Project Description & Work Plan at 139 Nevada Street in Central City, CO: *Rehabilitation of The Belvidere Theatre*

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1. INTRODUCTION: BACKGROUND, PROBLEM & SOLUTION

Background

Central City, founded in 1859, is located approximately 35 miles west of Denver in both Gilpin and Clear Creek Counties and is the county seat of Gilpin County. There is an estimated population of 750, with a direct connection to I-70 via the Central City (Casino) Parkway exit 243. Total annual visitor traffic is estimated at over 700,000 vehicles primarily drawn to visit its six casinos, National Historic Landmark District, other local businesses or other area attractions. Central City, along with neighboring Black Hawk, is included within a nationally designated Historic Landmark District (1961). [ATTACHMENT 1 – Historic District Map]

The Belvidere Theatre, built primarily in 1874, is a contributing building in the district. As such, work on the building must comply with the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings. The building was constructed in three phases: from the original Shoo Fly Saloon at the south end in the 1860s, to the main Theatre in the mid-1870s, and completed in the late 20th century with the addition of a walled back stage and pit. [ATTACHMENT 2 – Belvidere Historical Photo]

Addressed 139 Nevada Street, Central City, Colorado (at the Junction of Nevada Street and Main Street), the building is comprised of two stories, with a mezzanine, reaching 30 feet in height and totaling about 10,333 square feet. Exterior walls are constructed mainly of masonry with wood floor structures and wood/steel roof structures. The Theatre is located next to Central City Hall and among business buildings in the downtown district. [ATTACHMENT 3 – Site Plan from HSA] The site includes a small courtyard between City Hall and the Theatre that was recently renovated with grant funding, to become the city's only downtown park. [ATTACHMENT 4 – Belvidere Pocket Park Before and After]

Problem

With its original use as a theater having been eclipsed by the 1878 construction of the grander Central City Opera House nearby, The Belvidere changed hands many times and underwent several use changes. Over the years, it has been adapted to become a retail space, an Armory Hall for the Colorado National Guard, a firehouse, home to a bottling works company, a car dealership, and even a movie set (The Duchess and the Dirt Water Fox, 20th Century Fox, 1976).

Regardless of its use, the building was always a central feature to the downtown landscape. Eventually, though, the stream of creative uses for The Belvidere ran dry as the building began to age and become burdensome to business owners. Its story took a turn for the worse when a project to convert the building into a casino in the 1990s fell through, leaving the Belvidere all but abandoned to the elements. [ATTACHMENT 5 – Belvidere Today]

The building suffers from extreme deterioration due to years spent vacant and from water infiltration. Central City acquired The Belvidere in 2016, the same year that the building was recognized as one of Colorado Preservation, Inc.'s Most Endangered Places. Also in 2016, a Historic Structural Assessment (HSA) and Preservation Plan was conducted, with completion in October that year. This document provided condition information on all systems and structural components of the Theatre, and it laid out a path forward for Central City by prioritizing repairs by need and contribution to the long-term preservation of the building. [ATTACHMENT 6 – Belvidere Theatre HSA]

Solution

Though no small feat, The Belvidere Theatre rehabilitation project is of critical importance to Central City, not only as a National Landmark Historic District, but also as part of the City's larger effort to diversify the local economy beyond gaming, on which it is reliant for fiscal vitality.

Central City is committed to rehabilitating the full theatre within three-years (in time for its 150th anniversary in 2025) and returning it to its rightful use as a public gathering space with vibrant businesses that contribute to the local economy, using a two-phase approach.

Phase 1 will focus on the oldest section, the Shoofly, as well as the façade of both sections. The Shoofly will be restored to a restaurant use, including an outdoor dining space. A kitchen, space for a business tenant, a green room and dressing rooms will also be added. All mechanical, electrical and plumbing for this section of the building will be updated and/or installed. Finally, the façade will be repaired with substantial masonry and cornice rehabilitation.

Phase 2 *[For informational purposes only; Not within the scope of this grant or work plan]* will finalize the project, tackling the larger Belvidere Theatre section of the building. The lobby and ground floor will house Central City's tourism Welcome Center and an additional business tenant, while the second floor will consist primarily of the stage and assembly area. The stage will serve as an event space available to organizations, businesses, and individuals to suit a variety of substantial needs within this rural community. Finally, the mezzanine level will have room for one more business tenant, as well as more audience space for the productions/events below.

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2. WORK COMPLETED TO DATE

1. Historic Structure Assessment (HSA) and Preservation Plan
    - by Hord Coplan Macht and JVA Structural Engineers – October 2016 [ATTACHMENT 6 – Belvidere Theatre HSA]

2. Stabilization of East elevation
    - by Restruction Corporation, based on HSA findings and recommendations– October 2016 [ATTACHMENT 7 – Façade Repair Inspection Report by JVA and Restruction Invoice]

3. Exterior Paint Analysis Report
    - by Built Environment Evolution – August 2017 [ATTACHMENT 8 – Paint Analysis Report]

4. Architectural Drawings by Form + Works
    - September 2018, updated October 2019 [ATTACHMENT 9 - Construction Documents] [ATTACHMENT 10 – Construction Specifications Volume 1] [ATTACHMENT 11 – Construction Specifications Volume 2]

5. Emergency Roof Repair
    - by Restruction Corporation – November 2018 [ATTACHMENT 12 - City Council Staff Report Shoofly Roof Repair] [ATTACHMENT 13 – Request for Bids for Shoofly Roof Repair] [ATTACHMENT 14 - Invoice for Shoofly Roof Repair]

6. Public Meeting/Design Charrette
    - March 2019 [ATTACHMENT 15 – Public Charrette Presentation] [ATTACHMENT 16 - Public Charrette Feedback and Comments]

7. Mortar Analysis Report
    - by Barlow Cultural Resource Consulting, LLC – March 2019 [ATTACHMENT 17 - Mortar Analysis Report]

8. Business Plan and Proforma Analysis for the Belvidere Theatre Redevelopment Report
    - by ArLand Land Use Economics, LLC – November 2019 [ATTACHMENT 18 - Business Pro Forma]

9. Onset of COVID-19 Pandemic
    - Project largely paused due to impacts of COVID-19 pandemic and budget freeze – 2020 [ATTACHMENT 19 – DOLA Grant Extension Request Letter December 2020]

10. RFP Released
    - for original Phase 2 as identified in HSA. All bids received were over budget and the RFP was cancelled - July 2021 [ATTACHMENT 20 – RFP-CD-2021-05 Belvidere Theater]

11. Belvidere Pocket Park
    - Cleanup of the courtyard at the south side of the Belvidere site and transformation into the Belvidere Pocket Park, becoming the first park in downtown Central City – August 2021 [ATTACHMENT 21 – HSA Pocket Park Excerpt with Figures 22 – 25] [ATTACHMENT 22 – Belvidere Pocket Park Site Plan] [ATTACHMENT 23 – Belvidere Pocket Park Grand Opening Aug 2021]

12. Services Agreement Executed
    - with Form + Works for architectural services, bidding assistance, and subcontractor management – December 2021 [ATTACHMENT 24 – 2021 Services Agreement with Form + Works]

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3. UPCOMING/RELEVANT WORK: PHASE 1 – SHOOFLY SECTION REHABILITATION AND COMPLETE FAÇADE REPAIR

- Currently drafting RFP for Phase 1 subcontractors – to be released by 12/31/21

Architectural Features – Description, Condition & Work to be Completed

1) Associated Landscape Features – Sidewalks & Retaining Walls (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - To the east, the site is bordered by Nevada Street, just off of Main Street [HSA, Re: Figure 14 and Figure 15]. Along Nevada Street there is a concrete curb. Between the curb and the east elevation of the building there is a sidewalk paved with red brick pavers [HSA, Re: Figure 16]. There is a section of stone pavers at the main entrance to the building. The red brick pavers end just north of the joint between the two sections of the building. To the south of the pavers the sidewalk is paved with asphalt [HSA, Re: Figure 17]. At the southeast corner of the building, a strip of asphalt pavement continues along the masonry retaining wall. To the east of the strip of asphalt, the sidewalk is paved with concrete. Along the street, there is a section of red colored concrete. At the stair access the courtyard to the south of the building, the entire width of the sidewalk is concrete. Along the street there are lamp posts and street signs. There is an electrical utility access panel in the sidewalk along the east side of the building.
  - To the west, the site is bordered by Pine Street. Between the street and the theatre building is a concrete sidewalk [HSA, Re: Figure 19]. To the north and south of the building there is a concrete retaining wall with a metal railing along the east side of the sidewalk. The west end of the fly space is immediately adjacent to the concrete sidewalk.
- **Current Condition from HSA**
  - The site to the east of the building is in fair to poor condition. The concrete pavement along the curb is in poor condition with several areas of cracking and spalling [HSA, Re: Figure 17]. Where the asphalt and concrete meet, the joints are separating. The joint between the pavement and the building is open in several sections along this elevation.
  - To the west, the site is in fair condition. Along this elevation, water does not drain away from the building due to a lack of gutter and downspout. In addition, snow was observed drifted and piled next to the exterior wall of the building. The joint between the building and the pavement is open in sections.
- **Work to be Completed per Construction Drawings**
  - All building to pavement joints along the east and west elevations will be sealed, with all sidewalks replaced according to local requirements [Construction Drawings: G-005]
  - The entire site will be regraded to direct water flow away from the building and prevent erosion. [Construction Drawings: C1.0, CD1.0]
  - Compromised dry stack stone walls will be dismantled, with materials retained for rebuilding. Stones will be shifted and replaced as needed, keeping as much original material as possible. All retaining walls will be reinforced. [Construction Drawings: S-106E, G-005, C0.2]

2) Building Structural System - Framing (Shoo Fly & Belvidere)

- **Current Description from HSA**

- The lateral force resisting system of the Belvidere Theatre consists of the wood floor and roof diaphragms tying into the brick and stone masonry walls. The masonry walls function as both the gravity support system and lateral system for the structures.
- Based on visual inspection of the wood members found throughout the Belvidere Theatre, the characteristics of the wood indicate that the wood is of the Pine family. Therefore, the Spruce-pine fir species combination was used for analysis. The members are generally free of defects such as knots and slope of grain so the Select Structural grade was used for analysis.
- The Code required live load for public spaces, such as a theater or bar as found in the Belvidere Theatre, is 100 pounds per square foot (psf). Since it is understood that this building would continue to be used for public functions, all members were analyzed using a live load of 100 psf. The Code and jurisdiction required snow load for the Belvidere Theatre is 75 psf, while the 3-second gust required wind load is 130 miles per hour.

