September 2004

TELLURIDE TRANSFER BUILDING – Telluride, Colorado
HISTORIC STRUCTURE ASSESSMENT WITH RECOMMENDATIONS

PREFACE

Formulating recommendations for the future of the Telluride Transfer Company Building was both a pleasure and a challenge. It is not often that we are afforded the opportunity to radically stretch ourselves in developing creative solutions, many of which are clearly "outside of the box", but this is exactly the test to which this consulting group was put as part of this project, and we took our charge very seriously. Many of the systems normally assessed during the process of performing an Historic Structure Assessment are no longer in existence or have deteriorated beyond reparation and were thus noted in the report. What we have as a basis for our recommendations is essentially an unoccupiable, significant historic masonry shell, leaving us with few (or many) possibilities. Therefore, we have included several preservation and reconstruction treatment options in the Prioritized Preservation Plan section of this report. Some are fairly typical of the American preservation philosophy, but a few may be viewed as anomalous to our cultural way of thinking, although may be seen as more viable approaches based on international preservation philosophies. As part of our approach, we have included sketched representations of some of our ideas, and pictorial documentation of existing preservation interpretations from Europe and Canada. Our goal was to offer a range of possibilities, not just the one that is “always” done.

The circumstances of the Transfer Company Building are very unique. It is one of the few structures in the old warehouse district whose use has not yet been drastically changed and it stills speaks to the hard work and “boot straps” mentality that laid the foundation of this very historic mining town.

As the population of our nation continues to age, many of us acknowledge that we may be past our prime, but still appreciate our strengths and recognize our potential. No matter how hard we strive to improve ourselves, we understand that those improvements must be built on our existing foundations, and realizing our limitations. So it is with the Transfer Company Building. If it appears that we are personifying this structure, we believe that mirrors the perceptions of the populous of Telluride. This building, although individually owned and controlled, is viewed by Telluridians as a respected and venerable citizen in the community of their town's distinguished historic structures. Despite being reduced to a near ruins by the historic course of events and its environ, this resource continues to stand in quiet, calm defiance, refusing to succumb. Its reduction to its existing condition makes it a nearly blank canvas on which many would wish to make their mark. Only through careful consideration, planning, and thoughtful stewardship can all of us assure that the end product will be one for which we will have to offer no apologies to future generations.
PART I: INTRODUCTION

1.1 RESEARCH BACKGROUND / PARTICIPANTS

In preparation for this report, A-E Design Associates, P.C. (A-E Design) was approached by Kaye Simonson, then Preservation Planner for the Town of Telluride, at the request of Thomas Zoline, owner's family member. An initial on-site conference was held in January of 2000 with participants Kaye Simonson; Thomas Zoline; Brandt Garber, Architect for Thomas Zoline; Lynn Lohr, Historical Architect for A-E Design; and Richard Beardmore, Preservation Engineer and Principal for A-E Design. This meeting afforded A-E personnel their first look at the structure. Approximately two years passed and, upon Ms. Simonson's departure, her replacement, Hal Hutchinson, then Preservation Planner for the Town of Telluride, renewed the interest in this building's preservation and assisted the Zoline's on behalf of the Town of Telluride in securing an Historic Structure Assessment grant from the Colorado Historical Society/State Historical Fund. Observations, inspections, and evaluations of the Transfer Building by A-E Design personnel Richard Beardmore and Patrice Berglund have been ongoing. This report includes information gathered during the aforementioned inspections, carried on over the course of a year to observe and document conditions for all four seasons.

This report provides descriptions, conditions, and preliminary preservation and reconstruction recommendations with specific treatment options. Most are intended to conform to the Secretary of the Interior Standards for the Treatment of Historic Properties, while others are presented as viable options, perhaps divergent from these, but non the less respectful of this resource's history and architecture.

A-E Design Associates, PC would like to thank all who assisted with the preparation of this report, including, but not limited to: Kaye Simonson; Hal Hutchinson; Thomas Zoline; Brandt Garber; John Lifton Zoline, family member; Richard Lippoth, Archaic Masonry Specialist; Sarah Zaske, Preservation Specialist; Dee Van Donsebra, Historic Preservation Planner; Yvette Sylvia, Receptionist; J. J. Ossola, Realtor and concerned citizen; and Jerry Greene, Baked in Telluride and concerned citizen.

This project (CSH/SHF #2003-HA-002) was funded by a contribution from the Town of Telluride, the Zoline family, and a grant from the Colorado Historical Society/State Historical Fund.

1.2 BUILDING LOCATION / SITE PLAN OR VICINITY MAP

Legal Description of Property (entire site):

Town of Telluride Filing
Block 17; Lots 5, 7, 9, 11, and 13

Legal Recorded Owner:

1969: Joseph Zoline
Current: Zoline Telluride Properties III, LLC
Street Address of Telluride Transfer Company Building:

201 Fir Street
Telluride, Colorado

Assessed Value:

1983: "Less than salvage", Improvements - $58,705, Land - $17,040
Current: Land Value - $940,345

PART II: HISTORY AND USE

2.0 HISTORY AND USE

The circa 1905-1908 Telluride Transfer Company Building contributes to the Telluride National Historic Landmark District (1963, revised 1988; 5SM1788) as an example of the Town of Telluride's predominantly vernacular architecture. The building is also significant for its contribution to the town's early transportation history.

The first silver discoveries in the San Miguel River Valley were made around 1875 by the prospectors Lon Remine, Bill Remine, and John Fallon. Originally known as Columbia, the town of Telluride was settled around 1878. By 1880, the town had a population of approximately 700 residents, all associated with some aspect of the mining industry. The town's name was officially changed to Telluride in 1881 at the request of the United States Postal Service.¹

The Telluride Transfer Company Building was constructed circa 1905 on the southwest corner of Pacific and Fir as a livery stable, freight forwarding business, and warehouse. It was originally part of a larger complex of buildings that occupied the entire half-block, including a supply yard, wagon shed, hay storage, and other outbuildings. The Rio Grande Southern Narrow Gauge Railroad ran south of this block. Of this original complex of buildings, only the Telluride Transfer Company Building and one smaller stone storage building remain.

The building's location south of Colorado Avenue fits a pattern of construction that had emerged in Telluride. Typical of many mountain mining towns, most civic buildings, churches, schools, and better residences were constructed on higher elevations. Workers' housing, warehouses, livery stables, and houses of ill repute were often relegated to the lower elevations. In Telluride, the line of elevational demarcation and social stratification was Colorado Avenue.²

As the Town of Telluride experienced growth associated with the development of the mining industry, liveries were needed to care for and rent out the horses and wagons that served as the primary means of transportation. The Telluride Transfer Company kept horses for haulage purposes and for miners to ride from town to the stables at the mine.³

² Whitacre, p. 9.
As automobiles gradually replaced horses as the primary means of transportation, the building's use shifted to accommodate an auto repair shop and gas station. An interior lift raised cars to the second floor. The building continued in use as a gas and service station until it was abandoned sometime in the late 1960s/early 1970s. The roof collapsed in the late 1970s.

2.1 ARCHITECTURAL SIGNIFICANCE AND CONSTRUCTION HISTORY

The arrival of the Rio Grande Southern Railroad in 1890 marked a shift in construction methods and architectural styles in Telluride. Before 1890, the vast majority of structures in town were wood frame, a common building type in impermanent western mining towns. The arrival of the railroad elevated the status of Telluride to that of a major mining and commercial center. Stone and brick were easily transported to Telluride by rail, and there was enough capital available to finance substantial, architect-designed buildings. As a result, the vast majority of buildings constructed during the post 1890 boom were masonry.4

The circa 1905 Telluride Transfer Company Building (the second generation building located on this corner) is a rectangular, two-story, masonry building with a shallow stone foundation. Walls are constructed of buff-gray, fine to medium grained silicious sandstone laid in an un-coursed rubble pattern. The stone was most likely quarried locally, as evidence exists of quarrying activity in the Jurassic era sandstone beds cropping out along Tomboy Road northeast of Telluride. Mortar is lime-sand with pointing also of lime and sand. Joints are occasionally struck with narrow incised lines to help define a rectangular stone shape.5 Lintels, windowsills, and quoins near the corner entrance have been more finely worked to "rough pointed" texture or "bush hammered" surfaces.

The building originally had a flat roof that sloped to the west. The roof's collapse in the late 1970s hastened the deterioration of the remainder of the building. Currently, the building's east elevation has four window openings on the second floor and three on the first floor. Most windows are missing and most openings have been boarded over. Typically, the windows on the east elevation were originally wood frame, proportionally tall double-hung with spring pins and no weight boxes. A large, infilled opening on the first floor was related to the building's original use as a livery stable. It was later used as the garage entrance. The entrance is topped by an arched lintel with keystone. Remnants of interior wood lateral bracing extend through the second story windows and continue down to grade.

The northeast corner entrance has a boarded-over, single leaf door opening on the first floor and a window opening on the second floor. The window was originally wood frame, proportionally tall double-hung with spring pins and no weight boxes and was typical of the second story windows at this end of the building.

The east portion of the north elevation has three window openings on the second floor. Windows were originally the typical proportionally tall double-hungs. A larger window opening on the first floor has been boarded over. It is topped by an arched lintel with a central keystone. The building height slopes down to the west. Six small, square, first story window openings on the west portion of the north elevation have been infilled with board. In the center of the north elevation, a large second floor opening accessed interior storage areas. The pulley hardware

4Whitacre, 2.

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still exists over this opening. Three additional second story window openings are located on the west portion of the north elevation. Windows were originally the typical proportionally tall double-hungs. Remaining second story window frames are painted white. Interior wood shoring extends through the second story windows.

The east portion of the building’s south elevation has two, second story window openings. Windows were originally the typical proportionally tall double-hungs. Some of the window framing still exists. The first story of this portion has two boarded over window openings. A large door opening similar to the entrance on the east elevation is located here. The opening has been boarded over and is topped by an arched lintel with keystone. Seven small, square window openings are also located on the first floor. Although all of the windows are missing glazing and two are boarded over, sufficient wood window sash, including muntins remain to confirm, along with historic photographic records, that the windows originally had four panes each, 2 over 2, and were a common barn sash. Trim and framing is currently painted brown.

The west portion of the south elevation has three boarded over, second story window openings. Windows were originally the typical proportionally tall double-hungs. Remaining trim and framing is painted brown. Near the center of the south elevation, a large second floor opening accessed interior storage areas. The pulley hardware still exists over this opening. The roof parapet has significantly deteriorated on this elevation. Remnants of interior wood lateral bracing extend through the second story windows and continue down to grade.

The majority of the second floor portion of the west wall has collapsed. Historic photographs indicate that the west wall had a series of second floor window openings and two fairly large first floor door openings. It is likely that the roof collapse, combined with the multiple second floor fenestrations on this elevation and the probability that the masonry suffered a higher level of deterioration from roof runoff to this end of the building, caused the wall to destabilize.

2.2 EXISTING SKETCH PLAN

Please see Additional Materials Section 6.0 for graphic depiction of the existing configuration floor plan layout. See Appendix 8.1 for existing elevation drawings.

2.3 PROPOSED USE

Please see Appendices 8.2 and 8.3 for excerpts from Town of Telluride Zoning and Design Guidelines related to potential uses for this property located in C-Commercial Zone, historic district overlay, Warehouse/Commercial District. At this time, the building ruins are unoccupiable. While no specific use recommendations were selected for the basis of our recommendations, Sections 5.0 and 6.0 include some conceptual reuse references within the preservation and reconstruction options. All are intended to be “true to the building”!
PART III: STRUCTURE CONDITION ASSESSMENT

3.1 SITE

- ASSOCIATED LANDSCAPE FEATURES

  Photographs and Illustrations: TT 1.01, TT 1.02, TT 1.03, TT 1.04, TT 1.05, TT 1.06, TT 1.07, TT 1.08, TT 1.09, TT 1.10, TT 1.11, TT 1.12, TT 1.13, TT 1.14, TT 1.15, TT 1.16, TT 1.17, TT 1.18, TT 1.19, TT 1.20, TT 1.21, TT 1.22, TT 1.23, TT 1.24, TT 1.25, TT 1.30, TT 1.51, TT 1.52, TT 1.81 AND SITE PLAN SKETCH

DESCRIPTION:

The site that includes the Transfer Building location is the east half of city block 17, including lots numbered 5, 7, 9, 11, and 13. Previously, the site included a complex of accessory buildings and features that were related to its historic use of transferring and warehousing of goods and associated services. The only surviving structures are the Transfer Building on the northeast corner and a smaller stone building on the southeast corner that now houses the Daily Planet newspaper, but was formerly used for grain storage. All the other structures have been razed, leaving a large vacant lot, now used for seasonal parking and construction staging, in their wake.

CONDITION:

The site is in unimproved condition.

RECOMMENDATIONS:

Select drainage improvements and better snow plowing protocols are called for relative to preserving this structure. These recommendations are outlines in Part V.

- PARKING

  Photographs and Illustrations: TT 1.01, TT 1.02, TT 1.03, TT 1.05, TT 1.07, TT 1.08, TT 1.10, TT 1.11, AND TT 1.13

DESCRIPTION:

No specifically defined off street parking is evident.

CONDITION:

N/A
RECOMMENDATIONS:

It is recommended that specifically designated off street parking be incorporated into any long term use program.

- ARCHAEOLOGY

Photographs and Illustrations: N/A

DESCRIPTION:

No archaeological excavation has been performed.

CONDITION:

N/A

RECOMMENDATIONS:

A shallow surface archaeological reconnaissance should be conducted prior to any excavation. Likewise, a select interior building archaeological reconnaissance should be conducted when current debris and temporary bracing is removed. See Part V for further discussion and explanation.

3.2 FOUNDATIONS

- FOUNDATION SYSTEMS

Photographs and Illustrations: TT 1.54, TT 1.55, TT 1.56, TT 1.59, TT 1.60, TT 1.61, TT 1.62, TT 1.63, TT 1.64, TT 1.65, TT 1.66, TT 1.67, TT 1.69, TT 1.77, TT 1.78, AND TT 1.79

DESCRIPTION:

The Transfer Building has a rubble stone foundation. The footing system was not observable. However, it is reasonable to assume that the interior column footings are also stone. There are several penetrations in the foundation walls. Several are apparent on the north side from the interior of the basement/boiler room space at the northeast corner of the building. One is a window opening with badly deteriorated remnants of the original window still in place, one is the historic coal chute opening, and one is a wall fenestration which may have been associated with the large truck scale that historically existed on the north side of the building. On the south foundation wall, there is a window opening just west of the earthen ramp into a sub floor level, stone lined vault space and three other small grated openings just below interior floor level that apparently served as outlets for interior floor drain trenches.
CONDITION:

In general, other than areas specifically noted otherwise, the stone foundation systems possess sufficient structural integrity and appear to be performing adequately. However, at the basement/boiler room area at the northeast corner of the building, deterioration and initial failure was observed. The mortar is eroded and stones of the interior wyth are dislodging.

RECOMMENDATIONS:

Prior to reintroducing additional dead and live loads on the foundations systems and putting the building back into usable condition, additional excavation/investigation should be performed to more definitively determine the size and depth of foundation footers and their condition.

Measures must be taken to mitigate the causes of moisture intrusion into the basement/boiler room space at the northeast corner of the structure.

In the process of immediate interim stabilization, any dislodged foundation stones and adjacent areas should be reset. Additionally, those sections where the mortar is significantly eroded should undergo deep repointing of bedding mortar. Pointing should be done with the compatible mortar mix as recommended in the masonry analysis report included in appendices (See Appendix) Do not use incompatible gray Portland or pre-packaged Portland masonry cement.

It is the recommendation of this consulting team that the existing footing systems should not be underpinned with reinforced concrete footings, nor extended deeper, nor undermined/disturbed by excavation other than as required for shallow surface exterior repointing.

