

West Entrance Recordation Yellowstone National Park, Wyoming

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Prepared by:

ARCHITECTS[®]
224 North Higgins
Missoula, MT 59802

Prepared for:



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

**YELLOWSTONE NATIONAL PARK
WEST ENTRANCE RECORDATION**

Introduction

The National Park Service in Yellowstone is proposing to move the existing roof structure of the West Entrance Station to a location approximately a quarter of a mile to the east to ease the backup of traffic into the Town of West Yellowstone. This will also allow for the realigning of traffic lanes and tollbooths to make the entrance more efficient and speed the process of entering the Park. The new building elements that will be tied into the roof structure will help to provide the employees with a better environment in which to work.

The purpose of this report is to document the history and architecture of the existing West Entrance Station. The researchers, Historical Research Associates and A&E Architects looked at the building in its existing condition, and the plans for the building, along with changes to the building over the years. The history of the building and the architect William Muchow were researched. The following report has a biography of Muchow's work, and the history of the West Entrance Station. A location and architectural description of the building, along with the condition and changes, are documented with photographs to show the elements of the Station. A separate set of HABS photographs also document the building.

Biography of William C. Muchow, Architect.

Introduction

The following narrative was prepared in partial fulfillment of the agreement to mitigate the effect of moving the West Entrance Station in Yellowstone National Park. This facility, designed by regionally prominent architect, William C. Muchow, of Denver, Colorado, has been determined eligible for listing in the National Register of Historic Places under a consensus determination of eligibility between the National Park Service and the Montana State Historic Preservation Office. Yellowstone National Park proposes to move the West Entrance Station 800 feet farther east from its current location on the West Entrance Road. Structural elements of the existing building, principally the canopy, will be integrated into the new entrance station, but the original design concept developed by Muchow's firm will be eliminated. In order to mitigate the adverse effects of this undertaking, Yellowstone National Park proposed to document the existing building with large-format photographs, and to prepare a biography of Muchow.

Methodology

Project personnel conducted research at the Yellowstone National Park Library and Archives, Mammoth Hot Springs, Wyoming, the Denver Public Library, the Denver Federal Records Center and the National Park Service's Technical Information Center, all located in Denver, Colorado. Mary S. Culpin conducted the research in the Denver repositories, and Janene Caywood conducted the research in Yellowstone National Park.

William C. Muchow, 1922 - 1991

William C. "Bill" Muchow was born and raised in Denver, Colorado. After graduating from North Denver High School, he attended two years of college before enlisting in the Navy in 1942. After his discharge from the military at the end of World War II, Muchow entered the University of Illinois, where he earned a Bachelor of Science degree in Architecture. He continued his education at the private Cranbrook Academy of Art¹ in Bloomfield Hills, Michigan, where he studied under the world-renowned Danish architect, Eliel Saarinen, receiving a Master's Degree in Urban Planning and Architecture in 1948. Saarinen's influence is evident in many of Muchow's later building designs, which may be described as modern or international style.

After receiving his master's degree, Muchow returned to Denver, where he worked for other design firms for two years. In 1949 he received the Rome Prize in architecture from the American Academy in Rome,²

¹ The Cranbrook Academy of Art is one component of the Cranbrook Educational Community located within the 315-acre Bloomfield Hills estate of George and Ellen Booth. George Booth conceived of the Academy of Art in 1922, after visiting the American Academy in Rome. After returning to the states Booth contacted Eliel Saarinen, then a visiting professor at the University of Michigan, in order to formalize his ideas for the institute. In 1925, Saarinen acted as a design consultant for the building that would house the Cranbrook Architectural Office and also developed plans for the Cranbrook School for Boys. In 1927, Saarinen moved to the Cranbrook estate, where, in 1932, he became president of the newly sanctioned Cranbrook Academy of Art, and where he remained until his death in 1950. In addition to instruction in architectural design, the academy offered classes in sculpture, drawing and painting, and jewelry making. Saarinen developed his own design style, building on traditional Danish building techniques as well as the Prairie Style of Frank Lloyd Wright (The Cranbrook Schools website, www.cranbrook.edu).

