

Ouray County

Ouray County Courthouse & Jail

Historic Structure Assessment & Restoration Plan

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Introduction

Ouray County Courthouse and Jail Structure Assessment & Restoration Plan

The Ouray County Courthouse has served as the focus of county life for over 100 years. It is the depository of Ouray County's documented history and the recorded events of each citizen's life, birth, marriage, real estate and legal transactions, and finally death. These are secured here for the reference of Ouray's future generations. It is the site of county politics and the seat of county justice. In fulfillment of its builder's vision, the Courthouse remains Ouray County's most important building.

This report is a planning tool used to ascertain the existing condition of this historic structure and to define the methods and techniques to be implemented to assure its continued survival and use. This assessment tool will be used by the owner, engineers, architects, preservation specialists, contractors, and others in making decisions regarding the appropriate treatment of the resource. It may also be used to support future fund raising efforts.

This Assessment is a comprehensive understanding of the structure. All individual areas have been carefully researched, but the structure has also been evaluated as a whole.

Research Background / Participants

Research Design

The process taken to complete this report incorporates the study of five primary areas:

Historical Research:

In order to document the original conditions, uses and purposes of the structure, historical research is necessary. This research also reveals events and changes that have an impact on both the appearance and use of the buildings. Photographic, written and physical evidence have been located and incorporated into this report. Additionally, investigation of existing conditions has revealed evidence of original arrangements, designs, materials, alterations and uses.

The following sources have provided assets during this research:

- Ouray County Historical Society and Museum
- Ouray Library
- Colorado Historical Society Library
- Records of Ouray County
- Doris H. Gregory

Existing Condition Drawings

These drawings record the physical fabric and conditions of the structures at a given point in time. They are produced as the first step in the rehabilitation or restoration of a historic structure. Extensive field work and drafting have been used to document the buildings. This work provides the foundation for both restoration and future planning.

System Specific Analysis

Each area of the structure that requires repair or represents a possible area of concern needs to be analyzed and studied by an expert in the field. The reports and recommendations are then incorporated into the restoration plan. Below is a list of consultants and their specific areas of investigation that were used on this project.

Needs Assessment and Space Planning

These structures house a working government. No preservation or restoration effort can be successful without consideration of the needs (both present and future) of this function. The continued successful use as a seat of government is integral to the successful preservation of the Courthouse.

Architectural Design

All the research and analysis needs to be folded together into a plan for the future. The architectural design is the final embodiment of the restoration plan. The plan must not only detail the process for repair and restoration, but must also define the extent of alteration and additions that are needed to maintain the active use of these structures into the future.

Consultants

The following consultants have provided analysis that have been incorporated into this report:

- Monadnock Mineral Services – Bob Larson:
Improvement and Topographic Surveys
- Walsh Environmental Scientists & Engineers – Daniel Benecke & Edward Baltzer:
Hazardous Materials Analysis and Paint Analysis
- Western Center for Conservation of Fine Arts – Camilla Van Vooren:
On-Site Art Investigation and Paint Analysis
- David L. Adams Associates – Jeff Kwolkoski & Mick Barnhardt:
Acoustical Analysis of Courtroom
- Pinnacle Quarry & Development – Richard Lippoth:
Masonry Assessment and Petrography
- Buckhorn Geotech – Norm Aufderheide:
Structural Assessment
- Burke Associates – John Cunningham:
Mechanical & Electrical Systems Assessment
- Leeds Clark, Inc. – Tom Clark:
Window restoration
- Charles Cunniffe Architects – Douglas Reinhardt:
Architectural Systems Analysis and ADA Compliance

- Ouray County Building Department – Paul Christensen:
Code Analysis
- Ouray County Commissioners:
Needs Analysis

Funding Partners

Funding to produce this report was provided by:

A Grant from the Colorado Historical Society – State Historical Fund

And

The Board of County Commissioners, Ouray County

Building Location / Vicinity Map

Physical Location

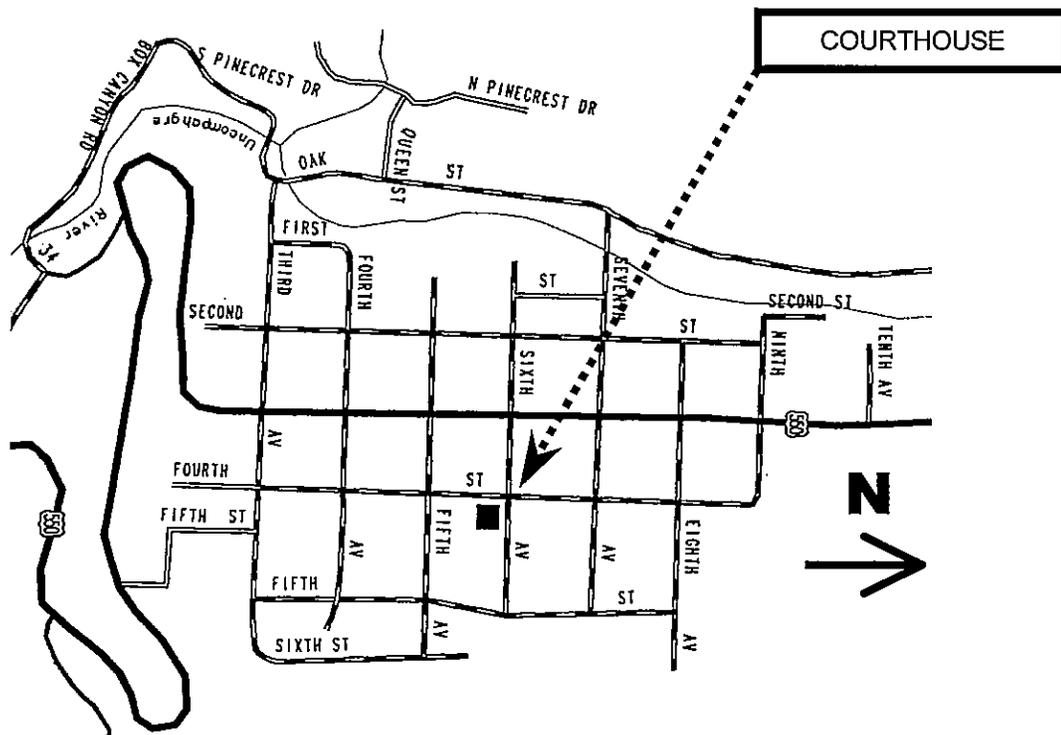
The structures covered in this report are the Ouray County Courthouse and the Ouray County Jail Building. Both are located in the city of Ouray, Colorado, on the southeast corner of 4th Street and 6th Avenue.

Legal Description

Lots 9, 10, 11 & 12, Block 27, City of Ouray, County of Ouray, State of Colorado

Vicinity Map

City of Ouray:



History and Use

The research and analysis of the structures' history and use provide a base for the future recommendations prescribed in the assessment section of this report.

Architectural Significance & Construction History

Historical Narrative

Originally part of San Juan County with Silverton maintaining the county seat, Ouray County was established on January 18, 1877. The first meeting of the Ouray County Commissioners was in the home of Mayor James Call on May 7, 1877. The following day Ouray was designated the county seat.

As the newly created county owned no buildings, it was required to rent space from existing structures. The offices were located in three different buildings over a period of about ten years. Each location was in close proximity to the final Courthouse location. Although the immediate requirements for the county offices were being addressed, there was still a desire to have a more permanent, fire proof structure to protect the ever increasing record books.

On May 9, 1884, *The Solid Muldoon*, a newspaper located in Ouray, urged the County Commissioners to erect a building for a new county owned Courthouse. Two years later, on July 3, 1886, a signed petition was presented to the Honorable Board of County Commissioners which stated: "Public buildings should be erected suitable for courtroom and edifices for the transaction of the county business, the protection of the county records and the economic confinement of criminals. Your petitioners believe that this can be accomplished with a great savings to the taxpayers ... and we therefore request that the question of creating an indebtedness in the sum of \$20,000 for that purpose be submitted to the public at the next election."

During the spring of 1888, the county acquired Lots 9, 10, 11 & 12, Block 27, from C. W. Haskings. Already situated on this property was a building which the county leased for the Clerk and Recorder's office and a timber jail which was shared with the city.

On May 7, 1888, plans and specifications by the architectural firm of F. E. Edbrook and Company, out of Denver, Colorado, were accepted by the County Commissioners. The contractor was selected from sealed bids, due at the county clerks office June 1, 1888. Francis Carney won the contract with a bid of \$22,336. Before total completion an additional \$13,000 would be required to pay for the heating and furnishing of the project. Francis Carney owned the Blake Placer at the north end of town which contained clay ideal for making bricks. He established a brickyard near the present swimming pool.

On August 10, 1888, the *Muldoon* published an overall description of the construction soon to begin. The front page was adorned by two engravings showing the front and side of the future Courthouse. The paper stated the building was to be "56 x 78 feet at extremes and the height 44 feet, the tower fronting on Fourth Street and Sixth Avenue being 75 feet above the foundation. The building is of brick with stone cut trimmings. The materials are all home productions with the exception of the finishing lumber, which comes from Chicago. The inside finishing will be mostly of hardwoods and *Chicago Pine* and of a character in keeping with the substantial stone and brick work." The paper went on to describe the rooms and respective offices for each floor. The basement level contained a room for the city council, another room for the fire department company quarters and hose cart, and space for the boiler room and coal cellars. The first floor would house offices for the county clerk, county treasurer, county judge, district clerk, sheriff and county surveyor. The second floor would be the district courtroom, 40 feet by 56 feet with 18 foot ceilings, jury rooms opening out to the main room, and other offices connected with the court would be partitioned off. Each floor would also have four fireproof vaults. The *Muldoon* went on to predict that the schoolhouse might also be heated by the Courthouse boiler, and that a large bell may be placed in the cupola – neither of which ever became true.

The laying of the cornerstone occurred on August 22, 1888, amidst a joyous celebration. A tin box, used as a time capsule of sorts, was placed beneath the cornerstone. The box contained a copy of the *Muldoon* with descriptions of the Courthouse and the engravings used, some county and district papers, the request of the County Commissioners to the Masons to lay the cornerstone, a list of the members of the Ouray Lodge, the constitution of the grand lodge, bylaws of the Ouray Lodge No. 37, a steel engraving of the Ute Chief, Ouray, various amounts of currency including paper and coins and a card of Dr. Lange. The stone was then sprinkled with "corn of nourishment," "wine of refreshment" and "oil of joy." Although it is believed to be customary to place the cornerstone at the northeast corner, no record was made to verify the actual location.

A month and a half prior to completion, the *Muldoon* reported: "The cupola of Ouray's Courthouse exhibits about the most gorgeous and complete job of song and dance painting we have ever gazed upon. But then, if it is appropriate, the town is named for the dead chief Ouray, and it is a regular up and up Ute job in point of taste and contrast in blending colors."

The Courthouse was to be completed by December 1, 1888, but it was not until March 15, 1889, that the *Muldoon* wrote that the structure would be ready for occupancy in three weeks. Unfortunately, soon after moving in, there were some problems with allocated spaces. The County School Superintendent and County Surveyor lost their offices to an "outsider" according to the *Muldoon*. Furthermore, city council discovered their space to be much too small because of the oversized Hose Company space. The fire alarm bell was also not relocated to this new space and prompted the paper to close its article by saying: "Whoever figured this way should shovel sand for a living!"

The county continued using the timber jail which was located on the same property in spite of a checkered history. In 1877, the *Ouray Times* reported: "Our jail leaks. On Sunday last a man was locked in the calaboose and shortly after being left he kicked out a couple of logs and walked home." Steel cages were purchased to make the jail more secure. In 1887 a vigilante group set fire to the jail in which Joe Dixon, a black employee of the Beaumont Hotel, who had shot a white waitress, was housed. Dixon died of suffocation and the jail was badly damaged – but the steel cages remained intact. The county merely built a new frame to replace the one that burned and continued to use the steel cages.

In the middle of March, 1898, the jail burned again, this time due to a short circuit in the electric wiring. This time two prisoners died and the commissioners were forced to build a new jail. A contract was awarded on April 28, 1898, and the new Jail was completed in September. The new Jail, built of stone, was safer and more secure. The upstairs provided a home for the sheriff.

Shortly after the old jail burned, the Courthouse also had a fire. It was May 1898, around 9:00 in the morning when a fire alarm sounded. Burning soot in the chimney had spread to the roof. The fire department successfully stopped the fire before it had burned past the interior ceiling, but the upper floors became flooded with water which leaked and spread throughout the entire building. Woodwork and ornamental plaster work were severely damaged. Charred timbers from this fire can still be observed in the attic. When the Courthouse was repaired a new gas plant was installed and the courtroom received a new "fresco" decoration by the artist, Robert Lamb.

In the Fall of 1908, a concrete walk was installed along the north and west sides of the Courthouse with a stone retaining wall on the inside of the walk.

During the summer of 1928, the wooden entry porch and front steps were replaced with a concrete bridge. The date of this alteration can be discerned by the USGS marker imbedded within the concrete.

On July 12, 1965, disaster struck in the form of a flood. The basement floor, which was below street level, was filled with water and sludge. Considerable damage occurred to the furnace room, vaults and records of the county assessor and county clerk. A new boiler and much new flooring was required. In addition to new concrete flumes at Portland Creek and Cascade Creek (the drainage's responsible for the flood), the county officials had the lower windows filled with brick, and on the east and west sides, the space below ground level was filled with concrete.

The federal government passed laws in 1974 affecting the requirements for jails. The Ouray County Jail was then forced to close and transport prisoners to Montrose.

Despite transferring many of the records to microfilm in late 1965, more space was needed to store files and equipment. In 1976, an addition to the southeast side of the Courthouse was built to provide expanded vault space.

Also in 1976, the sheriff's offices were moved to the ground floor of the Jail building and the former sheriff's residence on the second floor was converted to offices. During the current ongoing rehabilitation of the county offices, the sheriff's offices were moved back to the second floor.

Architectural Style and Features

The Ouray County Courthouse is a monumental two-story structure situated at a prominent corner location. Constructed of locally made brick and cut stone trimmings, local papers in 1888 described the new Courthouse as being in a "style of architecture unknown to any of our carpenters or builders in this section." While the design does not exhibit an identifiable unified style, its architecture was clearly influenced by elaborate French, Italianate, and Romanesque forms popular at the turn of the century. The central tower is capped with a unique mansard cupola. The fenestration is dominated by Romanesque arches. With the exception of minor alterations of site work and a small brick addition on the southeast corner, the building is essentially unchanged from the day it was built.

In plan, the Courthouse follows a typical pattern found in many western courthouses of the era. County offices on the first floor flank a central hallway, and stairways lead to second-story courtrooms. The Jail is near the Courthouse. Amazingly, few if any alterations have been made to the floor plan of the Courthouse over the years. As was noted earlier, the clerk's office has a new vault addition. Several of the original vaults are no longer in use due to modern size constraints. An opening in the main hall has been added for a bathroom and the basement level has probably been subjected to numerous partition changes over time. Some windows on the basement level have been bricked in and buried. Otherwise the walls, openings, doorways and partitions have survived as originally built. This includes the Jail room arrangement and sheriff's living quarters.

The courtroom is the most significant architectural and functional space in the Courthouse building. It is well proportioned with good light entering from all sides and characterized by simple classical ornamentation. The wood wainscot and pediments over window and door surrounds are highlighted against plain, painted plaster walls. Pilasters support ornamental plaster brackets and a plaster coffered ceiling now painted white.

As in most public buildings, interior wainscoting and elaborate woodwork were used. The interior woodwork was sold (probably as a package deal) at the time as "Chicago Pine". This material was used throughout the Courthouse and exhibits a very well done faux oak grain on all surfaces. Incredibly, all of the woodwork is still intact and in excellent condition. This includes most of the interior doors, jambs and hinges.

It is likely that the furniture for the court room and other areas was purchased at the same time and had a dark stained natural oak finish. Much of the furniture still in use appears in the oldest interior photographs of the building. This includes the judge's desk, courtroom tables, chairs, public seating and the bar.

Uses

A very significant feature of the Ouray County Courthouse is that since construction it has been in continuous use for its original purpose, and still is today. Most county offices still occupy the same rooms they did in 1888.

It is a continuing challenge to meet the needs of a modern government within the facilities provided over a century ago. It is a challenge that Ouray County has met admirably with respect for the past and its traditions.

Historical Timeline

January 18, 1877	Ouray County established
May 7, 1888	Plans and Specifications by F. E. Edbrook and Company of Denver were accepted
June 1, 1888	Sealed bids due to County. Contract was awarded to Francis Carney for \$22,336. An additional \$13,000 was used for heating and furnishings.
August 22, 1888	Cornerstone laid, location unknown
March 15, 1889	Courthouse construction completed
April 28, 1898	Contract for the Jail building, completed in September
May, 1898	Fire in the Courthouse
Fall, 1908	Concrete sidewalks
During 1928	Front steps replaced with concrete

July 12, 1965	Basement flooded and several basement windows bricked up
During 1974	Jail closed due to new federal requirements for jails
During 1976	Vault addition to the Courthouse
During 1976	Sheriff's offices move to the lower floor of the Jail building and the second floor residence used for building department
During 1997	Sheriff's offices moved back to second floor of Jail building

Proposed Program

The Ouray County Courthouse and Jail Building have served as the seat of the County Government, the office of the County Sheriff and the District Court continuously since 1888. Citizens transact their day to day business with the government in the same rooms and through the same doors that were used over 100 years ago. This pair of government structures continues to play the same integral roll in the lives of the local citizenry (both the fortunate and the unfortunate) they did at the turn of the century.

Equally notable, is how little these buildings have changed physically over the years. Though victim of both fire and flood, these proud structures have managed to retain their original architectural qualities. From sash to door trim, from wainscot to plaster, the original features of the buildings are still serving their purpose. Over the years, temptations to add new walls and punch new openings have been successfully resisted and entering the buildings today reveals the same formal layout and stately experience that greeted the public at the turn of the century. Truly it is a credit to the citizens of Ouray County, as well as proof of their respect and commitment to preservation, that these buildings have been handed down in such excellent condition.

In spite of the County's sympathetic attitude to preservation, these buildings are clearly endangered. The expectations and responsibilities of local government have changed enormously over the last 100 years even if the buildings have not. Over the years electrical conduits, heat registers, fluorescent lights, computer cables and numerous other incremental upgrades have begun to obscure and clutter much of the buildings' dignity. And still the public demands ever more modern and efficient services from its government. To its credit, this government has chosen to enter the modern era with an eye to the past and has decided to embark upon a process of preservation as well as modernization.

The program is a simple one but rife with conflict. We are not dealing with a museum piece. Rather, these are living functioning buildings still being used for their original purposes but whose sophistication and capabilities have been outstripped by modern needs. Therefore, integral to a restoration plan is the need to accommodate a modern functioning government.

Program:

To restore and preserve the architectural heritage represented in the Courthouse and Jail.

To preserve the historical use of the buildings as a seat of government.

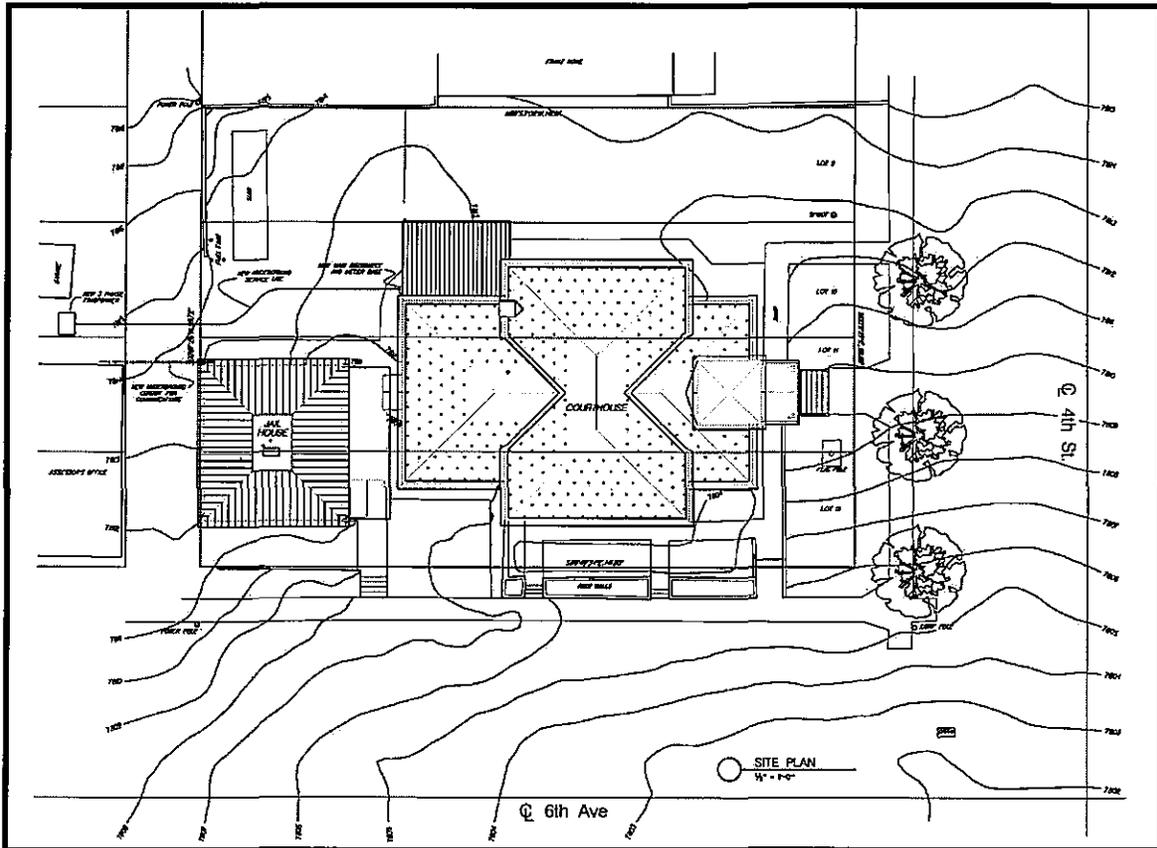
To house and facilitate the needs of a modern government within the fabric of the historical buildings.

To provide facilities and improvements that will allow continued use as a seat of government well into the future.

To provide for the safety and well-being of the users of the building as well as of the buildings themselves.

Existing Sketch Plan

Site Plan of Existing Conditions:



Structure Condition Assessment

Each of the following categories are evaluated as they pertain to the structures. This evaluation contains three parts: The **description** explains the features, materials and spaces with relation to age and significance. The **condition** explains the current state of the structure. The **recommendation** prescribes an action for necessary work based on existing conditions and preservation objectives to be taken in accordance with the *Secretary of the Interior's Standards*.

Condition

Where assessment of the **condition** of a building component is made the following specific terms and meanings have been used:

Good

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

Fair

- There are early signs of wear, failure or deterioration, though the element is generally structurally sound and performing its intended purpose
- There is failure of a sub-component of the element
- Replacement of up to 25% of the element or replacement of a defective sub-component is required

Poor

- The element is no longer performing its intended purpose
- The element is missing
- Deterioration or damage affects more than 25% of the element and cannot be adjusted or repaired
- The element shows signs of imminent failure or breakdown
- The element requires major repair or replacement

Recommendations

In some cases, the following rating has been used when prescribing the recommendations for the structure and its related features.

Level I

Preserve

- The element is associated with those qualities for which the structure was designated and dates from this period of significance, or

- The element is highly distinctive architecturally and dates to the designated period of significance, and
- The level of damage or deterioration is such that it is still feasible to preserve.

Level II

Preserve Wherever Possible – If too deteriorated to save, must be replaced in-kind

- The element has acquired significance in its own right or makes an important contribution to other historic periods or levels of significance identified for the property, or
- The element makes a significant contribution either to the property's historic appearance or as an integral part of the buildings' historic construction.

Level III

Preserve Wherever Possible – If too deteriorated to save, element must be replaced with compatible material and design.

- The element contributes to the historic appearance of the building and dates either to the period of historic significance or represents later, sensitive repair or replacement work, or
- The element dates to the historic period of significance of the building and represents a substantial amount of historic fabric.

Level IV

Remove / Alter / Replace – Undertake all such new work as sensitively as possible

- The element is not significant and through design or condition detracts from the historic appearance of the building, or
- The element is a poor design and/or construction detail which contributes to the deterioration of the landmark, or
- The element creates a serious code violation which cannot be mitigated.

Site

Associated Landscape Features

Description:

The Courthouse and Jail are the only buildings located on a parcel of land approximately 142' by 100' at an elevation of 7,800 feet in the San Juan Mountains of southwest Colorado. The parcel lies on a corner one block east of the main street of Ouray, Colorado, and commands spectacular views of the surrounding mountains. Access is by city streets on both the north and west sides of the parcel.

The Courthouse is located in a transitional area between historical residences and the commercial center of town. While not a very prominent site in terms of city planning, it served as the location of government buildings even before the construction of the Courthouse. Other government and civic buildings are located in the immediate vicinity. The city Town Hall, Fire Department and Library are located on the adjacent block to the west and additional county offices are located in a building immediately across the alley to the east.

The site slopes sharply to the northwest with a drop of nearly 13 feet in elevation. It appears that some of the topography has been altered, perhaps by debris flows, as the

neighboring properties appear much more level in original photographs. To accommodate the slope, retaining walls have been added on the south and east property lines some time subsequent to the original construction. Unfortunately, the original design failed to properly account for the sloping topography. Originally, the basement level was surrounded by an enlarged light well or moat on the west and east sides while the north side was intended to be a walk-out (but still below the level of the street). This arrangement proved to be impractical during a flood in 1965 when much of the moat was filled in.

The buildings occupy the northern three of four city lots, leaving the southern interior quarter of the property mostly vacant. The addition of the Jail Building behind the Courthouse to the east blocked most of the surface drainage from the vacant portions of the property.

There are three large cottonwood trees on the west side of the building within the R.O.W. These appear to be the only trees to have survived of several that were planted along the streets on both sides of the buildings when originally constructed. There was originally a very large spruce tree on the southwest portion of the property which has since been removed.

Condition:

While a beautiful location, the condition of the site is generally **poor**.

The elevation of the eastern alley has been raised since construction of the Jail and fill has been pushed against the building causing deterioration of masonry.

Surface drainage on south side of Courthouse has been blocked by the Jail construction and does not generally flow away from building. This has caused over saturation of the soils and moisture penetration of the basement masonry. The addition of a concrete drain pan along the southern side of the Courthouse has not significantly improved the condition.

The northern walk-out side of the basement is still below street level with no clear outlet for surface drainage. The recent addition of planters and retaining walls in this area has only exacerbated this problem. Additionally, the planters are poorly constructed and faced with a veneer stone of a lay and type inappropriate for the Courthouse.

The only remaining portion of the old moat on the west side of the Courthouse is a stone retaining wall running under the entry portico. This wall is bulging badly in places and provides no fence or other protective barrier.

The concrete sidewalks, steps and landings are deteriorating badly, showing severe cracking and spalling. Their configuration does not provide correct surface drainage or ADA access. By the time that corrective actions are taken for the above mentioned conditions, the sidewalks will need to be replaced.

Recommendation:

The entire site should be considered to have a **Level IV** rating. Landscaping, particularly topography and surface drainage, needs to be reworked with attention to both existing structures and their relationships to the site and each other.

- Re-grade the south lawn, from alley to street, to provide positive drainage to the west and away from the buildings at all points.
- Install a new drain pan on the south side of the Courthouse that protects foundation walls from surface moisture and provides positive drainage to the west along the entire length of the structure.

- Expose the east side of the Jail and install a protective concrete wall against the building to the height of the traveled surface of the alley.
- Remove and replace the stone retaining wall on the west side of the Courthouse. Extend this wall to more closely reflect the original size of the moat and to help relieve moisture infiltration to the southwest corner of the basement.
- Rehabilitate the bricked-in window, exposed by the moat extension, to improve ventilation and usability of the southwest corner of the basement.
- Replace the planters and landscaping on the north side of the Courthouse. New construction shall redirect pedestrian traffic away from roof icefall, protect the area from adjacent surface flows (particularly from the street) and have a stone or concrete finish more appropriate to the historical context.
- Provide a storm drainage system at walkout areas on the north side of the Courthouse (surrounded by the new retaining walls and planters). Install appropriately sized surface grates at low points away from the building and connect to municipal storm system.
- Replace and reconfigure sidewalks on north and east sides of the property that coordinate with improved surface drainage and ADA access to building.

Parking

Description:

Only on-street parking is provided for these buildings. No parking is located on the property but is located within the R.O.W. This arrangement seems to be providing an ample supplying of parking in most cases. There will probably be shortages of parking during special events or high profile trials but there is little that should be done to accommodate additional parking within the site.

There are needs for designated parking areas for the sheriff's office and for handicapped users. There is sufficient space on the street for such uses and the county has been able to make arrangements with the city for needed designations and restrictions. The slope of the property and streets however, make it difficult to meet all requirements for handicapped spaces.

Condition:

The parking situation is generally **fair**. The major concern is to provide designated handicapped spaces that can meet ADA requirements.

Recommendation:

Parking areas should be compatible with original site design and historic use patterns by keeping spaces within the existing street R.O.W. Do not permit parking to encroach upon existing lawns or setbacks. All elements should be treated with a **Level IV** rating.

- Provide new sidewalks with a complete curb and gutter system and ramps to organize parking at the street. Grade the parking areas uniformly with drainage controlled into storm drains.
- Install permanent signage for parking areas reserved for sheriff's office and handicapped users.
- Designate handicapped spaces at the most level areas adjacent to the accessible routes into the buildings.

Archeology

Description:

It is not anticipated that needed excavation will expose or reveal archeological resources. Excavation will not be anywhere as extensive as was required for the original construction. However, contractors need to be sensitive to the potential that resources applicable to the history of the buildings themselves could be exposed and preserved. Of note is the fact that the location of the Courthouse cornerstone has been lost and is not currently exposed.

Condition:

Unknown

Recommendation:

- Require contractors and equipment operators to stop work and inform the owner if any unexpected or historical items are uncovered during excavations. Specifically advise workmen of the possible exposure of the Courthouse cornerstone.

Foundations

Perimeter Foundation Drainage

Description:

Given the age and location of these buildings, it is unlikely that a sub-surface perimeter drainage system was installed. The efficacy of such a system would be questionable. Although a soils test was not performed, it is likely that the soils consist of gravelly silt with cobbles and scattered boulders typical of alluvial mountain deposits. This soil type is self draining and would not be expected to require a perimeter foundation drain unless groundwater was present. The foundation construction of stone is very susceptible to leakage at mortar joints from water running down the face of the walls. This kind of water is best controlled at the surface and not at the base of the foundation.

Due to the distance of these buildings from any rivers, groundwater is not believed to be present at any level that could impact the foundations. Additionally, there has been no history of moisture problems identified with the presence of groundwater.

There is a sump pit and pump located in the boiler room of the Courthouse. This area is the lowest portion of the basement with a floor approximately six feet below the basement proper. However, its use is infrequent and precipitated by the presence of heavy surface moisture at the exterior of the building.

Condition:

There is a persistence moisture penetration problem along the south basement wall and the condition can only be described as **fair**. However, there are numerous factors contributing to this condition including surface drainage, use of wood floors in the basement and lack of waterproofing on the foundation. It is not clear that a perimeter foundation drain would have any effect on the moisture. The small amount of leakage is mainly a danger to the contents of the basement, however the lime mortar joints of the basement walls in the boiler room and the southwest storage room have weakened.

The best and most reliable method for stopping the moisture infiltration is to parge and waterproof the exterior foundation walls. This method would require the complete

excavation of the building. This is impractical from a financial standpoint and has the potential of leading to more severe damage to the structures. However, some localized waterproofing should be performed.

Recommendation:

All foundation drainage elements should be treated with a **Level IV** rating.

- Provide improvements in the surface drainage systems recommended in the *Site* section to eliminate a significant portion of the water infiltration.
- Clean, parge with a compatible (non portland cement) mortar, and waterproof any areas of the exterior foundation that are exposed in the course of new construction or rehabilitation prior to the placement of any fill.
- Expose basement foundation walls on the south side of the Courthouse to a depth of approximately four feet below finished grade, clean, parge with a compatible (non portland cement) mortar, and waterproof.
- Clean, parge with a compatible (non portland cement) mortar, and waterproof portions of the east and south side of the Jail building exterior walls where the finished grade will be above the interior floor level.

Foundation Systems

Description:

The partial basement finish floor is about 6 feet below grade on the south and day-lighted on the north. The foundation walls are of stacked rock masonry construction. Most basement walls are 18 inches in thickness with some areas of the boiler room being over 24 inches. The depth and size of any spread footings supporting these walls is unknown.

Condition

Based upon performance, the condition of the foundation system is **good**. The differential settlement cracks in the masonry bearing walls are not of such a magnitude that can be considered evidence of serious structural faults. The stonework comprising the foundation is exceptional in its durability. There has been some settlement of this building but the magnitude of differential settlement from the outside walls to the interior walls appears minimal. The differential settlements along any particular exterior bearing wall are quite small as evidenced by the number and width of cracks in these walls. There are no signs of frost or heave damage that would indicate insufficient foundation depths.

The lime mortar joints of the basement walls in the boiler room and the southwest storage room have weakened and show signs of exterior moisture penetration. Improving site drainage should help this situation.

Recommendations

All foundation elements should be treated with a **Level III** rating.

- Replace wooden floors with concrete slabs to eliminate areas of trapped moisture in the Courthouse basement.
- Repair masonry of stacked rock walls in the boiler room and southwest storage room of the Courthouse basement. Rake and point all joints and cracks that are deteriorating or may permit moisture encroachment.

Building Backfill

Description:

Although a soils test was not performed, it is likely that native soils consisting of gravelly silt with cobbles and scattered boulders typical of alluvial mountain deposits were used to backfill the structure. This soil type is generally self draining.

The moat on the east and west sides of the Courthouse was originally much more extensive than what exists today. Significant portions of this feature were filled in and some windows were bricked over in 1965. There are reports that some of the moat was filled in using concrete.

Condition:

Although the quality of fill materials is assumed to be generally appropriate, the situation with site drainage and the filled moat require attention and the condition should be described as **fair**.

It appears that insufficient waterproofing was performed prior to the moat being filled on the southwest corner of the Courthouse. If concrete was used as a fill material, natural soil drainage could be blocked, trapping moisture against the foundation walls.

The base of the east wall of the Jail building has been covered by debris potentially leading to deterioration of masonry walls not intended to lie below grade.

Recommendation:

All backfill elements should be treated with a **Level IV** rating.

- Replace portions of the filled-in moat on the west side of the Courthouse to help limit water infiltration through walls and improve ventilation and usability of basement.
- Remove old concrete used as a fill material where practical.
- Clean, parge with a compatible (non portland cement) mortar, and waterproof portions of the east and south side of the Jail building exterior walls where the finished grade will be above the interior floor level.

Building Structural System

General Structural System Description

Description

The Courthouse was constructed as a masonry bearing wall structure with a partially finished basement floor about 6 feet below grade on the south and day-lighted on the north. The main floor elevation varies from 2 feet to 10 feet above grade. There is a second floor that contains the main courtroom.

The basement floor is mostly concrete slab-on-grade. The first and second floors are wood joist systems supported, in most cases, on masonry bearing walls. The roof is entirely wood framed and includes two quite heavy built-up tied trusses spanning east and west.

The Jail building, built as a satellite building to the east, is also a masonry bearing wall structure. The main floor elevation varies from grade to 2 feet below grade. There is a

second floor built of solid wood joists supported on masonry. The roof is entirely wood framed in a double hipped configuration. There is no basement in this building.

Condition

Considering the age of these buildings, the soil conditions known to exist in this area, the probable level of structural maintenance, and the type of construction, these buildings must be judged as being in **good** condition overall.

The buildings were designed, and well designed, over 100 years ago based on accepted practices and convention in use at that time. The absence of fractures and intense deterioration of materials attest to structural soundness and good workmanship. Their problems resulting from age and use can be renovated.

Basement Structural System

Description

The exterior basement walls are of stacked rock masonry construction with some dressed stone detailing where exposed. Most basement walls are 18 inches in thickness with some areas of the boiler room being over 24 inches.

Several interior masonry walls support floors and vaults above. These are of brick construction and vary from 12 to 18 inches in thickness.

The floor is mostly slab-on-grade. Some areas of the south portion of the basement have wood joist floors with little if any crawl space below. The boiler room floor is an additional 6 feet lower than the rest of the basement floors.

Condition

The condition of the basement structural system is generally **fair**. While the structural integrity of the masonry walls is excellent, some of the sub-components require replacement or repair.

Portions of the basement floor are wood framed. These areas appear to have no ventilated crawl space below the joists. The floors in the bathroom feel spongy and the smell of dampness permeates the southwest storage room.

Moisture penetration through the south basement walls is evident and is more fully discussed in the *Site and Foundation* sections of this report. Additional condition and recommendation discussion on the exterior masonry walls will be found in the *Building Envelope* section of this report.

Recommendations

All structural elements should be treated with a **Level III** rating.

- Replace wooden floors with concrete slabs to eliminate areas of trapped moisture in the Courthouse basement.

First Floor Structural System

Description

The exterior walls are of brick masonry construction with dressed stone detailing. Most walls are 12 inches in thickness. Several interior masonry walls support floors above or form vaults at this level. These are of brick construction and vary from 12 to 18 inches in thickness. Some of the interior masonry walls in the Jail building were constructed for the purpose of jail security and are not of significant structural necessity.

The floor of the Courthouse is of 2 x 12 wood joists with approximately 18 inch spacing and supported, in most cases, on masonry bearing walls below. The floor joists are exposed in many areas of the basement.

The floor of the Jail building is concrete slab-on-grade. This floor appears to have been placed or replaced at various times over the building's history and is of numerous different elevations.

Condition

The first floor structural system of the Courthouse is in **good** condition, while the Jail building must be classified as being in only **fair** condition.

With the exception that the floor joists are exposed from below, the Courthouse first floor structural system is structurally sound and performing its intended purpose.

The slab-on-grade in the Jail building severely limits the usability of this area because of the varying floor levels.

Additional condition and recommendation discussion on the exterior masonry walls will be found in the *Building Envelope* section of this report.

Recommendations

All structural elements should be treated with a **Level III** rating.

- Install a fire rated suspended ceiling throughout the Courthouse basement to protect the floor joists above and to screen mechanical and electrical elements from view.
- Replace the concrete floor of the Jail building with a new slab of uniform height.

Second Floor Structural System

Description

The exterior walls are of brick masonry construction with dressed stone detailing. Most walls are 12 inches in thickness. Some interior masonry walls support the roof above the courtroom but most interior partition walls are of wood construction at this level.

The floor of the Courthouse is of 2 x 12 wood joists with approximately 18 inch spacing and supported, in most cases, on masonry bearing walls below.

The floor of the Jail building is of 2 x 12 wood joists placed in "butcher block" fashion with no space between joists and supported on masonry bearing walls below.

Condition

The second floor structural system of both buildings is in **good** condition.

Additional condition and recommendation discussion on the exterior masonry walls will be found in the *Building Envelope* section of this report.

Recommendations

- All structural elements should be treated with a **Level III** rating.

Roof Framing System

Description

The roof of both buildings is entirely wood framed. There are two quite heavy built-up trusses spanning east and west over the courtroom. The remainder of the roof system is

timber beams and/or rafters and joist systems in a double hip configuration. In most cases, the roof framing system is supported on masonry bearing walls.

Most rafters are 2 x 6 with nearly 24 inch spacing. The ceiling joists are 2 x 8 with 18 inch spacing.

Condition

The roof structural system is best described as **fair**. Most of the roof structure is and has performed well over the life of the building and needs no significant attention. However, there are two specific areas that show some evidence of structural deficiency.

The roof rafters in the east section of the Courthouse are too small for the span and show signs of sag. This problem has apparently been observable for some time as some intermediate bracing has been installed. However, the additional braces are too few and haphazardly placed to be considered a permanent solution.

The roof over the Jail building is hipped on four sides with a "compression" ring in the center which supports a small flat section at the top of the roof. There are no interior supports. While this roof seems to have performed well over time, modern engineering analysis reveals general deficiency in the structure.

Recommendations

All structural elements should be treated with a **Level III** rating.

- Install intermediate bracing to rafters in the east portion of the Courthouse roof.
- Install secondary trusses to support roof of Jail building.

