 1964 and relocated to the southeast corner of Lounge #200. The backbar and mural were not relocated. A ¼" thin veneer was added to the face of the bar in 1997. The remainder of the bar finishes – plastic laminate top, vinyl arm rest, and toe kick – are original. The current brass toe rests and bars are not apparent in the early photographs. The general 1964 configuration of the bar remains.



Photo C-31: The bar remains in its 1964 configuration.

Furnishings

With the large amount of glazing in both buildings, curtains were provided to control solar glare. The early photographs indicate that the curtains had decorative patterns that were probably colorful. It is known that the curtains for motel units were pink, grey, green, Algiers, Morocco.[201] Some of the curtains appear to have been sheers.

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[199] Harry S. Parker, Charles Merrick Gay, and John W. MacGuire, *Materials and Methods of Architectural Construction* (New York: John Wiley & Sons, Inc., third edition 1958), page 183.

[200] Welton Becket and Associates, 1956 project specifications, Section XVIII, Revised July 16, 1956, page 11 and 12. Note that the specified "Worthwood" is now provided by the Oregon Lumber Company, in business since 1962. This end-grain product is made from recycled timbers and comes in 3¼" to 4-5/8" widths and varying thicknesses. http://www.oregonlumber.com/end-grain-and-ply-floor-and-wall/worthwood-solid-end-grain-unfinished, accessed February 10, 2014.

[201] Telegraph to Huntley Child, Jr., February 25, 1958. YNP-HRC, Coll. YELL 185385, Series 02-B, Box 9. Folder 2.

Colorful chairs, tables, and couches are evident in the colored slides produced by Haynes Picture Shop when the buildings opened. One original orange couch from the Lounge remains in the lower level Office #102.

Colorful, lightweight curtains complement the colorful light fixtures.



Photo C-32: Looking south past the original Coffee Shop toward the Cafeteria. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo C-33: The curtains in the Dining Room appear to match those in the prior figure. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Photo C-34: An original Lounge couch remains in the lower level Office #102. September 24, 2013.

Walkway Cover/Soffit

The exterior covered walkway connecting the two buildings continues into the Administration Building, leading directly to the registration desk. This directional component provides a cleanly articulated connection. It is wood-framed and trimmed, features a V-groove board finish, and has recessed lighting with concentrically frosted lenses typical of the period.

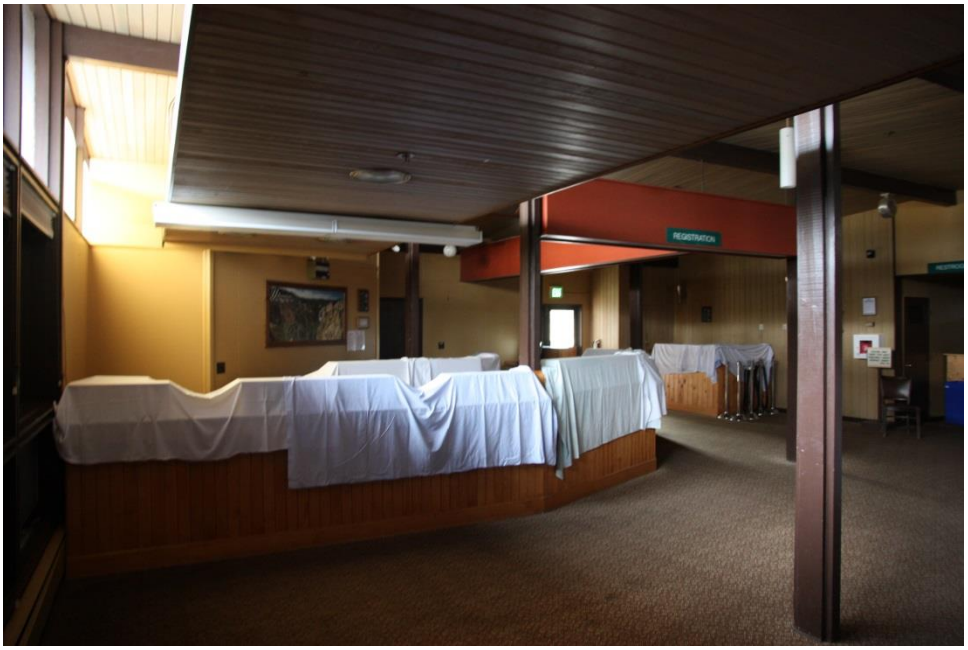


Photo C-35: The exterior cover extends into the Administration Building, leading to the registration desk. September 30, 2013.



Photo C-36: The interior soffit extends out of the Administration Building, leading to Canyon Lodge. September 24, 2013.

Light Fixtures

The light fixtures in both Canyon Lodge and the Administration Building are emblematic of the 1950's. Of particular note are the colorful "star" chandeliers in Canyon Lodge and the light boxes over the registration desk in the Administration Building. These fixtures provide light and act as decorative sculptures, akin to the mobile craze of the 1950's. The original steel box fixtures remain, yet have been painted white, lessening their contribution to the colorful unity that originally existed. Color exposures remain at some of the fixtures.

Metal atomic style pendants, plastic cylindrical pendants, and glass concentric lenses for recessed fixtures were typical off-the-shelf fixtures used in the Administration Building.



Photo C-37: Chipped paint on fixture in Gift Shop reveals the original color of this arm of the star chandelier.







Photo C-38: Light fixtures in the Administration Building. September 30, 2013.

Colors

Many of the above descriptions include an emphasis on the original colors and the texture or dynamism they impart. Paint color selection was intended to be a lengthy discourse – as expected - with WODC and YNP. YNP superintendent Garrison believed that standards were necessary and hoped that WODC would help in creating them.[202] It is known that the window trim and doors of the cabins were "…painted strong hues of red, yellows, and blue-greens."[203]

In 1958 or 1959, NPS landscape architect Mattson, opined: "In the writer's opinion, the brilliant splashes of colors selected by the concessioner's architect for the outside of the Canyon buildings could be improved a great deal. We recognize we are in an era of 'gay' colors, but they also need to be correct. The structures are not in themselves the important features of the park."[204]

Dynamic colors were an integral component of the architecture at the exterior and interior of Canyon Lodge and the Administration Building, achieving a sense of vibrancy typical of the 1950's through 1960's. The hues were similar to those in the cabins, predominantly orange, yellow, and turquoise.



Photo C-39: Colorful "star" chandeliers and chairs brightened up Dining Room #217. 1957 Haynes slide courtesy of the George & Kathryn Bornemann Yellowstone Collection.

[202] Superintendent Lemuel Garrison, letter to regional director, February 6, 1958. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.

[203] Lemuel Garrison (YNP superintendent), letter to Glacier National Park superintendent, November 30, 1956. YNP-HRC, RG04, Series 02-B, Box 3, Folder 9.

[204] Frank Mattson (assumption), undated memo. YNP-HRC, Coll. YELL 182386, Series 02-A, Box 5, Folder 11.



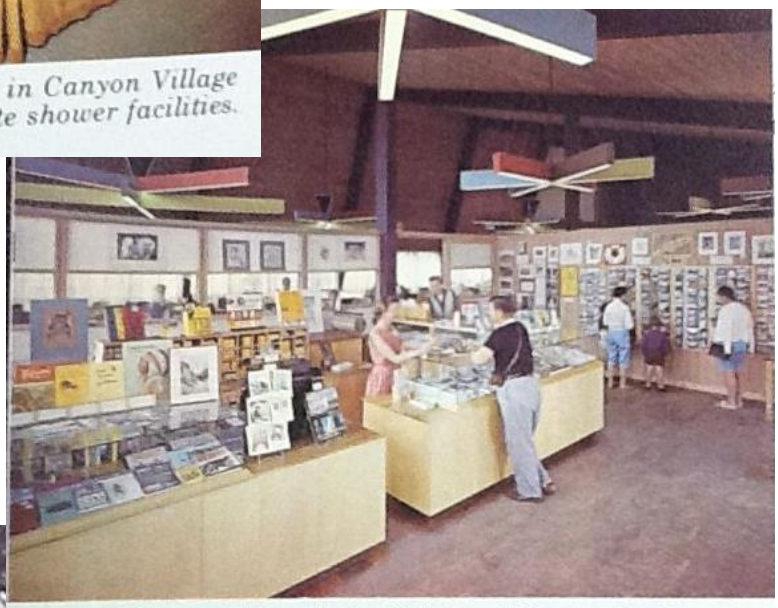
Photo C-40: 1957 Haynes slide showing the orange fascia that accentuated the long horizontal roof edge. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.



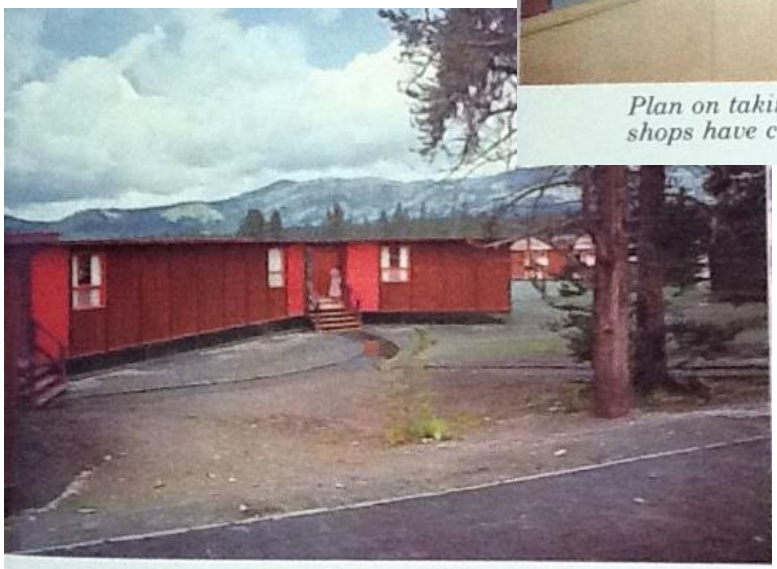
Photo C-41: 1957 Haynes slide of the Administration Building, with orange color contrasting with the dark brown colored structure. Image courtesy of the George & Kathryn Bornemann Yellowstone Collection.



Every modern motel-type unit in Canyon Village has hot water heat and private shower facilities.



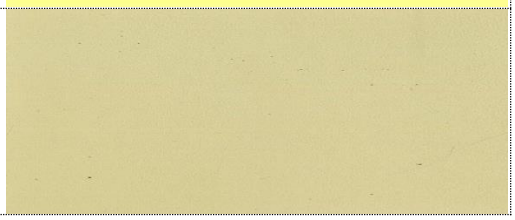
Plan on taking plenty of pictures! Haynes Studio shops have complete camera supplies, postcards.



Motel-type units at Canyon Village are attractively arranged in clusters among the tall pines.

Figure C-4: String of colorful images boasted by YPC in their 1957 publication "Yellowstone National Park: This folder Issued by Yellowstone Park Company," which encouraged tourists to "Be sure to visit modern, new Canyon Village – a MISSION 66 project." Image courtesy of the YNP-HRC Photo Collection, YELL 127179,

The 1956 construction drawings and specifications provided colors and finishes based on the Plochere color system based in California. The following specified colors were provided by Plochere.[205]

Location	*Specified Plochere Color #*	*Specified Color Card from Plochere*
Beams & Columns-Posts; Battens	PL G01 Stain	
Horizontal & Vertical Siding	PL G6 Stain	
Fascias – Roofs & Covered Walks; Stairs – Handrails & Fascias; Color Panel Rear of Kitchen	PL 6 Paint	
End Panels Diagonal Sheathing at Lodge; Plywood Panels	PL 94 Stain	

The orange colors seen at the exterior wood fascias of each building and the connective covered walkway were apparently not specified and were probably determined during the course of construction, in an effort to provide continuity of color between the exterior and interior of each building.

Note: The colors shown above are not accurate representations of the color cards provided by the Plochere Color System company, as they are modified by the limitations of printer technology.

[205] The Plochere Color System, started in 1948 in Los Angeles and still extant, have provided the color cards that match those specified. Their records indicate that they sent WBA color system boxes from March 17, 1952 through October 24, 1966.

Condition Assessment

General

This section addresses the deficiencies identified in the Facilities Condition Assessment including structural elements, electrical, heating, fire and smoke detection equipment, water and waste water systems. Many of the components discussed are character-defining features which – as visible manifestations of their Mission 66 heritage – should receive a higher level of care and associated priority. The following assessment provides a brief description for each component and a statement of condition. The recommendations for treatment are compiled in Part 2. Treatment and Use.

Survey Methods and Analytic Standards

The architectural, structural, mechanical, electrical, and civil existing conditions surveys were performed in Fall of 2013, by DJ&A and CTA Architects Engineers. The results of these surveys – in their multiple spreadsheet form - have been submitted as a separate Facilities Condition Assessment to the National Park Service; due to their large volume (more than four hundred 11" x 17" sheets for Canyon Lodge alone), they are not included herein and are only referenced. The results are summarized and highlighted herein.

Condition Definitions

The components are evaluated, using the following terms:

Good Condition:

- The feature is intact, structurally sound, and performing its intended purpose.
- There are few or no cosmetic imperfections.
- The feature needs no repair and only minor or routine maintenance.

Fair Condition:

The feature is in fair condition if either of the following conditions is present:

- There are early signs of wear, failure, or deterioration, although the feature or element is generally structurally sound and performing its intended purpose. – or -
- There is failure of a subcomponent of the feature or element. This is generally classified as requiring:
  - ~ Replacement of up to 25 percent of the feature or element.
  - ~ Replacement of a defective subcomponent of the feature or element.

Poor Condition:

The feature is in poor condition if any of the following conditions is present:

- The feature is no longer performing its intended purpose. – or -
- The feature is missing. – or -
- The feature shows signs of imminent failure or breakdown. – or -
- Deterioration or damage affects more than 25 percent of the feature and element cannot be adjusted or repaired.

Severity Impact Level Definitions

For the purposes of the HSR, an "impact" is defined as a detectable result of an agent or series of agents having a negative effect on the significant characteristics or integrity of a feature or structure and for which some form of mitigation or preventative action is possible. The condition assessment includes only those impacts likely to effect the structure within the next five years.

The Level of Impact Severity and their definitions are given below. For all levels, except unknown, two criteria are given. At least one of the criteria must be met for the declared Level of Impact Severity. Most items at Canyon Lodge and the Administration Building are of minor or no severity; those with greater severity levels are listed first. Where no severity level is listed, the level is "low" or "none."

SERIOUS	1. The structure/feature will be significantly damaged or irretrievably lost if action is not taken within two (2) years. 2. There is an immediate and severe threat to visitor or staff safety.
MODERATE	1. The structure/feature will be significantly damaged or irretrievably lost if action is not taken within five (5) years. 2. The situation caused by the impact is potentially threatening to visitor or staff safety.
LOW	1. The continuing effect of the impact if known and will not result in significant damage to the structure/feature. 2. The impact and its effects are not a direct threat to visitor or staff safety.
NONE	The component is in good condition; regular maintenance is all that is required. There is no threat to loss of material.
UNKNOWN	Not enough information is available to make an evaluation.

Preventive & Recurring Maintenance

The Facilities Condition Assessment is formulated to identify the conditions that need immediate attention (component renewal), those that should receive recurring maintenance, those that need preventive maintenance, and those for which maintenance has been deferred.

The type of components that typically need preventive maintenance are those that are heavily used, have parts that wear, and whose failure can negatively impact the safety of the users. The assessment identified the following inspections as preventive maintenance items:

Regular Inspections as Preventive Maintenance

1. Inspect lobby fireplace flue and gas log in Room #205. Record and monitor any cracking.
2. Provide yearly preventative maintenance and safety inspection of each of two freight elevators.
3. Inspect electrical panel feeder and branch circuits for overloading. Use an amp meter to verify that the existing feeder and branch circuits are not overloaded.
4. Inspect egress lighting operation.
5. Inspect exit signage operation.
6. Inspect fire alarm system operation.

Maintenance

As with any building, regular maintenance is required to ensure that components last as long as they are designed to. The following components need to be maintained regularly:

1. Protective coatings – paint, polyurethane.
2. Floor coverings – carpeting, vinyl tile, ceramic tile.
3. Wearing door parts – hardware, weatherstripping, smoke seals.
4. General cleaning and lubricating.
5. See additional specific requirements in the sections below.

Order of Presentation

The evaluations are separated into Architectural, Structural, Electrical, Plumbing, and Mechanical Systems for each building, with Canyon Lodge being addressed first. Within the Architectural Assessment, Exterior precedes Interior; each is organized from the base of the building up to the roof.

Canyon Lodge Condition Assessment

Canyon Lodge General

General Physical Description

Canyon Lodge is a two-story, wood-framed visitor facility. It was built in 1957 and is used in the summer season only. The building's current use is consistent with its use historically. This building is a concessionaire-operated facility.

The Main level (first floor) consists of visitor dining facilities, a lounge, a commercial kitchen, and a gift shop. The lower level consists of support spaces for the building's mechanical and electrical equipment, repair facilities, employee dining, recreation and dormitory facilities, food storage facilities and linen storage.

The building has a ground level footprint of 25,422 square feet. The total square footage of the building is 59,756, excluding attic mechanical space.

The exterior and most of the public areas of the upper level of the building have been renovated in recent years. The main kitchen and staff areas are now due for a complete renovation, including systems' upgrades, within the next five years.

Environmental Concerns

Underground Fuel Tanks

None reported.

Asbestos

None reported. Because of the age of this building, testing should be performed prior to any contemplated work in areas where asbestos-containing materials may be disturbed.

Lead Based Paint

None reported. Because of the age of this building, testing should be performed prior to any contemplated work in areas where existing paint coatings may be disturbed.

Life Safety Concerns

Refer to the Structural, Mechanical and Electrical portions of this assessment for discussion of concerns related to structural systems, plumbing systems, mechanical systems, fire protection systems and electrical systems.

Code requirements for historic structures differ from those for new construction. If any significant renovation is contemplated for this structure, a thorough code analysis using the *International Existing Building Code* should be performed, starting with the analysis that follows in Part 2. Treatment and Use: Requirements for Treatment of this report. All proposed work should be reviewed with the Authority Having Jurisdiction.

The exterior stairs located at the north and south ends of the building have recently been reconstructed. Presently they do not meet current code with respect to number of handrails provided, the mounting height of handrails, and the requirement for guardrails.

Handicapped Accessibility

The upper level of the building is handicap accessible. The main level public areas and entrances are fully accessible and the restrooms have been renovated to fulfill ADA requirements.

The lower level has entrances that are accessible. The public restroom facilities at the north end of the lower level are not accessible and none of the employee dorm rooms are ADA-compliant. It is permissible to provide handicap dorm rooms in other buildings near Canyon Lodge.

Civil and Site

The site west of the building is relatively flat with surface drainage directed away from the building. Grade slopes down to the east at the north and south ends of the building and then trends to the southeast away from the east areas of the building.

Concrete sidewalks surround the majority of the exterior of the building and are in good condition. The area west of the building is paved public parking. The sidewalk parallel to the east elevation of the building does not drain well.

Canyon Lodge Exterior Architecture

Architecture - Exterior

General

Most of the materials meant to be exposed at the exterior, first floor level, and Office #102 on the lower level of the building are considered character-defining features of the building (See Part 1. Developmental History: Physical Description). The majority of the photographs used herein are extracted directly from the 2013 Facilities Condition Assessment, with associated numbering system (keyed to the spreadsheets).

Foundation

Description:

The foundation system consists of cast-in-place concrete foundation walls assumed to bear on conventional spread concrete footings around the perimeter. The top of the foundation walls extends up to the bearing elevation of the main floor level on the west and portions of the north and south sides of the building. The lower level floor is concrete slab-on-grade construction.

Condition: Good.

Exterior Wall Systems

Description: The exterior wall system is wood frame construction. Walls are wood studs with board sheathing. The exterior finish is a combination of original materials: painted plywood siding, wood tongue-and-groove siding, and stone veneer.

Condition: Good - the finishes are wearing and should be maintained.

Exterior Openings - Doors

Description: Exterior door openings consist of wood doors in wood frames. Some are finished with an opaque paint, whereas others have a clear finish. Two large sliding doors from the loading to Rooms #145 and 147 are clad in flat-seam sheet metal (this is an original treatment).

Condition: Good.

Minor conditions related to regular maintenance are as follows:

1. Rooms #200, 202, 205, 216, 217, 134, 135, and 151: The exterior and interior finish of the doors has worn.
2. Rooms #134, 136, and 151: The exterior and interior finish of the doors is wearing.
3. Rooms #226, 233, 112, and 124A: The paint at the exterior and interior of the doors is beginning to wear.
4. Room #145: The exterior and interior paint of the metal-clad sliding doors is wearing.
5. Rooms #200, 205, 216, and 217: The exterior doors of the first floor are noted as not having panic hardware as required by code. See Code Analysis in this HSR for interpretation of the IEBC, whereby panic bars

are not required. The Facilities Condition Assessment identified this as a serious item.

6. Rooms #200, 202, 205, 206, 215, 216, and 217: Weatherstripping is damaged and/or missing at the first floor exterior doors.

Exterior Openings - Windows

Description:

The majority of the exterior windows are single-glazed consisting of fixed, transom, and awning wood units. Several of the awning units have been replaced with aluminum sliding windows.

Condition: Original units – Good; the paint is wearing. Aluminum sliding units: Fair.

Soffits

Description: The wood soffits are finished with tongue-and-groove boards. The boards at the deep soffit that overhangs the west side of the building have a clear finish; the rest of the soffit boards are painted.

Condition: The paint and polyurethane finishes are in good condition.



Photo C-42: Exterior soffit, Facilities Condition Assessment Photo #A6537-031-1.

Roof Systems

Description: The roof is framed with wood, in a modified A-frame consisting of wood columns supporting wood beams and purlins. The roof system on the east wing is of conventional geometry but the same construction type. The majority of roof decking is board sheathing with isolated locations of tongue-and-groove wood deck.

Condition: Good.