² Established in 1894 and chartered by an Act of Congress in 1905, the American Academy in Rome is a center that sustains independent artistic pursuits and humanistic studies. It is situated on the Janiculum, Rome's highest hill. Each year, through a national competition, the Rome Prize is awarded to 15 emerging artists (working in Architecture,

which later enabled him and his wife Priscilla to spend nine months touring Europe in 1952. In 1950, Muchow established Muchow Associates Architects, which he operated as a sole proprietorship until 1978. During this period, Muchow received many awards for his design of both residential and civic buildings. In 1954, he received an American Institute of Architects (AIA) Award of Merit and a *Progressive Architecture Magazine* Design Awards program citation for the First Federal Savings and Loan Association of Denver building. The following year, he received highest honors in the Annual Design in Hardwoods Award for custom furniture design. In 1957, Muchow was acknowledged again with a Sunset Homes award and a Western Mountain Regional District AIA Honor Award for his own residence, built in 1955. In 1958, the Western Mountain Regional District AIA bestowed an Award of Merit for Muchow's Lakewood Elementary School.³

Muchow's award-winning residence illustrates some of his design philosophy. In a 1956 article in the *Denver Post's Empire Magazine*, Muchow stated, "Modern homes have been compressed by high costs, but I feel that can still have an air of spaciousness – both vertically and horizontally – despite a tight budget." The home was described as an open rectangular box with exterior walls principally of glass. The steeply pitched gable roof had a skylight running the entire length of the ridge and an eave line that extended to within a few feet of the ground. An open porch, formed by an extension of the gable past the glass walls protected the interior of the building from sunlight. The interior partitions stopped short of the ceiling, allowing light to flow throughout the building – a benefit commented upon by Priscilla Muchow.⁴ The overall character of the residence was contemporary, incorporating both traditional and modern materials in an innovative manner. The "total design philosophy," promoted by Eliel Saarinen was evident in the Muchow residence, which was finished and furnished with contemporary fixtures and furniture.

Through the 1960s and 1970s, Muchow continued with his design work and also was actively involved in civic and professional service organizations. He continued to focus principally on projects in Denver, but also completed work in other Colorado cities. Buildings of note in Denver include the Denver Public Service building (1961), the Lincoln Towers Office building (1964), the Federal Reserve Bank (1968), Currigan Exhibition Hall (1969), Park Central Office building (1973), and Auraria Higher Education Center Administration building (1975). In 1974, he was a contributor to the design team for the Greeley National Bank in Greeley, Colorado.⁵

In 1968 Muchow was elected a Fellow of the AIA. In 1969 he served as president of the Colorado AIA. He also served as president of the National Council of Architectural Registration during the 1975-1976 term. In 1975 the Society of the American Registered Architects acknowledged Muchow with its Special Service Award Citation.

In 1978, Bill Muchow's solely owned company became a professional corporation. Until his death in 1991, W. C. Muchow and Partners Inc. continued to design for a wide variety of private, corporate and civic clients. By the mid-1980s, the firm employed nineteen registered architects, seven architectural technicians, seven interior architects, and four administrative assistants organized "under the project team concept." Muchow served as the "Design Director," working with the client and the Partner-in-

Landscape Architecture, Design, Historic Preservation and Conservation, Literature, Musical Composition, or Visual Arts)" (American Academy in Rome website; <http://www.aarome.org>).

³ William C. Muchow Finding Aid, Western History Collection, Denver Public Library.

⁴ Lopez, Bettie I., "Muchow's 'Modern Colonial'," *Denver Post Empire Magazine* January 29, 1956, Clipping file, Western History Collection, Denver Public Library.

⁵ City of Greeley Colorado, Historic Preservation page, on-line form for Greeley National Bank (5WL4105). City of Greeley, Colorado website (<http://www.ci.greeley.co.us>)

Charge on all projects. Promotional materials from around 1980 provide the following description of the company's approach to work:

The essence of W. C. Muchow and Partners' contribution lies in the creative ability to define, analyze, and solve problems relating to the physical environment. The ability is keenest in those minds that have been formed and continue to develop through broad experience and general education. Specialization and repetition tend to stultify creativity. Therefore, W. C. Muchow and Partners Inc., is a general rather than a specialized firm. Instead of limiting our practice to certain building types, a wide variety of commissions is undertaken, and with assimilation of this diversified experience, unique and often award winning solutions are developed for each project.⁶

The variety of the company's work is reflected in the internal organization of projects into ten general categories: "educational," "financial," "municipal and public use projects," "office buildings," "residential," "commercial," "industrial," "multiple housing," "religious," and "recreational."