Building Envelope-Exterior Walls

Exterior Wall Construction and Masonry

Description

The exterior walls are load bearing masonry construction. The predominant exterior material on the upper floors is a locally manufactured common brick. A distinctive triangular "frog" has been impressed into the top of each brick. Most of the brickwork is four wythes thick laid in running bond with a head course every eighth course. Mortar joints are a nominal three eighths of an inch. The brick is simply ornamented with arched headers at windows, projected belt courses and a corbelled cornice.

Dressed stone, primarily buff colored sandstone, has been used for belt courses, window lintels and sills. The sandstone is probably of local derivation and has both tooled and split-face finishes.

The base of both buildings is a combination of sandstone laid in a random ashlar pattern and a dark green-gray quartzite in a random rubble pattern. Again, a dressed sandstone is used for lintels, sills and quoins around window and door openings.

Condition

Overall the condition of the exterior masonry is **fair**. Most of the original mortar and masonry used in construction of the buildings is in good condition requiring no repair at this time. However, localized areas of deterioration have been identified and will need to be addressed. The types of deterioration or damage include:

- Areas of eroded mortar requiring repointing.

- Areas previously repaired using Portland cement which can have long term deleterious effects on older masonry units.
- Areas of loose bricks, particularly in the cornices at the top of the masonry walls.
- Areas with broken or cracked bricks.
- Areas where the roof directs water onto the masonry. Most notable is the spout draining the bell tower which is placing water onto the brick and stone immediately above the front entrance causing noticeable erosion of mortar and saturating the masonry. Left unchecked, freeze/thaw action during the winter months will cause damage to this area including the engraved tablet immediately below the tower.
- Sandstone window sills with small horizontal fractures developed due to water infiltration and freeze/thaw action. In a few instances larger crosscutting fractures are present. Some action is suggested to repair and monitor these problems to prevent accelerated deterioration.
- Local areas where stonework has been painted in an attempt to halt exfoliation of the stone face. This actually has just the opposite effect of trapping water within the stone.

No significant or detrimental cracks were observed, although hairline cracks due to differential settlement of the buildings have occurred. The stone is relatively clean with little soiling or staining.

Many of the basement window openings were fully or partially in-filled with stone and brick after the 1965 flood.

Recommendations

Drawings accompanying this report show the outline of those areas requiring repairs or other actions. All masonry elements should be treated with a **Level II** rating.

- Re-point masonry joints in areas of mortar erosion. The delicate nature of the brick dictates that special care should be taken in the removal of old mortar. Hand methods are preferable. Only compatible mortars should be used.
- Replace badly deteriorated bricks with a similar sized common brick or patch with a vapor permeable and compatible repair mortar.
- Patch crosscutting fractures and the larger horizontal fractures in sandstone sills with a vapor permeable repair mortar to prevent water infiltration. The patches and smaller fractures should be monitored to ascertain the rate of growth if any.
- Gently strip any paint from stone surfaces and remove colonies of lichen from stonework.
- Prevent water from the roof from draining directly onto the masonry, particularly from the bell tower.
- Remove old repairs that used very hard high Portland cement content mortar. Cementitious coatings may be bonded firmly to the brick surface and will require careful treatment to remove safely.

Exterior Finishes

Description

Currently, the brick is painted dark red. The limestone trim and stone base remain unpainted with a natural finish. Historic photos indicate that the brick originally displayed a

natural unpainted finish except for the corbelled cornice. This area showed a multi-colored paint scheme.

Condition

The exterior finish comprised of painted brick is in **poor** condition. Many areas show loose or peeling paint. Although historical accuracy would indicate a non-painted surface, the paint does not appear to be causing deterioration of the brick masonry or trapping moisture in the walls. On the other hand, complete removal of the paint would unquestionably damage the soft brick.

The red paint on the buildings is classified as a lead-containing paint (less than 1% lead) and removal of loose materials is regulated by OSHA.

Recommendation

All paint finishes should be treated with a **Level III** rating.

- Clean and repaint brick surfaces. Only areas of loose paint should be removed. New paint should not seal the brick surfaces with plastic polymerizing compounds. Paint with a linseed oil base is preferable.
- Prepare a lead management plan for activities that will abrade, chip, or remove the exterior paint. The red paint on the building contains lead and will be disturbed during renovation.

Exterior Doors, Windows, Hardware and Trim

Description

The original double-leaf, paneled wood entry doors and wood windows remain in place. Two types of counter-weighted double-hung windows are evident: arched-top and flat-top. Since the loose fit of the sash does not provide adequate insulation, storm windows have been installed within the wood frames on the interior. A peculiar condition can be observed in comparing the main floor windows on both sides of the front entry porch. The left window is typical of others in the building with two sashes, the upper being an arch-top. The right window, however, consists of a large single sash and arched transom with a wood fan-shaped in-fill. Historical photos show this asymmetrical detail, and it may be an original solution to the conflict between the entry foyer stair soffit and the window head.

Some changes have occurred to the original door and window patterns. Glazed aluminum doors have been installed in the north basement openings. A few basement window openings have been in-filled with brick and horizontal sliding metal windows.

Condition

The overall condition of the doors and windows is **poor**, however the condition of individual units varies widely.

Many of the original windows are in satisfactory condition but several sashes show serious deterioration and even missing pieces and loose glazing. For the most part, the frames are in satisfactory condition. There is evidence of significant wood decay at some of the window sills. Although most of this is only surface decay, a few sills may require replacement. Most sashes operate as designed but some are painted shut or have broken or missing counter-weight cords.

In many instances the glazing is original blown glass which transmits images with a very pleasing distortion. However, the fit of the sash results in an overall window energy performance that is seriously below modern standards. In some areas, a storm window

has been installed to correct this situation. For the most part, these storm windows have been installed on the interior of the building which is certainly preferable in terms of exterior appearance. Nonetheless, the presence of these aluminum windows seriously degrades the architectural appearance where they are present.

The windows have been painted white on the exterior. The paint is very old and shows excessive cracking and peeling. The paint is defined as lead-based paint with more than 1% lead. Removal of this material is regulated by EPA, HUD and OSHA.

The entry doors on the main Courthouse level are original and in excellent condition. They have recently been re-hung and freshly painted.

The aluminum basement doors are not original and are of inappropriate construction.

The trim under the roof eaves is in good condition and only needs repainting. The cornice trim on the Courthouse is a metal profile while the trim is wood on the Jail building.

The only other areas of exterior trim are on appendages which will be discussed in a different section.

Recommendations

All door and window elements should be treated with a **Level II** rating.

- Remove all sash elements for refurbishing and repair in a shop:
 - 1) Replace glazing beads. Preserve antique window panes where possible.
 - 2) Replace rotted and missing pieces.
- Re-install sash units in new self sealing guides.
- Repair and repaint window frames in place. Replace damaged sills as needed.
- Repair counter-weights where broken.
- Remove aluminum storm windows both interior and exterior.
- Replace basement entry doors with wooden doors and side lites.
- Repaint all exterior trim pieces at roof eaves.

Exterior Appendages - Portico

Description

The wood entry porch is an important stylistic element of the building. Here the lightness and elegance of the shallow gable or pediment, the ornamental brackets and the subtly tapered triple corner columns contrast with the substantial masonry mass of the Courthouse. The original architectural drawings do not include this feature but it is clearly present in the earliest photographs of the completed building.

Besides serving as a sheltered entrance, the portico also functions as a bridge across the moat originally surrounding the west side of the Courthouse. The wood base (bridge) originally constructed has since been replaced with a concrete deck and steps which appear incongruous with the rest of the wooden structure.

Condition

The overall condition of the front portico is poor. While the roof, trim and columns are in very good shape, the areas where wood structure sits on the concrete deck show extensive signs of decay. Much of the trim in this area has been lost and rotted sections covered with sheet metal. The concrete deck itself is showing serious deterioration, cracking and spalling.

The roof of the portico has been recently replaced with wood shingles and is in excellent condition.

Most of the original railings and balusters are missing. A wheel chair ramp has been installed on one side of the portico. Its steel and concrete construction are an inappropriate distraction to the west façade of the building. The ramp provides no access to the second floor of the Courthouse and better access provisions are needed.

Recommendations

The portico should be treated with a **Level I** rating.

- Replace concrete porch and steps with new wooden deck at front of Courthouse.
- Repair deteriorated wood at base of entry portico.
- Replace deteriorated or missing wood railings and balusters at front portico.
- Remove access ramp at front of Courthouse.

Exterior Appendages – Tower

Description

The open cupola is the most distinctive feature of the Courthouse building. It is sheathed in wood shingles with ornamental wood trim and moldings, and the openings are framed by turned wood columns, railings and balusters. The unique French style of the building is obvious in the shape and silhouette of the cupola roof. It also is clad with wood shingles and topped with an ornamental metal finial.

Condition

The cupola tower is in good condition. This feature was recently refurbished with new shingles which were stained and the wood trim freshly painted.

The drain from the open tower floor is discharging water onto the masonry below. Left unchecked, freeze/thaw action during the winter months will cause damage to this area including the engraved tablet immediately below the tower.

Recommendations

The tower should be treated with a **Level I** rating.

- Extend the tower deck drain so that water is discharge onto a controlled area of the roof.

Exterior Appendages – Additions

Description

Additional modifications and additions to the exterior have been executed since the Courthouse was completed. Most of this work has been unsympathetic to the original character of the building. The shed roof and featureless brick walls of the 1976 vault addition at the southeast corner are incompatible with the Courthouse roof forms and brick detailing. Similar contrasts are seen at the metal in-fill structure between the Courthouse and the Jail building.

Condition

The conditions of these additions is **good**. However, their appearance and appropriateness is questionable. The vault addition is necessary to the continued functioning of the clerk's office and its removal impractical. However, this addition can serve as a base for further expansion to the Courthouse. A second story addition to the

vault might be practical, of low impact and provide an opportunity to improve the detailing and proportions of the existing addition.

The in-fill structure between the two buildings, while in good condition, is clumsy in design and dysfunctional. The existing in-fill completely obscures significant portions of the exterior walls of the Courthouse. The narrow space between the buildings might provide a good location to upgrade the access, general circulation and functionality of the entire complex with little impact to the historical character of the buildings.

Recommendations

Later additions should be treated with a **Level IV** rating.

- Improve the style and lines of the Courthouse vault addition through the placement of a second story addition.
- Replace link shed between buildings with more sensitive structure.

Building Envelope - Roofing and Waterproofing

Roofing System

Description

The roof of the Courthouse is cedar shingle. This is the same type of material originally used.

The roof of the Jail building is metal and if not original, it certainly dates from a historically significant era.

Condition

The condition of both roofs is **good**. The entire Courthouse roof was recently replaced with a new cedar shingle roof that was both properly installed and appropriate to the historical character of the building.

The metal roof of the Jail building, while quite old, is performing its function well. The metal has achieved a deep patina that would be impossible to copy with new materials.

Recommendations

The roofing materials should be treated with a **Level III** rating.

- Inspect roofs and repair as needed.
- Apply a coat of preservative oil to wood shingle roof.

Sheet Metal Flashing

Description

All flashing on the Courthouse was replaced with copper materials at the same time the new roof was installed. Additionally, new snow brakes were installed to prevent damage from glaciating snow movement.

Condition

The condition of the flashing is **fair**. Apparently not all of the flashing details called for were installed with the new roof. In some areas, water from the roof is allowed to play against the masonry below causing deterioration. This is the result of originally specified diverts not being installed. Counter flashing was not let into mortar joints over the step flashing at

brick walls. Instead, the counter flashing was merely caulked to the masonry and has since come free.

Recommendations

The roofing materials should be treated with a **Level III** rating.

- Install copper divert ridges to the eave flashing of the Courthouse to direct water away from areas that can impact or dampen masonry.
- Replace counter flashing where roof meets masonry walls of Courthouse. Properly install flashing in reglets formed at mortar joints.

Interior Finishes

Wall Finish Materials

Description

The interior of the Ouray County Courthouse is simply ornamented with modest, straightforward classical details in plaster and wood. Most walls are plaster directly over masonry construction. Where walls are wood framed, the plaster has been placed over wooden lath. The wall plaster is generally smooth without detail or ornament. Tests show no asbestos content in the plaster.

All plaster surfaces are currently painted. The public areas (main hall, foyer and courtroom) show no signs of wall paper coverings which were common at the time the Courthouse was constructed. However, historical photos suggest that most of the office spaces had their plaster covered with wall paper. Indeed, in some rooms the paper still exists under several coats of paint.

Historical references suggest wall paintings in the courtroom some time around 1898. Careful examination of historic photos indicates that these paintings may have taken the form of a decorative frieze just below the ceiling in this room.

Condition

The plaster wall coverings are in **good** condition. Most walls in the Courthouse still have the original plaster and it appears sound and well adhered. Most fortunately, repairs have been made appropriately and no instances of gypsum panel overlays are present.

There are small areas of delamination and staining on some exterior masonry walls as a result of moisture penetration. These areas are by no means extensive or beyond repair.

The decorative frieze in the courtroom is still present under several coats of paint. It appears that the "drape and wreath" design was about 20" in height and surrounded the courtroom just under the plaster ceiling coffers. Small areas of this frieze have been uncovered and the original colors and patterning can be seen. The frieze appears to have been stencil painted onto the plaster wall (contrary to reports from the time which suggest that the painting was fresco) using two or possibly three colors. There also appears to have been a final hand application of highlights using a gold metallic paint or gilding. Because of the nature of the paints applied directly over the frieze, the process of uncovering also leads to sever damage to the original painting. Therefore, restoration of the frieze would be impractical. Further, the general quality and uniqueness of the painting does not warrant such a restoration.

Recommendations

The original plaster walls should be treated with a **Level II** rating.

- Repair or replace areas of damaged plaster using compatible materials and traditional three coat techniques.
- Expose enough of the courtroom frieze to document a complete pattern and the color scheme used.
- Replicate the frieze design in the courtroom. While the original painting itself does not carry significant historical importance, the decorative technique and design are significant. Application of a new decorative band, based on the original, would add authenticity to the overall restoration of the courtroom.

Ceiling Finish Materials

Description

Generally, ceilings in the first and second floors are plaster over wooden lath. The wall plaster is generally smooth without detail or ornament. Tests show no asbestos content in the plaster. The plaster surfaces are currently painted.

The ceiling in the courtroom is clearly the most elaborate. Here six deep coffers cover the entire ceiling and are detailed with elaborate moldings executed in plaster. The coffer beams have the appearance of being supported by pilasters at the exterior walls which are also richly detailed with plaster patterns and ionic capitals. This decorative plaster work appears to be original and is also applied over wood lath.

The second floor court clerk's office just off the courtroom has been finished with pressboard panels. This is the only room finished in this manner. This may have been the result of cost savings after the 1898 fire.

Ceilings in some areas of the first floor have been furred approximately 3" and a new layer of gypsum drywall installed. This was done recently to hide numerous electrical conduits, pipes and other modern features. This addition has been done with minimal visual impact and does not appear to have compromised the historic significance of the interiors.

The basement of the Courthouse and the first floor of the Jail have exposed joists with no finished ceiling. Some areas of these ceilings have been outfitted with dropped acoustic ceilings.

Condition

The original plaster ceilings are in **good** condition. Most ceilings in the Courthouse still have the original plaster and it appears sound and well adhered. Most fortunately, repairs have been made appropriately.

The unfinished ceiling in the Courthouse basement constitutes a serious fire hazard. However, because of the solid wood construction of the Jail building second floor, the unfinished ceiling in this area does not constitute such a hazard and is in fact somewhat interesting from a historical perspective. Unfortunately, plumbing and electrical conduits from several periods (both functioning and abandoned) have been installed throughout this area and seriously detract from the otherwise attractive pattern established by this framing.

Recommendations

The original plaster ceilings in the courtroom should be treated with a **Level I** rating. The original plaster ceilings elsewhere in the building should be treated with a **Level II** rating.

- Install a fire rated suspended ceiling throughout the Courthouse basement to protect the floor joists above and to screen mechanical and electrical elements from view.
- Expose the original ceiling in the first floor of the Jail building. Remove abandoned mechanical and electrical fittings and impose some order upon those fittings that must remain.

Floor Finish Materials

Description

It has not been possible to determine precisely what the original flooring material was in most areas. There is a layer of pine planks applied directly to the floor joists throughout. This probably served as the finished floor material when the buildings were originally constructed but there could also have been an additional layer of finished flooring applied over the planks which has since been removed.

At some point, oak strip flooring was installed in all areas of the original main level and second story on top of the pine sub-floor. This material is clearly from a later period after the turn of the century.

At some point, the oak flooring was mostly covered with carpet. These appear to be commercial synthetic or synthetic blends. The monochromatic colors and style are not compatible with the period of design represented by the Courthouse.

Recently, the carpet was removed in the main hall and entry foyer and the oak floor exposed. The wood floor was in good condition and refinished. While not the original floor, the oak strip floor looks very good in its restored condition and is compatible with the historic interiors.

The lowest floor of both buildings is a concrete slab on grade. The slab has been carpeted in some areas.

Condition

Where exposed and restored, the oak floor is in **good** condition. The carpet covering other areas is in **poor** condition. Some areas of the second floor Courthouse have not been carpeted and the exposed oak floor has not been refinished for some time.

The concrete floors in other areas are in **fair** condition. The Jail building's floor is at numerous different elevations which restricts the functionality of this area.

Recommendations

The oak flooring materials should be treated with a **Level III** rating. All other flooring materials should be treated with a **Level IV** rating.

- Remove carpeting and refinish oak flooring in major public halls and corridors.
- Where wood floors are not desirable, such as offices, new carpet is acceptable.

Interior Doors, Windows, Hardware and Trim

Description

Interior wood trim was used as the major decorative element throughout the Courthouse. Varying levels of detail in wood trim were used reflecting the varying importance of interior spaces.

All windows and doors have the same trim details throughout consisting of milled trim, corner blocks and base plinths. On the second floor, the areas directly below the windows were further detailed with raised wood panels. Raised panels were also used on door jambs placed in thick masonry walls. The only other trim element universally used in all areas was a three piece baseboard.

The more public areas such as the main central hall, stair cases, foyers and the courtroom were outfitted with full wainscot and chair rails. In the courtroom itself, further richness was developed with the addition of wood pediments over doors and windows.

The grand stairway is the focus of the front entry foyer. Quality craftsmanship is evident in the carved newel post, handrail, stringer and baluster.

The material used for all wood trim, moldings, doors and interior window finishes was called out as *Chicago Pine* at the time of construction. Indeed, the wood used is a very nice clear grade of white pine, but the most notable feature is the finish. All wood surfaces have been finished with an amber colored faux oak grain.

The trim used in the Jail building and basement of the Courthouse, while mostly original, is much simpler in profile and painted to match the walls. Of particular note are the original steel cell doors that still hang in the first floor of the Jail building. These, along with their rather unique and elaborate trim, are a must see.

Condition

The condition of the wood trim, doors and interior side of windows is **good** throughout. It is remarkable how little any of these elements have been changed or damaged over the life of this building. The wood members are stable with little if any shrinkage or cracking. The finish on the wood is sound and shows few signs of blistering or peeling, even in areas around windows subject to moisture and condensation.

The fine craftsmanship of the original architectural woodwork has resulted in few, if any, exposed fasteners or separated joints. There is evidence of remedial work in a few locations. For instance, the finial on top of the grand stair newel post is loose and now attached by two exposed nails. Other wood elements throughout the building appear to be securely attached.

There are of course numerous chips, scratches, dents and paint splatters on the wood trim, particularly in areas subject to high traffic such as the stair cases and door jambs. Such damage is minor and is not resulting in further deterioration of the woodwork. Some of the wainscoting and trim have received a coat of some sort of soft varnish or sealer which was poorly applied and has caused some discoloration. New synthetic treads with a metal nosing have been added to the main staircase.

Unfortunately, aluminum storm windows have been installed on the interior of most windows. The resulting damage to the wood trim finish is minor, but the visual effect is very detrimental. Additionally, a very inappropriate sun control shade has been installed over several windows in the courtroom which further obscures the original woodwork.

Recommendation

All original wood trim, doors and windows should be treated with a **Level I** rating.

- Clean original trim work of paint splatters and later layers of discolored varnish where possible without damage to original finish. Perform spot refinishing in areas damaged by impacts while preserving areas of original finish.
- Remove added storm windows

- Replace sun shades on second floor of Courthouse with more compatible devices recessed into window frames.

Furnishings

Description & Condition

Many important furnishings have survived from the period of historical significance. While there are numerous pieces of office furniture scattered about the Courthouse that appear to be quite old, this report will only mention those that can be established to have been original through historic photographs.

- The largest piece of built-in casework is the wood teller counter with stone tops in the Treasurer's office. This piece, though perhaps shortened, is in excellent condition, has the original finish, and is still in regular use.
- The judge's desk in the courtroom is also original. The construction is as casework but sits independently in the room like a piece of furniture. The dais upon which the desk currently sits is not original. The desk is dark stained oak with the original finish and original hardware. It is in excellent condition and is still in regular use.
- The courtroom accessory furniture including attorney's tables and chairs are also at least partly original. The tables of dark stained oak may have received new tops at some point, but the legs and hardware are identical to those in the oldest photographs. The chairs are also original frames but the leatherette seats may have been replaced. Both pieces are in excellent condition and still in regular use.
- The courtroom bar is also original. Made of dark stained oak with ornate turnings and moldings, the bar has been moved from its original position to provide more room on the court side. The original gates have been lost. Nonetheless, the bar is in excellent condition and is still performing its function.
- The general courtroom seating is unique and displays distinct aesthetic and functional qualities. The "theater" style row seating is constructed with ornamental cast iron standards and backs, perforated bent wood back inserts, tilt-up bent wood seats, wire hat racks beneath each seat and wire coat racks on the seat backs. The seat rows are fastened to 2 x 4 runners but are not affixed to the floor. As the room was originally used for dances and other public events, it is likely that the seats have never been permanently attached to the floor so that they could be move aside. The seating is in generally good condition but some of the tilt-up mechanisms are broken and parts are missing here and there. The low level of maintenance and the lack of permanent attachments results in the generation of unacceptable levels of noise from squeaks, rattles, bangs and knocks when in use.

The remainder of the courtroom furnishings, including the jury box and witness stand, are clearly from a later date and their inexpensive plywood construction is not compatible with the more elaborate dark oak original pieces. Their presence, along with other contemporary book shelves and desks, creates a very chaotic look in the courtroom that seriously detracts from the dignity of the original architecture and furnishings.

Recommendation

The original furnishings, particularly in the courtroom, should be treated with a **Level I** rating.

- Replace the incompatible furnishings in the courtroom with casework that is more sympathetic to the style of the original furniture. Incorporate original pieces in

predominate locations where possible. Specifically replace or alter the following items:

- 1) Jury box: replace completely (seats can be reused)
 - 2) Judge's Stand: replaced completely to incorporate new witness box, new clerk's station and original Judge's desk.
 - 3) Bailiff's desk: replace completely
- Remove the contemporary bookcases to a location designated as a library.
 - Repair and refurbish the general courtroom seating. Some rows can be eliminated and units robbed for parts. Proper installation and spacing of seating will further reduce noise.

Building Use

A major conflict surrounding the restoration and preservation of these assets lies in the fact that we are not dealing with museum pieces. Rather, these are living functioning buildings still being used for their original purposes but whose sophistication and capabilities have been outstripped by modern needs.

The continued use of these building for their historic purpose is equally important as the preservation of the structures themselves. In deed, the historical value of these buildings would be a fraction of what they are today if the government functions left their confines, even if the bricks and mortar were perfectly preserved. Therefore, any restoration plan that does not provide for the continued accommodation of a functioning government is a failed plan.

The Courthouse has performed adequately for over 100 years. This is a tribute to its original planners and builders. However, changing needs and new technology have put a heavy demand on the capability of this building to continue to function.

Courthouse Basement

Description

A large portion of the Courthouse basement is occupied by vaults and a large boiler room, all of which are still in use. The remainder of this floor was originally occupied by the city council and the fire department. The city offices were the first to move to a different location and the fire department soon followed. Over the years various offices have occupied the basement rooms including the Superintendent of Schools, the County Surveyor, and the County Assessor.

Today, the basement serves as offices for the Department of Social Services and the County Emergency Services. The southeast corner of this floor currently houses the only public restrooms in the entire building.

Condition

There is no historical precedence for use of the office spaces on this floor. The departments currently in residence seem to be well served by the spaces, but the county could reassign their use at any time.

The bathrooms are in **poor** condition. The floors are unsound, the layout is inefficient and ADA requirements are not being met.

The boiler room is also in **poor** condition in terms of space usage. This room is the second largest space in the Courthouse. In earlier times this much space for coal fired boilers and coal storage was reasonable. However, today's more efficient gas fired boilers can be housed in much smaller areas.

The vaults are in **fair** condition as far as space usage. They are serving their functions well but do not come close to meeting all county needs for document and record storage. The County Clerk, the Clerk of the District Court and the County Treasurer all use these storage rooms and all need more space. Additionally, other county offices have need for additional secure storage, particularly the County Sheriff.

The small room in the southwest corner of the Courthouse is in **poor** condition. This room is not being used because of persistent foundation leaks, poor ventilation and the lack of a finished floor.

Recommendations

Space usage on this level should be considered to have a **Level IV** rating.

- Relocate the boiler equipment to a smaller room and rehabilitate the original boiler room as a secure, multilevel document storage center.
- Re-assign the use of the smaller eastern vault in the Courthouse basement for the use of the sheriff's department.
- Rehabilitate the southwest corner room of the Courthouse basement for office use.
- Reconfigure the public bathrooms in the Courthouse basement to provide compliant and sanitary facilities.

Courthouse Main Floor

Description

The main floor of the Courthouse originally provided offices for the county clerk, county treasurer, county judge, district court clerk, sheriff and county surveyor. In addition there were four fireproof vaults.

Both the county clerk and the county treasurer are in their original locations. The sheriff has been moved to the Jail building and the space absorbed into the clerk's offices. The county clerk's vault has been converted to a bathroom (its original doors are missing) and a new vault added to the southeast corner of the building. The vault adjacent to the treasurer's office is still used.

The judge and court clerk have been moved upstairs with the courtroom and their rooms have been converted to a commissioner's meeting room and office. The vault in this area is currently used as storage and the original doors provide an interesting backdrop for the conference table.

The room and vault used by the surveyor still exist but are presently only used for document and plat storage.

Condition

Generally speaking, the condition of space use on this floor is **good**. The Clerk, Treasurer and Commissioners all report that spaces are adequate for current and expected future uses with one exception. The Clerk is in need of additional vault space, particularly for large documents that can not be reduced or digitized. Fortunately there is significant unused space that can accommodate expanded needs.

Recommendations

Space usage on this level should be considered to have a **Level I** rating. The Clerk and Treasurer should be maintained in their current spaces at all cost.

- Remove the small bathroom in the old Clerk's vault and replace with more appropriate facilities located elsewhere in the buildings.
- Convert the Surveyor's room and vault into additional document storage (or plat room) for the Clerk's office.

Courthouse Second Floor

Description

The second floor of the Courthouse is primarily composed of the expansive courtroom. It is not known what the original uses were for the remaining three rooms but today they serve as the court clerk's office, judges chambers and a jury room.

Condition

The condition of space usage on this level is only **fair**. While the courtroom itself is adequate in terms of size, the ancillary spaces are poorly organized and completely inadequate for a modern court system. The jury room is located in an unsecured room at the northwest corner of the building and has no toilet facilities. The clerk's office is far too small and has no document storage at all. The numerous doors and means of court access make security difficult to manage. At the same time, no ADA access is provided for the entire floor.

The courtroom itself has numerous functional deficiencies that endanger its continued use as the district's official court. The original furnishings and layout made no provision for jury box, witness stand, bailiff or clerk's station. These items were added to the space in an ad hoc manner that was not efficient or sympathetic to the historic fabric of the room.

Even more serious, the hard surfaces found throughout this room result in excessive low and mid-frequency sound reverberation. This makes speech particularly difficult to understand even at short distances. Further exacerbating this problem, other noises that occur in the room and have low-frequency content are foot fall on the wood floors, opening and closing of the retractable seating, and opening and closing of doors. Maintaining the room's historic appearance precludes many options for acoustical treatments.

Recommendations

Maintaining court functions in this space should be considered a **Level I** priority.

- Redesign the entire layout of ancillary spaces surrounding the courtroom to accommodate modern needs.
- Expand space for court clerk functions on the second floor of the Courthouse by placing an addition above the older main floor vault addition.
- Replace and relocate inappropriate additions to the courtroom (jury box, witness stand, most of judge's stand) for efficient use. See the section on *Furnishings* for more recommendations.
- Provide engineered acoustic treatments in the courtroom to control low and mid-frequency sound reverberation times. The best area to treat is the upper coffers since it comprises a large area and is evenly distributed around the room. Remove portions of the non-decorative smooth plaster within the coffers and install semi-rigid fiberglass panels within the ceiling framework. Cover sound panels with a custom installation of seamless fabric to mimic the smooth

monolithic plaster surface. Done correctly, this treatment will have minimal impact on the historic appearance of the room.

- Carpet the entire courtroom. Installation of carpet in the general seating area will soften the impact from footfall and further improve the reverberation times in the space.
- Pre-wire the courtroom for a sound system that may be needed in the future.

Jail Building First Floor

Description

The ground floor of the Jail building was of course originally a calaboose. Federal laws prohibited this use in 1974. In 1976 the downstairs was remodeled and the sheriff moved his offices into this area. In 1997 the sheriff's office was moved back to the second floor and today this area is used primarily for storage.

This level is divided into four rooms separated by masonry walls, some of which are not structural. The ceiling is of solid wood construction and the floor is slab on grade. The single entrance to this level is through a narrow passage in the southwest corner.

Condition

Generally, space use on this level is **poor**. While of historic note, its use as a jail is no longer feasible. The odd layout dictated by its original function and numerous subsequent remodels make current use of this area difficult for any practical or efficient purposes. Most of the historic surfaces have been obscured with inappropriate paneling and a dropped acoustic ceiling.

On the other hand, the county has needs for several functions not originally provided in the historic complex. If performed with a sensitivity for the original functions, this area can be used to provide public bathrooms, meeting and training rooms and day areas for staff that can not be met elsewhere in the complex.

Recommendations

The original purpose of the ground level of the Jail building should be treated with a **Level IV** rating.

- Re-open the first floor of the Jail building to public use by converting the area to function as a meeting/training room, staff day room and public restrooms.
- Remove the non-structural interior east-west masonry partition in the first floor of the Jail building to enhance functional layout of the space.
- Provide better access to the first floor of the Jail building by cutting a new and wider entry through the exterior wall.
- Maintain and preserve elements of the first floor of the Jail building that relate to the historic use of this area:
 - 1) Re-use the existing jail doors for interior passages.
 - 2) Expose covered elements such as masonry walls and solid wood ceiling.

Jail Building Second Floor

Description

The second floor of the Jail building originally served as a residence for the sheriff and served as such until the jail was closed and the ground floor converted to offices in 1976.

At that time, the old residence was converted to offices for the county planning department and administrator. In 1997, the planning department was moved to a new county building and the sheriff moved his offices back to this floor. The interior arrangement and walls appear to have been little changed from their original configuration. There are four rooms plus closets and bath on this level.

Condition

The function of the second floor of the Jail building appears in **fair** condition. The accouterment of rooms appears to be meeting the needs of the sheriff's department with little discomfort. The four rooms, used as reception, sheriff's office, squad room and interrogation room, are of appropriate arrangement and size for their functions.

The most pressing deficiency is access. The primary entrance is by an exterior staircase (located in the current link between the buildings) and is not convenient to the public. Additionally, physical communication with the court requires the officers to escort detainees outside the buildings and around to the front of the Courthouse for appearances.

Recommendations

Maintaining the use of this level for sheriff offices should have a **Level I** rating.

- Improve public access to the sheriff's office and to the courts by improving the link between the buildings.

Link Between Buildings

Description

The Jail Building and Courthouse were constructed approximately 12 feet apart with apparently no consideration given to how the two buildings might interact. None of the major building components align with each other such as exterior walls, doors or floor levels. Both roofs deposit snow and rain into the narrow space between the buildings and older local citizens can provide stories about how difficult it was to negotiate the entries and stairs located in this corridor during winter months.

A series of canopies and sheds have been constructed in this space over the years in attempts to improve the situation. The existing cover was built in the 1950's (as near as can be determined) in the form of a shed attached to the Jail Building. Constructed of a steel frame with metal siding, the shed provides protected access to both the Courthouse and Jail.

Condition

The functional condition of the link is **poor**. While providing protection from weather, the shed does nothing to enhance the circulation between buildings or to resolve the disjunction between them. The design of the shed obscures most of the west wall of the Courthouse and provides a dark and unattractive public entrance far beneath the dignity of the original buildings. The steel construction of the shed, while perhaps partially appropriate for a community steeped in a utilitarian mining tradition, forms a discordant element that seriously detracts from the historic structures.

Recommendations

Providing an appropriate link between the buildings is critical to the continued use of these structures as a functioning location for government and should be considered a **Level III** priority.

- Remove the existing steel shed structure between the two buildings.

- Provide a new link between the Jail and Courthouse that meets the following criteria:
 - 1) Provides the appropriate level of dignity and convenience as the principal public access to the Sheriff's Office and the offices of the District Court as well as the new public rooms to be located in the ground floor of the Jail.
 - 2) Resolves the disjunction of floor levels and openings between the two buildings and provides for a functional flow of activities.
 - 3) Protects the area from drainage and snowfall.
 - 4) Provides a design that visually enhances the historic structures and does not obscure their forms or compete for attention.
 - 5) Provides ADA compliant access to all areas of the buildings.

Mechanical Systems

Refer to the reports from the mechanical engineer for more specific analysis and recommendations on the mechanical systems.

Heating

Description

The buildings are heated via oil fired hot water boilers located in the basement of the Courthouse. The boiler room is the second largest room in the building and has the lowest floor level. The boilers are vented through the original masonry chimney.

There are commercial hydronic baseboards heating the three levels of the Courthouse which replaced the original radiators. The second floor of the Jail is heated with residential baseboard. The ground floor has one operating original radiator but is mostly heated with electric baseboards.

There is an underground storage tank of unknown age and size near the southeast corner of the Jail. This tank is used to hold heating fuel oil for the boilers.

Most exterior walls are solid masonry with no provision for insulation. The attic of the Courthouse has a loose fill insulation covering the ceiling joists. The attic of the Jail has no insulation. The windows throughout are wood with no weather stripping and single glazing.

Condition

The load calculations and anecdotal evidence indicate the size and number of heating elements is sufficient. The comfort levels maintained throughout the buildings is acceptable. While the boilers are currently serviceable, they are old and their design and efficiency are outdated. Replacement of the boilers will likely be required in the near future. However, of more concern than the age of the boilers is their location and dependence on a potentially hazardous fuel oil storage tank. Modern mechanical equipment is much more efficient in terms of both energy and space usage. With space at a premium, it would make sense to modernize and relocate the boilers to free up the large space they currently occupy for other uses.

The masonry chimney used by the current boilers is of questionable safety. There is no metal or clay liner within the flue and the condition and tightness of the masonry is variable. The chimney has been the source of fires in the past and is a continual source for roof leaks because of its location below a significant drainage area and near a valley.

The commercial baseboard heaters in the second floor Courtroom are of an old design and obscure much of the wainscot and paneling below the windows.

Colorado regulations do not govern underground storage tanks used to store heating oil for consumption on the premises. However, Colorado and federal regulations do regulate releases from such tanks. The age, tightness, and quality of the tank is not known. Therefore, a release from the system is possible, and its effects on soil and ground water are not known at this time.

The exterior walls of both buildings have no provision for insulation cavities. However, their high mass does provide a significant thermal lag which protects the interiors from excessive heat losses. The attics do provide good opportunities to add insulation in the most critical areas of potential heat loss. Such insulation has been added to the Courthouse, but not the Jail. The windows in both buildings are original and provide a poor barrier to heat loss through infiltration. Although some windows have been fitted with storm sashes, such additions are a detriment to the historic appearance of the buildings. In use, most of the storm sashes are habitually left open and their effectiveness is questionable.

Recommendations

- Provide a natural gas fired boiler to replace the oil fired boilers.
- Relocate the boiler room to a smaller area where control of gas leaks and appropriate venting is less hazardous.
- Remove the existing masonry chimney.
- Remove the fuel oil tank to prevent the possibility of fuel oil leak and soil contamination.
- Provide hydronic heat to the ground floor of the Jail and the new link between the buildings.
- Replace the baseboard heaters in the Courtroom with smaller and less obtrusive units of efficient design.
- Insulate the attic of the Jail Building.
- Remove storm sashes from windows.
- Renovate existing windows with weather stripping and possible double glazing (see section on *Exterior Doors & Windows*).

Ventilation

Description

At the time these buildings were originally designed, little regard was given for building ventilation and no dedicated systems were provided in this case. The general lack of air tight doors and windows and typical construction techniques in use during this period provided more than sufficient changes of interior air. Typical construction techniques also provided ample breathing in the walls and roofs. Many situations where damage has been caused by the trapping of moisture within construction layers is the result of applying modern materials and coatings on older structures which, if left to their own devices, would have survived just fine as constructed. Fortunately, the climate in Ouray is quite dry which decreases the potential of damage from trapped moisture within the buildings.

Condition

Generally, neither of these buildings exhibit evidence of damage or degradation from internal moisture sources. Although the exterior masonry has been painted, no ill affect has resulted. There is no evidence of excessive interior moisture or condensation around

windows or doors. However, the existing bathrooms have insufficient positive ventilation by current code and modern standards.

Additionally, moisture that has tended to enter the building through some basement walls and floors has not been carried away by appropriate means and contents of certain rooms have been damaged over time.

Recommendations

- Provide up-graded exhaust for each toilet room.
- Provide positive ventilation for basement rooms on the southwest side of the Courthouse.

Fire Suppression

Description

There is currently no active fire suppression system in the building. Passive protection is provided with original construction types. Most interior walls, vaults and members supporting floors and roof are solid masonry construction. These walls are twelve to eighteen inches thick. Existing floor construction in the Courthouse is of two inch wood framing with two layers of one inch wood sheathing on the floors and plaster over wood lathe on the ceilings. Most ceilings in the main floor of the Courthouse have been furred down with an additional layer of gypsum wall board applied below the original plaster. The floor system in the Jail is a solid twelve inches of timber. The roof framing over the Courthouse is heavy timber and over the Jail Building is light framing.

Condition

For the most part, separations provided by existing construction are adequate and comply with modern code. However, the ceiling in the basement is exposed joists and does not meet life and safety standards. Code also requires the A-3 occupancy (courtroom) on the second floor to be of one hour rated construction. All but the doors in the courtroom probably meet this standard.

The installation of an active fire suppression system would be very difficult in these buildings. Concealment of most pipes for such a system would be impossible in the masonry walls and would require the destruction of historic fabric and surfaces elsewhere.

Recommendations

- Provide a one hour fire rated ceiling through the Courthouse basement.

Electrical Systems

Refer to the reports from the electrical engineer for more specific analysis and recommendations on the electrical systems.

Electrical Service and Panels

Description

Prior to recent work, the overhead service was single phase, 230 volt, rated at 200 Amps. This has been recently upgraded to three phase 120/208 V, 400 amp service fed underground from a pad mounted transformer located in the alley. This service feeds new panels on each floor of the Courthouse, a new panel in the Jail building, as well as having the capacity to service a future elevator. The old service panels have been removed.

Condition

All panels are now of sufficient size as to provide breaker protection for each feed and breaker ampacity has been matched to wire ratings.

Recommendations

- None

Electrical Distribution System

Description

It is probable that the Courthouse was electrically lighted when constructed. Electricity was available in this area sooner than most because of the early efforts at power generation to service the mining industry. While this feature is important to the historic treatment of the buildings, it comes with the risk of the existence of very old wiring and fixtures that could still be in use.

Condition

Several improvements have recently been made to the electrical distribution system. All knob and tube wiring and rubber with varnished fabric insulation wiring has been removed or replaced.

The buildings have many computers, printers, and circuits that were not envisioned in the remodel of the 70's and require more points of connection for the various devices to the electrical system. While new circuits have recently been installed with appropriate receptacles throughout the main floor of the Courthouse, many areas are still under served or have no service at all. Most notable is the courtroom and judge's podium which have no receptacles whatsoever.