Roof Coverings and Accessories

Description: All the steep sloped roof areas are covered with red cedar wood shakes.

Condition:

1. Approximately one-fourth of the shakes at the north-facing slope of the Kitchen Wing roof are curled. **Critical.**
2. The electrical feeds to the ten roof-mounted exhaust fans above the Kitchen are not flashed. **Critical.**
3. The manufactured vent flashing gasket at the west facing fetch of the roof is depressed and will hold water. **Critical.**



Photo C-43: Curled wood shake roofing, Facilities Condition Assessment Photo #6537-A028-1.

Exterior Vertical Circulation

Description & Condition: There are a number of stairs at the building's exterior. All of them have what are considered Critical / Life Safety issues to be addressed.

1. Exterior stair south from west plaza to dormitories – handrail is mounted 41½" above the nose of the tread below. IBC 2012 requires 34" – 38".
2. Exterior stair south, from west plaza to the dormitories, has one handrail. IBC 1009 requires that handrails be installed on each side of a stair.
3. Exterior stair north from west plaza to employee parking – handrail is mounted 40½" above the nose of the tread below. IBC 2012 requires 34" – 38".
4. Exterior stair north, from west plaza to the employee parking, has one handrail. IBC 1009 requires that handrails be installed on each side of a stair.
5. South exterior stair from Kitchen – handrails at 39". IBC 2012 requires 34" – 38".



Photo C-44: South exterior stair from Kitchen, with handrails mounted too high. Facilities Condition Assessment Photo #6537-A101-1.

6. Stair #145: The existing handrails (both sides) are mounted 32"-36" above the nosing of the tread below. 2012 IBC requires handrails to be mounted between 34" and 38" above the nosing of the tread below.
7. Loading dock handrail at exterior ramp: The handrail is mounted at 39"-41" above the nose of the ramp, which is higher than allowed by code.

8. North kitchen exit stair #226 – space between the balustrade members is more than 4” – it is approximately 14”.
9. Stair #151 –the stair well bottom landing is approximately 35” below grade (greater than the 30” allowed by code).



Photo C-45: North Kitchen exit stair #226 with large space between the balustrade members. Facilities Condition Assessment Photo #6537-A102-1.



Photo C-46: Stair #151. Facilities Condition Assessment Photo #6537-A103-1.

Architecture - Interior

Main Level Floor System

Description:

Floor framing consists of wood columns in the lower level that support wood floor beams and joists. The subflooring is diagonal board sheathing.

Condition: Good.

Interior Flooring

Description: The majority of flooring material in the lower level is vinyl composition tile and sealed or painted concrete. It appears that vinyl asbestos tile was used in the original construction and only a small amount of this remains. There is an incidental amount of carpet in the lower level and a small amount of ceramic floor tile.

The majority of the public spaces on the main level are carpeted with a patterned broad loom carpet over carpet pads. The Deli has sheet vinyl flooring and the Cafeteria has brick flooring. The commercial kitchen area has quarry tile. There is an incidental amount of vinyl composition tile on this level. The original wood block end-grain flooring remains under the carpetting in Lounge #200 and Dining Room #205.



Photo C-47: The wood block flooring, where exposed, remains in excellent condition. September 24, 2013.

Condition:

1. Wood block flooring: Where exposed at two locations, the flooring is in good condition, as expected for this durable product. Adhesives remain on the finish.
2. Broad loom carpeting in Rooms #200, 202, 205, 206, 207, 211, and 217: The carpeting has reached the end of its useful life.

3. Room #205 walk-off matt and metal edge strip: The matt has reached the end of its useful life; the metal edge strip is uneven and presents a potential tripping hazard.
4. Kitchen (upper level) quarry tile: Several of the quarry floor and base tile have cracked or broken. The grout in several areas is loose, missing, or degraded.
5. Sheet vinyl flooring on first floor: The sheet vinyl flooring is overdue for replacement.
6. Thin brick pavers in Room #126: These pavers are worn and overdue for replacement; several are broken and loose.
7. The epoxy-coated concrete floor in Room #115 under the Kitchen equipment is past due for replacement; it is cracking and delaminating from the concrete slab at the serving line.
8. The epoxy-coated concrete floors in Rooms #113, 114, 115, 117, and 118 are at the end of their useful life. The epoxy-painted concrete floors in Rooms #122, 124, 124A, 124B, 128, 144, 145, 147, 147A, 149, 150, 151, 152, 153, 154, 155, 156, 157, and 158 are overdue for recoating.



Photo C-48: Thin brick pavers in Room #126 are cracked. Facilities Condition Assessment Photo #6537-A143-1.

Interior Walls:

Description: Interior wall finishes are a mix of wood board in the majority of the main level public spaces and painted gypsum board elsewhere. The tongue-and-groove wood boards are oriented both vertically and horizontally. In the lower level, vinyl-clad accordion partitions were installed at the Employee Pub (Room #107) and Weight Room (#109). Hardboard – presumably original to the 1956 construction – wall finishes remain in the Employee Housing Units #001 through #008. Laminate-clad hardboard (®Marlite) was used as the wall finish in the lower level public restrooms #104 and 105, and their respective entries.

Special original wall construction surrounded the Gift Shop (Room #200) and what is now the lower level Office #102. Except for a row of glass in each of these walls, the original translucent infill has been replaced with solid panels (acoustical panels in Office #102).

Condition:

1. Rooms #107 and 109: The vinyl-clad accordion partitions are extensively worn.
2. Gift Shop #202: One of the panels at the panelized wall facing the Lounge has swelled.



Photo C-49: Gift Shop #200 wall with swollen panel. Facilities Condition Assessment Photo #6537-A034-1.

3. Room #102: A corner framing member of the panelized wall has been damaged.
4. Rooms #124/116, 127, 145, 146, 209, 218, 220, 222, 223, 226, 227A, 228, and 233: There is minor damage (approximately 1 sf each) at walls in each room.

5. Rooms #220, 221, 222, 223, and 228: Some of the 4x4 ceramic wall tile are cracked.
6. Employee Housing Rooms #001 – #008: The hardboard wall finishes have reached the end of their useful lives. These boards do not comply with 2012 IBC.
7. Restrooms #104, 104A, 105, and 105A: The laminate-clad hardboard walls have reached the end of their useful lives.



Photo C-50: Damaged gypsum board. Facilities Condition Assessment Photo #6537-A123-3.

Interior Doors

Description:

Interior door openings consist primarily of solid core wood doors in wood frames. The large sliding doors to the lower level shops (Room #122, 123, and 131) are clad in flat-seam sheet metal (this is an original treatment).

Condition:

1. Rooms #100, 112, 124A, 134, 136, 151, 226, and 223: Interior wood doors have deteriorated.
2. Women's Room #208: The door closer cover is missing.
3. General: Paint finishes continue to wear from door and trim surfaces.
4. Rooms #220A and 217: The door between them is split.
5. Room #101: The 5-panel door is beyond its useful life and is not a consistent style with doors in the rest of the building.
6. Employee Dorm #004: The wood door frame has split at the strike.
7. Rooms #110, 111, and 121: Hollow core door is damaged.
8. Room #150 door: Weatherstripping is damaged at the base of the door.
9. Room #149: Door lockset is loose.

10. Room #144: Site-made door is oversized, as a combination of two doors.
11. Room #137: Screen door is long overdue for painting.

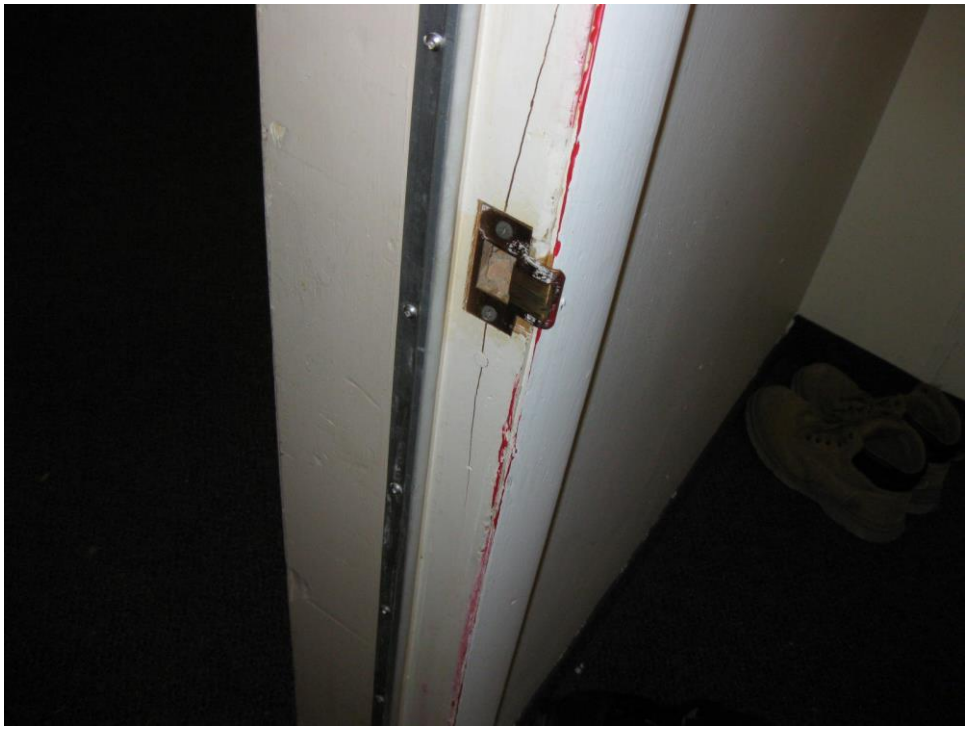


Photo C-51: The jamb has split at the strike of door in Employee Dorm #004. Facilities Condition Assessment Photo #6537-056-1.



Photo C-52: Weatherstripping is damaged at the base of the door. Facilities Condition Assessment Photo #6537-A024-1.

Interior Windows

Description: Natural illumination is provided with large fixed pane windows at the gable ends and west side of the building. The windows at the west side of the building have operable transoms above. A combination of fixed and awning units are located throughout the building. All the units are the original wood windows, except for some aluminum sliding units which replaced original wood awning units in 2006. All mullions and trim are of painted wood. Window tinting film has been applied to the west facing windows of the first floor.

Condition:

1. The interior finishes are wearing.
2. The window tinting at the west facing windows in Room #206 is deteriorated.

Interior Ceilings

Description: Interior ceilings in the lower level are a mix of painted gypsum board, glue-on acoustical tile, and lay-in acoustical ceiling panels.

Ceilings in the public spaces of the main level are wood boards with incidental areas of painted gypsum board and lay-in acoustical ceiling panels. The commercial kitchen area has coated 12x12 acoustical ceiling panels.

Condition:

1. Rooms #200, 201, 202, 203, 205, 206, 216, and 217: The wood board ceiling finishes are at the end of their useful lives.
2. Rooms #11, 213, 214, 214A, 220, 220A, 221, 222, 231, and 232: Metal-clad, food-safe ceiling tiles are at the end of their useful lives.



Photo C-53: Metal-clad ceiling tiles in the Kitchen areas. Facilities Condition Assessment Photo #6537-A155-4.

3. Rooms #216, 234, and 235: 12x12 mineral fiber acoustic ceiling tiles are at the end of their useful lives.
4. Rooms #120, 212, 122, 123, and 130: The surface-applied 12x12 acoustic ceiling tiles are beyond the end of their useful lives, and might contain asbestos. (Note that these are probably original tiles.)
5. Rooms #107, 109, 148, and 155: Some of the suspended 24x48 acoustic ceiling tiles and grid have been damaged.

Interior Vertical Circulation

Description: The building is equipped with a pair of freight elevators connecting the lower level loading area up to the commercial kitchen on the first floor. There are no passenger elevators in the building.

Two sets of stairs connect the lower level to the main level of the building. One set is located at the northeast end of the Lounge and the other is in the northwest corner of the Kitchen Wing. This stair also continues up to the attic mechanical space above the commercial kitchen.

Stair #201 in the northeast corner of the Lounge has a handrail mounted at approximately 30½" above the nosing. 2012 IBC requires handrails be not less than 34" above the nose. See Code Analysis for interpretation with the IEBC, determining that these handrails can be retained.

Condition: Good.

Cabinetry & Accessories

Description:

The toilet accessories – toilet paper holders, towel dispensers, mirrors, toilet partitions, etc. – in the lower level are stainless steel products from the original and 1960 construction periods. More recently remodeled restrooms also have stainless steel accessories. Toilet partitions are of metal with enameled finishes.

Condition:

1. Toilet accessories are wearing throughout the building.
2. Toilet partitions and urinal screens, with baked enamel finish, are worn.
3. Room #117: Base cabinet has chipped plastic laminate, a missing door pull, and no vinyl base.
4. Room #113: The base cabinet has misaligned doors and non-functioning door catches.
5. Bar Room #203: The plastic laminate top is worn and repaired to a point that it needs to be replaced. There is a tear in the vinyl arm rest.
6. Room #107:
    a. The plastic laminate top is worn and repaired to a point that it needs to be replaced.
    b. The bar die and back bar are overdue for refinishing.



Photo C-54: The laminate top of the relocated bar in Room #203. The (circled) splice represents the original column penetration, at prior location. Facilities Condition Assessment Photo #6537-A087-1.



Photo C-55: Base cabinet in Room #117. Facilities Condition Assessment Photo #6537-A084-1.

Canyon Lodge Structure

Structure

Description:

The basic framing defining the gravity support systems for the Canyon Lodge has been outlined in the architectural description above. This section focuses on the lateral-force-resisting systems of the building as pertaining to wind and seismic loading.

The Canyon Lodge has had recent structural upgrades to the lateral force resisting system. Construction plans from 2012 indicate the building was designed with upgrades to resist snow, wind and seismic loads in accordance with ASCE 7-05, "Minimum Design Loads for Buildings and Other Structures."

The East wing (kitchen area) was upgraded in 1983 with a new roof and additional roof support members. In 2013, plywood sheathing was added to the East wing roof and the main roof. The main lodge A-frame roof structure was further upgraded in 2013 with new purlins, incorporation of steel beams above the main glulam beams, sistering of joists, and replacement of decayed portions of the base of the glulam beams. In addition, shear walls were integrated into several exterior and interior walls.

The lateral-force-resisting system includes:

1. Roof – new plywood sheathing.
2. Upper floor – original diagonal-board subfloor.
3. Walls – original plywood sheathing applied to the exterior and interior wood stud walls.
4. Walls – original exterior diagonal-board covered stud walls.
5. Walls – shear walls added at a variety of locations on both floors in 2013.
6. Lower floor - concrete slab on grade.

The building steps down in grade and this may be considered a vertical irregularity.

Comments and assumptions made on the building's structural system are based on field observations of visible elements and construction plans from previous structural strengthening projects. No calculations were completed to determine the building structural capacity.



Photo C-56: Decayed beam end extending from the east Kitchen wall. Facilities Condition Assessment Photo #6537-S003-1.

Condition:

Repairs and upgrades to the structure of Canyon Lodge have been a major focus of the 1983 and 2012 projects. However, several serious items of deferred maintenance that should be rectified in 2014 were identified, as follows:

1. At the north side of the stairway from the Kitchen (east building wing), the screws and/or nails holding the metal straps from the concrete wall to the stair support posts are loose. **Serious.**
2. The end of the beam that projects from the east kitchen wall (2nd beam from the south) is decayed. **Serious**.
3. The glulam beams were strengthened with the addition of steel beams in 2013 rehabilitation. It should be confirmed with the engineer who designed the work that further separation and/or failure in these glulam beam splices will not create a risk to the structural integrity of the building. **Serious.**
4. One of the west-facing glulam beams at the north end of the building is split. The split starts from the bolt holes at the top of the beam where the west A-frame beam connects to the east A-frame beam. **Serious.**
5. The top of the first column from the north end of the building at the wall between the Gift Shop and the lounge is split. The split starts at the bolt holes where the column connects to the A-frame beam.
6. The bearing blocks/shims between the timber rafters and the roof beams are loose and not providing support, in the attic above the Kitchen. **Serious.**

7. A 2x14 floor joist located just inside the crawl space access above the door to the Employee Housing hallway was cut to install plumbing. This should be replaced in 2019.
8. The ceiling joist that is located in the southeast corner of the attic above the Kitchen was cut to install utilities. This joist should be replaced or sistered by 2019.
9. At east side of main portion of building, the glulam beams have checks between laminations, and decay at the bottom where the metal cap is screwed into the beam. This should be rectified by 2019.



Photo C-57: Separation between the glulam beam splices. Facilities Condition Assessment Photo #6537-S006-1.

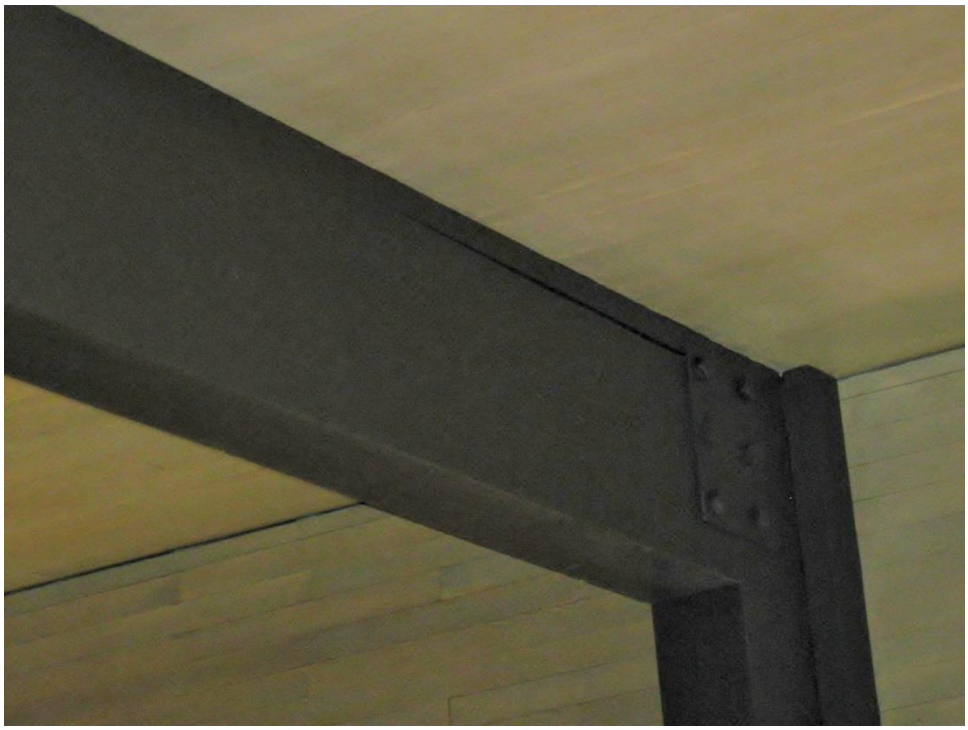


Photo C-58: One of the west-facing glulam beams at the north end of the building is split. Facilities Condition Assessment Photo #6537-S007-01.

All but the following three components are deemed to have another 69 to 125 years of remaining life:

1. 10 years remaining: The original extant exterior glulam A-frame beams at the east slope of the main roof.
2. 40 years remaining:
    a. The original extant exterior glulam A-frame beams at the west slope of the main roof (only the lower exposed portions were replaced in 2013).
    b. Interior glulam A-frame beams, west and east slopes of main roof.

The following original 1957 components are deemed to have a remaining life of 69 years:

1. Concrete strip footing for walls.
2. Concrete spread footings for interior columns.
3. Excavation and backfill for footings.
4. Foundation underdrain and dampproofing.
5. Pile supports for A-frame beams.
6. Concrete slab on grade.
7. Basement walls, 14' high, west side of building.
8. Basement walls, 8' high, east side of building.
9. Excavation and backfill for basement walls.
10. Timber diagonal board subfloor.
11. Timber interior columns, lower level.
12. Timber roof joists, main portion of building.
13. Glulam timber interior columns, both floors.
14. Glulam timber floor beams, lower level.
15. Interior glulam A-frame beams.
16. Steel floor beams, lower level.
17. Timber floor joists, first floor.
18. Timber ceiling beams, first floor.
19. Timber ceiling joists, first floor.
20. Original glulam timber roof beams at the roof of the east wing.
21. Original timber roof purlins at the roof of the east wing.
22. Original glulam columns at the east wing.
23. Original timber tongue-and-groove decking at the roof of the east wing.

The following components, replaced or repaired in 1983, are deemed to have a remaining life of 75 years:

1. Original exterior wall framing and sheathing.

The following components, replaced or repaired in 1983, are deemed to have a remaining life of 95 years:

1. Glulam timber rafter and roof beams at the roof of the east wing.
2. Glulam roof purlins added to the roof of the east wing.

The following components, replaced or repaired in 2013, are deemed to have a remaining life of 125 years:

1. Concrete pedestal spread footings.

2. Steel roof beams, main portion of building (as shown in Figure B-14).
3. Laminated veneer lumber (LVL) roof joists at main roof.
4. Plywood roof sheathing at the main roof.
5. Plywood roof sheathing at the roof of the east wing.

Canyon Lodge HVAC

HVAC System

Heating

Description & Condition:

Boiler Room #149 in the lower level contains both hot water and steam boilers. The hot water boilers are used for building heat and the steam boiler generates domestic hot water for the large food service operation on the main floor above. Base-mounted circulation pumps in the Boiler Room distribute heating water throughout the building. Piping materials include both insulated steel and copper pipe.



Photo C-59: The Boiler. Facilities Condition Assessment Photo #6537-M106-1.

Lower level heating is provided from two air handling systems. The first unit serves the north end of the lower level employee areas including the pub, employee recreation and weight rooms, and Employee Dining Room. The second unit serves the shop and storage areas at the center portion of the lower level. The south end of the lower level contains employee housing, which is heated with electric wall heaters. The Employee Dining Room has two electric unit heaters for use after the boilers have been shut down for the year. Heating on the entire first floor (main level) - with the exception of the kitchen areas - is provided with hydronic baseboard convectors. The Boiler Room is heated with propane heaters for use year-round if necessary.