Throughout the 1980s, Muchow and W. C. Muchow and Partners Inc. continued to garner awards. In 1980 the firm received the AIA's, Award of Honor, Architectural Firm of the Year. In 1983, Muchow himself was honored with the Colorado Society's AIA Architect of the Year award.⁷ Muchow continued his professional activities until his death in 1991 at the age of 69. The fact that the firm dissolved in 1993, after the completion of the last projects developed with Muchow acting as the Design Director, is a testament to his leadership.

⁶ Box: 132, File W. C. Muchow, William Muchow Manuscript Collection. Western History Collection, Denver Public Library.

⁷ Finding Aid, William Muchow Manuscript Collection.

Muchow's Work for the National Park Service

Muchow's work for the National Park Service began in the early 1960s, during the Mission 66 Program, a ten-year, congressionally funded program to update and improve, and thereby protect, the National Parks because of postwar increases in visitation. The program, which began in the mid-1950s, had a target date for completion of 1966. Proposed new or improved facilities included lodging facilities, boat docks, campgrounds, roads and specialized improvements such as ski resorts. Although most agreed that Park facilities needed upgrading, few agreed on the appropriate character of the new development – especially the architectural style in which the improvements were being executed. Sara Allaback describes the controversy in her discussion of Mission 66 Visitor Centers:

The prospect of modern architecture in the National Parks shocked those not imbued with its progressive attitudes, inspired with its missionary zeal, or knowledgeable about its origins. News of modern architectural development immediately provoked an outcry from environmentalists and nostalgic visitors. One of the most outspoken critics of the new style was Devereux Butcher of the National Parks Association. As early as 1952, Butcher wrote of his horror at finding contemporary buildings in Great Smoky Mountains and Everglades and criticized the Park Service for abandoning its "long-established policy of designing buildings that harmonize with their environment and with existing styles."

Despite the criticism of Butcher and others, the Park Service felt it had remained consistent with its tradition of architectural design in harmony with the surrounding landscape. In fact, the design methodology behind the use of rustic architecture was adapted to explain contemporary design decisions. According to Director Wirth, Mission 66 buildings were intended to blend into the landscape, but through their plainness rather than by identification with natural features. Even the qualities that defined rustic architecture—local boulders, rough beams, etc.—might draw attention to a building created to serve a practical function.

The Park Service accepted modernism at a time when the new tradition had aged, and its post-modern backlash not yet emerged. The visitor center designed by Mitchell/Giurgola for the Wright Brothers Memorial was featured in a "news report" in *Progressive Architecture* suggesting that the Park Service had finally caught up with the standard required by the modern visitor. "The design of visitors' facilities provided for national tourist attractions seems to be decidedly on the upgrade, at least as far as the work for National Park Service is concerned. Disappearing one hopes, are the rustic-rock snugery and giant-size "log cabin" previously favored." That the progressive periodical chose two visitor centers to "exemplify new Park architecture" was not surprising. The Park Service intended for the new visitor center buildings to represent the values and results of its system-wide development campaign. Whether or not the Park Service knew it was embracing a new strain of modernism is unclear.⁸

The controversy over modern architecture in National Parks was in full swing when William C. Muchow & Associates began its association with the National Park Service. Muchow's demonstrated excellence in

⁸ Sara Allaback. *Mission 66 Visitor Centers: the History of a Building Type*. US Department of the Interior, National Park Service, Washington D.C. 2000.

modern building design was undoubtedly a factor in the firm's securing the contract to design a new visitor center for Fall River Pass in Rocky Mountain National Park. Working for the Washington Office, the firm designed the Alpine Visitor Center in 1962.⁹ It was constructed in 1964 and represents one of roughly a hundred new visitor centers that date to the Mission 66 period.