Several existing circuits have poor attachments, bad location, incorrect polarity or inappropriate protection.

Recommendations

- Provide new isolated ground circuits to each office on the upper and lower level offices with computer equipment.
- Provide a new dedicated circuit in the upper level judge's podium for computer equipment.
- Correct deficiencies noted in the electrical engineer's report.

Lighting

Description

Old photographs show the existence of early electrical light fixtures, the design of which followed the lines of gas lights. However, there are no apparent remnants of this earliest electrical system still in existence.

New lighting has been installed throughout the main level of the Courthouse. However, the rest of the floor levels are using florescent lights installed in the 1940's.

Condition

The main floor lighting in the Courthouse is up to illumination standards and is sensitive to the historic value of the building. However, this is not the case in most other areas. Of particular note are the florescent fixtures used in the courtroom which are inappropriate and seriously detract from the historic quality of the room.

Recommendations

- Replace all lighting in the courtroom and stair case with restoration style fixtures sympathetic to the era in which the Courthouse was constructed.
- Replace light fixtures during rehabilitation of office and meeting areas of the Courthouse and Jail to provide modern illumination standards. Contemporary fixtures are appropriate in office and accessory spaces. However, fixtures that are sympathetic to the historic value of the buildings should be used in primary public spaces and corridors.
- Provide exit and emergency illumination as required by code.

Fire Detection System

Description

An ionization detection fire alarm system has been installed on the first and second floors of the Courthouse with pull stations and alarm signals at appropriate locations.

Condition

The system has not been extended to include the basement of the Courthouse or any of the Jail Building.

Recommendations

- Expand installation of the fire alarm system to include all portions of both buildings.

Communications

Description

No infrastructure was provided in the original buildings for voice or data communication. Over the years, systems have been added in an ad hoc manner as needed. As currently configured, the communications system is serving the needs of the government. However, technology makes such system requirements an ever moving target. The key to meeting future needs is flexibility.

Condition

Much of the wiring for communications has been strung across the exterior face of the Jail Building and across the alley. This is unsightly and detracts from the historic value of the buildings.

Recommendations

Provide for a large chase beneath the remodeled Jail Building that ties from the basement hall of the Courthouse at one end to the alley at the other. This chase should be used to provide a flexible pathway for communication cables between various buildings as well as an efficient location for mechanical services from the boiler room.

- Relocate communication cables from the exterior of the buildings to the new chase and underground where crossing the alley.

ADA Compliance

Description

When constructed, neither the Courthouse nor the Jail Building incorporated provisions for the disabled. To the contrary, tastes from this era dictated styles and progressions that actually preclude modern standards for accessibility. It can be very difficult to incorporate these standards into the historic fabric of these buildings without irreparably destroying their very nature.

There have been half hearted attempts at providing some level of access. A ramp was constructed at the front of the Courthouse which bypasses the front steps. Additionally, the landscaping on the north side of the Courthouse incorporates a ramp which provides access to the basement.

Condition

The ramp at the front of the Courthouse, while serviceable, does not meet basic ADA requirements in terms of size, protection or configuration. This ramp only provides access to the main floor of the Courthouse, leaving the second floor and courtroom completely isolated. Its design is incompatible with the style of the historic Courthouse and its location compromises the visual integrity of the main façade.

The ramps serving the basement on the north side of the Courthouse are reasonable, but the style and quality of workmanship in the supporting landscape retaining walls is inappropriate for the Courthouse era.

The entire Jail building (including the County Sheriff's office), and the second floor of the Courthouse (including the office of the District Court Clerk, the Courtroom, the Jury Room and the Jury Box) are non-accessible.

There is a single partially accessible restroom facility in the basement of the Courthouse. This is the only public facility in the entire complex and is only accessible from the exterior ramps on the north side of the building. The configuration and location of these restrooms does not meet ADA standards.

Recommendations

- Remove the access ramp on the west side of the Courthouse.
- Provide ramp access to the new link between the Courthouse and Jail buildings.
- Reconfigure the ramp arrangement servicing the basement of the Courthouse within more appropriate landscape elements.
- Provide ADA compliant stair access to all levels (except basement) of both buildings within the new link structure.
- Remove small east staircase in the Courthouse and replace with elevator. Properly integrated with the new link, the elevator should provide access to all levels of both buildings.
- Provide a unisex accessible restroom on the second level of the Courthouse that can service the jury members and public.
- Upgrade the dual restroom facilities in the Courthouse basement to meet ADA requirements.

- Provide a centralized dual restroom facility to service the main levels of the Courthouse and Jail.

Preservation Plan

The Preservation Plan takes the recommendations prescribed in Part 2 and prioritizes the work into a logical order. This order ranks the most urgent work such as deterioration, structural weakness and life safety issues before less urgent repairs where possible. However, the preservation process must take into account that these buildings need to continue serving their government functions at the same time as the work is being completed. For this reason, the logical order for the preservation work may not always follow the priorities established for individual items. Instead, work will need to be phased into localized areas that allow for government functions and workmen to gracefully step across each other.

Categories for use in prioritizing recommendations are:

Critical:

There is advanced deterioration which has resulted in failure of the building element or will result in the failure of the building element if not corrected within two years, and/or

There is accelerated deterioration of adjacent or related building materials as a result of the element's deficiency, and/or

There is a threat to the health and/or safety of the user, and/or

There is a failure to meet a legislative requirement.

Serious:

There is deterioration which, if not corrected within 2-5 years, will result in the failure of the building element, and/or

A threat to the health and/or safety of the user may occur within 2-5 years if the deterioration is not corrected, and/or

There is deterioration of adjacent or related building materials and/or systems as a result of the element's deficiency.

Minor:

Standard preventive maintenance practices and building conservation methods have not been followed, and/or

There is a reduced life expectancy of affected or related building materials and/or systems, and/or

There is a condition with long-term impact beyond 5 years.

Prioritized Work – CRITICAL Elements

Exterior

- Re-point masonry joints in areas of mortar erosion. Only compatible mortars should be used.
- Replace badly deteriorated bricks with a similar sized common brick or patch with a vapor permeable and compatible repair mortar.
- Patch crosscutting fractures and the larger horizontal fractures in sandstone sills with a vapor permeable repair mortar to prevent water infiltration.
- Strip any paint from stone surfaces and remove colonies of lichen.
- Remove old masonry repairs that used very hard high Portland cement content mortar.
- Extend the tower deck drain so that water is discharge onto a controlled area of the roof.
- Install copper divert ridges to the eave flashing of the Courthouse to direct water away from areas that impact or dampen masonry.
- Replace counter flashing where roof meets masonry walls of Courthouse. Properly install flashing in reglets formed at mortar joints.

Interior

- Install a fire rated suspended ceiling throughout the Courthouse basement.
- Install intermediate bracing to rafters in the east portion of the Courthouse roof.
- Install secondary trusses to support roof of Jail building.
- Expand installation of the fire alarm system to include all portions of both buildings.

Openings and Access

- Remove all window sash elements for refurbishing and repair in a shop:
- Re-install sash units in new self sealing guides.
- Repair and repaint window frames in place. Replace damaged sills as needed.
- Repair window counter-weights where broken.
- Remove the existing steel shed structure between the two buildings.
- Provide a new link between the Jail and Courthouse that serves as a principal public access, resolves the disjunction of floor levels, protects the area from drainage and snowfall, enhances the historic structures and provides ADA compliant access to all areas of the buildings.
- Replace east staircase in the Courthouse with elevator. Properly integrate with the new link such that access to all levels of both buildings is provided.
- Provide exterior ramp access to the new link between the Courthouse and Jail buildings.

Prioritized Work – SERIOUS Elements

Exterior

- Re-grade the south lawn, from alley to street, to provide positive drainage to the west and away from the buildings at all points.
- Remove the fuel oil tank to prevent the possibility of soil contamination.
- Remove the existing masonry chimney.
- Expose and waterproof basement foundation walls on the south side of the Courthouse to a depth of approximately four feet below finished grade.
- Waterproof areas of the exterior foundations that are exposed in the course of new construction and portions of the east and south side of the Jail building where the finished grade will be above the interior floor level.
- Expose the east side of the Jail and install a protective concrete wall against the building to the height of the traveled surface of the alley.
- Install a new drain pan on the south side of the Courthouse that provides positive drainage to the west.
- Remove, replace and extend the stone retaining wall on the west side of the Courthouse.
- Remove access ramp at front of Courthouse.
- Replace concrete porch and steps with new wooden deck at front of Courthouse.
- Repair deteriorated wood at base of entry portico.
- Replace deteriorated or missing wood railings and balusters at front portico.
- Clean and repaint brick surfaces. Only areas of loose paint should be removed.
- Prepare a lead management plan for activities that will abrade, chip, or remove the exterior paint.
- Repaint all exterior wood trim elements.

Interior

- Replace wooden floors with concrete slabs in the Courthouse basement.
- Repair masonry walls in the boiler room and southwest storage room of the Courthouse basement.
- Provide positive ventilation for basement rooms on the southwest side of the Courthouse.
- Upgrade the dual restroom facilities in the Courthouse basement to meet ADA and ventilation requirements.
- Relocate the boiler room to a smaller area.
- Provide a natural gas fired boiler to replace the oil fired boilers.
- Provide hydronic heat to the ground floor of the Jail.
- Rehabilitate the original boiler room as a secure, multilevel document storage center.
- Re-organize functional layout of courtroom and replace the jury box, judge's stand and bailiff's desk with casework that is more sympathetic to the style of the original furniture.
- Provide a new dedicated circuit in the upper level judge's podium for computer equipment.
- Replace all lighting in the courtroom and stair case with restoration style fixtures.

- Provide engineered acoustic treatment in the courtroom.
- Remove the contemporary bookcases in the courtroom to the library.
- Repair and refurbish the public courtroom seating.
- Carpet the entire courtroom.
- Expand space for court clerk functions on the second floor of the Courthouse by placing an addition above the older main floor vault addition.
- Remodel the entire layout of ancillary spaces surrounding the courtroom to accommodate modern needs.
- Provide a unisex accessible restroom on the second level of the Courthouse that can service the jury members and public.
- Remove the small bathroom in the old Clerk's vault.
- Convert the Surveyor's room and vault into additional document storage for the Clerk's office.
- Re-open the first floor of the Jail building to public use by converting the area to function as a meeting/training room and staff day room.
- Maintain and preserve elements of the first floor of the Jail building that relate to the historic use of this area:
 - Expose the original ceiling in the first floor of the Jail building.
 - Provide better access to the first floor of the Jail building by cutting a new and wider entry through the exterior wall.
 - Remove the non-structural interior east-west masonry partition in the first floor of the Jail building.
 - Replace the concrete floor of the Jail building with a new slab of uniform height.
 - Provide a centralized dual restroom facility to service the main levels of the Courthouse and Jail.
 - Insulate the attic of the Jail Building.
 - Provide new isolated ground circuits to each office on the upper and lower level offices with computer equipment.

Openings & Access

- Remove aluminum storm windows both interior and exterior.
- Replace basement entry doors with wooden doors and side lites.
- Provide exit and emergency illumination as required by code.
- Provide for a large chase beneath the remodeled Jail Building that ties from the basement hall of the Courthouse at one end to the alley at the other.

Prioritized Work – MINOR Elements

Exterior

- Replace the planters and landscaping on the north side of the Courthouse.
- Reconfigure the ramp arrangement servicing the basement of the Courthouse.
- Provide a storm drainage system at the north side of the Courthouse.
- Replace and reconfigure sidewalks on north and east sides of the property that coordinate with improved surface drainage and ADA access to building.
- Provide new curb and gutter system with ramps to organize parking at the street.
- Install permanent signage for parking areas reserved for sheriff's office and handicapped users.
- Inspect roofs and repair as needed.
- Apply a coat of preservative oil to wood shingle roof of the Courthouse.

Interior

- Repair or place areas of damaged plaster using compatible materials and traditional three coat techniques.
- Clean original trim work of paint splatters and later layers of discolored varnish. Perform spot refinishing in areas damaged by impacts while preserving areas of original finish.
- Remove carpeting and refinish oak flooring in major public halls and corridors.
- Replace light fixtures during rehabilitation of office and meeting areas of the Courthouse and Jail to provide modern illumination standards.
- Correct deficiencies noted in the electrical engineer's report.
- Expose enough of the courtroom frieze to document a complete pattern and color scheme used.
- Replicate the frieze design in the courtroom.
- Pre-wire the courtroom for a sound system that may be needed in the future.
- Replace the baseboard heaters in the Courtroom with smaller and less obtrusive units of efficient design.
- Re-assign the use of the smaller eastern vault in the Courthouse basement for the use of the sheriff's department.
- Rehabilitate the southwest corner room of the Courthouse basement for office use.

Openings & Access

- Rehabilitate the bricked-in window, exposed by the moat extension.
- Replace sun shades on second floor of Courthouse with more compatible devices recessed into window frames.
- Relocate communication cables from the exterior of the buildings to the new chase and underground where crossing the alley.

Phasing Plan

While it might seem logical to pursue restoration and preservation activities item by item in the order of their relative importance, practicality and economics dictate otherwise. Many items of high priority are interrelated to items of lower priority and, in some instances, one may not be finished without the other. Additionally, in many cases items of lower priority may be achieved at significantly reduced costs if executed in conjunction with related high priority items.

Of critical importance to the sequencing of preservation events is the obligation for county offices to continuously function without interruption. Therefore, the phasing plan must provide for localization of work and, where necessary, the shifting or relocation of offices in a predictable and orderly manner. Access to offices by the public and employees is also a consideration of prime importance.

In this narrative, each of the phases will be described. How issues of building use and cost efficiency are impacted or limited by the phase will also be explained. In the later divisions of this section, the specific prioritized tasks from above will be assigned and listed for each phase.

Phase A – Access Construction

This phase will provide the infrastructure required to complete the project. In addition to accomplishing many of the prioritized tasks, this phase will create alternative access to the buildings and supplemental areas for temporary office relocations that will be essential for later phases.

The Sheriff's office will be most impacted by this phase although little work will actually take place within their space. Once the existing steel shed is removed from between the buildings, a temporary access stair will need to be provided to the second floor of the Jail building. There will be some temporary conflicts with access as an inevitable consequence of the construction. While not imperative, some consideration might be given to a temporary relocation off the site.

The major components of Phase A will be:

- **Link Construction:** In order to provide access to the buildings and ease the inconveniences wrought by the continuing restoration during successive phases, the new link is a critical first step. Its construction is also one of the most intrusive elements to the existing configuration and will need to be finished before it is practical to begin other items such as masonry restoration and site work.
- **First Floor Jail Building:** Rehabilitating the ground floor of the Jail building will provide office space and restroom facilities that will be needed for the temporary relocation of existing offices during future phases. Because of its invasive and structural nature, it will be practical to accomplish this work at the same time as the adjacent link construction.

Phase B – Elevator and Basement

This phase will complete the access components of the restoration as well as provide the mechanical systems needed to support the remainder of the process. It involves the removal of the east staircase within the Courthouse and should be scheduled after the new stairs in the link are placed in service.

The offices most impacted by this phase will be those located in the basement of the courthouse. Most of these areas should be able to continue their functions but

temporary relocation to the new rooms in the Jail building would be possible. The current Judges Chambers on the second floor of the Courthouse and back area of the Treasurer's Offices on the main floor will also be impacted. However, these impacts will be minor and short lived. No relocations should be needed.

The major components of Phase B will be:

- Elevator Installation: This involves removing the east staircase. Changes in the wood framing of the shaft will be the only disruption to the Judge's Chambers and Treasurer's Office.
- New Mechanical Room: Because of its proximity to the new elevator shaft and the use of the shaft for boiler venting, it will be practical to install the new mechanical equipment along with the elevator.
- General Basement Repairs: Because of the disruption of the basement activities and the involvement of major mechanical work, time and efficiency considerations make completing the remainder of the basement rehabilitation tasks practical during this phase. Final rehabilitation of the new office space in the northwest corner will need to wait until the landscaping phase allows for installation of the window.

Phase C – Courthouse Addition

This phase completes the major remodeling activities in the project. This work should be completed before the exterior restoration tasks are begun because of the impact to masonry walls and window openings.

Only the areas east of the back wall of the courtroom will be impacted. Restoration work within the courtroom will take place during a later phase and its activities will not be physically impacted. However, work during this phase will need to be scheduled around court activities for noise considerations. The Court Clerk's Office and the Judges Chambers will be severely impacted during this phase and will need to be relocated to the ground floor of the Jail building for the duration.

The major components of Phase C will be:

- Addition Above Vault: This addition, located above the existing County Clerk's vault, is critical to insuring long term functioning of the court offices.
- Remodel of Ancillary Spaces: The remodel of this area, incorporating the new addition, finishes the coordination of the court offices with the access provided by the new link. It also prepares the offices for the rearrangement of the courtroom during a later phase.
- Remodel of Main Floor Spaces: The expansion of vault space on the main floor of the Courthouse is positioned directly below the work being done on the court offices. It will be practical to perform this work at the same time.

Phase D – Window Restoration

The restoration of windows is designated as its own phase because it is not really a *phase*. It will be impractical to remove every window for repair simultaneously. Additionally, window restoration will need to be coordinated and cycled with localized work along with other phases. Work on window restoration can be started at the very beginning of the total project and cycled around the buildings as needs and practicality dictate.

Phase E – Exterior Shell Restoration

This phase begins the work on the exterior of the buildings in a logical sequence: top to bottom. The major alterations that impact the exterior will need to be completed before beginning this work.

No major impact to government functions is anticipated as a result from this work. However, the need to install scaffolding will require protection of the public at entries.

The major components of Phase E will be:

- **Roof Repairs:** These repairs are minor and mostly for the purpose of protecting the masonry from moisture and performing routine maintenance.
- **Masonry Repairs:** These repairs, while comprehensive, are not major and do not go beyond what would normally be performed on a masonry building prior to painting. However, it is very important that appropriate materials and methods are used. As simple as most of this work is, done improperly, the buildings can easily suffer permanent and significant damage.

Phase F – Courtroom Rehabilitation

This phase will complete the major interior work on the Courthouse. Most of the work in this phase can be completed off site and installed on days that the courtroom is not in use. However, installation of the acoustic ceiling treatment may be very intrusive. It should be possible to use the new meeting room in the Jail building for court sessions during particularly intense periods of restoration work.

Phase G – Site Work

This phase will complete the major exterior work on the Courthouse. The work is extensive and is important for controlling drainage around the buildings and insuring their long term survivability. The site work can be closely coordinated with other exterior phases and work can be begun as soon as adjacent tasks allow.

As the work in this phase will result in the temporary obstruction of entrances, it should be staged around the site so that only one entrance at a time is cut off.

The major components of Phase G will be:

- **South Side Improvements:** This work will control drainage on the south side of the buildings primarily through re-contouring of the lawn.
- **West Side Improvements:** This work will block the main Courthouse entrance and other provisions for access will have to be in place. The major result of this work will be a new moat, entrance bridge and refurbished portico.
- **North Side Improvements:** This work will provide new entry patterns at the Courthouse basement and tie the lower areas into the city storm drains.
- **Sidewalk Improvements:** This work will finish the site improvements and finalize access and parking configurations.

Phase H – Finishing Touches

- **Exterior Work:** Painting and cleanup.
- **Interior Work:** Painting and cleanup.

Phase A – Access Construction

Link Construction:

- Remove the existing steel shed structure between the two buildings.
- Provide a new link between the Jail and Courthouse that serves as a principal public access, resolves the disjunction of floor levels, protects the area from drainage and snowfall, enhances the historic structures and provides ADA compliant access to all areas of the buildings.
- Install secondary trusses to support roof of Jail building.
- Insulate the attic of the Jail Building.
- Provide exit and emergency illumination as required by code.

First Floor Jail Building:

- Re-open the first floor of the Jail building to public use by converting the area to function as a meeting/training room and staff day room.
- Maintain and preserve elements of the first floor of the Jail building that relate to the historic use of this area:
- Expose the original ceiling and walls in the first floor of the Jail building.
- Provide better access to the first floor of the Jail building by cutting a new and wider entry through the exterior wall.
- Remove the non-structural interior east-west masonry partition in the first floor of the Jail building.
- Provide for a large chase beneath the remodeled Jail Building that ties from the basement hall of the Courthouse at one end to the alley at the other.
- Replace the concrete floor of the Jail building with a new slab of uniform height.
- Provide a centralized dual restroom facility to service the main levels of the Courthouse and Jail.
- Expose the east side of the Jail and install a protective concrete wall against the building to the height of the traveled surface of the alley.
- Replace light fixtures to provide modern illumination standards.
- Provide new isolated ground circuits on the upper and lower level offices with computer equipment.
- Provide hydronic heat to the ground floor of the Jail.
- Correct deficiencies noted in the electrical engineer's report.
- Relocate communication cables from the exterior of the buildings to the new chase and underground where crossing alley.
- Provide exit and emergency illumination as required by code.

Phase B – Elevator and Basement

Elevator Installation:

- Replace east staircase in the Courthouse with elevator. Properly integrate with the new link such that access to all levels of both buildings is provided.
- Install intermediate bracing to rafters in the east portion of the Courthouse roof.

New Mechanical Room:

- Relocate the boiler room to a smaller area.
- Provide a natural gas fired boiler to replace the oil fired boilers.
- Rehabilitate the original boiler room as a secure, multilevel document storage center.

General Basement Repairs:

- Repair masonry walls in the boiler room and southwest storage room of the Courthouse basement.
- Replace wooden floors with concrete slabs in the Courthouse basement.
- Rehabilitate the southwest corner room of the Courthouse basement for office use.
- Provide positive ventilation for basement rooms on the southwest side of the Courthouse.
- Upgrade the dual restroom facilities in the Courthouse basement to meet ADA and ventilation requirements.
- Replace basement entry doors with wooden doors and side lites.
- Install a fire rated suspended ceiling throughout the Courthouse basement.
- Replace light fixtures to provide modern illumination standards.
- Expand installation of the fire alarm system to include all portions of both buildings.
- Re-assign the use of the smaller eastern vault in the Courthouse basement for the use of the sheriff's department.
- Provide exit and emergency illumination as required by code.

Phase C – Courthouse Addition

Addition Above Vault

- Expand space for court clerk functions on the second floor of the Courthouse by placing an addition above the older main floor vault addition.
- Remove the existing masonry chimney.

Remodel of Ancillary Spaces

- Remodel the entire layout of ancillary spaces surrounding the courtroom to accommodate modern needs.
- Provide a unisex accessible restroom on the second level of the Courthouse that can service the jury members and public.
- Provide new isolated ground circuits to each office with computer equipment.
- Remove carpeting and refinish oak flooring in major public halls and corridors.
- Replace light fixtures to provide modern illumination standards.
- Correct deficiencies noted in the electrical engineer's report.
- Provide exit and emergency illumination as required by code.

Remodel of Main Floor Spaces

- Remove the small bathroom in the old Clerk's vault.
- Convert the Surveyor's room and vault into additional document storage for the Clerk's office.
- Provide exit and emergency illumination as required by code.

Phase D – Window Restoration

- Remove all window sash elements for refurbishing and repair in a shop:
- Re-install sash units in new self sealing guides.
- Repair and repaint window frames in place. Replace damaged sills as needed.
- Repair window counter-weights where broken.
- Remove aluminum storm windows both interior and exterior.

Phase E – Exterior Shell Restoration

Roof Repairs

- Extend the tower deck drain so that water is discharge onto a controlled area of the roof.
- Install copper divert ridges to the eave flashing of the Courthouse to direct water away from areas that impact or dampen masonry.
- Replace counter flashing where roof meets masonry walls of Courthouse. Properly install flashing in reglets formed at mortar joints.
- Inspect roofs and repair as needed.
- Apply a coat of preservative oil to wood shingle roof of the Courthouse.

Masonry Repairs

- Re-point masonry joints in areas of mortar erosion. Only compatible mortars should be used.
- Replace badly deteriorated bricks with a similar sized common brick or patch with a vapor permeable and compatible repair mortar.
- Patch crosscutting fractures and the larger horizontal fractures in sandstone sills with a vapor permeable repair mortar to prevent water infiltration.
- Strip any paint from stone surfaces and remove colonies of lichen.
- Remove old masonry repairs that used very hard high Portland cement content mortar.

Phase F – Courtroom Rehabilitation

- Re-organize functional layout of courtroom and replace the jury box, judge's stand and bailiff's desk with casework that is more sympathetic to the style of the original furniture.
- Provide a new dedicated circuit in the upper level judge's podium for computer equipment.
- Provide engineered acoustic treatment in the courtroom.
- Pre-wire the courtroom for a sound system that may be needed in the future.
- Replace all lighting in the courtroom and stair case with restoration style fixtures.
- Remove the contemporary bookcases in the courtroom to the library.
- Repair and refurbish the public courtroom seating.
- Carpet the entire courtroom.
- Expose enough of the courtroom frieze to document a complete pattern and color scheme used.
- Replicate the frieze design in the courtroom. Repaint walls.
- Replace the baseboard heaters in the Courtroom with smaller and less obtrusive units of efficient design.
- Replace sun shades with more compatible devices recessed into window frames.
- Provide exit and emergency illumination as required by code.

Phase G – Site Work

South Side Improvements

- Remove the fuel oil tank to prevent the possibility of soil contamination.
- Expose and waterproof basement foundation walls on the south side of the Courthouse to a depth of approximately four feet below finished grade.
- Waterproof areas of the exterior foundations that are exposed in the course of new construction and portions of the east and south side of the Jail building where the finished grade will be above the interior floor level.
- Re-grade the south lawn, from alley to street, to provide positive drainage to the west and away from the buildings at all points.
- Install a new drain pan on the south side of the Courthouse that provides positive drainage to the west.

West Side Improvements

- Remove, replace and extend the stone retaining wall on the west side of the Courthouse.
- Rehabilitate the bricked-in window, exposed by the moat extension.
- Remove access ramp at front of Courthouse.
- Replace concrete porch and steps with new wooden deck at front of Courthouse.
- Repair deteriorated wood at base of entry portico.
- Replace deteriorated or missing wood railings and balusters at front portico.

North Side Improvements

- Provide a storm drainage system at the north side of the Courthouse.
- Reconfigure the ramp arrangement servicing the basement of the Courthouse.
- Replace the planters and landscaping on the north side of the Courthouse.

Sidewalk Improvements

- Provide exterior ramp access to the new link between the Courthouse and Jail buildings.
- Replace and reconfigure sidewalks on north and east sides of the property that coordinate with improved surface drainage and ADA access to building.
- Provide new curb and gutter system with ramps to organize parking at the street.
- Install permanent signage for parking areas reserved for sheriff's office and handicapped users.

Phase H – Finishing Touches

Exterior Work

- Clean and repaint brick surfaces. Only areas of loose paint should be removed.
- Prepare a lead management plan for activities that will abrade, chip, or remove the exterior paint.
- Repaint all exterior wood trim elements.

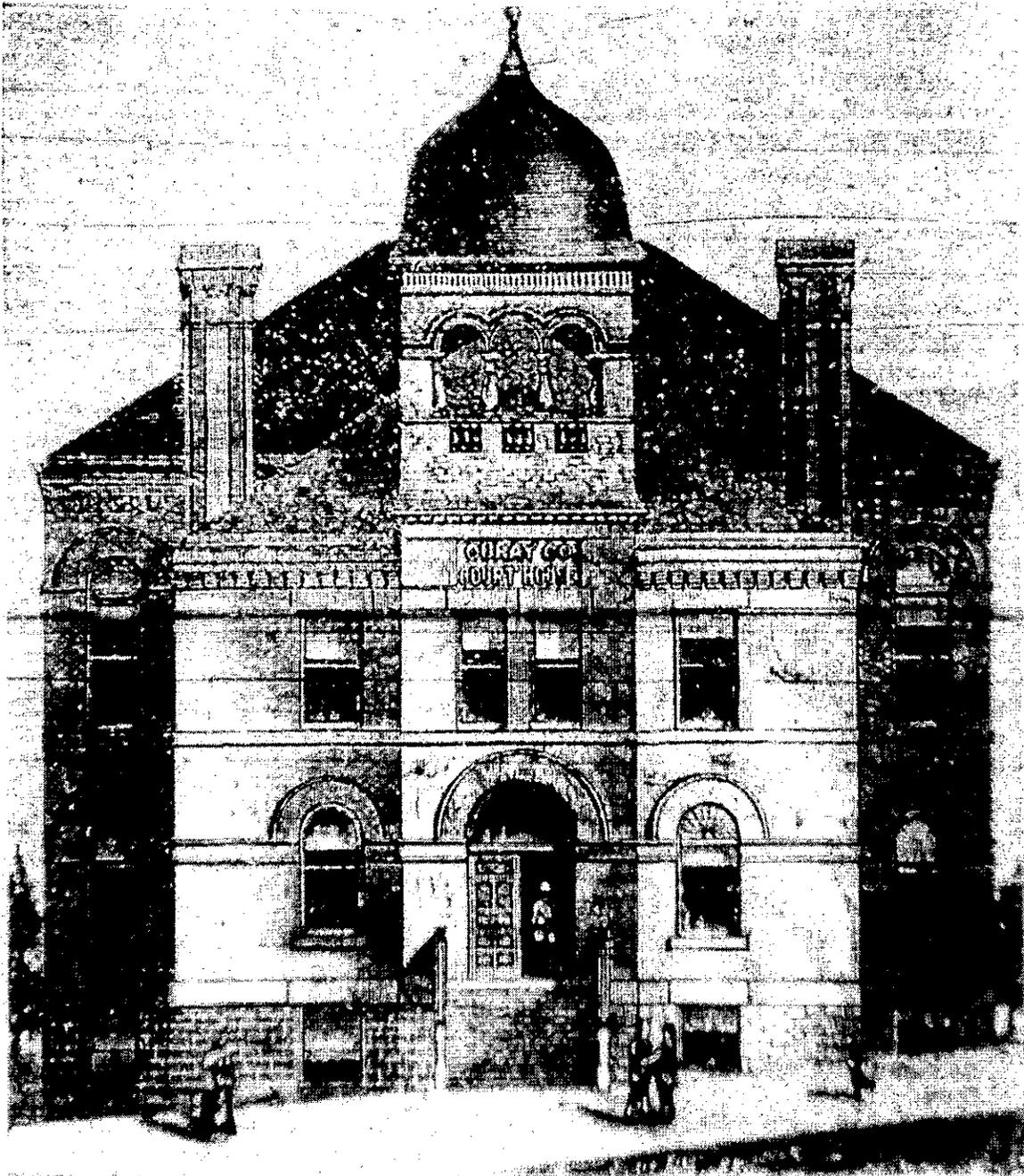
Interior Work

- Repair or place areas of damaged plaster using compatible materials and traditional three coat techniques.
- Clean original trim work of paint splatters and later layers of discolored varnish. Perform spot refinishing in areas damaged by impacts while preserving areas of original finish.

Photos and Illustrations

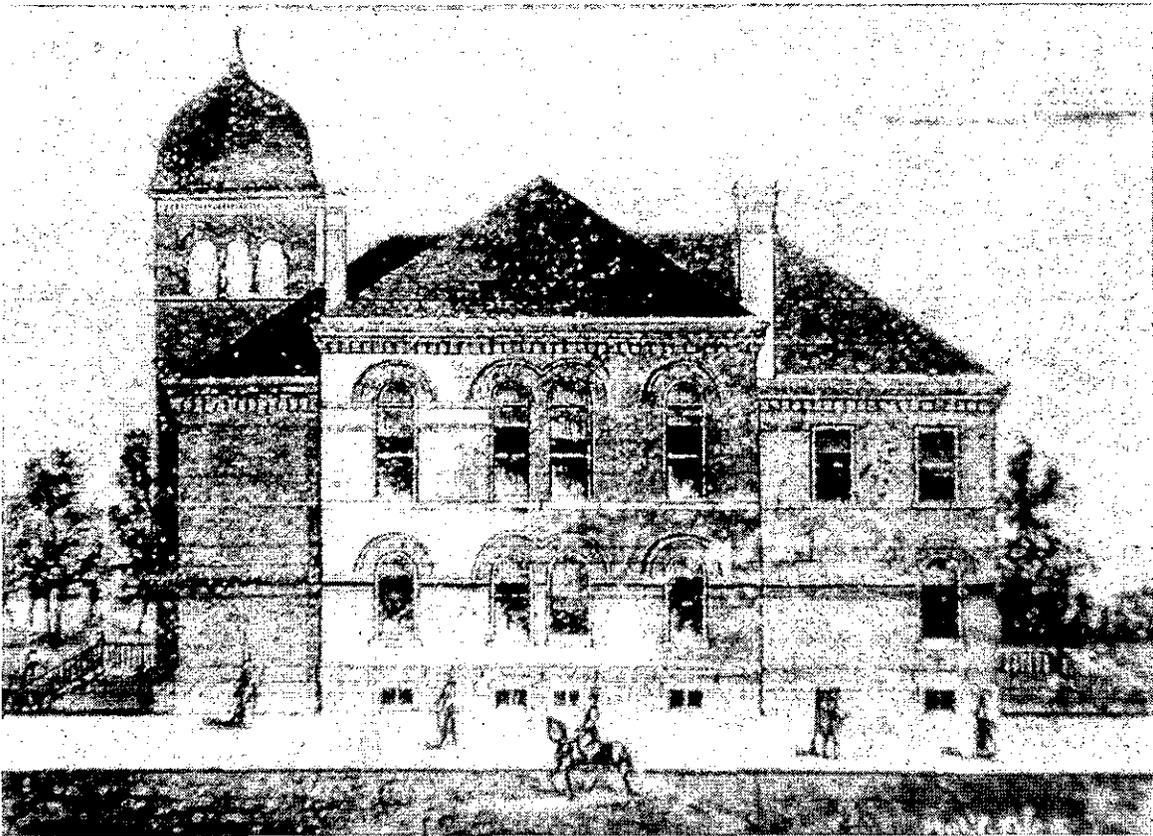
A - Engraving of West Elevation of Courthouse

This engraving was published in the local papers prior to construction in 1888. Note the absence of an entry portico. Also of note is the existence of two chimneys that were not constructed.



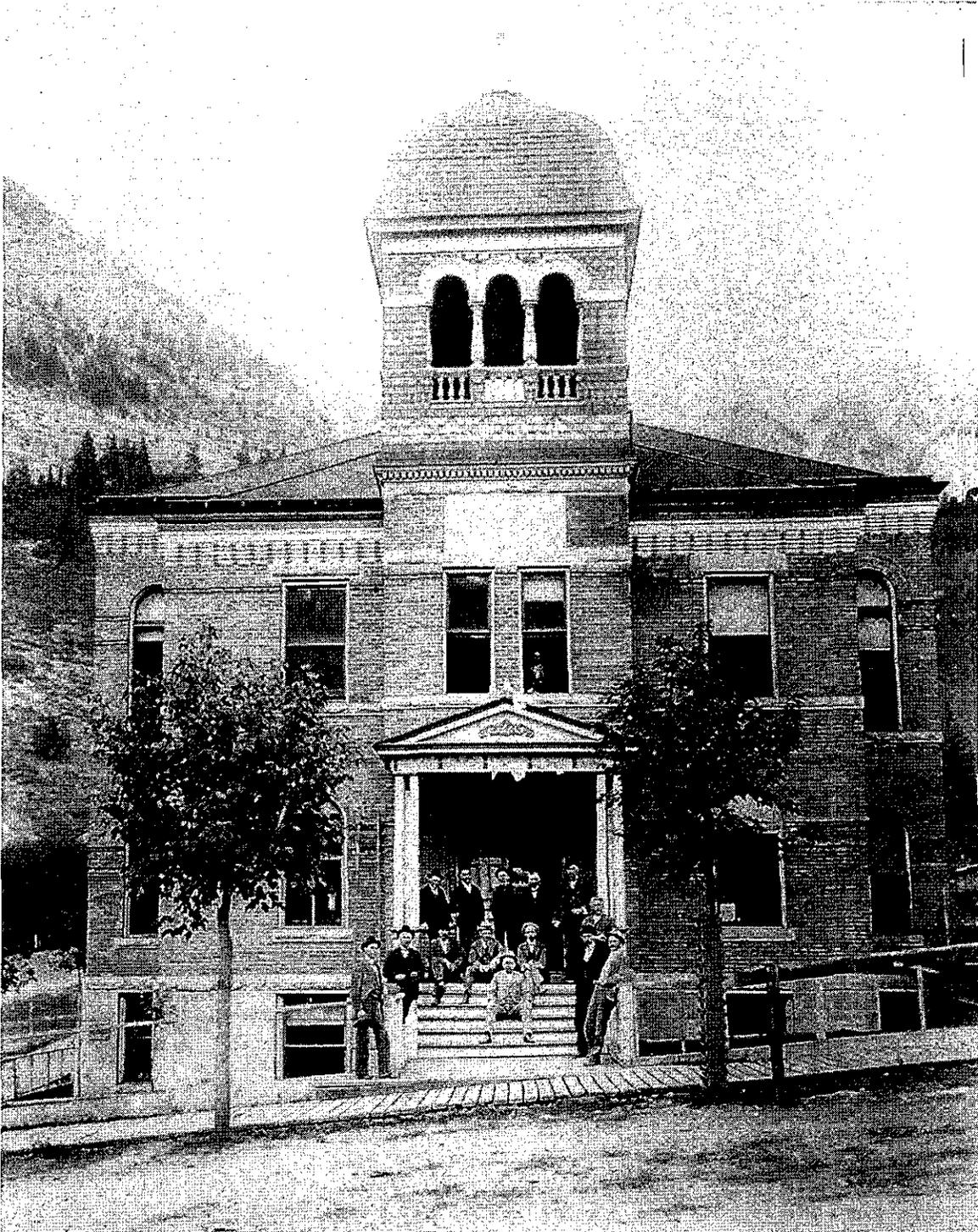
B - Engraving of South Elevation of Courthouse

This engraving was published in the local papers prior to construction in 1888. This engraving erroneously shows a street on this side of the building.



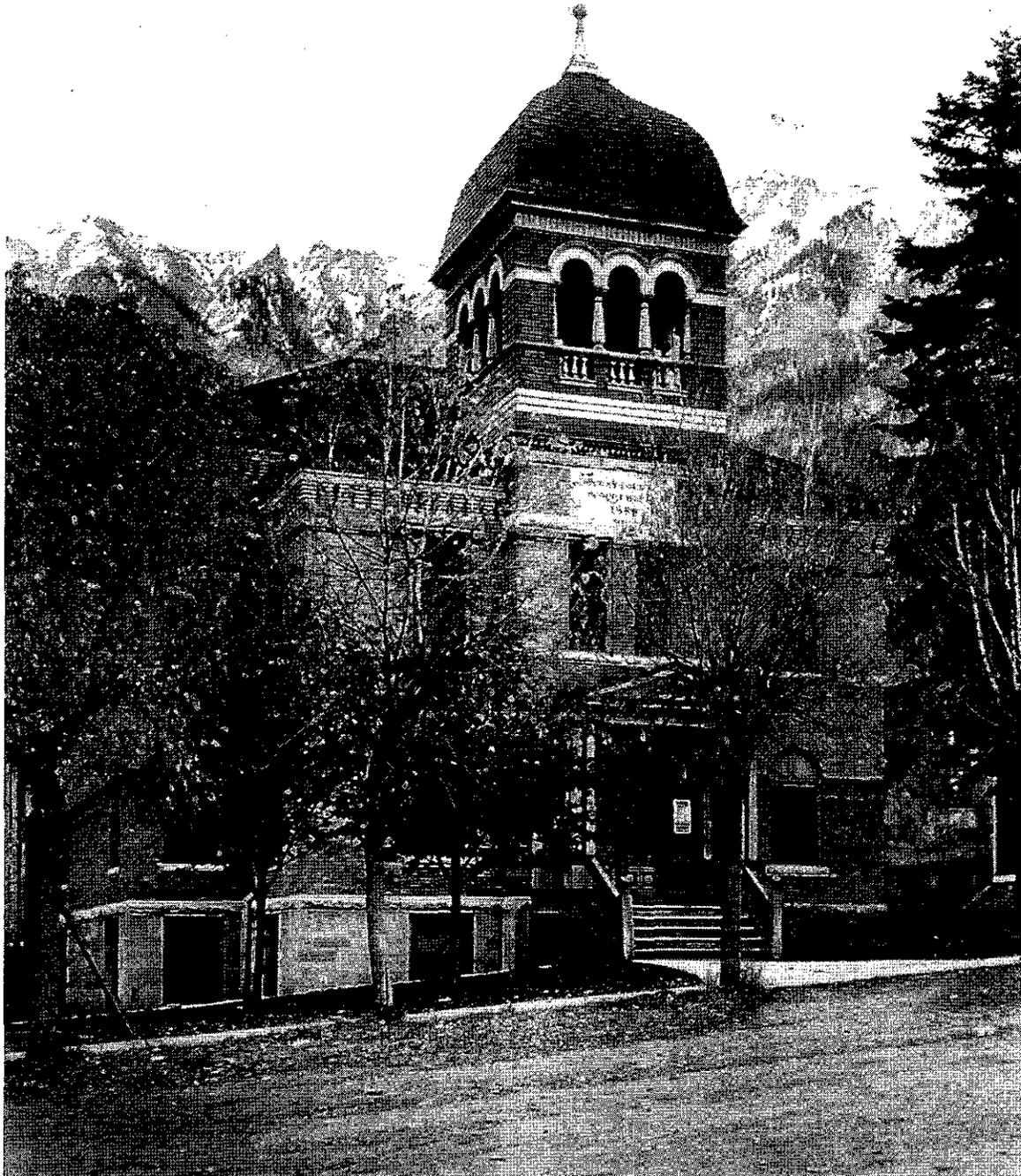
C - Earliest Photograph of Courthouse

This is the earliest known photograph of the Courthouse and was probably taken soon after its completion in 1889. Note the portico and wooden front steps. Also of note is the unpainted brick except at the cornice. Patterns of some type can be seen stenciled on the shingles of the cupula.