Ventilation

Description & Condition:

Ventilation for the lower level is from the air handling systems and operable windows in the housing areas. The air handler that serves the north area and the employee areas is not functional. The maintenance staff indicated that an attempt was made to repair the air handler but it was not successful. Lower level public toilet rooms and toilet rooms at the housing units are all ventilated with exhaust fans. First floor toilet rooms also have ventilation exhaust fan systems. The toilet rooms in the north side of the first floor exhaust into the attic space which does not comply with current mechanical code.

Kitchen ventilation systems consist of several cooking hoods with automated water-wash systems and rooftop exhaust fans. Although the fans are located on a sloped roof and difficult to access, they have been recently replaced, and are in good condition. Make-up air for the kitchen is from two 100% outside air systems located in the attic. Both systems have hot water heating coils and 2-stages of evaporative cooling. The first evaporative stage is indirect and the second is direct.

The operable windows in the residential area in the basement may not be large enough to provide ventilation. It is suspected that the operable windows on the first floor are not large enough to comply with current mechanical code.

The majority of mechanical equipment is aged and will soon be in need of replacement.



Photo C-60: Inoperative Ventilating Unit.
Facilities Condition Assessment Photo #6537-M118-1.

Canyon Lodge Plumbing

Plumbing System

Domestic Water

Description & Condition:

The building domestic water entrance, located in the wood shop, has a meter and pressure reducing valve. It does not have proper backflow protection, hence is not code compliant.

Domestic water distribution piping material is copper. Portions of the hot, cold, and hot recirculation piping are insulated, in several locations the insulation has been removed and not been replaced.

There is a secondary hot water system that is labeled as the "winter" system. It is used when the boilers have been shut down for the winter but while the basement areas of the building are still in use by staff.

Domestic hot water for the food service operation is generated and stored in a large tank with a steam-to-water heat exchanger. This equipment is located in the lower level Boiler Room #149. The system is equipped with a recirculation system to ensure immediate hot water at all fixtures. Another electric water heater that serves the lower level is located in Janitor Room #125.

Waste and Vent Piping

Description:

Waste and vent piping is in a mix of cast iron and PVC pipe. System supports appear to be adequate and maintaining proper slope. However, the waste connections in the kitchen and food preparation areas are not code-compliant.

Current plumbing codes require that all food preparation waste connections be indirect.

Fixtures and Fittings

Condition:

1. Storage #214: The trap on the lavatory is not properly installed. Replace the trap and remove the low section of pipe. **Serious.**
2. The mop sink is cracked and potentially causing damage to the structure below (if leaking). **Serious.**
3. Men's Room 135: The pressure and temperature valves on the water heaters drain to the floor and should be piped to an approved location. **Serious.**
4. Rooms 002A, 003A, 105, and 147: Four wall-hung lavatories are loose.
5. Room #135: Lavatory leg support is missing. Provide new support.
6. Room #210: Water shut-offs at handicapped lavatory have not been insulated. Insulate in accordance with ADA.
7. Bath #001A, Men's Room #105 & Women's Room #208 and #219: The flush tanks at five water closets are loose and move.
8. Men's Room #105: The south urinal has a minor crack on the top of the urinal, which could reduce the expected useful life of the urinal.
9. Lobby #100: The drinking fountain is not properly secured to the wall.



Photo C-61: Wall-mounted lavatory not secured completely to the wall. Facilities Condition Assessment Photo #6537-M002-5.

10. At many locations throughout the building: Exposed domestic water piping is not insulated, is severely deteriorating, or has been improperly repaired.
11. The wall hydrant and all 14 hose bibbs are required to have a vacuum break by 2012 IPC.
12. The electric water heater is not seismically secured as required by code. Install seismic bracing to secure the water heater to the structure. Serious.
13. Room #115: The cover of the floor drain is missing and has been replaced with a cover not rated for heavy duty application; it has been dented.
14. The trench drain cover is bent and damaged.
15. Quite a few fixtures are approaching the end of their useful lives and should be replaced in the years indicated in the Facilities Condition Assessment.

Fire Protection

Description: The entire building is protected with a recently installed dry type fire sprinkler system. The fire sprinkler risers are located in the Boiler Room #149.

Condition: Good.

Canyon Lodge Electrical

Electrical System

Electrical Service

Description & Condition:

The Canyon Lodge building has a 120/208 volt, three-phase, 3000 ampere electrical service which has a meter for usage and demand. A main service rated manual disconnect switch does not exist on the exterior of the building. Most local jurisdictions including Yellowstone National Park area now require a manual disconnect on the exterior of the building in the event that the power has to be disconnected. The building has its own grounding electrode; however, neutral and grounding conductors have been interchanged throughout all of the distribution feeders and branch circuits. Two 4-section switchboards (one installed in 1984 and one original) distribute power to 120/208 volt load centers and panelboards throughout the building. The 3000 amp service feeds a newer switchboard installed in 1984 as part of the 1984 renovation to the upper and lower kitchen areas. This switchboard has a 1000 amp disconnect which feeds many GE load centers and panelboards, all which were installed in 1984. A Motor Control Center fed from the original switchboard was installed in the 1984 renovation as well. All of the 1984 electrical gear is in good condition.

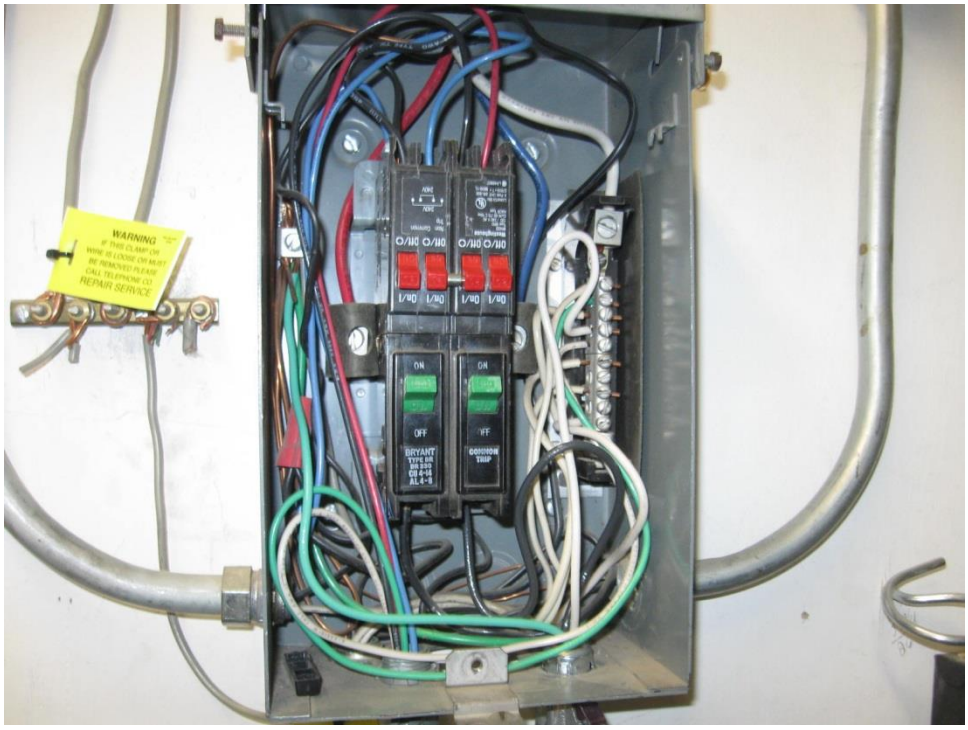


Photo C-62: Obsolete distribution load center. Facilities Condition Assessment Photo #6537-E004-2.

Switchboard & Panelboards

Description & Condition: The switchboard also has a 1600 amp disconnect which backfeeds the original switchboard. The original switchboard feeds original Trumbull Electric gear. The original switchboard and Trumbull Electric gear are obsolete and beyond their useful lives. It may become increasingly difficult to obtain replacement circuit breakers for this older gear. The door into

Electric Room #116 is in-swinging, in violation of Code requirements; the door should swing in the direction of exit travel from Room 116 and must be equipped with a panic exit device to comply with current NEC requirements for any electrical room containing 600 volts or less and equipment that is rated at 1200 amps or more. The door assembly into Plumbing Room #121 should be equipped with a door assembly equipped with a panic exit device to comply with current NEC requirements.

Emergency Power

Description & Condition: An on-site 125 kW fuel oil generator with an underground tank provides emergency power to the fourth section of switchboard installed in 1984. The generator serves many of the panelboards installed in the 1984 renovation through many manual transfer switches located in the electrical room. The Canyon Lodge building emergency electrical distribution also serves the Registration building and Post Office just north of the Lodge. There are many NEC violations in how these two buildings have been fed regarding grounding and service rated equipment.

Electrical Distribution

Description & Condition: There are many National Electrical Code violations in this building's electrical distribution system including, but not limited to, the following:

1. Grounding electrode conductor shall be bonded to the main water service pipe within 10 feet of where the main water service pipe enters the building.
2. Equipment ground (doesn't exist in many locations).
3. Identification of all conductors (color coding).
4. Sharing of neutral conductors (this is acceptable for up to three branch circuits only if the circuit breakers are grouped together and have a single handle tie such that when one breaker is turned off all three breakers will be turned off).
5. Neutral/ground bond (this bond is required at the main service rated disconnect where the grounding electrode conductor from the grounding electrode is connected to the neutral bus bar and the equipment ground bus bar. It is critical that the neutral (a current carrying conductor) and ground (a non-current carrying conductor) must not be bonded anywhere else in the building electrical distribution. Many of the park buildings have electrical distribution in which the neutral conductors and equipment grounding conductors are treated as one and the same.
6. Phase-rotation (critical for single phase and three phase motor operation - many times this is unable to be determined during field investigation as the color coding of conductors is not typically followed in park buildings).

Branch Wiring

Description & Condition: Branch wiring throughout the building is mainly in good condition; however, many of the feeders/branch circuits are missing an equipment ground. Under previous NEC editions it may have been acceptable to use conduit as a ground as long as it was continuous. Many conduits were not electrically continuous.

Most of the branch circuit wiring is concealed in walls, above ceilings, and under floors. Some feeders have been installed which are too small for the size of the overcurrent protection device protecting the feeder. This was noted in panels ER, ER sub, EDR2, LPL, SN1. Low-voltage conduit in Room #110 should have an insulated throat bushing installed to prevent damage to low-voltage conductor insulation.

Electrical Devices

Description & Condition: The building has an adequate number of receptacles in most areas. Receptacle layout in the employee dorm area on the lower level is minimal. Additional receptacles are required to meet current NEC requirements. Ground fault circuit interrupting (GFI) receptacles have been installed in appropriate locations in most areas. The following receptacles should be GFI receptacles, yet they are not:

1. The receptacles under the sinks in Rooms #107 and #203.
2. The two-pronged receptacle in Room #110.
3. The receptacles in Rooms #213, 216, 223, and 227.

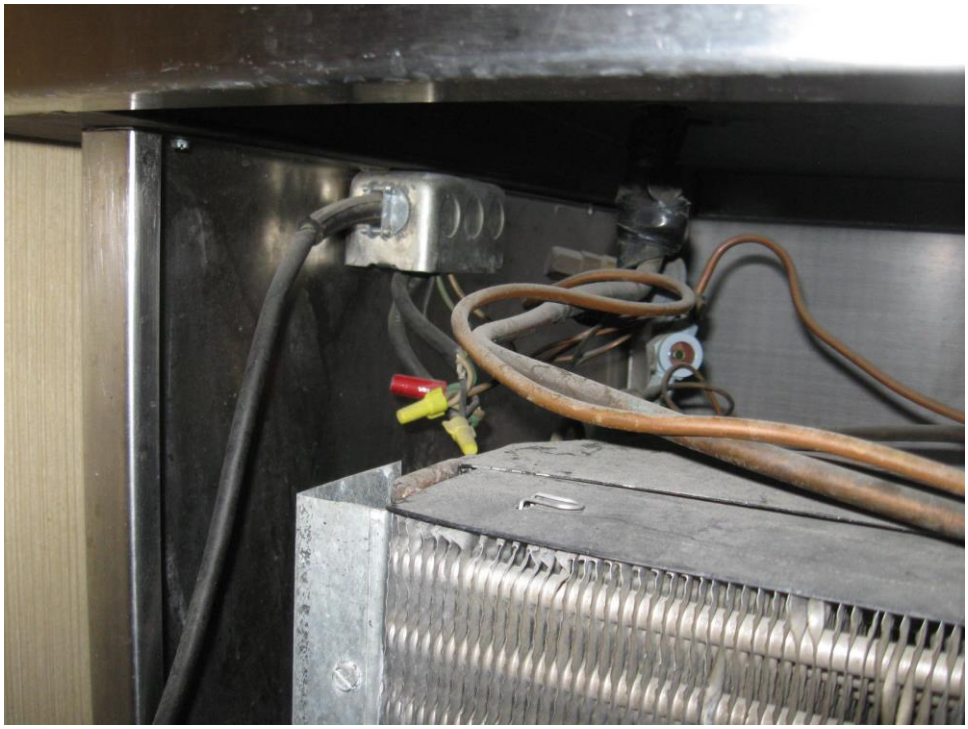


Photo C-63: The line voltage splice in Room #116. Facilities Condition Assessment Photo #6537-E043-1.

In Room #216, the line voltage splice is not located in the junction box, and the box does not have a face plate. **Serious.**

The exterior GFI protected receptacles don't have "continuous-use" weather proof cover installed to meet current NEC.

All electrical devices under kitchen type 1 hoods should be connected such that when the fire extinguishing system is activated, the power to such devices is de-energized via shunt-trip circuit breakers or a combination of contactors rated for the load.

All electrical devices in the carpenter shop are required to be dust tight per NEC. 90% of these devices are not dust tight.

Lighting – Lamping and Illumination Levels

Description & Condition: Lighting throughout the interior of the building is comprised of surface/pendent/recessed mounted incandescent/fluorescent lighting fixtures utilizing T12/T8/T5/LED lamps. The T12 lighting fixtures are beyond their useful lives and need to be replaced. Lamping varies from incandescent, screw-in compact fluorescents, and screw-in LED lamps.

In Employee Housing #001, the globe has been removed to accommodate the length of the lamp.

Single-pole light switches are used to control the lighting. In some cases, occupancy sensors activate the lighting. In some areas circuit breakers are



Photo C-64: T-12 lamping is obsolete and not efficient. Facilities Condition Assessment Photo #6537-E022-1.

being utilized to control lighting in lieu of toggle switches. Circuit breakers are not meant to be turned on/off multiple times a day, day in and day out. They are meant to detect a fault condition and interrupt current flow. The more on/off operations a circuit breaker endures, the weaker it gets, increasing the chances of premature failure.

The lighting levels throughout most of the building seem to be adequate. Lighting in the maintenance shop and mechanical area use T8 lamping with electronic ballasts. The rest of the basement service area, dining area, and corridors are fitted with T12 light fixtures. The employee dorm area utilizes surface-mounted incandescent fixtures. Lighting levels in dorm room areas are adequate, but the lighting level in the corridors is low.

The upper floor main dining room, lounge, and book store /gift shop areas are illuminated by multiple large star shaped fixtures and adjustable downlights that are original to the building. The fixtures utilize incandescent/LED lamps and some have been retrofitted with linear fluorescent lamps. The kitchen area is illuminated by recessed fluorescent troffers and surface-mounted enclosed strip fixtures that utilize T12 technology. Lighting levels are adequate on upper floor areas and functions they serve.

The exterior lighting is comprised of recessed/surface mounted incandescent light fixtures. The lamps in these fixtures should be replaced with compact fluorescent lamps or LED lamps. Most exterior light fixtures are controlled by photocells and/or switches.

The emergency lighting is comprised of emergency wall-mounted battery operated lighting units and integral/remote heads to light the paths of egress. The interior/exterior emergency egress lighting is lacking in illumination (including the attic) and also doesn't meet the two-lamp requirement in the current NEC. Emergency remote head lighting fixtures should be located at each entrance into the building to light the path of egress. Not all areas of egress meet the NFPA requirements of 1 foot-candle average and 1 foot-candle minimum.

The exit signs throughout the building are LED type with battery back-up and are in good condition.

Elevator Machine Room for Storage
Description & Condition: The elevator machine room is currently being utilized as a storage room. This is in violation of the NEC.

Exterior Devices
Description & Condition: Exterior conduit penetrations from concessionaire installed components have not been sealed correctly at the low-voltage junction box on the south and east sides of the building.

The number of convenience receptacles on the roof top for mechanical equipment is inadequate.

Lightning Protection

Description & Condition: A lightning protection system was installed as part of the 2012 reroofing project. It is comprised of air terminals, ground rods and copper cable and connectors that have been concealed to the greatest extent possible. It has been noted that one of the pipes on the west side of the roof is missing an air terminal.

Fire Alarm System

Description & Condition: A voice/evacuation fire alarm system was installed throughout the entire building during the 2012 reroofing project. The system is comprised of speakers, speaker/strobes, smoke detectors, pull-stations, batteries, surge suppression, duct detectors, fire sprinkler system monitoring, type 1 hood monitoring, etc. The coverage of the system is adequate. The employee housing area still utilizes non-system detectors in addition to the system smoke detectors.

Communications System

Description & Condition: A communications system (voice/data) has been provided for this building. The data rack is located in Room #112 of the Administration Building. The building has a phone system and voice/data jacks are located appropriately. Phone cabling in Room #115 is not secured per NEC.

Administration Building General

Administration Building Condition Assessment

General Physical Description

The Canyon Lodge Administration Building is a 1-story, wood-frame construction visitor facility. It was built in 1957 and is used in the summer season only. The building's current use is consistent with its use historically. This building is a concessionaire-operated facility.

The building consists of public space, office support space, and restroom facilities. The attic area over the managers' office contains limited mechanical equipment. The building has a footprint of 2,610 square feet.

Environmental Concerns

Underground Fuel Tanks

None reported.

Asbestos

None reported. Because of the age of this building, testing should be performed prior to any contemplated work in areas where asbestos-containing materials may be disturbed.



Photo C-65: A Life Safety Concern was noted for this typical deterioration at the timber roof supports of the Administration Building. September 24, 2013.

Lead Based Paint

None reported. Because of the age of this building, testing should be performed prior to any contemplated work in areas where existing paint coatings may be disturbed.

Life Safety Concerns

During the 2013 Facilities Condition Assessment site work in September 2013, a life safety concern with the Canyon Registration Building's structural system was identified and immediately brought to the NPS's attention. Significant decay was noted in several timber roof support joists and their supporting beam on the south side of the building, above the south entrance. One of the rafters was noted as decayed to the point of failure and several adjacent rafters were noted as close to failure. It was recommended that the decayed members be replaced as soon as possible and the joist support beam be temporarily shored to prevent damage to the building if no repair is made prior to Winter 2013. If repairs are not made, the building's roof is at risk of collapse.

Handicapped Accessibility

Entry to the building is handicap accessible; however, the service counters and toilet rooms do not meet the minimum requirements as defined in the Americans with Disabilities Act. These areas should be brought up to code as part of an overall building renovation.

Civil and Site

The building is located on a gently sloping site. There do not appear to be any surface drainage issues.

Architecture - Exterior

Administration Building Exterior Architecture

General

Most of the materials meant to be exposed at the exterior and in the first floor Lobby are considered character-defining features of the building. See Part 1. Developmental History: Physical Description. Photographs are extracted directly from the 2013 Facilities Condition Assessment, with associated numbering system (keyed to the spreadsheets).

Foundation

Description: The foundation consists of cast-in-place concrete foundation walls which likely bear on conventional concrete spread footings around the perimeter and concrete pad footings or piers at interior column locations, although this could not be verified. Columns beyond the perimeter of the building are assumed to bear on concrete piers.

Condition: Good.

Exterior Wall System

Description: The exterior wall system is wood framed construction. The wood framed walls most likely consist of wood studs with wood sheathing, although this could not be verified. The exterior finish is painted tongue-and-groove wood siding.



Photo C-66: The paint at the exterior siding is alligatoring. Facilities Condition Assessment Photo #6539-A002-1.

Conditions:

1. The finishes of the wood siding and battens are worn and are overdue for routine painting. There is a hole in the wood siding on the east elevation.
2. The exterior wood fascia is overdue for routine painting.
3. The exterior wood beams and columns are overdue for routine painting.



Photo C-67: The paint is wearing and alligatoring on the columns and beams of the building and the covered walkway. Facilities Condition Assessment Photo #6539-A022-1.

Exterior Openings

Description: The windows are wood consisting of fixed, awning and hopper types. There are three wood and glass exterior doors. The two entry doors have full glassing; the door to the office is one-half glass.

Conditions:

1. Doors: The backset and strike plate are missing from the door between Room #110 and Room #113. The veneer is damaged.
2. Windows:
   a. The glass pane in the fourth window from the south on the west elevation is cracked.
   b. The paint finish on the exterior and interior of the wood fixed, awning, and hopper windows and trim is worn.
   c. The southernmost window on the west elevation will not close completely.



Photo C-68: Cracked pane of glass at the west elevation. Facilities Condition Assessment Photo #A6539-A004-1.

Roof Systems

Description: The roof system is wood framed construction. The roof framing consists of wood columns supporting wood beams and wood joists with tongue-and-groove wood deck.

Condition: See Structural condition assessment.



Photo C-69: Administration Building roofing, looking southeast. Facilities Condition Assessment Photo #6539-A019-2.

Roof Coverings

Description: The low-slope roof is covered by a B.U.R. (built-up roof) system with stone ballast. This roofing system is overdue for replacement and shows signs of leaking at the north end of the building.

Condition: The existing built-up roofing is overdue for replacement. Five lineal feet of the gutter is missing from the north elevation over the walk.

Administration Building Interior Architecture

Architecture - Interior

Main Level Floor System

Description: The floor is concrete slab on grade construction.

Condition: Good.

