# Historic Structure Assessment

# Cortez Cultural Center

25 N Market St., Cortez, CO 81321

SHF Project # 2019-HA-001

Site # 5MT6924

This project was paid for by a State Historical Fund grant from History Colorado

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## HISTORIC STRUCTURE ASSESSMENT

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## FINAL REPORT - DEC. 18TH 2019


## CLARK & CHAPIN ARCHITECTS

# 1.0 INTRODUCTION

## 1.1 RESEARCH BACKGROUND / PROJECT PARTICIPANTS

This Historic Structure Assessment (HSA) is based on multiple visits to the building from October 2018 to June 2019 during which the conditions of major components of the building were observed and photographed, and their physical conditions and problems noted. Weather ranged from sunny and cool to snowy and well below freezing. Additionally archival and community based research was undertaken during the same time period.

The on-site observations, research, and development of the HSA was completed by Matthew Clark and Dustin Chapin, Clark & Chapin Architects.  Further assistance and information was provided by Rebecca Levy, the director of the Cortez Cultural Center. Information relating to dates of construction and alterations was obtained from archival materials, oral histories and historic photographs.

This project was paid for by a State Historical Fund grant from History Colorado.

# 1.2 BUILDING LOCATION

## Address & Description

The lot is located 25 N Market Street in Cortez, Colorado at the corner of Market and North streets. There is an amphitheater and landscaped areas at the North portion of the lot and the building is located at the South side of the lot, with an alley running East/West directly South of the lot and a North/South alley directly West of the the lot.

## Vicinity Map

## Site Plan


## Legal Description

Parcel Number: 5611-262-47-013

Subdivision: CORTEZ ORIGINAL Lot: 19-24 Block: 29 B649 P363 B665 P838

# 2.0 HISTORY AND USE

## 2.1 ARCHITECTURAL SIGNIFICANCE & CONSTRUCTION HISTORY

Figure 2-1: Original configuration of the E.R. lamb Mercantile

The E.R. Lamb Mercantile building was built in 1909 by Edwin R. and Mary A. Lamb (Note that his name is often mistakenly listed as Edward). It was a prime example of 19th century small town commercial architecture, featuring an elaborate pressed tin upper level storefront, cornice, and pediment signage by Mesker Bros. of St.Lois, MO (Figure 1, as identified by Got

Mesker, a Mesker identification guide published by the Illinois Dept. of Natural Resources, Historic Preservation Division, see appendices). The original wooden storefront on the ground level was likely provided by Mesker as well, as they listed many options for millwork and glass that integrated into their system in their catalog at the time that appear to match the details shown in figure 1. The rest of the cladding appears to be ship lap wood siding from the few photographs we have. It appears that the South staircase is original as it can be seen in the old photo (Figure 1). The building has a mostly open ground floor plan typical to its original retail use and the upstairs may have originally been one or two residences and storage.

The structure is light-frame wood construction comprised of rough sawn 2x4 lumber wall framing and other various sizes of 2x rough sawn lumber for floor and roof joists. The foundations are principally sandstone with some additional newer concrete retaining and buttressing and there is a partial basement as can be seen in the plans.

Jim Barrett purchased the building in 1928 and divided the upper floor into six apartments. The ground floor housed Barrett Furniture until at least 1950. *source: Colorado Cultural Resource Survey, 1998*

The building has been extensively altered by at least 2 remodels. Sometime prior to a photograph taken in the 1960's, the original millwork and plate glass storefront and entrance was replaced with a then contemporary aluminum and glass storefront with accompanying signage band and a central window was added to the front (East) facade on the 2nd. floor (Figure 2).

At some point in the '70s-'80s a timber porch was added and it appears the glazing units were replaced with new units with false divided lights.(Figure 2-3)

The building became home to the Cortez Cultural Center in 1987-88 and was subsequently extensively altered with the addition of a faux pueblo style porch with juniper posts, exposed faux juniper pole vigas/rafters, and stucco finishes inside and out.The amphitheater and Hogan was added in 1993 to enhance the venue for outdoor performances. An elevator was added in 1997.

The building is currently listed on the Cortez, Colorado Register, and was considered, but determined not eligible, for the State Register, and given CO Site # 5MT6924.

Figure 2-2: Circa 1960's photograph after alterations

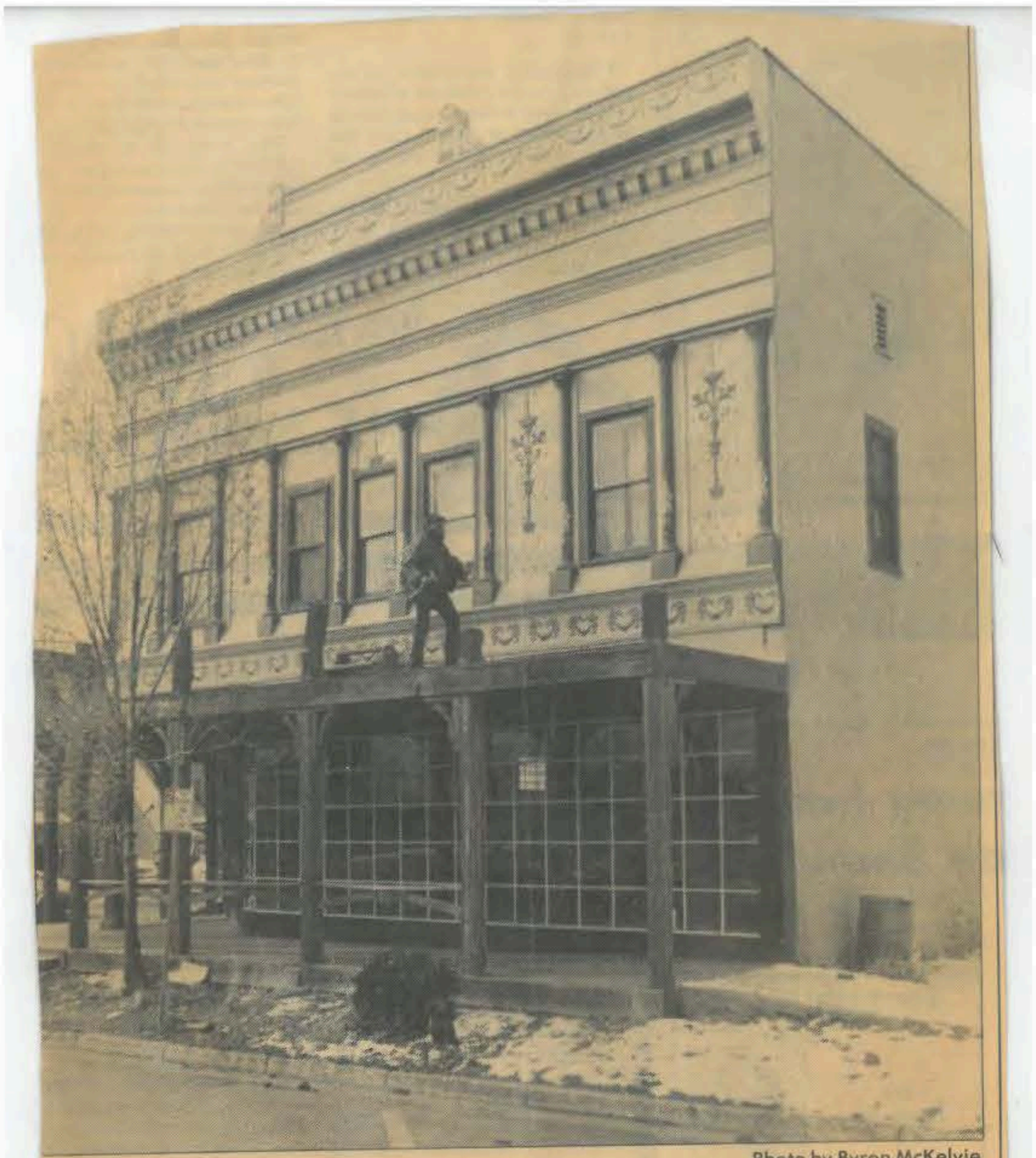


Photo by Byron McKelvie

## *Not destroy, remodel . . .*

THE OLD fancy-fronted building on North Market St. won't be torn down after all, owner architect Fred Thomas reported last week. Instead, he and a crew were busy starting an extensive remodeling project that will stabilize the building and restore its charm of its construction just after the turn of the century. Thomas said the walkway on the second floor will be extended around the building and that the structure will become part of the mall he is to put up.

Figure 2-3: Circa 1970's-80's photograph after further alterations

Figure 2-4: Current configuration as of Winter 2018

# 2.2 FLOOR PLANS

Figure 2-5: Main Level Plan

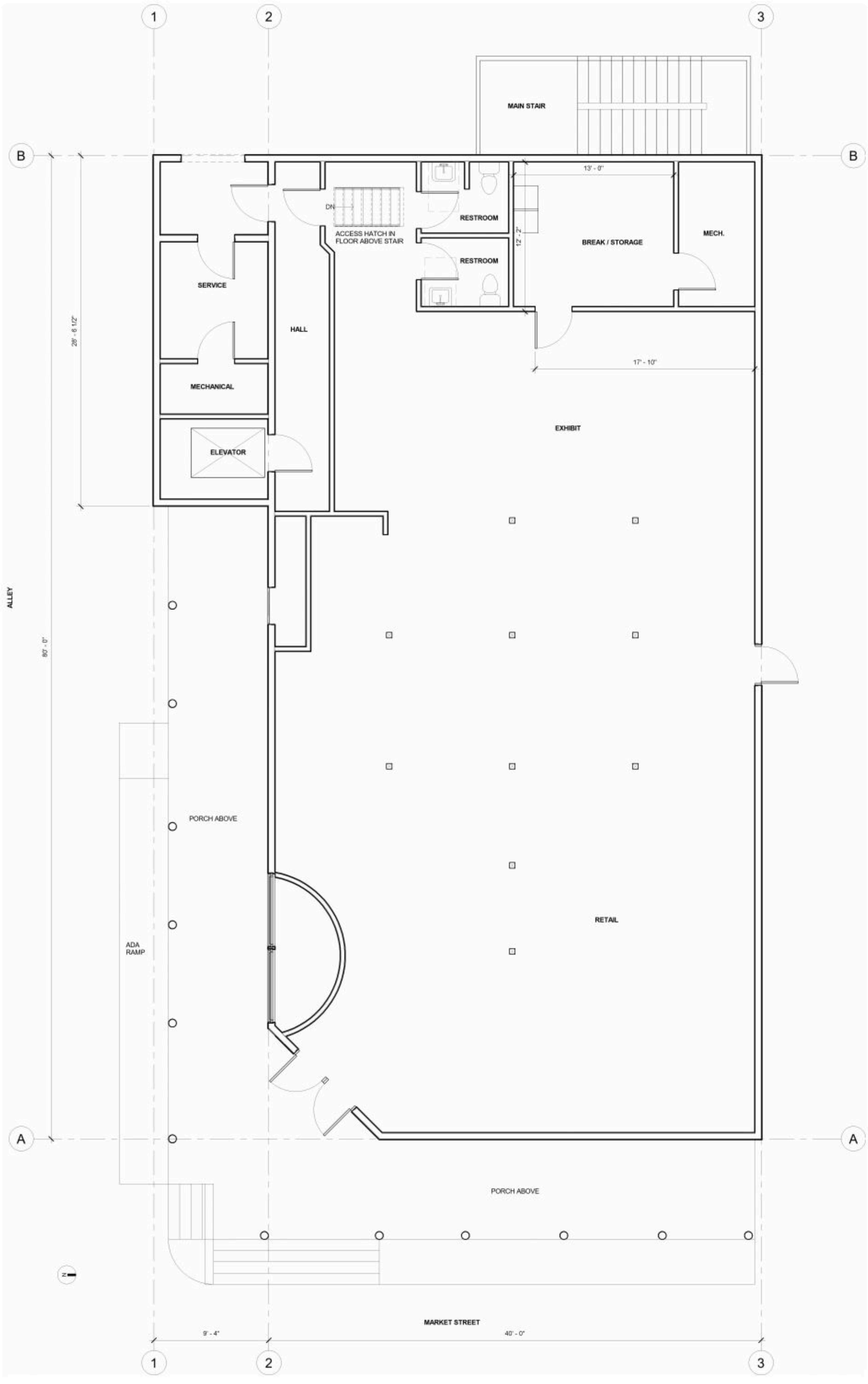


Figure 2-6: Upper Level Plan

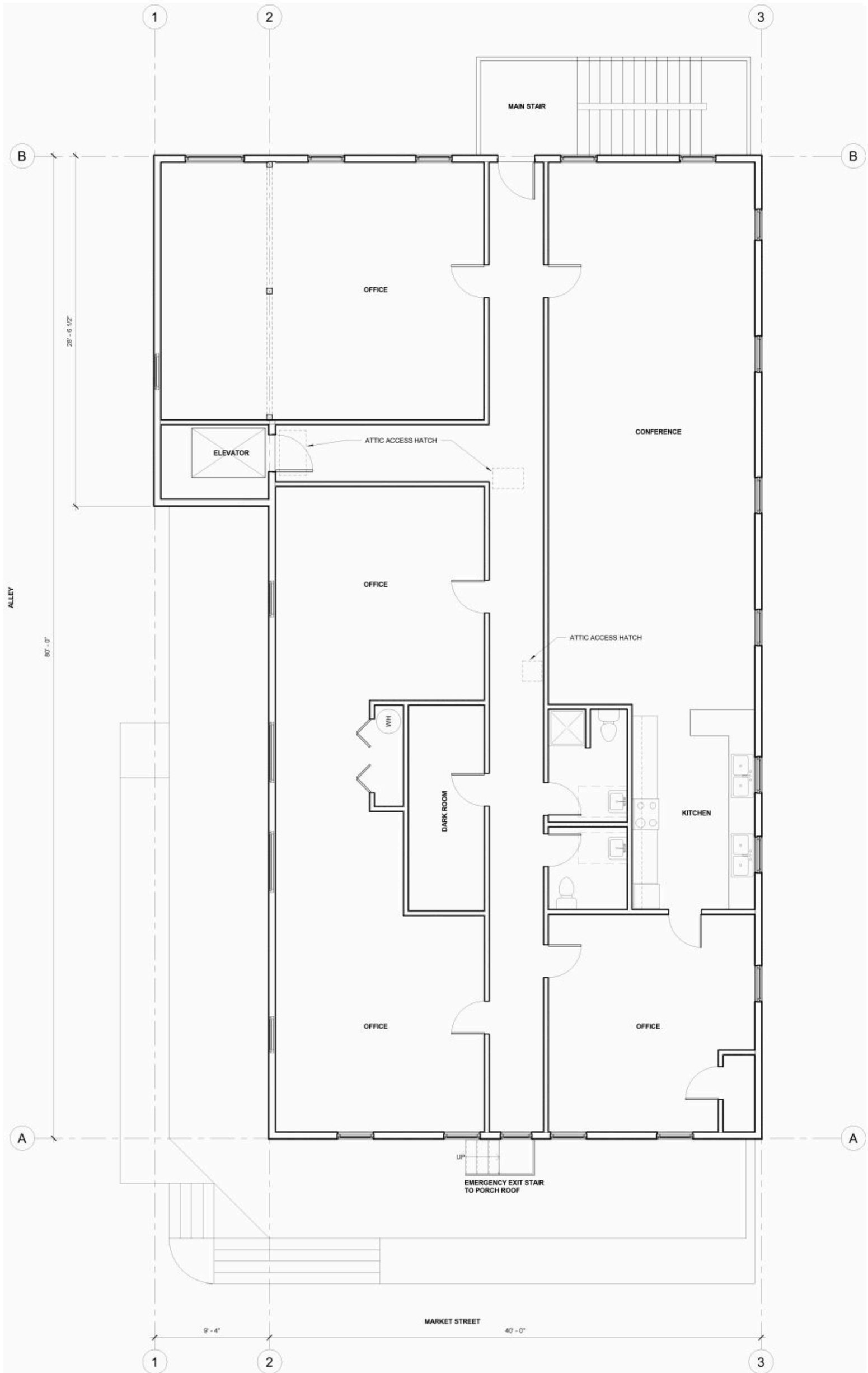
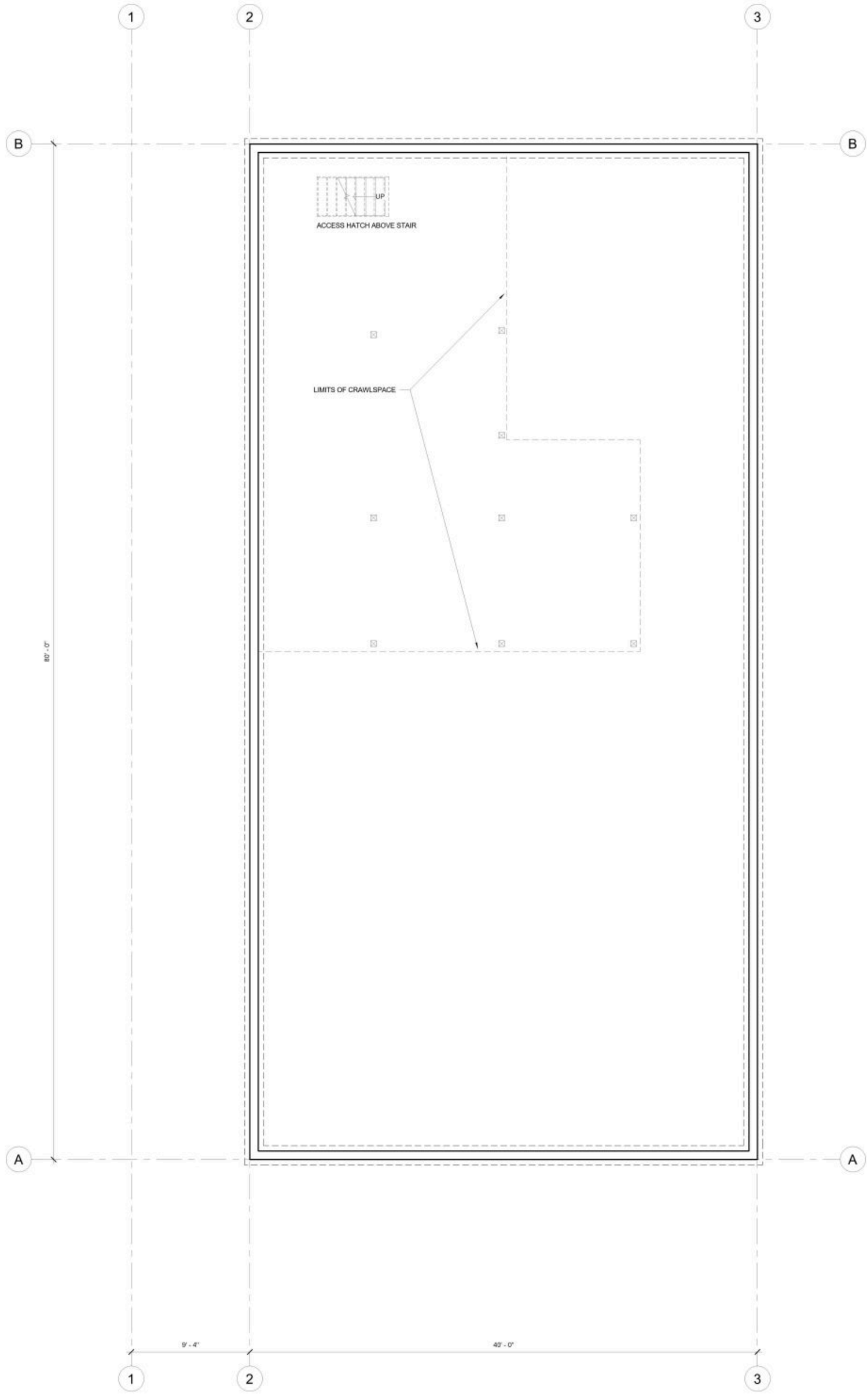


Figure 2-7:Basement Level Plan



## 2.3 PROPOSED USES

The building and grounds will continue to be used as the Offices, Shop, Gallery, Community Meeting Space, Commercial Kitchen Incubator / Rental and Performance Venue of the Cortez Cultural Center (CCC). The CCC Director and Board are currently exploring further options for expanded programming and community outreach, such as classrooms and an artist in residence studio space.

The CCC would like to increase the historical and community significance of the site through a comprehensive Rehabilitation of the building(see *The Secretary Of The Interior's Standards For The Treatment Of Historic Properties With Guidelines For Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* for definitions of Rehabilitation and Restoration) while at the same time improving the buildings function for all of their program needs now and as they expand into the future.

# 3.0 STRUCTURE CONDITION ASSESSMENT

## 3.1 SITE

### DESCRIPTION

The site and its associated landscape and built features are non-historic. The building is on the far South East corner of the lot. An alley runs East-West along the South edge of the lot, another runs North along the West, or back of the lot. To the West, or behind the building is a gravel parking area and a storage shed.

The Northern 2/3 of the lot is made up of  constructed landscape features and plantings such as a faux stone Ancestral Puebloan ruin, a hogan, a Pueblo style tower adjacent to the amphitheater seating and an outdoor amphitheater related the the Cortez Cultural Center's educational programs and performances.

The circular amphitheater is concrete, with the central portion sunken below grade with a storm drain in the center. To the North are concrete steps and seating and there is a small Pueblo style tower bracketing the West edge of the seating. The tower is decorative and though there was power run to the building, it is not currently hooked up. There are also free-standing aluminum bleachers at a portion of the top of the amphitheater for additional seating. A short steep concrete ramp provides access from the perimeter sidewalk to the amphitheater, but it is not ADA compliant.

The remainder of the ground cover is dirt and gravel with scattered ground cover such as small trees, native shrubs such as Big Sagebrush (Artemisia tridentata), grasses and weeds. The retaining beds and newly established plants along North Street and within the interior of the site are served by an in-ground irrigation system, the landscaping along Market Street requires hand watering.

The Amphitheater and landscaped area is fenced with wooden fences with gates to the East and West to control access to events and for security.

There is a recently built concrete wheel chair access ramp along the alley accessing the South portion of the covered walkway to the entrance. The ramp was constructed by the City of Cortez but the City has yet to install the railings required for it to comply with the Americans With Disabilities Act.

The North and West lot edges adjacent to the street have concrete sidewalks. Upon reaching the porch at the East (front) face of the building, the side walk transitions to a wooden boardwalk (Figure2-7).

Patron parking is on-street parking on both Market and North streets, and adjacent streets.


Figure 3.1-1: Aerial view of property

Figure 3.1-2: Amphitheater and Tower

## CONDITION EVALUATION

Overall the site is in Fair to Good condition. Landscaping and ground cover is in Good condition but could be expanded and enhanced for a more finished appearance. In-Ground irrigation is in poor condition, it is not functioning due to a broken main valve.

Constructed features such as the amphitheater tower and hogan are in Fair condition. The Hogan is in need of the typical maintenance re-plastering and evaluation of the roof beams, some of which are sagging. The amphitheater tower wood work such as the stair, trim, sills, and vigas, and railroad tie steps need maintenance or replacement.

Figure 3.1-3: Tower and Hogan

The amphitheater itself is generally in Good to Fair condition. The amphitheater concrete surface is spalling. At times of heavy rain or snowmelt, the amphitheater drain back's up and will accelerate long term water damage if not addressed. The amphitheater drainage system is in Poor condition.

The boundary fences were constructed recently and are in Good condition however, several gates are made of wood, and attached to the fencing by hinges. The wooden gate frames have warped, making it difficult for the gates to close and open properly, thus are in Poor condition.

The wooden boardwalk is in Poor condition. It is heavily aged, it is rotting in places, and loose deck screws could pose tripping hazards.

Figure 3.1-4: Amphitheater and Tower

## RECOMMENDATIONS

Many of the landscape and associated constructed features are in Good to Fair condition and are non-historic. There are several specific recommendations on landscaping and built feature maintenance.

The selected treatment for the building is Rehabilitation as defined by *The Secretary Of The Interior's Standards For The Treatment Of Historic PropertiesWith Guidelines For Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* with specifics geared toward increasing the historic accuracy and character of the building, while still enabling the CCC to continue their mission and associated activities on the site. The landscape is currently central

to CCCs programming, and there is little to no historic documentation of what the empty North portion of the lot was used for, it is assumed to have been a typical vacant portion of a lot that could have been used for any manner of activities accessory to the primary uses such as parking, storage, staging, etc. and is not central to the historic significance of the property. Thus the recommendations below are integral to the health and longevity of the property but aside from the wooden boardwalk, do not deal with historic accuracy.

**Building Related**

- The wooden boardwalk at the front facade should be replaced. It is preferred that it is replaced as part of the facade renovations so that it's design is integral to that historically informed process  however, in the meantime, severely rotten boards should be replaced, loose screws tightened or replaced, and it should be closely watched to ensure it is not a hazard.  If the work on the facade will not happen within the next 2 years, a plan should be made to replace the boardwalk independently (Critical).

- The wheel chair ramp railings are required for it to comply with the Americans With Disabilities Act. These should be installed as soon as possible and be simple in design, distinguishable from other historic features, as transparent as possible with as few spindles as necessary, and with a matte finish (Critical).

**Dispersed Landscape**

- The amphitheater drainage issues should be remedied as soon as possible. If drainage issues got bad enough and there was enough moisture, flooding could effect the building. A plumber and/or other qualified consultant should determine the cause of the blockages, inadequate slope, flow, etc. and design a solution that could be bid upon and executed bu a qualified contractor (Serious).

- It is recommended that the back maintenance on the tower woodwork be performed as soon as possible to prevent further degradation and increased future maintenance costs (Serious).

- The hogan should be evaluated structurally and repaired and re-plastered as required (Minor).

- The warped wooden gates should be repaired and stabilized or rebuilt using more stable carpentry methods (Minor).

- The retaining beds and newly established plants along North Street and within the interior of the site have been served by an in-ground irrigation system in the past, but the curb stop valve was recently broken, so they now require hand watering. The landscaping along the Market Street requires hand watering. The CCC would like to repair and extend in ground irrigation lines to water the plants along Market Street, which will require digging under the sidewalk (Minor).

## 3.2 STRUCTURAL SYSTEM

### DESCRIPTION

The building is two stories of typical light wood wall, floor and roof framing with wood beams where needed for spans over openings and dividing floor and roof systems. It sits on a stone and concrete foundation with a partial basement and low crawl space. The structural system is almost entirely Original / Historic with only basement level structural shoring being added. Note that there are other alterations to the fabric and layout for the building that area not primarily structural and are described elsewhere.