D - Early Photograph of Courthouse

This photograph, taken some time after 1908, indicates little change over the first few decades. The sidewalks have been changed to concrete but the wooden steps remain. Note that the brick is still unpainted but the decorative patterns on the cupola have been painted over.



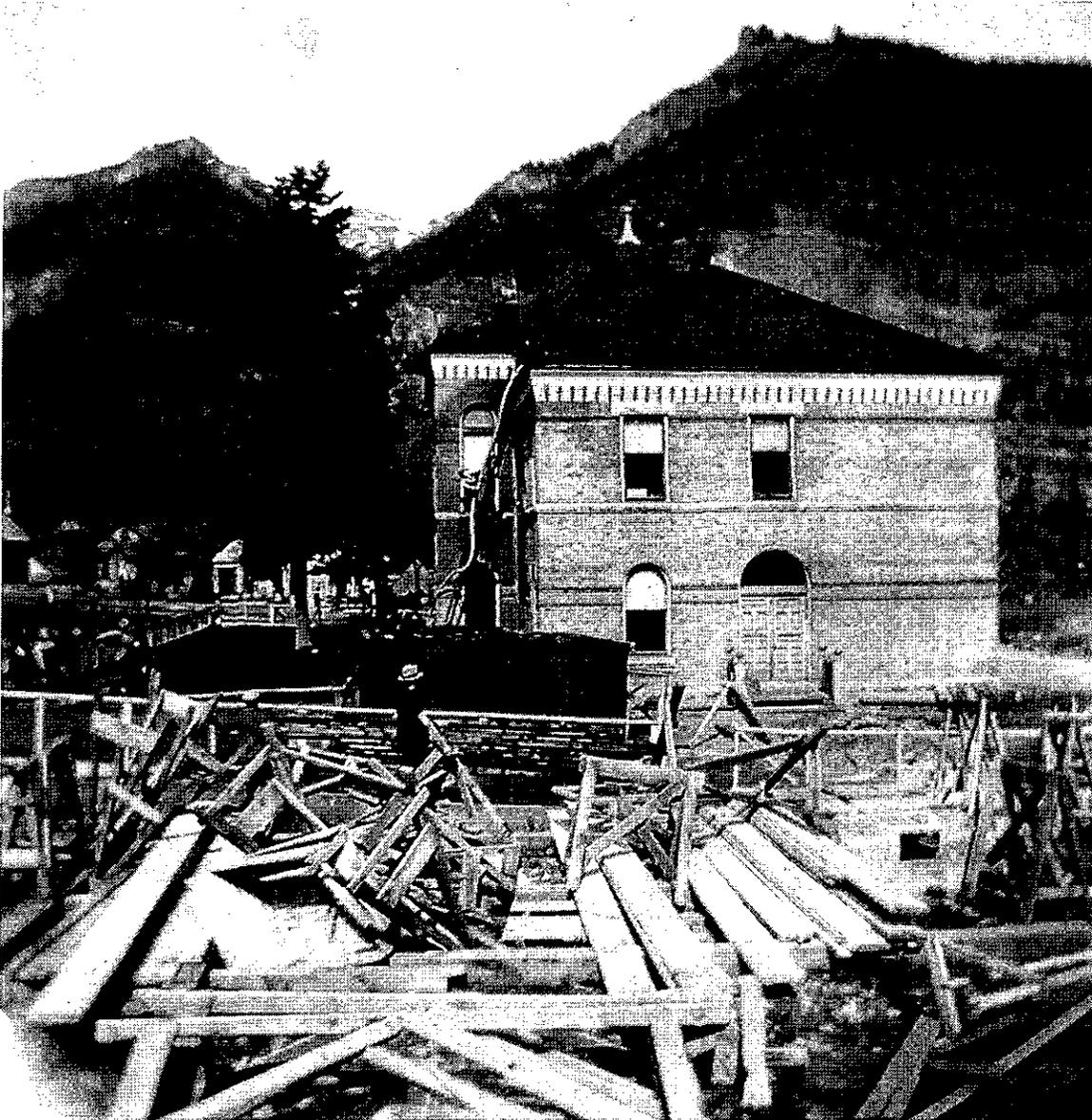
E - Early Photograph of Courthouse

This photograph, probably taken the same day as Photograph C, shows a close view of the original detailing of the front entry and missing handrails.



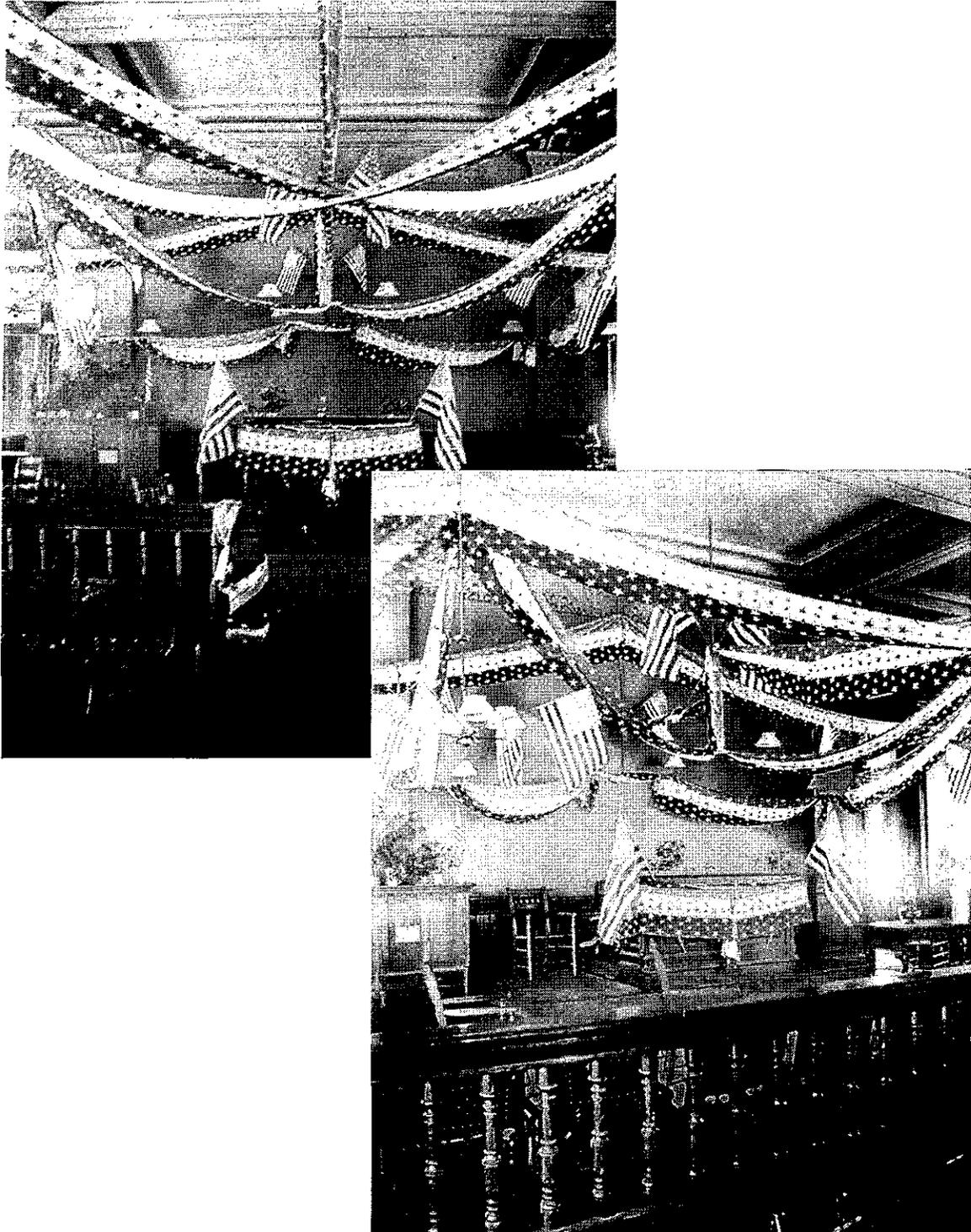
F - Photograph of Rear of Courthouse

This the only known photograph of the back side of the Courthouse. Due to the activity shown, this photograph was no doubt taken in May of 1898 during the small fire in the Courthouse attic. Note the relatively lower ground level of adjacent properties. The Jail building has yet to be constructed.



G - Photograph of Courtroom Interior

This the only known photograph of the Courtroom Interior. The date is not known but there is reason to believe the photograph was taken some time between 1898 and 1910. Of particular note is the furniture still in use including the judge's desk, tables, chairs and public seating. Also visible is the decorative stenciled frieze on the walls just beneath the ceiling. The early light fixtures are also visible.



H - Photograph of Existing Shed Link

This photograph shows the current state of the shed addition between the two buildings.



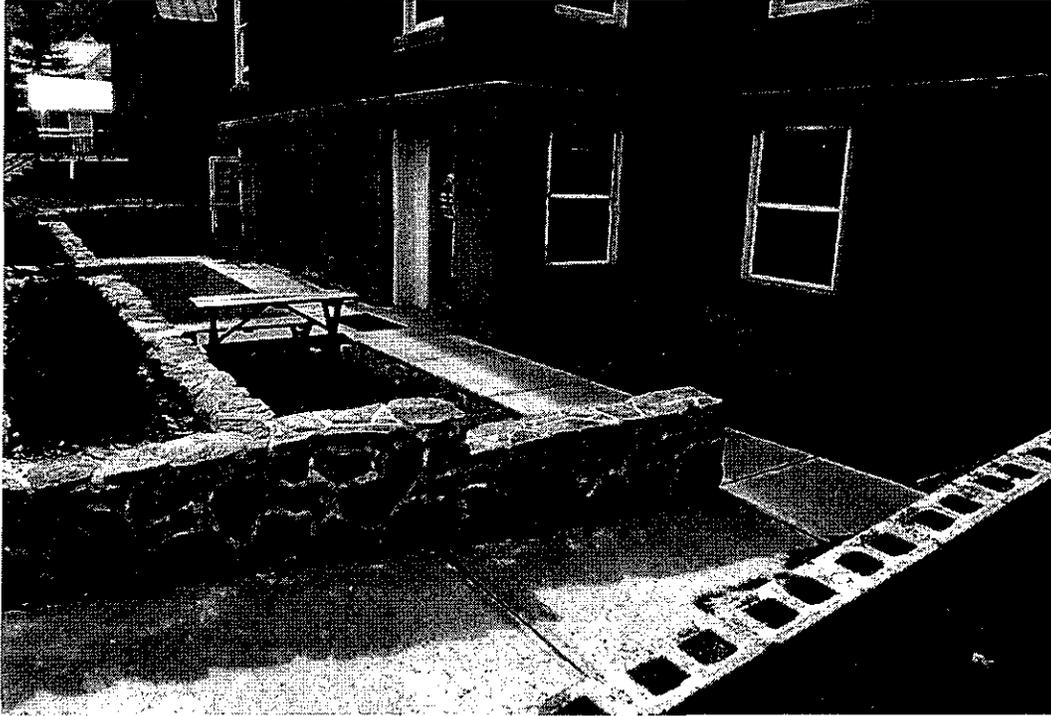
I - Photograph of Interior of Shed Link

This photograph shows the current state of the interior of the shed addition between the two buildings. This is the staircase to the Sheriff's office.



J - Photograph of Existing North Side Retaining Walls

This photograph illustrates the inappropriate masonry added to the north side of the Courthouse.



K - Photograph of Existing South Side Vault Addition

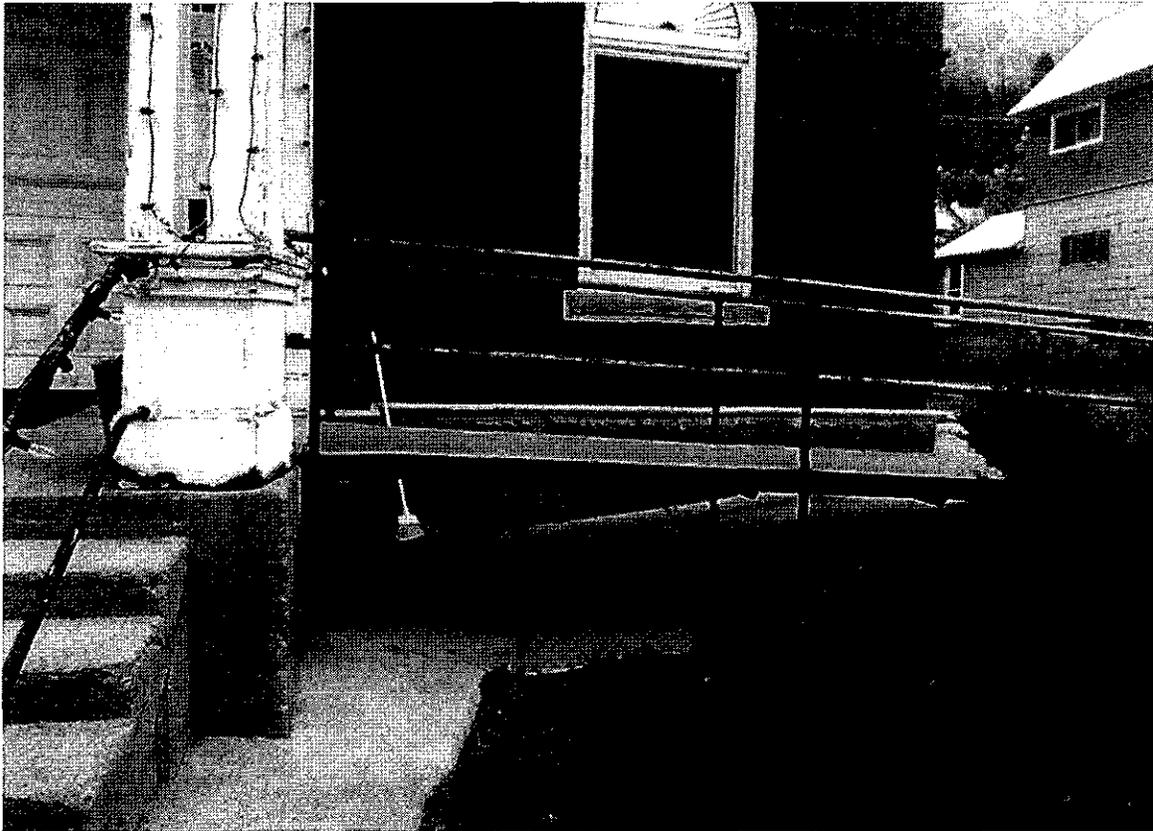
This photograph illustrates the current state of the vault addition.



L - Detail Photograph of West Side of Courthouse

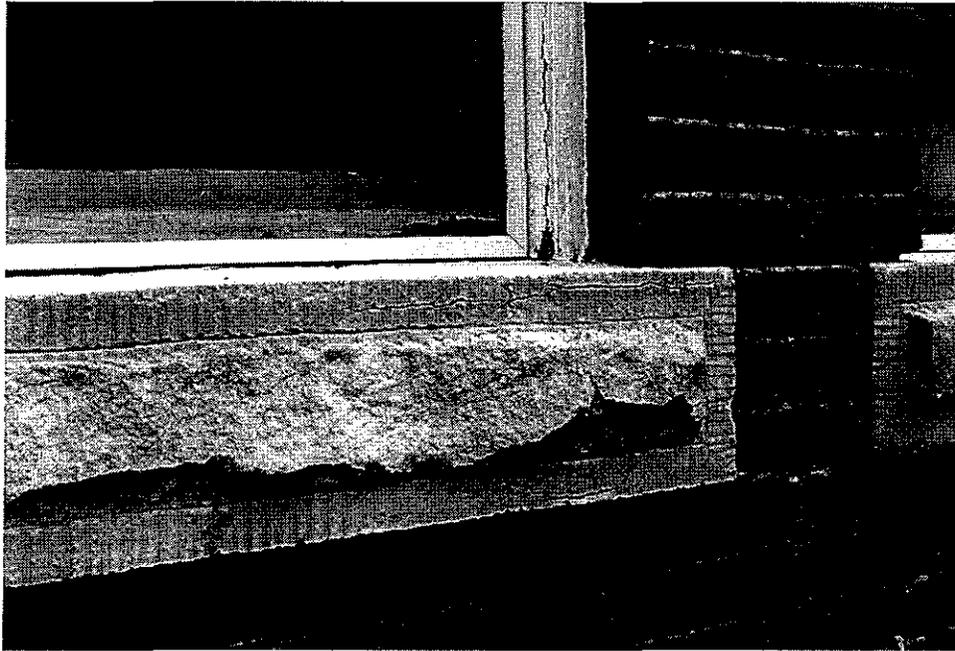
This photograph illustrates many of the problems at the Courthouse entry area. Specifically note:

- The concrete bridge and steps below the portico.
- The deterioration of the portico base.
- The steel guardrails and wheelchair ramp.
- The filled in moat and bricked window opening.



M - Photograph of Typical Stone Sill

Photograph shows typical sill fractures.



N - Photograph of Typical Brick Masonry

Photograph shows deterioration typical to most painted masonry.



O - Detail Photograph of Typical Courthouse Window

Photograph shows typical condition of existing windows.



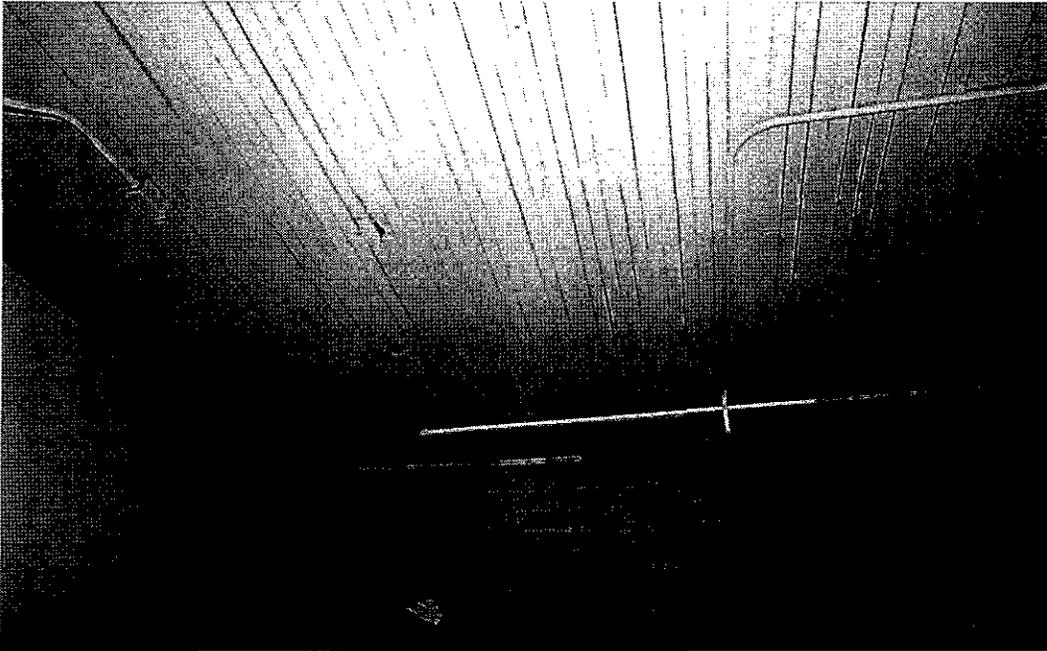
P - Photograph of Original Jail Cell Door

This photograph shows one of the original jail doors to be retained in the Jail building.



Q - Photograph of Original Jail Ceiling

This photograph shows original jail ceiling to be exposed in the Jail building ground floor.



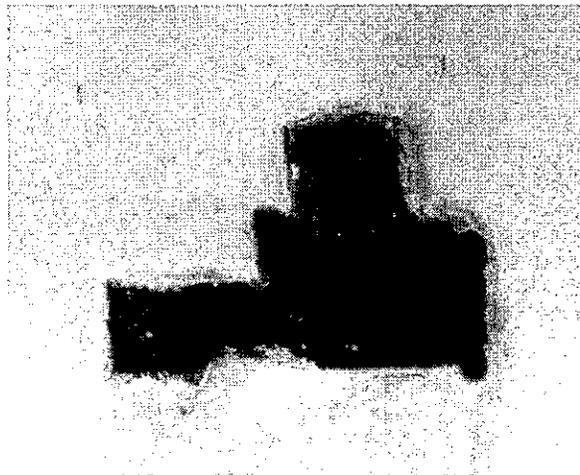
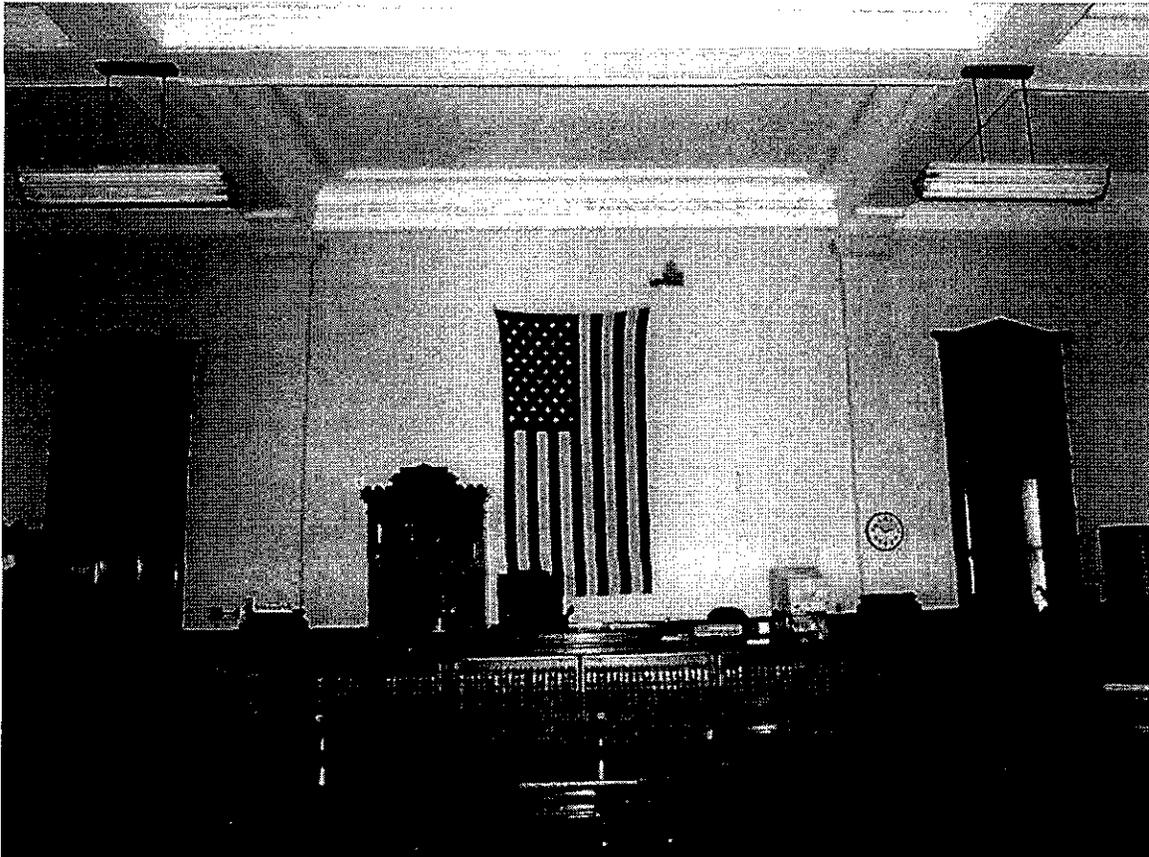
R - Photograph of Existing Room in Jail Building

This photograph shows the condition of some rooms in the Jail building ground floor. Paneling and suspended ceiling are to be removed.



S - Photograph of Courtroom Interior

This shows the current state of the Courtroom interior. Note the judges desk obscured by book cases and poorly executed casework. The existing light fixtures are to be replaced. Visible near the ceiling is a small portion of exposed decorative frieze. (See inset detail below.)



T - Photograph of Courtroom Jury Box

This photograph shows a closer view of the inappropriate casework added to the Courtroom.



U - Photograph of Courtroom Heaters

This photograph shows how the existing radiators obscure the original woodwork. Note the quality of the faux oak graining on the pine wood.



V - Photograph of Courtroom Seating

This photograph shows the original Courtroom seating that is still in use.



W - Photograph of Courthouse Basement

This photograph shows the existing condition of the ceiling in this area. Note the unprotected exposed joists.

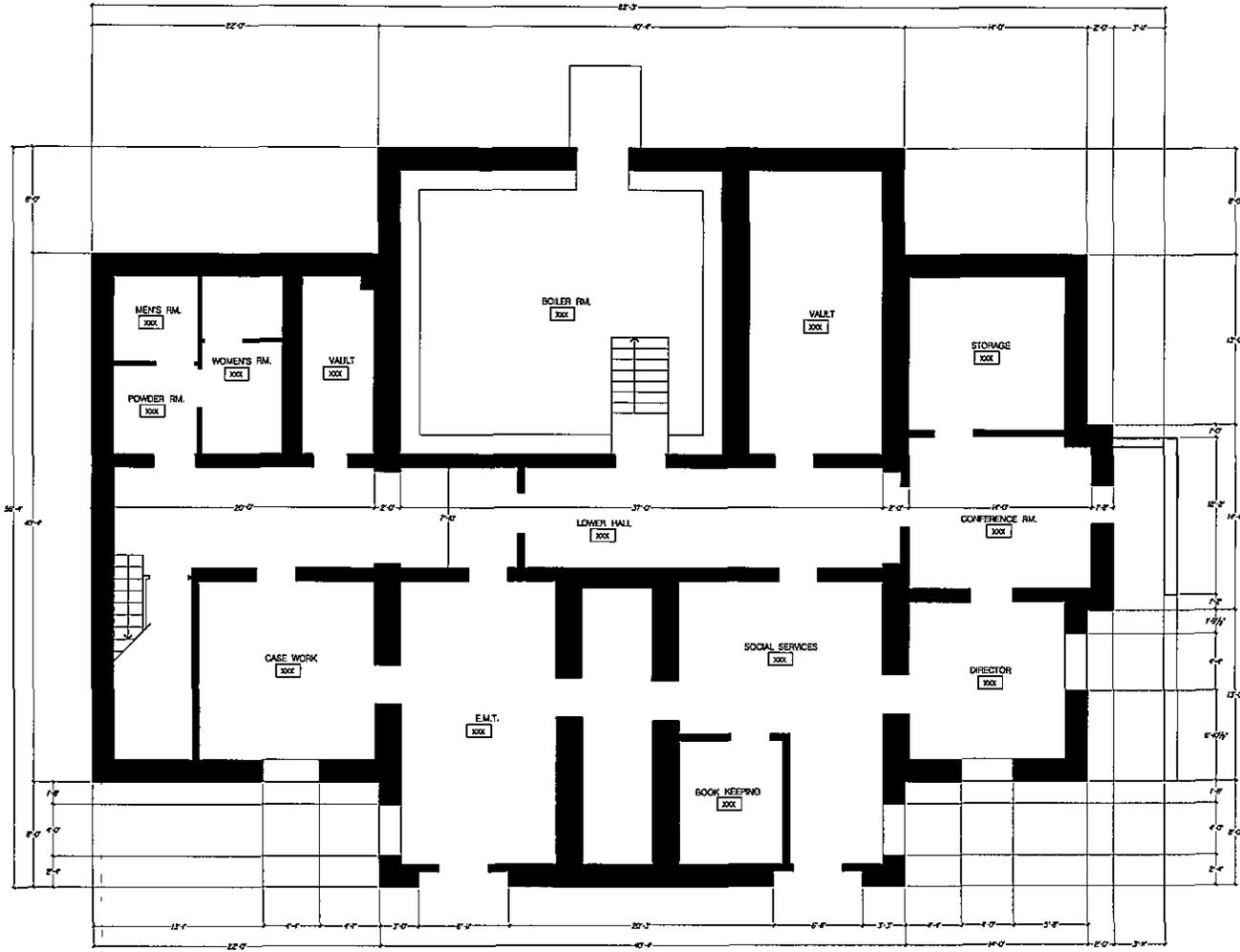


Measured Drawings

Measured drawings have been completed that document the existing condition of the buildings. These drawings will be used to:

- Provide a permanent record of the buildings
- As a basis for space planning and committee review of restoration plans
- As a basis for generating construction documents for future restoration activities

The measured drawings provided with this report are of reduced size. Upon request, copies of these drawing can be provided by the architect on D size sheets (36" x 24")



○ BASEMENT FLOOR PLAN
 1/4" = 1'-0"



6498 - DISTING
 CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

328 EAST HANNA AVE. - SUITE 301 - ARAPAHO, CO 80011 • TEL: 303-938-5339 • FAX: 303-938-5076
 201 E. COLORADO AVE. - TULLAMAH, CO 81053 • TEL: 303-978-3254 • FAX: 303-978-3667

COURAY COUNTY COURTHOUSE
 PHASE II

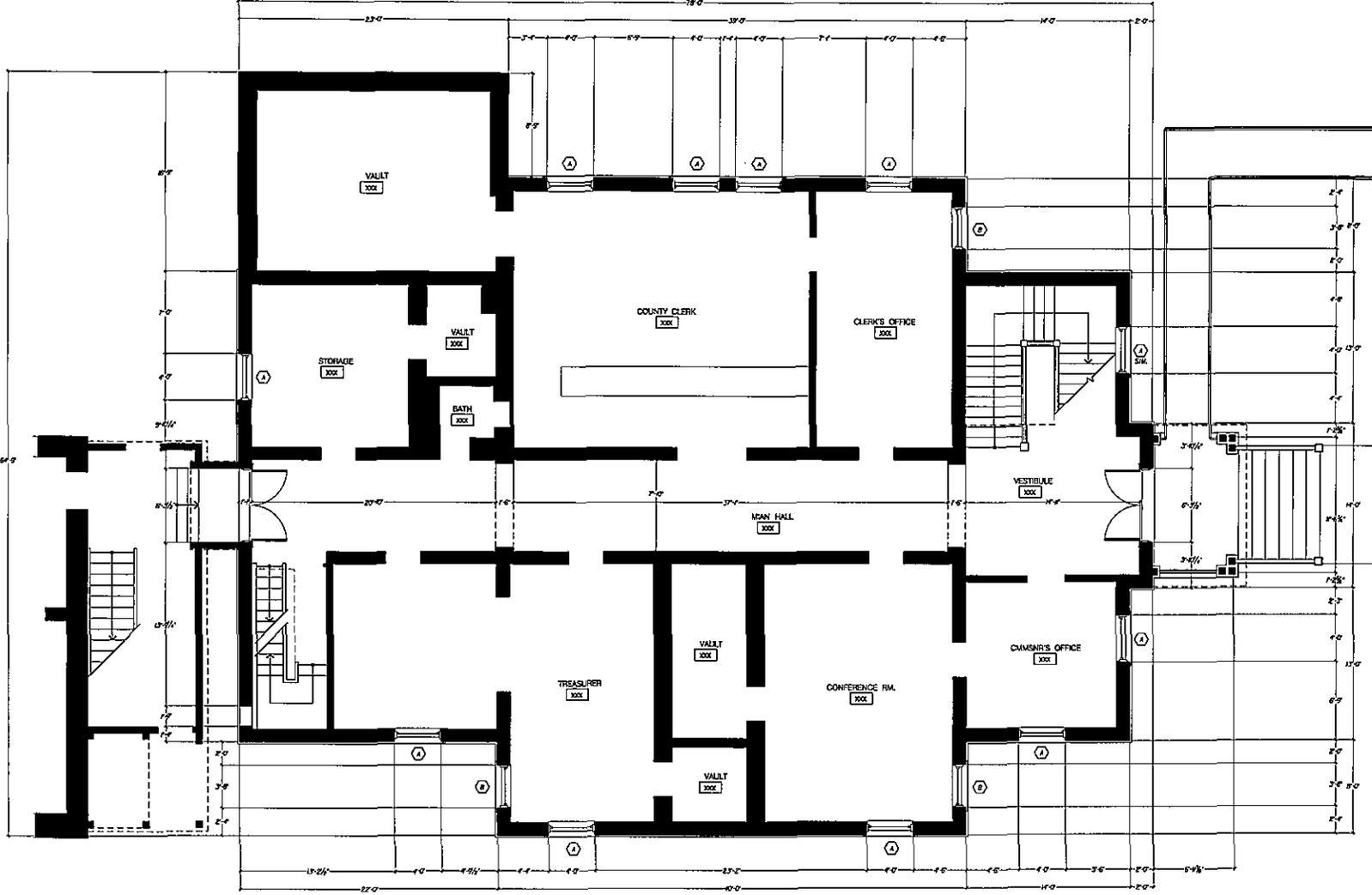
541 4TH STREET
 COURAY, CO 81427

EXISTING CONDITIONS

DRAWING
 FLOOR PLAN BASEMENT
 FOR NO. 9813
 DATE: 6/29/95

SHEET NO.
 A2.1
 SHEET OF

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○ FIRST FLOOR PLAN
 1/4" = 1'-0"



6196 - EXISTING
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CHARLES CUNIFFE ARCHITECTS

530 EAST IRVING AVE. • SUITE 201 • ASPEN, CO 81611 • TEL: 970-925-5200 • FAX: 970-925-5076
 200 E. COLORADO AVE. • TULLAH, CO 81051 • TEL: 970-832-3228 • FAX: 970-832-3267

COURAY COUNTY COURTHOUSE
 PHASE II

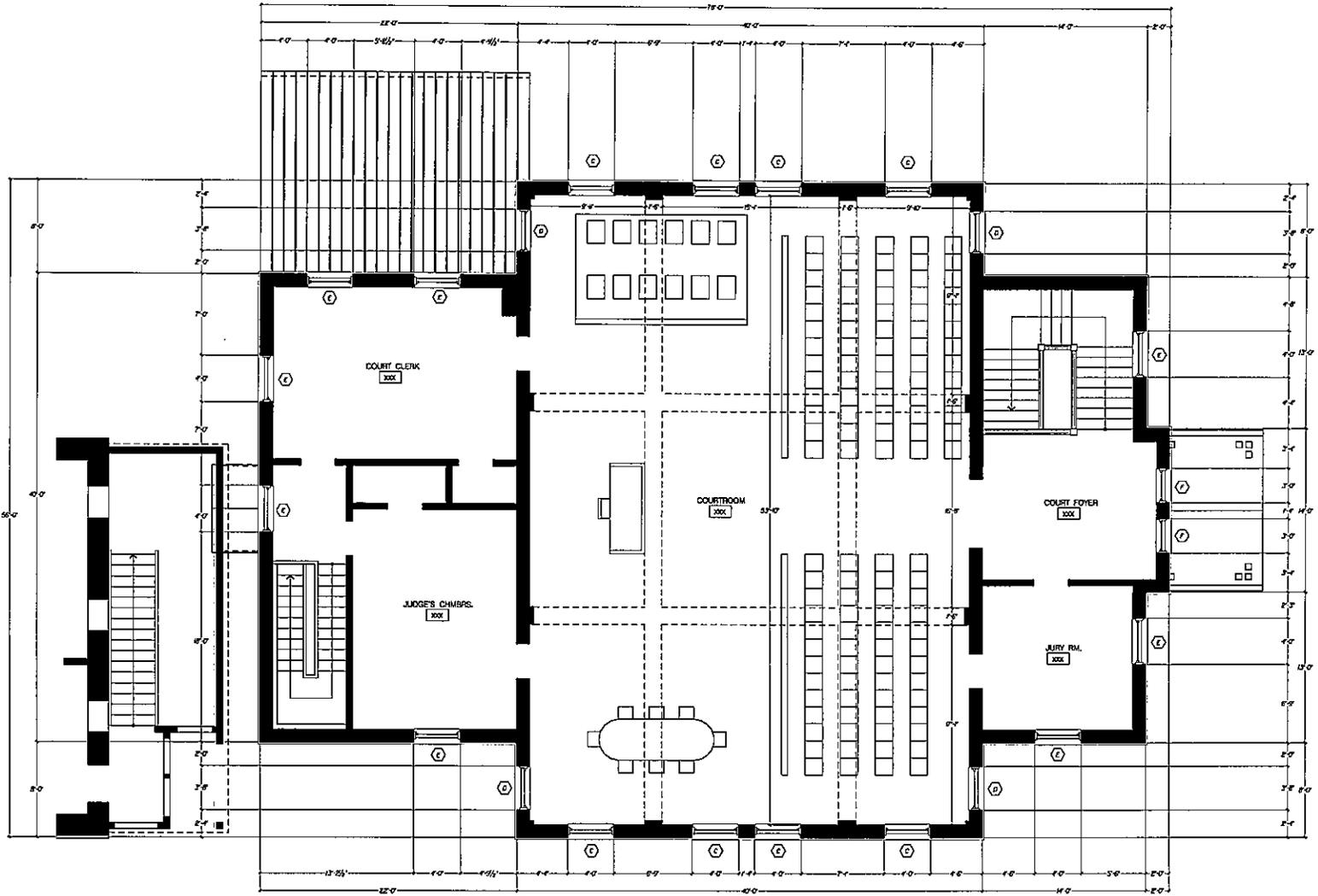
541 4TH STREET
 COURAY, CO 81427

EXISTING CONDITIONS

DRAWING	FLOOR PLAN FIRST
JOB NO.	5823
DATE	6/29/98

SHEET NO.	A2.2
SHEET	OF

© COPYRIGHT CHARLES CUNIFFE ARCHITECTS



○ SECOND FLOOR PLAN
 1/4" = 1'-0"



6496 - EXISTING
 CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS
 541 EAST HIRMAN AVE. • SUITE 301 • ARAPAHO, CO 80011 • TEL: 303.655.5330 • FAX: 303.655.4075
 200 E. COLORADO AVE. • TULLAH, CO 81415 • TEL: 970.718.2128 • FAX: 970.718.9567

