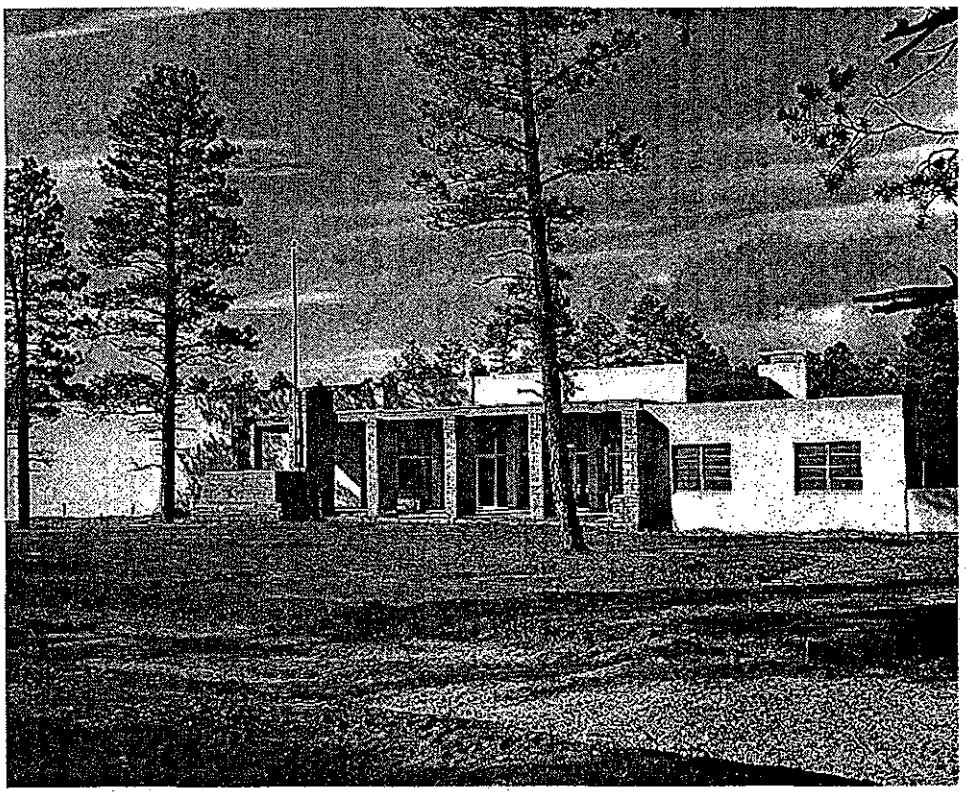
113/D-556
Grand Canyon

Grand Canyon Park Headquarters

Historic Structure Report



GRAND CANYON

National Park • Arizona

SCANNED
1/31/2002

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Cover: Northeast view 1957, Grand Canyon National Park Archives, photograph No. 3712

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I. EXECUTIVE SUMMARY AND ADMINISTRATIVE DATA

Built to the designs of Park Service architect Cecil J. Doty, the Grand Canyon Park Headquarters was formerly known as the Visitor Center and was completed in 1957. The building epitomized a new style of architecture for the national parks. Initially called the Public Use Building at the Grand Canyon, the building was one of the earliest products of the Mission 66 building program, a one-billion dollar government effort to improve visitor facilities nationwide in celebration of the 50th anniversary of the National Park Service in 1966. Within the context of the development of a new style of park architecture, sometimes called Park Service Modern, this early building was critical in the visitor center building type development. During Mission 66, the Park Service introduced the comprehensive visitor center as a new building type. The Park Service constructed one hundred new visitor centers, a series of distinct modern buildings representative of post-World War II prosperity and architectural design in the mid-20th century.

Based upon modern architectural designs and the influence of the International Style, Doty's long, one-story building, the Grand Canyon Park Headquarters is organized around a central open courtyard and uses contemporary materials, glass, stucco, steel and concrete, and a new building technology to achieve a modern expression in straight clean lines. Aluminum framed awning-type windows and a flat-roofed canopy over the entrance contribute to the contemporary idiom. Unlike the NPS rustic architecture of previous decades, Mission 66 architecture did not seek to incorporate elements of the surrounding landscape but rather sought to achieve an intentional simplicity that deferred to the landscape. This building, however, does not strictly adhere to the new philosophy. This is a more transitional, hybrid building with a gesture toward ornamentation, incorporating subtle references to natural features.

Since its construction in 1957, the building has endured steady use by the public and park employees. Intended to create a new focal point of park activity, the building combines museum services, administrative facilities, and a first point of orientation when arriving in the park. Grand Canyon Visitor Center and Park Headquarters became the prototype for later visitor centers. In 1966, the building was altered to create a second floor for additional office space at the back of the building, a successful complement to the existing architecture. In both form and function, it is an excellent example of Mission 66 period architecture and planning in the National Park System. The building retains a high degree of integrity.

In the fall of 2000 when the Grand Canyon National Park inaugurated a new facility, the Canyon View Information Plaza, Doty's Visitor Center and Park Headquarters reverted from public use to exclusive use for park administration offices. The project is to rehabilitate the current building and convert space now used for the Visitor Center and archives to office and workspace for park employees. Work to be completed includes: installation of a total-building insulated roofing system, expanded and modernized

restrooms, installation of double-glazed windows throughout the building, a modernized, efficient mechanical system, a building fire suppression system, repaired and updated wall finishes, new floor coverings, upgraded wiring for computer and communications networks, and improvements to the building's entry and egress areas to facilitate accessibility. Separately, users of the building and park administrators have expressed the need to upgrade mechanical, electrical and telecommunications systems.

The information presented herein provides the basis for evaluating future alterations that may be proposed for the Grand Canyon Park Headquarters and will aid in the rehabilitation and stabilization of this significant park structure. As a building of the recent past, it has not been well-documented nor have maintenance records been consistently retained. The project team has developed a more thorough analysis of the structure's place within the context of post-war park architecture. This document defines the elements that give the building its architectural character and help convey its significance. The contents of this Historic Structure Report (HSR) are:

- a concise historic context associated with the building and its architect;
- a detailed chronology of building development including alterations and maintenance through time;
- an evaluation of the period of significance, historic integrity, and historic significance of the structure;
- an evaluation of building conditions;
- a list of character-defining features;
- updated existing conditions drawings; and
- plans that identify the primary, secondary and tertiary spaces of significance within the building.

The historical research portion of the report is based primarily on existing historical source material at the Grand Canyon National Park Archives and on other materials made available by NPS, including the National Register of Historic Places Draft Nomination Form titled *Grand Canyon Public Use Building*. Several NPS staff members of the Engineering and Maintenance divisions of the Grand Canyon National Park were consulted regarding the maintenance history of the building. Additional secondary research was conducted using materials within the libraries of the University of California at Berkeley, the library at the Grand Canyon National Park, the library at the San Francisco office of the National Park Service, at significant Bay Area research collections, and in the ARG library. The level of research requested for this report was "thorough" — one of three levels of investigation (exhaustive, thorough, and limited) as described by NPS Director's Order - 28. "Thorough" research is defined by DO-28 as follows:

> For historical studies this means research in selected published and documentary sources of known or presumed relevance that are readily accessible without extensive travel and that promise expeditious extraction of relevant data, interviewing all knowledgeable persons who are readily available, and presenting findings in no greater detail than required by the task directive.[1]

Administrative Data

Historic Names: Public Use Building (during planning and construction)
Visitor Center (upon dedication, June, 1957)
Common Name: Visitor Center and Park Headquarters
Park Structure Number: Building 105
Location: South Rim, Grand Canyon National Park, Coconino County, Arizona
USGS Map - Williams Quadrangle
UTM: easting 398970 northing 3990442

Cultural Resource Data

The building is not listed on the National Register of Historic Places; however, the building is the subject of a draft nomination currently in progress.

The original drawings for this building are on microfiche at the NPS Denver Service Center. If there is not a copy of the drawings in the Grand Canyon National Park Archives at the South Rim, a copy should be placed with that collection. There are a number of historic photographs of this structure within the collection of the Park Archives. The Park Archives collection is an appropriate location for these items.

Explanatory Note

With regard to the orientation of the building and compass direction references, we have relied on the established directional designations as set forth in the 1955 construction drawings. Throughout the document, we refer to the principal elevation as the East elevation, the rear elevation as the West elevation and the side elevations as North and South.

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NPS Indefinite Quantities Contract Number:

1443CX200098016
Task Order: 29

II. Historical Background

Developmental History and Context

This section of the HSR outlines the people, events, and historic contexts associated with the structure. Historic contexts are broad patterns of historical development in a community or a region that may be represented by historical resources. Historic contexts can be identified through consideration of the history of individual properties or groupings of properties within the surrounding area. The establishment of historic contexts provides the foundation for decision-making concerning the planning, identification, evaluation, restoration, registration, and treatment of historic properties, based upon comparative significance. Historic contexts can be developed for all types of resources including, but not limited to, buildings, structures, objects, sites and historic districts. The methodology for developing contexts does not vary greatly with the different types of resources, and contexts may relate to any of the four National Register criteria. At the core of historic contexts is the premise that resources, properties, or happenings in history do not occur in a vacuum, but rather are part of larger trends or patterns.

The Canyon's First Inhabitants

Humans have known the Grand Canyon, the major chasm of the Colorado River and its tributaries, for thousands of years. Indigenous people have lived in the Grand Canyon for over 4000 years, with recent evidence suggesting people may have been utilizing the canyon as long as 10,000 years ago. Grand Canyon National Park is rich in cultural resources; the park records include 4,000 prehistoric and historic sites, based upon intensive survey of approximately 2.5% of the entire park. Estimates of archaeological resources within the park top 50,000 archaeological sites, prehistoric and historic, based upon the limited sample survey that currently exists.

For thousands of years, people moved in and out of Grand Canyon, leaving behind evidence of their passing. Thousands of dwellings, shelters, and agricultural terraces have been located, providing evidence of ancestral hunters, gatherers and farmers living on both rims and in the inner canyon. Campsites, rock art, house foundations, pottery, chipped stone, ground stone, and other artifacts remain to help tell the story of these people and their lives within the canyon over the last 10,000 years.

A single portion of a Folsum point provides the only evidence to date of Paleo-Indian hunters within Grand Canyon nearly 10,000 years ago. Although evidence for human occupation is limited, it is well documented that Archaic peoples began utilizing the Grand Canyon over 4000 years ago. Split-twig figurines, projectile points, campsites and rock art attest to archaic populations in and around the Grand Canyon from *ca.* 3500 B.C. to 1 A.D. Though limited, archaeological materials suggest near continuous occupations through the Archaic and Basketmaker (early A.D. to *ca.* A.D. 700) periods, moving directly into the Puebloan period occupations (*ca.* A.D. 800 - 1300). Groups identified as representing both the ancestral Puebloan peoples and Cohonina culture have been identified throughout the Canyon during those time periods, gradually giving way to contemporary peoples. The Hopi, Zuni, Southern Paiute, Havasupai, Hualapai and Navajo all left remains that have become part of the archaeological record. These same people continue to use the canyon today for traditional and religious reasons.

Grand Canyon has been home to various groups of people for thousands of years. These people, both native Americans and more recent Euro-Americans, have utilized the canyon as both a home and a place linked to traditional practices, values and beliefs. To the **Hopi** and **Zuni**, the Grand Canyon represents their place of origin into this world. For Hopi, it also represents the place where their spirits come to rest after death. Although the Anasazi (Hisatsinom), or ancestral Puebloan people, migrated from the canyon area, their descendants, the Hopi and Zuni, continue periodic visits.

For the **Pueblo** people, archaeological remains in the canyon provide evidence for their migration from their place of origin to their present homes. For the **Pai** people (Hualapai and Havasupai), the canyon and the river are the lands they have been entrusted to care for. The river represents the backbone. For the **Southern Paiute**, the canyon represents a place given to them from the Creator to protect and manage, including its water and natural resources. To the **Navajo** people, the Colorado River in Grand Canyon forms a protective boundary on the western border of Navajo land. Many of the tribes who claim ancestral ties to the Grand Canyon continue to use the park. Salt and hematite are collected from the locations along the river by all tribes, and certain plants are collected for traditional and medicinal purposes throughout the park. Pine nuts are still collected by Indians and non-Indians. One small group of Havasupai continues to live approximately one mile west of Grand Canyon Village in Supai Camp. Most Havasupai today earn their living from tourism, ranching, and wage labor.

Spiritually and physically, the canyon remains of great importance to the local native peoples: it is a holy place, an object of pilgrimages, a symbol of legends, and a home place. Today, the reservations of the Hualapai, Havasupai, and Navajo tribes include parts of Grand Canyon National Park; the Paiute and Hopi reservations are nearby. Each of these tribes is linked to the history of the Canyon, from early times to present day involvement.[2]

European Exploration

During the early Spanish period, both the Hualapai and Havasupai were relatively unaffected. The first few Spanish soldiers and explorers to encounter the canyon were led by Garcia Lopez de Cardenas from Francisco Vasquez de Coronado's expedition of 1540-1542.[3] Cardenas and his men arrived at the South Rim of the Grand Canyon in late September of 1540 with the assistance of Hopi guides. Finding the land arid and difficult to traverse, the Spaniards left the canyon and its surrounding plateau lands to native tribes and were not seen again in the immediate area until the 1770s. More concerned with charting the New World and understanding the geography of the region, the Spanish they were awed by the canyon as a barrier, not for its scenic beauty, and focused instead on more easily-habitable regions.

American Westward Expansion

American trappers, fur traders, and frontiersmen scouted the area in the early nineteenth century, but tended to avoid the treacherous, unforgiving and still uncharted depths of the canyon. Like the Spanish before them, they saw it as an impediment to their hunting and trapping activities. In 1848, much of the territory was still unexplored. The American frontier came late to the canyon. Rugged topography and a hot, arid climate deterred settlers. Consequently, those who came were mostly men without families in search of wealth: ranchers, settlers, and mining prospectors. These men arrived in Arizona in the 1870s in such huge numbers that the population quadrupled. Hundreds of mining claims were staked, but mining meant overcoming prohibitive difficulties: such as, lack of water; insufficient trails; packing out the ore on burros; and, finally, paltry deposits. Some mining prospectors saw that their trails and land had greater value in tourism than in mining. This realization coincided with escalating settlement of the Southwest and railroad expansion, particularly the Atlantic and Pacific Railroad, which pushed across northern Arizona.

Tourism Reaches the Canyon

While the extension of the railroad to northern Arizona made the canyon more accessible in the last quarter of the nineteenth century, it was not until 1901 that visitors could arrive directly to the South Rim by rail. Until then, hardy visitors withstood the laborious journey by horse-drawn stagecoach lines or wagons. The arrival of rail service spawned the transformation of the small village into a more sophisticated resort under the aegis of a concessionaire, the Fred Harvey Company, which was allied with the Atchison, Topeka & Santa Fe Railway. Fred Harvey established resorts to accommodate rail travelers throughout the west. The Fred Harvey facilities at the South Rim ranged from the luxurious to

the economical, from the grand El Tovar Hotel (1905) to the Bright Angel tent cabins (no longer extant). The lodgings spawned other tourist-related businesses and structures, such as the Hopi House (1905), Verkamp's Canyon Souvenir Shop (1905), Mule Barns (1907), Rail Station building (1907), and the Lookout Studio (1914), creating a bustling arrival point for visitors.

The National Park Service and its Architecture

The rustic character of the first South Rim buildings was influential upon the architectural philosophy developed by the National Park Service. From its inception in 1916, the Park Service sought to define an appropriate architecture for buildings constructed within parks, some of the most scenic locations in the United States. The first directive issued by the new agency stressed that "particular attention must be devoted always to the harmonizing of these improvements with the landscape." [4] That mandate held throughout the Mission 66 era but its manifestation was quite distinct from early NPS ideals. When the Grand Canyon officially became a National Park in 1919, the National Park Service Landscape Engineering Department teamed up with the Santa Fe Railroad and the Fred Harvey Company to plan development in the park. Concessionaires like the Fred Harvey Company had created structures in a variety of architectural styles, from buildings inspired by native construction techniques to those that evoked the imposing European chalet tradition. The first National Park Service architects and landscapers, by contrast, pursued an architectural style that provided greater harmony with the natural surrounding and employed a generally smaller scale. It became known as Rustic Park Architecture, the NPS Style.

In order to understand the significance of Mission 66 architecture found in the National Park system, a classification of the architectural development within the NPS will place this evolution into context. An overview of the architectural influences and styles found in the nation's parks can be categorized into primarily six periods of development in the history of the NPS: Railroad Development (1901-1920), NPS Planning (1919-1933), Civilian Conservation Corps (1933-1941), WWII and Post-WWII (1940-1952), Mission 66 (1951-1970), and Rustic Revival (1970-present).[5]

Post War Tourist Industry Inspires Change

Throughout the twentieth century tourism flourished in the national parks, and at the Grand Canyon in particular. After World War II, Americans increasingly took to the highways to explore the nation's points of interest. Post-war isolationism resulted in Americans spending vacations in the United States, rather than traveling abroad. The automobile brought record numbers of visitors to the park and created a demand for larger, more modern resort facilities geared to the motorists' needs. With increased park usage and popularity, a rehabilitated infrastructure became necessary. Conrad L. Wirth, a landscape architect and planner who had led the Park Service's (Civilian Conservation Corps) CCC program, became director of the Park Service in December 1951. Facing a system with a deteriorating infrastructure overwhelmed by the postwar travel boom, Wirth responded with Mission 66, a ten-year financial

program of planning and construction to upgrade facilities and park resources to coincide with the Service's 50th anniversary in 1966.

Associated with a very specific new building design, Mission 66 brought a new identity to park structures. In addition to new building types and a new brand of park architecture, the principal objective of the Mission 66 redevelopment campaign was to accommodate far greater numbers of tourists in developed areas. Mission 66 mandated road widenings and other interventions for visitors traveling by car, specifically recreational vehicles. The Mission 66 crusade was reactionary, in the literal sense of the word, a program of expansion that responded to demands for access to the parks. Today, many NPS managers and park superintendents would argue against endlessly increasing the capacity of parks to serve larger and larger numbers of people and vehicles.[6]

Mission 66 Style

The Mission 66 style was an aesthetic departure from a long-established NPS architectural vocabulary. Epitomizing changes in post-war American thinking and design values, Mission 66 reflected the tenets of modern architecture: a faith in modern materials that were promoted as new, light, economical; a design philosophy that held that mankind was in control of nature; and, minimal emphasis on ornament. Stylistically, the parallels between Mission 66 and the International Style are obvious. The primary characteristics of 1930's International Style, are an emphasis on volume, regular organization of plan, the absence of applied ornament, and the use of characteristic materials, especially glass. Traditional methods of craftsmanship were replaced by more efficient means of machine production.

Mission 66 architecture also melded well with themes central to NPS Southwestern design. Broad, simple surfaces, a sense of the horizontal and setbacks are common to both. The horizontal planes of the Southwestern rustic, flat roofs and low silhouettes, correlate to the lines of Mission 66 design. In the 1938, three-volume edition of *Park & Recreation Structures,* Albert H. Good, an architectural consultant to the National Park Service stated:

> If the so-called modern, or International style of architecture, is to gain in popular appeal so that it is universally adopted... there is probably in the United Sates no traditional architecture so kindred and complimentary to it as the early architecture of the Southwest.[7]

Nearly twenty years before the Mission 66 building program was realized, Good saw the fluidity between these two seemingly disparate styles and recognized the potential of modernism. Doty's Santa Fe Regional Headquarters and the Grand Canyon Park Headquarters exhibit interesting parallels. (See Section "Architect Cecil J. Doty" for further discussion.)

In August, 1956, *Architectural Record* reported that Mission 66 would produce "simple contemporary buildings that perform their assigned function and respect their environment." The magazine also emphasized that while this policy had traditionally led to the use of stone and redwood, "preliminary designs for the newer buildings show a trend toward more liberal use of steel and glass." [8] The materials that composed modern buildings, inexpensive steel, concrete and glass, were economical for the Park Service budget and, consequently allowed the construction of more new park facilities. In addition, the widespread use and acceptance of these materials resulting in increasing availability and decreased expense. Changes in building technology and pre-fabricated architectural elements offered economic advantages over more craftsmanship-oriented techniques.

In the post-war period, the prospect of modern architecture in the national parks was shocking to some, but despite criticism, the Park Service felt it had remained consistent with its tradition of architectural design in harmony with the landscape. The design objective behind the use of rustic architecture was adapted to fit contemporary design decisions. According to Director Wirth, Mission 66 buildings were intended to blend into the natural landscape, but through their plain appearance rather than by identification with natural features.[9]

Visitor Center: New Building Type

During the Mission 66 era, the Park Service built housing, maintenance areas, roads, entrance stations, parking lots, campgrounds, comfort stations, picnic shelters, concessionaire buildings, and other park facilities intended to serve park visitors and facilitate park management. But the hallmark of the Mission 66 program was the park visitor center. One hundred and nine visitor centers were slated for construction over the ten-year period. This new type of park facility was intended to not only "embody new park visitor management policies, but also the spirit of Mission 66, which looked forward to an efficient Park Service for the modern age."[10]

The updated facility, equipped with basic services and educational exhibits, was alternately known in its early stages as an "administrative-museum building," "public service building," or "public use building." As this range of labels suggests, Park Service was struggling not only to combine museum services and administrative facilities but to develop a new building type that would supplement old-fashioned museum exhibits with modern methods of interpretation. In February 1956, Director Wirth issued a memorandum to help clarify the use of terminology applied to the new buildings, explaining that "there are differences in the descriptive title, although most of the buildings are similar in purpose, character and use"[11] From then on Wirth expected park staff to use "visitor center" for every such facility, even in place of Park Headquarters when it is a major point of visitor concentration."[12]

The visitor center was a multiple-use facility that focused on learning and enlightenment. The buildings were specifically designed to house an auditorium, interpretive exhibits, audiovisual programs, book stores, other public services, and offices in one centralized location. The Park Service believed that public education would raise American sensitivity to the natural environment and help preserve the nation's park system:

> The overriding goal for its [NPS] visitor centers was to improve interpretation by stimulating public interest in the park and then telling its story as clearly and simply as possible. [13]

All visitor amenities were typically organized within a single architectural floor plan. The procession through a sequence of spaces in a visitor center was a particularly important aspect of the building design. Increased numbers of visitors emphasized the importance of circulation and contemporary modern architectural design also stressed procession as integral to design. Elements that defined the spatial procession included wide entrances, an open lobby, and views of natural features to facilitate interpretive talks. The interior was organized to enhance the visitor experience by providing the opportunity to experience in-depth interpretation through the use of the scientific study collection, library facilities and discussions with professional interpretive personnel in the fields of geology, biology, history, and archaeology.

On the exterior the visitor center introduced a new style of architecture, Park Service Modern. Unlike the NPS rustic architecture of previous decades, Mission 66 architecture did not seek to incorporate elements of the surrounding landscape but rather sought to achieve an intentional simplicity that deferred to the landscape. This building, however, does not strictly adhere to this modern philosophy. This is a more transitional, hybrid building with a gesture toward ornamentation, incorporating subtle references to natural features. The Mission 66 program departed from the original ideals of NPS rustic park architecture but sought to construct buildings that would blend harmoniously with the landscape through inconspicuous design.

The visitor center was intended to efficiently manage increased numbers of visitors and direct their movement within the park. Like the contemporary shopping center, the visitor center made it possible for people to park their cars at a central point, and from there have access to a range of services or attractions. The visitor center was intended to concentrate public activities in a central area to prevent uncontrolled, random patterns of use and damage to park natural features.[14]

Grand Canyon National Park Visitor Center and Park Headquarters

Early proposals for the Public Use Building at the Grand Canyon suggest a struggle with programmatic aspects of the facility. Preliminary drawings were produced in 1954 by Cecil Doty. All options by Doty

for the building include a spacious lobby, central information desk, and separation of administrative offices. In one scheme, the interior exhibit spaces wrap around the central open courtyard, an element favored by Doty and prominently featured in his Regional Headquarters Building in Santa Fe twenty years earlier. In another, the lobby space is adjacent to a museum wing. An alternative plan, known as "Plan B" omitted many of the interior partitions, foreseeing the "open plan" of the future. Despite variations in plan, the front facade of the various proposals remained remarkably similar. The entrance was mostly glass using decorative brick to frame the openings. The exhibit wing to the left and the right wing called for cement stucco. The building was envisioned to follow long and low lines, with little to attract attention except the flagpole and sign.[15]

By 1955 the courtyard scheme had been chosen. Organized around a central open courtyard, the building uses contemporary materials, glass, stucco, steel and concrete and a new building technology to achieve a modern expression in straight clean lines, typical of Mission 66 buildings. **(See Appendix D, Figures 1-10)** Aluminum framed awning-type windows and a flat-roofed canopy over the entrance contribute to the contemporary design. The courtyard plan allowed for flexible circulation and outdoor exhibit space. **(See Appendix D, Figure 11)** Visitors entered a spacious lobby with a fireplace and an information desk on their right, directly in front of the rangers and superintendents' offices. **(See Appendix D, Figure 12)** The library and restrooms were straight ahead, and the exhibit space, lecture room, study collection/workshop, and offices arranged in clockwise procession around the courtyard. The expanded role of research in the Mission 66 program is emphasized by a series of three "study collection" rooms, an associated workshop, library, storage for the reference print and slide files.

The interior was defined by big volumes and a calculated circulation through internal spaces was integral to the design. Rooms were spacious, well-lit, and functional, a later component common to most visitor centers. The sparsely furnished lobby included a fireplace as the central decorative element. Steel frame construction and a concrete shell allowed the lobby to expand into an open area unobscured by load-bearing walls.

The building borrows the Santa Fe office floor plan, but incorporates modern facilities, such as an auditorium, into a more free-flowing version of the traditional courtyard layout. Efforts to moderate the starkness of the building's exterior mark this as a transitional building; exterior stone walls and flagstone are brought inside the lobby space; the exterior features large masonry columns; the courtyard is lined with a covered walkway supported by columns tapered on the side and includes native plantings. Doty made an effort to temper the modernist style, resulting in a more transitional, hybrid building. Evidence of Doty's attempt to mediate two architectural philosophies is most clearly seen at the principal elevation of the building. **(See Appendix D, Figure 13)** In contrast to the International Style, there is a gesture toward ornamentation, though minimal, and the design incorporates subtle references to nat-

ural features: the multi-color stone veneer exhibits the rough texture and colors of local stone; the exaggerated pier at the entrance has a rusticated cap; native plantings fill the interior courtyard; and redwood is used for the entrance sign and tapered columns. The horizontals that characterize the building are extended out to form low planters that merge with benches and fountains, all in an attempt to mediate the line between building and landscape, straying from the tenets of modernism. The building was clearly experimental and defined the emerging model NPS visitor center; it was named a visitor center upon completion of construction.

Completed in 1957, the Public Use Building was an immediate source of pride for the Park Service, which praised this "visitor center" as "a one-stop service unit." An information desk complete with uniformed ranger, lobby exhibits, an illustrated talk, and a park museum "where a great variety of exhibits, arranged in orderly and effective fashion" were among the many conveniences for the visitor. **(See Appendix D, Figure 14)** The presence of the park superintendent and naturalist was also considered remarkable, as were the study collection, workshop, and library. **(See Appendix D, Figure 15)** According to the Park Service, the new building provided much-needed efficiency and economy.[16]

In what would come to be typical of the building type, the Grand Canyon Visitor Center provided essential visitor services in an efficient manner, encouraged a specific circulation route around the building culminating in an expansive view of the landscape, kept the administrative spaces hidden from the public view, had a more articulated front facade and three elevations of lesser importance, obscured by native vegetation.

Landscaping

Doty followed the NPS tradition of deferring to the landscape by trying to create a building that was 'plain' but did not neglect aspects of landscaping. Rather he integrated the indoor and outdoor space especially at the front facade. Although the absence of ornamentation is typical of modern architecture, Doty incorporated decorative brick work, and a rusticated treatment of the top of one of the piers, an indication that this building was somewhat experimental a transition building, from the rustic architecture of the NPS to a more modern architectural style. Beyond the building itself, the design encompassed everything around the building: the walks; expansive parking areas; the flagstone-paved forecourt with its integrated benches and fountains.

Siting

As stated above, the Park Service's main goal during the Mission 66 period was to improve interpretation and stimulate public interest in the park. Some historians favored siting interpretive buildings in the middle of the natural resource for the benefit of the visitors' understanding. In a January 1960 report on

visitor centers, the location of the Grand Canyon Visitor Center was criticized. Located midway between Mather Point and the Grand Canyon Village, the building was considered, at one-third a mile from the rim, too far removed. Park Naturalist Paul E. Shulz commented that a visitor center should be in touch with the feature it interprets.[17]

Alterations

Multiple alterations have been made to the building over time. **(See Appendix D, Figures 16-23)** In 1966, a rear, two-story addition was added to the north elevation for supplemental office space, at the same time that the building's popularity as a visitor center was increasing. **(See Appendix D, Figure 24)** The 1966 addition also resulted in a new north-facing door at the building's far northwest corner. Additional alterations include, installation of display cases over the lobby fireplace in the 1990s, **(See Appendix D, Figures 25-27)** construction of a new auditorium with projection room, exit door and ramp, and the alteration of former exhibit space to accommodate a gift shop. Sometime after 1966, entrance vestibules were added at the front entrance and into the courtyard. A storage attic was added at the southwest corner of the building and solar panels were installed on the roof.

The Yavapai Interpretive Facility and the Grand Canyon Visitor Center

The history of the Grand Canyon Visitor Center and Park Headquarters would have been quite changed if a 1960s plan to locate a Mission 66 visitor center at Yavapai Point had become a reality. A construction proposal for the "Yavapai Interpretive Facility," a replacement building that would have usurped the primary functions of the Visitor Center, was well-developed and moving towards construction until a lack of funding halted the project. The architect for the proposed Yavapai Point facility was Cecil Doty. It was thought that a new interpretive facility was needed to accommodate ever-increasing numbers of visitors, approximately 15,000 persons a day. The proposed Yavapai Interpretive Facility was intended to provide restrooms, a lounge, a lobby, auditoriums, indoor viewing of the Canyon year-round, minimal office and storage space, and information services. The Construction Proposal went on to state:

> Yavapai Point and the facilities here discussed will be devoted to presenting the Grand Canyon Story of deposition, uplift and erosion, fossil records of life through the ages and the Colorado River and its role in the formation of Grand Canyon. Several interpretive approaches to understanding the Grand Canyon must be provided. Two auditoriums [providing nearly identical views of the Canyon and] capable of holding 200 and 400 people respectively and commanding spacious views of the complete stratigraphic sequence shown from rim to river in the Canyon walls are a must.[18]

It was anticipated that the Visitor Center would continue to function as an interpretive facility addressing "secondary" themes of history, prehistory and biology and would continue to house the research library, scientific study collections, and the administrative offices of the Superintendent and staff, while the Yavapai Interpretive Facility would be the primary educational facility at the Grand Canyon.[19] Since

the project was never realized, the Visitor Center continued to serve its intended original use as the most comprehensive visitor assistance facility in the park.

Architect Cecil J. Doty

Architect Cecil John Doty (1907-1990) had a thirty-five year career in Park Service design. As one of the principal in-house NPS architects, his prolific career spanned both the rustic period of the 1930's through the Mission 66 years. Until recently he has been one of the least studied of the Park Service designers. As the importance of the architecture of the Mission 66 period emerges, Doty's name, associated with many designs of the era, is coming to the fore as is the work of his generation of architects.

Raised on a farm in May, Oklahoma, Doty graduated from Oklahoma A& M (now Oklahoma State) with a degree in architectural engineering in 1928. During the Depression, Doty worked in Oklahoma in a variety of architecture-related capacities, drafting at a local firm, teaching drawing and history, and, finally, attempting to open his own practice. Shortly thereafter, Doty joined the CCC state parks program where he worked as a draftsman under Herbert Maier, an architect with a long career in Park Service construction and management and in designing the first innovative NPS museums. In 1936 Doty became regional architect in the Oklahoma office, and the next year followed Maier to the new regional office in Santa Fe with Herbert Maier. This move marked Doty's shift from work in state parks to national parks where he continued through the 1940s and 50s. His first major design for the NPS Western Office of Design and Construction (WODC) was the Public Use Building at the Grand Canyon, the visitor center prototype.

One of the most admired of all late rustic period buildings is Doty's 1937 design for the Regional Three Headquarters built for the Park Service in Santa Fe, New Mexico. Historically correct, the traditional one-story adobe building provided offices that were arranged around a central courtyard. The design included a double-height entrance, exposed timber vigas and adobe bricks. At the time of construction, the design was praised as a fine adaptation of regional architecture and was commended by Albert H. Good, architectural advisor to the NPS and author of the 1938 publication *Parks and Recreation Structures*. The Santa Fe Regional Headquarters and the Grand Canyon Visitor Center and Park Headquarters interesting parallels. Both are organized within a single architectural floor plan, emphasize horizontals, low silhouettes and similar volumes. The two buildings are characterized by simple surfaces and long expanses of unbroken stucco.
Sarah Allaback, in her thorough and meticulous study, *Mission 66 Visitor Centers, A History of a Building Type*, states:

> Doty made the change from rustic to modernist style and for him the shift was entirely natural. He was simply doing his job under new parameters within a

change in social and political climate. [20]

Doty moved easily between the two styles, from the horizontal planes of the Southwestern rustic to the flat roofs and low silhouettes of the modern visitor center.

The characteristics of a Doty design are outlined by Sarah Allaback, as sharing the following attributes:

- Sensitivity towards location:
  Although locations may have been chosen by Park Service planners, Doty attempted to establish a relationship between the building and the landscape. In some cases he emphasized circulation through the building to an exterior view; other structures were designed around glassed-in observation decks. In the case of the Grand Canyon facility, the location of which did not afford a view to the canyon, he brought the landscape into the building by planting the interior courtyard with an indigenous garden.

- Compact plan incorporating standard visitor center elements:
  Every Doty plan incorporated basic visitor center elements, including exhibit areas, audio-visual rooms, auditoriums, restrooms and lobbies.

- Use of modern materials combined with wood and stone as well as the impression of modesty that comes from a limited budget:
  Financial circumstances dictated aspects of the program throughout the design process, restricting square footage, choice of exterior and interior surfaces, and the extent of exhibit facilities, among other features. In most of his designs, Doty masked the inexpensive nature of his buildings with aesthetic choices, such as the use of finer materials around the entrance area.

III. Significance And Integrity Evaluation

Statement of Significance

The Grand Canyon Visitor Center and Park Headquarters is an excellent example of the Park Service's pursuit of a singular and aesthetically appropriate architecture for the park system in the post-war era. Within the context of the development of a new NPS architecture, sometimes called Park Service Modern, this early building was critical in the development of the visitor center building type. A classic building, of its era it displays an appropriate design idiom. Using straight, clean lines and contemporary materials, the design relied on influences of the International Style. Designed in 1954 as the Public Use Building for the Grand Canyon, the building's expression, materials and method of construction epitomize the Mission 66 campaign. The building is significant for a wide range of reasons:

- The building is an excellent illustration of the characteristics of Park Service Modern style architecture, both on the interior and exterior;
- It served as a model of utility and function, as a prototypical visitor facility for the park system;
- It is the work of a prolific Park Service architect, Cecil J. Doty, in collaboration with NPS planners, specifically the influential Thomas C. Vint who was central in creating the NPS rustic style of the 20's and 30's. Doty is the Park Service in-house architect most closely affiliated with Mission 66 architecture;
- It is a significant expression of planning and design practices developed by the NPS in the Mission 66 period;
- Its materials, glass, stucco, steel and concrete, achieve a modern expression and are identified with the post-war era; and
- Its construction methods are typical of the era.

The building, an ambitious project of its type, though altered, is largely intact and remains an excellent example of one of the earliest National Park visitor centers, and powerfully recalls a specific architectural era in American history.

Period of Significance

The years 1954 through 2000 mark the period of significance for the Grand Canyon Visitor Center and Park Headquarters. The Mission 66 program was initiated by the National Park Service in 1956 and was to be completed by the 50th anniversary of the agency in 1966. Earlier planning and development projects, however, set important precedents for the program and determined much of the character of its planning and architectural development. The Mission 66 era, in the broadest sense, began in 1945, when the postwar phase of park planning and design began at the Park Service.[21]

Conrad L. Wirth, who initiated the program as Park Service director, stepped down in 1964. His successor continued Mission 66 and initiated a subsequent program, Parkscape, intended to be finished in time for the Yellowstone centennial in 1972. The Mission 66 era therefore did not end in 1966 since this year

did not mark a significant termination or change in park planning and design policy. The Parkscape program continued many of the basic assumptions, policies, and architectural style of Mission 66. Change did arrive, but a few years later, when the Eastern and Western Offices of Design and Construction were combined to form the centralized Denver Service Center (1971); environmental laws were enacted and implemented, especially the National Environmental Policy Act, NEPA (1969); the Parkscape program ended (1972); and the political context of Park Service leadership changed with the appointment of a politician with no park management experience, Ronald H. Walker, as Park Service director (January 1973). The general period of significance for this historical context therefore includes the years from 1945 to 1972.[22]

The National Register of Historic Places requires that properties less than 50 years old possess "exceptional importance" if they are to be eligible for the Register (Criteria Consideration G). As an early prototype (1945-1956), the Grand Canyon Visitor Center, designed in 1954 and completed in 1957 exhibits exceptional importance under Criterion C.

The Visitor Center and Park Headquarters strongly asserts its original architectural character to the present day. The building was altered to include a second-story administration and office addition in 1966. Because the addition did not diminish the structure's architectural integrity, but rather complemented it, 1966 does not mark the end of the building's period of significance. Additionally, the modification made in 1966, a rear two-story addition at the north elevation, was extremely sympathetic and deferential to the original structure and was carried out by Cecil Doty. Architecturally, the period of significance includes the alterations.

The building was dedicated in 1957 as a Mission 66 Visitor Center. Sometime after the 1966 alterations, the building became known as the Visitor Center and Park Headquarters. This date (the exact date is uncertain) marks a gentle shift in the use of the building, emphasizing greater office function while still providing comprehensive visitor services. Because the structure's original use was not wholly eliminated or negatively impacted by these changes, its period of significance extends beyond the date of alterations.

Doty's Grand Canyon Visitor Center continued to serve its intended original use as the most comprehensive visitor assistance facility in the park until the inauguration of a new facility, the Canyon View Information Plaza (CVIP). CVIP was officially dedicated on October 26, 2000. This date serves to mark the end of the period of significance for the building.

Evaluation Of Integrity / Condition

Eligibility for the National Register hinges on both significance and historic and architectural integrity. Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity involves several aspects including location, design, setting, materials, workmanship, feeling and association. These aspects closely relate to the resource's significance and must be primarily intact for eligibility. Integrity must also be judged with reference to the particular criteria under which a resource is eligible for inclusion in the National Register.

Many aspects of the building remain unchanged from the time of its construction. Its location, site, and setting are mostly unchanged. No new structures affect the site or the building's perception within the landscape. The building's materials, construction technology and workmanship, typically used in Mission 66 projects, are intact and were utilized again for the 1966 addition. The second-story addition is well-designed and favorably complements the architectural expression of the original structure. The prominent lobby still conveys the building's historic public use and should continue to do so, even with a diminished public function.

Changes in use and interior alterations have had a more noticeable impact than changes to the exterior. Interior alterations have obscured some features and intents of the original design, but not in a way that makes the original building unreadable. Initially, the building had a clear and straightforward pattern of circulation; now, various interior modifications have eliminated that. Key elements of the interior that have been diminished to varying degrees are: the big volume spaces of the original exhibit rooms; the corresponding sense of spaciousness; the procession through a sequence of spaces that was a particularly important aspect of visitor center design; and, the elimination of elements of the lobby, such as the fireplace, now covered. Apart from this, the Grand Canyon Visitor Center and Park Headquarters retains a high degree of integrity.

Character-Defining Features

The following paragraphs summarize significant building elements, contributing to the building's modern character. Many are typical elements that came to define NPS Mission 66 architecture. The Mission 66 aesthetic incorporated features of the International Style, such as: the general form and massing of the building; horizontal lines; window treatment; and, the absence of ornamentation.

Exterior

- prominent entrance:
    - canopy
    - arrangement of the piers, formal colonnade of pillars
    - one exaggerated pier, shifted axis, supporting the flagpole
    - glass curtain wall
- decorative brick
- stucco
- straight simple lines
- flat unpunctuated stucco wall surfaces
    - solid walls v. open glassy entry
- redwood entrance sign with aluminum lettering in a sans serif font
- aluminum awning windows
- band of small rectangular windows at the rear elevation
- materials of the Modern Movement: glass, steel, and concrete
- intentional 'plainness' that defers to landscape
- flat roof without an eave
- exterior flagstone paving that continues into the building
- landscaping, fountains, benches, low walls

Interior

- general circulation and organization
- big volume spaces, rooms and the intended procession through those spaces
- interior courtyard with native plantings, free-form planting beds, and wood columns and covered walk
- entrance lobby
- large glass window expanse at front entrance
- fireplace: rectilinear opening with squared cantilevered ledge
- polished flagstone paving
- blonde wood cabinetry and aluminum metal trim in hallways
- aluminum handrails
- typical office finishes: blonde wood doors and cabinetry and aluminum metal trim
- original blonde wood partition wall separating lobby and exhibit area (no longer extant)
- courtyard and tapered wood columns
- low, stone, free-form planters in the courtyard

IV. Chronology of Development and Use

This section summarizes the physical construction, modification, and use of the Grand Canyon Visitor Center and Park Headquarters and includes information on major maintenance and rehabilitation campaigns. The information presented is based on historical documentation; however Grand Canyon National Park Archives retain a very limited number of maintenance records for this building. The building has been subject to maintenance work that has not been documented. Changes to the building for which chronological documentation is not available are noted and explained at the end of the chronology.

Chronology of Use

The use of the building has always been intended to provide interaction with the public. The building's design in 1954 preceded the launch of the Mission 66 program. Then its name implied its purpose: a public use building. The building's function (and the goal of Mission 66) was clarified between the time of its design and its dedication. In 1957, the building was inaugurated as a Mission 66 Visitor Center. Alterations were made in 1966, when the building became known as the Visitor Center and Park Headquarters. **(See Appendix E, Figure 1)** The alteration marked a shift in the use of the building, emphasizing greater office use while still providing visitor services. The park's new facility, the Canyon View Information Plaza (CVIP), has fully taken over the Visitor Center's role as the most comprehensive visitor assistance facility in the Grand Canyon. CVIP was officially dedicated on October 26, 2000. The Grand Canyon Visitor Center is in the process of conversion to strictly administrative use and is unavailable to the public as a visitor center.

Chronology of Development / Alterations

1954	Preliminary drawings by Cecil Doty.
1955	Final designs approved by Director Wirth and Thomas C. Vint, Chief of Design and Construction.
1956	Construction begins.
1957	Construction complete; dedication ceremony June 29, 1957.
1966	"Administration Addition to Visitor Center" second story addition new canopied entrance at north elevation
1971	Study for Communications Center Headquarters to be located in Visitor Center and Park Headquarters building, including reconfiguration of space at the south wing to accommodate new conference room.
1995	Proposal to construct in-fill office space in the interior courtyard, unbuilt.

Undated Alterations

- Auditorium constructed in space originally designated for display and exhibit; new exit door and exterior ramp added. Original flooring and finishes obscured or removed.
- Gift shop constructed in space originally designated for display and exhibit. Original flooring and finishes obscured or removed.
- Vestibules added at principal entrance doors and at courtyard entrance, post-1966.
- Building name change from Visitor Center to Visitor Center and Park Headquarters, post-1966.
- Storage attic constructed at southwest corner.
- Solar panels installed at roof level on north side of the building.
- Display cases installed over fireplace opening, alteration to fireplace, post-1994.
- Proposal to install a ceiling in the archives area, resulting in the windows being covered, project unrealized.

V. Physical Description and Analysis

Site

The Grand Canyon Park Headquarters is 5.7 miles from the south entrance of the park and located off the park entrance road. The site is bordered by the Rim Trail which visitors can follow from the west side of the building around the back to the canyon edge. **(See Appendix E, Figure 2)** The Park Headquarters has parking lots in front of, and to the east and west, of the building. **(See Appendix E, Figure 3)** The space behind the building is forested and unlandscaped. **(See Appendix E, Figures 4-5)**

Construction

Construction began in March of 1956 and was completed in June of 1957. **(See Appendix D, Historic Images, Figures 1-4)** The structural system is concrete block on a cast-in-place concrete foundation. Stucco was applied directly to the cast-in-place concrete and concrete block. Constructed with contemporary materials, glass, stucco, steel, and concrete, the building also has aluminum-framed awning-type windows and a distinctive flat-roofed canopy over the entrance.

Exterior General

Most building elements, elevations, parapets and windows, exhibit straight, simple lines. Roofs and canopies are flat. Wall surfaces are plain and expansive, and, in areas, unpunctuated by window openings. The principal elevation integrates building and landscaping design by incorporating brick planters, benches, flagstone paving, and fountains. All are low profile, emphasizing horizontals, and reiterating the lines of the building, with the exception of one vertical element at the front entry. The geometry of the building design extended beyond the basic envelope of the structure to the exterior. The horizontals that characterize the building are extended out to form planters that merge with benches and fountains, all in an attempt to mediate the line between building and landscape. **(See Appendix E, Figure 6)** Exterior flagstone paving continues into the building lobby and courtyard.

Exterior East (Front) Elevation

The principal facade is the most elaborate of the four elevations defined by a heraldic entry. The prominent entrance is composed of a formal colonnade of pillars, or piers, articulated in a decorative multicolor brick veneer. The entry is topped by a flat-roofed canopy. The arrangement of the piers is unusual, one pier is exaggerated in size, supports the flagpole, and has a rusticated cap, while the others are shorter and flat-topped. **(See Appendix E, Figure 7)** The southernmost pier is shifted on its axis. The glass curtain wall containing the entrance doors is pulled back from the line of the pillars. A redwood sign at the entrance indicates the building name in sans serif font aluminum capital lettering, typical of the era of design.

Set toward the back of the structure, the addition continues the lines and planes of the original building while deferring to the original design. The addition plays with the symmetry of the building, balancing the massing but at the same time, setting the new mass toward the back so that it yields to the original form.

Exterior West (Rear) Elevation

The rear elevation is divided into two neat halves. The northern half of the west elevation is two-stories, though the grade rises toward the north where it tapers to one-story. Single-framed, four-paned awning windows correspond to the original building. Double-framed, four-paned awning windows indicate the extent of the addition. The southern half of the west elevation is one-story and is marked by a band of small rectangular windows corresponding to the space of the original study collection. The southern end of the rear elevation is two stories, corresponding to the double-height space on the interior. A set of double doors original to the 1957 design are topped by a flat canopy **(See Appendix E, Figure 8)** and a single door with steps leading to it opens to the library space.

Exterior North (Side) Elevation

This elevation faces the "bull-pen" parking lot. Cars park perpendicularly to the elevation, obscuring the lower part of the building. A covered walk leads to steps to the basement level. This elevation has three entrances; two are north-facing entrances, one a simple single door with a lite toward the front of the building and the second is a single door in the 1966 addition, with a fixed panel and a flat-roofed canopy, in the style of the principal entrance. The third door is a double east-facing door under the covered portico.

Of all four elevations, the north is most altered by the 1966 alterations with the addition of the second-story office space, and two-story extension toward the north with an additional entrance at the end.

Exterior South (Side) Elevation

This elevation is most notable as the longest, nearly unbroken expanse of wall surface. Originally designed without openings (except for a small low-level door to the crawlspace), the double-height wall has been punctured to accommodate a small window to the communications room and three louvers. In addition, a door and ramp have been constructed to make the auditorium accessible.

Interior First Floor

In plan, the interior organization is fairly straightforward. Offices are secure and well-separated from public spaces which are accessed through the main lobby. The central feature of the building's interior is its formal entrance lobby with flagstone paving, stone veneer walls, and a rectangular fireplace opening that has been covered over. The long rectangular lobby formerly served to acquaint visitors to the Grand Canyon. Exhibits and an information desk occupied one end of the space. **(See Appendix E,**

Figure 9) A gift shop and access to the auditorium are at the opposite end. The original blonde wood partition wall separating lobby and exhibit area was designed in the contemporary idiom and has been removed. **(See Appendix D, Figure 7)** The lobby leads to the open-air courtyard where the focus is on the native plantings and a boat exhibit. **(See Appendix E, Figures 10-12)** The courtyard is distinguished by low, stone, free-form planters and tapered wood columns. The big volumes on the first floor of the interior were designed as a sequence of spaces integral to the experience of the building. Restrooms are located off the lobby just before the separation of public space and secured office space.

The first floor accommodates the park's communications and dispatch center, a conference room, and the library. **(See Appendix E, Figure 13)**

At the main entrance and at the entrance to the courtyard, aluminum and glass vestibules serve as air locks. The installation of the air locks intrudes upon the clean design of the entrances.

The lighting in the character-defining spaces of the building is considered integral to the building's expression. An example is the 1950's square recessed lights found in the courtyard.

Interior Second Floor

The second floor consists primarily of cellular offices off narrow hallways, including the office of the Park Superintendent. Offices accommodate one individual or are shared. Throughout both the first and second floors the typical office finishes and paint schemes are usually original, corresponding to either the 1957 work or the 1966 addition. Typical interior features are blonde wood doors and cabinetry in offices and hallways, aluminum metal trim and handrails, and polished flagstone paving in the public areas. **(See Appendix E, Figure 14)** Some offices are more utilitarian in nature. **(See Appendix E, Figures 15-16)**

VI. Conditions Assessment

Typical Materials

The modernist aesthetic of Mission 66 design relied on new materials and new uses for old materials. Principal building materials of the Grand Canyon Park Headquarters are a poured-in-place concrete foundation, concrete block masonry with a stucco finish, expanses of glass at the front entrance, aluminum awning-type windows, tapered wood columns, and stone veneer. In all his buildings, Doty mingled traditional materials, like wood and stone, with steel, concrete and glass. Mission 66 building technology and the clean, straight lines of the modern idiom required horizontals: flat roofs, canopies and parapets, inherently problematic for water run-off. The maintenance of Mission 66 buildings presented the NPS with an entirely new set of issues, unlike those related to classic NPS rustic architecture.