- PERIMETER FOUNDATION DRAINAGE

Photographs and Illustrations: TT 1.01, TT 1.02, TT 1.03, TT 1.04, TT 1.05, TT 1.06, TT 1.07, TT 1.08, TT 1.09, TT 1.10, TT 1.11, TT 1.12, TT 1.14, TT 1.16, TT 1.17, TT 1.54, TT 1.59, TT 1.60, TT 1.61, TT 1.62, TT 1.63, TT 1.66, TT 1.67, AND TT 1.69

DESCRIPTION:

The site generally slopes from northeast to southwest, with the crowns of Pacific Avenue and Fir Street directing runoff toward the building's north and east elevations, but most pronounced on the north. There is, however, positive drainage away from the structure on the south to the empty lot and on the west to the alley. The runoff at the northeast corner soaks the stone foundation and drains into the basement/boiler room area at the foundation openings on the north and through the foundation walls. There is no formal defined drainage system surrounding the building.
CONDITION:

The perimeter foundation drainage at the north and east elevations is poor and is having a significantly detrimental effect on the foundation system at the basement/boiler room on the northeast corner. The positive drainage away from the building on the south and west elevations is marginal.

The snow plowing practice of piling the snow against particularly the north elevation and along the Pacific Street shoulder is very damaging to the building.

RECOMMENDATIONS:

A formal defined drainage plan should be developed and implemented for the benefit of the structure and site. Such a plan should include positive drainage away from the structure on all elevations and drainage systems to carry the runoff away from the site. With these items completed, there should also be a "dry-zone" installed adjacent to the structure to allow the historic stone foundation to "breathe". Any roof related drainage system should also be incorporated into the overall drainage plan.

Dialogue must occur between the building owner(s)/stewards with the appropriate town agencies to permanently alter snowplowing and piling practices for the benefit of this significant historic resource.

3.3 STRUCTURAL SYSTEM

• GENERAL STRUCTURAL SYSTEM

Photographs and Illustrations: TT 1.25, TT 1.26, TT 1.27, TT 1.28, TT 1.29, TT 1.30, TT 1.31, TT 1.44, TT 1.51, TT 1.52 AND HISTORIC PHOTOGRAPHS TT 0001, TT 0003, TT 0004, TT 0005, AND TT 0005

DESCRIPTION:

The only general structural system that remains is that of the full masonry walls, which are structural, some minor interior basement partition and floor framing above at the basement/boiler room, and remnants of second floor framing above the small vault on the north wall. There are also remnants and evidence of previously existing systems (i.e. joist pockets, column footers), but all of those either collapsed or were removed prior to this assessment.

CONDITION:

N/A
RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments. Also refer to the Assessment of Masonry Condition, Telluride Transfer Building, Telluride, Colorado, dated November 25, 2002, prepared by Richard E. Lippoth, Mineral Geologist and Archaic Material Testing Specialist of Pinnacle Quarry and Development Company.

• FIRST FLOOR STRUCTURAL SYSTEM

Photographs and Illustrations: TT 1.26, TT 1.27, TT 1.28, TT 1.32, TT 1.33, TT 1.34, TT 1.35, TT 1.37, TT 1.38, TT 1.40, TT 1.42, TT 1.43, TT 1.44, TT 1.45, TT 1.46, TT 1.47, TT 1.48, TT 1.50, TT 1.51, TT 1.53, TT 1.54, TT 1.55, TT 1.56, TT 1.57, TT 1.58, TT 1.59, TT 1.60, TT 1.61, TT 1.62, TT 1.63, TT 1.64, TT 1.65, TT 1.67, TT 1.68, TT 1.77, TT 1.78, AND TT 1.79

DESCRIPTION:

There is a 2 X 14 first floor framing system above the basement/boiler room and remnants and evidence of previously existing systems.

CONDITION:

The first floor framing system above the basement/boiler room is badly deteriorated and rotting. The safety of this system is questionable. Reuse of the building will most likely require the replication/reconstruction of this framing and flooring.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

• SECOND FLOOR STRUCTURAL SYSTEM

Photographs and Illustrations: TT 1.13, TT 1.25, TT 1.26, TT 1.27, TT 1.28, TT 1.29, TT 1.32, TT 1.33, TT 1.34, TT 1.35, TT 1.38, TT 1.39, TT 1.40, TT 1.42, TT 1.43, TT 1.44, TT 1.45, TT 1.46, TT 1.47, TT 1.48, TT 1.49, TT 1.50, TT 1.51, TT 1.52, TT 1.77, TT 1.78, TT 1.81 AND TT 1.79

DESCRIPTION:

There is evidence of historic floor lines and ceiling/roof lines, along with joist pockets and remnants of framing members. A small abandoned section of the floor system remains atop the vault. No functional second floor structural systems remain.
CONDITION:

Remaining remnants are useful for reconstruction modeling and interpretation only.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

- ROOF FRAMING SYSTEM

  Photographs and Illustrations: TT 1.13, TT 1.25, TT 1.26, TT 1.27, TT 1.28, TT 1.29, TT 1.33, TT 1.38, TT 1.39, TT 1.43, TT 1.44, TT 1.47, TT 1.48, TT 1.49, TT 1.51, TT 1.77, TT 1.78, AND TT 1.79

DESCRIPTION:

The roof collapsed many years prior to this assessment and all that remains are joist pockets, which offer evidence as to the size and spacing of the members. There are also footers, which indicate the prior existence of a central column line.

CONDITION:

Remaining remnants are useful for interpretation only.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

3.4 BUILDING ENVELOPE – EXTERIOR WALLS

- EXTERIOR WALL CONSTRUCTION

  Photographs and Illustrations: TT 1.01, TT 1.02, TT 1.03, TT 1.04, TT 1.05, TT 1.06, TT 1.07, TT 1.08, TT 1.10, TT 1.11, TT 1.13, TT 1.14, TT 1.16, TT 1.17, TT 1.18, TT 1.19, TT 1.20, TT 1.21, TT 1.22, TT 1.23, TT 1.24, TT 1.25, TT 1.26, TT 1.27, TT 1.28, TT 1.29, TT 1.30, TT 1.31, TT 1.32, TT 1.33, TT 1.34, TT 1.35, TT 1.37, TT 1.38, TT 1.39, TT 1.40, TT 1.41, TT 1.42, TT 1.43, TT 1.44, TT 1.45, TT 1.46, TT 1.47, TT 1.48, TT 1.49, TT 1.50, TT 1.51, TT 1.52, TT 1.70, TT 1.71, TT 1.74, TT 1.75, TT 1.76, TT 1.81

AND ALL HISTORIC PHOTOGRAPHS
DESCRIPTION:

The exterior walls are multi wyth, full masonry of buff-gray, fine to medium grained silicious sandstone laid in an un-coursed rubble pattern. There are no wood framed exterior walls. The only finishes related to the exterior walls are remnants of painted plaster adhered directly to the interior of the stone masonry at some locations.

CONDITION:

The walls are in generally fair condition over their lower expanses, transitioning to poor to deteriorated high on the central sections of the north and south elevations, and collapsed or near to collapsing on the westernmost sections of the north and south elevations, and greatly collapsed on the west elevation. Evidence suggests that portions of the central to western parapets on the north and south elevations had been previously reconstructed, indicated by the absence of rafter and joist pockets at these locations.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments. Also refer to the Assessment of Masonry Condition, Telluride Transfer Building, Telluride, Colorado, dated November 25, 2002, prepared by Richard E. Lippoth, Mineral Geologist and Archaic Material Testing Specialist of Pinnacle Quarry and Development Company.

• EXTERIOR FINISHES

*Photographs and Illustrations:  TT 1.01, TT 1.02, TT 1.03, TT 1.06, TT 1.07, TT 1.08, TT 1.16, TT 1.17, TT 1.18, TT 1.19, TT 1.20, TT 1.21, TT 1.22, TT 1.23, TT 1.71, TT 1.74, TT 1.75, AND TT 1.76

DESCRIPTION:

N/A

CONDITION:

N/A

RECOMMENDATIONS:

N/A
• EXTERIOR MASONRY

Photographs and Illustrations: TT 1.01, TT 1.02, TT 1.03, TT 1.04, TT 1.05, TT 1.06, TT 1.07, TT 1.08, TT 1.10, TT 1.11, TT 1.13, TT 1.14, TT 1.16, TT 1.17, TT 1.18, TT 1.19, TT 1.20, TT 1.21, TT 1.22, TT 1.23, TT 1.24, TT 1.51, TT 1.71, TT 1.74, TT 1.75, TT 1.76, TT 1.80, AND TT 1.81

DESCRIPTION:


CONDITION:

Please refer to Section 3.4, EXTERIOR WALL CONSTRUCTION.

RECOMMENDATIONS:

Please refer to Section 3.4, EXTERIOR WALL CONSTRUCTION.

• EXTERIOR APPENDAGES – PORCH, STOOP, PORTICO, ETC.

Photographs and Illustrations: TT 1.05, TT 1.10, TT 1.11, TT 1.22, AND TT 1.81

DESCRIPTION:

The only exterior appendage found on the building is the loading dock near the east end of the south elevation.

CONDITION:

The loading dock is in deteriorated and unusable condition.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

3.5 BUILDING ENVELOPE – ROOFING AND WATERPROOFING
• ROOFING SYSTEMS

*Photographs and Illustrations:* HISTORIC PHOTOGRAPHS TT 0004 AND TT 0005

**DESCRIPTION:**

The building has no roofing system. There is photographic evidence and extant evidence to show that the configuration was flat and gently sloped from east to west.

**CONDITION:**

N/A

**RECOMMENDATIONS:**

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

• SHEET METAL FLASHING

*Photographs and Illustrations:* N/A

**DESCRIPTION:**

N/A

**CONDITION:**

N/A

**RECOMMENDATIONS:**

N/A

• DRAINAGE SYSTEM, GUTTERS AND DOWNSPOUTS

*Photographs and Illustrations:* N/A

**DESCRIPTION:**

Neither gutters nor downspouts exist.

**CONDITION:**

N/A
RECOMMENDATIONS:

An appropriate roof drainage system should be planned and incorporated into any new roof system that is installed.

3.6 WINDOWS AND DOORS

• DOORS

Photographs and Illustrations: TT 1.01, TT 1.10, TT 1.11, TT 1.26, TT 1.30,
TT 1.33, TT 1.36, TT 1.40, TT 1.41, TT 1.47,
TT 1.48, TT 1.51, TT 1.74, TT 1.75, TT 1.76, TT 1.81, AND HISTORIC PHOTOGRAPH TT 0001

DESCRIPTION:

Existing man doors at the first floor are boarded over, thus mostly obscured from the exterior. It appears that the door at the northeast corner is a typical paneled door with oversized half glass and either one or two panels in its kick plate. Remnants of interior doors that are visible indicate the few interior doors that existed were two panel, half glass, equally divided lite and panel(s). Review of historic photographic records seem to support the pattern that all exterior first and second floor doors were horizontal, single lead, sliders operating on interior roller tracks. These single leafs, based on extant evidence, were probably of typical period barn door construction consisting of tongue and groove vertical boards veneered on each face over an internal diagonal braced, cross buck type “core”. Further investigation may reveal specific detailing.

CONDITION:

Most exterior door leafs, where they still exist, are in poor to deteriorated condition, most likely suitable only as modeling samples for replication or archiving.

RECOMMENDATIONS:

All new doors should replicate historic detailing and operating style. Further recordation should be conducted in concert with selective clean-up and debris removal.

• WINDOWS

Photographs and Illustrations: TT 1.06, TT 1.27, TT 1.28, TT 1.38, TT 1.39,
TT 1.43, TT 1.45, TT 1.46, TT 1.52, TT 1.63,
TT 1.66, TT 1.70, TT 1.71, TT 1.75, TT 1.81, AND
HISTORIC PHOTOGRAPHS TT 0001, TT 0002, AND TT 0003
DESCRIPTION:

Typically, the windows at both levels on the eastern third of the building and all of the second floor windows were originally wood frame, proportionally tall double-hung with spring pins and no weight boxes. The first floor level windows on the western two-thirds of the building were a typical square proportioned 2 over 2 barn sash, most of which were fixed in place, although a few were later retrofitted with hinges to allow operation. A basement level north elevation window, opening into the boiler room, and one just west of the ramp on the south elevation that opens into a sub-floor pit or vault were both interior opening hopper type with two vertical panes. At one point circa 1930's, a large picture window existed on the north elevation near the northeast corner, but what existed prior to that is unknown. Subsequent to that, the picture window opening was retrofit with a shallow bump-out bay. Nothing remains of the bay but a sagging header and a few badly deteriorated pieces of framing lumber.

CONDITION:

All of the windows that remain are badly deteriorated or have failed. There appear to be enough remnants of sash to replicate with a measure of accuracy what historically existed, with the exception of the north elevation picture window.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

• HARDWARE

Photographs and Illustrations: TT 1.47, TT 1.48, TT 1.49, AND TT 1.50

DESCRIPTION:

Little, if any, original hardware remains. The only specific pieces that were identified as part of this assessment were those associated with the second floor sliding door near the center of the south elevation.

CONDITION:

Any historic door and window hardware other than the door slide hardware is probably deteriorated from exposure to the elements to the point of being barely recognizable. The door slide hardware is in poor condition.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments. If any original hardware other than the door slide is discovered during the course of selective demolition, it should be retained for future reference. The door slide hardware should be salvaged if possible.
• TRIM

*Photographs and Illustrations:* TT 1.16, TT 1.17, AND TT 1.74

**DESCRIPTION:**

Most areas that could contain historic trim were not accessible, although some may remain at door or window locations.

**CONDITION:**

Historic trim is badly deteriorated from exposure to the elements.

**RECOMMENDATIONS:**

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments. If any pieces with identifiable profiles are discovered, samples of those, noting their locations, should be retained for future reference.

• FINISHES

*Photographs and Illustrations:* TT 1.01, TT 1.02, TT 1.03, TT 1.16, TT 1.17, TT 1.18, TT 1.19, TT 1.20, TT 1.21, TT 1.22, TT 1.23, TT 1.71, TT 1.74, TT 1.75, AND TT 1.76

**DESCRIPTION:**

The only exterior finishes remaining are either brown or white paint on doors or windows, depending on elevation and level, with the exception of the plywood boarded over large fenestrations that have been muralized (or graffitied) by locals.

**CONDITION:**

Paint finishes are deteriorated.

**RECOMMENDATIONS:**

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.
3.7 INTERIOR FINISHES

- WALL FINISH MATERIALS

Photographs and Illustrations: TT 1.13, TT 1.26, TT 1.27, TT 1.28, TT 1.34, TT 1.35, TT 1.36, TT 1.37, TT 1.38, TT 1.39, TT 1.40, TT 1.41, TT 1.42, TT 1.43, TT 1.44, TT 1.47, AND TT 1.51

DESCRIPTION:

The only interior wall finishes that remain are some remnants of painted plaster inside the vault and on the interior of the stone masonry at the east end of the structure. The vault walls are of multi-wythe full-masonry construction with an exterior wythe of stone and lined on the interior with coursed brick, including the arched ceiling.

CONDITION:

All remaining painted plaster is in deteriorated condition.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

Safety Note: Considering the age of this building, the practices at the time of its construction, and previous finishes analysis of structures of similar vintage, it is very likely that remnants of even the transparent finishes are lead based. Therefore, any risk primarily applies to worker safety during invasive refinishing and refurbishing processes that may involve aggressive chemical stripping and/or finish sanding.

Cost Implication Note: Due to the potential liability associated with the removal and/or refinishing of lead containing transparent and opaque finishes, this work should not be performed by laypersons. Necessitated by the industrial hygiene required protocols and procedures, the contracting of this type of abatement is very costly and potentially damaging to the integrity of the historic fabric. Therefore, any refinishing of these features that disturbs the existing finishes must include this cost in addition to the actual finishes restoration costs.