- **Current Condition from HSA**
  - The structural systems of the Belvidere Theatre are generally in poor condition. Although what remains of the structure is generally adequately proportioned and assembled to meet historic and proposed uses, deferred maintenance and the lack of heating in the building has caused many of the elements to fall into disrepair. A number of condition problems exist due to moisture infiltration either through the ground as rising damp or openings in the roof.
  - The existing lateral force resisting system of the Shoo Fly and Theatre consists primarily of are unreinforced masonry [URM] shear walls. URM walls lack ductility and will brittlely fracture when overloaded and generally perform poorly during out-of-plane seismic loading. A full structural analysis of the three buildings' lateral force resisting systems is beyond the scope of this report. This type of analysis will require material studies of various material properties for this analysis. However, the findings of such an analysis will likely conclude that the demand to capacity ratios for several of the URM walls will be met or exceeded under design seismic demands and possibly under design wind loads in their current deteriorated state. Several large openings were introduced into the original masonry walls and these also reduce the lateral load capacity of the three conjoined buildings.
  - Therefore, the need to introduce some new structural elements such as shear walls or moment frames that will strengthen the deteriorated and modified URM walls should be anticipated in the building rehabilitation. This intervention would be in addition to repairing the existing cracks and deteriorated mortar joints.

- **Work to be Completed per Construction Drawings**
  - Selected demolition of existing obsolete structural elements will occur, with careful care to maintain as much original material as possible and to not cause any unnecessary damage during the demolition process.
  - The design loads will be updated to the 2015 International Building Code standards, with:
    1. Ultimate Wind Design Speed of 3-second gust, 155 MPH
    2. Updated seismic spectral response acceleration parameters, seismic design category B
  - The structure will be supported with reinforced concrete, adhering to ACI 318 "Building Code Requirements for Structural Concrete and ACI 301 "Standard Specifications for Structural Concrete."

1. Steel reinforcement will be added as needed with careful consideration to protecting historical elements, including loose lintels
2. Slabs, walls, joists, beams, and columns will be protected from weather exposure and ground contact

- Cast-in-place and post-installed anchors will be utilized for additional support of both concrete and masonry structural elements.

- New wood sheathing and structural wood framing will be installed according to current building code requirements, including [but not limited to] the following considerations:
    1. Use of Hem and Douglas Fir with maximum 19% moisture content at the time of installation
    2. Any wood exposed to weather, concrete, or masonry shall be pressure treated according to current standards
    3. Columns/multiple studs in bearing walls supporting all beams and headers shall occur continuously through each floor level down to the foundation or another support beam

- Structural masonry will be reinforced, repaired, infilled, and replaced as needed. Extreme care will be taken to preserve historic masonry, and new materials will conform to the originals. Mortar, grout, sealants, and other adhesives will adhere to preservation/rehabilitation best practices and the recommendations detailed in the mortar analysis report.

- The existing interior staircases are to be preserved while adding structural support to meet modern code requirements. New stairs will conform to the period of significance, aesthetically, while being constructed safely according to modern standards. [Construction Drawings: G-003, A-900-902, S-000. S-101D, S0101E, S-101N-A, S-101N-B, S-102E, S-102D, S-102N-A, S-102N-B, S-104N-A, S-104N-B]

3) Building Structural System - Foundation (Shoo Fly & Belvidere)

- **Current Description from HSA**

    - Shoo Fly:

        1. The perimeter foundations for the load bearing stone masonry walls of the Shoo Fly portion of the building are not exposed [HSA, Re: Figure 29]. They are presumed to be a below-grade continuation of the stone ashlar walls as a stem wall. The stem foundation wall may bear upon a wider rubble stone footing or they may bear directly upon the sloped stone ledge [bedrock] present at the site. The stone ledge is visible in the pit area below the stage floor framing [HSA, Re: Figure 30].

        2. There is a 2-inch-thick wood board or nailer located in the walls approximately 2 stone courses above grade [HSA, Re: Figure 31]. For the purpose of this report discussion, we have defined the foundation wall as the portion of the wall below the wooden plate. The portions of the wall above the plate are designated as walls for discussion and are discussed in the exterior wall section of the report.

        3. The embedded wood plate at the top of the foundation wall is decaying and compressing under the weight of the stone. The compression is greater along the north face of the wall than the south face and results in the northward lean observed

in the wall above. The vertical cracking visible in the wall above appears to be the result of the wall lean and not differential settlement of the perimeter foundation wall.

4. New wood posts introduced into the Shoo Fly first floor during the abandoned casino renovation have concrete spread footings that bear upon the exposed earth floor [HSA, Re: Figure 32]. These modern footings are presumed to have a minimum amount of steel reinforcing bars present, but this should be verified if these footings are to be retained in the rehabilitation. The height of the new concrete footings appears to generally match the beam pockets in the stone walls for the now removed elevated wood first floor.

- Theatre

1. The perimeter foundations for the load bearing brick walls of the Theatre were not exposed for inspection. They are likely a below grade continuation of the brick walls as brick stem walls supported by a stone rubble footings. It is also possible that the walls bear directly upon the sloping bedrock that underlies the building.

- Stage and Pit

1. The stage perimeter cast-in-place [CIP] reinforced concrete walls presumably are cast directly upon the sloping rock face located at the rear of the building site. The bearing condition of this wall was not readily accessible during the observation visits, but there were no visible signs of settlement of these walls that would indicate they are founded improperly.

2. The perimeter concrete masonry unit [CMU] and CIP concrete walls of the pit area bear upon a short rubble stone wall that is founded on the exposed sloping stone ledge. The interior wood framing for the stage floor has posts and beams that bear on the sloping stone wall with a variety of bearing conditions [HSA, Re: Figure 33].

- Kitchen

1. The foundation of the removed kitchen addition appears to have been stone similar to the Shoo Fly construction. There may be remnants of this stone foundation wall located below grade around the perimeter of the no longer extant addition. [Construction Drawings: S-100E]

- **Current Condition from HSA**

- Shoo Fly

1. The below grade foundation stone and mortar were concealed. However, the above grade masonry at exposed interior faces near grade exhibit erosion of the mortar joints to a depth of approximately 3 to 4 inches. It is likely that this is primarily the result of rising damp. The deterioration may have been exacerbated by moisture from roof leaks that were observed during the field work for this report. Since the building is unheated, the masonry assemblies are also subjected to freeze-thaw cycles. It is likely that portions of the walls below grade also have deteriorating mortar joints.

2. The decaying wood board at the top of the foundation portion of the masonry wall is decaying and crushing resulting in the leaning walls above. The condition of the walls is discussed further in the exterior wall construction section below.

- Theatre

1. The brick in the below grade portion of the masonry bearing walls is concealed, however the above grade masonry is in fair condition with localized areas in poor condition. The brick units are generally intact but some units have spalled. It is likely that this deterioration is the result of rising damp, but it may have been exacerbated by moisture from roof leaks wetting the wall base [HSA, Re: Figure 34 & Figure 35]. It is likely that portions of the walls below grade also have deteriorating mortar joints and localized pockets of eroding brick.

- Stage and Pit

1. The stone rubble walls are in good condition at this location and are performing well resisting gravity loads [HSA, Re: Figure 36]. These walls appear to have been subjected to less weathering than other areas of the building and it is also newer.

2. The concrete stage walls likely bear directly upon the bedrock present at the rear of the site. We are not aware of a full geotechnical study for this site; however, the stone ledge likely has adequate capacity to support the concrete stage walls above. No signs of settlement or distress were noted in the concrete stage walls indicating that they are properly formed on the native stone.

- Kitchen

1. The presence and or condition of the abandoned kitchen foundations is unknown as they were not accessible during the observation visits.

- **Work to be Completed per Construction Drawings** [Construction Drawings: S-100D, S-100N-A, S-100N-B]

- The overall process will follow these steps:
    1. Selective Demolition
    2. Repair of existing walls
    3. Shotcrete walls
    4. Shore existing masonry and new shotcrete walls
    5. Dig sump pit

- Shoo Fly
    1. Demo
        a. No existing slab - Remove pavers and debris
        b. Level
    2. Install new slab foundation
    3. Underpin and shore up existing walls

- Theatre
    1. Demo
        a. Remove existing temporary partition walls and stud wall [requires installation of new floor ties at mezzanine first]
        b. Remove existing slab remnants

        c. Shore floor above brick wall and remove [interior wall near north side of building]
    2. Install new slab foundation
    3. Underpin and shore up existing walls

- Stage and Pit
    1. Demo
        a. Where no existing slab, remove debris
        b. Where existing slab, make flush at threshold with theatre
        c. Level
    2. Install new slab foundation
    3. Underpin and shore up existing walls

- Kitchen
    1. Demo
        a. Remove rubble brick wall remnants and debris
        b. Level
    2. Install new slab foundation
    3. Underpin and build news walls

4) Building Structural System - Floor and Ceiling (Shoo Fly & Belvidere)

- **Current Description from HSA**

    - Shoo Fly

        1. The framing of the lower-level floors varies throughout the building complex. In the Shoo Fly portion of the building, the floor is framed with 2-inch joists spaced at 16 inches on center and which range in depth between 11 ½ inches and 12 inches. Some of the joists have been sistered with laminated veneer lumber [HSA, Re: Figure 38]. This work most likely occurred during the late 20th century during the abandoned casino renovations. The joists bear on a ledge atop the stone masonry walls of the building where they transition to brick masonry. Two rows of x-bridging brace the joists at the third points of the span. The joists are sheathed with two layers of 1 inch thick tongue and groove boards laid parallel to each other [HSA, Re: Figure 39]. Due to the markings on the bottom of the original joists, it appears that that a plaster and lath ceiling was directly attached to the bottom face of the floor joists.

        2. The only ceiling joists accessible at the time of the observation visit were those that once supported the ceiling in the bar of the Shoo Fly. Here 2x12 ceiling joists span between the brick masonry walls into which they are pocketed. Where an opening was cut into the original brick masonry wall between the Shoo Fly and the Theatre, a concrete frame supports the joists on a steel angle ledger with blocking between the joists [HSA, Re: Figure 28 & Figure 40]. Two rows of 2x2 x-bridging laterally brace the ceilings joists at the third points of the span.