Exterior Conservation Issues - Typical Patterns of Deterioration

Exterior conditions and conservation problems are generally repeated at each elevation and throughout the building. The typical patterns of deterioration and conservation problems include:

Masonry

- cement stucco deterioration of the parapet, chimney and flue related to water infiltration and leading to concrete failure **(See Appendix E, Figure 17)** ;
- failure of the concrete ramp addition and limited concrete failure at retaining walls;
- deterioration of exterior flagstone paving stones;
- loss of mortar **(See Appendix E, Figure 18)**;

Cement Stucco

- patterns of stucco cracks ranging from hairline fractures, to vertical cracking, and cracking associated with the concrete block masonry;
- failure of the thinly-applied stucco coat, an integral-color yellowish-pink stucco, resulting in visible CMU below **(See Appendix E, Figure 19)** ;
- peeling coat of tan paint over cement stucco;
- stucco deterioration due rising damp;

Windows

- windows failures, inoperable cranks, deteriorated putty, leakage;

Roof

- roof membrane deterioration due to water and weathering **(See Appendix E, Figure 20)**;
- poor drainage off roof and canopies;
- scuppers do not drain properly;
- deteriorated flat roof membrane due to weathering, flashing, persistent leakage, pooling water;
- failure of urethane sealant, yellowed, crumbling; and,
- problematic joints with flat overhangs, water problems at connections, evidence of efflorescence at entrance pier and canopy junction. **(See Appendix E, Figure 21)**

Conservation Issues and Recommendations

Masonry

The foundation is poured-in-place concrete. The walls are constructed in concrete block masonry. The first floor is constructed primarily of structural concrete slab, over crawlspaces and on grade. The retaining walls and columns within the crawlspaces are concrete. The foundation is solid. The walls are plumb and in good condition. The concrete cap on top of the masonry wall is exhibiting signs of deterioration all around the perimeter and may require patching or replacement. The fireplace chimney and heating flue both have reinforced concrete caps that exhibit severe deterioration with exposed reinforcing steel. **(See Appendix E, Figure 22)**

Cement Stucco

The exterior cement stucco is applied directly onto the masonry in a thin coat. The stucco has been painted and the layer of paint is peeling. The thin stucco coat is failing. Horizontal planes such as the tops of parapet walls or chimneys are particularly vulnerable to water infiltration. The roof parapets exhibit varying degrees of decay. Most of the decay is limited to the stucco cap. The stucco deterioration appears to be the result of water infiltration through the roof and canopies, around the chimney and flue, and at ground level. Moisture migration within walls due to rising damp resulting from poor drainage around the foundation is affecting the condition of the stucco. Evidence of rising damp is especially evident at the north side of the building where the ground level rises to the second floor. Leaking gutters and downspouts are especially along the north elevation and at the rear and are allowing water to penetrate the wall surface. Stucco is not known to be a particularly durable building material. Regular maintenance is required to keep it in good condition.

Windows

The aluminum awning windows date to the original construction (1957) or the addition (1966), have never been sealed properly and allow water ingress. However, only minor water damage is apparent in a few interior locations. The window design is inherently problematic. The cranking mechanisms are in poor condition and are difficult to repair; some are broken. The mastic sealant is crumbling and deteriorated, especially where sun exposure is more severe. **(See Appendix E, Figure 23)** The windows are in need of repair or replacement, including hardware, glazing, and weather-stripping.

Wood

Tapered wood columns line the interior courtyard and support the portico in the bull-pen parking lot. All appear to be original. The wood columns support roofing at the interior edges of the overhang. A lower, wood-framed roof covers the exterior stairway leading down to the basement. The roof is supported by tapered wood columns bearing on the stairway retaining wall, adjacent to the parking lot. The wood column at the top of the stair has been moved partially off of its steel base plate, resulting in a

large split at the bottom and exposure of the vertical steel dowel within the column. **(See Appendix E, Figure 24)** The damage appears to have been caused by a motor vehicle running into the column; there are no parking curbs adjacent to these columns. This column should be replaced in kind. In the past, consolidation repairs have been carried out using epoxies.

Roof

The roof membrane, parapet and flues are very deteriorated and show evidence of various series of attempted maintenance. Evidence of past repairs includes new flashing, mastic repairs and urethane sealant that have attempted to address water problems to correct the problems inherent to the roof design. The flat roof has not performed well given the harsh climatic conditions. The fireplace and heating flues above the roofline exhibit severe erosion at the cap and staining. Both have reinforced concrete caps; reinforcing steel is exposed. The roof contains obsolete equipment, defunct solar panels and excess wiring. The roofing membrane is in need of replacement.

Landscaping

The flagstone paving at front of building and at the interior patio is worn, chipped, and damaged and in need of repair. **(See Appendix E, Figure 25)**

VII. Treatment And Use

Ultimate Treatment and Use

This narrative discusses and analyzes the ultimate treatment and use of the structure as defined by the Grand Canyon National Park. Recommended treatment in general is to preserve the extant historic materials and features, but not to arbitrarily restore missing features unless they are highly characteristic and in need of treatment for other reasons, such as severe deterioration. Any proposed rehabilitation will be considered so that original character-defining features of the Grand Canyon Park Headquarters and its site are maintained.

The park has recently completed work on the Canyon View Information Plaza, which supercedes the Mission 66 building as a visitor center. The existing structure is to be converted entirely to park offices, although the user groups have not been fully determined. As the gift shop and auditorium functions are moving to the new information center; these spaces will be available for office space. The park would like to provide a maximum amount of office space, while retaining the significant architectural features of this Mission 66 prototype building. While there will no longer be a need for a grand entry lobby or information desk, these features refer to the building's historic use as a visitor center and should be retained.

The building has been heavily used over the years. The park staff feels that maintenance and repairs to the building are no longer effective. Many of the finishes, as well as services, are in need of replacement. Originally, the building had a straight forward circulation pattern; now, various interior modifications have created a circulation maze. The circulation problems should be addressed in order to create more efficient office layout.

Functional Deficiencies

The Grand Canyon Park Headquarters will continue to function as administrative offices for park staff; however, it will no longer serve a public use, part of its original mandate since construction in 1957. It will be converted to exclusive office use. During this process, its deficiencies must be addressed, in order to better serve the current and new users. At the same time, special attention must be given to preserving the original integrity of the building. Its deficiencies are as follows:

- Former Public Use Spaces Not Suitable for Office Uses

  The configuration of interior spaces is suited for public use. The large volumes of the lobby, gift shop, and auditorium are not conducive to reuse as efficient offices.
- Inadequate Light to Interior

  The spaces at the south end of the building originally served as exhibit spaces and an

auditorium; these uses did not require natural light. The walls bordering the courtyard lack openings and do not admit sufficient light for the new office uses.

· Circulation

The original circulation pattern was relatively clear, with traffic moving around the courtyard spaces. Various interior modification have encroached on the circulation routes, making them confusing. Interior vestibules also contribute to the problem.

· Accessibility

Access to the second story is currently via stair only. Second floor restrooms are inaccessible.

· Security

The Grand Canyon Park Headquarters houses the park's security-sensitive communications center and would benefit from more space and a dedicated entrance.

Recommendations Regarding Programmatic Improvements

· Recommendations for Modifying Former Public Use Spaces for Office Uses

Reorganize interior space to maximize occupancy and improve office space functionality. A portion of the lobby could be converted to office use, however the effects on this significant space must be considered.

· Recommendations regarding Inadequate Light to Interior

Install windows in the blank courtyard wall, with consideration given to structural integrity. The impact on the significant courtyard must also be considered. Skylights are another option.

· Recommendations regarding Circulation

Improve circulation pattern. Establish a circulation pattern more consistent with the original design intent. Remove areas that have been built out into former corridors. Remove vestibules.

· Recommendations regarding Accessibility

Provide access to the second story via elevator. Reconfigure second floor restrooms for accessiblity.

· Recommendations regarding Security

Provide dedicated entrance to the communications center.

Exterior Rehabilitation Recommendations

General rehabilitation of the structure should be carried out regardless of which treatment alternative is ultimately implemented. Exterior rehabilitation should be undertaken to restore all of the damaged exterior surfaces that contribute to and define the building's historic character. Exterior elements that detract from the historic character should be removed and replaced with features more in keeping with the original design, as evidenced by historic drawings and photographs. The most significant character detracting elements are the exterior exit doors from the auditorium and the deteriorating ramp at the southeast

corner. These elements alter the original design intent of the front elevation; this elevation was originally composed of an elaborate entry colonnade imposed against a blank wall wrapping around the southeast corner. Removing the doors and ramp would restore this elevation. The door opening should be infilled and the stucco work patched. The existing site wall should be repaired as necessary.

Other exterior work should be limited to maintenance and replacement, in kind, of deteriorated historic fabric. This work has been outlined more specifically in Section VI: "Conditions Assessment." These conditions are also noted on Existing Conditions drawings EC-13 and EC-14, located in **Appendix A.** General exterior rehabilitation should include:

- Repair of damaged exterior flagstone paving at front of building and at interior patio.
- Repair of damaged partial height site walls to the north and south of building.
- Repair of failing stucco finish at all elevations.
- Repair of wood columns at patio and at north elevation covered walk.
- Repair or replacement of windows, including hardware, glazing, and weather-stripping. Some of the windows have broken hand cranks or glazing. In many cases, the bottom two awning sashes have been modified or removed for the installation of air conditioning units. This report calls for the removal of these units; as a result, the lower sashes will need repair or replacement. The park would like to install energy efficient double glazing, but it is unlikely that the existing aluminum frames could support another layer of glazing. If this is pursued, the windows will need to be replaced. The maintenance staff reports that most windows have leaked since installation, although only minor water damage is apparent in a few interior locations. The window design is inherently problematic. The majority of the windows consist of pairs of true awning windows, each containing four ventilator sashes, stacked vertically. These are considered "true" awning windows because the sashes close on each other, not on horizontal meeting rails. Without a meeting rail between sashes, there is little opportunity to achieve a tight seal through gaskets / weather-stripping. As a result, the true awning windows are the cause of most air and water infiltration problems. It will be difficult to solve this problem, even with a new window system. Few companies make true awning window systems today, and even the best still have infiltration problems. They are also quite costly. If this option is pursued, it should be noted that these new windows are capable of supporting insulated glazing. An alternative solution is to replace the windows with sashes of the same proportion and profile; however, only the top and bottom sashes would be operable. The operable sashes would close against fixed sashes and meeting rails, where a better seal can be achieved. The reduction in ventilating area should not be a problem, as full air conditioning will be provided for the building. This system will also support double glazing. Whatever solution is pursued, window screens should be replaced where missing.
- Replacement of roofing membrane with an insulated system. Modification of roof slope as neces-

sary for proper drainage. Past roof repairs using a urethane coating have proven ineffective. Evidence of failure of the sealant are visible throughout the roofing membrane, along parapets, and at joints.

- Repair of deteriorated parapet and exterior door canopies.
- Removal of obsolete equipment from the roof, including defunct solar panels.
- Installation of an areaway covering to prevent snow build up at the exterior stairs to the basement level. Currently, 2x wood members span the opening at the first floor level. During the winter months, a tarp or panel is placed across these wood members to prevent snow build up. Several of the treatment alternatives appearing later in this document propose a new exterior stair from the second floor at this location, which may result in protection from snow build up.
- Alteration of aluminum lettering on redwood entrance sign to indicate new building name, retaining existing sign and lettering.

Interior Rehabilitation Recommendations

Many of the original finishes and furnishings are visible; as many as possible should remain intact. The existing lobby still retains its original flagstone paving and stone veneer walls. Several of the treatment alternatives reduce the size of the lobby through new partitions. These partitions and any associated new finishes should be installed in a manner that is not harmful to the original finishes and could be removed at a later date if necessary. The lobby fireplace is currently covered by a display case, which should be removed. It is unclear whether the original projecting concrete hearth remains behind the display case. If missing, it should be replaced. The fireplace need not be restored to working order, as GMP policy calls for the elimination of wood burning fireplaces and stoves in the park. However, its aesthetic appearance is a character-defining feature of the lobby.

The auditorium and gift shop will be moved to the new information center, and these spaces will be available for additional office or library space. The furred out wall partitions and raised projection room floor should be removed. The exposed ceiling structure at the auditorium should be furred down to match the original height. The "log" columns and suspended ceiling at the gift shop should also be removed.

In most cases, the office spaces retain their original finishes. The carpet is worn and in need of replacement. The plaster and gypsum board wall finishes show signs of water damage and should be repaired. Some wall finishes, such as wall coverings, are outdated and should be replaced. The birch office wardrobes are in good condition and provide valuable storage space. They are character-defining features and should remain in place. The offices in the 1966 addition have acoustical tile ceilings; many of these tile ceilings show water damage and should be replaced.

The fixtures and tile finishes at the restroom appear to be original to the building. Overall, they are in good condition and should remain in place wherever possible. It seems logical to maintain the centrally-located, existing visitor restrooms as plumbing is already in place and the fixture count is close to the requirements for office occupancy.

At the current time, the park has a shortage of office space, and many employees are forced to work in crowded, outdated conditions. New office planning for the park headquarters should provide a minimum of 125 square feet per person, per GSA recommendations. The building wiring should be fully upgraded for communications networks.

Requirements for Treatment

In concise terms, this text outlines applicable laws, regulations, and functional requirements. Specific attention should be given to issues of human safety, fire protection, energy conservation, abatement of hazardous materials, and handicapped accessibility.

The rehabilitation shall conform to NPS cultural policies and guidelines. It will be reviewed for compliance with the GMP, NEPA, Section 106 of the NHPS, and all applicable codes and standards required by law and NPS policy. The building codes used for analysis include the 1997 Uniform Building Code (UBC), 1997 Uniform Code for Building Conservation, and Uniform Federal Accessibility Standards.

The treatments recommended in this report will have effects on the cultural resource; however, it is intended that the treatments will result in benefits providing for a higher level of resource preservation than is now provided. Some proposed work will include actions that could be considered to have negative effects. One of the most important design criteria, however, is that the modifications be designed to minimize these effects, both physically and visually. Those negative effects will be mitigated by providing an improved environment for the building preservation and the safety of the users. Further evaluation will be necessary when the recommendations are developed to a level of design detail specific enough to definitively identify particular building fabric impacts.

Human Safety (Egress)

The code requires that egress occur through fire-resistive corridors providing direct access to an exit. However, if a sprinkler system is installed, non-rated corridors may be used for exiting. The path of egress from one area may not pass through intervening rooms. The courtyard is considered an intervening room, unless it provides direct access to a corridor or exit. One of the two required means of egress from the courtyard does not provide direct access to an exit; the locker room prohibits direct access. It should be removed and the area returned to its original use as corridor space. Several treatment alternatives call for the removal of the 3-hour, class A roll-up fire door near the lobby so that an elevator may be installed. This door is no longer necessary; it served as an occupancy separation between the offices

and the assembly areas of the visitor center. The corridor can discharge directly into the lobby.

The code requires that doors have level landings on either side. The exterior door from the northeast office wing currently has a step at the threshold. This should be corrected with an exterior landing level with the first floor. The west exterior exit stair from the existing library does not provide the proper size landing at the door. The door swing should be reversed and the landing enlarged. The guardrail at the areaway for the exterior basement stair does not meet height requirements. It should be replaced with a 42" high guardrail of a similar design.

For further discussion, see the code analysis located in **Appendix C**.

Fire Protection

The building is not currently protected by an automatic sprinkler system; however, the building is equipped with 1-1/2" fire hose valves and hose in various locations, as well as wall mounted fire extinguishers. The *Reference Manual to Director's Orders 50B and 58* require buildings undergoing renovation to be equipped with an automatic fire sprinkler system. Therefore, a wet pipe fire sprinkler system should be installed with a new 4" pipe and a fire department connection at the building exterior. The existing fire hose valves should be removed.

Visual strobe warning devices, powered by a fire alarm panel, should be installed to meet accessibility requirements.

Energy Conservation

The building is currently heated and cooled by a variety of methods, as described in the mechanical assessment, located in **Appendix H**. Most of the building is heated with wall mounted radiators, supplied by fuel oil fired hot water boilers. The radiators are in good condition and provide sufficient heat, however the boilers and circulating pumps should be replaced with more efficient units. These areas are cooled by either natural ventilation or window mounted air conditioning units. The window units are inefficient and clutter the clean lines of the elevations. They should be removed. A new rooftop cooled air conditioning unit can provide cooling for these spaces. The rooftop units could also provide heat for the spaces as the south end the building that are currently heated and cooled by a multi-zone unit. This existing multi-zone unit, located in the crawl space, should be removed.

A total building roofing insulation system should be installed to prevent heat loss and gain. This can be installed when the roofing system is replaced.

The existing windows are single-glazed and are not weather-stripped. As mentioned previously in this section, the windows are problematic with regard to both air and water infiltration. If the decision is

made to keep these windows, missing storm sashes should be replaced. A more desirable solution is to replace the windows in kind or with a similar design, providing double glazing and a thermal break.

At some point, aluminum and glass vestibules were added to the building entries. They clutter the simple lines of the building. However, they provide an air lock, which is valuable in both the winter and summer. Thus, they should remain in place. The interior vestibules create circulation problems due to their placement, particularly at the area near the doors to the north covered walk. It may be possible to move this vestibule to the exterior, under the covered walk.

In general the utilities are aged and in need of replacement. The current electrical service is provided by APS at 120/240V, 3-phase, 4-wire. The existing service capacity is adequate for the existing structure. However, the load capacity will need to be reviewed when the air conditioning and computer system loads are more fully established or if a treatment alternative proposing expansion is pursued.

All light fixtures should be replaced with energy efficient models.

Abatement of Hazardous Materials

Asbestos-based elements and lead based paints are most likely found throughout the interior and exterior of the building. A Level I HAZMAT testing program is recommended for the entire building. All existing magnetic ballasts should be assumed to contain PCBs and disposed of in accordance with all applicable rules and regulations.

Accessibility

In addition to the noted governing codes, NPS Director's Order 28 (release 5, 1997) requires all historic structures to be made accessible to the highest degree for visitors and employees. The project data sheet for the building, dated 02/04/00, calls for "improvements to the building's entry and egress areas to facilitate accessibility." The code requires that at least one, but not less than half of all building entrances be accessible. At least two means of egress shall be accessible. With a few modifications, the main entry shall serve as one of the required means. The vestibules should be enlarged to provide the proper clearance between doors, or an automatic door opener shall be installed. A waiver should be obtained for the irregular paving surface. The entry / egress doors at the north covered walk should also be modified for accessibility. A single 3'-0" door leaf and glazed sidelight should replace the narrow double doors. The vestibule configuration should be reconfigured. A 1:20 exterior ramp from the parking area to the covered walk should be installed.

Although the code does require elevator access to the second level, installation of one would provide greater accessibility to the building, following the mandate of Director's Order 28. As there are multiple levels in the building, the placement of the elevator is somewhat complicated. It would be difficult to

serve all levels via one elevator without a major disruption the original office configuration. The code allows floors of less than 3000 square feet to be exempt from elevator access; however, they should fulfill other accessibility requirements. Therefore, the intermediate level at the northwest corner of the building will not have elevator access. The remainder of the second floor is split in two levels, offset of by 12". Elevator access will be provided for these two levels, either with a three stop elevator, or a two stop elevator and ramp.

Refer to the code analysis located in **Appendix C** for a discussion of other accessibility upgrades necessary to maintain an accessible path of travel throughout the site and building.

Structural

The building structure is in good condition. If a renovation or addition requires work to more than 10 percent of the structure, the building will need to be upgraded to meet current structural codes. For further discussion, see the Structural Assessment located in **Appendix H**.

Other

Building security is provided with card reading devices at various doors throughout the building. These readers will need to be relocated and supplemented once various departments are assigned to areas of the building.

Alternatives for Treatment

This section presents and evaluates alternative approaches to realization of the ultimate treatment. Alternatives are presented in both text and graphic form. The analyses addresses the adequacy of each solution in terms of impact on historic materials, effect on historic character, compliance with National Park Service policy, and other management objectives. The section concludes with elaboration on the recommended course of action and specific recommendations for preservation treatments.

Three treatment alternatives have been studied for the Park Headquarters and are presented below, listed by degree of intervention, beginning with the least invasive treatment. Some modifications are common to all three schemes. The treatment alternatives are as follows:

Alternative A: Preservation-Focused Scheme

Alternative A proposes:

- return the library to its original location;
- reorganize lobby space and function to form contact point/reception area with employee information and notice area and multiple desks for various departments;
- restore entrance lobby fireplace;
- relocate communications center to the front northeast corner of the building with communications equipment located in finished basement below; install office partitions at original location of information desk;
- install three-stop elevator in former first floor darkroom space / second floor toilet room area, causing little impact to existing office layout;
- remove non-original attic storage at southwest corner to return first floor spaces to original volume;
- restore south elevation to original condition; close non-original door and window openings; retain original door to crawl space;
- vestibules at principal entrance and entrance to courtyard are visually intrusive and not original, but may be kept for practicality; and,
- modify entry at covered walk for greater accessibility.

Alternative A achieves the following:

- retains and restores interior volumes;
- recreates the circulation pattern of the original design;
- moves library closer to entrance lobby for easier access for visiting scholars and researchers;
- retains generous proportions of lobby;
- provides centralized and logical reception at main entrance;
- new windows to south and east walls of the courtyard interior provide additional light to interior

spaces given over to new offices;

- improves security for communications center in more autonomous location with dedicated entrance;
- improves office space functionality and flexibility by the layout of continuous flow of space;
- patio and exterior elevations as original; and,
- increases building accessibility.

Negative aspects associated with Alternative A:

- elevator is not in the most logical location, could be more convenient if located nearer lobby space;
- least amount of office space offered in the three alternatives; and,
- loss of storage space.

Alternative B: More Space via Second Floor Addition

Alternative B proposes:

- relocate the library to either the original location of the study collection at the rear of the building or to the space adjacent to reception;
- provide additional office space by extending existing second floor offices at north side of building; add exterior exit stair to parking lot;
- reorganize lobby space and function to form contact point/reception area with employee information and notice area and one desk for various departments; reception space will be partially reduced to give more space to office use;
- restore entrance lobby fireplace;
- add ramping to second floor interior hallway;
- relocate communications center to the front northeast corner of the building with communications equipment located in finished basement below; build additional office space at original location of information desk;
- install two-stop elevator in space directly behind chimney flue; install ramp for additional access to second floor;
- reconfigure two second floor rest rooms to be accessible;
- improve access to existing non-original attic storage at southwest corner;
- restore south elevation to original condition; close non-original door and window openings; retain original door to crawl space; and,
- modify entry at covered walk for greater accessibility.

Alternative B achieves the following:

- increase in usable office space;
- retains interior volumes;
- recreates the circulation pattern of the original design;
- moves elevator closer to more logical location, nearer entrance lobby;
- improves security for communications center in more autonomous location with dedicated entrance;
- improves office space functionality and flexibility by the layout of continuous flow of space, depending on the ultimate location of the library;
- provides centralized and logical reception at main entrance;
- new windows to south and east walls of the courtyard interior provide additional light to interior spaces given over to new offices;
- visual impact of addition minimized at principal elevation as elevator shaft is located behind chimney flue and at north elevation as office extension follows the lines of the 1966 addition;
- gain in usable office space with minimal impact to building appearance; and,

increases building accessibility.

Negative aspects associated with Alternative B:

- ramping of second floor interior hallway requires modification of Office 220, 222, 224 and 225; Offices 220 and 222 are currently separate offices - they will need to be altered to become shared offices with only one corridor door; Offices 224 and 225 shall be combined and have only one corridor door; and,
- original lobby configuration and function compromised by alterations; reception space partially reduced.

Alternative C: Maximum Space via Second Floor Addition and Enclosed Circulation at Patio

Alternative C proposes:

- expand first floor usable space into patio to serve as a circulation spine;
- relocate the library to either the original location of the study collection at the rear of the building or to the space adjacent to reception;
- provide additional office space by extending existing second floor offices at north side of building; add exterior exit stair to parking lot;
- reorganize lobby space and function to form contact point/reception area with employee information and notice area and single desk for various departments; reception space will be partially reduced to give more space to office use;
- restore entrance lobby fireplace;
- add ramping to second floor interior hallway;
- maintain existing location of communications center;
- install two-stop elevator in space directly behind chimney flue; install ramp for additional access to second floor;
- reconfigure two second floor rest rooms to be accessible;
- improve access to existing non-original attic storage at southwest corner;
- extend existing non-original attic storage toward front of building;
- restore south elevation to original condition; close non-original door and window openings; retain original door to crawl space; and,
- modify entry at covered walk for greater accessibility.

Alternative C achieves the following:

- maximum increase in usable office space;
- improved circulation path through partially glazed-in patio;
- retains interior volumes;
- moves elevator closer to more logical location, nearer entrance lobby;
- keeps communication center in existing location, eliminating the need for a costly relocation;
- increases office space at northeast corner of building through expansion into former lobby space;
- improves office space functionality and flexibility by the layout of continuous flow of space and a dedicated circulation spine;
- provides centralized and logical reception at main entrance;
- new windows to south and east walls of the courtyard interior provide additional light to interior spaces given over to new offices;
- visual impact of addition minimized at principal elevation as elevator shaft is located behind chimney flue and at north elevation as office extension follows the lines of the 1966 addition;

gain in usable office space with minimal impact to building appearance; and,
increases building accessibility.

Negative aspects associated with Alternative C:

- communications center remains "buried" within the existing building; continues to disrupt free-flow of circulation through large volume spaces as originally designed;
- ramping of second floor interior hallway requires modification of Office 220, 222, 224 and 225; Offices 220 and 222 are currently separate offices - they will need to be altered to become shared offices with only one corridor door; Offices 224 and 225 shall be combined and have only one corridor door;
- original lobby configuration and function compromised by alterations so that original proportions and experience of the space are gone; reception space reduced to absolute minimum; and,
- perception of original patio space is altered by installation of glazing.

Future Expansion Alternatives

The park has not fully determined its office space needs. The above treatment alternatives provide various degrees of expanded office space. Should even Alternative C be deemed inadequate in terms of square footage, other additions may need to be considered. The most logical location for a ground floor addition seems to be at the west side of the building although any addition would present problems in terms of circulation and existing natural light on the interior. An addition at the west side of the structure would have the least impact on the building's character and expression but the building has suffered changes especially on the interior that alter its original condition. Careful planning is required before any further additions and alterations are considered.

Preferred Alternative

Alternative B: More Space via Second Floor Addition is the preferred treatment alternative because it is the most balanced solution for providing more usable office space while retaining or enhancing key elements of the original Doty design. Alternative B comes close to capturing the circulation and expansive, interior spaces of the original design while allowing a reasonable amount of space to be dedicated to new office use. These reasons are more fully explained below:

- The scheme provides solutions to facilitate the building's use as space for offices by: Increasing usable office space; moving the elevator closer to the entrance lobby; adding new windows to south and east walls of the courtyard interior to provide additional light to new interior office spaces; improving security for the communications center in a more autonomous location with a dedicated entrance; and, improving office space functionality and flexibility by the layout of continuous flow of space.

- The scheme respects the building's historic fabric and the structure's original design by: Retaining interior volumes; providing a centralized and logical reception at main entrance; recreating the circulation pattern of the original design; adding usable office space with minimal impact to building appearance; minimizing the visual impact of the addition at the principal elevation as the elevator shaft is located behind chimney flue and at north elevation and because the second floor office extension follows the lines of the 1966 addition.

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IX. Endnotes

1 Director's Order 28.

2 Information on the native inhabitants of the Canyon is summarized from Grand Canyon National Park's 1997 Resource Management Plan.

3 Information on Spanish exploration of the Canyon is summarized from Michael F. Anderson's *Living at the Edge*.

4 Tweed, Wm. C., Soulliere, Laura E., and Law, Henry G., *National Park Service Rustic Architecture: 1916-1942*, NPS Western Regional Office, 1977. p. 23

5 National Register of Historic Places Draft Nomination Form: *Grand Canyon Public Use Building*. Sec. 8. p. 2

6 Carr, Ethan. p. 187

7 Good, Albert H. *Park and Recreation Structures*.

8 Ibid.

9 Allaback, Draft Manuscript for *Mission 66 Visitor Centers, The History of a Building Type*, p. 11

10 Allaback. *Mission 66 Visitor Centers, The History of a Building Type*. p. 17

11 Wirth, C. Memo: *Visitor Centers; Park Roads*. February 10, 1956.

12 Allaback. *Mission 66 Visitor Centers, The History of a Building Type*. p. 18

13 Allaback, Draft Manuscript for *Mission 66 Visitor Centers, The History of a Building Type*, p. 22.

14 Allaback. *Mission 66 Visitor Centers, The History of a Building Type*. p. 269

15 Allaback. *Mission 66 Visitor Centers, The History of a Building Type*. p. 21

16 Ibid.

17 Ibid.

18 *Project Construction Proposal for Yavapai Interpretive Facility*, document undated (but likely to be circa 1966).

19 Ibid.

20 Allaback, Draft Manuscript for *Mission 66 Visitor Centers, The History of a Building Type*, p. 194

21 Allaback, *Mission 66 Visitor Centers, The History of a Building Type*. p. 267

22 Ibid.

Appendix A. Existing Conditions Drawings of Plans, Elevations, and Section, including Drawings Illustrating Conditions Survey, Areas of Significance and 1966 Addition, all dated April 20, 2001.

Appendix B. Alternative Treatment Drawings, dated April 20, 2001.

Appendix C. Code Analysis.

Appendix D. Historic Photographs of Visitor Center and Park Headquarters in Chronological Order.

Appendix E. Photographs of Existing Conditions.

Appendix F. Potential Seismic Hazard Assessment by Sato and Associates, dated October 1998.

Appendix G. Letter from Louise M. Hinchliffe, formerly of Naturalist Division and Curator Librarian, dated April 16, 2001.

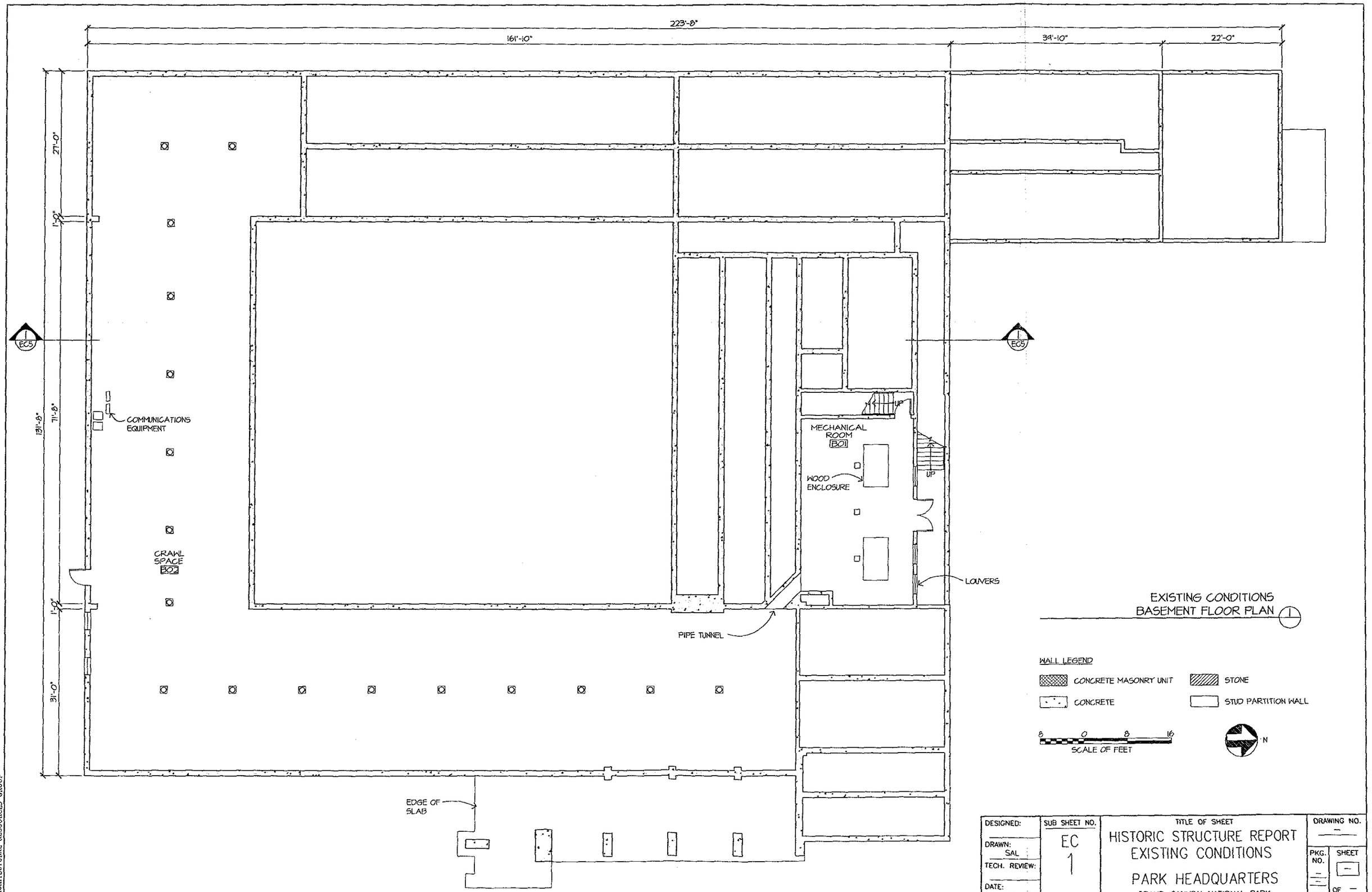
Appendix H. Consultant Reports.

Appendix I. Alternative Treatment Drawings as Revised at the Park Headquarters Value Analysis, held February 6-7, 2001.

Appendix A. Existing Conditions Drawings of Plans, Elevations, and Section, including Drawings Illustrating Conditions Survey, Areas of Significance and 1966 Addition.

Listing of Individual Drawings:

EC1 Existing Basement Plan.
EC2 Existing First Floor Plan.
EC3 Existing Second Floor Plan.
EC4 Existing Elevations.
EC5 Existing Section.
EC6 First Floor Plan Overlay (1955).
EC7 First Floor Plan shaded to show alterations to 1955 design.
EC8 First Floor Plan shaded to show alterations to 1955 design.
EC9 Elevations Overlay (1955).
EC10 Elevations shaded to show alterations to 1955 design.
EC11 Areas of Significance, First Floor.
EC12 Areas of Significance, Second Floor.
EC13 Conditions Assessment, Elevations.
EC14 Conditions Assessment, Elevations.



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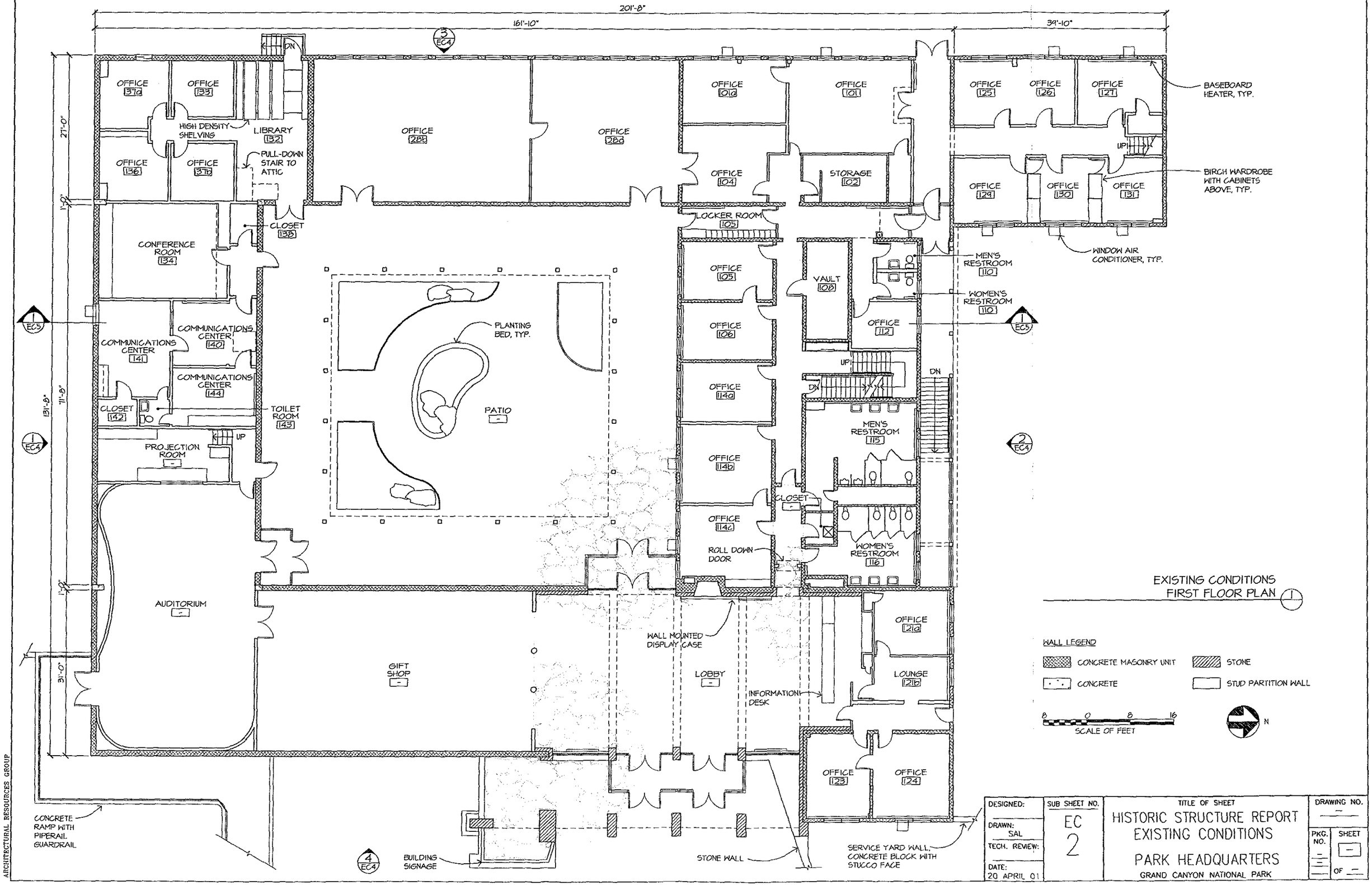

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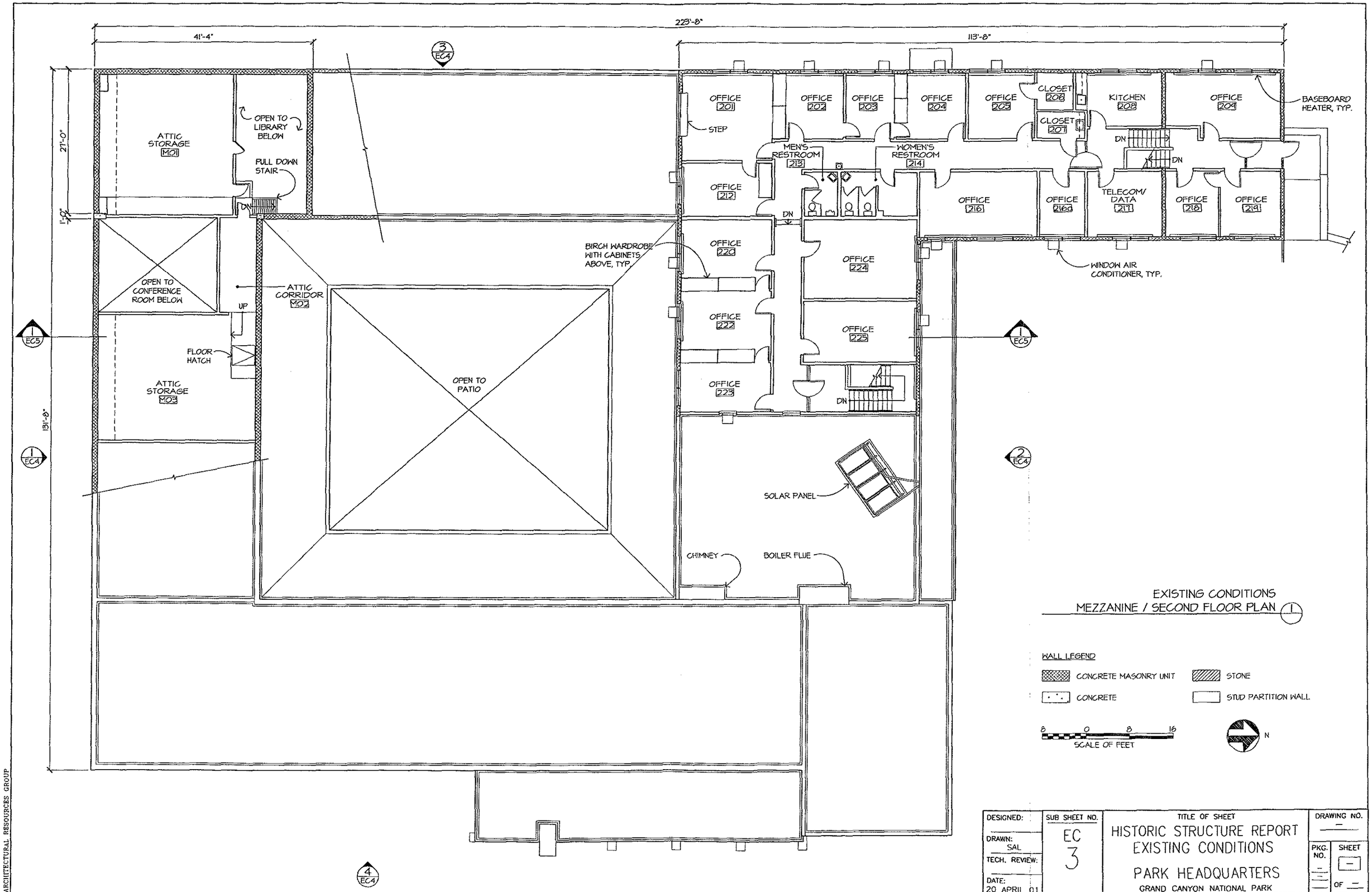

EXISTING CONDITIONS
MEZZANINE / SECOND FLOOR PLAN (1)

WALL LEGEND

- CONCRETE MASONRY UNIT
- STONE
- CONCRETE
- STUD PARTITION WALL

8 0 8 16
SCALE OF FEET

N

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DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
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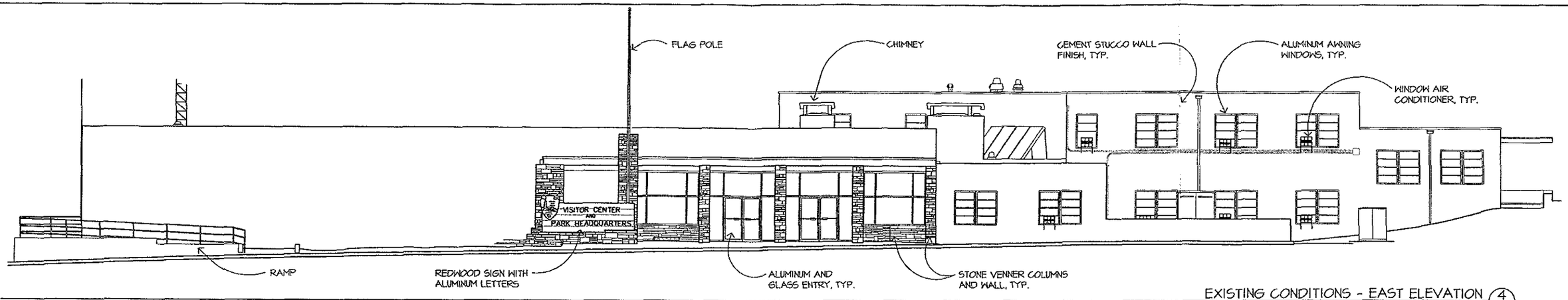
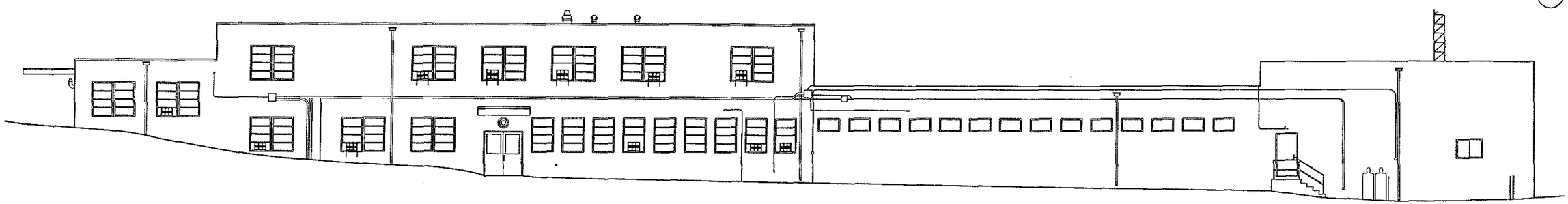
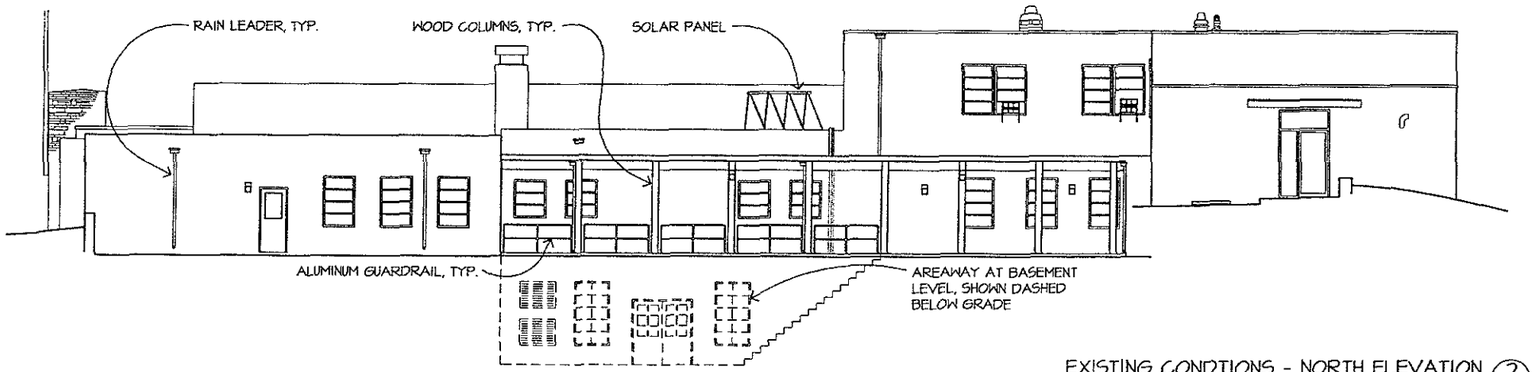


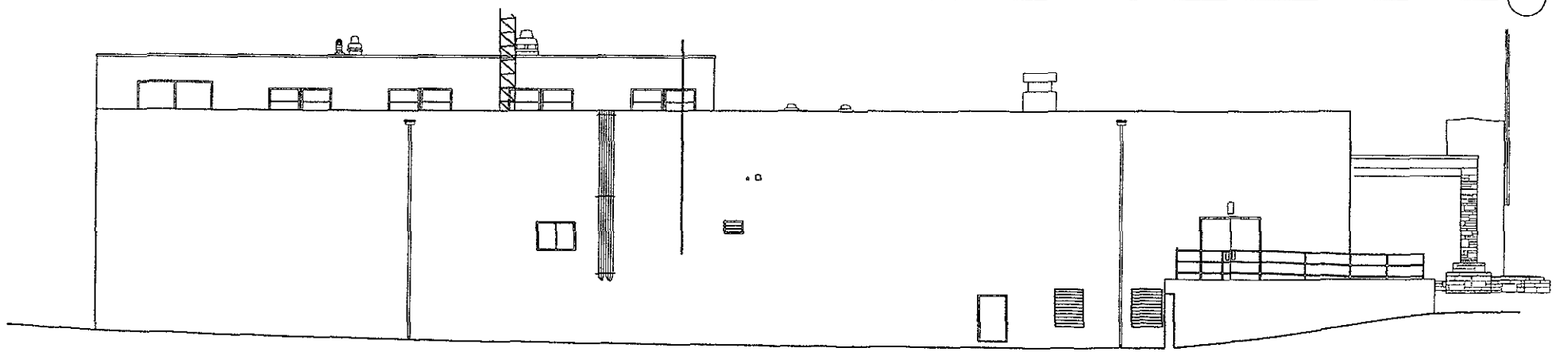
EXISTING CONDITIONS - EAST ELEVATION (4)



EXISTING CONDITIONS - WEST ELEVATION (3)



EXISTING CONDTIONS - NORTH ELEVATION (2)

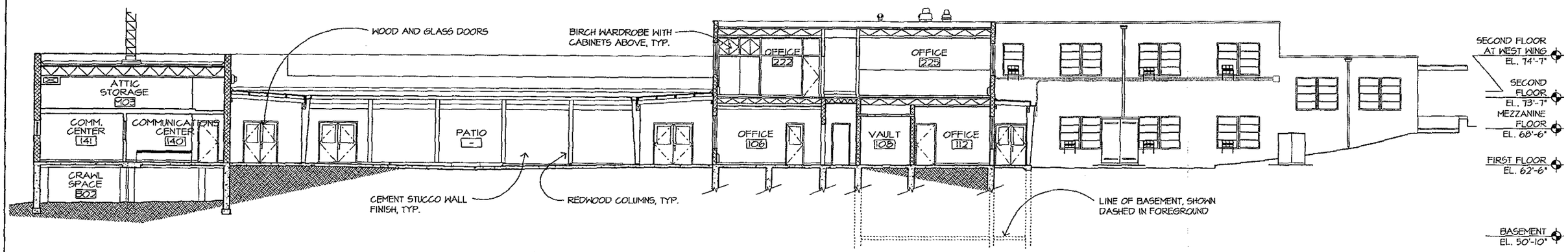


EXISTING CONDITIONS - SOUTH ELEVATION (1)

8 0 8 16
SCALE OF FEET

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 4	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — / SHEET — OF —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	