#### Basement Level

The partial basement is excavated earth with approximately 5’ floor from the earthen floor to the bottom of the joists. (Figure 3.2-1)The main floor joist spans are supported by a wood beam system of varying ages ands sizes. These are supported with heavy timber columns that currently rest on poured concrete footings. There have been successive reinforcements of this part of the floor structure. The most recent was per undated drawings by Charles A Hubbard (See Appendices), though they were not precisely followed, with the the PT Timber footings specified being replaced with concrete and the timber posts and beams described being substituted with a variety of scabbed on and replaced LVLs, timbers, and sawn lumber. On the South a poured concrete retaining wall was placed along with additional columns and beams to shore up the earth wall, as well as provide additional floor support.

Some areas of the excavated basement have partially collapsing walls that are gradually sloughing off soil. These are not directly supporting bearing conditions.

The perimeter foundations are largely not visible. They cannot be seen from the exterior, with exterior stucco going down to below grade continuous with the walls above. They can be glimpsed from the interior basement in a few spots and appear to be stacked sandstone of unknown depth.

There are leaks from two spots that cause the basement to flood periodically, which requires a sump pump to mitigate. One is at a drain pipe sleeve at a retaining wall. (Figure 3.2-3) The other appears to be leakage from the exterior at ground level.

The main level floor joists are 2x rough sawn boards on 16” O.C. with 1 x 8 plank sub-floor and wood floor above.

Figure 3.2-1: Earthen basement

Figure 3.2-2: Basement Retaining

Figure 3.2-3: Leaking sleeve at basement retaining

## Main & Upper Level

The two above ground floors are 2 x 4 light wood framing. The floor and wall system interface detail is unknown, i.e. platform or balloon framing, etc. large spans are assumed to be timbers though they are not visible in most areas as they are covered by non-historic stucco. Typical of the building type, the main level had high ceilings of approximately 11', while the upper level had lath and plaster ceilings. The front half of the main level and the entire upper level have Non-Historic dropped ceilings.

Figure 3.2-4: Glimpse of 2nd. level floor system

## Roof

The roof has a low slope from the front parapet (East) to the back (West) wall. It is 2 x 8 rough sawn lumber at 24" O.C. spacing. It has 1x rough sawn lumber bracing / trussing between the upper rafters and the ceiling joists (Figure 3.2-5). The span is divided by two bearing walls enclosing the central hallway.

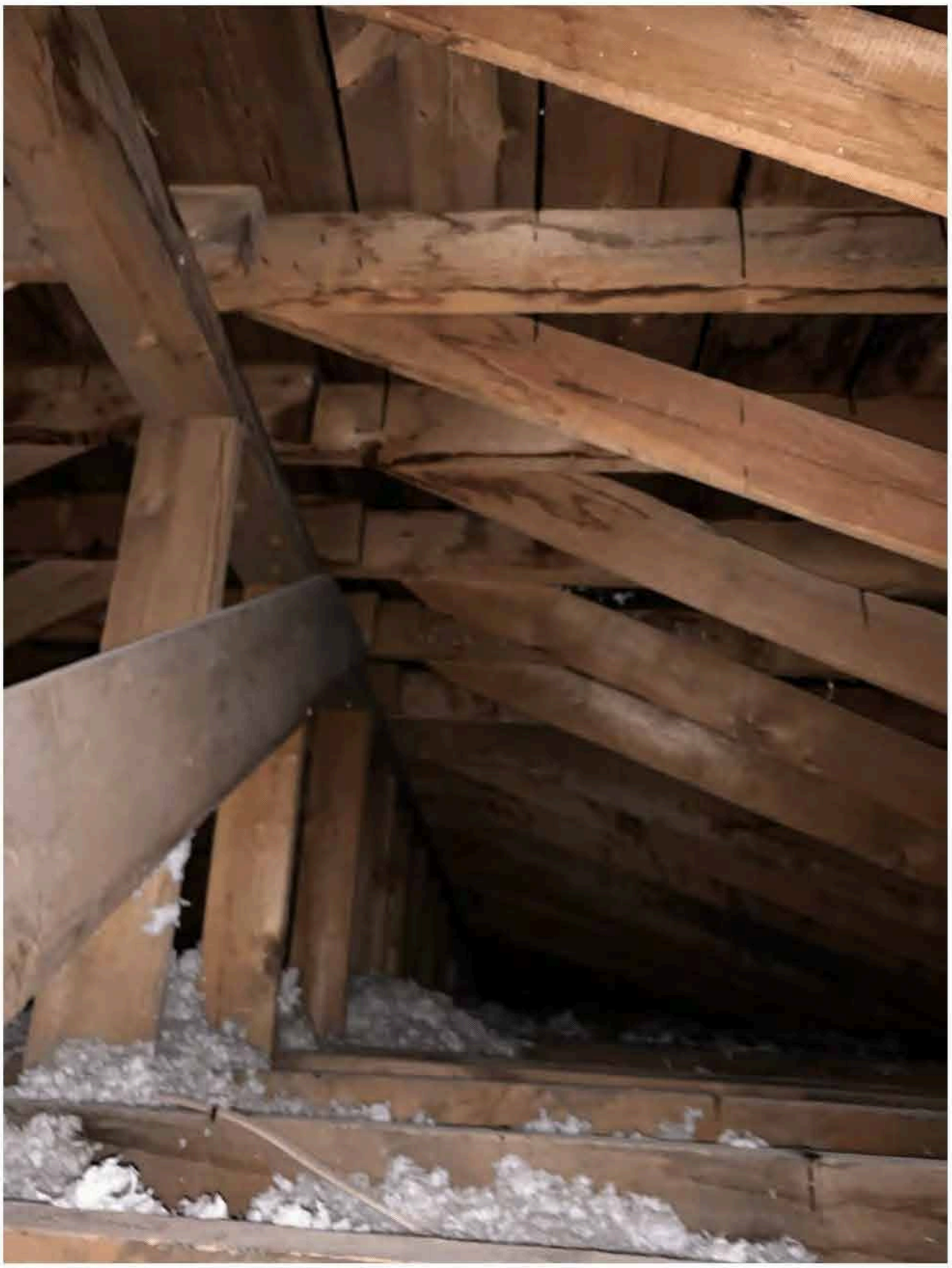


Figure 3.2-5: Roof Structure

## CONDITION EVALUATION

### Basement Level

The built basement structure appears sound despite its somewhat random assemblage of members and types and all built structure appears in Good to Fair condition. One thing to note is that the overall moisture level has resulted in what appears to be a light layer of a moss growing on the wood framing. The few areas of earthen wall that are sloughing are in Fair to Poor condition but the areas that posed a threat to structure were addressed by the more recent shoring and additional structure.The aspects of water leakage and flooding put the structure at risk and thus rate the overall system in Fair to Poor condition.

### Main & Upper Level

All main and upper level wall and floor framing appear to be in Good condition. Although not much of it can be directly observed there are no apparent areas of damage from rot, inadequate structure for load, etc.  One note is that both floors are not level throughout, with various areas of slope that correspond different spans. It appears that some leveling work may have been done at the main level at the time of structural floor reinforcement work performed in the basement, but this is incomplete and likely effected upper floor flatness as well. There is no indication that ongoing settling is occurring but moisture level changes below the foundations could effect or encourage movement.

### Roof

All roof framing that can be observed is in Good condition. There is some typical evidence of light moisture staining on wood framing but no rot, wet areas or leaks were observed for the access hatches during the winter this report was primarily prepared.

## RECOMMENDATIONS

Although the basement structure assumably was evaluated by the architect at the time of the latest shoring plans (see Appendices), since a full structural analysis is beyond the scope of this report, and there are no engineering or assessment details of the structural system as a whole from those plans or any other, and there are leaks and periodic flooding in the basement, it is highly recommended that a qualified structural engineer prepare a full structural analysis of the building, with particular emphasis paid to the foundations, basement and main floor framing (Serious).

# 3.3 ENVELOPE - EXTERIOR WALLS

## DESCRIPTION

The exterior walls are solid rough sawn 2x4 construction. The side (North and South) walls are continuous to a parapet that extends above the roof. The rear (West) wall is the same construction but stops at the roof terminus to allow for drainage. These three walls all contain various typical punched openings for windows and doors.

Figure 3.3-1: Original Facade

All of these are of historic framed construction with non-historic stucco finishes. Historic photographs indicate they where painted ship-lap wood siding. The rear also has a bump out at the SW corner that appears to be the original 2nd. floor entry landing. The original stairs rising West to the landing were removed at an unknown time. This bump out has been modified to house an office and an elevator was added in 1997.

The front (East) wall at the lower level is wood framed construction with non-historic aluminum and plate glass storefront windows. It had a wood and glass storefront typical of retail establishments of the time period, it appears from historic photographs to possibly have been provided as part of the sheet metal facade  and storefront system, but could have been constructed by local carpenters in a style similar to what is shown in the Mesker Bros. catalogs. The upper floor and parapet are a sheet metal facade pre-fabricated by the Mesker Brothers Iron Works of St.Louis, Missouri. It contains elements and motifs that positively identify it as coming from the Mesker Brothers Iron Works such as the distinctive dolphin panels and the cornice pediment containing the original E.R. Lamb & CO. sign panel.  (See Appendices for further details on identification). The pressed tin facade was last repainted in 1999 according to newspaper clippings from the Cortez Journal. It is certainly not in the original scheme as can been seen by examining areas of dark and light in the historic photographs but original colors are unknown.

The front of the building now has a non-historic porch with juniper log posts and faux viga like structure that wraps around the front and much of the South side of the building along the alley. This accompanies the non-historic storefront windows on the front and South facade and the non-historic corner entry.

Figure 3.3-2: 1960's remodel


Figure 3.3-3: Current front facade


Figure 3.3-4: Current front and South facade


Figure 3.3-5: Current front and North facade

Figure 3.3-6: North facade

Figure 3.3-7: North and West facade

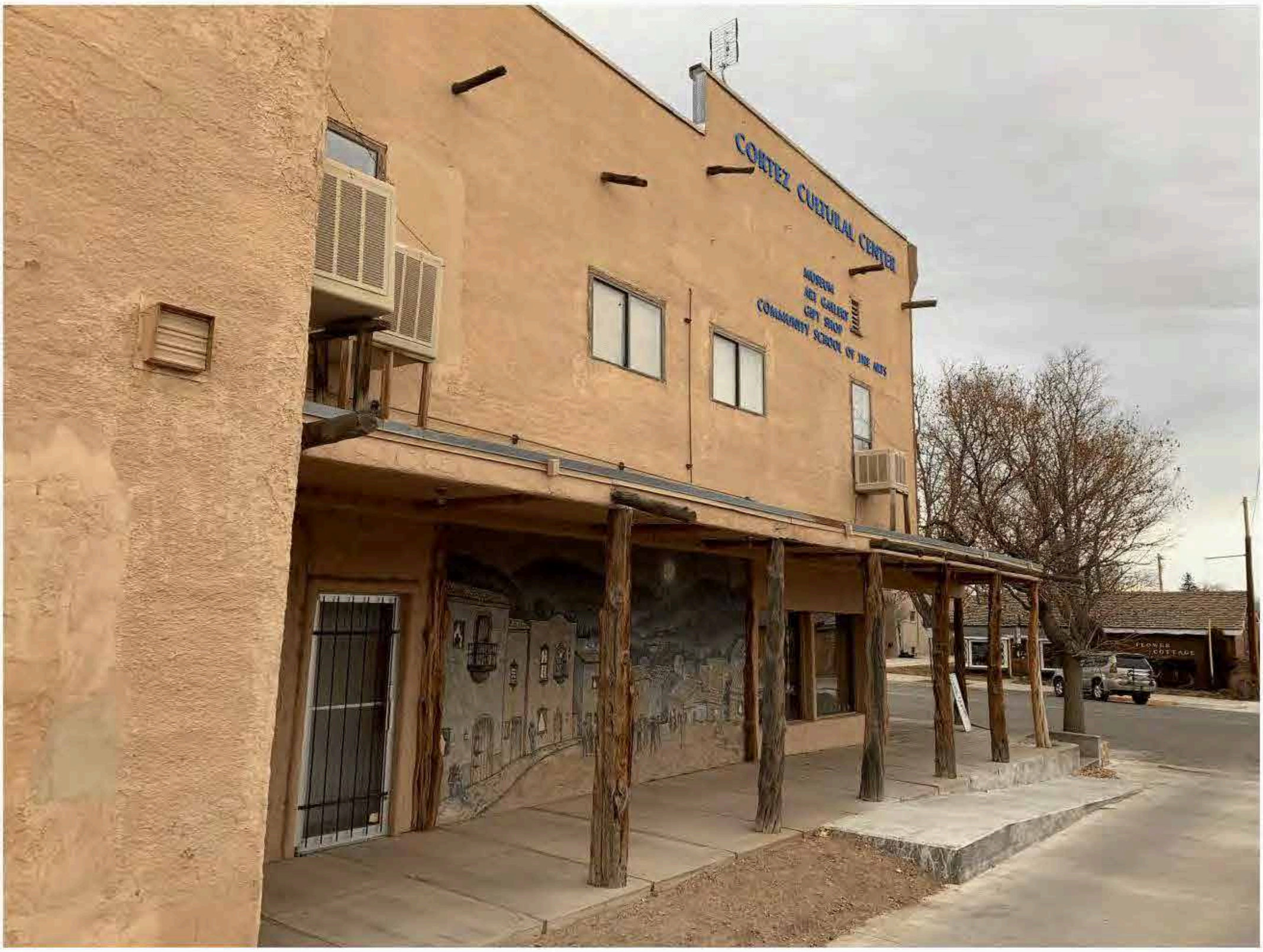



Figure 3.3-8: South facade

Figure 3.3-7: South and West facade

## CONDITION EVALUATION

Overall the exterior walls and their finishes are in Good condition with the stucco and painted preset tin facade largely intact and needing little maintenance. Some areas are in Fair condition as follows.

There is a tree that was removed long after it began causing damage to the wall on the West end of the North wall. The stump and roots remain and have buckled the stucco and likely damaged the wall structure somewhat as well.

The stucco on the SW addition that contains the elevator has some cracking and peeling paint.

The faux vigas at the non-historic porch, as well as those on the South facade where installed poorly and are failing.

## RECOMMENDATIONS

In keeping with he intended use and desired outcomes it is recommended that the front facade be restored back to the original configuration, as based on historic photos of the building, as well as catalog references if applicable. If any remnants of historic opening / details can be found during initial phases of construction, these should either guide the restoration design or

The porch should be removed, the lower storefront and entry(s) reconfigured to original, and if a code compliant solution can be found, the new central upstairs widow and fire escape should be removed and the Mesker pressed tin facade restored in that location.

The pressed tin facade should be examined to attempt to determine original colors, refurbished as needed and repainted as close to the original configuration as can be determined through investigations.

All windows and doors should be replaced with historically representative but energy efficient models.

The South and West facades should also be restored in an historically accurate manner, including historically compatible windows and doors. However the West stairs need to be covered and meet modern building coeds.

# 3.4 ENVELOPE - ROOFING & WATERPROOFING

## DESCRIPTION

The main roof is a lapped rubber sheeting with an older silver reflective paint coating (Figure 3.4-1), its age is unknown, as is the age of the coating. It wraps at the roof edges up the parapet walls and terminates under galvanized steel parapet cap flashing. The substrate is rough sawn 1x lumber as observed from crawl space access hatches on the upper level.

The rear soffit was replaced, presumably at the time the rear wall was re-stuccoed, with OSB which has only a light paint covering on it (figure 3.4-7).

The walkway porch roof is EPDM an rubber membrane with galvanized steel drip edge flashing at outside perimeter and unknown flashing at wall junction (Figure 3.4-5&6). Substrate is unknown but appears to be plywood or OSB.

Figure 3.4-1: Main roof

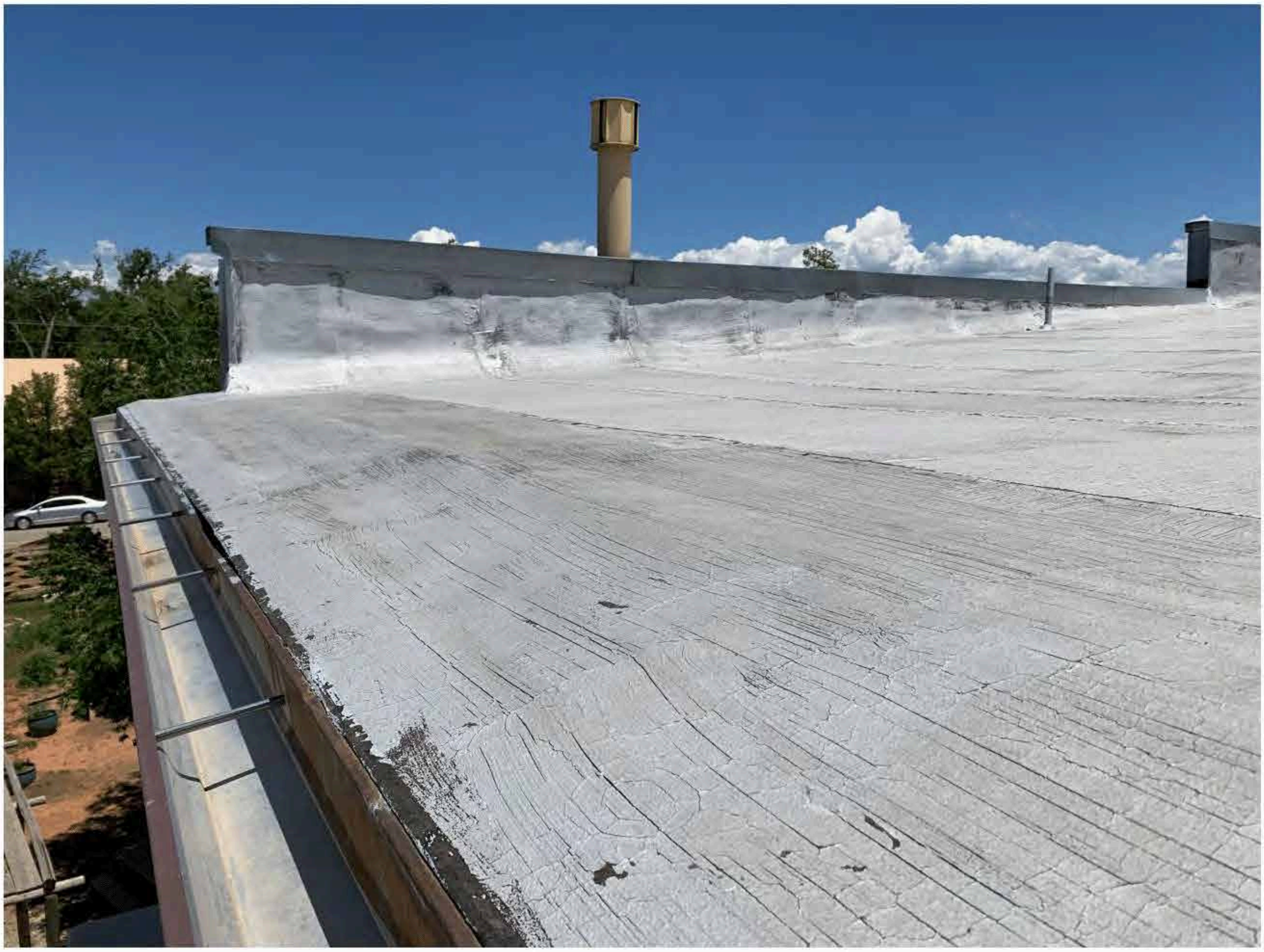


Figure 3.4-2: Main roof at gutter looking North

Figure 3.4-3: Main Roof at gutter looking South

Figure 3.4-4: Drip edge flashing roofing delamination

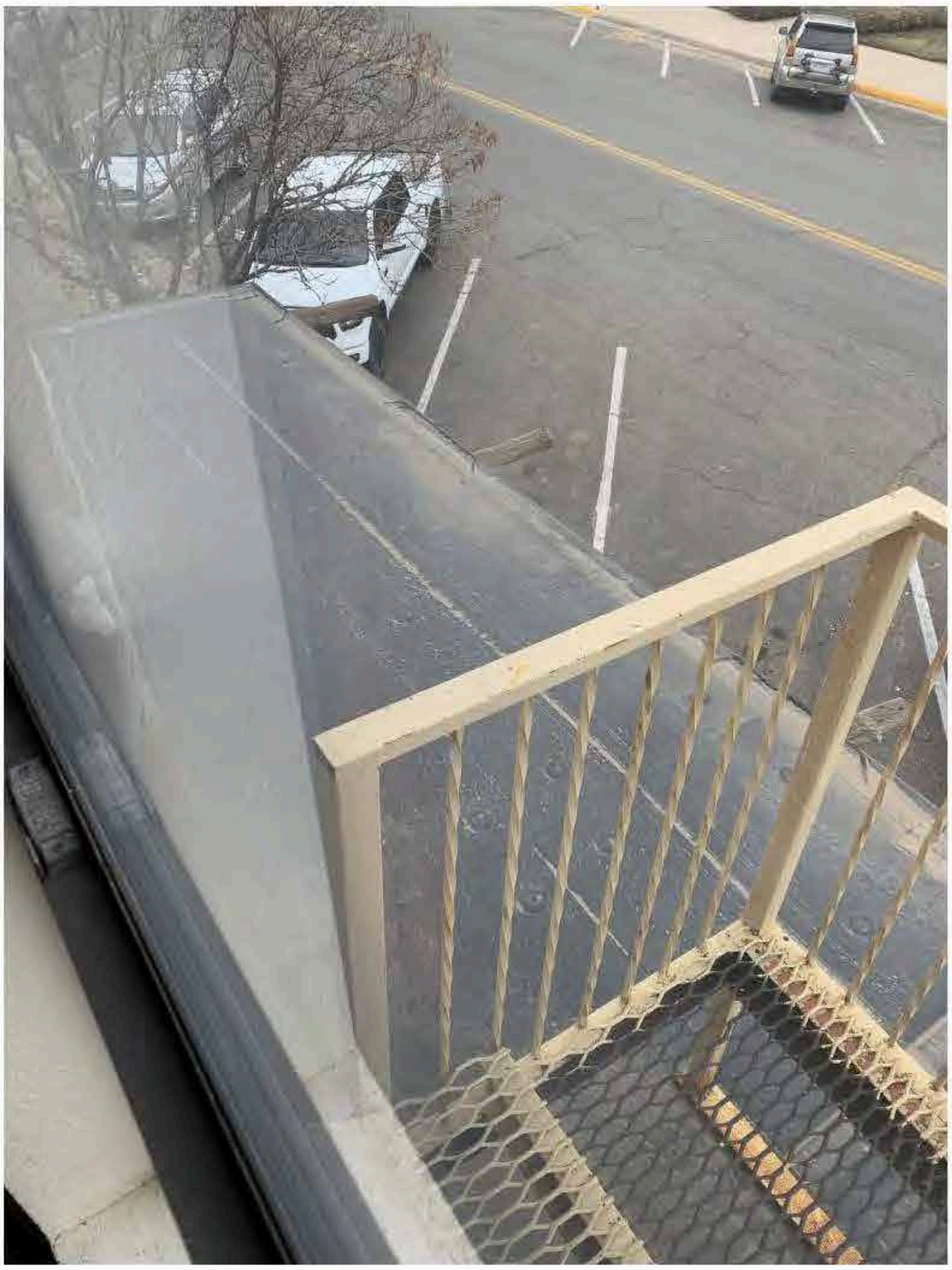


Figure 3.4-5: Porch roof looking North from upstairs window

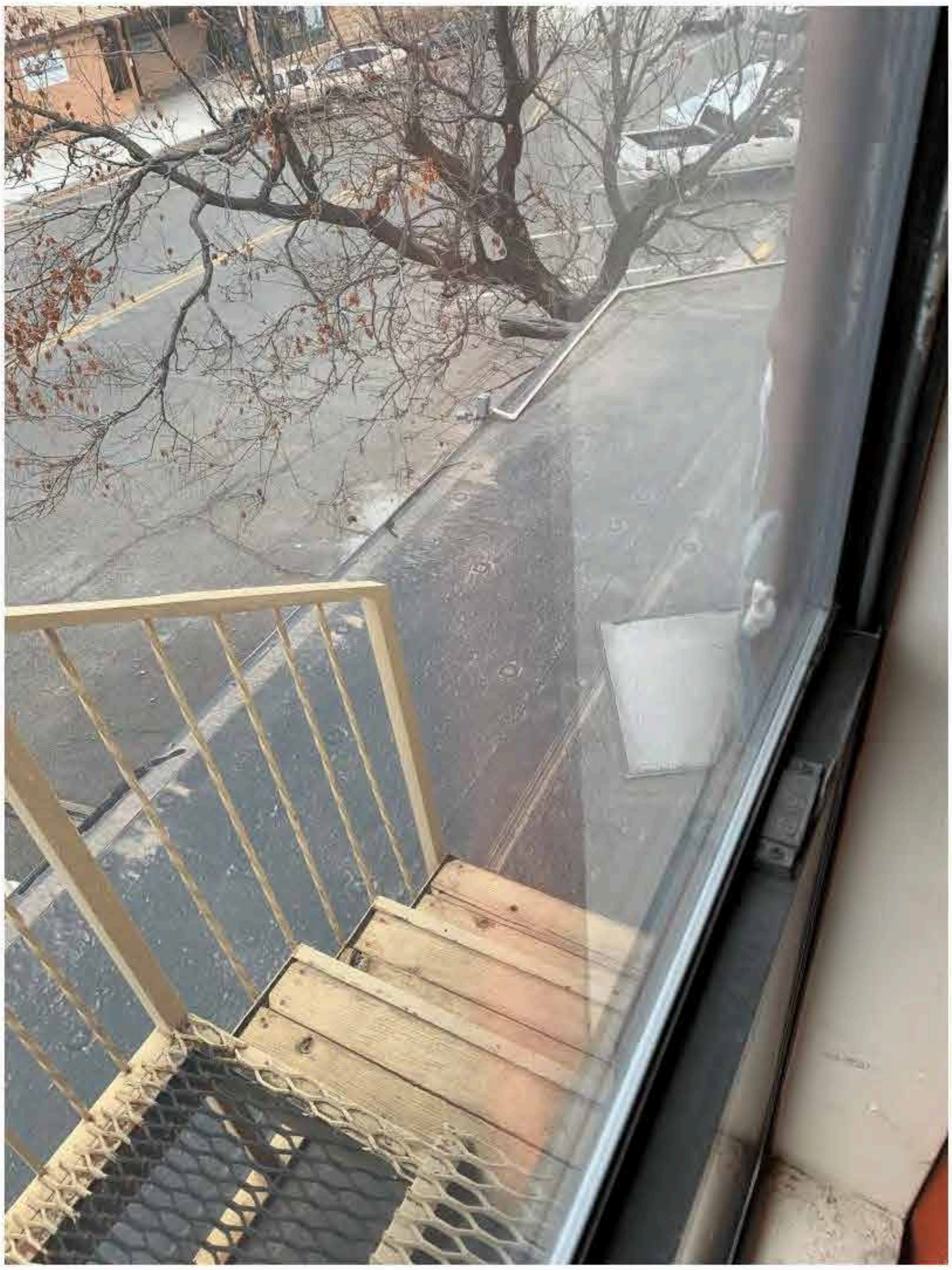


Figure 3.4-6: Porch roof looking South from upstairs window

Figure 3.4-7: New OSB soffit

## CONDITION EVALUATION

The main roof covering is in Fair to Poor condition with no known interior leaks. Overall the age of the coating and roof covering appears old and nearing the end of its service life. The drip edge is not adhered to the flashing and water is likely making its way back behind the flashing.