- CEILING FINISH MATERIALS

Photographs and Illustrations: TT 1.37

DESCRIPTION:

There are no ceilings with the exception of the partially plastered and painted brick ceiling in the vault.
CONDITION:

The painted plaster on the ceiling of the vault is deteriorated or has failed.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

Safety Note: Considering the age of this building, the practices at the time of its construction, and previous finishes analysis of structures of similar vintage, it is very likely that remnants of paint are lead based. Therefore, any risk primarily applies to worker safety during invasive refinishing and refurbishing processes that may involve aggressive chemical stripping and/or finish sanding.

Cost Implication Note: Due to the potential liability associated with the removal and/or refinishing of lead containing transparent and opaque finishes, this work should not be performed by laypersons. Necessitated by the industrial hygiene required protocols and procedures, the contracting of this type of abatement is very costly and potentially damaging to the integrity of the historic fabric. Therefore, any refinishing of these features that disturbs the existing finishes must include this cost in addition to the actual finishes restoration costs.

• FLOOR FINISH MATERIALS

Photographs and Illustrations: TT 1.53, TT 1.57, TT 1.72, TT 1.73, TT 1.77, TT 1.78, TT 1.79, AND TT 1.80

DESCRIPTION:

This building has a slab on grade at the first floor level except for the wood flooring above the basement/boiler room that is concealed under debris. There is also a remnant of the second floor level flooring and framing system atop the vault showing that the flooring at this level at this location was wood.

CONDITION:

The wood flooring remnants that remain are in deteriorated and rotting condition. The slab on grade appeared to be in poor to deteriorated condition at the locations where it was visible.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

Safety Note: Considering the age of this building, the practices at the time of its construction, and previous finishes analysis of structures of similar vintage, it is
very likely that remnants of paint are lead based. Therefore, any risk primarily applies to worker safety during invasive refinishing and refurbishing processes that may involve aggressive chemical stripping and/or finish sanding.

Cost Implication Note: Due to the potential liability associated with the removal and/or refinishing of lead containing transparent and opaque finishes, this work should not be performed by laypersons. Necessitated by the industrial hygiene required protocols and procedures, the contracting of this type of abatement is very costly and potentially damaging to the integrity of the historic fabric. Therefore, any refinishing of these features that disturbs the existing finishes must include this cost in addition to the actual finishes restoration costs.

• INTERIOR DOORS, WINDOWS, HARDWARE, TRIM

Photographs and Illustrations: TT 1.33, TT 1.36, TT 1.38, TT 1.41, AND TT 1.48

DESCRIPTION:

The only surviving interior doors are the historic vault doors, the typical heavy exterior vault door on the exterior and a secondary double day door in the vestibule of the vault.

CONDITION:

The vault doors are in poor to deteriorated condition due to many years of exposure to the elements.

RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

3.8 MECHANICAL SYSTEMS

• HEATING/AIR CONDITIONING

Photographs and Illustrations: TT 1.54, TT 1.59, TT 1.60, TT 1.61, TT 1.62, TT 1.63 AND TT 1.66

DESCRIPTION:

The Transfer Building has no currently operating heat or air conditioning system. There is a boiler and related piping in the basement/boiler room.

CONDITION:

The boiler has been left derelict and has not been used for more than a generation. It is badly deteriorated, rusted, and no longer functional. Remnants of what appear to be
pipe wrap insulation, most of which has failed and fallen to the earthen floor, were observed. These would be suspect exposed friable asbestos containing building materials (ACBM).

RECOMMENDATIONS:

Because of the suspect exposed friable asbestos containing building materials (ACBM) wrap on the piping and failed suspect material having fallen to the floor, the area should be posted accordingly. (Refer to the Hazardous Materials Section)

Depending on the end use of the building, this area could be properly cleaned, abated if necessary, and the historic boiler cleaned and left in place for interpretive purposes.

• VENTILATION

Photographs and Illustrations: N/A

DESCRIPTION:

N/A

CONDITION:

N/A

RECOMMENDATIONS:

N/A

• WATER SERVICE, PLUMBING, AND SEWER UTILITIES

Photographs and Illustrations: TT 1.54, TT 1.55, TT 1.56, TT 1.57, TT 1.59, TT 1.60, TT 1.61, TT 1.62, TT 1.63, TT 1.64, TT 1.65, TT 1.66, TT 1.67, TT 1.68, AND TT 1.69

DESCRIPTION:

Water service comes in to the building at the northeast corner in the basement/boiler room. There are currently no active or operating plumbing or sewer utilities in the structure, but some historic piping remains. The site is bounded by Town of Telluride water and sanitary sewer lines as follows:

8" Water in Pacific Avenue
6" Water in Fir Street
8" Water in San Juan Avenue
4" PVC Sewer in the Alley
8" Clay and 18" PVC sewers in San Juan Avenue

CONDITION:

All remaining water service, plumbing, and sewer utility systems have been unused for more than 20 years and are in poor to deteriorated condition.

RECOMMENDATIONS:

All existing water service, plumbing, and sewer utility related systems would require inspection by a qualified professional and would likely require total replacement.

- FIRE SUPPRESSION – SPRINKLERS

  Photographs and Illustrations:  N/A

DESCRIPTION:

N/A

CONDITION:

N/A

RECOMMENDATIONS:

N/A

3.9 ELECTRICAL SYSTEMS

- ELECTRICAL SERVICE AND PANELS

  Photographs and Illustrations:  N/A

DESCRIPTION:

The building contains no active electrical service or panels. An abandoned temporary service pole exists to the south of the structure.

CONDITION:

N/A
RECOMMENDATIONS:

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

- **ELECTRICAL DISTRIBUTION SYSTEM**

  *Photographs and Illustrations: N/A*

**DESCRIPTION:**

The building contains no active electrical distribution system.

**CONDITION:**

N/A

**RECOMMENDATIONS:**

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

- **LIGHTING**

  *Photographs and Illustrations: N/A*

**DESCRIPTION:**

The building contains no lighting.

**CONDITION:**

N/A

**RECOMMENDATIONS:**

Please refer to the prioritized preservation plan for recommendations related to the suggested treatments.

- **FIRE DETECTION SYSTEM**

  *Photographs and Illustrations: N/A*

**DESCRIPTION:**

The building contains no fire detection system.
CONDITION:

N/A

RECOMMENDATIONS:

N/A

- SECURITY ALARM SYSTEM

Photographs and Illustrations: N/A

DESCRIPTION:

The building contains no security alarm system.

CONDITION:

N/A

RECOMMENDATIONS:

N/A
PART IV: ANALYSIS AND COMPLIANCE

4.1 HAZARDOUS MATERIALS

Photographs and Illustrations: TT 1.54, TT 1.62, AND TT 1.63

A cursory visual building review for asbestos found some suspect exposed friable asbestos containing building materials (ACBM) near steam piping and on the floor of the basement/boiler room. Access to the basement/boiler room space needs to be immediately and clearly marked with signage that a "suspected asbestos health hazard exists". This posted signage will alert anyone, particularly construction personnel entering this space, that they should take the necessary safety precautions and follow the appropriate industrial hygiene protocols.

Additional inspection by a qualified industrial hygienist (trained specifically in sampling for ACBM) should be conducted to determine whether an abatement program is prudent and/or required. Because of the age of the structure, it is very likely that the remnants of paint and finishes that remain contain lead. A-E Design Associates, PC, performed no cursory lead screening.

While the basement space constitutes a potential health hazard, lower risk for airborne ACBM exists above.

Inspection by a qualified industrial hygienist should include, but not be limited to, the following items:

ASBESTOS (ACBM)
- linoleum, floor tile and mastic
- plaster in public areas
- plumbing and heating piping insulation

LEAD
- pipe joints and plumbing lines
- lead-containing paint
- transparent finishes
- special attention should be paid to horizontal chases and vertical shafts connecting basement/boiler room to other spaces

4.2 MATERIALS ANALYSIS

Refer to Appendix for Masonry Materials Testing Results. No other material analyses, other than the visual identification described in the preceding sections, were performed.
4.3 ZONING CODE COMPLIANCE

Since the building is vacant, zoning compliance is not an applicable consideration at this time. However, refer to the enclosed Town of Telluride Zoning excerpts for a general context of the C-Commercial Zone.

4.4 BUILDING CODE COMPLIANCE

Building Code Review

Note: There are no preliminary discussions and recommendations included in this report since the ruins are not occupiable in their current state of abandonment. Once reuse occupancies are proposed, additional investigations should be conducted during subsequent project phases. All work must also conform to the Secretary of the Interior Standards for the Treatment of Historic Properties. It is recommended that exiting and other code-related issues be discussed with the local building official in a good faith effort to address any compliance issues.

This review should be conducted using the 1997 Uniform Building Code. Chapter 34 of the UBC states that repairs and alterations conducted on historic buildings may be made without conformance to all the requirements of the code provided that three conditions are met. These conditions are:

- The building has been designated as having special historic or architectural significance by the legal authority having jurisdiction.
- Unsafe conditions as described by the code are corrected.
- The restored building or structure will be no more hazardous to life safety, fire safety or sanitation than the existing building.

The building has been designated as having historic significance. Furthermore, the code states that buildings that do not undergo a change of use need not comply with the code if they were compliant with the code at the time of construction, provided that their continued use is not dangerous to life. This building has, since its transfer of ownership from the school district to the Grange in 1963, not undergone a change of use, and its transfer may have decreased the risk due to occupancy classification, thus it will be up to the local building official to determine which, if any, of the deficiencies described in this section constitute an unsafe condition or danger to life, or if any of the proposed repairs constitute an increase in hazard.

4.5 ACCESSIBILITY COMPLIANCE
PART V: PRESERVATION PLAN

5.1 PRIORITIZED WORK

Based on the results of the Historic Structure Assessment, it has been determined that the preservation and potential reconstruction (reflecting the "former" historic Telluride Transfer Company Building) requires a comprehensive planning program.

The remainder of this report includes preliminary cost allowances for conceptual budgeting purposes based on several preservation/stabilization and reuse reconstruction options. These proposed options are intended to provide both project phasing and financial planning by offering conceptual cost allowances/budgets for select preservation and reconstruction items. All options are also intended to address the highest priority, critical repairs and improvements necessary for the long-term preservation of the structure, while at the same time maintaining and enhancing the preservation of the historic features of the building.

A listing of applicable technical literature included in the appendix to this report addresses proposed preservation recommendations with specific treatment options that conform to the Secretary of the Interior Standards for the Treatment of Historic Properties.

The Telluride Transfer Building deserves continued preservation and conservation. Because of the uniqueness of this structure and its condition, there are a number of possibilities for its preservation and reconstruction. We pose these:
PRESERVATION AND STABILIZATION TREATMENTS:

OPTION “A”:

SELECT IN-SITU MASONRY WALL STABILIZATION, MINIMALISTIC “REVERSIBLE”, INTERIOR STEEL BRACING

Photographs and Illustrations: SK-1

TREATMENT INCLUDES:

1. Clean up and debris removal, concurrent with #2 below (Note: Personnel safety precautions during selective demolition at areas of suspect lead paint dust and ACBM piping and boiler insulation).
2. Tagging, cataloguing, and archiving of remnants of extant historic fabric (i.e. doors, sash, hardware, framing, finish flooring, wainscoting, wood base, trim, etc.).
3. “Cautious” by hand removal of all existing wood interior wall bracing, including remnants of continuous wood whalers at second floor window and door fenestrations.
4. Encapsulation of all existing window and door remnants using “cut to fit”, unpainted, corrugated metal siding each face with internal 2 X blocking and all thread through bolts.
5. Interim weatherproofing and safety covering of existing first floor penetrations including pits, trenches, drains, basement stair opening and other features, with concurrent graphic and photographic recoradation of these existing extant features.
6. Overlay all extant first floor wood flooring and framing at the basement with heavy duty, reinforced, poly-tarp protective moisture barrier, secured with mechanically fastened wood battens.
7. Similar to #6, for extant second floor framing over existing first floor vault area. Extend moisture barrier a minimum of two feet over the three edges and secure. Construct a temporary and removable/reversible wood framed and corrugated metal shed roof over the vault with a minimum 6 in 12 slope north to south, thus shedding snow to the interior of the space as opposed to the snow remaining atop the vault and soaking the north elevation wall as it melts. Secure vault door in open position after protecting it from future deterioration by wrapping it in poly-tarp. Install reversible security barrier infill in vault door opening.
8. Address site drainage issues that are contributing to the advancing deterioration of the northeast basement foundation wall. This should generally consist of select excavation along the exterior perimeter of the east and north basement foundation walls to a depth sufficient to gain access to the existing basement fenestrations (consisting of one coal chute on the east wall, one utility piping entrance at the northeast corner, and the two windows on the north wall). These historic openings should be protected by blanking them off on the exterior by installing a reversible dam in front of them consisting of a 6” thick unreinforced concrete wall cast against a stone foundation wall “bond breaker”, such a two layers of 30# felt over a 3/4” CDX plywood form board. This protective dam should extend a minimum of 12” below and beyond the sides of the existing opening and approximately 8” above existing grade so as to retard surface snow melt and street runoff from entering the basement through these fenestrations. For addressing the
utility service entrance issue, this could be similarly resolved, but without the need for reversibility. So, the service entrance and surrounding void in the existing stone foundation wall can be permanently “plugged” to retard both stone collapse and water entry. The final part of this item is programmatic. Discussions need to be completed with the Town of Telluride Public Works Department regarding snow plowing practices along the south side of Pacific Avenue. As observed over the course of two winter seasons, the current practice is that of plowing Pacific Avenue by directing the snow storage against the north side of the Transfer Building in the course of clearing the north curb line of Pacific. This practice needs to be modified so as to prevent the free space between the building and the edge of the pavement from building up with snow against the side of the building. Companion to this, it would be incumbent on the owners to then remove the remaining snow stockpiling that occurs against the building, despite the Town’s improved street snow plowing practices.

9. As outlined in Section 3.4 and the Appendix, the highest priority above grade stone masonry repairs should be completed. These generally consist of bedding/pointing mortar for two to three in height around the top and bottom perimeter of the building with selective resetting/repainting the top portions of all of the walls that do not currently possess a wall cap. Then, minimal “rebuilding” in select areas only as required to facilitate the installation of a reversible, protective cementitious wall cap. This cap could be a precast “cast stone” detail that emulates the color and texture of the original stone parapet coping and one that can ultimately be “recycled” and reinstalled should the walls be rebuilt to their original height. It is not necessary at this time to remove and repaint extant second and third generation aesthetically incompatible repointing mortars. Similarly, it is not recommended as part of this option that the existing cast in place concrete parapet be modified, simply maintained.

10. Installation of a minimalistic, interior, reversible structural steel wall bracing system primarily consisting of five (5) braced bents supporting a continuous longitudinal interior whaler, located at the second floor framing level, attached to the stone masonry wall using dry set, stainless steel helifix type anchors. The footings for the columns of these braced bents would be placed on top of the existing concrete slab on grade using precast dead men or steel cribbing, counter weighted with precast concrete to provide the necessary dead loading for interim structural stability. Since the building ruins will remain unheated in this option, frost protection footings are not deemed necessary or compatible with an interim/reversible bracing system.

11. Interior snow removal, monitoring, and controlled maintenance of the building ruins and these installed preservation treatments should be performed on a seasonal basis to insure their continuing integrity and preservation performance obligations. Bracing composed of non-combustible steel (which is less susceptible to the rigors of the environ) and with a bracing system that minimizes its impact within the historic interior footprint. It would be feasible to remove interior snow build-up before it melts and percolates through the building by the simple installation of a dirt ramp out the south dock door and employing a small front end loader (i.e. Bobcat) to clear out the snow. This would extend the life of the bedding and pointing mortars along the floor line and below. This would be a very cost effective preservation means which will also ultimately reduce the quantity and extent of repointing when the building ruins returns to productive reuse. An annual engineering review, with on-site observations, should be conducted in order to monitor the decline or increase in the rate of deterioration of the ruins, identify any new deterioration mechanisms, and report on the performance of the implemented preservation/stabilization enhancements and their continuing integrity and maintenance needs.
USES:
- This treatment is intended for stabilization and preservation of the resource only. The structure will still be unoccupiable upon the completion of this treatment option.