ARCHITECTURAL RESOURCES GROUP



EXISTING CONDITIONS - SECTION 1

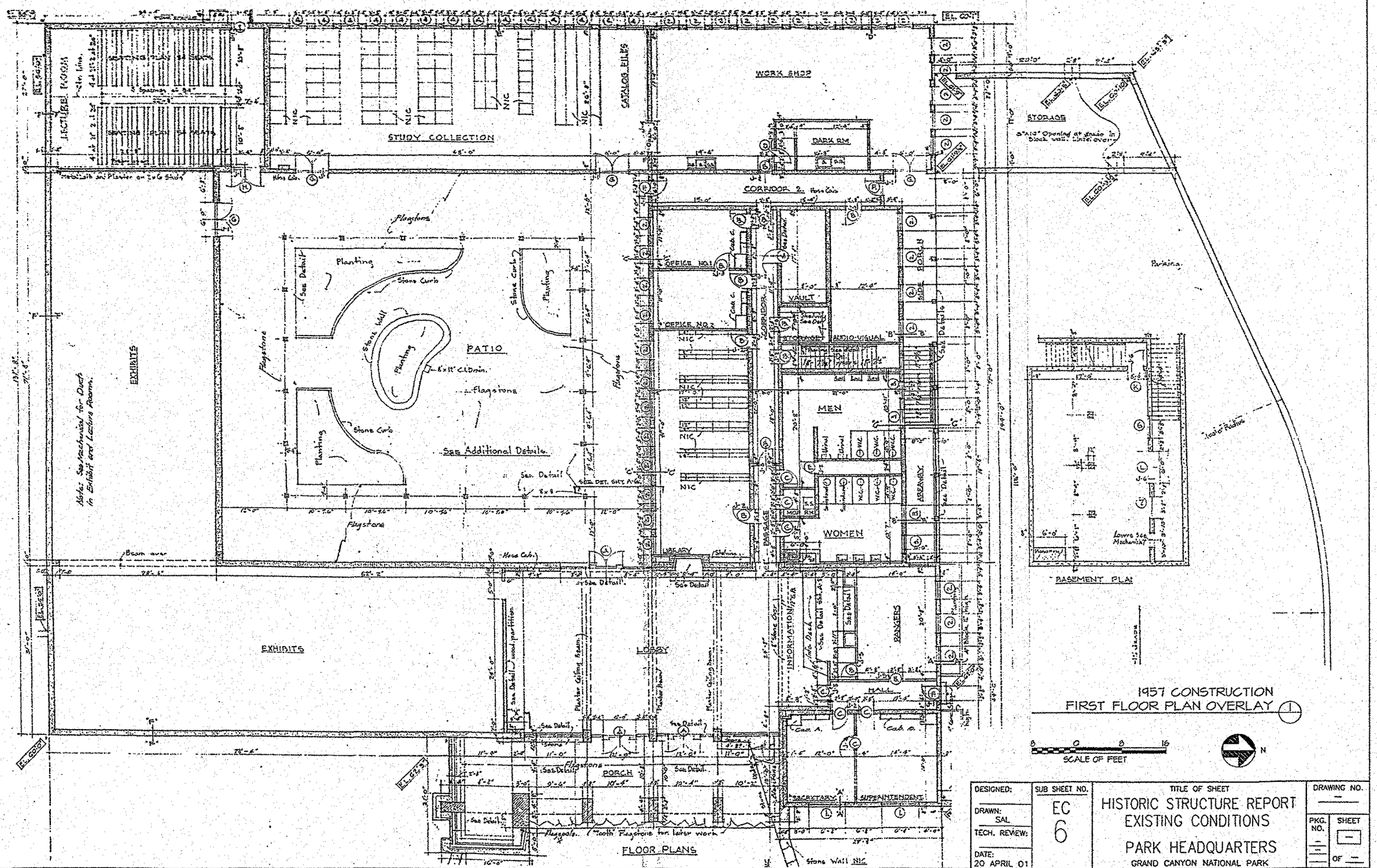
WALL / FLOOR LEGEND

- CONCRETE MASONRY UNIT
- STONE
- CONCRETE
- STUD PARTITION WALL

8 0 8 16
SCALE OF FEET

ARCHITECTURAL RESOURCES GROUP

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 5	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	—
TECH. REVIEW:			PKG. NO. — / SHEET — OF —
DATE: 20 APRIL 01			



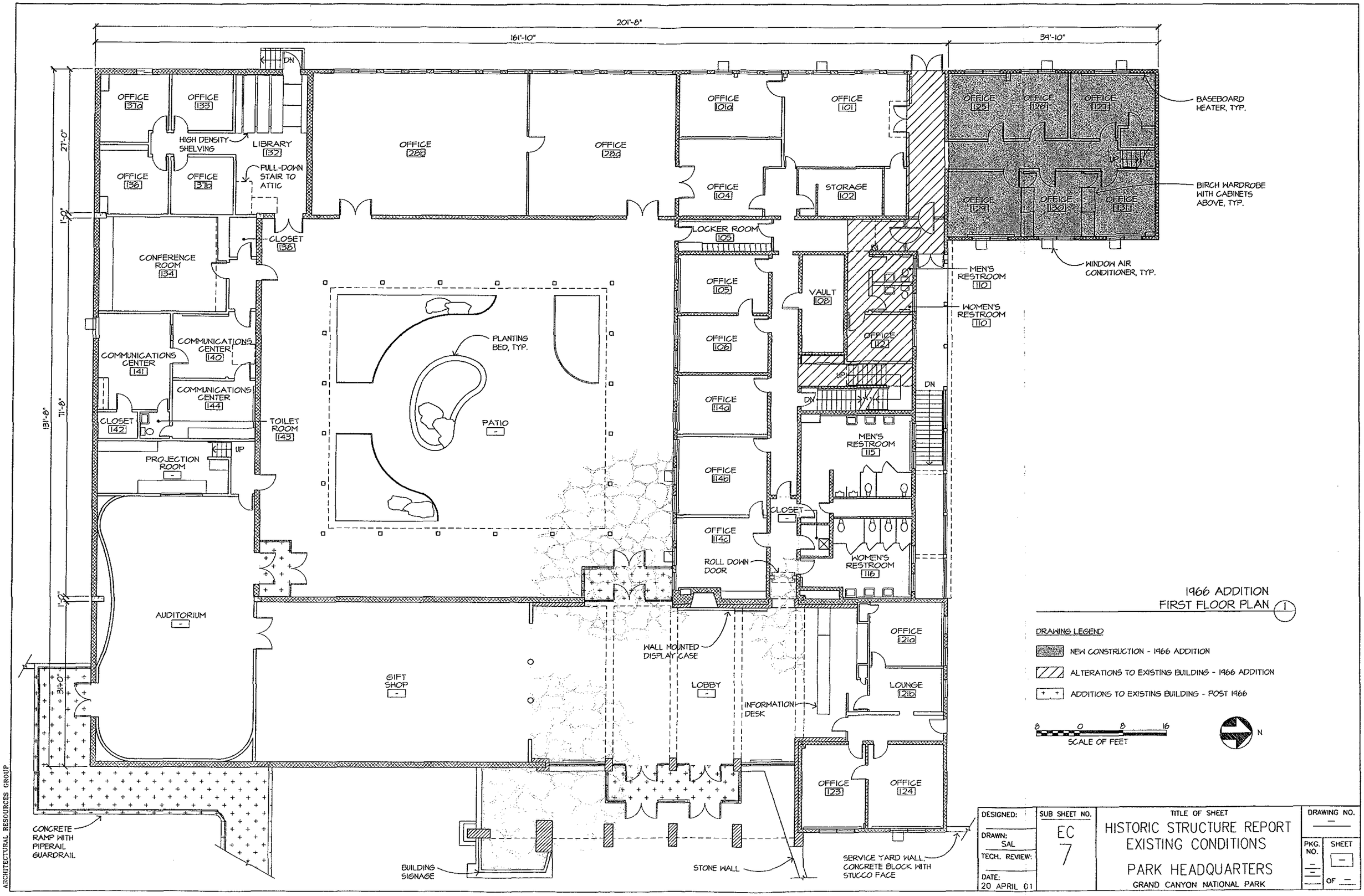
1957 CONSTRUCTION
FIRST FLOOR PLAN OVERLAY (1)

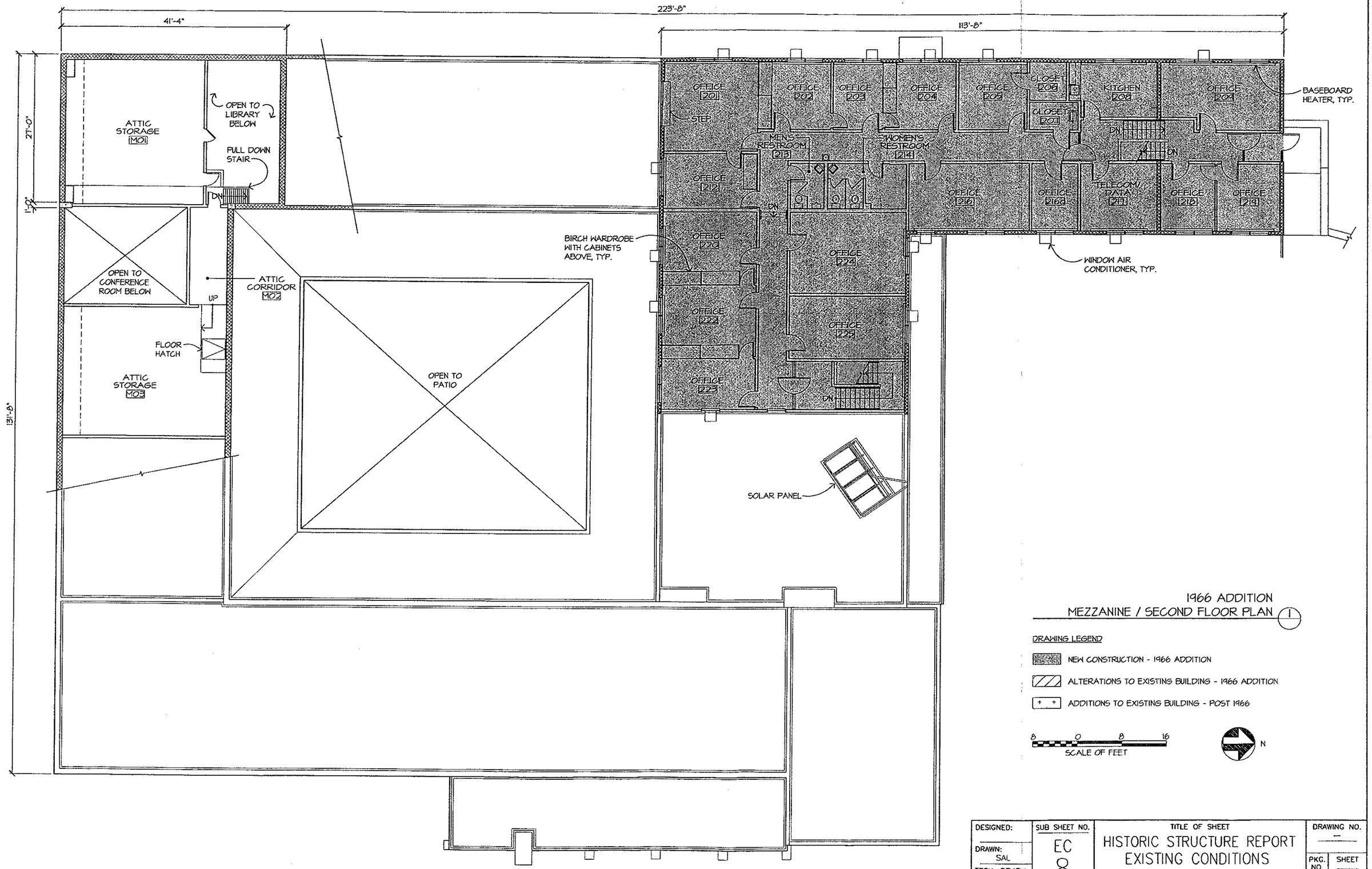
8 0 8 16
SCALE OF FEET

N

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 6	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	PKG. NO. / SHEET OF
TECH. REVIEW:			
DATE: 20 APRIL 01			

ARCHITECTURAL RESOURCES GROUP


201'-8"
161'-10"
39'-10"
131'-8"
71'-8"
27'-0"
11'-0"
31'-0"
OFFICE 137a
OFFICE 133
HIGH DENSITY SHELVING
LIBRARY 132
DN
PULL-DOWN STAIR TO ATTIC
OFFICE 136
OFFICE 137b
CLOSET 138
CONFERENCE ROOM 134
COMMUNICATIONS CENTER 141
COMMUNICATIONS CENTER 140
COMMUNICATIONS CENTER 144
CLOSET 142
TOILET ROOM 143
PROJECTION ROOM -
UP
AUDITORIUM -
OFFICE 28b
OFFICE 28a
PLANTING BED, TYP.
PATIO -
GIFT SHOP -
CONCRETE RAMP WITH PIPERAIL GUARDRAIL
BUILDING SIGNAGE
OFFICE 101a
OFFICE 101
OFFICE 104
STORAGE 102
LOCKER ROOM 105
OFFICE 105
VAULT 108
OFFICE 106
OFFICE 114a
OFFICE 114b
OFFICE 114c
CLOSET -
ROLL DOWN DOOR
WALL MOUNTED DISPLAY CASE
LOBBY -
INFORMATION DESK
STONE WALL
OFFICE 125
OFFICE 126
OFFICE 127
OFFICE 129
OFFICE 130
OFFICE 131
BASEBOARD HEATER, TYP.
BIRCH WARDROBE WITH CABINETS ABOVE, TYP.
WINDOW AIR CONDITIONER, TYP.
MEN'S RESTROOM 110
WOMEN'S RESTROOM 110
OFFICE 112
MEN'S RESTROOM 115
WOMEN'S RESTROOM 116
OFFICE 121a
LOUNGE 121b
OFFICE 123
OFFICE 124
SERVICE YARD WALL, CONCRETE BLOCK WITH STUCCO FACE
1966 ADDITION
FIRST FLOOR PLAN 1
DRAWING LEGEND
NEW CONSTRUCTION - 1966 ADDITION
ALTERATIONS TO EXISTING BUILDING - 1966 ADDITION
ADDITIONS TO EXISTING BUILDING - POST 1966
8 0 8 16
SCALE OF FEET
N
ARCHITECTURAL RESOURCES GROUP
DESIGNED:
DRAWN: SAL
TECH. REVIEW:
DATE: 20 APRIL 01
SUB SHEET NO.
EC 7
TITLE OF SHEET
HISTORIC STRUCTURE REPORT
EXISTING CONDITIONS
PARK HEADQUARTERS
GRAND CANYON NATIONAL PARK
DRAWING NO.
PKG. NO.
SHEET
OF



1966 ADDITION
MEZZANINE / SECOND FLOOR PLAN (1)

DRAWING LEGEND

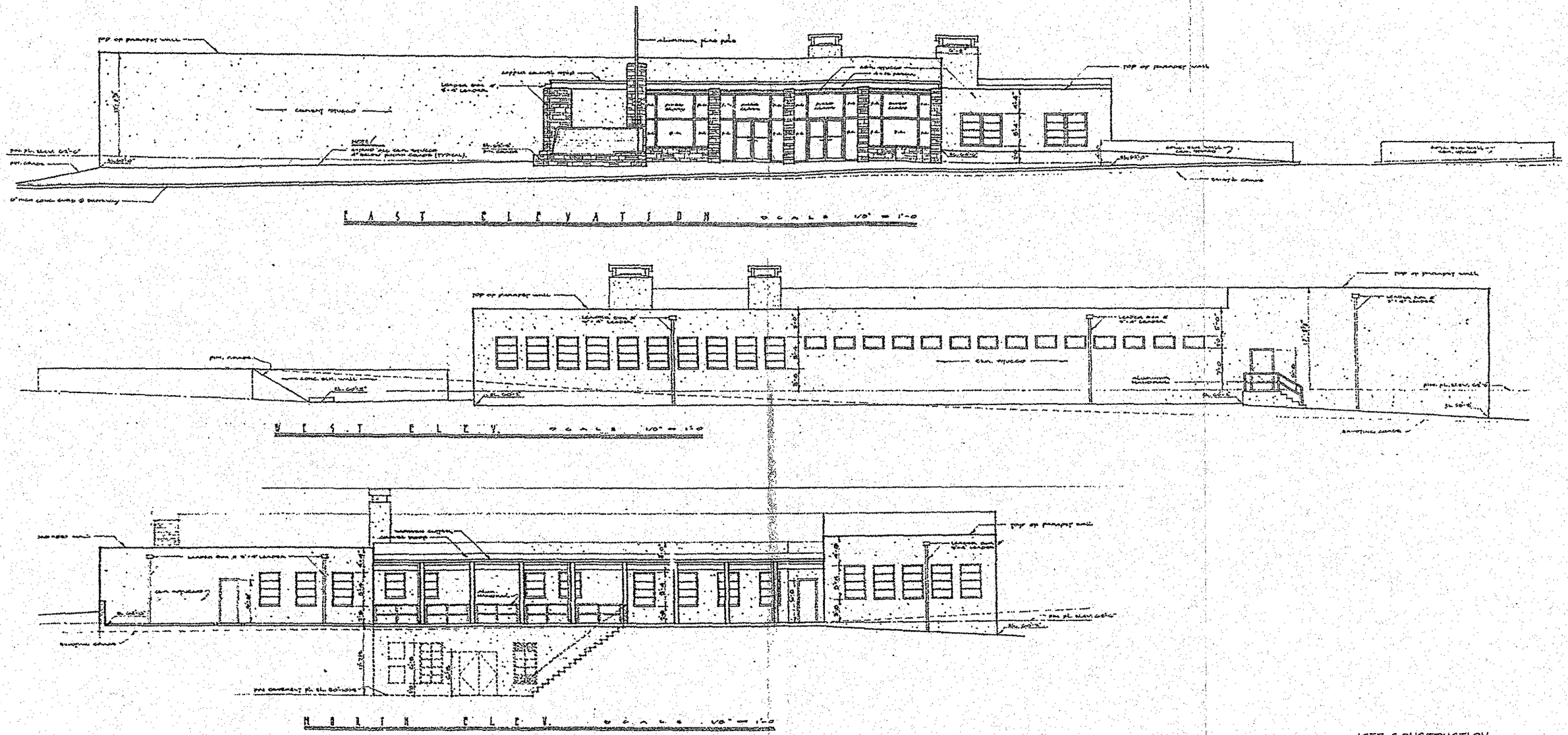
- NEW CONSTRUCTION - 1966 ADDITION
- ALTERATIONS TO EXISTING BUILDING - 1966 ADDITION
- ADDITIONS TO EXISTING BUILDING - POST 1966

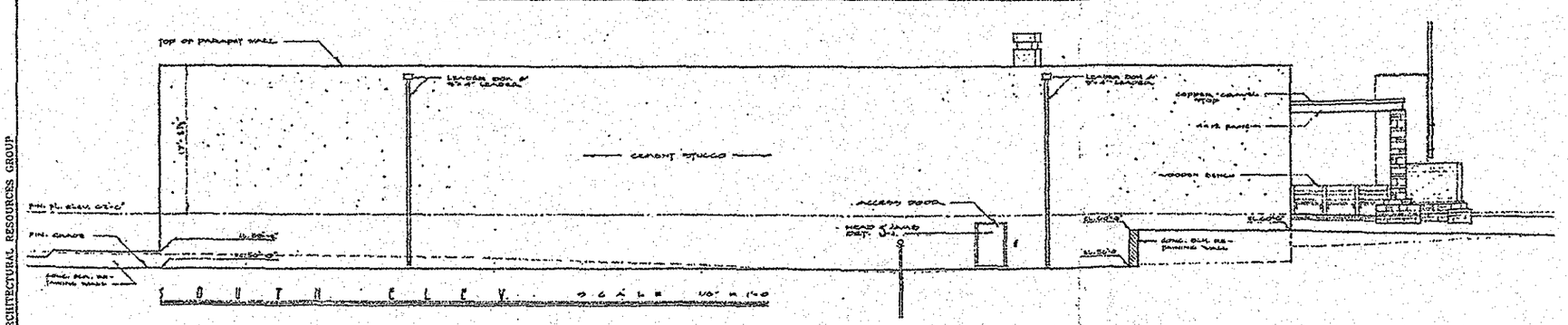
8 0 8 16
SCALE OF FEET

N

ARCHITECTURAL RESOURCES GROUP

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL TECH. REVIEW: DATE: 20 APRIL 01	EC 8	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	PKG. NO. / SHEET — OF —



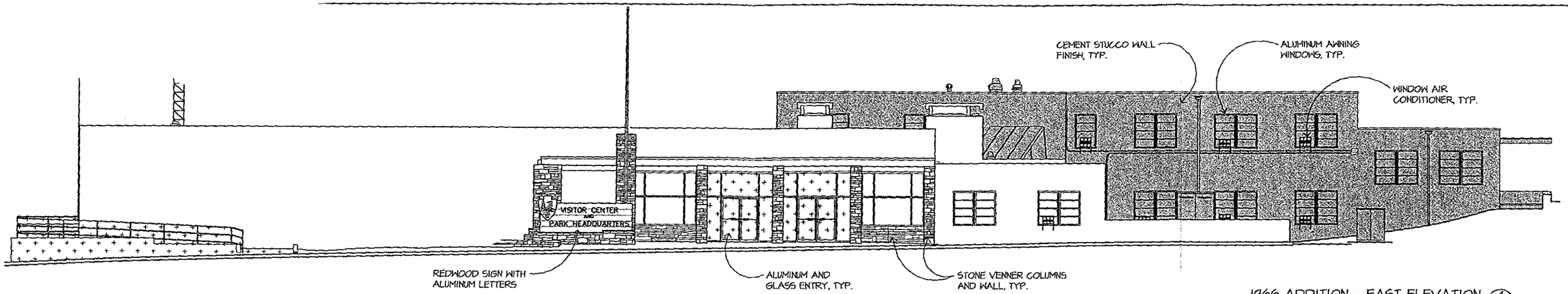


1957 CONSTRUCTION
ELEVATIONS OVERLAY (1)

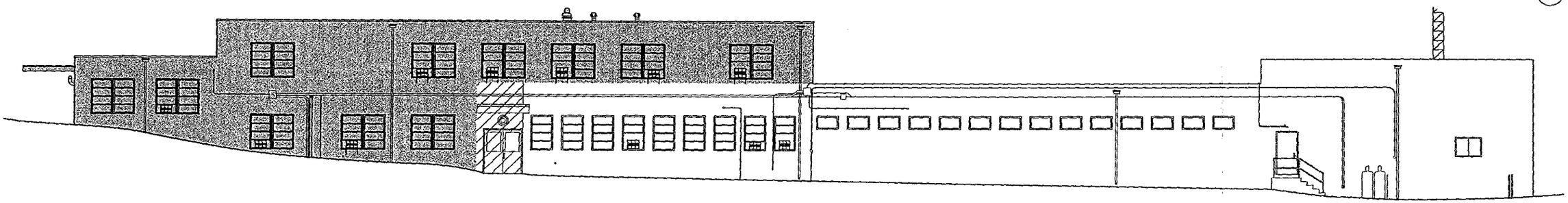
8 0 8 16
SCALE OF FEET

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 9	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	—
TECH. REVIEW:			PKG. NO. — / SHEET — OF —
DATE: 20 APRIL 01			

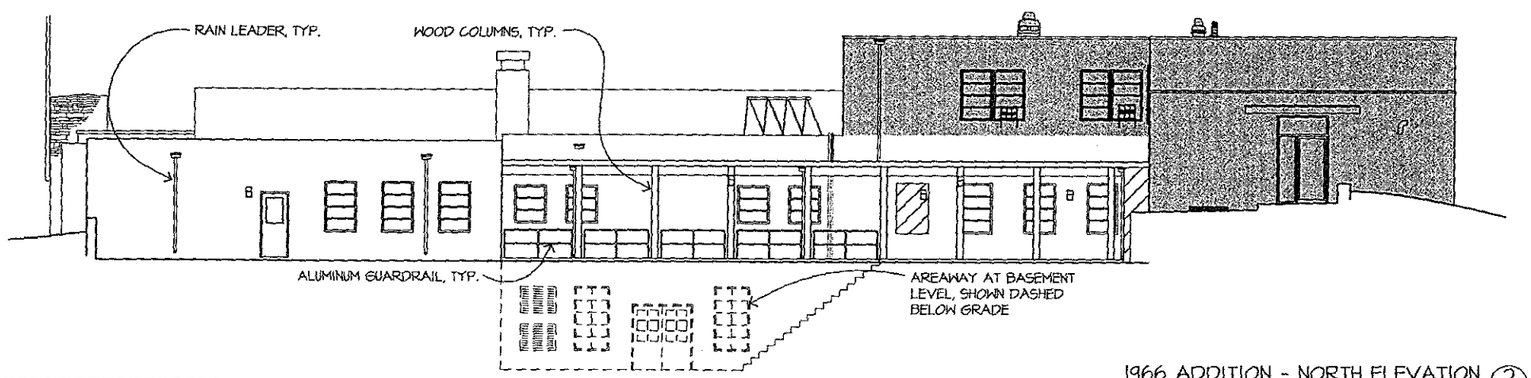
ARCHITECTURAL RESOURCES GROUP



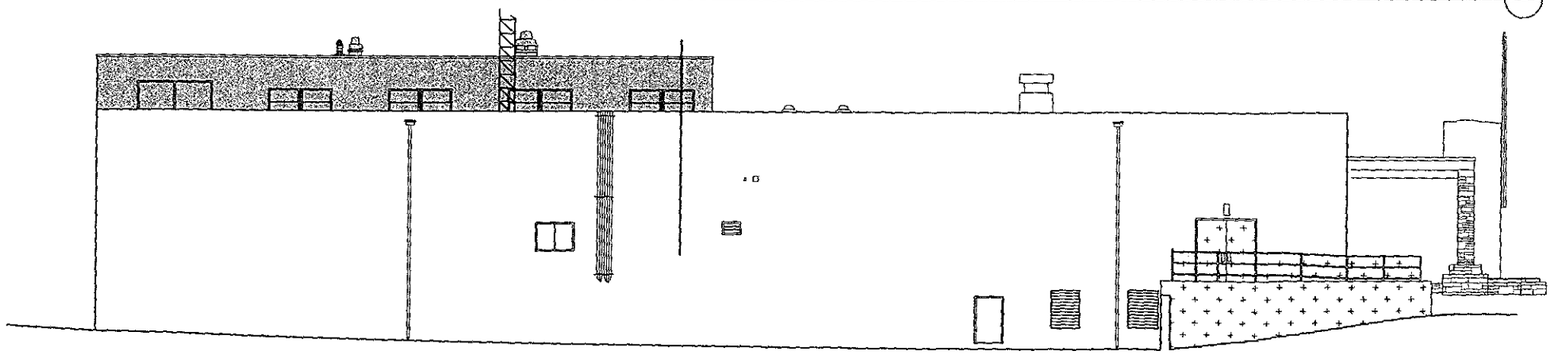
1966 ADDITION - EAST ELEVATION (4)



1966 ADDITION - WEST ELEVATION (3)



1966 ADDITION - NORTH ELEVATION (2)



1966 ADDITION - SOUTH ELEVATION (1)

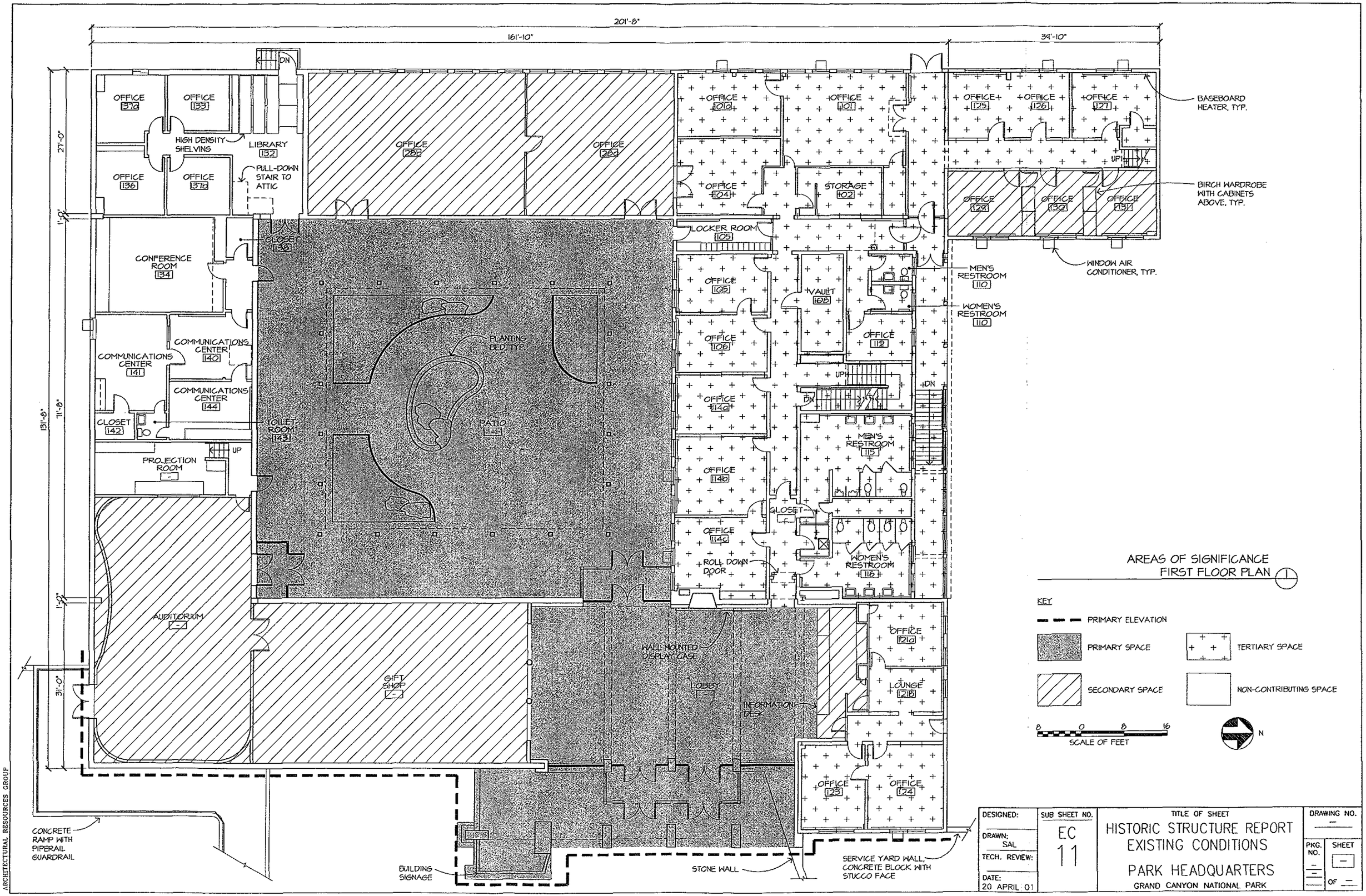
DRAWING LEGEND

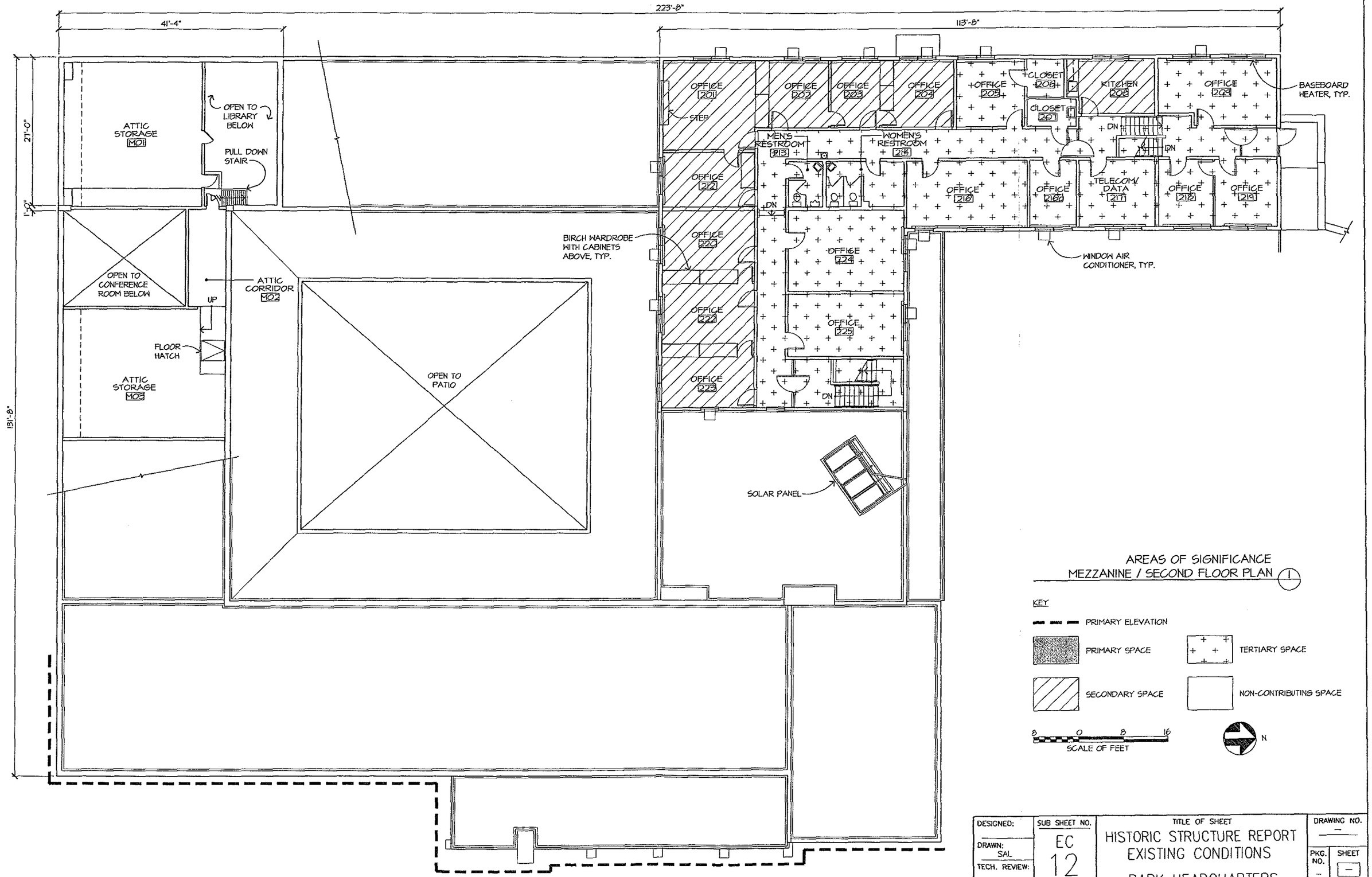
- NEW CONSTRUCTION - 1966 ADDITION
- ALTERATIONS TO EXISTING BUILDING - 1966 ADDITION
- ADDITIONS TO EXISTING BUILDING - POST 1966

8 0 8 16
SCALE OF FEET

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 10	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. / SHEET —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	OF —

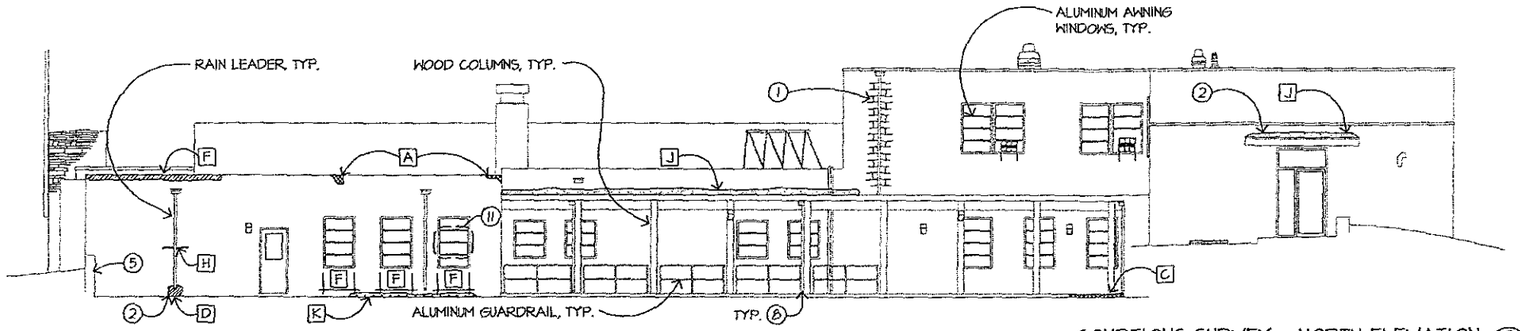
ARCHITECTURAL RESOURCES GROUP


201'-8"
161'-10"
39'-10"
131'-8"
27'-0"
71'-8"
OFFICE 137a
OFFICE 133
HIGH DENSITY SHELVING
LIBRARY 132
PULL-DOWN STAIR TO ATTIC
OFFICE 136
OFFICE 137b
DN
OFFICE 28b
OFFICE 28a
CLOSET 138
CONFERENCE ROOM 134
COMMUNICATIONS CENTER 140
COMMUNICATIONS CENTER 141
COMMUNICATIONS CENTER 144
CLOSET 142
TOILET ROOM 143
UP
PROJECTION ROOM
PLANTING BED, TYP.
PATIO
AUDITORIUM
GIFT SHOP
OFFICE 101a
OFFICE 101
OFFICE 104
STORAGE 102
LOCKER ROOM 105
OFFICE 105
VAULT 108
OFFICE 106
OFFICE 112
OFFICE 114a
OFFICE 114b
OFFICE 114c
ROLL DOWN DOOR
CLOSET
MEN'S RESTROOM 115
WOMEN'S RESTROOM 116
MEN'S RESTROOM 110
WOMEN'S RESTROOM 110
OFFICE 125
OFFICE 126
OFFICE 127
OFFICE 129
OFFICE 130
OFFICE 131
BASEBOARD HEATER, TYP.
BIRCH WARDROBE WITH CABINETS ABOVE, TYP.
WINDOW AIR CONDITIONER, TYP.
WALL MOUNTED DISPLAY CASE
LOBBY
INFORMATION DESK
OFFICE 121a
LOUNGE 121b
OFFICE 123
OFFICE 124
CONCRETE RAMP WITH PIPERAIL GUARDRAIL
BUILDING SIGNAGE
STONE WALL
SERVICE YARD WALL, CONCRETE BLOCK WITH STUCCO FACE
1'-9"
31'-0"
AREAS OF SIGNIFICANCE
FIRST FLOOR PLAN
1
KEY
PRIMARY ELEVATION
PRIMARY SPACE
TERTIARY SPACE
SECONDARY SPACE
NON-CONTRIBUTING SPACE
8 0 8 16
SCALE OF FEET
N
ARCHITECTURAL RESOURCES GROUP
DESIGNED:
DRAWN: SAL
TECH. REVIEW:
DATE: 20 APRIL 01
SUB SHEET NO.
EC 11
TITLE OF SHEET
HISTORIC STRUCTURE REPORT
EXISTING CONDITIONS
PARK HEADQUARTERS
GRAND CANYON NATIONAL PARK
DRAWING NO.
PKG. NO.
SHEET
OF

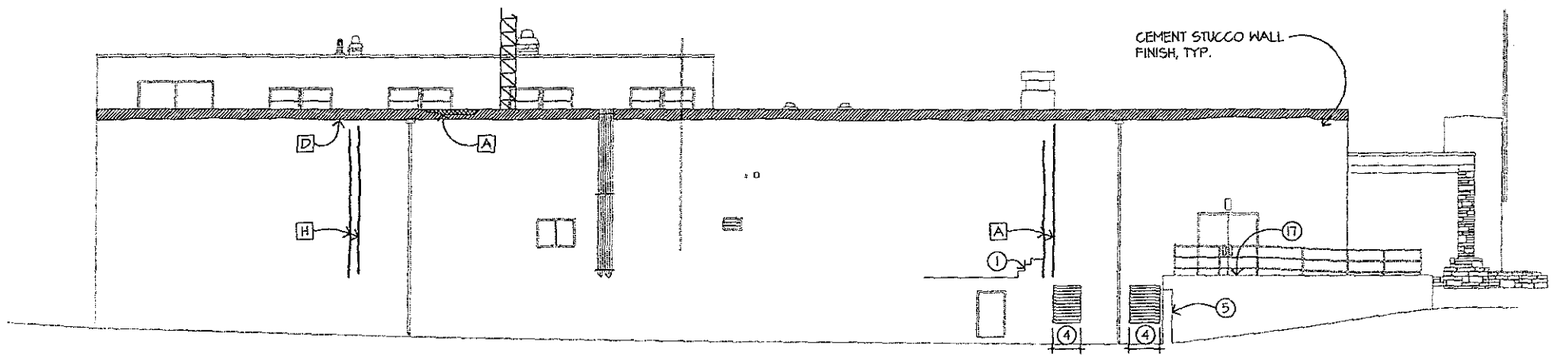


ARCHITECTURAL RESOURCES GROUP

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 12	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	



CONDTIONS SURVEY - NORTH ELEVATION (2)



CONDITIONS SURVEY - SOUTH ELEVATION (1)

CONDITIONS SURVEY LEGEND

- [A] LOSS OF MATERIAL AT CEMENT STUCCO FINISH; LOSS OF CAPSTONE AT PARAPET
- [B] LOSS OF MATERIAL AT STONE VENEER; SEVERE LOSS OF MORTAR
- [C] LOSS OF MATERIAL AT CONCRETE; AGGREGATE EXPOSED
- [D] FAILURE OF CEMENT STUCCO FINISH; PEELING PAINT COAT
- [E] DELAMINATION OF STONE VENEER
- [F] DISCOLORATION OF CEMENT STUCCO FINISH
- [G] DISCOLORATION OF STONE VENEER
- [H] CRACK IN CEMENT STUCCO WALL FINISH
- [J] EXPOSED POLYURETHANE COATING
- [K] BIOLOGICAL GROWTH AT CEMENT STUCCO WALL FINISH

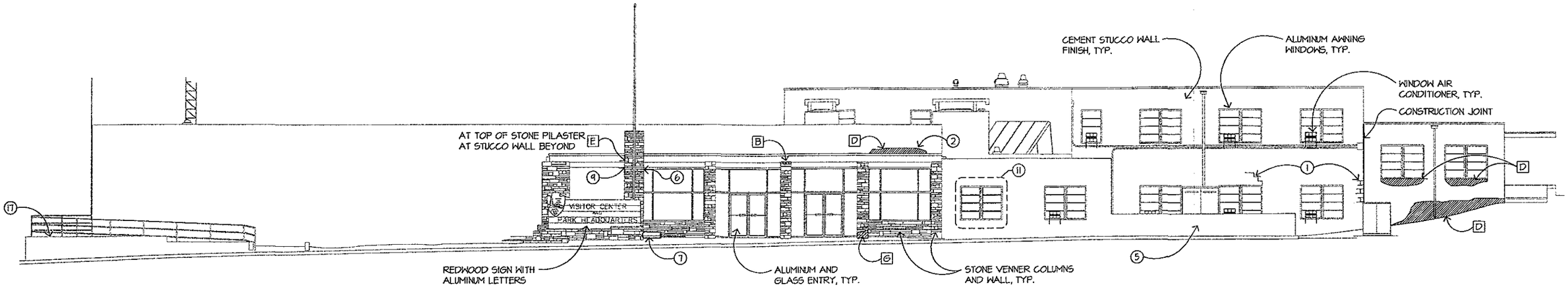
CONDITIONS SURVEY KEY NOTES

1. CRACK IN CEMENT STUCCO WALL FINISH AT JOINTS IN C.M.U. WALL
2. FAILURE AT JOINT BETWEEN FLASHING AND CEMENT STUCCO FINISH
3. WATER MIGRATION BEHIND CEMENT STUCCO FINISH AT SCUPPER / DOWN SPOUT
4. CEMENT STUCCO FINISH CRACKING AT WINDOW SILL
5. TYPICAL CONDITION AT SERVICE YARD WALLS: CRACK IN CEMENT STUCCO FINISH AT JOINTS IN C.M.U. WALL, SEVERE CRACKS IN FINISH AT TOP OF WALL, EXPOSURE OF CAPSTONE, AND BIOLOGICAL GROWTH AT TOP OF WALL
6. EFFLORESCENCE AT SIDE OF STONE PIER / JUNCTION WITH ROOF
7. SEVERE LOSS OF MORTAR AT JOINTS - 3 1/2" IN DEPTH
8. SPLITTING AT BASE OF WOOD COLUMNS
9. PEELING PAINT AT UNDERSIDE OF WOOD DECKING
10. PEELING / BULGING PAINT AT DOOR SURFACE
11. DETERIORATION OF GLAZING PUTTY - CRUMBLING AND FRIABLE, WITH MISSING SECTIONS
12. APPLICATION OF SEALANT AT GLAZING
13. CRACK IN WINDOW GLAZING
14. ALUMINUM HANDRAIL NOT SECURE IN PLACE
15. DAMAGED RAIN LEADER
16. WATER POOLING DUE TO INSUFFICIENT ROOF SLOPE
17. TYPICAL CONDITION AT RAMP: VERTICAL DISPLACEMENT BETWEEN SLAB AND STUCCO WALL, OUTSIDE WALLS STRUCTURAL UNSOUND WITH OUTWARD DISPLACEMENT AT TOP, AND BIOLOGICAL GROWTH AT TOP OF SLAB.

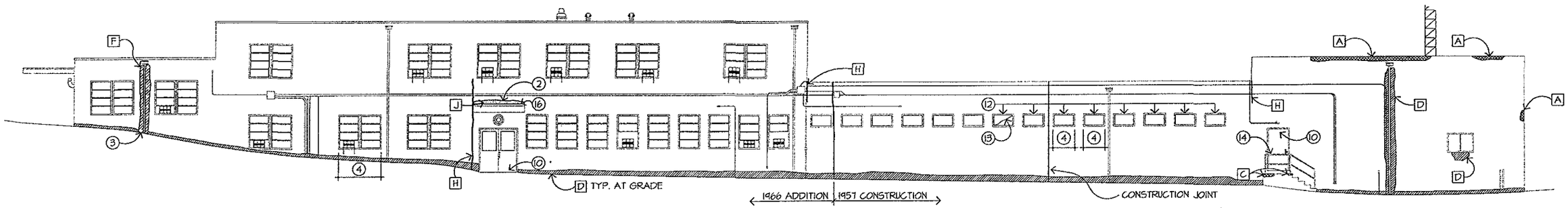
CONDITIONS ASSESSMENT BASED ON MAY 2000 SITE VISIT

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 13	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	—
TECH. REVIEW:			PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01			

ARCHITECTURAL RESOURCES GROUP



CONDITIONS SURVEY - EAST ELEVATION 2



CONDITIONS SURVEY - WEST ELEVATION 1

CONDITIONS SURVEY LEGEND

- A — LOSS OF MATERIAL AT CEMENT STUCCO FINISH; LOSS OF CAPSTONE AT PARAPET
- B — LOSS OF MATERIAL AT STONE VENEER; SEVERE LOSS OF MORTAR
- C — LOSS OF MATERIAL AT CONCRETE; AGGREGATE EXPOSED
- D — FAILURE OF CEMENT STUCCO FINISH; PEELING PAINT COAT
- E — DELAMINATION OF STONE VENEER
- F — DISCOLORATION OF CEMENT STUCCO FINISH
- G — DISCOLORATION OF STONE VENEER
- H — CRACK IN CEMENT STUCCO WALL FINISH
- J — EXPOSED POLYURETHANE COATING
- K — BIOLOGICAL GROWTH AT CEMENT STUCCO WALL FINISH

CONDITIONS SURVEY KEY NOTES

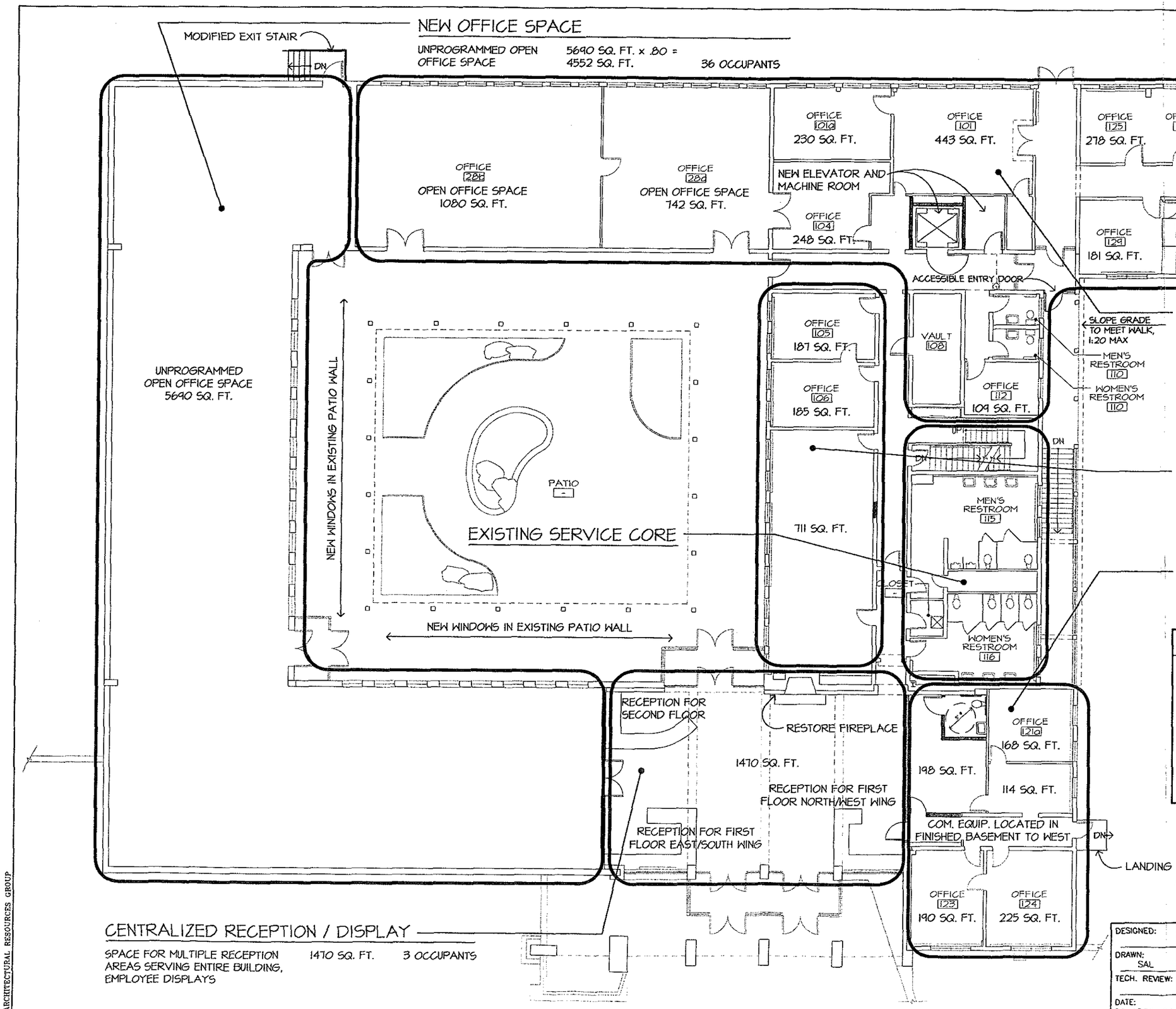
1. CRACK IN CEMENT STUCCO WALL FINISH AT JOINTS IN C.M.U. WALL
2. FAILURE AT JOINT BETWEEN FLASHING AND CEMENT STUCCO FINISH
3. WATER MIGRATION BEHIND CEMENT STUCCO FINISH AT SCUPPER / DOWN SPOUT
4. CEMENT STUCCO FINISH CRACKING AT WINDOW SILL
5. TYPICAL CONDITION AT SERVICE YARD WALLS: CRACK IN CEMENT STUCCO FINISH AT JOINTS IN C.M.U. WALL, SEVERE CRACKS IN FINISH AT TOP OF WALL, EXPOSURE OF CAPSTONE, AND BIOLOGICAL GROWTH AT TOP OF WALL
6. EFFLORESCENCE AT SIDE OF STONE PIER / JUNCTION WITH ROOF
7. SEVERE LOSS OF MORTAR AT JOINTS - 3 1/2" IN DEPTH
8. SPLITTING AT BASE OF WOOD COLUMNS
9. PEELING PAINT AT UNDERSIDE OF WOOD DECKING
10. PEELING / BULGING PAINT AT DOOR SURFACE
11. DETERIORATION OF GLAZING PUTTY - CRUMBLING AND FRIABLE, WITH MISSING SECTIONS
12. APPLICATION OF SEALANT AT GLAZING
13. CRACK IN WINDOW GLAZING
14. ALUMINUM HANDRAIL NOT SECURE IN PLACE
15. DAMAGED RAIN LEADER
16. WATER POOLING DUE TO INSUFFICIENT ROOF SLOPE
17. TYPICAL CONDITION AT RAMP: VERTICAL DISPLACEMENT BETWEEN SLAB AND STUCCO WALL, OUTSIDE WALLS STRUCTURAL UNSOUND WITH OUTWARD DISPLACEMENT AT TOP, AND BIOLOGICAL GROWTH AT TOP OF SLAB.