    - Theatre

        1. In the Theatre, the main level 2x10 joists span in the east-west direction between the exterior walls and interior brick demising walls where the members lap. At the mid-span, some of the joists are supported by 8x8 solid sawn wood girders that run

perpendicular to the joists between a series of trussed wooden beams [HSA, Re: Figure 41]. These trussed beams consist of four 2x10 members ganged together with wood struts supported by a metal tension tie rod 7/8 inch in diameter [HSA, Re: Figure 42]. The trussed beams span between the exterior and demising walls of Room 02 and Room 03. Due to the skewed axis of the building, the plied beams are offset from one another in plan between Room 02 and Room 03. Like in the Shoo Fly, two rows of x-bridging brace the joists at the third points of the span. Along the wall that separates the Entry from Room 03, portions of the brick wall that support the plied beams have been replaced with laminated veneer lumber beams supported by built up lumber posts. The wall openings allow for a new stair assembly added in the late 20th century to reach the upper level. As part of the recent incomplete casino renovation, an additional wood framed bearing line was added just a foot north of the north wall of the Shoo Fly to transfer the load of the main level of the theatre to the ground [HSA, Re: Figure 43]. Additionally, other non-structural elements such as furring walls appear to have been added during the casino renovation which was never completed. Based on the markings left behind, it seems that a plaster and lath ceiling was once directly attached to the bottom of the floor joists.

2. In the Theatre, the mezzanine is built of 2x8 joists supported by six-ply 2x10 beams [HSA, Re: Figure 44]. The plied beams extend out from the north wall and at the southern end they are hung from 1 ¾ inch diameter steel rods attached to the roof trusses above [HSA, Re: Figure 45]. The rods are encased in built up column wraps.

- Stage and Pit

1. The stage is generally framed as designed in the 1999 Stage Framing Plan and is approximately 3 ½ feet above the main floor elevation of the Theatre. Pre-engineered wood I-joists span in the east-west direction between an LVL ledger attached to the west wall of the Stage building to a series of 8-inch concrete curbs. In the middle third of the wall between the Stage building and the Theatre, the I-joists extend roughly 12 feet into the Theatre and are supported by two bearing lines. At the opening in the stone masonry wall, a triple-ply 14 inch laminated veneer lumber beam spans over the opening and supports the joists [HSA, Re: Figure 46]. Six feet out from the west masonry wall of the Theatre, another bearing line is provided by a mixture of a 2x6 stud wall and a triple ply 14-inch laminated veneer lumber beam.

- **Current Condition from HSA**

  - The floor framing is generally in fair condition. There are however some isolated areas of framing in poor condition requiring repair. The most widespread issue throughout the Belvidere Theatre is the joist ends decaying in the masonry pockets [HSA, Re: Figure 47]. This form of deterioration is common because the masonry pockets trap moisture against the wood members which increase the propensity of wood decay and deterioration.

  - Throughout the building, the joists are adequately sized to carry the Code required live load for public spaces of 100 pounds per square foot [psf]. Alternatively, the 8x8 girders and quadruple 2x10beams in Room 02 and Room 03 are undersized according to preliminary calculations, but the redundancy of the floor framing in this area and the fact that no distress was observable does not indicate that any major work need be done to this floor framing. If the space is used for public assembly, it may be prudent to limit the amount of people allowed on the floor at one time.

- During the installation of the staircase in the late 20th century, the ends of a plied girder were cut off and so was the tension rod running through the assembly [HSA, Re: Figure 48]. The tension rod is no longer able to act as intended.
- At the northwest corner of the Bar in the Shoo Fly, the ceiling joists are slipping off of the steel angle ledger [HSA, Re: Figure 40]. This is a result of the north wall of the Shoo Fly leaning towards the north.

- **Work to be Completed per Construction Drawings**
  - Selective demolition will take place, taking care not to compromise the structural or historic integrity of the existing systems that currently still function.
    1. Select existing joists will be removed in parts of the Belvidere main level
    2. Existing diaphragm ties will be removed in the entry/lobby area of the Belvidere mezzanine level
    3. Stage floor framing and support walls will be removed from the Belvidere mezzanine level
  - In most places within both the Belvidere and the Shoo Fly, sister joists will be installed, adjoining to existing joists
  - Walls will be pinned and shotcrete
  - A new mechanical vault will be built into the Shoo Fly framing to support an elevator
  - A new slab support will be laid and supporting walls built for the stage in the Belvidere mezzanine level [Construction Drawings: S-100E, S-101D, S-101N-A, S-101N-B, S-102E, S-102-D, S-102N-A, S-102N-B]

5) Building Structural System - Roof (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Theatre In the Theatre building, there are two roof framing systems: an original flat roof and a higher trussed roof. The original flat roof is framed with 2 inch by 10 inch roof rafters spaced at 16 inches on center. These members span in the north-south direction. Due to lack of access [prevented by ceiling and roof finishes], it is not known for certain how the roof rafters are supported currently. But it appears that a series of 7/8 inch in diameter rods extend downwards from the newer trusses above to support this original framing [HSA, Re: Figure 50]. This configuration indicates that there may have been interior brick walls that formerly to extended to the roof level to support the rafters. These walls may have been installed sometime during the building's use as an armory or a fire station and may have been removed when the upper level was converted back to a theatre. The rafters are sheathed on top with ¾ inch horizontal skip sheathing covered with a metal flat seamed roofing material. On the bottom, the ceiling is sheathed with gypsum board.
  - Roughly a decade after the rebuilding of the Theatre building, a series of stained 6-foot-tall wood timber trusses were added, spanning from the north to the south wall. The timber trusses are spaced at 8 to 13 feet on center. Their orientation follows the irregular shape and roofline of the building. These trusses are composed of plied lumber members, larger sawn timbers, and 1 inch in diameter rods bolted together [HSA, Re: Figure 51]. Each truss has a unique top chord configuration due to the roofline geometry. At the walls, the trusses are

supported on 6 inch by 11 ½ inch timber columns that extend to the lower level of the building. These columns are flush up against the walls and the bottom chords of the trusses extend past the columns to partially bear on the brick masonry walls. The trusses are supported laterally against each other by several wood bracing members. A series of diagonal struts spanning from the top of the trusses to the bottom chord of the next truss to the west brace the trusses against one another. Additionally, a 3 ½ inch by 5 ½ inch wood member spans between the centers of the bottom chords of the trusses that are attached with thru bolts through the bottom chords. Also, 6 inch by 8 inch wood beams span between the trusses at both ends of the top chord [HSA, Re: Figure 52]. Both the original flat roof of the Theatre and the Mezzanine level are hung from the bottom chord of these trusses [HSA, Re: Figure 45 & Figure 50]. Between the easternmost two trusses, a ¾ inch diameter rod extends between the top chords of the trusses [HSA, Re: Figure 53]. 2x8 rafters span between the trusses in the east-west direction and support a corrugated metal roof.

- The easternmost 13 feet of the Theatre is framed with a shed roof that rests on the easternmost truss of the roof. 2x8 rafters span in the east-west direction between the top of the front façade parapet to a ledger attached to the truss. A cripple wall runs in the north-south direction roughly 6 feet from the parapet wall supporting the rafters. Horizontal skip board sheathing, plywood and corrugated metal roofing sheathe the rafters [HSA, Re: Figure 54].

- Stage and Pit in the Stage addition, the roof is framed with metal joists supported by dropped metal girders spaced at roughly 8 feet on center.

- **Current Condition from HSA**

  - The roof framing of the Shoo Fly and the Theatre are in poor condition, while the roof framing of the Stage addition is in good condition. In the Shoo Fly, there are many gaps and holes in the roofing membrane allowing water to enter the building [HSA, Re: Figure 49]. The amount of water allowed to enter the building provides an environment conducive to wood decay and deterioration. There are many water stains on the roof framing members and ceiling joists, in addition to the floor framing of the level below. This water damage will continue to worsen if the holes are not closed up.

  - The original roof framing of the Theatre is in good condition, but the roof trusses above are in poor condition. The top chord of the second truss from the east has rotated to the east. In this same truss, the bottom chord has broken where the inner members of the chord began to rot and one of the diagonal struts has fallen out of place [HSA, Re: Figure 55]. At the southern bearing point of the third truss from the east, the brick bearing has been removed [HSA, Re: Figure 56].

  - At the stage, there are no overt signs of distress at this time, but these observations were made from the stage floor about two stories below the roof. Additional site visits to observe the conditions up close should be completed during the design phase of the rehabilitation.

  - *Even after emergency roof repair work was completed, there are significant structural problems that limit the efficacy of the new roof. These will need to be addressed in the structural repair.*

- **Work to be Completed per Construction Drawings**

  - Selective demolition will be limited to removing the overframing on the Belvidere side near the lobby/entrance, using existing trusses and girders as much as possible.

- Additional wooden truss braces and girder beams will be added to supplement existing structure.
- New framework will be installed in the new theatre grid, kitchen, and additions.
- Existing points of connection between the roof and walls will be shored up, particularly at the building corners. [Construction Drawings: S-103E, S-103D, S-103N-A, S-103N-B, S-104E, S-104-D, S-104N-A, S-104N-B, S-600, S-601]

6) Roof – Exterior (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Pitched Roofs
    1. The roof above the theatre is a low-pitched gambrel roof [HSA, Re: Figure 93]. The roof is currently covered with grey three-tab asphalt shingles. According to Central City records, the north side of the upper roof was replaced in 2006 [and repaired in 2019] At this time, new sheathing was also installed.
    2. Corrugated metal roofing is visible from the inside of the attic space [HSA, Re: Figure 94 and Figure 95]. This roofing is extant below the exterior asphalt shingles. Given the presence of ASTM numbers and trademark information on the roofing material, it was likely installed circa 1950.
  - Flat Roofs
    1. Originally, the theatre was covered with a flat roof. This roof is visible in historic photographs. In the attic space, the original roof surface with sheet roofing material is extant [HSA, Re: Figure 96]. The roofing material is flat seam metal roofing, possible terne metal. This type of roofing is also sometimes known as tin roofing. The current roof was constructed atop the original flat roof.
    2. The roof on the Shoo Fly section of the building is a low-slope roof which drains to the west [HSA, Re: Figure 99 and Figure 100]. Where roofing material is extant, it is brown asphalt roll roofing atop OSB sheathing. A new layer of asphalt roofing was installed in 2019 as part of the emergency roof repair project.
    3. The lower flat roof to the south of the fly space is covered with an EPDM roof [HSA, Re: Figure 101].
    4. The roof of the fly space at the west end of the building is covered with brown asphalt roll roofing material [HSA, Re: Figure 102]. A new layer of asphalt roofing was installed in 2019 as part of the emergency roof repair project. The roof slopes to the west and drains off the roof edge down the face of the building as there is no gutter along the roof edge. Toward the east end of the roof there is a projection.
- **Current Condition from HSA**
  - The roof on the theatre is in fair condition. The asphalt shingles on the north slope were installed approximately 10 years ago and are still performing their intended function. However, the asphalt shingles are not historically appropriate. When the shingles were installed, appropriate flashing was not installed at end walls or along drip edges.