OPTION “B”:

SELECT IN-SITU MASONRY WALL STABILIZATION, SKELETAL STRUCTURAL STEEL ROOF FRAMING AT SECOND FLOOR LEVEL OR ABOVE (E) PARAPET LEVEL WITH MINIMAL METAL ROOFING (WEATHER PROTECTION SYSTEM), SLOPED FROM EAST TO WEST, DRAINING TO ALLEY AS HISTORICALLY CONFIGURED

Photographs and Illustrations: SK-2

TREATMENT INCLUDES:

1. Clean up and debris removal, concurrent with #2 below (Note: Personnel safety precautions during selective demolition at areas of suspect lead paint dust and ACBM piping and boiler insulation).
2. Tagging, cataloguing, and archiving of remnants of extant historic fabric (i.e. doors, sash, hardware, framing, finish flooring, wainscoting, wood base, trim, etc.).
3. “Cautious" by hand removal of all existing wood interior wall bracing, including remnants of continuous wood whalers at second floor window and door fenestrations.
4. Encapsulation of all existing window and door remnants using “cut to fit”, unpainted, corrugated metal siding each face with internal 2 X blocking and all thread through bolts.
5. Interim weatherproofing and safety covering of existing first floor penetrations including pits, trenches, drains, basement stair opening and other features, with concurrent graphic and photographic recordation of these existing extant features.
6. Overlay all extant first floor wood flooring and framing at the basement with heavy duty, reinforced, poly-tarp protective moisture barrier, secured with mechanically fastened wood battens.
7. Similar to #6, for extant second floor framing over existing first floor vault area. Extend moisture barrier a minimum of two feet over the three edges and secure. Secure vault door in open position after protecting it from future deterioration by wrapping it in poly-tarp. Install reversible security barrier infill in vault door opening.
8. Address site drainage issues that are contributing to the advancing deterioration of the northeast basement foundation wall. This should generally consist of select excavation along the exterior perimeter of the east and north basement foundation walls to a depth sufficient to gain access to the existing basement fenestrations (consisting of one coal chute on the east wall, one utility piping entrance at the northeast corner, and the two windows on the north wall). These historic openings should be protected by blanking them off on the exterior by installing a reversible dam in front of them consisting of a 6" thick unreinforced concrete wall cast against a stone foundation wall "bond breaker", such a two layers of 30# felt over a 3/4" CDX plywood form board. This protective dam should extend a minimum of 12" below and beyond the sides of the existing opening and approximately 8" above existing grade so as to retard surface snow melt and street runoff from entering the basement through these fenestrations. For addressing the utility service entrance issue, this could be similarly resolved, but without the need for
reversibility. So, the service entrance and surrounding void in the existing stone foundation wall can be permanently “plugged” to retard both stone collapse and water entry. The final part of this item is programmatic. Discussions need to be completed with the Town of Telluride Public Works Department regarding snow plowing practices along the south side of Pacific Avenue. As observed over the course of two winter seasons, the current practice is that of plowing Pacific Avenue by directing the snow storage against the north side of the Transfer Building in the course of clearing the north curb line of Pacific. This practice needs to be modified so as to prevent the free space between the building and the edge of the pavement from building up with snow against the side of the building. Companion to this, it would be incumbent on the owners to then remove the remaining snow stockpiling that occurs against the building, despite the Town’s improved street snow plowing practices.

9. As outlined in Section 3.4 and the Appendix, the highest priority above grade stone masonry repairs should be completed. These generally consist of bedding/pointing mortar for two to three in height around the top and bottom perimeter of the building with selective resetting/pointing the top portions of all of the walls that do not currently possess a wall cap. Then, minimal “rebuilding” in select areas only as required to facilitate the installation of a reversible, protective cementitious wall cap. This cap could be a precast “cast stone” detail that emulates the color and texture of the original stone parapet coping and one that can ultimately be “recycled” and reinstalled should the walls be rebuilt to their original height. It is not necessary at this time to remove and repoint extant second and third generation aesthetically incompatible repointing mortars. Similarly, it is not recommended as part of this option that the existing cast in place concrete parapet be modified, simply maintained.

10. (B-1) Installation of a light weight, reversible/removable, pre-engineered, non-combustible interim roof framing and roofing system independently supported on the interior of the building, resting on non-frost protected temporary steel/precast footing system with supplemental secondary bracing at historic second floor levels, designed for 75 p.s.f. combined maximum dead/snow load with a continuously sloped roofing level at approximately 1 in 12 east to west, set within the existing footprint, below the height of the existing parapet so that this structural system would be essentially “screened” from exterior view by the existing stone walls.

10. (B-2) Alternately within this option, modify the height and width of the roof framing system and extend roof joist top chords as would be required to create extended north and south eaves over the top of the existing masonry parapet, thus providing additional parapet protection by this “weather shedding” detail. In this configuration, masonry wall bracing would still remain only at the second floor level. An additional option within this configuration would be the potential for “infilling” those missing portions of the exterior masonry walls with metal siding supported by the pre-engineered frame, thus affording another level of building interior weather protection.

11. Interior snow removal, monitoring, and controlled maintenance of the building ruins and these installed preservation treatments should be performed on a seasonal basis to insure their continuing integrity and preservation performance obligations, with the bracing composed of non-combustible steel which is also less susceptible to the rigors of the environ, and with a bracing system that minimizes its impact within the historic interior footprint. It would be feasible to remove interior snow build-up before it melts and percolates through the building by simple installation of a dirt ramp out the south dock and employing a small front end loader (i.e. Bobcat) to clear out the snow. This would extend the life of the bedding and pointing mortars along the floor line and below. A very cost effective preservation means which will also ultimately reduce the quantity
and extent of repointing when the building ruins returns to productive reuse. An annual engineering review with on-site observations should be conducted in order to monitor the decline or increase in the rate of deterioration of the ruins, identify any new deterioration mechanisms, and report on the performance of the implemented preservation/stabilization enhancements and their continuing integrity and maintenance needs.

USES:
- This treatment is intended for stabilization and preservation of the resource only. The structure will still be unoccupiable upon the completion of this treatment.

OPTION “C”:

SELECT IN-SITU MASONRY WALL STABILIZATION PLUS RECONSTRUCTION OF MISSING PORTION OF MASONRY WALL UP TO ORIGINAL SLOPED PARAPET HEIGHT, RECONSTRUCT INTERIOR ROOF SUPPORT SYSTEM THAT IS DESIGNED HISTORICALLY CORRECT FOR FUTURE SECOND FLOOR HISTORICALLY APPROPRIATE RECONSTRUCTION, INCLUDING INTERIM METAL ROOFING

Photographs and Illustrations: SK-3, HISTORIC PHOTOGRAPHS TT 0004, TT 0005, AND TT 0006

TREATMENT INCLUDES:

1. Clean up and debris removal, concurrent with #2 below (Note: Personnel safety precautions during selective demolition at areas of suspect lead paint dust and ACBM piping and boiler insulation).
2. Tagging, cataloguing, and archiving of remnants of extant historic fabric (i.e. doors, sash, hardware, framing, finish flooring, wainscoting, wood base, trim, etc.).
3. “Cautious” by hand removal of all existing wood interior wall bracing, including remnants of continuous wood whalers at second floor window and door fenestrations.
4. Encapsulation of all existing window and door remnants using “cut to fit”, unpainted, corrugated metal siding each face with internal 2 X blocking and all thread through bolts.
5. Interim weatherproofing and safety covering of existing first floor penetrations including pits, trenches, drains, basement stair opening and other features, with concurrent graphic and photographic recordation of these existing extant features.
7. Address site drainage issues that are contributing to the advancing deterioration of the northeast basement foundation wall. This should generally consist of select excavation along the exterior perimeter of the east and north basement foundation walls to a depth sufficient to gain access to the existing basement fenestrations (consisting of one coal chute on the east wall, one utility piping entrance at the northeast corner, and the two windows on the north wall). These historic openings should be protected by blanking them off on the exterior by installing a reversible dam in front of them consisting of a 6” thick unreinforced concrete wall cast against a stone foundation wall “bond breaker”, such a two layers of 30# felt over a 3/4” CDX plywood form board. This protective dam
should extend a minimum of 12" below and beyond the sides of the existing opening and approximately 8" above existing grade so as to retard surface snow melt and street runoff from entering the basement through these fenestrations. For addressing the utility service entrance issue, this could be similarly resolved, but without the need for reversibility. So, the service entrance and surrounding void in the existing stone foundation wall can be permanently "plugged" to retard both stone collapse and water entry. The final part of this item is programmatic. Discussions need to be completed with the Town of Telluride Public Works Department regarding snow plowing practices along the south side of Pacific Avenue. As observed over the course of two winter seasons, the current practice is that of plowing Pacific Avenue by directing the snow storage against the north side of the Transfer Building in the course of clearing the north curb line of Pacific. This practice needs to be modified so as to prevent the free space between the building and the edge of the pavement from building up with snow against the side of the building. Companion to this, it would be incumbent on the owners to then remove the remaining snow stockpiling that occurs against the building, despite the Town's improved street snow plowing practices.

8. As outlined in Section 3.4 and the Appendix, all highest priority above grade stone masonry repairs should be completed. In addition, missing portions of the north and south walls would need to be rebuilt, complete with cap. It is not necessary at this time to remove and repoint extant second and third generation aesthetically incompatible repointing mortars. Similarly, it is not recommended as part of this option that the existing cast in place concrete parapet be modified, simply maintained.

9. Installation of a Secretary of the Interior's Standards/historically compatible roof framing system geometrically and structurally configured so as to reintroduce all dead, live, and snow loads back onto the existing building as they historically existed. This will insure that the benefit of the building's having "settled in" over all the years of its former use and historic occupancy (thus how it effected the interaction of the non-reinforced bearing walls and how their stone foundation systems interface with the bearing soils) are capitalized into its reuse, therefore minimizing any new settlement and/or differential settlement. In this option, in contrast to options A and B, the reversing the walls back to their former load bearing function may also necessitate internally bracing them at their second floor levels as required to reduce their vertical un-braced length, thereby increasing the load bearing capacity of the existing walls without other modifications.

10. Monitoring and controlled maintenance of the building ruins and these installed preservation treatments should be performed on a seasonal basis to insure their continuing integrity and preservation performance obligations. With this option it will not be necessary to remove interior snow build-up before it melts and percolates through the building. This adds a very cost effective preservation benefit which will also reduce the quantity and extent of repointing when the building ruins returns to productive reuse. An annual engineering review with on-site observations should be conducted in order to monitor the decline or increase in the rate of deterioration of the ruins, identify any new deterioration mechanisms, and report on the performance of the implemented preservation/stabilization enhancements and their continuing integrity and maintenance needs.

USES:

- This treatment is intended for stabilization and preservation of the resource. The intent is that the structure will, even with the addition of the permanent roof structure, remain unheated and unoccupied upon the completion of this treatment. However, seasonal
festival and special events with limited and monitored occupancy could be feasible given a few additional features.

OPTION “D”:

SELECT IN-SITU PERMANENT MASONRY WALL STABILIZATION, CONTEMPORARY WEATHER-PROTECTING, FREE STANDING, PRE-FABRICATED, INDEPENDENTLY SUPPORTED SPACE FRAME PAVILION SUITABLY DESIGNED AND PERMITTED FOR SEASONAL ASSEMBLY/FESTIVAL OCCUPANCY

Photographs and Illustrations: RP 1.01, RP 1.02, RP 1.03, RP 1.04, RP 1.05, RP A.1, RP A.2, RP B.1, RP B.2, RP C.1, AND RP C.2

TREATMENT INCLUDES:

1. Clean up and debris removal, concurrent with #2 below (Note: Personnel safety precautions during selective demolition at areas of suspect lead paint dust and ACBM piping and boiler insulation).
2. Tagging, cataloguing, and archiving of remnants of extant historic fabric (i.e. doors, sash, hardware, framing, finish flooring, wainscoting, wood base, trim, etc.).
3. “Cautious” by hand removal of all existing wood interior wall bracing, including remnants of continuous wood whalers at second floor window and door fenestrations.
4. Stabilize fenestration rough openings by removing extant window remnants for cataloguing and archiving of those salvageable, then infilling openings with light gauge structural tubing, non-glazed, sashes “suspended” within the rough opening so as to serve as “bracing/stabilization” of the rough opening by being supported by the steel “sashes”. Major door openings to be utilized as either open entry porticos leading to the interior courtyard, open or to be refit with replicated “steel” look-alikes.
5. “Permanent” covering, reversible filling, or function reuse of existing first floor pits, trenches and drains.
6. Interpretation, repair, replication or reconstruction of basement area features and related first floor framing and finish flooring protection.
7. Likewise, refurbish second floor framing and vault related finishes suitable for reuse, interpretation, with appropriate function and maintenance. In companion, partial reconstruction of the eastern portion of the second floor for preservation through functional reuse.
8. Address drainage and basement issues on a permanent basis consistent with preservation and this functional reuse. Installation of a public right of way/site improvements that offer permanent solutions.
9. As outlined in Section 3.4 and the Appendix, all highest priority above grade stone masonry repairs should be completed. These generally consist of bedding/pointing mortar for two to three in height around the top and bottom perimeter of the building with selective resetting/repointing the top portions of all of the walls that do not currently possess a wall cap. Then, minimal “rebuilding” in select areas only as required to facilitate the installation of a reversible, protective cementitious wall cap. This cap could be a precast “cast stone” detail that emulates the color and texture of the original stone parapet coping and one that can ultimately be “recycled” and reinstalled should the walls be rebuilt to their original height. It is not necessary at this time to remove and repoint...
extant second and third generation aesthetically incompatible repointing mortars.
Similarly, it is not recommended as part of this option that the existing cast in place
concrete parapet be modified, simply maintained.

10. Installation of a contemporary permanent “floating” weather shedding, covered space
frame roof structure installed on new frost protected, appropriately located reinforced
concrete footings with cast in place concrete support pylons. The eave edge
boundaries of this system, in plan, would extend sufficiently past the perimeter of the
building, affording some supplemental rain and snow protection. However, the exact
form, massing, shape, roof geometry, weather shedding, roofing material palette, and
context would be selected to clearly speak to its own history, not that of the Transfer’s
history and architectural style. While this option is a clear, non-compliant, unique
departure from the published H.A.R.C. guidelines, so is the existing building ruins an
“honest” departure. Perhaps these ruins could be equally honored and permanently
interpreted by leaving these as ruins sheltered by a contemporary protector.

11. Similar monitoring and maintenance activities, as in previous options, except including in
the additional features and reconstructed elements.

USES:

- The structure would be occupiable for specific and select seasonal uses upon the
  completion of this treatment.