Interior Flooring

Description: The bathrooms have 1x1 ceramic tiles. The rest of the building is carpeted except for the server room which has vinyl tile.

Condition:

1. The custom patterned broadloom carpet in Rooms #100 and 108 is at the end of its useful life.
2. The general broadloom carpet at the back-of-the-house spaces (Rooms # 107, 109, 11, 112, 113, 114, and 115) is worn beyond its useful life.



Photo C-70: Worn custom patterned broadloom carpeting in Rooms #100 and 108. Facilities Condition Assessment Photo #6539-A-047-2.

Interior Walls

Description: The walls are clear finished wood board, painted plywood wood and painted gypsum board. The bathrooms have painted hardboard.

Condition: The walls are typically in good condition. However, at the east wall of the water fountain niche, there is evidence of termite damage in the baseboard at the base of the wall. It is unclear if it representative of current termite activity.



Photo C-71: Base of the east wall of the water fountain niche in Hall #103, looking southeast. Damage is located within the circled area. September 30, 2013.



Photo C-72: Close-up of the termite damage at the baseboard at the base of the water fountain niche wall, looking southeast. September 30, 2014.

Interior Ceilings

Description: The ceilings are tongue-and-groove wood which has been painted or stained. The bathrooms, janitor's closet, and computer room all have painted gypsum board ceilings.

Condition: Good.

Vertical Circulation

Not applicable

Cabinetry & Accessories

Description:

The toilet accessories – toilet paper holders, towel dispensers, mirrors, toilet partitions, etc. – are stainless steel products from the original construction. Toilet partitions are of metal with enameled finishes.

Conditions:

1. Cabin registration desk is missing the following: a cabinet lock, edge banding on the shelf, printer feed trim, and a chipped section of plastic laminate.
2. Room #115 counter: The counter top and supports are at the end of their useful lives.



Photo C-73: Missing cabinet lock at registration cabinetry. Facilities Condition Assessment Photo #6539-A035-05.

Administration Building Structure

Structure

General

The basic framing defining the gravity support systems for the Canyon Lodge Administration Building has been outlined in previous architectural sections of this narrative. This section includes the description of the lateral-force-resisting systems of the building as pertaining to wind and seismic loading.

Description:

The lateral-force-resisting system includes:

1. Roof – Tongue-and-groove timber decking,
2. Walls – The walls are likely constructed with wood sheathing applied to the exterior wood studs, but this could not be examined.
3. Floor – Concrete slab on grade.
4. Connections – Within the finished building walls and could not be examined. See paragraph below regarding exposed connections.

The presence of wall sheathing, extent of sheathing fastening, wall connections and hold-downs could not be examined, as they were not visible. These elements are necessary for a diaphragm to provide load continuity and meet current code requirements. The nature and adequacy of these diaphragm elements is unknown.

Condition:

It is unclear if the exposed framing connections between main structural members (i.e. roof joist-to-beam, beam-to-column, beam-to-bearing wall) have adequate strength and stiffness to resist seismic and/or wind loads and create a continuous load path from the point of application to the ground. Of particular concern are the beam-to-column connections in the lobby area and the exposed roof joist-to-supporting beam and beam-to-column connections outside the building. There is a risk of the beam or joist displacing from its supporting element during a seismic event resulting in partial collapse of the roof.

Although a gravity analysis is beyond the scope of this Condition Assessment, no site observations were made indicating failure or deficient strength in the existing gravity load-carrying members.

Comments and assumptions made about the building's structural system are based solely on field observations of visible elements. No calculations were completed to determine the building's structural capacity.

Roof Construction

Description & Condition: Exposed beams support the flat roof and connective covered walkway that extends to Canyon Lodge. A majority of the exposed roof beams and roof joists are decaying. **Serious.**



Photo C-74: Decay at beam end. Facilities Condition Assessment Photo #6539-S002-4.



Photo C-75: Deterioration at end of joist. Facilities Condition Assessment Photo #6539-S002-3.

Administration Building HVAC

HVAC System

Heating & Cooling

Description & Condition:

Heating water is piped to building from adjacent Canyon Lodge and is run throughout the building in a mix of un-insulated and insulated copper piping to baseboard fin-tube radiation. The Computer Room is cooled by an air-cooled condensing unit located above the north entrance to the building; the evaporator is located on the north side of the computer room.

Condition: The majority of piping is un-insulated.

1. The hydronic fin tube cover is missing in the southwest corner of office #109 and the southwest corner of Office #111. **Serious**.
2. The condensate drain coming from the indoor evaporator on the north side of Computer Room #112 does not drain into an approved receptacle. **Serious.**
3. Combustible materials are located near the electric baseboard heater in Office #107. **Serious.**
4. The backdraft damper on the wall cap for the ceiling fan located in the southwest corner of Office #109 is installed incorrectly and will not operate.
5. Some of the insulation on the refrigerant piping from the air-cooled condensing unit located above the north entrance of the building to the evaporator located on the north side of Computer Room #112 is missing.



Photo C-76: The fintube cover is missing from the baseboard heating unit. Facilities Condition Assessment Photo #6539-M029-2.

6. The wall penetrations where the refrigerant piping from the air cooled condensing unit above the north entrance to the building to the evaporator located on the north side of Computer Room #112 have not been sealed as required by IPC 2012 315.1.

Ventilation
Description & Condition:
Ventilation is from operable windows. Several rooms have exhaust fans to increase the ventilation rate.

Toilet rooms appear to have sufficient exhaust fan ventilation.

The Computer Room is cooled with a direct expansion air conditioning system. The remainder of the building does not have air conditioning. Several rooms have ceiling paddle fans to improve air circulation.

Non-Code Compliant Original Conditions
The following items do not comply with current code, though are assumed to have complied when the building was constructed or the item was installed.

1. The heating water piping needs to be insulated to comply with the 2012 International Energy Conservation Code.
2. The Janitor Closet #104 is not ventilated. Although this is not a code compliance issue, the industry standard is to exhaust it.
3. Office #111 does not have enough operable window area to comply with natural ventilation requirements.
4. Office #109 has no operable windows to comply with natural ventilation for ventilation requirements. The ceiling style exhaust fan can exhaust air from the room but the make-up air is pulled from Office #111 which already does not have enough ventilation.

Administration Building Plumbing

Plumbing System
Domestic Water System
Description: The domestic water entrance was not found within building, although it is assumed to be unmetered and without backflow protection. It is assumed to be fed from adjacent Canyon Lodge.

The domestic hot water is from a small electric water in attic space above Toilet #105.

Condition: Good.

Waste & Vent Piping
Description: Drain waste & vent piping is all concealed within walls and below slab on grade floor.

Condition: Good.

Fire Protection
Description: The building is protected with a wet pipe fire sprinkler system.
Condition: Good, with the following exceptions:

1. The sprinkler heads might be more than fifty years old. NFPA 25 requires the testing or replacement of heads that exceed fifty years of age. **Serious.**
2. The fire sprinkler riser located in Mechanical Room #106 is leaking. **Serious.**
3. Post indicator valve located northeast of the building is maintained in the open or closed position with a cable tie, which does not prevent tampering with the vale. **Serious.**

The following items do not comply with current code, though are assumed to have complied when the building was constructed or the item was installed.

Non-Code Compliant Original Conditions

1. According to the 2012 International Plumbing Code public lavatories are required to have temperature limiting devices at all lavatories. Lavatory faucets in public restrooms are limited to a maximum water consumption of 0.5 gallons per minute (gpm). Public lavatory faucets are also required to comply with the 2010 Americans with Disabilities Act (ADA). None of the lavatories or faucets in Men's Room # 101 or Women's Room #102 are compliant.
2. According to the 2012 International Plumbing Code water closets have a maximum water consumption of 1.6 gallons per flush (gpf) and all urinals shall have a maximum water consumption of 1.0 gpf. Based on the estimated age of the fixtures, none of the fixtures are compliant.
3. The drinking fountain is not compliant with the 2010 ADA because the handle requires gripping and twisting of the wrist.

Fixtures & Fittings
Condition: The following conditions warrant maintenance:

1. The utility sink faucet has a hose end connection, thus backflow is a potential hazard. **Serious.**
2. The water closet in Toilet Room #105 is not properly secured; it is loose and moves. **Serious.**
3. The water heater located in the attic above Toilet Room #105 is not seismically secured. **Serious**
4. The east water closet in Men's room #101 is loose and moves.
5. The south urinal in Men's Room #101 has a minor crack on the top of the urinal.
6. The north lavatory in the Men's Room #101 is not properly secured to the wall.
7. The drinking fountain in Hall #103 is not properly secured to the wall; it is loose and can move. The fountain is not ADA approved.

8. The lavatory in Toilet #105 is not properly secured to the wall; it is loose and can move.
9. The water heater drain pan in the attic above Toilet #105 appears to be retaining water.
10. The water heater drain pan drain pipe is not the required size and the termination is non-compliant.
11. The floor drain cover in the Men's Room #101 is damaged.



Photo C-77: The utility sink is not fitted with a backflow preventer. Facilities Condition Assessment Photo #6539-M-013-2.

Administration Building Electrical

Electrical System

Electrical Service

Description & Condition:

The Administration Building is fed by a 70 amp, 120/208 volt, three-phase, 4-wire system originating in the Canyon Lodge load center "ER2" which is connected to the Lodge generator/manual transfer switches. A main service rated manual disconnect switch does not exist. The NEC requires a service rated manual disconnect whether it be on the exterior/interior of the building. Most local jurisdictions including Yellowstone National Park area require the manual disconnect on the exterior of the building in the event that the power has to be disconnected. In addition to the service rated manual disconnect switch NEC Article 250 requires the building to have its own grounding electrode and electrical distribution system (this gets complicated as the building is being fed from the generator connected to the Lodge electrical distribution system). Currently the building does not have a grounding electrode system.

Switchboard & Panelboards

Description & Condition:

The 70 amp three pole circuit breaker in "ER2" feeds two 100 amp, main lug only, 120/240 volt, three phase, 4-wire GE load centers (A-ADB and SUB A-ADB) in the building via (4) #3 AWG conductors (with no equipment ground and at some point along the length of the feeder the #3 AWG CU conductors have been spliced to #2/0 AWG AL conductors). Neither load center has a main disconnect. The GE load centers are in good condition (one of them was installed upside down); however, they lack critical components to bring the building distribution up to current NEC. In addition, the sub-feed GE load center (SUB A-ADB) feeds the Post Office building (just north of the Registration building) via a 50 amp two pole circuit breaker. This is in violation of the NEC for all of the same reasons explained here above in this report pertaining to the Lodge distribution feeding this Registration Building. There are two other load centers (both Bryant, 100 amp rated, 4 circuit) that are beyond their useful life and are in need of being replaced. The Bryant load centers lack critical components to bring the building distribution up to current NEC as well.

1. GE load center "A-ADB" and "A-ADB Sub" are not permanent identified.
2. Load centers in Mechanical Room #106 and Computer Room #112 are obsolete.

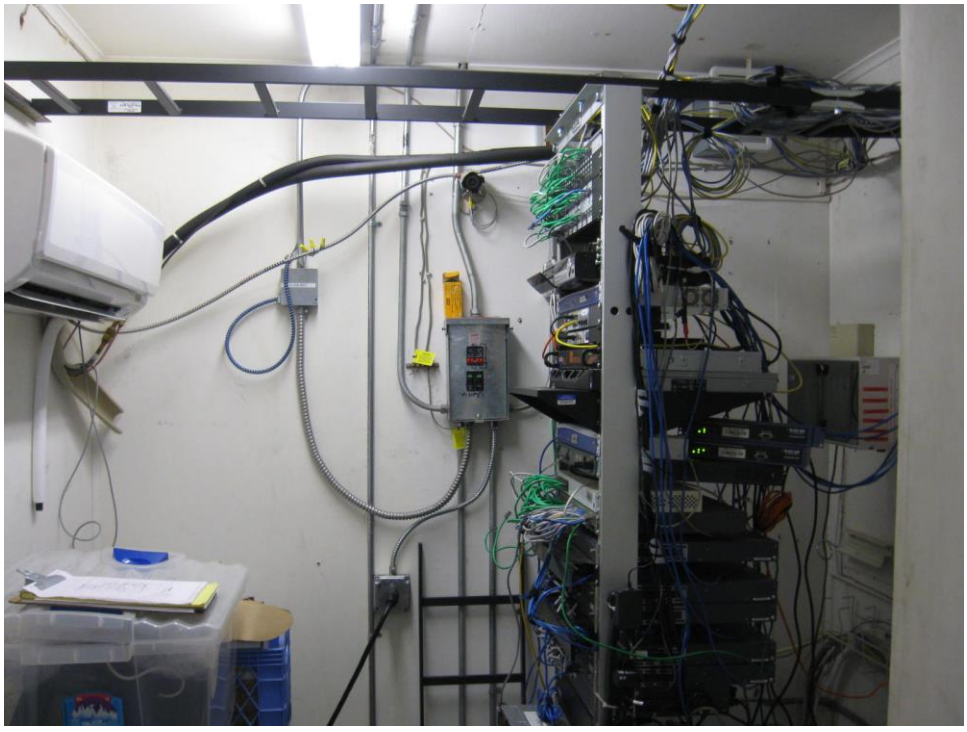


Photo C-78: Obsolete load center in Computer Room #112. Facilities Condition Assessment Photo #6539-E004-1.

Electrical Distribution

Description & Condition:

There are many National Electrical Code violations in this building's electrical distribution including the following, but not limited to:

1. Grounding electrode (doesn't exist).
2. Grounding electrode conductor (doesn't exist) shall be bonded to the main water service pipe within 10 feet of where the main water service pipe enters the building.
3. Equipment ground (doesn't exist).
4. Identification of all conductors (they are not identified or color coded).
5. Sharing of neutral conductors (this is acceptable for up to three branch circuits only if the circuit breakers are grouped together and have a single handle tie such that when one breaker is turned off all three breakers will be turned off).
6. Neutral/ground bond (non-existent, this bond is required at the main service rated disconnect where the grounding electrode conductor from the grounding electrode is connected to the neutral bus bar and the equipment ground bus bar. It is critical that the neutral (a current carrying conductor) and ground (a non-current carrying conductor) must not be bonded anywhere else in the building electrical distribution. Many of the park buildings have electrical distribution in which the neutral conductors and equipment grounding conductors are treated as one and the same.
7. Phase-rotation (critical for single phase and three phase motor operation - many times this is unable to be determined during field investigation as the color coding of conductors is not typically followed in park buildings).

Branch Wiring

Description & Condition:

Branch wiring throughout the building is mainly in good condition; however, many of the feeders/branch circuits are missing an equipment ground. Under previous NEC editions it may have been acceptable to use conduit as a ground as long as it was continuous. From the field investigation it was noted that many conduits where not electrically continuous. Most of the branch circuit wiring is concealed in walls, above ceilings, and under floors.

The grounding system for the building needs to be investigated further by an electrician.

1. The building has an adequate number of receptacles. Ground fault circuit interrupting receptacles have been installed in appropriate locations. There is one exterior GFCI protected receptacle on the east exterior wall of this building which does not have an "in-use" weather proof cover installed. This specific receptacle was addressed in the 2008 Facilities Condition Assessment as it was not GFCI protected nor did it have a continuous "in-use" weather proof cover installed at that time. This exterior GFCI protected receptacle shall have a continuous "in-use" weather proof cover installed per NEC. This has been addressed in the

deficiency section of this report. A few two-prong receptacles which should be GFCI protected still exist in the building.

Lighting Fixtures & Illumination Levels

Description & Condition:

Lighting throughout the interior of the building is comprised of surface-mounted incandescent fixtures, surface mounted fluorescent acrylic wrap fixtures utilizing T8/T5 lamps and electronic ballasts and pendant/surface mounted fluorescent fixtures which are utilizing T12 lamps and magnetic ballasts in many cases. The T12 fixtures are beyond their useful life and are in need of being replaced. Many of the lamps in the building are incandescent with some being self-ballasted, screw-in type compact fluorescent lamps.

In instances where an incandescent lamp is being used it is recommended that it be replaced with a screw-in type compact fluorescent lamp utilizing integral ballast or LED lamp.

The control for interior lighting is accomplished with a single pole light switches. The lighting levels throughout the building seemed to be acceptable. The exterior lighting is comprised of recessed metal halide down lights and surface mounted incandescent fixtures. The lamps in these fixtures should be replaced with compact fluorescent lamps or LED lamps for energy savings. The emergency lighting is comprised of emergency wall mounted battery operated lighting units to light the paths of egress.

Some of the spaces are lacking on emergency lighting. The building entrances don't have emergency remote head lighting fixtures lighting the path of egress.

The exit signs throughout the building are LED type with battery back-up and are in good condition.

Interior Devices

Description & Condition:

1. Double duplex receptacle has a split face plate, located high on east wall of Lobby #100.
2. Receptacles are broken in Rooms #108, 114, and 115.
3. The receptacle in Room #112 is missing a faceplate.

Exterior Devices

Description & Condition:

1. The GFI receptacle located on the east exterior wall does not have a weatherproof in-use cover.
2. Exterior conduit penetrations at northeast exit from building high up on the exterior wall, and at the west side of the building, have not been sealed properly.



Photo C-79: The exterior receptacle doesn't have a weatherproof in-use cover. Facilities Condition Assessment Photo #6539-A013-1.

Fire Alarm System

Description & Condition:

There is an existing fire alarm system for the computer Room #112 in this building. The fire alarm control panel is a Bosch series D7412GV2 with battery backup and is in good condition. In Room #112, there is a heat/smoke detector, horn/strobe and manual pull-station installed. There are ceiling-mounted smoke detectors (with battery) located in a few of the spaces. These smoke detectors are not connected to the fire alarm system. The smoke detectors appear to be in good condition.

This building does have a fire sprinkler system installed; however, the fire alarm system does not monitor it. Current codes require the fire sprinkler system to be monitored.

Communications System

Description & Condition:

A communications system has been provided for this building and is located in room 112. This room contains a telephone termination board, the building sound system, and the data rack for the Canyon lodge. This building does have an Uninterruptible Power supply located in room 112. Voice and data jacks are located throughout the building. It has been noted that the data rack doesn't have seismic bracing.

PART 2. TREATMENT AND USE

D. Historic Preservation Parameters

Statement of Integrity

Examination of the character-defining features of Canyon Village Lodge and its companion Administration Building reveals properties with high integrity, establishing each of the seven aspects of integrity, as follows:

Integrity is the ability of a property to convey its significance.

1. *Location:* Both Canyon Lodge and the Administration Building remain in the locations where they were originally constructed, thus maintaining their relation to each other and to the full setting of Canyon Village within Yellowstone National Park.

Location is the place where the historic property was constructed.

2. *Design:* The massing, floor plans, spatial volumes, structure, and modernist style of each building remain constant and instantly recognizable. With minor, cosmetic (primarily colors and interior furnishings) modifications, the buildings appear as they did when first constructed. (Note that the color and furnishings were evocative and valuable aspects of the original design; restoration of this character is recommended.)

Design is the combination of elements that create the form, plan, space, structure, and style of a property.

3. *Setting:* The setting for Canyon Lodge and the Administration Building has been likened to a shopping mall, due to the large parking lot that the two buildings – and three others – face. This parking lot and the three other buildings remain, as does the sloped site beyond each of these buildings. The overall character of this setting remains largely unchanged, with the exception of the following:
   - ~ A paved plaza with rubble stone walls has been placed in front (to the west) of each building, and between the buildings and the parking lot. This has replaced the original irrigated lawns. The plaza is not in keeping with what would have likely been designed in the 1950's when the buildings were designed; the plaza reads clearly of its 2013 design and construction. This incompatible feature doesn't detract substantially from the buildings and their use.
   - ~ The original Canyon Visitor Center was essentially replaced in 2007. The new visitor is on the same site and used part of the original building. An Environmental Assessment and Section 106 review provided compliance for this modification.

Setting is the physical environment of a historic property.

4. *Materials:* Both buildings are constructed of, and finished in, materials that are indicative of their 1950's period and modernist style of construction. As repairs have been performed, care has been taken to retain as much of the original material as possible. Most of the character-defining features remain; where removed, vestiges often remain as clues to the original construction.

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

5. *Workmanship:* The workmanship involved in both buildings was the type that relied upon advanced technology and equipment (cranes), contrasted with the simple carpentry associated with installation of

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.

Association is the direct link between an important historic event or person and a historic property.

most of the finishes. The evidence of the high quality of workmanship is evident in the stability and trueness of the structure and finishes.

6. *Feeling:* Canyon Lodge and the Administration Building easily convey the feeling of modernism associated with Mission 66. They are emblematic of that time period.
7. *Association:* Canyon Lodge and the Administration Building is the location where Mission 66 began. The predominance of character-defining features contributes heavily to this association, leading the typical visitor to feel that nothing has changed. See, however, Note 2 - Design above about colors and furnishings.

As a whole, the integrity of the two buildings is high and they are still considered contributing features to the Canyon Village Historic District.

Restoration Target Date

For the purposes of formulating a treatment approach for Canyon Village Lodge and the Administration Building, it is recommended that the exterior and main public spaces of the buildings be returned, where feasible, to a Restoration Target Date that coincides with the Period of Significance: 1955-1966.

Historic Preservation Objectives

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* afford four distinct treatment approaches: rehabilitation, preservation, restoration and reconstruction. On the surface, **rehabilitation** and **restoration** are both defensible treatment strategies for Canyon Village Lodge and the Administration Building. However, given the park management's desire to identify and utilize available space for contemporary park functions, complete **restoration** could hamper efforts at best use, while **rehabilitation** could become the recommended long-term treatment. A combination of the two is recommended, in order to ensure retention and reconstruction of some of the most important character-defining features of the properties, while allowing full use of the buildings.

This approach is recommended where sufficient physical and archival evidence exists for accurate representation.

Rehabilitation is an appropriate treatment for maintaining historical integrity and retaining features of significance while accommodating new or contemporary uses. Features and spaces that support back-of-the-house functions and are of secondary or tertiary importance can be made available for full remodeling within the confines of the existing structures.