Muchow's work in Yellowstone appears to have begun in 1966 – the very end of the Mission 66 program. The Yellowstone work is identified in his company's files as Project # 348 A through E. The project included the designs for four buildings in the new Grant Village Marina, as well as the West Entrance Station, and, according to the firm's internal classification system, was identified as a "Municipal and Public Use" project.¹⁰

Although initial planning for improvement to the West Entrance Station and development of the new Grant Village both date to the Mission 66 period, Grant Village, likely because of its scale, is more prominently represented in planning documents. The 1957 Mission 66 prospectus for Yellowstone National Park identified Grant Village¹¹ as a major component of the park's improvement program:

The next major center of new development will be Grant Village which will lie about one and one-half miles south of the present West Thumb area and which will permit the removal from that area of certain developments adversely affecting hydrothermal features in the vicinity. The Village, which will be at least as large as Canyon Village, has been so named in honor of President Grant, who signed the enabling legislation making Yellowstone the first National Park.¹²

Detailed planning for the Park's West Entrance dates to 1960. In May of that year, Theodore Wirth prepared a Design Analysis for the West Entrance, which was included as Chapter 5 of the Master Plan for the Preservation and Use of Yellowstone National Park, Wyoming.¹³ As Wirth noted, "The existing development is not considered of sufficient importance to be permanently included in proposals for future planning." In other words, planning for new Park Service development at the Park's West Entrance (including employee housing, administrative, and livestock facilities) could proceed from scratch, without attempting to integrate the existing with the new development.

Of the improvements proposed in the 1960 design analysis, only the entrance station was realized, and this after much delay. In a January 31, 1966 memorandum to the Midwest Regional Director, the Director of the National Park Service indicated that the West Entrance, Entrance Station PCP B-444, as well as the three buildings at Grant Village Marina, would be delayed "pending availability of A&E funds. Furthermore, funding for the projects could not be obligated by June 30th but that they could be under contract by early in 1967."¹⁴

⁹ Allaback. *Mission 66 Visitor Centers: the History of a Building Type*.

¹⁰ William Muchow Manuscript Collection Finding Aid, Western History Collection, Denver Public Library.

¹¹ Grant Village was formally dedicated in 1963 – prior to the completion of the marina. see *Post Register*, Idaho Falls, Idaho, July 16, 1963. Vertical Files, Yellowstone National Park Library, Mammoth Hot Springs, WY.

¹² National Park Service, United States Department of the Interior. "Mission 66 for Yellowstone National Park," 6, Folder A98 – Mission 66 1957, Box A-212, Record Group (RG) 79, National Archives and Records Administration (NARA), Yellowstone National Park, Mammoth Hot Springs, WY.

¹³ West Entrance Master Plans/Studies, Box D-23, RG 79, NARA, Yellowstone National Park, Mammoth Hot Springs, WY.

¹⁴ Box D-133 File: D 22 Construction Programs 1966 DCP Jan. thru. July. RG 79, NARA, Yellowstone National Park, Mammoth Hot Springs, WY.

No correspondence between the National Park Service and Muchow regarding the West Entrance Station has been discovered. However drawing dates indicate that the preliminary drawings for the building had been produced by May of 1967. Working drawings were completed by April of 1968, with a final 'sign detail' drawing prepared in February of 1969. According to the company's internal records, Project # 348 (including both the West Entrance Station and the buildings at the Grant Village Marina¹⁵) was completed in 1970.

The West Entrance Station, designed by Muchow, reflects the design principles developed for Park Service buildings during the Mission "66" period, with a few compromises. Although the style of the building is modern, it incorporates rustic materials, including large-diameter logs and wood shingles as covering for the massive canopy. The open spaces between the structural support elements accommodate the checking kiosks and vehicular lanes.

¹⁵ Use of the Grant Village Marina was short-lived. In a memorandum to the Regional Director, Midwest Region, the acting Superintendent of Yellowstone National Park advised that a portion of the bulkhead for the marina's lagoon had failed, which in turn caused failure of water and gas lines and the electrical system [Box D-191 File: Correspondence, Memoranda & Reporting 1968-1975 RG 79, NARA, Yellowstone National Park, Mammoth Hot Springs, WY]. Although repairs were made, the intense wave action continued to impact the breakwater and bulkhead. By 1986, Rocky Mountain Regional Director, Lorraine Mintzmyer explained to Wyoming Senator Alan Simpson that the Grant Village Marina had been closed for the past five years owing to a lack of funding for a new breakwater (estimated to cost 3 million dollars) and other repairs. At that time the park was advocating for removal of the marina and expansion of an existing launch lagoon near the Grant Village campground [Box D-193 File: D46 Other Structures 1986. RG 79, NARA, Yellowstone National Park, Mammoth Hot Springs, WY].