OPTION “E”:

CONTEMPORARY INFILL STRUCTURE SUITABLY DESIGNED AND PERMITTED FOR THE
INTENDED OCCUPANCY/REUSE, SURROUNDED BY STABILIZED AND CONSERVED
(BUT NOT RECONSTRUCTED) MASONRY RUINS

Photographs and Illustrations: RP 1.01, RP 1.02, RP 1.03, RP 1.04, RP 1.05, RP A.1,
RP A.2, RP B.1, RP B.2, RP C.1, AND RP C.2

TREATMENT INCLUDES:

1. Clean up and debris removal, concurrent with #2 below (Note: Personnel safety
   precautions during selective demolition at areas of suspect lead paint dust and ACBM
   piping and boiler insulation).
2. Tagging, cataloguing, and archiving of remnants of extant historic fabric (i.e. doors,
   sash, hardware, framing, finish flooring, wainscoting, wood base, trim, etc.).
3. “Cautious” by hand removal of all existing wood interior wall bracing, including remnants
   of continuous wood whalers at second floor window and door fenestrations.
4. Stabilize fenestration rough openings by removing extant window remnants for
   cataloguing and archiving of those salvageable, then infilling openings with light gauge
   structural tubing, non-glazed, sashes “suspended” within the rough opening so as to
   serve as “bracing/stabilization” of the rough opening by being supported by the steel
   “sashes”. Major door openings to be utilized as either open entry porticos leading to the
   interior courtyard, open or to be refit with replicated “steel” look-alikes.
5. “Permanent” covering, reversible filling, or function reuse of existing first floor pits,
trenches and drains.
6. Interpretation, reverse, repair replication of basement area features for and related first floor framing and finish flooring protection.
7. Likewise, refurbish second floor framing and vault related finishes suitable for reuse, interpretation, with appropriate function and maintenance. In companion, partial reconstruction of the eastern portion of the second floor for preservation by functional reuse.
8. Address drainage and basement issues on a permanent basis consistent with preservation, then functional reuse. Installation of a public right of way/site improvements that offer permanent solutions.
9. As outlined in Section 3.4 and the Appendix, the highest priority above grade stone masonry repairs should be completed. These generally consist of bedding/pointing mortar for two to three in height around the top and bottom perimeter of the building with selective resetting/repointing the top portions of all of the walls that do not currently possess a wall cap. Then, minimal "rebuilding" in select areas only as required to facilitate the installation of a reversible, protective cementitious wall cap. This cap could be a precast "cast stone" detail that emulates the color and texture of the original stone parapet coping and one that can ultimately be "recycled" and reinstalled should the walls be rebuilt to their original height. It is not necessary at this time to remove and repoint extant second and third generation aesthetically incompatible repointing mortars. Similarly, it is not recommended as part of this option that the existing cast in place concrete parapet be modified, simply maintained.
10. Installation of a permanent, subordinate, and discrete infill building contained within, and defined in mass and scale by, the confines of the existing building ruins. Regardless of the occupancy type, design, and configuration of this infill structure, all of the exterior materials would be selected to be compatible with those of the Transfer Building ruins and generally compliant with the Town of Telluride "Standards for Rehabilitation of Historic Buildings for the Warehouse/Commercial District. As envisioned by the HSA consulting team, this infill structure, being rather diminutive compared to the massing, volume, and scale of the Transfer Building, could serve as a very interesting courtyard and/or foyer/entry serving a new, southerly addition. This would permanently preserve the Transfer Building ruins context while offering at the same time a more financially viable, private sector real estate redevelopment, perhaps by suing the ruins to meet site and F.A.R. conditions in a single new structure.

USES:

- Any permitted use for this structure at this location.
POTENTIAL RECONSTRUCTION TREATMENTS:

KEY TO THESE – IT IS OUR PROFESSIONAL OPINION THAT SUFFICIENT EVIDENCE EXISTS, IF THEN COMBINED WITH REVIEW OF LOCAL “PEER BUILDINGS”, AND PROFESSIONAL PRESERVATION AND RESTORATION CONTRACTOR EXPERTISE IN HISTORIC PRESERVATION, TO “APPROPRIATELY” RECONSTRUCT MISSING ELEMENTS AND FEATURES IN COMPLIANCE WITH THE SECRETARY OF THE INTERIOR’S STANDARDS. THIS BUILDING WAS A RATHER SIMPLE BUILDING WITH LIMITED ORIGINAL DETAILING AND LITTLE “CONJECTURE” WILL BE REQUIRED.

DIFFERING OPINIONS HAVE BEEN VOICED AS TO THE APPLICABILITY TO THIS PROPERTY OF RECONSTRUCTION AS A PRESERVATION TREATMENT, AS DEFINED BY THE SECRETARY OF THE INTERIOR’S STANDARDS, DUE TO THE BUILDING’S CONDITION AS A STANDING RUINS. FOR CONSIDERING THIS EQUALLY VALID PERSPECTIVE, THE SECRETARY OF THE INTERIOR STANDARDS DEFINITION OF RECONSTRUCTION IS AS FOLLOWS:

"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."

OPTION “F”:

ACCURATE EXTERIOR AND PERIOD APPROPRIATE INTERIOR RECONSTRUCTION/REHABILITATION, TRUE TO THE BUILDING’S ORIGINAL CONSTRUCTION AS BEST “INTERPRETED AND DETAILED” ACCORDING TO THE SECRETARY OF THE INTERIOR’S STANDARDS/ NATIONAL PARK SERVICE’S GUIDELINES. THE FINAL DETAILS OF THIS RECONSTRUCTION WOULD NEED TO BE SUPPORTED BY ADDITIONAL EXTANT FABRIC RECORDATION, FURTHER ANALYSIS OF HISTORIC PHOTOGRAPHIC AND RELATED GRAPHIC DOCUMENTATION, AND REPRESENTATIVE ORIGINAL PERIOD APPROPRIATE CONSTRUCTION/FRAMING/BUILDING ASSEMBLY PRACTICES AND MATERIALS – I.E. IN KIND RECONSTRUCTION/REPLICATION. POSSIBLE OCCUPANCIES AND REUSE SHOULD BE ONLY THOSE THAT ARE COMPATIBLE WITH THIS RECONSTRUCTION. IN OTHER WORDS, USE SHOULD BE WHAT IS A BEST FIT FOR THE BUILDING.

Photographs and Illustrations: ALL HISTORIC PHOTOGRAPHS

USES:

• Any permitted use for this structure at this location.

OPTION “G”:

THIS OPTION IS VERY SIMILAR TO OPTION “F” (AN “ACCURATE” EXTERIOR RECONSTRUCTION/REHABILITATION), BUT WITH A “CONTEMPORARY” INTERIOR REHABILITATION. OTHER THAN PLACING THE SECOND FLOOR LEVELS WHERE THEY
WERE HISTORICALLY, THE NEW INTERIOR SYSTEMS AND FINISHES WOULD NEED NOT REFLECT THE ORIGINAL HISTORIC FABRIC AND FINISHES. EVEN IF THE NEW FIRST AND SECOND FLOORS ARE TO BE CONSTRUCTED OF CONTEMPORARY MATERIALS, THESE SHOULD BE DESIGNED AND DETAILED IN A MANNER RECEPTIVE TO PRESERVING THE POTENTIAL FOR INTERIOR HISTORIC INTERPRETATION.

Photographs and Illustrations: ALL HISTORIC PHOTOGRAPHS

USES:

- Any permitted use for this structure at this location.

CONVERSELY ... RECOMMENDED NON-OPTIONS:

- FOR A VARIETY OF REASON, RANGING FROM EXISTING FOOTPRINT, ZONING, H.A.R.C. REQUIREMENTS, BUILDING CODE REQUIREMENTS, SECRETARY OF THE INTERIOR'S STANDARDS, PRAGMATIC STRUCTURAL ISSUES, ETC., - THE POSSIBILITY/FEASIBILITY OF A ROOF TOP ADDITION OR A PARTIAL THIRD FLOOR TO THIS STRUCTURE WOULD NEED TO BE THOUGHTFULLY PLANNED AND ARTFULLY DESIGNED AS TO MINIMIZE ITS VISUAL AND PHYSICAL IMPACT ON THIS HISTORIC RESOURCE, AS WELL AS BEING COMPLIANT WITH THE NUMEROUS LOCAL ZONING AND HARC RULES AND GUIDELINES.

- FOR PRESERVATION, PRAGMATIC, RELATED "STRUCTURAL INFEASIBILITY", ASSOCIATED CONSTRUCTABILITY AND LIABILITY CONSTRAINTS AND CONSIDERATIONS – A FULL BASEMENT WITHIN THE INTERIOR EXISTING FOUNDATION WALL BOUNDARIES, WHICH WOULD NECESSITATE STRUCTURAL UNDERPINNING OF THE EXISTING STONE MASONRY PERIMETER WALLS, SHOULD NOT BE CONSIDERED OR DEEMED FEASIBLE. HOWEVER, A PARTIAL "STEPPED-IN" INTERIOR BASEMENT SPACE MIGHT BE INCORPORATED IF LOCATED SO AS TO AVOID ANY DISRUPTION BY CONSTRUCTION ACTIVITIES OR EXCAVATION DISTURBANCES WITHIN THE EXISTING STONE FOOTING SOIL BEARING "ZONE OF INFLUENCE".

- CONTINUING TO TAKE NO ACTION/CONTINUING DEFERRED MAINTENANCE!

- DEMOLITION, RELOCATION, DIS-ASSEMBLY FOR REBUILDING!

5.2 PHASING PLAN AND

5.3 ESTIMATE OF PROBABLE COST OF CONSTRUCTION
**Recommended All Options:**

**CLEAN UP AND DEBRIS REMOVAL WITH FRAGMENT CATALOGUING AND RELATED** | $15,500
---|---
- Clean-up | $3,500
- Debris Removal | $2,500
- Cataloguing and Retention of Remnants of Extant Historic Fabric | $1,500
- Lead/ACBM Industrial Hygiene Protocols/Testing/Related | $4,500
- Contingency | $1,500
- Plans, Specs, and Technical Field Assistance | $2,000
**Total** | **$15,500**

**Note:** It is very likely that building materials and finishes contain lead and that ACBM exists, so proper precautions should be taken to ensure personnel protection and safety.

**PERIMETER DRAINAGE IMPROVEMENTS AND RELATED** | $5,700
---|---
- Select Excavation | $1,200
- Secure Basement Wall Fenestrations | $2,500
- Develop Snow Removal Plan | N/C
- Contingency | $1,000
- Plans, Specs, and Technical Field Assistance | $1,000
**Total** | **$5,700**

**PROTECTIVE ENCAPSULATION/ARCHIVING OF EXTANT WINDOW SASH, WINDOW FRAMES, DOORS AND RELATED**

Specifics and Costs Vary Somewhat With Each Option

**INTERIM WEATHER PROTECTION OF INTERIOR ELEMENTS**

Specifics and Costs Vary Somewhat With Each Option

**HIGHEST PRIORITY STONE MASONRY REPAIRS**

Specifics and Costs Vary Somewhat With Each Option

**STRUCTURAL STABILIZATION/BRACING**

Specifics and Costs Vary Somewhat With Each Option

**INTERIOR SNOW REMOVAL OR INTERIM REROOFING**

Specifics Vary Somewhat With Each Option (this is deemed to be a property management item to be addressed by Owner, therefore no cost estimates are provided.)
OPTION “A”:

**PHASE ONE (FIRST CONSTRUCTION SEASON):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLEAN-UP, DEBRIS REMOVAL, AND RELATED (ALLOWANCE)</td>
<td>$15,500</td>
</tr>
<tr>
<td>PERIMETER DRAINAGE IMPROVEMENTS AND RELATED (ALLOWANCE)</td>
<td>$5,700</td>
</tr>
<tr>
<td>PROTECTIVE ENCAPSULATION OF WINDOW AND DOOR REMNANTS</td>
<td>$11,300</td>
</tr>
<tr>
<td>• Protection of Doors and Windows</td>
<td>$8,800</td>
</tr>
<tr>
<td>20 Type A @ $200 each</td>
<td></td>
</tr>
<tr>
<td>12 Type B @ $150 each</td>
<td></td>
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<tr>
<td>2 Type C @ $250 each</td>
<td></td>
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<tr>
<td>1 Type D @ $350 each</td>
<td></td>
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<tr>
<td>1 Type E @ $500 each</td>
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<tr>
<td>1 Type F @ $200 each</td>
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<tr>
<td>2 Type G @ $600 each</td>
<td></td>
</tr>
<tr>
<td>1 Type H @ $250 each</td>
<td></td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (Allowance)</td>
<td>$2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$11,300</td>
</tr>
<tr>
<td>INTERIM WEATHER PROTECTION AND RELATED</td>
<td>$9,150</td>
</tr>
<tr>
<td>• Protect First Floor Penetrations (Allowance)</td>
<td>$2,500</td>
</tr>
<tr>
<td>• Protect First Floor Framing at Basement (300 GSF x $10/GSF)</td>
<td>$3,000</td>
</tr>
<tr>
<td>• Protect Above Vault (168 GSF x $10/GSF)</td>
<td>$1,680</td>
</tr>
<tr>
<td>• Protect Vault Door (Allowance)</td>
<td>$250</td>
</tr>
<tr>
<td>• Contingency (15%)</td>
<td>$1,120</td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (8%)</td>
<td>$600</td>
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<td><strong>Total</strong></td>
<td>$9,150</td>
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<tr>
<td><strong>TOTAL – PHASE ONE, OPTION “A”</strong></td>
<td>$41,650</td>
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OPTION "A" CONTINUED

PHASE TWO (ONE TO TWO YEARS):

<table>
<thead>
<tr>
<th>HIGHEST PRIORITY STONE MASONRY REPAIRS</th>
<th>$ 89,500</th>
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</thead>
<tbody>
<tr>
<td>• Building Masonry Repairs and Restoration</td>
<td>$ 71,600</td>
</tr>
<tr>
<td>Repoint/Stabilize 2' Average All Existing Wall @ Parapet</td>
<td></td>
</tr>
<tr>
<td>Install Protective Cast Stone Parapet Cap</td>
<td></td>
</tr>
<tr>
<td>Selectively Point Open Joints at Grade, Interior and Exterior, Assume 2' Average Height</td>
<td></td>
</tr>
<tr>
<td>Selectively Rebuild Damaged Areas for Interim Stability</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contingency (15%)</td>
<td>$ 10,740</td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$ 7,160</td>
</tr>
<tr>
<td>Total</td>
<td>$ 89,500</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>STRUCTURAL STABILIZATION</th>
<th>$ 87,800</th>
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</thead>
<tbody>
<tr>
<td>• Structural Steel Bracing System (Allowance)</td>
<td>$ 48,800</td>
</tr>
<tr>
<td>6,100 GSF x 4#/GSF / 2000 #s/Ton x $4000/Ton</td>
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</tr>
<tr>
<td>• Reversible Surface Mounted Bracing Footings and Anchors (Allowance)</td>
<td>$ 18,000</td>
</tr>
<tr>
<td>6 Frames x 2 Footings x $1,500 each</td>
<td></td>
</tr>
<tr>
<td>• Contingency (15%)</td>
<td>$ 10,100</td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (15%)</td>
<td>$ 10,100</td>
</tr>
<tr>
<td>Total</td>
<td>$ 87,800</td>
</tr>
</tbody>
</table>

TOTAL – PHASE TWO, OPTION “A” | $ 177,300 |

OPTION “A” TOTAL – ALL PHASES | $ 218,950 |
OPTION "B":

PHASE ONE (FIRST CONSTRUCTION SEASON):

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLEAN-UP, DEBRIS REMOVAL, AND RELATED</td>
<td>$15,500</td>
</tr>
<tr>
<td>PERIMETER DRAINAGE IMPROVEMENTS AND RELATED</td>
<td>$5,700</td>
</tr>
<tr>
<td>PROTECTIVE ENCAPSULATION OF WINDOW AND DOOR REMNANTS</td>
<td>$11,300</td>
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<tr>
<td>• Protection of Doors and Windows</td>
<td>$8,800</td>
</tr>
<tr>
<td>20 Type A @ $200 each</td>
<td></td>
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<td>12 Type B @ $150 each</td>
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<td>2 Type G @ $600 each</td>
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<td>1 Type H @ $250 each</td>
<td></td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (Allowance)</td>
<td>$2,500</td>
</tr>
<tr>
<td>Total</td>
<td>$11,300</td>
</tr>
</tbody>
</table>

INTERIM WEATHERPROTECTION AND RELATED                | $9,150 |
| • Protect First Floor Penetrations (Allowance)       | $2,500 |
| • Protect First Floor Framing at Basement (300 GSF x $10/GSF) | $3,000 |
| • Protect Above Vault (168 GSF x $10/GSF)            | $1,680 |
| • Protect Vault Door (Allowance)                     | $250  |
| • Contingency (15%)                                  | $1,120 |
| • Plans, Specs, and Technical Field Assistance (8%)  | $600  |
| Total                                                | $9,150 |

TOTAL – PHASE ONE, OPTION "B"                        | $41,650 |
OPTION “B” CONTINUED

PHASE TWO (ONE TO THREE YEARS):