The two recommended intervention philosophies are defined as follows:

1. Rehabilitation: 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.

2. Restoration: the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.[206]

[206] Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring & Reconstructing Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, 1995), p. 17, 61, 117, and 165.

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E. Ultimate Treatment and Use

Current Building Uses

A summary and study of the buildings' uses over time, presented as part of Existing Conditions (see page 101), is the first step in ascertaining the most appropriate future uses. Definition and allocation of space is, of course, also dependent upon future market needs. The following attributes can help NPS and Xanterra anticipate future needs of the Canyon Lodge and Administration Building:

1. The number of overnight rooms available at Canyon Village is being increased to five hundred and eighty-eight as part of the new development efforts (providing lodges similar to Dunraven and Cascade Lodges).
    a. The rooms will cost approximately $200/night.
    b. This will increase the number of people dining at Canyon Lodge.
2. General Notes about Canyon Village:
    a. Administrative office space is insufficient in size.[207]
3. Canyon Lodge – upper level spaces:[208]
    a. The manual venting system pulls air in from the lower windows at the east side and draws air out at the upper transoms on the west side. Due to southwest prevailing winds, this doesn't create an odor issue from east side loading dock. It does bring noise from the loading dock into the dining area.
    b. There is terrific solar gain from the west-facing windows.
    c. Visitors need to go outside to go from the Deli #215 to the Cafeteria #216; this is inconvenient.
4. Canyon Lodge – lower level spaces:[209]
    a. The Employee Pub has long been perceived as inadequate, as it is too small for the 450 employees present during peak season.
    b. The folding partitions are unattractive, albeit functional.
    c. The restrooms are too big and take up too much space.
    d. The west-facing rooms are windowless and dark.
    e. Many of the windows from the east-facing rooms have been removed, making the rooms windowless and dark.

[207] Comment provided by Steve Fuller of Xanterra, onsite interview September 30, 2013.
[208] Comments provided by Steve Fuller of Xanterra, onsite interview September 30, 2013.
[209] Comments provided by Steve Fuller of Xanterra, onsite interview September 30, 2013.

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Potential Building Uses

No new building uses have been proposed for either building, yet the type of current development around them often precedes alterations. Based upon the above attributes and the physical characteristics of the spaces, the following uses could be considered in keeping with the historic character of each building:

1. Canyon Lodge:
    a. Lower Level:
        i. Convert the Employee Pub, Recreation Room, Weight Room, and Employees' Dining Room to concessioner administrative office space. Install windows – where not at new shear walls – in original locations on the east wall.
        ii. Renovate the restrooms.
        iii. Exercise and dining facilities for employees should be located in a dedicated facility (generically referred to as "Building A") elsewhere, outside of the visitor areas, in Canyon Village.
        iv. Laundry could be located in "Building A" as well, freeing up more space for offices.
        v. The employee housing should be retained at the south end, to keep residents in the building, for security and safety reasons.
    b. First Floor:
        i. A variety of dining experiences should be retained, including:
            1) Cafeteria style dining.
            2) Sit-down full service dining.
            3) Bar in the Lounge, with snacks available.
        ii. Consideration should be given to eliminating the deli, if this service is provided elsewhere. It could be incorporated into the Cafeteria product line.
        iii. Interpretative display of Mission 66 in the Lobby per the MOA; this could contain QR (quick response) codes linked to a website.
2. Canyon Lodge Administration Building:
    a. Retain Lobby for registration to the lodges.
    b. Incorporate the U.S. Post Office into the lobby.
    c. Reconfigure the offices at the north portion for greater spatial efficiency.
    d. Renovate the restrooms to provide accessibility. Check the Code Analysis for number of plumbing fixtures required, based upon occupancy type and load.
    e. Interpretative display of Mission 66 in the Lobby per the MOA; this could contain QR (quick response) codes linked to a website.
3. Original Recreation Hall site:
    a. Construct a building compatible to the Mission 66 style at the site originally intended for the Recreation Hall.
    b. Building uses should either be for the public or for NPS or concessioner administrative offices, or a combination.

c. Partial building use could be as a museum dedicated to the history of Mission 66.
d. Partial building use could be as a U.S. Post Office, as suggested for the site, in the Environmental Assessment for the Canyon Visitor Center Rehabilitation prepared by NPS in 2001.[210]

4. Cabins: Retain the representative prefabricated example, in situ, of the cabin used by YPSS.
5. The above uses can accommodate some level of restoration of missing components that were hallmarks of the Mission 66 style.

Original Recreation Building Site

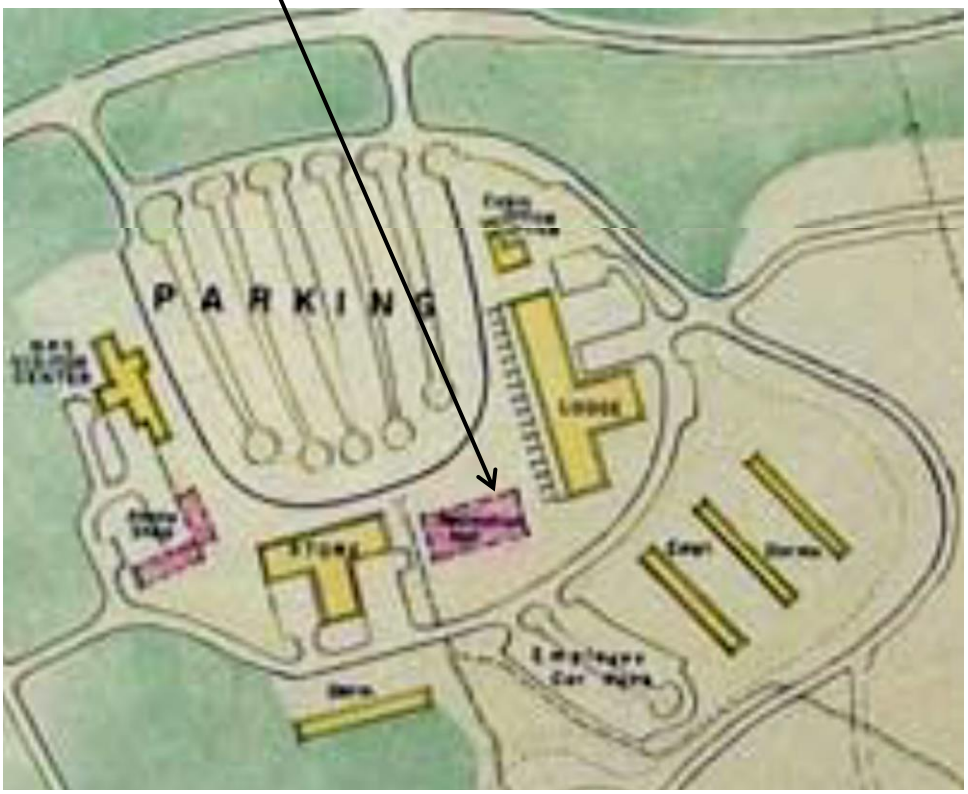


Figure E-1: Excerpt from November 1956 Canyon Village Master Development Plan, extracted from Papineau's thesis, page 374 (Source: Yellowstone National Park Archives).

[210] Beth Kaeding, Diane Chalfant, Linda Young, Lon Johnson, and Doug Madsen. *Environmental Assessment Canyon Visitor Center Rehabilitation*, February 2001, page 6.

F. Requirements for Treatment

Compliance requirements for treatment currently include laws, regulations, and standards as outlined by NPS in NPS-28: Cultural Resource Management (Chapter 8).

Section 106 Compliance

Brief Overview of Section 106

Section 106 of the National Historic Preservation Act of 1966 mandates that every federal undertaking or federally funded undertaking must determine what effects, if any, it will have on historic resources, and take appropriate measures to mitigate any adverse effects. This act was originally initiated and subsequently strengthened several times in order to protect the nation's historic resources. Any property listed – individually or as a contributing feature of a historic district - in the National Register of Historic Places, or eligible for listing in the National Register, is considered a historic resource.

The agency undertaking the proposed project is responsible for initiating the Section 106 review process with the appropriate State Historic Preservation Office. The review process is optimally initiated when the properties that might be affected have been identified (the area of potential effect) and the scope of work clearly described, while the plan is still in its initial stages. This process accommodates changes that are required to mitigate potential adverse effects. During the review process the State Historic Preservation Office, the Advisory Council for Historic Preservation, and occasionally representatives from other agencies whose interests are potentially affected by the project, will have the opportunity to comment on the proposed project. If it is determined that the proposed project will have no adverse effect on the historic properties identified, or the agency undertaking the project and the SHPO are in agreement that appropriate steps have been taken to mitigate any adverse effects, then the SHPO may give approval for the project.[211]

The MOA (See Appendix B) state that work to be performed on Canyon Lodge and the Administration Building "will comply with Secretary of the Interior's Standards for the Treatment for Historic Properties and will require consultation and concurrence from/with WYSHPO."[212]

Evaluation of the Proposed Treatment

The evaluation of work for Section 106 review assigns proposed work to one of three categories. These categories are No Effect, No Adverse Effect, and Adverse Effect, defined below:

1. No Effect: The work performed will not affect any historic property.

[211] http://wyoshpo.state.wy.us/SHPOweb2002/2002webpages/sec106.htm
[212] MOA, page 2. See Appendix B.

2. No Adverse Effect: The work performed will affect a historic property, but the effect will not be harmful nor have a negative impact on the historic property.

3. Adverse Effect: The work performed will affect a historic property, and the effect will be harmful to, or have a negative impact on, the property.

Mitigation for Adverse Effects

Specific actions or steps are performed to eliminate or reduce harmful effects to the historic property caused by the work performed.

Evaluation of Proposed Design Impact

Designs for work to be performed on and around the character-defining features of Canyon Lodge and the Canyon Lodge Administration Building should be submitted for Section 106 review in their beginning stages. The drawings, and the accompanying design narratives, should be reviewed to ascertain the proposed project's impact on the historic fabric of the buildings. How each character-defining feature will be affected by the proposed work should be analyzed and recommendations for mitigating any negative effects should be included. Where documentation with measured drawings and photographs is recommended, the documentation should be in accordance with Historic American Building Survey (HABS) standards.

Compatibility

Contemporary additions or development adjacent to these historic structures should be designed to complement the structures' visual and physical characteristics, as outlined in Character-Defining Features. Concern for the compatibility of additions extends to both the exteriors and interiors of historic structures. Special attention should be given to new construction within historic districts.

If a new structure is built where the original Recreation Hall was intended, it should be compatible with Canyon Village Lodge, the Administration Building, and the adjacent Hamilton Store. While it might take some design clues from the original design for the Recreation Hall, it should not replicate it. To do so would create a false sense of history.

Building Code Analysis

General

The State of Wyoming and NPS follow the 2012 International Building Codes, including the *International Existing Building Code* (IEBC). It is recommended that the IEBC be applied when consideration is given to making alterations at these two buildings. As existing buildings, without a substantial change in occupancy, not all clauses of the *International Building Code* apply, particularly since the buildings are fully equipped with automatic sprinkler systems.

However, it is imperative that the buildings be made as safe as possible, within the parameters of their historic character, use, and specific location. Analysis begins with referencing the following basic parameters for occupancy type, plumbing fixture counts, and means of egress in concurrence with the *2012 International Building Code* (IBC). This initial analysis does not take existing or historic building clauses/exemptions into account.

Code Requirements

A full code analysis is provided on the following pages; a summary of recommended actions is included at the end of the analysis.

Construction Date:

Constructed 1957

Construction Type:

Type VB

Occupancy Types:

1. Canyon Lodge
    a. Main Floor
        i. A-2: Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens); bars
        ii. M: Mercantile (retail or wholesale stores)
    b. Lower Level
        i. A-2: Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens); bars
        ii. A-3: Recreation/Weight room
        iii. B: Offices
        iv. H-2: High hazard Group (Class I, II or IIIA flammable or combustible liquids; combustible dusts; flammable gases; oxidizers)
        v. R-2: Residential occupancies containing sleeping units where the occupants are primarily permanent in nature, including dormitories.
        vi. S-1: Moderate-hazard storage of clothing (Laundry folding/holding area)
        vii. S-2: Low-hazard storage of non-combustible products such as food, fresh fruits and vegetables, and empty cans.
2. Canyon Administration Building
    a. Main Floor
        i. B: Business Group for visitor check-in and administrative offices.

Occupancy Loads and Related Code Requirements – Current Uses

The following occupancy loads are based upon the maximum floor area allowances per occupant per function of space, as provided in 2012 IBC Section 1004 (Occupant Load). The different occupancy types have different occupancy load factors; for instance, restaurant occupancies are based on 15 net sf/occupant (tables and chairs) and business occupancies are based on 100 gross sf/occupant.

Legend: s.f. = square foot; Occ. = occupancy; wc = water closet; lav = lavatory (sink); HC = handicapped

Space	***Occupancy Type - Current***	***Area (square feet)***	***Occ. Load***	***Plumbing Fixture Counts****		***Means of Egress (# of Exits)****	
Canyon Lodge				M	F	Req'	Actual
Main Floor							
	A-2: Restaurants, cafeterias, bars	10,298 s.f.	687	5 wc 2 lav	5 wc 2 lav		
	A-2: Commercial Kitchen	8,387 s.f.	42	above	above		
	M: Mercantile (retail or wholesale stores)	1,520 s.f.	51	1 wc 1 lav	1 wc 1 lav		
TOTAL	**Current building restrooms provide these counts. Restroom #210 is Unisex handicapped accessible.**		**780**	**6 wc 3 lav**	**6 wc 3 lav**	**3**	**7**
Lower Level							
	A-2: Restaurants & cafeterias (Employees' Dining Room)	2,199 s.f.	147	3 wc 2 lav	3 wc 2 lav		
	A-2: Pub	1,084 s.f.	73	above	above		
	A-2: Commercial Kitchen	900 s.f.	5	above	above		
	A-3: Recreation & Weight Rooms	1,755 s.f.	36	1 wc 1 lav	1 wc 1 lav		
	B: Offices	1,734 s.f.	18	1 wc 1 lav	1 wc 1 lav		
	R-2: Residential occupancies (8 double-occupancy units)	2,991 s.f.	16	In units	In units		
TOTAL	**Current restrooms provide 6 wc's and 3 lavs; no HC stalls.**		**295**	**5 wc 4 lav**	**5 wc 4 lav**	**2**	**6**
Administration Building							
Main Floor	B: Offices and counter-help	2,174 s.f.	22	1 wc 1 lav	1 wc 1 lav		
TOTAL	**Current restrooms provide 2 wc's and 2 lavs each sex; no handicapped stalls.**			**1 wc 1 lav**	**1 wc 1 lav**	**1**	**2**

*Per IBC Chapter 29. Note that drinking fountains (two on the first floor of the Lodge, one on the lower level, and one in the Administration Building) and service sinks (one per building) are required as well.
**Per IBC Section 1015. Also per IBC Section 1016, exit access travel distance maximum is 250 feet for buildings of these uses (with 300 feet allowed for business occupancy) that are equipped with automatic sprinkler systems, as these buildings are. The maximum travel distance in Canyon Lodge is 199 feet; in the Administration Building is 53.5 feet.

Recommendations, to accommodate current uses:

1. Canyon Lodge, lower level, Restrooms #104 & 105: In each restroom, modify two stalls at the west end into one handicapped accessible stall.
2. Canyon Lodge Administration Building: Reconfigure Restrooms #101 & 102 to provide handicapped accessible restrooms with at least 1 water closet and 1 lavatory each.

Occupancy Loads and Related Code Requirements – Potential New Uses

Potential changes in use result in different occupancy requirements, which effects plumbing fixture and egress counts. The modifications are highlighted with aqua shading below. The Change in Occupancy - from B to A-2 - for the Canyon Lodge Administration Building is addressed further in the analysis of the *International Existing Building Code* below.

Space	***Occupancy Type – Potential Variant***	***Area (s.f.)***	***Occ. Load***	***Fixture Counts****		***# of Exits****	
Canyon Lodge				M	F	Req'd	Actual
Main Floor							
No change recommended	A-2: Restaurants, cafeterias, bars	10,298 s.f.	687	5 wc 2 lav	5 wc 2 lav		
No change	A-2: Commercial Kitchen	8,387 s.f.	42	above	above		
No change	M: Mercantile (retail or wholesale stores)	1,520 s.f.	51	1 wc 1 lav	1 wc 1 lav		
TOTAL	**Current building restrooms provide these counts. Restroom #210 is Unisex HC accessible.**		**780**	**6 wc 3 lav**	**6 wc 3 lav**	**3**	**7**
Lower Level							
	B: Offices	7,702 s.f.	78	2 wc 1 lav	2 wc 1 lav		
No change	R-2: Residential occupancies (8 double-occupancy units)	2,991 s.f.	16	In units	In units		
TOTAL	**Current restrooms provide 6 wc's + 3 lavs; no HC stalls.**		**94**	**2 wc 1 lav**	**2 wc 1 lav**	**2**	**6**
Admin. Building							
Main Floor	A-2: Entertainment, coffee house type, venue	1,445 s.f.	97	2 wc 1 lav	2 wc 1 lav		
TOTAL	**Current restrooms provide 2 wc's + 2 lavs each sex; no HC stalls.**		**97**	**2 wc 1 lav**	**2 wc 1 lav**	**2**	**2**

*Per IBC Chapter 29. Note that drinking fountains (two on the first floor of the Lodge, one on the lower level, and one in the Administration Building) and service sinks (one per building) are required as well.
**Per IBC Section 1015. Also per IBC Section 1016, exit access travel distance maximum is 250 feet for buildings of these uses (with 300 feet allowed for business occupancy) that are equipped with automatic sprinkler systems, as these buildings are. The maximum travel distance in Canyon Lodge is 199 feet; in the Administration Building is 53.5 feet.

Recommendations, to accommodate modified uses:

1. Canyon Lodge, lower level, Restrooms #104 & 105: In each restroom, modify two stalls at west end into one handicapped accessible stall. There is also the potential to remodel these restrooms to provide the lesser number of plumbing fixtures and gain space for a different use; however, installation of the greater number of fixtures provides for flexibility in future planning of the adjacent spaces.
2. Canyon Lodge Administration Building: Reconfigure Restrooms #101 & 102 to provide handicapped accessible restrooms with at least 2 water closets and 1 lavatory each.

Summary of Code Compliance Determination

Per Article 301.1 of the *2012 International Existing Building Code*, there are three allowable compliance methods, one of which needs to be followed for an existing building's renovation work to comply with the code. They are as follows:

(1) Prescriptive Compliance Method: Repairs, alterations, additions and changes of occupancy comply with Chapter 4 of this code and the *International Fire Code*. The *International Fire Code* is not mandatory for the alteration and repair of historic buildings when such buildings or structures do not constitute a distinct hazard to life or property.[213]

(2) Work Area Compliance Method: Repairs, alterations, additions and changes of occupancy comply with applicable provisions of Chapters 5-13 of this code. This is the recommended method for compliance for Canyon Lodge and the Canyon Lodge Administration Building.

(a) There are three alteration levels, organized in increasing order of work performed on the building.

(b) Code compliance factors for each alteration level include, by definition, the compliance factor of the preceding alteration level. For example, Alteration Level 3 compliance includes compliance with Level 1 and Level 2.

(c) The three levels of alteration are defined in the summary of Chapter 5 below (Code Compliance Provisions on page 204).

(3) Performance Compliance Method: Repairs, alterations, additions and changes of occupancy comply with applicable provisions of Chapter 14 of this code.

The Work Area Compliance Method is typically more feasible for historic buildings and renovations that don't encompass the entire building, hence it is recommended as the code-compliance approach for Canyon Lodge and the Canyon Lodge Administration Building.

Code Compliance Provisions

The following code analysis outlines the major provisions of the *2012 International Existing Building Code* and those of the *2012 International Building Code* referenced therein. This analysis includes those provisions which could apply to Canyon Lodge and the Canyon Lodge Administration Building. Alteration

[213] *2012 International Fire Code*, Section 102.6, p. 2.

Level One and Level Two are anticipated for future work on the buildings. Alteration Level Three is included in case more extensive work is considered. Per IEBC Section 403.1: "Alterations shall be such that the existing building or structure is not less conforming to the provisions of the *International Building Code* than the *existing building* or structure was prior to the *alteration*."[214]

Change of Occupancy provisions are included in case consideration is given to changing the use of the Administration Building; this level of modification requires greater compliance with various clauses in IBC, as noted below.

The code provisions are generally paraphrased and abbreviated to include only relevant aspects; the shorter, simpler provisions are stated verbatim, yet not included within quotation marks. With few exceptions, where an article does not apply to these building types, size, configuration, etc., the article is not included herein. As with the application of all codes, any work performed as a result of this analysis should refer to the actual code and should be reviewed with the Authority Having Jurisdiction. A specific application statement is made where interpretation is required. Where the application indicates probable action, it is included in the subsequent Summary of Code-Required Revisions.

Chapter 2: Definitions		
Code Reference	**Code Provision**	**Code Application**
202	Change of Occupancy:	**Application:** Lodge - no change in occupancy. Administration Building: Either no change or change from B to A-2.
202	Historic Building:	**Application:** Both buildings are contributing features of a historic district determined eligible for listing in the National Register of Historic Places.
Chapter 5: Description of Alteration Levels (Work Area Compliance Method)		
503	Alteration Level 1:	Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose. Such alterations shall comply with the provisions of Chapter 7. **Application:** This level is sufficient for replacement of finishes and fixtures serving the same purpose as do the existing.
504	Alteration Level 2:	Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment. **Application:** This level is sufficient for the proposed rehabilitation, except for potential Change in Occupancy of the Administration Building.
505	Alteration Level 3:	Level 3 alterations apply where the work area exceeds 50% of the aggregate area of the building. **Application:** This level applies to a larger scope of work than proposed, unless a Change of Occupancy is enacted at the Administration Building.