The porch roofing is in Good condition with no detectable leaks as observed through the winter and spring of 2019. Visual inspection shows all seams and edges to be tight and sound with no visible damage. The perimeter flashing is intact and functioning however is showing signs of rust in a few areas. This is not effecting it's function at this time.

## RECOMMENDATIONS

A qualified roofing professional should evaluate the drip edge condition and determine and implement a course of repair. Routine examination and maintenance of the main roof should then continue to ensure that it continues to function properly and remain leak free. (Critical)

The roof will likely need replaced within 5 years. At this time, all flashings, termination bars, roof jacks / penetrations, etc. should be replaced per roofing manufacturer / architects details. Particular attention should be paid to ensure that new cap flashings and any other visible flashing / hardware does not damage or interfere with the Masker facade, parapet etc. Any visible portions should have a matte finish that is harmonious with the facade. (Serious)

The soffit should be replaced as part of larger renovation work but could be painted or covered temporarily if a more finished appearance is desired. (Minor)

Routine examination and maintenance of the porch roof should continue to ensure that is continues to function properly and remain leak free. However, the porch roof is recommended to be removed, see the Preservation Plan section in this report.

# 3.5 WINDOWS & DOORS

## DESCRIPTION

### Main Level

The original wood and glass storefront system had a double entry with a mullion division at door head level. The doors had hopper windows above and there was continuous fixed glazing above the main storefront display glazing. Comparing details in the historic photographs with those in original Mesker Bros. catalogs from the time period, it appears likely that the storefront system was purchased with the pressed tin facade from the Mesker Bros. company

The South facade had smaller vertical punched openings as can be seen in the historic photos. There was a corner window that appears to have continued the storefront display around the Southeast corner.

All of the original windows have been replaced or removed / modified / walled in. The original storefront was replaced in middle of the century with an aluminum and plate glass storefront system. At this time the symmetrical double entry design was done away with and the angled entry at the South East corner was introduced. Later, the Northern 2/3 of the East facing storefront was walled in. The other ground level windows were replaced with dark bronze anodized aluminum single hung units at an unknown time. The historical configuration of the rear facade is unknown. However, it was remodeled in approximately 1999 with a new stucco wall and exit door at the SW corner and no windows on the ground level.

### Upper Level

All of the original windows have been replaced with aluminum single hung units at an unknown time. They are dual pane glazed bronze anodized aluminum typical to mid 70's to 80's style. Some of them appear to be the approximately the same size and in the same openings / locations as the original units however the middle windows have been replaced with shorter units and the windows near the kitchen are of a different size and proportion and were likely added later. The historical configuration of the rear facade is unknown. However, it

was remodeled in approximately 1999 with a new stucco wall and new aluminum single hung windows on the 2nd. level.

There was an additional egress window added in  the 1960's or before on the East, front facade. This was placed in the center of the building at the end of the upper level hallway, between two existing windows. This disrupted the original facade design and displaced a section of the Mesker Bros. facade panels.

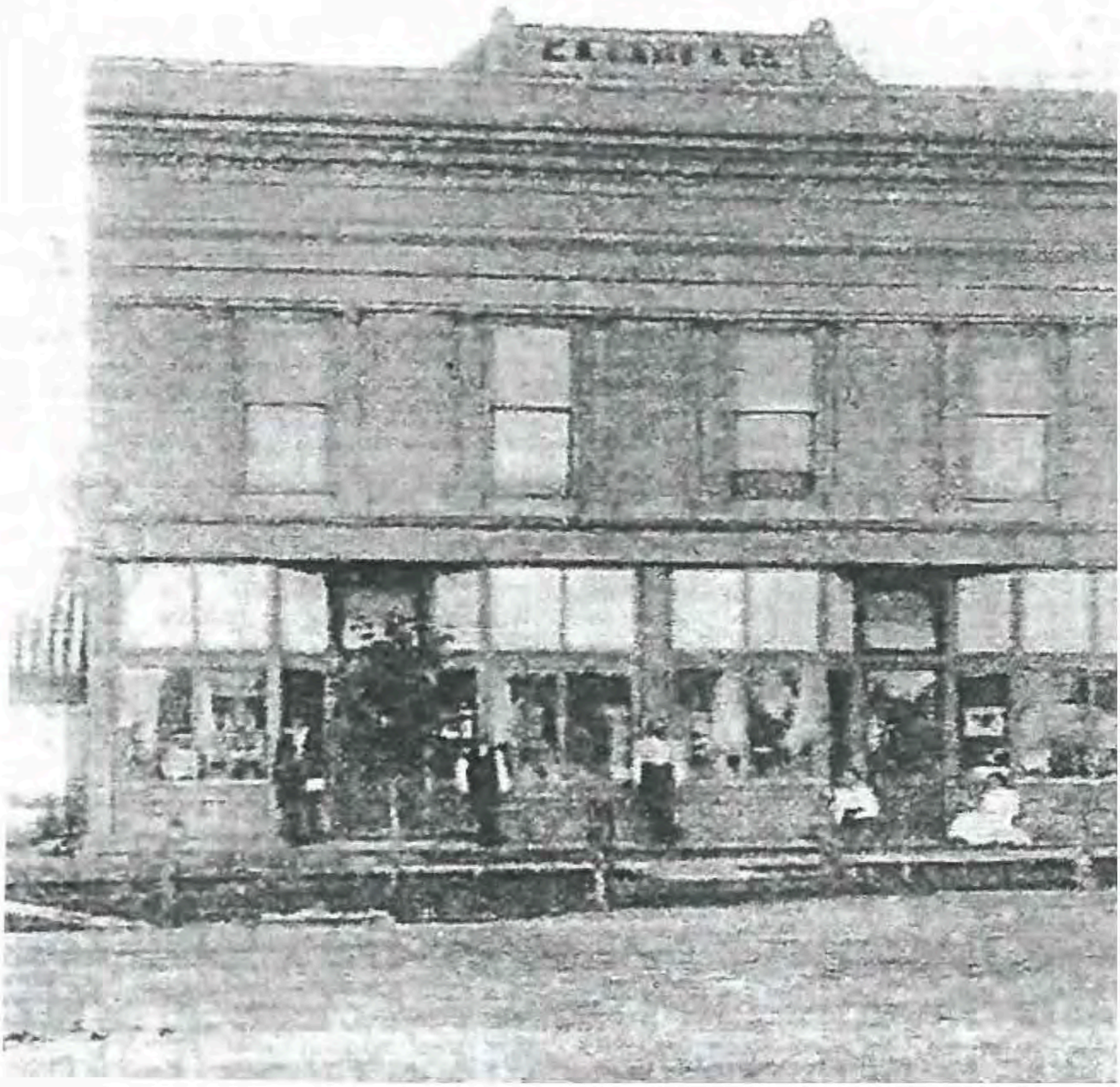


Figure 3.5-1: Original front facade window configuration

Figure 3.5-2: Original front facade obscured by trees

Figure 3.5-3: Front facade glazing circa 1960's


Figure 3.5-4: Current front facade and windows


Figure 3.5-5: Current front and South facade and windows

Figure 3.5-6: Current Southwest facade and windows


Figure 3.5-7: Current typical single hung aluminum window

## CONDITION EVALUATION

### Main Level

The windows are in Fair condition. No leaks or particular degradation has been observed. They are not energy efficient, with the large plate glass storefronts being particularly inefficient.

### Upper Level

The windows are in Fair condition. Not all of the upper windows open properly, several screens need replaced, but no leaks have been observed. They are not energy efficient.

## RECOMMENDATIONS

The windows are functional as is but are recommended to be replaced with more historically accurate but energy efficient double hung, one-over-one wood window units, with the main level street facing storefront being returned to its original configuration. The non-original central window on the front (East) facade that was presumably added for egress reasons, seriously disrupted the integrity of the Mesker facade should be removed if a code compliance path can be established to allow it. See the Preservation Plan section of this report for more detail.

# 3.6 INTERIOR FINISHES

## DESCRIPTION

### Main Level


Figure 3.6-1: Current main level interior at entrance

All of the main level finishes, except the pressed tin ceiling, have all been replaced or finished over. The main level floors are carpeted, the carpet appears to be installed over the original wood flooring, which can be seen exposed under the safe on display near the entry (Figure 3.6-1&2).

The main level walls are a combination of painted smooth troweled and rough stucco like plaster finishes. A small section of original pressed tin wall paneling in a running bond brick pattern can be seen above the dropped ceiling portion (Figure 3.6-4). Exposed columns and beams have been stuccoed over. The original cladding / finish is unknown. The exterior walls have been furred out and new GWB installed, hiding the original lathe and plaster and stamped tin wall coverings

The original pressed tin ceilings are still present. The front (East) portion of the ceiling over the main sales area and counter has been dropped with a typical suspended ceiling grid installed. Reproduction pressed tin panels were installed in the grid. Plumbing and electrical systems were run below the original tin ceiling, thus the non-historic dropped tin ceiling was presumably installed to hide these.

The display fixtures are of mixed styles and finishes, none of which are historic.

Figure 3.6-2: Current main level interior at entrance 2


Figure 3.6-3: Typical stuccoed over beams, columns, and dropped ceiling

Figure 3.6-4: Dropped tin ceiling and original tin brick pattern wall

## Upper Level

The original upper level finish details are largely unknown however it is discernible that the walls and original ceiling were lathe and cement plater and the floor was wood.

The floor is currently carpet over what appears to be the original wood flooring.

The walls are painted plaster. The interior has been through a number of reconfigurations over the building's lifetime and most, if not all, of the interior demising walls are Gyp. Wall Board (GWB) over 2x4 framing.

The ceilings are GWB hung on new 2x4 framing that has been dropped approximately 16". This extends across the entire upstairs. The original lathe and plaster ceiling and portions of wall finish can bee seen above the new dropped ceiling (Figure 3.6-6)

Figure 3.6-5: Current 2nd. level finish configuration

Figure 3.6-6: Dropped GWB ceiling and original lathe and plaster wall and ceiling

Figure 3.6-7: Dropped GWB ceiling and original lathe and plaster ceiling degradation



## Main Level

The main level carpet flooring is serviceable but in Fair to Poor condition. It's worn and stained in several areas. The wood flooring beneath appears intact. The wall finishes are in Good to Fair condition but are largely non-historic. The original tin ceiling that is visible is in Good to Fair condition, with a few spots of rust from past plumbing leaks. The portion above the new dropped ceiling has been cut up with new plumbing and electrical runs and is in Poor condition.

## Upper Level

The upper level carpet flooring is serviceable but in Fair to Poor condition. It's worn and stained in several areas and has some sections of fraying / tearing. The wood flooring beneath appears intact but in need of refinishing. The new ceiling is in good condition, the original plaster and lathe ceiling is in Poor condition with severe cracking and spalling in several locations.

# RECOMMENDATIONS

## Main Level

The main level carpet flooring should be removed and the original wood flooring restored if possible or replaced. The wall finishes should all be replaced. The original tin ceiling should be restored.

All of this should be done as part of the Preservation Plan scope, see that section of this report for more detail.

## Upper Level

The upper level carpet flooring should be replaced with a new floor covering and sound deadening layer TBD based on investigation. Given the age of the building, it's likely it was a wood floor as well. The walls should be repaired and refinished where required. The dropped ceiling should be removed, the lathe and plaster removed, all utilities re-run, new insulation strategies identified, and a new ceiling finish installed.

All of this work should be performed as part of the Preservation Plan scope, see that section of this report for more detail.

# 3.7 MECHANICAL SYSTEMS

## DESCRIPTION

### Heating

Heat for the building is provided by a gas hot water boiler feeding baseboard radiant heaters with multiple thermostat controlled zones. Metered natural gas is provided by a hook up to the Atmos Energy gas supply.

Hot water is provided by a gas hot water heater on the lower level and an electric hot water heater on the upper level. The upper level hot water heater supplies a small darkroom and possibly the upstairs kitchen and bathrooms as well.

Figure 3.7-1: Hot water boiler and distribution piping and hot water heater

Figure 3.7-2: Hot water boiler and hot water heater flue pipe

## Cooling

There are three swamp coolers installed in windows to cool the upstairs, and two installed through the walls in the downstairs. They are very old and expensive to maintain. In 2019 all 5 swamp coolers were serviced abut only two were able to be made to operate satisfactory.

Figure 3.7-3: NW exterior showing 3 evaporative coolers

## Plumbing

The plumbing system is a mix of old and new but most of both the waste and supply side has been replaced over the life of the building.

Domestic water is supplied via a metered water tap to the City of Cortez water system. All potable hot and cold water pipes that can be observed are newer soldered copper lines.

Drain waste vent system components can be observed in the basement / crawlspace. They area mixture of newer PVC and unknown aged black iron drain pipes. The building currently has two separate sewer taps, on for each floor.

There are inexpensive, non-historic plumbing fixtures in both upstairs and downstairs bathrooms, and in the upstairs commercially permitted kitchen.

Figure 3.7-4: Upper level closet showing HW heater and copper plumbing

## Other Mechanical

Restrooms each have switched exhaust fan ventilation ducted to the outdoors.

Kitchen has switched recirculating exhaust fan ventilation hood over the range.

There is no mechanical fresh air ventilation system installed.

## Fire Sprinklers

A fire sprinkler system has not been installed. See Analysis and Compliance section for further information

# CONDITION EVALUATION

## Heating

All heating system components are in Good condition. No leaks were noted in any part of the system. The boiler shows signs of wear on the surface but functions fine and is of serviceable age. There are owner reported issues with zoning and balancing of the system, producing uneven temperatures and occupant discomfort.

## Cooling

All cooling system components are in Poor condition.  Evaporative cooling maintenance contractors report that they are not able to maintain proper operation on three of the five units.

## Plumbing

Plumbing system components are in Good to Fair condition. No degradation or leaks were observed on the supply or the waste side. Bathroom and kitchen fixtures are in Good to Fair condition, all are serviceable and still within their expected service life.

## Heating

Regularly inspect and maintain all heating system components. Owner reports that zoning and thermostat functions are less than optimal. At such time that system needs upgrades or replacement, an evaluation and design of an optimal system, zoning and controls should be undertaken.

## Cooling

All cooling system components should be replaced as part of the overall Preservation Plan scope of work with particular attention paid to the consistent temperature and humidity control needed for artwork and artifacts houses at the Center.

## Plumbing

Regularly inspect and maintain all plumbing systems. Bathrooms and Kitchen would likely be remodeled as part of a future scope of work and at that time all fixtures should be replaced for both cosmetic, water saving, and preventative maintenance reasons.

# 3.8 ELECTRICAL SYSTEMS

## DESCRIPTION

### Distribution System

The building contains a mix of ages of wiring, panels and breakers but all of it that could be observed was of modern type, including standard replaceable circuit breakers and PVC sheathed wire, which was introduced around 1950.

Much of the renovation work that was done included running a large amount of new wiring above the new dropped ceilings. In general, this is a mess and exhibits a lack of detail and clean and professional installation methods but no obvious unsafe electrical conditions were observed. (Note that this is a general observation only, a qualified electrician or electrical inspector should be consulted for electrical code analysis.)


Figure 3.8-1: Main level main breaker panel

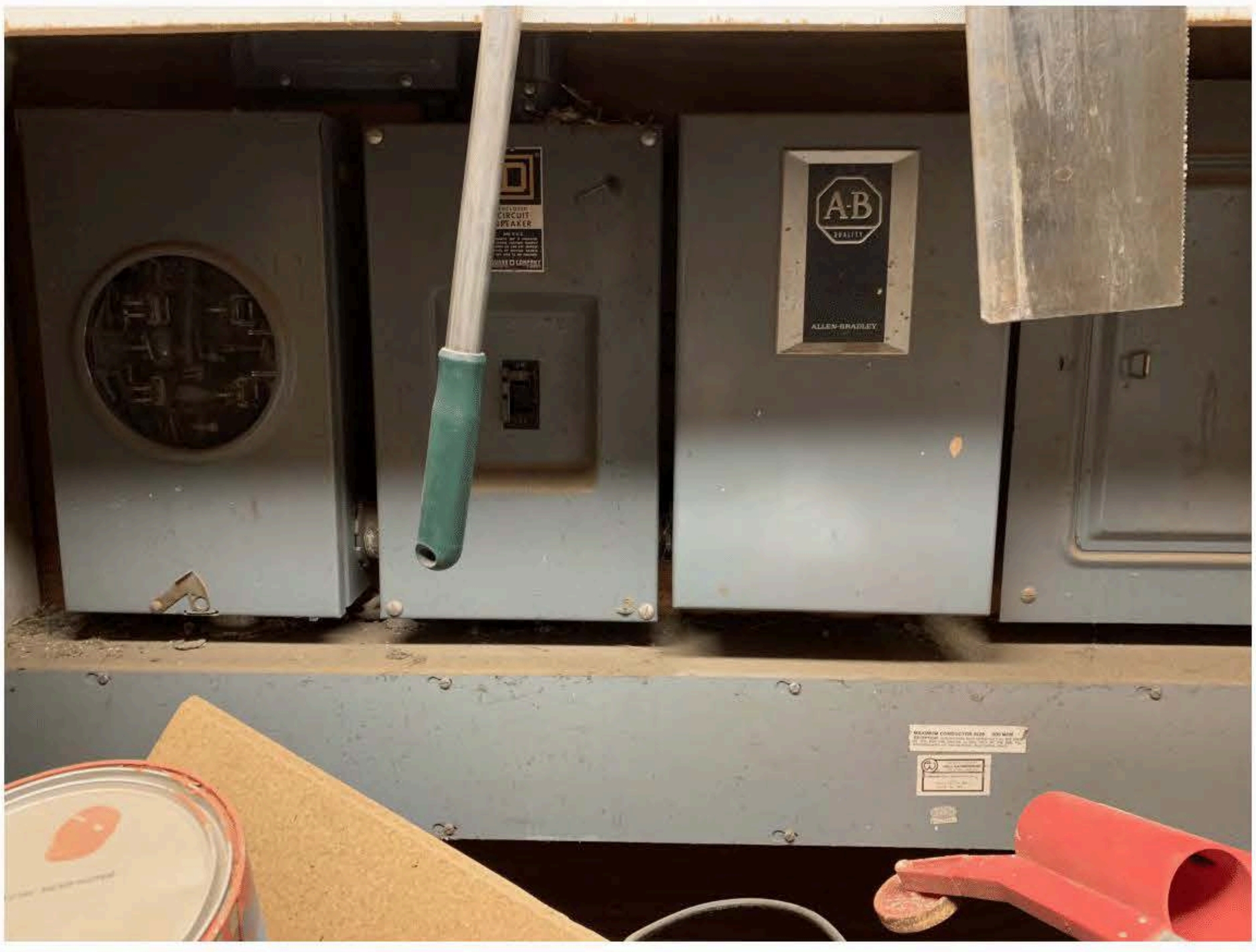



Figure 3.8-2: Main level main breaker panel

Figure 3.8-3: Main level conduit runs and lighting at dropped ceiling

Figure 3.8-4: Upper level wire runs

## Lighting

Interior lighting fixtures throughout are a mix of suspended, surface mount and dropped ceiling grid mounted fluorescent, and incandescent track systems.


Figure 3.8-5: Main level surface mount track lighting

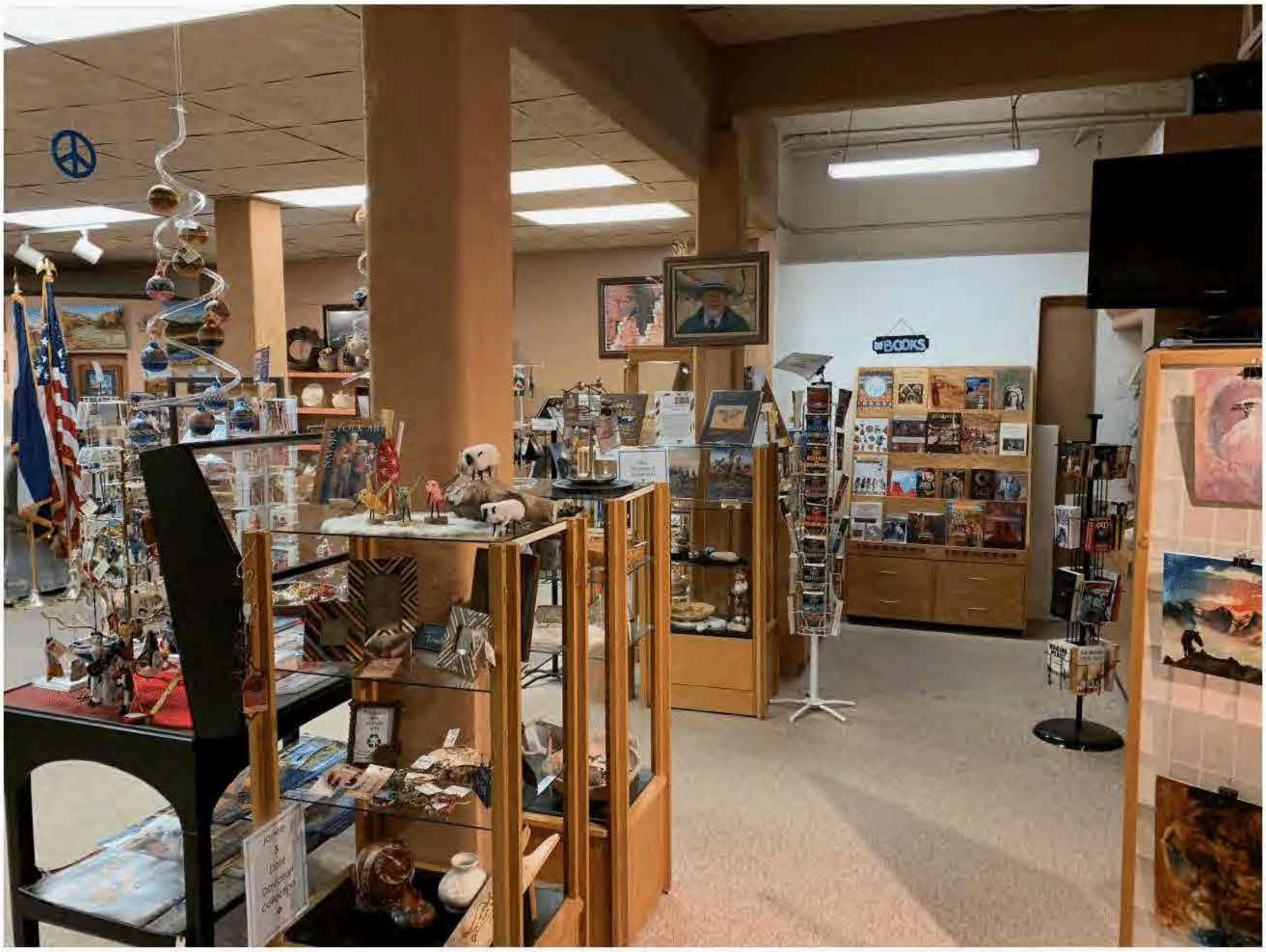



Figure 3.8-6: Main level dropped and grid mount fluorescent lighting

Exterior lighting includes recessed lights under the vestibules, a halogen light above the exterior door on the second floor that is inoperable, and at least two flood lights that shine onto the plaza amphitheater. These fixtures are inappropriate for the use and character of the building and grounds.

## CONDITION EVALUATION

While no major issues with the electrical system were observed and the system components that are observable appear to be in Good condition, the occupants state that there are circuits that frequently trip breakers so loads and circuits need to be mapped and evaluated.

Several of the light fixtures are either inoperable or inappropriate for their intended use. Additionally, there are issues with many of the fluorescent fixtures. Loud or failed ballasts being the most common.

Additionally, there are an inadequate amount of outlets throughout the entire building and the occupants use extension cords to make up for this.

Also note that the tower in the courtyard was intended to be able to provide sound services for events but was never completed and hooked up.

## RECOMMENDATIONS

A qualified electrician should inspect the entire electrical system, consult with occupants on issues, and produce a written analysis and recommendation on compliance and remedies for any issues discovered.

An inventory of lighting fixtures and lighting needs should be conducted as part of the design process for any future work plans, this would include options to replace fixtures or groups of lights in the mean time if needed.

No indication of historic lighting fixtures was found in photos, reference material, on on site. It is recommended that all new light fixtures are modern, but simple in design and detail.

# 4.0 ANALYSIS & COMPLIANCE

## 4.1 HAZARDOUS MATERIALS

A detailed hazardous materials survey was not included in the scope of this assessment.

Since the building was constructed before lead based paint was banned for residential use in the US in 1978, it is almost certain that there are lead based paints on interior and exterior materials and surfaces. The more recent visible coats of paint are likely to be lead free, however any future maintenance or construction activities that involve sanding or heating paint coatings should take into account the near certainty of the existence of lead based paint and professional testing and mitigation contractors should be consulted.

Asbestos is another common hazardous building material. It was often used in ceiling and wall tiles, some sheet flooring / linoleum, materials pipe and duct insulation, some forms of adhesives, and glass bedding materials. No obvious likely sources were observed but likely sources should be taken into account during any restoration work.

### Recommendations

Hazardous materials surveys to determine the presence of coatings containing lead, lead piping, and asbestos containing materials should be conducted before any planned restoration work. The survey report should contain recommendations for the abatement of any hazardous materials identified. Preservation Briefs: 37, Appropriate Methods for Reducing Lead-Paint Hazards in Historic Buildings is a good source of information lead-paint issues in older buildings. It is available online from the Office of Archeology and Historic Preservation of the Colorado Historical Society.