CONDITIONS ASSESSMENT BASED ON MAY 2000 SITE VISIT

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	EC 14	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	—
TECH. REVIEW:			PKG. NO. — / SHEET — OF —
DATE: 20 APRIL 01			

ARCHITECTURAL RESOURCES GROUP

Appendix B. Alternative Treatment Drawings, dated April 20, 2001.



NEW OFFICE SPACE

UNPROGRAMMED OPEN OFFICE SPACE	5690 SQ. FT. x .80 = 4552 SQ. FT.	36 OCCUPANTS

NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

EXISTING OFFICE SPACE

5 INDIVIDUAL OFFICE SPACES	764 SQ. FT.	5 OCCUPANTS
4 SHARED OFFICE SPACES	1199 SQ. FT.	9 OCCUPANTS
2 OPEN OFFICE SPACES	1822 SQ. FT.	14 OCCUPANTS
TOTAL OFFICE SPACE	3785 SQ. FT.	28 OCCUPANTS

RELOCATED LIBRARY

STACK SPACE / READING ROOM	711 SQ. FT.	7 OCCUPANTS
2 SHARED OFFICE SPACES	372 SQ. FT.	3 OCCUPANTS

RELOCATED COMMUNICATIONS CENTER

5 SPACES + UNISEX ACCESSIBLE TOILET	895 SQ. FT.	7 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	8712 SQ. FT.	67 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	3076 SQ. FT.	17 OCCUPANTS
2ND FLOOR - OFFICE	3187 SQ. FT.	23 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	14,975 SQ. FT.	107 OCCUPANTS

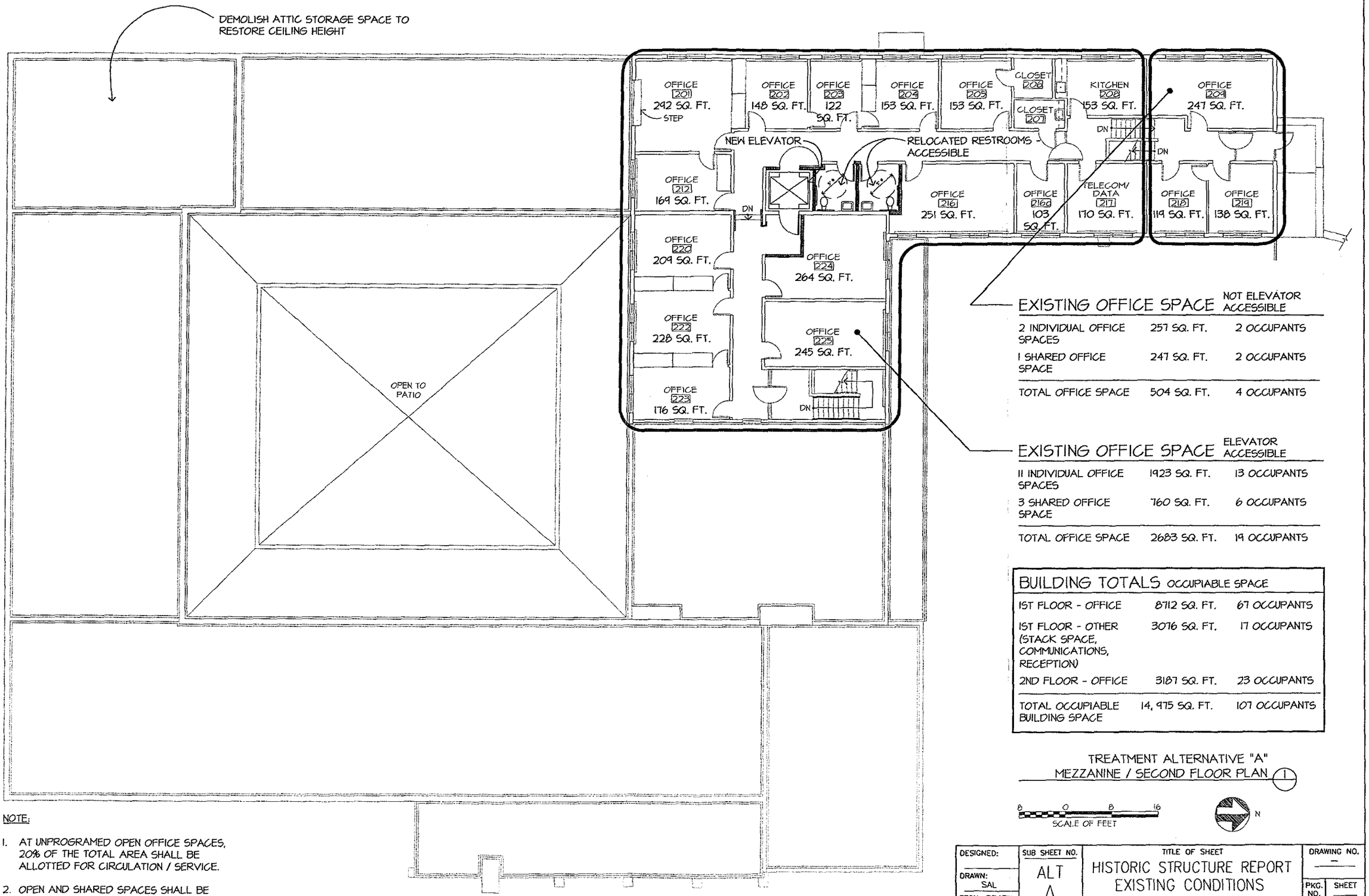
CENTRALIZED RECEPTION / DISPLAY

SPACE FOR MULTIPLE RECEPTION AREAS SERVING ENTIRE BUILDING, EMPLOYEE DISPLAYS	1470 SQ. FT.	3 OCCUPANTS

TREATMENT ALTERNATIVE "A"
FIRST FLOOR PLAN (1)

DESIGNED:	SUB SHEET NO. ALT A	TITLE OF SHEET HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	DRAWING NO. —
DRAWN: SAL			PKG. NO. — SHEET — OF —
TECH. REVIEW:			
DATE: 20 APRIL 01			

ARCHITECTURAL RESOURCES GROUP



EXISTING OFFICE SPACE		NOT ELEVATOR ACCESSIBLE
2 INDIVIDUAL OFFICE SPACES	257 SQ. FT.	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT.	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT.	4 OCCUPANTS

EXISTING OFFICE SPACE		ELEVATOR ACCESSIBLE
11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT.	13 OCCUPANTS
3 SHARED OFFICE SPACE	760 SQ. FT.	6 OCCUPANTS
TOTAL OFFICE SPACE	2683 SQ. FT.	19 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE		
1ST FLOOR - OFFICE	8712 SQ. FT.	67 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	3076 SQ. FT.	17 OCCUPANTS
2ND FLOOR - OFFICE	3187 SQ. FT.	23 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	14,975 SQ. FT.	107 OCCUPANTS

TREATMENT ALTERNATIVE "A"
MEZZANINE / SECOND FLOOR PLAN (1)

8 0 8 16
SCALE OF FEET

N

NOTE:

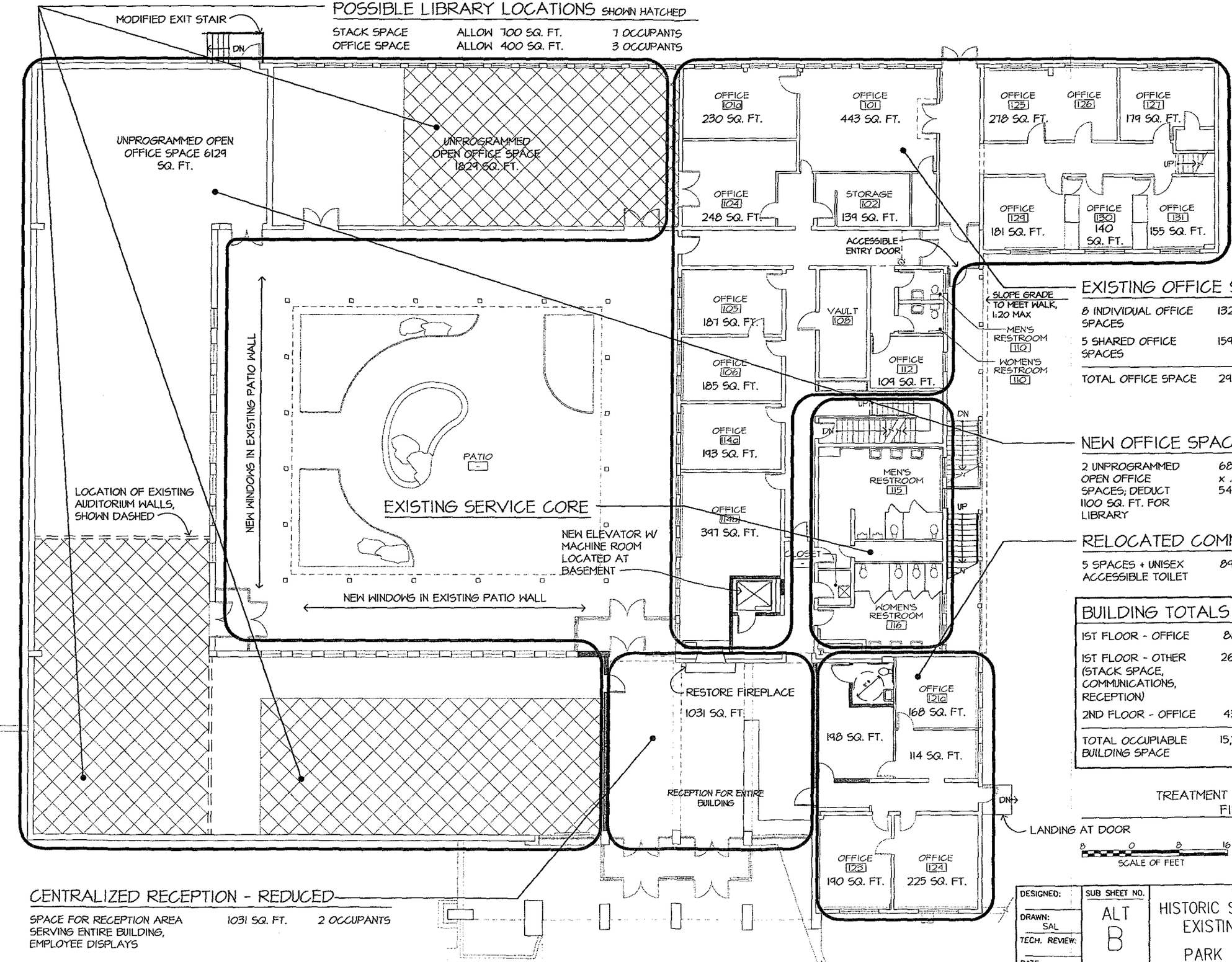
1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

ARCHITECTURAL RESOURCES GROUP

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT A	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS PARK HEADQUARTERS GRAND CANYON NATIONAL PARK	—
TECH. REVIEW:			PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01			

POSSIBLE LIBRARY LOCATIONS SHOWN HATCHED

STACK SPACE	ALLOW 700 SQ. FT.	7 OCCUPANTS
OFFICE SPACE	ALLOW 400 SQ. FT.	3 OCCUPANTS



NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

EXISTING OFFICE SPACE

8 INDIVIDUAL OFFICE SPACES	1329 SQ. FT.	8 OCCUPANTS
5 SHARED OFFICE SPACES	1596 SQ. FT.	13 OCCUPANTS
TOTAL OFFICE SPACE	2925 SQ. FT.	21 OCCUPANTS

NEW OFFICE SPACE

2 UNPROGRAMMED OPEN OFFICE SPACES; DEDUCT 1100 SQ. FT. FOR LIBRARY	6858 SQ. FT. x .80 = 5486 SQ. FT.	44 OCCUPANTS

RELOCATED COMMUNICATIONS CENTER

5 SPACES + UNISEX ACCESSIBLE TOILET	895 SQ. FT.	7 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	8811 SQ. FT.	68 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2626 SQ. FT.	16 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ. FT.	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	15,778 SQ. FT.	114 OCCUPANTS

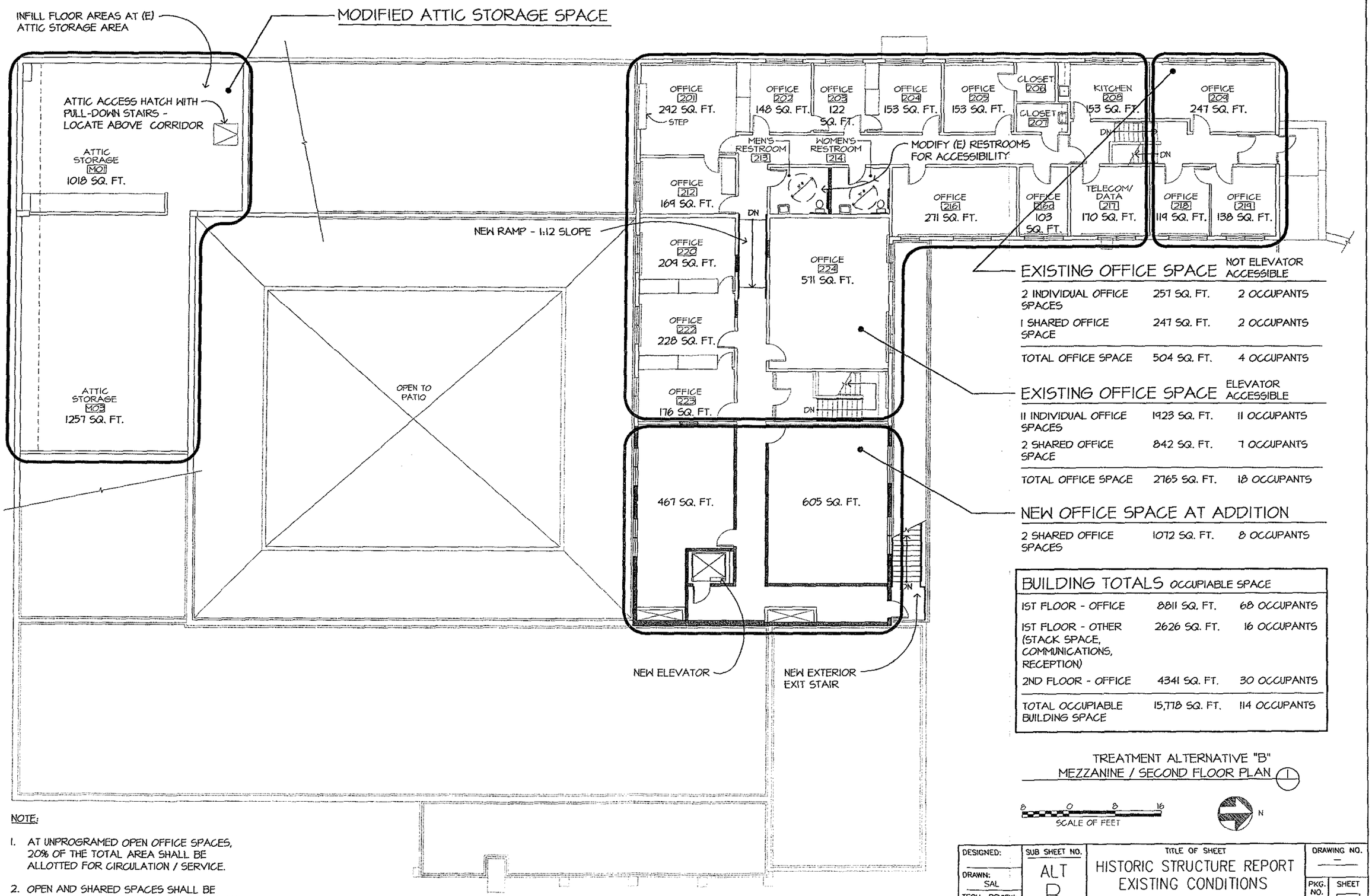
TREATMENT ALTERNATIVE "B"
FIRST FLOOR PLAN (1)

CENTRALIZED RECEPTION - REDUCED

SPACE FOR RECEPTION AREA SERVING ENTIRE BUILDING, EMPLOYEE DISPLAYS	1031 SQ. FT.	2 OCCUPANTS

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT B	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	

ARCHITECTURAL RESOURCES GROUP



EXISTING OFFICE SPACE — NOT ELEVATOR ACCESSIBLE

2 INDIVIDUAL OFFICE SPACES	257 SQ. FT.	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT.	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT.	4 OCCUPANTS

EXISTING OFFICE SPACE — ELEVATOR ACCESSIBLE

11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT.	11 OCCUPANTS
2 SHARED OFFICE SPACE	842 SQ. FT.	7 OCCUPANTS
TOTAL OFFICE SPACE	2765 SQ. FT.	18 OCCUPANTS

NEW OFFICE SPACE AT ADDITION

2 SHARED OFFICE SPACES	1072 SQ. FT.	8 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	8811 SQ. FT.	68 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2626 SQ. FT.	16 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ. FT.	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	15,778 SQ. FT.	114 OCCUPANTS

TREATMENT ALTERNATIVE "B"
MEZZANINE / SECOND FLOOR PLAN (1)

8 0 8 16
SCALE OF FEET

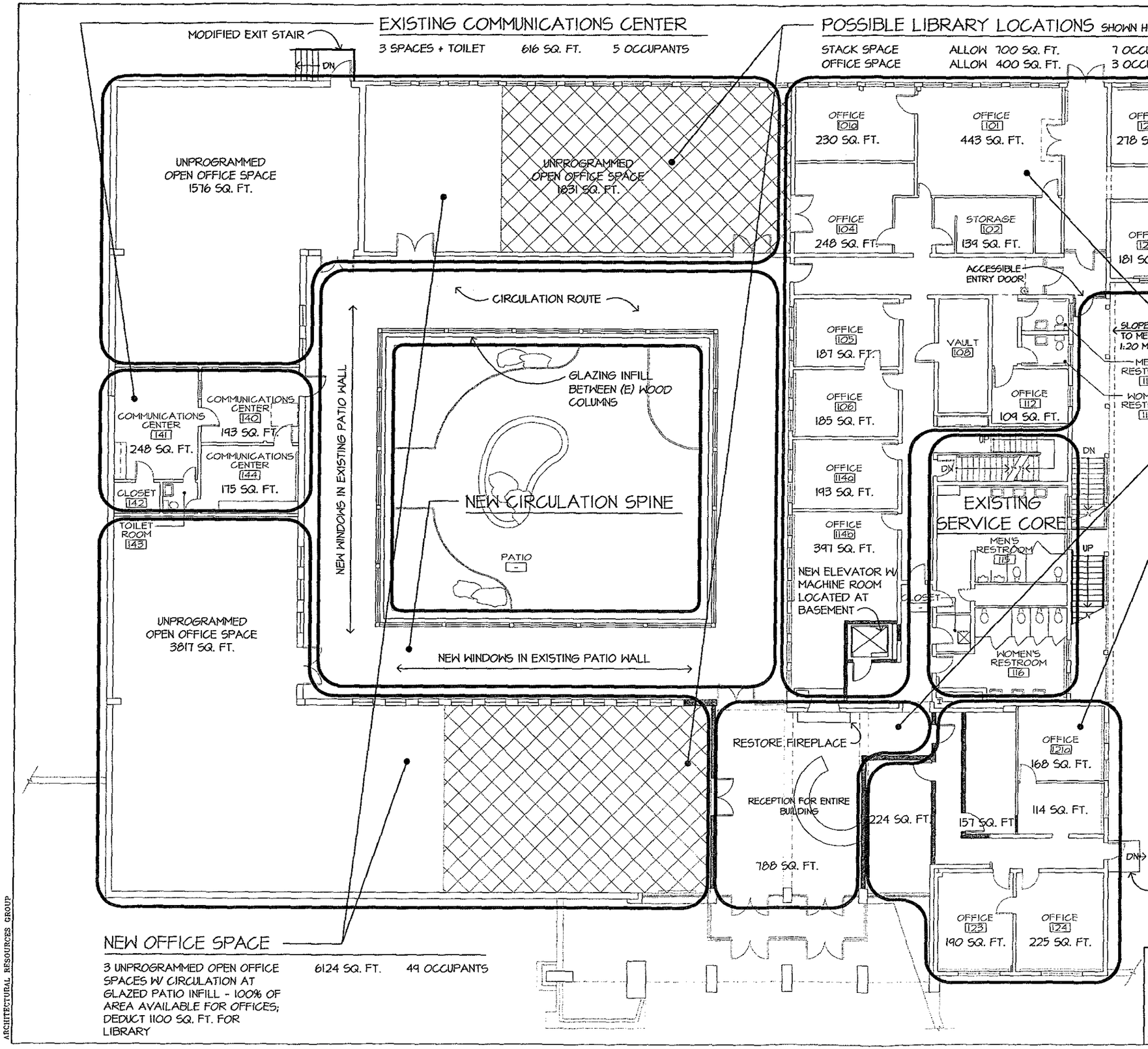
N

NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

ARCHITECTURAL RESOURCES GROUP

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT B	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	



NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, CIRCULATION SHALL OCCUR THROUGH THE GLAZED INFILL AREA AT PATIO. THE ENTIRE SPACE WILL BE ALOTTED TO OFFICE OCCUPANCY, WITHOUT THE 20% CIRCULATION DEDUCTION.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

EXISTING OFFICE SPACE

8 INDIVIDUAL OFFICE SPACES	1329 SQ. FT.	8 OCCUPANTS
5 SHARED OFFICE SPACES	1596 SQ. FT.	13 OCCUPANTS
TOTAL OFFICE SPACE	2925 SQ. FT.	21 OCCUPANTS

CENTRALIZED RECEPTION - REDUCED

SPACE FOR RECEPTION AREA SERVING ENTIRE BUILDING	788 SQ. FT.	2 OCCUPANTS

EXPANDED OFFICE SPACE

4 INDIVIDUAL OFFICE SPACES	629 SQ. FT.	4 OCCUPANTS
2 SHARED OFFICE SPACES	449 SQ. FT.	4 OCCUPANTS
TOTAL OFFICE SPACE	1078 SQ. FT.	8 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	10,527 SQ. FT.	81 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2104 SQ. FT.	14 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ. FT.	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	16,972 SQ. FT.	125 OCCUPANTS

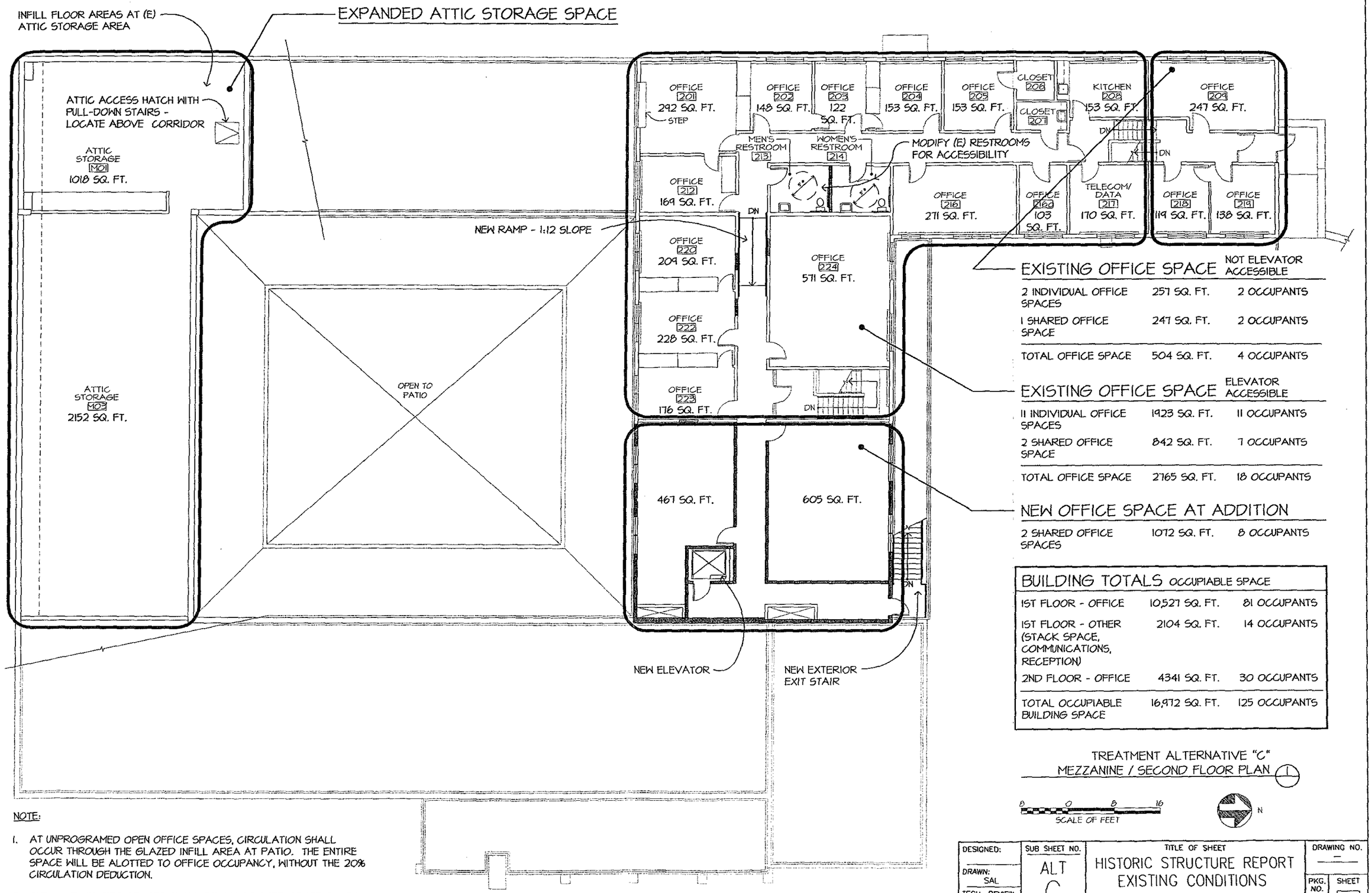
TREATMENT ALTERNATIVE "C"
FIRST FLOOR PLAN (1)

NEW OFFICE SPACE

3 UNPROGRAMMED OPEN OFFICE SPACES W/ CIRCULATION AT GLAZED PATIO INFILL - 100% OF AREA AVAILABLE FOR OFFICES; DEDUCT 1100 SQ. FT. FOR LIBRARY — 6124 SQ. FT. — 49 OCCUPANTS

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT C	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — SHEET —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	OF —

ARCHITECTURAL RESOURCES GROUP



EXISTING OFFICE SPACE — NOT ELEVATOR ACCESSIBLE

2 INDIVIDUAL OFFICE SPACES	257 SQ. FT.	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT.	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT.	4 OCCUPANTS

EXISTING OFFICE SPACE — ELEVATOR ACCESSIBLE

11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT.	11 OCCUPANTS
2 SHARED OFFICE SPACE	842 SQ. FT.	7 OCCUPANTS
TOTAL OFFICE SPACE	2765 SQ. FT.	18 OCCUPANTS

NEW OFFICE SPACE AT ADDITION

2 SHARED OFFICE SPACES	1072 SQ. FT.	8 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	10,527 SQ. FT.	81 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2104 SQ. FT.	14 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ. FT.	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	16,972 SQ. FT.	125 OCCUPANTS

TREATMENT ALTERNATIVE "C"
MEZZANINE / SECOND FLOOR PLAN (1)

8 0 8 16
SCALE OF FEET

N

NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, CIRCULATION SHALL OCCUR THROUGH THE GLAZED INFILL AREA AT PATIO. THE ENTIRE SPACE WILL BE ALOTTED TO OFFICE OCCUPANCY, WITHOUT THE 20% CIRCULATION DEDUCTION.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT C	HISTORIC STRUCTURE REPORT EXISTING CONDITIONS	—
TECH. REVIEW:		PARK HEADQUARTERS	PKG. NO. — SHEET — OF —
DATE: 20 APRIL 01		GRAND CANYON NATIONAL PARK	

ARCHITECTURAL RESOURCES GROUP

Appendix C. Code Analysis.

Preliminary Code Analysis and Accessibility Evaluation

The following codes have been referenced for this analysis: the 1997 edition of the Uniform Building Code; the 1997 Uniform Mechanical Code; the 1996 Uniform Electrical Code; the 1994 Uniform Plumbing Code; and the 1997 Uniform Fire Code.

Although not a building code, the Americans with Disabilities Act (ADA) is a federal civil rights law that governs accessibility to buildings for the disabled. National Park Service (NPS) Director's Order #28 (release 5, 1997) requires all historic structures to be made accessible to the highest degree for visitors and employees. Because the intent of the ADA is not necessarily addressed in the building code, a review of a project pursuant to ADA requirements is included in the following preliminary code analyses. The following standards have been referenced for this analysis: ADA Accessibility Guidelines for Buildings and Facilities (ADAAG), amended January 1998, and the Uniform Federal Accessibility Standards (UFAS). Where there is a discrepancy between ADAAG and UFAS, the NPS is required to follow the guidelines that provide equal or greater accessibility.

As indicated above, the following code analysis is preliminary. To facilitate future design work, this code analysis attempts to cite all major ways in which the building does not comply with prevailing codes. If the UBC suggests that a condition may remain subject to verification with the building official, the non-compliant condition is typically noted and qualified.

This analysis is based on the footprint of the existing building, similar to Treatment Alternative A; rather than Alternatives B and C, which propose additions to the existing building. As a program for the park headquarters has not yet been established, certain assumptions will be made concerning the allocation of space. The spaces at the north and west sides of the first floor and the entire second floor shall remain in their existing configuration and use as office space. The spaces at the east and south sides of the first floor shall be reconfigured in some manner for office use. Following the example of double loaded corridors at the north side, 20% of the square footage shall be allotted to circulation.

An outline of major code issues follows:

1) Occupancy Classification: Chapter 10 of the UBC establishes the available number of occupants in the building, (a ratio referred to as occupant load) and Chapter 3 outlines occupancy requirements. The following matrix excludes square footages for service areas occupied or used by the occupants of the major rooms; these spaces include circulation (corridors and staircases), toilet rooms, and closets. The rooms discussed below are shown on the building plans. Based on the table below, the total occupancy load for the existing office space is 81 people. The total occupancy load for the future, unprogrammed space is 60 people.

Area and Occupancy Matrix

SPACE	NET AREA (SQ. FT)	USE	OCC. LOAD (SQ. FT / OCC.)	NO. OF OCCS.	OCCU-PANCY
Basement Mechanical Room	721	mechanical room	721 /300	3	not assigned
BASEMENT TOTAL	**721**	-	-	**3**	-
1st Floor Existing Office Space	3865	office	3865 / 100	39	B
1st Floor Future Office Space	7548 x .80 = 6038	office, to be programmed	6038 / 100	60	B
FIRST FLOOR TOTAL	**9903**	-	-	**99**	-
Mezzanine Storage	1494	storage	1494 / 300	5	S-2
MEZZANINE TOTAL	**1494**	-	-	**5**	-
Mezzanine Office	504	office	504 / 100	5	B
2nd Floor Existing Office Space	2907	office, break room	2907 / . 100	29	B
SECOND FLOOR TOTAL	**3411**	-	-	**34**	-
BUILDING TOTAL	**15,529**	-	-	**141**	-

2) Type of Construction: The existing construction is type V, non-rated, as defined in Chapter 6 of the UBC.

3) Allowable Area / Allowable Height: Floor area includes the gross area of the building, as well as those usable exterior areas under the horizontal projection of the roof at the main entry, north service porch, and patio. The total floor area of a building cannot exceed the allowable areas set forth in Table 5-B of the UBC. This table also limits the number of building stories. The allowable areas and heights may be increased with the addition of an automatic sprinkler system.

Allowable Area / Height Matrix

BUILDING	OCCUPANCY	ACTUAL AREA	ALLOWED AREA (Type V-N Const.)	ALLOWED HEIGHT / (Type V-N Const.)	PERMITTED OR NOT IN BUILDING
Park Headquarters	B	28,107 (20,880 at first floor)	32,000 (no single story shall exceed 16,000)	2	Not Permitted
Park Headquarters w/ automatic sprinkler system	B	28,107 (20,880 at first floor)	64,000 (no single story shall exceed 32,000)	3	Permitted

4) The following is a preliminary code analysis of the Park Headquarters, addressing only major code issues that have a bearing on facility planning issues and including suggested resolutions to broad code issues:

UBC INCLUDING LIFE SAFETY/DISABLED ACCESS REQUIREMENTS	RESOLUTION OF CODE ISSUES
The first floor square footage is limited to 16,000 square feet for a type V-N construction by UBC Table 5-B.	The first floor exceeds 16,000 square feet. Install an automatic sprinkler system to increase the first floor allowable area to 32,000 square feet.
Per UBC Section 509.2, the top of guardrails shall not be less than 42" in height.	The exterior guardrail at north stair to the basement is currently 36" in height. It should be replaced with a guardrail 42" in height of a similar design.
UBC Section 1003.3.1.6 requires a level floor surface at either side of a door. Per UBC Section 1003.3.1.7, doors at stair landings may not project into the required width more than 7". Stair landings are required to be 44" minimum in the direction of travel. Doors at stair landings must also conform with ADA clearances.	The exterior door at the northeast office wing has a step at its threshold. A landing level with the floor level should be provided at the exterior. The west exit door from the library currently projects more than 7" onto the landing. The door swing should be reversed and the landing enlarged for ADA.
UBC Section 1004.2.2 requires that rooms with an occupant load of 10 or greater have direct access to an exit or corridor. Travel may not occur through intervening rooms. Whatever the configuration of new office space at the south end of the building, it is likely that exiting will occur through the patio. Under code, interior courts, such as the patio, are considered intervening rooms unless direct access to an exit or corridor is provided.	Locker Room #103 is blocking direct access from the patio to the exit corridor. It should be removed, and the area should be returned to its original use as a corridor.
Corridors shall have walls and ceilings of not less than one-hour construction with 20 minute rated doors per UBC Sections 1004.3.4.3 and 1004.3.4.3.2.1.	NFPA 101 (2000), Section 38.3.6.1, Exception 3 allows a non-fire rated corridor where the building is sprinklered throughout. An automatic sprinkler system is proposed.

ADAAG 4.1.6 (1) (a) requires that alterations to existing building not reduce the number of accessible means of egress. The building currently has two accessible means of egress; however, the removal of the ramp at the front elevation will reduce this number to one.	The main entry shall continue to serve as one of the required means of entry and egress. The removal of the vestibules will provide the proper clearances at the doors. The entry / egress doors at the north covered walk can be modified to provide the second means of egress. A single 3'-0" door leaf should replace the narrow double doors. The interior vestibule should be removed. A 1:20 exterior ramp from the asphalt parking area to the covered concrete walk should be installed to span the 4-6" difference in levels. The creation of a second accessible entry / exit near the parking lot will provide better access than the existing ramp.
Chapter 11 of the UBC require an accessible path of travel, including accessible parking and/or drop-off, and an accessible path to the building and all of its primary functions.	Provide an accessible parking lot with an accessible path from parking spaces to the accessible entry. Provide handrail extensions at stairs. Provide accessible toilet rooms, including proper door widths, and drinking fountains. Modify kitchen for accessibility. Replace existing door hardware with levers. Provide ADA room signage within the building and site signage at the exterior. Although an elevator is not required under ADA , installation of an elevator, serving the second floor, would better conform with the Park's intent of providing greater accessibility to all buildings. ADAAG Section 4.1.6 (1) (k), Exception i, indicates that installation of an elevator is not required in alteration projects, provided the project meets the requirements of Section 4.1.3. This section does not require elevators for private facilities that are less than three stories or that have less than 3000 square feet per story. The exception for stories less than 3000 square feet should be used for the split level at the north wing, as it will be difficult to locate an elevator serving all three levels, without major disruption to the existing office configurations.
ADAAG Section 4.5.1 requires that accessible paths of travel provide level floor surfaces. Changes in floor level up to ¼" vertical are allowed. Changes up to ½" are allowed with a bevel.	The existing flagstone paving at the entry, lobby, and patio is irregular in nature. For the most part, it meets ADA requirements. However, a few areas exceed the allowance. A waiver should be obtained for the existing condition.
ADAAG Section 4.13.5 and UBC Section 1003.3.1.3 require that exit doors provide 32" clear opening width.	Many of the office doors in the 1955 portions of the building are 2'-8" wide, with 31.5" between jambs. ADAAG 4.1.6 (3) (d) allows a 5/8" projection into the required clearance for existing buildings. The hinges at the existing doors should be replaced with offset hinges to allow for a 31.5" clear opening when the doors are in the fully opened position.

ADAAG 4.13.7 requires that hinged doors in a series have a minimum of 48"clear between each door.	Many of the vestibules provide less than 48" in clear space. These vestibules should be increased to provide minimum clearances or equipped with automatic door openers.
The greater provision for accessibility under UFAS Section 4.1.6 [3] [c] [ii] requires at least one toilet facility for each sex on each substantially altered floor, where such facilities are provided.	The existing men's and women's toilet rooms at the second floor are currently inaccessible. They shall be reconfigured to provide accessible facilities. The unisex toilet room in the communications center is also inaccessible. As communications center employees are required to remain in the secure office for the full length of their shift, they will not be able to use the accessible toilet facilities at the north end of the first floor. An accessible facility should be provided within the communications center.

Appendix D. Historic Photographs of Visitor Center and Park Headquarters in Chronological Order.

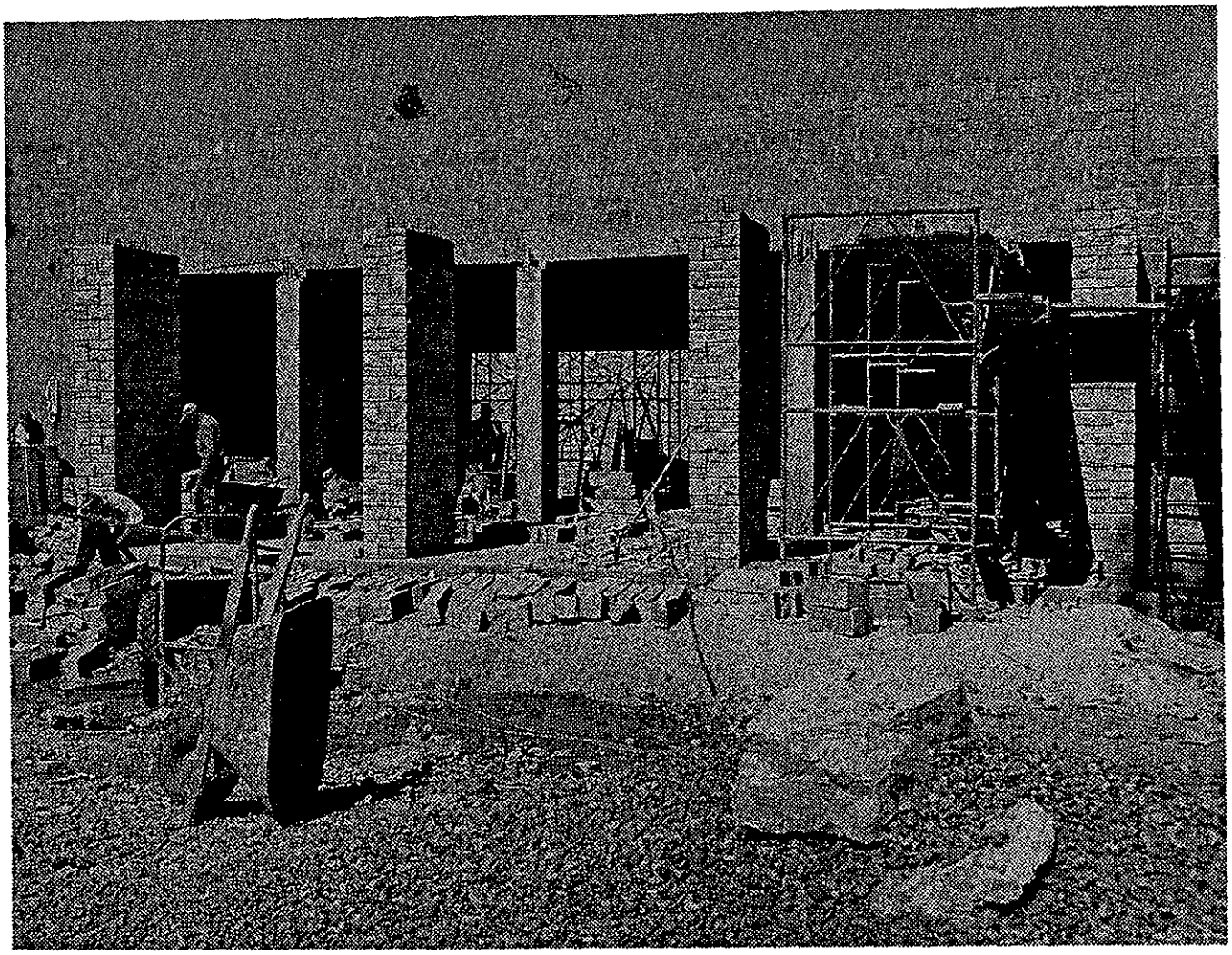


Figure 1. This image illustrates the principal facade of the Visitor Center during construction and provides excellent documentation of the construction technology. The structural system is concrete block on a cast-in-place concrete foundation. Stucco was applied directly to the cast-in-place concrete and concrete block. Note that piers are clad in a stone veneer. Photo dated 1957. GCNPA Photo Number 3728.

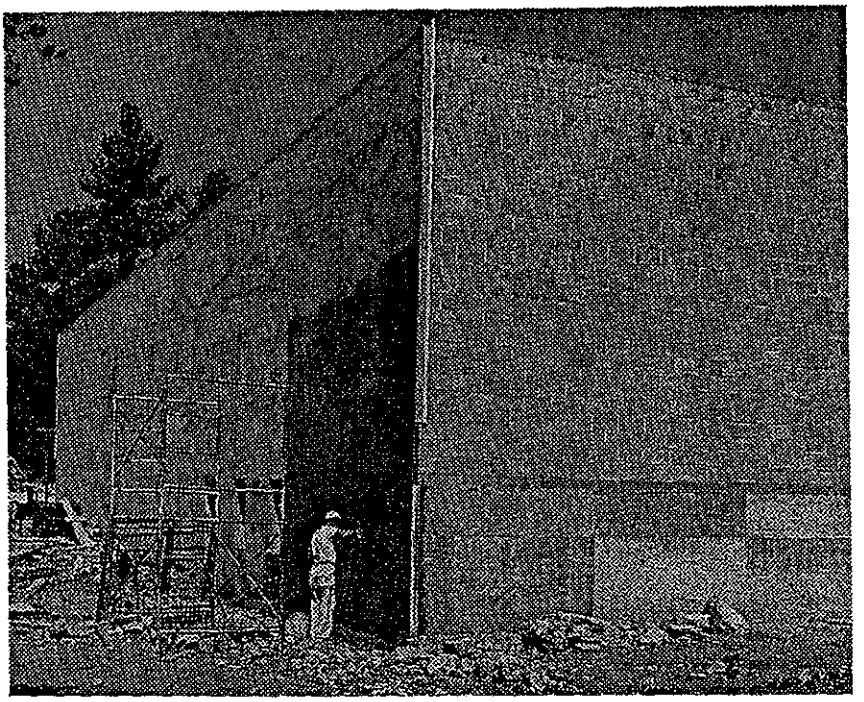


Figure 2. This image illustrates the southeast corner of the Visitor Center during construction. A worker is seen applying what is presumably the first coat of stucco directly to the concrete block masonry walls. View is looking west. Photo dated 1957. GCNPA Photo Number 3731.

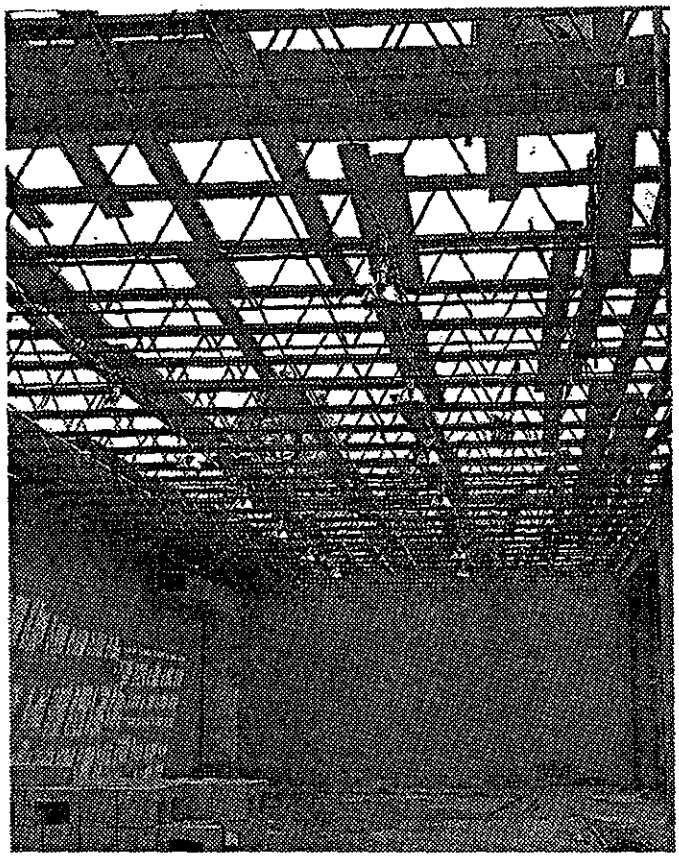


Figure 3. This image illustrates the interior of the Visitor Center during construction and provides excellent documentation of the roof framing. The image is of the interior space at the front of the building, looking west. Photo dated 1957. GCNPA Photo Number 3730.

Figure 4. This image illustrates the interior courtyard of the Visitor Center during construction. Note the chimney and flue in the background, tapered wood columns, and masonry construction of the planting beds. Photo dated 1957. GCNPA Photo Number 3726.

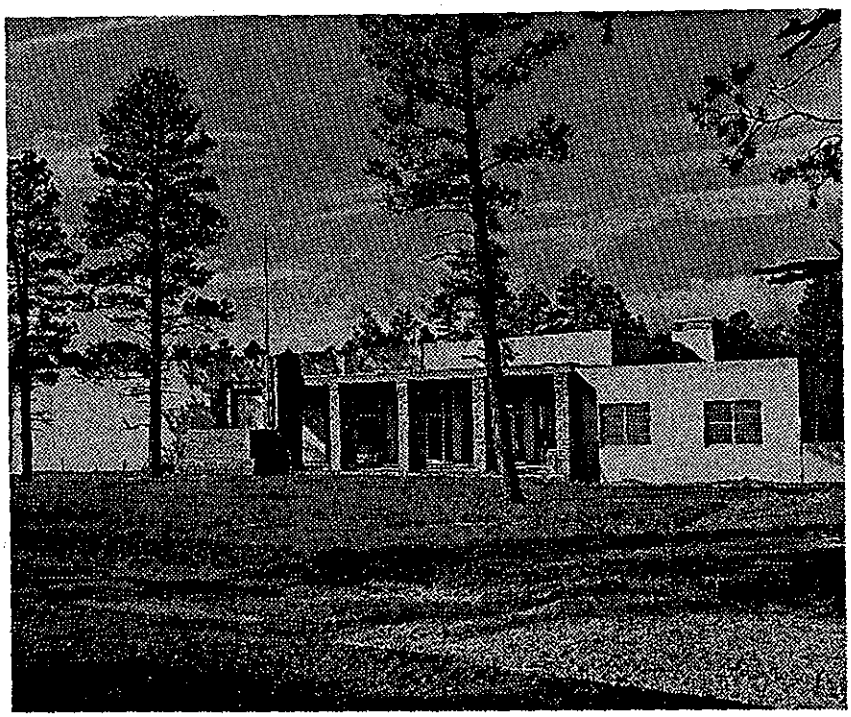


Figure 5. This image illustrates the principal elevation of the Visitor Center just before the building's completion. Note the absence of the entrance sign. Photo dated 1957. GCNPA Photo Number 3712.

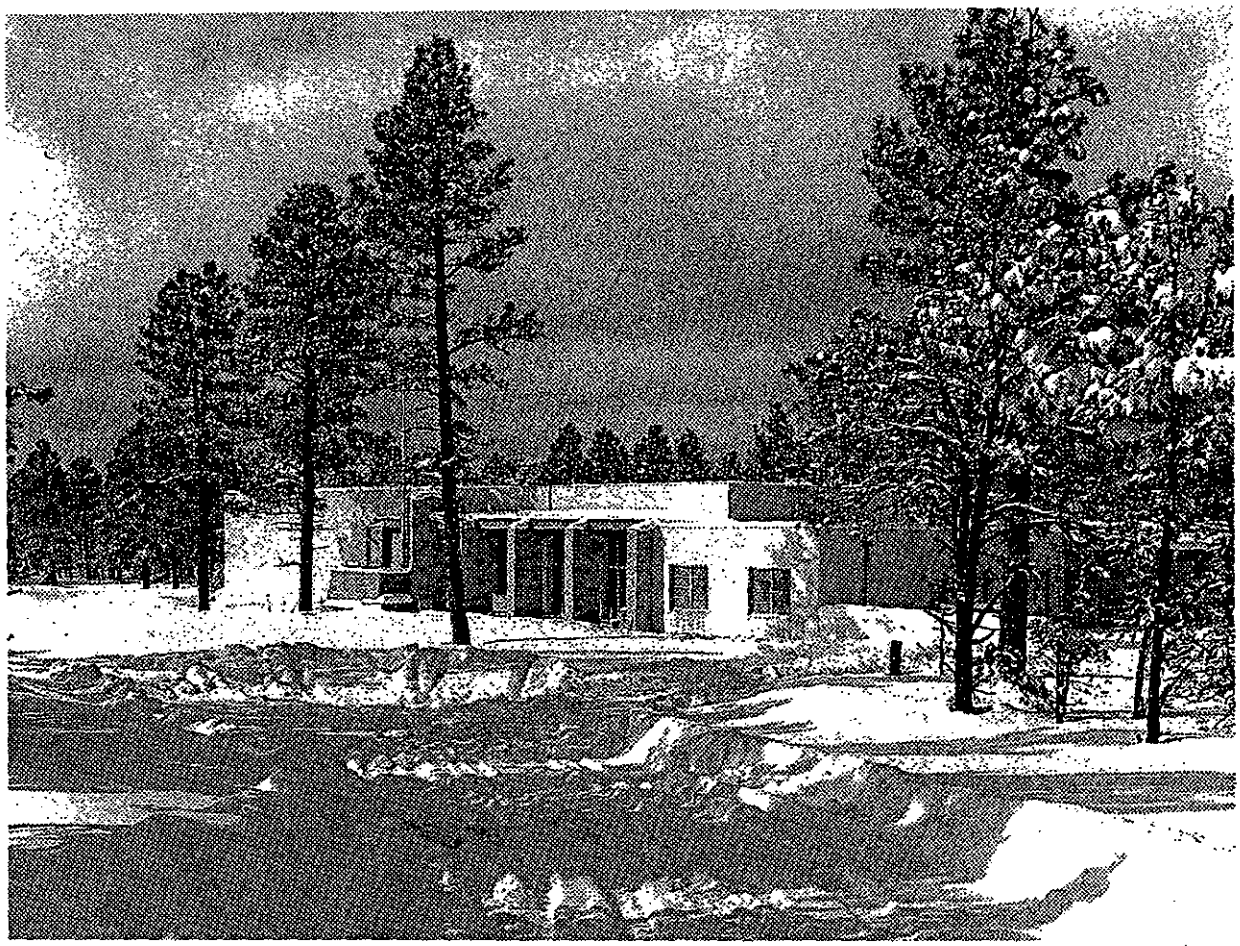


Figure 6. This image illustrates the principal elevation of the Visitor Center in wintertime. The image of the building amidst snowy conditions vividly illustrates the Mission 66 philosophy that sought to achieve an intentional architectural simplicity that deferred to the landscape. At the time this photo was taken, the building was not yet complete. Note the absence of the entrance sign. Photo undated. GCNPA Photo Number 3244.