Location

The West Entrance Station is the fifth entrance or checking station to exist on the western border of Yellowstone National Park. It has traditionally been one of the primary entrance points into Yellowstone National Park, since the Army took over administration of the Park in the 1880's period. Visitation was greatly increased after the Oregon Shortline built a railroad to the West Entrance in 1907. The Town of Riverside was started in 1907; the name changed to Yellowstone the following year. Three merchants on lots that belonged to the U.S. Forest Service began the town in 1907. Yellowstone was renamed for the third time by adding West to separate it from being confused with Yellowstone National Park in 1920, at the same time that the land was transferred from ownership by the federal government to private ownership (Town of West Yellowstone, Chamber of Commerce website). The initial modus operandi at the West Entrance involved tourists departing the train at the Oregon Shortline Depot, then transferring to stagecoaches, which then venture into the interior of the Park on crude roads built by the Army or prior concessionaires in the early days of the Park. In 1915, Yellowstone National Park was opened to automobiles, and it was at this time that a new entrance station was constructed. The 1915 Entrance Station was a departure from the previous "checking station" in that it was designed to be similar to the southern dogleg style cabins with a roofed breezeway between two log cabin structures. The breezeway was large enough to accommodate autos under the breezeway, which allowed the rangers and the public some protection from the weather during conversations and transactions. Prior to this time, a simple log cabin, situated on the side of the road at the Park boundary, served as a checking station for the U.S. Army soldiers that manned the West Entrance area. The opening of the Park to autos allowed the general public to access the interior of the Park, and marked a significant turning point, in which access by auto has been the primary public transportation in Yellowstone National Park for almost ninety years. Increases in the size and number of vehicles accessing Yellowstone National Park has driven the numerous change experienced at the West Yellowstone Entrance since then. The 1915 entrance station located immediately at the boundary between the Park and the Town of West Yellowstone was torn down and reconstructed in 1925, and again in the mid-1930's, presumably by the CCC or WPA employment programs. The next entrance station was built in 1953, signifying the increasing popularity of the National Park system and the massive use of the post war automobiles to take summer vacations. The current station was placed further into the Park from the boundary to accommodate longer lines of vehicles. The original 1960's site plans and aerial photos show a structure, probably a visitor contact station on a pull-off on the approach to the current West Entrance Station. The structure has been since removed, and the area re-vegetated with lodgepole pine saplings.

Architectural Description

The West Entrance Station was built in 1968 and was designed by William C. Muchow and Associates of Denver, Colorado in the later years of the Mission 66 construction program. The building is clearly designed in the Modernist movement and is a primary example of the Modernist approach to incorporate the traditional materials found on historic buildings located in Yellowstone National Park with the Modernist A-frame design. Muchow worked with Eero Saararen, one of the world's most renowned Modernist architects. The building is essentially a monumental scale A-frame structure, which was just beginning to gain the popularity that I enjoyed in the 1970's period as a building design for both residential and commercial construction.

The building is sited further in from Park boundaries than the previous checking stations. This is to prevent a backup of traffic into the Town of West Yellowstone. This has in the past because of the great influx of vehicles at this station. There are four vehicle lanes with tollbooths and an outside lane on the north end that sit beyond the structure for traffic leaving the Park or for large vehicles that cannot go under the structure.

The A-frame building is essentially a roof structure approximately three stories in height running in a north/south direction spanning the three islands with the tollbooths, and the office building at the south end of the structure. The steeply pitched roof structure is supported by four sets of paired logs (22-24 inches in diameter), that extend beyond the edge of the roof and are anchored at each base by an angled concrete bulkhead that extends into the ground. The ends of the logs, where they attach to the concrete, are held together with a metal gusset shaped around the logs. The two logs then form a "V" shape as they extend up into the roof structure. At the intersection of the roof, there are two logs (10-14 inches in diameter) set in the crotch of the "V" and are held in place by a small horizontal log. The main logs connect into the structure of the roof which includes two 10"x20" beams that support the ridge. The main beam in turn helps to carry a modified and triangulated Warren type truss that extends along the slope of each side of the roof carrying the roof between the main logs and out to the cantilevered ends on the north and south. There is also a modified truss laying flat at the base of the roof to help keep the snow load from crushing the building and also allows the loads to transfer to the four concrete bases. All of the beam connections have steel gusset plates. The roof is covered with and exposed to the inside tongue-and-groove decking with a wood shingle roof. There is a vertical copper clad ridge on the top of the shingles. There are four passive wind ventilators on the west side of the building.