- The roof at the east section of the theatre was in such poor condition that an emergency roof repair was ordered in 2091. The new layer of asphalt roll roofing has been a temporary fix to the following problems prior to the full rehabilitation:
    1. Sections of asphalt roll roofing were missing, leaving OSB sheathing exposed [HSA, Re: Figure 103 and Figure 104]. Where exposed, the OSB was weathered and deteriorating. Where the asphalt roll roofing is present, granule loss was evident across the surface. In addition, the roofing is wavy as it is delaminating from the OSB sheathing.
        a. Even after the emergency repair, the roofing continues to be wavy in sections and pools water after rain or snowfall.

- The roof on the Shoo Fly section of the building was in extremely poor condition prior to the emergency roof repair in 2019 [HSA, Re: Figure 99]. Sections of asphalt roll roofing were missing, leaving OSB exposed. The remaining asphalt roll roofing material was in poor condition with sections peeling up and delaminating from the sheathing. From the interior of the building, daylight was visible at the perimeter of the roof [HSA, Re: Figure 105]. In addition, the joint between the roof and the south wall of the theatre was not sealed, which allowed water into the building for a number of years. This water infiltration extends to both the upper and lower level of the Shoo Fly section of the building and leads to water damage, decay, growth of mold and moss, and formation of ice during cold weather [HSA, Re: Figure 106].
    a. Even after the emergency repair, the roofing continues to be wavy in sections and pools water after rain or snowfall.

- **Work to be Completed per Construction Drawings**

- Where original corrugated metal is extant, the layers of newer roofing will be removed and the metal roofing will be restored and/or covered with matching corrugated metal sheets.

- Where needed, new corrugated roofing that matches the original will be installed.

- New ice and water shields, roof drains, downspouts, and gutters will be installed where needed to prevent water from pooling, leaking or draining improperly away from the building, per current code requirements.

- New plywood sheathing and insulation will be installed.

- The roof lifespan will be elongated by the installation of ethylene propylene diene terpolymer [EDPM] membrane. [Construction Drawings: AD-105, AD-106, A-105, A-106, A-107, A-108]

7) Sheet Metal Roof Flashing – Exterior (Shoo Fly & Belvidere)

- **Current Description from HSA**

- At the east end of the theatre, the pitched roof at the east end of the building projects above the main roof. At either end, the back side of the east roof is covered with sheet metal panels. The upper section of the north elevation is covered with sheet metal panels which are interrupted by truss ends which extend through the sheet metal panels. Along the north and south elevations, sheet metal flashing is visible along the roof edges. At the attic access opening at the west end of the theatre space, edge flashing is visible below asphalt roll roofing material [HSA, Re: Figure 107].

- Remnants of flashing material are visible along the north edge of the roof on the Shoo Fly section of the building where the roof of the Shoo Fly meets the south wall of the theatre section of the building.
- The roof of the fly space has sheet metal flashing at the parapet caps. The parapet walls at the Shoo Fly section of the building and the lower roof to the south of the fly space do not have parapet cap flashing.

- **Current Condition from HSA**
  - The sheet metal flashing visible on the theatre section of the building is in fair condition. The flashing has sections of deformed material.
  - The remnants of flashing material visible along the north edge of the Shoo Fly roof are in poor condition. This material has detached from the south wall of the theatre section of the building and there is no water-tight seal along this joint.

- **Work to be Completed per Construction Drawings**
  - New pre-finished edge flashing will be applied throughout. The flashing will match the new corrugated metal roofing. All edges will be thoroughly sealed and water-proofed. The EDPM membrane will be extended down the wall, and the flashing will lay between the roofing membrane and gutter. Further, the ice and water shield will be applied directly to the metal roofing, layered up and over the flashing.
  - The parapets and additional roof architectural details will be repaired and then topped with new sheet metal parapet caps; new caps will be installed where those were previously missing. [Construction Drawings: A-105, A-106, A-107, A-108, A-900]

8) Drainage System, Gutters, Downspouts (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Along the north and south edges of the theatre roof there are K-style sheet metal gutters [HSA, Re: Figure 108]. These gutters are approximately 6 inches wide and 6 inches deep. At the northeast corner of the theatre there is a downspout which is piped below grade. The pipe daylights at the curb adjacent to the parking spaces to the northeast of the building.
  - There is a gutter along the east edge of the lower roof to the south of the fly space. This gutter projects past the south wall of this section of the building and discharges directly into the courtyard.
  - The roof of the fly space drains to the west. Along the west edge of the roof there is no gutter.

- **Current Condition from HSA**
  - The gutters along the north and south edges of the theatre roof are in poor condition. The gutters are bent and deformed [HSA, Re: Figure 109]. The downspout at the northeast corner of the building is in poor condition. The paint and brick behind the downspout are deteriorated, indicating that the downspout is leaking. In addition, water is ponding next to the downspout discharge where the downspout is piped underground [HSA, Re: Figure 110].

- The gutter and downspout on the roof of the building to the south of the fly space are in fair to poor condition. Both have areas of deformation and finish failure. The downspout discharges on grade in the courtyard next to the building, which may contribute to foundation and drainage issues.
- The roof of the fly space does not have a gutter to prevent drainage down the face of the west elevation of the building. As a result there is water staining at the northwest corner of the building and in the middle of the west elevation, where the roof drainage collects and runs down the face of the masonry [HSA, Re: Figure 111 and Figure 112].

- **Work to be Completed per Construction Drawings**
  - Existing gutters and downspouts will be selectively demolished, as they are ineffective.
  - New pre-finished sheet metal gutters and downspouts will be installed throughout, at an adequate angle to ensure water drains properly away from the building. [Construction Drawings: AD-105, AD-106, AD-300, AD-301, A-105, A-106, A-107, A-108]

9) Exterior Walls – Construction (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Shoo Fly

1. The exterior walls of the original Shoo Fly are a combination of stone ashlar at the lower level with 3-wythe brick at the upper level and parapet. The stone has two coursing patterns. The lower portions of the wall have a rubble ashlar with random coursing while the upper two feet is a more uniform coursing of square cut stone [HSA, Re: Figure 57]. It is possible the upper two feet were reconstructed after the fire burned the interior framing. The upper courses of brick appear to be a soft mud brick, however, much of the brick is covered with paint.
2. The north wall of the Shoo Fly was incorporated into the Theatre during the construction of the adjacent structure and is now an interior wall of the theater space. A rough arched opening was made in the north wall at the lower level providing access between Room 01 and Room 02 [HSA, Re: Figure 58]. The stone ashlar is approximately 18 inches thick at this location. The wall has two leaves of coursed face stone with an interior rubble fill of smaller stones. Larger stones protrude into the inner core tying the faces together [HSA, Re: Figure 59]. However, thru-stones were not observed to tie the entire wall thickness together. Without thru-stones, the tie between the faces of the wall is tenuous at best. The remainder of the first-floor stone walls are likely the same thickness and construction.
3. Portions of the south parapet wall have been removed to the roof line [HSA, Re: Figure 60]. It appears the bricks from the parapet have been salvaged and are stored inside the building at the bay window [HSA, Re: Figure 61]. There are currently two bay windows and a door opening in the south wall. The windows are not original but appear to be enlarged openings at former door locations. The door between the bay windows is not original. The date of installation of the bay windows and the door is unknown. The side brick walls are constructed with common bond and having tie courses of header bricks every seventh course [HSA, Re: Figure 60].

4. The front façade [east elevation] does not have any visible header brick coursing. It is possible that the front façade has concealed diagonal headers [HSA, Re: Figure 62]. It is unlikely that a building from this era would have metal ties between the face wythe and backup brick.

5. The exterior walls of the Shoo Fly are tied in both orthogonal directions with tie rods and S-shaped anchor plates visible on the exterior faces of the building. The tie rods extend across the length and width of the building. These appear to be part of the original construction [HSA, Re: Figure 63]. The S-shaped plates are visible on several other adjacent buildings of a similar vintage in Central City.

6. Remnants of burned wood roof framing from an earlier structure are visible in the north face of the second-floor north wall. The fire does not appear to have compromised the brick at this location. The remaining charred wood elements do not compromise the overall structural capacity of the wall at this location [HSA, Re: Figure 64].

- Theatre

1. The base of the Theatre addition walls and piers are 4-wythes thick. They step down to 3-wythe walls at the lower floor level. The north wall has a running bond pattern with tie courses of header bricks every seven courses. The front [east] façade may have hidden diagonal headers similar to the Shoo Fly construction and is common of façade elevations.

- Stage and Pit

1. The stage walls are modern cast-in-place concrete and concrete masonry unit construction. We are not aware of any available structural drawings detailing the size and spacing of the steel reinforcing bars within the walls.

- **Current Condition from HSA**

- Shoo Fly

1. The component brick and mortar comprising the parapets are in poor condition. Portions of the south parapet have been removed. Presumably this was done to mitigate the potential falling hazard.

2. The component brick, mortar, and stone comprising the Shoo Fly walls below the roof line are in fair condition due to moisture infiltration and wall movement. However, the deteriorating wood plate at the base of these walls is causing the walls to lean to the north [HSA, Re: Figure 65 & Figure 66]. The north, now interior, wall has leaned most appreciably. The other walls are in poor structural condition with numerous flexural cracks in the south and east walls [HSA, Re: Figure 67]. These leaning walls are braced by the wood floor and roof structure. Note that no modifications to the floors and roof should be performed unless the leaning walls are braced. The west wall leans to the east approximately 4 inches.

3. The existing exterior paint coating is trapping moisture in the brick masonry. Moisture can get behind the coating of uncoated faces, and once trapped, result in additional deterioration of the brick units due to freeze-thaw deterioration. This process is exacerbated by the unheated state of the building [HSA, Re: Figure 68]. The current deterioration is not yet a structural concern. However further deterioration

of the masonry at the base of the walls could become a structural concern if it is allowed to continue.

- Theatre

    1. The east wall has numerous cracks between the east wall and perpendicular masonry walls [HSA, Re: Figure 69, Figure 70 & Figure 71]. The east wall is tilting east and the cross walls are no longer resisting the movement as the interfaces are cracked. The wall requires temporary lateral bracing until permanent new connections are installed between the east wall and interior floors and roofs. It was determined in the field that the condition was severe. Therefore, a façade bracing scheme was designed separately and is located in the appendix of this report for reference.

    2. The east wall is coated with paint and the condition of the underlying brick is somewhat concealed. The underlying brick appears to be in fair condition with some eroded mortar joints and some diagonal cracking visible through the coating.

    3. It appears from photos in an earlier report on the building [1996 by A-E Design Associates] that the face brick had some erosion of the brick faces themselves prior to installation of the existing coating. The existing coating is trapping moisture in the brick and resulting in additional degradation of the brick body due to freeze-thaw deterioration. This freeze-thaw process is worsened because the building is unheated. The current state of deterioration is not yet a structural concern, but could become critical if not treated.