Figure 7. This image illustrates the original view from the entrance lobby into the exhibit and display space, now the gift shop. Note the single set of doors that exit to the courtyard; second set forming a vestibule had not yet been added at the time this photo was taken. This voluminous interior space was characterized by a wide open expanse, flagstone paving, blonde wood finish on the partition wall, polished to a sheen, all contributing to a light, spacious and airy interior. Photo dated 1957. GCNPA Photo Number 3738.

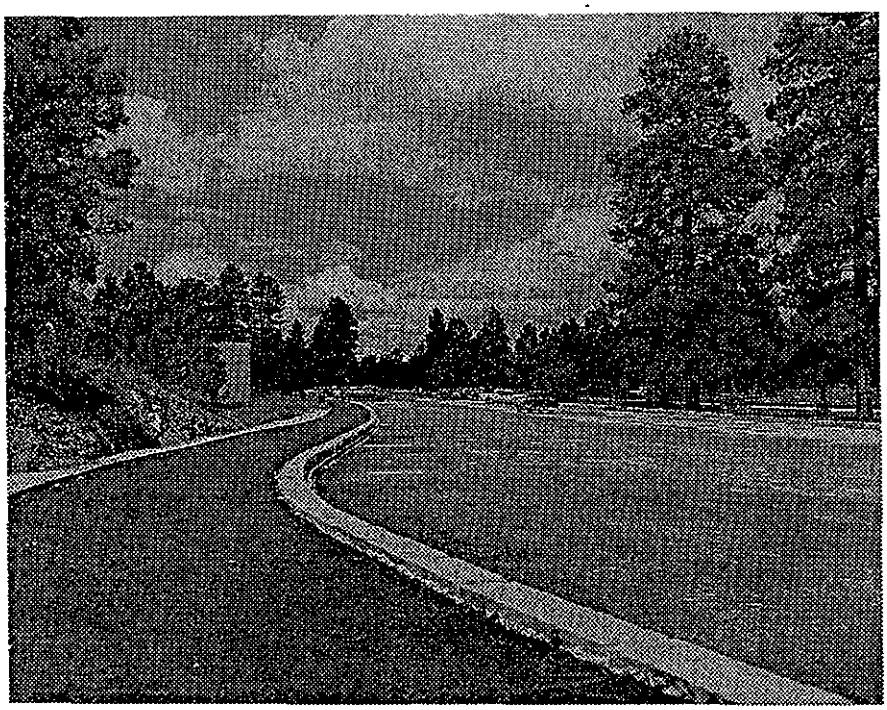


Figure 8. This image illustrates paving and parking for the newly constructed visitor center. A central feature of the visitor center building type was the provision of ample parking. The visitor center made it possible for people to park their cars at a central point, and from there have access to a range of services or attractions. Photo dated 1957. GCNPA Photo Number 4708.

Figure 9. This image illustrates the north elevation at the time of the original construction. Note that the walls of the bull-pen parking lot have not yet been constructed. The photo shows this elevation before the second story addition of 1966. Photo dated 1958. GCNPA Photo Number 3774.

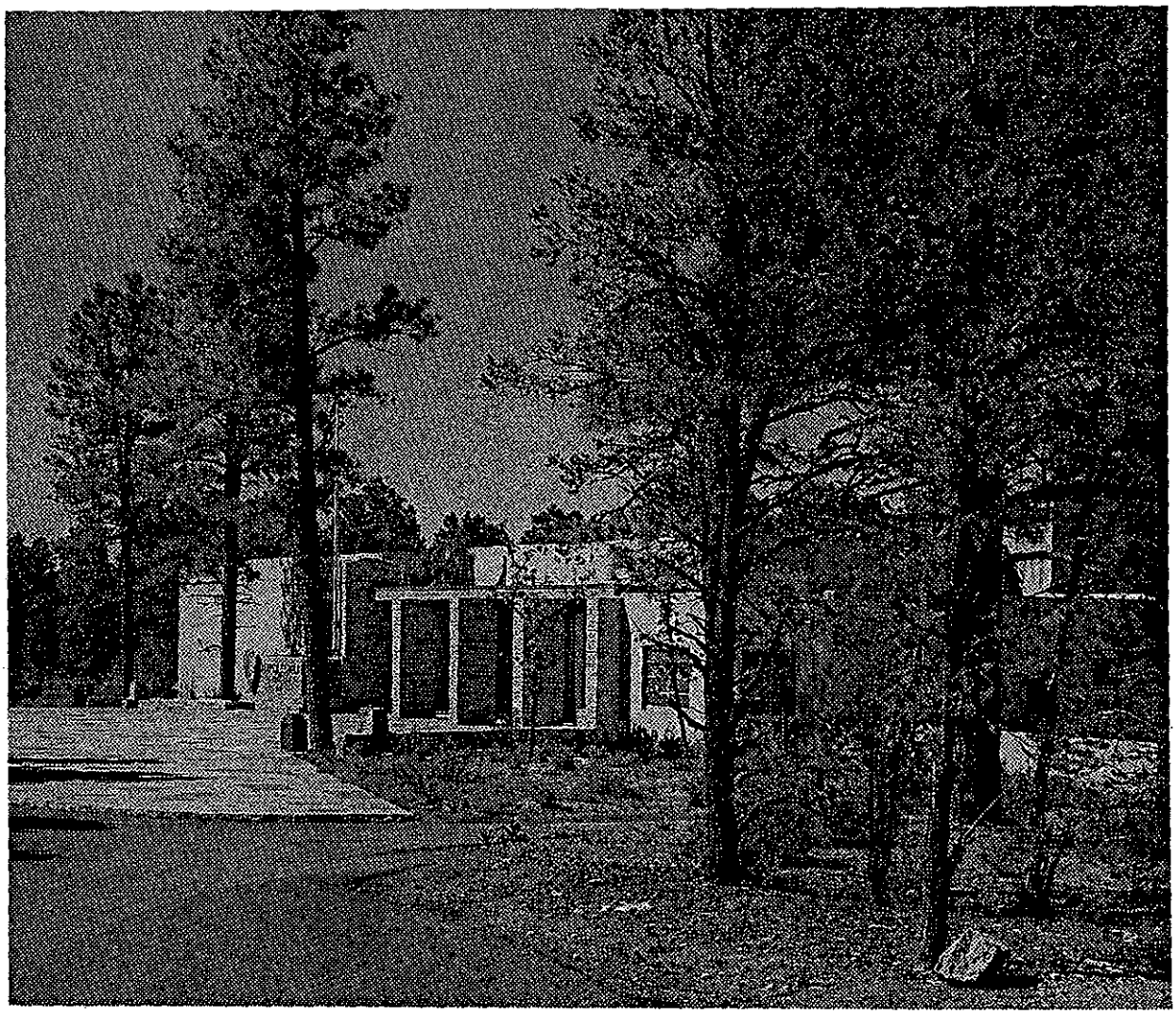


Figure 10. This image illustrates the principal elevation of the Visitor Center. The architect, Doty, relied upon the existing landscape to screen the building so that the structure would be slowly revealed to the traveler and emerge through the trees as one drove by. The perception of the building by the visitor during the entrance sequence was carefully considered. Note the entrance sign reads 'Visitor Center' only. Photo dated 1958. GCNPA Photo Number 3392.

Figure 11. This image illustrates an historic boat display in interior courtyard of the Grand Canyon Visitor Center. The building program sought to educate. Exhibits and displays of all types were included. Many disciplines of history and science related to the Canyon formed a part of the educational program. Photo dated 1959. GCNPA Photo Number 3424.

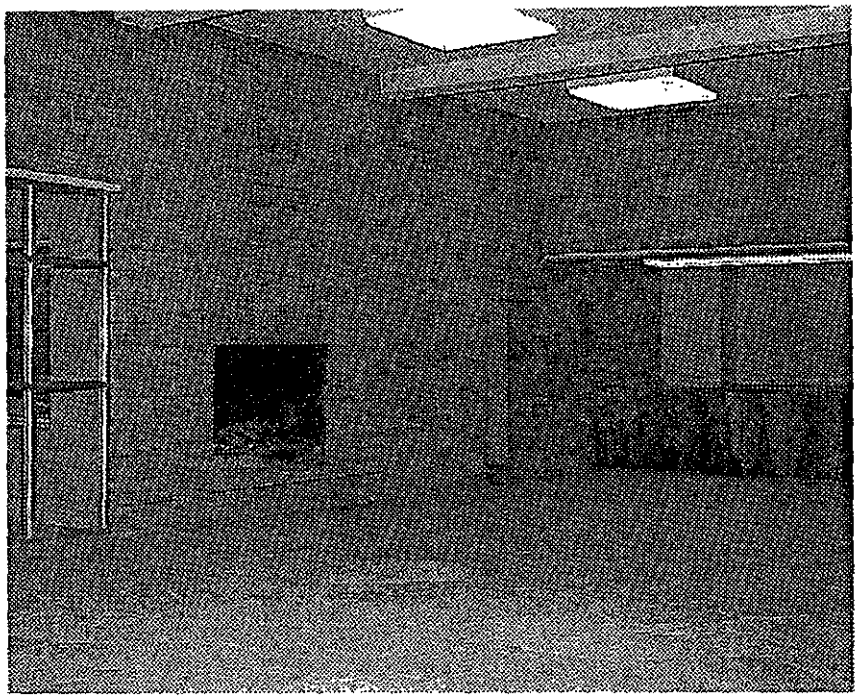


Figure 12. This image illustrates the entrance lobby of the Visitor Center. Note space of future information desk to the right, the doors that exit to the interior courtyard to the left and the flagstone paving on interior that extends out in front of the building. Photo dated 1957. GCNPA Photo Number 3732.

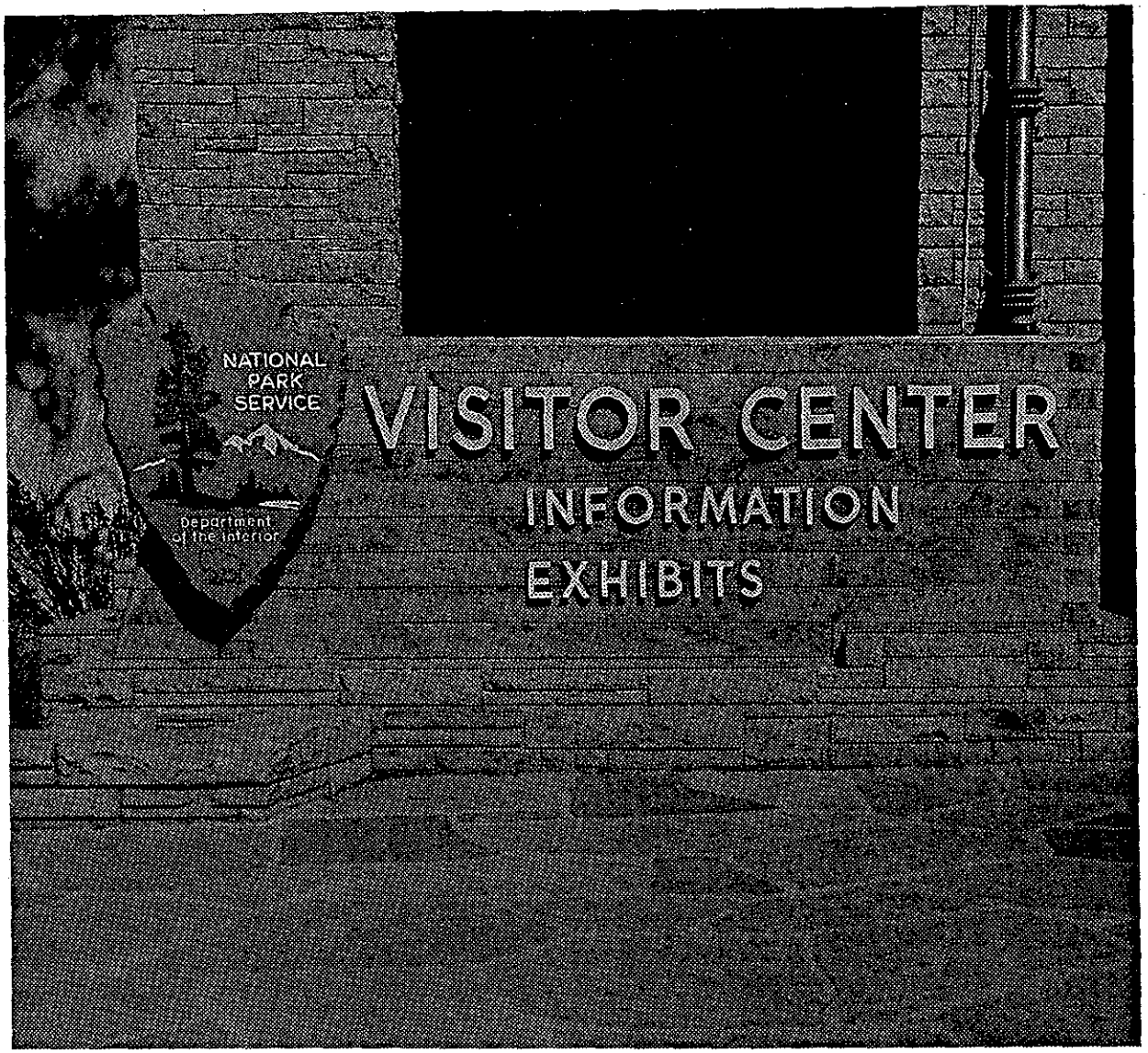


Figure 13. This image illustrates the Visitor Center entrance sign before building was titled Park Headquarters. The sign, complete with the NPS arrowhead logo, has remained in front of the Grand Canyon Visitor Center since construction though its lettering has been altered to reflect changing uses of the building. The aluminum san serif letters are typical of the 50s and are a character-defining feature. Photo dated 1959. GCNPA Photo Number 3485.

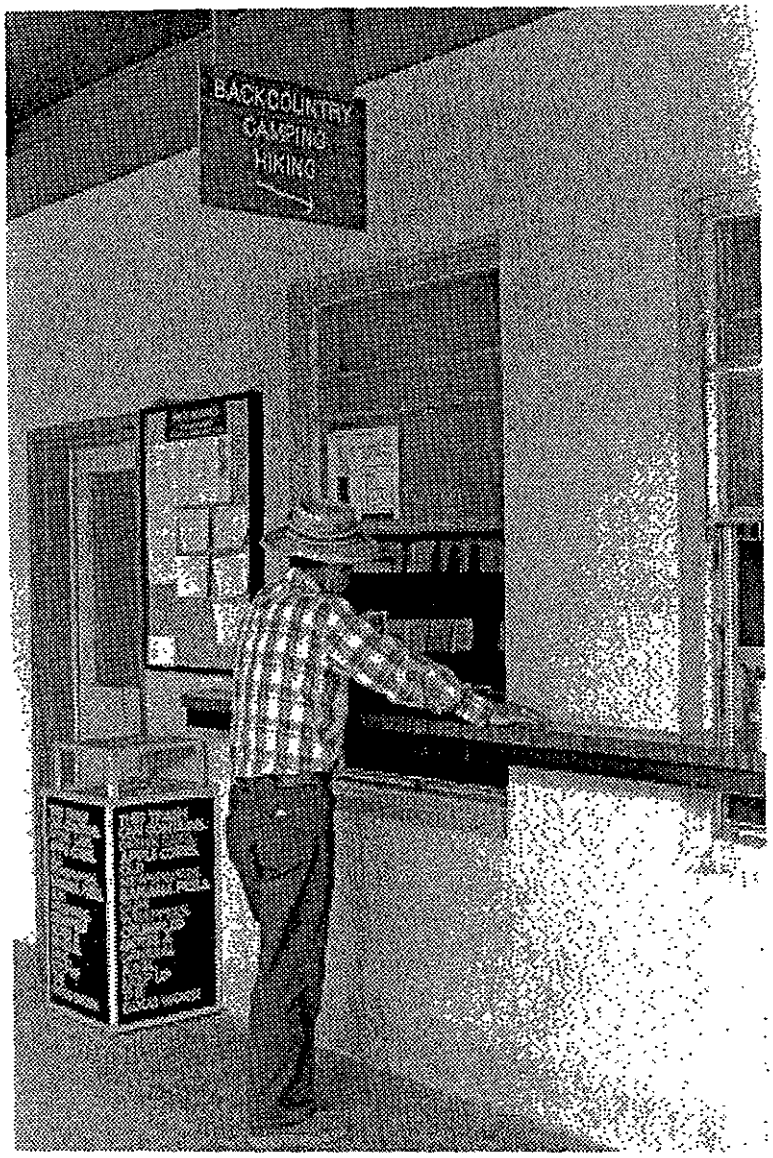
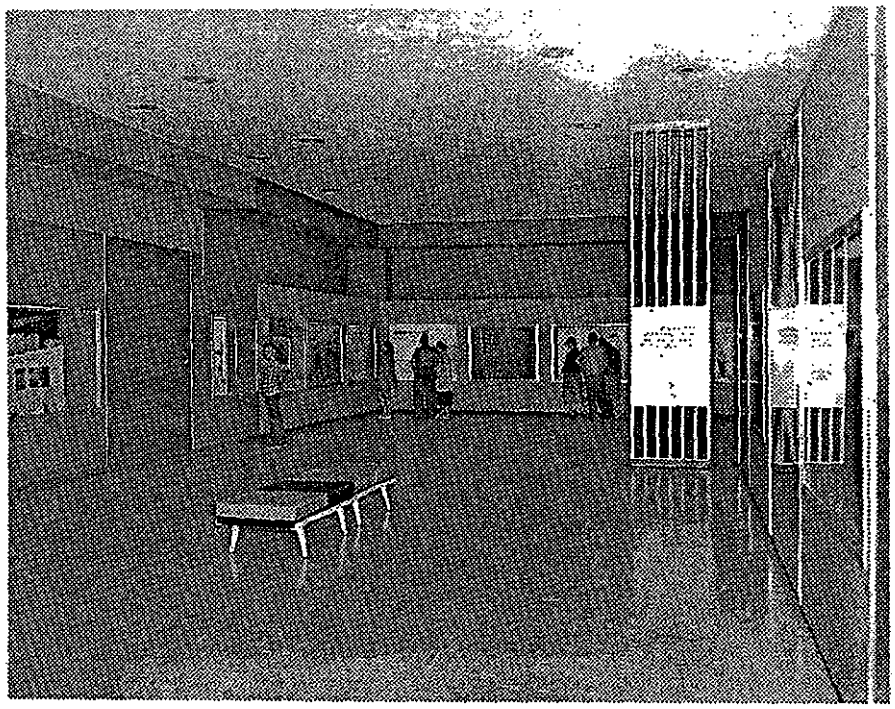


Figure 14. This image illustrates the backcountry permit office in the interior of the courtyard of the Grand Canyon Visitor Center. The building's program sought to provide all types of visitor amenities in one centralized location. Photo is undated. GCNPA Photo Number 11001.

Figure 15. Photo of the Interpretive Staff of the Grand Canyon Visitor Center, dated December 1963. Photo courtesy of Louise M. Hinchliffe.



This image illustrates the interpretive function of the visitor center. Exhibit and displays told the story of the Grand Canyon. Photo dated 1966. GCNPA Photo Number 4738.

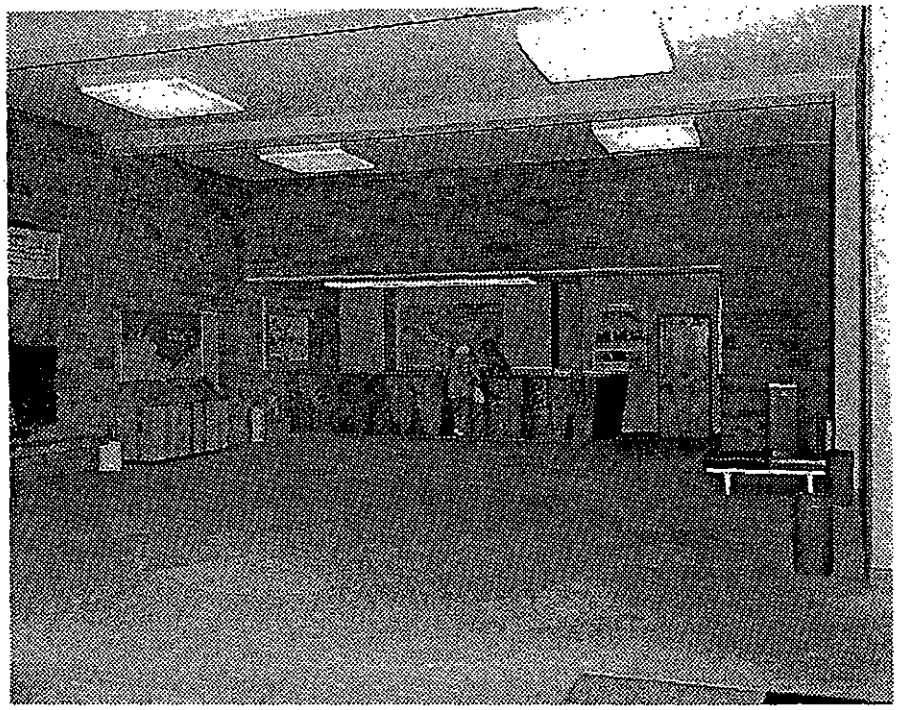


Figure 17. This image illustrates the lobby, looking toward information desk Photo dated 1966. GCNPA Photo Number 4748.

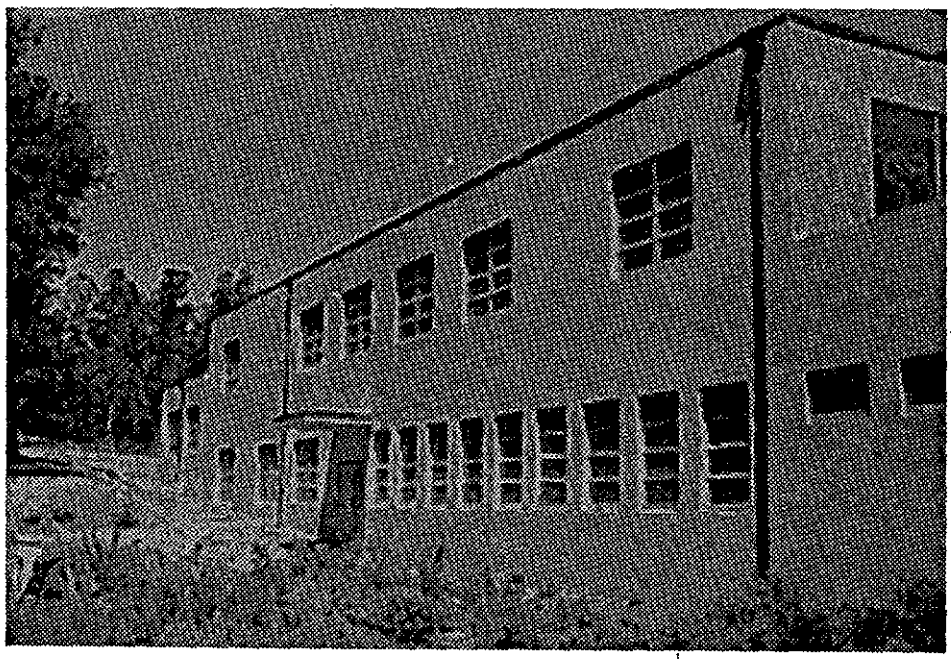


Figure 18. This image illustrates the rear elevation of the Visitor Center after the 1966 addition that created a second floor and reconfigured the north end of the structure. The successful addition respected all aspects of the original design and did not alter character-defining features or elements of the 1954 proposals. Photo dated 1967. GCNPA Photo Number 14272.

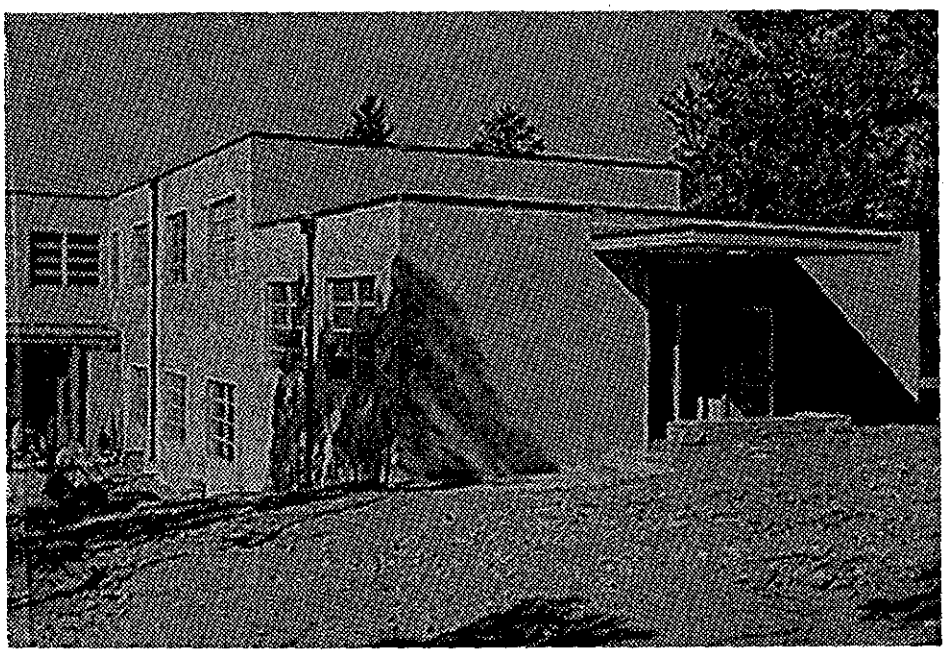


Figure 19. This image illustrates the north elevation of the Visitor Center after the 1966 addition. The grade rises at the north end of the structure to create a one-story entrance. The use of a flat canopy over the entrance echoes, on a smaller scale, the design of the principal entrance at the front elevation. Photo dated 1967. GCNPA Photo Number 14274.

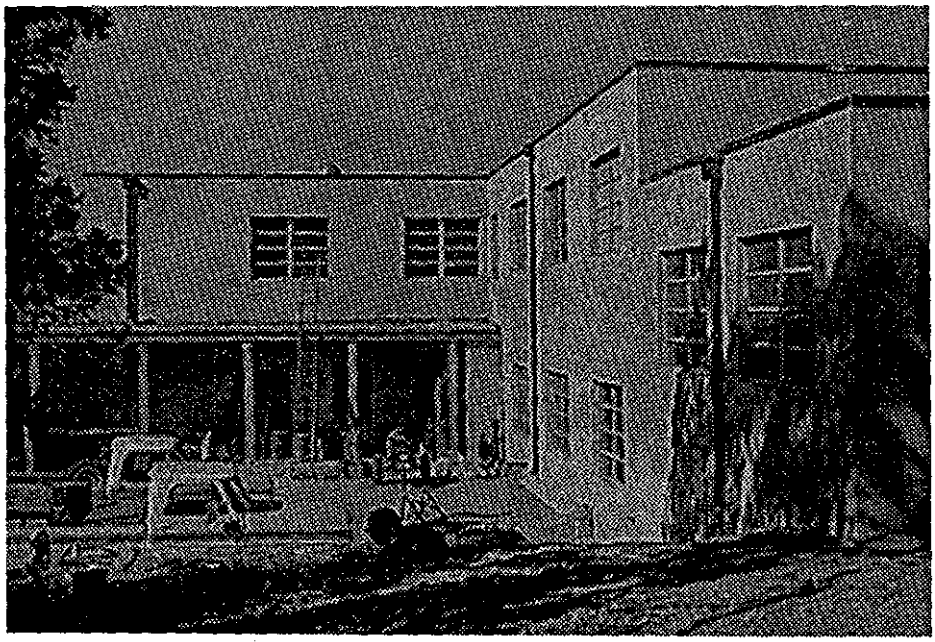


Figure 20. This image illustrates part of the bull-pen parking lot at the north elevation of the Visitor Center. Photo dated 1967. GCNPA Photo Number 14273.

Figure 21. This image illustrates the north elevation. Photo dated 1966. GCNPA Photo Number 4832.

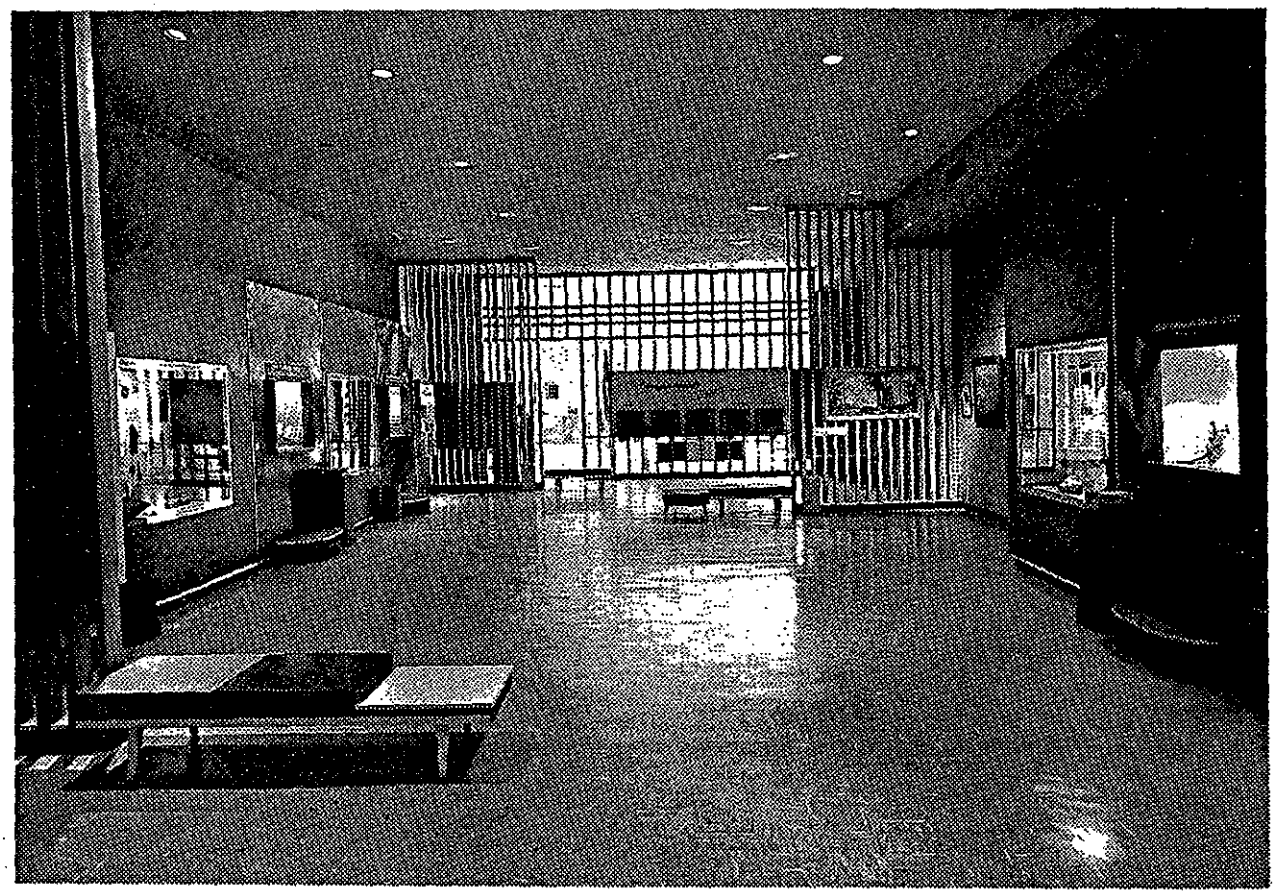


Figure 22. This image illustrates the exhibits. The view is looking toward the entrance lobby. Photo dated 1966. GCNPA Photo Number 5024.

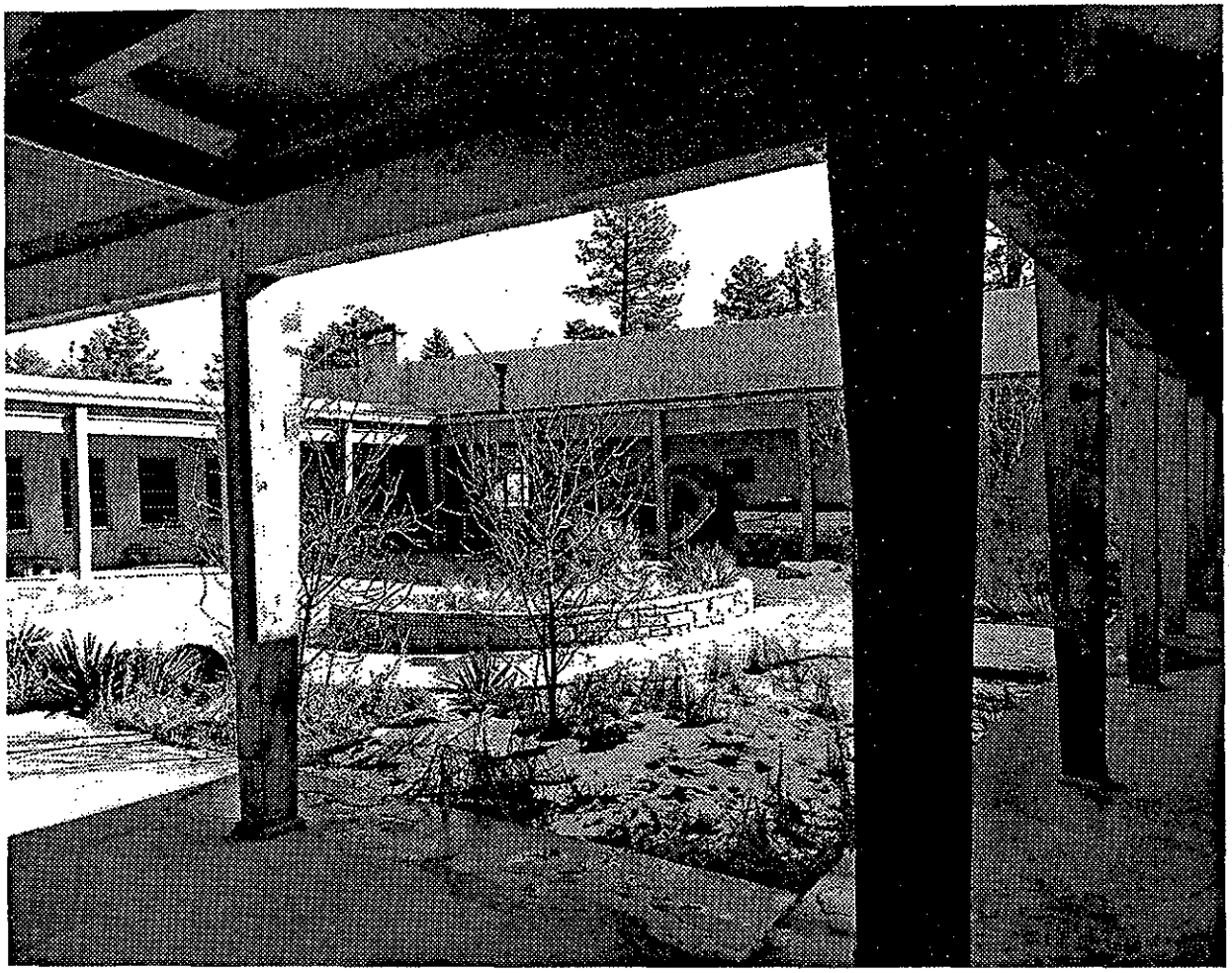


Figure 23. This image illustrates the interior courtyard after the major campaign of alterations and additions in 1966. From this view, looking across the courtyard toward the principal elevation, there is no evidence of the new construction and the view remains the same as the original. Photo dated 1966. GCNPA Photo Number 72513.

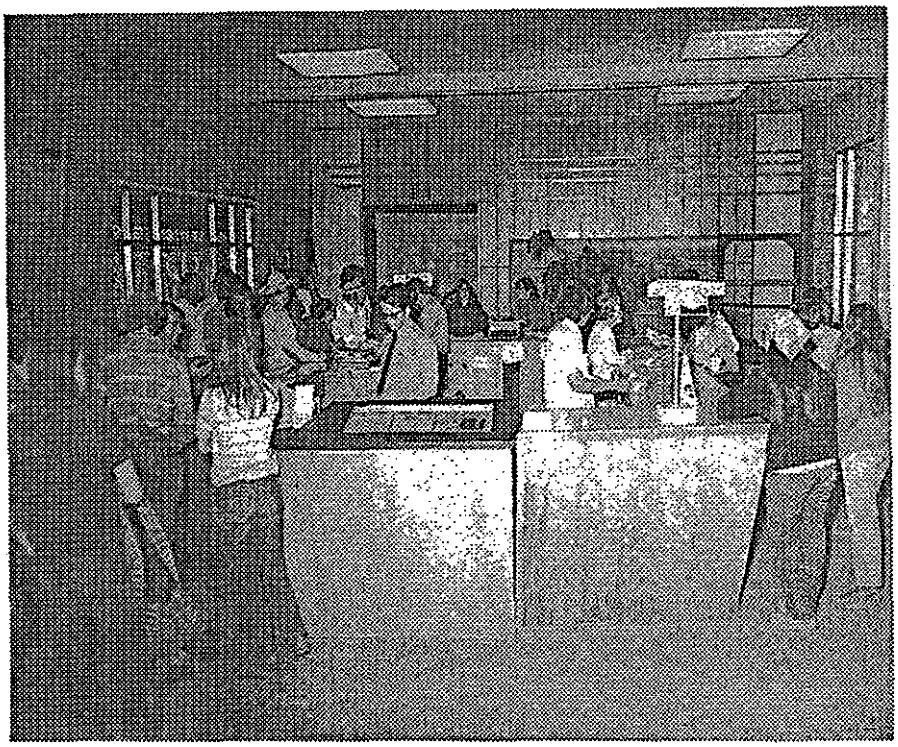


Figure 24. This image illustrates both the visitor services desk in the entrance lobby of the Visitor Center Lobby and the level of popularity of the successful visitor center building type. Finishes are blonde wood contributing to a light, spacious and airy interior. Photo dated 1971. GCNPA Photo Number 14235.

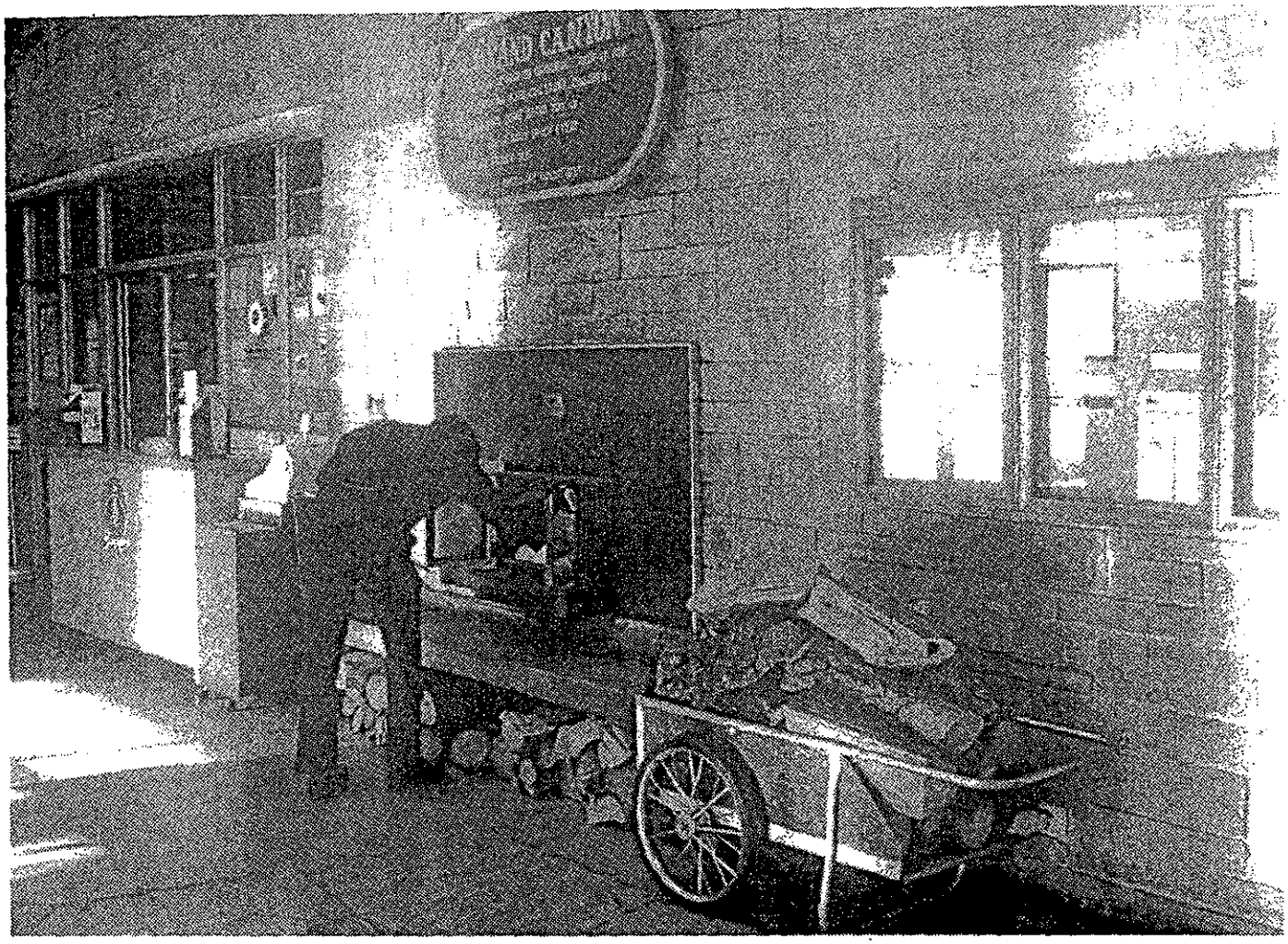


Figure 25. Image shows the lobby fireplace before the ledge was removed. Photo dated 1990s. Courtesy of Denver Service Center.

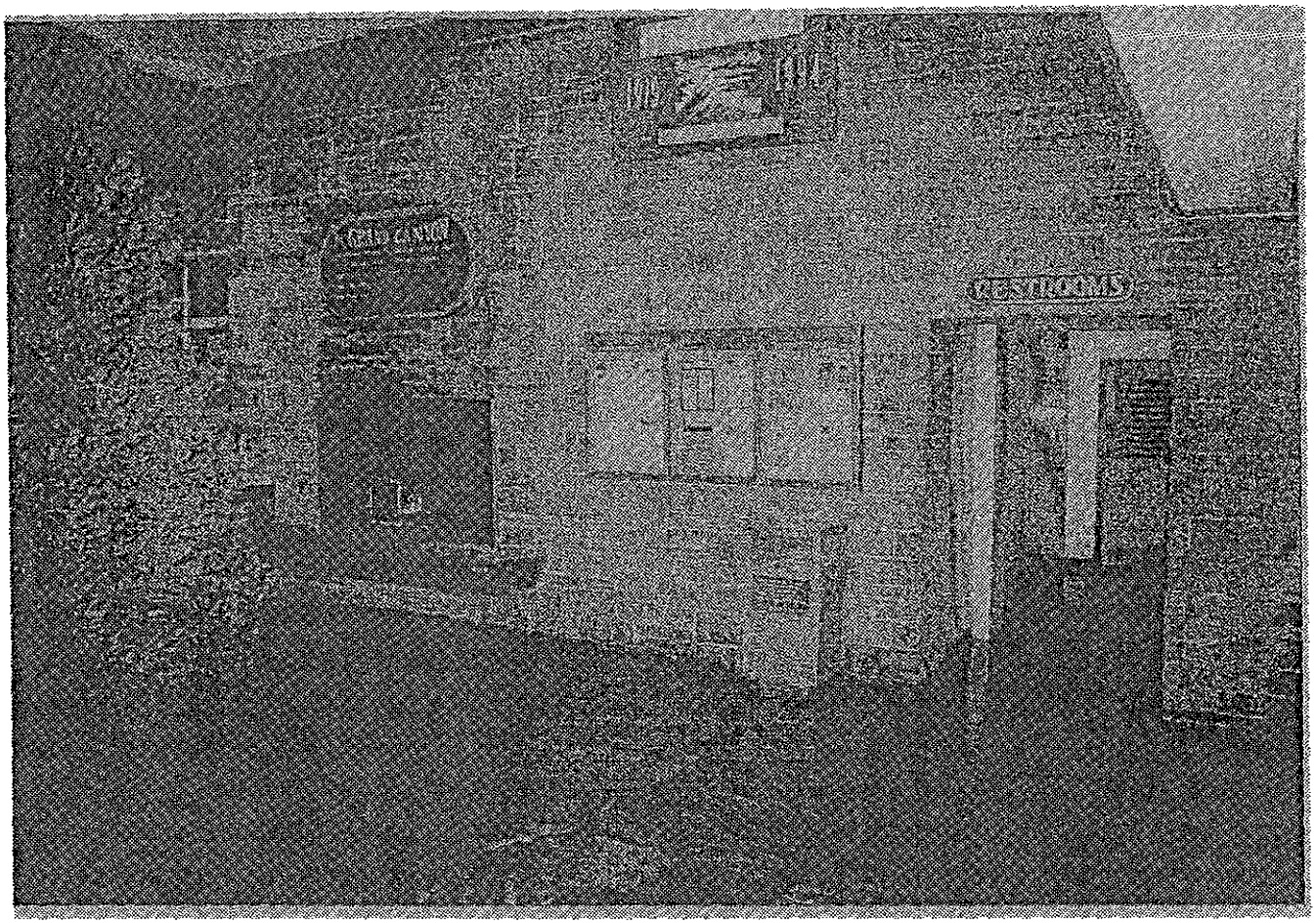


Figure 26. Image shows the lobby fireplace before the ledge was removed. Note floor finishes. Photo dated 1990s. Courtesy of Denver Service Center.

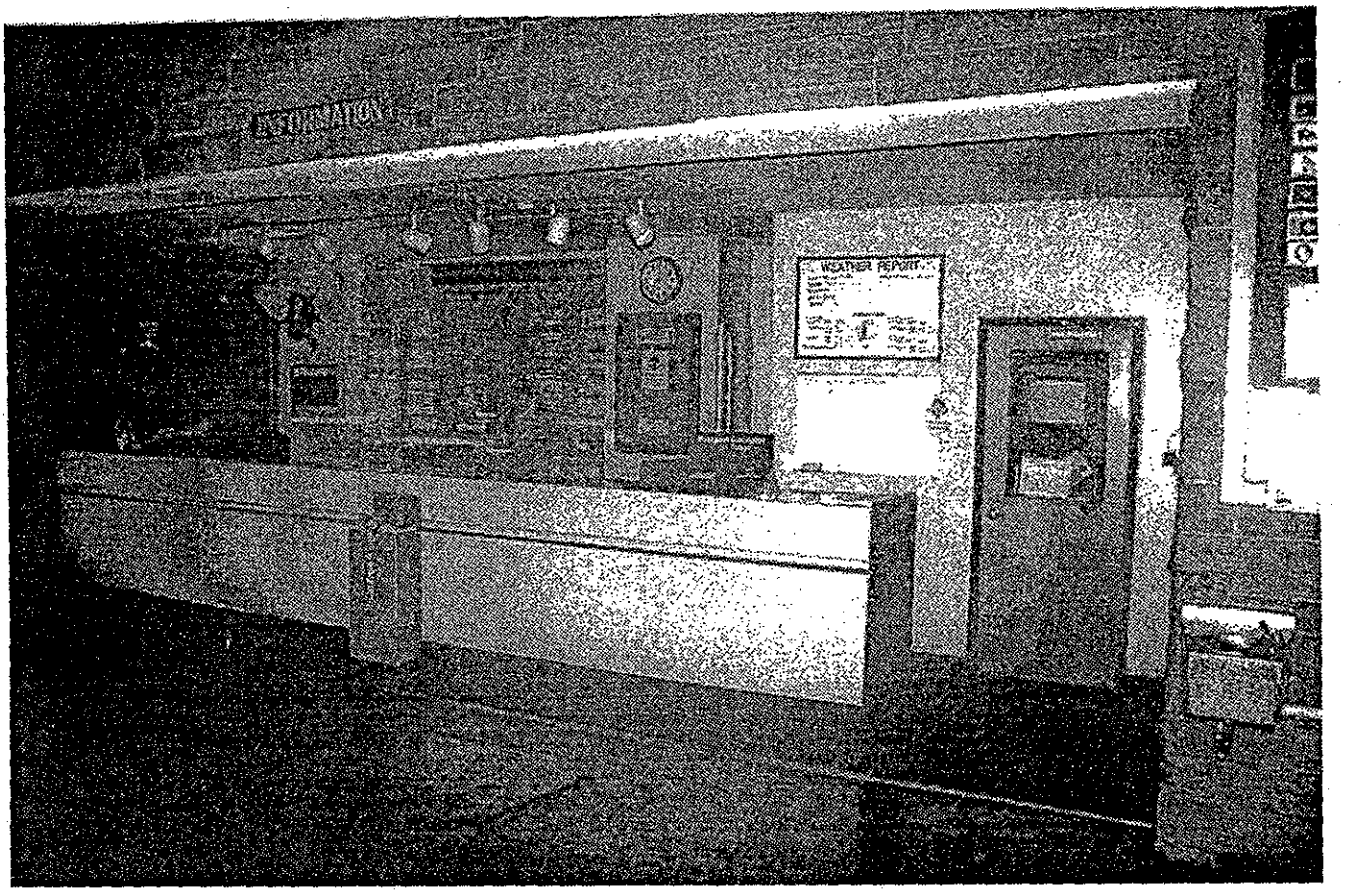


Figure 27. Image shows the information desk in the lobby circa 1990s. Courtesy of Denver Service Center.