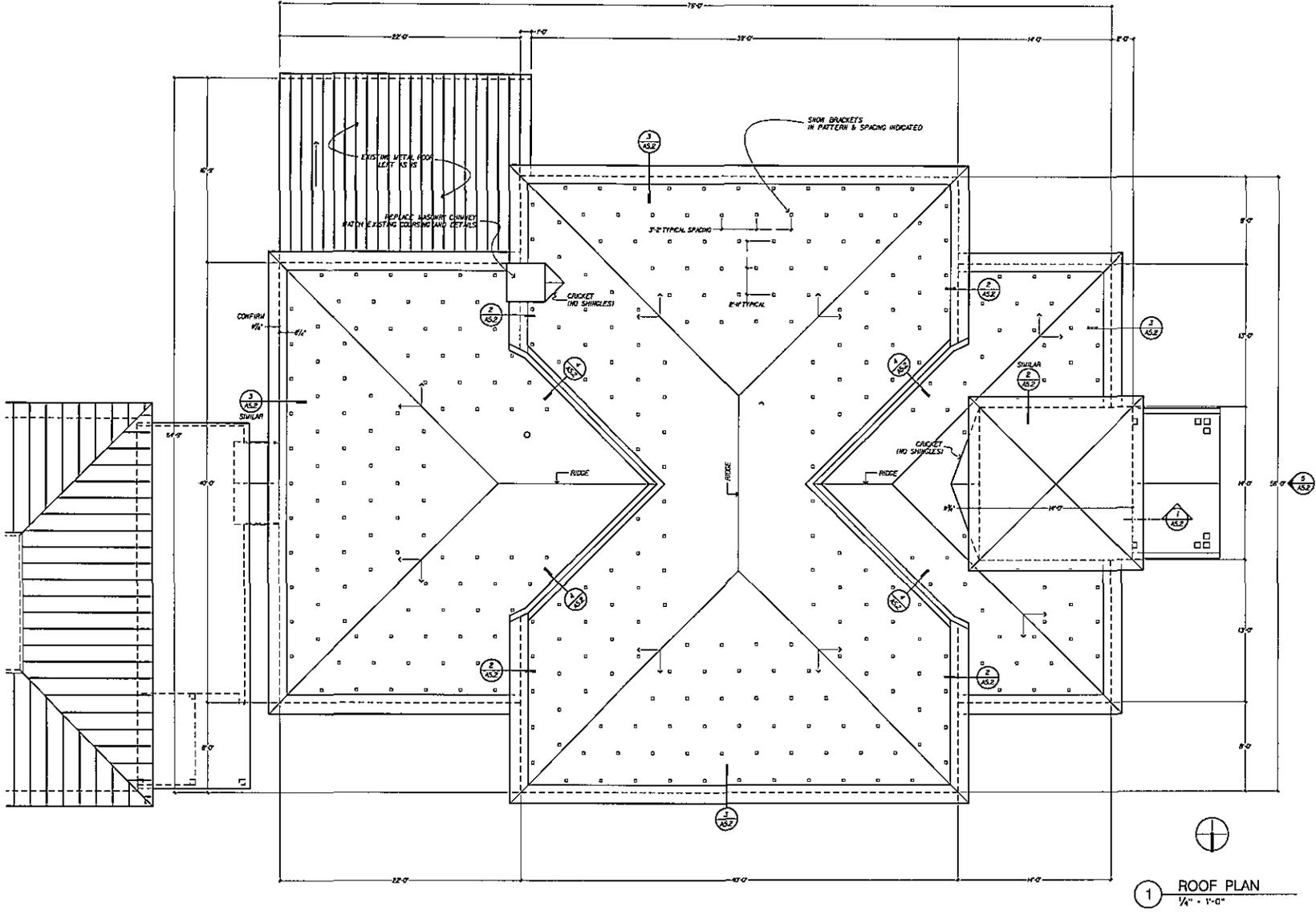
COURAY COUNTY COURTHOUSE
 PHASE II
 541 4TH STREET
 COURAY, CO 81427

DRAWING
FLOOR PLAN SECOND
FOR NO. 5823
DATE: 02/20/04

SHEET NO.
A2.3
SHEET OF

EXISTING CONDITIONS

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1 ROOF PLAN
1/4" = 1'-0"



6198 - EXISTING
CONDITIONS SET

OURAY COUNTY COURTHOUSE PHASE II CHARLES CUNNIFF ARCHITECTS

530 EAST HANCOCK AVE. SUITE 301 • ASPEN, CO 81611 • TEL: 970-921-5308 • FAX: 970-921-5376
220 E. COLORADO AVE. • TELLURIDE, CO 81415 • TEL: 970-728-3724 • FAX: 970-728-4567

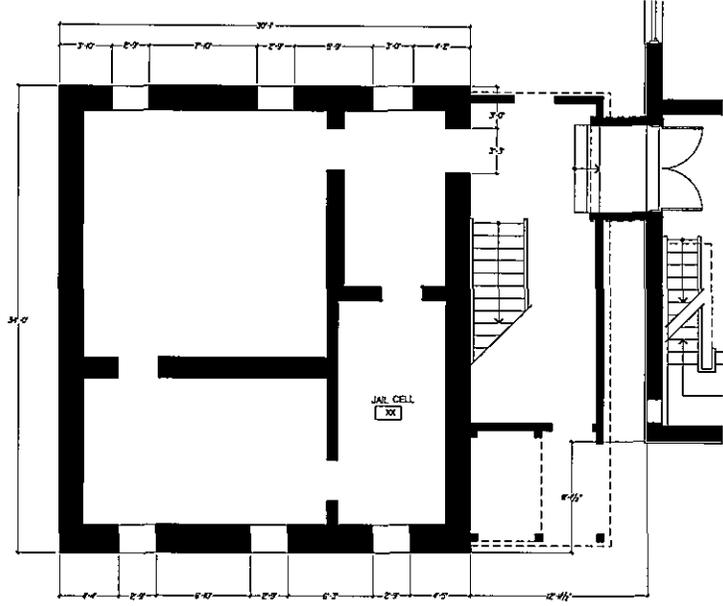
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OURAY, CO 81427

EXISTING CONDITIONS

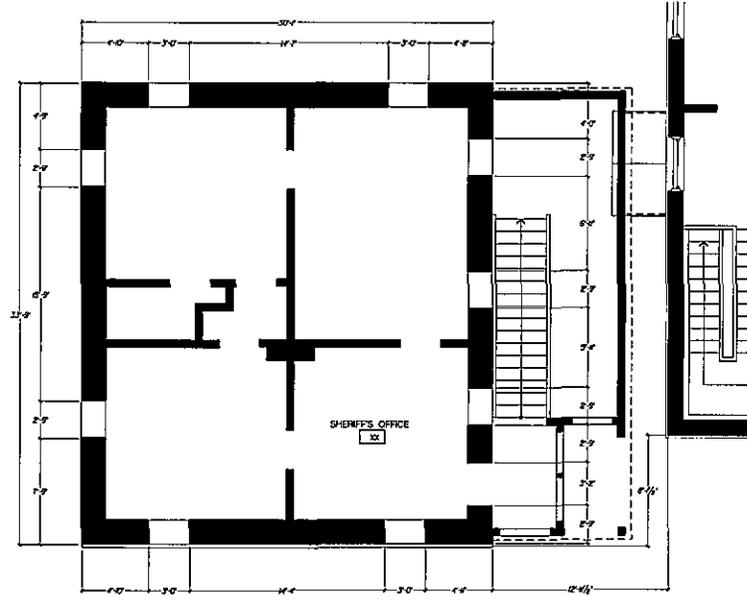
DRAWING	ROOF PLAN
JOB NO.	8823
DATE:	6/29/08

SHEET NO.	A2.4
SHEET	OF

COURAY OWNER CLARENCE HENNING



(A) JAIL - FIRST FLOOR PLAN
 1/4" = 1'-0"



(B) JAIL - SECOND FLOOR PLAN
 1/4" = 1'-0"



6198 - EXISTING
 CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

200 EAST HANAY AVE. SUITE 300 • ASPEN, CO 80511 • TEL: 970-925-5338 • FAX: 970-925-5078
 220 L. COLONADO AVE. • TULLAHOMA, CO 81453 • TEL: 970-724-3724 • FAX: 970-724-1467

COURAY COUNTY COURTHOUSE
 PHASE II

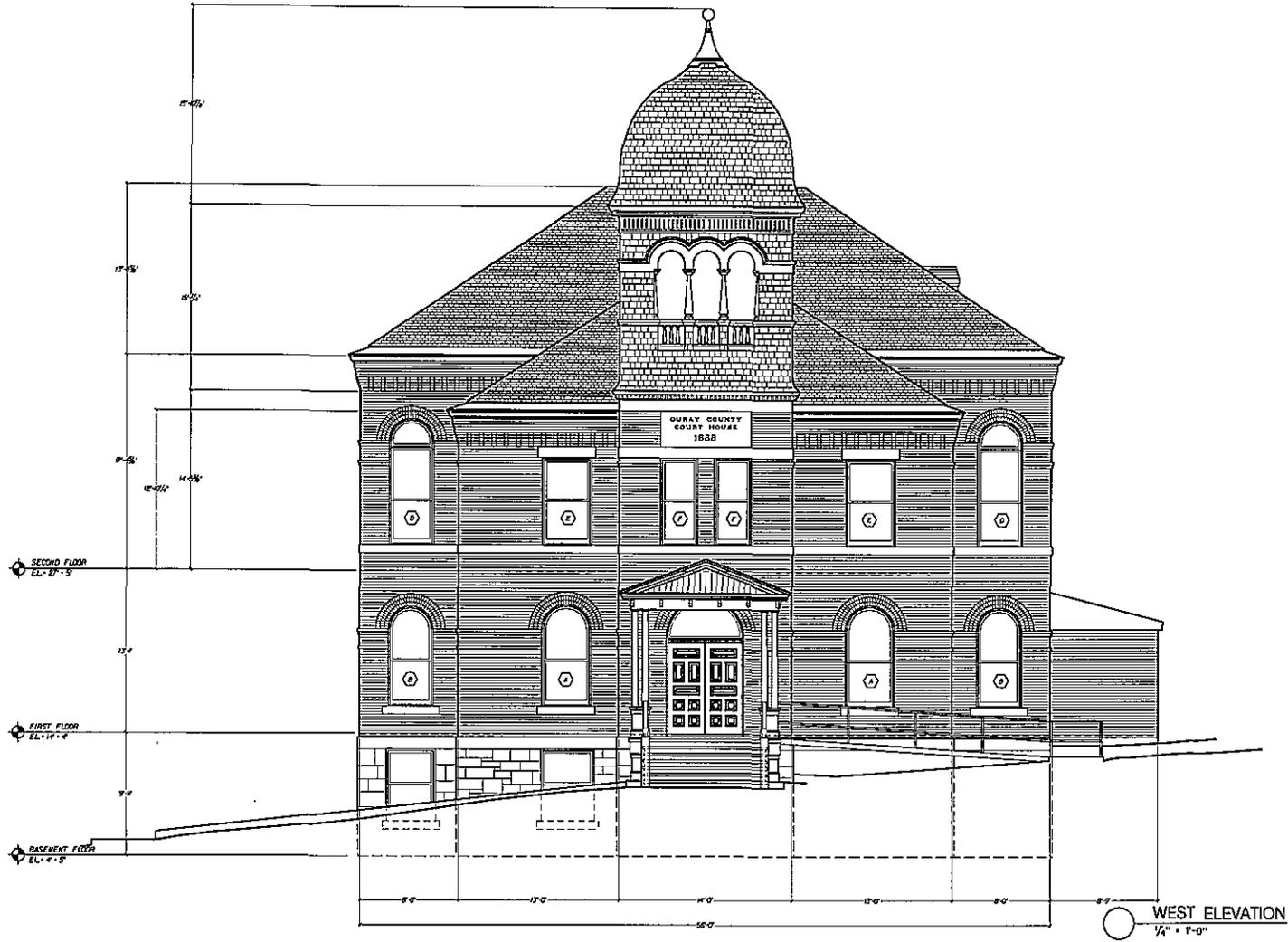
541 4TH STREET
 COURAY, CO 81427

EXISTING CONDITIONS

DRAWING
JAIL FLOOR PLANS
FIRST & SECOND
JOB NO. 5423
DATE: 6/29/98

SHEET NO.
A2.5
SHEET OF

CHARLES CUNIFFE ARCHITECTS



1/8" = EXISTING
CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

520 EAST IRVING AVE. • SUITE 301 • AVENUE CO. BLDG. • TELLURIDE, CO 81427
 208 E. COLORADO AVE. • TELLURIDE, CO 81427 • TEL: 970-728-3728 • FAX: 970-728-3557

OURAY COUNTY COURTHOUSE
 PHASE II

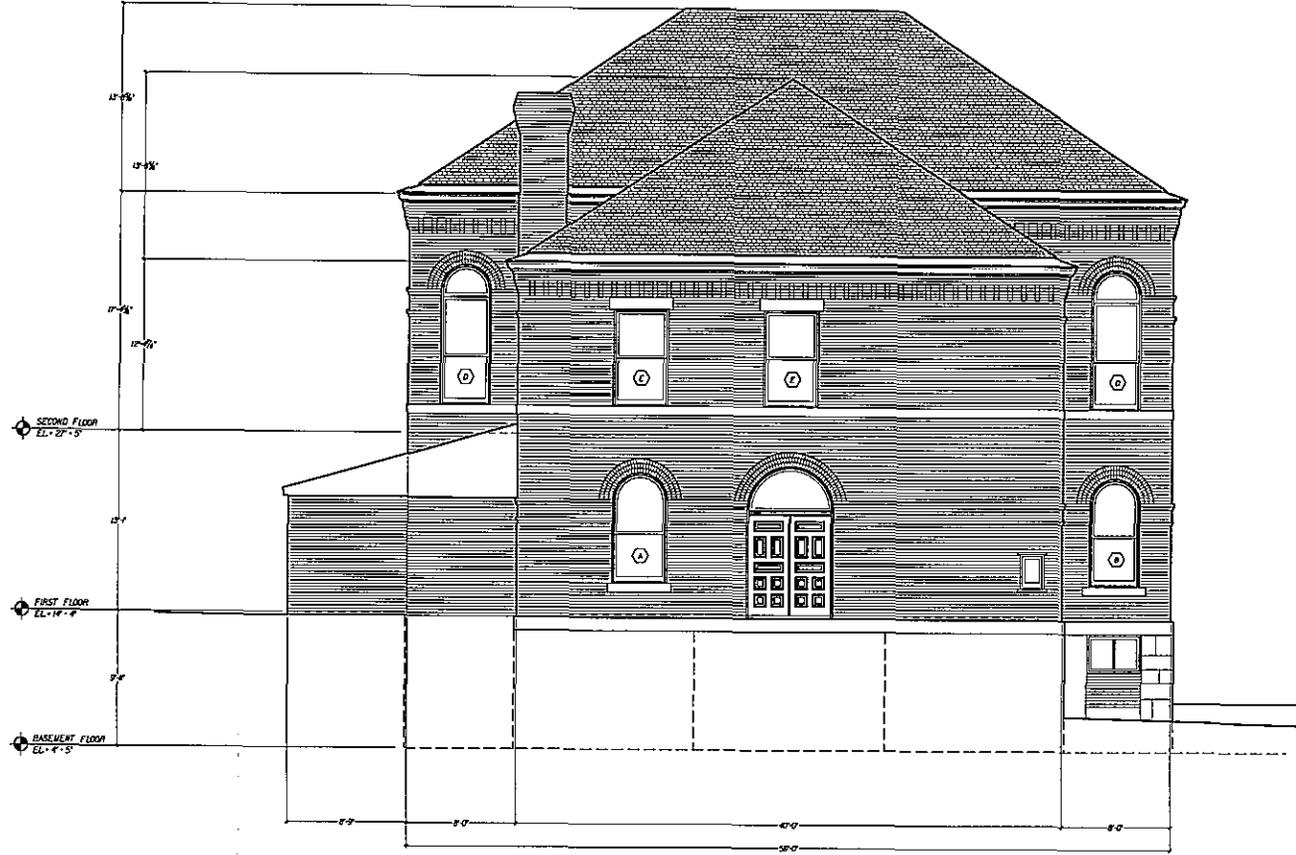
541 4TH STREET
 OURAY, CO 81427

EXISTING CONDITIONS

DRAWING
ELEVATION WEST
FOR SET, SEE
DATE: 02/25/08

SHEET NO.
A3.1
SHEET OF

CONSTRUCTION CONTRACT AGREEMENT



EAST ELEVATION
1/4" = 1'-0"

EXISTING CONDITIONS

DRAWING
ELEVATION, EAST
JOB NO. 9823
DATE: 02/98

SHEET NO.
A3.3
SHEET OF

COURAY COUNTY COURTHOUSE

COURAY COUNTY COURTHOUSE
PHASE II

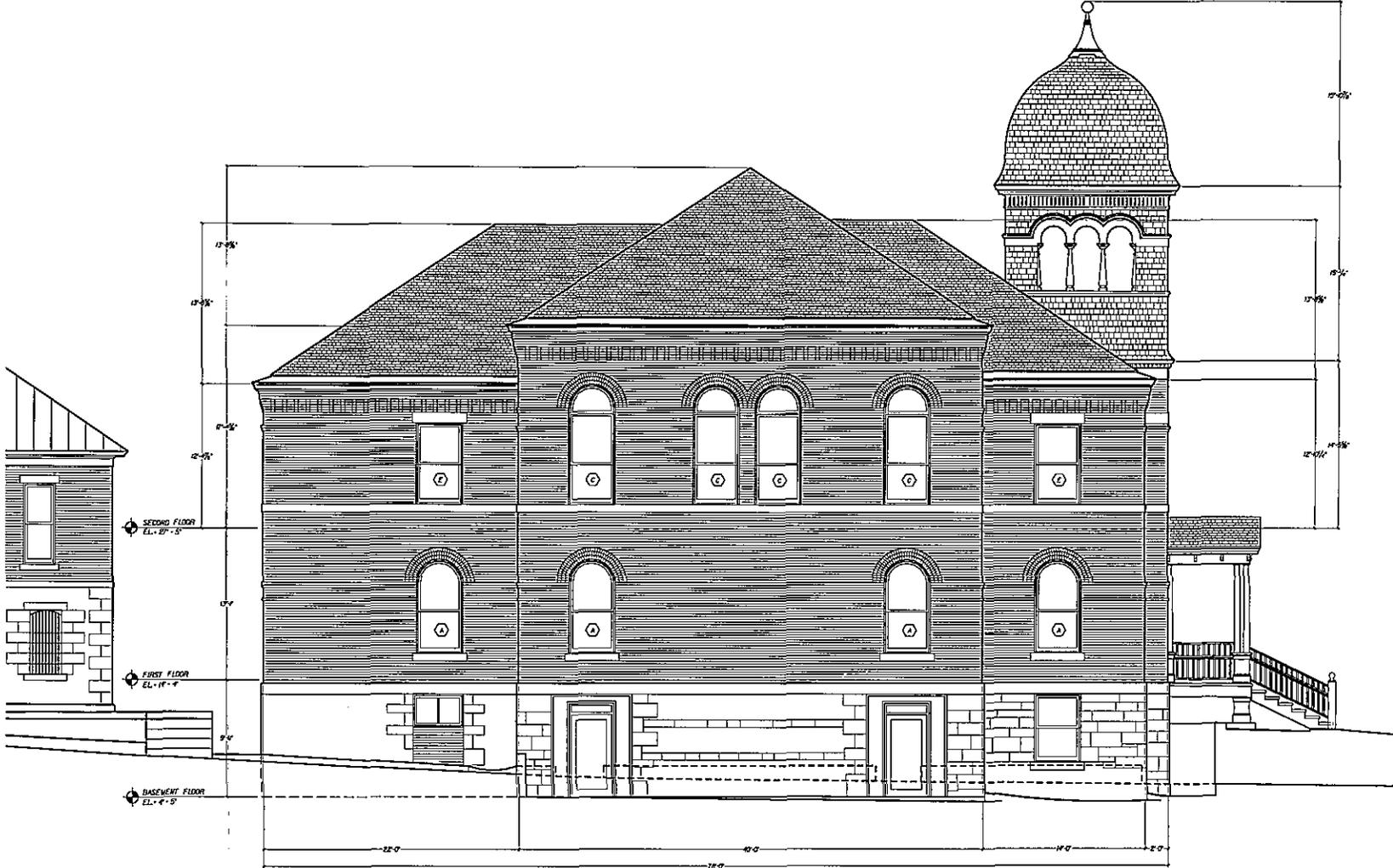
CHARLES CUNIFFE ARCHITECTS

541 4TH STREET
COURAY, CO 81427

210 EAST MAIN AVE. • SUITE 201 • ASPEN, CO 81611 • TEL: 970.926.4028
201 L. COONADO AVE. • TULLAHOMA, CO 81652 • TEL: 970.263.3778 • FAX: 970.263.4630



0199 - DISTING
CONDITIONS SET



○ NORTH ELEVATION
 1/4" = 1'-0"



SYM - DISTING
 CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

OURAY COUNTY COURTHOUSE
 PHASE II

320 EAST IRONIAN AVE. • SUITE 301 • OURAY, CO 81427 • TEL: 970-835-3309 • FAX: 970-835-5005
 202 E. COLORADO AVE. • TULLAHOMA, CO 80433 • TEL: 970-835-3338 • FAX: 970-835-9562

541 4TH STREET
 OURAY, CO 81427

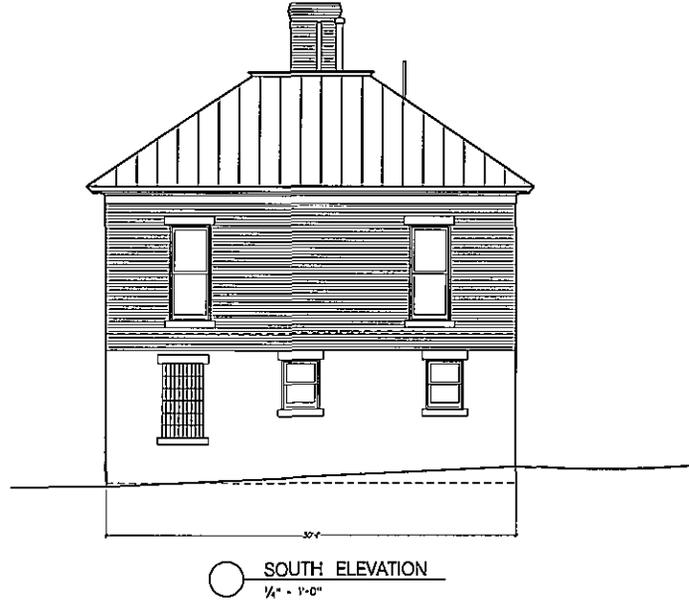
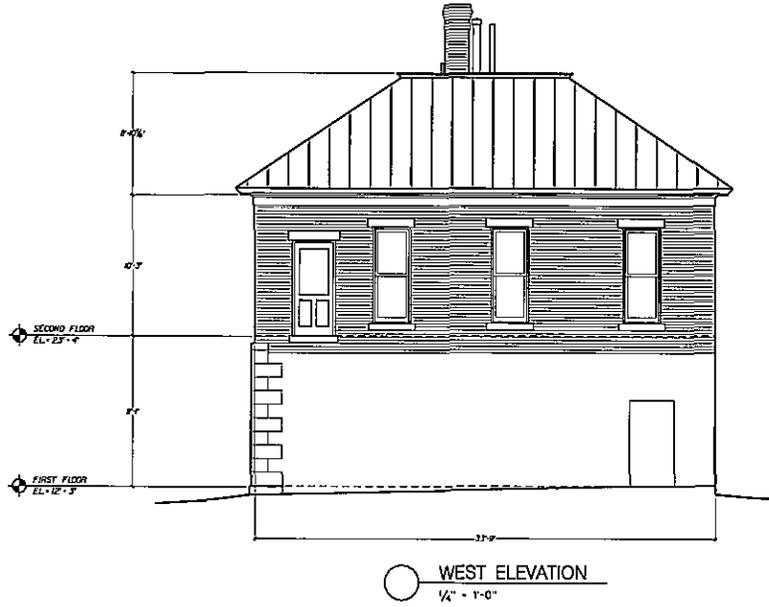
EXISTING CONDITIONS

DRAWING
 ELEVATION NORTH

JOB NO. 9823
 DATE: 6/29/98

SHEET NO.
 A3.4

SHEET OF
 ©2008 OWENS CORNING FIBER



EXISTING
CONDITIONS SET

COURAY COUNTY COURTHOUSE
PHASE II

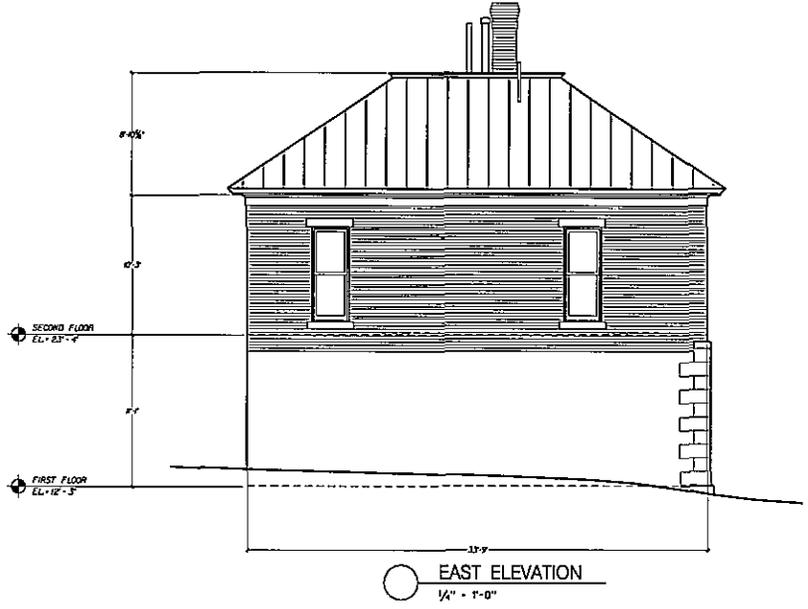
EXISTING CONDITIONS

DRAWING
J.M. ELEVATIONS:
WEST & SOUTH
JOB NO. 9823
DATE: 02/26

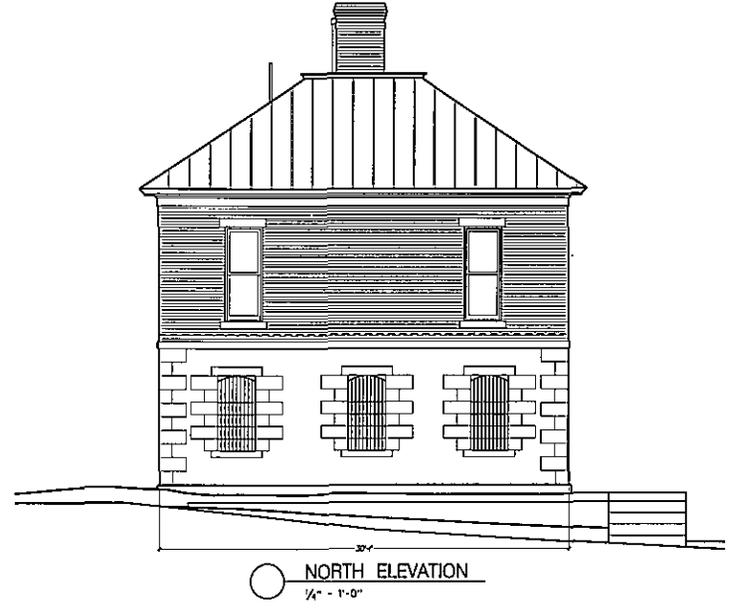
SHEET NO.
A3.5
SHEET OF

CHARLES CUNIFFE ARCHITECTS
520 EAST HANNA AVENUE SUITE 301 ASPEN CO BR11 • TEL: 970-925-5330 • FAX: 970-925-6078
220 S. COLORADO AVE. TELLURIDE, CO BR13 • TEL: 970-234-3238 • FAX: 970-234-3367

541 4TH STREET
COURAY, CO 81427



EAST ELEVATION
1/4" = 1'-0"



NORTH ELEVATION
1/4" = 1'-0"



6198 - EXISTING
CONDITIONS SET

OURAY COUNTY COURTHOUSE
PHASE II

CHARLES CUNIFFE ARCHITECTS
520 EAST HADAY AVE. • SUITE 301 • ARMY, CO 80811 • TELE: 970/251-5078 • FAX: 970/251-5078
255 E. COLORADO AVE. • TELLURIDE, CO 81415 • TELE: 970/251-5704 • FAX: 970/251-5662

541 4TH STREET
OURAY, CO 81427

EXISTING CONDITIONS

DRAWING:
AN. ELEVATIONS
EAST & NORTH

JOB NO. 2823
DATE: 6/25/96

SHEET NO.
A3.6
SHEET OF

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○ EAST-WEST SECTION
 1/4" = 1'-0"



0198 - EXISTING
 CONDITIONS SET

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 200 L. COOK AVENUE, SUITE 300 • TULLAH, CO 80435 • TEL: 970.724.3274 • FAX: 970.724.3424

OURAY COUNTY COURTHOUSE
 PHASE II

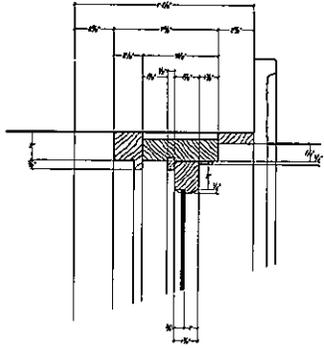
541 4TH STREET
 OURAY, CO 81427

EXISTING CONDITIONS

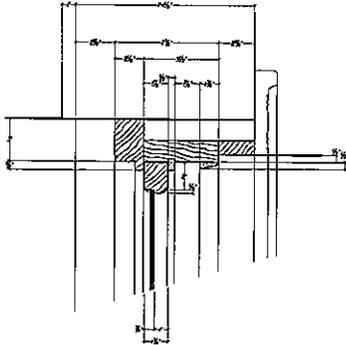
DRAWING SECTION: EAST-WEST
JOB NO. 2423
DATE: 6/25/94

SHEET NO.
A4.1
SHEET OF

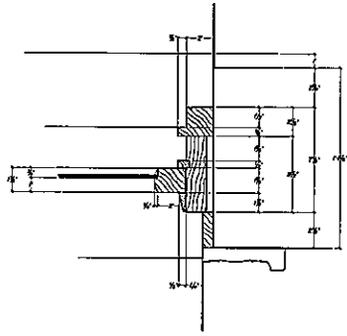
©2004 CHAS CUNIFFE ARCHITECTS



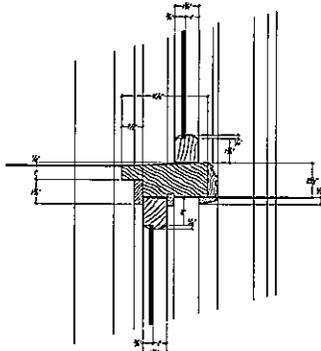
10 HEAD - 2ND FLOOR ARCH TOP
3" = 1'-0"



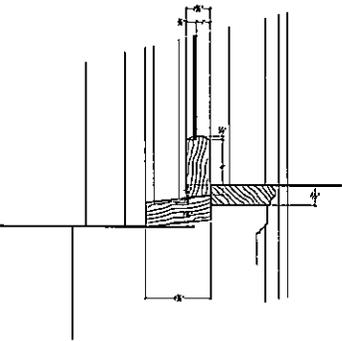
7 HEAD - 2ND FLOOR FLAT TOP
3" = 1'-0"



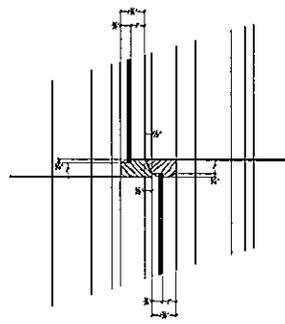
11 JAMB - ALL TYPES
3" = 1'-0"



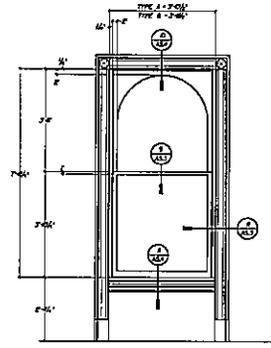
8 SASH - 2ND FLOOR TRANSOM
3" = 1'-0"



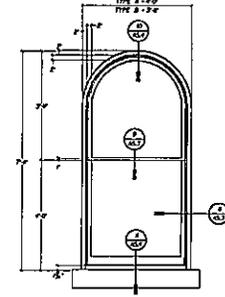
12 SILL - 2ND FLOOR
3" = 1'-0"



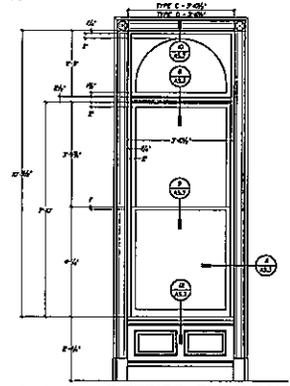
9 SASH AT BYPASS
3" = 1'-0"



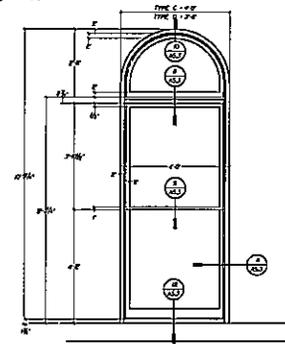
4 A & B - INTERIOR ELEVATION
1/2" = 1'-0"



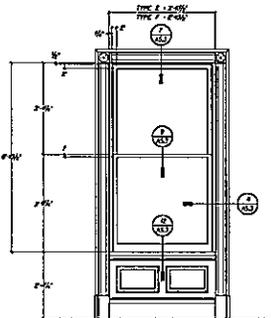
1 A & B - EXTERIOR ELEVATION
1/2" = 1'-0"



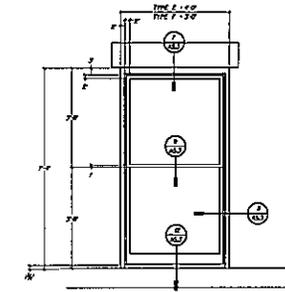
5 C & D - INTERIOR ELEVATION
1/2" = 1'-0"



2 C & D - EXTERIOR ELEVATION
1/2" = 1'-0"



6 E & F - INTERIOR ELEVATION
1/2" = 1'-0"



3 E & F - EXTERIOR ELEVATION
1/2" = 1'-0"



6196 - EXISTING
CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

COURAY COUNTY COURTHOUSE
PHASE II

541 4TH STREET
COURAY, CO 81427

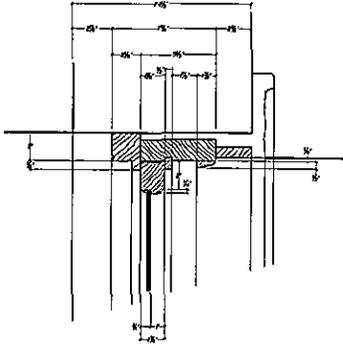
EXISTING CONDITIONS

DRAWING
WINDOW DETAILS

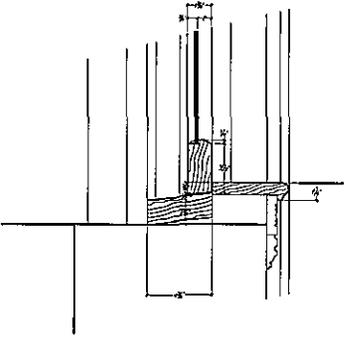
SHEET NO. 823
DATE: 6/29/96

SHEET NO.
A5.3
SHEET OF

© 2004 CCA



10 HEAD - 1ST FLOOR
3" = 1'-0"



11 SILL - 1ST FLOOR
3" = 1'-0"

12

7

8

9

4

5

6

1

2

3

XXXXX
3" = 1'-0"

EXISTING CONDITIONS

DRAWING
WINDOW DETAILS
JOB NO. 9823
DATE: 6/29/96
SHEET NO.
A5.4
SHEET OF



6498 - EXISTING
CONDITIONS SET

CHARLES CUNIFFE ARCHITECTS

COURAY COUNTY COURTHOUSE
PHASE II

500 EAST HANSEN AVE. • SUITE 301 • ASPEN, CO 81611 • TELE: 970/925-5398 • FAX: 970/925-5395
230 E. COLORADO AVE. • TELLURIDE, CO 81853 • TELE: 970/734-3224 • FAX: 970/734-3642

541 4TH STREET
COURAY, CO 81427

Appendices:

A Impact Statement on Design of Additions

Charles Cunniffe Architects

B Structural Engineer's Report

Buckhorn Geotech Engineers

C Mechanical Engineer's Report

Burke Associates Inc.

D Masonry Assessment

Pinnacle Quarry & Development Co.

E Acoustic Engineer's Report

David L. Adams Associates, Inc.

F Environmental Report

Walsh Environmental Scientists

G Conservator's Report

Western Center for the Conservation of Fine Arts

Historical Impact Statement

Placing an addition on any historic structure is fraught with many dangers. Beyond the risk of permanently damaging important features of the original buildings, the visible qualities and historic appearance can be easily compromised with inappropriate or insensitive appendages.

This statement hopes to explain the considerations given to the historical values of the original structures in the design of the additions. How new construction relates to historical buildings in terms of location, orientation, mass and scale, openings and materials is of vital importance to the preservation of the community's historic resource.

New Link

The Jail Building and Courthouse were constructed approximately 12 feet apart with apparently no consideration given to how the two buildings might interact. None of the major building components align with each other, such as exterior walls, doors or floor levels. Both roofs deposit snow and rain into the narrow space between the buildings and older local citizens can provide stories about how difficult it was to negotiate the entries and stairs located in this corridor during winter months.

A series of canopies and sheds have been constructed in this space over the years in attempts to improve the situation. While providing protection from weather, the existing shed does nothing to enhance the circulation between buildings or to resolve the disjunction between them. The design of the existing shed obscures most of the west wall of the Courthouse and provides a dark and unattractive public entrance far beneath the dignity of the original buildings.

New construction in this location must be compatible with the historic resources, drawing upon the design elements of the buildings, yet should not directly imitate the structures in their entirety. The Courthouse and Jail must be allowed to "read" as independent principal structures with new construction presenting a clearly subordinate position from a clearly different era.

Mass and Scale

The link addition is quite small in relation to the original structures. The face of the addition at the street is set back from the face of the Courthouse so that the size and limits of both historic buildings are clearly retained. The apparent height of the addition is kept below the eave of the Jail building at the street by stepping back at the roof before rising to the height needed to enter the Courthouse.

Materials

While tempting, the use of masonry and stone would make the new link more substantial and imposing than it deserves. This could easily lead to competition for preeminence between the historic structures and the new construction as well as confusion about which elements are original and which are new. The use of simple exposed steel framing in the new link eliminates these potential problems by introducing an obviously contrasting

material and treating that material in a less formal manner. The use of such a utilitarian material is appropriate for a community steeped in an industrial mining tradition and has traditionally been the material of choice for such accessory additions.

Openings & Detailing

As was mentioned earlier, the design of the original buildings made no attempt to acknowledge each other. As a result, designing a link that modulates between the two and attempts to create a sense of dignity, purpose and order is difficult at best. Further, there is an inherent conflict between a primary public entrance and the role of an addition subordinate to more important historic edifices.

On the street elevation, windows and doors are of identical size and shape as those prevalent on the original structures. At the second level of the link, the size and shape of the center window is taken from the most common window found on the Courthouse, and is flanked on both sides by windows whose aspects are taken from windows on the Jail building. Where possible, horizontal bands in the steel frame align with belt courses and material changes on the Courthouse and Jail buildings to further integrate the link with the historic structures and provide a sense of formality.

Interior

The link is composed almost exclusively of two exterior walls and a roof. Through the use of extensive south side glazing and roof skylights, the interior intentionally dissolves into its functional elements (stairs and floors) allowing the original buildings to be revealed as much as possible. The affect is that of a light filled atrium wherein the old masonry walls of the Courthouse and Jail become the most dominant surfaces.

Elevator

Elevator shafts are often the most dominant and obtrusive compositional elements found in additions of this type. Their tall blank surfaces are frequently found paste to the side of historic structures without ornament or shame. Here, this situation has been avoided by completely incorporating the new elevator shaft within the walls of the Courthouse. Although an original staircase will be eliminated, its detailing is not significant and, considering the alternative, its loss will not unduly compromise the historic interiors.

Second Floor Addition

From an historical perspective, the addition to the second floor of the Courthouse clearly has the most impact to the original forms. In this case however, adjustments to visual aspects of historical integrity and accuracy are made in order to preserve important historic uses. The Courthouse was previously compromised with the addition of a vault on the first floor of the building. The addition of a second floor to this area will have minimal added impact.

Location, Mass & Scale

The older vault and new second floor addition are in the southeast corner of the Courthouse which has minimal immediate visibility from street elevations. Of any possible location on the building, this location has the least impact. The existing vault addition is badly proportioned for the Courthouse and is roofed with a shed configuration that is insensitive to the original roof forms. The second floor addition is designed to be more in

keeping with the mass and scale of the historic structure and, hopefully, be less discordant and thus less eye catching than the existing vault addition.