[214] International Code Council, *2012 International Existing Building Code*, page 16.

Code Reference	Code Provision	Code Application
508.1	Historic Buildings:	Except as specifically provided for in Chapter 12, historic buildings shall comply with applicable provisions of this code for the type of work being performed. **Application:** These provisions are noted throughout this analysis, where applicable.
Chapter 6: Alterations – Level 1 (Work Area Compliance Method)		
702.1-.3	Interior Finishes:	All newly installed interior finishes and trim shall comply with flame spread and radiant flux requirements of the IBC.
703.1	Fire Protection:	Alterations shall be done in a manner that maintains the level of fire protection provided. **Application:** Both buildings are equipped with automatic fire sprinkler and fire alarm systems.
704.1	Means of Egress:	Repairs shall be done in a manner that maintains the level of protection provided for the means of egress. **Application:** Canyon Lodge's and the Administration Building's means of egress and exit access travel distances comply with the *2012 International Building Code (IBC)*. Exit quantities and the maximum travel distances are provided in the ***Occupancy Loads and Related Code Requirements*** above.
705.1	Accessibility:	A building or element that is altered shall comply with the applicable provisions in Sections 705.1.1-705.1.14 and Chapter 11 of IBC, unless technically infeasible.
705.1.1	Entrances:	Where an alteration includes alterations to an entrance, and the building has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 705.2. **Application:** Both buildings have accessible routes to accessible entrances.
705.1.4	Ramps:	Where steeper slopes than allowed by Section 1010.3 of the IBC are necessitated by space limitations, the slope of ramps in or providing access to existing buildings shall comply with Table 705.1.4. **Application:** Not applicable.
705.1.8	Accessible dwelling or sleeping units:	Where Group R-2 (among others) dwelling or sleeping units are being altered, the requirements of Section 1107 of the IBC for accessible units and Chapter 9 of IBC for visible alarms apply only to the quantity of the spaces being altered. **Application:** Canyon Lodge has dwelling units in the lower level.

Code Reference	Code Provision	Code Application
706.1.9	Type A dwelling or sleeping units:	Where more than 20 Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the IBC for Type A units and Chapter 9 of the IBC for visible alarms apply only to the quantity of the spaces being altered. **Application:** There are only 8 Group R-2 sleeping units in Canyon Lodge. This provision does not apply.
705.1.10	Toilet Rooms:	Where it is technically infeasible to alter existing toilet facilities to be accessible, an accessible unisex toilet facility is permitted. The unisex facility shall be located on the same floor and in the same area as the existing facilities. **Application:** ~ Canyon Lodge, first floor: A unisex facility (Room #210) has been added to the north bank of public restrooms; an accessible restroom has been added for each sex at the south bank of public restrooms (Rooms #218 & 219). ~ Canyon Lodge, lower level: The existing restrooms (Rooms #104 & 105) will need to be altered; it is technically feasible to accommodate the required fixture counts. ~ Administration Building: The existing restrooms (Rooms #101 & 102) will need to be altered; it is technically feasible to accommodate the required fixture counts.
705.1.13	Thresholds:	Maximum height of thresholds at doorways shall be ¾". Shall have beveled edges on each side. **Application:** The existing entry thresholds comply.
705.2	Alterations affecting an area containing a primary function:	The route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities or drinking fountains serving the area of primary function. Exception 1: the costs of providing the accessible route are not required to exceed 20% of the costs of the alterations affecting the area of primary function. **Application:** The routes to each building are accessible. Drinking fountains are provided in both buildings, yet are not accessible; accessible drinking fountains should be provided in each building.
706.2	Structural – Additional dead loads:	Where addition or replacement of roofing or replacement of equipment results in additional dead loads of more than 5%, structural components supporting such reroofing or equipment shall comply with the vertical load requirements of the IBC. **Application:** Canyon Lodge: The roofing renovation was completed in 2012. Administration Building: This provision could apply to reroofing (but unlikely).

Code Reference	Code Provision	Code Application
706.3	Structural – Roof diaphragm:	Where roofing materials are removed from more than 50% of the roof diaphragm of a building or section of a building located where the basic wind speed is greater than 90 mph or in a special wind region, as defined in Section 1609 of the IBC, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in the IBC, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in IBC. **Application:** If the roofing is replaced at the Administration Building, the diaphragm can be strengthened and tie straps and blocking installed.
707.1	Energy Conservation:	Level 1 alterations are permitted without requiring the entire building to comply with the energy requirements of the *International Energy Conservation Code*. The alterations shall conform to the energy requirements of the IECC. **Application:** If the roofing is replaced at the Administration Building, the R-value would be required to be upgraded to comply with the 2012 *International Energy Conservation Code*: ~ Insulation on deck: R-30 (= 5.5" thickness of polyisocyanurate) ~ Between 4x10 beams: R-49 (R-49 requires 13¾" thick cavity) Both options would have a negative visual impact on a character-defining feature of the building and should be partially waived, citing compliance with IEBC Chapter 12: Historic Buildings.
Chapter 8: Alterations – Level 2 (Work Area Compliance Method)		
803.2	Vertical Openings:	Existing vertical openings shall comply with the provisions of Sections 803.2.1, 803.2.2 and 803.2.3, except where the vertical opening enclosure is not required by the IBC or IFC. **Application:** Per IBC 712.1.8: Two-story openings, the floor openings between the first floor and lower level of Canyon Lodge are permissible without requiring enclosure. Stair #201 is not a required exit stair, hence enclosure is not required.
803.4	Interior Finish:	The interior finish of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the IBC. If they don't comply, Chapter 11 allows for retention of historic finishes.
803.5	Guards:	803.5.1 Minimum requirement. Every portion of a floor, such as a balcony or a loading dock, that is more than 30" above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards. **Application:** When the Canyon Lodge loading dock was remodeled in 2003, 42" high guards were installed where the dock is more than 30" above grade.

Code Reference	Code Provision	Code Application
804.2	Fire Protection:	Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 804.2.1 through 804.2.5. **Application:** Both buildings are equipped with automatic sprinkler systems. The system in Canyon Lodge was replaced in 2012.
804.3	Fire alarm and detection:	An approved fire alarm system shall be installed in accordance with Sections 804.4.1 through 804.4.3. **Application:** Approved fire alarm systems have been installed in both buildings.
805.1	Means of Egress:	Requirements of Section 8 shall be limited to work areas that include exits or corridors shared by more than one tenant within the work area in which Level 2 alterations are being performed. **Application:** Both buildings have sufficient exiting.
805.4.1	Two Egress Doorways required:	Work areas shall be provided with two egress doorways. **Application:** There are at least two egress doorways in each building.
805.4.2	Door swing:	In the work area and in the egress path from any work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel. **Application:** All the exit doors swing in the direction of exit travel.
805.4.3	Door closing:	In any work area, all doors opening onto an exit passageway at grade shall be self-closing or automatically closing by listed closing devices. **Application:** Exit discharge corridor doors, at the lower level of Canyon Lodge, and exit doors to grade are equipped with closers.
805.4.4	Panic hardware:	In any work area, and in the egress path from any work area to the exit discharge, in buildings of Group A assembly occupancies with an occupant load greater than 100, all required exit doors equipped with latching devices shall be equipped with approved panic hardware. **Application:** ~ Canyon Lodge: None of the exterior west exit doors are equipped with latching devices, hence panic hardware is not required. Cross bars, of aluminum or wood, are provided. ~ Administration Building: The building is not Group A assembly and occupant load is less than 100, yet the south entry is latched at the center astragal and equipped with approved panic hardware.

Code Reference	Code Provision	Code Application
805.5	Openings in corridor walls:	Openings in corridor walls in any work area shall comply with Sections 805.5.1 through 805.5.4, except where such corridors are not required to be rated in accordance with the IBC. **Application:** ~ Canyon Lodge, except R-2: Zero rating required, with sprinkler system. ~ Canyon Lodge, R-2: 0.5 corridor rating required. ~ Administration Building: Zero rating, with sprinkler system.
805.5.1	Corridor doors:	All dwelling unit or sleeping unit corridor doors in work areas in buildings of Groups R-1, R-2, and I-1 shall be at least 1-3/8" solid core wood or approved equivalent and shall not have any glass panels, other than approved wired glass or other approved glazing material in metal frames. **Application:** Canyon Lodge dorm units have hollow core entry doors which should be replaced when work is performed in this work area.
805.6	Dead-end corridors:	Dead-end corridors in any work area shall not exceed 35 feet. **Application:** There are no dead-end corridors exceeding 35 feet in either building.
805.7	Means-of-egress lighting:	Means-of-egress lighting shall be provided in accordance with the requirements of the IBC. **Application:** Both buildings are equipped with egress lighting.
805.8	Exit signs:	Exit signs shall be provided in accordance with IBC requirements. **Application:** Both buildings are equipped with exit signs at designated exits.
805.9	Handrails:	Every required exit stairway that is part of the means of egress for any work area and has 3 or more risers and is not provided with at least one handrail, or in which the existing handrail is in danger of collapsing, shall be provided with handrails for the full length of the run of steps on at least one side. **Application:** All of the stairways have handrails that are not in danger of collapsing. The interior stairway at the northeast corner of Canyon Lodge is not an exit stairway. **Additional Provision, per 1203.9:** Existing handrails and guards at all stairs (of historic buildings) shall be permitted to remain, provided they are not structurally dangerous.
806	Accessibility:	This section applies to the addition of R-2 sleeping units. **Application:** Sleeping units are not being added to Canyon Lodge.

Code Reference	Code Provision	Code Application
807.4	Structural:	Where alteration work includes installation of additional equipment that is structurally supported by the building such that portions of the building become subjected to higher gravity loads (5% greater than existing), then this section applies. **Application:** The addition of more gravity loads is not anticipated at either building.
807.5	Existing lateral loads:	Alterations affecting the demands or capacities of existing elements of the lateral load-resisting system shall be evaluated using the wind provisions of the IBC and the reduced IBC-level seismic forces. **Application:** The Canyon Lodge 2012 reroofing project included modifications to resist roof snow load, wind load, and seismic loads.
808.1	Electrical – new installations:	All newly installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements of Chapter 7.
808.2	Electrical - existing installations:	Existing wiring in all work areas in Groups A-1, A-2, A-5, H, and I occupancies shall be upgraded to meet the materials and methods requirements of Chapter 7. **Application:** This article applies to both buildings for new work done related to Use Group A-2.
809	Mechanical:	In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than the air exchanges required by ASHRAE 62.
Chapter 9: Alterations – Level 3 (Work Area Compliance Method)		
901	General:	Level 3 alterations have been defined above as those where the work area exceeds 50% of the aggregate area of the building. **Application:** Work to this extent is not anticipated in either building.
904.1	Fire Protection:	Automatic sprinkler systems shall be provided in all work areas when required by Section 804.2. See 804.2 for application.
904.2	Fire alarm and detection systems:	Fire alarm and detection systems complying with Sections 804.4.1 and 804.4.3 shall be provided throughout the building in accordance with the IBC.
905	Means of Egress:	The means of egress shall comply with Section 805 and as follows: 905.2. Means of egress lighting to the floor of exit discharge shall be provided. 905.3 Exit signs shall be provided in accordance with IBC. **Application:** Both buildings comply.

Code Reference	Code Provision	Code Application
906	Accessibility:	This applies to the addition ***or alteration*** of R-2 sleeping units. **Application:** If four or more sleeping units are altered in Canyon Lodge, then they must comply with Section 1107 of IBC and Chapter 9 of IBC for visible alarms. Do they have visible alarms?
907	Structural:	All structural elements of the lateral-force-resisting system in buildings undergoing Level 3 structural alterations or buildings undergoing Level 2 alterations as triggered by Section 807.5 shall: 1. Have an engineering evaluation and analysis that establishes the structural adequacy of the altered structure. 2. Where more than 30 percent of the total floor and roof areas of the building are involved in structural alterations within a 12-month period, the evaluation and analysis shall demonstrate that the altered building complies with IBC for wind loading and with reduced IBC level seismic forces.
908	Energy Conservation:	Level 3 alterations are permitted without requiring the entire building to comply with the energy requirements of the *International Energy Conservation Code*. The alterations shall conform as they relate to new construction only.
Chapter 10: Change of Occupancy		
1007.1	Structural – Gravity Loads:	If Change in Occupancy results in greater gravity loads per IBC Table 1607.1, the changed portion shall comply with IBC unless the stress is increased by less than 5%. **Application:** It is not anticipated that a Change in Occupancy would increase the loads by more than 5%.
1007.2	Structural – Snow and Wind Loads:	If Change in Occupancy results in higher wind or snow risk categories per IBC Table 1604.5, the load shall be analyzed and made to comply with IBC. **Application:** Current and potential new use for the Canyon Lodge Administration Building are of Risk Category II; thus no analysis would be required.
1007.3	Structural – Seismic Loads:	Existing buildings with a Change in Occupancy shall comply with the seismic design provisions of IBC when one of 3 provisions is met. **Application:** For the potential change in use of the Administration Building, the Change of Occupancy to a higher hazard category (per IEBC Table 1012.4) provision is met, from low hazard category 4 to medium hazard category 3 (Occupancy type B to A-2); thus a seismic analysis would need to be provided, per IEBC Section 301.1.4.2.

Code Reference	Code Provision	Code Application
1008	Electrical: (NFPA = National Fire Protection Association)	Special Occupancies: NFPA 70 requirements apply to the following occupancies (the only one that applies to the Administration Building is listed): Places of assembly. **Application:** The Administration Building electrical wiring and equipment should be made to comply with NFPA 70, if occupancy is changed.
1008.2	Unsafe conditions:	Where the occupancy of an existing building is changed, all unsafe conditions shall be corrected without requiring that all parts of the electrical system comply with NFPA 70. **Application:** This could apply to the Administration Building.
1008.3	Service upgrade:	Where the occupancy is changed, electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy. **Application:** This could apply to the Administration Building.
1008.4	Electrical outlets:	Where the occupancy is changed, the number of electrical outlets shall comply with NFPA 70 for the new occupancy. **Application:** This could apply to the Administration Building.
1009	Mechanical:	Where the occupancy is changed to a use subject to increased mechanical ventilation requirements, the new occupancy shall comply with the intent of the respective *International Mechanical Code* provisions. **Application:** This could apply to the Administration Building.
1010	Plumbing:	When the occupancy is changed such that it is subject to increased or different plumbing fixture requirements or increased water supply requirements, the new occupancy shall comply with the intent of the respective plumbing provisions of the International Plumbing Code. **Application:** Change of Occupancy to A-2 in the Administration Building would require a greater number of plumbing fixtures.
1011	Light and ventilation:	Light and ventilation shall comply with the requirement of the IBC for the new occupancy. **Application:** This could apply to the Administration Building.
1012.1.4	Accessibility:	All changes shall comply with 1012.8 Accessibility. See 1012.8 below. .
1012.3	Interior Finish:	In areas of the building undergoing the change of occupancy classification, the interior finish of walls and ceilings shall comply with the requirements of the IBC for the new occupancy classification. **Application:** Per IBC Table 803.9, the wall and ceiling finish of rooms and enclosed spaces of A-2 occupancy shall have Class C: Flame Spread Index 76-200; smoke-developed index 0-450.

Code Reference	Code Provision	Code Application
1012.4	Means of Egress:	This provision applies when there is a change to an occupancy of greater relative hazard. **Application:** If changed to A-2 use, the relative hazard of egress increases from 4 to 3, requiring egress to comply with IBC Chapter 10. The administration Building already complies, thus no modifications would be required.
1012.6	Exposure of exterior walls:	When a change in occupancy is made to a higher Exposure of Exterior Wall Hazard Category, the exterior walls shall comply with IBC. **Application:** Occupancy A and B are in the same category, thus this provision does not apply to the Administration Building.
1012.8	Accessibility:	For a complete change in occupancy, the building shall comply with Section 1012.8.2 and shall have all of the following accessible features: 1. At least one accessible building entrance. 2. At least one accessible route from an accessible building entrance to primary function areas. 3. Signage complying with Section 1110 of the IBC. 4. Accessible parking, where parking is provided. 5. At least one accessible passenger loading zone, where loading zones are provide. 6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance. **Application:** The above requirements are already met at both buildings.

Summary of Code-Required Revisions

The following revisions summarize the findings noted in the Applications of the code sections above:

1. All newly installed interior finishes shall comply with flame spread requirements of the IBC. Existing historic finishes may remain.
2. Canyon Lodge, lower level: The existing restrooms (Rooms #104 & 105) will need to be altered; it is technically feasible to accommodate the required fixture counts.
3. Administration Building: The existing restrooms (Rooms #101 & 102) will need to be altered; it is technically feasible to accommodate the required fixture counts of the current occupancy.
4. Accessible drinking fountains should be provided in each building.
5. If the roofing is replaced at the Administration Building, the R-value would be required to be upgraded to comply with the 2012 *International Energy Conservation Code*:
    a. Insulation on deck: R-30 (= 5.5" thickness of polyisocyanurate)
    b. If between 4x10 beams: R-49 (R-49 requires about 13¾" thick cavity)
    c. Both options would have a negative visual impact on a character-defining feature of the building and should be partially waived, citing compliance with IEBC Chapter 12: Historic Buildings.
6. Canyon Lodge dorm units have hollow core entry doors which should be replaced when work is performed in this area.
7. Existing wiring in all work areas in Groups A-2 occupancies shall be upgraded to meet the materials and methods requirements of Chapter 7, when new work is provided.
8. All newly installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements of Chapter 7.
9. If the Administration Building occupancy is changed from B to A-2, the following provisions apply:
    a. A seismic analysis, per IEBC Section 301.1.4.2.
    b. The electrical wiring and equipment should be made to comply with NFPA 70.
    c. All unsafe conditions shall be corrected without requiring that all parts of the electrical system comply with NFPA 70.
    d. The electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.
    e. The number of electrical outlets shall comply with NFPA 70 for the new occupancy.
    f. The new occupancy shall comply with the intent of the respective *International Mechanical Code* provisions.
    g. A greater number of plumbing fixtures will be required.
    h. Light and ventilation shall comply with the requirement of the IBC for the new occupancy.
    i. The wall and ceiling finish of rooms and enclosed spaces shall be Class C.

Handicapped Accessibility Assessment

General

Every structure should be made accessible to all visitors and employees to the highest degree feasible. As a general rule, a historic structure is expected to meet all requirements for accessible buildings outlined in Section 4.1.6 of the Uniform Federal Accessibility Standards (UFAS: 49 FR 31528). If the Advisory Council on Historic Preservation finds that compliance with the requirements would threaten or destroy the historical integrity of a historic building, alternative requirements outlined in Section 4.1.7 (3) of UFAS may be followed.

Both the entrances and public spaces of Canyon Village Lodge and the Administration Building are accessible. Restrooms on the first floor of Canyon Village Lodge have been remodeled to provide accessible facilities. If Canyon Lodge's lower level were to be remodeled, handicapped accessible restrooms would probably have to be provided, if the alterations were considered substantial (see definition below).

The restrooms in the Administration Building are not handicapped accessible and should be modified to be so, if the building is substantially altered.

Substantial Alterations

In accordance with UFAS, the phrase "substantial alteration" is used below in reference to a level of investment that requires a greater level of compliance. This threshold provides clarity as to when provisions apply. Projects of limited scope and cost accordingly carry a lesser burden of compliance. Per Section 4.1.7:

> In making the determination as to what constitutes "substantial alteration," the agency issuing standards for the facility shall consider the total cost of all alterations (including but not limited to electrical, mechanical, plumbing, and structural changes) for a building or facility within any twelve (12) month period. For guidance in implementing this provision, an alteration to any building or facility is to be considered substantial if the total cost for this twelve month period amounts to 50 percent or more of the full and fair cash value of the building as defined in 3.5.
>
> *EXCEPTION:* If the cost of the elements and spaces required by 4.1.6(3)(a), (b), or (c) exceeds 15 percent of the total cost of all other alterations, then a schedule may be established by the standard-setting and/or funding agency to provide the required improvements within a 5-year period.[215]

However, greater levels of accessibility are highly encouraged, in order to accommodate all park users.

[215] UFAS, Section 4.1.7.

Restrooms

In alterations of existing buildings, per UFAS Section 4.1.6, at least one UFAS-compliant toilet facility shall be provided for each sex on each *substantially altered* floor where such facilities are provided. Where alterations are structurally impracticable, the addition of one "unisex" toilet (with water closet and lavatory) per floor, located adjacent to the existing toilet facilities, is acceptable. The unisex toilet Room #210 in Canyon Lodge is in compliance with this provision.

If the restrooms on the lower level of Canyon Lodge are altered – or if the lower level is *substantially altered* – then a similar unisex toilet room could be provided. An exception to this provision might alternatively be preferred – especially since the toilet count in each restroom is greater than required – whereby the two end stalls are combined into one standard accessible stall in each restroom.

In the Administration Building, the two stalls in each restroom could be combined into one accessible stall each, and the lavatories replaced with accessible units. Reconfiguration of these rooms could allow for additional space to be allocated to an accessible water fountain. See revised floor plan below.