<table>
<thead>
<tr>
<th>HIGHEST PRIORITY STONE MASONRY REPAIRS</th>
<th>$ 89,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Building Masonry Repairs and Restoration</td>
<td>$ 71,600</td>
</tr>
<tr>
<td>Repoint/Stabilize 2’ Average All Existing Wall @ Parapet</td>
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</tr>
<tr>
<td>340 LF x $50/LF</td>
<td></td>
</tr>
<tr>
<td>Install Protective Cast Stone Parapet Cap</td>
<td></td>
</tr>
<tr>
<td>340 LF x $25/LF</td>
<td></td>
</tr>
<tr>
<td>Selectively Point Open Joints at Grade, Interior and Exterior, Assume 2’ Average Height</td>
<td></td>
</tr>
<tr>
<td>340 LF x $35/LF</td>
<td></td>
</tr>
<tr>
<td>Selectively Rebuild Damaged Areas for Interim Stability (Allowance @ 10% of Total Area/1 Side)</td>
<td></td>
</tr>
<tr>
<td>10% x 7,600 GSF x $45/GSF</td>
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</tr>
<tr>
<td>• Contingency (15%)</td>
<td>$ 10,740</td>
</tr>
<tr>
<td>• Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$ 7,160</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 89,500</strong></td>
</tr>
</tbody>
</table>

STRUCTURAL STABILIZATION AND INTERIM ROOFING (B2 OPTION WITH EAVE EXTENSION) | **$ 255,700** |

| • Pre-engineered Structural Steel Roof Framing System with Roofing and Related Footing | $ 201,300 |
| 6,100 GSF x $33/GSF | |
| • Contingency (15%) | $ 30,200 |
| • Plans, Specs, and Technical Field Assistance (12%) | $ 24,200 |
| **Total** | **$ 255,700** |

TOTAL – PHASE TWO, OPTION “B” | **$ 345,200**

OPTION “B” TOTAL – ALL PHASES | **$ 386,850**
OPTION "C"

PHASE ONE (FIRST CONSTRUCTION SEASON):

<table>
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<th>Description</th>
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<tbody>
<tr>
<td>CLEAN-UP, DEBRIS REMOVAL, AND RELATED</td>
<td>$15,500</td>
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<td>$5,700</td>
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<td>• Protection of Doors and Windows</td>
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<tr>
<td>20 Type A @ $200 each</td>
<td>$8,800</td>
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<tr>
<td>• Plans, Specs, and Technical Field Assistance (Allowance)</td>
<td>$2,500</td>
</tr>
<tr>
<td>Total</td>
<td>$11,300</td>
</tr>
</tbody>
</table>

INTERIM WEATHERPROTECTION AND RELATED                                       | $9,150|

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>• Protect First Floor Penetrations (Allowance)</td>
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<tr>
<td>• Protect First Floor Framing at Basement (300 GSF x $10/GSF)</td>
<td>$3,000</td>
</tr>
<tr>
<td>• Protect Above Vault (168 GSF x $10/GSF)</td>
<td>$1,680</td>
</tr>
<tr>
<td>• Protect Vault Door (Allowance)</td>
<td>$250</td>
</tr>
<tr>
<td>• Contingency (15%)</td>
<td>$1,120</td>
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<tr>
<td>• Plans, Specs, and Technical Field Assistance (8%)</td>
<td>$600</td>
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<tr>
<td>Total</td>
<td>$9,150</td>
</tr>
</tbody>
</table>

TOTAL – PHASE ONE, OPTION "C"                                                 | $41,650|
OPTION “C” CONTINUED

PHASE TWO (ONE TO TWO YEARS):

HIGHEST PRIORITY STONE MASONRY REPAIRS $168,900

- Building Masonry Repairs and Restoration $71,600
  - Repoint/Stabilize 2’ Average All Existing Wall @ Parapet 340 LF x $50/LF
  - Install Protective Cast Stone Parapet Cap 340 LF x $25/LF
  - Selectively Point Open Joints at Grade, Interior and Exterior, Assume 2’ Average Height 340 LF x $35/LF
  - Selectively Rebuild Damaged Areas for Interim Stability (Allowance @ 10% of Total Area/1 Side) 10% x 7,600 GSF x $45/GSF
- Rebuild Missing Parapet Masonry, All Four Walls $55,000
  - 1,000 GSF (Allowance) x $55/GSF
- Recondition Roof Joist Bearing Pockets $8,500
  - 340 LF x $25/LF
- Contingency (15%) $20,300
- Plans, Specs, and Technical Field Assistance (10%) $13,500

Total $168,900

TOTAL – PHASE TWO, OPTION “C” $168,900

PHASE THREE (TWO TO FOUR YEARS):

STRUCTURAL STABILIZATION $479,200

- “Replicated” Structural Roof Framing System with Future Second Floor Capacity $341,600
  - 6,100 GSF x $56/GSF
- Interior Column Footings Rebuilt $27,000
  - 6 x $4,500
- Contingency (15%) $55,300
- Plans, Specs, and Technical Field Assistance (15%) $55,300

Total $479,200
## Historically Compatible Roofing System

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofing System</td>
<td>$55,500</td>
</tr>
<tr>
<td>Interim System – Unheated Building</td>
<td></td>
</tr>
<tr>
<td>Fully Adhered 45 Mil/Reinforced Single Ply Over Mechanically Adhered Rigid Insulation Over ¾&quot; T &amp; G OSB Wood Decking</td>
<td></td>
</tr>
<tr>
<td>6,100 GSF x $7/GSF</td>
<td></td>
</tr>
<tr>
<td>Contingency (15%)</td>
<td>$6,400</td>
</tr>
<tr>
<td>Plans, Specs, and Technical Field Assistance (15%)</td>
<td>$6,400</td>
</tr>
<tr>
<td>Total</td>
<td>$55,500</td>
</tr>
</tbody>
</table>

### Total - Phase Three, Option “C”

$534,700

### Option “C” Total - All Phases

$745,250
OPTION "D":

**PHASE ONE (FIRST CONSTRUCTION SEASON):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLEAN-UP, DEBRIS REMOVAL, AND RELATED</td>
<td>$15,500</td>
</tr>
<tr>
<td>PERIMETER DRAINAGE IMPROVEMENTS AND RELATED</td>
<td>$5,700</td>
</tr>
<tr>
<td><strong>TOTAL – PHASE ONE, OPTION “D”</strong></td>
<td>$21,200</td>
</tr>
</tbody>
</table>

**PHASE TWO (ONE TO THREE YEARS):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABILIZATION AND INTERPRETIVE INFILL OF WALL FENESTRATIONS</td>
<td>$27,900</td>
</tr>
<tr>
<td>- Permanent Stabilization and Interpretive Infill of Door and Window Openings</td>
<td>$25,400</td>
</tr>
<tr>
<td>20 Type A @ $500 each</td>
<td></td>
</tr>
<tr>
<td>12 Type B @ $300 each</td>
<td></td>
</tr>
<tr>
<td>2 Type C @ $700 each</td>
<td></td>
</tr>
<tr>
<td>1 Type D @ $1,700 each</td>
<td></td>
</tr>
<tr>
<td>1 Type E @ $2,500 each</td>
<td></td>
</tr>
<tr>
<td>1 Type F @ $3,500 each</td>
<td></td>
</tr>
<tr>
<td>2 Type G @ $850 each</td>
<td></td>
</tr>
<tr>
<td>1 Type H @ $1,000 each</td>
<td></td>
</tr>
<tr>
<td>- Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$27,900</td>
</tr>
</tbody>
</table>

**SECURE, REPAIR, REPLICATE, AND RECONSTRUCT SELECT FEATURES**  $34,400

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Permanently Protect First Floor Penetrations (Allowance)</td>
<td>$8,000</td>
</tr>
<tr>
<td>- Reconstruct Select Basement Framing and Features (Allowance)</td>
<td>$15,000</td>
</tr>
<tr>
<td>- Refurbish Vault (Allowance)</td>
<td>$4,500</td>
</tr>
<tr>
<td>- Contingency (15%)</td>
<td>$4,150</td>
</tr>
<tr>
<td>- Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$2,750</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$34,400</td>
</tr>
</tbody>
</table>
### OPTION “D” CONTINUED

#### HIGHEST PRIORITY STONE MASONRY REPAIRS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Masonry Repairs and Restoration</td>
<td>$89,500</td>
</tr>
<tr>
<td>Repoint/Stabilize 2’ Average All Existing Wall @ Parapet</td>
<td>$71,600</td>
</tr>
<tr>
<td>340 LF x $50/LF</td>
<td></td>
</tr>
<tr>
<td>Install Protective Cast Stone Parapet Cap</td>
<td></td>
</tr>
<tr>
<td>340 LF x $25/LF</td>
<td></td>
</tr>
<tr>
<td>Selectively Point Open Joints at Grade, Interior and Exterior,</td>
<td></td>
</tr>
<tr>
<td>Assume 2’ Average Height</td>
<td></td>
</tr>
<tr>
<td>340 LF x $35/LF</td>
<td></td>
</tr>
<tr>
<td>Selectively Rebuild Damaged Areas for Interim Stability</td>
<td></td>
</tr>
<tr>
<td>(Allowance @ 10% of Total Area/1 Side)</td>
<td></td>
</tr>
<tr>
<td>10% x 7,600 GSF x $45/GSF</td>
<td></td>
</tr>
<tr>
<td>Contingency (15%)</td>
<td>$10,740</td>
</tr>
<tr>
<td>Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$7,160</td>
</tr>
<tr>
<td>Total</td>
<td>$89,500</td>
</tr>
</tbody>
</table>

**TOTAL – PHASE TWO, OPTION “D”**

$151,800

### PHASE THREE (TWO TO FOUR YEARS):

#### SPACE FRAME ROOFING SYSTEM AND SUPPORT SYSTEM

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofing System and Independently Supported Clear Span</td>
<td>$827,900</td>
</tr>
<tr>
<td>Pre-Engineered Structural System Including Permanent</td>
<td></td>
</tr>
<tr>
<td>Interior Footings and Related Snow Loading Premium</td>
<td></td>
</tr>
<tr>
<td>6,100 GSF x $115/GSF</td>
<td></td>
</tr>
<tr>
<td>Contingency (10%)</td>
<td>$70,200</td>
</tr>
<tr>
<td>Plans, Specs, and Technical Field Assistance (8%)</td>
<td>$56,200</td>
</tr>
<tr>
<td>Total</td>
<td>$827,900</td>
</tr>
</tbody>
</table>

**TOTAL – PHASE THREE, OPTION “D”**

$827,900

**OPTION “D” TOTAL – ALL PHASES**

$1,000,900
OPTION “E”:

PHASE ONE (FIRST CONSTRUCTION SEASON):

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLEAN-UP, DEBRIS REMOVAL, AND RELATED</td>
<td>$15,500</td>
</tr>
<tr>
<td>PERIMETER DRAINAGE IMPROVEMENTS AND RELATED</td>
<td>$5,700</td>
</tr>
<tr>
<td>TOTAL – PHASE ONE, OPTION “E”</td>
<td>$21,200</td>
</tr>
</tbody>
</table>

PHASE TWO (ONE TO THREE YEARS):

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABILIZATION AND INTERPRETIVE INFILL OF WALL FENESTRATIONS</td>
<td>$27,900</td>
</tr>
</tbody>
</table>

- Permanent Stabilization and Interpretive Infill of Door and Window Openings $25,400
  - 20 Type A @ $500 each
  - 12 Type B @ $300 each
  - 2 Type C @ $700 each
  - 1 Type D @ $1,700 each
  - 1 Type E @ $2,500 each
  - 1 Type F @ $3,500 each
  - 2 Type G @ $850 each
  - 1 Type H @ $1,000 each

- Plans, Specs, and Technical Field Assistance (10%) $2,500

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$27,900</td>
</tr>
</tbody>
</table>

SECURE, REPAIR, REPLICATE, AND RECONSTRUCT SELECT FEATURES $34,400

- Permanently Protect First Floor Penetrations (Allowance) $8,000
- Reconstruct Select Basement Framing and Features (Allowance) $15,000
- Refurbish Vault (Allowance) $4,500
- Contingency (15%) $4,150
- Plans, Specs, and Technical Field Assistance (10%) $2,750

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$34,400</td>
</tr>
</tbody>
</table>
## OPTION “E” CONTINUED

### HIGHEST PRIORITY STONE MASONRY REPAIRS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<td></td>
</tr>
<tr>
<td>Selectively Point Open Joints at Grade, Interior and Exterior,</td>
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</tr>
<tr>
<td>Assume 2’ Average Height</td>
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</tr>
<tr>
<td>(Allowance @ 10% of Total Area/1 Side)</td>
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</tr>
<tr>
<td>10% x 7,600 GSF x $45/GSF</td>
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<tr>
<td>Contingency (15%)</td>
<td>$10,740</td>
</tr>
<tr>
<td>Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$7,160</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$89,500</strong></td>
</tr>
</tbody>
</table>

**TOTAL – PHASE TWO, OPTION “E”**

<table>
<thead>
<tr>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$151,800</strong></td>
</tr>
</tbody>
</table>

### PHASE THREE (TWO TO FIVE YEARS):

#### PERMANENT INFILL BUILDING AND RELATED

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infill Building (Allowance)</td>
<td>$1,800,000</td>
</tr>
<tr>
<td>4,500 GSF x $400/GSF</td>
<td></td>
</tr>
<tr>
<td>Contingency (10%)</td>
<td>$180,000</td>
</tr>
<tr>
<td>Plans, Specs, and Technical Field Assistance (10%)</td>
<td>$180,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,160,000</strong></td>
</tr>
</tbody>
</table>

**TOTAL – PHASE THREE, OPTION “E”**

<table>
<thead>
<tr>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$2,160,000</strong></td>
</tr>
</tbody>
</table>

### OPTION “E” TOTAL – ALL PHASES

<table>
<thead>
<tr>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$2,333,000</strong></td>
</tr>
</tbody>
</table>
OPTION "F" AND OPTION "G":

Estimating these comprehensive adaptive reuse concepts is beyond the estimating scope of this report. However, both of these conceptual options are specifically predicated on the base assumption that all of the recommended preservation priorities as contained in this report will be completed in conjunction with, or prior to, this significantly expanded scope of work.

Likewise, it is possible that the first phase of each of these could be the completion of highest priority preservation and stabilization, as outlined and estimated in options A, B, or C.

PART VI: PHOTOS AND ILLUSTRATIONS
PART VII: BIBLIOGRAPHY

8.0 BIBLIOGRAPHY (An asterisk next to a bibliographical entry indicates that the consulted resource contained pertinent information.)


Lippoth, Richard. “Assessment of Masonry Condition, Telluride Transfer Building – Pinnacle Quarry and Development Company.” November 2002.* (Included in the Appendix to this Report.)


TT 1.07 TRANSFER BUILDING SHOWING SITE CONTEXT AS VIEWED FROM NORTHEAST CORNER

TT 1.08 CLOSER VIEW OF NORTH ELEVATION CONDITIONS AS VIEWED FROM NORTHEAST CORNER
TT 1.11  TRANSFER BUILDING SOUTH ELEVATION AND VACANT LOT WITH INFORMAL PAID PARKING

TT 1.12  SITE CONTEXT AS VIEWED FROM SOUTHWEST CORNER
AERIAL VIEW, LOOKING EAST TOWARD NEW LIBRARY, FROM MANLFT SHOWING CONDITIONS AND HEIGHT CONTEXT OF TRANSFER BUILDING AT THE NORTHEAST CORNER.
CLOSER VIEW OF SNOW BUILD-UP ON NORTH ELEVATION AT PACIFIC AVE.