- Stage and Pit

    1. The stage concrete and concrete block walls are in good structural condition. However, the size and spacing of the steel reinforcing bars within the CMU and concrete walls are unknown. The modern reinforced concrete construction at the stage could be incorporated into schemes that brace or strengthen the existing un-reinforced masonry construction lateral systems at other portions of the building. [i.e., the stage could function as an anchor/buttress for weaker portions of the structure].

- **Work to be Completed per Construction Drawings**

    - The wall structures will be reinforced through underpinning and steel supports as detailed in the foundation and framing sections.

    - Additionally, the following techniques will be employed to repair and/or rebuild the exterior walls:
        1. Reconstruction of masonry and/or infill of missing masonry
        2. Replacement of eroded components such as spalling face
        3. Plaster infill
        4. Stitching and grouting of cracks
        5. Back damming where needed
        6. Exposing wooden beams and replacing decaying wood
        7. Deep repointing of eroded mortar joints, repointing of masonry, and repointing of plaster where needed [Construction Drawings: G-003, A-602, A-900, A-901, S-501, S-502, S-503, S-504, S-505]

10) Exterior Walls – Finishes & Cornice (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - The east elevation of the theatre section of the building has a wood cornice at the top of the wall [HSA, Re: Figure 72, Figure 73, and Figure 74]. A similar cornice is located lower on the wall above the north-most entrance to the building on the east elevation [HSA, Re: Figure 75]. Both cornices have paired brackets with decorative scrollwork and a boxed-out wood paneled cornice. The cornices are not original to the building. The original cornice is visible in historic photographs. In photos from the 1950s and 1960s there is no cornice visible along the east elevation of the building. In photos dated 1997, the extant cornice is visible. The extant cornice does not match the cornice in the historic photos as there are a different number of brackets and the details at the north and south ends of the cornice are different. The lower cornice, located above the north-most entrance, is not visible in historic photographs. It is believed to have been added when the upper cornice was re-constructed or added.
  - Above the cornice, a section of the east elevation is set back. This section of the elevation serves as the east end wall of the attic space. The exterior of this wall is covered with horizontal wood siding [HSA, Re: Figure 76]. This siding was likely installed when the roof was converted from a flat roof to the pitched roof.
  - The east elevation of the Shoo Fly section of the building has a painted cementitious parge coat at the lower section of the building. This parge coat covers the steps up to the entrances into the Shoo Fly section of the building [HSA, Re: Figure 77]. This parge coat continues along the lower section of the theatre section of the building, concealing the foundation from the exterior. The date of application of the parge coat is unknown.
  - The south elevation of the Shoo Fly has a stone masonry foundation with painted brick masonry above.
  - The fly space at the west end of the building is constructed with exterior concrete walls. Along the upper section of the west elevation of the fly space, there is a painted wood fascia board.
  - The section of the building which would have been located to the west of the kitchen section of the building is constructed of triple wythe red brick masonry walls with buff colored mortar joints. The brick is soft. A parge coat is partially extant at the lower section of the exterior walls.
  - Where the kitchen section of the building was removed, walls which were originally interior walls are covered with painted plaster [HSA, Re: Figure 78].
  - Along the gutter on the north elevation of the theatre there is corrugated metal covering the upper three feet of masonry. Along the south elevation of the theatre, there is vertical wood siding [HSA, Re: Figure 79].
- **Current Condition from HSA**
  - The wood cornice along the east elevation of the theatre building is in poor condition [HSA, Re: Figure 72, Figure 73, and Figure 74]. Paint failure is typical at all cornice components which has resulted in wood weathering and deterioration. Joints between wood components are separating and, in some sections, the wood boards are split. Along the lower edges of the small brackets, material loss is typical. In addition, water is leaking through the cornice along the east elevation of the theatre section of the building. The leaking joint is located between

one piece of flat wood trim and a piece of profiled wood trim mounted on the flat trim. Along the flat trim, drips of roofing tar are visible.

- The wood siding on the upper section of the east elevation is in fair condition. The wood is not painted and has therefore been subject to weathering and UV exposure. The wood is dried out and sun scorched. Sections of the wood siding were not accessible for full evaluation.
- The painted parge coat at the lower section of the east elevation of the Shoo Fly is in poor condition [HSA, Re: Figure 77]. Paint failure is typical along the parge coat. Sections of the coating have delaminated, allowing for masonry deterioration along the base of the building. Where the parge coat is extant, cracking and sections of spalling are typical. The parge coat along the lower section of the theatre section of the building is in fair condition with some areas of cracking and spalling visible. The date of installation of the parge coat is unknown. It may be serving to protect the lower section of brick from further deterioration and can be rehabilitated unless the building is restored to particular time period during which the parge coat was not extant.
- The wood fascia board along the west elevation of the fly space is in poor condition. The paint is failing and the wood is weathering as a result of roof drainage across the fascia board due to a lack of gutter at the roof edge. The joints between fascia boards are separating and the fascia boards are warped and twisted due to wetting and drying of the wood. Along the fascia boards, wood roof framing members are visible.
- The plaster finish on the exposed masonry walls where the kitchen was demolished is in poor condition [HSA, Re: Figure 78]. Sections of plaster are missing, having delaminated entirely from the brick substrate. The remaining plaster has extensive paint failure, plaster cracking, and areas of spalling. This finish was not intended to be an exterior finish. Removal of the kitchen in this area of the building has expedited deterioration of the plaster and subsequently exposed brick.
- The sheet metal along the upper section of the north elevation is in poor condition. The metal is deteriorated and rusting. The joints between sheet metal panels are separating. The east section of sheet metal has been painted; the south section is not painted. The vertical siding on the upper section of the south elevation is in fair condition. The siding has roofing asphalt adhered to it where flashing was originally run up the wall from the adjacent roofs. In addition, paint deterioration is typical along this section of the elevation.

- **Work to be Completed per Construction Drawings**
  - Recreate cornice to match historic details. Refer to photographs and details. Basis of design is to recreate these elements in wood, however, if contractor has proposed alternatives the owner & architect will consider alternative product submittals. [Construction Drawings: AD-321, AD-322]

11) Exterior Masonry (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - The exterior masonry is painted on all elevations of the building. The number of coats of paint and types of paint on the building is unknown. In early photos of the building, it appears to be unpainted. Later photos show that the building was painted as early as 1900. In photos dating from 1968 it is possible that the paint was removed. However, the building may have

just been painted a different, darker color. According to City records, the current exterior paint is a traditional exterior latex paint, which may not allow the masonry to breathe adequately. Central City records indicate that the building was most recently repainted in 2006. At that time, the following color scheme was filed, referencing Benjamin Moore Historic Colors:

1. Shoo Fly base: Boothbay Gray HC-165
2. Shoo Fly brick arches and trim: Hodley Red HC-65
3. Shoo Fly window and door trim: Livingston Gold HC-16
4. Theatre base: Montgomery White HC-33
5. Theatre brick arches and trim: Philipsburg Blue HC-159
6. Theatre window and door trim: Livingston Gold HC-16

- The section of the building to the south of the fly space [identified as the 'cooler' on the lower-level floor plan] has some exposed brick masonry where the exterior parge coat is missing. The exposed brick is soft red brick laid in common bond.
- To the east of the 'cooler' space, a kitchen was demolished in 1998. Remnants of the kitchen are extant on site and documentation pertaining to this section of the building is on file with the City.

- **Current Condition from HSA**
  - The paint coating on the building is in poor condition [HSA, Re: Figure 80 and Figure 81]. The paint is peeling off in numerous locations. In many of these areas, the paint is taking the face of the brick off the building as well [HSA, Re: Figure 82]. Generally, oil-based alkyd paint will get brittle over time and will fail much as the paint on the building is failing. On the east elevation of the theatre section of the building, water staining and ice were visible on the face of the building from between the roof and the cornice.
  - The exposed brick at the section of the building to the south of the fly space is in poor condition, particularly at the parapet [HSA, Re: Figure 83].
- **Work to be Completed per Construction Drawings**
  - Remove paint from all brick/masonry/parged surfaces on east elevation to inspect condition of material behind. Contractor to prepare and submit a paint removal plan with all product data for review and approval by architect. Asses condition of brick in the field following paint removal. Assume Shoofly will remain unpainted. Contractor to carry an allowance to paint the Shoofly should it be deemed necessary. Belvidere is to be painted with breathable paint. Contractor to submit product data for review and approval by architect. Colors to be determined by owner and architect.
    1. Dismantle not-historic cornice. Salvage brackets and reusable components [for new use].
    2. Dismantle non-historic "Belvidere Theatre" sign. Salvage brackets and reusable components [for new use]. Label and store inside the building. Discard all other components. Repair masonry behind. Assume 50% replacement.
    3. Areas of serious masonry repairs: assess condition following paint removal. Replace deteriorated brick as required. Investigate if feasible to turn bricks to expose interior face. Provide new brick to match historic in all manners feasible. Provide brick match samples for architect and owner's review and selection. Reconstruct and repoint. New mortar to match historic in all manners. Contractor to provide

mock-up samples for architect's approval [refer to mortar analysis]. Assume 20% of brick replacement beyond that shown.