## 4.2 MATERIALS ANALYSIS

No detailed materials analyses were included in the scope of this assessment.

### Recommendations

If the scope of work outlined in the Preservation Plan is carried out, a paint analysis should be performed on both interior and exterior original materials to try to determine an appropriate historically correct color scheme for the building.

## 4.3 ZONING CODE COMPLIANCE

The subject building, located in the Original Townsite (Cortez Original), is currently zoned CBD (Central Business District). All activities conducted by the Cortez Cultural Center are permitted under this zoning designation and no foreseeable conflicts exist with future anticipated scope of work or programming changes. If the building use or occupancy ever change, a new Zoning Code review would be required.

## 4.4 BUILDING CODE COMPLIANCE

This Building Code Compliance assessment was conducted based on observations and measurements taken during the HSA preparation. Further, the City of Cortez has adopted the 2015 International Building Code (IBC), including the 2015 International Existing Building Code (IEBC). These codes were reviewed for compliance and additionally the City of Cortez building inspector was consulted for any additional concerns.

The building was analyzed using the above applicable codes. The building meets the minimum standards for existing buildings described in Chapter 34 of the IBC and the IEBC allows the continued use of this building in its current configuration and occupancy. If there were any Minor or Substantial alterations to take place, a full building code review and compliance path should be conducted and set forth during the design process. If any of the following occur, the building would require a full code review and compliance pathway.

- Unsafe conditions as described in Section 115 Chapter 2 of the IEBC.
- Change in building's occupancy classification.
- Future additions, alterations and major repairs.
- Improper maintenance causing a safety or sanitation issue.

### Code Review Building Summary

| **Building Area:** | | **Notes** |
|---|---|---|
| Per Assessor's Office | Total 6364 Sq. Ft. | |
| As measured 1st. Flr. | ~3192 Sq. Ft. | |
| As measured 2nd. Flr. | ~3192 Sq. Ft. | |
| As measured Basement | ~400 Sq. Ft. | |
| Total | 6784 Sq. Ft. | |

| | | |
|---|---|---|
| Building Height: | Aprox. 26’ Max | |
| Construction Type: | Type V-A (5A) | A wood-framed building with 1 hr. rated assemblies. |
| Occupancy Classification: | Building includes A-3 (Assembly) , M (Mercantile)and B (business) Occupancies | A-3 includes Art Galleries and Exhibition Halls, M includes display and sale of merchandise, B includes Office, Professional and Service type transactions. |

NOTE: Prior to any work on the building occurring, a full Building Code review based on all work and plans would be required and a building permit would have to be procured from the City of Cortez.

## 4.5 ACCESSIBILITY COMPLIANCE

The building and site are generally accessible, though not compliant with all ADA requirements. An accessible path / ramp is provided at the main entrance from the curb adjacent to the alley to the South. Paved sidewalks provide access from the North. Both the ramp and the sidewalk from the North end on a wooden boardwalk that is in Fair to Poor condition. While I do not believe the deck violates ADA statutes, it it worn and needs to be replaced.

There are no specific handicapped parking spaces designated along the street, though street parking is available along the curb in front of the building.

The main entrance does not have ADA compliant door hardware or an operator. In addition, the door opening has a non ADA threshold.

Restrooms are generally accessible. As part of the 2001-2003 rehabilitation of the building, accessories such as grab bars were installed. Doors into the restrooms are of adequate width

The second floor is accessible via an elevator. The 2nd. floor restrooms are not accessible.

## Recommendations

Provide appropriate ADA compliant hardware and door operators at interior and exterior doors. (Critical)

Modify threshold at main entrance to allow for ADA access into the first floor of the building. (Critical)

Repair or replace wooden boardwalk for general safety and ease of entry. (Serious)

# 5.0 PRESERVATION PLAN

This section outlines and categorizes the work that needs to be done, the work that is recommended to be done per the buildings historic status and current condition, as well as the work that the Owner / Occupants would like to do to improve their use of the facility. These things are all interrelated and work prioritization and phasing takes into account the holistic nature of any building construction.

The Secretary of the Interior's Standards for the Treatment of Historic Properties describe four possible treatment approaches for historic buildings. The treatment approaches are: Preservation, Rehabilitation, Restoration and Reconstruction. The definitions of each are below as defined by *The Secretary Of The Interior's Standards For The Treatment Of Historic Properties With Guidelines For Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings for definitions of Rehabilitation and Restoration.*

Following the definitions is a brief discussion of, and recommendations for the treatment approach.

## Preservation

*Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment. The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.*

Preservation is not an appropriate treatment for the building since there are many non-historic additions that are targeted to be removed, as well as elements that will be reconstructed

## Rehabilitation (Chosen Treatment Approach)

*Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.*

*The standards for rehabilitation are:*

1. *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*
2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.*
3. *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*
4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*
5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*
6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*
7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*
8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*
9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated*

*from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

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

This is the overall approach appropriate for this building. While some building elements require restoration and/or reconstruction, the building as a whole will be Rehabilitated to enhance it's historic chanter and significance, and so that it can continue to meet the current and future needs of the occupants, provide modern services and occupant comfort, and remain a crucial part of the community's cultural life.

- The main level needs to modern retail, gallery and support functions such as restrooms, break room, back stock, general storage, and exhibit/artifact storage that integrate with the historic fabric and use as a mercantile, while allowing the space to function well for current uses.
- The upper level needs a mix of gathering, kitchen, and office spaces, similar to its current configuration that has evolved over the life of the building.
- The upper level may include housing and studio space for an artist in residency program.
- The pueblo mural and current amphitheater and landscape need to be preserved and enhanced for the CCC's outdoor cultural programming.
- The existing original Mesker Brothers facade and cornice on the upper level needs to be preserved and restored.
- The remaining original pressed tin ceiling on the main level, some of which is still exposed, some of which is hidden behind the new dropped pressed tin ceiling.
- The original wooden floor on the main level should be restored
- The original interior iron columns should be exposed and restored
- The remaining original pressed tin brick patterned wall panels need to be preserved
- The faux adobe / pueblo porch, vigas, and stucco on the East, South and West facades needs to be removed and the historically correct storefront Reconstructed.
- The West stair should be made compatible with the historic character of the building and covered for safety and durability.

- The basement should be fully structurally assessed, stabilized, and made suitable for mechanical / electrical / HVAC equipment and service runs.
- Remove existing swamp cooler, install hybrid ducted split system with humidity control and energy recovery ventilation. Re-zone and reconfigure hot water boiler and radiators.
- See other Treatment Approach sections for further details on individual building elements.

## Building elements needing reconstructed in a historically appropriate manner

- The primary element requiring reconstruction is the main (ground) level wood and glass storefront. Historic photos show a wood and glass storefront with two entrances that complemented the Masker facade beautifully. The non-historic faux adobe style porch additions need to be removed. In conjunction with the restoration of of the Mesker Bros. pressed tin facade on the upper level, the reconstruction of the entries and storefronts will greatly enhance both the historic value of the building, restoring visual continuity to the front (street) facade, as well as improve functionality for the current occupants. Their use and programming could benefit from having two separate entrances that work in conjunction with the possible future retail and gallery configurations. See prior sections of this report for more information.
- The South and West facades are to be clad in a clapboard wood style siding.
- Windows and exterior doors are to be replaced with the historically appropriate style and configuration.

## Restoration

*Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumb ing systems and other code-required work to make properties functional is appropriate within a restoration project. The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.*

Restoration is not an appropriate treatment for the building due to needed interior spatial configurations, mechanical upgrades, and exterior mural preservation.

## Reconstruction

*Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.*

Reconstruction is not the appropriate treatment approach for the building.

# 5.1 PRIORITIZED WORK

The Preservation Plan takes the recommended treatments prescribed in section 3.0 and prioritizes the work into a logical order. This order ranks the most urgent work, such as deterioration, structural weakness, and/or life safety issues, over less urgent repairs and modifications or restoration work.

These are ranked in descending order of severity: Critical, Serious, and Minor.

Then there is a category for work, such as restoration,  that the owners / occupants would like to perform but is not a Deficiency.

## Critical Deficiencies

*One or more of the following indicate a Critical Deficiency:*

- *Advanced deterioration has resulted in failure of the building element, feature, or space, or will result in its failure if not corrected within two years.*
- *Accelerated deterioration of adjacent or related building materials has occurred as a result of the feature or element's deficiency.*
- *The feature or element poses a threat to the health and/or safety of the user.*
- *The feature or element fails to meet a code/compliance requirement.*

List of Critical Deficiencies

A. Faux vigas failing (Fall hazard, life safety) - Remove and patch exterior finishes as required for service until full facade Rehabilitation takes place.

B. Roof covering detached from drip edge flashing - Have qualified roofing professional asses and repair roof / flashing junction.

## Serious Deficiencies

*One or more of the following indicate a Serious Deficiency:*

- *Deterioration, if not corrected within two to five years, will result in failure of the feature or element.*
- *Deterioration of a feature or element, if not corrected within two to five years, may pose a threat to the health and/or safety of the user.*
- *Deterioration of adjacent or related building materials and/or systems will occur as a result of the deficiency of the feature or element.*

List of Serious Deficiencies

A. Amphitheater drainage system - Evaluate and repair / replace to prevent backups and overflow.

B. Water ingress into basement - Evaluate all ingress points and devise exterior and interior drainage plan to mitigate.

C. Tree stump at North wall - Remove and repair wall and foundation. Note that foundation and wall system details should be observed and recorded at this time for further future structural evaluations.

D. Boardwalk deterioration at entry sidewalk - Design and implement historically correct / compatible sidewalk. Phase with storefront restoration if possible.

## Minor Deficiencies

One or more of the following indicate a minor deficiency:

- Standard preventive maintenance practices and building conservation methods have not been followed.
- A reduced life expectancy of affected or related building materials and/or systems will result.
- A condition exists with long-term impact beyond five years.

List of Minor Deficiencies

A. Basement structural system review - While there is no known structural issues or concerns at this time, there are uneven floors throughout the building and a conglomeration of structural shorings and reinforcements in the basement. This work should precede any further design for future restoration or reconstruction work so that any issues discovered or leveling work can coincide with other Rehabilitation work.

B. HAVC / Cooling systems need to be upgraded for occupant comfort and preservation of artworks and artifacts.

C. Electrical system issues that house breakers to trip need to be understood and rectified.

## 5.2 PHASING PLAN

### Phase One

Address all Critical Deficiencies

Critical Deficiencies

A. Faux vigas failing (Fall hazard, life safety) - Remove and patch exterior finishes as required.

B. Roof covering detached from drip edge flashing - Have qualified roofing professional assess and repair.

### Phase Two

### Phase 2A

Full conceptual architectural design for all planned Rehabilitation work, including plans and renderings sufficient to communicate design intent for community outreach and fund raising. Detailed engineering and architectural design and construction documents only as required to implement Phase 2B.

## Phase 2B

Assess basement level structural system, then full structural system up to roof level. Determine any structural work to be performed for future design(s) and code compliance, evaluate settling and plan for leveling as required.

Rehabilitate the facade to visually match the original storefront while integrating current needs of the CCC, restore the pressed tin facade, remove new window if code compliance path allows.

Address all Serious Deficiencies.

Serious Deficiencies

A. Amphitheater drainage system - Evaluate and repair / replace to prevent backups and overflow.

B. Water ingress into basement - Evaluate all ingress points and devise exterior and interior drainage plan to mitigate.

C. Tree stump at North wall - Remove and repair wall and foundation. Note that foundation and wall system details should be observed and recorded at this time for further future structural evaluations.

D. Boardwalk deterioration at entry sidewalk - Design and implement historically correct / compatible sidewalk. Phase with storefront restoration if possible.

## Phase Three

Perform additional design, engineering and shop drawing work as required to implement Phase 3.

Update and Mechanical and Electrical systems.

Rehabilitate the 1st floor interior to highlight original building fabric while enhancing the design and function of the current CCA needs.

Replace all windows and doors at ground level per design.

## Phase Four

Perform additional design, engineering and shop drawing work as required to implement Phase 4.

Rehabilitate the upper level - Raise ceiling, redesign for anticipated uses, reinforce roof as required, new roofing and solar install (electrical service setup for this in phase two).

Replace all windows and doors at 2nd. level per design.

Rehabilitate / Reconstruct the South and West exterior walls and the West main staircase.

# 5.3 ESTIMATE OF PROBABLE COST OF CONSTRUCTION

## Project Cost Summary by Phase

*CCC HSA - Schematic Cost Estimate*

*October 28, 2019*

See Phasing Plan in HSA for details of each phase

| | |
|---|---|
| ***Phase 1*** | **$4,500.00** |
| ***Phase 2A*** | **$27,000.00** |
| ***Phase 2B*** | **$297,500.00** |
| **Phase 3** | **$315,000.00** |
| **Phase 4** | **$229,000.00** |
| **Approximate Total Project Costs** | **$873,000.00** |

# Project Cost Summary

*CCC HSA - Schematic Cost Estimate*

*October 28, 2019*

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**Project Information**

| | |
|---|---|
| *Assumed construction time* | 52 weeks |
| *Building area* | 6,800 s.f. |

| | | | |
|---|---|---|---|
| **Additional Project Costs (owner-direct costs)** | | | **$80,400.00** |
| *Total non-construction contract costs* | | | $80,400.00 |
| **Construction Costs** | **$117 /s.f.** | | **$792,566.55** |
| *Division 01 - General Requirements* | $23 /s.f. | 24% | $153,050.00 |
| *Division 02 - Existing Conditions and Demolition* | $4 /s.f. | 4% | $27,000.00 |
| *Division 03 - Concrete* | $4 /s.f. | 4% | $28,200.00 |
| *Division 04 - Masonry* | $0 /s.f. | 0% | $0.00 |
| *Division 05 - Metals* | $0 /s.f. | 0% | $1,600.00 |
| *Division 06 - Wood* | $6 /s.f. | 7% | $43,883.78 |
| *Division 07 - Thermal and Moisture Protection* | $18 /s.f. | 19% | $124,170.00 |
| *Division 08 - Openings (doors & windows)* | $11 /s.f. | 12% | $74,356.00 |
| *Division 09 - Finishes* | $8 /s.f. | 9% | $55,362.67 |
| *Division 10 - Specialties* | $1 /s.f. | 1% | $3,860.00 |
| *Division 11 - Equipment* | $1 /s.f. | 1% | $4,700.00 |
| *Division 12 - Furnishings* | $0 /s.f. | 0% | $3,000.00 |
| *Division 22 - Plumbing* | $3 /s.f. | 3% | $19,600.00 |
| *Division 23 - HVAC* | $6 /s.f. | 6% | $39,400.00 |
| *Division 26 - Electrical* | $7 /s.f. | 8% | $48,400.00 |
| *Division 31 - Earthwork* | $0 /s.f. | 0% | $3,100.00 |
| *Division 32 - Exterior & Site Improvements* | $1 /s.f. | 2% | $10,000.00 |
| *Subtotal* | | 100% | $639,682.44 |
| *Total Cost Changes / Contingencies* | | 10% | $63,968.24 |
| *Contractor Profit* | | +10% | $63,968.24 |
| *Sales Tax* | | +3.9% | $24,947.62 |

---

**Total Project Costs** **$872,966.55**

## Construction Cost Detail

| Categories | Item Description | Materials | | | Labor | | | Contractor / Sub | Markup | Costs | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CSI Masterformat Division | | Quantity | Units | Unit Cost | Crew | Hours | Hourly Rate | | | Subtotal (contract value) | |
| Division 01 - General Requirements | Supervisor | | | | 1 | 2,080 | $ 55.00 | | | $ 114,400 | |
| Division 01 - General Requirements | Carpenter | | | | 1 | 2,080 | $ 45.00 | | | $ 93,600 | |
| Division 01 - General Requirements | Carpenter | | | | 1 | 2,080 | $ 45.00 | | | $ 93,600 | |
| Division 01 - General Requirements | Carpernter's Assistant | | | | 1 | 2,080 | $ 25.00 | | | $ 52,000 | |
| Division 01 - General Requirements | Job Tent | 0 | | $ 1,500.00 | | | | | | $ - | |
| Division 01 - General Requirements | Beam Saw | 0 | | $ 800.00 | | | | | | $ - | |
| Division 01 - General Requirements | Temp. Power Poles | | | | | | | | | $ - | |
| Division 01 - General Requirements | Temp. Power Hook-Up | 0 | | $ 200.00 | | | | | | $ - | |
| Division 01 - General Requirements | Power Use | 12 | | $ 100.00 | | | | | | $ 1,200 | |
| Division 01 - General Requirements | Temp. Water Hook-Up | | | | | | | | | $ - | |
| Division 01 - General Requirements | Water Use | | | | | | | | | $ - | |
| Division 01 - General Requirements | Temp Toilets | 12 | Months | $ 175.00 | | | | | | $ 2,100 | |
| Division 01 - General Requirements | Temp Fence | | | | | | | | | $ - | |
| Division 01 - General Requirements | Temp Scaffolding and Platforms | | | | | | | | | $ - | |
| Division 01 - General Requirements | Construction and Waste Management Disposal | 1 | Fixed price | $ 1,200.00 | | | | | | $ 1,200 | |
| Division 01 - General Requirements | Jobsite Cleaning & Supplies | 1 | Fixed price | $ 600.00 | | | | | | $ 600 | |
| Division 01 - General Requirements | Protection of floors and portions of existing building | 1 | Fixed price | $ 1,500.00 | | | | | | $ 1,500 | |
| Division 01 - General Requirements | Construction Wastewater Management (silt fences, sand, gravel) | 1 | Fixed price | | | | | | | $ - | |
| Division 01 - General Requirements | Site Office | | | | | | | | | $ - | |
| Division 01 - General Requirements | Site Office Supplies/Equipment | | | | | | | | | $ - | |
| Division 01 - General Requirements | Street Barricades/Traffic Control Devises | | | | | | | | | $ - | |
| Division 01 - General Requirements | First Aid Supplies | 1 | Fixed price | $ 50.00 | | | | | | $ 50 | |
| Division 01 - General Requirements | General Clean Up (Ongoing jobsite management, facilitating inspections) | | Fixed price | $ - | | | | | | $ - | |
| Division 01 - General Requirements | Clean Streets | | | | | | | | | $ - | |
| Division 01 - General Requirements | Tools and Equipment | 1 | Fixed price | $ 800.00 | | | | | | $ 800 | |
| Division 01 - General Requirements | Warranty Work | | | | | | | | | $ - | |
| Division 02 - Existing Conditions and Demolition | Demolition: | 1 | Allowance | $ 20,000.00 | 1 | | $ 45.00 | | | $ 20,000 | |
| Division 02 - Existing Conditions and Demolition | Excavation prep for foundations | 1 | Allowance | $ 6,000.00 | 1 | | $ 45.00 | | | $ 6,000 | |
| Division 02 - Existing Conditions and Demolition | Demolition: additional waste and hauling | 1 | Allowance | $ 1,000.00 | | | | | | $ 1,000 | |
| Division 02 - Existing Conditions and Demolition | Special Inspections | 1 | Allowance | | | | | | | $ - | |
| Division 03 - Concrete | Footings, Concrete Only | 20 | CY | $ 155.00 | | | | | | $ 3,100 | |
| Division 03 - Concrete | Grade Beam reinforcement | | | $ 250.00 | | | | | | $ - | |
| Division 03 - Concrete | House Footing reinforcement | 20 | | $ 125.00 | | | | | | $ 2,500 | |
| Division 03 - Concrete | Form Panels, 4x10 | | Allowance | $ 3,800.00 | | | | | | $ - | |
| Division 03 - Concrete | Form ties, shoring, framing members | 1 | Allowance | $ 2,000.00 | | | | | | $ 2,000 | |
| Division 03 - Concrete | Concrete truck and pump | 1 | Allowance | $ 1,200.00 | | | | | | $ 1,200 | |
| Division 03 - Concrete | Basement Walls / Stemwalls | 30 | CY | $ 155.00 | | | | | | $ 4,650 | |
| Division 03 - Concrete | Basement Walls / Stemwalls reinforcement | 30 | CY | $ 125.00 | | | | | | $ 3,750 | |
| Division 03 - Concrete | Grinder & power trowel rental | 0 | Allowance | $ 800.00 | | | | | | $ - | |
| Division 03 - Concrete | Basement Floor Slab | | CY | $ 150.00 | | | | | | $ - | |
| Division 03 - Concrete | Slab reinforcement meshes | 0 | SF | $ 0.40 | | | | | | $ - | |
| Division 03 - Concrete | Main floor slabs | 0 | CY | $ 150.00 | | | | | | $ - | |
| Division 03 - Concrete | Garage Slab | 0 | CY | $ 150.00 | | | | | | $ - | |
| Division 03 - Concrete | Misc. Site Flatwork | 0 | Allowance | $ 2,500.00 | | | | | | $ - | |
| Division 03 - Concrete | Labor for forming stem walls | | | $ - | 2 | 60 | $ 55.00 | | | $ 6,600 | |
| Division 03 - Concrete | Additional labor for pouring basement walls | | | $ - | 2 | 40 | $ 55.00 | | | $ 4,400 | |
| Division 03 - Concrete | Additional labor for slab pours | | | $ - | 2 | 0 | $ 50.00 | | | $ - | |
| Division 04 - Masonry | | | | | | | | | | $ - | |
| Division 05 - Metals | Gutters, downspouts, water management | 1 | Allowance | $ 1,600.00 | | | | | | $ 1,600 | |
| Division 05 - Metals | Railing cables, tensioners, terminations (no posts) | | LF | $ 80.00 | | | | | | $ - | |
| Division 05 - Metals | Steel Deck C-Channel Beams, L2 | | LBS. | $ 1.15 | | | | | | $ - | |
| Division 05 - Metals | Steel Deck C-Channel Beams, L3 | | LBS. | $ 1.15 | | | | | | $ - | |
| Division 05 - Metals | Wide flange interior stair beams | | LBS. | $ 1.15 | | | | | | $ - | |
| Division 05 - Metals | Shop prep of steel beams (welded studs, post flanges, railing posts) | | Allowance | $ 1,000.00 | | | | | | $ - | |
| Division 05 - Metals | Field welding deck beam corners and special inspections (1 day) | | Allowance | | | | | | | $ - | |
| Division 05 - Metals | Garage, Steel Roof Beams | | LBS. | $ 1.15 | | | | | | $ - | |
| Division 06 - Wood | Additional Carpentry Labor | | | | 1 | 160 | $ 35.00 | | | $ 5,600 | |
| Division 06 - Wood | Exterior Rough Carpentry | | | | | | | | | $ - | |
| Division 06 - Wood | Exterior wall framing, studs and plates only | | SF | $ 0.70 | | | | | +20% | $ - | |
| Division 06 - Wood | Simpson connections | 1 | LS | $ 1,000.00 | | | | | | $ 1,000 | |
| Division 06 - Wood | Exterior wall plywood window bucks | | EA | $ 25.00 | | | | | | $ - | |
| Division 06 - Wood | Exterior wall plywood sheathing | 4,500 | SF | $ 0.75 | | | | | +20% | $ 4,050 | |
| Division 06 - Wood | Floor acoustic mat | 3,200 | SF | $ 0.75 | | | | | | $ 2,400 | |
| Division 06 - Wood | Roof framing package | 3,200 | SF | $ 1.25 | | | | | | $ 4,000 | |
| Division 06 - Wood | Roof sheathing | 3,200 | SF | $ 1.25 | | | | | +20% | $ 4,800 | |
| Division 06 - Wood | Nails, screws, connections, fasteners, anchors | 1 | Allowance | $ 1,400.00 | | | | | | $ 1,400 | |
| Division 06 - Wood | Simpson ATS assembly | 1 | Allowance | $ 1,000.00 | | | | | | $ 1,000 | |
| Division 06 - Wood | Interior Rough Carpentry | | | | | | | | | $ - | |
| Division 06 - Wood | Interior wall framing | 2,600 | SF | $ 1.00 | | | | | | $ 2,600 | |
| Division 06 - Wood | Millwork & Finish Carpentry | | | | | | | | | $ - | |
| Division 06 - Wood | Wall base | 817 | LF | $ 2.00 | | | | | | $ 1,634 | |
| Division 06 - Wood | Casework: main kitchen | 1 | Allowance | $ 8,000.00 | | | | | | $ 8,000 | |
| Division 06 - Wood | Casework: misc. built-in storage | 1 | Allowance | $ 3,000.00 | | | | | | $ 3,000 | |
| Division 06 - Wood | Casework: bathroom vanities | 2 | Allowance | $ 1,200.00 | | | | | | $ 2,400 | |
| Division 06 - Wood | Casework: main kitchen counter tops | 1 | Allowance | $ 2,000.00 | | | | | | $ 2,000 | |
| Division 07 - Thermal and Moisture Protection | Insulation | | | | | | | | | | |
| Division 07 - Thermal and Moisture Protection | Exterior framed walls | 6,000 | SF | $ 1.00 | | | | | | $ 6,000 | |
| Division 07 - Thermal and Moisture Protection | Roof PUR (8" depth) | 3,200 | SF | $ 4.50 | | | | | | $ 14,400 | |
| Division 07 - Thermal and Moisture Protection | Roof coverboard | 3,200 | SF | $ 1.00 | | | | | | $ 3,200 | |
| Division 07 - Thermal and Moisture Protection | Exterior framed wall BIBs | 3,500 | SF | $ 1.75 | | | | | | $ 6,125 | |
| Division 07 - Thermal and Moisture Protection | Basement furring wall BIBs | 1,200 | SF | $ 1.25 | | | | | | $ 1,500 | |
| Division 07 - Thermal and Moisture Protection | Waterproofing | | SF | | | | | | | $ - | |
| Division 07 - Thermal and Moisture Protection | Exterior wall vaproshield RS or Pro clima fronta quattro | 60 | SF | $ 0.75 | | | | | | $ 45 | |
| Division 07 - Thermal and Moisture Protection | Below grade | 2,400 | SF | $ 0.50 | | | | | | $ 1,200 | |
| Division 07 - Thermal and Moisture Protection | Roof Air Barrier | 3,200 | SF | $ 0.75 | | | | | | $ 2,400 | |
| Division 07 - Thermal and Moisture Protection | Root barrier + drain material | 1,000 | SF | $ 1.50 | | | | | | $ 1,500 | |
| Division 07 - Thermal and Moisture Protection | Roofing Materials - Material & Labor | 32 | Squares | $ 650.00 | | | | | | $ 20,800 | |
| Division 07 - Thermal and Moisture Protection | Rooftop Vegetation Growing Medium | 0 | CY | $ 80.00 | | | | | | $ - | |
| Division 07 - Thermal and Moisture Protection | Rooftop Vegetation | 0 | SF | $ 2.50 | | | | | | $ - | |
| Division 07 - Thermal and Moisture Protection | Roofing Install (insulation & air barrier) | 1 | LS | $ 2,500.00 | | | | | | $ 2,500 | |
| Division 07 - Thermal and Moisture Protection | Siding, Primary Material | 60 | Squares | $ 500.00 | | | | | | $ 30,000 | |
| Division 07 - Thermal and Moisture Protection | Siding crew labor | 60 | Squares | $ 425.00 | | | | | | $ 25,500 | |
| Division 07 - Thermal and Moisture Protection | Furring strips + 6" screws | 60 | Squares | $ 150.00 | | | | | | $ 9,000 | |
| Division 08 - Openings (doors & windows) | Windows | 600 | SF | $ 80.00 | | | | | | $ 48,000 | |
| Division 08 - Openings (doors & windows) | Exterior door assemblies | 96 | SF | $ 136.00 | | | | | | $ 13,056 | |
| Division 08 - Openings (doors & windows) | Exterior swing door hardware | 4 | EA | $ 350.00 | | | | | | $ 1,400 | |