CLOSER VIEW OF SITE CONDITION AT SOUTHWEST CORNER – NOTE FAILING WOOD FENCING

CLOSER VIEW OF NORTHEAST CORNER

CLOSER VIEW OF SOUTHEAST CORNER
TT 1.18 MASONRY CONDITIONS ON NORTH ELEVATION (1 OF 4)

TT 1.19 MASONRY CONDITIONS AT NORTH ELEVATION (2 OF 4)

TT 1.20 MASONRY CONDITIONS AT NORTH ELEVATION (3 OF 4)

TT 1.21 MASONRY CONDITIONS AT NORTH ELEVATION (4 OF 4)

TT 1.22 MASONRY CONDITIONS AT SOUTH ELEVATION

TT 1.23 MASONRY CONDITIONS AT SOUTH ELEVATION
TT 1.24  NORTH ELEVATION PARAPET AND NORTHWEST CORNER AS VIEWED FROM ABOVE, LOOKING WEST

TT 1.25  SOUTH ELEVATION PARAPET AS VIEWED FROM ABOVE, LOOKING SOUTH
TT 1.26  OVERALL VIEW OF INTERIOR OF EAST ELEVATION

TT 1.27  INTERIOR VIEW AT EAST END OF NORTH ELEVATION
TT 1.28  INTERIOR VIEW AT CENTER OF NORTH ELEVATION – NOTE HISTORIC DIFFERENCE IN SECOND FLOOR LEVELS AND CEILING HEIGHTS

TT 1.29  INTERIOR VIEW AT WEST END OR NORTH ELEVATION
TT 1.32 ALTERNATE VIEW OF PORTION OF INTERIOR OF NORTH ELEVATION

TT 1.33 ALTERNATE VIEW OF PORTION OF INTERIOR OF SOUTH ELEVATION – NOTE SEASONAL SHRUB GROWTH IN FOREGROUND AND EXTANT SECOND FLOOR SLIDING DOOR WITH TIMBER HOIST BEAM
TT 1.36  VIEW THROUGH VAULT DOORS TO INTERIOR WALL OF VAULT

TT 1.37  VAULT INTERIOR – NOTE BRICK ARCH CEILING CONSTRUCTION
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.38 INTERIOR CONDITIONS AT NORTHEAST CORNER MAN DOOR FENESTRATION

TT 1.39 CLOSER VIEW OF INTERIOR CONDITIONS AT NORTHEAST CORNER AT SECOND FLOOR LEVEL
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.40  INTERIOR CONDITIONS AT EAST END OR NORTH ELEVATION LARGE FIRST FLOOR LEVEL WINDOW FENESTRATION

TT 1.41  VAULT AT CHIMNEY INTERFACE – NOTE EVIDENCE OF WAIXSCOT AT LOWER RIGHT
TT 1.42  ALTERNATE VIEW OF VAULT AT CHIMNEY INTERFACE SHOWING DIFFERENT CONTEXT

TT 1.43  CHIMNEY FROM BOILER – NOTE TWO STOVE PIPE CONNECTIONS IN CHIMNEY FACE, PROBABLY PREDATING STEAM BOILER SYSTEM
TELLURIDE TRANSFER COMPANY BUILDING

HISTORIC STRUCTURE ASSESSMENT - HISTORIC PHOTOS

PHOTO NUMBER TT 0003
TELLURIDE, COLORADO
HISTORIC PHOTOGRAPH - CIRCA 1930'S

PHOTOGRAPH COURTESY OF RICHARD LIPOTH FROM NARDINE FAMILY ARCHIVES

A-E DESIGN ASSOCIATES, P.C.
My father W.H. Nordin is the one standing with his hands behind his back. Babe Schuler is standing by the pump. They were partners for many years. Babe bought my father out around 1952.

W.H. Nordin (Bill) worked nights at the Transfer and taught school in Fillmore during the day. He lived in the Columbia house in the early thirties. I was born in 1937 and they were already living in the little house. They moved to the big house on N. Willow street shortly after I was born. I believe 325 north Willow? We didn't have addresses then.

Paul & domecic lived in the big house in an apartment across the hall.

W.H. (Bill) threw up in fillmore once.

Born in Fillmore. He & babe had a fist fight on main street? one time & babe was going to sue my father. Depend on who your side too. My dad punched babe on his butt and the fight didn't last two long. Buckley doesn't discuss this much (Babe's son).

Back to the transfer. There was a long ramp just inside the opening (storage) you could drive up to the 2nd level.
On the side view there was a loading dock. (Timber for hoisting seen above opening. Coal was kept in the boxes by the side of the office window.) And the line oil was changed on the small ramp in front of the boxes.

The covered wagon is in front of the ditches. Mr. George Rock lived in a stone house across from the wagon.

Directly across from the oil derricks, Damaris Sherman had a repair shop (auto)

The railroad ran behind the telluride. Tremain, which made it profitable to use the rail lines. My friend (whose stepfather worked for the Tremain) and I would climb on the train cars and walk across the top. Her stepfather was killed in a mining accident in later years. I will not mention my friend's name as she is still living and was run out of Telluride when her ex-husband contracted a guy in the Sheridan Hotel. There's more to this story that will remain as unwritten history.
Closer view west side of vault — note second floor height differences

Failing header above south large door fenestration shown on photo TT 1.34
Telluride Transfer Company Building
Historic Structure Assessment Photos

TT 1.46  Close view of header shown in Photo TT 1.45 – Note stone interior with dislodging, partial failure

TT 1.47  Interior view of center portion of south elevation

Page 1

Historic Structure Assessment
Telluride Transfer Building
CHS/SHF #2003-HA-002

Existing Conditions Photos
Prepared by: P. Berglund
Checked by: R. S. Beardmore, PE

A-E Design Associates, P.C.
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.48  SECOND FLOOR DOOR ON SOUTH ELEVATION

TT 1.49  CLOSER VIEW OF TOP OF SECOND FLOOR DOOR SHOWN IN PHOTO TT 1.48

TT 1.50  CLOSER VIEW OF BOTTOM OF SECOND FLOOR DOOR SHOWN IN PHOTO TT 1.48
TT 1.53 OPENING AT TOP OF BASEMENT STAIRWAY COVERED BY DEBRIS AND OTHER BUILDING MATERIALS

TT 1.54 OVERALL VIEW OF BASEMENT/BOILER ROOM VIEWED FROM EAST LOOKING WEST
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.55
STAIRS TO BASEMENT/
BOILER ROOM

TT 1.56
SOUTH WALL OF BASEMENT/
BOILER ROOM
TT 1.57
ROT IN FIRST FLOOR WOOD FLOOR FRAMING AT BASEMENT/BOILER ROOM

TT 1.58
EXISTING ROTTED SUPPORT POST AT BASEMENT/BOILER ROOM
TT 1.59
EXISTING CONDITIONS SHOWING INSIPID
FOUNDATION WALL FAILURE AT WATER SERVICE
ENTRANCE AT EAST WALL OF BASEMENT/BOILER ROOM

TT 1.60
CLOSER VIEW OF CONDITIONS AT BASEMENT/
BOILER ROOM SHOWN IN PHOTO TT 1.59
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.61  BASEMENT/BOILER ROOM VIEW SHOWING SNOWMELT AND STORMWATER RUNOFF THROUGH FOUNDATION WALL FENESTRATION ON NORTH WALL NEAR NORTHEAST CORNER

TT 1.62  MORE EVIDENCE OF MOISTURE INTRUSION AND FOUNDATION WALL DETERIORATION AT BASEMENT/BOILER ROOM
BASEMENT/BOILER ROOM VIEW SHOWING NORTH FOUNDATION WALL FEATURES NEAR CHIMNEY BASE, INCLUDING EXTANT STEAM PIPING, MISSING BOILER FLUE BREACHING, AND DETERIORATED BASEMENT WINDOW

BASEMENT/BOILER ROOM VIEW SHOWING MOLD AND ROTTING FLOOR FRAMING AT NORTH END FIRST FLOOR BEARING WALL

MORE FIRST FLOOR FRAMING EXISTING CONDITIONS AT BASEMENT/BOILER ROOM
TT 1.66  FAILED WINDOW AT CHIMNEY BASE AND MOISTURE INTRUSION AT BASEMENT/BOILER ROOM

TT 1.67  HISTORIC COAL CHUTE AND DETERIORATED CONDITIONS AT BASEMENT/BOILER ROOM
REMNANTS OF SANITARY SEWER RISER AT BASEMENT/BOILER ROOM

WATER SERVICE REMNANTS AND OTHER EXISTING CONDITIONS AT BASEMENT/BOILER ROOM
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

TT 1.70  HISTORIC BARN SASH AT FIRST FLOOR LEVEL TOWARD WEST END OF STRUCTURE

TT 1.71  HISTORIC DOUBLE HUNG AT SECOND FLOOR TOWARD EAST END OF STRUCTURE
TELLURIDE TRANSFER COMPANY BUILDING
HISTORIC STRUCTURE ASSESSMENT PHOTOS

EXTERIOR OF SECOND FLOOR DOOR ON SOUTH ELEVATION

HISTORIC HEADER (AND NON-HISTORIC PAINT JOB) ABOVE EAST FACING DOUBLE DOOR FENESTRATION

HISTORIC HEADER ABOVE NORTH FACING LARGE WINDOW FENESTRATION

PAGE NUMBER
EC-34

HISTORIC STRUCTURE ASSESSMENT
TELLURIDE TRANSFER BUILDING
CHS/SHF #2003-HA-002

EXISTING CONDITIONS PHOTOS
PREPARED BY: P. Berglund
CHECKED BY: R. S. Beardmore, PE

A-E DESIGN ASSOCIATES, P.C.
TT 1.77 EVIDENCE OF HISTORIC COLUMN LOCATION

TT 1.78 EVIDENCE OF HISTORIC COLUMN LOCATION

TT 1.79 EVIDENCE OF HISTORIC COLUMN LOCATION
PART VII: BIBLIOGRAPHY

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***
At the request of Richard Beardmore, AE Design Associates, approximately two days were spent in Telluride, Colo. constructing base drawings and examining the masonry of the Telluride Transfer Building. Samples of stone and mortar were collected during the site visit, and a series of laboratory tests conducted immediately afterward.

From historic photographic evidence the Telluride Transfer Building appears to have been constructed between the years 1905 and 1910. The building housed a freight forwarding business, initially making use of animal haulage and eventually motor truck. It served as an auto garage in more recent times until the roof collapsed in the late 1970s(?). For the past twenty years the building shell has stood completely derelict.

Buff-gray, fine to medium grained silicious sandstone has been used exclusively to construct the building walls. The stone has been laid as un-coursed rubble bedded in lime-sand mortar with original pointing also of lime and sand. The stone is likely local, possibly the Jurassic Entrada formation or Salt Wash Sandstone of the Morrison formation. Evidence of quarrying activity exists in the Jurassic beds cropping-out along Tomboy Road northeast of town. Absorption, water vapor transmission and compressive strength of the sandstone (detailed analyses attached) are similar to those expected in high quality building stone.

At least two campaigns of spot re-pointing were noted on the building. Analyses of the various mortars (attached) suggest general compatibility with the stone, although aesthetically some of the re-pointing detracts from the building’s appearance.

Recommendations: As indicated on the elevation drawings, pointing and some bedding mortar have deteriorated on the upper and lower portions of all walls. While the masonry retains it’s structural integrity, continued exposure without repair will see accelerating deterioration as water is allowed to move deeper into the wall’s interior. At the very least a re-pointing of the upper wall and installation of a continuous cap should be competed in the near term. The existing wooden shoring is in very poor condition, but an extensive repair or replacement of the shoring will do nothing to halt the deterioration of the walls. In fact, danger to the public is more likely to stem from the falling of individual parapet stones than from catastrophic collapse of the walls.
ABSORPTION OF DIMENSION STONE
(Conforming in part to ASTM C97)

DATE: November 2, 2002

SAMPLE DESCRIPTION: Gray-Buff Sandstone, Telluride Transfer Building, Telluride, Colo.

MEASUREMENTS:

<table>
<thead>
<tr>
<th>SPECIMEN</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (INCHES)</td>
<td>2½ x 2¼ x 2¼</td>
<td>2½ x 2¼ x 2¼</td>
<td>2½ x 2¼ x 2¼</td>
</tr>
<tr>
<td>RATIO VOLUME TO SURFACE AREA</td>
<td>.37</td>
<td>.37</td>
<td>.37</td>
</tr>
<tr>
<td>DRY WEIGHT AFTER 48 HOURS @ 140°F</td>
<td>456.7g</td>
<td>469.4g</td>
<td>462.4g</td>
</tr>
<tr>
<td>SATURATED WEIGHT AFTER 48 HOURS IN WATER</td>
<td>463.0g</td>
<td>476.2g</td>
<td>469.8g</td>
</tr>
</tbody>
</table>

RESULTS:

<table>
<thead>
<tr>
<th>WEIGHT OF WATER ABSORBED</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT % ABSORPTION</td>
<td>1.4%</td>
<td>1.5%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Average weight percent absorption: 1.5%

Richard E. Lippoth
Pinnacle Quarry & Dev. Co.
WATER VAPOR TRANSMISSION, ASTM E-96
Telluride Transfer Building, Telluride, Colo.

SAMPLE DESCRIPTION: Buff-gray sandstone

DIMENSIONS:

<table>
<thead>
<tr>
<th>SPECIMEN</th>
<th>LENGTH (INCHES)</th>
<th>WIDTH (INCHES)</th>
<th>THICKNESS (INCHES)</th>
<th>SURF. AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.306</td>
<td>2.298</td>
<td>1.03</td>
<td>0.003</td>
</tr>
<tr>
<td>B</td>
<td>2.284</td>
<td>2.246</td>
<td>1.03</td>
<td>0.003</td>
</tr>
<tr>
<td>C</td>
<td>2.273</td>
<td>2.287</td>
<td>0.959</td>
<td>0.003</td>
</tr>
</tbody>
</table>

MEASUREMENTS:

<table>
<thead>
<tr>
<th>TIME (HOURS)</th>
<th>weight in grams A</th>
<th>weight in grams B</th>
<th>weight in grams C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>339.9</td>
<td>320.7</td>
<td>322.5</td>
</tr>
<tr>
<td>24.0</td>
<td>339.9</td>
<td>320.4</td>
<td>322.1</td>
</tr>
<tr>
<td>48.0</td>
<td>339.4</td>
<td>320.0</td>
<td>321.5</td>
</tr>
<tr>
<td>72.0</td>
<td>336.4</td>
<td>319.9</td>
<td>321.3</td>
</tr>
<tr>
<td>96.0</td>
<td>347.9</td>
<td>319.5</td>
<td>320.9</td>
</tr>
<tr>
<td>120.0</td>
<td>347.8</td>
<td>319.4</td>
<td>320.7</td>
</tr>
<tr>
<td>144.0</td>
<td>347.5</td>
<td>319.2</td>
<td>320.4</td>
</tr>
<tr>
<td>168.0</td>
<td>347.2</td>
<td>318.9</td>
<td>320.1</td>
</tr>
<tr>
<td>192.0</td>
<td>346.9</td>
<td>318.5</td>
<td>319.7</td>
</tr>
<tr>
<td>216.0</td>
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<td>240.0</td>
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<td>319.1</td>
</tr>
<tr>
<td>264.0</td>
<td>346.1</td>
<td>317.7</td>
<td>318.7</td>
</tr>
<tr>
<td>288.0</td>
<td>345.9</td>
<td>317.5</td>
<td>318.5</td>
</tr>
<tr>
<td>312.0</td>
<td>345.8</td>
<td>317.2</td>
<td>318.1</td>
</tr>
</tbody>
</table>

SLOPE 192 HOURS TO 312 HOURS (GRAMS/HR) -0.009761905 -0.010595238 -0.013214286

AVERAGE TEMP.:=90 F (32.2C)
AVERAGE RELATIVE HUMIDITY = 51%
SATURATED VAPOR PRESSURE @ 32.2C = 36.068 mm Hg = 1.41 in Hg

RESULTS:

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Water Vapor Trans (GRAMS/HR.M²)</th>
<th>Water Vapor Trans (GRAINS/HR.FT²)</th>
<th>PERMEANCE (PERMS)</th>
<th>PERMEABILITY (PERM-IN.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3.2</td>
<td>4.5</td>
<td>6.3</td>
<td>6.2</td>
</tr>
<tr>
<td>B</td>
<td>3.1</td>
<td>4.4</td>
<td>6.2</td>
<td>6.6</td>
</tr>
<tr>
<td>C</td>
<td>4.0</td>
<td>5.7</td>
<td>8.0</td>
<td>8.6</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>3.4</td>
<td>4.9</td>
<td>6.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Richard E. Lippoth
Pinnacle Quarry & Development Co.
3.2 FOUNDATIONS

Description:

The foundation of the Transfer Building is not well exposed except in the small basement furnace room. Here it is constructed of the same sandstone rubble bedded in lime-sand mortar used throughout the rest of the building. The apparent thickness is 18 to 20 inches.