4. Repoint open joints in sound brick areas. New mortar to match historic in all manners
5. Repair cracked section with helical ties, see structural details.
6. Patch masonry substrate where deteriorated and add new. Provide parge coat to match existing.
7. Remove brick infill from historic window opening to create 4" masonry recess. Install stone sill to match adjacent historic sills. [Construction Drawings: AD-320, AD-322]

12) Exterior Appendages – Entrances, Porches, Stoops, Porticos, Chimneys (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - The north entrance on the east elevation is raised one step above the adjacent sidewalk. Within the raised entry area there is a brick landing which extends from the sidewalk to the building entrance [HSA, Re: Figure 85]. Access into the raised entry area is provided via two arched openings in the exterior masonry wall. In the entry area there are two sets of doors which are described in greater detail in Section 3.5.1 Exterior Doors and Hardware. To the north and south of the doors there are angled masonry walls. In each of these walls is an opening for a ticket window [HSA, Re: Figure 86 and Figure 87]. These windows are not visible in historic photos as this entrance was modified from its original configuration. The date of installation of these windows is unknown. Inside the entry area, the lower sections of the walls are painted brick masonry. At the top of the painted brick is painted running wood trim. Above the wood trim, the walls are covered with painted stucco. The existing configuration of this entrance is not original. Historic photos indicate that the original entrances in this location included two sets of doors with transom windows above, each flush with the east exterior wall of the building.
  - In the center of the north section of the east elevation of the building there is a recessed entry area. This entry area is accessed via one large and one smaller arched opening. At these openings there are stone steps up from the City maintained sidewalk into the entry area [HSA, Re: Figure 88]. At the large arch, there are laminated wood planks which follow the curve of the arch. Within the entry area there is a concrete landing area. A masonry foundation is visible at the east edge of the concrete landing. Within the recessed entry area, the walls are covered with painted stucco. The ceiling in the recessed entry consists of exposed trussed wood beams [HSA, Re: Figure 89]. A metal turnbuckle is visible. Evidence of a ceiling being affixed to the framing at some point is visible. In the recessed entrance area, there are two single doors into the theatre section of the building [HSA, Re: Figure 90]. These doors are described in greater detail in Section 3.5.1 Exterior Doors and Hardware.
  - Along the south elevation of the Shoo Fly there is one chimney [HSA, Re: Figure 91]. The chimney is constructed of brick which is partially covered with a parge coat. The entire chimney is painted.
- **Current Condition from HSA**
  - The recessed entrances along the east elevation of the building are in fair condition. Neither recessed entry has retained its original configuration or appearance. In the north entry recess, paint and masonry deterioration were noted. At the windows in the angled walls, trim is missing at the jambs. Hairline cracking is visible at the stucco above the brick. The recessed entrance in the middle of the east elevation of the theatre section of the building is in fair

condition. Cracks are visible at the stucco. The ceiling in the entrance is unfinished. The entrance is slightly raised above the adjacent public sidewalk, which does not comply with accessibility requirements.

- The chimney along the south elevation of the Shoo Fly section of the building is in poor condition. Sections of the parge coat have delaminated from the brick chimney. In addition, cracking and paint deterioration are typical on the exterior faces of the chimney. At the top of the chimney, brick appears to be out of plane.

- **Work to be Completed per Construction Drawings**
  - On both Belvidere and Shoofly, repair, repoint, and repaint brick chimney, and reconstruct as needed. Provide new brick to match historic in all manners. [Construction Drawings: A-106, AD-322]
  - New sidewalks to be installed in front of Nevada Street entrance according to local design guidelines [Construction Drawings: G-005]
  - New utility entrance constructed on Belvidere roof, at the front of the stage fly. [Construction Drawings: AD-105]
  - The non-historic bay windows on the Shoofly will be removed, and their masonry framing will remain, to be repaired and reconstructed. [Construction Drawings: AD-100, AD-103, AD-106]
  - Ceramic mosaic floor tiles will be installed in the recessed entries to both the Belvidere and Shoofly [Construction Drawings: A-800, A-804]
  - Recreate painted sign over entryway arch to mimic historic wording to say "Historic Belvidere Theatre – 1912" [Construction Drawings: A-300]
  - Fire escapes on the north façade to remain, to be rehabilitated and updated [Construction Drawings: A-300, S-106E]
  - For more details, see sections on windows, doors, and exterior masonry

13) Exterior Doors and Hardware (Shoo Fly Only)

- **Current Description from HSA**
  - The Shoo Fly section of the building has two exterior entrances along the east elevation. Each of these entrances includes two doors with an arched transom window above [HSA, Re: Figure 120 through Figure 124]. Each door is a painted stile and rail wood door. Each door has an inset painted wood panel with two glazed panels above. The transom windows each have two panes, which are divided by a single vertical painted mullion. Exterior hardware at the south set of doors includes two hasps and hooks, one of which has a padlock, one deadbolt, and one handle. At the south door opening in the Shoo Fly section of the building there is a single step up into the building. This step is carved into the threshold stone at the opening [HSA, Re: Figure 125].
  - There is one exterior door on the south elevation of the Shoo Fly [HSA, Re: Figure 126]. This door is located on the upper level. The door is a modern stile and rail wood door which measures 3 feet by 6 feet 8 inches. The door has nine panes of single pane glazing in a three-by-three configuration. The glazing is located above two raised vertical panels. Hardware for

the door includes a lever lockset. On the interior the door opening has 6-inch-wide painted wood casing. There are plinth blocks and corner blocks at both jambs [HSA, Re: Figure 127].

- There is one exterior door on the south elevation of the theatre space. This door would have originally provided access between the theatre and the lower level of the kitchen area [HSA, Re: Figure 128]. The door opening measures 4 feet by 6 feet 8 inches and includes two leaves. The opening is boarded up on the exterior. The doors are painted stile and rail wood doors. Each leaf has one glazed panel above two vertical raised panels. Each glazed panel includes seven panes including one large pane and six smaller panes.
- On the west elevation of the Shoo Fly there is on exterior door [HSA, Re: Figure 129]. This door opening would have originally gone into the kitchen space; however, that area of the building was demolished. The door opening measures 2 feet 6 inches by 6 feet 8 inches. The door is a modern painted hollow metal door.

- **Current Condition from HSA**
  - The east doors into the Shoo Fly section of the building are in fair condition [HSA, Re: Figure 134]. Paint failure and wood weathering are typical at both sets of doors. The glazing putty is failing and is missing in some sections. A section of the center astragal at the south set of doors is missing.
  - The door on the south elevation of the Shoo Fly is in fair condition. Water staining is visible on the interior of the lowest rail [HSA, Re: Figure 126].
- **Work to be Completed per Construction Drawings**
  - All historic doors and hardware to be rehabilitated – Shoofly only in Phase 1 [Construction Drawings: A-700, A-701, A-702]

14) Exterior Windows and Hardware (Shoo Fly Only)

- **Current Description from HSA**
  - At the south end of the east elevation there is one exterior window in the lower level of the Shoo Fly section of the building [HSA, Re: Figure 135 and Figure 136]. This window is in a round arch opening and is similar to the doors located in the round arched openings to the north. The window has six panes in a two by three configuration. Below the glazing is painted wood paneling. Based on historic photographs, this window may be original.
  - The east elevation of the Shoo Fly section of the building has three round arch window openings [HSA, Re: Figure 141 and Figure 142]. In each opening is a wood framed double hung wood window. Each sash has two panes of glazing side by side. Based on historic photographs, these windows are believed to be original.
  - On the south elevation of the Shoo Fly there are two bay windows [HSA, Re: Figure 143 and Figure 144]. Each opening projects approximately 3 feet south of the exterior wall. The openings for the bay windows measure approximately 8 feet 3 inches wide by 4 feet 4 inches high. The windows are fixed wood framed windows with painted wood mullions. The date of installation of these windows is unknown.
- **Current Condition from HSA**

- The first-floor windows are in poor condition. Paint failure and weathering wood are typical. Joints between wood components are separating. At the south window on the Shoo Fly section of the east elevation, the lower rail and joint between the window and the threshold / sill below is in poor condition. Voids are visible below the window.
- The bay windows on the south elevation of the Shoo Fly are in fair condition. Two broken panes were noted. Minor paint deterioration and wood weathering were observed on both windows.

- **Work to be Completed per Construction Drawings**
  - Non-historic bay windows to be removed, with historic masonry openings to remain [Construction Drawings: AD-103, AD-106, AD-301]
  - All historic windows to be rehabilitated – Shoofly only in Phase 1 [Construction Drawings: AD-300, AD-301, A-710, A-711, A-712]

15) First Floor Plan (Shoo Fly Only)

- **Current Description and Condition**
  - The interior walls and masonry are extremely deteriorated, with years of accumulated water damage. The floor is non-existent, with stone pavers or rubble in some places but dirt exposed in most areas. There is no ceiling and the damaged beams are exposed. It is essentially one large, open space without any finishings. The only windows and doors open up to the street and are also extremely deteriorated, boarded up, and unusable. [Construction Drawings: G-004, A-901, S-100E, S-100N-B]
- **Work to be Completed per Construction Drawings**
  - A staircase will be added, leading to the second floor. A new foundation and footings will be installed. The interior masonry will be repaired and the walls and ceiling will be finished. The detached rubble area at the south-east part of the site plan [the former kitchen] will be demolished and a new kitchen will be constructed. The windows and doors will be rehabilitated, making the space truly accessible from the street. There will also be a new mechanical area excavated on the south side of the site, to house much of the new equipment for essential functions. At the back of the main space, there will be an ADA accessible bathroom. [Construction Drawings: G-005, G-006, AD-101, A-405, A-500, A-601]

16) Second Floor Plan (Shoo Fly Only)

- **Current Description and Condition**
  - This is the location of the former bar area. It is not currently safe to climb the stairs connecting the theater and the bar area, as the stairs and flooring are not structurally sound. The decaying remnants of the wooden casework bar run along the west [back] wall of the second-floor space. [HSA, Re: Figures 176, 177, 179]
  - The east, street-facing elevation has three arched, double hung windows. The windows are in masonry openings, with painted sills and arched headers. They are in a very deteriorated condition. [HSA, Re: Figure 141]

- The south elevation has two bay windows, which are not original and non-historic. The roofs and frames are severely deteriorated. There is also an exterior door in similar condition, which leads to an exterior staircase that leads down to the ground level into the neighboring pocket park. [HSA, Re: Figure 60]
- The north side of the space opens up to the mezzanine level of the theater building through two large concrete archways, which are plaster-coated but show signs of long-term water damage. [HSA, Re: Figure 156]
- The ceiling is unfished with exposed wood framing. [HSA, Re: Figure 156] At the northwest corner of the Bar, the ceiling joists are slipping off of the steel angle ledger [HSA, Re: Figure 156] as a result of the north wall leaning towards the north.
- The flooring is mostly not extant, but with some areas finished with wood, which has sustained serious water damage. [HSA, Re: Figure 177]

- **Work to be Completed per Construction Drawings**
  - The connection between the Shoo Fly and Belvidere Theatre building will be reconfigured, removing non-historic partition walls, doors, stairs, and guardrails. Remove flooring, where extant. The delaminating plaster will be removed. The historic bar will be salvaged for owner's restoration and reuse. The extant ceiling covering remnants will be removed. The masonry will be repaired and infilled with matching where needed. The new kitchen addition will be constructed behind the existing Shoo Fly building, on the west side, and will connect to the current second floor space via a hallway and door on this wall. Following the new hallway westward, the space will open up to a newly constructed green room/dressing room with two enlarged restrooms. The non-historic exterior door on the south wall will now exit to a second-level patio space, which will also feature a staircase to the pocket park below. [Construction Drawings: AC-101, AD-103, A-301, A-410, A-500, A-601]

17) Restrooms (Shoo Fly Only)