Materials and Detailing

As the earlier vault addition is of brick, and as brick is also the primary material of the Courthouse - it is the choice of material for the new construction. In order to blend with the original building, some belt courses are continued from the Courthouse to the addition. There is clearly a risk in this choice of materials and detailing that the second floor addition will confuse the casual observer as to what is original and what is new. However, the simplified version of the cornice and the flat roof should avoid this quandary. Because of the direct attachment of these additions to the Courthouse and their necessary inclusion to the overall mass of the structure, a certain amount of confusion and overstated mimicry will obscure the addition and minimize the visual impact.

Openings

A number of historical windows and doors will be relocated and reused in the new second floor addition. All doors and windows, interior and exterior, will be original. As a result, the proportions and scale of openings established by those found on the Courthouse will be carried over to the new construction..

OURAY COUNTY COURTHOUSE
OURAY, COLORADO
STRUCTURAL OBSERVATION

INTRODUCTION

At the request of Mr. Michael Ouelette, I accomplished a visual review of the general conditions of the Ouray County Courthouse building located on the southeast corner of the intersection of 6th Avenue and 4th Street in Ouray, Colorado, on June 22, 1995. Charlie Anderson, maintenance supervisor, assisted me in my observations and offered pertinent information relative to the history of this structure.

The purpose of my observations was to appraise the structural condition of the building, determining, insofar as possible, the cause of any identifiable distress and to advise the County regarding correction of any serious fault as well as required maintenance and improvements the next few years.

I would advise the County that my professional practice is primarily in the area of structural and civil engineering. My experience of over 20 years has exposed me to many related aspects of building construction, maintenance, rehabilitation, and modernization. The conclusions, suggestions, and recommendations of this report are based on my observation of this building, judged and interpreted in conformance with my personal experience. An investigation of this nature reviews those things visible but does not completely determine all elements of building construction or condition. Therefore, there may well be pertinent conditions that I was not able to observe. I may indeed have overlooked or minimized some observable condition. I do ask that, should someone have specific knowledge of a condition of consequence, that I be given the opportunity to interpret this condition and its affect on this report.

DESCRIPTION

The Ouray County Courthouse building was constructed in 1888 as a masonry bearing wall structure with a partial basement finish floor about 6 feet below grade on the south and daylighted on the north. The main floor elevation varies from 2 feet to 10 feet above grade. There is a second floor that contains the main courtroom. The old jail was built as a satellite building to the east that houses the sheriff's office on the first floor and County offices on the second.

The floor plans included in the appendix are schematic and were provided by Daniel Money with the Center for Community Development. They may not accurately reflect all secondary partitioning. They do reasonably depict each floor plan and were used for approximating floor areas, probably framing and in estimating cost of the various items included in this report. In addition, photo views 1 through 7 show overall views of the building exterior. Photo views 5 through 36 are included to show specific detail.

The basement floor is concrete slab-on-grade. The first and second floors are wood joist systems supported, in most cases, on masonry bearing walls. The roof is entirely wood framed and includes two quite heavy built-up tied trusses spanning east and west. The remainder of the roof system is timber beams and/or rafters and joist systems.

Original interior finish was plaster on wood lathe or masonry on walls and ceilings. Some later additions may be gypsum drywall and at least one ceiling is suspended acoustical tile.

STRUCTURAL CONDITIONS

Considering the age of this building, the soil conditions known to exist in this area, the probable level of structural maintenance, and the type of construction, this building must be judged as being in excellent condition.

Settlement: The building is supported on continuous wall spread footings. There has been some settlement of this building but the magnitude of differential settlement from the outside walls (which settle more) to the interior walls appears minimal. The differential settlements along any particular exterior bearing wall is quit small as evidenced by the number and width of cracks in these walls. (See photo views 8, 9, and 10.)

Masonry: The differential settlement cracks in the masonry bearing walls are not of such magnitude that can be considered evidence of serious structural faults. The potentially greater problem exists in the cornices at the top of the masonry walls. Over the years the lime mortars in use at the time of construction have weathered and eroded, in some cases leaving the bricks completely loose. In addition, this weathering has progressed downward for several brick courses. Freezing and thawing is now accelerating this condition. (See photo views 11, 12, and 13.)

There are areas of walls at scupper and downspout locations and at areas of prior roof leaks that have been badly stained with some erosion of mortar. (See photo views 11, 12, and 13.)

The lime mortar joints of the stacked rock basement walls in the boiler room and case workers storage room have weakened and show signs of exterior moisture penetration. (See photo views 14, 15, 16, and 17.)

Structural and Framing System: I did not observe any evidence for roof structural deficiency in any of the framing systems except for a small area over the jurors room and home health offices. In fact, I was quite surprised at the generally excellent condition of the wood roof framing system which I was able to observe in some detail. (See photo views 18 to 23.) A schematic roof framing plan is included in the appendix. The blown-in cellulose insulation made it virtually impossible to inspect the ceiling joists and top of wall bearing. The unevenness of some of the floors is more likely the result of the differential settlements previously discussed, or long term deflection.

Other Conditions: Sloped roof areas with asphaltic shingles (not the original) are in poor condition. The flashing joints and roof downspouts are leaking badly and in some cases no longer function. Flashings are mostly cemented to vertical faces without counter flashing and cannot be expected to perform well without continued maintenance. (See photo views 24 and 25.)

The interior finishes of the building are in reasonably good condition except at the moisture leaks. There are numerous areas that have had plaster repairs and a few requiring plaster repair now. The usual reason for loss of bond of plaster is moisture. (See photo views 26 to 32.)

Some areas of exterior concrete, including steps, walks and platforms, are deteriorating rather badly, showing severe cracking and spalling. (See photo views 33 and 34.)

GENERAL CONCLUSIONS

It is not within the scope of this report to provide a comprehensive analysis of alternative nor to develop specific plans and specifications for improvements or renovations. I believe that I can, however, based on my observations and similar experience, make some general suggestions which, when combined with the facts of this report, will enable the County to establish a specific repair program leading to a successful conclusion.

This building was designed, and well designed, over 100 years ago based on accepted practices and convention in use at that time. This building is structurally sound. Its problems resulting from age and use can be renovated.

NECESSARY REPAIR

Specific maintenance and improvement items that I would place in a necessary category are as follows:

1. Replace the entire roof covering on the main courthouse. Identify all potential areas of leakage and repair, as needed. Estimated cost (assuming asphalt shingles) \$30,000 to \$40,000.
2. Installation of new metal flashing roof intersections with vertical surfaces, new scuppers and downspouts as needed. Estimated cost \$10,000 to \$15,000. (Should be combined with Item 3 to permit flashing installation in conjunction with masonry work and gain multiple use of scaffolding.
3. Masonry renovation of exterior brick work, including removal of existing loose brick and replacement of same. Rake and point loose mortar joints and wall cracks. Estimated cost (including scaffolding) \$30,000 to \$35,000.
4. Masonry renovation of stacked rock wall in the boiler room and case worker storage room southwest corner of basement. Rake and point all joints and cracks that are deteriorating or may permit moisture encroachment. Estimated cost \$6,000 to \$8,000.
5. Exterior concrete renovation and improvements. Patch or replace spalled and cracked concrete walks, steps and platform where uneven joints, cracks, etc., that may present moisture infiltration or a safety problem. Add small valley gutter on south side of building to carry off surface drainage. Estimated cost, \$4000 to \$5000.
6. Insure that the roof framing rafters over the jurors office are intermittently braced a span no greater than 6 feet horizontally. All intermediate braces shall extend to the top of the nearest bearing wall. Estimated cost \$2,000 to \$3,000.

OPTIONAL IMPROVEMENTS

Items which occur to me that might be considered for improvements are as follows:

1. Install a drainage inlet grate in the wooden cover over the drainage ditch between the old jail and courthouse. See photo 35.
2. Replace the retaining wall at the grade separation on the north side of the Courthouse.

3. Improve the site drainage on the north side of the Courthouse at the entrance to the Social Services office by either lowering the sidewalk grade to site drainage to flow to the north or install a drop inlet area drain that would be piped to the city storm water system.
4. Replace the floor joists supporting the handicapped restroom in the basement so the floor and doors do not sag. (See photo view 36.)

The above list is not presented as a complete list of possible improvements, nor is it suggested that all of the items would ever be accomplished.

RECOMMENDATIONS

I would recommend that the County retain a roofing specialist to insure a complete moisture protection program for design and construction of the roof improvements.

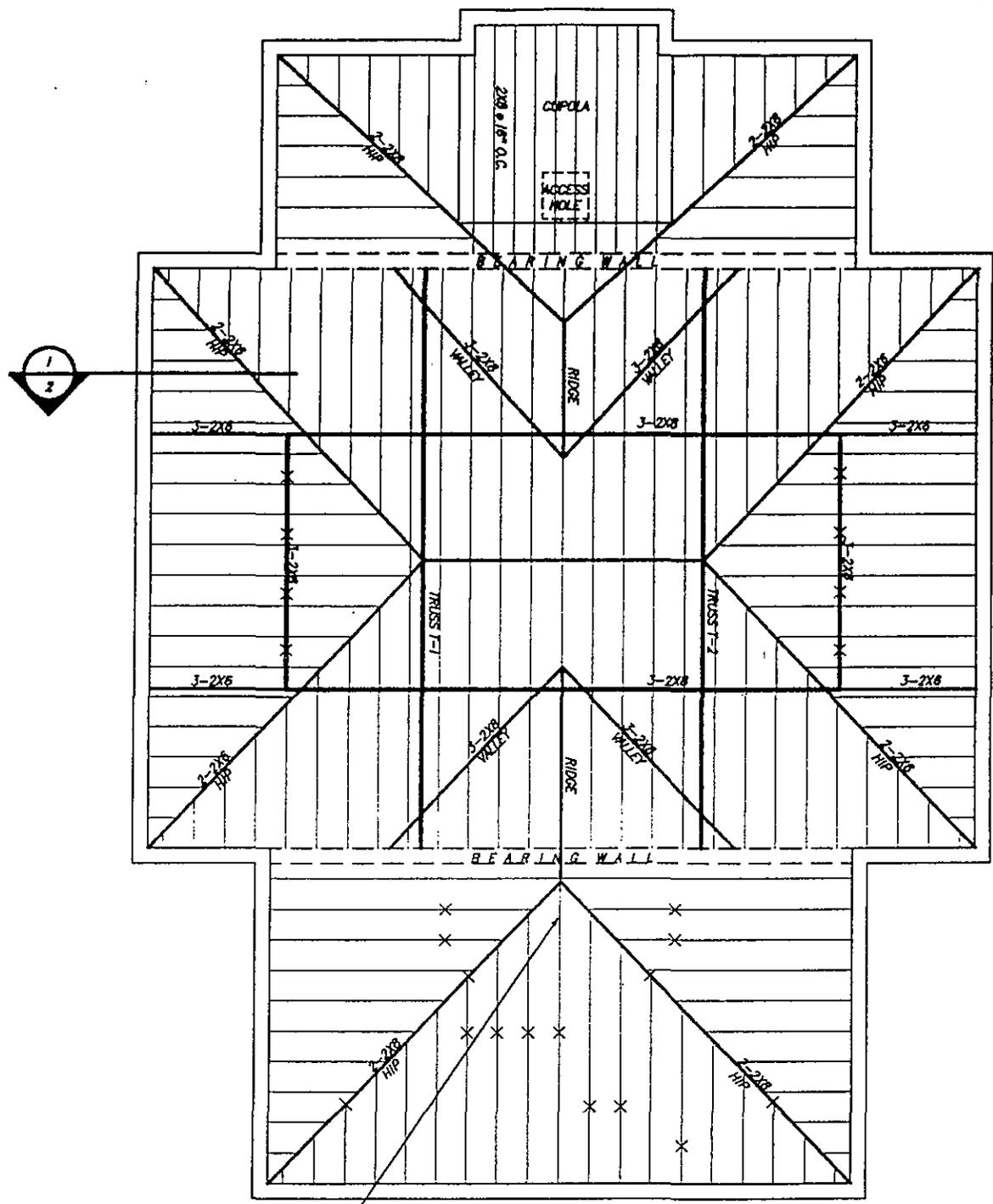
I would recommend that Buckhorn Geotech be consulted during the roofing replacement to observe and verify the conditions and to be available in the event of any unusual or unexpected conditions are encountered.

I would suggest to the County that, during their discussion of this report, any questions generated be recorded and sent to me. I will attempt to provide such answers as I can as a supplement to this report.

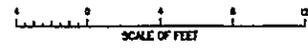
Respectfully Submitted,
July 18, 1995


Norman J. Aufderheide, P.E.

NJA:dc



BLACK SMOKE INDICATION NEAR TO RIDGE



NOTES:

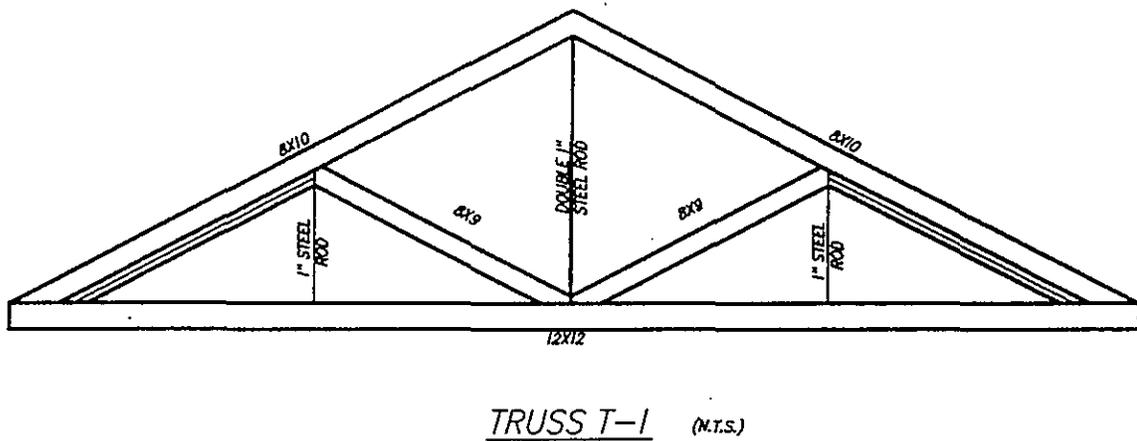
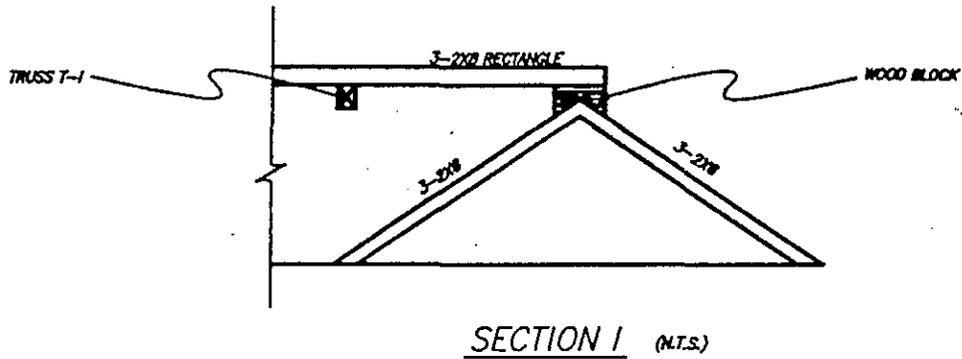
- CEILING RAFTERS ARE ROUGH SAWN 2X6 @ 24" O.C.
- HIP RAFTERS ARE POSTED AT BEARING WALLS
- CEILING JOISTS ARE @ 16" O.C.
- X DENOTES POINT OF INTERMEDIATE SUPPORT POST TO CEILING OR BEARING WALL BELOW

DRAWING NUMBER
1
OF 2

DESIGNER	N. J. AUFDERHEIDE
DRAFTER	R. C. KOONCE
DATE	6-26-95

**OURAY COUNTY COURTHOUSE
STRUCTURAL EVALUATION
ROOF FRAMING PLAN**

BLACK HOLE TECHNOCH
CIVIL, STRUCTURAL, & GEOTECHNICAL ENGINEERS
221 S. PARK AVE. MONTROUSE, COLORADO 81401
970-240-9038 Fax. No. 970-240-9048



DRAWING
NUMBER

2

OF 2

N. J. AUFDERHEIDE

DESIGNER

R. C. KOONCE

DRAFTER

6-26-95

DATE

OURAY COUNTY COURTHOUSE
STRUCTURAL EVALUATION
ROOF SECTIONS



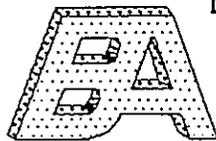
CIVIL, STRUCTURAL, & GEOTECHNICAL ENGINEERS
323 S. PARK AVE. DENVER, COLORADO 80201
303-540-9028 Fax. No. 303-540-9048

OURAY COUNTY COURTHOUSE
AND SHERIFF'S BUILDING
BUILDING EVALUATION

FOR:

Ouray County Commissioners
Ouray, Colorado

BY:



BURKE ASSOCIATES, INC.

Mechanical and Electrical Engineers

2518 Monument Road, Suite A
Grand Junction, CO 81501

303-243-9090

WATS 1-800-228-8163

June, 1995

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Opinion of Probable Cost	5 Pages
Plans and Photographs	22 Pages

OURAY COUNTY COURTHOUSE AND SHERIFF'S BUILDING

We have been retained to observe the mechanical and electrical systems that exist in the 100+ year old structure. We have agreed to investigate, make field observations, and make recommendations in order of priority with cost estimates.

General:

The buildings are of masonry construction with wood framing on lath and plaster, with a wood framed roof support system with composition roof on the courthouse with a metal standing seam roof on the sheriff's building. The buildings are well maintained with the exception of some roof leakage near the tower on the second floor of the courthouse building. Repair the top course of brick on the sheriff's office flue.

Mechanical:

The buildings are heated via oil fired hot water boilers. The buildings have commercial hydronic baseboard heating on the 3 levels of the Courthouse. The load calculations indicate a boiler output of 632 mbh at altitude and a 40 Ton cooling load. The sheriff's building has electric heat in some areas and residential baseboard in other areas. The plumbing is usable with fixtures not in compliance with current A.D.A. requirements.

Electrical:

The overhead service is single phase, 230 volt, rated at 200 Amps. Knob and tube wiring and rubber with varnished fabric insulation was observed on some of the sub-feeders. The buildings have many computers, printers, and circuits that were not envisioned in the remodel of the 70's, which require more points of connection for the various devices to the electrical system. The present problems that exist are not one of service overload, except that the number of feeds from the panels exceed the available number of breakers. In some instances, the breaker has a larger ampacity than the wire is rated at; i.e., 15 amp wire on a 20 amp breaker, or 20 amp wire on a 30 amp breaker. No future expansion capacity exists.

SPECIFIC RECOMMENDATIONS

SPECIFIC RECOMMENDATIONS IN SUGGESTED ORDER

General:

1. The corridor of the basement has exposed wood and needs to have a one hour rated ceiling to afford fire protection.
2. The building could be sprinkled to provide maximum fire protection of this irreplaceable structure.

Mechanical:

1. Provide combustion air and ventilation air for the boiler rooms directly to the outside.
2. Provide a one hour rated door into the boiler room.
3. Provide a one hour rated ceiling in the boiler room.
4. Do not use the boiler room for storage.
5. Provide a natural gas fired boiler to replace the oil fired boilers, remove the fuel oil tank to prevent the possibility of fuel oil leak and soil contamination.
6. Attach the baseboard enclosures to the walls with sheet rock screws, rather than nails.
7. Pipe the boiler relief to the floor sump.
8. Provide dielectric unions on boiler water feed and above the boiler on the return.
9. Provide hot water baseboard in the lower level of the Sheriff's building.
10. Provide fan coil in the main entry vestibules in the basement and lower level. Provide fan coil at rear entry and at the courtroom vestibule. Cycle from line voltage thermostats.
11. Provide up-graded exhaust for each toilet room.

Plumbing:

1. Provide a reduce pressure backflow preventer on the water feed to the boiler.
2. Provide a lead filter on the drinking fountain.
3. Provide vacuum breaker on each hose end valve.

4. Provide a relief valve lateral from the valve to the sink in the Sheriff's area, and to the sump in the boiler room for each relief valve.

Electrical:

1. Provide a 42 circuit double tub panelboard with (2) 42 poles panelboard enclosures, 200 amp busse. (See note 13)
2. Run from the 2nd floor stairwell 4 old circuit panel circuits to the new panel utilizing 4 of the new 20 amp circuit breakers, removing the varnished fabric rubber insulated wire and replacing and removing any knob and tube wiring in the attic. Use the 4 circuit panel as a junction point with a secured cover.
3. Run the basement stair area 4 old circuit panel circuits to the new panel, utilizing 4 of the new 20 amp circuit breakers. Remove the varnished fabric covered rubber insulated wire and repipe from the new panel to the 4 circuit panel, with the 4 circuit panel enclosure used as a junction point with a secured cover. Remove all knob and tube wiring from the basement and refeed if energized.
4. The existing panel has circuits doubled up on the breaker terminals in four instances and incorrect breaker ampacity in 3 instances; re, circuit to the new breakers with the ampacities to match the wire size ampacities.
5. Provide new isolated ground circuits to each office in the courthouse with computer equipment circuits. Provide a new clean circuit in the 2nd floor judge's podium for his computer.
6. Remove the outlet above the electric baseboard in the Sheriff's office waiting area. Provide code clearance above the electric baseboard at the counter.
7. Sheriff's Area Panelboard: Replace with a 24 circuit, 125 Amp panelboard. Run 3 dedicated computer circuits upstairs and 2 downstairs. Provide a separate circuit for each microwave and coffee maker, with a split receptacle, if at a common location.
8. Rewire any incorrectly wired receptacles and verify grounding of each receptacle.
9. Provide GFI receptacles for any receptacles outside, in toilet rooms, or in close proximity to sinks or lavatories.
10. Provide a illuminated exit light at each stairwell, each door to the exterior, and at each required exit passage.

11. Provide battery powered egress lighting for each stairway, corridor, and exit way to light the path of egress.
12. Provide a complete ionization detection fire alarm system with manual pull stations and a dialer to the fire department or sheriff's office, if maned 24 hours.
13. Convert the building to 3 phase to accommodate future elevators or air conditioning.
14. Provide 3'x3' clearance in front of panels in all areas.

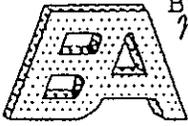
General Note:

Conversion to 3 phase power will change item one to 3 phase panels and provide 150% more capacity at the 200 amp service level. Three phase is available in the alley, with the addition of a 3 phase transformer bank. We suggest an underground conduit run to an exterior 200 amp disconnect and meter with the 208 volt, three phase, 4 wire service extending to the new 200 amp double tub panels with single phase feed to the boiler room panel, basement, 8 circuit panels and a new 3 phase panel and feeder for the sheriff's office. The addition of 40 tons of cooling would require a 400 amp service with two 200 amp disconnects, (180 amps to feed the 40 ton chiller) and 200 amps to feed the new double tub panel.

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OPINION OF PROBABLE COST



BURKE ASSOCIATES, INC.
Mechanical and Electrical Engineers
2518 MONUMENT ROAD, SUITE A
GRAND JUNCTION, CO 81503
970-243-9090 WATS 1-800-228-8163

OPINION OF PROBABLE COST

Date June 26, 1995

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FOR: OURAY COUNTY COURTHOUSE AND SHERIFF'S BUILDING

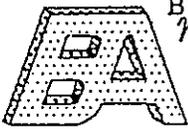
ITEM TITLE: MECHANICAL

REQUESTED BY: _____ MADE BY: John F. Cunningham

DESCRIPTION	UNIT	QUANT.	PRICE	LABOR	MAT'L	TOTAL
1. COMBINATION AIR & VENT. BOILER ROOM	ALLOW		500			\$ 500
2. 1 HR. RATED DOOR & JAMB	ALLOW		1,000			1,000
3. 1 HR. CLG. FOR BOILER ROOM	ALLOW		1,600			1,600
5. NEW GAS BOILER-MODULAR	ALLOW		13,400			13,400
REMOVE FUEL OIL TANK	ALLOW		10,000			10,000
CONTAMINATED SOIL DISPOSAL	ALLOW		2,000			2,000
BOILER CONTROLS	ALLOW		1,500			1,500
6. ATTACH BASEBOARD PROPERLY	ALLOW		1,000			1,000
7. PIPE RELIEF VALVES TO SUMPS	ALLOW		100			100
8. DIELECTRIC UNIONS	ALLOW		200			200
9. BASEBOARD LOWER FLOOR - SHERIFF'S BLDG.	ALLOW		3,000			3,000
10. FAN COILS AT ENTRIES	EA.	4	900			3,200
11. TOILET EXHAUSTS	EA.	4	175			700

SUB-TOTAL						\$38,200
ENGINEERING SERVICES						<u>2,800</u>
MECHANICAL TOTAL						\$41,000

Remarks _____



BURKE ASSOCIATES, INC.
Mechanical and Electrical Engineers
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970-243-9090 WATS 1-800-228-8163

OPINION OF PROBABLE COST

Date June 26, 1995

Page 4 of 5

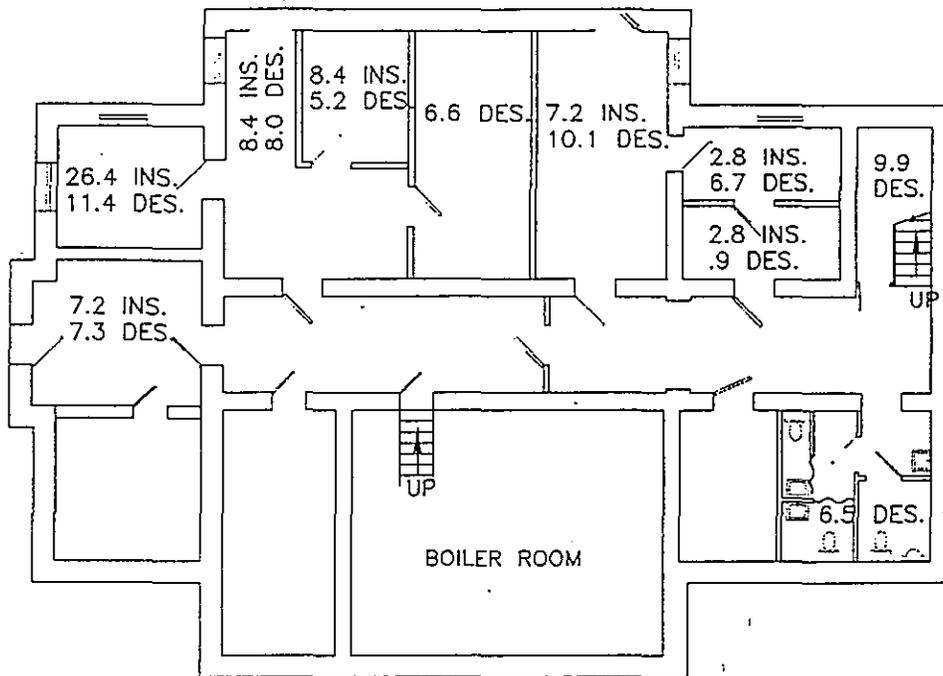
FOR: OURAY COUNTY COURTHOUSE AND SHERIFF'S BUILDING

ITEM TITLE: ELECTRICAL

REQUESTED BY: _____ MADE BY: John F. Cunningham

DESCRIPTION	UNIT	QUANT.	PRICE	LABOR	MAT'L	TOTAL
1. DUAL 42 CKT. PANELS	EA.	2	2,500			\$ 5,000
2. 2ND FLOOR RECIRCUIT PANEL	ALLOW		300			300
3. BASEMT.RECIRCUIT PANEL	ALLOW		400			400
4. RECIRCUIT NEW PANEL	ALLOW		1,200			1,200
5. NEW ISOLATED GROUND CIRCUITS (8 CKTS.)	ALLOW		800			800
6. BLANKOFF OUTLET	ALLOW		10			10
7. SHERIFF'S ONE PNL. REPL.	ALLOW	1	1,225			1,225
8. REWIRE INCORRECTLY WIRED RECEPTACLES	ALLOW	5		10		50
9. PROVIDE GFIG RECPT.	ALLOW	5		50	50	500
10. EXIT LIGHTS	ALLOW	8		100	200	2,400
11. EGRESS LIGHTS	ALLOW	8		100	260	2,880
12. FIRE ALARM & DET.SYS.	SQ.FT.	9,000	.80			7,200
13. CONVERT BLDG. TO 3 PHASE UTILITY CHGES SAN MIGUEL EQ.REVISIONS	ALLOW		5,000			5,000
SUB-TOTAL						\$26,965
ENGINEERING SERVICES						<u>2,500</u>
ELECTRICAL TOTAL						<u>\$29,500</u>

Remarks _____



NUMBERS ARE MBH

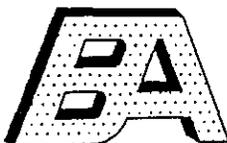


LOWER FLOOR BASEBOARD PLAN

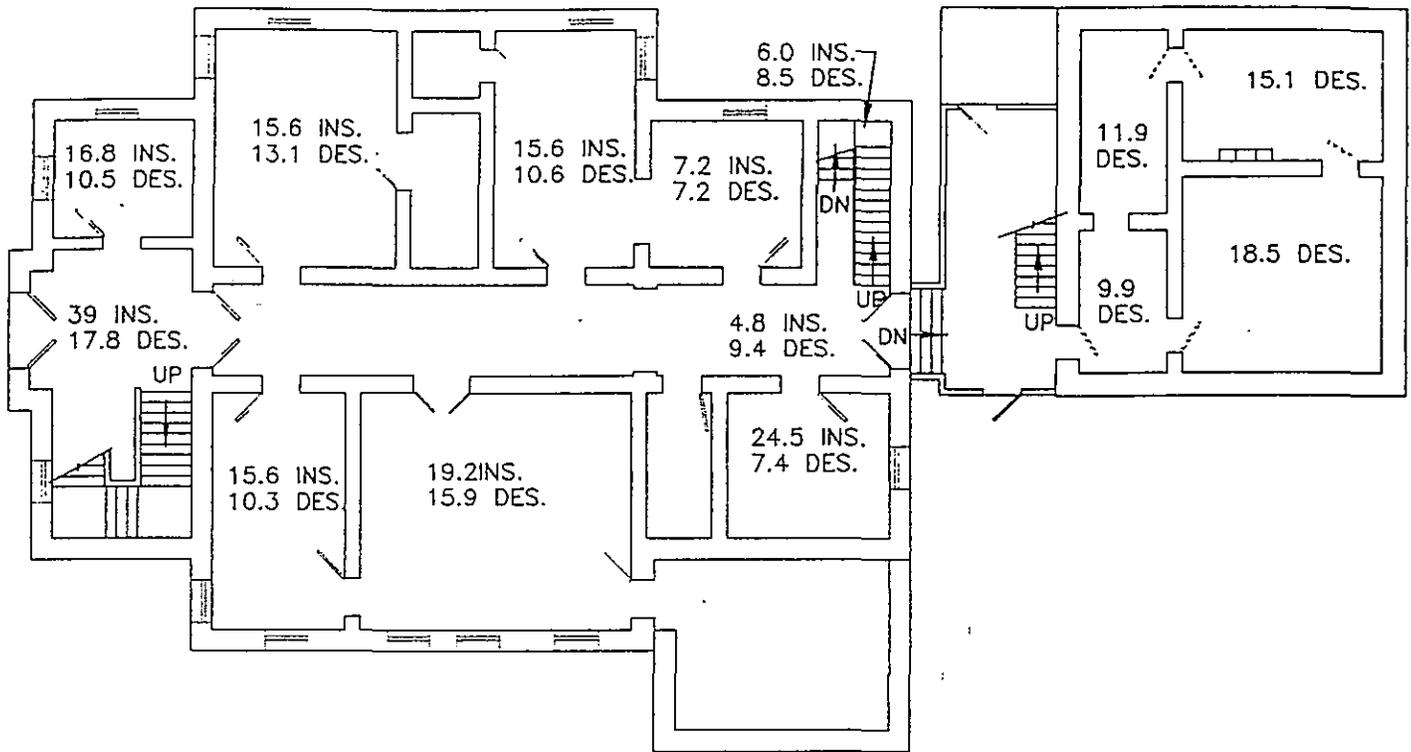
NOT TO SCALE

NOTES:

1. CLOSE DAMPERS TO PROVIDE BALANCE OF HEAT FLOW.
2. PROVIDE ADDITIONAL BASEBOARD ELEMENTS IN BOTH EXTERIOR NURSE ROOMS.



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 MECHANICAL & ELECTRICAL ENGINEERS
 2518 MONUMENT RD., SUITE A 243-9090
 GRAND JUNCTION, CO. 81503



NUMBERS ARE MBH



MAIN FLOOR BASEBOARD PLAN

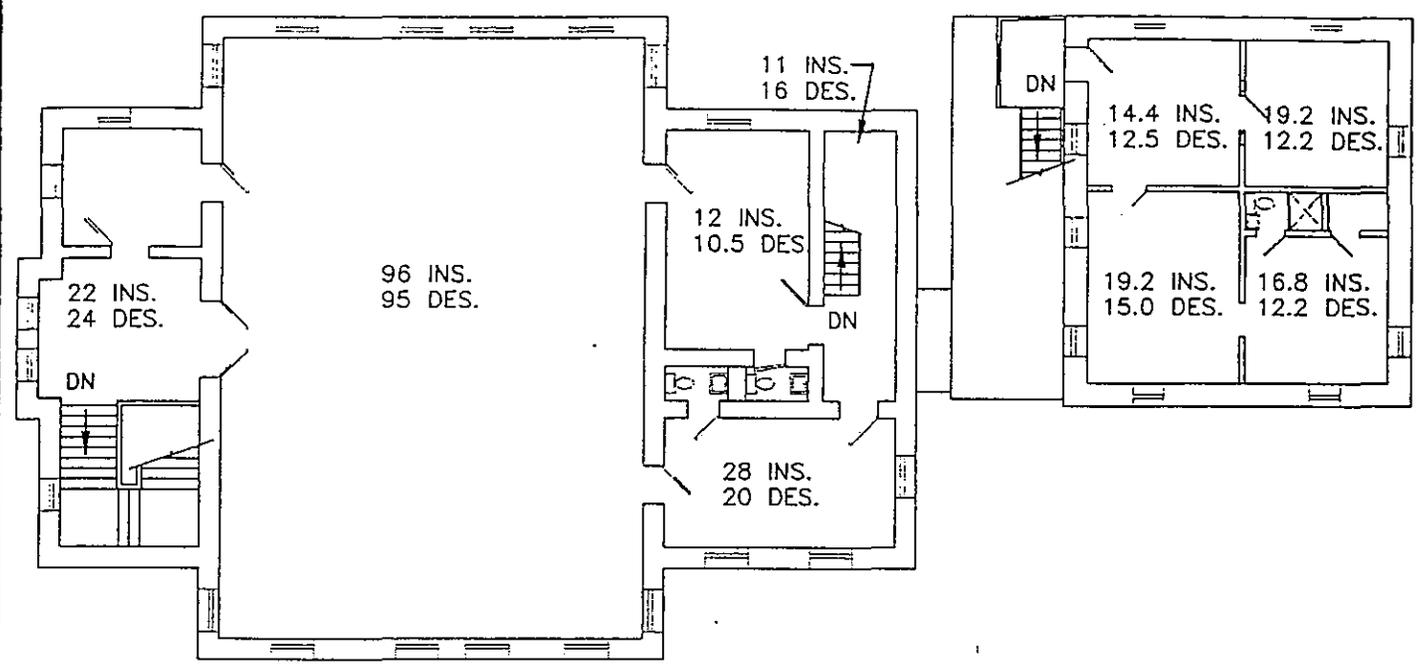
NOT TO SCALE

NOTES:

1. WRAP ELEMENTS WITH FOIL TO MAKE LOADS PROPORTIONAL WITH LOADS IN OFFICES.
2. EXTEND HOT WATER HEATING SYSTEM INTO SHERIFFS AREA.



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NUMBERS ARE MBH

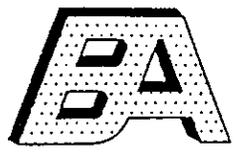


UPPER FLOOR BASEBOARD PLAN

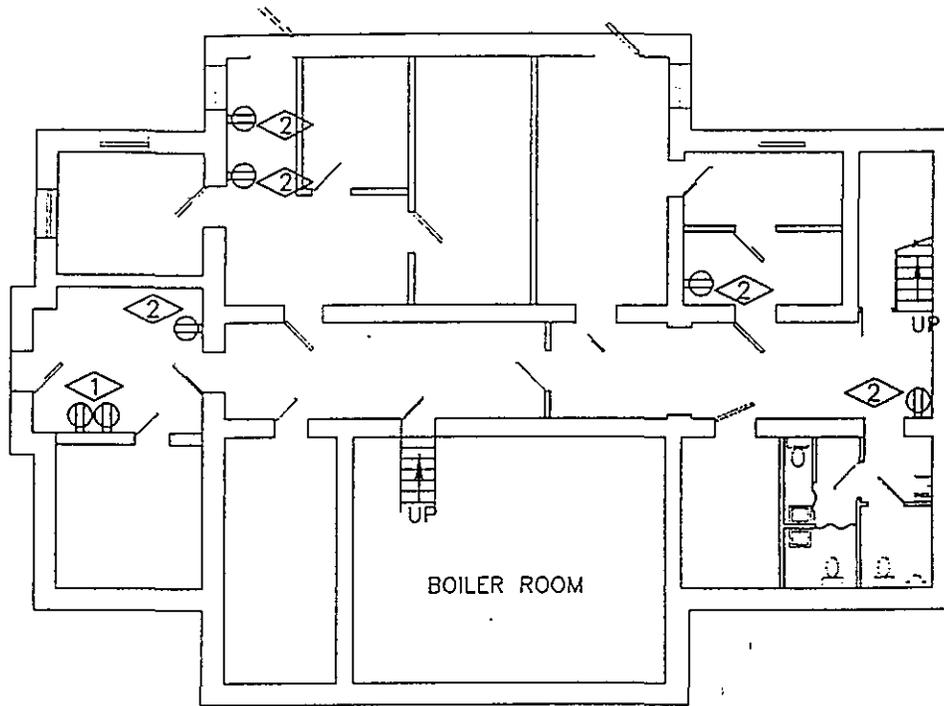
NOT TO SCALE

NOTES:

- 1. WRAP ELEMENT WITH FOIL TO MAKE LOADS PROPORTIONAL IN JURY AND HOME ECONOMISTS ROOMS, ADJUST DAMPERS IN PLANING AREA ABOVE SHERIFF'S OFFICE.