The roof structure is designed to span over the tollbooth structures below and is not connected to them. There are three tollbooths situated on the center access of the roof in the middle of concrete islands that separate the vehicle lanes. The tollbooths are a rectangular one-story building with a high concrete base and bronze anodized aluminum windows on all sides except the east side. There are sliding windows in the center of the booths on the north and south side to take the entrance monies. The structures have a flat built-up roof. On the east side there is a flush wood door with two aluminum sidelights. As you enter the structure there are steps down into the booth so the persons manning the booth would be at the level of a car window. There are built-in counters and cabinets in the space. The office building on the south side is a one story square building with a bay tollbooth window on the north side of the building that spans between the two flush panel doors. This could be used as a fourth tollbooth but has not been used on a regular basis. The bay has a concrete base with aluminum windows similar to the other booths. The sidewalls are wood frame with a vertical plywood T-111 siding that wraps around the south side of the

building where there is a concrete bay that extends up to the roof. The building has a flat built-up roof. The building is used for offices and has a bathroom and storage area.

The building is in good condition with some wear and tear on materials that have been hit by vehicles, or in the case of the flat panel doors, the wood is yellowed and black from moisture and sunlight hitting the finishes such as varnishes that deteriorate under those conditions. The building is representative of the Mission "66" modernistic approach to designing a large, almost monumental scale structure in a historic setting, with disregard to the environmental conditions under which it must perform, in this case, extreme cold and snow loads. When the building was designed, there was no accommodation for HVAC systems in the booths, which was not corrected until 1974 when an HVAC system was installed from the storage building behind the office that was brought on to the site. The ductwork runs from this storage building across the interior of the roof structure and down into the individual tollbooths. The storage building was not part of the original design but sits by itself and is not connected in any way, except for the added ventilation system ductwork. The major design problems with the structure, however, were that the designers at the time did not take into account the development of snow machines, which were then in their infancy, or the development of the large scale motor homes, tour buses, large fifth-wheel trailers, and other recreational vehicles, which were to come into existence in the upcoming decades. Consequently, the main support beams running lengthwise, are constantly in danger of being struck, due to their inadequate height which is 12'-6", as opposed to the current industry standard height of 13'-6". The incoming side of the structure gets struck on a reasonably frequent basis. The second problem, which presents a danger to the occupants of the tollbooths, is the narrow width by today's standards of the individual lanes between the tollbooths. Several of the booths show signs of being sideswiped by large width vehicles. It is a common practice to have to stop traffic and allow larger scale vehicles enter from the outgoing and outside lane to the north. The third design flaw was that the monumental scale-gabled roof with no cross-gabbling, allows enormous snow loads to dump directly onto the lanes of traffic, both outgoing and incoming, blocking the entrance lanes. This was probably not considered much of a problem during the initial construction due to the relatively minor numbers of wintertime visitors.

The historical and architectural integrity of this modernistic building has been retained with very little change. It is showing wear because of the environment and the large numbers and types of vehicles that come into the park today.

PHOTOGRAPHS



Figure 1: Looking southwest at the Entrance Station.



Figure 2: Looking northwest at the driving lanes and booths.



Figure 3: Looking southwest at the office building and booth.



Figure 4: Looking west at the driving lane and tollbooths.



Figure 5: Looking west at the log supports and cantilevered roof over the booths.



Figure 6: Looking south at the booths and roof structure above.