Appendix E. Photographs of Existing Conditions.

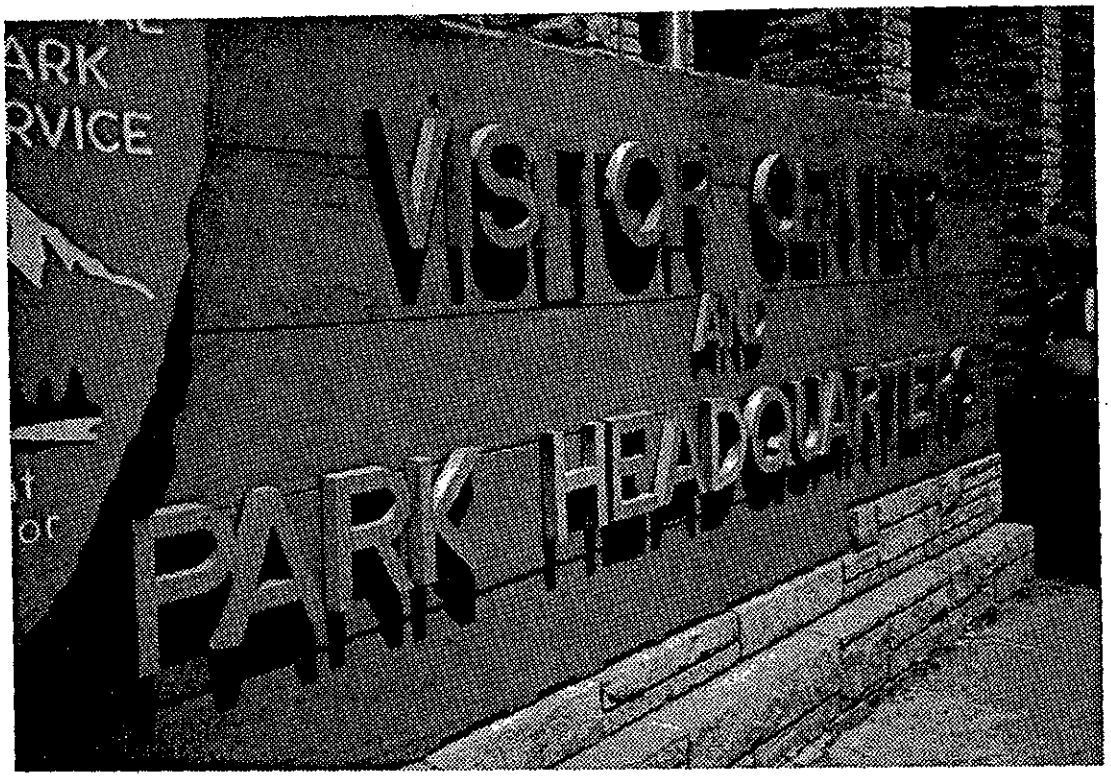


Figure 1. Entrance sign. The aluminum sans serif letters are a character-defining feature. ARG Photo, dated May, 2000.

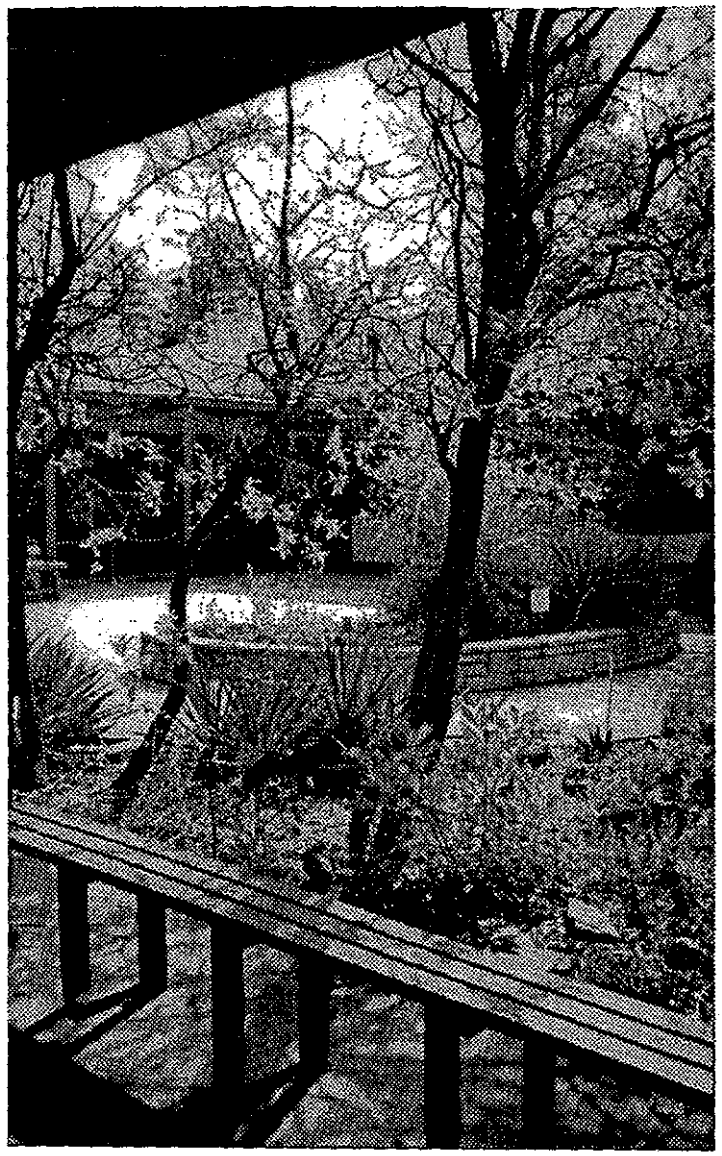


Figure 2. Courtyard plantings in low free-form stone planters are a character-defining feature. ARG Photo, dated May, 2000.

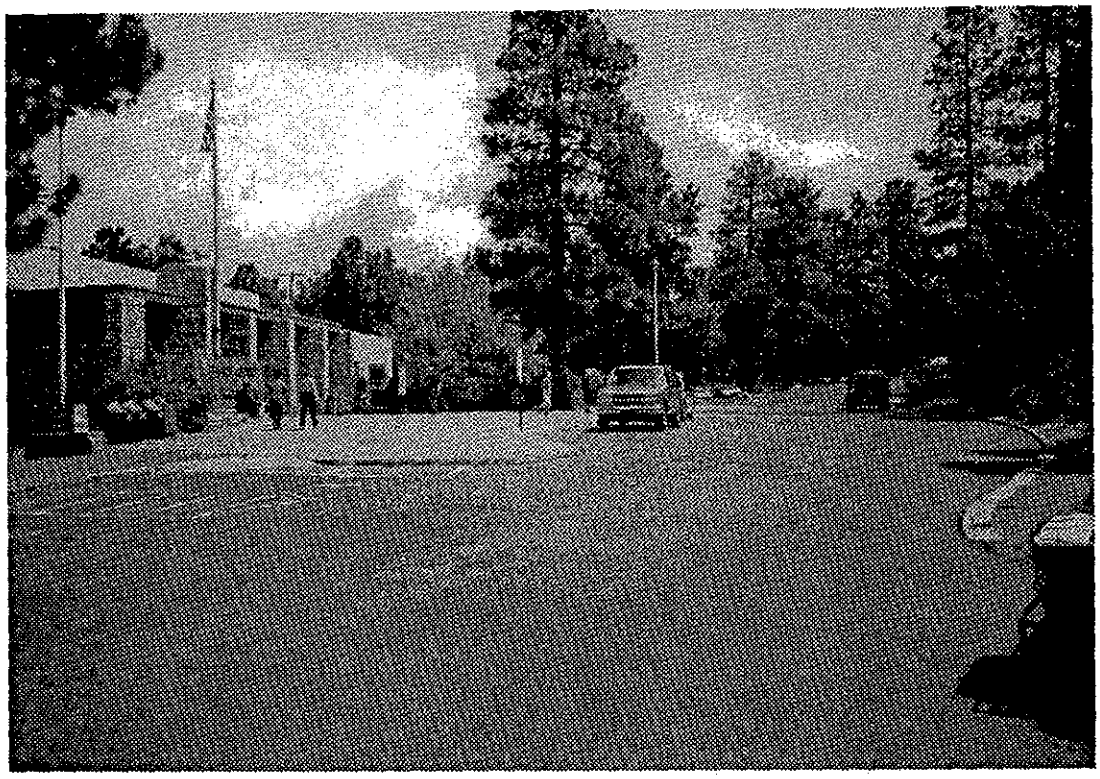


Figure 3. Principal facade and entrance road. ARG Photo, dated May, 2000.

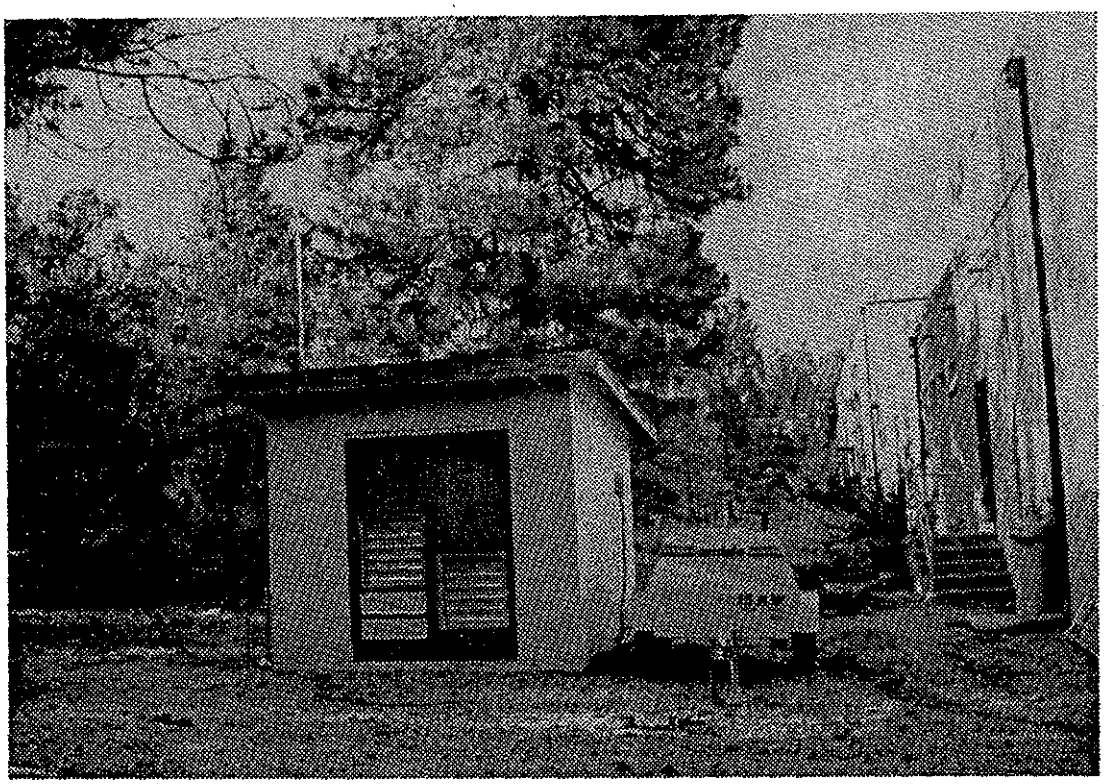


Figure 4. Rear of building is unlandscaped and utilitarian as evidenced by shed and propane tanks behind the structure. ARG Photo, dated May, 2000.

Figure 5. Rear elevation is not landscaped. Plantings encroach on the structure. ARG Photo, dated May, 2000.

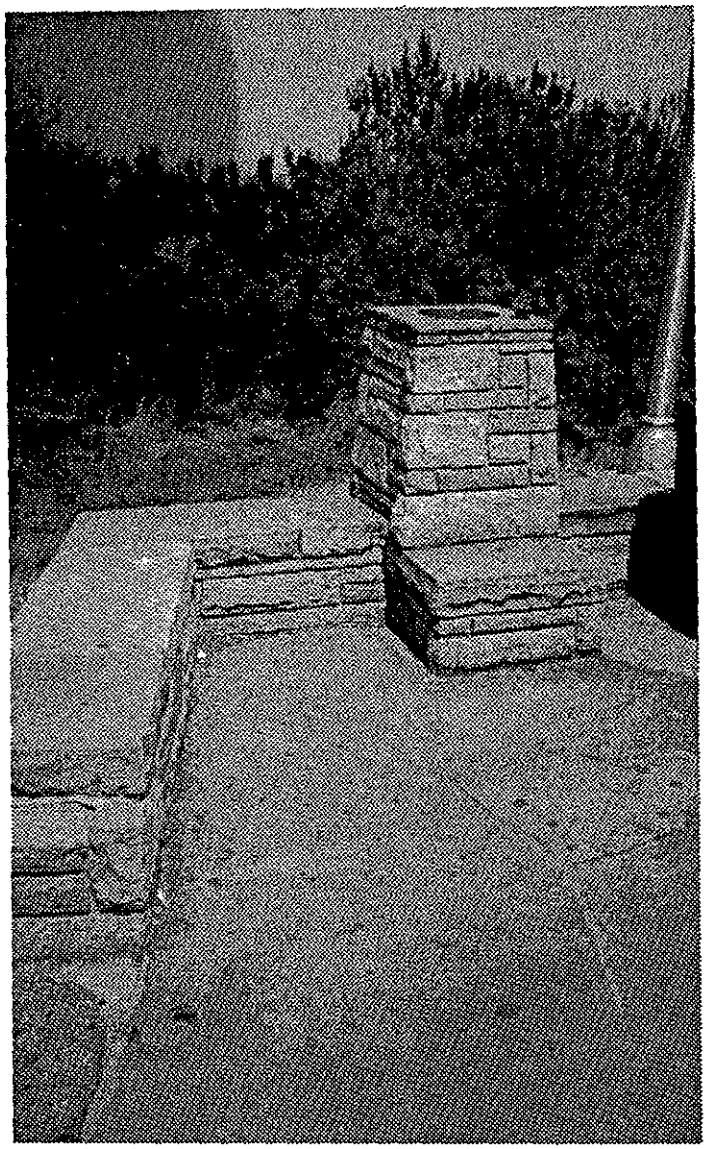


Figure 6. Stone bench and fountain at front entrance. ARG Photo, dated May, 2000.

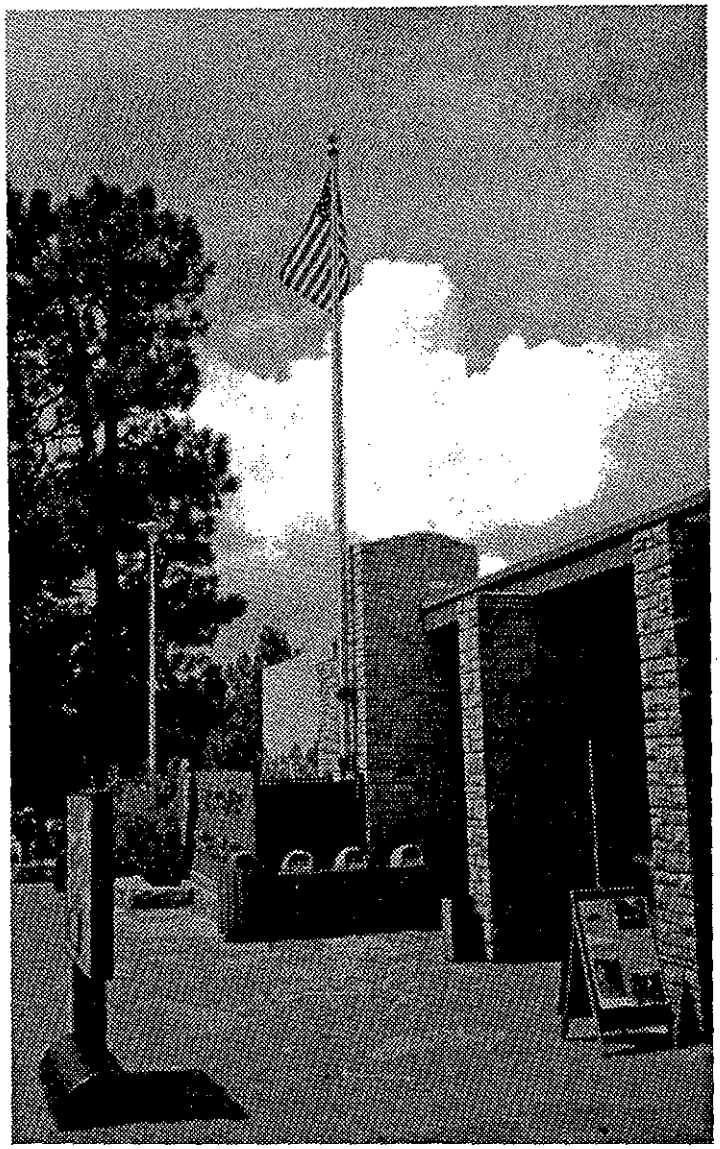


Figure 7. Principal elevation integrates building and landscaping design by incorporating planters, benches, flagstone paving and fountains. ARG Photo,dated May, 2000.

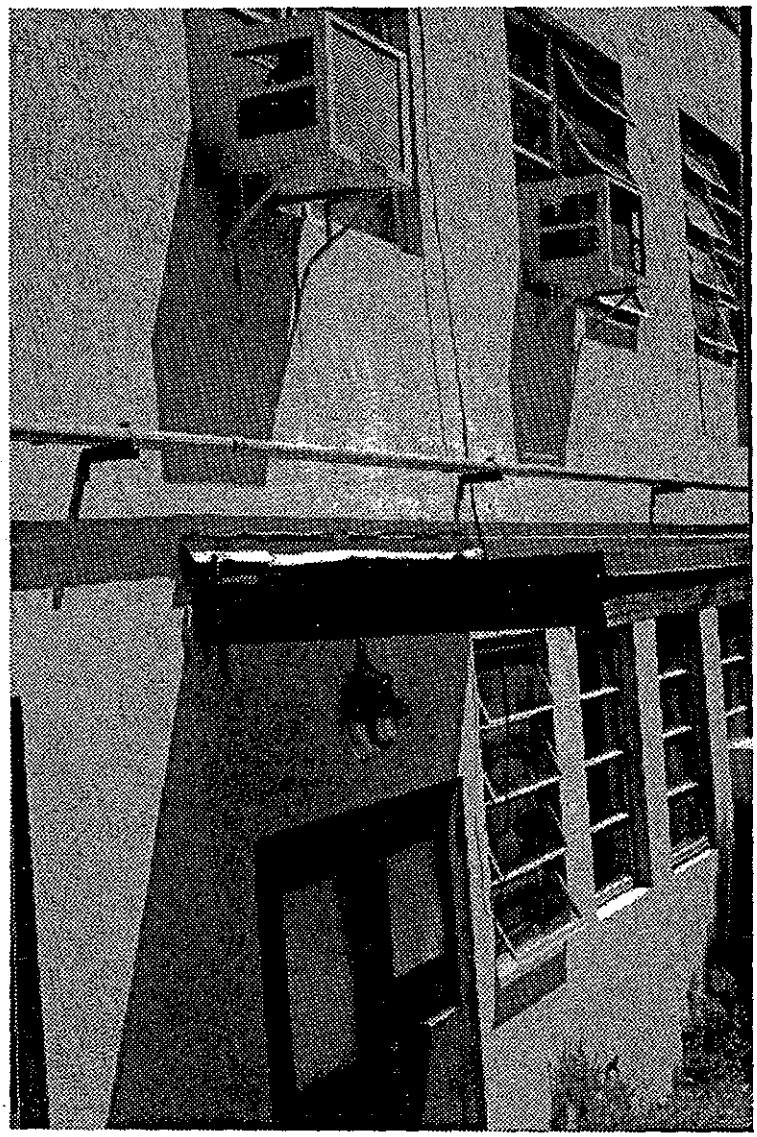


Figure 8. Rear elevation. Door and overhang are original to the 1957 works. ARG Photo, dated May, 2000.

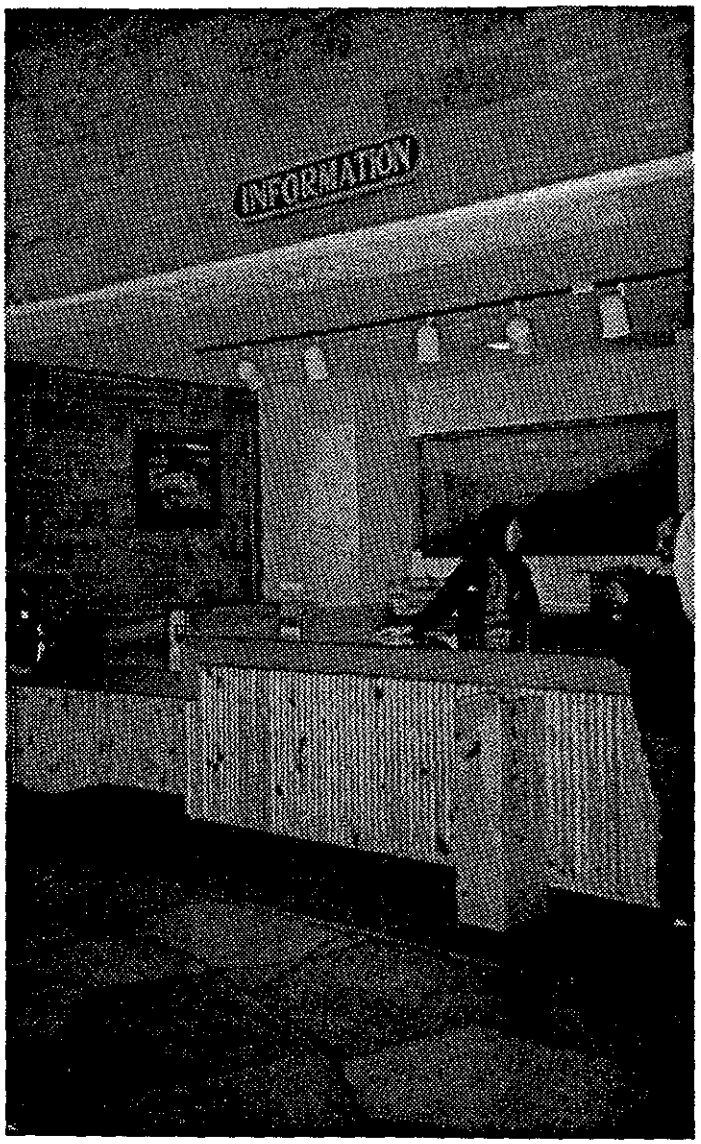


Figure 9. Information desk.. ARG Photo, dated May, 2000.

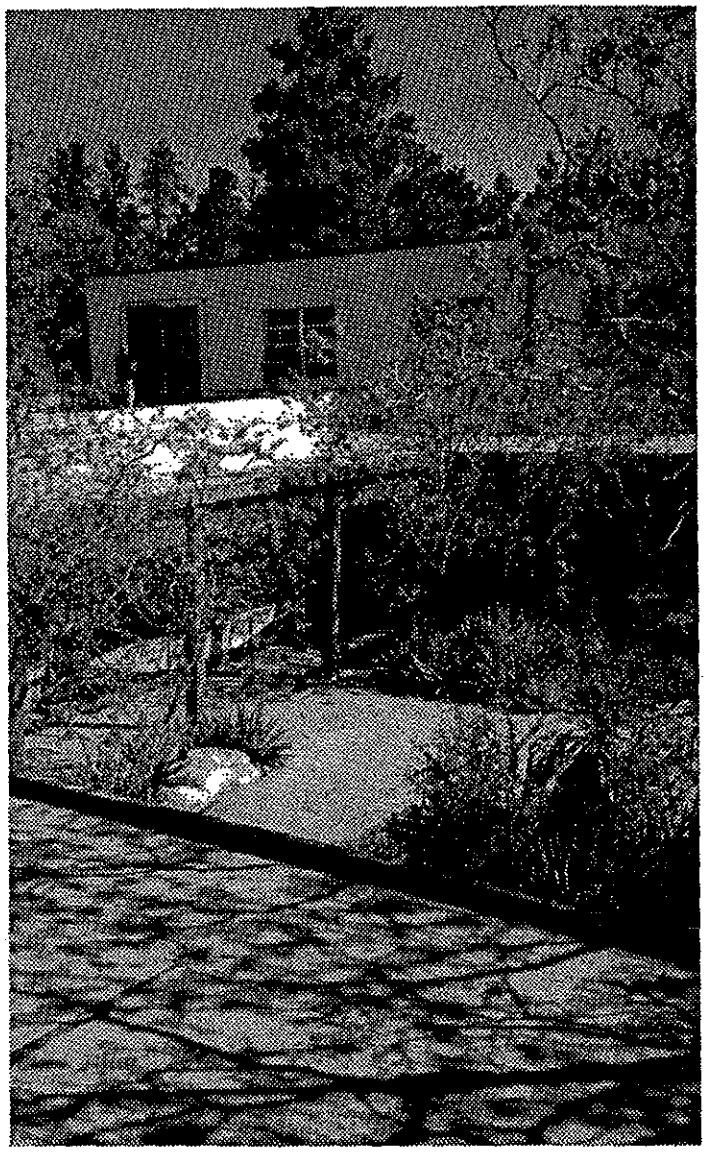


Figure 10. View into courtyard from roof. ARG Photo, dated May, 2000.

Figure 11. Rim Trail wraps around the back of the Visitor Center and leads to the canyon edge. ARG Photo, dated May, 2000.

Figure 12. Detail of courtyard planting bed. ARG Photo, dated May, 2000.

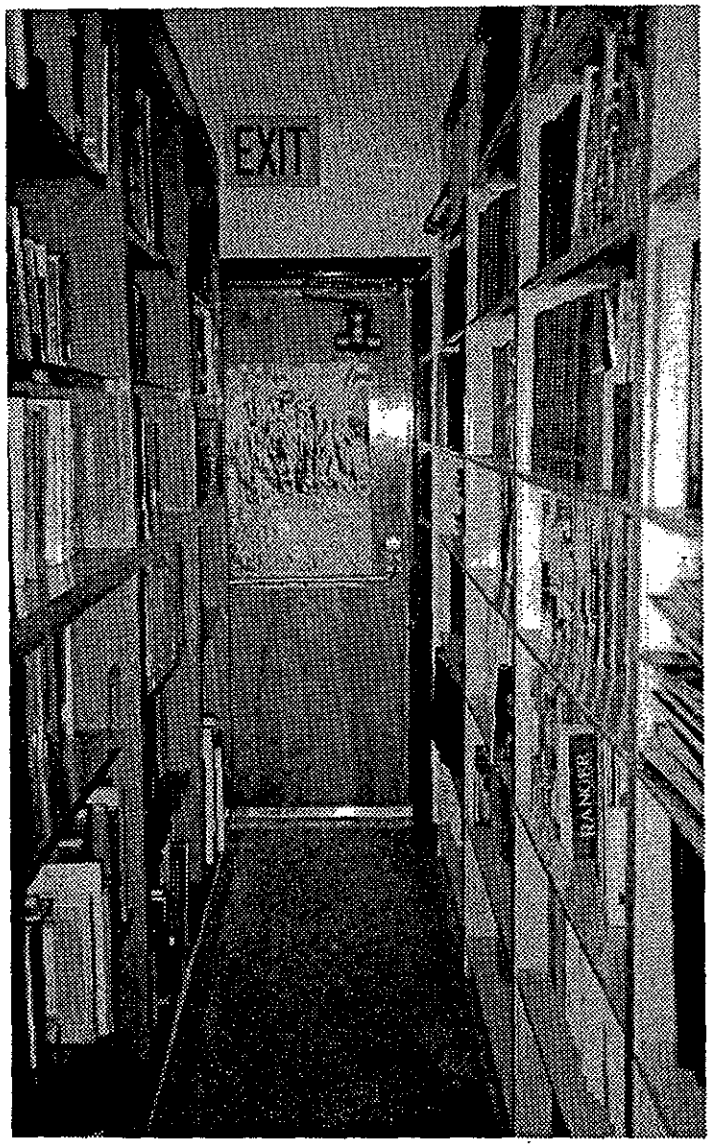


Figure 13. Existing conditions in library. ARG Photo, dated May, 2000.

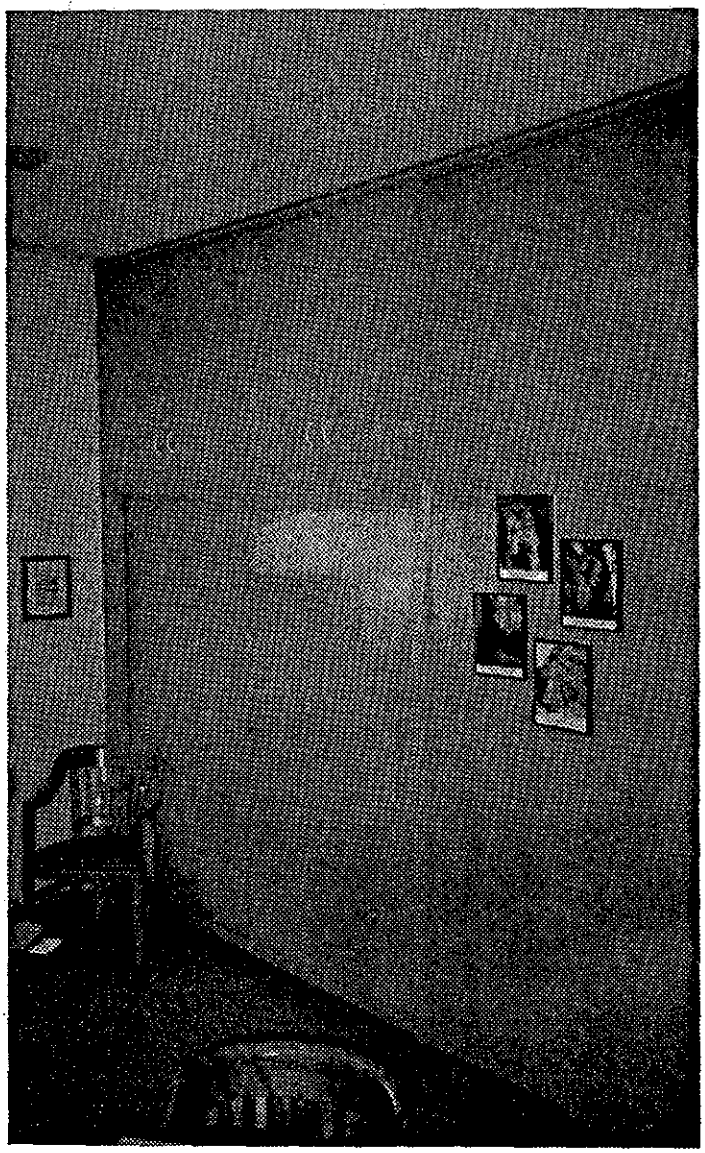


Figure 14. Typical blonde wood cabinetry found in some offices. ARG Photo, dated May, 2000.

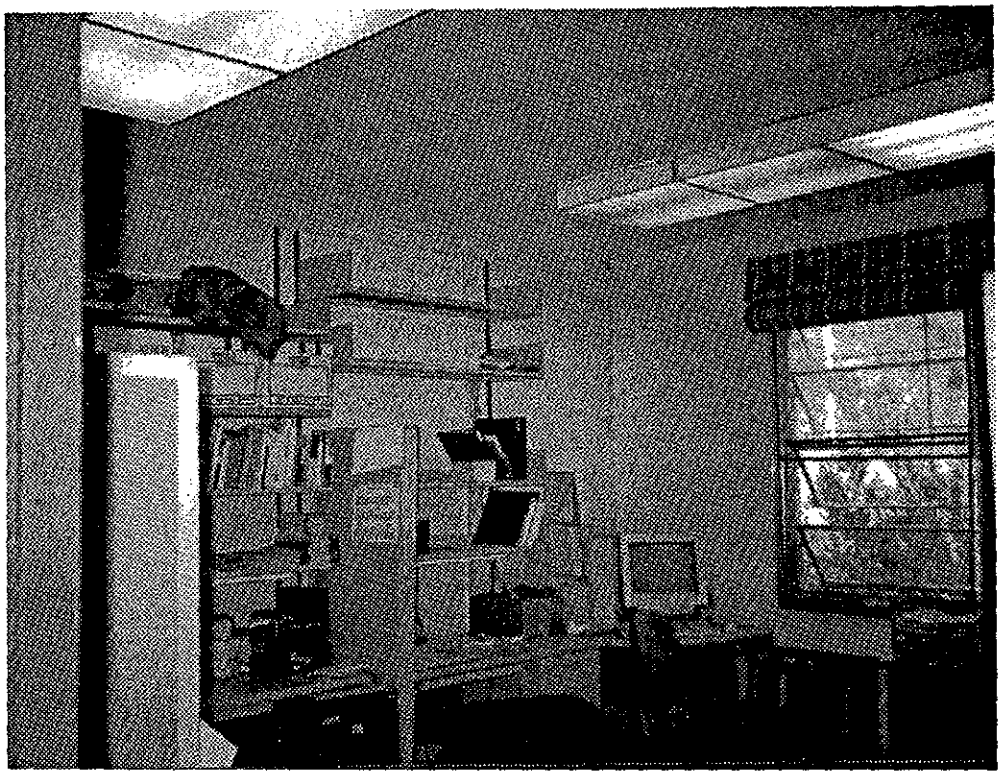


Figure 15. Typical office. ARG Photo, dated May, 2000.

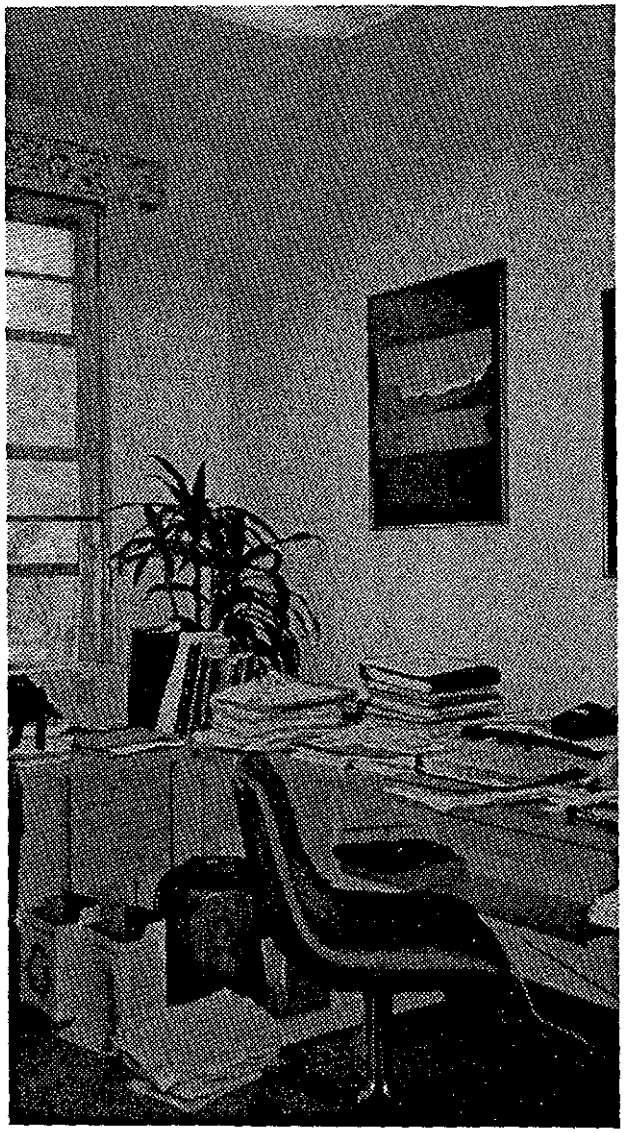


Figure 16. Typical office. ARG Photo, dated May, 2000.

Figure 17. Parapet deterioration. ARG Photo, dated May, 2000.

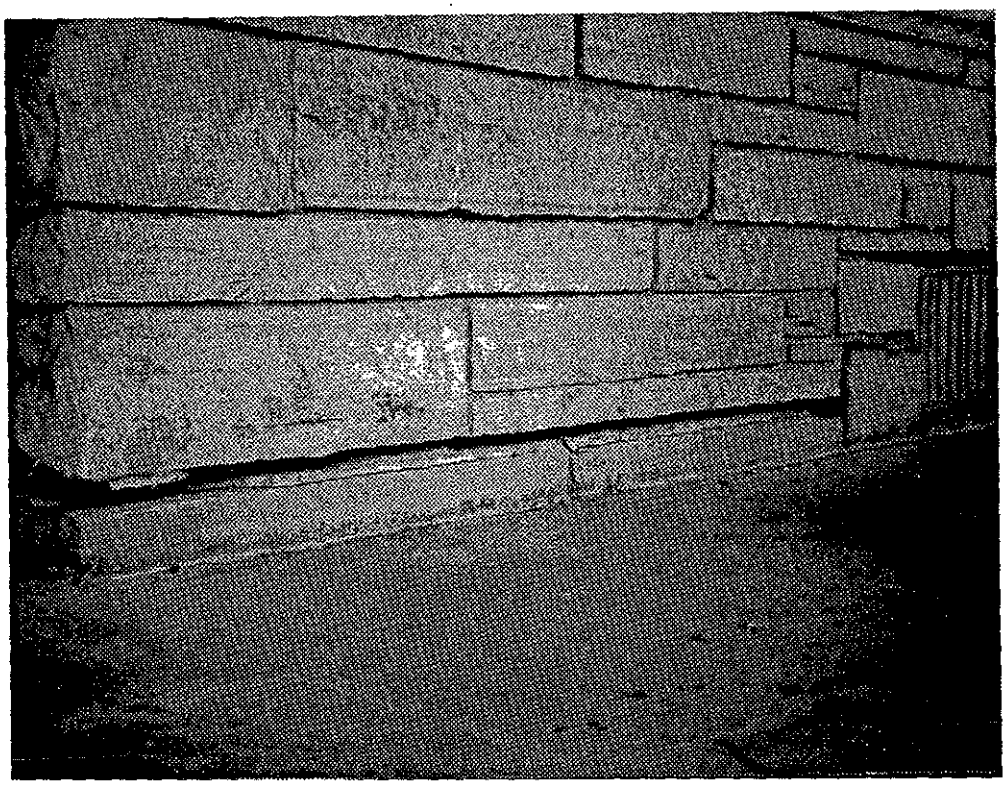


Figure 18. Mortar loss at lower level of pier on principal elevation. ARG Photo, dated May, 2000.

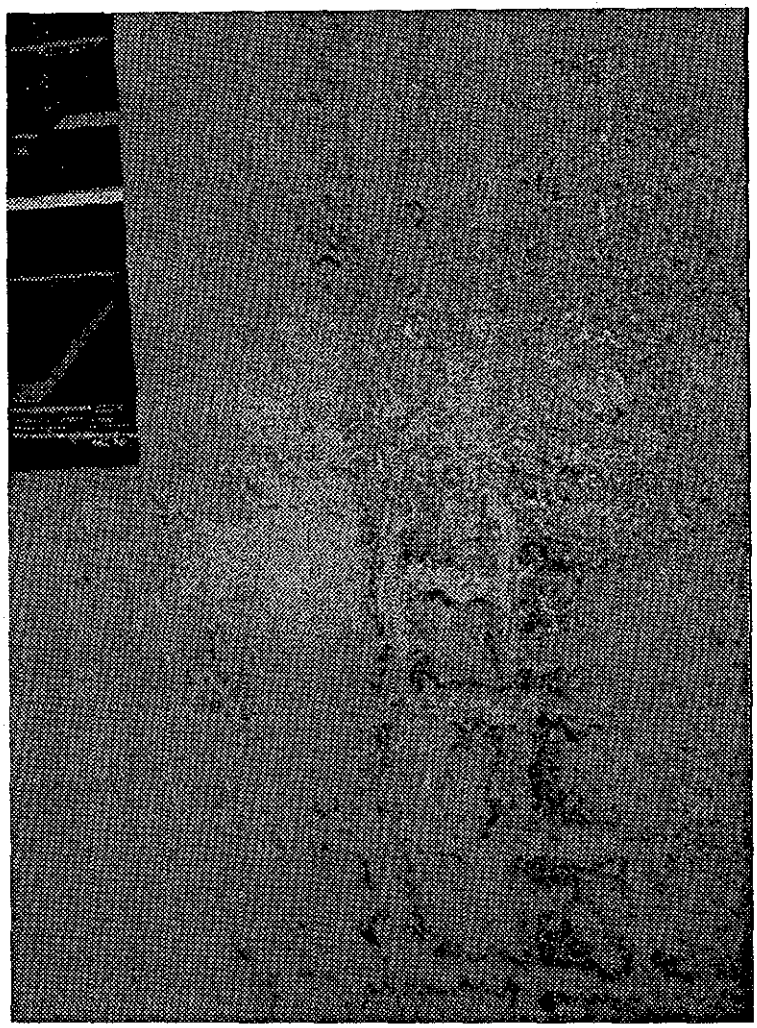


Figure 19. Concrete block construction visible below stucco coat. ARG Photo, dated May, 2000.

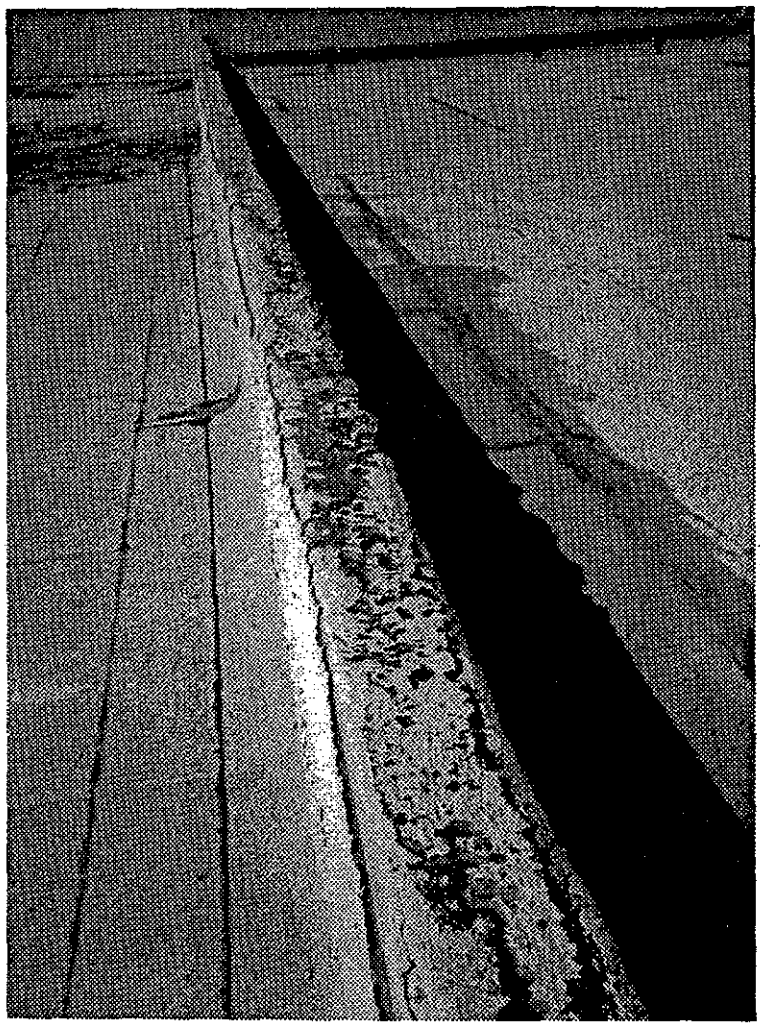


Figure 20. Parapet deterioration at roof and extent of urethane repair failure. ARG Photo, dated May, 2000.

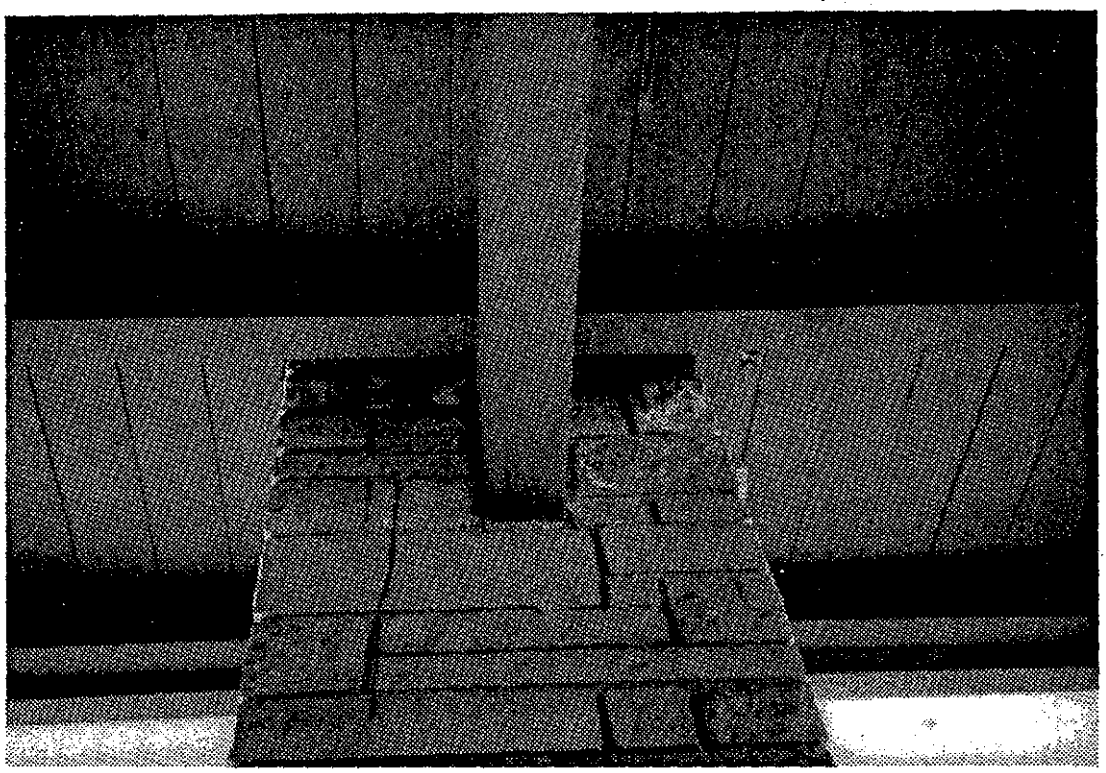


Figure 21. Image shows efflorescence and water infiltration on pier at canopy junction. ARG Photo, dated May, 2000.

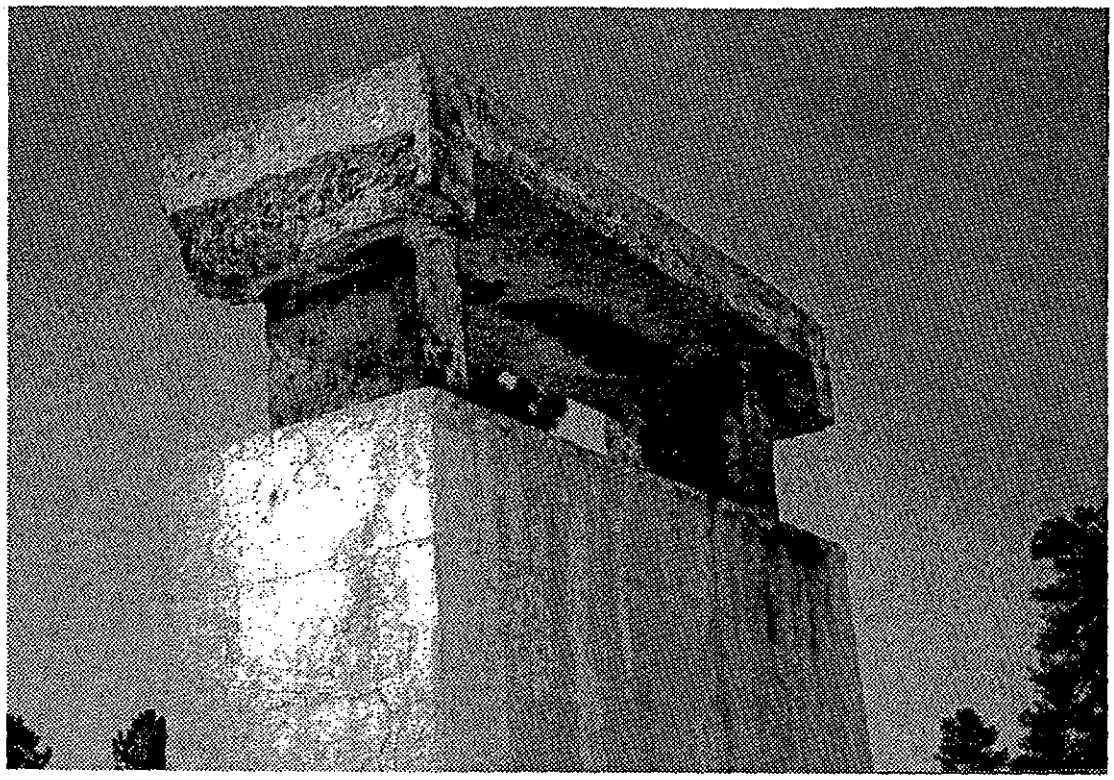


Figure 22. Deterioration at chimney flue. ARG Photo, dated May, 2000.

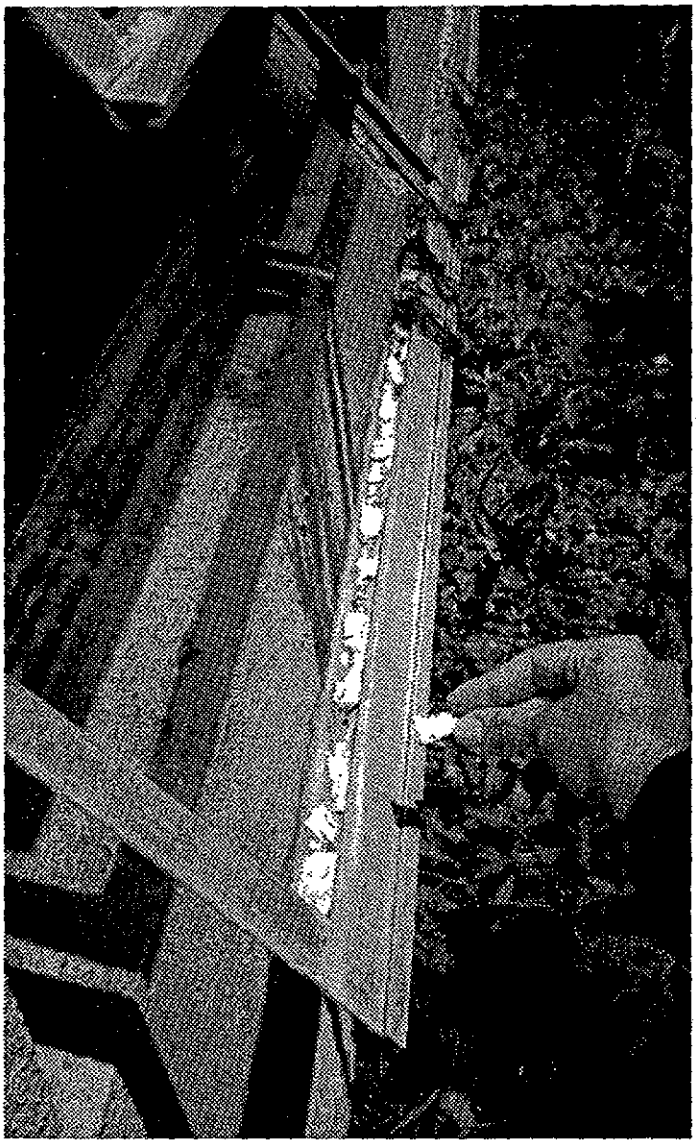


Figure 23. Putty deterioration at window. ARG Photo, dated May, 2000.