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LOWER FLOOR RECEPTACLE PLAN

NOT TO SCALE

FLAG NOTES:

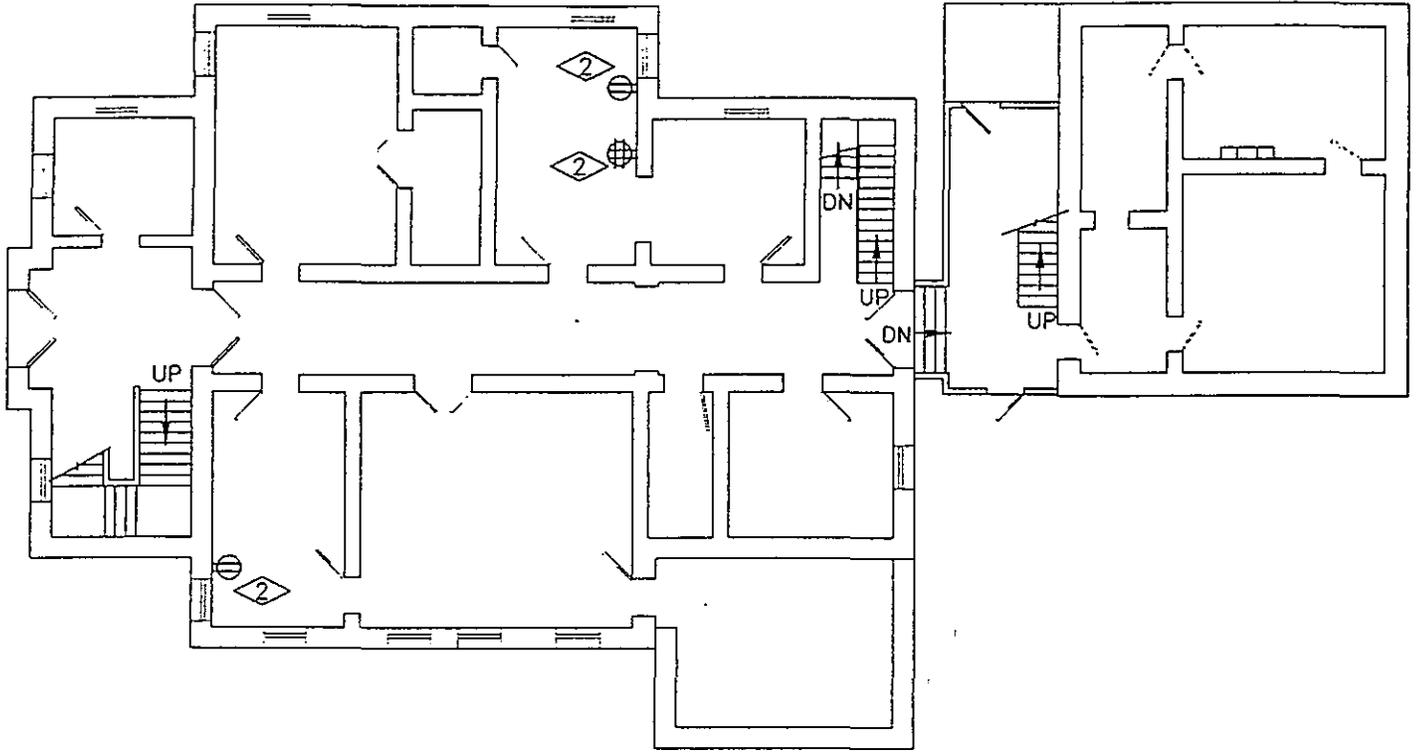
- ① OPEN GROUND
- ② REVERSED POLARITY
- ③ NON GROUNDED (REPLACE WITH GROUNDING RECEPTACLE)

LEGEND

- ① FLAG NOTE
- ⊖ DUPLEX RECEPTACLE
- ⊕ FOUR PLEX RECEPTACLE



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 MECHANICAL & ELECTRICAL ENGINEERS
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 GRAND JUNCTION, CO. 81503



MAIN FLOOR RECEPTACLE PLAN

NOT TO SCALE

FLAG NOTES:

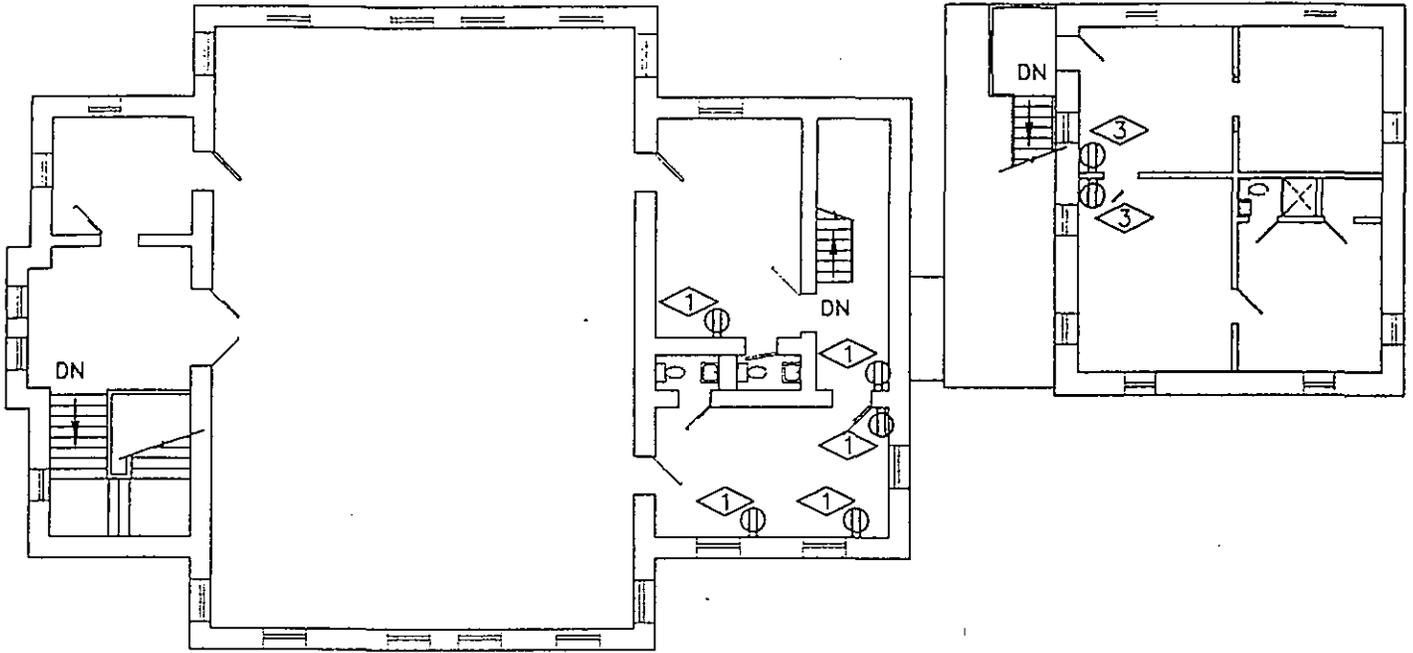
- ① OPEN GROUND
- ② REVERSED POLARITY
- ③ NON GROUNDED (REPLACE WITH GROUNDING RECEPTACLE)

LEGEND

- ① FLAG NOTE
- ⊖ DUPLEX RECEPTACLE
- ⊕ FOUR PLEX RECEPTACLE



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 MECHANICAL & ELECTRICAL ENGINEERS
 2518 MONUMENT RD., SUITE A 243-9090
 GRAND JUNCTION, CO. 81503



UPPER FLOOR RECEPTACLE PLAN

NOT TO SCALE

FLAG NOTES:

- ① OPEN GROUND
- ② REVERSED POLARITY
- ③ NON GROUNDED (REPLACE WITH GROUNDING RECEPTACLE)

LEGEND

- ① FLAG NOTE
- ⊖ DUPLEX RECEPTACLE
- ⊕ FOUR PLEX RECEPTACLE



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 MECHANICAL & ELECTRICAL ENGINEERS
 2518 MONUMENT RD., SUITE A 243-9090
 GRAND JUNCTION, CO. 81503

OURAY COUNTY COURTHOUSE
SPECIFIC RECOMMENDATIONS

6/23/98

Follow-Up Report for the Site Visit conducted on April 29, 1998: attended by William Vossler and David Steward of Burke Associates, Inc., John Lanbersen of Ridgway Electric, and Douglas Reinhardt of Charles Cunniffe Architects.

This report is a follow-up of the Building Evaluation Report generated in June of 1995 for the Ouray County Commissioners regarding the Ouray County Courthouse and Sheriff's Office Building. Burke Associates, Inc. was asked to check and see how much of the 1995 report suggestions had been completed. The original report consisted of four areas of suggested recommendations including General, Mechanical, Plumbing, and Electrical. The following is a response to the original suggestions.

General:

1. The corridor of the basement still needs a one-hour rated ceiling to afford fire protection.
2. The building could still be sprinkled to maximize fire protection.

Mechanical:

1. Combustion air has been supplied to the Boiler Room but appears to be only half as large as required. The 12" round duct would provide 113 sq. inches; the boiler would require 208 sq. inches or approximately a 15" x 15" duct to the floor. The ventilation air by Code is sized the same as the combustion air: approximately 15" x 15". No ventilation air duct was observed.
2. The door to the Boiler was replaced with a steel door.
3. A one-hour ceiling was installed in the Boiler Room but the addition of a mezzanine/storage into the Boiler Room has left exposed 2" x 4" studs into the Boiler Room.
4. The Boiler Room was relatively empty of stored materials.
5. There haven't been any noticeable changes to the boiler, pumps, or controls.
6. There weren't any changes to the baseboard heaters on Floor(s) One and Three. The Main Floor (Floor Two) had new baseboard and enclosures, and looked good. Occupants who were questioned on the Main Floor were enjoying the new lighting and said they were comfortable.
7. The Boiler relief valve has not been piped to the floor sump.

8. Dielectric unions between the boiler and the copper lines have not been installed.
9. The lower level of the Sheriff's Building is still heated with electric baseboard.
10. Fan coil units have not been installed in the Entries. The Courtroom vestibule continues to be heated with a double row section of baseboard below the windows. No control of this heat element was observed.
11. The Bathroom exhaust systems have not been upgraded.

Plumbing:

1. The Boiler needs a reduced pressure backflow preventer on the cold water make-up to the Boiler.
2. The drinking fountain needs a lead filter system. The Main Floor fountain has been removed.
3. Hose bib valves have not been provided with vacuum breakers.
4. A relief valve lateral was not provided to the DHW heater in the Sheriff's Department Building.

Additional Mechanical Suggestions:

1. The Boiler Room sump pump should be replaced with a new sump pump with float switch and alarm. It should be hard-wired, not plugged in. The discharge from the new sump pump can connect to the existing sump pump piping.
2. The Boiler piping should be insulated to reduce heat loss/gain into the Boiler Room and rooms above.
3. The existing fuel oil tank should be inspected and lined, or replaced depending on its condition. We believe that the oil-fired burner should be kept and upgraded controls added to let it operate more efficiently. Replacing the Boiler with a propane-fired unit would be costly and presents problems because the propane, if it were to leak, could fill the basement Boiler Room and cause an explosion hazard. Safeguarding the Boiler Room from propane leaks would be expensive. Eaton Metals in Grand Junction can inspect and make recommendations regarding the existing oil tank. They also remove and install underground tanks. Their phone number is 970-245-0144. (They do not charge for tank inspections.)

Electrical:

1. Provide a new 120/208V, three phase, 200 amp MLO "double tub" panelboard with (2) 42 circuit panelboard enclosures in place of existing panelboard on main level. All other breakers shall match in size those in the existing panelboard or otherwise be provided as 20 amp single pole breakers.
2. Fuse boxes on Upper and Lower Floors have been converted to junction boxes, and most of the existing varnished fabric rubber insulated wiring and "knob and tube" wiring has been replaced. Re-secure any boxes as necessary to masonry walls and ensure that the conduit system provides a continuous grounding path.
3. Break circuits doubled up in the existing panel into two separate circuits in new panelboard, and ensure that any wiring not being replaced is protected by the correct size breaker.
4. Provide new isolated ground circuits to each office on the upper and lower level offices with computer equipment. Provide a new dedicated circuit in the upper level judge's podium for computer equipment. New circuits have been installed on Main Level with appropriate receptacles. Installation is clean and in good order.
5. On the lower level, install Wiremold type surface raceways in all locations where Romex wiring is installed exposed, to protect from accidental damage to outer sheath and wiring insulation.
6. Support all low voltage wiring with approved means of hangers (ie. hook-n-loop) and at intervals not to exceed 10'. Provide a surface raceway above baseboard heat on upper floor to keep cabling off hot surfaces where it may be damaged. Where cables penetrate fire rated ceilings, approved means of fire stopping material should be installed to maintain fire separation.
7. Provide emergency egress lighting for all exit paths on all levels. This may be accomplished by means of surface mounted "frog eye" style self-contained battery units or emergency ballast installed within fluorescent lighting. Lighting should be sufficient to maintain a minimum of 1 fc average in exit pathway per UBC.
8. Install illuminated exit signs at all exit doorways on all levels. Units shall be of the self-contained battery type.
9. Replace existing panelboard in Sheriff's space with a new 120/208V, three phase, 125 amp MLO, 42 circuit panelboard. Install three new dedicated isolated ground computer circuits upstairs and two downstairs. Provide a separate circuit for each microwave and coffee maker, with a split receptacle, at a common location.

10. Rewire any incorrectly wired receptacles and verify grounding and correct polarity of each receptacle.
11. Provide GFCI receptacles for any outlets outside, in toilet rooms, for drinking water fountains, or within 5' measured horizontally from any sinks or lavatories.
12. Continue installation of ionization detection fire alarm system on upper and lower level with manual pull stations at each of the stairway entrances on each level. Rough-in has been completed for Main Level only.
13. Building electrical service shall be converted from single phase to three phase 120/208V, 400 amp. Service entrance conductors shall be fed underground from pad mounted transformer as located by local utility with a 200 amp, 100 amp, and 125 amp fused service disconnect switches located on the outside of the building as determined by Owner. Disconnects shall feed new 200 amp Main Panel, future elevator, and Sheriff's Office 125 amp panel. Old service shall be removed.
14. All panelboards shall have a working clearance of 36" in front of and up to a height of 6'-6" maintained for NEC code compliance. Space directly above panelboard to ceiling shall be free from duct work, piping and other obstructions.
15. Romex wiring to pump in Boiler Room shall be replaced with type "SO" flexible cable or installed within flexible conduit.
16. Conduit in vaults shall be securely attached to ceiling. Means of attachment shall not be used as shelving.
17. Lights have been installed on Main Level and in Corridor on Lower Level.

General Note:

The above reference notes #1, #9 and #13 are based upon the facility being retrofitted with an ADA compliant elevator of maximum 20hp, 208v, three phase capacity. No provisions have been made at this time for additional cooling loads in the future. If any cooling is planned for as a future project it would be our suggestion that the service be increased to 600 amps with a fourth 200 amp fused disconnect to serve approximately 40 tons of cooling capacity.

Masonry Assessment, Ouray County Courthouse, Ouray, Colorado

Scope

At the request of Mr. Douglas Reinhardt, Charles Cunniffe Architects, an exterior masonry condition assessment of the Ouray County Courthouse was completed in May, 1998. Site examination and collection of brick and mortar samples were undertaken on the 3rd and 4th of May followed by laboratory studies mid-month. Particular attention was directed to the condition of mortar on the building with the expectation that future repointing may be necessary.

Masonry Construction Details

The Ouray County Courthouse was constructed in 1888 primarily of locally manufactured common brick and native stone. The brick is hand molded and contains appreciable sand to prevent shrinkage on firing. The sand and probably much of the clay used as raw material appears to be derived from decomposed quartz monzonite porphyry eroded from the "Blowout" northeast of town. A distinctive triangular "frog" has been impressed into the brick top.

Most of the brickwork on the building is four wythes thick laid in running bond with a head course every eighth course. Mortar joints are a nominal three eighths of an inch. A decorative cornice of corbelled brick and several protruding brick belt courses provide pleasing architectural details. All brickwork has been painted probably at an early date.

Dressed stone, primarily buff colored sandstone, has been used as window sills, lintels and quoins on the basement level. The sandstone is fine-grained and thoroughly cemented at least in part with silica. In all probability the stone is of local derivation, possibly Junction Creek sandstone or Dakota formation. Also present on the basement level and lower portion of the jail is a dark green-gray coarse grained quartzite probably quarried from the Hermosa formation. A later addition (vault?) utilized brick and Portland mortar.

Observations On Condition

In general the Ouray County Courthouse and jail are in very good condition. The absence of fractures and intense deterioration of materials attest to structural soundness and good workmanship. The stonework comprising the foundation and basement levels is exceptional in its durability. However, masonry materials do deteriorate with time and require periodic maintenance to avoid eventual structural damage.

A series of elevations accompanying this report have been annotated to show areas of deteriorated mortar, brick and stone, along with comments on suspected causes of deterioration and recommended solutions. A summary of these findings is as follows:

-- Most of the original mortar used in construction of the building is in good condition requiring no repair at this time. Local repointing should be considered where indicated on the he attached drawings and discussed under Recommendations.

-- The recent replacement and alteration of the courthouse roof has directed water onto the masonry in a few places and should be corrected as soon as possible to halt presently occurring deterioration. Most notable is the spout draining the bell tower which is placing water onto the brick and stone immediately above and to the right of the front entrance causing noticeable erosion of mortar and saturating the masonry. Left unchecked freeze-thaw action during the winter months will rapidly cause damage to this area including the engraved tablet immediately below the tower.

-- Past attempts to repair spalled brick faces and deteriorated mortar joints made use of very hard high Portland cement content mortar. This material should be removed where indicated because of its long term deleterious effects on the older masonry units.

-- Small horizontal fractures have developed in several of the sandstone window sills due to water infiltration and freeze thaw action. In a few instances larger crosscutting fractures were noted in the stone. Some action is suggested to repair and monitor these problems to prevent accelerated deterioration.

-- Locally stonework has been painted in an attempt to halt exfoliation of the stone face. This actually has just the opposite effect of trapping water within the stone.

-- the base of the east wall of the jail has been covered by debris and should be regraded to the alley elevation.

Testing and Mortar Analysis

Samples of mortar were collected from five locations on the courthouse. Two of the samples represent original mortar used in the brick work. One sample was original to the stonework and the other two samples represent later re-pointing.

As a general rule, mortar in a masonry structure serves the dual purpose of bonding individual masonry units together and evenly distributing the weight of the structure throughout the building walls. The mortar should be engineered to act as the sacrificial portion of the masonry allowing for movement and thus it must be softer than the brick or stone. Buildings constructed before the turn of the nineteenth century nearly always used a straight lime-sand mortar of low relative strength and durability. Later repairs often made use of Portland cement

which is much harder and practically impermeable to water and water vapor --- properties thought to be improvements, however, the introduction of hard mortar restricts movement causing deterioration of soft brick or stone. The lack of permeability may also cause deterioration.

Analysis of the original mortars present on the courthouse show that all are composed of sand and lime. Careful weighing of mortar samples before and after dissolution in hydrochloric acid suggests an original proportion of one part lime to two parts sand. Void ratios for brick mortar were calculated to be approximately one to six suggesting the original mix to be a bit rich in binder (this is not an unusual proportion historically -- providing a "fat" workable mortar conducive to laying porous brick).

Microscopic examination of dis-aggregated mortar shows angular to sub-angular grains dominated by quartz and gray-green silicates (amphibole + pyroxene), with some feldspar. the source of the sand was likely local river sand. Sieving of the brick mortar gave the following results:

Greater than 1/8 inch	-----	2 wt. %
25 mesh to 1/8 inch	-----	14 wt. %
40 mesh to 25 mesh	-----	15 wt. %
80 mesh to 40 mesh	-----	38 wt. %
less than 80 mesh	-----	31 wt. %

Three samples of common brick used in the courthouse construction were submitted for uniaxial compression testing to provide some idea of strength. The results as follows:

<u>Sample</u>	<u>Initial Failure</u>	<u>Total Load</u>
Ouray -1	4590 psi	4590 psi
Ouray - 2	1800 psi	2280 psi
Ouray - 3	3790 psi	4770 psi

(Complete results in Appendix I)

Although no samples of stone were collected or tested, relevant properties can be deduced from the rock types and condition. The buff sandstone because of finegrain and siliceous cement likely exceeds a compressive strength of 5000 psi. The quartzite undoubtedly would demonstrate strengths of 10,000+ psi, both well above the strengths of any mortar likely to be used.

Recommendations

The drawings accompanying this report show the outline of those areas requiring repointing and other masonry repair. The delicate nature of the brick dictates that special care should be taken in the removal of old mortar. Hand methods are preferable but considering the width of the mortar joints it may be possible and more cost effective to use pneumatic tools or grinders especially on the high Portland cement mortars. All joints to be repointed should be raked to at least twice their width (approximately 3/4 inch minimum). Areas of deeper deterioration will require multiple applications of mortar. Brickwork should be well wetted prior to pointing.

While the original mortar proportion of one part lime to two parts sand may be used, it is recommended that the brickwork on the cornice which is subject to rapid deterioration be pointed with the following Portland cement-lime mortar:

Type "O" mortar: Estimated compressive strength = 1000 psi

Two parts white Portland cement
Five parts Type "S" hydrated lime or lime putty
20 parts sand

The foundation stonework could be pointed with the following more weather resistant mortar:

Type "N" mortar: Estimated compressive strength = 2000 psi

Two parts white Portland cement
Three parts type "S" hydrated lime or lime putty
15 parts sand

Because the brickwork will be painted, the sand color will not be important, however a fine <25 mesh sand is recommended. The stonework pointing should utilize a coarser sand comparable to commonly available washed masonry sand or "all purpose" sand -- color gray.

Badly deteriorated bricks should either be replaced with a similar sized common brick or patched with a vapor permeable and compatible repair mortar such as Jahn M100 (Brochure attached).

Crosscutting fractures and a few of the larger horizontal fractures in the sandstone sills should be patched with a vapor permeable repair mortar (e.g. Jahn M70) to prevent water infiltration. The patches and smaller fractures should be monitored (photographed) to ascertain the rate of growth if any.

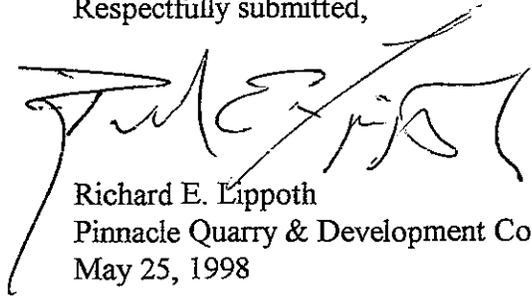
Painted stone surfaces should be stripped (gently) and colonies of lichen removed from stonework.

Immediate steps should be taken to prevent water from the roof from draining directly onto the masonry, particularly from the bell tower.

Regrade to alley elevation adjacent to rear wall of the jail.

Chimneys should have a mortar or cast concrete cap.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Richard E. Lippoth', written over the typed name and company information.

Richard E. Lippoth
Pinnacle Quarry & Development Co.
May 25, 1998



WESTERN
COLORADO
TESTING,
INC.

529 25 1/2 Road, Suite B-101
Grand Junction, Colorado 81505
(970) 241-7700 • Fax (970) 241-7783

May 20, 1998
WCT #806298

Pinnacle Quarry
P.O. Box 398
Naturita, CO 81422

Attention: Richard Lippoth

Subject: Duray Bricks Compressive Strength

As requested, three (3) standard size hand made bricks were tested for compressive strength. Prior to compression, the loading sides of the bricks were capped with a high-strength gypsum compound. The bricks were oriented in the compression machine with the approximately 4" wide sides bearing the load, as they would sit in the wall of a house. The result of the testing is as follows.

Specimen	Dimensions, Avg.				Initial Break	Total Load
	Length	Width	Height	Area, in ²		
Duray - 1	8.275	3.800	2.450	31.5	144,500	144,500
Duray - 2	8.250	4.050	2.475	33.4	60,000	76,000
Duray - 3	8.155	3.800	2.375	31.0	117,500	148,000

Pinnacle Quarry
May 20, 1998
WCT #806298
Page 2

Compressive Strength		
Specimen	Initial Break, psi	Total Load, psi
Duray-1	4590	4590
Duray - 2	1800	2280
Duray - 3	3790	4770

If there are any further questions or if additional testing needed, please feel free to contact our office.

Respectfully Submitted:
WESTERN COLORADO TESTING, INC.



Kyle Alpha
Laboratory Supervisor

KA/mh
Msb:jobs\8062\0520

jahn[®]

Masonry Restoration System

"Setting the Standard"

Cathedral Stone Products, Inc. combines Jahn Restoration Mortars, which are individually formulated for compatibility, with rigorous hands-on training for authorized installers. Our goal is to form an effective professional alliance among specifiers, contractors, owners and the manufacturer.

The Jahn Restoration System gives you the assurance of a job well done at the right price. In this type of close collaboration, everyone wins. The end result is a successful restoration which enhances the image of the specifier, the contractor, and the manufacturer. This gives the owner the assurance that the original colors, textures, and details are restored and will provide long-lasting satisfaction. This combination of the right material with trained applicators creates the most cost-effective restoration system available.

Poor choices—poor results

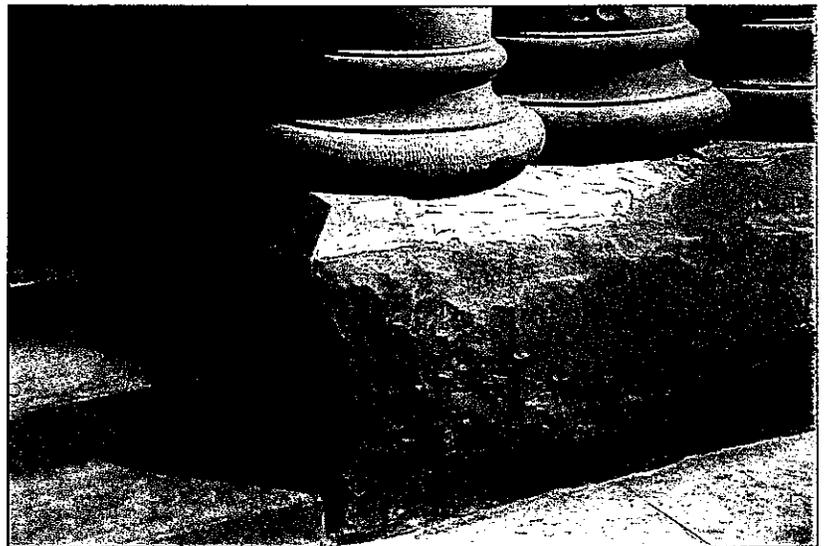
Among the problems faced by the restoration industry are poor material selection and inappropriate application methods. Choosing an inexperienced contractor or making decisions based on price alone have exacerbated the situation.

The qualifications of masonry restoration contractors vary widely. Since historic restoration is not taught as a trade, previous experience does not guarantee success. Replicating features, textures and colors of historic buildings requires a higher level of expertise than new construction. It is critical that contractors in historic restoration be thoroughly trained.

The use of inappropriate materials which are aesthetically and physically incompatible, cause premature failures. These formulations can inhibit the water vapor transmission rate which should be compatible with the substrate.



*Most failures are
caused by non-
compatibility of
materials and poor
installation practices.*



*Ornamental repairs in-situ
allow enormous cost savings
compared to traditional dutch-
men or casting replacements.*



The belief that polymers provide a bonding capability while allowing the escape of water vapor is misleading. The degree of breathability of a repair mortar when using a polymer is negligible when compared to the breathability of the host masonry. The trapping of moisture or salt behind the repair leads to premature failures. The degree of breathability is critical.

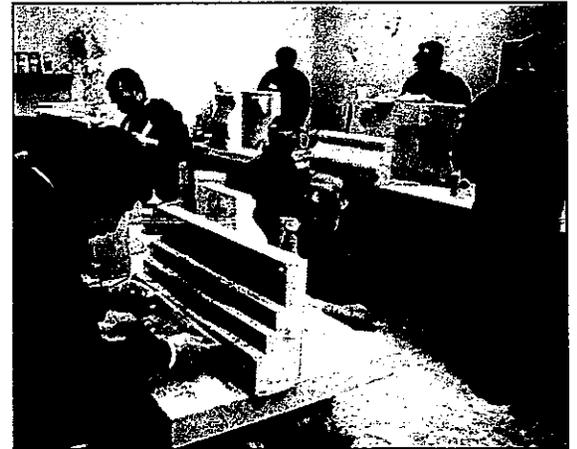
The Jahn difference

Jahn mortars overcome traditional limitations such as layering, shrinkage, freeze/thaw, and salt, to name a few. Each Jahn mortar is formulated in the laboratory to match the physical properties of the specific type of masonry being repaired. Jahn mortars provide a chemical bond without using polymer bonding agents.

Jahn mortars provide craftsmen with greater capabilities when they are trained in this advanced system. We began Jahn training workshops in 1990 and have trained over 500 installers since. Our training workshops explain how improper materials and application techniques cause failures and accelerate deterioration. Successful restorations completed over the last 18 years in the United States, Canada, and Europe using the Jahn Restoration System are also presented.

The hands-on portion of the workshop emphasizes proper preparation of masonry substrates. Each student uses stone-cutting tools to prepare the substrate. These repairs get more complicated over the three day course. Installers learn how to apply the mortars correctly and learn new techniques used in the Jahn system. In addition to patching repairs, students learn to use cementitious grouts, cast replacement pieces, and duplicate a variety of masonry textures and details.

Each student who successfully completes the workshop is issued a certificate and a laminated "Authorized Installer" card to carry on site. Specifiers are urged to participate in the training program also to learn how the Jahn Restoration System works to ensure that it is being used correctly in the field.



***By providing truly compatible
restoration mortars and using
trained installers, the Jahn
Restoration System ensures a
high-quality, cost-effective
restoration without deterioration
of the existing masonry.***

jahn

Injection Grouts

Jahn injection grouts are intended for crack sealing and void filling in the stabilization of any masonry material.

One-component. Easy to mix correctly, which improves quality control at the point of injection.

Completely breathable. Protects the surrounding masonry by assisting water soluble salts and other damaging minerals to rapidly escape to the surface.

Tenacious chemical adhesion. Permanent rehabilitative qualities.

Cement-based. No thermal shock as with synthetic materials.

Low viscosity. Deep, thorough penetration.

Simple application. Can be manually or mechanically applied—no expensive high-tech equipment needed.

Water-based. Environmentally and user safe. No solvent cleanup or disposal problems.

Micro Injection Adhesive

Jahn M30

A one-component cementitious injection adhesive to be used in the stabilization and/or rehabilitation of cracked **masonry**. Despite the material's low water/cement ratio, Jahn M30 yields a very low mixed viscosity with superior penetration and bond strength. To enhance penetration and bonding, a small amount of synthetic material is included. M30 is capable of being applied via gravity feed or pressure injection into cracks ranging from hairline to 3/16" in diameter. The product may be utilized in both non-structural simple void applications, and structural load bearing situations.

Crack Injection Grout

Jahn M40

A one-component cementitious injection grout used in the stabilization and/or rehabilitation of cracked **masonry**. Completely mineral-based for compatibility with masonry substrates, Jahn M40 is a rapid breathing system formulated for low pressure mechanical or gravity feed applications. Excellent for non-structural applications to repair voids ranging from 3/16" to 1" in diameter.

Void Injection Grout

Jahn M50

A one-component cementitious injection grout used in the stabilization and/or rehabilitation of cracked **masonry**. Completely mineral-based for compatibility with concrete and masonry substrates, Jahn M50 is a rapid-breathing system formulated for low-pressure gravity feed applications. Excellent light-weight grout for non-structural applications to repair voids of 0.25 cubic feet or greater.



Restoration Mortars

Jahn restoration mortars are intended for the repair of architectural masonry including brick, bluestone, cast stone, concrete, granite, limestone, marble, plaster, sandstone, slate and terra cotta.

One-component. Easy to mix correctly, which improves quality control and consistency of application.

Completely breathable. Protects the surrounding substrate by assisting water soluble salts and other damaging minerals to rapidly escape to the surface.

Contains no synthetic polymers. 100% compatible with existing substrates.

Tenacious chemical adhesion. Strong bonding capability without relying on separate synthetic bonding agents.

Factory-controlled. No field chemistry resulting in product variation.

Custom-colored upon request. Eliminates unsightly patched appearance.



Stucco

Jahn M60

A one-coat cementitious plaster engineered for use on new or existing masonry substrates. Jahn M60 may be applied as a ground coat or finished system in thicknesses ranging from 1/4" to 3/4" with greater depth achievable. The one-coat system reduces application time by eliminating the traditional three-formulation system (scratch, brown, finish). It is available in both interior and exterior formulations with factory custom coloring achievable. M60 exhibits an excellent chemical bond to prepared substrates in a rapid-breathing system. M60 performs in situations where previous methods and materials have failed due to repeated water and salt saturation. M60 is water-based, thus environmentally and user safe with no solvent cleanup or disposal problems.

As the decorative plaster finish on the Midland County Courthouse deteriorated, the trees and figures in this once-colorful mural lost their identity.

After extensive research, Jahn stucco was chosen for the restoration of Midland County Courthouse. East Lansing, Michigan.

jahn





Concrete Repair Mortar

Jahn M90

A one-component cementitious mineral-based repair mortar for the restoration and repair of **structural concrete** members. Specific formulations for horizontal applications (M90 HG) and vertical applications (M90 VG) achieve a superior chemical bond to concrete substrates while remaining completely vapor permeable. M90 provides a healthy pH factor and strong resistance to carbonation. This mortar functions not as a barrier but as a natural system designed to provide an environment that does not allow corrosion to begin. The cement-based product contains no synthetic polymers nor does it require the application of a bonding agent to achieve adhesion. This mortar provides a single layer buildup for faster application and reduced installation costs. Engineered for complete compatibility with concrete substrates, M90 provides a durable, permanent repair able to withstand severe environmental conditions.

Terra Cotta Repair Mortar

Jahn M100

A one component, cementitious, non-sag, mineral-based mortar for the restoration of **terra cotta and brick** surfaces. M100 is completely vapor permeable, and contains no synthetic bonding agents or additives. The product can be mixed manually in small quantities. Specifically engineered for compatibility with oven-fired materials, M100 may be custom colored to provide a permanent repair which both enhances and protects the original substrate. (Only authorized installers may purchase the Jahn M100 terra cotta repair mortar.)

Limestone/Sandstone Repair Mortar

Jahn M70

A one-component, cementitious, non-sag, mineral-based mortar for repair and reconstruction of natural stone surfaces such as **limestone, brownstone**, and select **precast concrete**. Completely vapor permeable at any depth and containing no synthetic polymers or additives, M70 has been engineered to rebuild deteriorations ranging from the most basic of spalls to ornate shaping and carving. M70 is available in a variety of compatible, lab-engineered formulations to match the physical properties of the substrate being repaired. Choose from many standard and custom colors at manufacture. M70 provides a permanent, compatible solution which repairs and protects the beauty of natural stone. (Only authorized installers may purchase Jahn M70 repair mortar.)

Anchor-Setting Mortar

Jahn M80

A one-component cementitious non-shrink mortar for anchoring in **masonry** substrates. M80 is easily mixed by hand; requiring only the addition of clean water. Due to its excellent physical characteristics, M80 is suitable for both non-structural and structural applications. The water-based material maintains a high pH to protect anchors from rust. Excellent for pinning or anchoring of bolts and structural steel, this high-strength material contains no synthetic agents, is vapor permeable and resistant to the effects of freeze-thaw cycling.

Before: a variety of incompatible repairs and joint details on brownstone.

After: original brownstone joint design and stone tooling is brought back to life with Jahn patching mortar installed by authorized installers.

Jahn

Historic Pointing Mortar

Jahn M110

A one-component, cementitious, mineral-based, pointing mortar specifically formulated for the restoration of **mortar joints**. M110 contains no synthetic bonding agents or foreign additives and is compatible with historic masonry. Each pointing mortar formula is designed to have a lower compressive strength than the surrounding masonry. The material is completely vapor permeable and may be custom colored at manufacture.

Marble Repair Mortar

Jahn M120

A one-component, cementitious, mineral-based mortar for the restoration of **marble** substrates including sculpture repair. Jahn M120 is completely vapor permeable, containing no synthetic polymer additives. Formulated for complete compatibility, the material may be custom color matched at manufacture, and textured upon application to blend with the original substrate. M120 offers a permanent solution which both repairs and restores the beauty of marble. (Only authorized installers may purchase the Jahn M120 marble repair mortar.)

Casting Mortar

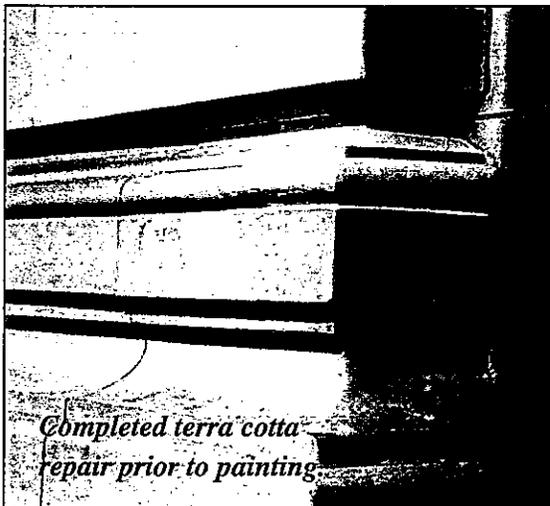
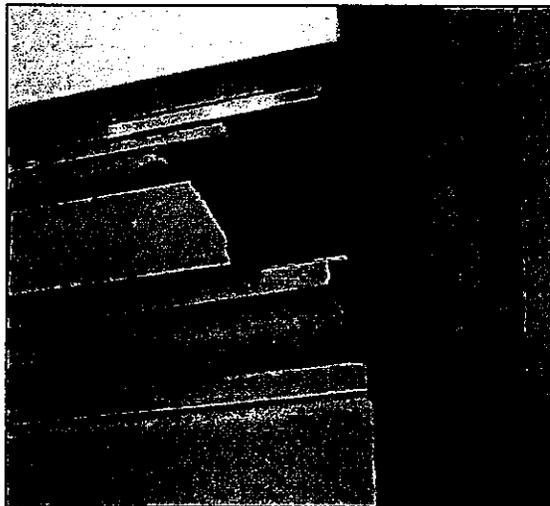
Jahn M150

A one-component, non-shrink, cementitious, casting mortar for use in situations where normal repair methods are not economical or feasible. This dry-pack mortar provides fine replication of detail and true masonry texture. M150 is formulated to replicate the appearance of natural **stone** or **architectural concrete** and provides limitless design possibilities. Completely mineral based, the mortar is free of any synthetic compounds, and may be custom colored.

Granite/Bluestone Repair Mortar

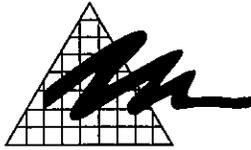
Jahn M160

A one-component, cementitious, non-sag, mineral-based mortar for the restoration of natural **granite, bluestone, and other hardstone** surfaces. Completely vapor permeable and containing no synthetic polymers or additives, M160 has been specifically engineered to replicate both the appearance and physical properties of dense substrates. The material is available in two ready-mix formulations; standard light-gray granite and bluestone, or may be custom colored at manufacture to replicate existing substrate coloring. Jahn M160 provides a compatible, permanent repair for the rehabilitation of deteriorated hardstone substrates. (Only authorized installers may purchase the Jahn M160 granite/bluestone repair mortar.)



The Jahn terra cotta patching mortar allows the option of non-structural repairs in-situ, without unit replacement. It eliminates the need for extensive removal and setting and replacement, thus allowing repairs at a substantial cost savings.

Jahn



DAVID L. ADAMS ASSOCIATES, INC.

Consultants in Acoustics and Performing Arts Technologies

May 27, 1998

Mr. Douglas Reinhardt
Charles Cuniffe Architects
Post Office Box 2863
Telluride, Colorado 81435-2863

RE: Ouray County Courthouse (DLAA Project No. 5649)

Dear Doug:

We have completed our acoustical analysis for the Ouray County Courthouse. Information on recommended products is enclosed.

Design Goal

Since the sound source in the courtroom is primarily speech, the reverberation time should be short enough to control the build-up of sound energy and promote speech intelligibility. Reverberation time is an acoustic means to measure the sound decay rate of a room. Given the room's volume of approximately 35,000 cubic feet, a reasonable reverberation time design goal should be at or below 0.9 second for mid-frequency sound (500 and 1000 Hz).

Analysis and Recommendations

We conducted reverberation time measurements at the site on May 20, 1998. Our subjective assessment of the room was that it sounded boomy, with excessive low and mid-frequency reverberation. Speech was difficult to understand even at short distances. The space did not seem to support any flutter echoes.

The test results concur with the subjective assessment. The reverberation time was in excess of 1.5 seconds for mid-frequency sound as shown in graph of Figure No. 1. Human speech occurs primarily in the octave bands centered between 250 and 4000 Hertz (Hz). Other noises that occur in the room that have low-frequency content are footfall on the wood floors, opening and closing of the retractable seating, and opening and closing of doors.

1701 BOULDER STREET
DENVER, COLORADO 80211
303/455-1900 FAX 303/455-9187

Mr. Douglas Reinhardt
May 27, 1998
Page 2

Maintaining the room's historic appearance precludes many options for acoustical treatments. Typically large rectangular rooms such as this will support flutter echoes due to sound reflecting back and forth across the room. This flutter echo effect usually requires treating a portion of the walls. Treating enough wall area necessary for controlling the reverberation time is limited since most of the walls are comprised of windows, and pine wainscoting. The detailed woodwork and pilasters help to diffuse sound thus alleviating the flutter echo effect. Therefore, treating other room surfaces can be explored.