- **Current Description and Condition from HSA**
  - The restrooms at the rear of the lower level of the Shoofly have wood framing with no wall finishes. They also have exposed wood framing at the ceiling.
  - At the south end of the women's room, there is a crack in the exterior wall. In addition, there is extensive water staining and plaster damage below the window sills in the east wall. [HSA, Re: Figure 156]
  - Flooring is not extant.
- **Work to be Completed per Construction Drawings**
  - There will be two individual, enlarged ADA compliant restrooms located between the new kitchen space and the greenroom/dressing room. Each will include a toilet, sink, grab bars, and dispensers for toilet paper, paper towels and soap. The floors will be finished with ceramic mosaic tile, and the walls will be finished to partial height with a subway style tile. The upper walls will be painted, color TBD. [Construction Drawings: A-203, A-400, A-800, A-802, A-804]

18) Dressing Rooms/Green Room – Addition

- **Current Description and Condition**
  - Does not exist; will be a new addition
- **Work to be Completed per Construction Drawings**
  - The green room addition will be constructed on the west [back] side of the building, situated behind the kitchen addition and next to the fly space of the Belvidere, nestled above the rock wall hillside incline at the back of the site. It will be accessible from the second floor of the Shoofly and will connect to the fly building. There will be a dumbwaiter installed along the back wall. [Construction Drawings: G-005]
  - The finishings will include a vanity area with lighted mirrors on the wall and laminate countertops. [Construction Drawings: A-404]

19) Kitchen – Addition/Rebuild

- **Current Description and Condition**
  - The rubble remnants of the foundation and walls can be found on the south façade. These are the remnants of a structure that was illegally demolished by a former owner and will be removed to make way for a new kitchen addition, as they are not salvageable.
- **Work to be Completed per Construction Drawings**
  - The kitchen addition will be constructed at the back [west] side of the Shoo Fly building, with access from its second floor. [Construction Drawings: G-005, AC-101]
  - It will be a full industrial kitchen for use by the restaurant tenant on the second floor of the Shoo Fly. There will be a griddle, fryer, range, oven, walk-in cooler, dish washer, 3-compartment sink, an additional 2-compartment sink, and a hand washing sink. [Construction Drawings: A-103, A-410]
  - The floors will be finished in quarry floor tile and the walls will be finished at partial height with a subway style tile [Construction Drawings: A-801, A-802]

20) Patio Plan - Addition

- **Current Description and Condition from HSA**
  - Does not exist; will be a new addition
- **Work to be Completed per Construction Drawings**
  - The new patio will be constructed on the south side of the Shoo Fly building, with access via the existing door opening on the second floor. It will feature a staircase that connects to the pocket park below and the flooring will consist of outdoor square tiles. It will also feature an ornamental railing appropriate for the period and style of the overall structure. [Construction Drawings: G-005, G-006, A-406]

21) Interior Wall Finishes (Shoo Fly Only)

- **Current Description from HSA**
  - The interior bearing walls are masonry [HSA, Re: Figure 148]. New partition walls and temporary wood shoring has been partially constructed throughout this section of the building. These walls are unfinished, and many consist only of wood framing members [HSA, Re: Figure 149].
  - The restrooms at the rear of the lower level of the Shoo Fly have wood framing with no wall finishes.
  - The walls in the Shoo Fly at the south end of the upper level are also finished with painted plaster applied to brick masonry.
  - In the Shoo Fly there is evidence of removal of one interior partition wall [HSA, Re: Figure 151]. Above the door in the west elevation of the Shoo Fly there is a section of layered interior finishes [HSA, Re: Figure 152]. These layers of finishes include paint and wallpaper.
- **Current Condition from HSA**
  - To the west of the opening between the auditorium and the Shoo Fly, there is extensive damage to the plaster in the upper section of the wall. In the auditorium, the non-destructive moisture meter was used where extensive paint and plaster damaged was noted. In all areas, the walls read dry.
  - Throughout the Shoo Fly, water infiltration is evident. The north wall was coated in ice at the time of the January 2016 site visit. This is indicative of an on-going roof leak. During warmer weather, water was noted running down the face of the wall, pooling on the floor of the Shoo Fly. Above the door opening on the west elevation, there is a section of missing brick.
- **Work to be Completed per Construction Drawings**
  - Once structural and masonry repairs are complete, the walls will be made paint-ready with either plaster, gypsum board or an acoustic insulator, depending on the space. Some walls are to have a mix of wood trim/wainscotting or tile and paint. Some of the new spaces will have rubber wall bases. Paint colors are to be determined but will be appropriate for the time period, design of the building, and use of the space. [Construction Drawings: A-800, A-801, A-602]

22) Ceiling Finishes (Shoo Fly Only)

- **Current Description from HSA**
  - The original ceilings throughout the lower level of the building have been removed and currently consist of unfinished exposed framing [HSA, Re: Figure 159]. In the north section of the building, remnants of plaster on wood lath remain. The restrooms at the rear of the lower section of the Shoo Fly have exposed wood framing at the ceiling.
  - On the upper level of the building, the ceiling in the Shoo Fly area consists of exposed wood framing. Evidence of plaster and wood lath is visible on the framing components.
- **Current Condition from HSA**

- Throughout the building, most of the original ceiling finishes have been removed, leaving wood framing exposed. Water damage is visible throughout.

- **Work to be Completed per Construction Drawings**
  - Any remnants of the finished ceiling will be removed, as they are damaged, scarce, and not salvageable. [Construction Drawings: AD-101, AD-103, AD-201, AD-203]
  - A new gypsum board ceiling will be installed, following the contours of the ceiling/roof framing, with crown molding in some places, and with decorative metal ceiling and cornice pieces in some places. Where paint will be applied, the color is to be determined but will be appropriate to the time period, the building style, and the use of each space. [Construction Drawings: A-201, A-200, A-203, A-408, A-800, A-801, A-802, A-803]

23) Floor Materials & Finishes (Shoo Fly Only)

- **Current Description from HSA**
  - Throughout the north section of the lower level of the building the floor is exposed concrete. Sections of concrete have been removed, presumably in preparation for future construction activities. Where these sections have been removed, the concrete slab is approximately 4 inches thick. In the south section of the lower level, the floor is dirt. Joist pockets are visible along the north and south walls, indicating that the original floor framing has been removed. The floor would have been located approximately twelve inches above grade based on the location of the joists. Historically, this flooring would have been wood as seen in historic photographs [HSA, Re: Figure 186].
  - The flooring in the restrooms at the rear of the lower level of the Shoo Fly is not extant.
  - On the upper level of the building the finish flooring in the Shoo Fly is tongue and groove wood flooring.
- **Current Condition from HSA**
  - On the upper level of the building, the floor in the Shoo Fly is in poor condition. The wood flooring is buckling as a result of water infiltration and damage. Given the water damage sustained by the wood flooring it is unlikely that the flooring can be salvaged.
  - The flooring in the men's and women's rooms is in fair condition where extant. However, much of the flooring is no longer extant.
- **Work to be Completed per Construction Drawings**
  - Ceramic mosaic tiles will be installed at the entryway and the restrooms. Quarry floor tile will be in the kitchen. The lobby will be finished with a garnet-colored carpet, and the stairs will feature a matching carpet runner. Existing tongue and groove wood flooring will be repaired where possible, with new tongue and groove installed in most spaces to match the historic in all manners. [Construction Drawings: A-800, A-802]

24) Interior Doors and Hardware (Shoo Fly Only)

- **Current Description from HSA**
  - There are no extant interior doors in the lower level of the building.

- The door into the women's room on the upper-level measures 3 feet by 6 feet 8 inches by 1 ¾ inches. The door is a painted stile and rail wood door with eight raised panels in a two by four configuration. Hardware for the door includes two flat tipped hinges. Evidence of a lockset is visible; however, no lockset is extant on the door
- The door from the women's room into the storage room is a modern flush wood door which measures 3 feet by 6 feet 8 inches by 1 3/8 inches. The door opening has painted 3 ½ inch wide wood casing at the head and jambs.
- The door into the men's room is a four-panel stile and rail painted wood door. On the restroom side of the opening, there is profiled wood casing at the jambs. At the head, there is painted wood crown molding above painted flat wood trim [HSA, Re: Figure 171]. Hardware for the door includes hinges, a deadbolt, and a lockset.

- **Current Condition from HSA**
  - The doors into the men's and women's restrooms are in fair condition. Both of these doors have paint damage and scratches and marks in the wood surfaces. Each of the doors is missing components of the hardware. In addition, the trim is missing on the restroom side of the women's room door opening.
  - The storage room door is in fair condition with minor areas of damage such as small scratches and nicks in the finished surface.
- **Work to be Completed per Construction Drawings**
  - The existing doors and hardware will be removed. All historic doors will be restored and replaced. New doors will be installed at access points to the hallway, kitchen, restrooms, and green room/dressing room. Doors will be made of wood, some with glass elements, and metal hardware. [Construction Drawings: A-101, A-103, A-408, A-700, A-701, A-702]

25) Interior Trim and Built-Ins (Shoo Fly Only)

- **Current Description from HSA**
  - Along the south wall of the theatre there is a set of stairs from the theatre up to the Shoo Fly [HSA, Re: Figure 176]. The stairs from the theatre to the Shoo Fly are covered with carpet. The treads are each 11 ½ inches, the risers are 6 ¾ inches. Along the north side of the stairs there is a wood railing located approximately 2 feet 6 inches above the treads. At the lowest end of the railing there is a newel post. Similar newel posts are located at the upper end of the railing and at the corners of the upper landing. Along the railing there are turned wood balusters. The railing continues along the north wall of the Shoo Fly [HSA, Re: Figure 177]. The date of installation of these interior features is unknown.
  - Near the stairs up to the Shoot Fly, the wainscot steps back toward the masonry wall, only projecting out 8 inches. The wainscot then continues along the wall to the end of the stairs up to the Shoo Fly.
  - In the men's and women's rooms there is a nine-inch-high painted wood base. In the men's restroom there are metal toilet partitions [HSA, Re: Figure 173].
  - In the Shoo Fly there is a painted wood picture rail along the north and east walls [HSA, Re: Figure 178]. At the west end of the Shoo Fly there is built-in wood casework [HSA, Re: Figure

179]. This casework includes eight cabinets with raised panel doors along the lower section of casework. Above each cabinet is a drawer. Above the drawers is a wood countertop. Above the countertop there is a series of mirrors. At each end of the mirrors there is a cabinet. The casework extends from the floor to the ceiling. The date of installation of the casework is unknown.

- Along the south wall of the Shoo Fly, there is decorative plasterwork around the bay window openings. This plasterwork is not original and was likely installed when the bay windows were installed [HSA, Re: Figure 142]

- **Current Condition from HSA**

  - In the women's room, the wood base is pulling away from the exterior wall. The remaining toilet partitions in the men's room are in poor condition with missing components and deteriorated partitions remaining in place. The extant partitions are not historic.