## Construction Cost Detail

| Categories | Item Description | Materials | | | Labor | | | Contractor / Sub | Markup | Costs | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CSI Masterformat Division | | Quantity | Units | Unit Cost | Crew | Hours | Hourly Rate | | | Subtotal (contract value) | |
| Division 08 - Openings (doors & windows) | Interior doors, prehung | 10 | EA | $ 750.00 | | | | | | $ 7,500 | |
| Division 08 - Openings (doors & windows) | Interior door hardware | 10 | EA | $ 200.00 | | | | | | $ 2,000 | |
| Division 08 - Openings (doors & windows) | Skylights | 2 | EA | $ 1,200.00 | | | | | | $ 2,400 | |
| Division 09 - Finishes | GWB all walls | 3,500 | SF | $ 3.00 | | | | | | $ 10,500 | |
| Division 09 - Finishes | Ceilings | 1 | Allowance | $ 10,000.00 | | | | | | $ 10,000 | |
| Division 09 - Finishes | GWB ceilings | 800 | SF | $ 3.00 | | | | | | $ 2,400 | |
| Division 09 - Finishes | Ceramic tile | 200 | SF | $ 4.00 | 2 | 30 | $ 50.00 | | | $ 3,800 | |
| Division 09 - Finishes | Ceramic tile | 400 | SF | $ 2.00 | 2 | 30 | $ 50.00 | | | $ 3,800 | |
| Division 09 - Finishes | Kitchen backsplash | 18 | SF | $ 25.00 | 1 | 20 | $ 50.00 | | | $ 1,450 | |
| Division 09 - Finishes | Wood Floors - Refinish | 6,000 | SF | $ 2.00 | | | | | | $ 12,000 | |
| Division 09 - Finishes | Paint | 1 | Allowance | $ 8,500.00 | | | | | | $ 8,500 | |
| Division 09 - Finishes | Paint wood base | 817 | LF | $ 0.75 | | | | | | $ 613 | |
| Division 09 - Finishes | Polyurethane seal for int. wood doors | 10 | EA | $ 80.00 | | | | | | $ 800 | |
| Division 09 - Finishes | Floor sealant | 6,000 | SF | $ 0.25 | | | | | | $ 1,500 | |
| Division 10 - Specialties | Toilet paper holders | 4 | EA | $ 40.00 | | | | | | $ 160 | |
| Division 10 - Specialties | Heated towel rack | 0 | EA | $ 200.00 | | | | | | $ - | |
| Division 10 - Specialties | Towel rack | 0 | EA | $ 100.00 | | | | | | $ - | |
| Division 10 - Specialties | Shower curtains and rods | 0 | EA | $ 200.00 | | | | | | $ - | |
| Division 10 - Specialties | Restroom mirrors | 4 | EA | $ 300.00 | | | | | | $ 1,200 | |
| Division 10 - Specialties | Façade Restoration - Paint Analysys | 1 | EA | $ 2,500.00 | | | | | | $ 2,500 | |
| Division 11 - Equipment | Double wall oven | | Allowance | $ 3,000.00 | | | | | | $ - | |
| Division 11 - Equipment | Induction cooktop | 1 | Allowance | $ 2,200.00 | | | | | | $ 2,200 | |
| Division 11 - Equipment | Refrigerator | 1 | Allowance | $ 2,500.00 | | | | | | $ 2,500 | |
| Division 11 - Equipment | Washer & Dryer | 0 | Allowance | $ 2,500.00 | | | | | | $ - | |
| Division 12 - Furnishings | | 1 | Allowance | $ 3,000.00 | | | | | | $ 3,000 | |
| Division 13 - Special Construction | | | | | | | | | | $ - | |
| Division 22 - Plumbing | Stormwater management: foundation drains, downspout tightlines | 1 | Allowance | $ 3,000.00 | | | | | | $ 3,000 | |
| Division 22 - Plumbing | Rough-in | 10 | Fixtures | $ 900.00 | | | | | | $ 9,000 | |
| Division 22 - Plumbing | Hot Water heat pump | 1 | Allowance | $ 2,000.00 | | | | | | $ 2,000 | |
| Division 22 - Plumbing | Toilet | 4 | EA | $ 600.00 | | | | | | $ 2,400 | |
| Division 22 - Plumbing | Bathroom sinks | 4 | EA | $ 250.00 | | | | | | $ 1,000 | |
| Division 22 - Plumbing | Lavatory faucets | 4 | EA | $ 250.00 | | | | | | $ 1,000 | |
| Division 22 - Plumbing | Showerheads, wands + bars | 0 | EA | $ 600.00 | | | | | | $ - | |
| Division 22 - Plumbing | Shower valves and trim | 0 | EA | $ 500.00 | | | | | | $ - | |
| Division 22 - Plumbing | Freestanding bath filler/faucet | 0 | EA | $ 1,300.00 | | | | | | $ - | |
| Division 22 - Plumbing | Bathtub | 0 | EA | $ 1,600.00 | | | | | | $ - | |
| Division 22 - Plumbing | Kitchen sinks | 1 | EA | $ 600.00 | | | | | | $ 600 | |
| Division 22 - Plumbing | Kitchen faucets | 1 | EA | $ 400.00 | | | | | | $ 400 | |
| Division 22 - Plumbing | Utility sink | 1 | EA | $ 200.00 | | | | | | $ 200 | |
| Division 23 - HVAC | HRV unit(s) | 1 | Allowance | $ 10,000.00 | | | | | | $ 10,000 | |
| Division 23 - HVAC | Ventilation ducts | 1 | Allowance | $ 2,000.00 | | | | | | $ 2,000 | |
| Division 23 - HVAC | Kitchen hood | 1 | EA | $ 600.00 | | | | | | $ 600 | |
| Division 23 - HVAC | Kitchen exhaust | 1 | EA | $ 500.00 | | | | | | $ 500 | |
| Division 23 - HVAC | Bathroom exhaust | 4 | EA | $ 200.00 | | | | | | $ 800 | |
| Division 23 - HVAC | HVAC | 1 | Allowance | $ 24,000.00 | | | | | | $ 24,000 | |
| Division 23 - HVAC | Electric bathroom floor mats | 0 | Allowance | $ 1,000.00 | | | | | | $ - | |
| Division 23 - HVAC | Thermostats, whole building control | 1 | Allowance | $ 1,500.00 | | | | | | $ 1,500 | |
| Division 23 - HVAC | Hydronic pex tubing roughed-in | 0 | Floors | $ 650.00 | | | | | | $ - | |
| Division 26 - Electrical | Fire alarm system (CO and Smoke Detectors, wiring) | 1 | Allowance | $ 3,000.00 | | | | | | $ 3,000 | |
| Division 26 - Electrical | Electrical service meter, masthead, and distribution panels | 1 | Allowance | $ 4,000.00 | | | | | | $ 4,000 | |
| Division 26 - Electrical | Circuit wiring | 2,000 | LF | $ 1.25 | | | | | | $ 2,500 | |
| Division 26 - Electrical | LED uplight fixtures | 200 | LF | $ 18.00 | | | | | | $ 3,600 | |
| Division 26 - Electrical | Track lighting | 4 | EA | $ 1,000.00 | | | | | | $ 4,000 | |
| Division 26 - Electrical | Can lighting | 1 | Allowance | $ 3,800.00 | | | | | | $ 3,800 | |
| Division 26 - Electrical | Misc accent fixtures & pendants | 1 | Allowance | $ 1,500.00 | | | | | | $ 1,500 | |
| Division 26 - Electrical | Solar Panels, polycrystal (panels only) | 40,000 | Watt | $ 0.52 | | | | | | $ 20,800 | |
| Division 26 - Electrical | PV mounting system | 1 | Allowance | $ 1,800.00 | | | | | | $ 1,800 | |
| Division 26 - Electrical | PV inverter(s) | 1 | Allowance | $ 1,700.00 | | | | | | $ 1,700 | |
| Division 26 - Electrical | PV disconnects, meters, wiring | 1 | Allowance | $ 500.00 | | | | | | $ 500 | |
| Division 26 - Electrical | Electrical fixtures (receptacles, switches) | 1 | Allowance | $ 1,200.00 | | | | | | $ 1,200 | |
| Division 31 - Earthwork | Excavation + backhoe rental | 1 | Weeks | $ 1,200.00 | | | | | | $ 1,200 | |
| Division 31 - Earthwork | Imported structural fill | 10 | CY | $ 38.00 | | | | | | $ 380 | |
| Division 31 - Earthwork | Hauling & Dumping | 6 | Loads | $ 200.00 | | | | | | $ 1,200 | |
| Division 31 - Earthwork | Compacting + Jumping Jack rental | 1 | Weeks | $ 320.00 | | | | | | $ 320 | |
| Division 32 - Exterior & Site Improvements | Landscaping budget | 1 | Allowance | $ 10,000.00 | | | | | | $ 10,000 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## Additional Project Costs (owner-direct costs)

| Category | Item Description | Units | Unit Cost | Notes |
|---|---|---|---|---|
| *Site Evaluation* | *Property survey* | allowance | $ 1,500.00 | |
| *Site Evaluation* | *Geotechnical survey and report* | allowance | $ 2,000.00 | |
| *Design Professional Services* | *Architectural services* | allowance | $ 55,000.00 | |
| *Design Professional Services* | *Structural engineering services* | allowance | $ 18,000.00 | |
| *Other* | *Legal Fees* | allowance | $ - | |
| *Other* | *Archeology Monitoring* | allowance | $ 2,500.00 | |
| *Utilities* | *Water utility new tap & meter* | quote | $ - | |
| *Utilities* | *Water utility new tap install* | quote | $ - | |
| *Utilities* | *Electrical utility hook-up and service connection* | allowance | $ - | |
| *Utilities* | *Gas utility hook-up and service connection* | allowance | $ - | |
| *Utilities* | *Sewer utility, new septic system* | allowance | $ - | |
| *Utilities* | *Data utility hook-up and service connection* | allowance | $ - | |
| *Road and Utility Trenching* | *Driveway and Parking, Trenching and cover for Electrcial and Water and Septic, water line* | allowance | $ - | |
| *Permits* | *Construction Permit* | allowance | $ 500.00 | |
| *Permits* | *Plumbing permit* | allowance | $ 250.00 | |
| *Permits* | *Electrical permit* | allowance | $ 250.00 | |
| *Administration/Supplies* | *Reprographics* | allowance | $ 400.00 | |