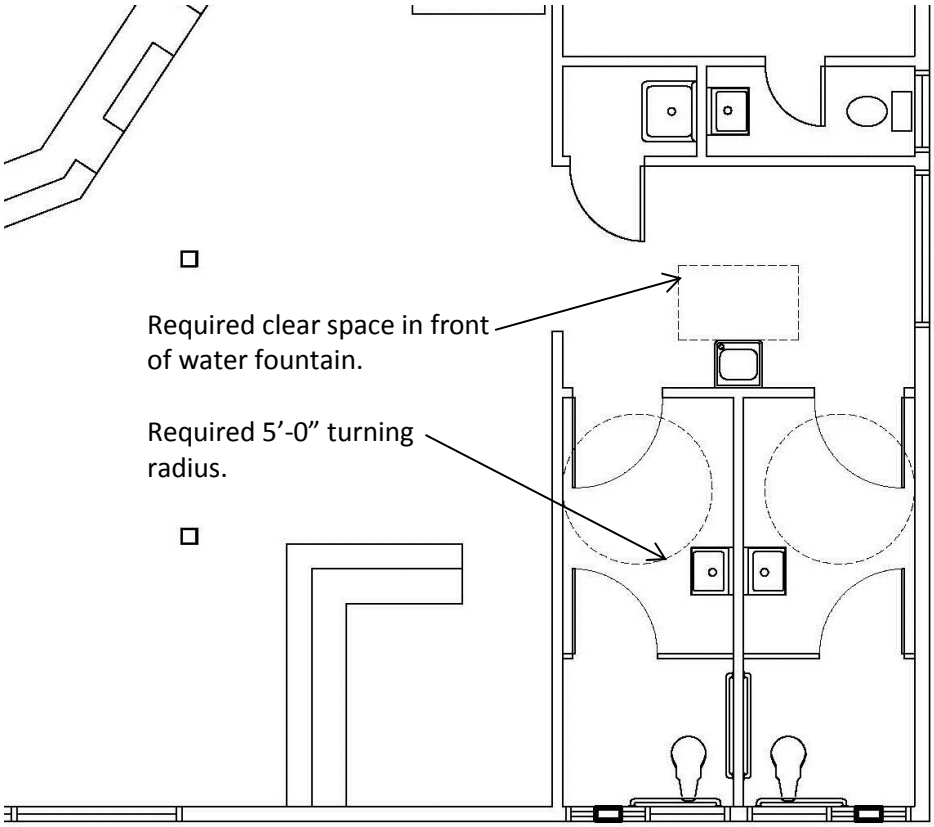


Figure F-1: Administration Building with handicapped accessible restrooms in the location of the prior restrooms. (Not to scale.)

Stairway Handrails

The interior stairway at the northeast corner of Canyon Lodge was installed in 1960, in keeping with the sleek modern style. Plywood paneled walls at the upper level and an open steel pipe wall at the lower are effective backdrops for the 1" x 5-5/8" tapered wood handrail held 1¾" from the wall with 1" steel pipe spacers. The handrails are mounted at a non-compliant 31" height above the stair nosing. Per IEBC 1203.9, these existing handrails are permitted to remain provided they aren't structurally dangerous. Per UFAS Section 4.1.6.4 (b), full extensions of stair handrails shall not be required in alterations where such extensions would be hazardous or impossible due to plan configuration. Also, such compliance is not required of historic buildings, per Section 4.1.7. There is not sufficient room to provide extensions; to do so would impede upon the space. Additionally, extensions would impair the historic character of the handrail system, as extensions would have to be rounded or returned smoothly to the floor or wall. It is recommended that the handrails remain as is.



Photo F-1: If the wood handrail were extended, it would protrude into the top landing space. September 24, 1013.

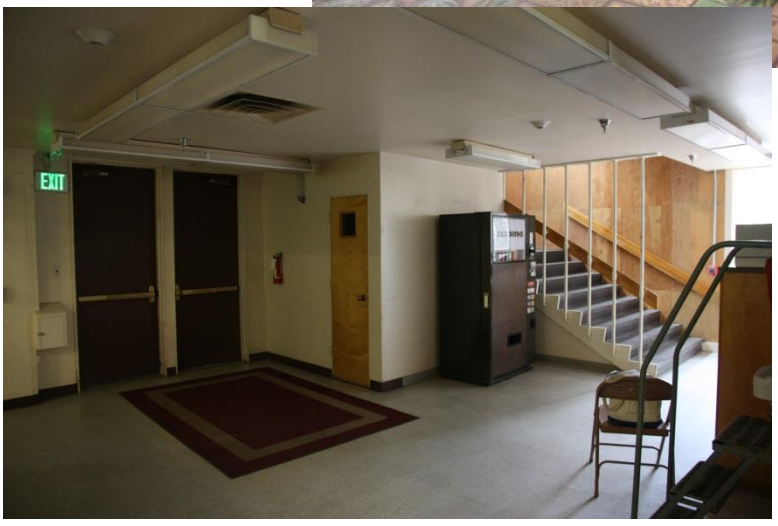


Photo F-2: If the wood handrail were extended, it would protrude into the lower lobby space. September 24, 2013.

Restaurants and Cafeterias

The UFAS has requirements for restaurants, kitchens, and cafeterias (food service lines and tableware areas) which should be complied with when this area of Canyon Lodge is next renovated. In the meantime, the following general furniture requirements for the restaurant can be complied with:

> The design of at least 5 percent of all fixed seating or tables in a restaurant or cafeteria shall comply with 4.32 [clear floor space and knee clearance; table heights from 28"-34" above the floor]. Access aisles between tables shall comply with 4.3 [accessible routes, clearance widths, and doors]. Where practical, accessible tables should be distributed throughout the space or facility.[216]

Safety and Security

Safety is paramount to visitor and employee use of the buildings. Code compliant handrails and guardrails were noted as a critical item in the Facilities Condition Assessment; however, at Stair #201, their installation would be visually disruptive to the historic character of the stairway and extensions would impede into the room, as noted above. Per IEBC and UFAS, the existing handrails are allowed to remain, provided they are secure and don't pose a danger. The other locations are typically out of public view, hence full compliance would be less detrimental to the historic character of the building.



Photo F-3: West exit door in Canyon Lodge; panic hardware is not required because the door has no latch. September 30, 2013.

Lack of panic devices at several exterior doors was noted as a critical item in the Facilities Condition Assessment. Per IEBC 805.4.4 (above), panic bars are not required at doors that are not latched (but may be equipped with locks). Thus the west Canyon Lodge exit doors that are not latched are not required to have panic hardware. The distinction is that IBC exerts an additional requirement – that if doors are equipped with locks, they must be fitted with panic bars. Thus, IEBC distinctly does not require panic hardware at these doors. The latched doors, such as those provided at the south end of Dining Room #206, are equipped with panic hardware. If panic hardware were to be installed at these doors, the rod-type, in lieu of flat bar, devices should be used since they are more compatible with the building style and time period.

Both buildings are fully sprinklered, increasing the time associated with occupants exiting the buildings in the event of a fire.

[216] UFAS, Section 5, Restaurants and Cafeterias.

Energy Conservation

Canyon Lodge's roof is well insulated; it is assumed the Administration Building's roof is not. As stated in the Building Code Analysis, if the roofing is replaced at the Administration Building, the thickness of insulation required to attain the R-value – at either the roof or between the roof beams – would have a negative visual impact on the building. It is recommended that these requirements be partially waived, citing compliance with IEBC Chapter 12: Historic Buildings.

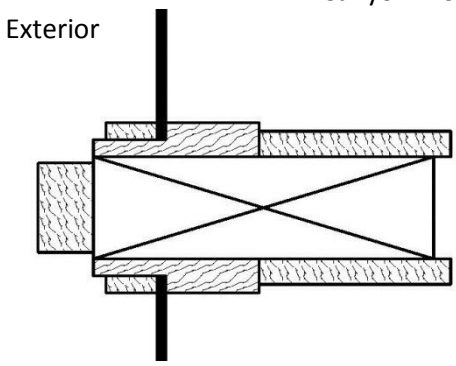


Figure F-2: Existing mullion system at Canyon Lodge.

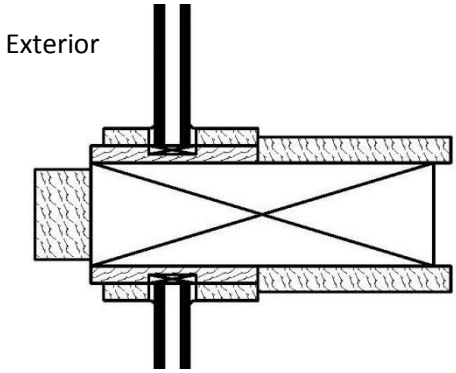


Figure F-3: Existing mullion system modified for insulated glass.

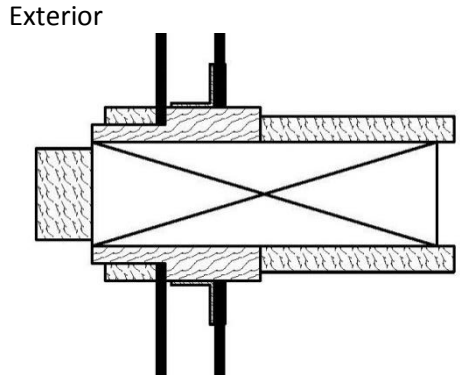


Figure F-4: Existing mullion system with interior storm unit.

Both buildings have single-pane glass which is not energy efficient. Since the buildings are not operated during winter months, it might not be crucial. However, as cooling days are increasing, an energy model could ascertain if savings would accrue from either installing storm windows/doors or inserting double-pane glass. Any such analysis should include a careful study of the detailing and materials, to ensure that implementation wouldn't detract from the historic character of the building and that the framing would be sufficient to support these sizable panes of glass.

The following factors should be considered in this analysis:

1. The largest pane of plate glass is in Canyon Lodge; it is 11'-1-3/8" high by 6'-0" wide (133-3/8" by 72"). Insulated glass units can be made up to 36"-165" high and 12"-96" wide. When more than 50 square feet, the glass must be heat treated.[217]
2. The support and trim system would need to be modified to provide for ¼" edge, ½" bite, and 3/16" face.
3. Weeps should be incorporated into the base of the pane.
4. Insulated glass warranties are typically ten years.
5. There is sufficient space in the wall assembly to allow for exterior storm windows, yet this would modify the visual appearance of the walls too much. Only interior storm units should be considered, allowing the original exterior glass plane and detailing to remain.

Abatement of Hazardous Materials

Testing for lead, asbestos, and mold was not part of the scope of this report. However, the physical assessment identified removal of 12" x 12" acoustic ceiling tile as a need and as a potential hazard for asbestos.

Testing is recommended for asbestos, lead, and mold.

[217] Information provided by Viracon website.

G. Treatment Recommendations – Restoration

Treatment Recommendations – Restoration / Rehabilitation

The focus of the following architectural recommendations is to preserve Canyon Lodge and its companion Administration Building, maintaining their significance and authenticity in terms of historic and architectural character.

Canyon Lodge – Restoration / Rehabilitation

Canyon Lodge Restoration / Rehabilitation Recommendations

The following recommendations are intended to be in compliance with the Memorandum of Agreement, in helping return the building to its Mission 66 era of significance. These recommendations are limited to those items where sufficient physical and archival evidence exists to provide accurate reconstructions. The recommendations are intended to enhance the existing character-defining features and to provide new components to match character-defining features that have been removed.

Note that Repair and Maintenance items are listed separately, on the following pages.

1. Maintain all existing character-defining features.
2. Do a paint analysis of interior and exterior features. This should include an examination of the physical evidence, the specified Plochere colors, color photographs and slides, and the chemistry associated with pigments and binders available at the time of construction in 1956-1957. Repaint to match original colors.
3. Exterior:
   a. Provide exterior building signage more in keeping with the original signage.
   b. Review color treatment of glulam beams, in accordance with paint analysis and recommendations for durability.
   c. Refinish exposed wood board siding in more natural colors, to blend with battens. See Photo C-11.
   d. Restore original light fixtures at west soffit (relamp, internally rewire, provide new sockets, and upgrade lamping where able)
   e. Replace aluminum sliding window units with wood awning units to match original. Photographs and details, as well as extant wood awnings, can be used as a guide.
   f. East wall, lower level: Reinstall replica windows where able (where shear walls have not been inserted).
4. First Floor:
   a. Provide period furniture similar to that used originally.
   b. Provide period sheer curtains similar to those used originally.
   c. Provide interpretative Mission 66 exhibit in Dining Room #205, Lounge #200, or the Gift Shop #202.



Photo F-5: The north end wall of the Gift Shop has solid-backed shelving that blocks light and transparency from the glass wall. September 30, 2013.

e. Restore the star light fixtures:
    i. Repaint with the original colors, as identified by gently stripping subsequent paint layers off to expose original colors. Note that the colors vary in the different arms of each fixture.
    ii. Perform tests with different lamping and lenses to ascertain the most efficient lamping available without producing excessive intensity or glare.
f. Lounge #200:
    i. Strip brown paint from the concrete frame at the fireplace.
    ii. Remove the telephone wall extension atop the wall south of the northeast stairs.
    iii. Restore the end-grain wood block flooring in the Lounge and Dining Room #205. Use throw rugs to soften the acoustics (these may be fastened to prevent unauthorized removal and potential fall/slips).
    iv. Retain original bar in its 1964 location. Remove front veneer and restore original bar front. Retain plastic laminate top and vinyl arm rest.
g. Stair #201: Retain 1960 northeast stair, even if public aren't to access the lower level.
h. Gift Shop #202:
    i. Reconstruct the original conditions of the special original wall construction surrounding the Gift Shop (Room #200) by removing the top panels and replacing the solid panels with replicas of the original translucent infill, referring to the original 1956 specifications and drawing details. Integrate a more sensitive security method of keeping people out of the space.
    ii. It is assumed that it isn't practically feasible to reconstruct the dividing wall in the Gift Shop; this was only practical when the space included both the Hamilton Shop and the Haynes' Photo Shop.
    iii. North wall: Provide more transparent shelving system or relocate shelving, to recreate the original clear connection between exterior and interior.
i. Dining room #205: Reconstruct the glass and plastic screen walls that spanned from the fireplace to the west wall north of Dining Room #205.
j. Dining Room #206 and Cafeteria #216: Reconstruct the original colored line art on the upper walls.
k. Dining Room #217: Provide replica Dot-Clock on south wall.

5. Lower Level:
    a. Office #102: Reconstruct the original conditions of the special original wall construction surrounding Office #102 by replacing the solid panels with replicas of the original translucent infill, referring to the original 1956 specifications and drawing details.
    b. Stair #201: Retain 1960 stairway and features in northeast corner.

Canyon Lodge Administration Building – Restoration / Rehabilitation Recommendations

Administration Building Restoration / Rehabilitation Recommendations

Rehabilitation Recommendations

The following recommendations are intended to be in compliance with the Memorandum of Agreement, in helping return the building to its Mission 66 era of significance.

1. Do a paint analysis of interior and exterior features. This should include an examination of the physical evidence, the specified Plochere colors, color photographs and slides, and the chemistry associated with pigments and binders available at the time of construction in 1956-1957. Repaint to match original colors.
2. Provide replica signage, on extended beam end from covered walkway (beam extension will need to be added).
3. Restrooms: Reconfigure the east portion of the building to provide handicapped accessible restrooms and other needs. See Figure F-1 on page 217.
4. Lobby: If it works with use of the building, replace the existing registration cabinetry with cabinetry based upon the original design, with deeply overhanging counter and plywood faces. This would be an adaption of the original for modern use and not a reconstruction. Handicapped accessibility and storage factors will generate modifications.
5. Lobby: Retain original light fixtures, relamping as required for greater efficiency. Repaint light boxes to match original colors, per testing.

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H. Treatment Recommendations - Maintenance

Treatment Recommendations – Maintenance and Repair

The focus of the following recommendations is to preserve Canyon Lodge and its companion Administration Building by maintaining the components examined in the Facilities Condition Assessment.

Canyon Lodge – Exterior Architectural Recommendations

Canyon Lodge Exterior Architecture

The following components are generally minor in severity and typically do not represent items that will cause building failure or unsafe conditions for visitors and employees. Those items that are serious and should be performed immediately are identified as "**Serious**." Items required to comply with current code are labeled as "**Code Compliance**."

Exterior Wall Systems

Recommendation:

Maintain the exterior finishes of the painted plywood siding, wood tongue-and-groove siding, and trim.

Exterior Openings - Doors

Recommendations:

1. Rooms #200, 202, 205, 216, 217, 134, 135, and 151: Prepare and recoat the exterior and interior finish of the doors with polyurethane in 2014.
2. Rooms #134, 136, and 151: Prepare and recoat the exterior and interior finish of the doors with polyurethane by 2016.
3. Rooms #226, 233, 112, and 124A: Prepare and repaint the exterior and interior of the doors in 2016.
4. Room #145: Prepare and repaint the exterior and interior paint of the metal-clad sliding doors in 2016.
5. Rooms #200, 205, 216, and 217: The exterior doors of the first floor are noted as not having panic hardware as required by code. See Code Analysis in this HSR for interpretation of the IEBC, whereby panic bars are not required. Review with Authority Having Jurisdiction.
6. Rooms #200, 202, 205, 206, 215, 216, and 217: Replace damaged weatherstripping where damaged and/or missing at the first floor exterior doors.

Exterior Openings - Windows

Recommendations:

1. Maintain paint finish of wood awning window units.
2. Replace aluminum sliding units with wood awning window units to match original.

Soffits

Recommendation:

No work required. Maintain finishes.

Roof Systems
Recommendation:
No work required.

Roof Coverings and Accessories
Recommendations:

1. Remove and replace the curled wood shakes with straight-grained cedar shakes. Confirm is fire-retardant shingles should be used. **Serious.**
2. Remove wood shakes at electrical roof penetration at 10 roof-mounted exhaust fans, install manufactured flashing, and install wood shakes at effect areas. **Serious.**
3. Rework the manufactured vent flashing gasket at the west facing fetch of the roof such that the gasket sheds water. **Serious.**

Exterior Vertical Circulation
Recommendations: All of the exterior stairs have what are considered Critical / Life Safety issues to be addressed, as follows:

1. Exterior stair south from west plaza to dormitories: Remove and reinstall the existing handrail at 34”-38” above the nose of the tread below.
2. Exterior stair south, from west plaza to the dormitories: Provide an additional painted pipe handrail.
3. Exterior stair north from west plaza to employee parking: Remove and reinstall the existing handrail at 34”-38” above the nose of the tread below.
4. Exterior stair north, from west plaza to the employee parking: Provide an additional painted pipe handrail.
5. South exterior stair from Kitchen: Remove and reinstall existing handrail between 34” and 38” above the nosing of the tread below.
6. Stair #145: Remove and reinstall the existing handrails (both sides) to be 34” to 38” above the nosing of the tread below.
7. Loading dock handrail at exterior ramp: Remove and reinstall handrail between 34” and 38” above ramp surface.
8. North kitchen exit stair #226: Provide additional 2x4 wood members to minimum the space between the balustrade to less than 4.”
9. Stair #151: Provide guardrail at stair well bottom approximately 35” below grade.

Canyon Lodge
Interior Architecture

Canyon Lodge – Interior Architectural Recommendations

Interior Flooring
Recommendations:

1. Wood block flooring: Remove adhesives and refinish original flooring in Rooms #200, 202, and 205.
2. Broad loom carpeting in Rooms #200, 202, 205, 206, 207, 211, and 217: Remove the carpeting within three years and replace in all rooms

except rooms #200, 202, and 205 (where wood block flooring is restored).

3. Room #205 walk-off matt and metal edge strip: Remove the walk-off matt and metal edge strip and replace them within one year.
4. Kitchen (upper level) quarry tile: Remove and replace the damaged floor and base tiles in kind. Remove all grout from the floor and base joints and replace with new.
5. Sheet vinyl flooring on first floor: The sheet vinyl flooring is overdue for replacement. Replace the sheet vinyl flooring and base with heavy gauge sheet vinyl flooring with integral base.
6. Thin brick pavers in Room #126: Remove existing and provide new thin brick pavers, providing correct subflooring per manufacturer's instructions.
7. The epoxy-coated concrete floor in Room #115 under the Kitchen equipment: Remove the kitchen equipment, epoxy coating and provide new epoxy coating with integral base.
8. The epoxy-coated concrete floors in Rooms #113, 114, 115, 117, and 118: Remove and replace in kind.
9. The epoxy-painted concrete floors in Rooms #122, 124, 124A, 124B, 128, 144, 145, 147, 147A, 149, 150, 151, 152, 153, 154, 155, 156, 157, and 158: Remove, deep clean, and repaint with epoxy paint.

Interior Walls

Recommendations:

1. Rooms #107 and 109: Replace the vinyl-clad accordion partitions in 2014.
2. Room #102: Replace the damaged corner framing member of the panelized wall.
3. Rooms #124/116, 127, 145, 146, 209, 218, 220, 222, 223, 226, 227A, 228, and 233: Patch/repair the minor damage (approximately 1 square foot each) at gypsum board walls in each room, then prepare and repaint.
4. Rooms #220, 221, 222, 223, and 228: Remove and replace damaged 4x4 ceramic wall tile to match existing; regrout.
5. Employee Housing Rooms #001 – 008: Remove the hardboard wall finishes and replace with gypsum board; prepare and paint.
6. Restrooms #104, 104A, 105, and 105A: Remove the laminate-clad hardboard walls and provide 5/8" gypsum board. This could be accomplished as part of a larger renovation project.

Interior Doors

Recommendations:

1. General: Paint finishes continue to wear from door and trim surfaces. Repaint in 2015-6.
2. Rooms #100, 112, 124A, 134, 136, 151, 226, and 223: Replace deteriorated interior wood doors with hollow metal doors and frames in 2014.
3. Women's Room #208: Replace the missing door closer cover.

4. Rooms #220A and 217: Remove the damaged/split door between the two rooms and replace with a new hollow metal door that can withstand the frequent use; reuse the hardware.
5. Room #101: Remove the 5-panel door, door frame and hardware; replace with new solid core wood door and wood frame, paint.
6. Employee Dorm #004: Remove and replace the wood door frame that has split at the strike.
7. Rooms #110, 111, and 121: Replace damaged hollow core doors and wood frames. Finish doors with two coats polyurethane and frames with two coats latex paint.
8. Room #150 door: Remove and replace damaged weatherstripping at the base of the door.
9. Room #149: Tighten loose lockset.
10. Room #144: Remove existing oversized site-made door and frame and install manufactured hollow metal door and frame with new hardware.
11. Room #137: Prime and paint interior wood screen door and frame with two coats of latex paint.

Interior Windows

Recommendations:

1. Repaint the worn interior finishes in 2016.
2. Replace the deteriorated window tinting at the west facing windows in Room #206.