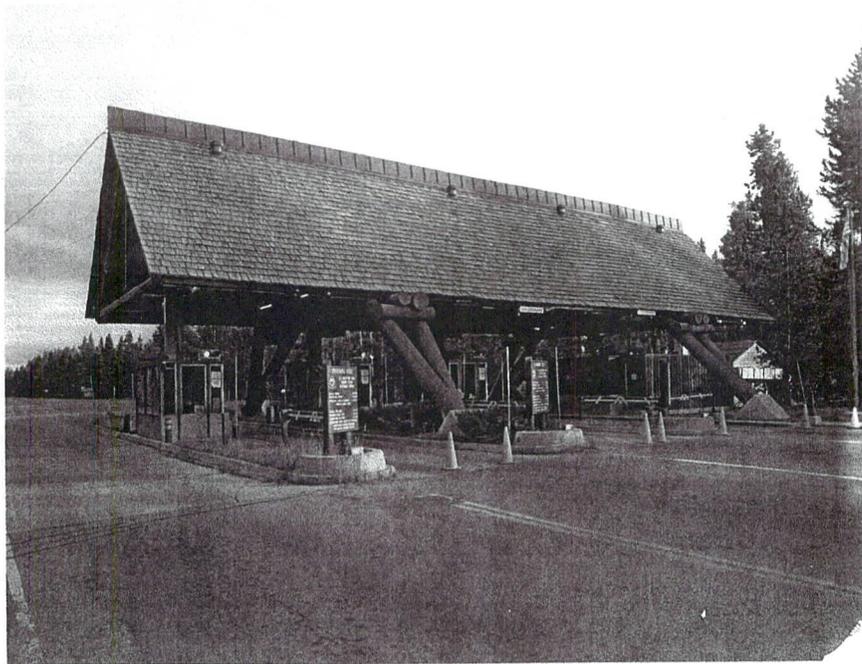


Figure 7: Looking southeast at the Entrance Station.



Figure 8: Looking east at the Entrance Station.



Figure 9: Looking northeast at the tollbooths and driving lanes.



Figure 10: Looking east at one of the four support base detail.



Figure 11: Looking northeast at the tollbooths inside the roof structure.



Figure 12: Looking at a typical tollbooth.

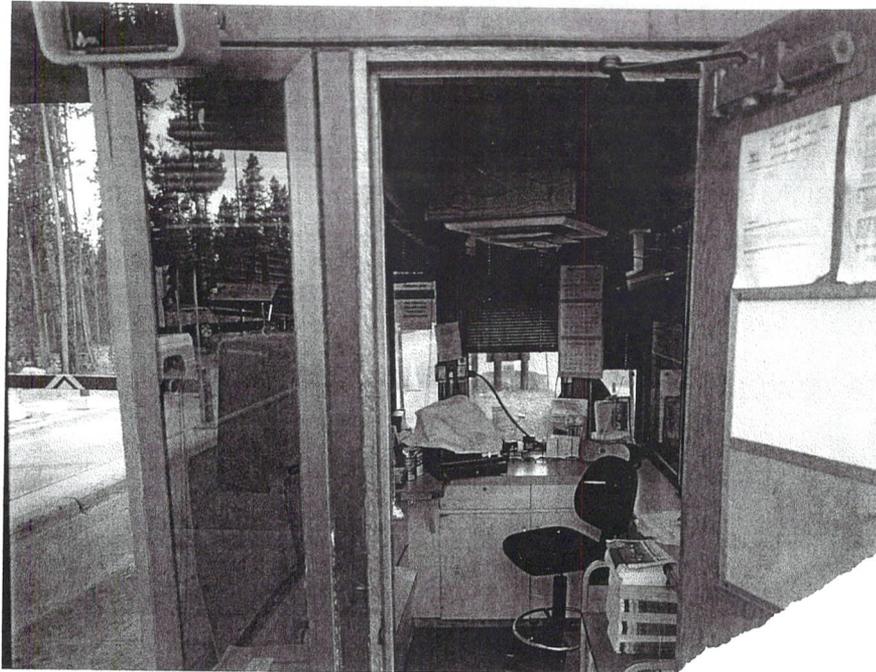


Figure 13: Looking west at the interior of the tollbooth.