# 6.0 ADDITIONAL PHOTOGRAPHS & ILLUSTRATIONS

**SEE APPROPRIATE ILLUSTRATIONS AND PHOTOGRAPHS IN EACH SECTION, BELOW IS AN INDEX OF FIGURES**

# 7.0 BIBLIOGRAPHY


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# 8.0 APPENDICES

## 1. OTHER EXISTING DRAWINGS

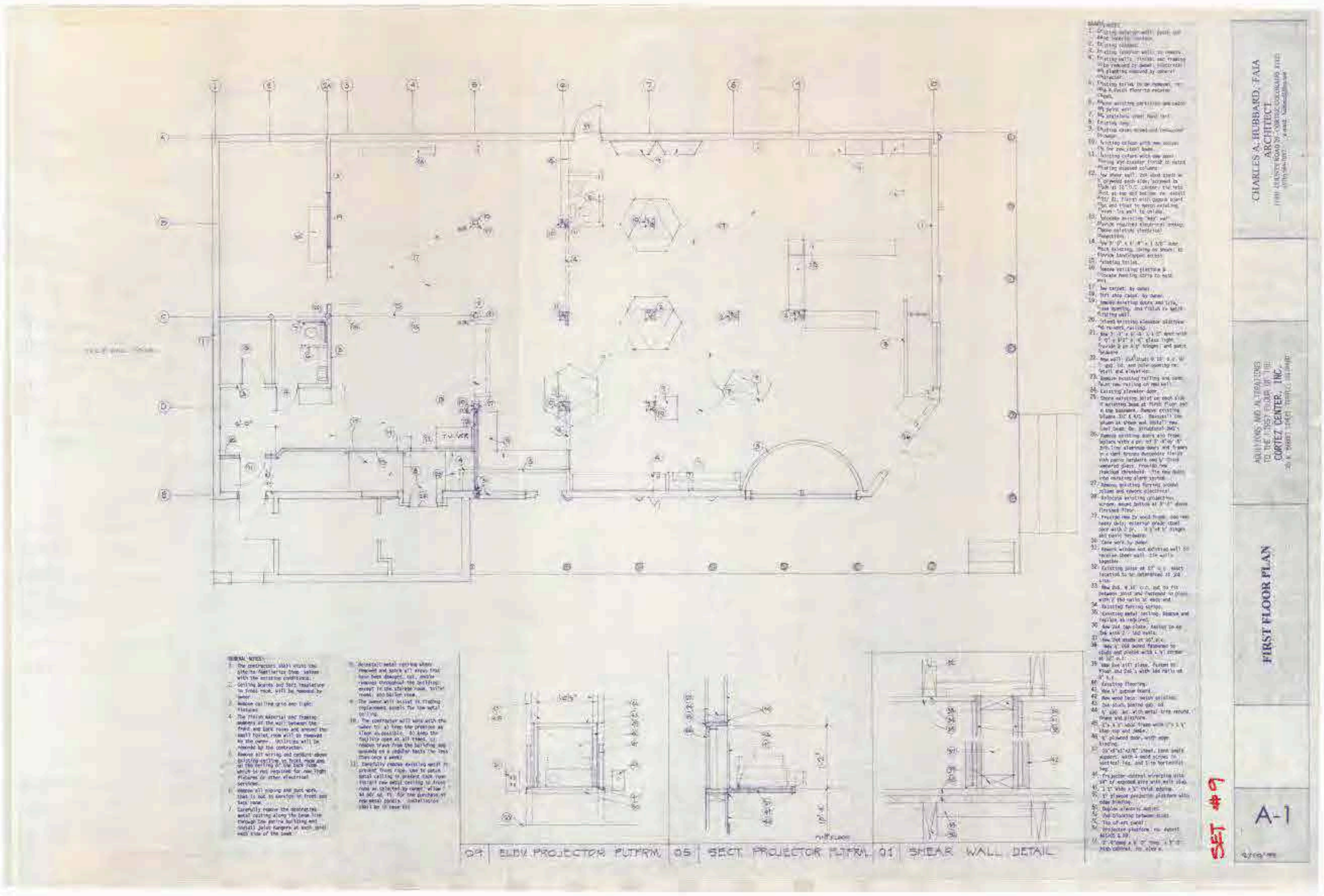



Figure 8.1-1: First Floor Plan Retail

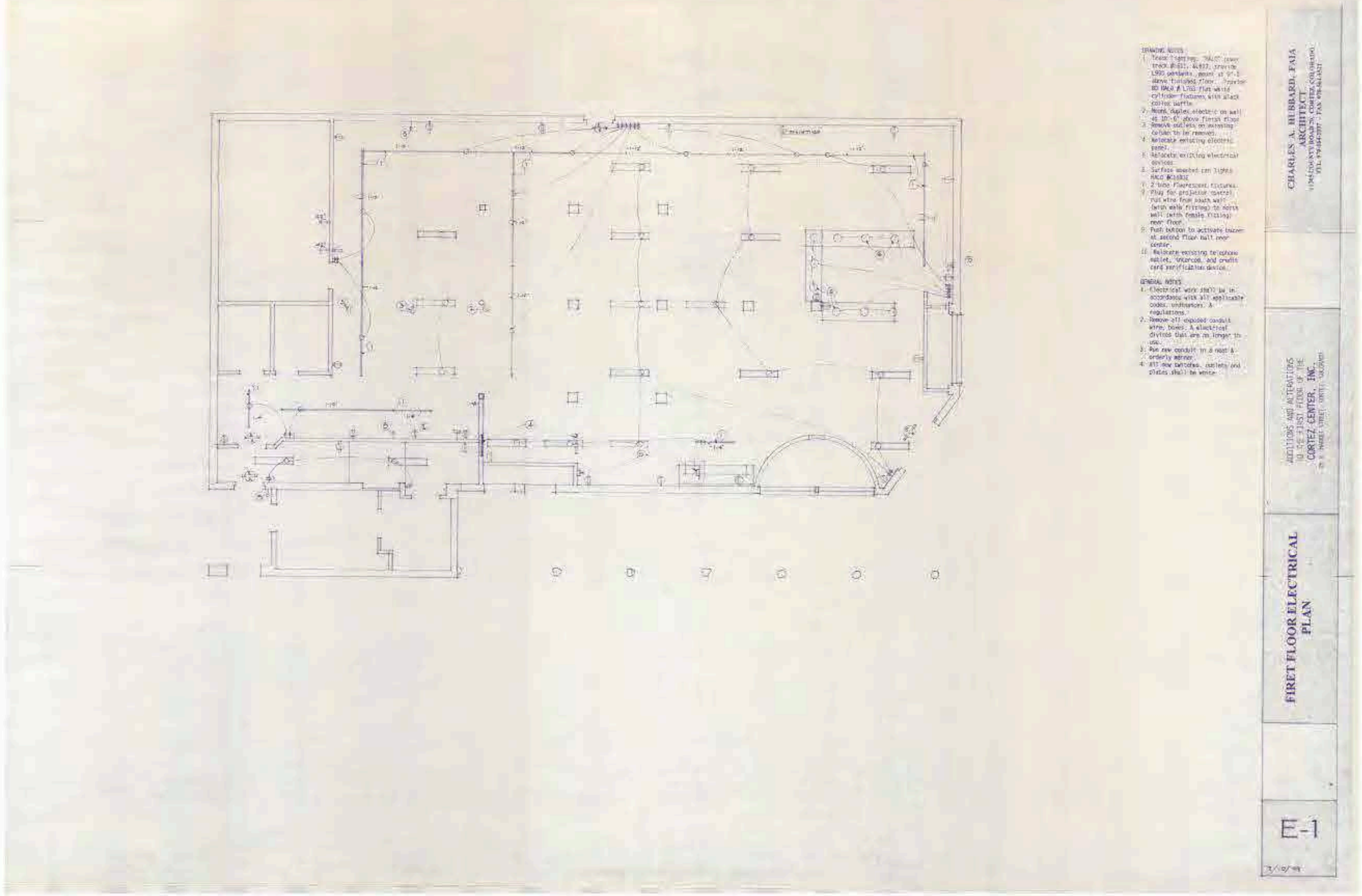



Figure 8.1-2:First Floor Plan Electrical

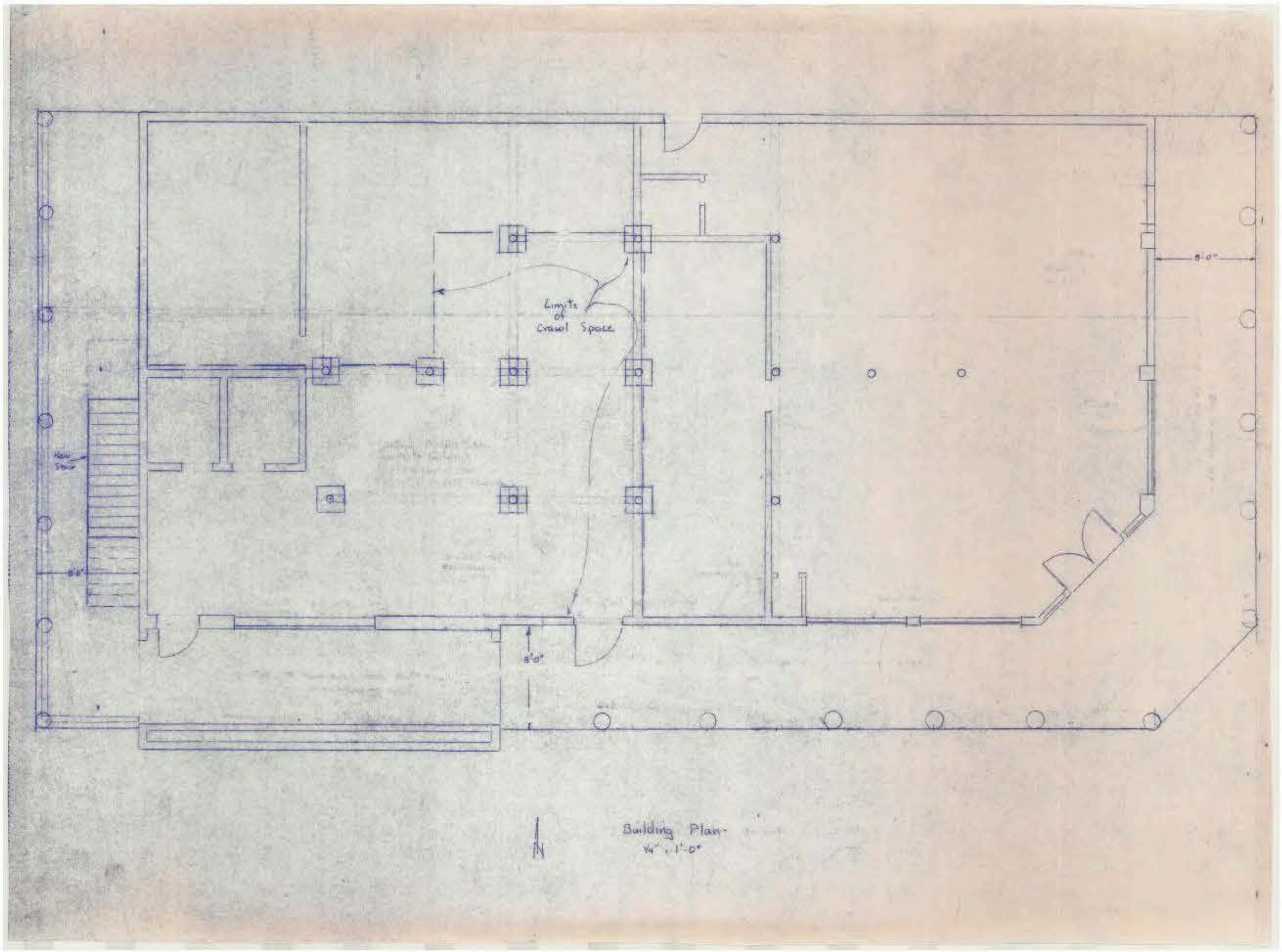



Figure 8.1-3: First Floor Plan With Basement Shown

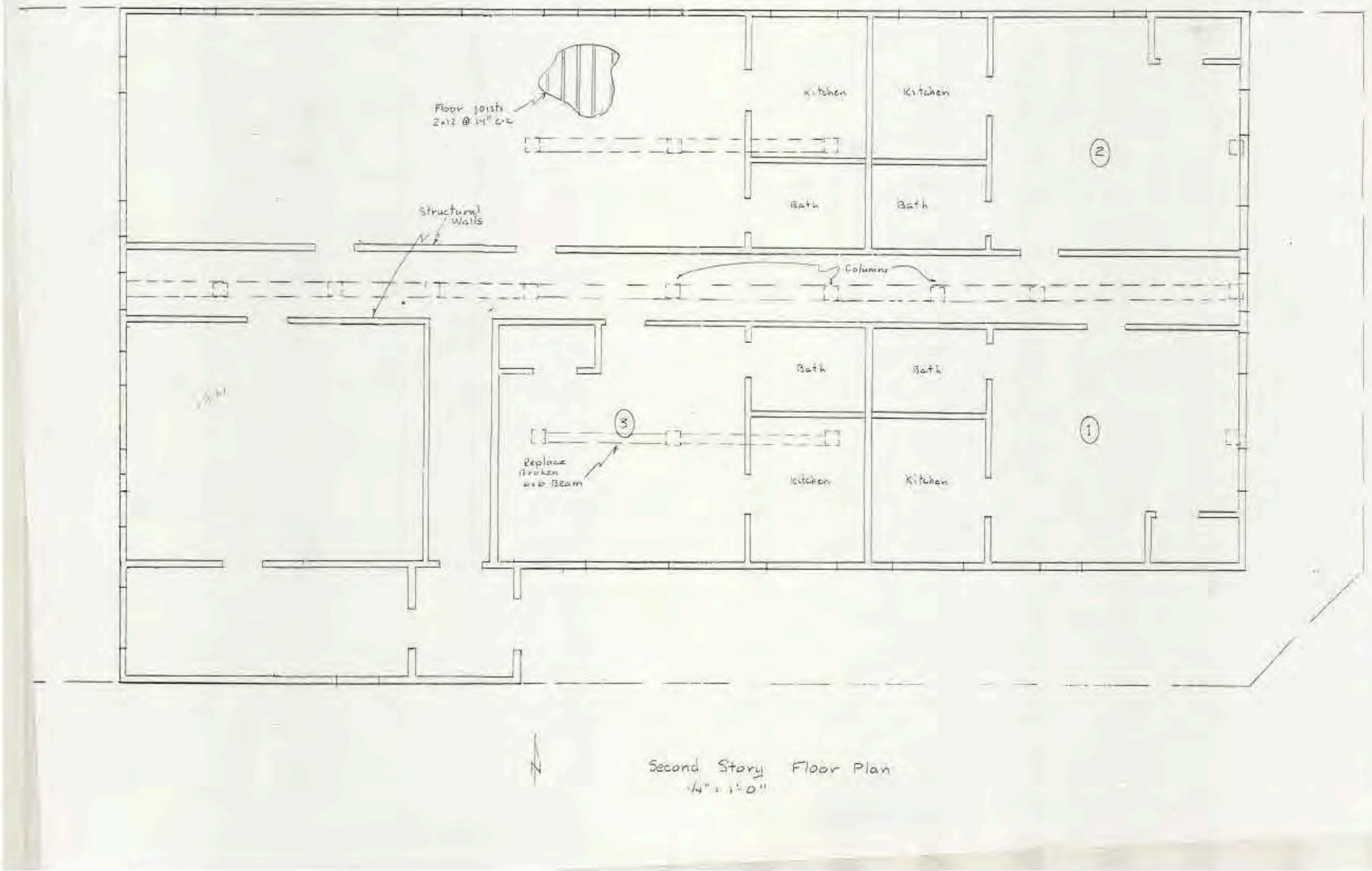



Figure 8.1-4: Second Floor Plan with Structural Notes

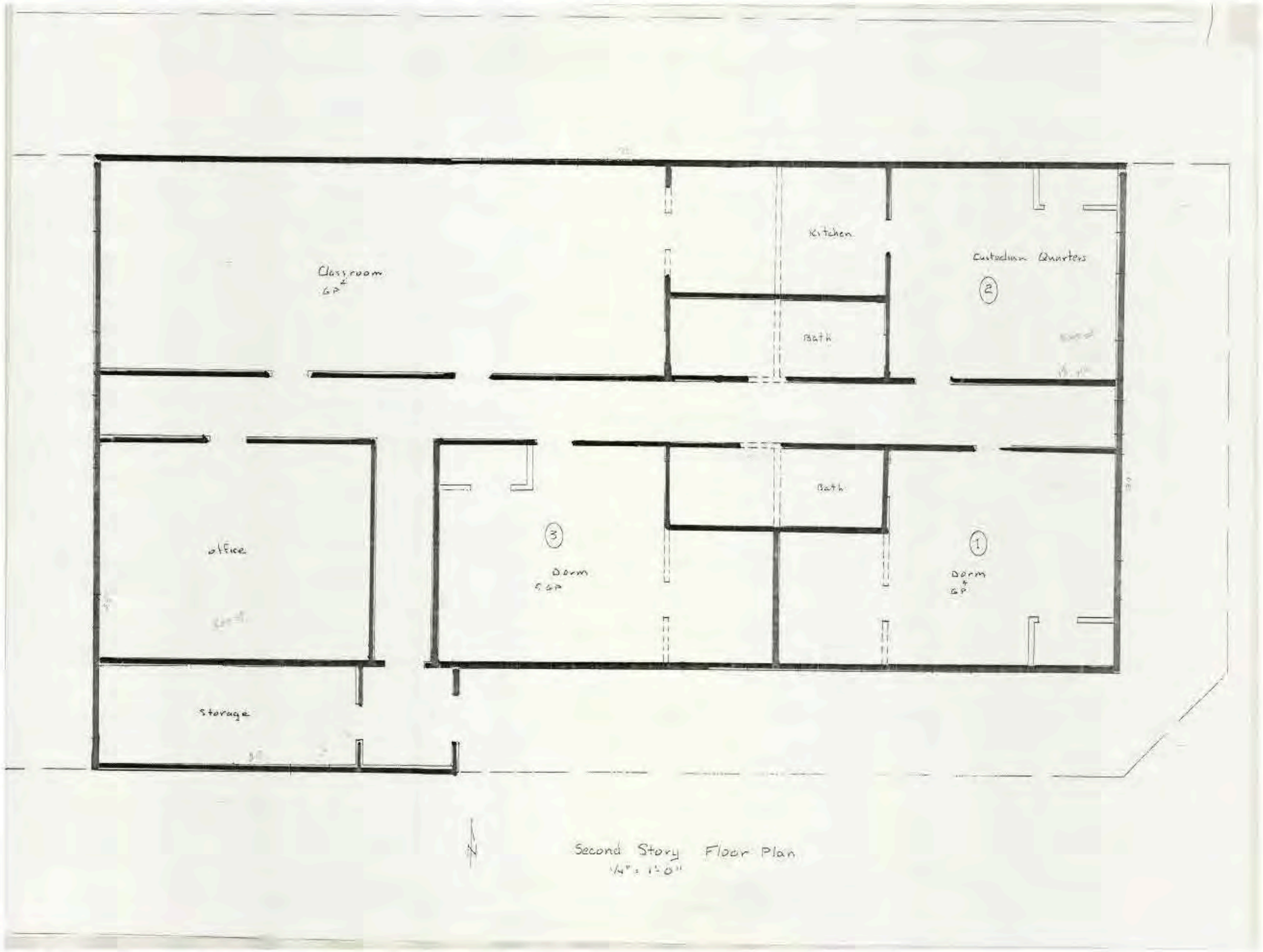
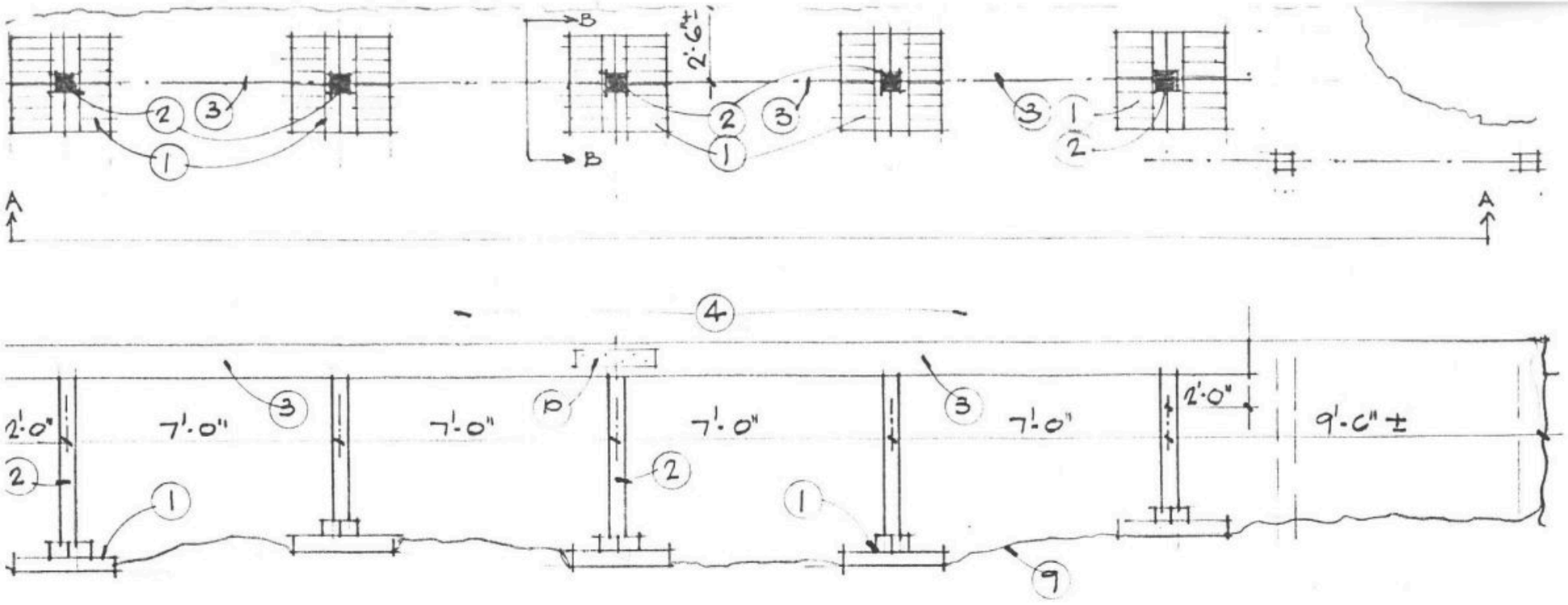
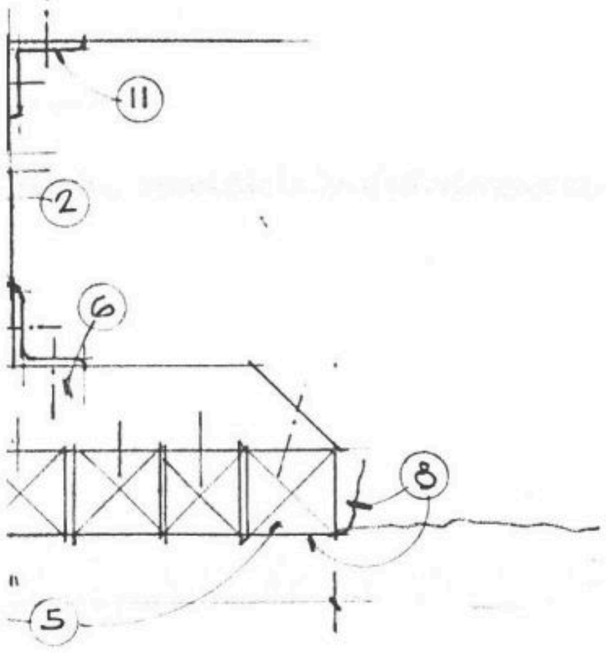



Figure 8.1-5: Second Floor Plan with Changes




DETAIL AA




DRAWING NOTES:

1. Footing of treated 4x4 re Detail BB.
2. 6x6 Column, verify length.
3. 6x10 wood beam, (2 - 16' long members.)
4. Existing 2x12 joist.
5. 8 treated 4x4, 2'-6" long.
6. 2 - 4x4 x 2'6", nailed to the 8 4x4.
7. Undisturbed soil.
8. Visqueen vapor barrier.
9. Existing dirt floor.
10. 6"wx18"lx ¼" thick plate with 6 3/8" dia. leg bolts, each side.
11. ¼"x3"x3" x5 ½" angles w/ 2 3/8" leg bolts, ea. leg.

GENERAL NOTES:

1. Exercise extreme care during the installation process to not damage the existing dirt wall supporting the existing footing.
2. Carefully excavate the area under the new footings to provide a level, flat area, no not disturb more area than necessary.
3. Carefully, slowly and minimally, jack existing joist to allow the installation of the new beam and columns.

CORTEZ CULTURAL CENTER
BASEMENT STRUCTURAL REPAIRS

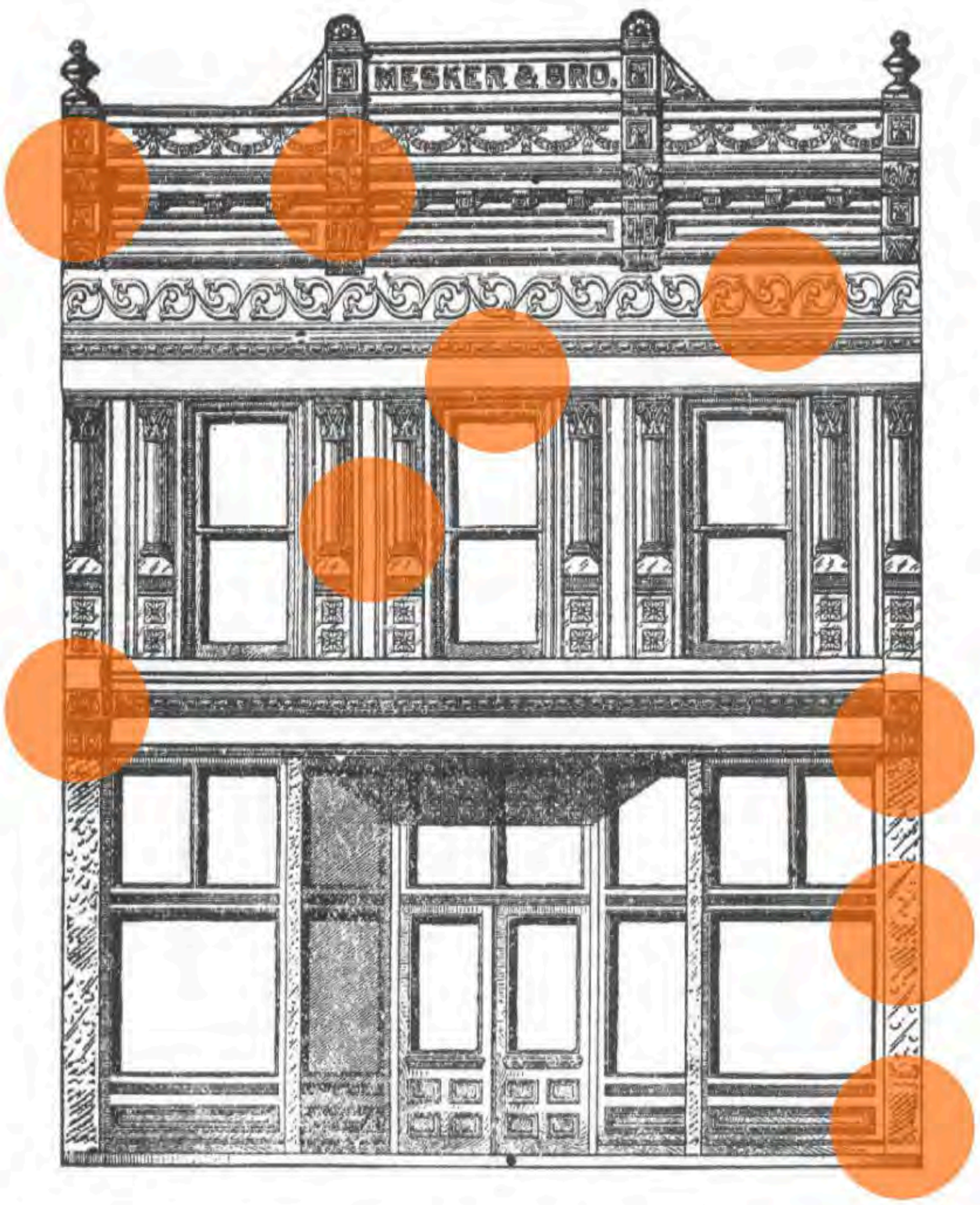
Charles A. Hubbard, FAIA
Architect
11305 County Rd. 20
Cortez, Colorado 81321

Figure 8.1-6: Basement Structural Drawing

## 2. GOT MESKER

# got mesker?

## IDENTIFICATION GUIDE TO SHEET-METAL FACADES AND BUILDING COMPONENTS MANUFACTURED BY MESKER BROTHERS IRON WORKS & GEORGE L. MESKER & COMPANY

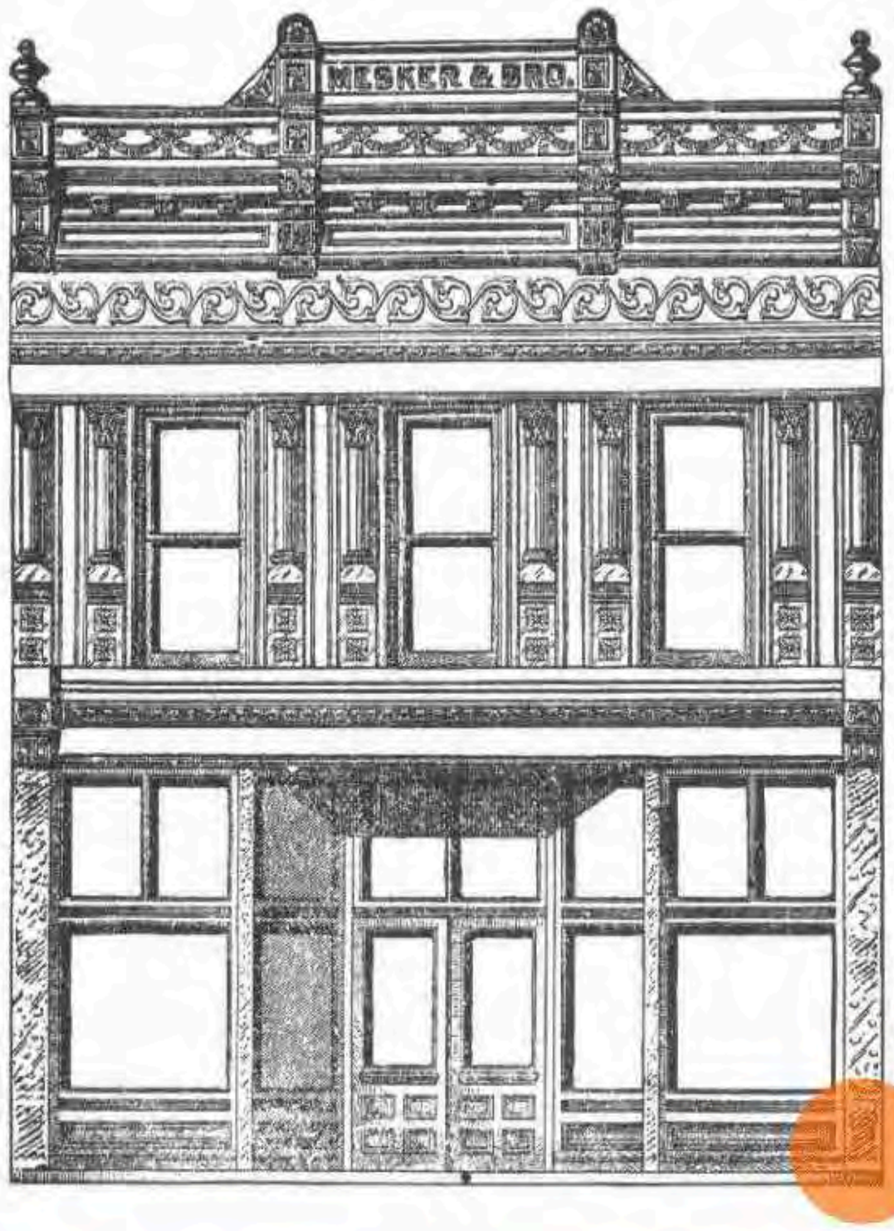



The Mesker companies manufactured building products that ranged from individual components to entire storefront assemblies. Examples in this guide reflect the more commonly found designs employed by the companies. The guide is by no means complete and will be updated as more information becomes available. Please send information about identified facades to "got mesker?," Illinois Historic Preservation Agency, One Old State Capitol Plaza, Springfield, IL 62701, or via e-mail to darius.bryjka@illinois.gov. A current list of identified buildings with Mesker facades and components is available at www.gotmesker.com

# CAST-IRON COLUMN NAMEPLATE

Bearing the company name and foundry location, these embossed nameplates are the easiest way to spot a "Mesker." Over the years, the nameplates appeared in several designs which were either molded into the cast iron or bolted on as a plate. Unfortunately, they do not always survive, making the identification more challenging. Even when found, the presence of a company's nameplate does not mean that the entire facade was manufactured by that company. Products from multiple firms are often found on a same facade; therefore, a nameplate should always be corroborated by the rest of the ornamentation.

There are other components of the facade, such as the storefront sill or lintel, that can also bear the manufacturer's name, although that is less common.




## MESKER BROTHERS IRON WORKS




## GEORGE L. MESKER & CO.

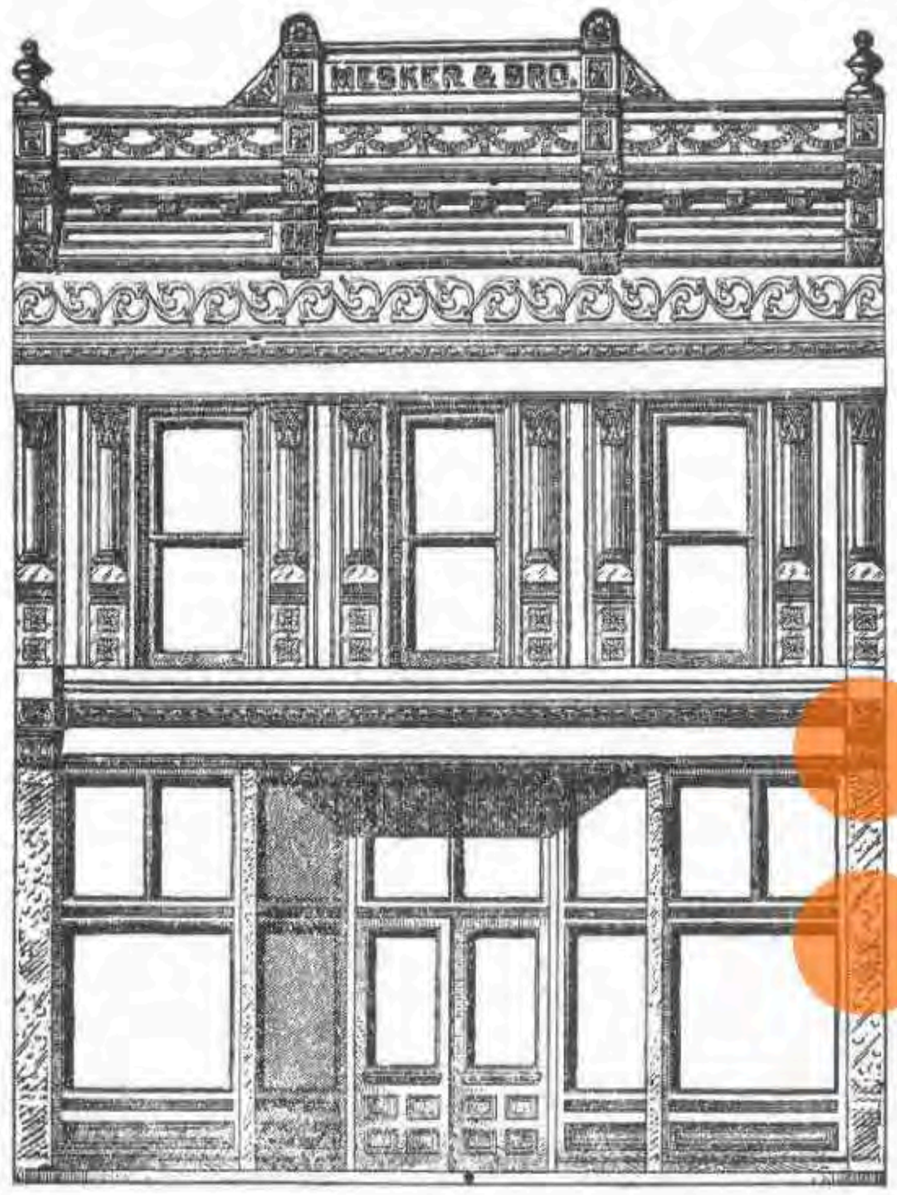


# CAST-IRON COLUMN ORNAMENT

Cast-iron and steel columns offer another opportunity to identify a Mesker facade. While Mesker Brothers utilized only a handful of designs, George L. Mesker & Co. offered a wide array of column capitals. The ornamentation was adapted to varying column widths by altering its proportions or through repetition. Wider columns, of greater carrying capacity, were usually located at either end of the storefront, with more slender columns flanking the entry.

In addition to the designs shown below, both companies employed classically inspired column capitals. Because these designs are similar to those by other companies, they are not ideal for identification purposes and should be verified with illustrations from catalogs. Unadorned columns were also offered.

NOTE: Other foundries produced strikingly similar ornament to that by the Mesker companies. Careful inspection is necessary for proper attribution of the ornament.



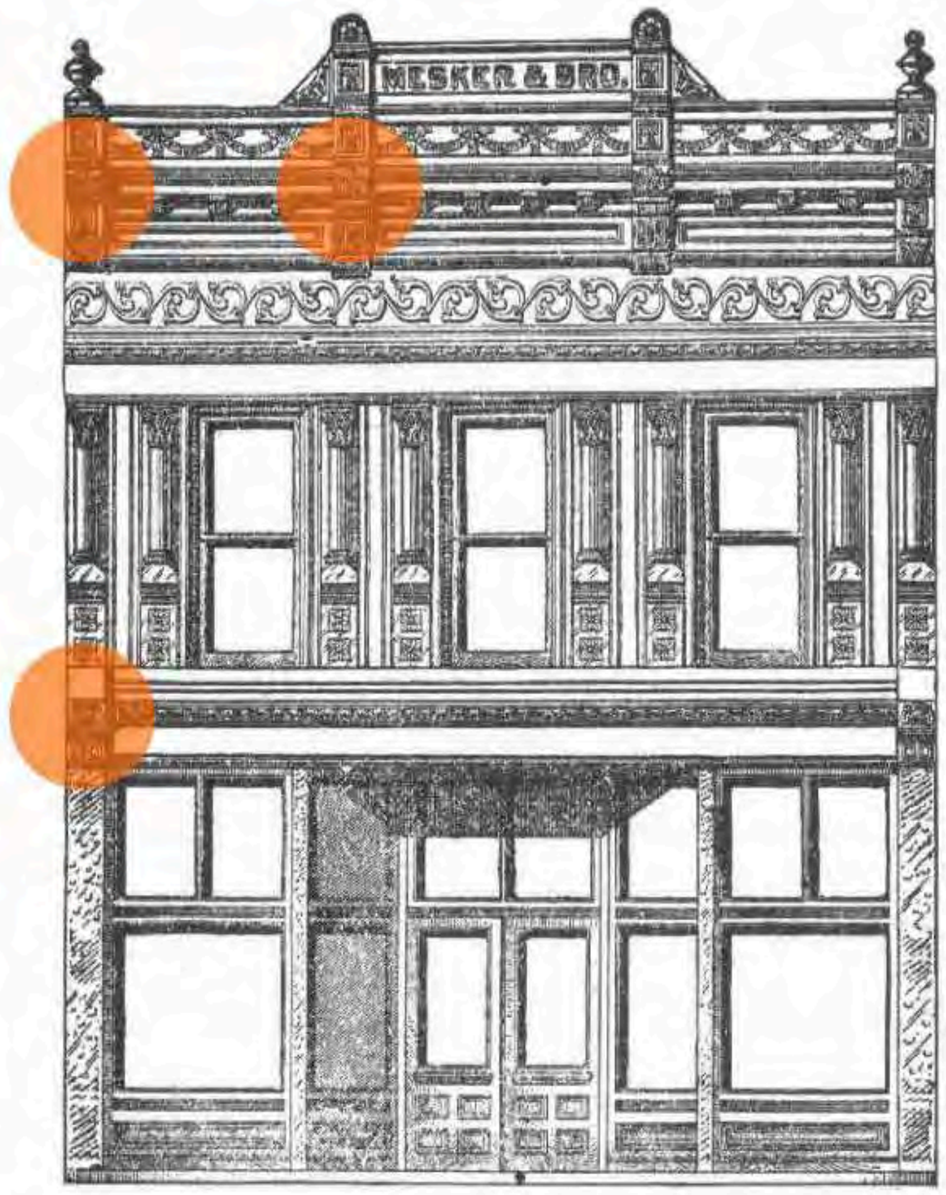

## MESKER BROTHERS IRON WORKS

## GEORGE L. MESKER & CO.

# CORNICE ORNAMENT

The end brackets of the top and lintel cornices often featured dominant design motifs such as the "fleur-de-lis" used by Mesker Brothers and the "morning glory" by George Mesker. Because stylized floral motifs were generally favored not only by the two companies but also by others, careful inspection is necessary in order to properly attribute the facade. Here are some of the more commonly found. As with the other facade components, catalogs are the best way to document the designs.