The best area to treat appears to be the upper coffers since it comprises a large area that is evenly distributed around the room. Our acoustical analysis investigated using a 3 to 5 pound per cubic foot (pcf), semi-rigid fiberglass board. Prefabricated acoustical panels can be used in the ceiling application, however the installation would required seams since the width of the panels is dictated by the width of fabrics available. Most fabric limit the width of the panel to 4 feet. A sound absorptive system called *Eurospan*, provided and installed by *Wall Technology*, would allow a custom installation with no seams. The system was designed to mimic a smooth monolithic surface such as plaster. It has been used in many historic architectural applications. The system requires a framework mounted to the ceiling. Semi-rigid fiberglass panels fit within the framework and are mounted to the ceiling structure. The *Eurospan* fabric, with widths up to 16 feet, is stretched taut across the fiberglass and secured to the frame. Edges may be finished with crown molding if desired. See the detail in Figure No. 2 for the areas to be treated. According to Wall Technology, the average installed price for the *Eurospan* system would be between \$12 and \$15 per square foot.

We evaluated varying thicknesses of the fiberglass with respect to its effect on the reverberation time. In order to control the low frequency sound, we recommend using a 3-inch thick fiberglass board in the ceiling coffers. The effects of the various thicknesses of fiberglass are illustrated in the graph of Figure No. 3. The amount of treatment is approximately 830 square feet.

Carpeting the entire room is another consideration. Although the ceiling treatment alone provides enough sound absorption to meet within the design goal, the installation of carpet in the general seating area would soften the impact from footfall. The additional carpet would also effect the reverberation time as shown in the graph of Figure No. 4. A thin pile, commercial grade carpet is acceptable. Carpeting the entire room will not, on its own, control the reverberation time to meet the design goal.

We noticed that a sound system was installed in the room but was no longer used. Adding a sound system in a reverberant space such as this can compound the problem. Once the room acoustics are addressed, a sound system can be better utilized. The acoustical renovation of the room will effectively reduce the reverberation allowing the successful use of voice reinforcement. Lowering the amount of reverberation will provide increased speech intelligibility from a sound system.

Mr. Douglas Reinhardt
May 27, 1998
Page 3

The existing loudspeaker columns are providing a wide dispersion of sound which covers the seating area but also the walls of the space resulting in multiple reflections. The loudspeakers also have overlapping coverage which causes frequency cancellations due to varying sound time arrivals. We recommend the consideration of a distributed overhead loudspeaker system which can be visually concealed in the proposed ceiling treatment. There would be approximately eight loudspeakers, one in each ceiling coffer (except no loudspeaker over the judge's bench). The loudspeakers would be connected to a 120W, 70-volt output mixer/amplifier with three microphone inputs, two line-level inputs for playback from a tape deck or CD player, and one line-level output for recording. The new sound system would provide one new microphone, but the system would have capability of supporting three microphones. We estimate the installed cost of the sound system to be approximately \$3,000 if done during the ceiling renovation. This does not include costs associated with special constructions related to the historical nature of the building (i.e., routing of loudspeaker wiring).

Please call if you have any questions.

Sincerely,

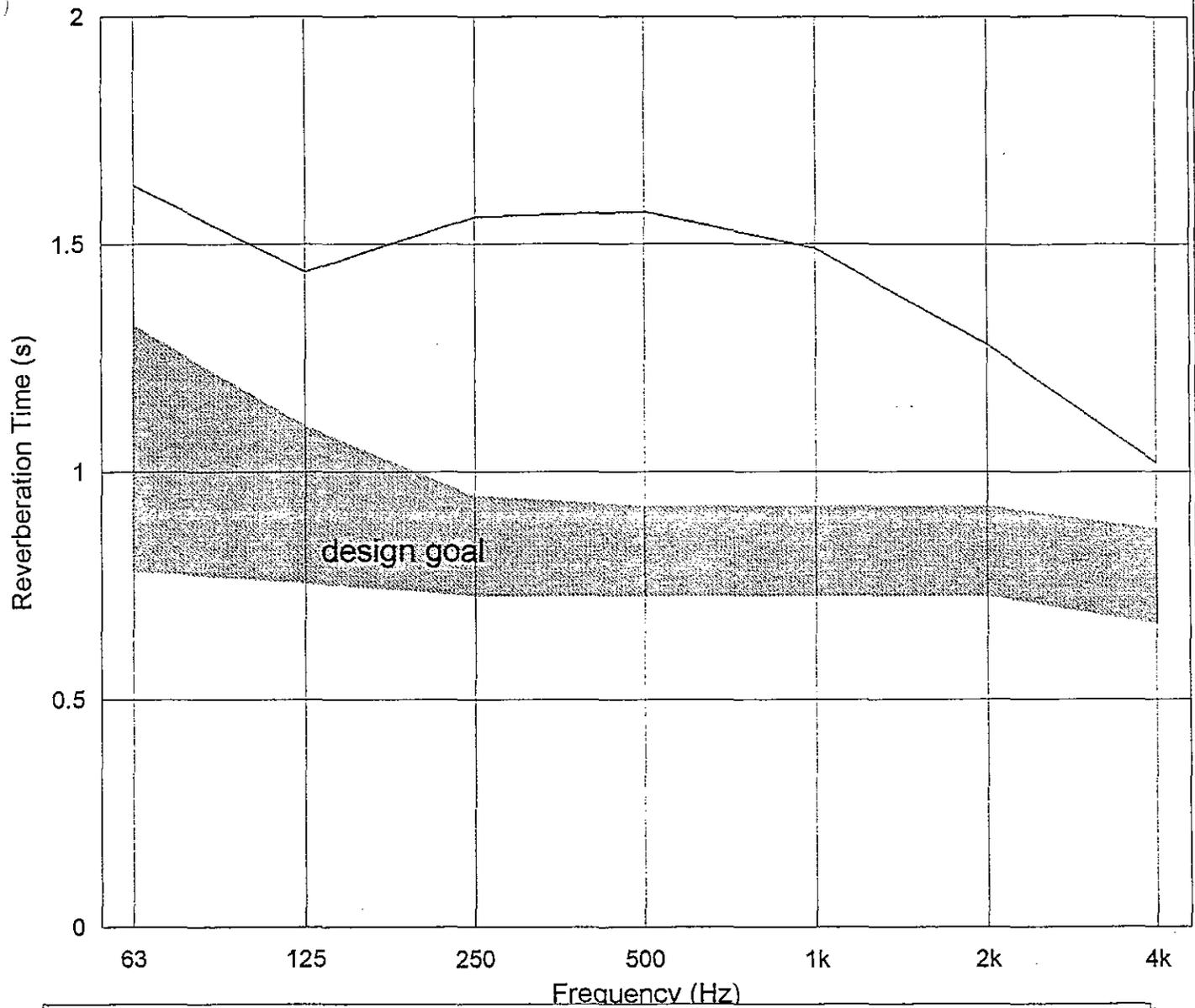


Mick Barnhardt

MBB/rlm

Enc.

Reverberation Time



- Existing

Test Results & Design Goal

Ouray County Courthouse

scale: none

Date:
5-25-98

Project No.
5649

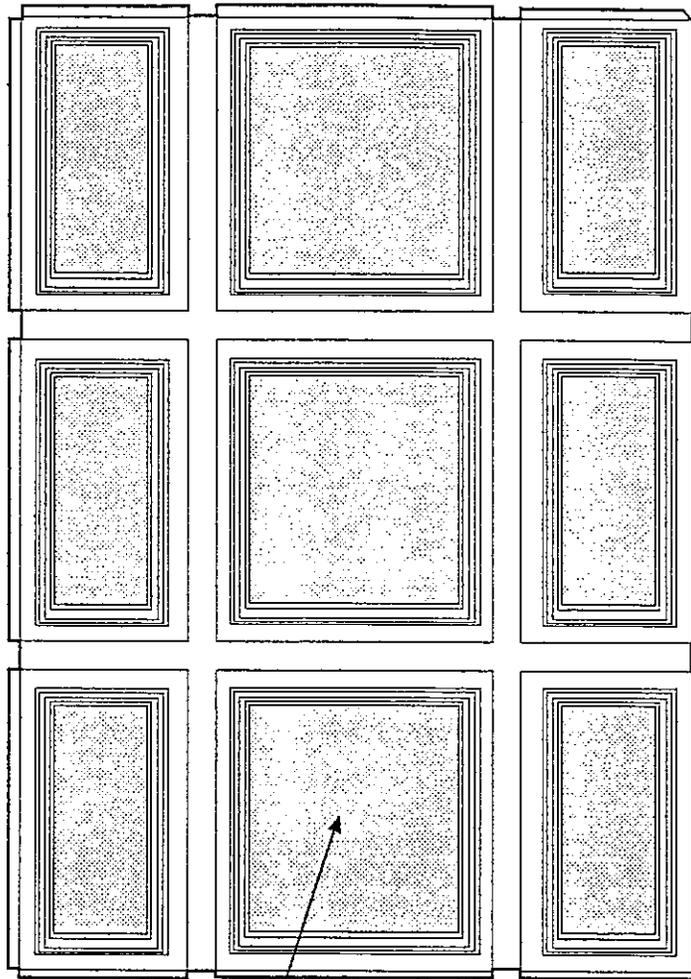
Drawn by
MBB

Figure No.

1



DAVID L. ADAMS ASSOCIATES, INC.
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Denver, Colorado 80211
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Shaded area: 3" thick acoustical treatment

Courtroom Reflected Ceiling

Ouray County Courthouse

scale: 3/32" = 1' - 0"

Date:
5-25-98

Project No.
5649

Drawn by
MBB

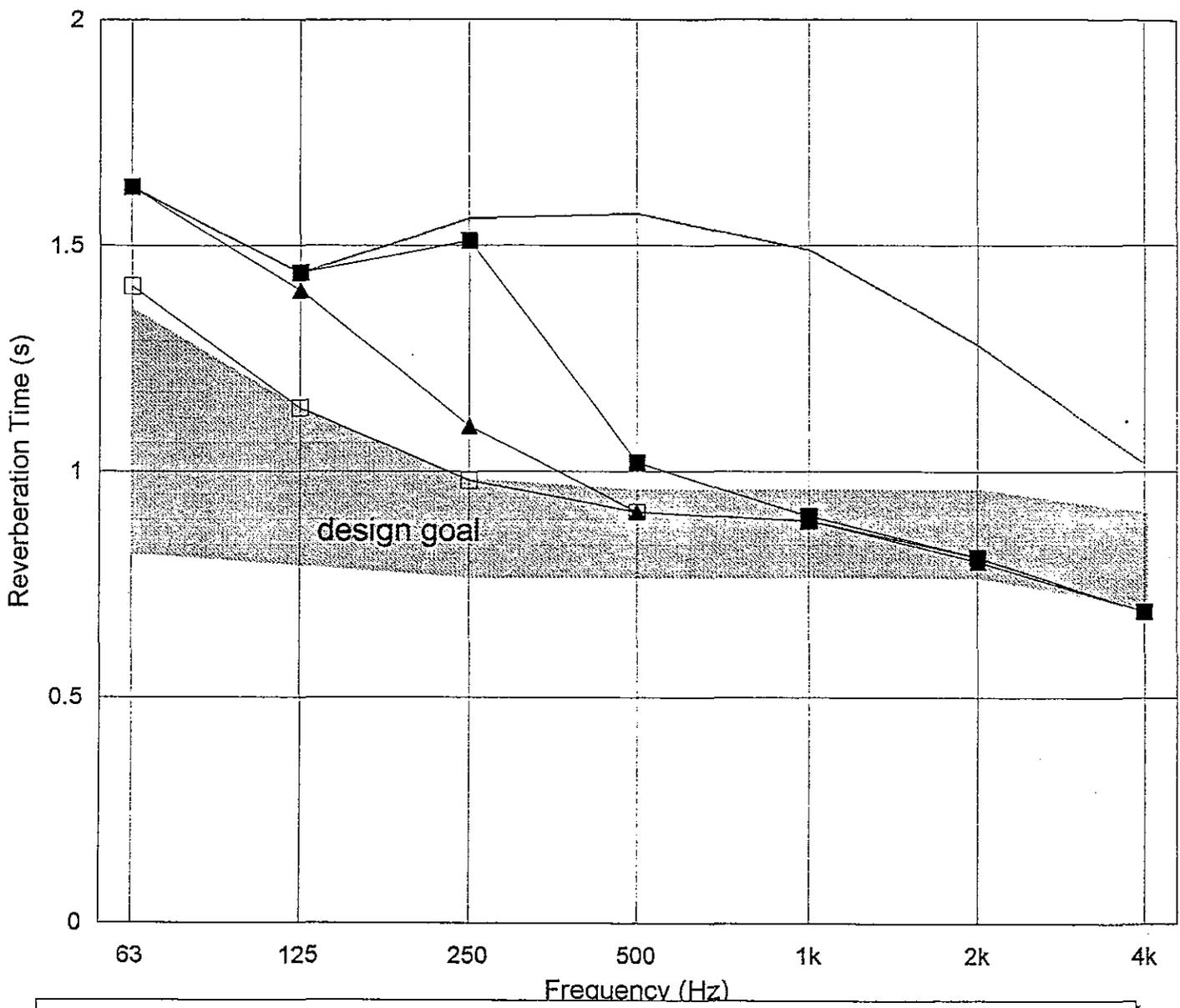
Figure No.

2



DAVID L. ADAMS ASSOCIATES, INC.
1701 Boulder Street
Denver, Colorado 80211
303/455-1900 FAX 303/455-9187

Reverberation Time



- Existing ■ 1" fbrgls/ coffers ▲ 2" fbrgls/ coffers □ 3" fbrgls coffers

T60: Ceiling Treatment

Ouray County Courthouse

scale: none

Date:
5-25-98

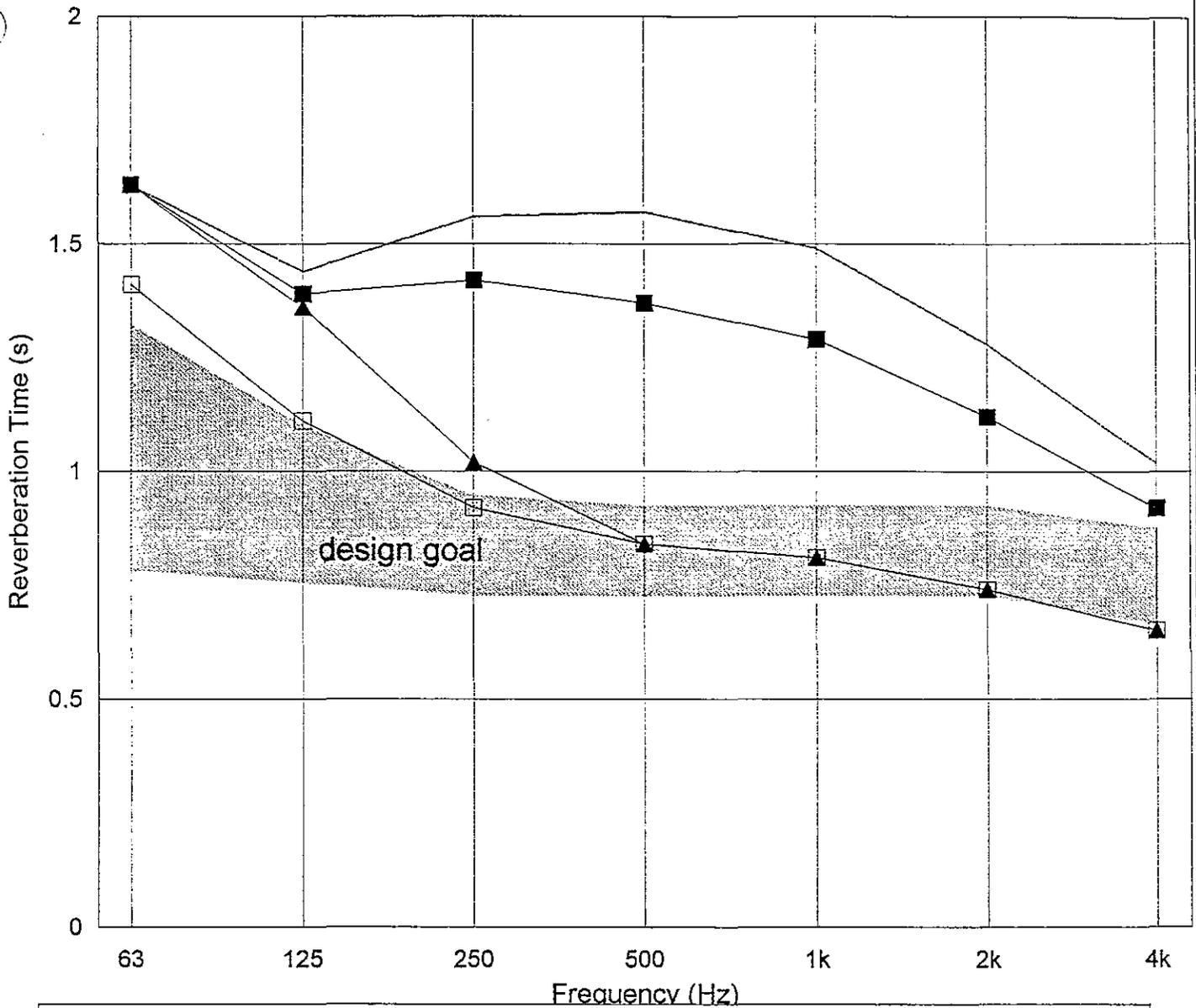
Project No.
5649

Drawn by
MBB

Figure No.
3

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Reverberation Time



- Existing
- Adding carpet throughout
- ▲ carpet + 2" fbrgls clg
- carpet + 3" fbrgls clg

T60: Carpet & Ceiling Treatment

Ouray County Courthouse

scale: none

Date:
5-25-98

Project No.
5649

Drawn by
MBB

Figure No.

4



DAVID L. ADAMS ASSOCIATES, INC.
1701 Boulder Street
Denver, Colorado 80211
303/455-1900 FAX 303/455-9187



8" COAXIAL LOUDSPEAKER AVAILABLE WITH TRANSFORMER

C803A
Series



C803A
(shown with transformer)

SPECIFICATIONS

Speaker Size:	LF: 8" (203mm), HF: 3" (76mm)
Power Rating:	16 Watts RMS
Sensitivity (SPL at 1W/1M):	98 dB (peak), 95 dB (avg)
Impedance:	Nominal, 8 ohms
Frequency Response:	70 Hz - 15.5 kHz (± 5 dB)
Crossover Frequency:	2,800 Hz, First Order
Dispersion:	120°
Mounting Dimensions:	7 $\frac{5}{8}$ " (194mm) B.C.
Cone Material:	Treated Paper
Surround Material & Damping:	Self Edge with Dampener
Flux Density:	10,600 Gauss, 1.06 Tesla
Magnet Weight:	Nominal, 10 oz. (260g)
Basket Material:	20 ga. Stamped Steel
Voice Coil Diameter:	1" (25mm)
Voice Coil Material:	Copper
Voice Coil Former Material:	Black Anodized Aluminum
Voice Coil Winding Width:	.265 (7mm)
Top Plate Thickness:	.239 (6mm)
Weight:	2.4 lbs. (1060g)
Diameter & Depth Less Xfmr:	8 $\frac{1}{8}$ " (206mm) Dia. & 2 $\frac{7}{8}$ " (73mm) Deep

THIELE-SMALL PARAMETERS

Pe: 16 Watts	Qes: .556	Sd: 33.1 in. ³
Fs: 105 Hz	Qms: 6.58	Le@1kHz: .74 mH
Xmax: .05 in.	BL: 8.9 N/A	Mms: .369 oz
Resistance: 6.4 ohms	Efficiency: 2.9%	Cms: .039 in./lb.
Qts: .513	Vas: .507 Ft. ³	

FEATURES

- Industry Standard 8" (203mm) Coaxial, 16-Watt, Loudspeaker
- Offers Proven Performance with Wide Frequency Response
- Post-Mounted Tweeter Adds Strength and a More Attractive Appearance
- Ideal for Multi-Purpose Commercial, Industrial, and Institutional Use

APPLICATIONS

Use Atlas/Soundolier 8" (203mm) dia., multi-purpose, coaxial loudspeaker Model C803A for voice transmission, music, and signal reproduction in high-quality commercial, industrial, and institutional applications.

GENERAL DESCRIPTION

Model C803A. High-quality, 16-watt Model C803A utilizes a post-mounted tweeter which adds strength to the assembly and provides an attractive appearance. This coaxial loudspeaker features a 70 Hz-15.5 kHz, ± 5 dB frequency response and a broad, uniform dispersion pattern of 120°. Such provisions allow for highly intelligible sound reproduction and better distribution for high-quality sound systems. The C803A combines a full-size 8" (203mm) dia. low-frequency reproducer and a 3" (76mm) high-frequency reproducer. The two sections are coupled via a built-in crossover network. The woofer has a 10 oz. (260g) ceramic magnet; the tweeter has a 2.35 oz. (67g) ceramic magnet, and the unit has a peak sensitivity of 98 dB (at 1 watt, 1 meter).

The loudspeaker is available with eight different factory-installed line-matching transformers to meet a variety of project requirements (see chart below). Model C803A mounts a wide variety of Atlas/Soundolier baffles and enclosures, with the optimum sealed enclosure size being .36 cu. ft.

MODEL COMBINATIONS / TRANSFORMER SPECIFICATIONS								
SPKR. / XFMR. COMBINATIONS AVAILABLE	XFMR.	PRIMARY VOLTAGE	XFMR. FREQUENCY RESPONSE	PRIMARY TAPS (WATTS)	SECONDARY IMPEDANCE	INSERTION LOSS (MAX)	CORE SIZE	POWER RATING
C803A-T25	LT-25	25 V	100 Hz - 10 kHz, ± 1.5 dB	.5, 1, 2, & 5	8 Ohms	1.5 dB	1/2" x 3/8" (16 x 16mm)	5 Watts
C803A-T42	HT-42	25 V	60 Hz - 12 kHz, ± 1.0 dB	.5, 1, 2, & 4	8 Ohms	1.0 dB	5/8" x 5/8" (16 x 16mm)	4 Watts
C803A-T47	HT-47	70.7 V	60 Hz - 12 kHz, ± 1.0 dB	.5, 1, 2, & 4	8 Ohms	1.0 dB	5/8" x 5/8" (16 x 16mm)	4 Watts
C803A-T70	LT-70	70.7 V	100 Hz - 10 kHz, ± 1.5 dB	.5, 1, 2, & 5	8 Ohms	1.5 dB	1/2" x 5/8" (16 x 16mm)	5 Watts
C803A-T72	LT-72	25/70 V	100 Hz - 10 kHz, ± 1.5 dB	.5, 1, 2, & 4	8 Ohms	1.5 dB	1/2" x 5/8" (16 x 16mm)	4 Watts
C803A-T82	HT-82	25 V	50 Hz - 15 kHz, ± 1.0 dB	1, 2, 4, 8	4 & 8 Ohms	0.6 dB	1" x 3/4" (25 x 19 mm)	8 Watts
C803A-T87	HT-87	70.7 V	50 Hz - 15 kHz, ± 1.0 dB	1, 2, 4, 8	4 & 8 Ohms	0.6 dB	1" x 3/4" (25 x 19mm)	8 Watts
C803A-T810	HT810	100V	50 Hz - 15 kHz, ± 1.0 dB	1, 2, 4, & 8	4 & 8 Ohms	0.6 dB	1" x 3/4" (25 x 19mm)	8 Watts

For additional information on Atlas/Soundolier transformer models, refer to technical literature #SL1-1369.



ATLAS / SOUNDOLIER

ATAPCO SECURITY & COMMUNICATIONS GROUP

1859 INTERTECH DRIVE / FENTON, MISSOURI 63026 U.S.A. / TELEPHONE: (314) 349-3110 / FAX: (314) 349-1251

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Printed in U.S.A.

01097

SL1-1037

Specifications are subject to change without notice

One

61

System Components

- The Eurospan tensioning track
- Special glass fiber acoustical board
- Highly engineered Eurospan textile

Eurospan Textile

The Eurospan textile is made from 100% Trevira CS fibers, which are permanently flame resistant and impervious to moisture and humidity. The locking knit-weave manufacturing technique assures stability and strength when stretched into place. Eurospan comes in a pleasing white color that is difficult to tell apart from white plaster or drywall.

Sizes

Widths up to 16 feet wide by lengths of 40 feet or more are readily available. When joints are needed or desired the Eurospan system can provide either a fine-line or a reveal joint detail.

Installation

The Eurospan system is a completely site built system. There is no shop fabrication or extensive gathering of field dimensions necessary.

Flammability

All components of the Eurospan system meet or exceed fire hazard classification 25/50 per ASTM E-84. The Eurospan textile has a *flame spread* rating of 6 and a *smoke developed* of 16.

Light Reflectance

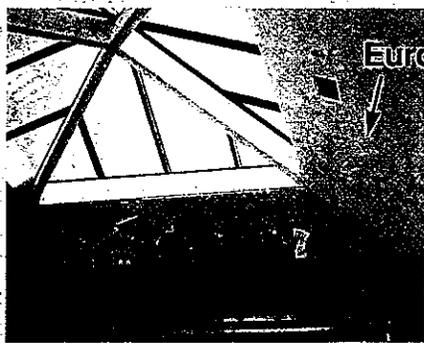
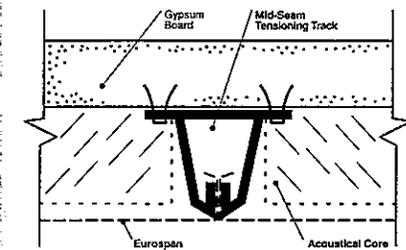
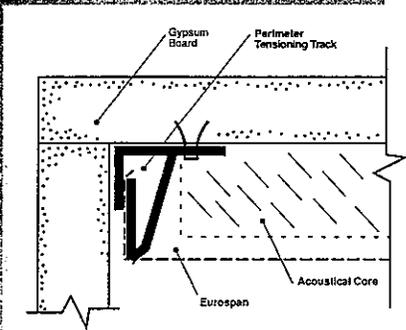
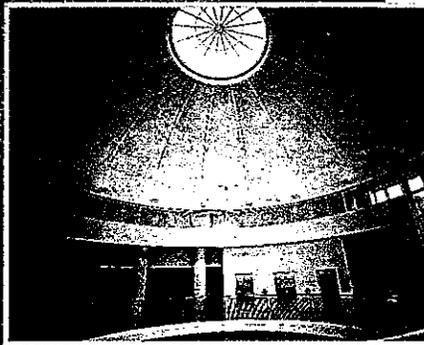
Eurospan's standard white finish has an average light reflectance range of .75 to .80.

Warranty

The Eurospan Ceiling system is warranted not to sag or wrinkle due to heat, humidity or aging, for a period of 10 years after final acceptance of work.

Maintenance

The Trevira CS fiber used to make Eurospan allows the use of both water-based and solvent-based cleaning agents for spot removal. In certain cases Eurospan may be field "painted" with a special colorant without diminishing the acoustical performance.



Acoustical Performance

System Thickness	Core	Mounting	Frequency/Absorption						NRC
			125	250	500	1000	2000	4000	
1 3/8"	1" glass fiber board	A (direct to drywall)	.07	.32	.76	.99	1.05	1.06	.80
1 3/8"	1" glass fiber board	E-400 (with air space)	.79	1.06	.81	1.04	1.08	1.10	1.00

Features and Uses

- Perfect for ceiling coffer areas
- Cost competitive with other custom acoustical panels and systems
- Great for renovation or new construction
- A good option for domes and barrel vaults
- Ideal for large floating clouds
- Provides quick and clean installation



Wall
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Environmental Scientists and Engineers, Inc.

May 18, 1998

Douglas Reinhardt
Senior Project Manager
Charles Cunniffe Architects
220 E. Colorado avenue
Telluride CO 81435

Subject: Paint and Plaster Sampling
Ouray County Courthouse
WALSH Project No. 3688-010

Dear Mr. Reinhardt:

Walsh Environmental Scientists and Engineers, Inc. (WALSH) has completed environmental services at the above-referenced property. These services were requested by you and were designed to identify potential environmental concerns during remodeling activities at the courthouse. Following is a summary and recommendations based on a walkthrough conducted on May 6, 1998:

Lead Paint Inspection

The courthouse has a red-painted brick exterior that is slated to have mortar joints re-pointed, and numerous white-painted windows that will be rebuilt. This will disturb existing paint. Three samples of the red exterior paint and one sample of the white window sash paint were obtained from various locations on the exterior and analyzed for lead content. The red paint on the bricks contains between about 0.04 and 0.14 % lead and the white window sash paint contains 8.6% lead. The red paint is therefore defined as lead-containing paint (less than 1% lead), and the white paint is lead-based paint (contains more than 1% lead). OSHA regulates the removal of all paint with detectable lead, while the EPA, HUD, and OSHA regulate lead-based paint (containing more than 1% lead). Laboratory data are attached.

Asbestos Inspection

A section of interior plaster wall will be removed during remodeling. This wall section, about four by ten feet, will be demolished to build an electrical panel. One sample of the plaster was obtained from this area and analyzed for asbestos content. No asbestos was detected in the sample. Laboratory data are attached.

Western Slope Division:

255 Main Street, Grand Junction, Colorado . 81501 . Phone (970) 241-4636 . FAX (970) 241-4312

Corporate Office:

4888 Pearl East Circle . Suite 108 . Boulder, Colorado . 80301-2475 . Phone (303) 443-3282 . FAX (303) 443-0367

Underground Storage Tank

There is an underground storage tank of unknown age and size near the southeast corner of the building. This tank is used to hold heating fuel oil for the courthouse. Colorado regulations do not govern underground storage tanks used to store heating oil for consumption on the premises. The exemption for heating oil tanks for product use on the premises is found in Colorado Revised Statutes CRS 8-20.5-101 (17b). However, Colorado and federal regulations regulate releases from such installations. The age, tightness, and quality of the tank is not known. Therefore, a release from the tank system is possible, and its effects on soil and ground water are not known at this time.

Recommendations

1. Since the red paint on the building contains lead and will be disturbed during renovation, WALSH recommends that a lead management plan be prepared for activities that will abrade, chip, or sandblast the paint.
2. No asbestos was present in the plaster sample. Therefore no asbestos regulations pertain to the removal of the plaster section near the electrical panel.
3. WALSH recommends that the County assess the quality of the underground fuel storage tank. This may include removing the tank, performing a tank tightness test, or installing release detection systems. Although such assessment or upgrades are not required by current regulations, a release from the tank would be regulated and may warrant remediation.

If you have any questions concerning this matter, please contact me at (970) 241-4636. Thank you for selecting WALSH.

Sincerely,


Edward M. Baltzer, CPG 8861
District Manager

Reviewed by:


Daniel M. Benecke
Certified Asbestos Inspector

Attachments: Laboratory Data
Chain-of-Custody



RESERVOIRS ENVIRONMENTAL SERVICES, INC.

ELLAP Accredited Laboratory

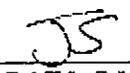
AIHA Certificate of Accreditation #480 LAB ID 10768

TABLE I. LEAD-BASED PAINT ANALYSIS

RES Job Number: **RES 51682-2**
Client: **Walsh Environmental Scientists & Engineers**
Client Project: **368-010, Ouray Courthouse**
Date Samples Received: **May 11, 1998**
Analysis Type: **Lead by SW-846 3050A / Flame AA(7420)**
Turnaround: **3-5 Day**

Client ID Number	Lab ID Number	Detection Limit (%)	LEAD CONCENTRATION (%)
Red-11	EM 344813	0.009	0.138
Red-12	EM 344814	0.009	0.035
Wh-21	EM 344815	0.007	8.613

BDL = Below Detection Limit


DATA QA

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

ELLAP Accredited Laboratory

AIHA Certificate of Accreditation #480 LAB ID 10768

TABLE II. IRON-BASED PAINT ANALYSIS

RES Job Number: RES 51682-3
 Client: Walsh Environmental Scientists & Engineers
 Client Project: 3688-010, Ouray Courthouse
 Date Samples Received: May 11, 1998
 Analysis Type: Iron by SW-846 3050A / Flame AA(7380)
 Turnaround: 3-5 Day

Client ID Number	Lab ID Number	Detection Limit (%)	IRON CONCENTRATION (%)
Red-13	EM 344817	0.010	1.673

BDL = Below Detection Limit

RK
 DATA QA



LAB NO. 101896

ASBESTOS - TEM, PCM, PLM, SEM
METALS - AA. FLAME/FURNACE
AIRBORNE PARTICULATES
SPECIAL PARTICLE ANALYSIS

HA LAB I.D. 10768

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

1827 GRANT STREET

DENVER, COLORADO 80203

(800) 678-7374

(303) 830-1986

FAX (303) 863-9196

May 14, 1998

Mr. Ed Baltzer
Walsh Environmental Scientists & Engineers
255 Main Street
Grand Junction, CO 81501

RE: RES Job No. 51682-1 - 3688-010, Ouray Courthouse - Bulk
Sample: ASB-01.

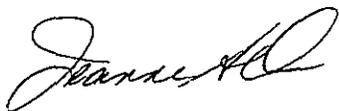
Dear Mr. Baltzer:

Reservoirs Environmental Services, Inc. (RES, Inc.) has analyzed one bulk material sample by Polarized Light Microscopy (PLM) for asbestos content as per your request. The sample was received on May 11, 1998, and initial results were telephoned to your office within five days of receipt. PLM was used to analyze the bulk materials in compliance with guidelines established by the USEPA (EPA/600/R-93/116). The Analytical Results are presented in Table I.

RES, Inc. has assigned job number RES 51682-1 to this study. This report is considered highly confidential and the sole property of Walsh Environmental Scientists & Engineers. RES, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. Samples will be disposed of after sixty days unless longer storage is requested. The US EPA guideline was developed for use on friable building materials and recommends the use of additional analyses for non-friable materials such as floor tiles. RES, Inc. recommends additional analyses to confirm negative PLM results on floor tiles. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government.

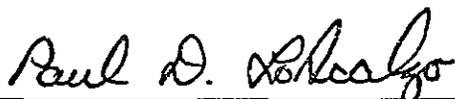
If you should have any questions about this report, please feel free to call me at 830-1986.

Sincerely,



Jeanne Spencer Orr
Vice President

RKD/pda



Analyst(s):

Paul D. Lo Scalzo

Greg Behnfeldt

Paul F. Knappe

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

NVLAP Accredited Laboratory #1896

TABLE I. PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: RES 51682-1
 Client: Walsh Environmental Scientists & Engineers
 Client Project: 3688-010, Ouray Courthouse
 Date Samples Received: May 11, 1998
 Analysis Type: PLM Short Report, Bulk
 Turnaround: 3-5 Day

Note: The US EPA requires use of stratified analysis for NESHAP and AHERA compliance. Composite results only apply for specific exceptions.

Client Sample Number	Lab ID Number	Layer	Physical Description	Portion of Total Sample (%)	ASBESTOS CONTENT		Non-Asbestos Fibrous Components (%)						Non-Fibrous Components (%)		
					BY LAYER		C	G	S	H	W	T		O	
					Mineral	Visual Estimate (%)									E
ASB-01	EM 344813	A	Multicolored paint	5		ND	0	0	0	0	0	0	0	0	100
		B	White plaster	5		ND	0	0	0	0	0	0	0	0	100
		C	Gray granular plaster	90		ND	TR	0	0	10	0	0	0	0	90

ND = None Detected CELL = Cellulose ORG = Organic WOLL = Wollastonite GYP = Gypsum Analyst: PDL
 TR = Trace, < 1% Visual Estimate Trem-Act = Tremolite-Actinolite BRUC = Brucite SYNTH = Synthetic

Data QA 



Environmental Scientists and Engineers, Inc.

WALSH ENVIRONMENTAL
255 Main Street
Grand Junction, CO 81501

CHAIN OF CUSTODY RECORD

No 8266

4888 Pearl East Circle, Suite 108
Boulder Colorado 80501

51682

NORMAL TAT

Results to Ed Baltzer 970-241-4312 (Fax)

Proj. No. 3688-010 Project Name OURAY COURTHOUSE

SAMPLERS: (Signature)

Sta No	Date	Time	Station Location	Sample Tag No.	Asbestos PLM	Lead Paint PLM/PA	IRON	No. of Containers	Remarks
01	5/6/98	10:30	MAIN FLOOR 1/2 CORNER plaster	ASB-01	✓			1	
11	-	10:15	2nd Level court room	RED-01	✓			1	} Please tell us anything you can about this paint.
12	"	10:25	SIN CORNER Ground level	RED-12	✓			1	
13	"	10:45	EAST-Alley - Ground level	RED-13	✓	✓		1	
21	"	10:50	White sash paint, EAST window	WH-21	✓			1	

Ed Baltzer
5/6/98

Thanks,

Relinquished by: (Sign.)	Date/Time 5/6/98 1330	Received by: (Sign.) US Post office	Relinquished by: (Sign.)	Date/Time	Received by: (Sign.)
Relinquished by: (Sign.)	Date/Time	Received by: (Sign.)	Relinquished by: (Sign.)	Date/Time	Received by: (Sign.)
Relinquished by: (Sign.) Mail Man	Date/Time	Received for Laboratory by: (Sign.)	Date/Time 5-11-98 11:40	Remarks:	

Distribution: Original accompanies shipment.

WALSH

WCCFA

WESTERN CENTER FOR THE CONSERVATION OF FINE ARTS

1225 SANTA FE DRIVE • DENVER • COLORADO • 80204 • (303) 573-1973 • FAX (303) 573-7401

May 18, 1998

98-098 Ouray County Courthouse
OURAY COURTROOM WALL PAINTINGS by Lamb

DESCRIPTION: The courtroom walls are painted a pale tan color with original wood molding on the lower portion. Photographic records indicate the existence of a decorative painted border extending from the ceiling level down approximately 20-inches. The photographs do not show the side walls, so it was uncertain whether the border was continuous around the room. The border was painted in 1898, ten (10) years after the construction of the building and after the building had suffered a fire.

The following report outlines the examination and testing of the paint layers to determine whether the border was extant and, if so, if it was salvageable.

Testing of an area of wall paint on the east wall, near the right pillar behind the judge's bench indicated the following strata of paint layers:

_____	Pale tan upper layer "wall paint"
_____	Pale beige layer
_____	Thin white layer
_____	Pale beige layers (1-3?)
_____	Thin yellow ochre layer
_____	Pale brick-red layer

WALL

Testing of an area on the upper portion of the north wall indicated the identical strata but with additional tan or beige layer (probably due to past wall repairs).

Removal of overpaint on an area where the design was believed to exist on the east wall confirmed the existence of the design layer: the decorative border lies on the pale brick red layer, directly under the yellow layer. Further testing of the north wall gave evidence that the border was painted there as well. Therefore, it is possible, if not likely, that the border does, in fact, continue around the entire room.

Information provided by Douglas Reinhart, of Charles Cunniffe Architects,

SOLUBILITY TESTING

The wall overpaint is soluble or partially soluble in a variety of organic solvents typically used by painting conservators; it appears to respond best to alcohol-containing solvents. The yellow layer can be removed in the same solvent solutions as the beige or tan ones, but testing indicated that its complete removal using this system will soften the design layer; removing all overpaint in the test areas abraded the surface of the design layer.

Because the thickness of the upper layers are substantial, it will be best to swell the upper layers and gently shear them away, mechanically, in two steps (down to the yellow layer) rather than to completely dissolve them as this would require an excessive use of solvent that could adversely affect the design layer. If the yellow layer could then be left at least overnight for the excess solvent to evaporate, it is possible that this yellow layer could then be safely removed. It was not possible to test this approach during the one-day, on-site exam.

CONCLUSIONS

The border is extant under many layers of overpaint. It appears to include reddish, green and, possibly pink design elements. The green layer appears to carry a gold metallic layer on top which may be metallic paint or a layer of gilding. The complete removal of all overpaint cannot be guaranteed; surface damage can be minimized if further testing reveals a solvent system which can safely separate the yellow layer (the first layer of overpaint) from the border design.

Due to the complicated nature of the overpaint removal the following proposal for treatment covers the removal of overpaint on one repeat section of the design based on the approximation of that area being approximately four(4) square feet.¹ This estimate DOES NOT INCLUDE: restoration of the design layer or scaffolding.

¹ This was the area estimated by Doug Reinhart to contain on repeat section of the design.