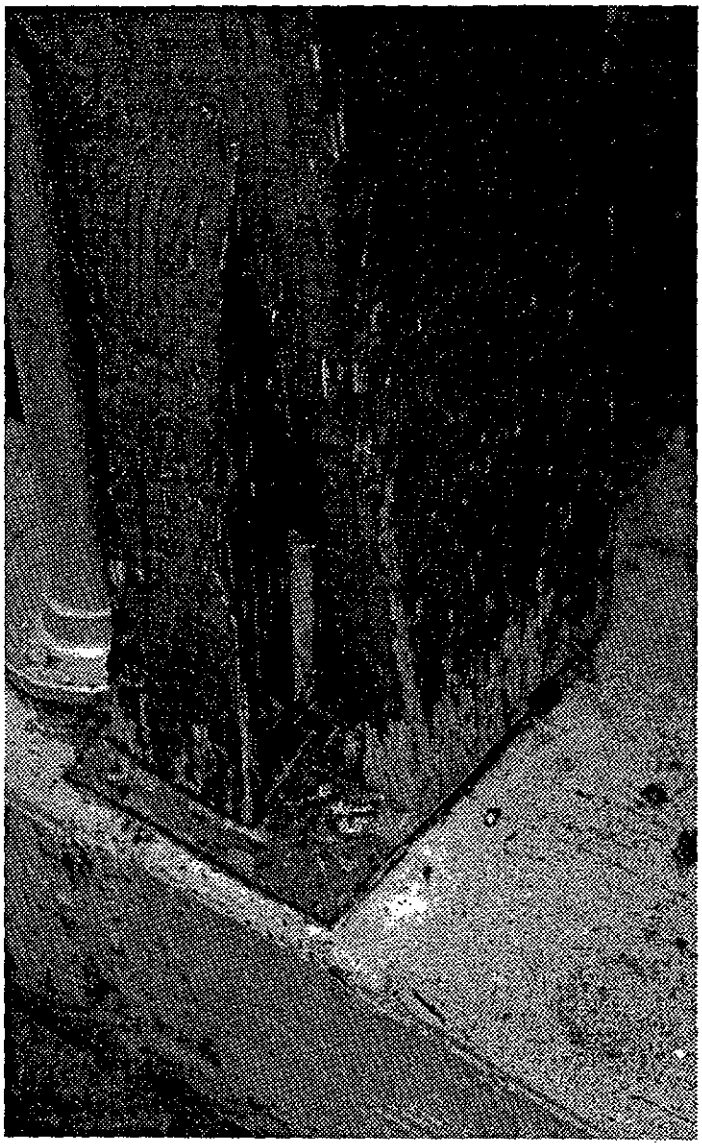


Figure 24. Tapered column at north elevation, shifted off steel base plate, a large split at bottom and exposure of the vertical steel dowel within the column. Damage caused by car. ARG Photo, dated May, 2000.

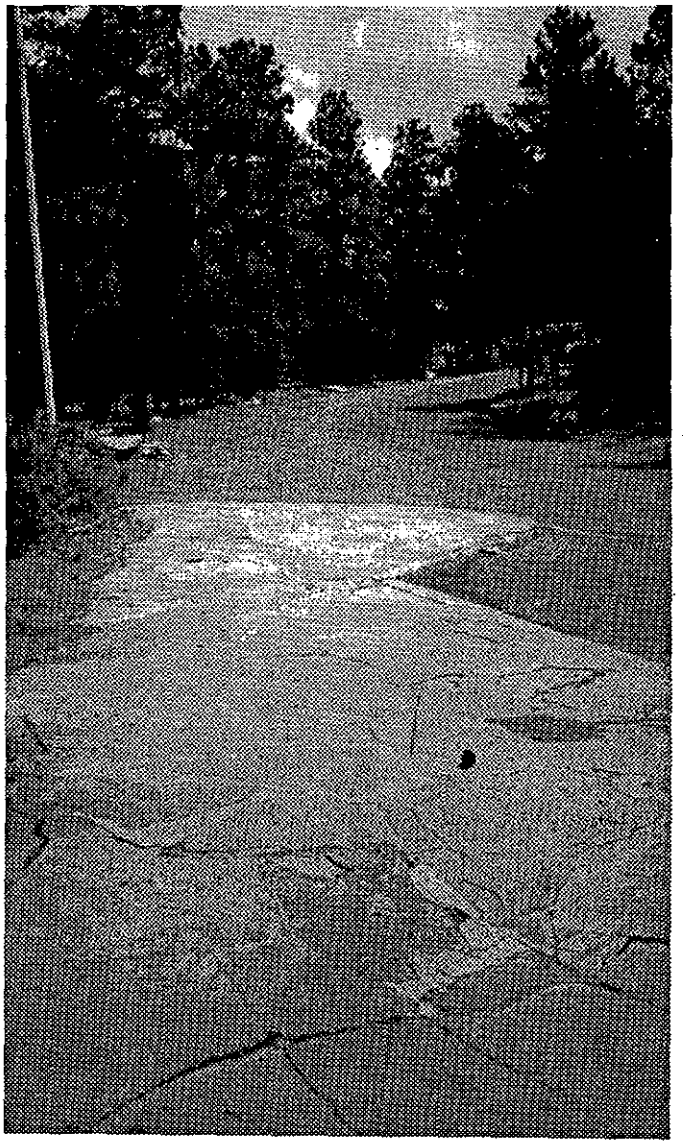


Figure 25. Deterioration of flagstone paving at the building exterior. ARG Photo, dated May, 2000.

Appendix F. Potential Seismic Hazard Assessment by Sato and Associates, dated October 1998.

Prepared for:

Denver Service Center
National Park Service
12795 West Alameda Parkway
Denver, CO 80225

RAPID VISUAL SCREENING OF BUILDINGS AT GRAND CANYON NATIONAL PARK FOR POTENTIAL SEISMIC HAZARDS

Prepared by:

J.F. Sato and Associates
5898 South Rapp Street
Littleton, CO 80120
Phone: (303) 797-1200
Fax: (303) 797-1187

100% FINAL

October, 1998

ATC-21/ (NEHRP Map Areas 1,2 Low)

Rapid Visual Screening of Seismically Hazardous Buildings

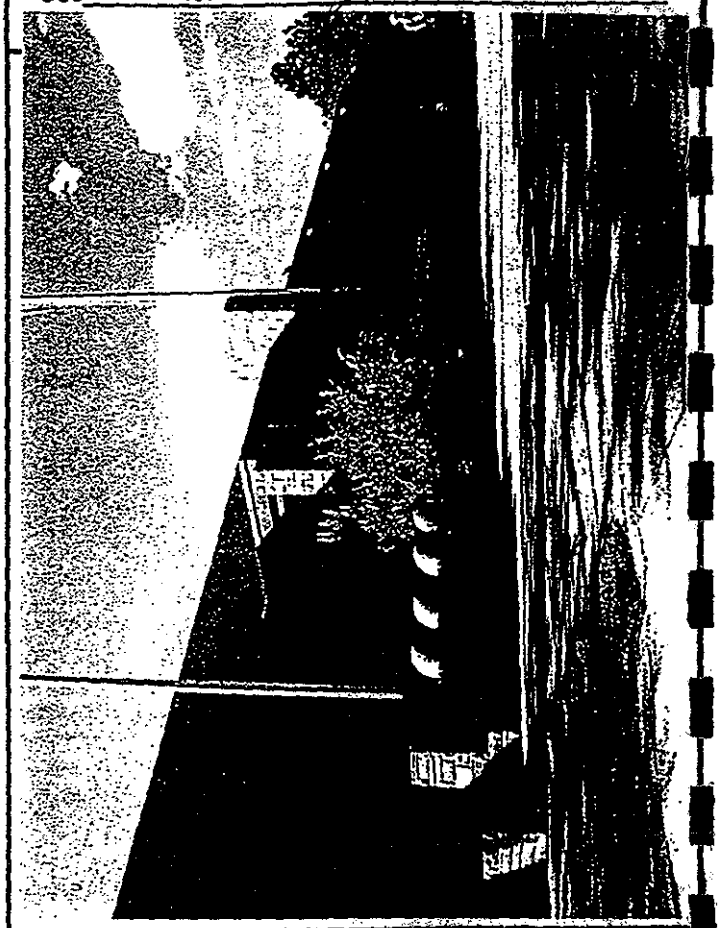
Address South Entrance Road
Grand Canyon, S.Rim, AZ Zip 86023
Other Identifiers Has a 50'x50' courtyard in center of bldg
No. Stories 2 Year Built 1957
Inspector Mark Wasinger Date 8-17-98
Total Floor Area (sq. ft) 21169 total, 16707 1st, 4462 2nd
Building Name Administration Bldg - #105A / Visitor's Center - #105
Use Administration Bldg & Visitor's Center

Notes:

1) See "supplementary photographs" (attached) for plan & elevation

2) Bldg #105 & #105A are connected into one building (see plan)

Scale:



OCCUPANCY

	No. Persons
Residential	0-10
Commercial	11-100
(Office)	(100+)
Industrial	
(Pub. Assem)	
School	
(Govt. Bldg)	
Emer. Serv.	
Historic Bldg.	

Non Structural Falling Hazard ☐

DATA CONFIDENCE

* = Estimated, Subjective, or Unreliable Data

DNK = Do Not Know

STRUCTURAL SCORES AND MODIFIERS

BUILDING TYPE	W	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	C1 (MRF)	(C2) (SW)	C3/S5 (URM NF)	PC1 (TU)	PC2	RM	URM
Basic Score	8.5	3.5	2.5	6.5	4.5	4.0	(4.0)	3.0	3.5	2.5	4.0	2.5
High Rise	N/A	0	0	N/A	-0.5	-0.5	-0.5	-0.5	N/A	-1.0	-1.5	-0.5
Poor Condition	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Vert. Irregularity	-0.5	-0.5	-0.5	-0.5	-1.0	-1.0	(-0.5)	-1.0	-1.0	-1.0	-0.5	-1.0
Soft Story	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0	-2.0	-1.0	-1.0	-1.0	-2.0	-1.0
Torsion	-1.0	-2.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Plan Irregularity	-1.0	-0.5	-0.5	-0.5	-0.5	-0.5	(-0.5)	-0.5	-1.0	-1.0	-1.0	-1.0
Pounding	N/A	-0.5	-0.5	N/A	-0.5	-0.5	N/A	N/A	N/A	-0.5	N/A	N/A
Large Heavy Cladding	N/A	-2.0	N/A	N/A	N/A	-1.0	N/A	N/A	N/A	-1.0	N/A	N/A
Short Columns	N/A	N/A	N/A	N/A	N/A	-1.0	-1.0	-1.0	N/A	-1.0	N/A	N/A
Post Benchmark Year	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	N/A	+2.0	+2.0	+2.0	N/A
SL2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
SL3	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
SL3 & 8 to 20 stories	N/A	-0.8	-0.8	N/A	-0.8	-0.8	-0.8	-0.8	N/A	-0.8	-0.8	-0.8

FINAL SCORE 3.0 ← △

COMMENTS

△ This building's score is unusually low. All of the exterior walls and most of the interior walls are concrete. Even with some offices (on the same side of a [illegible]) the building has a lot of shear walls.

Detailed Evaluation Required? YES (NO)

ATC-21/SW 3/28/98.01

Rapid Visual Screening of Seismically Hazardous Buildings

Supplementary Photographs

Address South Entrance Road, Grand Canyon, S. Rim, AZ 86023
Other Identifiers Has a 50'x50' courtyard in center of bldg.
Building Name Administration Bldg - Bldg. #105A
& Visitor Center - Bldg. #105

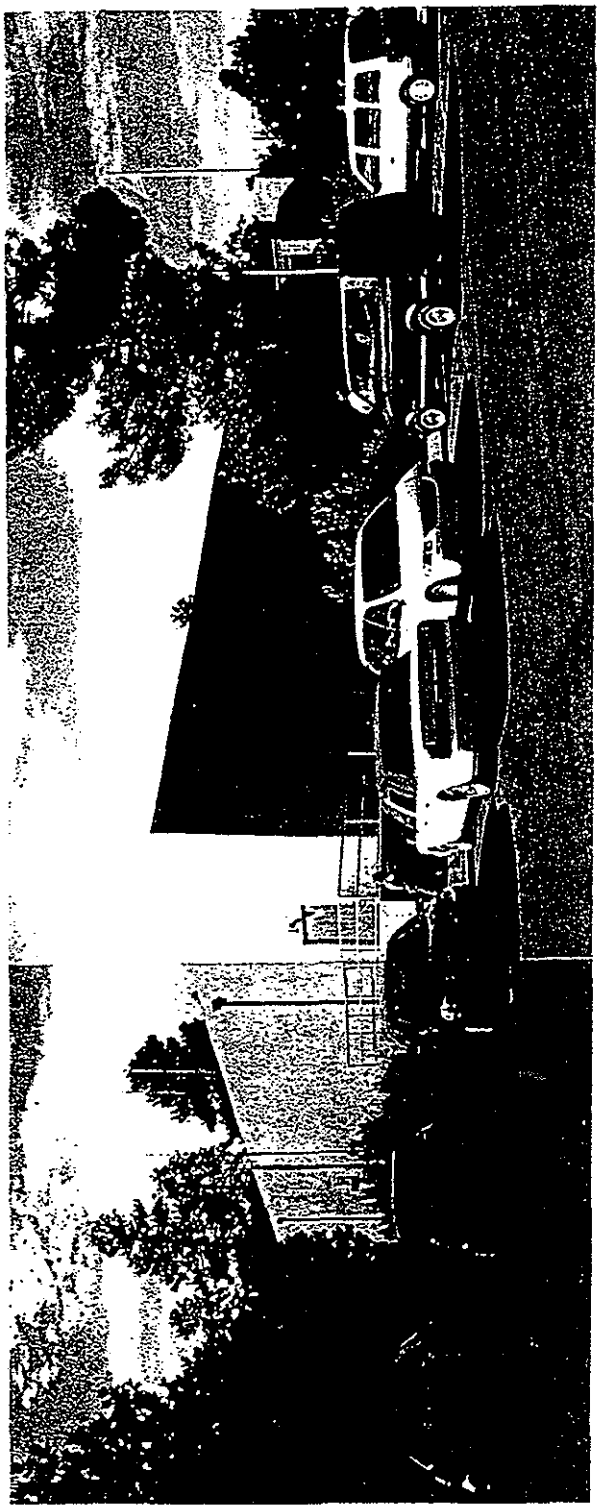


Photo 150-(8) A

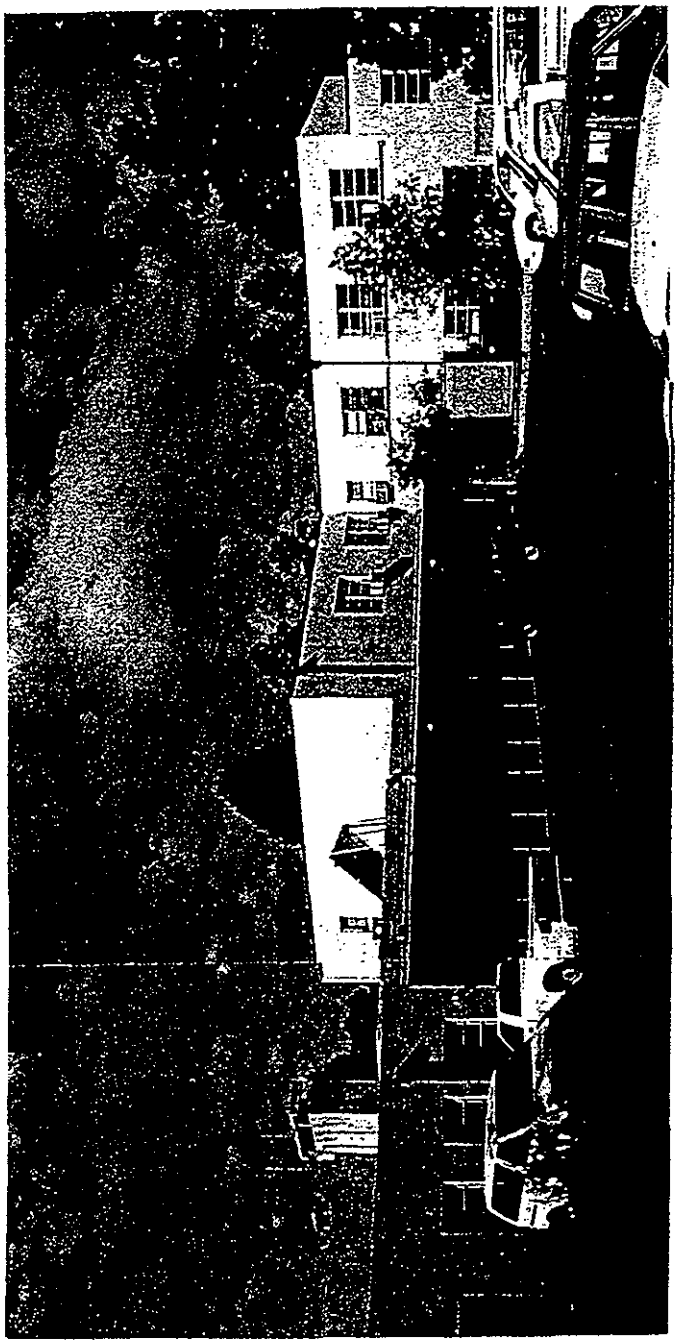
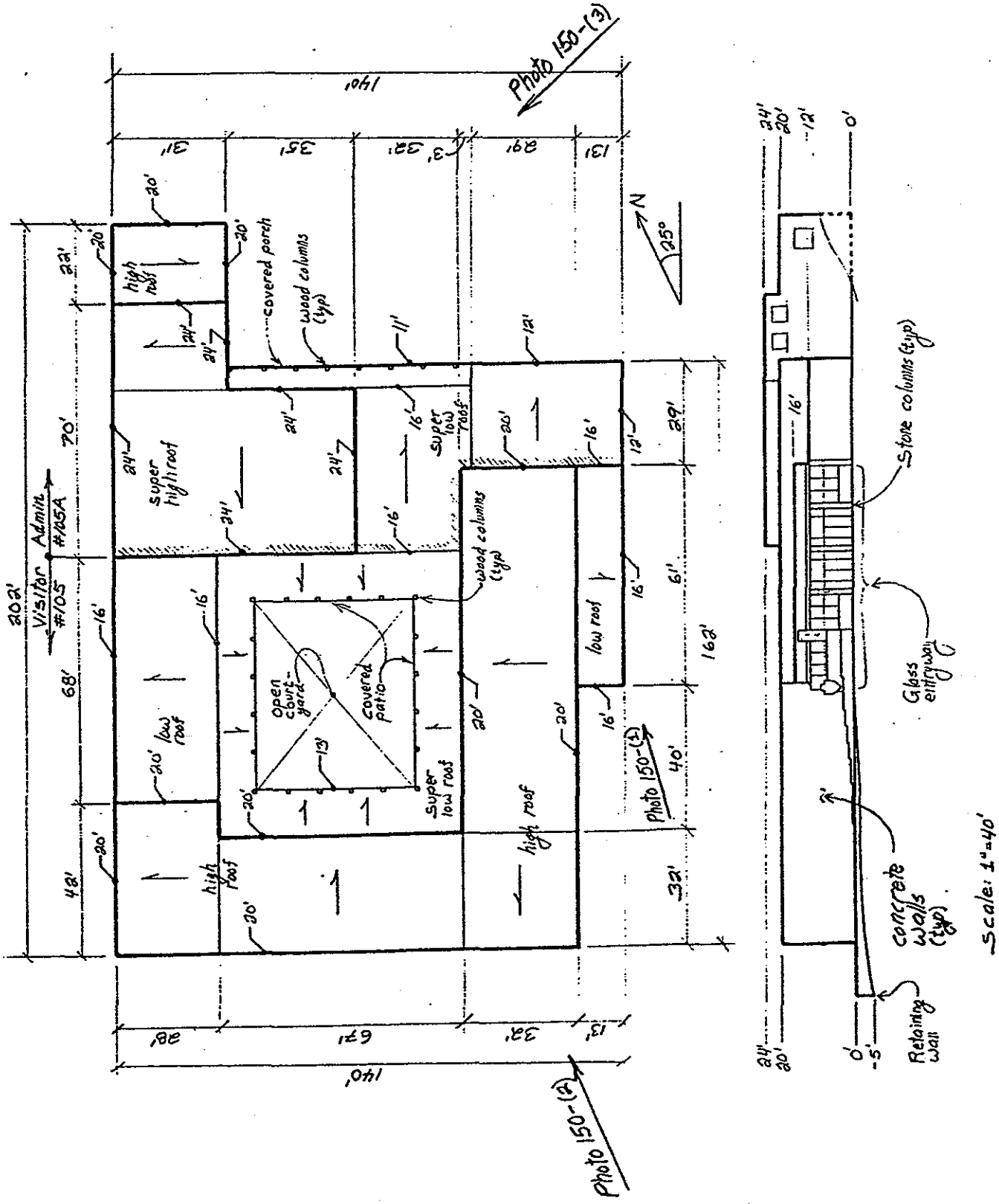


Photo 150-(8) A

Rapid Visual Screening of Seismically Hazardous Buildings

Supplementary Photographs

Address South Entrance Road, Grand Canyon, S. Rim, AZ 86023
Other Identifiers Has 52' courtyard in center of building
Building Name Administration Bldg - Bldg #105A & Visitor Center - Bldg #105



Appendix G. Letter from Louise M. Hinchliffe, formerly of Naturalist Division and Curator Librarian, dated April 16, 2001.

95 Concord Drive
Sedona, AZ 86336
April 16, 2001

Ms. Katherine T. Petrin
Conservator and Historian
Architectural Resources Group
Pier 9, The Embarcadero
San Francisco, CA 94111

Dear Ms. Petrin:

In view of your deadline, I have set one of my own--today's outgoing mail, which means getting to the post office well before the 3 p.m. closing of the window. (Therefore, please excuse me if I resort to strikeovers rather than erasures--every minute counts.)

I am returning your proof, on which I made a lot of notations when it was easiest to do so, but in many cases I needed more space for details, and they will follow in this letter. I didn't have much luck dating the alterations listed on page 20, because I think most of them occurred after I retired in August 1985. I've returned to the park a number of times since then, but in the meantime most of the people I knew there have left and there is usually not much reason to spend a lot of my time at the Visitor Center.

In order to better visualize what I can tell you about various changes, I've enclosed two copies of a "pre-expansion" floor plan that I traced from something while I still worked there. One is labelled with the 1957 uses of the rooms, and I've used the other to indicate my best recollection of the changes made up until 1985. (I realize that few of these include structural changes, which are your chief interest; and where they do, I am unable to draw them to scale.)

I'll also comment that I'm not sure you expected me to comment on spelling, punctuation and grammar, but too many years of proof-reading have made it hard to read without doing so. You probably didn't need my reactions to the alternatives, either, but that's another old habit.

This may be the best place to bring up a problem that consumed quite a bit of the time I used on this project. In order to get a better sense of the orientation of the building, when compass directions were used in the text, I studied a map from the EIS for the July 1995 General Management Plan (bought at a local yard sale!) and while the VC is rather small, its square shape made it pretty clear that it doesn't line up with any of the cardinal points of the compass. As closely as I could judge--and you can probably confirm this--the front entrance faces ESE; it follows that the rear is WNW, and the sides are NNE and SSW. For simplicity, the Page 21 usage of "East" is the nearest cardinal point to use--but as noted, this makes the reference to "parking lots to the east and west of the building" rather confusing. I think this parking lot error carries over into some of the alternatives.

Now--with one eye on the clock--I'll try to comment on specific areas of the building where I may have useful information.

Changes from the 1957 uses of Visitor Center space (see floor plan)
(With apologies for having to depend on memory for lack of documentation)

Auditorium: Was poorly planned for such use; acoustics poor, both air and visitor circulation poor because entrance and egress were through one door at rear of room. There was no projection booth, so visitors had to walk in front of the slide projector if they came in or left during a program. We tried giving programs there for awhile, but gave up and used it mainly for staff orientation, and other employee programs.
At some point--and I can only be sure it was later than 1966--it was partitioned (see my sketch) for use by a new park activity--a research lab. Since this was probably part of the 1970 "Reorganization" this date may come nearest to those internal structural changes. Following a fire in one of the middle rooms of the lab, which could easily have trapped someone in a rear room, a window was cut into the rear wall.
At some time prior to mid-1979 the lab moved out, and after considering several alternatives, the Superintendent directed that the library should be moved into the rooms. The "window" room became the librarian's office.

Study Collection: I don't think this was affected by any of the changes--at least as of 1985. I don't understand the reference on page 10 to "a series of three 'study collection' rooms..." At one time we considered subdividing it to help the curator escape the pervasive PDB fumes, but I can't remember if anything was done about it. During the years we had no curator, I spent a lot of time in there.

Workshop: Originally a necessity when interpretive exhibits were "home made," it later provided storage and office space for Cooperating Ass'n. staff and publications. It was reduced in size when the upstairs was built; the "lost" part became the Mail & Files room for Administration.

Naturalist & Sec'y: In 1957 were used by Park Naturalist Schellbach and myself, until staffing the information desk became too difficult to do and we "traded" with some of the spaces in the front of the building.

Vault: Was used for storage of irreplaceable items--"type specimens" from the study collection, historic uniforms, archival materials, reserve "art" for future exhibit use, and a lot of potentially historic files that would have been subject to periodic "files reduction" programs if I hadn't insisted on saving them.
The small, unlabelled room next to the vault was a closet, originally large enough for all the sales stock of the GCNHA beyond what was kept at the information desk point-of-sale.

Library: Served that purpose until mid-1979. By then, many seldom-used periodicals had to be stored on shelves in the study collection room and there was very limited work area for processing new books, etc.
As noted under "Auditorium" the library moved its operation to the original auditorium space. Later (sorry, no date) this room was subdivided for use of the Cooperating Association employees.
(Incidentally, the libary suffered from leaking roofs in both locations.)

Rangers: Also frontoffices labelled "Sup't."and "Secy.) - Since these don't involve structural changes, they are of interest only in trying to date some of the other changes. The "Superintendent" office was really just ceremonial; it contained basic furniture and he occasionally dropped by or met guests there, but eventually realized we needed the space badly, and released it to the Naturalists. When we vacated the two small offices in back, the Rangers used them (I remember that the NPS "Lost & Found" operation was handled in one of them. I also think a "pass-through" was cut into the wall between the 2 back offices at some point--I forgot to mention it on page 2.)
The "Secy" office--which had been mine for awhile--was turned over to a U.S. Commissioner when the park was assigned one--probably in the 1960's. Later, probably during the 1970-1975 reorganization, when I was shifted to a new creation, the division of "Environmental Activities and Systems Evaluation (EASE)--I also became "Curator-Librarian" and moved my desk to the (original) library.
The large "Ranger" room, behind the information desk, housed the growing permanent Interpretive staff and lockers for the summer "seasonals."

Lobby: The only real alteration during the time I was there was the addition of a sales desk and temporary partition for a book display area in the corner to the left as one entered the front doors. This was done to relieve the information desk staff of the responsibility for selling, and because as the Association grew there was inadequate display space for their books, magazines, slides, etc.

Exhibits: I'm sorry to be unable, in the time available, to relate the changes made in this room to specific dates. Short of the addition of the second story, they are probably the only significant structural changes. The first one was the shortening of the end farthest from the lobby in order to add a conference room and the Dispatch office. It would seem likely the need for a conference room followed soon after the Superintendent moved into his new office on the second floor.
Much later, another portion became the present auditorium, and I am reasonably sure this happened after I left. And--probably most recent of all--the sales area has been enlarged and probably intrudes on former exhibit space. (I use present tense, not knowing if the whole thing is now at Mather Point.)

In somewhat random order: I can't remember if the vestibules were installed while I was there; they may have been a response to the 1970's fuel shortages. The "...and Park Headquarters" was probably added when the second floor gave the Supt. an office in the Visitor Center, along with various staff members. I don't think there were solar panels on the roof in 1985.
If the "storage attic" referred to a couple times is the one accessed by a ladder in the present library, it would have been opened up during the research lab occupancy of the room; it was there before 1979. The shelves in its hallway were added for me.

In the event that you don't have an interior drawing of the room currently used as library, I did a rather hasty one from memory, but didn't have time to try to depict the "elevation" in the interior where the large room with high ceiling gives way to the hall into the lower-ceilinged small rooms. Before we moved in I had to do measured drawings of all the rooms in order to figure out how to get in the greatest number of shelving units and other furnishings, and decide on the best (most logical) way to group the books, but I couldn't find a copy of that one in any of my accessible files.

I found all the report interesting, although I had a little difficulty identifying areas in the second floor when they were described by room number--to us they were "Word Processing Room" or "Superintendent's Office" and so on. The difference in level on that floor also puzzled me--trying to figure out where it was that a ramp was being proposed. (Were there a couple steps in the hall that extends from front to back, just short of the turn?) (you don't have to answer this!)

About the elevator location: An exterior photo I have looks as if there are two chimneys. One is the lobby fireplace, and it backs up ~~the~~ to the wall of the old library (it used to get pretty warm when we built fires). The other is from the furnace in the basement and is farther north.

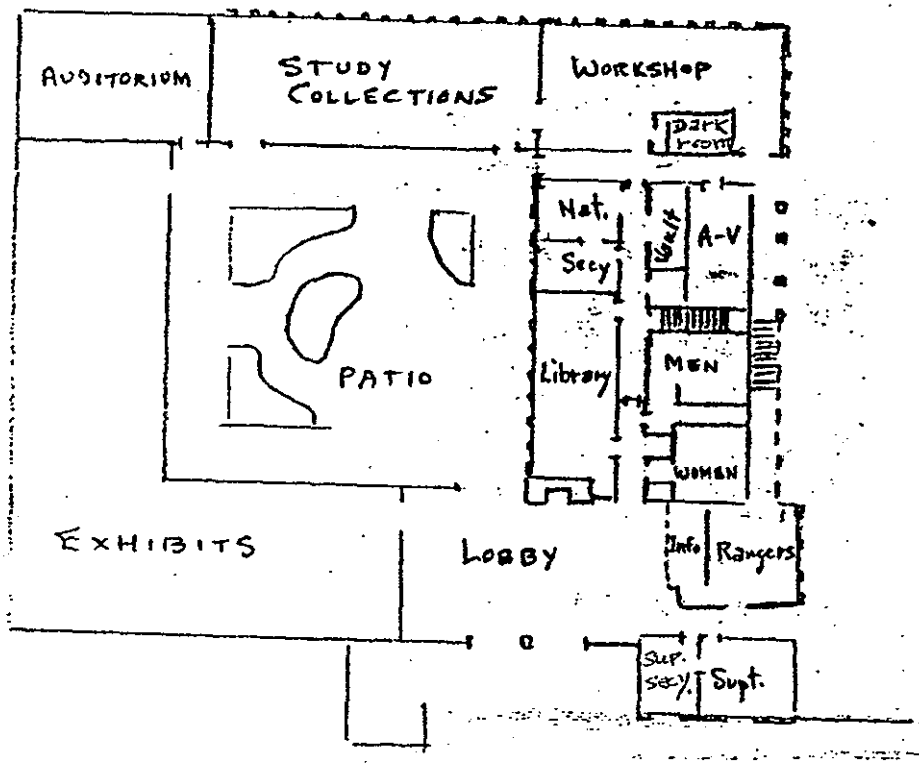
I liked a lot of the suggested uses, and the attempts to return to the "historic" appearance of the building. I just wonder if the large expanses of windowless walls on east and south will result in claustrophobic work areas if these become offices. I was awfully grateful for the one window in the otherwise blank walls of the library I moved into in '79.

Regarding moving the library back to its original spot. I do realize that a lot of space has been gained recently by acquiring the sort of shelving that moves on tracks to make aisles only where needed, and I don't know to what extent older holdings may have been microfilmed and disposed of, but I also know they've added a lot of books since 1985. The references to "visitor" access also made me wonder--does this mean park visitors? I do know that security had relaxed a great deal after I left (it used to be locked to all but employees). The last time I visited, not only was the door unlocked--there was no one in attendance. I hope that if greater accessibility is provided, there also needs to be greater security. The library contains a lot of material that is tempting to collectors, as I learned through sad experience. someone teen-

It's time to get this on its way. I hope it reaches you before your deadline. I enjoyed trying to help.

Sincerely,

Louise M. Hinchliffe



Grand Canyon Visitor Center rooms, as originally used (1957)

Changes in use of rooms after 1957, and before I left in 1985

Auditorium, partitioned into 5 rooms as research lab, possibly about 1970. Lab moved out; library moved in during June 1979.
Study Coll. Room - No structural or usage changes that I recall.
Workshop - Reduced in size during the 1966 addition; gradually taken over as office & storage for Cooperating Assn.
Library - Served this purpose until we "outgrew" it in 1979; was later partitioned for office space.

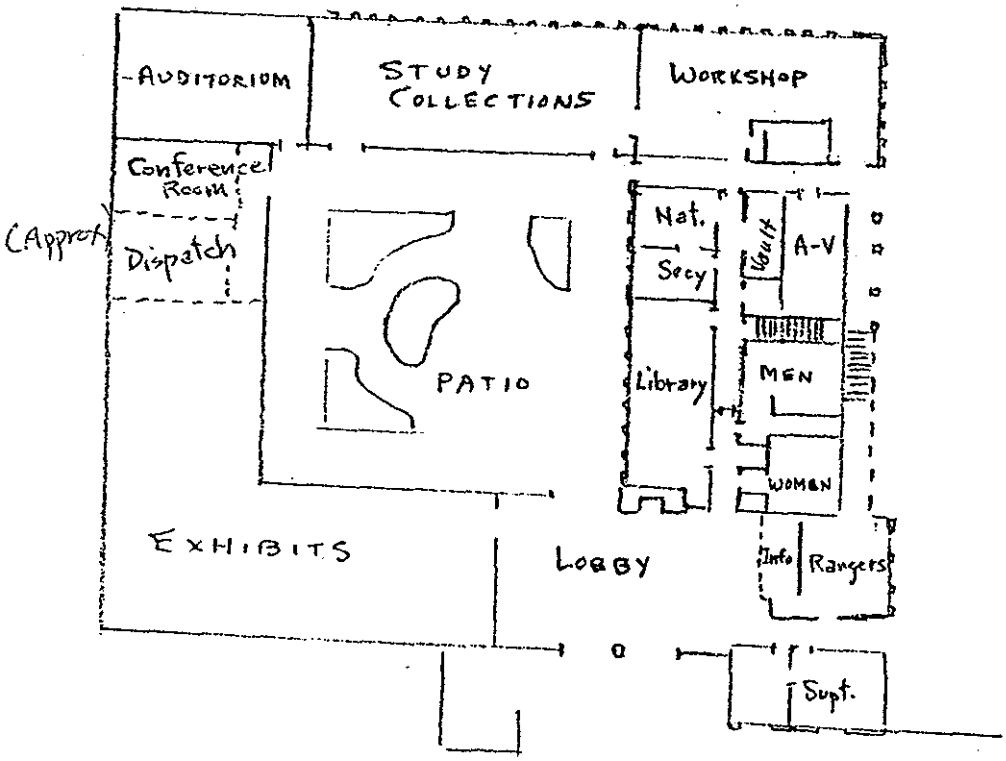
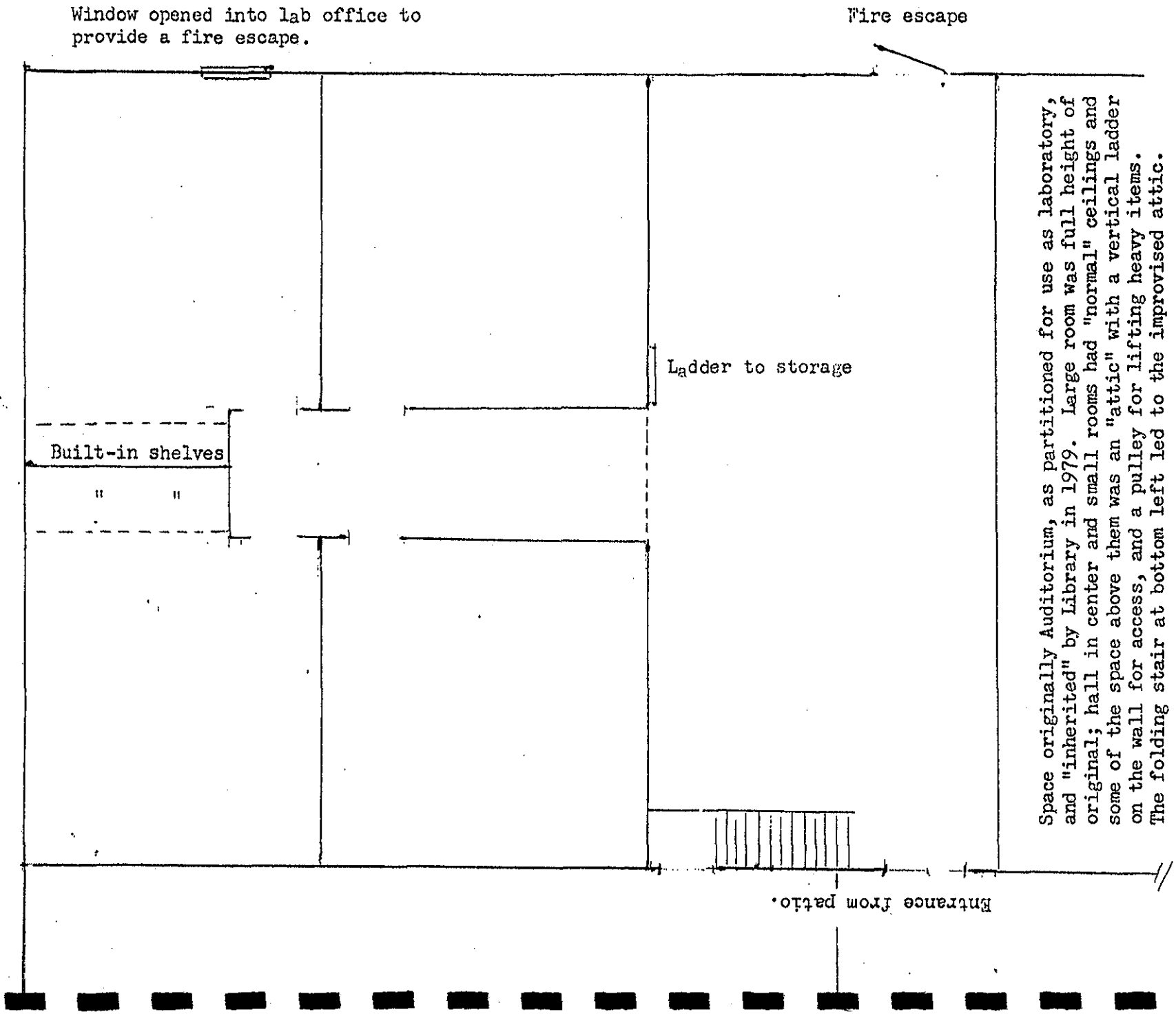


Exhibit Room: Used as shown for several years ; first reduction was to house Conference Room and Ranger "Dispatch" office. More recently, a large section became an auditorium. (I believe the Coop'g Assn. book sales area expanded into the end nearest the lobby, post-1985.
Other changes only involve shifting around of who used the rooms.



Space originally Auditorium, as partitioned for use as laboratory, and "inherited" by Library in 1979. Large room was full height of original; hall in center and small rooms had "normal" ceilings and some of the space above them was an "attic" with a vertical ladder on the wall for access, and a pulley for lifting heavy items. The folding stair at bottom left led to the improvised attic.

(This was done from memory, and is not to scale, but I think the proportions are similar to those of the other drawings.)

Appendix H. Consultant Reports.

Grand Canyon Visitor Center and Park Headquarters

Existing Conditions

The main portion of the Visitor Center building is roughly 132' by 162' with an open central courtyard area. This structure was completed in 1957. A 68' long by 32' wide addition to the northwest corner, and a second floor over the addition and a portion of the adjacent existing structure, was completed in 1966. A 21' by 36' basement on the north side contains building mechanical equipment. Additional mechanical units and piping are located in crawl spaces under the east and south sides of the structure.

The building is constructed of partially grouted CMU block bearing walls with a steel joist floor and roof system. The roof diaphragm is comprised of 2x tongue and groove wood decking. The second floor diaphragm is a concrete-filled metal deck. The first floor is constructed primarily of structural concrete slab spanning over crawl space or basement areas, and some sections of concrete slab-on-grade. The foundations, retaining walls, and columns within the crawl spaces are constructed of concrete.

Two 12" wide x 28" deep concrete pilasters are located within the south wall, and two 11-5/8" wide by 16" deep concrete pilasters are located in the interior wall corners on the south side. The CMU block is discontinuous where the concrete pilaster/columns occur. Steel wide-flange beams connect the two sets of concrete columns. The beam and column configuration ties the south wall into the remainder of the building to brace the south wall and to transfer lateral loads.

At the exterior of the south wall, a vertical crack in the plaster finish is located along the line of material discontinuity at the southwestern concrete pilaster. The crack stops where the CMU parapet is continuous over the top of the concrete pilaster. The crack is not representative of any structural deficiency; the plaster covering has cracked where two different materials abut each other beneath the plaster.

A projection room with a raised floor, relative to the first floor, exists at the west end of the auditorium. Neither access to the framing nor existing plans were available. Based on plans for a renovation that was not completed at the Visitor Center, it appears the floor could be framed with sawn wood joists on wood stud walls.

Over the library, a wood-framed storage mezzanine was added within the original building. The mezzanine is accessible by a pull-down stepladder. There is evidence of water leakage in several places in the mezzanine. The leakage appears to come through the roofing. At the first floor of the library, on the structural slab over the crawl space, high-density bookcases have been installed. There was no evidence of cracking at the bottom of the slab, which would indicate overstressing of the structural slab.

The original parapets of the roof above the first floor exhibit varying degrees of decay. Most of the decay is limited to the stucco cap. Where this occurs, there is, in some areas, erosion of the concrete cap on top of the masonry wall. The concrete cap could be patched using a concrete grout or the cap could be entirely removed

and replaced. The erosion of the cap does not appear extensive enough to have affected the wall bond beam below the cap.

Above the roof, the fireplace and heating flues both have reinforced concrete caps with severe erosion. Reinforcing steel is exposed in several locations. The caps should be patched or replaced.

The low roof around the perimeter of the central courtyard is framed with straight wood sheathing on 4x6 joists and 6x8 purlins. A wood ledger supports the roof at the CMU walls. Tapered wood columns support the roof at the interior edges of the overhang.

Several of the 6x8 wood purlins have minor side checks and splits, although the purlins are still structurally adequate. One purlin on the west side is noticeably warped downward and has a large split at the bolted connection to the beam below. The warped purlin is most likely the cause of the split and missing portion of decking at the edge.

A lower, wood-framed roof covers the exterior stairway leading down to the basement. The roof is supported by tapered wood columns bearing on the stairway retaining wall, adjacent to the parking lot. The wood column at the top of the stair has been moved partially off of its steel base plate, resulting in a large split at the bottom and exposure of the vertical steel dowel within the column. The damage appears to have been caused by a motor vehicle running into the column; there are no parking curbs adjacent to these columns. This column should be replaced in kind.

Recommendations

The existing structure appears to have been constructed in accordance with the construction documents examined. Overall, the building is in good condition, with only minor, localized areas of deterioration. No immediate hazards are posed by the deterioration, although repairs should be made to mitigate future hazards and prevent further deterioration.

Per provisions of the 1997 Uniform Building Code, the Visitor Center does not require a structural upgrade. Any damaged areas should be restored to their pre-damage conditions, as a minimum. If the general building occupancy is changed, or remodeling which requires modification to more than 10 percent of the structure occurs, then the building should be structurally upgraded to meet the current code. The building is located in seismic zone 2B. The building appears to have been detailed sufficiently to transfer the lateral loads associated with this seismic zone.

Apart from repair of the damage noted under the existing conditions, the basement presents an area of potential hazard. There are a number of mechanical units in the basement, which do not appear to be anchored to prevent overturning. The water heater is one example; a strap should be placed around the heater and anchored to the wall. There are also two "homemade" emergency-supply storage cabinets, constructed of wood, which are sitting on the concrete floor with no anchorage to prevent sliding or

overturning. The units should be removed, or at least anchored to the concrete floor in a manner sufficient to resist lateral loads imposed by the contents of the cabinets.

Several alternate floor plans have been developed for use at the Visitor Center. Alternates B and C require the addition of usable second floor area on the existing roof. The addition could be accomplished by adding intermittent joists between the existing roof joists, as was done for the 1966 addition. All framing would still bear on the existing CMU bearing walls. A new elevator would be located to land between the existing continuous footings at the slab-on-grade. An exterior exit stair would require new supports and a new landing over the stairwell to the basement. It does not appear that extensive seismic upgrading would be necessary to accommodate the addition. It is feasible to do this work to the existing structure.

The floor plan alternates also show the addition of windows in the north, south, and east CMU walls at the courtyard. The modification required to add the lines of windows indicated would substantially impact the load capacity of the building. The interior CMU walls are both gravity-load bearing and shear walls. Adding the number of windows indicated will greatly reduce the lateral load transfer capabilities of the original structure, including its capacity to transfer the loads imposed by the 1966 addition and any new addition to the second floor. Additional upgrade work to the building would be required if the windows are added.

Flack + Kurtz Inc.

Park Headquarters and Visitor's Center
Grand Canyon National Park, Arizona

BUILDING ASSESSMENT REPORT

Prepared for:
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November 7, 2000

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I. INTRODUCTION

A. GENERAL

The Visitor's Center is located on the South Rim of Grand Canyon National Park. The site elevation is approximately 7,000 feet above sea level.

The Visitor's Center was originally constructed in 1957 and an addition was added in 1966. It is a two story building with a crawl space and basement for mechanical and electrical equipment. The original purpose of the Visitor's Center was for use as exhibit space, ranger offices, workshops, lectures and collection studies. It has been renovated to include a small library, theater and additional offices. With the completion of the new Visitor's Center in the fall of 2000, current plans call for the existing Visitor's Center to be remodeled into new Park offices.

This report provides a basic assessment of the building's HVAC, plumbing, fire protection and electrical systems. The report is based on a review of available building drawings and a walk through of the building on May 15th and 16th, 2000 by Flack + Kurtz engineers. The estimation of the future viability of existing systems is based solely on field observations. The walk through was limited to the observation of visible equipment only. Equipment was not tested or operated for functionality, nor were hidden areas exposed or inspected.

Recommendations related to code issues are based on the current versions of the Uniform Building, Electrical, Fire, Mechanical, and Plumbing codes.

II. HEATING, VENTILATING AND AIR CONDITIONING

A. GENERAL DESCRIPTION

In general the heating and ventilating equipment seemed to be in good working order and have been fairly well maintained through the years. However, most of the equipment is at the end of its operational lifetime. The plans of the existing conditions appear to be reasonably accurate with only a few deviations and undocumented changes.

B. AIR CONDITIONING SYSTEM

1. Existing Conditions

The Visitor's Center is heated by two fuel oil fired hot water boilers. The first one (Kewanee No.3R10) was installed in 1957 with the original building and the second (National–US M-4102) was installed in 1966 with the renovation. Fuel oil is stored in an underground tank located just outside the building. Two heating hot water pumps (Circ Pump's 1&2) circulate hot water throughout the building. The boilers and pumps are located in a small basement on the north side of the building. The heat is delivered to the spaces primarily through a perimeter finned tube radiation system. Typically finned tube radiation elements are located under each window in all of the spaces. In the old study collection and workshop areas ceiling hung hot water unit heaters provide heat for the spaces.

In the old exhibit spaces there is a multi-zone air handling unit (AHU) which provides outside air, heating and cooling for the theater, bookstore/gift shop and library. The air handling unit is located in the crawl space under the theater area with supply and return ducts running in the crawl space to the old exhibit spaces. The ductwork above the crawl space was rerouted in 1977 to accommodate the theater revisions and now primarily serves that space. The AHU has a hot water coil, cooling coil and three zones. Outside air is provided through an architectural wall louver and enters the AHU through a mixed air plenum.

Cooling was not provided in the building except for the original exhibit spaces with the multi-zone AHU. Cooling water for the air handling unit is provided by a cooling tower located in the basement with the boilers. A pump located in the crawl space next

to the AHU circulates water between the AHU and cooling tower. The cooling tower is an ACME Model JCT-15.

The remainder of the building has operable windows and was not originally provided with cooling. However, since the initial construction small window mounted, air cooled, air conditioning units have been added to a majority of the private office spaces and a large unit provided for the server room located on the second floor. In addition, a small air cooled heat pump (Carrier Model 50YQ) has been installed in the crawl space and serves a small communications room located on the ground floor directly above.

The building systems are operated by a Honeywell pneumatic controls system. The compressor is located in the basement with the boilers. There are several control panels located throughout the building including the boiler room and crawl space.

2. Recommendations

In order to achieve a comfortable office working environment full air conditioning for all of the occupied spaces should be provided. The existing multi-zone unit should be removed along with the cooling tower, circulating pump and cooling water piping. All of the window mounted air conditioning units should be removed.

The heating hot water distribution system and finned tube radiators appear to be in good working order and could remain in place. The boilers should be replaced with new high efficiency type. Currently the boilers utilize fuel oil as mentioned above. The new boilers could use fuel oil as well. However, alternate (cleaner burning and more efficient) fuel sources such as natural gas and propane should be considered. Service and availability of these fuel sources in the area would also need to be considered. The heating hot water circulating pumps should be replaced as well. The fuel oil system, including tank, should be inspected for any leakage and repaired or replaced as necessary.

Rooftop air or water cooled air conditioning units could be one alternative for conditioning the office areas. With an air cooled system water would not be used in the evaporation process which would conserve water.

III. PLUMBING

A. DOMESTIC WATER SYSTEM

1. Existing Conditions

There is an existing 6" domestic water service that enters at the NE corner of the building in the basement. Pressure reducing stations are installed prior to distribution of domestic water to the plumbing fixtures. The building hot water system consists of two electric water storage heaters. One is located in the basement level and one located in the SW corner of the building in the crawl space serving sinks.