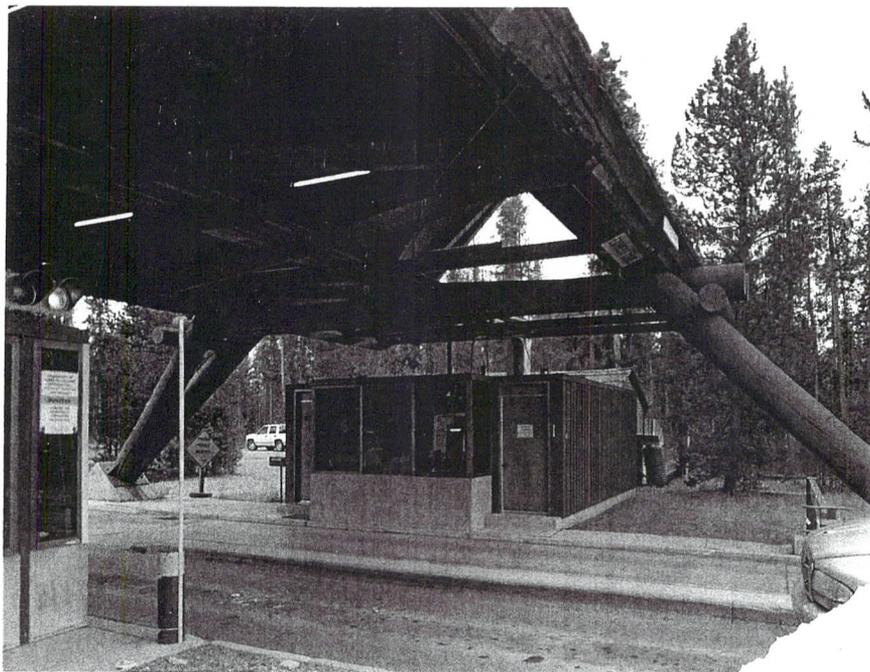


Figure 14: Looking southeast at the office building.

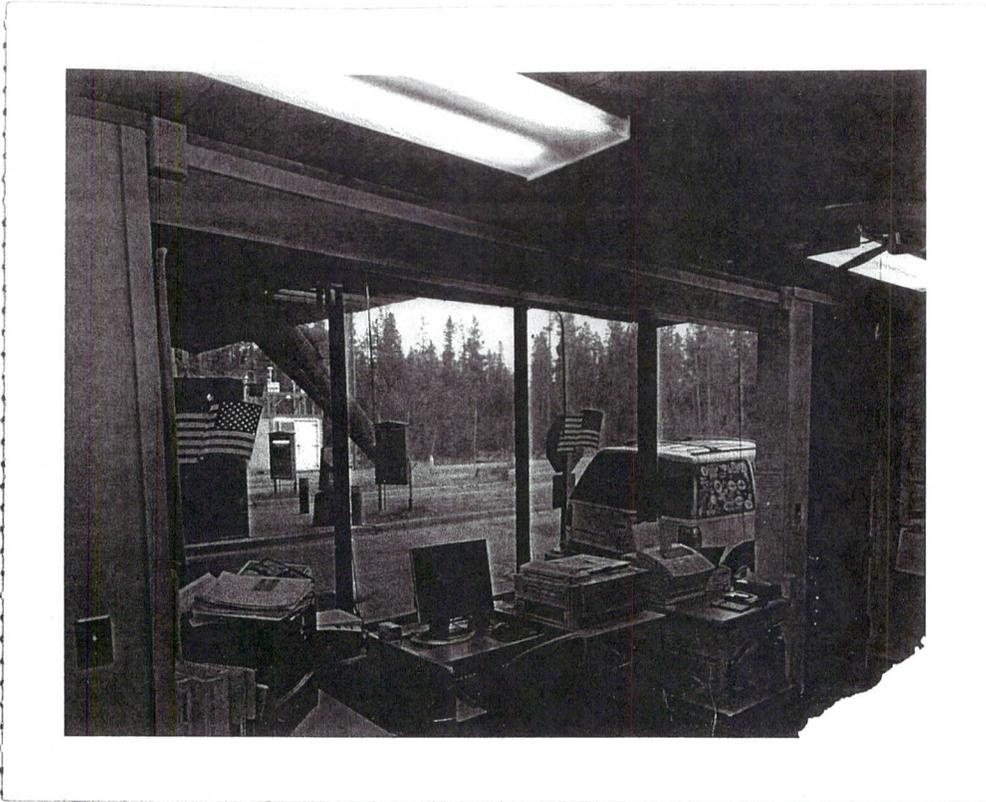


Figure 15: Looking northeast at the interior of the tollbooth in the office building