NOTE: "Fleur-de-lis" is a nod to the French heritage of St. Louis and was used by many foundries from that city. Hence, the presence of this motif does not automatically make the facade a "Mesker."

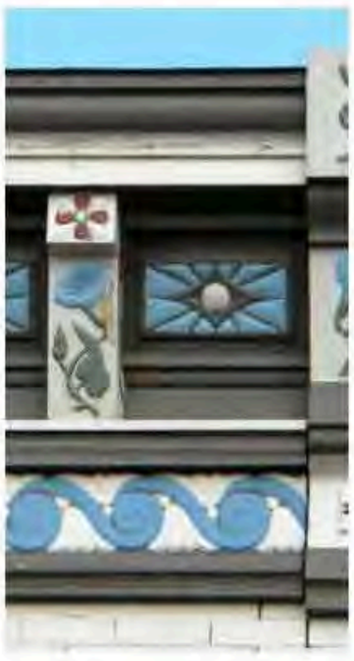



## MESKER BROTHERS IRON WORKS


Fleur-de-lis

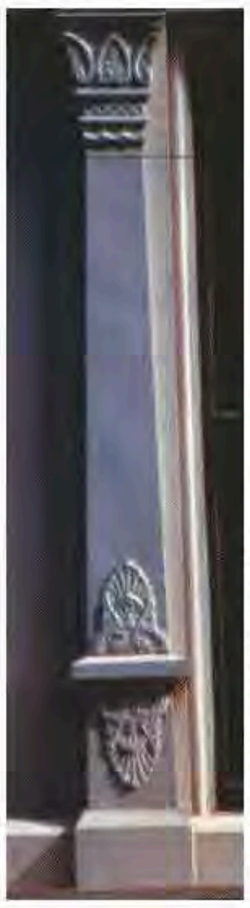
## GEORGE L. MESKER & CO.


Morning glory

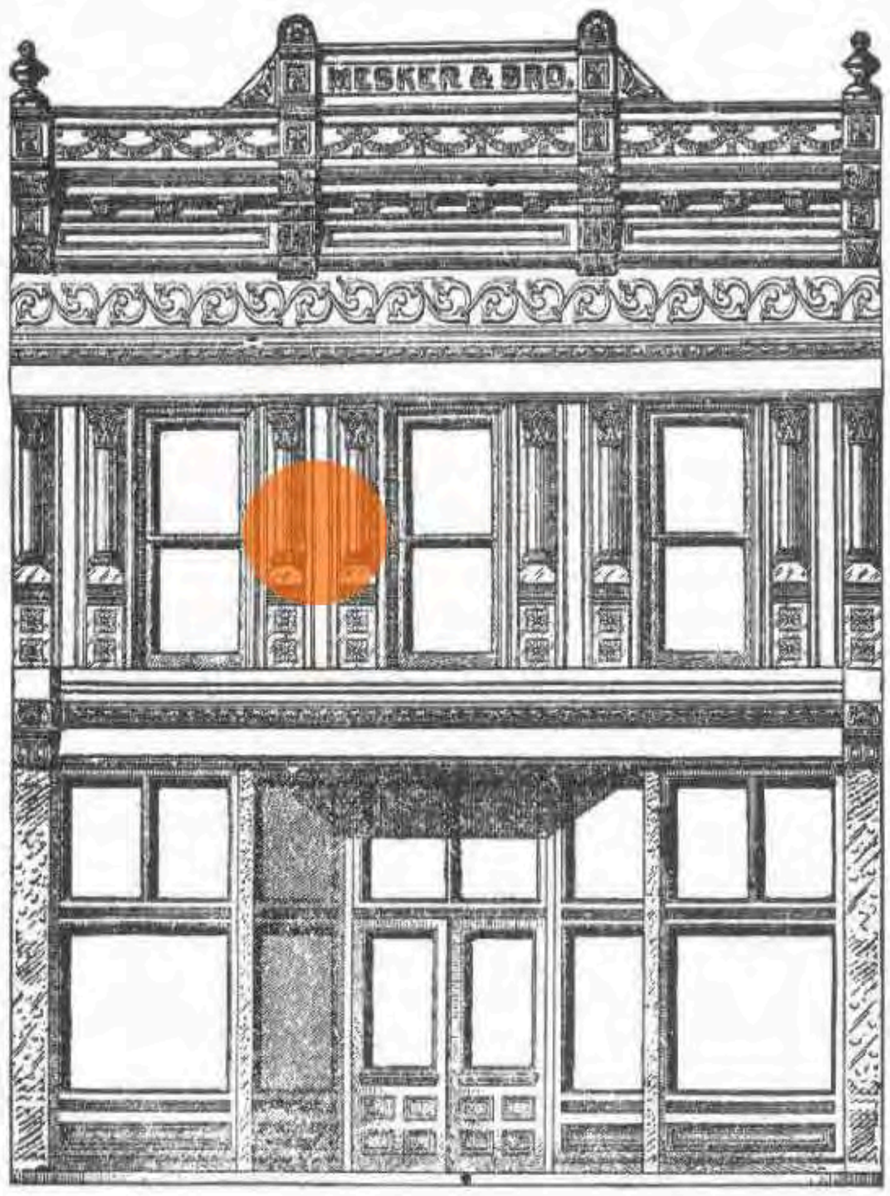


# UPPER STORY COLUMNS

A very distinctive engaged column and base design was used between each of the upper story windows, particularly by the Mesker Brothers. The double-rosette base design (bottom right) is the most common and is a sure sign of a Mesker facade. At the turn of the 20th century, the columns were often used in conjunction with or were entirely replaced by panels depicting a stylized dolphin motif. Although not unique to Mesker Brothers, these upper story columns are very much characteristic of their facades.







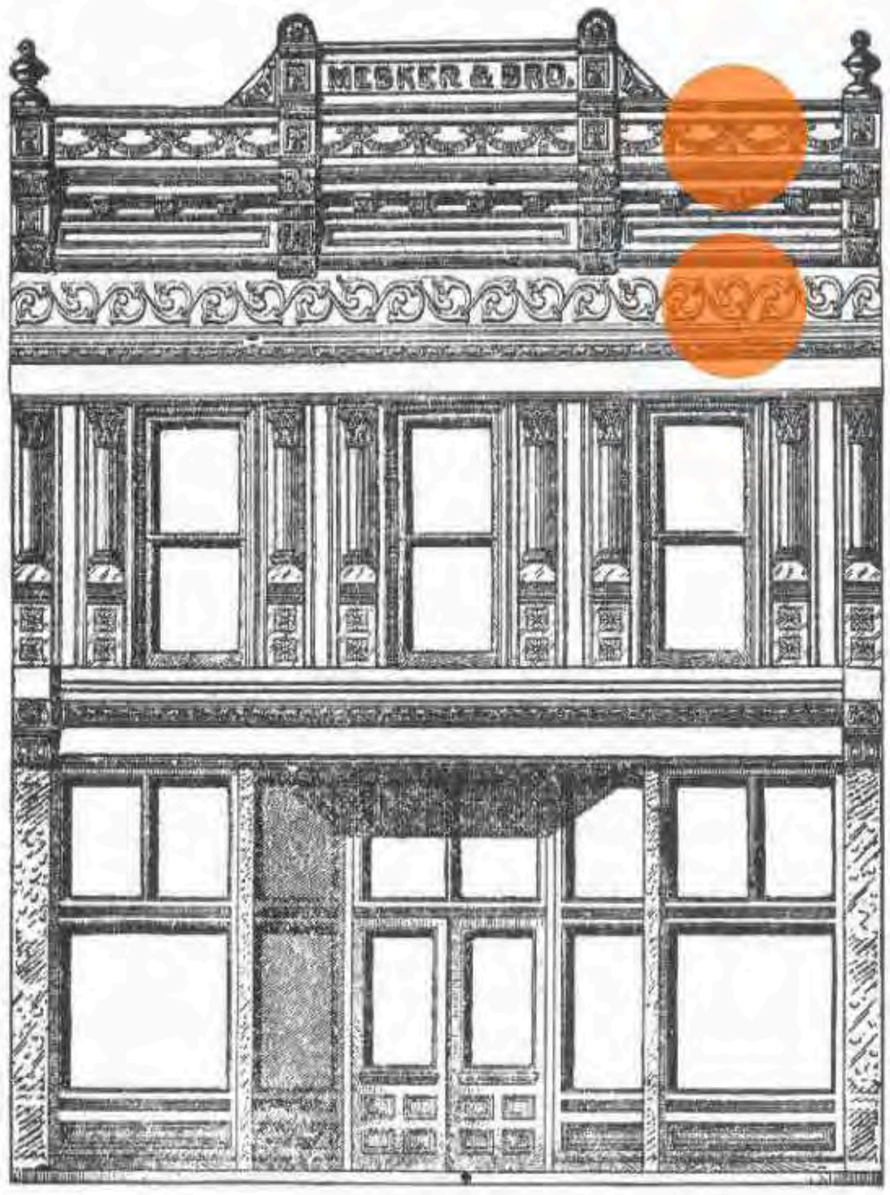

# MESKER BROTHERS IRON WORKS

Dolphin panel

# ORNAMENTAL SHEET-METAL PANELS

Motifs pictured elsewhere in this identification guide can also appear on the embossed metal panels between the upper story windows and the cornice. However, these areas were usually reserved for less dominant, repetitive designs. Panels depicting the same motif usually spanned the entire width of the facade. In some cases, courses of panels were carried to the top of the parapet, replacing the cornice altogether. Some of the more frequently used are shown below.

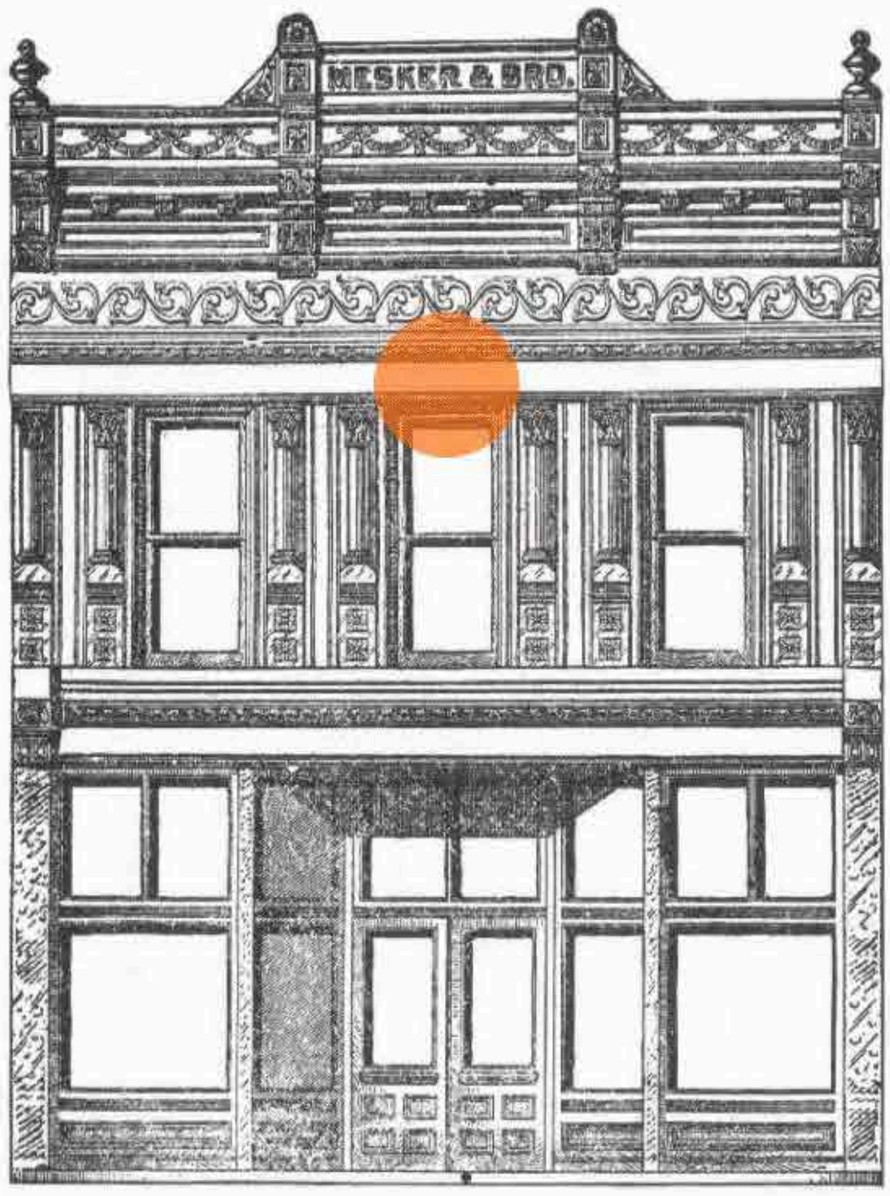
## GEORGE L. MESKER & CO.




## MESKER BROTHERS IRON WORKS

# WINDOW HOODS

Mesker facades were not limited to those clad entirely in sheet metal. In fact, most of the companies' contracts were for "brick fronts," where an upper story of masonry was adorned with a galvanized sheet-metal cornice and structural iron window caps (now known as hoods).

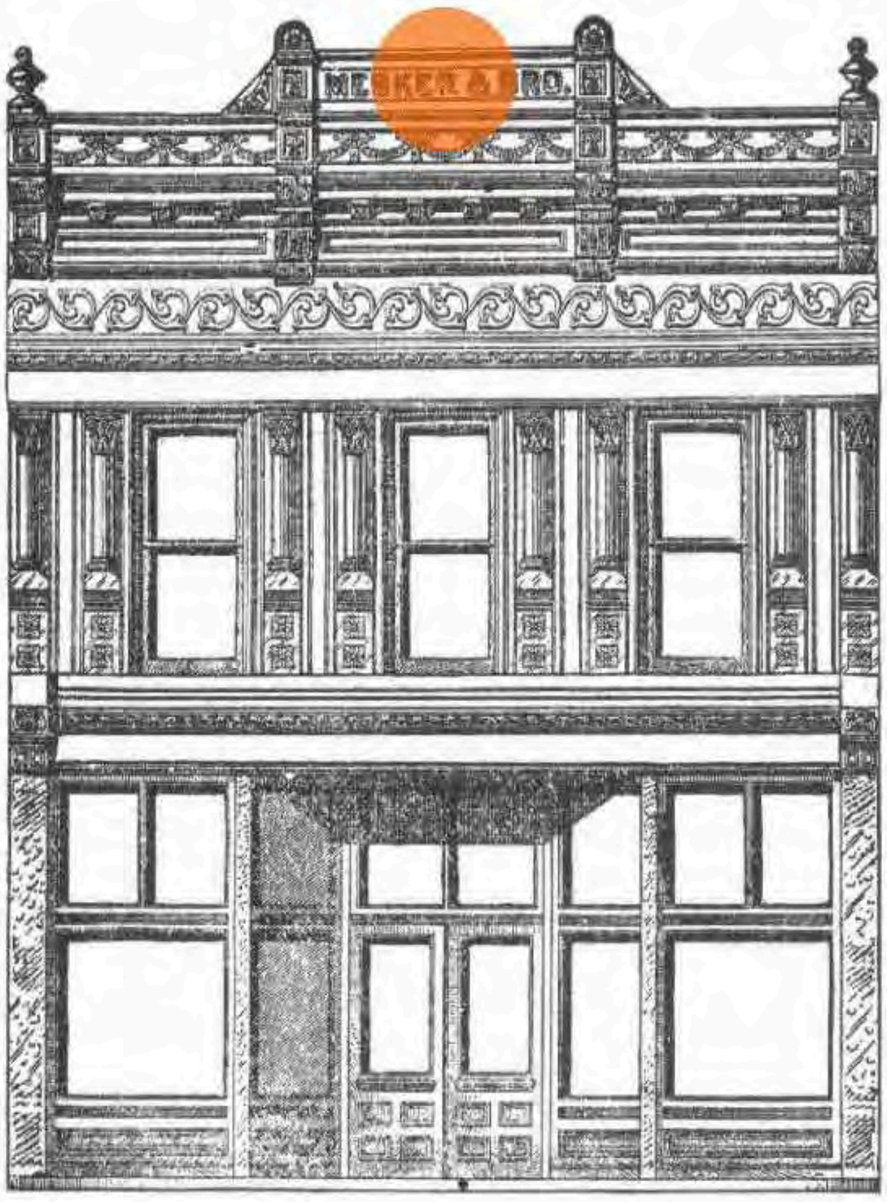



## GEORGE L. MESKER & CO.

## MESKER BROTHERS IRON WORKS

# CORNICE PEDIMENT

The pediment is a crowning element of the cornice, typically centered on the vertical axis of the facade. The pediments were either triangular, rectangular or oval and often contained the original owner's name, date of construction or both. Because of their scale and prominent placement, the pediments often featured ornamentation that was not found elsewhere on the facade. Being prone to damage in strong winds, these do not always survive.



## MESKER BROTHERS IRON WORKS



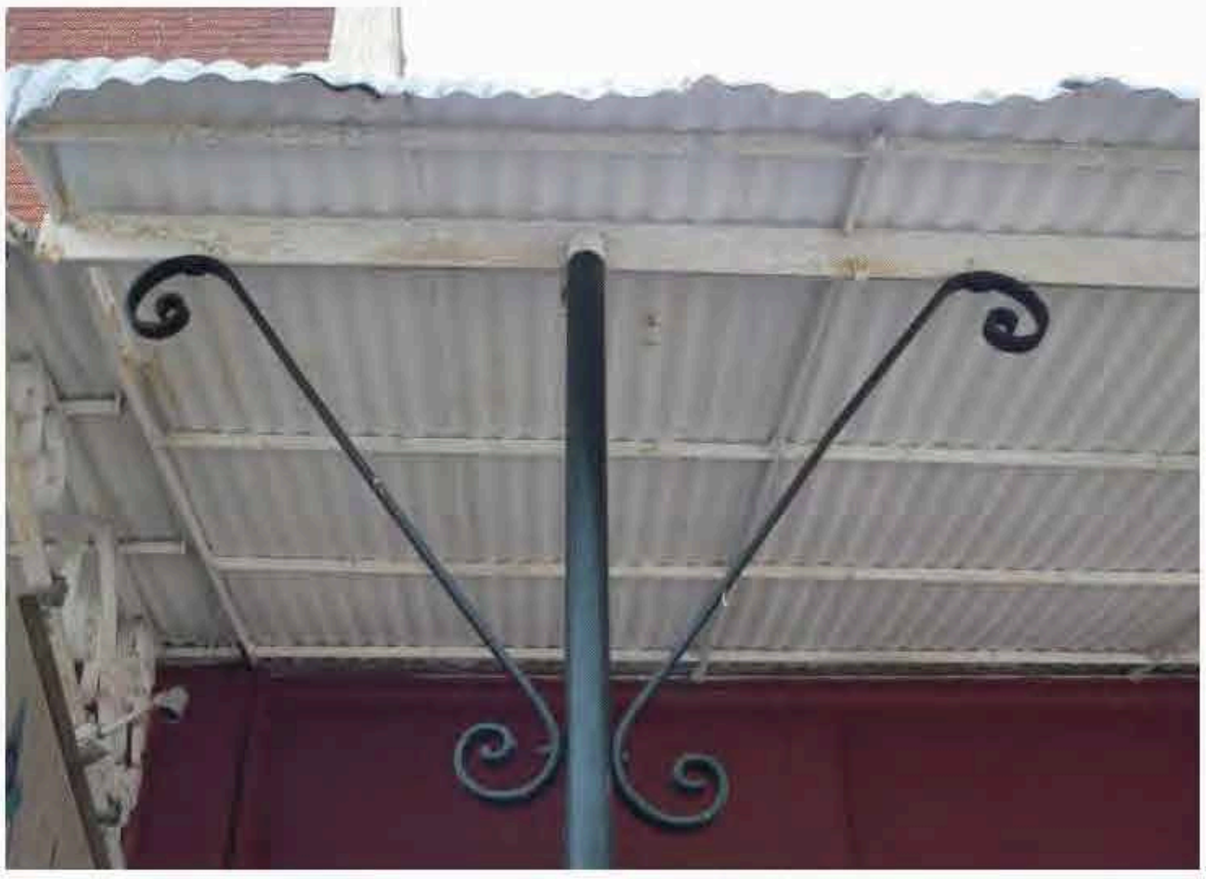


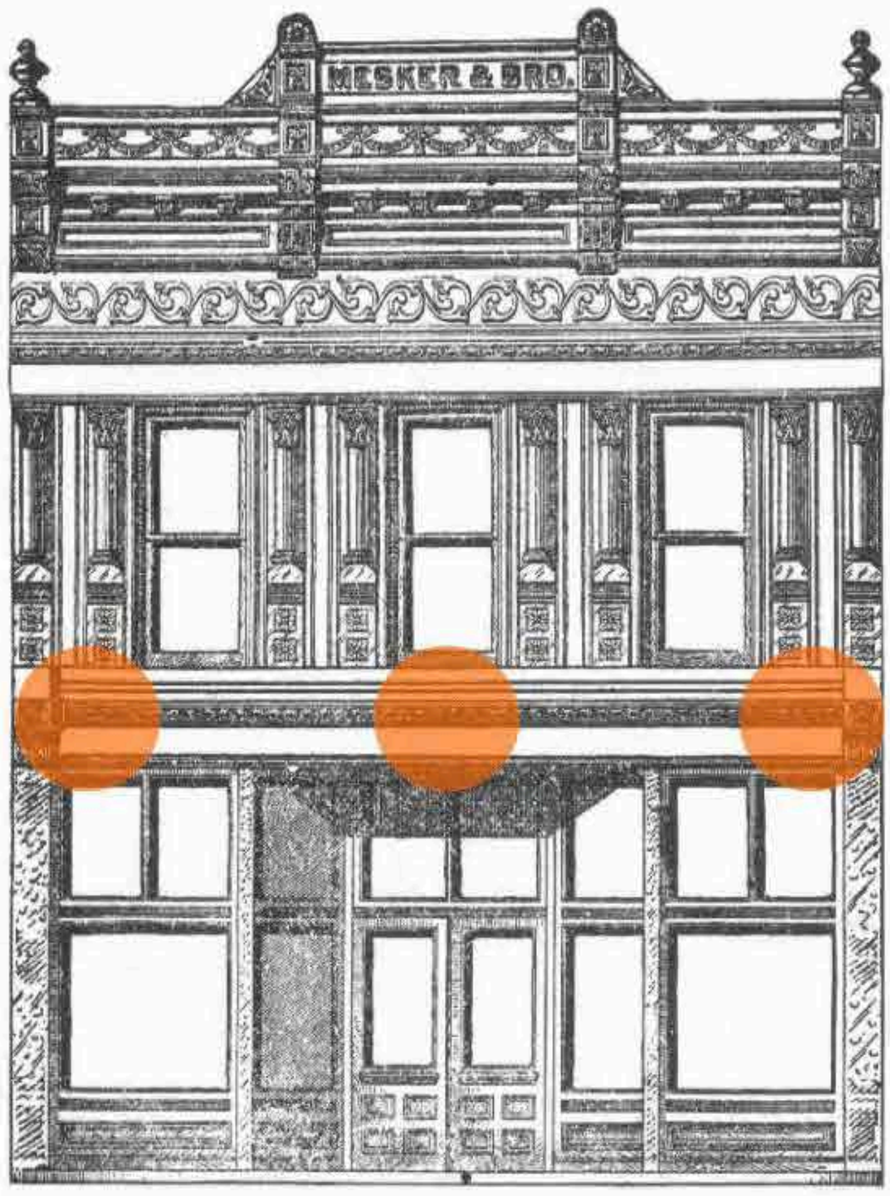
## GEORGE L. MESKER & CO.


# AWNINGS

The galvanized corrugated iron awnings were either self supporting or mounted with pipe column supports. Only a handful of bracket designs were utilized so when these survive, they are easy to identify.

## GEORGE L. MESKER & CO.



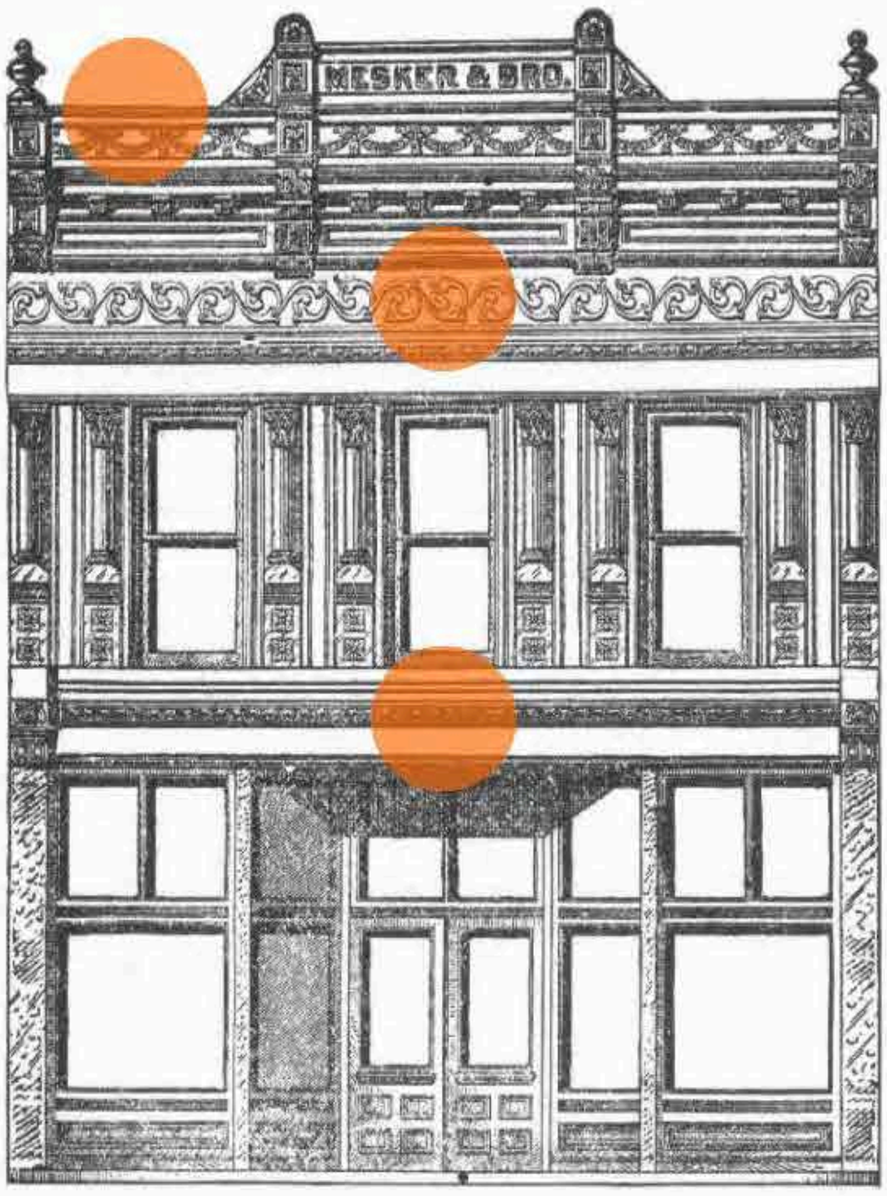



## MESKER BROTHERS IRON WORKS

# MISCELLANEOUS

Outside of the complete facades and individual components, both Mesker companies manufactured other building products such as stairs, railings, roof cresting, window guards, ventilator grates, just to name a few. These features are more difficult to recognize and identify, especially in the absence of other more standardized components. Below are just a few examples of these products.