Interior Ceilings

Recommendations:

1. Rooms #200, 201, 202, 203, 205, 206, 216, and 217: Prepare, stain and seal wood board ceilings.
2. Rooms #11, 213, 214, 214A, 220, 220A, 221, 222, 231, and 232: Replace the metal-clad, food-safe ceiling tiles in kind; this could be as part of a larger renovation project.
3. Rooms #216, 234, and 235: Replace the 12x12 mineral fiber acoustic ceiling tiles in kind; this could be as part of a larger renovation project.
4. Rooms #120, 212, 122, 123, and 130: Remove and replace the surface-applied 12x12 acoustic ceiling tiles in kind. Test for asbestos first and address in accordance with regulations.
5. Rooms #107, 109, 148, and 155: Remove and replace the damaged suspended 24x48 acoustic ceiling tiles and grid.

Interior Vertical Circulation

Recommendation:

Stair #201 in the northeast corner of the Lounge has a handrail mounted at approximately 30½" above the nosing. 2012 IBC requires handrails be not less than 34" above the nose. See Code Analysis for interpretation with the IEBC, indicating that these handrails can be retained.

Cabinetry & Accessories

Recommendations:

1. Replace the worn toilet accessories throughout the building, as part of a larger remodeling project.
2. Replace the worn toilet partitions and urinal screens, as part of a larger renovation project.
3. Room #117: Patch/repair the chipped plastic laminate, install a new wire pull, and install vinyl base along the front bottom of the unit.
4. Room #113: At the base cabinet, align the misaligned doors within the openings and replace the catches.
5. Bar Room #203:
   a. Document the plastic laminate top is to ascertain original bar counter shape. Retain and repair the bar top.
   b. Patch the tear in the vinyl arm rest.
6. Room #107: Prepare and refinish the bar die and back bar with two coats polyurethane.

Canyon Lodge - Structural Recommendations

Canyon Lodge Structure

Recommendations:

Repairs and upgrades to the structure of Canyon Lodge have been a major focus of the 1983 and 2012 projects. The following repairs are currently required on the structure of the building.

1. At the north side of the stairway from the Kitchen (east building wing), replace the wall/stair support post connections at the north exit stair from the Kitchen. **Serious**.
2. Repair or replace the decayed end of the beam that projects from the east kitchen wall (2nd beam from the south). **Serious**.
3. Hire a structural engineer to investigate the visible separation and delamination occurring at the splices in 13 of 15 of the west 9x21-1/8 glulam beams at the interior section between the west wall and interior column and determine if a repair is required**. Serious.**
4. Hire a structural engineer to investigate the extent of the visible split at the top of the west-facing glulam beam at the north end of the building. The split starts from the bolt holes at the top of the beam where the west A-frame beam connects to the east A-frame beam. **Serious.**
5. Hire a structural engineer to investigate the extent of the visible split at the top of the first column from the north end of the building at the wall between the Gift Shop and the Lounge; the split starts at the bolt holes where the column connects to the A-frame beam. **Serious.**
6. In the attic above the Kitchen, bring the blocks into full contact with the rafter and supporting beam and secure with a rafter tie-down connection. **Serious.**
7. At east side of main portion of building, repair the checks between the laminations in the glulam beams, and the decay at the bottom where the metal cap is screwed into the beam. This should be rectified by 2019.

8. Replace the 2x14 floor joist located just inside the crawls space access above the door to the Employee Housing hallway, which was cut to install plumbing. This should be replaced in 2019.
9. Replace or sister the ceiling joist that is located in the southeast corner of the attic above the Kitchen, which was cut to install utilities. This joist should be replaced or sistered by 2019.

Canyon Lodge HVAC

Canyon Lodge– HVAC System Recommendations

Heating

Recommendation:

Provide large sections of pipe insulation where missing.

Ventilation

Recommendations:

1. The building is in need of a thorough study of ventilation air. The north end of the lower level is not currently ventilated. The operable windows in the residential area in the basement may not be large enough to provide ventilation. It is suspected that the operable windows on the first floor are not large enough to comply with current mechanical code. **Critical.**
2. Replace the sidewall propeller exhaust fan with a comparable unit. **Critical.**
3. The ceiling exhaust fan ducted over to the Mechanical Mezzanine #302: Extend the ductwork to the exterior and terminate with the fan manufacturer's recommended wall or roof cap. **Code Compliance.**
4. The toilet rooms in the north side of the first floor exhaust into the attic space; these should be redirected to the exterior.
5. Ceiling exhaust fan in Bath #002A: Replace the fan with a comparable unit.
6. Utility set exhaust fan, required to keep the Dining area from becoming overly pressurized: Replace the fan.

Equipment

Recommendations:

1. Repair or replace the tubes of the heat exchanger tubes that are disconnected.
2. Replace the fin tube system with a newer system by 2015.
3. The majority of mechanical equipment is aged and will soon be in need of replacement between 2016 and 2023 (see 2013 Facilities Condition Assessments for details):
   a. Steam boiler
   b. Heating water boiler
   c. Heating water pump
   d. Indirect fired LPG duct heater
   e. Direct evaporative cooler
   f. Ceiling exhaust fans
   g. Supply air fans

h. Supply air diffusers
i. Exhaust air grilles
j. Fin tube heaters
k. Heating coil circulation pumps
l. Electric unit heaters.
m. Air doors.
n. High intensity LPG radiant heaters
o. Thermostatic radiator valves
p. Control system.
q. Thermostats
r. Variable frequency drive.

Canyon Lodge - Plumbing System Recommendations

Canyon Lodge Plumbing

Domestic Water

Recommendations:

1. At the building domestic water entrance, located in the wood shop, provide a reduced pressure double check backflow preventer.
2. For energy conservation and to comply with current energy code, bare sections of pipe should be reinsulated. When lavatory faucets are replaced, they should be protected with temperature limiting devices.

Waste and Vent Piping

Recommendations:

1. Storage #214: Replace the trap and remove the low section of pipe. **Serious.**
2. Replace the mop sink with a comparable unit. **Serious.**
3. Men's Room 135: Add piping to relocate the drain to the nearest floor drain. **Serious.**
4. Install seismic bracing to secure the water heater to the structure. **Serious.**
5. Kitchen: Install floor sinks in the Kitchen, with an air gap at their waste feeds.
6. Rooms 002A, 003A, 105, and 147: Rehang the four wall-hung lavatories that are loose.
7. Room #135: Provide new lavatory leg support.
8. Room #210: Insulate the water shut-offs at handicapped lavatory.
9. Bath #001A, Men's Room #105 & Women's Room #208 and #219: Remove and reinstall the water closets, properly securing them to the floor.
10. Men's Room #105: Replace the south, cracked urinal, with a code-compliant 1.0 gallon per flush unit.
11. Lobby #100: Remove and reinstall the drinking fountain using a commercial in-wall carrier.
12. At many locations throughout the building: Insulated exposed domestic water piping.

13. The wall hydrant and all 14 hose bibbs: Permanently install a vacuum breaker at each.
14. Room #115: The cover of the floor drain is missing and has been replaced with a cover not rated for heavy duty application; it has been dented. Replace the floor drain cover with a heavy duty cover.
15. Replace the bent and damaged section of trench drain cover.
16. Quite a few fixtures are approaching the end of their useful lives and should be replaced in the years indicated in the Facilities Condition Assessment.

Canyon Lodge Electrical

Canyon Lodge - Electrical System Recommendations

Electrical Service

Recommendation:

Provide a main service rated manual disconnect switch on the exterior of the building.

Switchboard & Panelboards

Recommendations:

1. Reverse the swing of the door into Electric Room #116 from in-swinging to out-swinging, in the direction of exit travel. Equip the door with a panic exit device to comply with current NEC requirements for any electrical room containing 600 volts or less and equipment that is rated at 1200 amps or more. **Code Compliance.**

2. Remove the door assembly into Plumbing Room #121 and replace with a door assembly equipped with a panic exit device to comply with current NEC requirements. **Code Compliance.**

3. Replace obsolete switchboards and panelboards and load centers; they are beyond their useful life (many are original to the building) and should be replaced, in Rooms Plumbing Shop #121, Hall #124, Hall #132, Hall #207, Hall #106, Employee Housing #001 (E008), Employee Dining #117, Weight Room #109.
   a. Relocate emergency distribution load center; it doesn't have 3' minimum working clearance required by code, in Room – "Located under counter of cook's line food warmers." **Code Compliance.**
   b. Replace the original switchboard and Trumbull Electric gear.
   c. Replace obsolete switchboard and panelboard; this original switchboard is beyond its useful life. Located in Plumbing Shop #121.
   d. Replace obsolete emergency distribution load center with a new commercial panelboard. Existing is beyond its useful life. Hall #207 and Hall #106.
   e. Provide circuit breaker blank filler plate for panelboard SN-1 in Room #149.
   f. Relocate normal distribution panelboards in Room #149.
   g. Relocate emergency distribution load center in Employee Pub #107.

Emergency Power

Recommendations:

There are many NEC violations in how Canyon Lodge and its companion Administration Building have been fed regarding grounding and service rated equipment. Design services will be required to correct this.

Electrical Distribution

Recommendations:

There are many National Electrical Code violations in this building's electrical distribution system including, but not limited to, the following:

1. Bond the grounding electrode conductor to the main water service pipe within 10 feet of where the main water service pipe enters the building.
2. Provide grounding for equipment; grounding doesn't exist in many locations.
3. Identify all conductors (color coding).
4. Remove sharing of neutral conductors where not allowed.
5. Separate the neutral/ground bond, except where required at the main service rated disconnect.
6. Implement phase-rotation where missing.

Branch Wiring

Recommendations:

1. Install an equipment ground. This will likely require replacement of the existing current carrying conductors and the conduit.
2. The grounding system for the building needs to be investigated further by an electrician. Design time will be required to accomplish this.
3. Replace feeders that are too small for the size of the overcurrent protection device protecting the feeder.
4. Provide an insulated throat bushing at the low-voltage conduit in Room #110 to prevent damage to low-voltage conductor insulation.

Electrical Devices

Recommendations:

1. Room #216: Locate line voltage splice in the junction box and provide blank face plate. **Serious.**
2. Install additional receptacles to meet current NEC requirements.
3. The following receptacles should be replaced with GFI-protected receptacles:
   a. The receptacles under the sinks in Rooms #107 and #203.
   b. The two-pronged receptacle in Room #110.
   c. The receptacles in Rooms #213, 216, 223, and 227.
4. Replace receptacles and switches, or parts as follows:
   a. Replace broken receptacles throughout the building: Room #121, 120, 117, 108, and 102.
   b. Replace broken junction box faceplates in Room #107 and #216.
   c. Replace broken switch/receptacle faceplate in Room #102. E035.
   d. GFI receptacle on Kitchen hot wall is not secured. Secure.

e. Replace duplex receptacle with GFI duplex in Room #131 and #216.
f. Replace broken switch faceplate and switches in Carpenter Shop Room #123.
g. Replace broken double duplex receptacle in Room #128.
h. Replace broken junction box faceplate in Room #203.
i. Replace non-UL listed faceplate at double duplex receptacle in Room #215.
j. Replace toggle switch and faceplate which were removed from switch/receptacle in Room #215.

5. Seal exterior conduit penetrations on either side of garage door into Room #147.
6. Provide "continuous-use" weather proof covers to meet current NEC at the exterior GFI protected receptacles.
7. Connect all electrical devices under kitchen type 1 hoods such that when the fire extinguishing system is activated, the power to such devices is de-energized via shunt-trip circuit breakers or a combination of contactors rated for the load.
8. Carpenter Shop: Replace the electrical devices in the carpenter shop that are not dust tight.

Lighting – Lamping and Illumination Levels

Recommendations:

1. Replace the T12 lighting fixtures with T8/T5 or LED lamped fixtures, at Rooms #231, 232, 234, and 235. Rooms #104, 105, and 135, etc., i.e., throughout the building.
2. Lighting fixtures:
   a. Provide exterior light fixture globes missing from fixture on north wall just outside Lounge #200.
   b. Replace broken light fixture lenses in Room #108.
   c. Light fixture lens is not secured correctly in Room #124. Reinstall.
3. Where circuit breakers are being utilized to control lighting, install toggle switches.
4. Address the low lighting level in the Employee Housing corridors.
5. Star-shape chandeliers: Repair and retrofit for efficient lamping that is not visually intrusive.
6. Exterior lighting: Replace the lamps with compact fluorescent lamps or LED lamps.
7. Emergency lighting: The quantity of units will need to be increased to meet NFPA requirements. Design will be required to correct this.

Elevator Machine Room for Storage

Recommendations:

All items that are not related to the elevator itself should be removed from this room entirely.

Exterior Devices

Recommendations:

1. Seal the exterior conduit penetrations correctly, at the low-voltage junction box on the south and east sides of the building.
2. Provide additional convenience receptacles on the roof top for mechanical equipment.

Lightning Protection

Recommendation:

Provide an air terminal where missing at one of the pipes on the west side of the roof.

Fire Alarm System

Recommendation:

Remove the non-system smoke detectors from the employee housing area.

Communications System

Recommendation:

Secure the phone cabling in Room #115, per NEC.

Administration Building Exterior Architecture

Administration Building - Architectural Recommendations

Exterior Walls Systems

Recommendations:

1. Patch the hole in the wood siding on the east elevation. Prepare and repaint the wood siding, battens, and fascia with two coats of exterior latex paint, in 2014.
2. Prepare and repaint the exterior wood beams and columns; provide custom prefinished metal caps with integral drip at the top of all exposed wood beams at the building and the canopy/trellis.

Exterior Openings

Recommendations:

1. Doors: Remove the remaining lock parts of the door between Room #110 and Room #113, replace with new level handle lockets of classroom function. Repair damaged veneer and refinish.
2. Windows:
   a. In the fourth window from the south on the west elevation, remove the cracked glass and replace with a new pane.
   b. Prepare and repaint in 2014, 2014, and 2016, respectively, the paint finish on the exterior and interior of the wood fixed, awning, and hopper windows and trim.
   c. Rework the southernmost awning window on the west elevation to provide smooth operation.

Roof Coverings

Recommendations: Remove the existing ballast, roofing flashing, and edge metal of the existing built-up roofing. Install a new cover board, 6- mil reinforced EPDM roofing, flashing, and edge metal, including at the canopy/trellis roof. Provide 5 lineal feet of missing gutter at the north elevation over the walk.

Roof Construction

Recommendations: Replace the decayed portions of the exposed beams and roof joists that support the flat roof and connective trellis that extends to Canyon Lodge. This has been identified as a potential life safety issue. **Serious.**

Administration Building Interior Architecture

Administration Building - Interior Architectural Recommendations

Interior Flooring

Recommendations:

1. Remove and replace the custom patterned board loom carpet and pads in Rooms #100 and #108.
2. Remove and replace the pad and the general broadloom carpet at the back-of-the-house spaces (Rooms # 107, 109, 11, 112, 113, 114, and 115).

Interior Walls

Recommendations:

1. Water fountain niche in Hall #103: Engage an insect infestation specialist to inspect the termite damage and immediate area.
2. Remove termite-damaged wood baseboard and replace in kind after inspection of wall framing. This might require removal of the wallboard; replace wallboard in kind as required.

Cabinetry & Accessories

Recommendations:

1. Replace the toilet accessories as required.
2. Provide/repair missing components of cabin registration desk: a cabinet lock, edge banding on the shelf, printer feed trim, and a chipped section of plastic laminate.
3. Room #115 counter: Remove and replace the counter top and supports.

Administration Building - Structural Recommendations

Administration Building Structure

Recommendations:

1. Replace the parts of the exposed wood beam and rafter systems that are rotted.
2. Cover the exposed tops of the beams and rafters, after replacement.
3. The nature and adequacy of the diaphragm elements (wall sheathing, sheathing fastening, wall connections, and hold-downs) should be investigated if the building is remodeled and the wall coverings removed.
4. The exposed structural connections should be evaluated by a Structural Engineer and a repair made, if needed, to strengthen the connection and reduce the risk to the building's occupants. Other framing connections should be upgraded when practicable, such as during a remodeling project when the connection is exposed.

Administration Building – HVAC System Recommendations

Administration Building HVAC

Heating & Cooling

Recommendations:

1. Provide fin tube covers where missing in the southwest corner of office #109 and the southwest corner of Office #111. **Serious.**
2. Relocate the condensate drain on the north side of Computer Room #112. **Serious.**
3. Clear all combustible materials from the electric baseboard heater in Office #107. **Serious.**
4. Insulate the piping.
5. Remove and reinstall backdraft damper of the ceiling fan in the southwest corner of Office #109.
6. Install new closed cell foam insulation where missing or damaged on the refrigerant piping from the air cooled condensing unit above the north entrance to Computer Room #112.

7. Seal wall penetrations of the refrigerant piping above the north entrance to the building.

Ventilation
Recommendations:
The following items do not comply with current code, though are assumed to have complied when the building was constructed or the item was installed. They should be implemented.

1. Provide ventilation/exhaust for the Janitor Closet #104.
2. Provide ventilation for Office #109 and #111.

Administration Building Plumbing

Administration Building – Plumbing System Recommendations

Domestic Water System
Recommendations: No work required.

Waste & Vent Piping
Recommendations: No work required.

Fire Protection
Recommendations:

1. Test or replace the fire sprinkler heads. NFPA 25 requires the testing or replacement of heads that exceed fifty years of age. **Serious**.
2. Repair the leak in the fire sprinkler riser located in Mechanical Room #106. **Serious.**
3. Install a lock on the post indicator valve to prevent tampering. **Serious.**

Fixtures & Fittings
Recommendations:

1. Provide a faucet with backflow prevention at the utility sink. **Serious.**
2. Resecure the water closet in Toilet room #105. **Serious.**
3. Seismically secure the water heater in the attic above Toilet #105. **Serious.**

The following maintenance is required:

1. Resecure the east water closet in Men's Room #101.
2. Replace the south urinal in Men's Room #101, in 2016.
3. Resecure the north lavatory in Men's Room #101.
4. Resecure the lavatory to the wall in Toilet Room #105.
5. Modify the water heater drain pan in the attic above Toilet #105 to fully drain.
6. Provide a water heater drain that is correctly sized and terminates the proper distance from the ground and uses the proper materials.
7. Replace the floor drain cover in Men's Room #101.

The following work should occur during renovation efforts:

1. When the faucets are replaced, ADA approved faucets should be installed.

2. When the fixtures are replaced, low flow fixtures should be installed.
3. When the drinking fountain in Hall #103 is replaced, an ADA approved drinking fountain should be installed.

Administration Building – Electrical System Recommendations

Administration Building Electrical

Electrical Service

Recommendations:

1. Provide a manual disconnect switch on the exterior of the building in the event that the power has to be disconnected.
2. Provide a grounding electrode system.
3. Provide exterior egress lighting, being sure to comply with the YNP Outdoor Lighting Standards manual.

Switchboard & Panelboards

Recommendations:

1. Provide permanent panel identification.at the GE load center "A-ADB" and "A-ADB Sub."
2. Replace the load centers in Mechanical Room #106 and Computer Room #112 with new panelboards in 2018.

Electrical Distribution

Recommendations:

Make modifications to rectify the many National Electrical Code violations in this building's electrical distribution including the following, but not limited to:

1. Provide a grounding electrode.
2. Bond the grounding electrode conductor to the main water service pipe within 10 feet of where the main water service pipe enters the building.
3. Provide an equipment ground.
4. Identify all conductors.
5. Only share neutral conductors where allowed.
6. Provide neutral/ground bond at the main service rated disconnect.
7. Provide phase-rotation as required.

Branch Wiring

Recommendations:

1. When the equipment ground is replaced, it is likely that the existing current carrying conductors and the conduit will need to be replaced. Design time will be required to accomplish this. Most of the branch circuit wiring is concealed in walls, above ceilings, and under floor.
2. The grounding system for the building needs to be investigated further by an electrician.
3. Provide an "in-use" weather proof cover at the exterior GFCI-protected receptacle on the east exterior wall of this building.
4. The few two-prong receptacles should be replaced with GFCI receptacles.

Lighting Fixtures & Illumination Levels

Recommendations:

1. Replace T12 lighting fixtures with T8/T5 technology.
2. Replace incandescent lamps with screw-in type compact fluorescent lamps utilizing integral ballasts or LED lamps.
3. Replace the lamps in the exterior fixtures with compact fluorescent lamps or LED lamps for energy savings.
4. Replace egress lighting fixture in Room #108.

Interior Devices

Recommendations:

1. Replace split receptacle face plate at double duplex receptacle located high on east wall of Lobby #100.
2. Replace broken receptacles in Rooms #108, 114, and 115.
3. Provide faceplate for receptacle in Room #112.

Exterior Devices

Recommendations:

1. Provide weatherproof in-use cover on exterior receptacle on the east exterior wall.
2. Seal exterior conduit penetrations near northeast exit from building and at west side of building (high up on wall).

Fire Alarm System

Recommendations:

It is recommended that the smoke detectors be replaced with addressable system smoke detectors and connected to the fire alarm system, but this is not required by code for this building.

Communications System

Recommendations:

Provide seismic bracing at the data rack in Room #112.

I. Alternatives for Treatment

The following are several considerations of alternatives for the proposed treatments:

1. Restore the public spaces of Canyon Lodge (i.e., the first floor and related exterior) to its 1966 appearance, while allowing for continued visitor use, complete with:
   a. Light screen walls at original heights.
   b. Colored star light chandeliers.
   c. Wood block flooring in the Lounge and Dining Room #205. Throw rugs can be used to reduce noise.
   d. Period furniture similar to that used originally.
   e. 1950's style Coffee Shop in original location.
   f. Restoration of the original colors – interior and exterior.
2. Restore the public space of Canyon Lodge, allocating the Gift Shop for use as a museum on revolving Mission 66 exhibits.
3. Restore the public space of Canyon Lodge Administration Building for use as a museum on Mission 66 exhibits.
4. Restore the public space of Canyon Lodge Administration Building for use as a Coffee House, which could include an intimate venue for small musical entertainments.

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