Domestic hot water for the main restrooms was at one time provided by solar panels located on the roof. It appears that at some point after the initial installation the system was disconnected and left inoperative.

2. Recommendations

The current systems are well maintained and appear to be functioning without problems. Depending on the National Park Service's prior experience with the solar panels they may wish to refurbish or replace the existing solar panels for continued use.

B. FIRE PROTECTION SYSTEM

1. Existing Conditions

There currently are no fire sprinklers in the building. The building has 1½ inch fire hose valves at various locations in the building with 75 feet of hose. There are also fire extinguishers located adjacent to the fire hose stations.

2. Recommendations

As required by NPS Directors Order #50B an automatic sprinkler system shall be installed in any renovated park's service building. This can be accomplished by providing a new 4 inch fire service and fire sprinkler protection of the building with a wet fire sprinkler system. Remove the existing 1 1/2 inch fire hose valves. Provide a fire department connection on the exterior of the building.

C. SANITARY AND STORM SYSTEM

1. Existing Conditions

The sanitary and vent system is collected within the building and leaves the NE corner via a 4 inch sanitary sewer line. The vent lines terminate at the roof level.

The building plumbing fixtures are old but are functioning. Their status as historical fixtures has not been identified however should they be labeled historical they could be refurbished.

The storm drainage system collects the roof drains and leaves the building via an 8 inch storm drain line in the SW corner.

2. Recommendations

The sanitary system is believed to be in good condition. ADA requirements should be reviewed as to whether they meet the current standards.

D. GAS AND FUEL OIL SYSTEM

1. Existing Conditions

There is a gas propane system on site that serves the emergency generator located outside the main building in the SE corner. A diesel fuel storage tank is located underground outside the building at the NE corner. The diesel fuel serves the mechanical system boilers.

2. Recommendations

No deficiencies were expressed in the operation of the emergency generator system. The propane tank should be checked for leaks and general functional integrity. The fuel oil tank should also be checked for leaks to verify integrity.

IV. ELECTRICAL

A. ELECTRIC SERVICE

1. Existing Conditions

Electrical service to the building is provided by APS at 120/208V, 3-phase, 4-wire. The service disconnect is a 3P-800A circuit breaker which in turn feeds an 800A main distribution panel located in the basement mechanical room.

2. Recommendations

The existing service equipment appears to be in fair condition but is a candidate for replacement due to its age. Recommend replacement.

The existing service capacity is adequate for the planned renovation. However, the load capacity will be reviewed when the air conditioning and computer loads are more fully established.

B. POWER DISTRIBUTION

1. Existing Conditions

Panelboards for lighting and receptacle circuits are located at various points within the building. Service to the panelboards is via overhead conduit routing. There is some surface mounted conduit in limited areas throughout the building. Panelboards are rated at 120/208V, 3-phase.

2. Recommendations

All existing panelboards should be replaced with new panels during the renovation phase. It may be possible to replace any surface mounted conduit with concealed conduit it thoese areas are renovated.

C. LIGHTING AND RECEPTACLES

1. Existing Conditions

Lighting consists mainly of surface mounted fluorescent fixtures and incandescent downlights. Fluorescent fixtures appear to be fitted with T12 lamps and magnetic ballasts. It could not be identified whether the ballasts contain PCB's.

Recessed wall mounted receptacles and telephone outlets are located at various points to satisfy current equipment locations.

2. Recommendations

All light fixtures should be replaced with new energy efficient lighting systems. Magnetic ballasts should be assumed to contain PCB's and disposed of in accordance with all applicable rules and regulations. Provide fluorescent T8 electronic ballasts and T8 lamps.

D. FIRE ALARM SYSTEM

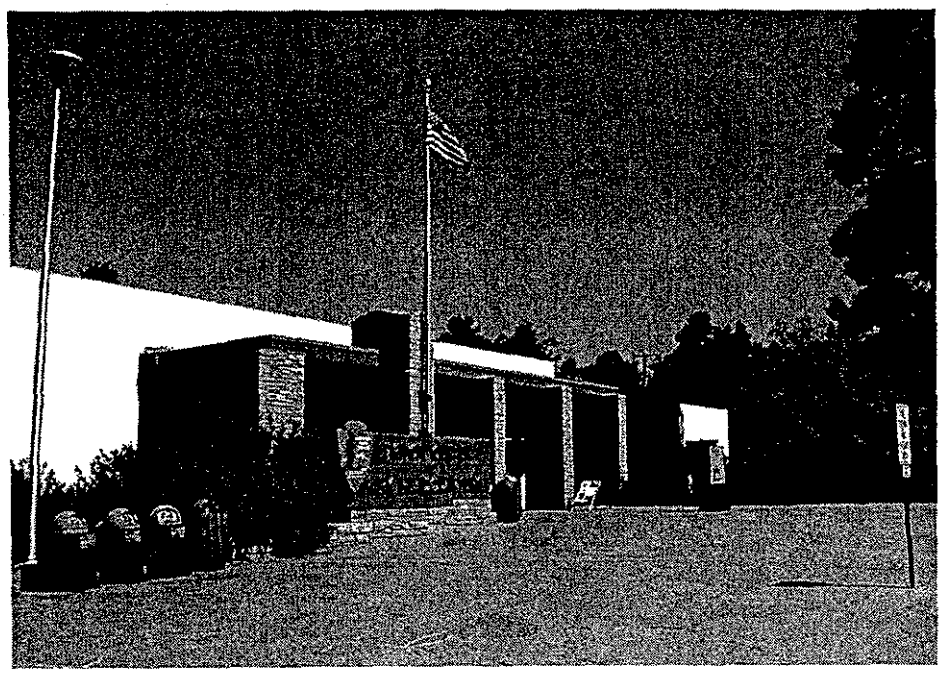
1. Existing Conditions

There is no fire alarm system currently installed.

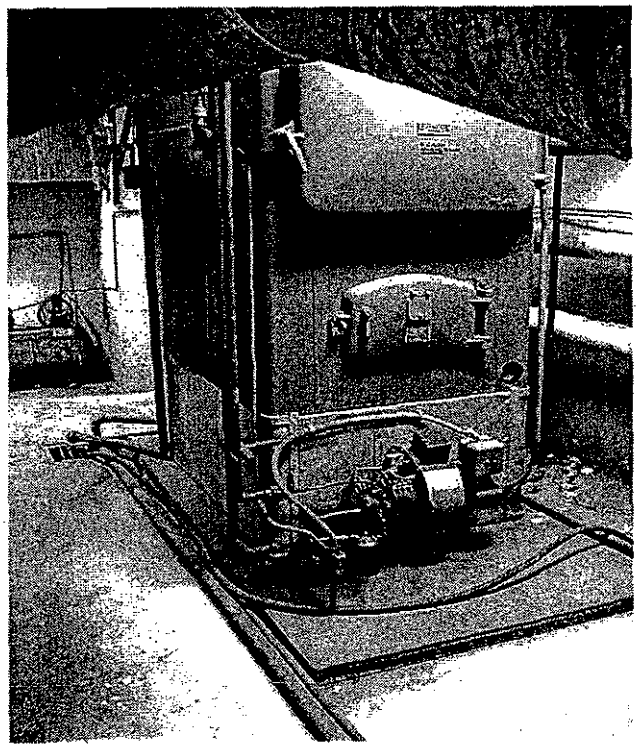
2. Recommendations

The current occupancy use group does not require a full fire alarm signaling system. However, it is recommended to add ADA visual strobe devices to meet the requirements of the Americans with Disabilities Act of 1990 (ADA). ADA xenon strobes should be located 80" above finished floor or 6" below ceiling, whichever is lower. Strobes would located in all common areas including break rooms, lobbies and restrooms. A fire alarm panel will need to be provided in order to power the strobe devices.

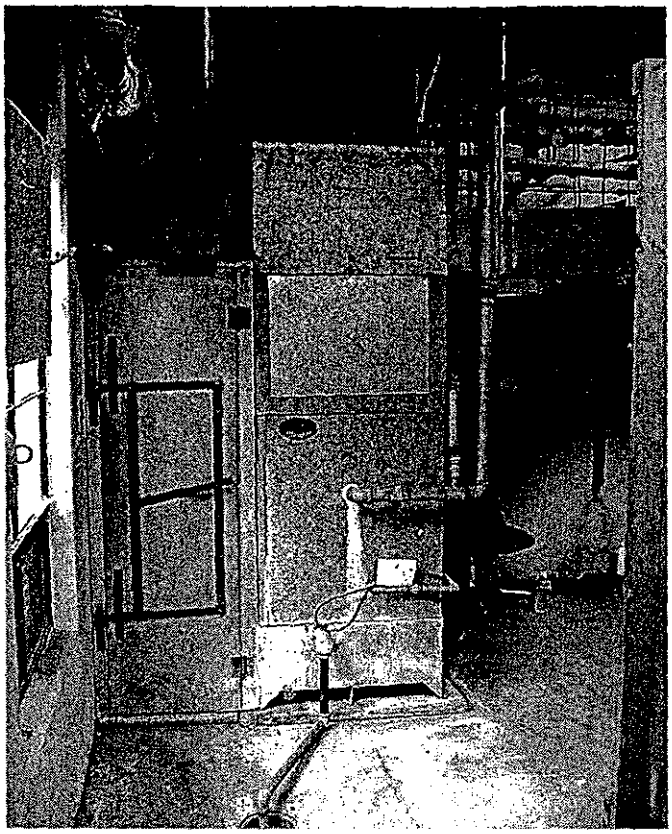
V. SITE PHOTOS



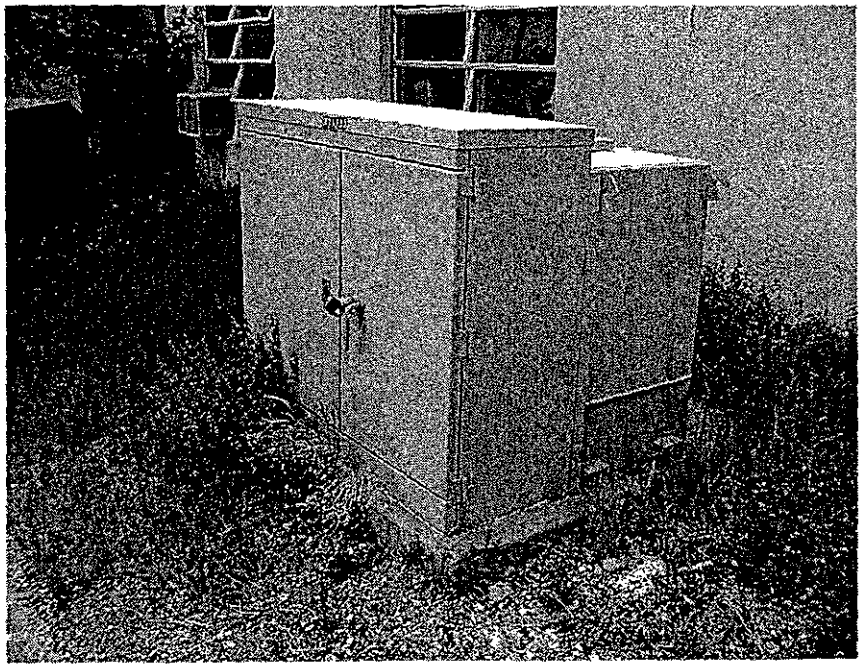
a: Main Entrance



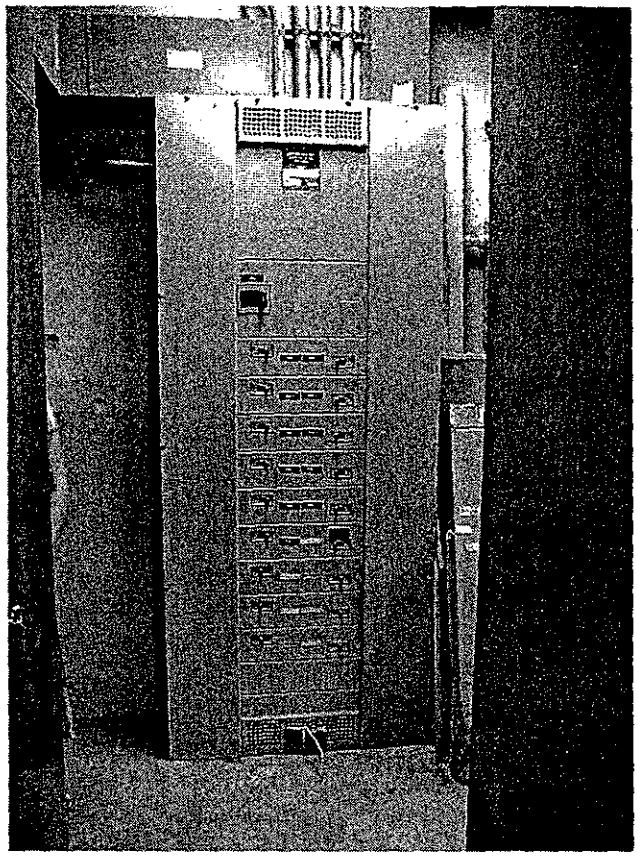
b: Original Boiler



c: Cooling Tower

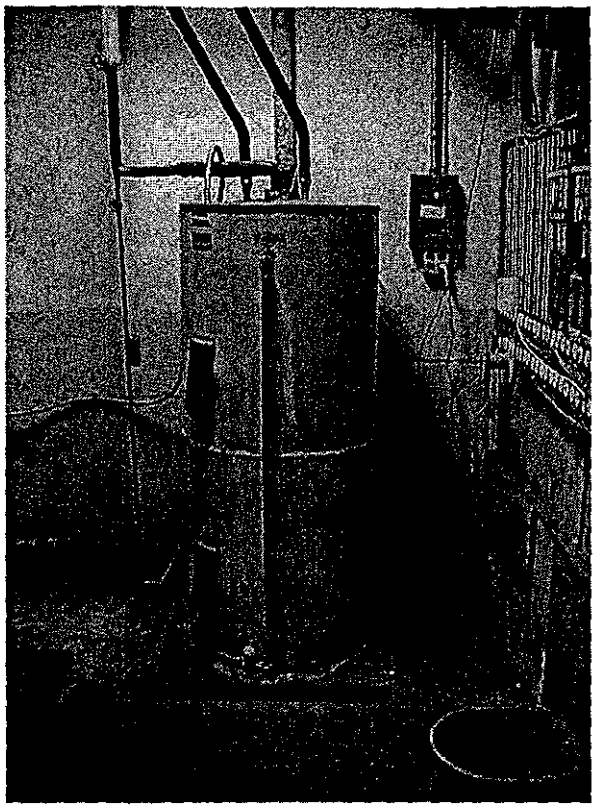


d: Transformer

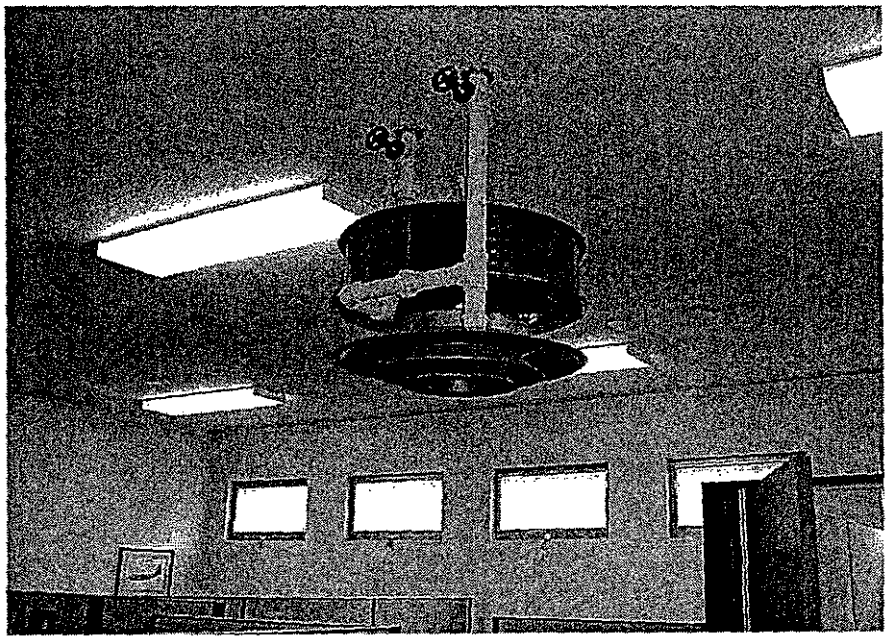


e: Main Electrical Distribution Panel

f: Window Cooling Unit

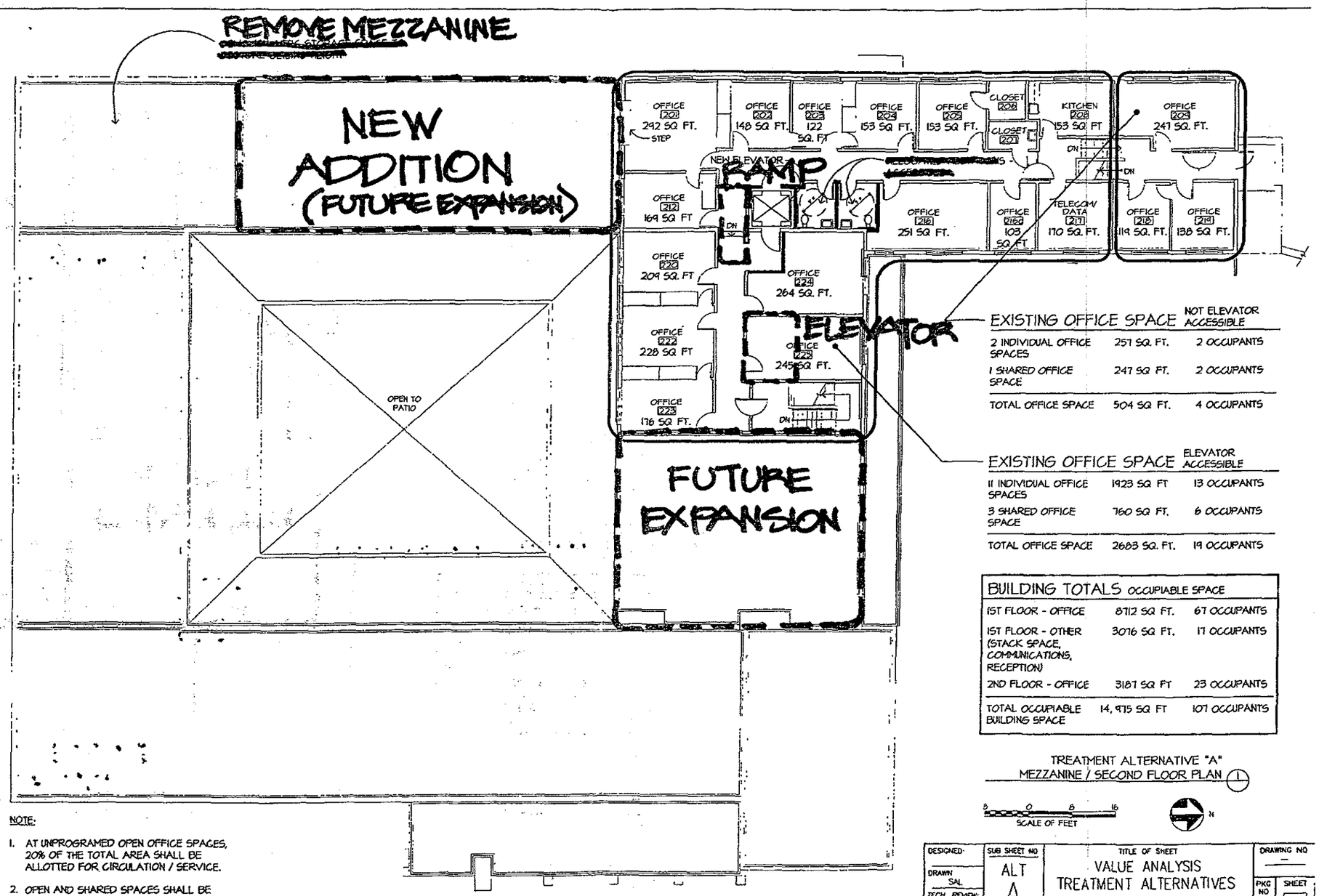


g: Domestic Water Heater



h: Unit Heater

Appendix I. Alternative Treatment Drawings as Revised at the Park Headquarters Value Analysis, held February 6-7, 2001.



EXISTING OFFICE SPACE		NOT ELEVATOR ACCESSIBLE
2 INDIVIDUAL OFFICE SPACES	257 SQ. FT.	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT.	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT.	4 OCCUPANTS

EXISTING OFFICE SPACE		ELEVATOR ACCESSIBLE
11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT.	13 OCCUPANTS
3 SHARED OFFICE SPACE	760 SQ. FT.	6 OCCUPANTS
TOTAL OFFICE SPACE	2683 SQ. FT.	19 OCCUPANTS

BUILDING TOTALS	OCCUPIABLE SPACE	
1ST FLOOR - OFFICE	8712 SQ. FT.	67 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	3076 SQ. FT.	17 OCCUPANTS
2ND FLOOR - OFFICE	3187 SQ. FT.	23 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	14,975 SQ. FT.	107 OCCUPANTS

TREATMENT ALTERNATIVE "A"
MEZZANINE / SECOND FLOOR PLAN

8 0 8 16
SCALE OF FEET

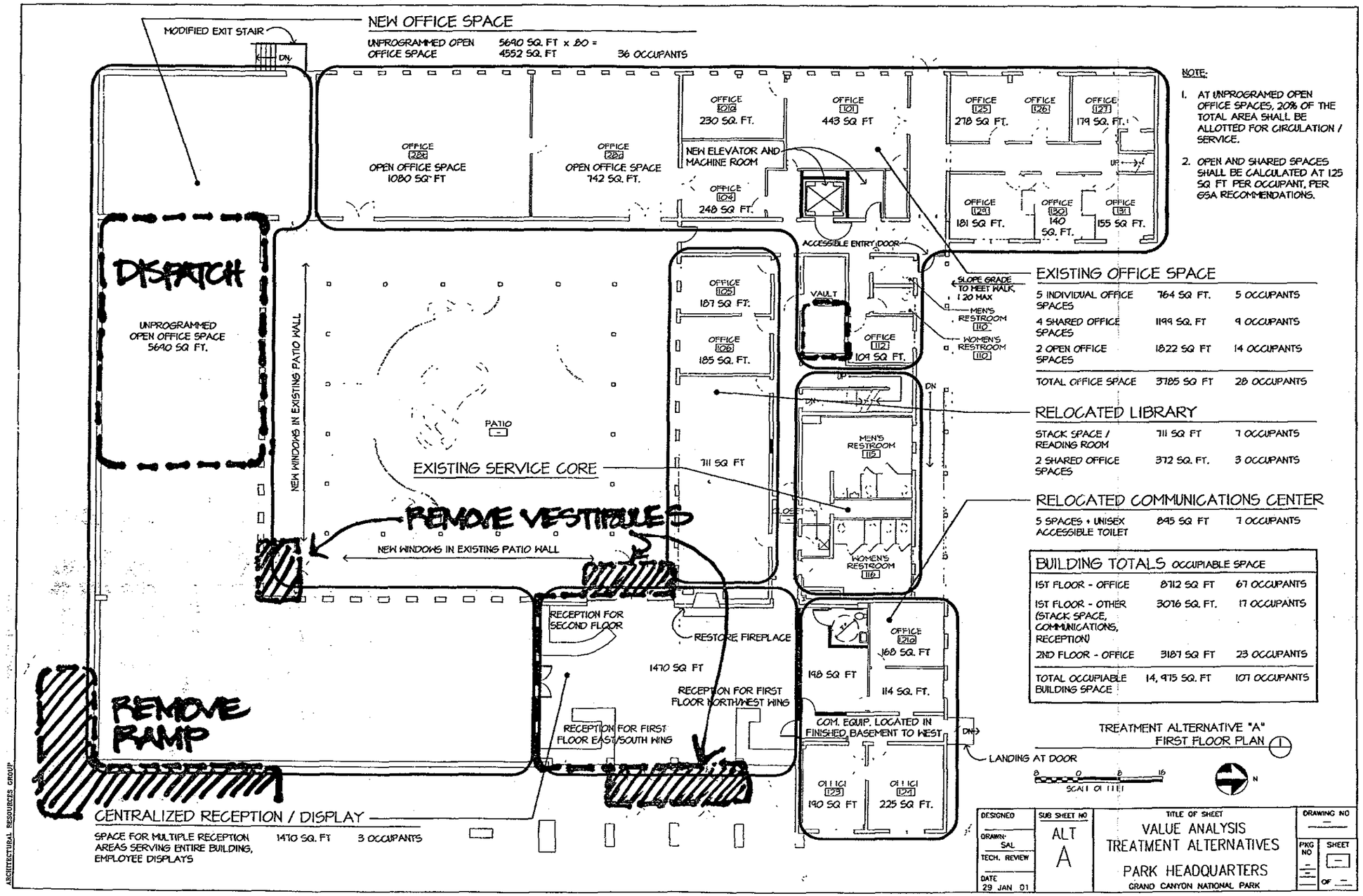
N

NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

ARCHITECTURAL RESOURCES GROUP

DESIGNED	SUB SHEET NO	TITLE OF SHEET	DRAWING NO
DRAWN SAL	ALT A	VALUE ANALYSIS TREATMENT ALTERNATIVES	—
TECH. REVIEW		PARK HEADQUARTERS	PKG NO — SHEET — OF —
DATE 29 JAN 01		GRAND CANYON NATIONAL PARK	



NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ FT PER OCCUPANT, PER GSA RECOMMENDATIONS.

EXISTING OFFICE SPACE

5 INDIVIDUAL OFFICE SPACES	764 SQ FT.	5 OCCUPANTS
4 SHARED OFFICE SPACES	1199 SQ. FT	9 OCCUPANTS
2 OPEN OFFICE SPACES	1822 SQ FT	14 OCCUPANTS
TOTAL OFFICE SPACE	3785 SQ FT	28 OCCUPANTS

RELOCATED LIBRARY

STACK SPACE / READING ROOM	711 SQ FT	7 OCCUPANTS
2 SHARED OFFICE SPACES	372 SQ. FT.	3 OCCUPANTS

RELOCATED COMMUNICATIONS CENTER

5 SPACES + UNISEX ACCESSIBLE TOILET	895 SQ FT	7 OCCUPANTS

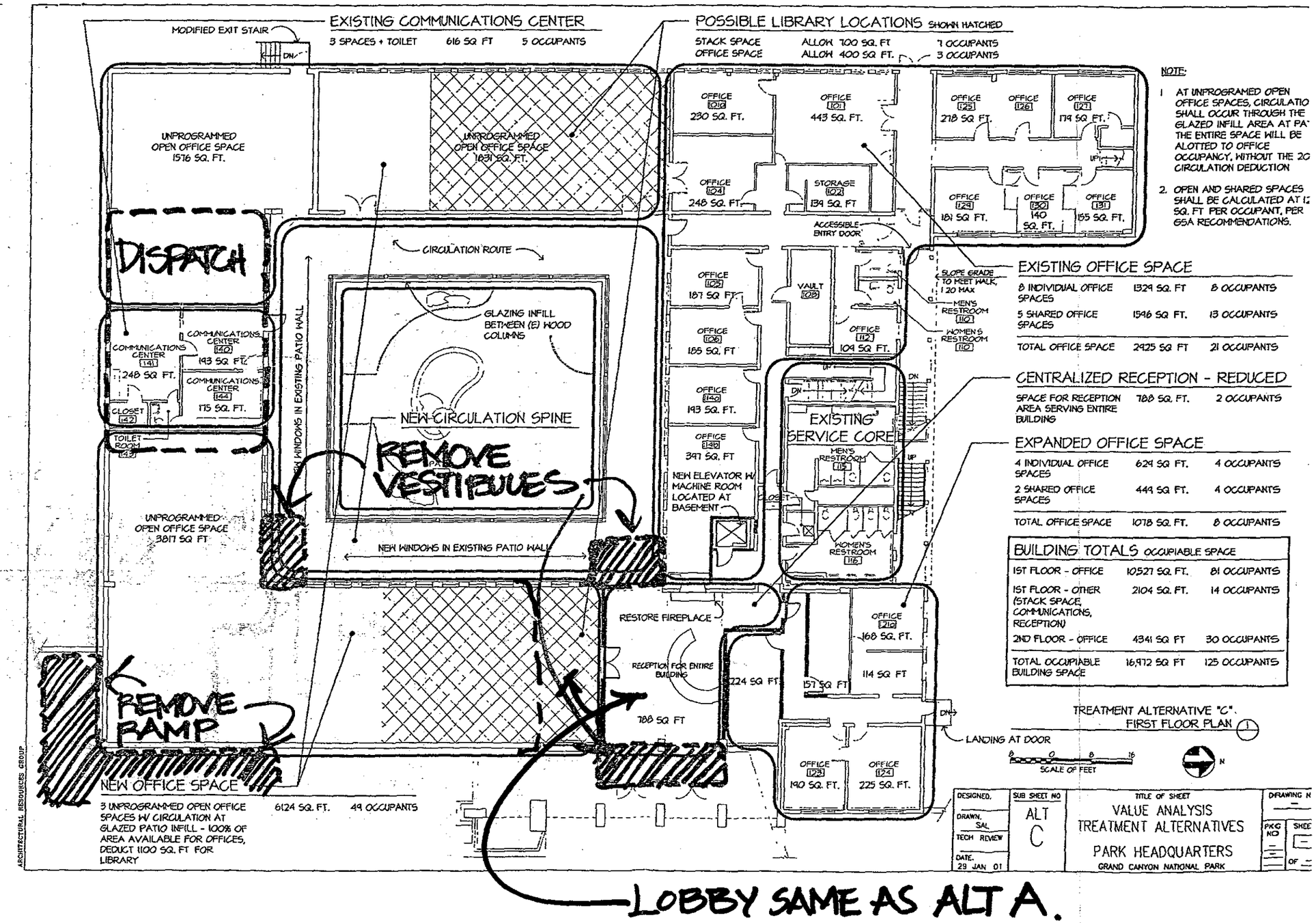
BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	8712 SQ FT	67 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	3076 SQ. FT.	17 OCCUPANTS
2ND FLOOR - OFFICE	3187 SQ FT	23 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	14,975 SQ. FT	107 OCCUPANTS

TREATMENT ALTERNATIVE "A"
FIRST FLOOR PLAN (1)

SCALE 1:1 (1:1)

DESIGNED	SUB SHEET NO	TITLE OF SHEET	DRAWING NO
DRAWN: SAL	ALT A	VALUE ANALYSIS TREATMENT ALTERNATIVES	PKG NO
TECH. REVIEW		PARK HEADQUARTERS	SHEET
DATE 29 JAN 01		GRAND CANYON NATIONAL PARK	OF



NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, CIRCULATIO SHALL OCCUR THROUGH THE GLAZED INFILL AREA AT PA THE ENTIRE SPACE WILL BE ALOTTED TO OFFICE OCCUPANCY, WITHOUT THE 20 CIRCULATION DEDUCTION
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 1: SQ. FT PER OCCUPANT, PER GSA RECOMMENDATIONS.

EXISTING OFFICE SPACE

8 INDIVIDUAL OFFICE SPACES	1329 SQ. FT	8 OCCUPANTS
5 SHARED OFFICE SPACES	1596 SQ. FT.	13 OCCUPANTS
TOTAL OFFICE SPACE	2925 SQ FT	21 OCCUPANTS

CENTRALIZED RECEPTION - REDUCED

SPACE FOR RECEPTION AREA SERVING ENTIRE BUILDING	788 SQ. FT.	2 OCCUPANTS

EXPANDED OFFICE SPACE

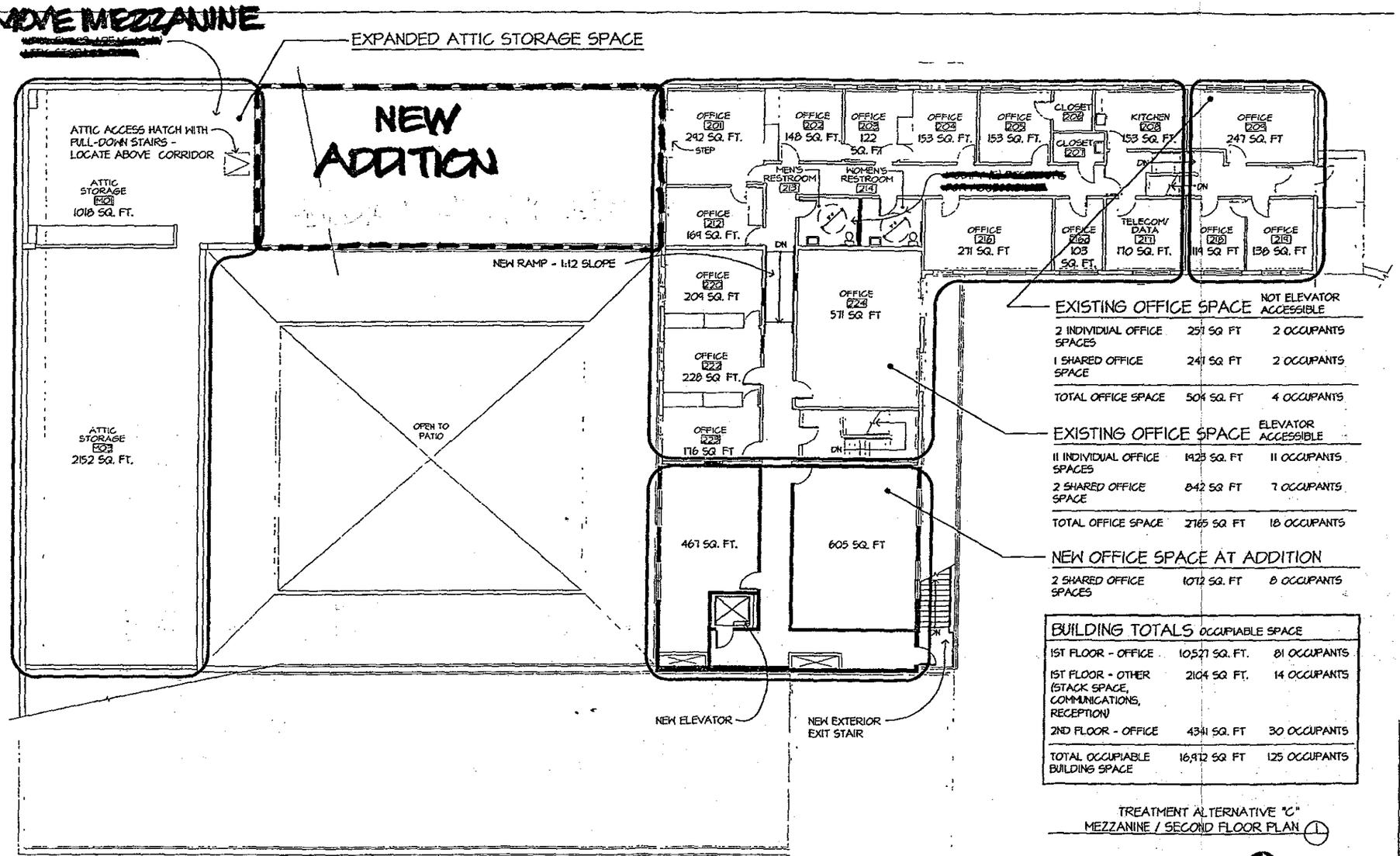
4 INDIVIDUAL OFFICE SPACES	624 SQ. FT.	4 OCCUPANTS
2 SHARED OFFICE SPACES	449 SQ. FT.	4 OCCUPANTS
TOTAL OFFICE SPACE	1078 SQ. FT.	8 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE

1ST FLOOR - OFFICE	10527 SQ. FT.	81 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2104 SQ. FT.	14 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ FT	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	16,972 SQ FT	125 OCCUPANTS

TREATMENT ALTERNATIVE "C". FIRST FLOOR PLAN (1)

LOBBY SAME AS ALT A.



EXISTING OFFICE SPACE		NOT ELEVATOR ACCESSIBLE
2 INDIVIDUAL OFFICE SPACES	257 SQ. FT	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT	4 OCCUPANTS

EXISTING OFFICE SPACE		ELEVATOR ACCESSIBLE
11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT	11 OCCUPANTS
2 SHARED OFFICE SPACE	842 SQ. FT	7 OCCUPANTS
TOTAL OFFICE SPACE	2765 SQ. FT	18 OCCUPANTS

NEW OFFICE SPACE AT ADDITION		
2 SHARED OFFICE SPACES	1072 SQ. FT	8 OCCUPANTS

BUILDING TOTALS	OCCUPIABLE SPACE	
1ST FLOOR - OFFICE	10,527 SQ. FT.	81 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION)	2104 SQ. FT.	14 OCCUPANTS
2ND FLOOR - OFFICE	4341 SQ. FT	30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE	16,972 SQ. FT	125 OCCUPANTS

TREATMENT ALTERNATIVE "C"
MEZZANINE / SECOND FLOOR PLAN (1)

8 0 8 16
SCALE OF FEET

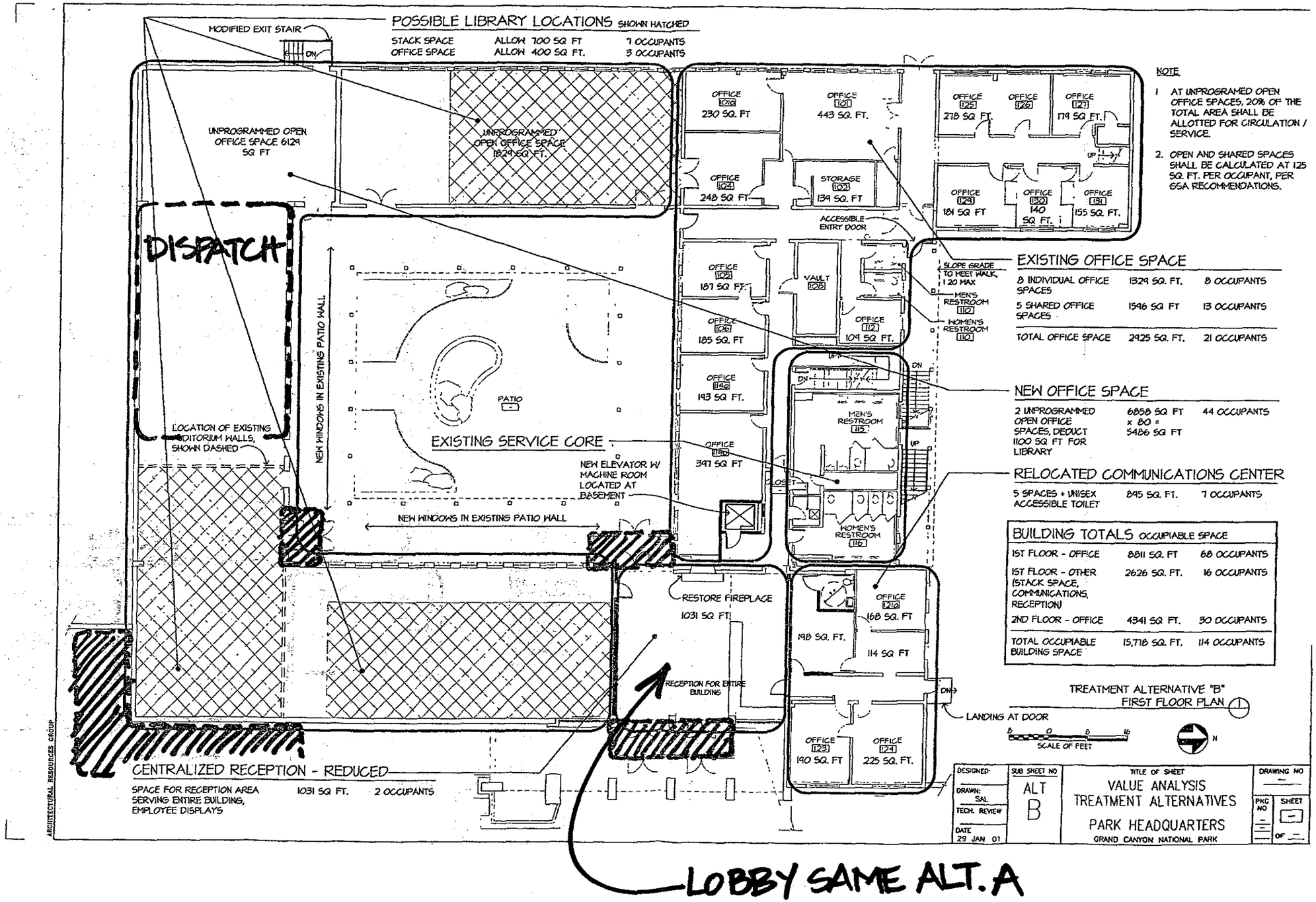
N

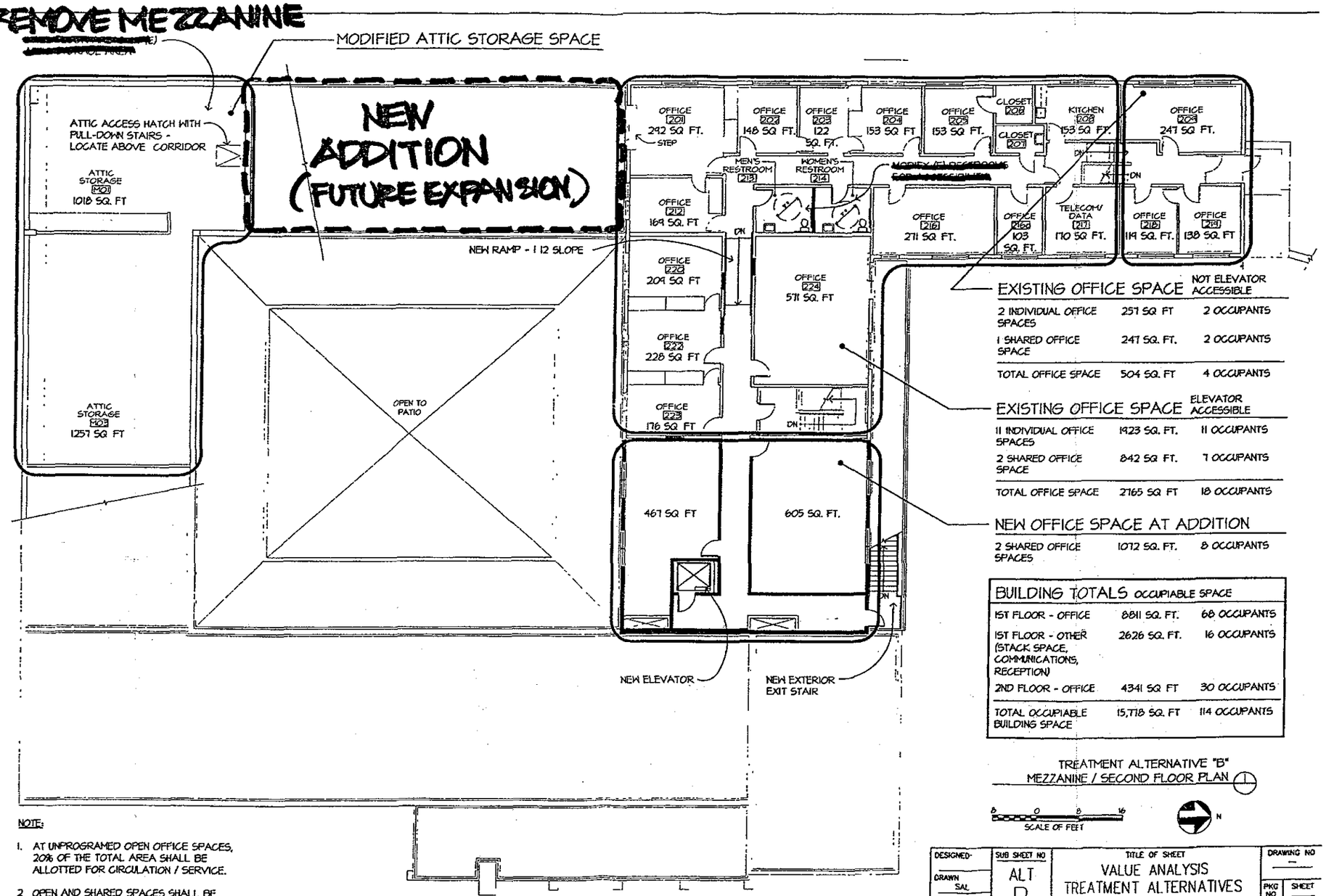
NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, CIRCULATION SHALL OCCUR THROUGH THE GLAZED INFILL AREA AT PATIO. THE ENTIRE SPACE WILL BE ALOTTED TO OFFICE OCCUPANCY, WITHOUT THE 20% CIRCULATION DEDUCTION
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.

ARCHITECTURAL RESOURCES GROUP

DESIGNED	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SAL	ALT C	VALUE ANALYSIS TREATMENT ALTERNATIVES	—
TECH. REVIEW		PARK HEADQUARTERS	PKG. NO —
DATE 29 JAN 01		GRAND CANYON NATIONAL PARK	SHEET — OF —


POSSIBLE LIBRARY LOCATIONS SHOWN HATCHED
STACK SPACE ALLOW 700 SQ FT 7 OCCUPANTS
OFFICE SPACE ALLOW 400 SQ. FT. 3 OCCUPANTS
MODIFIED EXIT STAIR
DN
UNPROGRAMMED OPEN OFFICE SPACE 6129 SQ FT
UNPROGRAMMED OPEN OFFICE SPACE 1824 SQ. FT.
DISPATCH
NEW WINDOWS IN EXISTING PATIO WALL
PATIO
LOCATION OF EXISTING AUDITORIUM WALLS, SHOWN DASHED
EXISTING SERVICE CORE
NEW ELEVATOR W/ MACHINE ROOM LOCATED AT BASEMENT
NEW WINDOWS IN EXISTING PATIO WALL
OFFICE 101a 230 SQ. FT
OFFICE 101 443 SQ. FT.
OFFICE 125 218 SQ. FT.
OFFICE 126
OFFICE 127 179 SQ. FT.
OFFICE 124 248 SQ. FT.
STORAGE 103 139 SQ. FT
OFFICE 129 181 SQ FT
OFFICE 130 140 SQ. FT.
OFFICE 131 155 SQ. FT.
UP
ACCESSIBLE ENTRY DOOR
OFFICE 105 187 SQ. FT.
VAULT 108
SLOPE GRADE TO MEET WALK, 1:20 MAX
MEN'S RESTROOM 110
WOMEN'S RESTROOM 110
OFFICE 106 185 SQ. FT
OFFICE 112 109 SQ. FT.
OFFICE 114a 193 SQ. FT.
MEN'S RESTROOM 115
WOMEN'S RESTROOM 116
OFFICE 114b 347 SQ FT
LOST
RESTORE FIREPLACE
1031 SQ FT
OFFICE 210 168 SQ. FT
198 SQ. FT.
114 SQ FT
RECEPTION FOR ENTIRE BUILDING
LANDING AT DOOR
OFFICE 123 190 SQ. FT
OFFICE 124 225 SQ. FT.
CENTRALIZED RECEPTION - REDUCED
SPACE FOR RECEPTION AREA SERVING ENTIRE BUILDING, EMPLOYEE DISPLAYS 1031 SQ. FT. 2 OCCUPANTS
ARCHITECTURAL RESOURCES GROUP
NOTE
1 AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS.
EXISTING OFFICE SPACE
8 INDIVIDUAL OFFICE SPACES 1329 SQ. FT. 8 OCCUPANTS
5 SHARED OFFICE SPACES 1596 SQ FT 13 OCCUPANTS
TOTAL OFFICE SPACE 2925 SQ. FT. 21 OCCUPANTS
NEW OFFICE SPACE
2 UNPROGRAMMED OPEN OFFICE SPACES, DEDUCT 1100 SQ FT FOR LIBRARY 6858 SQ FT x 80 = 5486 SQ FT 44 OCCUPANTS
RELOCATED COMMUNICATIONS CENTER
5 SPACES + UNISEX ACCESSIBLE TOILET 845 SQ. FT. 7 OCCUPANTS
BUILDING TOTALS OCCUPIABLE SPACE
1ST FLOOR - OFFICE 8811 SQ. FT 68 OCCUPANTS
1ST FLOOR - OTHER (STACK SPACE, COMMUNICATIONS, RECEPTION) 2626 SQ. FT. 16 OCCUPANTS
2ND FLOOR - OFFICE 4341 SQ. FT. 30 OCCUPANTS
TOTAL OCCUPIABLE BUILDING SPACE 15,718 SQ. FT. 114 OCCUPANTS
TREATMENT ALTERNATIVE "B" FIRST FLOOR PLAN
8 0 8 16
SCALE OF FEET
N
DESIGNED
DRAWN: SAL
TECH. REVIEW
DATE 29 JAN 01
SUB SHEET NO ALT B
TITLE OF SHEET
VALUE ANALYSIS TREATMENT ALTERNATIVES
PARK HEADQUARTERS
GRAND CANYON NATIONAL PARK
DRAWING NO
PKG NO
SHEET
OF
LOBBY SAME ALT. A



EXISTING OFFICE SPACE		NOT ELEVATOR ACCESSIBLE
2 INDIVIDUAL OFFICE SPACES	257 SQ FT	2 OCCUPANTS
1 SHARED OFFICE SPACE	247 SQ. FT.	2 OCCUPANTS
TOTAL OFFICE SPACE	504 SQ. FT	4 OCCUPANTS

EXISTING OFFICE SPACE		ELEVATOR ACCESSIBLE
11 INDIVIDUAL OFFICE SPACES	1923 SQ. FT.	11 OCCUPANTS
2 SHARED OFFICE SPACE	842 SQ FT.	7 OCCUPANTS
TOTAL OFFICE SPACE	2765 SQ FT	18 OCCUPANTS

NEW OFFICE SPACE AT ADDITION		
2 SHARED OFFICE SPACES	1072 SQ. FT.	8 OCCUPANTS

BUILDING TOTALS OCCUPIABLE SPACE		
1ST FLOOR - OFFICE	8811 SQ. FT.	68 OCCUPANTS
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TREATMENT ALTERNATIVE "B"
MEZZANINE / SECOND FLOOR PLAN

8 0 8 16
SCALE OF FEET

N

NOTE:

1. AT UNPROGRAMED OPEN OFFICE SPACES, 20% OF THE TOTAL AREA SHALL BE ALLOTTED FOR CIRCULATION / SERVICE.
2. OPEN AND SHARED SPACES SHALL BE CALCULATED AT 125 SQ. FT. PER OCCUPANT, PER GSA RECOMMENDATIONS

ARCHITECTURAL RESOURCES GROUP

DESIGNED-	SUB SHEET NO	TITLE OF SHEET	DRAWING NO
DRAWN SAL	ALT B	VALUE ANALYSIS TREATMENT ALTERNATIVES	—
TECH. REVIEW		PARK HEADQUARTERS	PKG NO — / SHEET — OF —
DATE 29 JAN. 01		GRAND CANYON NATIONAL PARK	

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

NPS D-556, May 2001

United States Department of the Interior