## GEORGE L. MESKER & CO.




## MESKER BROTHERS IRON WORKS

# 3. HSA ANNOTATED SCOPE OF WORK

# HISTORIC STRUCTURE ASSESSMENT
# STATE HISTORICAL FUND ANNOTATED SCOPE OF WORK
## REVISED 2014

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**THIS *ANNOTATED SCOPE OF WORK*** was developed to assist grant applicants, building owners, stewards, and consultants in collecting and organizing the information needed to develop a comprehensive assessment and plan for the preservation, rehabilitation, or restoration of a historic property. This document is intended to be used as a tool and a reference and provides specific details regarding the expectations and requirements for completing a Historic Structure Assessment funded by the State Historical Fund (SHF).

**THE PURPOSE OF A HISTORIC STRUCTURE ASSESSMENT (HSA)** is to fully document the physical condition of a historic resource. A complete assessment contains photographs, illustrations, and information in narrative form that reflects a comprehensive understanding of the condition and needs of the resource. This information will include details specific to the historic character and significance; specific materials, features, elements, and spaces; and the intended use. The existing conditions will dictate the amount of information contained within any given assessment. Ideally, a resource will be assessed during different seasonal conditions (wet, dry, hot, cold) to ensure a complete evaluation (some conditions may not be evident in one visit under one set of weather conditions). Destructive investigation is acceptable as a means of obtaining information, but it is not required. In some instances, the need for additional and (or) destructive investigation may be included in the treatment recommendations discussed in Section 3.0.

Although a HSA can provide valuable support documentation when making application for grant funding from the SHF, the assessment should not be seen as merely a prerequisite to making application for that funding. The HSA should be considered an important planning tool for future rehabilitation, restoration, and/or maintenance of a resource (regardless how the work might be funded in the future).

**SCOPE OF WORK:** In order to ensure a comprehensive assessment, the State Historical Fund has developed a standard Scope of Work for HSAs funded under the special non-competitive grant program. This Scope of Work is included in the application packet. All HSAs submitted to the SHF **must** follow this Scope of Work. Specific details on the expectations and requirements are provided in this *Annotated Scope of Work*.

**WHO CAN PREPARE A HSA?** The Historic Structure Assessment must be **prepared by an architect** or a structural engineer working under the **direct guidance of an architect**. Please consider the following when deciding who will prepare the HSA:

- Architect, and structural engineer if applicable, must be licensed in the state of Colorado.
- Architect must be the primary consultant on the project.
- Architect, and structural engineer if applicable, must be able to interpret and apply *The Secretary of the Interior's Standards for the Treatment of Historic Properties.*
- Architect, and structural engineer if applicable, is required to attend an initial on-site consultation with a State Historical Fund Historic Preservation Specialist at the commencement of the grant contract.

Other professionals including engineers, archaeologists, historic preservation consultants, contractors, historians and cost estimators may also be members of the assessment team.

Historic Structure Assessment reports are on file in the SHF office for reference. If you would like to review any of these, or if you have any questions, please contact a preservation specialist at 303.866.2825.

# ANNOTATED SCOPE OF WORK

**FORMATTING & CONTENT:** The HSA report should mirror the Scope of Work provided by SHF. Information specific to details and requirements for content is provided below. If you have any questions about how or what to include, please contact the Historic Preservation Specialist assigned to the project. **Two final copies must be submitted to SHF**; both copies must be 3-hole punched and submitted in white 3-ring binders (with clear overlay for title sheet). Please call with any questions about submitting final copies.

**MULTIPLE BUILDINGS/STRUCTURES & ADDITIONS:** For assessments that include more than one structure, or for single structures that have multiple and/or distinct additions, please address each structure or addition *individually* in the assessment. This can be accomplished in several ways. Please contact the Historic Preservation Specialist for more specific direction and/or suggestions.

**PHOTOGRAPHIC DOCUMENTATION:** Please include photographic documentation to illustrate the features and conditions described in the narrative. Always include **in-text references** to specific photos when addressing the element, feature, or space in the narrative. For specific guidelines, see Section 6.0.

## i. COVER PAGE

The Cover Page of the report must include:

1. *The State Historical Fund Project number*
2. *The name and address of the property*
3. *The date of report completion*
4. *The required acknowledgement of SHF as a funding source* ("This project was paid for by a State Historical Fund grant from History Colorado, the Colorado Historical Society")
5. *Site Number, if applicable*

## ii. TABLE OF CONTENTS

Please number pages in the report, and include the pages in the Table of Contents.

## 1.0 INTRODUCTION

### 1.1 RESEARCH BACKGROUND / PROJECT PARTICIPANTS

Discuss the purpose of the project and describe the process taken to complete the report, including:

1. *List consultants involved in preparing the report, and what their roles were.*
2. *Note weather condition(s) experienced during all field (site) visits.*
3. *List funding partners (include SHF, but full acknowledgment noted above is not required).*
4. *Include sources of information used to complete this report, including available historical documentation and interviews with building users/managers as relevant (see Section 2.0).*

### 1.2 BUILDING LOCATION

Please provide the following:

1. *Vicinity map*
2. *Site plan (Site plans should show the property lines, as well as the designated area, and display all of the improvements, features, and landscape elements within the property boundaries. Indicate a north arrow and scale or NTS. Google satellite maps are not permitted as a site plan.)*
3. *Legal description*

## 2.0 HISTORY AND USE

The research and analysis of the structure's history and use determines the basis for the preservation treatment recommendations prescribed in the assessment section. This portion of the HSA includes a history of the resource, the architectural significance and construction history, and a detailed discussion of the proposed use.

**Potential sources for information**:
*State, federal, or local register nominations of historic properties, historical photographs, historical plans/specifications, oral histories or interviews, History Colorado's Steven H. Hart Library, Denver Public Library's Western History Collection, local (county) assessor's office records, and local library history collections.*

## 2.1 ARCHITECTURAL SIGNIFICANCE & CONSTRUCTION HISTORY:

Describe the structure's architectural style, including character-defining exterior and interior materials, features, and spaces. Include a brief chronology of additions and alterations to the original structure, and discuss past and current use(s) in relation to these modifications. This information will provide the basis for recommendations for appropriate treatments and design of suitable modifications for use.

1. *Note whether or not the building is listed on the National, State or Local Register.*
2. *Include historical photographs of the structure's exterior and interior, if available.*
3. *Excerpt portions of referenced documents that are relevant to the building/resource.*

## 2.2 FLOOR PLAN:

The structure(s) should be graphically represented in accurate proportions. The plan(s) should be drawn with measurements, but it is not required to be drawn to scale. In this section, you must:

1. *Label individual rooms for reference within the narrative of Section 3.0.*
2. *Note/identify within the plan or illustrations significant spaces and/or spatial relationships.*
3. *Illustrate the existing configuration vs. the historical configuration (if known).*
4. *Include copies of original drawings if they are available.*
5. *Indicate a north arrow and scale or NTS.*

## 2.3 PROPOSED USE(S):

Discuss any proposed use(s), including the functional needs and potential impact to the existing structure, and evaluate whether or not the intended use is appropriate for the structure in accordance with The Secretary of the Interior's Standards.

# 3.0 STRUCTURE CONDITION ASSESSMENT (SECTIONS 3.1-3.8)

Each section below should be addressed in a comprehensive narrative. In order to provide a more user-friendly and organized document, please include a separate sub-heading under each section for the three main components of the narrative: (1) **Description**, (2) **Condition Evaluation**, and (3) **Recommendations**. (For example, when discussing the Roof Framing System in section 3.3, you will include a Description of the system, a Condition Evaluation of the system, and a Recommendation of what to do with the system based on The Secretary of the Interior Standards and future plans/use.) The sections describing materials, features, elements, and spaces should follow the specific order listed in the Historic Structure Assessment outline provided below (e.g., 3.1 Site; 3.2 Structural System; etc.). If the resource does not have a component, simply indicate this in the narrative (e.g., "Perimeter foundation drainage: There is no perimeter foundation drainage.").

**DESCRIPTION:** Please *describe* each element, feature or space.
The intent of this subsection is to identify the elements, features, and spaces that make up the resource. The narrative should first indicate whether the element, feature, or space is original, historic or non-historic, and should then provide a detailed description of **what it is, what it looks like, the materials from which it is made, and the methods used in its construction.**

**The Description sub-heading should not include information about the condition:** Perhaps one of the most common mistakes is to include a discussion of the *condition* of each material, element, feature, or space as part of the *description* narrative—it is important to avoid this. The intent is to describe the element, feature, or space as it exists at this point in time (e.g. "Interior walls are plaster over wood lathe, with a smooth texture and painted finish [see photos #2, 3, 12 and 15]."). This serves the purpose of documenting the material, element, feature, or space as it exists now so that in the future, users of the assessment will have a clear understanding of how this looked prior to any treatment.

**Significance:** Please identify each element's, feature's, or space's relationship to the age of the structure and identify its significance as it relates to the integrity of the resource overall. It is important to remember that all materials, elements, features, and spaces of a structure impact the resource's historic integrity (contributing to or detracting from); therefore, each component should be described regardless of its historic significance. A significant element, feature, or space should be described in greater detail and include **photographic documentation** to illustrate that description.

**Windows, doors, and other repetitive elements or features:** Often an element or feature is a series of similar, repetitive items, such as windows or doors. In this case, the feature should be described as one feature and then specific discrepancies should be noted or highlighted—for example, "all nine windows on the 3rd floor are historic, the six 1st floor windows are not." Although describing as *one*, please include the total quantity of the element or feature in the description. A schedule to augment the narrative may be included. Remember to include even small repetitive elements such as hardware, lighting, and security.

**CONDITION EVALUATION:** Please *evaluate the condition* of each feature, element, or space.
Please provide a detailed discussion of the **existing condition and integrity** of each element, feature or space based on the comprehensive physical evaluation. As noted above, destructive investigation is acceptable as a means of obtaining information, but it is not required. The Condition Evaluation must include **photographic documentation** to illustrate the condition (or range of conditions for repetitive elements or features). Please use the following terms in your evaluation and discussion of the condition of each element, feature, or space: **Good Condition**, **Fair Condition**, and **Poor Condition**.
Criteria/guidelines for each are as follows:

- **GOOD CONDITION:** An element, feature, or space is evaluated in *good* condition when it is meets the following criteria:

  1. *It is intact, structurally sound, and performing its intended purpose.*
  2. *There are few or no cosmetic imperfections.*
  3. *It needs no repair and only minor or routine maintenance.*

  **Please note:** Elements, features, or spaces that are in *good* condition do not need lengthy narratives; state that they were examined and found to be in *good* condition, and why you have made that determination.

- **FAIR CONDITION:** An element, feature, or space is evaluated in *fair* condition when one or more the following are evident:

  1. *There are early signs of wear, failure, or deterioration, although the feature or element is generally structurally sound and performing its intended purpose.*
  2. *There is failure of a sub-component of the feature or element.*
  3. *Replacement of up to 25% of the feature or element is required.*
  4. *Replacement of a defective sub-component of the feature or element is required.*

  **Please note:** When an element, feature, or space is in *fair* condition, it is important to provide a comprehensive discussion of this evaluation; do not simply state that the condition is "fair" without explaining that evaluation. Also, please avoid using generic descriptors such as "weathered" or "damaged" without a more specific explanation (e.g. how/why is it weathered/damaged).

- **POOR CONDITION:** An element, feature, or space is evaluated in *poor* condition when the following is evident:

  1. *It is no longer performing its intended purpose.*
  2. *It is missing.*
  3. *It shows signs of imminent failure or breakdown.*
  4. *Deterioration/damage affects more than 25% of the feature/element and cannot be adjusted or repaired.*
  5. *It requires major repair or replacement.*

  **Please note:** When an element, feature, or space is in *poor* condition, it is important to provide a comprehensive discussion of this evaluation; do not state that the condition is "poor" without explaining that evaluation. Also, please avoid using generic descriptors without a more specific explanation.

**RECOMMENDATIONS:** Please provide a *recommendation* for each element, feature or space, based on (1) the evaluation of existing conditions and (2) the significance or importance of the building and its associated features and elements. Recommended treatments should comply with, and specifically address, *The Secretary of the Interior's Standards for the Treatment of Historic Properties* and the recommendations in the *Guidelines* (e.g., "recommendation is based on *Preservation Brief 9: The Repair of Historic Wooden Windows…*").

If an element, feature, or space has been evaluated in *good condition*, and there is no recommendation, state, "No recommendation at this time." For all others, consider the following when making a recommendation:

1. *The needs of the resource should be considered the first priority (sometimes a proposed use or treatment is contrary to the best interest of the resource).*
2. *Recommendations should discuss a specific course of action (**not:** "Repair according to the Standards").*
3. *Clearly explain and substantiate recommended treatments within the context of the selected treatment approach.*
4. *If more than one treatment is viable, discuss the pros and cons of each approach/option.*
5. *Provide sufficient information and analysis to aid in the preparation of future construction documents.*
6. *Research and provide alternative solutions when the recommendation conflicts with the guidelines for The Standards. Consult the NPS* Preservation Briefs *and* Tech Notes *for potential solutions/alternatives.*
7. *Consider the future welfare of the resource, and the practicality of maintenance, when recommending treatments.*
8. *Do not present the quickest, easiest, or most economical solution as the only recommendation.*

### 3.1 SITE:

- Associated Landscape Features
- Grading
- Parking
- Archaeology (Archaeological monitoring/mitigation is required by a number of state and federal regulations when any ground disturbance results from preservation activities where there is state and/or federal involvement.)

### 3.2 STRUCTURAL SYSTEM:

- General Structural System Description
- Foundation Systems
- Floor & Ceiling Systems
- Roof Framing System

### 3.3 ENVELOPE – EXTERIOR WALLS:

- Exterior Wall Construction
- Exterior Finishes
- Exterior Masonry
- Exterior Appendages—Porch, Stoop, Portico, etc.

### 3.4 ENVELOPE – ROOFING & WATERPROOFING:

- Roofing Systems
- Sheet Metal Flashing
- Perimeter Foundation Drainage
- Drainage System, Gutters & Downspouts
- Skylights / Cupolas

### 3.5 WINDOWS & DOORS:

- Doors (including Hardware, Casing/Trim, and Finishes)
- Windows (including Hardware, Casing/Trim, and Finishes)

### 3.6 INTERIOR FINISHES:

- Wall Finish Materials
- Ceiling Finish Materials
- Floor Finish Materials
- Trim and Built-Ins (not previously addressed in Section 3.5)

### 3.7 MECHANICAL SYSTEMS:

- Heating & Air-Conditioning
- Ventilation
- Water Service, Plumbing, & Sewer Utilities
- Fire Suppression—Sprinklers

### 3.8 ELECTRICAL SYSTEMS:

- Electrical Service & Panels
- Electrical Distribution System
- Lighting
- Fire Detection System
- Security Systems

## 4.0 ANALYSIS AND COMPLIANCE

In-depth code review and materials analyses may be completed for the structure. However, at a minimum, general observations on each of the following are required, and should be based on the information in Section 2.0, History and Use, and Section 3.0, Structure Condition Assessment.

### 4.1 HAZARDOUS MATERIALS:

- Provide observations of likely sources (e.g., lead paint, asbestos); materials testing may be recommended.

### 4.2 MATERIALS ANALYSIS:

- Suggest further testing as warranted for creation of specifications (i.e., paint, mortar, masonry, finishes).

### 4.3 ZONING CODE COMPLIANCE:

- Identify potential conflicts between zoning requirements and the proposed use(s).

### 4.4 BUILDING CODE COMPLIANCE:

- List the code(s) referenced. Consider alternate codes (UCBC, IEBC) and possible variances.
- Identify potential conflicts between applicable building codes and retention of historic elements, features, materials and spaces.

### 4.5 ACCESSIBILITY COMPLIANCE:

- Identify potential conflicts between meeting ADA Accessibility Guidelines and retaining the building's historic integrity.
- Recommendations for alterations needed to meet accessibility requirements should reflect an effort to minimize material loss and visual change to a historic building.

## 5.0 PRESERVATION PLAN

The Preservation Plan should take the recommended treatments prescribed in section 3.0 Structure Condition Assessment and **prioritize** the work into a logical order. This order should rank the most urgent work, such as deterioration, structural weakness, and/or life safety issues, over less urgent repairs. In the discussion provided for sections 5.1-5.3, please remember the following:

1. *All recommended treatments should be included in the Preservation Plan.*
2. *The first priority of the Preservation Plan should be to address the needs of the historic building/resource.*
3. *Programmatic needs of building owners and/or clients need to be represented as secondary priorities.*

### 5.1 PRIORITIZED WORK:

Recommended Treatments for elements, features, or spaces should be prioritized and identified utilizing the following terms: Critical Deficiency, Serious Deficiency, and Minor Deficiency. Criteria/guidelines for each are as follows:

- **CRITICAL DEFICIENCY:** One or more of the following indicate a critical deficiency:
  1. *Advanced deterioration has resulted in failure of the building element, feature, or space, or will result in its failure if not corrected within two years.*
  2. *Accelerated deterioration of adjacent or related building materials has occurred as a result of the feature or element's deficiency.*
  3. *The feature or element poses a threat to the health and/or safety of the user.*
  4. *The feature or element fails to meet a code/compliance requirement.*

- **SERIOUS DEFICIENCY:** One or more of the following indicate a serious deficiency:
  1. *Deterioration, if not corrected within two to five years, will result in failure of the feature or element.*
  2. *Deterioration of a feature or element, if not corrected within two to five years, may pose a threat to the health and/or safety of the user.*
  3. *Deterioration of adjacent or related building materials and/or systems will occur as a result of the deficiency of the feature or element.*

- **MINOR DEFICIENCY:** One or more of the following indicate a minor deficiency:
  1. *Standard preventive maintenance practices and building conservation methods have not been followed.*
  2. *A reduced life expectancy of affected or related building materials and/or systems will result.*
  3. *A condition exists with long-term impact beyond five years.*

### 5.2 PHASING PLAN:

If work is to be completed in more than one phase, propose a logical and sequential phasing plan.

- *Phased plans need to consider mobilization, seasons, sequencing, protection of building, and current uses.*

### 5.3 ESTIMATE OF PROBABLE COST OF CONSTRUCTION:

Dated cost estimates should reflect the current market and include a percentage cost increase to account for inflation if the project is phased or delayed. (If applicable, please include cost estimates for archaeological monitoring, hazardous materials testing, and/or abatement.)

## 6.0 PHOTOGRAPHS AND ILLUSTRATIONS

Historic and current photographs and illustrations should be included with the assessment to illustrate and support the information provided in the narrative. Where the photographs and illustrations are located in the report is optional (in each section, after each section, at the end of the report, etc.). Follow the guidelines below for photographs and illustrations:

1. *Provide comprehensive and "readable" (i.e., high quality and clear) photographic documentation.*
2. *Photographs and illustrations should be clearly numbered and captioned.*
3. *Provide at least one view of each elevation.*
4. *Provide clear pictures of specific conditions and deficiencies that are discussed.*
5. *In the narrative, include in-text references to the numbered photographs (for example, "Due to poor drainage, the lower portion of the column is significantly deteriorated [see photos 3, 5, and 6]").*
6. *Black and white photographs may be acceptable for the Draft HSA; please contact the Historic Preservation Specialist for specific direction. Color images must be used in the final HSA.*

## 7.0 BIBLIOGRAPHY

List all consulted sources. All the sources you have utilized should be listed alphabetically following a recognized bibliographic style (e.g., Chicago Manual of Style/Turabian, Modern Language Association (MLA), American Psychological Association (APA).

- Indicate if the consulted sources did, or did not, contain pertinent information.

## 8.0 APPENDICES

Drawings and other information should be included in the appendices

- Historical/original plans (if available) may be included.
- Schematic design, design development, construction drawings, or measured drawings (previously prepared, or prepared outside the scope of this HSA) may be also included in addition to the sketch plans provided under Section 2.2, but are not required.

# CHOOSING THE APPROPRIATE TREATMENT

**THE SECRETARY OF THE INTERIOR'S STANDARDS** are neither technical nor prescriptive, but are intended to promote responsible preservation practices that help protect our nation's irreplaceable cultural resources. For example, they cannot, in and of themselves, be used to make essential decisions about which features of the resource should be saved and which can be changed. But once a treatment is selected, the Standards provide consistency to the work.

## FOUR TREATMENT APPROACHES

1. **PRESERVATION** places a high premium on the retention of all historic fabric through conservation, maintenance, and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made.

2. **REHABILITATION** allows for a compatible new use for the resource but still emphasizes the retention and repair of historic materials. More latitude is provided for replacement because the treatment assumes the property has suffered more deterioration prior to work. (Both Preservation and Rehabilitation Standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.)

3. **RESTORATION** focuses on the retention of materials from the most significant time in a property's history, while permitting the removal of materials from other periods.

4. **RECONSTRUCTION** establishes limited opportunities to re-create a non-surviving site, landscape, building, structure, or object in all new materials.

**OTHER CONSIDERATIONS:** Choosing the most appropriate treatment for a building requires careful decision-making about a building's historical significance, as well taking into account the following:

- **Relative importance in history**. Is the building a nationally significant resource—a rare survivor or the work of a master architect or craftsman? Did an important event take place in it? National Historic Landmarks may warrant a different treatment approach than buildings that contribute to the significance of a historic district but are not individually listed on the National Register.

- **Physical condition.** What is the existing condition—or degree of material integrity—of the building prior to work? Has the original form survived largely intact or has it been altered over time? Are the alterations an important part of the building's history? Are distinctive materials, features, and spaces essentially intact and convey the building's historical significance? Are alterations or additions necessary for a new use? These key questions play a major role in determining which treatment is selected.

- **Proposed use.** Will the building be used as it was historically or will it be given a new use? Many historic buildings can be adapted for new uses without seriously damaging their historic character; special-use properties such as grain silos, forts, ice houses, or windmills may be extremely difficult to adapt to new uses without major intervention and a resulting loss of historic character and even integrity.

- **Mandated code requirements.** Code requirements will need to be taken into consideration. But if hastily or poorly designed, a series of code-required actions may jeopardize a building's materials as well as its historic character. Abatement of lead paint and asbestos within historic buildings requires particular care if important historic finishes are not to be adversely affected. Recommendations for alterations and new construction needed to meet accessibility requirements under the Americans with Disabilities Act of 1990 should reflect an effort to minimize material loss and visual change to a historic building.

# TERMS AND DEFINITIONS

**AS-BUILT DRAWINGS:** produced after completion of the structure showing how it was actually built by incorporating changes that were made as construction progressed. Alterations made to the structure in subsequent years should be clearly identified as later changes.

**CHARACTER-DEFINING FEATURE:** a prominent or distinctive aspect, quality, or characteristic of a historic property that contributes significantly to its physical character. Structures, elements, objects, vegetation, spatial relationships, views, furnishings, and decorative details and materials may be such features.

**CONSTRUCTION DOCUMENTS:** Drawings, Plans, Technical Specifications, Addenda, Supplemental Instructions and Change Orders created by an architect that set forth in detail the requirements for the construction of the project.

**DESIGN DEVELOPMENT DRAWINGS:** produced to work out details, aesthetics, dimensions, and estimated probable costs for construction or manufacture. They often include detail drawings of design features.

**ELEMENT:** may be an architectural feature, structural component, engineering system, or a functional requirement.

**EXISTING CONDITION DRAWINGS:** produced to record the configuration, physical fabric, and conditions of a structure at a given point in time. They are often produced as the first step in a project.

**IN-KIND:** in the same manner, with the same material, or with something equal in substance creating a similar or identical visual appearance or effect.

**MATERIAL:** the physical elements that were combined or deposited to form a property. Historic material or historic fabric is that from a historically significant period, as opposed to material used to maintain or restore a property following its historic period(s).

**PERIOD OF SIGNIFICANCE:** the length of time when a property was associated with important events, activities, or persons, or attained the characteristics which qualify it for historic designation.

**PRESERVATION:** the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a building, site, structure, or object.

**RECONSTRUCTION:** the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. Treatment should be based on documentary or photographic evidence.

**REHABILITATION:** the act or process of making possible a compatible new use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

**RESEARCH DESIGN:** a statement of proposed activities (identification, documentation, evaluation, investigation, or other research) that identifies the project's goals, methods and techniques, expected results, and the relationship of the expected results to other proposed activities or treatments. The research design is specific to each project.

**RESTORATION:** the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

**SCHEMATIC DESIGN DRAWINGS:** also known as conceptual drawings, they are diagrammatic drawings of the essential elements of a design; they are not used to estimate costs.

**SKETCH PLAN:** site plan or building plan drawn with measurements but often not to scale, although the structure and site features should be represented in accurate proportions.

**TREATMENT RECOMMENDATION:** based on The Secretary of the Interior's Standards. The degree of intervention recommended depends on the existing condition of the element and its significance or importance to the property.