Condition:

Indirect evidence such as minimal fracturing of above grade masonry suggests the foundation has performed well over time.

Recommendations:

Considering the apparent good condition of the foundation, no particular intervention is recommended. However, as with all un-reinforced masonry foundations, care must be taken when excavating adjacent areas and providing for adequate drainage, especially with changing water run-off patterns from recently paved town streets and alleys.

3.3 BUILDING ENVELOPE – EXTERIOR WALLS

Description:

Buff-gray, fine to medium grained siliceous sandstone (estimated density = 155 lb/cu. ft.) has been used exclusively to construct the building walls. The stone has been laid as uncoursed rubble, bedded in lime-sand mortar. Average wall thickness is 18 inches. Original pointing mortar, also of lime and sand, is of the smear-point type sometimes struck with narrow incised lines to help define a rectangular stone shape.

The stone is likely of local origin, possibly the Jurassic Entrada Formation or Salt Wash Sandstone of the Morrison Formation. Evidence of quarry activity exists in the Jurassic beds cropping-out along Tomboy road northeast of town. For the most part the stone is minimally dressed rubble, but lintels, windowsills and quoins near the corner entrance have been more finely worked to “rough pointed” texture or “bush hammered” surfaces.
Coping atop the now roof-less walls is missing from the back half of the building. The forward half has an early poured concrete coping/cap.

**Condition:**

In general the building walls are in good condition especially considering their having stood derelict for over twenty years. The sandstone itself is quite resistant to weathering with laboratory test work confirming low absorption, low water vapor transmissivity and high compressive strength (see details—materials testing). The original bedding mortar is mostly intact except the upper 1 to 3 feet of the walls where moisture penetration has leached much of the binder leaving only sand. The original pointing mortar is also mostly intact except at the top and base of walls. At least two chaotic campaigns of spot re-pointing were noted on the building. Analyses (attached) of the various mortars suggest general compatibility with the stone, although aesthetically some of the re-pointing detracts from the building’s appearance.

A few areas of efflorescence (and oil) coating stone and mortar can be seen near the ground floor level and adjacent to the indoor vault. The staining is likely the result of water collected on the vault ceiling and building floor moving outward through the walls. Obviously this feature postdates collapse of the building’s roof.

A large section of the rear wall is missing, although historic photos suggest that windows and large doors occupied much of the void. It is assumed the roof collapse caused the wall to destabilize.

**Recommendations:**

Both pointing and some bedding mortar have deteriorated on the upper and lower portions of all walls. While the masonry retains it’s structural integrity, continued exposure without repair will see accelerating deterioration as water is allowed to move deeper into the wall’s interior. Re-pointing and locally replacement of bedding mortar at the top of the exterior walls followed by installation of a continuous cap/coping should be contemplated in the near term. A Type-N Portland cement-lime mortar is recommended for bedding and pointing mortar repair.

Looking forward to restoration of the building, re-pointing eroded mortar and filling of minor fractures will be required. Patching or replacement of damaged windowsills should be performed and concrete attachments to the building removed. Some of the large door lintels will require repair, particularly on the interior. While causing no real harm, it may improve the building’s overall appearance to remove past re-pointing and replace with mortar more closely matching the original.
Telluride Transfer Building, Telluride, Colo., Sandstone
Water Vapor Transmission, ASTM E-96

![Graph showing water vapor transmission over time for different weights of samples A, B, and C.](image-url)
November 13, 2002

Pinnacle Quarry and Development Company
3701 Ideal Drive
Fort Collins, Colorado 80524

Attn: Mr. Richard Lippoth

Re: Laboratory Testing
Transfer Building
Telluride, Colorado
EEC Project No. 1024109

Mr. Lippoth:

As you requested, Earth Engineering Consultants, Inc. (EEC) personnel have completed the laboratory testing on the delivered rock samples for the referenced project. Laboratory testing completed by EEC consisted of compressive strength testing of the delivered cube samples of rock for the referenced project. The results of the laboratory testing completed by EEC are included with this report.

EEC personnel completed compressive strength testing of five rock samples delivered to our Fort Collins laboratory by Pinnacle Quarry and Development Company personnel. Those samples had been saw cut into approximate cube shapes by others prior to delivery to our laboratory. The cube dimensions were measured using hand calibers prior to compressive strength testing. The cubes were also sulfur capped prior to compressive strength testing due to minor irregularities in the cube surfaces from the saw cutting procedures. The results of the compressive strength testing are shown on the attached summary sheet.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the attached test results or if we can be of further assistance to you in any other way, please do not hesitate to contact us.

Very truly yours,

Earth Engineering Consultants, Inc.

[Signature]

Project Engineer

Centre for Advanced Technology
2301 Research Boulevard, Suite 104
Fort Collins, Colorado 80526
(970) 224-1522 (Fax) 224-4564
# LABORATORY COMPRESSIVE STRENGTH RESULTS

**DELIVERED ROCK SAMPLES - TRANSFER BUILDING**

**TELLURIDE, COLORADO**

**EEC PROJECT NO. 1024109**

<table>
<thead>
<tr>
<th>SAMPLE DESIGNATION</th>
<th>CROSS-SECTIONAL AREA (IN²)</th>
<th>TOTAL LOAD AT FAILURE (LBS)</th>
<th>FAILURE MODE</th>
<th>COMPRESSION STRENGTH (PSI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUBE 'A'</td>
<td>5.327</td>
<td>44,570</td>
<td>SPLIT</td>
<td>8,367</td>
</tr>
<tr>
<td>CUBE 'B'</td>
<td>4.871</td>
<td>39,990</td>
<td>SPLIT</td>
<td>8,210</td>
</tr>
<tr>
<td>CUBE 'C'</td>
<td>5.011</td>
<td>43,200</td>
<td>SPLIT</td>
<td>8,621</td>
</tr>
<tr>
<td>CUBE 'D'</td>
<td>4.977</td>
<td>35,360</td>
<td>SPLIT</td>
<td>7,105</td>
</tr>
<tr>
<td>CUBE 'E'</td>
<td>4.975</td>
<td>50,720</td>
<td>SPLIT</td>
<td>10,195</td>
</tr>
</tbody>
</table>

**PROJECT:** TRANSFER BUILDING  
**LOCATION:** TELLURIDE, COLORADO  
**EEC PROJECT NO:** 1024109  
**DATE:** NOVEMBER 2002
MORTAR ANALYSIS

Location: Telluride Transfer Building, Telluride, Colo. Original Smear-Point Pointing & Bedding Mortar. Sample Collected by Pinnacle Quarry & Development Co.

Macroscopic Description: Very light gray (Munsell N8.5) on fresh surface, yellowish brown (Munsell 10YR 5/2) on weathered surface. Fine grained, firm, moderately soft.

Acid Digestion: Rapid, vigorous digestion.
Binder (Lime) = 38 vol. %
Sand = 62 vol. %

Sieve Analysis:

<table>
<thead>
<tr>
<th>Sieve Number</th>
<th>Wt. % on Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>.5</td>
</tr>
<tr>
<td>16</td>
<td>.5</td>
</tr>
<tr>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>50</td>
<td>33</td>
</tr>
<tr>
<td>100</td>
<td>42</td>
</tr>
<tr>
<td>Passing 100</td>
<td>17</td>
</tr>
</tbody>
</table>

Sand Void Ratios: = 50 % void.

Microscopic Examination:

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Grain Shape</th>
<th>Color</th>
<th>Visual Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>Sub-Angular</td>
<td>Clear/Milky</td>
<td>80</td>
</tr>
<tr>
<td>Iron Oxide</td>
<td>Sub-Angular</td>
<td>Red/Brown</td>
<td>5</td>
</tr>
<tr>
<td>Rock Fragments</td>
<td>Sub-Angular</td>
<td>Green/Brown</td>
<td>10</td>
</tr>
<tr>
<td>Iron Pyrite</td>
<td>Sub-Angular</td>
<td>Flashing</td>
<td>5</td>
</tr>
</tbody>
</table>

A man-made sand, probably stamp mill tailings.

Comments: A simple lime-sand mortar with original proportion likely one part hydrated lime to two parts sand.

Respectfully Submitted,

Richard E. Lippoth
Pinnacle Quarry & Dev. Co.
Nov. 18, 2002
MORTAR ANALYSIS

Location: Telluride Transfer Building, Telluride, Colo. Re-point Mortar, East Elevation.
Sample Collected by Pinnacle Quarry & Development Co.

Megasopic Description: Medium light gray (Munsell N6), hard, brittle, fine-grained, dense. Some incorporation of underlying soft mortar.

Acid Digestion: Slow digestion. Portland cement present.
Binder (Portland) = 12.5 vol. %
Binder (Lime) = 12.5 vol. %
Sand = 75 vol. %

Sieve Analysis:

<table>
<thead>
<tr>
<th>Sieve Number</th>
<th>Wt. % on Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
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<tr>
<td>16</td>
<td>6</td>
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<td>50</td>
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</tr>
<tr>
<td>100</td>
<td>19</td>
</tr>
<tr>
<td>Passing 100</td>
<td>5</td>
</tr>
</tbody>
</table>

Sand Void Ratios: = 40 % void.

Microscopic Examination:

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<th>Grain Shape</th>
<th>Color</th>
<th>Visual Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>Sub-Angular</td>
<td>Clear/Milky</td>
<td>95</td>
</tr>
<tr>
<td>Iron Oxide</td>
<td>Angular</td>
<td>Brown</td>
<td>Tr</td>
</tr>
<tr>
<td>Rock Fragments</td>
<td>Angular</td>
<td>Dark</td>
<td>5</td>
</tr>
</tbody>
</table>

Probably a man made sand, possibly mill tailings.

Thinsection Examination: #TUTM2 Slide shows dark, ragged cement paste matrix (40%) partially surrounding sand grains (40%) but with numerous (20%) irregularly shaped voids scattered throughout. The cement paste shows narrow rims of carbonation on most void margins.

Comments: Mortar likely had original proportion of one part Portland cement, one part hydrated lime and six parts sand.

Respectfully Submitted,

Richard E. Lippoth
Pinnacle Quarry & Dev. Co.
Nov 18, 2002
MORTAR ANALYSIS

Location: Telluride Transfer Building, Telluride, Colo. Re-point Mortar, North Elevation. Sample Collected by Pinnacle Quarry & Development Co.

Megasopic Description: Yellowish gray (Munsell 5Y 6/2) coarse-grained, hard, porous.

Acid Digestion: Slow protracted digestion. Portland cement present.  
Binder (Portland) = 29 vol. %  
Sand = 71 vol. %

Sieve Analysis:

<table>
<thead>
<tr>
<th>Sieve Number</th>
<th>Wt. % on Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
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<tr>
<td>16</td>
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<td>30</td>
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<td>50</td>
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<tr>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>Passing 100</td>
<td>6</td>
</tr>
</tbody>
</table>

Sand Void Ratios: = 45 % void.

Microscopic Examination:

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Grain Shape</th>
<th>Color</th>
<th>Visual Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>Angular</td>
<td>Clear/Milky</td>
<td>65</td>
</tr>
<tr>
<td>Iron Oxide</td>
<td>Angular</td>
<td>Red/Brown</td>
<td>2 to 3</td>
</tr>
<tr>
<td>Rock Fragments</td>
<td>Angular</td>
<td>Red/Brown</td>
<td>30</td>
</tr>
<tr>
<td>Amphibole (?)</td>
<td>Angular</td>
<td>Black</td>
<td>2 to 3</td>
</tr>
</tbody>
</table>

Poorly sorted stream or river sand. Source area of mixed rock lithology; sedimentary and crystalline.

Thinsection Examination: #TUTM3 Slide shows dark, “granular” cement paste matrix (30%) partially surrounding sand grains (50%) with numerous (20%) irregularly shaped voids throughout. The granular appearance probably due to poorly hydrated and coarse-grained cement minerals, with small clusters of belite occasionally seen.

Comments: A mortar with original proportions probably one part Portland cement to two parts sand. The presence of coarse-grained unhydrated cement minerals suggest early Portland cement, at least pre-WWII.

Respectfully Submitted,

Richard E. Lippoth  
Pinnacle Quarry & Dev. Co.  
Nov. 18, 2002
SECTIONAL VIEW

- SITE FABRICATED TO FIT - STRUCTURAL STEEL FRAMING SYSTEM TO BRACE EXTERIOR STONE MASONRY WALLS
- SUPPORT COLUMNS PLACED ACCORDING TO EXISTING BUILDING FEATURES
- LATERAL BRACING FOR BRACED FRAME STABILITY
- ALTERNATE UPPER WALL BRACING FOR ADDITIONAL WALL STABILITY
- CONTINUOUS STRUCTURAL LONGITUDINAL WHALER FOR ANCHORING/BRACING STONE WALLS TO BRACED STRUCTURAL FRAME
- REVERSIBLE, TEMPORARY, NON-FROST PROTECTED FOOTINGS/BRACING ANCHORS
- LONGITUDINAL, VERTICAL WIND/STABILITY X-BRACING
- OPTIONAL LONG SPAN METAL TEMPORARY ROOF DECK SYSTEM SPANNING BETWEEN FRAMES

OPTION "A"
SECTIONAL VIEW

1. PRE-ENGINEERED RIGID FRAME BUILDING SYSTEM, DESIGNED FOR LOCAL SNOW AND WIND LOADS, WITH EAVE EXTENSIONS ALL FOUR SIDES

2. LIGHT GAUGE PRE-FINISHED, UNINSULATED, "PINCHED-TO-FIT", METAL ROOF FRAMING AND ROOFING SLOPED FROM EAST TO WEST TO ALLEY

3. SURFACE CONSTRUCTED, NON-FROST PROTECTED TEMPORARY/REINFORCED CONCRETE FOOTINGS

4. SECOND FLOOR LEVEL INTERIM SUPPLEMENTAL BRACING SYSTEM - TBD

5. VERTICAL X-BRACING FOR LONGITUDINAL STABILITY

OPTION "B2"
1. Rebuilt/Restored Stone Masonry Parapet as required
2. Reconditioned Roof Rafter Masonry Bearing Pockets
3. Traditionally Framed Roof Rafter System designed for Current Roof Load
4. Support Columns and Existing Reconditioned Joint Rockets in Historic Locations for New Beam and Column Framing System. (Defections and Piers located in Historic Roof Bearing System)
5. New Procted Reinforced Concrete Column Base Foundations and Piers located

SECTIONAL VIEW

TELLURIDE TRANSFER BUILDING
TELLURIDE, COLORADO

PROPOSED PRESERVATION TREATMENTS
HISTORIC STRUCTURE ASSESSMENT
CHS/SHF PRODUCT 92003-HA-002

ISSUE DATE: 5/29/2004
DRAWN BY: FBS
CHECKED BY: RSB
OWNER: ZOLINE TELLURIDE PROPERTIES III, LLC

A+E DESIGN ASSOCIATES, P.C.
325 SOUTH COLLEGE AVENUE
FORT COLLINS, COLORADO 80524
PHONE 970-494-4050  FAX 970-494-4077
PRODUCT SPONSOR: TOWN OF TELLURIDE
CONTACT: PLANNING AND BUILDING DIRECTOR
PHONE 970-728-3071