  - The stairs from the theatre to the Shoo Fly are in good condition. The carpet on the stairs is in fair condition, being worn and stained. The railings have minor damage and finish wear. However, a modification to the railing is required to meet code requirements for the railing height.

  - The wood trim and casework in the Shoo Fly is in poor condition. The wood is heavily water damaged due to on-going water infiltration at the roof. This water infiltration has resulted in finish failure on the wood trim and built-ins as well as deterioration of the wood components. Sections of the picture rail are missing.

- **Work to be Completed per Construction Drawings**

  - Historical built-ins and wood trim will be restored where possible. Much of the woodwork is non-historic or extremely deteriorated. The historic bar of the Shoo Fly is to be rehabilitated by the owner. New wainscotting to match the historic will be installed where possible, and other woodwork and trim details installed will be appropriate to the time period, building design, and use of each space. [Construction Drawings: G-003, A-406, A-409, A-411, A-701]

26) HVAC – General (Shoo Fly & Belvidere)

- **Current Description and Condition from HSA**

  - The building's original heating and ventilation system has largely been removed by previous, partially completed, renovation projects. There is some residual evidence of a steam heating system, although the location of a steam boiler could not be ascertained. A number of roof mounted gravity ventilators are visible on the original flat roof in a historic photograph of the building, taken before the current pitched roof structure was added. Several of these ventilators are still present in their original locations in the attic.

  - Historic photographs of the building indicate the presence of as many as six separate chimneys, implying the existence of distributed heating appliances such as individual stoves or small boilers. A larger chimney existed near the back of the building adjacent to the location of the demolished kitchen, possibly indicative of a central boiler location in what is now identified at the "Pit" on the lower level. One historic photograph shows the interior of the ground floor of the "Shoo-Fly" section of the building with a cast iron stove located in the middle of the space. [HSA, Re: Figure 186.]

- There is no evidence of the prior presence of a ventilation system, gas service, or air conditioning.
- Residual evidence suggests that the building was previously heated with a combination of a steam boiler with cast iron radiators and individual space heaters, such as cast-iron stoves. The location of a central heating plant or boiler could not be determined from the current conditions. A historic preservation survey, planning and technical report completed by A-E Design Associates in 1996 does not mention the existence of a heating system in the building. A set of building plans completed by the Mountain Design Group in 1999 does not indicate the presence of a mechanical room.

- **Work to be Completed per Construction Drawings**
  - A hot water baseboard heating system with roof units for heating and cooling will be installed. [Construction Drawings: M-001, M-002, M-003, M-004, M-007, M-008, M-009, M-111, M-112, M-121, M-122, M-131, M-141, M-142, M-211, M-212, M-221, M-222, M-231, E-003]

27) Water Service, Plumbing and Sewer Utilities (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Sanitary sewer service is provided by the Black Hawk / Central City Sanitation District. A sanitary sewer line is located in the Nevada Street right-of-way. Domestic water service is provided by the Central City Water Department. Domestic water service is available in the Nevada Street right-of way. There is no apparent existing connection to the available domestic water utility. The presence of some exposed 4-inch diameter, cast iron, waste piping [HSA, Re: Figure 183] implies that there is an extant connection to the sanitary sewer in Nevada Street.
  - At the west end of the lower level of the Shoo Fly section of the building there is one men's toilet room and one women's toilet room. The men's toilet room includes a water closet and wall-hung urinal [HSA, Re: Figure 185]. The women's room toilet includes a water closet and a rough-in for a lavatory.
  - A variety of galvanized steel piping and cast-iron drain piping was observed in the building. Most of this piping appeared to be disconnected fragments of an existing plumbing system and partially completed contemporary alterations to that system.

- **Current Condition from HSA**
  - The existing plumbing system is in poor, non-functioning condition. The condition of any existing water and sanitary sewer connections is uncertain and should be considered to be in poor and probably non-functioning condition.

- **Work to be Completed per Construction Drawings**
  - All remnants of the existing plumbing and sewage system will be removed including pipes, fixtures, hangers, etc. The following water supply and sanitary drainage fixtures will be installed in their corresponding locations:
    1. Flush valve water closet x 15
    2. Flush valve urinal x 5
    3. Lavatory x 12
    4. Bar sink x 1

5. Mop service basin x 2
6. Shower x 1
7. Kitchen sink x 1
8. Hand sink x 1 [Construction Drawings: P-000]

- Complete plumbing and sanitary isometrics, plans, and finishing schedules have been drafted for the building [Construction Drawings: P-001, P-002, P-003, P-004, P-006, P-111, P-112, P-121, P-122, P-211, P-212, P-221, P-222, P-401, P-402, P-501, P-502]

28) Fire Suppression & Detection Systems (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - A fire suppression system has been installed in the theater space in the mezzanine areas. Elements of the fire line entry station are located on the back wall of the fly space in the theater. A Siamese fire department connection is located in the upper back wall of the fly space in Pine Street. Other areas of the building do not appear to have been protected with a fire sprinkler system.
- **Current Condition from HSA**
  - The existing fire suppression system is non-functional. Piping at the fire line entry equipment has been disconnected. Other visible components of the system, such as the sprinkler heads in the mezzanine area, appear to be antiquated and no longer compliant with current codes.
- **Work to be Completed per Construction Drawings**
  - All remnants of the existing fire detection and suppression systems will be removed. New fire extinguisher cabinets will be installed according to code requirements. The design and engineering of the fire alarm system shall be by the fire alarm contractor and shall meet all requirements of the NFPA and the AHJ. Addressable fire alarm control modules shall be installed to shut down fire/smoke dampers upon fire alarm signal. Duct smoke detectors will be installed as required for mechanical roof top unit shut down. Visible notification [strobes] for the notification system shall be installed. [Construction Drawings: AC-100, AC-101, AC-102]

29) Electrical Service, Panels, Distribution & Branch Circuit Wiring (Shoo Fly & Belvidere)

- **Current Description from HSA**
  - Electrical service enters the building on the north elevation, at the east end of the north wall of the fly space [HSA, Re: Figure 187]. An electrical meter is located on the exterior of the north wall of the fly space on Pine Street. The main electrical panels are located on the east wall of the stage/fly space. The electrical service to the building appears to be 400 amp, 3-phase, 120/208-volt service. The electrical service panels appear to consist of several fused disconnect switches. There are two electrical panel boards. Panel A is located on the north wall of the stage/fly space. Panel A is a 225 amp, 3 phase, 42-pole electrical panel, as manufactured by Square D. The panel is protected by a 200 amp, fused disconnect switch. The second electrical panel is located on the ground floor or lower level in the "pit" area. Panel B is a 100-amp, single phase, 16-pole load center, protected by a 100 amp, fused disconnect switch. [HSA, Re: Figure 188.]

- A variety of electrical distribution was observed throughout the building. Some branch circuit wiring is in rigid conduit [EMT]. Some is in flexible armored cable. Much of the extant electrical wiring is distributed haphazardly. In general, the electrical distribution and branch circuit wiring is incomplete beyond the two panelboards.

- **Current Condition from HSA**

  - The existing electrical service entry, switchgear and panelboards appear to be in fair but serviceable condition. Some of the circuits in the panelboards are not identified properly. It is not certain that the existing switchgear would comply with current building and electrical codes when the building is rehabilitated.

  - The existing electrical distribution and branch circuit wiring appears to be in fair physical condition but the incomplete nature of the installation is highly suspect. Therefore, the overall condition of the existing electrical distribution should be considered to be poor.

  - In 2005, Colorado Code Consulting conducted an on-site investigation of the building. During that investigation a number of electrical conditions were observed that were of serious concern. Some of the electrical distribution and devices were damaged. Colorado Code Consulting indicated that these conditions should be considered hazardous. The observations conducted during this current assessment did not find that those hazardous conditions have been addressed.

- **Work to be Completed per Construction Drawings**

  - All existing electrical equipment and wiring is anticipated to be removed, to be confirmed by the electrical contractor. Should an existing conduits, wires, devices, fixtures or other equipment be deemed salvageable, they shall be adapted and coordinated to maintain continuity with all new electrical systems. They will provide 120V1PH connection to the building system controls. Electrical systems shall comply with the 2017 National Electric Code and International Codes as adopted by the AHJ. [Construction Drawings: M-004, M-005, M-006, E-001, E-003, E-101B, E-102B, E-103B, E-400, E-401, E-402]

30) Exterior Lighting (Shoo Fly & Belvidere)

- **Current Description and Condition from HSA**

  - Along the east elevation there are eight recessed light fixtures in the wood cornice along the north section of the building [HSA, Re: Figure 189]. At the south entrance in the north section of the building there is conduit visible above the door opening [HSA, Re: Figure 190]. There is no extant light fixture in this location, but presumably there was a light fixture in this location previously. The dates of installation of the light fixtures throughout the building are unknown.

  - The functionality of the exterior light fixtures is unknown. The fixtures are not historic; no exterior light fixtures are visible in historic photographs. The existing exterior lighting should be considered to be in poor condition.

- **Work to be Completed per Construction Drawings**

  - Energy Code IECC 2016 is to be observed. All exterior luminaires will be LED 2700K, 120V, and wet resistant. The luminaires installed on the eaves will be below surface-mounted and dimmable. The surface roof luminaires will be flood lights to illuminate the front signs, dimmable, 2000 lumens, with a half-light shield. There will be a bronze colored, historically

appropriate wall lantern mounted by the large arch on the front façade, and additional wall-mount luminaires installed along the smaller façade arches. [Construction Drawings: E-001, E-002, E-004, E-201B, E-202B]

31) Interior Lighting (Shoo Fly Only)

- **Current Description and Condition from HSA**
  - The existing lighting fixtures are in poor condition. Most areas of the building do not have light fixtures. Fixtures that do exist are damaged, partially installed or in poor to fair condition. [HSA, Re: Figure 191, Figure 192, and Figure 193.]
  - Exit light fixtures and emergency egress lighting were also observed. [HSA, Re: Figure 194.]
- **Work to be Completed per Construction Drawings**
  - Energy Code IECC 2016 is to be observed. All interior luminaires will be LED, 2700K [some 3000K], and 120V. Ceiling lighting will be recessed or pendant-style luminaires, and there will be several wall-mounted lights. The recessed lights will be either clear, black, or white in finish, depending on the space. The wall-mounted lights will be custom historical wall sconces, and the pendants will also be custom historical designs. They will be finished in French Bronze, polished brass, or gold, depending on the space and the final color schemes picked by the owner. [Construction Drawings: E-001, E-002, E-101B, E-102B, E-201B, E-202B]

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4. LINK TO ALL ATTACHMENTS

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